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Gowanus Canal Remedial Investigation Report

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Executive Summary

This draft remedial investigation (RI) report was prepared for the United States Environmental Protection Agency (USEPA) Region 2 by Henningson, Durham & Richardson Architecture & Engineering, P.C., in association with HDR Engineering, Inc. (HDR) and CH2M HILL to present the results of the RI activities completed at the Gowanus Canal Superfund Site, in Brooklyn, Kings County, New York. This draft RI report has been prepared under Work Assignment Number 013-RICO-02ZP, under the USEPA Region 2 RAC II Contract Number EP-W-09-009.

On March 2, 2010, USEPA placed the Gowanus Canal (USEPA ID#: NYN000206222) on its National Priorities List (NPL) of hazardous waste sites requiring further evaluation. Accordingly, USEPA Region 2 is performing a remedial investigation and feasibility study (RI/FS) of the canal according to the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA, or "Superfund"), as amended. This report presents the results of the RI activities performed at the canal in 2010.

Remedial Investigation Objectives and Scope of Work

The overall objective of the RI is to characterize the canal to a degree sufficient to develop and select a remedy to reduce risks to human health and the environment from exposure to contaminants in the canal sediments. Accordingly, the field-sampling and data-collection activities described here were designed specifically to accomplish the following:

- Characterize the nature and extent of contamination in the Gowanus Canal to the degree necessary to evaluate the human health and ecological risks and to develop a remedy to reduce these risks
- Document the sources of contamination to the Gowanus Canal and provide a preliminary evaluation of ongoing sources of contamination to the canal that need to be addressed so that a sustainable remedy can be developed and implemented
- Determine the human health and ecological risks from exposure to contamination in the canal
- Determine the physical and chemical characteristics of the canal that will influence the development, evaluation, and selection of remedial alternatives

These activities were performed in three phases starting in January 2010 and continuing through November 2010. The RI scope and approach were developed by USEPA, and the work was completed with support from four entities: the USEPA Region 2 contractor team of HDR, CH2M HILL, and GRB Environmental, Inc.; the USEPA Emergency Response Team (ERT); New York City; and National Grid. The following activities were performed in each phase of work:

- Phase 1
  - Bathymetric survey
  - Survey of outfall features, including identifying outfall features, collecting and analyzing outfall water samples, and tracing outfall features to their origin
  - Cultural resources survey, including bulkhead study
- Phase 2: Sediment coring
- Phase 3
  - Surface sediment sample collection and analysis
  - Surface water sample collection and analysis
  - Fish and shellfish tissue sample collection and analysis
  - Air sample collection and analysis
  - Combined sewer overflow (CSO) sediment and water sample collection and analysis
  - Hydrogeologic investigation, which included (1) groundwater-monitoring-well installation and development; (2) groundwater sampling; (3) groundwater–surface water interaction sampling; (4) synoptic measurements of water levels; (5) tidal evaluation; and (6) oversight of well installation and soil-sampling activities performed by National Grid and New York City

Summary of Remedial Investigation Results

Field observations and analytical data collected for the RI indicate that the nature and extent of contamination within the Gowanus Canal have been defined to the degree necessary to complete the risk assessments and the FS. The primary findings were as follows:

- In surface sediments (0-to-6-inch depth interval), concentrations of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and eight metals (barium, cadmium, chromium, copper, lead, mercury, nickel and silver) were significantly higher in the canal than at reference locations in Gowanus Bay and Upper New York Bay. Concentrations of many of these constituents were higher than ecological and human health screening values.
- The sediment-coring effort indicates that non-aqueous-phase liquid (NAPL) contamination is pervasive in native sediments underneath the canal between the head of the canal and the Gowanus Expressway, and in the overlying soft sediment in the middle reach of the canal. The NAPL appears to be coal tar waste from the three former MGP sites (Fulton, Carroll Gardens/Public Place, and Metropolitan) that is migrating through subsurface soils, under or through the bulkheads, and into the more permeable native sediments under the canal. PAHs and the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, and xylenes (BTEX) are major constituents of coal tar.
- Total PAHs and VOCs, particularly the BTEX constituents, were frequently detected at high concentrations in both the soft and native sediment units. Pesticides, PCBs, and metals were all frequently detected in the soft sediment but were infrequently detected or detected at lower concentrations in the native sediments.

- In the deeper soft sediment, VOCs (primarily BTEX), semivolatile organic compounds (SVOCs) (primarily PAHs), pesticides, PCBs, and metals were all detected at higher concentrations than those found in the surface sediments.
- In most areas north of the Gowanus Expressway, NAPL and high-PAH concentrations were found in sediment at the maximum depth of the investigation activities, which was 6 feet below the contact between the soft and native sediment layers. The purpose of the sediment coring investigation was to delineate the degree of vertical contamination within the practical limits of a potential remedy rather than to define the vertical extent of contamination to its maximum depth.

The primary sources of contamination to the Gowanus Canal include (1) direct discharges from historical industrial activities, including historical contributions from CSOs, (2) CSO and stormwater discharges, (3) discharges from outfalls other than CSO or stormwater outfalls, and (4) known and potential discharges from contaminated sites adjacent to the canal, including the transport of contaminants in groundwater discharging to the canal. Estimating the magnitude of the ongoing sources of contamination to the canal will be a key component of the FS.

The potential ecological risks to wildlife from exposure to surface water and sediment in the Gowanus Canal were evaluated in the ecological risk assessment. The Baseline Ecological Risk Assessment evaluated potential risks to benthic (sediment-dwelling) organisms and water-column-dwelling organisms from exposure to contaminants in sediment and surface water, and risks to wildlife from consuming contaminated prey items and sediment during feeding. Benthic organisms may be at risk from exposure to contaminated sediment, primarily due to the PAHs present. Other chemicals contributing to the risk include PCBs and metals (barium, cadmium, copper, lead, mercury, nickel and silver). Water-column dwelling organisms may be adversely affected by lead during wet weather events. Aquatic herbivores such as the black duck may be at risk from exposure to PAHs, and avian omnivores such as the heron may be at risk from exposure to mercury. There is no potential risk to avian piscivores such as the double-crested cormorant from the ingestion of fish in the canal.

The Human Health Risk Assessment (HHRA) evaluated potential risks to recreational users, anglers, residents, and industrial workers near the canal. The HHRA evaluated the potential human health risks associated with direct contact with surface sediment and surface water in the Gowanus Canal, ingestion of fish and crabs, direct contact with sediment and surface water that overtops the canal during extreme tidal or storm surge conditions, and inhalation of emissions from the canal into the ambient air near the canal. Adults, adolescents, and children using the canal for recreational purposes may be at risk due to exposure to PAHs in surface water and surface sediment, assuming that the recreational use/swimming in the canal would occur at frequencies, durations, and exposures that are typical of most water bodies. Adults and children may also be at risk from exposure to PAHs in sediments and surface water in canal overflow. Exposure to lead in sediment and surface water by children (based on residential exposure assumptions, including potable use of the surface water) may result in adverse effects. Adults, adolescents, and children may also be at risk from exposure to PCBs if they consume fish and crabs caught in the canal. The HHRA assumed

fishing/crabbing and ingestion of the fish /crab from the canal at typical recreational consumption rates, which are conservative given the nature of the canal.

Some of the important site characteristics that will influence the development, evaluation, and selection of remedial alternatives for the Gowanus Canal in the FS include (1) the degraded condition of the bulkheads that line most of the shoreline, (2) the presence of debris and sunken vessels throughout the canal, (3) New York City Department of Environmental Protection activities related to Gowanus Pump Station upgrades, and (4) the frequent use of the middle and lower reaches of the canal by tugs and barges.

Conceptual Site Model

The RI report presents a conceptual site model (CSM) for the Gowanus Canal based on the data collected for this RI and on other studies that have been completed for the canal. The CSM summarizes and integrates information about historical and ongoing sources of contamination, nature and extent of contamination, contaminant fate and transport mechanisms, and risks to humans and wildlife from exposure to contaminated sediments in the canal. This CSM will be used to evaluate the potential effectiveness of remedial alternatives for the canal and will be continually refined as new information becomes available.

Conclusion

The results of this RI indicate that chemical contamination in the Gowanus Canal sediments presents unacceptable ecological and human health risks, primarily due to exposure to PAHs, PCBs, and metals (barium, cadmium, copper, lead, mercury, nickel and silver). All of these contaminants are thought to have been deposited in the canal as a result of current and historical discharges to the canal. High PAH concentrations are found in coal tar waste adjacent to the three former MGP sites along the canal. PAHs and metals are the most prevalent contaminants detected in present-day CSO discharges to the canal, as well as in low volume discharges from a limited number of other outfalls. PAHs and metals are also present in various concentrations in contaminated groundwater discharging to the canal at different locations. Contaminated sites adjacent to the canal and discharges from outfalls represent ongoing sources of contamination to the canal.

The overall objectives of the Gowanus Canal RI were met, and sufficient data have been collected to proceed with the development of remedial alternatives in the FS. The results of the ERA and HHRA will support the definition of remedial action objectives and target areas for remediation.

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Abbreviations and Acronyms

a.k.a.	also known as
AVS/SEM	acid volatile sulfide/simultaneously extracted metals
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CLP	Contract Laboratory Program
COP	constituents of potential concern
CSM	conceptual site model
CSO	combined sewer overflow
DNAPL	dense non-aqueous-phase liquid
DO	dissolved oxygen
DOC	dissolved organic carbon
dpm/g	disintegrations per minute per gram
ERA	ecological risk assessment
ERT	Emergency Response Team
eV	electron volt
FS	feasibility study
GEI	GEI Consultants, Inc.
GPR	ground-penetrating radar
GPS	global positioning system
HDR	HDR Engineering, Inc.
HHRA	human health risk assessment
HSA	hollow-stem auger
JMA	John Milner Associates, Inc.
L/min	liters per minute
LTCP	long-term control plan
MEK	methyl ethyl ketone
MGP	manufactured gas plant
MLLW	mean lower low water
NAPL	non-aqueous-phase liquid
NAVD88	North American Vertical Datum of 1988
NCP	National Contingency Plan
NHPA	National Historic Preservation Act
NPL	National Priorities List
NRHP	National Register of Historic Places
NTU	nephelometric turbidity unit
NYC	New York City

NYCDEP	New York City Department of Environmental Protection
NYCDOT	New York City Department of Transportation
NYSDEC	New York State Department of Environmental Conservation
ORP	oxidation reduction potential
OSI	Ocean Surveys, Inc.
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene
PID	photoionization detector
PRP	potentially responsible party
psig	pounds per square inch gauge
PUF	polyurethane foam
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
QAPP	quality assurance project plan
RAGS	Risk Assessment Guidance for Superfund
RI	remedial investigation
RIOPA	Relationships of Indoor, Outdoor, and Personal Air
RME	reasonable maximum exposure
RMS	root mean squared
RPD	relative percent difference
RSL	regional screening level
SARA	Superfund Amendments and Reauthorization Act of 1986
SOP	standard operating procedure
SPDES	State Pollutant Discharge Elimination System
SVOC	semivolatile organic compound
TAL	Target Analyte List
TCE	trichloroethylene
TCL	Target Compound List
TCLP	Toxic Characteristic Leaching Procedure
TDS	total dissolved solids
TKN	total Kjeldahl nitrogen
TMDL	total maximum daily load
TOC	total organic carbon
TSS	total suspended solids
UFP-QAPP	Uniform Federal Policy for Quality Assurance Project Plans
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
WPCP	water pollution control plant
WRS	Wilcoxon rank-sum

SECTION 1

Introduction

This draft remedial investigation (RI) report was prepared for the United States Environmental Protection Agency (USEPA) Region 2 by Henningson, Durham & Richardson Architecture & Engineering, P.C., in association with HDR Engineering, Inc. (HDR) and CH2M HILL to present the results of the RI activities completed at the Gowanus Canal Superfund Site, in Brooklyn, Kings County, New York. This draft RI report has been prepared under Work Assignment Number 013-RICO-02ZP, under the USEPA Region 2 RAC II Contract Number EP-W-09-009.

The Gowanus Canal is a 1.8-mile-long, man-made canal in the New York City borough of Brooklyn, Kings County, New York (Figure 1-1). The canal was built in the 1860s by bulkheading and dredging a tidal creek and surrounding lowland marshes. Following construction, the canal quickly became one of the nation's busiest industrial waterways, servicing heavy industries that included manufactured-gas plants (MGPs), coal yards, cement manufacturers, tanneries, paint and ink factories, machine shops, chemical plants, and oil refineries. It was also the repository of untreated industrial wastes, raw sewage, and surface-water runoff for decades, causing it to become one of New York's most polluted waterways. Although the level of industrial activity along the canal has declined over the years, high levels of contamination remain in the sediments.

On March 2, 2010, USEPA placed the Gowanus Canal (USEPA ID#: NYN000206222) on its National Priorities List (NPL) of hazardous waste sites requiring further evaluation. Accordingly, USEPA Region 2 is performing a remedial investigation and feasibility study (RI/FS) of the canal according to the requirements of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA, or "Superfund"), as amended. This report presents the results of the RI activities performed at the canal in 2010.

1.1 Background and Objectives

The Gowanus Canal study area is shown in Figure 1-1. There are five east–west bridge crossings over the canal, at Union Street, Carroll Street, Third Street, Ninth Street, and Hamilton Avenue. The Gowanus Expressway and the Culver Line of the New York City Subway pass overhead. The canal is located in a mixed residential-commercial-industrial area, and it borders several residential neighborhoods, including Gowanus, Park Slope, Cobble Hill, Carroll Gardens, and Red Hook. The waterfront properties abutting the canal are primarily commercial and industrial.

Environmental sampling performed before this RI revealed that the sediments throughout the Gowanus Canal are contaminated with a variety of pollutants, including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), and heavy metals (USACE, 2004, 2006; GEI, 2007). No environmental remediation activities have been performed to date.

The overall objective of the RI activities performed by USEPA is to characterize the canal to a degree sufficient to develop and select a remedy to reduce risks to human health and the environment from exposure to contaminants in the canal sediments. Accordingly, the field-

sampling and data-collection activities described here were designed specifically to accomplish the following:

- Characterize the nature and extent of contamination in the Gowanus Canal to the degree necessary to evaluate the human health and ecological risks and develop a remedy to reduce these risks
- Document the sources of contamination to the Gowanus Canal, and provide a preliminary evaluation of ongoing sources of contamination to the canal that need to be addressed so that a sustainable remedy can be developed and implemented
- Determine the human health and ecological risks from exposure to contamination in the canal
- Determine the physical and chemical characteristics of the canal that will influence the development, evaluation, and selection of remedial alternatives

This work builds on previous studies completed by the U.S. Army Corps of Engineers (USACE) and National Grid[1] (see Section 1.4.). In addition, the Gowanus Canal RI work performed by USEPA is supplemented by work performed simultaneously by National Grid and New York City under related Administrative Orders.[2] Investigations and response actions related to upland properties adjacent to the canal are under the purview of the New York State Department of Environmental Conservation (NYSDEC). The New York City Department of Environmental Protection (NYCDEP) is addressing compliance with existing water quality standards under an Administrative Order on Consent[3] with NYSDEC.

1.2 Report Organization

This RI report is organized into the following eight sections:

1. **Introduction**. Briefly describes the regulatory framework, RI approach and objectives, and site history and setting, and summarizes previous investigations.
2. **Remedial Investigation Activities**. Summarizes the field investigation activities performed in 2010 by USEPA, National Grid, and New York City.
3. **Gowanus Canal Physical Characteristics**. Describes the characteristics of the Gowanus Canal that are relevant to determining the nature and extent of contamination and that will influence the development and evaluation of remedial alternatives. These characteristics include bathymetry, presence of debris and obstructions, sediment stratigraphy and physical properties, locations of pipes actively discharging to the canal, the condition of the bulkheads, and the local geology and hydrogeology, including interactions between groundwater and surface water and the effects of tides.
4. **Nature and Extent of Contamination**. Presents the standards and criteria against which RI sample results were compared and describes the occurrence and distribution of

[1] National Grid is the successor to KeySpan Energy Corp. and Brooklyn Gas Company; these companies and all other related entities are referred to herein as National Grid.

[2] Administrative Order and Settlement Agreement for Investigation, Sampling and Analysis, Index Nos. CERCLA 02-2010-2009 and CERCLA 02-2010-2011 for National Grid and the City of New York, respectively.

[3] DEC Case #CO2-20000107-8 dated January 14, 2005, and updated April 14, 2008.

contaminants in sediment, surface water, fish and crab tissue, air, combined sewer overflow (CSO) outfall water and sediment, and groundwater that may be discharging to the canal. Also included are the results of soil sampling performed in the process of installing groundwater-monitoring wells on properties adjacent to the canal for the purpose of evaluating groundwater contamination and surface water-groundwater interactions and tidal influences on groundwater.

5. **Summary of Ecological and Human Health Risk Assessments**. Summarizes the ecological risk assessment (ERA) and human health risk assessment (HHRA), including descriptions of the exposure pathways and receptors evaluated. Complete risk assessment reports are provided as appendices.

6. **Conceptual Site Model**. Section 6 presents a conceptual site model (CSM) of the Gowanus Canal that summarizes contaminant sources and release pathways, the extent of contamination due to these releases, and a summary of contaminant fate and transport mechanisms. A summary of the exposure pathways and receptors that drive unacceptable ecological and human health risk is provided in the risk assessment reports.

7. **Conclusions and Recommendations**. Summarizes the RI conclusions and recommendations.

8. **References.** Provides the references cited in the report.

The report appendixes provide supporting information, including field documentation and laboratory analytical data that were collected for the RI:

A—Sample-tracking tables (summaries of collected samples)
B—Bathymetric survey report
C—Evaluation criteria
D—Field documentation
E—Evaluation of results of tidal survey
F—Evaluation of groundwater–surface water interactions
G—Survey of outfall features to the Gowanus Canal
H—Data quality evaluation
I—Tissue analytical data
J—Statistical support information
K—ERA
L—HHRA
M—Historic preservation
N—Sediment core depth profiles
O—Upland investigation summary

1.3 Overview of the Gowanus Canal

The following is a brief history of the Gowanus Canal; a description of the site setting, the dredging history, and adjacent land usage; and a short discussion of NYCDEP's CSO long-term control plan (LTCP) activities that affect the canal.

1.3.1 History

Prior to being developed, the area around the Gowanus Canal was occupied by Gowanus Creek, its tributaries, and lowland marshes, as shown in Figure 1-2. Before the mid-1840s, the

creek and its tributaries had been dammed and used primarily to power tide mills (Hunter Research et al., 2004). By the mid-1840s, Brooklyn was rapidly growing, and the Gowanus marshes were considered to be a detriment to local development. In 1848, the State of New York authorized construction of the Gowanus Canal to open the area to barge traffic, flush away sewage, receive stormwater, and fill the adjacent lowlands for development. The canal was constructed between 1853 and approximately 1868, and rapid industrial development followed.

In 1911, the City of New York constructed and began operating the Gowanus Canal Flushing Tunnel to address serious water quality issues in the canal. The tunnel was constructed to connect the head of the canal with Buttermilk Channel in Upper New York Bay. It was designed to improve circulation and flush pollutants from the canal by pumping water in either direction. The tunnel starts at Degraw Street on Buttermilk Channel and ends on the west side of the canal at Douglas Street. The tunnel was operated until the mid-1960s, when it fell into disrepair and no funding was available to fix it. The flushing tunnel was rehabilitated and reactivated in 1999 by the NYCDEP, pumping water only from Buttermilk Channel to the Gowanus Canal using the 1911 technology. The flushing tunnel was shut down by the NYCDEP on July 19, 2010, for an extended period of facility improvements to modernize the technology and improve operations (see Section 1.3.5). Figure 1-3 shows the Gowanus Canal in relation to the locations of other waterways in the area, including Buttermilk Channel, from where the flushing tunnel draws water.

1.3.2 Site Setting

The Gowanus Canal is a tidally influenced, dead-end channel that opens to Gowanus Bay and Upper New York Bay. The canal experiences a semidiurnal tidal cycle (i.e., two high tides and two low tides of unequal height each tidal day), with a vertical tidal range from 4.7 to 5.7 feet. The entire canal is classified as a saline tributary to Upper New York Bay, and the reach between the head of the canal and 22nd Street, which encompasses the entire study area of this RI, is classified as a "minor river, tidal tributary."[4] The only freshwater inflows to the canal are wet-weather CSO and stormwater discharges. Because of its narrow width, limited freshwater input, and enclosed upper end, the canal has low current speeds and limited tidal exchange with Gowanus Bay. Circulation is enhanced by the addition of water from the flushing tunnel when it is operating (NYCDEP, 2008a).

North of the Hamilton Avenue bridge, the canal is approximately 5,600 feet long and 100 feet wide, with a maximum depth of approximately 15 feet in the main channel at low tide. There are four short turning basins that branch to the east of the main channel at 4th Street, 6th Street, 7th Street, and 11th Street (Figure 1-1). A former basin at 1st Street and an extension of the 4th Street basin that had been referred to as the 5th Street basin were filled in between 1953 and 1965 (Hunter Research et al., 2004). The bottom sediments near the head of the canal and at the heads of the turning basins are exposed at low tide. South of the Hamilton Avenue bridge, the canal widens to approximately 2,200 feet and ranges in depth from -15 to -35 feet mean lower low water (MLLW).[5] The entire shoreline of Gowanus Canal is built with retaining structures or bulkheads. These are described in greater detail in Section 3.4.

The sediments within and beneath the Gowanus Canal consist of two distinct layers, as shown in Figure 1-4. The upper layer is referred to in this report as "soft" sediment. The soft sediments

[4] Title 6 of the New York Code of Rules and Regulations, Chapter X, Part 890.

[5] The average of the lower low water height each tidal day.

have accumulated in the canal over time since the canal was first constructed. The soft sediment layer ranges in thickness from approximately 1 foot to greater than 20 feet and generally consists of a dark-gray-to-black mixture of sand, silt, and clay. The soft sediments are underlain by the alluvial and marsh deposits of the Gowanus Creek complex that were originally present. These deposits are referred to as "native" sediments in this report and include sands, silts, silty sand, sandy clay, clay, and peat.

1.3.3 Dredging History

Minimal recent dredging of the Gowanus Canal has been performed, and documentation of historical dredging is sparse. North of the Hamilton Avenue bridge, any dredging would have been performed by New York City or local commercial interests. Reviews of historical documents suggest that dredging was very limited and, when it was performed, most likely targeted the accumulation of material near outfalls on the canal (Hunter Research et al., 2004). The most recent dredging in the upper reaches of the canal was performed by NYCDEP in 1975 (NYCDEP, 2008a). In 1998, the area near the flushing tunnel was dredged, and nearly 1,100 cubic yards of material was removed to allow the tunnel to be reactivated (GEI, 2007). These sediments were removed to facilitate construction and assure an unobstructed discharge from the tunnel.

Below Hamilton Avenue, USACE previously performed maintenance dredging. USACE suspended regular maintenance dredging of the Gowanus Creek Channel in 1955, and the last dredging occurred in 1971, where nearly 74,000 cubic yards of sediment was removed between 28th Street and the Hamilton Avenue bridge (GEI, 2007; NYCDEP, 2008a).

1.3.4 Current and Historical Adjacent Land Use

The watershed drainage area of the Gowanus Canal is 1,758 acres, and the canal waterfront, or riparian area (defined as all blocks wholly or partially within one quarter mile of the canal), is occupied primarily by commercial and industrial properties. The riparian areas are classified as 18 percent residential, 6 percent park, and 76 percent mixed use. The entire watershed is 53 percent residential, 2 percent park, and 45 percent mixed use (NYCDEP, 2008a).

General current land use and historic industries along the canal are shown in Figure 1-5. Current land use was identified in October 2010 based on a windshield survey of the properties along the canal coupled with a review of current tax maps. The survey did not include interviews with property owners or property inspections to refine property-use classification. Based on this survey, the waterfront properties along the canal are currently used mostly for consumer-oriented businesses and operations (e.g., retail stores, small business offices), commercial purposes, municipal operations, and industrial purposes.

The historical industries along the canal include three former MGPs: the Fulton former MGP site, the Citizens Gas Works former MGP site (currently known as and referred to throughout the report as Carroll Gardens/Public Place former MGP site), and the Metropolitan Gas Light Company former MGP site (referred to throughout the report as Metropolitan former MGP site). National Grid is performing environmental investigations of the Fulton and Carroll Gardens former MGP sites, and contaminated soils have been partially removed from the Metropolitan former MGP site. Other sites along the canal where historical commercial or industrial activities occurred include a former New York City incinerator, Navy facilities, various industrial facilities, and oil storage facilities.

1.3.5 Combined Sewer Overflow and Stormwater Discharges

As noted, CSO and stormwater discharges are the only sources of freshwater to the Gowanus Canal. Combined sewers (i.e., sewers that receive both sewage and stormwater flows) serve 92 percent of the Gowanus Canal watershed, storm sewers serve only 2 percent, and direct runoff drains 6 percent of the watershed (NYCDEP, 2008a). During wet weather, runoff enters the combined sewers and exceeds the capacity of the system when an appreciable rate of rainfall occurs. There are two combined sewer systems in the watershed that overflow to the canal: the Red Hook and Owls Head water pollution control plants (WPCPs). Between these systems, there are 12 permitted CSOs to the study area; 10 of these are active. In addition, there are three known stormwater outfalls discharging to Gowanus Canal. Figure 1-6 shows the locations of the outfalls. There are also highway drains discharging to the canal (not shown in Figure 1-6).

The greatest annual discharge volumes are from outfalls RH-034, at the head of the canal; RH-035, at the intersection of Bond and 4th Streets; and OH-007, at the north end of 2nd Avenue (121, 111, and 69 million gallons, respectively; NYCDEP, 2008a). A floatables boom is installed in the canal at Sackett Street to detain floating debris that enters the canal from the RH-034 outfall.

In 2008, the NYCDEP prepared the *Gowanus Canal Waterbody/Watershed Facility Plan Report* as part of its City-Wide Long-Term CSO Control Planning Project (NYCDEP, 2008a). This work is being performed under an Administrative Order on Consent between NYCDEP and NYSDEC.[6] The goal of the project is to implement a series of improvements to achieve compliance with water quality standards. Specific objectives of the plan include eliminating odors, reducing floatables, and improving dissolved oxygen (DO) concentrations to meet surface-water-quality standards. NYCDEP's planned improvements for the Gowanus Canal have the following six components:

1. **Continued implementation of programmatic controls.** This activity will periodically evaluate programs currently in place to reduce CSO effects. The current floatables reduction plans, targeted sewer cleaning, and other operations and maintenance controls will continue, in addition to implementation of 14 specific best management practices, sustainable stormwater management initiatives, and the City-Wide Comprehensive CSO Floatable Plan.

2. **Modernization of the Gowanus Canal Flushing Tunnel.** This effort includes replacing the flushing tunnel pumping system with more-efficient pumping systems. This modernization effort will increase the volume of water conveyed through the tunnel by approximately 40 percent. In early 2010, an aeration pipe was installed within the canal to circulate super-oxygenated water when the flushing tunnel was shut down for repair. The aeration pipe went online in early July 2010, and the repairs were initiated with the flushing tunnel shut down on July 19, 2010. The completion date is anticipated to be September 2014.

3. **Reconstruction of the Gowanus Wastewater Pump Station.** This component of the LTCP will address the pumping station at the head of the canal. The reconstruction will increase the pump station capacity, restore force main flow, and add floatables-screening devices at outfall RH-034 at the head of the canal. These improvements are anticipated to decrease CSO discharges to the canal by 127 million gallons per year (approximately 34 percent) and

[6] NYSDEC Case No. CO2-20000107-8 dated January 14, 2005, and updated on April 14, 2008.

provide screening for 32 percent of the annual CSO discharge. Improvements to the RH-034 pumping facility were initiated in February–March 2010. The completion date of this construction is also anticipated to be September 2014.

4. **Cleaning/inspection of the OH-007 floatables/solids trap.** This trap is a 35-foot by 70-foot chamber designed to prevent the discharge of floatables and solids immediately upstream from the OH-007 outfall. The LTCP includes a provision for regularly inspecting and cleaning this trap to assure that it remains functional. NYCDEP performed an initial cleaning in April 2006 and an inspection in June 2006. Inspections had been planned to occur monthly thereafter, until an understanding of how quickly material accumulates in the trap is established.

5. **Periodic water body floatables skimming.** Upon completion of the reconstruction of the Gowanus Wastewater Pump Station and implementation of the floatables screening station, the interim floatables containment boom near the end of Sackett Street will be removed, and NYCDEP will dispatch a skimmer vessel to remove floatables from the canal on a periodic, as-needed basis. This component of the LTCP will not be implemented until the pump station is completed (expected September 2014).

6. **Dredging.** NYCDEP proposes dredging 750 feet of the canal from its head downstream and applying a 2-foot-thick sand cap so that the final water depth will be -3 feet MLLW. The dredging is intended to eliminate exposed sediments and associated odors observed at low tide, improve aesthetics, and provide improved benthic habitat. The canal has not yet been dredged. The timeline specified by the LTCP indicated that permit applications would be submitted by June 2010 and that dredging would begin within 3 years, and be completed within 5 years, of receipt of the final permits.

These improvements were proposed collectively to reduce the loading of contaminants to the canal in addition to improving overall water quality.

1.4 Previous Investigations

The Gowanus Canal has been studied extensively during the last decade. The studies used directly in the development of this RI are listed below. The list includes the report title and date, investigator, and a summary of the work performed. The results of these studies are incorporated into Sections 3 through 6 of this report, as appropriate. Additional reports, literature, and media pertaining to the canal were also reviewed to develop a holistic understanding of the study area, but these are not cited directly in this report.

1.4.1 National Grid

The following investigations were performed by GEI Consultants Inc. (GEI) for National Grid:

- *Draft Remedial Investigation Technical Report, Gowanus Canal, Brooklyn, New York, ACO Index No. A2-0523-0705*. Prepared April 2007. The scope of work performed included:
  - Bulkhead and outfall reconnaissance
  - Geophysical surveys, including bathymetry, sub-bottom profiling, and magnetometer surveys
  - Collection of 100 surface sediment grab samples for fecal coliform analysis

  - Collection of 279 sediment samples for chemical analysis from 103 sediment vibracoring locations
  - Sampling of water from 11 actively flowing and 45 submerged outfalls and sediment from 10 inactive outfall pipes
  - Age dating of six sediment cores based on radioisotope profiling
  - Installation of five subsurface borings in street right-of-ways adjacent to the canal and collection of 10 subsurface soil samples
  - Collection and analysis of 138 surface water samples from 70 locations
  - Environmental forensic testing of non-aqueous-phase liquid (NAPL), material collected from tar seeps, and selected sediment samples

  Some of this information—the geophysical survey data, the analytical chemistry results for soft sediment samples, and the age dating results—has been incorporated directly into this RI report.

- *Final Remedial Investigation Report, Carroll Gardens/Public Place, Brooklyn, New York, VCA Index No. A2-0460-0502, Site No.V00360-2*. Prepared October 2005. The scope of work performed included:
  - Excavation of 17 test pits and collection of 16 associated soil samples
  - Advancement of 53 soil borings and collection of 152 subsurface soil samples; 23 surface soil samples were collected from 14 locations
  - Installation of 35 monitoring wells and collection of 59 groundwater samples from 30 wells; six dense non-aqueous-phase liquid (DNAPL) tar samples were also collected
  - Installation of 13 soil vapor probes and collection of 13 associated samples
  - A tidal survey using the canal and 17 monitoring wells
  - Evaluation of tar recovery in six monitoring wells

1.4.2 New York City Department of Environmental Protection

The following investigations were performed by NYCDEP:

- *Draft Site Investigation Report for Environmental Investigations at Three City-Owned Properties: The NYCDEP Gowanus Pumping Station, The NYCDOT Hamilton Avenue Asphalt Plant, The Former Brooklyn BRT Power Station*. Prepared by Louis Berger & Associates, PC, August 2010. The scope of work performed included:
  - Collection of 67 soil samples from 14 borings
  - Installation, development, and sampling of 14 groundwater-monitoring wells for chemical analysis
  - Tidal gauging at three well pairs over a period of 3 days to monitor tidal and barometric changes

  - Synoptic monitoring well and surface water level measurements
  - Hydraulic conductivity (slug) testing at three well pairs
  - Collection of three surface water samples for chemical analysis

- *Gowanus Canal Waterbody/Watershed Facility Plan Report,* 2008. Parts of this document are summarized in Section 1.3.5. It presents a summary of the current conditions in the canal and outlines the wastewater disposal improvements planned through 2014.
- New York Harbor Water Quality Studies, 1997–2004. The City of New York conducts annual water quality monitoring of New York Harbor and tributaries. Water quality parameters collected include DO, coliform, Secchi disk transparency, chlorophyll-a, and turbidity. The data collected at monitoring locations within the Gowanus Canal are included in the ERA.
- New York City Shoreline Survey Program Reports for Owls Head and Red Hook drainage areas identifying pipe openings along the length of the canal:
  - *Shoreline Survey Report*, March 31, 2008
  - *Shoreline Survey Report – Cycle II*, March 31, 1993
  - *Shoreline Survey Report – Cycle I*, February 28, 1991

1.4.3 U.S. Army Corps of Engineers

The following investigations were performed by USACE:

- *Site Investigation Gowanus Bay and Gowanus Canal – Final Report, Kings Count, Volumes 1–3, New York,* October 2003. This report summarizes sampling performed in early 2003 and lists the conclusions and recommendations made by USACE in support of the Gowanus Restoration Project. The sampling scope of work included:
  - Collection of subsurface sediment samples using split-spoon collection methods from 30 boring locations
  - Analysis of approximately 300 sediment samples for geotechnical, chemical, and bacteriological parameters
- *Final Report Sediment Quality Evaluation Report Gowanus Canal and Bay Ecological Restoration Project,* October 2004. The scope of work for this investigation included collection of sediment samples from 30 locations beginning at the head of the canal to Gowanus Bay. Samples were analyzed for chemical and biological parameters.
- *Final Report National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal, Borough of Brooklyn, Kings County, New York in Connection with the Proposed Ecosystem Restoration Study*. Prepared by Hunter Research, Rabner Associates, and Northern Ecological Associates, December 2004. The scope of work presented in this report included background research, acquisition of historic maps, field investigations, and data analysis.
- *Final Sediment Sampling Report, Gowanus Canal and Bay Ecosystem Restoration Project (DACW51-01-D-0014 Delivery Order Number 003)*. Prepared by DMA, Inc., and AMEC Earth & Environmental, Inc., August 2006. This report summarizes a 2005 sampling event that included collection of 6-foot vibracore sediment samples from 10 locations within the canal.

Sediment samples were analyzed for chemical parameters and toxicity testing in order to support a habitat evaluation procedures model and ecological risk assessment.

SECTION 2

Remedial Investigation Activities

This section describes the RI activities led by USEPA at the Gowanus Canal Superfund Site. These activities were performed in three phases starting in January 2010 and continuing through November 2010. Table 2-1 summarizes in chronological order the investigation activities, the dates they were performed, and the general scope of each activity. The RI scope and approach were developed by USEPA, and the work was completed with support from four entities, including the USEPA Region 2 contractor team of HDR, CH2M HILL, and GRB Environmental, Inc. (referred to as USEPA work throughout the document), USEPA Emergency Response Team (ERT), New York City, and National Grid. The RI activities performed under each phase of work by each entity are listed below.

Phase	Activity	Entity
Phase 1 RI	Bathymetric survey	USEPA
	Survey of outfall features:	
	Phase 1—identifying outfall features, and collecting and analyzing outfall water samples	USEPA
	Phase 2—tracing outfall features to origin	USEPA ERT
	Cultural resources survey, including bulkhead study	USEPA
Phase 2 RI	Sediment coring	USEPA, USEPA ERT
Phase 3 RI	Surface sediment sample collection and analysis	USEPA
	Surface water sample collection and analysis	USEPA
	Fish and shellfish tissue sample collection and analysis	USEPA
	Air sample collection and analysis	USEPA
	CSO sediment and water sample collection and analysis	USEPA
	Hydrogeologic investigation:	
	Groundwater-monitoring-well installation and development	USEPA ERT, National Grid, New York City
	Groundwater sampling	USEPA, National Grid, New York City
	Groundwater–surface water interaction sampling	USEPA
	Synoptic water levels	USEPA, National Grid, New York City
	Tidal evaluation	USEPA
Oversight activities	Oversight of well installation and soil-sampling activities performed by National Grid and New York City	USEPA

Table 2-2 lists the number of samples collected during each RI activity, and the analyses performed. The scope of each RI activity is summarized further below. Results are presented in Sections 3 and 4.

2.1 Bathymetric Survey

A bathymetric survey was performed by CR Environmental, Inc., on all navigable and accessible portions of the Gowanus Canal on January 5, 2010. The purpose of this survey was to map the sediment surface elevation within the canal. The survey was performed using a 25-foot aluminum work boat and a 12-foot skiff outfitted with appropriate global positioning system (GPS)–based navigation systems and single-beam echo sounders to collect depth measurements. Data were collected along a series of survey transects; transects parallel to the canal shoreline were approximately 10 to 50 feet apart, and transects perpendicular to the shoreline were spaced 100 feet apart. Ice in the eastern ends of the turning basins during the survey prevented data from being collected from those areas.

The complete bathymetric survey report, including descriptions of the survey methods, details of vessels used, data acquisition systems, vertical control points, and bathymetric data processing procedures, is provided in Appendix B.

2.2 Sediment Coring

Two sediment-coring investigations were conducted within the Gowanus Canal during January, March, and April 2010. Technical details are presented in Appendix D. The sediment coring effort built on the previous investigation completed by National Grid (GEI, 2007). The objectives of the effort were to characterize the horizontal extent of contamination as well as the vertical extent within the practical limits of a potential remedy. Specific objectives of the efforts were to (1) collect sediment samples to a depth of 6 feet below the contact between soft sediment and native sediment at all locations, (2) obtain continuous vertical profiles of contaminant concentrations at a subset of locations adjacent to potential sources of contamination, (3) confirm sampling results at a subset of locations previously sampled by National Grid, and (4) provide additional spatial coverage in specific areas of the canal. Sediment core sampling locations are shown in Figures 2-1a through 2-1c.

In January 2010, USEPA ERT collected sediment cores from 10 locations that might not have been accessible after construction activities related to the flushing tunnel repairs were initiated by New York City. Nine of the locations were on three transects between the Union Street bridge and the head of the canal; a 10th location was on the east side of the channel immediately south of the Union Street bridge (Figure 2-1a). Sediment cores were collected using vibratory coring equipment to a depth of 12 to 16 feet below the sediment surface. The cores were sampled continuously in 1-foot sampling intervals, except for the top interval, which was sampled from 0 to 0.5 foot and from 0.5 to 1.0 foot. Soft and native sediments were sampled separately. Samples were analyzed for Target Compound List (TCL) organics and Target Analyte List (TAL) metals (including mercury and cyanide).

In March and April 2010, USEPA collected sediment cores from the following locations using vibratory coring equipment:

- 88 locations on transects previously sampled by National Grid (native sediment only)
- 21 new sampling locations along seven transects
- 17 new sampling locations not located on a transect
- Nine additional contingency sampling locations identified in the field by USEPA

The rationale for the placement of the new sampling locations is provided in Table 2-3. A diagram of the core-sampling strategy is presented in Figure 2-2.

For cores collected from the previously sampled National Grid locations, up to three samples (2-foot composites) of native sediment were collected from each core. At the new locations and transects, cores were sampled continuously in 2-foot composite sample intervals from the top of the core to a depth of 6 feet into the native sediment. Soft sediment and native sediment were sampled separately.

A detailed description of the sampling methods is provided in Appendix D. Briefly, the core from each location was split lengthwise using an electric slot cutter, photographed, and described with respect to stratigraphy (i.e., sediment layers), sediment type, grain size, color, odor, and any other notable characteristics. Samples for VOC and sulfide analysis were collected from each sampling interval prior to sediment homogenization. The remaining sediment from each sample interval was transferred to a dedicated aluminum pan and homogenized until a uniform texture and color were achieved. Sediment directly in contact with the core catcher, nose cone, or core liner was not included in the material that was homogenized and submitted for analytical testing. The homogenized sediment was then transferred to the laboratory-specified bottleware, labeled, and bagged for shipment to the analytical laboratories.

Table 2-2 summarizes the number of samples collected and analytical parameters. A total of 618 unique sediment samples (not including field quality control samples) from 143 locations were submitted for chemical analysis.

Appendix A contains a sample-tracking table listing all samples collected, the associated analyses, and quality assurance/quality control (QA/QC) samples. All sediment samples were analyzed for TCL organics, TAL metals (including mercury and cyanide), grain size, total organic carbon (TOC), and sulfide. For the new core locations not positioned on transects, one composite sample of the entire soft-sediment thickness was collected and analyzed for Toxic Characteristic Leaching Procedure (TCLP) parameters and hazardous waste characteristics.

The objectives of the sediment core sampling efforts were met except in instances where field conditions prevented recovery of 6 feet of native sediment. These exceptions were generally in three areas:

- Where the soft sediment thickness was greater than 14 feet and the depth of penetration was limited by the core barrel length of 20 feet (e.g., at the head of the canal and in the 11th Street turning basin)
- Where the sediment surface was covered with gravel (e.g., the entire channel south of a concrete plant located at the end of 5th Street to south of the 9th Street bridge and the area adjacent to the New York City asphalt plant immediately south of Hamilton Avenue on the east side of the canal)
- Where widespread debris was present (e.g., stations positioned near the ends of streets and along the west side of the channel downstream of the Hamilton Avenue bridge)

Although less than 6 feet of native material was recovered and sampled at some locations, the data set generated is sufficient to meet the RI/FS objectives.

2.3 Surface Sediment Sample Collection and Analysis

Surface-sediment-sampling activities were conducted in the Gowanus Canal and at reference locations in Gowanus Bay and Upper New York Bay between June 17 and July 1, 2010. Surface sediment samples were collected from the 0-to-6-inch depth interval to support the ERA and HHRA. The 0-to-6-inch depth interval is considered to be the biologically active zone. This section summarizes these activities and notes any deviations from the planned technical approach. Supporting field documentation is presented in Appendix D.

The objectives of the surface sediment sampling were as follows:

- Collect information on contaminant concentrations in surface sediments over the length of the canal and at reference locations outside of the Gowanus Canal study area
- Characterize surface sediment contamination at locations where exposed sediments are observed at low tide to support the HHRA

USEPA CERCLA guidance addresses the importance of establishing background concentrations during the RI. The term "background" refers to chemical concentrations (or locations) that are not influenced by contamination from a specific CERCLA site. USEPA's guidance for comparing background and chemical concentrations in soil at CERCLA sites (USEPA, 2002) states the following:

> A background reference area is the area where background samples will be collected for comparison with the samples collected on the site. A background reference area should have the same physical, chemical, geological, and biological characteristics as the site being investigated, but has not been affected by activities on the site.... [T]he ideal background reference area would have the same distribution of concentrations of the chemicals of concern as those which would be expected on the site if the site had never been impacted. In most situations, this ideal reference area does not exist.

A background reference area for the Gowanus Canal would ideally be located upgradient of the reaches affected by contaminant releases; however, this was not possible because the entire canal is contaminated. Other nearby water bodies with similar characteristics that were known to be uncontaminated could not be identified. Therefore, reference locations in Gowanus Bay and Upper New York Bay were selected for consideration in the ERA and HHRA. The reference locations were positioned on an approximate grid with increased spacing with increasing distance from the mouth of the canal to characterize gradients in contaminant concentrations and biological effects, if present.

Surface sediment samples were collected from the following locations using a Ponar grab-sampling device:

- 27 locations within Gowanus Canal
- 10 reference locations in Gowanus Bay and Upper New York Bay, outside the mouth of the canal

The locations where the surface sediment samples were collected within the canal are shown in Figures 2-3a through 2-3c. The reference locations are shown in Figure 2-4. The rationale for the selection of each sampling location is presented in Table 2-4.

Sediment samples were composited upon collection except for sample volumes sent for VOC analysis, which were collected from the area of highest photoionization detector (PID) response or from an area with visual evidence of contamination. Sediment samples from each location were described on field data sheets with respect to gross grain size, color, odor, and any other notable observations.

A summary of the samples collected and analyses performed is provided in Table 2-2. Appendix A contains a sample-tracking table listing all samples collected, the associated analyses, and QA/QC samples. Sediment samples from all locations were analyzed for TCL organics, TAL metals (including mercury and cyanide), grain size, TOC, and acid volatile sulfide/simultaneously extracted metals (AVS/SEM). Nineteen samples from the canal and three samples from reference locations were also analyzed for PCB congeners. These locations are identified in Table 2-4. The Gowanus Canal locations for PCB congener analyses were selected to provide (1) data for areas with the greatest potential for human exposure (e.g., the canoe launch), (2) data for areas where high-PCB concentrations were previously measured in sediment, (3) spatial coverage throughout the canal, and (4) data for all locations in the canal where sediment toxicity testing was performed. Additional sample volume was collected at each sampling location and archived for future analysis should it be needed.

Sediment samples were collected for sediment toxicity tests at twelve Gowanus Canal locations and five reference locations as identified in Table 2-4. The toxicity tests were performed using two species: amphipod (*L. plumulosus*) and a polycheate (*Nereis*). Both acute and chronic toxicity testing were performed during each toxicity test. Further details are provided in the ecological risk assessment (Appendix K).

Surface sediment samples were collected from all 37 planned locations. The following are noteworthy details or deviations from the planned sampling program:

- All samples sent for PCB congener analysis were delayed for an extended period of time in international customs during transit to the laboratory in Canada. The temperature of the samples when received by the laboratory was 18°C, exceeding the required 4°C temperature for sample preservation. Following consultation with project chemists and the USEPA sample manager, it was determined that elevated sample temperatures would not have a significant adverse effect on the results.
- The sediment sample at location 319 was collected approximately 500 feet north of the planned sampling location. The planned location was in an area containing widespread debris along the bottom of the canal, resulting in the collection of inadequate sample volume. The sample was collected at a new location as close to the original sample location as possible.

The deviations noted above did not affect the data set, which was found to be sufficient to perform the planned analyses to meet the RI/FS objectives.

2.4 Surface Water Sample Collection and Analysis

Surface water samples were collected from the Gowanus Canal, at reference locations in Gowanus Bay and Upper New York Bay, and from Buttermilk Channel during two sampling events representing dry-weather (June 19, 2010) and wet-weather (July 13, 2010)

conditions. This section provides a brief summary of these activities and notes any deviations from the planned technical approach. Supporting field documentation is provided in Appendix D.

The objectives of the surface water sampling effort were as follows:

- Collect information on contaminants in surface water over the length of the canal and at reference locations outside of the Gowanus Canal study area to support the ERA and HHRA
- Evaluate differences in surface water contaminant concentrations in the canal during dry weather and following rainfall and discharges from the CSOs

Surface water samples were collected using a decontaminated stainless steel bacon bomb discrete sampler. Because of the shallow water depth, a single sample was collected from each location at a depth of 6 inches below the water surface. The surface water sample locations generally coincided with the surface sediment sample locations except for locations 301 and 325. The sampling locations included the following:

- 27 locations within the Gowanus Canal
- 10 reference locations in Gowanus Bay and Upper New York Bay, outside the mouth of the canal
- One sample from Buttermilk Channel at the intake location of the flushing tunnel
- One additional sample in the Gowanus Canal at the end of Sackett Street; collected in response to a resident's concern about a sheen on the water surface

The locations where the surface water samples were collected within the canal are shown in Figures 2-5a through 2-5c. The reference locations and Buttermilk Channel sampling location are shown in Figure 2-6.

Surface water sampling was performed during both dry- and wet-weather conditions. Dry-weather sampling was defined as sampling after a minimum of 2–3 days after a CSO discharge event. Wet-weather sampling could occur only after at least 0.1 inches of rainfall within an hour with accompanying low tide conditions in the canal; this sampling needed to begin within 3–6 hours after the occurrence of these conditions.

Weather conditions were continuously recorded using an onsite Davis Vantage Pro 2 weather station and internet resources, including the National Weather Service. Wet-weather flow conditions in the combined sewer system were also confirmed by calling the Owls Head and Red Hook WPCPs for influent-flow conditions. Observations were also made of receiving-water conditions in the canal to identify evidence such as floatables on the water surface that would indicate that a CSO discharge had occurred. Appendix D contains relevant weather-tracking information.

The dry-weather surface water samples were collected on June 19, 2010, following 2 days of dry weather and no CSO discharges. Thirty-eight surface water samples were collected during the dry-weather event. Wet-weather surface water samples were collected on July 13, 2010, following a rain event which produced 1.02 inches of rain over a 2-hour period during mid- to low-tide conditions. CSO discharges were visually confirmed during the rain event,

and both Owls Head and Red Hook WPCPs reported operating near-maximum flow rates before the wet-weather sampling event was begun. Thirty-seven surface water samples were collected during the wet-weather event.

A summary of the samples collected and analyses performed is provided in Table 2-2. Appendix A contains a sample-tracking table listing the samples that were collected, the associated analyses, and QA/QC samples. Surface water samples from all locations were analyzed for TCL organics, TAL metals (total and dissolved, including mercury and cyanide), and total suspended solids (TSS). Field measurements of the following water quality parameters were collected from each surface water sampling location at the time of sampling: salinity, pH, specific conductance, DO, oxidation reduction potential (ORP), temperature, and turbidity.

Surface water samples were collected from most of the planned locations. The following are the deviations from the planned sampling program:

- As described in Section 2.3, the surface sediment sample planned at location 319 was collected approximately 500 feet north of the original proposed location due to the presence of debris in the area. However, the surface water samples collected during both sampling events were collected at the originally planned location.
- The wet-weather surface water sample at location 301 was collected 250 feet south of the planned location because of low-tide conditions.
- The sample from location 325 could not be collected during the wet-weather sampling event owing to the presence of a docked barge at the planned location.
- One additional sample in the Gowanus Canal at the end of Sackett Street was collected in response to a resident's concern about a sheen on the water surface.

The deviations noted above did not affect the data set, which was found to be sufficient to perform the planned analyses to meet the RI/FS objectives.

2.5 Fish and Shellfish Tissue Sample Collection and Analysis

Fish and crab tissue samples were collected from the Gowanus Canal and reference locations in Gowanus Bay and Upper New York Bay to support the ERA and HHRA. Fish and crab caught in the field were processed in the laboratory and composited for analysis. The approach and methods used for tissue analysis are described below.

2.5.1 Field Collection and Initial Sorting

Fish and crab samples were collected in the Gowanus Canal and reference locations in Gowanus Bay and Upper New York Bay from June 21 through July 9, 2010. Two to three vessels and crews sampled simultaneously in these areas during the collection period.

Fish and shellfish were collected in six reaches of the canal and in three reference areas (Figures 2-7 and 2-8). Species targeted for sampling included mummichog, blue crab, striped bass, and white perch. Alternate species included killifish, rock crab, spider crab, American eel, cunner, tautog, and winter flounder. Additional species caught with some frequency included scup, summer flounder, gunnel, weakfish, and rock bass.

During the first week of collection, all fish captured were retained on ice for possible use in tissue residue analysis. During the second week of collection (after species availability in the canal and reference locations was better defined during the first week), species that were not viable candidates for tissue residue analysis were counted and released. Once a sufficient mass of tissue from a particular species was caught from one sample area, emphasis was then placed on capturing that species from the remaining areas where tissue was still needed.

The gear used to collect fish and crabs included fish traps, minnow traps, crab traps, trawls, hook and line, gill nets, and fyke nets. All selected gear types caught at least some of the target or alternate fish species. Some gear types worked better than others in some locations due to tidal fluctuations, current velocities, congested shipping channels, and constricted canal reaches. Sampling gear was checked and redeployed multiple times during a day and was allowed to remain in place (as appropriate) overnight. Vessel captains created sampling logs and recorded the gear type, sample location, times and dates of deployment and collection, and the number and types of species collected during each deployment. The sampling log was closed out when the gear was retrieved and fish species were identified and quantified. Sample equipment was redeployed on the basis of collection success and the number and types of species still required from a given sample reach.

The pots and traps for mummichug and crab collections within each reach were initially set at locations where surface sediment samples for toxicity testing and PCB congener analysis were collected. The traps had to be moved from these initial locations because sufficient sample volume could not be collected at any single sample location within a reach. Therefore, samples had to be collected from multiple locations within each reach.

Immediately following collection, fish were brought to the main processing boat where the collected species were formally identified, weighed, measured, packaged, labeled, and placed on ice for further processing by the analytical laboratory. Samples were shipped to the laboratory daily for additional preparation and analysis.

2.5.2 Laboratory Tissue Preparation and Grouping for Analysis

Following receipt by the analytical laboratory, fish and crab samples were sorted and grouped by species and sample reach as part of the final preparation for chemical analysis. The following target and alternate species were collected from one or more canal or reference sample reaches and were identified for analysis:

- Small prey fish: Atlantic tomcod, hake, mummichog
- Crab: blue crab
- Larger fish species: American eel, scup, striped bass, weakfish, white perch

Each species was prepared for analysis based on sample type:

- Small prey fish: Small prey fish were analyzed for whole body tissue residue only. These species represent potential prey for wildlife, are not consumed by humans, and therefore will be evaluated only in the ERA.

- Crab: Crabs are consumed by both humans and wildlife and will be evaluated in both the HHRA and ERA. The analytical laboratory picked and separated the tissues of each crab into three separate components: edible tissue, hepatopancreas, and eggs. Eggs were

found on a limited proportion of females, all of which were captured in the outer reaches of the reference area. These crab eggs were archived and will not be included in the risk assessments.

- Larger fish species: Larger fish species are consumed by both humans and wildlife and will be evaluated in both the HHRA and ERA. The analytical laboratory separated the tissues of each larger fish into fillet and remaining carcass components. Fillet samples will be evaluated in the HHRA, while both fillet and carcass samples will be evaluated in the ERA.

Following tissue preparation, samples were combined by tissue type (whole body, edible crab, hepatopancreas, fillet, carcass) to create the mass necessary for chemical analysis.

The following guidelines were followed to create the final sample groupings for chemical analysis:

- Only samples of the same species and tissue type (e.g., fillet, carcass) were combined for analysis.
- When adequate tissue was available, at least one sample of each species and tissue type was created for each sample reach within the canal (six reaches) and reference (three reaches). Up to six small prey fish and six larger fish species samples of each tissue type were accordingly targeted for analysis in the canal, while up to three prey fish and three larger fish species samples of each tissue type were targeted for analysis in the reference area. A larger number of crab samples was created for analysis.
- Samples taken from more than one reach were combined when necessary to create adequate tissue mass for analysis. However, canal and reference tissues were never combined. When combining tissues from more than one reach, samples from contiguous reaches were preferentially grouped for analysis. Tissues from noncontiguous reaches were grouped for analysis only when necessary to create adequate sample mass for analysis.
- If adequate tissue mass of a given type was not available for all sample reaches, then multiple samples were created with tissues collected from a single sample reach (when available) to create the total number of samples targeted for the canal and/or reference area.
- Crab and larger fish samples were grouped according to body size so that organisms of a similar age class were combined for chemical analysis. To meet this objective, the smallest organism within a sample grouping was targeted to be at least 75 percent of the length of the largest organism within that sample group. Organisms falling outside of the targeted size range were included when necessary to achieve the mass necessary for chemical analysis. Small prey fish were not grouped according to this guideline because of the similar sizes of these species.
- At least five organisms were grouped together, whenever possible, to create a representative composite sample for analysis, and no more than one sample was taken from a single larger organism.

Table 2-5 summarizes the tissue samples that were created for analysis within the canal and reference area based on the above guidelines. All remaining tissues were archived for possible future analysis. The total number of samples and analytical parameters are summarized in Table 2-2. Appendix A contains sample-tracking tables listing the samples that were created, the associated analyses, and QA/QC samples.

Summarized below are the analyses performed on each tissue type:

Blue crab samples were analyzed for the following:

- TCL semivolatile organic compounds (SVOCs)
- TCL pesticides
- PCB congeners
- TAL metals (including mercury)

All fish tissue samples were analyzed for the same list of parameters as the blue crab except TCL SVOCs.

Samples were also analyzed for percent moisture and lipid content when adequate tissue mass was available.

2.6 Air Sample Collection and Analysis

Air-sampling activities were conducted along the Gowanus Canal and at background locations during two sampling events to evaluate whether emissions from canal sediments are a potential human health concern. This section summarizes these activities and notes any deviations from the planned technical approach.

The objectives of the air-sampling efforts were to measure and compare contaminant concentrations in ambient air samples collected from the following locations:

- Within the breathing zone of a recreational canoeist on the canal
- Within the breathing zone at the street level along the canal
- At background locations (i.e., outside of the area potentially impacted by emissions from the canal)
- Before and after the start of the canal aeration to evaluate potential effects of the aeration system

The first round of air samples was collected between July 7 and 9, 2010, prior to the activation of the canal aeration system. A second round of air sampling was conducted over July 28 and 29, 2010, following system startup.

The locations where the air samples were collected are shown in Figure 2-9 and include:

- 10 locations along the length of the canal with two samples collected at each location—one at canoe level and one at street level
- Three background locations at street level

Air samples were collected at all 13 sampling locations during the first sampling event. The three background locations were not sampled during the second sampling event because the first sampling event was performed only to evaluate the effects of the canal aeration system, and the background locations are outside of the system's potential zone of influence.

Both sampling events were performed during dry-weather conditions, as planned. Weather conditions were continuously recorded using an onsite weather station. Appendix D contains relevant weather-tracking information.

A summary of the samples collected and analyses performed is provided in Table 2-2. Appendix A contains a sample-tracking table listing the samples that were collected, the associated analyses, and QA/QC samples.

Air samples along the canal were analyzed for VOCs and PAHs. Location 506 at the street level was also analyzed for PCBs during the first sampling event. Samples for VOC analysis were collected using individually laboratory certified clean Summa canisters equipped with flow controllers. Samples for analyses for PAHs were collected using low-volume samplers and polyurethane foam (PUF) cartridges. The sample for PCB analysis was collected using a high-volume sampler and a PUF cartridge. This sampler was situated near a power source and operated over a 24-hour period in order to evaluate conditions near the canal over a full 1-day cycle. Sample collection details are presented in Appendix D.

Samples were analyzed for VOCs using Method TO-15, for PCBs using Method TO-4, and for PAHs using Method TO-13. The following are the deviations from the planned sampling program:

- The street-level VOC sample at location 501 was collected during the first sampling round over a 40-hour period as opposed to the planned 24-hour period due to a problem with the flow regulator attached to the Summa canister.
- The exact shut-off time of the low-volume sampling pump is unknown at location 513. It is estimated that the pump stopped after 20 hours of sample collection.
- During the second round of sampling, a PCB sample was not collected at location 506 because the start of the aeration system was not expected to have an effect on PCB concentrations, and samples were not collected at the background locations because they were considered to be outside the zone of potential influence from canal emissions.
- Low-volume samplers used to collect PAH samples from the 504 and 507 canal-level locations during the second air-sampling event were suspected of malfunctioning during sample collection. As a result, the amount of air that passed through the PUF cartridges at these two locations was unclear; therefore, results for these two samples are reported in micrograms per cartridge unit as opposed to micrograms per cubic meter.

The deviations noted above did not affect the data set, which was found to be sufficient to perform the planned analyses to meet the RI/FS objectives.

2.7 Outfall Evaluation

Field investigations were performed to identify and characterize discharges from outfalls to the Gowanus Canal, including the CSOs and discharges from other pipe outfalls. These investigations included collection of sediment and water samples from CSOs, and the identification and investigation of other pipe outfall discharges to the canal. Investigation activities are summarized below. Supporting field documentation is presented in Appendix D.

2.7.1 Combined Sewer Overflow Sediment and Water Sample Collection and Analysis

Sampling was performed at multiple locations in the combined sewer system to characterize CSO discharges to the Gowanus Canal. The objective of the sampling was to characterize contaminant concentrations in sediments and combined sewage that may be discharging through the CSOs to the canal. The CSOs listed in Table 2-6 discharge to the Gowanus Canal and were included in the sampling program. Also listed in the table are the locations of the CSO regulators.

Prior to the start of the sampling activities, a field reconnaissance was performed to identify the locations of the CSO regulators and/or reliefs and potential monitoring locations upstream of these. A follow-up reconnaissance was then performed with a representative of the NYCDEP, Bureau of Wastewater Treatment, Collections Facilities South. The objectives of these reconnaissance activities were the following:

- Identify and confirm that the selected monitoring locations were upstream of the combined sewer regulators and/or reliefs discharging via CSOs to the Gowanus Canal, which would eliminate potential backflow (tidal intrusion) from the canal.
- Determine the traffic control needs during sampling and the associated permit requirements.

The locations to be sampled were then clearly marked at manholes in the streets or at the Gowanus Pump Station. Appendix D contains the traffic management plan that was prepared and implemented by Traffic Management, Inc., in accordance with federal Department of Transportation requirements. Figure 2-10 shows the locations of CSO outfalls discharging to the canal that were targeted for sampling and the locations of the manholes selected as described above to collect the samples; Table 2-7 describes the street locations of the sampled manholes.

CSO sampling was performed during both dry and wet weather conditions. Dry weather sampling was defined as sampling after a minimum of 2 to 3 days after a CSO discharge event. Wet weather sampling could occur only after at least 0.10 inches of rainfall within an hour; this sampling needed to begin shortly (within 3–6 hours) after the occurrence of these conditions.

Weather conditions were continuously recorded using an onsite Davis Vantage Pro 2 weather station and internet resources, including the National Weather Service. Wet weather flow conditions in the combined sewer system were also confirmed by calling the Owls Head and Red Hook WPCPs for influent flow conditions. Observations were also

made of receiving water conditions in the canal to identify evidence such as floatables on the water surface that would indicate that a CSO discharge had occurred. Appendix D contains relevant weather-tracking information.

Dry weather sampling of sediments and water from the combined sewer system was performed between June 30 and July 1, 2010. Wet weather sampling of the flow was performed during three wet-weather events—July 13, September 28, and September 30 to October 1, 2010. A summary of the samples collected and analyses performed is provided in Table 2-2. Appendix A contains a sample-tracking table listing the samples that were collected, the associated analyses, and QA/QC samples.

During dry weather, the sampled CSO flow is expected to be representative of the sewage inflow to the WPCPs and during wet weather, the sampled flow is expected to reflect the mixing of sewage with stormwater runoff. For the purposes of this report, the term "CSO water" is used to reflect the sampled CSO flow during both dry- and wet-weather conditions.

CSO Sediment Sampling

Sediment samples were collected from the combined sewer system only during dry-weather conditions. Sediment samples were collected from the following seven CSO monitoring locations:

- Red Hook WPCP service area: RH-031, RH-033, RH-035, RH-036, and RH-037
- Owls Head WPCP service area: OH-005 and OH-007

Sediment samples could not be collected from the RH-034, RH-038, and OH-006 CSO monitoring locations due to the high velocity of the flow. The samples were collected using a Nasco Swing Sampler with a certified clean polyethylene collection bottle. The samples were described on field log sheets with respect to gross grain size, color, odor, and other notable characteristics. Samples were composited upon collection except for sample volumes sent for VOC analysis, which were collected from the area of highest PID response or from an area with visual evidence of contamination. Sediment samples were sent for the following analyses: TCL organics, TAL metals (including mercury and cyanide), TOC, and grain size.

CSO Water Sampling

Water samples were collected from the combined sewer system during both dry- and wet-weather conditions at all CSO monitoring locations. Field measurements of salinity, pH, specific conductance, DO, ORP, temperature, and turbidity were taken at each CSO-sampling location during both dry and wet weather sampling events.

During the dry-weather sampling event, the discrete water samples were collected from nine CSO monitoring locations by use of a certified clean polyethylene collection bottle. At the Gowanus Pump Station (RH-034), a composite sample was collected over a 24-hour period by use of an ISCO composite sampler. Water samples were collected from CSO monitoring locations during three wet-weather events as follows:

- Samples were collected on July 13, 2010, from six of the 10 monitoring locations: RH-034, RH-036, RH-037, RH-038, OH-005, and OH-006. The sample from RH-034 was a 24-hour composite sample. Sampling of all locations could not be completed because

precipitation in the area ceased, wastewater flows observed in the combined sewers began to transition back to dry-weather flow conditions, and influent wastewater flow at the WPCPs were reported to be returning to dry-weather conditions. A total of 1.02 inches of rainfall was recorded by the onsite weather station between 12:15 and 2:00 p.m.

- Samples were collected on September 28, 2010, from three monitoring locations: RH-031, RH-034, and RH-035. As in the first event, sampling could not be completed at all CSO monitoring locations because precipitation ended, wastewater flow observed in the combined sewer system dropped, and influent wastewater flow at the WPCP was reported to be returning to dry weather conditions. A total of 0.21 inches of rainfall were recorded by the onsite weather station between 11:30 and 12:30 p.m.
- Water samples were collected between September 30 and October 1, 2010, from all 10 CSO monitoring locations. A total of approximately 1 inch of rainfall was recorded by the onsite weather station between 5:30 and 7:30 a.m. on September 30 and a total of approximately 4 inches of rainfall was recorded at the local Park Slope weather station between 4:30 and 9:30 a.m.

The dry-weather and wet-weather CSO water samples were analyzed for TCL organics, TAL metals (total and dissolved, including mercury and cyanide), and TSS. Water samples from OH-007 and RH-034 were also analyzed for the following parameters: alkalinity, ammonia, nitrates, total Kjeldahl nitrogen (TKN), TOC, dissolved organic carbon (DOC), total hardness, silica, sulfates, and TDS. A field test for ferrous (+II) iron was also performed.

The CSO sediment- and water-sampling program was mostly implemented as planned. The following are noteworthy details or deviations from the planned sampling program:

- A composite sample was collected from RH-034 during dry weather and sent for TCL organics and TAL metals analysis on July 1, 2010. Additional composite sample volume was collected for analysis of geochemistry parameters on July 7, 2010, under similar dry-weather conditions.
- Geochemistry samples from locations RH-034 and OH-007 were scheduled to be collected during the dry and first wet-weather sampling events. Geochemistry samples were collected from both locations during the dry-weather sampling event; however, the wet-weather samples were collected during two separate events. RH-034 was sampled during the second wet-weather sampling event due to limitations in sample volume (see further explanation below) and a shortened sampling period. The geochemistry sample from OH-007 was collected during the third wet-weather sampling event.
- During the first wet weather sampling event, the ISCO composite sampler stopped collecting sample volume at RH-034 after approximately 12 hours. Because limited sample volume had been collected, the sample was sent to the laboratory only for the following analyses: TAL metals (total and dissolved), cyanide, SVOCs, and TSS.
- During the last sampling event, the manhole for RH-035 overflowed with floatables. The sample was collected directly from the discharge of the manhole onto the street.

The deviations noted above did not affect the data set, which was found to be sufficient to perform the planned analyses to meet the RI/FS objectives.

2.7.2 Identification of Other Outfall Features

An evaluation was performed to identify and characterize outfall features other than CSOs and collect information on the potential for contaminant contributions from these outfall features to the canal. The survey was performed in the following two phases:

1. Field survey during dry weather to identify outfall features and sample any outfalls discharging to the canal.
2. Video camera survey of outfall features to trace their layout, measure how far they extend from the canal (origin), identify lateral connections, and collect other information, where possible.

Each activity is summarized below. Supporting field documentation is presented in Appendixes D and G.

Phase 1 Identification and Sampling of Outfall Features

A field survey of the canal bulkheads was performed over a 6-day period from September 1 to 9, 2010. The objectives of the survey were to inspect the canal bulkheads during low tide conditions and identify pipe outfalls, seeps, or other features that have or had the potential to discharge to the canal. Low-tide conditions provide the greatest height of canal bulkhead above the water surface; therefore, all sections of the bulkheads were inspected during low-tide conditions. This was accomplished except in the areas listed below. At these locations, barges were stationed, and the survey was performed irrespective of tide conditions, when the barges were moved to allow access to the bulkheads:

- New York City Department of Transportation (NYCDOT) Hamilton Avenue asphalt plant
- Amerada Hess Corporation—Brooklyn Terminal (764 Court Street)
- Greco Bros. Ready Mix Concrete Company Brothers (281 Hamilton Avenue)
- Ferrara Brothers Building Material (435 Hoyt Street)
- Benson Scrap Metal (543 Smith Street)

The feature identification survey was executed from small skiffs with a shallow keel (low water displacement) capable of maneuvering in shallow water at low tide. Two teams performed the survey. Upon locating a pipe or feature, the team assigned a unique number to the feature and utilized a survey form to collect consistent information at each location. Each location was photographed and its coordinates recorded using a Trimble Geo XH handheld GPS unit with GeoBeacon with real-time corrections. The survey was limited to the collection of information that could be observed without the use of intrusive techniques.

When a feature was observed to discharge into the canal, the field team recorded the headspace readings at the discharge using a cleaned and calibrated MiniRae 2000 PID with a 10.6-eV lamp capable of detecting VOCs. Salinity measurements were also collected and recorded using a cleaned and calibrated Horiba U-52 with a salinity probe. The salinity

result was then compared to "background" water in the canal to determine whether the observed discharge was the result of tidal flux or of an unknown discharge. If the discharge could not be attributed to tidal flux, a sample of the effluent was collected for laboratory analysis.

In total, 25 features were observed to discharge to the canal, with the discharge from 11 appearing to be tidal drainage. The discharges from these 11 features were not sampled. From the remaining 14 features, the discharges from 12 were sampled; the discharges from two could not be sampled due to the small rate of the discharge.

In total, 12 samples were collected from features with observed flows. The features that were sampled during this event are shown in Figure 2-10, along with the CSO sample locations. Table 2-2 summarizes the number of samples collected and the analyses performed. Appendix A contains a sample-tracking table listing the samples that were collected, the associated analyses, and QA/QC samples. Samples from all except two outfalls were sent for the analysis of TCL organics and TAL metals (total and dissolved, including mercury and cyanide). At two outfalls (E-29 and W-44), the samples were sent for fewer analyses because the flow was a trickle and only limited volume could be obtained in a reasonable amount of time. Field measurements of salinity, pH, specific conductance, DO, ORP, temperature, and turbidity were taken at each CSO sampling location.

Phase 2 Collection of Additional Information on Outfall Features

The Phase 2 outfall feature survey consisted of a video camera survey of the features referred for further investigation from Phase 1. The objective of this phase was to trace each feature as far inland as possible but at least two blocks from the bulkheads of the canal and collect the following information:

- Approximate diameter, construction material, and condition of the pipe or feature
- Number and approximate diameter, construction material, and condition of lateral lines
- Distance of lateral line entry points from outfall entry point
- Distance of survey end point from outfall entry point
- Sediment deposition, evidence of recent flow, and any obstructions
- Direction of surveyed pipe (perpendicular or at an angle to the canal)
- Direction of lateral connection pipes

The field survey was performed by USEPA ERT from October 18 to mid-December, 2010. The survey was performed using a small skiff and a subcontractor (City Sewer) to operate the video camera equipment. Two types of equipment were utilized: a push camera was used for the small pipes, and a tractor-based camera was used for the larger pipes. The push camera was operated by plugging it in to either an on-vessel generator or a truck generator provided by the subcontractor. The tractor-based camera was operated from the subcontractor's truck; access to the canal from the street was needed to complete the inspection of the larger pipes. The camera was guided as far as possible up to two blocks east or west of the canal. In cases where the camera could not reach two blocks due to obstructions in the pipe, a note was made, and the investigation of the pipe was terminated. Appendix G contains a report of the observations from the field video survey.

2.8 Hydrogeologic Evaluation

The hydrogeologic evaluation was performed to evaluate the following: (1) shallow subsurface (0 to 60 feet below grade) conditions adjacent to the canal; (2) groundwater flow directions and gradients adjacent to the canal; (3) the magnitude of tidal fluctuation in the canal and its influence on groundwater levels; (4) groundwater–surface water interaction conditions along the length of the canal; and (5) potential for associated contaminant contributions through groundwater discharges to the canal. The hydrogeologic investigation consisted of the following tasks:

- Installing and developing monitoring wells and associated soil sampling
- Sampling groundwater from the installed monitoring wells
- Collecting samples from both the Gowanus Canal and the monitoring wells
- Collecting synoptic water level measurements
- Performing a tidal study

The activities performed under each of the above tasks are outlined below. Supporting field documentation is provided in Appendix D.

2.8.1 Groundwater-Monitoring-Well Installation and Development and Soil Sampling

Groundwater-monitoring wells were installed along the Gowanus Canal through a coordinated effort among USEPA, National Grid, and New York City. National Grid and New York City installed the monitoring wells on their respective properties. USEPA installed monitoring wells on the remaining properties along the length of the canal. The scope of work performed by each entity and deviations from their respective work planning documents are summarized below.

The monitoring wells were installed in May and June 2010. In total, 42 monitoring well pairs (shallow and intermediate) and four single monitoring wells (intermediate) were installed along approximately 3 miles of canal frontage (east and west sides of the canal), for a total of 88 new monitoring wells that were installed (Table 2-8). In addition, three existing shallow monitoring wells were integrated into the monitoring well network for a total of 91 wells that were included in the groundwater sampling program. Figure 2-11 shows the locations of monitoring wells that constitute the network. The rationale for selecting the monitoring well locations was based on geographic distribution across the length of the canal, potential for upland contamination impacts to the canal, and accessibility to specific work locations. The rationale for the vertical elevations for the monitoring well screens was to intersect the water table in the shallow wells and to intersect groundwater immediately below the top of the native sediment in the intermediate wells. Screen intervals were selected specifically to characterize groundwater–surface water interactions through examination of gradients, water chemistry, flow nets, and contaminant chemistry.

Screen intervals in shallow monitoring wells straddled the water table, which occurs between 2 and 12 feet below ground surface (bgs). The shallow wells were constructed with a 10-foot-long screen. Screen intervals in intermediate monitoring wells were installed so that the top of the 5-foot-long screen was positioned approximately 5 feet below the top of the native sediment lining the bottom of the canal. The top of the well screens in the

intermediate wells ranged from approximately 28 to 55 feet bgs. The depth of the native sediments in the canal was determined on the basis of results of the Phase 2 sediment-coring investigation. An idealized cross section showing the relative layout of the shallow and intermediate wells with respect to the Gowanus Canal is shown in Figure 2-12.

Soil samples were collected from the soil borings for the intermediate wells. At each location, soil sampling was performed over 5-foot intervals along the full length of the boring. Each 5-foot interval was screened with a PID. Samples for VOC analyses were collected in the middle of the 6-inch interval exhibiting the highest PID reading or at intervals of visual contamination. If noncontaminated conditions were observed in the 5-foot interval, then a VOC sample was collected from the middle of the interval. The rest of the soil within the 5-foot interval was homogenized, and a sample collected for the remaining laboratory analyses. In cases where split samples were collected, the homogenized soil was split into two parts, providing sample volume for the split samples.

At each intermediate location, lithologic descriptions, PID readings, and visual/olfactory observations of the soil column were recorded on the soil boring logs. The lithology of the soil samples was logged using the Unified Soil Classification System in accordance with ASTM 422-D. Soil-boring logs and well construction diagrams are presented in Appendix D.

A summary of the soil samples collected and analyses performed is provided in Table 2-2. All soil samples were analyzed for TCL organics and TAL metals including mercury and cyanide.

The following sections present additional details of the well installation, well development, and soil-sampling activities performed by USEPA, National Grid, and New York City.

USEPA Well Installation Activities

Monitoring wells were installed by USEPA between May 15 and June 28, 2010. Prior to initiating work at specific properties, street-opening permits were obtained from the NYCDOT for monitoring well locations within the public right-of-way, while USEPA secured property access for monitoring well locations on private properties.

Prior to drilling, DigNet of New York City and Long Island marked out underground utilities. In addition, monitoring well locations were cleared of underground utilities to a maximum depth of 8 feet using either hand auger or air knife/vacuum truck techniques.

Well borings were drilled employing the rotary sonic drilling method. Drill rigs, rod, bits, and other tools were decontaminated prior to initiating drilling, between well locations, and following the drilling effort. In total, USEPA installed 32 well pairs, and one single intermediate well (MW-46I). A total of 233 soil samples were collected for laboratory analyses.

Monitoring wells were constructed of 2-inch-diameter polyvinyl chloride (PVC) Schedule 40 casing and screen, or Type 304 stainless steel casing and screen if NAPL was observed in the soil boring. Well pairs were completed as nested construction where one borehole is drilled to accommodate two individual wells (shallow and intermediate), as depicted in Figure 2-12. The wells were developed by a combination of surging and pumping using an inertial pump or by pumping using a submersible pump.

The following describe deviations from the planned sampling program:

- One additional monitoring well (GCMW-46I) was installed as a single (not nested) well. Note that this well was initially labeled in the field as GCMW-46D but the screened interval lies within the intermediate zone and the well is therefore discussed in this report as MW-46I.
- The well screen lengths at location GCMW-47 consisted of a 5-foot-long screen on the shallow well and a 10-foot-long screen on the intermediate well.
- Monitoring well MW-22 was not installed due to underground utility obstructions, and MW-23 was relocated closer to the planned MW-22 location in order to provide the desired spatial coverage to meet the objectives.

National Grid Well Installation Activities

Installation of monitoring wells was performed by National Grid between June 23 and 30, 2010. National Grid installed nine monitoring wells in support of the RI activities. National Grid also installed four bedrock wells for another study. However, the lithologic information from all of the well borings was integrated with the USEPA data. The monitoring wells installed by National Grid in support of the RI activities included the following:

- Well pairs GCMW-23, GCMW-40, and GCMW-41
- Intermediate wells GCMW-30I, GCMW-31I, and GCMW-32I

The three intermediate monitoring wells were installed at the Fulton former MGP site to supplement existing shallow wells on the property: FW-MW-10 (a.k.a. MW-30S), FW-MW-10 (a.k.a. MW-31S), and FW-MW-16 (a.k.a. MW-32S).

Prior to drilling, each monitoring well location was cleared using manual or vacuum clearance methods to a depth of 5 feet or 1 foot below the estimated depth of any nearby known utility, whichever was deeper.

Drilling activities were completed using the rotary sonic drilling method with drilling equipment decontaminated between well locations. A total of 56 soil samples was collected for laboratory analyses.

The wells were constructed by installing 2-inch-diameter stainless steel casing and screen. Each monitoring well was installed in a separate borehole approximately 5 feet apart. Wells were developed by alternately surging the wells with a surge block and pumping the wells with a submersible pump.

The following are the deviations from the planned sampling program:

- Monitoring well MW-32I was initially drilled and installed to a depth of 40 feet below grade, which was less than the planned depth of 45 feet for this location. An additional monitoring well was installed approximately 10 feet east of this initial location and extended to the desired depth of 45 feet below grade.
- Sand of No. 1 size was specified for well pack construction in the work plan, but No. 0 sand was used instead.

- Some composite soil samples were collected over 4-foot and 6-foot intervals instead of the specified 5-foot interval because of the nature of the soil-sampling methods.

New York City Well Installation Activities

Between June 2 and 8, 2010, New York City installed the following 14 monitoring wells in support of the RI activities: well pairs MW-1, MW-2, MW-9, MW-10, MW-17, MW-18, and MW-19. Prior to commencing drilling activities New York City conducted a geophysical survey using ground-penetrating radar (GPR) to clear each location for subsurface utilities. Following the completion of the geophysical survey, a vacuum truck equipped with an air knife cleared the top 5 feet of soil at the proposed shallow well locations. The top 5 feet of the intermediate well borings were not cleared with the air knife in order to maintain the integrity of the shallow soil for undisturbed soil sampling.

Drilling activities were completed using hollow-stem auger (HSA) drill rigs with drilling equipment decontaminated between well locations. New York City collected 67 samples in six borings for laboratory analyses.

The wells were constructed by installing 2-inch-diameter PVC Schedule 40 casing and screen. The wells were developed using a submersible pump.

The following are the deviations from the planned sampling program:

- Only 1 foot of filter sand pack above the top of the screen was installed at well MW-2S, as opposed to the 2 feet that was originally planned. The construction deviation was necessary due to the high water table encountered at approximately 2.5 feet at this location. The top of the screen was set at 3 feet bgs with the filter pack extending to 2 feet bgs. No. 00 sand was set from 1.5 to 2.0 feet bgs, while the remaining annular space was filled with grout.

- During development of the 14 monitoring wells, a target turbidity measurement of less than 50 nephelometric turbidity units (NTUs) was not always achievable. Poorly consolidated, fine-grained sediments adjacent to the canal prevented removal of elevated turbidity during development over a reasonable duration. Generally, development achieved stable but elevated turbidity values.

The deviations noted during the monitoring well installation did not affect the data set, which was found to be sufficient to support the RI/FS objectives.

2.8.2 Groundwater Sampling

Groundwater-sampling activities at monitoring wells located along the length of the canal were conducted in June and July 2010. The objectives of this sampling effort were to characterize water quality from the shallow and intermediate depth intervals, including geochemistry and contaminant distribution along the length of the canal. Groundwater samples were collected from the following 91 locations:

- 32 shallow and 33 intermediate wells installed and sampled by USEPA
- Six shallow (including three previously existing shallow wells) and six intermediate wells installed and sampled by National Grid
- Seven shallow and seven intermediate wells installed and sampled by New York City

The locations of the sampled monitoring wells are shown in Figure 2-11.

USEPA, National Grid, and New York City each sampled their own wells no earlier than 2 weeks following development. All samples were collected following USEPA's low-flow groundwater-sampling procedures. Water level measurements were collected from each well prior to the pump being placed in the well. Low-flow purging of each well was maintained between 100 and 500 mL/min. Groundwater discharged from the wells was generally monitored throughout the purging activities for salinity, pH, specific conductance, DO, ORP, temperature, and turbidity. Field chemistry measurements were recorded on field log sheets. Upon stabilization of field chemistry parameters, groundwater samples were collected directly from the Teflon-lined effluent tubing.

The samples collected and analyses performed are summarized in Table 2-2. Appendix A contains a sample-tracking table listing the samples, the associated analyses, and QA/QC samples. Groundwater samples collected by the three entities were analyzed for slightly different constituents:

- USEPA and National Grid—TCL organics, TAL metals (total and dissolved, including mercury and cyanide)
- New York City—TCL organics, TAL metals (total, including mercury and cyanide), and dissolved iron

The following are noteworthy details or deviations from the planned sampling program:

- Groundwater samples from the following wells on New York City properties were not analyzed for dissolved TAL metals: MW-1, MW-10, MW-17, and MW-19.
- Monitoring well cluster MW-22 was not installed, and therefore no groundwater samples were collected at this location.
- Because poor recovery rates restricted sample volumes, groundwater samples from MW-28S and MW-29S were collected over a 3-day period. Both wells purged dry on the first day under low-flow procedures and were allowed to equilibrate prior to collecting the initial sample volume. Both wells went dry during sample collection and did not recharge sufficiently over the initial sampling period. Field teams returned to the wells on the following 2 days to collect additional sample volume. No further purging was attempted.
- An electronic oil–water interface probe failed to accurately measure water levels in wells MW-7S and MW-14I because of potential electronic interference.
- Water quality parameters stabilized at wells MW-24S and MW-43S, but both wells went dry during sample collection. Remaining sample volume was collected after 80 percent of the original water column in the well recovered.
- Due to problems with the sample bottleware after collecting a sample from MW-26S, this well was resampled for total and dissolved metals (only) approximately 7 hours after the initial sample volume was collected.
- No sample was collected at National Grid monitoring well MW-40S due to the presence of NAPL.

- The sample from monitoring well MW-3S was not analyzed for cyanide because the pH of this sample, upon its arrival at the laboratory, was out of the appropriate range for proper sample preservation.

The deviations noted above did not affect the data set, which was found to be sufficient to perform the planned analyses to meet the RI/FS objectives.

2.8.3 Groundwater–Surface Water Interactions Sampling

Samples collected from monitoring wells and surface water locations in the Gowanus Canal were analyzed for general water quality parameters in June and July 2010. These constituents provide a wealth of information on geochemical conditions beneath the area, including oxidation/reduction characteristics, the abundance/absence of nutrients, and hydraulic interconnections between the shallow and intermediate zones. Most importantly, these constituents can help characterize the hydraulic connection between the shallow aquifer system and the canal. Ultimately, these data define geochemical conditions that may constrain or enhance contaminant contributions from the shallow groundwater system to the canal.

This section summarizes the performed activities and notes any deviations from the planned technical approach. To achieve the above objectives, samples were collected from the following locations:

- 12 monitoring well pairs (shallow and intermediate zones—24 wells total):
  - MW-02, MW-09, and MW-18 well pairs collected by New York City
  - MW-31 well pair collected by National Grid
  - MW-3, MW-4, MW-15, MW-16, MW-20, MW-21, MW-37, and MW-39 collected by USEPA
- Nine surface water samples from the canal, adjacent to monitoring well pairs:
  - SWMW-02, SWMW-09, and SWMW-18 collected by New York City
  - SWMW-23 and SWMW-31 collected by National Grid
  - SWMW-03, SWMW-37, SWMW-20, and SWMW-15 collected by USEPA

Groundwater–surface water interaction sampling locations are shown in Figure 2-13. Sampling activities were conducted concurrent with groundwater-sampling activities following installation and development of the new monitoring well pairs. USEPA collected surface water samples from a decontaminated Van Dorn horizontal alpha sampler, and all other surface water samples were collected from a Kemmerer-style bomb sampler. All surface water samples were collected from the canal, adjacent to the bulkhead, approximately 6 to 12 inches above the soft sediment at the bottom of the canal.

The samples collected and analyses performed are summarized in Table 2-2. Appendix A contains sample-tracking tables listing the samples that were collected and the associated analyses and QA/QC samples. Samples were analyzed for the following water quality parameters: alkalinity, ammonia, calcium, chlorides, total and dissolved iron, magnesium, total and dissolved manganese, aluminum, nitrates, TKN, DOC, TOC, potassium, phosphate, total hardness, silica, sodium, sulfates, TDS, and TSS.

Field measurements of the following water quality parameters were collected during the collection of groundwater samples and are included on field log sheets presented in Appendix D: ferrous (+II) iron, salinity, pH, specific conductance, DO, ORP, temperature, and turbidity.

Section 3 provides an evaluation of the chemistry of the groundwater and canal water including cation/anion composition, ORP, and the presence of nutrients, biological activity, and native acidity. These analyses are used in concert with water levels to evaluate the groundwater–surface water interactions and contributions from groundwater to the canal.

The following are the combined deviations for all sampling entities from the planned sampling program:

- Water quality samples were collected from well pairs MW-20 and MW-21 and surface water location SWMW-20 instead of MW-11, MW-12, and SWMW-11 because of restricted access during the sampling event. These locations fall within the same general vicinity of the canal.
- A water quality sample from proposed location SWMW-37 was not collected. Water quality data from sampling location SWMW-39 will be used to characterize water quality in this area of the canal.
- Ferrous iron analysis was not performed on samples from SWMW-20, SWMW-37, MW-20S, MW-20I, MW-21S, and MW-21I.
- Field measurements for ferrous iron were not collected from GC-MW23I and GC-SWMW23. These samples were analyzed for ferrous iron by TestAmerica in place of the field measurement.
- The metals analyses (total and dissolved) were not performed on the samples from locations SWMW-15, SWMW-20, SWMW-37, and SWMW-03.
- TDS and TSS analyses were not performed at SWMW-23 and SWMW-31.

The deviations noted above did not affect the data set, which was found to be sufficient to perform the planned analyses to meet the RI/FS objectives.

2.8.4 Synoptic Water Levels

Synoptic water level measurements were collected at monitoring wells and reference measurement point benchmarks (staff gauges) along the length of the canal by USEPA, National Grid, and New York City during six monthly events between July and December 2010.

The objectives of these survey events were to evaluate the piezometric surface (e.g., water elevations) in the shallow and intermediate groundwater zones, quantify hydraulic gradients (horizontal and vertical), and establish groundwater flow directions. Six months of water level measurements were collected to characterize seasonal variations; the measurements were collected during various tidal stages. Water level measurements were collected from the following 99 well locations and 17 staff gauges using oil–water interface probes during different stages of tidal cycles:

- 32 shallow and 33 intermediate wells installed by the USEPA
- Six shallow (including three previously existing shallow wells) and six intermediate wells installed by National Grid and included in the groundwater sampling program, plus five previously existing shallow wells and three previously existing intermediate wells that were used only for water level measurements
- Seven shallow and seven intermediate wells installed by New York City
- 17 reference point staff gauges at geographically distributed locations along the length of the canal

Prior to beginning each measurement event, the individual oil–water interface probes were field checked to a reference point to verify that each probe produced the same measurement. Synoptic measurement events were coordinated among the three entities with the goal of measuring all locations within approximately a 1-hour time period.

The locations of the monitoring wells included in the survey are shown in Figure 2-11. Reference point staff gauge benchmark locations are shown in Figure 2-14. Monthly water level measurements are presented in Appendix D. There were no deviations from the planned program under this task.

2.8.5 Tidal Evaluation

A tidal evaluation was performed between August 2 and 5, 2010. This section provides a brief summary of these activities and notes any deviations from the planned technical approach. The objectives of this work were to determine the following:

- Influence of tidal fluctuations on groundwater levels and thus on horizontal and vertical groundwater flow
- Potential for and frequency of hydraulic gradient reversals (i.e., changes between losing and gaining recharge in canal)
- Determine whether the synoptic water level monitoring events should be performed over a duration of less than 3 hours

To achieve these objectives, pressure transducers were installed at the following locations:

- 12 monitoring well pairs spatially distributed along the length of the canal (MW-33, -3, -4, -27, -26, -25, -20, -21, -14, -13, -16, and -15)
- Six locations within the canal surface water body, also spatially distributed along the length of the canal (TSMW-33, -3, -25, -20, -13, and -15)

One barometric transducer was also installed at location MW-25 to provide information for atmospheric barometric corrections.

Figure 2-14 shows the monitoring wells where transducers were installed.

Schlumberger Micro-Diver transducers were utilized together with SWS Diver-Office Software (Version 3.2). Transducers were rated at 14 pounds per square inch gauge (psig). Measurements were recorded every 15 minutes for the duration of the study. Data from the

pressure transducer measurements are presented in Appendix E. Data were also compared to daily precipitation and changes in barometric pressure.

The following deviations from the planned tidal study evaluation were noted:

- Two additional transducers were installed at location MW-27. These transducers had been rented in case problems were experienced during the setup of the remaining transducers. Since no problems were encountered during the setup, these transducers were installed in an additional well pair.
- The transducer at location TSMW-25 in the canal was removed on the last day of monitoring (1:15 a.m. on August 5). This transducer was not reinstalled, but data from initiation of the test through removal of the transducer was used in the tidal evaluation.

The deviations noted above did not affect the data set, which was found to be sufficient to perform the planned analyses to meet the RI/FS objectives.

2.9 Potentially Responsible Party Oversight Activities

National Grid and New York City installed and sampled the monitoring wells located on properties they owned or had access to. This section summarizes the field oversight and split sampling performed by the USEPA. The locations of these monitoring wells are color-coded and shown on Figure 2-11.

Monitoring well installation and sampling activities were performed by GEI on behalf of National Grid and by Louis Berger & Associates on behalf New York City. Field oversight activities performed by the USEPA consisted of observing installation activities during times of planned split sample collection. During those times, field procedures were observed and compared to general industry standards and the specific procedures outlined in the respective planning documents for the purpose of noting deviations and assessing their significance.

2.9.1 Monitoring Well Drilling and Soil Sampling

New York City monitoring well installation and soil sampling activities and corresponding oversight activities were performed between June 2 and 8, 2010, as described in Section 2.8.1. National Grid monitoring well installation and soil-sampling activities and corresponding oversight activities were performed between June 23 and 30, 2010, as described in Section 2.8.1. No deviations in the sampling procedures from those in the planning documents were observed.

National Grid and New York City collected soil samples over 5-foot intervals along the full length of each intermediate monitoring well soil boring, as described in Section 2.8.1. From these, USEPA collected split soil samples from two predetermined depth intervals: the 5-foot interval immediately below the groundwater table and the 5-foot interval at the bottom of the borehole where the monitoring well screen was planned.

Split soil samples were collected from all planned locations and depths. The only deviation from the planned sampling was at location MW-32I, where the interval below the water table was sampled at the first MW-32 location, and the intervals corresponding to the wells

screens were sampled at both MW-32 locations. Split soil samples were sent for TCL organics and TAL metals analyses.

Oversight was provided during development of selected monitoring wells to assess whether field procedures followed the procedures specified in the respective planning documents. No deviations in the procedures from those in the planning documents were observed.

2.9.2 Groundwater-Sampling Activities

New York City groundwater sampling and corresponding oversight activities were performed between June 24 and 28, 2010. National Grid groundwater sampling and corresponding oversight activities were performed between July 19 and 22, 2010. During the same time periods, National Grid and New York City also collected surface water samples for geochemistry parameters in support of the groundwater–surface water interaction evaluation.

Oversight was provided of all sampling activities, but split samples were collected only from monitoring wells. No deviations in the sampling procedures from those in the planning documents and from the USEPA's low-stress groundwater-sampling procedure were observed.

Split samples were collected from all monitoring wells with the exception of the following:

- New York City: MW-10S (sample was collected for VOC analysis only due to closing of the facility).
- National Grid: MW-30I, MW-40S, and MW-40I.

Split groundwater samples were sent for TCL organics and TAL metals analyses.

2.10 Historic and Cultural Survey

Preliminary investigations of historic properties along the Gowanus Canal were carried out in compliance with Section 106 of the National Historic Preservation Act (NHPA) between August and November, 2010. Dolan Research, Inc., and John Milner Associates, Inc. (JMA) performed a review of the bulkheads along the canal to assess their significance and their potential eligibility for nomination to the National Register of Historic Places (NRHP). The survey consisted of the following tasks:

- Review available cultural resources reports that provide information on the Gowanus Canal to assess their adequacy in supporting the needs of the RI/FS, determine the scope of subsequent work beyond that addressed in these studies, and assess the likely effects of the current project on the historic properties identified in these existing reports. The reports that were reviewed included the following:
  - *Final Report National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal*, prepared by Hunter Research et al., 2004.
  - *Gowanus Canal Bulkhead Inventory Survey*, prepared for Gowanus Canal Community Development Corporation, prepared by Adam Brown Marine Consulting, July 2000.

- Review the bulkheads that line the Gowanus Canal to evaluate their historic significance and integrity and recommend possible treatment strategies for historically significant bulkheads. This review was based on reviewing historic information as well as on a 1-day bulkhead inspection from water conducted on October 19, 2010.
- Review federal undertakings in which historic bulkheads were affected to provide background on available mitigation actions and considerations.
- Perform a side-scan sonar survey to identify debris of significance at the bottom of the canal.

The complete report from this evaluation is provided in Appendix M.

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SECTION 3

Gowanus Canal Physical Characteristics

This section describes the physical characteristics of the Gowanus Canal and surrounding area on the basis of previous work and studies performed in support of this RI. Many of these characteristics will influence the development and selection of remedial alternatives for canal sediments.

3.1 Bathymetry

The bathymetry of the Gowanus Canal is illustrated in Figures 3-1a through 3-1c and is based on a survey conducted in January 2010 by CR Environmental; a full-color figure from this survey is included in Appendix B. The measured bottom depth elevations ranged from approximately -0.13 feet to -38 feet relative to North American Vertical Datum of 1988 (NAVD88). The bottom depth elevations measured within the canal north of Hamilton Avenue were typically between -0.13 feet and approximately -18 feet NAVD88; much lower sediment surface elevations were measured south of Hamilton Avenue. The sediment surface at the head of the canal and in the eastern ends of many of the turning basins is exposed at low tide. Evidence of propeller scour in the form of a deeper sediment surface was noted in the southern portion of the canal; this area is subject to frequent tugboat activity to move and position oil and gravel barges at the various commercial terminals near the mouth of the canal.

The bathymetry data collected in 2010 were compared to a 2003 survey that was also performed by CR Environmental. Areas that showed a positive change in elevation were inferred to reflect net sediment deposition over the period from 2003 to 2010, whereas areas with a negative change in elevation were inferred to reflect net sediment erosion. Maps of the elevation differences are shown in Figures 3-2a through 3-2c, and a cross-section is presented in Figure 3-3. The combined uncertainty of the two surveys was determined to be as high as ±0.6 feet, with greater uncertainty associated with areas along the shoreline and less uncertainty along the centerline or deepest part of the channel (the thalweg). The highest confidence is given to estimates of elevation differences greater than $\pm$0.6 feet. Appendix B contains additional detail regarding the methodology and limitations of the comparison. Key observations were as follows:

- Elevation differences appeared minor upstream of the NYCDEP floatables containment boom that is across the canal at Sackett Street (about 530 feet downstream from the head of the canal).
- Some erosion was indicated along the western shoreline between the head of the canal and Sackett Street, which is immediately downstream of the flushing tunnel outlet.
- Approximately 2 to 3 feet of sediment accumulation is apparent between the floatables containment boom and the Carroll Street bridge (about 1,400 feet downstream of the head of the canal).

- Approximately 1 to 2 feet of sediment accumulation is apparent at the northern end of the canal between Carroll Street and 3rd Street.
- Elevation differences of approximately -1 to 1 foot were noted in most of the reach between 3rd Street and Hamilton Avenue. Lack of accumulation in this reach may be the result of frequent tug and barge traffic adjacent to a gravel-shipping yard between 5th Street and Huntington Street.
- At the southern end of the canal, the surface comparison suggests a wide (nearly 80,000 ft^2) region of sediment accumulation along the thalweg adjacent to Halleck Street. There were also many smaller areas of substantial elevation difference, either erosional or depositional, in this reach.

3.2 Presence and Distribution of Debris and Obstructions

Debris such as tires, sunken barges, concrete rubble, timbers, gravel, and general trash is widespread throughout the canal. The presence of debris interfered with sediment core collection in several areas. The presence of debris was also noted in numerous areas during the 2010 bathymetry survey (Appendix B). Ocean Surveys, Inc. (OSI) performed a debris survey in late 2005 on behalf of National Grid using magnetometer, sub-bottom profiling, and side-scan sonar technologies. The combined observations from the 2005 geophysical surveys and the 2010 field observations are illustrated in Figures 3-4a through 3-4c. Briefly, the key observations are as follows:

- Gravel covers the sediment surface of the entire main channel south of the concrete plant at the end of 5th Street to south of the 9th Street bridge, and the area adjacent to the New York City asphalt plant south of Hamilton Avenue.
- Debris piles (generally concrete, iron beams, and other large, construction-type debris) were often observed near the ends of streets that ended at the canal.
- The channel, particularly the western shoreline, approximately one city block downstream of the Hamilton Avenue bridge is covered with debris.
- All the turning basins have significant accumulations of debris, including a sunken barge in the 6th Street turning basin and multiple large debris piles and wreckage of a small boat in the 4th Street turning basin.
- Tires and smaller objects identified as anomalies by side-scan sonar and magnetometer surveys are widespread throughout the canal.

A second high-resolution side-scan sonar survey was performed in 2010 as part of the cultural resources survey. Several areas of debris were also identified during this survey, as shown in Figures 3-4d through 3-4f. The 2010 survey identified a number of anomalies with potentially significant historical characteristics, as detailed in Appendix M. The results of the 2005 and 2010 surveys are very similar, and the recent survey confirms that the data collected earlier are still usable.

3.3 Sediment Stratigraphy and Characteristics

Two distinct stratigraphic units are present within the canal: the native Gowanus Creek sediment deposits and the overlying soft sediment that has accumulated within the canal since its initial construction. Field observations from the sediment-coring investigation indicate that the overlying soft sediment is generally a very dark gray to black sand-silt-clay mixture that contains variable amounts of gravel, organic matter (e.g., leaves, twigs, vegetative debris), and trash. Odors described as "organic," "septic-like," "sulfur-like," and "hydrocarbon-like" were commonly observed in the soft sediment, as were visible sheens.

Maps of soft sediment thickness are presented in Figures 3-5a through 3-5c. The soft-sediment layer ranges from approximately 1 foot to greater than 20 feet in thickness, with an average thickness of 9.8 feet.[1] The thickest deposits were observed generally near the head of the canal and within the turning basins. Gravel was observed on the sediment surface from the concrete plant at the end of 5th Street to south of the 9th Street bridge, and in the area adjacent to the New York City asphalt plant on the east side of the canal south of Hamilton Avenue (Figures 3-4b and 3-4c). The gravel observed in these areas is likely related to the gravel barges that traverse the canal and are unloaded in these areas.

The native Gowanus Creek deposits consist of brown, tan, and light gray sands, silts, silty sand, sandy clay, clay, and peat. GEI (2007) noted that a layer of relatively clean (e.g., minimal silt or clay content) sands representing glacial outwash is present beneath the Gowanus Creek sediments. For the purposes of this RI, all the Gowanus Creek deposits and the glacial outwash are considered a single stratigraphic unit of native material. As shown in Figures 3-6a through 3-6c, the elevation of the native sediment surface ranges from approximately -13 feet to -44 feet NAVD88. The elevation of the native sediment surface within the canal north of 9th Avenue is typically between -18 and -20 feet NAVD88 and is generally slightly higher within the turning basins. The native sediment surface begins to deepen between the 9th Street and Hamilton Avenue bridges.

Table 3-1 summarizes the TOC content, grain size distribution and total percent fines content (silt plus clay fractions), percent solids, sulfide, bulk density, and percent moisture for each stratigraphic unit within the canal. Results for surface sediment (0-to-6-inch depth interval) in the canal and the Gowanus Bay and Upper New York Bay reference locations are shown separately. Data summarized in this table include the results from the USEPA's 2010 sediment-coring investigation, the USEPA's 2010 surface sediment sampling, and selected data for the soft sediment samples collected by National Grid in 2005 (GEI, 2007).

The TOC content was higher in the canal surface sediments than in the reference area sediment, with averages of 64,385 mg/kg and 28,358 mg/kg (6.4 and 2.8 percent), respectively. The TOC content was much higher in the soft sediment within the canal than in the native sediment, with averages of 119,650 mg/kg and 18,677 mg/kg (11.9 percent and 1.8 percent), respectively. The high TOC content of the soft sediment most likely reflects the CSO inputs to the canal. As part of the LTCP, NYCDEP estimated the loading of biological

[1] Soft sediment thickness was corrected for less than 100 percent core recovery. It is based on the difference between the elevation of the mudline (soft sediment surface) and elevation of the contact between the soft and native sediment units. The mudline elevation was determined from water depth measurements, tide stage readings, and bathymetry data. The elevation of the contact between the soft and native units was determined by the depth of core penetration and recovered thickness of native sediment. Surface deposits of gravel were considered part of the soft sediment layer.

oxygen demand (BOD) to the canal and noted that CSOs dominate these loadings relative to stormwater runoff (NYCDEP, 2008a). BOD is another measure of organic matter in a sample. High concentrations of organic contaminants (i.e., PAHs associated with NAPL) appear to have influenced TOC measurements in some samples; however, the overall high TOC content in the soft sediment is most likely attributable to CSO discharges.

The fines content in the canal surface sediment was slightly lower than that of the reference area. The percent fines in the surface sediment in the canal ranged from 41.5 to 89.9, with an average of 61.0. The percent fines in the reference area ranged from 56.4 to 90.3, with an average of 71.9. The percent fines content was generally similar in the soft and native sediment units. The percent fines in the soft sediment ranged from 20.4 to 89.8, with an average of 65.3. The percent fines in the native sediments ranged from 0.5 to 100, with an average of 49.3.

The solids content of surface sediment in the canal was lower than that of the reference area, with average values of 35.5 and 40.9 percent, respectively. The solids content in the soft sediment was much lower than in the native sediments, with average values of 53.8 percent and 81.2 percent, respectively.

The average sulfide concentrations in canal and reference surface sediments were 3,448 and 1,167 mg/kg, respectively. The average sulfide concentration was much higher in the soft sediments relative to the native sediments, with average concentrations of 3,909 mg/kg and 145 mg/kg, respectively.

Bulk density data were not collected during the USEPA 2010 investigation and the results summarized herein are from sampling performed by National Grid in 2005 (GEI, 2007). The bulk density of the soft sediments ranged from 0.31 to 1.98 g/cm^3, with an average value of 0.83 g/cm^3. Bulk density of native sediment ranged from 0.59 to 2.1 g/cm^3, with an average value of 1.5 g/cm^3.

3.4 Bulkhead Characteristics

A bulkhead inventory performed along the entire length of the canal by Brown Marine Consulting (2000) indicated that there are four primary types of bulkhead along the canal:

- Crib-type bulkheads, constructed of interlocking timbers or logs that are filled with backfill to form a type of gravity retaining structure
- Gravity retaining walls, built so that the weight of the wall itself provides stability
- Relieving platforms, which consist of a deck of timber or concrete supported on piles, typically timbers or logs, at an elevation high enough above the mean low water line to not require underwater construction techniques but low enough to keep the pilings continuously submerged
- Steel sheet pile bulkheads, which are a flexible wall constructed of steel sheets with interlocking joints. The steel is capped with concrete or masonry construction. Anchorage systems prevent outward movement and consist of a tie-rod and anchors (e.g., structures buried inshore of the bulkhead, such as massive concrete blocks or steel sheet piles)

NYCDEP (2008b) documented that the shorelines of the Gowanus Canal are entirely altered and are dominantly bulkheads with small areas of rip-rap or piers; the bulkheads north of Hamilton Avenue are generally constructed of wood or steel. The NYCDEP report also noted four areas within the study area where the shoreline consisted of rip-rap: between 11th Street and the Gowanus Expressway, between 17th and 19th Streets on the eastern side of the canal, between Sigourney Street and Halleck Street, and on the eastern end of Bryant Street on the western side of the canal.

Hunter Research et al. (2004) also surveyed bulkhead conditions, in 2003. That survey determined that approximately 73 percent of the bulkheads along the main canal and turning basins were crib-type bulkheads with timber construction. Approximately 10 percent of the bulkheads consisted of concrete or bridge abutments and 17 percent were timber or steel sheet piling-type barriers.

Figures 3-7a through 3-7e are representative photographs of the Gowanus Canal shoreline.

The 2000 survey (Brown Marine Consulting, 2000) concluded that the existing structures were sufficient only to support present loading conditions, and that any type of dredging activities could threaten bulkhead stability due to the deteriorated condition of the structures. The 2000 survey was based only on visual examinations of structures without physical or laboratory testing and recommended that a more thorough investigation of bulkhead integrity be performed if dredging is planned. The report also noted that an estimated 41.7 percent of the bulkhead length was in fair condition or worse.

Most recently, as part of the RI activities, Dolan Research, Inc., and JMA performed a review of the bulkheads along the canal to assess their significance and their potential eligibility for nomination to the NRHP. This review was based on historic information from the sources previously cited in this section as well as on a 1-day bulkhead inspection from water conducted on October 19, 2010. The report from Dolan Engineering and JMA is provided in Appendix M.

Documentary research and a high-resolution side-scan sonar survey identified known historic resources in the form of the canal bulkheads, as well as anomalies on the canal bottom, that will be subject to further investigation. The variety of bulkheads reflects an evolution of technology, a varied use of materials, and an effective means of maintaining the function of the canal, thus ensuring its role in the commercial development of Brooklyn. These resources, depending on their individual integrity, are considered to be eligible for nomination to the NRHP. Should the bulkheads be subject to adverse effects as a result of cleanup actions, a wide range of mitigating measures would be investigated and considered as part of the remedy. These measures would likely include additional documentation of bulkhead characteristics and the incorporation of archaeological and architectural investigations as appropriate.

Potential configurations of new construction that are in keeping with the historic character of the setting will be considered. As remediation methods are considered, further examination of anomalies on and within the sediments will be examined. This investigation could encompass further remote sensing or direct examination of the canal bottom.

3.5 CSOs, Storm Sewer Outfalls, and Other Outfall Features

The watershed for the Gowanus Canal is entirely urbanized. As described in Section 1.3.5, the majority of the drainage from the watershed is directed to storm sewer and combined sewer systems. Table 3-2 summarizes the physical and discharge characteristics of the New York City CSOs and storm sewer outfalls discharging to the canal (NYCDEP, 2008a). The permits for the outfalls are issued as part of the State Pollutant Discharge Elimination System (SPDES); permits are issued by the State of New York for the WPCPs.

Appendix G summarizes the results of the Phase 1 and Phase 2 outfall feature survey and lists identified features and physical information for each feature. The checklists completed in the field served as the basis for the table in Appendix G; these checklists are maintained in the project files. Figures 3-8a through 3-8h show the locations of the identified features. Also shown are the boundaries of the properties along the canal where a feature is physically located. Note that this does not imply that the property is or is not the origin of any effluent discharging through the outfall, but only that the outfall is physically located on the bulkhead along the property.

The Phase 1 survey located 220 features of interest, most of which were pipe outfalls. At the completion of the survey, the observed outfall features were correlated with outfalls identified in the following New York City Shoreline Survey Program reports for Owls Head and Red Hook WPCP service areas:

- *Shoreline Survey Report – Cycle I*, February 28, 2001
- *Shoreline Survey Report – Cycle II*, March 31, 2003
- *Shoreline Survey Report*, March 31, 2008

The pipe outfalls identified in these reports as being CSOs and storm sewers owned and operated by New York City are highlighted in green in the table in Appendix G. These outfalls were not investigated further as part of this RI.

For several outfall features, it could not be clearly determined whether they are associated with pipes owned and operated by New York City. These outfalls are highlighted in gray in the table in Appendix G.

All pipe outfalls other than the ones identified as being owned and operated by New York City were referred for further investigation in Phase 2 of this task.

Note that a number of outfalls identified in the New York City Shoreline Survey Program reports were not observed or could not be directly correlated to the observations during the pipe reconnaissance. These outfalls are listed in Table 3-3. It is not known whether these outfalls still exist.

The Phase 2 outfall feature survey obtained additional information on the outfalls identified along the canal. The Phase 2 survey also identified 27 additional features.

Appendix G presents the Phase 2 results, including information on the length of the traced features, feature diameter and material, distance from the outfall of observed lateral connections, whether the features were blocked, and other information.

3.6 Geology and Hydrogeology

The geology and hydrogeology of the area surrounding the Gowanus Canal are described below. Groundwater–surface water interactions are also characterized on the basis of the results of the hydrogeologic evaluation and water quality sampling performed in support of this RI.

3.6.1 Geology

Regional Geology

The following geologic units (in order of increasing depth and age) lie beneath the area surrounding the Gowanus Canal:

- Fill
- Alluvial/marsh deposits
- Glacial sands and silts
- Bedrock

Fill materials are associated with canal construction and subsequent industrialization and recontouring of the area, much of which was originally marshland. The fill consists of silts, sands, and gravels mixed with fragments of brick, metal, glass, concrete, wood, and other debris.

The alluvial/marsh deposits lie below the fill and are composed of sands (alluvial deposits from flowing water bodies), peat, organic silts, and clays (marsh deposits). These alluvial/marsh deposits are associated with the original wetlands complex that was present when the area was settled.

A thick sequence of glacial deposits occurs below the alluvial/marsh deposits. The full thickness of the glacial deposits was not penetrated in this investigation, but the observed glacial deposits were composed mostly of coarser grain sediments (sands and gravel) but also occasional beds of silt. These glacial sands, silts, and gravel were deposited as glacial ice melted during the retreat of the last ice age. At the base of the glacial sequence lies a layer of dense clay, deposited by the glacier or prior to glaciation.

Weathered and competent bedrock underlies the glacial deposits. The bedrock consists of a medium- to coarse-grained metamorphic rock known as the Fordham Gneiss (GEI, 2005).

Site-Specific Geology

Soil borings and monitoring wells were installed at properties adjacent to the Gowanus Canal and in the vicinity of the canal during the RI. Site-specific geological cross-sections were developed based on lithologic descriptions of soil samples recorded on boring logs during drilling activities. Figure 3-9 is a plan-view map of the area showing the cross-section locations. Cross-section A-A′ (Figure 3-10a) extends along the length of the canal, running roughly perpendicular to Gowanus Bay. Cross-sections B-B′, C-C′, D-D′, and E-E′ (Figures 3-10b through 3-10e) lie roughly perpendicular to the canal and are spaced from the head of the canal (section B-B′) to where the canal connects to Gowanus Bay (section E-E′). The cross-sections show a vertical slice of the geologic materials found below ground along

the line of the section and are used to visually assess the general nature and stratigraphic relationships (presence, thickness, sediment type, etc.) of the geologic deposits.

Section A-A′ (Figure 3-10a) shows that geologic deposits encountered during drilling activities include fill, alluvial/marsh deposits, and glacial deposits. The fill along this section ranges from 5 to 15 feet thick and is underlain by alluvial/marsh deposits. The alluvial/marsh deposits are about 10 to 45 feet thick, with the thickness increasing toward Gowanus Bay. Two large sand lenses occur within the alluvial/marsh deposits. Glacial deposits consisting mainly of sands and gravels underlie the alluvial/marsh deposits. The depth to the top of the glacial deposits also increases toward Gowanus Bay. Boring logs reveal well-marked contacts between the fill and the alluvial/marsh deposits and between the alluvial/marsh deposits and the glacial deposits, suggesting deposition of the overlying unit on the eroded surface of the underlying unit.

Based on these cross-sections, the depositional history along the canal starts with sands and gravels deposited by melting glaciers followed by a period of erosion, creating an uneven surface sloped toward Gowanus Bay. Alluvial/marsh sediments (including organic silts and peats) were deposited on top of the eroded surface along the Gowanus Bay shoreline and continued to accumulate until the land was developed. Recontouring the marshes generated the fill deposits noted in the upper 5 to 15 feet of the ground surface.

The cross-sections across the canal (Figures 3-10b to 3-10e), are consistent with the section A-A′ and show a general layer-cake-like stratigraphy. Cross-sections B-B′ and C-C′ (Figures 3-10c and 3-10c, respectively), located across the upper reaches of the canal, exhibit a thin layer of peat within the alluvial/marsh deposits, which are truncated by the channel of the canal. Cross-section D-D′ (Figure 3-10d) shows the canal cutting into one of the large sand layers within the alluvial/marsh deposits. Cross-section E-E′, located near Gowanus Bay, shows that the original canal bottom (i.e., below the soft sediments) extended through the alluvial/marsh deposits down into the glacial deposits.

3.6.2 Hydrogeology

Regional Hydrogeology

The primary aquifer beneath the Gowanus Canal and surrounding uplands is identified as the Upper Glacial Aquifer, which generally occurs in the thick sequence of glacial deposits but may include sandy units in the alluvial/marsh sediments. The Upper Glacial Aquifer extends across Kings County, Queens County, and contiguous Long Island, in places forming an important source of groundwater supplies (NYCDEP, 2010a).

The Upper Glacial Aquifer appears generally unconfined, although local beds of silt and clay may confine underlying sand beds. In the Upper Glacial Aquifer, regional groundwater flows to the west/southwest toward Gowanus Bay. Groundwater-bearing zones in the fill and alluvial/marsh deposits discharge to the Gowanus Canal. Tidal influences in Gowanus Bay and in Gowanus Canal affect the specific groundwater discharge rates and flow conditions.

Site-Specific Hydrogeology

Groundwater-monitoring wells in the area are installed at depths of about 15 feet (shallow well) and about 35 to 45 feet (intermediate well). The shallow wells intersect the water table,

typically screening the fill and alluvial/marsh deposits. Intermediate-well screen zones are in the glacial deposits, as depicted in the geologic cross-sections (Figures 3-10a to 3-10e). A review of the cross-sections shows that the first-encountered groundwater occurs in the fill deposits.

Groundwater Elevations

Groundwater elevations were measured in the shallow and intermediate wells over a 6-month period, from July to December 2010, to characterize seasonal conditions. Water level measurements in monitoring wells and in the canal were collected over approximately a 1-hour period to minimize tidal effects. Monthly measurement events typically captured a period of peak high or low tide.

The elevations for the shallow wells are shown in Figures 3-11a through 3-11f and for the intermediate wells in Figures 3-11g and 3-11h.

A review of the elevations from the shallow wells indicate that in general, the water level elevations in wells closer to the canal are lower than in wells further away from the canal. Thus, shallow groundwater flows toward the canal, at both high and low tide. As an example, wells MW-39, MW-38, and MW-37 show a consistent decreasing groundwater elevation toward the canal during low tide (4.77 feet NAVD88 to 1.49 feet NAVD88 in July; Figure 3-11a), indicating groundwater flow toward the canal.

A review of the elevations from the intermediate wells indicates that groundwater elevations are relatively consistent during the high and low tides, except in the wells closest to Gowanus Bay. In these wells (i.e., monitoring wells MW-13, MW-14, MW-15, and MW-16), the intermediate groundwater elevations during high tide were about 0.5 to 1 foot higher on average than during low tide. These data indicate that there is a tidal influence on the intermediate groundwater elevations, which would affect the intermediate groundwater flow conditions.

3.6.3 Tidal Effects on Gowanus Canal Surface Water and Groundwater

A 1-week tidal study was performed by installing pressure transducers in the Gowanus Canal and selected monitoring wells screened within both the shallow and intermediate groundwater zones along the canal. The results of the tidal evaluation are summarized below, with the full tidal evaluation analysis and supporting details in Appendix E.

The following conclusions were drawn from the tidal evaluation:

- Observed distribution of lateral groundwater gradients in relation to Gowanus Canal indicates that local groundwater flows toward and discharges to the canal.
- Strong sinusoidal, oscillating, potentiometric fluctuations in the shallow monitoring wells indicate that the shallow water-bearing zone maintains a strong hydraulic connection with Gowanus Canal.
- The direction of vertical gradients displayed in monitoring well clusters adjacent to Gowanus Canal appeared invariably upward, the expected direction of flow in a location where groundwater discharges to a surface water body.

- With only one exception, the direction of vertical gradients in monitoring well clusters located 150 feet from the canal were downward, typical of the direction of groundwater flow in an upland, recharge area.
- The maximum tidal fluctuation in Gowanus Canal ranged between 4.2 and 4.3 feet along its full length, extending from Gowanus Bay to 8,000 feet inland. Tidal fluctuations within the canal exhibited no evidence of attenuation with distance from the bay.
- Potentiometric fluctuations attributable to tidal oscillations (changes in groundwater elevations due to tidal influences) ranged up to a maximum of 3.75 feet at MW-3S, located within 13 feet of the canal. Conversely, hydrographs from several shallow monitoring wells located farther than 150 feet from the canal displayed no tidal influence.
- As is typical in unconfined aquifer systems, sinusoidal potentiometric oscillations (i.e., regularly spaced changes in groundwater levels due to tidal influences) attenuated to less than 0.1 feet at distances greater than 300 feet from Gowanus Canal in the shallow monitoring wells.
- All of the intermediate monitoring wells exhibited sinusoidal oscillations typifying tidal influences. Potentiometric fluctuations ranged to greater than 3.0 feet in wells adjacent to Gowanus Canal.
- Distance from Gowanus Bay also appeared to influence the magnitude of potentiometric fluctuations in the intermediate wells. Most of the intermediate wells screen sediments below the base of Gowanus Canal. Thus, loading/unloading of the tidal wedge promoted a potentiometric response, rather than direct infiltration of surface water into the intermediate water-bearing unit.
- By the use of graphical methods to predict attenuation of tidal fluctuations in the intermediate wells, sinusoidal potentiometric oscillations attenuated to less than 0.1 feet at distances greater than 500 feet from Gowanus Canal.

3.7 Water Chemistry Evaluation

The interaction of surface water and groundwater adjacent to the Gowanus Canal was characterized by examining water quality data collected from shallow monitoring wells, intermediate monitoring wells, and surface water locations in the canal. Comparison of geochemical signatures in water and analytical results for specific constituents support characterizing the contribution of groundwater to a surface water body. A summary of the results of the groundwater–surface water evaluation is presented below, with the full analysis and supporting detail provided in Appendix F.

3.7.1 Gowanus Canal Surface Water Chemistry

- The pH of canal water ranged from mildly acidic (6.2) to mildly alkaline (7.9). Sea and estuarine waters like Gowanus Bay exhibit relatively alkaline values, from 7.9 to 8.2 (Hem, 1985). Thus, appearance of acidic pH values in the canal water may reflect areas influenced by inflow of groundwater to the canal.

- Most DO measurements in the canal ranged between 2 and 5 mg/L, which are relatively low concentrations for surface water.
- Canal water (cation/anion) chemistry closely matched representative sea water samples (Hem, 1985), suggesting that tidal incursion from the bay exceeds groundwater contributions to the canal.
- Total dissolved solids (TDS) concentrations in Gowanus Canal exhibited no systematic decline with distance from Gowanus Bay. The absence of a declining trend proceeding upgradient (inland) implies a minimal contribution of groundwater to the canal as base flow.
- Elevated TOC concentrations appear in soft sediment lining the canal and in groundwater samples (TOC > 10 mg/L) from proximal, shallow monitoring wells. In these locations, elevated TOC concentrations were also encountered in surface water samples from Gowanus Canal. TOC is typically absent from representative sea and estuarine water samples.

3.7.2 Groundwater Chemistry in Monitoring Wells

Groundwater Chemistry in Shallow Monitoring Wells

Shallow monitoring wells included in the water quality study are screened in saturated materials in the fill and/or alluvial/marsh deposits.

- The pH of groundwater from the shallow monitoring wells ranged nearly two units from 6.5 to 8.3, with an average of 6.7.
- None of the samples exhibited TDS concentrations equaling those in the freshwater range (TDS results were greater than 500 mg/L, which is the threshold for freshwater).
- In well pairs adjacent to the canal and in the uplands, TDS concentrations consistently declined with distance from the canal. Although factors such as road deicing and saline misting of seawater onto the Brooklyn peninsula can increase shallow groundwater salinity, the narrow distribution of elevated TDS concentrations adjacent to Gowanus Canal suggests infiltration from the canal controls water quality in the shallow monitoring wells.
- Major cation and anion composition displays several different water types in the shallow water-bearing zone, including sodium chloride, sodium bicarbonate, and calcium bicarbonate types. Sodium chloride water can originate from the Gowanus Canal, whereas calcium and sodium bicarbonate suggest infiltration of precipitation and freshwater recharge.
- DO concentrations fall in the anoxic range (DO less than 1.1 mg/L; Stuyfzand, 1994), which is typical of an urban environment where oxygen-rich recharge from precipitation is reduced by impervious cover.
- TOC concentrations at individual wells appeared to be consistent with DOC concentrations, indicating equilibrium with materials in the subsurface. Areas showing elevated TOC concentrations coincided with elevated concentrations of VOCs and SVOCs at MW-9S, MW-16S, and MW-18S.

Groundwater Chemistry in Intermediate Monitoring Wells

Most intermediate wells are screened in the glacial deposits, although screens from several wells spanned both the alluvial and glacial deposits.

- Regarding most constituents, the intermediate monitoring wells as a group exhibited more uniform water chemistry than the shallow wells.
- The pH of water sampled at the intermediate monitoring wells ranged from 6.3 to 8.0 and averaged 7.1.
- With three exceptions, TDS concentrations in the intermediate monitoring wells fell in the brackish classification. With two exceptions, TDS concentrations progressively declined with distance from Gowanus Bay.
- As with the shallow wells, TDS concentrations decreased with distance from Gowanus Canal. With the exception of two wells, all water samples displayed a sodium-chloride water type. The remaining two wells, located at the northeastern end of the canal, exhibited mixed cation-bicarbonate water types, along with lower TDS concentrations, which is suggestive of mixing with groundwater recharge.
- Average DO concentrations measured in the intermediate wells appeared in the anoxic range, as with the shallow wells.
- With two exceptions, TOC concentrations in the intermediate wells were less than 3.0 mg/L.

3.7.3 Interactions Between Shallow and Intermediate Zones

- Differences in water temperatures and TDS concentrations indicate that the shallow fill/alluvium and intermediate glacial deposits represent separate hydrologic systems at most locations.

3.7.4 Interactions Between Groundwater and Surface Water

- Based on differences in water temperatures and TDS concentrations between the intermediate monitoring wells (glacial deposits) and the shallow wells (fill/alluvium), along with the observed decline in TDS concentrations with distance from the canal, it is concluded that Gowanus Canal water influences water quality in the shallow fill/alluvium to a greater degree than water in the intermediate glacial deposits does.
- Sodium-chloride water predominates in both the shallow alluvium and intermediate glacial deposits adjacent to the canal, which indicates that recharge from the canal is taking place.
- Moving away from the canal, groundwater chemistry in the shallow alluvium beneath the uplands exhibits calcium-bicarbonate chemistry, which is more typical of water recharged by precipitation (e.g., rain).
- Geochemical water characteristics exhibit differing patterns with well depth and distance from the Gowanus Bay and with distance from the canal. Groundwater at wells adjacent to the canal in the shallow alluvium/fill exhibits sodium-chloride concentrations, that suggest recharge of groundwater from the canal. By comparison,

groundwater in the glacial deposits and away from Gowanus Bay consists of mixed cation-bicarbonates and lower TDS concentrations, suggesting fresh water recharge.

- Three of the monitoring well/canal stations were used for both the tidal and water quality study. In all three locations, canal water elevations exceeded groundwater potentiometric elevations in the shallow fill/alluvium at high tide. Canal elevations exceeded potentiometric elevations in the glacial deposits intermittently during high tide at two of the three locations creating hydraulic conditions for surface water to flow into shallow aquifer sediments.
- The uniformity of water chemistry along the length of Gowanus Canal in regard to TDS and cation/anion type shows little evidence of dilution by inflow of groundwater. The water quality in Gowanus Canal appears to impose a strong imprint on the water chemistry of the shallow groundwater and at specific locations in the intermediate groundwater located near the canal. Other than TOC, water chemistry in the canal exhibits minimal evidence of a groundwater contribution although the volumetric fluctuation in canal water volume makes measurement of comparatively lower volume contributions from groundwater difficult to measure.

3.8 Overview of Groundwater–Surface Water Interaction

Combined results of the synoptic, tidal and groundwater-surface water chemistry studies provide multiple lines of evidence to characterize the hydraulic relationships between local groundwater and the Gowanus Canal. Potentiometric surfaces developed from the synoptic (instantaneous point in time) measurement events suggests that, at the water table, groundwater flows toward Gowanus Canal. Potentiometric data from intermediate wells depicts a more-complex pattern, with groundwater generally flowing upward toward the canal, which is typical of a discharge area.

Data from the 5-day tidal evaluation portrays a more temporally controlled flow pattern than the synoptic study. At specific locations, canal elevations consistently exceeded groundwater elevations in the shallow fill/alluvium at high tide, creating hydraulic conditions for surface water to flow into shallow aquifer sediments. These conditions, although apparent, appeared more intermittent over the tidal study period than in wells screened in the intermediate glacial deposits.

- Gowanus Canal exhibits a uniform chemical signature (TDS, temperature, cation/anions, etc.) along its entire length, suggesting minimal influence by groundwater flow contribution. Furthermore, water chemistry in monitoring wells near the canal exhibit chemical signatures similar to the canal's, suggesting infiltration of surface water into the fill/alluvium. Only the spatial distribution of pH in surface water samples along the canal's length and a concentration gradient of TOC toward the canal imply that the contribution of groundwater locally affects canal water chemistry. The volumetric fluctuation in canal water volume, however, makes measurement of comparatively lower volume contributions from groundwater difficult to measure.

Given its saline nature, the ionic strength of surface water from the Gowanus Canal ranges several orders of magnitude greater than most groundwater in the fill/alluvium and glacial deposits. Thus, a large contribution of groundwater is necessary to significantly influence

the chemistry of water in the canal. However, given its saline nature, even short periods of reversed flow from the canal into fill/alluvium and glacial deposits could alter groundwater signatures.

Although evaluation of data from the synoptic and tidal studies produced lateral and vertical gradients supporting the flow of groundwater to the canal, temporal exceptions to this flow pattern emerged. Hydraulic data from these studies generally support the similarity in canal and groundwater chemistries proximal to Gowanus Canal. The three studies suggest that local groundwater from the fill/alluvium and glacial deposits flows generally toward the Gowanus Canal, although the flow pattern appears to reverse locally and with temporal regularity. Groundwater flow volumes into Gowanus Canal appear insufficient to alter its basic chemical signature. Conversely, because of its saline nature, infiltration of canal water even for brief diurnal periods influences groundwater chemistry in the fill/alluvium.

SECTION 4

Nature and Extent of Contamination

This section summarizes the analytical results for the samples collected for the Gowanus Canal RI and evaluates the nature and extent of the contamination. It is organized as follows:

- Overview of the quality of the RI data
- Description of the standards and criteria (collectively referred to as screening values) used to evaluate the sampling results
- Summary of the results for the media that were sampled, including sediment, surface water, tissue, outfall discharges (CSOs and other pipe outfalls), air, soil, and groundwater

Because of the large quantity of data collected (over 1300 samples), the tables in this section provide only statistical summaries of the analytical results for constituents detected in each media. The statistical summaries indicate the total number of samples, how frequently each constituent was detected, the range of concentrations, and the average concentrations. The tables also provide the ecological and human health screening values that were used to assess the magnitude of contamination, and the number of samples with concentrations higher than the screening values. The standards and criteria used to evaluate the results are discussed further in Section 4.2.

Complete analytical results are provided in Appendix I. Two sets of tables are provided in the appendix: one set with all results for all samples (including detection limits for non-detected results), and another set showing only detected concentrations. The tables with only detected concentrations compare the results to the screening values identified for each medium and identify results that are higher than these values. The purpose of these comparisons is to assess the magnitude of the measured chemical concentrations; however, the specific chemicals that are likely to be causing unacceptable ecological and human health risks are identified in the ERA and HHRA.

4.1 Data Quality Review

A data quality evaluation was performed on all analytical data (primary, secondary, definitive, screening) for this project. All samples were collected and analyzed according to Phase II Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) and Phase III UFP-QAPP. Data underwent various levels of verification and validation as specified in the respective UFP-QAPPs (Worksheets 34, 35, and 36).

- Primary definitive data, which are used in the risk assessments and to determine the nature and extent of contamination, underwent Level IV validation via the EPA CLP program using Region II Standard Operating Procedures (SOPs). This was done on all data generated via the EPA CLP program. This is the most in-depth level of validation.

- Air data underwent internal Level III validation against the limits specified in the Phase III UFP-QAPP. If an exceedance was noted, the data were qualified, as applicable, using the qualifiers specified in the Region II SOPs. Level III validation includes all laboratory QC forms, including those for calibration.
- Primary screening data, such as wet chemistry analyses, underwent Level III validation against the limits specified in the Phase III UFP-QAPP. If an exceedance was noted, the data were qualified, as applicable, using the qualifiers specified in the Region II SOPs.
- Primary screening data, such as AVS/SEM and grain size distribution, underwent Level II validation (laboratory QC forms only). If an exceedance was noted, the data were qualified, as applicable, using the qualifiers specified in the Region II SOPs. Level II validation includes all laboratory QC forms provided.
- Primary data to support waste characterization and disposal underwent a cursory review and check for completeness.
- Secondary data (definitive and screening) were validated by the contractor that generated the data as specified in their respective UFP-QAPP. These data were used considering the restrictions placed on secondary data in the Phase III UFP-QAPP. They were not used for estimating the potential human health and ecological risks associated with the canal. Rather, they were used for evaluating general environmental conditions. As above, secondary data were included in the data quality evaluation.

All reported data are accompanied by their qualifiers, if applicable. Appendix H provides the complete data quality evaluation. All data are available for use by the project team as qualified with the exception of rejected data. Rejected data are not usable as detects or non-detects for any purpose. Rejected data accounted for 2.20 percent of this data set, and thus 97.80 percent of data are available for use, qualified as applicable. This outcome exceeds the 90 percent completeness goal for this project.

Table 4-1 provides the definitions and general distribution of data qualifiers including their general effect on the data use.

4.2 Evaluation Criteria

Chemical concentrations detected in various media were compared with federal or state standards and criteria or literature-based values to help define the nature and extent of contamination. The sources of these standards and criteria and values (collectively referred to as screening values in this report) are listed in Table 4-2. Because numerous sources were used to obtain standards and criteria for as many constituents as possible, a letter was assigned to each source. These letters are used in the data tables in Appendix I and in the statistical summary tables in this section to identify chemicals with detected concentrations that are higher than the standards and criteria.

Table 4-2 also describes how the standards and criteria were applied to each medium sampled; specifically, a prioritization order was designated for media with multiple standards and criteria. Table 4-3 summarizes the letters that represent the various standards and criteria applied to each medium. The complete list of standards and criteria is provided in Appendix C.

4.3 Sediment

The nature and extent of contamination in Gowanus Canal sediments, including the occurrence and distribution of NAPL and sediment-associated contaminants in surface and subsurface sediments, are described below.

4.3.1 Surface Sediment

Sampling results for surface sediment (0-to-6-inch depth interval) are presented below. Complete analytical results for all sediment samples are provided in Appendix I.

Surface sediment data for the 27 locations within Gowanus Canal were evaluated by:

- Calculating summary statistics for detected parameters
- Comparing results with screening values to assess the relative magnitude of contamination, and
- Identifying constituents that were present in concentrations significantly higher in the canal than in the 10 Gowanus Bay and Upper New York Bay reference locations.

Concentrations for a subset of constituents were also mapped to illustrate spatial distribution. Although analytical results are compared with screening levels in this section, the constituents of potential concern (COPCs) that may be causing unacceptable risk are identified in the ERA and HHRA (Appendixes K and L, respectively).

Statistical summaries for constituents detected in the canal and the reference area surface sediment samples are provided in Tables 4-4a and 4-4b, respectively; screening values are also included in Table 4-4a. The complete analytical results for surface sediment samples are provided in Appendix I, Tables I-1a through I-6a, and a sample-by-sample comparison with ecological and human health screening values is provided in Tables I-1b through I-6b. The results are discussed in general terms by parameter class below. Results of AVS/SEM analyses are included in the BERA.

VOCs

Eighteen VOCs were detected in surface sediment samples from the canal. Three VOCs exceeded screening values, as follows:

- Ethylbenzene concentrations were higher than the ecological screening value in four samples, with a maximum concentration of 3,600 µg/kg at location 315, at the mouth of the 7th Street turning basin (Figure 2-3a).
- Concentrations of m,p-xylenes and o-xylene were higher than the ecological screening value in the sample from location 315, at 810 and 1200 µg/kg, respectively.

None of the concentrations were higher than human health screening values.

The results from the reference area sediments are summarized in Table 4-4b; only three VOCs were detected, with a maximum concentration of 41 µg/kg for acetone.

SVOCs

Twenty three individual SVOCs were detected in surface sediment samples from the canal. PAHs were the most frequently detected SVOCs.

- PAHs were detected in all samples at higher concentrations than any other SVOC; the only other detected parameters were biphenyl, carbazole, dibenzofuran, and phthalates.
- Total PAH[1] concentrations are higher than the ecological screening value of 4,022 µg/kg in all samples, and in most cases by a large magnitude.
- The range of total PAH concentrations was 10,900 to 8,000,000 µg/kg (0.8 percent), with a mean value of 527,000 µg/kg (0.05 percent).
- Total PAHs were detected in all samples from the reference area; however, the concentrations were markedly lower, ranging from 1,030 to 14,400 µg/kg, with a mean of 5,790 µg/kg.

Figures 4-1a through 4-1d illustrate the concentrations of total PAHs in the canal and reference area surface sediments.

- Total PAH concentrations in the upper reach of the canal were variable, ranging from 10,890 µg/kg at location 301, near the head of the canal, to 142,880 µg/kg at location 308A, at the north end of the canoe launch near 2nd Street (Figure 4-1a).
- Total PAH concentrations in the middle canal (Figure 4-1b) are uniformly higher, particularly within and downstream of the 6th Street turning basin to immediately downstream of the Gowanus Expressway, with total PAH concentrations ranging from 15,830 µg/kg at location 313 to 8,001,000 µg/kg (0.8 percent), the highest total PAH concentration observed, at location 315 at the mouth of the 7th Street turning basin.
- Below the Gowanus Expressway, total PAH concentrations in surface sediment sharply drop, ranging from 16,350 to 83,220 µg/kg (Figure 4-1c).
- Total PAH concentrations were variable in the reference area sediment, but were lower than concentrations observed within the canal (Figure 4-1d). Total PAH concentrations at reference locations ranged from 1,030 to 14,410 µg/kg.

Pesticides

Seven pesticides were detected in surface sediment samples from the canal. Pesticides were detected infrequently (i.e., between one and five detections in 27 total samples).

- Detected pesticides were alpha-chlordane, gamma-chlordane, the DDT isomers,[2] beta endosulfan, endosulfan sulfate, and methoxychlor.

[1] Total PAHs were calculated by summing the detected values of the 16 priority pollutant PAHs; if any PAH constituent had a rejected, or "R"-flagged, result, a total PAH value was not calculated for the sample.

[2] DDT isomers include p,p'-DDD, p,p'-DDE, and p,p'-DDT. Total DDT concentrations were calculated by summing the detected values of the DDT isomers; if any individual constituent had a rejected, or "R"-flagged, result, a total DDT value was not calculated for the sample.

- The detected pesticide concentrations were all higher than ecological screening values, with a maximum concentration of 1,100 µg/kg for total DDT at location 315 at the mouth of the 7th Street turning basin (Figure 2-3b).
- Pesticides were not detected in any of the reference area samples.

PCBs

Total PCBs, calculated as the sum of detected Aroclors, were detected at 10 of the 27 sample locations within the canal, with the maximum detected concentration of 3,400 µg/kg found at location 314 at the head of the 6th Street basin (Figure 2-3b). Aroclors 1016 and 1260 were the most frequently detected PCBs. Total PCB concentrations were higher than the ecological and human health screening values at all 10 locations where PCBs were detected. PCB Aroclors were not detected in any of the reference area samples.

Figures 4-2a through 4-2d show the concentrations of total PCBs within the canal and reference area surface sediments. Although total PCBs were not frequently detected, they are a concern because of their tendency to bioaccumulate in the food chain. PCBs were primarily detected in surface sediments collected from the middle section of the canal (Figure 4-2b).

- The highest concentrations were observed within or near the 6th Street and 7th Street turning basins, at locations 314 (3,400 µg/kg), 315 (2,400 µg/kg), and 316 (2,200 µg/kg).
- Downstream of the 7th Street turning basin, total PCB concentrations are lower.
- PCBs were detected only at location 308A in the upper reach of the canal (Figure 4-2a) and at locations 320 and 325 downstream of the Gowanus Expressway (Figure 4-2c).
- PCBs were not detected in reference area sediments (Figure 4-2d).

Data for PCB congeners that were used in support of the human health and ecological risk assessments are provided in Appendix I, Table I-5.

Metals and Cyanide

Twenty one metals and cyanide were detected in surface sediments samples.

- Cadmium, copper, lead, and mercury concentrations were higher than the ecological screening values at all 27 locations sampled.
- Other metals with concentrations higher than the ecological screening value were arsenic, barium, chromium, manganese, nickel, silver and zinc.
- Concentrations of a different set of metals were higher than the human health screening values – aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, and vanadium.

Location 308A, at the north end of the canoe launch, had the greatest number of maximum detected metals concentrations, including cadmium (20.2 mg/kg), copper (790 mg/kg) and lead (4,220 mg/kg) (Figure 2-3a). Metals were detected in all reference area samples but were typically observed at concentrations lower than those in the canal.

Figures 4-3a through 4-3d illustrate the concentrations of lead within the canal and reference area surface sediments. Lead was selected for mapping because it had the highest concentrations relative to screening values and reference concentrations. The lead concentrations in surface sediment in the upper canal ranged from 184 mg/kg at location 309 to 4,220 mg/kg at location 308A, at the north end of the canoe launch (Figure 4-3a). Lead concentrations in the middle canal ranged from 355 mg/kg at location 313 to 1,600 mg/kg at location 315 (Figures 4-3b). Lead concentrations sharply decreased below the Gowanus Expressway and ranged from 146 to 360 mg/kg (Figure 4-3c). Lead concentrations in reference area surface sediments were lower than those observed within the canal (Figure 4-3d). Lead concentrations at the reference locations ranged from 25.5 to 244 mg/kg.

Comparison to Reference

Analytical results for Gowanus Canal surface sediment samples were compared with reference sample results using a test that compared the central tendencies of canal and reference area data sets. The test of central tendency can determine with statistical confidence whether the canal and reference area populations, on average, differ from one another (USEPA, 2006). Either the Wilcoxon rank-sum (WRS) test or Gehan's test was applied to determine with 95 percent confidence whether contaminant concentrations in the canal were greater than those at the reference locations. The WRS test was used when the detection frequency in each data set was at least 60 percent; otherwise, Gehan's test was used. Statistical comparisons were not performed when fewer than 10 results were available in either the canal or reference area data sets.

The results of the statistical comparison of canal and reference area surface sediment samples are provided in Table 4-5. The comparisons indicated that there were no significant differences between the VOC and pesticide concentrations in canal and reference area surface sediments. The concentrations of individual PAH compounds, total PAHs, bis(2-ethylhexyl)phthalate, Aroclor 1260, total PCBs, barium, cadmium, chromium, copper, lead, mercury, nickel, and silver in surface sediment were significantly greater in the canal than in the reference area.

4.3.2 Subsurface Sediment

Sampling results for subsurface sediment (soft and native sediments below a depth of 6 inches) are presented below. Complete analytical results for all sediment samples are provided in Appendix I. Subsurface sediment data within Gowanus Canal were evaluated in the same manner as surface sediments.

Previous investigations of the Gowanus Canal established that soft sediments were contaminated throughout the study area (USACE, 2004, 2006; GEI, 2007). Therefore, the specific objectives of the sediment coring effort performed for this RI were to confirm the chemical concentrations in soft sediment, establish continuous profiles of chemical concentrations at a subset of coring locations, and comprehensively characterize chemical concentrations in native sediment to delineate the vertical extent of contamination within the practical limits of the potential remedy. The most comprehensive previous evaluation of the canal sediments was the RI performed by National Grid between 2005 and 2007 (GEI, 2007); soft-sediment data from the National Grid investigation along with new soft sediment data collected by USEPA from continuous cores at specific locations are used herein to characterize the overall nature and extent of contamination in soft sediment. Only the

USEPA data set was used to characterize the native sediment because the USEPA sample design focused on a systematic, continuous characterization of native sediment to a target depth of 6 feet below the contact between soft and native sediments.

Soft sediment and native sediment data collected at the sediment coring locations in the Gowanus Canal were evaluated by (1) calculating summary statistics for detected parameters, (2) comparing results with ecological and human health screening values, and (3) comparing chemical concentrations in soft and native sediment. Even though the subsurface sediments are buried and not accessible to humans or wildlife, the comparison to screening values was performed to assess the magnitude of contaminant concentrations. In addition, vertical profiles of total PAH, total PCB, and lead concentrations were mapped at locations with continuous core profiles. The scale for each core profile is based on the range of concentrations measured in that core. The full set of profiles is provided in Appendix N, and a subset of core profiles is presented below. Total PAH concentrations in sediment at the vertical limit of the investigation also were evaluated and longitudinal profiles (i.e., along the length of the canal) for key constituents were prepared.

Statistical summaries for chemicals detected in soft sediment and native sediment samples are provided in Tables 4-6 and 4-7a. The analytical data results for the soft sediment samples are provided in Tables I-8a through I-12a; comparisons of individual sample results to ecological and human health screening values are presented in Tables I-8b through I-12b. The complete analytical and screening results for the native sediment samples are provided in Tables I-14a through I-18a and I-14b through I-18b, respectively. Selected whole-core composite samples were collected for TCLP, reactivity, ignitibility, and corrosivity testing. These results are presented in Table I-20 and are not discussed in the RI. These data will be used in the FS to determine appropriate material-handling technologies and to guide potential additional testing for treatability studies or disposal characterization.

Overall, a wide variety of VOCs, SVOCs, pesticides, PCBs and metals were detected in the subsurface sediments. Generally, chemical concentrations were higher in subsurface soft sediment than in surface sediment, and concentrations of all constituents except VOCs and PAHs were substantially lower in native sediment than in the soft sediment.

Non-Aqueous Phase Liquid

NAPL is free-phase hydrocarbon product that was visually evident in sediment cores. NAPL was commonly observed in sediment cores collected from the canal and in soil borings advanced at upland locations adjacent to the canal. NAPL is described in this report on the basis of field observations using the following three categories: (1) no visual evidence of NAPL; (2) presence of NAPL coatings, stains, sheens, or blebs; and (3) NAPL saturation (i.e., pore spaces completely filled with NAPL). NAPL samples were not collected and submitted to a laboratory for analysis; NAPL consists of pure organic products such as PAHs, benzene, toluene, ethylbenzene, and xylenes (BTEX compounds).

Selected photographs of sediment cores showing soft sediment, native sediment, and examples of NAPL-saturated sediment are presented in Figure 4-4a through 4-4c. The locations depicted are representative of the sediments observed in the canal.

Maps showing the distribution of NAPL in soft sediment and adjacent upland soils above -20 feet NAVD88 (the approximate elevation of the bottom of the soft sediment) are shown

in Figures 4-5a through 4-5c. The distribution of NAPL in the native Gowanus Creek sediments and upland soils below -20 feet NAVD is shown in Figures 4-5d through 4-5f. Cross-sections illustrating the vertical distribution of NAPL in soft and native sediments along the length of the canal were also prepared. Cross-section locations are shown in Figure 4-6a, and the cross-sections are presented in Figures 4-6b through 4-6d. These maps and cross-sections are based on visual observations recorded on field logs. Note that soft sediment thicknesses shown on the cross-sections were corrected for less than 100 percent core recovery as described in Section 3.3. At locations where no soft sediment was recovered, the inferred soft sediment thickness is shown as a single vertical line.

NAPL is less common and typically present in smaller amounts in soft sediment than in native sediments. As shown in Figures 4-5a through 4-5c, NAPL is most commonly observed in the soft sediment north of the Hamilton Avenue bridge, particularly near the head of the canal and in the middle canal adjacent to the Carroll Gardens/Public Place and Metropolitan former MGP sites. NAPL was observed in soft sediment at only five locations south of Hamilton Avenue. In soft sediment, NAPL occurred primarily as coatings, stains, sheens, or blebs; NAPL-saturated soft sediment was primarily observed at sampling locations near the Carroll Gardens/Public Place former MGP site. NAPL coatings, stains, and sheens were often observed in shallow soils in borings adjacent to the canal near the three former MGP sites. Soils were NAPL-saturated in four shallow soil borings: two near the Fulton former MGP site and two between the Metropolitan and Carroll Gardens/Public Place former MGP sites.

As shown in Figures 4-5d through 4-5f, NAPL was present in native sediment at nearly all of the sampling locations where it was recovered. The degree of NAPL contamination in the native sediments is much greater than in the soft sediments, as evidenced by the presence of NAPL-saturated native sediments throughout most of the canal north of Hamilton Avenue. NAPL impacts in native sediment were less severe south of Hamilton Avenue, with sediments at eight locations exhibiting coatings, staining, sheens, or blebs and no NAPL saturation.

As shown in Figures 4-6b through 4-6d, the native sediments at the bottoms of the cores at most locations in the upper and middle canal were affected by NAPL. The greatest thicknesses of NAPL-contaminated native sediment were recovered between Carroll Street and 3rd Street (Figure 4-6b), and between 5th Street and Huntington Street (Figure 4-6c). Up to 16 feet of NAPL-saturated native sediment were recovered within this area. Below Hamilton Avenue, NAPL occurrence in the native sediments is markedly lower (Figure 4-6d).

VOCs

Seven VOCs were detected in more than half of the soft-sediment samples (Table 4-6), and five were detected in more than half of the native samples[3] (Table 4-7a). The most frequently detected VOCs in both soft and native sediment were benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). These chemicals exhibit the highest concentrations and were frequently higher than ecological and human health screening values. The highest concentration of total BTEX was 3,810,000 µg/kg (0.38 percent) in soft sediment was

[3] 1,4-dioxane was not included in this count because results were available for only three samples.

observed at location 51A near the Carroll Gardens/Public Place former MGP site (Figure 2-1b), which was sampled in 2005 by National Grid. The highest concentration of total BTEX in native sediment was 2,700,000 µg/kg (0.27 percent) at location 114, which is in the same area. Mean concentrations of BTEX compounds in soft and native sediments were similar.

SVOCs

Over 30 SVOCs were detected in soft and native sediments. PAHs were the most frequently detected parameters and were present at the highest concentrations (Tables 4-6 and 4-7a). The detection frequencies of PAHs are similar in soft and native sediments, and the concentrations frequently were greater than both the ecological and human health screening values. Total PAH concentrations in soft sediment ranged from 120 to 45,000,000 µg/kg (4.5 percent), with an average concentration of 3,490,000 µg/kg (0.35 percent). The maximum total PAH concentration in soft sediment was observed at location 51A. Total PAH concentrations in the native sediment ranged from 8.40 to 47,500,000 µg/kg (4.8 percent), with an average concentration of 2,920,000 µg/kg (0.29 percent). The maximum total PAH concentration in native sediment is observed at location 115 near the Carroll Gardens/Public Place former MGP site.

Figures 4-7a through 4-7c illustrate the vertical distribution of total PAHs at selected core locations in the upper, middle, and lower canal, respectively (a complete set of profiles is provided in Appendix N). The highest total PAH concentrations are observed at depth. In some cases, the peak concentration occurs in the soft sediment, often near the contact with the native sediment. At locations 146, ERT4-3, 108, 116, and 122, the highest total PAH concentrations are observed in the native sediments. In some instances such as location 107, the total PAH concentrations decrease in the native sediment.

Pesticides

Twenty pesticides were detected in both soft and native sediments. The statistical summaries presented in Tables 4-6 and 4-7a indicate that the maximum and mean concentrations were much lower in native sediment than in soft sediment. Where detected, pesticides were typically higher than ecological screening values. Concentrations greater than the human health screening value were generally less frequent. Concentrations of p,p'-DDD most frequently exceeded the ecological screening value of 1.22 µg/kg. The maximum concentration of p,p'-DDD in soft and native sediment was 1,900 and 470 µg/kg, respectively.

PCBs

Five Aroclors were detected in both soft and native sediment. The most frequently detected Aroclors in soft sediment were Aroclors 1242, 1254, and 1260 (Table 4-6). The statistical summaries in Tables 4-6 and 4-7a clearly show that the detection frequency and average concentration of PCBs in native sediment are much lower than in soft sediment. Total PCBs were detected in approximately 5 percent of the of native sediment samples and in 85 percent of the soft sediment samples. Total PCB concentrations in soft sediment ranged from 38 to 50,700 µg/kg, with a mean of 3,470 µg/kg. The maximum detection was at location 117, in the 7th Street turning basin (Figure 2-1b). In the native sediments, total PCBs ranged from 39 to 2,610 µg/kg, with a mean of 26.1 µg/kg. The maximum observed total PCB concentration in native sediment is at location ERT2-1, in the upper reach of the canal

(Figure 2-1a). Total PCBs in soft sediment were higher than both the ecological and human health screening values in over 200 samples. In the native sediment, total PCBs were higher than the ecological screening value in 19 samples and the human health screening value in 11 samples.

Figures 4-8a through 4-8c illustrate the vertical distribution of total PCBs at selected core locations in the upper, middle, and lower canal, respectively. Total PCB concentrations are highest in the soft sediment and consistently drop to lower concentrations in the native sediment. The shapes of the profiles vary among the different cores; however, in most cases, a well-defined peak of maximum total PCB concentration is observed in the subsurface soft sediment (e.g., 111, 107, 117, 116, 113, 140, and 133).

Metals and Cyanide

Over twenty metals and total cyanide were detected in both soft and native sediment. The statistical summaries (Tables 4-6 and 4-7a) indicate that overall concentrations are notably higher in soft sediment than in native sediment. Concentrations of 16 constituents in the soft sediment were greater than the ecological and human health screening values. Copper concentrations in soft sediment ranged from 6 to 1,610 mg/kg, with a mean of 388 mg/kg, and lead concentrations ranged from 5.2 to 2,880 mg/kg, with a mean of 770 mg/kg. In the native sediment, 16 constituents had concentrations higher than the ecological and human health screening values. Copper concentrations in native sediment ranged from 2.4 to 483 mg/kg, with a mean of 12.4 mg/kg, and lead concentrations ranged from 2.0 to 1,360 mg/kg, with a mean of 14.4 mg/kg.

Selected core profiles for lead are shown in Figures 4-9a through 4-9c. As with total PCBs, lead exhibited the highest concentrations in the soft sediment and consistently dropped to much lower concentrations in the native sediment.

Vertical Limit of Investigation

The purpose of the sediment core investigation was to delineate the degree of vertical contamination within the practical limits of a potential remedy. Native sediment samples were collected at depth intervals of 0-2 feet, 2-4 feet, and 4-6 feet below the contact in every core, except where native sediment was not recovered. Table 4-7b summarizes the average total PAH concentration in each of these depth horizons on each of the sampling transects along the length of the canal. Average total PAH concentrations in the native sediment were greater than 100,000 µg/kg in the 2-4 foot and/or 4-6 foot depth intervals in most areas of the canal with the following exceptions (core locations are shown in Figures 2-1a through 2-1c):

- The northernmost transect at the head of the canal (transect ERT-1, core locations ERT1-1, 1-2, and 1-3)
- Immediately south of the Gowanus Expressway (transect W, core locations 67B, 68A, and 69C)
- In the southern part of the Gowanus Channel (transect Y, core locations 73E, 74E, and 75C and southward).
- The 4th Street turning basin.

Figures 4-10a through 4-10c present the total PAH concentrations measured in the deepest sample from each core where native sediment was recovered, along with the elevation of the bottom of the sediment core. In the upper canal, most sampling locations had greater than 10,000 µg/kg total PAHs in the deepest sample collected, with exceptions noted at the head of the canal, at one location between Carroll Street and 3rd Street, and within the 4th Street turning basin. In the middle section of the canal (between approximately 4th Street and the Gowanus Expressway), the total PAH concentrations at the bottom of the sediment cores were greater than 1,000,000 µg/kg (0.1 percent) at most sampling locations and were typically greater than 3,000,000 µg/kg (0.3 percent). The coring locations at the eastern end of the 6th Street turning basin and within the 7th Street turning basin had much lower total PAH concentrations in the deepest sample, with concentrations between 20 and 10,000 µg/kg. The concentrations at the bottom of the sediment cores were notably lower immediately upstream of and downstream of the Gowanus Expressway, as shown in Figure 4-10c.

Longitudinal Profiles

Total BTEX and total PAH concentrations in soft and native sediment are shown in Figures 4-11a and 4-11b, respectively. The major trends that can be seen along the canal are as follows:

- Soft sediments with total PAH concentrations greater than 1 percent are generally found at the head of the canal near the Fulton former MGP site and the RH-034 outfall, immediately upstream of 3rd Street, and in the vicinity of the Carroll Gardens/Public Place and Metropolitan former MGP sites.
- Native sediments with total PAH concentrations greater than 1 percent are generally found in the reach between 3rd Street and the Gowanus Expressway. A greater number of native sediment samples have total PAH concentrations between 0.5 and 1 percent compared to soft sediment between the head of the canal and the Gowanus Expressway.
- The concentration distributions of total BTEX and total PAH in soft sediment are similar, as are the concentration distributions of these constituents in native sediment.

Longitudinal profiles of copper and lead in soft sediment along the length of the canal are provided in Figure 4-11c (copper and lead concentrations in native sediment were substantially lower). The major trends that can be seen along the canal are as follows:

- Copper concentrations vary along the length of the canal, with the highest concentrations found at the head of the canal, at outfall OH-007, in the 6th Street turning basin (shown as a short distance upstream of OH-007), and near the Carroll Gardens/Public Place former MGP site.
- Lead concentrations vary along the length of the canal, with the highest concentrations found at the head of the canal and at outfall RH-035.

Mercury and total PCB concentrations in soft sediment along the length of the canal are shown in Figure 4-11d (mercury and total PCB concentrations in native sediment were much lower). The major trends in the canal are as follows:

- Mercury concentrations are variable, with the highest concentrations found at the head of the canal (including a sample with 61.6 mg/kg mercury which is not shown on the plot).
- Total PCB concentrations are highest in the 7th Street turning basin (approximately 4000 feet from the head of the canal), at the RH-035 outfall, near the Carroll Gardens/Public Place former MGP site, near the Gowanus Expressway, and near south end of canal.

4.3.3 Summary

The evaluation of analytical results for the surface and subsurface sediment samples indicates the following:

- Visual evidence of NAPL is more pervasive in native sediments than in soft sediments, and in sediments north of the Gowanus Expressway than in sediments south of the expressway. Longitudinal profiles of total PAH and total BTEX concentrations in soft and native sediment correspond with these observations.
- Average concentrations of PAHs, PCBs, and eight metals (barium, cadmium, chromium, copper, lead, mercury, nickel and silver) in surface sediment are significantly higher in the canal than at the reference locations.
- Concentrations of a variety of chemicals exceed ecological and human health screening values in one or more sediment samples, as follows:

	Number of Constituents Exceeding Screening Values		
	Surface Sediment	**Soft Sediment**	**Native Sediment**
VOCs	3	10	10
SVOCs	21	30	24
Pesticides	6	17	14
PCBs	5	6	6
Metals and Cyanide	15	16	16

- Average chemical concentrations are higher in the subsurface soft sediment than in surface sediment:

Key Constituent	Ecological Screening Value	Surface Sediment Average Concentration	Soft Sediment Average Concentration
Total BTEX (µg/kg)	NA	364	188,000
Total PAHs (µg/kg)	4,022	527,000	3,490,000
Total DDT(µg/kg)	1.58	235	441
Total PCBs (µg/kg)	22.7	432	3,470
Copper (mg/kg)	34	226	388
Lead (mg/kg)	46.7	533	770
Mercury (mg/kg)	0.15	1.27	2.63

- Pesticides, PCBs, and metals were all frequently detected in the soft sediment but were infrequently detected and/or detected at lower concentrations in the native sediments; whereas total PAHs and BTEX constituents were frequently detected at high concentrations in both the soft and native sediment units:

Key Constituent	Ecological Screening Value	Soft Sediment		Native Sediment	
		Frequency of Detection (%)	Average Concentration	Frequency of Detection (%)	Average Concentration
Total BTEX (µg/kg)	NA	86.8	188,000	85.3	233,000
Total PAHs (µg/kg)	4,022	100	3,490,000	95.4	2,920,000
Total DDT(µg/kg)	1.58	88.7	441	62.6	46.6
Total PCBs (µg/kg)	22.7	84.8	3470	4.9	26.1
Copper (mg/kg)	34	100	388	99.5	12.4
Lead (mg/kg)	46.7	99.7	770	100	14.4
Mercury (mg/kg)	0.15	98.1	2.63	8.4	0.0947

- Chemical concentrations in soft sediment are variable within the canal north of the Gowanus Expressway and are notably higher than concentrations south of the Gowanus Expressway. Maximum concentrations of key constituents were found at the following locations:

Key Constituent	Ecological Screening Value	Surface Sediment		Soft Sediment	
		Maximum Concentration	Location	Maximum Concentration	Location
Total BTEX (µg/kg)	NA	5,669	315	3,810,000	GC-SED-51
Total PAHs (µg/kg)	4,022	8,000,000	315	45,000,000	GC-SED-51
Total DDT(µg/kg)	1.58	1,100	315	3,600	GC-SED-85B
Total PCBs (µg/kg)	22.7	3,400	314	50,700	GC-SD-117
Copper (mg/kg)	34	790	308A	1,610	GC-SD-112
Lead (mg/kg)	46.7	4,220	308A	2,880	ERT1-2
Mercury (mg/kg)	0.15	2.30	313	61.6	ERT1-3

Locations 315 and GC-SED-51 are in the main channel adjacent to the Carroll Gardens/Public Place former MGP site.
Location 314 is at the head of the 6th Street turning basin, and location GC-SED-85B is near the mouth of the basin.
Location 308A is at the north end of the canoe launch at the end of 2nd Street.
Location GC-SED-117 is in the 7th Street turning basin, and location GC-SED-112 is adjacent to the RH-035 outfall at the end of Bond Street.
Locations ERT1-2 and ERT1-3 are at the head of the canal.

- In most areas north of the Gowanus Expressway, NAPL and high-PAH concentrations were found in sediment at the vertical limit of the investigation.
- The highest total PAH and BTEX concentrations in soft sediment along the length of the canal are found near the three former MGP sites. Total PAH and BTEX concentrations in native sediment between the head of the canal and the Gowanus Expressway are generally higher than those in soft sediment. The highest concentrations in native sediment are found near the Carroll Gardens/Public Place former MGP site. High PAH and BTEX concentrations are characteristic of coal tar releases.
- Copper, lead and mercury concentrations in soft sediment along the length of the canal are variable. Lead and mercury concentrations are highest at the head of the canal. Copper concentrations are highest near the OH-007 outfall.
- Total PCB concentrations in soft sediment are highest in the 7th Street basin, near the RH-035 outfall and near the Carroll Gardens/Public Place former MGP site.

4.4 Surface Water

Two rounds of surface water samples were collected from the canal and the reference area: one under wet-weather conditions and one under dry-weather conditions. Twenty-seven locations were sampled within the canal during the dry-weather event and 26 locations were sampled during the wet-weather event. Eleven reference locations were sampled during both the wet and dry sampling events, including one location in the Buttermilk Channel, near the Gowanus Canal Flushing Tunnel intake (sampling location 336, shown in Figure 2-6).

A single grab sample was also collected on the western side of the canal south of Bond Street in response to community concerns about sheen on the water surface (location SWM3). The analytical results for this sample are presented in Appendix I, Tables I-63a through I-67a, and comparisons to ecological and human health screening values are presented in Tables I-63b through I-67b. The results for this sample were similar to other samples within the canal.

The surface water data were evaluated using a step-wise approach similar to that used for surface sediments. Summary statistics were calculated for surface water samples from the canal and reference area under dry and wet conditions. Initially, sample results were compared to ecological and human health screening values to evaluate the magnitude of contamination. As with sediment, COPCs were identified in the ERA and HHRA. Additional statistical comparisons were performed to determine whether there were any significant differences within the canal during wet- and dry-weather events and to identify constituents that were significantly higher in the canal relative to the reference area under both wet- and dry-weather conditions.

The summary statistics for dry-weather samples from the canal and reference area are presented in Tables 4-8a and 4-8b, respectively. Tables 4-9a and 4-9b present summary statistics for the wet-weather samples collected from each area. Complete analytical results are presented in Tables I-21a through I-25a, and screening results for individual samples are provided in Tables I-21b through I-25b. The results of the statistical comparisons are

presented in Tables 4-10 and 4-11. The analytical results are discussed below in general terms by parameter class and weather event.

4.4.1 VOCs

Nine VOCs were detected in surface water in the dry weather event and 21 were detected in the wet weather event. Fewer VOCs also were detected in the reference area during the dry-weather sampling event than during the wet-weather sampling event. The most frequently detected constituents in the canal during both sampling events were the BTEX compounds (Tables 4-8a and 4-9a). During the wet-weather sampling event, tetrachloroethylene (PCE) was detected at all but two sampling locations. Acetone was frequently detected during the dry-weather sampling event. Although VOC concentrations were below ecological screening values, they were greater than human health screening values for three constituents (benzene, ethylbenzene, and PCE). Acetone and methylene chloride were the only VOCs detected in reference area surface water samples during the dry-weather event.

4.4.2 SVOCs

PAHs were detected at similar frequencies in surface water samples from both sampling events. Phthalates were sporadically detected. Total PAHs were detected in 25 of 26 locations during the wet weather event and in 24 of 27 locations during the dry weather event. PAHs and phthalates were detected in the reference area during the wet- and dry-sampling events. The detection frequency for the PAHs was generally lower during the dry-weather event. None of the results from the canal samples collected during either event were higher than the ecological screening values. Six PAH compound concentrations were greater than the human health screening value during the dry-weather event and eight were higher in the wet-weather event, as shown in Tables 4-8a and 4-9a, respectively. Bis(2-ethylhexyl)phthalate also exceeded the human health screening value in the dry weather event. The maximum total PAH concentrations were 13.3 and 6.9 µg/L in the dry- and wet-weather events, respectively. The maximum concentration was measured on the north side of the channel at the south end of the study area (location 325) in the dry weather event, and at the head of the 7th Street basin (location 316) in the wet-weather event.

4.4.3 Pesticides and PCBs

Pesticides and PCBs were not detected in surface water samples from the canal or reference area during either the wet- or dry-weather sampling events.

4.4.4 Metals and Cyanide

A variety of inorganic constituents was detected in both the wet- and dry-weather sampling events in both the canal and reference area samples. Concentrations of seven constituents were greater than ecological and human health screening values in both the dry and wet weather events. Arsenic, chromium, cobalt, mercury, and nickel concentrations were higher than screening values in at least one sample in both events. Copper and thallium concentrations also exceeded a screening value in the dry weather event, and iron and lead exceeded a screening value in the wet weather event. Average concentrations of total suspended solids in the canal were slightly higher under dry-weather conditions than wet-weather conditions (80 mg/L and 53 mg/L, respectively).

4.4.5 Statistical Comparisons

Statistical comparisons were performed as described in Section 4.3 to determine whether constituent concentrations were significantly different in the canal surface water under dry- and wet-weather conditions, and whether surface water concentrations in the canal were significantly higher than those at the reference area locations. Results for the comparison of wet- and dry-weather results for the canal are presented in Table 4-10. Where significant differences were observed, concentrations of VOCs (with the exception of benzene) were higher in wet-weather conditions than in dry. No consistent trends in PAH and metals concentrations were observed; some parameters exhibited significantly greater concentrations during dry weather and others during wet weather.

The results of the comparison between the canal and reference area samples in wet- and dry-weather conditions are presented in Table 4-11. During the wet-weather event, more constituents were present at significantly higher concentrations in the canal than at the reference locations, particularly for VOCs. Benzene, acenapthene, fluoranthene, phenanthrene, total PAHs, and total and dissolved manganese were significantly greater in surface water from the canal relative to the reference area during both the wet and dry sampling events.

4.4.6 Summary

The evaluation of analytical results for the surface water samples indicates the following:

- VOCs, SVOCs, and metals were detected in surface water samples. Pesticides and PCBs were not detected.
- The following constituents exceeded ecological and human health screening values in at least one sample during the dry- and wet-weather sampling events:

	Constituents Exceeding Screening Values			
	Dry Weather		Wet Weather	
	Ecological	Human Health	Ecological	Human Health
VOCs	None	Benzene	None	Ethylbenzene PCE
SVOCs	None	Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Chrysene Indeno(1,2,3-cd)pyrene Bis(2-ethylhexyphthalate)	None	Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene Naphthalene
Metals	Cobalt Copper Nickel	Arsenic Chromium Cobalt Copper Mercury Thallium	Cobalt Iron Lead Nickel	Arsenic Chromium Cobalt Lead Mercury

- Concentrations of some VOCs in canal surface water were significantly higher in wet weather conditions than in dry weather conditions. Concentrations of some PAHs and metals were higher in wet weather conditions while others were higher in dry weather conditions.
- Concentrations of benzene, PAHs, and manganese in canal surface water were significantly higher than concentrations at reference locations in both dry- and wet-weather conditions.

4.5 CSO Discharges

Samples were collected from combined sewer systems around the canal and analyzed to provide a preliminary indication of contaminant loading to the canal from these sources. The media tested included sediment from the bottoms of pipes and water. Sediment samples were collected during dry weather at locations where sediment was present and accessible for collection. Water samples were collected during both dry- and wet-weather conditions. Analytical results were compared to the screening values identified in Section 4.2 to evaluate the relative magnitude of contamination. Although these screening values are not directly applicable to these media, they are used to provide perspective on the results.

4.5.1 CSO Sediment

Sediment samples were collected at seven CSO sampling locations (RH-031, RH-033, RH-035, RH-036, RH-037, OH-005, and OH-007). CSO sampling locations are shown in Figure 2-10. Samples were not collected where no sediment was present or where sewer flow conditions prevented sampling. Therefore, the sample results provide a "snapshot" of residual sediment in the sewer system at the sampled locations that may be mobilized and discharged to the canal during wet weather or may constitute a source in the sewer system to combined sewage that may be discharged to the canal during wet weather.

A statistical summary of the sample results is provided in Table 4-12. The complete analytical results are presented in Appendix I, Tables I-43a through I-47a. Table I-48 presents the TOC and grain size results. Appendix I, Tables I-43b through I-47b compare the results to the screening values identified in Section 4.2.

VOCs

Fifteen VOCs were detected in sediments collected from CSO sampling locations. The sample from OH-007 had the greatest number of maximum detected results (11). All but one (1,4-dichlorobenzene) of the detected results were below screening values. The VOC 1,4-dichlorobenzene was detected at OH-007 at 870 µg/kg, exceeding the ecological screening value of 240 µg/kg.

SVOCs

Eighteen SVOCs (including PAHs) were detected in sediments collected from CSO sampling locations. Most of the SVOCs were PAHs, which were detected in most samples. The sample from RH-031 had the greatest number of maximum detected results (10). Concentrations for 17 of the SVOCs including PAHs were higher than the ecological and/or human health

screening values in one or more samples. The following two PAHs exceeded their screening values at all locations:

- The human health screening value for benzo(b)fluoranthene (150 µg/kg) was exceeded in all samples with a maximum detection of 4,500 µg/kg at OH-007.
- The human health screening value for indeno(1,2,3-c,d)pyrene (150 µg/kg) was exceeded in all samples with a maximum detection of 1,800 µg/kg at RH-031.

Pesticides

Of the seven CSO sediment sampling locations, pesticides were detected only in the sample from RH-033. Five pesticides were detected (dieldrin, endosulfan sulfate, endrin aldehyde, gamma-chlordane, and P'P'-DDT). The following three pesticides exceeded their screening values at all locations:

- The human health screening value for dieldrin (30 µg/kg) was exceeded with a detection of 85.0 µg/kg.
- The ecological screening values for gamma-chlordane and p,p'-DDT (0.04 and 20 µg/kg, respectively) were exceeded with detections of 48 and 210 µg/kg, respectively.

PCBs

Aroclor 1260 was the only detected Aroclor. It was detected in only two of the seven CSO sediment samples, RH-033 and RH-037. The total PCB concentration was therefore the same as the Aroclor 1260 concentration. Aroclor 1260 exceeded screening values as follows:

- The concentration at RH-033 (1,200 µg/kg) exceeded the human health screening value of 220 µg/kg.
- The concentrations at RH-033 and RH-037 (220 µg/kg and 1,200 µg/kg, respectively) exceeded the ecological screening value of 22.7 µg/kg..

Metals and Cyanide

Twenty-one metals and total cyanide were detected in sediments collected from the seven CSO sampling locations. The sample from RH-031 had the greatest number of maximum detected results (13). Concentrations of fourteen metals were higher than screening values in some samples. The following metals exceeded their screening values at all locations:

- Concentrations of copper, lead, mercury, and zinc exceeded the ecological screening values in all samples.
- Concentrations of chromium and cobalt exceeded the human health screening values in all samples.

4.5.2 CSO Water

Sanitary and combined sewage samples were collected at CSO sampling locations during dry- and wet-weather conditions. Dry-weather sampling provides data representative of sanitary sewage in the sewer system. Sanitary sewage is not discharged to Gowanus Canal during dry weather. Wet-weather sampling provides data representative of combined sewage in the sewer system that is discharged to the Gowanus Canal when the capacities of

the sewer systems are exceeded. Combined sewage includes sanitary sewage as well as runoff from streets, sidewalks, parking lots, roof tops, and other surfaces that drain to the sewer system. Table 3-2 lists the annual discharge from each CSO. Outfalls RH-034 and RH-035 represent 66 percent of the total annual discharge, and outfalls RH-031 and OH-007 represent 29 percent of the total. Both discharge volume and chemical concentration must be taken into account when estimating the contaminant load to the canal from the CSOs.

One round of dry-weather samples and three rounds of wet weather samples were collected. CSO sampling locations are shown in Figure 2-10. Statistical summaries of dry- and wet-weather sample results are provided in Tables 4-13 and 4-14, respectively. The results for the three wet-weather sampling events were combined in the statistical summary. The analytical results for CSO water analyses are presented in Appendix I, Tables I-49a through I-53a. Table I-53a also presents TSS concentrations and Table I-54 presents the geochemistry parameter results. Appendix I, Tables I-49b through I-53b compare the results to the screening values identified in Section 4.2.

VOCs

Twenty-seven VOCs were detected in the dry weather CSO sewage samples. The sample from RH-033 had the greatest number of compounds at maximum concentrations (8). Twenty-five VOCs were detected in CSO water samples collected during the wet weather sampling events. The sample from RH-037 had the greatest number of compounds at maximum concentrations (7). The frequency of VOCs detection was higher in dry weather samples compared to wet weather samples.

The VOC compounds detected during both dry and wet sampling events were generally the same with the exception of the following:

- 1,2-dibromo-3-chloropropane, 1,2-dichloroethane, carbon disulfide, and styrene were detected during the dry weather sampling event only.
- 1,1,1-trichloroethane and methyl isobutyl ketone were detected during wet weather sampling events only.

No dry weather detections exceeded ecological screening values for VOCs. The following compounds exceeded human health screening values in the dry-weather samples: 1,2-dibromo-3-chloropropane, benzene, ethylbenzene, PCE, and vinyl chloride.

Similar to dry weather sampling, no wet weather detections exceeded ecological screening values for VOCs. The following compounds exceeded human health screening values in the wet weather samples: benzene, ethylbenzene, PCE, vinyl chloride, and 2-hexanone.

SVOCs

Twenty-six SVOCs including PAHs were detected in dry-weather CSO sewage samples. The sample from RH-033 had the greatest number of compounds at maximum concentrations (6). Twenty-seven SVOCs were detected in CSO water samples collected during wet weather. The sample from RH-031 had the greatest number of compounds at maximum concentrations (9). The frequency of SVOCs detection was higher in wet weather samples compared to dry weather samples.

The SVOCs detected during both dry and wet sampling events were generally the same with the exception of the following:

- 4-nitroaniline, acetophenone, biphenyl, and di-n-butyl phthalate were detected during dry weather sampling events only.
- Anthracene, benzaldhyde, benzo(a)pyrene, di-n-octylphthalate, and pentachlorophenol were detected during wet weather sampling events.

The average concentration of total PAHs in dry weather CSO sewage was 14.3 µg/L and in wet weather was 7.3 µg/L. The following compounds exceeded screening values during both the dry and wet sampling events:

- Concentrations of diethyl phthalate, dimethyl phthalate, and naphthalene exceeded ecological screening values in a limited number of both the dry and wet weather samples.
- Concentrations of 4-methylphenol (p-cresol), benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene, and naphthalene exceeded human health screening values in both the dry and wet weather samples.

Pesticides

One pesticide (alpha-chlordane) was detected in the dry weather sample from RH-034. The alpha-chlordane concentration of 0.069 µg/L was higher than the ecological screening value of 0.004 µg/L. No pesticides were detected in the wet weather samples.

PCBs

PCBs were not detected in the dry-weather samples. Only Aroclor 1260 was detected in the wet-weather sample from OH-006. The total PCB concentration was therefore the same as the Aroclor 1260 concentration. The single detected concentration (0.57 µg/L) exceeded the ecological screening value of 0.03 µg/L and the human health screening value of 0.000001 µg/L for both Aroclor 1260 and total PCBs.

Metals and Cyanide

Twenty metals and total cyanide were detected in the dry-weather CSO samples. The sample from RH-038 had the greatest number of maximum detected concentrations (5). Nineteen metals were detected in the CSO water samples collected during wet weather. The sample from RH-036 had the greatest number of maximum detected concentrations (7).

The frequency of detection was higher in wet-weather samples than in dry-weather samples. The inorganic constituents detected during both dry and wet sampling events were generally the same with the exception of the following:

- Antimony, dissolved silver, silver, dissolved thallium, and total cyanide were detected during dry weather only.
- Dissolved cadmium, dissolved mercury, mercury, and dissolved vanadium were detected in wet weather samples only.

Eleven metals and total cyanide concentrations were higher than screening values in one or more dry weather samples. Concentrations of 12 metals were higher than screening values in at least one wet weather sample. The following metals exceeded screening values in all dry and / or wet weather samples:

- Arsenic, dissolved arsenic, chromium, and dissolved chromium concentrations exceeded the human health screening values in all wet weather samples. Arsenic, dissolved arsenic, and chromium exceeded the human health screening values in all dry weather samples as well.
- Copper concentrations exceeded the ecological screening value in all dry and wet weather samples.

The results for the dissolved and total metals indicate that metals are bound to solids discharging to the canal by CSOs. Solids would be expected to settle along the length of the canal and contribute to the metal concentrations found in bottom sediments.

4.5.3 Summary

Sediment and water samples were collected from combined sewers tributary to the canal during dry and wet weather. Wet weather sampling was performed to characterize discharges to the canal. Dry weather sampling of sewage was performed to identify potential sources of contaminants.

Sediment samples were collected at seven CSO sampling locations where sediment was present and sewer flow conditions allowed safe and representative sampling. The sample results provide a "snapshot" of residual sediment in the sewer system at the sampled locations that may be mobilized and discharged to the canal during wet weather or may constitute a source in the sewer system to combined sewage that may be discharged to the canal during wet weather. Specifically:

- VOCs, SVOCs, PAHs, pesticides, PCBs, metals and cyanide were detected in sediment samples with some concentrations exceeding human and / or ecological screening values.
- If mobilized during wet weather events due to scour during high flow periods, ongoing loadings to the canal of contaminants bound to solids would occur.

The evaluation of analytical results for the dry and wet weather sampling of sewage indicate the following:

- VOCs were consistently detected in dry and wet weather samples at concentrations below ecological screening values. Several VOCs exceeded human health screening values in both dry and wet weather samples.
- SVOCs were consistently detected in dry weather and wet weather samples at concentrations above ecological and human health screening values.
- Only one pesticide was detected in a dry weather sample at a concentration above the ecological screening value. No pesticides were detected in wet weather samples.

- No PCBs were detected in dry weather samples. Aroclor 1260 was detected in combined sewage during wet weather only at OH-006 at a concentration exceeding the ecological and human health screening values.
- Metals were detected in dry and wet weather samples with concentrations of several constituents exceeding the ecological and human health screening values. Specific metals (arsenic, chromium, copper) exceeded screening values in both unfiltered (total metal concentrations) and filtered (dissolved metal concentrations) samples.
- Total cyanide was detected in dry weather samples with some concentrations exceeding the ecological screening value. There were no detections in wet weather samples.

A summary of the constituents detected in CSO sediment and wet weather samples that are discharged to the canal at concentrations higher than either the ecological or human health screening values is provided below.

	Constituents Exceeding Screening Values			
	CSO Sediment		**CSO Wet Weather Water**	
	Ecological	**Human Health**	**Ecological**	**Human Health**
VOCs	1,4-dichlorobenzene	None	None	2-hexanone Benzene Ethylbenzene Tetrachloroethylene (PCE) Vinyl Chloride
SVOCs	2-methylnaphthalene 4-methylphenol (p-cresol) Acenaphthene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo (g,h,i) perylene Bis(2-ethylhexyl) phthalate Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene Indeno (1,2,3-c,d) pyrene Naphthalene Phenanthrene Pyrene Total PAHs	Benzo(a)anthracene Benzo(a)pyrene Benzo(b) fluoranthene Indeno (1,2,3-c,d) pyrene	Diethyl phthalate Dimethyl phthalate Naphthalene	4-methylphenol (p-cresol) Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Bis(2-ethylhexyl) phthalate Chrysene Dibenz(a,h)anthracene Indeno(1,2,3-c,d)pyrene Naphthalene
Pesticides	Gamma-chlordane p,p'-DDT	Dieldrin	None	None
PCBs	Aroclor 1260 Total PCBs	Aroclor 1260 Total PCBs	Aroclor 1260 Total PCBs	Aroclor 1260 Total PCBs
Metals	Barium Cadmium Chromium Copper Lead Manganese Mercury Nickel Silver Zinc	Arsenic Chromium Cobalt Copper Iron Lead Manganese Vanadium	Cobalt Dissolved Cobalt Copper Dissolved Copper Iron Dissolved Iron Lead Manganese Dissolved Manganese	Arsenic Dissolved Arsenic Cadmium Chromium Dissolved Chromium Cobalt Dissolved Cobalt Copper Dissolved Copper Iron Dissolved

	Constituents Exceeding Screening Values			
	CSO Sediment		CSO Wet Weather Water	
	Ecological	Human Health	Ecological	Human Health
			Nickel Zinc Dissolved Zinc	Iron Lead Manganese Dissolved Manganese Mercury Dissolved Mercury Vanadium

The sampling results indicate the following for CSO discharges to the canal:

- CSOs are currently discharging VOCs, SVOCs including PAHs, PCBs, and metals in combined sewage during wet weather to the canal.
- If mobilized during wet weather, CSO sediments may discharge VOCs, SVOCs including PAHs, PCBs, pesticides, and metals to the canal.
- There are no specific trends in the data that can be used to identify sources in the collection system leading to the various CSO regulators.
- Dry weather sampling indicates that both sanitary sewage and runoff are possible sources of contaminants.

4.6 Other Pipe Outfalls

A two-phase survey of the canal bulkheads was performed from a boat to identify pipe outfall features to the canal. Features observed to be discharging were sampled during Phase 1. Outfalls previously identified as CSOs and municipal stormwater were excluded from these surveys. Observations and sampling were performed during dry weather conditions.

Analytical results were compared to the screening values identified in Section 4.2 to evaluate the relative magnitude of contamination. Although these screening values are not directly applicable to these media, they are used to provide perspective on the results.

4.6.1 Phase 1 Outfall Features Survey

A total of 220 outfall features to the canal were identified. From these, 25 features were observed to discharge to the canal as follows:

- The discharge from 11 features appeared to be tidal drainage - these discharges were not sampled.
- The discharges from five of the features could not be clearly attributed to tidal drainage - these discharges were sampled.
- The discharges from nine features were determined not to be tidal drainage - the discharges from seven of these features were sampled; the discharges from two could not be sampled due to the small rate of the discharge.

The following 12 features were sampled:

GC-CF-E-027	GC-CF-E-063	GC-CF-W-046
GC-CF-E-029	GC-CF-W-001	GC-CF-W-048
GC-CF-E-033	GC-CF-W-037	GC-CF-W-077
GC-CF-E-035	GC-CF-W-044	GC-CF-T1-003

The following two features with active flow not attributed to tidal drainage were not sampled due to the small rate of the discharge:

GC-CF-W-040 GC-CF-T2-003

The features that were sampled are shown in Figure 2-10, along with the CSO sample locations.

4.6.2 Phase 2 Outfall Features Survey

A total of 27 additional outfall features were identified in Phase 2 that were not identified in Phase 1. Nine features were observed to discharge to the canal. Of these nine, three were not observed during the Phase 1 outfall survey (bolded and italicized in below list):

GC-CF-E-009A	GC-CF-T3-015	GC-CF-W-051
GC-CF-E-033	***GC-CF-W-012A***	***GC-CF-W-044***
GC-CF-T3-012A	GC-CF-W-048	GC-CF-E-072 (CSO OH-006)

Note that:

- GC-CF-E-033 and W-048 were discharging during both phases (samples collected during Phase 1).
- GC-CF-T3-015 and GC-CF-W-044 were discharging during Phase 2 but not during Phase 1 (therefore, samples were not collected).
- GC-CF-W-051 was discharging during both phases but salinity was similar to the canal during Phase 1 and therefore, the discharge was not sampled.

The presence of oil was noted at the following outfall features:

GC-CF-W-042	GC-CF-W-044	GC-CF-T3-013
GC-CF-W-002	GC-CF-W-045	GC-CF-E-007
GC-CF-W-002A	GC-CF-W-018	GC-CF-T3-012
GC-CF-W-015A	GC-CF-W-098	GC-CF-W-043

4.6.3 Sampling Results

All of the pipes were discharging at a very low rate, at or less than 2 L/min, except for location GC-CF-W-001, which had water streaming out of the 12-inch-diameter pipe. Because of the low volume of discharge from several of the outfall features, some of the samples were analyzed only for a subset of parameters. The pipe outfall sample results provide a snapshot of chemical concentrations in discharges from these pipes.

A statistical summary of the sample results is provided in Table 4-15. Complete analytical results for the samples collected from the pipe outfalls are presented in Appendix I, Tables I-38a through I-42a. Appendix I, Tables I-38b through I-42b compare these results to the screening values identified in Section 4.2.

The analytical results indicate that contaminants are present in the discharges although the loading of contaminants to the canal from the sampled pipe outfall features may be low because of the low discharge rates. Nevertheless, this contamination would contribute to the overall sediment and water quality conditions in the canal.

VOCs

- Eighteen VOCs were detected in the sampled discharges.
- None of the VOC concentrations was higher than the ecological or human health screening values.
- Outfall feature GC-CF-W-044 contained the greatest number of maximum concentrations of VOCs (8) although as noted above, these concentrations were below screening values.

SVOCs

- Twenty-one SVOCs were detected in the sampled discharges. Detected compounds include PAHs, phthalates, and pentachlorophenol.
- Eight PAHs and 3 phthalates were found at concentrations higher than the ecological and human health screening values.
- The PAHs exceeding the screening values most frequently are listed below along with the maximum concentration compared to the corresponding human health screening value of 0.018 µg/L (ecological screening values were not exceeded for these compounds):
  - Indeno(1,2,3-c,d)pyrene at ten locations at maximum concentration of 0.54 µg/L.
  - Benzo(b)fluoranthene at three locations at maximum concentration of 0.54 µg/L.
  - Benzo(k)fluoranthene at three locations at maximum concentration of 0.14 µg/L.
  - Dibenz(a,h)anthracene at three locations at maximum concentration of 0.25 µg/L.
- Location GC-CF-W-001 contained the highest number of PAHs above screening values (seven, with six found at their maximum concentrations at this location) followed by location GC-CF-E-063 (four PAHs at concentrations above screening values). As noted above, water was streaming from the 12-inch diameter pipe at location GC-CF-W-001 at the time of sampling.

Pesticides and PCBs

Pesticides and PCBs were not detected.

Metals

- Eighteen metals and total cyanide were detected in the sampled discharges.

- The following nine metals were detected in all ten samples analyzed for metals: arsenic, barium, calcium, copper, magnesium, manganese, nickel, potassium, and zinc.
- Nine metals were found at concentrations higher than either the human health or ecological screening values.
- The metals exceeding their screening values most frequently are listed below along with the maximum concentration compared to the screening value that was exceeded:
  - Arsenic at ten locations with maximum concentrations of 8.2 µg/L and 7.8 µg/L for dissolved and total concentrations, respectively, compared to the human health screening value of 0.14 µg/L.
  - Copper at nine locations with maximum concentration of 16 µg/L compared to the ecological screening value of 3.1 µg/L.
  - Iron at nine locations with a maximum concentration of 4,910 µg/L compared to the ecological screening value of 50 µg/L and the human health screening value of 2,600 µg/L.
  - Chromium at eight locations with maximum concentrations of 1.8 µg/L and 1.5 µg/L for dissolved and total concentrations, respectively compared to the human health screening value of 0.043 µg/L.
- The locations where the highest number of metals above screening values were found are:
  - GC-CF-T1-003 (seven metals)
  - GC-CF-E-035 and GC-CF-W-046 (six metals)
  - GC-CF-E-063, GC-CF-E-037, and GC-CF-W-048 (five metals)

4.6.4 Summary

- A two-phase survey of the canal bulkheads was performed to identify pipe outfall features to the canal and collect samples from features observed to be discharging to provide a preliminary indication of contaminant loading to the canal from these sources.
- A total of 220 outfall features to the canal were identified during Phase 1. An additional 27 outfall features were identified during Phase 2.
- During Phase 1, 25 features were observed to discharge to the canal. Twelve of these were sampled. The discharges from the remaining features were either attributed to tidal drainage from the feature or were too low to collect a sample. Three additional features were observed to discharge during Phase 2 but these discharges were not sampled.
- During Phase 2, oil was noted to be present in 12 of the outfall features.
- The analytical results indicate that while the loading of contaminants to the canal from the sampled pipe outfall features may be low because of the low discharge rate

observed, contaminants were present in the discharges. These contaminants would contribute to the overall sediment and water quality conditions in the canal.

- The table below summarizes where compounds were found to exceed ecological and human health screening values in the sampled outfall features.

Outfall Feature	Location	No. of SVOCs Exceeding Screening Value	No. of Metals Exceeding Screening Value
GC-CF-W-001	Head of canal	8	4
GC-CF-E-033	Between Carroll Street and 3rd Street	2	4
GC-CF-E-035	Between Carroll Street and 3rd Street	1	6
GC-CF-W-046	Between Carroll Street and 3rd Street	1	6
GC-CF-E-027	Immediately downstream of 3rd Street Bridge	2	4
GC-CF-E-029	Immediately downstream of 3rd Street Bridge	1	
GC-CF-T1-003	Within 4th Street turning basin	4	7
GC-CF-W-037	At turn of canal by 4th Street	1	5
GC-CF-W-048	At turn of canal by 4th Street	0	5
GC-CF-E-063	By Gowanus Expressway	5	5
GC-CF-W-077	Near mouth of canal	4	4

- Location GC-CF-W-001 contained the highest number of PAHs above screening values (seven PAHs, with six found at their maximum concentrations at this location). As noted above, water was streaming from the 12-inch diameter pipe at location GC-CF-W-001 at the time of sampling.

4.7 Air

Two rounds of air samples were collected – one before and one after the start of the canal aeration system. Air-sampling locations are shown in Figure 2-9. Statistical summaries of the sample results are provided in Tables 4-16 and 4-17. The analytical results for the ambient air samples are presented in Appendix I, Tables I-55a through I-57a. Tables I-55b through I-57b show a comparison of the results to the screening values (the Regional Screening Level [RSLs] for residential air) identified in Section 4.2.

The analytical results were also compared to the mean concentrations in outdoor air in three large U.S. cities measured during a 2006 study (the Relationships of Indoor, Outdoor, and Personal Air [RIOPA] study), referenced by NYSDOH (2006). Specifically, the RIOPA study provides information on air toxics and particulate matter in urban air for 16 separate VOCs. The information is based on VOC concentrations measured in outdoor air during two 48-hour periods, during different seasons, between summer 1999 and spring 2001. Three cities with different air pollution sources and weather conditions are covered by the study: Los Angeles, CA; Houston, TX; and Elizabeth, NJ. The mean concentrations from the RIOPA study for the compounds detected in air samples above the human health screening values (RSLs) during this investigation are listed below:

- Benzene—2.15 $\mu g/m^3$

- Chloroform—0.32 µg/m^3
- Ethylbenzene—1.29 µg/m^3
- Methylene chloride—0.95 µg/m^3
- Total xylene—1.49 µg/m^3

As noted in Section 2.6, two air samples collected for PAH analysis during the second sampling event at canoe-level locations 504 and 507 were reported in micrograms instead of in micrograms per cubic meter. This is because, due to equipment malfunction, the exact volume of air that passed through the sampling media at these locations is unknown. As a result, data for these two samples can be used to confirm the presence of detected compounds but cannot be used to verify the absence of nondetected compounds. While the numerical results are analytically sound on a micrograms-per-cartridge basis, the equipment malfunction affected the representativeness of the samples.

4.7.1 VOCs

The following VOCs were detected in both canoe- and street-level samples along the canal: BTEX compounds, trichloroethylene (TCE), acetone, bromoform, carbon disulfide, chloroform, chloromethane, methyl ethyl ketone (MEK), and methylene chloride. These compounds, with the exception of three (TCE, bromoform, and carbon disulfide), were also detected at background locations approximately 600–1,000 feet west of the canal.

The VOCs detected in samples at canoe level during the first and second sampling events were the same with the exception of bromoform, which was detected only during the first sampling event. The VOCs detected in samples at the street level during the first and second sampling events were the same with the exception of bromoform and carbon disulfide, which were detected only during the first sampling event.

Benzene, ethylbenzene, xylenes, and chloroform were detected at concentrations exceeding the RSLs in the canoe air samples collected along the canal. Benzene, ethylbenzene, chloroform, and methylene chloride were detected at concentrations exceeding the RSLs in the samples collected at the background locations.

Detections of BTEX compounds occurred at each canal and street level sample location and at each of the three background locations. Measured concentrations of benzene exceeded the RSL at every location (including background). Measured concentrations of ethylbenzene exceeded the RSL at five canoe-level and five street-level locations and at one background location. Measured concentrations of xylene exceeded the RSL at two canoe locations, but not at background locations. Measured concentrations of toluene did not exceed the RSL at the sampled locations.

BTEX compounds are combustion byproducts commonly found in urban areas at low concentrations from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions. The measured BTEX concentrations were compared to the urban background concentrations for these compounds noted in the RIOPA study.

The benzene concentrations at nine canoe-level and nine street-level locations were below the RIOPA mean average concentration for benzene; benzene concentrations were higher than the RIOPA mean average concentration by a factor of nearly 2 at one canoe location

(510, south of the Gowanus Expressway) and only slightly higher at one street-level location (501, at the head of the canal).

The concentrations of ethylbenzene at five canoe-level and seven street-level locations were below the RIOPA mean average concentration for ethylbenzene. The concentrations of xylene at all locations along the canal and at the three background locations were above the RIOPA mean average concentration for xylene.

Chloroform was detected at seven of the 10 canoe-level locations during the first round of sampling and at eight of the 10 canoe-level locations during the second round. The measured chloroform concentrations exceeded the RSL when detected (chloroform was not detected at canoe-level locations 509 and 510 during either round). Chloroform was also detected in nine samples collected from the 10 street-level locations; each of the detected concentrations exceeded the RSL (note that at a few locations, chloroform was detected during one round but not during the other). Measured concentrations of chloroform at two of the three background locations exceeded the RSL. Chloroform concentrations were above the RIOPA mean concentration at only two locations (street level locations 501 and 505).

Chloroform is a trihalomethane produced from the chlorination of public water to remove bacteria, viruses, and parasites. New York City uses chlorine to meet the New York State Sanitary Code Safe Drinking Water Act disinfection requirements (NYCDEP, 2010b). Chlorinated water from the New York City distribution system travels to residential and commercial buildings and ultimately enters the canal through CSO discharges. A study (Vermont Department of Health, 1993) for which indoor air sampling was performed in both homes supplied by private well water and homes supplied by public water concluded that chlorinated drinking water was the major source of chloroform in the air of homes.

Methylene chloride was the only other VOC that exceeded its RSL. Methylene chloride was detected at six of the 10 canoe-level locations and six of the 10 street-level locations. Concentrations were below the RSL. Methylene chloride was detected at two of the three background locations; at one of these locations the measured concentration exceeded the RSL. All detected concentrations of methylene chloride were above the RIOPA mean average concentration but within the same order of magnitude. Individual VOC concentrations were generally within the same order of magnitude among canoe-level, street-level, and background locations. The individual VOC concentrations detected during both sampling rounds were also generally within the same order of magnitude.

Analytical results for air samples collected at canoe level were compared with results for samples collected at street level for both round 1 and round 2 samples. Either a WRS test or Gehan's test was applied to determine with 95 percent confidence whether contaminant concentrations in the canoe-level samples were, on average, significantly different than those at street level. The WRS test was used when the detection frequency in each data set was at least 60 percent; otherwise, the Gehan's test was used. Only detected constituents were evaluated.

The results of the statistical comparisons are summarized in Table 4-18. There were no significant differences between the concentrations of VOCs in air at canoe level and those at street level in round 1 or round 2.

The highest concentration of VOCs at canoe level occurred at location 509 during the second air-sampling round. The highest concentration of VOCs at street level occurred at location 507 during the second round. Measured concentrations of acetone were the major contributor to the high VOC concentrations at both locations; however, these concentrations did not exceed the RSL.

4.7.2 PAHs

Air samples were analyzed for PAHs. Eight PAHs (acenaphthene, acenaphthylene, anthracene, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene) were detected in samples collected from both canal- and street-level locations. These same eight PAHs were detected at one or more of the background locations.

Three PAHs (benzo(a)anthracene, benzo(b)fluoranthene, and chrysene) were detected in samples collected at the canoe level but not in samples collected at the street level. Benzo(a)anthracene was detected at five of the 10 canoe level locations. Chrysene was detected at two of the 10 canoe level locations. Benzo(b)fluoranthene was detected at one of the 10 canoe level locations. However, measured concentrations of these three PAHs did not exceed the RSLs.

The following PAHs were detected at one or more of the background locations: acenaphthene, acenaphthylene, anthracene, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene. Naphthalene was the only PAH detected at concentrations above the RSL; measured concentrations exceeded the RSL at each of the locations along the canal (canoe and street level) and each of the three background locations. Measured concentrations of the other detected PAHs were below the RSLs.

PAH compounds detected in samples at the canoe and street level during the first and second sampling events were generally the same with the exception of benzo(b)fluoranthene, which was detected at one canoe-level location during the first sampling round but was not detected during the second round.

The PAH-sampling results from locations 504 and 507 are not included in the discussion below because the units in which the results were reported were different than for the remaining samples as a result of the malfunction of the air-sampling pump (see Section 2.6).

The PAH concentrations were generally within the same order of magnitude between the canoe level and street level locations. As shown in Table 4-18, PAHs were not significantly different between canoe and street levels in Round 2. In Round 1, concentrations of three PAHs (anthracene, phenanthrene, and pyrene) were significantly higher at canoe level than at street level. For PAHs detected along the canal and at the background locations, the concentrations are also generally within the same order of magnitude.

The PAH concentrations were also generally within the same order of magnitude during both sampling rounds. The total PAH concentrations in the northern part of the canal at location 501 decreased between the first and second sampling rounds. The total PAH concentrations in the southern part of the canal (506, 508, 509, and 510) increased between the first and second sampling rounds.

The highest concentration of total PAHs at canoe level occurred at location 502 during the first sampling event; measured concentrations of acenaphthene, phenanthrene, and fluorene

were the major contributors to the high total PAH concentration. The highest concentration of total PAHs at street level occurred at location 507 during the second round; measured concentrations of acenaphthene and naphthalene were the major contributors to the high total PAH concentration.

4.7.3 PCBs

One street level air sample and a field duplicate were submitted for PCB analysis. No PCBs were detected.

4.7.4 Summary

- Five VOCs and one PAH (naphthalene) were found at concentrations above screening values. Three VOCs and naphthalene were found to exceed the screening values at the canoe-level, street-level, and reference locations.
- No PCBs were detected.
- The table below summarizes the maximum concentrations of these compounds, with concentrations that were above the screening values shown in bold font.

	Canoe level		Street level		Background	
	Round 1 Without Aeration System	Round 2 With Aeration System	Round 1 Without Aeration System	Round 2 With Aeration System	Location About 1000 feet from Canal	RIOPA Study
Volatile Organic Compounds (µg/m^3)						
Benzene	1.1	**3.8**	**2.3**	**1.4**	**0.91**	2.15
Chloroform	**0.28**	**0.24**	**0.39**	**0.45**	**0.29**	0.32
Ethylbenzene	**5.1**	**4.4**	**1.7**	**1.8**	**1.2**	1.29
Methylene chloride	4.5	2	5.1	2	**5.4**	0.95
Xylenes (total)	**16**	**28**	6.8	7.6	4.6	1.49
Semi-Volatile Organic Compounds (µg/m^3)						
Naphthalene	**3.4**	**2.6**	**1.3**	**4.4**	**0.17**	Not available

- The table below summarizes the number of samples where these compounds were found above their screening value over the total number of samples analyzed.

	Canoe		Street		Background
	Round 1 Without Aeration System	Round 2 With Aeration System	Round 1 Without Aeration System	Round 2 With Aeration System	Location About 1000 feet from Canal
Volatile Organic Compounds					
Benzene	10/10	10/10	10/10	10/10	3/3
Chloroform	7/10	8/10	6/10	9/10	2/3
Ethylbenzene	3/10	5/10	3/10	3/10	1/3
Methylene chloride	none	none	none	none	1/3
Xylenes (total)	1/10	1/10	none	none	none

	Canoe		Street		Background
	Round 1 Without Aeration System	Round 2 With Aeration System	Round 1 Without Aeration System	Round 2 With Aeration System	Location About 1000 feet from Canal
Semi-Volatile Organic Compounds					
Naphthalene	10/10	8/8	10/10	10/10	3/3

VOCs

- A statistical comparison was performed which indicated no significant differences between the concentrations of VOCs in air at canoe level and those at street level during both the first and second sampling rounds.
- The maximum concentrations of VOCs were generally within the same order of magnitude among the canoe-level, street-level, and background locations and between the first and second sampling rounds, with the exception of the maximum concentration of xylene, which was higher at the canoe level during both rounds. The human health risk assessment in Appendix L provides a quantitative assessment of the significance of the concentrations measured at each level and during each sampling event.
- BTEX compounds were among the five VOCs detected above the screening values. BTEX compounds are combustion byproducts commonly found in urban areas at low concentrations from tobacco smoke, automobile service stations, exhaust from motor vehicles, and industrial emissions.
- Chloroform is another VOC that exceeded the screening value. Chloroform is a trihalomethane produced from the chlorination of public water to remove bacteria, viruses, and parasites. New York City uses chlorine to meet the New York State Sanitary Code Safe Drinking Water Act disinfection requirements (NYCDEP, 2010b). Chlorinated water from the New York City distribution system travels to residential and commercial buildings and ultimately enters the canal through CSO discharges.
- The highest concentration of total VOCs at canoe level occurred at location 509 (near the Gowanus Expressway – 319.05 $\mu g/m^3$) during the second air-sampling round. The highest concentration of total VOCs at street level occurred at location 507 (near the curve of the canal – 506.6 $\mu g/m^3$) during the second round. Acetone was the major contributor to the high VOC concentrations at both locations (300$\mu g/m^3$ and 460 $\mu g/m^3$, respectively); however, these concentrations did not exceed the screening value (3,200 $\mu g/m^3$).

PAHs

- A statistical comparison was performed which indicated no significant differences between the concentrations of PAHs in air at canoe level and those at street level during Round 2 (when the aeration system was operational). In Round 1, concentrations of three PAHs (anthracene, phenanthrene, and pyrene) were significantly higher at canoe level than at street level. However, the concentrations are generally within the same order of magnitude. The human health risk assessment in Appendix L provides a

quantitative assessment of the significance of the concentrations measured at each level and during each sampling event.

- The PAH naphthalene was found above its screening value at both the canoe and street level and at the reference location, although the maximum concentration at the reference location was lower than the maximum concentrations along the canal.
- The highest concentration of total PAHs at canoe level occurred at location 502 (near the Union Street Bridge – 20.98 $\mu g/m^3$) during the first sampling event. The highest concentration of total PAHs at street level occurred at location 507 (near the curve of the canal 7.54 $\mu g/m^3$) during the second round.

4.8 Soil

Subsurface soil samples were collected during installation of monitoring wells along the length of the canal. While the primary objective for installing the monitoring wells was to evaluate hydrogeologic characteristics and groundwater–surface water interactions, environmental samples were collected to identify the types and relative concentrations of contaminants in soil. Although the soil sampling does not constitute a complete environmental characterization of the specific properties where wells were installed or along the length of the canal as a whole, it does provide an indication of the range and magnitude of contaminants potentially affecting the canal.

The evaluation of soil data included identification of constituents detected in samples, comparison of detected concentrations to screening values with respect to potential impact to groundwater, and assessment of the distribution of contaminants both laterally along the length of the canal and vertically in the soil profile.

4.8.1 Sample Results

Sample locations are shown in Figure 2-11. The complete analytical results for soil samples are provided in Appendix I, Tables I-27a through I-31a, and a sample-by-sample comparison with screening values is provided in Tables I-27b through I-31b. Appendix O presents the results grouped by the physical property / geographical location along the canal where the soil borings and monitoring wells were installed.

A statistical summary of the soil sample results is presented in Table 4-19a. Table 4-19b summarizes the sampling results at each soil boring location. Listed are the total number of samples collected at each location, the total number of detected constituents, and the total number of constituents exceeding screening values. Please refer to Appendix O for soil results by geographical location along the canal and sampling depths at each location.

All classes of constituents (VOCs, SVOCs, pesticides, PCBs, and metals) were detected in soil samples from borings throughout the length of the canal. Chemical concentrations were relatively higher in borings where NAPL saturation was observed and noted on the soil boring logs. Soil results show that contaminants are distributed laterally along both sides of the canal from the bay to the head of the canal with no discernable trends in distribution between geographical areas within the study area.

VOC concentrations were higher than screening values at nearly all locations sampled along the canal, with most exceedances occurring at depths greater than 15 feet bgs. Similarly,

SVOC concentrations were higher than screening values at nearly all locations sampled, but unlike the VOCs, there was no differentiation in the vertical distribution of higher SVOC concentrations. While pesticides were detected at most locations along the length of the canal, concentrations in only six samples were higher than the screening values. PCBs were detected at six locations, but none of the concentrations were higher than the screening values. Most of the locations that were sampled contained some metals with concentrations that exceeded screening values. While the vertical distribution of high metal concentrations spanned all depths sampled, most screening value exceedances were between ground surface and 15 feet bgs.

These results indicate that at the sampled locations, contamination is found in the soils. Because, as described in Section 4.8.2, contamination is also generally found in the groundwater at these locations, it can be concluded that soil contamination is contributing to groundwater contamination, which in turn discharges to the canal and may affect the sediment and water quality in the canal. Although tidal flux may alter hydraulic gradients in the immediate vicinity of the canal and cause water from the canal to flow locally inland at times, the hydrogeologic evaluation indicated that the flow reversals are local and that the prevailing direction of groundwater flow is towards the canal.

The following represents a more detailed discussion of the contaminants found in the sampled soils. Refer to Table 4-19b for specific information at each soil boring location.

VOCs

- VOCs were detected in soils from all 46 soil boring locations along the canal. Soils from GC-MW-11 contained the highest number of VOC detections (77) followed by GC-MW-40 (66) and GC-MW-12 (65).
- Soils from GC-MW-40 contained the greatest number of maximum detected concentrations of VOCs (7) followed by GC-MW-3 (5) and GC-MW-31 (4).
- Exceedances of the screening values occurred in soils at 40 of the 46 soil borings with most exceedances occurring at depths greater than 15 feet bgs. Soils from GC-MW-35 and GC-MW-27 had the highest number of detections exceeding the screening values (21) followed by GC-MW-47 (19) and GC-MW-23 and GC-MW-45 (both had 17). Soils from the following 6 remaining monitoring well locations, while containing detections of VOCs, did not exceed VOC screening values: GC-MW-4, GC-MW-14, GC-MW-15, GC-MW-16, and GC-MW-26, and GC-MW-42.
- The VOCs exceeding the screening values most frequently are listed below along with the maximum concentration and screening value:
    - Acetone was detected in 53 percent of the soil samples, exceeded the screening value in 24 percent of the soil samples, with a maximum concentration of 420,000 µg/kg at GC-MW-35 (screening value is 50 µg/kg).
    - Benzene was detected in 42 percent of the soil samples, exceeded the screening value in 16 percent of the soil samples, with a maximum concentration of 1,100,000 µg/kg at GC-MW-40 (screening value is 60 µg/kg).

- Ethylbenzene was detected in 52 percent of the soil samples, exceeded the screening value in 13 percent of the soil samples, with a maximum concentration of 790,000 µg/kg at GC-MW-32 (screening value is 1,000 µg/kg).
- m,p xylenes was detected in 56 percent of the soil samples, exceeded the screening value in 11 percent of the soil samples, samples at a maximum concentration of 570,000 µg/kg at GC-MW-40 (screening value is 1,600 µg/kg).
- o-xylene was detected in 46 percent of all soil samples, exceeded the screening value in 11 percent of the soil samples, with a maximum concentration of 260,000 µg/kg at GC-MW-32 (screening value is 1,600 µg/kg).

The following compounds were also found at concentrations exceeding the screening values with the number of exceedances shown in parentheses: toluene (32), cis-1,2-dichloroethylene (5), methylene chloride (5), trichloroethylene (4), methyl ethyl ketone (3), trans-1,2-dichloroethene (2), 1,2-dichlorobenzene (1), 1,3-dichlorobenzene (1), and 1,4-dichlorobenzene (1).

SVOCs

- SVOCs were detected in soils from all 46 monitoring well locations along the canal. Soils from GC-MW-18 contained the highest number of SVOC detections (199) followed by GC-MW-39 (181) and GC-MW-11 (171).
- Soils from GC-MW-41 contained the greatest number of maximum detected concentrations of SVOCs (15) followed by GC-MW-40 (9) and GC-MW-11 and GC-MW-23 (each had 2).
- Screening values were exceeded in soils at 32 of the 46 soil borings with generally no differentiation in the vertical distribution of higher SVOC concentrations. Soils from GC-MW-40 had the highest number of detections exceeding the screening values (44) followed by GC-MW-27 (37) and GC-MW-11 (29). Soils from the following locations, while containing detections of SVOCs, did not exceed screening values: GC-MW-02, GC-MW-05, GC-MW-06, GC-MW-08, GC-MW-12, GC-MW-13, GC-MW-14, GC-MW-19, GC-MW-21, GC-MW-26, GC-MW-29, GC-MW-38, GC-MW-42, and GC-MW-46.
- The SVOCs exceeding the screening values most frequently are listed below along with their maximum concentration and screening value:
  - Benzo(a)anthracene was detected in 58 percent of the soil samples, exceeded the screening value in 23 percent of the soil samples, at a maximum concentration of 1,100,000 µg/kg at GC-MW-41 (screening value is 1,000 µg/kg).
  - Chrysene was detected in 57 percent of the soil samples, exceeded the screening value in 23 percent of the soil samples, at a maximum concentration of 1,100,000 µg/kg at GC-MW-41 (screening value is 1,000 µg/kg).
  - Benzo(b)fluoranthene was detected in 54 percent of the soil samples, exceeded the screening value in 19 percent of the soil samples, at a maximum concentration of 720,000 µg /kg at GC-MW-41 (screening value is 1,700 µg /kg).

- Benzo(k)fluoranthene was detected in 51 percent of the soil samples, exceeded the screening value in 16 percent of the soil samples, at a maximum concentration of 810,000 µg/kg (screening value is 1,700 µg/kg).
- Naphthalene was detected in 78 percent of the soil samples, exceeded the screening value in 12 percent of the soil samples, at a maximum concentration of 11,000,000 µg/kg at MW-40 (screening value is 12,000 µg/kg).

The following compounds were also found at concentrations exceeding the screening values with the number of exceedances shown in parentheses: benzo(a)pyrene (28), indeno(1,2,3-c,d)pyrene (28), acenaphthene (19), acenaphthylene (9), 4-methylphenol (8), phenanthrene (5), fluorene (4), 2-methylphenol (3), phenol (8), fluoranthene (3), dibenzofuran (3), pyrene (2), and anthracene (1).

Pesticides

- Pesticides were detected in soils from 42 of the 46 monitoring well locations along the canal. Soils from GC-MW-23 contained the highest number of pesticide detections (37) followed by GC-MW-11 (29) and GC-MW-27 (24). Pesticides were not detected at the following monitoring well locations: GC-MW-17, GC-MW-19, GC-MW-33, and GC-MW-46.
- Soils from soil boring GC-MW-27 contained the greatest number of maximum detected concentrations of pesticides (11) followed by GC-MW-23 (4) and GC-MW-11 (2).
- Screening values were exceeded in soils at 3 of the 46 soil borings. Soils from GC-MW-27 had the highest number of detections exceeding the screening values (3) followed by GC-MW-47 (2) and GC-MW-43 (1).
- The pesticides exceeding the screening values are listed below along with their maximum concentration and screening value:
  - Alpha BHC was detected in 4percent of all soil samples, exceeded the screening value in less than 1 percent of the soil samples, at a maximum concentration of 130 µg/kg at GC-MW-27 (screening value is 20 µg/kg).
  - Endrin was detected in 8percent of all soil samples, exceeded the screening value in less than 1 percent of the soil samples, at a maximum concentration of 110 µg /kg at GC-MW-27 (screening value is 60 µg/kg).
  - p,p'-DDE was detected in 9percent of all soil samples, exceeded the screening value in less than 1 percent of the soil samples, at a maximum concentration of 19,000 µg/kg at GC-MW-27 (screening value is 17,000 µg/kg).

PCBs

- PCBs were detected in soils from 6 of the 46 monitoring well locations. At each of the six monitoring well locations, only one compound was detected and no concentrations exceeded screening values. The following PCBs were detected below the screening values: Aroclor 1242 (GC-MW-31), Aroclor 1248 (GC-MW-42), Aroclor 1254 (GC-MW-01, GC-MW-32, GC-MW-40), Aroclor 1260 (GC-MW-25).

Metals and Cyanide

- Metals were detected in soils from all 46 monitoring well locations along the canal. Soils from GC-MW-41 contained the highest number of metal detections (208) followed by GC-MW-40 (193) and GC-MW-18 (174).
- Soils from GC-MW-25 contained the greatest number of detected maximum concentrations of metals (10) followed by GC-MW-23, GC-MW-24, GC-MW-37, and GC-MW-42 (each had 2).
- Screening values were exceeded in soils at 29 of the 46 soil borings with most exceedances occurring between ground surface and 15 feet bgs. Soils from GC-MW-27 had the highest number of metal detections exceeding the screening values (16) followed by GC-MW-25 (12) and GC-MW-32 and GC-MW-39 (each had 7).
- The metals exceeding the screening values most frequently are listed below along with the maximum concentration and screening value:
    - Mercury was detected in 32 percent of all soil samples, exceeded the screening value in 11 percent of the soil samples, at a maximum concentration of 45.2 mg/kg at GC-MW-39 (screening value is 0.73 mg/kg).
    - Arsenic was detected in 89 percent of all soil samples, exceeded the screening value in 7 percent of the soil samples, at a maximum concentration of 116 mg/kg at GC-MW-37 (screening value is 16 mg/kg).
    - Lead was detected in 98 percent of all soil samples, exceeded the screening value in 5 percent of the soil samples, at a maximum concentration of 34,700 mg/kg at GC-MW-25 (screening value is 450 mg/kg).

  The following metals were also found at concentrations exceeding the screening values with the number of exceedances shown in parentheses: barium (4), cadmium (4), silver (3), selenium (2), manganese (1), nickel (1), and zinc (1).

4.8.2 Summary

- Subsurface soil samples were collected from soil borings during the installation of monitoring wells to provide an indication of the range and concentrations of contaminants present both laterally and vertically in soils along the canal.
- Soil samples were collected from a total of 46 soil borings along the canal resulting in a total of 357 soil samples.
- At all soil boring locations, at least one contaminant concentration was higher than a screening value with the exception of GC-MW-14 and GC-MW-42 where there were no exceedances.
- The following summarizes the total number of detections and total number of exceedances noted in the 356 soil samples for each group of analytes.

Total Number of Detections in Soils				
VOCs	**SVOCs**	**Metals**	**Pesticides**	**PCBs**
1608	4701	5810	391	6

Total Number of Screening Value Exceedances in Soils				
VOCs	**SVOCs**	**Metals**	**Pesticides**	**PCBs**
308	443	101	6	0

- SVOCs exceeded screening values most frequently, followed by VOCs , metals, and pesticides. PCBs did not exceed screening values.

4.8.3 Split Sampling

During installation of the soil borings and monitoring wells, the USEPA collected split samples at locations that were being completed by National Grid and New York City. The split sample was collocated with the parent sample that was collected and analyzed by either National Grid or New York City. While some degree of heterogeneity is expected during soil sampling, a statistical comparison was performed between the split and parent sample results to evaluate the comparability of the data.

The results from the split soil sampling were evaluated by calculating relative percent differences (RPDs) between each associated pair of parent (*N* sample) and split (*S* sample) detects. The RPD was calculated using the following equation:

$$\text{RPD} = \frac{(N_{\text{value}} - S_{\text{value}}) \times 100\%}{(N_{\text{value}} + S_{\text{value}})/2}$$

Of the 3,279 pairs of results, neither the *N* value nor the *S* value was detected in 2,355 cases. In 65 cases the *N* value was detected but the *S* value was not, while in 246 cases the *S* value was detected but the *N* value was not. The RPD was calculated for the 613 remaining cases where both *S* and *N* values were detected.

Acceptable precision was defined as an RPD of less than 45 percent. The evaluated results had a mean RPD of 31.7 percent, which is considered within the acceptable range. The percentile of RPDs below 45 percent was 75.4 percent. Individual results varied as expected due to matrix, sampling, and laboratory considerations.

4.9 Groundwater

As with the soil sampling, groundwater samples were collected and analyzed to identify the types and relative concentrations of contaminants in groundwater in the vicinity of the canal. The evaluation of groundwater data included identification of the types of analytes detected in samples in the shallow and intermediate zones, comparison of detected concentrations to screening values, and assessment of the distribution of contaminants along the length of the canal.

4.9.1 Sample Results

Sample locations are shown in Figure 2-11. The complete analytical results for groundwater samples are provided in Appendix I, Tables I-32a through I-36a, and a sample-by-sample

comparison with screening values is provided in Tables I-32b through I-36b. Appendix O presents the results grouped by the physical property / geographical location along the canal where the groundwater samples were collected.

A statistical summary was also compiled from the results of the groundwater analysis. This summary is presented in Table 4-20a for the shallow groundwater and in Table 4-20b for the intermediate groundwater. Table 4-20c summarizes the shallow groundwater results at each monitoring well location including the total number of detected constituents and the total number of constituents found to exceed screening values. Table 4-20d provides the same information for the intermediate groundwater. Please refer to Appendix O for groundwater results by geographical location along the canal and sampling depths at each monitoring well.

All classes of constituents (VOCs, SVOCs, pesticides, and metals) except PCBs were detected in samples from both the shallow and intermediate groundwater throughout the length of the canal. PCBs were not detected in any of the sampled monitoring wells. Chemical concentrations in groundwater were relatively higher in wells where NAPL saturation was observed in the soil borings. Measureable thicknesses of NAPL were observed in eight wells (GC-MW-7I, GC-MW-11S, GC-MW-23I, GC-MW-28S, GC-MW-29S, MW-35S, MW-40S, MW-47I) during at least one monthly measurement event, and four additional wells (GC-MW-11I, GC-MW-12I, GC-MW-23S, GC-MW-43I) had evidence of NAPL on the measuring tape, but measureable thicknesses were not reported.

VOC concentrations were higher than screening values in approximately 33 percent of the shallow monitoring wells and 67 percent of the intermediate monitoring wells along the canal. Similarly, SVOC concentrations were higher than screening values in approximately 33 percent of the shallow monitoring wells and in half of the intermediate monitoring wells. Pesticides, however, were detected in only one shallow monitoring well and in one intermediate monitoring well and exceeded the screening value at the intermediate monitoring well location. As noted above, PCBs were not detected in either the shallow or intermediate zones. The following metals exceeded their screening values: arsenic, barium, lead, nickel, and sodium. Sodium concentrations were higher than screening values in all monitoring wells (shallow and intermediate).

The following represents a more detailed discussion of the contaminants found in the sampled groundwater.

Shallow Groundwater Zone

VOCs

- VOCs were detected in groundwater samples from 38 of the 44 shallow monitoring wells located along the canal. Monitoring well GC-MW-33S contained the highest number of VOC detections (14) followed by GC-MW-43S (13) and GC-MW-05S (12).
- Groundwater results from GC-MW-12S contained the greatest number of maximum detected concentrations of VOCs (9) followed by GC-MW-26S (6) and GC-MW-33S and GC-MW-24S (3 each).
- Screening values were exceeded in groundwater samples from 17 of the 44 shallow monitoring wells. Groundwater samples from GC-MW-11S had the highest number of

detections exceeding the screening values (7) followed by GC-MW-12S and GC-MW-47S (both had 6); and GC-MW-13S, GC-MW-26S, GC-MW-39S, and GC-MW-41S (each had 5).

- The VOCs exceeding the screening values most frequently are listed below along with the maximum concentration and screening value:
    - Benzene was detected in 42 percent of the shallow groundwater samples, exceeded the screening value in 30 percent of the samples, at a maximum concentration of 7,600 μg/L at GC-MW-12S (screening value is 1 μg/L).
    - Ethylbenzene was detected in 52 percent of the shallow groundwater samples, exceeded the screening value in 30 percent of the samples, at a maximum concentration of 1,600 μg/L at GC-MW-12S (screening value is 5 μg/L).
    - o-xylene was detected in 52 percent of the shallow groundwater samples, exceeded the screening value in 27 percent of the samples, at a maximum concentration of 2,600 μg/L at GC-MW-12S (screening value is 5 μg/L).

  The following compounds were also found at concentrations exceeding the screening values with the number of exceedances shown in parentheses: isopropylbenzene (8), toluene (6), chlorobenzene (3), 1,2-dichloroethane (2), styrene (2), 1,3-dichlorobenzene (1), 1,4-dichlorobenzene (1), chloroform (1), cis-1,2-dichloroethylene (1), vinyl chloride (1).

SVOCs

- SVOCs were detected in groundwater samples from 41 of the 44 shallow monitoring wells located along the canal. Monitoring well GC-MW-23S contained the highest number of SVOC detections (20) followed by GC-MW-35S (19) and GC-MW-32S and GC-MW-45S (18).
- Groundwater results from GC-MW-47S contained the greatest number of maximum detected concentrations of SVOCs (7) followed by GC-MW-41S (6) and GC-MW-13S (5).
- Screening values were exceeded in groundwater samples from 16 of the 44 shallow monitoring wells. Groundwater samples from GC-MW-13S contained the highest number of detections exceeding the screening values (4) followed by GC-MW-45S and GC-MW-41S (each had 3), and GC-MW-11S, GC-MW-23S and GC-MW-47S (each had 2).
- The SVOCs exceeding the screening values most frequently are listed below along with their maximum concentration and screening value:
    - Biphenyl was detected in 39 percent of shallow groundwater samples, exceeded the screening value in 18 percent of the samples, at a maximum concentration of 64 μg/L at GC-MW-13S (screening value is 5 μg/L).
    - Benzo(a)pyrene was detected in 14 percent of shallow groundwater samples, exceeded the screening value in 11 percent of the samples, at a maximum concentration of 2.1 μg/L at GC-MW-47S (screening value is 0.2 μg/L).
    - 2,4-dinitrotoluene was detected in 7 percent of shallow groundwater samples, exceeded the screening value in 7 percent of the samples, at a maximum concentration of 290 μg/L at GC-MW-13S (screening value is 5 μg/L).

The following compounds also exceeded the screening values with the number of exceedances shown in parentheses: bis(2-ethylhexyl)phthalate (2) and 4-chloroaniline (1).

Pesticides

- One pesticide (alpha endosulfan) was detected below the screening value in one groundwater monitoring well (GC-MW-18S).

PCBs

- PCBs were not detected in any of the shallow groundwater monitoring wells.

Total Metals and Cyanide

- Metals were detected in groundwater samples from all 44 shallow monitoring wells located along the canal. Groundwater sample GC-MW-24S contained the highest number of metal detections (21) followed by GC-MW-15S, GC-MW-28S, and GC-MW-29S (each had 19); and GC-MW-04S, GC-MW-12S, GC-MW-39S, and GC-MW-43S (each had 18).

- Groundwater results from GC-MW-24S contained the greatest number of maximum detected concentrations of metals (9) followed by GC-MW-09S (4) and GC-MW-27S (3).

- Screening values were exceeded in groundwater samples from all 44 shallow monitoring wells. Groundwater samples from GC-MW-24S contained the highest number of detections exceeding the screening values (7) followed by GC-MW-09S and GC-MW-29S (6), and GC-MW-12S and GC-MW-15S (both had 5).

- The metals exceeding the screening values most frequently are listed below along with their maximum concentration and screening value:

    - Sodium was detected in 100 percent of shallow groundwater samples, exceeded the screening value in 100 percent of the samples, at a maximum concentration of 7,080,000 μg/L at GC-MW-27S (screening value is 20,000 μg/L).

    - Arsenic was detected in 93 percent of shallow groundwater samples, exceeded the screening value in 29 percent of the samples, at a maximum concentration of 40 μg/L at GC-MW-24S (screening value is 10 μg/L).

    - Chromium was detected in 75 percent of shallow groundwater samples, exceeded the screening value in 9 percent of the samples, at a maximum concentration of 834 μg/L at GC-MW-24S (screening value is 50 μg/L).

    - Nickel was detected in 81 percent of shallow groundwater samples, exceeded the screening value in 2 percent of the samples, at a maximum concentration of 441 μg/L at GC-MW-24S (screening value is 100 μg/L).

No other metals exceeded their screening values.

Intermediate Groundwater Zone

VOCs

- VOCs were detected in groundwater samples from 42 of the 46 intermediate monitoring wells located along the canal. Groundwater samples GC-MW-18I and GC-MW-26I

contained the highest number of VOC detections (each had 14) followed by GC-MW-01I and GC-MW-29I (each had 13) and GC-MW-27I (12).

- Groundwater results from GC-MW-33I contained the greatest number of maximum detected concentrations of VOCs (8) followed by GC-MW-25I (4) and GC-MW-32I (3).
- Screening values were exceeded in groundwater samples from 32 of the 46 intermediate monitoring wells. Groundwater from GC-MW-11I, GC-MW-18I, and GC-MW-46I contained the highest number of detections exceeding the screening values (each had 7) followed by GC-MW-20I and GC-MW-47I (each had 6).
- The VOCs exceeding the screening values most frequently are listed below along with the maximum concentration and screening value:
    - Benzene was detected in 54 percent of intermediate groundwater samples, exceeded the screening value in 43 percent of the samples, at a maximum concentration of 5,200 μg/L at GC-MW-30I (screening value is 1 μg/L).
    - Ethylbenzene was detected in 67 percent of intermediate groundwater samples, exceeded the screening value in 43 percent of the samples, at a maximum concentration of 6,300 μg/L at GC-MW-32I (screening value is 5 μg/L).
    - o-xylene was detected in 63 percent of intermediate groundwater samples, exceeded the screening value in 41 percent of the samples, at a maximum concentration of 2,000 μg/L at GC-MW-32I (screening value is 5 μg/L).

  The following compounds also exceeded the screening values with the number of exceedances shown in parentheses: toluene (16), cis-1,2-dichloroethylene (12), isopropylbenzene (11), trichloroethylene (TCE – 6), vinyl chloride (6), 1,2-dichloroethane (3), 1,2,3-trichlorobenzene (1), 1,2,4-trichlorobenzene (1), styrene (3), tetrachloroethylene (PCE - 1), trans-1,2-dichloroethene (2), and trichlorofluoromethane (1).

SVOCs

- SVOCs were detected in groundwater samples from 45 of the 46 intermediate monitoring wells located along the canal. Groundwater sample GC-MW-47I had the highest number of SVOC detections (22) followed by GC-MW-45I (20) and GC-MW-43I (19). SVOCs were not detected in GC-MW-19I.
- Groundwater results from GC-MW-07I contained the greatest number of maximum detected concentrations of SVOCs (13) followed by GC-MW-40I (4) and GC-MW-47I (3).
- Screening values were exceeded in groundwater samples from 23 of the 46 intermediate monitoring wells. Groundwater samples from GC-MW-47I and GC-MW-45I contained the highest number of detections exceeding the screening values (each had 3) followed by GC-MW-07I, GC-MW-09I, GC-MW-18I, GC-MW-23I, GC-MW-39I, and GC-MW-40I (each had 2).
- The SVOCs exceeding the screening values most frequently are listed below along with the maximum concentration and screening value:

- Biphenyl was detected in 50 percent of intermediate groundwater samples, exceeded the screening value in 41 percent of the samples, at a maximum concentration of 80 μg/L at GC-MW-31I (screening value is 5 μg/L).
- Benzo(a)pyrene was detected in 17 percent of intermediate groundwater samples, exceeded the screening value in 13 percent of the samples, at a maximum concentration of 11 μg/L at GC-MW-07I (screening value is 0.2 μg/L).
- Bis(2-ethylhexyl) phthalate was detected in 41 percent of intermediate groundwater samples, exceeded the screening value in 4 percent of the samples, at a maximum concentration of 77 μg/L at GC-MW-04I (screening value is 5 μg/L).

The following compounds also exceeded the screening values with the number of exceedances shown in parentheses: 2,4-dinitrotoluene (1) and hexachloroethane (1).

Pesticides

- Two pesticides (alpha endosulfan and beta BHC) were detected at GC-MW-31I. Beta BHC was detected above its screening value (0.084 μg/L compared to screening value of 0.04 μg/L)

PCBs

- PCBs were not detected in any of the intermediate monitoring wells.

Total Metals and Cyanide

- Metals were detected in groundwater samples from all 46 intermediate monitoring wells located along the canal. Groundwater sample GC-MW-20I contained the highest number of metal detections (19) followed by GC-MW-39I (17) and GC-MW-07I, GC-MW-15I, and GC-MW-43I (each had 16).
- Groundwater results from GC-MW-01I and GC-MW-39I contained the greatest number of maximum detected concentrations of metals (4) followed by GC-MW-20I (3) and GC-MW-13I and MW-09I (both had 2).
- Screening values were exceeded in groundwater samples from all of the 46 intermediate monitoring wells. Groundwater samples from GC-MW-01I, GC-MW-07I, GC-MW-09I, GC-MW-11I, GC-MW-18I had the highest number of metals exceeding the screening values (5) followed by GC-MW-06I, GC-MW-10I, GC-MW-12I, GC-MW-15I, GC-MW-17I, GC-MW-38I, GC-MW-39I, GC-MW-43I, and GC-MW-44I (each had 4).
- The metals exceeding the screening values are listed below along with the maximum concentration and screening value:
  - Sodium was detected in 100 percent of intermediate groundwater samples, exceeded the screening value in 100 percent of the samples, at a maximum concentration of 3,760,000 μg/L at GC-MW-39I (screening value is 20,000 μg/L).
  - Arsenic was detected in 89 percent of intermediate groundwater samples, exceeded the screening value in 30 percent of the samples, at a maximum concentration of 107 μg/L at GC-MW-21I (screening value is 10 μg/L).

- Barium was detected in 93 percent of intermediate groundwater samples, exceeded the screening value in 9 percent of the samples, at a maximum concentration of 2,900 µg/L at GC-MW-39I (screening value is 1,000 µg/L).
- Lead was detected in 75 percent of intermediate groundwater samples, exceeded the screening value in 9 percent of the samples, at a maximum concentration of 277 µg/L at GC-MW-09I (screening value is 15 µg/L).
- Nickel was detected in 90 percent of intermediate groundwater samples, exceeded the screening value in 2 percent of the samples, at a maximum concentration of 194 µg/L at GC-MW-07I (screening value is 100 µg/L).

No other metals exceeded their screening values.

4.9.2 Summary

- Groundwater samples were collected from shallow and intermediate monitoring wells to provide an indication of the range and concentrations of contaminants present both laterally and vertically in groundwater along the canal.
- Groundwater samples from all shallow monitoring wells contained at least one constituent that exceeded a screening value.
- The following summarizes the total number of detections and total number of exceedances noted in the shallow monitoring wells for each group of analytes.

Total Number of Detections in Shallow Groundwater

VOCs	SVOCs	Pesticides	PCBs	Metals
245	468	1	0	628

Total Number of Screening Value Exceedances in Shallow Groundwater

VOCs	SVOCs	Pesticides	PCBs	Metals
64	26	0	0	150

- In shallow groundwater, metals exceeded screening values most frequently, followed by VOCs and SVOCs. Pesticides did not exceed screening values and PCBs were not detected.
- Similarly, groundwater samples from all intermediate monitoring wells contained at least one constituent that exceeded a screening value.
- The following summarizes the total number of detections and total number of exceedances noted in the intermediate monitoring wells for each group of analytes.

Total Number of Detections in Intermediate Groundwater				
VOCs	**SVOCs**	**Pesticides**	**PCBs**	**Metals**
307	507	2	0	597

Total Number of Screening Value Exceedances in Intermediate Groundwater				
VOCs	**SVOCs**	**Pesticides**	**PCBs**	**Metals**
118	33	1	0	151

- Similar to shallow groundwater, metals exceeded screening values most frequently in intermediate groundwater, followed by VOCs and SVOCs. One pesticide concentration exceeded the screening value and PCBs were not detected.

4.9.3 Split Sampling

Split samples were also collected by USEPA during groundwater sampling performed by National Grid and New York City. The approach used for the soil was used to evaluate the groundwater split sample results.

Of the 4,094 pairs of results, neither the *N* value nor the *S* value was detected in 3,076 cases. In 81 cases the *N* value was detected but the *S* value was not, while in 308 cases the *S* value was detected but the *N* value was not. The RPD was calculated for the 629 remaining cases where both *S* and *N* values were detected.

Acceptable repeatability was defined as an RPD of less than 35 percent. The evaluated results had a mean RPD of 31.7 percent, which is considered within the acceptable range. The percentile of RPDs below 35 percent was 70.7. Individual results varied as expected due to matrix, sampling, and laboratory considerations.

4.10 Tissue

Fish and crab tissue samples were collected from the Gowanus Canal and reference areas in Gowanus Bay and Upper New York Bay and composited for analysis as described in Section 2.5. Fish and crab tissue samples were analyzed for pesticides, PCB congeners and metals; crab tissue samples were also analyzed for PAHs. Analytical results for small prey fish, crab edible tissue, crab hepatopancreas, larger fish fillets, and larger fish carcass samples are provided in Tables I-68 through I-84. The results for crab edible tissue and crab hepatopancreas, and larger fish fillets and larger fish carcasses, were mathematically combined to calculate whole body tissue concentrations. The calculated whole body tissue sample results are provided in Tables I-85 through I-91.

Table 4-21a presents a summary of the tissue data used in the ecological risk assessment and Table 4-21b presents a summary of the data used in the human health risk assessment. All tissue concentration data are reported on a wet weight basis. The significance of the measured concentrations is evaluated in the ecological and human health risk assessments presented in Appendices K and L, respectively.

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SECTION 5

Summary of Ecological and Human Health Risk Assessments

This section summarizes the ERA and HHRA performed for the Gowanus Canal Superfund Site. It includes background information, a description of the approach used for each assessment, and preliminary Conceptual Site Models. The complete ERA and HHRA are presented in Appendixes K and L, respectively.

5.1 Ecological Risk Assessment

The primary objective of the ERA is to evaluate the potential for risk to ecological receptors from contamination associated with the Gowanus Canal in the absence of any remedial action. The evaluation in Appendix K completes steps 1 through 7 of the ERA process as provided in USEPA's (1997) *Ecological Risk Assessment Guidance for Superfund* and its updates. A screening-level ERA (SLERA) and an ERA are presented in Appendix K of this RI report.

Over the years, significant industrial activity took place along the canal, as discussed in Section 1. Although much of the industrial activity has stopped, high contaminant levels have been measured in the canal sediments. The canal also continues to receive discharges from CSOs during significant storm events.

Habitats in the Gowanus Canal have been significantly influenced by surrounding industries and historic development activities. No areas of natural shoreline, wetlands, or natural upland remain along this water body. The entire length of the canal is bordered by wooden piers, bulkheads, concrete walls, and large boulders used for bank stabilization. Due to the highly urbanized nature of this water body and its surrounding habitats, the Gowanus Canal is expected to support a limited community of potential ecological receptors.

The adjacent upland areas bordering the canal provide minimal habitat for wildlife, and the bulkheaded shoreline is expected to eliminate the potential for most terrestrial wildlife to access the canal. There is the potential for some avian wildlife to directly access and use the canal as a habitat and foraging area. Piscivorous (fish-eating) species such as the double-crested cormorant *(Phalacrocorax auritus)* and great blue heron *(Ardea herodias)*, as well as dabblers like black duck *(Anas rubripes)*, *do* use the canal to forage for small prey fish, invertebrates, and algae.

The Gowanus Canal is expected to support aquatic life including benthic macroinvertebrates, zooplankton, and brackish and saltwater fish species. Benthic macroinvertebrates, including annelid worms (polychaetes and oligochaetes), amphipods, and small mollusks, were observed in canal sediments during the Phase 3 sample collection. Blue crabs (*Callinectes sapidus*) were captured in relatively large numbers during the Phase 3 RI activities. Planktonic organisms, including copepods and fish larvae and eggs, also have

been captured during site surveys. A number of marine and brackish fish species present within the Upper New York Bay are also expected to occur within the canal. With the exception of a limited number of resident species such as mummichog (*Fundulus* sp.), most of the fish species expected to occur in this water body are migratory, seasonally transient, or move daily as part of their normal behavior. Limitations in the habitat and food resources provided by the canal and habitat conditions (seasonal high temperatures and low-oxygen conditions) are expected to limit the overall abundance and diversity of fish.

A CSM for ecological exposures presents an overview of site conditions, potential sources of contamination, potential contaminant migration pathways, and potential exposure pathways to potential receptors. Figure 5-1 presents the preliminary CSM for ecological receptor exposures developed for the Gowanus Canal. The physical and chemical aspects of the CSM are discussed further in Section 6.

The ERA evaluates the chemical analytical data from sampling of the following media during the Phase 3 RI:

- Surface sediment (0 to 6 inches)
- Surface water (wet and dry conditions)
- Fish and crab tissue residue

Fish tissue evaluated in the ERA included both smaller prey species (Atlantic tomcod and mummichog) and several larger fish species (American eel, striped bass, and white perch). In addition, the ERA evaluated the results of *Leptocheirus plumulosus* and *Nereis virens* chronic sediment bioassays conducted with splits of the surface sediment samples that were collected for chemical analysis. Data collected prior to the Phase 3 RI were not quantitatively evaluated in the ERA.

The following assessment endpoints were selected for evaluation in the ERA:

- **Benthic macroinvertebrate community survival and reproduction.** Benthic macroinvertebrates have direct contact with and frequently ingest sediment and could be directly exposed to chemicals in this medium. Surface sediment chemical analytical data and the results of the sediment bioassays with *Leptocheirus plumulosus* and *Nereis virens* were used to evaluate the potential for adverse effects to this receptor.
- **Water column-dwelling aquatic life community survival and reproduction.** Aquatic life in the canal could be exposed to chemicals in surface water by direct contact, respiration, and the ingestion of surface water. Surface water chemical analytical data (wet and dry events) were used to evaluate the potential for adverse effects to this receptor.
- **Avian herbivore survival and reproduction.** Avian herbivores (e.g., dabbling ducks) could be exposed through ingestion to chemicals that bioaccumulate in aquatic plants. Sediment chemical analytical data were used to model potential exposure and risks to this receptor.
- **Avian piscivores/omnivores survival and reproduction.** Avian piscivores/omnivores (e.g., heron) are top-level consumers and are thus exposed to bioaccumulative chemicals, especially those that have the potential to biomagnify through aquatic food

chains. Fish and crab tissue chemical analytical data were used to model potential exposure and risks to this receptor group.

The results of all analyses and the risk characterization are provided in the ERA report in Appendix K.

5.2 Human Health Risk Assessment

The primary objective of the baseline HHRA is to assess the potential and current future health risks from contamination associated with the Gowanus Canal, in the absence of any remedial action. The risk assessment evaluates the carcinogenic risks and noncarcinogenic hazards to a reasonably maximally exposed individual, which is consistent with the National Contingency Plan (NCP) and Risk Assessment Guidance for Superfund (RAGS) HHRA guidance documents (USEPA, 1989, 1991, 2001, 2004, 2009). The reasonable maximum exposure (RME) is the highest exposure that is reasonably expected to occur at a site (USEPA, 1989). The baseline HHRA is presented as Appendix K of this RI report.

The preliminary CSM for human exposures presents an overview of site conditions, potential sources of contamination, potential contaminant-migration pathways, and potential exposure pathways to potential receptors. Figure 5-2 presents the preliminary CSM for human exposures developed for the Gowanus Canal. As noted, the physical and chemical aspects of the CSM are presented in Section 6.

As noted, chemical contamination has been found in sediments and other media associated with the Gowanus Canal. Potential current and future receptors to this contamination may include recreational users, anglers, local residents, and nearby industrial workers. The recreational receptors may contact surface water and sediment through incidental ingestion and dermal absorption; ambient air (volatile and particulate emissions from the surface water and sediment) at canal level while boating, fishing, and crabbing in the canal; and potentially, although less common and less likely, while swimming or diving in the canal.

Swimming or diving in the canal, although reported to occur, is rare due to the general conditions of the canal, which are associated largely with the CSO discharges. Anglers and children of anglers may also ingest the fish or crabs caught in the canal. Residents and industrial workers may inhale ambient air (associated with volatile and particulate emissions from the canal) at street level. Also, as it has been noted that during significant rainfall events, the canal can overflow (two or three times per year); these residents and industrial workers may contact surface water and sediment that has overtopped the canal through incidental ingestion and dermal contact. If any of the sediment that has overtopped the canal is not washed away with rain, it is usually swept up by the local residents or workers and does not accumulate.

Future use of the area surrounding the canal is most likely to remain the same as current use, with the potential for the construction of new housing, resulting in additional residents living close to the canal.

Currently, the NYSDOH has fish-consumption advisories for the Upper Bay of the New York Harbor (north of the Verrazano Narrows Bridge), of which the Gowanus Canal is part (NYSDOH, 2010). Despite the advisories, fishing and fish consumption do occur. The main

contaminants of concern noted for these waters in the advisories are PCBs and dioxin in fish and cadmium, dioxin, and PCBs in crab and lobster. The advisories include the following:

- For women under 50 years and children under 15 years: Do not eat any fish from these waters, eat no more than a few meals per year of crab meat from these waters, and avoid eating the crab tomalley (hepatopancras) or cooking liquid.
- For all others: Do not eat gizzard shad, white perch, or crab and lobster tomalley (hepatopancreas) and cooking liquid; eat only one meal per month of altantic needlefish, bluefish, rainbow smelt, and striped bass; eat no more than four meals per month of all other fish species and blue crab meat.

The HHRA evaluates the chemical analytical data sampled from the following media during the Phase 3 remedial investigation of the Gowanus Canal:

- Surface sediment (0 to 6 inches, exposed and shallow sediment)
- Surface water (wet and dry conditions)
- Ambient air (canoe and street level from both sampling events)
- Fish and crab tissue residue

Data collected prior to the Phase 3 RI were not quantitatively evaluated in the HHRA.

Fish and crab that were used for quantitative evaluation in the HHRA included striped bass, white perch, eel, and blue crab. Edible tissue (filet only) samples were analyzed to assess potential human health risks associated with ingestion of striped bass, white perch, and eel. For blue crab, edible portion samples and hepatopancreas samples were analyzed. Risks were quantified for the combined edible portion and hepatopancreas samples.

The exposure scenarios and pathways evaluated in the HHRA include the following:

- Adult, adolescent (12–18 years old), and child (0–6 years old) recreational: incidental ingestion and dermal contact with canal surface water (during both wet and dry sampling events), incidental ingestion and dermal contact with exposed and near shore sediment in the canal, and inhalation of ambient air at canal level (both prior to and during aeration system operation).
- Adult and adolescent (12–18 years old) anglers and child (0–6 years old) of angler: ingestion of fish (striped bass, white perch, and eel) and crab caught in the canal.
- Adult and child (0–6 years) residents: inhalation of ambient air at street level (both prior to and during aeration system operation), incidental ingestion and dermal contact with canal overflow surface water (using surface water collected during wet events), and incidental ingestion and dermal contact with sediment deposited adjacent to the canal (using surface sediment data) during canal overflow events.
- Adult industrial worker: inhalation of ambient air at street level (both prior to and during aeration system operation), incidental ingestion and dermal contact with canal overflow surface water (using surface water collected during wet events), and incidental ingestion and dermal contact with sediment deposited adjacent to the canal (using surface sediment data) during canal overflow events.

The results of all analyses and the risk characterization are provided in the HHRA report in Appendix L.

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SECTION 6

Conceptual Site Model

This section presents a CSM for the Gowanus Canal based on the data collected for this RI and on other studies that have been completed for the canal. The CSM summarizes and integrates information about historical and ongoing sources of contamination, nature and extent of contamination, contaminant fate and transport mechanisms, and risks to humans and wildlife from exposure to contaminated sediments in the canal. As noted in USEPA's (2005) contaminated sediment remediation guidance, the CSM is an important tool for evaluating the potential effectiveness of remedial alternatives. Three CSMs are often developed for complex sediment sites: (1) a CSM of the physical and chemical aspects of the system, (2) an ecological CSM, and (3) a human health CSM. The preliminary CSMs showing the exposure pathways and receptors that were evaluated in the ERA and HHRA are presented in Figures 5-1 and 5-2, respectively.

Diagrams illustrating the major components of the physical and chemical CSM are presented in Figures 6-1 and 6-2a through 6-2c. Figure 6-1 illustrates the movement of contaminants from the original sources to surface water and sediment in the canal and the processes that affect the fate and transport of the contaminants. This physical and chemical CSM is presented in the same format as the ecological and human health CSMs. Figures 6-2a through 6-2c summarize the primary aspects of the physical and chemical CSM on maps of the canal. The receptors that were determined to be at risk from exposure to contamination in the canal and the associated exposure pathways were integrated to create an overall CSM. The overall CSM will then be used to guide the development of remedial alternatives in the FS and will be continually refined as new information becomes available.

6.1 Contaminant Sources and Release Pathways

The Gowanus Canal has been affected by numerous known and potential sources of contamination for a period of about 140 years. These sources and the release pathway(s) for each include the following (Figure 6-2a):

- **Direct discharges of waste from historical industrial activities.** These activities included manufactured-gas production; bulk handling of products such as petroleum, coal, chemical fertilizers, oil, and scrap metal; various manufacturing activities; and other industrial operations. The industrial use of the canal began in the 1870s, peaked in the period from 1900 to 1932, and has declined to the present day (Hunter Research et al., 2004). Wastes from many of these operations were discharged directly into the canal. Based on the site history and the poor environmental practices typical of the era, a large quantity of waste was likely released via this pathway. Given the decline of industrial activity since the early 1900s and the implementation of the Clean Water Act in the early 1970s, direct discharges from industrial activities were substantially reduced or controlled over time. The declining level of contaminant loading to the canal is apparent in the vertical profiles of chemical concentrations in sediment cores (Figures 4-7a through 4-9c).

- **Discharges of sewage and stormwater.** The Gowanus Canal served as an open sewer when it was initially constructed in the late 1860s. By the late 1870s, sewers entering the canal carried a combination of household waste, industrial effluent from gas works and other industries, and stormwater runoff (Hunter Research et al., 2004). Prior to the implementation of the Clean Water Act, the contaminant load in sewage and stormwater discharges to the canal was greater than it is under present-day conditions. New York City has taken various measures over the years to mitigate the impacts of sewage and stormwater discharges, and a variety of additional upgrades and control measures is in progress or planned as part of the LTCP. Today, CSOs occur only during wet weather, discharging a mixture of sanitary sewage and stormwater to the canal. Of the 10 active CSOs, two discharge 66 percent of the total annual wet-weather discharge, and two others discharge another 29 percent. The reconstruction of the Gowanus Wastewater Pump Station is expected to decrease CSO discharges to the canal by approximately 34 percent. The CSO water sampling performed for this RI, in conjunction with information about discharge volumes, can be used to estimate contaminant loading from the CSOs under present-day conditions. The RI sampling results indicate that PAHs and metals are the most prevalent contaminants in the CSO discharges. The highest concentrations of some metals in soft sediment are found near CSO outfalls (e.g., lead and mercury at the head of the canal near RH-034, copper near OH-007, lead (and PCBs) at RH-035).

- **Ongoing direct discharges from pipe outfalls.** A number of pipe outfalls other than the 13 active New York City CSO and stormwater outfalls line the canal. A number of discharges to the canal are permitted under the National Pollutant Discharge Elimination System (NPDES)/SPDES, including three stormwater industrial permits, one stormwater construction permit, and three individual permits. The pipe outfall survey performed for the RI was the initial step in identifying and characterizing potential ongoing contaminant discharges to the canal from these pipes. The pipe outfall sampling provides a snapshot survey of 12 of the 14 active discharges present at the time of the survey. The flow rates from all but one of the active discharges were less than 1 L/min.

- **Discharges to the canal from contaminated sites.** Contaminated sites adjacent to Gowanus Canal are identified and investigated under the purview of the New York State Department of Environmental Conservation (NYSDEC). Environmental investigations are in progress at three former MGP sites (Fulton, Carroll Gardens/Public Place, and Metropolitan). Contaminants from these sites appear to have been transported to the canal via surface runoff (i.e., overland transport of contaminated soils), migration of NAPL through subsurface soils into canal sediments, and groundwater discharge of dissolved-phase contaminants to the canal. The sediment-coring effort performed for this RI indicates that NAPL contamination is pervasive in native sediments underneath the canal between the head of the canal and the Gowanus Expressway, and in soft sediment in the middle reach of the canal. The NAPL is thought to be coal tar waste from the three former MGP sites (Fulton, Carroll Gardens/Public Place, and Metropolitan) that has migrated through subsurface soils, under or through the bulkheads, and into the more permeable native sediments under the canal. PAHs and BTEX are major constituents of coal tar.

The hydrogeologic investigation indicates that groundwater discharges to the canal, although flow reversals occur at some locations and tidal stages. Groundwater contamination was found on some of the properties abutting the canal; therefore, the transport of dissolved-phase contaminants to the canal via groundwater discharge is expected to occur at certain locations.

Sediments and contaminants can also be transported into the Gowanus Canal from Gowanus Bay and Upper New York Bay via tidal flow and from Buttermilk Channel via flow through the flushing tunnel. The surface sediment and surface water data from the reference locations in Gowanus Bay and Upper New York Bay and the surface water data from Buttermilk Channel suggest that contaminant contributions from these sources are minor compared to the sources identified above. Contaminants could also be introduced into the canal via atmospheric deposition, although this contribution is expected to be minor given the small surface area of the canal.

As noted above, the primary sources of contamination to the canal have decreased over time due to the decline of industrial activity and improved environmental practices in response to the implementation of the Clean Water Act. Contaminant loads are expected to decrease further with improvements to the wastewater and stormwater systems and identification and remediation of adjacent upland contaminated sites. Estimating the magnitude of the ongoing sources of contamination to the canal will be a key component of the FS.

6.2 Extent of Contaminated Media

A variety of contaminants has been detected in sediments in the canal (Figure 6-2b). BTEX, PAHs and other SVOCs, pesticides, PCBs, and metals are ubiquitous in soft sediment, particularly north of the Gowanus Expressway. Table 6-1 summarizes the average concentrations of the VOCs, SVOCs, pesticides, and metals that are higher than ecological screening values in the greatest number of surface sediment samples. The average concentrations are substantially lower in the top 6 inches of sediment than in buried soft sediments, reflecting the reduction in contaminant loading over time. Average concentrations of NAPL-related constituents (BTEX and total PAHs) are relatively high in both soft and native sediments, whereas concentrations of total PCBs, total DDT, and metals are substantially lower in the native sediment when compared to the concentrations in soft sediment.

The NAPL in the native sediments is found primarily north of the Gowanus Expressway. NAPL is known to migrate into the canal from the three former MGP sites through subsurface soils and through the bulkheads. High PAH concentrations are present in native sediment at the vertical limit of the investigation, which was 6 feet below the contact between the native and soft sediment layers. The purpose of the sediment coring investigation was to delineate the degree of vertical contamination within the practical limits of a potential remedy.

Overall, the average concentrations of copper and lead in surface sediment decrease from the head of the canal to Gowanus Bay, and total PAH concentrations are highest in the middle reach of the canal and decrease south of the Gowanus Expressway (Figure 6-3). Contaminant concentrations in surface sediments in Gowanus Bay and Upper New York Bay are substantially lower than those in the canal study area.

Average contaminant concentrations in soft sediment show spatial trends similar to those for surface sediment (Figure 6-4). Average copper and lead concentrations are highest in the upper reach of the canal, and decrease in a downstream direction. Average concentrations of BTEX, total PAHs, total DDT, and total PCBs are highest in the middle reach of the canal and drop sharply in the lower reach. Average concentrations of BTEX and total PAHs in native sediment show the same trends as those for soft sediment.

VOCs (primarily BTEX), PAHs, and metals were the most commonly detected constituents in surface water samples. Concentrations of benzene, PAHs, and manganese were significantly higher in surface water from the canal than in Gowanus Bay and Upper New York Bay in both dry- and wet-weather conditions. In dry weather, the only discharges to the canal appear to be small volumes of effluent from outfalls other than CSO or stormwater outfalls. Therefore, the surface water concentrations that are significantly higher than reference in dry weather are most likely the result of flux from the sediment bed, which is the process by which contaminants in the sediment pore water (the spaces between the solid sediment particles) move into the surface water as dissolved-phase contamination.

In wet-weather conditions, concentrations of some VOCs and several PAHs in canal surface water were significantly higher than in dry-weather conditions, indicating some additional contaminant loading from the CSO and stormwater discharges. However, the concentrations of benzene, several PAHs, arsenic, and major cations (calcium, magnesium, potassium, and sodium) were significantly higher in dry-weather conditions.

6.3 Contaminant Fate and Transport

A variety of physical and chemical processes influences the fate and transport of contaminants in the Gowanus Canal sediments (Figure 6-2c). All of the classes of contaminants detected in canal sediments (VOCs, SVOCs, pesticides, PCBs, and metals) could have been present in sources identified in Section 6.1. Many of these contaminants have a low solubility and an affinity for fine-grained sediment particles and organic matter. Therefore, the accumulation of soft sediments in the canal over time has resulted in the accumulation of high levels of persistent contaminants. Because of low current velocities and limited tidal exchange with Gowanus Bay, the contaminated sediments accumulate in the canal rather than being flushed out to the bay. Contaminants with a higher solubility and volatility (i.e., VOCs and some of the low-molecular-weight SVOCs) would tend to disperse in the water column.

Because many of the contaminants that are present at high levels in the Gowanus Canal soft sediments have an affinity for fine-grained sediment particles and organic matter, the fate and transport of these contaminants is related to the fate and transport of the sediments. Sediments can remain relatively stable and undisturbed after they are deposited, or they can be resuspended by tidal currents, propeller wash, and dredging or other disturbances; transported by currents; and redeposited in relatively low-energy areas. The sediments tend to accumulate in the canal, as evidenced by the following:

- **Site history.** Siltation in the canal was a problem from the time construction was completed. As described in Section 1.3.3, dredging north of Hamilton Avenue was irregular and infrequent. Even after the flushing tunnel was constructed in 1911,

pollution and siltation were still a problem due to continued inflow of waste and stormwater and the absence of dredging (Hunter Research et al., 2004).

- **Bathymetric changes.** The bathymetric differencing evaluation presented in Section 3.1 identified 2 to 3 feet of sediment accumulation between 2003 and 2010 in the reach between the floatables containment boom at Sackett Street and Carroll Street, and 1 to 2 feet of accumulation between Carroll Street and 3rd Street. An area of erosion was identified near the outlet of the flushing tunnel, and minimal sediment accumulation was noted upstream of the floatables containment boom, which indicates that sediments transported by the currents generated by the flushing tunnel are deposited farther down the canal where current velocities decrease. Areas of sediment accumulation in the lower reach of the canal were also identified.
- **Radioisotope analysis.** Radioisotope profiling is a useful tool for dating sediment layers in an undisturbed core and determining the net accumulation rate of sediments (USGS, 1998). Lead-210 and cesium-137 are two radioisotopes that are commonly used for this purpose. National Grid performed radioisotope analysis of seven cores collected in the canal in 2005 (GEI, 2007). Although most of the cores showed evidence of disturbances that reduce the accuracy of the age dating estimates, the cores that could be dated indicated net sediment accumulation rates on the order of 2 to 6 cm/year.

Sediments deposited in Gowanus Canal may be resuspended by currents, propeller wash, dredging, and other disturbances. The canal is a low-velocity environment, with current velocities generally less than 0.5 feet/second (USACE ERDC, undated). These current speeds are insufficient to substantially erode sediment deposits on the bottom of the canal. Currents generated by the flushing tunnel appear to erode sediments near the outlet of the tunnel, but the sediments settle out where the current velocities decrease farther down the canal.

Sediments in Gowanus Canal appear to be frequently resuspended and mixed by propeller wash from vessel traffic in the canal. The effects of propeller wash are particularly evident in the reach between the Gowanus Expressway and 3rd Street, where minimal sediment accumulation was observed between 2003 and 2010. This reach experiences frequent tug and barge traffic associated with the concrete plant at the end of 5th Street. Evidence of propeller scour was also seen near the southern end of the canal study area in the 2010 bathymetric survey. Significant tug activity was observed on the eastern and western sides of the canal in the southern part of the study area during the RI field investigations.

In addition to providing age-dating estimates, radioisotope profiles can be used to evaluate the long-term stability of the sediment bed. In an undisturbed sediment profile where sediments are deposited continuously at a constant rate, lead-210 concentrations decrease exponentially with increasing depth, and cesium-137 shows a clearly defined subsurface peak that corresponds with the early 1960s, when the amount of atmospheric nuclear testing peaked. As shown in Figure 6-5, the lead-210 and cesium-137 profiles in the radioisotope cores collected by National Grid in the main channel of the canal deviate from the ideal profile, which indicates that the sediments were disturbed after they were initially deposited (and were probably not deposited at a constant rate). Only the profiles of the cores collected in the 4th and 6th Streets turning basins, which experience less vessel traffic, show evidence of a stable profile.

Given the low-current velocities in the canal, most of the sediments resuspended by propeller wash likely settle out relatively quickly in the same reach of the canal. However, finer-grained sediment particles that remain suspended in the water column for a longer period of time may be transported out of the canal by tidal currents. The amount of sediment transported out of (or into) the canal in typical weather conditions or during storm events has not been measured or estimated; however, the steep drop in total PAH concentration in surface sediments from the middle reach of the canal to the lower reach, and the additional drop from the lower reach of the canal to the Gowanus Bay and Upper New York Bay reference locations (Figure 6-3) indicates that much of the sediment-associated contamination remains relatively close to its source.

Other processes that physically mix sediments include bioturbation and ebullition. Bioturbation is the mixing of surface sediments in the biologically active zone by benthic organisms such as worms and crabs. The decomposition of organic material in sediment generates gas bubbles, which can mix sediment as they rise to the water surface. Ebullition also can facilitate the transport of NAPL to the surface, generating sheen on the surface of the water.

Different classes of contaminants are influenced by different fate and transport processes. VOCs and the low-molecular-weight PAHs such as naphthalene are more soluble than the other contaminants and therefore have a greater tendency to dissolve in the water column and volatilize to the atmosphere. In the RI, VOC and PAH concentrations in two rounds of air samples collected from the breathing zone of a canoeist within the canal, at street level next to the canal, and at background locations were similar. The constituents detected were typical of those found in urban environments.

PAHs are a class of hydrocarbon compounds composed of two or more fused aromatic rings. The low-molecular-weight PAHs have one to five rings, and the high-molecular-weight PAHs have four to six rings. PAH mixtures are commonly categorized as pyrogenic (combustion-related), petrogenic (petroleum-related), or biogenic (synthesized by plants or animals). Petrogenic sources of PAHs (e.g., crude oil and refined petroleum products) are generally enriched in two- and three-ring PAHs relative to pyrogenic sources, and pyrogenic sources (e.g., coal tar) are generally enriched in four- to six-ring PAHs. The composition of a PAH mixture from a specific source changes after it enters a waterway due to a variety of weathering processes, including dissolution and biodegradation (decomposition by microorganisms).These processes preferentially reduce the proportion of two- and three-ring PAHs, thereby increasing the proportion of four- to six-ring PAHs over time (Boehm, 2006). The high-molecular-weight PAHs are resistant to degradation and tend to persist in the environment for long periods of time.

Many of the metals of environmental concern (cadmium, copper, lead, nickel, silver, and zinc) bind with sulfides in a geochemically reducing environment, forming insoluble sulfides. The high sulfide concentrations in surface sediment and soft sediment in the canal indicate that the metals are immobilized in the sediment as sulfide compounds. Further analysis of metals availability based on AVS/SEM analyses is provided in the ERA. Mercury concentrations in Gowanus Canal surface sediments were slightly higher than concentrations at reference locations in Gowanus Bay and Upper New York Bay. It should be noted that the Northeast Regional Total Maximum Daily Load has provided a strategy for reducing sources of mercury to the environment on a regional basis (CDEP et al., 2007).

A number of factors influence the degree to which chemicals in sediment are bioavailable and toxic to aquatic organisms, including the TOC and reactive sulfide concentrations of the sediment. The bioavailability of the contaminants in Gowanus Canal sediments was evaluated in the ERA. In addition, some contaminants are known to bioaccumulate in the tissues of aquatic organisms. The tissue sample results indicate that PCBs, pesticides, and some metals are found in the tissues of fish and crab collected from the canal at concentrations greater than those found in samples from the reference area in Gowanus Bay and Upper New York Bay. PAHs were also found in crab tissues at concentrations higher than those found in the reference area.

6.4 Risks to Humans and Wildlife

The Baseline Ecological Risk Assessment evaluated potential risks to benthic (sediment-dwelling) organisms and water-column-dwelling organisms from exposure to contaminants in sediment and surface water, and risks to wildlife from consuming contaminated prey items and sediment during feeding. Benthic organisms may be at risk from exposure to contaminated sediment, primarily due to the PAHs present. Other chemicals contributing to the risk include PCBs and metals (barium, cadmium, copper, lead, mercury, nickel and silver). Water-column dwelling organisms may be adversely affected by lead during wet weather events. Aquatic herbivores such as the black duck may be at risk from exposure to PAHs, and avian omnivores such as the heron may be at risk from exposure to mercury. There is no potential risk to avian piscivores such as the double-crested cormorant from the ingestion of fish in the canal..

The Human Health Risk Assessment evaluated the potential human health risks associated with direct contact with surface sediment and surface water in the Gowanus Canal, ingestion of fish and crabs, direct contact with sediment and surface water that overtops the canal during extreme tidal or storm surge conditions, and inhalation of emissions from the canal into the ambient air near the canal. Adults, adolescents and children using the canal for recreational purposes may be at risk due to exposure to PAHs in surface water and surface sediment, assuming that the recreational use/swimming in the canal would occur at frequencies, durations, and exposures is typical of most water bodies. Adults and children may also be at risk from exposure to PAHs in sediments and surface water in canal overflow. Exposure to lead in sediment and surface water by children swimming in and living near the canal (based on residential exposure assumptions, including potable use of the surface water) may result in adverse effects. Adults, adolescents, and children may also be at risk from exposure to PCBs if they consume fish and crabs caught in the canal. The HHRA assumed fishing/crabbing and ingestion of the fish /crab from the canal at typical recreational consumption rates, which are conservative given the nature of the canal.

6.5 Summary

Unacceptable ecological and human health risks have been identified based on potential exposure to contaminated sediment, surface water, and prey in the Gowanus Canal. These risks are attributed primarily to PAHs, PCBs, and metals (barium, cadmium, copper, lead, mercury, nickel and silver). All of these contaminants have been deposited in the canal as a result of historical and current discharges to the canal. High PAH concentrations are found in coal tar waste adjacent to the three former MGP sites along the canal. PAHs and metals

are the most prevalent contaminants detected in present-day CSO discharges to the canal, as well as in discharges from other outfalls. PAHs and metals are also present in contaminated groundwater discharging to the canal.

PAHs, PCBs, and the metals identified above are found in the Gowanus Canal surface sediments at concentrations that are significantly higher than those found in the Gowanus Bay and Upper New York Bay reference area. PAHs and metals were also detected in surface water in the canal, with PAH concentrations significantly higher than those in the reference area under both dry and wet weather conditions. PAH concentrations in crab tissue collected from the canal were higher than in crab tissue collected from the reference area, and PCB concentrations were also higher in fish and crab tissue samples collected in the canal. Concentrations of metals in fish and crab tissue samples from the canal and reference area are varied.

This CSM can serve as the basis for developing remedial alternatives for the canal in the FS.

SECTION 7

Summary and Conclusions

This section summarizes the results of the Gowanus Canal RI with respect to the four primary goals of the investigation, which are the following:

- Characterize the nature and extent of contamination in the Gowanus Canal to the degree necessary to evaluate the human health and ecological risks and to develop a remedy to reduce these risks
- Document the sources of contamination to the Gowanus Canal, including a preliminary evaluation of ongoing sources of contamination that need to be addressed so that a sustainable remedy can be developed and implemented
- Determine the human health and ecological risks from exposure to contamination in the canal
- Determine the physical and chemical characteristics of the canal that will influence the development, evaluation, and selection of remedial alternatives.

The primary findings related to each of these objectives are summarized below.

7.1 Nature and Extent of Contamination

The nature and extent of contamination within the Gowanus Canal have been defined to the degree necessary to complete the risk assessments and the FS. The horizontal and vertical distribution and extent of contamination in surface sediment (0-to-6-inch depth interval), soft sediment (from a depth of 6 inches below the sediment surface to the contact with the native Gowanus Creek sediments) and native sediment (i.e., original Gowanus Creek alluvial and marsh deposits) was characterized on the basis of field observations and analysis of sediment samples as follows:

7.1.1 Surface Sediment

In surface sediment, concentrations of PAHs, PCBs, and eight metals (barium, cadmium, chromium, copper, lead, mercury, nickel and silver) were significantly higher in the canal than at reference locations in Gowanus Bay and Upper New York Bay. Concentrations of many of these constituents were higher than ecological and human health screening values. Lead and copper were detected most frequently and at the highest concentrations.

In surface sediment, average concentrations of total PAHs were highest in the middle reach of the canal and decreased steeply between the middle and lower reaches of the canal. Average concentrations of lead and copper were highest in the upper reach of the canal and decreased in a downstream direction, with the steepest drop occurring between the middle and lower reaches of the canal.

7.1.2 Subsurface Sediment

The sediment-coring effort performed for this RI indicates that NAPL contamination is pervasive in native sediments underneath the canal between the head of the canal and the Gowanus Expressway, and in soft sediment in the middle reach of the canal. The NAPL appears to be coal tar waste from the three former MGP sites (Fulton, Carroll Gardens/Public Place, and Metropolitan) that is migrating through subsurface soils, under or through the bulkheads, and into the more permeable native sediments under the canal. PAHs and BTEX are major constituents of coal tar.

Total PAHs and VOCs, particularly the BTEX constituents, were frequently detected at high concentrations in both the soft and native sediment units. Pesticides, PCBs, and metals were all frequently detected in the soft sediment but were infrequently detected or detected at lower concentrations in the native sediments.

In the deeper soft sediment, VOCs (primarily BTEX), SVOCs (primarily PAHs), pesticides, PCBs, and metals were all detected at higher concentrations than those found in the surface sediments. The highest total PAH and BTEX concentrations in soft sediment along the length of the canal were found near the three former MGP sites and between 1st and 3rd Streets, in the vicinity of the old Power Station. Copper, lead and mercury concentrations in soft sediment along the length of the canal were variable. Lead and mercury concentrations were highest at the head of the canal adjacent to the RH-034 outfall, and copper concentrations were highest near the OH-007 outfall. Total PCB concentrations in soft sediment were highest in the 7th Street turning basin, near the RH-035 outfall and near the Carroll Gardens/Public Place former MGP site.

In native sediment, NAPL-related constituents (BTEX and total PAHs) were frequently detected at high concentrations. High BTEX and total PAH concentrations were found between the head of the canal and the Gowanus Expressway, adjacent to the three former MGP sites. The maximum concentrations were found in the middle reach of the canal.

In most areas north of the Gowanus Expressway, NAPL and high-PAH concentrations were found in sediment at the maximum depth of the investigation activities, which was 6 feet below the contact between the soft and native sediment layers. The purpose of the sediment coring investigation was to delineate the degree of vertical contamination within the practical limits of a potential remedy rather than to define the vertical extent of contamination to its maximum depth.

7.1.3 Surface Water

The major findings related to the nature and extent of contamination in surface water in the canal were as follows:

- VOCs, SVOCs, and metals were detected in surface water samples. Pesticides and PCBs were not detected. BTEX compounds were the most common VOCs detected, and PAHs were the most common SVOCs detected.
- Concentrations of some VOCs in canal surface water were significantly higher in wet-weather conditions than in dry-weather conditions. Concentrations of some PAHs and metals were higher in wet-weather conditions, whereas others were higher in dry-weather conditions.

- Concentrations of benzene, PAHs, and manganese in the canal surface water were significantly higher than their concentrations at the reference locations in both dry- and wet-weather conditions.

7.1.4 Ambient Air

The sampling results for air samples collected from canoe-level and street-level locations along the length of the canal and from three background locations indicate that the types and concentrations of VOCs and PAHs detected in air samples were similar regardless of sample location. The constituents detected were typical of those found in urban environments.

7.2 Sources of Contamination

Major findings related to the assessment of historical and ongoing sources of contamination to the Gowanus Canal are summarized below.

- **Direct discharges from historical industrial activities.** The higher concentrations of most contaminants in subsurface (buried) soft sediments compared to those in surface sediments reflect the contribution of historical sources of contamination that are no longer present along the canal as well as historical contributions from CSOs.

- **CSO and stormwater discharges.** Sampling results for wet-weather flow samples collected from the CSO system indicate that VOCs, SVOCs (primarily PAHs), and metals are discharged to the canal during overflow events. Pesticides and/or PCBs were detected in the CSO sediment at two locations at concentrations that substantially exceeded the human health and/or ecological screening values. VOCs, SVOCs (primarily PAHs), and metals were also detected in residual sediment collected from the CSO pipes during dry-weather conditions. In addition, the highest concentrations of lead and mercury in soft sediment were found at the head of the canal, adjacent to the RH-034 outfalls.

- **Discharges from other pipe outfalls.** Nearly 250 outfall features were identified in the RI, most of which were pipes. Twenty-five of these pipe outfalls were observed to be actively discharging during dry weather. The effluent from 14 of the 25 active outfalls could not be attributed to tidal drainage (i.e., drainage of seawater that entered the pipe at high tide). Samples from 12 of these 14 outfall discharges contained VOCs, SVOCs (primarily PAHs), and metals (two of the discharges were not sampled due to low flow rates). Pesticides and PCBs were not detected. The flow rate from all but one of the active outfalls was very small (< 1 L/min).

- **Permitted discharges.** A review of NYSDEC and USEPA databases identified five active permitted discharges to the canal. Three of these permitted outfalls were not observed to discharge during the RI. Two of the permitted outfalls could not be clearly identified during the RI because of the number of outfall features in their vicinity.

- **Discharges and potential discharges to the canal from contaminated sites adjacent to the canal.** The RI sampling results indicate that NAPL contamination is present in native and soft sediment, primarily in native sediment north of the Gowanus Expressway. The

NAPL appears to have migrated and continues to migrate from the three former MGP sites through subsurface soils into the native sediments beneath the canal.

- **Transport of contaminants in groundwater discharging to the canal.** The soil-sampling results from borings in selected areas adjacent to the canal indicate the presence of all classes of contaminants (VOCs, SVOCs, pesticides, PCBs, and metals). The same types of contaminants, with the exception of PCBs, were detected in groundwater samples. The hydrogeologic evaluation indicates that groundwater flows towards and discharges to the canal, with episodic flow reversals related to tidal fluctuations. Therefore, the transport of dissolved-phase contaminants to the canal via groundwater discharge is occurring at some locations.

7.3 Ecological and Human Health Risks

The Gowanus Canal has no natural shoreline, wetlands, or upland areas. The community of potential ecological receptors using the canal includes fish-eating birds; dabbling ducks; invertebrates such as worms, amphipods, and mollusks; and crabs and fish. The potential ecological risk to these receptors from exposure to surface water and sediment in the canal was evaluated in the ERA. The HHRA evaluated potential risks to recreational users, anglers, residents, and industrial workers near the canal.

7.3.1 Ecological Risks

The combined SLERA and BERA performed for the Gowanus Canal completes Steps 1 and 7 of the 8-step ERA process as described in the USEPA (1997) Ecological Risk Assessment Guidance for Superfund and its updates. As described in Section 5.1, the survival and reproduction of following receptor groups were selected for evaluation in the ERA:

- Benthic- (sediment-) dwelling macroinvertebrate communities;
- Water column-dwelling aquatic life communities; and,
- Avian wildlife (aquatic herbivores, aquatic omnivores, and aquatic piscivores).

The following summarizes the key investigation methods and findings and conclusions for each receptor group.

Benthic Macroinvertebrate Communities

Risks to benthic macroinvertebrate communities were evaluated primarily through the use of laboratory-based sediment bioassays, which were conducted with two sediment-dwelling invertebrates (amphipods and polycheates), and through the comparison of sediment chemical concentrations to literature-based screening benchmarks. The analyses indicate the following:

- Sediment bioassays indicate a site-related potential for adverse effects to benthic communities from the presence of chemicals in sediment, with the greatest potential for adverse effects occurring in the central portion of the canal. The bioassay results also indicate the potential for less severe, but site-related adverse affects to the benthic community at several other locations scattered throughout the canal.

- Chemical analysis indicates the presence of organic chemicals (primarily PAHs and PCBs) and metals in sediment at concentrations that are likely to be causing the adverse

effects observed in the sediment bioassays. The highest concentrations of those chemicals were detected primarily in the central portion of the canal, which coincides with the locations where the most severe effects to the sediment bioassay organisms were also observed.

- PAHs were consistently detected in sediment at the highest concentrations relative to their ecological screening benchmarks and are considered to represent the greatest site-related risk to the benthic community. Other chemicals, most notably PCBs and several metals (barium, cadmium, copper, lead, mercury, nickel, and silver), were also detected at concentrations above their ecological screening benchmarks and at concentrations above those detected in offsite sediments, and are also considered to represent a potential site-related risk to the benthic community.

Water Column-Dwelling Aquatic Life Communities

Risks to water column-dwelling aquatic life communities were evaluated primarily through the comparison of surface water chemical concentrations, which were sampled both during a dry and wet (while CSO outfalls were discharging) periods to literature-based screening benchmarks. The analyses indicate the following:

- Chemical concentrations in surface water indicate very little site-related potential for adverse effects to water column-dwelling aquatic life.
  - In surface water collected during the dry period, no chemicals were detected at concentrations that could adversely affect aquatic life.
  - In surface water collected during the wet period, only lead was detected at a concentration exceeding its ecological screening benchmark and at a concentration above that detected in offsite surface water, indicating it represents a site-related risk to aquatic life.

Wildlife (Avian Aquatic Herbivores, Omnivores, and Piscivores)

Risks to avian aquatic wildlife were evaluated by modeling the potential exposure of these receptors to chemicals ingested in prey (fish and crabs) and via the ingestion of sediment. The analyses indicate the following:

- Potential risk to aquatic herbivores (represented by black duck) from exposure to PAHs. PAHs were detected onsite (in sediments) at a concentration above those detected in offsite locations and represent a site-related risk to aquatic herbivores.
- Potential risk to avian omnivores (represented by heron) from exposure to mercury and selenium. However, mercury was the only metal that was frequently detected at elevated concentrations in fish and crab tissues, and that was also detected onsite (in sediments) at a concentration above those detected in offsite locations, and thus represents a site-related risk to avian omnivores.
- There is no potential risk to avian piscivores such as the double-crested cormorant from the ingestion of fish in the canal.

7.3.2 Human Health Risks

The HHRA was conducted to evaluate the potential human health risks associated with direct contact with surface sediment and surface water in the Gowanus Canal, ingestion of fish and crabs, direct contact of sediment and surface water that overtops the canal during extreme tidal or storm surge conditions, and inhalation of emissions from the canal into the ambient air near the canal. Two scenarios were evaluated: 1) a reasonable maximum exposure (RME), which uses conservative exposure factors to estimate the reasonable maximum exposures anticipated for the canal, and 2) a central tendency exposure (CTE), which describes a more typical or average exposure. Two types of effects were evaluated – non-carcinogenic hazards and carcinogenic risks. Acceptable risk levels are defined in USEPA HHRA guidance (40CFR300.430(e)(2)(I)(A)).

For an adult, an adolescent, and a child using the canal for recreational purposes, the risks associated with exposure to surface water and surface sediment (from exposed and near shore locations) in the canal and from ambient air at canal level while swimming were evaluated. The HHRA assumed that recreational use/swimming in the canal would occur at frequencies, durations, and exposures that are typical of most water bodies, even though the actual use of the canal is lower given its nature. The total RME non-carcinogenic hazard associated with exposure to all of the media for all recreational users was within USEPA acceptable risk levels. However, exposure to all of the media by recreational adults, adolescents and children may result in carcinogenic risks above USEPA's target risk range. These risks are primarily associated with exposure to carcinogenic PAHs in the surface water and the surface sediment. The total non-carcinogenic hazard based on the CTE assumptions was within or below USEPA's acceptable risk levels; however, carcinogenic risk was above USEPA's target range. Exposure to lead in sediment by adult and adolescent recreational users would not result in any adverse effects; however, exposure to lead in sediment and surface water by recreational children (based on residential exposure assumptions, including potable use of the surface water) may result in adverse effects.

For residential adults and children and for industrial workers, the risks associated with exposure to ambient air at street level and with surface water and surface sediment from canal overflow were evaluated. RME non-carcinogenic hazards and carcinogenic risks associated with exposure to these media by the industrial worker are within acceptable levels. Exposure to all of the media by residential adults and children may result in carcinogenic risks above USEPA's acceptable risk levels. The RME carcinogenic risk for the adult/child resident is associated with carcinogenic PAHs in sediment (with a smaller contribution from surface water). The total carcinogenic risk evaluated under the CTE assumptions was within or below USEPA's acceptable risk levels. Exposure to lead in sediment by industrial workers would not result in any adverse effects; however, exposure to lead in sediment and surface water by residential children (based on residential exposure assumptions, including potable use of the surface water) may result in adverse effects.

Risks associated with ingestion of fish and crabs from the Gowanus Canal were evaluated for the angler adult, adolescent, and child. The HHRA assumed fishing/crabbing and ingestion of the fish /crab from the canal at typical recreational angler fish/crab consumption rates, which is very conservative given the nature of the canal. The RME and CTE total non-carcinogenic hazards and/or carcinogenic risks for all receptors exceeded USEPA acceptable levels. The non-carcinogenic hazards and carcinogenic risks are

associated with PCBs in fish and crab. The average concentrations of PCBs in the canal fish and crab samples were about two times higher than the average PCB concentrations in the reference area samples collected from Gowanus Bay and Upper New York Bay. However, the PCB concentrations in the reference samples would also result in non-carcinogenic hazards and carcinogenic risks above USEPA acceptable levels..

7.4 Canal Characteristics

There are a number of overall site characteristics that will influence the development, evaluation, and selection of remedial alternatives for the Gowanus Canal in the FS. These characteristics include the following:

- **Presence and condition of bulkheads.** The physical condition of the bulkheads has been qualitatively described as degraded. The structural integrity of the bulkheads has not been tested, but preliminary surveys indicated that any type of dredging activities could threaten their stability (Brown Marine Consulting, 2000).
- **Presence of debris in the canal.** Debris of various shapes, sizes, and composition is pervasive throughout the canal. Sunken vessels are present in the 4th and 6th Streets turning basins. Accumulations of trash and construction debris are found near the ends of streets that abut the canal, and gravel covers large areas of the sediment surface in the middle and lower reaches of the canal.
- **NYCDEP activities associated with Gowanus Pump Station upgrades.** The upgrades to the flushing tunnel will increase the volume of water discharged to the canal from Buttermilk Channel by 40 percent, which will increase the current velocities and bottom shear stresses in the upper reach of the canal. The aeration pipe currently present in the canal will be removed before a sediment remedy is implemented.
- **Barge traffic.** Tugs and barges frequently move between the middle and lower reaches of the canal. The propeller wash from vessel movements is sufficient to resuspend sediments on the bottom of the canal.

7.5 Conclusions

The results of this RI indicate that chemical contamination in the Gowanus Canal sediments presents unacceptable ecological and human health risks, primarily due to exposure to PAHs, PCBs, and metals (barium, cadmium, copper, lead, mercury, nickel and silver). All of these contaminants are thought to have been deposited in the canal as a result of current and historical discharges to the canal. High PAH concentrations are found in coal tar waste adjacent to the three former MGP sites along the canal. PAHs and metals are the most prevalent contaminants detected in present-day CSO discharges to the canal, as well as in low volume discharges from a limited number of other outfalls. PAHs and metals are also present in various concentrations in contaminated groundwater discharging to the canal at different locations. Contaminated sites adjacent to the canal and discharges from outfalls represent ongoing sources of contamination to the canal.

The overall objectives of the Gowanus Canal RI were met, and sufficient data have been collected to proceed with the development of remedial alternatives in the FS. The results of

the ERA and HHRA will support the definition of remedial action objectives and target areas for remediation.

SECTION 8

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Appendix A
Sample Tracking Tables
(Summaries of Collected Samples)

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TABLE A-1
Sample Tracking
Phase 1 - Pipe Outfall collected by USEPA, analyzed through CLP
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Matrix	Sample Type	Sample Collection Date	Sample Collection Time	CLP Case Number	Analyses Performed Through CLP						
											TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
Pipe Outfall Samples																	
E-27	633539.289	671570.550	GC-CF-E-027-1	B80Q1	-	Unkown	N	9/2/2010	10:50	40532	X		X	X	X	X	X
	633539.289	671570.550	GC-CF-E-027-1	-	MB80R4	Unkown	N	9/2/2010	10:50	40532		X					
E-29	633531.025	671559.895	GC-CF-E-029-1	B80Q2	-	Unkown	N	9/2/2010	10:50	40532				X	X		
E-33	633695.177	671818.223	GC-CF-E-033-1	B80Q2	-	Unkown	N	9/2/2010	8:50	40532	X		X	X	X	X	X
	633695.177	671818.223	GC-CF-E-033-1	-	MB80R5	Unkown	N	9/2/2010	8:50	40532		X					
E-35	633640.260	671740.499	GC-CF-E-035-1	B80Q3	-	Unkown	N	9/2/2010	9:05	40532	X		X	X	X	X	X
	633640.260	671740.499	GC-CF-E-035-1	-	MB80R6	Unkown	N	9/2/2010	9:05	40532		X					
E-63	631210.351	669791.392	GC-CF-E-063-1	B80A9	-	Unkown	N	9/7/2010	13:42	40532	X		X	X	X	X	X
	631210.351	669791.392	GC-CF-E-063-1	-	MB80B0	Unkown	N	9/7/2010	13:42	40532		X					
T1-03	633592.376	671050.231	GC-CF-T1-003-1	B80Q5	-	Unkown	N	9/2/2010	14:00	40532	X		X	X	X	X	X
	633592.376	671050.231	GC-CF-T1-003-1	-	MB80R7	Unkown	N	9/2/2010	14:00	40532		X					
W-01	634377.854	673636.869	GC-CF-W-001-1	B80Q6	-	Unkown	N	9/1/2010	9:15	40532	X		X	X	X	X	X
	634377.854	673636.869	GC-CF-W-001-1	-	MB80R8	Unkown	N	9/1/2010	9:15	40532		X					
W-037	632915.785	671594.859	GC-CF-W-037-1	B80Q7	-	Unkown	N	9/1/2010	14:15	40532	X		X	X	X	X	X
	632915.785	671594.859	GC-CF-W-037-1	-	MB80R9	Unkown	N	9/1/2010	14:15	40532		X					
W-44	633692.632	672000.716	GC-CF-W-044-1	B80Q8	-	Unkown	N	9/1/2010	8:30	40532				X			
W-46	633658.998	671949.845	GC-CF-W-046-1	B80Q9	-	Unkown	N	9/1/2010	9:10	40532	X		X	X	X	X	X
	633658.998	671949.845	GC-CF-W-046-1	-	MB80S0	Unkown	N	9/1/2010	9:10	40532		X					
W-48	633093.758	671557.423	GC-CF-W-048-1	B80R0	-	Unkown	N	9/1/2010	10:40	40532	X		X	X	X	X	X
	633093.758	671557.423	GC-CF-W-048-1	-	MB80S1	Unkown	N	9/1/2010	10:40	40532		X					
W-77	630171.764	668758.203	GC-CF-W-077-1	B80B1	-	Unkown	N	9/7/2010	15:15	40532	X		X	X	X	X	X
	630171.764	668758.203	GC-CF-W-077-1	-	MB80B2	Unkown	N	9/7/2010	15:15	40532		X					
Trip Blanks																	
TB	Office		T-090210-1	B80S2	-	QC	-	-	-	17:12				X			
TB	Office		TB-090710-01	B80B3	-	QC	-	-	-	16:30				X			

Legend:

EB	Equipment Blank
TB	Trip Blank
N	Normal
CLP	Contract Laboratory Program
TAL	Target Analyte List
TCL	Target Compound List includes: volatile organic compounds, semi-volatile organic compounds, pesticides, and PCBs
VOC	Volatile Organic Compound
SVOC	Semi-Volatile Organic Compound
PEST	Pesticides
PCB	Polychlorinated biphenyls
Hg	Mercury Analysis

Coordinates in New York State Plane, East 3101 – NAD83 CONUS

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TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
SEDIMENT																								
GC-SD107	673635.16	634413.11	GC-SD107-00.0-16.0	B81F9		SD	N	0.0	16.0	ft	3/9/2010	39542							X					X
GC-SD107	673635.16	634413.11	GC-SD107-00.0-02.0	B81G0		SD	N	0.0	2.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD107	673635.16	634413.11	GC-SD107-02.0-04.0	B81G1		SD	N	2.0	4.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD107	673635.16	634413.11	GC-SD107-04.0-06.0	B81G2		SD	N	4.0	6.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD107	673635.16	634413.11	GC-SD107-06.0-08.0	B81G3		SD	N	6.0	8.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD107	673635.16	634413.11	GC-SD107-08.0-10.0	B81G4		SD	N	8.0	10.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD107	673635.16	634413.11	GC-SD107-10.0-12.0	B81G5	B81G8 (D-03092010-02 duplicate of B81G5 for all VOC, BNA, metals, cyanide, PCBs, pesticide and sulfide)	SD	N	10.0	12.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD107	673635.16	634413.11	GC-SD107-12.0-14.0	B81G6		SD	N	12.0	14.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD107	673635.16	634413.11	GC-SD107-14.0-16.0	B81G7		SD	N	14.0	16.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-00.0-02.0	B81A9		SD	N	0.0	2.0	ft	3/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-02.0-04.0	B81B0		SD	N	2.0	4.0	ft	3/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-04.0-06.0	B81B1	B81B2 (D-03052010-01-VOA, BNA, Metals, sulfide, cyanide)	SD	N	4.0	6.0	ft	3/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-06.0-08.0	B81B3	B81B4 (D-03052010-02-Pests, PCBs)	SD	N	6.0	8.0	ft	3/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-08.0-10.0	B81B5		SD	N	8.0	10.0	ft	3/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-10.0-12.0	B81B6	MSD - sulfides, pesticides, PCBs	SD	N	10.0	12.0	ft	3/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-12.0-13.5	B81B7		SD	N	12.0	13.5	ft	3/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD108	673200.67	634231.95	GC-SD108-00.0-13.5	B81B8		SD	N	0.0	13.5	ft	3/5/2010	39542							X					X
GC-SD109	672596.42	633912.23	GC-SD109-00.0-02.0	B8193		SD	N	0.0	2.0	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD109	672596.42	633912.23	GC-SD109-02.0-04.0	B8194		SD	N	2.0	4.0	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD109	672596.42	633912.23	GC-SD109-04.8-06.8	B8195		SD	N	4.8	6.8	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD109	672596.42	633912.23	GC-SD109-08.8-10.8	B8196		SD	N	8.8	10.8	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD109	672596.42	633912.23	GC-SD109-06.8-08.8	B8197		SD	N	6.8	8.8	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD109	672596.42	633912.23	GC-SD109-00.0-10.8	B81C7		SD	N	0.0	10.8	ft	3/4/2010	39542							X					X
GC-SD110	671922.23	633682.91	GC-SD110-0.0-02.0	B81L0		SD	N	0.0	2.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD110	671922.23	633682.91	GC-SD110-02.0-04.0	B81L1		SD	N	2.0	4.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD110	671922.23	633682.91	GC-SD110-04.0-05.0	B81L2		SD	N	4.0	5.0	ft	3/11/2010	39542	X	X	X	X	X	X				X		
GC-SD110	671922.23	633682.91	GC-SD110-06.0-08.0	B81L3		SD	N	6.0	8.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD110	671922.23	633682.91	GC-SD110-08.0-10.0	B81L4		SD	N	8.0	10.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD110	671922.23	633682.91	GC-SD110-10.0-12.0	B81L5		SD	N	10.0	12.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD110	671922.23	633682.91	GC-SD110-12.0-14.0	B81L6		SD	N	12.0	14.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD110	671922.23	633682.91	GC-SD110-00.0-14.2	B81L7		SD	N	0.0	14.2	ft	3/11/2010	39542							X					X
GC-SD111	671127.28	633530.99	GC-SD111-00.0-02.0	B81T5		SD	N	0.0	2.0	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD111	671127.28	633530.99	GC-SD111-02.0-04.0	B81T6	B81W3 (D-03162010-02 for all parameters)	SD	N	2.0	4.0	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD111	671127.28	633530.99	GC-SD111-04.0-06.0	B81T7		SD	N	4.0	6.0	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD111	671127.28	633530.99	GC-SD111-06.0-08.0	B81T8		SD	N	6.0	8.0	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD111	671127.28	633530.99	GC-SD111-08.3-10.3	B81T9		SD	N	8.3	10.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD111	671127.28	633530.99	GC-SD111-10.3-12.3	B81W0		SD	N	10.3	12.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD111	671127.28	633530.99	GC-SD111-12.3-14.3	B81W1		SD	N	12.3	14.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

													Analyses Performed											
													CLP								Subcontracted			
Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD111	671127.28	633530.99	GC-SD111-14.3-15.9	B81W2		SD	N	14.3	15.9	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD111	671127.28	633530.99	GC-SD111-00.0-15.9	B81W4		SD	N	0.0	15.9	ft	3/16/2010	39542							X					X
GC-SD112	671426.76	633293.14	GC-SD112-00.0-02.0	B81N3		SD	N	0.0	2.0	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD112	671426.76	633293.14	GC-SD112-02.0-04.0	B81N4	B81N6 (D-03122010-01 Duplicate of B81N4 - TCL all, Metals, Sulfides)	SD	N	2.0	4.0	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD112	671426.76	633293.14	GC-SD112-00.0-04.0	B81N5		SD	N	0.0	4.0	ft	3/12/2010	39542							X					X
GC-SD113	671583.41	632853.82	GC-SD113-00.0-02.0	B81Q8		SD	N	0.0	2.0	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-02.0-04.0	B81Q9		SD	N	2.0	4.0	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-04.0-06.0	B81R0	B81R7 (D-03152010-01 duplicate of B81R0 for all TCL/TAL parameters and sulfide)	SD	N	4.0	6.0	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-06.0-08.0	B81R1		SD	N	6.0	8.0	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-08.0-09.0	B81R2		SD	N	8.0	9.0	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-09.3-11.3	B81R3		SD	N	9.3	11.3	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-11.3-13.3	B81R4		SD	N	11.3	13.3	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-13.3-15.0	B81R5	B81R8 (D-03152010-02 duplicate of B81R0 for all TCL/TAL parameters and sulfide)	SD	N	13.3	15.0	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD113	671583.41	632853.82	GC-SD113-00.0-15.0	B81R6		SD	N	0.0	15.0	ft	3/15/2010	39542							X					X
GC-SD114	671570.77	632380.38	GC-SD114-01.2-03.2	B8267		SD	N	1.2	3.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD114	671570.77	632380.38	GC-SD114-03.2-05.2	B8268		SD	N	3.2	5.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD114	671570.77	632380.38	GC-SD114-05.2-07.2	B8269	B8274 (D-03232010-01 dup of B8269 for all parameters)	SD	N	5.2	7.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD114	671570.77	632380.38	GC-SD114-07.2-09.2	B8270		SD	N	7.2	9.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD114	671570.77	632380.38	GC-SD114-09.2-11.2	B8271		SD	N	9.2	11.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD114	671570.77	632380.38	GC-SD114-11.2-13.2	B8272		SD	N	11.2	13.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD114	671570.77	632380.38	GC-SD114-13.2-14.9	B8273		SD	N	13.2	14.9	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD114	671570.77	632380.38	GC-SD114-00.0-14.9	B8275		SD	N	0.0	14.9	ft	3/23/2010	39542							X					X
GC-SD115	671126.10	631941.75	GC-SD115-00.0-01.5	B81Y5		SD	N	0.0	1.5	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD115	671126.10	631941.75	GC-SD115-01.8-03.8	B81Y7	B81Z3 (D-03172010-02 duplicate of B81Y7 for all parameters)	SD	N	1.8	3.8	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD115	671126.10	631941.75	GC-SD115-03.8-05.8	B81Y8		SD	N	3.8	5.8	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD115	671126.10	631941.75	GC-SD115-05.8-07.8	B81Y9		SD	N	5.8	7.8	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD115	671126.10	631941.75	GC-SD115-07.8-09.8	B81Z0		SD	N	7.8	9.8	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD115	671126.10	631941.75	GC-SD115-09.8-11.8	B81Z2		SD	N	9.8	11.8	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD115	671126.10	631941.75	GC-SD115-11.8-13.8	B81Y2	MSD	SD	N	11.8	13.8	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD115	671126.10	631941.75	GC-SD115-00.0-13.8	B81Y6		SD	N	1.0	13.8	ft	3/17/2010	39542							X					X
GC-SD116	671370.26	632576.11	GC-SD116-00.0-02.0	B81X2		SD	N	0.0	2.0	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD116	671370.26	632576.11	GC-SD116-02.0-04.0	B81X3	MSD	SD	N	2.0	4.0	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD116	671370.26	632576.11	GC-SD116-04.0-06.0	B81X4		SD	N	4.0	6.0	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD116	671370.26	632576.11	GC-SD116-06.5-08.5	B81X5		SD	N	6.5	8.5	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

												Analyses Performed											
												CLP								Subcontracted			
Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD116	671370.26	632576.11	GC-SD116-08.5-10.5	B81X6	B81Y1 (D03172010-01 duplicate of B81X6 for all parameters)	SD	N	8.5	10.5	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD116	671370.26	632576.11	GC-SD116-10.5-12.5	B81X7		SD	N	10.5	12.5	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD116	671370.26	632576.11	GC-SD116-12.5-14.5	B81X8		SD	N	12.5	14.5	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD116	671370.26	632576.11	GC-SD116-14.5-15.8	B81X9		SD	N	14.5	15.8	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD116	671370.26	632576.11	GC-SD116-00.0-15.8	B81Y0		SD	N	0.0	15.8	ft	3/17/2010	39542							X					X
GC-SD117	671107.65	632254.29	GC-SD117-00.0-02.0	B81Z6		SD	N	0.0	2.0	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-02.0-04.0	B81Z7		SD	N	2.0	4.0	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-04.0-06.0	B81Z8	B81205 (D-03182010-01 duplicate of B81Z8 for all parameters)	SD	N	4.0	6.0	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-06.0-07.6	B81Z9		SD	N	6.0	7.6	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-08.7-10.7	B8200		SD	N	8.7	10.7	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-10.7-12.7	B8201		SD	N	10.7	12.7	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-12.7-14.7	B8202		SD	N	12.7	14.7	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-14.7-15.7	B8203		SD	N	14.7	15.7	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD117	671107.65	632254.29	GC-SD117-00.0-15.7	B8204		SD	N	0.0	15.7	ft	3/18/2010	39542							X					X
GC-SD118	670727.45	631655.17	GC-SD118-00.2-00.7	B82G3		SD	N	0.0	0.7	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD118	670727.45	631655.17	GC-SD118-01.0-03.0	B82G4		SD	N	1.0	3.0	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD118	670727.45	631655.17	GC-SD118-03.0-05.0	B82G5		SD	N	3.0	5.0	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD118	670727.45	631655.17	GC-SD118-05.0-07.0	B82G6		SD	N	5.0	7.0	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD118	670727.45	631655.17	GC-SD118-07.0-09.0	B82G7	MSD	SD	N	7.0	9.0	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD118	670727.45	631655.17	GC-SD118-09.0-10.2	B82G8		SD	N	9.0	10.2	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD118	670727.45	631655.17	GC-SD118-00.0-10.2	B82G9		SD	N	0.0	10.2	ft	4/1/2010	39542							X					X
GC-SD119	670324.35	631673.79	GC-SD119-00.0-01.2	B82D4		SD	N	0.0	1.2	ft	3/31/2010	39542	X	X	X	X	X	X				X		
GC-SD119	670324.35	631673.79	GC-SD119-04.5-6.0	B82D5		SD	N	4.5	6.0	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD119	670324.35	631673.79	GC-SD119-06.0-08.0	B82D6	B82E1 (D-03312010-01 dup for all parameters)	SD	N	6.0	8.0	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD119	670324.35	631673.79	GC-SD119-08.0-10.0	B82D7		SD	N	8.0	10.0	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD119	670324.35	631673.79	GC-SD119-10.0-12.0	B82D8		SD	N	10.0	12.0	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD119	670324.35	631673.79	GC-SD119-12.0-13.0	B82D9		SD	N	12.0	13.0	ft	3/31/2010	39542			X	X	X	X						
GC-SD119	670324.35	631673.79	GC-SD119-00.0-13.0	B82E0		SD	N	0.0	13.0	ft	3/31/2010	39542							X					X
GC-SD120	670312.41	631478.12	GC-SD120-00.0-01.3	B82E2		SD	N	0.0	1.3	ft	3/31/2010	39542	X	X	X	X	X	X			X	X	X	
GC-SD120	670312.41	631478.12	GC-SD120-02.5-04.5	B82E3	MSD	SD	N	2.5	4.5	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD120	670312.41	631478.12	GC-SD120-04.5-06.5	B82E4		SD	N	4.5	6.5	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD120	670312.41	631478.12	GC-SD120-06.5-08.5	B82E5	B82E9 (D-03312010-01 dup for all parameters)	SD	N	6.5	8.5	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD120	670312.41	631478.12	GC-SD120-08.5-10.5	B82E6		SD	N	8.5	10.5	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD120	670312.41	631478.12	GC-SD120-10.5-12.5	B82E7		SD	N	10.5	12.5	ft	3/31/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD120	670312.41	631478.12	GC-SD120-00.0-12.6	B82E8		SD	N	0.0	12.5	ft	3/31/2010	39542							X					X
GC-SD121	670187.49	631388.08	GC-SD121-01.5-03.5	B82H3		SD	N	1.5	3.5	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD121	670187.49	631388.08	GC-SD121-03.5-05.5	B82H4		SD	N	3.5	5.5	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD121	670187.49	631388.08	GC-SD121-05.5-07.5	B82H5		SD	N	5.5	7.5	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD121	670187.49	631388.08	GC-SD121-07.5-09.5	B82H6		SD	N	7.5	9.5	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD121	670187.49	631388.08	GC-SD121-09.5-11.5	B82H7		SD	N	9.5	11.5	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD121	670187.49	631388.08	GC-SD121-11.5-13.5	B82H8	B82H9 (D-04022010-01 dup for all parameters)	SD	N	11.5	13.5	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD121	670187.49	631388.08	GC-SD121-00.0-13.5	B82J0		SD	N	0.0	13.5	ft	4/2/2010	39542							X					X
GC-SD122	669589.58	631068.00	GC-SD122-00.0-00.7	B82T6		SD	N	0.0	0.7	ft	4/7/2010	39542	X	X	X	X	X	X						
GC-SD122	669589.58	631068.00	GC-SD122-01.1-03.1	B82T7		SD	N	1.1	3.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-03.1-05.1	B82T8		SD	N	3.1	5.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-05.1-07.1	B82T9	MSD	SD	N	5.1	7.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-07.1-09.1	B82W0		SD	N	7.1	9.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-09.1-11.1	B82W1		SD	N	9.1	11.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-11.1-13.1	B82W2	B82W5 (D-04-72010-01 dup of B82W2 for all parameters)	SD	N	11.1	13.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-13.1-15.1	B82W3		SD	N	13.1	15.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-15.1-16.1	B82W4		SD	N	15.1	16.1	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD122	669589.58	631068.00	GC-SD122-00.0-16.1	B82W6		SD	N	0.0	16.1	ft	4/7/2010	39542							X					X
GC-SD123	668785.32	630858.12	GC-SD123-00.0-02.0	B82Z7		SD	N	0.0	2.0	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD123	668785.32	630858.12	GC-SD123-02.0-04.0	B82Z8		SD	N	2.0	4.0	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD123	668785.32	630858.12	GC-SD123-04.0-06.0	B82Z9		SD	N	4.0	6.0	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD123	668785.32	630858.12	GC-SD123-06.0-06.8	B8300		SD	N	6.0	6.8	ft	4/8/2010	39542	X	X	X	X	X	X			X	X	X	
GC-SD123	668785.32	630858.12	GC-SD123-07.0-09.0	B8301	B8303 (D-04082010-02 dup of B8301 for all parameters)	SD	N	7.0	9.0	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD123	668785.32	630858.12	GC-SD123-09.0-11.0	B8302		SD	N	9.0	100.0	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD123	668785.32	630858.12	GC-SD123-00.0-11.0	B8304		SD	N	0.0	11.0	ft	4/8/2010	39542							X					X
GC-SD124	673564.39	634340.71	GC-SD124-00.0-02.0	B81D6		SD	N	0.0	2.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD124	673564.39	634340.71	GC-SD124-02.0-04.0	B81D7		SD	N	2.0	4.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD124	673564.39	634340.71	GC-SD124-04.0-06.0	B81D8		SD	N	4.0	6.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD124	673564.39	634340.71	GC-SD124-06.0-07.5	B81D9		SD	N	6.0	7.5	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD125	673554.68	634384.68	GC-SD125-12.0-13.6	B81E3		SD	N	12.0	13.6	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD125	673554.68	634384.68	GC-SD125-10.0-12.0	B81E4		SD	N	10.0	12.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD125	673554.68	634384.68	GC-SD125-04.0-06.0	B81E5	MSD for metals, Hg, CN, Pest/PCB. What about sulfide - was not listed on COC	SD	N	4.0	6.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD125	673554.68	634384.68	GC-SD125-00.0-02.0	B81E6		SD	N	0.0	2.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD125	673554.68	634384.68	GC-SD125-08.0-10.0	B81E7	B81E9 (D-03092010-01 Duplicate of B81E7 for sulfides, pesticides, PCBs, and metals, VOCs, BNA)	SD	N	8.0	10.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD125	673554.68	634384.68	GC-SD125-02.0-04.0	B81E8		SD	N	2.0	4.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD125	673554.68	634384.68	GC-SD125-06.0-08.0	B81F0		SD	N	6.0	8.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD126	673537.65	634429.84	GC-SD126-00.0-02.0	B81A2		SD	N	0.0	2.0	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD126	673537.65	634429.84	GC-SD126-02.0-04.0	B81A3	B81A0 (D-03042010-01-VOA, BNA, Metals, Cyanide)	SD	N	2.0	4.0	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD126	673537.65	634429.84	GC-SD126-04.0-06.0	B81A4	B81A1 (D-03042010-02-Pests, PCBs, sulfides)	SD	N	4.0	6.0	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD126	673537.65	634429.84	GCSD-126-06.0-06.6	B81A5		SD	N	6.0	6.6	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD127	671757.01	633549.75	GC-SD127-00.0-02.0	B81K0		SD	N	0.0	2.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed										
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD127	671757.01	633549.75	GC-SD127-02.0-04.0	B81K1		SD	N	2.0	4.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD127	671757.01	633549.75	GC-SD127-04.0-06.0	B81K2	B81K3(D-03112010-01 Duplicate of B81K2 - VOC, SVOC, Metal, Sulfides)	SD	N	4.0	6.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD127	671757.01	633549.75	GC-SD127-06.0-08.0	B81K5	B81K4 (D-03112010-02 Duplicate of B81K5 - Pests, PCBs.) MSD for sulfide	SD	N	6.0	8.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD127	671757.01	633549.75	GC-SD127-08.0-10.0	B81K6		SD	N	8.0	10.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD127	671757.01	633549.75	GC-SD127-10.0-12.0	B81K7		SD	N	10.0	12.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD127	671757.01	633549.75	GC-SD127-12.0-14.0	B81K8		SD	N	12.0	14.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD127	671757.01	633549.75	GC-SD127-14.0-15.8	B81K9		SD	N	14.0	15.8	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD128	671742.60	633588.78	GC-SD128-00.0-02.0	B81L8		SD	N	0.0	2.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD128	671742.60	633588.78	GC-SD128-02.0-02.5	B81L9		SD	N	2.0	2.5	ft	3/11/2010	39542			X	X	X			X				
GC-SD128	671742.60	633588.78	GC-SD128-03.3-05.3	B81M0	B81M5 (D-03112010-03 Duplicate of B81M0 for TCL-all, Metals, sulfides)	SD	N	3.3	5.3	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD128	671742.60	633588.78	GC-SD128-05.3-07.3	B81M1		SD	N	5.3	7.3	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD128	671742.60	633588.78	GC-SD128-07.3-09.3	B81M2		SD	N	7.3	9.3	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD128	671742.60	633588.78	GC-SD128-09.3-11.3	B81M3		SD	N	9.3	11.3	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD128	671742.60	633588.78	GC-SD128-11.3-13.3	B81M4		SD	N	11.3	13.3	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD129	671726.39	633604.51	GC-SD129-00.0-02.0	B8396		SD	N	0.0	2.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD129	671726.39	633604.51	GC-SD129-02.0-04.0	B8397		SD	N	2.0	4.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD129	671726.39	633604.51	GC-SD129-04.0-06.0	B8398		SD	N	4.0	6.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD129	671726.39	633604.51	GC-SD129-06.0-06.5	B8399		SD	N	6.0	6.5	ft	4/14/2010	39542	X	X	X	X	X	X						
GC-SD129	671726.39	633604.51	GC-SD129-06.6-08.6	B83A0	B83A2 (D-04142010-02 dup of B83A0 for all parameters)	SD	N	6.6	8.6	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD129	671726.39	633604.51	GC-SD129-08.6-10.6	B83A1		SD	N	8.6	10.6	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD130	670940.52	631791.88	GC-SD130-00.0-02.0	B8247		SD	N	0.0	2.0	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD130	670940.52	631791.88	GC-SD130-02.0-04.0	B8248	B8254 (D-03222010-01 duplicate of B8248 for all parameters)	SD	N	2.0	4.0	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD130	670940.52	631791.88	GC-SD130-04.0-06.0	B8249		SD	N	4.0	6.0	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD130	670940.52	631791.88	GC-SD130-06.0-07.0	B8250		SD	N	6.0	7.0	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD130	670940.52	631791.88	GC-SD130-07.4-09.4	B8251		SD	N	7.4	9.4	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD130	670940.52	631791.88	GC-SD130-09.4-11.4	B8252		SD	N	9.4	11.4	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD130	670940.52	631791.88	GC-SD130-11.4-12.8	B8253		SD	N	11.4	12.8	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD131	670953.72	631812.89	GC-SD131-00.0-01.3	B8209		SD	N	0.0	1.3	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD131	670953.72	631812.89	GC-SD131-01.5-03.5	B8210		SD	N	1.5	3.5	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD131	670953.72	631812.89	GC-SD131-03.5-05.5	B8211		SD	N	3.5	5.5	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD131	670953.72	631812.89	GC-SD131-05.5-07.5	B8212		SD	N	5.5	7.5	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD131	670953.72	631812.89	GC-SD131-07.5-09.5	B8213	B81216 (D-03182010-02 - duplicate of B8213 for all parameters)	SD	N	7.5	9.5	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD131	670953.72	631812.89	GC-SD131-09.5-11.5	B8214		SD	N	9.5	11.5	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD131	670953.72	631812.89	GC-SD131-11.5-11.9	B8215		SD	N	11.5	11.9	ft	3/18/2010	39542			X	X	X	X						
GC-SD132	670913.70	631881.75	GC-SD132-00.0-02.0	B8255		SD	N	0.0	2.0	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed										
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD132	670913.70	631881.75	GC-SD132-02.0-04.0	B8256		SD	N	2.0	4.0	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD132	670913.70	631881.75	GC-SD132-04.0-04.7	B8257		SD	N	4.0	4.7	ft	3/22/2010	39542			X	X	X	X						
GC-SD132	670913.70	631881.75	GC-SD132-04.9-06.9	B8258	B8260 (D-03222010-02, duplicate of B8258 for all parameters)	SD	N	4.9	6.9	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD132	670913.70	631881.75	GC-SD132-06.9-08.6	B8259		SD	N	6.9	8.6	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD133	Bridge Interference	Bridge Interference	GC-SD133-00.0-02.0	B82R2		SD	N	0.0	2.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD133	Bridge Interference	Bridge Interference	GC-SD133-02.0-04.0	B82R3		SD	N	2.0	4.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD133	Bridge Interference	Bridge Interference	GC-SD133-04.0-06.0	B82R4		SD	N	4.0	6.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD133	Bridge Interference	Bridge Interference	GC-SD133-06.0-07.8	B82R5	MSD	SD	N	6.0	7.8	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD133	Bridge Interference	Bridge Interference	GC-SD133-08.2-10.2	B82R6		SD	N	8.2	10.2	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD133	Bridge Interference	Bridge Interference	GC-SD133-10.2-10.7	B82R7		SD	N	10.2	10.7	ft	4/6/2010	39542	X	X	X	X	X	X						
GC-SD134	669852.65	631158.62	GC-SD134-00.0-02.0	B82S6		SD	N	0.0	2.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD134	669852.65	631158.62	GC-SD134-02.0-04.0	B82S7		SD	N	2.0	4.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD134	669852.65	631158.62	GC-SD134-04.0-04.4	B82S8		SD	N	4.0	4.4	ft	4/6/2010	39542			X	X	X	X						
GC-SD135	Bridge Interference	Bridge Interference	GC-SD135-00.0-02.0	B82S0		SD	N	0.0	2.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD135	Bridge Interference	Bridge Interference	GC-SD135-02.0-04.0	B82S1	B82S5 (D-04062010-01 dup for all parameters)	SD	N	2.0	4.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD135	Bridge Interference	Bridge Interference	GC-SD135-04.0-06.0	B82S2		SD	N	4.0	6.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD135	Bridge Interference	Bridge Interference	GC-SD135-06.0-08.0	B82S3		SD	N	6.0	8.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD135	Bridge Interference	Bridge Interference	GC-SD135-08.0-10.0	B82S4		SD	N	8.0	10.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD136	669474.21	631002.60	GC-SD136-00.0-02.0	B8243		SD	N	0.0	2.0	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD137	669430.53	631029.88	GC-SD137-00.0-02.0	B82X2		SD	N	0.0	2.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD137	669430.53	631029.88	GC-SD137-02.0-04.0	B82X3		SD	N	0.0	2.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD137	669430.53	631029.88	GC-SD137-04.0-06.0	B82X4		SD	N	0.0	2.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD137	669430.53	631029.88	GC-SD137-06.0-08.0	B82X5		SD	N	0.0	2.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD137	669430.53	631029.88	GC-SD137-08.0-09.8	B82X6	B82X7 (D-04072010-02 dup of B82X6 for all parameters	SD	N	0.0	2.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD138	669389.68	631106.13	GC-SD138-00.0-01.7	B82Z2		SD	N	0.0	1.7	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD139	668733.58	630435.96	GC-SD139-00.0-02.0	B8359		SD	N	0.0	2.0	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD139	668733.58	630435.96	GC-SD139-02.0-04.0	B8360		SD	N	2.0	4.0	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD139	668733.58	630435.96	GC-SD139-04.0-06.0	B8361		SD	N	4.0	6.0	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD139	668733.58	630435.96	GC-SD139-06.0-08.0	B8362		SD	N	6.0	8.0	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD139	668733.58	630435.96	GC-SD139-08.0-10.0	B8363		SD	N	8.0	10.0	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD139	668733.58	630435.96	GC-SD139-10.0-12.0	B8364	B8366 (D-04132010-01 dup of B8364 for all parameters)	SD	N	10.0	12.0	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD139	668733.58	630435.96	GC-SD139-12.0-12.8	B8365		SD	N	12.0	12.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD140	668625.44	630526.94	GC-SD140-00.0-02.0	B83A4		SD	N	0.0	2.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD140	668625.44	630526.94	GC-SD140-02.0-04.0	B83A5		SD	N	2.0	4.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD140	668625.44	630526.94	GC-SD140-04.0-06.0	B83A6		SD	N	4.0	6.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD140	668625.44	630526.94	GC-SD140-06.2-08.2	B83A7		SD	N	6.2	8.2	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD140	668625.44	630526.94	GC-SD140-08.2-10.2	B83A8	MSD	SD	N	8.2	10.2	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD140	668625.44	630526.94	GC-SD140-10.2-12.2	B83A9		SD	N	10.2	12.2	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD140	668625.44	630526.94	GC-SD140-12.2-12.7	B83B0		SD	N	12.2	12.7	ft	4/14/2010	39542	X	X	X	X	X	X						
GC-SD141	668510.65	630591.52	GC-SD141-00.0-02.0	B8355		SD	N	0.0	2.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD141	668510.65	630591.52	GC-SD141-02.0-04.0	B8356		SD	N	2.0	4.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD141	668510.65	630591.52	GC-SD141-04.0-05.7	B8357	MSD	SD	N	4.0	5.7	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD141	668510.65	630591.52	GC-SD141-00.0-05.7	B8358		SD	N	0.0	5.7	ft	4/12/2010	39542							X					X
GC-SD142	668390.50	630022.58	GC-SD142-00.0-02.0	B83C0		SD	N	0.0	2.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD142	668390.50	630022.58	GC-SD142-02.0-03.8	B83C1		SD	N	2.0	3.8	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD142	668390.50	630022.58	GC-SD142-04.1-06.1	B83C2		SD	N	4.1	6.1	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD142	668390.50	630022.58	GC-SD142-06.1-08.1	B83C3		SD	N	6.1	8.1	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD142	668390.50	630022.58	GC-SD142-08.1-10.1	B83C4	B83C6 (D-04152010-01 dup of B83C4 for all parameters)	SD	N	8.1	10.1	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD142	668390.50	630022.58	GC-SD142-10.1-11.2	B83C5		SD	N	10.1	11.2	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD143	668362.60	630211.16	GC-SD143-00.0-02.0	B83B1		SD	N	0.0	2.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD143	668362.60	630211.16	GC-SD143-02.0-02.9	B83B2		SD	N	2.0	2.9	ft	4/14/2010	39542	X	X	X	X	X	X				X		
GC-SD143	668362.60	630211.16	GC-SD143-03.3-05.3	B83B3	B83B9 (D-04142010-03 dup of B83B3 for all parameters)	SD	N	3.3	5.3	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD143	668362.60	630211.16	GC-SD143-05.3-07.3	B83B4		SD	N	5.3	7.3	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD143	668362.60	630211.16	GC-SD143-07.3-09.3	B83B5		SD	N	7.3	9.3	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD143	668362.60	630211.16	GC-SD143-09.3-11.3	B83B6		SD	N	8.3	11.3	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD143	668362.60	630211.16	GC-SD143-11.3-13.3	B83B7		SD	N	11.3	13.3	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD143	668362.60	630211.16	GC-SD143-13.3-13.8	B83B8		SD	N	13.3	13.8	ft	4/14/2010	39542	X	X	X	X	X	X						
GC-SD144B	668352.52	630407.60	GC-SD144B-00.8-02.8	B8369		SD	N	0.8	2.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD144B	668352.52	630407.60	GC-SD144B-02.8-04.8	B8370		SD	N	2.8	4.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD144B	668352.52	630407.60	GC-SD144B-04.8-06.5	B8371		SD	N	4.8	6.5	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD144C	668362.00	630404.83	GC-SD144C-00.0-02.0	B8367		SD	N	0.0	2.0	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD144C	668362.00	630404.83	GC-SD144C-02.0-03.3	B8368		SD	N	2.0	3.3	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed										
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD145	672310.37	633791.00	GC-SD145-00.0-02.0	B8305		SD	N	0.0	2.0	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD145	672310.37	633791.00	GC-SD145-02.0-03.5	B8306		SD	N	2.0	3.5	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD145	672310.37	633791.00	GC-SD145-03.8-05.8	B8307		SD	N	3.8	5.8	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD145	672310.37	633791.00	GC-SD145-05.8-07.8	B8308		SD	N	5.8	7.8	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD145	672310.37	633791.00	GC-SD145-07.8-09.6	B8309	MSD	SD	N	7.8	9.6	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD145	672310.37	633791.00	GC-SD145-00.0-09.6	B8311		SD	N	0.0	9.6	ft	4/9/2010	39542							X					X
GC-SD146	672058.48	633748.24	GC-SD146-00.0-02.0	B8335		SD	N	0.0	2.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD146	672058.48	633748.24	GC-SD146-02.0-04.0	B8336		SD	N	2.0	4.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD146	672058.48	633748.24	GC-SD146-04.0-06.0	B8337		SD	N	4.0	6.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD146	672058.48	633748.24	GC-SD146-06.0-06.6	B8338		SD	N	6.0	6.6	ft	4/12/2010	39542			X	X	X	X						
GC-SD146	672058.48	633748.24	GC-SD146-07.0-09.0	B8339		SD	N	7.0	9.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD146	672058.48	633748.24	GC-SD146-09.0-11.0	B8340		SD	N	9.0	11.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD146	672058.48	633748.24	GC-SD146-11.0-13.0	B8341	B8342 (D-04122010 dup of B8341 for all parameters)	SD	N	11.0	13.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-00.0-02.0	B8312		SD	N	0.0	2.0	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-02.0-03.1	B8313		SD	N	2.0	3.1	ft	4/9/2010	39542	X	X	X	X	X	X			X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-03.5-05.5	B8314		SD	N	3.5	5.5	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-05.5-07.5	B8315	B8321 (D-040910-01 dup of B8315 for all parameters)	SD	N	5.5	7.5	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-07.5-09.5	B8316		SD	N	7.5	9.5	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-09.5-11.5	B8317		SD	N	9.5	11.5	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-11.5-13.5	B8318		SD	N	11.5	13.5	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-13.5-15.5	B8319		SD	N	13.5	15.5	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD147	672024.10	633772.00	GC-SD147-15.5-17.0	B8320		SD	N	15.5	17.0	ft	4/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD148	672022.77	633781.90	GC-SD148-00.0-02.0	B8389		SD	N	0.0	2.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD148	672022.77	633781.90	GC-SD148-02.0-04.0	B8390		SD	N	2.0	4.0	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD148	672022.77	633781.90	GC-SD148-04.0-05.5	B8391		SD	N	4.0	5.5	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD148	672022.77	633781.90	GC-SD148-06.2-08.2	B8392	B8395 (D-04142010-01 dup of B8392 for all parameters)	SD	N	6.2	8.2	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD148	672022.77	633781.90	GC-SD148-08.2-10.2	B8393		SD	N	8.2	10.2	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD148	672022.77	633781.90	GC-SD148-10.2-11.9	B8394		SD	N	10.2	11.9	ft	4/14/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD149	670396.66	631543.92	GC-SD149-00.0-02.0	B8343		SD	N	0.0	2.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD149	670396.66	631543.92	GC-SD149-02.0-04.0	B8344		SD	N	2.0	4.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD149	670396.66	631543.92	GC-SD149-04.0-04.7	B8345		SD	N	4.0	4.7	ft	4/12/2010	39542	X	X	X	X	X	X				X		
GC-SD149	670396.66	631543.92	GC-SD149-05.0-07.0	B8346		SD	N	5.0	7.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD149	670396.66	631543.92	GC-SD149-00.0-07.0	B8347		SD	N	0.0	7.0	ft	4/12/2010	39542							X					X
GC-SD150	669169.28	630894.44	GC-SD150-00.0-02.0	B8326		SD	N	0.0	2.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD150	669169.28	630894.44	GC-SD150-02.0-04.0	B8327		SD	N	2.0	4.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD150	669169.28	630894.44	GC-SD150-04.0-06.0	B8328		SD	N	4.0	6.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD150	669169.28	630894.44	GC-SD150-06.0-08.2	B8329		SD	N	6.0	8.2	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD150	669169.28	630894.44	GC-SD150-08.6-10.6	B8330	B8334 (D-04122010-01 dup of B8330 for all parameters)	SD	N	8.6	10.6	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD150	669169.28	630894.44	GC-SD150-10.6-12.6	B8331		SD	N	10.6	12.6	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD150	669169.28	630894.44	GC-SD150-12.6-14.6	B8332		SD	N	12.6	14.6	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD150	669169.28	630894.44	GC-SD150-14.6-15.5	B8333	MSD	SD	N	14.6	15.5	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed										
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD151	669093.74	631050.33	GC-SD151-00.0-02.0	B8348		SD	N	0.0	2.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD151	669093.74	631050.33	GC-SD151-02.0-04.0	B8349		SD	N	2.0	4.0	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD151	669093.74	631050.33	GC-SD151-04.0-04.8	B8350		SD	N	4.0	4.8	ft	4/12/2010	39542	X	X	X	X	X	X						
GC-SD151	669093.74	631050.33	GC-SD151-05.2-07.2	B8351		SD	N	5.2	7.2	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD151	669093.74	631050.33	GC-SD151-07.2-09.2	B8352	B8354 (D-04122010-03 dup of B8352 for all parameters)	SD	N	7.2	9.2	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD151	669093.74	631050.33	GC-SD151-09.2-11.2	B8353		SD	N	9.2	11.2	ft	4/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD152	673289.33	634280.01	GC-SD152-00.0-02.0	B83D1		SD	N	0.0	2.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD152	673289.33	634280.01	GC-SD152-02.0-04.0	B83D2		SD	N	2.0	4.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD152	673289.33	634280.01	GC-SD152-04.0-06.0	B83D3		SD	N	4.0	6.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD152	673289.33	634280.01	GC-SD152-06.0-07.3	B83D4		SD	N	6.0	7.3	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD152	673289.33	634280.01	GC-SD152-07.7-09.7	B83D5		SD	N	7.7	9.7	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD152	673289.33	634280.01	GC-SD152-09.7-11.7	B83D6	B83D8 (D-04152010-02 dup of B83D6 for all parameters)	SD	N	9.7	11.7	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD152	673289.33	634280.01	GC-SD152-00.0-12.0	B83D7		SD	N	0.0	12.0	ft	4/15/2010	39542							X					X
GC-SD153	672395.30	633803.36	GC-SD153-00.0-02.0	B83E1		SD	N	0.0	2.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD153	672395.30	633803.36	GC-SD153-02.0-03.2	B83E2		SD	N	2.0	3.2	ft	4/15/2010	39542	X	X	X	X	X	X						
GC-SD153	672395.30	633803.36	GC-SD153-04.2-06.2	B83E3		SD	N	4.2	6.2	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD153	672395.30	633803.36	GC-SD153-06.2-08.2	B83E4		SD	N	6.2	8.2	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD153	672395.30	633803.36	GC-SD153-08.2-08.8	B83E5		SD	N	8.2	8.8	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD153	672395.30	633803.36	GC-SD153-00.0-08.8	B83E0		SD	N	0.0	8.8	ft	4/15/2010	39542							X					X
GC-SD01A	673607.91	634371.28	GC-SD001A-09.4-11.4	B81E1		SD	N	9.4	11.4	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD02A	673599.74	634402.00	GC-SD002A-11.9-13.9	B81H1	MSD (PCB, PEST, Sulfides, metals)	SD	N	11.9	13.9	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD03B	*673583.80*	*634429.69*	*No native material*																					
GC-SD04 A	673438.09	634285.63	GC-SD004A-07.3-09.3	B81H2		SD	N	7.3	9.3	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD04 A	673438.09	634285.63	GC-SD004A-09.3-11.3	B81H3		SD	N	9.3	11.3	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD04 A	673438.09	634285.63	GC-SD004A-11.3-13.3	B81H4		SD	N	11.3	13.3	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD05A	673432.78	634313.60	GC-SD005A-06.0-08.0	B81H5		SD	N	6.0	8.0	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD05A	673432.78	634313.60	GC-SD005A-08.0-10.0	B81H6		SD	N	8.0	10.0	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD05A	673432.78	634313.60	GC-SD005A-10.0-12.0	B81H7		SD	N	10.0	12.0	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD06A	673413.32	634360.76	GC-SD006A-08.5-10.4	B8199	MSD (PCB, PEST, Sulfides)	SD	N	8.5	10.4	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD06A (r	673411.90	634355.13	GC-SD006A-11.4-13.4	B81C4	MSD for metals	SD	N	11.4	13.4	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD06A (r	673411.90	634355.13	GC-SD006A-09.4-11.4	B81C5		SD	N	9.4	11.4	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD06A (r	673411.90	634355.13	GC-SD006A-13.4-14.0	B81C6		SD	N	13.4	14.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD07A	673298.55	634227.22	GC-SD007A-07.0-09.0	B81C8		SD	N	7.0	9.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD07A	673298.55	634227.22	GC-SD007A-09.0-11.0	B81C9		SD	N	9.0	11.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD07A	673298.55	634227.22	GC-SD007A-11.0-13.0	B81D0		SD	N	11.0	13.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD08A	673285.30	634255.69	GC-SD008A-10.0-12.0	B81D1	B81D2 (D-03082010-02 duplicate for PCB/ Pesticides)	SD	N	10.0	12.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD08A	673285.30	634255.69	GC-SD008A-12.0-13.0	B81D3		SD	N	12.0	13.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD08A	673285.30	634255.69	GC-SD008A-08.0-10.0	B81D4	B81D5 (D-03082010-01 for VOCs, SVOCs, Metals, Sulfides)	SD	N	8.0	10.0	ft	3/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD09B			Not Sampled																					
GC-SD10A	672981.11	634066.63	GC-SD010A-06.4-08.4	B81A6		SD	N	6.4	8.4	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD10A	672981.11	634066.63	GC-SD010A-08.4-10.4	B81A7		SD	N	8.4	10.4	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD10A	672981.11	634066.63	GC-SD010A-10.4-11.2	B81A8		SD	N	10.4	11.2	ft	3/4/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD11A	672969.35	634086.74	GC-SD011A-07.7-09.7	B81H8	B81J1 (D-03102010-01 Duplicate of B81H8 for TCL-all, Metals, sulfides)	SD	N	7.7	9.7	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD11A	672969.35	634086.74	GC-SD011A-09.7-11.7	B81H9		SD	N	9.7	11.7	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD11A	672969.35	634086.74	GC-SD011A-11.7-13.7	B81J0		SD	N	11.7	13.7	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD12A	*672959.20*	*634116.82*	*No native material*																					
GC-SD13B	672791.88	633963.58	GC-SD013B-06.0-08.0	B81F1		SD	N	6.0	8.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD13B	672791.88	633963.58	GC-SD013B-08.0-10.0	B81F2		SD	N	8.0	10.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD13B	672791.88	633963.58	GC-SD013B-10.0-12.0	B81F3		SD	N	10.0	12.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD13B	672791.88	633963.58	GC-SD013B-14.0-16.0	B81F4		SD	N	14.0	16.0	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD14A	672782.48	633983.67	GC-SD014A-07.4-09.4	B81F5		SD	N	7.4	9.4	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD14A	672782.48	633983.67	GC-SD014A-09.4-11.4	B81F6		SD	N	9.4	11.4	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD14A	672782.48	633983.67	GC-SD014A-11.4-13.4	B81F7		SD	N	11.4	13.4	ft	3/9/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD14A	672782.48	633983.67	GC-SD014A-13.4-13.9	B81F8		SD	N	13.4	13.9	ft	3/9/2010	39542			X	X	X	X						
GC-SD15A			Not Sampled																					
GC-SD16A	672521.70	633828.90	GC-SD016A-05.4-07.4	B81J2		SD	N	5.4	7.4	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD16A	672521.70	633828.90	GC-SD016A-07.4-09.4	B81J3		SD	N	7.4	9.4	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD16A	672521.70	633828.90	GC-SD016A-09.4-11.4	B81J4		SD	N	9.4	11.4	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD16A	672521.70	633828.90	GC-SD016A-11.4-13.4	B81J5		SD	N	11.4	3.4	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD17A	672537.54	633864.93	GC-SD017A-02.0-04.0	B81J6		SD	N	2.0	4.0	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD17A	672537.54	633864.93	GC-SD017A-04.0-06.0	B81J7		SD	N	4.0	6.0	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD17A	672537.54	633864.93	GC-SD017A-06.0-08.0	B81J8		SD	N	6.0	8.0	ft	3/10/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD18A	672526.66	633887.21	GC-SD018A-04.0-06.0	B8171		SD	N	4.0	6.0	ft	3/3/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD18A	672526.66	633887.21	GC-SD018A-06.0-08.0	B8172		SD	N	6.0	8.0	ft	3/3/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD18A	672526.66	633887.21	GC-SD018A-08.0-10.0	B8173		SD	N	8.0	10.0	ft	3/3/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD19C	672227.64	633769.29	GC-SD019C-06.8-08.8	B81N8		SD	N	6.8	8.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD19C	672227.64	633769.29	GC-SD019C-08.8-10.8	B81P0		SD	N	8.8	10.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD19C	672227.64	633769.29	GC-SD019C-10.8-11.5	B81P1		SD	N	10.8	11.5	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD20A	*672170.88*	*633788.42*	No native material																					
GC-SD21B	*672179.31*	*633820.67*	No native material																					
GC-SD22B	671925.90	633669.58	GC-SD022B-04.0-06.0	B81M6		SD	N	4.0	6.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD22B	671925.90	633669.58	GC-SD022B-06.0-0.8.0	B81M7	MSD - PEST, PCB, Sulfides, Metals	SD	N	6.0	8.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD22B	671925.90	633669.58	GC-SD022B-08.0-10.0	B81M8		SD	N	8.0	10.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD22B	671925.90	633669.58	GC-SD022B-10.0-12.0	B81M9		SD	N	10.0	12.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD22B	671925.90	633669.58	GC-SD022B-12.0-14.0	B81N0		SD	N	12.0	14.0	ft	3/11/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD24B	671891.11	633709.15	GC-SD024B-04.8-06.8	B8382	MSD	SD	N	4.8	6.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD24B	671891.11	633709.15	GC-SD024B-06.8-08.8	B8383		SD	N	6.8	8.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD24B	671891.11	633709.15	GC-SD024B-08.8-10.8	B8384		SD	N	8.8	10.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD24B	671891.11	633709.15	GC-SD024B-10.8-12.8	B8385		SD	N	10.8	12.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD24B	671891.11	633709.15	GC-SD024B-12.8-14.8	B8386		SD	N	12.8	14.8	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed										
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD25B	671567.17	633439.12	GC-SD025B-04.8-06.8	B81Q1		SD	N	4.8	6.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD25B	671567.17	633439.12	GC-SD025B-06.8-08.8	B81Q2		SD	N	6.8	8.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD25B	671567.17	633439.12	GC-SD025B-08.8-10.8	B81Q3	MSD - PEST, PCB, Sulfides, Metals	SD	N	8.8	10.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD25B	671567.17	633439.12	GC-SD025B-10.8-11.6	B81Q4		SD	N	10.8	11.6	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD26A	671551.88	633459.11	GC-SD026A-02.4-04.4	B8232		SD	N	2.4	4.4	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD26A	671551.88	633459.11	GC-SD026A-04.4-06.4	B8233		SD	N	4.4	6.4	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD26A	671551.88	633459.11	GC-SD026A-06.4-08.4	B8234	B8237 (D-03192010-01 dup of B8234 for all parameters)	SD	N	6.4	8.4	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD26A	671551.88	633459.11	GC-SD026A-10.4-12.4	B8235		SD	N	10.4	12.4	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD26A	671551.88	633459.11	GC-SD026A-12.4-14.4	B8236		SD	N	12.4	14.4	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD27A	671533.17	633475.29	GC-SD027A-04.1-06.1	B8376	B8379 (D-04132010-02 dup of B8376 for all parameters)	SD	N	4.1	6.1	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD27A	671533.17	633475.29	GC-SD027A-06.1-08.1	B8377		SD	N	6.1	8.1	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD27A	671533.17	633475.29	GC-SD027A-08.1-08.6	B8378		SD	N	8.1	8.6	ft	4/13/2010	39542	X	X	X	X	X	X						
GC-SD28A	671513.18	633252.49	GC-SD028B-06.8-08.8	B81P3		SD	N	6.8	8.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD28A	671513.18	633252.49	GC-SD028B-08.8-10.8	B81P4		SD	N	8.8	10.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD28A	671513.18	633252.49	GC-SD028B-10.8-12.8	B81P5		SD	N	10.8	12.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD29A	671471.48	633238.84	GC-SD029A-04.8-06.8	B81P6		SD	N	4.8	6.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD29A	671471.48	633238.84	GC-SD029A-06.8-08.8	B81P7		SD	N	6.8	8.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD29A	671471.48	633238.84	GC-SD029A-08.8-10.8	B81P8	MSD	SD	N	8.8	10.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD29A	671471.48	633238.84	GC-SD029A-11.8-13.8	B81P9	B81Q0 (D-03122010-02 Duplicate of B81P9 for TCL-all, metals, sulfides)	SD	N	11.8	13.8	ft	3/12/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD30A	671442.92	633256.91	GC-SD030A-06.0-08.0	B8225		SD	N	6.0	8.0	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD30A	671442.92	633256.91	GC-SD030A-08.0-10.0	B8226		SD	N	8.0	10.0	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD30A	671442.92	633256.91	GC-SD030A-10.0-12.0	B8227		SD	N	10.0	12.0	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD30A	671442.92	633256.91	GC-SD030A-12.0-14.0	B8228		SD	N	12.0	14.0	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD30A	671442.92	633256.91	GC-SD030A-16.0-17.7	B8229		SD	N	16.0	17.7	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD31A	671550.03	633077.08	GC-SD031A-09.3-11.3	B81S6	B81S9 (D-03162010-01 Duplicate of for all TCL, all metals, and sulfides)	SD	N	9.3	11.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD31A	671550.03	633077.08	GC-SD031A-11.3-13.3	B81S7		SD	N	11.3	13.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD31A	671550.03	633077.08	GC-SD031A-13.3-13.9	B81S8		SD	N	13.3	13.9	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD32A	671517.73	633065.62	GC-SD032A-06.1-08.1	B81S3		SD	N	6.1	8.1	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD32A	671517.73	633065.62	GC-SD032A-08.1-10.1	B81S4		SD	N	8.1	10.1	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD32A	671517.73	633065.62	GC-SD032A-10.1-12.1	B81S5		SD	N	10.1	12.1	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD33A	671481.39	633040.16	GC-SD033A-06.2-08.2	B81R9		SD	N	6.2	8.2	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD33A	671481.39	633040.16	GC-SD033A-08.2-10.2	B81S0		SD	N	8.2	10.2	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD33A	671481.39	633040.16	GC-SD033A-10.2-12.2	B81S1		SD	N	10.2	12.2	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD33A	671481.39	633040.16	GC-SD033A-13.6-15.6	B81S2		SD	N	13.6	15.6	ft	3/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD34B	671583.78	632847.79	GC-SD034B-08.1-09.9	B8285		SD	N	8.1	9.9	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD35A	671555.55	632813.58	GC-SD035A-05.3-07.3	B8238		SD	N	5.3	7.3	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD35A	671555.55	632813.58	GC-SD035A-07.3-09.3	B8239		SD	N	7.3	9.3	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD35A	671555.55	632813.58	GC-SD035A-09.3-11.3	B8240	MSD for all parameters	SD	N	9.3	11.3	ft	3/19/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD36A	671551.43	632801.03	GC-SD036A-06.1-08.1	B8241		SD	N	6.1	8.1	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed										
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD36A	671551.43	632801.03	GC-SD036A-08.1-09.2	B8242		SD	N	8.1	9.2	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD37B	671612.79	632570.52	GC-SD037B-00.0-00.5	B8387		SD	N	0.0	0.5	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD37B	671612.79	632570.52	GC-SD037B-01.4-01.9	B8372		SD	N	1.4	1.9	ft	4/13/2010	39542			X	X	X	X				X		
GC-SD37B	671612.79	632570.52	GC-SD037B-02.5-04.2	B8373		SD	N	2.5	4.2	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD38A	671597.43	632604.82	GC-SD038A-02.1-02.6	B8374		SD	N	2.1	2.6	ft	4/13/2010	39542	X	X	X	X	X	X						
GC-SD38A	671597.43	632604.82	GC-SD038A-02.6-04.4	B8375		SD	N	2.6	4.4	ft	4/13/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD39A	*671562.72*	*632606.80*	No native material																					
GC-SD40A	671609.70	632418.04	GC-SD040A-04.0-05.0	B8276		SD	N	4.0	5.0	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD41A	671589.20	632427.12	GC-SD041A-02.4-04.4	B8277		SD	N	2.4	4.4	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD41A	671589.20	632427.12	GC-SD041A-04.4-06.4	B8278		SD	N	4.4	6.4	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD41A	671589.20	632427.12	GC-SD041A-06.4-07.5	B8279		SD	N	6.4	7.5	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD42B	671564.57	632444.55	GC-SD042B-02.2-04.2	B8280	B8283 (D-03232010-02 dup of B8280 for all parameters)	SD	N	2.2	4.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD42B	671564.57	632444.55	GC-SD042B-04.2-06.2	B8281		SD	N	4.2	6.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD42B	671564.57	632444.55	GC-SD042B-06.2-07.0	B8282		SD	N	6.2	7.0	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD43A	671583.64	632339.02	GC-SD043A-02.6-04.6	B8294		SD	N	2.6	4.6	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD43A	671583.64	632339.02	GC-SD043A-04.6-06.6	B8295		SD	N	4.6	6.6	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD43A	671583.64	632339.02	GC-SD043A-06.6-08.6	B8296		SD	N	6.6	8.6	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD44A	671536.55	632346.46	GC-SD044A-01.7-03.7	B8288		SD	N	1.7	3.7	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD44A	671536.55	632346.46	GC-SD044A-03.7-05.7	B8289		SD	N	3.7	5.7	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD44A	671536.55	632346.46	GC-SD044A-05.7-07.7	B8290		SD	N	5.7	7.7	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD44A	671536.55	632346.46	GC-SD044A-09.7-11.7	B8291		SD	N	9.7	11.7	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD44A	671536.55	632346.46	GC-SD044A-14.1-16.1	B8292	B8293 (D-03242010-01 dup of B8292 for all parameters	SD	N	14.1	16.1	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD45C	671518.38	632368.25	GC-SD045C-04.7-06.7	B8286	MSD	SD	N	4.7	6.7	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD45C	671518.38	632368.25	GC-SD045C-06.7-07.9	B8287		SD	N	6.7	7.9	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD46C	671463.18	632153.90	GC-SD046C-03.9-05.9	B8297		SD	N	3.9	5.9	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD46C	671463.18	632153.90	GC-SD046C-05.9-07.9	B8298		SD	N	5.9	7.9	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD46C	671463.18	632153.90	GC-SD046C-07.9-09.9	B8299		SD	N	7.9	9.9	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD47A	671431.56	632188.77	GC-SD047A-00.6-02.6	B82A9		SD	N	0.6	2.6	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD47A	671431.56	632188.77	GC-SD047A-02.6-04.6	B82B0		SD	N	2.6	4.6	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD47A	671431.56	632188.77	GC-SD047A-04.6-06.6	B82B1		SD	N	4.6	6.6	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD47A	671431.56	632188.77	GC-SD047A-10.6-12.6	B82B2	MSD	SD	N	10.6	12.6	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD47A	671431.56	632188.77	GC-SD047A-12.6-14.6	B82B3		SD	N	12.6	14.6	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD47A	671431.56	632188.77	GC-SD047A-14.6-16.6	B82B4		SD	N	14.6	16.6	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD47A	671431.56	632188.77	GC-SD047A-16.6-18.6	B82B5		SD	N	16.6	18.6	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD48A	*671409.80*	*632208.40*	No native material																					
GC-SD49A	671373.45	632071.13	GC-SD049A-03.4-05.4	B82A1		SD	N	3.4	5.4	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD49A	671373.45	632071.13	GC-SD049A-05.4-07.4	B82A2		SD	N	5.4	7.4	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD49A	671373.45	632071.13	GC-SD049A-07.4-09.4	B82A3		SD	N	7.4	9.4	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD49A	671373.45	632071.13	GC-SD049A-11.4-13.3	B82A4	B82A5 (D-03242010 dup of B82A4 for all parameters)	SD	N	11.4	13.3	ft	3/24/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD50B	671342.44	632097.35	GC-SD050B-01.7-03.7	B82B6		SD	N	1.7	3.7	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD50B	671342.44	632097.35	GC-SD050B-03.7-05.7	B82B7	B82C0 (D-032510-01 dup of B82B7 for all parameters)	SD	N	3.7	5.7	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD50B	671342.44	632097.35	GC-SD050B-05.7-07.7	B82B8		SD	N	6.7	7.7	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD50B	671342.44	632097.35	GC-SD050B-09.7-11.7	B82B9		SD	N	9.7	11.7	ft	3/25/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD51A	671326.02	632123.73	GC-SD051A-02.4-04.4	B82D0		SD	N	2.4	4.4	ft	3/3/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD51A	671326.02	632123.73	GC-SD051A-04.4-06.4	B82D1		SD	N	4.4	6.4	ft	3/3/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD51A	671326.02	632123.73	GC-SD051A-06.4-08.4	B82D2		SD	N	6.4	8.4	ft	3/3/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD51A	671326.02	632123.73	GC-SD051A-08.4-09.3	B82D3		SD	N	8.4	9.3	ft	3/3/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD52A	*671233.59*	*631973.80*	No native material																					
GC-SD53A	671215.51	632005.69	GC-SD053A-02.5-04.5	B82G0		SD	N	2.5	4.5	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD53A	671215.51	632005.69	GC-SD053A-04.5-06.5	B82G1		SD	N	4.5	6.5	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD53A	671215.51	632005.69	GC-SD053A-06.5-08.5	B82G2		SD	N	6.5	8.5	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD54B	671172.68	632018.62	GC-SD054B-04.5-06.5	B82C1		SD	N	4.5	6.5	ft	3/29/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD54B	671172.68	632018.62	GC-SD054B-06.5-08.5	B82C2		SD	N	6.5	8.5	ft	3/29/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD54B	671172.68	632018.62	GC-SD054B-08.5-10.5	B82C3		SD	N	8.5	10.5	ft	3/29/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD54B	671172.68	632018.62	GC-SD054B-10.5-11.2	B82C4		SD	N	10.5	11.2	ft	3/29/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD55A	*671020.81*	*631828.69*	No native material																					
GC-SD56A	671009.89	631870.43	GC-SD056A-01.6-03.6	B8261		SD	N	1.6	3.6	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD56A	671009.89	631870.43	GC-SD056A-03.6-05.3	B8262		SD	N	3.6	5.3	ft	3/22/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD57A	671003.16	631915.69	GC-SD057A-07.2-09.2	B8263		SD	N	7.2	9.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD57A	671003.16	631915.69	GC-SD057A-09.2-11.2	B8263		SD	N	9.2	11.2	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD57A	671003.16	631915.69	GC-SD057A-11.2-11.9	B8264		SD	N	11.2	11.9	ft	3/23/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD59A	670730.43	631695.70	GC-SD059A-02.1-04.1	B82P9		SD	N	2.1	4.1	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD59A	670730.43	631695.70	GC-SD059A-04.1-06.1	B82Q0		SD	N	4.1	6.1	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD59A	670730.43	631695.70	GC-SD059A-06.1-08.1	B82Q1		SD	N	6.1	8.1	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD59A	670730.43	631695.70	GC-SD059A-11.0-13.0	B82Q2		SD	N	11.0	13.0	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD60B	670707.73	631721.71	GC-SD060B-05.2-07.2	B82H0	B82H2 (D-04012010-02 dup for all parameters)	SD	N	5.2	7.2	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD60B	670707.73	631721.71	GC-SD060B-07.2-08.0	B82H1		SD	N	7.2	8.0	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD61C	670562.15	631545.57	GC-SD061C-07.7-09.7	B82J2		SD	N	7.7	9.7	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD61C	670562.15	631545.57	GC-SD061C-09.7-11.7	B82J3		SD	N	9.7	11.7	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD62C	670549.78	631578.01	GC-SD062C-04.5-06.5	B82Q3		SD	N	4.5	6.5	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD62C	670549.78	631578.01	GC-SD062C-06.5-08.5	B82Q4		SD	N	6.5	8.5	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD62C	670549.78	631578.01	GC-SD062C-08.5-10.5	B82Q5		SD	N	8.5	10.5	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD62C	670549.78	631578.01	GC-SD062C-10.5-12.5	B82Q6		SD	N	10.5	12.5	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD63A	670524.84	631609.30	GC-SD063A-03.1-05.1	B82F6		SD	N	3.1	5.1	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD63A	670524.84	631609.30	GC-SD063A-05.1-07.1	B82F7		SD	N	5.1	7.1	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD63A	670524.84	631609.30	GC-SD063A-07.1-09.1	B82F8	B82F8 (D-04012010-01 dup for all parameters)	SD	N	7.1	9.1	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD64D	670275.67	631371.64	GC-SD064D-03.1-05.1	B82J4		SD	N	3.1	5.1	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD64D	670275.67	631371.64	GC-SD064D-05.1-07.1	B82J5		SD	N	5.1	7.1	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD64D	670275.67	631371.64	GC-SD064D-07.1-09.1	B82J6		SD	N	7.1	9.1	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD64D	670275.67	631371.64	GC-SD064D-09.1-11.1	B82J7		SD	N	9.1	11.1	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD64D	670275.67	631371.64	GC-SD064D-13.1-15.1	B82J8		SD	N	13.1	15.1	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD65A	670251.90	631402.71	GC-SD065A-01.0-03.0	B82Q7		SD	N	1.0	3.0	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD65A	670251.90	631402.71	GC-SD065A-03.0-05.0	B82Q8	B82R1 (D-04052010-01 dup for all parameters)	SD	N	1.0	3.0	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD65A	670251.90	631402.71	GC-SD065A-05.0-07.0	B82Q9		SD	N	1.0	3.0	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD65A	670251.90	631402.71	GC-SD065A-11.0-12.7	B82R0		SD	N	1.0	3.0	ft	4/5/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD66C	670216.81	631420.77	GC-SD066C-02.7-04.7	B82F2		SD	N	2.7	4.7	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD66C	670216.81	631420.77	GC-SD066C-04.7-06.7	B82F3		SD	N	4.7	6.7	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD66C	670216.81	631420.77	GC-SD066C-06.7-08.7	B82F4		SD	N	6.7	8.7	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD66C	670216.81	631420.77	GC-SD066C-10.7-12.7	B82F5		SD	N	10.7	12.7	ft	4/1/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD67B	669777.71	631090.06	GC-SD067B-06.0-08.0	B82S9		SD	N	6.0	8.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD67B	669777.71	631090.06	GC-SD067B-08.0-10.0	B82T0		SD	N	8.0	10.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD67B	669777.71	631090.06	GC-SD067B-10.0-12.0	B82T1	B82T2 (D-04062010-02 dup for all parameters of B82T1)	SD	N	10.0	12.0	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD68A	*669758.13*	*631131.37*	*No native material*																					
GC-SD69C	*669745.17*	*631177.00*	*No native material*																					
GC-SD70B	669605.64	631030.37	GC-SD070B-04.8-06.8	B82T3		SD	N	4.8	6.8	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD70B	669605.64	631030.37	GC-SD070B-06.8-08.8	B82T4		SD	N	6.8	8.8	ft	4/6/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD70B	669605.64	631030.37	GC-SD070B-08.8-09.1	B82T5		SD	N	8.8	9.1	ft	4/6/2010	39542			X	X	X	X						
GC-SD72B	669582.54	631097.91	GC-SD072B-01.8-03.8	B82X8		SD	N	1.8	3.8	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD72B	669582.54	631097.91	GC-SD072B-03.8-05.8	B82X9		SD	N	3.8	5.8	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD72B	669582.54	631097.91	GC-SD072B-05.8-07.8	B82Y0		SD	N	5.8	7.8	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD72B	669582.54	631097.91	GC-SD072B-07.8-09.8	B82Y1		SD	N	7.8	9.8	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD73E	*669276.87*	*630930.25*	No native material																					
GC-SD74E	669253.05	630997.67	GC-SD074E-04.4-06.4	B82Y9	B82Z1 (D-04082010-01 dup of B82Y9 for all parameters)	SD	N	4.4	6.4	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD74E	669253.05	630997.67	GC-SD074E-06.4-08.4	B82Z0		SD	N	6.4	8.4	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD74E	669253.05	630997.67	GC-SD074E-08.4-10.4	B82Z1		SD	N	8.4	10.4	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD75C	669231.38	631102.91	GC-SD075C-01.0-03.0	B82W7		SD	N	1.0	3.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD75C	669231.38	631102.91	GC-SD075C-03.0-05.0	B82W8		SD	N	3.0	5.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD75C	669231.38	631102.91	GC-SD075C-05.0-07.0	B82W9		SD	N	5.0	7.0	ft	4/7/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD76C	668936.19	630782.93	GC-SD076C-05.8-07.8	B82Y3		SD	N	5.8	7.8	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD76C	668936.19	630782.93	GC-SD076C-07.8-09.8	B82Y4	MSD	SD	N	7.8	9.8	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD76C	668936.19	630782.93	GC-SD076C-09.8-11.8	B82Y5		SD	N	9.8	11.8	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD76C	668936.19	630782.93	GC-SD076C-11.8-13.8	B82Y6		SD	N	11.8	13.8	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD77A	668861.10	630891.31	GC-SD077A-06.7-08.7	B82Z4		SD	N	6.7	8.7	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD77A	668861.10	630891.31	GC-SD077A-08.7-10.7	B82Z5		SD	N	8.7	10.7	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD77A	668861.10	630891.31	GC-SD077A-10.7-12.4	B82Z6		SD	N	10.7	12.4	ft	4/8/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD78B	*668801.16*	*631016.41*	No native material																					
GC-SD79A	668735.70	630266.08	GC-SD079A-06.0-08.0	B83C7		SD	N	6.0	8.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD79A	668735.70	630266.08	GC-SD079A-08.0-10.0	B83C8		SD	N	8.0	10.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD79A	668735.70	630266.08	GC-SD079A-10.0-12.0	B83C9	MSD	SD	N	10.0	12.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD81A	668620.52	630209.73	GC-SD081A-05.3-07.3	B83E6	B83E9 (D-04152010-03 dup of B83E6 for all parameters)	SD	N	5.3	7.3	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD81A	668620.52	630209.73	GC-SD081A-07.3-09.3	B83E7		SD	N	7.3	9.3	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD81A	668620.52	630209.73	GC-SD081A-09.3-11.3	B83E8		SD	N	9.3	11.3	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD83A	668432.01	630139.54	GC-SD083A-05.0-07.0	B83F0	MSD	SD	N	5.0	7.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD83A	668432.01	630139.54	GC-SD083A-07.0-09.0	B83F1		SD	N	7.0	9.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
GC-SD83A	668432.01	630139.54	GC-SD083A-09.0-11.0	B83F2	B83F3 (D-04152010-04 dup of B83F2 for all parameters)	SD	N	9.0	11.0	ft	4/15/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD85B	*671327.49*	*633421.42*	No native material																					
GC-SD87A	670945.84	633828.02	GC-SD087A-08.3-10.3	B81T2	MSD	SD	N	8.3	10.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD87A	670945.84	633828.02	GC-SD087A-10.3-12.3	B81T3		SD	N	10.3	12.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD87A	670945.84	633828.02	GC-SD087A-12.3-14.3	B81T4		SD	N	12.3	14.3	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD88A	671401.95	632491.15	GC-SD088A-08.0-10.0	B8206		SD	N	8.0	10.0	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD88A	671401.95	632491.15	GC-SD088A-10.0-12.0	B8207		SD	N	10.0	12.0	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD88A	671401.95	632491.15	GC-SD088A-12.0-14.0	B8208		SD	N	12.0	14.0	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD89B	671340.80	632648.18	GC-SD089B-08.3-10.3	B81Y2		SD	N	8.3	10.3	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD89B	671340.80	632648.18	GC-SD089B-10.3-12.3	B81Y3		SD	N	10.3	12.3	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD89B	671340.80	632648.18	GC-SD089B-12.3-14.3	B81Y4		SD	N	12.3	14.3	ft	3/17/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD90B	671142.33	632902.28	GC-SD090B-05.4-07.4	B81W5		SD	N	5.4	7.4	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD90B	671142.33	632902.28	GC-SD090B-07.4-09.4	B81W6	B81W9 (Duplicate for B81W6 for all parameters - D-03162010-03)	SD	N	7.4	9.4	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD90B	671142.33	632902.28	GC-SD090B-09.4-11.4	B81W7		SD	N	9.4	11.4	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD90B	671142.33	632902.28	GC-SD090B-11.4-13.4	B81W8		SD	N	11.4	13.4	ft	3/16/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD91A	671200.88	632084.13	GC-SD091A-09.2-11.2	B8223		SD	N	9.2	11.2	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD91A	671200.88	632084.13	GC-SD091A-11.2-13.2	B8224	B8221 (D-03182010-03 duplicate of B8224 for all parameters	SD	N	11.2	13.2	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD93A	671029.44	632378.16	GC-SD093A-05.2-07.2	B8222		SD	v	5.2	7.2	ft	3/18/2010	39542	X	X	X	X	X	X			X	X	X	
GC-SD93A	671029.44	632378.16	GC-SD093A-07.2-09.2	B8217	MSD	SD	N	7.2	9.2	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD93A	671029.44	632378.16	GC-SD093A-09.2-11.2	B8218		SD	N	9.2	11.2	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD93A	671029.44	632378.16	GC-SD093A-11.2-13.2	B8219		SD	N	11.2	13.2	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD93A	671029.44	632378.16	GC-SD093A-15.2-17.2	B8220		SD	N	15.2	17.2	ft	3/18/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD104A	*670165.95*	*631286.39*	*No native material*																					
GC-SD105A	670129.25	631316.58	GC-SD105A-01.9-03.9	B82P0	MSD	SD	N	1.9	3.9	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD105A	670129.25	631316.58	GC-SD105A-03.9-05.9	B82P1	B82P5 (D-04022010-02 duplicate of B82P1 for all parameters)	SD	N	3.9	5.9	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD105A	670129.25	631316.58	GC-SD105A-05.9-07.9	B82P2		SD	N	5.9	7.9	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD105A	670129.25	631316.58	GC-SD105A-09.9-11.9	B82P3		SD	N	9.9	11.9	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD105A	670129.25	631316.58	GC-SD105A-11.9-13.9	B82P4		SD	N	11.9	13.9	ft	4/2/2010	39542	X	X	X	X	X	X		X	X	X	X	
GC-SD106D	*670110.26*	*631351.6*	*No native material*																					
EQUIPMENT RINSATE BLANKS																								
EB	office	office	EB-030310-01	B8175		W	EB	0	0	FT	3/3/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-030410-01	B8176		W	EB	0	0	FT	3/4/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-030510-01	B81B9		W	EB	0	0	FT	3/5/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-030810-01	B81C3		W	EB	0	0	FT	3/8/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-030910-01	B81E2		W	EB	0	0	FT	3/9/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-031010-01	B81H0		W	EB	0	0	FT	3/10/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-031110-01	B81N1		W	EB	0	0	FT	3/11/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-031210-01	B81P2		W	EB	0	0	FT	3/12/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-031510-01	B81Q6		W	EB	0	0	FT	3/15/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-031610-01	B81T0		W	EB	0	0	FT	3/16/2010	39452	x	x	x	x	x	x				x		

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
EB	office	office	EB-031710-01	B81X1		W	EB	0	0	FT	3/17/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-031810-01	B81Z5		W	EB	0	0	FT	3/18/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-031910-01	B8231		W	EB	0	0	FT	3/19/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-032210-01	B8244		W	EB	0	0	FT	3/22/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-032310-01	B8284		W	EB	0	0	FT	3/23/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-032410-01	B82A0		W	EB	0	0	FT	3/24/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-032510-01	B82A7		W	EB	0	0	FT	3/25/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-032910-01	B82C5		W	EB	0	0	FT	3/29/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-033110-01	B82C7		W	EB	0	0	FT	3/31/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-040110-01	B82F1		W	EB	0	0	FT	4/1/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-040210-01	B82J9		W	EB	0	0	FT	4/2/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-040510-01	B82P6		W	EB	0	0	FT	4/5/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-040610-01	B82R9		W	EB	0	0	FT	4/6/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-040710-01	B82X0		W	EB	0	0	FT	4/7/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-040810-01	B82Z3		W	EB	0	0	FT	4/8/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-040910-01	B8310		W	EB	0	0	FT	4/9/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-041210-01	B8324		W	EB	0	0	FT	4/12/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-041310-01	B8380		W	EB	0	0	FT	4/13/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-041410-01	B8388		W	EB	0	0	FT	4/14/2010	39452	x	x	x	x	x	x				x		
EB	office	office	EB-041510-01	B83D9		W	EB	0	0	FT	4/15/2010	39452	x	x	x	x	x	x				x		
FIELD BLANKS																								
FB	office	office	FB-030810-01	B81C1		W	FB	0	0	FT	3/8/2010	39452	x	x	x	x	x	x				x		
FB	office	office	FB-031510-01	B81Q5		W	FB	0	0	FT	3/15/2010	39452	x	x	x	x	x	x				x		
FB	office	office	FB-032210-01	B8245		W	FB	0	0	FT	3/22/2010	39452	x	x	x	x	x	x				x		
FB	office	office	FB-033110-01	B82C8		W	FB	0	0	FT	3/31/2010	39452	x	x	x	x	x	x				x		
FB	office	office	FB-040510-01	B82P7		W	FB	0	0	FT	4/5/2010	39452	x	x	x	x	x	x				x		
FB	office	office	FB-041210-01	B8323		W	FB	0	0	FT	4/12/2010	39452	x	x	x	x	x	x				x		
TRIP BLANKS																								
TB	office	office	TB-030310-01	B8174		W	TB	0	0	FT	3/3/2010	39452			X									
TB	office	office	TB-030410-01	B8198		W	TB	0	0	FT	3/4/2010	39452			X									
TB	office	office	TB-030510-01	B81CO		W	TB	0	0	FT	3/5/2010	39452			X									
TB	office	office	TB-030810-01	B81C2		W	TB	0	0	FT	3/8/2010	39452			X									
TB	office	office	TB-030910-01	B81E0		W	TB	0	0	FT	3/9/2010	39452			X									
TB	office	office	TB-031010-01	B81G9		W	TB	0	0	FT	3/10/2010	39452			X									
TB	office	office	TB-031110-01	B81J9		W	TB	0	0	FT	3/11/2010	39452			X									
TB	office	office	TB-031210-01	B81N7		W	TB	0	0	FT	3/12/2010	39452			X									
TB	office	office	TB-031510-01	B81Q7		W	TB	0	0	FT	3/15/2010	39452			X									
TB	office	office	TB-031610-01	B81T1		W	TB	0	0	FT	3/16/2010	39452			X									
TB	office	office	TB-031710-01	B81X0		W	TB	0	0	FT	3/17/2010	39452			X									
TB	office	office	TB-031810-01	B81Z4		W	TB	0	0	FT	3/18/2010	39452			X									
TB	office	office	TB-031910-01	B8230		W	TB	0	0	FT	3/19/2010	39452			X									
TB	office	office	TB-032210-01	B8246		W	TB	0	0	FT	3/22/2010	39452			X									
TB	office	office	TB-032310-01	B8266		W	TB	0	0	FT	3/23/2010	39452			X									
TB	office	office	TB-032410-01	B82A6		W	TB	0	0	FT	3/24/2010	39452			X									
TB	office	office	TB-032510-01	B82A8		W	TB	0	0	FT	3/25/2010	39452			X									
TB	office	office	TB-032910-01	B82C6		W	TB	0	0	FT	3/29/2010	39452			X									
TB	office	office	TB-033110-01	B82C9		W	TB	0	0	FT	3/31/2010	39452			X									
TB	office	office	TB-040110-01	B82F0		W	TB	0	0	FT	4/1/2010	39452			X									

TABLE A-2
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA, analyzed through CLP and Subcontracted Labs

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Duplicate Sample Number / Sample QC	Matrix	Samp-le Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed											
													CLP								Subcontracted			
													TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	TCLP	Archive	TOC	Sulfide	Grain size	RIC
TB	office	office	TB-040210-01	B82J1		W	TB	0	0	FT	4/2/2010	39452			X									
TB	office	office	TB-040510-01	B82P8		W	TB	0	0	FT	4/5/2010	39452			X									
TB	office	office	TB-040610-01	B82R8		W	TB	0	0	FT	4/6/2010	39452			X									
TB	office	office	TB-040710-01	B82X1		W	TB	0	0	FT	4/7/2010	39452			X									
TB	office	office	TB-040810-01	B82Y7		W	TB	0	0	FT	4/8/2010	39452			X									
TB	office	office	TB-040910-01	B8322		W	TB	0	0	FT	4/9/2010	39452			X									
TB	office	office	TB-041210-01	B8325		W	TB	0	0	FT	4/12/2010	39452			X									
TB	office	office	TB-041310-01	B8381		W	TB	0	0	FT	4/13/2010	39452			X									
TB	office	office	TB-041410-01	B83A3		W	TB	0	0	FT	4/14/2010	39452			X									
TB	office	office	TB-041510-01	B83D0		W	TB	0	0	FT	4/15/2010	39452			X									
INVESTIGATION DERIVED WASTE																								
WD	office	office	GC-IDW-031110	B81N2		SD	N	0.0	0.0	ft	3/11/2010	39452							X					X
WD	office	office	GC-IDW-040710	B82Y2		SD	N	0.0	0.0	ft	4/7/2010	39452							X					X

Legend:

EB	Equipment Blank
FD	Field Duplicate
TB	Trip Blank
W	Water sample for equipment and trip blanks
N	Normal
SD	Sediment Sample

TAL Target Analyte List
TCL Target Compound List includes: volatile organic compounds, semi-volatile organic compounds, pesticides, and PCBs
VOC Volatile Organic Compound
SVOC Semi-Volatile Organic Compound
PEST Pesticides
PCB Polychlorinated biphenyls

TOC Total Organic Carbon
TCLP Toxicity Characteristic Leaching Procedure
RIC Reactivity Ignitability and Corrosivity

CLP USEPA's Contract Laboratory Program
bgs Below Ground Surface

Contract Laboratory Program (CLP) analyses are all TAL/TCL parameters and cyanide.
Grain size, sulfide, TOC, reactivity, corrosivity, and ignitability analyses were performed by subcontracted laboratory.
Core collected from location, but no native material recovered; therefore no samples collected
Station not sampled

Coordinates in New York State Plane, East 3101 – NAD83 CONUS

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TABLE A-3
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA ERT, analyzed through CLP

Loca-tion	Sub-location	Longitude	Latitude	SERAS Sample ID	CLP Sample Number	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Depth Units	Sample Collection Date	Sample Collec-tion Time	Analyses					
														TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
ERT1-1	A	673647.3668	634391.775	ERT1-1-A	B71Z4	-	-	Sediment	0	0.5	feet	1/28/2010	12:26	X	X	X	X	X	X
ERT1-1	B	673647.3668	634391.775	ERT1-1-B	B71Z5	-	-	Sediment	0.5	1	feet	1/28/2010	12:26	X	X	X	X	X	X
ERT1-1	C	673647.3668	634391.775	ERT1-1-C	B71Z6	-	-	Sediment	1	2	feet	1/28/2010	12:26	X	X	X	X	X	X
ERT1-1	D	673647.3668	634391.775	ERT1-1-D	B71Z7	-	-	Sediment	2	3	feet	1/28/2010	12:26	X	X	X	X	X	X
ERT1-1	E	673647.3668	634391.775	ERT1-1-E	B71Z8	-	-	Sediment	3	4	feet	1/28/2010	12:26	X	X	X	X	X	X
ERT1-1	F	673647.3668	634391.775	ERT1-1-F	B71Z9	-	-	Sediment	4	5.4	feet	1/28/2010	12:26	X	X		X	X	X
ERT1-1	G	673647.3668	634391.775	ERT1-1-G	B7200	-	-	Sediment	5.4	6	feet	1/28/2010	12:26	X	X	X	X	X	X
ERT1-1	H	673647.3668	634391.775	ERT1-1-H	B7201	-	-	Sediment	6	7.2	feet	1/28/2010	12:26	X	X	X	X	X	X
ERT1-2	A	673633.9883	634427.768	ERT1-2-A	B71Y4	-	-	Sediment	0	0.5	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	B	673633.9883	634427.768	ERT1-2-B	B71Y5	-	-	Sediment	0.5	1	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	C	673633.9883	634427.768	ERT1-2-C	B71Y6	-	-	Sediment	1	2	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	D	673633.9883	634427.768	ERT1-2-D	B71Y7	-	-	Sediment	2	3	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	E	673633.9883	634427.768	ERT1-2-E	B71Y8	-	-	Sediment	3	4	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	F	673633.9883	634427.768	ERT1-2-F	B71Y9	-	-	Sediment	4	5	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	G	673633.9883	634427.768	ERT1-2-G	B71Z0	-	-	Sediment	5	6	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	H	673633.9883	634427.768	ERT1-2-H	B71Z1	-	-	Sediment	6	6.8	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-2	I	673633.9883	634427.768	ERT1-2-I	B71Z2	FD-01	B71Z3	Sediment	6.8	8.3	feet	1/28/2010	10:00	X	X	X	X	X	X
ERT1-3	A	673617.4939	634460.508	ERT1-3-A	B7236	-	-	Sediment	0	0.5	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	B	673617.4939	634460.508	ERT1-3-B	B7237	-	-	Sediment	0.5	1	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	C	673617.4939	634460.508	ERT1-3-C	B7238	-	-	Sediment	1	2	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	D	673617.4939	634460.508	ERT1-3-D	B7239	-	-	Sediment	2	3	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	E	673617.4939	634460.508	ERT1-3-E	B7240	-	-	Sediment	3	4	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	F	673617.4939	634460.508	ERT1-3-F	B7241	-	-	Sediment	4	5	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	G	673617.4939	634460.508	ERT1-3-G	B7242	-	-	Sediment	5	6	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	H	673617.4939	634460.508	ERT1-3-H	B7243	-	-	Sediment	6	7	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	I	673617.4939	634460.508	ERT1-3-I	B7244	-	-	Sediment	7	7.7	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	J	673617.4939	634460.508	ERT1-3-J	B7245	-	-	Sediment	7.7	9	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	L	673617.4939	634460.508	ERT1-3-L	B7246	FD-04	B7248	Sediment	10	11	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT1-3	N	673617.4939	634460.508	ERT1-3-N	B7247	-	-	Sediment	12	12.9	feet	1/29/2010	9:30	X	X	X	X	X	X
ERT2-1	A	673509.9977	634318.776	ERT2-1-A	B7202	-	-	Sediment	0	0.5	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	B	673509.9977	634318.776	ERT2-1-B	B7203	-	-	Sediment	0.5	1	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	C	673509.9977	634318.776	ERT2-1-C	B7204	-	-	Sediment	1	2	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	D	673509.9977	634318.776	ERT2-1-D	B7205	-	-	Sediment	2	3	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	E	673509.9977	634318.776	ERT2-1-E	B7206	-	-	Sediment	3	4	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	F	673509.9977	634318.776	ERT2-1-F	B7207	FD-02	B7212	Sediment	4	5	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	G	673509.9977	634318.776	ERT2-1-G	B7208	-	-	Sediment	5	6	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	H	673509.9977	634318.776	ERT2-1-H	B7209	-	-	Sediment	6	7	feet	1/28/2010	11:38	X	X	X	X	X	X

TABLE A-3
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA ERT, analyzed through CLP

Loca-tion	Sub-location	Longitude	Latitude	SERAS Sample ID	CLP Sample Number	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Depth Units	Sample Collection Date	Sample Collec-tion Time	Analyses					
														TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
ERT2-1	I	673509.9977	634318.776	ERT2-1-I	B7210	-	-	Sediment	7	8	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-1	J	673509.9977	634318.776	ERT2-1-J	B7211	-	-	Sediment	8	8.5	feet	1/28/2010	11:38	X	X	X	X	X	X
ERT2-2	A	673503.25	634354.87	ERT2-2-A	B7213	-	-	Sediment	0	0.5	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	B	673503.25	634354.87	ERT2-2-B	B7214	-	-	Sediment	0.5	1	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	C	673503.25	634354.87	ERT2-2-C	B7215	-	-	Sediment	1	2	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	D	673503.25	634354.87	ERT2-2-D	B7216	-	-	Sediment	2	3	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	E	673503.25	634354.87	ERT2-2-E	B7217	-	-	Sediment	3	4	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	F	673503.25	634354.87	ERT2-2-F	B7218	-	-	Sediment	4	5	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	G	673503.25	634354.87	ERT2-2-G	B7219	FD-03	B7222	Sediment	5	6	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	H	673503.25	634354.87	ERT2-2-H	B7220	-	-	Sediment	6	7	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-2	I	673503.25	634354.87	ERT2-2-I	B7221	-	-	Sediment	7	8	feet	1/28/2010	12:40	X	X	X	X	X	X
ERT2-3	A	673483.3134	634390.818	ERT2-3-A	B7249	-	-	Sediment	0	0.5	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	B	673483.3134	634390.818	ERT2-3-B	B7250	-	-	Sediment	0.5	1	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	C	673483.3134	634390.818	ERT2-3-C	B7251	-	-	Sediment	1	2	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	D	673483.3134	634390.818	ERT2-3-D	B7252	-	-	Sediment	2	3	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	E	673483.3134	634390.818	ERT2-3-E	B7253	-	-	Sediment	3	4	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	F	673483.3134	634390.818	ERT2-3-F	B7254	-	-	Sediment	4	5	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	G	673483.3134	634390.818	ERT2-3-G	B7255	-	-	Sediment	5	6	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	H	673483.3134	634390.818	ERT2-3-H	B7256	-	-	Sediment	6	7	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	J	673483.3134	634390.818	ERT2-3-J	B7257	-	-	Sediment	8	9.4	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT2-3	L	673483.3134	634390.818	ERT2-3-L	B7258	FD-05	B7259	Sediment	10	11.3	feet	1/29/2010	10:15	X	X	X	X	X	X
ERT3-1	A	673176.1798	634149.545	ERT3-1-A	B71X5	-	-	Sediment	0	0.5	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-1	B	673176.1798	634149.545	ERT3-1-B	B71X6	-	-	Sediment	0.5	1	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-1	C	673176.1798	634149.545	ERT3-1-C	B71X7	-	-	Sediment	1	2	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-1	D	673176.1798	634149.545	ERT3-1-D	B71X8	-	-	Sediment	2	3	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-1	E	673176.1798	634149.545	ERT3-1-E	B71X9	-	-	Sediment	3	4	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-1	F	673176.1798	634149.545	ERT3-1-F	B71Y0	-	-	Sediment	4	5	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-1	G	673176.1798	634149.545	ERT3-1-G	B71Y1	-	-	Sediment	5	6	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-1	H	673176.1798	634149.545	ERT3-1-H	B71Y2	-	-	Sediment	6	7	feet	1/27/2010	14:15	X	X	X	X	X	X
ERT3-2	A	673159.5758	634182.23	ERT3-2-A	B7224	-	-	Sediment	0	0.5	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	B	673159.5758	634182.23	ERT3-2-B	B7225	-	-	Sediment	0.5	1	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	C	673159.5758	634182.23	ERT3-2-C	B7226	-	-	Sediment	1	2	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	D	673159.5758	634182.23	ERT3-2-D	B7227	-	-	Sediment	2	3	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	E	673159.5758	634182.23	ERT3-2-E	B7228	-	-	Sediment	3	4	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	F	673159.5758	634182.23	ERT3-2-F	B7229	-	-	Sediment	4	5	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	G	673159.5758	634182.23	ERT3-2-G	B7230	-	-	Sediment	5	6	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	H	673159.5758	634182.23	ERT3-2-H	B7231	-	-	Sediment	6	7.4	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	I	673159.5758	634182.23	ERT3-2-I	B7232	-	-	Sediment	7.4	8	feet	1/28/2010	13:45	X	X	X	X	X	X

TABLE A-3
Sample Tracking
Phase 2 - Sediment Coring
collected by USEPA ERT, analyzed through CLP

Location	Sub-location	Longitude	Latitude	SERAS Sample ID	CLP Sample Number	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Depth Units	Sample Collection Date	Sample Collection Time	Analyses					
														TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
ERT3-2	J	673159.5758	634182.23	ERT3-2-J	B7233	-	-	Sediment	8	9	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-2	K	673159.5758	634182.23	ERT3-2-K	B7234	-	-	Sediment	9	10.4	feet	1/28/2010	13:45	X	X	X	X	X	X
ERT3-3	A	673142.9722	634214.998	ERT3-3-A	B7271	-	-	Sediment	0	0.5	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	B	673142.9722	634214.998	ERT3-3-B	B7272	-	-	Sediment	0.5	1	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	C	673142.9722	634214.998	ERT3-3-C	B7273	-	-	Sediment	1	2	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	D	673142.9722	634214.998	ERT3-3-D	B7274	-	-	Sediment	2	3	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	E	673142.9722	634214.998	ERT3-3-E	B7275	FD-06	B7283	Sediment	3	4	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	F	673142.9722	634214.998	ERT3-3-F	B7276	-	-	Sediment	4	5	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	G	673142.9722	634214.998	ERT3-3-G	B7277	-	-	Sediment	5	6	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	H	673142.9722	634214.998	ERT3-3-H	B7278	-	-	Sediment	6	7	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	I	673142.9722	634214.998	ERT3-3-I	B7279	-	-	Sediment	7	8	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	J	673142.9722	634214.998	ERT3-3-J	B7280	-	-	Sediment	8	8.6	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	L	673142.9722	634214.998	ERT3-3-L	B7281	-	-	Sediment	10	11	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT3-3	N	673142.9722	634214.998	ERT3-3-N	B7282	-	-	Sediment	12	13.4	feet	1/29/2010	11:00	X	X	X	X	X	X
ERT4-3	A	672770.0044	634029.101	ERT4-3-A	B7260	-	-	Sediment	0	0.5	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	B	672770.0044	634029.101	ERT4-3-B	B7261	-	-	Sediment	0.5	1	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	C	672770.0044	634029.101	ERT4-3-C	B7262	-	-	Sediment	1	2	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	D	672770.0044	634029.101	ERT4-3-D	B7263	-	-	Sediment	2	3	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	E	672770.0044	634029.101	ERT4-3-E	B7264	-	-	Sediment	3	4	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	F	672770.0044	634029.101	ERT4-3-F	B7265	-	-	Sediment	4	5	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	G	672770.0044	634029.101	ERT4-3-G	B7266	-	-	Sediment	5	6	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	H	672770.0044	634029.101	ERT4-3-H	B7267	-	-	Sediment	6	7.3	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	I	672770.0044	634029.101	ERT4-3-I	B7268	-	-	Sediment	7.3	8	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	J	672770.0044	634029.101	ERT4-3-J	B7269	-	-	Sediment	8	9	feet	1/29/2010	11:40	X	X	X	X	X	X
ERT4-3	K	672770.0044	634029.101	ERT4-3-K	B7270	-	-	Sediment	9	9.8	feet	1/29/2010	11:40	X	X	X	X	X	X
FD-01	I	-73.98701	40.68168	FD-01	B71Z3	-	-	Sediment	6.8	8.3	feet	1/28/2010	10:00	X	X	X	X	X	X
FD-02	F	-73.98728	40.68131	FD-02	B7212	-	-	Sediment	4	5	feet	1/28/2010	11:38	X	X	X	X	X	X
FD-03	G	-73.98715	40.68129	FD-03	B7222	-	-	Sediment	5	6	feet	1/28/2010	12:40	X	X	X	X	X	X
FD-04	L	-73.98677	40.68160	FD-04	B7248	-	-	Sediment	10	11	feet	1/29/2010	9:30	X	X	X	X	X	X
FD-05	L	-73.98702	40.68123	FD-05	B7259	-	-	Sediment	10	11.3	feet	1/29/2010	10:15	X	X	X	X	X	X
FD-06	E	-73.98766	40.68030	FD-06	B7283	-	-	Sediment	3	4	feet	1/29/2010	11:00	X	X	X	X	X	X
Rinsate 1	-	-	-	Rinsate 1	B71Y3	-	-	Water	-	-	-	1/27/2010	16:30	X	X	X	X	X	X
Rinsate 2	-	-	-	Rinsate 2	B7223	-	-	Water	-	-	-	1/28/2010	15:00	X	X	X	X	X	X
Rinsate 3	-	-	-	Rinsate 3	B7235	-	-	Water	-	-	-	1/29/2010	10:05	X	X	X	X	X	X

bgs - below ground surface
Coordinates in New York State Plane, East 3101 – NAD83 CONUS

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TABLE A-4
Sample Tracking
Historic Sediment Coring
Collected by National Grid (2005) and used to support Gowanus RI/FS

Station ID	Easting	Northing	Sample ID	Matrix	Sample Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Collection Date	Analyses Performed											
										VOCs	SVOCs	PCBs	Pesticides	Herbicides	TAL Metals	Total Cyanide	TOC	Nitrate/Nitrite	Sulfate	Bulk Density/ % Water Content	Environmental Forensics
GC-SED-01	673603.32	634376.74	GC-SED-01(1-2.5)	SD	N	1.0	2.5	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-01	673603.32	634376.74	GC-SED-01(16-17)	SD	N	16.0	17.0	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-02	673591.54	634404.03	GC-SED-02(1-2)	SD	N	1.0	2.0	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-02	673591.54	634404.03	GC-SED-02(9.6-10.6)	SD	N	9.6	10.6	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-03	673578.10	634432.31	GC-SED-03(0-1.5)	SD	N	0.0	1.5	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-03	673578.10	634432.31	GC-SED-03(7.5-9.3)	SD	N	7.5	9.3	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-04	673440.80	634282.96	GC-SED-04(0-2)	SD	N	0.0	2.0	ft	12/23/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-04	673440.80	634282.96	GC-SED-04(10.3-11.3)	SD	N	10.3	11.3	ft	12/23/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-05	673423.33	634322.15	GC-SED-05(0-2)	SD	N	0.0	2.0	ft	12/23/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-07	673301.16	634220.26	GC-SED-07(0-2.5)	SD	N	0.0	2.5	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-07	673301.16	634220.26	GC-SED-07(7.5-8.5)	SD	N	7.5	8.5	ft	12/19/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-08	673285.34	634249.36	GC-SED-08(1-2)	SD	N	1.0	2.0	ft	12/23/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-09B	673266.89	634278.35	GC-SED-09(6-7)	SD	N	6.0	7.0	ft	12/23/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-10	672983.43	634064.65	GC-SED-10(0-1.5)	SD	N	0.0	1.5	ft	12/21/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-100	671595.37	632383.28	GC-SED-100(5-6)	SD	N	5.0	6.0	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-101	671417.48	632111.82	GC-SED-101(4-7)	SD	N	4.0	7.0	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-102	671299.59	632015.30	GC-SED-102(2-4)	SD	N	2.0	4.0	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-102	671299.59	632015.30	GC-SED-102(6.5-8.5)	SD	N	6.5	8.5	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-103	671136.56	631899.48	GC-SED-103(1-2)	SD	N	1.0	2.0	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-103	671136.56	631899.48	GC-SED-103(8.1-9.1)	SD	N	8.1	9.1	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-105	670125.89	631315.47	GC-SED-105(2.5-4)	SD	N	2.5	4.0	ft	1/22/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-11	672968.84	634086.27	GC-SED-11(11-13)	SD	N	11.0	13.0	ft	1/5/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-11	672968.84	634086.27	GC-SED-11(1-3)	SD	N	1.0	3.0	ft	1/5/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-12	672953.59	634120.59	GC-SED-12(0-2)	SD	N	0.0	2.0	ft	12/21/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-12	672953.59	634120.59	GC-SED-12(13-14)	SD	N	13.0	14.0	ft	12/21/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-13B	672786.88	633964.67	GC-SED-13B(0-2)	SD	N	0.0	2.0	ft	1/7/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-14	672778.69	633991.59	GC-SED-14(0-1.5)	SD	N	0.0	1.5	ft	1/7/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-14	672778.69	633991.59	GC-SED-14(5.5-6.5)	SD	N	5.5	6.5	ft	1/7/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-15	672768.61	634021.88	GC-SED-15(0-0.75)	SD	N	0.0	0.8	ft	1/7/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-16	672539.05	633831.42	GC-SED-16(0-2)	SD	N	0.0	2.0	ft	1/8/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-17	672534.31	633867.58	GC-SED-17(0-2)	SD	N	0.0	2.0	ft	1/8/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-18	672524.89	633892.04	GC-SED-18(0-1)	SD	N	0.0	1.0	ft	1/7/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-19C	672227.80	633764.35	GC-SED-19C(1.5-2)	SD	N	1.5	2.0	ft	1/9/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-19C	672227.80	633764.35	GC-SED-19C(5.8-6.8)	SD	N	5.8	6.8	ft	1/9/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-20	672174.19	633793.05	GC-SED-20(0-1.5)	SD	N	0.0	1.5	ft	1/10/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-20	672174.19	633793.05	GC-SED-20(4-5)	SD	N	4.0	5.0	ft	1/10/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-21B	672174.43	633832.74	GC-SED-21B(1.5-3)	SD	N	1.5	3.0	ft	1/9/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-21B	672174.43	633832.74	GC-SED-21B(7-8)	SD	N	7.0	8.0	ft	1/9/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-22B	671924.57	633663.86	GC-SED-22B(0-1)	SD	N	0.0	1.0	ft	1/9/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-22B	671924.57	633663.86	GC-SED-22B(7-8)	SD	N	7.0	8.0	ft	1/9/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-23	671909.19	633691.93	GC-SED-23(0-2)	SD	N	0.0	2.0	ft	1/10/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-24B	671891.68	633718.63	GC-SED-24(3-4.5)	SD	N	3.0	5.0	ft	1/10/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-25B	671567.97	633434.34	GC-SED-25(1-4)	SD	N	1.0	4.0	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-26	671550.21	633462.01	GC-SED-26(1-2)	SD	N	1.0	2.0	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-27	671533.05	633496.26	GC-SED-27(0.5-1)	SD	N	0.5	1.0	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-27	671533.05	633496.26	GC-SED-27(4.9-5.4)	SD	N	4.9	5.4	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-28	671513.09	633259.23	GC-SED-28(1.5-2.5)	SD	N	1.5	2.5	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	

TABLE A-4
Sample Tracking
Historic Sediment Coring
Collected by National Grid (2005) and used to support Gowanus RI/FS

Station ID	Easting	Northing	Sample ID	Matrix	Sample Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Collection Date	Analyses Performed											
										VOCs	SVOCs	PCBs	Pesticides	Herbicides	TAL Metals	Total Cyanide	TOC	Nitrate/Nitrite	Sulfate	Bulk Density/ % Water Content	Environmental Forensics
GC-SED-28	671513.09	633259.23	GC-SED-28(4.9-5.8)	SD	N	4.9	5.8	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-29	671481.27	633248.73	GC-SED-29(2.3-4.6)	SD	N	2.3	4.6	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-30	671445.37	633247.65	GC-SED-30(3.5-5.5)	SD	N	3.5	5.5	ft	1/12/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-31	671544.52	633074.84	GC-SED-31(11.5-12.5)	SD	N	11.5	12.5	ft	1/16/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-31	671544.52	633074.84	GC-SED-31(2.5-4.5)	SD	N	2.5	4.5	ft	1/16/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-32	671513.64	633062.55	GC-SED-32(0.5-1.5)	SD	N	0.5	1.5	ft	1/16/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-32	671513.64	633062.55	GC-SED-32(5.9-6.9)	SD	N	5.9	6.9	ft	1/16/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-33	671483.80	633048.43	GC-SED-33(1.5-3)	SD	N	1.5	3.0	ft	1/17/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-34B	671590.31	632841.87	GC-SED-34B(2-3)	SD	N	2.0	3.0	ft	1/13/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-34B	671590.31	632841.87	GC-SED-34B(5.8-6.8)	SD	N	5.8	6.8	ft	1/13/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-35	671562.43	632818.28	GC-SED-35(0-4.5)	SD	N	0.0	4.5	ft	1/13/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-35	671562.43	632818.28	GC-SED-35(8.8-10.8)	SD	N	8.8	10.8	ft	1/13/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-36	671539.02	632798.55	GC-SED-36(2.5-4.5)	SD	N	2.5	4.5	ft	1/16/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-36	671539.02	632798.55	GC-SED-36(8-9)	SD	N	8.0	9.0	ft	1/16/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-37B	671625.52	632606.30	GC-SED-37B(7-8)	SD	N	7.0	8.0	ft	12/22/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-38	671596.49	632599.58	GC-SED-38(5.1-6.1)	SD	N	5.1	6.1	ft	12/22/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-39	671566.91	632604.42	GC-SED-39(1-2)	SD	N	1.0	2.0		1/8/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-39	671566.91	632604.42	GC-SED-39(4.5-5.5)	SD	N	4.5	5.5	ft	1/8/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-40	671614.73	632417.28	GC-SED-40(2.5-3.5)	SD	N	2.5	3.5	ft	1/17/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-41	671588.52	632427.66	GC-SED-41(0-4.5)	SD	N	0.0	4.5	ft	1/17/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-43	671572.47	632327.24	GC-SED-43(2-3)	SD	N	2.0	3.0	ft	1/23/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-43	671572.47	632327.24	GC-SED-43(7.3-8.3)	SD	N	7.3	8.3	ft	1/23/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-44	671549.49	632342.44	GC-SED-44(0.5-2.5)	SD	N	0.5	2.5	ft	1/23/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-44	671549.49	632342.44	GC-SED-44(5.6-6.1)	SD	N	5.6	6.1	ft	1/23/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-45C	671521.09	632360.83	GC-SED-45C(1-1.5)	SD	N	1.0	1.5	ft	1/23/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-46C	671464.61	632159.78	GC-SED-46C(1.5-2.5)	SD	N	1.5	2.5	ft	1/23/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-46C	671464.61	632159.78	GC-SED-46C(5-5.5)	SD	N	5.0	5.5	ft	1/23/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-47	671441.65	632175.93	GC-SED-47(1.5-2.5)	SD	N	1.5	2.5	ft	1/24/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-48	671418.38	632197.76	GC-SED-48(0.5-1.5)	SD	N	0.5	1.5	ft	1/24/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-48	671418.38	632197.76	GC-SED-48(5-5.8)	SD	N	5.0	5.8	ft	1/24/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-49	671365.82	632060.70	GC-SED-49(2.5-3.5)	SD	N	2.5	3.5	ft	1/24/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-49	671365.82	632060.70	GC-SED-49(5.4-5.9)	SD	N	5.4	5.9	ft	1/24/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-50B	671343.63	632090.90	GC-SED-50(2-5)	SD	N	2.0	5.0	ft	1/26/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-51	671321.75	632122.79	GC-SED-51(0-1.5)	SD	N	0.0	1.5	ft	1/26/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-51	671321.75	632122.79	GC-SED-51(6.7-7.2)	SD	N	6.7	7.2	ft	1/26/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-52	671241.17	631977.01	GC-SED-52(3-6)	SD	N	3.0	6.0	ft	1/20/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-53	671209.81	632002.06	GC-SED-53(0.5-1.5)	SD	N	0.5	1.5	ft	1/20/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-54B	671177.28	632022.44	GC-SED-54B(0-2)	SD	N	0.0	2.0	ft	1/20/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-54B	671177.28	632022.44	GC-SED-54B(4.5-5.7)	SD	N	4.5	5.7	ft	1/20/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-55	671018.10	631830.98	GC-SED-55(1.5-2.5)	SD	N	1.5	2.5	ft	1/24/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-55	671018.10	631830.98	GC-SED-55(10-11)	SD	N	10.0	11.0	ft	1/24/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-57	671006.65	631916.21	GC-SED-57(7-9)	SD	N	7.0	9.0	ft	1/26/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-58C	670745.20	631660.44	GC-SED-58C(0-5)	SD	N	0.0	5.0	ft	1/27/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-59	670731.09	631692.00	GC-SED-59(0.5-1)	SD	N	0.5	1.0	ft	1/22/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-60B	670708.87	631729.30	GC-SED-60B(0-2.5)	SD	N	0.0	2.5	ft	1/21/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-62C	670544.25	631580.39	GC-SED-62C(0-2)	SD	N	0.0	2.0	ft	1/21/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-62C	670544.25	631580.39	GC-SED-62C(3-4)	SD	N	3.0	4.0	ft	1/21/2006	X	X	X	X	X	X	X	X	X	X	X	X

TABLE A-4
Sample Tracking
Historic Sediment Coring
Collected by National Grid (2005) and used to support Gowanus RI/FS

Station ID	Easting	Northing	Sample ID	Matrix	Sample Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Collection Date	Analyses Performed											
										VOCs	SVOCs	PCBs	Pesticides	Herbicides	TAL Metals	Total Cyanide	TOC	Nitrate/Nitrite	Sulfate	Bulk Density/ % Water Content	Environmental Forensics
GC-SED-63	670522.79	631614.80	GC-SED-63(3-3.5)	SD	N	3.0	3.5	ft	12/20/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-64D	670282.00	631365.40	GC-SED-64D(2-4)	SD	N	2.0	4.0	ft	1/11/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-65	670251.92	631400.08	GC-SED-65(0.5-1.25)	SD	N	0.5	1.3	ft	1/22/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-67B	669775.22	631085.40	GC-SED-67(0-1)	SD	N	0.0	1.0	ft	12/17/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-67B	669775.22	631085.40	GC-SED-67(7-8)	SD	N	7.0	8.0	ft	12/17/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-68	669757.46	631134.79	GC-SED-68(0-1)	SD	N	0.0	1.0	ft	12/17/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-68	669757.46	631134.79	GC-SED-68(2.2-3.1)	SD	N	2.2	3.1	ft	12/17/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-69C	669748.56	631177.62	GC-SED-69(0-1)	SD	N	0.0	1.0	ft	12/18/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-69C	669748.56	631177.62	GC-SED-69(6-7)	SD	N	6.0	7.0	ft	12/18/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-71C	669593.00	631065.71	GC-SED-71C(1.5-2.5)	SD	N	1.5	2.5	ft	1/29/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-71C	669593.00	631065.71	GC-SED-71C(2.5-4.0)	SD	N	2.5	4.0	ft	1/29/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-72B	669577.63	631114.17	GC-SED-72(0-2)	SD	N	0.0	2.0	ft	12/18/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-72B	669577.63	631114.17	GC-SED-72(5.5-7)	SD	N	5.5	7.0	ft	12/18/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-73E	669267.46	630916.09	GC-SED-73E(1.0-2.5)	SD	N	1.0	2.5	ft	1/29/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-74	669255.64	630997.36	GC-SED-74(5.3-6.3)	SD	N	5.3	6.3	ft	1/29/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-75C	669236.78	631107.83	GC-SED-75C(0.7-1.5)	SD	N	0.7	1.5	ft	1/25/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-75C	669236.78	631107.83	GC-SED-75C(0-0.7)	SD	N	0.0	0.7	ft	1/25/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-76C	668934.87	630771.76	GC-SED-76C(2.5-3.4)	SD	N	2.5	3.4	ft	1/25/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-77	668860.27	630898.75	GC-SED-77(0-3)	SD	N	0.0	3.0	ft	1/30/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-77	668860.27	630898.75	GC-SED-77(14.5-15.4)	SD	N	14.5	15.4	ft	1/30/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-78B	668801.61	631028.34	GC-SED-78B(0-1)	SD	N	0.0	1.0	ft	1/25/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-78B	668801.61	631028.34	GC-SED-78B(2.5-5)	SD	N	2.5	5.0	ft	1/25/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-79	668736.88	630253.55	GC-SED-79(2.5-3.5)	SD	N	2.5	3.5	ft	12/17/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-80	668693.05	630235.87	GC-SED-80(0-2)	SD	N	0.0	2.0	ft	12/17/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-81	668623.39	630209.46	GC-SED-81(13-13.5)	SD	N	13.0	13.5	ft	12/18/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-81	668623.39	630209.46	GC-SED-81(8-11)	SD	N	8.0	11.0	ft	12/18/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-82	668543.52	630179.20	GC-SED-82(0-2)	SD	N	0.0	2.0	ft	1/30/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-82	668543.52	630179.20	GC-SED-82(12-12.8)	SD	N	12.0	12.8	ft	1/30/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-83	668433.20	630144.40	GC-SED-83(0-2)	SD	N	0.0	2.0	ft	1/30/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-83	668433.20	630144.40	GC-SED-83(11-11.9)	SD	N	11.0	11.9	ft	1/30/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-84	671436.07	633390.56	GC-SED-84(1-2)	SD	N	1.0	2.0	ft	12/15/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-85B	671327.95	633428.20	GC-SED-85B(0-1)	SD	N	0.0	1.0	ft	12/16/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-85B	671327.95	633428.20	GC-SED-85B(8.5-9.3)	SD	N	8.5	9.3	ft	12/16/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-86	671135.45	633532.00	GC-SED-86(0-1)	SD	N	0.0	1.0	ft	12/15/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-87	670961.15	633818.17	GC-SED-87(4.4-6.2)	SD	N	4.4	6.2	ft	12/15/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-88	671399.34	632488.90	GC-SED-88(0.5-1)	SD	N	0.5	1.0	ft	12/14/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-89B	671322.74	632647.07	GC-SED-89(1.8-2.3)	SD	N	1.8	2.3	ft	12/14/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-90B	671141.03	632895.71	GC-SED-90B(0-1)	SD	N	0.0	1.0	ft	12/14/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-91	671204.39	632095.77	GC-SED-91(4.7-6.2)	SD	N	4.7	6.2	ft	1/22/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-92	671104.98	632239.97	GC-SED-92(0-2)	SD	N	0.0	2.0	ft	12/16/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-93	671024.12	632370.87	GC-SED-93(0-1)	SD	N	0.0	1.0	ft	12/16/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-94	670360.80	631596.90	GC-SED-94(0.5-1.25)	SD	N	0.5	1.3	ft	12/20/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-95	671488.86	633357.80	GC-SED-95(3.5-4.5)	SD	N	3.5	4.5	ft	12/15/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-96	671525.93	633162.21	GC-SED-96(0-1)	SD	N	0.0	1.0	ft	12/15/2005	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-97	671582.45	632934.60	GC-SED-97(0.5-2.0)	SD	N	0.5	2.0	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-97	671582.45	632934.60	GC-SED-97(8.5-9.0)	SD	N	8.5	9.0	ft	1/28/2006	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-98	671604.36	632747.12	GC-SED-98(1-2)	SD	N	1.0	2.0	ft	1/27/2006	X	X	X	X	X	X	X	X	X	X	X	X

TABLE A-4
Sample Tracking
Historic Sediment Coring
Collected by National Grid (2005) and used to support Gowanus RI/FS

Station ID	Easting	Northing	Sample ID	Matrix	Sample Type	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Collection Date	Analyses Performed											
										VOCs	SVOCs	PCBs	Pesticides	Herbicides	TAL Metals	Total Cyanide	TOC	Nitrate/Nitrite	Sulfate	Bulk Density/ % Water Content	Environmental Forensics
GC-SED-98	671604.36	632747.12	GC-SED-98(8.5-9.5)	SD	N	8.5	9.5	ft	1/27/2006	X	X	X	X	X	X	X	X	X	X	X	
GC-SED-99B	671610.38	632511.95	GC-SED-99(3.5-4.5)	SD	N	3.5	4.5	ft	12/22/2005	X	X	X	X	X	X	X	X	X	X	X	X
GC-SED-99B	671610.38	632511.95	GC-SED-99(7.2-8.7)	SD	N	7.2	8.7	ft	12/22/2005	X	X	X	X	X	X	X	X	X	X	X	

Legend:

SD	Sediment Sample	bgs	Below Ground Surface
VOC	Volatile Organic Compound		
SVOC	Semi-Volatile Organic Compound	Coordinates in New York State Plane, East 3101 – NAD83 CONUS	
PCB	Polychlorinated biphenyl		
TAL	Target Analyte List		
TOC	Total Organic Carbon		

TABLE A-5
Sample Tracking
Phase 3 – Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through CLP

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number / Sample QC	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP									
													TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Cong	Archive	% Moisture
SURFACE SEDIMENT (One Event)																						
301	634435.890	673646.464	GC-SD301-0.0-0.5	B7YK6	-	-	SD	0.0	0.5	ft	6/23/2010	40133	X		X	X	X	X	X	X	X	X
302	634279.739	673301.596	GC-SD302-0.0-0.5	B7Y12	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X		X	X
303	634233.980	673198.130	GC-SD303-0.0-0.5	B7Y13	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X	X	X	X
304	634156.560	673070.090	GC-SD304-0.0-0.5	B7Y14	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X		X	X
305	633991.132	672771.542	GC-SD305-0.0-0.5	B7Y15	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X	X	X	X
306	633913.270	672592.745	GC-SD306-0.0-0.5	B7Y16	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X		X	X
307A	633815.120	672302.690	GC-SD307A-0.0-0.5	B7Y17	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X	X	X	X
307B	633802.830	672256.489	GC-SD307B-0.0-0.5	B7Y32 (VOCs CLP# B7YK7)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/23/2010)	40133	X		X	X	X	X	X	X	X	X
308A	633625.119	671897.055	GC-SD308A-0.0-0.5	B7YK8	-	B7YL5	SD	0.0	0.5	ft	6/23/2010	40133	X		X	X	X	X	X	X	X	X
308B	633614.230	671870.433	GC-SD308B-0.0-0.5	B7YK9	-	-	SD	0.0	0.5	ft	6/24/2010	40133	X		X	X	X	X	X	X	X	X
309	633479.967	671566.612	GC-SD309-0.0-0.5	B7Y21 (VOCs CLP# B7YL0)	-	MSD	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/23/2010)	40133	X		X	X	X	X	X	X	X	X
310	633836.470	671035.170	GC-SD310-0.0-0.5	B7YM4	-	-	SD	0.0	0.5	ft	6/24/2010	40133	X		X	X	X	X	X	X	X	X
311	633290.343	671422.634	GC-SD311-0.0-0.5	B7YL1	-	-	SD	0.0	0.5	ft	6/23/2010	40133	X		X	X	X	X	X		X	X
312	632874.156	671590.961	GC-SD312-0.0-0.5	B7YL2	-	-	SD	0.0	0.5	ft	6/23/2010	40133	X		X	X	X	X	X	X	X	X
313	632292.020	671565.330	GC-SD313-0.0-0.5	B7Y22 (VOCs CLP# B7YL3)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/23/2010)	40133	X		X	X	X	X	X	X	X	X
314	632929.748	671124.261	GC-SD314-0.0-0.5	B7Y23 (VOCs CLP# B7YM5)	-	B7Y28 (No VOCs)/ B7YM6 (VOC Only)	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/23/2010)	40133	X		X	X	X	X	X	X	X	X
315	632072.780	671243.220	GC-SD315-0.0-0.5	B7Y24 (VOCs CLP# B7YL4)	-	B7Y29 (no VOCs)	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/23/2010)	40133	X		X	X	X	X	X	X	X	X
316	632440.600	670988.140	GC-SD316-0.0-0.5	B7Y83	-	-	SD	0.0	0.5	ft	6/21/2010	40133	X		X	X	X	X	X		X	X
317	631858.873	670951.600	GC-SD317-0.0-0.5	B7YC9	-	MSD	SD	0.0	0.5	ft	6/22/2010	40133	X		X	X	X	X	X		X	X
318	631680.287	670334.091	GC-SD318-0.0-0.5	B7YD0	-	-	SD	0.0	0.5	ft	6/22/2010	40133	X		X	X	X	X	X	X	X	X
319	631766.795	670759.236	GC-SD319-0.0-0.5	B7YD1	-	-	SD	0.0	0.5	ft	6/22/2010	40133	X		X	X	X	X	X	X	X	X
320	631143.556	669872.673	GC-SD320-0.0-0.5	B7YD2	-	-	SD	0.0	0.5	ft	6/22/2010	40133	X		X	X	X	X	X	X	X	X
321	631030.229	669009.287	GC-SD321-0.0-0.5	B7Y81	-	-	SD	0.0	0.5	ft	6/21/2010	40133	X		X	X	X	X	X	X	X	X
322	630864.279	668783.017	GC-SD322-0.0-0.5	B7YD3	-	-	SD	0.0	0.5	ft	6/22/2010	40133	X		X	X	X	X	X		X	X
323	630630.952	668512.916	GC-SD323-0.0-0.5	B7YD4	-	-	SD	0.0	0.5	ft	6/22/2010	40133	X		X	X	X	X	X		X	X
324	630550.066	668891.181	GC-SD324-0.0-0.5	B7Y79	-	B7Y82	SD	0.0	0.5	ft	6/21/2010	40133	X		X	X	X	X	X	X	X	X
325	630316.600	668659.020	GC-SD325-0.0-0.5	B7Y80	-	-	SD	0.0	0.5	ft	6/21/2010	40133	X		X	X	X	X	X	X	X	X
326	627048.426	675452.779	GC-SD326-0.0-0.5	B7Y18	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X	X	X	X
327	626942.973	667395.535	GC-SD327-0.0-0.5	B7Y19	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X		X	X
328	625581.059	668717.760	GC-SD328-0.0-0.5	B7Y25 (VOCs CLP# B7YL7)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/24/2010)	40133	X		X	X	X	X	X		X	X
329	625581.059	668717.760	GC-SD329-0.0-0.5	B7Y35 (VOCs CLP# B7YL8)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/24/2010)	40133	X		X	X	X	X	X		X	X
330	624599.716	667236.973	GC-SD330-0.0-0.5	B7Y26 (VOCs CLP# B7YL9)	-	B7YL6 (VOCs Only)	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/24/2010)	40133	X		X	X	X	X	X	X	X	X

TABLE A-5
Sample Tracking
Phase 3 – Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through CLP

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number / Sample QC	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP									
													TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Cong	Archive	% Moisture
331	624165.824	670519.452	GC-SD331-0.0-0.5	B7Y34 (VOCs CLP# B7YM0)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/24/2010)	40133	X		X	X	X	X	X		X	X
332	622377.219	664371.298	GC-SD332-0.0-0.5	B7Y33 (VOCs CLP# B7YM1)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/24/2010)	40133	X		X	X	X	X	X		X	X
333	622377.219	664371.298	GC-SD333-0.0-0.5	B7Y27 (VOCs CLP# B7YM2)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/24/2010)	40133	X		X	X	X	X	X	X	X	X
334	619806.816	662493.679	GC-SD334-0.0-0.5	B7Y36 (VOCs CLP# B7YM3)	-	-	SD	0.0	0.5	ft	6/18/2010 - VOCs (6/24/2010)	40133	X		X	X	X	X	X		X	X
335	623781.499	674057.224	GC-SD335-0.0-0.5	B7Y20	-	-	SD	0.0	0.5	ft	6/17/2010	40133	X		X	X	X	X	X		X	X
SURFACE WATER (2 Sampling events - 1 dry event, 1 wet event)																						
301	634435.890	673646.464	GC-SW301-0.5-DW	B7Y37	MB7Y86	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	634326.971	673434.676	GC-SW301-0.5-WW	B7ZG4	MB7ZL1	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
302	634279.739	673301.596	GC-SW302-0.5-DW	B7Y38	MB7Y87	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	634279.739	673301.596	GC-SW302-0.5-WW	B7ZG5	MB7ZL2	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
303	634233.980	673198.130	GC-SW303-0.5-DW	B7Y39	MB7Y88	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	634233.980	673198.130	GC-SW303-0.5-WW	B7ZG6	MB7ZL3	B7ZQ0/ MB7ZQ1	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
304	634156.560	673070.090	GC-SW304-0.5-DW	B7Y40	MB7Y89	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	634156.560	673070.090	GC-SW304-0.5-WW	B7ZG7	MB7ZL4	MSD	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
305	633991.132	672771.542	GC-SW305-0.5-DW	B7Y41	MB7Y90	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633991.132	672771.542	GC-SW305-0.5-WW	B7ZG8	MB7ZL5	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
306	633913.270	672592.745	GC-SW306-0.5-DW	B7Y42	MB7Y91	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633913.270	672592.745	GC-SW306-0.5-WW	B7ZG9	MB7ZL6	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
307A	633815.120	672302.690	GC-SW307A-0.5-DW	B7Y43	MB7Y92	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633815.120	672302.690	GC-SW307A-0.5-WW	B7ZH0	MB7ZL7	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
307B	633802.830	672256.489	GC-SW307B-0.5-DW	B7Y44	MB7Y93	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633824.314	672272.690	GC-SW307B-0.5-WW	B7ZH1	MB7ZL8	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
308A	633625.119	671897.055	GC-SW308A-0.5-DW	B7Y45	MB7Y94	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633650.805	671902.163	GC-SW308A-0.5-WW	B7ZH2	MB7ZL9	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
308B	633614.230	671870.433	GC-SW308B-0.5-DW	B7Y46	MB7Y95	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633605.595	671842.534	GC-SW308B-0.5-WW	B7ZH3	MB7ZM0	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
309	633479.967	671566.612	GC-SW309-0.5-DW	B7Y47	MB7Y96	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633483.089	671564.958	GC-SW309-0.5-WW	B7ZH4	MB7ZM1	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
310	633836.470	671035.170	GC-SW310-0.5-DW	B7Y48	MB7Y97	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633836.470	671035.170	GC-SW310-0.5-WW	B7ZH5	MB7ZM2	B7ZQ2/MB7ZQ3	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
311	633290.343	671422.634	GC-SW311-0.5-DW	B7Y49	MB7Y98	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	633290.343	671422.634	GC-SW311-0.5-WW	B7ZH6	MB7ZM3	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
312	632874.156	671590.961	GC-SW312-0.5-DW	B7Y50	MB7Y99	B7Y76/MB7YC5	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	632874.156	671590.961	GC-SW312-0.5-WW	B7ZH7	MB7ZM4	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
313	632292.020	671565.330	GC-SW313-0.5-DW	B7Y51	MB7YA0	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	632292.020	671565.330	GC-SW313-0.5-WW	B7ZH8	MB7ZM5	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
314	632929.748	671124.261	GC-SW314-0.5-DW	B7Y52	MB7YA1	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	632929.748	671124.261	GC-SW314-0.5-WW	B7ZH9	MB7ZM6	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
315	632072.780	671243.220	GC-SW315-0.5-DW	B7Y53	MB7YA2	MSD	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	632072.780	671243.220	GC-SW315-0.5-WW	B7ZJ0	MB7ZM7	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
316	632440.600	670988.140	GC-SW316-0.5-DW	B7Y54	MB7YA3	B7Y77/MB7YC6	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			

TABLE A-5
Sample Tracking
Phase 3 – Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through CLP

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number / Sample QC	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP									
													TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Cong	Archive	% Moisture
316	632440.600	670988.140	GC-SW316-0.5-WW	B7ZJ1	MB7ZM8	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
317	631858.873	670951.600	GC-SW317-0.5-DW	B7Y55	MB7YA4	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	631858.873	670951.600	GC-SW317-0.5-WW	B7ZJ2	MB7ZM9	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
318	631680.287	670334.091	GC-SW318-0.5-DW	B7Y56	MB7YA5	B7Y78/MB7YC7	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	631680.287	670334.091	GC-SW318-0.5-WW	B7ZJ3	MB7ZN0	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
319	631766.795	670759.236	GC-SW319-0.5-DW	B7Y57	MB7YA6	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	631448.153	670304.960	GC-SW319-0.5-WW	B7ZJ4	MB7ZN1	B7ZQ4/MB7ZQ5	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
320	631143.556	669872.673	GC-SW320-0.5-DW	B7Y58	MB7YA7	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	631099.474	669835.455	GC-SW320-0.5-WW	B7ZJ5	MB7ZN2	MSD	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
321	631030.229	669009.287	GC-SW321-0.5-DW	B7Y59	MB7YA8	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	631067.101	669027.712	GC-SW321-0.5-WW	B7ZJ6	MB7ZN3	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
322	630864.279	668783.017	GC-SW322-0.5-DW	B7Y60	MB7YA9	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	630846.817	668741.097	GC-SW322-0.5-WW	B7ZJ7	MB7ZN4	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
323	630630.952	668512.916	GC-SW323-0.5-DW	B7Y61	MB7YB0	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	630653.956	668509.249	GC-SW323-0.5-WW	B7ZJ8	MB7ZN5	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
324	630550.066	668891.181	GC-SW324-0.5-DW	B7Y62	MB7YB1	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	630550.066	668891.181	GC-SW324-0.5-WW	B7ZJ9	MB7ZN6	B7ZQ6/MB7ZQ7	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
325	630316.600	668659.020	GC-SW325-0.5-DW	B7Y63	MB7YB2	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
325	630316.600	668659.020	GC-SW325-0.5-WW	-	-	-	-	-	-	-	-	-										
326	627048.426	675452.779	GC-SW326-0.5-DW	B7Y64	MB7YB3	MSD	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	628813.533	667745.989	GC-SW326-0.5-WW	B7ZK0	MB7ZN8	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
327	626942.973	667395.535	GC-SW327-0.5-DW	B7Y65	MB7YB4	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	626942.973	667395.535	GC-SW327-0.5-WW	B7ZK1	MB7ZN9	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
328	625581.059	668717.760	GC-SW328-0.5-DW	B7Y66	MB7YB5	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	625562.258	668772.303	GC-SW328-0.5-WW	B7ZK2	MB7ZP0	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
329	625581.059	668717.760	GC-SW329-0.5-DW	B7Y67	MB7YB6	B7Y75/MB7YC4	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	625275.527	665400.913	GC-SW329-0.5-WW	B7ZK3	MB7ZP1	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
330	624599.716	667236.973	GC-SW330-0.5-DW	B7Y68	MB7YB7	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	624599.716	667236.973	GC-SW330-0.5-WW	B7ZK4	MB7ZP2	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
331	624165.824	670519.452	GC-SW331-0.5-DW	B7Y69	MB7YB8	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	624281.206	670556.507	GC-SW331-0.5-WW	B7ZK5	MB7ZP3	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
332	622377.219	664371.298	GC-SW332-0.5-DW	B7Y70	MB7YB9	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	622377.219	664371.298	GC-SW332-0.5-WW	B7ZK6	MB7ZP4	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
333	622377.219	664371.298	GC-SW333-0.5-DW	B7Y71	MB7YC0	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	622348.469	667158.073	GC-SW33-0.5-WW	B7ZK7	MB7ZP5	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
334	619806.816	662493.679	GC-SW334-0.5-DW	B7Y72	MB7YC1	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	619807.133	662432.988	GC-SW334-0.5-WW	B7ZK8	MB7ZP6	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
335	623781.499	674057.224	GC-SW335-0.5-DW	B7Y73	MB7YC2	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	623694.222	673959.592	GC-SW335-0.5-WW	B7ZK9	MB7ZP7	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
336	629116.982	675452.779	GC-SW336-0.5-DW	B7Y74	MB7YC3	-	SW	0.5	0.5	ft	6/19/2010	40133	X	X	X	X	X	X	X			
	629093.779	675470.864	GC-SW336-0.5-WW	B7ZL0	MB7ZP8	-	SW	0.5	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
General Surface Water Sample																						
SWMW-3	Adjacent to bulkhead near MW-3		GC-SWMW3-2	B8094	MB8095	-	SW	0.5	0.5	ft	7/26/2010	40336	x	x	x	x	x	x	x			
CSO WATER (4 sampling events - 1 dry event, 3 wet events)																						
RH-031	630997.270	670219.231	GC-SWRH031-DW-1	B7Z71	MB7Z73	-	SW	0.0	0.5	ft	6/30/2010	40133	X	X	X	X	X	X	X			
	630997.270	670219.231	GC-SWRH031-WW-1	-	-	-	SW	-	-	-	-	-										
	630997.270	670219.231	GC-SWRH031-WW-2	B80B6	B80B7	-	SW	0.0	0.5	ft	9/28/2010	40532	X	X	X	X	X	X	X			
	630997.270	670219.231	GC-SWRH031-WW-3	B83S8	MB83S9	-	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
RH-033	634710.739	673376.286	GC-SWRH033-DW-1	B7Z32	MB7Z41	-	SW	0.0	0.5	ft	6/30/2010	40133	X	X	X	X	X	X	X			
	634710.739	673376.286	GC-SWRH033-WW-1	B7ZQ8	MB7ZR9	B7ZR7/MB7ZR8	SW	0.0	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			

TABLE A-5
Sample Tracking
Phase 3 – Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through CLP

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number / Sample QC	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP									
													TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Cong	Archive	% Moisture
RH-033	634710.739	673376.286	GC-SWRH033-WW-2	-	-	-	SW	0.0	0.5	ft	-	-										
	634710.739	673376.286	GC-SWRH033-WW-3	B83T0	MB83T1	MSD	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
RH-0034	634438.148	673742.111	GC-SWRH0034-DW-1	B7Z78	MB7Z81	-	SW	0.0	0.5	ft	7/1/2010	40133	X	X	X	X	X	X	X			
	634438.148	673742.111	GC-SWRH0034-WW-1	B7ZS6	MB7ZS7	-	SW	0.0	0.5	ft	7/14/2010	40336	X	X	X		X					
	634438.148	673742.111	GC-SWRH0034-WW-2	B80B9	MB0C0	-	SW	0.0	0.5	ft	9/28/2010	40532	X	X	X	X	X	X	X			
	634438.148	673742.111	GC-SWRH0034-WW-3	B83T2	MB83T3	-	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
RH-035	632863.181	671607.129	GC-SWRH035-DW-1	B7Z47	MB7Z48	-	SW	0.0	0.5	ft	6/30/2010	40133	X	X	X	X	X	X	X			
	632864.181	671607.130	GC-SWRH035-WW-1	-	-	-	SW	0.0	0.5	ft	-	-										
	632865.181	671607.131	GC-SWRH035-WW-2	B80B4	MB80B5	-	SW	0.0	0.5	ft	9/28/2010	40532	X	X	X	X	X	X	X			
	632866.181	671607.132	GC-SWRH035-WW-3	B83T4	MB83T5	-	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
RH-036	634160.117	672481.653	GC-SWRH036-DW-1	B7Z34	MB7Z43	MSD	SW	0.0	0.5	ft	6/30/2010	40133	X	X	X	X	X	X	X			
	634160.117	672481.653	GC-SWRH036-WW-1	B7ZQ9	MB7ZR0	MSD	SW	0.0	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
	634160.117	672481.653	GC-SWRH036-WW-2	-	-	-	SW	0.0	0.5	ft	-	-										
	634160.117	672481.653	GC-SWRH036-WW-3	B83T6	MB83T7	-	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
RH-037	634402.308	672946.636	GC-SWRH037-DW-1	B7Z33	MB7Z42	B7Z30/MB7Z45	SW	0.0	0.5	ft	6/30/2010	40133	X	X	X	X	X	X	X			
	634402.308	672946.636	GC-SWRH037-WW-1	B7ZR1	MB7ZR2	-	SW	0.0	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
	634402.308	672946.636	GC-SWRH037-WW-2	-	-	-	SW	0.0	0.5	ft	-	-										
	634402.308	672946.636	GC-SWRH037-WW-3	B83T8	MB83T9	-	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
RH-038	634584.619	673169.572	GC-SWRH038-DW-1	B7Z79	MB7Z82	-	SW	0.0	0.5	ft	7/1/2010	40133	X	X	X	X	X	X	X			
	634584.619	673169.572	GC-SWRH038-WW-1	B7ZR3	MB7ZR4	-	SW	0.0	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
	634584.619	673169.572	GC-SWRH038-WW-2	-	-	-	SW	0.0	0.5	ft	-	-										
	634584.619	673169.572	GC-SWRH038-WW-3	B83W0	MB83W1	-	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
OH-005	634745.554	671899.768	GC-SW0H005-DW-1	B7Z39	MB7Z44	-	SW	0.0	0.5	ft	6/30/2010	40133	X	X	X	X	X	X	X			
	634745.554	671899.768	GC-SWOH005-WW-1	B7ZR5	MB7ZR6	-	SW	0.0	0.5	ft	7/13/2010	40336	X	X	X	X	X	X	X			
	634745.554	671899.768	GC-SWOH005-WW-2	-	-	-	SW	0.0	0.5	ft	-	-										
	634745.554	671899.768	GC-SWOH005-WW-3	B83S6	MB83S7	-	SW	0.0	0.5	ft	10/1/2010	40532	X	X	X	X	X	X	X			
OH-006	631782.347	667808.178	GC-SW0H006-DW-1	B7Z70	MB7Z72	-	SW	0.0	0.5	ft	6/30/2010	40133	X	X	X	X	X	X	X			
	631782.347	667808.178	GC-SWOH006-WW-1	-	-	-	SW	0.0	0.5	ft	-	-										
	631782.347	667808.178	GC-SWOH006-WW-2	-	-	-	SW	0.0	0.5	ft	-	-										
	631782.347	667808.178	GC-SWOH006-WW-3	B83S2	MB83S3	-	SW	0.0	0.5	ft	9/30/2010	40532	X	X	X	X	X	X	X			
OH-007	633220.906	671236.402	GC-SW0H007-DW-1	B7Z77	MB7Z80	-	SW	0.0	0.5	ft	7/1/2010	40133	X	X	X	X	X	X	X			
	633220.906	671236.402	GC-SWOH007-WW-1	-	-	-	SW	0.0	0.5	ft	-	-										
	633220.906	671236.402	GC-SWOH007-WW-2	-	-	-	SW	0.0	0.5	ft	-	-										
	633220.906	671236.402	GC-SWOH007-WW-3	B83S0	MB83S1	B83S4/MB83S5	SW	0.0	0.5	ft	9/30/2010	40532	X	X	X	X	X	X	X			
CSO SEDIMENT (1 sampling event)																						
RH-031	630997.270	670219.231	GC-SDRH031-DW-1	B7Z69	-	-	SD	0.0	0.5	ft	6/30/2010	40133	X		X	X	X	X	X			X
RH-033	634710.739	673376.286	GC-SDRH033-DW-1	B7Z36	-	-	SD	0.0	0.5	ft	6/30/2010	40133	X		X	X	X	X	X			X
RH-035	632863.181	671607.129	GC-SDRH035-DW-1	B7Z49	-	B7Z35	SD	0.0	0.5	ft	6/30/2010	40133	X		X	X	X	X	X			X
RH-036	634160.117	672481.653	GC-SDRH036-DW-1	B7Z37	-	MSD	SD	0.0	0.5	ft	6/30/2010	40133	X		X	X	X	X	X			X
RH-037	634402.308	672946.636	GC-SDRH037-DW-1	B7Z38	-	-	SD	0.0	0.5	ft	6/30/2010	40133	X		X	X	X	X	X			X
OH-005	634745.554	671899.768	GC-SDOH005-DW-1	B7Z40	-	-	SD	0.0	0.5	ft	6/30/2010	40133	X		X	X	X	X	X			X
OH-007	633220.906	671236.402	GC-SDOH007-DW-1	B7Z76	-	-	SD	0.0	0.5	ft	7/1/2010	40133	X		X	X	X	X	X			X
GROUNDWATER (1 Sampling event)																						
MW-03	673042.907	634061.450	GC-MW03S	B7ZF0	MB7ZF2	-	GW	10.0	-	ft	7/12/2010	40336	X	X	X	X	X	X	X			
	673042.907	634061.450	GC-MW03I	B7ZE9	MB7ZF1	-	GW	39.7	-	ft	7/12/2010	40336	X	X	X	X	X	X	X			
MW-04	673236.277	633870.405	GC-MW04S	B7ZF5	MB7ZF6	-	GW	8.3	-	ft	7/12/2010	40336	X	X	X	X	X	X	X			

TABLE A-5
Sample Tracking
Phase 3 – Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through CLP

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number / Sample QC	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP									
													TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Cong	Archive	% Moisture
	673236.277	633870.405	GC-MW04I	B7ZF3	MB7ZF4	-	GW	36.8	-	ft	7/12/2010	40336	X	X	X	X	X	X	X			
MW-05	672012.725	633628.168	GC-MW05S	B7ZZ3	MB7ZZ4	-	GW	11.9	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
	672012.725	633628.168	GC-MW05I	B7ZZ1	MB7ZZ2	-	GW	32.0	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
MW-06	672097.473	633498.351	GC-MW06S	B7ZZ7	MB7ZZ8	-	GW	11.7	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
	672097.473	633498.351	GC-MW06I	B7ZZ5	MB7ZZ6	-	GW	3.2	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
MW-07	671538.177	633225.356	GC-MW07S	B8011	MB8012	-	GW	12.2	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
	671538.177	633225.356	GC-MW07I	B8009	MB8010	-	GW	29.8	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
MW-08	671659.099	633285.110	GC-MW08S	B8015	MB8016	-	GW	11.5	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
	671659.099	633285.110	GC-MW08I	B8013	MB8014	-	GW	37.2	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
MW-11	670748.412	631568.404	GC-MW11S	B7ZS3	MB7ZS5	-	GW	13.5	-	ft	7/14/2010	40336	X	X	X	X	X	X	X			
	670748.412	631568.404	GC-MW11I	B7ZS2	MB7ZS4	-	GW	42.4	-	ft	7/14/2010	40336	X	X	X	X	X	X	X			
MW-12	670880.067	631490.025	GC-MW12S	B7ZG2	MB7ZG3	-	GW	13.1	-	ft	7/13/2010	40336	X	X	X	X	X	X	X			
	670880.067	631490.025	GC-MW12I	B7ZG0	MB7ZG1	-	GW	42.5	-	ft	7/13/2010	40336	X	X	X	X	X	X	X			
MW-13	669229.211	630819.620	GC-MW13S	B7ZX7	MB7ZX8	-	GW	11.4	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
	669229.211	630819.620	GC-MW13I	B7ZX5	MB7ZX6	-	GW	57.8	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
MW-14	669471.939	630796.359	GC-MW14S	B7ZX9	MB7ZY0	-	GW	12.5	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
	669471.939	630796.359	GC-MW14I	B7ZX7	MB7ZX8	-	GW	53.5	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
MW-15	668535.008	630054.598	GC-MW15S	B8066	MB8056	-	GW	12.5	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
	668535.008	630054.598	GC-MW15I	B8064	MB8065	-	GW	57.8	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
MW-16	668982.479	629985.280	GC-MW16S	B8046	MB8047	-	GW	12.3	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
	668982.479	629985.280	GC-MW16I	B8052	MB8045	B8048/MB8049 / MSD	GW	57.5	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
MW-20	671004.550	631976.320	GC-MW20S	B8078	MB8079	B8084/MB8085	GW	11.9	-	ft	7/23/2010	40336	X	X	X	X	X	X	X			
	671004.550	631976.320	GC-MW20I	B8076	MB8077	-	GW	37.0	-	ft	7/23/2010	40336	X	X	X	X	X	X	X			
MW-21	670896.650	632233.699	GC-MW21S	B8082	MB8083	-	GW	12.0	-	ft	7/23/2010	40336	X	X	X	X	X	X	X			
	670896.650	632233.699	GC-MW21I	B8080	MB8081	MSD	GW	34.9	-	ft	7/23/2010	40336	X	X	X	X	X	X	X			
MW-24	671082.334	632863.468	GC-MW24S	B7ZT9	MB7ZW0	-	GW	15.1	-	ft	7/15/2010	40336	X	X	X	X	X	X	X			
	671082.334	632863.468	GC-MW24I	B7ZT7	MB7ZT8	-	GW	38.4	-	ft	7/15/2010	40336	X	X	X	X	X	X	X			
MW-25	671879.630	633802.549	GC-MW25S	B8024	MB8025	-	GW	25.8	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
	671879.630	633802.549	GC-MW25I	B8022	MB8023	-	GW	43.3	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
MW-26	671880.967	633980.462	GC-MW26S	B8028	-	-	GW	26.0	-	ft	7/21/2010	40336				X	X	X	X			
	671880.967	633980.462	GC-MW26S-A	MB8031 (Metals only)	MB8032	-	GW	26.0	-	ft	7/22/2010	40336	X	X	X							
	671880.967	633980.462	GC-MW26I	B8026	MB8027	-	GW	36.6	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
MW-27	671949.492	633954.174	GC-MW27S	B8033	MB8034	-	GW	24.5	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
	671949.492	633954.174	GC-MW27I	B8068	MB8069	-	GW	40.8	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
MW-28	672417.013	633901.783	GC-MW28S	B8037		-	GW	12.2	-	ft	7/21/2010	40336					X					
	672417.013	633901.783	GC-MW28S-A	B8070		-	GW	12.2	-	ft	7/22/2010	40336				X		X	X			
	672417.013	633901.783	GC-MW28S-B	B8088	MB8089	-	GW	12.2	-	ft	7/23/2010	40336	X	X	X				X			
	672417.013	633901.783	GC-MW28I	B8035	MB8036	B8042/MB8043	GW	34.3	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
MW-29	672324.871	633997.236	GC-MW29S	B8041		-	GW	12.2	-	ft	7/21/2010	40336				X	X	X				
	672324.871	633997.236	GC-MW29S-A	B8071		-	GW	12.3	-	ft	7/22/2010	40336	X						X			
	672324.871	633997.236	GC-MW29S-B	MB8090	MB8091	-	GW	12.3	-	ft	7/23/2010	40336		X	X							
	672324.871	633997.236	GC-MW29I	B8039	MB8040	-	GW	34.9	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
MW-33	673483.540	634668.431	GC-MW33S	B7ZT2	MB7ZT3	-	GW	12.2	-	ft	7/15/2010	40336	X	X	X	X	X	X	X			
	673483.540	634668.431	GC-MW33I	B7ZT0	MB7ZT1	B7ZS8/MB7ZS9	GW	36.4	-	ft	7/15/2010	40336	X	X	X	X	X	X	X			
MW-34	673163.063	634106.675	GC-MW34S	B7ZW5	MB7ZW6	-	GW	11.78	-	ft	7/16/2010	40336	X	X	X	X	X	X	X			
	673163.063	634106.675	GC-MW34I	B7ZW3	MB7ZW4	-	GW	32.1	-	ft	7/16/2010	40336	X	X	X	X	X	X	X			
MW-35	672616.019	633995.069	GC-MW35S	B8020	MB8021	-	GW	12.3	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
	672616.019	633995.069	GC-MW35I	B8018	MB8019	-	GW	31.4	-	ft	7/21/2010	40336	X	X	X	X	X	X	X			
MW-36	672275.766	633718.040	GC-MW36S	B8055	MB8056	B8061/MB8062	GW	11.3	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			

TABLE A-5
Sample Tracking
Phase 3 – Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through CLP

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number / Sample QC	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP									
													TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Cong	Archive	% Moisture
	672275.766	633718.040	GC-MW36I	B8053	MB8054	-	GW	30.4	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
MW-37	671258.646	633517.527	GC-MW37S	B80A2	MB80A3	-	GW	22.8	-	ft	7/26/2010	40336	X	X	X	X	X	X	X			
	671258.646	633517.527	GC-MW37I	B80A0	MB80A1	B8098/MB8099	GW	41.5	-	ft	7/26/2010	40336	X	X	X	X	X	X	X			
MW-38	671082.231	633787.623	GC-MW38S	B8005	MB8006	-	GW	15.6	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
	671082.231	633787.623	GC-MW38I	B8003	MB8004	-	GW	34.7	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
MW-39	670858.736	633983.275	GC-MW39S	B80A6	MB80A7	-	GW	19.0	-	ft	7/26/2010	40336	X	X	X	X	X	X	X			
	670858.736	633983.275	GC-MW39I	B80A4	MB80A5	-	GW	37.7	-	ft	7/26/2010	40336	X	X	X	X	X	X	X			
MW-42	671007.549	632315.305	GC-MW42S	B7ZW9	MB7ZX0	-	GW	10.6	-	ft	7/16/2010	40336	X	X	X	X	X	X	X			
	671007.549	632315.305	GC-MW42I	B7ZW7	MB7ZW8	-	GW	35.0	-	ft	7/16/2010	40336	X	X	X	X	X	X	X			
MW-43	672247.150	633691.371	GC-MW43S	B8059	MB8060	-	GW	11.6	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
	672247.150	633691.371	GC-MW43I	B8057	MB8058	MSD	GW	34.7	-	ft	7/22/2010	40336	X	X	X	X	X	X	X			
MW-44	670458.595	631635.672	GC-MW44S	B8007	MB8008	-	GW	12.0	-	ft	7/20/2010	40336	X	X	X	X	X	X	X			
	670458.595	631635.672	GC-MW44I	B7ZD3	MB7ZD4	B7ZD9/MB7ZE0 / MSD	GW	41.5	-	ft	7/8/2010	40133	X	X	X	X	X	X	X			
MW-45	670649.530	631757.006	GC-MW45S	B7ZY3	MB7ZY4	-	GW	12.6	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
	670649.530	631757.006	GC-MW45I	B7ZY5	MB7ZY6	-	GW	38.4	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
MW-46 [1]	670594.467	631724.438	GC-MW46D [1]	B7ZY7	MB7ZY8	-	GW	54.9	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
MW-47	670691.722	631765.703	GC-MW47S	B7ZY9	MB7ZZ0	-	GW	27.0	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
	670691.722	631765.703	GC-MW47I	B7ZY1	MB7ZY2	-	GW	42.0	-	ft	7/19/2010	40336	X	X	X	X	X	X	X			
Ambient Field Blanks																						
FB	Bulkhead at the end of Sackett St. (West side of the canal)		FB-061810-01	B7Y31	-	-	FB	-	-	-	6/18/2010	40133	X		X	X	X	X	X			
FB	Bulkhead at the end of Sackett St. (West side of the canal)		FB-062510-01	B7YZ3	MB7YZ3	-	FB	-	-	-	6/25/2010	40133		X	X	X	X	X	X			
FB	Bulkhead at the end of Sackett St. (West side of the canal)		FB-062910-01	B7YZ4	MB7YZ4	-	FB	-	-	-	6/29/2010	40133		X	X	X	X	X	X			
FB	Collected near RH-036 Sample		FB-063010-01	B7Z31	B7Z46	-	FB	-	-	-	6/30/2010	40133	X	X	X	X	X	X	X			
FB	Collected near MW-44		FB-070810-01	B7ZD7	B7ZD8	-	FB	-	-	-	7/8/2010	40133	X	X	X	X	X	X	X			
FB	Collected near MW-42		FB-071610-01	B7ZW1	B7ZW2	-	FB	-	-	-	7/16/2010	40336	X	X	X	X	X	X	X			
FB	Collected near MW-29		FB-072210-01	B8072	B8073	-	FB	-	-	-	7/22/2010	40336	X	X	X	X	X	X	X			
FB	Field Office		FB-092810-01	B80C1	MB80C2	-	FB	-	-	-	9/28/2010	40532	X	X	X	X	X	X	X			
FB	Collected near MW-37		FB-072610-01	B8096	MB8097	-	EB	-	-	-	7/26/2010	40336	X	X	X	X	X	X	X			
Equipment Blanks																						
EB	Office		EB-061910-01	B7Y84	MB7YC8	-	EB	-	-	-	6/19/2010	40133	X	X	X	X	X	X	X			
EB	Office		EB-070810-01	B7ZD5	MB7ZD6	-	EB	-	-	-	7/8/2010	40133	X	X	X	X	X	X	X			
EB	Office		EB-071310-01	B7ZF8	MB7ZF9	-	EB	-	-	-	7/13/2010	40336	X	X	X	X	X	X	X			
EB	Office		EB-071401-01	B7ZS0	MB7ZS1	-	EB	-	-	-	7/14/2010	40336	X	X	X	X	X	X	X			
EB	Office		EB-071510-01	B7ZT4	MB7ZT5	-	EB	-	-	-	7/15/2010	40336	X	X	X	X	X	X	X			
EB	Office		EB-071910-01	B7ZX1	MB7ZX2	-	EB	-	-	-	7/19/2010	40336	X	X	X	X	X	X	X			
EB	Office		EB-072010-01	B8001	MB8002	-	EB	-	-	-	7/20/2010	40336	X	X	X	X	X	X	X			
EB	Office		EB-072210-01	B8050	MB8051	-	EB	-	-	-	7/22/2010	40336	X	X	X	X	X	X	X			
EB	Office		EB-072610-01	B8092	MB8093	-	EB	-	-	-	7/26/2010	40336	X	X	X	X	X	X	X			
Trip Blanks																						
TB	Office		TB-061910-01	B7Y85	-	-	TB	-	-	-	6/19/2010	40133				X						
TB	Office		TB-062910-01	B7YZ5	-	-	TB	-	-	-	6/29/2010	40133				X						
TB	Office		TB-070110-01	B7Z74	-	-	TB	-	-	-	7/1/2010	40133				X						
TB	Office		TB-070110-02	B7Z75	-	-	TB	-	-	-	7/1/2010	40133				X						
TB	Office		TB-070910-01	B7ZE1	-	-	TB	-	-	-	7/8/2010	40133				X						
TB	Office		TB-071310-01	B7ZF7	-	-	TB	-	-	-	7/13/2010	40336				X						
TB	Office		TB-071410-01	B7ZP9	-	-	TB	-	-	-	7/14/2010	40336				X						

TABLE A-5
Sample Tracking
Phase 3 – Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through CLP

Station ID	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number / Sample QC	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP									
													TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Cong	Archive	% Moisture
TB		Office	TB-071510-01	B7ZT6	-	-	TB	-	-	-	7/15/2010	40336				X						
TB		Office	TB-071910-01	B8000	-	-	TB	-	-	-	7/19/2010	40336				X						
TB		Office	TB-072010-01	B7ZZ9	-	-	TB	-	-	-	7/20/2010	40336				X						
TB		Office	TB-072010-02	B8017	-	-	TB	-	-	-	7/20/2010	40336				X						
TB		Office	TB-072110-02	B8030	-	-	TB	-	-	-	7/21/2010	40336				X						
TB		Office	TB-072210-02	B8044	-	-	TB	-	-	-	7/22/2010	40336				X						
TB		Office	TB-072310-01	B8063	-	-	TB	-	-	-	7/23/2010	40336				X						
TB		Office	TB-072310-02	B8074	-	-	TB	-	-	-	7/23/2010	40336				X						
TB		Office	TB-072310-03	B8075	-	-	TB	-	-	-	7/23/2010	40336				X						
TB		Office	TB-072610-03	B80A8	-	-	TB	-	-	-	7/23/2010	40336				X						
TB		Office	TB-092810-01	B80B8	-	-	TB	-	-	-	9/28/2010	40532				X						
TB		Office	TB-100410-01	B83W2	-	-	TB	-	-	-	10/4/2010	40532				X						

Legend:

EB	Equipment Blank	VOC	Volatile Organic Compound
FD	Field Duplicate	TAL	Target Analyte List
TB	Trip Blank	TCL	Target Compound List includes: volatile organic compounds, semi-volatile organic compounds, pesticides, and PCBs
W	Water sample for equipment and trip blanks		
N	Normal	SVOC	Semi-Volatile Organic Compound
BTIC	Below Top of Inner Casing	PEST	Pesticides
SD	Sediment Sample	PCB	Polychlorinated biphenyl
SW	Surface Water Sample	Hg	Mercury Analysis
GW	Ground Water Sample		
CSO	Combined Sewer Overflow	bgs	Below Ground Surface
CLP	Contract Laboratory Program		

Coordinates in New York State Plane East 3101 - NAD83 Conus

[1] - Montitoring well MW-46I was originally labeled by field team as MW-46D. This well is screened in the intermediate zone and is identified in the report as MW-26I.

Station not sampled

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TABLE A-6
Sample Tracking – Phase 3 - Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through subcontracted lab

Station ID	Easting	Northing	Sample ID	Duplicate Sample ID	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses Performed [1]								
										TOC	Grain size	AVS/SEM	Bioassay / Toxicity	TSS	Geochemistry	VOCS - Air	PCBs - Air	PAHs - Air
SURFACE SEDIMENT (One Sampling Event)																		
301	634435.890	673646.464	GC-SD301-0.0-0.5	-	SD	0.0	0.5	ft.	6/23/2010	x	x	x						
302	634279.739	673301.596	GC-SD302-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
303	634233.980	673198.130	GC-SD303-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010				x					
303	634233.980	673198.130	GC-SD303-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
304	634156.560	673070.090	GC-SD304-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
305	633991.132	672771.542	GC-SD305-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
306	633913.270	672592.745	GC-SD306-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x							
306	633913.270	672592.745	GC-SD306-0.0-0.5	-	SD	0.0	0.5	ft.	7/1/2010			x						
307A	633815.120	672302.690	GC-SD307A-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010				x					
307A	633815.120	672302.690	GC-SD307A-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
307B	633802.830	672256.489	GC-SD307B-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
307B	633802.830	672256.489	GC-SD307B-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
308A	633625.119	671897.055	GC-SD308A-0.0-0.5	-	SD	0.0	0.5	ft.	6/23/2010	x	x	x						
308B	633614.230	671870.433	GC-SD308B-0.0-0.5	-	SD	0.0	0.5	ft.	6/23/2010	x	x							
308B	633614.230	671870.433	GC-SD308B-0.0-0.5	-	SD	0.0	0.5	ft.	7/1/2010			x						
309	633479.967	671566.612	GC-SD309-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
309	633479.967	671566.612	GC-SD309-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
310	633836.470	671035.170	GC-SD310-0.0-0.5	-	SD	0.0	0.5	ft.	6/24/2010				x					
310	633836.470	671035.170	GC-SD310-0.0-0.5	-	SD	0.0	0.5	ft.	7/1/2010			x						
310	633836.470	671035.170	GC-SD310-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x							
311	633290.343	671422.634	GC-SD311-0.0-0.5	-	SD	0.0	0.5	ft.	6/24/2010	x	x	x						
312	632874.156	671590.961	GC-SD312-0.0-0.5	-	SD	0.0	0.5	ft.	6/24/2010	x	x							
312	632874.156	671590.961	GC-SD312-0.0-0.5	-	SD	0.0	0.5	ft.	7/1/2010			x						
313	632292.020	671565.330	GC-SD313-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
313	632292.020	671565.330	GC-SD313-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
314	632929.748	671124.261	GC-SD314-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
314	632929.748	671124.261	GC-SD314-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
315	632072.780	671243.220	GC-SD315-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
315	632072.780	671243.220	GC-SD315-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
316	632440.600	670988.140	GC-SD316-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
317	631858.873	670951.600	GC-SD317-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
318	631680.287	670334.091	GC-SD318-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
318	631680.287	670334.091	GC-SD318-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010				x					
319	631766.795	670759.236	GC-SD319-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010				x					
319	631766.795	670759.236	GC-SD319-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
320	631143.556	669872.673	GC-SD320-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
321	631030.229	669009.287	GC-SD321-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
321	631030.229	669009.287	GC-SD321-0.0-0.5	-	SD	0.0	0.5	ft.	6/21/2010				x					
322	630864.279	668783.017	GC-SD322-0.0-0.5	-	SD	0.0	0.5	ft.	6/23/2010	x	x	x						
323	630630.952	668512.916	GC-SD323-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
324	630550.066	668891.181	GC-SD324-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
324	630550.066	668891.181	GC-SD324-0.0-0.5	-	SD	0.0	0.5	ft.	6/21/2010				x					
325	630316.600	668659.020	GC-SD325-0.0-0.5	-	SD	0.0	0.5	ft.	6/22/2010	x	x	x						
326	627048.426	675452.779	GC-SD326-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010				x					
326	627048.426	675452.779	GC-SD326-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
327	626942.973	667395.535	GC-SD327-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
328	625581.059	668717.760	GC-SD328-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
328	625581.059	668717.760	GC-SD328-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
329	625581.059	668717.760	GC-SD329-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
329	625581.059	668717.760	GC-SD329-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
330	624599.716	667236.973	GC-SD330-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
330	624165.824	670519.452	GC-SD330-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
331	624165.824	670519.452	GC-SD331-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
332	622377.219	664371.298	GC-SD332-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
333	622377.219	664371.298	GC-SD333-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
333	622377.219	664371.298	GC-SD333-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010				x					
334	619806.816	662493.679	GC-SD334-0.0-0.5	-	SD	0.0	0.5	ft.	6/18/2010	x	x	x						
335	623781.499	674057.224	GC-SD335-0.0-0.5	-	SD	0.0	0.5	ft.	6/17/2010	x	x	x						
SURFACE WATER (Two Sampling Events - 1 Dry Event, 1 Wet Event)																		

TABLE A-6
Sample Tracking – Phase 3 - Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through subcontracted lab

Station ID	Easting	Northing	Sample ID	Duplicate Sample ID	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses Performed [1]								
										TOC	Grain size	AVS/SEM	Bioassay / Toxicity	TSS	Geochemistry	VOCS - Air	PCBs - Air	PAHs - Air
301	634435.890	673646.464	GC-SW301-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	634326.971	673434.676	GC-SW301-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
302	634279.739	673301.596	GC-SW302-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	634279.739	673301.596	GC-SW302-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
303	634233.980	673198.130	GC-SW303-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	634233.980	673198.130	GC-SW303-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
304	634156.560	673070.090	GC-SW304-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	634156.560	673070.090	GC-SW304-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
305	633991.132	672771.542	GC-SW305-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	633991.132	672771.542	GC-SW305-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
306	633913.270	672592.745	GC-SW306-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	633913.270	672592.745	GC-SW306-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
307A	633815.120	672302.690	GC-SW307A-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	633815.120	672302.690	GC-SW307A-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
307B	633802.830	672256.489	GC-SW307B-0.5-WW	-	SW	0.5	0.5	ft.	7/14/2010					x				
	633824.314	672272.690	GC-SW307B-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
308A	633625.119	671897.055	GC-SW308A-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
	633650.805	671902.163	GC-SW308A-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
308B	633614.230	671870.433	GC-SW308B-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	633605.595	671842.534	GC-SW308B-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
309	633479.967	671566.612	GC-SW309-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	633483.089	671564.958	GC-SW309-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
310	633836.470	671035.170	GC-SW310-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	633836.470	671035.170	GC-SW310-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
311	633290.343	671422.634	GC-SW311-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	633290.343	671422.634	GC-SW311-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
312	632874.156	671590.961	GC-SW312-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	632874.156	671590.961	GC-SW312-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
313	632292.020	671565.330	GC-SW313-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	632292.020	671565.330	GC-SW313-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
314	632929.748	671124.261	GC-SW314-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	632929.748	671124.261	GC-SW314-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
315	632072.780	671243.220	GC-SW315-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	632072.780	671243.220	GC-SW315-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
316	632440.600	670988.140	GC-SW316-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	632440.600	670988.140	GC-SW316-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
317	631858.873	670951.600	GC-SW317-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	631858.873	670951.600	GC-SW317-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
318	631680.287	670334.091	GC-SW318-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	631680.287	670334.091	GC-SW318-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
319	631766.795	670759.236	GC-SW319-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	631448.153	670304.960	GC-SW319-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
320	631143.556	669872.673	GC-SW320-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	631099.474	669835.455	GC-SW320-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
321	631030.229	669009.287	GC-SW321-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	631067.101	669027.712	GC-SW321-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
322	630864.279	668783.017	GC-SW322-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	630846.817	668741.097	GC-SW322-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
323	630630.952	668512.916	GC-SW323-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	630653.956	668509.249	GC-SW323-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
324	630550.066	668891.181	GC-SW324-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	630550.066	668891.181	GC-SW324-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
325	630316.600	668659.020	GC-SW325-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
325	630316.600	668659.020	GC-SW325-0.5-WW	-	-	-	-	-	-					x				
326	627048.426	675452.779	GC-SW326-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	628813.533	667745.989	GC-SW326-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
327	626942.973	667395.535	GC-SW327-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	626942.973	667395.535	GC-SW327-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
328	625581.059	668717.760	GC-SW28-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	625562.258	668772.303	GC-SW28-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				

TABLE A-6
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Station ID	Easting	Northing	Sample ID	Duplicate Sample ID	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses Performed [1]								
										TOC	Grain size	AVS/SEM	Bioassay / Toxicity	TSS	Geochemistry	VOCS - Air	PCBs - Air	PAHs - Air
329	625581.059	668717.760	GC-SW329-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	625275.527	665400.913	GC-SW329-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
330	624599.716	667236.973	GC-SW330-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	624599.716	667236.973	GC-SW330-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
331	624165.824	670519.452	GC-SW331-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	624281.206	670556.507	GC-SW331-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
332	622377.219	664371.298	GC-SW332-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	622377.219	664371.298	GC-SW332-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
333	622377.219	664371.298	GC-SW333-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	622348.469	667158.073	GC-SW333-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
334	619806.816	662493.679	GC-SW334-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	619807.133	662432.988	GC-SW334-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
335	623781.499	674057.224	GC-SW335-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	623694.222	673959.592	GC-SW335-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
336	629116.982	675452.779	GC-SW336-0.5-DW	-	SW	0.5	0.5	ft.	6/19/2010					x				
	629093.779	675470.864	GC-SW336-0.5-WW	-	SW	0.5	0.5	ft.	7/13/2010					x				
CSO WATER (4 sampling events - 1 dry event, 3 wet events)																		
RH-031	630997.270	670219.231	GC-SWRH031-DW-1	-	SW	0	0.5	ft.	6/30/2010					x				
	630997.270	670219.231	GC-SWRH031-WW-1	-	-	-	-	-	-									
	630997.270	670219.231	GC-SWRH031-WW-2	-	SW	0	0.5	ft.	9/28/2010					X				
	630997.270	670219.231	GC-SWRH031-WW-3	-	SW	0	0.5	ft.	10/1/2010					x				
RH-033	634710.739	673376.286	GC-SWRH033-DW-1	-	SW	0	0.5	ft.	6/30/2010					x				
	634710.739	673376.286	GC-SWRH033-WW-1	-	SW	0	0.5	ft.	7/13/2010					x				
	634710.739	673376.286	GC-SWRH033-WW-2	-	-	-	-	-	-									
	634710.739	673376.286	GC-SWRH033-WW-3	-	SW	0	0.5	ft.	10/1/2010					x				
RH-034	634438.148	673742.111	GC-SWRH034-DW-1	-	SW	0	0.5	ft.	7/72010					x	x			
	634438.148	673742.111	GC-SWRH034-WW-1	-	SW	0	0.5	ft.	7/41/2010					x				
	634438.148	673742.111	GC-SWRH034-WW-2	-	SW	0	0.5	ft.	9/28/2010					x	x			
	634438.148	673742.111	GC-SWRH034-WW-3	-	-	-	-	-	-									
RH-035	632863.181	671607.129	GC-SWRH035-DW-1	-	SW	0	0.5	ft.	6/30/2010					x				
	632863.181	671607.129	GC-SWRH035-WW-1	-	-	-	-	-	-									
	632863.181	671607.129	GC-SWRH035-WW-2	-	SW	0	0.5	ft.	9/28/2010					x				
	632863.181	671607.129	GC-SWRH035-WW-3	-	SW	0	0.5	ft.	10/1/2010					X				
RH-036	634160.117	672481.653	GC-SWRH036-DW-1	-	SW	0	0.5	ft.	6/30/2010					x				
	634160.117	672481.653	GC-SWRH036-WW-1	-	SW	0	0.5	ft.	7/13/2010					x				
	634160.117	672481.653	GC-SWRH036-WW-2	-	-	-	-	-	-									
	634160.117	672481.653	GC-SWRH036-WW-3	-	SW	0	0.5	ft.	10/1/2010					x				
RH-037	634402.308	672946.636	GC-SWRH037-DW-1	-	SW	0	0.5	ft.	6/30/2010					x				
	634402.308	672946.636	GC-SWRH037-WW-1	-	SW	0	0.5	ft.	7/13/2010					x				
	634402.308	672946.636	GC-SWRH037-WW-2	-	-	-	-	-	-									
	634402.308	672946.636	GC-SWRH037-WW-3	-	SW	0	0.5	ft.	10/1/2010					x				
RH-038	634584.619	673169.572	GC-SWRH038-DW-1	-	SW	0	0.5	ft.	7/1/2010					x				
	634584.619	673169.572	GC-SWRH038-WW-1	-	SW	0	0.5	ft.	7/13/2010					x				
	634584.619	673169.572	GC-SWRH038-WW-2	-														
	634584.619	673169.572	GC-SWRH038-WW-3	-	SW	0	0.5	ft.	10/1/2010					x				
OH-005	634745.554	671899.768	GC-SWOH005-DW-1	-	SW	0	0.5	ft.	6/30/2010					x				
	634745.554	671899.768	GC-SWOH005-WW-1	-	SW	0	0.5	ft.	7/13/2010					x				
	634745.554	671899.768	GC-SWOH005-WW-2	-														
	634745.554	671899.768	GC-SWOH005-WW-3	-	SW	0	0.5	ft.	10/1/2010					x				
OH-006	631782.347	667808.178	GC-SWOH006-DW-1	-	SW	0	0.5	ft.	6/30/2010					x				
	631782.347	667808.178	GC-SWOH006-WW-1	-														
	631782.347	667808.178	GC-SWOH006-WW-2	-														
	631782.347	667808.178	GC-SWOH006-WW-3	-	SW	0	0.5	ft.	9/30/2010					x				
OH-007	633220.906	671236.402	GC-SWOH007-DW-1	-	SW	0	0.5	ft.	7/1/2010					x	x			
	633220.906	671236.402	GC-SWOH007-WW-1	-														
	633220.906	671236.402	GC-SWOH007-WW-2	-														
	633220.906	671236.402	GC-SWOH007-WW-3	-	SW	0	0.5	ft.	10/1/2010					x	x			
CSO SEDIMENT (1 sampling event)																		
RH-031	630997.270	670219.231	GC-SDRH031-DW-1	-	SD	0.0	0.5	ft	6/30/2010	x	x							
RH-033	634710.739	673376.286	GC-SDRH033-DW-1	-	SD	0.0	0.5	ft	6/30/2010	x	x							
RH-035	632863.181	671607.129	GC-SDRH035-DW-1	-	SD	0.0	0.5	ft	6/30/2010	x	x							
RH-036	634160.117	672481.653	GC-SDRH036-DW-1	-	SD	0.0	0.5	ft	6/30/2010	x	x							
RH-037	634402.308	672946.636	GC-SDRH037-DW-1	-	SD	0.0	0.5	ft	6/30/2010	x	x							

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Station ID	Easting	Northing	Sample ID	Duplicate Sample ID	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses Performed [1]								
										TOC	Grain size	AVS/SEM	Bioassay / Toxicity	TSS	Geochemistry	VOCS - Air	PCBs - Air	PAHs - Air
OH-005	634745.554	671899.768	GC-SDOH005-DW-1	-	SD	0.0	0.5	ft	6/30/2010	x	x							
OH-007	633220.906	671236.402	GC-SDOH007-DW-1	-	SD	0.0	0.5	ft	7/1/2010	x	x							
GROUNDWATER / SURFACE WATER (1 Sampling event)																		
MW-03	673042.907	634061.450	GC-MW3S	-	MW/SW	10.0	-	ft	7/12/2010					X	X			
	673042.907	634061.450	GC-MW3I	-	MW/SW	39.7	-	ft	7/12/2010					X	X			
	Adjacent to bulkhead	Adjacent to bulkhead	GC-SWMW3	-	MW/SW	2.0	-	ft	7/12/2010					X	X			
MW-04	673236.277	633870.405	GC-MW4S	-	MW/SW	8.3	-	ft	7/12/2010					X	X			
	673236.277	633870.405	GC-MW4I	-	MW/SW	36.8	-	ft	7/12/2010					X	X			
MW-15	668535.008	630054.598	GC-MW15S	-	MW/SW	12.5	-	ft	7/27/2010					X	X			
	668535.008	630054.598	GC-MW15I	-	MW/SW	57.8	-	ft	7/27/2010					X	X			
	Adjacent to bulkhead	Adjacent to bulkhead	GC-SWMW15	-	MW/SW	32.5	-	ft	7/27/2010					X	X			
MW-16	668982.479	629985.280	GC-MW16S	-	MW/SW	12.3	-	ft	7/27/2010					X	X			
	668982.479	629985.280	GC-MW16I	-	MW/SW	56.4	-	ft	7/27/2010					X	X			
MW-20	671004.550	631976.320	GC-MW20S	-	MW/SW	11.9	-	ft	7/23/2010					X	X			
	671004.550	631976.320	GC-MW20I	-	MW/SW	37.0	-	ft	7/23/2010					X	X			
	Adjacent to bulkhead	Adjacent to bulkhead	GC-SWMW20	-	MW/SW	5.9	-	ft	7/23/2010					X	X			
MW-21	670896.650	632233.699	GC-MW21S	-	MW/SW	12.0	-	ft	7/23/2010					X	X			
	670896.650	632233.699	GC-MW21I	-	MW/SW	34.9	-	ft	7/23/2010					X	X			
MW-37	671258.646	633517.527	GC-MW37S	-	MW/SW	22.8	-	ft	7/26/2010					X	X			
	671258.646	633517.527	GC-MW37I	-	MW/SW	41.5	-	ft	7/26/2010					X	X			
	Adjacent to bulkhead	Adjacent to bulkhead	GC-SWMW37	-	MW/SW	12	-	ft	7/26/2010					X	X			
MW-39	670858.736	633983.275	GC-MW39S	-	MW/SW	37.7	-	ft	7/26/2010					X	X			
	670858.736	633983.275	GC-MW39I	-	MW/SW	19.0	-	ft	7/26/2010					X	X			
Air (2 Rounds)																		
501	634312.780	673274.764	GC-AS501-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	634312.780	673274.764	GC-AS501-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	634312.780	673274.764	GC-AS501-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	634312.780	673274.764	GC-AS501-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	634312.780	673274.764	GC-AS501-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/9/2010							x		
	634312.780	673274.764	GC-AS501-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/9/2010									x
	634312.780	673274.764	GC-AS501-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	634312.780	673274.764	GC-AS501-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
502	634014.034	672887.505	GC-AS502-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	634014.034	672887.505	GC-AS502-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	634014.034	672887.505	GC-AS502-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	634014.034	672887.505	GC-AS502-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	634014.034	672887.505	GC-AS502-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	634014.034	672887.505	GC-AS502-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	634014.034	672887.505	GC-AS502-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	634014.034	672887.505	GC-AS502-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
503	633832.599	672388.691	GC-AS503-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	633832.599	672388.691	GC-AS503-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	633832.599	672388.691	GC-AS503-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	633832.599	672388.691	GC-AS503-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	633832.599	672388.691	GC-AS503-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	633832.599	672388.691	GC-AS503-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	633832.599	672388.691	GC-AS503-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	633832.599	672388.691	GC-AS503-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
504	633623.737	671904.751	GC-AS504-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	633623.737	671904.751	GC-AS504-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	633623.737	671904.751	GC-AS504-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	633623.737	671904.751	GC-AS504-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	633623.737	671904.751	GC-AS504-S-1		AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	633623.737	671904.751	GC-AS504-S-1	D-07082010-01 (PAH)	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	633623.737	671904.751	GC-AS504-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	633623.737	671904.751	GC-AS504-S-2	D-07292010-02 (PAH)	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
505	633548.209	671630.706	GC-AS505-C-1	D-07082010-01 (VOC)	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	633548.209	671630.706	GC-AS505-C-1	D-07082010-02 (PAH)	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	633548.209	671630.706	GC-AS505-C-2	D-07292010-01 (VOC)	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	633548.209	671630.706	GC-AS505-C-2	D-07292010-01 (PAH)	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	633548.209	671630.706	GC-AS505-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	633548.209	671630.706	GC-AS505-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	633548.209	671630.706	GC-AS505-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	633548.209	671630.706	GC-AS505-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x

TABLE A-6
Sample Tracking – Phase 3 - Ecological and Human Health Risk Assessment Sampling
collected by USEPA, analyzed through subcontracted lab

Station ID	Easting	Northing	Sample ID	Duplicate Sample ID	Matrix	Top Depth (bgs)	Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses Performed [1]								
										TOC	Grain size	AVS/SEM	Bioassay / Toxicity	TSS	Geochemistry	VOCS - Air	PCBs - Air	PAHs - Air
506	632863.181	671607.129	GC-AS506-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	632863.181	671607.129	GC-AS506-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	632863.181	671607.129	GC-AS506-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	632863.181	671607.129	GC-AS506-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	632863.181	671607.129	GC-AS506-S-1	D-07082010-02 (VOC)	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	632863.181	671607.129	GC-AS506-S-1	D-07082010-03 (PCB)	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010								x	
	632863.181	671607.129	GC-AS506-S-1	D-07082010-03 (PCB)	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	632863.181	671607.129	GC-AS506-S-2	D-07292010-02 (VOC)	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	632863.181	671607.129	GC-AS506-S-2	D-07292010-02 (PAH)	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
507	631963.406	671227.865	GC-AS507-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	631963.406	671227.865	GC-AS507-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	631963.406	671227.865	GC-AS507-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	631963.406	671227.865	GC-AS507-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	631963.406	671227.865	GC-AS507-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	631963.406	671227.865	GC-AS507-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	631963.406	671227.865	GC-AS507-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	631963.406	671227.865	GC-AS507-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
508	631581.407	670455.466	GC-AS508-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	631581.407	670455.466	GC-AS508-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	631581.407	670455.466	GC-AS508-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	631581.407	670455.466	GC-AS508-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	631581.407	670455.466	GC-AS508-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	631581.407	670455.466	GC-AS508-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	631581.407	670455.466	GC-AS508-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	631581.407	670455.466	GC-AS508-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
509	631304.827	670026.936	GC-AS509-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	631304.827	670026.936	GC-AS509-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	631304.827	670026.936	GC-AS509-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	631304.827	670026.936	GC-AS509-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	631304.827	670026.936	GC-AS509-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	631304.827	670026.936	GC-AS509-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	631304.827	670026.936	GC-AS509-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	631304.827	670026.936	GC-AS509-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
510	630853.464	669171.700	GC-AS510-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010							x		
	630853.464	669171.700	GC-AS510-C-1	-	AS	Sample intake ~ 2' above high tide mark		-	7/8/2010									x
	630853.464	669171.700	GC-AS510-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010							x		
	630853.464	669171.700	GC-AS510-C-2	-	AS	Sample intake ~ 2' above high tide mark		-	7/29/2010									x
	630853.464	669171.700	GC-AS510-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010							x		
	630853.464	669171.700	GC-AS510-S-1	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/8/2010									x
	630853.464	669171.700	GC-AS510-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010							x		
	630853.464	669171.700	GC-AS510-S-2	-	AS	Sample intake ~ 4' above top of adjacent bulkhead		-	7/29/2010									x
511	632775.028	672748.670	GC-AS511-S-1	-	AS	4' above street level		-	7/8/2010							x		
	632775.028	672748.670	GC-AS511-S-1	-	AS	4' above street level		-	7/8/2010									x
512	633678.444	674425.431	GC-AS512-S-1	-	AS	4' above street level		-	7/8/2010							x		
	633678.444	674425.431	GC-AS512-S-1	-	AS	4' above street level		-	7/8/2010									x
513	630485.925	670085.444	GC-AS513-S-1	-	AS	4' above street level		-	7/8/2010							x		
	630485.925	670085.444	GC-AS513-S-1	-	AS	4' above street level		-	7/8/2010									x
Ambient Field Blanks - Air Sampling																		
FB	Office		FB-07082010-02	-	FB	-		-	7/8/2010								x	
FB	Canal Bulkhead		FB-07082010-01	-	FB	-		-	7/8/2010							x		
FB	Office		FB-07082010-01	-	FB	-		-	7/8/2010									x
FB	Canal Bulkhead		FB-07292010-01	-	FB	-		-	7/29/2010							x		
FB	Office		FB-07292010-01	-	FB	-		-	7/29/2010									x

Legend:

CLP	Contract Laboratory Program	AVS/SEM	Acid-volatile sulfide and simultaneously extracted metals
CSO	Combined Sewer Overflow	Geochemistry	Samples analyzed for: alkalinity, ammonia, nitrates, total Kjeldahl nitrogen, organic carbon – dissolved, organic carbon – total, total hardness, silica, sulfates, total dissolved solids.
FB	Field Blank		
FD	Field Duplicate	PAH	Polycyclic aromatic hydrocarbons
FT	Feet	PCB	Polychlorinated biphenyl
GW	Ground Water Sample	TOC	Total Organic Compounds
SD	Sediment Sample	TSS	Total Suspended Solids
SW	Surface Water Sample	VOC	Volatile Organic Compounds

bgs Below Ground Surface

Coordinates in New York State Plane East 3101 - NAD83 Conus

Station not sampled

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Table A-7-a
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Blue Crab

			Blue Crab Edible Tissue					Blue Crab Hepatopancreas					
Lab Sample No	EPA Sample No	Species Sample Number	Sample	Station Sample Number	CLP No. Edible Tissue	Individual Edible Tissue Weight(g)	Edible Tissue Grouped Weight (g)	Sample	Station Sample Number	CLP No. - HP	Estimated Individual HP Weight(g)	HP Grouped Weight (g)	HP Weight Recovered
0012460-04	B7ZB0	11	1	GC-TI401-BC-ED-1	B7FW4	26.41	111.06				1.12		
0012460-04	B7ZB0	5				30.63					1.02		
0012460-04	B7ZB0	14				31.8					1.12		
0012419-06	B7YH6	1				22.22					9.08		
0012462-06	B7ZC1	3	2	GC-TI401-BC-ED-2	B7FW5	20.08	115.54				2.03		
0012460-04	B7ZB0	4				30.45					1.93		
0012462-06	B7ZC1	4				17.61					2.7		
0012460-04	B7ZB0	9				31.7					3.46		
0012460-04	B7ZB0	13				15.7					2.49		
0012431-07	B7Z13	2	Archive	GC-TI401-BC-ED-3	B7FW6	21.51	498.05				1.23		
0012460-04	B7ZB0	8				16.05					4.15		
0012460-04	B7ZB0	18				27.35					1.17		
0012462-06	B7ZC1	1				23.19					1.87		
0012460-04	B7ZB0	16				16.23					1.39		
0012419-06	B7YH6	2				19.74					0.98		
0012460-04	B7ZB0	3				16					3.7		
0012460-04	B7ZB0	10				22.12					6.11		
0012460-04	B7ZB0	12				23.6					1.55		
0012462-06	B7ZC1	2				19.55					2.58		
0012413-01	B7YE7	2				14.39					2.53		
0012431-07	B7Z13	1				19.54					1.57		
0012431-07	B7Z13	3				14.46					1.26		
0012415-04	B7YN1	2				12.83					0.82		
0012431-07	B7Z13	4				13.16					0.75		
0012460-04	B7ZB0	1				16.83					0.54		
0012413-01	B7YE7	7				10.55					2.15		
0012460-04	B7ZB0	17				12.05					3.9		
0012462-06	B7ZC1	5				14.37					1.71		
0012431-01	B7YE7	1				9.84					0.75		
0012413-01	B7YE7	12				12.51					0.74		
0012419-06	B7YH6	3				10.15					1.66		
0012413-01	B7YE7	14				9.26					0.91		
0012415-04	B7YN1	3				10.5					0.55	103.48	59.7 + 11 = 70.7
0012413-01	B7YE7	13				9.45					0.48		
0012460-04	B7ZB0	2				8.66					0.53		
0012460-04	B7ZB0	15				8.4					2.54		
0012460-04	B7ZB0	6				8.74					0.31		
0012462-06	B7ZC1	6				7.57					1.31		
0012460-04	B7ZB0	7				8.87					2.47		
0012419-06	B7YH6	4				6.69					0.32		
0012413-01	B7YE7	9				5.18							
0012413-01	B7YE7	3				4.31					1.01		
0012413-01	B7YE7	8				4.72					0.84		
0012431-07	B7Z13	6				4					0.74		
0012413-01	B7YE7	6				5.19							
0012413-01	B7YE7	11				4.3					0.47		
0012430-05	B7Z54	1				3.12					0.6		
0012431-07	B7Z13	7				3.93					0.23		
0012413-01	B7YE7	4				4.07							
0012413-01	B7YE7	5				2.74							
0012415-04	B7YN1	1				3.67					0.2		
0012431-07	B7Z13	5				3.14					0.55		
0012430-05	B7Z54	2				3.42					0.55		
0012413-01	B7YE7	10				2.1							
0012454-17	B7Z99	1	1	GC-TI402-BC-ED-1	B7FW7	18.5	107.15	1	GC-TI401-402-BC-HP-1	B7FY2	1.87		
0012431-11	B7Z17	4				23.43					3.35		
0012454-17	B7Z99	3				16.03					3		
0012431-11	B7Z17	2				23.57					1.08		
0012454-17	B7Z99	2				25.62					1.89		
0012430-08	B7Z57	4	2	GC-TI402-BC-ED-2	B7FW8	22	111.07				2.56		
0012415-07	B7YN4	1				15.92					0.78		
0012454-17	B7Z99	7				16.4					2.73		
0012434-06	B7YX3	10				19.44					1.47		
0012430-08	B7Z57	10				19.07					1.62		

Table A-7-a
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Blue Crab

			Blue Crab Edible Tissue					Blue Crab Hepatopancreas					
Lab Sample No	EPA Sample No	Species Sample Number	Sample	Station Sample Number	CLP No. Edible Tissue	Individual Edible Tissue Weight(g)	Edible Tissue Grouped Weight (g)	Sample	Station Sample Number	CLP No. - HP	Estimated Individual HP Weight(g)	HP Grouped Weight (g)	HP Weight Recovered
0012431-11	B7Z17	6				17.95					1.24		
0012418-04	B7YJ0	2				16.21					0.92		
0012434-06	B7YX3	14				25.25					2.02		
0012430-08	B7Z57	6				14.4					1.15		
0012430-08	B7Z57	9				19.18					0.97		
0012454-17	B7Z99	5				13.21					1.68		
0012434-06	B7YX3	7				17.94					0.78		
0012435-19	B7YT8	4				8.97					1.2		
0012430-08	B7Z57	5				13.76					0.83		
0012418-04	B7YJ0	1				15.41					0.4		
0012431-11	B7Z17	1				13.27					0.45		
0012430-08	B7Z57	1				13.95					1.19		
0012431-11	B7Z17	3				16.31					0.95		
0012430-08	B7Z57	3				15.73					0.98		
0012434-06	B7YX3	11				17.88					1.42		
0012435-19	B7YT8	2				9.52					1.31		
0012434-06	B7YX3	6											
0012435-19	B7YT8	1				15.08					1.32		
0012434-06	B7YX3	5											
0012434-06	B7YX3	8				20.55					1.06		
0012434-06	B7YX3	9				19.36					1.21		
0012434-06	B7YX3	13				15.04					1		
0012434-06	B7YX3	4				23.01					0.94		
0012430-08	B7Z57	2				14.59					1.26	39.04	
0012430-08	B7Z57	11	**Archive**	GC-TI402-BC-ED-3	B7FW9	8.94	502.18				0.87		
0012434-06	B7YX3	1											
0012431-11	B7Z17	5				16.72					0.78		
0012454-17	B7Z99	6				14.34					1.39		
0012454-17	B7Z99	4				10.23					0.83		
0012430-08	B7Z57	7				14.15					1.26		
0012431-11	B7Z17	8				10.15					0.65		
0012435-19	B7YT8	3				9.62					1.13		
0012434-06	B7YX3	15				13.32					0.96		
0012454-17	B7Z99	8				7.62					0.88		
0012434-06	B7YX3	3											
0012430-08	B7Z57	8				10.4					0.66		
0012434-06	B7YX3	16				11.3					1.14		
0012431-11	B7Z17	9				10.07					0.62		
0012418-04	B7YJ0	3				9.46					0.9		
0012434-06	B7YX3	2											
0012415-07	B7YN4	2				6.20					0.45		
0012431-11	B7Z17	7				6.61					0.72		
0012418-04	B7YJ0	4				6.78					0.82		
0012430-08	B7Z57	12				7.18					0.86		
0012434-06	B7YX3	12				6.04					0.86		
0012431-11	B7Z17	10				4.1					0.67		
0012434-06	B7YX3	17				2.74							
0012430-09	B7Z58	2				32.28					3.25		
0012434-10	B7YX7	10	**1**	GC-TI403-BC-ED-1	B7FX0	31.06	114.9				2.83		
0012431-13	B7Z19	2				29.23					3.72		
0012435-06	B7YS4	2				22.33					1.69		
0012454-19	B7ZA1	3				29.51					4.64		
0012430-09	B7Z58	4	**2**	GC-TI403-BC-ED-2	B7FX1	23.78	119.16				3.18		
0012454-19	B7ZA1	4				23.74					2.4		
0012434-10	B7YX7	2				17.85					1.1		
0012430-09	B7Z58	5				24.28					1.56		
0012431-13	B7Z19	1				17.6					0.91		
0012416-05	B7YD5	1				19.69					1.71		
0012418-07	B7YJ3	3				20					1.17		
0012435-06	B7YS4	4				15.74					1.69		
0012435-06	B7YS4	12				13.24					1.3		
0012431-13	B7Z19	4				16.85					1.02		
0012431-13	B7Z19	5				17.27					1.75		
0012434-10	B7YX7	5				17.28					0.8		

Table A-7-a
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Blue Crab

			Blue Crab Edible Tissue					Blue Crab Hepatopancreas					
Lab Sample No	EPA Sample No	Species Sample Number	Sample	Station Sample Number	CLP No. Edible Tissue	Individual Edible Tissue Weight(g)	Edible Tissue Grouped Weight (g)	Sample	Station Sample Number	CLP No. - HP	Estimated Individual HP Weight(g)	HP Grouped Weight (g)	HP Weight Recovered
0012435-06	B7YS4	3				12.09					1.84		
0012435-06	B7YS4	8				13.78					1.01		
0012418-07	B7YJ3	1				17.03					0.81	61.24	
0012434-10	B7YX7	1				15.54					0.98		
0012416-05	B7YD5	2				16.1					0.8		
0012415-09	B7YN6	1				16.61					1.35		
0012434-10	B7YX7	8				15.16					2.6		
0012418-07	B7YJ3	4				13.13					1.38		
0012431-13	B7Z19	6				17.73					1.97		
0012434-10	B7YX7	3				12.6					1.36		
0012430-09	B7Z58	1				11.27					0.71		
0012454-19	B7ZA1	2				22.8					1		
0012418-07	B7YJ3	2				15.95					1.2		
0012418-07	B7YJ3	5				15.78					0.88		
0012430-09	B7Z58	3				15.71					1.07		
0012434-10	B7YX7	7				17.63					1.21		
0012435-06	B7YS4	9				9					1.44		
0012434-10	B7YX7	12				12.31					1.11		
0012434-10	B7YX7	6				9.7					1.38		
0012435-06	B7YS4	13				11.31					1.31		
0012434-10	B7YX7	9				9.37					1.34		
0012435-06	B7YS4	6	**Archive**	GC-TI403-BC-ED-3	B7FX2	10.97	587.8				1.1		
0012431-13	B7Z19	3				6.69					0.02		
0012431-13	B7Z19	10				6.95					0.91		
0012434-10	B7YX7	4				7.01					1.06		
0012431-13	B7Z19	9				5.61					0.8		
0012454-19	B7ZA1	1				4.43					0.52		
0012435-06	B7YS4	7				6.45					1.21		
0012435-06	B7YS4	1				4.02					1.45		
0012435-06	B7YS4	11				5.89					1.54		
0012434-10	B7YX7	16				7.35					0.67		
0012435-06	B7YS4	5				3.78					1.66		
0012434-10	B7YX7	15				5.88					1.1		
0012431-13	B7Z19	7				6.43					1.13		
0012435-06	B7YS4	14				5.37					1.44		
0012434-10	B7YX7	13				5.15					1.02		
0012435-06	B7YS4	10				4.79					1.61	29.37	
0012434-10	B7YX7	11				6.16					1.1		
0012434-10	B7YX7	17				5.3					1.2		
0012431-13	B7Z19	8				5.68					0.84		
0012435-06	B7YS4	15				5.47					1.56		
0012435-06	B7YS4	16				4					1.14		
0012434-10	B7YX7	14				5					1.46		
0012435-06	B7YS4	17				4.77					1.6		
0012454-19	B7ZA1	5				5.04					0.7		
0012430-09	B7Z58	6				4.92					1.66		
0012418-07	B7YJ3	6				4.45					1.37		
0012430-09	B7Z58	7				3.56					0.62		
0012462-07	B7ZC2	1				6.45							
0012462-07	B7ZC2	3				4.63							
0012462-07	B7ZC2	2				3.94							
0012462-13	B7ZC8	2				23.3					2.05		
0012432-07	B7Z20	5				11.89					2.64		
0012432-07	B7Z20	1	**1**	GC-TI404-BC-ED-1	B7FX3	23.81	113.69				2.53		
0012462-13	B7ZC8	1				24.58					2.08		
0012462-13	B7ZC8	4				30.11					4.4		
0012462-13	B7ZC8	6				22.32					3.01		
0012462-13	B7ZC8	7				20.75					3.08		
0012432-07	B7Z20	3	**2**	GC-TI404-BC-ED-2	B7FX4	16.38	108.14				0.82		
0012462-13	B7ZC8	5				20.33					1.35		
0012433-10	B7YY3	4				12.64					0.26		
0012462-13	B7ZC8	3				15.72					0.73		
0012430-10	B7Z59	1				17.22					1.3		
0012462-13	B7ZC8	8				18.22					0.68		

Table A-7-a
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Blue Crab

			Blue Crab Edible Tissue					Blue Crab Hepatopancreas					
Lab Sample No	EPA Sample No	Species Sample Number	Sample	Station Sample Number	CLP No. Edible Tissue	Individual Edible Tissue Weight(g)	Edible Tissue Grouped Weight (g)	Sample	Station Sample Number	CLP No. - HP	Estimated Individual HP Weight(g)	HP Grouped Weight (g)	HP Weight Recovered
0012413-15	B7YG5	1				10.4					0.35		
0012432-07	B7Z20	2				12.26					0.64		
0012430-10	B7Z59	3				13.26					0.21		
0012433-10	B7YY3	1				10.8					0.12		
0012432-07	B7Z20	4				13.24					0.95		
0012433-10	B7YY3	3				10.78					4.03		
0012433-10	B7YY3	2				11.27					0.31		
0012433-10	B7YY3	5				10.37					0.7	39	
0012432-07	B7Z20	6				6.34					0.88		
0012432-07	B7Z20	7				10.06					0.62		
0012430-10	B7Z59	2				11.02					0.22		
0012418-13	B7YJ9	2				9.46					0.33		
0012415-12	B7YN9	1				9					0.54		
0012432-07	B7Z20	9	**Archive**	GC-TI404-BC-ED-3	B7FX5	4.13	223.77				0.02		
0012462-13	B7ZC8	9				3.34					0.78		
0012462-13	B7ZC8	11				4.69		**2**	GC-TI403-404-405-406-BC-HP-2	B7FY4	0.68		
0012462-13	B7ZC8	10				2.33					0.05		
0012415-12	B7YN9	8				3.24					0.27		
0012415-12	B7YN9	4				3.32					0.36		
0012432-07	B7Z20	8				4.24					0.07		
0012415-12	B7YN9	5				3.44					0.02		
0012415-12	B7YN9	2				2.23					0.33		
0012415-12	B7YN9	3				3.16					0.09		
0012435-13	B7YT1	1				2.13					0.05		
0012435-13	B7YT1	2				1.98							
0012415-12	B7YN9	6				3.18					0.14		
0012415-12	B7YN9	7				3.36					0.48		
0012418-13	B7YJ9	1				2.03					0.49		
0012430-10	B7Z59	4				3.27					0.34		
0012433-13	B7YY6	3				27.34					3.18		
0012433-13	B7YY6	5				23.19					1.4		
0012416-13	B7YE3	11	**1**	GC-TI405-BC-ED-1	B7FX6 (1)	22.83	115.67				2.23		
0012430-12	B7Z61	1				22.53					0.83		
0012415-17	B7YP4	1				19.78					0.07		
0012416-13	B7YE3	7				18.9					0.65		52.38 + 11 = 63.38
0012433-13	B7YY6	7				21.84					0.31		
0012416-13	B7YE3	14	**2**	GC-TI405-BC-ED-2	B7FX7 (1)	17.94	108.05				1.66		
0012418-16	B7YK2	3				15.74					0.81		
0012416-13	B7YE3	2				19.17					0.6		
0012418-16	B7YK2	1				14.46					0.5		
0012416-13	B7YE3	4				19.2					0.23		
0012433-13	B7YY6	12				19.68					0.97		
0012418-16	B7YK2	6				15.07					0.7		
0012416-13	B7YE3	3				12.36					0.76		
0012415-17	B7YP4					13					0.46		
0012416-13	B7YE3	12				10.92					0.81		
0012418-16	B7YK2	4				15.44					0.42		
0012416-13	B7YE3	1				13.58					0.29		
0012433-13	B7YY6	11				17.13					0.34		
0012416-13	B7YE3	9				15.65					0.06		
0012416-13	B7YE3	10				13.21					0.42		
0012433-13	B7YY6	10				11.64					0.14		
0012435-15	B7YT3	1				13.91					0.51		
0012435-15	B7YT3	2				8.5					0.32	25.39	
0012416-13	B7YE3	5				12.25					0.25		
0012416-13	B7YE3	8				10.68					0.53		
0012418-16	B7YK2	2				10.94					0.1		
0012433-13	B7YY6	2				18.27					0.04		
0012416-13	B7YE3	13	**Archive**	GC-TI405-BC-ED-3	B7FX8	12.5	419.52				0.19		
0012433-13	B7YY6	4				13.38					0.76		
0012430-12	B7Z61	3				13.76					0.59		
0012416-13	B7YE3	6				11.24					0.51		
0012430-12	B7Z61	2				13.58					0.22		
0012415-17	B7YP4					9.09					0.29		

Table A-7-a
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Blue Crab

			Blue Crab Edible Tissue					Blue Crab Hepatopancreas					
Lab Sample No	EPA Sample No	Species Sample Number	Sample	Station Sample Number	CLP No. Edible Tissue	Individual Edible Tissue Weight(g)	Edible Tissue Grouped Weight (g)	Sample	Station Sample Number	CLP No. - HP	Estimated Individual HP Weight(g)	HP Grouped Weight (g)	HP Weight Recovered
0012416-13	B7YE3	16				11.6					0.27		
0012433-13	B7YY6	6				9.03					0.4		
0012433-13	B7YY6	8				11.84					0.35		
0012418-16	B7YK2	5				7.3					0.38		
0012416-13	B7YE3	15				5.87					0.18		
0012435-15	B7YT3	4				10.88					0.03		
0012435-15	B7YT3	3				8.72					0.16		
0012416-13	B7YE3	17				6.86					0.59		
0012433-13	B7YY6	9				3.85					0.18		
0012430-12	B7Z61	4				3.62					0.1		
0012433-13	B7YY6	13				3.76					0.22		
0012433-13	B7YY6	14				3.51					0.06		
0012433-13	B7YY6	1				3.18					0.24		
0012433-13	B7YY6	15				4.52					0.08		
0012430-18	B7Z67	4				20.13					1.37		
0012419-10	B7YK5	2				21.41					3.28		
0012419-10	B7YK5	3				16.93					2.39		
0012454-20	B7ZA2	1				20.06					2.19		
0012454-20	B7ZA2	2				24.74					0.05		
0012434-16	B7YY9	3				22.15					2.42		
0012434-16	B7YY9	5	**1 MSMSD**	GC-TI406-BC-ED-1	B7FX9	11.98	258.86				0.33		
0012429-06	B7Z25	1				19.51					0.41		
0012430-18	B7Z67	2				18.35					0.94		
0012434-16	B7YY9	6				15					0.29		
0012430-18	B7Z67	3				13.52					1		
0012434-16	B7YY9	1				19.61					0.07		
0012429-06	B7Z25	2				17.15					0.27		
0012429-06	B7Z25	4				18.32					1.8		
0012429-06	B7Z25	5				13.84					0.5		
0012454-20	B7ZA2	7				18.01					0.33		
0012434-16	B7YY9	2				18.45					0.32	25.02	
0012429-06	B7Z25	3	**2**	GC-TI406-BC-ED-2	B7FY0	18.37	118.91				0.15		
0012430-18	B7Z67	1				10.37					0.96		
0012454-20	B7ZA2	4				16.96					2.59		
0012430-18	B7Z67	5				10.24					0.04		
0012434-16	B7YY9	7				12.67					0.24		
0012429-06	B7Z25	7				12.29					0.06		
0012454-20	B7ZA2	3				15.1					0.45		
0012454-20	B7ZA2	8				11.12					0.32		
0012429-06	B7Z25	6				11.89					0.46		
0012462-15	B7ZD0	1				14.37					0.24		
0012454-20	B7ZA2	5	**Archive**	GC-TI406-BC-ED-3	B7FY1	13.16	108.9				0.18		
0012419-10	B7YK5	1				9					0.1		
0012419-10	B7YK5	4				2.62					0.93		
0012434-16	B7YY9	4				8.3					0.17		
0012454-20	B7ZA2	9				4.47					0.08		
0012454-20	B7ZA2	6				4.77					0.05		
0012454-20	B7ZA2	10				1.81					0.04		
0012462-01	B7ZB6					19.26					0.26		
0012473-01	B7ZE2			GC-TI-Inner-BC-ED-1	B7FY5	27.48	124.54				2.7		
0012473-01	B7ZE2		**1**			26.34					2.38		
0012415-01	B7YM8					24.13					5.33		
0012462-01	B7ZB6					27.33					4.58		
0012473-01	B7ZE2					18.13					0.61		
0012473-01	B7ZE2			GC-TI-Inner-BC-ED-2	B7FY6	16.73	107.96				2.02		
0012473-01	B7ZE2		**2**			19.92					0.73		
0012473-01	B7ZE2					17.4					0.67		
0012415-01	B7YM8					18.31					0.55		
0012473-01	B7ZE2					17.47					1.74		
0012418-01	B7YG8					17.1					0.14		
0012462-01	B7ZB6					22.17					0.3		
0012418-01	B7YG8					12.91					1.48		
0012417-02	B7YQ0					16.33					2.68	29.49	
0012418-01	B7YG8					11.84					0.42		

Table A-7-a
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Blue Crab

			Blue Crab Edible Tissue					Blue Crab Hepatopancreas					
Lab Sample No	EPA Sample No	Species Sample Number	Sample	Station Sample Number	CLP No. Edible Tissue	Individual Edible Tissue Weight(g)	Edible Tissue Grouped Weight (g)	Sample	Station Sample Number	CLP No. - HP	Estimated Individual HP Weight(g)	HP Grouped Weight (g)	HP Weight Recovered
0012415-01	B7YM8		Archive	GC-TI-Inner-BC-ED-3	B7FY7	12.25	189.36	1	GC-TI-inner-middle-outer-BC-HP-1	B7FY8	0.53	48.07	43.59
0012462-01	B7ZB6					11.1					0.02		
0012418-01	B7YG8					13.04					0.05		
0012415-01	B7YM8					13.1					0.33		
0012418-01	B7YG8					12.13					0.47		
0012415-03	B7YN0					12.27					0.31		
0012418-01	B7YG8					9.96					0.24		
0012415-01	B7YM8					7.45					0.03		
0012415-01	B7YM8					4.6					0.61		
0012418-01	B7YG8					5.47					0.31		
0012418-01	B7YG8					3.56							
0012462-01	B7ZB6					2.75							
0012418-01	B7YG8					1.33							
0012417-10	B7YR0	2	1	GC-TIMiddle-BC-ED-1	B7FY9	22.14	111.55				0.57		
0012432-01	B7YZ6	4				15.61					0.61		
0012432-01	B7YZ6	5				21.8					0.93		
0012414-02	B7YR1	1				15.47					0.57		
0012431-03	B7Z04	1				17.32					0.62		
0012413-10	B7YG0	2				19.21					0.71		
0012433-09	B7YW7	2	2	GC-TIMiddle-BC-ED-2	B7FZ0	35.55	113.27				7.84		
0012413-10	B7YG0	3				19.6					0.59		
0012462-03	B7ZB8	2				15.07					0.79		
0012432-01	B7YZ6	1				14.47					0.25		
0012413-10	B7YG0	1				12.14					0.83		
0012414-02	B7YR1	2				16.44					0.66		
0012432-01	B7YZ6	3	3	GC-TIMiddle-BC-ED-3	B7FZ1	12.02	107.58				0.38		
0012430-01	B7Z50	2				12.89					0.51		
0012431-03	B7Z04	2				16.77					0.69		
0012431-03	B7Z04	3				13.57					0.47		
0012432-01	B7YZ6	7				14.61					1		
0012433-09	B7YW7	1				23.51					3.84		
0012417-05	B7YQ3	1				14.21					0.4		
0012417-10	B7YR0	1	Archive	GC-TIMiddle-BC-ED-4	B7FZ2	12.79	314.95				0.56		
0012462-03	B7ZB8	1				21.55					3.86		
0012433-09	B7YW7	4				25.88					2.67		
0012430-01	B7Z50	1				10.38					0.63		
0012431-03	B7Z04	4				13.71					0.38		
0012430-01	B7Z50	3				17.32					0.6		
0012433-09	B7YW7	3				26.65					2.13		
0012432-01	B7YZ6	2				14.01					0.42		
0012433-09	B7YW7	6				15.18					1.82		
0012432-01	B7YZ6	6				15.2					3.69		
0012433-09	B7YW7	5				16.22					1.12		
0012433-09	B7YW7	10				14.71					0.91		
0012417-10	B7YR0	3				11.01					0.96		
0012433-09	B7YW7	11				14.41					0.92		
0012414-02	B7YR1	3				12.81					0.46		
0012460-01	B7ZA7	1				15.9					1.03		
0012473-03	B7ZE4	1				16.62					0.72		
0012433-09	B7YW7	9				13.73					1.01		
0012433-09	B7YW7	7				12.31					0.97		
0012433-09	B7YW7	8				7.9					0.95		
0012433-09	B7YW7	12				2.9					NA		
0012433-09	B7YW7	13				3.76					NA		
0012434-03	B7YX0	4	1	GC-TI-Outer-BC-ED-1	B7FZ3	24.28	105.72				0.97		
0012434-03	B7YX0	9				24.15					0.03		
0012429-03	B7Z08	8				16.86					0.24		
0012429-03	B7Z08	12				15.73					0.44		
0012429-03	B7Z08	11				24.7					0.58		
0012419-02	B7YH1	5				14.12					0.66		
0012434-03	B7YX0	5				20.34					1.05		
0012429-03	B7Z08	7				29.38					0.14		
0012434-03	B7YX0	1				18.57					0.55		
0012419-02	B7YH1	2				16.39					0.16		

Table A-7-a
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Blue Crab

			Blue Crab Edible Tissue					Blue Crab Hepatopancreas					
Lab Sample No	**EPA Sample No**	**Species Sample Number**	**Sample**	**Station Sample Number**	**CLP No. Edible Tissue**	**Individual Edible Tissue Weight(g)**	**Edible Tissue Grouped Weight (g)**	**Sample**	**Station Sample Number**	**CLP No. - HP**	**Estimated Individual HP Weight(g)**	**HP Grouped Weight (g)**	**HP Weight Recovered**
0012429-03	B7Z08	6	**2 ms/msd**	GC-TI-Outer-BC-ED-2	B7FZ4	19.44	261.6				0.2	23.18	
0012419-02	B7YH1	3				20.04					0.22		
0012434-03	B7YX0	10				23.34					0.05		
0012429-03	B7Z08	3				14.51					0.29		
0012429-03	B7Z08	16				14.8					0.54		
0012429-03	B7Z08	10				16.55					0.48		
0012429-03	B7Z08	1				18.31					0.06		
0012419-02	B7YH1	4				17.01					0.73		
0012434-03	B7YX0	3				18.8					0.97		
0012429-03	B7Z08	5	**3**	GC-TI-Outer-BC-ED-3	B7FZ5	19.67	110.76				0.47		
0012419-02	B7YH1	1				25.52					3.56		
	B7Z53	2											
0012434-03	B7YX0	8				12.19					0.92		
0012434-03	B7YX0	2				21.46					1.23		
0012434-03	B7YX0	12				17.62					0.87		
0012434-03	B7YX0	14				14.3					0.93		
0012429-03	B7Z08	9	**Archive**	GC-TI-Outer-BC-ED-4	B7FZ6	13.9	212.35				0.48		
0012429-03	B7Z08	13				14.41					0.12		
0012434-03	B7YX0	7				14.48					0.89		
0012429-03	B7Z08	4				15.08					0.44		
0012429-03	B7Z08	14				17.93					0.62		
0012429-03	B7Z08	15				24.05					0.29		
0012434-03	B7YX0	13				12.47					0.83		
0012434-03	B7YX0	6				10.21					0.7		
0012429-03	B7Z08	2				14.76					0.35		
0012413-08	B7YF7	1				24.6					0.43		
0012430-04	B7Z53	1											
0012434-03	B7YX0	11				13.17					0.19		
0012429-03	B7Z08	17				14.39					0.48		
0012460-02	B7ZA8	1				14.15					0.61		
0012460-03	B7ZA9	1				8.75					0.41		

by laboratory was 99.41 and 103.62 respectively.

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Table A-7-b
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Multiple species; Fillets and Carcass Samples

														Fillet Samples							Carcass Samples						
Species/Location	Species Sample Number	Sample Date	Sample Time	Lab ID	Case Number	Field Length (mm)	Field Weight (g)	Total Category Weight (g)	Sample Breakdown and Estimated Weight (g)	Event ID	Lab Total Weight (g)	Field Sample No	Estimated Number of Fillet Samples	Lab Fillet Weight (g)	Lab Fillet Grouped Weight (g)	Sample	Final Fillet Tissue Sample	New EPA Sample No	Station Sample No.	Final Lab Weights (g)	Lab Carcass Weight (g)	Lab Carcass Grouped Weight (g)	Sample	Final Carcass Tissue Sample	New EPA Sample No.	Station Sample No.	Final Lab Weights (g)
GC-TI401-XAE-	1	6/29/2010	9:55:00 AM	0012431-09	40133	430	165			06/09/2010 01:28:04 PM	156.09	B7Z15		37.67							111.12						
GC-TI401-XAE-	2	6/29/2010	9:55:00 AM	0012431-09	40133	315	71	236		06/09/2010 01:28:04 PM	65.75	B7Z15	0.7	22.13							41.97						
GC-TI401-XAE-	1	6/23/2010	10:41:00 AM	0012419-07	40133	280	44	44		06/09/2010 01:28:04 PM	40.31	B7YH7	0.1	12.25							26.42						
GC-TI401-XAE-	2	6/23/2010	10:41:00 AM	0012419-07	40133	205	15	15	295	06/09/2010 01:28:04 PM	13.65	B7YH7	0.0	5.15	77.2	Archive	Archive tissue.	B7G14	GC-TI401-XAE-FI-1	72.96	8.47	187.98	Archive	Archive tissue.	B7G13	GC-TI401-XAE-CA-1	170.7
GC-TI402-XAE-	1	6/28/2010	10:50:00 AM	0012434-07	40133	517	220			06/09/2010 01:28:04 PM	279.69	B7YX4		123.35	123.35	1	1	B7G18	GC-TI402-XAE-FI-1	130.1	145.53	145.53	1	1	B7G15	GC-TI402-XAE-CA-1	144.3
GC-TI402-XAE-	1	6/22/2010	11:50:00 AM	0012413-06	40133	480	280	500	500	06/09/2010 01:28:04 PM	267.79	B7YF2	1.5	100.42	100.42	2	2	B7G19	GC-TI402-XAE-FI-2	101.05	148.05	148.05	2	2	B7G16	GC-TI402-XAE-CA-2	135.65
GC-TI402-XAE-	2	6/25/2010	2:21:00 PM	0012435-04	40133	145	4.8			06/09/2010 01:28:04 PM	4.9	B7YS2		NA			Archive				NA			NA			NA
GC-TI402-XAE-	1	6/25/2010	2:21:00 PM	0012435-04	40133	140	4.7	9.5	9.5	06/09/2010 01:28:04 PM	4.18	B7YS2	0.03	NA		Archive		B7G20	GC-TI402-XAE-FI-3	5.63	NA		Archive		B7G17	GC-TI402-XAE-CA-3	
GC-TI403-XAE-	1	6/23/2010	12:00:00 PM	0012418-10	40133	620	690		690	06/09/2010 01:28:04 PM	630	B7YJ6		182.73	182.73	1	1	B7G25	GC-TI403-XAE-FI-1	198	421	421	1	1	B7G21	GC-TI403-XAE-CA-1	394
GC-TI403-XAE-	1	6/28/2010	11:59:00 AM	0012434-13	40133	590	390		390	06/09/2010 01:28:04 PM	434	B7YY0		120.4	120.4	2	2	B7G26	GC-TI403-XAE-FI-2	123	299.61	299.61	2	2	B7G22	GC-TI403-XAE-CA-2	320
GC-TI403-XAE-	1	6/25/2010	4:13:00 PM	0012435-09	40133	540	400		400	06/09/2010 01:28:04 PM	349.8	B7YS7		102.72							239.55		3				
GC-TI403-XAE-	1	7/8/2010	11:20:00 AM	0012462-11	40133	490	267			06/09/2010 01:28:04 PM	256.3	B7ZC6		79.6	182.32	3	3	B7G27	GC-TI403-XAE-FI-3	161	165.23	404.78		3 (MSMSD [404g])	B7G23	GC-TI403-XAE-CA-3	425
GC-TI403-XAE-	4	6/23/2010	12:00:00 PM	0012418-10	40133	470	224		491	06/09/2010 01:28:04 PM	86.95	B7YJ6		27.23							57.4	222.63					
GC-TI403-XAE-	3	6/28/2010	11:59:00 AM	0012434-13	40133	470	150			06/09/2010 01:28:04 PM	209.13	B7YY0		76.15							127.35						
GC-TI403-XAE-	1	7/9/2010	11:00:00 AM	0012473-02	40133	470	230	2351	380	06/09/2010 01:28:04 PM	212.73	B7ZE3	6.9	62.06							144.73	272.08					
GC-TI403-XAE-	3	6/23/2010	12:00:00 PM	0012418-10	40133	446	235			06/09/2010 01:28:04 PM	221.3	B7YJ6		48							152.1						
GC-TI403-XAE-	7	6/23/2010	12:00:00 PM	0012418-10	40133	385	104			06/09/2010 01:28:04 PM	211.24	B7YJ6		77.71							131.05	283.15					
GC-TI403-XAE-	3	7/8/2010	11:20:00 AM	0012462-11	40133	385	115		454	06/09/2010 01:28:04 PM	113.12	B7ZC6		32.3							73.36						
GC-TI403-XAE-	2	6/23/2010	12:00:00 PM	0012418-10	40133	375	100			06/09/2010 01:28:04 PM	95.87	B7YJ6		27.6							62.8						
GC-TI403-XAE-	2	7/8/2010	11:20:00 AM	0012462-11	40133	374	108			06/09/2010 01:28:04 PM	105.63	B7ZC6		25.19							74.44						
GC-TI403-XAE-	2	6/28/2010	11:59:00 AM	0012434-13	40133	363	50			06/09/2010 01:28:04 PM	95.36	B7YY0		28.55							61.05	271.65					
GC-TI403-XAE-	6	6/23/2010	12:00:00 PM	0012418-10	40133	340	78			06/09/2010 01:28:04 PM	97.33	B7YJ6		33.44							58.18						
GC-TI403-XAE-	2	6/25/2010	4:13:00 PM	0012435-09	40133	338	100		436	06/09/2010 01:28:04 PM	82.78	B7YS7		29.84							48.81						
GC-TI403-XAE-	4	6/28/2010	11:59:00 AM	0012434-13	40133	336	40	930		06/09/2010 01:28:04 PM	90.51	B7YY0	2.7	30.21							56.58						
GC-TI403-XAE-	5	6/23/2010	12:00:00 PM	0012418-10	40133	328	92.5			06/09/2010 01:28:04 PM	74.3	B7YJ6		16.3							52.05	215.62					
GC-TI403-XAE-	5	7/8/2010	11:20:00 AM	0012462-11	40133	297	45			06/09/2010 01:28:04 PM	45.34	B7ZC6		10.75							30.1						
GC-TI403-XAE-	8	6/23/2010	12:00:00 PM	0012418-10	40133	287	41			06/09/2010 01:28:04 PM	38.64	B7YJ6		9.3							30.1						
GC-TI403-XAE-	5	6/28/2010	11:59:00 AM	0012434-13	40133	286	50			06/09/2010 01:28:04 PM	44	B7YY0		12.1							28.1						
GC-TI403-XAE-	3	6/25/2010	4:13:00 PM	0012435-09	40133	275	33.5			06/09/2010 01:28:04 PM	35.54	B7YS7		11							20.78						
GC-TI403-XAE-	6	7/8/2010	11:20:00 AM	0012462-11	40133	264	40			06/09/2010 01:28:04 PM	44.13	B7ZC6		12.86							26.8						
GC-TI403-XAE-	4	7/8/2010	11:20:00 AM	0012462-11	40133	263	37	339	379	06/09/2010 01:28:04 PM	37.45	B7ZC6	1.0	8.28		Archive	Archive tissue.	B7G28	GC-TI403-XAE-FI-4	611	25.95	73.53	Archive	Archive tissue.	B7G24	GC-TI403-XAE-CA-4	1188

Table A-7-b
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Multiple species; Fillets and Carcass Samples

														Fillet Samples							Carcass Samples						
Species/Location	Species Sample Number	Sample Date	Sample Time	Lab ID	Case Number	Field Length (mm)	Field Weight (g)	Total Category Weight (g)	Sample Breakdown and Estimated Weight (g)	Event ID	Lab Total Weight (g)	Field Sample No	Estimated Number of Fillet Samples	Lab Fillet Weight (g)	Lab Fillet Grouped Weight (g)	Sample	Final Fillet Tissue Sample	New EPA Sample No	Station Sample No.	Final Lab Weights (g)	Lab Carcass Weight (g)	Lab Carcass Grouped Weight (g)	Sample	Final Carcass Tissue Sample	New EPA Sample No.	Station Sample No.	Final Lab Weights (g)
GC-TI406-XAE-	1	6/30/2010	3:25:00 PM	0012430-16	40133	603	396		369	06/09/2010 01:28:04 PM	386.9	B7Z65		113.37		1	1	B7G31	GC-TI406-XAE-FI-1	115.3	259.13		1	1	B7G29	GC-TI406-XAE-CA-1	233
GC-TI406-XAE-	2	7/9/2010	12:00:00 PM	0012473-07	40133	570	327	723	327	06/09/2010 01:28:04 PM	312	B7ZE8	2.1	91.77		Archive	Archive tissue.	B7G32	GC-TI406-XAE-FI-2	64.75	211.6		Archive	Archive tissue.	B7G30	GC-TI406-XAE-CA-2	223
GC-TI327-XAE-	1	6/22/2010	1:55:00 PM	0012416-02	40133	765	1030	1030	1030	06/09/2010 01:28:04 PM	980	B7YE4	3.0	256.94	256.94	1	1	B7G34	GC-TI327-XAE-FI-1	267	708	708	1	1	B7G33	GC-TI327-XAE-CA-1	673
GC-TI326-XSCUP-	1	6/28/2010	3:05:00 PM	0012433-02	40133	135	37.5	37.5	37.5	06/09/2010 01:28:04 PM	34.05	B7YW0	0.1	9.63		Archive	Archive tissue.	B7G36	GC-TI326-XSCUP-FI-1	10	21.63		Archive	Archive tissue.	B7G35	GC-TI326-XSCUP-CA-1	27
GC-TI332-XSCUP-	1	7/1/2010	1:34:00 PM	0012454-08	40133	157	53			06/09/2010 01:28:04 PM	53.4	B7Z90		20.26							31.6						
GC-TI334-XSCUP-	1	7/1/2010	2:35:00 PM	0012454-14	40133	136	42			06/09/2010 01:28:04 PM	39.05	B7Z96		11.55							24.86						
GC-TI332-XSCUP-	2	6/29/2010	2:24:00 PM	0012432-05	40133	134	47			06/09/2010 01:28:04 PM	34.41	B7Z07		9.65							22.89						
GC-TI334-XSCUP-	18	6/29/2010	1:46:00 PM	0012432-06	40133	134	36			06/09/2010 01:28:04 PM	31.68	B7Z10		11.2							19.88						
GC-TI332-XSCUP-	9	6/29/2010	2:24:00 PM	0012432-05	40133	133	37			06/09/2010 01:28:04 PM	31.4	B7Z07		11.28							17.42						
GC-TI334-XSCUP-	14	6/29/2010	1:46:00 PM	0012432-06	40133	130	33			06/09/2010 01:28:04 PM	31.03	B7Z10		9.9							19.33						
GC-TI334-XSCUP-	8	6/29/2010	1:46:00 PM	0012432-06	40133	129	34			06/09/2010 01:28:04 PM	31.47	B7Z10		8.51							22.53						
GC-TI332-XSCUP-	1	6/29/2010	2:24:00 PM	0012432-05	40133	127	33			06/09/2010 01:28:04 PM	29.47	B7Z07		7.32							19.95						
GC-TI332-XSCUP-	3	6/29/2010	2:24:00 PM	0012432-05	40133	127	35		350	06/09/2010 01:28:04 PM	30.98	B7Z07		10.1							19.54						
GC-TI334-XSCUP-	2	6/25/2010	1:45:00 PM	0012417-15	40133	127	29.5			06/09/2010 01:28:04 PM	27.34	B7YR6		6.24	106.01	1	1	B7G41	GC-TI332-XSCUP-FI-1	109	19.23	217.23	1	1	B7G37	GC-TI332-XSCUP-CA-1	180
GC-TI334-XSCUP-	6	6/29/2010	1:46:00 PM	0012432-06	40133	127	32			06/09/2010 01:28:04 PM	27.88	B7Z10		8.53							18.6						
GC-TI334-XSCUP-	6	6/25/2010	1:45:00 PM	0012417-15	40133	125	27.9			06/09/2010 01:28:04 PM	25.37	B7YR6		8.37							16.23						
GC-TI332-XSCUP-	8	6/29/2010	2:24:00 PM	0012432-05	40133	124	33			06/09/2010 01:28:04 PM	28.73	B7Z07		12.79							16.6						
GC-TI334-XSCUP-	4	6/25/2010	1:45:00 PM	0012417-15	40133	123	29.3			06/09/2010 01:28:04 PM	27.33	B7YR6		9.18							17.03						
GC-TI334-XSCUP-	2	6/29/2010	1:46:00 PM	0012432-06	40133	123	30			06/09/2010 01:28:04 PM	27.58	B7Z10		9.06							18.14						
GC-TI334-XSCUP-	24	6/29/2010	1:46:00 PM	0012432-06	40133	123	28			06/09/2010 01:28:04 PM	26	B7Z10		8.81							16.73						
GC-TI334-XSCUP-	3	6/29/2010	1:46:00 PM	0012432-06	40133	121	27			06/09/2010 01:28:04 PM	24.28	B7Z10		7.5							15.72						
GC-TI334-XSCUP-	12	6/29/2010	1:46:00 PM	0012432-06	40133	121	29			06/09/2010 01:28:04 PM	25.19	B7Z10		8.77							16.31						
GC-TI334-XSCUP-	11	6/29/2010	1:46:00 PM	0012432-06	40133	120	27			06/09/2010 01:28:04 PM	24.27	B7Z10		6.73							16.95						
GC-TI332-XSCUP-	7	6/29/2010	2:24:00 PM	0012432-05	40133	119	34			06/09/2010 01:28:04 PM	27.57	B7Z07		4.86							20.91						
GC-TI334-XSCUP-	7	6/29/2010	1:46:00 PM	0012432-05	40133	119	23		349.7	06/09/2010 01:28:04 PM	22.15	B7Z10		7.4							14.72						
GC-TI334-XSCUP-	23	6/29/2010	1:46:00 PM	0012432-05	40133	118	25	724.7	25	06/09/2010 01:28:04 PM	22.95	B7Z10	2.1	7.72							14.74						
GC-TI332-XSCUP-	5	6/29/2010	2:24:00 PM	0012432-05	40133	116	26			06/09/2010 01:28:04 PM	22.6	B7Z07		6.96	106.68	2	2	B7G42	GC-TI332-XSCUP-FI-2	125	15.12	217.8	2	2	B7G38	GC-TI332-XSCUP-CA-2	220
GC-TI332-XSCUP-	11	6/29/2010	2:24:00 PM	0012432-05	40133	116	23			06/09/2010 01:28:04 PM	20.62	B7Z07		5.14							14.08						
GC-TI334-XSCUP-	3	6/25/2010	1:45:00 PM	0012417-15	40133	116	22.5			06/09/2010 01:28:04 PM	21.81	B7YR6		6.26							15.74						
GC-TI334-XSCUP-	1	6/29/2010	1:46:00 PM	0012432-06	40133	116	27			06/09/2010 01:28:04 PM	24.85	B7Z10		7.83							16.77						
GC-TI334-XSCUP-	17	6/29/2010	1:46:00 PM	0012432-06	40133	116	24			06/09/2010 01:28:04 PM	20.9	B7Z10		5.88							14.52						

Table A-7-b
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Multiple species; Fillets and Carcass Samples

														Fillet Samples							Carcass Samples						
Species/Location	Species Sample Number	Sample Date	Sample Time	Lab ID	Case Number	Field Length (mm)	Field Weight (g)	Total Category Weight (g)	Sample Breakdown and Estimated Weight (g)	Event ID	Lab Total Weight (g)	Field Sample No	Estimated Number of Fillet Samples	Lab Fillet Weight (g)	Lab Fillet Grouped Weight (g)	Sample	Final Fillet Tissue Sample	New EPA Sample No	Station Sample No.	Final Lab Weights (g)	Lab Carcass Weight (g)	Lab Carcass Grouped Weight (g)	Sample	Final Carcass Tissue Sample	New EPA Sample No.	Station Sample No.	Final Lab Weights (g)
GC-TI334-XSCUP-	10	6/25/2010	1:45:00 PM	0012417-15	40133	115	25.8			06/09/2010 01:28:04 PM	21.7	B7YR6		5.8							14.66						
GC-TI334-XSCUP-	5	6/29/2010	1:46:00 PM	0012432-06	40133	115	23			06/09/2010 01:28:04 PM	20.82	B7Z10		6.3							13.47						
GC-TI334-XSCUP-	15	6/29/2010	1:46:00 PM	0012432-06	40133	115	23			06/09/2010 01:28:04 PM	17.81	B7Z10		6.2							8.74						
GC-TI334-XSCUP-	22	6/29/2010	1:46:00 PM	0012432-06	40133	115	22			06/09/2010 01:28:04 PM	19.73	B7Z10		6.37							13.18						
GC-TI332-XSCUP-	10	6/29/2010	2:24:00 PM	0012432-05	40133	114	25			06/09/2010 01:28:04 PM	20.58	B7Z07		4.7							14.69						
GC-TI334-XSCUP-	4	6/29/2010	1:46:00 PM	0012432-06	40133	114	19			06/09/2010 01:28:04 PM	17.97	B7Z10		5.03							12.69						
GC-TI334-XSCUP-	20	6/29/2010	1:46:00 PM	0012432-06	40133	113	23			06/09/2010 01:28:04 PM	20.6	B7Z10		5.97							14.92						
GC-TI332-XSCUP-	4	6/29/2010	2:24:00 PM	0012432-05	40133	112	24			06/09/2010 01:28:04 PM	21.23	B7Z07		4.57							15.06						
GC-TI334-XSCUP-	5	6/25/2010	1:45:00 PM	0012417-15	40133	112	20.6			06/09/2010 01:28:04 PM	18.61	B7YR6		6.2							11.9						
GC-TI334-XSCUP-	7	6/25/2010	1:45:00 PM	0012417-15	40133	112	22.7		350.6	06/09/2010 01:28:04 PM	20.58	B7YR6		5.5							13.6						
GC-TI334-XSCUP-	9	6/25/2010	1:45:00 PM	0012417-15	40133	111	21			06/09/2010 01:28:04 PM	17.55	B7YR6		4.91							11.44						
GC-TI334-XSCUP-	9	6/29/2010	1:46:00 PM	0012432-06	40133	111	20			06/09/2010 01:28:04 PM	18.3	B7Z10		5.37							12.55						
GC-TI334-XSCUP-	16	6/29/2010	1:46:00 PM	0012432-06	40133	111	21			06/09/2010 01:28:04 PM	18.76	B7Z10		6.02							12.28						
GC-TI334-XSCUP-	1	6/25/2010	1:45:00 PM	0012417-15	40133	110	16.3			06/09/2010 01:28:04 PM	14.36	B7YR6		3.72	101.77	3	3	B7G43	GC-TI332-XSCUP-FI-3	110	10.44	240.73	3	3	B7G39	GC-TI332-XSCUP-CA-3	238
GC-TI334-XSCUP-	8	6/25/2010	1:45:00 PM	0012417-15	40133	110	17.5			06/09/2010 01:28:04 PM	16.98	B7YR6		4.73							11.85						
GC-TI334-XSCUP-	10	6/29/2010	1:46:00 PM	0012432-06	40133	110	22			06/09/2010 01:28:04 PM	19.22	B7Z10		5.3							13.72						
GC-TI334-XSCUP-	21	6/29/2010	1:46:00 PM	0012432-06	40133	110	20			06/09/2010 01:28:04 PM	18.02	B7Z10		5.96							11.84						
GC-TI334-XSCUP-	25	6/29/2010	1:46:00 PM	0012432-06	40133	110	20			06/09/2010 01:28:04 PM	17.75	B7Z10		5.34							12.18						
GC-TI332-XSCUP-	6	6/29/2010	2:24:00 PM	0012432-05	40133	109	23			06/09/2010 01:28:04 PM	18.3	B7Z07		5.37							11.97						
GC-TI334-XSCUP-	13	6/29/2010	1:46:00 PM	0012432-06	40133	107	20			06/09/2010 01:28:04 PM	16.83	B7Z10		4.25							12.62						
GC-TI334-XSCUP-	19	6/29/2010	1:46:00 PM	0012432-06	40133	105	19	570.4	219.8	06/09/2010 01:28:04 PM	16.51	B7Z10	1.7	5.28	36.23	Archive tissue.	Partial (36.23g). Archive tissue.	B7G44	GC-TI332-XSCUP-FI-4	40	11.24	85.42	Archive	85g. Archive tissue.	B7G40	GC-TI332-XSCUP-CA-4	84
GC-TI401-SB-	1	6/22/2010	10:51:00 AM	0012413-03	40133	348	469		469	06/09/2010 01:28:04 PM	447	B7YE9		127	127	1	1	B7G00	GC-TI401-SB-FI-1	180	316	316	1	1 (MSMSD sample [316g total])	B7FZ7	GC-TI401-SB-CA-1	281.86
GC-TI401-SB-	2	6/22/2010	10:51:00 AM	0012413-03	40133	270	203	672		06/09/2010 01:28:04 PM	200.09	B7YE9	2.0	48.24							130						
GC-TI401-SB-	3	6/22/2010	10:51:00 AM	0012413-03	40133	229	120			06/09/2010 01:28:04 PM	115.73	B7YE9		34.11							59.03						
GC-TI401-SB-	4	6/22/2010	10:51:00 AM	0012413-03	40133	188	70	190	393	06/09/2010 01:28:04 PM	67.41	B7YE9	0.6	26.51	108.86	2	2	B7G01	GC-TI401-SB-FI-2	146.91	39.45	228.48	2	2	B7FZ8	GC-TI401-SB-CA-2	223
GC-TI401-SB-	5	6/22/2010	10:51:00 AM	0012413-03	40133	170	51	51		06/09/2010 01:28:04 PM	49.96	B7YE9	0.2	13.53							34.41						
GC-TI401-SB-	6	6/22/2010	10:51:00 AM	0012413-03	40133	126	19			06/09/2010 01:28:04 PM	17.67	B7YE9		4.49							12.03						
GC-TI401-SB-	7	6/22/2010	10:51:00 AM	0012413-03	40133	116	15			06/09/2010 01:28:04 PM	13.3	B7YE9		4.81	22.83		ARCHIVE	B7G02	GC-TI401-SB-FI-3	70.7	9	55.44		ARCHIVE	B7FZ9	GC-TI401-SB-CA-3	48.82
GC-TI401-SB-	1	6/29/2010	9:48:00 AM	0012431-08	40133	102	9.2	43.2	94.2	06/09/2010 01:28:04 PM	8.77	B7Z14	0.1	NA		ARCHIVE					NA		Archive				
GC-TI403-SB-	1	7/9/2010	11:02:00 AM	0012473-06	40133	258	152			06/09/2010 01:28:04 PM	148.52	B7ZE7		32.4							112.94						

Table A-7-b
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Multiple species; Fillets and Carcass Samples

														Fillet Samples							Carcass Samples						
Species/Location	Species Sample Number	Sample Date	Sample Time	Lab ID	Case Number	Field Length (mm)	Field Weight (g)	Total Category Weight (g)	Sample Breakdown and Estimated Weight (g)	Event ID	Lab Total Weight (g)	Field Sample No	Estimated Number of Fillet Samples	Lab Fillet Weight (g)	Lab Fillet Grouped Weight (g)	Sample	Final Fillet Tissue Sample	New EPA Sample No	Station Sample No.	Final Lab Weights (g)	Lab Carcass Weight (g)	Lab Carcass Grouped Weight (g)	Sample	Final Carcass Tissue Sample	New EPA Sample No.	Station Sample No.	Final Lab Weights (g)
GC-TI403-SB-	4	6/22/2010	2:25:00 PM	0012416-06	40133	237	137.5			06/09/2010 01:28:04 PM	126.99	B7YD6		38.07							86.24						
GC-TI403-SB-	1	6/23/2010	12:30:00 PM	0012418-09	40133	217	95		384.5	06/09/2010 01:28:04 PM	89.31	B7YJ5		14.14							70.14						
GC-TI403-SB-	1	6/28/2010	12:07:00 PM	0012434-12	40133	207	73	457.5		06/09/2010 01:28:04 PM	69.33	B7YX9	1.3	14.45							51.48						
GC-TI403-SB-	2	6/22/2010	2:25:00 PM	0012416-06	40133	186	63			06/09/2010 01:28:04 PM	59.92	B7YD6		18.27	117.33	1	1	B7G05	GC-TI403-SB-FI-1	142	38.98	359.78	1	1	B7G03	GC-TI403-SB-CA-1	237
GC-TI403-SB-	2	7/8/2010	11:30:00 AM	0012462-09	40133	158	34			06/09/2010 01:28:04 PM	33.54	B7ZC4		11.87							19.62						
GC-TI403-SB-	2	6/25/2010	3:56:00 PM	0012435-08	40133	152	34			06/09/2010 01:28:04 PM	32.3	B7YS6		8.85							22.4						
GC-TI403-SB-	1	7/8/2010	11:30:00 AM	0012462-09	40133	139	23	154		06/09/2010 01:28:04 PM	23.16	B7ZC4	0.5	6.46							13.38						
GC-TI403-SB-	4	6/25/2010	3:56:00 PM	0012435-08	40133	136	24			06/09/2010 01:28:04 PM	22.78	B7YS6		7.13							14.56						
GC-TI403-SB-	1	6/25/2010	3:56:00 PM	0012435-08	40133	135	24			06/09/2010 01:28:04 PM	22.44	B7YS6		6.81							14.82						
GC-TI403-SB-	3	6/25/2010	3:56:00 PM	0012435-08	40133	131	20.5			06/09/2010 01:28:04 PM	19.35	B7YS6		5.48	46.6	Archive	Archive	B7G06	GC-TI403-SB-FI-2	42	13.36	98.14	Archive	Archive	B7G04	GC-TI403-SB-CA-2	106
GC-TI403-SB-	1	6/22/2010	2:25:00 PM	0012416-06	40133	118	16.5			06/09/2010 01:28:04 PM	14.47	B7YD6		NA		archive					NA						
GC-TI403-SB-	3	6/22/2010	2:25:00 PM	0012416-06	40133	112	13	98	325	06/09/2010 01:28:04 PM	11.45	B7YD6	0.3	NA		Archive					NA						
GC-TI406-SB-	1	7/8/2010	12:08:00 PM	0012462-16	40133	432	720	720	720	06/09/2010 01:28:04 PM	744	B7ZD1	2.1	160.4	160.4	1	1	B7G10	GC-TI406-SB-FI-1	151.71	577.6		1	1	B7G07	GC-TI406-SB-CA-1	573.25
GC-TI406-SB-	2	7/8/2010	12:08:00 PM	0012462-16	40133	296	272			06/09/2010 01:28:04 PM	250.4	B7ZD1		67.24							149.88						
GC-TI406-SB-	1	7/1/2010	11:55:00 AM	0012455-01	40133	285	212		484	06/09/2010 01:28:04 PM	205.31	B7ZA3		49.7	116.94	2	2	B7G11	GC-TI406-SB-FI-2	112.37	148.32	875.8	2	2	B7G08	GC-TI406-SB-CA-2	300.85
GC-TI406-SB-	2	7/1/2010	11:55:00 AM	0012455-01	40133	241	142	626		06/09/2010 01:28:04 PM	135.16	B7ZA3	1.8	33.67							99.87						
GC-TI406-SB-	1	6/30/2010	3:27:00 PM	0012430-15	40133	192	63.5	63.5		06/09/2010 01:28:04 PM	57.89	B7Z64	0.2	18.52	52.19		Archive	B7G12	GC-TI406-SB-FI-3	45.62	39.06	138.93		Archive sample.	B7G09	GC-TI406-SB-CA-3	132.88
GC-TI406-SB-	3	6/30/2010	3:27:00 PM	0012430-15	40133	100	10			06/09/2010 01:28:04 PM	8.33	B7Z64		too small							too small						
GC-TI406-SB-	2	6/30/2010	3:27:00 PM	0012430-15	40133	98	10	20	225.5	06/09/2010 01:28:04 PM	8.76	B7Z64	0.06	too small		ARCHIVE					too small		ARCHIVE				
GC-TI332-XW-	3	7/1/2010	1:15:00 PM	0012454-09	40133	324	99			06/09/2010 01:28:04 PM	90.69	B7Z91		26.93							63.45						
GC-TI332-XW-	1	7/1/2010	1:15:00 PM	0012454-09	40133	282	233	332	332	06/09/2010 01:28:04 PM	208.53	B7Z91	1.0	44.63							160.03						
GC-TI332-XW-	2	7/1/2010	1:15:00 PM	0012454-09	40133	213	116			06/09/2010 01:28:04 PM	107.74	B7Z91		41.51	113.07	1	1	B7G55	GC-TI332-XW-FI-1	130	60.24	283.72	1	1 (MS MSD [283g])	B7G53	GC-TI332-XW-CA-1	275
GC-TI332-XW-	4	7/1/2010	1:15:00 PM	0012454-09	40133	205	86	202	202	06/09/2010 01:28:04 PM	81.2	B7Z91	0.6	25.19	25.19	Archive (25g)	Archive Partial (25g)	B7G56	GC-TI332-XW-FI-2	26	52.17	52.17	Archive (52g)	Archive Partial (52g)	B7G54	GC-TI332-XW-CA-2	50
GC-TI401-WP-	3	6/22/2010	10:30:00 AM	0012413-04	40133	259	271			06/09/2010 01:28:04 PM	252.23	B7YF0		67							184.8						
GC-TI401-WP-	4	6/22/2010	10:30:00 AM	0012413-04	40133	230	160		431	06/09/2010 01:28:04 PM	148.49	B7YF0		49.28	116.28	1	1	B7G48	GC-TI401-WP-FI-1	135.54	94.7	279.5	1	1 (MSMSD Sample[279g total])	B7G45	GC-TI401-WP-CA-1	372
GC-TI401-WP-	1	6/22/2010	10:30:00 AM	0012413-04	40133	207	135	566	207	06/09/2010 01:28:04 PM	130	B7YF0	1.7	39.38							88.16						
GC-TI401-WP-	5	6/22/2010	10:30:00 AM	0012413-04	40133	180	69.5			06/09/2010 01:28:04 PM	62.75	B7YF0		20.77							41.72						
GC-TI401-WP-	2	6/22/2010	10:30:00 AM	0012413-04	40133	157	46.5			06/09/2010 01:28:04 PM	43	B7YF0		11.55							30.47						
GC-TI401-WP-	6	6/22/2010	10:30:00 AM	0012413-04	40133	154	51			06/09/2010 01:28:04 PM	42.46	B7YF0		14.95							29.76						
GC-TI401-WP-	7	6/22/2010	10:30:00 AM	0012413-04	40133	140	39.5			06/09/2010 01:28:04 PM	35.03	B7YF0		10.23							23.65						
GC-TI401-WP-	9	6/22/2010	10:30:00 AM	0012413-04	40133	139	30.5			06/09/2010 01:28:04 PM	27	B7YF0		7	103.88	2	2	B7G49	GC-TI401-WP-FI-2	120.33	19	232.76	2	2	B7G46	GC-TI401-WP-CA-2	259

Table A-7-b
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Multiple species; Fillets and Carcass Samples

														Fillet Samples							Carcass Samples						
Species/Location	Species Sample Number	Sample Date	Sample Time	Lab ID	Case Number	Field Length (mm)	Field Weight (g)	Total Category Weight (g)	Sample Breakdown and Estimated Weight (g)	Event ID	Lab Total Weight (g)	Field Sample No	Estimated Number of Fillet Samples	Lab Fillet Weight (g)	Lab Fillet Grouped Weight (g)	Sample	Final Fillet Tissue Sample	New EPA Sample No	Station Sample No.	Final Lab Weights (g)	Lab Carcass Weight (g)	Lab Carcass Grouped Weight (g)	Sample	Final Carcass Tissue Sample	New EPA Sample No.	Station Sample No.	Final Lab Weights (g)
GC-TI401-WP-	8	6/22/2010	10:30:00 AM	0012413-04	40133	137	37.5			06/09/2010 01:28:04 PM	34	B7YF0		8.73							23.87						
GC-TI401-WP-	13	6/22/2010	10:30:00 AM	0012413-04	40133	137	24			06/09/2010 01:28:04 PM	21.93	B7YF0		4.98							16.53						
GC-TI401-WP-	10	6/22/2010	10:30:00 AM	0012413-04	40133	135	30	328.5	328.5	06/09/2010 01:28:04 PM	26.2	B7YF0	1.0	7.97							19.03						
GC-TI401-WP-	12	6/22/2010	10:30:00 AM	0012413-04	40133	133	30			06/09/2010 01:28:04 PM	25.29	B7YF0		6.4							18.24						
GC-TI401-WP-	11	6/22/2010	10:30:00 AM	0012413-04	40133	128	29			06/09/2010 01:28:04 PM	27.74	B7YF0		5.65							18.37						
GC-TI401-WP-	14	6/22/2010	10:30:00 AM	0012413-04	40133	107	14	73		06/09/2010 01:28:04 PM	10.73	B7YF0	0.2	2.83	36.56	Archive tissue.	Archive tissue.	B7G50	GC-TI401-WP-FI-3	50.7	7.85	103.89	Archive tissue.	Archive tissue.	B7G47	GC-TI401-WP-CA-3	100.42
GC-TI401-WP-	15	6/22/2010	10:30:00 AM	0012413-04	40133	85	8		81	06/09/2010 01:28:04 PM	5.04	B7YF0		NA							NA						
GC-TI403-WP-	1	7/7/2010	11:05:00 AM	0012460-06	40133	171	72.5			06/09/2010 01:28:04 PM	69.77	B7ZB2		17.43							47.45						
GC-TI403-WP-	1	7/8/2010	11:32:00 AM	0012462-10	40133	160	50			06/09/2010 01:28:04 PM	48.87	B7ZC5		11.73							33.78						
GC-TI403-WP-	2	7/8/2010	11:32:00 AM	0012462-10	40133	148	38	160.5		06/09/2010 01:28:04 PM	39.77	B7ZC5	0.5	12.17	41.33		Archive tissue.	B7G52	GC-TI403-WP-FI-1	36	24.18	105.41		Archive tissue.	B7G51	GC-TI403-WP-CA-1	116
GC-TI403-WP-	3	7/8/2010	11:32:00 AM	0012462-10	40133	89	6	6	166.5	06/09/2010 01:28:04 PM	6	B7ZC5	0.02	NA		Archive Partial					NA		Archive-Partial				

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Table A-7-c
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

HAKE

Location Name	Species Sample Number	Sample Date	Sample Time	Lab sample ID	Total Weight (g)	Whole Body Total Weight (g)	Fillet Weight (g)	Carcass Weight (g)	Sample No	Event ID	Case Number	Length (mm)	Weight (g)	Total Category Weight (g)	Estimated Number of Edible Tissue Samples	Sample Breakdown and Estimated Weight (g)	Sample	Whole Body	New EPA Sample No.	Station Sample No.
GC-TI406-XHK-	1	6/29/2010	3:05:00 PM	0012429-07	22.23		4.3	18.04	B7Z27	06/09/2010 01:28:04 PM	40133	155	26	26	0.08		Archive - insufficient sample	Archive tissue	B7G76	GC-TI406-XHK-WB-1
GC-TI332-XHK-	1	7/1/2010	1:32:00 PM	0012454-07	44.45		17.4	25.36	B7Z89	06/09/2010 01:28:04 PM	40133	182	46							
GC-TI332-XHK-	4	7/1/2010	1:32:00 PM	0012454-07	31.05		9.64	20.37	B7Z89	06/09/2010 01:28:04 PM	40133	161	31							
GC-TI333-XHK-	1	6/28/2010	1:50:00 PM	0012434-04	33.57		11.36	20.52	B7YX1	06/09/2010 01:28:04 PM	40133	161	40							
GC-TI332-XHK-	1	6/25/2010	12:26:00 PM	0012417-13	29.51		9.27	18.35	B7YR4	06/09/2010 01:28:04 PM	40133	159	31.5	148.5	0.4					
GC-TI333-XHK-	1	40350.00	0.69	0012434-04	31.08		11.11	18.45	B7YX1	6/9/2010 13:28	40133	124	13							
GC-TI332-XHK-	2	7/1/2010	1:32:00 PM	0012454-07	15.55		5.31	9.36	B7Z89	06/09/2010 01:28:04 PM	40133	123	16							
GC-TI332-XHK-	3	7/1/2010	1:32:00 PM	0012454-07	14.73		5.47	8.24	B7Z89	06/09/2010 01:28:04 PM	40133	123	15				1	1 MS MSD [249g]	B7G77	GC-TI332-XHK-WB-1
GC-TI334-XHK-	4	7/1/2010	2:28:00 PM	0012454-13	14.5		8	7.02	B7Z95	06/09/2010 01:28:04 PM	40133	122	17							
GC-TI334-XHK-	2	7/1/2010	2:28:00 PM	0012454-13	8.53				B7Z95	06/09/2010 01:28:04 PM	40133	104	9							
GC-TI334-XHK-	3	7/1/2010	2:28:00 PM	0012454-13	7.43				B7Z95	06/09/2010 01:28:04 PM	40133	103	9							
GC-TI334-XHK-	5	7/1/2010	2:28:00 PM	0012454-13	7.03				B7Z95	06/09/2010 01:28:04 PM	40133	97	7							
GC-TI332-XHK-	5	7/1/2010	1:32:00 PM	0012454-07	6.89				B7Z89	06/09/2010 01:28:04 PM	40133	93	7	93	0.3					
GC-TI334-XHK-	1	7/1/2010	2:28:00 PM	0012454-13	4.86	249.18			B7Z95	06/09/2010 01:28:04 PM	40133	87	6	6	0.02	247.5				

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Table A-7-d
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Mummichog

Location	Notes	Samples	New EPA Sample No.	Station Sample No.	Lab weights(g)	Analysis Guidelines
402		1	B7G82	GC-TI402-MCG-WB-1	59.92	Full weight analysis. Eliminate moisture and lipid analysis.
403	**1 (MS/MSD Sample-250grams)**	1	B7G84	GC-TI403-MCG-WB-1	1114	Full weight analysis/all analytes. MS/MSD analysis.
404		1	B7G85	GC-TI404-MCG-WB-1	566.37	Full weight analysis/all analytes.
405		1	B7G86	GC-TI405-MCG-WB-1	895.93	Full weight analysis/all analytes.

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Table A-7-e
Sample Tracking
Phase 3 Ecological and Human Health Risk Assessment Sampling
Tissue Samples collected by USEPA, analyzed through CLP (special analyses)

Atlantic Tomcod

Location	Notes	Samples	New EPA Sample No.	Station Sample No.		Lab weights(g)	Analysis Guidelines
401		1	B7G88	GC-TI401-XATC-WB-1		62.11	Full weight analysis. Eliminate moisture and lipid analysis.
403		1	B7G90	GC-TI403-XATC-WB-1		68.5	Full weight analysis/all analytes.
404		1	B7G91	GC-TI404-XATC-WB-1		18.13	Archive.
405		1	B7G92	GC-TI405-XATC-WB-1		898.03	Full weight analysis/all analytes.
406		1	B7G93	GC-TI406-XATC-WB-1		186.6	Full weight analysis/all analytes. No MS MSD.
Reference Inner		1	B7G94	GC-TI-Inner-XATC-WB-1		34	Reduced weight analysis. Eliminate moisture and lipid analysis.

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TABLE A-8
Sample Tracking
Phase 3 - Upland (Soil only) Investigation
collected by USEPA ERT, analyzed through CLP

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	CLP ID	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Depth Range Group	Top Sample Depth (bgs)	Bottom Sample Depth (bgs)	VOC Sample Top Depth (bgs)	VOC Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses					
																TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
Subsurface Soil																					
GCMW-03	MW-03	634061.450	673042.907	059-2072	B8BC3	-	-	Soil	C	10	15	13.0	13.5	ft	5/27/2010	X	X	X	X	X	X
		634061.450	673042.907	059-2073	B8BC4	-	-	Soil	D	15	20	18.0	18.5	ft	5/27/2010	X	X	X	X	X	X
		634061.450	673042.907	059-2074	B8BC5	-	-	Soil	E	20	25	22.0	22.5	ft	5/27/2010	X	X	X	X	X	X
		634061.450	673042.907	059-2075	B8BC6	-	-	Soil	E	20	25	24.5	25.0	ft	5/27/2010	X	X	X	X	X	X
		634061.450	673042.907	059-2076	B8BC7	-	-	Soil	F	25	30	29.5	30.0	ft	5/27/2010	X	X	X	X	X	X
		634061.450	673042.907	059-2077	B8BC8	-	-	Soil	G	30	35	35.0	35.5	ft	5/27/2010	X	X	X	X	X	X
		634061.450	673042.907	059-2078	B8BC9	-	-	Soil	H	35	40	38.0	38.5	ft	5/27/2010	X	X	X	X	X	X
GCMW-04	MW-04	633870.405	673236.277	059-2099	B8BF0	-	-	Soil	B	5	10	10.0	10.5	ft	6/3/2010	X	X	X	X	X	X
		633870.405	673236.277	059-2100	B8BF1	-	-	Soil	C	10	15	15.0	15.5	ft	6/3/2010	X	X	X	X	X	X
		633870.405	673236.277	059-2101	B8BF2	-	-	Soil	D	15	20	19.5	20.0	ft	6/3/2010	X	X	X	X	X	X
		633870.405	673236.277	059-2102	B8BF3	-	-	Soil	E	20	25	25.5	25.0	ft	6/3/2010	X	X	X	X	X	X
		633870.405	673236.277	059-2103	B8BF4	-	-	Soil	F	25	30	29.5	30.0	ft	6/3/2010	X	X	X	X	X	X
		633870.405	673236.277	059-2104	B8BF5	059-2105	B8BF6	Soil	G	30	35	35.0	35.5	ft	6/3/2010	X	X	X	X	X	X
GCMW-05	MW-05	633628.168	672012.725	059-2031	B8B82	-	-	Soil	B	5	10	7.5	8.0	ft	5/21/2010	X	X	X	X	X	X
		633628.168	672012.725	059-2032	B8B83	-	-	Soil	C	10	15	14.5	15.0	ft	5/21/2010	X	X	X	X	X	X
		633628.168	672012.725	059-2033	B8B84	-	-	Soil	D	15	20	17.5	18.0	ft	5/21/2010	X	X	X	X	X	X
		633628.168	672012.725	059-2034	B8B85	-	-	Soil	F	25	30	29.0	29.5	ft	5/21/2010	X	X	X	X	X	X
		633628.168	672012.725	059-2035	B8B86	-	-	Soil	G	30	35	33.0	33.5	ft	5/21/2010	X	X	X	X	X	X
GCMW-06	MW-06	633498.351	672097.473	059-2025	B8B76	-	-	Soil	B	5	10	9.0	9.5	ft	5/20/2010	X	X	X	X	X	X
		633498.351	672097.473	059-2026	B8B77	-	-	Soil	C	10	15	15.0	15.5	ft	5/20/2010	X	X	X	X	X	X
		633498.351	672097.473	059-2027	B8B78	-	-	Soil	D	15	20	19.5	20.0	ft	5/20/2010	X	X	X	X	X	X
		633498.351	672097.473	059-2028	B8B79	-	-	Soil	E	20	25	24.5	25.0	ft	5/20/2010	X	X	X	X	X	X
		633498.351	672097.473	059-2029	B8B80	-	-	Soil	F	25	30	30.0	30.5	ft	5/20/2010	X	X	X	X	X	X
		633498.351	672097.473	059-2030	B8B81	-	-	Soil	G	30	35	32.0	32.5	ft	5/20/2010	X	X	X	X	X	X
GCMW-07	MW-07	633225.356	671538.177	059-2205	B7GG5	-	-	Soil	A	0	5	5.0	5.5	ft	6/21/2010	X	X	X	X	X	X
		633225.356	671538.177	059-2206	B7GG6	-	-	Soil	E	20	25	22.0	22.5	ft	6/21/2010	X	X	X	X	X	X
		633225.356	671538.177	059-2207	B7GG7	-	-	Soil	F	25	30	30.0	30.5	ft	6/21/2010	X	X	X	X	X	X
GCMW-08	MW-08	633285.110	671659.099	059-2198	B7GF9	-	-	Soil	B	5	10	10.0	10.5	ft	6/17/2010	X	X	X	X	X	X
		633285.110	671659.099	059-2199	B7GG0	-	-	Soil	C	10	15	15.0	15.5	ft	6/17/2010	X	X	X	X	X	X
		633285.110	671659.099	059-2200	B7GG1	-	-	Soil	D	15	20	19.5	20.0	ft	6/17/2010	X	X	X	X	X	X
		633285.110	671659.099	059-2201	B7GG2	-	-	Soil	E	20	25	24.5	25.0	ft	6/17/2010	X	X	X	X	X	X
		633285.110	671659.099	059-2202	B7GG3	-	-	Soil	F	25	30	29.5	30.0	ft	6/17/2010	X	X	X	X	X	X
		633285.110	671659.099	059-2203	B7GG4	-	-	Soil	G	30	35	35.0	35.5	ft	6/17/2010	X	X	X	X	X	X
GCMW-11	MW-11	631568.404	670748.412	059-2046	B8B97	-	-	Soil	B	5	10	7.0	7.5	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2047	B8B98	-	-	Soil	B	5	10	10.0	10.5	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2048	B8B99	-	-	Soil	C	10	15	15.0	15.5	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2049	B8BAO	-	-	Soil	D	15	20	20.0	20.5	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2050	B8BA1	-	-	Soil	E	20	25	24.5	25.0	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2051	B8BA2	-	-	Soil	F	25	30	29.5	30.0	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2052	B8BA3	-	-	Soil	H	35	40	36.0	36.5	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2053	B8BA4	-	-	Soil	H	35	40	39.0	39.5	ft	5/25/2010	X	X	X	X	X	X
		631568.404	670748.412	059-2054	B8BA5	-	-	Soil	I	40	45	43.0	43.5	ft	5/25/2010	X	X	X	X	X	X
GCMW-12	MW-12	631490.025	670880.067	059-2036	B8B87	-	-	Soil	B	5	10	9.0	9.5	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2037	B8B88	-	-	Soil	C	10	15	12.5	13.0	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2038	B8B89	-	-	Soil	D	15	20	16.5	17.0	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2039	B8B90	-	-	Soil	D	15	20	20.0	20.5	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2040	B8B91	-	-	Soil	F	25	30	26.5	27.0	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2041	B8B92	059-2045	B8B96	Soil	F	25	30	29.5	30.0	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2042	B8B93	-	-	Soil	G	30	35	34.5	35.0	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2043	B8B94	-	-	Soil	H	35	40	38.5	39.0	ft	5/24/2010	X	X	X	X	X	X
		631490.025	670880.067	059-2044	B8B95	-	-	Soil	I	40	45	43.0	43.5	ft	5/24/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2177	B8BN8	-	-	Soil	C	10	15	8.5	9.0	ft	6/16/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2178	B8BN9	-	-	Soil	D	15	20	19.5	20.0	ft	6/16/2010	X	X	X	X	X	X

TABLE A-8
Sample Tracking
Phase 3 - Upland (Soil only) Investigation
collected by USEPA ERT, analyzed through CLP

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	CLP ID	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Depth Range Group	Top Sample Depth (bgs)	Bottom Sample Depth (bgs)	VOC Sample Top Depth (bgs)	VOC Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses					
																TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
GCMW-13	MW-13	630819.620	669229.211	059-2179	B8BP0	-	-	Soil	E	20	25	24.5	25.0	ft	6/16/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2180	B7GE1	-	-	Soil	F	25	30	29.5	30.0	ft	6/16/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2181	B7GE2	-	-	Soil	G	30	35	35.0	35.5	ft	6/16/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2182	B7GE3	-	-	Soil	H	35	40	40.0	40.5	ft	6/16/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2183	B7GE4	-	-	Soil	I	40	45	45.0	45.5	ft	6/16/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2184	B7GE5	-	-	Soil	J	45	50	50.0	50.5	ft	6/16/2010	X	X	X	X	X	X
		630819.620	669229.211	059-2185	B7GE6	-	-	Soil	K	50	55	55.0	55.5	ft	6/16/2010	X	X	X	X	X	X
GCMW-14	MW-14	630796.359	669471.939	059-2186	B7GE7	-	-	Soil	B	5	10	6.0	6.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2187	B7GE8	-	-	Soil	B	5	10	10.0	10.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2188	B7GE9	-	-	Soil	C	10	15	15.0	15.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2189	B7GF0	-	-	Soil	D	15	20	19.5	20.0	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2190	B7GF1	-	-	Soil	E	20	25	25.0	25.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2191	B7GF2	059-2197	B7GF8	Soil	F	25	30	29.5	30.3	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2192	B7GF3	-	-	Soil	G	30	35	35.0	35.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2193	B7GF4	-	-	Soil	H	35	40	40.0	40.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2194	B7GF5	-	-	Soil	I	40	45	45.0	45.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2195	B7GF6	-	-	Soil	J	45	50	50.0	50.5	ft	6/17/2010	X	X	X	X	X	X
		630796.359	669471.939	059-2196	B7GF7	-	-	Soil	K	50	55	55.0	55.5	ft	6/17/2010	X	X	X	X	X	X
GCMW-15	MW-15	630054.598	668535.008	059-2089	B8BE0	-	-	Soil	B	5	10	9.5	10.0	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2090	B8BE1	-	-	Soil	C	10	15	13.5	14.0	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2091	B8BE2	-	-	Soil	D	15	20	19.5	20.0	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2092	B8BE3	-	-	Soil	E	20	25	24.5	25.0	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2093	B8BE4	-	-	Soil	F	25	30	29.5	30.0	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2094	B8BE5	-	-	Soil	G	30	35	35.0	35.5	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2095	B8BE6	-	-	Soil	H	35	40	40.0	40.5	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2096	B8BE7	-	-	Soil	I	40	45	45.0	45.5	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2097	B8BE8			Soil	J	45	50	49.5	50.0	ft	6/2/2010	X	X	X	X	X	X
		630054.598	668535.008	059-2098	B8BE9	-	-	Soil	K	50	55	54.0	54.5	ft	6/2/2010	X	X	X	X	X	X
GCMW-16	MW-16	629985.280	668982.479	059-2079	B8BD0	-	-	Soil	B	5	10	10.0	10.5	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2080	B8BD1	-	-	Soil	C	10	15	15.0	15.5	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2081	B8BD2	-	-	Soil	D	15	20	19.5	20.0	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2082	B8BD3	-	-	Soil	E	20	25	24.5	25.0	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2083	B8BD4	-	-	Soil	F	25	30	29.5	30.0	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2084	B8BD5	059-2088	B8BD9	Soil	G	30	35	35.0	35.5	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2085	B8BD6	-	-	Soil	I	40	45	42.0	42.5	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2086	B8BD7	-	-	Soil	J	45	50	46.5	47.0	ft	6/1/2010	X	X	X	X	X	X
		629985.280	668982.479	059-2087	B8BD8	-	-	Soil	K	50	55	52.0	52.5	ft	6/1/2010	X	X	X	X	X	X
GCMW-20	MW-20	631976.320	671004.550	059-2067	B8BB8	-	-	Soil	B	5	10	10.0	10.5	ft	5/26/2010	X	X	X	X	X	X
		631976.320	671004.550	059-2068	B8BB9	-	-	Soil	C	10	15	15.0	15.5	ft	5/26/2010	X	X	X	X	X	X
		631976.320	671004.550	059-2069	B8BC0	-	-	Soil	F	25	30	29.5	30.0	ft	5/26/2010	X	X	X	X	X	X
		631976.320	671004.550	059-2070	B8BC1	-	-	Soil	G	30	35	35.0	35.5	ft	5/26/2010	X	X	X	X	X	X
		631976.320	671004.550	059-2071	B8BC2	-	-	Soil	H	35	40	38.0	38.5	ft	5/26/2010	X	X	X	X	X	X
GCMW-21	MW-21	632233.699	670896.650	059-2055	B8BA6	-	-	Soil	B	5	10	10.0	10.5	ft	5/25/2010	X	X	X	X	X	X
		632233.699	670896.650	059-2056	B8BA7	-	-	Soil	C	10	15	15.0	15.5	ft	5/25/2010	X	X	X	X	X	X
		632233.699	670896.650	059-2057	B8BA8	-	-	Soil	D	15	20	19.5	20.0	ft	5/25/2010	X	X	X	X	X	X
		632233.699	670896.650	059-2058	B8BA9	-	-	Soil	E	20	25	24.5	25.0	ft	5/25/2010	X	X	X	X	X	X
		632233.699	670896.650	059-2059	B8BB0	-	-	Soil	F	25	30	30.0	30.5	ft	5/25/2010	X	X	X	X	X	X
		632233.699	670896.650	059-2060	B8BB1	-	-	Soil	G	30	35	35.0	35.5	ft	5/25/2010	X	X	X	X	X	X
GCMW-24	MW-24	632863.468	671082.334	059-2106	B8BF7	-	-	Soil	B	5	10	6.5	7.0	ft	6/7/2010	X	X	X	X	X	X
		632863.468	671082.334	059-2107	B8BF8	-	-	Soil	C	10	15	11.0	11.5	ft	6/7/2010	X	X	X	X	X	X
		632863.468	671082.334	059-2108	B8BF9	-	-	Soil	C	10	15	13.5	14.0	ft	6/7/2010	X	X	X	X	X	X
		632863.468	671082.334	059-2109	B8BG0	-	-	Soil	D	15	20	17.5	18.0	ft	6/7/2010	X	X	X	X	X	X
		632863.468	671082.334	059-2110	B8BG1	-	-	Soil	E	20	25	24.5	25.0	ft	6/7/2010	X	X	X	X	X	X
		632863.468	671082.334	059-2111	B8BG2	-	-	Soil	F	25	30	27.5	28.0	ft	6/7/2010	X	X	X	X	X	X

TABLE A-8
Sample Tracking
Phase 3 - Upland (Soil only) Investigation
collected by USEPA ERT, analyzed through CLP

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	CLP ID	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Depth Range Group	Top Sample Depth (bgs)	Bottom Sample Depth (bgs)	VOC Sample Top Depth (bgs)	VOC Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses					
																TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
		632863.468	671082.334	059-2112	B8BG3	-	-	Soil	G	30	35	35.0	35.5	ft	6/7/2010	X	X	X	X	X	X
		632863.468	671082.334	059-2113	B8BG4	-	-	Soil	H	35	40	38.5	39.0	ft	6/7/2010	X	X	X	X	X	X
GCMW-25	MW-25	633802.549	671879.630	059-2220	B7GJ0	-	-	Soil	B	5	10	10.0	10.5	ft	6/23/2010	X	X	X	X	X	X
		633802.549	671879.630	059-2221	B7GJ1	-	-	Soil	C	10	15	15.0	15.5	ft	6/23/2010	X	X	X	X	X	X
		633802.549	671879.630	059-2222	B7GJ2	-	-	Soil	D	15	20	19.5	20.0	ft	6/23/2010	X	X	X	X	X	X
		633802.549	671879.630	059-2223	B7GJ3	-	-	Soil	E	20	25	24.5	25.0	ft	6/23/2010	X	X	X	X	X	X
		633802.549	671879.630	059-2224	B7GJ4	-	-	Soil	F	25	30	29.5	30.0	ft	6/23/2010	X	X	X	X	X	X
		633802.549	671879.630	059-2225	B7GJ5	059-2227	B7GJ7	Soil	G	30	35	35.0	35.5	ft	6/23/2010	X	X	X	X	X	X
		633802.549	671879.630	059-2226	B7GJ6	-	-	Soil	H	35	40	40.0	40.5	ft	6/23/2010	X	X	X	X	X	X
GCMW-26	MW-26	633980.462	671880.967	059-2216	B7GH6	-	-	Soil	D	15	20	19.5	20.0	ft	6/23/2010	X	X	X	X	X	X
		633980.462	671880.967	059-2217	B7GH7	-	-	Soil	E	20	25	24.5	25.0	ft	6/23/2010	X	X	X	X	X	X
		633980.462	671880.967	059-2218	B7GH8	-	-	Soil	F	25	30	29.5	30.0	ft	6/23/2010	X	X	X	X	X	X
		633980.462	671880.967	059-2219	B7GH9	-	-	Soil	G	30	35	35.0	35.5	ft	6/23/2010	X	X	X	X	X	X
GCMW-27	MW-27	633954.174	671949.492	059-2228	B7GJ8	-	-	Soil	E	20	25	21.0	21.5	ft	6/24/2010	X	X	X	X	X	X
		633954.174	671949.492	059-2229	B7GJ9	-	-	Soil	F	25	30	25.5	26.0	ft	6/24/2010	X	X	X	X	X	X
		633954.174	671949.492	059-2230	B7GK0	-	-	Soil	F	25	30	29.5	30.0	ft	6/24/2010	X	X	X	X	X	X
		633954.174	671949.492	059-2231	B7GK1	-	-	Soil	G	30	35	35.0	35.5	ft	6/24/2010	X	X	X	X	X	X
		633954.174	671949.492	059-2232	B7GK2	-	-	Soil	H	35	40	40.0	40.5	ft	6/24/2010	X	X	X	X	X	X
		633954.174	671949.492	059-2233	B7GK3	-	-	Soil	I	40	45	45.0	45.5	ft	6/24/2010	X	X	X	X	X	X
GCMW-28	MW-28	633901.783	672417.013	059-2147	B8BK8	-	-	Soil	A	0	5	5.0	5.5	ft	6/14/2010	X	X	X	X	X	X
		633901.783	672417.013	059-2148	B8BK9	-	-	Soil	B	5	10	10.0	10.5	ft	6/14/2010	X	X	X	X	X	X
		633901.783	672417.013	059-2149	B8BL0	-	-	Soil	C	10	15	15.0	15.5	ft	6/14/2010	X	X	X	X	X	X
		633901.783	672417.013	059-2150	B8BL1	-	-	Soil	D	15	20	19.5	20.0	ft	6/14/2010	X	X	X	X	X	X
		633901.783	672417.013	059-2151	B8BL2	-	-	Soil	E	20	25	24.5	25.0	ft	6/14/2010	X	X	X	X	X	X
		633901.783	672417.013	059-2152	B8BL3	-	-	Soil	F	25	30	29,5	30.0	ft	6/14/2010	X	X	X	X	X	X
		633901.783	672417.013	059-2153	B8BL4	-	-	Soil	G	30	35	35.0	35.5	ft	6/14/2010	X	X	X	X	X	X
GCMW-29	MW-29	633997.236	672324.871	059-2160	B8BM1	-	-	Soil	B	5	10	10.0	10.5	ft	6/15/2010	X	X	X	X	X	X
		633997.236	672324.871	059-2161	B8BM2	-	-	Soil	C	10	15	15.0	15.5	ft	6/15/2010	X	X	X	X	X	X
		633997.236	672324.871	059-2162	B8BM3	059-2166	B8BM7	Soil	D	15	20	19.5	20.0	ft	6/15/2010	X	X	X	X	X	X
		633997.236	672324.871	059-2163	B8BM4	-	-	Soil	E	20	25	24.5	25.0	ft	6/15/2010	X	X	X	X	X	X
		633997.236	672324.871	059-2164	B8BM5	-	-	Soil	F	25	30	30.0	30.5	ft	6/15/2010	X	X	X	X	X	X
		633997.236	672324.871	059-2165	B8BM6	-	-	Soil	G	30	35	35.0	35.5	ft	6/15/2010	X	X	X	X	X	X
GCMW-33	MW-33	634668.431	673483.540	059-2139	B8BK0	-	-	Soil	B	5	10	10.0	10.5	ft	6/10/2010	X	X	X	X	X	X
		634668.431	673483.540	059-2140	B8BK1	-	-	Soil	D	15	20	16.5	17.0	ft	6/10/2010	X	X	X	X	X	X
		634668.431	673483.540	059-2141	B8BK2	-	-	Soil	D	15	20	19.5	20.0	ft	6/10/2010	X	X	X	X	X	X
		634668.431	673483.540	059-2142	B8BK3	-	-	Soil	E	20	25	24.5	25.0	ft	6/10/2010	X	X	X	X	X	X
		634668.431	673483.540	059-2143	B8BK4	059-2146	B8BK7	Soil	G	30	35	31.0	31.5	ft	6/10/2010	X	X	X	X	X	X
		634668.431	673483.540	059-2144	B8BK5	-	-	Soil	G	30	35	35.0	35.5	ft	6/10/2010	X	X	X	X	X	X
		634668.431	673483.540	059-2145	B8BK6	-	-	Soil	H	35	40	38.0	38.5	ft	6/10/2010	X	X	X	X	X	X
GCMW-34	MW-34	634106.675	673163.063	059-2018	B8B69	-	-	Soil	B	5	10	9.5	10.0	ft	5/19/2010	X	X	X	X	X	X
		634106.675	673163.063	059-2019	B8B70	-	-	Soil	C	10	15	15.0	15.5	ft	5/19/2010	X	X	X	X	X	X
		634106.675	673163.063	059-2020	B8B71	-	-	Soil	D	15	20	19.0	19.5	ft	5/19/2010	X	X	X	X	X	X
		634106.675	673163.063	059-2021	B8B72	-	-	Soil	E	20	25	25.0	25.5	ft	5/19/2010	X	X	X	X	X	X
		634106.675	673163.063	059-2022	B8B73	059-2024	B8B75	Soil	F	25	30	28.5	29.0	ft	5/19/2010	X	X	X	X	X	X
		634106.675	673163.063	059-2023	B8B74	-	-	Soil	G	30	35	32.5	33.0	ft	5/19/2010	X	X	X	X	X	X
GCMW-35	MW-35	633995.069	672616.019	059-2154	B8BL5	-	-	Soil	B	5	10	10.0	10.5	ft	6/14/2010	X	X	X	X	X	X
		633995.069	672616.019	059-2155	B8BL6	-	-	Soil	C	10	15	15.0	15.5	ft	6/14/2010	X	X	X	X	X	X
		633995.069	672616.019	059-2156	B8BL7	-	-	Soil	D	15	20	10.5	20.0	ft	6/14/2010	X	X	X	X	X	X
		633995.069	672616.019	059-2157	B8BL8	-	-	Soil	E	20	25	24.5	25.0	ft	6/14/2010	X	X	X	X	X	X
		633995.069	672616.019	059-2158	B8BL9	-	-	Soil	F	25	30	29.5	30.0	ft	6/14/2010	X	X	X	X	X	X
		633995.069	672616.019	059-2159	B8BM0	-	-	Soil	G	30	35	34.5	35.0	ft	6/14/2010	X	X	X	X	X	X
GCMW-36	MW-36	633718.040	672275.766	059-2012	B8B63	-	-	Soil	B	5	10	10.0	10.5	ft	5/18/2010	X	X	X	X	X	X
		633718.040	672275.766	059-2013	B8B64	-	-	Soil	C	10	15	15.0	15.5	ft	5/18/2010	X	X	X	X	X	X
		633718.040	672275.766	059-2014	B8B65	-	-	Soil	D	15	20	20.0	20.5	ft	5/18/2010	X	X	X	X	X	X

TABLE A-8
Sample Tracking
Phase 3 - Upland (Soil only) Investigation
collected by USEPA ERT, analyzed through CLP

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	CLP ID	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Depth Range Group	Top Sample Depth (bgs)	Bottom Sample Depth (bgs)	VOC Sample Top Depth (bgs)	VOC Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses					
																TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
~~GCMW-36~~	~~MW-36~~	633718.040	672275.766	059-2015	B8B66	-	-	Soil	E	20	25	24.5	25.0	ft	5/18/2010	X	X	X	X	X	X
		633718.040	672275.766	059-2016	B8B67	-	-	Soil	F	25	30	27.5	28.0	ft	5/18/2010	X	X	X	X	X	X
		633718.040	672275.766	059-2017	B8B68	-	-	Soil	G	30	35	32.5	33.0	ft	5/18/2010	X	X	X	X	X	X
GCMW-37	MW-37	633517.527	671258.646	059-2208	B7GG8	-	-	Soil	A	0	5	5.0	5.5	ft	6/21/2010	X	X	X	X	X	X
		633517.527	671258.646	059-2209	B7GG9	-	-	Soil	B	5	10	10.0	10.5	ft	6/22/2010	X	X	X	X	X	X
		633517.527	671258.646	059-2210	B7GH0	-	-	Soil	C	10	15	15.0	15.5	ft	6/22/2010	X	X	X	X	X	X
		633517.527	671258.646	059-2211	B7GH1	-	-	Soil	D	15	20	19.5	20.0	ft	6/22/2010	X	X	X	X	X	X
		633517.527	671258.646	059-2212	B7GH2	-	-	Soil	E	20	25	24.5	25.0	ft	6/22/2010	X	X	X	X	X	X
		633517.527	671258.646	059-2213	B7GH3	-	-	Soil	F	25	30	29.5	30.0	ft	6/22/2010	X	X	X	X	X	X
		633517.527	671258.646	059-2214	B7GH4	-	-	Soil	G	30	35	35.0	35.5	ft	6/22/2010	X	X	X	X	X	X
		633517.527	671258.646	059-2215	B7GH5	-	-	Soil	H	35	40	38.0	38.5	ft	6/22/2010	X	X	X	X	X	X
GCMW-38	MW-38	633787.623	671082.231	059-2241	B7GL1	-	-	Soil	B	5	10	10.0	10.5	ft	6/29/2010	X	X	X	X	X	X
		633787.623	671082.231	059-2242	B7GL2	-	-	Soil	D	15	20	16.0	16.5	ft	6/29/2010	X	X	X	X	X	X
		633787.623	671082.231	059-2243	B7GL3	059-2248	B7GL8	Soil	D	15	20	19.5	20.0	ft	6/29/2010	X	X	X	X	X	X
		633787.623	671082.231	059-2244	B7GL4	-	-	Soil	E	20	25	24.5	25.0	ft	6/29/2010	X	X	X	X	X	X
		633787.623	671082.231	059-2245	B7GL5	-	-	Soil	F	25	30	29.5	30.0	ft	6/29/2010	X	X	X	X	X	X
		633787.623	671082.231	059-2246	B7GL6	-	-	Soil	G	30	35	35.0	35.5	ft	6/29/2010	X	X	X	X	X	X
		633787.623	671082.231	059-2247	B7GL7	-	-	Soil	H	35	40	38.5	39.0	ft	6/29/2010	X	X	X	X	X	X
GCMW-39	MW-39	633983.275	670858.736	059-2130	B8BJ1	-	-	Soil	B	5	10	9.0	9.5	ft	6/9/2010	X	X	X	X	X	X
		633983.275	670858.736	059-2131	B8BJ2	-	-	Soil	C	10	15	15.0	15.5	ft	6/9/2010	X	X	X	X	X	X
		633983.275	670858.736	059-2132	B8BJ3	-	-	Soil	D	15	20	19.5	20.0	ft	6/9/2010	X	X	X	X	X	X
		633983.275	670858.736	059-2133	B8BJ4	-	-	Soil	E	20	25	24.5	25.0	ft	6/9/2010	X	X	X	X	X	X
		633983.275	670858.736	059-2134	B8BJ5	-	-	Soil	F	25	30	28.5	29.0	ft	6/9/2010	X	X	X	X	X	X
		633983.275	670858.736	059-2135	B8BJ6	-	-	Soil	G	30	35	32.0	32.5	ft	6/9/2010	X	X	X	X	X	X
		633983.275	670858.736	059-2136	B8BJ7	-	-	Soil	H	35	40	36.5	37.0	ft	6/9/2010	X	X	X	X	X	X
		633983.275	670858.736	059-2137	B8BJ8	-	-	Soil	H	35	40	40.0	40.5	ft	6/9/2010	X	X	X	X	X	X
GCMW-42	MW-42	632315.305	671007.549	059-2061	B8BB2	-	-	Soil	B	5	10	10.0	10.5	ft	5/26/2010	X	X	X	X	X	X
		632315.305	671007.549	059-2062	B8BB3	-	-	Soil	D	15	20	20.0	20.5	ft	5/26/2010	X	X	X	X	X	X
		632315.305	671007.549	059-2063	B8BB4	-	-	Soil	E	20	25	24.5	25.0	ft	5/26/2010	X	X	X	X	X	X
		632315.305	671007.549	059-2064	B8BB5	059-2066	B8BB7	Soil	F	25	30	29.0	29.5	ft	5/26/2010	X	X	X	X	X	X
		632315.305	671007.549	059-2065	B8BB6	-	-	Soil	G	30	35	33.0	33.5	ft	5/26/2010	X	X	X	X	X	X
GCMW-43	MW-43	633691.371	672247.150	059-2001	B8B51	-	-	Soil	A	0	5	5.0	5.5	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2002	B8B52	-	-	Soil	B	5	10	6.5	7.0	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2003	B8B53	-	-	Soil	C	10	15	12.0	12.5	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2004	B8B54	-	-	Soil	C	10	15	14.5	15.0	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2005	B8B55	-	-	Soil	D	15	20	19.5	20.0	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2006	B8B56	059-2010	B8B60	Soil	E	20	25	24.5	25.0	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2007	B8B57	-	-	Soil	F	25	30	30.0	30.5	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2008	B8B58	-	-	Soil	G	30	35	34.0	34.5	ft	5/17/2010	X	X	X	X	X	X
		633691.371	672247.150	059-2009	B8B59	-	-	Soil	H	35	40	37.0	37.5	ft	5/17/2010	X	X	X	X	X	X
GCMW-44	MW-44	631635.672	670458.595	059-2122	B8BH3	-	-	Soil	B	5	10	10.0	10.5	ft	6/8/2010	X	X	X	X	X	X
		631635.672	670458.595	059-2123	B8BH4	-	-	Soil	C	10	15	15.0	15.5	ft	6/8/2010	X	X	X	X	X	X
		631635.672	670458.595	059-2124	B8BH5	-	-	Soil	D	15	20	19.5	20.0	ft	6/8/2010	X	X	X	X	X	X
		631635.672	670458.595	059-2125	B8BH6	-	-	Soil	E	20	25	25.5	26.0	ft	6/8/2010	X	X	X	X	X	X
		631635.672	670458.595	059-2126	B8BH7	-	-	Soil	F	25	30	29.5	30.0	ft	6/8/2010	X	X	X	X	X	X
		631635.672	670458.595	059-2127	B8BH8	-	-	Soil	G	30	35	35.0	35.5	ft	6/8/2010	X	X	X	X	X	X
		631635.672	670458.595	059-2128	B8BH9	-	-	Soil	H	35	40	39.0	39.5	ft	6/8/2010	X	X	X	X	X	X
		631635.672	670458.595	059-2129	B8BJ0	-	-	Soil	I	40	45	42.5	43.0	ft	6/8/2010	X	X	X	X	X	X
GCMW-45	MW-45	631757.006	670649.530	059-2114	B8BG5	-	-	Soil	B	5	10	9.5	10.0	ft	6/8/2010	X	X	X	X	X	X
		631757.006	670649.530	059-2115	B8BG6	-	-	Soil	C	10	15	15.0	15.5	ft	6/8/2010	X	X	X	X	X	X
		631757.006	670649.530	059-2116	B8BG7	-	-	Soil	D	15	20	19.5	20.0	ft	6/8/2010	X	X	X	X	X	X
		631757.006	670649.530	059-2117	B8BG8	-	-	Soil	E	20	25	24.5	25.0	ft	6/8/2010	X	X	X	X	X	X
		631757.006	670649.530	059-2118	B8BG9	059-2121	B8BH2	Soil	F	25	30	29.5	30.0	ft	6/8/2010	X	X	X	X	X	X

TABLE A-8
Sample Tracking
Phase 3 - Upland (Soil only) Investigation
collected by USEPA ERT, analyzed through CLP

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	CLP ID	Duplicate Sample Number	Duplicate CLP Sample Number	Matrix	Depth Range Group	Top Sample Depth (bgs)	Bottom Sample Depth (bgs)	VOC Sample Top Depth (bgs)	VOC Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Analyses					
																TAL Metals + Hg	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides
		631757.006	670649.530	059-2119	B8BH0	-	-	Soil	G	30	35	35.0	35.5	ft	6/8/2010	X	X	X	X	X	X
		631757.006	670649.530	059-2120	B8BH1	-	-	Soil	H	35	40	39.5	40.0	ft	6/8/2010	X	X	X	X	X	X
GCMW-46	MW-46	631724.438	670594.467	059-2167	B8BM8	-	-	Soil	B	5	10	10.0	10.5	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2168	B8BM9	-	-	Soil	C	10	15	15.0	15.5	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2169	B8BN0	-	-	Soil	D	15	20	19.5	20.0	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2170	B8BN1	-	-	Soil	E	20	25	25.0	25.5	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2171	B8BN2	-	-	Soil	F	25	30	29.5	30.0	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2172	B8BN3	-	-	Soil	G	30	35	35.0	35.5	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2173	B8BN4	-	-	Soil	H	35	40	40.0	40.5	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2174	B8BN5	-	-	Soil	I	40	45	45.0	45.5	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2175	B8BN6	-	-	Soil	J	45	50	50.0	50.5	ft	6/15/2010	X	X	X	X	X	X
		631724.438	670594.467	059-2176	B8BN7	-	-	Soil	K	50	55	55.0	55.5	ft	6/15/2010	X	X	X	X	X	X
GCMW-47	MW-47	631765.703	670691.722	059-2234	B7GK4	-	-	Soil	C	10	15	15.0	15.5	ft	6/28/2010	X	X	X	X	X	X
		631765.703	670691.722	059-2235	B7GK5	-	-	Soil	D	15	20	20.0	20.5	ft	6/28/2010	X	X	X	X	X	X
		631765.703	670691.722	059-2236	B7GK6	-	-	Soil	F	25	30	26.0	26.5	ft	6/28/2010	X	X	X	X	X	X
		631765.703	670691.722	059-2237	B7GK7	-	-	Soil	G	30	35	31.0	31.5	ft	6/28/2010	X	X	X	X	X	X
		631765.703	670691.722	059-2238	B7GK8	-	-	Soil	H	35	40	36.0	36.5	ft	6/28/2010	X	X	X	X	X	X
		631765.703	670691.722	059-2239	B7GK9	-	-	Soil	H	35	40	40.0	40.5	ft	6/28/2010	X	X	X	X	X	X
		631765.703	670691.722	059-2240	B7GL0	-	-	Soil	I	40	45	45.0	45.5	ft	6/28/2010	X	X	X	X	X	X
Equipment Blanks																					
Rinsate-01	Equipment Blank			059-2011	B8B61	-	-	Water	-			-	-		5/18/2010	X	X	X	X	X	X
Rinsate-02	Equipment Blank			059-2249	B7GL9	-	-	Water	-			-	-		6/29/2010	X	X	X	X	X	X

Notes:

Depth Group Range:
A = 0 to 5 feet
B = 5 to 10 feet
C = 10 to 15 feet
D = 15 to 20 feet
E = 20 to 25 feet
F = 25 to 30 feet
G = 30 to 35 feet
H = 35 to 40 feet
I = 40 to 45 feet
J = 45 to 50 feet
K = 50 to 55 feet

Legend:

CLP	Contract Laboratory Program
MW	Monitoring Well
TAL	Target Analyte List
TCL	Target Compound List includes: volatile organic compounds, semi-volatile organic compounds, pesticides, and PCBs
VOC	Volatile Organic Compound
SVOC	Semi-Volatile Organic Compound
PEST	Pesticides
PCB	Polychlorinated biphenyls
Hg	Mercury Analysis
bgs	Below Ground Surface

Coordinates in New York State Plane, East 3101 – NAD83 CONUS

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TABLE A-9
Sample Tracking – Phase 3
Upland (Soil/Groundwater) Investigation
collected by National Grid and New York City
analyzed through subcontracted labs

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	Laboratory Sample Number	Filtered Metal Sample Number	Duplicate Sample Number	Duplicate Filtered Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Sample Collection Time	Notes	Analyses Performed [2]								
																Metals + Hg	Metals + Hg Filtered [1]	Cyanide (TCN)	VOCs	SVOCs	PCBs	Pesticides	Geochemistry
SUBSURFACE SOIL (NYC and National Grid)																								
SB01	MW-01	634484.7064	673668.5027	SB01A	JA 48109-13	-	-	-	SB	0.5	1.0	ft	6/2/2010	10:50	NYC Collected Sample				X				
						-	-	-	SB	0.0	5.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB01B	JA 48109-14	-	-	-	SB	8.0	8.5	ft	6/2/2010	11:00	NYC Collected Sample				X				
						-	-	-	SB	5.0	10.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB01C	JA 48109-15	-	-	-	SB	10.0	10.5	ft	6/2/2010	11:30	NYC Collected Sample				X				
						-	-	-	SB	10.0	15.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB01D	JA 48109-16	-	-	-	SB	16.8	17.3	ft	6/2/2010	11:40	NYC Collected Sample				X				
						-	-	-	SB	15.0	20.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB01E	JA 48109-17	-	-	-	SB	22.0	22.5	ft	6/2/2010	12:20	NYC Collected Sample				X				
						-	-	-	SB	20.0	25.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB01F	JA 48109-18	-	-	-	SB	25.5	26.0	ft	6/2/2010	12:30	NYC Collected Sample				X				
						-	-	-	SB	25.0	30.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB01G	JA 48109-19	-	-	-	SB	32.0	32.5	ft	6/2/2010	13:50	NYC Collected Sample				X				
						-	-	-	SB	30.0	35.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB01H	JA 48109-20	-	-	-	SB	37.0	37.5	ft	6/2/2010	14:00	NYC Collected Sample				X				
						-	-	-	SB	35.0	40.0	ft			NYC Collected Sample	X		X		X	X	X	
SB02	MW-02	634302.043	673620.925	SB02A	JA 48109-22	-	-	-	SB	2.0	2.5	ft	6/3/2010	14:00	NYC Collected Sample				X				
						-	-	-	SB	0.0	5.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB02B	JA 48109-23	-	-	-	SB	8.0	8.5	ft	6/3/2010	14:10	NYC Collected Sample				X				
						-	-	-	SB	5.0	10.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB02C	JA 48109-24	-	-	-	SB	10.0	10.5	ft	6/3/2010	14:25	NYC Collected Sample				X				
						-	-	-	SB	10.0	15.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB02D	JA 48109-27	-	-	-	SB	17.0	17.5	ft	6/3/2010	14:30	NYC Collected Sample				X				
						-	-	-	SB	15.0	20.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB02E	JA 48260-1	-	-	-	SB	21.5	22.0	ft	6/3/2010	7:40	NYC Collected Sample				X				
						-	-	-	SB	20.0	25.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB02F	JA 48260-2	-	-	-	SB	27.0	27.5	ft	6/3/2010	7:50	NYC Collected Sample				X				
						-	-	-	SB	25.0	30.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB02G	JA 48260-3	-	-	-	SB	32.0	32.5	ft	6/3/2010	8:10	NYC Collected Sample				X				
						-	-	-	SB	30.0	35.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB02H	JA 48260-4	-	-	-	SB	35.5	36.0	ft	6/3/2010	8:15	NYC Collected Sample				X				
						-	-	-	SB	35.0	36.0	ft			NYC Collected Sample	X		X		X	X	X	
SB09	MW-09	631763.298	670958.600	SB09A	JA48480-17	-	-	-	SB	2.0	2.5	ft	6/8/2010	9:00	NYC Collected Sample				X				
						-	-	-	SB	0.0	5.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB09B	JA48480-18	-	DUP03	-	SB	8.0	8.5	ft	6/8/2010	9:10	NYC Collected Sample				X				
						-	-	-	SB	5.0	10.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB09C	JA48480-19	-	-	-	SB	12.0	12.5	ft	6/8/2010	9:15	NYC Collected Sample				X				
						-	-	-	SB	10.0	15.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB09D	JA48480-20	-	-	-	SB	16.5	17.0	ft	6/8/2010	10:30	NYC Collected Sample				X				
						-	-	-	SB	15.0	20.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB09E	JA48480-21	-	-	-	SB	22.0	22.5	ft	6/8/2010	10:45	NYC Collected Sample				X				
						-	-	-	SB	20.0	25.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB09F	JA48480-22	-	-	-	SB	27.0	27.5	ft	6/8/2010	10:55	NYC Collected Sample				X				
						-	-	-	SB	25.0	30.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB09G	JA48480-23	-	-	-	SB	32.0	32.5	ft	6/8/2010	11:15	NYC Collected Sample				X				
						-	-	-	SB	30.0	35.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB09H	JA48480-24	-	-	-	SB	36.5	37.0	ft	6/8/2010	11:40	NYC Collected Sample				X				
						-	-	-	SB	35.0	40.0	ft			NYC Collected Sample	X		X		X	X	X	
SB10	MW-10	631573.228	671266.329	SB10A	JA48353-1	-	-	-	SB	2.0	2.5	ft	6/7/2010	9:30	NYC Collected Sample				X				
						-	-	-	SB	0.0	5.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10B	JA48353-2	-	-	-	SB	5.5	6.0	ft	6/7/2010	9:50	NYC Collected Sample				X				
						-	-	-	SB	5.0	10.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10C	JA48353-3	-	-	-	SB	13.0	13.5	ft	6/7/2010	10:00	NYC Collected Sample				X				
						-	-	-	SB	10.0	15.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10D	JA48353-4	-	-	-	SB	15.5	16.0	ft	6/7/2010	10:15	NYC Collected Sample				X				
						-	-	-	SB	15.0	20.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10E	JA48353-5	-	-	-	SB	22.0	22.5	ft	6/7/2010	10:35	NYC Collected Sample				X				
						-	-	-	SB	20.0	25.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10F	JA48353-6	-	-	-	SB	27.0	27.5	ft	6/7/2010	10:55	NYC Collected Sample				X				
						-	-	-	SB	25.0	30.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10G	JA48353-7	-	-	-	SB	32.0	32.5	ft	6/7/2010	11:10	NYC Collected Sample				X				
						-	-	-	SB	30.0	35.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10H	JA48353-8	-	-	-	SB	37.0	37.5	ft	6/7/2010	11:25	NYC Collected Sample				X				
						-	-	-	SB	35.0	40.0	ft			NYC Collected Sample	X		X		X	X	X	
				SB10I	JA48353-9	-	-	-	SB	42.0	42.5	ft	6/7/2010	11:35	NYC Collected Sample				X				
						-	-	-	SB	40.0	45.0	ft			NYC Collected Sample	X		X		X	X	X	

TABLE A-9
Sample Tracking – Phase 3
Upland (Soil/Groundwater) Investigation
collected by National Grid and New York City
analyzed through subcontracted labs

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	Laboratory Sample Number	Filtered Metal Sample Number	Duplicate Sample Number	Duplicate Filtered Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Sample Collection Time	Notes	Analyses Performed [2]								
																Metals + Hg	Metals + Hg [1] Filtered	Cyanide (TCN)	VOCs	SVOCs	PCBs	Pesticides	Geochemistry
SB17	MW-17	631226.023	669638.147	SB17A	JA 48109-5	-	-	-	SB	2.5	3.0	ft	6/2/2010	11:15	NYC Collected Sample				X				
						-	-	-	SB	2.0	5.0	ft			NYC Collected Sample	X			X		X	X	
				SB17B	JA 48109-6	-	-	-	SB	6.0	6.5	ft	6/2/2010	11:55	NYC Collected Sample				X				
						-	-	-	SB	5.0	10.0	ft			NYC Collected Sample	X			X		X	X	
				SB17C	JA 48109-7	-	-	-	SB	10.0	10.4	ft	6/2/2010	12:25	NYC Collected Sample					X			
						-	-	-	SB	10.0	15.0	ft			NYC Collected Sample	X			X		X	X	
				SB17D	JA 48109-8	-	-	-	SB	16.5	17.0	ft	6/2/2010	12:45	NYC Collected Sample					X			
						-	-	-	SB	15.0	20.0	ft			NYC Collected Sample	X			X		X	X	
				SB17E	JA 48109-9	-	-	-	SB	22.5	23.0	ft	6/2/2010	13:20	NYC Collected Sample				X				
						-	-	-	SB	20.0	25.0	ft			NYC Collected Sample	X			X		X	X	
				SB17F	JA 48109-10	-	-	-	SB	26.5	27.0	ft	6/2/2010	13:45	NYC Collected Sample				X				
						-	-	-	SB	25.0	30.0	ft			NYC Collected Sample	X			X		X	X	
				SB17G	JA 48109-11	-	-	-	SB	32.5	33.0	ft	6/2/2010	14:05	NYC Collected Sample					X			
						-	-	-	SB	30.0	35.0	ft			NYC Collected Sample	X			X		X	X	
				SB17H	JA 48109-12	-	-	-	SB	37.5	38.0	ft	6/2/2010	14:45	NYC Collected Sample				X				
						-	-	-	SB	35.0	40.0	ft			NYC Collected Sample	X			X		X	X	
				SB17I	JA 48109-26	-	-	-	SB	42.5	43.0	ft	6/2/2010	15:05	NYC Collected Sample				X				
						-	-	-	SB	40.0	45.0	ft			NYC Collected Sample	X			X		X	X	
SB18	MW-18	631152.604	669307.627	SB18A	JA48353-11	-	-	-	SB	2.3	2.8	ft	6/7/2010	14:05	NYC Collected Sample				X				
						-	-	-	SB	2.0	5.0	ft			NYC Collected Sample	X			X		X	X	
				SB18B	JA48353-12	-	-	-	SB	8.5	8.8	ft	6/7/2010	14:25	NYC Collected Sample					X			
						-	-	-	SB	5.0	10.0	ft			NYC Collected Sample	X			X		X	X	
				SB18C	JA48480-1	-	DUP02	-	SB	14.5	15.0	ft	6/8/2010	8:05	NYC Collected Sample				X				
						-	-	-	SB	10.0	15.0	ft			NYC Collected Sample	X			X		X	X	
				SB18D	JA48480-2	-	-	-	SB	18.0	18.5	ft	6/8/2010	8:15	NYC Collected Sample				X				
						-	-	-	SB	15.0	20.0	ft			NYC Collected Sample	X			X		X	X	
				SB18E	JA48480-3	-	DUP04	-	SB	22.0	22.5	ft	6/8/2010	8:50	NYC Collected Sample				X				
						-	-	-	SB	20.0	25.0	ft			NYC Collected Sample	X			X		X	X	
				SB18F	JA48480-4	-	-	-	SB	26.5	27.0	ft	6/8/2010	9:10	NYC Collected Sample					X			
						-	-	-	SB	25.0	30.0	ft			NYC Collected Sample	X			X		X	X	
				SB18G	JA48480-5	-	-	-	SB	32.5	33.0	ft	6/8/2010	9:35	NYC Collected Sample				X				
						-	-	-	SB	30.0	35.0	ft			NYC Collected Sample	X			X		X	X	
				SB18H	JA48480-6	-	-	-	SB	36.5	37.0	ft	6/8/2010	10:10	NYC Collected Sample				X				
						-	-	-	SB	35.0	40.0	ft			NYC Collected Sample	X			X		X	X	
				SB18I	JA48480-7	-	-	-	SB	44.3	44.8	ft	6/8/2010	10:30	NYC Collected Sample				X				
						-	-	-	SB	40.0	45.0	ft			NYC Collected Sample	X			X		X	X	
				SB18J	JA48480-8	-	-	-	SB	45.5	46.0	ft	6/8/2010	10:45	NYC Collected Sample					X			
						-	-	-	SB	45.0	50.0	ft			NYC Collected Sample	X			X		X	X	
				SB18K	JA48480-9	-	-	-	SB	54.0	54.5	ft	6/8/2010	11:00	NYC Collected Sample				X				
						-	-	-	SB	50.0	55.0	ft			NYC Collected Sample	X			X		X	X	
				SB18L	JA48480-10	-	-	-	SB	56.5	57.0	ft	6/8/2010	11:10	NYC Collected Sample				X				
						-	-	-	SB	55.0	58.0	ft			NYC Collected Sample	X			X		X	X	
SB19	MW-19	631437.408	669332.112	SB19A	JA 48109-28	-	DUP01	-	SB	2.3	2.8	ft	6/3/2010	12:45	NYC Collected Sample				X				
						-	-	-	SB	2.0	5.0	ft			NYC Collected Sample	X			X		X	X	
				SB19B	JA 48109-29	-	-	-	SB	8.0	8.5	ft	6/3/2010	13:10	NYC Collected Sample					X			
						-	-	-	SB	5.0	10.0	ft			NYC Collected Sample	X			X		X	X	
				SB19C	JA 48109-30	-	-	-	SB	12.0	12.5	ft	6/3/2010	13:25	NYC Collected Sample				X				
						-	-	-	SB	10.0	15.0	ft			NYC Collected Sample	X			X		X	X	
				SB19D	JA 48166-2	-	-	-	SB	18.0	18.5	ft	6/4/2010	8:15	NYC Collected Sample				X				
						-	-	-	SB	15.0	20.0	ft			NYC Collected Sample	X			X		X	X	
				SB19E	JA 48166-3	-	-	-	SB	22.0	22.4	ft	6/4/2010	8:40	NYC Collected Sample				X				
						-	-	-	SB	20.0	25.0	ft			NYC Collected Sample	X			X		X	X	
				SB19F	JA 48166-4	-	-	-	SB	28.0	28.5	ft	6/4/2010	9:20	NYC Collected Sample					X			
						-	-	-	SB	25.0	30.0	ft			NYC Collected Sample	X			X		X	X	
				SB19G	JA 48166-5	-	-	-	SB	34.0	34.5	ft	6/4/2010	9:35	NYC Collected Sample				X				
						-	-	-	SB	30.0	35.0	ft			NYC Collected Sample	X			X		X	X	
				SB19H	JA 48166-6	-	-	-	SB	37.0	37.5	ft	6/4/2010	9:45	NYC Collected Sample				X				
						-	-	-	SB	35.0	40.0	ft			NYC Collected Sample	X			X		X	X	
				SB19I	JA 48166-7	-	-	-	SB	42.5	43.0	ft	6/4/2010	10:10	NYC Collected Sample				X				
						-	-	-	SB	40.0	45.0	ft			NYC Collected Sample	X			X		X	X	
				SB19J	JA 48166-8	-	-	-	SB	46.8	47.3	ft	6/4/2010	10:25	NYC Collected Sample				X				
						-	-	-	SB	45.0	50.0	ft			NYC Collected Sample	X			X		X	X	
				SB19K	JA 48166-9	-	-	-	SB	52.5	53.0	ft	6/4/2010	10:45	NYC Collected Sample				X				
						-	-	-	SB	50.0	55.0	ft			NYC Collected Sample	X			X		X	X	
				SB19L	JA 48166-10	-	-	-	SB	56.6	57.1	ft	6/4/2010	10:55	NYC Collected Sample				X				
						-	-	-	SB	55.0	60.0	ft			NYC Collected Sample	X			X		X	X	
				SB19M	JA 48260-6	-	-	-	SB	61.0	61.5	ft	6/4/2010	11:20	NYC Collected Sample				X				

TABLE A-9
Sample Tracking – Phase 3
Upland (Soil/Groundwater) Investigation
collected by National Grid and New York City
analyzed through subcontracted labs

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	Laboratory Sample Number	Filtered Metal Sample Number	Duplicate Sample Number	Duplicate Filtered Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Sample Collection Time	Notes	Analyses Performed [2]							
																Metals + Hg	Metals + Hg Filtered [1]	Cyanide (TCN)	VOCs	SVOCs	PCBs	Pesticides	Geochemistry
				[illegible]	[illegible]	-	-	-	SB	60.0	62.0	ft	[illegible]	[illegible]	NYC Collected Sample	X		X		X	X	X	
GC-MW23I	MW-23	632487.090	671276.440	GC-MW23I(0-5)	834120	-	-	-	SB	0	5	ft	6/28/10	12:50	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(2.5-3)	834119	-	-	-	SB	2.5	3	ft	6/28/10	12:25	National Grid Collected Sample				X				
				GC-MW23I(5-10)	834313	-	-	-	SB	5	10	ft	6/29/10	10:25	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(7-7.5)	834321	-	-	-	SB	7	7.5	ft	6/29/10	10:25	National Grid Collected Sample				X				
				GC-MW23I(10-15)	834314	-	-	-	SB	10	15	ft	6/29/10	10:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(11.5-12)	834323	-	-	-	SB	11.5	12	ft	6/29/10	10:45	National Grid Collected Sample				X				
				GC-MW23I(15-20)	834315	-	-	-	SB	15	20	ft	6/29/10	11:10	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(17-17.5)	834322	-	-	-	SB	17	17.5	ft	6/29/10	11:10	National Grid Collected Sample				X				
				GC-MW23I(20-25)	834317	-	-	-	SB	20	25	ft	6/29/10	11:25	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(22-22.5)	834326	-	-	-	SB	22	22.5	ft	6/29/10	11:25	National Grid Collected Sample				X				
				GC-MW23I(25-30)	834316	-	-	-	SB	25	30	ft	6/29/10	11:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(27.5-28)	834324	-	-	-	SB	27.5	28	ft	6/29/10	11:45	National Grid Collected Sample				X				
				GC-MW23I(30-35)	834318	-	-	-	SB	30	35	ft	6/29/10	12:15	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(33-33.5)	834325	-	-	-	SB	33	33.5	ft	6/29/10	12:15	National Grid Collected Sample				X				
				GC-MW23I(35-39)	834319	-	GC-FDXX(0-5)	-	SB	35	39	ft	6/29/10	13:00	National Grid Collected Sample	X		X		X	X	X	
				GC-MW23I(35.5-36)	834327	-	GC-FDXX(0-5) - VOCs	-	SB	35.5	36	ft	6/29/10	13:00	National Grid Collected Sample				X				
GC-MW30I	MW-30	634214.930	673046.580	GC-MW30I(0.2-5)	834122	-	-	-	SB	0.2	5	ft	6/28/10	14:00	National Grid Collected Sample	X		X		X	X	X	
				GC-MW30I(2.5)	834121	-	-	-	SB	2.5	-	ft	6/28/10	14:00	National Grid Collected Sample				X				
				GC-MW30I(6-10)	834302	-	-	-	SB	6	10	ft	6/29/10	11:40	National Grid Collected Sample	X		X		X	X	X	
				GC-MW30I(8-8.5)	834303	-	-	-	SB	8	8.5	ft	6/29/10	11:40	National Grid Collected Sample				X				
				GC-MW30I(10-15)	834304	-	-	-	SB	10	15	ft	6/29/10	12:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW30I(13)	834305	-	-	-	SB	13	-	ft	6/29/10	12:30	National Grid Collected Sample				X				
				GC-MW30I(15-20)	834306	-	-	-	SB	15	20	ft	6/29/10	13:15	National Grid Collected Sample	X		X		X	X	X	
				GC-MW30I(17.5)	834307	-	-	-	SB	17.5	-	ft	6/29/10	13:15	National Grid Collected Sample				X				
				GC-MW30I(20-25)	834310	-	-	-	SB	20	25	ft	6/29/10	15:00	National Grid Collected Sample	X		X		X	X	X	
				GC-MW30I(24)	834311	-	-	-	SB	24	-	ft	6/29/10	15:00	National Grid Collected Sample				X				
				GC-MW30I(25-30)	834308	-	-	-	SB	25	30	ft	6/29/10	15:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW30I(27.5)	834309	-	-	-	SB	27.5	-	ft	6/29/10	15:30	National Grid Collected Sample				X				
				GC-MW30I(30-35)	834445	-	-	-	SB	30	35	ft	6/30/10	10:00	National Grid Collected Sample	X		X		X	X	X	
				GC-MW30I(31.5)	834446	-	-	-	SB	31.5	-	ft	6/30/10	10:00	National Grid Collected Sample				X				
				GC-MW30I(35.5)	834444	-	-	-	SB	35	-	ft	6/30/10	10:35	National Grid Collected Sample				X				
				GC-MW30I(35-36)	834443	-	-	-	SB	35.5	35.5	ft	6/30/10	10:35	National Grid Collected Sample	X		X		X	X	X	
GC-MW31I	MW-31	634422.17	673448.3	GC-MW31I(3.5-4)	833852	-	-	-	SB	3.5	4	ft	6/25/10	10:45	National Grid Collected Sample				X				
				GC-MW31I(0-6)	833851	-	-	-	SB	0	6	ft	6/25/10	10:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW31I(6-6.5)	833854	-	-	-	SB	6	6.5	ft	6/25/10	11:20	National Grid Collected Sample				X				
				GC-MW31I(6-10)	833853	-	-	-	SB	6	10	ft	6/25/10	11:20	National Grid Collected Sample	X		X		X	X	X	
				GC-MW31I(12-12.5)	833856	-	-	-	SB	12	12.5	ft	6/25/10	12:40	National Grid Collected Sample				X				
				GC-MW31I(10-15)	833855	-	-	-	SB	10	15	ft	6/25/10	12:40	National Grid Collected Sample	X		X		X	X	X	
				GC-MW31I(19-19.5)	833858	-	-	-	SB	19	19.5	ft	6/25/10	14:05	National Grid Collected Sample				X				
				GC-MW31I(15-20)	833857	-	-	-	SB	15	20	ft	6/25/10	14:05	National Grid Collected Sample	X		X		X	X	X	
				GC-MW31I(23-23.5)	833860	-	-	-	SB	23	23.5	ft	6/25/10	14:40	National Grid Collected Sample				X				
				GC-MW31I(20-26)	833859	-	-	-	SB	20	26	ft	6/25/10	14:40	National Grid Collected Sample	X		X		X	X	X	
				GC-MW31I(29.2)	834109	-	-	-	SB	29.2	-	ft	6/28/10	10:00	National Grid Collected Sample				X				
				GC-MW31I(26-30)	834108	-	-	-	SB	26	30	ft	6/28/10	10:00	National Grid Collected Sample	X		X		X	X	X	
				GC-MW31I(35.75-36)	834111	-	GC-MWXX062810 - VOCs	-	SB	35.75	36	ft	6/28/10	10:25	National Grid Collected Sample				X				
				GC-MW31I(30-36)	834110	-	GC-MWXX062810	-	SB	30	36	ft	6/28/10	10:25	National Grid Collected Sample	X		X		X	X	X	
GC-MW32I	MW-32	634940.76	673207.40	GC-MW32I(0.5-5)	833586	-	-	-	SB	0.5	5	ft	6/23/10	13:40	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(0.5-1)	833587	-	-	-	SB	0.5	1	ft	6/23/10	13:40	National Grid Collected Sample				X				
				GC-MW32I(5-10)	833588	-	-	-	SB	5	10	ft	6/23/10	14:20	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(9.5-10)	833591	-	-	-	SB	9.5	10	ft	6/23/10	14:20	National Grid Collected Sample				X				
				GC-MW32I(10-10.5)	833589	-	-	-	SB	10	10.5	ft	6/23/10	14:55	National Grid Collected Sample				X				
				GC-MW32I(10-15)	833590	-	-	-	SB	10	15	ft	6/23/10	14:55	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(15-20)	833593	-	-	-	SB	15	20	ft	6/23/10	15:50	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(18-18.5)	833594	-	-	-	SB	18	18.5	ft	6/23/10	15:50	National Grid Collected Sample				X				
				GC-MW32I(20-25)	833691		-	-	SB	20	25	ft	6/24/10	9:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(22.5-23)	833692	-	-	-	SB	22.5	23	ft	6/24/10	9:45	National Grid Collected Sample				X				
				GC-MW32I(25-30)	833693	-	-	-	SB	25	30	ft	6/24/10	10:50	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(29.5-30)	833694	-	-	-	SB	29.5	30	ft	6/24/10	10:50	National Grid Collected Sample				X				
				GC-MW32I(30-35)	833695	-	-	-	SB	30	35	ft	6/24/10	11:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(30.5-31)	833696	-	-	-	SB	30.5	31	ft	6/24/10	11:30	National Grid Collected Sample				X				
				GC-MW32I(35.5-36)	833697	-	-	-	SB	35.5	36	ft	6/24/10	12:30	National Grid Collected Sample				X				
				GC-MW32I(35-40)	833698	-	-	-	SB	35	40	ft	6/24/10	12:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(40-46)	834115	-	-	-	SB	40	46	ft	6/28/10	16:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW32I(40.75)	834114	-	-	-	SB	40.75	-	ft	6/28/10	16:30	National Grid Collected Sample				X				
				GC-MW40D(0-5) [3]	834442	-	-	-	SB	0	5	ft	6/29/10	9:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40D(2.5-3) [3]	834329	-	-	-	SB	2.5	3	ft	6/29/10	8:55	National Grid Collected Sample				X				

TABLE A-9
Sample Tracking – Phase 3
Upland (Soil/Groundwater) Investigation
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analyzed through subcontracted labs

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	Laboratory Sample Number	Filtered Metal Sample Number	Duplicate Sample Number	Duplicate Filtered Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Sample Collection Time	Notes	Analyses Performed [2]							
																Metals + Hg	Metals + Hg Filtered [1]	Cyanide (TCN)	VOCs	SVOCs	PCBs	Pesticides	Geochemistry
GC-MW40I	MW-40	630552.510	669193.870	GC-MW40I(5-10)	833575	-	-	-	SB	5	10	ft	6/23/10	11:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(7)	833563	-	-	-	SB	7	-	ft	6/23/10	11:22	National Grid Collected Sample				X				
				GC-MW40I(10-15)	833576	-	GC-MWXX(15-20)	-	SB	10	15	ft	6/23/10	11:50	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(11)	833564	-	GC-MWXX(15)	-	SB	11	-	ft	6/23/10	11:50	National Grid Collected Sample				X				
				GC-MW40I(15-20)	833577	-		-	SB	15	20	ft	6/23/10	12:10	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(17.5)	833565	-	-	-	SB	17.5	-	ft	6/23/10	12:10	National Grid Collected Sample				X				
				GC-MW40I(20-25)	833578	-	-	-	SB	20	25	ft	6/23/10	12:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(22)	833566	-	-	-	SB	22	-	ft	6/23/10	12:30	National Grid Collected Sample				X				
				GC-MW40I(25-30)	833579	-	-	-	SB	25	30	ft	6/23/10	12:55	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(26.5)	833567	-	-	-	SB	26.5	-	ft	6/23/10	12:55	National Grid Collected Sample				X				
				GC-MW40I(30-35)	833580	-	-	-	SB	30	35	ft	6/23/10	13:05	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(32.5)	833568	-	-	-	SB	32.5	-	ft	6/23/10	13:05	National Grid Collected Sample				X				
				GC-MW40I(35-40)	833581	-	-	-	SB	35	40	ft	6/23/10	13:25	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(37.5)	833569	-	-	-	SB	37.5	-	ft	6/23/10	13:25	National Grid Collected Sample				X				
				GC-MW40I(40-45)	833582	-	-	-	SB	40	45	ft	6/23/10	14:05	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(43.5)	833570	-	-	-	SB	43.5	-	ft	6/23/10	14:05	National Grid Collected Sample				X				
				GC-MW40I(45-50)	833583	-	-	-	SB	45	50	ft	6/23/10	14:20	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(47.5)	833571	-	-	-	SB	47.5	-	ft	6/23/10	14:20	National Grid Collected Sample				X				
				GC-MW40I(50-55)	833584	-	-	-	SB	50	55	ft	6/23/10	14:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(52.5)	833572	-	-	-	SB	52.5	52.5	ft	6/23/10	14:55	National Grid Collected Sample				X				
				GC-MW40I(55-58)	833585	-	-	-	SB	55	58	ft	6/23/10	15:10	National Grid Collected Sample	X		X		X	X	X	
				GC-MW40I(56.5)	833573	-	-	-	SB	56.5	56.5	ft	6/23/10	15:10	National Grid Collected Sample				X				
GC-MW41S	MW-41	630336.490	669305.630	GC-MW41S(0-5)	834117	-	-	-	SB	0	5	ft	6/28/10	11:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41S(4.5-5)	834118	-	-	-	SB	4.5	5	ft	6/28/10	11:45	National Grid Collected Sample				X				
GC-MW41I	MW-41	630342.770	669304.820	GC-MW41I(5-10)	833861	-	GC-MWXX(0-5)	-	SB	5	10	ft	6/25/10	9:15	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(5-5.5)	833843	-	GC-MWXX(0-5) - VOCs	-	SB	5	5.5	ft	6/25/10	9:15	National Grid Collected Sample				X				
				GC-MW41I(10-10.5)	833844	-	-	-	SB	10	10.5	ft	6/25/10	9:45	National Grid Collected Sample				X				
				GC-MW41I(10-15)	833862	-	-	-	SB	10	15	ft	6/25/10	9:45	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(15-20)	833863	-	-	-	SB	15	20	ft	6/25/10	10::03	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(18-18.5)	833845	-	-	-	SB	18	18.5	ft	6/25/10	9:56	National Grid Collected Sample				X				
				GC-MW41I(20-25)	833864	-	-	-	SB	20	25	ft	6/25/10	10:25	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(21-21.5)	833846	-	-	-	SB	21	21.5	ft	6/25/10	10:16	National Grid Collected Sample				X				
				GC-MW41I(25-30)	833865	-	-	-	SB	25	30	ft	6/25/10	10:33	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(27.5-28)	833847	-	-	-	SB	27.5	28	ft	6/25/10	10:33	National Grid Collected Sample				X				
				GC-MW41I(30-35)	833866	-	-	-	SB	30	35	ft	6/25/10	10:56	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(31.5-32)	834090	-	-	-	SB	31.5	32	ft	6/25/10	10:56	National Grid Collected Sample				X				
				GC-MW41I(35-40)	833867	-	-	-	SB	35	40	ft	6/25/10	11:10	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(37-37.5)	833848	-	-	-	SB	37	37.5	ft	6/25/10	11:10	National Grid Collected Sample				X				
				GC-MW41I(40-45)	833868	-	-	-	SB	40	45	ft	6/25/10	11:30	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(42.5-43)	833849	-	-	-	SB	42.5	43	ft	6/25/10	11:30	National Grid Collected Sample				X				
				GC-MW41I(45-50)	833876	-	-	-	SB	45	50	ft	6/25/10	12:10	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(47.5-48)	833850	-	-	-	SB	47.5	48	ft	6/25/10	12:10	National Grid Collected Sample				X				
				GC-MW41I(50-53)	833873	-	-	-	SB	50	53	ft	6/25/10	12:20	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(51.5-52)	833869	-	-	-	SB	51.5	52	ft	6/25/10	12:20	National Grid Collected Sample				X				
				GC-MW41I(53-58)	833874	-	-	-	SB	53	58	ft	6/25/10	12:35	National Grid Collected Sample	X		X		X	X	X	
				GC-MW41I(55.5-56)	833870	-	-	-	SB	55.5	56	ft	6/25/10	12:45	National Grid Collected Sample				X				
SURFACE WATER																							
SW-01	SWMW02	Adjacent to MW-2		SW-01	JA50019-6	JA50019-6F	-	-	SW	0.5-1.0' above the bottom sediment			6/25/2010	13:45	NYC Collected Sample								X
SW-02	SWMW09	Adjacent to MW-9		SW-02	JA50222-1	JA50222-1F	-	-	SW	0.5-1.0' above the bottom sediment			6/29/2010	06:45	NYC Collected Sample								X
SW-03	SWMW18	Adjacent to MW-18		SW-03	JA50143-9	JA50143-9F	-	-	SW	0.5-1.0' above the bottom sediment			6/28/2010	11:15	NYC Collected Sample								X
GC-SWMW23	SWMW23	632512.6936	671344.8483	GC-SWMW23	A0G270492004	-	-	-	SW	0	0.5	ft	7/21/10	11:20	National Grid Collected Sample								X
					220-12854-10	-	-	-	SW	0	0.5	ft	7/21/10	11:20	National Grid Collected Sample								X
GC-SWMW31	SWMW31	634262.76	673255.98	GC-SWMW31	A0G270492005	-	-	-	SW	0	0.5	ft	7/21/10	13:30	National Grid Collected Sample								X
					220-12854-11	-	-	-	SW	0	0.5	ft	7/21/10	13:30	National Grid Collected Sample								X
GROUNDWATER																							
MW-1	MW-1	634481.919	673670.091	GC-MW01S	JA50019-4	-	-	-	GW	-	-	-	6/25/2010	9:20	NYC Collected Sample	X		X	X	X	X	X	
		634481.919	673670.091	GC-MW01I	JA50019-3	-	-	-	GW	-	-	-	6/25/2010	11:25	NYC Collected Sample	X		X	X	X	X	X	
MW-2	MW-2	634299.811	673623.691	GC-MW02S	JA50019-2	JA50019-2F	-	-	GW	-	-	-	6/25/2010	9:10	NYC Collected Sample	X	X [1]	X	X	X	X	X	X
		634302.043	673620.925	GC-MW02I	JA50019-1	JA50019-1F	-	-	GW	-	-	-	6/25/2010	11:45	NYC Collected Sample	X	X [1]	X	X	X	X	X	X
MW-9	MW-9	631759.285	670962.606	GC-MW09S	JA49935-4	JA49935-4F	DUP01	DUP01	GW	-	-	-	6/24/2010	8:10	NYC Collected Sample	X	X [1]	X	X	X	X	X	X
		631763.298	670958.600	GC-MW09I	JA49935-3	JA49935-3F	-	-	GW	-	-	-	6/24/2010	10:40	NYC Collected Sample	X	X [1]	X	X	X	X	X	X
MW-10	MW-10	631580.160	671266.661	GC-MW10S	JA49935-2	-	-	-	GW	-	-	-	6/24/2010	14:10	NYC Collected Sample	X		X	X	X	X	X	

TABLE A-9
Sample Tracking – Phase 3
Upland (Soil/Groundwater) Investigation
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Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	Laboratory Sample Number	Filtered Metal Sample Number	Duplicate Sample Number	Duplicate Filtered Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Sample Collection Time	Notes	Analyses Performed [2]							
																Metals + Hg	Metals + Hg Filtered [1]	Cyanide (TCN)	VOCs	SVOCs	PCBs	Pesticides	Geochemistry
[illegible]	[illegible]	631573.228	671266.329	GC-MW10I	JA49935-1	-	-	-	GW	-	-	-	6/24/2010	8:00	NYC Collected Sample	X		X	X	X	X	X	
MW-17	MW-17	631227.118	669633.170	GC-MW17S	JA50143-3	-	-	-	GW	-	-	-	6/28/2010	8:20	NYC Collected Sample	X		X	X	X	X	X	
		631226.023	669638.147	GC-MW17I	JA50143-4	-	-	-	GW	-	-	-	6/28/2010	11:10	NYC Collected Sample	X		X	X	X	X	X	
MW-18	MW-18	631155.335	669306.432	GC-MW18S	JA50143-5	JA50143-5F	-	-	GW	-	-	-	6/28/2010	8:45	NYC Collected Sample	X	X [1]	X	X	X	X	X	X
		631152.604	669307.627	GC-MW18I	JA50143-6	JA50143-6F	-	-	GW	-	-	-	6/28/2010	10:35	NYC Collected Sample	X	X [1]	X	X	X	X	X	X
MW-19	MW-19	631440.898	669316.233	GC-MW19S	JA50143-1	-	-	-	GW	-	-	-	6/28/2010	8:00	NYC Collected Sample	X		X	X	X	X	X	
		631437.408	669332.112	GC-MW19I	JA50143-2	-	-	-	GW	-	-	-	6/28/2010	10:30	NYC Collected Sample	X		X	X	X	X	X	
GC-MW23S	MW-23	632494.23	671280.82	GC-MW23S	A0G270492002	-	GC-MW-XX	-	GW	3	13	ft	7/21/10	10:30	National Grid Collected Sample								X
					835657	-	GC-MW-XX	-	GW	3	13	ft	7/21/10	10:30	National Grid Collected Sample	X		X	X	X	X	X	X
					835658	-	GC-MW-XX	-	GW	3	13	ft	7/21/10	10:30	National Grid Collected Sample	X							X
					220-12854-8	-	GC-MW-XX	-	GW	3	13	ft	7/21/10	10:30	National Grid Collected Sample								X
GC-MW23I		632487.09	671276.44	GC-MW-23I(33.75-38.75)	A0G270492001	-	-	-	GW	33.75	38.75	ft	7/20/10	15:10	National Grid Collected Sample								X
					835606	-	-	-	GW	33.75	38.75	ft	7/20/10	15:10	National Grid Collected Sample	X		X	X	X	X	X	X
					835607	-	-	-	GW	33.75	38.75	ft	7/20/10	15:10	National Grid Collected Sample	X							X
					835615	-	-	-	GW	33.75	38.75	ft	7/20/10	15:10	National Grid Collected Sample								X
					835616	-	-	-	GW	33.75	38.75	ft	7/20/10	15:10	National Grid Collected Sample								X
					220-12854-7	-	-	-	GW	33.75	38.75	ft	7/20/10	15:10	National Grid Collected Sample								X
GC-MW30S	MW-30	634212.53	673042.18	GC-MW30S(7-16)	835667	-	-	-	GW	7	16	ft	7/21/10	11:25	National Grid Collected Sample Existing well FW-MW-01	X		X	X	X	X	X	X
					835668	-	-	-	GW	7	16	ft	7/21/10	11:25	National Grid Collected Sample Existing well FW-MW-01	X							X
					220-12854-13	-	-	-	GW	7	16	ft	7/21/10	11:25	National Grid Collected Sample Existing well FW-MW-01								X
GC-MW30I		634214.93	673046.58	GC-MW30I(30-35)	835486	-	-	-	GW	30	35	ft	7/19/10	13:15	National Grid Collected Sample	X		X	X	X	X	X	X
					835487	-		-	GW	30	35	ft	7/19/10	13:15	National Grid Collected Sample	X							X
					220-12854-1	-	-	-	GW	30	35	ft	7/19/10	13:15	National Grid Collected Sample								X
GC-MW31S	MW-31	634418	673443.02	GC-MW31S(6.75-14.6)	A0G270492006	-	-	-	GW	6.75	14.6	ft	7/21/10	11:00	National Grid Collected Sample Existing well FW-MW-10								X
					835665	-	-	-	GW	6.75	14.6	ft	7/21/10	11:00	National Grid Collected Sample Existing well FW-MW-10	X		X	X	X	X	X	X
					835666	-	-	-	GW	6.75	14.6	ft	7/21/10	11:00	National Grid Collected Sample Existing well FW-MW-10	X							X
					220-12854-12	-	-	-	GW	6.75	14.6	ft	7/21/10	11:00	National Grid Collected Sample Existing well FW-MW-10								X
GC-MW31I		634422.17	673448.3	GC-MW31I(30-35)	A0G270492008	-	-	-	GW	30	35	ft	7/22/10	8:15	National Grid Collected Sample								X
					835672	-	-	-	GW	30	35	ft	7/22/10	8:15	National Grid Collected Sample	X		X	X	X	X	X	X
					835673	-	-	-	GW	30	35	ft	7/22/10	8:15	National Grid Collected Sample	X							X
					220-12854-15	-	-	-	GW	30	35	ft	7/22/10	8:15	National Grid Collected Sample								X
GC-MW32S	MW-32	634954.64	673200.22	GC-MW-32S(12-19)	835602	-	-	-	GW	12	19	ft	7/20/10	17:45	National Grid Collected Sample Existing well FW-MW-16	X		X	X	X	X	X	X
					835603	-	-	-	GW	12	19	ft	7/20/10	17:45	National Grid Collected Sample Existing well FW-MW-16	X							X
					220-12854-5	-	-	-	GW	12	19	ft	7/20/10	17:45	National Grid Collected Sample Existing well FW-MW-16								X
GC-MW32I		634940.76	673207.4	GC-MW-32I(40-45)	835600	-	-	-	GW	40	45	ft	7/20/10	13:00	National Grid Collected Sample	X		X	X	X	X	X	X
					835601	-	-	-	GW	40	45	ft	7/20/10	13:00	National Grid Collected Sample	X							X
					220-12854-4	-	-	-	GW	40	45	ft	7/20/10	13:00	National Grid Collected Sample								X
GC-MW40I	MW-40	630552.51	669193.87	GC-MW40I	835489	-	-	-	GW	53	58	ft	7/19/10	15:30	National Grid Collected Sample	X		X	X	X	X	X	X
					835490	-	-	-	GW	53	58	ft	7/19/10	15:30	National Grid Collected Sample	X							X
					220-12854-2	-	-	-	GW	53	58	ft	7/19/10	15:30	National Grid Collected Sample								X
GC-MW41S	MW-41	630336.49	669305.63	GC-MW41S(8-13)	220-12854-6	-	-	-	GW	8	13	ft	7/20/10	11:40	National Grid Collected Sample								X
					835604	-	-	-	GW	8	13	ft	7/20/10	11:40	National Grid Collected Sample	X		X	X	X	X	X	X
					835605	-	-	-	GW	8	13	ft	7/20/10	11:40	National Grid Collected Sample	X							X
GC-MW41I		630342.77	669304.82	GC-MW41I(53-58)	220-12854-3	-	-	-	GW	53	58	ft	6/25/10	12:35	National Grid Collected Sample								X
					835598	-	-	-	GW	53	58	ft	6/25/10	12:35	National Grid Collected Sample	X		X	X	X	X	X	X
					835599	-	-	-	GW	53	58	ft	6/25/10	12:35	National Grid Collected Sample	X							X
Ambient Field Blanks																							
FB	-	-		GC-MWFB062410	833690	-	-	-	W	-	-	-	6/24/10	9:00	National Grid Collected Sample	X		X	X	X	X	X	
FB	-	-		GC-FB072010	835669	-	-	-	W	-	-	-	7/20/10	NA	National Grid Collected Sample	X		X	X	X	X	X	
FB	-	-		GC-FB072010	A0G270492007	-	-	-	W	-	-	-	7/20/10	NA	National Grid Collected Sample								X
FB	-	-		GC-FB062810	834116	-	-	-	W	-	-	-	6/28/10	9:30	National Grid Collected Sample	X		X	X	X	X	X	
FB	-	-		GC-FB063010	834440	-	-	-	W	-	-	-	6/30/10	8:00	National Grid Collected Sample	X		X	X	X	X	X	
FB	-	-		GC-FB062510	833871	-	-	-	W	-	-	-	6/25/10	7:45	National Grid Collected Sample	X		X	X	X	X	X	
Equipment Blanks																							
EB	-	-		EB-01	JA49935-7	-	-	-	W	-	-	-	6/24/2010	08:00	NYC Collected Sample	X		X	X	X	X	X	
EB	-	-		EB-02	JA50019-5	-	-	-	W	-	-	-	6/25/2010	08:00	NYC Collected Sample	X		X	X	X	X	X	
EB	-	-		EB-03	JA50143-7	-	-	-	W	-	-	-	6/28/2010	07:00	NYC Collected Sample	X		X	X	X	X	X	

TABLE A-9
Sample Tracking – Phase 3
Upland (Soil/Groundwater) Investigation
collected by National Grid and New York City
analyzed through subcontracted labs

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	Laboratory Sample Number	Filtered Metal Sample Number	Duplicate Sample Number	Duplicate Filtered Sample Number	Matrix	Sample Top Depth (bgs)	Sample Bottom Depth (bgs)	Unit	Sample Collection Date	Sample Collection Time	Notes	Analyses Performed [2]							
																Metals + Hg	Metals + Hg Filtered [1]	Cyanide (TCN)	VOCs	SVOCs	PCBs	Pesticides	Geochemistry
EB	-	-		EB01	JA48109-2	-	-	-	W	-	-	-	6/2/2010	15:45	NYC Collected Sample	X		X	X	X	X	X	
EB	-	-		EB02	JA48109-3	-	-	-	W	-	-	-	6/3/2010	09:30	NYC Collected Sample	X		X	X	X	X	X	
EB	-	-		EB03	JA48166-1	-	-	-	W	-	-	-	6/4/2010	07:00	NYC Collected Sample	X		X	X	X	X	X	
EB	-	-		EB04	JA48353-14	-	-	-	W	-	-	-	6/7/2010	8:00	NYC Collected Sample	X		X	X	X	X	X	
EB	-	-		EB05	JA48480-16	-	-	-	W	-	-	-	6/8/2010	13:25	NYC Collected Sample	X		X	X	X	X	X	
Trip Blanks																							
TB	-	-		TB-01	JA49935-8	-	-	-	W	-	-	-	6/24/2010	N/A	NYC Collected Sample				X				
TB	-	-		TB-02	JA48353-13	-	-	-	W	-	-	-	6/25/2010	N/A	NYC Collected Sample				X				
TB	-	-		TB-03	JA50143-8	-	-	-	W	-	-	-	6/28/2010	N/A	NYC Collected Sample				X				
TB	-	-		TRIP BL	JA48109-4	-	-	-	W	-	-	-	6/3/2010	N/A	NYC Collected Sample				X				
TB	-	-		TRIP BL	JA48353-13	-	-	-	W	-	-	-	6/7/2010	N/A	NYC Collected Sample				X				
TB	-	-		TRIP BL	JA48480-14	-	-	-	W	-	-	-	6/8/2010	N/A	NYC Collected Sample				X				
TB	-	-		GC-TB062910A	834328	-	-	-	W	-	-	-	6/29/10	15:00	National Grid Collected Sample				X				
TB	-	-		GC-TB062310	833592	-	-	-	W	-	-	-	6/23/10	15:30	National Grid Collected Sample				X				
TB	-	-		GC-TB062810	834113	-	-	-	W	-	-	-	6/28/10	12:00	National Grid Collected Sample				X				
TB	-	-		GC-TB062410	833689	-	-	-	W	-	-	-	6/24/10	10:00	National Grid Collected Sample				X				
TB	-	-		GC-TB062510	833875	-	-	-	W	-	-	-	6/25/10	15:30	National Grid Collected Sample				X				
TB	-	-		GC-TB072210	835674	-	-	-	W	-	-	-	7/22/10	NA	National Grid Collected Sample				X				
TB	-	-		GC-TB072110	835671	-	-	-	W	-	-	-	7/21/10	NA	National Grid Collected Sample				X				
TB	-	-		GC-TB062910	834312	-	-	-	W	-	-	-	6/29/10	15:00	National Grid Collected Sample				X				
TB	-	-		GC-TB063010	834441	-	-	-	W	-	-	-	6/30/10	8:15	National Grid Collected Sample				X				
TB	-	-		GC-TB071910	835488	-	-	-	W	-	-	-	7/19/10	NA	National Grid Collected Sample				X				

Legend:

EB Equipment Blank
FD Field Duplicate
TB Trip Blank
W Water sample for equipment and trip blanks
N Normal (ie, not QA/QC)
SB Soil Boring Sample
GW Ground Water Sample
bgs Below Ground Surface

VOC Volatile Organic Compound
SVOC Semi-Volatile Organic Compound
PEST Pesticides

1 NYC Filtered groundwater samples only analyzed for dissolved iron
2 See Section 2.8 for exact analysis methods performed by each sampling entity
3 Soil from surface interval (0'-5') collected from adjacent boring GC-MW40D2

Geochemistry Samples analyzed for: alkalinity, ammonia, nitrates, total Kjeldahl nitrogen, organic carbon – dissolved, organic carbon – total, total hardness, silica, sulfates, total dissolved solids, Ferrous (+II) Iron field test

Coordinates in New York State Plane, East 3101 – NAD83 CONUS

TABLE A-10
Sample Tracking
Phase 3 - Upland (Soil/Groundwater) Investigation (Oversight Sampling)
collected by USEPA, analyzed through CLP

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number/ Sample QC	Matrix	Top Depth (SOIL) / Top of Screen (GW) [bgs]	Bottom Depth (SOIL) / Bottom of Screen (GW) [bgs]	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP							
														TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	% Moisture
SUBSURFACE SOIL (NYC and National Grid)																					
SB01	MW-1	634484.706	673668.503	SB01D-S-NYC	B83F5	-	-	Soil	15.0	20.0	ft	6/2/2010	40221	X		X	X	X	X	X	X
		634484.706	673668.503	SB01H-S-NYC	B83F6	-	-	Soil	35.0	40.0	ft	6/2/2010	40221	X		X	X	X	X	X	X
SB02	MW-2	634302.043	673620.925	SB-02C-S-NYC	B83G0	-	-	Soil	10.0	15.0	ft	6/3/2010	40221	X		X	X	X	X	X	X
		634302.043	673620.925	SB02G-S-NYC	B83G1	-	MSD	Soil	30.0	35.0	ft	6/4/2010	40221	X		X	X	X	X	X	X
SB09	MW-9	631763.298	670958.600	SB09C-S-NYC	B83G7	-	-	Soil	10.0	15.0	ft	6/8/2010	40221	X		X	X	X	X	X	X
		631763.298	670958.600	SB09H-S-NYC	B83G9	-	-	Soil	35.0	40.0	ft	6/8/2010	40221	X		X	X	X	X	X	X
SB10	MW-10	631573.228	671266.329	SB10C-S-NYC	B83G3	-	-	Soil	10.0	15.0	ft	6/7/2010	40221	X		X	X	X	X	X	X
		631573.228	671266.329	SB10I-S-NYC	B83G4	-	B83G5	Soil	40.0	45.0	ft	6/7/2010	40221	X		X	X	X	X	X	X
SB17	MW-17	631226.023	669638.147	SB17C-S-NYC	B83F7	-	-	Soil	10.0	15.0	ft	6/2/2010	40221	X		X	X	X	X	X	X
		631226.023	669638.147	SB17I-S-NYC	B83F8	-	-	Soil	40.0	45.0	ft	6/2/2010	40221	X		X	X	X	X	X	X
SB18	MW-18	631152.604	669307.627	SB18D-S-NYC	B83G6	-	-	Soil	15.0	20.0	ft	6/8/2010	40221	X		X	X	X	X	X	X
		631152.604	669307.627	SB18K-S-NYC	B83G8	-	B83H0	Soil	50.0	55.0	ft	6/8/2010	40221	X		X	X	X	X	X	X
SB19	MW-19	631437.408	669332.112	SB-19C-S-NYC	B83F9	-	-	Soil	10.0	15.0	ft	6/3/2010	40221	X		X	X	X	X	X	X
		631437.408	669332.112	SB19L-S-NYC	B83G2	-	-	Soil	55.0	60.0	ft	6/4/2010	40221	X		X	X	X	X	X	X
SB-23	MW-23	632487.09	671276.44	SB23IC-S-NG	B83M0	-	-	Soil	10.0	15.0	ft	6/29/2010	40221	X		X	X	X	X	X	X
		632487.09	671276.44	SB23IH-S-NG	B83M1	-	-	Soil	35.0	39.0	ft	6/29/2010	40221	X		X	X	X	X	X	X
SB-30	MW-30	634212.53	673042.18	SB30IB-S-NG	B83M2	-	-	Soil	5.0	10.0	ft	6/29/2010	40221	X		X	X	X	X	X	X
		634212.53	673042.18	SB-30I-S-NG	B83M3	-	-	Soil	35.0	36.0	ft	6/30/2010	40221				X	X			X
SB-31	MW-31	634422.17	673448.30	SB31IB-S-NG	B83J3		-	Soil	5.0	10.0	ft	6/25/2010	40221	X		X	X	X	X	X	X
		634422.17	673448.30	SB31IG-S-NG	B83L8	-	-	Soil	30.0	35.0	ft	6/28/2010	40221	X		X	X	X	X	X	X
SB-32	MW-32	634940.76	673207.40	SB32ID-S-NG	B83H4	-	-	Soil	15.0	20.0	ft	6/23/2010	40221	X		X	X	X	X	X	X
		634940.76	673207.40	SB32IH-S-NG	B83H7	-	-	Soil	35.0	40.0	ft	6/24/2010	40221	X		X	X	X	X	X	X
		634940.76	673207.40	SB32II-S-NG-R	B83L9	-	-	Soil	40.0	45.0	ft	6/28/2010	40221	X		X	X	X	X	X	X
SB-40	MW-40	630555.340	669202.650	SB40IB-S-NG	B83H5	-	-	Soil	5.0	10.0	ft	6/23/2010	40221	X		X	X	X	X	X	X
		630555.340	669202.650	SB40IJ-S-NG	B83H6	-	-	Soil	55.0	58.0	ft	6/23/2010	40221	X		X	X	X	X	X	X
SB-41	MW-41	630342.77	669304.82	SB41IB-S-NG	B83J4	-	-	Soil	5.0	10.0	ft	6/25/2010	40221	X		X	X	X	X	X	X
		630342.77	669304.82	SB41IL-S-NG	B83J5	-	-	Soil	55.0	58.0	ft	6/25/2010	40221	X		X	X	X	X	X	X
GROUNDWATER SAMPLING (NYC and National Grid)																					
MW-1	MW-1	634481.919	673670.091	GC-MW01S-S-NYC	B83J6	MB83J7	-	Groundwater	7.0	17.0	ft	6/25/2010	40221	X	X	X	X	X	X	X	
		634484.706	673668.503	GC-MW01I-S-NYC	B83J8	MB83J9	-	Groundwater	34.8	39.8	ft	6/25/2010	40221	X	X	X	X	X	X	X	
MW-2	MW-2	634299.811	673623.691	GC-MW02S-S-NYC	B83K0	MB83K1	-	Groundwater	2.9	12.9	ft	6/25/2010	40221	X	X	X	X	X	X	X	
		634302.043	673620.925	GC-MW02I-S-NYC	B83K2	MB83K3	-	Groundwater	29.6	34.6	ft	6/25/2010	40221	X	X	X	X	X	X	X	
MW-9	MW-9	631759.285	670962.606	GC-MW09S-S-NYC	B83H9	MB83H9	-	Groundwater	4.9	14.9	ft	6/24/2010	40221	X	X	X	X	X	X	X	
		631763.298	670958.600	GC-MW09I-S-NYC	B83H8	MB83H8	-	Groundwater	34.2	39.2	ft	6/24/2010	40221	X	X	X	X	X	X	X	
MW-10	MW-10	631580.160	671266.661	GC-MW10S-S-NYC	B83J1	-	-	Groundwater	5.0	15.0	ft	6/24/2010	40221				X				
		631573.228	671266.329	GC-MW10I-S-NYC	B83J0	MB83J0	-	Groundwater	40.0	45.0	ft	6/24/2010	40221	X	X	X	X	X	X	X	
MW-17	MW-17	631227.118	669633.170	GC-MW17S-S-NYC	B83K7	MB83K8	-	Groundwater	5.0	15.0	ft	6/28/2010	40221	X	X	X	X	X	X	X	
		631226.023	669638.147	GC-MW17I-S-NYC	B83K5	MB83K6	-	Groundwater	39.4	44.4	ft	6/28/2010	40221	X	X	X	X	X	X	X	
MW-18	MW-18	631155.335	669306.432	GC-MW-18S-S-NYC	B83L1	MB83L2	-	Groundwater	4.6	14.6	ft	6/28/2010	40221	X	X	X	X	X	X	X	
		631152.604	669307.627	GC-MW-18I-S-NYC	B83K9	MB83L0	-	Groundwater	51.7	56.7	ft	6/28/2010	40221	X	X	X	X	X	X	X	
MW-19	MW-19	631440.898	669316.233	GC-MW-19S-S-NYC	B83L5	MB83L6	-	Groundwater	5.0	15.0	ft	6/28/2010	40221	X	X	X	X	X	X	X	
		631437.408	669332.112	GC-MW-19I-S-NYC	B83L3	MB83L4	-	Groundwater	54.1	59.1	ft	6/28/2010	40222	X	X	X	X	X	X	X	
MW-23	MW-23	632494.23	671280.82	GC-MW-23S-S-NG	B83N4	MB83N5	-	Groundwater	3.0	13.0	ft	7/21/2010	40221	X	X	X	X	X	X	X	
		632487.09	671276.44	GC-MW-23I-S-NG	B83N0	MB83N1	-	Groundwater	34.0	39.0	ft	7/20/2010	40221	X	X	X	X	X	X	X	
MW-30	MW-30	634212.53	673042.18	GC-MW-30S-S-NG	B83N6	MB83N7	-	Groundwater	7.0	17.0	ft	7/21/2010	40221	X	X	X	X	X	X	X	

TABLE A-10
Sample Tracking
Phase 3 - Upland (Soil/Groundwater) Investigation (Oversight Sampling)
collected by USEPA, analyzed through CLP

Station ID from Sampling Entity	Station Reported As In This Report	Easting	Northing	Sample ID	CLP Sample Number	Filtered Metal CLP Sample Number	Duplicate Sample Number / Duplicate Filtered Sample Number/ Sample QC	Matrix	Top Depth (SOIL) / Top of Screen (GW) [bgs]	Bottom Depth (SOIL) / Bottom of Screen (GW) [bgs]	Unit	Sample Collection Date	CLP Case Number	Analyses Performed Through CLP							
														TAL Metals + Hg	TAL Metals + Hg Filtered	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	% Moisture
MW-31	MW-31	634418.00	673443.02	GC-MW-31S-S-NG	B83N8	MB83N9	-	Groundwater	5.0	15.0	ft	7/21/2010	40221	X	X	X	X	X	X	X	
		634422.17	673448.30	GC-MW-31I-S-NG	B83P2	MB83P3	-	Groundwater	30.0	35.0	ft	7/22/2010	40221	X	X	X	X	X	X	X	
MW-32	MW-32	634954.64	673200.22	GC-MW-32S-S-NG	B83N2	MB83N3	-	Groundwater	10.0	20.0	ft	7/20/2010	40221	X	X	X	X	X	X	X	
		634940.76	673207.40	GC-MW-32I-S-NG	B83M8	MB83M9	-	Groundwater	41.0	46.0	ft	7/20/2010	40221	X	X	X	X	X	X	X	
MW-41	MW-41	630336.49	669305.63	GC-MW-41S-S-NG	B83M6	MB83M7	-	Groundwater	3.5	13.5	ft	7/20/2010	40221	X	X	X	X	X	X	X	
		630342.77	669304.82	GC-MW41L-S-NG	B83M4	MB83M5	-	Groundwater	55.0	58.0	ft	7/19/2010	40221	X	X	X	X	X	X	X	
Equipment Blanks																					
EB	-	MW-18 Cluster		EB-06082010-01	B7Y84	-	-	W	-	-	-	6/8/2010	40221	X		X	X	X	X	X	
Field Blanks																					
FB	-	Near MW-09		EB-06082010-01	B83H2	-	-	W	-	-	-	6/8/2010	40221	X		X	X	X	X	X	
Trip Blanks																					
TB	-	Office		TB-06010-01	B83H3	-	-	W	-	-	-	6/8/2010	40221				X				
TB	-	Office		TB-062410-01	B83J2	-	-	W	-	-	-	6/24/2010	40221				X				
TB	-	Office		TB-062510-01	B83K4	-	-	W	-	-	-	6/25/2010	40221				X				
TB	-	Office		TB-062810-01	B83L7	-	-	W	-	-	-	6/28/2010	40221				X				
TB	-	Office		TB-072110-01	B83P0	-	-	W	-	-	-	7/21/2010	40221				X				
TB	-	Office		TB-072210-01	B83P1	-	-	W	-	-	-	7/22/2010	40221				X				

Legend:

EB	Equipment Blank	TAL	Target Analyte List
TB	Trip Blank	TCL	Target Compound List includes: volatile organic compounds, semi-volatile organic compounds, pesticides, and PCBs
W	Water sample for equipment and trip blanks		
N	Normal		
BTIC	Below Top of Inner Casing	VOC	Volatile Organic Compound
MW	Monitor Well	SVOC	Semi-Volatile Organic Compound
ft	feet	PEST	Pesticides
bgs	Below Ground Surface	PCB	Polychlorinated biphenyls
GW	Ground Water	Hg	Mercury Analysis
CLP	Contract Laboratory Program		
S	Split Sample	Coordinates in New York State Plane East 3101 - NAD83 Conus	
NYC	New York City		
NG	National Grid		

Appendix B
Bathymetry

Contents

Bathymetric Survey Report

Bathymetric Survey Report, Addendum 1, Comparison of Gowanus Canal Bottom Elevations, June 2003 versus January 2010

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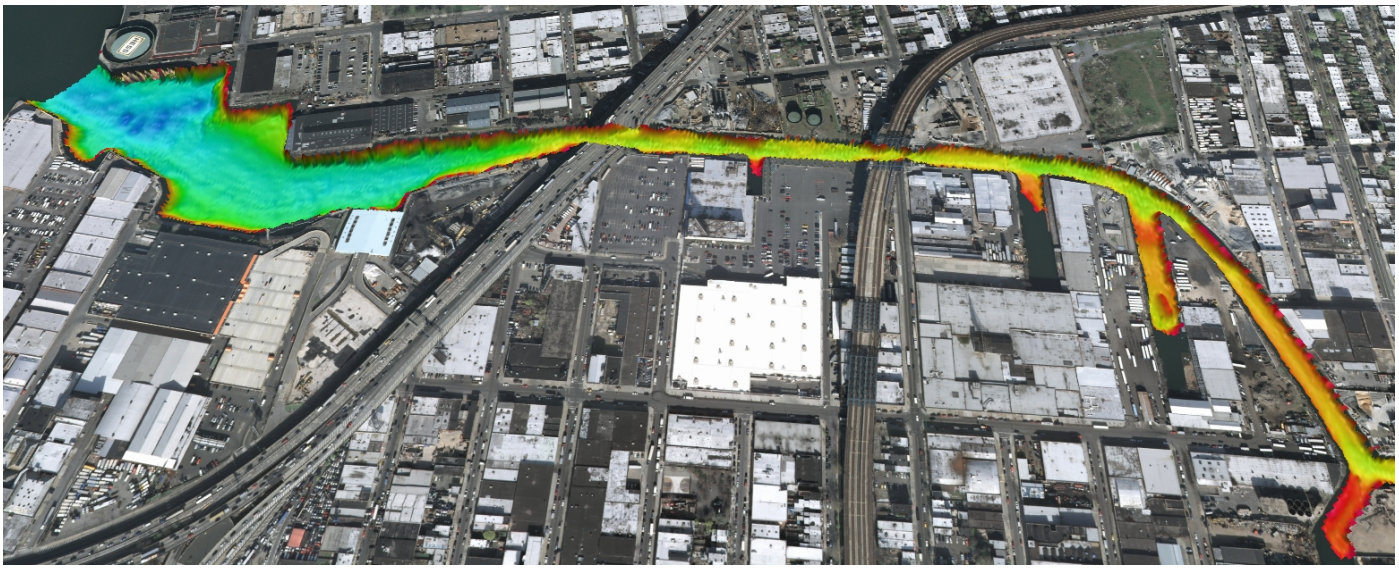
BATHYMETRIC SURVEY REPORT

GOWANUS CANAL

BROOKLYN, NEW YORK



3-D Visualization of a Portion of the Gowanus Canal Survey Area

Prepared for:

Henningson, Durham and Richardson Architecture and Engineering, P.C.
One Blue Hill Plaza, P.O. Box 1509
Pearl River, New York 10965

Prepared by:

CR Environmental, Inc.
639 Boxberry Hill Road
East Falmouth, MA 02536

April 2010

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FIGURES

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Figure 1B Gowanus Canal Site Trackline Map (Northern Section)

Figure 2A Gowanus Canal Site Bathymetric Contour Map (Southern Section)

Figure 2B Gowanus Canal Site Bathymetric Contour Map (Northern Section)

LIMITATIONS

ATTACHMENT 1 GEOD Corporation Survey Information for the BM-1 Control Point on the Carroll Street Bridge

PROJECT DATA CD

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1.0 INTRODUCTION

CR Environmental, Inc. (CR) performed a bathymetric survey of part of Gowanus Bay and all navigable portions of the Gowanus Canal, located in Brooklyn, NY, on January 5, 2010 for Henningson, Durham and Richardson Architecture and Engineering, P.C. (HDR). The objective of the survey was to map seabed elevations within the Gowanus Canal Study Area in support of the ongoing Remedial Investigation/Feasibility Study (RI/FS). These data can be used to support volume calculations, estimates of changes in depth over time, and to assist in planning sediment sampling investigations.

This draft report summarizes the methods used for bathymetric data acquisition and the results obtained. Digital data products were transmitted electronically to HDR and CH2M Hill, Inc. on January 25, 2010 and also on a CD with the draft report submitted February 2010. Data are projected to New York State Plane (Long Island), NAD-83, U. S. Survey Feet. Seabed elevations are reported in U.S. Survey Feet relative to NAVD88 (estimated).

2.0 METHODS

The bathymetric survey was designed to meet or exceed the survey requirements specified by HDR in an August 2009 Request for Proposal. The executed survey methodology was in compliance with hydrographic survey standards promulgated by the U.S. Army Corps of Engineers (USACE, EM-1110-2-1003). Survey transects were designed using HYPACK 2009 hydrographic survey software. Background imagery including georeferenced orthophotos and USGS Quadrangles were obtained and imported to HYPACK to assist in the survey design.

Shore-parallel survey transects were spaced approximately 10 to 50 feet apart. Channel cross-sections were spaced 100 feet apart. Navigation for the survey was accomplished using Trimble AgGPS 132 and Trimble ProXRS 12-channel Differential Global Positioning Systems (DGPS) capable of receiving U.S. Coast Guard (USCG) Beacon corrections, and OmniStar subscription-based satellite differential corrections. Both systems provided real time digital positions accurate to less than 1 meter horizontally.

2.1 Survey Vessel

Two vessels were utilized for the survey. The primary survey vessel was the *M/V Donna Miller*, chartered from Miller's Launch in Staten Island, NY. This 25-ft aluminum work boat was used to conduct the survey in Gowanus Bay, and a portion of the work in the lower Gowanus Canal. The 12-ft survey *skiff* was utilized in the shallower portions of the Canal, and to conduct the survey work above the Carroll Street Bridge. Both vessels were outfitted with over-the-side transducer mounts, DGPS antenna brackets, and data acquisition computers. Neither vessel was equipped with ice breaking equipment, and because of this, the surveys were limited by the extent of any ice encountered in the Canal and turning basins.

2.2 Bathymetric Data Acquisition

The bathymetric data acquisition systems consisted of laptop computers running HYPACK 2009 hydrographic survey software, precision single-beam echo sounders and a Trimble DGPS. The echo sounders and DGPS were interfaced to the survey computers via RS-232 serial and Ethernet ports. Most depth measurements on the *Donna Miller* were acquired by simultaneous deployment of two survey-grade echo sounders in order to increase data density, productivity, and usability. The two echo sounders on the *Donna Miller* were an ODOM CV-100 precision echo sounder equipped with an 8-degree 200-kHz transducer, and a SyQwest Bathy500 precision echo sounder equipped with a 3-degree 200-kHz transducer. Depth measurements on the *skiff* were collected using a SyQwest HydroBox precision echo sounder equipped with an 8-degree 200-kHz transducer. The echo sounders digitized and recorded the seabed and exported depth values to HYPACK. The echo sounder transducers were mounted to the rails of the survey vessels amidships using high-strength adjustable booms. The DGPS antenna on the *skiff* was mounted directly over the transducer, eliminating the need to account for horizontal offsets. The DGPS antenna on the *Donna Miller* was mounted directly over the CV-100 transducer, and a precise horizontal offset was measured and entered into HYPACK to account for the offset from the Bathy500 transducer. The depth of each transducer below the water surface was measured both at the start and end of the survey.

The accuracy of the CV-100, HydroBox, and Bathy500 was approximately 0.1% of the water depth with a resolution of 0.1 foot. System accuracy was checked at the start and end of the survey day by comparing each echo sounder's water depth measurements to known water depths obtained using the bar check method, in which a metal plate is lowered beneath the echo sounder's transducer to several known distances (e.g., 5, 10, 15 and 20 ft below the water surface). Based on these comparisons, the systems were calibrated for shallow water conditions. Bar check calibrations for all three systems were consistently accurate to within 0.1 foot throughout the survey.

Additional calibrations were conducted in-situ by collecting water column profiles of sound velocity. Sound velocity in water can be determined based on measurements of temperature and conductivity. Measurements of water column temperature and conductivity were performed using a YSI, Inc. Model 6600 EDS-V2 water quality sonde, and a YSI, Inc. Model 85 Handheld Water Quality Meter.

2.3 Vertical Control

Vertical control for this survey was accomplished by using a cost-effective combination of techniques. GEOD Corporation, a NY Licensed Land Surveying firm, had established three vertical control points in support of CR's 2003 bathymetric surveying effort of the Canal (see Attachment 1). One benchmark was located in outer Gowanus Bay at the Columbia Street pier, one was located in the central reach of the Gowanus Canal at Bayside Fuel Corporation (537 Smith Street), and one was near the head of the Canal at the Carroll Street Bridge. GEOD was contacted and they conducted a site reconnaissance

which concluded that only the benchmark in the Bay and the benchmark at Carroll Street were still in existence and usable.

CR set two time-synchronized water level recorders, one near the upstream extent of the survey area and one near the downstream extent of the survey area in order to evaluate time and range offsets in water surface elevation during the survey. A new temporary benchmark (TBM-1) was established near the downstream limit of the survey area, adjacent to 629 Smith Street, and an In Situ, Inc. LevelTroll 500 water level recorder was suspended beneath this benchmark. An In Situ, Inc. LevelTroll 100 water level recorder was suspended beneath the upstream Carroll Street Bridge control point (BM-1). After the survey was completed, data from the two synchronized tide recorders were compared. CR determined that there was no quantifiable difference in tidal range or timing between the two locations during the survey (both flood and ebb around high tide). Thus, for the purposes of this survey, occupation of TBM-1 by a land survey firm was not required. Note, however, that the tidal gradient in the Canal surrounding low tide or under different wind conditions is unknown. The TBM-1 benchmark was clearly marked, and could be surveyed at any time if needed.

Per the request of Project advisors from CH2M Hill, Inc., the elevations from the January 2010 survey have been reported as "estimated" NAVD88 elevations. The Carroll Street benchmark elevation was reported by GEOD relative to NGVD29 (Attachment 1), and three methods were used to convert the benchmark elevation to NAVD88. First, the U.S. Army Corps of Engineers' (ACOE) datum conversion routine, Corpscon, was run to determine the offset between the two datums. Corpscon gave a result of -1.109 U.S. Survey Feet between NGVD29 and NAVD88. CR then contacted GEOD Corporation, and they confirmed that the separation between NGVD29 and NAVD88 was -1.11 feet. This value has been used to convert the soundings to estimated NAVD88 seabed elevations. The accuracy of the conversion was verified by comparing the NAVD88 adjusted tide data to NOAA's Battery tide series (Station ID: 8518750), adjusted for Gowanus Bay. This comparison suggested a -1.19 foot separation between datums.

2.4 Bathymetric Data Processing

Bathymetric data were processed using the HYPACK Single Beam Processor Module. Individual transect data were visually inspected in profile format, and components of processing included:

- Removal of outlying soundings associated with water column interference (e.g., fish, vegetation, or mid-water column debris);
- Adjustments of soundings for variations in sound velocity;
- Filtering of DGPS position data; and
- Conversion of soundings to estimated NAVD88 elevations based on a benchmark surveyed by GEOD Corporation in 2003, located near the Carroll Street Bridge. See Section 2.3 for a discussion of the vertical control for this project.

Neither water column interference nor sound velocity gradients influenced data quality, likely due to the cold dry weather which preceded the survey. However, DGPS position uncertainty was substantially increased by overhead obstruction and signal multipath near each of the bridge overpasses. Position data were filtered to retain only differentially corrected fixes with low dilution of position values. The locations of soundings beneath bridges were estimated based on interpolation between high-confidence DGPS fixes on either side of each bridge.

After performing data adjustments, the processed bathymetric data were combined into comma-delimited ASCII text files including fields for Northing, Easting, and Elevation. The data were imported to Golden Software, Inc. Surfer V.9.3 Surface Modeling Software and a digital elevation model (DEM) of seabed elevations was created using triangulation interpolation methods. A contour map depicting bottom elevations using a 0.5-foot contour interval was created from the DEM and the map was exported in DXF and SHP formats. A surface map of the bathymetric data was created using conventional hydrographic shading, artificial illumination, and a 2x vertical exaggeration to better illustrate bottom morphology. The surface map was exported as a georeferenced TIF image file.

3.0 BATHYMETRIC RESULTS AND DELIVERABLES

Processed bathymetric data, map layers, figures, and a copy of this report are attached on the project CD. Occupied survey transects (i.e., sounding tracklines) are depicted on Figures 1A and 1B. The increased data density afforded through simultaneous use of two echo sounders is readily apparent. Access to inner portions of all four turning basins was precluded by ice. DGPS signal quality was compromised near all bridges. This degradation was most severe beneath the 9th Street Bridge.

Elevations reported during the survey ranged from approximately -0.13 feet to -38 feet NAVD88, as illustrated by the contour and DEM layers presented on Figures 2A and 2B. Prop scours from tug boat operations are visible on the seabed near the downstream limit of the survey area.

Although single-beam bathymetry is not considered an effective tool for identifying underwater obstructions, wreckage is clearly visible in data collected from the turning basin between 5th Street and 6th Street. This feature extends above the water surface at all tides and is clearly visible from shore and in aerial photographs. Submerged wreckage or large debris is also suggested near the mouth of the upstream turning basin. Data suggests the widespread presence of other debris throughout the survey area. Mapping of these features will require side scan or multibeam sonar surveys.

Bathymetric data quality was assessed by comparing approximately co-located soundings along perpendicular transects. These “cross-tie” comparisons were conducted on the final merged data set, and included points collected using all three sounding systems on both vessels over a tidal range of 2.6 feet. Examination of 337 of these co-located soundings revealed a negligible arithmetic mean difference (depth bias) of -0.025

feet, and a standard deviation (SD) of the residuals of ±0.30 feet. Considering cross-tie comparisons across the full project depth range (38 feet), the root mean squared (RMS) error was 0.62 feet at the 95% Confidence Interval (CI), less than the most stringent Army Corps of Engineers (ACOE) requirement of 1.0 foot for navigation and dredging projects in water depths of 15 to 40 feet. Data collected from the *skiff* in water depths less than 15 feet had a RMS at the 95% CI of 0.27 feet, less than the 0.5-foot ACOE specification for this water depth.

International Hydrographic Organization (IHO) Special Order specifications for a survey in depths of 5 meters (16.4 feet) would call for a 95% CI of 0.8 feet (max SD = 0.42). IHO Special Order specifications for a survey in depths of 10 meters (32.8 feet) calls for a 95% CI of 0.9 feet (max SD = 0.44).

We, therefore, conclude that the quality of data generated by this survey is compliant with ACOE and IHO guidelines. Some of the variation in "cross-tie" comparisons is associated with the steep slopes and engineered headwalls which dominate the Canal margins. These slopes and headwalls cause vertical discontinuity between soundings run in different directions. In addition, the slight variation between some soundings suggests the presence of a surficial floc layer on the seabed which was intermittently penetrated by the ODOM and SyQwest sounding systems.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The January 2010 bathymetric survey of the Gowanus Canal generated an accurate database and map of seabed elevations and morphometry. Ice prevented access to small sections of the Canal's turning basins, and active and derelict barges and other vessels hindered navigation in some portions of the Canal's main channel. Further bathymetric survey work will be required to characterize these areas, and additional soundings should be collected in the vicinity of the 9th Street Bridge using a smaller vessel which does not require Bridge openings for access. Finally, the use of side scan sonar to accurately locate and characterize submerged debris which could pose a danger to sediment sampling or potential future dredging efforts is recommended.

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FIGURES

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FIGURE 1a

GOWANUS CANAL SITE
TRACKLINES
REMEDIAL INVESTIGATION / FEASIBILITY STUDY
BROOKLYN, NEW YORK

NOTES:
1) Survey conducted January 5, 2010
2) Horizontal - New York State Plane (Long Island) NAD83 US Survey Feet/ Vertical - NAVD 88 US Survey Feet (Estimated)
3) Not for Navigation.

Feet
0 100 200 400

Date	Revision
2/18/2010	Initial Review

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CR

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FIGURE 1b

GOWANUS CANAL SITE
TRACKLINES
REMEDIAL INVESTIGATION / FEASIBILITY STUDY
BROOKLYN, NEW YORK

NOTES:
1) Survey conducted January 5, 2010
2) Horizontal - New York State Plane (Long Island) NAD83 US Survey Feet/ Vertical - NAVD 88 US Survey Feet (Estimated)
3) Not for Navigation.

Feet
0 100 200 400

Date	Revision
2/18/2010	Initial Review

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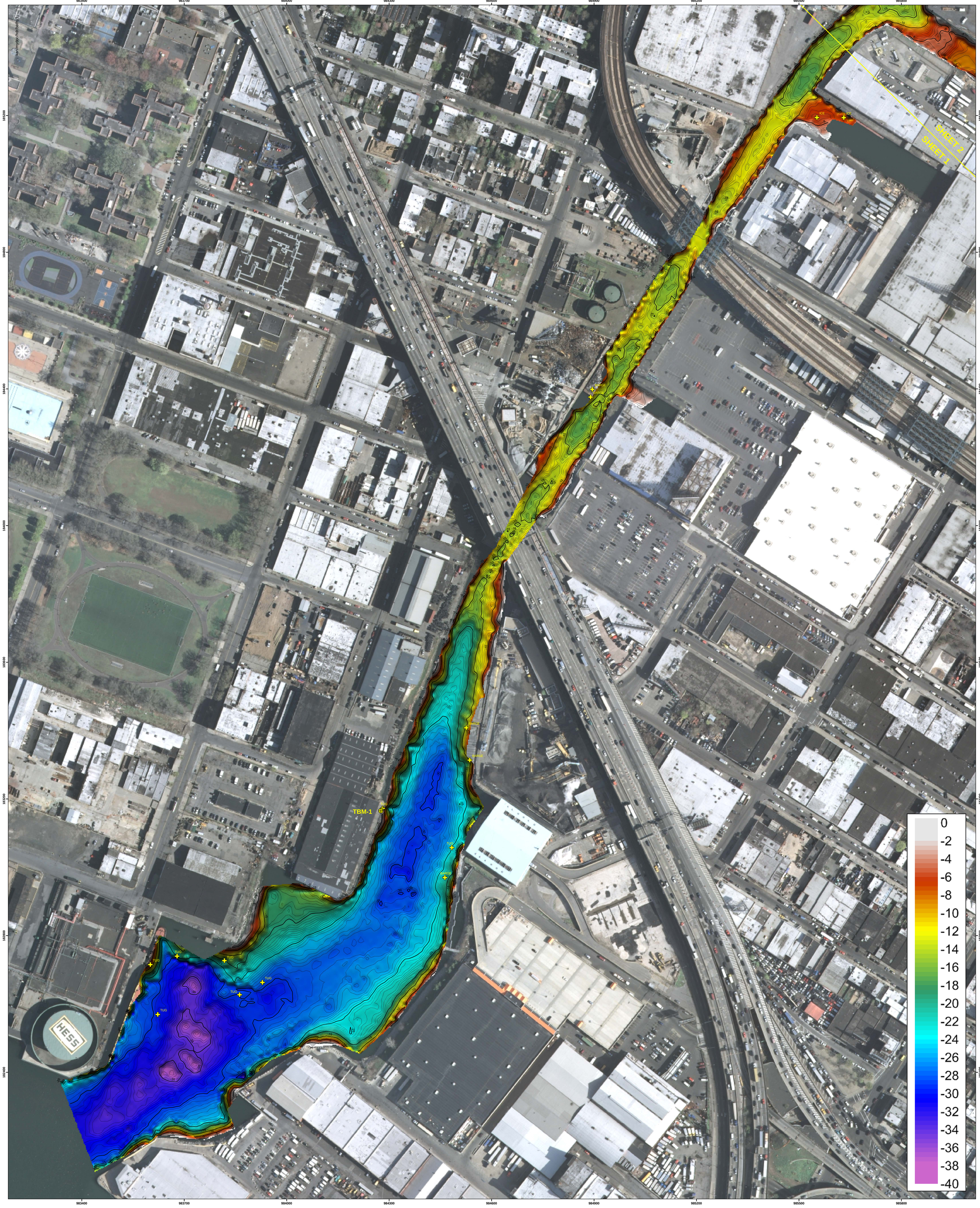

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FIGURE 2a

GOWANUS CANAL SITE BATHYMETRY
0.5-FOOT CONTOUR INTERVAL
REMEDIAL INVESTIGATION / FEASIBILITY STUDY
BROOKLYN, NEW YORK

NOTES:
1) Survey conducted January 5, 2010
2) Horizontal - New York State Plane (Long Island), NAD83, US Survey Feet/ Vertical - NAVD88, US Survey Feet (Estimated)
3) Not for Navigation.

Feet
0 100 200 400

Date	Revision
2/18/2010	Initial Review

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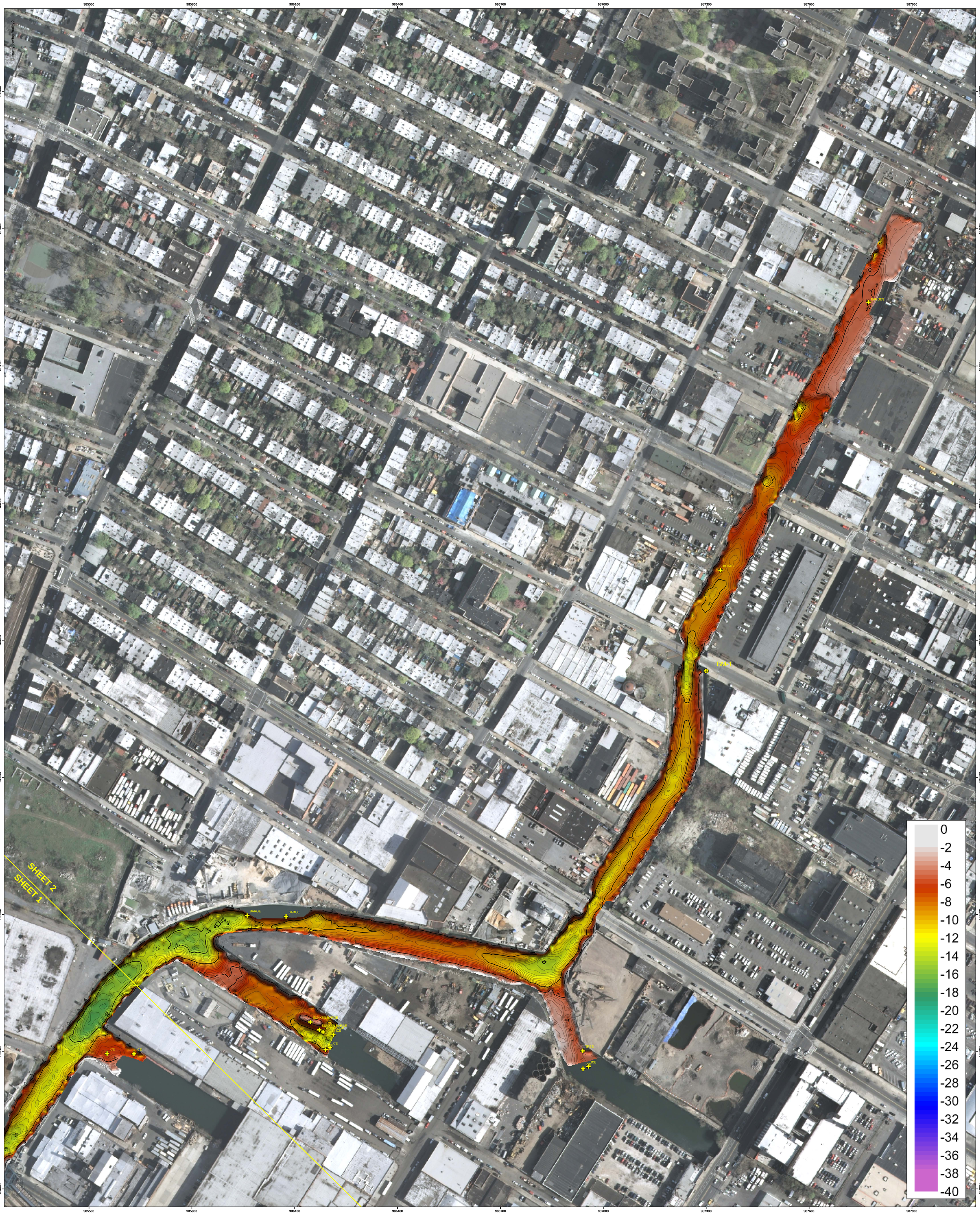

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FIGURE 2b

GOWANUS CANAL SITE BATHYMETRY
0.5-FOOT CONTOUR INTERVAL
REMEDIAL INVESTIGATION / FEASIBILITY STUDY
BROOKLYN, NEW YORK

NOTES:
1) Survey conducted January 5, 2010
2) Horizontal - New York Stae Plane (Long Island), NAD83, US Survey Feet/ Vertical - NAVD88, US Survey Feet (Estimated)
3) Not for Navigation.

Feet
0 100 200 400

Date	Revision
2/17/2010	Initial Review

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CR ENVIRONMENTAL, INC.

GEOPHYSICAL AND HYDROGRAPHIC SURVEY UNCERTAINTIES AND LIMITATIONS

1. Acoustic methods of remote sensing in aquatic environments are influenced by the chemical and physical characteristics of the waterbody and underlying sediment. Water column characteristics which introduce uncertainty include: biological interference (e.g. fish or debris in mid-water column); conductivity/salinity and temperature as they affect sound velocity; and weather and other surface conditions as they effect navigation. Sediment and bottom characteristics which introduce uncertainty include supersaturated flocculent sediments; sediments which contain entrained natural gases (e.g., sulfides, methane) which limit sonar penetration; steep slopes which may limit sonar bottom penetration due to increased angle of incidence or scattering; and rooted vegetation. CR Environmental, Inc. (CR) has made all technically feasible attempts to minimize the above uncertainties as described in the report.

2. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of services or the time and budgetary constraints imposed by the Client.

3. The conclusions and recommendations contained in this report are based in part upon the data obtained using acoustic remote sensing observations obtained along survey transects spaced approximately 10 to 50 feet apart. Information presented in this report between the survey transects (i.e., depth contours) is based on mathematical interpolation, and thus may not be suitable for navigation.

CR Environmental, Inc. respectfully reserves the right to amend this report should new information become available.

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ATTACHMENT 1

GEOD Corporation
Survey Information for the BM-1 Control Point
on the Carroll Street Bridge

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GEOD CORPORATION
PHOTOGRAMMETRIC SCIENCES - SURVEY TECHNOLOGIES

August 5, 2003

Mr. Chris Wright
CR Environmental Inc.
639 Boxberry Hill Road
East Falmouth, MA 02536

RE: SETTING ELEVATION REFERENCE MARKS ALONG THE GOWANUS CANAL (GEOD PROJECT # 2089)

Dear Sir,

As requested, GEOD Corporation established 3 elevation reference marks (bench marks) for the sub-surface survey to be performed along the Gowanus Canal by CR Environmental.

These elevation reference marks were established in the National Geodetic Vertical Datum of 1929 (NGVD 1929) and MLW Mean Low Water Datum under the direct supervision of a surveyor licensed in the State of New York.

STATE OF NEW YORK
PAUL J. EMILIUS JR.
50203
LICENSED LAND SURVEYOR

Name: Paul J. Emilius, Jr. P.L.S.

License No.: New York 50203

Please do not hesitate to contact me with your comments or questions.

Very Truly Yours,
GEOD CORPORATION

Stanley B. Palinski
Vice President

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CW

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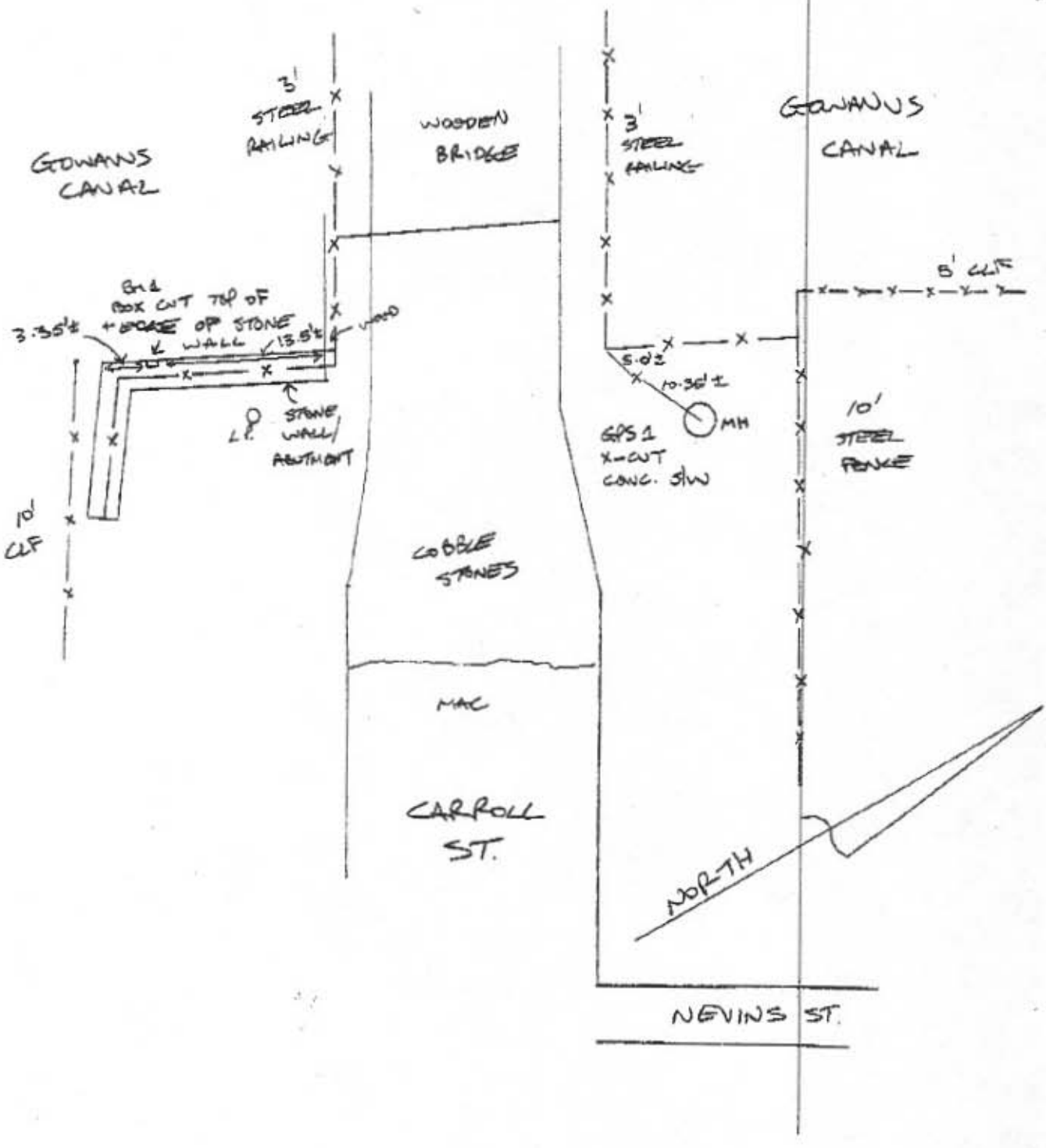
GEOD CORPORATION
PHOTOGRAMMETRIC SCIENCES - SURVEY TECHNOLOGIES
18-24 Kanouse Road, Newfoundland, NJ 07435
(973) 697-2122 • Fax: (973) 658-6433
E-Mail: geod@geodcorp.com

Sheet 1 of 3

Party PJW Date 06-17-03 Job No. 2089

Weather _____ Description Bm 1 + GPS 1

Location CARROLL ST. BRIDGE OVER GOWANUS CANAL



Benchmark	NGVD '29 Elevation Of GPS Point Near BM (Feet)	Leveled Difference GPS -> BM (Feet)	NGVD '29 Elevation Of Benchmark (Feet)	Local Average NGVD '29 Elevation Of MLW (Feet)	Height Of Benchmark Above MLW (Feet)
BM 1	9.056	0.20	9.26	-1.627	10.88
BM 2	6.402	1.21	7.61	-1.627	9.24
BM 3	8.903	0.41	9.31	-1.627	10.94

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BATHYMETRIC SURVEY REPORT
GOWANUS CANAL
BROOKLYN, NEW YORK

ADDENDUM 1

Comparison of Gowanus Canal Bottom Elevations
June 2003 versus January 2010

CR Environmental, Inc. compared Gowanus Canal bottom elevations recorded during bathymetric survey efforts conducted in 2003 and 2010 to estimate areas of sedimentation and erosion within the canal. The sections that follow provide the methods used to compare the elevation data, and briefly describe the results of the comparison.

Methods

Prior to conducting the elevation data comparison, the June 25, 2003 data were re-processed to adjust soundings to estimated NAVD88 elevations using correction factors detailed in Section 2.3 of the *April 2010 Bathymetric Survey for Gowanus Canal, Brooklyn, New York* report. These data were acquired along cross-sections spaced 25 to 200 feet apart (see Figure A1). The root mean squared (RMS) error of the reprocessed data was calculated as approximately 0.3 feet using Army Corps of Engineers (ACOE) methods (see Section 3.0), similar to the error value calculated for data collected in 2010. The reprocessed 2003 data were then gridded using a 20-foot node interval. The extent of the grid (surface model) was limited to the boundary of the 2010 survey effort.

The approximate thalweg (deepest continuous line) of the Canal as interpreted from the 2010 data was digitized. Points from the 2003 and 2010 grids which intersected the thalweg were extracted and exported in ASCII text format. These points were used to generate comparative profiles of thalweg elevation differences between the two surveys. The points have been delivered digitally in MS Excel tabular format.

The grids from each survey were next converted to an ASCII format suitable for analysis using IVS3D Fledermaus software. This software was used to compare the two surface models. The elevation values from 2003 were subtracted from co-located values on the 2010 surface model, resulting in a new surface for which positive values indicated shallower 2010 depths (sedimentation) and negative values indicated portions of the canal which were deeper in 2010 (erosion, scour, dredging or other anthropogenic activities). This elevation comparison grid was used to generate a contour map of elevation differences (Figure A2). The map was imported to GIS in DXF and TIF formats for comparison with bathymetry. These layers have been delivered electronically.

Results

The distribution of bathymetric data points for the two surveys are shown on Figure A1 Detailed maps of the 2010 data distribution have been provided on Figures 1A and 1B in CR Environmental's *April 2010 Bathymetric Survey Report for the Gowanus Canal,*

Brooklyn, New York). The substantially lower data density specified for the 2003 survey effort is readily apparent, and is important to acknowledge during examination of the surface model comparison results. The 2003 data density was highest upstream of the Carroll Street Bridge where transect spacing was approximately 25 feet (Figure A1).

Figure A2 is a plan view comparison of the 2003 and 2010 surface models. Elevation differences along the thalweg are depicted on Figures A3 and A4. The data comparisons shown on Figures A2 and A4 highlight the area of highest uncertainty as +/- 0.6 feet, the combined RMS error estimates for the two surveys. Despite efforts to minimize modeling artifacts, the surface model comparison shown on Figure A2 shows regularly spaced positive elevation difference "lobes" along each shoreline at intervals that mirror the distance between the 2003 cross-sections. CR recommends that users of these data simultaneously evaluate model data relative to sounding distribution in GIS to minimize the likelihood of misinterpretation. Data comparisons along the thalweg are less subject to grid interpolation errors.

Elevation differences appeared minor upstream of the floating boom adjacent to Sackett Street (about 530 feet downstream of the head of the Canal). Some erosion was indicated along the western shoreline (see Figure A2). Approximately 2 to 3 feet of sediment accumulation was suggested between the boom and the Carroll Street Bridge (about 1,400 feet downstream of the head of the Canal). Data comparisons within this upper portion of the Canal are considered robust from shore to shore due to the higher 2003 data density upstream of the Carroll Street Bridge.

Comparison of the two model surfaces along the thalweg suggests approximately 1 to 2 feet of sediment accumulation at the northern end of the Canal between Carroll Street and 3rd Street (see Figures A3 and A4).

Elevation differences of approximately -1 to 1 foot dominated most of the reach between 3rd Street and Interstate 278. Highest confidence is given to areas of elevation differences greater than the summed RMS uncertainty of $\pm$0.6 feet (see Figure A4). Erosion in this reach is suggested in an area subject to frequent tug and barge traffic adjacent to a gravel shipping yard between 5th Street and Huntington Street.

At the southern end of the Canal, the surface comparison suggests a wide (approximately 80,000 square foot) region of sediment accumulation along the thalweg adjacent to Halleck Street (Figures A2 and A4). Also suggested in this southern reach were many smaller areas of substantial elevation difference either erosional or depositional (Figure A2).

Confidence for many of these areas decreases with increasing distance from the 2003 longitudinal centerline due to anomalies associated with interpolation between survey transects spaced approximately 150 feet apart.

FIGURES

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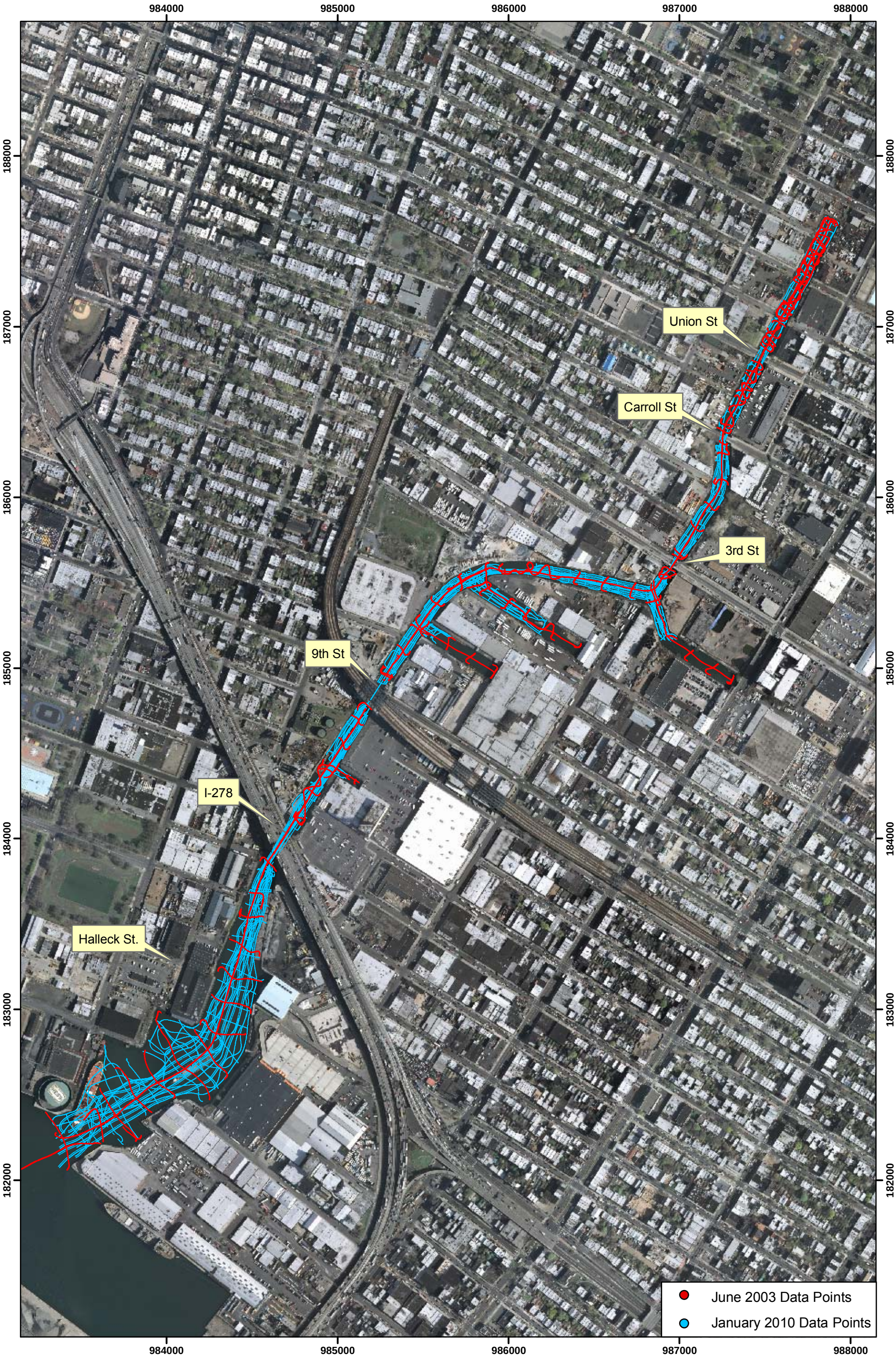

Bathymetric Survey Data Point Distribution -
June 2003 and January 2010 Survey Data
Gowanus Canal Brooklyn, New York

www.crenvironmental.com

NOTES:
1) Survey data collected by CR Environmental, Inc. of East Falmouth, Massachusetts on June 25, 2003 and January 5, 2010.
2) Grid: NY State Plane (LI), NAD83, US Foot.
3) SeeFigures 1A and 1B of CR's Survey Report for detail.

Feet
0 300 600

Figure A1

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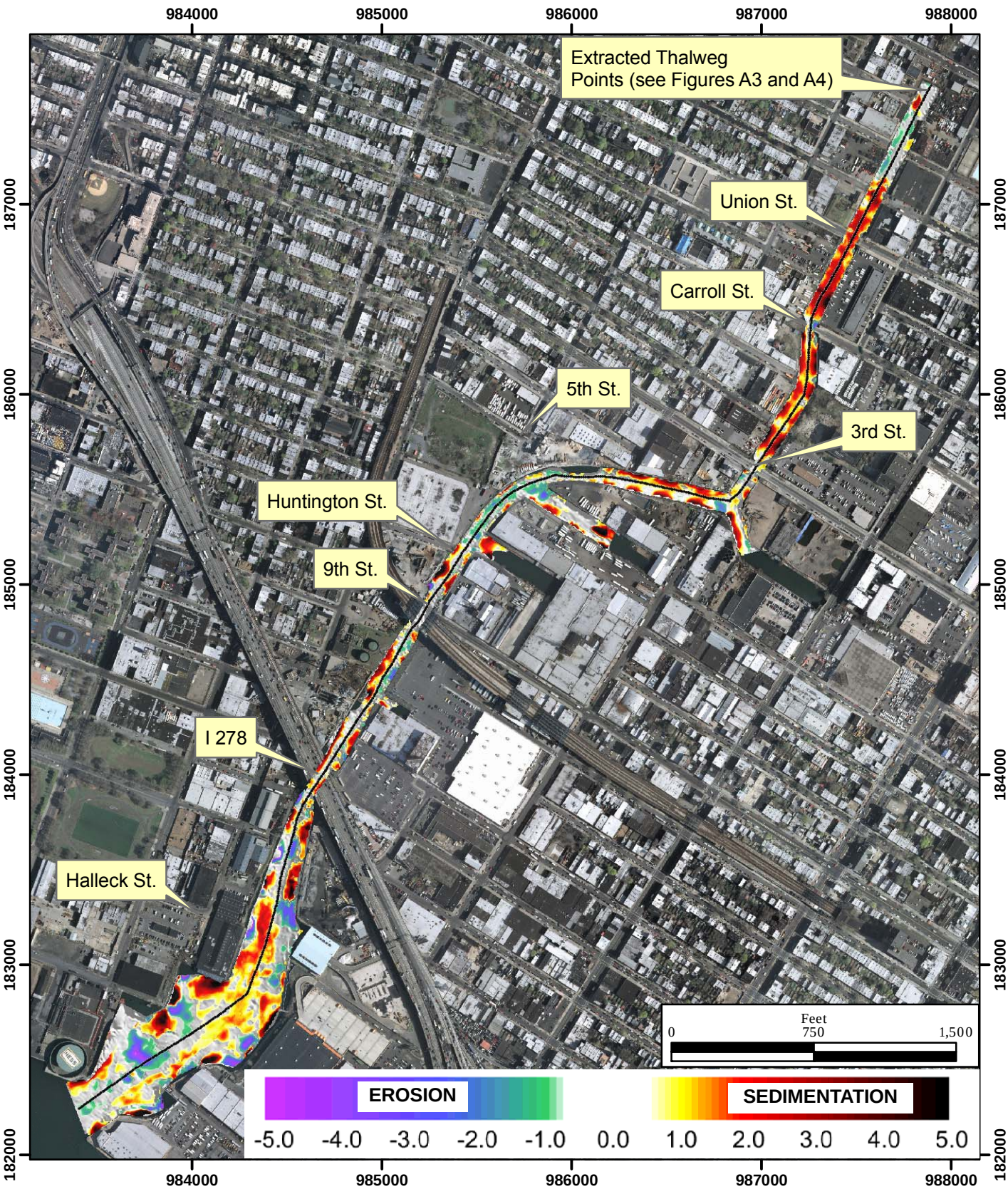

www.crenvironmental.com

Bathymetric Surface Model Comparison -
June 2003 and January 2010 Survey Data
Gowanus Canal Brooklyn, New York

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NOTES:
1) Survey data collected by CR Environmental, Inc.
of East Falmouth, Massachusetts on June 25, 2003 and January 5, 2010.
2) Grid: NY State Plane (LI), NAD83, US Foot.
3) Elevation differences less than +/- 0.6 feet are transparent.
These values are within the combined RMS error range for the two surveys.

Figure A2

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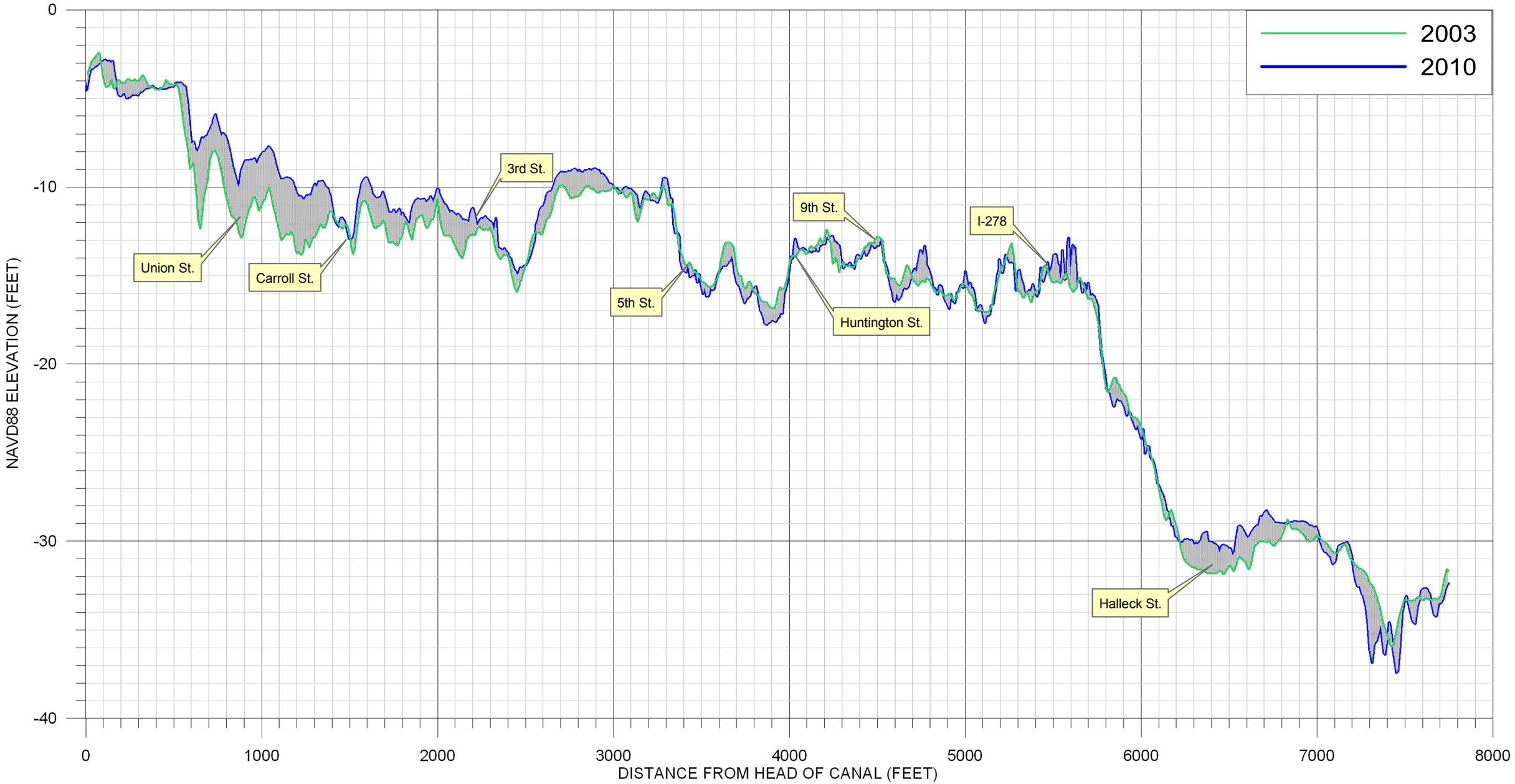

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Bathymetric Surface Model Comparison -
Thalweg Elevations
June 2003 and January 2010 Survey Data
Gowanus Canal Brooklyn, New York

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NOTES:

1. See Figure A2 for thalweg course and intersection locations.
2. Approximately 100x vertical exaggeration has been used to illustrate small-scale elevation differences. Digital data has been provided separately to aid additional modelling efforts.

Figure A3

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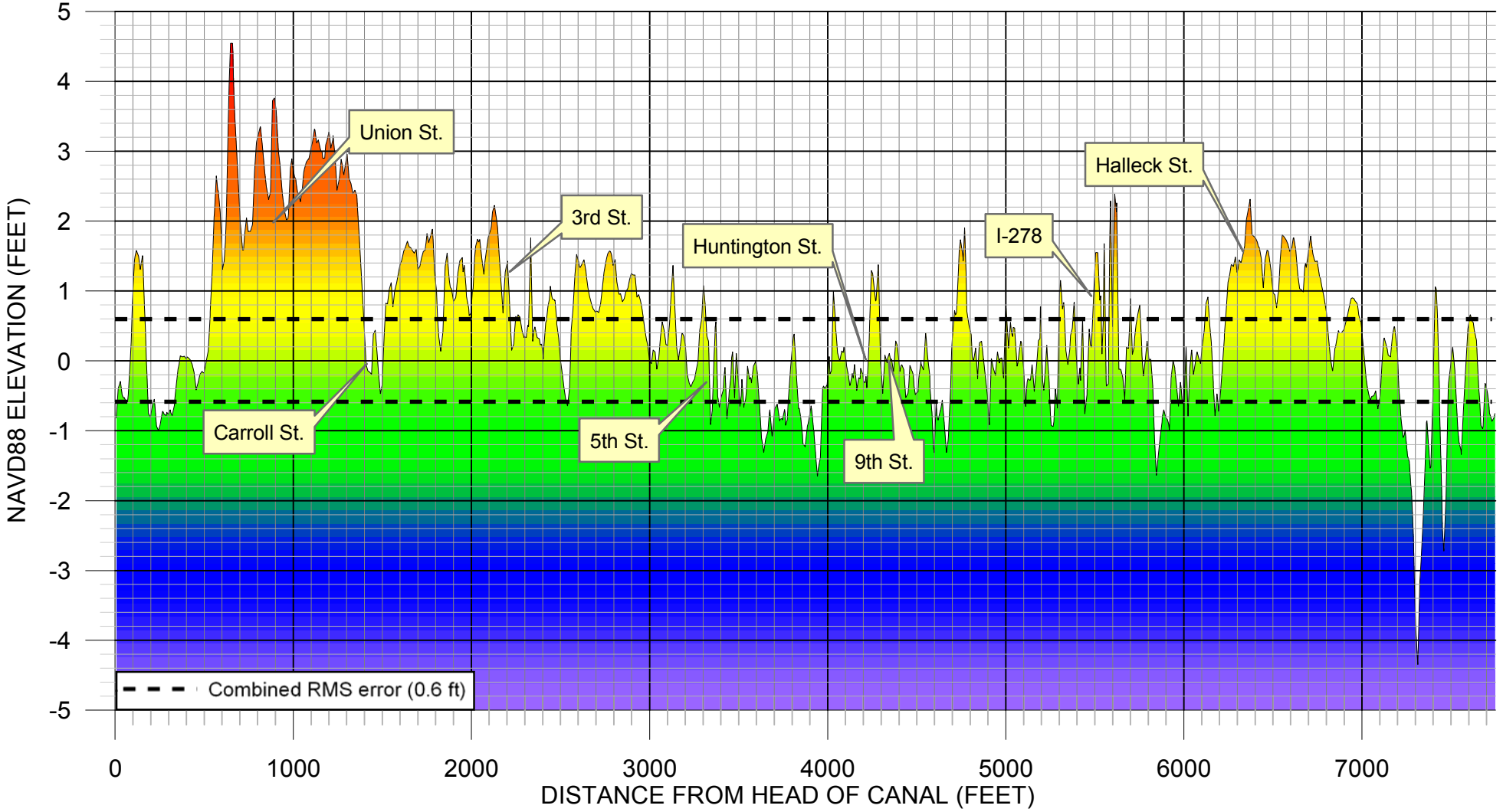

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Bathymetric Surface Model Comparison -
Thalweg Elevation Differences
June 2003 and January 2010 Survey Data
Gowanus Canal Brooklyn, New York

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NOTES:

1. See Figure A2 for thalweg course and intersection locations.
2. Not to scale. Approximately 400x vertical exaggeration used to illustrate small-scale elevation differences. Digital data has been provided separately to aid additional modelling efforts.

Figure A4

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Appendix C
Evaluation Criteria

Contents

1. Table - Evaluation Criteria
2. Notes associated with table entries

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APPENDIX C

List Of Evaluation Criteria

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Refer letter	A	B1		B2		C		D		E1		E2		E3		F		G1		G2		H	L1		I		K		N1		N2		O1		O2		P	Q		R		S		T	
		Criteria	RSLs Residential Soil Adjusted	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 2% TOC)	Notes	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 6.5% TOC)	Notes: included for informational purposes only	Tox Bench 1997 (for Biota) lesser of ER-L*4 or TEL*5	Notes	WDOE 1995 Mar Sed^11	Notes	SQuiRTs^46 2008 Mar SD TEL^14	Notes	SQuiRTs^46 2008 Mar SD ERL^14	Notes	SQuiRTs^46 2008 Mar SD PEL^14	Notes	USEPA NRWQC HHRA Organism-Only	Notes	NYSDEC Chapter X for SW (fish consumption) I H(FC)	Notes: included for informational purposes only, applies to, say	NYSDEC Chapter X for SW (fish consumption) SD H(FC)	Notes	RSLs Tapwater Adjusted	NYSDEC Chapter X for SW (aquatic chronic tox) I A(C)	Notes	USEPA NRWQC ERA Saltwater CCC^30 (Chronic) Aquatic Life	Notes	SQuiRTs^46 2008 Mar SW Chronic^47	Notes	MCL-Groundwater	Notes	MCLG-Groundwater	Notes	NYSDEC Chapter X for GW (health and asthetic) GA H(WS)	Notes	NYSDEC Chapter X for GW (health and asthetic) GA E(WS)	Notes	RSLs Residential Air Adjusted	NYSDEC 2009 Restricted Soil for Protection of GW	Notes	Selected Eco SD (from B1, C, D, E1, E2, E3)	Notes	Selected Eco SW (from I, K)	Notes	Selected HHRA SW (Lesser of F or G2. H if no F or G2)	Notes
Group	Organics	CAS / Units	ug/kg	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/kg		ug/L		ug/L		ug/L		ug/L	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/m3	mg/kg		ug/kg		ug/L		ug/L	
VOC	Dichlorodifluoromethane (Freon-12)	75-71-8	18000																					39										5				21							39	
VOC	Chloromethane	74-87-3	12000																					19										5				9.4							19	
VOC	Vinyl chloride	75-01-4	60															2.4	17, 18					0.016						2		0		2				0.16	20						2.4	17, 18
VOC	Bromomethane	74-83-9	730															1500	19					0.87										5				0.52							1500	19
VOC	Chloroethane	75-00-3	1500000																					2100										5				1000							2100	
VOC	Trichlorofluoromethane (Freon-11)	75-69-4	79000																					130					6400	48, 49				5				73					6400	48, 49	130	
VOC	1,1-Dichloroethene	75-35-4	24000															7100						34							7			5				21	330						7100	
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	910000																					5900										5				3100							5900	
VOC	Acetone	67-64-1	6100000																					2200														3200	50						2200	
VOC	Carbon disulfide	75-15-0	82000																					100										60				73							100	
VOC	Methyl acetate	79-20-9	7800000																					3700																					3700	
VOC	Methylene chloride	75-09-2	11000															590	17, 19	200		200		4.8					6400	48, 49	5	0	5	0				5.2	50				6400	48, 49	200	
VOC	trans-1,2-Dichloroethene	156-60-5	15000															10000						11							100			5				6.3	190						10000	
VOC	Methyl-tert-butyl ether (MTBE)	1634-04-4	43000																					12					5000	48, 49								9.4	930				5000	48, 49	12	
VOC	1,1-Dichloroethane	75-34-3	3300																					2.4										5				1.5	270						2.4	
VOC	cis-1,2-Dichloroethene	156-59-2	78000																					37							70			5					250						37	
VOC	2-Butanone (MEK)	78-93-3	2800000																					710														520	120						710	
VOC	Bromochloromethane	74-97-5																																5												
VOC	Chloroform	67-66-3	290															470	17, 20					0.19							80	0		7				0.11	370						470	17, 20
VOC	1,1,1-Trichloroethane	71-55-6	640000																					910					3120	51	200			5				520	680				3120	51	910	
VOC	Cyclohexane	110-82-7	120000																					1300														630							1300	
VOC	Carbon tetrachloride	56-23-5	610															1.6	17, 19					0.44					5000	51	5	0		5				0.41	760				5000	51	1.6	17, 19
VOC	Benzene	71-43-2	1100	520		1690												51	17, 19	10		10		0.41					110	49, 50	5	0		1				0.31	60		520		110	49, 50	10	
VOC	1,2-Dichloroethane	107-06-2	430															37	17, 19					0.15					11300	51	5	0		0.6				0.094	20	62			11300	51	37	17, 19
VOC	1,4-Dioxane	123-91-1	44000																					6.1														0.32	100	63					6.1	
VOC	Trichloroethene	79-01-6	2800															30	17	40		40		2					200	51, 52	5	0		5				1.2	470				200	51, 52	30	17
VOC	Methylcyclohexane	108-87-2																																												
VOC	1,2-Dichloropropane (propylene chloride)	78-87-5	890															15	17, 19					0.39					3040	48, 53	5	0		1				0.24					3040	48, 53	15	17, 19
VOC	Bromodichloromethane (dichlorobromomethane)	75-27-4	270															17	17, 19					0.12					6400	48, 49	80	0						0.066					6400	48, 49	17	17, 19
VOC	cis-1,3-Dichloropropene	10061-01-5	1700																					0.43										0.4	60			0.61							0.43	
VOC	4-Methyl-2-pentanone	108-10-1	530000																					200														310							200	
VOC	Toluene	108-88-3	500000	900		2925												15000		6000		6000		230					215	49, 50	1000			5				520	700		900		215	49, 50	6000	
VOC	trans-1,3-Dichloropropene	10061-02-6	1700																					0.43										0.4	60			0.61							0.43	
VOC	1,1,2-Trichloroethane	79-00-5	1100															16	17, 19					0.24					1900	54	5	3		1				0.15					1900	54	16	17, 19
VOC	Tetrachloroethene (PCE)	127-18-4	550															3.3	17					0.11					450	48	5	0		5				0.41	1300				450	48	3.3	17
VOC	2-Hexanone	591-78-6	21000																					4.7														3.1							4.7	
VOC	Dibromochloromethane (Chlorodibromomethane)	124-48-1	680															13	17, 19					0.15					6400	48, 49	80	60						0.09					6400	48, 49	13	17, 19
VOC	1,2-Dibromoethane (Ethylene dibromide)	106-93-4	34																					0.0065							0.05	0	0.0006				0.0041							0.0065	
VOC	Chlorobenzene (Monochlorobenzene)	108-90-7	29000	70		227.5												1600	21	400		400		9.1					25	49, 50	100			5				5.2	1100		70		25	49, 50	400	
VOC	Ethylbenzene	100-41-4	5400	128		416												2100						1.5					25	49, 50	700			5				0.97	1000		128		25	49, 50	1.5	
VOC	o-Xylene	95-47-6	380000	540	64	1755	64																	120										5				73	1600	64	540	64			120	
VOC	m- and p-Xylene	m&pXYLENE	340000	540	64	1755	64																	120														73	1600	64	540	64			120	
VOC	Styrene	100-42-5	630000																					160							100			5				100							160	
VOC	Bromoform	75-25-2	61000															140	17, 19					8.5							80	0						2.2							140	17, 19
VOC	Isopropylbenzene	98-82-8	210000																					68										5				42							68	
VOC	1,1,2,2-Tetrachloroethane	79-34-5	560															4	17, 19					0.067					902	51				5				0.042					902	51	4	17, 19
VOC	1,3-Dichlorobenzene	541-73-1		240	66	780	66											960																3					2400		240	66			960	
VOC	1,4-Dichlorobenzene	106-46-7	2400	240	66	780	66			62								190						0.43					129	48, 49	75			3				0.22	1800		240	66	129	48, 49	190	
VOC	1,2-Dichlorobenzene	95-50-1	190000	240	66	780	66			46								1300						37					42	49, 50	600			3				21	1100		240	66	42	49, 50	1300	
VOC	1,2-Dibromo-3-chloropropane	96-12-8	5.4																					0.00032							0.2	0	0.04				0.00016							0.00032	
VOC	1,2,4-Trichlorobenzene	120-82-1	6200	1820		5915				16.2								70						0.41					5.4	49, 50	70			5				0.21			1820		5.4	49, 50	70	
VOC	1,2,3-Trichlorobenzene	87-61-6	4900	1820		5915																		2.9					5.4	49, 50, 55				5							1820		5.4	49, 50, 55	2.9	
VOC	Xylene, total (Dimethylbenzene, mixed isomers)	1330-20-7	63000	540		1755																		20							10000							10	1600		540				20	
SVOC	Benzaldehyde	100-52-7	780000																					370																					370	
SVOC	Phenol	108-95-2	1800000							420	13							860000	21, 22					1100					400	54						1	61	21	330	63	420	13	400	54	860000	21, 22
SVOC	bis(2-Chloroethyl)ether	111-44-4	210															0.53	17, 19					0.012										1				0.0074							0.53	17, 19
SVOC	2-Chlorophenol	95-57-8	39000															150	19, 21					18																					150	19, 21
SVOC	2-Methylphenol (o-cresol)	95-48-7	310000							63	13													180														63	330	63	63	13			180	
SVOC	2,2'-Oxybis(1-chloropropane)	108-60-1	4600															65000	19					0.32										5				0.24							65000	19
SVOC	Acetophenone	98-86-2	780000																					370																					370	
SVOC	4-Methylphenol (p-cresol)	106-44-5	31000							670	13													18														63	330	63	670	13			18	
SVOC	n-Nitroso-di-n-propylamine	621-64-7	69															0.51	17, 19					0.0096														0.0012							0.51	17, 19
SVOC	Hexachloroethane	67-72-1	6100															3.3	17, 19	0.6		0.6		3.7					94	51				5				0.61					94	51	0.6	
SVOC	Nitrobenzene	98-95-3	4800															690	19, 21, 23					0.12					668	51				0.4				0.061					668	51	690	19, 21, 23
SVOC	Isophorone	78-59-1	510000															960	17, 19					71					1290	51								210					1290	51	960	17, 19
SVOC	2-Nitrophenol	88-75-5	39000																					18																						
SVOC	2,4-Dimethylphenol	105-67-9	120000							29	13							850	19, 21	1000		1000		73												1					29	13			850	19, 21
SVOC	bis(2-Chloroethoxy)methane	111-91-1	18000																					11					6400	48, 49				5									6400	48, 49	11	
SVOC	2,4-Dichlorophenol	120-83-2	18000															290	19, 21					11												1									290	19, 21
SVOC	Naphthalene	91-20-3	3600	160		2470		34.6		1980		34.6		160		391								0.14					1.4	49, 50								0.072	12000		160		1.4	49, 50	0.14	
SVOC	4-Chloroaniline	106-47-8	2400																					0.34					129	48, 49				5									129	48, 49	0.34	
SVOC	Hexachlorobutadiene	87-68-3	6100	32		104				78								18	17, 19	0.01		0.01		0.86					3.2	51				0.5				0.11			32		3.2	51	0.01	
SVOC	Caprolactam	105-60-2	3100000																					1800																					1800	
SVOC	4-Chloro-3-methylphenol	59-50-7	610000																					370																					370	
SVOC	2-Methylnaphthalene	91-57-6	31000	70		1950		20.2		760		20.2		70		201								15																	70				15	
SVOC	Hexachlorocyclopentadiene	77-47-4	37000	14		45.5												1100	21					22					0.7	51	50			5				0.021			14		0.7	51	1100	21
SVOC	2,4,6-Trichlorophenol	88-06-2	6100															2.4	17, 19, 21					3.7														0.78							2.4	17, 19, 21
SVOC	2,4,5-Trichlorophenol	95-95-4	610000															3600	19, 24					370					11	56													11	56	3600	19, 24
SVOC	1,1-Biphenyl	92-52-4	210000																					180										5											180	
SVOC	2-Chloronaphthalene	91-58-7	180000															1600	19					290																					1600	19
SVOC	2-Nitroaniline	88-74-4	61000																					37										5				0.0052							37	
SVOC	Dimethyl phthalate	131-11-3								1060								1100000											3.4	48, 49											53000		3.4	48, 49	1100000	
SVOC	2,6-Dinitrotoluene	606-20-2	6100																					3.7										5											3.7	
SVOC	Acenaphthylene	208-96-8	340000	44				5.87		1320		5.87		44		128								220																107000		44				220	
SVOC	3-Nitroaniline	99-09-2																																5												
SVOC	Acenaphthene	83-32-9	340000	16	67, 68	15600	67, 68	6.71		320		6.71		16		88.9		990	19, 21					220					40	57										98000		16	67, 68	40	57	990	19, 21
SVOC	2,4-Dinitrophenol	51-28-5	12000															5300	19	400		400		7.3												1										400	
SVOC	4-Nitrophenol	100-02-7	4800																					0.12														0.061							0.12	
SVOC	Dibenzofuran	132-64-9	7800							300														3.7															210000		300					3.7	
SVOC	2,4-Dinitrotoluene	121-14-2	1600															3.4	17					0.22					370	48, 53				5				0.027					370	48, 53	3.4	17
SVOC	Diethylphthalate	84-66-2	4900000							1220								44000	19					2900					3.4	48, 49											61000		3.4	48, 49	44000	19
SVOC	Fluorene	86-73-7	230000	19		2470		19		460		21.2		19		144		5300	19					150																386000		19					5300	19
SVOC	4-Chlorophenyl-phenylether	7005-72-3	31000																					18																						
SVOC	4-Nitroaniline	100-01-6	24000																					3.4										5				0.63							3.4	
SVOC	4,6-Dinitro-2-methylphenol (2-Methyl-4,6-Dinitrophenol)	534-52-1	490															280						0.29																					280	
SVOC	n-Nitrosodiphenylamine	86-30-6	99000							220								6	17, 19					14														0.94			11000				6	17, 19
SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	1800															1.1	24					1.1					129	48, 49													129	48, 49	1.1	24

Notes:

Criteria R is based on the following criteria in the listed order: B1, C, D, E1, E2, and E3.

Criteria S is the lesser of I or K.

Criteria T is the Lesser of F or G2 or H if no F or G2 criteria are available.

APPENDIX C

List Of Evaluation Criteria

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Refer letter	A	B1		B2		C		D		E1		E2		E3		F		G1		G2		H	L1		I		K		N1		N2		O1		O2		P	Q	R		S		T	
		Criteria	RSLs Residential Soil Adjusted	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 2% TOC)	Notes	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 6.5% TOC)	Notes: included for informational purposes only	Tox Bench 1997 (for Biota) lesser of ER-L^4 or TEL^5	Notes	WDOE 1995 Mar Sed^11	Notes	SQuiRT s^46 2008 Mar SD TEL^14	Notes	SQuiRT s^46 2008 Mar SD ERL^14	Notes	SQuiRT s^46 2008 Mar SD PEL^14	Notes	USEPA NRWQC HHRA Organism-Only	Notes	NYSDEC Chapter X for SW (fish consumption) I H(FC)	Notes: included for informational purposes only, applies to SW	NYSDEC Chapter X for SW (fish consumption) SD H(FC)	Notes	RSLs Tapwater Adjusted	NYSDEC Chapter X for SW (aquatic chronic tox) / A(C)	Notes	USEPA NRWQC ERA Saltwater CCC^30 (Chronic) Aquatic Life	Notes	SQuiRT s^46 2008 Mar SW Chronic^47	Notes	MCL-Groundwater	Notes	MCLG-Groundwater	Notes	NYSDEC Chapter X for GW (health and asthetic) GA H(WS)	Notes	NYSDEC Chapter X for GW (health and asthetic) GA E(WS)	Notes	RSLs Residential Air Adjusted	NYSDEC 2009 Restricted Soil for Protection of GW	Notes	Selected Eco SD (from B1, C, D, E1, E2, E3)	Notes	Selected Eco SW (from I, K)	Notes	Selected HHRA SW (Lesser of F or G2. H if no F or G2)	Notes
SVOC	4-Bromophenyl-phenylether	101-55-3																																												
SVOC	Hexachlorobenzene	118-74-1	300							7.6								0.00029	17, 19	0.00003		0.00003		0.042					129	48, 49	1	0	0.04				0.0053	3200		380		129	48, 49	0.00003			
SVOC	Atrazine	1912-24-9	2100																					0.29					10	58	3		7.5									10	58	0.29			
SVOC	Pentachlorophenol	87-86-5	3000							360	13							3	17, 19, 23					0.17			7.9	31	1	0						1	0.48	800	63	360		7.9	31	3		17, 19, 23	
SVOC	Phenanthrene	85-01-8	1700000	240	67, 68	10400	67, 68	86.7		2000		86.7		240		544								1100					4.6	56									1E+06	65	240	67, 68	4.6	56	1100			
SVOC	Anthracene	120-12-7	1700000	85.3				46.9		4400		46.9		85.3		245		40000	19					1100																1E+06	65	85.3				40000		19	
SVOC	Carbazole	86-74-8																																												
SVOC	Di-n-butylphthalate	84-74-2	610000							4400								4500	19					370					3.4	48, 49					50						4400		3.4	48, 49	4500		19	
SVOC	Fluoranthene	206-44-0	230000	600	67, 68	87100	67, 68	113		3200		113		600		1494		140	19					150					11	57									1E+06	65	600	67, 68	11	57	140		19	
SVOC	Pyrene	129-00-0	170000	665				153		20000		153		665		1398		4000	19					110																1E+06	65	665				4000		19	
SVOC	Butylbenzylphthalate	85-68-7	260000							98								1900	19					35					3.4	48, 49											98		3.4	48, 49	1900		19	
SVOC	3,3'-Dichlorobenzidine	91-94-1	1100															0.028	17, 19					0.15											3			0.0072						0.028		17, 19	
SVOC	Benzo(a)anthracene	56-55-3	150	261				74.8		2200		74.8		261		693		0.018	17, 19					0.029														0.0087	1000	62	261				0.018		17, 19	
SVOC	Chrysene	218-01-9	15000	384				108		2200		108		384		846		0.018	17, 19					2.9														0.087	1000	62	384				0.018		17, 19	
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	35000					182		940		182				2647		2.2	17, 19					4.8					360	56	6	0	5				1			182		360	56	2.2		17, 19	
SVOC	Di-n-octylphthalate	117-84-0	35000							1160														4.8					3.4	48, 49							1			1160		3.4	48, 49	4.8			
SVOC	Benzo(b)fluoranthene	205-99-2	150							4600	10							0.018	17, 19					0.029														0.0087	1700		4600	10			0.018		17, 19	
SVOC	Benzo(k)fluoranthene	207-08-9	1500							4600	10							0.018	17, 19					0.29														0.0087	1700		4600	10			0.018		17, 19	
SVOC	Benzo(a)pyrene	50-32-8	15	430				88.8		1980		88.8		430		763		0.018	17, 19					0.0029							0.2	0						0.00087	22000		430				0.018		17, 19	
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	150							680								0.018	17, 19					0.029														0.0087	8200		680				0.018		17, 19	
SVOC	Dibenz(a,h)anthracene	53-70-3	15	63.4				6.22		240		6.22		63.4		135		0.018	17, 19					0.0029														0.0008	1E+06	65	63.4				0.018		17, 19	
SVOC	Benzo(g,h,i)perylene	191-24-2	170000							620														110															1E+06	65	620				110			
SVOC	2,3,4,6-Tetrachlorophenol	58-90-2	180000																					110					44	51												44	51	110			
SVOC	Polynuclear aromatic hydrocarbons^1	PAH		4022				1684				1684		4022		16770																									4022							
PEST	alpha-BHC (alpha-Hexachlorocyclohexane)	319-84-6	77															0.0049	17, 19	0.002		0.002		0.011											0.01			0.0014	20					0.002			
PEST	beta-BHC (beta-Hexachlorocyclohexane)	319-85-7	270															0.017	17, 19	0.007		0.007		0.037											0.04			0.0046	90					0.007			
PEST	delta-BHC (delta-Hexachlorocyclohexane)	319-86-8	270																	0.008		0.008		0.037											0.04			0.0048	250					0.008			
PEST	gamma-BHC (Lindane)	58-89-9	520					0.32				0.32				0.99		1.8	17, 19	0.008		0.008		0.061							0.2				0.05			0.0078	100		0.32				0.008			
PEST	Heptachlor	76-44-8	110	1.8		5.85												0.000079	17, 19	0.0002		0.0002		0.015			0.0036	32, 33	0.0018	59	0.4	0	0.04				0.0019	380		1.8		0.0036	32, 33	0.000079		17, 19	
PEST	Aldrin	309-00-2	29															0.00005	17, 19					0.004														0.0005	190						0.00005		17, 19	
PEST	Heptachlor epoxide	1024-57-3	53	1.8		5.85										2.74	15	0.000039	17, 19	0.0003		0.0003		0.0074			0.0036	32, 33, 34	0.0018	59	0.2	0	0.03				0.00094			1.8		0.0036	32, 33, 34	0.000039		17, 19	
PEST	Endosulfan I (alpha-Endosulfan)	959-98-8	37000	0.08	35	0.26	35											89	19					22			0.0087	32, 35	0.00435	59					0.004			0.00053	102000		0.08	35	0.0087	32, 35	89		19	
PEST	Dieldrin	60-57-1	30	340	67	1105	67	0.02	6			0.72	0.02	4.3		0.000054	17, 19	0.0000006		0.0000006		0.0042			0.0019	32, 35	0.00095	59										0.00053	100		340	67	0.0019	32, 35	0.0000006			
PEST	4,4'-DDE (p,p'-DDE)	72-55-9	1400	2.2				2.07				2.07	2.2	374		0.00022	17, 19							0.2					1.4	51							0.025	17000		2.2		1.4	51	0.00022		17, 19	
PEST	Endrin	72-20-8	1800	14.6	67, 68	47.45	67, 68	0.02	6									0.06				0.002		1.1			0.0023	32, 33	0.00115	59	2								60		14.6	67, 68	0.0023	32, 33	0.002			
PEST	Endosulfan II (beta-Endosulfan)	33213-65-9	37000	0.08	35	0.26	35											89	19					22			0.0087	32, 35	0.00435	59									102000		0.08	35	0.0087	32, 35	89		19	
PEST	4,4'-DDD (p,p'-DDD)	72-54-8	2000					1.22				1.22	2	7.81		0.00031	17, 19							0.28					0.36	51							0.035	14000		1.22		0.36	51	0.00031		17, 19	
PEST	Endosulfan sulfate	1031-07-8	37000															89	19					22															1E+06	65					89		19	
PEST	4,4'-DDT (p,p'-DDT)	50-29-3	1700	20	69	65	69	1.19				1.19	1	4.77		0.00022	17, 19							0.2			0.001	32, 36, 36	0.0005	59							0.025	136000		20	69	0.001	32, 36, 36	0.00022		17, 19	
PEST	DDT, total^2	DDT		1.58	69	65	69	1.58				3.89	1.58	51.7															0.0005	59										1.58	69	0.0005	59				
PEST	Methoxychlor	72-43-5	31000																					18			0.03	37	0.03		40				35								0.03	37	18			
PEST	Endrin ketone	53494-70-5	1800																					1.1							2		5											1.1			
PEST	Endrin aldehyde	7421-93-4	1800															0.3	19, 22					1.1							2		5											0.3		19, 22	
PEST	alpha-Chlordane	5103-71-9	1600	0.04	7	0.13	7	0.5	6, 7			2.26	7			4.79	7							0.19			0.004	7, 32, 35	0.002	7, 59							0.024	2900		0.04	7	0.004	7, 32, 35	0.19			
PEST	gamma-Chlordane	5103-74-2	1600	0.04	7	0.13	7	0.5	6, 7			2.26	7			4.79	7							0.19			0.004	7, 32, 35	0.002	7, 59							0.024			0.04	7	0.004	7, 32, 35	0.19			
PEST	Toxaphene	8001-35-2	440	0.2		0.65						0.1	15					0.00028	17, 19	0.000006		0.000006		0.061			0.0002	33	0.0002		3	0	0.06				0.0076			0.2		0.0002	33	0.000006			
PCB	Aroclor-1016	12674-11-2	390	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.26			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.12			22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1221	11104-28-2	140	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.0068			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1232	11141-16-5	140	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.0068			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1242	53469-21-9	220	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1248	12672-29-6	220	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1254	11097-69-1	110	22.7	8	2691	8	21.6	8	240	8	63.3		22.7	8	709		0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1260	11096-82-5	220	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1262	37384-23-5		22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8				0.03	8, 33	0.03	8					0.09	8						22.7	8	0.03	8, 33	0.000001	8		
PCB	Aroclor-1268	11100-14-4		22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.03			0.03	8, 33	0.03	8					0.09	8						22.7	8	0.03	8, 33	0.000001	8		
PCBs	Polychlorinated biphenyls (PCBs)^3	1336-36-3	220	22.7		2691		21.6		240		21.6		22.7		189		0.000064	8, 17	0.000001		0.000001		0.17			0.03	33	0.03		0.5	0	0.09				0.0043	3200		22.7		0.03	33	0.000001			
Group	**Congeners**	**CAS / Units**	**ng/kg**	**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**pg/L**		**pg/L**		**pg/L**		**pg/L**	**pg/L**		**pg/L**		**pg/L**		**pg/L**	**pg/L**		**pg/L**		**ug/m3**	**ng/kg**		**ng/kg**		**pg/L**		**pg/L**			
PCBCONG	3,3',4,4'-Tetrachlorobiphenyl (77)	32598-13-3	34000																					5200														0.00064						5200			
PCBCONG	3,3',4,5-Tetrachlorobiphenyl (78)	70362-49-1																																													
PCBCONG	3,3',4,5'-Tetrachlorobiphenyl (79)	41464-48-6																																													
PCBCONG	3,3',5,5'-Tetrachlorobiphenyl (80)	33284-52-5																																													
PCBCONG	3,4,4',5-Tetrachlorobiphenyl (81)	70362-50-4	34000																					5200														0.00064						5200			
PCBCONG	2,2',3,3',4-Pentachlorobiphenyl (82)	52663-62-4																																													
PCBCONG	2,2',3,3',5-Pentachlorobiphenyl (83)	60145-20-2																																													
PCBCONG	2,2',3,3',6-Pentachlorobiphenyl (84)	52663-60-2																																													
PCBCONG	2,2',3,4,4'-Pentachlorobiphenyl (85)	65510-45-4																																													
PCBCONG	2,2',3,4,5-Pentachlorobiphenyl (86)	55312-69-1																																													
PCBCONG	2,2',3,4,5'-Pentachlorobiphenyl (87)	38380-02-8																																													
PCBCONG	2,2',3,4,6-Pentachlorobiphenyl (88)	55215-17-3																																													
PCBCONG	2,2',3,4,6'-Pentachlorobiphenyl (89)	73575-57-2																																													
PCBCONG	2,2',3,4',5-Pentachlorobiphenyl (90)	68194-07-0																																													
PCBCONG	2,2',3,4',6-Pentachlorobiphenyl (91)	68194-05-8																																													
PCBCONG	2,2',3,5,5'-Pentachlorobiphenyl (92)	52663-61-3																																													
PCBCONG	2,2',3,5,6-Pentachlorobiphenyl (93)	73575-56-1																																													
PCBCONG	2,2',3,5,6'-Pentachlorobiphenyl (94)	73575-55-0																																													
PCBCONG	2,2',3,5',6-Pentachlorobiphenyl (95)	38379-99-6																																													
PCBCONG	2,2',3,6,6'-Pentachlorobiphenyl (96)	73575-54-9																																													
PCBCONG	2,2',3,4',5'-Pentachlorobiphenyl (97)	41464-51-1																																													
PCBCONG	2,2',3,4',6'-Pentachlorobiphenyl (98)	60233-25-2																																													
PCBCONG	2,2',4,4',5-Pentachlorobiphenyl (99)	38380-01-7																																													
PCBCONG	2,2',4,4',6-Pentachlorobiphenyl (100)	39485-83-1																																													
PCBCONG	2,2',4,5,5'-Pentachlorobiphenyl (101)	37680-73-2																																													
PCBCONG	2,2',4,5,6'-Pentachlorobiphenyl (102)	68194-06-9																																													
PCBCONG	2,2',4,5',6-Pentachlorobiphenyl (103)	60145-21-3																																													
PCBCONG	2,2',4,6,6'-Pentachlorobiphenyl (104)	56558-16-8																																													
PCBCONG	2,3,3',4,4'-Pentachlorobiphenyl (105)	32598-14-4	34000																					5200														0.00064						5200			
PCBCONG	2,3,3',4,5-Pentachlorobiphenyl (106)	70424-69-0																																													
PCBCONG	2,3,3',4',5-Pentachlorobiphenyl (107)	70424-68-9																																													
PCBCONG	2,3,3',4,5'-Pentachlorobiphenyl (108)	70362-41-3																																													
PCBCONG	2,3,3',4,6-Pentachlorobiphenyl (109)	74472-35-8																																													
PCBCONG	2,3,3',4',6-Pentachlorobiphenyl (110)	38380-03-9																																													
PCBCONG	2,3,3',5,5'-Pentachlorobiphenyl (111)	39635-32-0																																													
PCBCONG	2,3,3',5,6-Pentachlorobiphenyl (112)	74472-36-9																																													
PCBCONG	2,3,3',5',6-Pentachlorobiphenyl (113)	68194-10-5																																													
PCBCONG	2,3,4,4',5-Pentachlorobiphenyl (114)	74472-37-0	680																					100														0.00013						100			
PCBCONG	2,3,4,4',6-Pentachlorobiphenyl (115)	74472-38-1																																													
PCBCONG	2,3,4,5,6-Pentachlorobiphenyl (116)	18259-05-7																																													
PCBCONG	2,3,4',5,6-Pentachlorobiphenyl (117)	68194-11-6																																													
PCBCONG	2,3',4,4',5-Pentachlorobiphenyl (118)	31508-00-6	34000																					5200														0.00064						5200			
PCBCONG	2,3',4,4',6-Pentachlorobiphenyl (119)	56558-17-9																																													
PCBCONG	2,3',4,5,5'-Pentachlorobiphenyl (120)	68194-12-7																																													
PCBCONG	2,3',4,5',6-Pentachlorobiphenyl (121)	56558-18-0																																													

Notes:
Criteria R is based on the following criteria in the listed order: B1, C, D, E1, E2, and E3.
Criteria S is the lesser of I or K.
Criteria T is the Lesser of F or G2 or H if no F or G2 criteria are available.

APPENDIX C

List Of Evaluation Criteria

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Refer letter	A	B1		B2		C		D		E1		E2		E3		F		G1		G2		H	L1		I		K		N1		N2		O1		O2		P	Q		R		S		T	
		Criteria	RSLs Residential Soil Adjusted	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 2% TOC)	Notes	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 6.5% TOC)	Notes: included for informational purposes only	Tox Bench 1997 (for Biota) lesser of ER-L^4 or TEL^5	Notes	WDOE 1995 Mar Sed^11	Notes	SQuiRTs^46 2008 Mar SD TEL^14	Notes	SQuiRTs^46 2008 Mar SD ERL^14	Notes	SQuiRTs^46 2008 Mar SD PEL^14	Notes	USEPA NRWQC HHRA Organism-Only	Notes	NYSDEC Chapter X for SW (fish consumption) I H(FC)	Notes: included for informational purposes only, applies to Bay	NYSDEC Chapter X for SW (fish consumption) SD H(FC)	Notes	RSLs Tapwater Adjusted	NYSDEC Chapter X for SW (aquatic chronic tox) I A(C)	Notes	USEPA NRWQC ERA Saltwater CCC^30 (Chronic) Aquatic Life	Notes	SQuiRTs^46 2008 Mar SW Chronic^47	Notes	MCL-Groundwater	Notes	MCLG-Groundwater	Notes	NYSDEC Chapter X for GW (health and asthetic) GA H(WS)	Notes	NYSDEC Chapter X for GW (health and asthetic) GA E(WS)	Notes	RSLs Residential Air Adjusted	NYSDEC 2009 Restricted Soil for Protection of GW	Notes	Selected Eco SD (from B1, C, D, E1, E2, E3)	Notes	Selected Eco SW (from I, K)	Notes	Selected HHRA SW (Lesser of F or G2. H if no F or G2)	Notes
PCBCONG	2,3,3',4',5'-Pentachlorobiphenyl (122)	76842-07-4																																													
PCBCONG	2,3',4,4',5'-Pentachlorobiphenyl (123)	65510-44-3	34000																					5200															0.00064							5200	
PCBCONG	2,3',4',5,5'-Pentachlorobiphenyl (124)	70424-70-3																																													
PCBCONG	2,3',4',5',6-Pentachlorobiphenyl (125)	74472-39-2																																													
PCBCONG	3,3',4,4',5-Pentachlorobiphenyl (126)	57465-28-8	34																					5.2															0.00000064							5.2	
PCBCONG	3,3',4,5,5'-Pentachlorobiphenyl (127)	39635-33-1																																													
PCBCONG	2,2',3,3',4,4'-Hexachlorobiphenyl (128)	38380-07-3																																													
PCBCONG	2,2',3,3',4,5-Hexachlorobiphenyl (129)	55215-18-4																																													
PCBCONG	2,2',3,3',4,5'-Hexachlorobiphenyl (130)	52663-66-8																																													
PCBCONG	2,2',3,3',4,6-Hexachlorobiphenyl (131)	61798-70-7																																													
PCBCONG	2,2',3,3',4,6'-Hexachlorobiphenyl (132)	38380-05-1																																													
PCBCONG	2,2',3,3',5,5'-Hexachlorobiphenyl (133)	35694-04-3																																													
PCBCONG	2,2',3,3',5,6-Hexachlorobiphenyl (134)	52704-70-8																																													
PCBCONG	2,2',3,3',5,6'-Hexachlorobiphenyl (135)	52744-13-5																																													
PCBCONG	2,2',3,3',6,6'-Hexachlorobiphenyl (136)	38411-22-2																																													
PCBCONG	2,2',3,4,4',5-Hexachlorobiphenyl (137)	35694-06-5																																													
PCBCONG	2,2',3,4,4',5'-Hexachlorobiphenyl (138)	35065-28-2																																													
PCBCONG	2,2',3,4,4',6-Hexachlorobiphenyl (139)	56030-56-9																																													
PCBCONG	2,2',3,4,4',6'-Hexachlorobiphenyl (140)	59291-64-4																																													
PCBCONG	2,2',3,4,5,5'-Hexachlorobiphenyl (141)	52712-04-6																																													
PCBCONG	2,2',3,4,5,6-Hexachlorobiphenyl (142)	41411-61-4																																													
PCBCONG	2,2',3,4,5,6'-Hexachlorobiphenyl (143)	68194-15-0																																													
PCBCONG	2,2',3,4,5',6-Hexachlorobiphenyl (144)	68194-14-9																																													
PCBCONG	2,2',3,4,6,6'-Hexachlorobiphenyl (145)	74472-40-5																																													
PCBCONG	2,2',3,4',5,5'-Hexachlorobiphenyl (146)	51908-16-8																																													
PCBCONG	2,2',3,4',5,6-Hexachlorobiphenyl (147)	68194-13-8																																													
PCBCONG	2,2',3,4',5,6'-Hexachlorobiphenyl (148)	74472-41-6																																													
PCBCONG	2,2',3,4',5',6-Hexachlorobiphenyl (149)	38380-04-0																																													
PCBCONG	2,2',3,4',6,6'-Hexachlorobiphenyl (150)	68194-08-1																																													
PCBCONG	2,2',3,5,5',6-Hexachlorobiphenyl (151)	52663-63-5																																													
PCBCONG	2,2',3,5,6,6'-Hexachlorobiphenyl (152)	68194-09-2																																													
PCBCONG	2,2',4,4',5,5'-Hexachlorobiphenyl (153)	35065-27-1																																													
PCBCONG	2,2',4,4',5,6'-Hexachlorobiphenyl (154)	60145-22-4																																													
PCBCONG	2,2',4,4',6,6'-Hexachlorobiphenyl (155)	33979-03-2																																													
PCBCONG	2,3,3',4,4',5-Hexachlorobiphenyl (156)	38380-08-4	6800																					1000															0.00013							1000	
PCBCONG	2,3,3',4,4',5'-Hexachlorobiphenyl (157)	69782-90-7	6800																					1000															0.00013							1000	
PCBCONG	2,3,3',4,4',6-Hexachlorobiphenyl (158)	74472-42-7																																													
PCBCONG	2,3,3',4,5,5'-Hexachlorobiphenyl (159)	39635-35-3																																													
PCBCONG	2,3,3',4,5,6-Hexachlorobiphenyl (160)	41411-62-5																																													
PCBCONG	2,3,3',4,5',6-Hexachlorobiphenyl (161)	74472-43-8																																													
PCBCONG	2,3,3',4',5,5'-Hexachlorobiphenyl (162)	39635-34-2																																													
PCBCONG	2,3,3',4',5,6-Hexachlorobiphenyl (163)	74472-44-9																																													
PCBCONG	2,3,3',4',5',6-Hexachlorobiphenyl (164)	74472-45-0																																													
PCBCONG	2,3,3',5,5',6-Hexachlorobiphenyl (165)	74472-46-1																																													
PCBCONG	2,3,4,4',5,6-Hexachlorobiphenyl (166)	41411-63-6																																													
PCBCONG	2,3',4,4',5,5'-Hexachlorobiphenyl (167)	52663-72-6	340000																					52000															0.0064							52000	
PCBCONG	2,3',4,4',5',6-Hexachlorobiphenyl (168)	59291-65-5																																													
PCBCONG	3,3',4,4',5,5'-Hexachlorobiphenyl (169)	32774-16-6	340																					52															0.0000064							52	
PCBCONG	2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	35065-30-6																																													
PCBCONG	2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	52663-71-5																																													
PCBCONG	2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	52663-74-8																																													
PCBCONG	2,2',3,3',4,5,6-Heptachlorobiphenyl (173)	68194-16-1																																													
PCBCONG	2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	38411-25-5																																													
PCBCONG	2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	40186-70-7																																													
PCBCONG	2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	52663-65-7																																													
PCBCONG	2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	52663-70-4																																													
PCBCONG	2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	52663-67-9																																													
PCBCONG	2,2',3,3',5,6,6'-Heptachlorobiphenyl (179)	52663-64-6																																													
PCBCONG	2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	35065-29-3																																													
PCBCONG	2,2',3,4,4',5,6-Heptachlorobiphenyl (181)	74472-47-2																																													
PCBCONG	2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	60145-23-5																																													
PCBCONG	2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	52663-69-1																																													
PCBCONG	2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	74472-48-3																																													
PCBCONG	2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	52712-05-7																																													
PCBCONG	2,2',3,4,5,6,6'-Heptachlorobiphenyl (186)	74472-49-4																																													
PCBCONG	2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	52663-68-0																																													
PCBCONG	2,2',3,4',5,6,6'-Heptachlorobiphenyl (188)	74487-85-7																																													
PCBCONG	2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	39635-31-9	34000																					5200															0.00064							5200	
Group	**Inorganics**	**CAS / Units**	**mg/kg**	**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**ug/L**		**ug/L**		**ug/L**		**ug/L**	**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/m3**	**mg/kg**		**mg/kg**		**ug/L**		**ug/L**	
METAL	Aluminum	7429-90-5	7700																					3700															0.52							3700	
METAL	Antimony	7440-36-0	3.1					2	4, 9									640						1.5					500	56	6				3							2	4, 9	500	56	640	
METAL	Arsenic	7440-38-2	0.39	8.2				7.24	5, 9	57	12	7.24		8.2		41.6		0.14						0.045			36	31, 38, 39	36		10		0		25				0.00057	16	62	8.2	5, 9	36	31, 38, 39	0.14	
METAL	Barium	7440-39-3	1500									130.1	16											730					200	58	2000				1000				0.052	820		130.1	16	200	58	730	
METAL	Beryllium	7440-41-7	16																					7.3					100	58	4								0.001	47				100	58	7.3	
METAL	Cadmium	7440-43-9	7	1.2				0.68	5, 9	5.1	12	0.68		1.2		4.21								1.8	7.7		8.8	31, 39	8.8		5				5				0.001	7.5		1.2	5, 9	8.8	31, 39	1.8	
METAL	Calcium	7440-70-2																																													
METAL	Chromium	7440-47-3	0.29	81				52.3	5, 9	260	12	52.3		81		160								0.043							100				50				0.000011			81	5, 9			0.043	
METAL	Cobalt	7440-48-4	2.3																					1.1					1	54									0.00027					1	54	1.1	
METAL	Copper	7440-50-8	310	34				18.7	5, 9	390	12	18.7		34		108								150	5.6		3.1	39, 40, 41	3.1		1300									1720		34	5, 9	3.1	39, 40, 41	150	
METAL	Iron	7439-89-6	5500																					2600					50	58							300							50	58	2600	
METAL	Lead	7439-92-1	400	46.7				30.2	5, 9	450	12	30.24		46.7		112								15	8		8.1	31, 39	8.1		15		0		25					450		46.7	5, 9	8.1	31, 39	15	
METAL	Magnesium	7439-95-4																																													
METAL	Manganese	7439-96-5	180	460														100	27					88					100	58							300		0.0052	2000	62	460		100	58	100	27
METAL	Mercury	7439-97-6	2.3	0.15				0.13	5, 9	0.41	12	0.13		0.15		0.7				0.0007	29	0.0007	29	1.1			0.94	39, 42, 43	0.94		2				0.7				0.031	0.73		0.15	5, 9	0.94	39, 42, 43	0.0007	29
METAL	Nickel	7440-02-0	150	20.9				15.9	5, 9			15.9		20.9		42.8		4600	19					73	8.2		8.2	31, 39	8.2						100				0.0094	130		20.9	5, 9	8.2	31, 39	4600	19
METAL	Potassium	7440-09-7																																													
METAL	Selenium	7782-49-2	39															4200						18			71	31, 39, 44	71		50				10				2.1	4	62			71	31, 39, 44	4200	
METAL	Silver	7440-22-4	39	1				0.73	5, 9	6.1	12	0.73		1		1.77								18											50					8.3		1	5, 9			18	
METAL	Sodium	7440-23-5																																	20000												
METAL	Thallium	7440-28-0																0.47											17	54	2		0.5											17	54	0.47	
METAL	Vanadium	7440-62-2	39																					18					50	58									0.01					50	58	18	
METAL	Zinc	7440-66-6	2300	150				124	5, 9	410	12	124		150		271		26000	21					1100	66		81	31, 39	81											2480		150	5, 9	81	31, 39	26000	21
METAL	Cyanide	57-12-5	160															140	28					73			1	31, 45	1		200				200					40				1	31, 45	140	28

Notes:
Criteria R is based on the following criteria in the listed order: B1, C, D, E1, E2, and E3.
Criteria S is the lesser of I or K.
Criteria T is the Lesser of F or G2 or H if no F or G2 criteria are available.

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Notes:

1 – Total PAH concentrations are based on the sum of the sixteen PAHs: naphthalene, acenaphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene.

2 – Total DDT concentrations are based on the sum of the six DDT isomers, 2,4'-DDD, 4,4'-DDD, 2,4'-DDE, 4,4'-DDE, 2,4'-DDT and 4,4'-DDT

3 – Total PCBs are based on the sum of detected aroclors: aroclor 1016, aroclor 1221, aroclor 1232, aroclor 1242, aroclor 1248, aroclor 1254, aroclor 1260, aroclor 1260, aroclor 1262 and aroclor 1268.

4 – ER-L = Effects Range–Low. Effects levels are the updated and revised values from Long et al. (1995) - NOAA = National Oceanic and Atmospheric Administration.

5 – TEL = threshold effects level. Source document is MacDonald (1994); FDEP = Florida Department of Environmental Protection.

6 - Source document is Long and Morgan (1991).

7 – Value shown for alpha- and gamma-chlordane corresponds to chlordane.

8 - Value shown for each aroclor corresponds to sum of PCB compounds.

9 – Units not noted for metals. Value reported as shown in source document.

10 - Value shown for each benzo(k)fluoranthene and benzo(a)fluoranthene corresponds to total benzofluoranthene.

11 - Compounds other than metals, phenol, 2-methylphenol, 4-methylphenol, 2,4-dimethyl phenol and pentachlorophenol are reported in mg/kg organic carbon (ppm carbon) - The listed chemical parameter criteria represent concentrations in parts per million, "normalized," or expressed, on a total organic carbon basis. To normalize to total organic carbon, the dry weight concentration for each parameter is divided by the decimal fraction representing the percent total organic carbon content of the sediment.

12 - All metals reported in mg/kg dry weight (parts per million [ppm] dry)

13 - Phenol, 2-methylphenol, 4-methylphenol, 2,4-dimethyl phenol and pentachlorophenol reported in mg/kg dry weight (parts per million (ppm) dry).

14 – MacDonald et al., 1996. Ecotox. 5(4):253.

15 – Canadian Sediment Quality Guidelines for the protection of Aquatic Life, Summary Tables Update 2002, www.ccme.ca/publications/cegg_rcqe.html

16 - Based on SLC approach using sensitive species HC 5%; ES&T 2005 39(14): 5148-515.

17 - This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).

18 - This recommended water quality criterion was derived using the cancer slope factor of 1.4 (LMS exposure from birth).

19 - This criterion has been revised to reflect The Environmental Protection Agency's q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of May 17, 2002. The fish tissue bioconcentration factor (BCF) from the 1980 Ambient Water Quality Criteria document was retained in each case.

20 - Although a new RfD is available in IRIS, the surface water criteria will not be revised until the National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) is completed, since public comment on the relative source contribution (RSC) for chloroform is anticipated.

21 - The organoleptic effect criterion is more stringent than the value for priority toxic pollutants.

22 - This criterion has been revised to reflect the Environmental Protection Agency's cancer slope factor (CSF) or reference dose (RfD), as contained in the Integrated Risk Information System (IRIS) as of (Final FR Notice June 10, 2009). The fish tissue bioconcentration factor (BCF) from the 1980 Ambient Water Quality Criteria document was retained in each case.

23 - No criterion for protection of human health from consumption of aquatic organisms excluding water was presented in the 1980 criteria document or in the *1986 Quality Criteria for Water*. Nevertheless, sufficient information was presented in the 1980 document to allow the calculation of a criterion, even though the results of such a calculation were not shown in the document.

24 - The freshwater criterion for this metal is expressed as a function of hardness (mg/L) in the water column. The value given here corresponds to a hardness of 100 mg/L. Criteria values for other hardness may be calculated from the following: CMC (dissolved) = $\exp\{m_A [\ln(\text{hardness})] + b_A\}$ (CF), or CCC (dissolved) = $\exp\{m_C [\ln(\text{hardness})] + b_C\}$ (CF) and the parameters specified in Appendix B-Parameters for Calculating Freshwater Dissolved Metals Criteria That Are Hardness-Dependent.

25 - EPA is currently reassessing the criteria for arsenic.

26 - This recommended water quality criterion for arsenic refers to the inorganic form only.

27 - This human health criterion is the same as originally published in the Red Book (EPA 440/9-76-023, July, 1976) which predates the 1980 methodology and did not utilize the fish ingestion BCF approach. This same criterion value is now published in the Gold Book (Quality Criteria for Water: 1986. EPA 440/5-86-001).

28 - This recommended water quality criterion is expressed as total cyanide, even though the IRIS RFD used to derive the criterion is based on free cyanide. The multiple forms of cyanide that are present in ambient water have significant differences in toxicity due to their differing abilities to liberate the CN-moiety. Some complex cyanides require even more extreme conditions than refluxing with sulfuric acid to liberate the CN-moiety. Thus, these complex cyanides are expected to have little or no 'bioavailability' to humans. If a substantial fraction of the cyanide present in a water body is present in a complexed form (e.g., $Fe_4[Fe(CN)_6]_3$), this criterion may be over conservative.

29 – Applies to dissolved form.

30 - The Criterion Continuous Concentration (CCC) is an estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.

31 - This water quality criterion is based on a 304(a) aquatic life criterion that was derived using the 1985 Guidelines (104 pp.) (*Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses*, PB85-227049, January 1985) and was issued in one of the following criteria documents: Arsenic) (EPA 440/5-84-033), Cadmium (EPA 822-R-01-001), Chromium (EPA 440/5-84-029), Copper) (EPA 440/5-84-031), Cyanide) (EPA 440/5-84-028), Lead (EPA 440/5-84-027), Nickel (EPA 440/5-86-004), Pentachlorophenol (EPA 440/5-86-009), Toxaphene, (EPA 440/5-86-006), Zinc (EPA 440/5-87-003).

32 - This Criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (153 pp.) (EPA 440/5-80-019), Chlordane (68 pp.) (EPA 440/5-80-027), (175 pp.) (EPA 440/5-80-038), Endosulfan (155 pp.) (EPA 440/5-80-046), Endrin (103 pp.) (EPA 440/5-80-047), Heptachlor (EPA 440/5-80-052), Hexachlorocyclohexane (EPA 440/5-80-054), Silver (EPA 440/5-80-071). The Minimum Data Requirements and derivation procedures were different in the 1980 Guidelines than in the 1985 Guidelines. For example, a "CMC" derived using the 1980 Guidelines was derived to be used as an instantaneous maximum. If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.

33 - This criterion is based on a 304(a) aquatic life criterion issued in 1980 or 1986, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5-80-019), Chlordane, DDT (EPA 440/5-80-038), Endrin (EPA 440/5-80-047), Heptachlor (EPA 440/5-80-052), Polychlorinated biphenyls (EPA 440/5-80-068), Toxaphene (EPA 440/5-86-006). This CCC is currently based on the Final Residue Value (FRV) procedure. Since the publication of the Great Lakes Aquatic Life Criteria Guidelines in 1995 (60 FR 15393-15399, March 23, 1995), the Agency no longer uses the Final Residue Value procedure for deriving CCCs for new or revised 304(a)

aquatic life criteria. Therefore, the Agency anticipates that future revisions of this CCC will not be based on the FRV procedure.

34 - This value was derived from data for heptachlor and the criteria document provides insufficient data to estimate the relative toxicities of heptachlor and heptachlor epoxide.

35 - This value was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.

36 - This criterion applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).

37 - The derivation of this value is presented in the Red Book (EPA 440/9-76-023, July, 1976).

38 - This recommended water quality criterion was derived from data for arsenic (III), but is applied here to total arsenic, which might imply that arsenic (III) and arsenic (V) are equally toxic to aquatic life and that their toxicities are additive. In the arsenic criteria document (EPA 440/5-84-033, January 1985), Species Mean Acute Values are given for both arsenic (III) and arsenic (V) for five species and the ratios of the SMAVs for each species range from 0.6 to 1.7. Chronic values are available for both arsenic (III) and arsenic (V) for one species; for the fathead minnow, the chronic value for arsenic (V) is 0.29 times the chronic value for arsenic (III). No data are known to be available concerning whether the toxicities of the forms of arsenic to aquatic organisms are additive.

39 - Freshwater and saltwater criteria for metals are expressed in terms of the dissolved metal in the water column. The recommended water quality criteria value was calculated by using the previous 304(a) aquatic life criteria expressed in terms of total recoverable metal, and multiplying it by a conversion factor (CF). The term "Conversion Factor" (CF) represents the recommended conversion factor for converting a metal criterion expressed as the total recoverable fraction in the water column to a criterion expressed as the dissolved fraction in the water column. (Conversion Factors for saltwater CCCs are not currently available. Conversion factors derived for saltwater CMCs have been used for both saltwater CMCs and CCCs). See "," (49 pp., 3MB) October 1, 1993, by Martha G. Prothro, Acting Assistant Administrator for Water, available from the Water Resource center and 40CFR§131.36(b)(1). Conversion Factors applied in the table can be found in Appendix A to the Preamble-Conversion Factors for Dissolved Metals. Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria (PDF)

40 - When the concentration of dissolved organic carbon is elevated, copper is substantially less toxic and use of Water-Effect Ratios might be appropriate.

41 - This recommended water quality criterion was derived in *Ambient Water Quality Criteria Saltwater Copper Addendum* (Draft, April 14, 1995) and was promulgated in the Interim final National Toxics Rule (60 FR 22228-222237, May 4, 1995).

42 - This recommended water quality criterion was derived on page 43 of the mercury criteria document (EPA 440/5-84-026, January 1985). The saltwater CCC of 0.025 ug/L given on page 23 of the criteria document is based on the Final Residue Value procedure in the 1985 Guidelines.

Since the publication of the Great Lakes Aquatic Life Criteria Guidelines in 1995 (60 FR 15393-15399, March 23, 1995), the Agency no longer uses the Final Residue Value procedure for deriving CCCs for new or revised 304(a) aquatic life criteria.

43 - This recommended water quality criterion was derived from data for inorganic mercury (II), but is applied here to total mercury. If a substantial portion of the mercury in the water column is methylmercury, this criterion will probably be under protective. In addition, even though inorganic mercury is converted to methylmercury and methylmercury bioaccumulates to a great extent, this criterion does not account for uptake via the food chain because sufficient data were not available when the criterion was derived.

44 - The selenium criteria document (EPA 440/5-87-006, September 1987) provides that if selenium is as toxic to saltwater fishes in the field as it is to freshwater fishes in the field, the status of the fish community should be monitored whenever the concentration of selenium exceeds 5.0 g/L in salt water because the saltwater CCC does not take into account uptake via the food chain.

45 - This recommended water quality criterion is expressed as g free cyanide (as CN)/L.

46 - SQuiRTs – Screening Quick Reference Table for Inorganics in Water. These tables were developed for screening purposes only: they do not represent official NOAAA policy and do not constitute criteria or clean-up levels. All Attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data becomes available.

47 – Primary entry is the US Ambient Water Quality Criteria, followed by the lowest of Tier II Secondary Acute Values (SAVs) or available standards and guidelines.

48 - *- LOEL

49 – C - Value for chemical class

50 - A - Avian

51 - x 0.1 – chronic value derived by division of acute value by 10

52 – Value shown and CAS number corresponds to 1,1,2-trichloroethene; no value or CAS number shown for TCE.

53 - S - value for summation of isomers

54 - NZ – Australian & New Zealand ECLs and Trigger values: ANZECC Oct 2000, Volume 1., The Guidelines. www.mfe.govt.nz/publications/

55 – Value shown corresponds to 1,2,4-trichlorobenzene; no value or CAS number shown for 1,2,3-trichlorobenzene.

56 - P - proposed

57 - Eco – EPA EcoUpdate, Ecotox thresholds, EPA 540/F-95/038.

58 - BC – British Columbia Water Quality Guidelines (either working or recommended): http://www.env.gov.bc.ca/wat/wg/

59 - ½- Criteria maximum concentration (CMC) is halved to compare to 1985 Guideline derivation.

60 – Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.

61 – Applies to the sum of phenolic compounds.

62 - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

63 – For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

64 -Value shown corresponds to total xylenes.

65 - The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm.

66 - Value shown corresponds to dichlorobenzenes.

67 – Water quality criteria used are taken from Togs 1.1.1. If a water quality criterion was not listed in TOGS 1.1.1, then an EPA criterion was used. These are annotated with the suffix (E). EPA criteria were extracted from the "Water Quality Criteria Summary" chart (EPA, 1991).

68 – Water quality standards and guidance values are New York State regulatory terms that are essentially synonymous with the EPA term criterion. A standard is a water quality criterion that has been adopted into regulation. A guidance is a water quality criterion that has been derived in the same manner as a standard, but has not yet been adopted into regulation, or subjected to public review and comment. When referring to water quality in this document, the use of the general term criteria will mean either a New York standard or a guidance value.

69 – Criteria applies to DDT only.

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Field Documentation

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Appendix D
Field Documentation

D-01 – Sediment Coring Investigation

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Appendix D
Field Documentation

D-01 – Sediment Coring Investigation

Sediment Coring Investigation Description

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Appendix D-1: Sediment Coring Investigation Description

This appendix provides additional technical descriptions of the field and analytical work performed during the 2010 Sediment Coring Investigation.

Sediment Coring Investigation

The sediment core sampling activities were conducted within the Gowanus Canal during March and April 2010. A summary of the sampling objectives, sample collection and processing methods and results, and general observations with respect to field conditions are presented in this section. The following tables and attachments are included as part of this sampling summary:

Table D1 – Sediment Coring Field Data (e.g., as-sampled coordinates, total core penetration and recovery, tide information, elevation data)
Table D2 – Thickness of Native Material Sampled

Attachment 1 – USEPA Sediment Core Logs
Attachment 2 – Sediment Core Photologs by Transect
Attachment 3 – Sediment Core Photos (CD only)
Attachment 4 – USEPA-ERT Sediment Core Logs

Sampling Objectives

Previous sediment core data collected from the Gowanus Canal by GEI Consultants Inc. (GEI) for KeySpan Corporation (now owned by National Grid) indicated that up to 20 feet of very soft, fine-grained sediment had accumulated on top of the native Gowanus Creek sediments, and that the soft accumulated sediments were highly contaminated throughout (GEI, 2007). The objectives of this sampling effort were to:

1) Collect sediment samples to a depth of 6 feet into the native Gowanus Creek sediments at all locations to determine the vertical extent of contamination throughout the canal.

2) Characterize contaminant concentrations throughout the sediment column at a subset of locations adjacent to potential sources of contamination;

3) confirm sampling results at a subset of locations previously sampled by GEI

4) provide additional spatial coverage in specific areas of the canal.

Sediment cores were collected from the following locations using vibratory coring equipment:

- 88 transect locations previously sampled by GEI
- 21 new sampling locations along 7 new transect lines
- 17 new sampling locations not located on a transect
- 9 contingency sampling locations identified by the U.S. Environmental Protection Agency (EPA)

Sediment samples from all locations were analyzed for target analyte list/target compound list (TAL/TCL) parameters (including mercury and cyanide), grain size, total organic carbon (TOC), and sulfide at off-site laboratories for the purpose of characterizing the nature and extent of contamination and physical characteristics of the sediments. For the new core locations not positioned on transects, one composite sample

of the entire soft sediment thickness was collected and analyzed for Toxic Characteristic Leaching Procedure (TCLP) parameters and hazardous waste characteristics to support the evaluation of remedial alternatives.

Sediment Core Collection

The sediment core collection was performed by AquaSurvey, Incorporated (ASI; Flemington, NJ) using the *R/V Manasquan*. Once the vessel was positioned on a target station, staff aboard the *R/V Manasquan* measured the water depth and determined the elevation of the sediment surface as described below. In shallow areas, along the sides of the upper and middle portions of canal, the sediment was often probed using a metal rod constructed of rigid steel conduit to determine whether debris was likely to obstruct sediment core collection. If large debris was encountered, the station location was adjusted. The sediment core was then collected using the *R/V Manasquan's* vibracore apparatus following ASI's Standard Operating Procedure (SOP). Field data (as-sampled coordinates, water depths, tide stage, and sediment surface elevation) and sediment core collection data are summarized in Table D1.

Sediment cores were collected to the maximum possible depth of 20 feet or to refusal, which was defined as less than 0.5 foot of core barrel advancement after three minutes of vibration. In instances where the core barrel did not penetrate the target depth of 6 feet into the native Gowanus Creek sediments (i.e., the vibracore was advanced to a depth of 20 feet or encountered refusal before 6 feet of native sediment was collected), the decision tree presented in *SOP-06 Sediment Core Collection, Characterization, and Processing* was used to determine if additional attempts were required. SOP-06 was included in the Gowanus Canal Phase 2 Quality Assurance Project Plan (QAPP). A total of 253 coring attempts were required to collect cores from 135 sampling locations.

Elevation Determination

The elevation of the sediment surface was determined using the following step-wise procedure at each sampling location:

1. Once the sampling team was on location, a calibrated and weighted line was lowered through the water column to determine water depth.
2. Real Time Ports was called to obtain the real-time tide stage at The Battery, in New York City. This tide-stage value is referenced to Mean Lower Low Water (MLLW).
3. The predicted tides (from the National Oceanographic and Atmospheric Association's *Tides and Currents* program) for The Battery and Gowanus Bay were reviewed and compared to the real-time tide information to determine a difference.
4. Due to the fact that the Gowanus tide tables are based on the Battery, it was assumed that the difference between the Battery and Gowanus were the same and the correction factor determined by the comparison of the real-time and predicted tides for the Battery was applied to the predicted Gowanus Bay tides.
5. The tidal elevation was applied to the measured water depth to provide the water depth relative to MLLW (e.g., if the corrected tide was +4.5 feet MLLW, this amount was subtracted from the measured water depth).
6. The water depth relative to MLLW was then converted to NAVD88 using a factor of 2.8 feet. This value was obtained through the tidal benchmark data from the Battery Tidal Datasheet[1].

Sediment Core Processing and Sample Collection

After collection, the cores were cut into sections of a manageable length for handling and transport from the *R/V Manasquan* to the on-shore core processing team. The cores were transferred to the processing team at several locations throughout the canal, depending upon where the sampling vessel was working. Core transfer locations included the Bayside Fuel Dock at the end of Sackett Street, the northwest corner of the

[1] http://tidesandcurrents.noaa.gov/data_menu.shtml?stn=8518750%20The%20Battery,%20NY&type=Datums

Carroll Street Bridge, the 2nd Street Canoe Launch, and through the fence the end of Bond Street. Upon transfer to shore, the cores were placed upright in a refrigerator until they were processed.

The sediment cores were processed in accordance with *SOP-06 Sediment Core Collection, Characterization, and Processing.* Briefly, the cores from each location were split lengthwise using an electric slot cutter, and then photographed and described with respect to stratigraphy, sediment type, apparent grain size, color, odor, and any other notable characteristics. Each core was identified in the photographs by writing the station ID and sample interval on a dry erase board that is shown in the photographs. Cores were described according to ASTM Method D2488 (Standard Practice for Description and Identification of Soils, Visual-Manual Procedure; modified slightly to apply to sediments).

After the core characterization was completed, the core was sectioned using the following schemes:

- For cores collected from the previously sampled GEI locations, up to 3 samples (2-foot composites) of native sediment were collected from each core.
- For cores collected from the new transects and individual core locations, samples were collected continuously in 2-foot composite sample intervals from the top of the core to a depth of 6 feet into the native sediment. Soft accumulated sediment and native sediment were sampled separately.

Sediment sample intervals were generally 2 feet in length; in many cases, shorter intervals were sampled due to variable core lengths or transition zones between the native and accumulated sediment.

Samples for analysis of volatile organic compounds (VOCs) and sulfide were collected from each sampling interval prior to sediment homogenization. After the collection of those aliquots, the remaining material from each sample interval was transferred to a dedicated aluminum pan and homogenized until a uniform texture and color was achieved. Sediment directly in contact with the catcher or nose cone was not included in the material that was homogenized and submitted for analytical testing. In addition, sediment from the sides of the core liner was not included as part of the samples submitted for laboratory analysis; only sediment from the central portion of the core was used.

The homogenized sediment was then transferred to the laboratory-specified bottleware, labeled and bagged for shipment to the analytical laboratories. In instances where sample volume was limited, the hierarchy presented in SOP-06 was followed to determine which analyses were requested. Upon collection, samples were held either on ice or returned to the refrigerator.

Waste characterization samples (i.e., TCLP and reactivity, ignitibility and corrosivity) were collected from 22 sediment cores (one from each of the 17 pre-planned individual core locations and 5 of the contingency locations) to support the evaluation of remedial alternative in the FS. These samples were composites representing material along the length of the cores. Two composite samples of investigation-derived waste (IDW) were submitted to characterize the wastes for disposal.

The sediment samples were submitted for the following analyses:

– Low Soil Volatile Organic Compounds by EPA CLP SOM01.2
– Low Soil Semi-volatile Organic Compounds by EPA CLP SOM01.2
– Soil Pesticides by EPA CLP SOM01.2
– Soil Polychlorinated Biphenyls by EPA CLP SOM01.2
– Inductively-coupled plasma-atomic emission spectroscopy (ICP-AES) Metals by EPA CLP ILM05.4
– Mercury by EPA CLP ILM05.4
– Cyanide by EPA CLP ILM05.4
– Wet Chemistry (TOC) by Walkley Black
– Wet Chemistry (Total Sulfide) by SW-846 9030B/9034
– Grainsize by ASTM D4464

The waste characterization and IDW samples were submitted for TCLPV, TCLPS, TCLPP, TCLPH, TCLPM to support 40 CFR 261-24, reactivity (cyanide, sulfide), corrosivity (pH), and ignitibility (Pensky Martens).

An aliquot for archival was also collected from each sampling interval and will be held frozen for up to one year in case future analyses are needed. In instances where greater than 6 feet of native sediment was recovered, selected samples were collected from deeper intervals per EPA request.

Table D2 includes a summary of the thickness of native sediment sampled from each location. The sediment core logs, and photographic logs of all cores collected along transects are included as attachments. Photos taken of the sediment cores during the characterization process and are provided electronically.

The analytical laboratories used are listed below. The USEPA CLP Case Number for his investigation was 39452.

Sample Type	Name and Address of Laboratory
TAL Metals + Mercury & Cyanide, TCL VOC, Archive, and TCLP Metals	Liberty Analytical Corporation (LIBERTY) 501 Madison Avenue Cary, NC 27513 (919) 379-4080
TCL Pesticides, TCL PCBs, TCLP VOCs, BNA, Herbicides, Pesticides, PCBs, TCL SVOCs	Mitkem Corporation (MITKEM) 175 Metro Center Blvd Warwick, RI 02886 (401) 732-3400
TCL SVOCs	DataChem Laboratories, Inc 960 West LeVoy Drive Salt Lake City, UT 84123 (801) 266-7700
TOC, grainsize, sulfide	Test America Burlington 30 Community Drive, Suite 11 South Burlington, VT 05403 (802) 660-1990
Reactivity, corrosivity and ignitibility	Test America Westfield 53 Southampton Rd. Westfield, MA 01085 (413) 572-4000

Sediment Grab Sample Collection

In addition to the sediment coring activities, a surface sediment grab sample was collected from location 37B per EPA request. This location was scheduled to be sampled during surface sediment sampling event scheduled for the next phase of field work. However, this station is located beneath a gravel barge docked at the Ferrara Brothers concrete facility and arrangements had been made for the barge to be moved to access sampling locations for the sediment coring event. A grab sample was collected at the same location as the sediment core sample because soft material was encountered at the sediment surface.

This sample was collected using a petite Ponar grab sampler with a 6 inch square opening. Sediment from the grab was emptied into a dedicated, disposable aluminum pan and was sampled as described above. The grab sample was submitted for all TAL/TCL parameters, sulfide, TOC, and grainsize. An extra sample jar was archived.

EPA Emergency Response Team (ERT) Coring Investigation

The EPA-ERT performed a coring investigation in January 2010 to specifically target sampling locations that may not have been accessible once NYC DEP had started installation of the aeration pipe as part of the Flushing Tunnel rehabilitation project. The EPA-ERT collected cores from 10 locations in the northern reach of the canal from January 27 through January 29, 2010. The same vibracoring subcontractor, sample collection and processing methods, and analytical scheme were utilized as previously described; however, these 10 sediment cores were collected to a maximum depth of 16 feet below the sediment surface and a different sampling interval was utilized. Samples were collected from 0.0 to 0.5 feet, 0.5 to 1.0 feet, and at 1 foot intervals thereafter. The core logs from this sampling event have been included as an Attachment to this appendix.

Field Observations, Field Changes, and Challenges

The vessel was initially positioned on, or as near to the target location as field conditions allowed. The sampling location was then adjusted based on field conditions, such as the presence of large debris, shoreline features or obstructions that interfered with positioning (such as the aeration pipe), or unsuccessful initial coring attempts. These field adjustments resulted in some of the as-sampled locations being off-set from the planned targets; however, the objectives of this sampling investigation were still met and the data are expected to be sufficient to complete the RI/FS process.

The primary challenges encountered during this sampling event were due to the presence of debris within the canal that interfered with core collection. In many areas, the bulkheads are in disrepair and pieces of the bulkheads, along with other debris, have fallen into the canal. Large accumulations of debris were also prevalent where streets ended at the canal. Within the turning basins, debris consisted of sunken barges, old dock structures, tires, and metal from adjacent scrap recycling operations.

Gravel also covered the bottom of the canal downstream of the Ferrara Brothers concrete facility to below the 9th Street Bridge. Gravel was also noted beneath the barges at New York City asphalt facility southeast of the Gowanus Expressway. The presence of gravel in these locations resulted in difficulty collecting sediment cores, including reduced penetration, bent and broken core barrels, and very low sediment recoveries.

Minor adjustments were made at many sampling locations based on field conditions (e.g., debris or obstructions, refusal or unacceptable cores, and access and vessel positioning considerations). A summary of the more significant position modifications and the associated rationale is presented below.

Sampling locations 112 and 113 were adjusted based on field observations to be aligned with New York City CSOs. Sediment cores were collected directly in front of the outfalls or as near as field conditions would allow.

Location 37B was sampled west of the initial target due to presence of gravel throughout this entire area. The vessel was initially positioned at the target and sediment probing indicated a very dense layer of gravel. The vessel was slowly moved to the west until the crew determined that there was an increased likelihood of obtaining a usable sample. The final, as-sampled location of 37B was positioned in front of a small outfall on the northern bulkhead.



Sampling location 37B. Bulkhead is damp near outfall as a result of sampling activities (e.g., washing deck off).

Cores collected at locations 133, 134, and 135, positioned immediately south of the Hamilton Avenue bridge, did not penetrate into native sediment. The cores were likely refused due to either debris or deposits of gravel or concrete related to the bridge construction. Locations 9B and 15A were not sampled during this event per EPA request. The EPA Emergency Response Team (ERT) had sampled these locations during an the investigation in January 2010.

A large expanse of debris was encountered on the west side of the canal to the south of Hamilton Avenue. There is evidence that an old bulkhead may have collapsed from the area north of location 70B to south of location 73E. Vibracoring attempts in this area were generally met with very shallow refusal on what was assumed to be debris. The coring attempts at location 136 were started near the shoreline and were progressively moved toward the center of the channel. Contingency coring location 150, at the end of Hackett Street, was positioned slightly further from shore during the first coring attempt in an effort to recover both accumulated and native sediment.

The eastern and western shorelines are armored with cobble-sized material or large rip-rap in the Gowanus Bay area. As a result, the sediment surface in many areas along the shorelines is also covered with this material. Locations 139, 141, and 144 were adjusted in the field by moving further from shore and nearer to the center of the channel, in order to penetrate into the accumulated and native sediments.

Contingency location 148 was positioned as close as practicable to the bulkhead; however, due to the presence of the aeration pipe and the shoreline geometry in this area the as-sampled location is off-set from the bulkhead.

Sediment Coring Summary

Sediment cores were collected from all the planned locations except for 9B and 15A, which were previously sampled by the EPA in January 2010. A total of 255 coring attempts were required to collect cores from 133 unique locations. A total of 516 unique sediment samples were submitted for chemical analyses.

The objectives of this sampling event were met, except in instances where field conditions prevented recovery of 6 feet of native sediment (Table 4). The locations where the target thickness of native material was not recovered were generally in three areas:

- Locations where the soft sediment thickness was greater than 14 feet and the depth of penetration was limited by core barrel length of 20 feet (e.g., at the head of the canal and in the 11th Street turning basin)
- Locations where the sediment surface was covered with gravel (e.g., the entire channel south of the Ferrara Brothers facility to south of the 9th Street bridge, and the area adjacent to the New York City asphalt plant south of Hamilton Avenue).

- Locations in areas where widespread debris was present (e.g., stations positioned near the ends of streets, stations along the west side of the channel downstream of the Hamilton Avenue bridge).

References

GEI Corporation (GEI). 2007. Draft Remedial Investigation Technical Report. Prepared for KeySpan Corporation. April.

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Table D1
Sediment Core Collection Data
Gowanus Canal Remedial Investigation
Brooklyn, New York

ID[1]	Date	Time	Northing	Easting	Measured Water Depth (ft)	Tide (ft MLLW)	Water Depth Relative to MLLW (ft)	Sediment Surface Elevation (ft NAVD88)[2]	Core Penetration (ft)	Core Recovery[3] (ft)	Notes
107	3/9/2010	15:34	673635.16	634413.77	4.7	3.8	0.9	-3.7	20.0	16.0	
108a	3/5/2010	8:30	673200.67	634231.95	4.5	3.1	1.4	*-4.2*	16.5	13.0	
108b	3/5/2010	9:20	673202.30	634229.73	4.9	4.0	0.9	*-3.7*	17.0	11.5	
109	3/3/2010	15:02	672569.42	633912.23	8.7	1.6	7.1	-9.9	13.0	11.0	
110	3/11/2010	8:50	671922.23	633682.91	8.5	2.3	6.2	-9.0	20.0	14.2	
111	3/16/2010	9:30	671127.28	633530.99	7.8	4.5	3.3	*-4.5*	18.0	15.5	
112a	3/11/2010	15:00	671409.42	633296.38	5.6	3.4	2.2	-5.0	3.0	0.0	
112b	3/11/2010	15:35	671426.76	633293.14	7.4	3.4	4.0	-6.8	7.0	4.0	
112c	3/11/2010	16:10	671431.15	633289.14	8.2	3.2	5.0	-7.8	7.0	5.0	
113	3/15/2010	11:02	671583.41	632853.82	11.4	5.7	6.1	-8.9	20.0	15.0	
114	3/23/2010	8:22	671570.77	632380.48	14.4	0.6	13.8	-16.6	18.8	15.5	
115a	3/17/2010	13:48	671145.29	631949.47	12.8	1.6	11.2	-14.0	0.0	0.0	
115b	3/17/2010	14:05	671126.10	631941.75	12.1	1.6	10.5	-13.3	19.0	14.0	
116	3/17/2010	10:08	671370.26	632576.11	11.1	5.1	6.0	-8.8	20.0	16.0	
117	3/17/2010	13:10	671107.65	632254.29	7.8	3.4	4.4	-7.2	20.0	16.0	
118a	4/1/2010	11:15	670723.48	631651.64	18.3	5.3	13.0	-15.8	13.5	10.1	
118b	4/1/2010	11:45	670727.45	631655.17	18.4	5.2	13.2	-16.0	13.4	10.6	
119a	3/31/2010	11:05	670321.20	631674.82	4.8	3.8	1.0	-3.8	19.0	11.5	
119b	3/31/2010	12:00	670324.35	631673.79	3.8	2.4	1.4	-4.2	20.0	13.7	Soft material lost from top of core
120a	3/31/2010	12:40	670314.59	631480.56	14.1	1.9	12.2	-15.0	17.4	12.0	
120b	3/31/2010	13:20	670312.41	631478.12	14.1	1.8	12.3	-15.1	19.5	13.5	Soft material lost from top of core
121a	4/1/2010	14:20	670184.83	631389.97	13.5	1.8	11.7	-14.5	15.1	9.0	
121b	4/1/2010	15:45	670187.49	631388.08	12.1	0.9	11.2	-14.0	19.4	13.6	
122a	4/6/2010	14:30	669590.20	631073.30	24.5	4.1	20.4	-23.2	11.5	5.8	
122b	4/6/2010	16:07	669589.58	631068.85	24.3	4.2	20.1	-22.9	18.2	16.5	
123a	4/8/2010	11:24	668781.83	630848.57	28.1	2.9	25.2	-28.0	20.0	10.3	0.5' sand lost from bottom of core
123b	4/8/2010	12:05	668784.44	630859.76	28.0	3.4	24.6	-27.4	20.0	8.0	0.4' sand lost from bottom of core
123c	4/8/2010	12:40	668785.32	630858.12	28.8	3.6	25.2	-28.0	20.0	10.6	
124a	3/8/2010	15:05	673560.91	634338.81	11.3	4.0	7.3	-10.1	11.0	6.0	
124b	3/8/2010	15:18	673564.39	634340.71	10.6	3.8	6.8	-9.6	14.0	7.0	
124c	3/8/2010	16:05	673563.84	634339.60	10.4	3.6	7.0	-9.8	12.6	7.0	
125	3/8/2010	17:12	673554.68	634384.85	2.1	3.0	-0.9	-1.9	20.0	14.0	
126a	3/4/2010	11:49	673537.65	634429.84	5.4	6.1	-0.7	*-2.1*	11.0	6.6	
126b	3/4/2010	12:00	673530.09	634420.65	4.9	6.0	-1.1	*-1.7*	7.5	5.5	
127	3/10/2010	16:20	671757.01	633549.75	7.8	2.5	5.3	-8.1	20.0	15.0	
128a	3/11/2010	9:40	671746.36	633591.29	10.0	2.2	7.8	-10.6	6.0	4.0	
128b	3/11/2010	10:00	671742.60	633588.78	9.7	2.2	7.5	-10.3	18.0	13.4	
129a	4/13/2010	15:19	671734.28	633610.35	7.6	0.4	7.2	-10.0	15.4	10.0	
129b	4/13/2010	15:54	671726.39	633604.51	8.2	1.1	7.1	-9.9	15.7	11.0	

Table D1
Sediment Core Collection Data
Gowanus Canal Remedial Investigation
Brooklyn, New York

ID[1]	Date	Time	Northing	Easting	Measured Water Depth (ft)	Tide (ft MLLW)	Water Depth Relative to MLLW (ft)	Sediment Surface Elevation (ft NAVD88)[2]	Core Penetration (ft)	Core Recovery[3] (ft)	Notes
130	3/22/2010	9:30	**670940.52	**631797.88	12.0	2.1	9.9	-12.7	14.8	13.5	
131a	3/18/2010	9:30	**670956.49	**631825.16	17.5	4.6	12.9	-15.7	13.9	11.5	
131b	3/18/2010	9:45	**670953.72	**631812.89	17.5	4.7	12.8	-15.6	13.9	12.5	
132a	3/22/2010	10:20	**670936.48	**631829.64	13.0	3.4	9.6	-12.4	13.5	9.0	
132b	3/22/2010	10:45	**670924.01	**631835.96	13.3	3.4	9.9	-12.7	8.8	4.0	
132c	3/22/2010	11:10	**670913.70	**631881.75	13.1	3.6	9.5	-12.3	14.0	9.0	
133a	4/5/2010	14:15	**bridge	**bridge	5.4	4.3	1.1	-3.9	6.1	5.5	
133b	4/5/2010	14:40	**bridge	**bridge	5.8	4.2	1.6	-4.4	16.2	10.7	
134a	4/6/2010	10:15	**bridge	**bridge	13.9	1.7	12.2	-15.0	8.0	4.6	
134b	4/6/2010	10:50	**669876.97	**631159.71	14.3	2.2	12.1	-14.9	5.0	0.0	lost nose cone
134c	4/6/2010	11:10	**669852.65	**631158.62	13.5	2.6	10.9	-13.7	11.0	4.1	
135a	4/6/2010	8:50	**669853.97	**631191.88	3.0	1.2	1.8	-4.6	12.0	6.4	
135b	4/6/2010	9:20	**bridge	**bridge	2.9	1.2	1.7	-4.5	12.1	7.0	
135c	4/6/2010	9:40	**bridge	**bridge	3.4	1.4	2.0	-4.8	12.1	10.0	
136a	3/19/2010	11:20	689453.47	630964.89	17.5	4.9	12.6	*-15.4*	3.0	2.5	
136b	3/19/2010	12:10	669459.20	630976.00	21.5	4.8	16.7	*-19.5*	3.5	0.0	
136c	3/19/2010	12:30	669474.21	631002.00	25.2	4.6	20.6	*-23.4*	3.5	2.0	
137a	3/19/2010	1:10	669427.06	631037.12	26.0	4.2	21.8	*-24.6*	Est 18	0.0	Bent Barrel; penetration estimated
137b	4/7/2010	9:25	669430.53	631029.88	24.0	1.5	22.5	-25.3	19.5	11.1	2.5' sand lost from bottom of core
138a	4/7/2010	14:45	669389.56	631111.62	14.5	4.2	10.3	-13.1	7.0	1.4	
138b	4/7/2010	15:05	669389.68	631106.13	15.5	4.3	11.2	-14.0	4.0	1.7	
138c	4/7/2010	15:20	669390.19	631100.68	15.5	4.3	11.2	-14.0	4.0	0.0	
139a	4/12/2010	14:00	668733.58	630435.96	16.2	0.1	16.1	-18.9	15.6	13.0	
139b	4/14/2010	15:45	668731.91	630440.18	15.6	0.4	15.2	-18.0	13.7	10.0	
140a	4/14/2010	10:25	668617.44	630539.63	32.1	4.1	28.0	-30.8	20.0	9.9	4.5' sand lost from bottom of core
140b	4/14/2010	11:00	668625.44	630526.94	31.8	3.7	28.1	-30.9	18.9	12.9	0.8' sand lost from bottom of core
141a	4/8/2010	16:36	668497.11	630601.63	29.2	3.4	25.8	-28.6	11.8	0.0	lost nose cone
141b	4/12/2010	12:50	668496.82	630590.47	26.0	0.4	25.6	-28.4	6.4	5.0	
141c	4/12/2010	13:23	668510.65	630591.52	27.1	0.2	26.9	-29.7	8.8	6.3	
142a	4/14/2010	13:03	668390.50	632022.58	25.0	0.9	24.1	-26.9	19.5	11.5	0.5' sand lost from bottom of core
142b	4/14/2010	13:33	668390.17	630021.12	24.5	0.5	24.0	-26.8	20.0	10.5	0.5' sand lost from bottom of core
142c	4/14/2010	14:15	668388.68	630021.00	23.9	0.1	23.8	-26.6	20.0	8.0	0.5' sand lost from bottom of core
143a	4/14/2010	11:33	668377.55	630215.23	36.6	2.9	33.7	-36.5	15.5	2.5	
143b	4/14/2010	12:00	668362.60	630211.62	33.7	1.8	31.9	-34.7	19.0	13.6	
144a	3/25/2010	15:30	668334.45	630400.20	36.9				18.0	3.8	elevation not determined
144b	4/12/2010	14:53	668352.52	630407.60	33.5	0.7	32.8	-35.6	16.7	6.5	2.5' sand lost from bottom of core; native sampled from this core
144c	4/12/2010	15:30	668362.20	630404.83	33.7	1.5	32.2	-35.0	7.0	6.0	accumulated soft sediment

Table D1
Sediment Core Collection Data
Gowanus Canal Remedial Investigation
Brooklyn, New York

ID[1]	Date	Time	Northing	Easting	Measured Water Depth (ft)	Tide (ft MLLW)	Water Depth Relative to MLLW (ft)	Sediment Surface Elevation (ft NAVD88)[2]	Core Penetration (ft)	Core Recovery[3] (ft)	Notes
											sampled from this core
145a	4/9/2010	8:52	672319.01	633791.67	14.1	2.9	11.2	-14.0	11.3	6.4	
145b	4/9/2010	9:23	672317.29	633791.84	13.7	2.5	11.2	-14.0	14.3	8.2	
145c	4/9/2010	9:50	672310.37	633791.00	13.3	2.0	11.3	-14.1	12.4	9.5	
146	4/9/2010	10:45	672058.48	633748.24	7.4	1.5	5.9	-8.7	20.0	13.1	
147	4/9/2010	11:27	672024.10	633772.00	10.4	1.2	9.2	-12.0	20.0	16.7	
148	4/13/2010	13:35	672022.77	633781.99	7.2	0.3	6.9	-9.7	20.0	12.5	0.5' sand lost from bottom of core
149a	4/12/2010	10:10	670401.47	631551.51	13.6	2.8	10.8	-13.6	6.0	4.6	
149b	4/12/2010	10:37	670394.02	631550.65	12.3	2.4	9.9	-12.7	5.7	4.0	
149c	4/12/2010	11:00	670396.66	631543.92	11.4	2.0	9.4	-12.2	14.1	7.0	
150a	4/9/2010	13:24	669177.32	630872.60	23.6	1.9	21.7	-24.5	8.0	0.0	lost nose cone
150b	4/9/2010	14:08	669174.03	630889.09	25.9	2.6	23.3	-26.1	9.5	6.0	
150c	4/9/2010	14:37	669169.28	630894.44	27.1	3.2	23.9	-26.7	20.0	16.0	0.35' sand lost from bottom of core
151a	4/12/2010	11:48	669084.23	631055.67	26.7	1.2	25.5	-28.3	7.3	3.5	
151b	4/12/2010	12:08	669093.74	631050.33	25.9	1.0	24.9	-27.7	15.0	12.0	
152	4/15/2010	9:18	673289.33	634280.01	5.1	4.4	0.7	-3.5	18.7	13.1	
153a	4/15/2010	11:10	672395.30	633803.36	11.8	3.6	8.2	-11.0	14.2	8.3	2.0' sand lost from bottom of core
153b	4/15/2010	11:55	672400.39	633811.01	10.2	2.8	7.4	-10.2	13.5	8.0	
153c	4/15/2010	12:25	672405.11	633808.31	9.0	2.5	6.5	-9.3	11.8	9.0	
1Aa	3/5/2010	12:20	673607.90	634371.08	5.9	5.6	0.3	*-3.1*	18.5	11.0	
1Ab	3/5/2010	13:25	673604.37	634372.92	5.3	5.3	0.0	*-2.8*	15.0	11.0	
1Ac	3/8/2010	16:35	673607.91	634371.28	3.6	3.5	0.1	-2.9	20.0	12.5	
2A	3/9/2010	16:10	673599.74	634402.60	3.5	3.9	-0.4	-2.4	19.0	15.0	
3B	3/5/2010	10:15	673583.80	634429.69	3.8	4.8	-1.0	*-1.9*	15.0	11.1	
4Aa	3/9/2010	16:45	673437.39	634285.37	5.3	3.7	1.6	-4.4	10.0	7.0	
4Ab	3/9/2010	17:10	673438.10	634285.64	5.2	3.5	1.7	-4.5	19.5	14.5	0.5' very soft material lost from top of core
5Aa	3/10/2010	8:13	673429.34	634237.42	3.0	2.4	1.6	-4.4	20.0	13.0	
5Ab	3/10/2010	8:45	673425.56	634324.52	2.8	1.9	0.9	-3.7	20.0	13.0	top foot very soft material lost during sectioning
5Ac	3/10/2010	9:30	673432.78	634313.60	3.2	1.5	1.7	-4.5	20.0	12.0	
6Aa	3/4/2010	11:13	673413.32	634360.76	7.2	6.2	1.0	*-3.8*	15.0	10.3	Both attempts from 6A sampled
6Ab	3/5/2010	11:17	673411.90	634355.13	5.9	5.3	0.6	*-3.4*	20.0	14.5	
7A	3/8/2010	11:10	673298.55	634227.22	6.1	2.6	3.5	-6.3	20.0	14.0	
8Aa	3/8/2010	12:20	673287.53	634248.13	4.8	3.2	1.6	-4.4	20.0	13.5	
8Ab	3/8/2010	13:00	673285.30	634255.69	4.4	3.6	0.8	-3.6	20.0	13.5	
8Ac	3/8/2010	13:40	673281.95	634254.33	4.6	3.8	0.8	-3.6	20.0	11.0	
10A	3/4/2010	15:15	672981.11	634066.63	5.8	2.1	3.7	*-6.5*	19.0	13.0	
11A	3/10/2010	10:40	672969.35	634086.74	4.2	1.0	3.2	-6.0	20.0	14.5	

Table D1
Sediment Core Collection Data
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Brooklyn, New York

ID[1]	Date	Time	Northing	Easting	Measured Water Depth (ft)	Tide (ft MLLW)	Water Depth Relative to MLLW (ft)	Sediment Surface Elevation (ft NAVD88)[2]	Core Penetration (ft)	Core Recovery[3] (ft)	Notes
12A	3/4/2010	10:22	672959.20	634116.82	8.8	5.9	2.9	*-5.7*	13.5	10.5	
13Ba	3/4/2010	16:11	672788.72	633961.99	3.6	1.4	2.2	*-5.0*	9.0	9.0	
13Bb	3/4/2010	16:41	672780.63	633959.22	3.0	1.1	1.9	*-4.7*	9.5	5.5	
13Bc	3/9/2010	8:40	672791.88	633963.58	1.9	1.4	0.5	-3.3	19.5	16.0	
14A	3/9/2010	9:40	672782.48	633983.67	5.7	1.0	4.7	-7.5	20.0	14.0	
16Aa	3/10/2010	11:55	672523.14	633828.46	7.3	1.5	5.8	-8.6	18.0	11.6	
16Ab	3/10/2010	12:44	672521.70	633828.90	7.9	0.7	7.2	-10.0	20.0	14.0	
17Aa	3/9/2010	10:30	672531.15	633870.70	8.7	1.3	7.4	-10.2	20.0	8.0	
17Ab	3/10/2010	13:30	672537.54	633864.93	10.2	1.3	8.9	-11.7	19.0	11.0	
18A	3/3/2010	1346	672526.66	633887.21	7.9	2.8	5.1	-7.9	13.0	10.0	
19C	3/11/2010	13:50	672227.64	633769.29	5.7	2.1	3.6	-6.4	16.0	11.5	
20Aa	3/11/2010	10:35	672180.41	633793.43	7.1	1.4	5.8	-8.6	3.0	2.0	
20Ab	3/11/2010	10:55	672175.74	633794.95	7.2	1.5	5.7	-8.5	3.5	2.0	
20Ac	3/11/2010	11:22	672170.88	633788.42	6.9	1.5	5.4	-8.2	4.5	3.0	
21Ba	4/13/2010	12:50	672178.27	633816.61	5.8	0.7	5.1	-7.9	4.8	3.0	
21Bb	4/13/2010	13:05	672179.31	633820.67	3.7	0.5	3.2	-6.0	5.5	4.0	
22Ba	3/11/2010	12:00	671932.58	633666.41	4.2	1.0	3.2	-6.0	5.5	4.0	
22Bb	3/11/2010	12:40	671925.90	633669.58	5.1	1.4	3.7	-6.5	20.0	15.0	
24Ba	4/13/2010	14:02	671897.72	633713.75	6.9	0.1	6.8	-9.6	5.6	4.0	
24Bb	4/13/2010	14:20	671891.11	633709.15	7.4	0.0	7.4	-10.2	19.1	14.9	
25Ba	3/12/2010	11:30	671567.17	633439.12	7.7	2.6	5.1	-7.9	20.0	12.0	
25Bb	3/12/2010	12:20	671556.94	633437.19	7.8	1.7	6.1	-8.9	13.5	8.0	
25Bc	3/12/2010	12:45	671559.76	633431.01	7.9	1.4	6.5	-9.3	19.5	12.0	
26A	3/18/2010	15:15	671551.88	633459.11	11.1	1.0	10.1	-12.9	20.0	15.5	
27Aa	4/13/2010	11:09	671528.25	633476.82	10.9	2.5	8.4	-11.2	5.0	3.5	
27Ab	4/13/2010	11:27	671533.17	633475.29	11.7	2.2	9.5	-12.3	12.8	8.7	
28A	3/12/2010	8:50	671513.18	633252.49	7.9	3.5	4.4	-7.2	19.0	14.5	
29Aa	3/12/2010	9:35	671472.89	633248.77	10.9	2.7	8.2	-11.0	8.4	4.0	
29Ab	3/12/2010	10:10	671477.82	633229.34	10.1	1.1	7.5	-10.3	5.0	0.0	
29Ac	3/12/2010	10:50	671471.48	633238.84	9.1	1.2	7.9	-10.7	18.5	17.0	
30A	3/18/2010	14:10	671442.92	633256.91	7.2	2.7	4.5	-7.3	20.0	17.5	
31A	3/15/2010	12:05	671550.03	633077.08	5.4	3.4	2.0	-4.8	18.0	13.8	
32A	3/15/2010	12:45	671517.73	633065.62	9.3	2.7	6.6	-9.4	18.0	12.5	
33A	3/15/2010	13:35	671481.39	633040.16	4.9	2.7	2.2	-5.0	19.5	15.3	
34Ba	3/15/2010	15:25	671585.39	632841.74	5.7	1.8	3.9	-6.7	13.0	5.4	
34Bb	3/23/2010	13:00	671591.12	632832.54	7.0	3.9	3.1	-5.9	14.8	9.5	
34Bc	3/23/2010	13:25	671583.78	632847.79	10.1	4.0	6.1	-8.9	15.4	10.2	
35Aa	3/18/2010	16:17	671555.55	632813.58	7.8	0.7	7.1	-9.9	17.4	12.0	
35Ab	3/19/2010	8:15	671563.48	632820.26	11.0	2.9	8.1	*-10.9*	15.5	11.8	

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ID[1]	Date	Time	Northing	Easting	Measured Water Depth (ft)	Tide (ft MLLW)	Water Depth Relative to MLLW (ft)	Sediment Surface Elevation (ft NAVD88)[2]	Core Penetration (ft)	Core Recovery[3] (ft)	Notes
36Aa	3/19/2010	9:00	671540.62	632811.28	9.4	3.8	5.6	*-8.4*	13.6	10.0	
36Ab	3/19/2010	9:20	671547.07	632789.53	9.7	4.1	5.6	*-8.4*	12.5	5.5	
36Ac	3/19/2010	10:10	671551.47	632801.03	10.1	4.5	5.6	*-8.4*	13.8	9.0	
37Ba	4/13/2010	8:14	671621.36	632560.82	10.8	4.7	6.1	-8.9	6.0	2.5	
37Bb	4/13/2010	8:39	671622.46	632556.99	10.7	4.6	6.1	-8.9	5.0	1.7	
37Bc	4/13/2010	8:53	671612.79	632570.52	11.8	4.5	7.3	-10.1	7.0	4.1	Soft sediment sampled from location
38Aa	4/13/2010	9:39	671589.89	632604.94	10.7	4.1	6.6	-9.4	4.0	2.2	
38Ab	4/13/2010	10:00	671597.43	632604.82	12.2	3.7	8.5	-11.3	7.3	4.3	Soft sediment sampled from location
38Ac	4/13/2010	10:25	671594.81	632594.37	10.2	3.2	7.0	-9.8	5.3	1.7	
39Aa	3/17/2010	14:30	671562.72	632606.80	8.4	0.9	7.5	-10.3	9.6	6.5	
39Ab	3/17/2010	15:40	671562.39	632599.33	8.7	0.8	7.9	-10.7	5.5	3.5	
39Ac	3/17/2010	16:20	671566.75	632599.54	9.0	0.8	8.2	-11.0	9.5	5.0	
40Aa	3/23/2010	9:15	671609.70	632418.04	11.3	1.1	10.2	-13.0	10.0	5.5	
40Ab	3/23/2010	10:10	671612.55	632422.30	11.8	2.0	9.8	-12.6	7.8	3.3	
40Ac	3/23/2010	10:45	671601.54	632428.56	13.2	2.6	10.6	-13.4	4.5	2.0	
41A	3/23/2010	11:21	671589.21	632427.12	15.6	3.0	12.6	-15.4	8.4	7.1	
42B	3/23/2010	12:05	671564.57	632444.55	15.6	3.5	12.1	-14.9	9.2	7.0	
43Aa	3/24/2010	9:05	671581.62	632340.31	10.6	0.7	9.9	-12.7	3.0	2.5	
43Ab	3/24/2010	9:50	671583.64	632339.02	10.4	0.7	9.7	-12.5	12.6	9.0	
44A	3/23/2010	14:30	671536.55	632346.46	19.1	3.8	15.3	-18.1	20.0	16.0	
45Ca	3/23/2010	15:25	671517.22	632365.77	17.7	3.2	14.5	-17.3	9.9	5.0	
45Cb	3/23/2010	11:20	671518.38	632368.25	17.3	3.2	14.1	-16.9	8.8	7.9	
46C	3/24/2010	11:35	671463.18	632153.90	10.2	3.1	7.1	-9.9	14.6	10.3	
47A	3/25/2010	10:36	671431.56	632188.77	14.2	1.1	13.1	-15.9	19.5	19.5	
48Aa	3/24/2010	15:40	671409.80	632208.40	13.9	3.5	10.4	-13.2	10.6	4.0	
48Ab	3/24/2010	16:20	671413.44	632203.22	14.2	4.0	10.2	-13.0	8.1	5.5	
48Ac	3/24/2010	16:45	671416.03	632205.25	14.2	3.6	10.6	-13.4	7.5	4.0	
49Aa	3/24/2010	12:30	671366.85	632056.79	10.9	4.0	6.9	-9.7	13.6	7.0	
49Ab	3/24/2010	13:00	671379.98	632067.57	11.9	4.0	7.9	-10.7	18.1	11.5	
49Ac	3/24/2010	13:30	671373.45	632071.13	12.0	2.5	9.5	-12.3	19.0	13.0	
50Ba	3/25/2010	11:17	671346.05	632087.71	15.6	1.0	14.6	-17.4	11.7	9.0	
50Bb	3/25/2010	12:00	671342.44	632097.35	16.1	2.0	14.1	-16.9	17.4	13.0	
51Aa	3/31/2010	8:57	671323.91	632121.71	17.1	5.6	11.5	-14.3	11.2	9.0	
51Ab	3/31/2010	9:36	671326.02	632123.73	17.4	5.4	12.0	-14.8	17.1	11.0	
52Aa	3/24/2010	14:30	671246.20	631978.62	13.5	3.0	10.5	-13.3	1.0	0.0	
52Ab	3/24/2010	14:45	671233.59	631973.80	13.0	3.0	10.0	-12.8	4.4	4.0	
52Ac	3/24/2010	15:00	671246.20	631978.62	13.9	3.0	10.4	-13.2	1.6	1.0	

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ID[1]	Date	Time	Northing	Easting	Measured Water Depth (ft)	Tide (ft MLLW)	Water Depth Relative to MLLW (ft)	Sediment Surface Elevation (ft NAVD88)[2]	Core Penetration (ft)	Core Recovery[3] (ft)	Notes
53A	4/1/2010	9:40	671215.51	632005.69	17.0	5.3	11.7	-14.5	14.2	10.4	
54B	3/25/2010	13:15	671172.68	632018.62	11.5	2.2	9.3	-12.1	16.5	11.5	
55Aa	3/22/2010	12:10	671034.44	631830.41	6.1	3.9	2.2	-5.0	11.4	6.0	
55Ab	3/22/2010	12:55	671020.81	631828.69	8.9	3.9	5.0	-7.8	11.8	6.1	
55Ac	3/22/2010	13:15	671013.49	631832.99	9.4	3.8	5.6	-8.4	11.0	4.0	
56Aa	3/22/2010	14:00	671014.10	631874.05	14.7	3.8	10.9	-13.7	8.9	5.5	
56Ab	3/22/2010	14:35	671009.89	631870.43	14.5	3.5	11.0	-13.8	8.0	4.0	
56Ac	3/22/2010	15:20	671015.45	631863.29	13.3	2.5	10.8	-13.6	7.6	5.5	
57Aa	3/22/2010	16:25	671004.25	631909.65	9.4	1.3	8.1	-10.9	4.0	3.5	
57Ab	3/22/2010	16:50	671003.16	631915.69	8.6	1.1	7.5	-10.3	16.6	12.0	
59A	4/5/2010	8:55	670730.43	631695.70	15.1	1.1	14.0	-16.8	18.4	13.0	
60Ba	4/1/2010	12:30	670707.73	631721.71	14.1	4.1	10.0	-12.8	11.3	8.0	
60Bb	4/1/2010	13:00	670711.90	631721.91	13.3	3.7	9.6	-12.4	12.7	4.5	
60Bc	4/1/2010	13:25	670714.05	631718.32	13.0	3.3	9.7	-12.5	4.0	2.1	
61C	4/1/2010	16:30	670562.15	631545.57	9.8	0.7	9.1	-11.9	17.2	11.7	
62Ca	4/5/2010	9:40	670548.12	631582.32	15.0	1.7	13.3	-16.1	20.0	7.7	
62Cb	4/5/2010	10:17	670549.78	631578.01	15.3	2.3	13.0	-15.8	20.0	13.1	
63Aa	3/31/2010	16:05	670522.41	631608.00	10.1	0.1	10.0	-12.8	15.6	11.2	
63Ab	3/31/2010	16:40	670526.48	631611.24	10.2	0.9	9.3	-12.1	14.3	8.0	
63Ac	3/31/2010	17:05	670524.84	631609.30	10.7	1.2	9.5	-12.3	18.4	10.7	
64D	4/2/2010	8:10	670275.67	631371.64	13.2	3.1	10.1	-12.9	19.1	15.3	
65Aa	4/5/2010	11:00	670251.28	631405.23	17.5	2.7	14.8	-17.6	20.0	11.8	
65Ab	4/5/2010	11:30	670251.90	631402.71	17.8	3.3	14.5	-17.3	20.0	13.5	
66Ca	3/31/2010	14:10	670215.94	631421.33	10.7	1.4	9.3	-12.1	16.5	11.5	
66Cb	3/31/2010	14:55	670220.97	631413.12	12.7	1.0	11.7	-14.5	2.5	1.0	
66Cc	3/31/2010	15:20	670216.81	631420.77	9.9	0.0	9.9	-12.7	20.0	13.4	
67B	4/6/2010	12:10	669777.71	631090.06	14.2	3.1	11.1	-13.9	18.7	15.0	
68Aa	4/5/2010	12:45	669754.09	631137.21	16.8	4.0	12.8	-15.6	4.2	3.1	
68Ab	4/5/2010	13:15	669758.13	631131.37	17.3	4.1	13.2	-16.0	8.0	3.8	
68Ac	4/5/2010	13:40	669757.77	631126.65	18.3	4.2	14.1	-16.9	2.0	0.0	
69C	4/6/2010	13:00	669745.17	631177.00	9.2	3.5	5.7	-8.5	11.8	7.9	
70B	4/6/2010	13:45	669605.64	631030.37	21.1	3.9	17.2	-20.0	11.4	9.7	
72Ba	4/7/2010	10:30	669574.82	631105.34	15.5	1.3	14.2	-17.0	7.5	2.9	
72Bb	4/7/2010	10:55	669581.46	631106.49	15.6	1.4	14.2	-17.0	7.2	0.0	
72Bc	4/7/2010	11:13	669582.54	631097.91	17.2	1.6	15.6	-18.4	17.3	9.9	
73Ea	4/7/2010	12:24	669267.63	630927.35	25.3	2.6	22.7	-25.5	4.7	0.0	
73Eb	4/7/2010	12:40	669259.97	630930.51	26.6	2.8	23.8	-26.6	fell over	0.0	
73Ec	4/7/2010	13:20	669276.87	630930.25	26.3	3.5	22.8	-25.6	12.9	7.7	
74E	4/8/2010	8:50	669253.05	630997.67	29.3	1.9	27.4	-30.2	16.0	11.3	

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Brooklyn, New York

ID[1]	Date	Time	Northing	Easting	Measured Water Depth (ft)	Tide (ft MLLW)	Water Depth Relative to MLLW (ft)	Sediment Surface Elevation (ft NAVD88)[2]	Core Penetration (ft)	Core Recovery[3] (ft)	Notes
75C	4/6/2010	15:05	669231.38	631102.91	25.5	4.4	21.1	-23.9	15.3	8.0	
76C	4/7/2010	14:00	668936.19	630782.93	25.5	3.9	21.6	-24.4	20.0	14.5	0.5' sand lost from bottom of core
77Aa	4/8/2010	9:49	668865.16	630902.24	27.2	1.5	25.7	-28.5	20.0	12.1	2.9' sand lost from bottom of core
77Ab	4/8/2010	10:30	668861.10	630891.31	27.3	2.0	25.3	-28.1	20.0	12.0	0.8' sand lost from bottom of core
78Ba	4/8/2010	14:48	668801.16	631016.41	25.1	4.1	21.0	-23.8	15.3	9.8	
78Bb	4/8/2010	15:15	668802.79	631014.85	25.4	4.0	21.4	-24.2	16.0	8.7	
78Bc	4/8/2010	15:45	668806.23	631025.63	24.5	4.0	20.5	-23.3	12.7	0.0	lost nose cone
79Aa	4/14/2010	14:45	668744.34	630251.67	27.4	0.2	27.2	-30.0	19.2	9.0	
79Ab	4/14/2010	15:15	668735.70	630266.08	27.3	0.0	27.3	-30.1	19.5	14.5	0.5' sand lost from bottom of core
81A	4/15/2010	14:05	668620.52	630209.73	30.0	0.3	29.7	-32.5	20.0	14.2	
83Aa	4/15/2010	14:30	668432.01	630139.54	29.6	0.1	29.5	-32.3	18.7	12.0	2.0' sand lost from bottom of core
83Ab	4/15/2010	15:00	668435.33	630141.03	29.9	0.0	29.9	-32.7	19.6	7.5	
83Ac	4/15/2010	15:25	668426.38	630137.57	29.0	0.0	29.0	-31.8	19.3	6.9	
85Ba	3/16/2010	10:45	671330.44	633418.11	5.7	4.5	1.2	*-2.4*	14.0	4.0	
85Bb	3/16/2010	11:05	671327.49	633421.42	5.5	6.0	-0.5	*-2.3*	11.0	8.1	
87A	3/16/2010	9:05	670945.84	633828.02	8.0	6.0	2.0	-4.8	20.0	14.5	
88Aa	3/17/2010	12:30	671398.86	632483.67	6.7	4.7	2.0	-4.8	18.8	15.0	
88Ab	3/17/2010	13:15	671409.61	632485.62	5.9	3.3	2.6	-5.4	13.5	7.0	
88Ac	3/18/2010	8:30	671401.94	632491.15	7.4	4.6	2.8	-5.6	20.0	16.0	
89B	3/17/2010	11:05	671340.80	632648.18	10.8	5.8	5.0	-7.8	17.8	15.5	
90Ba	3/16/2010	11:57	671142.33	632902.28	9.6	5.3	4.3	*-7.1*	14.8	14.0	
90Bb	3/16/2010	13:20	671142.33	632902.28	8.1	3.2	6.4	*-7.7*	15.5	14.0	
91Aa	3/18/2010	12:30	671212.85	632092.84	8.3	4.4	3.9	-6.7	18.7	13.0	
91Ab	3/18/2010	13:15	671200.88	632084.13	6.8	2.9	3.9	-6.7	17.9	13.0	
93A	3/18/2010	11:15	671029.12	632378.16	7.6	4.8	2.8	-5.6	20.0	18.0	
104A	4/2/2010	8:57	670165.95	631286.39	8.7	4.1	4.6	-7.4	6.9	4.4	
105A	4/2/2010	10:25	670129.25	631316.58	17.4	5.0	12.4	-15.2	20.0	14.0	0.7' sand lost from bottom of core
106D	4/2/2010	9:50	670110.26	631351.60	15.1	4.8	10.3	-13.1	3.0	2.1	

Notes:
Coordinates are in New York State Plane Zone East NAD83.
[1] Station names in *italic* font were locations where only native sediment was targeted for sampling. At all other locations, accumulated soft sediment and native sediment were both sampled. Unsuccessful coring attempts (not sampled) are shaded.
[2] Elevations in ***bold, italic*** font were determined subsequent to the field event. All other elevations were determined by the vessel subcontractor using the method described in the text.
[3] Recovery measured on vessel, prior to processing. Due to settling of very soft sediment at the top of the core, the core length measured during processing may be shorter.
**Coordinates were either not able to be obtained due to overhead structures (e.g., bridges) or the presence of nearby overhead structures resulted in a sporadic GPS signal.

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Table D2
Native Sediment Thickness Sampled
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Thickness of Native Material Sampled	Depth Range Sampled (feet from top of core)
GC-SD107	8.0	8.0-16.0
GC-SD108	5.5	8.0-13.5
GC-SD109	6.0	4.8-10.8
GC-SD110	8.0	6.0-14.0
GC-SD111	7.6	8.3-15.9
GC-SD112	0.0	
GC-SD113	5.7	9.3-15.0
GC-SD114	13.7	1.2-14.9
GC-SD115	12.0	1.8-13.8
GC-SD116	9.3	6.5-15.8
GC-SD117	7.0	8.7-15.7
GC-SD118	9.2	1.0-10.2
GC-SD119	0.0	
GC-SD120	10.0	2.5-12.5
GC-SD121	12.0	1.5-13.5
GC-SD122	15.0	1.1-16.1
GC-SD123	4.0	7.0-11.0
GC-SD124	0.0	
GC-SD125	3.9	10.0-13.6
GC-SD126	0.0	
GC-SD127	9.8	6.0-15.8
GC-SD128	10.0	3.3-13.3
GC-SD129	4.0	6.6-10.5
GC-SD130	5.4	7.4-12.8
GC-SD131	4.4	7.5-11.9
GC-SD132	3.7	4.9-8.6
GC-SD133	2.5	8.2-10.7
GC-SD134	0.0	
GC-SD135	0.0	
GC-SD136	0.0	
GC-SD137	9.8	0.0-9.8
GC-SD138	0.0	
GC-SD139	0.0	
GC-SD140	6.5	6.2-12.7
GC-SD141	0.0	
GC-SD142	7.1	4.1-11.2
GC-SD143	10.3	3.3-13.8
GC-SD144b	5.8	0.8-6.5
GC-SD145	5.8	3.8-9.6
GC-SD146	6.0	7.0-13.0
GC-SD147	13.5	3.5-17.0
GC-SD148	5.7	6.2-11.9
GC-SD149	2.0	5.0-7.0
GC-SD150	6.9	8.6-15.5
GC-SD151	6.0	5.2-11.2
GC-SD152	4.0	7.7-11.7
GC-SD153	4.6	4.2-8.8
GC-SD01A	2.0	9.4-11.4
GC-SD02A	2.0	11.9-13.9
GC-SD03B	0.0	
GC-SD04 A	6.0	7.3-13.3
GC-SD05A	6.0	6.0-12.0
GC-SD06A	4.6	9.4-14.0

Table D2
Native Sediment Thickness Sampled
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Thickness of Native Material Sampled	Depth Range Sampled (feet from top of core)
GC-SD07A	6.0	7.0-13.0
GC-SD08A	5.0	8.0-13.0
GC-SD10A	5.8	6.4 -11.2
GC-SD11A	6.0	7.7-13.7
GC-SD12A	0.0	
GC-SD13B	10.2	6.0-16.0
GC-SD14A	6.5	7.4-13.9
GC-SD16A	7.0	5.4-13.4
GC-SD17A	6.0	2.0-8.0
GC-SD18A	6.0	4.0-10.0
GC-SD19C	4.7	6.8-11.5
GC-SD20A	0.0	
GC-SD21B	0.0	
GC-SD22B	10.0	4.0-14.0
GC-SD24B	10.0	4.8-14.8
GC-SD25B	6.8	4.8-11.6
GC-SD26A	12.0	2.4-14.4
GC-SD27A	4.5	4.1-8.6
GC-SD28A	6.0	6.8-12.8
GC-SD29A	9.0	4.8-13.8
GC-SD30A	11.7	6.0-17.7
GC-SD31A	4.6	9.3-13.9
GC-SD32A	6.0	6.1-12.1
GC-SD33A	9.4	6.2-15.6
GC-SD34B	1.1	8.8-9.9
GC-SD35A	6.0	5.3-11.3
GC-SD36A	3.1	6.1-9.2
GC-SD37B	0.0	
GC-SD38A	0.0	
GC-SD39A	0.0	
GC-SD40A	1.0	4.0-5.0
GC-SD41A	5.1	2.4-7.5
GC-SD42B	4.8	2.2-7.0
GC-SD43A	6.0	2.6-8.6
GC-SD44A	14.4	1.7-16.1
GC-SD45C	3.2	4.7-7.9
GC-SD46C	6.0	3.9-9.9
GC-SD47A	18.0	0.6-18.6
GC-SD48A	0.0	
GC-SD49A	9.9	3.4-13.3
GC-SD50B	8.0	1.7-9.7
GC-SD51A	6.9	2.4-9.3
GC-SD52A	0.0	
GC-SD53A	6.0	2.5-8.5
GC-SD54B	6.7	4.5-11.2
GC-SD55A	0.0	
GC-SD56A	3.7	1.6-5.3
GC-SD57A	4.7	7.2-11.9
GC-SD59A	10.9	2.1-13.0
GC-SD60B	2.8	5.2-8.0
GC-SD61C	4.0	7.7-11.7
GC-SD62C	8.0	4.5-12.5
GC-SD63A	6.0	3.1-9.1

Table D2
Native Sediment Thickness Sampled
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Thickness of Native Material Sampled	Depth Range Sampled (feet from top of core)
GC-SD64D	12.0	3.1-15.1
GC-SD65A	11.7	1.0-12.7
GC-SD66C	10.0	2.7-12.7
GC-SD67B	6.0	6.0-12.0
GC-SD68A	0.0	
GC-SD69C	0.0	
GC-SD70B	4.3	4.8-9.1
GC-SD72B	7.0	1.8-8.8
GC-SD73E	0.0	
GC-SD74E	6.0	4.4-10.4
GC-SD75C	6.0	1.0-7.0
GC-SD76C	8.0	5.8-13.8
GC-SD77A	5.7	6.7-12.4
GC-SD78B	0.0	
GC-SD79A	6.0	6.0-12.0
GC-SD81A	6.0	5.3-11.3
GC-SD83A	6.0	5.0-11.0
GC-SD85B	0.0	
GC-SD87A	6.0	8.3-14.3
GC-SD88A	6.0	8.0-14.0
GC-SD89B	6.0	8.3-14.3
GC-SD90B	8.0	5.4-13.4
GC-SD91A	4.0	9.2-13.2
GC-SD93A	12.0	5.2-17.2
GC-SD104A	0.0	
GC-SD105A	12.0	1.9-13.9
GC-SD106D	0.0	

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Appendix D
Field Documentation

D-01 – Sediment Coring Investigation

Sediment Coring Investigation Description

- **Attachment 1 – USEPA Sediment Core Logs**

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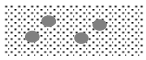
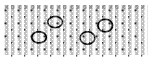
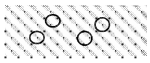
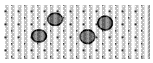
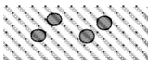
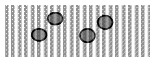
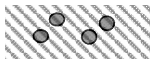
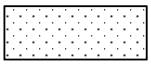
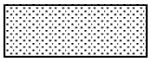
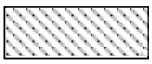
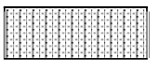
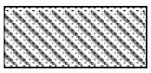
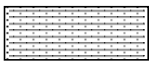
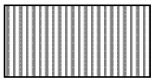
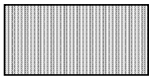
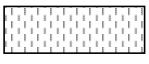
Sediment Core Log Key

MAJOR DIVISIONS		GRAPHIC SYMBOL	GROUP SYMBOL	DESCRIPTION
COARSE-GRAINED MATERIAL	GRAVELS — CLEAN GRAVELS		GW	Well-graded gravel Well-graded gravel with sand
			GP	Poorly graded gravel Poorly graded gravel with sand
			GW-GM	Well-graded gravel with silt Well-graded gravel with silt and sand
			GW-GC	Well-graded gravel with clay Well graded gravel with clay and sand
	GRAVELS — GRAVELS WITH FINES		GP-GM	Poorly graded gravel with silt Poorly graded gravel with silt and sand
			GP-GC	Poorly graded gravel with clay Poorly graded gravel with clay and sand
			GM	Silty gravel Silty gravel with sand
			GC	Clayey gravel Clayey gravel with sand
	SANDS — CLEAN SANDS		SW	Well-graded sands Well-graded sand and gravel
			SP	Poorly-graded sands Poorly graded sand with gravel
			SW-SM	Well-graded sand with silt Well-graded sand with silt and gravel
			SW-SC	Well-graded sand with clay Well-graded sand with clay and gravel
			SP-SM	Poorly-graded sand with silt Poorly-graded sand with silt and gravel
	SANDS WITH FINES		SP-SC	Poorly-graded sand with clay Poorly-graded sand with clay and gravel
			SM	Silty sand Silty sand and with gravel
			SC	Clayey sand Clayey sand and with gravel
FINE-GRAINED MATERIALS			CL	Lean clay * Lean clay with sand or gravel * Sandy lean clay * Sandy lean clay with gravel * Gravelly lean clay * Gravelly lean clay with sand
			ML	Silt * Silty with sand or gravel * Sandy silt * Sandy silt with gravel * Gravelly silt * Gravelly silt with sand
	SILTS AND CLAYS		CH	Fat clay * Fat clay with sand or gravel * Sandy fat clay * Gravelly fat clay * Gravelly fat clay with sand
			MH	Elastic silt * Elastic silt with sand or gravel * Sandy elastic silt * Sandy elastic silt with gravel * Gravelly elastic silt * Gravelly elastic silt with sand
			OL/OH	Organic silt * Organic silt with sand or gravel * Sandy organic silt * Sandy organic soil with gravel * Gravelly organic soil * Gravelly organic soil with sand

Well Graded (Engineering) = Poorly Sorted (Geological) = grains of all different sizes mixed together

Poorly Graded (Engineering) = Well Sorted (Geological) = grains are all same size

∩ Shell hash

λλλλ Peat/organic matter

CONSISTENCY

Penetration of thumb:

<0.25 cm = hard (H)

0.25 - 2.0 cm = firm (F)

2.0 - 4.0 cm = soft (S)

>4.0 cm = very soft (VS)

CEMENTATION

N = not cemented

W = weakly cemented

M = Moderately cemented

S = Strongly cemented

STRUCTURE

H = Homogeneous

S = Stratified

L = Laminated

M = Mottled

COLOR

from Munsell chart

MAXIMUM PARTICLE SIZE

SC = Small Cobble

CP = Coarse Pebble

MP = Medium Pebble

SP = Small Pebble

CS = Coarse Sand

MS = Medium Sand

FS = Fine Sand

VFS = Very Fine Sand

Z = Silt

SA = Sub-angular

VA = Very angular

ODOR

N = None

UNC = Unclassified

S = Sulfur-like

T = Tar-like

PHC = Petroleum hydrocarbon-like

Quantifying Descriptors

Strong

Moderate

Faint

Moisture Content

Wet

Moist

Dry

well graded = poorly sorted = grains of all different sizes mixed together

poorly graded = well sorted = grains are all same size

VISIBLE CONTAMINATION DESCRIPTORS

Sheen - iridescent petroleum-like sheen. Free product is not present but a distinct film is evident. Not to be used to describe a “bacterial sheen” which can be distinguished by its tendency to break up on the water surface at angles whereas petroleum sheen will be continuous and will not break up.

Stained - used w/ color (i.e. black or brown stained) to indicate that the soil matrix is stained a color other than the natural (unimpacted) color of the soil.

Coated - soil grains are coated with free product – there is not sufficient free-phase material present to saturate the pore spaces.

Blebs - observed discrete sphericals of tar/free product - but for the most part the soil matrix was not visibly contaminated or saturated. Typically this is residual product.

Saturated - the entirety of the pore space for a sample is saturated with NAPL. Care should be taken to ensure that you’re not observing water saturating the pore spaces if you use this term. Depending on viscosity, free-phase saturated materials may freely drain from a soil sample.

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD107	**Easting:**	634413.11	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673635.16	**Penetration (ft):** 20'	N - 20' Penetration
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-3.7 NAVD88	**Recovery (ft)** 16'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/9/2010 15:25	
	ASI - M. Shappell/Captain	**Depth (ft):**	4.7'		
		St. Arrival:	15:20	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:55	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC (mod)	0%	5%	95%	0.0	A	* Organic: leaf and wood fragments, septic-like odor, abrupt change
2		SM	10YR 2/1	F	N	H	Wet	FS	UNC (mod)	0%	75%	25%	1.2	B	Silty sand - no garbage
3															*
4		OL	10YR 2/1	S	N	H	Wet	FS	UNC (mod)	0%	75%	25%	0.6	C	Plastic bags and garbage noted throughout, fibrous wood, glass fragments
5															*
6								MP		25%	50%	25%	13.1		
7										0%	80%	20%	3.1	D	*
8		SW-SM	10YR 5/1	H	N	H	Wet	MP	UNC (mod)	0%	80%	20%	2.1		
9			10YR 2/1					FS			90%	10%	0.3		
10								MS					1.8	E	* Several bands of very silty sand, light gray
													1.5		

Additional Notes/Comments: Bottom of core at 16.0'. Core opened at 1650. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 2/1	H	N	H	Wet	ML	UNC	0%	90%	10%	30.3	F/G	
													0.4		
12		SM/ML	10YR 2/1	H	N	H	Moist/ Wet	VFS	UNC	0%	60%	40%	5.1		
													1.6	H	
13													1.6		
14													0.0		
													0.0	I	No NAPL observed
15		SM						FS			80%	20%			
BOC=													0.0		
16													1.3		
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD107-00.0-02.0	N	03/09/2010 16:50	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD107-02.0-04.0	N	03/09/2010 16:50	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD107-04.0-06.0	N	03/09/2010 16:50	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD107-06.0-08.0	N	03/09/2010 16:50	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD107-08.0-10.0	N	03/09/2010 16:50	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD107-10.0-12.0	N	03/09/2010 16:50	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
G	D-03092010-02	FD	03/09/2010 16:50	10.0-12.0	X	X	X	X	X	X		X				
H	GC-SD107-12.0-14.0	N	03/09/2010 16:50	12.0-14.0	X	X	X	X	X	X	X	X	X	X		
I	GC-SD107-14.0-16.0	N	03/09/2010 16:50	14.0-16.0	X	X	X	X	X	X	X	X	X	X		
J	GC-SD107-00.0-16.0	N-TCLP	03/09/2010 16:50	0.0-16.0											X	X
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/9/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD108	**Easting:**	634231.95		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673200.67	**Penetration (ft):**	16.5'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-4.2 NAVD88	**Recovery (ft)**	13.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/5/2010 8:30		
	ASI - M. Shappell/Captain	**Depth (ft):**	4.5'				
		St. Arrival:	8:25		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:40	**Penetration (ft):**	17'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	11.5'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/5/2010 9:10		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	1%	1%	98%	4.2	A	* PID above core - 33.3 ppm
2															Wood fragments - worm
3													4.2	B	* PID above core - 52.6 ppm
4															Garbage - plastic bags
5													10	C	* PID above core - 86.6 ppm
6															
7				S					PHC (faint)	5%	5%	90%	22.6	D	* PID above core - 38.5 ppm
8		GP-GM	10YR 2/1	H	N	H	Wet	CP	PHC (faint)	50%	25%	25%			Increasing sand and gravel content Gradual transition to fine silty sand
9		SM	10YR 2/1	H	N	H	Wet	MS	PHC (mod)	0%	75%	25%	9.9	E	* PID above core - 41.4 Abrupt transition to fine silty sand
10		ML	10YR 4/2	H	M	H	Moist	FS	PHC (mod)	0%	10%	90%		F	

Additional Notes/Comments: Bottom of core at 13.5'. Core opened at 10:13. (1) Coordinates are of first core, which was retained and processed.
* Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		ML	10YR 4/2	H	M	H	Moist	FS	PHC (mod)	0%	10%	90%	32.5	F	* PID above core - 422 ppm
12		SW-SM	10YR 4/2	H	N	H	Wet	SP	PHC (strong)	10%	89%	1%	22.5	G	Gradually increasing gravel content (rounded)
13 BOC 13.5'															PID above core - 276 ppm NAPL saturation at approximately 13.0' * Heavy coating - 12.8 - 13.1'
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD108-00.0-02.0	N	03/03/2010 10:13	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD108-02.0-04.0	N	03/03/2010 10:13	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD108-04.0-06.0	N	03/03/2010 10:13	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
	D-03052010-01	FD	03/03/2010 10:13	4.0-6.0	X	X			X	X		X				
D	GC-SD108-06.0-08.0	N	03/03/2010 10:13	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
	D-03052010-02	FD	03/03/2010 10:13	6.0-8.0			X	X								
E	GC-SD108-08.0-10.0	N	03/03/2010 10:13	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD108-10.0-12.0	N/MSD	03/03/2010 10:13	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
G	GC-SD108-12.0-13.5	N	03/03/2010 10:13	12.0-13.5	X	X	X	X	X	X	X	X	X	X		
N/A	GC-SD108-00.0-13.5	N/TCLP	03/03/2010 10:13	0.0-13.5											X	X
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/5/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD109	**Easting:**	633912.23	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672596.42	**Penetration (ft):** 13.0'	Y
Crew/Company	J. Balas/CH2M HILL	**Elevation:**	-9.9' NAVD88	**Recovery (ft)** 11.3'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/3/2010 15:02	
	ASI - M. Shappell/Captain	**Depth (ft):**	8.7'		
		St. Arrival:	14:40	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:30	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10 YR 2/1	VS	N	H	Wet	MP	UNC	5%	5%	90%	0.2	A	**PID above core - 1.2 ppm** *
2															
3													0.0	B	PID above core - 0.0 ppm *
4									TLO (faint)						
4.8													2.5		Transition zone - not sampled Wood fragments, fine sand
5		SP	10 YR 6/1	H	N	H	Moist/ Wet	FS	TLO (mod)	0%	95%	5%	1.9	C	PID above core - 6.0 ppm *
6															
7													17.9	D	PID above core - 52.7 ppm *
8															
9													46.2	E	PID above core - 63 ppm *
10									(strong)						

Additional Notes/Comments: Bottom of core at 11.3'. Core opened at 08:24. * Indicates VOC collection depth. 4.8 to 11.3: fine sand, NAPL odor and staining. Saturated at 10.2 to 10.5 below top of core. Hard, moderately saturated silty sand at 4.8 to 5.1. 10.8 to 11.3: not sampled.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SP	10YR 6/1	H	N	H	Moist/ Wet	FS	TLO (strong)	0%	95%	5%		E	VOC sample collected @ 10.4, saturated layer PID above core - 10.2 ppm
BOC = 11.3'															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD109-00.0-02.0	N	03/04/2010 08:24	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD109-02.0-04.0	N	03/04/2010 08:24	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD109-04.8-06.8	N	03/04/2010 08:24	4.8-6.8	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD109-06.8-08.8	N	03/04/2010 08:24	6.8-8.8	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD109-08.8-10.8	N	03/04/2010 08:24	8.8-10.8	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD109-00.0-10.8	TCLP	03/04/2010 08:24	0.0-10.8											X	X
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/4/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD110	**Easting:**	633682.91	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671922.23	**Penetration (ft):** 20.0'	N - 20' pen
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-9.0' NAVD88	**Recovery (ft)** 14.2'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/11/2010 8:50	
	ASI - M. Shappell/Captain	**Depth (ft):**	8.5'		
		St. Arrival:	8:40	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	9:20	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%	5.6	A	Organics: leaves and fibrous wood, sticks, plastic bag, beach ball *
2															
3													7.4	B	*
4															
5													16.4	C	*
6															NAPL Blebs - non water soluble, black Transition zone - not sampled
6		SM	10YR 4/1	F	N	H	Wet	FS	TLO (faint)	0%	90%	10%	9.5	D	*
7				H									5.3		NAPL blebs, no apparent staining on soil surface, non-water soluble, confined to 5.0-7.0'
8			10YR 6/6										3.9		
9													0.5	E	No NAPL observed
10			10YR 4/1										0.4		
													2.1		*

Additional Notes/Comments: Bottom of core at 14.2'. Core opened at 10:10. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR 4/1	H	N	H	Wet	MS/SP	None	5%	95%	0%	10.9		No NAPL observed *
11		SW	10YR 4/1	H	N	H	Wet	MS/SP	None	5%	95%	0%	10.3	F	Gradual lithology change Medium to coarse sand
12								CP					110		
								MS		0%	99%	1%	1.2		Gradual lithology change Coarse to medium sand
13													0.6	G	
14													0.7		
14.2													0.4	NA	
BOC= 14.2															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD110-00.0-02.0	N	03/11/2010 10:10	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD110-02.0-04.0	N	03/11/2010 10:10	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD110-04.0-05.0	N	03/11/2010 10:10	4.0-5.0	X	X	X	X	X	X		X				
D	GC-SD110-06.0-08.0	N	03/11/2010 10:10	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD110-08.0-10.0	N	03/11/2010 10:10	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD110-10.0-12.0	N	03/11/2010 10:10	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
G	GC-SD110-12.0-14.0	N	03/11/2010 10:10	12.0-14.0	X	X	X	X	X	X	X	X	X	X		
H	GC-SD110-00.0-14.2	N	03/11/2010 10:10	0.0-14.0											X	X
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/11/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD111	**Easting:**	633530.99		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671127.28	**Penetration (ft):**	18'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-4.5' NAVD88	**Recovery (ft)**	15.9'		
	J. Balas	**Datum:**	NYSP Zone East NAD 83	**Date/Time:**	3/16/2010 9:53		
	ASI - M. Shappell/Captain	**Depth (ft):**	7.8'				
		St. Arrival:	9:30		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	10:25	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	3%	97%			Organic: fibrous wood and sticks noted
1									TLO (mod)				1.7	A	*
2															
3													15.7	B/I	*
4															
5													21.3	C	*
6															
7								SP	(strong)				53.0	D	* Coal-like gravel (angular), NAPL staining - black/brown staining on sampling equipment
8				S											
8.3															Transition zone - not sampled - black/brown silty sand, sheen, no staining/coating noted
9		CL	10YR 4/3	H	M	H	Moist	VFS	TLO (mod)	0%	5%	95%	28.1		
													35.8	E	* Heavy staining/NAPL coating, brown stain NAPL: brown/black, low viscosity, sticky/tacky, tar-like odor
10													33.9		

Additional Notes/Comments: Bottom of core at 15.9'. Core opened at 1210. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
10.3		CL	10YR 4/3	H	M	H	Moist	VFS	None	0%	1%	99%	2.0		
11													2.5	F	Slight/trace staining/discoloration
12													2.7		*
12.3															
12.8		SM	10YR 4/3	H	N	H	Wet	FS	None	0%	75%	25%	1.2		No visual NAPL contamination
13		CL	10YR 4/2	F	M	H	Wet	VFS	None	0%	1%	99%	1.0		
													0.6	G	*
14													0.1		
													0.0		
15													0.0		
BOC= 15.9														H	*
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD111-00.0-02.0	N	03/16/2010 12:10	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD111-02.0-04.0	N	03/16/2010 12:10	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD111-04.0-06.0	N	03/16/2010 12:10	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD111-06.0-08.0	N	03/16/2010 12:10	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD111-08.3-10.3	N	03/16/2010 12:10	8.3-10.3	X	X	X	X	X	X	X	X	X	X		
F	GC-SD111-10.3-12.3	N	03/16/2010 12:10	10.3-12.3	X	X	X	X	X	X	X	X	X	X		
G	GC-SD111-12.3-14.3	N	03/16/2010 12:10	12.3-14.3	X	X	X	X	X	X	X	X	X	X		
H	GC-SD111-14.3-15.9	N	03/16/2010 12:10	14.3-15.9	X	X	X	X	X	X	X	X	X	X		
I	D-03162010-02	FD	03/16/2010 12:10	2.0-4.0	X	X	X	X	X	X		X				
J	GC-SD111-00.0-15.9	TCLP	03/16/2010 12:10	0.0-15.9											X	X
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/16/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD112	**Easting:**	633293.14	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671426.76	**Penetration (ft):** 3'	Y
Crew/Company	M. Murphy/CH2M HILL	**Elevation:**	-5.0' NAVD88	**Recovery (ft)** None - Lost nose cone	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/11/2010 15:10	
	ASI - M. Shappell/Captain	**Depth (ft):**	7.4		
		St. Arrival:	15:03	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	16:10	7'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 4'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 03/11/2010 15:30	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SW	10YR 2/1	H	N	H	Wet	CP	UNC	25%	70%	5%	7.1	A	Organic: fibrous wood, garbage, glass, plastic *
2			2/1					SC							
		OL	10YR 2/1	H	N	H	Wet	FS	UNC	0	10%	90%			Coarse sand w/ gravel, small cobbles noted at 1.9' and 3.9'
3		SW	10YR 2/1	H	N	H	Wet	FS CP	UNC	0% 25%	10% 70%	90% 5%	44.4	B/C	Angular to subangular gravel *
4								SC							
BOC= 4'															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Core opened on 3/12/2010. Bottom of core at 4.0'. * Indicates VOC collection depth. Attempt # 3: 7' penetration, 5' recovery

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD112-00.0-02.0	N	03/12/2010 07:45	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD112-02.0-04.0	N	03/12/2010 07:45	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	D-03122010-01	FD	03/12/2010 07:45	2.0-4.0	X	X	X	X	X	X		X				
D	GC-SD112-00.0-04.0	N/TCLP	03/12/2010 07:45	0.0-4.0											X	X
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/12/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD113	**Easting:**	632853.82	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671583.41	**Penetration (ft):** 20.0'	N
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-8.9' NAVD 88	**Recovery (ft)** 15'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/15/2010 11:50	
	ASI - M. Shappell/Captain	**Depth (ft):**	11.4'		
		St. Arrival:	10:50	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:45	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	5%	90%		EB	Organic: wood fragments, leaf matter to 9.0' plastic garbage noted 4.5'-5.0'
1													9.3	A	*
2															
3													20.2	B	*
4															
5													36.4	C/D	*
6								MP	TLO (strong)	20%	20%	60%			
7													62.2	E	* NAPL saturated streaks
8															NAPL - black, low viscosity, tar-like odor (strong) slick, slight tacky 6.5'-9.0'
9													125	F	* Abrupt change
9.3															Transition zone - not sampled
10		CL	10YR 5/1	H	M	H	Moist	Z	TLO (faint)	0%	0%	100%	45.4	G	

Additional Notes/Comments: Bottom of core at 15.0'. Core opened at 12:15. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 4/3	H	N	H	Wet	MS	TLO (strong)	0%	95%	5%	105 154	G	Fine sand - trace fines - strong tar-like odor, little to no staining on soil surface noted (or gloves), staining noted on sampling utensils *
12													169.9		
13											90%	10%	157	H	*
14		ML	10YR 4/3	H	N	S	Wet/ Moist	MS	(mod)	0%	30%	70%	103 106 167	I/J	Alternating 0.5' layers of fine silty sand Small pebbles noted at bottom of recovery
15								SP		10%	25%	65%	167.9		*
BOC = 15.0'															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD113-00.0-02.0	N/MSD	03/15/2010 12:15	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD113-02.0-04.0	N	03/15/2010 12:15	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD113-04.0-06.0	N	03/15/2010 12:15	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	D-03152010-01	FD	03/15/2010 10:00	4.0-6.0	X	X	X	X	X	X		X				
E	GC-SD113-06.0-08.0	N	03/15/2010 12:15	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD113-08.0-09.0	N	03/15/2010 12:15	8.0-9.0	X	X	X	X	X	X	X	X	X	X		
G	GC-SD113-09.3-11.3	N	03/15/2010 12:15	9.3-11.3	X	X	X	X	X	X	X	X	X	X		
H	GC-SD113-11.3-13.3	N	03/15/2010 12:15	11.3-13.3	X	X	X	X	X	X	X	X	X	X		
I	GC-SD113-13.3-15.0	N	03/15/2010 12:15	13.3-15.0	X	X	X	X	X	X	X	X	X	X		
J	D-03152010-02	FD	03/15/2010 11:30	13.3-15.0	X	X	X	X	X	X		X				
K	GC-SD113-00.0-15.0	N	03/15/2010 12:15	00.0-15.0											X	X
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/15/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD114	**Easting:**	632380.38		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671570.77	**Penetration (ft):**	18.8'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-16.6' NAVD88	**Recovery (ft)**	15.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/23/2010 8:40		
	ASI - M. Shappell/Captain	**Depth (ft):**	14.4'				
		St. Arrival:	8:15		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:00	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		GW	10YR 2/1	H	N	H	Wet	SP	**	99%	0%	1%	48.8	NA	**Gravel - NAPL saturated, black, medium viscosity**
1													152	NA	Transition zone - not sampled
1.2															
		CL	10YR 4/3	F	W	H	Wet	FS	**	0%	3%	97%	124		Silty clay - trace sand
2										0%	49%	51%	221	A	Increasing sand content with depth
		SM	10YR 4/4	H	N	H	Wet	FS	**	0%	75%	25%	305		Abrupt transition * NAPL saturated, black, brown staining slick, not sticky/tacky
3															
		ML	10YR 3/3	H	N	H	Moist	VFS	**	0%	3%	97%	241	B	*
4													222		
5													203		
													196	C/H	
6													318		
7													383		*
													420	D	*
8										0%	10%	90%	388		
9													393		
										0%	40%	60%	338	E	
10															

Additional Notes/Comments: Bottom of core at 14.9'. Core opened at 09:35. * Indicates VOC sampling depth. **Due to elevated PID readings, respirators were donned, no odor descriptions recorded.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 3/1	H	N	H	Wet	FS	**	0%	85%	15%	435 567	E	Gradual transition to silty sand NAPL saturated, see NAPL description above *
12		ML	10YR 4/3	F	N	H	Moist	VFS	**	0%	5%	95%	305 510 109	F	* NAPL streaks and blebs throughout
13															
14		SM	10YR 3/1	H	N	H	Wet	FS	**	0%	85%	15%	342 471	G	* NAPL saturated, see NAPL description above
15		ML	10YR 4/3	F	N	H	Moist	VFS	**	0%	5%	95%	393		NAPL streaks and blebs throughout
BOC = 14.9'															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD114-01.2-03.2	N	03/23/2010 09:35	1.2-3.2	X	X	X	X	X	X	X	X	X	X		
B	GC-SD114-03.2-05.2	N	03/23/2010 09:35	3.2-5.2	X	X	X	X	X	X	X	X	X	X		
C	GC-SD114-05.2-07.2	N	03/23/2010 09:35	5.2-7.2	X	X	X	X	X	X	X	X	X	X		
D	GC-SD114-07.2-09.2	N	03/23/2010 09:35	7.2-9.2	X	X	X	X	X	X	X	X	X	X		
E	GC-SD114-09.2-11.2	N	03/23/2010 09:35	9.2-11.2	X	X	X	X	X	X	X	X	X	X		
F	GC-SD114-11.2-13.2	N	03/23/2010 09:35	11.2-13.2	X	X	X	X	X	X	X	X	X	X		
G	GC-SD114-13.2-14.9	N	03/23/2010 09:35	13.2-14.9	X	X	X	X	X	X	X	X	X	X		
H	D-03232010-01	FD	03/23/2010 09:35	5.2-7.2	X	X	X	X	X	X		X				
I	GC-SD114-00.0-14.9	N	03/23/2010 09:35	0.0-14.9											X	X
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/23/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD115	**Easting:**	631941.75	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671126.10	**Penetration (ft):** 19'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-13.3' NAVD	**Recovery (ft)** 14'	
	J. Balas/CH2M HILL	**Datum:**	NYSP Zone East NAD 83	**Date/Time:** 3/17/2010 14:05	
	ASI - M. Shappell/Captain	**Depth (ft):**	12.1'		
		St. Arrival:	13:48	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:45	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10YR 2/1	H	N	H	Wet	MP	UNC	75%	15%	10%	42.1	A	Angular gravel, unclassified chemical * odor (non-organic).
1.8													60	NA	Transition zone - not sampled
2		SW-SM	10YR 4/3	H	N	H	Wet	FS	UNC	0%	90%	10%	22.5		NAPL staining from 2.0-5.8'
3													50.9	B/H	* Sandy silt pocket 10YR 2/1, sheen noted
													12.9		
4			10YR 4/2						TLO (strong)				81.3	C	Sandy silt pocket 10YR 2/1, sheen noted
5													98.2		
													173		*
6													266	D	* Heavy NAPL coating (5.8-9'); staining gloves and sampling equipment
7													258		
													206		
8													431	E	*
9			10YR 2/1										92		Below 9' NAPL saturated (9-13.8')
													191		
10															

Additional Notes/Comments: Bottom of core at 13.8'. Core opened at 15:45. * Indicates VOC collection depth. NAPL has black color, brown staining, low to moderate viscosity, and is slick, not sticky or tacky.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR 2/1	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	158		NAPL saturated; easily squeezed from soil pores; dark brown stain on gloves; moderate to low
11													365	F	* viscosity
													225		
12													182		10YR 2/1 silt pocket, sheen noted.
													340	G	*
13															
BOC = 13.8'													280		
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD115-00.0-01.5	N	03/17/2010 15:45	0.0-1.5	X	X	X	X	X	X	X	X	X	X		
B	GC-SD115-01.8-03.8	N	03/17/2010 15:45	1.8-3.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD115-03.8-05.8	N	03/17/2010 15:45	3.8-5.8	X	X	X	X	X	X	X	X	X	X		
D	GC-SD115-05.8-07.8	N	03/17/2010 15:45	5.8-7.8	X	X	X	X	X	X	X	X	X	X		
E	GC-SD115-07.8-09.8	N	03/17/2010 15:45	7.8-9.8	X	X	X	X	X	X	X	X	X	X		
F	GC-SD115-09.8-11.8	N	03/17/2010 15:45	9.8-11.8	X	X	X	X	X	X	X	X	X	X		
G	GC-SD115-11.8-13.8	N/MSD	03/17/2010 15:45	11.8-13.8	X	X	X	X	X	X	X	X	X	X		
H	D-03172010-02	N	03/17/2010 15:45	1.8-3.8	X	X	X	X	X	X		X				
I	GC-SD115-00.0-13.3	N	03/17/2010 15:45	0.0-13.8											X	X
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/17/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD116 (1st Attempt)	**Easting:**	632576.11		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671370.26	**Penetration (ft):**	20'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-8.8' NAVD88	**Recovery (ft)**	16'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/17/2010 10:15		
	ASI - M. Shappell/Captain	**Depth (ft):**	11.1'				
		St. Arrival:	10:05		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	10:35	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	3%	97%	8.6	A	Organic: fibrous wood fragments noted throughout, increased in 4-6' interval. *
2															
3													11.0	B	*
4								MS			5%	95%			
5													20.7	C	*
6									PHC (faint)						
6.5													63.9		Transition zone - not sampled
7		SW-SM	10YR 5/2	H	N	S	Wet	FS	PHC (strong)	0%	85%	15%	45.6	D	* Heavy NAPL coating - near saturation, increased NAPL in higher silt content lenses at 6.7', 7.0', and 7.5'
8			10YR 4/3						(mod)				35.1		NAPL: low viscosity, brown staining, non-sticky/ tacky, decreases with depth.
													36.3		
9			10YR 5/2						none				28.3	E/I	No NAPL contamination observed/noted
													57.6		*
10													33.1		

Additional Notes/Comments: Bottom of core at 15.8'. Core opened at 11:10. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 3/1	H	N	H	Wet	FS	None	0%	85%	15%		E/I	
12									TLO				41.5 51.0 142.0	F	*
13			10YR 3/1										72.0		
14		ML	10YR 4/3	H	N	H	Moist/ Wet	VFS	None	0%	1%	99%	162.7 20.9	G	* NAPL saturation at 13.5' - medium viscosity, increases with depth to underlying silt layer, black NAPL, black staining, stick/tacky
15													15.5		
BOC= 15.8													3.9 6.1	H	NAPL blebs at 14.0' - No NAPL in soil pores, on surface of soil and surrounding water *
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD116-00.0-02.0	N	03/17/2010 11:10	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD116-02.0-04.0	N/MSD	03/17/2010 11:10	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD116-04.0-06.0	N	03/17/2010 11:10	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD116-06.5-08.5	N	03/17/2010 11:10	6.5-8.5	X	X	X	X	X	X	X	X	X	X		
E	GC-SD116-08.5-10.5	N	03/17/2010 11:10	8.5-10.5	X	X	X	X	X	X	X	X	X	X		
F	GC-SD116-10.5-12.5	N	03/17/2010 11:10	10.5-12.5	X	X	X	X	X	X	X	X	X	X		
G	GC-SD116-12.5-14.5	N	03/17/2010 11:10	12.5-14.5	X	X	X	X	X	X	X	X	X	X		
H	GC-SD116-14.5-15.8	N	03/17/2010 11:10	14.5-15.8	X	X	X	X	X	X	X	X	X	X		
I	D-03172010-01	FD	03/17/2010 11:10	8.5-10.5	X	X	X	X	X	X		X				
J	GC-SD11600.0-15.8	TCLP	03/17/2010 11:10	0.0-15.8											X	X
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/17/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD117	**Easting:**	632254.29		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671107.65	**Penetration (ft):**	20'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-7.2' NAVD88	**Recovery (ft)**	16'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/17/2010 13:10		
	ASI - M. Shappell/Captain	**Depth (ft):**	7.8'				
		St. Arrival:	12:50		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:10	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	11.6	A	Organic: silt, trace wood fibers noted *
2															
3													4.9	B	*
4															
5								FS		0%	5%	95%	9.5	C/J	*
6								MP	TLO (strong)	5%	5%	90%			NAPL saturated - black, high viscosity, sticky/tacky, tar-like odor Glass bottle
7													52.4	D	* NAPL saturated - black, high viscosity, sticky/ tacky, tar-like odor, coal, garbage
8													17.7		Abrupt transition Transition zone - not sampled
8.7															Abrupt transition
9		SM	10YR3/2	H	W	H	Wet	FS	TLO	0%	85%	15%			*
		CL	10YR 5/1	H	W	H	Moist	Z	None	0%	0%	100%	46.0	F	NAPL saturated: black, brown staining, medium to low viscosity, slick, tacky/sticky
10		SW-SM	10YR 4/3	H	N	H	Wet	FS	None	0%	95%	5%	1.2		Fine silty sand Abrupt transition

Additional Notes/Comments: Bottom of core at 15.7'. Core opened at 08:20. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 4/3	H	N	H	Wet	FS	None	0%	95%	5%	0.5	F	No odors/NAPL staining or coating noted below 9'
													0.3		
12													1.3	G	*
													0.9		
13			10YR 2/1							0%	90%	10%	0.2		Slight increase in silt content - dark color, no odor/staining
14			10YR 3/2							0%	95%	5%	1.4	H	*
15													0.8		
BOC= 15.7													2.4	I	*
													1.8		
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD117-00.0-02.0	N	03/18/2010 08:20	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD117-02.0-04.0	N	03/18/2010 08:20	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD117-04.0-06.0	N	03/18/2010 08:20	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD117-06.0-07.6	N	03/18/2010 08:20	6.0-7.6	X	X	X	X	X	X	X	X	X	X		
E	Not sampled															
F	GC-SD117-08.7-10.7	N	03/18/2010 08:20	8.7-10.7	X	X	X	X	X	X	X	X	X	X		
G	GC-SD117-10.7-12.7	N	03/18/2010 08:20	10.7-12.7	X	X	X	X	X	X	X	X	X	X		
H	GC-SD117-12.7-14.7	N	03/18/2010 08:20	12.7-14.7	X	X	X	X	X	X	X	X	X	X		
I	GC-SD117-14.7-15.7	N	03/18/2010 08:20	14.7-15.7	X	X	X	X	X	X	X	X	X	X		
J	D-03182010	FD	03/18/2010 08:20	4.0-6.0	X	X	X	X	X	X		X				
K	GC-SD117-00.0-15.7	TCLP	03/18/2010 08:20	0.0-15.7											X	X
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD118	**Easting:**	631655.17	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670727.45	**Penetration (ft):** 13.5'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-16.0' NAVD88	**Recovery (ft)** 10.1'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/1/2010 11:15	
	ASI - J. Clemens/Captain	**Depth (ft):**	18.4'		
		St. Arrival:	10:40	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:10	**Penetration (ft):** 13.4'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 10.6'	
Collector Information:	T. Himmer/CH2M HILL for less than 100% core recovery	Log reflects sample as collected – no correction factor applied		**Date/Time:** 4/1/2010 11:45	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		GW												NA	Gravel at top of core; sample collected from
0.7		OL	10YR 2/1	F	N	H	Wet	SP	UNC	5%	5%	90%	37.3	A	* 6" interval below gravel Abrupt Transition
1															Transition zone - not sampled
1.2													47.7		
		SW-SM	10YR 4/3	H	N	H	Wet	FS	Tar-like (strong)	0%	90%	10%	12.5		NAPL coating - moderate, medium viscosity brown staining
2			↓ 10YR 5/3						↓ (faint)				11.4	B	No staining/coating
3			↓ 10YR 3/2						↓ (strong)				18.1		*
4			↓ 10YR 5/3										16.1	C	*
5			↓ 10YR 3/2						↓ (strong)				15.8		
6			↓ 10YR 2/1										19.0	D	* NAPL saturated - black, dark brown staining, low viscosity, slick, not sticky/tacky
7													10.8		
8													11.8	E	
9													14.8		*
		ML	10YR 3/2	H	N	H	Moist	FS	PHC (strong)	0%	1%	99%	21.9	F	* Abrupt transition - silt Trace to no staining
10													89.7		

Additional Notes/Comments: Bottom of core at 10.2'. Core opened at 13:30 * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
10.2		ML	10YR3/2	H	N	H	Moist	FS	PHC (strong)	0%	1%	99%	99.6	F	
BOC															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD118-00.2-00.7	N	04/01/2010 13:30	0.2-0.7	X	X	X	X	X	X	X	X	X			
B	GC-SD118-01.0-03.0	N	04/01/2010 13:30	1.0-3.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD118-03.0-05.0	N	04/01/2010 13:30	3.0-5.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD118-05.0-07.0	N	04/01/2010 13:30	5.0-7.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD118-07.0-09.0	N/MSD	04/01/2010 13:30	7.0-9.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD118-09.0-10.2	N	04/01/2010 13:30	9.0-10.2	X	X	X	X	X	X	X	X	X	X		
G	GC-SD118-00.0-10.2	N/TLCP	04/01/2010 13:30	0.0-10.2											X	X
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 4/1/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD119	**Easting:**	631673.79	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670324.35	**Penetration (ft):** 19.0'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	4.2'	**Recovery (ft)** 11.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/31/2010 11:05	
	ASI - J. Clemens/Captain	**Depth (ft):**	3.8'		
		St. Arrival:	11:01	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:30	**Penetration (ft):** 20'	N
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 13.7' very soft material at top of core lost	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/31/2001 12:00	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MS	UNC	0%	3%	97%	24.9	A	Organic: wood fragments, fibrous plant material, * shell, at top of recovery, organic odor
1.2															
2														NA	Lost recovery - sediment very "soupy", spilled out upon opening core
3															
4															
4.5															
5		OL	10YR 2/1	VS	N	H	Wet	VFS ↓ MP	UNC	0% ↓ 10%	3% ↓ 3%	92% ↓ 87%	27.4	B	Organic odor *
6								↓ SC MP		↓ 45% 10%	↓ 3% 3%	↓ 52% 87%			Small cobble and minor gravel
7													28.4	C/H	* Minor coal fragments
8															
9									↓ TLO (faint)				70.1	D	*
10															

Additional Notes/Comments: Bottom of core at 13.0'. Core opened at 13:30. * Indicates VOC collection depth.
Note: Pictures taken label core as 119B should be 119.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		OL	10YR 2/1	VS	N	H	Wet	MP	TLO (mod)	10%	3%	87%	12.0	E	Light brown staining on sampling equipment *
12		GM	10YR 2/1	H	N	H	Wet	MP	TLO (mod)	60%	20%	20%	14.6	F	Abrupt transition- increase gravel, medium * brown staining on sampling equipment Sheen noted on water surface, black, brown/dark brown residue
BOC= 13'															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD119-00.0-01.2	N	03/31/2010 13:30	0.0-1.2	X	X	X	X	X	X	X	X	X	X		
B	GC-SD119-04.5-06.0	N	03/31/2010 13:30	4.5-6.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD119-06.0-08.0	N	03/31/2010 13:30	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD119-08.0-10.0	N	03/31/2010 13:30	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD119-10.0-12.0	N	03/31/2010 13:30	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD119-12.0-13.0	N	03/31/2010 13:30	12.0-13.0	X	X	X	X								
G	GC-SD119-00.0-13.0	N/TCLP	03/31/2010 13:30	0.0-13.0											X	X
H	D-03312010-01	FD	03/31/2010 13:30	6.0-8.0	X	X	X	X	X	X		X				
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/31/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD120	**Easting:**	631478.12	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670312.41	**Penetration (ft):** 17.4'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-15.1' NAVD88	**Recovery (ft)** 12.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/31/2010 12:47	
	ASI - J. Clemens/Captain	**Depth (ft):**	14.1'		
		St. Arrival:	12:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:45	**Penetration (ft):** 19.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 13.5' - lost some soft material when core cut	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/31/2010 13:31	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10YR 2/1	H	N	H	Wet	SC	TLO (mod)	50%	25%	25%	21.8	A	* NAPL saturated Free Phase NAPL noted at top of recovery Coal, gravel and bone observed
1.3													12.3		
2													89.8		Transition zone - not sampled - wood fragments and peat, trace/little staining or coating
2.5															
3		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO	0%	90%	10%	163	B	Wood fragments Near NAPL saturation Heavy coating
4													136		Decreasing NAPL coating with depth
													221		*
5													126	C	Moderate NAPL coating - stains gloves and sampling equipment
6													204		*
													151		
7													205	D/G	NAPL - medium brown, low viscosity, slick, not tacky, tar-like odor
8													161		
													212		*
9													171	E	* Clay pocket, 10YR 6/6
10													82.2		

Additional Notes/Comments: Bottom of core at 12.6'. Core opened at 15:40. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 3/2 ↓ 10YR 2/1 ↓ 10YR 4/4	H	N	H	Wet	FS	TLO (mod)	0%	90%	10%	137	E	Moderate NAPL coating
12													231	F	* Heavy coating/near saturation
BOC= 12.6'													177		
14													144		
15													173	NA	
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD120-00.0-01.3	N	03/31/2010 15:40	0.0-1.3	X	X	X	X	X	X		X				
B	GC-SD120-02.5-04.5	N/MSD	03/31/2010 15:40	2.5-4.5	X	X	X	X	X	X	X	X	X	X		
C	GC-SD120-04.5-06.5	N	03/31/2010 15:40	4.5-6.5	X	X	X	X	X	X	X	X	X	X		
D	GC-SD120-06.5-08.5	N	03/31/2010 15:40	6.5-8.5	X	X	X	X	X	X	X	X	X	X		
E	GC-SD120-08.5-10.5	N	03/31/2010 15:40	8.5-10.5	X	X	X	X	X	X	X	X	X	X		
F	GC-SD120-10.5-12.5	N	03/31/2010 15:40	10.5-12.5	X	X	X	X	X	X	X	X	X	X		
G	D-03312010-02	FD	03/31/2010 15:40	6.5-8.5	X	X	X	X	X	X		X				
H	GC-SD120-00.0-12.6	N/TCLP	03/31/2010 15:40	0.0-12.6											X	X
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/31/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD121	**Easting:**	631388.08		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670187.49	**Penetration (ft):**	15.1'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-14' NAVD88	**Recovery (ft)**	9.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/1/2010 14:45		
	ASI - J. Clemens/Captain	**Depth (ft):**	12.1'				
		St. Arrival:	14:20		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:20	**Penetration (ft):**	19.4'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	13.6'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/1/2010 15:45		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GW	10YR 3/1	H	N	H	Wet	MP	PHC (Faint)	90%	9%	1%	16.0	N/A	Gravel - faint PHC odor, angular to subangular
1.5															Abrupt transition
2		CL	10YR 4/1	F	N/W	H	Wet	FS	None	0%	25%	75%	7.3		
											10%	90%	15.8	A	Sandy clay - no staining, no odor
3													14.2		*Abrupt transition
4		SM	10YR 4/2	H	N	H	Wet	FS	TLO (strong)	0%	80%	20%	136		Heavy NAPL coating, near saturation
											60%	40%	121	B	Strong tar-like odor
5											51%	49%	189		
6		ML	10YR 4/3	F	N	H	wet	VFS	TLO (faint)	0%	15%	85%	6.0		Gradual transition
													2.4	C	*
7									None				1.4		
8										0%	30%	70%	1.3		
													2.9	D	*
9													1.3		
10		SM	10YR 4/3	H	N	H	Wet	VFS	None	0%	85%	15%	1.5	E	

Additional Notes/Comments: Bottom of core at 13.5'. Core opened at 07:45. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 4/3	H	N	H	Wet	VFS	None	0%	75%	25%	1.6	E	* Silty Sand No staining, no odor
								↓		↓	↓	↓			
								FS		0%	85%	15%	1.0		*
								↓		↓	↓	↓			
12								VFS		0%	75%	25%			
								↓			↓	↓	2.5		
								FS			85%	15%	0.9	F/G	
								↓							
13								VFS					1.0		
		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
BOC= 13.5'															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD121-01.5-03.5	N	04/02/2010 07:45	1.5-3.5	X	X	X	X	X	X	X	X	X	X		
B	GC-SD121-03.5-05.5	N	04/02/2010 07:45	3.5-5.5	X	X	X	X	X	X	X	X	X	X		
C	GC-SD121-05.5-07.5	N	04/02/2010 07:45	5.5-7.5	X	X	X	X	X	X	X	X	X	X		
D	GC-SD121-07.5-09.5	N	04/02/2010 07:45	7.5-9.5	X	X	X	X	X	X	X	X	X	X		
E	GC-SD121-09.5-11.5	N	04/02/2010 07:45	9.5-11-.5	X	X	X	X	X	X	X	X	X	X		
F	GC-SD121-11.5-13.5	N	04/02/2010 07:45	11.5-13.5	X	X	X	X	X	X	X	X	X	X		
G	D-04022010-01	FD	04/02/2010 07:45	11.5-13.5	X	X	X	X	X	X		X				
H	GC-SD121-00.0-13.5	N/TCLP	04/02/2010 07:45	0.0-13.5											X	X
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 4/2/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GS-SD122	**Easting:**	631068.85	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	669589.58	**Penetration (ft):** 11.5'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-22.9' NAVD88	**Recovery (ft)** 5.8'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/6/2010 14:40	
	ASI - Jeff Clemens	**Depth (ft):**	24.3'		
		St. Arrival:	14:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	16:30	**Penetration (ft):** 18.2'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 16.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/6/2010 16:10	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0.7		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	5%	90%	6.7	A	* Organic: fibrous wood and wood fragments
1													31.0		Transition zone - not sampled
1.1		SM	10YR 4/2	F	N	H	Wet	FS	PHC (mod)	0%	75%	25%	143		* Silty sand - NAPL coating (moderate)
2		ML	10YR 4/3	F	W	H	Moist	FS	PHC (mod)	0%	5%	95%	20.1	B	Brown staining, slick not sticky/tacky Faint NAPL coating, stain on gloves and sampling equipment (pale brown)
3			10YR 4/2 10YR 3/2										64.7		Wood fragments
4													55.2 31.6	C	*
5		SM	10YR 3/2	H	N	H	Wet	FS	PHC (strong)	0%	75%	25%	15.0		
		ML	10YR 4/3	F	N	H	Moist	FS	PHC (mod)	0%	5%	95%	67.2		Heavy NAPL coating Moderate NAPL coating
6		SM	10YR 4/2	F	N	H	Wet	FS	PHC (mod)	0%	75%	25%	59.0	D	Faint NAPL coating
7													143.0		* Wood Fragments
													87.2		* NAPL saturated around wood
8													2.8	E	Light NAPL Staining
9		SW-SM	10YR 4/1	H	N	H	Wet	FS	None	0%	90%	10%	0.2		No NAPL Staining
													0.2		
10		ML	10YR 4/3	S	N	H	Wet	Z	None	0%	0%	100%	0.2	F	*

Additional Notes/Comments: Bottom of core at 16.1 '. Core opened at 07:35. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		ML	10YR 4/3	F	N	H	Wet	Z	None	0%	0%	100%	0.1 0.1	F	Fine silt, no odor, no staining
12													0.1 0.1	G/H	*
13													0.1		
14													0.3 0.3	H	
15													2.1		*
16		SW-SM	10YR 4/3	H	N	H	Wet	VFS	None	0%	90%	10%	0.9	I	*Abrupt transition Very fine sand, no odor, no staining
BOC= 16.1'															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD122-00.0-00.7	N	04/07/2010 07:35	0.0-0.7	X	X	X	X	X	X						
B	GC-SD122-01.1-03.1	N	04/07/2010 07:35	1.1-3.1	X	X	X	X	X	X	X	X	X	X		
C	GC-SD122-03.1-05.1	N	04/07/2010 07:35	3.1-5.1	X	X	X	X	X	X	X	X	X	X		
D	GC-SD122-05.1-07.1	N/MSD	04/07/2010 07:35	5.1-7.1	X	X	X	X	X	X	X	X	X	X		
E	GC-SD122-07.1-09.1	N	04/07/2010 07:35	7.1-9.1	X	X	X	X	X	X	X	X	X	X		
F	GC-SD122-09.1-11.1	N	04/07/2010 07:35	9.1-11.1	X	X	X	X	X	X	X	X	X	X		
G	GC-SD122-11.1-13.1	N	04/07/2010 07:35	11.1-13.1	X	X	X	X	X	X	X	X	X	X		
H	GC-SD122-13.1-15.1	N	04/07/2010 07:35	13.1-15.1	X	X	X	X	X	X	X	X	X	X		
I	GC-SD122-15.1-16.1	N	04/07/2010 07:35	15.1-16.1	X	X	X	X	X	X	X	X	X	X		
J	D-04072010-01	FD	04/07/2010 07:35	11.1-13.1	X	X	X	X	X	X		X				
K	GC-SD122-00.0-16.1	N/TCLP	04/07/2010 07:35	0.0-16.1											X	X
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/7/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD123	**Easting:**	630858.12		**Attempt 1**	**Refusal? Y/N**	
Sampling	J. Balas/CH2M HILL	**Northing:**	668785.32	**Penetration (ft):**	20.0'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-28.0' NAVD88	**Recovery (ft)**	10.3' + 0.5' sand lost from bottom of core		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/8/2010 11:30		
	ASI - Jeff Clemens	**Depth (ft):**	28.8'				
		St. Arrival:	11:20		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:00	**Penetration (ft):**	20.0'		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	8' + 0.4' gravel and sand lost from bottom of core		
Collector Information:	T. Himmer/CH2M HILL applied for less than 100% core recovery	Log reflects sample as collected – no correction factor		**Date/Time:**	4/8/2010 12:10		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%	1.0	A	* Organic: fibrous plant material, faint organic odor
2															
3													9.5	B	*
4															
5													2.7	C	*
6															
6.8													3.9	D	Increased fibrous plant material *
7 7.0													2.8		Abrupt transition; Transition zone - not sampled
8		SW-SM	10YR 2/1	H	N	H	Wet	MS ↓ FS	None	0%	90%	10%	0.2	E/G	
													0.1		
9		SW	10YR 6/6 ↓ 10YR 5/3	H	N	H	Wet	MS ↓ FS	None	0% ↓ 5%	99% ↓ 94%	1% ↓ 1%	0.1		
10			10YR 6/6 10YR 5/3					↓ SP ↓ MS		↓ 0%	↓ 99%	↓ 1%	0.1	F	

Additional Notes/Comments: Bottom of core at 11.0". Core opened at 14:15. * Indicates VOC Collection Depth.
Attempt #3: 20' penetration, 10.6' recovery 12:45 4/8/2010.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW	10YR 5/3	H	N	H	Wet	FS	None	0%	99%	1%	0.1	F	*
BOC= 11.0'		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓		
12													0.1		
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD123-00.0-02.0	N	04/08/2010 14:15	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD123-02.0-04.0	N	04/08/2010 14:15	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD123-04.0-06.0	N	04/08/2010 14:15	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD123-06.0-06.8	N	04/08/2010 14:15	6.0-6.8	X	X	X	X	X	X	X	X	X			
E	GC-SD123-07.0-09.0	N	04/08/2010 14:15	7.0-9.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD123-09.0-11.0	N	04/08/2010 14:15	9.0-11.0	X	X	X	X	X	X	X	X	X	X		
G	D-04082010-02	FD	04/08/2010 14:15	0.0-2.0	X	X	X	X	X	X		X				
H	GC-SD123-00.0-11.0	N/TCCP	04/08/2010 14:15	0.0-11.0											X	X
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/18/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD124	**Easting:**	634340.71		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673564.39	**Penetration (ft):**	11'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-9.6' NAVD88	**Recovery (ft)**	6'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/8/2010 15:03		
	ASI - M. Shappell/Captain	**Depth (ft):**	10.6				
		St. Arrival:	15:02		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:20	**Penetration (ft):**	14'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	7'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/8/2010 15:36		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	5.7	A	* Organic: shells, leaves, twigs NAPL - black, low viscosity, brown staining on gloves
2															
3													2.2	B	*
4				S	W										Wood fragments and NAPL saturation
5													37.6	C	Sediment more cohesive below 4' * Wood fragments and fibers noted throughout
6															
7 BOC= 7.5'													51.9	D	* Large wood fragments noted at bottom of core
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.5'. Core opened at 17:00. * Indicates VOC collection depth. 3rd attempt: 3/18/10 at 16:02: 12.6' penetration and 7' recovery.
(1) Coordinates and depth are of core retained for processing (2nd of 3 attempts).

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD124-00.0-02.0	N	03/08/2010 17:00	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD124-02.0-04.0	N	03/08/2010 17:00	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD124-04.0-06.0	N	03/08/2010 17:00	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD124-06.0-07.5	N	03/08/2010 17:00	6.0-7.5	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/8/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD125	**Easting:**	634384.85		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673554.68	**Penetration (ft):**	20'	N - Head buried
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-1.9	**Recovery (ft)**	14' in field	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/8/2010 17:12	
	ASI - M. Shappell/Captain	**Depth (ft):**	2.1'			
		St. Arrival:	17:10		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	17:15	**Penetration (ft):**	NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	80%	20%	5.6	A	Black silty sand
2		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	20%	80%			Abrupt transition
3													1.7	B	Black sandy silt - plastic, garbage, fibrous wood, and wood fragments
4															
5													0.6	C	
6															
7													1.0	D	
8															
9													24.6	E/F	
9.7		S											39.9		Abrupt transition
10		SP-SM	10YR 4/1	H	N	H	Wet	ML	PHC (fnt)	0%	75%	25%	47.8		*

Additional Notes/Comments: Bottom of core at 13.6'. Core opened at 09:15. * Indicates VOC collection depth.
Recovery measured on boat was approx. 14' but top 1' was very soft and likely settled.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SP	10YR 6/1	H	N	H	Wet	ML	PHC (strong)	0%	95%	5%	100		NAPL saturated - black, brown staining, low * viscosity, non-sticky
11													94.2	G	
													49.9		
12			10YR 4/1										48.5		NAPL staining - brown
													70.7		Fine/medium sand
13													75.3	H	Rainbow sheen
BOC= 13.6													8.7 64.0		NAPL saturated - brown, slick, low viscosity
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD125-00.0-02.0	N	03/09/2010 09:15	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD125-02.0-04.0	N	03/09/2010 09:15	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD125-04.0-06.0	N/MSD	03/09/2010 09:15	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD125-06.0-08.0	N	03/09/2010 09:15	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD125-08.0-10.0	N	03/09/2010 09:15	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
F	D-03092010-01	FD	03/09/2010 00:00	8.0-10.0	X	X	X	X	X	X		X				
G	GC-SD125-10.0-12.0	N	03/09/2010 09:15	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
H	GC-SD125-12.0-13.6	N	03/09/2010 09:15	12.0-13.6	X	X	X	X	X	X	X	X	X	X		
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/9/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD126	**Easting:**	634429.84	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673537.65	**Penetration (ft):** 11'	Y
Crew/Company	J. Balas/CH2M HILL	**Elevation:**	-2.1' NAVD88	**Recovery (ft)** 6.6'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/4/2010 11:49	
	ASI - M. Shappell/Captain	**Depth (ft):**	5.4'		
		St. Arrival:	11:40	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:45	**Penetration (ft):** 7.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 5.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/4/2010 0:00	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	10%	90%	3.6	A	*
2															
3													8.6	B/E	*
3.9				S											
4															Transition zone - not sampled
4		ML	10YR 2/1	S	W	H	Wet	FS	UNC (faint)	0%	3%	97%	2.5	C/F	*
5								Z							
6		GM						SP		40%	40%	20%			Black 3" gravel (angular) at 6'
BOC		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	25%	77%	1.8	D	Abrupt transition - fibrous plant material noted
6.6'															*
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 6.6'. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD126-00.0-02.0	N	03/04/2010 14:45	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD126-02.0-04.0	N	03/04/2010 14:45	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD126-04.0-06.0	N	03/04/2010 14:45	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD126-06.0-06.6	N	03/04/2010 14:45	6.0-6.6	X	X	X	X	X	X	X	X	X	X		
	E	D-03042010-01	FD	03/04/2010 00:00	2.0-4.0	X	X			X	X						
	F	D-03042010-02	FD	03/04/2010 00:00	4.0-6.0			X	X				X				
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/5/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD127	**Easting:**	633549.75		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671757.01	**Penetration (ft):**	20'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-8.1' NAVD88	**Recovery (ft)**	15'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/10/2010 16:20:00 PM		
	ASI - M. Shappell/Captain	**Depth (ft):**	7.8'				
		St. Arrival:	16:04		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:50	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MP	UNC	5%	5%	90%	35.2	A	**Organic: fibrous wood and leaf matter, sticks,** septic-like odor, increasing tar-like odor with depth *
2															
3													29.6	B	*
4															Coal fragments noted below ~4' (trace)
5									TLO (mod)				63.5	C/D	*
5.5		CL	10YR 5/2	H	M	H	Moist	Z	TLO (mod)	0%	0%	100%			Abrupt lithology change Single 4" angular cobble noted
6													30.9	E/J	Moderate to strong tar-like odor *
7													29.9		No staining/discoloration noted
8		ML	10YR 5/2	H	M	H	Moist	Z	TLO(mod	0%	0%	100%	18.1		
9		SM	10 YR 5/4	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	52.5	F	NAPL saturated - brown, low viscosity, strong tar-like odor, easily squeezed from pore spaces
													65.2		*
10													57.7		

Additional Notes/Comments: Bottom of core at 15.8'. Core opened at 07:45. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10 YR 5/4	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	34.1		Increasing silt content with depth
11		ML	10 YR 3/1	F	W	H	Moist	VFS	TLO (faint)	0%	3%	97%	27.3	G	Abrupt lithology change Very fine sandy silt Abrupt lithology change
		SW-SM	10YR 4/2	H	N	H	Wet	SP	TLO (faint)	5%	75%	20%	42.8		*
12															NAPL saturated - brown, low viscosity, strong tar-like odor, freely seeping from soil pore space
													28.9		*
13													28.4	H	
													8		
14															
													9.2		
15													25.1	I	*
													3.1		Increased silt content, slight cohesive, hard No NAPL saturation or staining
16 BOC= 15.8'															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD127-00.0-02.0	N	03/11/2010 07:45	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD127-02.0-04.0	N	03/11/2010 07:45	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD127-04.0-06.0	N	03/11/2010 07:45	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	D-03112010-01	FD	03/11/2010 00:00	4.0-6.0	X	X			X	X		X				
E	GC-SD127-06.0-08.0	N	03/11/2010 07:45	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD127-08.0-10.0	N	03/11/2010 07:45	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
G	GC-SD127-10.0-12.0	N	03/11/2010 07:45	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
H	GC-SD127-12.0-14.0	N	03/11/2010 07:45	12.0-14.0	X	X	X	X	X	X	X	X	X	X		
I	GC-SD127-14.0-15.8	N	03/11/2010 07:45	14.0-15.8	X	X	X	X	X	X	X	X	X	X		
J	D-03112010-02	FD	03/11/2010 00:00	6.0-8.0			X	X								
K																
L																
M																
N																
O																
P																
Q																
R																
S																

Reviewed by: *TMHimmer* Date: 3/11/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD128	**Easting:**	633588.78 (1)		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671742.60	**Penetration (ft):**	6.1'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-10.3' NAVD88	**Recovery (ft)**	4'	
	J. Balas/CH2M HILL	**Datum:**	NYSP Zone East NAD 83	**Date/Time:**	3/11/2010 9:40	
	ASI - M. Shappell/Captain	**Depth (ft):**	9.7'			
		St. Arrival:	9:30		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:25	**Penetration (ft):**	18'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	13.4'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/11/2010 9:57	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 4/1	VS	N	H	Wet	FS	UNC	0%	3%	97%	10.3	A	Organic: fibrous wood and leaf material, moderate organic odor *
2															
2.5													11.1	B	
3													20.6		Transition zone - not sampled
3.3															
4		CL	10YR 4/1	H	M	H	Moist	VFS	PHC (faint)	0%	1%	99%	21.2	C/D	Lean clay
5													24.7		
		SM	10YR 4/2	F	N	H	Wet	FS	PHC (strong)	0%	51%	49%	2.8		*
6													42.4	D	NAPL - heavy coating and staining, near saturation, brown, low viscosity, slick/not slippery, not sticky
7		ML	10YR 3/1	F	N	H	Moist	FS	PHC (strong)	0%	5%	95%	17.1		
													19.2		
8													29.1	F	
													36.6		*
9		SW-SM	10YR3/1	F	N	H	Moist	FS	PHC(stg)	0%	90%	10%	38.1		
		ML	10YR3/1	F	N	H	Moist	FS	PHC(stg)	0%	10%	90%			
10		SW-SM	10YR 4/2	H	N	H	Wet	SC	PHC (strong)	10%	80%	10%	37.8	G	NAPL saturation - blebs of NAPL, floating, non-water soluble, low viscosity, black in color, brown staining, heavy staining on soil pores

Additional Notes/Comments: Bottom of core at 13.3'. Core opened at 14:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 4/2 ↓ 10YR 5/4	H	N	H	Wet	SC	PHC (mod)	10%	80%	10%	29.4 39.2	G	* Subangular to subrounded cobbles (trace/little) noted throughout NAPL staining/brown discoloration noted
12													24.5 32.4	H	*
BOC= 13.3													7.2		
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD128-00.0-02.0	N	03/11/2010 14:00	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD128-02.0-02.5	N	03/11/2010 14:00	2.0-2.5	X	X		X								
C	GC-SD128-03.3-05.3	N	03/11/2010 14:00	3.3-5.3	X	X	X	X	X	X	X	X	X	X		
D	D-03112010-03	FD	03/11/2010 14:00	3.3-5.3	X	X	X	X	X	X		X				
E	GC-SD128-05.3-07.3	N	03/11/2010 14:00	5.3-7.3	X	X	X	X	X	X	X	X	X	X		
F	GC-SD128-07.3-09.3	N	03/11/2010 14:00	7.3-9.3	X	X	X	X	X	X	X	X	X	X		
G	GC-SD128-09.3-11.3	N	03/11/2010 14:00	9.3-11.3	X	X	X	X	X	X	X	X	X	X		
H	GC-SD128-11.3-13.3	N	03/11/2010 14:00	11.3-13.3	X	X	X	X	X	X	X	X	X	X		
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/11/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD129	**Easting:**	633604.51		**Attempt 1**	**Refusal? Y/N**
Sampling		**Northing:**	671726.39	**Penetration (ft):**	15.4'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-9.9' NAVD88	**Recovery (ft)**	10.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/13/2010 15:25	
	ASI - Jeff Clemens	**Depth (ft):**	8.2'			
		St. Arrival:	15:10		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	16:20	**Penetration (ft):**	15.7'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	11.0'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/13/2010 16:00	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%			Organic: trace fibrous plant material
1													5.1	A	*
2															Increased wood fragments
3									PHC (mod)				70.4	B	*
4															Garbage, plastic, and refuse
5								SP		5%	5%	90%	70.7	C	* Small coal-like gravel noted
6													58.3	D	
6.5															*Abrupt transition
6.6													52.8		Transition zone - not sampled
7		ML	10YR 3/1	F	W	H	Moist	VFS	TLO (faint)	0%	1%	99%	37.8		Fine SM lens - gray
8			10YR 3/2						(mod)				39.3	E/G	Light NAPL staining *
9			10YR 4/2										67.8 / 85.3	F	* Moderate NAPL Coating
10		SM	10YR 4/2	H	N	H	Wet	FS	TLO	0%	75%	25%	80.0		

Additional Notes/Comments: Bottom of core Core opened at 09:35. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
BOC= 10.8'		SM	10YR 4/2	H	N	H	Wet	FS	TLO	0%	75%	25%	89.8 73.5	F	Heavy NAPL staining and coating near saturation NAPL - black staining, brown, low viscosity, slick, not sticky/tacky.
11		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD129-00.0-02.0	N	04/14/2010 09:35	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD129-02.0-04.0	N	04/14/2010 09:35	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD129-04.0-06.0	N	04/14/2010 09:35	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD129-06.0-06.5	N	04/14/2010 09:35	6.0-6.5	X	X	X	X	X	X						
	E	GC-SD129-06.6-08.6	N	04/14/2010 09:35	6.6-8.6	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD129-08.6-10.6	N	04/14/2010 09:35	8.6-10.6	X	X	X	X	X	X	X	X	X	X		
	G	D-04142010-02	FD	04/14/2010 00:00	6.6-8.6	X	X	X	X	X	X		X				
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/14/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD130	**Easting:**	631797.88	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670940.52	**Penetration (ft):** 14.8'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.7' NAVD88	**Recovery (ft)** 13.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/22/2010 9:30	
	ASI - M. Shappell/Captain	**Depth (ft):**	12.0'		
		St. Arrival:	8:50	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:00	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	5%	90%	32	A	* Organic: fibrous wood fragments
2		GM	10YR 2/1	H	N	H	Wet	SP	UNC	50%	25%	25%			Increasing gravel content until 2.0', abrupt transition to trace gravel
3		OL	10YR 2/1	F	N	H	Wet	SP	UNC	1%	5%	94%	105	B/H	Increasing wood fragments from 2-4' *
4															
5													203	C	*
6															
7									PHC (mod)				130 192	D	*
7.4													348		Transition zone - not sampled
8		ML	10YR 4/3	S	W	H	Moist	VFS	PHC (mod)	0%	1%	99%	146 372	E	Moderate NAPL coating
9													379		* Sample collection through 9.4' to avoid transition zone; wood fragment ~3" in diameter
10		SM	10YR 5/3	H	N	H	Wet	FS	PHC (strong)	0%	85%	15%	340	F	Heavy NAPL coating

Additional Notes/Comments: Bottom of core at 12.8'. Core opened at 10:15. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 4/2 ↓ 10YR 3/1 ↓ 10YR 4/2	H	N	H	Wet	FS	PHC (strong)	0%	85%	15%	789 267 364 666 705	F G	* Heavy NAPL coating, increased saturation with depth NAPL saturation NAPL coating light, increasingly heavy with depth * NAPL saturation
12 BOC = 12.8'															
13															NAPL is brown, low/medium viscosity not sticky/tacky
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD130-00.0-02.0	N	03/22/2010 10:15	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD130-02.0-04.0	N	03/22/2010 10:15	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD130-04.0-06.0	N	03/22/2010 10:15	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD130-06.0-07.0	N	03/22/2010 10:15	6.0-7.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD130-07.4-09.4	N	03/22/2010 10:15	7.4-9.4	X	X	X	X	X	X	X	X	X	X		
F	GC-SD130-09.4-11.4	N	03/22/2010 10:15	9.4-11.4	X	X	X	X	X	X	X	X	X	X		
G	GC-SD130-11.4-12.8	N	03/22/2010 10:15	11.4-12.8	X	X	X	X	X	X	X	X	X	X		
H	D-03222010-01	FD	03/22/2010 10:15	2.0-4.0	X	X	X	X	X	X		X				
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/22/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD131	**Easting:**	631812.89**		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670953.72**	**Penetration (ft):**	13.9'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-15.6' NAVD88	**Recovery (ft)**	11.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/18/2010 9:25		
	ASI - M. Shappell/Captain	**Depth (ft):**	17.5'				
		St. Arrival:	9:20		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	10:30	**Penetration (ft):**	13.9'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	12.5' top material very soft		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/18/2010 9:25		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10 YR 2/1	H	N	H	Wet	SP	UNC	75%	15%	10%	16.1	A	**Organic, septic-like odor** *
1.5													47.5		Transition zone - not sampled
2		CH	10 YR 4/2	F	S	H	Moist/ Wet	Z	TLO (mod)	0%	0%	100%	41.5		Fat clay, NAPL saturated vesicles noted
													79.0	B	* NAPL is black in color; dark brown staining observed. NAPL has low to moderate viscosity
3													30.3		
4													52.4		*
													16.4	C	Light NAPL coating noted on surrounding clay; light staining on gloves
5													16.7		
6			10YR 3/3										37.2		
													19.1	D	
7													87.5		* Sandy clay lenses noted Abrupt transition
8													82.4		
		SW-SM	10YR 4/3	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	180	E/H	* NAPL coating, near saturation - NAPL is brown, low to medium viscosity, decreasing contamination with depth
9													48.5		
10													5.2	F	Sandy silt lens

Additional Notes/Comments: Bottom of core at 11.9'. Core opened at 12:00. * Indicates VOC collection depth.
** Due to bridge and overhead highway structure, GPS signal may not be reliable.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10 YR 4/3	H	N	H	Wet	FS	TLO (faint)	0%	90%	10%	10.9	F	Moderate/light NAPL staining
11		ML	10 YR 3/3	H	N	H	Moist	VFS	None	0%	5%	95%	10.3		Light/trace NAPL coating Sandy silt lens
12		SW-SM	10 YR 4/3	H	N	H	Wet	FS	UNC (mod)	0%	90%	10%	110	G	* Heavy NAPL staining
BOC = 11.9'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD131-00.0-01.3	N	03/18/2010 12:00	0.0 -1.3	X	X	X	X	X	X	X	X	X	X		
B	GC-SD131-01.5-03.5	N	03/18/2010 12:00	1.5-3.5	X	X	X	X	X	X	X	X	X	X		
C	GC-SD131-03.5-05.5	N	03/18/2010 12:00	3.5-5.5	X	X	X	X	X	X	X	X	X	X		
D	GC-SD131-05.5-07.5	N	03/18/2010 12:00	5.5-7.5	X	X	X	X	X	X	X	X	X	X		
E	GC-SD131-07.5-09.5	N	03/18/2010 12:00	7.5-9.5	X	X	X	X	X	X	X	X	X	X		
F	GC-SD131-09.5-11.5	N	03/18/2010 12:00	9.5-11.5	X	X	X	X	X	X	X	X	X	X		
G	GC-SD131-11.5-11.9	N	03/18/2010 12:00	11.5-11.9	X	X	X									
H	D-03182010-02	FD	03/18/2010 12:00	7.5-9.5	X	X	X	X	X	X		X				
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD132	**Easting:**	631881.75**		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670931.7**	**Penetration (ft):**	13.5'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.3' NAVD88	**Recovery (ft)**	9.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/22/2010 10:20		
	ASI - M. Shappell/Captain	**Depth (ft):**	13.1'				
		St. Arrival:	10:10		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:40	**Penetration (ft):**	8.8'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	4'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/22/2010 10:45		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	3%	3%	94%	18.6	A	Organic material: fibrous wood and organic matter *
2															
3		GM	10YR 2/1	H	N	H	Wet	MP	UNC / TLO (strong)	75%	20%	5%	291	B	* NAPL saturated - black, low viscosity tar-like odor
4		OL	10YR 2/1	S	N	H	Wet	FS	TLO (faint)	0%	5%	95%	80.6	C	Increased fibrous wood with depth *
5 4.9													113		Transition zone - not sampled
6		CL	10YR 4/4	S	N	H	Moist	Z/VFS	None	0%	1%	99%	35.4 30.5	D/F	* Silty clay - low to medium plasticity
7													31.5		
8 BOC = 8.6'			10YR 3/2										46.8 16.0 66.4	E	*
9															
10															

Additional Notes/Comments: Bottom of core at 8.6'. Core opened at 12:20. * Indicates VOC collection depth.
Attempt #3 - 14.0' penetration; 9.0' recovery 3/22/2010 11:20
** Due to bridge and overhead highway structure, GPS signal may not be reliable.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD132-00.0-02.0	N	03/22/2010 12:20	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD132-02.0-04.0	N	03/22/2010 12:20	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD132-04.0-04.7	N	03/22/2010 12:20	4.0-4.7	X	X	X	X								
	D	GC-SD132-04.9-06.9	N	03/22/2010 12:20	4.9-6.9	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD132-06.9-08.6	N	03/22/2010 12:20	6.9-8.6	X	X	X	X	X	X	X	X	X	X		
	F	D-03222010-02	FD	03/22/2010 12:20	4.9-6.9	X	X	X	X	X	X		X				
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: TMHimmer Date: 3/22/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD133 (2nd Attempt)	**Easting:**	**NA		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	**NA	**Penetration (ft):**	6.1'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	TBD	**Recovery (ft)**	5.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/5/2010 14:20	
	ASI - Jeff Clemens	**Depth (ft):**	5.8'			
		St. Arrival:	14:05		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:57	**Penetration (ft):**	16.2'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	10.7'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/5/2010 14:40	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	S	N	H	Wet	FS	UNC	0%	5%	95%			
1													7.4	A	Organic: fibrous wood and plant fragments, organic odor *
2															
3													7.5	B	*
4										10%	10%	80%			Brick fragment and garbage bag
5									TLO (mod)	0%	49%	51%	13.9	C	Coal fragments * Light NAPL coating/staining
6									UNC	0%	15%	85%			Light NAPL coating/staining
7													15.2	D	*
7.8									TLO	0%	49%	51%			
8													38.0		Transition zone - not sampled
8.2		SM	10YR 4/1	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%			
9													58.7	E	Heavy NAPL coating
10			10YR 4/4										11.3		* Near saturation Heavy staining

Additional Notes/Comments: Bottom of core at 10.7'. Core opened at 07:20. * Indicates VOC collection depth.
** Due to bridge and overhead highway structure, GPS signal may not be reliable.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
BOC=		SM	10YR 4/1	H	N	H	Wet	FS	TLO	0%	15%	85%	94.1	E	Banded NAPL staining with depth
10.7'		↓	10YR 4/4	↓	↓	↓	↓	↓	↓	↓	↓	↓	53.0	F	*
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD133-00.0-02.0	N	04/06/2010 07:20	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD133-02.0-04.0	N	04/06/2010 07:20	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD133-04.0-06.0	N	04/06/2010 07:20	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD133-06.0-07.8	N/MSD	04/06/2010 07:20	6.0-7.8	X	X	X	X	X	X	X	X	X	X		
E	GC-SD133-08.2-10.2	N	04/06/2010 07:20	8.2-10.2	X	X	X	X	X	X	X	X	X	X		
F	GC-SD133-10.2-10.7	N	04/06/2010 07:20	10.2-10.7	X	X	X	X	X	X	X	X	X	X		
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/18/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD134	**Easting:**	631158.62**	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Murphy/CH2M HILL	**Northing:**	669852.65**	**Penetration (ft):** 8.1'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	13.7' NAVD88	**Recovery (ft)** 4.6'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/6/2010 10:22	
	ASI - J. Clemens/Captain	**Depth (ft):**	13.5'		
		St. Arrival:	10:10	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:25	**Penetration (ft):** 5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** No recovery	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/6/2010 10:55	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	S	N	H	Wet	SP	UNC	1%	84%	15%	6.3	A	*
2									PHC (mod)	5%	70%	15%			
3													162	B	* NAPL coating
4									PHC (strong)	20%	60%	20%	330	C	* NAPL saturated
BOC= 4.4'															
5															NAPL - black, thick, medium viscosity, sticky/tacky, trace staining on gloves (stain is grayish brown)
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 4.4'. Core opened at 11:50. * Indicates VOC collection depth.
** Due to bridge and overhead highway structure, GPS signal may not be reliable.
Attempt #3: 11.5' penetration, 4.1' recovery. 11:15 4/16/2010

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD134-00.0-02.0	N	04/06/2010 11:50	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD134-02.0-04.0	N	04/06/2010 11:50	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD134-04.0-04.4	N	04/06/2010 11:50	4.0-4.4	X	X	X	X								
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/6/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD135	**Easting:**	**NA		**Attempt 1** **Refusal? Y/N**
Sampling	M. Murphy/CH2M HILL	**Northing:**	**NA	**Penetration (ft):**	12.0' Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-4.8' NAVD88	**Recovery (ft)**	6.4'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/6/2010 8:50
	ASI - M. Shappell/Captain	**Depth (ft):**	3.4'		
		St. Arrival:	8:45		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:00	**Penetration (ft):**	12.1' Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	7.0'
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/6/2010 9:25

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	3.1	A	Organic material, strong septic-like odor *
2				S											Fibrous wood, wood fragments, sticks and plant matter
3													12.1	B/F	*
4															
5													23.9	C	0.2' silty sand (coarse) with small gravel *
6										0%	10%	90%			
7													35.9	D	* Increased wood fragments
8										0%	5%	95%			
9													32.5	E	* No native material observed
BOC = 10.0' 10															No NAPL staining/odors observed.

Additional Notes/Comments: Bottom of core at 10.0'. Core opened at 10:35. * Indicates VOC collection depth.
Attempt #3: 12.1' penetration; 10' recovery 9:45 4/6/2010.
** Due to bridge and overhead highway structure, GPS signal was not able to be obtained .

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD135-00.0-02.0	N	04/06/2010 10:35	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD135-02.0-04.0	N	04/06/2010 10:35	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD135-04.0-06.0	N	04/06/2010 10:35	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD135-06.0-08.0	N	04/06/2010 10:35	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD135-08.0-10.0	N	04/06/2010 10:35	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
	F	D-04062010-01	FD	04/06/2010 00:00	2.0-4.0	X	X	X	X	X	X		X				
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
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Reviewed by: *TMHimmer* Date: 4/6/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD136	**Easting:**	631002.60**	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	669474.21**	**Penetration (ft):** 3.0'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-23.6' NAVD88	**Recovery (ft)** 2.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/19/2010 11:30	
	ASI - M. Shappell/Captain	**Depth (ft):**	25.2'		
		St. Arrival:	11:20	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:40	**Penetration (ft):** 3.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** None - lost nose cone	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/19/2010 12:10	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	5%	90%	6.2	A	Organic: fibrous wood fragments Trace rounded pebbles *
2															
BOC = 2.0'															Minimal recovery due to vibracore refusal
3															
4															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 2.0'. Core opened at 08:55. * Indicates VOC collection depth.
** Due to bridge and overhead highway structure, GPS signal may not be reliable.
Attempt #3: 3.5' penetration, 2' recovery 12:30 3/19/2010

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD136-00.0-02.0	N	03/22/2010 08:55	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/22/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD137	**Easting:**	631029.88	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	669430.53	**Penetration (ft):** ~18' (barrel tipped over)	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-25.3' NAVD88	**Recovery (ft)** None	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/19/2010 13:10	
	ASI - J. Clemens/Captain	**Depth (ft):**	24.0'		
		St. Arrival:	9:25	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:00	**Penetration (ft):** 19.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 13.6' (including 2.5' sand lost)	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/7/2010 9:30	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SW-SM	10YR 2/1	H	N	H	Wet	FS	TLO (faint)	0%	90%	10%	15.9	A	Faint tar-like odor
										15%	75%	10%	10.5		
2		ML	10YR 4/3	H	N	H	Moist	VFS	TLO (faint)	0%	3%	97%	144.0		* Sandy lens, no staining, no coating, tar-like odor
3													0.9	B	
													2.0		
4		SM	10YR 4/1	H	N	H	Wet	FS	None	0%	85%	15%	6.8		* Abrupt change
5		SW-SM	10YR 6/6 10YR 2/1 10YR 3/2	H	N	H	Wet	FS	None TLO None TLO	0%	90%	10%	55.5	C	Black staining, moderate tar-like odor
													57.0		* Black staining, moderate tar-like odor
6		SM	10YR 4/3	N	H	N	Wet	VFS	None	0%	85%	15%	3.9		Abrupt change
7													0.7	D	
													2.5		Abrupt change
8		SW	10YR 6/8	N	H	N	Wet	MS	None	0%	95%	5%	3.6		*
9		SM	10YR 2/1 10YR 4/3	N	H	N	Wet	FS VFS FS	None	0%	85%	15%	85.2	E/F	* Light NAPL coating, light to moderate staining on sampling equipment and gloves, moderate tar-like odor, moderate sheen
BOC= 9.8'													3.4		
10													2.6		

Additional Notes/Comments: Bottom of core at 9.3'. Core opened at 13:20. * Indicates VOC collection depth.
2.5' feet of sand lost from bottom of core. Material in top 1-2' of core liquified and not able to be sampled (lost on vessel during sectioning).

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD137-00.0-02.0	N	04/07/2010 13:20	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD137-02.0-04.0	N	04/07/2010 13:20	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD137-04.0-06.0	N	04/07/2010 13:20	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD137-06.0-08.0	N	04/07/2010 13:20	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD137-08.0-09.8	N	04/07/2010 13:20	8.0-9.8	X	X	X	X	X	X	X	X	X	X		
	F	D-04072010-02	FD	04/07/2010 00:00	0.0-2.0	X	X	X	X	X	X		X				
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/7/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD138	**Easting:**	631106.13		**Attempt 1** **Refusal? Y/N**
Sampling		**Northing:**	669389.68	**Penetration (ft):**	7.0' Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-14.8' NAVD88	**Recovery (ft)**	1.4'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/7/2010 14:50
	ASI - M. Shappell/Captain	**Depth (ft):**	15.5'		
		St. Arrival:	14:45		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:30	**Penetration (ft):**	4.0' Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	1.7'
Collector Information:	T. Himmer/CH2M HILL Log reflects sample as collected – no correction factor applied for less than 100% core recovery			**Date/Time:**	4/7/2010 15:05

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GP	10YR 2/1	H	N	H	Wet	SP	None	99%	0%	1%	0.5	A	Gravel - angular to subangular, well sorted, poorly graded, uniform
BOC= 1.7'		ML	10YR 2/1	F	N	H	Wet	SP	UNC	10%	15%	75%	3.4		Abrupt transition, sandy silt with gravel
2															
3															
4															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 1.7'. Core opened at 11:00.
Attempt #3: 4.0' penetration; no recovery (washout) 4/7/2010 15:25.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD138-00.0-01.7	N	04/08/2010 11:00	0.0-1.7	X	X	X	X	X	X	X	X	X	X		
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/8/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD139	**Easting:**	630425.96		**Attempt 1**	**Refusal? Y/N**	
Sampling	J. Balas/CH2M HILL	**Northing:**	668733.58	**Penetration (ft):**	15.6'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-18.9' NAVD88	**Recovery (ft)**	13.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/12/2010 14:15		
	ASI - M. Shappell/Captain	**Depth (ft):**	16.2'				
		St. Arrival:	13:55		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	14:40	**Penetration (ft):**	13.7'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	10.8'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/14/2010 15:55		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MP	UNC	10%	5%	85%	2.5	A	*
2		SM	10YR 2/1	H	N	H	Wet	MP	UNC	80%	10%	10%			
3		OL	10YR 2/1	H	N	H	Wet	SP	UNC	5%	5%	90%	29.6	B	Organic: wood fragments and fibrous wood *
4								FS		0%	5%	95%			Multiple sandy seams observed, NAPL saturated. NAPL - black, high viscosity, thick, tar-like odor.
5													7.2	C	*
6									TLO (faint)						
7													15.5	D	* Large piece of wood
8															
9									(mod)				36.9	E	* Sandy seam
10															

Additional Notes/Comments: Bottom of core at 12.7'. Core opened at 07:35. * Indicates VOC collection depth.
Attempt #2 opened on 4/15/2010 (~7:30 AM). Recovery approximately 10.5', no native material encountered, material and lithology similar to attempt 1.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		OL	10YR 2/1	H	N	H	Wet	FS	TLO (mod)	0%	5%	95%	73.6	F/H	* Sandy seam - NAPL saturated, NAPL highly viscous
12													297	G	Sandy seam - NAPL saturated, NAPL highly viscous
13 BOC = 12.8'															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD139-00.0-02.0	N	04/13/2010 07:35	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD139-02.0-04.0	N	04/13/2010 07:35	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD139-04.0-06.0	N	04/13/2010 07:35	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD139-06.0-08.0	N	04/13/2010 07:35	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD139-08.0-10.0	N	04/13/2010 07:35	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
F	GC-SD139-10.0-12.0	N	04/13/2010 07:35	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
G	GC-SD139-12.0-12.8	N	04/13/2010 07:35	12.0-12.8	X	X	X	X	X	X	X	X	X	X		
H	D-04132010-01	FD	04/13/2010 00:00	10.0-12.0	X	X	X	X	X	X		X				
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 4/13/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD140	**Easting:**	630526.94	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	668625.44	**Penetration (ft):** 20.0'	N
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-30.9' NAVD88	**Recovery (ft)** 9.9 + 4.5' sand lost from bottom of core	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/14/2010 10:30	
	ASI - M. Shappell/Captain	**Depth (ft):**	31.8'		
		St. Arrival:	10:25	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:15	**Penetration (ft):** 18.9'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 12.9'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/14/2010 10:58	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	2.9	A	Organic: trace fibrous wood fragments * Top interval appears homogeneous
2															
3													8.6	B	*
4															
5													14.2	C	* UNC - unclassified chemical-like odor
6	6														Abrupt transition, cloth observed
	6.2												4.9		Transition zone - not sampled
7		SW-SM	10YR 2/1	H	N	H	Wet	FS	UNC	0%	90%	10%	5.4	D	*
8			10YR 6/6						None				0.0		Abrupt color change
9			10YR 5/2										0.0 0.2 0.0	E	*
10													0.0		

Additional Notes/Comments: Bottom of core at 12.7'. Core opened at 11:50. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 2/1	H	N	H	Wet	FS	UNC	0%	90%	10%	0.0		No NAPL staining or odor
12 BOC = 12.7'		SW	10YR 6/6	H	N	H	Wet	SP MP	None	10%	85%	5%	0.0 3.1 0.0	F G	Rounded pebbles
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD140-00.0-02.0	N	04/14/2010 11:50	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD140-02.0-04.0	N	04/14/2010 11:50	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD140-04.0-06.0	N	04/14/2010 11:50	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD140-06.2-08.2	N	04/14/2010 11:50	6.2-8.2	X	X	X	X	X	X	X	X	X	X		
E	GC-SD140-08.2-10.2	N/MSD	04/14/2010 11:50	8.2-10.2	X	X	X	X	X	X	X	X	X	X		
F	GC-SD140-10.2-12.2	N	04/14/2010 11:50	10.2-12.2	X	X	X	X	X	X	X	X	X	X		
G	GC-SD140-12.2-12.7	N	04/14/2010 11:50	12.2-12.7	X	X	X	X	X	X						
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/14/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD141	**Easting:**	630591.52		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Murphy/CH2M HILL	**Northing:**	668510.65	**Penetration (ft):**	11.8'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-29.7' NAVD88	**Recovery (ft)**	none - washout		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/8/2010 16:35		
	ASI - J. Clemens/Captain	**Depth (ft):**	27.1'				
		St. Arrival:	12:45		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:50	**Penetration (ft):**	6.4'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	5.0'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	412/2010 12:50		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS ↓ SP	UNC	1%	1%	98%	8.4	A	Organic: trace fibrous plant material *
2															
3													8.2	B	*
4															
5									↓ PHC (faint)				59.7	C	Increased fibrous wood and wood fragments *
BOC = 5.7'															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 5.7'. Core opened at 15:35. * Indicates VOC collection depth.
Attempt #3: 8.8' penetration, 6.3' recovery 13:25 4/12/2010

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD141-00.0-02.0	N	04/12/2010 15:35	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD141-02.0-04.0	N	04/12/2010 15:35	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD141-04.0-05.7	N/MSD	04/12/2010 15:35	4.0-5.7	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD141-00.0-05.7	N	04/12/2010 15:35	0.0-5.7											X	X
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD142	**Easting:**	630022.58	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	668390.50	**Penetration (ft):** 19.5'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-26.9' NAVD88	**Recovery (ft)** 11.5' + 0.5' sand lost from bottom of core	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/14/2010 13:05	
	ASI - M. Shappell/Captain	**Depth (ft):**	25.0'		
		St. Arrival:	12:50	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:15	**Penetration (ft):** 20.0'	N
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 10.5' + 0.5' sand lost from bottom of core	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/14/2010 13:50	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%	2.6	A	Organic: fibrous plant material *
2															
3								SP		5%	5%	90%	3.0	B	
3.8															
4															Transition zone - not sampled
4.1		SM	10YR 2/1	H	N	H	Wet	MP	None	5%	80%	15%	4.7		
5													0.4	C	*
								MS		0%	85%	15%			
6													0.5		
		SW-SM	10YR 2/1 ↓ 10YR 5/6	H	N	H	Wet	MS	None	0%	90%	10%	0.2		
7													0.2	D	*
8													0.2		
													0.2		
9													0.4	E/G	*
10		SM	10YR 5/4	H	N	H	Wet	VFS	None	0%	75%	25%	0.2		

Additional Notes/Comments: Bottom of core at 11.2'. Core opened at 07:45. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW	10YR 5/3	H	N	H	Wet	CS	None	0%	95%	5%	0.3	F	No NAPL staining or odor
BOC = 11.2'		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0.5		*
12															Cloth noted at bottom of core
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD142-00.0-02.0	N	04/15/2010 07:45	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD142-02.0-03.8	N	04/15/2010 07:45	2.0-3.8	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD142-04.1-06.1	N	04/15/2010 07:45	4.1-6.1	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD142-06.1-08.1	N	04/15/2010 07:45	6.1-8.1	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD142-08.1-10.1	N	04/15/2010 07:45	8.1-10.1	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD142-10.2-11.2	N	04/15/2010 07:45	10.1-11.2	X	X	X	X	X	X	X	X	X	X		
	G	D-04152010-01	FD	04/15/2010 00:00	8.1-10.1	X	X	X	X	X	X		X				
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/15/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD143	**Easting:**	630211.16	**Attempt 1**	**Refusal? Y/N**
Sampling		**Northing:**	668362.60	**Penetration (ft):** 15.5'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-34.7' NAVD88	**Recovery (ft)** 2.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/14/2010 11:35	
	ASI - M. Shappell/Captain	**Depth (ft):**	33.7'		
		St. Arrival:	11:25	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:45	**Penetration (ft):** 19.0'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 13.6'	
Collector Information:	T. Himmer/CH2M HILL Log reflects sample as collected – no correction factor applied for less than 100% core recovery			**Date/Time:** 4/14/2010 12:15	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	59.2	A	Organic: trace fibrous plant material, organic odor
2													11.2	B	*
3 2.9															Cloth fragment in transition zone
3.3													5.6		Transition zone - not sampled
4		SW-SM	10YR 5/4	H	N	H	Wet	FS	UNC	0%	90%	10%	0.2		* Black staining
													0.0	C/I	No NAPL staining/odor
5													0.0		
		SW	10YR 6/6	H	N	H	Wet	MS	None	0%	95%	5%			Cloth fragment
6								SP		1%	95%	4%	0.0	D	Rounded pebbles *
7													0.0		
													0.0		
8													0.0	E	*
9													0.0		Abrupt change
10		CL	10YR 6/4	F	M	H	Moist	Z	None	0%	0%	100%	0.0	F	Silty clay

Additional Notes/Comments: Bottom of core at 13.8'. Core opened at 14:10. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		CL	10YR 6/4	F	M	H	Moist	Z	None	0%	1%	99%	0.0 0.0	F	* Silty clay
12		ML	10YR 6/4	F	N	H	Wet	Z	None	0%	1%	99%	0.0		Fine silt
13		CL	10YR 6/4	F	M	H	Moist	Z	None	0%	1%	99%	0.0 0.2	G	Silty clay *
BOC = 13.8'			5YR 5/6										0.9	H	*
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD143-00.0-02.0	N	04/14/2010 14:10	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD143-02.0-02.9	N	04/14/2010 14:10	2.0-2.9	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD143-03.3-05.3	N	04/14/2010 14:10	3.3-5.3	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD143-05.3-07.3	N	04/14/2010 14:10	5.3-7.3	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD143-07.3-09.3	N	04/14/2010 14:10	7.3-9.3	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD143-09.3-11.3	N	04/14/2010 14:10	9.3-11.3	X	X	X	X	X	X	X	X	X	X		
	G	GC-SD143-11.3-13.3	N	04/14/2010 14:10	11.3-13.3	X	X	X	X	X	X	X	X	X	X		
	H	GC-SD143-13.3-13.8	N	04/14/2010 14:10	13.3-13.8	X	X	X	X	X	X	X	X	X	X		
	I	D-04142010-03	FD	04/14/2010 00:00	3.3-5.3	X	X	X	X	X	X		X				
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/14/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD144B	**Easting:**	630407.60		**Attempt 1**	**Refusal? Y/N**	
Sampling	J. Balas/CH2M HILL	**Northing:**	668852.52	**Penetration (ft):**	18.0	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-35.6' NAVD88	**Recovery (ft)**	3.8'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/25/2010 15:30		
	ASI - J. Clemens/Captain	**Depth (ft):**	33.5'				
		St. Arrival:	14:40		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:00	**Penetration (ft):**	16.7'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	6.5' + 2.5' sand lost from bottom of core		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/12/2010 13:30		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0.3		SM	10YR 2/1	S	N	H	Wet	MS	PHC	0%	75%	25%	57.5	NA	
0.8													83.2		Transition zone - not sampled
1		SW-SM	10YR 2/1 ↓ 10YR 5/4 ↓ 10YR 5/6	H	N	H	Wet	FS	PHC (mod) ↓ None	0%	80% ↓ 90%	20% ↓ 10%	74.7		* Black staining
2													11.2	A	No NAPL staining or discoloration throughout rest of core
3													3.0		
4		SW	7.5YR 5/8	H	N	H	Wet	MS/SP	None	1%	95%	4%	1.5		
5													3.3	B	*
6													1.0		
BOC= 6.5'													1.3		
7													2.8	C	*
8													1.8		
9															
10															

Additional Notes/Comments: Bottom of core at 6.5'. Core opened at 09:20. * Indicates VOC collection depth. Core 144B used to collect native sediment, core 144C used for accumulated soft sediment sampling.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD144B-00.8-02.8	N	04/13/2010 09:20	0.8-2.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD144B-02.8-04.8	N	04/13/2010 09:20	2.8-4.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD144B-04.8-06.5	N	04/13/2010 09:20	4.8-6.5	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: *TMHimmer* Date: 4/13/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-144C	**Easting:**	630404.83		**Attempt 1**	**Refusal? Y/N**	
Sampling	J. Balas/CH2M HILL	**Northing:**	668362.00	**Penetration (ft):**	7.0'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-35.0' NAVD88	**Recovery (ft)**	6.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/12/2010 15:30		
	ASI - M. Shappell/Captain	**Depth (ft):**	33.7'				
		St. Arrival:	14:40		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:00	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	1%	15%	84%	70.3	A	Organic: fibrous wood and wood fragments, trace small pebbles *
2									PHC (mod)						
3													102	B	* Increased wood and wood fragments
3.3															
3.5													114		Transition zone - not sampled
4		SW-SM	10YR 2/1	H	N	H	Wet	FS	None	0%	90%	10%	11.0		No NAPL odor
5			10YR 5/4										5.5		Black staining
6			10YR 4/2										2.7	NA	
BOC= 6.3'													3.5		
7													2.8		
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.0'. Core opened at 15:45. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD144C-00.0-02.0	N	04/13/2010 09:15	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD144C-02.0-03.3	N	04/13/2010 09:15	2.0-3.3	X	X	X	X	X	X	X	X	X	X		
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/13/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD145	**Easting:**	633791.00		**Attempt 1**	**Refusal? Y/N**	
Sampling	J. Balas/CH2M HILL	**Northing:**	672310.37	**Penetration (ft):**	11.3'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-14.1' NAVD88	**Recovery (ft)**	6.4'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/9/2010 9:05		
	ASI - J. Clemens/Captain	**Depth (ft):**	13.3'				
		St. Arrival:	8:45		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	10:25	**Penetration (ft):**	14.3'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	8.2'		
Collector Information:	T. Himmer/CH2M HILL for less than 100% core recovery	Log reflects sample as collected – no correction factor applied		**Date/Time:**	4/9/2010 9:30		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10 YR 2/1	VS	N	H	Wet	MP	UNC	5%	1%	94%	6.3	A	* Organic: fibrous plant material, organic odor
2															
3													41.3	B	Glass and garbage noted * Small cobble noted
3.5															Abrupt Transition
3.8													24.7		Transition zone - not sampled. NAPL blebs, brown, non-water soluble
4		ML	10YR 4/2	F	N	H	Moist	VFS	TLO (faint)	0%	1%	99%	31.6 30.7	C	* Light NAPL staining - light brown, slick, low viscosity
5		SM	10YR 4/3	H	N	H	Wet	FS	TLO (mod)	0%	85%	15%	22.0		
6													24.2 15.3	D	Moderate NAPL coating
7		SW-SM	10YR 5/2	H	N	H	Wet	FS	TLO (mod)	0%	90%	10%	38.2		* Heavy NAPL coating, near saturation
8													12.3		No NAPL staining/odor
9													11.1	E	
BOC= 9.6'													67.0		*
10															

Additional Notes/Comments: Bottom of core at 9.6'. Core opened at 11:15 * Indicates VOC collection depth. Attempt #3 - 12.4' penetration, 9.5' recovery at 09:55 4/9/2010

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD145-00.0-02.0	N	04/09/2010 11:15	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD145-02.0-03.5	N	04/09/2010 11:15	2.0-3.5	X	X	X	X	X	X	X	X	X	X		
C	GC-SD145-03.8-05.8	N	04/09/2010 11:15	3.8-5.8	X	X	X	X	X	X	X	X	X	X		
D	GC-SD145-05.8-07.8	N	04/09/2010 11:15	5.8-7.8	X	X	X	X	X	X	X	X	X	X		
E	GC-SD145-07.8-09.6	N/MSD	04/09/2010 11:15	7.8-9.6	X	X	X	X	X	X	X	X	X	X		
F	GC-SD145-00.0-09.6	N/TCLP	04/09/2010 11:15	0.0-9.6											X	X
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD146	**Easting:**	633748.24		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Murphy/CH2M HILL	**Northing:**	672058.48	**Penetration (ft):**	20.0'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-8.7' NAVD88	**Recovery (ft)**	13.2'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/9/2010 10:50		
	ASI - J. Clemens/Captain	**Depth (ft):**	7.4'				
		St. Arrival:	10:40		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:15	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	5%	90%			Organic, septic-like odor, trace rounded/angular gravel
													38.1	A	*
													5.9	B	*
													11.5	C	*
6.6													40.0	D	* Abrupt change
7.0															Transition zone - not sampled
		SM	10YR 3/1	H	N	H	Wet	MP	PHC (strong)	15%	70%	15%	60.0	E	Heavy NAPL coating - black, medium to low viscosity, not sticky/tacky
										0%	85%	15%	69.7		
													125.0		*
													129.0	F	* Decreased NAPL coating with depth
10									(mod)				91.0		

Additional Notes/Comments: Bottom of core at 13.2'. Core opened at 10:10. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 4/1	H	N	H	Wet	SC	None	15%	70%	15%	4.5	F	
12													8.2 12.2	G/H	
13													14.4		*
BOC = 13.2'														NA	
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD146-00.0-02.0	N	04/12/2010 10:10	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD146-02.0-04.0	N	04/12/2010 10:10	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD146-04.0-06.0	N	04/12/2010 10:10	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD146-06.6-06.6	N	04/12/2010 10:10	6.0-6.6	X	X	X	X								
	E	GC-SD146-07.0-09.0	N	04/12/2010 10:10	7.0-9.0	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD146-09.0-11.0	N	04/12/2010 10:10	9.0-11.0	X	X	X	X	X	X	X	X	X	X		
	G	GC-SD146-11.0-13.0	N	04/12/2010 10:10	11.0-13.0	X	X	X	X	X	X	X	X	X	X		
	H	D-04122010-02	FD	04/12/2010 00:00	11.0-13.0	X	X	X	X	X	X		X				
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD147	**Easting:**	633772.00		**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	672024.10	**Penetration (ft):**	20'	N
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.0' NAVD88	**Recovery (ft)**	16.7'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/9/2010 11:30	
	ASI - J. Clemens/Captain	**Depth (ft):**	10.4'			
		St. Arrival:	11:15		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:00	**Penetration (ft):**	NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**		
Collector Information:	T. Himmer/CH2M HILL for less than 100% core recovery	Log reflects sample as collected – no correction factor applied		**Date/Time:**		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	N	FS	UNC	0%	3%	97%	12.5	A	Organic, strong septic-like odor, fibrous plant material *
2													23.7	B	*
3															
3.1															
3.5															Transition zone - not sampled
4		SM/ML	10YR 3/3	H	N	S	Wet/ Moist	MS SP MS	TLO (Strong)	5%	60%	40%	97.0 125	C	Alternating stratified layers of silty sand (10YR 3/3); heavy NAPL coating/near saturation and layers of sandy silt, grey (10YR 4/1)
5		SM	10YR 3/3	H	N	H	Wet	SP	TLO (Strong)	5%	80%	15%	146		*
6		ML	10YR 5/2	F	N	H	Moist	VFS	TLO (Mod)	0%	5%	95%	16.9 28.8	D/J	
7													122		Silty sand pocket at 7', black, NAPL saturated *
8													68.7		Sheen on sediment surface
9													124 20.8	E	* Silty sand pocket at 8' Heavy coating/near saturation, brown (10YR 4/4), sticky, strong tar-like odor, low viscosity
10		SM	10YR 5/3	H	N	H	Wet	FS	TLO (Strong)	0%	75%	25%	124	F	Heavy NAPL coating Increasing NAPL with depth

Additional Notes/Comments: Bottom of core at 17.0". Core opened at 13:55. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 5/3	H	N	H	Wet	SP	TLO (strong)	3%	82%	15%	153	F	* NAPL saturation - freely squeezed from pore space (10.7'-11.3"), heavy staining
								MS		0%	85%	15%	109		
12													133		*
															Heavy NAPL coating
													81.9	G	
13															
			10YR 2/1							0%	80%	20%	51.0		
14													201		*
											85%	15%	82.0	H	NAPL saturated - black, slick, low viscosity
15			10YR 5/2												
													167		
			10YR 3/1										203		
16													213	I	*
17													188		Round cobble at very bottom of recovery
BOC =17'															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GS-SD147-00.0-02.0	N	04/09/2010 13:55	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD147-02.0-03.1	N	04/09/2010 13:55	2.0-3.1	X	X	X	X	X	X		X				
C	GC-SD147-03.5-05.5	N	04/09/2010 13:55	3.5-5.5	X	X	X	X	X	X	X	X	X	X		
D	GC-SD147-05.5-07.5	N	04/09/2010 13:55	5.5-7.5	X	X	X	X	X	X	X	X	X	X		
E	GC-SD147-07.5-09.5	N	04/09/2010 13:55	7.5-9.5	X	X	X	X	X	X	X	X	X	X		
F	GC-SD147-09.5-11.5	N	04/09/2010 13:55	9.5-11.5	X	X	X	X	X	X	X	X	X	X		
G	GC-SD147-11.5-13.5	N	04/09/2010 13:55	11.5-13.5	X	X	X	X	X	X	X	X	X	X		
H	GC-SD147-13.5-15.5	N	04/09/2010 13:55	13.5-15.5	X	X	X	X	X	X	X	X	X	X		
I	GC-SD147-15.5-17.0	N	04/09/2010 13:55	15.5-17.0	X	X	X	X	X	X	X	X	X	X		
J	D-04092010-01	FD	04/09/2010 00:00	5.5-7.5	X	X	X	X	X	X		X				
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/9/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD148	**Easting:**	633781.90	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	672022.77	**Penetration (ft):** 20.0'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-9.7' NAVD88	**Recovery (ft)**	12.5' plus 0.5' sand lost from catcher
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/13/2010 13:35
	ASI - J. Clemens/Captain	**Depth (ft):**	7.2'		
		St. Arrival:	13:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:55	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	H	H	Wet	VFS	UNC	0%	1%	99%	5.6	A	Organic: fibrous plant material *
2															
3													18.3	B	* Increased wood fragments
4				S				FS	PHC (mod)		5%	95%			
5								SP		5%	5%	90%	88.7	C	* Rounded and subrounded gravel, moderate PHC odor
5.5															
6													28.6		Transition zone - not sampled
6.2															
7		SW-SM	10YR 4/2	H	N	H	Wet	FS	None	0%	90%	10%	16.0		Well-graded sand with silt, no odor, staining, discoloration or coating noted
8													18.9	D/G	*
9													7.2		
10			10YR 3/4					VFS					15.4 5.0 6.1	E	*

Additional Notes/Comments: Bottom of core at 11.9'. Core opened at 08:05. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR 5/4	H	N	H	Wet	VFS	None	0%	90%	10%	1.7		No NAPL staining or discoloration
11		SW	10YR 5/2	H	N	H	Wet	MS	None	0%	95%	5%	1.9	F	abrupt transition
12								SP		5%	90%	5%	4.4		Small pocket of NAPL observed (0.1' x 0.1') NAPL hardened, tar-like, black, very high * viscosity, thick, sticky/tacky, faint to moderate tar-like odor.
BOC = 11.9'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD148-00.0-02.0	N	04/14/2010 08:05	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD148-02.0-04.0	N	04/14/2010 08:05	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD148-04.0-05.5	N	04/14/2010 08:05	4.0-5.5	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD148-06.2-08.2	N	04/14/2010 08:05	6.2-8.2	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD148-08.2-10.2	N	04/14/2010 08:05	8.2-10.2	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD148-10.2-11.9	N	04/14/2010 08:05	10.2-11.9	X	X	X	X	X	X	X	X	X	X		
	G	GC-SD148-06.2-08.2	FD	04/14/2010 00:00	6.2-8.2	X	X	X	X	X	X		X				
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/14/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD149	**Easting:**	631543.92		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Murphy/CH2M HILL	**Northing:**	670396.66	**Penetration (ft):**	6.0'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.2' NAVD88	**Recovery (ft)**	4.6'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/12/2010 10:00		
	ASI - J. Clemens/Captain	**Depth (ft):**	11.4'				
		St. Arrival:	10:00		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:30	**Penetration (ft):**	5.7'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	4.0'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/12/2010 10:40		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10YR 2/1	H	N	H	Wet	SP	UNC	60%	25%	15%	23.9	A	*
1.5		OL	10YR 2/1	S	N	H	Wet	MP	UNC	15%	5%	80%			Gravelly silt
2															
3									PHC (strong)				296	B	Heavy NAPL coating, black staining on gloves and sampling equipment *
4															
4.7													191	C	Increasing fibrous wood *
5													152		Transition zone - not sampled
5		SM	10YR 3/1	H	N	H	Wet	SP	PHC (strong)	5%	80%	15%	168		Heavily coated with NAPL
6													262	D	*
7								MP					243		NAPL saturated NAPL - black, low to medium viscosity, not sticky, strong PHC odor
BOC = 7.0'															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.0'. Core opened at 12:10. * Indicates VOC collection depth.
Attempt #3: 14.1' penetration, 7.0' recovery, 11:00 4/12/2010

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD149-00.0-02.0	N	04/12/2010 12:10	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD149-02.0-04.0	N	04/12/2010 12:10	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD149-04.0-04.7	N	04/12/2010 12:10	4.0-4.7	X	X	X	X	X	X		X				
D	GC-SD149-05.0-07.0	N	04/12/2010 12:10	5.0-7.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD149-00.0-07.0	N/TLCP	04/12/2010 12:10	0.0-7.0											X	X
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD150	**Easting:**	630894.44	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	669169.28	**Penetration (ft):** 10'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-26.7' NAVD88	**Recovery (ft)** None - washout	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/9/2010 13:30	
	ASI - J. Clemens/Captain	**Depth (ft):**	27.1'		
		St. Arrival:	13:25	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:00	**Penetration (ft):** 9.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 6.0'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/9/2010 14:10	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	2.0	A	Organic, septic-like odor, trace fibrous plant material *
2															
3													12.2	B	* Gravelly lens
4															Garbage and plastic bag noted at 4-6'
5									PHC (faint)				20.0	C	*
6															
7									(mod)				29.8	D	Increased fibrous wood material *
8															
8.2													21.4		Sampling interval increased slightly to include sediment above transition zone
8.6													6.6		Transition zone - not sampled
9		SM	10YR 3/1	H	N	H	Wet	FS	PHC (mod)	0%	85%	15%	8.7	E/I	
10													47.1		

Additional Notes/Comments: Bottom of core at 15.5'. Core opened at 08:10. * Indicates VOC collection depth.
Attempt #3: 20' penetration; 16.0' recovery + 0.35' of sand lost from bottom of core. 14:45 4/9/2010

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR 2/1	H	N	H	Wet	FS	PHC	0%	85%	15%	82.8	E	* Strong PHC odor; heavily coated, black staining, near saturation
		ML	2/1	F	N	H	Wet/	VFS	PHC	0%	1%	99%	1.9		
11		↓	2/1	↓	↓	↓	Moist	↓	↓	↓	↓	↓			
			10YR				↓		None				2.3		
			4/6						↓						
		SW	10YR	H	N	H	Wet	FS	None	0%	99%	1%		F	*
			5/4					↓		↓	↓	↓	1.7		
12			↓												
			10YR					SP		3%	96%	1%			
			6/6										2.1		
13															Rounded pebbles
													2.2	G	*
14													1.5		
													1.2		*
15														H	
BOC = 15.5'													0.9		
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD150-00.0-02.0	N	04/12/2010 08:10	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD150-02.0-04.0	N	04/12/2010 08:10	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD150-04.0-06.0	N	04/12/2010 08:10	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD150-06.0-08.2	N	04/12/2010 08:10	6.0-8.2	X	X	X	X	X	X	X	X	X	X		
E	GC-SD150-08.6-10.6	N	04/12/2010 08:10	8.6-10.6	X	X	X	X	X	X	X	X	X	X		
F	GC-SD150-10.6-12.6	N	04/12/2010 08:10	10.6-12.6	X	X	X	X	X	X	X	X	X	X		
G	GC-SD150-12.6-14.6	N	04/12/2010 08:10	12.6-14.6	X	X	X	X	X	X	X	X	X	X		
H	GC-SD150-14.6-15.5	N	04/12/2010 08:10	14.6-15.5	X	X	X	X	X	X	X	X	X	X		
I	D-04121010-01	FD	04/12/2010 00:00	8.6-10.6	X	X	X	X	X	X		X				
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 4/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD151	**Easting:**	631050.33	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Murphy/CH2M HILL	**Northing:**	669093.74	**Penetration (ft):** 7.3'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-27.7' NAVD88	**Recovery (ft)** 3.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/12/2010 11:45	
	ASI - J. Clemens/Captain	**Depth (ft):**	25.9'		
		St. Arrival:	11:35	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:40	**Penetration (ft):** 15.0'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 12.0'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/12/2010 12:12	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	20%	5%	75%	0.6	A	Organic: wood fragments
1															*
2										10%	5%	85%	2.6	B	Increased wood fragments
3															*
4		SM	10YR 2/1	H	N	H	Wet	SP	UNC	60%	25%	15%	1.1	C	*
4.8															
5													3.5		Abrupt change Transition zone - not sampled
5.2		ML	10YR 4/4	F	N	H	Wet	VFS	None	0%	1%	99%	0.4	D	No NAPL odor, staining, or coating observed, non-plastic silt
6													0.3		
7													0.6		*
8													0.3	E/G	*
9													0.3		
10													0.3	F	

Additional Notes/Comments: Bottom of core at 11.6'. Core opened at 14:06. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		ML ↓	10YR 4/4 ↓	F ↓	N ↓	H ↓	Wet ↓	VFS ↓	None ↓	0% ↓	1% ↓	99% ↓	0.5 0.5 1.4	F NA	* No odor or staining observed
12 BOC = 11.6'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD151-00.0-02.0	N	04/12/2010 14:05	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD151-02.0-04.0	N	04/12/2010 14:05	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD151-04.0-04.8	N	04/12/2010 14:05	4.0-4.8	X	X	X	X	X	X						
	D	GC-SD151-05.2-07.2	N	04/12/2010 14:05	5.2-7.2	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD151-07.2-09.2	N	04/12/2010 14:05	7.2-9.2	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD151-09.2-11.2	N	04/12/2010 14:05	9.2-11.2	X	X	X	X	X	X	X	X	X	X		
	G	D-04122010-03	FD	04/12/2010 00:00	7.2-9.2	X	X	X	X	X	X		X				
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD152	**Easting:**	634280.01	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	673289.33	**Penetration (ft):** 18.7'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-3.5' NAVD88	**Recovery (ft)** 13.1' top material extremely soft	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/15/2010 9:20	
	ASI - J. Clemens/Captain	**Depth (ft):**	5.1'		
		St. Arrival:	9:15	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	9:45	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MS	UNC	0%	3%	97%	10.7	A	Organic, strong septic-like odor, fibrous wood fragments *
2								SP		1%	3%	96%			
3								MS		0%	3%	97%	32.0	B	*
4															
5													33.6	C	*
6										5%	3%	92%			Increased wood and wood fragments
7													63.9	D	Light NAPL coating, black, slick, low viscosity *
7.3															
7.7													227.0		Transition zone - not sampled Silty sand, heavy NAPL coating
8		CL	10YR 4/3	F	W	H	Wet	FS	PHC (strong)	0%	10%	90%	148.0		* PHC odor, faint staining
9		SW-SM	10YR 4/6	H	N	H	Wet	FS	PHC (strong)	0%	90%	10%	98.2	E	Heavy NAPL coating. NAPL - brown, light brown staining, slick, not sticky/tacky
		SW	10YR 4/2	H	N	H	Wet	MP	PHC (faint)	15%	80%	5%	6.5		No NAPL coating
10													23.6	F	Faint odor

Additional Notes/Comments: Bottom of core at 12.0'. Core opened at 10:30. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW	10YR 4/2	H	N	H	Wet	MP	None	15%	80%	5%	219.0		
11		GW	10YR 3/1	H	N	H	Wet	MP	PHC	75%	20%	5%		F/G	* Heavy NAPL coating, near saturation
		SW	10YR 4/2	H	N	H	Wet	MP	PHC (faint)	5%	90%	5%	20.9		
12		GW	10YR 3/1	H	N	H	Wet	LP	PHC	75%	20%	5%	198.0	NA	Heavy NAPL coating. Interval not sampled because similar to interval above.
BOC = 12.0'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD152-00.0-02.0	N	04/15/2010 10:30	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD152-02.0-04.0	N	04/15/2010 10:30	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD152-04.0-06.0	N	04/15/2010 10:30	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD152-06.0-07.3	N	04/15/2010 10:30	6.0-7.3	X	X	X	X	X	X	X	X	X	X		
E	GC-SD152-07.7-09.7	N	04/15/2010 10:30	7.7-9.7	X	X	X	X	X	X	X	X	X	X		
F	GC-SD152-09.7-11.7	N	04/15/2010 10:30	9.7-11.7	X	X	X	X	X	X	X	X	X	X		
G	D-04152010-02	FD	04/15/2010 00:00	9.7-11.7	X	X	X	X	X	X	X	X	X	X		
H	GC-SD152-00.0-12.0	N/TCLP	04/15/2010 10:30	0.0-12.0											X	X
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/15/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD153	**Easting:**	633803.36	**Attempt 1**	**Refusal? Y/N**
Sampling	M.Murphy/CH2M HILL	**Northing:**	672395.30	**Penetration (ft):** 14.2'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-11.0' NAVD88	**Recovery (ft)** 8.3' + 2.0' sand lost from bottom of core	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/15/2010 11:15	
	ASI - J. Clemens/Captain	**Depth (ft):**	11.8'		
		St. Arrival:	11:10	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:55	**Penetration (ft):** 13.4'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 8.0' + 0.3' sand lost from bottom of core	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/15/2010 12:00	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	3%	97%	20.6	A	Organic, faint septic-like odor *
2								SP		5%	3%	92%			Increased fibrous wood and wood fragments
3													19.8	B	*
3.2															
4													22.9		Transition zone - not sampled
4.2															
5		SW-SM	10YR 3/1 ↓ 10YR 5/2	H	N	H	Wet	FS	None	0%	90%	10%	26.9	C	
6													26.6		*
7													7.8	D	Pockets of NAPL present, does not affect entire depth interval
8								MS VFS					57.8		
9													11.3		
BOC = 8.8'													145		* NAPL saturated/heavy coating
10													13.1	E	*

Additional Notes/Comments: Bottom of core at 8.8'. Core opened at 13:40. * Indicates VOC collection depth.
Attempt 3#: 14.8' penetration, 9.0' recovery, 0.2' sand lost from bottom of core.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD153-00.0-02.0	N	04/15/2010 13:40	0.0-2.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD153-02.0-03.2	N	04/15/2010 13:40	2.0-3.2	X	X	X	X	X	X						
	C	GC-SD153-04.2-06.2	N	04/15/2010 13:40	4.2-6.2	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD153-06.2-08.2	N	04/15/2010 13:40	6.2-8.2	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD153-08.2-08.8	N	04/15/2010 13:40	8.2-8.8	X	X	X	X	X	X	X	X	X	X		
	F	GC-SD153-00.0-08.8	N/TCLP	04/15/2010 13:40	0.0-8.8											X	X
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/15/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD01A (attempt 1)	**Easting:**	634355.13	**Attempt 1**	**Refusal? Y/N**
Sampling	Not sampled	**Northing:**	673411.90	**Penetration (ft):**	18.5'
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-3.1' NAVD88	**Recovery (ft)**	11'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/5/2010 12:00
	ASI - M. Shappell/Captain	**Depth (ft):**	5.9'		
		St. Arrival:	12:10	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:30	**Penetration (ft):**	15'
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	11'
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/5/2010 13:25

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	3.1	NA	
2															
3													3.7	NA	
4															Sand lens noted at 4'
5													8.3	NA	
6															Increasing sand content with depth
7													6.2	NA	
8			S												
9		SW-SM	10YR 5/1/ 10YR 3/1	F	M	S	Wet	FS	TLO (mod)	0%	50%	50%	55	NA	Large wood fragment Alternating layers of gray silty sand and black sandy silt
BOC= 10' 10															

Additional Notes/Comments: Bottom of core at 10.0'. Core opened at 10:20. Core will be re-attempted. No samples collected.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	No samples collected															
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/8/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD01A (attempt 2)	**Easting:**	634372.94	**Attempt 1**	**Refusal? Y/N**
Sampling	Not sampled	**Northing:**	673604.37	**Penetration (ft):**	18.5'
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-2.8' NAVD88	**Recovery (ft)**	11'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/5/2010 12:00
	ASI - M. Shappell/Captain	**Depth (ft):**	5.3'		
		St. Arrival:	12:10	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:30	**Penetration (ft):**	15'
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	11'
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/5/2010 13:25

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	2.1	NA	Organic: sticks, wood fragments, and leaves noted at approximately 6" below top of core.
2															
3													2.2	NA	
4															
5													7.5	NA	Sand lens (approximately 0.2' noted at 4' bgs), blank organic odor
6															
7													4.2	NA	
8										0%	20%	80%			Increased sand content
9													9.5	NA	
BOC= 10.4' 10				S											

Additional Notes/Comments: Bottom of core at 10.4'. Core opened at 11:20. Core will be re-attempted. No samples collected.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD01A (attempt 3)	**Easting:**	634371.28	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/R. Clennon/CH2M HILL	**Northing:**	673607.91	**Penetration (ft):** 20'	20'-N-Head Buried
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-2.9' NAVD88	**Recovery (ft)** 12.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/8/2010 16:38	
	ASI - M. Shappell/Captain	**Depth (ft):**	3.6'		
		St. Arrival:	16:32	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	16:50	**Penetration (ft):**	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	See previous logs for GCSD01A
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	10%	90%	4.1	NA	Organic: black matter, leaves, fibrous wood, organic odor
2															
3													5.5	NA	
4															Medium sand, black, UNC odor
5													11	NA	
6				S					PHC (faint)		30%	70%			
7				F									20.5	NA	NAPL saturated at 7.1', black, rainbow sheen on moisture surface, very fine grained sandy silt
8									PHC (strong)				31.8		
8.3													51.1		Transition zone - not sampled
9															Alternating layers of OL and SM
9.4		SM	10YR 4/1	H	N	H	Wet	MS	PHC (strong)	0% 1%	49%	50%	198	A	*
10															

Additional Notes/Comments: Bottom of core at 11.4'. Core opened at 08:00. Third attempt. Retained even though recovery at 70%. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11 BOC= 11.4'		SM	10YR 4/1	H	N	H	Wet	MS	PHC (strong)	1%	80%	19%	175 185 195	A	
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD001A-09.4-11.4	N	03/03/2010 08:00	9.4-11.4	X	X	X	X	X	X	X	X	X	X		
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/9/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD02A	**Easting:**	634402.6		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673599.74	**Penetration (ft):**	19'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-2.4' NAVD88	**Recovery (ft)**	15'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/9/2010 16:15		
	ASI - M. Shappell/Captain	**Depth (ft):**	3.5'				
		St. Arrival:	16:02		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:30	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	VS	N	H	Wet	FS	UNC (strong)	0%	75%	25%	9.6	NA	Organic: leaves, twigs, fibrous wood, plastic bags, garbage, strong septic-like organic odor
2				S											
3													4.3	NA	
4		OL	10YR 2/1	S	N	H	Wet	FS	UNC (strong)	0%	10%	90%			
5													5.2	NA	
6															
7													13.5	NA	
8															
9													6.6	NA	
10															

Additional Notes/Comments: Bottom of core at 13.9'. Core opened at 07:40. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		OL	10YR 2/1	S	N	H	Wet	FS	UNC (faint)	0%	10%	90%	8.6	NA	Coarse gravel pocket (angular) - coal fragments
11.7															
11.9													27.5		Transition zone - not sampled
12		SM	10YR 5/1	H	N	H	Wet	ML	None	0%	85%	15%	6.1		*
													2.8	A	Well graded fine to medium sand with silt, gray-black stain noted at 12.2'
13															
BOC 13.9'													4.0		
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD002A-11.9-13.9	N/MSD	03/10/2010 07:40	11.9-13.9	X	X	X	X	X	X	X	X	X	X		
B																
C																
D																
E																
F																
G																
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Reviewed by: TMHimmer Date: 3/10/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD03B	**Easting:**	634429.69	**Attempt 1**	**Refusal? Y/N**
Sampling	Not Sampled	**Northing:**	673583.80	**Penetration (ft):**	15'
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-1.9' NAVD88	**Recovery (ft)**	11'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/5/2010 10:15
	ASI - M. Shappell/Captain	**Depth (ft):**	3.8'		
		St. Arrival:	10:05	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:40	**Penetration (ft):**	NA
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	S	N	H	Wet	SP	UNC	1%	75%	24%	0.4	NA	PID 40 ppm
2															
3													6.5	NA	Increasing sand content with depth Decreasing fine content with depth
4															
5		ML	10YR 2/1	F	W	H	Wet/ Moist	MS	UNC	0%	20%	85%	7.4	NA	Organic matter - rooting and leaves noted Garbage noted at 5' Decreasing sand content with depth
6															Sheen noted on soil at 4.0 - 4.3'
7								FS					11.8	NA	
8															
9													6.4	NA	
10				S					PHC (faint)		5%	95%			

Additional Notes/Comments: Bottom of core at 11.0'. Core opened at 1310. No samples collected. No headspace readings.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		ML ↓	10YR 2/1 ↓	S ↓	W ↓	H ↓	Wet ↓	FS ↓	PHC (faint) ↓	0% ↓	5% ↓	95% ↓	25.5 ↓		Abrupt change/transition to silty-sand NAPL coating/staining
11		SM ↓	10YR 4/2	H ↓	W ↓	H ↓	Wet ↓	CS ↓	PHC (strong)	0% ↓	95% ↓	5% ↓	25.5 ↓	NA	
BOC = 11'															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	No samples collected															
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/5/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD04A	**Easting:**	634285.63	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673438.09	**Penetration (ft):** 10'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-4.5' NAVD88	**Recovery (ft)** 7'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/9/2010 16:45	
	ASI - M. Shappell/Captain	**Depth (ft):**	5.2'		
		St. Arrival:	16:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	17:15	**Penetration (ft):** 19.5'	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 14.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/9/2010 17:00	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	1%	5%	94%	0.9	NA	Organic: fibrous wood and plant material, leaves and sticks
2															
3													9.1	NA	
4															
5													17.5	NA	Angular gravel (approximately 1"), coal-like, low density, black
6															
7	7.3			S									43.0	NA	Coal-like fragments
		SM	10YR 4/3	F	W	H	Wet	FS	PHC (strong)	0%	60%	40%	48.4	A	NAPL - heavy staining/coating, brown, low viscosity/not sticky, strong PHC odor *
8													49.2		
		CL	10YR 3/2	H	S	H	Moist	Z	PHC (faint)	0%	0%	100%			
9													19.8		
		SWSM	10YR 4/2	H	N	H	Wet	MS	PHC (strong)	3%	80%	17%			
10													61.6	B	

Additional Notes/Comments: Bottom of core at 14.2'. Core opened at 08:30. * Indicates VOC collection depth. Attempt 2 retained coordinates are from 2nd attempt.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SWSM	10YR 4/2	H	N	H	Wet	MS	PHC (strong)	3%	80%	17%	42.1	B	*
													36.6		NAPL saturated, brown, low viscosity, not sticky, slick
								SC MS		20% 3%	70% 80%	10% 17%	121		
12															NAPL - heavily stained/coated soils
													120	C	Medium sand (well graded), saturated
13													45.2		* Medium sand (well graded), saturated
													46.4	NA	
14													94.6		
BOC= 14.2															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD004A-07.3-09.3	N	03/10/2010 08:30	7.3-9.3	X	X	X	X	X	X	X	X	X	X		
B	GC-SD004A-09.3-11.3	N	03/10/2010 08:30	9.3-11.3	X	X	X	X	X	X	X	X	X	X		
C	GC-SD004A-11.3-13.3	N	03/10/2010 08:30	11.3-13.3	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/10/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD05A	**Easting:**	634313.60		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673432.78	**Penetration (ft):**	20'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-4.5' NAVD88	**Recovery (ft)**	13'		
	J. Balas/CH2M HILL	**Datum:**	NYSP Zone East NAD 83	**Date/Time:**	3/10/2010 8:13		
	ASI - M. Shappell/Captain	**Depth (ft):**	3.2'				
		St. Arrival:	8:05		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:50	**Penetration (ft):**	20'	N = 20' penetration	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	13'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/10/2010 8:50		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	S	N	H	Wet	FS	UNC	0%	75%	25%	0.2	NA	Black, silty sand
2		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	3%	97%			Organic matter, fibrous wood, garbage and plastic bags
3													1.6	NA	
4															
5									PHC (faint)				113.2	NA	
5.5				S	N	H									
6															Transition zone - not sampled
6		SW-SM	10YR 5/1	H	N	H	Wet	VFS	PHC (strong)	0%	95%	5%	236	*	*
7		ML	10YR 6/1	H	N	H	Wet	Z	PHC	0%	10%	90%	105	A	Brown NAPL staining/heavy coating Abrupt transition
		SW-SM	10YR 4/1	H	N	H	Wet	MS	PHC (strong)	0%	50%	40%	124		
8								SP		20%	75%	5%	79		Gravel (subrounded) NAPL saturated
9								Z		0%	0%	100%	116	B	NAPL - brown, low viscosity, non-sticky
10								FS		5%	90%	5%	45		

Additional Notes/Comments: Bottom of core at 12.0'. Core opened at 1030. * Indicates VOC collection depth. (1) Coordinates & data are for attempt 3.
Attempt 3: Penetration: 20'; Recovery: 12'; Time: 3/10/2010 09:33.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 4/1	H	N	H	Wet	FS	PHC (strong)	5%	90%	5%	186		* NAPL staining/heavy coating
													142	C	
BOC= 12			10YR 3/1					MS		0%	99%	1%	175		NAPL saturated Brown NAPL - low viscosity, not sticky
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD005A-06.0-08.0		N	03/10/2010 10:30	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD005A-08.0-10.0		N	03/10/2010 10:30	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD005A-10.0-12.0		N	03/10/2010 10:30	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/10/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD06A (attempt 1)	**Easting:**	634360.76		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673413.32	**Penetration (ft):**	15'	Y	
Crew/Company	J. Balas/CH2M HILL	**Elevation:**	-3.8' NAVD88	**Recovery (ft)**	10.3'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/4/2010 11:13		
	ASI - M. Shappell/Captain	**Depth (ft):**	7.2'				
		St. Arrival:	11:04		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:40	**Penetration (ft):**	20'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	14.5'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/5/2010 11:17		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 4/1	VS	N	H	Wet	MP	UNC	10%	5%	85%	18	NA	
2															
3													6.5	NA	
4															Plastic bags/garbage noted from 3.5 to 4.5'
5													381	NA	
6										40%		55%			
7													398	NA	Black coal-like gravel (angular)
8									PHC (faint)						
8.5		SM	10YR 6/1	F	N	S	Wet	FS	PHC (strong)	0%	75%	25%	513	A	Abrupt transition *
9															(37.8 headspace)
10		ML													Near saturation - heavy coating

Additional Notes/Comments: Bottom of core at 10.4'. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
BOC = 10.4		ML ↓	10YR 6/1	F ↓	W ↓	S ↓	Wet ↓	FS ↓	PHC ↓	0% ↓	25% ↓	75% ↓		A	
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD006A-08.5-10.4	N/MSD	03/04/2010 13:30	8.5-10.4	X	X	X	X	X	X	X	X	X	X		
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/8/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD06A (attempt 2)	**Easting:**	634355.13		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673411.90	**Penetration (ft):**	15'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-3.4' NAVD88	**Recovery (ft)**	10.3'		
	J. Balas/CH2M HILL	**Datum:**	NYSP Zone East NAD 83	**Date/Time:**	3/4/2010 11:13		
	ASI - M. Shappell/Captain	**Depth (ft):**	5.9'				
		St. Arrival:	11:15		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:50	**Penetration (ft):**	20'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	14.5'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/5/2010 11:17		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC (faint)	0%	5%	75%	0.9	NA	Organic: sticks, leaves, twigs Garbage and plastic bags noted ~5" below top of core
2															
3													2.9	NA	
4															
5													4.4	NA	
6															
7								MP	PHC (faint)	10%	5%	85%	3.7	NA	Coal, gravel fragments noted below 7', wood fragments Increasing PHC odor with depth
8															
9				S	W				PHC (strong)				2.4	NA	
															Transition zone - not sampled
9.4		SW-SM	10YR 5/1	H	W	H	Wet	FS	PHC (strong)	0%	75%	25%			
10													93.1	A	Heavy NAPL coating and heavy staining

Additional Notes/Comments: Bottom of core at 14.0'. Core opened at 08:05. * Indicates VOC collection depth. 13 - 14' of core barrel cracked and disintegrated over weekend - Lexan liner is very brittle.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 5/1	H	W	H	Moist/ Wet	VFS	PHC (strong)	0%	75%	25%		A	* NAPL staining
12					N			FS					26.6	B	Near NAPL saturation Heavy staining/strong odor Decreasing silt content with depth. *
13															
BOC= 14								MS	PHC (strong)	0%	90%	10%	53.2	C	NAPL saturation - easily squeezed from soil pore * NAPL - high viscosity, sticky, tacky
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD006A-09.4-11.4	N	03/08/2010 08:05	9.4-11.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD006A-11.4-13.4	N/MSD	03/08/2010 08:05	11.4-13.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD006A-13.4-14.0	N	03/08/2010 08:05	13.4-14.0	X	X	X	X	X	X	X	X	X	X		
D																
E																
F																
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Reviewed by: TMHimmer Date: 3/8/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD07A	**Easting:**	634227.22	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673298.55	**Penetration (ft):**	20' Head buried
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-6.3' NAVD88	**Recovery (ft)**	14'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/8/2010 11:20
	ASI - M. Shappell/Captain	**Depth (ft):**	6.1'		
		St. Arrival:	11:05	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:50	**Penetration (ft):**	NA
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	1%	1%	98%	8.5	NA	Organic: wood fragments and organic fibrous matter
2															
3										0%	5%	95%	9.8	NA	
4															
5								MP	PHC (faint)	20%	20%	60%	21.2	NA	Angular coal gravel and subrounded pebbles, coarse sand, wood fragments, PHC-like odor (faint)
6				S											
7													41.6		Transition zone - not sampled Clayey silt, wood fibers
8		SM	10YR 6/1	F	W	H	Moist/ Wet	SP	PHC (strong)	5%	50%	45%	97.5	A	Heavy coating/near saturation NAPL easily squeezed from soil pores, possible free phase NAPL observed - black, low viscosity *
9				H	N	N	Wet				80%	15%			
10														B	*

Additional Notes/Comments: Bottom of core at 13.4'. Core opened at 13:30. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 6/1	H	N	H	Wet	SP	PHC (strong)	5%	80%	15%	211	B	Heavy NAPL coating/near saturation from 10.9 to 11.1'. NAPL easily squeezed from soil pores - high viscosity, tacky, brown
12													217	C	*
13 BOC= 13.4													153	NA	
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD007A-07.0-09.0	N	03/08/2010 13:30	7.0-9.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD007A-09.0-11.0	N	03/08/2010 13:30	9.0-11.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD007A-11.0-13.0	N	03/08/2010 13:30	11.0-13.0	X	X	X	X	X	X	X	X	X	X		
D																
E																
F																
G																
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Reviewed by: TMHimmer Date: 3/18/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD08A	**Easting:**	634255.69	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	673285.30	**Penetration (ft):** 20'	Head buried
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-3.6' NAVD88	**Recovery (ft)** 13.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/8/2010 12:22	
	ASI - M. Shappell/Captain	**Depth (ft):**	4.4'		
		St. Arrival:	12:15	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:10	**Penetration (ft):** 20'	Head buried
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 13.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/8/10 1300	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%	6.1	NA	Organic: leaves and fibrous material noted
2															
3													9.2	NA	
4															
5													12.3	NA	
6															
7													43.0	NA	
7.8									PHC (faint)						
8															Transition zone - not sampled
8		SM	10YR 5/1	H	N/W	H/S	Wet	MS	PHC (strong)	0%	50%	50%	290	A/B	Clay lenses noted at 8.2 and 9.0' Decreasing silt content with depth *
9															
10										5%	70%	25%			

Additional Notes/Comments: Bottom of core at 13.0'. Core opened at 15:00. * Indicates VOC collection depth. 3rd attempt: 20' penetration, 11' recovery at 13:40.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 4/1	H	N	H	Wet	CP/SC	PHC (strong)	20%	70%	10%	216	C/D	Medium/coarse sand with little pebbles (subrounded), saturated with brown NAPL - low viscosity *
12								MS		0%	90%	10%			
BOC= 13													219	E	Slight NAPL staining Strong NAPL odor *
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD008A-08.0-10.0	N	03/08/2010 15:00	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
B	D-03082010-01	FD	03/08/2010 15:00	8.0-10.0	X	X			X	X		X				
C	GC-SD008A-10.0-12.0	N	03/08/2010 15:00	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
D	D-03082010-02	FD	03/08/2010 15:00	10.0-12.0			X	X								
E	GC-SD008A-12.0-13.0	N	03/08/2010 15:00	12.0-13.0	X	X	X	X	X	X	X	X	X	X		
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
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U																

Reviewed by: *TMHimmer* Date: 3/8/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD10A	**Easting:**	634066.63	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672981.11	**Penetration (ft):** 19.0'	Y
Crew/Company		**Elevation:**	-6.5' NAVD88	**Recovery (ft)** 13.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/4/2010 15:15	
	ASI - M. Shappell/Captain	**Depth (ft):**	5.8'		
		St. Arrival:	15:10	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:35	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	3%	3%	94%	1.8	NA	
2															
3													3.2	NA	
4															Soft sediment Garbage found at approximately 4' Electrical outlets and wood fragments
5													6.8	NA	
6									PHC (faint)						
6.4															Transition zone - not sampled
7		SP	10YR 4/2	H	N	H	Moist/ Wet	MS	PHC (mod)	0%	95%	5%	15.8	A	Equipment blank pan used from 6.4 to 8.4' sampling interval. NAPL staining/odor
8															
9													13.7	B	
10															

Additional Notes/Comments: Bottom of core at 11.2'. Core opened at 17:00.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SP ↓	10YR 4/2 ↓	H ↓	N ↓	H ↓	Wet ↓	SP ↓	PHC (mod) ↓	25% ↓	70% ↓	5% ↓	1.4	C	Heavy, dark NAPL staining on liner Subrounded 2" diameter pebble
11		GW	10YR 4/2	H	N	H	Wet	SP	PHC(mod	25%	70%	5%			
BOC = 11.2'															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD010A-06.4-08.4	N	03/14/2010 17:00	6.4-8.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD010A-08.4-10.4	N	03/14/2010 17:00	8.4-10.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD010A-10.4-11.2	N	03/14/2010 17:00	10.4-11.2	X	X	X	X	X	X	X	X	X	X		
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/4/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD011A	**Easting:**	672969.35	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	634086.74	**Penetration (ft):** 20.0'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-6.0' NAVD88	**Recovery (ft)** 14.5'	
	J. Balas/CH2M HILL	**Datum:**	NYSP Zone East NAD 83	**Date/Time:** 3/10/2010 10:50	
	ASI - M. Shappell/Captain	**Depth (ft):**	4.2'		
		St. Arrival:	10:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:02	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	MS	UNC	0%	3%	97%	0.9	NA	**Organic: fibrous wood and plant matter** Cloth, plastic bag
1															
2													0.9	NA	
3															
4													0.5	NA	
5															
6													0.2	NA	
7															
7.4															Abrupt Transition
															Transition zone - not sampled
7.7		SP	10YR 4/1	H	N	H	Wet	SC	None	10%	89%	1%	0.4		Medium sand, trace/little gravel (round)
8															
9													0.6	A/D	
10													2.1		*
														B	

Additional Notes/Comments: Bottom of core at 14.9 '. Core opened at 11:45. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SP	10YR 4/1	H	N	H	Wet	MS	None	0%	99%	1%	0.9 2 0	B	Medium Sand *
12													0		Abrupt change in grain size Coarse sand with gravel
13								SP		30%	69%	1%	0 0	C	*
14													0	NA	No sample collected from this interval due to no observed NAPL contamination
15 BOC = 14.9'															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD010A-07.7-09.7	N	03/10/2010 11:45	7.7-9.7	X	X	X	X	X	X	X	X	X	X		
B	GC-SD010A-09.7-11.7	N	03/10/2010 11:45	9.7-11.7	X	X	X	X	X	X	X	X	X	X		
C	GC-SD010A-11.7-13.7	N	03/10/2010 11:45	11.7-13.7	X	X	X	X	X	X	X	X	X	X		
D	D-03102010-01	N	03/10/2010 11:45	7.7-9.7	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/10/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD012A	**Easting:**	634116.82	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672959.20	**Penetration (ft):** 13.5'	Y
Crew/Company	M. Murphy/CH2M HILL	**Elevation:**	-5.7' NAVD88	**Recovery (ft)** 10.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/4/2010 10:25	
	ASI - M. Shappell/Captain	**Depth (ft):**	8.8'		
		St. Arrival:	10:22	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:50	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	James Balas	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10 YR 2/1	VS	N	H	Wet	FS	UNC	0%	75%	95%	6.0	NA	
2															
3													45.0	NA	
4															
5													9.5	NA	
5.2															
5.9													232		Transition zone - not sampled
6		GM	10 YR 2/1	F	N	H	Wet	SC	UNC	90%	5%	5%			Angular gravel, wood, leaves, fibrous material, cement fill
7													6.2	NA	
8															
9													315	NA	Large cobble at 9.3'
10		OL	10 YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%			Abrupt Transition

Additional Notes/Comments: Bottom of core at 10.5 '. No native material observed. No samples collected.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
BOC = 10.5'		SM ↓	10 YR 2/1 ↓	S ↓	N ↓	H ↓	Wet ↓	CP ↓	PHC ↓	10% ↓	70% ↓	20% ↓	316 ↓	NA	
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/4/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD13B	**Easting:**	633961.99	**Attempt 1**	**Refusal? Y/N**
Sampling	Not Sampled	**Northing:**	672788.72	**Penetration (ft):** 9'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-5.0' NAVD88	**Recovery (ft)** 7'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/4/2010 16:11	
	ASI - M. Shappell/Captain	**Depth (ft):**	3.6'		
		St. Arrival:	16:10	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	17:00	**Penetration (ft):** 9.5'	Y
Collection:	vibracore	**Logged by:**	Mary Velasquez	**Recovery (ft)** 5.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/4/2010 16:41	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	37.0	NA	
2															
3				S				SP		5%	20%	75%	5.8	NA	
4															
5													10.9	NA	
6															
6.5 BOC= 7			10YR 2/1	VS				CP	TLO	50%	25%	25%	13.0	NA	Coal and brick fragments - 6.5 - 7'
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.0'. Core opened at 08:30. No native material observed. No samples collected.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	No samples collected															
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/5/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD13B (3rd Attempt)	**Easting:**	633963.58		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672791.88	**Penetration (ft):**	19.5'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-3.2	**Recovery (ft)**	16'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/8/2010 8:59		
	ASI - M. Shappell/Captain	**Depth (ft):**	1.9'				
		St. Arrival:	8:20		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:20	**Penetration (ft):**	See other log		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%	26.0	NA	Organic: fibrous wood fragments, leaves, sticks, faint organic odor
2															
3													27.6	NA	
4															
5													30.4	NA	
6								CP		50%	25%	25%			Coarse gravel (angular) and wood fragments: 5.8 - 6.0'
6		ML	10YR 7/1	F	W	H	Wet	FS	PHC (faint)	0%	25%	75%	102		Abrupt change: gray sandy silt
7													66.6	A	
8			10YR 4/1										167		Heavy NAPL staining/coating throughout * in seams of sandier material
													67.3		
9		SM	10YR 4/1	H	N	S	Wet	MS	PHC (strong)	0%	75%	25%	454	B	* NAPL saturation, easily squeezed from soil pore space
10													231		

Additional Notes/Comments: Bottom of core at 16.2'. Core opened at 11:30. * Indicates VOC collection depth. Sample from 12-14' not submitted per USEPA instruction 3/9/2010.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 4/1	H	N	S	Wet	MS	PHC (strong)	0%	75%	25%	312		* NAPL saturated - brown, low viscosity, slick
													170	C	Heavy staining/coating
12			10YR 2/1										141		
													119		* Black gravel (rounded), NAPL saturated, staining, PHC odor
13													15.5	D	NAPL staining (black), sheen on moisture surface
14			10YR 5/3										25.1		
													145		*
15			10YR 4/2										21.9	E	NAPL saturated, black staining throughout
															Increased silt content (green color)
16													105		
													18.2	NA	* Heavy coating
BOC= 16.2															NAPL - brown, slick, not sticky, low viscosity
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD013B-06.0-08.0	N	03/09/2010 11:30	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD013B-08.0-10.0	N	03/09/2010 11:30	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD013B-10.0-12.0	N	03/09/2010 11:30	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
D	Not sampled															
E	GC-SD013B-14.0-16.0	N	03/09/2010 11:30	14.0-16.0	X	X	X	X	X	X	X	X	X	X		
F																
G																
H																
I																
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Reviewed by: TMHimmer Date: 3/18/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD-14A	**Easting:**	633983.67		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672782.48	**Penetration (ft):**	20'	N	
Crew/Company	M. Murphy/CH2M HILL	**Elevation:**	-7.5' NAVD88	**Recovery (ft)**	14'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/9/2010 9:40		
	ASI - M. Shappell/Captain	**Depth (ft):**	5.7'				
		St. Arrival:	9:30		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	10:05	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SC	UNC	10%	5%	85%	8.2	NA	Organic: fibrous wood fragments, glass, plastic, gravel
2															
3													11.7	NA	
4															
5													20.1	NA	Coal piece noted at approximately 5'
6								FS	PHC (faint)	0%	30%	70%			Increasing sand content with depth Increasing PHC odor with depth
7									PHC (mod)				41.5	NA	
7.2										0%	50%	50%			
7.4															Transition zone - not sampled
8		SM	10YR 5/3	H	N	H	Wet	FS	PHC (strong)	0%	80%	20%	81.0		Heavy black/brown NAPL staining/coating
								MS					140	A	Saturated with depth
9													237		*
10			10YR 3/1										102	B	

Additional Notes/Comments: Bottom of core at 13.9'. Core opened at 14:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 2/1	H	N	H	Wet	MS	PHC (strong)	0%	80%	20%	286	B	* NAPL saturation: easily squeezed from soil pore space, brown, slick, not sticky/tacky, low viscosity, PHC odor
						S				50%	30%	20%	183		Black subrounded gravel - heavily affected, NAPL saturated
12										0%	25%	75%	120	C	*
		ML	10YR 4/3	H	W	S	Moist	VFS	PHC (strong)	0%	25%	75%	22.8		
13		MLCL	10YR4/3	H	W	S	Moist	VFS	PHC(stg)	0%	10%	90%	10.4		
BOC= 13.9		CL	5YR4/3		M	H			UNC(fnt)	0%	1%	99%	8.0	D	* Reddish brown silty clay, little to no staining
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD014A-07.4-09.4	N	03/03/2010 14:00	7.4-9.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD014A-09.4-11.4	N	03/03/2010 14:00	9.4-11.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD014A-11.4-13.4	N	03/03/2010 14:00	11.4-13.4	X	X	X	X	X	X	X	X	X	X		
D	GC-SD014A-13.4-13.9	N	03/03/2010 14:00	13.4-13.9	X	X	X	X								
E																
F																
G																
H																
I																
J																
K																
L																
M																
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R																
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Reviewed by: *TMHimmer* Date: 3/9/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD16A	**Easting:**	633828.90		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672521.70	**Penetration (ft):**	18'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-10' NAVD88	**Recovery (ft)**	11.6'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/10/2010 11:55	
	ASI - M. Shappell/Captain	**Depth (ft):**	7.9'			
		St. Arrival:	12:15		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:15	**Penetration (ft):**	20'	N - 20' Penetration
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	14'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/10/2010 12:45	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	FS	TLO (strong)	0%	3%	97%	24.7	NA	Organic: wood fibers and sticks
1															Tar-like/organic-like odor (strong)
2															
3													27.0	NA	NAPL blebs noted on surface of water
4														NA	
4.8															Abrupt transition
5													32.9		Transition zone - not sampled
5.4															
6		SP	10YR 4/2	H	N	H	Wet	FS	TLO (strong)	0%	80%	20%	59.1	A	Silty sand NAPL - heavily coated, brown, slick, moderate viscosity, not sticky
7			10YR 3/1					MP FS					94.5 137		*
8													210	B	Small gravel layer (0.2')
9									(mod)				134 87.8	NA	NAPL saturated - easily squeezed from soil pores
10		SW-SM	10YR 6/1	H	N	S	Wet	SP	TLO	10%	80%	10%	20.3	C	Slight/moderate NAPL staining

Additional Notes/Comments: Bottom of core at 13.4'. Core opened at 14:20. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR 6/1	H	N	S	Wet	ML	TLO	10%	80%	10%	19.0		Medium sand
11		SW	10YR 6/1	H	N	S	Wet	SP	TLO (mod)	20%	75%	5%	48.2	C	Coarse sand *
12													28.0		Coarse sand, coating/heavy staining
13			10YR 2/1						(strong)	25% 10%	50% 79%	25% 1%	18.6	D	NAPL saturated, rounded gravel
BOC= 13.4													68.3		Heavily stained *
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD016A-05.4-07.4		N	03/10/2010 14:20	5.4-7.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD016A-07.4-08.4		N	03/10/2010 14:20	7.4-9.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD016A-09.4-11.4		N	03/10/2010 14:20	9.4-11.4	X	X	X	X	X	X	X	X	X	X		
D	GC-SD016A-11.4-13.4		N	03/10/2010 14:20	11.4-13.4	X	X	X	X	X	X	X	X	X	X		
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/10/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD17A (1st Attempt)	**Easting:**	633870.70		**Attempt 1**	**Refusal? Y/N**	
Sampling	Not Sampled	**Northing:**	672531.15	**Penetration (ft):**	18'		
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-10.2' NAVD88	**Recovery (ft)**	6.6'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/9/2010 10:35		
	ASI - M. Shappell/Captain	**Depth (ft):**	8.7'				
		St. Arrival:	10:20		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	10:50	**Penetration (ft):**	See other log		
Collection:	vibracore	**Logged by:**	Mary Velasquez	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SC	UNC	0% → 10%	10% → 5%	99% → 85%	1.6	NA	Some angular to subangular gravel, small cobble
2															
3													15.2	NA	Fibrous material/vegetation at 3.5' Abrupt lithology change at 3.5'
4		SP-SM	10YR 4/2	F	N	H	Wet	MP	PHC (strong)	0% → 35%	85% → 50%	15% → 15%	35.6	NA	Garbage encountered (broken glass) at very top of interval ~3.6' NAPL staining, heavy coating Subrounded gravel at 5.5' Saturated at 4.5 to approximately 6.5' Saturated at 5.5'
5															
6															
BOC= 6.6		SM	10YR 4/2	F	N	H	Wet	FS	PHC (faint)	0%	75%	25%	11.8	NA	Decreasing grain size below 5.6'
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 6.6'. Core opened at 16:00. Not sampled: core barrel broke at this station.

	Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
	11															
	12															
	13															
	14															
	15															
	16															
	17															
	18															
	19															
	20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/9/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD17A 2nd Attempt	**Easting:**	633864.93	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672537.54	**Penetration (ft):** 19'	Y (1)
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-11.7' NAVD88	**Recovery (ft)** 11'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/10/2010 13:35	
	ASI - M. Shappell/Captain	**Depth (ft):**	10.2'		
		St. Arrival:	13:25	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:20	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SW	10YR 4/1	S	N	H	Wet	FS	TLO (strong)	0%	95%	5%	6.9	NA	**Thin layer of black silty accumulated soft** sediment at top of recovery - traces of soft sediment noted 0 - 2'
2				F				SC	(mod)	5%	90%	5%	8.9		NAPL - freely released, oozing from soil pores brown, low viscosity, stained gloves, blebs noted in significant number 0-2'
3								SP	(strong)				14.4	A	
4													55.4		*
5									(faint)				4.4		
6													5.1	B	Sand/gravel - rounded/subrounded
7													7.5		*
8										10%	85%	5%	8.4		
9									(strong)				7.9	C	
BOC= 10									(mod)				33.4		* Heavily coated medium sand lens (0.2') - uniform, moderate viscosity, near saturated to saturated
													3.5		
													1.8	NA	Interval not sampled (see noted ** below)
													5.3		Coated medium sand lens (0.2') - uniform, moderate viscosity

Additional Notes/Comments: Bottom of core at 10.0'. Core opened at 16:00. * Indicates VOC collection depth. NAPL staining noted throughout. Brown seams noted in core.
(1) did not make third attempt per P. White because of 2 bent barrels and confirmed at least 6' native in lower part of core.
** Interval not sampled. NAPL impacts/VOC detections lower than upper interval.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD017A-02.0-04.0	N	03/10/2010 16:00	2.0-4.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD017A-04.0-06.0	N	03/10/2010 16:00	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD017A-06.0-08.0	N	03/10/2010 16:00	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/10/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD18A	**Easting:**	633887.21		**Attempt 1** **Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672526.66	**Penetration (ft):**	13' Y
Crew/Company	D. Reamer/CH2M HILL	**Elevation:**	-7.9' NAVD88	**Recovery (ft)**	10'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/3/2010 13:46
	ASI - M. Shappell/M. PadoverCaptain	**Depth (ft):**	7.9'		
		St. Arrival:	13:41		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:33	**Penetration (ft):**	NA
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL for less than 100% core recovery	Log reflects sample as collected – no correction factor applied		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	S	N	H	Wet	FS	UNC	0%	5%	95%	0	NA	Headspace - 0.0
2															
3									TLO				0	NA	Tar-like odor
4															Transition zone - not sampled
5		SP-SM	7.5YR 6/1	H	N	M	Moist/ Wet	MP	TLO	1%	95%	5%	0	A	Pockets of moderately cemented silt *
6															NAPL coating/staining
7													0	B	Trace subangular gravel *
8															
9		SP	7.5YR 6/1	H	N	M	Moist/ Wet	MP	TLO	1%	95%	5%	0	C	
BOC = 10															* Heavy staining/near saturation

Additional Notes/Comments: Bottom of core at 10.0'. *Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GS-SD018A-04.0-06.0	N	03/03/2010 15:05	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
B	GS-SD018A-06.0-08.0	N	03/03/2010 15:05	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
C	GS-SD018A-08.0-10.0	N	03/03/2010 15:05	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/3/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD19C	**Easting:**	633769.29	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672227.64	**Penetration (ft):** 16'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-6.4' NAVD88	**Recovery (ft)** 11.5'	
	J. Balas/CH2M HILL	**Datum:**	NYSP Zone East NAD 83	**Date/Time:** 3/11/2010 13:50	
	ASI - M. Shappell/Captain	**Depth (ft):**	5.7'		
		St. Arrival:	13:45	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:35	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	CS	UNC	0%	3%	97%	33.1	NA	Organic: fibrous wood, leaves, and stick fragments
2															
3													11.3	NA	
4															
5													23.2	NA	
6															
6.5														NA	
6.8															Transition zone - not sampled
7		SW-SM	10YR 4/3	H	N	H	Wet	FS	PHC (strong)	0%	75%	25%	25.1		*
													32.8	A	Well graded sand with silt NAPL coating - blebs of NAPL rising via gravity/ soil dilatency
8													33.4		No staining or discoloration on soil pores
9		ML	10YR 4/4	F	N	H	Wet	VFS	PHC (mod)	0%	90%	10%	29.9		*
														B	Well graded sand with silt and gravel * Single small cobble (subrounded)
10		SW-SM	10YR 4/4	H	N	H	Wet	FS	PHC (strong)	15%	60%	25%	39.1		NAPL staining on and around cobble - slick, low viscosity, not sticky, brown staining

Additional Notes/Comments: Bottom of core at 11.5'. Core opened at 08:30. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11 BOC= 11.5		SW-SM	10YR 4/3	H	N	H	Wet	FS	PHC (strong)	15%	60%	25%	34.5	B	Single small cobble (subrounded)
													94.1	C	*
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD019C-06.8-08.8	N	03/12/2010 08:30	6.8-8.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD019C-08.8-10.8	N	03/12/2010 08:30	8.8-10.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD019C-10.8-11.5	N	03/12/2010 08:30	10.8-11.5	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
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Reviewed by: *TMHimmer* Date: 3/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD020A	**Easting:**	633788.42	**Attempt 1**	**Refusal? Y/N**
Sampling		**Northing:**	672170.88	**Penetration (ft):** 3'	Y
Crew/Company	M. Velasquez/CH2M HILL	**Elevation:**	-8.2' NAVD88	**Recovery (ft)** 2'	
	R. Clennon/CH2M HILL	**Datum:**	NYSP Zone East NAD 83	**Date/Time:** 3/11/2010 10:45	
	ASI - M. Shappell/Captain	**Depth (ft):**	6.9'		
		St. Arrival:	10:32	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:50	**Penetration (ft):** 3.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 2'	
Collector Information:	T. Himmer/CH2M HILL Log reflects sample as collected – no correction factor applied for less than 100% core recovery			**Date/Time:** 3/11/2010 11:01	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	5%	95%	15.2	NA	Organics: sticks, leaves, plastic, glass, septic-like odor
2															
3													39	NA	
BOC= 3.9'								SC		1%	0%	99%			
4															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 11.2'. Core opened at 12:20. No samples collected. No native material observed.
3/11/2010 11:24; Penetration: 4.5', Recovery 3'

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary: no samples collected

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	No samples collected															
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
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Q																
R																
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Reviewed by: *TMHimmer* Date: 3/11/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD21B	**Easting:**	633820.67	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	672179.31	**Penetration (ft):** 4.8'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-6.0' NAVD88	**Recovery (ft)** 3.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/13/2010 13:00	
	ASI - M. Shappell/Captain	**Depth (ft):**	11.5		
		St. Arrival:	13:04	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:05	**Penetration (ft):** 5.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 4.0'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/13/2010 13:10	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	94.0	NA	Organic: wood fragments and fibrous wood
2								FS		0%	5%	95%			
3													12.7	NA	
4													18.0	NA	Garbage and plastic fragments
BOC= 4.2															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 4.2'. Core opened at 15:00. No samples collected. No native material observed.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/13/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD22B	**Easting:**	633669.58		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671925.90	**Penetration (ft):**	5.5'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-6.5' NAVD88	**Recovery (ft)**	4.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/11/2010 12:17		
	ASI - M. Shappell/Captain	**Depth (ft):**	5.1'				
		St. Arrival:	12:10		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:20	**Penetration (ft):**	20'	N	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	15' (in field)		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/11/2010 12:44		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	CS	UNC	0%	3%	97%	7.4	NA	Organics: sticks and leaves
2															
3													20.6	NA	
3.7				S				SC							4" brick fragment
4													22.3		Transition zone - not sampled
4		SP-SM	7/1 5/3/ 7/1 5/1	H	N	H	Wet	ML	PHC (strong)	0%	75%	25%	21.2		Abrupt lithology change
5													57.9	A	Stratified layers of very dense fine grained silty sand (10YR 5/1) and medium dense fine to medium sand (10YR 5/3) - coarse material * is stained with NAPL with strong PHC odor
6													66.8		Near saturation
		SM	10YR 5/4	H	N	H	Wet	ML	PHC (strong)	0%	75%	25%	90.8		*
7													90.0	B	Silty sand - NAPL saturated
8													86.0		
													107.0		*
9		SW-SM	10YR 5/4	H	N	H	Wet	SC	PHC (strong)	25%	70%	5%	57.5	C	Gradual increase in grain size
10													61.9		

Additional Notes/Comments: Bottom of core at 14.0'. Core opened at 15:45. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		GP	10YR 5/2	H	N	H	Wet	SC	PHC (strong)	75%	24%	1%	80.2		NAPL saturated
													78.7	D	NAPL - black/brown, brown staining, low viscosity not sticky/tacky
12										25%	70%	5%	92.9		
													48.9		*
13			10YR 2/1											E	
													25.6		
BOC= 14		SM	10YR 4/3	F	N	H	Wet	FS	PHC (faint)	0%	75%	25%	31.7		Abrupt change Heavily coated - near saturation
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD022B-04.0-06.0	N	03/11/2010 15:45	4.0-6.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD022B-06.0-08.0	N/MSD	03/11/2010 15:45	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD022B-08.0-10.0	N	03/11/2010 15:45	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD022B-10.0-12.0	N	03/11/2010 15:45	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD022B-12.0-14.0	N	03/11/2010 15:45	12.0-14.0	X	X	X	X	X	X	X	X	X	X		
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/11/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD024B	**Easting:**	633709.15	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Murphy/CH2M HILL	**Northing:**	671891.11	**Penetration (ft):** 5.6'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-10.2 NAVD88	**Recovery (ft)** 4.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/13/2010 14:05:00 PM	
	ASI - J. Clemens/Captain	**Depth (ft):**	11.5'		
		St. Arrival:	14:00	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:50	**Penetration (ft):** 19.1'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 14.9'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/13/2010 14:25:00 PM	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	17.7	NA	Organic, strong septic like odor
2															Increased wood fragments
3										10%	10%	80%	30.9	NA	NAPL - black, medium viscosity, faint PHC odor
4													62.0		
4.5														NA	Abrupt transition
4.8													73.1		Transition zone - not sampled
5		SW-SM	10YR 4/4	H	N	H	Wet	FS	PHC (mod)	0%	95%	5%	83.9		NAPL coating, near saturation
6													94.6	A	*Decreasing NAPL saturation with depth
7													192 62.2		NAPL coating
8													91.4	B	*
9		SM	10YR 2/1	H	N	H	Wet	FS	PHC (mod)	0%	85%	15%	89.2 68.0		*
10													65.6	C	Black staining, sheen noted on sediment surfaces

Additional Notes/Comments: Bottom of core at 14.8'. Core opened at 15:15. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR 2/1	H	N	H	Wet	FS	PHC (mod)	0%	85%	15%	2.2	C	
11		ML	10YR 6/6	H	N	H	Moist	VFS	None	0%	1%	99%	11.0		
		SW-SM	10YR 6/4	H	N	H	Wet	FS	None	0%	90%	10%	37.4	D	*
12													0.7		
13									PHC (strong)	10%	75%	15%	5.1	E	* NAPL saturated, dark brown, medium viscosity abrupt NAPL layer, no staining above. Abrupt lithology transition
14		ML	10YR 6/6	H	N	H	Moist	Z	None	0%	0%	100%	94.3		
BOC = 14.8'													1.3		
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD024B-04.8-06.8	N/MSD	04/13/2010 15:15	4.8-6.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD024B-06.8-08.8	N	04/13/2010 15:15	6.8-8.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD024B-08.8-10.8	N	04/13/2010 15:15	8.8-10.8	X	X	X	X	X	X	X	X	X	X		
D	GC-SD024B-10.8-12.8	N	04/13/2010 15:15	10.8-12.8	X	X	X	X	X	X	X	X	X	X		
E	GC-SD024B-12.8-14.8	N	04/13/2010 15:15	12.8-14.8	X	X	X	X	X	X	X	X	X	X		
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 4/13/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD025B	**Easting:**	633439.12	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671567.17	**Penetration (ft):** 20'	N
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-7.9' NAVD88	**Recovery (ft)** 12'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/12/2010 11:40	
	ASI - M. Shappell/Captain	**Depth (ft):**	7.7'		
		St. Arrival:	11:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:00	**Penetration (ft):** 13.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 8'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/12/2010 12:25	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	10%	5%	85%	53.3	NA	Organics: fibrous wood and leaf matter
2															
3													23.2	NA	
4															
4.4															Large chunks of wood
4.8													47.6	NA	Abrupt change in lithology Transition zone - not sampled
5		SW	10YR 5/1	H	N	H	Wet	FS	PHC (mod)	0%	90%	10%	187		*
6			10YR 4/3										88.5 81.1	A	
7		SW-SM/ SW						SG		3%	72%	25%	79.3	B	Increased silt and gravel content, NAPL sheen on soil surface, staining on gloves (brown)
8			10YR 4/2					FS		0%	90%	10%	21.6 149		*
9													54.8	C	
10			10YR 2/1						(strong)				123		* NAPL saturated

Additional Notes/Comments: Bottom of core at 11.6'. Core opened at 14:40. * Indicates VOC collection depth.
Attempt 3: Penetration : 19.5'; Recovery : 12'; Date/Time: 03/12/2010 12:50.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 2/1	H	N	H	Wet	FS	PHC (strong)	0%	90%	10%	94.1	C	Increased NAPL saturation with depth
													134		*
11.6													86.2	D	NAPL - black staining on soil surface, brown staining on soil surface, low to moderate viscosity slick/not sticky
BOC= 11.6															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD025B-04.8-06.8	N	03/12/2010 14:40	4.8-6.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD025B-06.8-08.8	N	03/12/2010 14:40	6.8-8.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD025B-8.8-10.8	N	03/12/2010 14:40	8.8-10.8	X	X	X	X	X	X	X	X	X	X		
D	GC-SD025B-10.8-11.6	N	03/12/2010 14:40	10.8-11.6	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD26A	**Easting:**	633459.11		**Attempt 1** **Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671551.88	**Penetration (ft):**	20' N - 20
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.9' NAVD88	**Recovery (ft)**	15.5'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/19/2010 15:15
	ASI - M. Shappell/Captain	**Depth (ft):**	11.1'		
		St. Arrival:	15:10		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:40	**Penetration (ft):**	NA
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC (mod)	5%	1%	94%	16.4	NA	Organic: trace fibrous wood, moderate septic-like odor that transitions to faint, tar-like odor with depth
2								SC	TLO (faint)						Large coal-like gravel
2.4													56.3		Transition zone - not sampled
3		CL	10YR 5/2	F	W	H	Wet	FS	TLO (faint)	0%	90%	10%	10.6		Moderate NAPL coating - brown staining, low to moderate viscosity, not sticky, tar-like odor
4		SW-SM	10YR 4/2	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	22.2	A	
													45.1		*
5		ML	10YR 4/2	F	W	H	Wet/ Moist	VFS	TLO (faint)	0%	3%	17%	26.3		
		SM	10YR 5/2	H	N	H	Wet/ Moist	FS		0%	85%	15%		B	
6		ML	10YR 5/2	H	W	H	Moist	VFS	TLO (faint)	0%	15%	85%	51.3		*
													37.0		
7										3%	15%	82%	14.1		
8			10YR 2/1						None	0%	3%	97%	26.1	C	*
										0%	0%	100%	16.8		
9									TLO (faint)				94.6	NA	Sandy seam (medium sand), heavy NAPL coating. NAPL - black, brown staining, medium viscosity, tar-like odor, slick, not sticky
10		SW-SM	10YR 4/2	H	N	H	Wet	MS FS	TLO (strong)	0%	90%	10%	80.0		

Additional Notes/Comments: Bottom of core at 14.7'. Core opened at 10:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%	101	NA	Increasing NAPL saturation with depth
11													72.1	*	*
													61.8	D	NAPL saturation - heavy brown staining/ discoloration
12		ML	10YR6/1	H	N	H	Wet	VFS	TLO(stg)	0%	5%	95%	64.7		Fine sandy silt, sheen noted, not saturated
		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%	56.3		NAPL saturation - heavy brown staining/ discoloration
13		ML	10YR 4/2	H	N	H	Wet	FS	TLO (faint)	0%	3%	97%	9.4	E	*
14			10YR 2/1										12.3		Sheen noted on soil surface
													2.2		Gradual transition
14.7		SM	10YR 2/1	H	N	H	Wet	FS	None	0%	51%	49%	3.3	NA	Gradual increase in sand content between 12.4 and 14.7' - no odor/staining noted
BOC= 14.7															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD026A-02.4-04.4	N	03/19/2010 10:00	2.4-4.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD026A-04.4-06.4	N	03/19/2010 10:00	4.4-6.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD026A-06.4-08.4	N	03/19/2010 10:00	6.4-8.4	X	X	X	X	X	X	X	X	X	X		
D	GC-SD026A-10.4-12.4	N	03/19/2010 10:00	10.4-12.4	X	X	X	X	X	X	X	X	X	X		
E	GC-SD026A-12.4-14.4	N	03/19/2010 10:00	12.4-14.4	X	X	X	X	X	X	X	X	X	X		
F	D-03192010-01	FD	03/19/2010 10:00	6.4-8.4	X	X	X	X	X	X		X				
G																
H																
I																
J																
K																
L																
M																
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Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/19/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD027A	**Easting:**	633475.29		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Murphy/CH2M HILL	**Northing:**	671533.17	**Penetration (ft):**	5.0'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.3' NAVD88	**Recovery (ft)**	3.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/13/2010 11:10		
	ASI - J. Clemens/Captain	**Depth (ft):**	11.7				
		St. Arrival:	11:00		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:45	**Penetration (ft):**	12.8'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	8.7'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/13/2010 11:25		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	3%	97%			Organic: fibrous wood and stick fragments, live worm
1									PHC (faint)					NA	
2													49.9		Light NAPL coating, light brown staining
3														NA	Increasing wood fragments with depth
4													111		Transition zone - not sampled
4.1		ML	10YR 3/2	F	W	H	Moist	VFS	PHC (mod)	0%	1%	99%	115		* Moderate NAPL odor
5					N								39.8	A/D	Trace sticks
6													47.1		
		SM	10YR 4/3	H	N	H	Wet	FS	PHC (strong)	0%	85%	15%	167		NAPL coating, moderate brown staining, low viscosity, slick, not sticky
7													127		
		ML	10YR 4/3	F	W	H	Moist	VFS	PHC (mod)	0%	0%	100%		B	Abrupt change in sediment type
		SM	10YR 4/3	H	N	H	Wet	MP	PHC (strong)	15%	70%	15%	177		*
8													46.0	C	* Faint NAPL coating
9															
10															

Additional Notes/Comments: Bottom of core at 8.6'. Core opened at 13:30. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD027A-04.1-06.1	N	04/13/2010 13:30	4.1-6.1	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD027A-06.1-08.1	N	04/13/2010 13:30	6.1-8.1	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD027A-08.1-08.6	N	04/13/2010 13:30	8.1-8.6	X	X	X	X	X	X						
	D	D-04132010-02	FD	04/13/2010 13:30	4.1-6.1	X	X	X	X	X	X		X				
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/13/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD28B	**Easting:**	633252.49	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671513.18	**Penetration (ft):** 19'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-7.2' NAVD88	**Recovery (ft)** 14.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/12/2010 9:00	
	ASI - M. Shappell/Captain	**Depth (ft):**	7.9'		
		St. Arrival:	8:50	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	9:20	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	CS	UNC	5%	5%	90%	NC	NA	Organic: sticks and fibrous wood, garbage, plastic
2															
3													11.7	NA	
4															
5													38.8	NA	3/4" cast iron steel elbow (45º) noted at 4.5'
6													25.7		
6.4				S									1.0	NA	Abrupt transition
6.8													11.9		Transition zone - not sampled
7		CL	10YR 5/1	F	M	H	Moist	Z	PHC (mod)	0%	0%	100%	29.5	A	* Lean clay, slight/faint NAPL staining on gloves near bottom of clay
8													27.3		
9		SW-SM	10YR 3/3	H	N	H	Wet	ML	PHC (strong)	0%	85%	15%	70.1	B	* NAPL saturated - black, low viscosity, non-water soluble, floats to water surface; blebs appear not to have stained soil pore surface
10													66.6		

Additional Notes/Comments: Bottom of core at 13.9'. Core opened at 10:05. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		ML	10YR 3/2	F	N	H	Moist	Z	None	0%	0%	100%	13.5	B	Abrupt transition
11		SW-SM	10YR 4/3	H	N	H	Wet	FS	PHC (mod)	0%	80%	20%	97.3	C	Slight NAPL coating - very little staining of gloves, decreasing NAPL prevalence with depth, low viscosity, slick
12													10.6		
13													6.1		
BOC= 13.9													3.0 4.5 5.4	NA	Interval not sampled due to decreased implied/suspected NAPL impact
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD028B-06.8-08.8	N	03/12/2010 10:05	6.8-8.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD028B-08.8-10.8	N	03/12/2010 10:05	8.8-10.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD028B-10.8-12.8	N	03/12/2010 10:05	10.8-12.8	X	X	X	X	X	X	X	X	X	X		
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD029A	**Easting:**	633238.84	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671471.48	**Penetration (ft):** 8.4'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-10.7' NAVD88	**Recovery (ft)** 4.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/12/2010 9:45	
	ASI - M. Shappell/Captain	**Depth (ft):**	9.1		
		St. Arrival:	9:35	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:20	**Penetration (ft):** 5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** None - lost nose cone	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/12/2010 10:10	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10 YR 2/1	VS	N	H	Wet	FS	UNC	0%	10%	90%	5	NA	Organics: fibrous wood and leaf matter, faint organic odor noted
2															
3													6.1	NA	
4															
4.4													4.5		Abrupt transition
4.8															Transition zone - not sampled
5		CL	10 YR 3/1	F/H	M	H	Moist	Z	PHC (faint)	0%	3%	97%	18	A	Abrupt transition Lean clay, faint PHC odor
6													52.4		*
													50.7		
7													52.4	B	
8													64.9		*
													55.8		
9													45.9	C	
10		SW-SM	10YR 4/3	F	N	H	Wet	FS	PHC (strong)	0%	85%	15%	82		Fine silty sand, weak/faint coating, light * staining on gloves (brown) trace blebs

Additional Notes/Comments: Bottom of core at 17.2'. Core opened at 12:00.* Indicates VOC collection depth.
Attempt 3: Penetration: 18.5'; Recovery 17' 10:50.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	4/3	F	N	S	Wet	FS	PHC	0%	85%	15%	63	C	
			4/3						(strong)						
		ML	10YR	F	N	S	Moist	FS	PHC	0%	25%	75%	54.8		10.8-11.8 - interval not sampled, elevated impacts noted below
11			3/1						(strong)					NA	
													106		
		SW-SM	10YR	H	N	H	Wet	FS	PHC	0%	95%	5%	48		
12			4/3						(strong)				184		* NAPL saturated - medium viscosity, dark brown staining, freely oozing from soil pores, 100% saturation - saturated throughout entire depth (11.8-13.8')
														D/E	
13													107		
													80.1		Brown peat layer - fibrous plant material/roots
14									(mod)				4.5		
		ML	10YR	F	N	H	Moist	VFS	PHC	0%	1%	99%	7.3	NA	0.2' lens of grayish brown fine silty sand (wet)
15			3/1						(faint)						
													11.2		
16													8.5		
													4.5	NA	
17													7.1		
BOC= 17.2'															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD029A-04.8-06.8	N	03/12/2010 12:00	4.8-6.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD029A-06.8-08.8	N	03/12/2010 12:00	6.8-8.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD029A-08.8-10.8	N	03/12/2010 12:00	8.8-10.8	X	X	X	X	X	X	X	X	X	X		
D	GC-SD029A-11.8-13.8	N	03/12/2010 12:00	11.8-13.8	X	X	X	X	X	X	X	X	X	X		
E	D-03122010	FD	03/12/2010 12:00	11.8-13.8	X	X	X	X	X	X		X				
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/12/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD030A	**Easting:**	633256.91		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671442.92	**Penetration (ft):**	20.0'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-7.3' NAVD88	**Recovery (ft)**	17.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/19/2010 14:10		
	ASI - M. Shappell/Captain	**Depth (ft):**	7.2				
		St. Arrival:	14:00		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	14:40	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC (strong)	5%	5%	90%	9.6	NA	Organics: strong septic-like odor, fibrous wood, sticks, plastic and broken glass noted
2		SM	10YR 2/1	F	N	H	Wet	SP	UNC	25%	50%	25%			Silty sand with gravel
3													14.9	NA	
4		OL	10YR 2/1	S	N	H	Wet	FS	UNC	5%	10%	85%		NA	
5		SM	10YR 2/1	F	N	H	Wet	SP	TLO (faint)	15%	70%	15%	38	NA	
5.7															
6															Transition zone - not sampled
6		CL	10YR 4/4	H	M	H	Moist	VFS	TLO (mod)	0%	1%	99%	14.1		Very light NAPL coating/staining
7													18.5	A	Light brown NAPL staining on gloves
8													20.7		*
9													72.6		*
		ML	10YR 3/2	F	W	N	Moist	VFS	TLO (faint)	0%	3%	97%	19.6	B	Gradual increase in grain size with depth Moderate NAPL staining/coating
10		SM	10YR 4/2	H	N	H	Wet	FS	TLO mod	0%	85%	15%	12.2		

Additional Notes/Comments: Bottom of core at 17.7'. Core opened at 08:10. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR 4/2	H	N	H	Wet	FS	TLO (mod)	0%	85%	15%	15		Heavier NAPL coating with depth
11													10.9	C	Near NAPL saturation - heavy staining, gloves (brown, slick not static, low to medium viscosity)
12													62.2		*
		ML	10YR 3/1	F	N	H	Wet/ Moist	Z	TLO (mod)	0%	0%	100%	22.2		
		SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	95%	5%	153	D	*
13													106		NAPL saturation ~ 13', NAPL easily squeezed from soil pores, black, tar-like odor, low viscosity
14															
		ML	10YR 3/1	H	N	H	Moist	VFS	TLO (mod)	0%	1%	99%	9.4		
		OL	10YR 5/6	H	W	S	Wet/ Moist	Z	None	0%	0%	100%	10.2	NA	
15															Silty, peat-like ~15.5'
16													4.2		
		ML	10YR 4/3	H	W	H	Moist	Z	None	0%	0%	100%	3.8		
17													4.7	E	
		SW	10YR 4/3	H	N	H	Wet	SP	None	5%	10%	85	6.8		*
BOC = 17.7'															Subangular - rounded pebbles
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD030A-06.0-08.0	N	03/19/2010 08:10	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD030A-08.0-10.0	N	03/19/2010 08:10	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD030A-10.0-12.0	N	03/19/2010 08:10	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD030A-12.0-14.0	N	03/19/2010 08:10	12.0-14.0	X	X	X	X	X	X	X	X	X	X		
E	GC-SD030A-16.0-17.7	N	03/19/2010 08:10	16.0-17.7	X	X	X	X	X	X	X	X	X	X		
F																
G																
H																
I																
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Reviewed by: *TMHimmer* Date: 3/19/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD031A	**Easting:**	633077.08	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671550.03	**Penetration (ft):** 18.0	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-4.8' NAVD88	**Recovery (ft)** 13.8'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/25/2010 12:10	
	ASI - M. Shappell/Captain	**Depth (ft):**	5.4		
		St. Arrival:	11:50	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:30	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	CS	UNC	0%	3%	97%	9.9	NA	Organics: fibrous wood, leaf, and stick fragments
2															
3													17.8	NA	Garbage and glass fragments noted at 4'
4															
5													19.2	NA	
6															
7								SP	UNC (strong)	25%	3%	72%	77.9	NA	Coal-like gravel (subangular to angular)
8				S											
8.7													114.4	NA	Increased wood fragments with depth, strong unclassified organic at bottom of accumulated soft sediment
9															
9.3													90.8		Transition zone - not sampled
10		CL	10YR 4/2	H	M	H	Moist	Z	TLO (faint)	0%	0%	100%	39.9	A/D	Silty clay no staining/discoloration observed

Additional Notes/Comments: Bottom of core at 13.9'. Core opened at 07:55. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		CL	10YR 4/2	H	M	H	Moist	Z	TLO	0%	0%	100%	45.9		Gradual transition to silty sand
11		SM	10YR 4/2	H	N	H	Wet	FS	TLO (mod)	0%	90%	10%	156.1	A/D	*
12													132.7 126	B	* Trace staining, very light coating of NAPL, brown/amber staining on sampling equipment
13		ML	10YR 4/2	H	W	H	Moist	Z/VFS	TLO (faint)	0%	1%	99%	71.9		Abrupt transition to fine silt
14													50.7	C	*
BOC= 13.9'															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD031A-09.3-11.3	N	03/16/2010 07:55	9.3-11.3	X	X	X	X	X	X	X	X	X	X		
B	GC-SD031A-11.3-13.3	N	03/16/2010 07:55	11.3-13.3	X	X	X	X	X	X	X	X	X	X		
C	GC-SD031A-13.3-13.9	N	03/16/2010 07:55	13.3-13.9	X	X	X	X	X	X	X	X	X	X		
D	D-03162010-01	FD	03/16/2010 00:00	9.3-11.3	X	X	X	X	X	X		X				
E																
F																
G																
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Reviewed by: *TMHimmer* Date: 3/16/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD032A	**Easting:**	633065.62		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671571.73	**Penetration (ft):**	18'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-9.4 NAVD88	**Recovery (ft)**	12.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/15/2010 12:56		
	ASI - M. Shappell/Captain	**Depth (ft):**	9.3				
		St. Arrival:	12:45		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:15	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MS	UNC	0%	5%	95%	32.5	NA	Organics: fibrous wood and leaf fragments
2															
3													36.9	NA	
4									TLO (faint)	10%	5%	85%			Angular coal-like gravel noted at 4'
5										0%	5%	95%	77.1	NA	
5.7															
6 6.1															Transition zone - not sampled
		CL/SM	10YR 4/1 10YR 4/3	H	M/N	S	Moist	Z/FS	TLO (mod)	0%	0% 95%	100% 5%	151.3		* Alternating stratified layers of silty clay (10YR4/1) and silty sand (10YR4/3) from 6.1 to 8.3. Each layer is ~ 0.5' thick
7													67.3	A	
8													97.4		Stick noted at ~ 7.3', saturated with NAPL
		SM	10YR 4/3	H	N	S	Wet	FS	TLO (strong)	5%	95%	5%	143		
9													208	B	NAPL saturation (0.3') - brown, heavy coating, moderate viscosity
													210		*
10		ML	10YR4/2	F	W	H	Moist	VFS	TLO(stg)	5%	3%	97%		C	Abrupt transition

Additional Notes/Comments: Bottom of core at 12.1". Core opened at 16:45. * Indicates VOC collection depth. Little to no staining in layers not clearly saturated with NAPL.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		ML	10YR 4/2	F	W	H	Moist	VFS	TLO (strong)	0%	3%	97%	89.5		Abrupt transition at 10.5'
11		SW-SM	10YR 3/1	H	N	H	Wet	MP	TLO (strong)	15%	80%	5%	204	C	~10.5-12.1 - NAPL saturation - black NAPL noted throughout, brown staining, low to medium viscosity, not water soluble, slick *
12													131		
BOC = 12.1'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD032A-06.1-08.1	N	03/15/2010 16:45	6.1-8.1	X	X	X	X	X	X	X	X	X	X		
B	GC-SD032A-08.1-10.1	N	03/15/2010 16:45	8.1-10.1	X	X	X	X	X	X	X	X	X	X		
C	GC-SD032A-10.1-12.1	N	03/15/2010 16:45	10.1-12.1	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: *TMHimmer* Date: 3/15/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD033A	**Easting:**	633040.16	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671481.39	**Penetration (ft):** 19.5'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-5.0' NAVD88	**Recovery (ft)** 15.3	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/15/2010 1335	
	ASI - M. Shappell/Captain	**Depth (ft):**	4.9'		
		St. Arrival:	13:20	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:10	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	1%	1%	99%	8.4	NA	Organics: fibrous wood and leaf matter
2															
3													10.3	NA	
4															Increased gravel content below 4'
5													20.3	NA	
5.8									TLO (mod)						
6													71.6		Transition zone - not sampled
6.2		CL	10YR 4/3	H	M	S	Moist	Z	TLO (faint)	0%	0%	100%	41.9	A	Little black staining at 7-8'
7			↓ 10YR 2/1										110.9		*
8				↓ F									51		
8.2			↓ 10YR 5/2				↓ Wet						41.4	B	
9			↓ 10YR 5/3												
10													57.4		*

Additional Notes/Comments: Bottom of core at 15.8". Core opened at 15:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		CL	10YR 3/2	F	M	S	Moist	Z	TLO (strong)	0%	0%	100%	46.9	B	Increased NAPL, seeping out of soil pores
11		SW-SM	10YR 2/1	H	N	H	Wet	FS	TLO (strong)	0%	95%	5%	61.1	C	Abrupt transition at 11' to silty sand, heavy black staining and heavy NAPL coating - NAPL is thick, viscous
12											90%	10%	74.9		*
13			10YR 4/3						(mod)				50.4	NA	Interval not sampled, less apparent NAPL/ contamination noted
14													123.9		
15			10YR 3/2						(strong)				141.4	D	NAPL saturation - thick NAPL, black, medium to low viscosity, black/little staining on gloves
													141.7		*
BOC= 15.8'		ML	10YR 4/2	F	N	H	Moist	Z	TLO (mod)	0%	0%	100%	8.8	NA	Less affected with depth (interval not sampled)
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD033A-06.2-08.2		N	03/15/2010 15:00	6.2-8.2	X	X	X	X	X	X	X	X	X	X		
B	GC-SD033A-08.2-10.2		N	03/15/2010 15:00	8.2-10.2	X	X	X	X	X	X	X	X	X	X		
C	GC-SD033A-10.2-12.2		N	03/15/2010 15:00	10.2-12.2	X	X	X	X	X	X	X	X	X	X		
D	GC-SD033A-13.6-15.6		N	03/15/2010 15:00	13.6-15.6	X	X	X	X	X	X	X	X	X	X		
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/15/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD034B	**Easting:**	632847.79	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	671583.78	**Penetration (ft):** 13'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-8.9' NAVD88	**Recovery (ft)** ~5.5	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/15/2010 15:25 AM	
	ASI - M. Shappell/Captain	**Depth (ft):**	10.1'		
		St. Arrival:	12:55	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:00	**Penetration (ft):** 14.8'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** ~9.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 1300 3/23/2010	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MP	UNC	5%	3%	92%	35.2	NA	**Organics: sticks, fibrous wood, leaves,** garbage and plastic
2															
3													17.4	NA	
4									TLO (strong)						
5													164.9	NA	Coal fragments, NAPL saturation **NAPL - black, black staining, moderate to low viscosity, slick, not sticky/tacky**
6															
7													89.8	NA	
7.4															
8													101.8		Transition zone - not sampled
8.1		SW-SM	10YR 5/2	H	N	H	Wet	FS	TLO (strong)	0%	95%	5%	86.6		NAPL coating - stains gloves, brown stain, low tar-like odor
9													131	A	*
BOC= 10 9.9'													111.2		

Additional Notes/Comments: Bottom of core at 9.9'. Core opened at 07:45. * Indicates VOC collection depth.
Attempt 3 at 13:30 on 3/23/2010: 15.4' penetration and 10.2' recovery.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD034B-08.1-09.9	N	03/24/2010 07:45	8.1-9.9	X	X	X	X	X	X	X	X	X	X		
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/24/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD35A	**Easting:**	632813.58	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671555.55	**Penetration (ft):** 17.0'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-9.9' NAVD88	**Recovery (ft)** 12.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/18/2010 16:00	
	ASI - M. Shappell/Captain	**Depth (ft):**	7.8'		
		St. Arrival:	15:50	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	16:20	**Penetration (ft):** 15.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 11.8'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/19/2010 8:15	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	10.7	NA	Organics: leaves, fibrous wood and stick fragments, 3" worm at top of recovery (alive)
2															
3													15.2	NA	
4															Increased wood fragments and coal gravel noted
5.1									TLO (mod)				81.0	NA	
5.3													131		Abrupt Transition Transition zone - not sampled
6		CL	10YR 4/3	F	W	H	Wet	FS	TLO (mod)	0%	10%	90%	158		*
		SM	10YR 3/2	H	N	H	Wet	VFS	(strong)	0%	60%	40%	83.0	A	Heavy NAPL coating, medium brown, not sticky, low viscosity
		ML	10YR 4/1	H	N	H	Wet	VFS	(mod)	0%	40%	60%	139		
													109		Large wood fragment, friable wood, NAPL saturated
8		SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%	86	B	NAPL coating
9								MS					301		NAPL saturation - black, brown staining medium viscosity *
10		SW-SM	10YR 4/3	H	N	H	Wet	FS	TLO (strong)	0%	95%	5%	107.4	C	Moderate NAPL coating

Additional Notes/Comments: Bottom of core at 11.7'. Core opened at 13:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR 4/3	H	N	H	Wet	FS	TLO (strong)	0%	95%	5%	142	C	Moderate NAPL stain *
11		↓	↓	↓	↓	↓	↓	↓	↓ (faint)	↓	↓	↓	17.4		Light NAPL staining
BOC= 11.7		↓	↓	↓	↓	↓	↓	↓	↓ (mod)	↓	↓	↓	105	NA	Moderate odor at bottom of core - slight increase from overlying sediment
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD035A-05.3-07.3	N	03/19/2010 13:00	5.3-7.3	X	X	X	X	X	X	X	X	X	X	X	
B	GC-SD035A-07.3-09.3	N	03/19/2010 13:00	7.3-9.3	X	X	X	X	X	X	X	X	X	X	X	
C	GC-SD035A-09.3-11.3	N/MSD	03/19/2010 13:00	9.3-11.3	X	X	X	X	X	X	X	X	X	X	X	
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: *TMHimmer* Date: 3/19/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD036A	**Easting:**	632801.03		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671551.43	**Penetration (ft):**	13.6'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-8.5' NAVD88	**Recovery (ft)**	10.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/19/2010 9:05		
	ASI - M. Shappell/Captain	**Depth (ft):**	10.1'				
		St. Arrival:	8:45		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	10:40	**Penetration (ft):**	2.5'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	5.5'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/19/2010 9:30		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	99%	1%	64.0	NA	Organics: fibrous wood and stick fragments, increased fibrous wood below 5'
2															
3													13.9	NA	
4															
5									TLO (strong)	15%	10%	75%	271.7	NA	Coal fragments Thick, black NAPL coating, tar-like odor
5.9															
6															Transition zone - not sampled
6.1		SM	10YR 5/3	H	N	H	Wet	FS	TLO (strong)	0%	75%	25%	407.0		* NAPL coating - stains gloves with brown, slick, low-viscosity
7								VFS		0%	60%	40%	98.0	A	
8													176.0		
		ML	10YR 2/1	H	N	H	Wet	VFS	TLO (strong)	0%	5%	95%	243.0		*
9		SM	10YR 3/1	H	N	H	Wet	VFS	TLO (strong)	0%	75%	25%	188.0	B	
BOC = 9.2'															
10															

Additional Notes/Comments: Bottom of core at 9.2'. Core opened at 07:50. * Indicates VOC collection depth.
Attempt #3: 13.8' penetration; 9' recovery at 10:15 3/19/2010. Attempt #1 not used because liner broke upon moving core from cold storage and attempt 3 had greater thickness of native material.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD036A-06.1-08.1	N	03/22/2010 07:50	6.1-8.1	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD036A-08.1-09.2	N	03/22/2010 07:50	8.1-9.2	X	X	X	X	X	X	X	X	X	X		
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/22/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD037B	**Easting:**	632570.52		**Attempt 1**	**Refusal? Y/N**	
Sampling		**Northing:**	671612.79	**Penetration (ft):**	6.0'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-10.1' NAVD88	**Recovery (ft)**	2.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/13/2010 8:15		
	ASI - J. Clemens/Captain	**Depth (ft):**	11.8'				
		St. Arrival:	8:10		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:30	**Penetration (ft):**	5.0'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	1.7'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/13/2010 8:40		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GP	10YR 2/1	H	N	H	Wet	MP	UNC	98%	1%	1%	4.5	NA	
2		OL	10YR 2/1	S	N	H	Moist	SP	TLO (mod)	15%	5%	80%	95.4	A	*Plastic and refuse
		GM	10YR 2/1	H	N	H	Wet	MP	TLO (mod)	80%	5%	15%	60.8	NA	
3		OL	10YR 2/1	S	N	H	Moist	SP	TLO (mod)	5%	5%	90%	49.4	B	Fibrous wood *
4 BOC = 4.2'													42.4		Heavy NAPL coating, black, black staining, medium viscosity, bone fragment
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 4.2'. Core opened at 10:45. * Indicates VOC collection depth.
Attempt #3: 7.0' penetration; 4.1' recovery at 8:55. Cores from all three attempts opened and examined. Surface grab collected at this location at 9:10 (GC-SD037B-00.0-00.5). Samples of soft sediment collected for chemistry analysis per EPA request.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD037B-01.4-01.9	N	04/13/2010 10:45	1.4-1.9	X	X	X	X				X				
	B	GC-SD037B-02.5-04.2	N	04/13/2010 10:45	2.5-4.2	X	X	X	X	X	X	X	X	X	X		
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/13/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD038A	**Easting:**	632604.82		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671597.43	**Penetration (ft):**	4.0'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-11.3	**Recovery (ft)**	2.2'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/13/2010 9:40	
	ASI - J. Clemens/Captain	**Depth (ft):**	12.2			
		St. Arrival:	9:35		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:40	**Penetration (ft):**	7.3'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	4.3'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/13/2010 10:05	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	10%	5%	85%	107	NA	Organics: trace plant matter, live worm
2		GM	10YR 2/1	H	N	H	Wet	MP	UNC	85%	0%	15%	97.7		
3		OL	10YR 2/1	VS	N	H	Wet	FS	UNC (mod)	80%	5%	15%	177	A	*NAPL saturated, thick, high viscosity, black
								SP	(strong)	5%	5%	90%	225		
4													297	B	Increased fibrous plant material, trace to little wood fragments
BOC = 4.4													400		*
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 4.4'. Core opened at 11:45. * Indicates VOC collection depth.
Attempt #3: 5.3' penetration; 1.7' recovery at 10:30. Cores from all three attempts opened and examined. Samples of soft sediment collected for chemistry analysis per EPA request.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD038A-02.1-02.6	N	04/13/2010 11:45	2.1-2.6	X	X	X	X	X	X						
	B	GC-SD038A-02.6-04.4	N	04/13/2010 11:45	2.6-4.4	X	X	X	X	X	X	X	X	X	X		
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/13/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD39A	**Easting:**	632606.80		**Attempt 1**	**Refusal? Y/N**	
Sampling	Not sampled	**Northing:**	671562.72	**Penetration (ft):**	9.6'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-10.3' NAVD88	**Recovery (ft)**	6.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/17/2010 15:15		
	ASI - M. Shappell/Captain	**Depth (ft):**	8.4'				
		St. Arrival:	15:05		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:50	**Penetration (ft):**	5.5'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	3.5'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/17/2010 15:50		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GW	10YR 2/1	H	N	H	Wet	MP	TLO (mod)	80%	15%	5%	12.2	NA	Gravel, brick, and glass fragments
2															Sandy silt lens
3		GM	10YR 2/1	H	N	H	Wet	MP	TLO (strong)	25%	25%	50%	131.0	NA	NAPL saturation - black, black staining, moderate to high viscosity, coal tar-like odor
4		OL	10YR 2/1	S	N	H	Wet	SP	TLO (mod)	5%	15%	80%			Fibrous wood and sticks
5				F									90.7	NA	Coal-like gravel (subangular)
6.1															Abrupt transition
BOC= 6.4		ML	10YR 3/2	F	N	H	Wet	FS	TLO (faint)	0%	15%	85%	81.0	NA	Sandy silt
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 6.4'. Core opened at 07:45. No samples collected.
Attempt 3: 9.5' penetration, 5' recovery, 3/17/2010 1620.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/18/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD040A	**Easting:**	632418.04		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671609.70	**Penetration (ft):**	10'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-13' NAVD88	**Recovery (ft)**	5.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/23/2010 9:30	
	ASI - M. Shappell/Captain	**Depth (ft):**	11.3'			
		St. Arrival:	9:10		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:00	**Penetration (ft):**	7.8'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	3.3'	
Collector Information:	T. Himmer/CH2M HILL Log reflects sample as collected – no correction factor applied for less than 100% core recovery			**Date/Time:**	3/23/2010 10:15	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		GW	10YR 2/1	H	N	H	Wet	SP	PHC (faint)	99%	0%	1%			
1		GM	10YR 2/1	H	N	H	Wet	SP	PHC (mod)	70%	5%	25%	14.6	NA	Abrupt decrease in gravel and increase in fines
2		OL	10YR 2/1	VS	N	H	Wet	MP	PHC (strong)	5%	3%	92%			Abrupt change in sediment type NAPL saturated; NAPL black, low viscosity, sticky.
3													63	NA	Coal and gravel fragments
4															Fibrous wood fragments
4.0															Transition zone - not sampled
5		SM	10YR 3/2	F	N	H	Wet	FS	PHC (strong)	0%	85%	15%	133 188	A	* Silty sand, heavy NAPL coating, leaves heavy brown stain on gloves. NAPL is brown, low viscosity, slick, not sticky or tacky
BOC = 5.0'															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 5.0'. Core opened at 13:55. * Indicates VOC collection depth.
Attempt #3: 4.5' penetration, 2' recovery at 10:45.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD040A-04.0-05.0	N	03/23/2010 13:55	4.0-5.0	X	X										
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/23/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD041A	**Easting:**	632427.12		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671589.20	**Penetration (ft):**	8.4'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-15.4' NAVD88	**Recovery (ft)**	7.1'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/23/2010 11:25	
	ASI - M. Shappell/Captain	**Depth (ft):**	15.6'			
		St. Arrival:	11:15		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:50	**Penetration (ft):**	NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GW	10YR 2/1	H	N	H	Wet	SC	PHC (faint)	99%	0%	1%	69.3	NA	NAPL saturated, black, thick / medium viscosity, sticky/tacky
2		GM	10YR 2/1	H	N	H	Wet	SC	PHC (strong)	80%	5%	15%			Increased fibrous wood fragments
2.4													269		Abrupt transition Transition zone - not sampled
3		SM	10YR 3/2	H	N	H	Wet	FS	PHC (strong)	0%	85%	15%	162		Heavy NAPL staining, heavy coating - near saturation, gloves very easily stained
4			10YR 4/1										198	A	*
													144		
5		ML	10YR 4/4	F	W	H	Moist	VFS	PHC (mod)	0%	60%	40%	162		Abrupt transition
6		SM	10YR 3/3	H	N	H	Wet	SC	PHC (strong)	5%	70%	25%	314	B	Trace small cobbles and gravel, subrounded to * subangular NAPL saturated - black, brown staining, medium viscosity, not sticky/tacky
													167		Abrupt transition
7 BOC = 7.5'		ML	10YR 4/3	F	N	H	Wet	VFS	PHC (mod)	0%	99%	51%	242 140	C	*
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.5'. Core opened at 14:55. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD041A-02.4-04.4		N	03/23/2010 14:55	2.4-4.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD041A-04.4-06.4		N	03/23/2010 14:55	4.4-6.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD041A-06.4-07.5		N	03/23/2010 14:55	6.4-7.5	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/23/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD042B	**Easting:**	632444.55	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671564.57	**Penetration (ft):** 9.2'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-14.9' NAVD88	**Recovery (ft)** 7.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/23/2010 12:05	
	ASI - M. Shappell/Captain	**Depth (ft):**	15.6'		
		St. Arrival:	12:00	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:30	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GW	10YR 2/1	H	N	H	Wet	SC	PHC (faint)	99%	0%	1%			Gravel - angular/subangular
2		OL	10YR 2/1	S	N	H	Wet	FS	PHC (strong)	0%	5%	95%	169	NA	NAPL saturated, black, medium viscosity Fibrous wood and organic fragments
2.2													99.6		Transition zone - not sampled
3		CL	10YR 5/3	S	W	H	Wet	VFS	PHC (faint)	0%	3%	97%	64.7		
													158	A/D	
4													197		*
										0%	10%	90%			
5													285		Red wood fragments, peat-like consistency
														B	
		SM	10YR	H	N	H	Wet	FS	PHC(stg)	0%	85%	15%	395		Silty sand seam, NAPL saturated - heavily
6		ML	4/3	H	N	H	Wet	VFS	PHC(stg)	0%	15%	85%	296		coated, NAPL easily seeps from pore space
		SM	10YR 3/2	H	N	H	Wet	FS	PHC(stg)	0%	85%	15%	396		* dark brown/black staining, low to medium
		GM	3/2	H	N	H	Wet	SP	PHC (strong)	50%	25%	25%	149	C	viscosity, not sticky/tacky, slick
7			3/2										313		*
BOC = 7.0'															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.0'. Core opened at 15:45. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD042B-02.2-04.2	N	03/23/2010 15:45	2.2-4.2	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD042B-04.2-06.2	N	03/23/2010 15:45	4.2-6.2	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD042B-06.2-07.2	N	03/23/2010 15:45	6.2-7.0	X	X	X	X	X	X	X	X	X	X		
	D	D-03232010-02	FD	03/23/2010 15:45	2.2-4.2	X	X	X	X	X	X		X				
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/23/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD043A	**Easting:**	632339.02		**Attempt 1** **Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671583.64	**Penetration (ft):**	3.0' Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	12.5' NAVD88	**Recovery (ft)**	2.5'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/24/2010 9:05
	ASI - M. Shappell/Captain	**Depth (ft):**	10.4'		
		St. Arrival:	8:45		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:20	**Penetration (ft):**	12.6' Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	9.0'
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/24/2010 9:35

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		GM	10YR 2/1	H	N	H	Wet	MP	PHC (mod)	75%	5%	20%	16.3		Silty sand, moderate PHC odor
1															Abrupt transition, layer of leaf litter
		OL	10YR 2/1	S	N	H	Wet	FS	PHC (strong)	5%	20%	75%		NA	
2													32.3		Fibrous wood fragments, NAPL coating, black, black staining
2.3													70.5		
2.6		SM	10YR2/1	S	N	H	Wet	VFS	PHC(stg)	0%	51%	49%	27.3	NA	Abrupt transition
		ML	10YR 5/2	H	N	H	Wet	VFS	PHC (faint)	0%	15%	85%	232		Light NAPL coating, light staining on gloves, brown
3														A	
										<1%	3%	97%	307		*
4															Subrounded cobble
													97.7		
5													182		Subrounded cobble
										<1%				B	Increasing sand and gravel content
6													224		
					M					5%	15%	80%	141		Subrounded cobble
7													267		
		SM	10YR 3/2	H	N	H	wet	SP	PHC (strong)	0% 5%	60% 60%	40% 35%			Abrupt transition
													287	C	* Heavy NAPL coating, brown staining, low to medium viscosity
8		ML	10YR 5/2	H	N	H	wet	FS	PHC (strong)	0%	1%	99%	110		Heavy coating - NAPL saturated, NAPL easily squeezed from pore space
													206		Bottom 0.2' not sampled, similar to interval above
9 BOC = 8.8'															
10															

Additional Notes/Comments: Bottom of core at 8.8'. Core opened at 11:35. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD043A-02.6-04.6		N	03/24/2010 11:35	2.6-4.6	X	X	X	X	X	X	X	X	X	X		
B	GC-SD043A-04.6-06.6		N	03/24/2010 11:35	4.6-6.6	X	X	X	X	X	X	X	X	X	X		
C	GC-SD043A-06.6-08.6		N	03/24/2010 11:35	6.6-8.6	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/24/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD044A	**Easting:**	632346.46		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671536.55	**Penetration (ft):**	20'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-18.1' NAVD88	**Recovery (ft)**	16.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/235/2010 14:30		
	ASI - M. Shappell/Captain	**Depth (ft):**	19.1'				
		St. Arrival:	14:00		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	15:00	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10YR 2/1	H	N	H	Wet	SC	TLO (strong)	75%	10%	15%	69.6	NA	Silty gravel, fibrous wood and coal fragments, NAPL coated, black, brown staining
1.3															Abrupt transition
1.7													33.0		Transition zone - not sampled
2		CL	10YR 4/1	F	W	H	Moist	VFS	PHC (faint)	0%	1%	99%	26.1	A	Brown wood fragments
3		SM	10YR 4/1	H	N	H	Wet	FS	PHC (mod)	0%	75%	25%	111		Abrupt transition Light NAPL coating, increasing with depth
									(strong)				177		*
4													107		
5													114	B	
													115		*
6										10%	75%	15%	74.1		Increased subangular gravel, NAPL saturated, black, dark brown staining, low to medium viscosity, slick, not sticky/tacky
7													118	C	*
		ML	10YR 5/3 / 3/2	H	N	H	Moist	VFS	PHC (faint)	0%	3%	97%	46.2		Abrupt transition, mica flakes
8													98.1		
													108	NA	Light NAPL coating, increasing with depth
9															Alternating ML layers of 10YR 5/3 and 10YR 3/2
													116		
10														D	

Additional Notes/Comments: Bottom of core at 16.1'. Core opened at 19:15. * Indicates VOC collection depth.
Core stored in refrigerator overnight; bottom 8' of Lexan liner very brittle and degraded. Lexan broke apart when core opened.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		ML	10YR 5/3	H	N	S	Moist	VFS	PHC (faint)	0%	3%	97%	196	*	
			10YR 3/2										124	D	NAPL saturated, dark brown staining
12									(mod)				151		
													137		Light NAPL coating
13													70	NA	
													60		
14													102		
													98		
15													106	E/F	
16									(strong)	0%	10%	90%	118		* NAPL saturated - free-phase NAPL, black, brown staining, medium viscosity, not sticky/ tacky
BOC = 16.1'															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD044A-01.7-03.7	N	03/24/2010 09:15	1.7-3.7	X	X	X	X	X	X	X	X	X	X		
B	GC-SD044A-03.7-05.7	N	03/24/2010 09:15	3.7-5.7	X	X	X	X	X	X	X	X	X	X		
C	GC-SD044A-05.7-07.7	N	03/24/2010 09:15	5.7-7.7	X	X	X	X	X	X	X	X	X	X		
D	GC-SD044A-091.7-11.7	N	03/24/2010 09:15	9.7-11.7	X	X	X	X	X	X	X	X	X	X		
E	GC-SD044A-14.1-16.1	N	03/24/2010 09:15	14.1-16.1	X	X	X	X	X	X	X	X	X	X		
F	D-03242010-01	FD	03/24/2010 00:00	14.1-16.1	X	X	X	X	X	X		X				
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/24/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD045C	**Easting:**	632368.25		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671518.38	**Penetration (ft):**	9.9'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-16.9' NAVD88	**Recovery (ft)**	5.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/23/2010 15:25		
	ASI - M. Shappell/Captain	**Depth (ft):**	17.3'				
		St. Arrival:	15:15		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:10	**Penetration (ft):**	8.8'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	7.9'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/23/2010 15:50		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SC	UNC	15%	5%	80%	5.5	NA	Organics: strong septic-like odor, fibrous plant matter, brick fragments (up to 4" diameter)
2															
3										3%	5%	92%	50.1	NA	
4															
4.7													89.6		Transition zone - not sampled Abrupt transition, NAPL coating - black, black staining, medium viscosity, slick, not sticky
5		CL	10YR 4/3	F	W	H	Moist	VFS	None	0%	1%	99%	19.2		
6									TLO (faint)				15.7	A	
													65.7		* NAPL blebs, light NAPL coating
7							Wet	FS	TLO (strong)	0%	49%	51%	30.1	B	Increasing sand content with depth, fibrous content and wood fragments moderately
8													95.5		* coated with NAPL Sandy clay present at bottom of core
BOC = 7.9'															
9															
10															

Additional Notes/Comments: Bottom of core at 7.9'. Core opened at 08:30. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD045C-04.7-06.7	N	03/24/2010 08:30	4.7-6.7	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD045C-06.7-07.9	N	03/24/2010 08:30	6.7-7.9	X	X	X	X	X	X	X	X	X	X		
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/24/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD046C	**Easting:**	632153.80		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671463.18	**Penetration (ft):**	14.6'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	9.9' NAVD88	**Recovery (ft)**	10.3'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/24/2010 11:35	
	ASI - M. Shappell/Captain	**Depth (ft):**	10.2'			
		St. Arrival:	11:10		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:10	**Penetration (ft):**	NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10YR 2/1	H	N	H	Wet	SC	UNC	75%	5%	20%			Organics: fibrous wood and leaf fragments
															Abrupt transition
2		OL	10YR 2/1	H	N	H	Wet	MP	PHC (mod)	10%	3%	87%	56.9	NA	
3									(strong)	5%	1%	94%	145.0	NA	Increased wood fragments NAPL coating, black, black staining, medium viscosity
	3.9												50.8		Transition zone - not sampled
4		CL	10YR 5/4	F	W	H	Moist	Z	None	0%	0%	100%			
5		SM	10YR 4/2	H	N	H	Wet	FS	PHC (mod)	0%	75%	25%	82.8	A	
													179		
6									PHC (strong)	0%	85%	15%	307		Heavy NAPL staining on sampling equipment, * no observable discoloration of sediment
								MS					87.4		Wood fragments
7													191	B	Fibrous wood and root fragments Heavy NAPL coating, near saturation
8													242		*
9		ML	10YR 3/2	F	N	H	Moist	VFS	PHC (faint)	0%	3%	97%	52.4		
									(mod)				80.7	C	
BOC = 10.1'													147		*
10		SM	10YR 3/2	H	N	H	Moist	VFS	PHC	10%	75%	15%	259		Abrupt transition, strong PHC odor, rounded gravel

Additional Notes/Comments: Bottom of core at 10.1'. Core opened at 13:15. * Indicates VOC collection depth. 9.9-10.1' interval not sampled because interval had minimal volume and did not appear to be more impacted than interval above.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD046C-03.9-05.9	N	03/24/2010 13:15	3.9-5.9	X	X	X	X	X	X	X	X	X	X		
B	GC-SD046C-05.9-07.9	N	03/24/2010 13:15	5.9-7.9	X	X	X	X	X	X	X	X	X	X		
C	GC-SD046C-07.9-09.9	N	03/24/2010 13:15	7.9-9.9	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: *TMHimmer* Date: 3/24/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD047A	**Easting:**	632188.77		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671431.56	**Penetration (ft):**	19.5'	Y
Crew/Company	M. Murphy/CH2M HILL	**Elevation:**	-15.9' NAVD88	**Recovery (ft)**	19.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/25/2010 10:30	
	ASI - M. Shappell/Captain	**Depth (ft):**	14.2'			
		St. Arrival:	10:30		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:05	**Penetration (ft):**	NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		GM	10YR 2/1	F	N	H	Wet	MP	UNC	50%	10%	40%	23.1	NA	**Fibrous wood and gravel**
0.6													11.4		Transition zone - not sampled
		CL	10YR 4/4	F	W	H	Moist	VFS	UNC (mod)	0%	1%	99%	14.0		Silty clay, NAPL blebs, trace/faint staining on particle surfaces.
1													119	A	*
															Wood fragments throughout
2													6.6		UNC is unclassified, chemical-like odor
3													9.2		
													17.1	B	*
4													7.1		
5													9.1		
													21.9	C	
		SM	10YR 4/3	H	N	H	Wet	FS	TLO (mod)	0%	75%	25%			Abrupt transition
6													67.0		* NAPL staining and moderate coating, light brown, low viscosity, not sticky/tacky
		ML	10YR 4/1	H	N	H	Moist/ Wet	VFS	TLO (strong)	0%	3%	97%	69.4		Abrupt transition
7													177	NA	
8													155		
		SM	10YR 2/1	H	N	H	Wet	FS	TLO	0%	85%	15%			Heavy NAPL staining
		ML	10YR 5/4	F	N	H	Moist/ Wet	VFS	TLO (mod)	0%	1%	99%	29.2		
9														NA	
													7.0		
10															

Additional Notes/Comments: Bottom of core at 18.8'. Core opened at 11:50. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		ML	10YR 5/4	F	N	H	Moist/ Wet	VFS	TLO (mod)	0%	1%	99%	8.5	NA	Layer contains lenses saturated with NAPL
11													33.4		
													46.2	D	* NAPL saturation and heavy staining
12													19.3		
13													92.3		NAPL saturation and heavy staining
													46.2	E	*
14													6.3		
15													44.8		NAPL saturation and heavy staining
													30.8	F	
16													85.7		* NAPL saturation and heavy staining
17													103.0		* NAPL saturation and heavy staining
													8.5	G	
18													5.1		NAPL is black, brown staining, slick, not sticky/tacky, tar-like odor
BOC = 18.8'													4.1	NA	
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD047A-00.6-02.6	N	03/25/2010 11:50	0.6-2.6	X	X	X	X	X	X	X	X	X	X		
B	GC-SD047A-02.6-04.6	N	03/25/2010 11:50	2.6-4.6	X	X	X	X	X	X	X	X	X	X		
C	GC-SD047A-04.6-06.6	N	03/25/2010 11:50	4.6-6.6	X	X	X	X	X	X	X	X	X	X		
D	GC-SD047A-10.6-12.6	N/MSD	03/25/2010 11:50	10.6-12.6	X	X	X	X	X	X	X	X	X	X		
E	GC-SD047A-12.6-14.6	N	03/25/2010 11:50	12.6-14.6	X	X	X	X	X	X	X	X	X	X		
F	GC-SD047A-14.6-16.6	N	03/25/2010 11:50	14.6-16.6	X	X	X	X	X	X	X	X	X	X		
G	GC-SD047A-16.6-18.6	N	03/25/2010 11:50	16.6-18.6	X	X	X	X	X	X	X	X	X	X		
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/25/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD048A	**Easting:**	632203.22	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671413.44	**Penetration (ft):** 10.6'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-13.0' NAVD88	**Recovery (ft)** 4.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/24/2010 15:40	
	ASI - M. Shappell/Captain	**Depth (ft):**	14.2'		
		St. Arrival:	15:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	17:00	**Penetration (ft):** 8.1'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 5.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/24/2010 16:20:00 PM	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MP	UNC	15%	1%	84%	7.1	NA	Organics: fibrous wood
2															Increase in wood and plant matter below 3.5'
3								MS		1%	1%	98%	32.0	NA	
4															
5									PHC (faint)				137.0	NA	
BOC = 5.5'															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 5.5'. Core opened at 07:50. * Indicates VOC collection depth. Attempt 3#: 7.5' penetration, 4.5' recovery 16:45.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/25/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD049A	**Easting:**	632071.13		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671373.45	**Penetration (ft):**	13.6'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.3' NAVD88	**Recovery (ft)**	7.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/24/2010 12:30		
	ASI - M. Shappell/Captain	**Depth (ft):**	12.0'				
		St. Arrival:	12:15		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:50	**Penetration (ft):**	18.1'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	11.5'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/24/2010 13:00		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10YR 2/1	H	N	H	Wet	MP	PHC (strong)	50%	25%	25%	102.0	NA	Silty gravel, fibrous wood noted
2															
3													281	NA	NAPL saturated - black, medium viscosity, slick, not sticky/tacky
3.4													46.5		Transition zone - not sampled
4		CL	10YR 3/2	F	W	H	Moist	VFS	None	0%	1%	99%	92.9		
5													61.2	A	NAPL coating, increasing with depth
6		SM	10YR 3/1	H	N	H	Wet	FS	PHC (strong)	0%	60%	40%	311		* NAPL - brown staining, low viscosity, slick, not sticky
7										0%	85%	15%	261		
8									(mod)				324	B	*
9									(faint)				283		Silty sand lens
10		SW-SM	10YR 4/3	H	N	H	Wet	MS	PHC (faint)	0%	90%	10%	286		*
													105	C	
													57.8		Wood fragments
													64.0	NA	Rounded cobble, NAPL staining

Additional Notes/Comments: Bottom of core at 13.3'. Core opened at 14:35. * Indicates VOC collection depth. Attempt 3#: 19.0' penetration, 13' recovery 13:45.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 4'/3	H	N	H	Wet	MS	None	0%	90%	10%	78.7	NA	No NAPL staining or coating, no odor
													40.3		
12									TLO (faint)				193	D/E	
													98.3		NAPL coating - dark brown, low to medium
13									(strong)				337		* viscosity
BOC = 13.3'															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD049A-03.4-05.4	N	03/24/2010 14:35	3.4-5.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD049A-05.4-07.4	N	03/24/2010 14:35	5.4-7.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD049A-07.4-09.4	N	03/24/2010 14:35	7.4-9.4	X	X	X	X	X	X	X	X	X	X		
D	GC-SD049A-11.4-13.4	N	03/24/2010 14:35	11.4-13.3	X	X	X	X	X	X	X	X	X	X		
E	D-03242010-02	FD	03/24/2010 14:35	11.4-13.3	X	X	X	X	X	X		X				
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
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U																

Reviewed by: *TMHimmer* Date: 3/24/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD050B	**Easting:**	632097.35	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671342.44	**Penetration (ft):** 11.7'	Y
Crew/Company	J. Balas/CH2M HILL	**Elevation:**	-16.9' NAVD88	**Recovery (ft)** 9'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/25/2010 11:21	
	ASI - M. Shappell/Captain	**Depth (ft):**	16.1		
		St. Arrival:	11:25	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:20	**Penetration (ft):** 17.4'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 13.0'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/25/2010 12:05	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	PHC (mod)	10%	3%	87%	37.1	NA	Organics: fibrous wood; moderate PHC odor
1.7													11.4		Transition zone - not sampled
2		CL	10YR 4/3	H	W	H	Moist	VFS	PHC (faint)	0%	1%	99%	34.2		Wood fragments and fibrous organic matter
3													21.5	A	
		SM	10YR 3/2	H	N	H	Wet	FS	PHC (strong)	0%	75%	25%	40.3		* NAPL coating - brown, slick, not sticky
4		ML	10YR 2/1	F	N	H	Wet	VFS	PHC	0%	15%	85%			
		SW-SM	10YR 4/4	H	N	S	Wet	FS	PHC (strong)	0%	90%	10%	32.9		Well graded sand with silt
5						H							36.2	B	NAPL coating - increasing with depth, brown
													146		*
						S		SP		3%	90%	7%			Brown staining
6								FS		0%	90%	10%	104		Black silty lens * Nearly saturated with NAPL, heavily stained.
7													96.8	C	
													73.6		Black silty lens
8													22.4		Black silty lens
9													87.1	NA	Black silty lens
													266		* Black silty lens
10														D	

Additional Notes/Comments: Bottom of core at 12.2'. Core opened at 15:00; * Indicates VOC collection depth. Black silty sand lens, dense/hard, weakly cemented.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR4/4	H	N	S	Wet	FS	)	0%	90%	10%			
		ML	10YR 4/4	H	N	H	Wet	VFS	TLO (faint)	0%	1%	99%	19.2		Same as above
11		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	7.9	D	
													12.8		
12													14.3	NA	
BOC = 12.2'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD050B-01.7-03.7	N	03/25/2010 15:00	1.7-3.7	X	X	X	X	X	X	X	X	X	X		
B	GC-SD050B-03.7-05.7	N	03/25/2010 15:00	3.7-5.7	X	X	X	X	X	X	X	X	X	X		
C	GC-SD050B-05.7-07.7	N	03/25/2010 15:00	5.7-7.7	X	X	X	X	X	X	X	X	X	X		
D	GC-SD050B-09.7-11.7	N	03/25/2010 15:00	7.7-9.7	X	X	X	X	X	X	X	X	X	X		
E	D-03252010-01	FD	03/25/2010 15:00	3.7-5.7	X	X	X	X	X	X		X				
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/25/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD051A (2nd Attempt)	**Easting:**	632123.73		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671326.02	**Penetration (ft):**	11.2'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-14.6' NAVD88	**Recovery (ft)**	9'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/31/2010 9:00	
	ASI - Jeff Clemens	**Depth (ft):**	17.4'			
		St. Arrival:	8:55		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:00	**Penetration (ft):**	17.1'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	11.0'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/31/2010 9:00	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	0%	3%	97%	131.0	NA	**Organic, septic-like odor at top of core** Strong PHC odor at bottom of interval Fibrous plant material, glass, and porcelain fragments Coal-like gravel at bottom of interval
									PHC (strong)	3%	3%	94%			
2													105		Transition zone - not sampled Strong PHC Odor
2.4															
3		SM	10YR 3/2	S	N	H	Wet	VFS	PHC	0%	51%	49%	236		* NAPL saturated at top of interval and heavily coated near bottom of interval NAPL is dark brown/black, low viscosity, PHC odor, not sticky/tacky
								FS		0%	85%	15%	211	A	
4													248		Wood fragment, abrupt increase in sand * content
													650		
5		ML	10YR 4/1	H	N	H	Wet	VFS	PHC	0%	49%	51%			
6		SW-SM	10YR 4/2	H	N	H	Wet	FS	PHC (strong)	0%	90%	10%	516	B	* NAPL saturated at top of interval and heavily coated near bottom of interval
													108		Fine sand/sandy gravel
7		ML	10YR 4/3	H	N	H	Wet	VFS	PHC (mod)	0%	5%	95%	222		*
															NAPL blebs, no staining on sediment
8													13.6	C	
		SW-SM	10YR 2/1	H	N	H	Wet	FS	None	0%	90%	10%	43.6		Black staining, no odor, no coating
9			10YR 5/2										26.8	D	*
BOC= 9.3													40.9		
10															

Additional Notes/Comments: Bottom of core at 9.3'. Core opened at 10:25 * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD051A-02.4-04.4	N	03/31/2010 10:25	2.4-4.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD051A-04.4-06.4	N	03/31/2010 10:25	4.4-6.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD051A-06.4-08.4	N	03/31/2010 10:25	6.4-8.4	X	X	X	X	X	X	X	X	X	X		
D	GC-SD051A-08.4-09.3	N	03/31/2010 10:25	8.4-9.3	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/31/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD052A	**Easting:**	631973.80		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671233.59	**Penetration (ft):**	1'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.8' NAVD88	**Recovery (ft)**	no recovery		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/24/2010 14:40		
	ASI - M. Shappell/Captain	**Depth (ft):**	13'				
		St. Arrival:	14:20		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	15:30	**Penetration (ft):**	4.4'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	4'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/24/2010 15:00		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	S	N	H	Wet	SP	PHC (faint)	5%	5%	90%	61.8	NA	
2															
3									PHC (mod)				128.0	NA	
BOC = 3.2'															
4															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 3.2'. Core opened at 08:40. Attempt #3 - 1.6' penetration; 1' recovery.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	No samples collected															
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/25/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD053A	**Easting:**	632005.69	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671215.51	**Penetration (ft):** 14.2'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-14.5' NAVD88	**Recovery (ft)** 10.4'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/1/2010 9:30	
	ASI - Jeff Clemens	**Depth (ft):**	17.0'		
		St. Arrival:	7:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	9:30	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MS	UNC	10%	3%	87%	32.8	NA	Organics: fibrous plan material, strong septic-like odor
2		GM	10YR 2/1	H	N	H	Wet	SP	UNC	50%	25%	25%			
2.1															Abrupt transition
2.5															Transition zone - not sampled
3		SM	10YR 4/2	F	N	H	Wet	FS	TLO (strong)	0%	60%	40%	25.6		* NAPL saturated - black, brown staining, low viscosity
4		ML	10YR 4/2	F	N	H	Moist	Z	TLO (strong)	0%	0%	100%	19.5	A	Bone-like fragment Abrupt Transition
5		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	17.5 54.7		* NAPL saturated - black, brown staining, low viscosity
6		ML	10YR 4/3	H	N	H	Moist	VFS	TLO (strong)	0%	3%	97%	74.9 61.1	B	
7		SM	10YR 3/2	H	N	H	Wet	FS	TLO	0%	85%	15%			*
8		ML	10YR 3/3	H	N	H	Moist	FS	TLO (Faint)	0%	10%	90%	319 55.4	C	Heavy NAPL coating, near saturation Gradual increase in sand content with depth
9		SM	10YR 3/3	H	N	H	Wet	FS	None	0%	60%	40%	10.2 49.7		
BOC= 10.1' 10		SW	10YR 3/3	H	N	H	Wet	FS	None	0%	90%	10%	70.5 39.8	NA	Thin ML seam No sample collected, not visually contaminated more than above layer

Additional Notes/Comments: Bottom of core at 10.1'. Core opened at 10:40. * Indicates VOC collection depth.

	Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
	11															
	12															
	13															
	14															
	15															
	16															
	17															
	18															
	19															
	20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD053A-02.5-04.5	N	04/01/2010 10:40	2.5-4.5	X	X	X	X	X	X	X	X	X	X		
B	GC-SD053A-04.5-06.5	N	04/01/2010 10:40	4.5-6.5	X	X	X	X	X	X	X	X	X	X		
C	GC-SD053A-06.5-08.5	N	04/01/2010 10:40	6.5-8.5	X	X	X	X	X	X	X	X	X	X		
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/1/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD054B	**Easting:**	632018.62	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671172.68	**Penetration (ft):** 16.5'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.1' NAVD88	**Recovery (ft)** 11.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/25/2010 13:30	
	ASI - M. Shappell/Captain	**Depth (ft):**	11.5'		
		St. Arrival:	13:04	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:05	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	3%	92%	37.2	NA	Organics: fibrous matter
2															
3		GM	10YR 2/1	H	N	H	Wet	SC	UNC	70%	5%	25%			Abrupt change to silty gravel
								SP	PHC (strong)	75%	5%	20%	69.7	NA	
4															NAPL - black, thick, sticky, moderate viscosity, strong PHC odor
4.5													74		Transition zone - not sampled
5		ML	10YR 5/2	F	N	H	Moist	VFS	PHC (strong)	0%	5%	95%	13		NAPL saturated pockets; NAPL black, thick, sticky
													23.3	A	
6													60		Wood fragments *
7		SM	10YR 4/3	H	N	H	Wet	FS	PHC (strong)	0%	75%	25%	101		Abrupt transition *
													92.9	B	
8										0%	51%	49%	19.7		Increasing silt content with depth
9		ML	10YR 3/1	H	H/W	H	Moist	VFS	PHC (faint)	0%	10%	90%	3.2		Gradual transition
10										0%	5%	95%	2.9	C	

Additional Notes/Comments: Bottom of core at 11.2'. Core opened at 09:00. * indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		ML	10YR 3/1	H	H/W	H	Moist	VFS	PHC (faint)	0%	5%	95%	12.2	C	* Same as above
11 BOC = 11.2'		SM	10YR 4/1	H	N	H	Wet	FS	UNC (strong)	0%	75%	25%	153	D	*
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD054B-04.5-06.5	N	03/29/2010 09:00	4.5-6.5	X	X	X	X	X	X	X	X	X	X		
B	GC-SD054B-06.5-08.5	N	03/29/2010 09:00	6.5-8.5	X	X	X	X	X	X	X	X	X	X		
C	GC-SD054B-08.5-10.5	N	03/29/2010 09:00	8.5-10.5	X	X	X	X	X	X	X	X	X	X		
D	GC-SD054B-10.5-11.2	N	03/29/2010 09:00	10.5-11.2	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
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R																
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U																

Reviewed by: TMHimmer Date: 3/29/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD055A	**Easting:**	631828.69		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671020.81	**Penetration (ft):**	11.4'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-7.8' NAVD88	**Recovery (ft)**	6'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/22/2010 12:10		
	ASI - M. Shappell/Captain	**Depth (ft):**	8.9'				
		St. Arrival:	11:50		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:50	**Penetration (ft):**	11.8'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	6.1'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/22/2010 12:55		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	3%	1%	96%	46	NA	Organic, strong septic-like odor
2															Fibrous wood, sticks, leaves
3													10.8	NA	
4															
5		GW	10YR 2/1	H	N	H	Wet	MP	UNC	75%	20%	5%	34.9	NA	Silty gravel
6		OL	10YR 2/1	H	N	H	Wet	CS	UNC	0%	15%	85%		NA	
BOC = 6'															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 6'. Core opened at 14:30. Attempt #3 - 11.0' penetration, 4' recovery (13:15 3/22/2010). No native material observed or collected.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/22/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD056A	**Easting:**	631870.43	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671009.89	**Penetration (ft):** 8.9'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-13.8' NAVD88	**Recovery (ft)** 5.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/22/2010 14:00	
	ASI - M. Shappell/Captain	**Depth (ft):**	14.5'		
		St. Arrival:	13:55	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	16:00	**Penetration (ft):** 8'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 4'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/22/2010 14:35	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GW	10YR 2/1	H	N	H	Wet	MP	UNC	84%	15%	1%	18.5	NA	Gravel with sand
1.4															
1.6													288		Transition zone - not sampled
2		SM	10YR 5/3	H	N	H	Wet	FS	PHC (faint)	0%	85%	15%	546		*
															Silty sand, NAPL staining throughout,
3													240	A	moderate coating
													119		
4													118		
													149	B	
5													598		Near NAPL saturation near bottom of * core
BOC = 5.3'															Dark brown NAPL staining on liner
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 5.3'. Core opened at 15:55. * Indicates VOC collection depth.
Coordinates listed are from Attempt #2 (Penetration 7.6', recovery 5.5' - 15:20)

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD056A-01.6-03.6	N/MSD	03/22/2010 15:55	1.6-3.6	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD056A-03.6-05.3	N	03/22/2010 15:55	3.6-5.3	X	X	X	X	X	X	X	X	X	X		
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
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Reviewed by: *TMHimmer* Date: 3/22/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD057A	**Easting:**	631915.69		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671003.16	**Penetration (ft):**	4'	Y	
Crew/Company	M. Murphy/CH2M HILL	**Elevation:**	-10.3' NAVD88	**Recovery (ft)**	3.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/22/2010 16:25		
	ASI - M. Shappell/Captain	**Depth (ft):**	8.6'				
		St. Arrival:	16:10		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	17:10	**Penetration (ft):**	16.6'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	12'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/22/2010 16:50		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	16.7	NA	Organics: fibrous wood
2									PHC (mod)						
3		GM	10YR 2/1	H	N	H	Wet	SP	PHC (strong)	50%	25%	25%	25.2	NA	Abrupt transition NAPL coating, heavy, black, low viscosity
4															Thick, tacky, "honey-like" consistency
5													74.3	NA	
6															NAPL saturation
6.8													210	NA	Fibers, glass fragments, garbage
7													31.8		Transition zone - not sampled
7.2															Abrupt transition
8		CL	10YR 4/3	F	M	H	Moist	VFS	PHC (mod)	0%	3%	97%	77.3		Silty clay with trace sand, trace wood fragments throughout (red); increasing sand content with depth
					W			FS		0%	5%	95%	172	A	*
9													85.4		
											10%	90%	81	B	
10													87		*

Additional Notes/Comments: Bottom of core at 11.9'. Core opened at 07:55. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		CL	10YR 4/3	F	M	H	Moist	VFS	PHC (mod)	0%	25% ↓ 50%	75% ↓ 50%	52.9	B	
12		SM	10YR 4/3	H	N	H	Wet	FS	PHC (strong)	0%	75%	25%	153	C	Heavy NAPL coating, near saturation * NAPL is brown, low viscosity
BOC = 11.9'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD057A-07.2-09.2	N	03/23/2010 07:55	7.2-9.2	X	X	X	X	X	X	X	X	X	X		
B	GC-SD057A-09.2-11.2	N	03/23/2010 07:55	9.2-11.2	X	X	X	X	X	X	X	X	X	X		
C	GC-SD057A-11.2-11.9	N	03/23/2010 07:55	11.2-11.9	X	X	X	X	X	X	X	X	X	X		
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 3/23/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD059A	**Easting:**	631695.70	**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	670730.43	**Penetration (ft):** 18.4'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-16.8' NAVD88	**Recovery (ft)** 13.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/5/2010 8:55	
	ASI - J. Clemens/Captain	**Depth (ft):**	15.1'		
		St. Arrival:	8:52	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	9:30	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	5%	90%	10.0	NA	
1.8		SM	10YR2/1	S	N	H	Wet	SP	UNC	10%	65%	25%			
2													183		Transition zone - not sampled
2.1		SM	10YR 4/1	H	N	H	Wet	SP	TLO (strong)	1%	84%	15%	156		Silty sand, heavy NAPL coating
3													132	A	NAPL saturated from 2.7-3.1' NAPL dark brown, slick, not sticky/tacky
4		ML	10YR 4/2	F	N	H	Wet	VFS	TLO (strong)	0%	40%	60%	300		*
5		SM	10YR 4/2	H	N	H	Wet	FS	TLO (strong)	0%	75%	25%	201 202	B	Heavy NAPL coating
6									(mod)				293		*
		ML	10YR 2/1	H	N	H	Wet	VFS	None	0%	1%	99%	29.4		
7		SM	10YR 4/1	H	N	H	Wet	FS	TLO (mod)	0%	85%	15%	104	C	* Moderate NAPL coating
8													51.3		
9													138 54.7	NA	
10													123		

Additional Notes/Comments: Bottom of core at 13.0'. Core opened at 09:40. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 4/1	H	N	H	Wet	FS	TLO	0%	85%	15%	101	NA	
		ML	10YR 2/1	H	N	H	Wet	VFS	TLO	0%	1%	99%	136	D	Abrupt lithology changes, silt lenses
12		SM	10YR 4/1	H	N	H	Wet	FS	TLO	0%	85%	15%	103		
		ML	10YR 2/1	H	N	H	Wet	VFS	TLO	0%	1%	99%			
13		SM	10YR 4/1	H	N	H	Wet	FS	TLO	0%	85%	15%	162		* Heavy NAPL coating
BOC = 13.0'															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD059A-02.1-04.1	N	04/05/2010 09:40	2.1-4.1	X	X	X	X	X	X	X	X	X	X		
B	GC-SD059A-04.1-06.1	N	04/05/2010 09:40	4.1-6.1	X	X	X	X	X	X	X	X	X	X		
C	GC-SD059A-06.1-08.1	N	04/05/2010 09:40	6.1-8.1	X	X	X	X	X	X	X	X	X	X		
D	GC-SD059A-11.0-13.0	N	04/05/2010 09:40	11.0-13.0	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/5/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD060B	**Easting:**	631721.71		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670707.73	**Penetration (ft):**	11.3'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.8' NAVD88	**Recovery (ft)**	8.0'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/1/2010 12:30		
	ASI - J. Clemens/Captain	**Depth (ft):**	14.4'				
		St. Arrival:	12:20		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	14:00	**Penetration (ft):**	12.7'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	4.5'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/1/2010 13:05		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SC	UNC	15%	5%	80%	7.3	NA	
2				S			Moist/ Wet	SP		1%	3%	96%			
3								FS		0%	4%	96%	9.5	NA	
4															
5													47.1	NA	
5.2															Transition zone - not sampled
6		SM	10YR 3/3	F	N	H	Wet	FS	TLO (strong)	0%	85%	15%	104		* NAPL saturated. NAPL - black, dark brown staining, medium viscosity, not sticky/tacky
7		ML	10YR 4/3	F	N W	H	Moist	VFS	None TLO (faint) None	0%	1%	99%	67.8 101	A/C	Abrupt change in lithology - fine silt, moist, no staining and faint odor
8									TLO (faint)				83.7 112	B	* Sandy silt pocket
BOC = 8.0' 9															
10															

Additional Notes/Comments: Bottom of core at 8.0'. Core opened at 14:55. * Indicates VOC collection depth.
Attempt #3: 4' penetration, 2.1' recovery at 13:30 4/1/2010.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD060B-05.2-07.2	N	04/01/2010 14:55	5.2-7.2	X	X	X	X	X	X	X	X	X			
	B	GC-SD060B-07.2-08.0	N	04/01/2010 14:55	7.2-8.0	X	X	X	X	X	X	X	X	X			
	C	D-04012010-02	FD	04/01/2010 14:55	5.2-7.2	X	X	X	X	X	X		X				
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/1/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD61C	**Easting:**	631545.57		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670562.15	**Penetration (ft):**	17.2'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-11.9' NAVD88	**Recovery (ft)**	11.7'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/1/2010 16:35	
	ASI - Jeff Clemens	**Depth (ft):**	9.8'			
		St. Arrival:	16:30		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	17:00	**Penetration (ft):**	NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	3%	92%	26.4	NA	Organics: fibrous plant material
2															
3													21.5	NA	
4															
5									TLO (strong)	15%	5%	80%	195.0	NA	Coal fragments (3") Heavy NAPL coating, NAPL - black, thick, medium viscosity, sticky/tacky
6				S						5%	3%	92%			
7									(mod)				13.2	NA	
7.7													30.6		
8		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	165		NAPL coating, heavy, increasing NAPL saturation with depth Fully saturated at 8.4', easily squeezed from pore spaces
9													258	A	NAPL is black, dark brown staining, low viscosity, slick, not sticky.
													312		*
		ML	10YR 4/2	H	W	H	Moist	Z	TLO (strong)	0%	0%	100%	272		
10															

Additional Notes/Comments: Bottom of core at 11.3'. Core opened at 10:15 * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR 2/1	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	290	B	0.1' ML lens
11 BOC= 11.3'		ML	10YR 2/1	H	N	H	Wet	Z	TLO (mod)	0%	0%	100%	261		
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD061C-07.7-09.7	N	04/02/2010 10:15	7.7-9.7	X	X	X	X	X	X	X	X	X	X		
B	GC-SD061C-09.7-11.7	N	04/02/2010 10:15	9.7-11.7	X	X	X	X	X	X	X	X	X	X		
C																
D																
E																
F																
G																
H																
I																
J																
K																
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Reviewed by: *TMHimmer* Date: 4/1/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD062C	**Easting:**	631578.01		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670549.78	**Penetration (ft):**	20'	N
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-15.8' NAVD88	**Recovery (ft)**	7.7'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/5/2010 9:40	
	ASI - M. Shappell/Captain	**Depth (ft):**	15.3'			
		St. Arrival:	9:35		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:00	**Penetration (ft):**	20'	N
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	13.1'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/5/2010 10:20	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GM	10YR 2/1	H	N	H	Wet	MP	UNC	50%	10%	40%	23.2	NA	Abrupt transition: fibers, wood and stick fragments, moderate organic/PHC-like odor
2		OL	10YR 2/1	S	N	H	Moist/ Wet	FS	UNC/ PHC	0%	5%	95%			
3													71.0	NA	
3.5															
4													26.6	NA	Transition zone - not sampled
4.5															
5		CL	10YR 4/1	S	W	H	Moist	VFS	PHC (mod)	0%	1%	99%	239		
6		SM	10YR 3/1	H	N	H	Wet	FS	PHC (strong)	0%	85%	15%	160	A	Heavy NAPL coating Moderate NAPL coating
													230		NAPL saturation
7		SW-SM	10YR 5/4	H	N	H	Wet	FS	None	0%	95%	5%	383		<0.1' clay lens (gray)
8													25.6	B	
													78.9		Sheen noted on soil surface
9													139	C	
10		ML	5YR 3/4	H	N	H	Moist	Z	TLO (mod)	0%	0%	100%	276		Silt - moderate tar-like odor

Additional Notes/Comments: Bottom of core at 12.7'. Core opened at 11:10. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 4/1	H	N	H	Wet	FS	TLO (strong)	0%	95%	5%	345	C	* NAPL saturated No NAPL staining or coating - no odor
12 BOC= 12.7		↓	↓	↓	↓	↓	↓	↓	↓	↓ 0%	↓ 90%	↓ 10%	27.1 14.0 18.8	D	
13													46.5	NA	
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD062C-04.5-06.5		N	04/05/2010 11:10	4.5-6.5	X	X	X	X	X	X	X	X	X	X		
B	GC-SD062C-06.5-08.5		N	04/05/2010 11:10	6.5-8.5	X	X	X	X	X	X	X	X	X	X		
C	GC-SD062C-08.5-10.5		N	04/05/2010 11:10	8.5-10.5	X	X	X	X	X	X	X	X	X	X		
D	GC-SD062C-10.5-12.5		N	04/05/2010 11:10	10.5-12.5	X	X	X	X	X	X	X	X	X	X		
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: *TMHimmer* Date: 4/5/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD063A	**Easting:**	631609.30	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670524.84	**Penetration (ft):** 15.6'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.3' NAVD88	**Recovery (ft)** 11.2'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/31/2010 16:10	
	ASI - Jeff Clemens	**Depth (ft):**	10.7'		
		St. Arrival:	16:00	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	17:30	**Penetration (ft):** 14.3'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 8'	
Collector Information:	T. Himmer/CH2M HILL applied for less than 100% core recovery	Log reflects sample as collected – no correction factor		**Date/Time:** 3/31/2010 16:45	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR 2/1	H	N	H	Wet	MP	UNC	10%	80%	10%			**Faint organic/PHC odor** No organic matter or fibrous plant material observed
1		GW	10YR 2/1	H	N	H	Wet	SC CP	UNC	80%	10%	10%	27.1	NA	
2															Rounded to subangular gravel
		OL	10YR 2/1	S	N	H	Moist/ Wet	FS	UNC	0%	5%	95%	99.2	NA	Organics: fibrous plant material
3	3.1												27.6		Transition zone not sampled
		SM	10YR 4/3	H	N	H	Wet	FS	TLO	0%	85%	25%	156		* NAPL coating, light brown staining, slick low viscosity
4		CL	10YR 4/2	F	W	H	Moist	Z	None	0%	0%	100%	21.7	A	Silty clay, trace wood fragments
5													34.5		
													68.3		
6		SM	10YR 4/3	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%	97.9	B	* Heavy NAPL coating, near saturation, light brown staining, slick, low viscosity
7		ML	10YR 4/1	F	N	H	Moist	FS	TLO	0%	5%	95%	8.5		
		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	138		*
8															NAPL saturated, brown staining, low viscosity, not sticky/tacky, easily squeezed from pore spaces
													125	C/D	
9													117		
													28.0	NA	
10													91.5		

Additional Notes/Comments: Bottom of core at 10.7'. Core opened at 09:15 * Indicates VOC collection depth. Liner very brittle upon opening fell apart when opened at 8-10.7' Attempt #3: 18.4' penetration, 10.7' recovery 17:05 3/31/2010.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO	0%	90%	10%	78.0		NAPL saturated
BOC=		SM	10YR	H	N	H	Wet	FS	TLO	0%	75%	25%	28	NA	
10.7		↓	4/4	↓	↓	↓	↓	↓	(faint)	↓	↓	↓			Light NAPL coating
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD063A-03.1-05.1	N	04/01/2010 09:15	3.1-5.1	X	X	X	X	X	X	X	X	X	X		
B	GC-SD063A-05.1-07.1	N	04/01/2010 09:15	5.1-7.1	X	X	X	X	X	X	X	X	X	X		
C	GC-SD063A-07.1-09.1	N	04/01/2010 09:15	7.1-9.1	X	X	X	X	X	X	X	X	X	X		
D	D-04012010-01	FD	04/01/2010 09:15	7.1-9.1	X	X	X	X	X		X					
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/1/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD64D	**Easting:**	631371.64		**Attempt 1** **Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670275.67	**Penetration (ft):**	19.1' Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-12.9' NAVD88	**Recovery (ft)**	15.3'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/2/2010 8:10
	ASI - Jeff Clemens	**Depth (ft):**	13.2'		
		St. Arrival:	8:05		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	8:45	**Penetration (ft):**	NA
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL Log reflects sample as collected – no correction factor applied for less than 100% core recovery			**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		GW	10YR 2/1	H	N	H	Wet	SC MP	None	100% 90%	0% 5%	0% 5%			Large rock Medium gravel, glass
1		GM	10YR 2/1	H	N	H	Wet	MP	None	50%	10%	40%	29.0	NA	Increase in silt content Black NAPL - medium viscosity, faint tar-like odor
2		OL	10YR 2/1	VS	N	H	Wet	FS/SP	TAR (faint)	3%	10%	87%	159.0	NA	Abrupt transition
2.7															
3 3.1													105		Transition zone - not sampled
		SW-SM	10YR 2/1	H	N	H	Wet	FS	PHC (Med)	0%	90%	10%	121		NAPL coating - black, brown stain, low viscosity
4													117	A	Increasing NAPL saturation
5													202		* NAPL saturation
		ML	10YR 6/8 10YR 5/2	H	N	H	Dry Moist	Z	None	0%	0%	100%	32.0		Fine silt, no staining, no odor, easily crumbles
6													47.6	B	
		SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%			
7													237		*
		ML	10YR 3/1	H	N	H	Moist	FS	TLO (strong)	0%	15%	85%	64.6		
		SM	10YR 2/1	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%			NAPL saturated
8		ML	10YR 3/1	H	N	H	Moist	FS	TLO (strong)	0%	15%	85%	163	C	
		SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%	188		*
9		ML	10YR 4/2	H	N	H	Moist	VFS	TLO (strong)	0%	1%	99%	310	D	
10															

Additional Notes/Comments: Bottom of core at 15.4'. Core opened at 11:20, * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation / Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR 2/1	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%	32.2	D	* NAPL saturation NAPL freely oozing from pore space
11		ML	10YR 7/8 10YR 5/3	H	N	H	Moist	VFS	None	0%	1%	99%	33.2		
12													6.2 5.9	NA	
13													5.6		
14													21.2 11.1	E	0.2' lens of silty sand - moderately coated with NAPL
15		SW-SM	10YR 4/4	H	N	H	Wet	FS	None	0%	90%	10%	5.7		
BOC= 15.4'													3.2	NA	
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD064D-03-1-05-1	N	04/02/2010 11:20	3.1-5.1	X	X	X	X	X	X	X	X	X	X		
B	GC-SD064D-05.1-07.1	N	04/02/2010 11:20	5.1-7.1	X	X	X	X	X	X	X	X	X	X		
C	GC-SD064D-07.1-09.1	N	04/02/2010 11:20	7.1-9.1	X	X	X	X	X	X	X	X	X	X		
D	GC-SD064D-09.1-11.1	N	04/02/2010 11:20	9.1-11.1	X	X	X	X	X	X	X	X	X	X		
E	GC-SD064D-13.1-15.1	N	04/02/2010 11:20	13.-15.1	X	X	X	X	X	X	X	X	X	X		
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: TMHimmer Date: 4/2/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD065A	**Easting:**	631402.71		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670251.90	**Penetration (ft):**	20'	N
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-17.3' NAVD88	**Recovery (ft)**	11.8'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/5/2010 11:15	
	ASI - J. Clemens/Captain	**Depth (ft):**	17.8'			
		St. Arrival:	11:00		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:30	**Penetration (ft):**	20'	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	13.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/5/2010 11:35	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0		GWGM	10YR 2/1	H	N	H	Wet	MP	None	90%	1%	9%	6.1	NA	
0.9		SM	10YR2/1	H	N	H	Wet	MP	None	90%	1%	9%	18.0		Abrupt transition
1															Transition zone - not sampled
1		CL	10YR 4/1	F	W	H	Moist	FS	None	0%	10%	90%	8.3		No NAPL staining/coating/sheen/odor
2													7.9	A	
3		SW-SM	10YR 6/6	H	N	H	Wet	FS	None	0%	95%	5%	14.3		*
4		ML	10YR 5/4	F	W	H	Wet	FS	None	0%	30%	70%	16.6	B/E	
5		SW-SM	10YR 6/6	H	N	H	Wet	FS	None	0%	95%	5%	18.8		
6													20.8		*
7													15.1	C	
8		ML	10YR 5/4	H	N	H	Wet	VFS	None	0%	10%	90%	25.2		*
9													11.5		
10													4.8	NA	
													6.3		
													22.9		
													18.1	NA	
													9.4		

Additional Notes/Comments: Bottom of core at 12.7'. Core opened at 12:50. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		ML	10YR 5/4	H	N	H	Wet	VFS	None	0%	10%	90%	17.4	NA	No NAPL contamination noted
													13.6		
		SM	6	H	N	H	Wet	FS	None	0%	85%	15%			
12		ML	10YR 5/4	H	N	H	Wet	VFS	None	0%	10%	90%	12.6	D	
BOC= 12.7		SM	10YR 6/6	H	N	H	Wet	FS	None	0%	85%	15%	32.5		Trace black staining *
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD065A-01.0-03.0	N	04/05/2010 12:50	1.0-3.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD065A-03.0-05.0	N	04/05/2010 12:50	3.0-5.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD065A-05.0-07.0	N	04/05/2010 12:50	5.0-7.0	X	X	X	X	X	X	X	X	X	X		
D	GC-SD065A-11.0-12.7	N	04/05/2010 12:50	11.0-12.7	X	X	X	X	X	X	X	X	X	X		
E	D-04052010-01	FD	04/05/2010 12:50	3.0-5.0	X	X	X	X	X	X		X				
F																
G																
H																
I																
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K																
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Reviewed by: *TMHimmer* Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD066C	**Easting:**	631420.77		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670216.81	**Penetration (ft):**	16.5'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	12.7'	**Recovery (ft)**	11.5'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/31/2010 14:10	
	ASI - Jeff Clemens	**Depth (ft):**	9.9'			
		St. Arrival:	14:01		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:50	**Penetration (ft):**	2.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	1'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/31/2010 15:20	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	H	N	H	Wet	CS	UNC	5%	80%	15%	7.7	NA	**Silty sand - black** Faint organic odor
2		GW	10YR 2/1	H	N	H	Wet	MP	None	90%	5%	5%	19.4	NA	
2.5													12.3		Transition zone - not sampled
2.7															
3		CL	10YR 6/6	F	W	H	Moist	FS	None	0%	10%	90%	12.7		
4													15.1	A	
													134		* Abrupt transition
5		SM	10YR 3/2	H	N	H	Wet	FS	TLO (strong)	0%	85%	15%	118		Heavy NAPL coating, brown/black staining, slick, not tacky, low viscosity
6													109	B	
7													178		*
													184		*
8		ML	10YR 4/4	F	N	H	Wet	Z VFS	TLO (faint)	0% 0%	0% 25%	100% 25%	18.0 18.6	C	Abrupt transition Increasing fine sand content Rainbow-like sheen observed
9										0%	49%	51%	12.4	NA	No sample indicated, no visual or olfactory contamination
10													10.7		Liner brittle upon opening/cracking, core sat overnight in fridge

Additional Notes/Comments: Bottom of core at 13.3'. Core opened at 08:00 * Indicates VOC collection depth, Attempt #3: 20.0' penetration; 13.4' recovery 3/31/2010 15:22

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		ML	10YR 4/4	F	N	H	Wet	VFS	TLO (fnt)	0%	49%	51%	19.2	NA	
		SW	10YR 6/6	H	N	H	Wet	FS	None	0%	95%	5%			
11		ML	10YR 4/4	F	N	H	Wet	VFS	TLO (fnt)	0%	49%	51%	15.1		
		SW	10YR 6/6	H	N	H	Wet	FS	None	0%	95%	5%			
		ML	10YR 4/4	F	N	H	Wet	VFS	TLO (fnt)	0%	49%	51%	19.1		
		SW	10YR 2/1	H	N	H	Wet	FS	TLO (fnt)	0%	95%	5%	105	D	*
12		ML	10YR 4/4	F	N	H	Wet	VFS	TLO (fnt)	0%	49%	51%	89.4		
13		SW	10YR	H	N	H	Wet	FS	None	0%	95%	5%			
BOC=			4/4										8.5	NA	Not sampled - no visual or olfactory contamination
13.3															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD66C-02.7-04.7	N	04/01/2010 08:00	2.7-4.7	X	X	X	X	X	X	X	X	X	X		
B	GC-SD66C-04.7-06.7	N	04/01/2010 08:00	4.7-6.7	X	X	X	X	X	X	X	X	X	X		
C	GC-SD066C-06.7-08.7	N	04/01/2010 08:00	6.7-8.7	X	X	X	X	X	X	X	X	X	X		
D	GC-SD066C-10.7-12.7	N	04/01/2010 08:00	10.7-12.7	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
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Reviewed by: *TMHimmer* Date: 4/1/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD067B	**Easting:**	631090.06	**Attempt 1**	**Refusal? Y/N**
Sampling		**Northing:**	669777.71	**Penetration (ft):** 18.7'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-13.9' NAVD88	**Recovery (ft)** 15'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/6/2010 12:15	
	ASI - J. Clemens/Captain	**Depth (ft):**	14.2'		
		St. Arrival:	11:40	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:40	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	VS	N	H	Wet	SP	UNC	15%	70%	15%	49.3	NA	Organics: wood fragments
2				H											
3													31.2	NA	
4															
5		OL	10YR 2/1	S	N	H	Wet	FS/SP	UNC	1%	5%	94%	87.6	NA	Broken glass and medium gravel
5.5									PHC (mod)						Organics: fibrous wood and wood fragments
6													386.0		Transition zone - not sampled
															0.1' silty sand - strong PHC odor
7		ML	10YR 4/6	F	N	H	Moist	VFS	None	0%	1%	99%	5.3		Fine silt, no NAPL sheen noted, no odor
													2.4	A	*
8								Z			0%	100%	1.9		
9													11.6		
													1.7	B	*
10													6.3		

Additional Notes/Comments: Bottom of core at 15.2'. Core opened at 1330. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		ML	10YR 4/6	F	N	H	Moist	Z	None	0%	0%	100%	1.4 1.5	C/D	*
12													2.7 2.8		
13													0.3	NA	Intervals not sampled - no changes in lithology/color/PID readings
14													0.2 0.3		
15													2.5	NA	
BOC= 15.2'															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD067B-06.0-08.0	N	04/06/2010 13:30	6.0-8.9	X	X	X	X	X	X	X	X	X	X		
B	GC-SD067B-08.0-10.0	N	04/06/2010 13:30	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD067B-10.0-12.0	N	04/06/2010 13:30	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
D	D-04062010-02	FD	04/06/2010 13:30	10.0-12.0	X	X	X	X	X	X		X				
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 4/6/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD068A	**Easting:**	631131.37	**Attempt 1**	**Refusal? Y/N**
Sampling	Not Sampled	**Northing:**	669758.13	**Penetration (ft):** 4.2'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-15.6' NAVD88	**Recovery (ft)** 3.1'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/5/2010 12:45	
	ASI - J. Clemens/Captain	**Depth (ft):**	17.3'		
		St. Arrival:	12:40	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:50	**Penetration (ft):** 8'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 3.8'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/5/2010 13:20	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	11.5	NA	Organics: wood fragments and fibrous wood Plastic bags and garbage
2								SP		5%	5%	90%			
3													38.9	NA	
		SM	1	H	N	H	Wet	FS	UNC	0%	5%	95%			
BOC= 3.9		OL	10YR 2/1	S	N	H	Wet	FS	UNC	0%	3%	97%			
4															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 3.9'. Core opened at 14:50. No samples collected. No native material observed.
Attempt 3: penetration - 3', recovery - none, 4/5/2010 13:45.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/5/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD069C	**Easting:**	631177.00		**Attempt 1**	**Refusal? Y/N**	
Sampling	Not Sampled	**Northing:**	669745.17	**Penetration (ft):**	11.8'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-8.5' NAVD88	**Recovery (ft)**	7.9'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/6/2010 13:15		
	ASI - J. Clemens/Captain	**Depth (ft):**	9.2'				
		St. Arrival:	12:55		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	13:30	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	3%	97%	22.9	NA	Organics: strong septic-like odor, fibrous wood and wood fragments
2								SP FS		5% 0%	3% 3%	92% 97%			
3													12.8	NA	
4															No NAPL contamination observed, no staining/coating
5													19.3	NA	
6															
7 BOC= 7.7													56.3	NA	Faint organic/PHC odor
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.7'. Core opened at 15:00. No samples collected. No native material observed.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	No samples collected															
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/6/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD070B	**Easting:**	631030.37	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	669605.64	**Penetration (ft):** 11.4'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-20.0' NAVD88	**Recovery (ft)** 9.7'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/6/2010 13:50	
	ASI - J. Clemens/Captain	**Depth (ft):**	21.1'		
		St. Arrival:	13:40	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:20	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		SM	10YR 2/1	S	N	H	Wet	FS	UNC	10%	75%	15%	121	NA	Organic, faint/moderate septic-like odor Plastic, rope
2				H				SP	PHC (mod)						
3													110	NA	
4															Gravel lens (rounded) - strong PHC odor
4.1													113	NA	Moderate NAPL staining
4.8													110		Transition zone - not sampled
5		ML	10YR 4/3	F	N	H	Moist	Z	None	0%	0%	100%	Silty sand		
6													16.6 2.5	A	* Fibrous wood fragments
7													3.9 2.7		
8		SW-SM	10YR4/3	H	N	H	Wet	FS	None	0%	95%	5%	4.9	B	*
9		ML	10YR 4/3	F	N	H	Moist	Z	None	0%	0%	100%	2.5 5.4	C	*
BOC= 9.1' 10															

Additional Notes/Comments: Bottom of core at 9.1'. Core opened at 15:25. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD070B-04.8-06.8	N	04/06/2010 15:25	4.8-6.8	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD070B-06.8-08.8	N	04/06/2010 15:25	6.8-8.8	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD070B-08.8-09.1	N	04/06/2010 15:25	8.8-9.1	X	X	X	X	X	X	X	X	X	X		
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/6/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD072B	**Easting:**	631097.91		**Attempt 1** **Refusal? Y/N**
Sampling		**Northing:**	669582.54	**Penetration (ft):**	7.5' Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-18.4' NAVD88	**Recovery (ft)**	2.9'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/7/2010 10:35
	ASI - J. Clemens/Captain	**Depth (ft):**	17.2'		
		St. Arrival:	10:30		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	12:00	**Penetration (ft):**	7.2'
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	No recovery - washout
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/7/2010 11:00

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GP	10YR 2/1	H	N	H	Wet	SP	UNC	99%	0%	1%	3.3	NA	Poorly graded gravel Strong septic-like odor
1.5		OL	10YR6/1	S	N	H	Wet	SP	UNC	1%	5%	94%			Fibrous wood and plant matter
1.8													32.2		Transition zone - not sampled
2		CL	10YR 4/4	S	W	H	Moist	VFS	None	0%	1%	99%	0.7		*
															Silty clay - trace wood fragments
															Gradual decrease in plasticity
3		ML	10YR 4/4	S	N	H	Moist	VFS	None	0%	1%	99%	0.4	A	*
													0.2		
4			10YR 3/2										0.7		
5													1.1	B	*
															Fine sand lens (<0.1')
6			10YR 3/1										12.5		*
													3.5		
7													0.7	C	
										0%	80%	70%	0.2		
8			10YR 6/6										0.2		Gradual increase in silty sand
9											49%	51%	0.2	D	
		SM	10YR 6/4	H	N	H	Wet	FS	None	0%	75%	25%			
10			10YR 4/3								85%	15%	0.3		*
														NA	Interval not sampled - no significant changes

Additional Notes/Comments: Bottom of core at 10.2'. Core opened at 14:40. * Indicates VOC collection depth.
Attempt 3: 17.3' penetration, 9.9' recovery, 4/7/2010 11:15.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR4/3	H	N	H	Wet	FS	None	0%	85%	15%	0.7	NA	
BOC= 10.2															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD072B-01.8-03.8		N	04/07/2010 14:40	1.8-3.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD072B-03.8-05.8		N	04/07/2010 14:40	3.8-5.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD072B-05.8-07.8		N	04/07/2010 14:40	5.8-7.8	X	X	X	X	X	X	X	X	X	X		
D	GC-SD072B-07.8-09.8		N	04/07/2010 14:40	7.8-9.8	X	X	X	X	X	X	X	X	X	X		
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 4/7/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD073E	**Easting:**	630930.25	**Attempt 1**	**Refusal? Y/N**
Sampling	Not Sampled	**Northing:**	669276.87	**Penetration (ft):** 4.7'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-25.6' NAVD88	**Recovery (ft)** None - washout	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/7/2010 12:30	
	ASI - J. Clemens/Captain	**Depth (ft):**	26.3'		
		St. Arrival:	12:15	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:15	**Penetration (ft):** NA - Barrel tipped	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** None	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/7/2010 12:45	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	3%	97%	0.8	NA	Organics: fibrous wood and plant fragments
2															
3										10%	3% 10%	87% 90%	1.2	NA	Plastic and garbage noted 3-4'
4															
5				S						0%	1%	99%	1.7	NA	Coal-like gravel - light, black, subangular/angular
6															
7													4.4	NA	
BOC= 8.0' 8															
9															
10															

Additional Notes/Comments: Bottom of core at 8.0'. Core opened at 09:05. No samples taken. No native material observed.
Attempt 3: 12.9' penetration, 7.7' recovery, 4/7/2010 1320.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/8/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD074E	**Easting:**	630997.67		**Attempt 1**	**Refusal? Y/N**	
Sampling	R. Clennon/J. Balas/CH2M HILL	**Northing:**	669253.05	**Penetration (ft):**	16'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-30.2' NAVD88	**Recovery (ft)**	11.3'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/8/2010 8:50		
	ASI - J. Clemens/Captain	**Depth (ft):**	29.3'				
		St. Arrival:	8:45		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:10	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%	4.3	NA	Organics: fibrous wood and plant material, organic odor
2								SP		1%	3%	96%			
3										1%	5%	94%	22.1	NA	
4															Plastic garbage noted at 4'
4.2														NA	Abrupt transition
4.4													1.6		Transition zone - not sampled
5		ML	10YR 4/3	F	N	H	Moist/ Wet	VFS	None	0%	5%	99%	0.3	A	* No NAPL contamination noted throughout, no staining/discoloration, no NAPL odors
6													0.2		
7											10%	90%	0.2		
		SM	10YR 4/3	H	N	H	Wet	VFS	None	0%	85%	15%	0.1	B/D	Abrupt increase in sand content *
8											49%	51%	0.1		
		ML	10YR 4/4	F	N	H	Moist	VFS	None	0%	51%	49%	0.1		Gradual transition to ML
9													0.1	C	
10											15%	85%	0.1		*

Additional Notes/Comments: Bottom of core at 11.2'. Core opened at 09:50. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		ML	10YR 4/4	F	N	H	Moist	VFS	None	0%	15%	85%	0.1	C	
		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	0.2		
11		SM	10YR 6/6	H	N	H	Wet	MS	None	0%	85%	15%	0.2	NA	Abrupt transition No sample collected from 10.4-11.2 - no NAPL contamination noted, no significant lithology changes
BOC= 11.2															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD074E-04.4-06.4		N	04/08/2010 09:50	4.4-6.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD074E-06.4-08.4		N	04/08/2010 09:50	6.4-8.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD074E-08.4-10.4		N	04/08/2010 09:50	8.4-10.4	X	X	X	X	X	X	X	X	X	X		
D	D-04082010-01		FD	04/08/2010 09:50	4.4-6.4	X	X	X	X	X	X		X				
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
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Reviewed by: TMHimmer Date: 4/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD075C	**Easting:**	631102.91		**Attempt 1** **Refusal? Y/N**
Sampling	R. Clennon/CH2M HILL	**Northing:**	669281.38	**Penetration (ft):**	15.3' Y
Crew/Company	M. Murphy/CH2M HILL	**Elevation:**	-23.9' NAVD88	**Recovery (ft)**	8'
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/6/2010 15:10
	ASI - J. Clemens/Captain	**Depth (ft):**	25.5'		
		St. Arrival:	15:05		**Attempt 2** **Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:40	**Penetration (ft):**	NA
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
0.8		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	1%	99%	0.6	NA	Very "soupy" and wet
1													0.7	NA	Transition zone - not sampled
1		ML	10YR 4/3	F	N	H	Wet	Z	None	0%	0%	100%	0.4		* No NAPL staining, no odor
2								VFS			1%	99%	0.2	A	
3		SM	10YR 4/3	H	N	H	Wet	VFS	None	0%	75%	25%	0.3		
													0.2		
4		ML	10YR 4/4	F	N	H	Wet	VFS	None	0%	1%	99%			
											10%	90%	0.2	B	*
5											1%	99%	0.2		
													0.2		
6													0.2	C	*
7		SM	10YR 4/3	H	N	H	Wet	VFS	None	0%	75%	25%	0.2		
BOC= 7.9		ML	10YR 4/3	F	N	H	Wet	VFS	None	0%	1%	99%	0.2 0.3	NA	
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.9'. Core opened at 10:10. * Indicates VOC collection depth. Note: PID ambient 0.2 reading.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD075C-01.0-03.0	N	04/07/2010 10:10	1.0-3.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD075C-03.0-05.0	N	04/07/2010 10:10	3.0-5.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD075C-05.0-07.0	N	04/07/2010 10:10	5.0-7.0	X	X	X	X	X	X	X	X	X	X		
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD076C	**Easting:**	630782.93	**Attempt 1**	**Refusal? Y/N**
Sampling	R. Clennon/CH2M HILL	**Northing:**	668936.19	**Penetration (ft):**	20'
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-24.4' NAVD88	**Recovery (ft)**	14.5' + 0.5' lost from bottom of core
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/7/2010 14:08
	ASI - J. Clemens/Captain	**Depth (ft):**	25.5'		
		St. Arrival:	14:00	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:40	**Penetration (ft):**	NA
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	3%	97%	9.0	NA	Organics: fibrous plant material Faint septic-like odor
2															
3								SP		10%	3%	87%	26.3	NA	
4															
5								CP SP	PHC (mod)	20%	3%	77%	128	NA	Brick and wood fragments
5.7															NAPL staining - brown, not sticky/tacky
5.8													160	NA	Transition zone - not sampled
6		SW-SM	10YR 2/1	H	N	H	Wet	FS	PHC (strong)	0%	90%	10%	165	A	Heavy NAPL staining - moderate coating, stains gloves and sampling equipment, black, low viscosity, slick, not sticky/tacky, moderate PHC odor
7								VFS					180		*
		ML	10YR2/1	H	N	H	Moist	VFS	PHC	0%	1%	99%	7.7		Sheen on soil surface noted
8		SW-SM	10YR 2/1	H	N	H	Wet	MS	PHC (faint)	0%	90%	10%	10.5	B	
9			10YR 4/3					FS VFS			85%	15%	70.3 4.4		* Sheen on soil surface noted
10		SM	10YR2/1	H	N	H	Wet	VFS	PHC	0%	80%	20%			

Additional Notes/Comments: Bottom of core at 14.0'. Core opened at 07:40. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW	10YR 6/6 ↓ 10YR 2/1 ↓ 10YR 3/1 ↓ 10YR 2/1 ↓ 10YR 4/2	H	N	H	Wet	MS ↓ FS	UNC/ None	0%	97%	3%	4.5 5.5 7.2	C	Fine/medium sand *
12													8.9	D	
13													74.4 2.2		Sheen noted on soil surface - no odor, trace * brown NAPL coating
14													1.3		
BOC= 14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD076C-05.8-07.8	N	04/08/2010 07:40	5.8-7.8	X	X	X	X	X	X	X	X	X	X		
B	GC-SD076C-07.8-09.8	N/MSD	04/08/2010 07:40	7.8-9.8	X	X	X	X	X	X	X	X	X	X		
C	GC-SD076C-09.8-11.8	N	04/08/2010 07:40	9.8-11.8	X	X	X	X	X	X	X	X	X	X		
D	GC-SD076C-11.8-13.8	N	04/08/2010 07:40	11.8-13.8	X	X	X	X	X	X	X	X	X	X		
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/8/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD077A	**Easting:**	630891.31		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Murphy/CH2M HILL	**Northing:**	668861.10	**Penetration (ft):**	20'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-28.1' NAVD88	**Recovery (ft)**	12.1 and 2.9' Sand lost from bottom of core		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/8/2010 9:50		
	ASI - J. Clemens/Captain	**Depth (ft):**	27.3'				
		St. Arrival:	9:45		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:00	**Penetration (ft):**	20'	N	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	12.0 and 0.8' Sand lost from BOC		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/8/2010 10:35		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	98%	1.6	NA	
2															
3													7.0	NA	
4															
5								SP		3%	1%	96%	3.5	NA	Increased gravel and sand Bird leg, coal-like gravel
6											3%	93%			
6.4													29.7	NA	
6.7													19.7		Transition zone - not sampled
7		SW-SM	10YR 2/1	H	N	H	Wet	FS	None	0%	90%	10%	0.6	A	* Black staining
8		SW	10YR 6/6 → 10YR 5/3	H	N	H	Wet	MS → FS → CP	None	0% → 1% → 0%	99% → 98% → 99%	1%	0.3 0.1		No NAPL staining/odor
9			10YR 6/6 → 10YR 5/3					SP		5%	94%		0.1	B	Rounded pebbles
10										10%	89%		0.2		*

Additional Notes/Comments: Bottom of core at 12.4'. Core opened at 13:10. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW	10YR 5/3	H	N	H	Wet	SP	None	10%	89%	1%	0.1	B	
12										5%	94%	1%	0.1 0.2	C	*
12.4= BOC													0.2		
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD077A-06.7-08.7	N	04/08/2010 13:10	6.7-8.7	X	X	X	X	X	X	X	X	X	X		
B	GC-SD077A-08.7-10.7	N	04/08/2010 13:10	8.7-10.7	X	X	X	X	X	X	X	X	X	X		
C	GC-SD077A-10.7-12.4	N	04/08/2010 13:10	10.7-12.4	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: *TMHimmer* Date: 4/8/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD78B	**Easting:**	631016.41		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	668801.16	**Penetration (ft):**	15.3'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-23.8' NAVD88	**Recovery (ft)**	9.8'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/8/2010 14:50		
	ASI - J. Clemens/Captain	**Depth (ft):**	25.1'				
		St. Arrival:	14:40		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	16:00	**Penetration (ft):**	16.0'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	8.7'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/8/2010 15:25		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	3%	97%	4.9	NA	Organics: fibrous wood fragments and plant matter
2															
3													16.6	NA	
4															
5													10.6	NA	
6															
7		ML	10YR 2/1	S	W	H	Moist	VFS	UNC	0%	1%	99%	8.4	NA	Silty sand lens 10YR 4/4
8															
9 BOC= 9.3		OL	10YR 2/1	S	N	H	Moist	VFS	UNC	0%	3%	97%	9.2	NA	Increased wood fragments
10															

Additional Notes/Comments: Bottom of core at 9.3'. Core opened at 08:00. No samples collected. No native material observed.
Attempt #3: 12.7' penetration, no recovery - lost nose cone. 15:45 4/8/2010.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/9/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD079A	**Easting:**	630266.08		**Attempt 1**	**Refusal? Y/N**
Sampling	J. Balas/CH2M HILL	**Northing:**	668735.70	**Penetration (ft):**	19.2'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-30.1' NAVD88	**Recovery (ft)**	9.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	4/14/2010 14:55	
	ASI - M. Shappell/Captain	**Depth (ft):**	27.3'			
		St. Arrival:	14:45		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	15:30	**Penetration (ft):**	19.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	14.5' and 0.5' sand lost from bottom of core	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	4/14/2010 15:20	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	PHC (faint)	1%	1%	98%	45.2	NA	Organics: fibrous wood and wood fragments
2															Plastic and garbage noted at approximately 2'
3													19.9	NA	
4															
5													64.2	NA	
5.6															Abrupt transition
6													59.1		Transition zone - not sampled
6		SW-SM	10YR 4/2	H	N	H	Wet	FS	None	0%	90%	10%	18.5		
7			10YR 2/1										18.7 19.7	A	* Black staining/discoloration, no odor/coating
8		ML	10YR6/4	F	N	H	Moist	VFS	None	0%	1%	49%	17.4		
9		SW	10YR 5/4	H	N	H	Wet	MS SP	None	0% 1%	95% 95%	5% 4%	18.3 7.8	B	*
10								MS		0%	95%	4%	8.8		

Additional Notes/Comments: Bottom of core at 14.2'. Core opened at 09:15. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW	10YR 5/4	H	N	H	Wet	MS ↓ SP	None	0% ↓ 1%	95%	5% ↓ 4%	3.2 5.2	C	*
12								↓ MS		↓ 0%		↓ 5%	1.5		
13								↓ SP		↓ 1%		↓ 4%	2.7 1.0	NA	Interval not sampled - no significant change in lithology/color/odor
14								↓ MS		↓ 0%		↓ 5%	2.9 0.6		
BOC= 14.2															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD079A-06.0-08.0	N	04/15/2010 09:15	6.0-8.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD079A-08.0-10.0	N	04/15/2010 09:15	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD079A-10.0-12.0	N/MSD	04/15/2010 09:15	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
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R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 4/15/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD81A	**Easting:**	630209.73	**Attempt 1**	**Refusal? Y/N**
Sampling	R. Clennon/CH2M HILL	**Northing:**	668620.52	**Penetration (ft):** 20'	Y
Crew/Company		**Elevation:**	-32.5	**Recovery (ft)** 14.2'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/15/2010 14:00	
	ASI - J. Clemens/Captain	**Depth (ft):**	30.0'		
		St. Arrival:	13:55	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	14:25	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC (strong)	5%	1%	94%	68.3	NA	Organics: fibrous wood and stick fragments UNC odor (strong)
2															
3													79.1	NA	
4															
4.7													110	NA	Increased wood
5															
5.3													68.5		Abrupt transition Transition zone - not sampled
		SW	10YR 4/2	H	N	H	Wet	FS	None	0%	95%	5%	7.5	A	No NAPL coating/staining/odor *
6			↓ 10YR 5/4												
7								MS FS					16.1		
													3.9		
8													0.6	B	
													1.1		
9													1.2		*
10								MS SP		5%	94%	1%	0.6	C	

Additional Notes/Comments: Bottom of core at 14.2'. Core opened at 15:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW	10YR 5/4	H	N	H	Wet	SP	None	5%	94%	1%	2.5	C	*
													1.0		No NAPL odor/staining
								FS		0%	95%	5%			
12													1.0	NA	
													1.8		
								SP		5%	94%	1%			
13								FS		0%	95%	5%			
													8.0		
14													1.9	NA	
14.2= BOC								SP		5%	94%	1%	4.5		
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID	Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD081A-05.3-07.3	N	04/15/2010 15:00	5.3-7.3	X	X	X	X	X	X	X	X	X	X		
B	GC-SD081A-07.3-09.3	N	04/15/2010 15:00	7.3-9.3	X	X	X	X	X	X	X	X	X	X		
C	GC-SD081A-09.3-11.3	N	04/15/2010 15:00	9.3-11.3	X	X	X	X	X	X	X	X	X	X		
D	D-04152010-03	FD	04/15/2010 15:00	5.3-7.3	X	X	X	X	X	X		X				
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/15/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD083A	**Easting:**	630139.54	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Murphy/CH2M HILL	**Northing:**	668432.01	**Penetration (ft):** 18.7'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-32.3' NAVD88	**Recovery (ft)** 12.0 and 0.2' of sand at bottom of core	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/15/2010 14:35	
	ASI - J. Clemens/Captain	**Depth (ft):**	29.6'		
		St. Arrival:	14:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	16:00	**Penetration (ft):** 19.6'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 7.5'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 4/15/2010 15:00	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	5%	1%	94%		NA	Organics: fibrous wood and wood fragments
2															
3													12.1	NA	
4															
4.4													3.8	NA	
5													1.6		Transition zone - not sampled
5		SW-SM	10YR 2/1	H	N	H	Wet	MS	None	0%	90%	10%	1.4		Black staining
6													1.3	A	No staining/odor/coating
7		SW	10YR 6/6	H	N	H	Wet	MS	None	0%	95%	5%	5.0		*
													0.4		*
8													0.3	B	
9													0.2		
10								SP		1%	95%	4%	0.4	C/D	Rounded gravel

Additional Notes/Comments: Bottom of core at 11.3'. Core opened at 16:00. * Indicates VOC collection depth.
Attempt #3: 19.3' penetration, 6.9' recovery.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW	10YR 6/6	H	N	H	Wet	SP	None	1%	95%	4%	1.8 1.2	C/D	
													3.5	NA	Not sampled - same as above, no significant changes in lithology - <1'
BOC= 11.3'															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD083A-05.0-07.0	N	04/15/2010 16:00	5.0-7.0	X	X	X	X	X	X	X	X	X	X		
B	GC-SD083A-07.0-09.0	N	04/15/2010 16:00	7.0-9.0	X	X	X	X	X	X	X	X	X	X		
C	GC-SD083A-09.0-11.0	N	04/15/2010 16:00	9.0-11.0	X	X	X	X	X	X	X	X	X	X		
D	D-04152010-04	FD	04/15/2010 16:00	9.0-11.0	X	X	X	X	X	X		X				
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: *TMHimmer* Date: 4/15/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD085B	**Easting:**	633421.42	**Attempt 1**	**Refusal? Y/N**
Sampling	Not Sampled	**Northing:**	671327.49	**Penetration (ft):** 14'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-2.3' NAVD88	**Recovery (ft)** 4'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/16/2010 10:50	
	ASI - M. Shappell/Captain	**Depth (ft):**	5.5'		
		St. Arrival:	10:25	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	11:35	**Penetration (ft):** 11'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 8.1' in field - top very loose	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/16/2010 11:18	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	2.6	NA	Fibrous wood, garbage items, plastic, tin foil present throughout length of core
2															
3													5.5	NA	
4										0%	3%	91%			
5													9.0	NA	
6															
7 BOC= 7.4													17.3	NA	
8															
9															
10															

Additional Notes/Comments: Bottom of core at 7.4'. No native material observed. No samples collected.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 3/17/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD087A	**Easting:**	633828.02		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670945.87	**Penetration (ft):**	20'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-4.8' NAVD88	**Recovery (ft)**	14.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/16/2010 9:05		
	ASI - M. Shappell/Captain	**Depth (ft):**	8.0'				
		St. Arrival:	8:50		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:20	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	SP	UNC	3%	3%	94%	4.5	NA	Organics: fibrous wood and sticks
2															
3													7.4	NA	
4															
5													11.4	NA	
6								MP	TLO (strong)	20%	5%	75%			NAPL saturated Coal-like fragments
7									(mod)				4.2	NA	NAPL - medium viscosity, thick, black, brown stain, sticky/tacky
8															
8.3													5.9		Transition zone - not sampled
9		CL/SM	10YR4/1 10YR4/3 10YR 4/2	H	W/N W	S H	Moist/ Wet Moist/	FS VFS	UNC/ None UNC (faint)	0% 0%	50% 99%	50% 1%	7.8 5.4	A	Stratified layers of alternating silty clay/silty sand (0.2' layer) Black lignite-like staining Medium sand lens (0.3')
10		SM	10YR 5/6	H	N	H	Wet	FS	None	0%	85%	15%	19.3		NAPL saturated/heavily coated - light brown, little staining, low viscosity, UNC odor (sweet)

Additional Notes/Comments: Bottom of core at 14.6'. Core opened at 10:10.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM	10YR 5/6	H	N	H	Wet	FS	None	0%	85%	15%	11.1		
		SP	10YR 6/6	H	N	H	Wet	FS	None	0%	99%	1%	4.0		*
11													0.5	B	
12								SP		3%	96%	1%	0.6		
13													0.3		Trace/little gravel (subrounded - rounded)
		SW	10YR 6/6	H	N	H	Wet	MP	None	10%	89%	1%	0.4	C	
14													0.8		*
BOC= 14.6'													31.8	NA	Interval not sampled - same as above, no indicating factors that 14.3-14.6 is more contaminated than above.
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD087A-08.3-10.3	N/MSD	03/16/2010 10:10	8.3-10.3	X	X	X	X	X	X	X	X	X	X		
B	GC-SD087A-10.3-12.3	N	03/16/2010 10:10	10.3-12.3	X	X	X	X	X	X	X	X	X	X		
C	GC-SD087A-12.3-14.3	N	03/16/2010 10:10	12.3-14.3	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/16/2010

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD088A	**Easting:**	632491.15		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671401.95	**Penetration (ft):**	18.9'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-5.6' NAVD88	**Recovery (ft)**	15'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/17/2010 11:55		
	ASI - M. Shappell/Captain	**Depth (ft):**	7.4'				
		St. Arrival:	8:15		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	9:05	**Penetration (ft):**	13.5'	Y	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	7'		
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/17/2010 12:20		

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	8.7	NA	Organics: fibrous wood and trace stick fragments
2															
3													10.8	NA	
4															
5													23.9	NA	
6															Glass, plastic bags, and other garbage noted
7													143	NA	NAPL - Heavy coating/near saturation, black staining, moderate viscosity
7.7															
8													82.0		Transition zone - not sampled
8		ML	10YR6/1	H	N	H	Wet	Z	None	0%	0%	100%			Abrupt transition
		SW-SM	10YR 4/4	H	N	H	Wet	FS	TLO (strong)	0%	95%	5%	197		
9													211	A	*
10													202		

Additional Notes/Comments: Bottom of core at 14.3'. Core opened at 10:45. * Indicates VOC collection depth.
Attempt 3: 20' penetration, ~16' recovery measured in field, top several feet very loose, 3/18/2010, 08:30.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
		SM/ML	10YR 4/3/ 10YR 5/1	H	N	S	Wet/ Moist	FS/VFS	TLO (strong)	0%	85%/ 15%	15%/ 85%	137		NAPL coating - brown, slick, low viscosity
11													108	B	Stratified alternating layers of silty sand (SM), and sandy silt (ML)
12													210		*
		SW-SM	10YR 4/3	H	N	H	Wet	FS	TLO (strong)	0%	90%	10%	131		NAPL coating - brown, slick, low viscosity
13															*
		CL	10YR 5/1	H	W	H	Moist	Z	TLO (mod)	0%	0%	100%	381	C	Silty clay lens - abrupt transition, trace NAPL staining
		SW-SM	10YR 3/2	H	N	H	Wet	FS	TLO	0%	90%	10%	236		Heavy NAPL coating/near saturation
BOC= 14.3'													188	NA	Heavy NAPL coating/near saturation
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD88A-08.0-10.0	N	03/18/2010 10:45	8.0-10.0	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD088A-10.0-12.0	N	03/18/2010 10:45	10.0-12.0	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD088A-12.0-14.0	N	03/18/2010 10:45	12.0-14.0	X	X	X	X	X	X	X	X	X	X		
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
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Reviewed by: *TMHimmer* Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD089B	**Easting:**	632648.18		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671340.80	**Penetration (ft):**	17.8'	Y	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-7.8' NAVD88	**Recovery (ft)**	15.5'		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/17/2010 11:05		
	ASI - M. Shappell/Captain	**Depth (ft):**	10.8'				
		St. Arrival:	10:40		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	11:45	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	9.0	NA	Organics: sticks and leaf fragments
2															
3													14.3	NA	
4								SP		15%	5%	80%			Coal-like gravel (angular, black, low density)
5													15.9	NA	
6								MP		10%	5%	85%			
7													48.4	NA	Increased fibrous wood, coal gravel, rope
8 8.2													75.4		Abrupt transition
8.3													94.7	NA	Transition zone - not sampled
9		SM/ML	10YR 4/4/ 10YR 7/1	H	N	S	Wet	FS/VFS	PHC (mod)	0%	85%/ 15%	15%/ 85%	95.7 141.6 17.3	A	Alternating stratified layers of fine silty sand (SM) and very fine sandy silt (ML), moderate staining within SM layers - NAPL appears brown on gloves, * slick, low viscosity, faint staining within ML layers - NAPL is barely present on gloves
10															

Additional Notes/Comments: Bottom of core at 14.8'. Core opened at 14:25. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SM	10YR 4/3	H	N	H	Wet	FS/VFS	PHC (mod)	0%	85%	15%	84.8	B	Decreasing silt content with depth
12													42.9 85.7		Faint staining at 11-12', decreasing stain below and decreasing with depth * Trace rounded gravel
13		SW-SM	10YR 4/3	H	N	H	Wet	FS MS	PHC (faint)	3%	90%	7%	67.0	C	*
14								SP					18.1 45.4		
BOC= 14.8		ML	10YR4/3	H	N	H	Wet	VFS	None	0%	1%	99%	20.0	NA	Fine silt - no staining/odor
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD089B-08.3-10.3		N	03/17/2010 14:25	8.3-10.3	X	X	X	X	X	X	X	X	X	X		
B	GC-SD089B-10.3-12.3		N	03/17/2010 14:25	10.3-12.3	X	X	X	X	X	X	X	X	X	X		
C	GC-SD089B-12.3-14.3		N	03/17/2010 14:25	12.3-14.3	X	X	X	X	X	X	X	X	X	X		
D																	
E																	
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/17/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD090B	**Easting:**	632902.28		**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671142.33	**Penetration (ft):**	14.8'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-7.7' NAVD88	**Recovery (ft)**	14.0'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/16/2010 12:00	
	ASI - M. Shappell/Captain	**Depth (ft):**	9.6'			
		St. Arrival:	11:50		**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:20	**Penetration (ft):**	15.5'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	14'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	3/16/2020 12:50	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	MP	UNC	10%	5%	85%	21.2	NA	Organics: fibrous wood and stick fragments
2															
3								FS		10%	25%	65%	61.7	NA	
4										10%	5%	65%			
5.1													18.5	NA	Increased wood: 30-40% fibrous wood
5.4													47.8	NA	Transition zone - not sampled
6		SW-SM	10YR 4/3	F	N	H	Wet	FS	PHC (strong)	0%	95%	5%	95.0	A	CL, mottled, hard, 10YR 6/1 and 10YR 3/4 Heavy NAPL coating - brown staining, heavily saturated at ~5.8', brown, slick/non-sticky, low to moderate viscosity * NAPL saturated
7													126 22.5 55.4		
8		ML	10YR 2/1	H	N	H	Wet	VFS	PHC (strong)	0%	20%	80%	85.6 53.0	B	
9													40.0 141		0.3' lens of silty sand, sheen NAPL saturation - heavily coated
10		CL	10YR 4/3	H	M	H	Moist	Z	Non	0%	1%	99%	4.7	C	

Additional Notes/Comments: Bottom of core at 14.0'. Core opened at 15:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		CL	10YR 4/1	H	M	H	Moist	Z	None	0%	1%	99%	0.7	C	1" seam of sand - no staining/sheen/odor *
12													0.5		
13 BOC= 13.4'		SP-SM	10YR 3/2	F	N	H	Wet	FS	None	0%	85%	15%	1.3	D	Abrupt transition
14													0.5		*
15													0.0		
16													0.2	NA	Did not sample interval 13.4-14.0
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD090B-05.4-07.4	N	03/16/2010 15:00	5.4-7.4	X	X	X	X	X	X	X	X	X	X		
B	GC-SD090B-07.4-09.4	N	03/16/2010 15:00	7.4-9.4	X	X	X	X	X	X	X	X	X	X		
C	GC-SD090B-09.4-11.4	N	03/16/2010 15:00	9.4-11.4	X	X	X	X	X	X	X	X	X	X		
D	GC-SD090B-11.4-13.4	N	03/16/2010 15:00	11.4-13.4	X	X	X	X	X	X	X	X	X	X		
E	D-03162010-03	FD	03/16/2010 15:00	7.4-9.4	X	X	X	X	X	X		X				
F																	
G																	
H																	
I																	
J																	
K																	
L																	
M																	
N																	
O																	
P																	
Q																	
R																	
S																	
T																	
U																	

Reviewed by: TMHimmer Date: 3/16/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD091A	**Easting:**	632084.13	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671200.88	**Penetration (ft):** 18.7'	Y
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-6.7' NAVD88	**Recovery (ft)** 13'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 3/18/2010 12:30	
	ASI - M. Shappell/Captain	**Depth (ft):**	6.8'	(1)	
		St. Arrival:	12:30	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	13:40	**Penetration (ft):** 17.9'	Y
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)** 13'	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:** 3/18/2010 13:20	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	3%	97%	6.3	NA	Organics: fibrous wood and stick fragments
2															
3													13.4	NA	
4															
5													28.7	NA	
6															
7													51.8	NA	
8															Increased wood matter
9	9.1									15%	5%	80%	62.8	NA	Increased gravel - NAPL saturated, black, moderate viscosity, tar-like odor
	9.2												137		Transition zone - not sampled
10		ML	10YR 4/1	H	N	H	Wet	VFS	TLO (faint)	0%	5%	95%	215 114	A	Moderate NAPL coating - brown staining on gloves, low viscosity, slick/not tacky

Additional Notes/Comments: Bottom of core at 13.2'. Core opened at 16:45. * Indicates VOC collection depth.
(1) 1st core attempted at this station contained some gaps in the sediment profile at depth; 2nd core sampled 3/18/2010.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 6/1 ↓ 10YR 2/1 ↓ 10YR 6/1 ↓ 10YR 3/2	H	N	S	Wet	FS	TLO (strong)	0%	90%	10%	254	A	* Stratified layers of sand - laminated streaks of color throughout
12													314	B/C	
13													250		Increased NAPL saturation with depth,
BOC= 13.2'													348		* 12': heavy coating; 13.2': full saturation
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD091A-09.2-11.2	N	03/18/2010 16:45	9.2-11.2	X	X	X	X	X	X	X	X	X	X		
B	GC-SD091A-11.2-13.2	N	03/18/2010 16:45	11.2-13.2	X	X	X	X	X	X	X	X	X	X		
C	D-03182010-03	FD	03/18/2010 16:45	11.2-13.2	X	X	X	X	X	X		X				
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD093A	**Easting:**	632378.16		**Attempt 1**	**Refusal? Y/N**	
Sampling	M. Velasquez/CH2M HILL	**Northing:**	671029.44	**Penetration (ft):**	20'	N	
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-5.6' NAVD88	**Recovery (ft)**	18' top sediment very loose		
		Datum:	NYSP Zone East NAD 83	**Date/Time:**	3/18/2010 11:50		
	ASI - M. Shappell/Captain	**Depth (ft):**	7.6'				
		St. Arrival:	11:25		**Attempt 2**	**Refusal? Y/N**	
Vessel:	*R/V Manasquan*	**St.Depart:**	12:20	**Penetration (ft):**	NA		
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**			
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**			

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	VFS	UNC	0%	1%	99%	15.8	NA	Organics: fibrous wood and stick fragments
2															
3													13.9	NA	
4															
5.1													19.5	NA	
5.2													8.1		Transition zone - not sampled
6		ML	10YR 5/4	H	N	H	Moist/ Wet	VFS	TLO (faint)	0%	5%	95%	5.6	A	Sandy silt *
7			10YR 6/1										2.8		
		SW-SM	10YR 4/3	H	N	H	Wet	FS	None	0%	95%	5%	3.5		Well graded sand with silt
8													1.3	B	*
9													1.1		
10													0.7		
													0.2	C	
													0.1		

Additional Notes/Comments: Bottom of core at 17.3'. Core opened at 15:00. * Indicates VOC collection depth.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		SW-SM	10YR 5/1 ↓ 10YR 2/1 ↓ 10YR 6/6	H	N	H	Wet	FS	None	0%	95%	5%	0.0	C	* Well graded sand with silt
12													0.0		
													0.1	D	*
13													0.2		
14													0.1		
													0.1	NA	
15													0.0		
													0.1		
16		CL	10YR 5/1	F	W	H	Wet	VFS	None	0%	3%	97%		E	* Lean clay - trace sand, silty sand
		SM	10YR 3/2	H	N	H	Wet	FS	None	0%	85%	15%	0.1		
17													0.0		
BOC= 17.3'														NA	
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	GC-SD093A-05.2-07.2	N	03/10/2010 15:00	5.2-7.2	X	X	X	X	X	X	X	X	X	X		
B	GC-SD093A-07.2-09.2	N/MSD	03/10/2010 15:00	7.2-9.2	X	X	X	X	X	X	X	X	X	X		
C	GC-SD093A-09.2-11.2	N	03/10/2010 15:00	9.2-11.2	X	X	X	X	X	X	X	X	X	X		
D	GC-SD093A-11.2-13.2	N	03/10/2010 15:00	11.2-13.2	X	X	X	X	X	X	X	X	X	X		
E	GC-SD093A-15.2-17.2	N	03/10/2010 15:00	13.2-17.2	X	X	X	X	X	X	X	X	X	X		
F																
G																
H																
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Reviewed by: TMHimmer Date: 3/18/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD104A	**Easting:**	631286.39	**Attempt 1**	**Refusal? Y/N**
Sampling		**Northing:**	670165.95	**Penetration (ft):** 6.9'	Y
Crew/Company	Not Sampled	**Elevation:**	-7.4' NAVD88	**Recovery (ft)** 4.4'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/2/2010 9:00	
	ASI - Jeff Clemens	**Depth (ft):**	8.7'		
		St. Arrival:	8:45	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	9:35	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GW-GM	10YR 2/1	H	N	H	Wet	MP	UNC	90%	5%	5%	1.7	NA	Gravel, organic septic-like odor
2															
3													3.2	NA	
4		OL	10YR 2/1	S	N	H	Wet	MP	UNC	15%	5%	80%			Abrupt transition
BOC= 4.3													24.6	NA	
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 4.3". Core opened at 08:40. No samples collected. No native material observed.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11															
12 BOC = 11.9'															
13															
14															
15															
16															
17															
18															
19															
20															

Sample Summary:

Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
A	No samples collected															
B																
C																
D																
E																
F																
G																
H																
I																
J																
K																
L																
M																
N																
O																
P																
Q																
R																
S																
T																
U																

Reviewed by: *TMHimmer* Date: 4/5/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD105A	**Easting:**	631316.58	**Attempt 1**	**Refusal? Y/N**
Sampling	M. Velasquez/CH2M HILL	**Northing:**	670129.25	**Penetration (ft):** 20'	N
Crew/Company	R. Clennon/CH2M HILL	**Elevation:**	-15.2' NAVD88	**Recovery (ft)** 14.7	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/2/2010 10:30	
	ASI - J. Clemens/Captain	**Depth (ft):**	17.4		
		St. Arrival:	10:15	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:55	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		GW	10YR 2/1	H	N	H	Wet	SP	PHC (mod)	90%	5%	5%	18.1	N/A	Gravel - subangular
1.7													60.6		Transition zone - not sampled
1.9															
2		ML	10YR 2/1 → 10YR 6/6	H	N	S	Moist	FS	PHC (mod)	0%	40%	60%	95.3		* No NAPL coating, staining, or odor
		SM	10YR 5/1	H	N	H	Wet	FS	None	0%	85%	15%	8.8	A	
3		ML	10YR 4/2	F	N	H	Moist	VFS	None	0%	5%	95%	7.6		
4		SM	10YR 5/1	H	N	H	Wet	FS	None	0%	85%	15%	5.6		
										0%	51%	49%	11.6	B/F	
5									TLO (strong)	0%	85%	15%	327		* NAPL saturated (0.1' layer), brown, brown stain, low viscosity, not sticky/tacky
6		ML	10YR 3/2	F	N	H	Moist	VFS	TLO (strong)	0%	15%	85%	21.9		Light coating/moderate staining, tar-like odor, brown staining
													9.1		
7											10%	90%	12.0	C	
8									None				84.4		*
											40%	60%			
9													1.6		Interval not sampled
													1.7	NA	
10													3.1		

Additional Notes/Comments: Bottom of core at 14.1' Core opened at 13:30. * Indicates VOC collection depth.
Additional intervals sampled per EPA request.

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
11		ML	10YR 4/4	H	N	H	Wet	VFS	None	0%	40%	60%	0.5 1.2 7.6	D	No staining or odor observed
12		SM	10YR 5/4	H	N	H	Wet	FS	None	0%	85%	15%	1.8		
13													2.4	E	Sandy silt seam
14													8.0		
BOC= 14.1'															
15															
16															
17															
18															
19															
20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	GC-SD105A-01.9-03.9	N/MSD	04/02/2010 13:30	1.9-3.9	X	X	X	X	X	X	X	X	X	X		
	B	GC-SD105A-03.9-05.9	N	04/02/2010 13:30	3.9-5.9	X	X	X	X	X	X	X	X	X	X		
	C	GC-SD105A-05.9-07.9	N	04/02/2010 13:30	5.9-7.9	X	X	X	X	X	X	X	X	X	X		
	D	GC-SD105A-09.9-11.9	N	04/02/2010 13:30	9.9-11.9	X	X	X	X	X	X	X	X	X	X		
	E	GC-SD105A-11.9-13.9	N	04/02/2010 13:30	11.9-13.9	X	X	X	X	X	X	X	X	X	X		
	F	D-04022010-02	FD	04/02/2010 13:30	3.9-5.9	X	X	X	X	X	X		X				
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: TMHimmer Date: 4/2/2010

CH2MHILL

Site Name: Gowanus Canal Sediment Coring Investigation
Project Number: 395863
Project Location: Gowanus Canal, Brooklyn, New York
Survey Duration: March-April 2010

Station ID:	GC-SD106D	**Easting:**	631351.60	**Attempt 1**	**Refusal? Y/N**
Sampling		**Northing:**	670110.26	**Penetration (ft):** 3.1'	Y
Crew/Company	Not Sampled	**Elevation:**	-13.1' NAVD88	**Recovery (ft)** 2.1'	
		Datum:	NYSP Zone East NAD 83	**Date/Time:** 4/2/2010 9:50	
	ASI - J. Clemens/Captain	**Depth (ft):**	15.1'		
		St. Arrival:	9:35	**Attempt 2**	**Refusal? Y/N**
Vessel:	*R/V Manasquan*	**St.Depart:**	10:10	**Penetration (ft):** NA	
Collection:	vibracore	**Logged by:**	Michael Murphy	**Recovery (ft)**	
Collector Information:	T. Himmer/CH2M HILL	Log reflects sample as collected – no correction factor applied for less than 100% core recovery		**Date/Time:**	

Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
1		OL	10YR 2/1	VS	N	H	Wet	FS	UNC	0%	5%	95%	0.9	NA	
2															
BOC= 2.3'													0.9		
3															
4															
5															
6															
7															
8															
9															
10															

Additional Notes/Comments: Bottom of core at 2.3". Core opened at 09:00 No samples collected. No native material observed.

	Depth below mudline (ft)	Lithology	Type	Color (Munsell)	Consistency/ Density	Cementation/ Plasticity	Structure	Moisture Content	Maximum particle size	Odor	% gravel	% sand	% fines	PID Reading (ppm)	Sample IDs (Single Letter)	Comments
	11															
	12															
	13															
	14															
	15															
	16															
	17															
	18															
	19															
	20															

Sample Summary:

	Sample ID		Sample Type (N/FD/MSD)	Sample Date/Time	Depth Interval (ft)	TCL VOCs	TCL SVOCs	TCL Pesticides	TCL PCBs	TAL Metals + Hg	Cyanide	TOC	Sulfide	Grain Size	Archive	TCLP	RIC
	A	No samples collected															
	B																
	C																
	D																
	E																
	F																
	G																
	H																
	I																
	J																
	K																
	L																
	M																
	N																
	O																
	P																
	Q																
	R																
	S																
	T																
	U																

Reviewed by: *TMHimmer* Date: 4/5/2010

Appendix D
Field Documentation

D-01 – Sediment Coring Investigation

Sediment Coring Investigation Description

- **Attachment 2 – Sediment Core Photologs by Transect**

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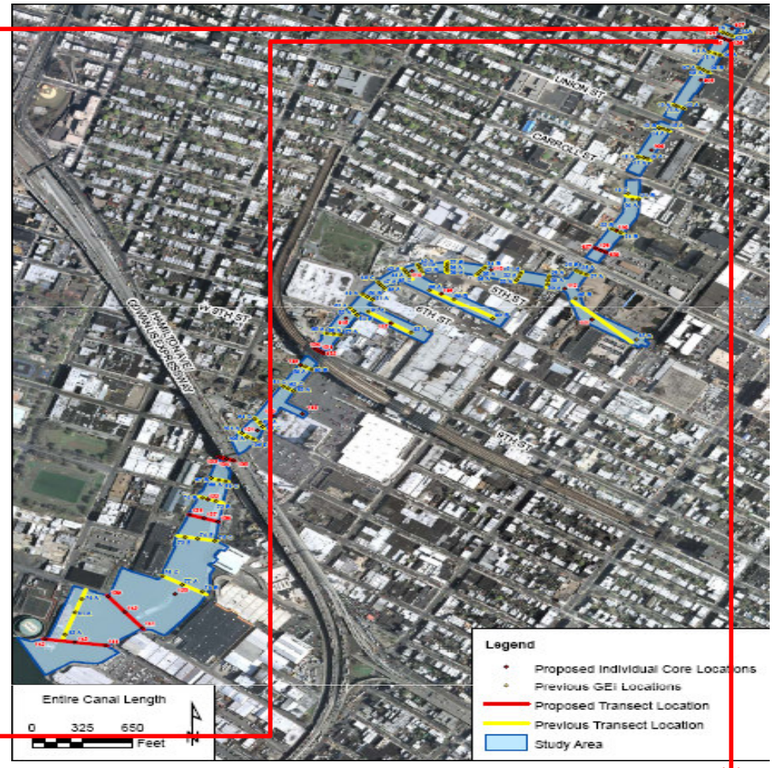
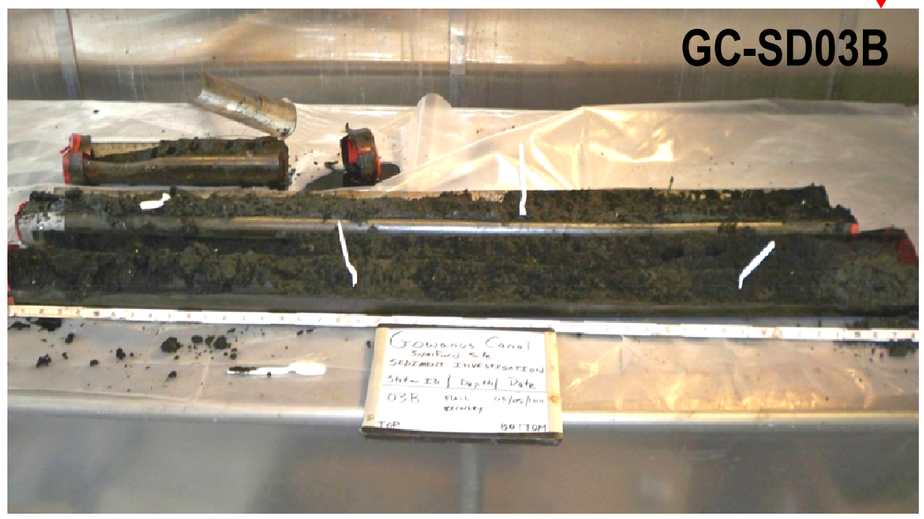
Transect A - Locations SD01A, SD02A, and SD03B









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect B - Locations SD04A, SD05A, and SD06A









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect C - Locations SD07A, SD08A, and SD09B





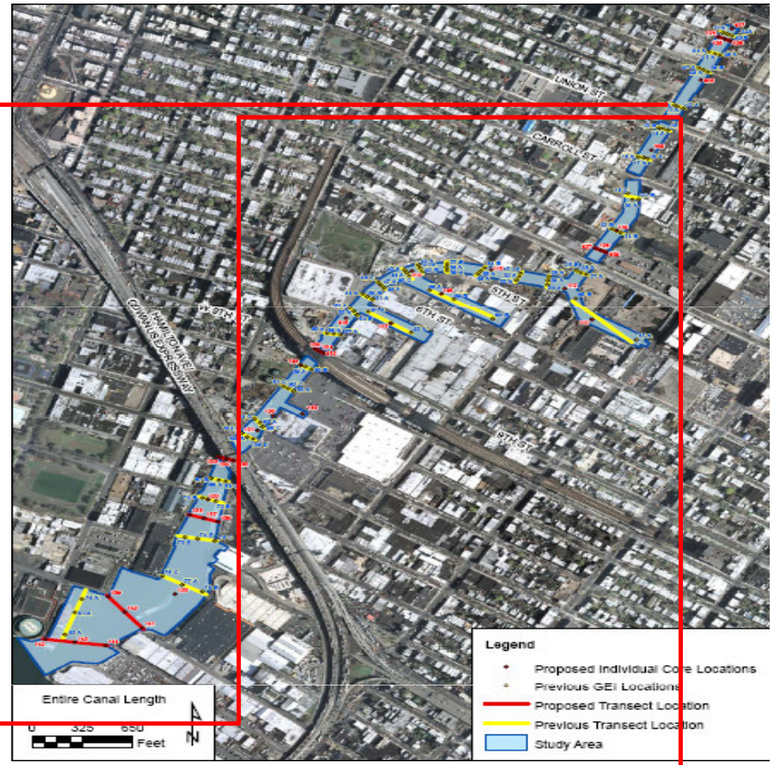


GC-SD09B – Location not sampled during the March-April Event. Location had been sampled during January coring event performed by USEPA-ERT.

The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect D - Locations SD10A, SD11A, and SD12A

GC-SD10A – Photo of entire core not available





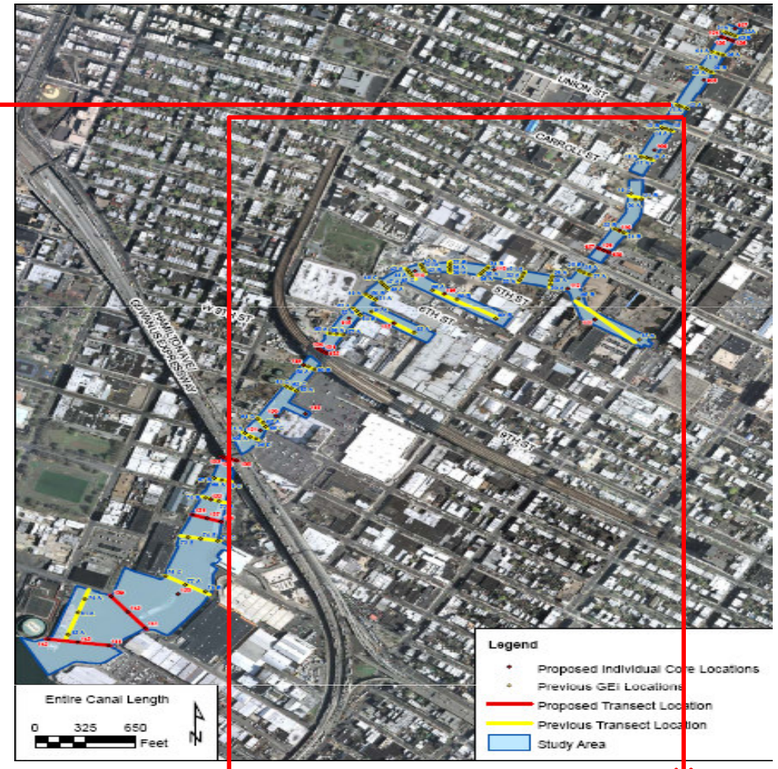


The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect E - Locations SD13B, SD14A, and SD15A



GC-SD14A - Photo of entire core not available



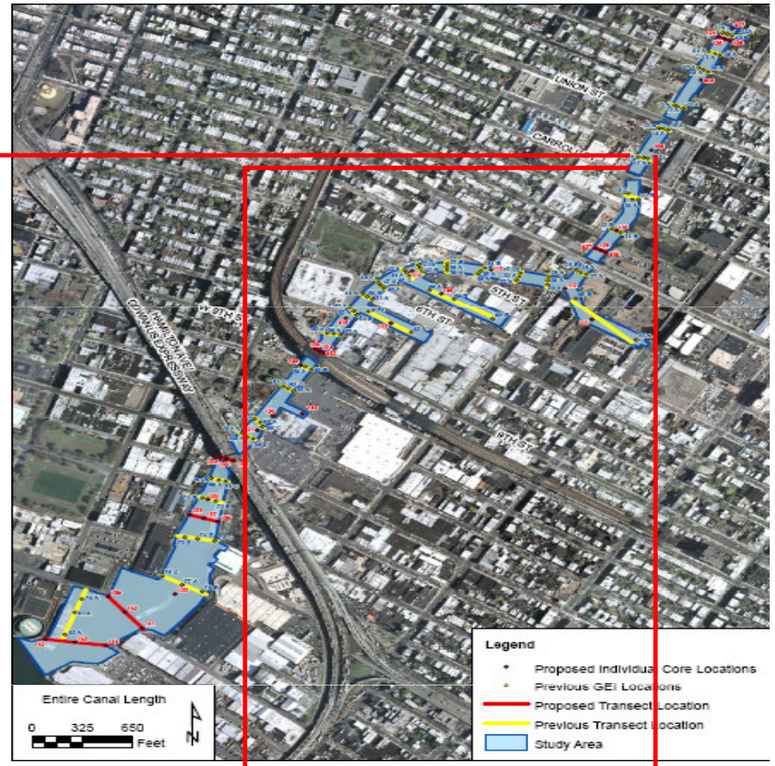
GC-SD15A - Location not sampled during the March-April Event. Location had been sampled during January coring event performed by USEPA-ERT.

The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect F - Locations SD16A, SD17A, and SD18A





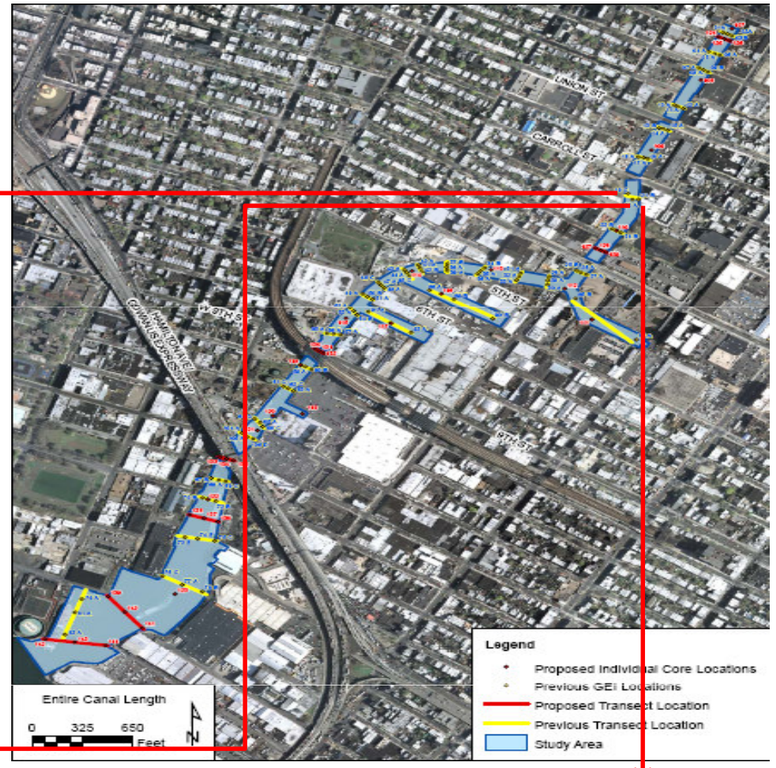


GC-SD18A - Photo of entire core not available

The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect G - Locations SD19C, SD20A, and SD21B









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect H - Locations SD22B, SD110, and SD24B





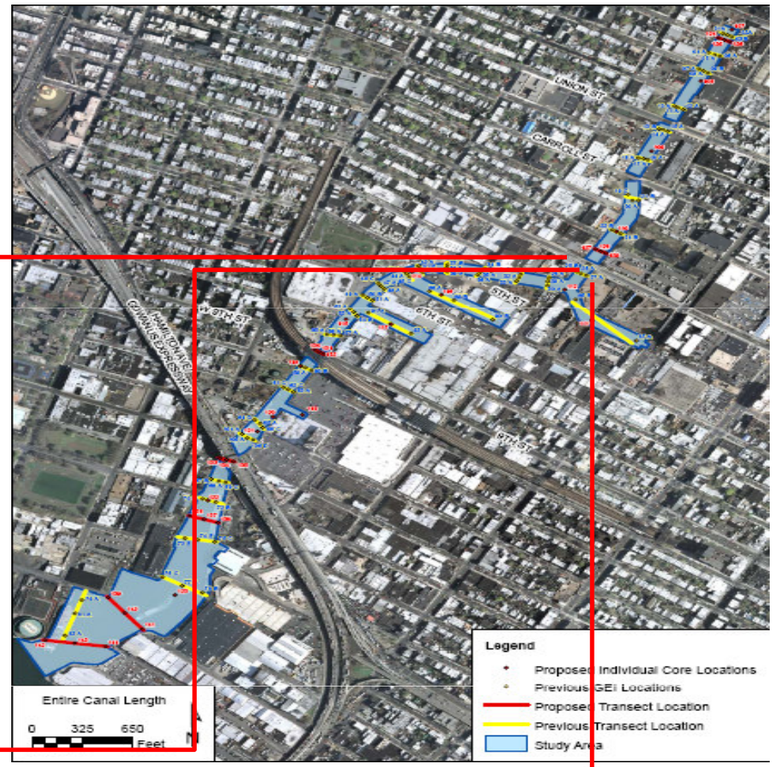




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect I - Locations SD25B, SD26A, and SD27A







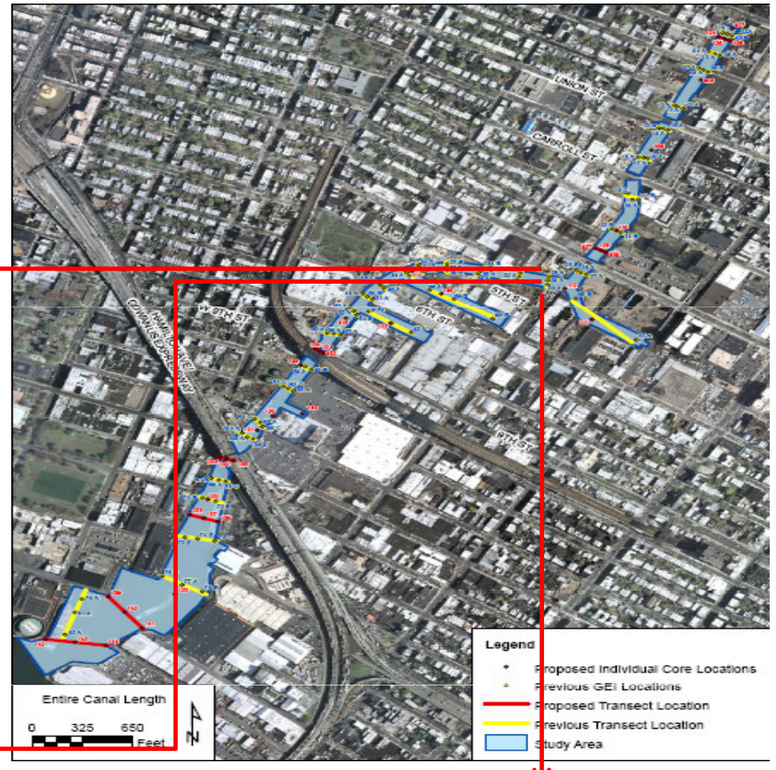


The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect J - Locations SD28A, SD29A, and SD30A









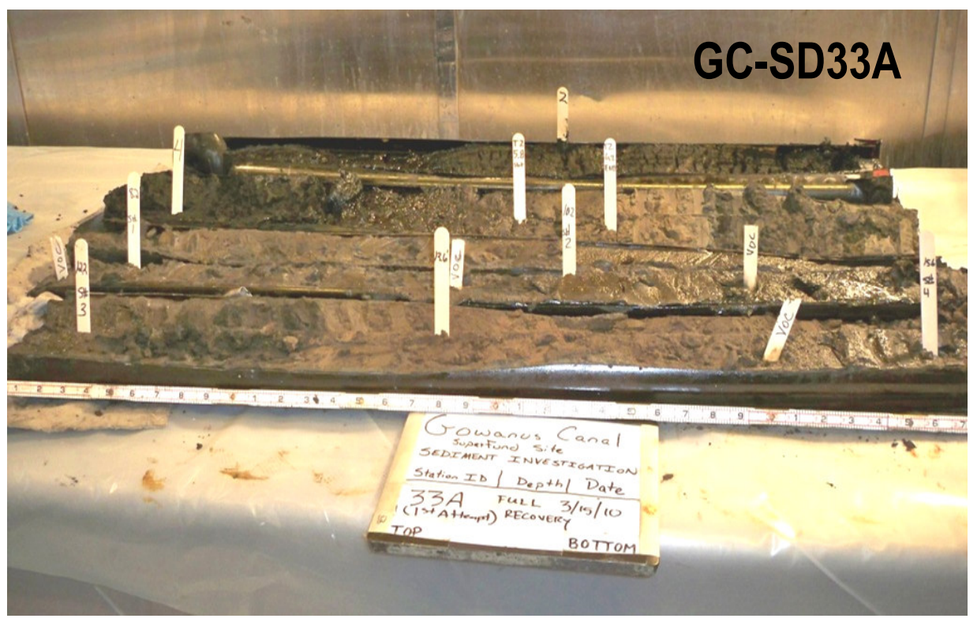
The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect K - Locations SD31A, SD32A, and SD33A









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect L - Locations SD34B, SD35A, and SD36A





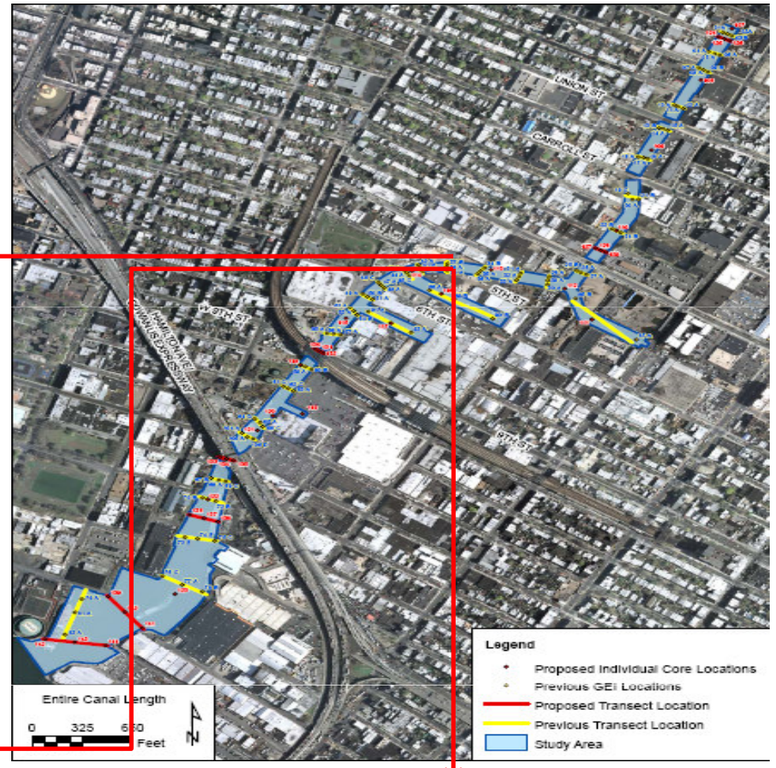


GC-SD36A – Photo of entire core not available

The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect M - Locations SD37B, SD38A, and SD39A









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect N - Locations SD40A, SD41A, and SD42B









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect O - Locations SD43A, SD44A, and SD45C









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect P - Locations SD46C, SD47A, and SD48A









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect Q - Locations SD49A, SD50B, and SD51A









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect R - Locations SD52A, SD53A, and SD54B





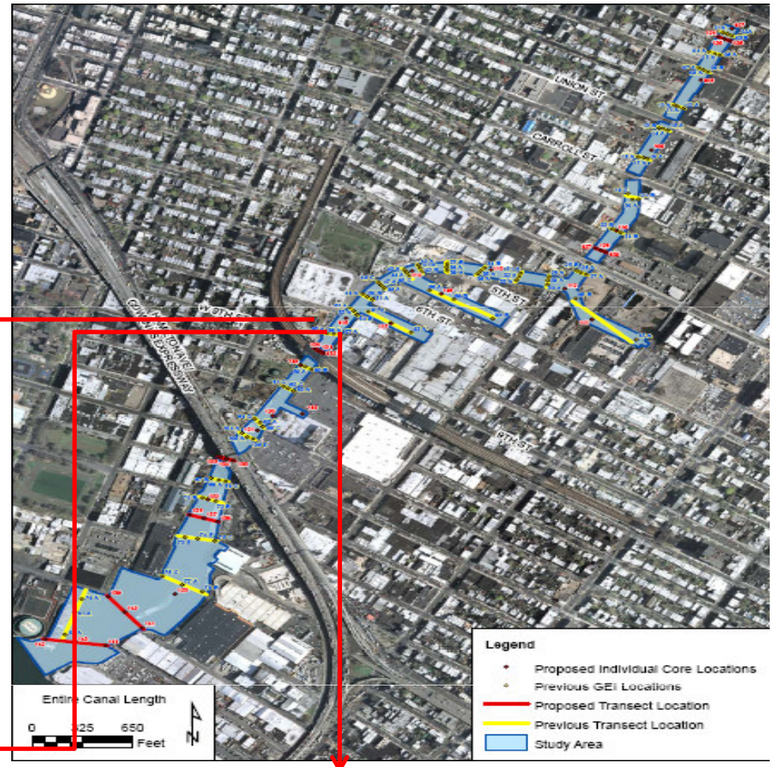




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect S - Locations SD55A, SD56A, and SD57A





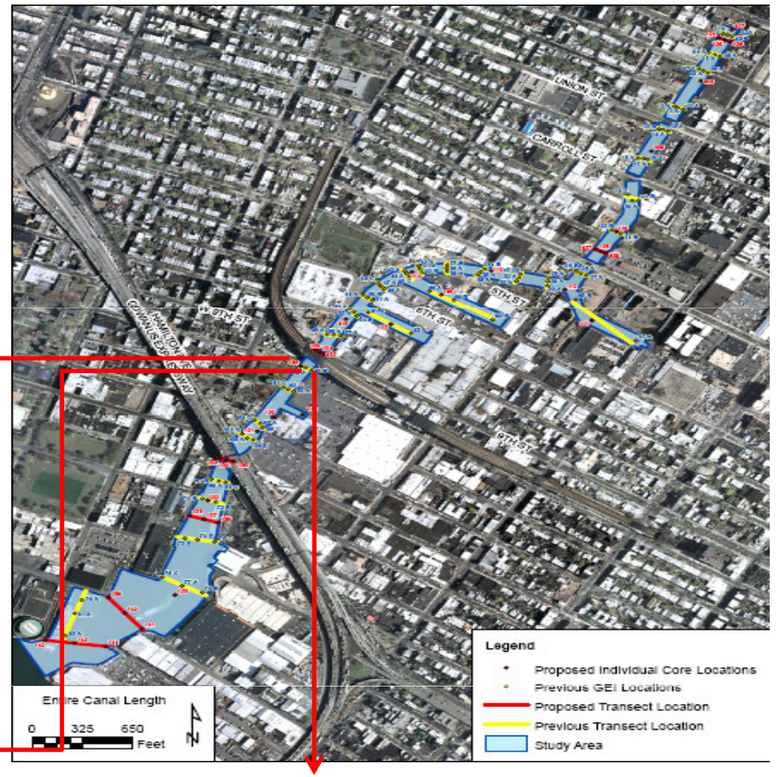




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect T - Locations SD118, SD59A, and SD60B









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect U - Locations SD61C, SD62C, and SD63A









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect V - Locations SD64D, SD65A, and SD66B









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect W - Locations SD67B, SD68A, and SD69C









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect X - Locations SD70B, SD122, and SD72B









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect Y - Locations SD73E, SD74E, and SD75C









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect Z - Locations SD76C, SD77A, and SD78B





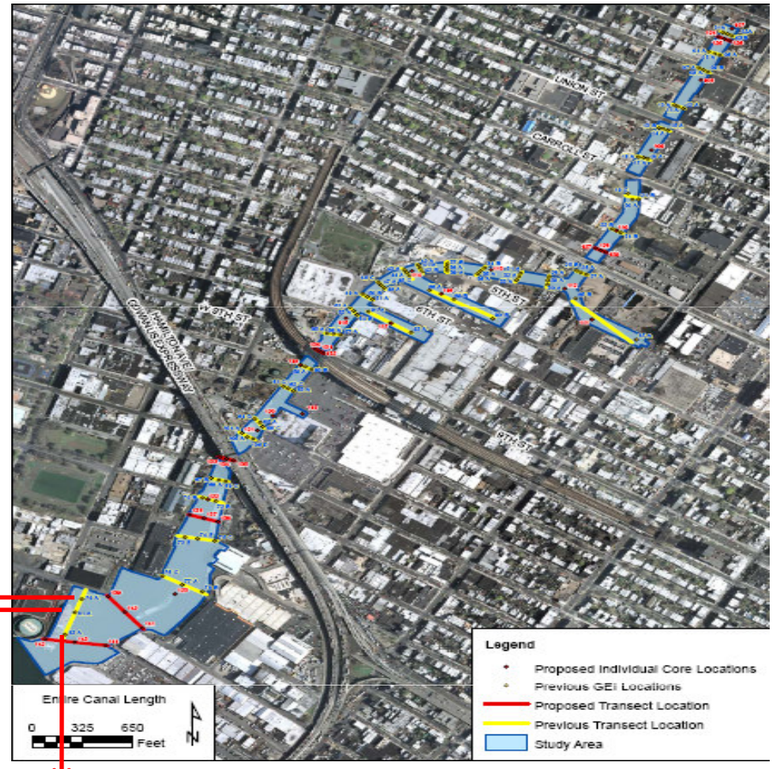




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect AA - Locations SD79A, SD81A, and SD83A









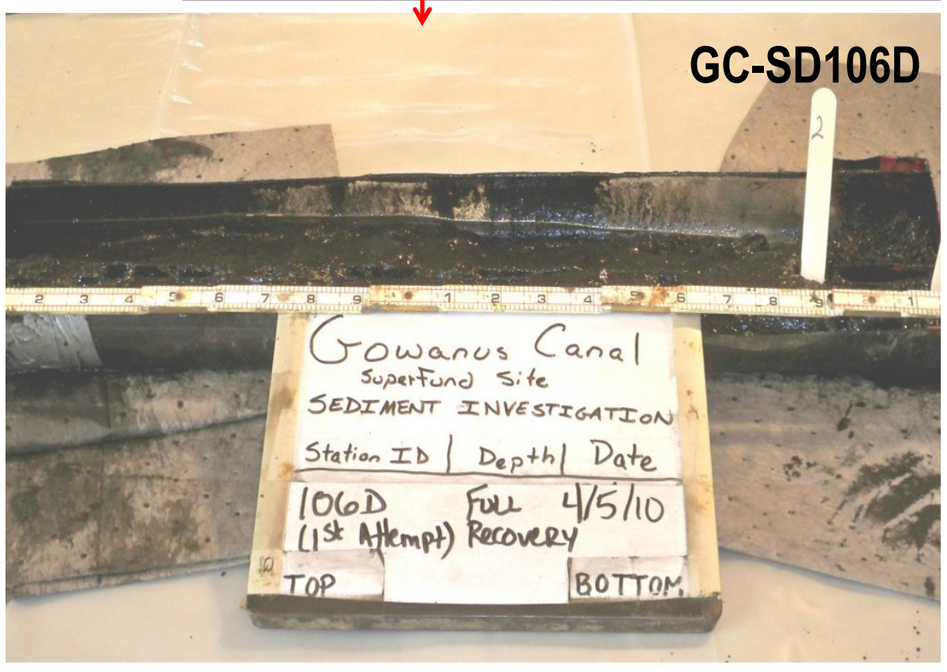
The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect BB - Locations SD104A, SD105A, and SD106D









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect 4th Street Basin - Locations SD85B, SD111, and SD87A







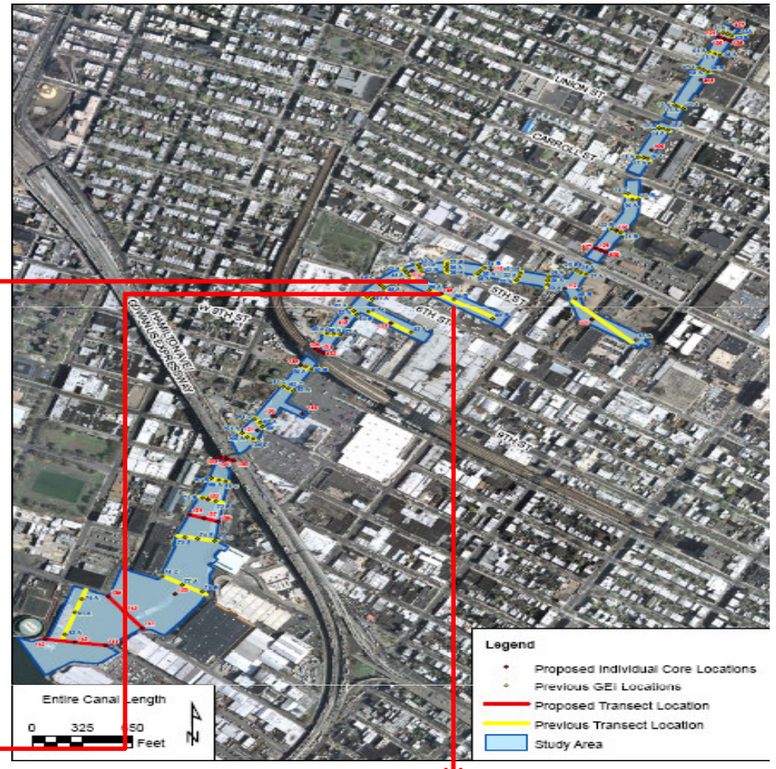


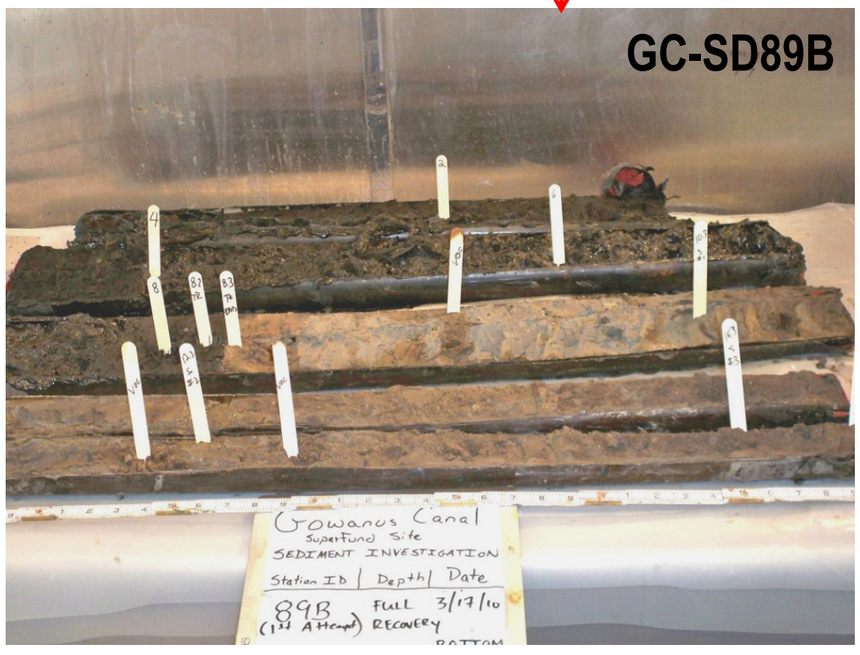
The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect 6th Street Basin - Locations SD88A, SD116, and SD89B









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

Transect 7th Street Basin - Locations SD91A, SD117, and SD93A





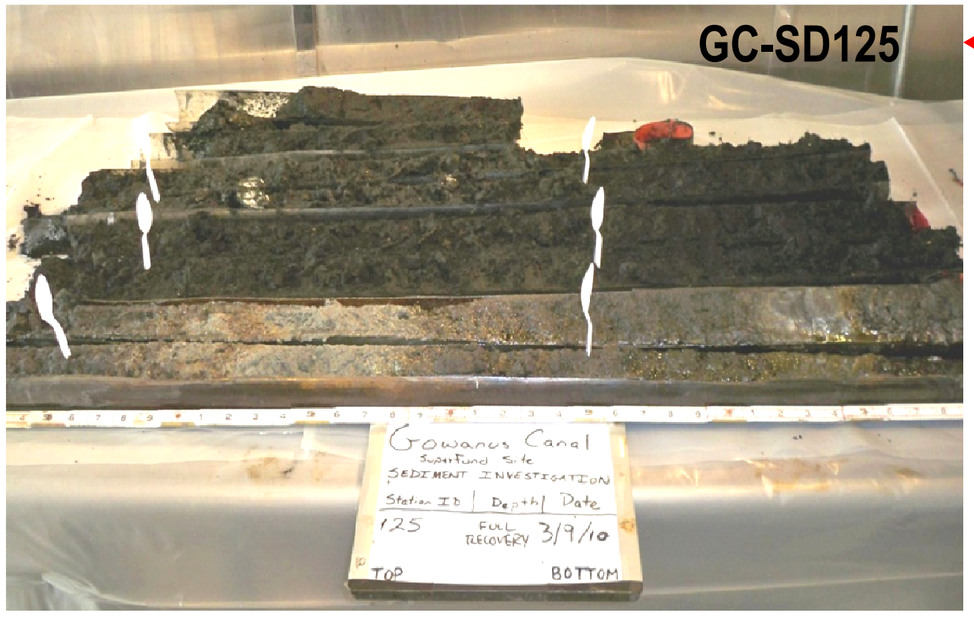


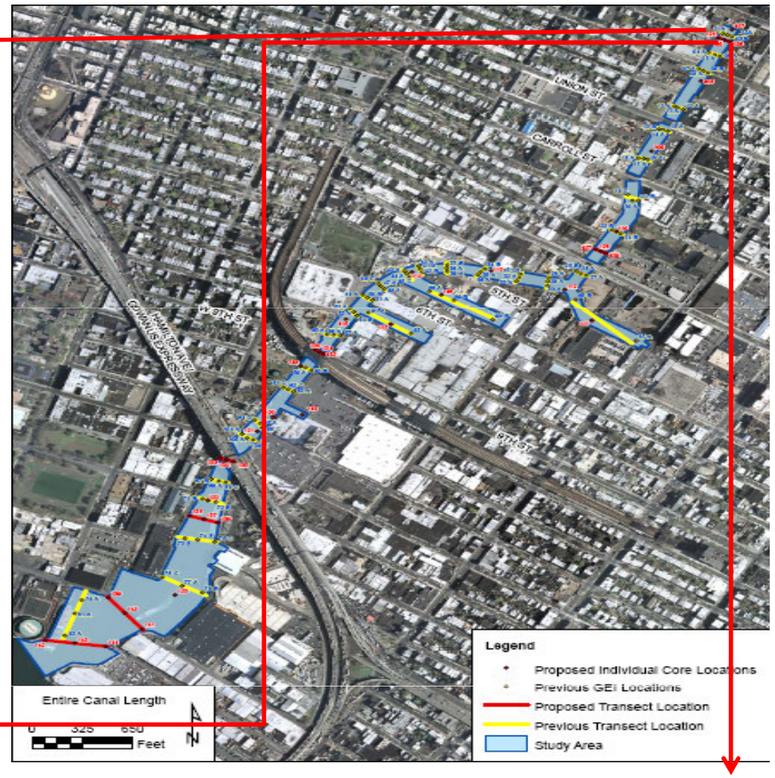


The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T1, Locations SD124, SD125, and SD126







GC-SD126 – No photo of entire core available

The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T2, Locations SD127, SD128, and SD129



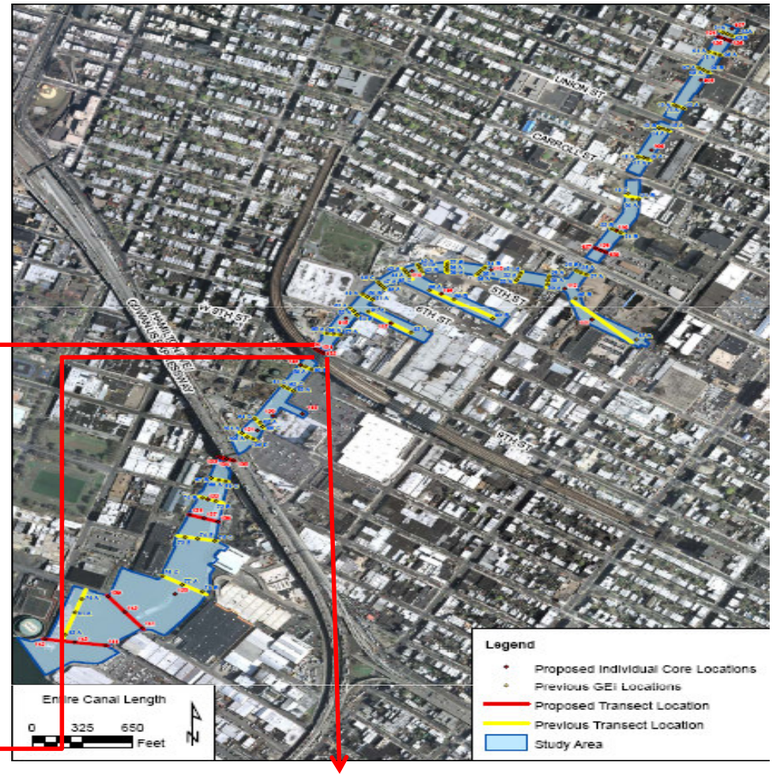




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right. The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T3, Locations SD130, SD131, and SD132





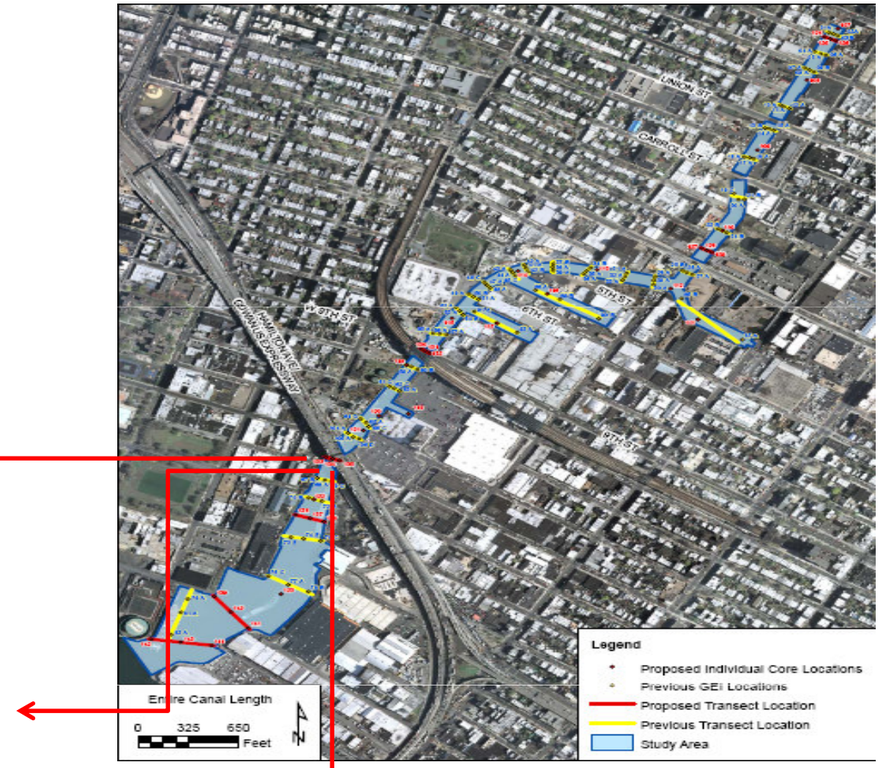




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T4, Locations SD133, SD134, and SD135



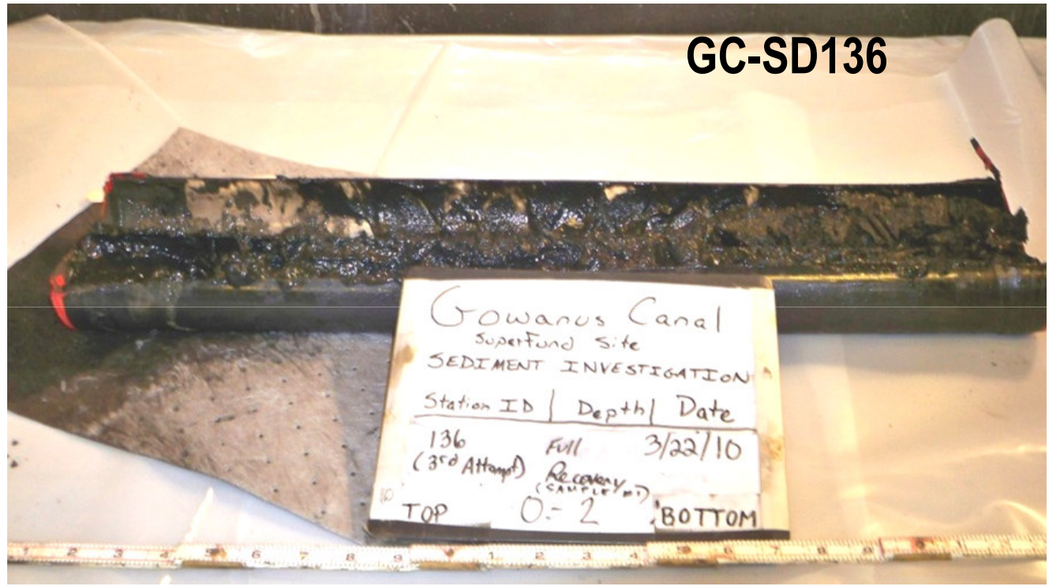


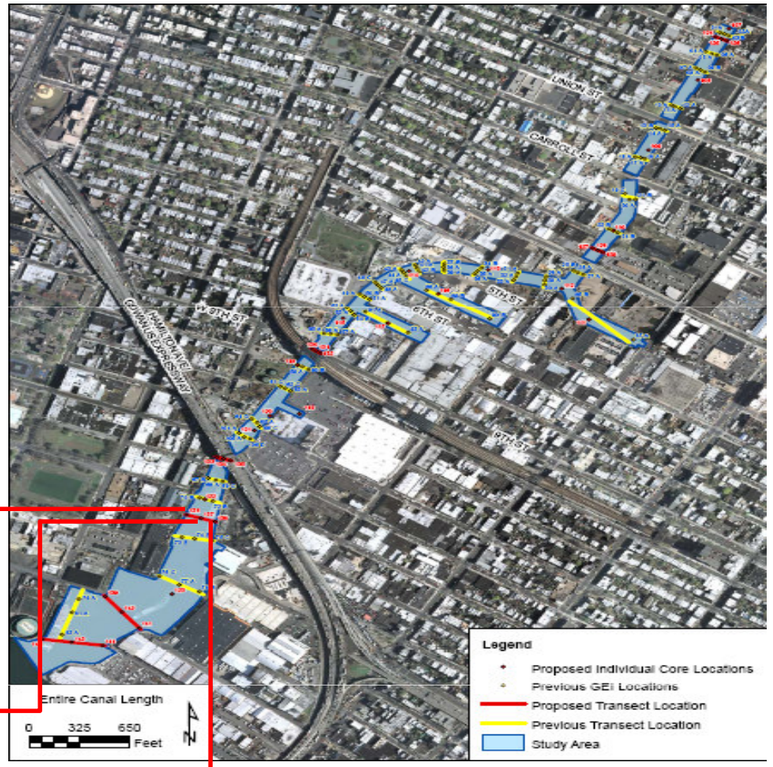




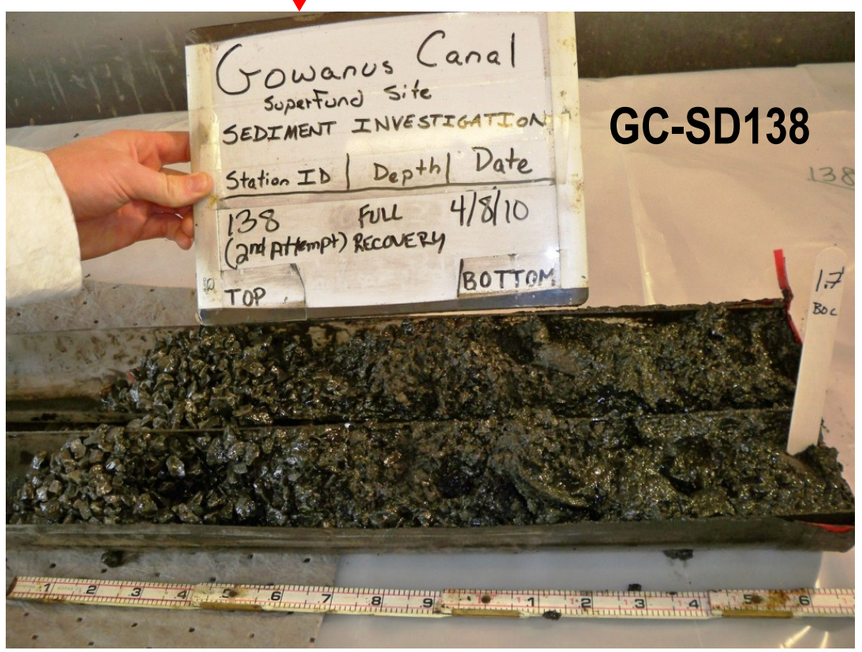
The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T5, Locations SD136, SD137, and SD138





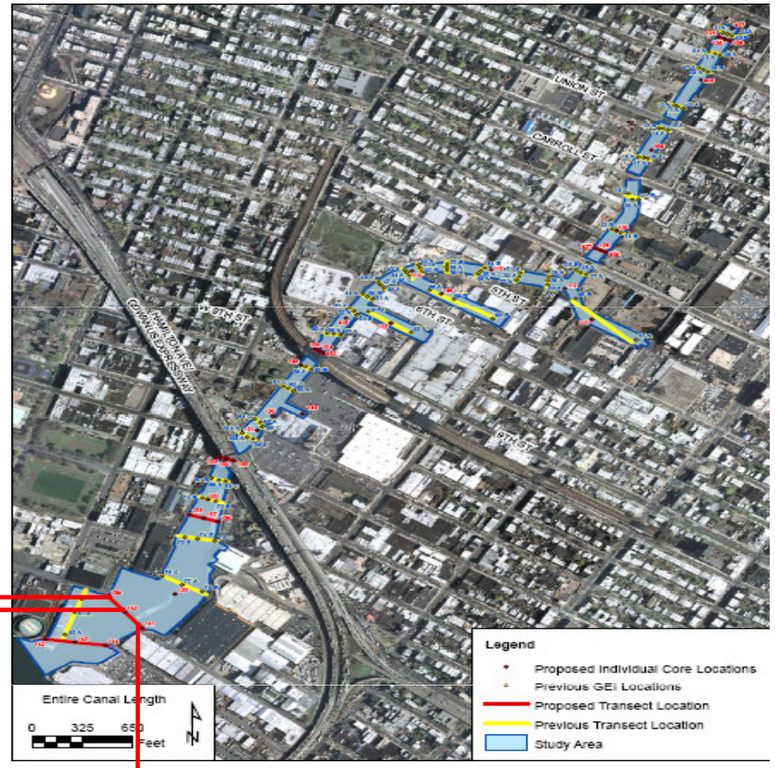




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T6, Locations SD139, SD140, and SD141

GC-SD139 – No Photo Available of Entire Core at GC-SD139



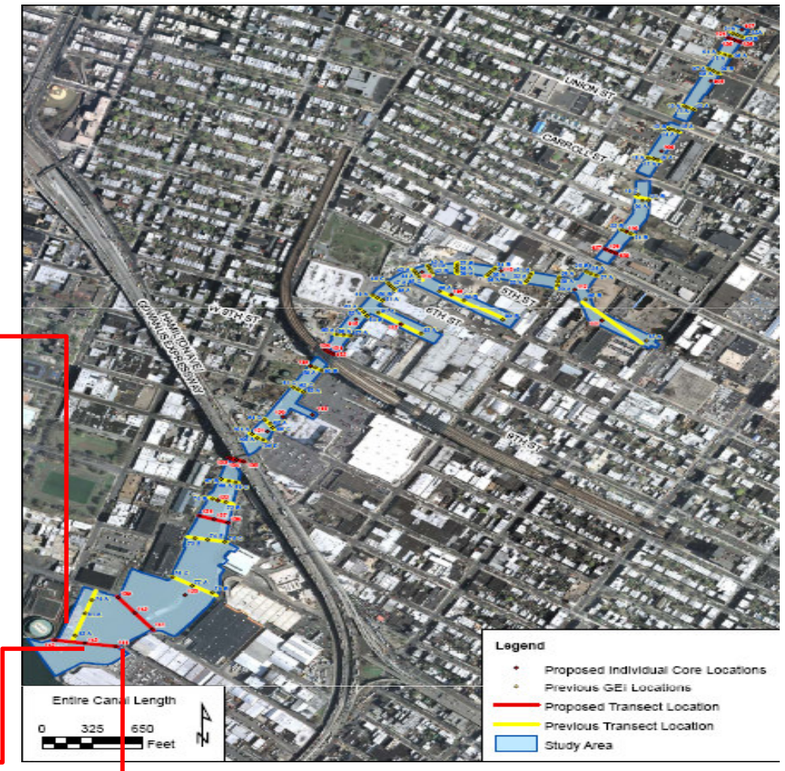




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T7, Locations SD142, SD143, and SD144





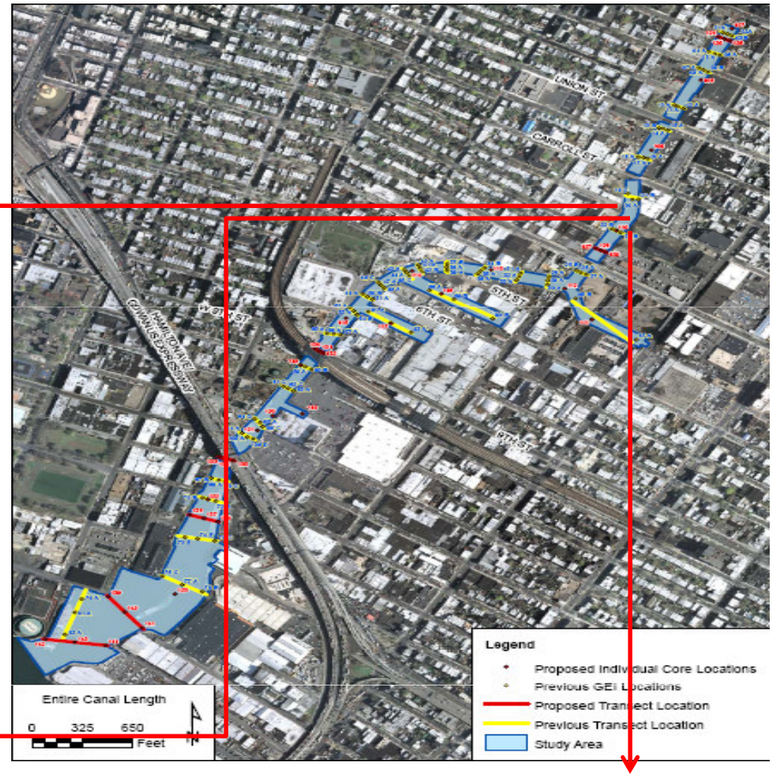




The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

New Transect – T8, Locations SD146, SD147, and SD148









The top of the core is situated in the upper left of each photo; the bottom of the core is in the lower right.
The plastic cutlery or wooden sticks indicate the different sampling intervals

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Appendix D
Field Documentation

D-01 – Sediment Coring Investigation

Sediment Coring Investigation Description

- **Attachment 3 – Sediment Core Photos (CD Only)**

SEE DOC ID #123619

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Appendix D
Field Documentation

D-01 – Sediment Coring Investigation

Sediment Coring Investigation Description

- **Attachment 4 – USEPA-ERT Sediment Core Logs**

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Project No: SERA01-SER00059

Log of Borehole: ERT 1-1

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6816817

Location: Brooklyn, NY

Longitude (W): -73.9870128

Logged By: C. Sklaney

Time and Date Collected: 10:02 01/28/10

SUBSURFACE PROFILE			SAMPLE			
Depth	Symbol	Description	Number	Type	Recovery	Notes
ft / m		Sediment Surface				
0 / 0		***Soft Sediment*** Black, organic, accumulated soft sediment, sulfur-like odor.	ERT1-1-A ERT1-1-B ERT1-1-C ERT1-1-D ERT1-1-E ERT1-1-F			PID malfunctioned.
6 / 2		***Sand (SP)*** Dark gray, fine to medium grained, firm.	ERT1-1-G ERT1-1-H			
7		***Clay (CL)*** Dark gray, occasional brown woody pieces.				
12 / 4		Borehole advanced to 12 feet.				
20 / 6						

Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 1-2

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6816444

Location: Brooklyn, NY

Longitude (W): -73.9868833

Logged By: C. Sklaney

Time and Date Collected: 09:20 01/28/10

SUBSURFACE PROFILE			SAMPLE			
Depth	Symbol	Description	Number	Type	Recovery	Notes
ft / m		Sediment Surface				
0 / 0		***Soft Sediment*** Black, organic, accumulated soft sediment, fine and coarse gravel, rock debris, occasional peat-like material, sulfur-like odor, petroleum hydrocarbon sheen in upper 3 feet.	ERT1-2-A ERT1-2-B ERT1-2-C ERT1-2-D ERT1-2-E ERT1-2-F ERT1-2-G ERT1-2-H			PID malfunctioned.
7 / 2		***Sand (SP)*** Dark gray, fine to medium grained, firm, black staining in horizontal bands.	ERT1-2-I			
12 / 4		Borehole advanced to 12 feet.				
20 / 6						

Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 1-3

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6815986

Location: Brooklyn, NY

Longitude (W): -73.9867656

Logged By: C. Sklaney

Time and Date Collected: 09:30 01/29/10

SUBSURFACE PROFILE			SAMPLE			
Depth	Symbol	Description	Number	Type	Recovery	Notes
ft / m		Sediment Surface				
0 / 0		***Soft Sediment*** Black, organic, accumulated soft sediment, runny, wet to 1.7 feet.	ERT1-3-A			PID malfunctioned.
1			ERT1-3-B			
			ERT1-3-C			
2		Spongy, some gravel, soft between 1.7 and 3.3 feet.	ERT1-3-D			
3 / 1			ERT1-3-E			
4		Leaves, roots, and more competent sandy texture between 3.3 and 7.7 feet.	ERT1-3-F			
5			ERT1-3-G			
6 / 2			ERT1-3-H			
7			ERT1-3-I			
8		***Sand (SP)*** Dark gray, fine to medium grained, dense.	ERT1-3-J			
9						
10 / 3		Becomes wetter and spongier between 9.5 and 10.5 feet.	ERT1-3-L			
11		***Clayey Sand (SC)*** Dark gray, fine grained.				
12		***Sand (SP)*** Dark gray, medium grained.	ERT1-3-N			
13 / 4						
14						
15		Borehole advanced to 15 feet.				
16						
17 / 5						
18						
19						
20 / 6						

Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 8 inch

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 2-1

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

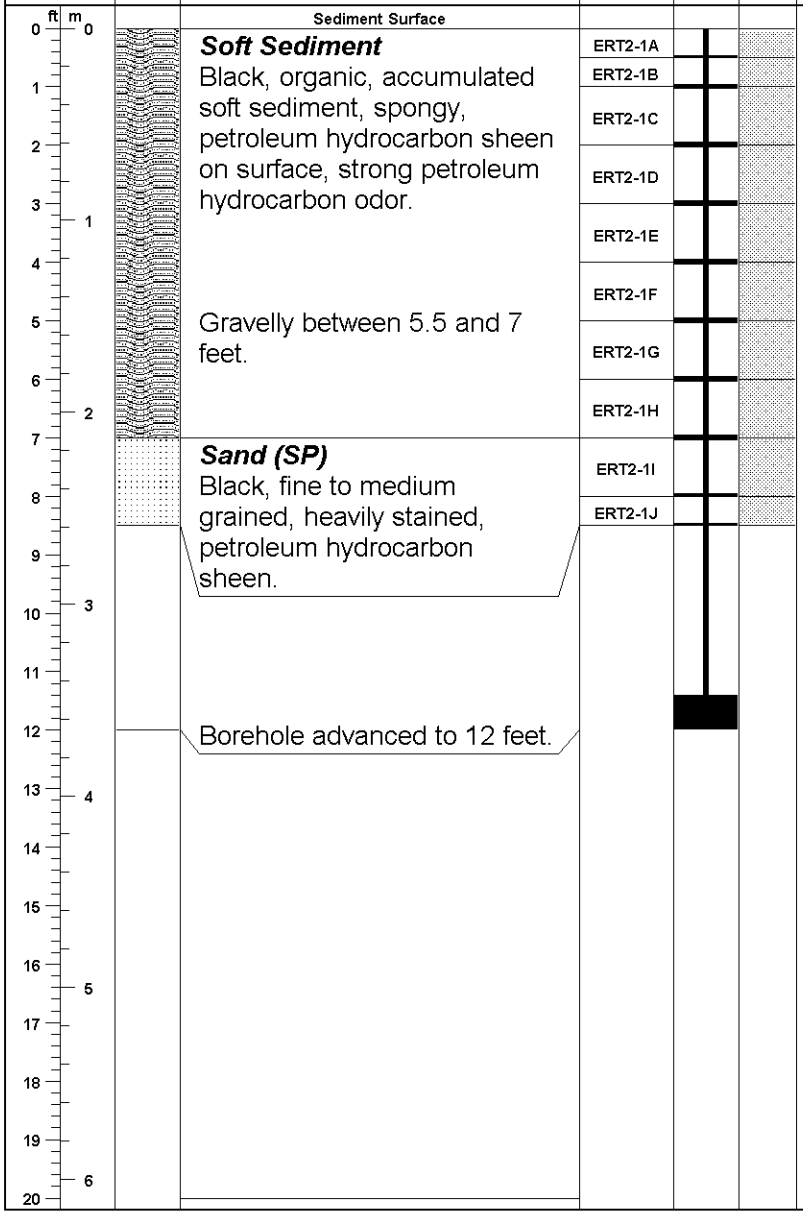
Latitude (N): 40.6813058

Location: Brooklyn, NY

Longitude (W): -73.9872789

Logged By: C. Sklaney

Time and Date Collected: 11:38 01/28/10



Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 2-2

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6812867

Location: Brooklyn, NY

Longitude (W): -73.9871489

Logged By: C. Sklaney

Time and Date Collected: 12:40 01/28/10

SUBSURFACE PROFILE			SAMPLE			
Depth	Symbol	Description	Number	Type	Recovery	Notes
ft / m		Sediment Surface				
0 / 0		***Soft Sediment*** Black, organic, accumulated soft sediment, spongy, petroleum hydrocarbon sheen. Very runny from 0 to 1 foot, less runny from 1 to 2 feet, and competent at 5 feet.	ERT2-2-A ERT2-2-B ERT2-2-C ERT2-2-D ERT2-2-E ERT2-2-F ERT2-2-G ERT2-2-H ERT2-2-I			PID malfunctioned.
8 / 2		***Sand (SP)*** Dark gray, medium grained, petroleum hydrocarbon stain and odor.				
12 / 3		Borehole advanced to 12 feet.				
20 / 6						

Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 2-3

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6812314

Location: Brooklyn, NY

Longitude (W): -73.9870197

Logged By: C. Sklaney

Time and Date Collected: 10:15 01/29/10

SUBSURFACE PROFILE			SAMPLE			
Depth (ft / m)	Symbol	Description	Number	Type	Recovery	Notes
0 / 0		Sediment Surface				
0 – 8		***Soft Sediment*** Black, organic, accumulated soft sediment, spongy.	ERT2-3-A, ERT2-3-B, ERT2-3-C, ERT2-3-D, ERT2-3-E, ERT2-3-F, ERT2-3-G, ERT2-3-H			
8 – 9.4		30% coal fragments between 8 and 9.4 feet.	ERT2-3-J			PID = <4 ppmv above 8 feet. PID = 5.8 ppmv.
9.4 – 11.5		***Sand (SP)*** Dark gray, medium grained, strong petroleum hydrocarbon odor.	ERT2-3-L			PID = 28 ppmv.
15.5		Borehole advanced to 16 feet.				
20 / 6						

Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 3-1

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6803922

Location: Brooklyn, NY

Longitude (W): -73.9878961

Logged By: C. Sklaney

Time and Date Collected: 14:15 01/27/10

SUBSURFACE PROFILE			SAMPLE			
Depth	Symbol	Description	Number	Type	Recovery	Notes
ft / m		Sediment Surface				
0 / 0		***Soft Sediment*** Black, organic, silty, some flat, angular rock debris, accumulated soft sediment, spongy, petroleum hydrocarbon sheen in upper one foot. Less silt and more rock clasts between 1 and 3 feet. Proportion of rock debris increases between 3 and 4.3 feet. Almost entirely gravel between 4.3 and 4.8 feet.	ERT3-1-A ERT3-1-B ERT3-1-C ERT3-1-D ERT3-1-E ERT3-1-F ERT3-1-G ERT3-1-H			PID malfunctioned.
10 / 3		***Silt (ML)*** Black, firm. Sandy with metal fragments between 5.8 and 6.5 feet.				
11		Borehole advanced to refusal at 8.8 feet.				
20 / 6						

Drill Method: Vibracore

Drill Company: Aqua Survey

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 3-2

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

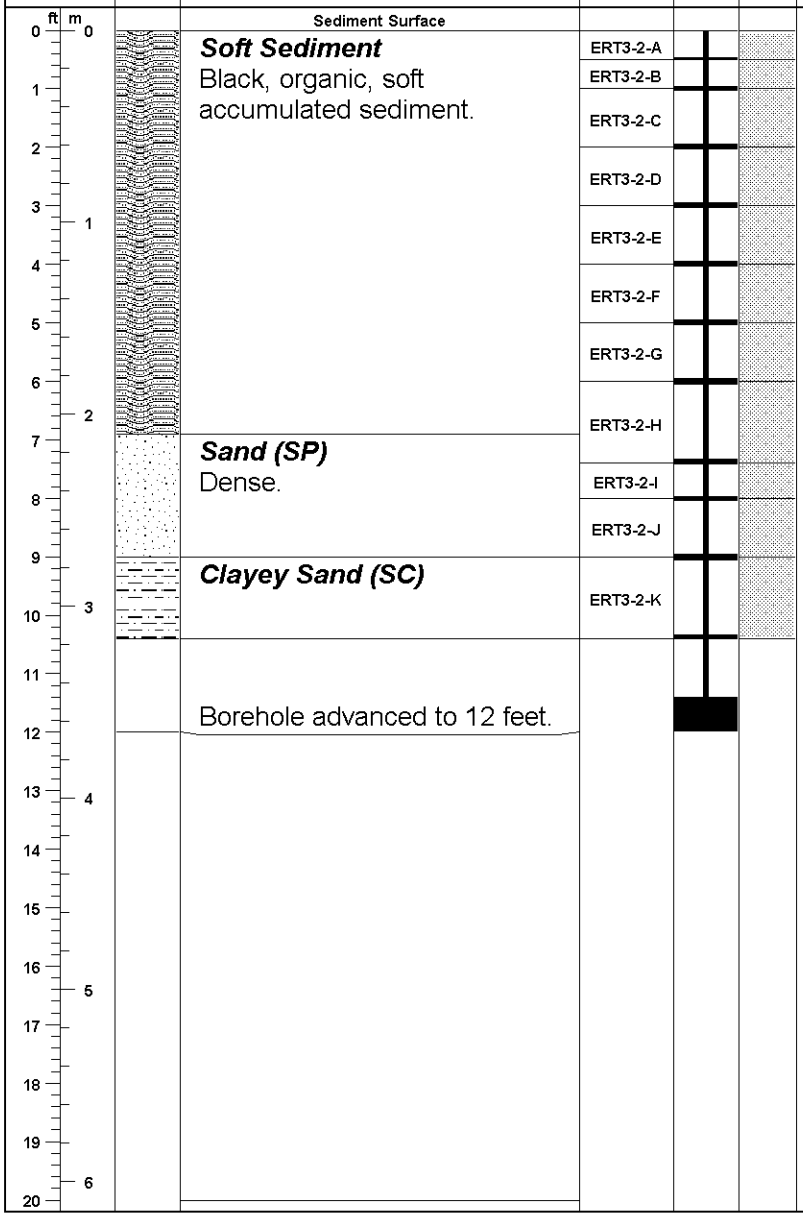
Latitude (N): 40.6803461

Location: Brooklyn, NY

Longitude (W): -73.9877786

Logged By: C. Sklaney

Time and Date Collected: 13:45 01/28/10



Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 3-3

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6803000

Location: Brooklyn, NY

Longitude (W): -73.9876608

Logged By: C. Sklaney

Time and Date Collected: 11:00 01/29/10

SUBSURFACE PROFILE			SAMPLE			
Depth (ft / m)	Symbol	Description	Number	Type	Recovery	Notes
0 / 0		Sediment Surface				
0 – 8.5		***Soft Sediment*** Black, organic, soft accumulated sediment.	ERT3-3-A ERT3-3-B ERT3-3-C ERT3-3-D ERT3-3-E ERT3-3-F ERT3-3-G ERT3-3-H ERT3-3-I ERT3-3-J			PID = <3 ppmv above 3 feet. PID = 3 ppmv at 3.5 feet. PID = 6 ppmv at 5.5 feet. PID = 9 ppmv at 7 feet.
8.5 – 13		***Sand (SP)*** Dark gray, fine to medium grained, trace gravel. Some gravel between 10.6 and 11.5 feet. Little gravel between 11.5 and 12.8 feet.	ERT3-3-L ERT3-3-N			PID = 22 ppmv at 9 feet. PID = 25 ppmv at 11 feet. PID = 19 ppmv at 12 feet.
13 – 16		***Gravel (GW)*** Fine and coarse gravel, strong petroleum hydrocarbon odor. Borehole advanced to 16 feet.				

Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Project No: SERA01-SER00059

Log of Borehole: ERT 4-3

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Latitude (N): 40.6792792

Location: Brooklyn, NY

Longitude (W): -73.9883389

Logged By: C. Sklaney

Time and Date Collected: 11:40 01/29/10

SUBSURFACE PROFILE			SAMPLE			
Depth (ft / m)	Symbol	Description	Number	Type	Recovery	Notes
0 / 0		Sediment Surface				
0–4 / 0–1		***Soft Sediment*** Black, organic, silty, soft accumulated sediment, petroleum hydrocarbon sheen and odor.	ERT4-3-A ERT4-3-B ERT4-3-C ERT4-4-D ERT4-4-E ERT4-4-F			PID = <3 ppmv above 4 feet.
5–6 / 1–2		Rock debris between 5.5 and 7.3 feet.	ERT4-4-G ERT4-4-H			PID = 5.8 ppmv at 5 feet. PID = 8 ppmv at 6.5 feet.
7–10 / 2–3		***Sand (SP)*** Dark gray, fine to medium grained, trace well rounded gravel, hydrocarbon sheen and strong petroleum hydrocarbon odor.	ERT4-4-I ERT4-4-J ERT4-4-K			PID = 25 ppmv at 7.5 feet. PID = 36 ppmv at 8.5 feet. PID = 10.6 ppmv at 9.5 feet.
10–12 / 3–4		Borehole advanced to 12 feet.				
13–20 / 4–6						

Drill Method: Vibracore

Drill Company: Aqua Survey, Inc.

Hole Size: 6 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Appendix D
Field Documentation

D-02 – Surface Sediment Sampling Field Forms

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Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 301
Time: 1500
Subcontractor/Crew: Matt Martin > HDR
Ed Grandt
Water Depth: 2.5'
Tide: Mid-high
Weather: Humid - 90° - Sunny

Bulk Sediment Sample ID: GC-SD301-0.0-0.5 **Grab Penetration** 0.5' ft **Sample Time:** 1500

Number of Sampling Attempts: ① 1

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): None
Water Color: brown
Clarity: clear
Turbidity: clear
Sheen: none observed

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C
PCB Congs	✓	+Archive Sample

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay (Sand) Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented (Loose)

Other Descriptors: SM - silty sand - black (10YR 2/1) - loose - organic (conifer) plant material + plastic, wet, trace gravel

COMMENTS/OBSERVATIONS

Sampler Signature/Date 6/23/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Matt > HDR
Casey

Station ID: GC-SD302-0.0-0.5
Time: 1430
Water Depth: 5.0
Tide: Mid-tide
Weather: P. Cloudy

Bulk Sediment Sample ID: GC-SD302-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1430

Number of Sampling Attempts: III

Problems During Collection: Problem w/ grab sampler pin / trigger

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe): None

Water Color: Brown

Clarity:

Turbidity:

Sheen: slight sheen brought up w/ sediment

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	X	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	X	8 oz wide mouth glass; 4°C
TCL PCBs	X	8 oz wide mouth glass; 4°C
TAL Metals + Hg	X	8 oz wide mouth glass; 4°C
Cyanide	X	8 oz wide mouth glass; 4°C
TOC	X	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	X	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

+ archive Sample

SED SAMPLE DESCRIPTION

Color: BLACK - 10YR 2/1 **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented (Loose)

Other Descriptors:

OL - 10YR 2/1 - organic silt - low plasticity trace sand / sand
sheen noted on surface of sediment
septic/organic odor - fibrous organic matter

COMMENTS/OBSERVATIONS

PID 2.5 ppm

Sampler Signature/Date [signature] 3/17/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York (303)

Samplers/Inspectors: R Clennon
Station ID: GC-SD303-00.0-00.5
Time: 1400 / 10/19/10
Subcontractor/Crew: HDR - ~~Matt~~ (R) Steve, Don
Water Depth: 4.8'
Tide: high
Weather: clear, breezy, mid 70s

Bulk Sediment Sample ID: GC-SD303-00.0-00.5
Grab Penetration: 0.5 ft
Sample Time: 1425
Number of Sampling Attempts: 8 (incl. mort. deployments for toxicity sample volume)
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP —, MS/MSD —

Floating Debris (describe): None
Water Color: Inky Black
Clarity: —
Turbidity: —
Sheen: —

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC / Grainsize	✓	8 oz wide mouth glass; 4°C + PCB Congener
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C + Archive Sample

SED SAMPLE DESCRIPTION

Color: 10YR 2/1
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
(Well) / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: Slight Sheen on water and sed.
Unc. Odor
debris + organics (leaf matter, twigs), Strings, plastic in Sample
USCS - OL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 10/19/10

Reviewed by _____ Date 10/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: K. Clennon
Station ID: GC-SD-304
Time: 1530 6/17/10
Subcontractor/Crew: HDR - Steve, Don
Water Depth: 7 ft 2 in
Tide: High
Weather: partly cloudy, breezy, mid 90's

Bulk Sediment Sample ID: GC-SD304-0000-0005
Grab Penetration: 0.5 ft
Sample Time: 1530

Number of Sampling Attempts: 1

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

Floating Debris (describe): None

Water Color: Inky black

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize	✓	
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

+ Archive sample

SED SAMPLE DESCRIPTION

Color: 7.5Y 2.5/1 black
Moisture: Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

(Well) / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: UNC odor
No visible debris
USCS: OL

COMMENTS/OBSERVATIONS

Sampler Signature/Date KLC OL 6/17/10

Reviewed by _____ Date 7-19-10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 305
Time: 1530
Subcontractor/Crew: Casey Mott > HDR
Water Depth: 9.5'
Tide: High
Weather: P. Cloudy - 80° - low humid

Bulk Sediment Sample ID: GC - SD305-0.0-0.5 **Grab Penetration** 7" ft **Sample Time:** 1530

Number of Sampling Attempts: 1111 => 4

Problems During Collection: water in grab sampler 1st 3 attempts/deployments

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): None
Water Color: brown
Clarity: None
Turbidity: - unable to see to bottom
Sheen: Floating sheen nearby

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	X	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	X	8 oz wide mouth glass; 4°C
TCL PCBs	X	8 oz wide mouth glass; 4°C
TAL Metals + Hg	X	8 oz wide mouth glass; 4°C
Cyanide	X	8 oz wide mouth glass; 4°C
TOC	X	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	X	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

+ Archive Sample

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors OL - Organic silt - 10YR 2/1 - organic/septic like odor
fibrous plant material - leaves + garbage

COMMENTS/OBSERVATIONS

PID 6.8

Sampler Signature/Date [signature] 6/17/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Cosey > HDR
Matt

Station ID: 306
Time: 1640
Water Depth: 8.5
Tide: High
Weather: P. Cloudy, 80° · low humid

Bulk Sediment Sample ID: GC-SD306-0.0-0.5
Grab Penetration: 6" ~~ft~~
Sample Time: 1640

Number of Sampling Attempts: III => 3

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

Floating Debris (describe): NONE
Water Color: brown
Clarity: cloudy - unable to see to bottom
Turbidity: floating solids
Sheen: sheen noted on sediment surface

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	X	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	X	8 oz wide mouth glass; 4°C
TCL PCBs	X	8 oz wide mouth glass; 4°C
TAL Metals + Hg	X	8 oz wide mouth glass; 4°C
Cyanide	X	8 oz wide mouth glass; 4°C
TOC	X	4 oz wide mouth glass; 4°C
Grainsize	X	
AVS/SEM	X	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: OL - Organic silt - 10YR 2/1 (Black) - well sorted/poorly graded - 10% gravelly mix (subrnd) fibrous plant material
strong septic like odor

COMMENTS/OBSERVATIONS

- Sheen noted on sediment
- PID not collected at this location
PID 2.2 ppm

Sampler Signature/Date: 6/11/10 1640

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Rachel Clennon	Station ID:	GC-SD306
		Time:	1150
Subcontractor/Crew:	Ed Brandt - HDR	Water Depth:	N/A
	Matt Papula - HDR	Tide:	
		Weather:	Sunny, low 90s

Bulk Sediment Sample ID: GC-SD306-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1200

Number of Sampling Attempts:

Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs		3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize	✓	
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black 10YR 2/1 **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: Black 10YR 2/1 silt (organic) trace to little fine sand, strong septic-like odor

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/24/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon
Station ID: GC-SD-307A
Time: 1650 / 1917/10
Subcontractor/Crew: HDR - Steve, Don
Water Depth: 6.0 ft
Tide:
Weather: Partly Cloudy, mid 70's

Bulk Sediment Sample ID: GC-SD307A-00.0-005 **Grab Penetration** 0.5 ft **Sample Time:** 1650

Number of Sampling Attempts: 1

Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

Floating Debris (describe): None
Water Color: Inky black/gray
Clarity: moderate
Turbidity: moderately turbid
Sheen: None

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C + PCB Congeners
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C + Archive

SED SAMPLE DESCRIPTION

Color: 7.5Y 2.5/1 black **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

(Well / poorly / mod - sorted) well / poorly / mod - cemented Loose

Other Descriptors: VNC odor
Few organics (twigs, leaf matter),
Trace fine-med Sand

COMMENTS/OBSERVATIONS

Sampler Signature/Date 6/17/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Mennon
Station ID: GC-SD307B
Time: 6/16/10 1555
Subcontractor/Crew: HDR - S. Nieto
D. Henshaw
Water Depth: 7.0 ft
Tide: high tide 1400, lowering
Weather: Sunny, v. Light breeze, High 80's

Bulk Sediment Sample ID: GC-SD307B-00.0-005
Grab Penetration 0.5 ft
Sample Time: 1555
Number of Sampling Attempts: 7 (Sampled on 7th attempt - parent sample - to add'l deployments necessary to achieve recovery for toxicity sample
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

Floating Debris (describe): None
Water Color: Inky Black
Clarity: Moderately Clear
Turbidity: very turbid / murky
Sheen: None evident

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4 °C
TCL Pesticides	✓	8 oz wide mouth glass; 4 °C
TCL PCBs	✓	8 oz wide mouth glass; 4 °C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4 °C
Cyanide	✓	8 oz wide mouth glass; 4 °C
TOC	✓	4 oz wide mouth glass; 4 °C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4 °C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4 °C

+ PCB Congener and Archive

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules (vf - f coarse-grained Ang / SA / SR / Rounded
(Well) poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: Black (2.5Y 2.5/1) Silt, trace vf-f sand, trace to little organics; ~~no~~ odor faint UNC odor; (OL)
PID: 1.1 ppm (PL)

COMMENTS/OBSERVATIONS

Sampler Signature/Date 6/18/10

Reviewed by _____ Date 7/19/10

* VOC Only *

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Matt, Ed

Station ID: 307B (VOC only)
Time: 1420 6/23/10
Water Depth: 9.0'
Tide: Mid - tide
Weather: Sunny - 80°

Bulk Sediment Sample ID: GC-SD307B-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1420

Number of Sampling Attempts: (1)

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) DUP _____, MS/MSD _____

Floating Debris (describe): —

Water Color: —

Clarity: —

Turbidity: —

Sheen: — Slight sheen (on)

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	☑	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	☐	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	☐	8 oz wide mouth glass; 4°C
TCL PCBs	☐	8 oz wide mouth glass; 4°C
TAL Metals + Hg	☐	8 oz wide mouth glass; 4°C
Cyanide	☐	8 oz wide mouth glass; 4°C
TOC	☐	4 oz wide mouth glass; 4°C
Grainsize	☐	
AVS/SEM	☐	4 oz wide mouth glass; no headspace; 4°C
Toxicity	☐	3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules (vf) coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented (Loose)

Other Descriptors:
- no sheen noted on sediment surface
- slight sheen noted on H_2O in area

COMMENTS/OBSERVATIONS

- down stream of outfall

Sampler Signature/Date [signature] 6/23/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Matt Martin / HDR, Ed Brant

Station ID: 308A
Time: 920
Water Depth: 0'
Tide: Mid → low
Weather: Sunny 85° - humid

Bulk Sediment Sample ID: GC-SD308A-0.0-0.5
Grab Penetration: 0.5 ft
Sample Time: 950

Number of Sampling Attempts: 0/1

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs: (NONE) (MM 7/19/10) (DUP) DUP-01, MS/MSD

Floating Debris (describe): Organic matter
Water Color: brown
Clarity: clear / brown
Turbidity: low
Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	X	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	8 oz Amber, wide mouth glass; protect from light, 4 °C
TCL Pesticides	X	8 oz wide mouth glass; 4 °C
TCL PCBs	X	8 oz wide mouth glass; 4 °C
TAL Metals + Hg	X	8 oz wide mouth glass; 4 °C
Cyanide	X	8 oz wide mouth glass; 4 °C
TOC	X	4 oz wide mouth glass; 4 °C
Grainsize		
AVS/SEM	X	4 oz wide mouth glass; no headspace; 4 °C
Toxicity		3 x 1-gallon HDPE buckets; 4 °C
PCB Cong	X	+ archive

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay (Sand) Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf-f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: SM - Silty Sand - reddish brown - few gravel (red, in moist/wet - broken glass fragments - no odor)

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 6/23/10

Reviewed by: [signature] Date: 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 308B
Time: 1000 6/23/10
Subcontractor/Crew: Matt
ED
Water Depth: 3'
Tide: Mid → low
Weather: Sunny - 85° - mod/high humid

Bulk Sediment Sample ID: GC-SD308B-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1005

Number of Sampling Attempts: 1

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

Floating Debris (describe): Garbage / Floating organic matter
Water Color: Brown / Cloudy
Clarity: Clear
Turbidity: Clear / Cloudy
Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C
PCB Cong	✓	+ archive

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod sorted well / poorly / mod - cemented Loose

Other Descriptors: OL - Black (10YR 2/1) organic silt - wet - trace fibrous organic matter, trace gravel (sub angular), homogeneous organ

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/23/10

Reviewed by [signature] Date 6/23/10
DR 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Matt > HDR
Casey

Station ID: 309
Time: 1015
Water Depth: 13.1
Tide: High > M.d
Weather: Sunny - 80° - low humid

Bulk Sediment Sample ID: GC-SD 309-0.0-0.5 **Grab Penetration** 7" **Sample Time:** 1015

Number of Sampling Attempts: 1/1

Problems During Collection: - none

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** **MS/MSD**

Floating Debris (describe): coke bottle, organic debris

Water Color: brown

Clarity: water is clear in pond - cloudy - much to sea canal flow

Turbidity: slight turbid

Sheen: No sheen observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	X	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	X	8 oz wide mouth glass; 4°C
TCL PCBs	X	8 oz wide mouth glass; 4°C
TAL Metals + Hg	X	8 oz wide mouth glass; 4°C
Cyanide	X	8 oz wide mouth glass; 4°C
TOC	X	4 oz wide mouth glass; 4°C
Grainsize	X	
AVS/SEM	X	4 oz wide mouth glass; no headspace; 4°C
Toxicity	X	3 x 1-gallon HDPE buckets; 4°C
PCB congeners	X	1 oz wide mouth 4°C + archive

SED SAMPLE DESCRIPTION

Color:

Moisture: Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules (vf) coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: OL - Organic Silt - low plasticity - homogeneous, trace gravel (45%) - wet

COMMENTS/OBSERVATIONS

PID headspace - 1.1

Sampler Signature/Date 6/18/10 1015

Reviewed by [signature] Date 7/19/10

VOC Only

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn/Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Matt > HDR
EJ

Station ID: 309 (VOC only)
Time: 1400
Water Depth: 8.7
Tide: mid-tide
Weather: Sunny 90°

Bulk Sediment Sample ID: GC-SD309-0.0-0.5
Grab Penetration ft
Sample Time: 1400

Number of Sampling Attempts: (1)

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
(NONE) DUP _____, MS/MSD _____

Floating Debris (describe): Organic matter / garbage
Water Color: —
Clarity: —
Turbidity: —
Sheen: —

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules (Vf) f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors:
- no sheen noted
- collected along side bridge

COMMENTS/OBSERVATIONS

PID 0.0

Sampler Signature/Date: 6/23/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Clennon - CH2M Hill
Station ID: GC-SD310
Time: 0920
Subcontractor/Crew: Matt Papula - HDR
Ed Brandt - HDR
Water Depth: 5.6 ft
Tide: high-falling
Weather: mostly sunny, high 80s

Bulk Sediment Sample ID: GC-SD310-0.0-0.5
Grab Penetration 0.5 ft
Sample Time: 0950

Number of Sampling Attempts: 6 deployments to achieve volume required for toxicity sample

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C

RB Conserver

SED SAMPLE DESCRIPTION

Color: Black 10YR2/1
Moisture: Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented (Loose)

Other Descriptors: Organic Silt (10YR2/1) trace to little fine sand, some organics (algae, coarse debris (plastic)), faint septic PUNC odor.

COMMENTS/OBSERVATIONS

PID: 1.7 ppm

Sampler Signature/Date [signature] 6/18/10

Reviewed by [signature] Date 7/29/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Mott > HDR, Ed
Station ID: 311
Time: 1100
Water Depth: 5.4'
Tide: Mid - low
Weather: Sunny - 80° - mod Humidity

Bulk Sediment Sample ID: GC-SD311-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1105

Number of Sampling Attempts: 1

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC Sample IDs:
NONE DUP _____, MS/MSD _____

Floating Debris (describe): None
Water Color: Clear/ none - Brown
Clarity: Clear
Turbidity: Clear
Sheen: none noted

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: OC - Organic Silt - low Plasticity - strong septic like odor, sheen noted on sediment surface

COMMENTS/OBSERVATIONS

PID - 0.0

Sampler Signature/Date _____ 6/23/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 312
Time: 1140
Subcontractor/Crew: Matt, Ed > HDR
Water Depth: 2.6
Tide: low - mid
Weather: sunny - 80° - mod hmid

Bulk Sediment Sample ID: GC - SD312 - 0.0 - 0.5
Grab Penetration 0.5 ft
Sample Time: 1140

Number of Sampling Attempts: 1

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

Floating Debris (describe): Garbage + Floating organic matter
Water Color: brown
Clarity: clear
Turbidity: none observed
Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C
PCB Congeners	✓	+ archive

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented (Loose)
Other Descriptors: OL - Organic Silt - black (10YR 2/1) - fewer organic matter (fibrous) - wet strong organic odor, non plastic homogenous, v. soft, loose, poorly cemented, non plastic

COMMENTS/OBSERVATIONS

PBD - 0.5

Sampler Signature/Date 6/23/10

Reviewed by _____ Date 7/19/2010

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon
Station ID: SED ~~30~~ 313
Time: ~~1020~~ (RC) Sample Time: ~~1030~~ 1120
Subcontractor/Crew: HDR: Steve Nero, Don Henshaw
Water Depth: 6.0 (RC) ~~5~~ CA; 7.2" when anchored out
Tide: low
Weather: Sunny, clear, high 70s

Bulk Sediment Sample ID: GC-SED313-00.0-00.5 **Grab Penetration** 0.5 ft **Sample Time:** 11

Number of Sampling Attempts:

Problems During Collection: See notes below; several attempts made @ scoped location only recovered water and rocks, moved to just inside turning basin mouth for collection

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** ✓ (RC) No dup collected, **MS/MSD**

Floating Debris (describe): None
Water Color: clear to translucent inkly black
Clarity: moderately clear
Turbidity: low to moderate
Sheen: Yes; when sed. disturbed and ponar brought up

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C

+ PCB consener (8 oz. amber)
+ Archive (8 oz. amber)

SED SAMPLE DESCRIPTION

Color: 2.5Y 2.5/1 **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
(Well) / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: PHC-like odor (moderate)
PID Rdg: 12.0 ppm on % moisture Sample
2.5Y 2.5/1 Black silt, trace f-m sand, trace organics, well sorted
USCS: OL

COMMENTS/OBSERVATIONS

1st Attempt - No Recovery
2nd Att. - Few Rock fragments
3rd Att. - rock fragments
4th Attempt - (new loc.) - all water
5th Attempt - rocks
Attempts: 11/1 - Attempt 9, just inside mouth of turning basin, achieved acceptable recovery
PID reading in sample: 12.0; Sheen on water appeared when ponar first brought up

Sampler Signature/Date

Reviewed by [signature] Date 7/19/2010

** VOC only **

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 313 (VOC only)
Time: 1305 7/19/10
Subcontractor/Crew: Matt > HDR
EJ
Water Depth: 4.9'
Tide: Mid Ebb
Weather: Sunny 90°

Bulk Sediment Sample ID: GC-SD313-0.0-0.5 **Grab Penetration** 6.5 ft **Sample Time:** 1305

Number of Sampling Attempts: 1

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) DUP _____, MS/MSD _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen: Sheen on water upon retrieval

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules (f) f coarse-grained Ang / SA / SR / Rounded

(Well) / poorly / mod - sorted well / (poorly) / mod - cemented (Loose)

Other Descriptors:

fibrous organic matter

COMMENTS/OBSERVATIONS

** re-collect for VOCs only *

Sampler Signature/Date _____ 6/23/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 314
Time: @ station 1300
Subcontractor/Crew: Casey Matt > HDR
Water Depth: 6.5
Tide: Mid tide
Weather: clear / sunny / 70-80

Bulk Sediment Sample ID: GC-SD314-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1315

Number of Sampling Attempts: ~~IIII~~ 11

Problems During Collection: low recovery

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): Garbage +
Water Color: brown - brown sheen
Clarity: brown - low turbidity
Turbidity: mod
Sheen: sheen noted

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	X	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	X	8 oz wide mouth glass; 4°C
TCL PCBs	X	8 oz wide mouth glass; 4°C
TAL Metals + Hg	X	8 oz wide mouth glass; 4°C
Cyanide	X	8 oz wide mouth glass; 4°C
TOC	X	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	X	4 oz wide mouth glass; no headspace; 4°C
Toxicity	X	3 x 1-gallon HDPE buckets; 4°C ← will return @ another time
PCB Congeners	X	

SED SAMPLE DESCRIPTION

Color: Black 10YR 2/1 **Moisture:** Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: OL - organic silt - tar-like odor - trace gravel (<5%) very dark brown/grey (~10YR 3/2) - NAPL floating on H_2O of sample - tar-like odor - escaping out of sediment pore space

COMMENTS/OBSERVATIONS

Brown slick noted in area
Sheen noted on water surface of sample
Heavy sheen noted on water upon poner retrieval
PID - 5.0

Sampler Signature/Date [signature] 6/17/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Rachel Clennon-CH2m Hill	Station ID:	GC-SD314
		Time:	1030
Subcontractor/Crew:	HDR: Mike Papula, Ed Brandt	Water Depth:	3.2 ft
		Tide:	high-falling
		Weather:	few clouds; mid 80s

Bulk Sediment Sample ID: GC-SD314-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 0945

Number of Sampling Attempts: 1

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

~~NONE~~ RC **DUP** D-06242010-01, **MS/MSD** _____
(collected for VOCs only)

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black 10YR 2/1 / 7.5Y 2/1 **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented (Loose)

Other Descriptors: Black silt, organic, 10YR 2/1 / 7.5Y 2/1 trace v. fine sand, moderate tar-like odor, sheen

COMMENTS/OBSERVATIONS

PID: 15.4 ppm

-Resampled for VOCs only

Sampler Signature/Date [signature] 6/24/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon
Station ID: GC-SD315
Time: 1200
Subcontractor/Crew: HDR: S Niero (captain)
D. Henshaw (helper)
Water Depth: ~~16.0 ft~~ 9.5 ft
Tide: (RC) low tide
Weather: Sunny, clear low 80s

Bulk Sediment Sample ID: GC-SD315-00.0-00.5 **Grab Penetration** 0.5 ft **Sample Time:** 1240

Number of Sampling Attempts: (1st location), (2nd location), At 3rd loc - 1 attempt, plus

Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** D-06182010-02 **MS/MSD**

Floating Debris (describe): None
Water Color: light inky gray to clear
Clarity: moderate
Turbidity: moderate
Sheen: Slight Sheen

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C + PCB Congener
Grainsize	✓	
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C and ~~Tox~~ Archive (RC)
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: 2.54 2.5/1 black **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
(Well) poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: black (2.54 2.5/1) silt with fm sand, little organics (twigs, leaf debris); tar like odor, USCS-OL
moderate
PID: 28.3 ppm

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/18/10

Reviewed by [signature] Date 7/19/10

VOC Only

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 315 (VOC only)
Time: 1340
Subcontractor/Crew: M+H / E&E / HDR
Water Depth: 8.2
Tide: Mid tide
Weather: Sunny 80°

Bulk Sediment Sample ID: GC-SD315-0.0-0.5
Grab Penetration: 0.5 ft
Sample Time: 1340

Number of Sampling Attempts: (1)

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) DUP _____, MS/MSD _____

Floating Debris (describe): None
Water Color: brown
Clarity: clear
Turbidity: clear
Sheen: Yes

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	☑	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	☐	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	☐	8 oz wide mouth glass; 4°C
TCL PCBs	☐	8 oz wide mouth glass; 4°C
TAL Metals + Hg	☐	8 oz wide mouth glass; 4°C
Cyanide	☐	8 oz wide mouth glass; 4°C
TOC	☐	4 oz wide mouth glass; 4°C
Grainsize	☐	
AVS/SEM	☐	4 oz wide mouth glass; no headspace; 4°C
Toxicity	☐	3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules (vf) coarse-grained Ang / SA / SR / Rounded
Well / (poorly) / mod - sorted well / (poorly) / mod - cemented (Loose)
Other Descriptors:

Sheen on H_2O upon paper retrieval

COMMENTS/OBSERVATIONS

located in mouth of turning basin
- Resampled for VOCs only

Sampler Signature/Date: 6/23/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon-CH2M
Station ID: SD-316
Time: 1630
Subcontractor/Crew: S. Nivero - Captain - HDR
M. Papula - First mate HDR
Water Depth: 6.0 ft
Tide: High
Weather: Sunny, low 80s, light breeze

Bulk Sediment Sample ID: GC-SD316-0.0-0.5
Grab Penetration 0.5 ft
Sample Time: 1635
Number of Sampling Attempts: 1 (2)
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

Floating Debris (describe): possible sewage; plastic, styrofoam
Water Color: med green
Clarity:
Turbidity: mod to high
Sheen: moderate sheen on water

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C; 1 X 1-gal Bucket
PCB Congener		8oz AMBER

SED SAMPLE DESCRIPTION

Color: Black 10YR2/1
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
(Well) / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: Black 10YR2/1 organic silt (OL), trace to little fine sand, wet, well sorted, faint VOC odor

COMMENTS/OBSERVATIONS

PID: 1.2 ppm

Sampler Signature/Date: 10/21/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Steve, Matt

Station ID: 317
Time: 1550
Water Depth: 13'
Tide: Med/high tide
Weather: Sunny ~80°

Bulk Sediment Sample ID: GC-SD317-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1600

Number of Sampling Attempts: 1

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP MS/MSD

Floating Debris (describe): Garbage + floaty organic matter
Water Color: brown
Clarity: clear/brown
Turbidity: none
Sheen: noted @ water surface + sediment surface

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: OL - organic silt - trace - Black - 10 YR 2/1
low plastic - sheen noted on sediment surface
wet, heavy odors,

COMMENTS/OBSERVATIONS

PID - 3.0

Sampler Signature/Date 6/22/10

Reviewed by [signature] Date 7/09/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 318
Time: 1425
Subcontractor/Crew: Steve > HDR
Matt > HDR
Water Depth: 2.5
Tide: high / mid
Weather: sunny 80°

Bulk Sediment Sample ID: GC-SD318
Grab Penetration 0.5 ft
Sample Time: 1440

Number of Sampling Attempts: 1

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): Floating boom, garbage, floating organic matter
Water Color: brown
Clarity: brown / clear
Turbidity: clear
Sheen: sheen noted on water surface

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB cong	✓	+ archive

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules CvF f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented (Loose)
Other Descriptors:
organic silt - black (10YR 2/1) - trace gravel - organic matter
Fibrous organic matter - non-organic, wet

COMMENTS/OBSERVATIONS

PID 0.0

Sampler Signature/Date 6/22

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy	Station ID:	319
		Time:	905
Subcontractor/Crew:	Matt / Steve > HDR	Water Depth:	12'
		Tide:	Mid tide
		Weather:	Sunny 80°

No cation 8 ↓

Bulk Sediment Sample ID:	GC-SD319-0.0-0.5			**Grab Penetration**	0.5 ft	**Sample Time:**	1040
Number of Sampling Attempts:	111	111	111	111	111	111	111
Problems During Collection:	(gravel)	(gravel)	(gravel)	(gravel)	(gravel)	(gravel)	(gravel)

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): garbage
Water Color: Clear/brown
Clarity: Clear
Turbidity: Clear
Sheen: Yes -

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C ; 1 x 1-gal HDPE bucket
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB Congener	✓	8 oz. amber +Archive

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:
OL - organic silt - few gravel (subrounded / subangular)
black (10YR 2/1) - sheen noted on sediment surface
non / low plasticity, homogenous, wet

COMMENTS/OBSERVATIONS

Sample collect approx 200-300' North Cup canal
- located alongside SE bulkhead of 9th st bridge - unable to collect GPS coordinates
PID - 0.0

Sampler Signature/Date [signature] 6/22

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Station ID: 320
Time: 1345
Subcontractor/Crew: Steve / Matt > HDR
Water Depth:
Tide: Mid-tide
Weather:

Bulk Sediment Sample ID: GC-SD
Grab Penetration 0.4 ft
Sample Time: 1405
Number of Sampling Attempts: III III ~~IIII~~
Problems During Collection: (Washout Sandy) Washout sand → see comments

QC SAMPLE DATA

QA/QC Sample IDs:
NONE DUP _____, MS/MSD _____

Floating Debris (describe): None
Water Color: Clear / Brown
Clarity: Clear
Turbidity: Clear
Sheen: Noted on sediment surface

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C; 1 x 1-gal HDPE bucket → archive
PCB Congener	✓	8 oz Amber

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: SM - Silty Sand - Black (10YR 2/1), organic non-plastic, wet, homogeneous

COMMENTS/OBSERVATIONS

Unable to collect 3rd location GPS coordinates (poor satellite coverage) - sample collected alongside bulkhead near Hamilton Ave bridge

PID 3.0

Sampler Signature/Date [signature] 6/22/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clemon - CH2M
Station ID: GC-SD321
Time: 1405
Subcontractor/Crew: S. Nieto - HDR-Captain
M. Papinla - HDR-first mate
Water Depth: 25 ft
Tide: ~~ebb~~ 2 hr before high
Weather: clear, few clouds, high 70s, light breeze

Bulk Sediment Sample ID: GC-SD321-0.0-0.5
Grab Penetration: 0.5 ft
Sample Time: 1405

Number of Sampling Attempts: 1

Problems During Collection: ~~None~~ (Rc) Many deployments required to collect full volume for toxicity/bioassay sample (approx. 15 2L)

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) DUP _____, MS/MSD _____

Floating Debris (describe): few pieces plastic, wood
Water Color: light greenish gray
Clarity: mostly clear
Turbidity: low
Sheen: ~~slight~~ (Rc)

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C; 1 x 1-gal. HDPE bucket
PCB congeners	✓	8 oz AMBER + Archive

SED SAMPLE DESCRIPTION

Color: 10YR 2/1 Black
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules (vf) f coarse-grained Ang / SA / SR / Rounded
(Well) poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: 10YR 2/1 Black organic silt (OL), well sorted trace vf-f sand, trace to little gravel, slight sheen on sample pore water

PID: N/A - battery on PID dead

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] 6/21/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Steve / HDR
Matt

Station ID: 322
Time: 1250
Water Depth: 27'
Tide: Low/Mid tide
Weather: Sunny 85°

Bulk Sediment Sample ID: GC-SD322-0.0-0.5
Grab Penetration 0.5' ft
Sample Time: 1330

Number of Sampling Attempts: 1

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

Floating Debris (describe): NONE
Water Color: brown/clear
Clarity: clear
Turbidity: clear
Sheen: None

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize	✓	
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

+ Archive

SED SAMPLE DESCRIPTION

Color: Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules (vf-) coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors: OL - Black (10YR 2/1) Organic Silt, trace gravel (Subrnd) - trace organic plant matter, homogenous, wet

COMMENTS/OBSERVATIONS

PID - 0.0

Sampler Signature/Date 8/22/10

Reviewed by _____ Date 9/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
Subcontractor/Crew: Steve / HDR, Matt
Station ID: 323
Time: 1220
Water Depth: 24'
Tide: Mid - tide
Weather: Sunny 85° low humid

Bulk Sediment Sample ID: GC-SD323-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1230

Number of Sampling Attempts: 11

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

Floating Debris (describe): None
Water Color: Clear brown
Clarity: Clear
Turbidity: Clear
Sheen: NONE observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

+Archive

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: OL - Organic Silt - black - 10YR 2/1 - trace gravel wet, low plasticity - organic odor - trace fibrous plant material homogeneous

COMMENTS/OBSERVATIONS

PID - 0.5 ppm

Sampler Signature/Date 6/22/10

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R Clennon	Station ID:	GC-SD324
		Time:	1250
Subcontractor/Crew:	S. Niero - Captain	Water Depth:	~~[illegible]~~ 10.0 @ first drop; 16.0 ft @ 4th attempt
	M. Papula - first mate	Tide:	mid (high @ 1642)
		Weather:	clear, light breeze, low 80s

Bulk Sediment Sample ID: GC-SD324-00 0-005 **Grab Penetration** 0.5 ft **Sample Time:** 1250

Number of Sampling Attempts: 111 (3) @ scoped location; more ~10 ft, 1 attempt @ 2nd loc.

Problems During Collection: Recovery insufficient in first 3 deployments

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP ——, MS/MSD ——

Floating Debris (describe): organics, few pieces plastic

Water Color: greenish gray,

Clarity: clear

Turbidity: slightly turbid

Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial, full; 4°C ~~Bioa~~ (Ro)
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C; 1 x 1 gal bucket + Archive
PCB Congeners	✓	8 oz AMBER

SED SAMPLE DESCRIPTION

Color: 10YR 2/1 (Black **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: 10YR 2/1 organic silt (OL), trace vf-f Sand, moderate septic-like odor, well sorted, no debris. PID: 0.0

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/24/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon (CH2M)	Station ID:	GC-SD325
		Time:	1145
Subcontractor/Crew:	S. Nieno — (HDR)	Water Depth:	13.0 ft / 33.0 ft as Sampled
	M. Papula (HDR)	Tide:	low
		Weather:	Clear, light breeze, high 70's

Bulk Sediment Sample ID: GC-SD324-00.0-00.5 **Grab Penetration** 0.5 ft **Sample Time:** 1130

Number of Sampling Attempts: 111 (3) more out after 3 attempts; 2nd loc: 11 (2)

Problems During Collection: 3rd loc: 11 (2); 4th loc: 1

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** D-06212010-01 **MS/MSD** _____

Floating Debris (describe): none observed

Water Color: clear to slight inky black

Clarity: —

Turbidity: —

Sheen: Slight sheen

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C ☐ ~~Bioassay 3x2-gal bucket~~
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C (Rc) ~~1x1-gal bucket~~
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize	✓	
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓ (Rc)	3 x 1-gallon HDPE buckets; 4°C ; 1x1-gal HDPE bucket; 4°C
PCB CONGENER	✓	8oz AMBER + Archive

SED SAMPLE DESCRIPTION

Color: 10YR 2/1 (Black) **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors: 10YR 2/1 organic silt (OL), trace to little fine sand
no evident odor
PID: 0.0

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/21/10

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Mike Cunningham
Subcontractor/Crew: → Erin, ED → HDR
Station ID: 326
Time: 13:38
Water Depth: 37'
Tide: high
Weather: clear/sunny, 70-80

Bulk Sediment Sample ID: GC-SD326-0.0-0.5 **Grab Penetration** 0-0.5 ft **Sample Time:** 1346

Number of Sampling Attempts: 1

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe): —

Water Color: —

Clarity: —

Turbidity: —

Sheen: —

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C

+Archive

SED SAMPLE DESCRIPTION

Color: black - brown **Moisture:** Dry Sl. Moist (Moist) V.Moist Wet

Major Description: Clay Silty Clay Silt (Clayey Sand) Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic (Mottled) Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

7 gallons of sediment included sediment that ~~became~~ came into contact with sample device walls.

Sampler Signature/Date Michael E Cunningham 6/17/2010

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	MC EHREN,	Station ID:	~~15:32~~ ~~1532~~ 327
		Time:	03:32 pm (15:32)
Subcontractor/Crew:	Ehren, ED - HDR	Water Depth:	~~37~~ 23'
		Tide:	high
		Weather:	clear, sunny, 70-80

Bulk Sediment Sample ID: GC-SD327-0.0-0.6' **Grab Penetration** 0.6 ft **Sample Time:** 15:32

Number of Sampling Attempts: 1/2

Problems During Collection: Waves pushing sampler over

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): –

Water Color: –

Clarity: –

Turbidity: –

Sheen: –

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize	✓	
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

+ Archive

SED SAMPLE DESCRIPTION

Color: Gray-black **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

Sampler Signature/Date Michael E Cunningham 6/17/2010

Reviewed by [signature] Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Cunningham
Subcontractor/Crew: Ehren, ED ⇒ ADR
Station ID: 328
Time: 09:48
Water Depth: 34.8
Tide: Intermediate
Weather: Sunny 80's

Bulk Sediment Sample ID: GC-SD328-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 0955
Number of Sampling Attempts: 1/1 - 4 grabs to get all 7 gallons
Problems During Collection: none, but many mussells in samples

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

Floating Debris (describe):
Water Color:
Clarity:
Turbidity:
Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB congeners		8oz Amber + Archive

SED SAMPLE DESCRIPTION

Color: Black **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay (Silty Clay) Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / (poorly) / mod - sorted well / (poorly) / mod - cemented Loose
Other Descriptors:

COMMENTS/OBSERVATIONS

PID = 2.0
- Located position from a map because GPS was not working properly
7 gallons Sampled
for bioassay

Sampler Signature/Date Michael E Cunningham 6/18/2010

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Cunningham
Station ID: 329
Time: 1516
Subcontractor/Crew: KC, Ehren, ED
Water Depth: 39.9'
Tide: High
Weather: Sunny, calm, 80's

Bulk Sediment Sample ID: GC-SD329-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 15:16

Number of Sampling Attempts: 3/3

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB Congeners		8 oz Amber + Archive

SED SAMPLE DESCRIPTION

Color: **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay (Silty Clay) Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / (poorly) / mod - sorted well / (poorly) mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

PID = 0.0

Sampler Signature/Date Michael E Cunningham 6/18/2010

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Bill, Steve, Enviro-HDR
Station ID: 329
Time: 1410
Subcontractor/Crew:
Water Depth: 36.0 ft
Tide: Partly
Weather: Sunny, high 80's Light wind

Bulk Sediment Sample ID: GC-SD329-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1410

Number of Sampling Attempts: 1

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black 10YR 2/1 (OL) **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

(Well) / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

- Resampled for VOCs only

Sampler Signature/Date

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Mike Cunningham
Station ID: 330
Time: 12:52
Subcontractor/Crew: Ehren, ED
Water Depth: 34'
Tide: Incoming / high
Weather: Sunny, calm, 80's

Bulk Sediment Sample ID: GC-SD330-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 12:52

Number of Sampling Attempts: 3/3

Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB CONGENER	✓	8oz Amber +Archive

SED SAMPLE DESCRIPTION

Color: Dark Grey **Moisture:** Dry Sl. Moist (Moist) V.Moist Wet

Major Description: Clay (Silty Clay) Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / (poorly) / mod - sorted well / (poorly) / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

667258.03' N
604635.03' E
Sample Coordinates

7 gallons sampled in 3 Attempts

PID = 0.6 PPM

Sampler Signature/Date Michael E Cunningham 6/18/2010

Reviewed by _____ Date 7/19/10

* VOCs only *

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Bill, Steve, Ehmn - HDR
Subcontractor/Crew:
Station ID: 330
Time: 1421
Water Depth: 34.0 ft
Tide: High
Weather: Mostly Sunny, High 80s

Bulk Sediment Sample ID: GC-SD330-00-05 **Grab Penetration** 0.5 ft **Sample Time:** 1421

Number of Sampling Attempts:

Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:

NONE (DUP) D-06242010-02, MS/MSD

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black 10YR 2/1 **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: (Clay) Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

(Well / poorly / mod - sorted) well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

- Resampled for VOCs only

Duplicate Sample Collected

Sampler Signature/Date

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M C
Station ID: 331
Time: 5:08
Subcontractor/Crew: KC, ED, EHREN
Water Depth: 41.4
Tide: outgoing / High
Weather: sunny, / 80's, calm

Bulk Sediment Sample ID: GC-SD-331-0.0-0.5' **Grab Penetration** 0.5 ft **Sample Time:** 16:16

Number of Sampling Attempts: 1/1

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe):

Water Color: —

Clarity: —

Turbidity: —

Sheen: —

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB Congener		8 oz AMBER + Archive

SED SAMPLE DESCRIPTION

Color: Dark Grey **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay (Silty Clay) Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / (poorly) / mod - sorted well / (poorly) / mod - cemented Loose

Other Descriptors:

clayey-silt is more accurate description of almost all of our samples in the BAY

COMMENTS/OBSERVATIONS

- Near Bay

PID = 0.0

Sampler Signature/Date Michael E Curyk 6/8/2010

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Cunningham
Station ID: 332
Time: 4:16
Subcontractor/Crew: KC, ED, Ehlen
Water Depth: 22.4
Tide: High / outgoing
Weather: Sunny, calm, 80's

Bulk Sediment Sample ID: GC-SD332-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 16:16

Number of Sampling Attempts: 1/1

Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) DUP _____, MS/MSD _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB Congenrs		8 oz AMBER + Archive

SED SAMPLE DESCRIPTION

Color: Dark Grey **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay (Silty Clay) Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules v/(f) coarse-grained Ang / SA / SR / Rounded

Well / (poorly) mod - sorted well / (poorly) mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

PID = 0.0

Sampler Signature/Date Michael E. Cunningham 6/18/2010

Reviewed by _____ Date 7/19/10

VOC Only

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Bill, Steve, Chris - HDR
Station ID: 332
Time: 1341
Subcontractor/Crew:
Water Depth: 14.0 ft
Tide: High - mid rising
Weather: High 80s, Sunny, breeze

Bulk Sediment Sample ID: GC-SD332-0.0-05 **Grab Penetration** 0.5 ft **Sample Time:** 1347

Number of Sampling Attempts: 1

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe):

Water Color:

Clarity:

Turbidity:

Sheen:

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: 10YR 2/1 OL "Org. Silt" **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: (Clay) Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

- Resampled for VOCs only

Sampler Signature/Date

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	M. Cunningham	Station ID:	333
		Time:	11:21
Subcontractor/Crew:	Ehren, ED	Water Depth:	19.8
		Tide:	Intermediate / incoming
		Weather:	Sunny, 80's, calm

Bulk Sediment Sample ID: GC-SD333-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 11:21

Number of Sampling Attempts: 3/3

Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): —

Water Color: —

Clarity: —

Turbidity: —

Sheen: —

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB Congener	✓	8 oz Amber + Archive

SED SAMPLE DESCRIPTION

Color: Dark Gray **Moisture:** Dry Sl. Moist Moist V.Moist Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

coordinates "AS IS" 667204.85 ft N
622197.36 ft E

sediment - 7 gallons sampled

PID = 2.5

Sampler Signature/Date Michael E Cunningham 6/18/2010

Reviewed by [signature] Date 7/19/10

- buckets - charger - GPS
- ice

Ehren
S. Nitro
Bill
-C
} HDR

* VOC only *

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: ~~E. Ehrman - C Hazen~~ (Re) S Nitro - HDR Captain (Re) ~~M. Peppler - Captain HDR~~ (Re) ~~E. Brandt - Captain HDR~~ (Re)

Station ID: 333

Time: 1333

Subcontractor/Crew:

Water Depth: 15.0 ft

Tide: High - mid

Weather: Partly sunny, high 80's, light wind

Bulk Sediment Sample ID: GC-SD333-0.0-0.5' Grab Penetration 0.5' ft Sample Time: 1330

Number of Sampling Attempts: 1

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

Floating Debris (describe): —

Water Color: —

Clarity: —

Turbidity: —

Sheen: —

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black (10YR 2/1) Organic Silt Moisture: Dry Sl. Moist Moist V.Moist (Wet)

Major Description: Clay Silty Clay (Silt) Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

(Well) poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

- Resampled for VOCs only

Sampler Signature/Date

Reviewed by _____ Date 7/19/10

333
331
38 ft - 13 ft

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Cunningham
Station ID: 334
Time: ~~1334~~ 1642
Subcontractor/Crew: KC, ED, Ehren
Water Depth: 42.5
Tide: High / outgoing
Weather: Sunny, hot, 80's

Bulk Sediment Sample ID: GC-SD334-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1642

Number of Sampling Attempts: 1/1

Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe):
Water Color:
Clarity:
Turbidity:
Sheen:

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity	✓	3 x 1-gallon HDPE buckets; 4°C
PCB Congeners		8 oz AMBER

SED SAMPLE DESCRIPTION

Color: Dark Grey **Moisture:** Dry Sl. Moist (Moist) V.Moist. Wet

Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay (Sand) Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well (poorly) mod - sorted well / poorly (mod - cemented) Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

Oyshog + Crab in Sample

PID = 0.0

Sampler Signature/Date Michael E Cunningham 6/18/2010

Reviewed by _____ Date 7/19/10

* VOCs Only *

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Bill, Steve, Shinn-HDR
Station ID: 334
Time: 1353 6/24/10
Subcontractor/Crew:
Water Depth: 30.0 ft
Tide: High - mid
Weather: high 80's sunny, light wind

Bulk Sediment Sample ID: GC-SD334-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 1353

Number of Sampling Attempts: 1

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) **DUP** _____, **MS/MSD** _____

Floating Debris (describe): —
Water Color: —
Clarity: —
Turbidity: —
Sheen: —

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs		8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides		8 oz wide mouth glass; 4°C
TCL PCBs		8 oz wide mouth glass; 4°C
TAL Metals + Hg		8 oz wide mouth glass; 4°C
Cyanide		8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color: Black 10YR 2/1 - OL **Moisture:** Dry Sl. Moist Moist V.Moist (Wet)

Major Description: (Peat) Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / poorly / mod - sorted well / poorly / mod - cemented Loose

Other Descriptors:

COMMENTS/OBSERVATIONS

* Resampled for VOCs only

Sampler Signature/Date

Reviewed by _____ Date 7/19/10

Surface Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Mike Cunningham
Station ID: 335
Time: 16:05
Subcontractor/Crew: Ehren, ED
Water Depth: 17.4'
Tide: high
Weather: Windy, 70-80, sun

Bulk Sediment Sample ID: GC-SD335-0.0-0.5 **Grab Penetration** 0.5 ft **Sample Time:** 16:45

Number of Sampling Attempts: 1/1

Problems During Collection: very windy + choppy - no time to focal around w/ gear

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

Floating Debris (describe): —

Water Color: —

Clarity: —

Turbidity: —

Sheen: —

Sample Analytical Parameters:		**Bottleware/Preservation:**
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	8 oz wide mouth glass; 4°C
Grainsize	✓	
AVS/SEM	✓	4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color:

Moisture: Dry Sl. Moist (Moist) V.Moist Wet

Major Description: Clay (Silty Clay) Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay

Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded

Well / (poorly) / mod - sorted well / (poorly) / mod - cemented (Loose)

Other Descriptors:

COMMENTS/OBSERVATIONS

Sampler Signature/Date Michael E Cunn 6/17/2010

Reviewed by _____ Date 7/19/10

Appendix D
Field Documentation

D-03 – Surface Water Sampling Field Forms

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Appendix D
Field Documentation

D-03 – Surface Water Sampling Field Forms

USEPA Surface Water Sampling Field Forms

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Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE/CH2M
Station ID: SW 301
Time: 12:30
Subcontractor/Crew: MATT MARTIN
BENJAMIN WOODS
Water Depth: 5.92'
Tide: HIGH TIDE @ 2 PM
Weather: HIGH 70's, SUNNY & CLEAR

Surface Water Sample ID: GC-SW301-0.5-DU
Sample Depth (below surface): 0.5 ft
Sample Time: 12 35

Wet or Dry Weather Event: DRY EVENT
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.33	7.90	20.65	2.24	36.9	2.0	14	

Floating Debris (describe): ORGANIC MATTER
Water Color: CLEAR
Clarity: YES
Turbidity: NONE OBSERVED
Sheen: SLIGHT

Sample Analytical Parameters: / **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	5 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

OBSERVED DISCHARGE AT WEST END @ 12:52

Sampler Signature/Date Lisa La Fortune 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE / CH2M
Station ID: SW 302
Time: 12:02
Subcontractor/Crew: MATT MARTIN
BENJAMIN WOODS
Water Depth: 5.02 FT
Tide: CLOSE TO HIGH TIDE @ ~2 PM
Weather: HIGH 70's, SUNNY CLEAR

Surface Water Sample ID: GC-SW302-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 12:10

Wet or Dry Weather Event: DRY EVENT
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
1.54	7.87	21.31	2.25	37.1	3.2	79	

Floating Debris (describe): NONE
Water Color: CLEAR
Clarity: YES
Turbidity: NONE OBSERVED
Sheen: NO

Sample Analytical Parameters: **Bottleware/Preservation:** 15 BOTTLES TOTAL

TCL VOCs	✓	3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C 500mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date Lisa La Fortune / 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE/CH2M
Subcontractor/Crew: MATT MARTIN, BENJAMIN WOODS

Station ID: SW303
Time: 11:38
Water Depth: 4.1 FT
Tide: LOW TIDE GETTING HIGHER
Weather: HIGH 70'S, SUNNY, CLEAR

Surface Water Sample ID: GC-SW303-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 11:40

Wet or Dry Weather Event: DRY EVENT
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.31	7.84	20.44	2.24	37.0	2.6	38	—

Floating Debris (describe): NONE
Water Color: CLEAR
Clarity: CLEAR
Turbidity: NONE OBSERVED
Sheen: NO

Sample Analytical Parameters: / **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: Lisa La Fortune 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE
Station ID: GC-SW304-0.5-DW
Time: 9:10
Subcontractor/Crew: MATT MARTIN
Water Depth: 5.01 FT
BENJAMIN WOODS
Tide: LOW
Weather: LOW 70'S, SUNNY, CLEAR

Surface Water Sample ID: GC-SW304-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 9:10

Wet or Dry Weather Event: DRY EVENT
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.19	6.59	19.95	2.21	36.8	4.1	3	

Floating Debris (describe): ~~+~~ ORGANIC MATTER
Water Color: CLEAR
Clarity: YES
Turbidity: CLEAR
Sheen: YES

Sample Analytical Parameters: / **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	~~2~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500mL

COMMENTS/OBSERVATIONS

OUTFALL ON EAST END OF CANAL

Sampler Signature/Date: Lisa La Fortune | 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kupec / CH2M Hill
Subcontractor/Crew: Kathy / HDR; matt / HDR

Station ID: 305
Time: 0908
Water Depth: 2' 11"
Tide: Low
Weather: Sunny, Little clouds

Surface Water Sample ID: GC-SW-305-0.5-DW
Sample Depth (below surface) 0.5 ft
Sample Time: 0912

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 3 1
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
8.02	6.47	21.13	23.6	37.3	9.5	51	

Floating Debris (describe): Some
Water Color: Clear ~~DK~~
Clarity: Clear
Turbidity: Slight
Sheen: Moderate

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date _____ 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE
Subcontractor/Crew: MATT MARTIN, BENJAMIN WOODS

Station ID: SW306
Time: 9:38
Water Depth: 6.63 FT
Tide: LOW TIDE
Weather: MID 70's, SUNNY, CLEAR

Surface Water Sample ID: GC-SW306-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 9:40

Wet or Dry Weather Event: DRY EVENT
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.49	6.87	20.56	2.29	38.2	3.6	6	

Floating Debris (describe): ORGANIC MATTER
Water Color: CLEAR
Clarity: YES
Turbidity: LOW
Sheen: YES

Sample Analytical Parameters: / **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	5x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date: Lisa La Fortune / 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kupec (CH2M Hill) — Station ID: 307A
Time: 943
Subcontractor/Crew: Kathy / HDR; Mo / HDR — Water Depth: 8' 4.5"
Tide: LOW
Weather: Sunny, Hi Clouds

Surface Water Sample ID: GC-SW-307A-0.5-DW — Sample Depth (below surface) 0.5 ft — Sample Time: 0947

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 33
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.72	7.06	20.68	23.6	37.4	9.2	24	

Floating Debris (describe): Little floating Robins, floating bags, plastic Bag
Water Color: Clear to very light brown (brown tint)
Clarity: Slightly clear
Turbidity: low
Sheen: Yes Moderate

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C 500mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Rachel Kaper / CH2MHill	Station ID:	307 B
		Time:	1031
Subcontractor/Crew:	Kathy / HDR	Water Depth:	6.1' 35"
	McH / HDR	Tide:	Low
		Weather:	Sunny, little clouds

Surface Water Sample ID: GC-SW-307B-0.5-DW **Sample Depth (below surface)** 0.5 ft **Sample Time:** 1037

Wet or Dry Weather Event: Dry

Number of Sampling Attempts: 31

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.31	6.89	20.76	23.0	36.5	8.8	52	

Floating Debris (describe): yes, organic, dead fly,

Water Color: Clear

Clarity: clear

Turbidity: Slight

Sheen: Yes moderate

Sample Analytical Parameters:

TCL VOCs	✓
TCL SVOCs	✓
TCL Pesticides	✓
TCL PCBs	✓
TAL Metals + Hg	✓
Cyanide	✓
TSS	✓

Bottleware/Preservation:

5 ~~3~~x 40 mL VOA vials, no headspace; 4°C
2 x 1 L amber glass; 4°C
2 x 1 L amber glass; 4°C
2 x 1 L amber glass; 4°C
2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
1 x 1 L HDPE; NaOH to pH > 12, 4°C
1 ~~1~~ x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kupa / Chris Hill
Station ID: 308A
Time: 1057
Subcontractor/Crew: Kathy / HDR
Water Depth: 8' 1"
Mark / HDR
Tide: Low
Weather: Sunny. No clouds.

Surface Water Sample ID: GC-SW-308A-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1106

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 29
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.93	6.93	21.73	~~4.93~~ 23.7	37.5	6.7	94	

Floating Debris (describe): None.
Water Color: Clear
Clarity: Clear
Turbidity: Very trace amount
Sheen: None

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500mL HDPE; 4°C

COMMENTS/OBSERVATIONS

directly out from Steins between Steins and old Rusted fence.

Sampler Signature/Date 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kopec/CH2M Hill
Subcontractor/Crew: Kathy / HDR; Matt / HDR
Station ID: 308B
Time: 1127
Water Depth: 7' 25"
Tide: Low to MF
Weather: Sunny, No cloud

Surface Water Sample ID: GC-SW-308B-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1134

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 1
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
8.72	7.18	23.09	22.1	35.3	5.0	139	

Floating Debris (describe): None
Water Color: Clear
Clarity: Clear
Turbidity: Very trace
Sheen: None

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5 ~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampling between South end of fence Leach and bulk head.

Sampler Signature/Date [signature] 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE/CH2M
Subcontractor/Crew: MATT MARTIN, BENJAMIN WOODS

Station ID: SW309
Time: 10:30
Water Depth: 11.52 ft
Tide: LOW TIDE
Weather: MID 70's SUNNY BREEZY

Surface Water Sample ID: GC-SW309-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: ~~10:35~~ 10:36 (LF)

Wet or Dry Weather Event: DRY EVENT
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
1.75	7.29	20.66	2.32	38.1	2.5	62	

Floating Debris (describe): NONE
Water Color: CLEAR
Clarity: YES
Turbidity: NONE OBSERVED
Sheen: NONE

Sample Analytical Parameters: / **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	5 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date: Lisa La Fortune | 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE / CH2M
Subcontractor/Crew: MATT MARTIN, BENJAMIN WOODS
Station ID: SW310
Time: 11:00
Water Depth: 5.56
Tide: LOW TIDE
Weather: HIGH 70's SUNNY, CLEAR

Surface Water Sample ID: GC-SW310-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 11:05

Wet or Dry Weather Event: DRY EVENT
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.57	7.76	21.35	2.25	37.1	3.6	126	

Floating Debris (describe): NONE
Water Color: CLEAR
Clarity: YES
Turbidity: NONE OBSERVED
Sheen: NONE

Sample Analytical Parameters: / **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	5 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date Lisa La Fortune 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kapa / CH2M Hill
Subcontractor/Crew: Kathy / HDR; Matt / HDR
Station ID: 311
Time: 1156
Water Depth: 7' 35"
Tide: Mid.
Weather:

Surface Water Sample ID: GC-SW-311-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1206
Wet or Dry Weather Event: DRY
Number of Sampling Attempts: 3
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.71	7.34	24.62	23.2	36.6	5.3	232	

Floating Debris (describe): organics, plastic wrappers, coke can.
Water Color: clear
Clarity: clear
Turbidity: very trace
Sheen: moderate sheen.

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 - 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kapec / Chan HV
Station ID: 312
Time: 1308
Subcontractor/Crew: Kathy / HDR
Meth / HDR
Water Depth: 10' 1"
Tide: MID Tide
Weather: Sunny, little clouds

Surface Water Sample ID: GC-SW-312-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1314

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 03
Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:
NONE (DUP) D-0619~~2010~~-02, MS/MSD
1316

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.47	7.34	23.21	23.5	27.2	3.5	236	

Floating Debris (describe): None
Water Color: Clear
Clarity: Clear
Turbidity: Very trace
Sheen: None

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE/CH2M
Subcontractor/Crew: MATT MARTIN, BENJAMIN WOODS

Station ID: SW313
Time: 1343
Water Depth: 15.45 ft
Tide: HIGH TIDE
Weather: HIGH 80's SUNNY & HOT

Surface Water Sample ID: GC-SW313-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1345

Wet or Dry Weather Event: DRY WEATHER

Number of Sampling Attempts: ONE ; MENISCUS DIFFICULT TO FORM ON VOAS.

Problems During Collection: NONE . GAS LINE NOTED NEARBY. DO NOT ANCHOR SIGN . TIED OFF BOAT TO CONCRETE WALL STAKE.

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP NONE , MS/MSD NONE

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.81	7.99	24.75	2.24	36.8	1.6	169	SMALL LIVE FISH

Floating Debris (describe): ALGAE, PAPER, DEAD FISH
Water Color: CLEAR, BUBBLES
Clarity: YES
Turbidity: NONE OBSERVED
Sheen: YES

Sample Analytical Parameters: **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date: Lisa La Fortune / 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: NSA LA FORTUNE/CH2M
Subcontractor/Crew: MATT MARTIN, BENJAMIN WOODS
Station ID: SW 314
Time: 12:58
Water Depth: 6.39 ft
Tide: HIGH TIDE
Weather: LOW 80's SUNNY HOT

Surface Water Sample ID: GC-SW31H-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1300

Wet or Dry Weather Event: DRY WEATHER
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP NONE, MS/MSD NONE

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.07	7.92	21.84	2.23	37.1	2.0	156	

Floating Debris (describe): WEBBED FILM
Water Color: CLEAR
Clarity: YES
Turbidity: NONE OBSERVED
Sheen: YES

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 ~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	~~2~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

15 BOTTLES TOTAL

COMMENTS/OBSERVATIONS

SMALL FISH NEARBY SAMPLING LOCATION

Sampler Signature/Date Lisa La Fata 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE / CH2M
Subcontractor/Crew: MATT MARTIN, BENJAMIN WOODS
Station ID: SW315
Time: 15:07
Water Depth: 15.88 ft.
Tide: HIGH
Weather: HIGH 80's SUNNY & CLEAR

Surface Water Sample ID: GC-SW315-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 15:10

Wet or Dry Weather Event: DRY WEATHER
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP ~~YES~~ (CF), MS/MSD YES

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.80	7.88	22.34	2.23	36.8	1.3	183	MENISCUS HARD TO FORM.

Floating Debris (describe): BOTTLES (PLASTIC), STYROFOAM CUPS, SHOE, BASKETBALL
Water Color: CLEAR
Clarity: YES
Turbidity: LOW
Sheen: YES

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 ~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1L~~ HDPE; 4°C 500mL

15 BOTTLES TOTAL
1 1 BOTTLED MS
14 BOTTLES MSD
TSS WAS NOT COLLECTED FOR SW 315
→ + Filtered 0.45um

COMMENTS/OBSERVATIONS

Sampler Signature/Date: Lisa La Fortune 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kopec / CH2M Hill
Station ID: 316
Time: 1345
Subcontractor/Crew: Kathy / HDR
Matt / HDR
Water Depth: 6' 10"
Tide: Mid
Weather: Sunny, little clouds

Surface Water Sample ID: GC-SW-316-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1354

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 64

Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP D-06192010-03, MS/MSD
13156

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.20	7.27	22.87	23.4	37.0	4.6	233	

Floating Debris (describe): organic matter, plastic Bottle, algae floating
Water Color: Clear
Clarity: Clear
Turbidity: very trace
Sheen: Moderate

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	3 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE/CH2M
Station ID: SW317
Time: 1630
Subcontractor/Crew: MATT MARTIN
BENJAMIN WOODS
Water Depth: 8.4 ft
Tide: HIGH TIDE
Weather: HIGH 80's, SUNNY & CLEAR

Surface Water Sample ID: GC-SW317-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1635

Wet or Dry Weather Event: DRY WEATHER
Number of Sampling Attempts: ONE
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP NO, MS/MSD NO

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.72	7.95	22.87	2.28	37.5	2.0	~~225~~ (LLF)	191

Floating Debris (describe): PLASTIC BOTTLES.
Water Color: CLEAR
Clarity: YES
Turbidity: NONE OBSERVED
Sheen: YES

Sample Analytical Parameters: / **Bottleware/Preservation:**

15 BOTTLES TOTAL

TCL VOCs	✓	~~3~~ 6 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	~~2~~ 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 ml HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date Lisa La Fortune 06/19/2010

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Hoppe / CH2M HILL
Subcontractor/Crew: Kathy / HDR; Matt / HDR

Station ID: 318
Time: 1500
Water Depth: 4' 8"
Tide: High
Weather: Sunny, no clouds.

Surface Water Sample ID: GC-SW-318-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1507

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 1
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP D-06192010-04, 1509 MS/MSD

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.52	7.40	24.04	23.0	36.4	3.3	266	

Floating Debris (describe): Little floating Algae, Aluminum Cans, plastic Bag
Water Color: Clear
Clarity: Clear
Turbidity: Very trace.
Sheen: None

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 ml HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Rachel Kopec/Chrom Hill	Station ID:	319
		Time:	1542
Subcontractor/Crew:	Kathy/HDR	Water Depth:	16' 45"
	Matt/HDR	Tide:	High
		Weather:	Sunny

Surface Water Sample ID: GC-SW-319-0.5-DW **Sample Depth (below surface)** 0.5 ft **Sample Time:** 1548

Wet or Dry Weather Event: Dry

Number of Sampling Attempts: 29

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.80	7.30	22.11	23.3	36.9	5.3	231	

Floating Debris (describe): organics,

Water Color: Clear

Clarity: clear

Turbidity: Very trace

Sheen: Slight Sheen

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5 ~~3~~x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 ml HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/19/10

1603

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Rachel Kapec / Cathrin Hill
Station ID: 320
Time: 1431
Subcontractor/Crew: Kathy / HDR
Matt / HDR
Water Depth: 11' 3"
Tide: Mid
Weather: Sunny, No clouds

Surface Water Sample ID: GC-SW-320-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1436

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 1 of 9
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.22	7.29	22.03	23.0	36.4	5.4	206	

Floating Debris (describe): None.
Water Color: Clear
Clarity: Clear
Turbidity: Very trace
Sheen: ~~None~~ Very trace Sheen

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5 - 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 - 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/19/20

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DALE NEWMAN, CH2MHILL
Subcontractor/Crew: HDR Steve Nierzwicki, Nick Wood
Station ID: 321
Time: 1610
Water Depth: 26.0
Tide: High
Weather: P. Sunny / 85°F

Surface Water Sample ID: GC-SW321-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1620

Wet or Dry Weather Event: DRY Weather
Number of Sampling Attempts: 2.0
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt) %	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.42	7.31	20.88	2.36	37.4	2.6	173	

Floating Debris (describe): NONE
Water Color: Clear
Clarity: Clear
Turbidity: 2.6
Sheen: None Observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 (DW) 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C 500 mL (DW)

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN
CH2MHILL
Subcontractor/Crew: HDR - Steve Nero (Capt.)
- Nick Wood

Station ID: 322
Time: 1555
Water Depth: 28.5 feet
Tide: HIGH
Weather: P. Cloudy / 85°F

Surface Water Sample ID: GC-SW322-05-PW
Sample Depth (below surface): 0.5 ft
Sample Time: 1405

Wet or Dry Weather Event: DRY
Number of Sampling Attempts: 20
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.84	7.37	21.24	2.37	37.4	3.1	178	

Floating Debris (describe): NONE
Water Color: Clear
Clarity: Clear
Turbidity: 3.1
Sheen: No Detected

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date _____ 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN
CH2M HILL
Subcontractor/Crew: ~~GC-SW323-01~~
Steve Niero / Nick Wood

Station ID: 323
Time: 1515
Water Depth: 30.2
Tide: High
Weather: P. Cloudy / 85°F

Surface Water Sample ID: GC-SW323-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1525

Wet or Dry Weather Event: Dry Weather Event
Number of Sampling Attempts: 2
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.57	7.37	21.52	2.38	37.4	2.5	168	

Floating Debris (describe): None
Water Color: Clear
Clarity: Clear
Turbidity: 2.5
Sheen: No Observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 ~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ HDPE; 4°C 500ml

COMMENTS/OBSERVATIONS

Sampler Signature/Date: D. M. Newman / 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN
CH2MHILL
Subcontractor/Crew: HDR - Steve Nierop
- Nick Wood

Station ID: 324
Time: 1532
Water Depth: 19.6
Tide: High
Weather: P-Sunny / 85°F

Surface Water Sample ID: GC-SW324-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1545

Wet or Dry Weather Event: DRY WEATHER
Number of Sampling Attempts: 20
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt) %	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.51	7.43	22.34	2.38	37.6	2.3	174	

Floating Debris (describe): NONE
Water Color: Clear
Clarity: Clear
Turbidity: Clear (2.3)
Sheen: NONE DETECTED

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1L HDPE; 4°C 500ml

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	DAVID NEWMAN CH2MHILL	Station ID:	325
		Time:	1500
Subcontractor/Crew:	HDR - Steve Niero (Capt)	Water Depth:	20.3 feet
	- NICK WOOD	Tide:	High
		Weather:	P. Cloudy / 82°F

Surface Water Sample ID:	GC-SW325-0.5-DW	Sample Depth (below surface)	0.5 ft	Sample Time:	1510

Wet or Dry Weather Event: DRY WEATHER

Number of Sampling Attempts: 20

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity ~~(ppt)~~ %	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.60	7.49	22.14	2.33	36.9	0.1	168	

Floating Debris (describe): Seaweed

Water Color: Clear

Clarity: Clear

Turbidity: 0.10

Sheen: No Observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5 ~~3~~x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500 ml pp

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN CH2MHILL
Station ID: 326
Time: 1255
Subcontractor/Crew: HDR - Steve Nero (Capt.) - Nick Wood
Water Depth: 36.1
Tide: High
Weather: P. Cloudy 80°F

Surface Water Sample ID: GC-SW326-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1300

Wet or Dry Weather Event: Dry Weather
Number of Sampling Attempts: 20-40-60
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____ MS/MSD GC-SW326-05-SW

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.94	7.46	21.58	2.36	37.3	1.2	165	

Floating Debris (describe): None
Water Color: Clear
Clarity: Clear
Turbidity: 1.2
Sheen: No observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	15 ~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	6 ~~2~~ x 1 L amber glass; 4°C
TCL Pesticides	✓	6 2 x 1 L amber glass; 4°C
TCL PCBs	✓	6 2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	3 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	3 1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	3 1 x 1 L HDPE; 4°C 500 ml

COMMENTS/OBSERVATIONS

Sampler Signature/Date A. Newman / 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN CH2MHill (capt) | Station ID: 327
Time: 1325
Subcontractor/Crew: HDR - Steve Niera - Nick Wood | Water Depth: 32.6
Tide: High
Weather: P. Cloudy / 80°F

Surface Water Sample ID: GC-SW327-05 ~~SW~~ PW (MS/MSD) | Sample Depth (below surface): 0-5 ft | Sample Time: 1335

Wet or Dry Weather Event: Dry Event

Number of Sampling Attempts: 2

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
7.45	7.55	20.44	2.33	36.9	6.7	170	

Floating Debris (describe): Seaweed, Wood debris
Water Color: Clear
Clarity: Clear
Turbidity: 6.7
Sheen: None observed

Sample Analytical Parameters: | **Bottleware/Preservation:**

TCL VOCs	✓	5 ~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500ml

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN CH2MHILL
Station ID: GC-SW328-0.5-DW
Time: 1000
Subcontractor/Crew: HDR - Steven Nieto (Capt.), Nick Wood
Water Depth: 29.8 Ft.
Tide: Low
Weather: P. Cloudy / 75°F / Low Wind

Surface Water Sample ID: GC-SW328-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1015

Wet or Dry Weather Event: Dry Weather
Number of Sampling Attempts: 2nd
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt) %	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.62	7.41	20.23	2.39	37.8	3.0	174	

Floating Debris (describe): Seaweed
Water Color: Clear
Clarity: Clear
Turbidity: 3.0
Sheen: None detected

Sample Analytical Parameters:

Bottleware/Preservation:

5 (w)

TCL VOCs	✓	2x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ HDPE; 4°C (stone)

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] / 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	DAVID NEWMAN CH2MHILL	Station ID:	329
		Time:	1135
Subcontractor/Crew:	HDR - Steve Niem (Capt) - Nick Wood	Water Depth:	38.0
		Tide:	LOW
		Weather:	P-Cloudy / 80°F

Surface Water Sample ID:	GC-SW329-0.5-DW	Sample Depth (below surface)	0.5 ft	Sample Time:	1145

Wet or Dry Weather Event: Dry Weather

Number of Sampling Attempts: 20

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP D-06192010-01, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)%	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.73	7.46	20.46	2.37	37.5	6.6	170	

Floating Debris (describe): None

Water Color: Clear

Clarity: Clear

Turbidity: 6.6

Sheen: None detected

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5 ~~3~~x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 ml HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 6/19/2010

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN CH2M/HILL
Station ID: 330
Time: 1205
Subcontractor/Crew: HDR - Steve Nieves (Capt.) - Nick Wood
Water Depth: 27.6
Tide: Low
Weather: P. Cloudy / 80°F

Surface Water Sample ID: GC-SW330-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1215

Wet or Dry Weather Event: DRY Weather
Number of Sampling Attempts: 2.0
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.90	7.48	21.09	2.37	37.6	7.3	168	

Floating Debris (describe): None
Water Color: Clear
Clarity: Clear
Turbidity: 7.3
Sheen: None detected

Sample Analytical Parameters:

		Bottleware/Preservation:
TCL VOCs	✓	5 ~~3x 40 mL VOA vials, no headspace; 4°C~~ (low)
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500ml (low)

COMMENTS/OBSERVATIONS

Sampler Signature/Date D. Newman / 6/19/10

Reviewed by Andy Judd Date 6-28-10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN CH2MHILL
Station ID: GC-SW331-0.5-DW
Time: 0940
Subcontractor/Crew: HDR Steven Nesto (Capt.) Nick Wood
Water Depth: 38 Feet
Tide: Low
Weather: P. Sunny / 78°F

Surface Water Sample ID: GC-SW331-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 0940

Wet or Dry Weather Event: Dry Weather
Number of Sampling Attempts: 26 attempts to collect Volume
Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:
~~NONE~~
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.68	7.37	19.85	2.48%	38.0	7.6	172	

Floating Debris (describe): Some Seaweed + Wood peices
Water Color: Clear
Clarity: Clear
Turbidity: 7.6
Sheen: None detected

Sample Analytical Parameters: / Bottleware/Preservation:

TCL VOCs	✓	~~3~~ 5x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	~~2~~ 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500ml

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] 6/19/10

Reviewed by Andy Judd Date 6/20/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

MM

Samplers/Inspectors: DAVID NEWMAN CH2MHILL Station ID: GC-SW332-0.5-BW

Subcontractor/Crew: H&R - Steven Niero (Capt.) - Nick Wood Time: 1035

Water Depth: 22.0

Tide: Low

Weather: P. Cloudy / 77°F

Surface Water Sample ID: GC-SW332-0.5-BW Sample Depth (below surface) 0.5 ft Sample Time: 1045

Wet or Dry Weather Event: Dry Weather

Number of Sampling Attempts: 2

Problems During Collection: None - 1 VOA vial was broken

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.37	7.39	20.23	2.33	36.9	10.6	174	

Floating Debris (describe): Clear Seaweed

Water Color: Clear

Clarity: Clear

Turbidity: 10.6

Sheen: None detection

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	4 (MM) 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45 um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500 ml (MM)

COMMENTS/OBSERVATIONS

1 VOA VIAL WAS BROKEN PRIOR TO SAMPLING ONLY COLLECTED (4) VIALS

Sampler Signature/Date [signature] 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

-DW

Samplers/Inspectors: DAVID NEWMAN CH2MHILL
Station ID: GC-SW333-0.5-~~SW~~ DW
Time: 1015
Subcontractor/Crew: HDR - Steven Niep (Capt.)
- Nick Wood
Water Depth: 24.0
Tide: Low
Weather: P-Cloudy, 77°F

Surface Water Sample ID: GC-SW333-0.5-~~SW~~ DW
Sample Depth (below surface): 0.5 ft
Sample Time: 1025

Wet or Dry Weather Event: Dry Weather
Number of Sampling Attempts: 2'0
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.40	7.36	19.79	2.35	37.2	10.4	175	

Floating Debris (describe): Seaweed, some Wood
Water Color: Clear
Clarity: Clear
Turbidity: 10.4
Sheen: None detected

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	5 ~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500ml

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

MM

Samplers/Inspectors:	DAVID NEWMAN CH2MHILL	Station ID:	GC-SW334-0.5-DW
		Time:	1115
Subcontractor/Crew:	HDR - Steve Njero (capt) - Nick Wood	Water Depth:	40.0
		Tide:	Low
		Weather:	P-Cloudy / 80°F
Surface Water Sample ID:	GC-SW334-0.5-DW	Sample Depth (below surface)	0.5 ft
		Sample Time:	1125
Wet or Dry Weather Event:	DRY Weather		
Number of Sampling Attempts:	20		
Problems During Collection:	None		

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt) %	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.84	7.40	20.55	2.16	37.4	9.5	166	

Floating Debris (describe):	None
Water Color:	Clear
Clarity:	Clear
Turbidity:	9.5
Sheen:	None Detected

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 ~~1~~ x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ HDPE; 4°C 500ml

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN
CH2M/HILL
Subcontractor/Crew: HDR - Steven Nierod (Capt)
Nick Wood

Station ID: GC-SW335-0.5-DW
Time: 0910
Water Depth: 15 feet
Tide: Low
Weather: P. Cloudy / 75°F / Low Wind

Surface Water Sample ID: GC-SW335-0.5-DW
Sample Depth (below surface): 0.5 ft
Sample Time: 920

Wet or Dry Weather Event: Dry Weather Event 0.5 ft.
Number of Sampling Attempts: 20 drops of bomb Sampler
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)%	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.89	7.32	19.79	2.4%	37.7	7.2	213	

Floating Debris (describe): None detected accept small peices floating wood
Water Color: Clear
Clarity: Clear
Turbidity: 7.2 NTU
Sheen: None detected

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	3 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C

COMMENTS/OBSERVATIONS

Slight drift but stayed on point as best we could

Sampler Signature/Date _____ 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: DAVID NEWMAN CH2MHILL
Subcontractor/Crew: HDR - Steve Nieto (Capt) - Nick Wood

Station ID: 336
Time: 1348
Water Depth: 24.5
Tide: High
Weather: P - Cloudy / 80°F

Surface Water Sample ID: GC-SW336-0.5-SW (DW DUP)
Sample Depth (below surface): 0.5 ft
Sample Time: 1400

Wet or Dry Weather Event: DRY Weather
Number of Sampling Attempts: 20
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.78	7.5	20.01	2.40	37.9	10.8	171	

Floating Debris (describe): None
Water Color: Clear
Clarity: Clear
Turbidity: 10.8
Sheen: None Observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5 (3) x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	2 1 x 1 L HDPE; HNO3 to pH < 2, 4°C + Filtered 0.45um
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] / 6/19/10

Reviewed by Andy Judd Date 6/28/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	MB SQ SN	Station ID:	GC-301
		Time:	15:58
Subcontractor/Crew:	HDR, GRB	Water Depth:	2.5 ft
	MB - Mike Briscoe, SQ - Sean Quarry, SN - Steve Nicro	Tide:	Low tide
		Weather:	Cloudy drizzle

Surface Water Sample ID:	GC-SW301-0.5-WW	Sample Depth (below surface)	0.5 ft	Sample Time:	16:11

Wet or Dry Weather Event: Wet weather

Number of Sampling Attempts: 46

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm~~^3~~)	Turbidity (NTU)	ORP (mV)	Comments
4.52	7.49	22.85	2.27%	36.0 DW	8.3	73	

Floating Debris (describe): Leaves, occasional garbage.

Water Color: From surface Dark olive, clear in bottles.

Clarity: Water is very shallow, the bottom is visible.

Turbidity: 8.3

Sheen: present, rainbow colored.

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, plus 1 x 1L unpreserved HDPE to be office filtered
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Low tide, strong out going current, many small sheens

Sampler Signature/Date [signature]

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	MB SQ SJN	Station ID:	GC302
		Time:	16:23
Subcontractor/Crew:	HDR GRB	Water Depth:	2.2 ft
(MB-Mike Briscoe, SQ-Sean Quarry, SN-Steve Nieto)		Tide:	Low tide
		Weather:	Cloudy drizzle

Surface Water Sample ID:	GC - SW 302 - 0.5 - WW	Sample Depth (below surface)	0.5 ft	Sample Time:	16:30

Wet or Dry Weather Event: wet weather

Number of Sampling Attempts: 43

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ~~S~~)	Turbidity (NTU)	ORP (mV)	Comments
4.14	7.53	22.9	2.26	35.9 (DL)	8.4	24	—

Floating Debris (describe): Leaves, floatin

Water Color: from surface rich olive, in bottles water is clear.

Clarity: Bottom is visable, barely. Water is murky.

Turbidity: 8.4

Sheen: White and yellow ribbony sheens

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x ~~3x~~ 40 mL VOA vials, no headspace; 4°C (RC)
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, + 1 x 1L unpreserved to be office filtered to 1L HNO3 poly
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Strong out going current, lots of small sheen patches, ranging from purple and rainbow colored to white and gold. Water is very calm.

Sampler Signature/Date [signature]

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	SJN MB SQ	Station ID:	GC-303
		Time:	1654
Subcontractor/Crew:	HDR GRD	Water Depth:	3.10
(SJN - Steve Nieto, MB - Mike Briscoe, SQ - Sean Quarry)		Tide:	Low tide
		Weather:	Cloudy, some sun

Surface Water Sample ID: GC SW 303 - 0.5 - WW **Sample Depth (below surface)** 0.5 ft **Sample Time:** 1700

Wet or Dry Weather Event: wet weather

Number of Sampling Attempts: 92

Problems During Collection: –

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP Sampled 7/13/10 1730 DUP-1, MS/MSD –

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm~~^3~~)	Turbidity (NTU)	ORP (mV)	Comments
4.05	7.53	22.96	2.23	35.4	8.1	44	Duplicate done here

Floating Debris (describe): leaves, floating sheen

Water Color: from surface rich olive, bottles clear

Clarity: cannot see bottom, murky

Turbidity: 8.1

Sheen: rainbow, white/yellow sheen

Sample Analytical Parameters:		DUP	Bottleware/Preservation:
TCL VOCs	✓	✓	5x ~~3x~~ 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, + 1x1L unpreserved to be office filtered to 1 L HNO_3 preserved poly
Cyanide	✓	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	✓	1 x ~~1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

calm current, strong outgoing current, sheen particles rainbow

Dup-1 as sampled; lab ID for duplicate sample: D-07132010-01

Sampler Signature/Date Sean Quarry 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	SJN SQ MB	Station ID:	GC-304
		Time:	1756
Subcontractor/Crew:	HDR GRB	Water Depth:	8.51
(SJN - Steve Nieto; SQ - Sean Quarry (HDR) MB - Mike Briscoe (GRB))		Tide:	rising
		Weather:	clouds, sun 80

Surface Water Sample ID:	GC-SW304-0.5-WW	Sample Depth (below surface)	0.5 ft	Sample Time:	1800

Wet or Dry Weather Event: wet (RC)

Number of Sampling Attempts: 143

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP ——, MS/MSD (RC) ~~1815~~ ~~1830~~ 304 MS / 304 MSD sampled 7/13/10

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm) (DD)	Turbidity (NTU)	ORP (mV)	Comments
4.15	7.39	24.33	1.88	26.8	14.8	10	MS/MSD 7/13/10

Floating Debris (describe): leaves

Water Color: rich olive

Clarity: murky

Turbidity: 14.8

Sheen: slight rainbow

Sample Analytical Parameters:

		MS	MSD
TCL VOCs	✓	✓	✓
TCL SVOCs	✓	✓	✓
TCL Pesticides	✓	✓	✓
TCL PCBs	✓	✓	✓
TAL Metals + Hg	✓	✓	✓
Cyanide	✓	✓	✓
TSS	✓	✓	✓

(RC)

Bottleware/Preservation:

(RC) ~~3x~~ 5x 40 mL VOA vials, no headspace; 4°C
2 x 1 L amber glass; 4°C
2 x 1 L amber glass; 4°C
2 x 1 L amber glass; 4°C
1 x 1 L HDPE; HNO3 to pH < 2, 4°C, + 1 x 1L unpreserved to be office filtered to 1L HNO3 poly
1 x 1 L HDPE; NaOH to pH > 12, 4°C
(RC) ~~1 x 1 L~~ HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

calm, moving current, sheen particles (rainbow)

Note: Sample times and ID for MS/MSD samples same as the parent sample: GC-SW304-0.5-WW / 1800

Sampler Signature/Date SQ 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: SJN SQ MB
Station ID: GC-305
Time: 1845
Subcontractor/Crew: HDR GRB
Water Depth: 9.62
(SJN - Steve Nieto, SQ - Sean Quarry (HDR), MB - Mike Briscoe (GRB))
Tide: rising
Weather: clouds, some sun

Surface Water Sample ID: GC-SW-305-0.5-WC
Sample Depth (below surface): 0.5 ft
Sample Time: 1850

Wet or Dry Weather Event: wet
Number of Sampling Attempts: 4/5
Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
5.31	7.22	24.96	0.95	16.2	50.0	1.02	— 7/13/10

Floating Debris (describe): leaves, mt
Water Color: rich olive
Clarity: murky
Turbidity: 50
Sheen: n/a / trace rainbow

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, + 1 x 1L unpresered to be office filtered
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C to 1L HNO3 preserved poly
TSS	✓	~~1 x 1 L~~ HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

calm, slight current, trace sheen rainbow

Sampler Signature/Date SJN 7/13/10

Reviewed by [signature] Date 7/21/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: SJN SQ SS
Station ID: SC-306
Time: 1908
Subcontractor/Crew: Hdre GRB
Water Depth: 10.71
Tide: rising
MB - Mike Briscoe - GRB
(SN - Steve Nero; SQ - Sean Quarry (HDR))
Weather: clouds / sun

Surface Water Sample ID: GC-SW306-0.5 NW
Sample Depth (below surface): 0.5 ft
Sample Time: 1915

Wet or Dry Weather Event:
Number of Sampling Attempts: 53
Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
9.73	7.28	24.42	1.17	20.4	41.4	102	— 7/13/10

Floating Debris (describe): trace leaves
Water Color: olive
Clarity: murky
Turbidity: 41.4
Sheen: trace rainbow

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; plus 1 x 1L unpreserved HDPE to be offline filtered to 1L HNO_3 preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ L HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

calm + slight current + Trace sheen rainbow

Sampler Signature/Date SQ 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: SJN SQ MB
Station ID: 307 A
Time: 1948
Subcontractor/Crew: HDR GRB
Water Depth: 12.24
(SJN - Steve Nieves; SQ - Sean Quamy (HDR); MB - Mike Briscoe (GRB)
Tide: rising
Weather: clouds, sun

Surface Water Sample ID: GC-SW-307A-0.5-NN
Sample Depth (below surface): 0.5 ft
Sample Time: 1955

Wet or Dry Weather Event:
Number of Sampling Attempts: 1
Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
5.81	7.21	25.16	0.57	14.9	51.5	132	— 7/13/10

Floating Debris (describe): leaves
Water Color: Olive
Clarity: Murky
Turbidity: 51.5
Sheen: N/A

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5X (RL) 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, plus 1 x 1L HDPE to be office filtered to 1L HNO3 preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ (RL) HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

calm, rising tide, slight current

Sampler Signature/Date SQ 7/13/10

Reviewed by RL Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: SJN SQ MB
Station ID: 3073 (NO GPS)
Time: 2006
Subcontractor/Crew: HDR GRB
Water Depth: 9.63
(SJN - Steve Nieves, SQ - Sean Querry (HDR), MB - Mike Briscoe (GRB))
Tide: rising
Weather: clouds

Surface Water Sample ID: GC-SW-3073-0.5-WW
Sample Depth (below surface): 0.5 ft
Sample Time: 2010

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: 48
Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs: NONE
DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
4.5	7.15	28.07	0.50	15.4	51.3	129	7/13/10

Floating Debris (describe):
Water Color: olive
Clarity: murky
Turbidity: 51.3
Sheen: n/a

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5x (RE) 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1 x 1L unpreserved HDPE to be ~~field~~ office filtered (RE) to 1L HNO_3 preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C (RE)

COMMENTS/OBSERVATIONS

calm, rising tide, slight current

NO GPS 3073 off outfall

Sampler Signature/Date SQ 7/13/10

Reviewed by [signature] Date 7/14/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: SJN SK MS
Station ID: 308 A
Time: 2022
Subcontractor/Crew: HDR GRB
Water Depth: 9.78
HDR: SJN - Steve Nieves; SK - Sean Kearney
GRB - MB - Mike Brisco
Tide: rising
Weather: Clouds

Surface Water Sample ID: GC-SW-0308A-0.5W
Sample Depth (below surface): 0.5 ft
Sample Time: 2030

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: 46
Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm) (DR)	Turbidity (NTU)	ORP (mV)	Comments
3.96	7.2	27.84	0.93	5.9	47.6	131	7/13/10

Floating Debris (describe): leaves trace
Water Color: Olive
Clarity: murky
Turbidity: 47.6
Sheen: n/a

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	(4) 5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 NL HDPE (unpreserved) to be offsite filtered
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C to 1 L HNO3 preserved HDPE
TSS	✓	1 x ~~1 L~~ (2) 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

calm, rising tide, slight current

Note: NO GPS used; sample location off canoe launch

Sampler Signature/Date SK 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: SJN SQ MB — Station ID: 308 B

Time: 2045

Subcontractor/Crew: HDR GRB — Water Depth: 9.0

HDR: SJN - Steve Nierd; SQ - Sean Quamy — Tide: slack

GRB - MB - Mike Briscoe — Weather: clouds

Surface Water Sample ID: GC-SW-308B-0.5 — Sample Depth (below surface): 0.5 ft — Sample Time: 2050

Wet or Dry Weather Event: Wet

Number of Sampling Attempts: 37

Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:

NONE — DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.54	7.17	24.78	1.0	57.1	44.8	126	7/13/10

Floating Debris (describe): n/a

Water Color: Olive

Clarity: murky

Turbidity: 44.8

Sheen: N/A

Sample Analytical Parameters: — **Bottleware/Preservation:**

TCL VOCs	✓	5X (R) 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1x1L Unpres. HDPE to be field filtered to 1 L HNO_3 pres. HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ (R) 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

(calm, slack) no movement

Note: No GPS used to locate; visually located off canoe launch

Sampler Signature/Date: SQ 7/13/10

Reviewed by RLA Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE - CH2M HILL
Subcontractor/Crew: ED BRANDT - HDR; TOM FOWLEY - HDR
Station ID: GC-SWP309-0.5-WW
Time: 20:42
Water Depth: 14.6
Tide: Low Time @ 4:30
Weather: mostly cloudy; high 80s

Surface Water Sample ID: GC-SWP309-0.5-WW
Sample Depth (below surface): 0.5 ft
Sample Time: 20:45

Wet or Dry Weather Event: WET
Number of Sampling Attempts: 20
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.46	7.09	24.53	11.6	19.6	11.5	105	

Floating Debris (describe): Leaves, Trash,
Water Color: Clear
Clarity: yes
Turbidity: Low
Sheen: Present

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	Y	5 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	Y	2 x 1 L amber glass; 4°C
TCL Pesticides	Y	2 x 1 L amber glass; 4°C
TCL PCBs	Y	2 x 1 L amber glass; 4°C
TAL Metals + Hg	Y	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L unpreserved to be office filtered to 1L HNO_3 preserved HDPE
Cyanide	Y	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	Y	1 x ~~1 L~~ 500 ml HDPE; 4°C

COMMENTS/OBSERVATIONS

Noted a crab swimming on surface.

Sampler Signature/Date: Lisa La Fort 7/19/10

Reviewed by _____ Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE - CH2M HILL
Station ID: GC-SW-310 -0.5-WW
Time: 20:20
Subcontractor/Crew: ED BRANDT - HDR
TOM FOWLER - HDR
Water Depth: 8.6 ft
Tide: LOW TIDE @ 4:30
Weather: mostly cloudy, 80s

Surface Water Sample ID: GC-SW-310-0.5-WW
Sample Depth (below surface): 0.5 ft
Sample Time: 2020

Wet or Dry Weather Event: WET

Number of Sampling Attempts: 20

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP ~~Dup-2~~ Dup-2 yes, MS/MSD

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
4.31	7.17	24.91	10.4	17.4	12.7	40	

Floating Debris (describe): Leaves, Trash

Water Color: clear

Clarity: yes

Turbidity: Low

Sheen: Present

Sample Analytical Parameters: | **Bottleware/Preservation:**

		Dup	
TCL VOCs	X	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	X	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	X	✓	2 x 1 L amber glass; 4°C
TCL PCBs	X	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	X	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C & 1x1L unpreserved to be office filtered.
Cyanide	X	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C to 1L HNO_3 preserved HDPE
TSS	X	✓ (500 mL)	1 x 1 L HDPE; 4°C

COMMENTS/OBSERVATIONS

Dupe collected → Dup-2

Note: Dup-2 Sample ID as Sampled; laboratory/Forms II Lite ID:
D-07132010-02

Sampler Signature/Date: Lisa La Fort 07/18/10

Reviewed by _____ Date 9/14/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE-CH2M Hill
Station ID: GC-SW#311 -0.5-WW
Time: 1955
Subcontractor/Crew: ED BRANDT - HDR
TOM FOWLEY - HDR
Water Depth: 9.6 ft
Tide: LOW TIDE @ 4:30
Weather: Cloudy, high 80s

Surface Water Sample ID: GC-SW#311-0.5-WW
Sample Depth (below surface): 0.5 ft
Sample Time: 20:00

Wet or Dry Weather Event: WET

Number of Sampling Attempts: 20

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.96	7.14	24.90	9.5	16.2	14.5	111	

Floating Debris (describe): Leaves, sticks, plastic bags, bottles.

Water Color: Clear

Clarity: Yes

Turbidity: Low

Sheen: Present

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C & 1 x 1L unpreserved to be offline filtered
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C to 1 L HNO3 preserved HDPE
TSS	✓	1 x ~~1 L~~ 500 ml HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date Lisa for Ed 07/12/10

Reviewed by _____ Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE – CH2M Hill
Station ID: GC-SW-312-0.5-WW
Time: 1930
Subcontractor/Crew: ED BRANDT – HDR; TOM FOWLEY – HDR
Water Depth: 11.3 ft
Tide: LOW TIDE @ 14:30
Weather: Cloudy, high 80s

Surface Water Sample ID: GC-SW-312-0.5-WW
Sample Depth (below surface): 0.5 ft
Sample Time: 1935

Wet or Dry Weather Event: WET

Number of Sampling Attempts: 20

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
4.32	7.15	25.02	9.8	16.17	14.2	107	

Floating Debris (describe): Leaves, Trash, Plastic Bags
Water Color: Clear
Clarity: yes
Turbidity: Low
Sheen: Present, Slight

Sample Analytical Parameters: | **Bottleware/Preservation:**

TCL VOCs	X	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	X	2 x 1 L amber glass; 4°C
TCL Pesticides	X	2 x 1 L amber glass; 4°C
TCL PCBs	X	2 x 1 L amber glass; 4°C
TAL Metals + Hg	X	1 x 1 L HDPE; HNO3 to pH < 2, 4°C & 1 x 1L unpreserved to be office filtered to 1L HNO_3 preserved HDPE
Cyanide	X	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	X	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

07/13/10

Sampler Signature/Date Lisa La Fort / 07/13/10

Reviewed by _____ Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE-CHRM Hill
Station ID: GC-SW-313 -0.5-WW
Time: 18:00
Subcontractor/Crew: ED BRANDT - HDR
TOM FOWLEY - HDR
Water Depth: 14 ft
Tide: LOW TIDE @ 430
Weather: cloudy, high 80s, lt breeze

Surface Water Sample ID: GC-SW-313-0.5-WW
Sample Depth (below surface) 0.5 ft
Sample Time: 18:05

Wet or Dry Weather Event: WET

Number of Sampling Attempts: 20

Problems During Collection: ONE VOA NEEDED TO BE CAPPED SEVERAL TIMES SINCE IT FORMED BUBBLES DURING SAMPLE COLLECTION

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
5.81	7.18	25.21	7.8	13.4	17.2	111	

Floating Debris (describe): LEAVES, PLASTIC BOTTLES, TRASH
Water Color: CLEAR
Clarity: YES
Turbidity: LITTLE
Sheen: YES

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	X	50 ~~3~~x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	X	2 x 1 L amber glass; 4°C
TCL Pesticides	X	2 x 1 L amber glass; 4°C
TCL PCBs	X	2 x 1 L amber glass; 4°C
TAL Metals + Hg	X	1 x 1 L HDPE; HNO3 to pH < 2, 4°C & 1 x 1L unpreserved to be office filtered
Cyanide	X	1 x 1 L HDPE; NaOH to pH > 12, 4°C TO 1L HNO_3 preserved HDPE
TSS	X	1 x ~~1 L~~ 500 HDPE; 4°C

COMMENTS/OBSERVATIONS

17ft from waypoint; could not get closer

07/13/10

Sampler Signature/Date Lisa La Fort / 07/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE - CHZM HILL | Station ID: GC-SW-R314 -0.5-WW
Time: 1903
Subcontractor/Crew: ED BRANDT - HDR | Water Depth: 11.6 ft
TOM FOWLEY - HDR | Tide: LOW TIDE @ 1430
Weather: mostly cloudy, high 80s

Surface Water Sample ID: GC-SW-R314-0.5-WW | Sample Depth (below surface) 0.5 ft | Sample Time: 1905

Wet or Dry Weather Event: WET

Number of Sampling Attempts: 20

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.98	7.05	24.4	10.4	17.7	16.1	83	

Floating Debris (describe): CONDOM, LEAVES

Water Color: CLEAR

Clarity: YES

Turbidity: LOW

Sheen: YES

Sample Analytical Parameters: | **Bottleware/Preservation:**

TCL VOCs	X	5x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	X	2 x 1 L amber glass; 4°C
TCL Pesticides	X	2 x 1 L amber glass; 4°C
TCL PCBs	X	2 x 1 L amber glass; 4°C
TAL Metals + Hg	X	1 x 1 L HDPE; HNO_3 to pH < 2, 4°C & 1 x 1L unpreserved to be office filtered to 1L HNO_3 preserved HDPE
Cyanide	X	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	X	1 x ~~1~~ 500 HDPE; 4°C

COMMENTS/OBSERVATIONS

07/19/10

Sampler Signature/Date Lisa La Fort 07/12/10

Reviewed by RLL Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE - CH2M HILL
Subcontractor/Crew: ED BRANDT - HDR; TOM FOWLEY - HDR

Station ID: GC-SW2315 -0.5-WW
Time: 17:30
Water Depth: 13.1 FT
Tide: LOW TIDE @ 1430
Weather: mostly cloudy; hi 80s

Surface Water Sample ID: GC-SW2315-0.5-WW
Sample Depth (below surface): 0.5 ft
Sample Time: 17:35

Wet or Dry Weather Event: WET
Number of Sampling Attempts: 20
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
5.36	7.18	25.20	7.5	13.0	18.4	+94	

Floating Debris (describe): LEAVES, PLASTIC BOTTLES
Water Color: LT BROWN
Clarity: YES
Turbidity: LITTLE
Sheen: YES

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	X	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	X	2 x 1 L amber glass; 4°C
TCL Pesticides	X	2 x 1 L amber glass; 4°C
TCL PCBs	X	2 x 1 L amber glass; 4°C
TAL Metals + Hg	X	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L unpreserved to be office filtered.
Cyanide	X	1 x 1 L HDPE; NaOH to pH > 12, 4°C to 1L HNO_3 preserved HDPE
TSS	X	1 x ~~1L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

07/13/10

Sampler Signature/Date: Lisa LaFortune 07/13/10

Reviewed by _____ Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE - CH2m Hill | Station ID: GC-SWR316 -0.5-WW
Time: 16:50
Subcontractor/Crew: ED BRANDT - HDR | Water Depth: 9.0 ft
TOM FOWLER - HDR | Tide: LOW TIDE @ 1430
Weather: mostly cloudy, mid 80's

Surface Water Sample ID: GC-SWR316-0.5-WW | Sample Depth (below surface) 0.5 ft | Sample Time: 16:55

Wet or Dry Weather Event: WET

Number of Sampling Attempts: 20

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.15	7.02	25.28	7.8	13.6	16.5	+137	

Floating Debris (describe): LEAVES & BROWNISH GREY SOLIDS

Water Color: LT BROWN

Clarity: YES

Turbidity: LITTLE

Sheen: YES

Sample Analytical Parameters: | **Bottleware/Preservation:**

TCL VOCs	X	5 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	X	2 x 1 L amber glass; 4°C
TCL Pesticides	X	2 x 1 L amber glass; 4°C
TCL PCBs	X	2 x 1 L amber glass; 4°C
TAL Metals + Hg	X	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L unpreserved to be office filtered
Cyanide	X	1 x 1 L HDPE; NaOH to pH > 12, 4°C to 1L HNO_3 preserved HDPE
TSS	X	1 x ~~1~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

07/13/10

Sampler Signature/Date [signature] ~~07/18/10~~ 07/13/10 (LLF)

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: LISA LA FORTUNE - CHUM HILL
Station ID: GC-SWP317-0.5-WW
Time: 1549
Subcontractor/Crew: ED BRAND T-HDR; TOM FOWLEY - HDR
Water Depth: 17.2 ft
Tide: LOW TIDE @ 1430
Weather: mostly cloudy; mid 80s

Surface Water Sample ID: GC-SWP317-0.5-WW
Sample Depth (below surface): 0.5 ft
Sample Time: 1550

Wet or Dry Weather Event: WET

Number of Sampling Attempts: 60

Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD X

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
5.45	7.12	24.51	66	11.6	24.4	67	

Floating Debris (describe): LEAVES & PLASTIC BOTTLES
Water Color: LIGHT BROWN
Clarity: YES; BROWN
Turbidity: LOW
Sheen: YES

Sample Analytical Parameters:

		Bottleware/Preservation:
TCL VOCs	X	5 x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	X	2 x 1 L amber glass; 4°C
TCL Pesticides	X	2 x 1 L amber glass; 4°C
TCL PCBs	X	2 x 1 L amber glass; 4°C
TAL Metals + Hg	X	1 x 1 L HDPE; HNO3 to pH < 2, 4°C & 1 x 1L unpreserved to be filtered to 1 L HNO_3 preserved HDPE
Cyanide	X	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	X	1 x 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

07/13/10

Note: MS/MSD Not submitted to laboratory for analysis; extra MS/MSD collected

Sampler Signature/Date: Lisa La Fortune 07/18/10

Reviewed by _____ Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: SQ SJN MB
Station ID: GC-SW3/8
Time: 2133
Subcontractor/Crew: ADR GRB
Water Depth: 5.96 ft
HDR: SJN - Steve Nixon, Sean Quinn (SQ)
GRB: Mike Briscar (MB)
Tide: slack; low tide @ 1430
Weather: clouds

Surface Water Sample ID: GC-SW3/8-WC-0.5
Sample Depth (below surface): 0.5 ft
Sample Time: 2135

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: 42
Problems During Collection: —

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.35	7.11	24.67	0.45	16.33	46.2	125	7/13/10

Floating Debris (describe): N/A
Water Color: Olive
Clarity: murky
Turbidity: low
Sheen: N/A

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, 1 x 1L unpreserved HDPE to be offline filtered to 1 L HNO_3 preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1L HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

calm, slack, no current, sulfur like smell

Sampler Signature/Date SQ 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clemmon / C#2m Hill	Station ID:	GCSW319
		Time:	1600
Subcontractor/Crew:	HDR - Ehrin Deppert	Water Depth:	9.4 ft
	Mike Pantiano	Tide:	low - dropping; low tide 1430
		Weather:	clouds, light rain

Surface Water Sample ID:	GC-SW319-0.5-WW ~~GC-SW319-0.0-0.5~~	Sample Depth (below surface) 0.5 ft	Sample Time: 1600
Wet or Dry Weather Event:	Wet (RC)		
Number of Sampling Attempts:	~50 deployments made to fill volume		
Problems During Collection:	~~HH HH HHH~~ (RC) None		

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP D-07132010-~~01~~ 03, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm~~S~~) (DR)	Turbidity (NTU)	ORP (mV)	Comments
5.32 ~~6.05~~ (RC)	7.58	24.4	0.75	15.1	27.2	7.61	

Floating Debris (describe): leaves and few organics, some plastic and foil, styrofoam during sampling

Water Color: clear to light gray tint

Clarity: clear

Turbidity: moderate

Sheen: none observed; sheen observed midway through sampling

Sample Analytical Parameters:		Dup. Sample (NO TSS)	Bottleware/Preservation:
TCL VOCs	✓	✓	~~3x~~ 5x 40 mL VOA vials, no headspace; 4°C (RC)
TCL SVOCs	✓	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, 1 x 1 L HDPE unpreserved to be office filtered to 1 L HNO_3 preserved HDPE
Cyanide	✓	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓		~~1 x 1 L~~ HDPE; 4°C (RC) 500 mL

~~Duplicate~~ (RC)

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon - AECOM Hill
Station ID: GC-SW320
Time: 1625
Subcontractor/Crew: Erin Depper - HDR
mike Bartiano - HDR
Water Depth: 6.3'
Tide: Low - dropping
Weather: Clouds, light rain, mid 80s

Surface Water Sample ID: ~~GC-SW320-0.0-0.5~~ GC-SW320-0.5-WW (RC)
Sample Depth (below surface): 0.5 ft
Sample Time: 1635

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: ~75 deployments to get sample volume for parent and MS/MSD
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD Yes - collected

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
~~5.18~~ (RC) 4.74	7.81	24.12	0.91	18.3	22.8	71.0	

Floating Debris (describe): few organics (leaves)
Water Color: light yellow/tan tint
Clarity: clear
Turbidity: low
Sheen: None observed

Sample Analytical Parameters: **Bottleware/Preservation:**

		MS/MSD 5x	
TCL VOCs	✓	✓	~~3~~ x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	✓ (RC)	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1 x 1L HDPE unpreserved to be offline filtered to 1L HNO_3 preserved HDPE
Cyanide	✓	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓		1 ~~x 1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon - CH2M Hill
Station ID: ~~GC-SW321~~
Time: 1710
Subcontractor/Crew: Shrin Deppert - HDR
Mike Pantiano - HDR
Water Depth: 16.3
Tide: low - rising ; low @ 1431
Weather: mostly cloudy, mid 80's

Surface Water Sample ID: ~~GC-SW321-0.0-0.5~~ GC-SW321-0.5-WW (RC)
Sample Depth (below surface) 0.0-0.5 ft
Sample Time: ~~1552~~ 1720 (RC)

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: ~ 25 deployments for sample volume
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP ——, MS/MSD ——

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
2.79	7.83	24.64	~~1.35~~ (RC)	23.5	12.7	104	

Floating Debris (describe): few organics (leaves), plastic, paper
Water Color: clear / none
Clarity: clear
Turbidity: low
Sheen: None observed

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	5x (RC) 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1x 1L Unpreserved HDPE to be offsite filtered to 1L HNO3-preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1~~ (RC) 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date RDL / 7/13/10

Reviewed by RDL Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon - CH2M Hill	Station ID:	GCSW322
		Time:	1730
Subcontractor/Crew:	Echrin Deppert - HDR	Water Depth:	24.7'
	Mike Pantiano - HDR	Tide:	low - rising (low @ 1430)
		Weather:	mostly cloudy, breezy, mid 80's
Surface Water Sample ID:	GC-SW322-0.5-WW ~~GC-SW322-0.0-0.5~~	Sample Depth (below surface)	0.0-0.5' ft
Sample Time:	1740		
Wet or Dry Weather Event:	Wet (RC)		
Number of Sampling Attempts:	~25 deployments to collect volume		
Problems During Collection:	None		

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP ——, MS/MSD ——

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ~~^3~~)	Turbidity (NTU)	ORP (mV)	Comments
3.19	7.83	24.07	1.41	25.6 (RC)	12.9	93	

Floating Debris (describe): None observed

Water Color: light tint (yellow/tan)

Clarity: clear

Turbidity: low

Sheen: None observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x ~~3x~~ 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	(RC) 2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L unpreserved HDPE to be office filtered to 1L HNO_3 preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	~~1 x 1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon - CH2m Hill
Station ID: GGSWB23
Time: 1818
Subcontractor/Crew: Eehrin Deppert - HDR
Water Depth: 26.0 ft
Mike - Pantiano - HDR
Tide: low - rising (low @ 1430)
Weather: mostly cloudy, breezy, low 80s

Surface Water Sample ID: ~~GC-SW323-0.0-0.5~~ GC-SW323-0.5-WW (RC)
Sample Depth (below surface): 0.0-0.5 ft
Sample Time: 1830

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: Approx. 25 deployments to get full sample volume
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
2.85	7.88	24.05	1.74	29.7	8.6	104	

Floating Debris (describe): few organics (leaves)
Water Color: Clear/none
Clarity: Clear
Turbidity: Low
Sheen: None observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

5x
- TCL VOCs ✓ — ~~3x~~ 40 mL VOA vials, no headspace; 4°C (RC)
- TCL SVOCs ✓ — 2 x 1 L amber glass; 4°C
- TCL Pesticides ✓ — 2 x 1 L amber glass; 4°C
- TCL PCBs ✓ — 2 x 1 L amber glass; 4°C
- TAL Metals + Hg ✓ — 1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1x1L Unpreserved HDPE to be office filtered to a 1L HNO3 preserved HDPE
- Cyanide ✓ — 1 x 1 L HDPE; NaOH to pH > 12, 4°C
- TSS ✓ — 1 x ~~1~~ L HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: B. Clennon - CH2M Hill
Station ID: GC-SW324
Time: 1751
Subcontractor/Crew: Eerin Deppen - HDR
Water Depth: 13.8 ft
Mike Puntiano - HDR
Tide: Low - Static to rising (Low @ 1430)
Weather: breezy, cloudy, mid 80's

Surface Water Sample ID: GC-SW324-0.5-WW ~~GC-SW324-0.0-0.5~~ (RC)
Sample Depth (below surface): 0.0-0.5 ft
Sample Time: 1755

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: ~50 deployments for required volume
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP D-07132010-04, MS/MSD

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.12	7.86	23.79	1.78	30.5	7.16	960	

Floating Debris (describe): None observed; plastic/trash seen ~30 feet towards land - plastic bags
Water Color: Clear/none
Clarity: clear
Turbidity: low
Sheen: none observed

Sample Analytical Parameters:

		Dup	Bottleware/Preservation:
TCL VOCs	✓	✓ (5x)	3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	✓ (RL)	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1x1L unpreserved HDPE to be filtered to 1L HNO_3-preserved HDPE
Cyanide	✓	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓		~~1 x 1 L~~ HDPE; 4°C (@ 500 mL)

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 7/13/10

Reviewed by: Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon - CH2M Hill
Station ID: GC-SW326
Time: 1843
Subcontractor/Crew: Echnin Dippra - HDR
Water Depth: 36.2 ft
mike Pantiano HDR
Tide: low - (rising) - low @ 1430
Weather: cloudy, breeze, low 80s

Surface Water Sample ID: GC-SW326-0.5-WW
GC-SW326-00-0.5 (RE)
Sample Depth (below surface): 0.0-0.5 ft
Sample Time: 1850

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: Approx 25 deployments needed to get sample volume
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.56	8.02	23.60	2.14	35.4	3.2	101	

Floating Debris (describe): few organics (leaves), few small pieces plastic,
Water Color: clear/none
Clarity: clear
Turbidity: low
Sheen: none observed

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	5x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1 x 1L Unpreserved HDPE to be office filtered to a 1L HNO_3-preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C (RE) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 7/13/10

Reviewed by _____ Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon - CH2M Hill
Eichrin Deppert - HDR
Subcontractor/Crew: Mike Pantiano - HDR

Station ID: GCSW327
Time: 1900
Water Depth: 30.2 ft
Tide: low
Weather: mostly cloudy, lt breeze, low 80s

Surface Water Sample ID: GC-SW327-0.5-WW ~~GC-SW327-0.0-0.5~~ (RC)
Sample Depth (below surface) 0.0-0.5 ft
Sample Time: 1915

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: ~25 deployments for full sample volume
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ~~^3~~) (DR)	Turbidity (NTU)	ORP (mV)	Comments
3.78	8.10	22.84	234	38.3	1.0	101	

Floating Debris (describe): None observed
Water Color: clear / none
Clarity: clear
Turbidity: low
Sheen: none observed

Sample Analytical Parameters:

TCL VOCs	✓
TCL SVOCs	✓
TCL Pesticides	✓
TCL PCBs	✓
TAL Metals + Hg	✓
Cyanide	✓
TSS	✓

Bottleware/Preservation:

5x 3x 40 mL VOA vials, no headspace; 4°C
(RC) 2 x 1 L amber glass; 4°C
2 x 1 L amber glass; 4°C
2 x 1 L amber glass; 4°C
1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1x1L unpres. HDPE to be office filtered to 1L HNO3-preserved HDPE
1 x 1 L HDPE; NaOH to pH > 12, 4°C
~~1 x 1 L~~ HDPE; 4°C
(RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon, J. Balas - CH2M Hill	Station ID:	GC-SW328
		Time:	2145
Subcontractor/Crew:	Echrin Deppert, Mike Pantiano - HDR	Water Depth:	41.8 ft (low @ 1430)
		Tide:	high-dropping
		Weather:	mostly cloudy, mid 70s, lt breeze

Surface Water Sample ID: (RC) GC-SW328-0.5-WW ~~GC-SW328-0.0-0.5~~ Sample Depth (below surface) 0.0-0.5 ft Sample Time: 2150

Wet or Dry Weather Event: Wet

Number of Sampling Attempts:

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm ~~0~~ DR)	Turbidity (NTU)	ORP (mV)	Comments
5.3	8.17	22.99	2.38	38.9	0.6	129	

Floating Debris (describe): None observed

Water Color: clear / none

Clarity: clear

Turbidity: low

Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	(RC) ~~3x~~ 5x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C, 1 x 1L unpreserved HDPE to be Office filtered to a 1L HNO_3-preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	~~1 x 1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon, J. Balas-CH2M	Station ID:	GC-SW329
		Time:	2103
Subcontractor/Crew:	Eehrin Deppert, mike Frantiano HDR	Water Depth:	42.6 ft
		Tide:	low-rising (low @ 1430)
		Weather:	partly cloudy, mid 70's, lt breeze
Surface Water Sample ID:	GC-SW329-0.5-WW ~~GC-SW329-0.0-0.5~~	Sample Depth (below surface)	0.0-0.5' ft
		Sample Time:	2110
Wet or Dry Weather Event:	Wet		
Number of Sampling Attempts:	~20 deployments to collect volume		
Problems During Collection:	None		

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP ——, MS/MSD ——

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.76	8.16	23.02	2.34	38.3	1.6	123	

Floating Debris (describe):	None observed
Water Color:	clear/none
Clarity:	clear
Turbidity:	Low
Sheen:	none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1x 1L unpres. HDPE to be office filtered to 1 L HNO_3-preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	~~1 x 1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon, J. Balas - CH2M
Station ID: SW330
Time: 2116
Subcontractor/Crew: Zehrin Depperd, Mike Portland - HDR
Water Depth: ~~22.2~~ 30.2
Tide: 1st dropping
Weather: cloudy, mid 70s, lt breeze

Surface Water Sample ID: GC-SW330-0.5-WW ~~GC-SW330-0.0-0.5~~ (RC)
Sample Depth (below surface): 0.0-0.5 ft
Sample Time: 2125

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: ~20 deployments
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP ——, MS/MSD ——

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
4.07	8.17	22.98	2.37	38.7	0.0	122	

Floating Debris (describe): None observed
Water Color: none/clear
Clarity: clear
Turbidity: low
Sheen: None observed

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	(RC) 5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L Unpres. HDPE to be field filtered to 1L HNO3 pres. HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	~~1 x 1 L~~ HDPE; 4°C (RC) 500mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon, J. Balas - CH2M Hill	Station ID:	GC-SW331
		Time:	2155
Subcontractor/Crew:	E. Deppert, M. Pantiano - HDR	Water Depth:	44.3 ft
		Tide:	(RC) ~~dropping~~ flooding
		Weather:	partly/mostly cloudy, mid 70's H. breeze
Surface Water Sample ID:	GC-SW331-0.5-WN ~~GC-SW331-0.0-0.5~~ (RC)	Sample Depth (below surface)	0.0-0.5 ft
		Sample Time:	2200
Wet or Dry Weather Event:	Wet		
Number of Sampling Attempts:	~20 deployments for sample volume		
Problems During Collection:	None		

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.28	8.16	22.9	2.37	38.7	0.5	123	

Floating Debris (describe):	~~None observed~~ plastic debris, organics (leaves), condoms
Water Color:	clear / none (RC)
Clarity:	clear
Turbidity:	low
Sheen:	None observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x ~~3x~~ 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	(RC) 2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L unpres. HDPE to be office - filtered to 1 L HNO_3 - preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	~~1 x 1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon - CH2M	Station ID:	GC-SW332
	J. Balas - CH2M	Time:	2047
Subcontractor/Crew:	Echrin Deppert - HDR	Water Depth:	20.0 ft
	Mike Pantiano - HDR	Tide:	low-rising
		Weather:	cloudy, LP breeze, low 70s

Surface Water Sample ID:	GC-SW332-0.5-WW ~~GC-SW332-0.0-0.5~~	Sample Depth (below surface) 0.0-0.5 ft	Sample Time: 2045
Wet or Dry Weather Event:	(RC) WEA		
Number of Sampling Attempts:	~~18~~ 25 deployments made to achieve sample volumes		
Problems During Collection:	None (RC)		

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm~~^3~~)	Turbidity (NTU)	ORP (mV)	Comments
4.08	8.19	22.93	2.40	39.0	0.3	121	

Floating Debris (describe):	None observed
Water Color:	clear/none
Clarity:	Clear
Turbidity:	low
Sheen:	none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	~~3x~~ 5x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	(RC) 2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L unpres. HDPE to be office filtered to a 1 L HNO_3 Pres. HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 ~~x 1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 2/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon, J. Balas - CH2M Hill
Station ID: GC-SW333
Time: 2117
Subcontractor/Crew: Eehrin Deppert, Mike Pantiano - HDR
Water Depth: ~~(PC) 30 ft~~ N/A
Tide: high dropping
Weather: mid 70s, Cloudy,

Surface Water Sample ID: ~~GC-SW333-0.0-0.5~~ GC-SW333-0.5-WW
Sample Depth (below surface): 0.0-0.5 ft
Sample Time: 2135

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: ~20 deployments
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP ——, MS/MSD ——

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
4.56	8.23	22.97	2.43	39.6	1.0	122	

Floating Debris (describe): None observed
Water Color: clear/none
Clarity: clear
Turbidity: low
Sheen: None observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	√	(PC) ~~3x~~ 5x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	√	2 x 1 L amber glass; 4°C
TCL Pesticides	√	2 x 1 L amber glass; 4°C
TCL PCBs	√	2 x 1 L amber glass; 4°C
TAL Metals + Hg	√	1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1 x 1L UNPres. HDPE to be office-filtered
Cyanide	√	1 x 1 L HDPE; NaOH to pH > 12, 4°C to a 1L HNO_3 pres HDPE
TSS	√	1 ~~x 1 L~~ HDPE; 4°C (PC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon-CH2m Hill
J. Balas-CH2m Hill
Subcontractor/Crew: Fehrin Dippert- HDR
Mike Pantisano- HDR

Station ID: GC-SW334
Time: 2034
Water Depth: 37.9 ft
Tide: low-rising
Weather: Cloudy, light breeze, 70s

Surface Water Sample ID: ~~GC-SW334-0.0-0.5~~ GC-SW334-0.5-WW
Sample Depth (below surface): 0.0-0.5 ft
Sample Time: 2035

Wet or Dry Weather Event: Wet

Number of Sampling Attempts: ~20 ~~attempts~~ deployments to get full sample volume

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.97	8.17	23.00	2.36	3826	0.2	106	

Floating Debris (describe): None observed
Water Color: Clear/none
Clarity: clear
Turbidity: low
Sheen: None observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C; 1 x 1L unpres. HDPE to be office filtered to a 1L HNO3 pres. HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	~~1 x 1 L~~ HDPE; 4°C 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon, J. Balas - CH2M Hill	Station ID:	GESB35
		Time:	2207
Subcontractor/Crew:	~~ShinDeppart~~, Mike Pantiano - HDR	Water Depth:	20.4 ft
		Tide:	flooding
		Weather:	partly cloudy
Surface Water Sample ID:	GC-SW335-0.5-WW ~~GC-SW335-0.0-0.5~~ (RC)	Sample Depth (below surface)	0.0-0.5 ft
		Sample Time:	2215
Wet or Dry Weather Event:	Wet		
Number of Sampling Attempts:	~20 deployments made during collection		
Problems During Collection:	None		

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP —, MS/MSD —

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm) (QR)	Turbidity (NTU)	ORP (mV)	Comments
4.08	8.14	22.94	2.35	38.3	0.8	120	

Floating Debris (describe): ~~None observed~~ (RC) few organics (leaves, twigs)

Water Color: clear

Clarity: clear

Turbidity: low

Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	(RC) 5x 3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1x 1L unpres. HDPE to be ~~for~~ Office filtered to a 1L HNO3 preserved HDPE (RC)
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	~~1 x 1 L~~ HDPE; 4°C (RC) 500 mL

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	R. Clennon-CH2M Hill	Station ID:	GC-SW336
		Time:	2000
Subcontractor/Crew:	Eehrin Deppert-HDR	Water Depth:	23.6 ft
	Mike Pantiano-HDR	Tide:	low-rising
		Weather:	mostly cloudy, light breeze

Surface Water Sample ID:	GC-SW336-0.5-WW ~~GC-SW336-0.0-0.5~~ RC	Sample Depth (below surface) 0.0-0.5 ft	Sample Time: 2005

Wet or Dry Weather Event: Wet

Number of Sampling Attempts: ~25 for collection of full volume

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE **DUP** _____, **MS/MSD** _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm)	Turbidity (NTU)	ORP (mV)	Comments
3.52	8.15	23.06	2.25	37.10	14.1	110	

Floating Debris (describe): None observed

Water Color: clear/none

Clarity: Clear

Turbidity: low

Sheen: None observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x ~~3x~~ 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C ; 1 x 1L unpres. HDPE to be office filtered to a 1L HNO_3-preserved HDPE
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x ~~1 L~~ 500 mL HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date [signature] / 7/13/10

Reviewed by [signature] Date 7/19/10

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Appendix D
Field Documentation

D-03 – Surface Water Sampling Field Forms

National Grid Surface Water Sampling Field Forms

(Groundwater / Surface Water Interaction)

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MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading: NA

Job Name: GOWANUS CANAL

Job Number: 093010

By: DREW BLICHARZ Date: 7/21/10

Location: GOWANUS CANAL

Measurement Datum:

~~Well Number~~: GC-SWMW23

SAMPLE Time (start): 11:20 PARAMETERS START: 12:10

Pre-Development Information

Water Level: 8.88' FROM JOINT IN SHEETING NEXT TO FENCE, RASP. BUSHES Total Depth of Well: ~178" 14.8-14.9'

DEPTH TO BOT: 14.90' ~~One Purge Vol~~ ~178" Three Well Volume: NA

Water Characteristics

Color: NA/NONE ____ Clear SLIGHTLY Cloudy

Odor: ____ None ____ Weak X Moderate ____ Strong

Any films or immiscible material: SAMPLE COLLECTED BETWEEN 0.5'-1.0' ABOVE SEDIMENT

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
	12:10	7.23	24.88	39240 39.17	14.7	5.13	-20.1	
	12:15	7.15	25.30	39302 39.60	11.0	4.69	44.6	
	12:20	7.07	25.87	39338 40.01	7.9	4.57	96.2	
	13:00	7.01	29.17	39543 43.31	5.3	5.03	368.5	

VISIBLE SHEENS IN SURFACE WATER FLOWING DOWN CANAL

PHOTOS TAKEN

Total Volume Removed (gal): NA pH:

Temperature (°C): Specific Conductance (µS/cm):

DO Concentration (mg/L): ORP (mV):

TDS:

Post Development Information

Time (Finished):

Water Level: 8.10' Total Depth of Well:

Approximate Volume Removed (gal): NA

Water Characteristics

Color: ____ Clear ____ Cloudy

Odor: ____ None ____ Weak X Moderate ____ Strong

Any films or immiscible material:

Comments

GEI Consultants

MONITORING WELL SAMPLING RECORD

PID Reading: NA
Job Number: 093010
Location: Gowanus Canal
Surface Water Well Number: GC-SWMW31

Job Name: Gowanus Canal
By: Amy Malsbary Date: 7/21/10
Measurement Datum:

Pre-Development Information

Water Level: 7.39' from bulkhead
One Purge Vol: NA

sample Time (start): 1330
Total Depth of Well: DTW = 7.39' from bulkhead
Three Well Volume: NA

Water Characteristics

Color: none — X Clear — Cloudy
Odor: X None — Weak — Moderate — Strong
Any films or immiscible material: X None

Volume (gal)	Time	pH	Temp ~~(EC)~~ (°C)	Spec. Conductance (µ~~Φ~~S/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
NA	1330	6.20	25.90	34250	24.9	11.09	5.0	

Total Volume Removed (gal)
Temperature (EC)
DO Concentration (mg/L)

pH
Specific Conductance (ΦS/cm)
ORP (mV)
TDS
Time (Finished)
Total Depth of Well

Post Development Information

Water Level
Approximate Volume Removed (gal)

Water Characteristics

Color — Clear — Cloudy
Odor — None — Weak — Moderate — Strong
Any films or immiscible material — None

Comments:

Appendix D
Field Documentation

D-03 – Surface Water Sampling Field Forms

NYC Surface Water Sampling Field Forms
(Groundwater / Surface Water Interaction)

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SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/25/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	75-85°F Sunny		

Sample Identification: SW01 Location: Gowanus Canal @ NYCDEP Pumping Station

WATER QUALITY METER : Horiba U-22

PID BACKGROUND : < 1.0 PID SAMPLE : < 1.0

TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	Fe+2 (ppm)	DEPTH TO WATER
	reading	reading	reading	reading	reading	reading	reading	(ft below TOC)
13:45	6.5	1.01	-132	4.3	> 999	23.1	4	8.31

COMMENTS:

ANALYSIS: **Alkalanity, Aluminum, Calcium, Chlorides, Iron (Dissolved), Iron (total), Magnesium (dissolved), Magnesium (total), Nitrates, Organic Carbon (dissolved), Organic Carbon (total), Phosphate, Silica, Sodium, Sulfates, TKN, TDS, TSS, Total Hardness**

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/29/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	75-85°F Sunny		

Sample Identification: SW02 Location: Gowanus Canal @ Former BRT Power Station

WATER QUALITY METER : Horiba U-22

PID BACKGROUND : < 1.0 PID SAMPLE : < 1.0

TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	Fe+2 (ppm)	DEPTH TO WATER
	reading	reading	reading	reading	reading	reading	reading	(ft below TOC)
6:45	7.61	3.32	-151	3.7	> 75	19.83	2	8.14

COMMENTS:

ANALYSIS: **Alkalanity, Aluminum, Calcium, Chlorides, Iron (Dissolved), Iron (total), Magnesium (dissolved), Magnesium (total), Nitrates, Organic Carbon (dissolved), Organic Carbon (total), Phosphate, Silica, Sodium, Sulfates, TKN, TDS, TSS, Total Hardness**

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/28/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	75-85°F Sunny		

Sample Identification: SW01 Location: Gowanus Canal @ NYCDOT Asphalt Plant

WATER QUALITY METER : Horiba U-22

PID BACKGROUND : < 1.0 PID SAMPLE : < 1.0

TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	Fe+2 (ppm)	DEPTH TO WATER
	reading	reading	reading	reading	reading	reading	reading	(ft below TOC)
11:15	7.91	5.03	-127	4.2	> 853	19.19	2	6.94

COMMENTS:

ANALYSIS: **Alkalanity, Aluminum, Calcium, Chlorides, Iron (Dissolved), Iron (total), Magnesium (dissolved), Magnesium (total), Nitrates, Organic Carbon (dissolved), Organic Carbon (total), Phosphate, Silica, Sodium, Sulfates, TKN, TDS, TSS, Total Hardness**

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Appendix D
Field Documentation

D-03 – Surface Water Sampling Field Forms

USEPA Surface Water Sampling Field Forms
(Groundwater / Surface Water Interaction)

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Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: R. Clennon + D. Kramer (CH2M Hill)
Station ID: GC-SWMW-3
Time: 1405
Subcontractor/Crew: none
Water Depth: ~2.5'
Tide: low
Weather: Sunny, low 90s, calm

Surface Water Sample ID: GC-SWMW-3
Sample Depth (below surface) 2' ft
Sample Time: 1405

Wet or Dry Weather Event: Dry

Number of Sampling Attempts: 1

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
2.03	7.93	24.51	2.18	36.1	2.0	18	

Floating Debris (describe): none

Water Color: Clear

Clarity: Clear

Turbidity: no

Sheen: Present on surface outside of "boom" at water surface.

Sample Analytical Parameters:

TCL VOCs		3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs		2 x 1 L amber glass; 4°C
TCL Pesticides	None	2 x 1 L amber glass; 4°C
TCL PCBs		2 x 1 L amber glass; 4°C
TAL Metals + Hg		1 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide		1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS		1 x 1 L HDPE; 4°C

Bottleware/Preservation:

Boom is between the bulkhead and canal, open to the south. Sample collected near the bulkhead.

COMMENTS/OBSERVATIONS

- Geochemistry samples collected here.

Ferrous iron = 0.00 mg/L

Sampler Signature/Date

Reviewed by RLL Date 7/19/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Dave Reamer, Mike Murphy
Subcontractor/Crew: None
Station ID: GC-SWMW3-2
Time: 1630
Water Depth: Bulkhead to water = 9.32' Depth to bottom = 12.98'
Tide: low
Weather: 88°F Sunny, low humidity

Surface Water Sample ID: GC-SWMW3-2
Sample Depth (below surface): 9.8 ft
Sample Time: 1630

Wet or Dry Weather Event: DRY
Number of Sampling Attempts: 5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
12.88	6.38	31.16	2.15	34.6	46.9	115	

Floating Debris (describe): —
Water Color: Brown
Clarity: Low
Turbidity: Medium - Low
Sheen: —

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	✓	2 x 1 L amber glass; 4°C
TCL Pesticides	✓	2 x 1 L amber glass; 4°C
TCL PCBs	✓	2 x 1 L amber glass; 4°C
TAL Metals + Hg	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	✓	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	✓	1 x 1 L HDPE; 4°C

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 7/26/10

Reviewed by _____ Date 8/5/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy, James Boles
Station ID: GC-SW.MW15
Time: 1600
Subcontractor/Crew: None
Water Depth: Bulkhead to surface water = 10.01
Tide: low
Weather: 98° F Sunny

Surface Water Sample ID: GC-SW.MW15
Sample Depth (below surface): 32.5 ft
Sample Time: 1600

Wet or Dry Weather Event: > Dry
Number of Sampling Attempts: 5
Problems During Collection: none

QC SAMPLE DATA

QA/QC Sample IDs: NONE
DUP None, MS/MSD None

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.72	7.20	26.65	2.47%	39.0	0.2	120	

Floating Debris (describe): bottles + garbage
Water Color: clear / brown
Clarity: clear / brown
Turbidity: clear / brown
Sheen: Sheen noted on water surface

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs		3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs		2 x 1 L amber glass; 4°C
TCL Pesticides		2 x 1 L amber glass; 4°C
TCL PCBs		2 x 1 L amber glass; 4°C
TAL Metals + Hg		1 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide		1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS		1 x 1 L HDPE; 4°C

☑ geochem parameters only

COMMENTS/OBSERVATIONS

Ferrous iron results = 0.00 mg/L

Sampler Signature/Date: 7/27/10

Reviewed by: Date 8/5/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Mike Murphy, Dave Recmer
Station ID: GC-SWMW20
Time: 1256 - 7
Subcontractor/Crew: none
Water Depth: 8.3 - 14.8' below concrete at parking lot
Tide: low
Weather: 85°F, overcast, recent shower

Surface Water Sample ID: GC-SWMW20
Sample Depth (below surface): 5.9 ft
Sample Time: 1256

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 11
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.36	7.16	26.38	22.8	36.2	2.5	88	

Floating Debris (describe): Heavy sheen on surface water
Water Color: light brown
Clarity: very limited
Turbidity: high
Sheen: V. heavy sheen

Sample Analytical Parameters: / **Bottleware/Preservation:**

~~TCL VOCs~~ (MS)	✓	~~8x 40 mL VOA vials, no headspace; 4°C~~
~~TCL SVOCs~~	✓	2 x 1 L amber glass; 4°C
~~TCL Pesticides~~	✓	2 x 1 L amber glass; 4°C
~~TCL PCBs~~	✓	2 x 1 L amber glass; 4°C
~~TAL Metals + Hg~~	✓	1 x 1 L HDPE; HNO3 to pH < 2, 4°C
~~Cyanide~~	✓	~~1 x 1 L HDPE; NaOH to pH > 12, 4°C~~
~~TSS~~	✓	~~1 x 1 L HDPE; 4°C~~

+ Geochem analysis

COMMENTS/OBSERVATIONS

No VOC, SVOC, Pest, PCB, Metals (Hg, Cn), TSS collected @ this location
Only Geochem analysis collected

Sampler Signature/Date _____ 7/23/10

Reviewed by _____ Date 7/26/10

Surface Water Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Dave Reamer / Mike Murphy
Subcontractor/Crew: none
Station ID: GC-SWMW37
Time: 1525
Water Depth: Bulkhead to water = 11.31' / Bottom of Canal = 12.5'
Tide: low
Weather: ~88°F Sunny, low humidity

Surface Water Sample ID: GC-SWMW37
Sample Depth (below surface): 12.0 ft
Sample Time: 1525

Wet or Dry Weather Event: Dry
Number of Sampling Attempts: 25
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity ~~%(ppt)~~	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
7.75	6.40	28.81	2.41	38.0	67.0	173	

Floating Debris (describe): some general refuse (plastic bags, plastic Bottles)
Water Color: Brown
Clarity: low
Turbidity: medium
Sheen: none present

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs		3x 40 mL VOA vials, no headspace; 4°C
TCL SVOCs	None	2 x 1 L amber glass; 4°C
TCL Pesticides		2 x 1 L amber glass; 4°C
TCL PCBs		2 x 1 L amber glass; 4°C
TAL Metals + Hg		1 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide		1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS		1 x 1 L HDPE; 4°C

Geochem analysis

COMMENTS/OBSERVATIONS

Sampler Signature/Date _____ 7/26/10

Reviewed by _____ Date 8/5/10

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Appendix D
Field Documentation

D-04 – Soil Boring Logs and Monitoring Well Construction Diagrams

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Appendix D
Field Documentation

D-04 – Soil Boring Logs and Monitoring Well Construction Diagrams

USEPA Soil Boring Logs and Monitoring Well Construction Diagrams

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Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA Region 2/ERT
Location: 510 Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-03S Northing (ft): 187028.967
GCMW-03S Easting (ft): 987518.249
GCMW-03I Northing (ft): 187029.143
GCMW-03I Easting (ft): 987518.077
GCMW-03S Elevation (ft AMSL): 6.62
GCMW-03I Elevation (ft AMSL): 6.62

Log of Well: GCMW-03

SUBSURFACE PROFILE

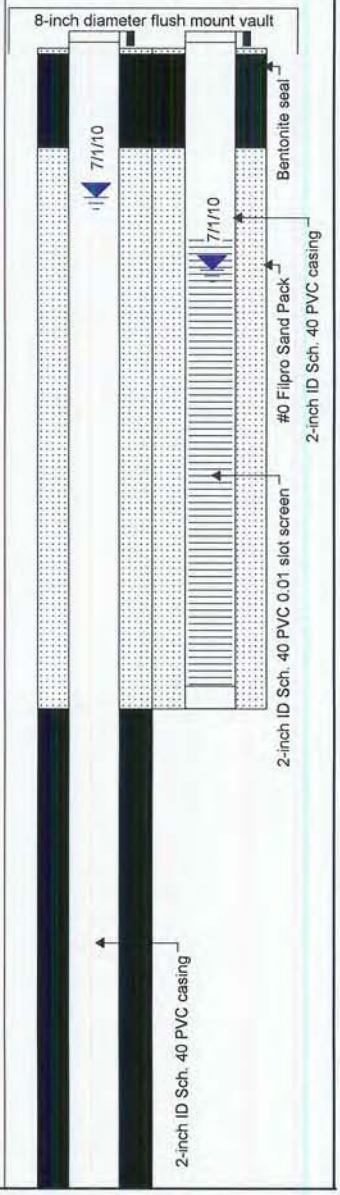
Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
			Concrete Five feet thick. Air knifed to four feet.	
				-5.00
			Cobbles Dark gray, and fine to coarse sand, some silt, spotty petroleum hydrocarbon sheens throughout, wet, mainly slough from drilling through concrete and cobbles.	
				-8.00
			Timber Fragments Sulfur-like odor, wet.	
				-10.00
			Silty Clay (CL) Dark gray, little fine to coarse sand at 15 feet, peat, shell fragments, and roots throughout, wet, no stain, sulfur-like odor.	
				-15.00
			No Recovery	
				-17.00
			Sand With Silt (SW-SM) Brown with greenish gray petroleum hydrocarbon staining, fine to coarse grained, little silt, petroleum hydrocarbon sheens in upper two feet, low viscosity petroleum hydrocarbon saturated in bottom two feet, wet.	
				-20.00
			Clay (CH) Greenish gray to black, trace fine sand, high plasticity, stiff, 4-inch thick low viscosity petroleum hydrocarbon saturated sand lense with little fine gravel at 22 feet, faint petroleum hydrocarbon odor.	
				-22.50

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
			0.0
			0.0
			0.0
059-2072			0.0
			0.4
			1.0
			1.0
059-2073			8.0
			8.0
			10.0
			10.0
059-2074			82.0
			2.5
			2.5
059-2075			0.0

PID Readings ppmv: 0 20 40 60 80 100

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1210 5/27/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/27/2010
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA Region 2/ERT
Location: 510 Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-03S Northing (ft): 187028.967
GCMW-03S Easting (ft): 987518.249
GCMW-03I Northing (ft): 187029.143
GCMW-03I Easting (ft): 987518.077
GCMW-03S Elevation (ft AMSL): 6.62
GCMW-03I Elevation (ft AMSL): 6.62

Log of Well: GCMW-03

SUBSURFACE PROFILE

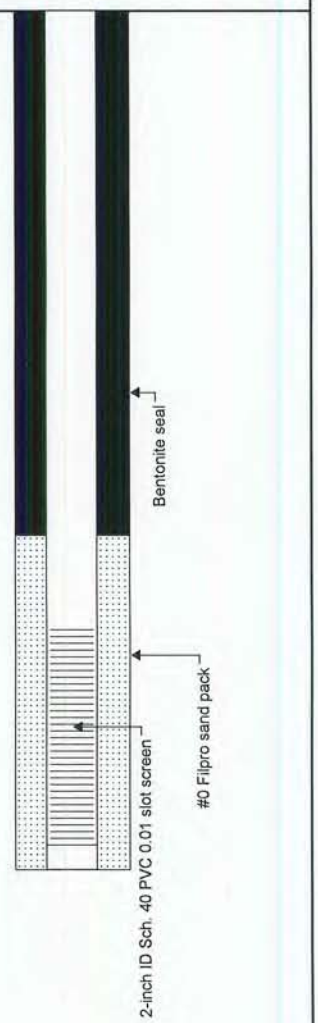
Depth	Symbol	Description	Elev. (ft.)
26–34		**Sand (SW)** Grayish brown, fine to coarse grained, little fine and coarse gravel, trace silt, spotty petroleum hydrocarbon sheens in upper foot, micaceous, wet. Spotty low viscosity petroleum hydrocarbon saturated interval from 29 to 34 feet.	
34–38		**Gravel (GW)** Gray, fine and coarse gravel, and coarse sand, little subrounded cobbles, wet, low viscosity petroleum hydrocarbon saturated lenses from 34 to 37 feet, faint petroleum hydrocarbon odor, petroleum hydrocarbon saturated from 37 to 38 feet.	-34.00
38–39		**Sand (SM)** Gray, fine grained, and silt, micaceous, wet, petroleum hydrocarbon sheens throughout, faint petroleum hydrocarbon odor.	-38.00
39–43		**No Recovery** No subsurface materials recovered from 39 to 43 feet.	-39.00
43–50			-50.00

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
			0.0
			0.0
			1.0
			1.0
			1.0
059-2076			5.0
			5.0
			7.0
			7.0
			8.0
059-2077			8.0
			3.0
			2.0
059-2078			1.0
			1.0

PID Readings ppmv: 0 20 40 60 80 100

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1210 5/27/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/27/2010
Sheet: 2 of 2

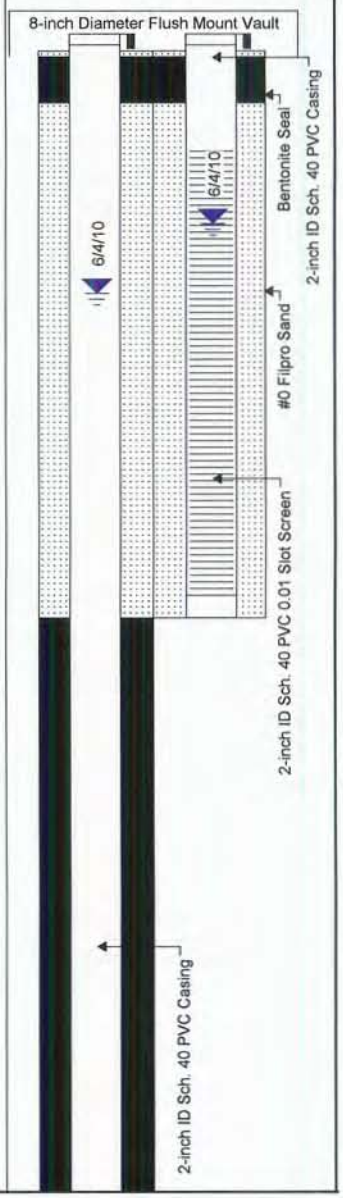
Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-04S Northing (ft): 187223.662
GCMW-04S Easting (ft): 987328.457
GCMW-04I Northing (ft): 187223.801
GCMW-04I Easting (ft): 987328.323
GCMW-04S Elevation (ft AMSL): 8.62
GCMW-04I Elevation (ft AMSL): 8.56

Log of Well: GCMW-04

Depth (ft)	Description	Elev. (ft.)	Sample Number
0	Ground Surface	0.00	
0–2	**Concrete** 1/4 foot thick.	-2.22	
2–7	**Not Logged** Air knifed to clear underground utilities to 7 feet. Material not logged during air knifing.	-7.00	
7–13	**Fill** Dark grayish brown to gray, fine to coarse sand, some clay, little fine and coarse gravel, trace cobbles, abundant wood fragments at 8 feet, wet, no stain, no odor.	-13.00	059-2099
13–18	**Silty Clay** Gray, trace fine sand, low plasticity, soft, abundant plant and some shell fragments throughout, very peaty from 17 to 18 feet, wet, no stain, no odor.	-18.00	059-2100
18–20	**Clayey Sand (SC)** Grayish brown to gray, fine to medium grained, some clay, little silt, micaceous, wet, no stain, no odor. Six-inch thick sandy clay lense from 19 to 19.5 feet.	-20.00	059-2101
20–25	**Sand With Clay (SW-SC)** Brown to yellowish brown, fine to coarse grained, little clay, little fine gravel, micaceous, wet, no stain, no odor. Six-inch thick sandy clay lense from 25.5 to 26 feet.		059-2002

PID Readings (ppmv): 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0



Drill Method: A300 Rotary Sonic
Start Date: 0900 6/3/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1400 6/3/2010
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-04S Northing (ft): 187223.662
GCMW-04S Easting (ft): 987328.457
GCMW-04I Northing (ft): 187223.801
GCMW-04I Easting (ft): 987328.323
GCMW-04S Elevation (ft AMSL): 8.62
GCMW-04I Elevation (ft AMSL): 8.56

Log of Well: GCMW-04

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8			-26.62
		Sand With Silt (SW-SM) Yellowish brown, fine to coarse grained, little silt, little fine gravel, wet, no stain, no odor.	-27.00
9		**Sand With Gravel (SW-GW)** Yellowish brown, fine to coarse grained, little fine and coarse gravel, trace cobbles at 36 to 37 feet, micaceous, wet, no stain, no odor.	
10			
11			-37.00
		No Recovery No subsurface materials recovered between 37 and 39 feet.	
12			
13			
14			
15			-50.00

SAMPLE

Number	Type	Recovery
059-2003		
059-2004		

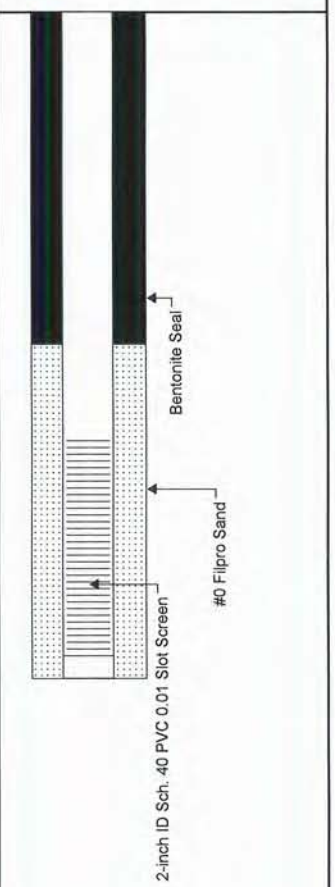
PID Readings

ppmv

0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0900 6/3/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1400 6/3/2010
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 365 Bond St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-05S Northing (ft): 186001.425
GCMW-05S Easting (ft): 987079.213
GCMW-05I Northing (ft): 186001.201
GCMW-05I Easting (ft): 987079.300
GCMW-05S Elevation (ft AMSL): 5.84
GCMW-05I Elevation (ft AMSL): 5.86

Log of Well: GCMW-05

SUBSURFACE PROFILE

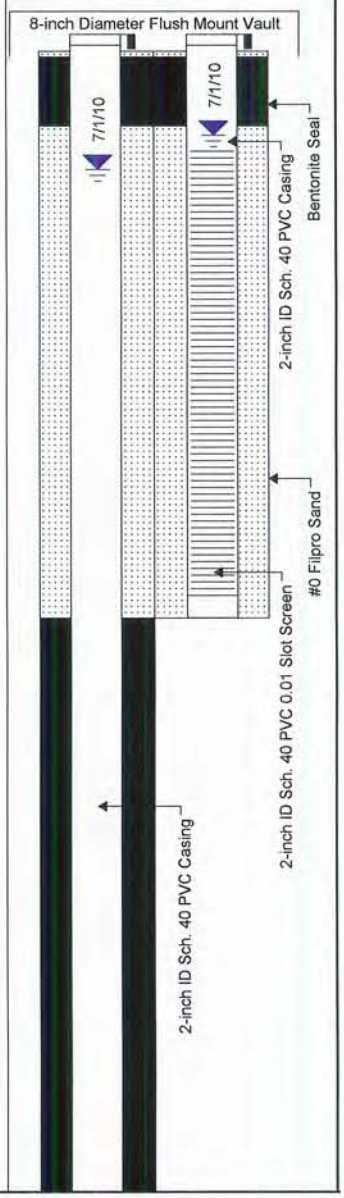
Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
			Asphalt and Concrete 1.5 inches of asphalt overlying 2 inches of concrete.	-0.30
2			**Fill** Gravel.	-2.30
3	1		**Concrete** Second layer of concrete.	
5				-5.56
6	2		**Not Logged** Air knifed to clear undergound utilities to 7 feet. Subsurface materials not logged during air knifing. Groundwater at approximately 4 feet.	-7.00
7			**Silty Clay** Dark gray and dark grayish brown, trace fine to medium grained sand, low plasticity, soft, plant fragments throughout, wet, no stain, no odor.	
10	3			
13	4			
15				
16	5			
17				-18.00
18			**No Recovery** Boulder in bottom of core barrel. No subsurface materials recovered from 18 to 27 feet.	
19	6			
23	7			
25				

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
059-2031			20.0
			3.0
			0.5
			0.2
			0.2
			0.3
			0.2
059-2032			0.2
059-2033			0.0

PID Readings ppmv: 0 20 40 60 80 100

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0830 5/21/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1200 5/21/2010
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 365 Bond St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-05S Northing (ft): 186001.425
GCMW-05S Easting (ft): 987079.213
GCMW-05I Northing (ft): 186001.201
GCMW-05I Easting (ft): 987079.300
GCMW-05S Elevation (ft AMSL): 5.84
GCMW-05I Elevation (ft AMSL): 5.86

Log of Well: GCMW-05

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8			-27.00
9		**Sand With Silt (SW-SM)** Yellowish brown, fine to coarse grained, little silt, micaceous, loose, wet, no stain, no odor.	-31.00
10		**Sand (SW)** Yellowish brown, fine to coarse grained, trace fine subrounded gravel, very loose, micaceous, wet, no stain, no odor.	
11			
12			
13			
14			
15			-50.00

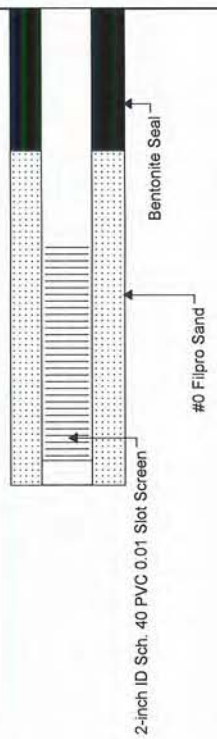
SAMPLE

Number	Type	Recovery
059-2034		
059-2035		

PID Readings (ppmv): 0 20 40 60 80 100

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0830 5/21/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1200 5/21/2010
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 365 Bond Street, Brooklyn, NY
Logged By: J. Bolduc

GCMW-06S Northing (ft): 186086.940
GCMW-06S Easting (ft): 986949.708
GCMW-06I Northing (ft): 186086.882
GCMW-06I Easting (ft): 986949.967
GCMW-06S Elevation (ft AMSL): 7.18
GCMW-06I Elevation (ft AMSL): 7.21

Log of Well: GCMW-06

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
0–3 / 0–1		**Asphalt, Cobblestones, Concrete, Fill, and Brick** Layers of asphalt, cobblestones, concrete, fill, and brick in the upper three feet. Air knifed to three feet.	-3.00
3–9.5 / 1–2.9		**Fill** Dark brown, fine to coarse grained sand, little silt, little fine and coarse rounded gravel, brick fragments, wet, no stain, no odor.	-9.50
9.5–25 / 2.9–7		**Silty Clay (CL)** Dark gray, low plasticity, soft, shell and plant fragments throughout, becomes peaty between 22 and 27 feet, wet, no stain, no odor.	-25.00

SAMPLE

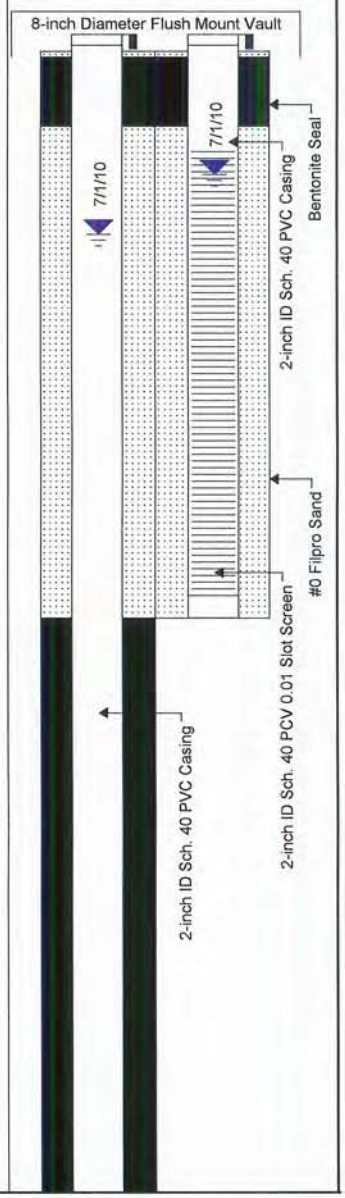
Number	Type	Recovery
059-2025		
059-2026		
059-2027		
059-2028		

PID Readings (ppmv)

0 20 40 60 80 100

0.5 0.4 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1430 5/20/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1700 5/20/2010
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 365 Bond Street, Brooklyn, NY
Logged By: J. Bolduc

GCMW-06S Northing (ft): 186086.940
GCMW-06S Easting (ft): 986949.708
GCMW-06I Northing (ft): 186086.882
GCMW-06I Easting (ft): 986949.967
GCMW-06S Elevation (ft AMSL): 7.18
GCMW-06I Elevation (ft AMSL): 7.21

Log of Well: GCMW-06

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8		***Clayey Sand (SC)*** Dark gray, predominantly fine grained, becomes fine to medium grained between 25 and 25.5 feet, some clay, loose, wet, no stain, no odor.	-27.50
9		***Sand (SW)*** Dark brown to olive gray at 31 feet, six-inch thick black interval at 30 feet. fine to coarse grained, trace silt, loose, micaceous, wet, no stain, no odor.	
10			
11			
12			
13			
14			
15			-50.00

SAMPLE

Number	Type	Recovery
059-2029		
059-2030		

PID Readings (ppmv): 0 20 40 60 80 100
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details
Bentonite Seal
#0 Filpro Sand
2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 1430 5/20/2010
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

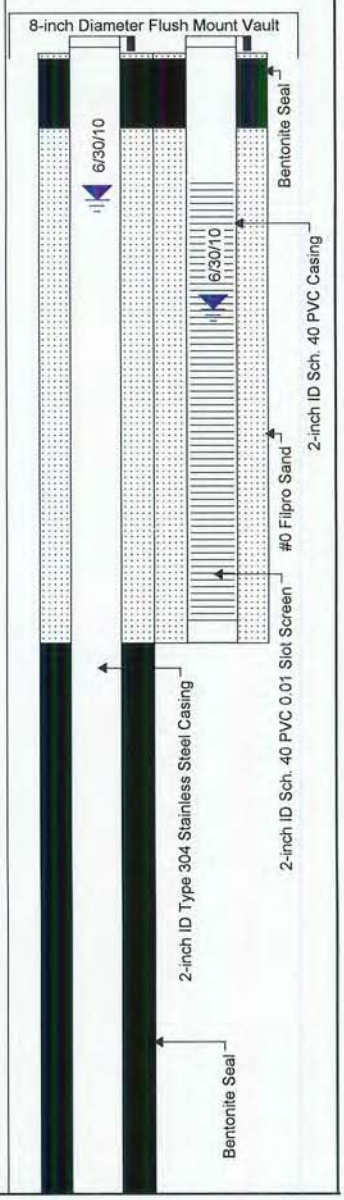
Drill Company: Boart Longyear
End Date: 1700 5/20/2010
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 160 3rd St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-07S Northing (ft): 185528.950
GCMW-07S Easting (ft): 986673.468
GCMW-07I Northing (ft): 185529.163
GCMW-07I Easting (ft): 986673.578
GCMW-07S Elevation (ft AMSL): 6.44
GCMW-07I Elevation (ft AMSL): 6.39

Log of Well: GCMW-07

SUBSURFACE PROFILE				SAMPLE				
Depth (ft / m)	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings (ppmv) 0 20 40 60 80 100	Well Completion Details
0 / 0		Ground Surface	0.00					
		Not Logged Air knifed to clear underground utilities to 5 feet. Subsurface materials not logged during air knifing.						
			-5.00					
5		**Fill** Very dark grayish brown, silty clay, little fine gravel and sand, wet, stained black in the upper one foot, petroleum hydrocarbon odor.		059-2205			5.0	
7 / 2			-7.00				10.0	
		No Recovery Cobble in cutting shoe at bottom of core barrel. No subsurface materials recovered from this interval.						
			-17.00					
17 / 5		**Silty Clay (CL)** Very dark grayish brown, low plasticity, soft, wet, some wood timbers with organic odor (creosote?), petroleum hydrocarbon and sulfur-like odors.					7.5	
22 / 6				059-2206			4.5	
			-23.00					
23 / 7		**No Recovery**						
25			-25.10					



Drill Method: A300 Rotary Sonic
Start Date: 1020 6/21/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1120 6/21/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 160 3rd St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-07S Northing (ft): 185528.950
GCMW-07S Easting (ft): 986673.468
GCMW-07I Northing (ft): 185529.163
GCMW-07I Easting (ft): 986673.578
GCMW-07S Elevation (ft AMSL): 6.44
GCMW-07I Elevation (ft AMSL): 6.39

Log of Well: GCMW-07

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8		**No Recovery**	-27.00
9		**Sand (SP)** Very dark grayish brown, fine grained, trace to little fines, wet, petroleum hydrocarbon sheen and petroleum hydrocarbon odor.	-28.50
10		**Silty Clay (CL)** Very dark grayish brown, wet, petroleum hydrocarbon sheen and petroleum hydrocarbon odor.	-29.00
11		**Sand (SP)** Very dark grayish brown, fine grained, wet, petroleum hydrocarbon sheen, strong petroleum hydrocarbon odor.	
12			
13			
14			
15			-50.00

SAMPLE

Number	Type	Recovery
059-2207		

PID Readings (ppmv): 0, 20, 40, 60, 80, 100

PID values: 20.0, 50.0, 20.0, 50.0, 50.0

Well Completion Details: #0 Filpro Sand; 2-inch ID Type 304 Stainless Steel 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 1020 6/21/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1120 6/21/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 160 3rd St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-08S Northing (ft): 185649.648
GCMW-08S Easting (ft): 986734.160
GCMW-08I Northing (ft): 185649.754
GCMW-08I Easting (ft): 986733.927
GCMW-08S Elevation (ft AMSL): 7.13
GCMW-08I Elevation (ft AMSL): 7.17

Log of Well: GCMW-08

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Not Logged Air knifed to clear underground utilities to 7 feet. Subsurface material not logged during air knifing.	
7 / 2			-7.00
		Clay (CL) Very dark gray, medium plasticity, soft to medium stiff, trace woody material and shell fragments, wet, very faint petroleum hydrocarbon odor near top.	
		1 to 2 inch thick lense of medium grained sand at 22 feet.	
25 / 7			-25.10

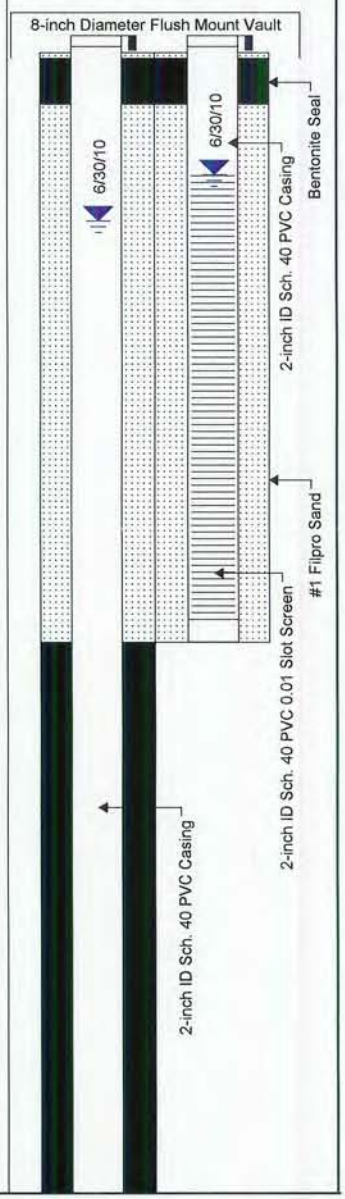
SAMPLE

Number	Type	Recovery
059-2198		
059-2199		
059-2200		
059-2201		

PID Readings (ppmv): 0 20 40 60 80 100

PID readings: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1305 6/17/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1700 6/17/2010
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 160 3rd St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-08S Northing (ft): 185649.648
GCMW-08S Easting (ft): 986734.160
GCMW-08I Northing (ft): 185649.754
GCMW-08I Easting (ft): 986733.927
GCMW-08S Elevation (ft AMSL): 7.13
GCMW-08I Elevation (ft AMSL): 7.17

Log of Well: GCMW-08

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8		***Clay (CL) As Above***	
			-27.00
9		***Sand (SM)*** **Very dark grayish brown, silty, some clay, little peat, loose, wet.**	
			-30.00
10		***Sand (SC)*** **Dark grayish brown, fine grained, interbedded with 1 to 3 inch thick lenses of gray, stiff, medium plasticity clay.**	
			-34.00
11		***Sand (SP-SM)*** **Brown, fine grained, little silt and clay.**	
12			
13			
14			
15			
			-50.00

SAMPLE

Number	Type	Recovery
059-2202		
059-2203		

PID Readings ppmv
0 20 40 60 80 100
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details
Bentonite Seal
#1 Filpro Sand
2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 1305 6/17/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1700 6/17/2010
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 503-537 Smith St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-11S Northing (ft): 184748.913
GCMW-11S Easting (ft): 985012.030
GCMW-11I Northing (ft): 184748.730
GCMW-11I Easting (ft): 985012.102
GCMW-11S Elevation (ft AMSL): 9.75
GCMW-11I Elevation (ft AMSL): 9.75

Log of Well: GCMW-11

SUBSURFACE PROFILE

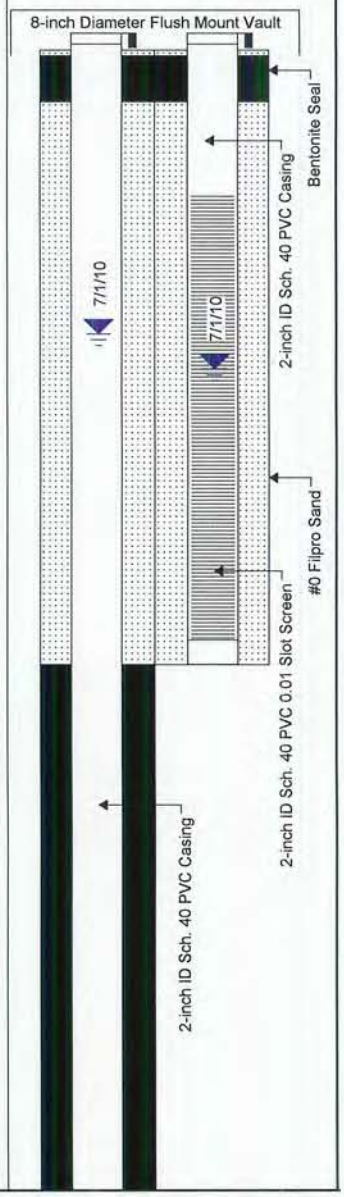
Depth (ft / m)	Description	Elev. (ft.)
0 / 0	Ground Surface	0.00
	Concrete Two feet thick. Air knifed to clear borehole of underground utilities to 7 feet.	-2.85
3 / 1	**Sand With Silt and Gravel (SW-SM) Fill** Dark grayish brown to black, fine to coarse grained, little silt, some fine and coarse gravel, brick and wood fragments, slightly moist to wet at nine feet, faint petroleum hydrocarbon odor from 7 to 10 feet. Mottled dark gray and dark yellowish brown between 7 and 15 feet. Becomes dark gray, fine to medium grained sand, little silt and cobbles, abundant shell fragments between 15 and 16.5 feet, faint petroleum hydrocarbon odor.	-16.50
17 / 5	**Sand (SC)** Dark gray, fine to medium grained, little to some clay, rootlets, abundant shell fragments, wet, faint petroleum hydrocarbon odor. Intact oyster shell at 16.5 feet.	-17.00
20 / 6	**Silty Clay (CL)** Dark gray, trace fine sand, plant fragments throughout, low plasticity, soft, wet, no stain, no odor.	
25 / 7		

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
059-2046			2.0, 1.0
059-2047			3.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0
059-2048			0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0
059-2049			0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0
059-2050			0.0

PID Readings ppmv: 0 | 60 | 120 | 180 | 240 | 300

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0815 5/25/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1005 5/25/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 503-537 Smith St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-11S Northing (ft): 184748.913
GCMW-11S Easting (ft): 985012.030
GCMW-11I Northing (ft): 184748.730
GCMW-11I Easting (ft): 985012.102
GCMW-11S Elevation (ft AMSL): 9.75
GCMW-11I Elevation (ft AMSL): 9.75

Log of Well: GCMW-11

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
			-25.50
26 – 8		**Sand With Silt (SP-SM)** Dark gray, fine to medium grained, little silt, micaceous, wet, no stain, no odor.	-27.00
27		**Sand (SW)** Grayish brown, fine to coarse grained, trace silt, micaceous, wet, no stain, no odor.	
28			
29 – 9			-30.00
30		**Silty Clay (CH)** Grayish brown, high plasticity, stiff, wet, moderate petroleum hydrocarbon odor.	-30.50
31			
32		**Sand With Silt (SP-SM)** Grayish brown, fine to medium grained, trace coarse grained, little silt, wet, petroleum hydrocarbon sheen and staining throughout, low viscosity petroleum hydrocarbon saturated lenses throughout, moderate petroleum hydrocarbon odor.	
33 – 10			
34			
35			-35.00
			-35.50
36 – 11		**Silty Clay (CH)** Yellowish brown, little fine sand, high plasticity, stiff, wet, moderate petroleum hydrocarbon odor.	
37		**Sand With Silt (SP-SM)** Dark gray, fine to medium grained, little silt, micaceous, wet, spotty petroleum hydrocarbon sheens throughout, petroleum hydrocarbon saturated and stained throughout.	
38			
39			
40 – 12			
41			
42			
43 – 13			-43.00
		Clayey Silt (ML) Yellowish brown, some fine sand, wet, low viscosity petroleum hydrocarbon saturated in upper 2 inches, petroleum hydrocarbon sheens throughout.	-43.50
44			
45		**Sand (SW)** Yellowish brown, fine to coarse grained, trace fine gravel, trace silt, wet, faint petroleum hydrocarbon odor.	
46 – 14			
47			
48			
49 – 15			
50			-50.00

SAMPLE

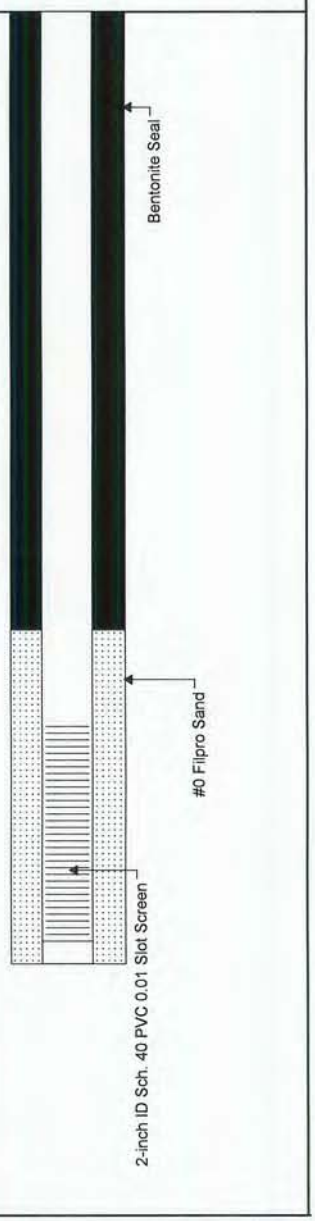
Number	Type	Recovery
059-2051		
059-2052		
059-2053		
059-2054		

PID Readings (ppmv)

0 60 120 180 240 300

0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 10.0, 30.0, 60.0, 90.0, 200.0, 200.0, 300.0, 145.0, 255.0, 31.0, 105.0, 100.0, 5.0, 5.0, 5.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0815 5/25/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1005 5/25/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 503-537 Smith St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-12S Northing (ft): 184880.719
GCMW-12S Easting (ft): 984934.324
GCMW-12I Northing (ft): 184880.925
GCMW-12I Easting (ft): 984934.330
GCMW-12S Elevation (ft AMSL): 11.84
GCMW-12I Elevation (ft AMSL): 11.75

Log of Well: GCMW-12

SUBSURFACE PROFILE

Depth (ft / m)	Description	Elev. (ft.)
0 / 0	Ground Surface	0.00
	Asphalt, Concrete, Fill — Three-inch thick asphalt, fine gravel fill, and concrete layers.	-0.75
	Not Logged — Air knifed to clear borehole of underground utilities to 7 feet. Subsurface materials not logged during air knifing.	
7 / 2		-7.00
	Sand (SW) Fill — Yellowish brown, fine to coarse grained, little fine subangular gravel, trace cobbles, brick fragments, wet at 7 feet, gray petroleum hydrocarbon staining throughout, strong petroleum hydrocarbon odor throughout.	-9.00
	Sand (SP) — Dark brown, fine to medium grained, trace silt, micaceous, wet, strong petroleum hydrocarbon odor.	-12.00
12 / 4	**Sand With Silt (SP-SM)** — Dark brown, fine to medium grained, little silt, micaceous, wet, no stain, no odor.	
25 / 7		

SAMPLE

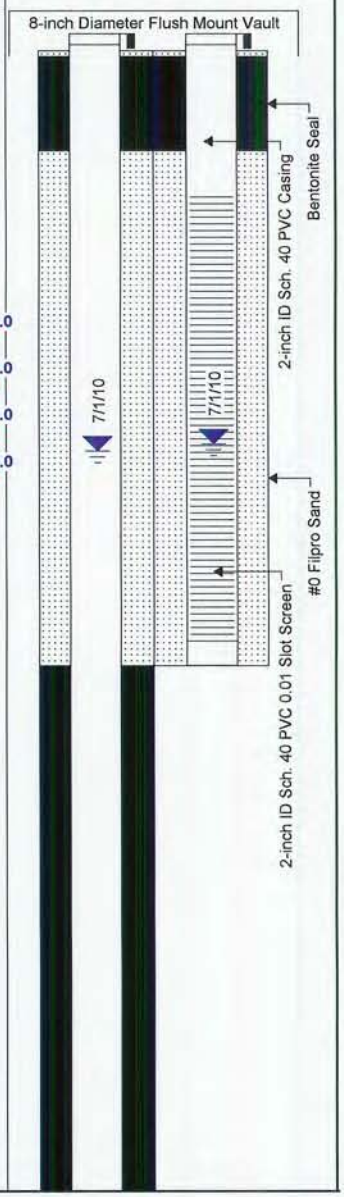
Number	Type	Recovery
059-2036		
059-2037		
059-2038		
059-2039		

PID Readings (ppmv)

0 200 400 600 800 1000

999.0
999.0
999.0
999.0
700.0
700.0
700.0
700.0
2.0
1.0
1.0
1.0
1.0
1.0
1.0
3.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0800 5/24/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

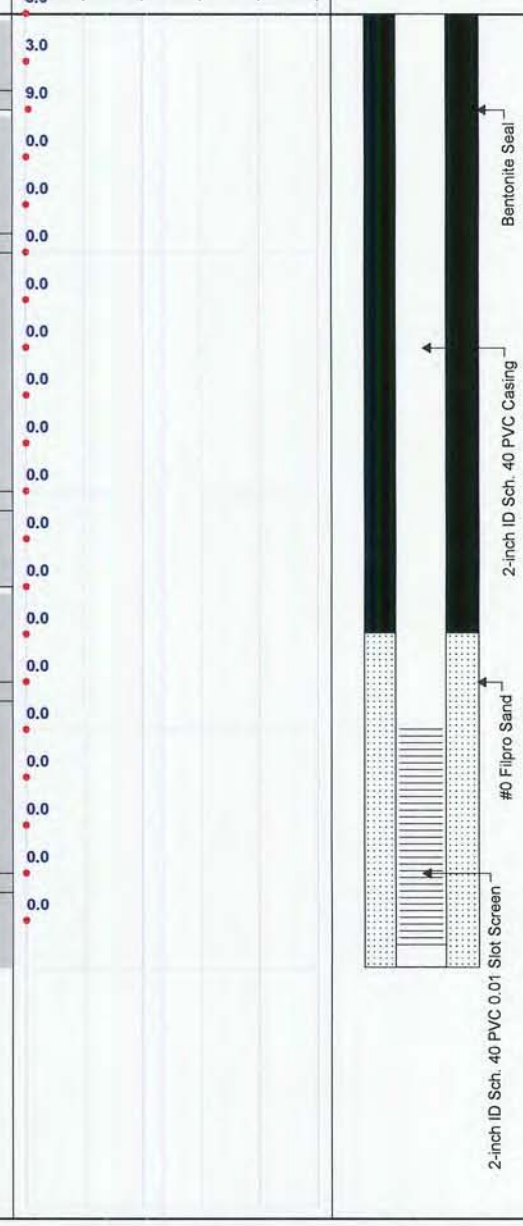
Drill Company: Boart Longyear
End Date: 1340 5/24/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 503-537 Smith St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-12S Northing (ft): 184880.719
GCMW-12S Easting (ft): 984934.324
GCMW-12I Northing (ft): 184880.925
GCMW-12I Easting (ft): 984934.330
GCMW-12S Elevation (ft AMSL): 11.84
GCMW-12I Elevation (ft AMSL): 11.75

Log of Well: GCMW-12

Depth	Symbol	Description	Elev. (ft.)	Sample Number	Type	Recovery	PID Readings (ppmv)	Well Completion Details
			-26.00				3.0	
26	8	**Silt (ML)** Light yellowish brown, and fine sand, wet, no stain, no odor.	-27.00	059-2040			3.0	
27		**Sand With Silt (SW-SM)** Light olive brown, fine to coarse grained, little silt, micaceous, wet, no stain, no odor.	-29.00				9.0	
28							0.0	
29							0.0	
30	9			059-2041			0.0	
31		**Sand With Clay (SP-SC)** Light olive brown, fine to medium grained, little nonplastic clay, trace silt, wet, no stain, no odor.	-31.00				0.0	
32							0.0	
33	10	**Sand With Silt (SP-SM)** Yellowish brown, fine to medium grained, trace coarse grained, little silt, wet, no stain, no odor.					0.0	
34							0.0	
35			-35.50	059-2042			0.0	
36	11	**Silty Clay (CL)** Dark brown, some fine sand, low plasticity, stiff, wet, no stain, no odor.	-37.00				0.0	
37		**Sand (SM)** Yellowish brown, fine to coarse grained, some silt, wet, no stain, no odor.					0.0	
38							0.0	
39	12			059-2043			0.0	
40		Becomes grayish brown, and silt between 38.5 and 42 feet.					0.0	
41							0.0	
42		Becomes fine grained between 40.5 and 42 feet.					0.0	
43	13	Little silt, iron stained between 42 and 45 feet.		059-2044			0.0	
44							0.0	
45								
46	14							
47								
48								
49	15							
50			-50.00					



Drill Method: A300 Rotary Sonic
Start Date: 0800 5/24/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

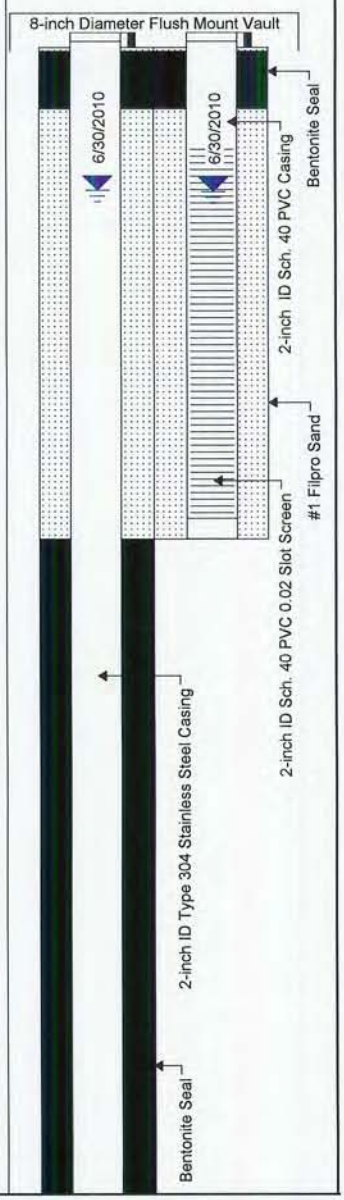
Drill Company: Boart Longyear
End Date: 1340 5/24/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 627 Smith St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-13S Northing (ft): 183233.711
GCMW-13S Easting (ft): 984254.685
GCMW-13I Northing (ft): 183233.635
GCMW-13I Easting (ft): 984245.432
GCMW-13S Elevation (ft AMSL): 5.85
GCMW-13I Elevation (ft AMSL): 5.82

Log of Well: GCMW-13

SUBSURFACE PROFILE				SAMPLE				
Depth (ft / m)	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv (0 20 40 60 80 100)	Well Completion Details
0 / 0		Ground Surface	0.00					
		Not Logged Air knifed to clear borehole of underground utilities to 7 feet. Subsurface material was not logged during air knifing.						
7 / 2		**Sand With Silt (SP-SM)** Dark grayish brown, fine to medium grained, little fines, little fine gravel, sand and gravel subrounded to well rounded, petroleum hydrocarbon sheen and odor , dark oil-like liquid observed in soil core bag.	-7.00				0.0	
			-9.00	059-2177			0.0	
		No Recovery					0.0	
17 / 5		**Silty Clay (CL)** Very dark grayish brown, moderate plasticity, very soft, trace woody material, shell fragments, wet sulfur-like odor.	-17.00				0.0	
				059-2178			0.0	
							0.0	
							0.0	
		Becomes sandy between 24 and 27 feet.		059-2179			0.0	
27 / 8		**Clay (CL-CH)** Very dark grayish brown, little fine sand, moderate to high plasticity, soft, woody material locally present, micaceous, faint sulfur-like odor.	-27.00				0.0	
			-30.10	059-2180			0.0	



Drill Method: A300 Rotary Sonic
Start Date: 1005 6/16/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1130 6/16/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 627 Smith St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-13S Northing (ft): 183233.711
GCMW-13S Easting (ft): 984254.685
GCMW-13I Northing (ft): 183233.635
GCMW-13I Easting (ft): 984245.432
GCMW-13S Elevation (ft AMSL): 5.85
GCMW-13I Elevation (ft AMSL): 5.82

Log of Well: GCMW-13

SUBSURFACE PROFILE				SAMPLE				
Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv (0 20 40 60 80 100)	Well Completion Details
31		**Clay (CL-CH) As Above**					0.0	
32								
33 (10)							0.0	
34								
35				059-2181			0.0	
36 (11)								
37							0.0	
38								
39 (12)							0.0	
40				059-2182				
41			-41.00				0.0	
42		**Organic Clay (OH)** Very dark brown, silty, highly peaty.	-42.00					
43 (13)		**Sand (SP) and Sand With Silt (SP-SM)** Dark gray to dark yellowish brown, medium grained, little fines between 44. and 46.5 feet.					0.0	
44								
45				059-2183			0.0	
46 (14)			-46.50					
47		**Sand (SM)** Dark yellowish brown, fine grained, some fines.	-47.00				0.0	
48		**Sand (SP)** Dark yellowish brown, coarse grained, little medium grained, trace to little fines, little fine gravel.						
49 (15)							0.0	
50				059-2184				
51							0.0	
52 (16)								
53							0.0	
54								
55				059-2185			0.0	
56 (17)							0.0	
57								
58								
59 (18)								
60			-60.00					



Drill Method: A300 Rotary Sonic
Start Date: 1005 6/16/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1130 6/16/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 641 Smith St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-14S Northing (ft): 183476.514
GCMW-14S Easting (ft): 984232.892
GCMW-14I Northing (ft): 183476.665
GCMW-14I Easting (ft): 984232.657
GCMW-14S Elevation (ft AMSL): 7.04
GCMW-14I Elevation (ft AMSL): 7.05

Log of Well: GCMW-14

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
0–4 / 0–1		**Not Logged** Borehole cleared of underground utilities by air knifing to 4 feet. Subsurface materials not logged during air knifing.	-4.00
4–6 / 1–2		**Fill** Pulverized red brick, dry, no stain, no odor.	-6.00
6–17 / 2–5		**Sand (SM)** Dark grayish brown, silty ,some clay, abundant cobbles, fine grained, moist, very loose, petroleum hydrocarbon staining and odor from 6 to 7 feet. Becomes dark yellowish brown with trace cobbles between 7 and 14 feet. Becomes dark gray, with trace shell fragments between 14 and 17 feet.	-17.00
17–24 / 5–7		**Silty Clay (CL)** Dark gray, medium plasticity, soft, trace shell fragments, wet, faint sulfur-like odor.	-24.50
25–30 / 8–9		**Silt (ML)** Dark gray, some clay, wet.	

SAMPLE

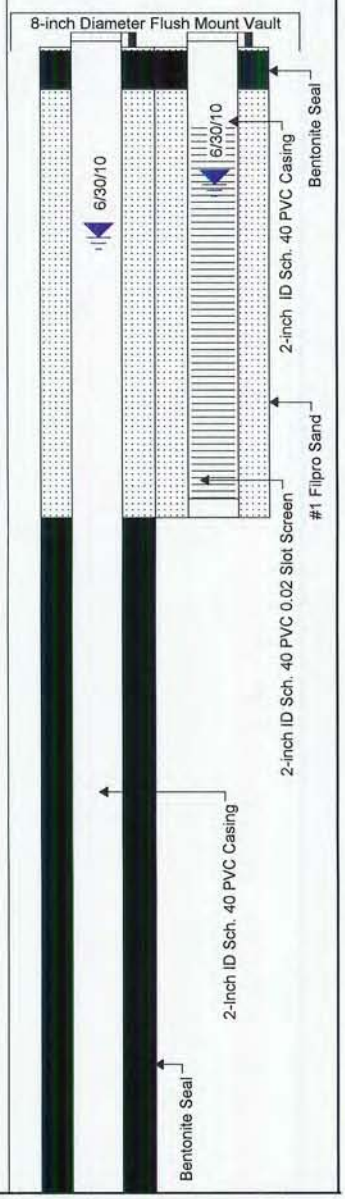
Number	Type	Recovery
059-2186		
059-2187		
059-2188		
059-2189		
059-2190		
059-2191		

PID Readings (ppmv)

0 20 40 60 80 100

0.0 0.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0730 6/17/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

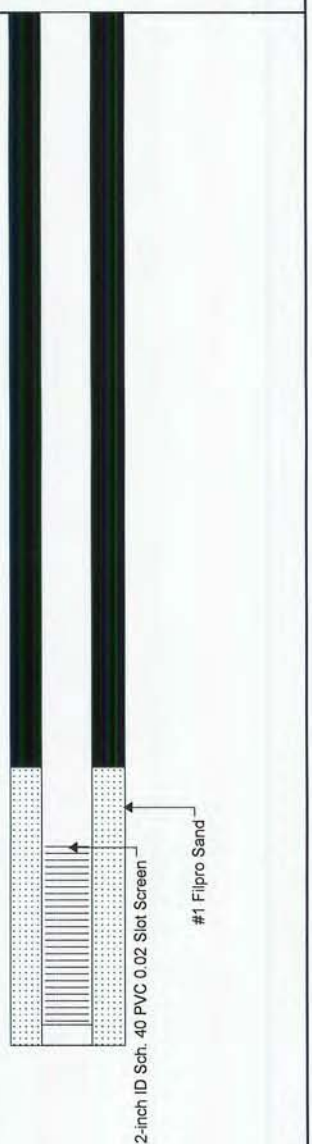
Drill Company: Boart Longyear
End Date: 1130 6/17/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 641 Smith St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-14S Northing (ft): 183476.514
GCMW-14S Easting (ft): 984232.892
GCMW-14I Northing (ft): 183476.665
GCMW-14I Easting (ft): 984232.657
GCMW-14S Elevation (ft AMSL): 7.04
GCMW-14I Elevation (ft AMSL): 7.05

Log of Well: GCMW-14

Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings (ppmv)	Well Completion Details
			-30.50				0.0	
31		**Organic Silt (OL)** Very dark brown, peaty, spongy.	-31.50				0.0	
32		**Sand With Silt (SP-SM)** Grayish brown, medium grained, little fines, loose.	-32.50				0.0	
33 10		**Silty Clay (CL)** Very dark gray, little silt, low plasticity, medium stiff.					0.0	
34				059-2192			0.0	
35							0.0	
36 11			-37.00				0.0	
37		**Silt (ML)** Very dark gray, little clay, low plasticity, micaceous.					0.0	
38							0.0	
39 12							0.0	
40				059-2193			0.0	
41							0.0	
42							0.0	
43 13							0.0	
44			-44.00				0.0	
45		**Sand With Silt (SP-SM)** Very dark gray, medium grained, little fines, loose.		059-2194			0.0	
46 14							0.0	
47			-47.00				0.0	
48		**Sand (SP)** Dark gray, medium grained, loose.					0.0	
49 15							0.0	
50				059-2195			0.0	
51							0.0	
52 16							0.0	
53							0.0	
54							0.0	
55				059-2196			0.0	
56 17							0.0	
57								
58								
59 18								
60			-60.00					



Drill Method: A300 Rotary Sonic
Start Date: 0730 6/17/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1130 6/17/10
Sheet: 2 of 2

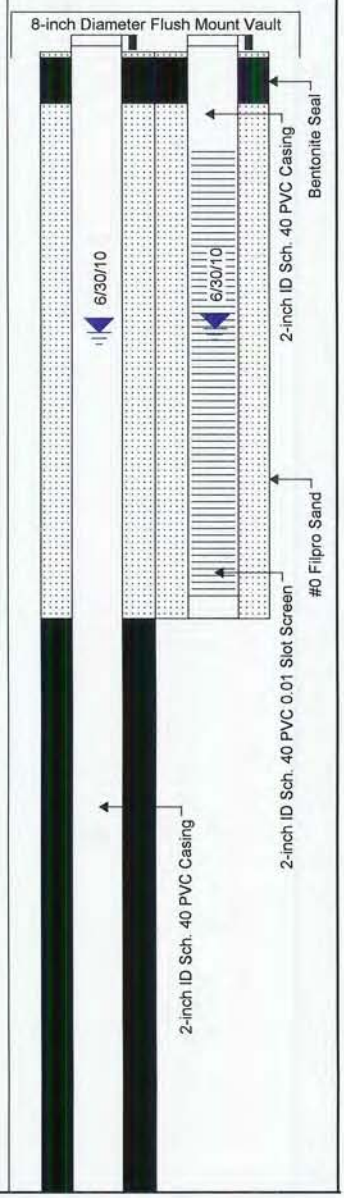
Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 764 Court St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-15S Northing (ft): 182543.823
GCMW-15S Easting (ft): 983485.511
GCMW-15I Northing (ft): 182543.674
GCMW-15I Easting (ft): 983485.631
GCMW-15S Elevation (ft AMSL): 7.46
GCMW-15I Elevation (ft AMSL): 7.49

Log of Well: GCMW-15

Depth (ft / m)	Symbol	Description	Elev. (ft.)	Sample Number	Sample Type	Recovery	PID Readings (ppmv)
0 / 0		Ground Surface	0.00				
		Asphalt 3- inches thick.					
		Not Logged Air knifed to clear borehole of underground utilities to 7 feet. No subsurface materials logged during air knifing.					
			-7.00				
		Sand With Gravel (SW-GW) Fill Grayish brown, fine to coarse grained, some fine and coarse subrounded gravel, wood fragments at 7 feet,wet, no stain, no odor.	-9.00				0.8
		Gravel With Silt and Sand (GW-GM) Fill Black, fine and coarse angular gravel, some coarse sand, little silt, trace angular cobbles, faint petroleum hydrocarbon odor, wet.		059-2089			3.2
							0.0
							0.0
							0.0
			-14.00	059-2090			
		No Recovery Boulder in shoe of core barrel resulted in no recovery between 14 and 17 feet.	-17.00				0.0
		Sand (SM) Fill Black, fine to medium grained, some silt, wet, no stain, no odor.	-19.00				0.0
		Sand (SC) Fill Black, fine to medium grained, some clay, trace fine and coarse gravel, abundant wood fragments, wet, no stain, no odor.		059-2091			0.0
							0.0
							0.0
							0.0
							0.0
			-25.00	059-2092			0.0

PID Readings ppmv: 0 20 40 60 80 100



Drill Method: A300 Rotary Sonic
Start Date: 0835 6/2/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1200 6/2/10
Sheet: 1 of 3

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 764 Court St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-15S Northing (ft): 182543.823
GCMW-15S Easting (ft): 983485.511
GCMW-15I Northing (ft): 182543.674
GCMW-15I Easting (ft): 983485.631
GCMW-15S Elevation (ft AMSL): 7.46
GCMW-15I Elevation (ft AMSL): 7.49

Log of Well: GCMW-15

SUBSURFACE PROFILE				SAMPLE				
Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv (0 20 40 60 80 100)	Well Completion Details
26		**Sand With Silt (SP-SM)** Dark gray, fine to medium grained, little silt, micaceous, shell fragments, wet, no stain, no odor.	-26.00				0.0	
27							0.0	
28		**Sand With Gravel (SW-GP)** Grayish brown, fine to coarse grained, little fine subrounded gravel, micaceous, wet, no stain, no odor.					0.0	
29							0.0	
30				059-2093			0.0	
31							0.0	
32							0.0	
33			-33.00				0.0	
34		**Sand (SC)** Yellowish brown, fine grained, some clay, little silt, micaceous, wet, no stain, no odor.					0.0	
35				059-2094			0.0	
36			-36.00				0.0	
37		**Sand With Silt (SP-SM)** Yellowish brown, fine grained, little silt, micaceous, wet, no stain, no odor.					0.0	
38							0.0	
39							0.0	
40			-40.00				0.0	
41		**Sand (SW)** Yellowish brown, fine to coarse grained, trace fine subrounded gravel, micaceous, wet, no stain, no odor.		059-2095			0.0	
42							0.0	
43							0.0	
44							0.0	
45				059-2096			0.0	
46		Becomes brown at 47 feet.					0.0	
47							0.0	
48							0.0	
49							0.0	
50				059-2097			0.0	

Bentonite Seal

Drill Method: A300 Rotary Sonic
Start Date: 0835 6/2/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1200 6/2/10
Sheet: 2 of 3

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 764 Court St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-15S Northing (ft): 182543.823
GCMW-15S Easting (ft): 983485.511
GCMW-15I Northing (ft): 182543.674
GCMW-15I Easting (ft): 983485.631
GCMW-15S Elevation (ft AMSL): 7.46
GCMW-15I Elevation (ft AMSL): 7.49

Log of Well: GCMW-15

SUBSURFACE PROFILE

SAMPLE

Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv (0 20 40 60 80 100)	Well Completion Details
51–54							0.0	
54			-54.50	059-2098			0.0	
55–59		**No Recovery** No recovery of subsurface materials between 54.5 and 60 feet.					0.0	
59–60			-60.00				0.0	
60		End of Borehole						
61–75								

Well Completion Details: #0 Filpro Sand; 2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 0835 6/2/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1200 6/2/10
Sheet: 3 of 3

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Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Bryant St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-16S Northing (ft): 182991.714
GCMW-16S Easting (ft): 983418.757
GCMW-16I Northing (ft): 182991.680
GCMW-16I Easting (ft): 983418.913
GCMW-16S Elevation (ft AMSL): 6.72
GCMW-16I Elevation (ft AMSL): 6.77

Log of Well: GCMW-16

SUBSURFACE PROFILE

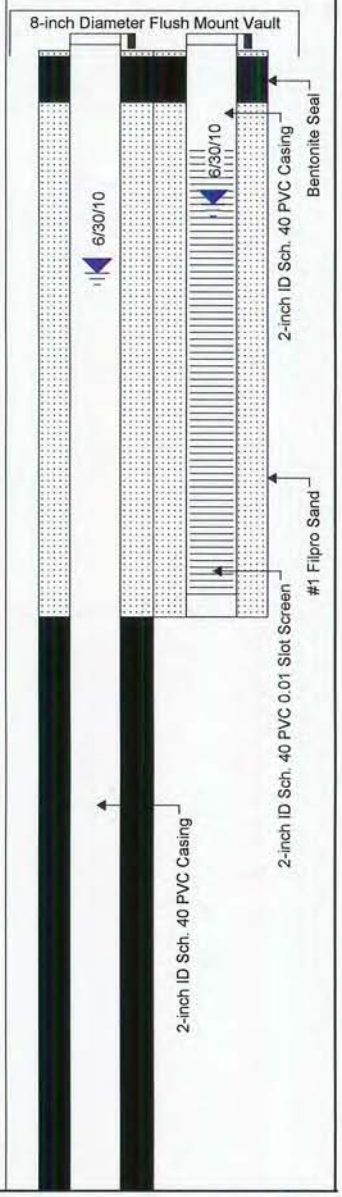
Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Concrete 3- inches thick.	
		Not Logged Air knifed to clear borehole of buried utilities to 7 feet. No subsurface materials logged during air knifing.	
7 / 2			-7.00
		Sand (SP) Very dark gray, medium grained, shells present, micaceous, wet.	
			-9.00
		Silty Clay (CL) Black, minor inclusions of gravel, nodules of medium-grained sand, shell fragments, minor twigs, low plasticity, wet. Sand content increases between 14 and 16 feet.	
			-16.00
		Sand (SP) Very dark gray to dark grayish brown at 17 feet, medium grained, minor silt, micaceous, shell fragments, wet.	
			-23.00
		Silty Clay (CL) Dark yellowish brown, micaceous.	
			-25.00

SAMPLE

Number	Type	Recovery
059-2079		
059-2080		
059-2081		
059-2082		

PID Readings (ppmv): 0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0



Drill Method: A300 Rotary Sonic
Start Date: 0800 6/1/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 6/1/10
Sheet: 1 of 3

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Bryant St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-16S Northing (ft): 182991.714
GCMW-16S Easting (ft): 983418.757
GCMW-16I Northing (ft): 182991.680
GCMW-16I Easting (ft): 983418.913
GCMW-16S Elevation (ft AMSL): 6.72
GCMW-16I Elevation (ft AMSL): 6.77

Log of Well: GCMW-16

Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings (ppmv)	Well Completion Details
26 – 8		**Sand With Silt (SP-SM)** Dark yellowish brown, medium grained, inclusions of dark grayish brown clayey silt, micaceous, wet.	-27.00				0.0	
27		**Silty Clay (CL)** Very dark grayish brown, micaceous, wet, locally iron stained.					0.0	
28							0.0	
29 – 9							0.0	
30				059-2083			0.0	
			-30.50					
31		**Sand (SC)** Dark yellowish brown, fine grained, clayey, some silt, laminated in 1/4 to 1/8 inch intervals, micaceous, wet.					0.0	
32							0.0	
33 – 10							0.0	
34							0.0	
			-35.00					
35		**Silt (ML)** Dark grayish brown, sandy, blocky, 10 to 15% clay in laminations of 1/8 to 1/4 inch thickness, wet.		059-2084			0.0	
36 – 11							0.0	
37			-37.00				0.0	
38		**Sand (SW)** Brown, coarse grained, little fine rounded gravel in lower 5 feet, loose, wet.					0.0	
39							0.0	
40 – 12							0.0	
41							0.0	
42				059-2085			0.0	
43 – 13							0.0	
44							0.0	
45							0.0	
46 – 14							0.0	
47				059-2086			0.0	
48							0.0	
49 – 15							0.0	
50			-50.10				0.0	

Bentonite Seal

Drill Method: A300 Rotary Sonic
Start Date: 0800 6/1/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

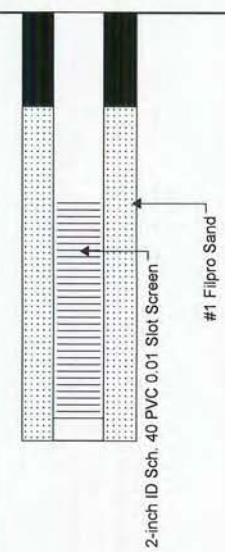
Drill Company: Boart Longyear
End Date: 1430 6/1/10
Sheet: 2 of 3

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Bryant St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-16S Northing (ft): 182991.714
GCMW-16S Easting (ft): 983418.757
GCMW-16I Northing (ft): 182991.680
GCMW-16I Easting (ft): 983418.913
GCMW-16S Elevation (ft AMSL): 6.72
GCMW-16I Elevation (ft AMSL): 6.77

Log of Well: GCMW-16

SUBSURFACE PROFILE				SAMPLE			PID Readings ppmv	Well Completion Details
Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	0 20 40 60 80 100	
51		Sand (SW) As Above					0.0	
52				059-2087			0.0	
53	16						0.0	
54							0.0	
55							0.0	
56	17						0.0	
57							0.0	
58							0.0	
59	18						0.0	
60								
61								
62	19							
63								
64								
65	20							
66								
67								
68								
69	21							
70								
71								
72	22							
73								
74								
75			-75.00					



Drill Method: A300 Rotary Sonic
Start Date: 0800 6/1/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 6/1/10
Sheet: 3 of 3

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Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 9th St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-20S Northing (ft): 185002.658
GCMW-20S Easting (ft): 985421.611
GCMW-20I Northing (ft): 185002.448
GCMW-20I Easting (ft): 985421.455
GCMW-20S Elevation (ft AMSL): 6.00
GCMW-20I Elevation (ft AMSL): 6.06

Log of Well: GCMW-20

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
0–2 / 0		**Concrete, Asphalt, and Brick** — Three-inch thick layer of asphalt overlying layers of brick and concrete extending to two feet.	-2.00
2–7 / 0–2		**Not Logged** — Air knifed to clear borehole for underground utilities to 7 feet. Subsurface materials not logged during air knifing.	-7.00
7–13.5 / 2–4		**Sand With Silt (SW-SM) Fill** — Dark grayish brown, fine to coarse grained, little fine and coarse gravel, little silt, brick and wood fragments at 13.5 feet, micaceous, wet, no stain, no odor.	-13.50
13.5–25 / 4–7		**Silty Clay (CL)** — Dark gray, trace fine sand, occasional plant remains and shell fragments, high plasticity, soft, wet, no stain, no odor. No recovery in core barrel but material removed from inside of drill rod between 17 and 27 feet was silty clay.	-25.10

SAMPLE

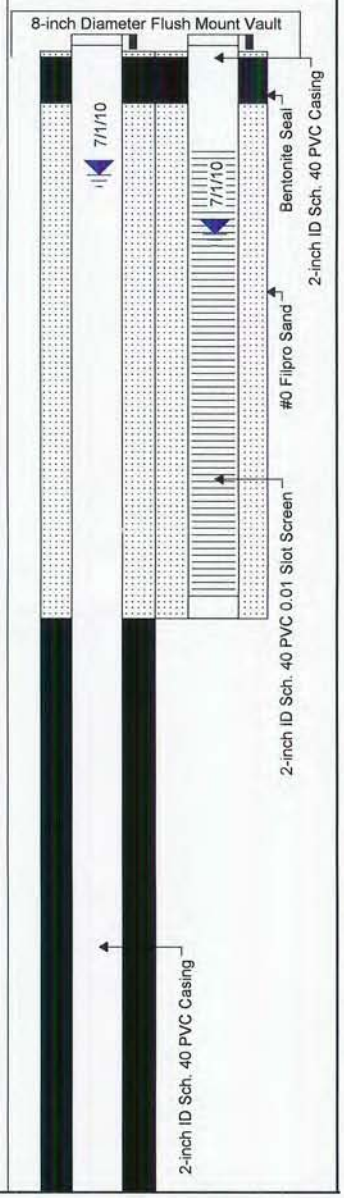
Number	Type	Recovery
059-2067		
059-2068		

PID Readings (ppmv)

0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1430 5/26/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1800 5/26/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 9th St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-20S Northing (ft): 185002.658
GCMW-20S Easting (ft): 985421.611
GCMW-20I Northing (ft): 185002.448
GCMW-20I Easting (ft): 985421.455
GCMW-20S Elevation (ft AMSL): 6.00
GCMW-20I Elevation (ft AMSL): 6.06

Log of Well: GCMW-20

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
26 – 8		***Silty Clay (CL) As Above***	
			-27.00
27		***Sand (SM)*** **Grayish brown, fine to medium grained, some silt, wet, low viscosity petroleum hydrocarbon saturated throughout, moderate petroleum hydrocarbon odor.**	
28			
29			
29 – 9			
30			
31			
			-32.00
32		***Sand With Silt (SP-SM)*** **Dark grayish brown, fine grained, little silt, micaceous, wet, low viscosity petroleum hydrocarbon saturated from 32 to 36 feet, petroleum hydrocarbon sheen from 36 to 39 feet, moderate petroleum hydrocarbon odor.**	
33 – 10			
34			
35			
36 – 11			
37			
38			
39 – 12			
40			
41			
42			
43 – 13			
44			
45			
46 – 14			
47			
48			
49 – 15			
50			-50.00

SAMPLE

Number	Type	Recovery
059-2069		
059-2070		
059-2071		

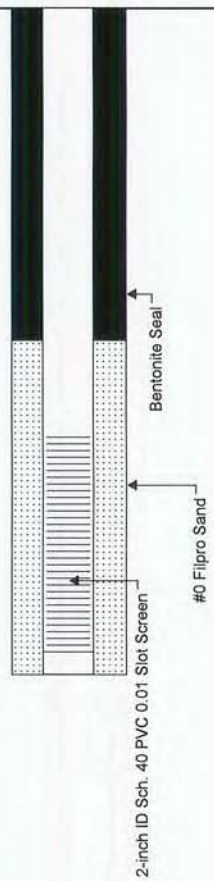
PID Readings

ppmv

0 20 40 60 80 100

21.0
21.0
23.0
23.0
28.0
28.0
28.0
28.0
28.0
18.0
8.0
8.0
1.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1430 5/26/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1800 5/26/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 9th St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-21S Northing (ft): 184893.024
GCMW-21S Easting (ft): 985677.980
GCMW-21I Northing (ft): 184893.096
GCMW-21I Easting (ft): 985678.313
GCMW-21S Elevation (ft AMSL): 6.22
GCMW-21I Elevation (ft AMSL): 6.31

Log of Well: GCMW-21

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Description	Elev. (ft.)
0	0	Ground Surface	0.00
0–4	0–1	**Asphalt, Cobblestones, and Concrete** — Layers of asphalt, cobblestones and concrete to 4 feet. Groundwater at 4 feet.	-4.00
4–7	1–2	**Not Logged** — Air knifed to clear borehole for underground utilities to 7 feet. Subsurface materials not logged during air knifing.	-7.00
7–9	2–3	**Gravel With Sand (GW-SW) Fill** — Dark gray, fine and coarse gravel, some fine to coarse-grained sand, little silt, trace cobbles, wet.	-9.00
9–19	3–6	**Silty Clay (CL)** — Dark gray,trace fine sand, low plasticity, very soft, abundant plant remains and occasional shell fragments throughout, micaceous, wet, no stain, no odor.	-19.00
19–25	6–7	**Sand With Silt (SP-SM)** — Dark gray, fine to medium grained, trace coarse grained, little silt, micaceous, wet, no stain, no odor.	-25.00

SAMPLE

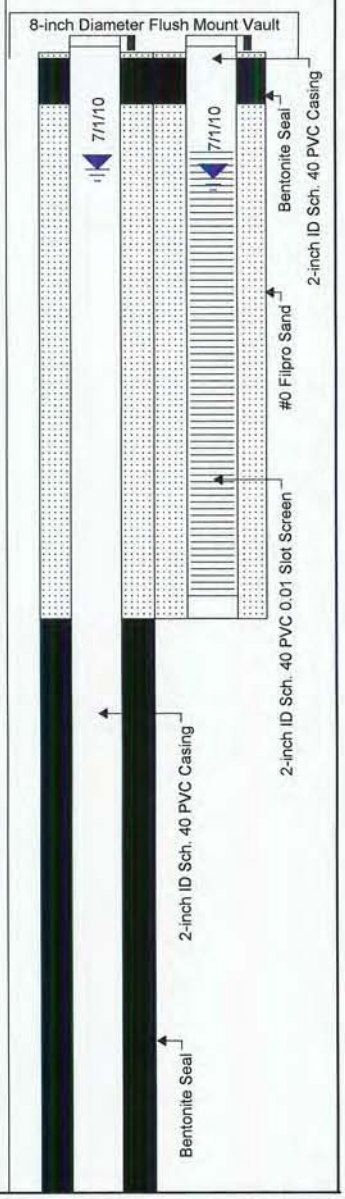
Number	Type	Recovery
059-2055		
059-2056		
059-2057		
059-2058		

PID Readings (ppmv)

0 20 40 60 80 100

1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1300 5/25/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/25/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 9th St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-21S Northing (ft): 184893.024
GCMW-21S Easting (ft): 985677.980
GCMW-21I Northing (ft): 184893.096
GCMW-21I Easting (ft): 985678.313
GCMW-21S Elevation (ft AMSL): 6.22
GCMW-21I Elevation (ft AMSL): 6.31

Log of Well: GCMW-21

SUBSURFACE PROFILE

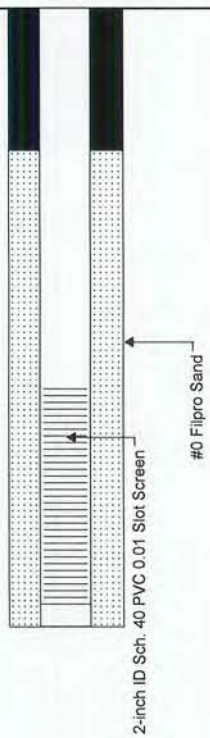
Depth	Symbol	Description	Elev. (ft.)
26 / 8		**Sand (SP)** Yellowish brown, fine to medium grained, trace silt, wet, no stain, no odor.	-25.50
			-26.50
27		**Clayey Silt (ML)** Olive, no plasticity, very stiff, micaceous, wet, no stain, no odor.	
28			
29 / 9		**Sand (SM)** Olive, fine to coarse grained, little to some silt, micaceous, wet, no stain, no odor.	
30			
31			
32			-32.50
33 / 10		**Sandy Clay (CL)** Dark grayish brown, some fine sand, low plasticity, very stiff, wet, no stain, no odor.	
34			-34.50
35		Four-inch thick lense of fine to medium grained sand, little silt, wet at 33.4 feet.	-35.00
36 / 11		**Sand (SP)** Dark grayish brown, fine to medium grained, trace silt, micaceous, wet, no stain, no odor.	-36.00
37			
38			
39 / 12		**Silty Clay (CL)** Dark grayish brown, little fine grained sand, low plasticity, soft, wet, no stain, no odor.	
40			
41		**Sand (SW)** Dark grayish brown, fine to coarse grained, trace silt, micaceous, wet, no stain, no odor.	
42			
43 / 13			
44			
45			
46 / 14			
47			
48			
49 / 15			
50			-50.00

SAMPLE

Number	Type	Recovery
059-2059		
059-2060		

PID Readings (ppmv): 0 | 20 | 40 | 60 | 80 | 100
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1300 5/25/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/25/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 6th St. & 2nd Ave., Brooklyn, NY
Logged By: J. Bolduc

GCMW-24S Northing (ft): 185075.269
GCMW-24S Easting (ft): 986309.247
GCMW-24I Northing (ft): 185075.460
GCMW-24I Easting (ft): 986309.052
GCMW-24S Elevation (ft AMSL): 8.71
GCMW-24I Elevation (ft AMSL): 8.71

Log of Well: GCMW-24

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
0–5.5	0–1		**Asphalt,Fill, and Concrete** — Three-inch thick layer of asphalt overlying layers of fill and concrete to 5.5 feet. Air knifed to 4 feet.	
5.5–9	1–2		**Sand With Silt and Gravel (SW-GP) Fill** — Dark gray, fine to coarse grained, some fine gravel, little silt, brick and wood fragments, wet, moderate petroleum hydrocarbon odor.	-5.50
9–22	2–6		**Silty Clay (CL)** — Dark gray, peat, plant and shell fragments throughout, low plasticity, soft, wet, no stain, sulfur-like odor.	-9.00
22–25	6–7		**Sand With Silt (SP-SM)** — Olive gray, fine to medium grained, little silt, wet, petroleum hydrocarbon sheens and low viscosity petroleum hydrocarbon saturated from 22 to 27 feet, faint petroleum hydrocarbon odor.	-22.00
25	7			-25.10

SAMPLE

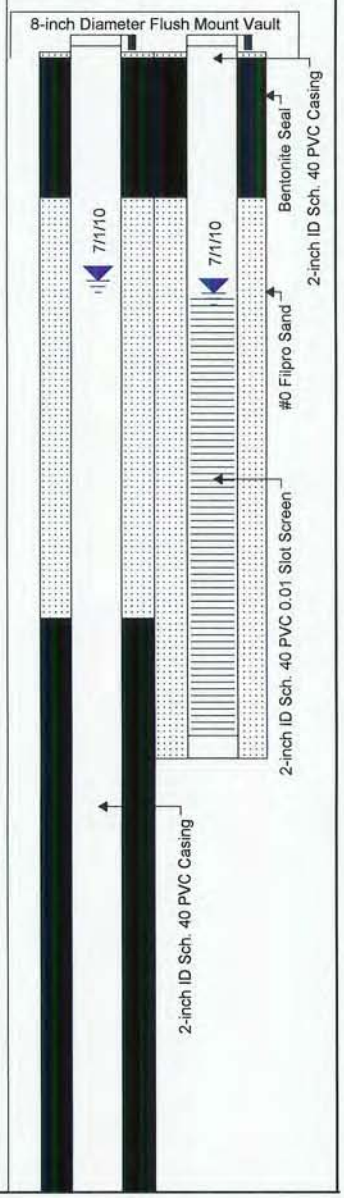
Number	Type	Recovery
059-2106		
059-2107		
059-2108		
059-2109		
059-2110		

PID Readings (ppmv)

0 80 160 240 320 400

Depth (ft)	PID (ppmv)
6	105.0
7	0.9
11	97.0
12	110.0
13	109.0
14	148.0
15	128.0
16	106.0
18	345.0
19	243.0
20	33.0
22	33.0
23	17.0
24	42.0
25	68.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1000 6/7/10
Hole Size: 8 inches

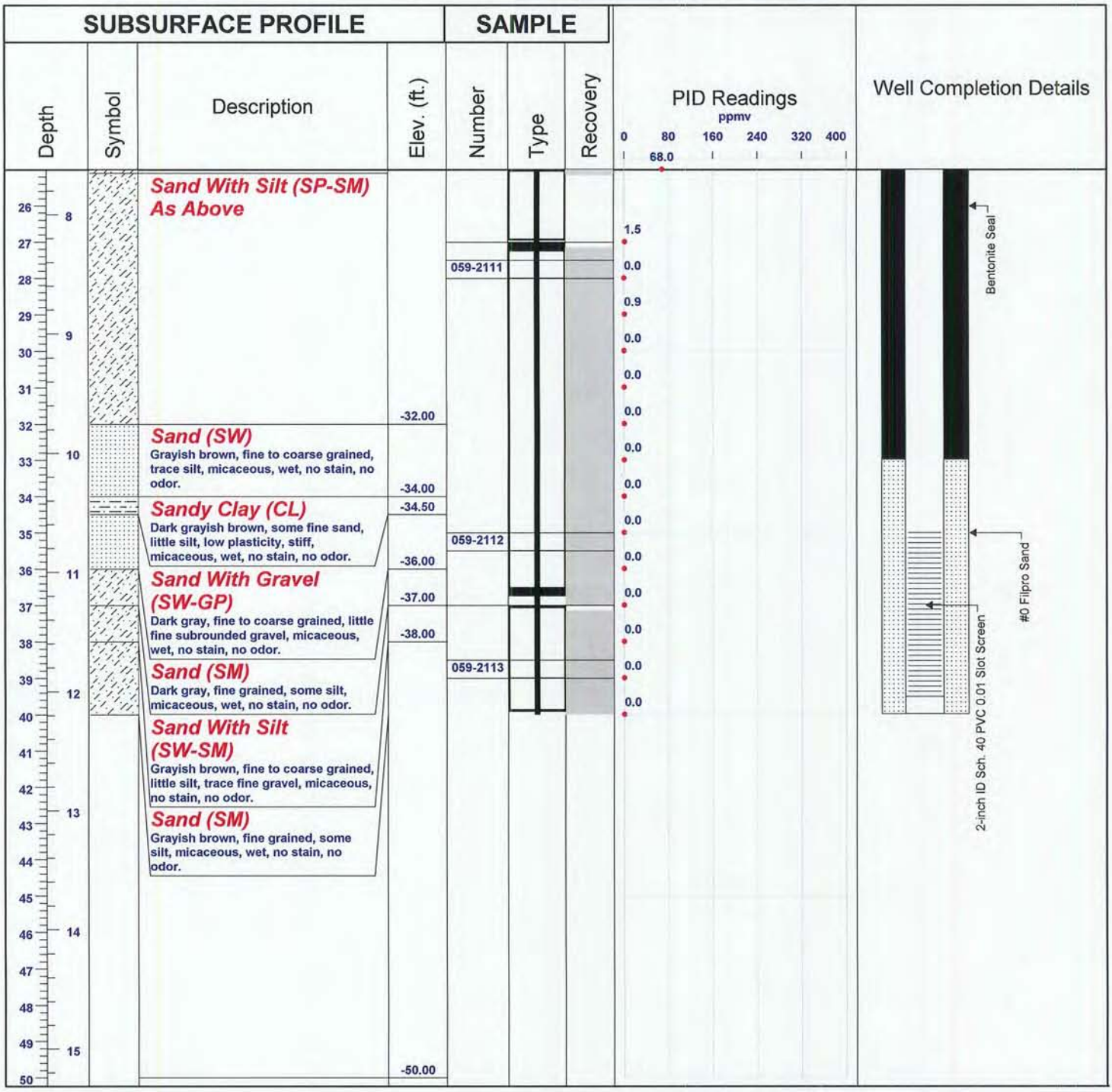
Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1300 6/7/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 6th St. & 2nd Ave., Brooklyn, NY
Logged By: J. Bolduc

GCMW-24S Northing (ft): 185075.269
GCMW-24S Easting (ft): 986309.247
GCMW-24I Northing (ft): 185075.460
GCMW-24I Easting (ft): 986309.052
GCMW-24S Elevation (ft AMSL): 8.71
GCMW-24I Elevation (ft AMSL): 8.71

Log of Well: GCMW-24



Drill Method: A300 Rotary Sonic
Start Date: 1000 6/7/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1300 6/7/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 322 3rd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-25S Northing (ft): 185867.292
GCMW-25S Easting (ft): 987252.779
GCMW-25I Northing (ft): 185867.214
GCMW-25I Easting (ft): 987252.914
GCMW-25S Elevation (ft AMSL): 22.25
GCMW-25I Elevation (ft AMSL): 22.25

Log of Well: GCMW-25

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
			Not Logged Air knifed to clear borehole of underground utilities to 5 feet. Subsurface materials not logged during air knifing.	
5				-5.00
			Sand With Clay and Gravel (SC-GC) Fill Mottled very dark grayish brown and brown, fine to coarse grained sand, some fines, some coarse gravel and cobbles, abundant fragments of red brick and timbers, some petroleum hydrocarbon staining, faint petroleum hydrocarbon odor.	
10	3			
15	4		Pulverized red brick at 17 feet. Dry to 16.5 feet and moist between 16.5 and 17 feet.	
			Wet, petroleum hydrocarbon sheen between 17 and 21 feet.	
20	6			
21				-21.00
			Clay (CL) Very dark gray, some stringers (up to 1/8-inch thick) of fine to medium grained sand near base, medium plasticity, soft, abundant shell fragments.	
25	7			-25.10

SAMPLE

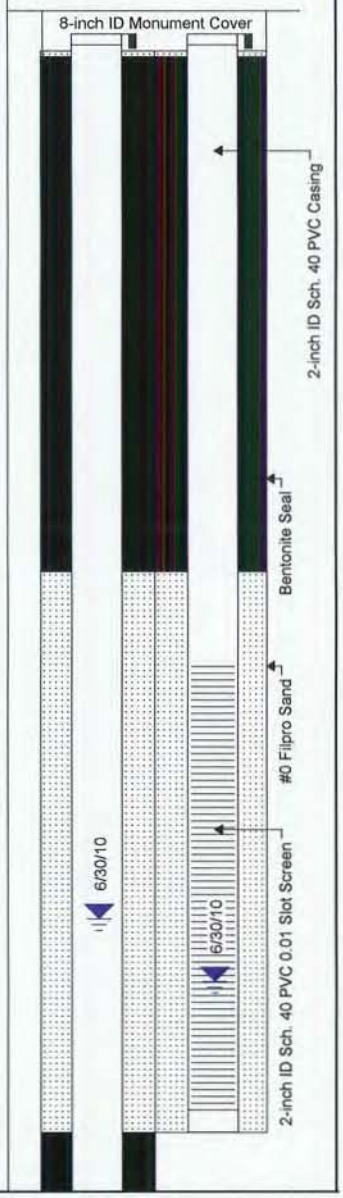
Number	Type	Recovery
059-2221		
059-2222		
059-2223		
059-2224		

PID Readings (ppmv)

0 20 40 60 80 100

10.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0
1.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0800 6/23/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

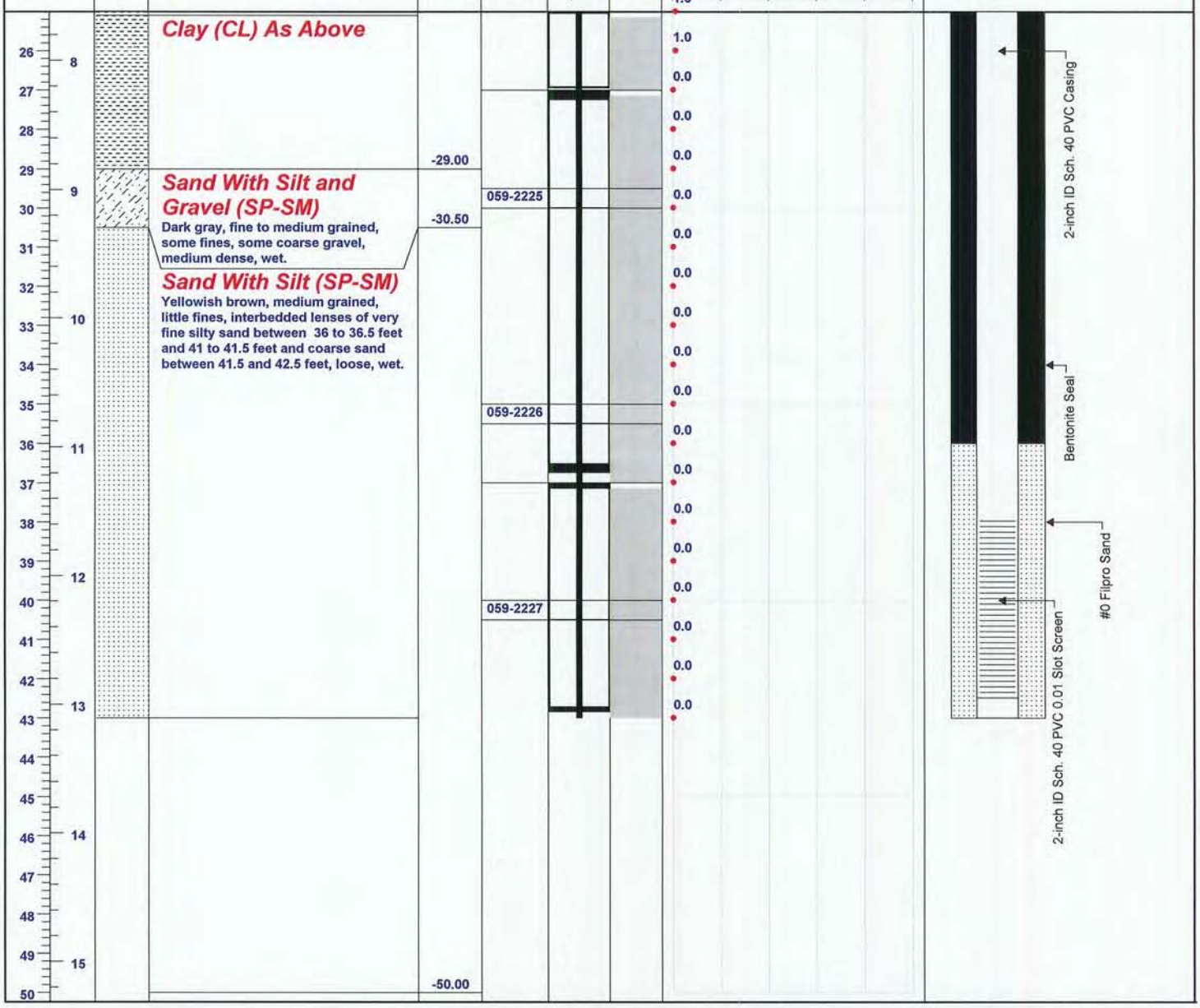
Drill Company: Boart Longyear
End Date: 0910 6/23/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 322 3rd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-25S Northing (ft): 185867.292
GCMW-25S Easting (ft): 987252.779
GCMW-25I Northing (ft): 185867.214
GCMW-25I Easting (ft): 987252.914
GCMW-25S Elevation (ft AMSL): 22.25
GCMW-25I Elevation (ft AMSL): 22.25

Log of Well: GCMW-25

SUBSURFACE PROFILE				SAMPLE				
Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv	Well Completion Details
		Clay (CL) As Above						
			-29.00					
		Sand With Silt and Gravel (SP-SM) Dark gray, fine to medium grained, some fines, some coarse gravel, medium dense, wet.	-30.50	059-2225				
		Sand With Silt (SP-SM) Yellowish brown, medium grained, little fines, interbedded lenses of very fine silty sand between 36 to 36.5 feet and 41 to 41.5 feet and coarse sand between 41.5 and 42.5 feet, loose, wet.		059-2226				
				059-2227				
			-50.00					



Drill Method: A300 Rotary Sonic
Start Date: 0800 6/23/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 0910 6/23/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 322 3rd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-26S Northing (ft): 185867.716
GCMW-26S Easting (ft): 987430.701
GCMW-26I Northing (ft): 185867.408
GCMW-26I Easting (ft): 987430.631
GCMW-26S Elevation (ft AMSL): 21.44
GCMW-26I Elevation (ft AMSL): 21.44

Log of Well: GCMW-26

SUBSURFACE PROFILE				SAMPLE				
Depth (ft / m)	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv (0 20 40 60 80 100)	Well Completion Details
0 / 0		Ground Surface	0.00					8-inch ID Monument Cover
0–7 / 0–2		**Not Logged** Air knifed to clear borehole of underground utilities to 7 feet. Subsurface materials not logged during air knifing.	-7.00				0.0	
7–20 / 2–6		**Concrete, rebar, brick.** Concrete, rebar, and pieces of brick but no soil recovered during drilling from 7 to 20 feet.	-20.00				0.0, 0.0, 0.0, 0.0, 0.0	2-inch ID Sch. 40 PVC Casing; Bentonite Seal; #0 Filpro Sand; 6/30/10; 6/30/10; 2-inch ID Sch. 40 PVC 0.01 Slot Screen
20–25 / 6–7		**Sand With Clay (SW-SC)** Dark grayish brown and occasionally brown, medium to coarse grained, subrounded to rounded, trace to little fines, gray clay stringers from 1/16 to 3/4 inch thick every 1.5 feet of core, loose.	-25.10	059-2216; 059-2217			0.0, 0.0, 0.0	

Drill Method: A300 Rotary Sonic
Start Date: 1125 6/23/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 6/23/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 322 3rd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-26S Northing (ft): 185867.716
GCMW-26S Easting (ft): 987430.701
GCMW-26I Northing (ft): 185867.408
GCMW-26I Easting (ft): 987430.631
GCMW-26S Elevation (ft AMSL): 21.44
GCMW-26I Elevation (ft AMSL): 21.44

Log of Well: GCMW-26

SUBSURFACE PROFILE				SAMPLE				
Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv (0 20 40 60 80 100)	Well Completion Details
26 – 8		***Sand With Clay (SW-SC) As Above***					0.0	
27							0.0	
28								
29 – 9							0.0	
30				059-2218				
31							0.0	
32								
33 – 10							0.0	
34								
35				059-2219			0.0	
36 – 11								
37							0.0	
38								
39 – 12							0.0	
40								
41								
42								
43 – 13								
44								
45								
46 – 14								
47								
48								
49 – 15								
50			-50.00					

Well Completion Details: 2-inch ID Sch. 40 PVC Casing; Bentonite Seal; #0 Filpro Sand; 2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 1125 6/23/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 6/23/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 322 3rd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-27S Northing (ft): 185935.881
GCMW-27S Easting (ft): 987404.816
GCMW-27I Northing (ft): 185936.353
GCMW-27I Easting (ft): 987404.783
GCMW-27S Elevation (ft AMSL): 17.41
GCMW-27I Elevation (ft AMSL): 17.41

Log of Well: GCMW-27

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Not Logged Air knifed to clear borehole of underground utilities to 7 feet. Subsurface materials not logged during air knifing.	
7 / 2			-7.00
		Construction Debris Predominantly construction debris (red brick and concrete), minor soil, very faint petroleum hydrocarbon odor.	
		Heavily stained with petroleum hydrocarbon between 17 and 21 feet.	
		Wood timbers cut through at base between 20 and 21 feet.	
21 / 6			-21.00
		Silty Clay (CH) Black, little sand and fine gravel, high plasticity, very soft, some roots and plant material, petroleum hydrocarbon staining, strong petroleum hydrocarbon odor.	
25 / 7			-25.10

SAMPLE

Number	Type	Recovery
059-2228		

PID Readings (ppmv): 0.0, 5.0, 8.0, 8.0, 18.0, 40.0

Well Completion Details: 8-inch ID Monument Cover; 2-inch ID Type 304 Stainless Steel Casing; Bentonite Seal; #0 Filpro Sand; 2-inch ID Type 304 Stainless Steel 0.01 Slot Screen; 6/30/10; 6/30/10

Drill Method: A300 Rotary Sonic
Start Date: 1110 6/24/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 6/24/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 322 3rd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-27S Northing (ft): 185935.881
GCMW-27S Easting (ft): 987404.816
GCMW-27I Northing (ft): 185936.353
GCMW-27I Easting (ft): 987404.783
GCMW-27S Elevation (ft AMSL): 17.41
GCMW-27I Elevation (ft AMSL): 17.41

Log of Well: GCMW-27

SUBSURFACE PROFILE

Silty Clay (CH) As Above

-30.00

Sand With Silt (SP-SM)

Black, medium to coarse grained, little fine and coarse gravel, little fines, petroleum hydrocarbon saturated and stained, strong petroleum hydrocarbon odor between 30 and 35 feet.

Becomes yellowish brown between 35 and 37 feet.

Very dark grayish brown with moderate petroleum hydrocarbon staining and sheen between 37 and 39 feet.

Becomes yellowish brown, fine to medium grained, minor petroleum hydrocarbon staining and strong petroleum hydrocarbon sheen between 39 and 42 feet.

Becomes very dark grayish brown with moderate petroleum hydrocarbon staining and sheen between 42 and 44 feet.

-44.00

Clay (CL)

-44.50

Brown, finely laminated, stiff.

Sand With Silt (SP-SM)

Grayish brown, coarse grained, little fines, loose.

-50.00

SAMPLE

Number	Type	Recovery
059-2229		
059-2230		
059-2231		
059-2232		
059-2233		

PID Readings (ppmv)

0 20 40 60 80 100

46.0
25.0
25.0
25.0
29.0
3.0
0.0
1.5
1.5
2.5
2.5
2.5

Well Completion Details

- 2-inch ID Type 304 Stainless Steel Casing
- Bentonite Seal
- #0 Filpro Sand
- 2-inch ID Type 304 Stainless Steel 0.01 Slot Screen
- Bentonite Seal

Drill Method: A300 Rotary Sonic
Start Date: 1110 6/24/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 6/24/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 318 Nevins St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-28S Northing (ft): 186404.234
GCMW-28S Easting (ft): 987354.962
GCMW-28I Northing (ft): 186404.300
GCMW-28I Easting (ft): 987355.131
GCMW-28S Elevation (ft AMSL): 7.80
GCMW-28I Elevation (ft AMSL): 7.75

Log of Well: GCMW-28

SUBSURFACE PROFILE

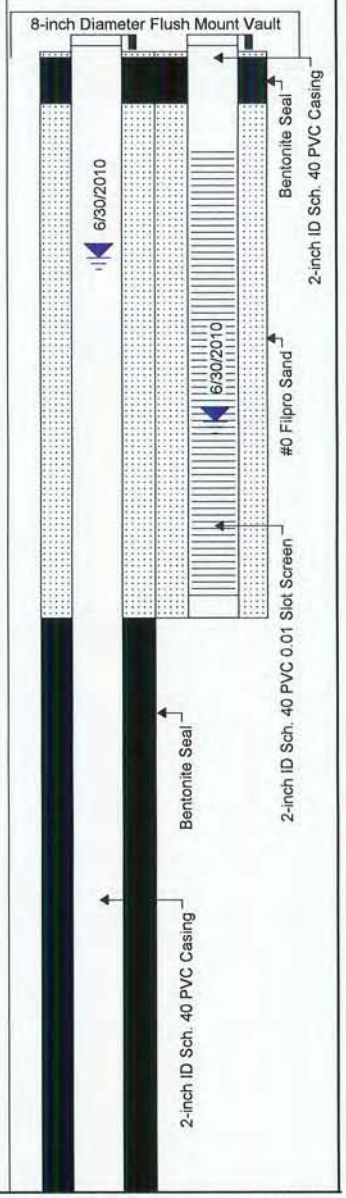
Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		No Recovery Air knifed to clear borehole of underground utilities to 4 feet. Subsurface materials not logged during air knifing.	
4 / 1			-4.00
		Brick and Concrete Pulverized brick and concrete.	-5.00
		Sandy (SM) Fill Black, fine to medium grained, silty, little clay, trace anthracite pieces and debris (brick, concrete), large concrete block from 6 to 7 feet.	
8 / 2			-8.00
		Silty Clay (CL) Very dark gray, medium plasticity, woody fragments (mulch, chips, leaves) in upper 5 feet, wet.	
		Becomes dark gray and sandy from 19 to 25 feet.	
25 / 7			-25.00

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
059-2147			3.0
			3.0
			0.0
059-2148			0.0
			0.0
			0.0
059-2149			0.0
			0.0
059-2150			0.0
			0.0
			0.0
059-2151			0.0

PID Readings ppmv: 0 20 40 60 80 100

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0900 6/14/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1015 6/14/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 318 Nevins St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-28S Northing (ft): 186404.234
GCMW-28S Easting (ft): 987354.962
GCMW-28I Northing (ft): 186404.300
GCMW-28I Easting (ft): 987355.131
GCMW-28S Elevation (ft AMSL): 7.80
GCMW-28I Elevation (ft AMSL): 7.75

Log of Well: GCMW-28

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
26–33		***Sand With Clay (SP-SC)*** Dark gray, medium grained, little fine grained, little clay. Little silt and clay between 27 and 33 feet.	
33–34		***Clay (CL)*** Very dark grayish brown, sandy, medium plasticity, wet.	-33.00
34–37		***Sand With Clay (SP-SC)*** Brown, medium to coarse grained, little fine sand, little silt and clay, micaceous.	-34.50
37–50			-50.00

SAMPLE

Number	Type	Recovery
059-2152		
059-2153		

PID Readings (ppmv): 0 20 40 60 80 100
0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details: #0 Filpro Sand; 2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 0900 6/14/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1015 6/14/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 318 Nevins St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-29S Northing (ft): 186311.536
GCMW-29S Easting (ft): 987450.036
GCMW-29I Northing (ft): 186311.276
GCMW-29I Easting (ft): 987449.987
GCMW-29S Elevation (ft AMSL): 8.82
GCMW-29I Elevation (ft AMSL): 8.86

Log of Well: GCMW-29

SUBSURFACE PROFILE

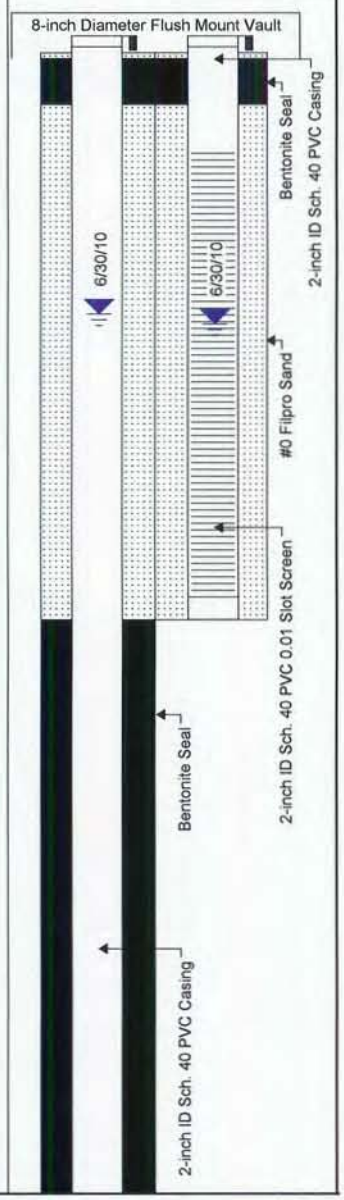
Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Not Logged Air knifed to clear borehole of underground utilities to 6 feet. Subsurface materials not logged during air knifing.	
			-6.00
6 / 2		**Sand With Silt (SW-SM) Fill** Weak red, fine to coarse grained, little fines, pulverized brick and wood fragments throughout, no stain, petroleum hydrocarbon odor.	-7.00
		Sandy Clay (CH) Very dark gray, high plasticity, shell fragments from 7 to 9.5 feet, lenses of fine to medium grained clayey sand, no stain, petroleum hydrocarbon odor. Becomes dark gray from 9.5 to 19.5 feet, wood fragments (chips, mulch, and twigs) throughout, wet.	
			-19.50
20 / 6		**Sand (SC)** Gray, medium grained, little silt, trace woody fragments, wet.	
			-24.00

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
			5.0
			5.0
			5.0
059-2160			1.0
			1.0
			1.0
059-2161			1.0
			0.5
059-2162			0.0
			0.0
059-2163			0.0

PID Readings ppmv: 0 20 40 60 80 100

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1000 6/15/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1100 6/15/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 318 Nevins St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-29S Northing (ft): 186311.536
GCMW-29S Easting (ft): 987450.036
GCMW-29I Northing (ft): 186311.276
GCMW-29I Easting (ft): 987449.987
GCMW-29S Elevation (ft AMSL): 8.82
GCMW-29I Elevation (ft AMSL): 8.86

Log of Well: GCMW-29

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8		***Silty Clay (CL)*** Dark brown, medium plasticity, micaceous, wet.	
			-28.00
9		***Sand (SC)*** Dark brown, fine to medium grained, occasional 1/4-inch to 3-inch thick clay laminations, wet.	
			-34.50
10		***Sand (SP)*** Dark brown, medium to coarse grained, wet.	-36.00
11		***Sand (SM)*** Dark brown, fine grained, silty, little clay, wet.	
12			
13			
14			
15			-50.00

SAMPLE

Number	Type	Recovery
059-2164		
059-2165		

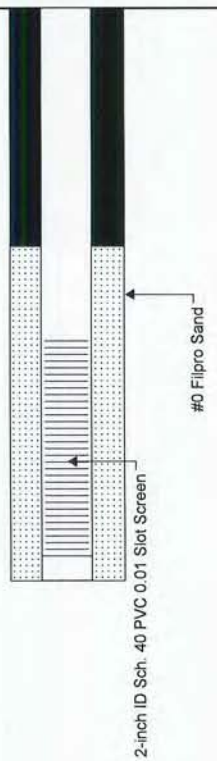
PID Readings

ppmv

0 20 40 60 80 100

0.0
0.0
0.0
0.0
0.0
0.0
0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1000 6/15/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1100 6/15/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Nevins St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-33S Northing (ft): 187466.253
GCMW-33S Easting (ft): 988127.989
GCMW-33I Northing (ft): 187466.275
GCMW-33I Easting (ft): 988127.694
GCMW-33S Elevation (ft AMSL): 7.31
GCMW-33I Elevation (ft AMSL): 7.24

Log of Well: GCMW-33

SUBSURFACE PROFILE

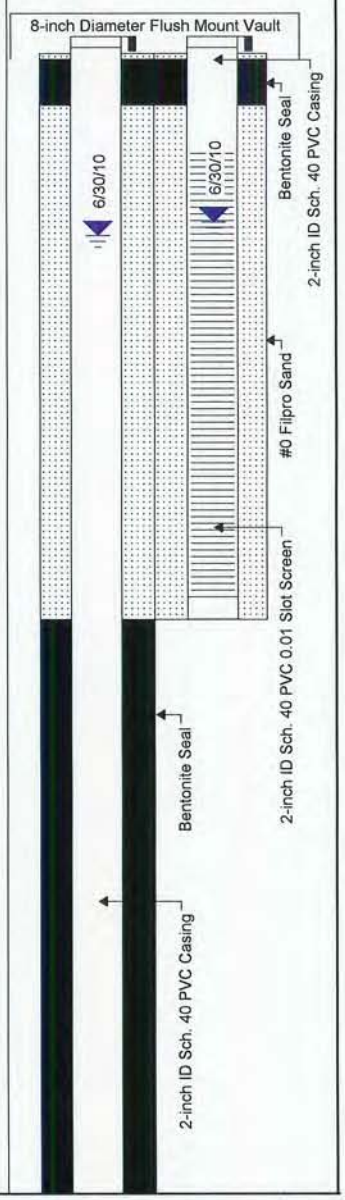
Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
0–2	0–0.6		**Concrete** 1/4 foot thick. Air knifed to 8 feet.	-1.74
2–3	0.6–1		**Sand (SW) Fill** Yellowish brown, fine to coarse grained, trace fine gravel, wet, no stain, no odor.	-2.50
3–15	1–4.6		**Sand With Silt (SW-SM) Fill** Dark brown, fine to coarse grained, trace fine gravel, little silt, brick fragments, wet, no stain, strong sulfur-like odor from 15 to 15.5 feet.	-15.50
15–17	4.6–5.2		**Silty Clay (CL)** Very dark gray, low plasticity, soft, occasional shell fragments, abundant peat from 15.5 to 17 feet, wet, sulfur-like odor.	-17.00
17–21	5.2–6.4		**Peat (PT)** Black, little fine sand, little clay, fibrous, wet, strong sulfur-like odor.	-21.00
21–24.5	6.4–7.5		**Silty Clay (CL)** Dark gray, little fine sand, low plasticity, soft, micaceous, strong sulfur-like odor.	-24.50

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
			5.0
			1.0
			1.0
			1.0
059-2139			1.0
			1.0
			1.0
			1.0
			243.0
			243.0
059-2140			654.0
			742.0
			71.0
059-2141			122.0
			141.0
			101.0
			161.0
059-2142			364.0

PID Readings ppmv: 0 200 400 600 800 1000

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0900 6/10/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

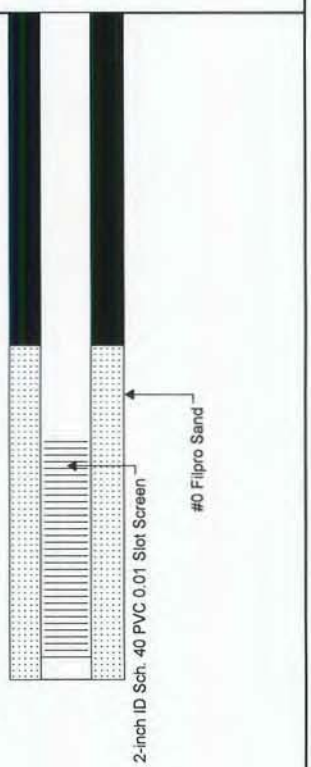
Drill Company: Boart Longyear
End Date: 1440 6/10/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Nevins St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-33S Northing (ft): 187466.253
GCMW-33S Easting (ft): 988127.989
GCMW-33I Northing (ft): 187466.275
GCMW-33I Easting (ft): 988127.694
GCMW-33S Elevation (ft AMSL): 7.31
GCMW-33I Elevation (ft AMSL): 7.24

Log of Well: GCMW-33

Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings (ppmv)	Well Completion Details
26 / 8		**Sand With Silt (SP-SM)** Dark grayish brown, fine to medium grained, little silt, some plant fragments, micaceous, faint petroleum hydrocarbon odor.					115.0	
27							51.0	
28							59.0	
29			-29.00					
29 / 9		**Sand (SP)** Dark brown, fine to medium grained, trace silt, trace fine gravel, micaceous, wet, no stain, no odor.					97.0	
30								
31				059-2143			7.0	
32							4.0	
33 / 10			-33.50					
34		**Sand (SW)** Dark brown, fine to coarse grained, trace silt, micaceous, wet, no stain, no odor.	-35.00				4.0	
35			-35.50	059-2144			4.0	
36 / 11		**Silt (ML)** Dark brown, some fine-grained sand, micaceous, wet, no stain, no odor.	-37.00				14.0	
37							2.0	
38		**Sand With Silt (SP-SM)** Dark brown, fine to medium grained, little silt, micaceous, wet, no stain, no odor.		059-2145			6.0	
39 / 12		**Sand (SP)** Dark brown, fine to medium grained, trace silt, micaceous, wet, no stain, no odor.						
40								
41								
42 / 13								
43								
44								
45								
46 / 14								
47								
48								
49 / 15								
50			-50.00					



Drill Method: A300 Rotary Sonic
Start Date: 0900 6/10/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1440 6/10/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 495 Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-34S Northing (ft): 187149.018
GCMW-34S Easting (ft): 987564.388
GCMW-34I Northing (ft): 187149.129
GCMW-34I Easting (ft): 987564.186
GCMW-34S Elevation (ft AMSL): 4.99
GCMW-34I Elevation (ft AMSL): 5.00

Log of Well: GCMW-34

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Sand With Silt and Gravel (SW-SM) Fill Yellowish brown, fine to coarse grained, little silt, some fine to coarse well rounded gravel, trace cobbles, brick, coal, and wood fragments, moist to wet at 3.8 feet.	
6 / 2		**Sand (SC) Fill** Dark gray, fine to coarse grained, clayey, trace rounded coarse gravel, shell fragments throughout, wet.	-6.00
10 / 3			-10.00

SAMPLE

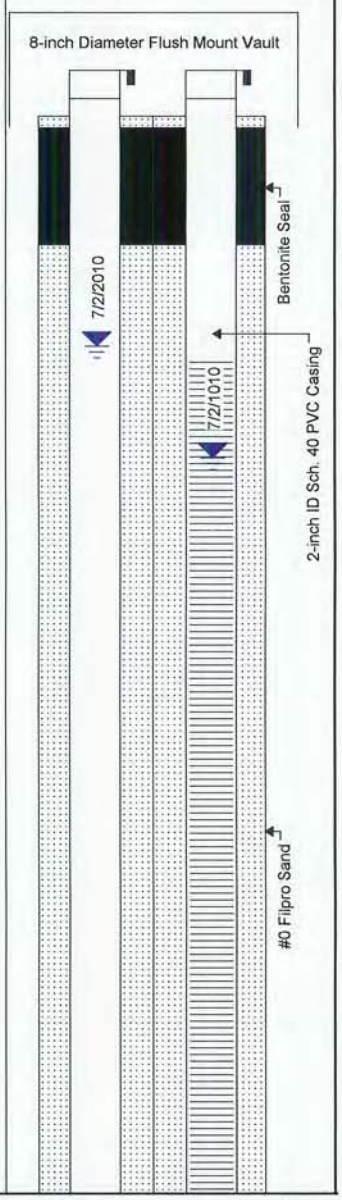
Number	Type	Recovery
059-2018		

PID Readings (ppmv)

0 20 40 60 80 100

0.0
0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1310 5/19/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/19/10
Sheet: 1 of 4

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 495 Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-34S Northing (ft): 187149.018
GCMW-34S Easting (ft): 987564.388
GCMW-34I Northing (ft): 187149.129
GCMW-34I Easting (ft): 987564.186
GCMW-34S Elevation (ft AMSL): 4.99
GCMW-34I Elevation (ft AMSL): 5.00

Log of Well: GCMW-34

SUBSURFACE PROFILE

Silty Clay (CL)
Dark gray, low plasticity, soft, occasional peat in the upper 7 feet, large wood fragment at 16 feet, wet.

-18.00

Sand (SW)
Yellowish brown, fine to coarse grained, trace silt, trace fine subrounded gravel, medium viscosity petroleum hydrocarbon saturated throughout, wet, gray petroleum hydrocarbon staining throughout, moderate petroleum hydrocarbon odor.

SAMPLE

059-2019
059-2020

PID Readings ppmv: 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 1.0, 2.0, 1.0, 0.0

Well Completion Details: 2-inch ID Sch. 40 PVC 0.01 Slot Screen; Bentonite Seal

Drill Method: A300 Rotary Sonic
Start Date: 1310 5/19/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/19/10
Sheet: 2 of 4

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 495 Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-34S Northing (ft): 187149.018
GCMW-34S Easting (ft): 987564.388
GCMW-34I Northing (ft): 187149.129
GCMW-34I Easting (ft): 987564.186
GCMW-34S Elevation (ft AMSL): 4.99
GCMW-34I Elevation (ft AMSL): 5.00

Log of Well: GCMW-34

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
			-23.00
23		**Silty Clay (CL)** Dark gray, low plasticity, stiff, wood fragments, wet, no stain, no odor.	-23.75
24		**Sand (SW)** Yellowish brown, fine to coarse grained, low viscosity petroleum hydrocarbon saturated throughout, wet, gray petroleum hydrocarbon staining throughout, moderate petroleum hydrocarbon odor.	-24.75
25		**Silty Clay (CL)** Gray, litte fine-grained sand, low plasticity, stiff, wet, petroleum hydrocarbon sheen.	-25.25
26		**Sand With Silt (SP-SM)** Gray, fine to medium grained, little silt, micaceous, wet.	-27.00
27		**Gravel With Sand (GP)** Dark gray, fine gravel, and fine to coarse-grained sand, trace cobbles, wet, petroleum hydrocarbon coated.	-28.00
28		**Sand (SP)** Dark gray, fine to medium grained, wet, one-inch thick petroleum hydrocarbon saturated interval at bottom, faint petroleum hydrocarbon odor.	-30.00
29			
30			

SAMPLE

Number	Type	Recovery
059-2021		
059-2022		

PID Readings (ppmv)

0	20	40	60	80	100

0.0, 0.0, 0.0, 0.0, 0.0, 1.0, 1.0, 1.0

Well Completion Details

2-inch ID Sch. 40 PVC Casing

Drill Method: A300 Rotary Sonic
Start Date: 1310 5/19/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/19/10
Sheet: 3 of 4

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 495 Sackett St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-34S Northing (ft): 187149.018
GCMW-34S Easting (ft): 987564.388
GCMW-34I Northing (ft): 187149.129
GCMW-34I Easting (ft): 987564.186
GCMW-34S Elevation (ft AMSL): 4.99
GCMW-34I Elevation (ft AMSL): 5.00

Log of Well: GCMW-34

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
		Gravel With Sand (GW) Dark gray, fine and coarse gravel, and fine to coarse sand, dark brown low viscosity petroleum hydrocarbon saturated, wet, moderate petroleum hydrocarbon odor.	-30.50
31		**Sand (SW)** Dark gray, fine to coarse grained, several 0.5-inch thick intervals of petroleum hydrocarbon coated sand throughout, wet.	
32			-32.50
10		**Gravel (GW)** Dark gray, fine and coarse gravel, wet, low viscosity petroleum hydrocarbon saturated throughout, faint petroleum hydrocarbon odor.	
33			
34			
35			
36	11		
37			
38			
39	12		
40			-40.00

SAMPLE

Number	Type	Recovery
059-2023		

PID Readings (ppmv): 0, 20, 40, 60, 80, 100
9.0
14.0

Well Completion Details
#0 Filpro Sand
2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 1310 5/19/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1600 5/19/10
Sheet: 4 of 4

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 318 Nevins St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-35S Northing (ft): 186602.739
GCMW-35S Easting (ft): 987449.595
GCMW-35I Northing (ft): 186602.578
GCMW-35I Easting (ft): 987449.482
GCMW-35S Elevation (ft AMSL): 7.68
GCMW-35I Elevation (ft AMSL): 7.54

Log of Well: GCMW-35

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
			Not Logged Air knifed to clear borehole of underground utilities to 7 feet. Subsurface materials not logged during air knifing.	
7	2			-7.00
			Sand (SM) Fill Black, fine to medium grained, silty, little clay, trace anthracite fragments and construction debris, wet.	-8.50
			Clay Very dark gray, medium plasticity, soft, wood fragments (wood chips, mulch, roots/leaves) from 8.5 to 15 feet, wet.	
18	5			-18.00
			Sand (SC) Dark gray, medium grained, clayey, interbedded 1/8 to 1/2-inch thick lenses of clean and clayey sand in bottom 3 feet, petroleum hydrocarbon sheen throughout, strong hydrocarbon odor.	
25	7			-25.10

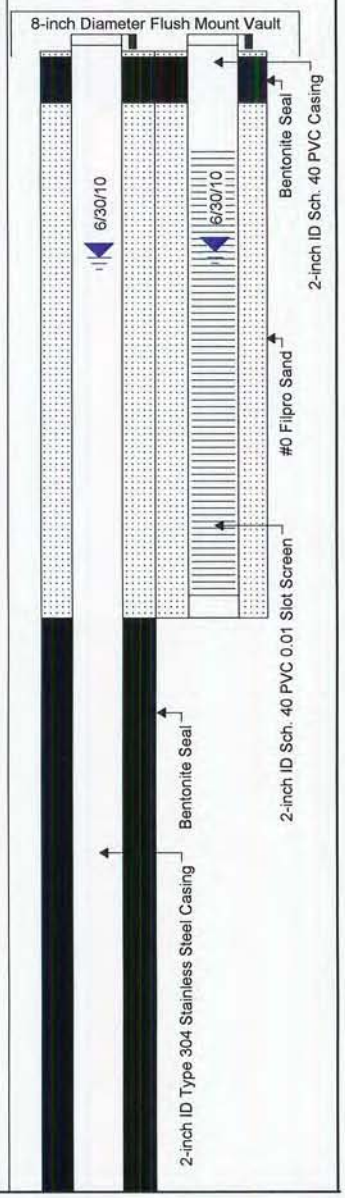
SAMPLE

Number	Type	Recovery
059-2154		
059-2155		
059-2156		
059-2157		

PID Readings (ppmv)

Depth (ft)	PID (ppmv)
7	0.0
9	0.0
10	0.0
11	0.0
12	0.0
13	0.0
14	0.0
15	0.0
16	0.0
17	0.0
18	20.0
19	20.0
20	20.0
21	60.0
22	60.0
23	60.0
24	60.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1110 6/14/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1215 6/14/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 318 Nevins St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-35S Northing (ft): 186602.739
GCMW-35S Easting (ft): 987449.595
GCMW-35I Northing (ft): 186602.578
GCMW-35I Easting (ft): 987449.482
GCMW-35S Elevation (ft AMSL): 7.68
GCMW-35I Elevation (ft AMSL): 7.54

Log of Well: GCMW-35

SUBSURFACE PROFILE

Sand (SC) As Above

-27.00

Sand (SP)

Dark gray, medium grained, little clayey fine-grained sand lenses, six-inch thick lense of coarse-grained sand from 30 to 30.5 feet, micaceous, wet, petroleum hydrocarbon stained, strong petroleum hydrocarbon odor.

-30.50

Silt and Clay (ML and CL)

Dark gray to dark grayish brown, fine grained sand, silty, clay in fine (<1/16-inch thick) laminations, wet.

-50.00

SAMPLE

059-2158
059-2159

PID Readings ppmv
0 20 40 60 80 100
60.0
20.0
20.0
60.0
60.0
20.0
20.0

Well Completion Details
#0 Filpro Sand
2-inch ID Type 304 Stainless Steel 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 1110 6/14/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1215 6/14/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 400 Carroll St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-36S Northing (ft): 186263.814
GCMW-36S Easting (ft): 987170.657
GCMW-36I Northing (ft): 186264.067
GCMW-36I Easting (ft): 987170.546
GCMW-36S Elevation (ft AMSL): 5.31
GCMW-36I Elevation (ft AMSL): 5.24

Log of Well: GCMW-36

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Sand With Silt and Gravel (SP-SM) Fill Dark gray, fine to medium grained, little silt, some fine and coarse gravel, trace cobbles, trace wood, coal, and shell fragments, wet at 4 feet.	
10 / 3			-10.00
		Silty Clay (CL) Gray, low plasticity, soft, plant remains to 15 feet, wet.	
19 / 6			-19.50
		Silty Sand (SM) Gray, fine grained, some silt, wet.	
25 / 7			-25.00

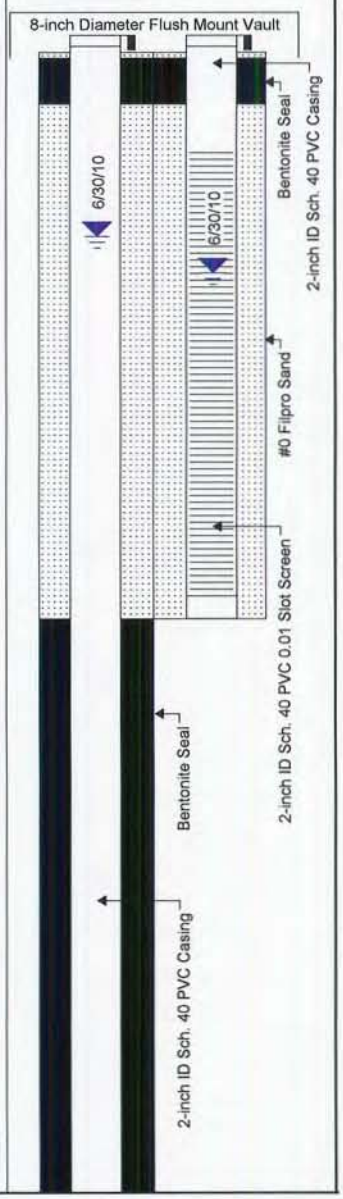
SAMPLE

Number	Type	Recovery
059-2012		
059-2013		
059-2014		
059-2015		

PID Readings (ppmv): 0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1200 5/18/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1800 5/18/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 400 Carroll St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-36S Northing (ft): 186263.814
GCMW-36S Easting (ft): 987170.657
GCMW-36I Northing (ft): 186264.067
GCMW-36I Easting (ft): 987170.546
GCMW-36S Elevation (ft AMSL): 5.31
GCMW-36I Elevation (ft AMSL): 5.24

Log of Well: GCMW-36

SUBSURFACE PROFILE

Sand (SP)
Grayish brown, fine grained, trace silt, micaceous, wet.

Becomes fine to medium grained and dark gray petroleum hydrocarbon stained from 27 to 30 feet.

-30.00

Gravel (GW)
Dark grayish brown to black, fine to coarse gravel, trace cobbles, and fine to coarse-grained sand, trace silt, wet, saturated with low viscosity petroleum hydrocarbon, strong petroleum hydrocarbon odor.

-33.00

No Recovery
No subsurface materials recovered between 33 and 38 feet.

-50.00

SAMPLE

Number	Type	Recovery
059-2016		
059-2017		

PID Readings (ppmv): 0.0, 0.0, 8.0, 7.0, 3.4, 2.5

Well Completion Details: #0 Filpro Sand; 2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 1200 5/18/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1800 5/18/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 186 3rd St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-37S Northing (ft): 185247.680
GCMW-37S Easting (ft): 986964.244
GCMW-37I Northing (ft): 185247.749
GCMW-37I Easting (ft): 986964.051
GCMW-37S Elevation (ft AMSL): 12.05
GCMW-37I Elevation (ft AMSL): 11.99

Log of Well: GCMW-37

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Not Logged Air knifed to clear borehole of underground utilities to 4 feet. Subsurface materials not logged during air knifing.	
4 / 1			-4.00
		Sand (SW) Fill Black, fine to coarse grained, loose, abundant coal, brick and concrete fragments, minor petroleum hydrocarbon staining, faint petroleum hydrocarbon odor.	-5.00
		Sand With Clay and Gravel (SP-SC) Fill Dark grayish brown, fine to medium grained, clayey, some coarse gravel and cobbles, pulverized red brick at base, minor petroleum hydrocarbon staining near top, faint petroleum hydrocarbon odor.	-8.00
10 / 3		**Clayey Sand (SC)** Very dark gray, fine grained, loose, abundant shell fragments, wet.	-13.00
13 / 4		**Silty Clay (CL)** Very dark gray, soft, abundant woody material and shell fragments, faint sulfur-like and petroleum hydrocarbon odors. Becomes soft and wet from 17 to 19 feet.	
20 / 6		**Peat (PT)**	-20.00
22 / 7		**Silty Clay (CL)** Very dark gray, medium stiff, abundant plant material.	-22.00
24			-24.00

SAMPLE

Number	Type	Recovery
059-2208		
059-2209		
059-2210		
059-2211		
059-2212		

PID Readings (ppmv): 0, 20, 40, 60, 80, 100
2.0
1.0

Well Completion Details:
- 8-inch ID Monument Cover
- Bentonite Seal
- 2-inch ID Sch. 40 PVC Casing
- #0 Filpro Sand
- 2-inch ID Sch. 40 PVC 0.01 Slot Screen
- 6/30/10
- 6/30/10

Drill Method: A300 Rotary Sonic
Start Date: 0840 6/22/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1000 6/22/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 186 3rd St., Brooklyn, NY
Logged By: C. Sklaney

GCMW-37S Northing (ft): 185247.680
GCMW-37S Easting (ft): 986964.244
GCMW-37I Northing (ft): 185247.749
GCMW-37I Easting (ft): 986964.051
GCMW-37S Elevation (ft AMSL): 12.05
GCMW-37I Elevation (ft AMSL): 11.99

Log of Well: GCMW-37

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
26 – 8		**Silty Sand (SM)** Very dark gray, fine to medium grained, silty, wet, petroleum hydrocarbon sheen, minor petroleum hydrocarbon staining, petroleum hydrocarbon odor.	-25.50
29 – 9		**Clay (CL)** Very dark gray, 1/16 to 1/4-inch thick lenses of fine sand with petroleum hydrocarbon staining and saturation, petroleum hydrocarbon odor.	
35 – 11		**Sand (SP)** Very dark grayish brown, medium grained between 35.5 and 37.5 feet, coarse grained between 37.5 and 39.5 feet, minor petroleum hydrocarbon staining between 37.5 and 39.5 feet, faint petroleum hydrocarbon odor.	-35.50
39 – 12		**Sand With Silt (SP-SM)** Very dark grayish brown, fine grained, little silt, occasional stringers of silty clay up to 1-inch thick.	-39.50
50 – 15			-50.00

SAMPLE

Number	Type	Recovery
059-2213		
059-2214		
059-2215		

PID Readings (ppmv)

0	20	40	60	80	100

7.0, 7.0, 7.0, 1.0, 1.0, 1.0, 2.6, 1.0, 1.0

Well Completion Details

- 2-inch ID Sch. 40 PVC Casing
- Bentonite Seal
- #0 Filpro Sand
- 2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 0840 6/22/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1000 6/22/10
Sheet: 2 of 2

Project No: SERA01-SER00059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 190 3rd St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-38S Northing (ft): 185069.990
GCMW-38S Easting (ft): 987233.128
GCMW-38I Northing (ft): 185069.967
GCMW-38I Easting (ft): 987233.285
GCMW-38S Elevation (ft AMSL): 11.33
GCMW-38I Elevation (ft AMSL): 11.32

Log of Well: GCMW-38

SUBSURFACE PROFILE

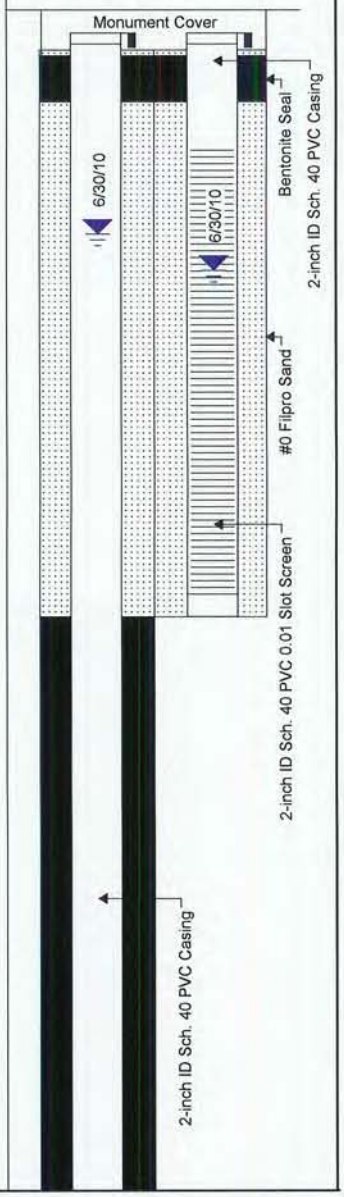
Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
0–7 / 0–2		**Sand and Gravel (SW-GW) Fill** Light gray, fine to coarse grained, trace silt, some fine and coarse gravel, little cobbles, micaceous, loose, dry to slightly moist, wet at 7 feet. Air knifed to clear borehole of underground utilities to 7 feet.	-7.00
7–12 / 2–3		**Silty Sand (SM)** Dark brown to dark gray, fine to coarse grained, some silt, little fine and coarse gravel, little wood, anthracite, and shell fragments, loose, wet, no stain, no odor.	-12.00
12–19.5 / 4–6		**Silty Clay (CL)** Dark gray, medium plasticity, soft, plant fragments and peat throughout, no stain, strong sulfur-like odor.	-19.50
19.5–21.16 / 6		**Peat (PT)** Dark brown, very moist, no stain, no odor.	-21.16
21.16–24 / 6–7		**Clayey Sand (SC)** Gray, fine to medium grained, some clay, medium dense, wet, no stain, no odor.	-24.00
24–25 / 7			

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
059-2241			0.0
			0.0
059-2242			0.0
			0.0
			3.0
059-2243			0.0
			0.0
			0.0
			0.0
			0.0
059-2244			0.0

PID Readings ppmv: 0 20 40 60 80 100

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0800 6/29/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1300 6/29/10
Sheet: 1 of 2

Project No: SERA01-SER00059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 190 3rd St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-38S Northing (ft): 185069.990
GCMW-38S Easting (ft): 987233.128
GCMW-38I Northing (ft): 185069.967
GCMW-38I Easting (ft): 987233.285
GCMW-38S Elevation (ft AMSL): 11.33
GCMW-38I Elevation (ft AMSL): 11.32

Log of Well: GCMW-38

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8		***Silty Clay (CH)*** Gray, silty, high plasticity, stiff, wet, no stain, no odor.	-27.00
9		***Sand With Silt (SW-SM)*** Dark brown, fine to coarse grained, little silt, micaceous, wet, no stain, no odor.	-28.50 / -29.00
		Sand With Gravel (SW) Yellowish brown, fine to coarse grained, trace silt, some fine and coarse gravel, micaceous, wet, no stain, no odor.	
10		***Sand With Silt (SP-SM)*** Dark brown, fine grained, little silt, micaceous, wet, no stain, no odor.	
11			-37.00
12		***Sand (SW)*** Grayish brown, fine to coarse grained, trace fine gravel, micaceous, wet, no stain, no odor.	
13			
14			
15			-50.00

SAMPLE

Number	Type	Recovery
059-2245		
059-2246		
059-2247		

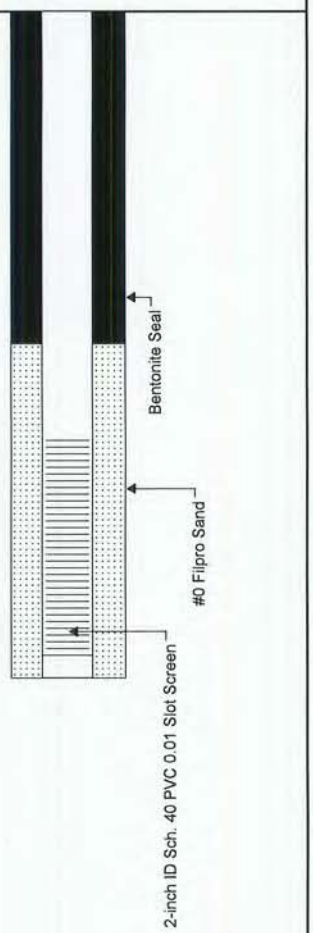
PID Readings

ppmv

0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0800 6/29/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1300 6/29/10
Sheet: 2 of 2

Project No: SERA01-SER00059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 3rd Ave. U Haul, Brooklyn, NY
Logged By: J. Bolduc

GCMW-39S Northing (ft): 184845.371
GCMW-39S Easting (ft): 987427.894
GCMW-39I Northing (ft): 184845.430
GCMW-39I Easting (ft): 987427.630
GCMW-39S Elevation (ft AMSL): 18.14
GCMW-39I Elevation (ft AMSL): 18.16

Log of Well: GCMW-39

SUBSURFACE PROFILE

Depth (ft / m)	Description	Elev. (ft.)
0 / 0	Ground Surface	0.00
	Asphalt 1/4-foot thick. Air knifed to clear borehole of underground utilities to 7 feet.	
	Sand With Clay and Gravel (SC-GW) Fill Dark grayish brown to brown, fine to coarse grained, some fine and coarse gravel, little cobbles, little clay, slightly moist to moist, concrete, wire and brick fragments.	
11	Becomes yellowish brown at 14 feet.	
12	Wet at 15 feet.	
18	Wood fragments at 22 feet.	
20	Glass and brick fragments at 25.5 feet.	
22	Becomes black at 27 feet. Petroleum hydrocarbon sheen and faint petroleum hydrocarbon odor.	
25		-25.10

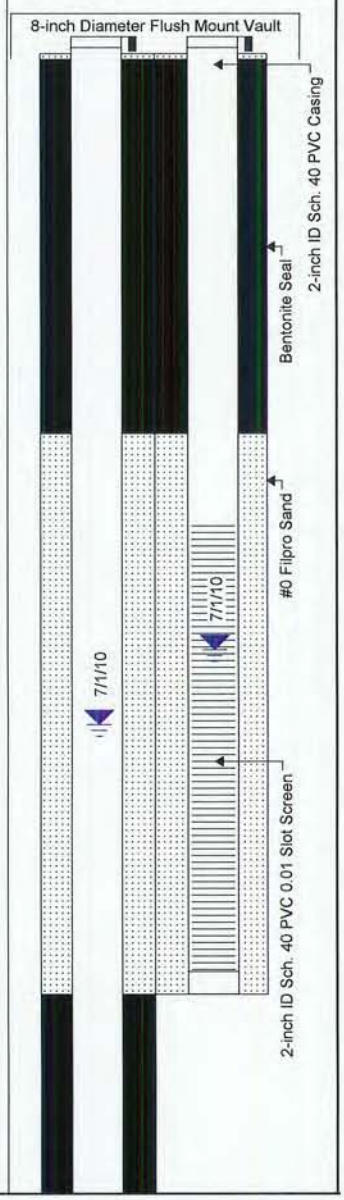
SAMPLE

Number	Type	Recovery
059-2130		
059-2131		
059-2132		
059-2133		

PID Readings (ppmv): 0 20 40 60 80 100

0.6 0.5 0.5 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1100 6/9/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 6/9/10
Sheet: 1 of 2

Project No: SERA01-SER00059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 3rd Ave. U Haul, Brooklyn, NY
Logged By: J. Bolduc

GCMW-39S Northing (ft): 184845.371
GCMW-39S Easting (ft): 987427.894
GCMW-39I Northing (ft): 184845.430
GCMW-39I Easting (ft): 987427.630
GCMW-39S Elevation (ft AMSL): 18.14
GCMW-39I Elevation (ft AMSL): 18.16

Log of Well: GCMW-39

SUBSURFACE PROFILE

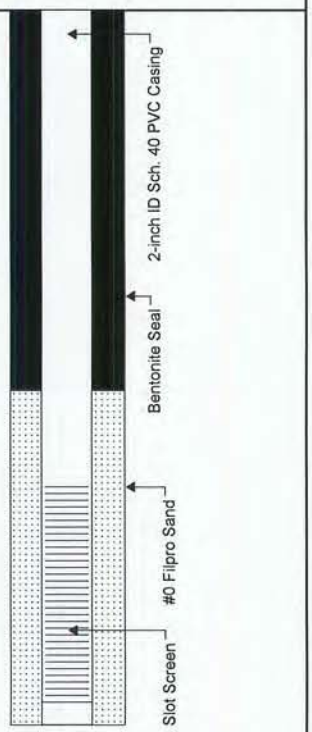
Depth	Symbol	Description	Elev. (ft.)
8		**Sand With Clay and Gravel (SC-GW) Fill As Above**	-29.00
9		**Silty Clay (CL)** Dark gray, wet, spotty low viscosity petroleum hydrocarbon saturated, faint petroleum hydrocarbon odor.	-31.50
10		**Clayey Sand (SC)** Gray to greenish gray, fine grained, some clay, wet, spotty low viscosity petroleum hydrocarbon saturated, moderate petroleum hydrocarbon odor.	-33.00
11		**Silty Clay (CL)** Dark gray, trace fine-grained sand, micaceous, wet, low viscosity petroleum hydrocarbon saturated from 36 to 37 feet, faint petroleum hydrocarbon odor.	-37.00
12		**Clayey Sand (SC)** Dark gray, fine grained, some clay, wet, spotty petroleum hydrocarbon sheens, faint petroleum hydrocarbon odor.	-40.00
13		**Silty Sand (SM)** Dark brown, fine grained, some silt, wet, no stain, no odor.	-42.50
14		**Gravel With Sand (GW-SW)** Yellowish brown, fine to coarse gravel, some fine to coarse sand, little silt, wet, no stain, no odor.	-50.00
15			

SAMPLE

Number	Type	Recovery	PID Readings (ppmv)
			0.0
			0.0
			6.0
			6.0
059-2134			4.0
			4.0
			4.0
059-2135			3.0
			2.0
			2.0
			31.0
			0.3
059-2136			0.3
			0.4
			0.6
			0.6
059-2137			0.6
			0.6
			0.6

PID Readings ppmv: 0 20 40 60 80 100

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1100 6/9/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 6/9/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 9th St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-42S Northing (ft): 185003.726
GCMW-42S Easting (ft): 985760.590
GCMW-42I Northing (ft): 185003.578
GCMW-42I Easting (ft): 985760.275
GCMW-42S Elevation (ft AMSL): 6.81
GCMW-42I Elevation (ft AMSL): 6.82

Log of Well: GCMW-42

SUBSURFACE PROFILE

Depth (ft / m)	Description	Elev. (ft.)
0 / 0	Ground Surface	0.00
	Asphalt, Concrete, and Brick Layers of asphalt, concrete and brick in upper 2 feet. Air knifed to clear borehole of underground utilities to 7 feet.	-2.00
3 / 1	**Clayey Sand With Gravel (SC-GW) Fill** Dark gray, fine to coarse grained, some clay, some fine and coarse gravel, some cobbles and boulders at 10 to 12 feet, wet, no stain, no odor.	
10 / 3	1.5-foot long core of granite between 12 and 13.5 feet. 2.5-foot long core of timber from 13.5 to 16 feet.	
20 / 6		-20.50
21 / 6.5	**Sand (SP)** Dark gray, fine to medium grained, trace to little silt, micaceous, wet, no stain, no odor.	
25 / 7		-25.00

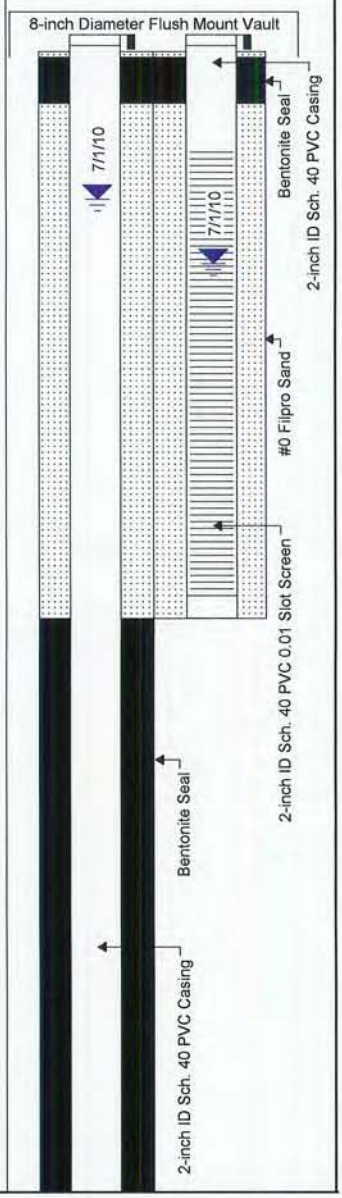
SAMPLE

Number	Type	Recovery
059-2061		
059-2062		
059-2063		

PID Readings (ppmv): 0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0800 5/26/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 5/26/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 9th St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-42S Northing (ft): 185003.726
GCMW-42S Easting (ft): 985760.590
GCMW-42I Northing (ft): 185003.578
GCMW-42I Easting (ft): 985760.275
GCMW-42S Elevation (ft AMSL): 6.81
GCMW-42I Elevation (ft AMSL): 6.82

Log of Well: GCMW-42

SUBSURFACE PROFILE				SAMPLE				
Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv (0, 20, 40, 60, 80, 100)	Well Completion Details
26–28		**Silty Clay (CH)** Olive with yellowish brown mottling, little fine sand, high plasticity, very stiff, wet, no stain, no odor.	-28.00				0.0, 0.0, 0.0	
28–31.5		**Silty Sand (SM)** Dark olive gray to black, fine to coarse grained, some silt, little clay, wet, no stain, no odor.	-31.50	059-2064			0.0, 0.0	
31.5–34.5		**Sand With Silt (SW-SM)** Dark gray, fine to coarse grained, trace fine and coarse gravel, little silt, micaceous, wet, no stain, no odor.	-34.50	059-2065			0.0, 0.0, 0.0, 0.0	
34.5–35		**Sand (SW)** Yellowish brown, fine to coarse grained, trace fine gravel, micaceous, wet, no stain, no odor.	-35.00					
35–38		**No Recovery** No recovery from 35 to 38 feet.	-50.00					

Depth scale: 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50; 8, 9, 10, 11, 12, 13, 14, 15

Well Completion Details: #0 Filpro Sand; 2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 0800 5/26/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 5/26/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 400 Carroll St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-43S Northing (ft): 186235.390
GCMW-43S Easting (ft): 987143.769
GCMW-43I Northing (ft): 186235.575
GCMW-43I Easting (ft): 987143.829
GCMW-43S Elevation (ft AMSL): 5.39
GCMW-43I Elevation (ft AMSL): 5.40

Log of Well: GCMW-43

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
0–2 / 0–1		**Sand With Gravel (SW-GW) Fill** — Yellowish brown, fine to coarse grained, some fine and coarse well rounded gravel, trace well rounded cobbles, slightly moist to moist. Hand cleared borehole of underground utilities to 4 feet.	-2.00
4–11 / 1–3		**Gravel With Sand (GW-SW) Fill** — Very dark gray, fine and coarse gravel, some fine and coarse sand, little silt, trace well rounded cobbles, coal, brick, and occasional wood fragments, loose, wet, petroleum hydrocarbon sheen and moderate to strong petroleum hydrocarbon odor at 4 feet, strong petroleum hydrocarbon odor at 7 feet.	-11.50
12–20 / 4–6		**Silty Clay (CL)** — Dark gray, low plasticity, soft, plant remains to 15 feet, occasional shell fragments throughout, wet.	-20.00
20–25 / 6–7		**Clayey Sand (SC)** — Grayish brown, fine grained, some clay, wet.	-25.00

SAMPLE

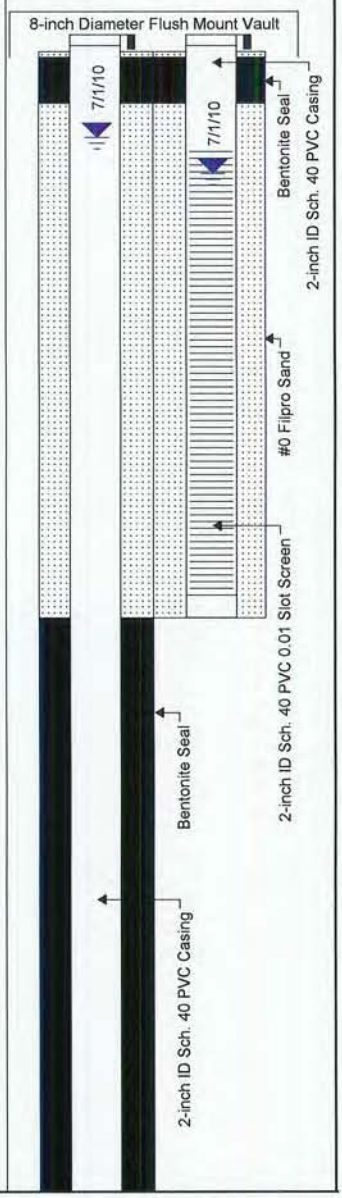
Number	Type	Recovery
059-2001		
059-2002		
059-2003		
059-2004		
059-2005		
059-2006		

PID Readings (ppmv)

0 20 40 60 80 100

0.0, 12.2, 3.4, 2.8, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1300 5/17/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1843 5/17/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 400 Carroll St., Brooklyn, NY
Logged By: J. Bolduc

GCMW-43S Northing (ft): 186235.390
GCMW-43S Easting (ft): 987143.769
GCMW-43I Northing (ft): 186235.575
GCMW-43I Easting (ft): 987143.829
GCMW-43S Elevation (ft AMSL): 5.39
GCMW-43I Elevation (ft AMSL): 5.40

Log of Well: GCMW-43

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
26 / 8		**Silty Sand (SM)** Grayish brown, fine grained, trace medium to coarse grained, some silt, wet, spotty petroleum hydrocarbon sheens, faint petroleum hydrocarbon odor. Three-inch thick wet lense of silty fine subrounded gravel and fine sand at 28 feet.	
30 / 9			-30.00
30		**Clayey Sand (SC)** Grayish brown, fine grained, some clay, micaceous, dark gray petroleum hydrocarbon staining throughout, stained intervals are saturated with low viscosity brown petroleum hydrocarbon.	-32.50
33 / 10		**Sand (SP)** Very dark grayish brown, fine grained, trace silt, wet, saturated with low viscosity petroleum hydrocarbon in 3-inch thick interval at bottom, strong petroleum hydrocarbon odor.	-34.50
36 / 11		**Clayey Sand (SC)** Yellowish brown, fine grained, some clay, wet.	-36.50
37		**Sand (SP)** Grayish brown, fine to medium grained, trace well rounded coarse gravel, micaceous, wet.	
39 / 12			
43 / 13			
46 / 14			
49 / 15			-50.00
50			

SAMPLE

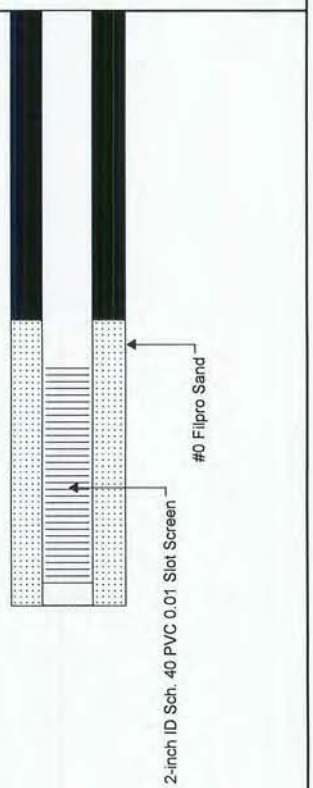
Number	Type	Recovery
059-2007		
059-2008		
059-2009		

PID Readings (ppmv)

0 20 40 60 80 100

0.0, 0.0, 13.0, 13.0, 50.0, 15.0, 15.0, 15.0, 0.0, 0.0, 0.0, 0.0, 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1300 5/17/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1843 5/17/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 118 2nd Ave., Brooklyn, NY
Logged By: J. Bolduc

GCMW-44S Northing (ft): 184458.534
GCMW-44S Easting (ft): 985077.566
GCMW-44I Northing (ft): 184458.434
GCMW-44I Easting (ft): 985077.808
GCMW-44S Elevation (ft AMSL): 4.72
GCMW-44I Elevation (ft AMSL): 4.73

Log of Well: GCMW-44

SUBSURFACE PROFILE

Depth (ft / m)	Symbol	Description	Elev. (ft.)
0 / 0		Ground Surface	0.00
		Asphalt 1/4-foot thick.	
		Gravel With Sand (SW-GW) Fill Dark grayish brown to dark gray, fine to coarse angular gravel, some fine to coarse-grained sand, little silt, copper nails, wood, glass, clay pot fragments, spotty petroleum hydrocarbon sheens, no odor.	
12 / 4		**Silty Clay (CL)** Dark gray, low plasticity, soft, plant remains and shell fragments throughout, micaceous, wet, no stain, no odor.	-12.50
25 / 7			-25.00

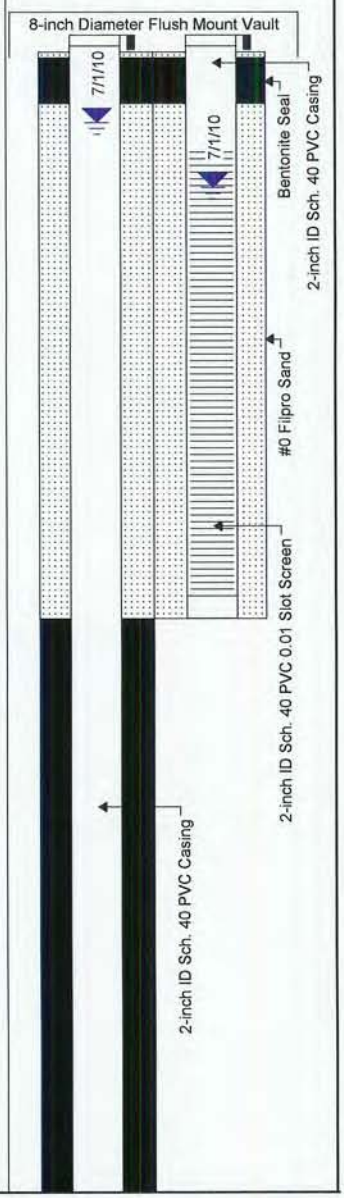
SAMPLE

Number	Type	Recovery
059-2122		
059-2123		
059-2124		

PID Readings (ppmv): 0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1300 6/8/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1630 6/8/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 118 2nd Ave., Brooklyn, NY
Logged By: J. Bolduc

GCMW-44S Northing (ft): 184458.534
GCMW-44S Easting (ft): 985077.566
GCMW-44I Northing (ft): 184458.434
GCMW-44I Easting (ft): 985077.808
GCMW-44S Elevation (ft AMSL): 4.72
GCMW-44I Elevation (ft AMSL): 4.73

Log of Well: GCMW-44

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
26 – 8		**Clayey Sand (SC)** Dark gray, fine to medium grained, some clay, little silt, shell fragments, wet, no stain, no odor.	-26.00
27		**Sand (SW)** Dark gray, fine to coarse grained, trace silt, micaceous, wet, no stain, no odor.	-28.00
28 – 9		**Silty Clay (CL)** Dark gray, trace fine to medium-grained sand, low plasticity, soft, micaceous, moist, no stain, no odor.	-31.00
30 – 10		**Silt (ML)** Very dark grayish brown, clayey, trace fine-grained sand, occasional plant and shell fragments, micaceous, slightly moist, no stain, no odor.	-35.00
35 – 11		**Sand (SW)** Light brownish gray, fine to coarse grained, trace silt, micaceous, wet, no stain, no odor.	-43.00
43 – 13		**No Recovery** No recovery between 43 and 45 feet.	
46 – 14			
49 – 15			-50.00
50			

SAMPLE

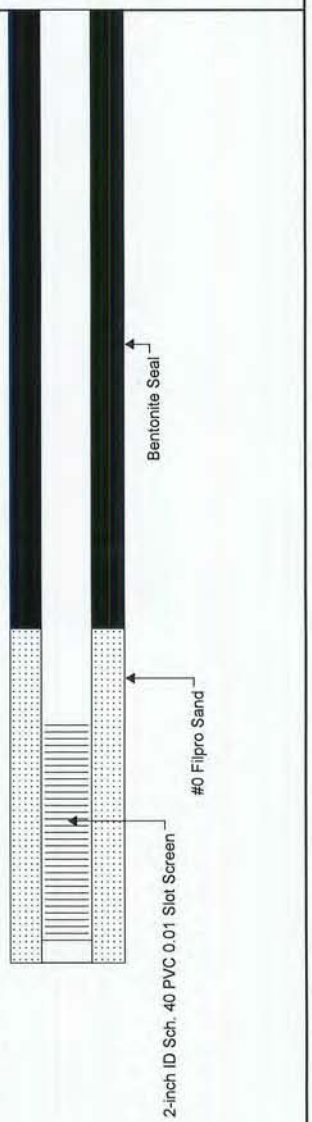
Number	Type	Recovery
059-2125		
059-2126		
059-2127		
059-2128		
059-2129		

PID Readings (ppmv)

0 20 40 60 80 100

0.0 0.6 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1300 6/8/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1630 6/8/10
Sheet: 2 of 2

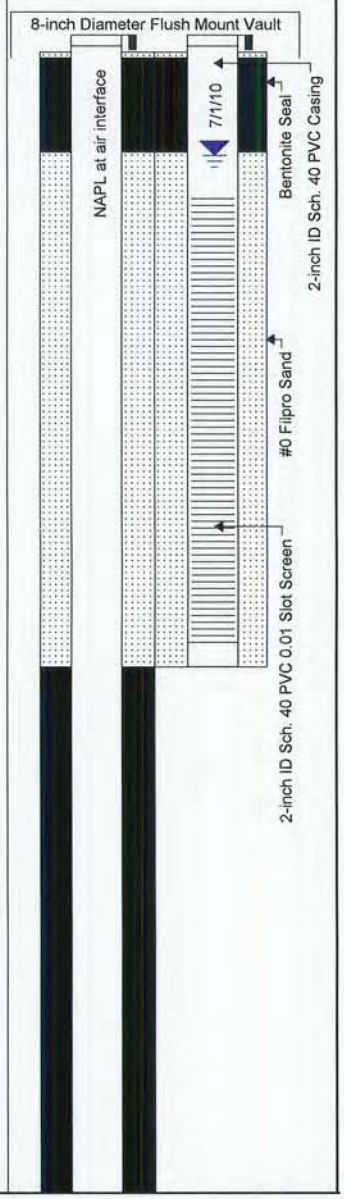
Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Lowes, Brooklyn, NY
Logged By: J. Bolduc

GCMW-45S Northing (ft): 184648.833
GCMW-45S Easting (ft): 985200.254
GCMW-45I Northing (ft): 184648.804
GCMW-45I Easting (ft): 985199.988
GCMW-45S Elevation (ft AMSL): 4.49
GCMW-45I Elevation (ft AMSL): 4.50

Log of Well: GCMW-45

Depth (ft)	Description	Elev. (ft.)	Sample Number	Type	Recovery	PID Readings (ppmv)
0	Ground Surface	0.00				
0–11	**Asphalt** 1/4-foot thick. **Sand With Gravel (SW-GP) Fill** Dark gray, fine to coarse grained, little silt, some fine gravel, coal, brick, and wood fragments throughout, wet, no stain, no odor.	-11.00	059-2114			0.0, 0.0, 0.0, 13.0
11–13	**Peat (PT)** Brown, trace clay, fibrous, wet, no stain, no odor.	-13.00				0.0, 0.0, 1.0
13–25	**Silty Clay (CL)** Dark gray, trace fine sand, low plasticity, soft, plant and shell fragments, no plant fragments below 17 feet, wet, no stain, no odor. Several fine sand stringers from 1 to 3 inches thick from 24 to 26 feet.	-25.10	059-2115, 059-2116, 059-2117			0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0813 6/8/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1025 6/8/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Lowes, Brooklyn, NY
Logged By: J. Bolduc

GCMW-45S Northing (ft): 184648.833
GCMW-45S Easting (ft): 985200.254
GCMW-45I Northing (ft): 184648.804
GCMW-45I Easting (ft): 985199.988
GCMW-45S Elevation (ft AMSL): 4.49
GCMW-45I Elevation (ft AMSL): 4.50

Log of Well: GCMW-45

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
8		***Silty Clay (CL) As Above***	
		Clayey Sand (SC) Dark gray, fine to medium grained, shell fragments, wet, petroleum hydrocarbon sheen and low viscosity petroleum hydrocarbon saturated throughout, faint petroleum hydrocarbon odor.	-28.00
9		***Silty Clay (CL)*** Dark gray, little fine-grained sand, occasional plant fragments, micaceous, wet, no stain, no odor.	-30.00
10		***Clayey Sand (SC)*** Dark gray to black, fine to coarse grained, thin clay stringers from 33 to 37 feet, wet, low viscosity petroleum hydrocarbon saturated, dark brown petroleum hydrocarbon staining, faint petroleum hydrocarbon odor.	-33.00
11			-37.00
12		***Sand With Silt (SP-SM)*** Dark gray, fine to medium grained, little silt, clay stringer at 37 feet, low viscosity petroleum hydrocarbon saturated, spotty PHC sheens throughout, moderate petroleum hydrocarbon	
13			
14			
15			-50.00

SAMPLE

Number	Type	Recovery
059-2118		
059-2119		
059-2120		

PID Readings (ppmv): 0.0, 0.0, 0.0, 25.0, 25.0, 40.0, 30.0, 9.0, 8.0, 0.0, 13.0, 25.0, 50.0

Well Completion Details: Bentonite Seal; 2-inch ID Sch. 40 PVC Casing; #0 Filpro Sand; 2-inch ID Sch. 40 PVC 0.01 Slot Screen

Drill Method: A300 Rotary Sonic
Start Date: 0813 6/8/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1025 6/8/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 118 2nd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-46I Northing (ft): 184593.888
GCMW-46I Easting (ft): 985167.173
GCMW-46I Elevation (ft AMSL): 4.76

Log of Well: GCMW-46

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
0–7	0–2		**Not Logged** Air knifed to clear borehole of underground utilities to 7 feet. Subsurface materials not logged during air knifing.	-7.00
7–15	2–4		**Gravel With Sand (GP-SP) Fill** Dark grayish brown, fine gravel, some medium to coarse-grained sand, little fines, gravel consists of fly ash, slag, and construction debris (concrete and brick), shell fragments.	-15.00
15–30	5–9		**Clay (CL)** Very dark grayish brown, moderate plasticity, soft, little woody material (twigs, mulch, and chips), moist.	-30.10

SAMPLE

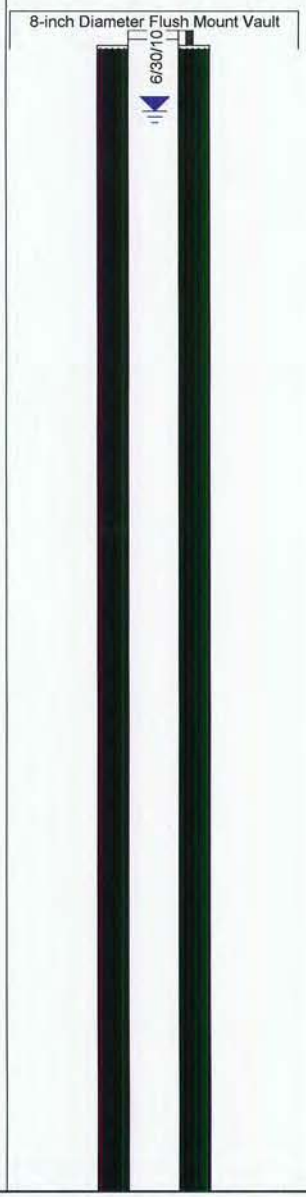
Number	Type	Recovery
059-2167		
059-2168		
059-2169		
059-2170		
059-2171		

PID Readings (ppmv)

0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1415 6/15/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1620 6/15/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 118 2nd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-46I Northing (ft): 184593.888
GCMW-46I Easting (ft): 985167.173
GCMW-46I Elevation (ft AMSL): 4.76

Log of Well: GCMW-46

SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
		Clay (CL) As Above	-32.00
10		**Clayey Sand (SC)** Gray, fine to medium grained, clayey, little silt, wet.	-33.00
		Sand (SP) Very dark gray, medium grained, trace fines, wet.	-35.50
11		**Sand (ML)** Very dark gray, very fine grained, trace silt, wet.	
12			
13		**Sand (SP)** Very dark gray, medium grained, subrounded to rounded, trace fines, wet. Sand becomes well rounded between 47 and 54 feet.	-42.00
14			
15			
16			-54.00
		Sand With Gravel (SP-GP) Very dark gray, coarse grained, and fine subrounded to rounded gravel, little fines, wet.	-55.00
17		**Sand (ML)** Very dark gray, very fine grained, silty, wet.	
18			-60.00

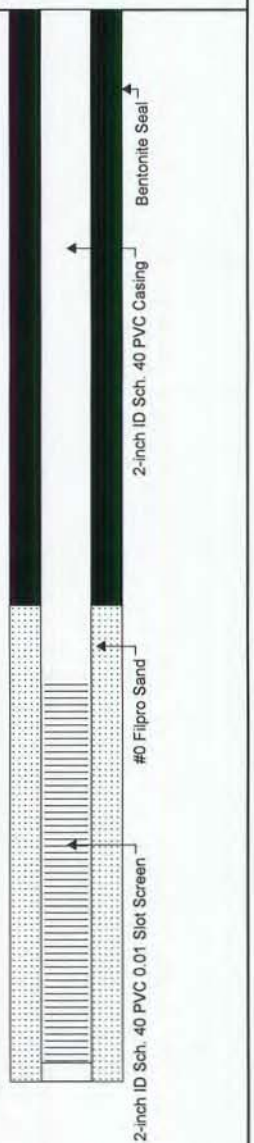
SAMPLE

Number	Type	Recovery
059-2172		
059-2173		
059-2174		
059-2175		
059-2176		

PID Readings (ppmv): 0 20 40 60 80 100

0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1.0 1.0 1.0 1.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 1415 6/15/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1620 6/15/10
Sheet: 2 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 118 2nd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-47S Northing (ft): 184690.704
GCMW-47S Easting (ft): 985209.243
GCMW-47I Northing (ft): 184690.893
GCMW-47I Easting (ft): 985209.050
GCMW-47S Elevation (ft AMSL): 4.53
GCMW-47I Elevation (ft AMSL): 4.62

Log of Well: GCMW-47

SUBSURFACE PROFILE

Depth (ft)	Depth (m)	Symbol	Description	Elev. (ft.)
0	0		Ground Surface	0.00
			Not Logged Air knifed to clear underground utilities to 7 feet. Subsurface materials not logged during air knifing.	
7	2			-7.00
			Sand With Silt and Gravel (SW-SM) Fill Very dark grayish brown, fine to coarse grained, some gravel, some cobbles, some silt, shell fragments, wet.	
14	4			-14.50
15	5		**Silty Clay (CL) Fill** Very dark grayish brown, silty, medium stiff, some roots, plant remains, peat, faint sulfur-like odor.	-16.00
17	5		**Sand With Silt and Gravel (SW-SM) Fill** Very dark grayish brown, fine to coarse grained, some gravel, some cobbles, some silt, shell fragments, wet.	-17.00
20	6		**Silty Clay (CL)** Very dark grayish brown, medium stiff, some roots, plant remains, peat, faint sulfur-like odor.	-23.00
23	7		**Sand With Silt (SP-SM)** Very dark gray, fine to medium grained, little fines, petroleum hydrocarbon staining, sheen and saturation present, strong petroleum hydrocarbon odor.	-28.00
28	8		**Sandy Silt (ML)** Very dark grayish brown, sandy, little peat, petroleum hydrocarbon staining and sheen present.	-30.00
30	9			

SAMPLE

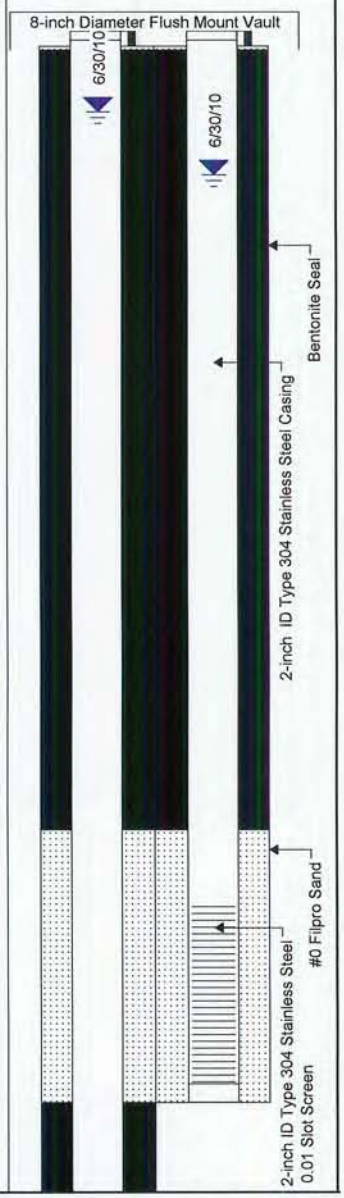
Number	Type	Recovery
059-2234		
059-2235		
059-2236		

PID Readings (ppmv)

0 20 40 60 80 100

0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 7.0, 7.0, 25.0, 10.0, 15.0, 40.0

Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0935 6/28/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 6/28/10
Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: 118 2nd Ave., Brooklyn, NY
Logged By: C. Sklaney

GCMW-47S Northing (ft): 184690.704
GCMW-47S Easting (ft): 985209.243
GCMW-47I Northing (ft): 184690.893
GCMW-47I Easting (ft): 985209.050
GCMW-47S Elevation (ft AMSL): 4.53
GCMW-47I Elevation (ft AMSL): 4.62

Log of Well: GCMW-47

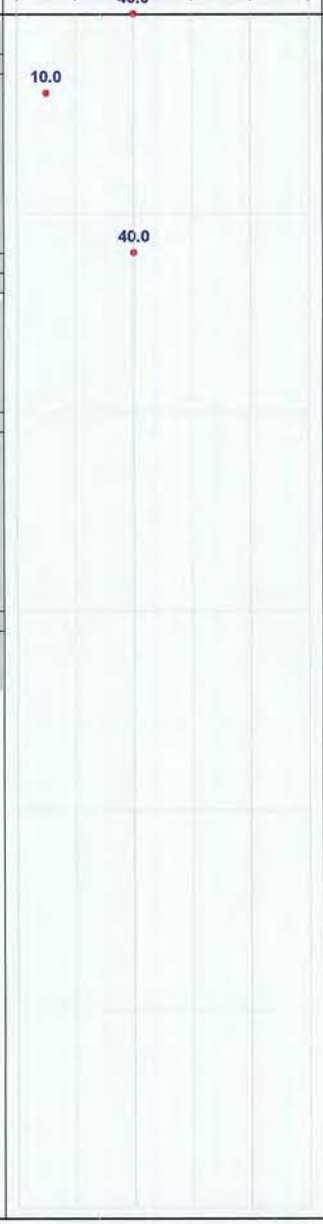
SUBSURFACE PROFILE

Depth	Symbol	Description	Elev. (ft.)
31–34		**Sand (SP)** Very dark grayish brown, medium grained, petroleum hydrocarbon stain, sheen, and odor present.	-31.00
10		**Clay (CL)** Very dark brown, low plasticity, very stiff, abundant peat.	-34.00
35–47		**Sand (SP)** Very dark grayish brown, medium to coarse grained, loose, petroleum hydrocarbon staining, sheen, high saturation from 34 to 37 feet, and odor present. Spotty petroleum hydrocarbon saturation between 37 and 43.5 feet. No visible or olfactory evidence of petroleum hydrocarbon presence between 43.5 and 47 feet.	
11, 12, 13, 14			
48–60			-60.00
15, 16, 17, 18			

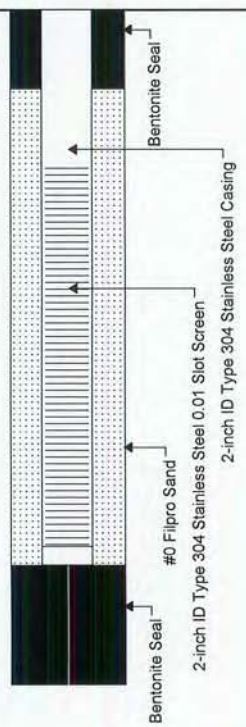
SAMPLE

Number	Type	Recovery
059-2237		
059-2238		
059-2239		
059-2240		

PID Readings (ppmv): 0, 20, 40, 60, 80, 100



Well Completion Details



Drill Method: A300 Rotary Sonic
Start Date: 0935 6/28/10
Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear
End Date: 1430 6/28/10
Sheet: 2 of 2

Appendix D
Field Documentation

D-04 – Soil Boring Logs and Monitoring Well Construction Diagrams

National Grid Soil Boring Logs and Monitoring Well Construction Diagrams

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DRAFT

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 1 of 3
GC-MW23I

GROUND SURFACE ELEVATION (FT):
LOCATION: Gate Station
NORTHING: **EASTING:**
TOTAL DEPTH (FT): 39.00
DRILLED BY: Boart Longyear / Frank Gardella
DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Mitch Weier
DATE START / END: 6/29/2010 - 6/29/2010
DRILLING DETAILS: Sonic Coring
WATER LEVEL DEPTHS (FT): ▽ 20.00 6/29/2010 11:10 am

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0	HC-1	5.0		13.2			PLO	(0'- 0.4') ASPHALT; 2" asphalt pavement overlying 2" gravel base. (0.4'- 5') SILTY SAND (SM); ~60% sand, fine to coarse, ~25% fines, ~10% gravel, fine to coarse, subangular; trace brick fragments, max. size 4 in., moderate petroleum-like odor, moist, black, FILL, 1/4-inch thick wood plank encountered at 4.3 feet.	
5	S-1	5.0	48	0.7				(5'- 7') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~55% sand, fine to coarse, ~35% gravel, fine to coarse, ~10% fines; max. size 3 in., black, FILL, ash. (7'- 8') SILTY SAND (SM); ~55% sand, fine to coarse, ~35% fines, ~10% gravel, fine; moist, black, FILL, ash. (8'- 10') SILTY SAND (SM); ~55% sand, fine, ~45% fines, ~0% gravel; moist, black, FILL.	
10	S-2	5.0	34	2			SLO	(10'- 12') SILT (ML); ~90% fines, low plasticity, ~10% sand, fine; wood, moderate sulfur-like odor, moist, gray and black, peat fragments. (12'- 16.5') ORGANIC SOIL (OL/OH); moderate sulfur-like odor, moist, brown and gray, PEAT.	
15							SLO		

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

DRAFT

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 2 of 3
GC-MW23I

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION
15	S-3	5.0	60				SLO	
				1			SLO	(16.5'- 18') ELASTIC SILT (MH); ~95% fines, high plasticity, ~5% sand, fine; peat, strong sulfur-like odor, moist, gray, 40% peat.
							SLO	(18'- 20') ELASTIC SILT (MH); ~95% fines, high plasticity, ~5% sand, fine; peat, strong sulfur-like odor, moist, brown and gray, 30% peat.
20	S-4	5.0	48				PLO	(20'- 22') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines; strong petroleum-like odor, wet, gray, sheen.
				5003			TLO	(22'- 23') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines; strong tar-like odor, wet, gray and brown, heavy coating.
							TLO	(23'- 24') SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines; moderate tar-like odor, wet, gray, sheen.
							SLO	(24'- 25') SILTY SAND (SM); ~80% sand, fine to medium, ~20% fines; slight sulfur-like odor, wet, gray.
25	S-5	5.0	48				SLO	(25'- 26') CLAYEY SAND (SC); ~65% sand, fine to medium, ~35% fines; moderate sulfur-like odor, wet, gray.
							SLO	(26'- 26.5') ELASTIC SILT (MH); ~90% fines, high plasticity, ~10% sand, fine; moderate sulfur-like odor, moist, gray.
								(26.5'- 27.5') LEAN CLAY (CL); ~90% fines, medium plasticity, ~10% sand, fine; wet, black and gray, slight burnt odor.
				196			PLO	(27.5'- 30') SILTY SAND (SM); ~65% sand, fine, ~35% fines; slight petroleum-like odor, wet, brown.
30	S-6	5.0	46				NLO	(30'- 32') NARROWLY GRADED SAND (SP); ~90% sand, fine to medium, ~5% gravel, fine to coarse, ~5% fines; max. size 2 in., moderate naphthalene-like odor, wet, gray, sheen.
							NLO	(32'- 33') CLAYEY SAND (SC); ~65% sand, fine to

WELL CONSTRUCTION DETAILS

NOTES:

PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL
REC = RECOVERY LENGTH OF SAMPLE
PID = PHOTOIONIZATION DETECTOR READING (JAR HEADSPACE)

ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
TLO = TAR LIKE ODOR
CLO = CHEMICAL LIKE ODOR
ALO = ASPHALT LIKE ODOR

CrLO= CREOSOTE LIKE ODOR
OLO = ORGANIC LIKE ODOR
SLO = SULFUR LIKE ODOR
MLO = MUSTY LIKE ODOR

ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

DRAFT

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 3 of 3
GC-MW23I

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
				213			NLO	medium, ~35% fines; slight naphthalene-like odor, wet, brown.	
							NLO	(33'- 35') NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; strong naphthalene-like odor, wet, brown, light coating.	
35	S-7	4.0	48	869			NLO	(35'- 36.5') NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; strong naphthalene-like odor, wet, brown and orange, heavy coating.	
							NLO	(36.5'- 38') SILTY SAND (SM); ~55% sand, fine, ~45% fines; slight naphthalene-like odor, wet, gray.	
							NLO	(38'- 39') SILTY SAND (SM); ~70% sand, fine, ~30% fines; slight naphthalene-like odor, wet, gray.	

Bottom of borehole at 39.0 feet.

NOTES:

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ppm = PARTS PER MILLION
IN. = INCHES
FT. = FEET

NLO = NAPHTHALENE LIKE ODOR
PLO = PETROLEUM LIKE ODOR
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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

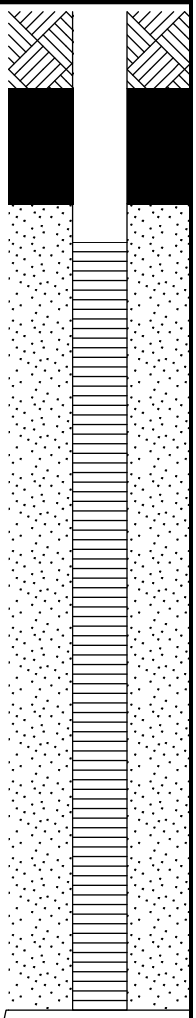
CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 1 of 1
GC-MW23S

GROUND SURFACE ELEVATION (FT): _____ LOCATION: Gate Station
NORTHING: _____ EASTING: _____ TOTAL DEPTH (FT): 13.00
DRILLED BY: Boart Longyear / Frank Gardella DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Mitch Weier DATE START / END: 6/29/2010 - 6/30/2010
DRILLING DETAILS: Sonic Coring
WATER LEVEL DEPTHS (FT): ▽ 5.00 6/28/2010 1:55 pm

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	ODOR	SOIL / BEDROCK DESCRIPTION
0	HC-1	5.0		0.0		PLO	(0'- 0.5') ASPHALT; 3" asphalt pavement overlying 3" gravel base. (0.5'- 5') SILTY SAND (SM); ~65% sand, fine to coarse, ~20% fines, non plastic, ~10% gravel, fine to coarse, subangular; ~5% cobbles, trace wood, trace brick fragments, max. size 4 in., moderate petroleum-like odor, moist, black, FILL, 1/4-inch wood planks observed in side of borehole at 3 feet.
▽ 5	S-1	3.0	18	6.1		CLO	(5'- 9.5') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~70% sand, fine to coarse, ~20% gravel, fine to coarse, angular, ~10% fines; trace ash, trace wood, trace porcelain, max. size 1 in., slight chemical-like odor, wet, black, FILL, possible wood deck from 5 to 5.3 feet, moderate sweet chemical-like odor.
	S-2	5.0	53	0.0			
10						SLO	(9.5'- 10') SILTY SAND (SM); ~60% sand, fine to medium, ~40% fines, non plastic; wet, gray. (10'- 11') ELASTIC SILT (MH); ~95% fines, medium plasticity, ~5% sand, fine; moist, gray. (11'- 11.5') LEAN CLAY (CL); ~95% fines, medium plasticity, ~5% sand; peat, strong sulfur-like odor, moist, brown. (11.5'- 12.5') ORGANIC SOIL (PT); strong sulfur-like odor, moist, brown.
						SLO	
						SLO	(12.5'- 13') SILTY SAND (SM); ~55% sand, fine, ~45% fines, non plastic; peat, moderate sulfur-like odor, wet, gray. Bottom of borehole at 13.0 feet.

WELL CONSTRUCTION DETAILS



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BORING LOG
PAGE 1 of 3
GC-MW30I

GROUND SURFACE ELEVATION (FT): _____ LOCATION: Chaves Property
NORTHING: _____ EASTING: _____ TOTAL DEPTH (FT): 38.00
DRILLED BY: ADT / Greg Rivera DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Amy Malsbary DATE START / END: 6/30/2010 - 6/30/2010
DRILLING DETAILS: Hollow Stem Auger / ATV
WATER LEVEL DEPTHS (FT): ▽ 8.00 6/30/2010

DEPTH FT.	SAMPLE INFORMATION TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0	S-1	2.0	8	1-1-1-1						(0'- 0.3') ASPHALT. (0.3'- 1.5') WIDELY GRADED SAND WITH GRAVEL (SW); ~65% sand, fine to coarse, ~30% gravel, fine to coarse, ~5% fines; moist, dark brown, FILL, brick and asphalt fragments.	
	S-2	2.0	17	2-0-6-7						(1.5'- 2') SILTY SAND WITH GRAVEL (SM); ~60% sand, fine to coarse, ~25% gravel, fine to coarse, ~15% fines; moist, dark brown, FILL, brick and asphalt fragments.	
5	S-3	2.0	24							(2'- 3') WIDELY GRADED SAND WITH GRAVEL (SW); ~65% sand, fine to coarse, ~30% gravel, fine to coarse, ~5% fines; moist, dark brown, FILL, brick and asphalt fragments.	
	S-4	2.0	24	10-7-4-2					GC-MW30I (6-10) GC-MW30I (8-8.5)	(3'- 5') WIDELY GRADED SAND WITH GRAVEL (SW); ~80% sand, fine to coarse, ~20% gravel, fine to coarse; ~15% organics, moist, dark brown, FILL, brick fragments.	
▽	S-5	2.0	16	1-0-0-1						(5'- 6') WIDELY GRADED SAND WITH SILT AND GRAVEL (SW-SM); ~60% sand, fine to coarse, ~30% gravel, fine to coarse, subangular, ~10% fines; max. size 2.5 in., moist, reddish brown, FILL, brick fragments.	
10	S-6	2.0	12						GC-MW30I (10-15) GC-MW30I (13)	(6'- 8') WIDELY GRADED SAND WITH GRAVEL (SW); ~65% sand, fine to coarse, ~30% gravel, fine to coarse, ~5% fines; moist, dark brown, FILL, brick and asphalt fragments.	
	S-7	2.0	24	1-1-1-1						(8'- 10') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, reddish brown. (10'- 11.5') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, brown.	
15	S-8	2.0	18	0-2-3-3						(11.5'- 15') SANDY SILT (ML); ~50% sand, fine to coarse, ~50% fines, ~0% gravel; wet, brown.	

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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 2 of 3
GC-MW30I

DEPTH FT.	SAMPLE INFORMATION TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
15									GC-MW30I (15-20) GC-MW30I (17.5)	(15'- 19.5') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, brown.	
	S-9	2.0	17	6-5-6-7							
	S-10	2.0	17		8.7						
20										(19.5'- 20') SANDY SILT (ML); ~50% sand, fine to coarse, ~50% fines, ~0% gravel; wet, brown.	
	S-11	2.0	24	13-19-10-9					GC-MW30I (20-25) GC-MW30I (24)	(20'- 23.5') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, brown.	
	S-12	2.0	24	4-4-6-8				NLO		(23.5'- 24') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; moderate naphthalene-like odor, wet, brown, sheen.	
	S-13	2.0	16	3-3-7-5				NLO	GC-MW30I (25-30) GC-MW30I (27.5)	(24'- 26') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; moderate naphthalene-like odor, wet, brown, sheen.	
25	S-14	2.0	18	7-21-14-19						(26'- 30') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, brown.	
	S-15	2.0	18	4-5-12-6							
30	S-16	2.0	16	24-31-14-9	44.8			NLO	GC-MW30I (30-35) GC-MW30I (31.5)	(30'- 32') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; slight naphthalene-like odor, wet, brown, sheen.	
	S-17	2.0	14	4-3-5-7				NLO		(32'- 34') WIDELY GRADED	

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CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG

GC-MW30I

DEPTH FT.	SAMPLE INFORMATION TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
								NLO	GC-MW30I (35-36) GC-MW30I (35.5)	SAND (SW); ~95% sand, fine to coarse, ~5% fines; slight naphthalene-like odor, wet, brown.	
35	S-18	2.0	15	2-4-6-9						(34'- 35.8') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, brown.	
	S-19	2.0	0	5-18-16-16						(35.8'- 36') WIDELY GRADED GRAVEL (GW); ~90% gravel, fine to coarse, ~10% sand, medium to coarse; max. size 2 in., wet, light gray. (36'- 38') No recovery.	
										Bottom of borehole at 38.0 feet.	

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CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 1 of 3
GC-MW31I

GROUND SURFACE ELEVATION (FT): _____ LOCATION: Mazai Property
NORTHING: _____ EASTING: _____ TOTAL DEPTH (FT): 36.00
DRILLED BY: ADT / Greg Rivera DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Kari Weber DATE START / END: 6/25/2010 - 6/28/2010
DRILLING DETAILS: Hollow Stem Auger / ATV
WATER LEVEL DEPTHS (FT): ▽ 8.00 6/25/2010

DEPTH FT.	SAMPLE INFORMATION: TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0	S-1	2.0		1-2-1-1	73.4				GC-MW31I (0-6) GC-MW31I (3.5-4)	(0'- 4') SILTY SAND (SM); ~70% sand, fine to coarse, ~20% fines, ~10% gravel, fine to coarse; max. size 1 in., moist, dark brownish gray, FILL, little brick, coal, and concrete fragments.	
	S-2	2.0	12	3-2-2-2							
5	S-3	2.0	15	3-2-2-2				PLO PLO PLO		(4'- 5.2') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% sand, fine to coarse, ~10% gravel, fine to coarse, ~10% fines; max. size 1 in., slight petroleum-like odor, moist, dark brownish gray, FILL, little coal fragments.	
	S-4	2.0	17	3-5-1-8	22.5				GC-MW31I (6-10) GC-MW31I (6-6.5)	(5.2'- 5.7') SILTY SAND (SM); ~60% sand, fine to medium, ~30% fines, ~10% gravel, fine; trace brick fragments, max. size 0.5 in., slight petroleum-like odor, moist, brown with gray, FILL.	
▽	S-5	2.0	18	1-1-1-1				OLO		(5.7'- 6') SILTY SAND WITH GRAVEL (SM); ~65% sand, fine to coarse, ~20% gravel, fine to coarse, ~15% fines; max. size 1 in., moderate petroleum-like odor, moist, dark brown, FILL, slight petroleum-like staining.	
10	S-6	2.0	24	0-0-1-1	7.5			OLO	GC-MW31I (10-15) GC-MW31I (12-12.5)	(6'- 7.6') WIDELY GRADED SAND (SW); ~80% sand, fine to coarse, ~10% gravel, fine to coarse, ~10% fines; little brick and wood fragments, moist to wet, dark gray, FILL, slight sewage-like odor.	
	S-7	0.5								(7.6'- 8') WOOD; FILL.	
								OLO		(8'- 10.8') ELASTIC SILT (MH); ~90% fines, low plasticity, slow dilatancy, ~10% sand, fine; slight organic-like odor, wet, gray, shells at ~9.2 ft., little peat at 9.8-10 ft. sand percentage increases with depth to 20 percent.	
15	S-8	2.0	22	0-0-1-0							

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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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BORING LOG
PAGE 2 of 3
GC-MW31I

DEPTH FT.	SAMPLE INFORMATION TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
15					3.4			OLO	GC-MW31I (15-20) GC-MW31I (19-19.5)	(10.8'- 12') SILT (ML); ~95% fines, ~5% sand, fine; ~50% peat, moderate organic-like odor, moist, light brown with dark gray, trace shells in sampler shoe.	
	S-9	2.0	24	0-2-1-2				OLO		(12'- 16') SILT (ML); ~95% fines, ~5% sand, fine; slight organic-like odor, moist, dark gray, shell and peat fragments.	
	S-10	2.0	24	0-1-0-1				OLO		(16'- 16.2') ELASTIC SILT (MH); ~90% fines, ~10% sand, fine; ~60% peat, moderate organic-like odor, wet, gray with brown.	
20	S-11	2.0	24	0-0-2-4	15.5				GC-MW31I (20-26) GC-MW31I (23-23.5)	(16.2'- 18') SILT (ML); ~95% fines, ~5% sand, fine; slight organic-like odor, moist, dark gray, shell and peat fragments. (18'- 21') SILT (ML); ~95% fines, low plasticity, slow dilatancy, ~5% sand, fine; slight organic-like odor, wet, dark gray.	
	S-12	2.0	24	6-6-4-4						(21'- 22') WIDELY GRADED SAND (SW); ~95% sand, fine to medium, ~5% fines; moist, gray, lenses of silt. (22'- 24') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; moist, gray, lenses of silt up to 2 in. thick.	
	S-13	2.0	24	2-2-4-10						(24'- 26') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; moist, gray, lenses of silt.	
25	S-14	2.0	24	2-7-12-17	119.1			NLO	GC-MW31I (26-30) GC-MW31I (29.2)	(26'- 26.8') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, gray. (26.8'- 27.5') SANDY SILT (ML); ~50% sand, fine, ~50% fines; slight naphthalene-like odor, wet, gray.	
	S-15	2.0	24	4-7-5-8				NLO		(27.5'- 28') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; slight naphthalene-like odor, wet, gray. (28'- 30') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to medium, ~10% fines; moderate naphthalene-like odor, moist, gray.	
30	S-16	2.0	24	4-3-11-16	5890			NLO	GC-MW31I (30-36) GC-MW31I (35.75-36)	(30'- 36') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; strong naphthalene-like	
	S-17	2.0	24	4-13-11-							

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BORING LOG
PAGE 3 of 3
GC-MW31I

DEPTH FT.	SAMPLE INFORMATION TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
				16						odor, wet, brownish gray, tar-like staining.	
35	S-18	2.0	24	11-17-22-39				NLO			
										Bottom of borehole at 36.0 feet.	

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BORING LOG
PAGE 1 of 4
GC-MW32I

GROUND SURFACE ELEVATION (FT):
NORTHING: **EASTING:**
DRILLED BY: ADT / Greg Rivera
LOGGED BY: Kari Weber
DRILLING DETAILS: Hollow Stem Auger / ATV
WATER LEVEL DEPTHS (FT): ▽ 13.00 6/23/2010

LOCATION: Thomas Greene Park
TOTAL DEPTH (FT): 46.00
DATUM VERT. / HORZ.: NAVD 88 / NAD 83
DATE START / END: 6/23/2010 - 6/24/2010

DEPTH FT.	SAMPLE INFORMATION: TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0	S-1	2.0	15	7-8-9-8					GC-MW32I (0.5-5) GC-MW32I (0.5-1)	(0'- 2') WIDELY GRADED SAND WITH GRAVEL (SW); ~65% sand, fine to coarse, ~25% gravel, fine to coarse, ~10% fines; little brick and coal fragments, max. size 2.5 in., dry, dark brown, FILL.	
	S-2	2.0	16	7-2-4-4	15.2					(2'- 4') SILTY SAND (SM); ~75% sand, fine to coarse, ~15% fines, ~10% gravel, fine; trace coal, max. size 0.75 in., dry, dark brown, FILL, 2- brick pieces up to 2" at ~3.75'.	
5	S-3	2.0	16	2-8-8-15					GC-MW32I (5-10) GC-MW32I (9.5-10)	(4'- 5.7') SILTY SAND WITH GRAVEL (SM); ~70% sand, fine to coarse, ~15% gravel, fine to coarse, ~15% fines; some coal, max. size 1.5 in., dry, dark brown, FILL.	
	S-4	2.0	24	18-22-14-10	5.6					(5.7'- 6') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% sand, fine to coarse, ~10% gravel, fine, ~10% fines; max. size 0.75 in., dry, orangeish brown to yellowish brown, FILL.	
	S-5	2.0	19	2-4-2-4						(6'- 7') SILTY SAND (SM); ~75% sand, fine to coarse, ~15% fines, ~10% gravel, fine to coarse; trace coal, max. size 1 in., dry, orangeish brown, FILL.	
10	S-6	2.0	18	2-2-2-3					GC-MW32I (10-15) GC-MW32I (10-10.5)	(7'- 8') WIDELY GRADED SAND WITH GRAVEL (SW); ~70% sand, fine to coarse, ~30% gravel, fine to coarse; ~50% coal fragments, max. size 1 in., dry, black and orangeish brown, FILL, dark gray sandy silt lense from 7-7.2 ft..	
	S-7	2.0	15	4-3-2-1	3.2					(8'- 8.5') WIDELY GRADED SAND WITH GRAVEL (SW); ~70% sand, fine to coarse, ~30% gravel, fine to coarse; max. size 1 in., dry, black and orangeish brown, FILL.	
▽										(8.5'- 10') SILTY SAND (SM); ~60% sand, fine to coarse, ~30% fines, ~10% gravel, fine; ~60% coal fragments and cinders, dry, black with white, FILL.	
15	S-8	2.0	11	3-2-2-2							

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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

DRAFT

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(860) 368-5300

CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 2 of 4
GC-MW32I

DEPTH FT.	SAMPLE INFORMATION TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
15									GC-MW32I (15-20) GC-MW32I (18-18.5)	(10'- 13.2') SILTY SAND (SM); ~70% sand, fine to coarse, ~20% fines, ~10% gravel, fine; ~35% coal fragments and cinders, max. size 0.5 in., moist to wet, dark gray with white, FILL.	
	S-9	2.0	5	15-18-23-9	6.6			PLO		(13.2'- 14') SILTY SAND (SM); ~50% sand, fine to coarse, ~40% fines, ~10% gravel, fine; ~25% coal fragments and cinders, trace pottery fragments, wet, gray, FILL.	
	S-10	2.0	21	2-3-5-4				NLO		(14'- 15.5') LEAN CLAY WITH SAND (CL); ~75% fines, medium plasticity, ~15% sand, fine, ~10% gravel, fine; with peat, wet, dark gray.	
20	S-11	2.0	12	0-0-2-3					GC-MW32I (20-25) GC-MW32I (22.5-23)	(15.5'- 16') SILTY SAND (SM); ~50% sand, fine to coarse, ~40% fines, ~10% gravel, fine; wet, gray.	
	S-12	2.0	15	5-3-3-3						(16'- 16.8') SILTY SAND WITH GRAVEL (SM); ~45% sand, fine to medium, ~30% fines, low plasticity, ~25% gravel, fine to coarse; wet, gray.	
	S-13	2.0	12	2-3-5-4						(16.8'- 18') SILTY SAND WITH GRAVEL (SM); ~70% sand, fine to coarse, ~15% gravel, fine, ~15% fines; slight petroleum-like odor, wet, dark gray.	
25									GC-MW32I (25-30) GC-MW32I (29.5-30)	(18'- 19.7') SILTY SAND (SM); ~80% sand, fine to medium, ~15% fines, ~5% gravel, fine; slight naphthalene-like odor, wet, dark brown and dark gray, natural wood pieces from 18.5-19.5 ft..	
	S-14	2.0	24	4-2-5-4	7.6			OLO OLO		(19.7'- 20') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines; wet, grayish brown.	
	S-15	2.0	16	5-7-8-5				OLO		(20'- 22') SILTY SAND (SM); ~75% sand, fine to coarse, ~20% fines, ~5% gravel; wet, dark gray and light brown, wood fragments.	
30	S-16	2.0	14	0-2-4-3				OLO	GC-MW32I (30-35) GC-MW32I (30.5-31)	(22'- 23.5') WIDELY GRADED SAND WITH GRAVEL (SW); ~75% sand, fine to coarse, ~20% gravel, coarse, ~5% fines; max. size 2 in., wet, reddish brown and dark gray, steel nail.	
	S-17	2.0	19	2-3-6-12						(23.5'- 24') SILTY SAND (SM); ~80% sand, fine to coarse, ~20% fines; wet, gray. (24'- 25') WIDELY GRADED SAND WITH GRAVEL (SW); ~75% sand, medium to coarse,	

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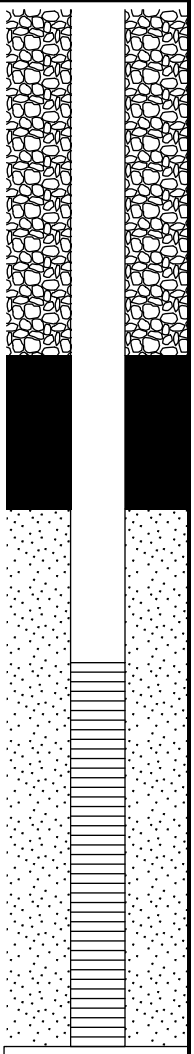
BORING LOG

GC-MW32I

DEPTH FT.	SAMPLE INFORMATION TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
					24.0			OLO		~20% gravel, fine, ~5% fines; max. size 0.5 in., wet, dark gray. (25'- 26') PEAT; moist, brown. (26'- 26.7') WIDELY GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, fine, ~5% fines; max. size 0.5 in., wet, brown. (26.7'- 27') SILTY SAND (SM); ~55% sand, fine, ~40% fines, ~5% gravel, fine; little peat, slight organic-like odor, wet, gray. (27'- 28') LEAN CLAY (CL); ~90% fines, medium plasticity, no dilatancy, ~10% sand, fine; some peat, strong organic-like odor, wet, gray. (28'- 30') LEAN CLAY (CL); ~95% fines, medium plasticity, no dilatancy, ~5% sand, fine; strong organic-like odor, moist, gray with brown, sample is mostly peat. (30'- 32.5') ELASTIC SILT WITH SAND (MH); ~85% fines, low plasticity, slow dilatancy, ~15% sand, fine; little peat, moderate organic-like odor, moist, gray and black. (32.5'- 33.7') LEAN CLAY WITH SAND (CL); ~85% fines, medium plasticity, slow dilatancy, ~15% sand, fine; trace peat, slight organic-like odor, moist, gray. (33.7'- 34') SILTY SAND (SM); ~60% sand, fine to medium, ~35% fines, ~5% gravel, fine; wet, brownish gray. (34'- 36') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines; wet, gray. (36'- 38') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, gray. (38'- 40') NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; wet, gray. (40'- 41') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; strong naphthalene-like odor, wet, brown. (41'- 42') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to medium, ~10% fines; strong naphthalene-like odor, wet, brown.
35	S-18	2.0	21	3-8-14-21					GC-MW32I (35-40) GC-MW32I (35.5-36)	
	S-19	2.0	22	2-3-2-1	1.6					
	S-20	2.0	24	3-7-5-12						
40	S-21	2.0	20	6-0-2-4	15000 over			NLO	GC-MW32I (40-46) GC-MW32I (40.75)	
								NLO		
	S-22	2.0	24	2-9-14-6						
45	S-23	2.0	24	2-4-5-12				NLO		

WELL CONSTRUCTION DETAILS



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BORING LOG
PAGE 4 of 4
GC-MW32I

DEPTH FT.	SAMPLE INFORMATION: TYPE and NO.	PEN FT.	REC FT.	Blows (/6 in.)	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
										(42'- 46') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; strong naphthalene-like odor, wet, brown, tar-like coating.	
										Bottom of borehole at 46.0 feet.	

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BORING LOG

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PAGE 1 of 4

GC-MW40I

GROUND SURFACE ELEVATION (FT): _____ LOCATION: Red Hook Property
NORTHING: _____ EASTING: _____ TOTAL DEPTH (FT): 58.00
DRILLED BY: Boart Longyear / Frank Gardella DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Mitch Weier DATE START / END: 6/23/2010 - 6/23/2010
DRILLING DETAILS: Sonic Coring
WATER LEVEL DEPTHS (FT): ▽ 5.00 6/23/2010 11:00 am

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0	HC-1	5.0						(0'- 0.7') ASPHALT.	
							PLO	(0.7'- 1.9') SANDY SILT (ML); ~50% fines, low plasticity, ~45% sand, fine to medium, ~5% gravel, rounded; max. size 3 in., strong petroleum-like odor, wet, black and brown, intermittent coated areas; wooden platform or dock from 1.5 to 1.9 feet, coated with product.	
				NM			PLO	(1.9'- 5') POORLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines, non plastic; slight petroleum-like odor, wet, gray.	
▽ 5	S-1	5.0	50					(5'- 11.5') SANDY SILT (ML); ~50% fines, low plasticity, ~45% sand, fine to medium, ~5% gravel, rounded; max. size 3 in., strong petroleum-like odor, wet, black and brown, sheen from 0 to 0.4 feet.	
				4703			PLO		
10	S-2	10.0	120				CrLO	(11.5'- 11.9') strong creosote-like odor, Wood.	
							PLO	(11.9'- 15') POORLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines, non plastic; slight petroleum-like odor, wet, gray.	
15									

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BORING LOG

GC-MW40I

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
15								(15'- 16') POORLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines, non plastic; wet, gray.	
								(16'- 20') ELASTIC SILT (MH); ~95% sand, fine, ~5% fines, high plasticity; moist, gray, 3-inch thick silty sand lens at 17 feet.	
				9					
20	S-3	10.0	120					(20'- 24') ELASTIC SILT (MH); ~95% fines, high plasticity, ~5% sand, fine; slight petroleum-like odor, wet, gray, greasy texture.	
				324			PLO		
							PLO	(24'- 25') ELASTIC SILT (MH); ~90% fines, high plasticity, ~10% sand, fine; slight petroleum-like odor, wet, gray, greasy texture.	
25								(25'- 25.5') SILTY SAND (SM); ~65% sand, fine, ~35% fines, non plastic; brownish gray.	
								(25.5'- 26') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines, non plastic; wet, grayish brown.	
				40.3			PLO	(26'- 27') NARROWLY GRADED SAND (SP); ~90% sand, fine to medium, ~5% fines; slight petroleum-like odor, wet, brown.	
							PLO	(27'- 28') NARROWLY GRADED SAND WITH CLAY (SP-SC); ~65% sand, fine to medium, ~35% fines, non plastic; slight petroleum-like odor, wet, brown.	
							PLO	(28'- 30') NARROWLY GRADED SAND (SP); ~90% sand, fine to medium, ~5% fines; slight petroleum-like odor, wet, brown.	
30	S-4	10.0	90					(30'- 32') SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines, non plastic; slight petroleum-like odor, wet, grayish brown and mottled orange.	
							PLO		
							PLO	(32'- 34') SILTY SAND (SM); ~55% sand, fine, ~45% fines,	

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BORING LOG
PAGE 3 of 4
GC-MW40I

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
				141			PLO	non plastic; slight petroleum-like odor, dark brownish gray.	
							PLO	(34'- 35') SILTY SAND (SM); ~70% sand, ~30% fines, non plastic; slight petroleum-like odor, wet, brown.	
35								(35'- 40') SILTY SAND (SM); ~60% sand, fine, ~40% fines, non plastic; slight petroleum-like odor, wet, brown, 2-inch thick sandy silt lens at 35 feet.	
							PLO		
40	S-5	10.0	90				PLO	(40'- 42') SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines, non plastic; slight petroleum-like odor, wet, brownish gray.	
							PLO	(42'- 43') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines, non plastic; slight petroleum-like odor, wet, brownish gray.	
				93.8			PLO	(43'- 45') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines, non plastic; slight petroleum-like odor, wet, brownish gray.	
45								(45'- 46') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines, non plastic; wet, gray.	
								(46'- 50') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to coarse, ~10% fines, non plastic; wet, brown.	
				30.9					
50									

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BORING LOG
PAGE 4 of 4
GC-MW40I

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
50	S-6	8.0	96	9				(50'- 55') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine to coarse, subrounded, ~5% fines; wet, brown.	
55				0				(55'- 58') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine to coarse, subrounded, ~5% fines; max. size 1.5 in., wet, brown.	
								Bottom of borehole at 58.0 feet.	

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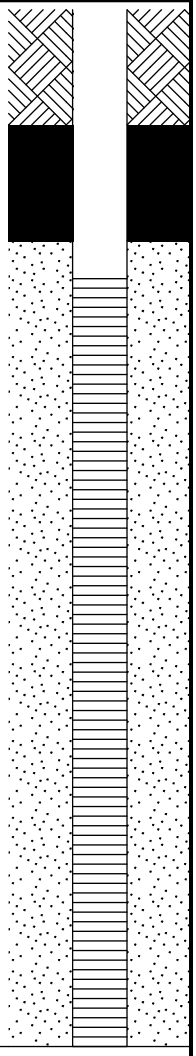
BORING LOG
PAGE 1 of 1
GC-MW40S

GROUND SURFACE ELEVATION (FT):
LOCATION: Red Hook Property
NORTHING: **EASTING:**
TOTAL DEPTH (FT): 13.50
DRILLED BY: Boart Longyear / Frank Gardella
DATUM VERT. / HORZ.: NAVD 88 / NAD 83
LOGGED BY: Mitch Weier
DATE START / END: 6/24/2010 - 6/24/2010
DRILLING DETAILS: Sonic Coring
WATER LEVEL DEPTHS (FT): ▽ 4.90 6/24/2010 10:00 am

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION
0	HC-1	5.0		NM			PLO	(0'- 0.7') ASPHALT ASPHALT; 3 inches asphalt, 5 inches gravel base. (0.7'- 5') SILTY SAND WITH GRAVEL (SM); ~55% sand, fine to coarse, ~30% gravel, fine to coarse, subrounded, ~15% fines, non plastic; max. size 5 in., slight petroleum-like odor, moist, dark brown and black, FILL, 5-inch diameter concrete chunk at 2 feet.
▽ 5	S-1	8.0	60	3378			PLO	(5'- 9') CLAYEY SAND (SC); ~60% sand, fine to medium, ~30% fines, medium plasticity, ~10% gravel, fine to coarse, rounded; moderate petroleum-like odor, wet, dark brown and black, FILL, heavily coated fibrous material from 5 to 6 feet, wood from 8.75 to 9 feet, blebs & globs throughout.
10							PLO	(9'- 13') CLAYEY SAND (SC); ~60% sand, fine, ~35% fines, medium plasticity, ~5% gravel, fine, subrounded; trace roots, moderate petroleum-like odor, wet, gray to black, FILL.
								Bottom of borehole at 13.5 feet.

WELL CONSTRUCTION DETAILS



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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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DRAFT

GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 1 of 4
GC-MW41I

GROUND SURFACE ELEVATION (FT): _____ **LOCATION:** Red Hook Property
NORTHING: _____ **EASTING:** _____ **TOTAL DEPTH (FT):** 58.00
DRILLED BY: Boart Longyear / Frank Gardella **DATUM VERT. / HORZ.:** NAVD 88 / NAD 83
LOGGED BY: Mitch Weier **DATE START / END:** 6/25/2010 - 6/25/2010
DRILLING DETAILS: Sonic Coring
WATER LEVEL DEPTHS (FT): ▽ 2.75 6/25/2010 8:00 am

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
0	HC-1	5.0		57			CrLO	(0'- 0.7') ASPHALT; 4" asphalt, 4" gravel subbase. (0.7'- 1.5') WIDELY GRADED SAND WITH SILT (SW-SM); ~80% sand, ~10% fines, ~5% gravel; slight creosote-like odor, moist, black, FILL, hardened tar, wood with creosote odor from 1 to 1.5 feet. (1.5'- 5') FILL; moist, black, FILL, mostly hardened viscous tar.	
5	S-1	5.0	60	170			PLO PLO PLO	(5'- 6') SILTY SAND (SM); ~70% sand, fine to medium, ~30% fines, medium plasticity; strong petroleum-like odor, wet, black, FILL, 3-inch brick fragment. (6'- 7') SILTY SAND (SM); ~75% sand, ~25% fines; moderate petroleum-like odor, blackish gray, FILL. (7'- 8') CLAYEY SAND (SC); ~60% sand, ~40% fines, medium plasticity; slight petroleum-like odor, wet, gray. (8'- 10') CLAYEY SAND (SC); ~60% sand, ~40% fines, medium plasticity; wet, gray.	
10	S-2	5.0	42	35			PLO	(10'- 11.5') SILTY SAND (SM); ~60% sand, fine to medium, ~40% fines; trace shells, slight petroleum-like odor, wet, dark gray. (11.5'- 16.7') CLAYEY SAND (SC); ~65% sand, fine to medium, ~35% fines; trace shells, wet, dark gray and black.	
15									

NOTES:

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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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BORING LOG
PAGE 2 of 4
GC-MW41I

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
15	S-3	5.0	60						
								(16.7'- 18') ELASTIC SILT (MH); ~95% fines, high plasticity, ~5% sand, fine; some peat, moist, dark gray.	
				99			SLO	(18'- 19.5') ORGANIC SOIL (OL/OH); ~90% fines, high plasticity, ~10% sand, fine; with peat, moderate sulfur-like odor, moist, dark gray.	
20	S-4	5.0	42					(19.5'- 21') CLAYEY SAND (SC); ~65% sand, fine to medium, ~35% fines; wet, dark gray and black.	
				71			PLO	(21'- 22') NARROWLY GRADED SAND WITH CLAY; ~90% sand, fine, ~10% fines; moderate petroleum-like odor, wet, gray.	
							PLO	(22'- 25') SILTY SAND (SM); ~60% sand, ~40% fines; moderate petroleum-like odor, wet, gray.	
25	S-5	5.0	60				PLO	(25'- 26.5') SILTY SAND; ~85% sand, fine to medium, ~15% fines; slight petroleum-like odor, wet, gray.	
				154			PLO	(26.5'- 28.5') NARROWLY GRADED SAND WITH SILT (SP-SM); ~90% sand, fine to medium, ~10% fines; slight petroleum-like odor, wet, gray.	
							PLO	(28.5'- 30') SILTY SAND; ~85% sand, fine to medium, ~15% fines; slight petroleum-like odor, wet, gray.	
30	S-6	5.0	60				PLO	(30'- 31.5') LEAN CLAY WITH SAND (CL); ~75% fines, medium plasticity, ~25% sand, fine; slight petroleum-like odor, moist, gray.	
				245				(31.5'- 37.5') NARROWLY GRADED SAND WITH SILT; ~90% sand, fine, ~10% fines; wet, grayish brown.	

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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 3 of 4
GC-MW41I

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
35	S-7	5.0	60	4				(37.5'- 45') NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; wet, grayish brown.	
40	S-8	5.0	60	4.7					
45	S-9	5.0	60	2.2				(45'- 50') WIDELY GRADED SAND (SW); ~95% sand, fine to medium, ~5% fines; wet, grayish brown and orange, 3-inch thick orange layers with trace coarse sand at 46.5 and 48 feet.	
50									

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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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BORING LOG
PAGE 4 of 4
GC-MW41I

DEPTH FT.	SAMPLE INFO TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION	WELL CONSTRUCTION DETAILS
50	S-10	5.0	60	1.5				(50'- 53') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine to coarse, subangular, ~5% fines; wet, tannish brown.	
								(53'- 58') NARROWLY GRADED SAND (SP); ~90% sand, fine to coarse, ~5% gravel, fine to coarse, subangular, ~5% fines; wet, tannish brown, trace coarse and fine gravel.	
55	S-11	3.0	36	0					
								Bottom of borehole at 58.0 feet.	

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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Gowanus Canal Uplands Assessment
CITY/STATE: Brooklyn, NY
GEI PROJECT NUMBER: 093010-3-1302

BORING LOG
PAGE 1 of 1
GCMW-41S

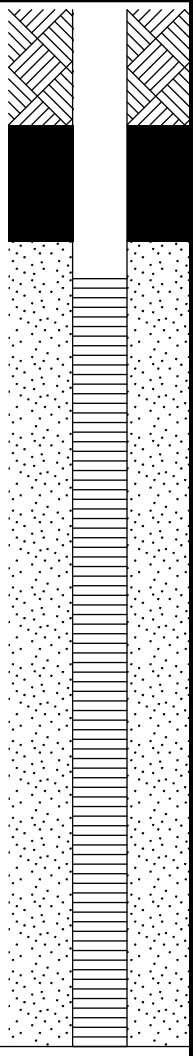
GROUND SURFACE ELEVATION (FT):
NORTHING: **EASTING:**
DRILLED BY: Boart Longyear / Frank Gardella
LOGGED BY: Mitch Weier
DRILLING DETAILS: Sonic Coring
WATER LEVEL DEPTHS (FT):

LOCATION: Red Hook Property
TOTAL DEPTH (FT): 13.50
DATUM VERT. / HORZ.: NAVD 88 / NAD 83
DATE START / END: 6/28/2010 - 6/28/2010

DEPTH FT.	SAMPLE INFO: TYPE and NO.	PEN FT.	REC FT.	PID (ppm)	STRATA	VISUAL IMPACTS	ODOR	SOIL / BEDROCK DESCRIPTION
0	HC-1	5.0						(0'- 0.75') FILL, asphalt and subbase.
							PLO	(0.75'- 2.75') WIDELY GRADED SAND WITH GRAVEL (SW); ~50% sand, fine to coarse, ~35% gravel, fine to coarse, angular, ~15% fines; trace rock fragments, max. size 5 in., moderate petroleum-like odor, dry, brown and brown, FILL, brick and debris.
5	S-1	8.0	60	109			PLO	(2.75'- 6.5') WIDELY GRADED SAND WITH GRAVEL (SW); ~50% sand, fine to coarse, ~35% gravel, fine to coarse, angular, ~15% fines; trace rock fragments, max. size 5 in., moderate petroleum-like odor, dry, black, FILL, brick and debris, semi-solid tar.
				435			PLO	(6.5'- 7') SILTY SAND (SM); ~75% sand, fine to medium, ~25% fines, low plasticity; slight petroleum-like odor, wet, black.
10							PLO	(7'- 13.5') SILTY SAND (SM); ~65% sand, fine, ~35% fines, medium plasticity; slight petroleum-like odor, wet, gray and tan.

Bottom of borehole at 13.5 feet.

WELL CONSTRUCTION DETAILS



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ENVIRONMENTAL BORING LOG GOWANUS LOGS.GPJ GEI CONSULTANTS.GDT 10/7/10

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Appendix D
Field Documentation

D-04 – Soil Boring Logs and Monitoring Well Construction Diagrams

NYC Soil Boring Logs and Monitoring Well Construction Diagrams

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Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 2	**BORING NO.:** SB01S **WELL NO.:** MW01S

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/2/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/2/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 187653.9248
Total Depth (ft): 17.00	**Total Depth (ft):** 17	**EASTING:** 987942.3697
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010	**GROUND ELEVATION:** 9.57
Depth to Water (ft): 6	**Depth to Water (ft):** 6.65	**TOC ELEVATION:** 8.8902
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		FILL			7 7	22.8	Dark yellowish brown (10YR4/2) coarse to fine SAND, some medium to fine Gravel; dry.	**Gravelly Sand (Fill)**
	1					8 6			
	2		FILL			4	15.2	Medium dark gray (N4) Silty CLAY; moist.	**Silty Clay (Fill)**
	3					3 6 10			
	4		FILL			5	11.4	Dark gray (N3) WOOD (100% fill); moist.	**Wood (Fill)**
	5					32 14			
	6		FILL			9 13	19	Dark yellowish brown (10YR4/2) coarse to fine SAND, some coarse to fine Gravel (15% fill material: cinders); saturated.	**Water Level 6 feet bgs** **Gravelly Sand (Fill)**
	7					5 3 4			
	8		FILL			1	230	Medium dark gray (N4) Silty CLAY, little coarse to fine Gravel; saturated.	**Silty Clay (Fill)**
	9					1			

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB01S
	Page 2 of 2	**WELL NO.:** MW01S

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
						1 1			
	10		FILL			4 2	56	Dusky yellowish brown (10YR2/2) coarse to fine SAND, some Silt, little medium to fine Gravel; saturated.	**Silty Sand (Fill)**
	11					1 1			
	12					1 1			
	13					2 2			
	14		SM			3 2	17	Dark gray (N3) coarse to fine SAND, some Silt, little medium to fine Gravel; saturated.	**Silty Sand**
	15					1 1			
	16		SP-SM			3 1	12.8	Dark gray (N3) coarse to fine SAND, little Silt, some coarse to fine Gravel; saturated.	**Gravelly Sand** **End of Boring at 17 feet bgs**
	17								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 4	**BORING NO.:** SB01I **WELL NO.:** MW01I

CLIENT: New York City Department of Design and Construction			**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation			**DATE STARTED:** 6/2/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing			**DATE FINISHED:** 6/2/2010
DRILLING METHOD: Hollow Stem Auger			**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**		**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount		**NORTHING:** 187652.3208
Total Depth (ft): 40.00	**Total Depth (ft):** 40		**EASTING:** 987945.1486
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 5 ft/0.010		**GROUND ELEVATION:** 9.59
Depth to Water (ft): 6	**Depth to Water (ft):** 6.65		**TOC ELEVATION:** 9.4226
Depth to Rock (ft): N/A	**Permit No.:** N/A		

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		FILL			7 7 8 6	22.8	Dark yellowish brown (10YR4/2) coarse to fine SAND, some medium to fine Gravel; dry.	**Gravelly Sand (Fill), collected SB01A from 0.0 to 5.0 feet bgs (VOC from 0.2 to 0.7 feet bgs)**
	2		FILL			4 3 6 10	15.2	Medium dark gray (N4) Silty CLAY; moist.	**Silty Clay (Fill)**
	4		FILL			5 32 14 9	11.4	Dark gray (N3) WOOD (100% fill material); moist.	**Wood (Fill)** **Water Level 6 feet bgs**
	6		FILL			13 5 3 4	19	Dark yellowish brown (10YR4/2) coarse to fine SAND, some coarse to fine Gravel (15% fill material: cinders); saturated.	**Gravelly Sand (Fill)**
	8		FILL			1	230	Medium dark gray (N4) Silty CLAY, little coarse to fine Gravel; saturated.	**Silty Clay (Fill),**

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	9					1 1 1			**collected SB01B from 5.0 to 10.0 feet bgs (VOC from 8.0 to 8.5 feet bgs)**
	10		FILL			4 2	56	Dusky yellowish brown (10YR2/2) coarse to fine SAND, some Silt, little medium to fine Gravel; saturated.	**Silty Sand (Fill), collected SB01C from 10.0 to 15.0 feet bgs (VOC from 10.0 to 10.5 feet bgs)**
	11					1 1			
	12					1 1			
	13					2 2			
	14		SM			3 2	17	Dark gray (N3) coarse to fine SAND, some Silt, little medium to fine Gravel; saturated.	**Silty Sand**
	15					1 1			
	16		SP-SM			3 1	12.8	Dark gray (N3) coarse to fine SAND, little Silt, some coarse to fine Gravel; saturated.	**Gravelly Sand, collected SB01D from 15.0 to 20.0 feet bgs (VOC from 16.8 to 17.3 feet bgs)**
	17					3 1			
	18		SP-SM			5 4	8	Dark gray (N3) coarse to fine SAND, little Silt, some coarse to fine Gravel; saturated.	
	19					9 9			
	20		SP-SM			6 9	< 1.0	Dark gray (N3) WOOD; saturated.	**Wood**
	21					2			

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB01I
	Page 3 of 4	**WELL NO.:** MW01I

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
						3			
	22		SP			4	2.3	Dark gray (N3) coarse to fine SAND, little Silt, little coarse to fine Gravel; saturated.	**Sand, collected SB01E from 20.0 to 25.0 feet bgs (VOC from 22.0 to 22.5 feet bgs)**
						3			
	23					2			
						2			
	24		SP			32	10.2	Medium gray (N5) medium to fine SAND, trace Silt; saturated.	**Collected SB01F from 25.0 to 30.0 feet bgs (VOC from 25.5 to 26.0 feet bgs)**
						11			
	25					21			
						13			
	26		SP			5	< 1.0	Medium gray (N5) medium to fine SAND, trace Silt; saturated.	
						7			
	27					6			
						3			
	28		SP			9	< 1.0	Medium gray (N5) medium to fine SAND, trace Silt; saturated.	
						14			
	29					13			
						9			
	30		SP			4	< 1.0	Dusky yellowish brown (10YR2/2) medium to fine SAND; saturated.	
						3			
	31					3			
						3			
	32		SP			2	< 1.0	Dusky yellowish brown (10YR2/2) medium to fine SAND; saturated.	**Collected SB01G from 30.0 to 35.0 feet bgs (VOC from 32.0 to 32.5 feet bgs)**
						4			
	33					4			
						3			
	34		SP			2	< 1.0	Dusky yellowish brown (10YR2/2) medium to fine SAND;	

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
						2		saturated.	
	35					4			
						2			
	36		SP			4	< 1.0	Dusky yellowish brown (10YR2/2) medium to fine SAND; saturated.	**Collected SB01H from 35.0 to 40.0 feet bgs (VOC from 37.0 to 37.5 feet bgs)**
						3			
	37					5			
						4			
	38		SP			2	< 1.0	Dusky yellowish brown (10YR2/2) medium to fine SAND; saturated.	
						2			
	39					3			**End of Boring at 40 feet bgs**
						2			
	40								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 2	**BORING NO.:** SB02S **WELL NO.:** MW02S

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/4/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/4/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 187608.5586
Total Depth (ft): 13.00	**Total Depth (ft):** 13	**EASTING:** 987759.9875
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010	**GROUND ELEVATION:** 5.49
Depth to Water (ft): 4	**Depth to Water (ft):** 2.43	**TOC ELEVATION:** 5.0207
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		SP			3	< 1.0	Moderate yellowish brown (10YR5/4) coarse to fine SAND, trace Silt, some coarse to fine Gravel; dry.	**Gravelly Sand**
						3			
	1					7			
						8			
	2		SP			10	< 1.0	Moderate yellowish brown (10YR5/4) coarse to fine SAND, trace Silt, some coarse to fine Gravel; dry.	
						5			
	3					3			
						3			**Water Level 4 feet bgs**
	4		ML			7	< 1.0	Medium gray (N5) to medium dark gray (N4) Silty CLAY; dry.	**Silty Clay**
						3			
	5					2			
						2			
	6		ML			W.O.I	< 1.0	Medium dark gray (N4) Silty CLAY; saturated.	
						W.O.I			
	7					W.O.I			
						W.O.I			

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB02S
	Page 2 of 2	**WELL NO.:** MW02S

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	8		ML			1	< 1.0	Medium dark gray (N4) Silty CLAY; saturated.	
						1			
	9					1			
						1			
	10		ML			1	36	Medium dark gray (N4) Silty CLAY; saturated.	
						1			
	11					1			
						1			
	12		ML			2	< 1.0	Medium dark gray (N4) Silty CLAY; saturated.	
						3			**End of Boring at 13 feet bgs**
	13								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 4	**BORING NO.:** SB02I **WELL NO.:** MW02I

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/3/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/4/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 187605.7798
Total Depth (ft): 36.00	**Total Depth (ft):** 34.5	**EASTING:** 987762.2039
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 5 ft/0.010	**GROUND ELEVATION:** 5.57
Depth to Water (ft): 4	**Depth to Water (ft):** 2.43	**TOC ELEVATION:** 5.2841
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		SP			3 3 7 8	< 1.0	Moderate yellowish brown (10YR5/4) coarse to fine SAND, trace Silt, some coarse to fine Gravel; dry.	**Gravelly Sand**
	1								
	2		SP			10 5 3 3	< 1.0	Moderate yellowish brown (10YR5/4) coarse to fine SAND, trace Silt, some coarse to fine Gravel; dry.	**Collected SB02A from 0.0 to 5.0 feet bgs (VOC from 2.0 to 2.5 feet bgs)** **Water Level 4 feet bgs**
	3								
	4		ML			7 3 2 2	< 1.0	Medium gray (N5) to medium dark gray (N4) Silty CLAY; dry.	**Silty Clay**
	5								
	6		ML			WOH WOH WOH WOH	< 1.0	Medium dark gray (N4) Silty CLAY; saturated.	
	7								

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	8		ML			1 1 1 1	< 1.0	Medium dark gray (N4) Silty CLAY; saturated.	**Collected SB02B from 5.0 to 10.0 feet bgs (VOC from 8.0 to 8.5 feet bgs)**
	9								
	10		ML			1 1 1 1	36	Medium dark gray (N4) Silty CLAY; saturated.	**Collected SB02C from 10.0 to 15.0 feet bgs (VOC from 10.0 to 10.5 feet bgs)**
	11								
	12		ML			2 3 2 3	< 1.0	Medium dark gray (N4) Silty CLAY; saturated.	
	13								
	14		ML			3 3 2 3	< 1.0	Medium dark gray (N4) Silty CLAY; saturated.	
	15								
	16		OL			1 1 1 1	< 1.0	Medium dark gray (N4) Organic SILT (high plasticity); saturated.	**Organic Silt, collected SB02D from 15.0 to 20.0 feet bgs (VOC from 17.0 to 17.5 feet bgs)**
	17								
	18		SM			3 3 2 3	< 1.0	Medium dark gray (N4) medium to fine SAND, some Silt; saturated.	**Silty Sand**
	19								

Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
20		SP			6	6.2	Medium gray (N5) medium to fine SAND, trace Silt; saturated.	**Sand, collected SB02E from 20.0 to 25.0 feet bgs (VOC from 21.5 to 22.0 feet bgs)**
					5			
21					5			
					3			
22		SP-SM			5	< 1.0	Medium gray (N5) to brownish gray (5YR4/1) medium to fine SAND, little Silt; saturated.	
					4			
23					5			
					4			
24		SP-SM			5	< 1.0	Brownish gray (5YR4/1) medium fine SAND, little Silt; saturated.	
					5			
25					2			
					3			
26		SP			2	< 1.0	Brownish gray (5YR4/1) coarse to fine SAND, trace Silt; saturated.	**Collected SB02F from 25.0 to 30.0 feet bgs (VOC from 27.0 to 27.5 feet bgs)**
					3			
27					3			
					3			
28		SP			2	< 1.0	Brownish gray (5YR4/1) medium to fine SAND, trace Silt; saturated.	
					2			
29					4			
					4			
30		SP			5	< 1.0	Brownish gray (5YR4/1) medium to fine SAND; saturated.	
					5			
31					4			
					4			

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Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	32		SP			5	< 1.0	Brownish gray (5YR4/1) medium to fine SAND; saturated.	**Collected SB02G from 30.0 to 35.0 feet bgs (VOC from 32.0 to 32.5 feet bgs)**
						9			
	33					10			
						7			
	34		SP			10	< 1.0	Brownish gray (5YR4/1) medium to fine SAND; saturated.	**Collected SB02H from 35.0 to 36.0 feet bgs (VOC from 35.5 to 36.0 feet bgs)**
						7			
	35					7			
						8			**End of Boring at 36 feet bgs**
	36								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 2	**BORING NO.:** SB09S **WELL NO.:** MW09S

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/7/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/7/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 184961.7634
Total Depth (ft): 15.00	**Total Depth (ft):** 15	**EASTING:** 985204.1709
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010	**GROUND ELEVATION:** 10.47
Depth to Water (ft): 9	**Depth to Water (ft):** 7.52	**TOC ELEVATION:** 10.2054
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		FILL			28 50/2	< 1.0	Moderate yellowish brown (10YR5/4) to pale yellowish brown (10YR6/2) coarse to fine SAND, some coarse to fine Gravel (30% fill material: concrete); dry.	**Gravelly Sand (Fill)**
	1								
	2		FILL			50/4	< 1.0	Pale yellowish brown (10YR6/2) coarse to fine SAND, some coarse to fine Gravel (30% fill material: concrete); dry.	
	3								
	4		FILL			2 2	< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, some coarse to fine Gravel; dry.	
	5					4 6			
	6		FILL			2 2	< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, some coarse to fine Gravel; moist.	
	7					4 9			

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Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	8		FILL			2 2 4 1	< 1.0	Dark yellowish brown (10YR4/2) coarse to fine SAND, little Silt, some coarse to fine Gravel; saturated.	▽ **Water Level 9 feet bgs**
	9								
	10		SP-SM			5 5 9 4	8.2	Medium dark gray (N4) coarse to fine SAND, little Silt, little coarse to fine Gravel; saturated.	**Sand**
	11								
	12		SP			4 4 5 6	31.8	Medium dark gray (N4) coarse to fine SAND, trace Silt, little coarse to fine Gravel; saturated.	
	13								
	14		SP			3 3	10.8	Medium dark gray (N4) coarse to fine SAND, trace Silt, little coarse to fine Gravel; saturated.	**End of Boring at 15 feet bgs**
	15								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 4	**BORING NO.:** SB09I **WELL NO.:** MW09I

CLIENT: New York City Department of Design and Construction			**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation			**DATE STARTED:** 6/7/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing			**DATE FINISHED:** 6/7/2010
DRILLING METHOD: Hollow Stem Auger			**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**		**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount		**NORTHING:** 184957.7341
Total Depth (ft): 40.00	**Total Depth (ft):** 15		**EASTING:** 985208.1607
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010		**GROUND ELEVATION:** 10.32
Depth to Water (ft): 9	**Depth to Water (ft):** 7.52		**TOC ELEVATION:** 9.7621
Depth to Rock (ft): N/A	**Permit No.:** N/A		

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		FILL			28 50/2	< 1.0	Moderate yellowish brown (10YR5/4) to pale yellowish brown (10YR6/2) coarse to fine SAND, some coarse to fine Gravel (30% fill material: concrete); dry.	**Gravelly Sand (Fill)**
	1								
	2		FILL			50/4	< 1.0	Pale yellowish brown (10YR6/2) coarse to fine SAND, some coarse to fine Gravel (30% fill material: concrete); dry.	**Collected SB09A from 0.0 to 5.0 feet bgs (VOC from 2.0 to 2.5 feet bgs)**
	3								
	4		FILL			2 2	< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, some coarse to fine Gravel; dry.	
	5					4 6			**Collected SB09B from 5.0 to 10.0 feet bgs (VOC from 8.0 to 8.5 feet bgs)**
	6		FILL			2 2	< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, some coarse to fine Gravel; moist.	
	7					4 9			

Depth	USCS	Interval	Rec.	Blows	PID	Description	Remarks
8	FILL			2	< 1.0	Dark yellowish brown (10YR4/2) coarse to fine SAND, little Silt, some coarse to fine Gravel; saturated.	
				2			
9				4			⧖ **Water Level 9 feet bgs**
				1			
10	SP-SM			5	8.2	Medium dark gray (N4) coarse to fine SAND, little Silt, little coarse to fine Gravel; saturated.	**Sand**
				5			
11				9			
				4			
12	SP			4	31.8	Medium dark gray (N4) coarse to fine SAND, trace Silt, little coarse to fine Gravel; saturated.	**Collected SB09C from 10.0 to 15.0 feet bgs (VOC from 12.0 to 12.5 feet bgs)**
				4			
13				5			
				6			
14	SP-SM			3	10.8	Medium dark gray (N4) coarse to fine SAND, trace Silt, little coarse to fine Gravel; saturated.	
				3			
15				5			
				8			
16	SP			4	< 1.0	Medium dark gray (N4) coarse to fine SAND, some coarse to fine Gravel; saturated.	**Gravelly Sand, collected SB09D from 15.0 to 20.0 feet bgs (VOC from 16.5 to 17.0 feet bgs)**
				4			
17				5			
				5			
18	SP			1	< 1.0	Medium dark gray (N4) coarse to fine SAND, some coarse to fine Gravel; saturated.	
				2			
19				2			
				1			

Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
20		SP			5	< 1.0	Medium dark gray (N4) coarse to fine SAND, little medium to fine Gravel; saturated.	**Sand**
					4			
21					3			
					3			
22		SP			5	< 1.0	Medium dark gray (N4) coarse to fine SAND, little medium to fine Gravel; saturated.	**Collected SB09E from 20.0 to 25.0 feet bgs (VOC from 22.0 to 22.5 feet bgs)**
					4			
23					3			
					5			
24					3			
					3			
25					2			
					2			
26		SP			5	< 1.0	Medium dark gray (N4) coarse to fine SAND, some coarse to fine Gravel; saturated.	**Gravelly Sand, collected SB09F from 25.0 to 30.0 feet bgs (VOC from 27.0 to 27.5 feet bgs)**
					4			
27					4			
					5			
28		OL			4	< 1.0	Medium dark gray (N4) Organic SILT (high plasticity); saturated.	**Organic Silt**
					4			
29					3			
					2			
30		OL			1	< 1.0	Medium dark gray (N4) Organic SILT (high plasticity); saturated.	
					1			
31					2			
					3			

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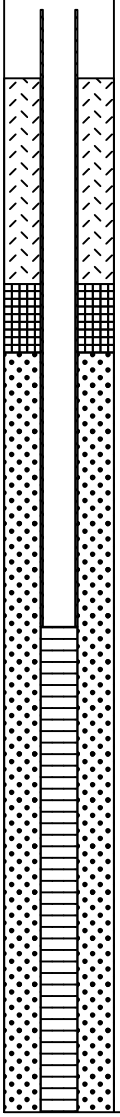
Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	32		OL			2 2 3 2	< 1.0	Medium dark gray (N4) Organic SILT (high plasticity); saturated.	**Collected SB09G from 30.0 to 35.0 feet bgs (VOC from 32.0 to 32.5 feet bgs)**
	33								
	34		OL			6 5	< 1.0	Medium dark gray (N4) Organic SILT (high plasticity); saturated.	
	35		SP-SM			5 5	< 1.0	Medium light gray (N6) medium to fine SAND, little Silt; saturated.	**Sand**
	36		SP-SM			6 5	< 1.0	Medium light gray (N6) medium to fine SAND, little Silt; saturated.	**Collected SB09H from 35.0 to 40.0 feet bgs (VOC from 36.5 to 37.0 feet bgs)**
	37					5 5			
	38		SP-SM			5 6	< 1.0	Medium light gray (N6) medium to fine SAND, little Silt; saturated.	
	39					7 6			**End of Boring at 40 feet bgs**
	40								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 2	**BORING NO.:** SB10S **WELL NO.:** MW10S

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/7/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/7/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 185266.8562
Total Depth (ft): 15.00	**Total Depth (ft):** 15	**EASTING:** 985026.7643
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010	**GROUND ELEVATION:** 13.63
Depth to Water (ft): 12	**Depth to Water (ft):** 6.8	**TOC ELEVATION:** 13.3134
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0 1 2 3 4 5 6 7 8		FILL FILL			3 3 4 3 5 5 4	< 1.0 < 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, trace Silt, some coarse to fine Gravel (50% fill material: concrete, brick); dry. Dusky yellowish brown (10YR2/2) coarse to fine SAND, trace Silt, little coarse to fine Gravel (50% fill material: concrete, brick); dry.	**Gravelly Sand (Fill)** **Sand (Fill)**

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB10S
	Page 2 of 2	**WELL NO.:** MW10S

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	9		FILL			3 6 4	< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, trace Silt, little coarse to fine Gravel (50% fill material: concrete, brick); dry.	
	10					3 3			
	11		SM			3 2	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, some Silt, trace fine Gravel; saturated.	**Silty Sand**
	12					1 1			**Water Level 12 feet bgs**
	13		SM			1 1	10.8	Dark yellowish brown (10YR4/2) medium to fine SAND, some Silt, trace fine Gravel; saturated.	
	14					1 1			**End of Boring at 15 feet bgs**
	15								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 4	**BORING NO.:** SB10I **WELL NO.:** MW10I

CLIENT: New York City Department of Design and Construction			**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation			**DATE STARTED:** 6/7/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing			**DATE FINISHED:** 6/7/2010
DRILLING METHOD: Hollow Stem Auger			**DRILLER:** T.Palomeque
BOREHOLE DATA	**WELL DATA**		**INSPECTOR:** J.Lacanlale
Diameter (in): 8	**Completion:** 2" PVC Flush Mount		**NORTHING:** 185266.5634
Total Depth (ft): 45.00	**Total Depth (ft):** 45		**EASTING:** 985019.8296
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 5 ft/0.010		**GROUND ELEVATION:** 13.74
Depth to Water (ft): 12	**Depth to Water (ft):** 6.8		**TOC ELEVATION:** 13.4567
Depth to Rock (ft): N/A	**Permit No.:** N/A		

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		FILL				< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, trace Silt, some coarse to fine Gravel (50% fill material: concrete, brick); dry.	**Gravelly Sand (Fill), collected SB10A from 0.0 to 5.0 feet bgs (VOC from 2.0 to 2.5 feet bgs)**
	1								
	2								
	3								
	4								
	5		FILL			3	< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, trace Silt, little coarse to fine Gravel (50% fill material: concrete, brick); dry.	**Sand (Fill), collected SB10B from 5.0 to 10.0 feet bgs (VOC from 5.5 to 6.0 feet bgs)**
	6					3 4			
	7					3 5			
	8					5 4			

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Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	9		FILL			3 6 4	< 1.0	Dusky yellowish brown (10YR2/2) coarse to fine SAND, trace Silt, little coarse to fine Gravel (50% fill material: concrete, brick); dry.	
	10					3 3			
	11		SM			3 2	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, some Silt, trace fine Gravel; saturated.	**Silty Sand**
	12					1 1			**Water Level 12 feet bgs**
	13		SM			1 1	10.8	Dark yellowish brown (10YR4/2) medium to fine SAND, some Silt, trace fine Gravel; saturated.	**Collected SB10C from 10.0 to 15.0 feet bgs (VOC from 13.0 to 13.5 feet bgs)**
	14					1 1			
	15		SP-SM			3 2	2.8	Dark yellowish brown (10YR4/2) medium to fine SAND, little Silt; saturated.	**Sand, collected SB10D from 15.0 to 20.0 feet bgs (VOC from 15.5 to 16.0 feet bgs)**
	16					1 2			
	17		SP-SM			1 1	< 1.0	Moderate yellowish brown (10YR5/4) medium to fine SAND, little Silt; saturated.	
	18					1 1			
	19		SP			1 2	< 1.0	Moderate yellowish brown (10YR5/4) to dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt; saturated.	
	20					4 6			
	21		SP			1	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND;	**Collected SB10E from**

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Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	22					1 1 1			**20.0 to 25.0 feet bgs (VOC from 22.0 to 22.5 feet bgs)**
	23		SP			4 3	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
	24					3 2			
	25		SP			3 3	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
	26					5 4			
	27		SP			7 5	< 1.0	Moderate yellowish brown (10YR5/4) to dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	**Collected SB10F from 25.0 to 30.0 feet bgs (VOC from 27.0 to 27.5 feet bgs)**
	28					4 5			
	29		SP			5 8	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
	30					10 7			
	31		SP			12 5	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	**Collected SB10G from 30.0 to 35.0 feet bgs (VOC from 32.0 to 32.5 feet bgs)**
	32					5 6			
	33		SP			6 6	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
	34					5			

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1 Page 4 of 4	**BORING NO.:** SB10I **WELL NO.:** MW10I

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	35		SP			3 6 8	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
	36					11 7			
	37		SP			8	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	**Collected SB10H from 35.0 to 40.0 feet bgs (VOC from 37.0 to 37.5 feet bgs)**
	38					9 10 12			
	39		SP			8	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
	40					8 9 5			
	41		SP			5	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	**Collected SB10I from 40.0 to 45.0 feet bgs (VOC from 42.0 to 42.5 feet bgs)**
	42					5 7 12			
	43		SP			7	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
	44					7 8 9			**End of Boring at 45 feet bgs**
	45								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 2	**BORING NO.:** SB17S **WELL NO.:** MW17S

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/2/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/2/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** S.Miller
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Ganz
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 183635.2731
Total Depth (ft): 15.00	**Total Depth (ft):** 15	**EASTING:** 984664.4093
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010	**GROUND ELEVATION:** 10.41
Depth to Water (ft): 10	**Depth to Water (ft):** 7.24	**TOC ELEVATION:** 9.8922
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		ASPHALT				< 1.0	Black (N1) Asphalt; dry.	**Asphalt**
	1		FILL			20 36	< 1.0	Olive gray (5Y4/1) medium to fine SAND, trace Silt, some coarse to fine Gravel; dry.	**Gravelly Sand (Fill)**
	2		FILL			22 57	< 1.0	Olive gray (5Y4/1) to dusky yellowish brown (10YR2/2) medium to fine SAND, trace Silt, some coarse to fine Gravel (5% fill material: brick); dry.	
	3					45 25			
	4		FILL			13 30	< 1.0	Dusky yellowish brown (10YR2/2) to olive gray (5Y4/1) medium to fine SAND, trace Silt, little coarse to fine Gravel; dry.	**Sand (Fill)**
	5					43 40			
	6		FILL			47 17	443	Black (N1) to olive black (5Y2/1) coarse to fine SAND, trace Silt, little coarse to fine Gravel; dry.	
	7					9 6			

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Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	8		SP-SM			25	6.3	Grayish black (N2) coarse to fine SAND, little Silt, trace coarse to fine Gravel; saturated.	**Sand**
						6			
	9					3			
						4			
	10		SP			6	7.5	Grayish black (N2) coarse to fine SAND, trace Silt, trace medium to fine Gravel; saturated.	**Water Level 10 feet bgs**
						4			
	11					3			
						1			
	12		SP-SM			4	3.3	Olive black (5Y2/1) to dusky yellowish brown (10YR2/2) medium to fine SAND, little Silt, trace medium to fine Gravel; saturated.	
						1			
	13					1			
						1			
	14		SP-SM			1	< 1.0	Olive black (5Y2/1) to dusky yellowish brown (10YR2/2) coarse to fine SAND, little Silt, trace medium Gravel; saturated.	**End of Boring at 15 feet bgs**
						1			
	15								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 4	**BORING NO.:** SB17I **WELL NO.:** MW17I

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/2/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/2/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** S.Miller
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Ganz
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 183640.2563
Total Depth (ft): 46.00	**Total Depth (ft):** 44.5	**EASTING:** 984663.3425
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 5 ft/0.010	**GROUND ELEVATION:** 10.32
Depth to Water (ft): 10	**Depth to Water (ft):** 7.24	**TOC ELEVATION:** 9.938
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		ASPHALT				< 1.0	Black (N1) Asphalt; dry.	**Asphalt**
	1		FILL			20 36	< 1.0	Olive gray (5Y4/1) medium to fine SAND, trace Silt, some coarse to fine Gravel; dry.	**Gravelly Sand (Fill)**
	2		FILL			22 57	< 1.0	Olive gray (5Y4/1) to dusky yellowish brown (10YR2/2) medium to fine SAND, trace Silt, some coarse to fine Gravel (5% fill material: brick); dry.	**Collected SB17A from 2.0 to 5.0 feet bgs (VOC from 2.5 to 3.0 feet bgs)**
	3					45 25			
	4		FILL			13 30	< 1.0	Dusky yellowish brown (10YR2/2) to olive gray (5Y4/1) medium to fine SAND, trace Silt, little coarse to fine Gravel; dry.	**Sand (Fill)**
	5					43 40			
	6		FILL			47 17	443	Black (N1) to olive black (5Y2/1) coarse to fine SAND, trace Silt, little coarse to fine Gravel; dry.	**Collected SB17B from 5.0 to 10.0 feet bgs (VOC from 6.1 to 6.6 feet bgs)**
	7 ▼					9 6			
	8		SP-SM			25	6.3	Grayish black (N2) coarse to fine SAND, little Silt, trace coarse to fine Gravel; saturated.	**Sand**

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB17I
	Page 2 of 4	**WELL NO.:** MW17I

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	9					6 3 4			**Water Level 10 feet bgs**
	10		SP			6 4	7.5	Grayish black (N2) coarse to fine SAND, trace Silt, trace medium to fine Gravel; saturated.	**Collected SB17C from from 10.0 to 15.0 feet bgs (VOC from 10 to 10.4 feet bgs)**
	11					3 1			
	12		SP-SM			4 1	3.3	Olive black (5Y2/1) to dusky yellowish brown (10YR2/2) medium to fine SAND, little Silt, trace medium to fine Gravel; saturated.	
	13					1 1			
	14		SP-SM			1 1	< 1.0	Olive black (5Y2/1) to dusky yellowish brown (10YR2/2) coarse to fine SAND, little Silt, trace medium Gravel; saturated.	
	15					1 1			
	16		SC			2 3	< 1.0	Olive black (5Y2/1) to dusky yellowish brown (10YR2/2) fine SAND, and Silty Clay; saturated.	**Clayey Sand, collected SB17D from 15.0 to 20.0 feet bgs (VOC from 16.5 to 17.0 feet bgs)**
	17					2 2			
	18		CL			WOH WOH	< 1.0	Olive gray (5Y4/1) Silty CLAY, little fine Sand; saturated.	**Silty Clay**
	19					WOH WOH			
	20		CL			WOH 1	< 1.0	Olive gray (5Y4/1) Silty CLAY, trace fine Sand; saturated.	
	21					1			

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	22		CL			1 WOH WOH WOH 1	< 1.0	Dark gray (N3) Silty CLAY; saturated.	**Collected SB17E from 20.0 to 25.0 feet bgs (VOC from 22.5 to 23.0 feet bgs)**
	24		CL			WOH WOH 1 2	< 1.0	Dark gray (N3) Silty CLAY, trace fine Sand; saturated.	
	26		SP			WOH WOH 1 1	< 1.0	Dark gray (N3) fine SAND; saturated.	**Sand, Collected SB17F from 25.0 to 30.0 feet bgs (VOC from 26.5 to 27 feet bgs)**
	28		SP			WOH 1	< 1.0	Dark gray (N3) fine SAND, trace Silt; saturated.	
	29		CL			3 4	< 1.0	Dark gray (N3) Silty CLAY, trace fine Sand; saturated.	**Silty Clay**
	30		CL			3 2 1 2	< 1.0	Olive black (5Y2/1) Silty CLAY, little fine Sand; saturated.	
	32		SP			2 2 1 3	< 1.0	Olive black (5Y2/1) medium to fine SAND, trace Silt; saturated.	**Sand, collected SB17G from 30.0 to 35.0 feet bgs (VOC from 32.5 to 33.0 feet bgs)**
	34		SP			1	< 1.0	Olive black (5Y2/1) medium to fine SAND, trace Silt;	

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1 Page 4 of 4	**BORING NO.:** SB17I **WELL NO.:** MW17I

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
						1		saturated.	
	35					1			
						2			
	36		SP			3	< 1.0	Olive black (5Y2/1) medium to fine SAND, trace Silt; saturated.	**Collected SB17H from 35.0 to 40.0 feet bgs (VOC from 36.5 to 37.0 feet bgs)**
						3			
	37					5			
						4			
	38		SP			2	< 1.0	Dusky yellowish brown (10YR2/2) fine SAND, trace Silt; saturated.	
						2			
	39					2			
						3			
	40		SP			WOH	< 1.0	Dusky yellowish brown (10YR2/2) fine SAND, trace Silt; saturated.	
						5			
	41					6			
						5			
	42		SP			2	< 1.0	dusky yellowish brown (10YR2/2) fine SAND, trace Silt; saturated.	**Collected SB17I from 40.0 to 45.0 feet bgs (VOC from 42.5 to 43 feet bgs)**
						2			
	43					4			
						5			
	44					WOH			
						1			
	45					2			**End of Boring at 46 feet bgs**
						3			
	46								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 2	**BORING NO.:** SB18S **WELL NO.:** MW18S

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/8/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/8/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** S.Miller
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Ganz
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 183308.9226
Total Depth (ft): 15.00	**Total Depth (ft):** 15	**EASTING:** 984590.7635
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010	**GROUND ELEVATION:** 11.35
Depth to Water (ft): 10	**Depth to Water (ft):** 9.58	**TOC ELEVATION:** 10.8873
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		FILL			13 13 14 40	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, some fine Gravel; dry.	**Gravelly Sand (Fill)**
	1								
	2		FILL			7 8	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, some fine Gravel; dry.	
	3		ASPHALT			35 16 50/3	< 1.0	Black (N1) Asphalt; dry.	**Asphalt**
	4								
	5								
	6		FILL			53 50/0	34	Very light gray (N8) to very pale orange (10YR8/2) fine SAND, trace Silt, some coarse to fine Gravel; dry.	**Gravelly Sand (Fill)**
	7								

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB18S
	Page 2 of 2	**WELL NO.:** MW18S

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	8		FILL			4	355	Dark yellowish brown (10YR4/2) fine SAND, trace Silt, some coarse to fine Gravel; dry.	
			ML			3	751	Olive black (5Y2/1) SILT, trace fine Sand, trace medium Gravel; wet.	**Silt**
	9					4			
						3			
	10					1			**Water Level 10 feet bgs**
						1			
	11					1			
						1			
	12		SM			1	< 1.0	Olive black (5Y2/1) fine SAND, some Silt; saturated.	**Silty Sand**
						WOH			
	13					1			
						WOH			
	14		SM			WOH	< 1.0	Olive black (5Y2/1) fine SAND, some Silt; saturated.	**End of Boring at 15 feet bgs**
						WOH			
	15								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 6	**BORING NO.:** SB18I **WELL NO.:** MW18I

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/7/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/8/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** S.Miller
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Ganz
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 183310.1333
Total Depth (ft): 58.00	**Total Depth (ft):** 57	**EASTING:** 984588.0388
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 5 ft/0.010	**GROUND ELEVATION:** 11.08
Depth to Water (ft): 10	**Depth to Water (ft):** 9.58	**TOC ELEVATION:** 10.5153
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		FILL			13 13	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, some fine Gravel; dry.	**Gravelly Sand (Fill)**
	1					14 40			**Collected SB18A from 0.0 to 5.0 feet bgs (VOC from 2.3 to 2.8 feet bgs)**
	2		FILL			7 8	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, some fine Gravel; dry.	
	3		ASPHALT			35 16	< 1.0	Black (N1) Asphalt; dry.	**Asphalt**
	4					50/3			
	5								
	6		FILL			53 50/0	34	Very light gray (N8) to very pale orange (10YR8/2) fine SAND, trace Silt, some coarse to fine Gravel; dry.	**Gravelly Sand (Fill)**

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB18I
	Page 2 of 6	**WELL NO.:** MW18I

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	7								
	8		FILL			4	355	Dark yellowish brown (10YR4/2) fine SAND, trace Silt, some coarse to fine Gravel; dry.	
			ML			3	751	Olive black (5Y2/1) SILT, trace fine Sand, trace medium Gravel; wet.	**Silt, collected SB18B from 5.0 to 10.0 feet bgs (VOC from 8.5 to 8.8 feet bgs)**
	9					4			
						3			
	10					1			**Water Level 10 feet bgs**
						1			**Collected SB18C from 10.0 to 15.0 feet bgs (VOC from 14.5 to 15.0 feet bgs)**
	11					1			
						1			
	12		SM			1	< 1.0	Olive black (5Y2/1) fine SAND, some Silt; saturated.	**Silty Sand**
						WOH			
	13					1			
						WOH			
	14		SM			WOH	< 1.0	Olive black (5Y2/1) fine SAND, some Silt; saturated.	
						WOH			
	15					1			**Collected SB18D from 15.0 to 20.0 feet bgs (VOC from 18.0 to 18.5 feet bgs)**
						1			
	16		SM			1	< 1.0	Olive black (5Y2/1) fine SAND, some Silt; saturated.	
						1			
	17					1			

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	18		SM			WOH WOH WOH WOH WOH	< 1.0	Olive gray (5Y4/1) fine SAND, some Silt; saturated.	
	20		SP-SM			WOH WOH WOH WOH	< 1.0	Olive gray (5Y4/1) fine SAND, little Silt; saturated.	**Sand**
	22		ML			WOH WOH 1 1	238	Olive gray (5Y4/1) SILT, little fine Sand; saturated.	**Silt, collected SB18E from 20.0 to 25.0 feet bgs (VOC from 22.0 to 22.5 feet bgs)**
	24		ML			WOH WOH 1 2	118	Olive gray (5Y4/1) SILT, little fine Sand; saturated.	
	26		ML			WOH WOH 1 2	< 1.0	Olive gray (5Y4/1) SILT, little fine Sand; saturated.	**Collected SB18F from 25.0 to 30.0 feet bgs (VOC from 26.5 to 27.0 feet bgs)**

Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
28								
		ML			WOH	< 1.0	Olive gray (5Y4/1) SILT, and fine Sand; saturated.	**Sandy Silt**
					WOH			
29					1			
					2			
30		SP			1	< 1.0	Olive gray (5Y4/1) fine SAND; saturated.	**Sand**
					WOH			
31					1			
		OL			1	< 1.0	Olive black (5Y2/1) Organic SILT (high plasticity), trace fine SAND; saturated.	**Organic Silt**
32		SP-SM			WOH	< 1.0	Olive gray (5Y4/1) medium to fine SAND, little Silt; saturated.	**Sand, collected SB18G from 30.0 to 35.0 feet bgs (VOC from 32.5 to 33.0 feet bgs)**
					1			
33					3			
		SP-SM			7	< 1.0	Dusky yellowish brown (10YR2/2) fine SAND, little Silt; saturated.	
34		SM			6	< 1.0	Dusky yellowish brown (10YR2/2) fine SAND, some Silt; saturated.	**Silty Sand**
					5			
35					4			
		SP			5	< 1.0	Dark yellowish brown (10YR4/2) fine SAND, trace Silt; saturated.	**Sand**
36		SP			4	< 1.0	Dark yellowish brown (10YR4/2) fine SAND, trace Silt; saturated.	**Collected SB18H from 35.0 to 40.0 feet bgs (VOC from 36.5 to 37.0 feet bgs)**
					5			
37					10			
					12			
38					WOH	< 1.0		

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB18I
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Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	39		SP			4 8 8		Dark yellowish brown (10YR4/2) fine SAND trace Silt;	**Product observed at 38.9 to 39.0 feet bgs** **Collected SB18I from 40.0 to 45.0 feet bgs (VOC from 44.3 to 44.8 feet bgs)**
	40		SP-SM			4 1	< 1.0	Olive black (5Y2/1) fine SAND, little Silt; saturated.	**Sheen observed**
	41		ML			1 4	40	Dark yellowish brown (10YR4/2) Clayey SILT, some fine Sand; saturated.	**Sandy Clayey Silt, Product observed at 41.1 to 41.3 feet bgs**
	42		SP			1 1	70	Olive black (5Y2/1) fine SAND, trace Silt; saturated.	**Sand**
	43		ML			3 4	7	Dark yellowish brown (10YR4/2) Clayey SILT, some fine Sand; saturated.	**Sandy Clayey Silt, sheen observed, Product observed at 42.2 to 42.3 feet bgs**
	44		SP			1 4	115	Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt; saturated.	**Sand, Product observed at 44.4 to 44.5 feet bgs**
	45		SP-SM			6 7	23	Dark yellowish brown (10YR4/2) fine SAND, little Silt; saturated.	**Sheen observed**
	46					WOH WOH			**Collected SB18J from 45.0 to 50.0 feet bgs (VOC from 45.5 to 46.0 feet bgs)**
	47					WOH 1			
	48		SP-SM			3	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, little Silt; saturated.	**Sheen observed**

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1	**BORING NO.:** SB18I
	Page 6 of 6	**WELL NO.:** MW18I

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	49		SP			6 10 16	< 1.0	Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; saturated.	**Sheen observed**
	50		SP			4 6	< 1.0	Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; saturated.	**Sheen observed, collected SB18K from 50.0 to 55.0 feet bgs (VOC from 54.0 to 54.5 feet bgs)**
	51					13 19			
	52		SP			10 9	16.8	Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; saturated.	**Sheen observed**
	53					11 13			
	54		SP			11 9	18.3	Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; saturated.	**Product observed at 54.3 to 54.4 feet bgs**
	55					11 11			**Collected SB18L from 55.0 to 58.0 feet bgs (VOC from 56.6 to 57.0 feet bgs)**
	56		SP			10 15	13.1	Moderate yellowish brown (10YR5/4) medium to fine SAND, trace Silt; saturated.	**Product observed at 56.6 to 56.7 feet bgs**
	57					18 20			**End of Boring at 58 feet bgs**
	58								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 2	**BORING NO.:** SB19S **WELL NO.:** MW19S

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/4/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/4/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** S.Miller
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Ganz
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 183317.1
Total Depth (ft): 15.00	**Total Depth (ft):** 15	**EASTING:** 984876.4
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 10 ft/0.010	**GROUND ELEVATION:** 12.08
Depth to Water (ft): 6	**Depth to Water (ft):** 8.13	**TOC ELEVATION:** 11.44
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		ASPHALT				< 1.0	Black (N1) Asphalt; dry.	**Asphalt**
	1								
	2		ASPHALT			10	< 1.0	Black (N1) Asphalt; wet.	
			FILL			11	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, some medium to fine Gravel; saturated.	**Gravelly Sand (Fill)**
	3		ASPHALT			9	< 1.0	Black (N1) Asphalt; wet.	**Weathered Asphalt**
						5			
	4		FILL			13	< 1.0	Olive gray (5Y4/1) medium to fine GRAVEL, and coarse to fine Sand (45% fill material: glass); saturated.	**Sandy Gravel (Fill)**
						6			
	5					11			
						10			**Water Level 6 feet bgs** ▽
	6		FILL			50/4	< 1.0	Olive gray (5Y4/1) fine GRAVEL, little coarse to fine Sand (10% fill material: glass); saturated.	**Gravel (Fill)**
	7								

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1 Page 2 of 2	**BORING NO.:** SB19S **WELL NO.:** MW19S

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	8		FILL			7 17 11 6	< 1.0	Olive gray (5Y4/1) fine SAND, little Silt, some coarse to fine Gravel (10% fill material: glass, brick); saturated.	**Gravelly Sand (Fill)**
	10		SP-SM			1 2 4 5	< 1.0	Olive gray (5Y4/1) medium to fine SAND, little Silt, little coarse to fine Gravel; saturated.	**Sand**
	12		SP-SM			7 2 3 7	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, little Silt, little coarse to fine Gravel; saturated.	
	14		SP-SM			9 11	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, little Silt, little coarse to fine Gravel; saturated.	**End of Boring at 15 feet bgs**
	15								

Louis Berger & Assoc., P.C. 199 Water Street New York, NY 10038	**Drilling Log** Page 1 of 6	**BORING NO.:** SB19I **WELL NO.:** MW19I

CLIENT: New York City Department of Design and Construction		**PROJECT NO:** KT890A1
PROJECT: Gowanus Canal Groundwater Investigation		**DATE STARTED:** 6/3/2010
DRILLING CONTRACTOR: Aquifer Drilling and Testing		**DATE FINISHED:** 6/4/2010
DRILLING METHOD: Hollow Stem Auger		**DRILLER:** S.Miller
BOREHOLE DATA	**WELL DATA**	**INSPECTOR:** J.Ganz
Diameter (in): 8	**Completion:** 2" PVC Flush Mount	**NORTHING:** 183333
Total Depth (ft): 62.00	**Total Depth (ft):** 59	**EASTING:** 984873
Sampler: Split Spoons	**Screen Length (ft) /Slot (in):** 5 ft/0.010	**GROUND ELEVATION:** 12.14
Depth to Water (ft): 6	**Depth to Water (ft):** 8.13	**TOC ELEVATION:** 11.69
Depth to Rock (ft): N/A	**Permit No.:** N/A	

NOTES:

Well Construction	Depth	Lithology	USCS	Sample Interval	Sample Recovery	Blows/6 in	PID (ppm)	Description	Remarks
	0		ASPHALT				< 1.0	Black (N1) Asphalt; dry.	**Asphalt**
	1								**Collected SB19A from 2.3 to 5.0 feet bgs (VOC from 2.3 to 2.8 ft bgs)**
	2		ASPHALT			10	< 1.0	Black (N1) Asphalt; wet.	
			FILL			11	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, some medium to fine Gravel; saturated.	**Gravelly Sand (Fill)**
	3		ASPHALT			9	< 1.0	Black (N1) Asphalt; wet.	**Asphalt**
						5			
	4		FILL			13	< 1.0	Olive gray (5Y4/1) medium to fine GRAVEL, and coarse to fine Sand (45% fill material: glass); saturated.	**Sandy Gravel (Fill)**
						6			
	5					11			
						10			**Water Level 6 feet bgs**
	6		FILL			50/4	< 1.0	Olive gray (5Y4/1) fine GRAVEL, little coarse to fine Sand (10% fill material: glass); saturated.	**Gravel (Fill)**
	7								

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
	8 ▼		FILL			7 17 11 6	< 1.0	Olive gray (5Y4/1) fine SAND, little Silt, some coarse to fine Gravel (10% fill material: glass, brick); saturated.	**Gravelly Sand (Fill), collected SB19B from 5.0 to 10.0 feet bgs (VOC from 8.0 to 8.5 feet bgs)**
	9 10		SP-SM			1 2 4 5	< 1.0	Olive gray (5Y4/1) medium to fine SAND, little Silt, little coarse to fine Gravel; saturated.	**Sand**
	11 12		SP-SM			7 2 3 7	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, little Silt, little coarse to fine Gravel; saturated.	**Collected SB19C from 10.0 to 15.0 feet bgs (VOC from 12.0 to 12.5 feet bgs)**
	13 14		SP-SM			9 11	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, little Silt, little coarse to fine Gravel; saturated.	
	15		SP-SM			25 18	< 1.0	Olive black (5Y2/1) medium to fine SAND, little Silt, little medium to fine Gravel; saturated.	
	16		SP			4 17 12 18	< 1.0	Olive gray (5Y4/1) coarse to medium SAND, trace Silt, some coarse to fine Gravel; saturated.	**Gravelly Sand**
	17 18		GP			8	< 1.0	Olive gray (5Y4/1) medium to fine GRAVEL, trace Silt, little	**Gravel, collected**

Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
19					12 5 4			**SB19D from 15.0 to 20.0 feet bgs (VOC from 18.0 to 18.5 feet bgs)**
20		SP-SM			4 6	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, little Silt, little coarse to fine Gravel (5% fill material: glass); saturated.	**Sand**
21					7 9			
22		SP-SM			7 12	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, little Silt, trace medium to fine Gravel; saturated.	**Collected SB19E from 20.0 to 25.0 feet bgs (VOC from 22.0 to 22.4 feet bgs)**
23					2 1			
24		SP			1 W.O.H	< 1.0	Olive gray (5Y4/1) coarse to fine SAND, trace Silt, little medium to fine Gravel; saturated.	
25		ML			W.O.H 1	< 1.0	Olive gray (5Y4/1) Clayey SILT, trace fine Sand; saturated.	**Clayey Silt**
26					1 1			
27					1 1			
28		ML			1 1	< 1.0	Olive gray (5Y4/1) Clayey SILT, trace fine Sand; saturated.	**Collected SB19F from 25.0 to 30.0 feet bgs (VOC from 28.0 to 28.5 feet bgs)**
29		SP			2	< 1.0	Olive gray (5Y4/1) fine SAND, trace Silt; saturated.	**Sand**

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1 Page 4 of 6	**BORING NO.:** SB19I **WELL NO.:** MW19I

Depth	USCS	Blows	PID	Description	Remarks
30	SP-SM	4 5 7	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, little Silt; saturated.	
31		9 14			
32		W.O.H			
33		W.O.H W.O.H W.O.H			
34	SP	4	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	**Collected SB19G from 30.0 to 35.0 feet bgs (VOC from 34.0 to 34.5 feet bgs)**
35		3 4 7			
36	ML	7	2	Olive black (5Y2/1) SILT, some fine Sand; saturated.	**Sandy Silt, collected SB19H from 35.0 to 40.0 feet bgs (VOC from 37.0 to 37.5 feet bgs)**
37		9 10 13			
	SM		< 1.0	Olive gray (5Y4/1) fine SAND, some Silt; saturated.	**Silty Sand**
38	SP-SM	3	< 1.0	Dark yellowish brown (10YR4/2) fine SAND, little Silt; saturated.	**Sand**
39		8 12 19			
40	SP	W.O.H	< 1.0	Dark yellowish orange (10YR6/6) medium to fine SAND, trace Silt; saturated.	

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
						W.O.H			
	41					3			
						8			
	42		SP			17	< 1.0	Dark yellowish orange (10YR6/6) medium to fine SAND, trace Silt; saturated.	**Collected SB19I from 40.0 to 45.0 feet bgs (VOC from 42.5 to 43.0 feet bgs)**
						16			
	43					19			
						25			
	44		SP			9	< 1.0	Dark yellowish orange (10YR6/6) medium to fine SAND, trace Silt; saturated.	
						5			
	45					10			
						11			
	46		SP			9	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt; saturated.	**Collected SB19J from 45.0 to 50.0 feet bgs (VOC from 46.8 to 47.3 feet bgs)**
						3			
	47					4			
						6			
	48					4			
						28			
	49					14			
						21			
	50		SP			5	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND, trace Silt, trace fine Gravel; saturated.	
						19			
	51					27			

Louis Berger and Assoc., P.C. 199 Water Street New York, NY 10038	**PROJECT NO.:** KT890A1 Page 6 of 6	**BORING NO.:** SB19I **WELL NO.:** MW19I

Well	Depth	Lith.	USCS	Interval	Rec.	Blows	PID	Description	Remarks
						35			
	52		SP			16	< 1.0	Moderate brown (5YR4/4) coarse to fine SAND, trace Silt, trace fine Gravel; saturated.	**Collected SB19K from 50.0 to 55.0 feet bgs (VOC from 52.5 to 53.0 feet bgs)**
						32			
	53					35			
						47			
	54		SP			40	< 1.0	Dark yellowish brown (10YR4/2) medium to fine SAND; saturated.	
						31			
	55					22			
						25			
			SP				< 1.0	Moderate brown (5YR4/4) coarse to fine SAND, trace Silt; saturated.	
	56		SP			15	< 1.0		**Collected SB19L from 55.0 to 60.0 feet bgs (VOC from 56.6 to 57.1 feet bgs)**
						12		Moderate brown (5YR4/4) medium to fine SAND; saturated.	
	57					9			
						10			
	58		SP			18	< 1.0	Moderate brown (5YR4/4) medium to fine SAND; saturated.	
						9			
	59					6			**Collected SB19M from 60.0 to 62.0 feet bgs (VOC from 61.0 to 61.5 feet bgs)**
						7			
	60		SP			8	< 1.0	Moderate brown (5YR4/4) medium to fine SAND; saturated.	
						15			
	61					17			**End of Boring at 62 feet bgs**
						19			
	62								

Appendix D
Field Documentation

D-05 – Hydraulic Gradient Calculations from Monitoring Wells: Vertical and Horizontal

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Appendix D-5
Hydraulic Gradient Calculations - July, 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

Gradients of NYC Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden				
Date:	7/26/2010				
Direction:	East (MW02S to MW01S)	SE (MW10S to MW09S)	NE (MW18S to MW17S)	NW (MW19S to MW17S)	West (MW19S to MW18S)
H1	1.95	3.21	5.14	6.64	6.64
H2	0.13	1.36	2.50	2.50	5.14
Δ H	1.82	1.85	2.64	4.14	1.5
ΔL	187.88	352.92	334.45	382.21	285.66
Gradient	**0.00969**	**0.00524**	**0.00789**	**0.01083**	**0.00525**

Unit:	Intermediate Overburden				
Date:	7/26/2010				
Direction:	West (MW01I to MW02I)	SE (MW10I to MW09I)	SW (MW17I to MW18I)	SE (MW17I to MW19I)	West (MW19I to MW18I)
H1	2.58	2.48	2.42	2.42	2.41
H2	2.52	2.44	2.26	2.41	2.26
D H	0.06	0.04	0.16	0.01	0.15
ΔL	188.71	361.72	338.5	371.86	285.79
Gradient	**0.00032**	**0.00011**	**0.00047**	**0.00003**	**0.00052**

Vertical Gradients

Date:	7/26/2010						
Wells:	MW01S/I	MW02S/I	MW09S/I	MW10S/I	MW17S/I	MW18S/I	MW19S/I
H1	0.13	1.95	1.36	3.21	2.50	5.14	6.64
H2	2.58	2.52	2.44	2.48	2.42	2.26	2.41
Δ H	-2.45	-0.57	-1.08	0.73	0.08	2.88	4.23
S1	-7.43	-7.51	-4.53	-1.37	-4.59	-3.65	-2.92
S2	-30.21	-29.03	-28.9	-31.26	-34.03	-45.62	-46.96
ΔL	22.78	21.52	24.37	29.89	29.44	41.97	44.04
Gradient	-0.1076	-0.0265	-0.0443	0.0244	0.0027	0.0686	0.0960

Gradients of National Grid Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden		
Date:	7/26/2010		
Direction:	North-West (MW32S to MW31S)	South-West (MW32S to MW30S)	North (MW30S to MW31S)
H1	8.62	8.62	4.96
H2	4.36	4.96	4.36
Δ H	4.26	3.66	0.6
ΔL	587.42	758.75	449.85
Gradient	**0.00725**	**0.00482**	**0.00133**

Unit:	Intermediate Overburden			
Date:	7/26/2010			
Direction:	North-West (MW32I to MW31I)	South-West (MW32I to MW30I)	South (MW31I to MW30I)	East (MW41I to MW40I)
H1	5.94	5.94	5.44	6.25
H2	5.44	5.13	5.13	6.25
Δ H	0.5	0.81	0.31	0.00
ΔL	587.42	758.75	449.85	241.87
Gradient	**0.00085**	**0.00107**	**0.00069**	**0.00000**

Vertical Gradients

Date:	7/26/2010	7/26/2010	7/26/2010	7/26/2010	7/26/2010
Wells:	MW23S/I	MW30S/I	MW31S/I	MW32S/I	MW41S/I
H1	7.05	4.96	4.36	8.62	8.27
H2	7.16	5.13	5.44	5.94	6.25
Δ H	-0.11	-0.17	-1.08	2.68	2.02
S1	-0.92	-5.44	-4.29	1.42	-1.56
S2	-26.97	-25.33	-24.56	-24.5	-46.08
ΔL	26.05	19.89	20.27	25.92	44.52
Gradient	**-0.0042**	**-0.0085**	**-0.0533**	**0.1034**	**0.0454**

Gradients of USEPA Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden												
Date:	7/26/2010												
Direction:	Southeast MW-4S to MW-3S	Southeast MW-4S to MW-34S	Northwest MW-29S to MW-28S	Northwest MW-26S to MW-27S	Northeast MW-26S to MW-25S	Southeast MW-6S to MW-5S	Southwest MW-8S to MW-7S	Northwest MW-39S to MW-38S	Northeast MW-21S to MW-42S	Northwest MW-21S to MW-20S	Southeast MW-12S to MW-11S	South MW-14S to MW-13S	South MW-16S to MW-15S
H1	3.16	3.16	1.37	2.40	2.40	3.82	3.75	4.77	2.89	2.89	2.49	2.67	2.51
H2	2.04	1.79	0.59	1.81	NR	2.42	1.83	1.49	1.83	1.56	2.03	1.79	0.89
Δ H	1.12	1.37	0.78	0.59	NA	1.4	1.92	3.28	1.06	1.33	0.46	0.88	1.62
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00412**	**0.00555**	**0.00586**	**0.00797**	**NA**	**0.00903**	**0.01422**	**0.01104**	**0.00774**	**0.00477**	**0.00301**	**0.00362**	**0.00358**

Direction:	Southeast MW-4I to MW-3I	Southeast MW-4I to MW-34I	Southeast MW-29I to MW-28I	Northwest MW-26I to MW-27I	Northeast MW-26I to MW-25I	Northwest MW-6I to MW-5I	Southwest MW-8I to MW-7I	Northwest MW-39I to MW-38I	Southwest MW-21I to MW-42I	Southeast MW-21I to MW-20I	Southeast MW-12I to MW-11I	South MW-14I to MW-13I	South MW-16I to MW-15I
H1	2.69	2.69	2.29	2.59	2.59	2.47	2.82	3.00	2.66	2.66	2.54	2.40	2.29
H2	2.42	2.42	2.41	2.55	2.61	2.59	2.48	2.41	2.79	2.68	2.50	1.31	2.14
Δ H	0.27	0.27	-0.12	0.04	-0.02	-0.12	0.34	0.59	-0.13	-0.02	0.04	1.09	0.15
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00099**	**0.00109**	**-0.00090**	**0.00054**	**-0.00011**	**-0.00077**	**0.00252**	**0.00199**	**-0.00095**	**-0.00007**	**0.00026**	**0.00449**	**0.00033**

Vertical Gradients

Date:	7/26/2010											
Wells:	MW-3S/I	MW-4S/I	MW-5S/I	MW-6S/I	MW-7S/I	MW-8S/I	MW-11S/I	MW-12S/I	MW-13S/I	MW-14S/I	MW-15S/I	MW-16S/I
H1	2.04	3.16	NR	2.40	1.83	3.75	2.03	2.49	1.79	2.67	0.89	2.51
H2	2.42	2.69	2.59	2.47	2.48	2.82	2.50	2.54	1.31	2.40	2.14	2.29
Δ H	-0.38	0.47	NA	-0.07	-0.65	0.93	-0.47	-0.05	0.48	0.27	-1.25	0.22
S1	-7.94	-3.95	-6.70	-5.58	-5.85	-5.50	-3.93	-1.75	-6.64	-5.74	-5.06	-5.91
S2	-35.94	-29.95	-28.70	-27.58	-27.85	-31.50	-34.93	-32.75	-49.64	-48.74	-52.06	-51.91
ΔL	28	26	22	22	22	26	31	31	43	43	47	46
Gradient	**-0.0136**	**0.0181**	**NA**	**-0.0032**	**-0.0295**	**0.0358**	**-0.0152**	**-0.0016**	**0.0112**	**0.0063**	**-0.0266**	**0.0048**

Wells:	MW-20S/I	MW-21S/I	MW-25S/I	MW-26S/I	MW-27S/I	MW-28S/I	MW-29S/I	MW-34S/I	MW-38S/I	MW-39/I	MW-42/I
H1	1.56	2.89	NR	2.40	1.81	0.59	1.37	1.79	1.49	4.77	1.83
H2	2.68	2.66	2.61	2.59	2.55	2.41	2.29	2.42	2.41	3.00	2.79
Δ H	-1.12	0.23	NA	-0.19	-0.74	-1.82	-0.92	-0.63	-0.92	1.77	-0.96
S1	-6.73	-6.51	-4.08	-5.23	-8.01	-4.78	-3.82	-7.53	-4.85	-2.58	-5.98
S2	-32.73	-31.51	-23.08	-20.23	-25.01	-28.78	-27.82	-28.53	-30.85	-21.58	-30.98
ΔL	26	25	19	15	17	24	24	21	26	19	25
Gradient	**-0.0431**	**0.0092**	**NA**	**-0.0127**	**-0.0435**	**-0.0758**	**-0.0383**	**-0.0300**	**-0.0354**	**0.0932**	**-0.0384**

$$\text{Hydraulic Gradient} = \frac{\Delta H}{\Delta L}$$

ΔH is the difference between the upgradient water level value (H_1) and downgradient water level value (H_2)
ΔL is the linear distance (horizontally or vertically) between the upgradient and downgradient measurements

Horizontal Gradients: H1 is the upradient well, H2 is the downgradient well.

Vertical Gradients: H1 is the shallow well, H2 is the deep well. S1 is the bottom-depth of the shallow well screen, S2 is the bottom-depth of the deep well screen.

Elevations (H) and (S) are in Feet relative to Mean Sea Level

Vertical Gradients: Because all water levels are Above Sea Level, a (+) vertical gradient indicates downward movement

Appendix D-5
Hydraulic Gradient Calculations - August, 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

Gradients of NYC Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden				
Date:	8/23/2010				
Direction:	East (MW02S to MW01S)	SE (MW10S to MW09S)	NE (MW18S to MW17S)	NW (MW19S to MW17S)	West (MW19S to MW18S)
H1	2.73	-0.69	5.48	6.99	6.99
H2	0.98	1.85	2.96	2.96	5.48
Δ H	1.75	-2.54	2.52	4.03	1.51
ΔL	187.88	352.92	334.45	382.21	285.66
Gradient	**0.00931**	**-0.00720**	**0.00753**	**0.01054**	**0.00529**

Unit:	Intermediate Overburden				
Date:	8/23/2010				
Direction:	West (MW01I to MW02I)	SE (MW10I to MW09I)	SW (MW17I to MW18I)	SE (MW17I to MW19I)	West (MW19I to MW18I)
H1	2.70	2.52	2.29	2.29	2.37
H2	2.60	2.39	1.91	2.37	1.91
D H	0.1	0.13	0.38	-0.08	0.46
ΔL	188.71	361.72	338.5	371.86	285.79
Gradient	**0.00053**	**0.00036**	**0.00112**	**-0.00022**	**0.00161**

Vertical Gradients

Date:	8/23/2010						
Wells:	MW01S/I	MW02S/I	MW09S/I	MW10S/I	MW17S/I	MW18S/I	MW19S/I
H1	0.98	2.73	1.85	-0.69	2.96	5.48	6.99
H2	2.70	2.60	2.39	2.52	2.29	1.91	2.37
Δ H	-1.72	0.13	-0.54	-3.21	0.67	3.57	4.62
S1	-7.43	-7.51	-4.53	-1.37	-4.59	-3.65	-2.92
S2	-30.21	-29.03	-28.9	-31.26	-34.03	-45.62	-46.96
ΔL	22.78	21.52	24.37	29.89	29.44	41.97	44.04
Gradient	-0.0755	0.0060	-0.0222	-0.1074	0.0228	0.0851	0.1049

Gradients of National Grid Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden		
Date:	8/23/2010		
Direction:	North-West (MW32S to MW31S)	South-West (MW32S to MW30S)	North (MW30S to MW31S)
H1	8.71	8.71	4.43
H2	NR	4.43	NR
Δ H	NA	4.28	NA
ΔL	587.42	758.75	449.85
Gradient	**NA**	**0.00564**	**NA**

Unit:	Intermediate Overburden			
Date:	8/23/2010			
Direction:	North-West (MW32I to MW31I)	South-West (MW32I to MW30I)	South (MW31I to MW30I)	East (MW41I to MW40I)
H1	6.18	6.18	NR	5.65
H2	NR	5.04	5.04	4.69
Δ H	NA	1.14	NA	0.96
ΔL	587.42	758.75	449.85	241.87
Gradient	**NA**	**0.00150**	**NA**	**0.00397**

Vertical Gradients

Date:	8/23/2010				
Wells:	**MW23S/I**	**MW30S/I**	**MW31S/I**	**MW32S/I**	**MW41S/I**
H1	7.07	4.43	NR	8.71	8.13
H2	6.74	5.04	NR	6.18	5.65
Δ H	0.33	-0.61	NA	2.53	2.48
S1	-0.92	-5.44	-4.29	1.42	-1.56
S2	-26.97	-25.33	-24.56	-24.5	-46.08
ΔL	26.05	19.89	20.27	25.92	44.52
Gradient	**0.0127**	**-0.0307**	**NA**	**0.0976**	**0.0557**

Gradients of USEPA Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden												
Date:	8/23/2010												
Direction:	**Southeast MW-4S to MW-3S**	**Southeast MW-4S to MW-34S**	**Southeast MW-29S to MW-28S**	**Northwest MW-26S to MW-27S**	**Southwest MW-26S to MW-25S**	**Southeast MW-6S to MW-5S**	**Southwest MW-8S to MW-7S**	**Northwest MW-39S to MW-38S**	**Northeast MW-21S to MW-42S**	**Northwest MW-21S to MW-20S**	**Southeast MW-12S to MW-11S**	**South MW-14S to MW-13S**	**South MW-16S to MW-15S**
H1	3.00	3.00	2.77	2.46	2.46	3.82	5.08	5.44	3.32	3.32	2.47	2.83	2.52
H2	-0.65	1.55	3.24	-0.44	1.75	2.42	-0.79	2.79	-0.40	2.00	2.35	2.10	1.92
Δ H	3.65	1.45	-0.47	2.9	0.71	1.4	5.87	2.65	3.72	1.32	0.12	0.73	0.6
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.01342**	**0.00587**	**-0.00353**	**0.03919**	**0.00399**	**0.00903**	**0.04348**	**0.00892**	**0.02715**	**0.00473**	**0.00078**	**0.00300**	**0.00132**

Direction:	**Northwest MW-4I to MW-3I**	**Southeast MW-4I to MW-34I**	**Southeast MW-29I to MW-28I**	**Northwest MW-26I to MW-27I**	**Southwest MW-26I to MW-25I**	**Southeast MW-6I to MW-5I**	**Northeast MW-8I to MW-7I**	**Northwest MW-39I to MW-38I**	**Northeast MW-21I to MW-42I**	**Northwest MW-21I to MW-20I**	**Southeast MW-12I to MW-11I**	**South MW-14I to MW-13I**	**South MW-16I to MW-15I**
H1	2.74	2.74	2.45	2.51	2.51	2.44	2.54	3.28	2.45	2.45	2.46	1.89	1.31
H2	2.25	2.31	2.34	2.50	2.48	2.42	2.99	2.34	2.36	2.34	2.43	1.51	0.54
Δ H	0.49	0.43	0.11	0.01	0.03	0.02	-0.45	0.94	0.09	0.11	0.03	0.38	0.77
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00180**	**0.00174**	**0.00083**	**0.00014**	**0.00017**	**0.00013**	**-0.00333**	**0.00316**	**0.00066**	**0.00039**	**0.00020**	**0.00156**	**0.00170**

Vertical Gradients

Date:	8/23/2010											
Wells:	**MW-3S/I**	**MW-4S/I**	**MW-5S/I**	**MW-6S/I**	**MW-7S/I**	**MW-8S/I**	**MW-11S/I**	**MW-12S/I**	**MW-13S/I**	**MW-14S/I**	**MW-15S/I**	**MW-16S/I**
H1	-0.65	3.00	1.75	2.46	-0.79	5.08	2.35	2.47	2.10	2.83	1.92	2.52
H2	2.25	2.74	2.42	2.44	2.99	2.54	2.43	2.46	1.51	1.89	0.54	1.31
Δ H	-2.9	0.26	-0.67	0.02	-3.78	2.54	-0.08	0.01	0.59	0.94	1.38	1.21
S1	-7.94	-3.95	-6.70	-5.58	-5.85	-5.50	-3.93	-1.75	-6.64	-5.74	-5.06	-5.91
S2	-35.94	-29.95	-28.70	-27.58	-27.85	-31.50	-34.93	-32.75	-49.64	-48.74	-52.06	-51.91
ΔL	28	26	22	22	22	26	31	31	43	43	47	46
Gradient	**-0.1036**	**0.0100**	**-0.0305**	**0.0009**	**-0.1718**	**0.0977**	**-0.0026**	**0.0003**	**0.0137**	**0.0219**	**0.0294**	**0.0263**

Wells:	**MW-20S/I**	**MW-21S/I**	**MW-25S/I**	**MW-26S/I**	**MW-27S/I**	**MW-28S/I**	**MW-29S/I**	**MW-34S/I**	**MW-38S/I**	**MW-39/I**	**MW-42/I**
H1	2.00	3.32	1.75	2.46	-0.44	3.24	2.77	1.55	2.79	5.44	-0.40
H2	2.34	2.45	2.48	2.51	2.50	2.34	2.45	2.31	2.34	3.28	2.36
Δ H	-0.34	0.87	-0.73	-0.05	-2.94	0.9	0.32	-0.76	0.45	2.16	-2.76
S1	-6.73	-6.51	-4.08	-5.23	-8.01	-4.78	-3.82	-7.53	-4.85	-2.58	-5.98
S2	-32.73	-31.51	-23.08	-20.23	-25.01	-28.78	-27.82	-28.53	-30.85	-21.58	-30.98
ΔL	26	25	19	15	17	24	24	21	26	19	25
Gradient	**-0.0131**	**0.0348**	**-0.0384**	**-0.0033**	**-0.1729**	**0.0375**	**0.0133**	**-0.0362**	**0.0173**	**0.1137**	**-0.1104**

$$\text{Hydraulic Gradient} = \frac{\Delta H}{\Delta L}$$

ΔH is the difference between the upgradient water level value (H_1) and downgradient water level value (H_2)
ΔL is the linear distance (horizontally or vertically) between the upgradient and downgradient measurements

Horizontal Gradients: H1 is the upradient well, H2 is the downgradient well.

Vertical Gradients: H1 is the shallow well, H2 is the deep well. S1 is the bottom-depth of the shallow well screen, S2 is the bottom-depth of the deep well screen.

Elevations (H) and (S) are in Feet relative to Mean Sea Level

Vertical Gradients: Because all water levels are Above Sea Level, a (+) vertical gradient indicates downward movement

Appendix D-5
Hydraulic Gradient Calculations - September 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

Gradients of NYC Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden				
Date:	9/29/2010				
Direction:	East (MW02S to MW01S)	SE (MW10S to MW09S)	NE (MW18S to MW17S)	NW (MW19S to MW17S)	West (MW19S to MW18S)
H1	2.42	3.21	5.41	2.32	2.32
H2	0.48	1.70	2.31	2.31	5.41
Δ H	1.94	1.51	3.1	0.01	-3.09
ΔL	187.88	352.92	334.45	382.21	285.66
Gradient	**0.01033**	**0.00428**	**0.00927**	**0.00003**	**-0.01082**

Unit:	Intermediate Overburden				
Date:	9/29/2010				
Direction:	West (MW01I to MW02I)	SE (MW10I to MW09I)	SW (MW17I to MW18I)	SE (MW17I to MW19I)	West (MW19I to MW18I)
H1	2.58	2.53	2.53	2.53	7.14
H2	2.51	2.47	2.57	7.14	2.57
D H	0.07	0.06	-0.04	-4.61	4.57
ΔL	188.71	361.72	338.5	371.86	285.79
Gradient	**0.00037**	**0.00017**	**-0.00012**	**-0.01240**	**0.01599**

Vertical Gradients

Date:	9/29/2010						
Wells:	MW01S/I	MW02S/I	MW09S/I	MW10S/I	MW17S/I	MW18S/I	MW19S/I
H1	0.48	2.42	1.70	3.21	2.31	5.41	2.32
H2	2.58	2.51	2.47	2.53	2.53	2.57	7.14
Δ H	-2.1	-0.09	-0.77	0.68	-0.22	2.84	-4.82
S1	-7.43	-7.51	-4.53	-1.37	-4.59	-3.65	-2.92
S2	-30.21	-29.03	-28.9	-31.26	-34.03	-45.62	-46.96
ΔL	22.78	21.52	24.37	29.89	29.44	41.97	44.04
Gradient	-0.0922	-0.0042	-0.0316	0.0228	-0.0075	0.0677	-0.1094

Gradients of National Grid Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden		
Date:	9/29/2010		
Direction:	North-West (MW32S to MW31S)	South-West (MW32S to MW30S)	North (MW30S to MW31S)
H1	8.42	8.42	5.07
H2	NR	5.07	NR
Δ H	NA	3.35	NA
ΔL	587.42	758.75	449.85
Gradient	**NA**	**0.00442**	**NA**

Unit:	Intermediate Overburden			
Date:	9/29/2010			
Direction:	North-West (MW32I to MW31I)	South-West (MW32I to MW30I)	South (MW31I to MW30I)	East (MW41I to MW40I)
H1	5.96	5.96	NR	6.45
H2	NR	5.23	5.23	6.52
Δ H	NA	0.73	NA	-0.07
ΔL	587.42	758.75	449.85	241.87
Gradient	**NA**	**0.00096**	**NA**	**-0.00029**

Vertical Gradients

Date:	9/29/2010				
Wells:	**MW23S/I**	**MW30S/I**	**MW31S/I**	**MW32S/I**	**MW41S/I**
H1	7.21	5.07	NR	8.42	8.49
H2	7.45	5.23	NR	5.96	6.45
Δ H	-0.24	-0.16	NA	2.46	2.04
S1	-0.92	-5.44	-4.29	1.42	-1.56
S2	26.97	-25.33	-24.56	-24.5	-46.08
ΔL	-27.89	19.89	20.27	25.92	44.52
Gradient	**0.0086**	**-0.0080**	**NA**	**0.0949**	**0.0458**

Gradients of USEPA Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden												
Date:	9/29/2010												
Direction:	**Southeast MW-4S to MW-3S**	**Southeast MW-4S to MW-34S**	**Southeast MW-29S to MW-28S**	**Northwest MW-26S to MW-27S**	**Southwest MW-26S to MW-25S**	**Southeast MW-6S to MW-5S**	**Southwest MW-8S to MW-7S**	**Northwest MW-39S to MW-38S**	**Northeast MW-21S to MW-42S**	**Northwest MW-21S to MW-20S**	**Southeast MW-12S to MW-11S**	**South MW-14S to MW-13S**	**South MW-16S to MW-15S**
H1	3.24	3.24	2.94	2.55	2.55	3.82	3.85	4.93	3.03	3.03	2.43	2.95	2.59
H2	2.67	2.08	3.18	2.46	1.59	2.42	2.53	1.87	2.48	2.00	2.17	2.01	1.38
Δ H	0.57	1.16	-0.24	0.09	0.96	1.4	1.32	3.06	0.55	1.03	0.26	0.94	1.21
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00210**	**0.00470**	**-0.00180**	**0.00122**	**0.00539**	**0.00903**	**0.00978**	**0.01030**	**0.00401**	**0.00369**	**0.00170**	**0.00387**	**0.00267**
Direction:	**Northwest MW-4I to MW-3I**	**Southeast MW-4I to MW-34I**	**Northwest MW-29I to MW-28I**	**Northwest MW-26I to MW-27I**	**Northeast MW-26I to MW-25I**	**Southeast MW-6I to MW-5I**	**Southwest MW-8I to MW-7I**	**Northwest MW-39I to MW-38I**	**Southwest MW-21I to MW-42I**	**Northwest MW-21I to MW-20I**	**Southeast MW-12I to MW-11I**	**South MW-14I to MW-13I**	**South MW-16I to MW-15I**
H1	2.62	2.62	2.51	2.71	2.71	2.71	2.88	3.06	2.76	2.76	2.57	2.64	2.68
H2	2.46	2.43	2.53	2.71	2.76	2.70	2.45	2.53	2.85	2.45	2.54	2.59	2.67
Δ H	0.16	0.19	-0.02	0	-0.05	0.01	0.43	0.53	-0.09	0.31	0.03	0.05	0.01
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00059**	**0.00077**	**-0.00015**	**0.00000**	**-0.00028**	**0.00006**	**0.00319**	**0.00178**	**-0.00066**	**0.00111**	**0.00020**	**0.00021**	**0.00002**

Vertical Gradients

Date:	9/29/2010											
Wells:	**MW-3S/I**	**MW-4S/I**	**MW-5S/I**	**MW-6S/I**	**MW-7S/I**	**MW-8S/I**	**MW-11S/I**	**MW-12S/I**	**MW-13S/I**	**MW-14S/I**	**MW-15S/I**	**MW-16S/I**
H1	2.67	3.24	1.59	2.55	2.53	3.85	2.17	2.43	2.01	2.95	1.38	2.59
H2	2.46	2.62	2.70	2.71	2.45	2.88	2.54	2.57	2.59	2.64	2.67	2.68
Δ H	0.21	0.62	-1.11	-0.16	0.08	0.97	-0.37	-0.14	-0.58	0.31	-1.29	-0.09
S1	-7.94	-3.95	-6.70	-5.58	-5.85	-5.50	-3.93	-1.75	-6.64	-5.74	-5.06	-5.91
S2	-35.94	-29.95	-28.70	-27.58	-27.85	-31.50	-34.93	-32.75	-49.64	-48.74	-52.06	-51.91
ΔL	28	26	22	22	22	26	31	31	43	43	47	46
Gradient	**0.0075**	**0.0238**	**-0.0505**	**-0.0073**	**0.0036**	**0.0373**	**-0.0119**	**-0.0045**	**-0.0135**	**0.0072**	**-0.0274**	**-0.0020**

Wells:	**MW-20S/I**	**MW-21S/I**	**MW-25S/I**	**MW-26S/I**	**MW-27S/I**	**MW-28S/I**	**MW-29S/I**	**MW-34S/I**	**MW-38S/I**	**MW-39/I**	**MW-42/I**
H1	2.00	3.03	1.59	2.55	2.46	3.18	2.94	2.08	1.87	4.93	2.48
H2	2.45	2.76	2.76	2.71	2.71	2.53	2.51	2.43	2.53	3.06	2.85
Δ H	-0.45	0.27	-1.17	-0.16	-0.25	0.65	0.43	-0.35	-0.66	1.87	-0.37
S1	-6.73	-6.51	-4.08	-5.23	-8.01	-4.78	-3.82	-7.53	-4.85	-2.58	-5.98
S2	-32.73	-31.51	-23.08	-20.23	-25.01	-28.78	-27.82	-28.53	-30.85	-21.58	-30.98
ΔL	26	25	19	15	17	24	24	21	26	19	25
Gradient	**-0.0173**	**0.0108**	**-0.0616**	**-0.0107**	**-0.0147**	**0.0271**	**0.0179**	**-0.0167**	**-0.0254**	**0.0984**	**-0.0148**

$$\text{Hydraulic Gradient} = \frac{\Delta H}{\Delta L}$$

ΔH is the difference between the upgradient water level value (H_1) and downgradient water level value (H_2)
ΔL is the linear distance (horizontally or vertically) between the upgradient and downgradient measurements

Horizontal Gradients: H1 is the upradient well, H2 is the downgradient well.

Vertical Gradients: H1 is the shallow well, H2 is the deep well. S1 is the bottom-depth of the shallow well screen, S2 is the bottom-depth of the deep well screen.

Elevations (H) and (S) are in Feet relative to Mean Sea Level

Vertical Gradients: Because all water levels are Above Sea Level, a (+) vertical gradient indicates downward movement

Appendix D-5
Hydraulic Gradient Calculations - October 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

Gradients of NYC Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden				
Date:	10/22/2010				
Direction:	East (MW02S to MW01S)	SE (MW10S to MW09S)	NE (MW18S to MW17S)	NW (MW19S to MW17S)	West (MW19S to MW18S)
H1	2.04	3.76	5.28	6.85	6.85
H2	0.26	1.22	2.09	2.09	5.28
Δ H	1.78	2.54	3.19	4.76	1.57
ΔL	187.88	352.92	334.45	382.21	285.66
Gradient	**0.00947**	**0.00720**	**0.00954**	**0.01245**	**0.00550**

Unit:	Intermediate Overburden				
Date:	10/22/2010				
Direction:	West (MW01I to MW02I)	SE (MW10I to MW09I)	SW (MW17I to MW18I)	NW (MW17I to MW19I)	West (MW19I to MW18I)
H1	2.34	2.11	1.36	1.36	1.58
H2	2.16	1.85	0.70	1.58	0.70
D H	0.18	0.26	0.66	-0.22	0.88
ΔL	188.71	361.72	338.5	371.86	285.79
Gradient	**0.00095**	**0.00072**	**0.00195**	**-0.00059**	**0.00308**

Vertical Gradients

Date:	10/22/2010						
Wells:	MW01S/I	MW02S/I	MW09S/I	MW10S/I	MW17S/I	MW18S/I	MW19S/I
H1	0.26	2.04	1.22	3.76	2.09	5.28	6.85
H2	2.34	2.16	1.85	2.11	1.36	0.70	1.58
Δ H	-2.08	-0.12	-0.63	1.65	0.73	4.58	5.27
S1	-7.43	-7.51	-4.53	-1.37	-4.59	-3.65	-2.92
S2	-30.21	-29.03	-28.9	-31.26	-34.03	-45.62	-46.96
ΔL	22.78	21.52	24.37	29.89	29.44	41.97	44.04
Gradient	-0.0913	-0.0056	-0.0259	0.0552	0.0248	0.1091	0.1197

Gradients of National Grid Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden		
Date:	10/22/2010		
Direction:	(MW32S to MW31S)	South-West (MW32S to MW30S)	(MW30S to MW31S)
H1	9.31	9.31	3.54
H2	NR	3.54	NR
Δ H	NA	5.77	NA
ΔL	587.42	758.75	449.85
Gradient	**NA**	**0.00760**	**NA**

Unit:	Intermediate Overburden			
Date:	10/22/2010			
Direction:	(MW32I to MW31I)	South-West (MW32I to MW30I)	(MW31I to MW30I)	East (MW41I to MW40I)
H1	5.90	5.90	NR	4.25
H2	NR	4.12	4.12	3.98
Δ H	NA	1.78	NA	0.27
ΔL	587.42	758.75	449.85	241.87
Gradient	**NA**	**0.00235**	**NA**	**0.00112**

Vertical Gradients

Date:	10/22/2010				
Wells:	**MW23S/I**	**MW30S/I**	**MW31S/I**	**MW32S/I**	**MW41S/I**
H1	7.51	3.54	NR	9.31	8.71
H2	6.63	4.12	NR	5.90	4.25
Δ H	0.88	-0.58	NA	3.41	4.46
S1	-0.81	-5.44	-4.29	1.42	-1.49
S2	-26.86	-25.33	-24.56	-24.5	-46.01
ΔL	26.05	19.89	20.27	25.92	44.52
Gradient	**0.0338**	**-0.0292**	**NA**	**0.1316**	**0.1002**

Gradients of USEPA Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden												
Date:	10/22/2010												
Direction:	**Southeast MW-4S to MW-3S**	**Southeast MW-4S to MW-34S**	**Northwest MW-29S to MW-28S**	**Northwest MW-26S to MW-27S**	**Southwest MW-26S to MW-25S**	**Southeast MW-6S to MW-5S**	**Southwest MW-8S to MW-7S**	**Northwest MW-39S to MW-38S**	**Northeast MW-21S to MW-42S**	**Northwest MW-21S to MW-20S**	**Southeast MW-12S to MW-11S**	**MW-14S to MW-13S**	**South MW-16S to MW-15S**
H1	3.95	3.95	3.11	2.05	2.05	4.55	4.34	4.93	4.07	4.07	2.61	NR	2.67
H2	-0.07	1.66	2.57	-1.30	1.67	2.55	-2.77	2.99	-2.91	1.32	2.13	NR	-1.99
Δ H	4.02	2.29	0.54	3.35	0.38	2	7.11	1.94	6.98	2.75	0.48	No access to property	4.66
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.01478**	**0.00927**	**0.00406**	**0.04527**	**0.00213**	**0.01290**	**0.05267**	**0.00653**	**0.05095**	**0.00986**	**0.00314**	No access to property	**0.01029**
Direction:	**Northwest MW-4I to MW-3I**	**Southeast MW-4I to MW-34I**	**Northwest MW-29I to MW-28I**	**Northwest MW-26I to MW-27I**	**Southwest MW-26I to MW-25I**	**Southeast MW-6I to MW-5I**	**Southwest MW-8I to MW-7I**	**Northwest MW-39I to MW-38I**	**Northeast MW-21I to MW-42I**	**Northwest MW-21I to MW-20I**	**Southeast MW-12I to MW-11I**	**MW-14I to MW-13I**	**South MW-16I to MW-15I**
H1	2.12	2.12	1.75	2.00	2.00	1.79	2.19	2.97	1.92	1.92	1.99	NR	-0.19
H2	1.36	1.34	1.85	1.97	1.90	1.56	2.07	1.85	1.69	2.39	1.92	NR	-1.38
Δ H	0.76	0.78	-0.1	0.03	0.1	0.23	0.12	1.12	0.23	-0.47	0.07	No access to property	1.19
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00279**	**0.00316**	**-0.00075**	**0.00041**	**0.00056**	**0.00148**	**0.00089**	**0.00377**	**0.00168**	**-0.00168**	**0.00046**	No access to property	**0.00263**

Vertical Gradients

Date:	10/22/2010											
Wells:	**MW-3S/I**	**MW-4S/I**	**MW-5S/I**	**MW-6S/I**	**MW-7S/I**	**MW-8S/I**	**MW-11S/I**	**MW-12S/I**	**MW-13S/I**	**MW-14S/I**	**MW-15S/I**	**MW-16S/I**
H1	-0.07	3.95	1.67	2.05	-2.77	4.34	2.13	2.61	NR	NR	-1.99	2.67
H2	1.36	2.12	1.56	1.79	2.07	2.19	1.92	1.99	NR	NR	-1.38	-0.19
Δ H	-1.43	1.83	0.11	0.26	-4.84	2.15	0.21	0.62	NR	NR	-0.61	2.86
S1	-7.94	-3.95	-6.70	-5.58	-5.85	-5.50	-3.93	-1.75	-6.64	-5.74	-5.06	-5.91
S2	-35.94	-29.95	-28.70	-27.58	-27.85	-31.50	-34.93	-32.75	-49.64	-48.74	-52.06	-51.91
ΔL	28	26	22	22	22	26	31	31	43	43	47	46
Gradient	**-0.0511**	**0.0704**	**0.0050**	**0.0118**	**-0.2200**	**0.0827**	**0.0068**	**0.0200**	NR	NR	**-0.0130**	**0.0622**
Wells:	**MW-20S/I**	**MW-21S/I**	**MW-25S/I**	**MW-26S/I**	**MW-27S/I**	**MW-28S/I**	**MW-29S/I**	**MW-34S/I**	**MW-38S/I**	**MW-39/I**	**MW-42/I**	
H1	1.32	4.07	1.67	2.05	-1.30	2.57	3.11	1.66	2.99	4.93	-2.91	
H2	2.39	1.92	1.90	2.00	1.97	1.85	1.75	1.34	1.85	2.97	1.69	
Δ H	-1.07	2.15	-0.23	0.05	-3.27	0.72	1.36	0.32	1.14	1.96	-4.6	
S1	-6.73	-6.51	-4.08	-5.23	-8.01	-4.78	-3.82	-7.53	-4.85	-2.58	-5.98	
S2	-32.73	-31.51	-23.08	-20.23	-25.01	-28.78	-27.82	-28.53	-30.85	-21.58	-30.98	
ΔL	26	25	19	15	17	24	24	21	26	19	25	
Gradient	**-0.0412**	**0.0860**	**-0.0121**	**0.0033**	**-0.1924**	**0.0300**	**0.0567**	**0.0152**	**0.0438**	**0.1032**	**-0.1840**	

$$\text{Hydraulic Gradient} = \frac{\Delta H}{\Delta L}$$

ΔH is the difference between the upgradient water level value (H) and downgradient water level value (H)
ΔL is the linear distance (horizontally or vertically) between the upgradient and downgradient measurements

Horizontal Gradients: H1 is the upradient well, H2 is the downgradient well.

Vertical Gradients: H1 is the shallow well, H2 is the deep well. S1 is the bottom-depth of the shallow well screen, S2 is the bottom-depth of the deep well screen.

Elevations (H) and (S) are in Feet relative to Mean Sea Level

Appendix D-5
Hydraulic Gradient Calculations - November 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

Gradients of NYC Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden				
Date:	11/22/2010				
Direction:	East (MW02S to MW01S)	Southeast (MW10S to MW09S)	Northeast (MW18S to MW17S)	Northwest (MW19S to MW17S)	West (MW19S to MW18S)
H1	1.52	3.28	5.04	6.04	6.04
H2	0.65	1.59	1.73	1.73	5.04
Δ H	0.87	1.69	3.31	4.31	1
ΔL	187.88	352.92	334.45	382.21	285.66
Gradient	**0.00463**	**0.00479**	**0.00990**	**0.01128**	**0.00350**

Unit:	Intermediate Overburden				
Date:	11/22/2010				
Direction:	West (MW01I to MW02I)	Southeast (MW10I to MW09I)	SW (MW17I to MW18I)	Southeast (MW17I to MW19I)	West (MW19I to MW18I)
H1	2.36	2.43	2.35	2.35	2.47
H2	2.38	2.27	2.07	2.47	2.07
D H	-0.02	0.16	0.28	-0.12	0.4
ΔL	188.71	361.72	338.5	371.86	285.79
Gradient	**-0.00011**	**0.00044**	**0.00083**	**-0.00032**	**0.00140**

Vertical Gradients

Date:	11/22/2010						
Wells:	MW01S/I	MW02S/I	MW09S/I	MW10S/I	MW17S/I	MW18S/I	MW19S/I
H1	0.65	1.52	1.59	3.28	1.73	5.04	6.04
H2	2.36	2.38	2.27	2.43	2.35	2.07	2.47
Δ H	-1.71	-0.86	-0.68	0.85	-0.62	2.97	3.57
S1	-7.43	-7.51	-4.53	-1.37	-4.59	-3.65	-2.92
S2	-30.21	-29.03	-28.9	-31.26	-34.03	-45.62	-46.96
ΔL	22.78	21.52	24.37	29.89	29.44	41.97	44.04
Gradient	-0.0751	-0.0400	-0.0279	0.0284	-0.0211	0.0708	0.0811

Gradients of National Grid Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden	
Date:	11/22/2010	
Direction:	Southwest (MW32S to MW30S)	East (MW41S to MW40S)
H1	8.46	8.46
H2	5.07	-0.66
Δ H	3.39	9.12
ΔL	758.75	241.87
Gradient	**0.00447**	**0.03771**

Unit:	Intermediate Overburden	
Date:	11/22/2010	
Direction:	South-West (MW32I to MW30I)	West (MW40I to MW41I)
H1	5.86	6.20
H2	5.08	6.31
Δ H	0.78	-0.11
ΔL	758.75	241.87
Gradient	**0.00103**	**-0.00045**

Vertical Gradients

Date:	11/22/2010				
Wells:	**MW23S/I**	**MW30S/I**	**MW32S/I**	**MW40S/I**	**MW41S/I**
H1	7.08	5.07	9.31	2.31	8.71
H2	6.45	5.08	5.90	3.98	4.25
Δ H	0.63	-0.01	3.41	-1.67	4.46
S1	-0.81	-5.44	1.42	-1.2	-1.56
S2	-26.86	-25.33	-24.5	-45.58	-46.08
ΔL	26.05	19.89	25.92	44.38	44.52
Gradient	**0.0242**	**-0.0005**	**0.1316**	**-0.0376**	**0.1002**

Gradients of USEPA Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden												
Date:	11/22/2010												
Direction:	**Southeast MW-4S to MW-3S**	**Southeast MW-4S to MW-34S**	**Northwest MW-29S to MW-28S**	**Northwest MW-26S to MW-27S**	**Southwest MW-26S to MW-25S**	**Southeast MW-6S to MW-5S**	**Southwest MW-8S to MW-7S**	**Northwest MW-39S to MW-38S**	**Northeast MW-21S to MW-42S**	**Northwest MW-21S to MW-20S**	**Southeast MW-12S to MW-11S**	**South MW-14S to MW-13S**	**South MW-16S to MW-15S**
H1	3.83	3.83	2.68	2.44	2.44	4.07	3.87	4.58	2.92	2.92	2.42	2.79	2.60
H2	0.41	2.26	2.26	1.50	1.65	2.35	2.13	2.87	1.43	2.09	2.40	2.18	0.95
Δ H	3.42	1.57	0.42	0.94	0.79	1.72	1.74	1.71	1.49	0.83	0.02	0.61	1.65
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.01257**	**0.00636**	**0.00316**	**0.01270**	**0.00444**	**0.01110**	**0.01289**	**0.00576**	**0.01088**	**0.00297**	**0.00013**	**0.00251**	**0.00364**
Direction:	**Northwest MW-4I to MW-3I**	**Southeast MW-4I to MW-34I**	**Northwest MW-29I to MW-28I**	**Northwest MW-26I to MW-27I**	**Southwest MW-26I to MW-25I**	**Southeast MW-6I to MW-5I**	**Southwest MW-8I to MW-7I**	**Northwest MW-39I to MW-38I**	**Northeast MW-21I to MW-42I**	**Northwest MW-21I to MW-20I**	**Northwest MW-12I to MW-11I**	**South MW-14I to MW-13I**	**South MW-16I to MW-15I**
H1	2.49	2.49	2.19	2.49	2.49	2.39	2.63	2.89	2.43	2.43	2.38	2.38	2.04
H2	2.11	2.33	2.20	2.46	2.48	2.32	2.39	2.20	2.38	2.25	2.41	2.14	1.43
Δ H	0.38	0.16	-0.01	0.03	0.01	0.07	0.24	0.69	0.05	0.18	-0.03	0.24	0.61
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00140**	**0.00065**	**-0.00008**	**0.00041**	**0.00006**	**0.00045**	**0.00178**	**0.00232**	**0.00036**	**0.00065**	**-0.00020**	**0.00099**	**0.00135**

Vertical Gradients

Date:	11/22/2010											
Wells:	**MW-3S/I**	**MW-4S/I**	**MW-5S/I**	**MW-6S/I**	**MW-7S/I**	**MW-8S/I**	**MW-11S/I**	**MW-12S/I**	**MW-13S/I**	**MW-14S/I**	**MW-15S/I**	**MW-16S/I**
H1	0.41	3.83	1.65	2.44	2.13	3.87	2.40	2.42	2.18	2.79	0.95	2.60
H2	2.11	2.49	2.32	2.39	2.39	2.63	2.41	2.38	2.14	2.38	1.43	2.04
Δ H	-1.7	1.34	-0.67	0.05	-0.26	1.24	-0.01	0.04	0.04	0.41	-0.48	0.56
S1	-7.94	-3.95	-6.70	-5.58	-5.85	-5.50	-3.93	-1.75	-6.64	-5.74	-5.06	-5.91
S2	-35.94	-29.95	-28.70	-27.58	-27.85	-31.50	-34.93	-32.75	-49.64	-48.74	-52.06	-51.91
ΔL	28	26	22	22	22	26	31	31	43	43	47	46
Gradient	**-0.0607**	**0.0515**	**-0.0305**	**0.0023**	**-0.0118**	**0.0477**	**-0.0003**	**0.0013**	**0.0009**	**0.0095**	**-0.0102**	**0.0122**
Wells:	**MW-20S/I**	**MW-21S/I**	**MW-25S/I**	**MW-26S/I**	**MW-27S/I**	**MW-28S/I**	**MW-29S/I**	**MW-34S/I**	**MW-38S/I**	**MW-39/I**	**MW-42/I**	
H1	2.09	2.92	1.65	2.44	1.50	2.26	2.68	2.26	2.87	4.58	1.43	
H2	2.25	2.43	2.48	2.49	2.46	2.20	2.19	2.33	2.20	2.89	2.38	
Δ H	-0.16	0.49	-0.83	-0.05	-0.96	0.06	0.49	-0.07	0.67	1.69	-0.95	
S1	-6.73	-6.51	-4.08	-5.23	-8.01	-4.78	-3.82	-7.53	-4.85	-2.58	-5.98	
S2	-32.73	-31.51	-23.08	-20.23	-25.01	-28.78	-27.82	-28.53	-30.85	-21.58	-30.98	
ΔL	26	25	19	15	17	24	24	21	26	19	25	
Gradient	**-0.0062**	**0.0196**	**-0.0437**	**-0.0033**	**-0.0565**	**0.0025**	**0.0204**	**-0.0033**	**0.0258**	**0.0889**	**-0.0380**	

$$\text{Hydraulic Gradient} = \frac{\Delta H}{\Delta L}$$

ΔH is the difference between the upgradient water level value (Ḥ) and downgradient water level value (Ḥ)
ΔL is the linear distance (horizontally or vertically) between the upgradient and downgradient measurements

Horizontal Gradients: H1 is the upradient well, H2 is the downgradient well.

Vertical Gradients: H1 is the shallow well, H2 is the deep well. S1 is the bottom-depth of the shallow well screen, S2 is the bottom-depth of the deep well screen.

Elevations (H) and (S) are in Feet relative to Mean Sea Level

Appendix D-5
Hydraulic Gradient Calculations - December 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

Gradients of NYC Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden				
Date:	12/20/2010				
Direction:	East (MW02S to MW01S)	SE (MW10S to MW09S)	NE (MW18S to MW17S)	NW (MW19S to MW17S)	West (MW19S to MW18S)
H1	1.90	3.37	5.11	6.09	6.09
H2	0.55	1.38	1.43	1.43	5.11
Δ H	1.35	1.99	3.68	4.66	0.98
ΔL	187.88	352.92	334.45	382.21	285.66
Gradient	**0.00719**	**0.00564**	**0.01100**	**0.01219**	**0.00343**

Unit:	Intermediate Overburden				
Date:	12/20/2010				
Direction:	West (MW01I to MW02I)	SE (MW10I to MW09I)	SW (MW17I to MW18I)	SE (MW17I to MW19I)	West (MW19I to MW18I)
H1	2.48	2.21	1.75	1.75	1.84
H2	2.35	2.01	1.17	1.84	1.17
D H	0.13	0.2	0.58	-0.09	0.67
ΔL	188.71	361.72	338.5	371.86	285.79
Gradient	**0.00069**	**0.00055**	**0.00171**	**-0.00024**	**0.00234**

Vertical Gradients

Date:	12/20/2010						
Wells:	MW01S/I	MW02S/I	MW09S/I	MW10S/I	MW17S/I	MW18S/I	MW19S/I
H1	0.55	1.90	1.38	3.37	1.43	5.11	6.09
H2	2.48	2.35	2.01	2.21	1.75	1.17	1.84
Δ H	-1.93	-0.45	-0.63	1.16	-0.32	3.94	4.25
S1	-7.43	-7.51	-4.53	-1.37	-4.59	-3.65	-2.92
S2	-30.21	-29.03	-28.9	-31.26	-34.03	-45.62	-46.96
ΔL	22.78	21.52	24.37	29.89	29.44	41.97	44.04
Gradient	-0.0847	-0.0209	-0.0259	0.0388	-0.0109	0.0939	0.0965

Gradients of National Grid Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden	
Date:	12/20/2010	
Direction:	South-West (MW32S to MW30S)	East (MW41S to MW40S)
H1	8.33	8.56
H2	3.82	8.34
Δ H	4.51	0.22
ΔL	758.75	241.87
Gradient	**0.00594**	**0.00091**

Unit:	Intermediate Overburden			
Date:	12/20/2010			
Direction:	Northwest (MW32I to MW31I)	Southwest(MW32I to MW30I)	South (MW31I to MW30I)	East (MW41I to MW40I)
H1	5.95	5.95	5.39	4.65
H2	5.39	4.48	4.48	4.51
Δ H	0.56	1.47	0.91	0.14
ΔL	587.42	758.75	449.85	241.87
Gradient	**0.00095**	**0.00194**	**0.00202**	**0.00058**

Vertical Gradients

Date:	12/20/2010			
Wells:	**MW23S/I**	**MW30S/I**	**MW32S/I**	**MW41S/I**
H1	6.93	3.82	8.33	8.56
H2	6.06	4.48	5.95	4.65
Δ H	0.87	-0.66	2.38	3.91
S1	-0.92	-5.44	1.42	-1.56
S2	-26.97	-25.33	-24.5	-46.08
ΔL	26.05	19.89	25.92	44.52
Gradient	**0.0334**	**-0.0332**	**0.0918**	**0.0878**

Gradients of USEPA Installed Monitoring Wells

Horizontal Gradients

Unit:	Shallow Overburden												
Date:	12/20/2010												
Direction:	**Southeast MW-4S to MW-3S**	**Southeast MW-4S to MW-34S**	**Northwest MW-29S to MW-28S**	**Northwest MW-26S to MW-27S**	**Southwest MW-26S to MW-25S**	**Southeast MW-6S to MW-5S**	**Southwest MW-8S to MW-7S**	**Northwest MW-39S to MW-38S**	**Northeast MW-21S to MW-42S**	**Northwest MW-21S to MW-20S**	**Southeast MW-12S to MW-11S**	**Southeast MW-14S to MW-13S**	**South MW-16S to MW-15S**
H1	4.09	4.09	2.68	2.14	2.14	4.13	4.18	4.62	2.82	2.82	2.48	2.71	2.61
H2	-1.64	1.44	2.30	0.68	1.57	1.85	-2.21	2.83	-1.94	1.52	2.35	1.63	1.03
Δ H	5.73	2.65	0.38	1.46	0.57	2.28	6.39	1.79	4.76	1.3	0.13	1.08	1.58
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.02107**	**0.01073**	**0.00286**	**0.01973**	**0.00320**	**0.01471**	**0.04733**	**0.00603**	**0.03474**	**0.00466**	**0.00085**	**0.00444**	**0.00349**
Direction:	**Northwest MW-4I to MW-3I**	**Southeast MW-4I to MW-34I**	**Northwest MW-29I to MW-28I**	**Northwest MW-26I to MW-27I**	**Southwest MW-26I to MW-25I**	**Northwest MW-6I to MW-5I**	**Southwest MW-8I to MW-7I**	**Northwest MW-39I to MW-38I**	**Northeast MW-21I to MW-42I**	**Southwest MW-21I to MW-20I**	**Southeast MW-12I to MW-11I**	**MW-14I to MW-13I**	**South MW-16I to MW-15I**
H1	2.33	2.33	2.13	2.11	2.11	2.00	2.25	3.04	2.00	2.00	2.10	NR	0.14
H2	1.74	1.91	2.04	2.06	2.00	2.40	2.24	2.04	1.87	1.85	2.09	NR	-10.71
Δ H	0.59	0.42	0.09	0.05	0.11	-0.40	0.01	1	0.13	0.15	0.01	0.00	10.85
ΔL	272	247	133	74	178	155	135	297	137	279	153	243	453
Gradient	**0.00217**	**0.00170**	**0.00068**	**0.00068**	**0.00062**	**-0.00258**	**0.00007**	**0.00337**	**0.00095**	**0.00054**	**0.00007**	No access to property	**0.02395**

Vertical Gradients

Date:	12/20/2010											
Wells:	**MW-3S/I**	**MW-4S/I**	**MW-5S/I**	**MW-6S/I**	**MW-7S/I**	**MW-8S/I**	**MW-11S/I**	**MW-12S/I**	**MW-13S/I**	**MW-14S/I**	**MW-15S/I**	**MW-16S/I**
H1	-1.64	4.09	1.57	2.14	-2.21	4.18	2.35	2.48	1.63	2.71	1.03	2.61
H2	1.74	2.33	2.40	2.00	2.24	2.25	2.09	2.10	0.62	1.11	-10.71	0.14
Δ H	-3.38	1.76	-0.83	0.14	-4.45	1.93	0.26	0.38	1.01	1.6	11.74	2.47
S1	-7.94	-3.95	-6.70	-5.58	-5.85	-5.50	-3.93	-1.75	-6.64	-5.74	-5.06	-5.91
S2	-35.94	-29.95	-28.70	-27.58	-27.85	-31.50	-34.93	-32.75	-49.64	-48.74	-52.06	-51.91
ΔL	28	26	22	22	22	26	31	31	43	43	47	46
Gradient	**-0.1207**	**0.0677**	**-0.0377**	**0.0064**	**-0.2023**	**0.0742**	**0.0084**	**0.0123**	**0.0235**	**0.0372**	**0.2498**	**0.0537**
Wells:	**MW-20S/I**	**MW-21S/I**	**MW-25S/I**	**MW-26S/I**	**MW-27S/I**	**MW-28S/I**	**MW-29S/I**	**MW-34S/I**	**MW-38S/I**	**MW-39/I**	**MW-42/I**	
H1	1.52	2.82	1.57	2.14	0.68	2.30	2.68	1.44	2.83	4.62	-1.94	
H2	1.85	2.00	2.00	2.11	2.06	2.04	2.13	1.91	2.04	3.04	1.87	
Δ H	-0.33	0.82	-0.43	0.03	-1.38	0.26	0.55	-0.47	0.79	1.58	-3.81	
S1	-6.73	-6.51	-4.08	-5.23	-8.01	-4.78	-3.82	-7.53	-4.85	-2.58	-5.98	
S2	-32.73	-31.51	-23.08	-20.23	-25.01	-28.78	-27.82	-28.53	-30.85	-21.58	-30.98	
ΔL	26	25	19	15	17	24	24	21	26	19	25	
Gradient	**-0.0127**	**0.0328**	**-0.0226**	**0.0020**	**-0.0812**	**0.0108**	**0.0229**	**-0.0224**	**0.0304**	**0.0832**	**-0.1524**	

$$\text{Hydraulic Gradient} = \frac{\Delta H}{\Delta L}$$

ΔH is the difference between the upgradient water level value (H_1) and downgradient water level value (H_2)
ΔL is the linear distance (horizontally or vertically) between the upgradient and downgradient measurements

Horizontal Gradients: H1 is the upradient well, H2 is the downgradient well.

Vertical Gradients: H1 is the shallow well, H2 is the deep well. S1 is the bottom-depth of the shallow well screen, S2 is the bottom-depth of the deep well screen.

Elevations (H) and (S) are in Feet relative to Mean Sea Level
Vertical Gradients: Because all water levels are Above Sea Level, a (+) vertical gradient indicates downward movement

Appendix D
Field Documentation

D-06 – Groundwater Sampling Field Forms

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Appendix D
Field Documentation

D-06 – Groundwater Sampling Field Forms

USEPA Groundwater Sampling Field Forms

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-35	**Site:** Gowanus Canal Remedial Investigation	
Field Crew:	K. Clennon, M. Murphy, [illegible]	**Date:** 7/12/10	**Project #:** 395863
Well Depth (ft.):	14.96	Purge Methodology:	low-flow/WI
DTW (ft.):	4.03		Grundfos pump
Water Column (ft.):	10.93'	Water Quality Meter:	D-52 Horiba U-22 (RC)
Well Diameter (in.):	2"		
Gal. per ft.:	0.163		
Well Volume (gal.):	1.78 gal		
Depth of Screen (ft.):	14.96-4.96		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
2.12	Initial 1021	4.29	200	0.6	6.47	24.97	33.9	3	1.85	26.3	clear; Sulfur smell; floating solids (black)
2.10	1 VOL. 1026	4.13	325	.7	7.05	24.68	35.0	-46	1.42	3.0	SAA
~	2 VOL. 1031	4.14	325	1.0	7.09	24.92	35.1	-55	1.30	3.79	clear/no odor
2.10	3 VOL. 1036	4.11	325	1.3	7.19	24.45	35.0	-94	1.32	2.11	clear/no odor
2.11	4 VOL. 1041	4.48	325	1.6	7.25	25.78	35.0	-84	1.03	1.54	clear/no odor
2.12	5 VOL. 1046	4.58	~~325~~ (RC)	1.8 (RC)	7.28	25.84	35.2	-90	1.47	1.76	clear/no odor
2.12	6 VOL. 1051	4.61	350 (RC)	2.2 (RC)	7.33	24.86	35.2	-102	1.40	0.94	clear/no odor
2.11	7 VOL. 1056	4.72	~~350~~	2.4	7.37	24.86	35.3	-106	1.17	0.47	SAA
2.11	8 VOL. 1101	4.78	250	3.1	7.38	25.44	35.1	-114	1.23	0.83	SAA
2.11	9 VOL. 1106	4.84	250	3.3	7.40	25.67	35.0	-128	0.98	1.10	SAA
2.10	10 VOL. 1111	4.95	250	3.5	7.40	26.20	34.9	-138	0.80	0.99	SAA
2.07	Post-Purge 1116 (RC)	5.04	250	3.7	7.41	26.42	34.7	-147	0.67	1.10	SAA

Remarks: Pump Intake Depth: 9.96'

Control Box Setting (Hz): Development: 56.00

Sampling: (Sample at 100-250 ml/min) Ferrous Iron - 403 mg/L 1245 7/13/10

Start time: 1020

9.96' = mid pt. of screen

1046: 57.7

1057: 57.3 ~~1100: 57.00~~ (RC)

PID: 0.5 ppm; Note: High tide / high-mid tide at start of sampling, dropping during Purge

SAMPLING

Depth to Water Before Sampling:	4.03'
Sample Methodology:	LF GP w/ grundfos
Sample Name:	GC-MW035' QC Sample: none
Sample Date/Time:	7/12/10 / 1200
Sampler / Signature:	R. Clennon
Filtered Metals Collected:	(Y) / N Filter Size: ~~10 um~~ 0.45 micron filters
Sample Observations:	none
Parameters:	VOC / SVOC / PCB / Pest / metals + CN / Filtered metals / geochemistry

Note: No lock on well cap/j-plug

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-35	**Site:** Gowanus Canal Remedial Investigation
Field Crew:	**Date:** 7/12/10 **Project #:** 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.):	See page 1
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
% Salt	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
2.06	Initial 1121	5.10	250	3.9	7.42	26.67	34.5	+157	0.42	1.59	SAA
2.06	1 VOL. 1126	5.22	~~250~~	4.0	7.43	27.14	34.3	-172	0.15	2.60	SAA
2.06	2 VOL. 1131	5.29	~~250~~ (Re) <200	4.1	7.44	27.30	34.3	-186	0.00	2.80	SAA
2.06	3 VOL. 1136	5.38	(Re) <200	4.2	7.46	27.48	34.1	-221	0.00	3.56	SAA
2.05	4 VOL. 1141	5.43	<200	4.3	7.49	27.42	343	-252	0.00	7.63	SAA
2.04	5 VOL. 1146	5.63	200	4.5	7.49	27.63	340	-266	0.00	5.45	SAA
	6 VOL. 1151	5.68	~~200~~ (Re)	5.0	7.47	26.13	33.9	-256	0.00	3.16	SAA
	7 VOL.										
	8 VOL.										
	9 VOL.										
	10 VOL.										
	Post-Purge ~~1210~~ (Re)	6.05			7.53	26.45	319	-248	0.00	6.81	

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

59.36 (1134)

Note: Sample collected w/o reaching full stabilization of parameters per consult w/ A. Judd & D. Reamer. Location of well next to canal is heavily influenced by tide, which was dropping during purge

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	QC Sample:
Sample Date/Time: 7/12/10 / 1200	
Sampler / Signature:	* see page 1
Filtered Metals Collected: Y / N Filter Size:	
Sample Observations:	
Parameters:	

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-3I	**Site: Gowanus Canal Remedial Investigation**
Field Crew: M. Murphy, J. Beles, R. Clemen	**Date:** 7/12/10 **Project #: 395863**

Well Depth (ft.): 43.23
DTW (ft.): 4.09
Water Column (ft.): 39.14'
Well Diameter (in.): 2"
Gal. per ft.: 0.163
Well Volume (gal.): 6.38 G 42.23-38.23'
Depth of Screen (ft.): ~~38.23~~

Purge Methodology: Low flow w/ Grundfos

Water Quality Meter: Horiba U-52

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor	Salinity (ppt)
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	Clear	
Initial	1023	4.27	425	—	7.05	21.70	1.47	-99	2.29	NR	Clear / no odor	0.7
MM ~~1 VOL.~~	1028	4.32	425	1.25	7.29	20.40	1.52	-130	2.22	14	clear / no odor	0.8
MM ~~2 VOL.~~	1033	4.39	425	1.80	7.33	19.87	1.60	-147	1.93	7.1	clear / no odor	0.8
MM ~~3 VOL.~~	1038	4.44	325	2.40	7.33	19.71	1.63	-151	1.93	5.1	clear / no odor	0.8
MM ~~4 VOL.~~	1043	4.53	325	2.90	7.33	19.47	1.65	-155	1.99	3.7	clear / no odor	0.8
MM ~~5 VOL.~~	1048	4.50	325	3.25	7.34	19.65	1.64	-157	2.26	7.5	clear / no odor	0.8
MM ~~6 VOL.~~	1053	4.50	325	3.60	7.34	19.71	1.64	-158	2.18	2.8	clear / no odor	0.8
MM ~~7 VOL.~~	1058	4.50	325	4.0	7.34	19.67	1.64	-159	2.20	1.8	clear / no odor	0.8
MM ~~8 VOL.~~	1103	4.50	200	- Collect		Sample						
9 VOL.												
10 VOL.			MM									
MM ~~Post-Purge~~	1126	4.50	200	—	7.35	19.91	1.74	-147	0.77	2.5	clear / no odor	0.8

Remarks: Pump Intake Depth: 39.7 1230 7/12/10 Control Box Setting (Hz): Development: 55.20 Hz Sampling: (Sample at 100-250 ml/min)

Ferrous Iron - 0.69 mg/L

Start time: 10:20
Note: Equip. Blank collected from this pump
39.73 = mid pt. of screen

- well nested with MW-3S
- no lock

PID: 1.0 ppm; No visible NAPL

VOC vials had slight effervescence

SAMPLING

Depth to Water Before Sampling: 4.50' btic
Sample Methodology: Low Flow Sample Procedure - Teflon tubing - Grundfos Pump
Sample Name: GC-MW03I QC Sample: None
Sample Date/Time: 7/12/2010 1103
Sampler / Signature: [signature]
Filtered Metals Collected: (Y) N Filter Size: ~~10 µm~~ 0.45 micron
Sample Observations: clear / no odor
Parameters: VOC / SVOC / PCB / PEST / Metals / CN / Filtered Metals

DD

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-45	**Site: Gowanus Canal Remedial Investigation**
Field Crew: M. Murphy, R. Clemon, J. Bales	**Date:** 7/12/10 **Project #: 395863**

Well Depth (ft.): 13.25
DTW (ft.): 5.35
Water Column (ft.):
Well Diameter (in.): 2"
Gal. per ft.: 0.163
Well Volume (gal.): 1.28
Depth of Screen (ft.): 3.25 - 13.25

Purge Methodology: Low Flow w/ Grundfos Pump

Water Quality Meter: Horiba U-52 Lamotte 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor	
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	initial purge cloudy - floating solids	solinst ppt
Initial	1245	6.2	500	—	7.02	24.37	2.89	-82	0.76	50	tan - clear	1.5
MW ~~1 VOL.~~	1250	6.8	300	←	problem w/ flow rate - reset pump / purge							
MW ~~2 VOL.~~	1255	7.7	200	~0.75	7.02	23.86	2.68	-80	0.55	18	clear / no odor	1.4
MW ~~3 VOL.~~	1300	7.6	200	1.5	7.00	25.94	2.65	-82	0.51			
MW ~~4 VOL.~~	1305	7.7	200	1.7	— pump stops							
MW ~~5 VOL.~~	1314	7.4	50ml	—	pump stop							
MW ~~6 VOL.~~	1320	7.8	100ml	2.0	7.06	29.82	2.39	-79	1.15	10	Clear - no odor	1.2
MW ~~7 VOL.~~	1325	7.7	100	2.1	7.00	30.09	2.39	-79	0.79	6.2	clear - no odor	1.2
MW ~~8 VOL.~~	1330	7.65	100ml	2.2	6.99	30.15	2.35	-80	0.62	5.9	clear - no odor	1.2
MW ~~9 VOL.~~	1335	—	pump surge to intake - Let recharge - call w/ Andy Judd - no JOY									
MW ~~10 VOL.~~	1415	7.25	100ml	2.3	7.08	23.95	3.10	-111	1.42	130	cloudy - no odor	
MW ~~Post Purge~~	1420	7.40	100ml	2.4	6.99	25.02	2.73	-99	0.75	95	cloudy - no odor	

Remarks: Pump Intake Depth: 8.25 btic
Drop pump to 12.25

Control Box Setting (Hz): Development: Purge - 95.40 Hz

Sampling: (Sample at 100-250 ml/min)

Ferrous iron - 2.16 mg/L
7/12/10 1800
PID - 0.4 ppm

* As per AJ - lower pump to 1' above bottom of well + sample - going forward - pump placement will be 1' above bottom - not midscreen

SAMPLING

Depth to Water Before Sampling: 7.90
Sample Methodology: Low flow Sample Procedure - Grunfos Pump - Teflon tubing
Sample Name: GC-MW045 QC Sample: None
Sample Date/Time: 7/12/2010 1510
Sampler / Signature: [signature]
Filtered Metals Collected: Y / N Filter Size: 0.45 um
Sample Observations: clear - no odor
Parameters: VOC, SVOC, metals, filtered metals, PCB, pesticides

** See page 2 **

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-45 (Page 2)	**Site: Gowanus Canal Remedial Investigation**
Field Crew:	**Date:** 9/12/2010 **Project #: 395863**
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.): See page 1	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
mm ~~1430~~ Initial	1425	7.50	100ml	2.5	6.90	24.53	2.52	-80	0.91	45	cloudy - none
mm 1 VOL	1430	7.69	100ml	2.6	6.86	25.13	2.31	-63	1.00	26	clear - none
mm 2 VOL	1435	7.75	100ml	2.7	6.82	26.27	2.20	-49	1.12	20	clear - none
mm 3 VOL	1440	7.80	100ml	2.8	6.85	25.87	2.11	-48	1.14	16	clear - none
mm 4 VOL	1445	7.85	100ml	2.9	6.89	27.08	2.04	-50	1.02	12	clear - none
mm 5 VOL	1450	7.89	100ml	3.0	6.92	27.71	2.02	-54	0.90	9.8	clear - none
mm 6 VOL	1455	7.90	100ml	3.1	6.95	28.11	2.01	-59	0.78	10.0	clear - none
mm 7 VOL	1500	7.90	100ml	3.2	6.95	28.13	2.00	-60	0.71	10.0	clear - none
mm 8 VOL	1505	7.90	100ml	3.3	6.95	28.16	1.99	-61	0.70	8.9	clear - none
mm 9 VOL	1510	7.90	100ml	- collect	sample						
10 VOL											
Post-Purge	1610	~7.90	100ml	-	6.98	28.34	2.56	-96	1.16	60	cloudy - none

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling:	See page 1
Sample Methodology:	
Sample Name:	QC Sample:
Sample Date/Time:	
Sampler / Signature:	
Filtered Metals Collected: Y / N	Filter Size:
Sample Observations:	
Parameters:	

DB

Low-Flow Groundwater Sampling: Field Data Sheet

33.22
.163
9966
19932
3322
541486

Well Number: MW-4I	Site: Gowanus Canal Remedial Investigation
Field Crew: DB / M. M.	Date: 7/12/10 Project #: 395863

Well Depth (ft.): 39.33
DTW (ft.): 6.12
Water Column (ft.): 33.22
Well Diameter (in.): 2"
Gal. per ft.: .163
Well Volume (gal.): 5.4
Depth of Screen (ft.):

Purge Methodology: LFSP w/ tephlon tubing + grundfos
Water Quality Meter: U52 + Lamotte 2020 E

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

Salt		Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
		Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
—	Initial	1450	6.29	400	—	7.79	21.65	1.34	-153	0.06	2783	brown tint/none
—	1 VOL.	1455	6.31	325	.5	7.85	20.88	1.37	-164	0.0	281	brown tint/none
—	2 VOL.	1500	6.31	325	1.0	7.88	20.49	1.40	-170	0.0	119	clear/none
—	3 VOL.	1505	6.32	375	1.6	7.96	19.25	1.45	-172	0.0	2940	brown tint/none
—	4 VOL.	1510	6.32	325	2.0	7.97	18.89	1.42	-175	0.0	257	brown tint/none
—	5 VOL.	1515	6.31	325	2.4	7.96	19.08	1.42	-178	0.0	32.5	clear/none
.04	6 VOL.	1520	6.32	325	3.0	7.98	19.03	1.39	-179	0.0	8.66	clear/none
.04	7 VOL.	1525	6.32	325	3.3	7.98	19.02	1.39	-179	0.0	6.27	clear/none
.04%	8 VOL.	1530	6.32	325	3.8	7.98	19.03	1.38	-179	0.0	5.85	
	9 VOL.	1535	collect sample									
	10 VOL.			200								
.04	Post-Purge	1601	6.31	175	—	7.95	19.90	1.33	-164	0.0	33.1	clear/none

Remarks: Pump Intake Depth: 36.8' BTIC

Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

purge - 65.00
sample - 63.70

PID - 0.6 ppm

Ferrous Iron - 0.35 mg/L 1610 7/12/10

SAMPLING

Depth to Water Before Sampling: 6.31
Sample Methodology: LFSP tephlon tubing + grundfos
Sample Name: GC-MW4I QC Sample: none
Sample Date/Time: 7/12/10 / 1535
Sampler / Signature: James Balas
Filtered Metals Collected: (Y) N Filter Size: ~~10 µm~~ 0.45 um
Sample Observations: brown tint clearing → no odor
Parameters: VOC, SVOC, Pest, PCB, metals, filtered metals

DB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW55		Site: Gowanus Canal Remedial Investigation	
Field Crew: Jon Fuller, Colin Mills		Date: 7/20/10	Project #: 395863
Well Depth (ft.): 12.9	Purge Methodology: no product low flow w/ teflon tubing + grundfos	Diameter: 2"	Gal. Per Foot: .163
DTW (ft.): 3.32		3"	.367
Water Column (ft.): 9.6		4"	.653
Well Diameter (in.): 2		5"	1.020
Gal. per ft.: 0.163	Water Quality Meter: U52 Lamotte 2020	6"	1.469
Well Volume (gal.): 1.56		8"	2.611
Depth of Screen (ft.):			

4 ppm PID casing

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0925	3.19	—	0	6.85	21.22	5.22	-143	3.39	0.28	54.1	sl yel brn
	0940	—	180	0.3	6.83	21.99	4.95	-149	0.93	0.24	53.0	sl. yellow brn
	0945	4.03	—	0.5	6.83	26.09	3.56	-145	0.59	0.13	31.7	clear, slight color
	0950	—	—	~0.8	6.93	26.31	2.25	-172	0.47	0.11	27.6	clear
	0955	4.00	160	~1	7.03	26.87	1.90	-170	0.48	0.10	41.8	"
	1000	—	—	~1.2	7.08	27.65	1.71	-145	0.43	0.09	40.3	"
	1005	—	—	~1.5	7.29	28.38	1.54	-160	0.40	0.08	51.1	"
	1010	—	—	1.8	7.51	28.98	1.35	-174	0.34	0.07	24.6	"
	1015	4.07	160	~2	7.55	29.62	1.21	-173	0.29	0.06	18.2	"
	1020	—	—	~2	7.57	30.53	1.15	-175	0.24	0.05	30.2	"
	1025	—	—	~2.2	7.55	30.95	1.14	-174	0.23	0.05	31.0	"
Post-Purge	1030	4.07	160	~2.5	7.55	31.03	1.13	-170	0.22	0.06	30.5	"

Remarks: Pump Intake Depth: 11.9 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min) 160

1035 Josh sample

1114 4.68 ~3 6.96 26.50 1.25 -126 2.06 0.06 8.19

SAMPLING

Depth to Water Before Sampling:	4.07
Sample Methodology:	ERT low flow
Sample Name:	MW55
QC Sample:	none
Sample Date/Time:	7/20/10 @ 1035
Sampler / Signature:	
Filtered Metals Collected:	(Y) N Filter Size: .45 µm
Sample Observations:	yellow brown ⇒ clear
Parameters:	TCL/TAL Metals, VOC, SVOC, PCB, Pest

JB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW 5I	Site: Gowanus Canal Remedial Investigation	
Field Crew:	Colin Mills / Tom Fowler	Date: 7/20/10	Project #: 395863
Well Depth (ft.):	34.56	Purge Methodology:	low flow
DTW (ft.):	3.77		
Water Column (ft.):	30.79 34.56' No product, s/odor		
Well Diameter (in.):	2"		
Gal. per ft.:	0.163	Water Quality Meter:	
Well Volume (gal.):	5 gal		MoRiBA U-5000
Depth of Screen (ft.):	29.56		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0940	3.77	200	0	7.00	19.01	1.29	1	1.90	0.04	115.5	clear, slight yellow/brown color
	0945	3.87	200	0.5	7.31	25.82	2.59	-120	0.00	0.09	35.0	"
	0950	3.90	250	0.75	7.14	22.89	3.50	-140	0.00	0.12	19.6	"
	0955	3.90	150	1	7.19	23.04	3.54	-143	0.00	0.13	21.8	"
	1000	3.89	125	1.25	7.50	21.15	3.62	-144	0.00	0.13	20.1	"
	1005	3.90	175	1.5	7.52	25.09	3.72	-146	0.00	0.14	12.1	"
	1010	3.90	175	1.75	7.53	24.69	3.76	-143	0.00	0.14	12.9	"
	1015	3.90	175	2	7.56	22.98	3.77	-142	0.00	0.14	9.59	"
	1020	3.91	175	2.3	7.56	23.41	3.72	-142	0.00	0.14	9.74	"
	1025	3.92	125	2.7	7.56	24.68	3.64	-143	0.00	0.13	8.16	"
	1030	3.92	125	3	7.56	25.25	3.61	-143	0.00	0.13	8.42	"
Post-Purge	1135	3.80	125	3.25	7.91	25.56	3.22	-120	0.00	0.11	9.45	"

Remarks: Pump Intake Depth: 32 ft | Control Box Setting (Hz): 54.50 Hz | Development: | Sampling: (Sample at 100-250 ml/min) 100 ml/min

PID Reading: 8.0 ppm

SAMPLING

Depth to Water Before Sampling:	3.92 ft
Sample Methodology:	EPA Low Flow
Sample Name:	GC-MW5I QC Sample: None
Sample Date/Time:	7/20/2010 @ 10:30
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 0.45 micron
Sample Observations:	Several trucks entered yard and generated dust
Parameters:	VOC SVOC PCB Pest, Metals, Filtered Metals, Hg, Cn

DD

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 6ES	**Site:** Gowanus Canal Remedial Investigation
Field Crew: MVP, CZ	**Date:** 7/20/10 **Project #:** 395863

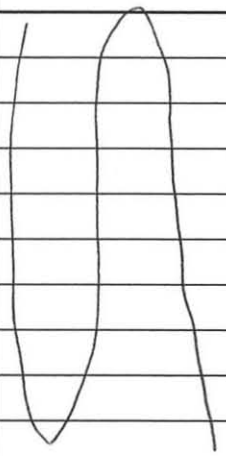
Well Depth (ft.): ~~3.20~~ 12.71
DTW (ft.): 3.23
Water Column (ft.): 9.51
Well Diameter (in.): 2
Gal. per ft.: 0.163
Well Volume (gal.): 1.55
Depth of Screen (ft.): 2.71

Purge Methodology: LFSP w/ teflon tubing + grundfos
Water Quality Meter: U5200 Lamotte 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
9:25 Initial	initial	3.22	250	—	6.20	27.10	2.80	-110	3.43	0.15	94.2	
	9:30	3.24	150	—	6.46	28.01	1.90	-127	1.16	0.09	47.5	
	9:35	3.25	150	—	6.50	28.66	1.17	-125	0.93	0.06	33	
	9:40	3.24	150	—	6.51	29.06	0.967	-126	0.82	0.05	35	
	9:45	3.26	160	1.0	~~8.42~~ 6.52	~~19.77~~ 29.41	0.874	-128	0.72	0.04	28	
	9:50	3.24	160	—	6.53	29.70	0.823	-130	0.65	0.04	16	
	9:55	3.24	150	—	6.53	29.95	0.735	-130	1.02	0.04	18	
	10:00	3.25	150	2.5	6.54	30.12	0.684	-133	0.57	0.03	7.2	
	10:05	3.24	150	—	6.54	29.98	0.645	-135	0.49	0.03	10	
	10:10	3.26	—	—	6.54	30.26	0.626	-137	0.44	0.03	11	
	10:10	—	—	—								began sample collection
Post-Purge	11:37	—	300	—	6.58	26.04	0.625	-105	1.26	0.03	9.8	post-sampling



Remarks: Pump Intake Depth: 11.~~46~~ 71

Control Box Setting (Hz): 49.20 Hz, 47.1, 45.7

Development:

Sampling: (Sample at 100-250 ml/min)

PID = 14.5

SAMPLING

Depth to Water Before Sampling: 3.26
Sample Methodology: low flow pump
Sample Name: GC-MW6S QC Sample: none
Sample Date/Time: 7/20/10 1010 MVP, CZ
Sampler / Signature:
Filtered Metals Collected: (Y) N Filter Size: 0.45
Sample Observations: —
Parameters: VOCs, SVOCs, Metals, D,F Metals, Pest, PCBs, CN-

JB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW61	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP, CZ	Date: 7/20/10 Project #: 395863
Well Depth (ft.): 35.74	Purge Methodology: LFSP - w/ Teflon tubing & grundfos
DTW (ft.): 4.98	
Water Column (ft.): 30.86	
Well Diameter (in.): 2	
Gal. per ft.: .163	Water Quality Meter:
Well Volume (gal.): 5.00	U52 LaMotte 2020
Depth of Screen (ft.): 30.74	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	9:30	5.03	350	—	7.81	18.97	19.2	-132	3.62		10	
	9:35	5.43	350	—	8.08	18.90	19.3	-135	2.56	1.01	10	
	9:40	5.43	350	—	8.18	18.96	19.3	-133	2.00	1.01	12	
	9:45	5.43	350	2.5	8.27	19.17	19.3	-134	1.70	1.01	16	
	9:50	5.45	350	—	8.32	19.21	19.3	-135	1.42	1.01	12	
	9:55	5.46	350	—	8.32	19.24	19.2	-135	1.17	1.00	191	
	10:00	5.47	350	4	8.37	19.18	19.2	-137	0.93	1.00	14	
	10:05	5.49	—	—	8.42	19.54	19.1	-139	0.69	0.99	25	
	10:10	5.50	—	—	8.45	19.75	19.0	-141	0.51	0.99	15	
	10:15	5.50	—	—	8.50	20.12	18.8	-143	0.29	0.98	15	
	10:20	—	—	—	8.51	20.31	18.7	-145	0.15	0.98	8.4	
Post-Purge	10:25	5.51	—	6	8.51	20.89	18.6	-146	0.04	0.96	15	

Remarks: Pump Intake Depth: 33.24 Control Box Setting (Hz): 62.10 Hz Development: Sampling: (Sample at 100-250 ml/min)

PID Head Space = 0.9

SAMPLING

Depth to Water Before Sampling:

Sample Methodology: low flow pump

Sample Name: MW61 QC Sample: none

Sample Date/Time: 7/20/10 1035 MVP, CZ

Sampler / Signature: MVP, CZ

Filtered Metals Collected: (Y) N Filter Size:

Sample Observations: —

Parameters: VOC, SVOC, PCB, pest, metals, filtered metals

MB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 6I		Site: Gowanus Canal Remedial Investigation	
Field Crew: MVP, CZ		Date: 7/20/10	Project #: 395863
Well Depth (ft.): 35.74	Purge Methodology:	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 4.98	SOP pg 4	2" .163	5" 1.020
Water Column (ft.): 30.86		3" .367	6" 1.469
Well Diameter (in.): 2		4" .653	8" 2.611
Gal. per ft.: .163	Water Quality Meter:		
Well Volume (gal.): 5.00			
Depth of Screen (ft.): 30.74			

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	10:30	5.51	~	6	8.54	20.94	18.6	-147	0.08	0.96	13	
	10:35	5.51	~	~	8.55	21.01	18.5	-148	0.01	0.96	18	
	~~11:25~~				~~8.27~~	~~24.39~~	~~17.8~~	~~-153~~	~~0.00~~	~~0.93~~	~~45~~	begin sample collection
	11:33	5.51	350	8	8.27	24.39	17.8	-153	0.00	0.93	45	post-sample
Post-Purge												

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling:	5.51
Sample Methodology:	low flow pump
Sample Name:	GOC-MW6I QC Sample: none
Sample Date/Time:	7/20/10 1035
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 0.45 um
Sample Observations:	Metal container turned blue during filtering jar
Parameters:	VOCs, SCOs, metals (Diss Metals, Hex, PCBs) CN-

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-7S	Site: Gowanus Canal Remedial Investigation	
Field Crew:	EB, MB	Date: 7/20/10	Project #: 395863
Well Depth (ft.):	13.24	Purge Methodology:	Low Flow
DTW (ft.):	8.23		
Water Column (ft.):	5.01		
Well Diameter (in.):	2in		
Gal. per ft.:	0.163	Water Quality Meter:	U-52
Well Volume (gal.):	0.82		
Depth of Screen (ft.):	3.24		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	~~.163~~	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	9:55	11.06	350 ml/min	.1	6.31	24.95	38.2	94	1.83	2.45	29.6	Clear
	10:00	10.59	100 ml/min	.3	6.38	26.45	37.2	-16	1.32	2.36	20.3	Clear
	10:05	9.87	100 ml/min	.4	6.41	26.85	37.3	-38	1.24	2.36	13.5	Clear
	10:10	8.56	250 ml/min	.7	6.45	26.33	38.9	-74	1.16	2.44	13.9	Clear, faint odor
	10:15	8.30	175 ml/min	.9	6.50	26.38	37.7	-128	.84	2.39	8.24	Clear
	10:20	X	175 ml/min	1.0	6.51	26.29	38.0	-142	.87	2.41	10.62	Clear
	10:25	X	200 ml/min	1.2	6.54	26.68	37.9	-178	.74	2.40	6.68	Clear
	10:30	X	150 ml/min	1.5	6.56	26.19	38.1	-214	.65	2.42	6.86	Clear
	10:35	X	225 ml/min	1.8	6.59	25.71	38.0	-240	.58	2.41	4.10	Clear
	10:40	X	225 ml/min	2.0	6.60	25.39	37.7	-285	.50	2.39	2.63	Clear
	10:45	X	225 ml/min	2.3	6.62	24.91	37.4	-276	.46	2.37	3.05	Clear
~~Post-Purge~~	10:50	X	275 ml/min	2.7	6.62	24.59	37.2	-289	.46	2.35	2.65	Clear

Remarks: Pump Intake Depth: 12.24 Control Box Setting (Hz): Development: 73.10 Sampling: (Sample at 100-250 ml/min) 250 mL/min

Sample time 11:00

X: There was some kind of interference in my well, 3 different water level meters could not obtain an accurate value.

PID - 2.5ppm

SAMPLING

Depth to Water Before Sampling:	X 7.02
Sample Methodology:	Low flow / tube w/ 2" Grundfos pump and teflon lined tubing
Sample Name:	GC-MW7S
QC Sample:	—
Sample Date/Time:	11:00
Sampler / Signature:	Michael Briscoe
Filtered Metals Collected:	(Y) / N Filter Size: 0.45
Sample Observations:	250mL/min.
Parameters:	VOC SVOC Pesticide Cyanide mercury metals PCB

filtered metals

JP

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-17S	Site: Gowanus Canal Remedial Investigation
Field Crew: EB, MB	Date: 7/20/10 Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.):	* See first page
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial												
			* See page one for details									
Post-Purge	1150		250ml/m	7	6.58	23.85	33.9	-320	.39	2.15	1.25	Clear, Colorless, slight sheen

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

* See first page

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	QC Sample:
Sample Date/Time:	* See first page
Sampler / Signature:	
Filtered Metals Collected: Y / N Filter Size:	
Sample Observations:	
Parameters:	

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-7I	Site: Gowanus Canal Remedial Investigation	
Field Crew:	EB, MB	Date: 7/20/10	Project #: 395863
Well Depth (ft.):	32.27	Purge Methodology:	Low Flow
DTW (ft.):	3.99		
Water Column (ft.):	28.28		
Well Diameter (in.):	2in		
Gal. per ft.:	0.163	Water Quality Meter:	
Well Volume (gal.):	4.61		
Depth of Screen (ft.):	27.27		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
1010 ←	~~1000~~	4.42	170	0	6.57	30.23	7.56	-55	1.68	0.42	24	Petro-like odor
	1015	4.60	225	0.2	6.69	20.98	8.41	-73	1.02	0.47	38	
	1020	4.60	175	0.5	6.66	19.96	8.25	-85	0.57	0.46	30	
	1025	4.59	150	0.8	6.65	20.74	8.13	-87	0.53	0.45	20	
	1030	4.58	250	1.2	6.64	21.45	8.10	-88	0.55	0.45	12	
	1035	4.88	250	1.5	6.65	20.12	8.05	-86	0.53	0.44	12	
	1040	4.86	250	2.0	6.68	18.57	8.01	-84	0.50	0.44	13	
	1045	4.81	250	2.3	6.65	19.25	7.71	-96	0.56	0.42	7.2	
	1050	4.82	250	2.5	6.65	20.15	7.63	-99	0.46	0.42	6.0	
	1055	4.80	250	2.6	6.66	20.41	7.60	-100	0.41	0.42	6.4	
Post-Purge	1215	4.68	150	3.0	6.98	18.60	7.93	-95	0.86	0.44	5.0	Petrolike odor.

Remarks: Pump Intake Depth: 29.77 Control Box Setting (Hz): Development: 60,40-94.61 Sampling: (Sample at 100-250 ml/min) 61.90-62.30

Noted DNAPL on Interface probe after TD Measure and. measure of thickness of phase.

PID - 15.5ppm

SAMPLING

Depth to Water Before Sampling:	4.68
Sample Methodology:	Tube - low flow w/ 2" Grundfos pump and teflon lined tubing
Sample Name:	GC-MW7I QC Sample: None
Sample Date/Time:	7/20/10 1100
Sampler / Signature:	E. Brandt
Filtered Metals Collected:	(Y) N Filter Size: 0.45
Sample Observations:	Sheen on water in sample bottles
Parameters:	VOC, SVOC, Metals, Filtered Metals, CN, Hg, PCB, Pest.

TDR

PS 1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-8 shallow		Site: Gowanus Canal Remedial Investigation	
Field Crew: EB		Date: 7/20/10	Project #: 395863
Well Depth (ft.): 12.84	Purge Methodology: Low Flow	Diameter / Gal. Per Foot: 2" .163; 3" .367; 4" .653	Diameter / Gal. Per Foot: 5" 1.020; 6" 1.469; 8" 2.611
DTW (ft.): 3.33			
Water Column (ft.): 9.51			
Well Diameter (in.):			
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52		
Well Volume (gal.): 1.6			
Depth of Screen (ft.): 2-12			

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	12:50	3.27	250	<.5	7.94	21.70	1.94	-99	7.86	0.06	67.4	
	12:55	9.09	125	<.5	7.26	24.55	1.58	-94	5.26	0.05	75.8	
	13:00	3.97	150	<.5	7.20	25.64	1.49	-102	5.09	0.04	67.2	
	13:05	4.08	150	<.5	7.22	26.47	1.44	-109	4.77	0.04	75.9	
	13:10	3.98	170	1	7.18	26.81	1.40	-115	9.47	0.01	70.2	
	13:15	3.94	80	1.2	7.31	22.02	1.37	-101	4.30	0.04	66.7	
	1320	4.0	140		7.31	27.16	1.37	-109	4.20	0.04	53.6	
	13:25	4.19	150		7.35	27.31	1.37	-119	4.04	0.04	34.8	
	13:30	4.26	150		7.40	27.36	1.34	-125	3.77	0.04	25.1	
	1335	4.32	150	2.5	7.45	27.36	1.30	-130	3.56	0.04	19.0	
	13:40	4.22	150	3.5	7.46	27.35	1.29	-132	3.30	.04	11.0	
Post-Purge	14:50	4.89	120	3.5	7.48	30.72	1.27	-102	0.00	.04	16.0	

Remarks: Pump Intake Depth: 11.54

Control Box Setting (Hz): 61.60 Development:

Sampling: (Sample at 100-250 ml/min) 64.40 150 ml/min

PID 5.9

SAMPLING

Depth to Water Before Sampling: 4.22

Sample Methodology: Tube - low flow w/ 2" Grundfos & teflon lined tubing

Sample Name: GE-MW8S QC Sample: none

Sample Date/Time: 7/20/10 1350

Sampler / Signature: Ed Brandt

Filtered Metals Collected: (Y)/ N Filter Size: 0.45

Sample Observations:

Parameters: VOC, SVOC, Metals, Filtered Metals, PCB, Pest, Hg, CN

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 85	Site: Gowanus Canal Remedial Investigation
Field Crew:	Date: 7/20/10 Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.):	See page 1
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1345	4.23	150	2.7	7.46	27.41	1.28	-133	3.18	0.04	12	
Post-Purge												

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See page 1

SAMPLING

Depth to Water Before Sampling:

Sample Methodology:

Sample Name: QC Sample:

Sample Date/Time:

Sampler / Signature:

Filtered Metals Collected: Y / N Filter Size:

Sample Observations:

Parameters:

Low-Flow Groundwater Sampling: Field Data Sheet

Pg 1 of 2

Well Number: MW-8I deep intermediate		Site: Gowanus Canal Remedial Investigation	
Field Crew: EB		Date: 7/20/10	Project #: 395863
Well Depth (ft.): 38.6	Purge Methodology: Low Flow w/ 2" Grundfos	Diameter / Gal. Per Foot: 2" .163; 3" .367; 4" .653	Diameter / Gal. Per Foot: 5" 1.020; 6" 1.469; 8" 2.611
DTW (ft.): 4.5			
Water Column (ft.): 34.1			
Well Diameter (in.): 2			
Gal. per ft.: .163	Water Quality Meter: YSI 556 MPS		
Well Volume (gal.): 5.6			
Depth of Screen (ft.): 33.6			

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	12:50	4.57	150	<.5	8.82	30.68	2.61	-30	1.53	0.09	42.8	
	12:55	4.93	160	<.5	7.61	30.27	2.52	-48	0.00	0.09	75.8	575
	13:00	4.95	200	1	7.50	29.11	2.54	-54	0.00	0.09	30	
	13:05	4.93	200	1	7.59	28.32	2.59	-57	0.00	0.09	17.2	
	13:10	4.93	210	1	7.68	27.70	2.72	-58	0.00	0.09	16.5	
	13:15	4.94	190	1.5	7.74	27.35	3.25	-59	0.0	0.12	15.4	
	1320	4.93 4.93	190	1.75	7.82	27.02	3.47	-60	0.00	0.13	13.9	
	1325	4.89	175	2.0	7.84	26.69	3.51	-59	0.00	0.13	10.9	
	13:30	4.93	160	2.25	7.86	26.44	3.49	-60	0.00	0.13	9.64	
	1335	4.92	170	2.75	7.87	26.24	3.50	-57	0.00	0.13	20.02	
	1340		170	3	7.90	26.01	3.47	-60	0.00	.13	16.9	
Post-Purge	1445	5.02	150	~5	8.17	26.78	3.03	-44	0.00	0.11	0.00	

Remarks: Pump intake Depth: 37.2 | Control Box Setting (Hz): 57.6 | Development: | Sampling: (Sample at 100-250 ml/min) 55.10 170 ml/min

SAMPLING

Depth to Water Before Sampling:	5.01
Sample Methodology:	Tube - low flow w/ 2" Grundfos pump + teflon lined tubing
Sample Name:	GG-MW-8I QC Sample: none
Sample Date/Time:	7/20/10 1400
Sampler / Signature:	E. Brault
Filtered Metals Collected: (Y) N	Filter Size: 0.45
Sample Observations:	
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCB, Pest, CN, Hg

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: NW8I	Site: Gowanus Canal Remedial Investigation
Field Crew: ER	Date: 7/20/10 Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	*See page 1
Water Column (ft.):	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1345	4.96	200	3.8	7.94	25.84	3.46	-61	0.00	0.13	7.61	
	1350	5.00		4.0	7.89	25.52	3.45	-58	0.00	0.12	7.26	
	1355	5.02		4.5	7.95	25.44	3.43	-61	0.00	0.12	7.62	
Post-Purge												

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	~~Tubing~~
Sample Name:	~~QA Comp NW8I~~ QC Sample:
Sample Date/Time:	~~7/20/10 1350~~
Sampler / Signature:	*See page 1
Filtered Metals Collected: Y / N Filter Size:	
Sample Observations:	
Parameters:	

DA

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 11 S	**Site: Gowanus Canal Remedial Investigation**
Field Crew: SO, EB, CM	**Date:** 9/14/10 **Project #:** 395863
Well Depth (ft.): 14.54	Purge Methodology: Low Flow
DTW (ft.): 7.32'	
Water Column (ft.): 7.22'	
Well Diameter (in.): 2in	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 1.18	U-52
Depth of Screen (ft.): 4.54	Lamotte 2020e

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Sal %	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1305	7.91	200	0	7.01	23.64	1.34	-100	0.08	43.2	0.04	slight petro-like
1 VOL.	1320	9.61	200	0.3	7.22	19.82	1.32	-122	0.00	32.2	0.04	
2 VOL.	1325	9.61	100	0.45	7.22	22.04	1.24	-120	0.00	28.4	0.04	
3 VOL.	1330	9.98	100	0.6	7.22	21.67	1.25	-118	0.00	32.8	0.04	
4 VOL.	1335	10.10	100	0.75	7.22	22.33	1.23	-116	0.00	29.0	0.04	
5 VOL.	1340	10.37	150	0.9	7.22	22.15	1.22	-116	0.00	27.9	0.03	
6 VOL.	1345	10.64	100	1.15	7.23	22.74	1.21	-117	0.00	26.2	0.03	
7 VOL.	1350	10.83	150	1.4	7.23	22.32	1.24	-120	0.00	22.2	0.04	
8 VOL.	1355	10.93	150	1.6	7.23	23.03	1.23	-121	0.00	21.2	0.04	
9 VOL.	1400	11.11	150	1.8	7.23	22.64	1.27	-122	0.00	21.8	0.04	
10 VOL.	1405	11.16	100	1.95	7.23	22.05	1.27	-122	0.00	21.8	0.04	↓
Post-Purge	1605	12.13	75	2.05	7.19	25.39	1.51	-104	0.00	7.34	0.05	↓

Remarks: Pump Intake Depth: 13.54 Control Box Setting (Hz): Development: ~~70, 70 Hz~~ (EB) 76.5 Hz Sampling: (Sample at 100-250 ml/min)

(PID) Headspace Reading = 22.4 ppm

SAMPLING

Depth to Water Before Sampling:	11.20
Sample Methodology:	low flow
Sample Name:	GC-MW-11-S QC Sample: n/a
Sample Date/Time:	9/14/2010 @ 14/0 - 1410
Sampler / Signature:	SO
Filtered Metals Collected:	(Y) / N Filter Size: 0.45
Sample Observations:	n/a
Parameters:	VOC, SVOC, Pest, PCB, metals, filtered metals

DP

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 11 I	**Site: Gowanus Canal Remedial Investigation**
Field Crew: EB, SQ, CM	**Date:** 7/14/10 **Project #: 395863**

Well Depth (ft.): 44.89'
DTW (ft.): 7.03'
Water Column (ft.): 37.86
Well Diameter (in.): 2in
Gal. per ft.: 0.163
Well Volume (gal.): 6.17gal
Depth of Screen (ft.): 39.89

Purge Methodology: Low Flow

Water Quality Meter: GL-52 Lemitic 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Sal %	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1305	7.14	275	0	7.45	23.63	1.44	-167	0.55	170	0.07	Slight petro-like odor
1 VOL.	1310	7.14	275	0.4	7.41	22.49	1.50	-167	0.48	130	0.08	
2 VOL.	1315	7.14	275	0.8	7.33	21.00	1.54	-163	0.44	75	0.08	
3 VOL.	1320	7.14	275	1.2	7.24	20.92	1.52	-159	0.36	45	0.08	
4 VOL.	1325	7.14	275	1.6	7.20	21.61	1.49	-157	0.36	40	0.07	
5 VOL.	1330	7.14	275	2.0	7.19	24.67	1.38	-157	0.24	13	0.07	
6 VOL.	1335	7.19	275	2.4	7.18	24.87	1.37	-156	0.24	21	0.07	
7 VOL.	1340	7.19	375	2.9	7.17	25.06	1.36	-156	0.24	14	0.07	
8 VOL.												
9 VOL.												
10 VOL.												
Post-Purge	1425	7.19	325	2.9	7.10	17.26	1.60	-132	0.36	19	0.08	Slight petro-like odor

Remarks: Pump Intake Depth: 42.39 Control Box Setting (Hz): Development: 70.70Hz Sampling: (Sample at 100-250 ml/min)

PID Headspace Reading = 18.8ppm.

SAMPLING

Depth to Water Before Sampling: 7.19
Sample Methodology: Tube w/ 2" Grundfos pump + teflon lined tubing
Sample Name: GC-MW-11I QC Sample: N/A
Sample Date/Time: 7/14/10 1345 7.28ft (DTW)
Sampler / Signature: E.Brandt [signature]
Filtered Metals Collected: (Y) / N Filter Size: 0.45
Sample Observations: N/A
Parameters: VOC, SVOC, Pest, PCB, metals, filtered metals

DB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 125	**Site:** Gowanus Canal Remedial Investigation
Field Crew: MB EB TF SQ KM	**Date:** 7/13 **Project #:** 395863
Well Depth (ft.): 14.16	Purge Methodology: Low flow sample procedure grouns pump, tefton tubing
DTW (ft.): 9.33	
Water Column (ft.): 4.83	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52
Well Volume (gal.): 0.78	Lamotte 2020
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor	
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		Settled
Initial	10:15	9.81	325/min	-	Pump to	clear	—	—	—	—	PID 46.7 in well	-
1 VOL.	10:20	10.01	100/min	.25	6.58	20.55	1.13	-85	.96	140	Petroleum like, grey	.6
2 VOL.	10:25	10.05	100/min	.5	6.62	21.34	1.14	-98	.76	150	tan colored, cloudy	.6
3 VOL.	10:30	10.09	100/min	.6	6.64	21.93	1.14	-102	.69	180	tan/Brown	.6
4 VOL.	10:35	10.10	100/min	.8	6.66	22.56	1.14	-110	.63	6.1	slightly cloudy, brown	.6
5 VOL.	10:40	10.10	100/min	1	6.68	22.98	1.13	-113	.60	75	partly cloudy, grey	.6
6 VOL.	10:45	10.03	100/min	1.2	6.70	23.47	1.13	-117	.56	40	clear slight odor	.6
7 VOL.	10:50	10.19	150/min	1.5	6.71	23.33	1.13	-115	.59	37	clear slight odor	.6
8 VOL.	10:55	10.26	150/min	1.7	6.73	23.50	1.13	-123	.54	24	clear slight odor	.6
9 VOL.	11:00	10.33	100/min	1.8	6.73	23.72	1.13	-124	.49	21	clear slight odor	.6
10 VOL.	11:05	10.17	120/min	2.0	6.76	24.02	1.12	-125	.47	26	partly cloudy, grey	.6
Post-Purge	11:10	10.2	500/min	2.8	6.76	22.56	1.11	-127	.45	32	clear. s	.6

Remarks: Pump Intake Depth: 13.1 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

PID - 46.7 - in well

SAMPLING

Depth to Water Before Sampling:	10.19
Sample Methodology:	Low flow w/ 2" Grundfos pump + teflon lined tubing
Sample Name:	G.C-MW125 QC Sample: w/
Sample Date/Time:	7/13 12:00
Sampler / Signature:	Michael Briscoe
Filtered Metals Collected: Y / N Filter Size:	40 mm MS 765
Sample Observations:	Clear, petro like smell - high tide
Parameters:	VOCs, SVOCs, Pesticides, PCBs, total metals, dissolved metals

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 125	**Site:** Gowanus Canal Remedial Investigation
Field Crew: MM EB TF SQ MB	**Date:** 7/13 **Project #:** 395863
Well Depth (ft.): 14.16	Purge Methodology: Low flow sample procedure ground pump, teflon tubing
DTW (ft.): 9.33	
Water Column (ft.): 4.83	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52 Lamotte 2020
Well Volume (gal.): 0.787	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
Cont. Initial	11:15	10.72	200/min	3.3	6.78	22.87	1.10	-131	.41	150	partly cloudy .5 salinity
PID: 327 in well PID: 10 in bucket 1 VOL.	11:20	10.76	250/min	3.7	6.81	22.86	1.08	-139	.45	190	partly cloudy .5 salinity
2 VOL.	11:25	10.79	250/min	4.1	6.83	22.97	1.07	-142	.35	95	partly cloudy .5 salinity
3 VOL.	11:30	10.77	150/min	4.5	6.84	23.09	1.07	-143	.34	65	slightly clear .5 salinity
4 VOL.	11:35	10.73	100/min	5.0	6.86	23.27	1.06	-144	.34	53	slightly cloudy .5 salinity
5 VOL.	11:40	10.63	150/min	5.5	6.87	23.60	1.06	-147	.34	26	clear .5 salinity
6 VOL.	11:45	10.63	120/min	6.0	6.87	23.66	1.05	-149	.34	27	clear .5 salinity
7 VOL.	11:50	10.44	100/min	6.3	6.87	23.66	1.05	-149	.34	23	clear .5 salinity
8 VOL.	11:55	11.19	120/min	7.5	6.87	23.65	1.05	-149	.35	23	clear .5 salinity
9 VOL.	~~12:00~~	~~11.19~~									
10 VOL.											
12:55 Post-Purge	~~12:50~~	12.76	120/min	7.5	6.87	22.10	0.962	-129	8.59	290	clear .4 sal

Remarks: Pump Intake Depth: 13.1 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

11:15 - PID in well 327
in bucket 10

SAMPLING

Depth to Water Before Sampling:	10.19
Sample Methodology:	low flow
Sample Name:	GC-MW125 QC Sample: W/I
Sample Date/Time:	7/13/10 12:00
Sampler / Signature:	Michael Briscoe
Filtered Metals Collected:	(Y) N Filter Size: 40mm
Sample Observations:	Clear, slight petro odor
Parameters:	VOC, SVOC, metals, dissolved metals, pesticides, PCBs

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: GC-12I	**Site:** Gowanus Canal Remedial Investigation
Field Crew: EB SQ	**Date:** 7/13/10 **Project #:** 395863
Well Depth (ft.): 44.97	Purge Methodology: Low Flow Sampling procedure, Submersible pump, Teflon lined
DTW (ft.): 9.08	
Water Column (ft.): 35.89	
Well Diameter (in.): 2"	
Gal. per ft.: ~~35.84~~ 0.163	Water Quality Meter: Horiba U-52 Lamotte 2020
Well Volume (gal.): 5.85	
Depth of Screen (ft.): —	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	Sal
Initial	1020	9.11	360	0	7.08	19.36	1.40	-119	0.0	19.4	0.04 clear, slight petro like odor
1 VOL.	1025	9.11	360	0.5	6.94	18.73	1.40	-115	0.0	13.7	0.04 clear, slight petro like odor
2 VOL.	1030	9.11	230	0.75	6.88	18.68	1.40	-113	0.0	12.5	0.04 clear slight petro like odor
3 VOL.	1035	9.10	230	1.0	6.86	18.41	1.39	-111	0.0	7.52	0.04 clear slight petro like odor
4 VOL.	1040	9.10	230	1.25	6.86	18.50	1.38	-111	0.0	7.59	0.04 clear slight petro like odor
5 VOL.	1045	9.10	235	1.75	6.86	18.55	1.38	-111	0.0	8.60	0.04 clear slight petro like odor
6 VOL.	1050	9.10	225	2.0	6.87	18.45	1.38	-111	0.0	4.03	0.04 clear slight petro like odor
7 VOL.											
8 VOL.											
9 VOL.											
10 VOL.											
Post-Purge	1150	9.12	200		7.02	18.35	1.36	-92	3.12	8.45	0.04 clear slight petro like odor

Remarks: Pump Intake Depth: 42.47 Control Box Setting (Hz): Development: 74.83 Sampling: (Sample at 100-250 ml/min) 1055

PI1-257.0

SAMPLING

Depth to Water Before Sampling:	9.10
Sample Methodology:	Low Flow w/ 2" Grundfos pump + teflon lined tubing
Sample Name:	GC-mw-12I QC Sample: None
Sample Date/Time:	7/13/10 1055
Sampler / Signature:	SQ / EB
Filtered Metals Collected:	(Y) N Filter Size: 45 micron DOC + metals
Sample Observations:	Clear, slight petro like odor Hole Fish, slight sheen
Parameters:	VOC, SVOC, pest, PCB, metals, filtered metals

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-13S	Site: Gowanus Canal Remedial Investigation
Field Crew: MVB	Date: 7.19.10 Project #: 395863
Well Depth (ft.): 16.41	Purge Methodology:
DTW (ft.): 4.27	Low flow
Water Column (ft.): 8.14	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 1.3	Horiba
Depth of Screen (ft.): 2.41	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1230	4.10	50	<.5	6.83	29.00	3.71	-146	2.28	0.14	42.1	Petroleum odor
	1235	5.58	150	<.5	7.02	25.49	3.79	-161	1.40	0.14	28.4	petroleum like odor, cloudy
	1240	5.90	175	<.5	7.07	27.04	3.81	-150	0.3	0.14	36.8	
	1245	5.94	50	.5	7.07	27.97	3.84	-157	0.0	0.14	40.5	
	1250	6.21	100	.5+	7.08	28.28	3.94	-158	0.0	0.15	46.8	
	1255	6.29	150	1	7.08	29.85	3.98	-161	0.0	0.15	44.0	
	1300	6.31	150	1+	7.10	31.00	3.95	-135	0.0	0.15	46.4	
											46.3	
Post-Purge	1514	10.29	100	1+	7.41	32.66	2.72	-129	0.0	0.09	16.3	

Remarks: Pump Intake Depth: 11.41' Control Box Setting (Hz): Development: 61.80 - 62.3 Sampling: (Sample at 100-250 ml/min) 60.70 - 77.60

Tube Coming in

SAMPLING

Depth to Water Before Sampling:	6.31
Sample Methodology:	Tube - low flow w/ 2" Grundfos pump and teflon lined tubing
Sample Name:	GC-MW13S QC Sample: none
Sample Date/Time:	7.19.10 1305
Sampler / Signature:	
Filtered Metals Collected:	(Y) N Filter Size: .45
Sample Observations:	
Parameters:	VOCs, SVOCs, Metals, diss Metals, Nest/PCBs, CN-

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-13I	Site: Gowanus Canal Remedial Investigation	
Field Crew:	CM/GB	Date: 7/19/2010	Project #: 395863
Well Depth (ft.):	55.25	Purge Methodology:	Low Flow
DTW (ft.):	5.60		
Water Column (ft.):	49.65		
Well Diameter (in.):	2		
Gal. per ft.:	0.163	Water Quality Meter:	Horiba U-22XD
Well Volume (gal.):	8.0		
Depth of Screen (ft.):	50.25		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1505	4.30	200	0	7.14	30.93	2.12	-148	1.84	0.11	29.3	
	1510		200	0.7	6.88	23.98	4.14	-171	0.82	0.22	72.4	
	1515		200	1.0	6.86	22.91	4.51	-172	0.69	0.24	68.0	
	1520		~~250~~ 200	1.2	~~6.85~~ 6.85	22.71	4.56	-171	0.68	0.24	63.5	
	1525		250	1.8	6.84	22.24	4.78	-168	0.62	0.26	30.6	
	1530	↓	250	2.2	6.85	21.91	4.90	-167	0.54	0.26	22.2	
	1535	4.30	250	2.5	6.87	21.31	4.99	-165	0.48	0.27	8.84	
	1540		250	2.6	6.87	21.29	5.02	-165	0.61	0.27	7.96	
	1545		250	2.8	6.88	21.27	5.06	-165	0.55	0.27	5.33	
	1550	↓	250	3.0	6.89	21.05	5.08	-164	0.47	0.27	3.04	
Post-Purge	1715	4.40	240	4.8	6.92	28.83	4.60	-161	1.49	0.25	5.36	

Remarks: Pump Intake Depth: 52.75 Control Box Setting (Hz): 50,50 Development: Sampling: (Sample at 100-250 ml/min)

Interface Probe malfunctioning.

PID Reading:

SAMPLING

Depth to Water Before Sampling:	4.30
Sample Methodology:	Low Flow
Sample Name:	GC-MW13I
QC Sample:	none
Sample Date/Time:	7/19/2010 1555
Sampler / Signature:	Ed Brandt
Filtered Metals Collected:	(Y) / N Filter Size: 0.45 micron
Sample Observations:	
Parameters:	VOC SVOC Metals Filtered Metals Cyanide, PCB, Pesticides, Mercury

D4

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-14S	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP/mB	Date: 7.19.10 Project #: 395863

Well Depth (ft.): 13.47
DTW (ft.): 4.20
Water Column (ft.): 9.27
Well Diameter (in.): 2
Gal. per ft.: 0.163
Well Volume (gal.): 1.56
Depth of Screen (ft.): 3.47

Purge Methodology: Low Flow

Water Quality Meter: Horiba

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
(2")	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1020	4.12	500	<.5	6.95	20.62	1.33	-91	.86	0.07	21.4	
	1025	4.98	200	.5	6.77	22.89	1.24	-60	.59	0.06	17.1	
	1030	5.01	125	1.5	6.75	24.09	1.21	-59	.78	0.06	14.2	
	1035	5.09	150	1	6.76	24.71	1.18	-65	.82	0.06	9.3	
	1040	5.09	100	1+	6.75	24.94	1.18	-62	.72	0.06	6.74	
	1045	5.09	100	1+	6.78	24.99	1.20	-67	.66	0.06	5.18	
Post-Purge	1210	6.35	100	1+	6.45	27.35	1.23	-79	.72	0.06	12.8	

Remarks: Pump Intake Depth: 12.47 Control Box Setting (Hz): Development: 59.20 - 59.60 Sampling: (Sample at 100-250 ml/min) 57.50 -

PID Headspace = 0.0 ppm

SAMPLING

Depth to Water Before Sampling: 5.09
Sample Methodology: Tube
Sample Name: GC-MW-14S QC Sample: NO
Sample Date/Time: 7.19.10 1045
Sampler / Signature: MVP
Filtered Metals Collected: (Y) N Filter Size: 045
Sample Observations: None
Parameters: VOCs, SVOC, metals, Dissolved Metals, pest/PCBs, CN

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-114I	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP/MB	Date: 7/19/10 Project #: 395863
Well Depth (ft.): 56.03	Purge Methodology: Low Flow
DTW (ft.): 5.85	
Water Column (ft.): 50.20	
Well Diameter (in.): 2in	
Gal. per ft.: 0.163	Water Quality Meter: U-52
Well Volume (gal.): 8.189	
Depth of Screen (ft.): 61.03	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1045	5.89	350	–	6.21	21.22	1.23	-74	1.92	0.06	28.5	clear.
	1050	NA	400	0.5	6.38	20.39	2.15	-153	0.86	0.11	46.2	Brown/opaque
	1055		400	1.2	6.52	20.12	2.21	-172	0.73	0.11	212	Cloudy.
	1100		400	1.7	6.57	19.77	2.38	-173	0.62	0.12	182	Cloudy.
	1105		400	2.3	6.59	20.02	2.65	-173	0.57	0.14	100.9	Slightly cloudy.
	1110		340	2.7	6.62	19.82	2.77	-169	0.51	0.14	58.2	slightly cloudy.
	1115		350	3.0	6.64	19.73	2.86	-168	0.61	0.15	42.8	slightly cloudy
	1120		350	3.3	6.66	19.59	2.91	-169	0.63	0.15	30.4	
	1125		400	3.8	6.68	19.48	2.94	-169	0.56	0.15	19.0	
	1130		400	5	6.71	19.43	2.93	-169	0.50	0.15	16.9	
	1135	↓	400	5.5	6.72	19.47	2.96	-169	0.48	0.15	14.4	
Post-Purge	→	→	SEE	NEXT	PAGE	FOR	COMMUNICATIONS	←				

Remarks: Pump Intake Depth: 53.53 Control Box Setting (Hz): Development: 63.00 Sampling: (Sample at 100-250 ml/min)

NA- Interface probes not functioning, unable to obtain DTW

PID Reading: 0.0 ppm

SAMPLING

Depth to Water Before Sampling: NA

Sample Methodology: Low Flow

Sample Name: GC-MW114I QC Sample:

Sample Date/Time: 7/19/10 * see page 1 for details

Sampler / Signature:

Filtered Metals Collected: (Y) N Filter Size: 0.45

Sample Observations:

Parameters: VOC, SVOC, Metals, Filtered Metals, PCB, Pest, CN, Hg

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-14I	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP/MB	Date: 7/19/2010 Project #: 395863
Well Depth (ft.): 56.03	Purge Methodology: Low Flow
DTW (ft.): 5.85	
Water Column (ft.): 50.20	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163 gal/ft	Water Quality Meter: Horiba
Well Volume (gal.): 8.18 gal	
Depth of Screen (ft.): 51.03	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500	\	+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1140	NA	400	6	6.95	19.38	2.92	-169	0.47	0.15	14.9	
	1145		450	7	6.76	19.19	2.90	-170	0.47	0.15	20.0	
	1150		500	7.5	6.78	19.14	2.89	-172	0.43	0.15	34.7	
	1155		200	8	6.80	19.23	2.89	-174	0.41	0.15	40.4	
	1200		200	8.2	6.81	20.92	2.95	-176	0.39	0.15	21.3	
	1205		200	8.7	6.84	20.81	2.95	-177	0.39	0.15	21.8	
	1210		200	9	6.85	20.79	3.05	-174	0.39	0.15	12.5	
	1215		200	9.5	6.86	20.88	3.04	-169	0.41	0.16	10.94	
	1220		200	10	6.86	20.77	3.04	-172	0.38	0.16	10.15	
	1225	↓	200	10.2	6.87	20.29	3.05	-172	0.37	0.16	11.1	
Post-Purge	1310	5.68	210		6.93	24.39	3.10	-185	3.40	0.16	23.8	

Remarks: Pump Intake Depth: 53.53 Control Box Setting (Hz): Development: 63.00 Sampling: (Sample at 100-250 ml/min) 57.20 Hz

interface probe not functioning, unable to obtain DTW.

PID Readings: 0.0 ppm

SAMPLING

Depth to Water Before Sampling: NA

Sample Methodology: Low Flow

Sample Name: GC-MW19I QC Sample:

Sample Date/Time: 7/19/2010 1230

Sampler / Signature: Ed Ricardi

Filtered Metals Collected: (Y) / N Filter Size:

Sample Observations:

Parameters: VOC, SVOC, metals, PCB, Filtered Metals, REE, Hg, CN.

Low-Flow Groundwater Sampling: Field Data Sheet

P/D

0.0 ppm (18.7 O2 percent) P2

Well Number: MW155		Site: Gowanus Canal Remedial Investigation	
Field Crew: Tom Fowler		Date: 7/22/10	Project #: 395863
Well Depth (ft.): 13.45'	Purge Methodology:	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 6.65'	low flow	2" .163	5" 1.020
Water Column (ft.): 6.8'	w/ grnd fds	3" .367	6" 1.469
Well Diameter (in.): 2"	+ tephon tubing	4" .653	8" 2.611
Gal. per ft.: 0.163'	Water Quality Meter:		
Well Volume (gal.):	Horiba 452		
Depth of Screen (ft.): 3.45-13.45	LaMotte 2020		

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1600	6.65	90	0	7.13	25.67	12.6	-40	0.00	0.72	269	sl. yellow to turbidity
	1605	7.3	170	<1	6.91	26.93	13.1	-15	0.00	0.75	181	"
	1610	8.1	100	<1	6.91	28.13	13.1	+1	0.00	0.75	199	"
	1615	9.06	280	<1	6.90	27.70	12.8	7	0.00	0.72	743	"
	1620	~8.8	90	~1	6.89	25.84	12.9	11	0.00	0.74	213	"
	1625	~9.5	240	~1.2	6.91	26.06	13.1	20	0.00	0.75	199	"
	1630	8.91	80	~1.4	6.94	25.90	13.0	11	0.00	0.75	160	"
	1635	9.5	200	~1.8	6.94	26.52	13.3	7	0.00	0.77	131	"
	1640	9.88	100	~2	6.97	26.28	13.1	-4	0.00	0.75	121	"
	1645	9.88	80	~2.1	6.98	26.53	13.2	0	0.00	0.76	100	"
	1650	9.88	200	~2.2	6.98	26.93	13.4	-3	0.00	0.77	72.9	Clear
Post-Purge	1655	9.88	140	~2.3	6.99	26.59	13.1	-18	0.00	0.75	58.4	Clear

turbidimeter LaMotte 2000 to 2020e

Remarks: Pump Intake Depth: 12.45' Control Box Setting (Hz): 76 Development: Sampling: (Sample at 100-250 ml/min)

1700	10.03	200	~2.4	7.00	26.38	13.2	-18	0.00	0.76	70.5
1705	10.4	330	~2.6	7.01	26.22	13.2	-23	0.00	0.76	74.6
1710	10.68	140	~2.8	7.05	25.46	13.1	-21	0.00	0.76	87.4
1715	10.7	110	~3	7.09	25.69	13.3	-33	0.00	0.77	85.4

SAMPLING

Depth to Water Before Sampling:

Sample Methodology: LFSP

Sample Name: MW155 QC Sample: none

Sample Date/Time: 7/22/10 1745

Sampler / Signature: TF

Filtered Metals Collected: Y / N Filter Size: .45

Sample Observations: slight yellow → clear

Parameters: VOCs, SVOCs, Pest, PCBs, Metals (FIL/UNF), Cyanide

1720	10.75	100	~3.2	7.09	26.00	13.4	-44	0.00	0.77	67.2
1725	10.77	90	~3.4	7.10	26.43	13.5	-51	0.00	0.77	63.3
1730	11.00	200	3.8	7.11	26.61	13.4	-50	0.00	0.77	35.3
1735	11.01	120	~4	7.12	26.51	13.4	-48	0.00	0.77	37.9
1740	11.02	100	~4.2	7.13	26.51	13.4	-47	0.00	0.77	36.9

Sample 1745

at 1900 INSUFFICIENT FLOW FOR FINAL READINGS

DTW 11.7

OB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-15S	**Site:** Gowanus Canal Remedial Investigation
Field Crew: Michael Murphy	**Date:** 7/27/10 **Project #:** 395863
Well Depth (ft.): 13.53	Purge Methodology: Low-Flow Purge Method - Grundfos Pump
DTW (ft.): 6.83	
Water Column (ft.): 6.7	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52 Lamotte 2020
Well Volume (gal.): 1.09	
Depth of Screen (ft.): 3.5-13.5	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	Salinity (%)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1015	NR	125	—	6.90	22.08	13.4	0	0.82	150	0.77%	Cloudy
1 VOL.	1020	NR	125	1gal	6.92	23.29	13.4	-5	0.81	150	0.77	cloudy
2 VOL.	1025	NR	125	1.1	6.94	23.94	13.5	2	0.81	100	0.78	
3 VOL.	1030	NR	125	1.2	6.94	24.53	13.5	8	0.84	85	0.78	
4 VOL.	1035	NR	125	1.3	6.99	24.56	13.7	1	0.79	55	0.79	
5 VOL.	1040	NR	125	1.4	7.00	24.95	13.6	4	0.81	45	0.79	
6 VOL.	1045	NR	125	1.5	7.04	24.76	13.8	-4	0.76	50	0.79	clear
7 VOL.	1050	NR	125	1.6	7.05	24.80	13.7	-5	0.74	45	0.79	clear
8 VOL.	1055	NR	125	1.7	7.06	25.41	13.7	-2	0.72	39	0.79	
9 VOL.	1100	NR	125	1.8	7.06	25.52	13.7	1	0.70	31	0.79	
10 VOL.	1105	NR	125	1.9	7.07	25.59	13.7	-2	0.67	23	0.79	
11	Post-Purge ~1110	NR	125	2.0	7.09	25.80	13.7	-2	0.69	18	0.79	

Remarks: Pump Intake Depth: ~12.5' Control Box Setting (Hz): Development: ~85 Hz Sampling: (Sample at 100-250 ml/min) ~85 Hz

Depth to water did not work while pump was operational

Ferrous Iron - 0.22 mg/L

SAMPLING

Depth to Water Before Sampling:	NR
Sample Methodology:	low flow sample procedure
Sample Name:	GC-MW15S QC Sample: None
Sample Date/Time:	7/27/10 1130
Sampler / Signature:	
Filtered ~~Metals~~ Collected:	Y (N) Filter Size: 0.45 micron (geo chem parameters)
Sample Observations:	clear - no odor
Parameters:	Geo Chem parameters only

GEOCHEM PARAMETERS ONLY!!!

(13)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-15S	**Site: Gowanus Canal Remedial Investigation**
Field Crew: Michael Murphy	**Date:** 7/27/10 **Project #: 395863**
Well Depth (ft.): 13.53	Purge Methodology: Low-Flow Purge Method - Grundfos Pump
DTW (ft.): 6.83	
Water Column (ft.): 6.7	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52 Lamotte 2020
Well Volume (gal.): 1.09	
Depth of Screen (ft.): 3.5 - 13.5	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Salinity (%)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1115	NR	125	2.1	7.09	25.94	13.6	-2	0.69	14	0.79	clear
1 VOL.	1120	NR	125	2.2	7.09	26.01	13.6	-4	0.68	14	0.78	"
2 VOL.	1125	NR	125	2.3	7.10	26.12	13.6	-7	0.70	12	0.78	"
3 VOL.	1130	NR	125	—	Collect		Sample					
4 VOL.												
5 VOL.												
6 VOL.												
7 VOL.												
8 VOL.												
9 VOL.												
10 VOL.												
Post-Purge	1215	NR	125	—	7.20	26.72	13.3	-22	0.95	8.8	0.77	"

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See Page 1

SAMPLING

Depth to Water Before Sampling:	NR
Sample Methodology:	Low Flow Sample procedure
Sample Name:	GC-MW15S QC Sample: NONE
Sample Date/Time:	7/27/10 1130
Sampler / Signature:	
Filtered Metals Collected: (Y) / N	Filter Size: 0.45 micron (Geochem parameters)
Sample Observations:	Clear - no odor
Parameters:	Geochem parameters only

GEOCHEM PARAMETERS ONLY!!!

DB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 15I	**Site:** Gowanus Canal Remedial Investigation
Field Crew: MB TF	**Date:** 7/22/16 **Project #:** 395863
Well Depth (ft.): 60.25	**Purge Methodology:** Low flow w/ grundfos + tephlon tubing
DTW (ft.): 6.17	
Water Column (ft.): 54.08	
Well Diameter (in.): 2	
Gal. per ft.: .163	**Water Quality Meter:** Lamotte 2020
Well Volume (gal.):	Horiba - U52
Depth of Screen (ft.): 55.25	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1600	6.17	450/min	1	7.95	20.39	14.2	-140	0.0	.70	4.11	clear
	1605	6.12	450/min	1.5	7.88	20.30	14.6	-140	0.0	.72	12	Clear
	1610	6.05	400/min	2.0	7.84	20.18	14.8	-141	0.0	.73	4.9	Clear
	1615	6.00	400/min	2.5	7.81	20.07	15.1	-142	0.0	.75	5.0	clear
	1620	5.93	350/min	3.0	7.80	20.47	15.1	-143	0.0	.75	2.0	Clear
	1625	5.57	250/min	3.5	7.82	20.06	14.9	-147	0.0	.73	1.1	clear
Post-Purge	1755	5.07	200/min	6	7.83	20.11	15.2	-127	0.0	.75	6.6	clear

Remarks: Pump Intake Depth: 57.75 Control Box Setting (Hz): Development: 62.80HZ Sampling: (Sample at 100-250 ml/min) 200ml/min

Sample time 1635

PID: 0.0 Oxygen = 15.6 on PID.

SAMPLING

Depth to Water Before Sampling:	5.57
Sample Methodology:	tubing, low flow
Sample Name:	GC-MW15I QC Sample: X
Sample Date/Time:	7/22/16 1635
Sampler / Signature:	Michael Briscoe
Filtered Metals Collected:	(Y) N Filter Size: .45
Sample Observations:	Tide coming in while sampling, White floating globs at 1720
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCBs, Pesticides, Mercury, Cyanide

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-15I
Site: Gowanus Canal Remedial Investigation
Field Crew: Michael Murphy
Date: 7/27/10 **Project #:** 395863

Well Depth (ft.): 5.58
DTW (ft.): 60.40
Water Column (ft.): 54.82
Well Diameter (in.): 2"
Gal. per ft.: 0.163
Well Volume (gal.): 8.94
Depth of Screen (ft.): 50.4-60.4

Purge Methodology: Low Flow Purge Method - Grundfos Pump
Water Quality Meter: Horiba - U-52 Lamotte - 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Salinity (%)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1015	NR	~~500~~	—	7.13	18.95	13.7	-127	0.69	4.9	0.80	Clear none
1 VOL.	1020	NR	500	2.0	7.12	18.79	16.1	-151	0.46	1.8	0.34	" "
2 VOL.	1025	NR	500	2.5	7.15	18.55	16.7	-163	0.43	5.4	0.98	" "
3 VOL.	1030	NR	500	3.0	7.16	18.84	16.7	-167	0.41	2.7	0.98	" "
4 VOL.	1035	NR	500	3.5	7.19	18.97	16.5	-172	0.44	2.5	0.96	" "
5 VOL.	1040	NR	500	4.0	7.22	18.74	16.5	-175	0.47	4.4	0.97	" "
6 VOL.	1045	NR	500	4.5	7.22	18.62	16.6	-177	0.42	0.70	0.97	" "
7 VOL.	1050	NR	250	—								
8 VOL.												
9 VOL.												
10 VOL.												
Post-Purge	1115	NR	21.99	—	7.22	21.89	16.5	-159	0.38	0.65	0.87	

Remarks: Pump Intake Depth: ~55' Control Box Setting (Hz): Development: ~110 Hz Sampling: (Sample at 100-250 ml/min) 105 Hz

Ferrous Iron - 0.09 mg/L

Depth to water meter did not work while pump was operational

SAMPLING

Depth to Water Before Sampling: NR
Sample Methodology: Low Flow Sampling Procedure
Sample Name: GC-MW15I QC Sample: NONE
Sample Date/Time: 7/27/10 1050
Sampler / Signature:
Filtered Metals Collected: (Y) N Filter Size: 0.45 micron (geochem parameters)
Sample Observations: clear - no odor
Parameters: Geochem Parameters only

GEOCHEM PARAMETERS ONLY!!!

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	165	**Site:** Gowanus Canal Remedial Investigation	
Field Crew:	MB TF	**Date:** 7/22/10	**Project #:** 395863
Well Depth (ft.):	13.32	Purge Methodology:	Low flow
DTW (ft.):	4.18		
Water Column (ft.):	9.14		
Well Diameter (in.):	2"		
Gal. per ft.:	.163	Water Quality Meter:	
Well Volume (gal.):	1.48		Horiba U-52
Depth of Screen (ft.):	3.32		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
10:20 Initial ~~4.04~~	4.04	175/min	.2	7.10	20.85	1.52	-139	.46	.05	500	Black, petro like odor
10:25	4.86	175/min	.4	7.22	22.98	1.51	-159	0.0	.05	170	grayish
10:30	5.01	200/min	.6	7.28	23.40	1.54	-160	0.0	.05	80	cloudy, grey
10:35	5.05	175/min	.8	7.27	23.89	1.54	-160	0.0	.05	70	cloudy, grey
10:40	5.15	175/min	1.0	7.26	24.16	1.58	-158	0.0	.05	55	cloudy / grey
10:45	5.27	225/min	1.2	7.26	23.73	1.65	-155	0.0	.05	45	Cloudy / grey
10:50	5.31	225/min	1.4	7.25	23.65	1.68	-153	0.0	.05	35	Cloudy grey
10:55	5.34	250/min	1.9	7.25	23.93	1.70	-153	0.0	.05	29	slightly cloudy
11:00	5.40	150/min	2.2	7.24	24.15	1.73	-152	0.0	.05	26	slightly cloudy
11:05	5.53	190/min	2.5	7.21	23.56	1.83	-148	0.0	.05	20	slightly cloudy
11:10	5.62	190/min	2.8	7.20	23.69	1.86	-148	0.0	.06	16	clear
11:15	5.66	175/min	3.0	7.19	23.64	1.92	-147	0.0	.06	13	Clear
~~Post Purge~~											

Remarks: Pump Intake Depth: 12.32 Control Box Setting (Hz): 67.0 Development: Sampling: (Sample at 100-250 ml/min) 175 ml/min

Sample time: 11:45

PID: 2.5

SAMPLING

Depth to Water Before Sampling:	6.0
Sample Methodology:	tubing, low flow
Sample Name:	GC-MW-165 QC Sample: X
Sample Date/Time:	7/22/10 11:45
Sampler / Signature:	Michael Briscoe
Filtered Metals Collected:	(Y) N Filter Size: .45
Sample Observations:	cloudy grayish → clear
Parameters:	VOC, SVOC, Metals, filtered Metals, Mercury, Cyanide, pesticides PCBs

(B)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 165	**Site:** Gowanus Canal Remedial Investigation
Field Crew: MB TF	**Date:** 7/27 **Project #:** 395863
Well Depth (ft.): 13.32	Purge Methodology:
DTW (ft.): 4.18	Low flow
Water Column (ft.): 9.14	
Well Diameter (in.): 2	
Gal. per ft.: .163	Water Quality Meter:
Well Volume (gal.): 1.48	Horiba - U-52
Depth of Screen (ft.): 3-32	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	11:20	5.78	125/min	3.2	7.17	23.78	1.97	-146	0.0	.06	8.5	clear
	11:25	5.85	250/min	3.5	7.16	23.13	2.09	-144	0.0	.06	8.4	clear
	11:30	5.95	225/min	3.7	7.14	23.61	2.12	-144	0.0	.07	9.0	Clear
	11:35	6.0	175/min	4.0	7.15	23.60	2.13	-144	0.0	.07	6.8	Clear
Post-Purge	12:35	6.56	150/min	5.0	7.02	23.80	2.80	-120	0.0	.10	29	Clear

Remarks: Pump Intake Depth: 12.32 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min) 175 ml/min

See page 1

SAMPLING

Depth to Water Before Sampling:

Sample Methodology:

Sample Name: See QC Sample: page 1

Sample Date/Time:

Sampler / Signature:

Filtered Metals Collected: (Y) N Filter Size: .45

Sample Observations:

Parameters:

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-16S	**Site:** Gowanus Canal Remedial Investigation
Field Crew: DB	**Date:** 7/27/10 **Project #:** 395863
Well Depth (ft.): 13.31	Purge Methodology: LFSP - Grundfos
DTW (ft.): 4.21	
Water Column (ft.): 9.1	
Well Diameter (in.): 2	
Gal. per ft.: .163	Water Quality Meter: LaMotte 2020E
Well Volume (gal.): 1.48	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
0.16	Initial 955	4.53	200	—	6.44	22.29	2.02	-127	5.18	55.6	cloudy brown/none
.10	1 VOL. 1000	4.88	225	.3	6.53	22.80	1.93	-142	1.50	52.3	clear/none
.10	2 VOL. 1005	5.00	225	.6	6.60	24.15	1.88	-146	.66	51.8	clear/none
.10	3 VOL. 1010	5.03	225	.9	6.62	25.04	1.92	-146	.19	48.0	clear/none
.10	4 VOL. 1015	5.14	225	1.25	6.62	25.48	2.00	-144	0.0	39.7	clear/none
.11	5 VOL. 1020	5.31	175	1.5	6.63	25.50	2.07	-144	0.0	24.5	clear/none
.11	6 VOL. 1025	5.35	175	1.7	6.63	25.54	2.12	-146	0.0	10.2	clear/none
.11	7 VOL. 1030	5.37	175	1.9	6.63	25.81	2.18	-145	0.0	9.8	clear/none
.12	8 VOL. 1036	5.39	175	2.1	6.63	26.01	2.26	-144	0.0	9.0	clear/none
.12	9 VOL. 1040	5.40	175	2.3	6.63	26.25	2.35	-148	0.0	9.2	clear/none
.13	10 VOL. 1045	5.39	175	2.5	6.62	26.63	2.43	-147	0.0	8.9	clear/none
.13	Post-Purge 1050	5.39	175	2.6	6.62	26.60	2.47	-147	0.0	8.89	clear/none

Remarks: Pump Intake Depth: 12.3 Control Box Setting (Hz): Development: 58.7 Sampling: (Sample at 100-250 ml/min) 58.7

Ferrous Iron - 3.30 mg/L

SAMPLING

Depth to Water Before Sampling:	5.43
Sample Methodology:	LFSP w/ Grundfos
Sample Name:	GC-MW16S QC Sample: N/A
Sample Date/Time:	7/27/10 1100
Sampler / Signature:	James Bay
Filtered Metals Collected:	Y (N) Filter Size:
Sample Observations:	Clear
Parameters:	geo chem

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-165	**Site: Gowanus Canal Remedial Investigation**
Field Crew: RB	**Date:** 7/27/10 **Project #:** 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.): See	
Water Column (ft.): Page 1	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
.13 Initial	1055	5.37	175	2.9	6.62	27.00	2.49	-147	0.0	6.80	clear/none
.13 1 VOL.	1100	Collect	sample								
2 VOL.											
3 VOL.											
4 VOL.											
5 VOL.											
6 VOL.											
7 VOL.											
8 VOL.											
9 VOL.											
10 VOL.											
.11 Post-Purge	1137	5.82	108	3.1	6.78	23.5	2.57	-151	0.0	5.70	

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See page 1

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	QC Sample:
Sample Date/Time:	See page 1
Sampler / Signature:	
Filtered Metals Collected: Y / N	Filter Size:
Sample Observations:	
Parameters:	

RB

MW16I

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW16I	Site: Gowanus Canal Remedial Investigation
Field Crew:	Date: 7/22/10 Project #: 395863

1.8 ppm PID

Well Depth (ft.): 59.0	Purge Methodology:	Diameter	Gal. Per Foot
DTW (ft.): 5.65'	low flow	2"	.163
Water Column (ft.): 53.35'	w/ grundfos +	3"	.367
Well Diameter (in.): 2"	tephlon tubing	4"	.653
Gal. per ft.: 0.163	Water Quality Meter:		
Well Volume (gal.): 8.7	Horiba		
Depth of Screen (ft.): 54.0-59.0'	482 ft		

Diameter	Gal. Per Foot
5"	1.020
6"	1.469
8"	2.611

Mottle 20-22

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1015	5.98	240	<1	6.42	22.74	1.41	+21	2.65	0.09	32.9	clear
	1020	6.0	240	<1	7.40	20.27	5.97	-176	0.00	0.38	35.8	"
	1025	6.05	240	<1	7.49	20.23	7.25	-188	0.00	0.40	35.6	"
	1030	6.09	250	<1	7.54	20.42	7.39	-192	0.00	0.41	20.5	"
	1035	6.10	240	~1	7.55	20.62	7.46	-193	0.00	0.41	10.87	
	1040	6.10	250	~1.5	7.57	20.71	7.43	-194	0.00	0.41	9.90	
	1045	6.19	200	~2	7.59	20.79	7.42	-194	0.00	0.41	0.00	
	1050	6.20	220	~2.5	7.60	20.85	7.41	-194	0.00	0.41	7.88	
	1055	Took Sample w/ MS/MSD + field dup										
Post-Purge	1245	~~7.77~~ 6.3'	200	~3.5	~~6.78~~ 7.77	29.94	6.78	-151	0.85	0.37	29.8	

Remarks: Pump Intake Depth: 56.5 Control Box Setting (Hz): 65 Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling:	6.20'
Sample Methodology:	low flow
Sample Name:	MW16I 1055 QC Sample: MS/MSD and field duplicate
Sample Date/Time:	7/22/10 1055
Sampler / Signature:	Tom Fowler / Tom Fowler
Filtered Metals Collected:	Y / N Filter Size:
Sample Observations:	
Parameters:	VOCs, SVOCs, Pest, PCB, Metals, CN (CANF/FL)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-16I	**Site: Gowanus Canal Remedial Investigation**
Field Crew: JB	**Date:** 7/27/10 **Project #:** 395863
Well Depth (ft.): 58.94	Purge Methodology: LFSP w/ grundfos
DTW (ft.): 4.73	
Water Column (ft.): 53.21	
Well Diameter (in.): 2"	
Gal. per ft.: .163	Water Quality Meter:
Well Volume (gal.): 8.67	LaMotte 2020
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
Initial	1002	8.35	500	-	6.71	21.67	3.96	-8	4.96	29.0	clear/none
.37 1 VOL.	1007	8.35	200	.7	7.54	21.45	6.84	-177	2.00	20.9	clear/none
.39 2 VOL.	1012	8.35	300	1.2	7.73	20.14	7.19	-192	1.65	15.9	clear/none
.39 3 VOL.	1017	8.37	300	1.5	7.77	20.26	7.16	-196	1.43	9.7	clear/none
.39 4 VOL.	1022	8.36	300	1.9	7.80	20.43	7.10	-198	1.27	8.97	clear/none
.39 5 VOL.	1027	8.35	300	2.25	7.81	20.53	7.08	-199	1.18	8.00	clear/none
.39 6 VOL.	1032	8.36	300	2.60	7.83	20.65	7.04	-201	1.09	7.65	clear/none
.38 7 VOL.	1037	8.35	300	3.0	7.85	20.85	7.84	-202	1.02	4.77	clear/none
.38 8 VOL.	1042	8.35	300	3.4	7.85	21.00	7.85	-202	.99	4.74	clear/none
.39 9 VOL.	1045	Collect Sample									
10 VOL.											
.38 Post-Purge	1117	8.35	175	-	7.86	20.47	7.87	-191	.85	3.83	clear/none

Remarks: Pump Intake Depth: 56.4' Control Box Setting (Hz): 59.5 Development: Sampling: (Sample at 100-250 ml/min) 56.2

Ferrous Iron - 0.04 mg/L

150 ml/min flow

SAMPLING

Depth to Water Before Sampling:	8.35
Sample Methodology:	LFSP w/ grundfos
Sample Name:	GC-MW16I QC Sample: N/A
Sample Date/Time:	7/27/10 1045
Sampler / Signature:	James Bolas
Filtered Metals Collected:	Y / (N) Filter Size:
Sample Observations:	clear
Parameters:	geochem

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 205
Field Crew: MR, CZ
Site: Gowanus Canal Remedial Investigation
Date: 7.22.10 Project #: 395863

Well Depth (ft.): 12.91
DTW (ft.): 4.49
Water Column (ft.): 8.42
Well Diameter (in.): 2
Gal. per ft.: 0.163
Well Volume (gal.):
Depth of Screen (ft.): 10

Purge Methodology: low flow w/ grundfos + tophlow tubing
Water Quality Meter: Horiba U-52

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0950	NM	250	4.5	5.24	22.82	0.083	154	7.28	0.00	110	no odor, some brown sed. mat
	1000			65	5.57	20.78	30.5	59	0.63	1.80		
	1005		160	1	5.57	21.15	29.9	54	.59	1.85	80	clear, no odor
	1010		200	1.5	5.58	21.59	29.2	42	0.53	1.80	110	"
	1015		200	1.5	5.61	21.68	28.4	22	.56	1.75	85	"
	1020		200	<2	5.66	22.9	27.7	26	.66	1.70	45	"
	1025		240	2	5.74	22.72	25.9	-16	.49	1.57	24	"
	1030		200	2+	5.78	22.80	24.3	-36	.44	1.47	19	"
	1035		240	2.5	5.78	23.12	23.7	-49	.43	1.43	17	"
	1040		240	2.5+	5.78	23.22	23.6	-51	.41	1.42	17	"
	1045		250	3.25	5.80	23.15	23.1	-60	0.37	1.39	19.1	begin sample collection
Post-Purge												

Remarks: Pump Intake Depth: 11.91 Control Box Setting (Hz): 61.7 - Hz Development: Sampling: (Sample at 100-250 ml/min) 250 ml/min

PID = 0.0 ppm

SAMPLING

Depth to Water Before Sampling: 9.95
Sample Methodology: low flow
Sample Name: 205 QC Sample: Dupe Collected
Sample Date/Time: 7-22-10 1410
Sampler / Signature:
Filtered Metals Collected: Y N Filter Size: 0.45
Sample Observations:
Parameters: VOCs, SVOCs, metals, Diss. Metals, Pest, PCBs, CN, Hexavalent Cr

Rain began approx 11:50, wells 3-5 ft from rooftop downspout. Cascaded and infiltrated well casing at about 1210. Sampling ceased. Unable to collect full set of sample bottles.

page 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 205	Site: Gowanus Canal Remedial Investigation
Field Crew: MJP, CZ	Date: 7-23-10 Project #: 395863
Well Depth (ft.): 12.91	Purge Methodology:
DTW (ft.): 4.49	low flow
Water Column (ft.): 8.42	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.):	Horiba
Depth of Screen (ft.): 10	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1328	5.60										
	1335	8.69										
	1340	8.65										
	1345	9.3										
	1350	9.5										
	1355	9.7	300		6.48	23.60	23.1	-30	0.80	1.40	146	
	1400	9.7	300	8	6.50	23.50	18.2	-23	1.96	1.07	48.7	
	1405	9.9	300	8.25	6.47	23.63	17.6	-15	2.03	1.04	23.5	
	1410	9.95	300	8.5	6.45	23.42	18.5	-16	1.69	1.10	31.1	
	1416		250									began sampling
Post-Purge	1430	8.75	300		6.46	24.62	18.8	-20	3.07	1.11	41.2	post-purge

Remarks: Pump Intake Depth: 11.91 Control Box Setting (Hz): 78.8 Hz Development: Sampling: (Sample at 100-250 ml/min) 250 ml/min

SAMPLING

Depth to Water Before Sampling: 9.95

Sample Methodology: low flow

Sample Name: 205 QC Sample: DJ

Sample Date/Time: 7-22-10 1410

Sampler / Signature:

Filtered Metals Collected: (Y) / N Filter Size:

Sample Observations:

Parameters: VOC, SVOC, metals, filtered metals, pest, PCB, cyanide, mercury, geotech

1315 - began pumping water - rain and flooding of well ended

page 1 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 20 I	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP, CZ	Date: 7/22/10 Project #: 395863
Well Depth (ft.): 39.45	Purge Methodology: LFSP w/ grundfos + tephlon tubing
DTW (ft.): 3.67	
Water Column (ft.): 35.78	
Well Diameter (in.): 2	Water Quality Meter:
Gal. per ft.: 0.163	
Well Volume (gal.):	
Depth of Screen (ft.): 5	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1000	NM	160	<.5	6.51	23.38	6.38	-61	1.58	.35	34	
	1005		100	<.5	6.73	25.14	6.30	-128	0.87	0.34		
	1010		100	<0.5	6.75	24.79	6.64	-134	0.77	.36	36	
	1015		70	<.5	6.62	22.98	6.54	-135	0.53	.36	30	
	1070		60	0.5	6.78	25.89	6.64	-137	0.55	.36	33	
	1025		70	0.5	6.80	26.40	6.64	-137	.34	.36	36	
	1030		50	.5+	6.80	26.55	6.62	-136	.38	.36	31	
	1035		50	.5+	6.80	26.11	6.62	-134	.31	36	50.2	
Post-Purge												

Remarks: Pump Intake Depth: 36.65 top of pump; 36.95 pump intake

Control Box Setting (Hz): Development: 61.0 - 63.5

*Flow rate continues to slow down

Sampling: (Sample at 100-250 ml/min)

PID = 0.0 PPM

SAMPLING

Depth to Water Before Sampling:	N/A
Sample Methodology:	Tube
Sample Name:	GC-MW20I
QC Sample:	none
Sample Date/Time:	7.22.10 1035
Sampler / Signature:	
Filtered Metals Collected:	Y / N Filter Size: 0.45
Sample Observations:	See observation notes when F.R. was 100 mL/min
Parameters:	VOCs, SVOCs, Metals, Dissolved Metals, Pest/PCB, Cat. Groundwater

NW- Not working

Rain began approx 11:50. Well is 3-5 ft from downspout. Water cascaded into well casing at about 1210. Sampling ceased. Unable to collect full set of sample bottles.

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 20 I	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP / CZ	Date: 7/22/10 Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.):	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Low flow

Field Parameters

	Time	DTW (lic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1325	~~[illegible]~~	50	1.5	6.24	20.66	6.67	-110	0.75	.36	52.6	
	1330	~~[illegible]~~	50	4.5	6.22	22.36	6.73	-121	0.66	.37	41.5	
	1335	~~[illegible]~~	50	4.5	6.24	23.76	6.68	-113	.67	.37	92.7	
	1340		50	4.5	6.18	24.37	6.71	-118	.62	.37	94.1	
	1500	8.91	160	5	6.31	20.0	6.84	-131	.63	.37	37.1	Sample
Post-Purge												

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

Post rain-event

~ 1.5 gal purged from well prior to low-flow sampling.

Continued 1346

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	QC Sample:
Sample Date/Time:	
Sampler / Signature:	
Filtered Metals Collected: Y / N Filter Size:	
Sample Observations:	
Parameters:	

See Page 1

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-21 S	Site: Gowanus Canal Remedial Investigation
Field Crew: EB - CM	Date: 7/23/10 Project #: 395863

Well Depth (ft.): 13.00	Purge Methodology:	Diameter	Gal. Per Foot
DTW (ft.): 3.26	Low flow	2"	.163
Water Column (ft.): 9.74	w/ Grundfos & Deploy tubing	3"	.367
Well Diameter (in.): 2 in		4"	.653
Gal. per ft.: 0.163	Water Quality Meter:		
Well Volume (gal.): 1.6	U-52		
Depth of Screen (ft.): 3.00			

Diameter	Gal. Per Foot
5"	1.020
6"	1.469
8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	clear, Some Suspended Solids
Initial	0920	3.48	150	–	6.35	25.79	7.55	-13	0.64	0.33	18	Decay odor
	0925	3.68	300	0.4	6.64	21.83	6.59	-85	0.00	0.27	15.1	
	0930	3.68	225	0.6	6.67	22.11	5.40	-93	0.00	0.21	14.7	
	0935	3.68	240	0.75	6.72	22.89	4.57	-101	0.00	0.17	19	
	0940	3.68	240	1.2	6.80	23.46	3.60	-108	0.00	0.13	18.8	
	0945	3.74	260	1.4	6.89	23.98	2.92	-115	0.00	0.10	9.43	
	0950	3.81	260	1.8	6.97	24.22	2.38	-123	0.00	0.08	4.0	
	0955	3.75	160	2.2	6.99	24.78	2.25	-129	0.00	0.07	2.2	
	1000	3.74	160	2.3	6.98	25.22	2.27	-131	0.00	0.07	2.05	
	1005	3.74	160	2.5	7.01	25.55	2.10	-136	0.00	0.07	1.16	
	1010	3.74	170	2.8	7.03	25.59	2.00	-139	0.00	0.06	0.67	
Post-Purge	1120	3.65	160	3.5	7.09	27.79	1.80	-130	0.00	0.06	2.95	sheen

Remarks: Pump Intake Depth: 34.9 Control Box Setting (Hz): 52.60 HZ Development: Sampling: (Sample at 100-250 ml/min) 170

PID - 5.2ppm

SAMPLING

Depth to Water Before Sampling: 3.65

Sample Methodology: Tube

Sample Name: QC-MW 21 S QC Sample: none

Sample Date/Time: 7/23/10 1015

Sampler / Signature: E. Braadt

Filtered Metals Collected: Y N Filter Size: 0.45

Sample Observations: sheen on sample water

Parameters: VOC, SVOC, metals, Filtered metals, PCB, PEST, CN, Hg, Geo-Tech.

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 21 I	Site: Gowanus Canal Remedial Investigation
Field Crew: C. Mills / E. Brandt	Date: 7/23/2010 Project #: 395863
Well Depth (ft.): 34.4'	Purge Methodology: Low Flow
DTW (ft.): 3.90'	
Water Column (ft.): 33.6'	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163 gal/ft	Water Quality Meter:
Well Volume (gal.): 5.5 gal	YSI 556 MPS
Depth of Screen (ft.): 32.4'	LaMotte 2020e

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0920	3.90	200	0	6.27	24.90	2.13	442	2.29	0.11	19.8	clear, slight petroleum like odor
	0925	3.88	150	1/4	6.90	21.73	2.34	215	1.17	0.12	20.0	"
	0930	3.89	150	1/2	7.09	20.84	2.46	174	1.29	0.13	39.4	"
	0935	3.90	150	1/2	7.12	20.72	2.45	153	1.18	0.13	19.8	"
	0940	3.90	150	3/4	7.18	20.54	2.41	143	1.32	0.12	16.6	"
	0945	3.93	195	1	7.19	20.96	2.39	145	1.02	0.12	13.8	"
	0950	3.96	200	1 1/4	7.22	20.18	2.37	148	0.93	0.12	11.8	"
	0955	3.98	205	1 1/2	7.23	20.03	2.26	150	0.81	0.12	8.32	"
	1000	3.99	200	1 3/4	7.25	20.02	2.34	152	0.72	0.12	9.90	
	1005	4.03	200	2	7.26	20.05	2.35	154	0.68	0.12	7.80	"
	1010	4.03	200	2 1/4	7.26	20.16	2.34	155	0.63	0.11	4.54	"
Post-Purge	1015	4.01	200	2 1/2	7.26	20.24	2.29	156	0.65	0.11	3.54	"

Remarks: Pump Intake Depth: 12.00' (Actual pump 11.90') Control Box Setting (Hz): 55.00 Hz Development: Sampling: (Sample at 100-250 ml/min) 250 ml/min

PID READING: 2.6 ppm

Post Purge	1355	4.28	200	3	7.31	20.91	2.28	-136	1.34	0.12	0.08	clear, slight petrol-like odor

SAMPLING

Depth to Water Before Sampling:	4.01
Sample Methodology:	EPA Low Flow
Sample Name:	GC-MW21I
QC Sample:	MS & MSD
Sample Date/Time:	7/23/10 @ 1020
Sampler / Signature:	C Mills
Filtered Metals Collected:	(Y) / N Filter Size: 0.45 micron
Sample Observations:	clear, slight petrol-like odor
Parameters:	VOC / SVOC / PCB / Pest / Metals / Filtered Metals / Hg / Cn / Geotech

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: CP45	**Site: Gowanus Canal Remedial Investigation**
Field Crew: MJR / EB / CW	**Date:** 7.15.10 **Project #:** 395863

Well Depth (ft.): 16.08	Purge Methodology: low flow
DTW (ft.): 5.89	
Water Column (ft.): 10.19	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 1.66	Horiba
Depth of Screen (ft.): 6.08	U-5000

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	Col %	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1645	5.18	150	<.5	6.78	28.37	7.22	-264	0.26	95	0.0	SULFIDE like odor
1 VOL.	1650	6.80	150	<.5	7.33	29.81	7.21	-287	0.56	70	0.0	"
2 VOL.	1655	7.30	95	<.5	6.65	27.84	7.20	-337	0.19	70	0.4	"
3 VOL.	1700	8.00	150	<.5	6.60	28.85	7.07	-322	0.18	45	0.4	"
4 VOL.	1705	8.14	50	<.5	6.63	27.95	6.33	-341	0.19	40	0.4	"
5 VOL.	1710	8.24	50	.5	6.65	29.30	6.34	-321	0.17	35	0.3	"
6 VOL.	1715	8.27	50	2.5	6.60	29.48	5.68	-333	0.17	35	0.3	"
7 VOL.	1720	8.94	150	2.5	6.6	29.38	5.62	-331	0.12	31	0.3	"
8 VOL.	1725	9.59	150	2.5	6.6	28.04	5.45	-324	0.13	26	0.3	"
9 VOL.												
10 VOL.												
Post-Purge												

Remarks: Pump Intake Depth: 15.08

Sediments observed in sample tubing. Based on well log well is 16.7' Deep

Control Box Setting (Hz): Development: 69.0 - 81.30

Sampling: (Sample at 100-250 ml/min) 81.50 - well went Dry During Sampling - allowed well to recharge

SAMPLING

Depth to Water Before Sampling:	9.50
Sample Methodology:	tube - low flow w/ teflon lined tubing + 2" Grundfos pump
Sample Name:	CP-MW24S QC Sample: None
Sample Date/Time:	7.15.10 1730
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 0.45
Sample Observations:	
Parameters:	VOCs, SVOCs, total Metals, Filtered Metals, Pest, PCBs

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 24 I	**Site: Gowanus Canal Remedial Investigation**
Field Crew: MP, CM, EB	**Date:** 7/15/2010 **Project #:** 395863
Well Depth (ft.): 40.87	Purge Methodology:
DTW (ft.): 6.62	Low Flow
Water Column (ft.): 34.25	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.):	Horiba U-5000
Depth of Screen (ft.): 25.97	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	%SRL	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1620	7.23	500	0	8.29	25.56	1.6	-40	8.8	150	0.08	
1 VOL.	1625	7.24	500	1	8.29	23.21	1.6	-73	7.62	180	0.08	
2 VOL.	1630	7.35	500	2	8.34	20.53	1.64	-104	4.53	39	0.08	
3 VOL.	1635	7.23	350	2.5	8.37	21.19	1.61	-108	3.87	23	0.08	
4 VOL.	1640	7.19	350	2.8	8.37	20.96	1.60	-114	3.42	13	0.08	
5 VOL.	1645	7.14	350	3.1	8.38	21.81	1.58	-119	2.25	14	0.08	
6 VOL.	1650	7.23	350	3.7	8.39	21.54	1.56	-121	2.03	10	0.08	
7 VOL.	1655	7.22	350	4.5	8.38	21.63	1.54	-124	1.85	11	0.08	
8 VOL.	1900	7.22	300	5.2	8.38	21.81	1.53	-124	1.74	15	0.08	
9 VOL.	1705	7.23	300	6	8.38	21.88	1.51	-129	1.50	14	0.08	
10 VOL.	1710	7.23	300	6.5	8.38	21.74	1.50	-133	0.63	8.9	0.08	
Post-Purge	——→	SEE	NEXT	PAGE	SHEET	FOR	CONTINUATION	←				

Remarks: Pump Intake Depth: 38.37 Control Box Setting (Hz): 67.00 Hz Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling:	7.15
Sample Methodology:	Low Flow
Sample Name:	GR-MW24I QC Sample: —
Sample Date/Time:	7/15/2010 @ 1745
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 0.45 micron
Sample Observations:	
Parameters:	VOCs SVOCs Metals Filtered Methlyn Mercury Cyanide

DF

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 24 I	**Site: Gowanus Canal Remedial Investigation**
Field Crew: MNP, CM, EB	**Date:** 7/15/2010 **Project #: 395863**
Well Depth (ft.): 40.87	Purge Methodology: Low Flow
DTW (ft.): 6.62	
Water Column (ft.): 34.25	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 5.58	HORIBA
Depth of Screen (ft.): 35.87	U-5600

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	% Sat	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	1715	7.23	250	7	8.38	21.77	1.50	-135	0.60	10.0	0.08	
1 VOL.	1720	7.23	250	7.5	8.37	21.88	1.50	-137	0.56	10.0	0.08	
2 VOL.	1725	7.24	250	7.8	8.38	22.09	1.51	-138	0.50	7.0	0.08	
3 VOL.	1730	7.16	200	8.2	8.37	22.28	1.50	-137	0.54	7.4	0.08	
4 VOL.	1735	7.10	200	8.5	8.37	22.36	1.50	-140	0.46	7.0	0.08	
5 VOL.	1740	7.02	75	8.6	8.35	23.28	1.53	-140	0.49	6.4	0.08	
6 VOL.	1745	7.15	150	8.7	8.34	22.13	1.55	-139	0.48	8.6	0.09	
7 VOL.												
8 VOL.												
9 VOL.												
10 VOL.												
Post-Purge	1920	6.96	300	9.5	8.39	22.56	1.60	-116	1.10	1.5	0.08	

Remarks: Pump Intake Depth: 36.37 Control Box Setting (Hz): 67.00 Hz Development: Sampling: (Sample at 100-250 ml/min) 100.

SAMPLING

Depth to Water Before Sampling:	7.15
Sample Methodology:	Low Flow
Sample Name:	GC-MW24I QC Sample: —
Sample Date/Time:	7/15/2010 @ 1745
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 0.45 micron
Sample Observations:	
Parameters:	VOCs SVOCs Metals, Filtered metals, Mercury, Cyanide

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Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 255	Site: Gowanus Canal Remedial Investigation
Field Crew: C. Mills, C. Zuke	Date: 7/21/2010 Project #: 395863
Well Depth (ft.): 26.8	Purge Methodology: Low Flow
DTW (ft.): 20.7	
Water Column (ft.): 6.1	
Well Diameter (in.): 2	
Gal. per ft.: .163	Water Quality Meter:
Well Volume (gal.): 1 gal	Horiba U-5000
~~Depth of Screen (ft.):~~ 16.8	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1220	20.74	350	0	6.15	32.35	19.2	-43	1.37	1.22	32.4	gray, slight, cloudy, no odor
	1225	20.74	100	~1/2	6.15	22.47	21.0	-106	0.00	1.26	19.8	slight gray, clear, no odor
	1230	20.75	200	3/4	6.16	22.12	21.2	-114	0.00	1.27	15.7	"
	1235	20.74	150	1	6.16	23.79	21.0	-126	0.00	1.26	12.4	clear, no odor
	1240	20.75	150	1 1/4	6.15	24.08	21.0	-135	0.00	1.26	8.52	"
	1245	20.35	150	1 1/2	6.15	24.08	20.9	-141	0.00	1.25	4.89	"
	1250	20.75	150	1 2	6.15	22.92	20.9	-145	0.00	1.25	5.00	"
	→	Sample	taken	@	1250	←						
Post-Purge	1415	20.74	700	3	6.21	23.76	20.8	-152	0.00	1.25	2.14	clear, no odor

Remarks: Pump Intake Depth: 25.80 Control Box Setting (Hz): Development: 109.80 Hz Sampling: (Sample at 100-250 ml/min) 100 ml/min

PID Reading: 0.0 ppm

SAMPLING

Depth to Water Before Sampling:	20.75
Sample Methodology:	EPA Low Flow
Sample Name:	GC-MW255 QC Sample: NONE
Sample Date/Time:	7-21-10 @ 1250
Sampler / Signature:	C. Mills
Filtered Metals Collected:	(Y) N Filter Size: 0.45 micron
Sample Observations:	clear, no odor
Parameters:	VOC, SVOC, Pest, PCB, Metals, Filtered Metals, Mercury, Cyanide

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 25 (B) I		**Site:** Gowanus Canal Remedial Investigation	
Field Crew: CZ, CM		**Date:** 7-21-10 **Project #:** 395863	
Well Depth (ft.): 45.82	Purge Methodology:	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 20.06	low flow pump	2" .163	5" 1.020
Water Column (ft.): 25.76	2" Grundfos Pump	3" .367	6" 1.469
Well Diameter (in.): 2		4" .653	8" 2.611
Gal. per ft.: 0.163	Water Quality Meter:		
Well Volume (gal.): 4.20	Horiba U-52		
Depth of Screen (ft.): 40.82	Lamotte 2020we		

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	12:10	20.3	~~250~~ 200	1.0	7.32	26.79	0.891	22	0.00	0.02	16.3	clear - no odors
	12:15	20.15	~~300~~ 200	1.5	7.35	27.89	0.892	13	0.00	0.02	9.94	
	12:20	~~20.16~~ 20.15	280	2.0	7.36	24.38	0.937	8	0.00	0.03	7.71	
	12:25	20.2	~~200~~ 200	2.25	7.35	23.31	0.951	6	0.00	0.03	7.76	
	12:30	20.16	200	2.75	7.35	22.67	0.967	5	0.00	0.03	20.9	
	12:35	20.13	250	3.00	7.33	22.28	0.978	6	0.00	0.03	20.1	
	12:40	20.13	230	3.5	7.34	21.61	0.995	5	0.00	0.03	5.46	
	12:45	20.13	250	3.75	7.35	20.96	1.01	2	0.00	0.03	8.33	
	12:50	20.13	250	4.0	7.37	21.31	0.999	-1	0.00	0.03	5.43	
	12:50											beg. sample collection
Post-Sample	1335	~~20.12~~ 20.13	250	6.5	7.95	28.97	0.856	-1	0.00	0.02	4.88	
Post-Purge												

Remarks: Pump Intake Depth: 43.25 | Control Box Setting (Hz): 100.80 | Development: | Sampling: (Sample at 100-250 ml/min) 250

PID 0.0

SAMPLING

Depth to Water Before Sampling:	20.13
Sample Methodology:	low flow
Sample Name:	2.7x10
QC Sample:	N/A
Sample Date/Time:	7-21-10, 1250
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 45 micron
Sample Observations:	clear - no odors
Parameters:	VOC, SVOC, pest, PCB, metals, Filtered metals, cyanide, mercury

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW26S		Site: Gowanus Canal Remedial Investigation	
Field Crew: Tom Fowler / Mike Basso		Date: 7/21/10	Project #: 395863
Well Depth (ft.): 27.0'	Purge Methodology: low-flow	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 19.20		2" .163	5" 1.020
Water Column (ft.): 7.8'		3" .367	6" 1.469
Well Diameter (in.): 2		4" .653	8" 2.611
Gal. per ft.: .163	Water Quality Meter:		
Well Volume (gal.): 1.27 gals	Horiba U-52		
~~Depth of Screen (ft.):~~	Lamotte 2020e		

PID 0.0 ppm

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1140	19.30	300	<1	6.70	19.72	1.54	-130	1.75	0.08	75.2	dk gray brown
	1145	19.36	300	<1	6.61	19.93	0.983	-159	7.91	0.08	12.5	"
	1150	19.36	260	~1.2	6.66	20.61	1.58	-164	6.62	0.08	80.6	"
	1155	19.37	260	~2	6.68	20.70	1.61	-166	5.94	0.08	47.2	clear
	1200	19.36	260	~2.5	6.74	21.19	1.61	-162	5.23	0.08	25.8	"
	1205	19.35	260	~2.8	6.76	21.88	1.61	-170	4.75	0.08	20.9	"
	1210	19.34	240	~3.2	6.78	22.57	1.61	-170	5.45	0.08	~2.0!?	"
	1215	19.34	200	~3.5	6.80	22.56	1.60	-168	3.95	0.08	14.5	"
	1220	19.33	170	~3.9	6.81	22.61	1.60	-168	3.73	0.08	9.25	"
	1225	19.33	140	4.3	6.82	22.41	1.60	-167	3.28	0.08	6.93	
	1230	19.32	140	4.6	6.82	22.55	1.60	-167	3.13	0.08	7.74	
Post-Purge	1235	19.30	145	5.00	6.82	22.20	1.60	-168	2.95	0.08	2.30	

Remarks: Pump Intake Depth: 26.0' Control Box Setting (Hz): 94 hz Development: Sampling: (Sample at 100-250 ml/min)

1240 1920 150 5.2 6.83 23.09 1.60 -168 2.84 0.08 2.30

1245 Took Sample

Post 1205 19.39 240 ~ 7 6.93 22.89 1.65 -151 0.54 0.05

SAMPLING

Depth to Water Before Sampling:	19.30
Sample Methodology:	low flow
Sample Name:	Tom Fowler MW26S
QC Sample:	NONE
Sample Date/Time:	7/21/10 1245
Sampler / Signature:	Tom Fowler
Filtered Metals Collected:	(Y) N Filter Size:
Sample Observations:	clear / no odor
Parameters:	VOC, SVOC, Pest, PCB, Metals (Hg, Cn), Filtered Metals (Hg)

* Resampling for metals, (DR) ~~ext~~ filtered metals.

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-265	Site: Gowanus Canal Remedial Investigation
Field Crew: Dave Reamer	Date: 7/21/10 Project #: 395863

Well Depth (ft.): 27.00
DTW (ft.): 18.81
Water Column (ft.): 8.19
Well Diameter (in.): 2
Gal. per ft.: 0.163
Well Volume (gal.): 1.33
Depth of Screen (ft.):

Purge Methodology: low flow w/ 2" Grundfos pump

Water Quality Meter: Horiba U-52

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1913	18.90	200.0		- start purging							light brown / no odor
	1915	18.91	250	0.1	6.94	14.88	1.72	-168	6.58	0.9	380	cloudy / no odor
	1942	19.08	250	5.0	6.90	16.13	1.73	-167	0.44	0.4	26	clear / no odor
Post-Purge												

Remarks: Pump Intake Depth: 26.0'

Control Box Setting (Hz): Development:

Sampling: (Sample at 100-250 ml/min) 250

- tide going out

SAMPLING

Depth to Water Before Sampling: 19.08
Sample Methodology: low flow w/ 2" Grundfos pump and teflon lined tubing
Sample Name: MW-265 QC Sample: none
Sample Date/Time: 7/21/10 @ 1950
Sampler / Signature: David Reamer
Filtered Metals Collected: (Y) N Filter Size: 0.45 um
Sample Observations: clear, no odor
Parameters: Dissolved metals, total metals, Hg

* Sample originally collected on 7/21/10 @ 1245 but it was not clear which bottle was for dissolved metals and which was for total metals. DR resampled at 1950 for total metals and dissolved metals only.

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 26I	Site: Gowanus Canal Remedial Investigation
Field Crew: MB TF	Date: 7/21/10 Project #: 395863
Well Depth (ft.): 42.14	Purge Methodology:
DTW (ft.): 19.22	Low Flow
Water Column (ft.): 22.92	
Well Diameter (in.): 2	
Gal. per ft.: .163	Water Quality Meter:
Well Volume (gal.): 3.73	Horiba U52
Depth of Screen (ft.): 37.14	LaMotte 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	11:45	19.24	300/min	.3	6.43	21.15	1.53	-146	2.07	.08	23.0	Clear
	11:50	19.25	150/min	.7	6.48	22.21	1.53	-155	.84	.08	9.42	Clear
	11:55	19.23	200/min	1.1	6.53	23.38	1.53	-157	.59	.08	10.09	clear
	12:00	19.23	200/min	1.5	6.56	24.00	1.55	-159	.58	.08	10.77	Clear
	12:05	19.25	200/min	1.8	6.59	24.93	1.54	-158	.54	.08	11.4	Clear
	12:10	19.27	300/min	2.3	6.55	22.54	1.57	-159	.53	.08	20.16	Clear
	12:15	19.26	300/min	2.8	6.57	21.28	1.64	-157	.47	.08	18.70	Clear
	12:20	19.26	350/min	3.5	6.61	19.90	1.63	-158	.43	.08	11.56	Clear
	12:25	19.31	400/min	4.0	6.65	18.71	1.63	-158	.39	.08	9.32	Clear
	12:30	19.30	350/min	4.7	6.68	18.11	1.62	-169	.36	.08	3.91	Clear
	12:35	19.30	300/min	5.3	6.68	18.85	1.62	-164	.34	.08	3.57	Clear
~~Post-Purge~~	12:40	19.22	200/min	5.7	6.66	18.26	1.61	-166	.37	.08	3.50	Clear

Remarks: Pump Intake Depth: 39.64 Control Box Setting (Hz): 92.80 Development: — Sampling: (Sample at 100-250 ml/min) 200mL/min

Sample time: 12:50

PID: 0.1

SAMPLING

Depth to Water Before Sampling:	19.22
Sample Methodology:	low flow, tubes
Sample Name:	GC-MW26 QC Sample: N
Sample Date/Time:	12:50 7/21/10
Sampler / Signature:	Michael Bisbee
Filtered Metals Collected:	(Y) / N Filter Size: 0.45
Sample Observations:	Well was very difficult to stabilize. Difficulty
Parameters:	VOCs, SVOCs, Metals, filtered Metals, Cyanide, pesticides, mercury PCBs

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 26J	Site: Gowanus Canal Remedial Investigation
Field Crew: MB TF	Date: Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.):	See page 1
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial											~~10.80~~	
13:55	~~13:55~~ Post-Purge	19.12	400	8	6.67	17.09	1.56	-158	.70	.08	10.80	clear

13:55

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See page 1

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	QC Sample:
Sample Date/Time:	See page 1
Sampler / Signature:	
Filtered Metals Collected: Y / N	Filter Size:
Sample Observations:	
Parameters:	

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 27 Shallow	**Site:** Gowanus Canal Remedial Investigation
Field Crew: C. Zurlo / C. Mills	**Date:** 7/21/2010 **Project #:** 395863
Well Depth (ft.): 25.54	Purge Methodology: Low Flow
DTW (ft.): 14.77	
Water Column (ft.): 10.77	
Well Diameter (in.): 2 in Stainless steel	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U5000 Lamotte 2020e
Well Volume (gal.): 1.75 gal	
Depth of Screen (ft.): 10	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
18:50 Initial	~~0:50~~	15	150	1/4	6.06	32.98	26.4	-142	0.55	1.61	93.3	black sewage odor
18:55	~~0:55~~	15.05	120	1/2	5.96	32.01	27.6	-147	0.40	1.69	74.9	black sediment visible in tubing
19:00	~~07:00~~	15.08	100	3/4	5.99	31.64	28.0	-150	0.38	1.72	45.6	"
19:05	15.2	140	over 3/4	6.09	31.22	28.0	-172	0.35	1.72	32.6	"
19:10	15.18	140	~~1.0~~	6.18	30.95	28.0	-184	0.33	1.72	24.4	"
19:15	15.32	100	1.25	6.25	30.56	28.5	-191	0.32	1.76	~~19~~ 16	"
19:20	15.31	100	1.25	6.28	30.33	28.7	-202	0.29	1.77	10.51	"
19:25	15.40	120	1.5	6.30	30.27	29.0	-175	0.27	1.79	0.00	"
19:30	15.40	130	1.5	6.30	29.91	29.1	-208	0.27	1.80	0.00	"
1935	15.48	140	1.75	6.32	29.76	28.7	-217	0.26	1.77	0.00	"
19:40	15.50	130	2	6.34	29.53	28.7	-223	0.23	1.77	0.00	"
Post-Purge CM 19:45	15.53	140	2.25	6.36	29.34	28.8	-224	0.23	1.77	0.00	"

Remarks: Pump Intake Depth: 24.5 Control Box Setting (Hz): 83 50 Hz Development: Sampling: (Sample at 100-250 ml/min) 150

Post Purge 2030	16.09		4	6.92	26.66	30.0	-247	0.40	1.86	0.00	clear, no odor

PID Reading - 0.9

SAMPLING

Depth to Water Before Sampling:	15.53
Sample Methodology:	Low Flow
Sample Name:	GC-MW27S QC Sample: none
Sample Date/Time:	7/21/2010 @ 1945
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 0.45 micron
Sample Observations:	clear. no odor.
Parameters:	VOC SVOC Pest PCB metals. Filtered metals Hg Cn

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 27I	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP, CZ	Date: 7/22/10 Project #: 395863
Well Depth (ft.): 43.61	Purge Methodology: low flow
DTW (ft.): 14.82	
Water Column (ft.) ~~28.84~~ 28.79	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.):	Horiba-52
Depth of Screen (ft.): 5	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	~~1652~~	~~14.98~~	150	0	8.25	31.20	1.79	53	2.06	0.06	25.6	brown/gray, slight sewage odor
	1657	15.06	200	0.25	7.57	25.42	3.84	-53	0.00	0.14	37.0	"
	1702	15.05	240	4.75	7.58	23.07	3.98	-55	0.00	0.15	35.5	"
	1709	15.05	240	1	7.64	22.08	3.97	-58	0.00	0.15	27.1	"
	1714	15.1	240	1.5	7.74	21.48	3.92	-62	0.00	0.14	16.5	"
	1719	15.1	250	2.0	7.82	21.13	3.87	-67	0.00	0.14	13.0	"
	1724	15.08	240	2.25	7.92	20.70	3.84	-73	0.00	0.14	13.1	"
	1729	15.08	250	2.75	8.00	20.48	3.81	-79	0.00	0.14	11.2	"
	1730											began sample collection
Post-Purge	1840	14.94	150	3.25	8.21	23.57	3.13	-79	0.00	0.11	15.8	

Remarks: Pump Intake Depth: 40-80 Control Box Setting (Hz): 91.20 Hz Development: Sampling: (Sample at 100-250 ml/min) ~~40-90 Hz~~ 39.96-90.90

PID reading = 0.8

SAMPLING

Depth to Water Before Sampling: 15.08

Sample Methodology: low flow

Sample Name: 27I QC Sample: NO

Sample Date/Time: 07/22/10

Sampler / Signature:

Filtered Metals Collected: (Y) N Filter Size:

Sample Observations: effervescence noted upon filling VOA vials

Parameters: VOC, SVOC, Pest, PCB, metals, filtered metals, cyanide, mercury

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: GC-MW 28S	Site: Gowanus Canal Remedial Investigation
Field Crew: SO / BB	Date: 7/21/10 Project #: 395863
Well Depth (ft.): 13.20	Purge Methodology: Low Flow
DTW (ft.): 5.03	
Water Column (ft.): 7.97	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 1.3a	U-52 Le monde 2020
Depth of Screen (ft.): 3.20	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1510	4.88	200	0.75	7.60	26.43	4.18	-59	0.0	0.16	16	slight yellow / petro like odor
	1545	5.75	200	1.0	7.58	28.23	4.18	-61	0.0	0.16	17	↓ same ↓
	1550	6.33	200	1.25	7.61	28.55	4.18	-59	0.0	0.16	16	↓ same ↓
	1555	7.18	150	1.50	7.60	28.33	4.18	-60	0.0	0.16	15	↓ same ↓
	1600	8.57	125	1.65	7.59	28.81	4.12	-60	0.0	0.16	14	↓ same ↓
Post-Purge	N/A	Not enough		head	for	pump	< 2	overall	recharging	< 0.2'	3/4 hr	

Remarks: Pump Intake Depth: 12.20 Control Box Setting (Hz): 76.50 Development: Sampling: (Sample at 100-250 ml/min) 100

Only Sampled ~2.3 L and 5 total vials (number) no plastic

PID - 0.8

Little recharge after 3 hr sampling event

SAMPLING

Depth to Water Before Sampling:	9.23
Sample Methodology:	Low Flow
Sample Name:	GC-MW 28S QC Sample: N/A
Sample Date/Time:	7/21/10 1610
Sampler / Signature:	SO
Filtered Metals Collected:	(Y) N Filter Size: 0.5 micron
Sample Observations:	drawdown, slow, running dry possibly?, low recharge < 0.2' in 3/4 hr
Parameters:	See TOGs VOC, SVOC

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 28S-A	Site: Gowanus Canal Remedial Investigation
Field Crew: EB, CM, MVP, CZ	Date: 7/22/10 Project #: 395863

Well Depth (ft.): 13.20
DTW (ft.): 9.00
Water Column (ft.): 4.20
Well Diameter (in.): 2
Gal. per ft.: 0.163
Well Volume (gal.):
Depth of Screen (ft.): 10

Purge Methodology: low flow

Water Quality Meter: Horiba-54

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	19:24	9.45	25		7.86	25.06	5.49	-39	0.13	0.22	20.2	
	19:25											begin sample collection
	20:30											well went dry
Post-Purge												

Remarks: Pump Intake Depth: 12.20 Control Box Setting (Hz): 71.00 Hz Development: Sampling: (Sample at 100-250 ml/min) 71.00 Hz

SAMPLING

Depth to Water Before Sampling: 9.45
Sample Methodology: low flow
Sample Name: 28S QC Sample: NO
Sample Date/Time: 7/22/10 1925
Sampler / Signature: [signature]
Filtered Metals Collected: (Y) N Filter Size:
Sample Observations: effervescence upon filling VOA vials
Parameters: VOAs, 2 and 1/2 amber jars collected

well continually went dry - obtained as much volume b/f going dry

[initials]

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-285-B	Site: Gowanus Canal Remedial Investigation	
Field Crew:	TF KB	Date: 7/23	Project #: 395863
Well Depth (ft.):	13.18	Purge Methodology:	
DTW (ft.):	10.49		
Water Column (ft.):	2.69	Low-Flow	
Well Diameter (in.):	2		
Gal. per ft.:	.163	Water Quality Meter:	
Well Volume (gal.):		Horiba U-52	
Depth of Screen (ft.):	3.18	Lamotte 2020e	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Low reading and sample 3rd time

PID 355 ppm

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	9:00	10.49	100 ml/min	.1	6.63	23.7	6.82	-82	3.4	0.0	32.3	grey-sh
Post-Purge												

Remarks: Pump Intake Depth: 12.18 Control Box Setting (Hz): Development: 78.0 Sampling: (Sample at 100-250 ml/min) 100 ml/min

Sample time 9:05 well Ran dry at 10:35

PID: 355 ppm Purged 350 mL before sampling.

SAMPLING

Depth to Water Before Sampling:	10.37
Sample Methodology:	Tubing, Low flow
Sample Name:	TF GC MW 285 QC Sample: None
Sample Date/Time:	905 7/23/10
Sampler / Signature:	
Filtered Metals Collected:	(Y) N Filter Size: .45
Sample Observations:	
Parameters:	Metals Filtered metals Cyanide

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	GC MW 28I	Site: Gowanus Canal Remedial Investigation	
Field Crew:	EB/SA	Date: 7/21/10	Project #: 395863
Well Depth (ft.):	36.78	Purge Methodology:	Low Flow
DTW (ft.):	5.27		
Water Column (ft.):	31.51		
Well Diameter (in.):	2		
Gal. per ft.:	0.163	Water Quality Meter:	
Well Volume (gal.):	5.14		
Depth of Screen (ft.):	31.78		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1525	5.21	250	—	7.60	29.25	0.898	-140	3.70	0.05	130	Clear. Petro-Like Odor
	1530	5.30	250	0.6	7.20	25.32	1.09	-153	1.50	0.05	120	
	1535	5.30	250	1.1	7.06	25.00	1.17	-150	1.09	0.06	70	
	1540	5.29	260	1.3	7.06	24.90	1.21	-150	0.92	0.06	500	
	1545	5.28	260	1.75	7.08	24.77	1.22	-148	0.82	0.06	370	
	1550	5.30	260	2.0	7.08	24.64	1.22	-148	0.78	0.06	260	
	1555	5.30	260	2.5	7.08	24.01	1.19	-149	0.71	0.06	150	
	1600	5.30	275	2.8	7.08	23.77	1.18	-150	0.64	0.06	90	
	1605	5.30	275	3.3	7.07	23.65	1.18	-153	0.57	0.06	60	
	1610	5.30	275	4.0	7.05	23.08	1.18	-152	0.55	0.06	50	
	1615	5.30	270	4.5	7.05	22.99	1.18	-154	0.50	0.06	40	↓
Post-Purge	1845	5.20	360	8.5	7.02	21.95	1.21	-145	1.83	0.06	21	

Remarks: Pump Intake Depth: 34.28 Control Box Setting (Hz): Development: 60.90 Sampling: (Sample at 100-250 ml/min) 200 - 150

Sheen on Purge Water.

PID = 0.8

SAMPLING

Depth to Water Before Sampling:	5.30
Sample Methodology:	Tube
Sample Name:	GC-MW28I
QC Sample:	Dupe GC-D072110-01
Sample Date/Time:	7/21/10 1705
Sampler / Signature:	E. Brault
Filtered Metals Collected:	(T)DN Filter Size: 0.45
Sample Observations:	Sheen on Sample Water.
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCB, Pest, CN, TS

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-28I	Site: Gowanus Canal Remedial Investigation	
Field Crew:	EB, SQ	Date: 7/21/10	Project #: 395863
Well Depth (ft.):	Purge Methodology:	Diameter	Gal. Per Foot
DTW (ft.):		2"	.163
Water Column (ft.):	See Page #1	3"	.367
Well Diameter (in.):		4"	.653
Gal. per ft.:	Water Quality Meter:	5"	1.020
Well Volume (gal.):		6"	1.469
Depth of Screen (ft.):		8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1620	5.30	270	4.75	7.05	23.06	1.18	-154	0.47	0.06	35	Clear. Petro Like odor.
	1625	5.30	270	5.0	7.04	23.05	1.18	-153	0.54	0.06	34	
	1630	5.30	270	5.5	7.03	23.11	1.17	-154	0.45	0.06	27	
	1635	5.30	270	5.9	7.03	23.22	1.17	-154	0.42	0.06	22	
	1640	5.30	250	6.4	7.04	23.25	1.17	-155	0.39	0.06	17	
	1645	5.30	220	6.6	7.05	23.18	1.17	-156	0.37	0.06	16	
	1650	5.30	220	6.8	7.06	23.77	1.16	-157	0.36	0.06	10	
	1655	5.30	220	7.0	7.06	23.74	1.16	-157	0.50	0.06	9.3	
	1700	5.30	200	7.2	7.06	23.82	1.16	-156	0.37	0.06	9.1	
Post-Purge												

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See Page #1

SAMPLING

Depth to Water Before Sampling:

Sample Methodology:

Sample Name: See Page 1 QC Sample:

Sample Date/Time:

Sampler / Signature:

Filtered Metals Collected: Y / N Filter Size:

Sample Observations:

Parameters:

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 295	Site: Gowanus Canal Remedial Investigation
Field Crew: MB TF	Date: 7/21/10 Project #: 395863
Well Depth (ft.): 13.16	Purge Methodology:
DTW (ft.): 5.61	Low flow
Water Column (ft.): 7.55	
Well Diameter (in.): 2	
Gal. per ft.: .163	Water Quality Meter:
Well Volume (gal.):	Horiba U-52
Depth of Screen (ft.): 3.16	Lamotte

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	17:55	7.33	150/min	.1	6.50	25.00	3.51	-78	.68	.18	59.56	Greyish, petro like odor
	18:00	7.43	200/min	.2	6.47	25.99	3.47	-82	.68	.18	37.50	greyish, petro like odor
	18:05	7.37	100/min	.3	6.46	26.21	3.54	-84	.72	.18	39.50	greyish, petro like odor
	18:10	7.65	100/min	.4	6.49	25.53	3.49	-90	.70	.18	38.40	grey, smells like exhaust
	18:15	8.72	225/min	.5	6.50	26.38	3.36	-91	.59	.18	38.70	grey
	18:20	8.88	150/min	.6	6.50	26.75	3.41	-92	.57	.18	32.0	Clearing up.
	18:25	9.07	200/min	.7	6.50	27.36	3.42	-93	.59	.18	23.5	Clear, slightly cloudy
	18:30	9.24	200/min	.8	6.49	27.59	3.40	-93	.55	.18	21.8	Clear
	18:35	8.81	100/min	.9	6.50	27.30	3.39	-93	.60	.18	22.5	Clear
Post-Purge	~~18:15~~			~~1.5~~								Cloudy

Remarks: Pump Intake Depth: 12.16 Control Box Setting (Hz): 145 Development: Sampling: (Sample at 100-250 ml/min) 100/min

Very slow to recharge, only filled VOAs and 3.5 amber bottles
Sample time = 18:45

PID: 5.0 ppm Small sheen appears at 18:05 in bucket

SAMPLING

Depth to Water Before Sampling:	9.72
Sample Methodology:	tubing, low flow
Sample Name:	GC MW 295 QC Sample: none
Sample Date/Time:	7/21 1845
Sampler / Signature:	Michael Briscoe [signature]
Filtered Metals Collected:	(Y) N Filter Size: .45
Sample Observations:	Low rate of recharge
Parameters:	VOC, SVOC, ~~Metals~~, ~~Filtered metals~~, PCBs, ~~Mercury, Cyanide~~ ~~Pesticides~~

1930 Dry - No reading to top of pump ~12
1943 11.80
1946 11.78
1952 11.75

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 29 Shallow -A	Site: Gowanus Canal Remedial Investigation
Field Crew: E Brandt C Mills	Date: 7/22/10 Project #: 395863
Well Depth (ft.): 13.28	Purge Methodology: Low Flow
DTW (ft.): 10.16	
Water Column (ft.): 3.12	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U5000
Well Volume (gal.): 0.51 gal	LaMotte 2020
Depth of Screen (ft.): 3.28	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1715	9.98		0	6.45	28.35	4.24	-83	0.55	0.22	H 390	cloudy, slight petroleum odor
	1720	10.57		1/4	6.40	28.09	4.20	-85	0.49	0.22	240	"
Post-Purge												

Remarks: Pump intake Depth: 12.28ft Control Box Setting (Hz): 77.20 Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling: 10.86'

Sample Methodology: EPA Low Flow

Sample Name: GC-MW29S QC Sample: None

Sample Date/Time: 7/22/10 @ 1725

Sampler / Signature: C. Brandt

Filtered Metals Collected: (Y) / N Filter Size: 0.45 Micron

Sample Observations: Well dry- collected 2 1L Ambers, 1 1L HNO3 Plastic. - No Recharge in 20 min.

Parameters: VOC ~~SVOC~~ PEST ~~PCB~~ METALS ~~FILTERED METALS~~ ~~Cr VI~~

(EM)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW295 JB	Site: Gowanus Canal Remedial Investigation	
Field Crew:	Mike Brison / Tom Butler	Date: 7/23/10	Project #: 395863
Well Depth (ft.):	13.20	Purge Methodology:	
DTW (ft.):	10.54	Low flow	
Water Column (ft.):	2.66		
Well Diameter (in.):	2		
Gal. per ft.:	.163	Water Quality Meter:	
Well Volume (gal.):		Horiba U-52	
Depth of Screen (ft.):	3.20	Lamotte 2020e	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

PID 6.9 ppm

11.95'

Field Parameters

Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
11:33 Initial	~~10.54~~ 11.80	10.54	150/min	.1	6.6	22.86	4.14	-65	2.98	—	518	grey, sl
Post-Purge	1140		100/min	.2	6.58	~~24~~ 28	4.10	-71	1.70	—	359	Brownish grey

Remarks: Pump Intake Depth: Bottom Control Box Setting (Hz): Development: 81.00 Sampling: (Sample at 100-250 ml/min) 150 ml/min

Sample time : 11:35

PID : 6.9 ~~K~~

SAMPLING

Depth to Water Before Sampling:	10.54
Sample Methodology:	Tubing ~~N~~
Sample Name:	GC MW 295
QC Sample:	None
Sample Date/Time:	7/23 11:35
Sampler / Signature:	TF
Filtered Metals Collected:	(Y) / N Filter Size: .45
Sample Observations:	very low recharge time. Event cont. from 7/21 and 7/22
Parameters:	Filtered metals, Cyanide

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW29I	Site: Gowanus Canal Remedial Investigation	
Field Crew:	Tom Fowler / Mike Bri	Date: 7/21/10	Project #: 395863
Well Depth (ft.):	~~6.20~~ 37.4	Purge Methodology:	Low Flow
DTW (ft.):	6.20		
Water Column (ft.):	31.2		
Well Diameter (in.):	2		
Gal. per ft.:	0.163	Water Quality Meter:	Horiba U52
Well Volume (gal.):	5		
Depth of Screen (ft.):	32.4-37.4		

1.7 ppm
910

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1745	6.22	340	0	7.63	20.42	3.23	-179	2.47	0.12	4.0	Clear
	1750	6.23	330	1.8	7.53	19.69	3.37	-175	0.00	0.12	12.2	"
	1755	6.23	330	1.3	7.53	20.01	3.33	-175	0.00	0.12	8.18	"
	1800	6.50	290	2.2	7.50	20.20	3.29	-173	0.00	0.12	4.43	"
	1805	6.7	300	2.7	7.50	20.19	3.28	-173	0.00	0.12	6.24	"
	1810	6.8	300	3.0	7.49	19.98	3.25	-172	0.00	0.12	5.09	"
			250									
	1815		Took Sample									"
	1845	6.8	240	4.0	7.51	23.65	3.01	-164	0.00	0.12	4.93	"
Post-Purge												

Remarks: Pump Intake Depth: 34.9' Control Box Setting (Hz): 90 Development: Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling:	6.8
Sample Methodology:	Low Flow
Sample Name:	MW29I QC Sample: No
Sample Date/Time:	7/21/10 1815
Sampler / Signature:	Tom Fowler / Tom Fowler
Filtered Metals Collected:	(Y) N Filter Size: .45
Sample Observations:	Clear
Parameters:	VOCs, SVOCs, PCBs, Pest, Metals, UNF/FIL

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 335 | **Site:** Gowanus Canal Remedial Investigation

Field Crew: EB, CM, MP | **Date:** 7/15/10 | **Project #:** 395863

Well Depth (ft.): 13.19
DTW (ft.): 4.15
Water Column (ft.): 9.04
Well Diameter (in.): 2
Gal. per ft.: 0.163
Well Volume (gal.): 1.047
Depth of Screen (ft.): 3.19'

Purge Methodology: Low Flow

Water Quality Meter: U-52

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Turbidity (NTU)	Sal Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	1.1 Slight Petro
Initial	1015	5.40		0	6.72	29.18	2.25	-113	.79	NA	1.1 like odor
1 VOL.	1020	5.73	175	0.2	6.74	27.32	2.19	-126	.78	140	1.1
2 VOL.	1025	5.71	75	0.3	6.74	23.71	2.18	-62	2.60	90	1.1
3 VOL.	1030	5.98	125	0.4	6.74	27.28	2.18	-127	.44	60	1.1
4 VOL.	1035	6.18	75	0.5	6.74	27.34	2.17	-129	.41	60	1.1
5 VOL.	1040	6.29	75	0.6	6.73	27.80	2.17	-130	.38	50	1.1
6 VOL.	1045	6.34	75	0.7	6.72	28.18	2.16	-132	.35	35	1.1
7 VOL.	1050	6.49	125	0.8	6.72	28.34	2.16	-131	.35	45	1.1
8 VOL.	1055	6.48	75	0.9	6.73	28.60	2.15	-132	.34	30	1.1
9 VOL.	1100	6.63	70	1.0	6.73	28.81	2.13	-136	.41	23	1.1
10 VOL.	1105	6.66	70	1.1	6.74	28.95	2.14	-137	.34	21	1.1
Post-Purge	1235	11.35	200	1.4	6.86	28.62	2.04	-137	.78	55	1.1

Remarks: Pump Intake Depth: 12.19 | Control Box Setting (Hz): | Development: | Sampling: (Sample at 100-250 ml/min) 70 ml/min

PID = 0.0 ppm

SAMPLING

Depth to Water Before Sampling: 6.79
Sample Methodology: Tube w/ 2" Grundfos pump and teflon lined tubing
Sample Name: QC-MW 335 | QC Sample: None
Sample Date/Time: 7/15/10 1115
Sampler / Signature:
Filtered Metals Collected: (Y) N | Filter Size: 0.45
Sample Observations: Very Low Flow - <100mL/min, DTW not stable,
Parameters: VOC, SVOC, Metals, Filtered Metals, PCB, Pest, Hg, CN

DR

D-07152010-01

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 33I	**Site: Gowanus Canal Remedial Investigation**
Field Crew: EB, CM, MP	**Date:** 7/15/10 **Project #: 395863**
Well Depth (ft.): 38.88'	Purge Methodology: Low Flow
DTW (ft.): 4.75	
Water Column (ft.): 34.13	
Well Diameter (in.): 2in	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 5.56	U-52
Depth of Screen (ft.): 33.88'	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Turbidity (NTU)	% Salinity	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%		
Initial	0850	4.75	400	0	6.63	20.96	1.44	-37	2.36	16	0.07	Petrol like odor
1 VOL.	0855	4.92	400	0.5	6.76	18.98	1.43	-100	1.16	10.90	0.07	
2 VOL.	0900	4.62	400	1.0	6.80	19.15	1.44	-115	0.88	15	0.07	
3 VOL.	0905	4.91	400	1.5	6.70	19.15	1.43	-117	0.65	12	0.07	
4 VOL.	0910	4.90	400	2.0	6.79	19.15	1.43	-118	0.56	9.6	0.07	
5 VOL.	0915	4.91	400	2.5	6.82	19.12	1.43	-118	0.51	6.8	0.07	
6 VOL.	0920	4.91	400	3.0	6.78	19.06	1.43	-117	0.48	6.4	0.07	
7 VOL.	0925	4.91	400	3.5	6.80	19.00	1.43	-118	0.52	9.3	0.07	
8 VOL.	0930	4.91	400	4.0	6.81	19.01	1.42	-118	0.52	6.0	0.07	
9 VOL.												
10 VOL.												
Post-Purge	1115	4.91	350	-	6.81	20.23	1.41	-106	0.34	18	0.07	

Remarks: Pump Intake Depth: 36.38' Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

PID ~ 1.2ppm

⊗ Well located on Nevin St, across from former Scranton & Lehigh Coal Co bldg.

SAMPLING

Depth to Water Before Sampling:	4.91
Sample Methodology:	Tube w/ 2" Grundfos pump & teflon lined tubing
Sample Name:	GC-MW 33I QC Sample: ~~n/a~~ Dupe collected D-07152010-01
Sample Date/Time:	7/15/2010 @ 0930
Sampler / Signature:	MVP
Filtered Metals Collected:	Y / N Filter Size: 0.45
Sample Observations:	Sample flow rate @ 150ml/min Duplicate (D-071510-01) taken
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCB, Pest, +Hg, CN

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	345	Site: Gowanus Canal Remedial Investigation	
Field Crew:	EB, CM	Date: 7/16/2010	Project #: 395863
Well Depth (ft.):	12.78	Purge Methodology:	Low Flow
DTW (ft.):	3.36		
Water Column (ft.):	9.42		
Well Diameter (in.):	2"		
Gal. per ft.:	0.163	Water Quality Meter:	
Well Volume (gal.):	1.54		Horiba U-5000
Depth of Screen (ft.):	2.78		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/-10%	+/- 10%	
Initial	1020	3.23	150	<0.5	6.85	29.74	5.55	-84	2.72	0.22	69.7	petrol like odor
	1025	3.91	125	<0.5	7.09	28.85	5.13	-109	0.72	0.22	49.4	
	1030	3.96	125	<0.5	7.12	28.08	5.17	-109	0.00	0.20	43.6	
	1035	3.98	100	~0.5	7.14	27.66	5.19	-114	0.00	0.21	40.3	
	1040	3.99	125	~0.5	7.16	27.39	5.10	-116	0.00	0.20	44.3	
	1045	4.02	100	<1	7.18	27.30	4.91	-116	0.00	0.19	41.6	
	1050	4.02	100	~1	7.17	27.57	4.82	-115	0.00	0.19	41.7	
	1055	4.01	125	~1	7.15	27.66	4.91	-109	0.00	0.18	32.0	
	1100	4.03	125	>1	7.13	27.85	4.65	-104	0.00	0.18	29.9	
	1105	4.03	125	>1	7.12	27.99	4.60	-102	0.00	0.18	27.0	
	1110	4.0	125	~1.5	7.12	27.82	4.50	-102	0.00	0.17	19.7	
Post-Purge	→	SEE	NEXT	PAGE	FOR	CONTINUATION		←				

Remarks: Pump Intake Depth: 11.78 ft | Control Box Setting (Hz): 54.10 Hz | Development: | Sampling: (Sample at 100-250 ml/min) 150 ml/min

PID headspace: 2.1 ppm

SAMPLING

Depth to Water Before Sampling:	4.03
Sample Methodology:	Low Flow
Sample Name:	GC-MW345
QC Sample:	none
Sample Date/Time:	7/16/2010 @ 11:55
Sampler / Signature:	[signature]
Filtered Metals Collected:	(Y) N Filter Size: 0.45
Sample Observations:	Petro-like odor
Parameters:	VOC / SVOC / Metals / Filtered metals / PCBs / Cyanide / Mercury

(83)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 34S	Site: Gowanus Canal Remedial Investigation
Field Crew: EB, CM	Date: 7/16/2010 Project #: 395863

Well Depth (ft.): 12.78	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.): 3.36	Low Flow	2"	.163	5"	1.020
Water Column (ft.): 9.42		3"	.367	6"	1.469
Well Diameter (in.): 2"		4"	.653	8"	2.611
Gal. per ft.: 0.163	Water Quality Meter:				
Well Volume (gal.): 1.54	HORIBA				
Depth of Screen (ft.): 2.78	11.5000				

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1115	4.03	140	~1.5	7.13	27.85	4.27	-104	0.00	0.16	11.8	
	1120	4.03	140	~2	7.14	27.79	3.94	-110	0.00	0.15	6.85	
	1125	4.03	150	~2	7.16	27.82	3.70	-117	0.00	0.14	5.59	
	1130	4.03	150	~2.5	7.16	27.90	3.59	-122	0.00	0.13	6.62	
	1135	4.05	150	~2.5	7.17	28.00	3.44	-131	0.00	0.12	4.73	
	1140	4.03	150	~2.5	7.16	28.14	3.38	-144	0.00	0.12	6.01	
	1145	4.02	150	~3	7.16	28.39	3.37	-161	0.00	0.12	6.23	
	1150	4.03	150	~3	7.16	28.41	3.41	-168	0.00	0.12	5.67	
	1155	4.03	150	~3.5	7.17	28.58	3.45	-173	0.00	0.13	5.11	
Post-Purge	1310	4.04	150	~4	7.22	32.40	5.99	-192	0.00	0.25	13.3	

Remarks: Pump Intake Depth: 11.78 ft Control Box Setting (Hz): 54.10 Hz Development: Sampling: (Sample at 100-250 ml/min) 150 ml/min

PID HEADSPACE 21 ppm

SAMPLING

Depth to Water Before Sampling: 4.03

Sample Methodology: Low Flow

Sample Name: GC-MW34S QC Sample: none

Sample Date/Time: 7/16/10 @ 11:55

Sampler / Signature: [signature]

Filtered Metals Collected: Y / N Filter Size: 0.45

Sample Observations:

Parameters: VOC / SVOC / Metals / Filtered Metals / PCB / Cyanide / Mercury

Page 2 of 2

OK

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 34 I	Site: Gowanus Canal Remedial Investigation
Field Crew: EB, CM	Date: 7/16/2010 Project #: 395863
Well Depth (ft.): 34.64	Purge Methodology:
DTW (ft.): 3.60	Low Flow
Water Column (ft.): 31.04	
Well Diameter (in.): ~~2~~ (N) 2"	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 5.06	Horiba U-5000
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1020	6.43	480	0.1	6.91	21.41	1.30	-143	4.88	0.07	759	slight Petrol like odors
	1025	6.65	400	1.2	7.12	21.02	1.33	-249	1.40	0.07	170	
	1030	6.50	400	1.5	7.19	21.65	1.35	-286	1.30	0.07	6.40	
	1035	6.50	290	2.0	7.22	21.32	1.32	-302	1.11	0.07	4.87	
	1040	6.48	290	2.4	7.24	21.46	1.33	-313	1.02	0.07	2.55	
	1045	6.52	290	2.6	7.24	21.47	1.32	-320	0.93	0.07	2.81	
	1050	6.60	290	3.0	7.26	21.21	1.31	-324	0.90	0.07	2.90	
	1055	6.53	290	4.0	7.35	22.64	1.30	-323	0.74	0.07	1.70	
	1100	6.52	290	4.1	7.36	21.42	1.30	-332	0.71	0.06	1.28	
	1105	6.48	200	4.6	7.35	22.29	1.28	-337	0.60	0.06	0.92	
	1110	6.48	200	4.8	7.35	23.19	1.28	-339	0.56	0.06	1.09	
Post-Purge	1155	7.48	200	5.1	7.52	29.45	1.18	-298	0.99	0.06	2.72	

Remarks: Pump Intake Depth: 32.14 ft — Control Box Setting (Hz): Development: 46.40 Hz — Sampling: (Sample at 100-250 ml/min) 44.30

PID Head space: 0.7 ppm

SAMPLING

Depth to Water Before Sampling:	6.48
Sample Methodology:	Low Flow
Sample Name:	GW-MW34I — QC Sample: none
Sample Date/Time:	7/16/2010 1115
Sampler / Signature:	Ed Brandt
Filtered Metals Collected:	(Y) / N — Filter Size: 0.45
Sample Observations:	
Parameters:	VOC, SVOC, PCB, Pest., Metals, F. Metal Metals, CN, Hg

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-35S		Site: Gowanus Canal Remedial Investigation	
Field Crew: EB, SQ		Date: 7/21/10	Project #: 395863
Well Depth (ft.): 13.28	Purge Methodology:	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 5.23	Low Flow	2" .163	5" 1.020
Water Column (ft.): 8.05		3" .367	6" 1.469
Well Diameter (in.): 2in		4" .653	8" 2.611
Gal. per ft.: 0.163	Water Quality Meter:		
Well Volume (gal.): 1.31	YSI 556 MPS		
Depth of Screen (ft.): 3.28	U-52		

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0925	5.51	225	0.25	7.28	26.37	5.60	-50	0.0	0.23	110	Slight yellow / Slight petroleum odor
	0930	5.70	225	0.5	7.24	26.49	5.30	-50	0.0	0.21	230	↓" same ↓"
	0935	6.01	225	0.75	7.31	26.54	2.34	-55	0.0	0.07	45	↓" same ↓"
	0940	6.11	200	1.0	7.51	26.65	1.57	-67	0.0	0.05	47	↓" same ↓"
	0945	6.27	200	1.15	7.55	26.88	1.53	-64	0.0	0.05	53	↓" same ↓"
	0950	6.43	200	1.30	7.55	26.89	1.47	-71	0.0	0.04	27	↓" same ↓"
	0955	6.69	150	1.50	7.56	27.35	1.41	-74	0.0	0.04	21	↓" same ↓"
	1000	6.84	150	1.60	7.58	27.53	1.42	-74	0.0	0.04	13	↓" same ↓"
	1005	7.00	150	1.75	7.62	27.85	1.40	-74	0.0	0.04	8.1	↓" same ↓"
	1010	7.06	125	1.90	7.60	28.01	1.40	-73	0.0	0.04	10	↓" same ↓"
Post-Purge	1235	8.27	100	2.5	7.58	34.93	1.68	-46	0.0	0.05	7.5	slight yellow / slight petroleum odor

Remarks: Pump Intake Depth: 12.28 Control Box Setting (Hz): Development: 63.5 42 Sampling: (Sample at 100-250 ml/min) 125

PID: 4.8

SAMPLING

Depth to Water Before Sampling:	7.11
Sample Methodology:	Low Flow
Sample Name:	GC-MW 35-S
QC Sample:	N/A
Sample Date/Time:	7/21/10 1025
Sampler / Signature:	SQ
Filtered Metals Collected:	(Y) N Filter Size: metals
Sample Observations:	MN
Parameters:	See COCs

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-35I		Site: Gowanus Canal Remedial Investigation	
Field Crew: EB, SA		Date: ~~7~~/21/10 Project #: 395863	
Well Depth (ft.): 34.23	Purge Methodology:	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 5.38	low flow	2" .163	5" 1.020
Water Column (ft.): 28.85		3" .367	6" 1.469
Well Diameter (in.): 2in		4" .653	8" 2.611
Gal. per ft.: 0.163	Water Quality Meter:		
Well Volume (gal.): 4.70	U-52		
Depth of Screen (ft.): 29.23			

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
0910 ← Initial	~~0905~~	5.32	175	—	6.56	28.06	1.41	-106	7.16	0.07	27	Clear
	0915	5.87	300	0.4	6.76	21.86	1.42	-149	1.63	0.07		Pump Issue - Restart below
Restart *	0935	6.03	300	0.6	6.85	28.34	1.44	-115	~~2.74~~	0.07	90	Cloudy, Petro-like Odor
	0940	6.28	300	0.7	6.83	23.96	1.37	-126	1.14	0.07	85	
	0945	6.28	240	1.2	6.83	23.39	1.38	-137	1.38	0.07	60	
	0950	6.31	240	1.5	6.83	23.56	1.38	-140	0.78	0.07	45	
	0955	6.33	240	1.7	6.82	23.62	1.38	-142	0.72	0.07	28	
	1000	6.36	220	2.0	6.82	24.02	1.37	-144	0.65	0.07	15	
	1005	6.36	220	2.15	6.83	24.00	1.38	-145	0.61	0.07	10	
	1010	6.36	220	2.5	6.83	23.58	1.38	-147	0.67	0.07	8.5	
	1015	6.38	220	2.7	6.83	23.50	1.38	-148	0.56	0.07	7.2	↓
Post-Purge	1120	6.31	180	4.0	6.90	29.05	1.34	-129	0.78	0.07	9.5	Cloudy Petro-like Odor

Remarks: Pump Intake Depth: 31.73 Control Box Setting (Hz): 64.70 - 64.30 Development: Sampling: (Sample at 100-250 ml/min) 180 - 175 mL/min

Ground Fault issue w/ generator @ 0915 → NO NTU Reading

PID - 1.8ppm.

SAMPLING

Depth to Water Before Sampling:	6.30
Sample Methodology:	Tube
Sample Name:	GC-MW35I
QC Sample:	1020
Sample Date/Time:	7/21/10
Sampler / Signature:	F. Brandt
Filtered Metals Collected:	Y N Filter Size: 0.45
Sample Observations:	Sheen on Purge water
Parameters:	VOC, SVOC, metals, Filtered Metals, PCB, Pest, CN, Hg

EB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 365		Site: Gowanus Canal Remedial Investigation	
Field Crew: MVP, CZ		Date: 7/22/10	Project #: 395863
Well Depth (ft.): 12.29	Purge Methodology:	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 3.89	Low Flow	2" .163	5" 1.020
Water Column (ft.): 8.4		3" .367	6" 1.469
Well Diameter (in.): 2		4" .653	8" 2.611
Gal. per ft.: .163	Water Quality Meter:		
Well Volume (gal.): 1.37	Horiba U-52		
Depth of Screen (ft.): 2.29			

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	09:41	3.91	150	0.25	6.17	20.25	4.05	-103	2.35	0.22	35	slight petro
	09:48	4.25	150	0.50	6.29	21.07	3.02	-144	0.61	0.15	45	"
	09:53	4.35	100	.5	6.36	23.13	2.39	-160	0.53	0.12	40	"
	0958	4.32	100	.5+	6.38	23.51	2.21	-163	0.51	0.11	32	"
	1003	4.30	100	.5+	6.39	23.88	2.13	-165	0.49	0.11	27	"
	1008	4.34	100	1	6.41	24.07	2.09	-167	0.53	0.11	22	"
	1013	4.38	100	1+	6.43	24.28	2.05	-168	0.46	0.10	21	"
	1018	4.38	100	1+	6.43	24.44	2.01	-169	0.44	0.10	23	"
	1340	4.79	125	2	6.77	31.16	1.73	-157	0.65	0.09	37	"
Post-Purge												

Remarks: Pump Intake Depth: 11.29 (Top of pump - 10.89') Control Box Setting (Hz): 55.10 Hz Development: Sampling: (Sample at 100-250 ml/min) 52.50, 52.3

PID 16.9 ppm

SAMPLING

Depth to Water Before Sampling:	4.38
Sample Methodology:	Tube
Sample Name:	GC-MW365
QC Sample:	DUP 22.2010 - 02 (Type)
Sample Date/Time:	7/22/10 1022
Sampler / Signature:	
Filtered Metals Collected:	(Y) N Filter Size: 0.45
Sample Observations:	clear, slight petro odor
Parameters:	VOCs, SVOCs, Metals, T.I. Metals, Rest PCBs, CN

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 36I	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP, CZ	Date: 7/27/10 Project #: 395863
Well Depth (ft.): 37.89	Purge Methodology: low flow
DTW (ft.): 2.87	
Water Column (ft.): 35.02	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 5.71	Horiba - U-52
Depth of Screen (ft.): 37.89	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0944	3.00	100	0.25	8.34	19.06	3.70	-15	0.00	0.13	14	slight petroleum odor
	0949		90	0.75	8.57	21.73	4.10	-96	0.00	0.15	12	"
	0954	2.97	100	.50	6.33	22.68	2.66	-157	0.55	0.14	14	"
	0959		100	1.25	8.57	22.38	4.05	-106	0.0	.15	14	"
	1004	3.1	100	1.5	8.57	22.44	4.08	-107	0.0	0.15	14	"
	1009	3.1	100	2.0	8.54	23.03	4.00	-106	0.0	0.15	15	"
	1320	3.25	50	2.0	8.81	26.18	3.94	-135	0.0	0.15	10	"
Post-Purge												

Remarks: Pump Intake Depth: 30.39 Top of Pump 30.09

Control Box Setting (Hz): 49.10 Hz Development:

Sampling: (Sample at 100-250 ml/min) 46.6-

PID = 2.9 ppm

SAMPLING

Depth to Water Before Sampling:	3.1
Sample Methodology:	Tube
Sample Name:	GC-MW-36I QC Sample: NONE
Sample Date/Time:	7 28 10 1016
Sampler / Signature:	MVP
Filtered Metals Collected:	Y (N) Filter Size: 0.45
Sample Observations:	clear, slight petroleum odor
Parameters:	VOCs, SVOCs, PCBs, metals, diss metals, CN-

NB

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW-37S	Site: Gowanus Canal Remedial Investigation	
Field Crew:	EB, CM	Date: 7/26/10	Project #: 395863
Well Depth (ft.):	23.78	Purge Methodology:	
DTW (ft.):	10.57		
Water Column (ft.):	13.21	Low Flow	
Well Diameter (in.):	2 in		
Gal. per ft.:	0.163	Water Quality Meter:	
Well Volume (gal.):	2.15	U-52 Larotte 7020	
Depth of Screen (ft.):	13.78		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1235	9.94	150	—	6.54	31.53	4.84	-30	2.24	0.27	8.97	Clear
	1240	11.34	150	0.1	6.60	29.34	9.95	-83	1.38	0.57	12.7	
	1245	11.68	100	0.3	6.54	28.84	10.3	-91	1.03	0.58	12.3	
	1250	12.11	150	0.4	6.55	27.84	10.0	-92	0.99	0.56	17.8	
	1255	12.45	150	0.5	6.56	27.33	9.36	-88	0.91	0.57	17.5	
	1300	12.71	140	0.6	6.56	27.04	8.72	-86	0.91	0.48	19.7	
	1305	12.80	100	0.75	6.56	27.31	7.39	-84	0.76	0.44	20.3	
	1310	13.04	100	0.9	6.60	27.24	7.25	-86	0.76	0.39	17.3	
	1315	13.12	110	1.0	6.61	27.19	6.40	-90	0.76	0.35	17.6	
	1320	13.60	100	1.2	6.67	27.11	5.19	-97	0.74	0.28	16.7	
	1325	13.09	150	1.25	6.68	27.32	4.89	-97	0.80	0.26	17.8	↓
Post-Purge	1720	14.33	150	~3	6.78	26.37	2.53	-118	0.47	0.13	5.82	

Remarks: Pump Intake Depth: 22.78 Control Box Setting (Hz): Development: 77.50 – 121.50 Sampling: (Sample at 100-250 ml/min) 100-150

PID Headspace 0.2 ppm

SAMPLING

Depth to Water Before Sampling:	13.19
Sample Methodology:	Tube
Sample Name:	GC-MW37S
QC Sample:	None
Sample Date/Time:	7/26/10 1355
Sampler / Signature:	E. Brault
Filtered Metals Collected:	(Y) N
Filter Size:	0.45
Sample Observations:	Effervescence in VOC SVOC.
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCB, PEST, CN, Hg, Geo-Chem.

JB

Page #2 of 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-375	**Site:** Gowanus Canal Remedial Investigation
Field Crew:	**Date:** 7/26/10 **Project #:** 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.): See Page #1	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1330	13.10	100	1.4	6.71	27.52	4.39	-100	0.68	0.23	18.0	Clear
	1335	13.26	140	1.5	6.73	27.49	4.24	-103	0.72	0.22	14.1	
	1340	13.32	130	1.6	6.73	27.65	3.84	-105	0.63	0.20	12.1	
	1345	13.44	100	1.8	6.73	27.65	3.78	-107	0.63	0.20	11.2	
	1350	13.69	100	2.0	6.73	27.56	3.76	-108	0.65	0.20	9.68	↓
Post-Purge												

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See Page 1

SAMPLING

Depth to Water Before Sampling:

Sample Methodology:

Sample Name: See Page 1 QC Sample:

Sample Date/Time:

Sampler / Signature:

Filtered Metals Collected: Y / N Filter Size:

Sample Observations:

Parameters:

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 37I	Site: Gowanus Canal Remedial Investigation
Field Crew: C. Mills / E. Brandt	Date: 7/26/10 Project #: 395863
Well Depth (ft.): 44.01	Purge Methodology: Low Flow
DTW (ft.): 9.54	
Water Column (ft.): 34.47	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52
Well Volume (gal.): 5.62	LaMotte 2020e
Depth of Screen (ft.): 39.01	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1230	9.54	225	0	6.10	24.65	1.65	111	3.20	0.08	54.5	cloudy, no detectable odor
	1235	9.86	225	1/2	6.56	23.22	1.85	7	3.09	0.09	24.7	" slight brown tinge
	1240	9.88	210	3/4	6.62	22.36	1.91	-21	3.73	0.10	13.1	clear, no detectable odor, slight brown tinge
	1245	9.87	200	1	6.69	22.26	1.95	-57	3.06	0.10	10.39	"
	1250	9.90	150	1 1/4	6.72	22.46	1.95	-75	2.54	0.10	15.6	"
	1255	9.90	200	1 1/2	6.75	21.89	1.96	-92	2.13	0.10	7.79	"
	1300	9.90	200	1 3/4	6.75	21.80	1.96	-103	2.11	0.10	7.79	"
	1305	9.91	200	2	6.77	21.75	1.98	-113	1.67	0.10	6.77	"
	1310	9.90	200	2 1/3	6.79	21.90	1.97	-122	1.48	0.10	6.43	"
	1315	9.90	200	2 2/3	6.80	22.36	1.96	-128	1.33	0.10	6.55	"
	1320	9.90	180	3	6.82	22.55	1.94	-134	1.19	0.10	6.37	"
Post-Purge	1325	9.92	200	3 1/2	6.83	22.39	1.96	-139	1.13	0.10	6.98	"

Remarks: Pump Intake Depth: 41.51 Control Box Setting (Hz): 65-40 Development: Sampling: (Sample at 100-250 ml/min) 220

Sample taken @ 1350.

PID Headspace 0.1 ppm

SAMPLING

Depth to Water Before Sampling:	9.93 ft
Sample Methodology:	EPA Low Flow
Sample Name:	GC-MW37I QC Sample: Duplicate
Sample Date/Time:	7/26/10 @ 1350
Sampler / Signature:	C. Mills
Filtered Metals Collected:	Y / N Filter Size: 0.45 micron
Sample Observations:	effervescent Rxn in VOC vials. No color or odor to sample H.B.
Parameters:	VOC / SVOC / PCB / PEST / Metals / Filtered Metals / Hg / Cn / GEO TECH

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-37I	Site: Gowanus Canal Remedial Investigation
Field Crew: C. Mills / E. Brandt	Date: 7/26/10 Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	see page 1
Water Column (ft.):	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1330	9.93	150	3 3/4	6.82	21.37	1.98	-142	1.43	0.10	6.12	clear, no detectable odor
	1335	9.93	220	4	6.85	21.08	1.98	-145	0.99	0.10	5.96	" slight brown tinge
	1340	9.93	220	4 1/4	6.85	20.86	1.97	-147	0.95	0.10	6.43	"
	1345	9.93	200	4 1/2	6.85	21.23	1.97	-149	0.87	0.10	6.78	"
	SAMPLE TAKEN @ 1350											
Post-Purge	1645	9.69	150	5	7.02	21.03	1.90	-124	4.69	0.10	5.60	clear, no detectable odor

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

see page 1

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	see page 1
Sample Name:	QC Sample:
Sample Date/Time:	
Sampler / Signature:	
Filtered Metals Collected: Y / N Filter Size:	
Sample Observations:	
Parameters:	

072610 - GCMW37I Pg 2/2

Low-Flow Groundwater Sampling: Field Data Sheet

PID
NAB

Well Number: 38S	Site: Gowanus Canal Remedial Investigation
Field Crew: MJP, TF	Date: 7 19.10 Project #: 395863
Well Depth (ft.): 16.6'	Purge Methodology:
DTW (ft.): 8.63	Low Flow
Water Column (ft.): 7.97	
Well Diameter (in.): 2	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): 1.3	Horiba
Depth of Screen (ft.): 6.6'	U-5000

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1630	12.10	125	<.5	6.78	23.56	1.45	-180	4.67	0.07	29.3	
	1635	12.49	200	.5	6.67	26.12	1.44	-140	3.75	0.07	27.4	
	1640	12.49	50	7.5	6.66	27.32	1.39	-135	3.21	0.07	19.0	
	1645		100	1	6.66	28.57	1.42	-134	3.81	0.07	24.0	
	1650		275	1+	6.66	28.09	1.42	-133	2.72	0.07	18.3	
	1655	11.9	125	1+	6.67	27.38	1.41	-135	2.39	0.07	21.1	
	1700		100	1.5	6.68	27.21	1.40	-135	2.18	0.07	19.0	
	1705	12.21	75	1.5+	6.67	27.61	1.40	-138	1.97	0.07	21.2	
	1710	12.18	75	2	6.67	28.02	1.41	-137	1.86	0.07	20.0	
	1715	12.32	75	2+	6.67	28.42	1.41	-134	1.80	0.07	18.2	
Post-Purge	1842	8.74	100	2+	6.73	30.64	2.22	-113	-.881	0.07	16.7	

Remarks: Pump Intake Depth: 15.6'

Control Box Setting (Hz): Development: 80.1-76.0

Sampling: (Sample at 100-250 ml/min) 89.90

Interface probe acting sporadically

SAMPLING

Depth to Water Before Sampling: 12.32

Sample Methodology: tube

Sample Name: QC QC Sample: none

Sample Date/Time: 7.19.10 1715

Sampler / Signature: [signature]

Filtered Metals Collected: (Y)/ N Filter Size: 0.45

Sample Observations:

Parameters: VOCs, SVOCs, metal, Diss Metals, Pest, PCBs, CN-

JB

Low-Flow Groundwater Sampling: Field Data Sheet

PID
NAB

Well Number: 38I	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP TF	Date: 7 19 10 Project #: 395863
Well Depth (ft.): 42.2	Purge Methodology:
DTW (ft.): 7.94	E low flow
Water Column (ft.): 34.3	
Well Diameter (in.): 2	
Gal. per ft.: 0.367	Water Quality Meter:
Well Volume (gal.): 12.6	U52
Depth of Screen (ft.): 37.2-42.2	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1630	3.82	7.94	<1	8.63	19.33	0.748	-37	1.02	0.02	33.9	clear, sl. odor
	1635	3.60	8.85	<1	8.66	19.04	0.764	-60	0.46	0.02	19.1	"
	1640	8.83	300	<1	8.85	18.80	0.775	-75	0.66	0.02	17.1	"
	1645	8.78	260	~1	8.87	19.41	0.761	-79	0.38	0.02	20.8	"
	1650	8.65	260	~1.5	8.91	20.05	0.756	-83	0.07	0.02	13.9	"
	1655	8.58	250	2	8.76	20.49	0.753	-76	0.00	0.02	10.92	"
	1700	8.43	160	2.3	8.80	20.81	0.755	-78	0.00	0.02	8.44	"
	1705	8.28	100	2.3	8.89	21.36	0.752	-85	0.00	0.02	15.2	"
	1710	8.25	100	2.4	8.92	22.06	0.755	-88	0.00	0.02	13.9	"
	1715	8.24	140	2.4	8.82	22.66	0.757	-85	0.00	0.02	17.2	"
	1720	8.20	120	2.6	8.68	23.20	0.756	-75	0.00	0.02	15.0	"
Post-Purge	1725	8.20	120	2.8	8.72	23.52	0.754	-79	0.00	0.02	16.1	"

Remarks: Pump Intake Depth: 39.7 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

1730 Sample
post purge 18 8.57 150 ~3 8.72 2 8.00 0.730 -41 0.0 0.02 12.6 "

SAMPLING

Depth to Water Before Sampling: 8.20
Sample Methodology: low flow
Sample Name: Tom Fowler MW38I QC Sample:
Sample Date/Time: 7/20/10 1730
Sampler / Signature: [signature] / Tom Fowler
Filtered Metals Collected: Y / N Filter Size:
Sample Observations:
Parameters: VOC | SVOC | PCB | Pest | metals + CN | Filtered metals

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 395	Site: Gowanus Canal Remedial Investigation
Field Crew: MVP/SQ	Date: 7/26/10 Project #: 395863

Well Depth (ft.): ~~40.20~~ 20.96
DTW (ft.): ~~15.44~~ 13.44
Water Column (ft.): 7.52
Well Diameter (in.): 2
Gal. per ft.: .163
Well Volume (gal.): 1.2
Depth of Screen (ft.): 10.96

Purge Methodology: <FSP

Water Quality Meter: Horiba U52 Lamott 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1300	1305	100	<.5	7.22	24.35	.946	-144	1.76	.05	42.6	
	1305	14.38	50	<.5	7.29	25.26	.858	-145	1.24	.04	29.9	
	1310	14.44	50	<.5	7.31	26.76	.864	-142	1.24	0.04	38.2	
	1315	14.44	50	<.5	7.33	27.43	.854	-139	1.21	0.04	50.8	
	1320	14.69	50	<.5	7.31	27.47	.862	-136	1.18	.04	52.9	
	1325	14.69	50	.5	7.33	27.58	.854	-136	1.08	.04	55.3	
	1330	14.67	50	.5	7.33	28.51	.856	-133	.97	0.04	54.9	
	1335	14.61	50	.5+	7.32	29.21	.860	-129	.95	0.04	52.7	
Post-Purge												

16.91

Remarks: Pump Intake Depth: 19.96
Top of Pump 19.64

Control Box Setting (Hz): 89.00

Development:

Sampling: (Sample at 100-250 ml/min) 82.6-99.70

well head Dropping during Sampling

PID = 3.4

SAMPLING

Depth to Water Before Sampling: 14.61
Sample Methodology: Tube
Sample Name: GC-MW395 QC Sample: None
Sample Date/Time: 7/26/10 1335
Sampler / Signature:
Filtered Metals Collected: Y N Filter Size: 0.45
Sample Observations:
Parameters: VOCs, SVOCs, metals, Diss metals, CN-, pest/PCBs, Geotech

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: SYI	Site: Gowanus Canal Remedial Investigation
Field Crew: SQ / MVP	Date: 7/26/10 Project #: 395863

Well Depth (ft.): 40.20
DTW (ft.): 14.14
Water Column (ft.): 26.06
Well Diameter (in.): 2"
Gal. per ft.: 0.163
Well Volume (gal.): 4.25
Depth of Screen (ft.): 35.20

Purge Methodology: Low Flow

Water Quality Meter: horiba U52 Lemotte 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor	
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%		
Initial	1310	14.77	150	0.25	6.30	24.91	20.1	-124	1.6	1.19	400	Slight sheen, slight petro like color	slight yellow color
	1315	16.91	125	0.40	6.31	25.97	19.5	-125	1.32	1.15	45	↓ same ↓	↓
	1320	16.96	100	0.50	6.31	26.32	19.6	-123	1.09	1.17	50	↓ same ↓	↓
	1325	17.08	100	0.65	6.32	28.67	19.5	-126	.96	1.16	75	↓ same ↓	↓
	1330	17.11	100	0.75	6.32	30.01	19.5	-125	1.09	1.16	60	↓ same ↓	↓
	1335	17.18	100	0.85	6.32	30.93	19.6	-126	1.11	1.16	55	↓ same ↓	↓
	1340	17.38	100	0.90	6.32	31.51	19.6	-128	1.16	1.16	55	↓ same ↓	↓
	1345	17.51	100	1.0	6.32	31.49	19.6	-128	1.05	1.15	60	↓ same ↓	↓
Post-Purge	1620	Dry	high flow to fill Ambers					1630	ultrasol closes				

Remarks: Pump Intake Depth: 37.7 Control Box Setting (Hz): Development: 97.50 Sampling: (Sample at 100-250 ml/min) 100

Top of pump 37.4

PID = 1.2

SAMPLING

Depth to Water Before Sampling: 17.55
Sample Methodology: Low Flow
Sample Name: GC-MW-39I QC Sample: N/A
Sample Date/Time: 7/26/10 1350
Sampler / Signature: SQ, [signature]
Filtered Metals Collected: Y / N Filter Size: 45 um
Sample Observations: Precipate on VOAs
Parameters: See COC / geotech too

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 425	**Site:** Gowanus Canal Remedial Investigation
Field Crew: MB	**Date:** 7/16 **Project #:** 395863

		Purge Methodology:
Well Depth (ft.):	13.6	Low flow ~~Horiba~~
DTW (ft.):	6.59	
Water Column (ft.):	7.01	
Well Diameter (in.):	2	
Gal. per ft.:	.163	Water Quality Meter:
Well Volume (gal.):	1.14	Horiba
Depth of Screen (ft.):	8.6	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	~~+/- 10%~~	+/- 10%	~~ID~~
Initial	~~Init~~ 10:15	5.35	300	2	7.22	22.79	32.4	-264	.40	2.04	2.01	Dark grey petro like odor
	1020	5.22	300	1.0	7.39	23.86	34.31	-223	.50	1.99	2.31	Dark grey petro like odor
	1025	5.28	300	1.3	7.62	23.82	31.7	-265	.51	1.95	11	sheen, with dark grey
	1030	5.06	150	2.0	7.11	24.12	33.1	-276	.33	2.06	6.1	Blackish
	10:35	4.94	300	3.5	7.06	23.99	33.8	-281	.41	2.14	2.4	~~dam~~ grey
	1040	4.85	350	4.0	7.04	23.96	34.6	-283	.49	2.18	1.1	clear, some cloudyness
	1045	4.81	180	4.5	7.03	24.69	34.8	-289	0.50	2.19	0.0	cloudy, grey
	1050	4.77	180	5.0	7.03	24.83	35.0	-291	.49	2.21	2.5	Cloudy, grey
	~~10:55~~ → 1110 final reading	4.42	300	~~5.4~~	7.09	24.63	34.9	-253	3.90	2.19	0.0	
	1140	4.09										
Post-Purge												

1055 Sample

Remarks: Pump Intake Depth: ~~5.5~~ 12.6' Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

10.55 Sample time

PID Initial 132.0

SAMPLING

Depth to Water Before Sampling:	6.59
Sample Methodology:	Low flow Horiba with tubing.
Sample Name:	GC-425 QC Sample: ~~MS/MSD~~
Sample Date/Time:	10:55 7/16/16
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 40 mm
Sample Observations:	
Parameters:	VOC, SVOC, pest, PCBs, metals, dissolved metals, CoV, Hg

DP

Clean up 12:00

Offsite 12:16

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	42 I	Site: Gowanus Canal Remedial Investigation	
Field Crew:	MB JF	Date: 7/16	Project #: 395863
Well Depth (ft.):	37.4 ft	Purge Methodology:	Low flow
DTW (ft.):	3.89 ft		w/ 2"
Water Column (ft.):	33.51		Grundfos
Well Diameter (in.):	2	Water Quality Meter:	
Gal. per ft.:	.163		Horiba
Well Volume (gal.):			
Depth of Screen (ft.):	32.4		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	10:55	3.87	150/min	.2	6.87	18.47	3.64	-167	2.2	.19	93	light grey
	11:00	3.90	200/min	.8	6.87	18.48	3.57	-170	1.78	.19	50	light grey
	11:05	3.81	200/min	1.5	6.86	18.43	3.65	-168	1.83	.19	13	Brownish, grey
	11:10	3.79	250/min	2.3	6.89	18.32	3.55	-170	1.67	.18	11	light grey PID in well 11:49
	11:15	3.92	300/min	3.0	6.90	18.22	3.35	-171	1.28	.17	4.7	slightly cloudy
	11:20	3.99	300/min	3.5	6.89	18.05	3.27	-170	1.20	.17	3.5	slightly cloudy
	11:25	3.83	150/min	4.5	6.88	18.07	3.25	-165	1.12	.17	1.8	partially cloudy
	11:30	3.85	300/min	5.0	6.87	18.04	3.11	-165	1.10	.16	1.4	clear faint petro odor
	11:35	3.87	200/min	6.5	6.90	18.04	3.19	-167	1.04	.17	2.9	clear
	~~12:00~~			~~8.5~~		~~18.15~~			1.	.20		
Post-Purge	12:00	3.55	250/min	8.5	6.89	18.15	3.10	-171	1.20	.20	2.8	Clear

Remarks: Pump Intake Depth: 35.00 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

Field Blank 11:45

PID initial: 397

SAMPLING

Depth to Water Before Sampling:	3.87
Sample Methodology:	Low flow horiba with tubbing
Sample Name:	GC 42I
QC Sample:	Field Blank @ 11:45
Sample Date/Time:	11:35
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N Filter Size: 40 mm
Sample Observations:	
Parameters:	VOCs, SVOCs, Pests, PCBs, metals, dissolved metals, Cr, Hg

(2R)

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 435	Site: Gowanus Canal Remedial Investigation
Field Crew: EB, CM	Date: 7/22/10 Project #: 395863
Well Depth (ft.): 12.62	Purge Methodology:
DTW (ft.): 3.23	Low flow
Water Column (ft.): ~~9.39~~ 9.39	
Well Diameter (in.): 2.0	
Gal. per ft.: 0.163	Water Quality Meter:
Well Volume (gal.): ~~1.53~~ 1.53	YSI
Depth of Screen (ft.): 2.62	Geotech 2020

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	~~0935~~ 0935	2.91	170	—	6.51	24.10	5.52	-113	1.27	0.30	941	petrol like odor - oxygen
	0940	3.74	175	0.4	6.53	22.46	5.31	-141	0.64	0.28	99.5	
	0945	4.07	110	0.6	6.56	23.15	4.75	-142	0.77	0.25	75.6	
	0950	4.41	90	0.75	6.57	23.56	3.75	-139	0.70	0.19	53.5	
	0955	4.72	100	0.8	6.63	23.98	2.98	-138	0.84	0.15	31.3	
	1000	4.92	125	0.9	6.65	24.28	2.41	-136	0.64	0.12	29.8	
	1005	5.31	150	1.2	6.72	24.39	2.03	-136	0.58	0.10	29.0	
	1010	5.58	125	1.3	6.80	24.76	1.82	-132	0.53	0.09	22.6	
	1015	6.01	150	1.5	6.91	25.13	1.64	-137	0.45	0.08	13.9	
	1020	6.18	110	1.6	6.94	25.51	1.64	-139	0.43	0.08	11.5	
	1025	6.42	110	1.7	6.97	25.81	1.62	-146	0.37	0.08	9.75	
Post-Purge												

Remarks: Pump Intake Depth: 11.62 Control Box Setting (Hz): Development: 52.10 Hz Sampling: (Sample at 100-250 ml/min) 100 mL/min

Well Dry after Purge and most of sample collection. Post Purge chems N/A.

PID : 4.0

SAMPLING

Depth to Water Before Sampling:	6.96'
Sample Methodology:	Tube
Sample Name:	EX-MW435 QC Sample: none
Sample Date/Time:	7/22/10 1040
Sampler / Signature:	E. Brandt
Filtered Metals Collected:	(Y) N Filter Size: 0.45
Sample Observations:	Continuous drawdown during Purge + Sample Collection @ 100 ml/min.
Parameters:	VOC, SVOC, Metals, Filtered metals, PCB, PEST, cN, Hg

Page #2 of 2

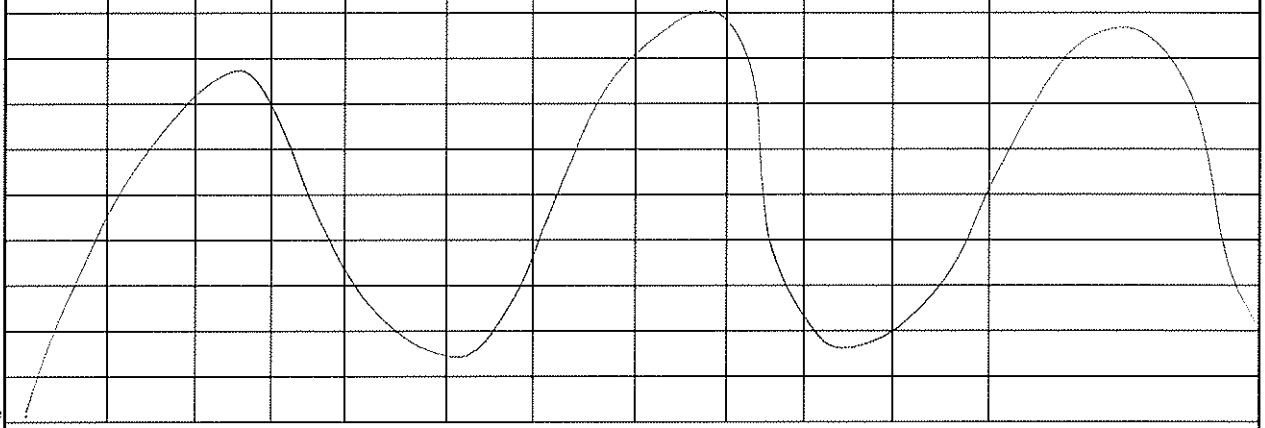
Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-435	Site: Gowanus Canal Remedial Investigation
Field Crew: EB, CM	Date: 7/22/10 Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.): See Page 1	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1030	7.76	100	1.8	6.98	26.20	1.67	-149	0.36	0.08	8.04	Clear, Petro-Like Odor.
	1035	6.94	100	1.9	7.02	26.27	1.68	-151	0.38	0.08	7.33	↓
Post-Purge												



Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

See Page #1

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	QC Sample:
Sample Date/Time:	
Sampler / Signature:	
Filtered Metals Collected: Y / N Filter Size:	
Sample Observations:	
Parameters:	

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number:	MW 43 intermediate	Site: Gowanus Canal Remedial Investigation	
Field Crew:	C. Mills / C. Zurlo	Date: 7/22/10	Project #: 395863
Well Depth (ft.):	37.21ft	Purge Methodology:	low flow
DTW (ft.):	3.01ft		
Water Column (ft.):	34.2 ft		
Well Diameter (in.):	2"		
Gal. per ft.:	0.163 gal	Water Quality Meter:	Hinda U-5000
Well Volume (gal.):	5.6 gal		LaMotte 2020e
Depth of Screen (ft.):	32.21ft		

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	0930	3.01	150	0	6.75	23.47	4.41	-15	1.04	0.24	14.0	petrol like odor, clear
	0935	3.56	140	<1/2	7.21	21.34	4.84	-123	0.69	0.26	19.1	clear
	0940	3.54	140	<1/2	7.34	19.81	4.89	-157	0.54	0.26	14.8	"
	0945	3.58	150	1/2	7.40	19.26	4.75	-167	0.54	0.25	9.85	"
	0950	3.60	150	3/4	7.44	19.17	4.55	-174	0.49	0.24	7.69	"
	0955	3.60	150	1	7.48	19.24	4.45	-177	0.53	0.24	8.05	"
	1000	3.60	150	1 1/4	7.51	19.37	4.40	-178	0.43	0.23	5.52	"
	1005	3.60	150	1 1/2	7.57	19.43	4.22	-178	0.42	0.23	5.22	"
	1010	3.61	150	1 3/4	7.53	19.25	4.15	-179	0.41	0.22	4.34	"
	1015	3.62	150	1 3/4	7.54	19.33	4.13	-180	0.41	0.22	4.24	"
	1020	3.63	150	2	7.55	19.40	4.01	-181	0.40	0.21	3.61	"
Post-Purge	1420	3.71	125	3	7.73	31.91	3.39	-151	1.20	0.17	5.62	"

Remarks: Pump Intake Depth: 34.71ft | Control Box Setting (Hz): 52.50 | Development: | Sampling: (Sample at 100-250 ml/min) 175 mL/min

PID READING: 1.0 ppm

SAMPLING

Depth to Water Before Sampling:	3.63
Sample Methodology:	EPA Low Flow
Sample Name:	GC-MW43I
QC Sample:	MS/MSD
Sample Date/Time:	7/22/10 @ 1020
Sampler / Signature:	C. Mills
Filtered Metals Collected:	Y / N
Filter Size:	0.45 micron
Sample Observations:	clear, no odor
Parameters:	VOC / SVOC / PCB / PEST / METALS / FILTERED METALS / Mercury / Cyanide

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-445		Site: Gowanus Canal Remedial Investigation	
Field Crew: EB, MB		Date: 7/20/10 Project #: 395863	
Well Depth (ft.): 12.98	Purge Methodology:	Diameter / Gal. Per Foot	Diameter / Gal. Per Foot
DTW (ft.): 3.28		2" .163	5" 1.020
Water Column (ft.): 9.7	low flow	3" .367	6" 1.469
Well Diameter (in.): 2"		4" .653	8" 2.611
Gal. per ft.: 0.163	Water Quality Meter:		
Well Volume (gal.): 1.58			
Depth of Screen (ft.): 2.98	U-52		

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	16:20	3.43	325/min	.3	7.08	29.58	11.7	-306	.70	.66	45	clear
	16:25	3.49	325/min	.7	6.95	29.57	11.0	-210	.46	.66	33	clear
	16:30	3.57	325/min	1.3	6.91	29.93	10.9	-191	.42	.62	29	clear
	16:35	3.57	325/min	1.5	6.86	25.30	10.9	-182	.39	.62	17	clear
	16:40	3.58	325/min	1.8	6.85	25.93	10.9	-179	.38	.62	7.2	clear
	16:45	3.58	325/min	2.2	6.82	25.59	10.9	-177	.36	.61	3.0	clear
	16:50	3.58	325/min	2.5	6.80	25.48	10.7	-175	.34	.61	1.7	clear
	16:55											
	17:00											
	17:05											
	17:10											
Post-Purge	17:33	3.37	225/min	4	6.78	29.61	10.4	-148	5.15	.59	1.8	clear

Remarks: Pump Intake Depth: 11.98 Control Box Setting (Hz): 50.30 Development: Sampling: (Sample at 100-250 ml/min) Sampling at 225 ml/min

Sample time : 16:55

PID - 4.4 ppm.

SAMPLING

Depth to Water Before Sampling:	3.57
Sample Methodology:	tube
Sample Name:	GC MW 445 QC Sample: Y
Sample Date/Time:	7/20 16:55
Sampler / Signature:	Michael Bruno Michael Briscoe
Filtered Metals Collected:	(Y) / N Filter Size:
Sample Observations:	
Parameters:	VOCs SVOCs Metals Filtered Metals PCBs Pesticides

Cyanide Mercury

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-44T	**Site:** Gowanus Canal Remedial Investigation
Field Crew: JBalog	**Date:** 7/8/10 **Project #:** 395863
Well Depth (ft.): 14.31	Purge Methodology: low flow - grundfos teflon lined tubing
DTW (ft.): 2.46	
Water Column (ft.): 11.85	
Well Diameter (in.): 2"	
Gal. per ft.: .163	Water Quality Meter: Horiba U-52 w/ LaMotte 2020E
Well Volume (gal.): 6.82	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	LaMotte Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1		+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	
Initial	1044	2.53	425	—	6.63	20.68	.941	-11	1.70	9.38	clear/none
1 VOL.	1049	2.53	425	.8	6.88	20.53	1.70	-120	.53	4.23	clear/none
2 VOL.	1102	2.53	275	1.5	6.31	22.99	0.001	51	7.65	2.77	clear/none
3 VOL.	1109	2.53	275	2.0	6.89	22.67	1.66	-101	1.03	4.25	clear/none
4 VOL.	1114	2.55	300	2.3	6.86	20.50	1.69	-112	.78	3.37	clear/none
5 VOL.	1119	2.55	300	2.7	6.88	20.04	1.69	-114	.42	3.37	clear/none
6 VOL.	1124	2.58	300	3.0	6.88	19.67	1.69	-117	.36	3.14	clear/none
7 VOL.	1129	2.60	300	3.4	6.90	19.96	1.68	-120	.33	7.07	clear/none
8 VOL.	1134	2.60	300	3.7	6.89	20.23	1.68	-122	.32	2.80	clear/none
9 VOL.	1139	2.61	300	4.1	6.90	20.42	1.67	-123	.32	0.58	clear/none
10 VOL.	1144	2.58	300	4.5	6.90	20.33	1.67	-123	.31	2.51	clear/none.
Post-Purge	1150	collect	Sample								

Remarks: Pump Intake Depth: 41.5'

Control Box Setting (Hz): Development: start - 57.20 at 1102 - 30.30, 1114 - 51.00

Sampling: (Sample at 100-250 ml/min) 49.5 hz ~225 ml/min

note @ ~1053 generator shut down and needed to be repaired and started

SAMPLING

Depth to Water Before Sampling:	2.56
Sample Methodology:	low flow w/ grundfos
Sample Name:	MW-44T
QC Sample:	D-07082010-01 /MS/MSD
Sample Date/Time:	7/8/10 / 1150
Sampler / Signature:	James Balog /
Filtered Metals Collected:	(Y) N Filter Size: ~~10 µm~~ 0.45 µm
Sample Observations:	clear/none → greenish tint
Parameters:	VOC -trace / SIMS / SVOC / PCB / pest / metals / filter metals

Post purge

T	DTW	Flow	pH	T	Cond	ORP	DO	Turb	Observations
1337	2.52	225	6.93	21.83	1.71	-113	1.09	5.04 (113)	greenish tint / no odor

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW455	Site: Gowanus Canal Remedial Investigation
Field Crew: Tom Fowler / Carol Zurlo	Date: 7/19/10 Project #: 395863

Well Depth (ft.): 13.6	Purge Methodology: low flow	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.): 3.01	low flow	2"	.163	5"	1.020
Water Column (ft.): 10.6	w/ 2"	3"	.367	6"	1.469
Well Diameter (in.): 2"	Grundfos pump		.653	8"	2.611
Gal. per ft.: 0.163	Water Quality Meter:				
Well Volume (gal.): 1.72	Horiba				
Depth of Screen (ft.): 9-14 ? 3	U-52				

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1430	2.85	—	—	7.27	23.77	1.04	-167	2.25	0.05	280	
	1445	—	—	—	7.47	27.07	1.01	-166	1.71	0.05	140	yellow-brown
	1440	3.19	320	—	7.42	27.25	1.09	-162	1.53	0.05	60	
	1445	4.18	300	—	7.36	27.85	1.11	-172	1.27	0.05	28	
	1450	—	230	~2½	7.39	27.92	1.10	-177	1.16	0.05	9.5	
	1455	4.15	—	—	7.41	28.06	1.09	-183	1.04	0.05	14	
	1500	—	300	—	7.44	27.99	1.09	-188	0.93	0.05	10	
	1505	—	—	~3	7.45	28.11	1.16	-197	1.10	0.05	12	
	1510	4.16	300	—	7.45	28.00	1.11	-203	0.84	0.05	7.5	
	1515	—	260	—	7.45	28.21	1.12	-209	0.73	0.06	5.6	
	1520	—	—	—	7.45	28.23	1.13	-221	0.60	0.06	5.0	
Post-Purge	1525	—	—	—	7.45	28.30	1.14	-225	0.50	0.06	6.1	

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

1530 1' off bottom 300 7.44 28.37 1.15 -228 0.50 0.06 5.8

1535 Took sample 15

post 1200 4.27 7.41 31.50 1.22 172 0.41 0.06

SAMPLING

Depth to Water Before Sampling: 3.01

Sample Methodology: low flow

Sample Name: MW455 QC Sample: none

Sample Date/Time: 7/19/10 1535

Sampler / Signature: Tom Fowler

Filtered Metals Collected: Y / N Filter Size:

Sample Observations:

Parameters: VOC, SVOC, Pests, PCB, metals, dissolved metals, CN, Hg

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 452	Site: Gowanus Canal Remedial Investigation
Field Crew: MB MP	Date: 7/19 Project #: 395863
Well Depth (ft.): 41.18	Purge Methodology: Low flow
DTW (ft.): 1.6	
Water Column (ft.): 39.58	
Well Diameter (in.): 2	
Gal. per ft.: 0.16	Water Quality Meter: Hach U-5000
Well Volume (gal.): 6.5	
Depth of Screen (ft.): 36.18	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	4:40	1.65	<50 ml/min	.1	7.39	29.58	1.03	-120	1.34	.05	22.8	clear, slight grey
	4:45	1.63	200 ml/min	.2	7.34	27.40	1.12	-139	1.02	.06	9.01	clear, slight grey
	4:50	1.65	250 ml/min	.3	7.35	24.34	1.13	-155	.85	.06	3.51	clear
	4:55	1.66	250 ml/min	.5	7.39	23.67	1.09	-161	.75	.05	5.80	Clear
	5:00	1.66	250 ml/min	1.0	7.33	23.66	1.05	-164	.78	.05	3.92	Clear
	5:05	1.69	150 ml/min	1.5	7.33	23.47	1.07	-166	.67	.05	3.47	clear
	5:10	1.72	200 ml/min	2.0	7.39	23.28	1.04	-168	.63	.05	4.51	Clear
	5:15	1.68	250 ml/min	2.5	7.34	23.46	1.03	-169	.57	.05	5.9	Clear
	5:20	1.63	250 ml/min	3.0	7.39	23.26	1.02	-171	.52	.05	7.72	Clear
	5:25	1.66	200 ml/min	3.5	7.35	24.04	1.03	-172	.46	.05	6.78	clear
	5:30	1.67	150 ml/min	4.0	7.34	24.71	1.05	-172	.40	.05	6.86	clear, slight grey/brown odor
Post-Purge	5:35	1.68	150 ml/min	4.5	7.35	24.36	1.08	-173	.37	<0.5	6.98	clear, slight odor, grey/brown

Remarks: Pump Intake Depth: 38.38 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

PID: 0.0 in m/l

SAMPLING

Depth to Water Before Sampling:	
Sample Methodology:	
Sample Name:	See page 2 QC Sample:
Sample Date/Time:	
Sampler / Signature:	
Filtered Metals Collected: Y / N Filter Size:	
Sample Observations:	
Parameters:	

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: 45I	Site: Gowanus Canal Remedial Investigation
Field Crew: MB MP	Date: 7/19 Project #: 395863

Well Depth (ft.): 41.18	Purge Methodology:	Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
DTW (ft.): 1.6	Low flow	2"	.163	5"	1.020
Water Column (ft.): 39.58		3"	.367	6"	1.469
Well Diameter (in.): 2		4"	.653	8"	2.611
Gal. per ft.: 0.163	Water Quality Meter:				
Well Volume (gal.): 6.5					
Depth of Screen (ft.): 36.18	horiba				

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	5:40	1.65	175/min	5.0	7.39	25.25	1.07	-173	.37	.05	6.96	Clear
	5:45	1.63	175/min	5.3	7.39	25.19	1.08	-173	.36	.05	7.13	clear, faint petro odor
Post-Purge	6:15	1.58	100/min	6	7.32	26.30	1.16	-155	.90	.06	12.3	Blackish

Remarks: Pump Intake Depth: 38.38 Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

PID 0.0 in well 47.10 45.2 - 175 mL/min

SAMPLING

Depth to Water Before Sampling: 1.62

Sample Methodology: Tube - low flow w/ 2" Grundfos pump + teflon tubing

Sample Name: GC - MW45I QC Sample: none

Sample Date/Time: 7.19.10 1745

Sampler / Signature: MVP

Filtered Metals Collected: Y/N Filter Size: 0.45 um

Sample Observations:

Parameters: Vocs, SVOCs, Metals, diss Metals, Pest, PCBs, CN-

DR

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-46D	Site: Gowanus Canal Remedial Investigation
Field Crew: MP, CM, ED	Date: 7/19/10 Project #: 395863
Well Depth (ft.): 57.38'	Purge Methodology: Low Flow
DTW (ft.): 2.94	
Water Column (ft.): 54.44	
Well Diameter (in.): 2 in	
Gal. per ft.: .163	Water Quality Meter:
Well Volume (gal.): 8.87	U-52
Depth of Screen (ft.): 52.38	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	1800	1.98	150	0	8.71	30.36	0.334	-135	2.38	0.02	5.98	Clear
	1805	1.98	150	0.2	8.20	27.84	0.516	-175	1.55	0.03	24.0	
	1810	1.93	150	0.5	7.15	25.92	1.06	-163	1.09	0.05	25.6	
1315	~~1820~~	—	150	0.7	7.01	25.60	1.18	-161	0.92	0.06	22.7	
	1820	—	150	1.0	6.97	25.35	1.21	-159	0.77	0.06	19.0	
	1825	1.96	150	1.2	6.95	24.78	1.22	-157	0.69	0.06	17.6	
	1830	—	150	1.8	6.94	24.24	1.23	-157	0.64	0.06	17.7	
Post-Purge	1930	2.07	150	2.0	6.82	24.64	1.30	-152	1.19	0.07	7.34	

Remarks: Pump Intake Depth: 54.88'

Control Box Setting (Hz): Development: 44.50

Sampling: (Sample at 100-250 ml/min) ~~2.07~~ CW 42.60 Hz

150 ml/min

PID: 3.0 ppm

SAMPLING

Depth to Water Before Sampling:	2.02 ft
Sample Methodology:	Tube
Sample Name:	~~MW~~ GC-MW46D QC Sample: none
Sample Date/Time:	7/19/10 1835
Sampler / Signature:	Ed Brandt
Filtered Metals Collected:	Y N Filter Size: 0.45
Sample Observations:	
Parameters:	VOC, SVOC, Metals, Filtered Metals, PCB, PEST, CN, Hg

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-475	Site: Gowanus Canal Remedial Investigation
Field Crew: Carol Zuiko Tom Fowler	Date: 7-19-10 Project #: 395863
Well Depth (ft.): 27.2	Purge Methodology: low flow pump
DTW (ft.): 6.62	
Water Column (ft.): 20.58	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163	Water Quality Meter: Horiba
Well Volume (gal.): 3.35	
Depth of Screen (ft.):	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
(2")	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial	13:50		400		6.73	21.20	11.5		11.39	.75	1100	6.62 ddw black globules
	13:57		200		6.67	23.62	11.9	-101	4.09	0.67	260	floating black globules
	14:05				6.66	26.65	11.0	-100	2.77	0.62	240	
	14:13				6.67	27.51	10.7	-100	2.46	0.61	160	reddish floating globules
	14:18				6.66	27.70	10.5	-101	2.11	0.59	50	
	14:23				6.66	27.63	10.5	-103	1.99	0.59	32	
	14:28		260		6.68	26.64	10.0	-102	1.83	0.56	37	
	14:35				6.66	29.02	10.4	-106	1.39	0.59	23	
	14:40				6.67	28.89	10.8	-107	1.45	0.61	31	
	14:45				6.68	29.26	10.7	-108	1.37	0.60	35	
	14:50				6.69	29.70	10.9	-108	1.21	0.62	130	
Post-Purge	14:55				6.70	29.84	10.9	-111	1.06	0.62	110	7.36 ddw

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: 71.10 Sampling: (Sample at 100-250 ml/min)

SEE PAGE 2

SAMPLING

Depth to Water Before Sampling:

Sample Methodology:

Sample Name: QC Sample:

Sample Date/Time:

Sampler / Signature:

Filtered Metals Collected: Y / N Filter Size:

Sample Observations:

Parameters:

RB

PAGE 2

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-~~[illegible]~~ 47-S	Site: Gowanus Canal Remedial Investigation
Field Crew: C. Zurlo T. Fowler	Date: 7/19/10 Project #: 395863
Well Depth (ft.):	Purge Methodology:
DTW (ft.):	
Water Column (ft.): see page 1	
Well Diameter (in.):	
Gal. per ft.:	Water Quality Meter:
Well Volume (gal.):	
~~Depth of Screen (ft.):~~	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. [Surface] (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
page 2	Initial	15:00			6.70	29.86	11.0	-112	0.98	0.62	95	
		15:05			6.71	30.22	11.1	-117	0.87	0.63	50	
		15:10			6.71	30.15	11.1	-119	0.82	0.63	50	
		15:17			6.71	30.74	11.1	-122	0.73	0.64	40	
		15:22			6.71	30.75	11.1	-124	0.62	0.63	45	samples collected 15:30
		16:42			6.89	25.45	8.80	-88	0.35	0.49	80	
	Post-Purge											

Remarks: Pump Intake Depth: approx 2" from bottom of well — Control Box Setting (Hz): — Development: — Sampling: (Sample at 100-250 ml/min)

SAMPLING

Depth to Water Before Sampling:	17.1
Sample Methodology:	low flow pump
Sample Name:	C. ZURLO T FOWLER — QC Sample:
Sample Date/Time:	7-19-10 @ 15:30
Sampler / Signature:	
Filtered Metals Collected:	(Y) / N — Filter Size:
Sample Observations:	appeared to be floating black + thin red oil or other product
Parameters:	

Low-Flow Groundwater Sampling: Field Data Sheet

Well Number: MW-47I	Site: Gowanus Canal Remedial Investigation
Field Crew: Carol Zurlo / Tom Fowler	Date: 7/19/10 Project #: 395863
Well Depth (ft.):	Purge Methodology: low flow w/ 2" Grundfos pump
DTW (ft.):	
Water Column (ft.):	
Well Diameter (in.): 2"	
Gal. per ft.: 0.163	Water Quality Meter: Horiba U-52
Well Volume (gal.):	
~~Depth of Screen (ft.):~~	

Diameter	Gal. Per Foot	Diameter	Gal. Per Foot
2"	.163	5"	1.020
3"	.367	6"	1.469
4"	.653	8"	2.611

Field Parameters

	Time	DTW (tic)	Flow Rate (ml/min)	Total Volume (gal)	pH (Std. Units)	Temp (C)	Cond. (mS/cm)	ORP (mV)	D.O. (Surface) (mg/l)	Salinity (%)	Turbidity (NTU)	Color/Odor
	Stabilization	< 0.3'	Purge at 200-500		+/- 0.1	+/- 1°	+/- 3 %	+/- 10 mV	+/- 10%	+/- 10%	+/- 10%	
Initial					6.40	16.63	1.42	-98	3.07	0.07	192	
	9:42		500		6.74	16.95	1.40	-143	2.07	0.07	25	
	9:45				6.78	17.37	1.39	-149	1.90	0.07	21	2.38 dtw
	9:50		300		6.83	18.20	1.37	-153	1.69	0.07		
	9:55				6.86	17.83	1.36	-153	1.59	0.07	9.7	
	10:00				6.90	18.15	1.34	-156	1.40	0.07	13	
	10:05				6.88	17.91	1.33	-155	1.28	0.07	16	
	10:10				6.91	18.00	1.32	-156	1.52	0.07	25	
	10:15				6.92	18.03	1.32	-157	1.20	0.07	26	
	10:20				6.92	17.99	1.30	-156	1.08	0.06	21	
	10:25				6.93	18.01	1.30	-158	1.02	0.06	23	
Post-Purge	10:30				6.93	18.07	1.29	-159	0.94	0.06	9.2	

Remarks: Pump Intake Depth: Control Box Setting (Hz): Development: Sampling: (Sample at 100-250 ml/min)

10:35	6.94	18.04	1.28	-159	0.89	0.06	11
10:40	6.94	18.30	1.27	-159	0.83	0.06	19
10:45	6.94	18.27	1.26	-158	0.97	0.06	1.0
10:50	6.91	18.30	1.24	-158	0.81	0.06	2.8
10:55	6.92	18.26	1.23	-159	0.74	0.06	2.2
~~11:00~~	~~6.92~~	~~18.38~~	~~1.26~~	~~-159~~			
11:00	6.92	SAMPLING			0.69	0.06	1.5

Depth to Water Before Sampling: 6.86

Sample Methodology: low flow w/ 2" Grundfos pump and teflon lined tubing

Sample Name: MW-47I QC Sample: none

Sample Date/Time: 7-19-10

Sampler / Signature: CZ | TF

Filtered Metals Collected: Y / N Filter Size: .45 µm

Sample Observations:

Parameters: ~~VOC~~, SVOC, PCB, metals, Pest, filtered metals, CN

11:05 6.86 18.24 1.27 -156 0.66 0.06 1.9

SAMPLE COLLECTED

11:39 6.97 18.54 1.43 -142 1.84 0.07 0.0

Appendix D
Field Documentation

D-06 – Groundwater Sampling Field Forms

National Grid Groundwater Sampling Field Forms

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MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading _____ Job Name Gowanus

Job Number 093010-3-1307 By A. Malsbury Date 7/21/16

Location Chaves Measurement Datum _____

Well Number GC-MW305

Pre-Development Information

Time (start) 0936

Water Level 7.09 Total Depth of Well 16.54'

One Purge Vol ~~6.16~~ gal 1.5 Three Well Volume ~~18.5~~ 4.5

Water Characteristics

Color _____ ____ Clear ____ Cloudy

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material no

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	OTW
1½	0950	6.96	18.53	1726	376.5	2.89	-182.7		7.90
1½	0955	7.01	18.44	1721	228.5	4.19	-185.8		
2	1002	7.02	18.37	1716	150.7	2.33	-187.9		
2½	1006	7.04	18.34	1710	112.3	1.97	-190.0		7.82
3	1010	7.05	18.27	1706	100.4	1.77	-190.4		
3½	1015	7.05	18.27	1699	87.0	1.53	-192.3		
4	1020	7.05	18.27	1698	82.3	1.40	-191.0		8.02
4½	1025	7.05	18.31	1692	98.3	1.34	-192.0		
5	1030	7.06	18.27	1681	86.4	1.30	-192.0		
5½	1035	7.05	18.25	1672	100.7	1.26	-192.5		

Total Volume Removed (gal) 12 pH _____

Temperature (°C) see last reading Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information

Time (Finished) _____

Water Level 8.09' Total Depth of Well 16.54

Approximate Volume Removed (gal) 12 gal

Water Characteristics

Color clear - yellowish ____ Clear ____ Cloudy

Odor ____ None X Weak NLO ____ Moderate ____ Strong

Any films or immiscible material nd

Comments

GEI Consultants

Client		By	Date
Subject		Checked	Date
		Approved	Date

GC-MW30S cont

Time	Vol gal	temp	cond	DO	pH	ORP	Turb
1040	6	18.19	1666	1.28	7.06	-192.4	61
1050	7	18.24	1665	1.20	7.04	-192.1	~~80~~ 57.2
1055	7 1/2	18.33	1665	1.20	7.04	-191.6	78.9
1100	8	18.31	1664	1.18	7.03	-191.6	74.0
1105	8 1/2	18.29	1673	1.15	7.01	-190.0	54.0
1110	9	18.42	1676	1.15	7.00	-188.5	45.1
1115	9 1/2	18.38	1677	1.14	6.99	-187.6	55.6
1120	10	18.28	1673	1.18	6.98	-187.6	56.3
11:25	10.5	18.24	1670	1.15	7.00	-187.1	52.9

pumped ~ 9 yds and turbidized will collect sample (waited for CH2M Hill to split sample)

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading _____ Job Name Gowanus

Job Number 093010 By A. Malsbury Date 7/19/10

Location Gowanus - Chaves Measurement Datum _____

Well Number GC-MW30I

Pre-Development Information Time (start) 1044

Water Level 6.86' Total Depth of Well 35.5'

One Purge Vol 18.7 gal Three Well Volume 56.1 gal

Water Characteristics

Color Clear _____ Clear _____ Cloudy

Odor _____ None X Weak NLO _____ Moderate _____ Strong

Any films or immiscible material no

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTW
1/2	1050	6.14	17.73	1580	100.9	2.46	-148.1		
2	1100	6.26	17.92	1629	78.3	1.35	-145.7		
2 1/2	1105	6.17	17.70	1610	117.1	0.98	-149.7		6.75'
3	1110	6.17	17.64	1580	234.2	0.81	-150.6		6.61'
4	1115	6.19	17.58	1564	378.2	0.64	-150.1		6.70
5 1/4	1125	6.20	17.57	1513	10.3	0.68	-149.8		6.60
6 1/2	1130	6.21	17.66	1500	458.2	0.67	-149.3		
7	1135	6.21	17.67	1462	63.3	0.71	-149.9		6.55
7 1/2	1140	6.21	17.66	1452	253.0	0.66	-149.9		
8 1/2	1145	6.20	17.67	1455	191.0	0.64	-150.0		

Total Volume Removed (gal) 20 pH _____

Temperature (°C) (see last reading) Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) 1315

Water Level _____ Total Depth of Well 35.5'

Approximate Volume Removed (gal) _____

Water Characteristics

Color clear _____ Clear _____ Cloudy

Odor _____ None X Weak NLO _____ Moderate _____ Strong

Any films or immiscible material no

Comments

GEI Consultants

Project	Page
Client	By / Date
Subject	Checked / Date
GC-MW30I Cont.	Approved / Date

Time	Vol	temp	cond	DO	pH	ORP	Turb	DTW
1150	9	17.66	1474	0.74	6.20	-148.9	40.0	6.45
1200	10	17.67	1444	0.58	6.19	-148.0	154.8	
1205	11	17.68	1463	0.61	6.18	-147.9	1366.1	6.40
1210	12	17.67	1460	0.75	6.16	-147.3	450	
1215	12 3/4	17.61	1468	0.75	6.15	-146.8	537.1	
1220	13	17.62	1553	0.75	6.15	-146.7	107	6.38
1225	13 1/2	17.60	1543	0.93	6.15	-146.3	226.8	
1232	14 1/2	17.44	1549	1.10	6.14	-145.8	990	
1235	15	17.37	1571	1.15	6.13	-144.3	19.8	
1240	15 1/2	17.57	1538	0.94	6.13	-143.9	322	
1247	16	17.72	1511	0.75	6.14	-145.7	506.7	
1250	16 1/2	17.71	1501	0.67	6.14	-146.9	78.5	
1255	17	17.81	1461	0.52	6.14	-148.8	133	
1300	17 1/2	17.76	1447	0.54	6.15	-151.4	207.5	
1305	18	17.76	1469	0.39	6.15	-150.7	80.4	
1310	19	17.71	1470	0.39	6.14	-150.0	117	
1315	19 3/4	17.81	1450	0.39	6.14	-150.6	480	

1 volume purged and parameters stable → will collect sample

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading _____ Job Name Gowanus

Job Number 093010-3-1302 By A. Malsbury Date 7/22/10

Location Muzzi Measurement Datum _____

Well Number GC-MW31I

Pre-Development Information Time (start) 0650

Water Level 4.63 Total Depth of Well 34.69

One Purge Vol 4.9 gal Three Well Volume 14.7 gal

Water Characteristics

Color clear/yellowish ____ Clear ____ Cloudy

Odor ____ None √ Weak ____ Moderate ____ Strong

Any films or immiscible material no

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTW
1/4	0700	6.48	18.66	1124	650	1.82	-194.0		4.75
1/4	0705	6.61	18.69	1109	457.9	1.26	-199.7		
1/2	0710	6.71	18.39	1099	326.1	1.02	-207.9		
1/2	0715	6.77	18.12	1093	234.3	0.85	-214.3		
3/4	0720	6.83	15.94	1076	94.3	0.58	-223.3		4.89
1	0725	6.89	15.82	1082	87.3	0.54	-225.7		
1/2	0730	6.90	15.73	1084	58.8	0.53	-224.9		
2	0735	6.92	15.72	1092	56.0	0.52	-224.2		
2 1/2	0740	6.91	15.81	1093	45.7	0.52	-222.7		
3 1/4	0745	6.90	15.78	1096	67.7	0.51	-221.3		

Total Volume Removed (gal) 9 gal pH _____

Temperature (°C) see last reading Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) 0930

Water Level 4.65' Total Depth of Well 34.69

Approximate Volume Removed (gal) _____

Water Characteristics

Color clear ____ Clear ____ Cloudy

Odor ____ None X Weak NO ____ Moderate ____ Strong

Any films or immiscible material no

Comments

GEI Consultants

Client		By	Date
Subject		Checked	Date
		Approved	Date

GL-MW31I cont

Time	Vol	Temp	cond.	DO	pH	ORP	turb	DTW
0750	4¼	15.80	1100	0.52	6.89	-219.6	29.3	4.89
0755	5	15.71	1106	0.53	6.87	-217.7	22.6	
0800	5¼	15.74	1114	0.53	6.86	-217.8	28.7	
0805	5¾	~~15.68~~ 15.68	1117	0.54	6.82	-216.5	28.3	~~4.90~~
0810	6¼	15.75	1114	0.54	6.81	-215.9	28.5	4.90
0815	6¾	15.77	1117	0.54	6.80	-215.0	28.7	

pumped > 1 well vol. and parameters stabalized. Will collect sample

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading 0.0 Job Name Gowanus

Job Number 093010 By A. Malsbary Date 7/20/10

Location T.4. Park Measurement Datum

Well Number GC-MW32S / FW-MW-16

Pre-Development Information

Time (start) 1612

Water Level 12.44 Total Depth of Well 19.20

One Purge Vol 4.41 Three Well Volume 13.23

Water Characteristics

Color clear ____ Clear ____ Cloudy

Odor X None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTB W
1/4	1620	5.25	21.32	713	121.2	4.58	-133.7		12.48
3/4	16287	5.16	20.53	731	23.7	3.09	-139.2		
1	1630	5.15	20.36	728	11.8	2.70	-141.2		12.45
1 1/4	1635	5.15	19.87	727	1.1	1.96	-143.0		
1 1/2	1640	5.15	19.68	728	-3.5	1.61	-143.3		12.46
2	1645	5.14	19.34	724	-6.6	1.30	-143.0		
2 1/4	1650	5.14	19.30	719	-9.1	1.08	-144.4		12.50
2 3/4 1/2	1655	5.15	19.28	715	-9.6	0.94	-143.9		
3	1700	5.15	19.25	715	-10.4	0.86	-144.4		12.48
3 1/4	1705	5.12	19.01	708	-10.1	0.75	-141.7		

Total Volume Removed (gal) ____ pH ____

Temperature (°C) ____ Specific Conductance (µS/cm) ____

DO Concentration (mg/L) ____ ORP (mV) ____

TDS ____

Post Development Information

Time (Finished) ____

Water Level ____ Total Depth of Well ____

Approximate Volume Removed (gal) ____

Water Characteristics

Color ____ Clear ____ Cloudy

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material ____

Comments

GEI Consultants

Client		By	Date
Subject		Checked	Date
		Approved	Date

GC-MW32S cont

volume	time	temp	cond	DO	pH	ORP	turb	DTW
3½	1710	18.90	706	0.70	5.13	-141.8	-10.6	12.48
4	1715	18.84	702	0.62	5.14	-143.0	-9.2	
4½	1720	18.85	699	0.58	5.14	-142.3	-3.5	12.49
5	1725	18.91	700	0.53	5.14	-143.1	-6.4	
5¼	1730	18.82	698	0.50	5.14	-143.2	-9.0	
5½	1735	18.57	692	0.47	5.14	-142.1	-8.7	
5¾	1740	18.48	693	0.46	5.13	-140.3	-9.8	
6	1745	18.59	690	0.45	5.14	-139.7	-10.3	

~1½ vol collected and parameters stable will collect sample

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading _____ Job Name Gowanus

Job Number 093010-3-1302 By A. Malsbury Date 7/20/16

Location Thomas Greene Park Measurement Datum _____

Well Number GC-MW32I

Pre-Development Information Time (start) 11:35

Water Level 15.15' Total Depth of Well 44.50

One Purge Vol 3.6 gal Three Well Volume 10.8

Water Characteristics

Color clear _____ Clear _____ Cloudy

Odor X None X Weak NLO _____ Moderate _____ Strong

Any films or immiscible material No

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTW
1	1145	5.70	18.18	1406	48.4	0.92	-195.5		18.28
1 1/2	1150	5.71	18.71	1404	36.6	0.66	-195.5		17.97
2	1200	5.81	18.88	1407	17.9	0.55	-199.6		
2 1/2	1205	5.81	18.82	1398	9.5	0.60	-197.6		
3	1210	5.81	18.74	1395	92.2	0.56	-196.7		
3 1/2	1215	5.81	18.65	1386	82.7	0.56	-192.8		17.29
3 3/4	1220	5.81	18.64	1374	77.4	0.54	-192.2		
4	1225	5.81	18.66	1366	64.2	0.51	-192.5		17.3
4	1230	5.80	18.31	1353	70.0	0.48	-191.5		
4 1/4	1237	5.80	18.19	1336	30.3	0.42	-192.5		

Total Volume Removed (gal) 7 gal pH _____

Temperature (°C) see last reading Specific Conductance (µS/cm) _____

DO Concentration (mg/L) _____ ORP (mV) _____

TDS _____

Post Development Information Time (Finished) 1300

Water Level 8.14 Total Depth of Well 44.5'

Approximate Volume Removed (gal) 6 gal

Water Characteristics

Color clear _____ Clear _____ Cloudy

Odor _____ None _____ Weak X Moderate NLO _____ Strong

Any films or immiscible material No

Comments

GEI Consultants

Client		By	Date
Subject		Checked	Date
		Approved	Date

GC-MW32I cont

Time	Vol (Gal)	Temp	Cond	DO	pH	ORP	Turb	DTW
1240	4½	18.14	1332	0.38	5.81	-191.2	50.3	
1245	5	18.15	1317	0.35	5.81	-191.6	33.9	18.05
1250	5¼	18.04	1311	0.34	5.80	-190.9	20.1	18.10
1255	5½	18.09	1300	0.34	5.81	-189.4	33.2	18.14
1300	6	18.02	1294	0.33	5.81	-189.5	29.7	

collected ~1½ well vol and parameters stable → will collect sample

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading 0.0 | Job Name Gowanus

Job Number 093010-3-B02 | By C. Benetti | Date 7/20/10

Location Gowanus (Red Hook) | Measurement Datum Top Stainless (2" Diameter)

Well Number GC-MW-415

Pre-Development Information

Time (start) 10:30

Water Level 2.94' | Total Depth of Well 12.9'

One Purge Vol 1.6 gallons | Three Well Volume 4.9 gallons

Water Characteristics

Color _____ | _____ Clear | X Cloudy

Odor ____ None | ____ Weak | ✓ Moderate PLO | ____ Strong

Any films or immiscible material _____

Depth to Water 2.94

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (mS/µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
0	10:30	5.57	23.07	3.955	12.8	1.90	-343.4	
~1	10:35	5.49	23.07	3.717	19.6	1.46	-334.5	
~1.5	10:40	5.33	22.60	3.867	41.5	1.09	-334.7	
~2.5	10:45	5.37	23.00	4.035	NA	0.83	-337.0	
~2.5	10:50	5.30	22.88	4.077	22.1	0.82	-341.3	
~3	10:55	5.20	22.72	4.103	16.4	0.78	-346.0	
~3.5	11:00	5.19	22.72	4.110	15.1	0.90	-347.7	
~3.5	11:05	5.19	22.42	4.088	10.2	0.76	-346.0	
~4	11:10	5.20	22.48	4.092	NA	0.81	-340.2	
~5	11:15	5.29	22.38	4.088	9.3	0.81	-330.4	

Total Volume Removed (gal) ~6 + Sample | pH 5.47

Temperature (°C) 22.28 | Specific Conductance (µS/cm) 4.067

DO Concentration (mg/L) 1.09 | ORP (mV) -298.8

TDS _____

Post Development Information

Time (Finished) _____

Water Level _____ | Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color _____ | ____ Clear | ____ Cloudy

Odor ____ None | ____ Weak | ____ Moderate | ____ Strong

Any films or immiscible material _____

Comments Iron kit reading = 3.8. Sample Collected: GC-MW-415 (8-13)

DTW

gallons Purged	Time	Temp °C	pH	Sp Conductance (mS/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
~5.5	11:20	22.34	5.33	4.080	8.2	0.94	-321.3
~5.5	11:25	22.30	5.36	4.066	8.0	0.95	-317.6
~5.75	11:30	22.24	5.41	4.064	5.9	1.01	-307.8
~6	11:35	22.28	5.47	4.067	5.5	1.09	-298.8

~6.9'

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading: 0.0 | Job Name: Gowanus

Job Number: 093010-3-1302 | By: C. Benetti | Date: 7/21/10

Location: Gowanus (Mazzei) | Measurement Datum: Top PVC Riser (2" Diameter)

Well Number: ~~GC-MW-30S~~ GC-MW31S

Pre-Development Information

Time (start): 10:05

Water Level: 6.75 | Total Depth of Well: 14.6'

One Purge Vol: 1.3 gallons | Three Well Volume: 3.8 gallons

Water Characteristics

Color: _____ | ____ Clear | ✓ Cloudy

Odor: ✓ None | ____ Weak | ____ Moderate | ____ Strong

Any films or immiscible material: _____

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (mS (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
0	10:05	4.37	22.90	17.38	24.6	1.8	375.8	
~½	10:10	3.58	20.05	17.01	13.7	0.83	408.5	
~1	10:15	3.39	20.00	17.39	8.7	0.69	427.9	
~1	10:20	3.21	19.74	17.51	5.1	0.62	438.9	
~1.5	10:25	3.03	19.31	17.50	3.5	0.42	452.5	
~2	10:30	2.99	19.34	17.71	2.3	0.55	464.6	
~2	10:35	2.98	19.38	17.91	1.1	0.59	470.9	
~2.5	10:40	3.00	19.39	17.12	0.7	0.47	475.8	
~3	10:45	2.99	19.34	17.95	0.0	0.53	479.6	
~3	10:50	3.00	19.27	17.97	0.0	0.52	481.3	
~3	10:55	3.06	19.42	18.05	0.7	0.49	484.0	

Total Volume Removed (gal): ~3 + Sample | pH: 3.06

Temperature (°C): 19.42 | Specific Conductance (µS/cm): 18.05

DO Concentration (mg/L): 0.49 | ORP (mV): 484.0

TDS: _____

Post Development Information

Time (Finished): _____

Water Level: _____ | Total Depth of Well: _____

Approximate Volume Removed (gal): _____

Water Characteristics

Color: _____ | ____ Clear | ____ Cloudy

Odor: ____ None | ____ Weak | ____ Moderate | ____ Strong

Any films or immiscible material: _____

Comments: Iron Reading . Sample Collected: GC-MW-30S (6.75-14.6)

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading 0.0 | Job Name Gowanus

Job Number 093010-31302 | By _____ | Date 7/19/10

Location Gowanus (Red Hook) | Measurement Datum Top Stainless (2" Diameter)

Well Number GC-MW-41I

Pre-Development Information

Time (start) 14:15

Water Level 6.7' | Total Depth of Well 58.05

One Purge Vol 8.4* gallons | Three Well Volume 25.1

Water Characteristics

Color _____ | ✓ Clear | ____ Cloudy

Odor ____ None | ____ Weak | ____ Moderate | ____ Strong

Any films or immiscible material _____

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance mS/(µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
~0	14:15	5.53	21.38	6.154	81.3	1.23	297.0	
~1/3	14:20	5.32	20.89	5.923	45.1	0.79	199.1	
~2/3	14:25	5.19	20.31	5.703	131.4	0.63	119.9	
~1	14:30	5.16	20.60	5.655	139.2	0.61	137.2	
~1 1/3	14:35	4.99	20.40	5.638	18.8	0.60	104.2	
~1 2/3	14:40	4.87	20.35	5.536	70.9	0.58	111.4	
~2	14:45	4.91	20.82	5.609	14.8	0.57	313.2	
~2 1/3	14:50	4.88	21.02	5.513	13.7	0.58	242.5	
~2 2/3	14:55	4.60	20.36	5.349	23.6	0.55	285.9	
~3	15:00	4.51	20.02	5.275	11.6	0.54	307.4	

Total Volume Removed (gal) 10.5 + Sample | pH 2.81

Temperature (°C) 19.44 | Specific Conductance (µS/cm) 4,698

DO Concentration (mg/L) 0.45 | ORP (mV) 562.3

TDS _____

Post Development Information

Time (Finished) _____

Water Level _____ | Total Depth of Well _____

Approximate Volume Removed (gal) _____

Water Characteristics

Color _____ | ____ Clear | ____ Cloudy

Odor ____ None | ____ Weak | ____ Moderate | ____ Strong

Any films or immiscible material _____

Comments Iron Reading = 0.9. Sample Collected: GC-MW-41I (53-58)

(Gal) Volume	Time	pH	Temp °C	Specific Conductance (mS/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
~~3~~	15:05	4.37	20.18	5.239	10.2	9.51	344.3
~3⅓	15:10	4.28	19.91	5.179	17.9	0.51	347.8
~3⅔	15:15	4.16	19.81	5.085	6.1	0.50	340.9
~4	15:20	4.10	19.84	5.087	5.1	0.50	361.1
~4	15:25	4.10	20.07	5.156	4.8	0.49	362.2
~4.25	15:30	3.94	19.66	[illegible]	3.5	0.49	388.8
~4⅓	15:35	3.79	19.66	[illegible]	2.4	0.49	397.3
~4.5	15:40	3.63	19.63	[illegible]	2.9	0.49	410.3
~4.75	15:45	3.56	19.60	4.876	2.0	0.49	423.6
~5	15:50	3.49	19.72	4.835	2.5	0.49	428.3
~5.5	15:55	N/A	19.76	4.824	1.4	0.48	431.8
~6	16:00	3.30	19.62	4.740	2.4	0.49	448.2
~6	16:05	3.25	19.81	4.740	1.5	0.49	460.2
~6.5	16:10	3.11	19.64	4.740	0.8	0.49	464.0
~6.5	16:15	3.18	19.95	4.898	2.0	0.49	471.6
~6.5	16:20	3.03	19.68	4.773	0.2	0.49	485.5
~6.5	16:25	3.00	19.81	4.759	0.3	0.48	484.6
~7	16:30	2.96	19.71	[illegible]	0.0	0.48	496.9
~7.5	16:35	2.84	19.72	4.651	0.7	0.47	505.1
~7.5	16:40	2.88	20.00	4.675	0.3	0.47	504.9
~8	16:45	2.84	20.00	4.680	1.0	0.47	507.6
~8	16:50	2.73	20.03	5.055	6.6	0.46	520.7
~8	16:55	2.66	19.88	[illegible]	3.3	0.45	525.4
~8	17:00	2.65	19.80	4.959	2.6	0.45	526.4
~8.5	17:05	2.65	19.99	4.680	8.0	0.48	526.9
~9	17:10	2.53	19.73	4.628	0.0	0.46	541.0
~9	17:15	2.44	19.65	4.489	1.9	0.47	549.1
~9	17:20	2.53	19.79	4.508	4.3	0.48	550.1
~9.5	17:25	2.48	19.53	4.508	0.5	0.48	556.9
~10	17:30	2.61	19.64	4.632	0.9	0.45	552.5
~10	17:35	2.69	19.49	4.682	0.2	0.46	557.2
~10.5	17:40	2.81	19.44	4.698	0.0	0.45	562.3

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading 15.2 | Job Name GOWANUS CANAL

Job Number 093010 | By DREW BLICHARZ | Date 7/19/10

Location GOWANUS CANAL | Measurement Datum

Well Number GC-MW40I

Pre-Development Information | Time (start) 12:10

Water Level 5.92' | Total Depth of Well 67.57'

One Purge Vol 11 gallons | Three Well Volume 33 gallons

PUMP SET ~ 64.5' BG | (67.57)(0.1631) = 11 gallons

Water Characteristics

Color NA | X Clear | ___ Cloudy

Odor ___ None | X Weak to | X Moderate | ___ Strong

Any films or immiscible material NO

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
[redacted]0	1210	7.26	18.94	8766 7.749	18.8	17.6	-177.0	
	1215	7.29	18.86	9000 7.933	-1.5	127	-178.3	
	RE-CALIBRATED YSI, TURB/D.O./ORP?							
~5	1305 → 5 GALLONS PURGED WHILE CALIBRATING/CLEANING							
	1310	7.06	17.55	9375 8.042	-21.7	1.23	-163.1	
	RE-CALIBRATED YSI, TURBIDITY NOT WORKING, SEVERAL CAL ATTEMPTS							
~7	1350	6.79	17.83	9292 8.026	-21.1	2.04	-160.6	
+1/3 gal	1355	6.81	17.06	9262 7.854	-20.9	1.40	-165.2	
	1400	6.86	16.93	9191 7.777	-19.7	1.16	-167.3	
	1405	6.89	16.87	9127 7.706	-18.5	1.07	-167.0	

COMPRESSOR
REFILL : 12
DISCHARGE : 6
PSI : 35

~ 2.5 gallons pumped while setting up these settings

DTW = 5.92

YSI

CAL ATTEMPTS

H2O IS CLEAR

Total Volume Removed (gal) ___ | pH ___

Temperature (°C) ___ | Specific Conductance (µS/cm) ___

DO Concentration (mg/L) ___ | ORP (mV) ___

TDS ___

Post Development Information | Time (Finished) ___

Water Level ___ | Total Depth of Well ___

Approximate Volume Removed (gal) ___

13:45

TURBIDITY
PRE POST
4.5 → 0.0
124.3 → 126.0

Water Characteristics

Color ___ | ___ Clear | ___ Cloudy

Odor ___ None | ___ Weak | ___ Moderate | ___ Strong

Any films or immiscible material ___

Comments CONSISTENT BEEP AT 6.88' ~~BECOME STEADY BEEP~~
AT 10:10 DTW

GEI Consultants

MONITORING WELL SAMPLING RECORD

PID Reading —

Job Name GOWANUS CANAL

Job Number 093010

By DREW BLICHARZ Date 7/19/10

Location GOWANUS CANAL

Measurement Datum

Well Number GC-MW40I

Pre-Development Information

Time (start) —

Water Level —

Total Depth of Well —

One Purge Vol —

Three Well Volume —

Water Characteristics

Color NA

X Clear ____ Cloudy

Odor ____ None X Weak ____ Moderate ____ Strong

Any films or immiscible material NO

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
+ 1 gal	1410	6.90	16.87	9070 7.658	-21.2	0.96	-170.0	
	1415	6.90	16.79	8977 7.561	-18.8	1.20	-176.0	
	1425	6.90	16.84	8970 7.587	-21.2	1.30	-177.1	
	1430	6.89	16.90	8892 7.519	-18.7	1.34	-178.9	
	1435	6.89	16.89	8803 7.439	-20.2	1.54	-178.7	
+ 3 gal	1440	6.89	16.94	8774 7.421	-19.7	1.46	-177.9	
	1445	6.87	17.05	8716 7.386	-21.3	1.30	-174.3	
	1450	6.87	17.06	8664 7.348	-21.2	1.48	-173.2	
+ 4 gal	1455	6.84	16.99	8653 7.333	-21.3	1.61	-172.4	
	1500	6.83	17.09	8647 7.331	-21.3	1.62	-168.9	

Total Volume Removed (gal) ____ pH ____

Temperature (°C) ____ Specific Conductance (µS/cm) ____

DO Concentration (mg/L) ____ ORP (mV) ____

TDS ____

Post Development Information

Time (Finished) ____

Water Level ____ Total Depth of Well ____

Approximate Volume Removed (gal) ____

Water Characteristics

Color ____ ____ Clear ____ Cloudy

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material ____

Comments

GEI Consultants

MONITORING WELL SAMPLING RECORD

PID Reading —

Job Name GOWANUS CANAL

Job Number 093010

By DREW BLICHARZ Date 7/19/10

Location GOWANUS CANAL

Measurement Datum

Well Number GC-MW40I

Pre-Development Information

Time (start) —

Water Level —

Total Depth of Well —

One Purge Vol —

Three Well Volume —

Water Characteristics

Color NA

X Clear ____ Cloudy

Odor ____ None X Weak ____ Moderate ____ Strong

Any films or immiscible material NO

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
	1505	6.83	17.12	8516 7.229	-21.3	1.66	-166.7	
<5 gal	1510	6.83	17.02	8553 7.243	-21.1	1.62	-165.2	
	1515	6.82	17.05	8545 7.242	-21.0	1.61	-163.1	
	1520	6.80	17.01	8522 7.232	-20.5	1.66	-157.7	
~6 gal	1525	6.70	17.10	8460 7.220	-20.4	1.70	-154.4	

Total Volume Removed (gal) ~13

pH

Temperature (°C)

Specific Conductance (µS/cm)

DO Concentration (mg/L)

ORP (mV)

TDS

Post Development Information

Time (Finished)

Water Level

Total Depth of Well

Approximate Volume Removed (gal)

Water Characteristics

Color ____ Clear ____ Cloudy

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material

Comments FERROUS IRON TEST = 0.9

(1)

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading 13.1 | Job Name GOWANUS CANAL

Job Number 093010 | By DREW BLICHARZ | Date 7/20/10

Location GOWANUS CANAL | Measurement Datum

Well Number GC-MW23I

Pre-Development Information

Time (start) 11:00

Water Level STEADY 5.35 INTERMITTENT 6.48 - 38.75

Total Depth of Well 38.75'

One Purge Vol 6.3 gallons

Three Well Volume ~ 19 gallons

(38.75)(0.1631) = 6.3 gallons

Water Characteristics

Color SLIGHTLY GREY ____ Clear SLIGHTLY Cloudy

Odor ____ None ____ Weak X Moderate ____ Strong

Any films or immiscible material SHEEN IN H_2O

COMPRESSOR
REFILL : 10
DISCHARGE : 5
PSI : 25

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	DTW	DO%
0	1115	6.63	16.79	18036 15.21	-20.0	15.21	-146.7		4.59'	154.3
	1120	6.60	16.08	19256 15.97	-19.9	13.17	-155.9			138.6
	1125	6.65	16.01	18119 15.01	-19.8	12.40	-161.2			125.4
~1 gal.	1130	6.69	15.93	16223 13.40	-15.3	20.13	-163.1		4.55'	176.6
	1135	6.77	15.84	14877 12.28	1173.0	13.40	-161.6			154.5
	1140	6.77	15.74	14860 12.23	1180.1	13.80	-165.5			154.7
~2 gal.	1145	6.77	15.90	14980 12.37	-12.0	14.72	-167.6		4.57'	151.4
	1150	6.77	15.74	14887 12.24	151.3	17.57	-169.7			149.9
	1155	6.77	15.73	14705 12.11	-20.5	16.72	-168.3			197.4
~3 gal.	1200	6.78	15.74	14413 11.87	-19.8	18.21	-166.5			

mS/cm mS/cm

Total Volume Removed (gal) ____ pH ____

Temperature (°C) ____ Specific Conductance (µS/cm) ____

DO Concentration (mg/L) ____ ORP (mV) ____

TDS ____

Post Development Information

Time (Finished) ____

Water Level ____ Total Depth of Well ____

Approximate Volume Removed (gal) ____

Water Characteristics

Color ____ ____ Clear ____ Cloudy

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material ____

Comments

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading — Job Name GOWANUS CANAL

Job Number 093010 By DREW BLICHARZ Date 7/20/10

Location GOWANUS CANAL Measurement Datum

Well Number GC-MW23I

Pre-Development Information

Time (start) —

Water Level — Total Depth of Well —

One Purge Vol — Three Well Volume —

Water Characteristics

Color ____ X Clear ____ Cloudy

Odor ____ None ____ Weak X Moderate ____ Strong

Any films or immiscible material

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS
	1205	6.78	15.58	14462 11.83	113.9	20.19	-170.5	
	1210	6.80	15.45	14145 11.58	26.6	23.67	-168.6	
~4 gal	1215	6.81	15.38	13940 11.39	-20.0	16.05	-170.3	
	1225	6.82	15.39	13941 11.38	10.4	22.83	-170.1	
	1230	6.82	15.28	14065 11.45	25.2	24.52	-167.6	
~5 gal	1235	6.82	15.21	13902 11.31	-20.1	27.73	-164.6	
	1240	6.82	15.17	13919 11.31	-20.1	27.70	-166.5	
	1245	6.82	15.11	13642 11.04	266.4	19.88	-164.3	
	1250	X						
	1255	X						

DTW 4.51' DO % 224.5 259.8 273.0 291.4 297.7

WATER IS MOSTLY CLEAR

Total Volume Removed (gal) ____ pH ____

Temperature (°C) ____ Specific Conductance (µS/cm) ____

DO Concentration (mg/L) ____ ORP (mV) ____

TDS ____

Post Development Information

Time (Finished) ____

Water Level ____ Total Depth of Well ____

Approximate Volume Removed (gal) ____

Water Characteristics

Color ____ Clear ____ Cloudy ____

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material ____

Comments

(3)

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading — Job Name GOWANUS CANAL

Job Number 093010 By DREW BLICHARZ Date 7/20/10

Location GOWANUS CANAL Measurement Datum

Well Number GC-MW23I

Pre-Development Information

Time (start) —

Water Level — Total Depth of Well —

One Purge Vol — Three Well Volume —

Water Characteristics

Color ____ X Clear ____ Cloudy

Odor ____ None ____ Weak X Moderate ____ Strong

Any films or immiscible material

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	D.O %
	1430	7.05	16.59	14138 11.87	-0.1	9.14	-159.4		98.3
~12 gal.	14:35	6.87	15.83	14092 11.62	58.8	8.81	-155.1		93.2
	14:40	6.78	15.50	14034 11.48	86.5	8.35	-157.3		87.4
	14:45	6.76	15.27	14004 11.39	191.1	7.27	-152.7		76.3
	14:50	6.76	15.13	13923 11.30	351.3	6.71	-156.5		70.3
	14:55	6.77	15.16	13934 11.31	39.9	6.82	-157.2		71.3
	15:00	6.79	15.22	13941 11.34	34.5	6.79	-153.8		70.6
~14 gal	15:05	6.80	15.32	13844 11.29	38.8	6.76	-153.6		71.0
	15:10								

BUCKETS STACKED TO SHADE YSI - PHOTO TAKEN

Total Volume Removed (gal) > ~14 pH

Temperature (°C) Specific Conductance (µS/cm)

DO Concentration (mg/L) ORP (mV)

TDS

Post Development Information Time (Finished) 17:30

Water Level Total Depth of Well

Approximate Volume Removed (gal)

DTW 4.31'

Water Characteristics

Color ____ Clear ____ Cloudy

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material

Comments FERROUS IRON = 1.1

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading 0.0 | Job Name GOWANUS CANAL

Job Number 093010 | By DREW BLICHARZ | Date 7/21/10

Location GOWANUS CANAL | Measurement Datum

Well Number GC-MW23S

Pre-Development Information

Water Level 4.74' | Time (start) 8:20

One Purge Vol 2.15 gallons | Total Depth of Well 13.2'

Three Well Volume ~6.5 gallons

(13.2)(0.163) = 2.15 gallons

Water Characteristics

Color GRAYISH B4 YSI READINGS | Clear ___ | Cloudy ✓

Odor ___ None ___ Weak ✓ Moderate ___ Strong

Any films or immiscible material SPECKS of SHEEN NOTICED 8:25

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	D.O. %	DTW
0	8:20	6.57	16.59	2138 1.794	540.8	7.30	-191.0		75.2	4.70'
	8:25	6.62	16.48	2110 1.767	444.0	7.20	-192.0		74.2	
	8:30	6.68	16.42	2093 1.749	361.5	7.29	-192.2		74.9	
~1	8:35	6.70	16.39	2087 1.744	323.1	7.44	-192.3		76.5	
	8:40	6.72	16.45	2080 1.740	237.8	7.32	-193.4		75.3	
	CLEARED FLOW THROUGH CELL TO REMEDY TURB?									
~2	8:50	6.76	16.77	2072 1.746	174.0	8.05	-202.0		83.5	4.75'
	8:55	6.78	16.70	2070 1.741	153.0	7.95	-201.0		82.2	
	9:05	6.81	16.78	2056 1.733	134.2	7.84	-200.6		81.4	
~3	9:10	6.81	16.72	2052 1.727	148.1	7.89	-199.6		81.7	

~1 gallon purged b4 YSI set up

COMPRESSOR
REFILL: 8
DISCHARGE: 3
PSI: 15

Total Volume Removed (gal) ___ | pH ___

Temperature (°C) ___ | Specific Conductance (µS/cm) ___

DO Concentration (mg/L) ___ | ORP (mV) ___

TDS ___

Post Development Information

Time (Finished) ___

Water Level ___ | Total Depth of Well ___

Approximate Volume Removed (gal) ___

Water Characteristics

Color ___ | Clear ___ | Cloudy ___

Odor ___ None ___ Weak ___ Moderate ___ Strong

Any films or immiscible material ___

Comments

(2)

MONITORING WELL SAMPLING RECORD

GEI Consultants

PID Reading —

Job Name GOWANUS CANAL

Job Number 093010

By DREW BLICHARZ Date 7/21/10

Location GOWANUS CANAL

Measurement Datum

Well Number GC-MW23S

Pre-Development Information

Time (start) —

Water Level —

Total Depth of Well —

One Purge Vol —

Three Well Volume —

Water Characteristics

Color BROWN YELLOW ____ Clear ✓ SLIGHTLY Cloudy

Odor ____ None ____ Weak ✓ Moderate ____ Strong

Any films or immiscible material SHEEN SPECKS

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)		Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	
~~9.15~~	9:15	6.82	16.88	2049	1.723	118.7	7.93	-200.1		82.0
~~9.25~~ ~4	9:25	6.82	16.71	2043	1.720	99.2	8.05	-200.1		83.2
9:20 ON PHONE	9:30	6.82	16.72	2039	1.717	132.8	8.02	-199.2		83.0
	9:35	6.81	16.76	2036	1.717	81.8	8.02	-199.3		83.1
9:40 ON PHONE ~5	9:45	6.82	16.80	2036	1.716	77.8	8.11	-199.3		84.0
	9:50	6.81	16.86	2031	1.715	76.0	8.16	-198.2		84.0
9:55 ON PHONE	10:00	6.81	17.05	2033	1.725	73.4	8.10	-199.1		84.5
~6	10:05	6.80	16.84	2030	1.714	67.7	8.08	-198.9		84.3
	10:10	6.79	16.83	2028	1.715	66.6	8.07	-197.6		84.0
	10:15	6.78	16.88	2029	1.715	66.2	8.11	-199.1		84.4

Total Volume Removed (gal) ____ pH ____

Temperature (°C) ____ Specific Conductance (µS/cm) ____

DO Concentration (mg/L) ____ ORP (mV) ____

TDS ____

Post Development Information

Time (Finished) ____

Water Level ____ Total Depth of Well ____

Approximate Volume Removed (gal) ____

Water Characteristics

Color ____ ____ Clear ____ Cloudy

Odor ____ None ____ Weak ____ Moderate ____ Strong

Any films or immiscible material ____

Comments

GEI Consultants

MONITORING WELL SAMPLING RECORD

PID Reading: —
Job Name: GOWANUS CANAL
Job Number: 093010
By: DREW BLICHARZ
Date: 7/21/10
Location: GOWANUS CANAL
Measurement Datum:
Well Number: GC-MW23S

Pre-Development Information

Time (start): —
Water Level: —
Total Depth of Well: —
One Purge Vol: —
Three Well Volume: —

Water Characteristics

Color: ____ Clear: ____ SLIGHTLY Cloudy: √
Odor: ____ None ____ Weak X Moderate ____ Strong
Any films or immiscible material: SHEEN SPECKS

Volume (gal)	Time	pH	Temp (°C)	Spec. Conductance (µS/cm)	Turbidity (NTU)	DO Conc. (mg/L)	ORP (mV)	TDS	D.O. %	DTW
[illegible]	10:20	6.77	16.99	2024 1.715	61.0	8.15	-197.3		84.8	
~7	10:25	6.76	17.00	2028 1.718	57.5	8.15	-197.9		84.6	4.70

~8 TOTAL
3 wells = 6.3

Total Volume Removed (gal): ~8
pH:
Temperature (°C):
Specific Conductance (µS/cm):
DO Concentration (mg/L):
ORP (mV):
TDS:

Post Development Information

Time (Finished):
Water Level: 4.66'
Total Depth of Well:
Approximate Volume Removed (gal): 4.75' STEADY 5.90' INTERMITTENT
PUMP OUT OF WELL
DTB = 13.20

Water Characteristics

Color: ____ Clear: ____ Cloudy: ____
Odor: ____ None ____ Weak ____ Moderate ____ Strong
Any films or immiscible material:

Comments

Appendix D
Field Documentation

D-06 – Groundwater Sampling Field Forms

NYC Groundwater Sampling Field Forms

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LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/25/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #: MW01S WELL DEPTH: 16.88
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 16.88-6.88'

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 12 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: 2.5 DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.61 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
808	7.38	8.71	-53	3.01	907	18.48	230	8.61
813	6.91	8.92	-74	0.21	805	16.96	230	9.14
818	6.92	4.91	-149	0	363	16.97	230	9.19
823	6.95	5.03	-185	0	265	16.94	230	9.21
828	6.96	5.13	-201	0	124	16.97	230	9.15
833	6.97	5.18	-211	0	79.7	16.96	230	9.22
838	6.99	5.22	-218	0	60.1	16.85	230	9.13
843	6.98	5.29	-220	0	79	16.83	230	9.20
848	7	5.29	-226	0	233	16.93	230	9.20
853	6.99	5.34	-231	0	89	16.94	230	9.21
858	6.99	5.38	-228	0	62.4	16.96	230	9.16
903	7	5.38	-226	0	65.6	17	230	8.86
908	7	5.39	-226	0	60.1	17.01	230	8.92

COMMENTS: **Sampled @ 0920** **Fe+2=1.3**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/25/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #: MW01I WELL DEPTH: 34.8
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 34.80-39.80'

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 37.3 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: 22.7 DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.76 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1038	7.64	1.83	-78	4.98	> 999	17.39	150	6.76
1043	7.44	1.89	-133	0	> 999	16.26	250	7.21
1048	7.41	1.79	-152	0	> 999	16.16	250	7.57
1053	7.31	1.58	-156	0	> 999	16.47	250	7.50
1058	7.38	1.48	-162	0	> 999	16.53	250	7.42
1103	7.43	1.44	-165	0	> 999	16.51	250	7.44
1108	7.44	1.41	-166	0	> 999	16.51	250	7.27
1113	7.46	1.39	-166	0	> 999	16.41	250	7.46
1118	7.44	1.38	-167	0	> 999	16.5	250	7.44
1123	7.43	1.38	-167	0	> 999	16.46	250	7.47

COMMENTS: **Sampled @ 1125** **Fe+2=1.9**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/25/2010	FIELD PERSONNEL:	R. Kamenitzer
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #: MW02S WELL DEPTH: 11.75
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 1.75-11.75

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 7.75 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: < 1.0 DEPTH TO WATER BEFORE PUMP INSTALLATION: 3.08 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
815	6.5	3.23	-92	0.3	> 999	19.65	350	3.10
820	6.35	2.78	-99	0.14	> 999	20.47	350	3.10
825	6.35	1.86	-99	0.07	130	21.47	350	3.10
830	6.37	1.63	-101	0.06	76	21.56	350	3.10
835	6.4	1.44	-106	0.03	34.8	21.81	350	3.10
840	6.41	1.38	-106	0.02	20.5	21.91	350	3.10
845	6.42	1.25	-110	0.01	22	21.94	350	3.10
850	6.44	1.24	-111	0	21.8	22.05	350	3.10
855	6.45	1.2	-112	0	15.1	22.09	350	3.10
900	6.46	1.18	-113	0	15.4	22.06	350	3.10
905	6.46	1.15	-113	0	15.6	22.23	350	3.10

COMMENTS: **Sampled @ 0910** **Fe+2=3.25**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters**
The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/25/2010	FIELD PERSONNEL:	R. Kamenitzer
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #:	MW02I	WELL DEPTH:	33.8		
WELL PERMIT #:		WELL DIAMETER:	2"	SCREENED/OPEN INTERVAL:	28.8-33.8

WATER QUALITY METER & SERIAL No.:

PID BACKGROUND :	< 1.0	PUMP INTAKE DEPTH:	31.3 ft below TOC
PID BENEATH OUTER CAP:	< 1.0		
PID BENEATH INNER CAP:	3.8	DEPTH TO WATER BEFORE PUMP INSTALLATION:	2.64 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1040	6.58	0.927	-70	0.37	> 999	17.46	310	2.70
1045	7.27	0.916	-156	0	> 999	17.56	310	2.70
1051	7.32	0.916	-161	0	> 999	17.44	310	2.70
1055	6.99	0.917	-124	0	> 999	17.59	310	2.70
1100	6.76	0.921	-105	0	> 999	17.54	310	2.70
1105	6.78	0.921	-105	0	689	17.52	310	2.70
1110	6.83	0.917	-113	0	483	17.56	310	2.70
1115	6.86	0.919	-119	0	333	17.4	310	2.70
1120	6.86	0.926	-120	0	199	17.49	310	2.70
1125	6.97	0.926	-132	0	118	17.4	310	2.70
1130	7	0.923	-135	0	114	17.5	310	2.70
1135	7.04	0.916	-140	0	110	17.47	310	2.70

COMMENTS: **Sampled @ 1145** **Fe+2=.9**

ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters**
The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/24/2010	FIELD PERSONNEL:	R. Kamenitzer
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #: MW09S WELL DEPTH: 14.75
WELL PERMIT #: _____ WELL DIAMETER: 2 SCREENED/OPEN INTERVAL: 14.75 - 4.75

WATER QUALITY METER & SERIAL No.: _____
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 11.75 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: 3.8 DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.75 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
700	9.82	2.34	-245	0	> 999	15.18	200	9.25
705	9.29	2.9	-252	0	> 999	15.27	200	9.25
710	9.11	3.33	-280	0	> 999	15.13	200	9.25
715	8.97	3.61	-280	0	> 999	14.86	200	9.25
720	8.82	3.98	-297	0	> 999	14.98	200	9.25
725	8.63	4.3	-298	0	> 999	14.87	200	9.25
730	8.56	4.51	-294	0	> 999	14.92	200	9.25
735	8.47	4.8	-288	0	> 999	14.77	200	9.25
740	8.45	4.93	-286	0	> 999	14.79	200	9.25
745	8.37	5.04	-281	0	> 999	15.17	200	9.25
750	8.35	5.08	-275	0	> 999	14.89	200	9.25
755	8.34	5.12	-273	0	> 999	14.78	200	9.25

COMMENTS: **Sampled @ 0810 DUPE01 taken** **Fe+2=1.9**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/24/2010	FIELD PERSONNEL:	R. Kamenitzer
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #: MW09I WELL DEPTH: 38.92
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 33.92-38.92

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 36.42 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: < 1.0 DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.52 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1000	7.56	3.67	-132	0.96	> 999	17	225	6.75
1005	7.57	3.62	-137	0.31	> 999	17.27	225	6.75
1010	7.58	3.56	-153	0.05	> 999	17.53	225	6.75
1015	7.57	3.49	-161	0	> 999	17.53	225	6.75
1020	7.56	3.43	-170	0	> 999	17.57	225	6.75
1025	7.56	3.38	-173	0	> 999	17.2	225	6.75
1030	7.53	3.39	-178	0	> 999	17.3	225	6.75

COMMENTS: **Sampled @ 1040** **Fe+2=3.8**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals, Natural Attenuation Parameters**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/24/2010	FIELD PERSONNEL:	R. Kamenitzer
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #: MW10S WELL DEPTH: 15.00'
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 5.00-15.00'

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 10 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: DEPTH TO WATER BEFORE PUMP INSTALLATION: 11.50 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
1300	6.34	1.59	74	1.02	> 999	17.75	150	11.50
1305	6.35	1.54	42	0.48	> 999	18.41	150	11.55
1310	6.55	1.55	16	0.45	570	17.23	150	11.57
1315	6.7	1.54	1	0.4	322	18.15	150	11.50
1320	6.84	1.53	-11	1.44	212	18.85	150	11.57
1325	6.96	1.53	-11	1.98	140	19.16	150	11.60
1330	6.92	1.53	-4	3.5	100	19.87	150	11.47
1335	6.96	1.53	-4	3.52	74.6	19.96	150	11.60
1340	6.95	1.53	-2	3.66	254	19.4	150	11.61
1345	6.94	1.51	4	4.35	353	21.09	150	11.63
1350	6.96	1.51	4	4.8	350	21.32	150	11.69
1355	6.95	1.51	5	4.94	125	21.18	150	11.70
1400	6.95	1.52	4	5.07	82.2	21.19	150	11.71
1405	6.94	1.51	3	5.22	83.9	21.33	150	11.72
1410	6.94	1.51	3	5.27	82.5	21.04	150	11.72

COMMENTS: **Sampled @ 1410** **Fe+2=.6**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/24/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	90's, Hazy, High Humidity, Low Wind		

MONITOR WELL #: MW10I WELL DEPTH: 45'
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 45.0 - 40'

WATER QUALITY METER & SERIAL No.: _____
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 43 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: 5 DEPTH TO WATER BEFORE PUMP INSTALLATION: 10.71 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
645	6.46	0.713	119	5.37	> 999	18.63	360	10.71
650	6.65	1.05	47	0.37	> 999	16.19	330	10.86
655	6.7	1.06	35	0	> 999	16.07	330	10.66
700	6.39	1.05	47	0.11	> 999	16.45	330	10.69
705	6.4	1.05	46	0.22	> 999	17	330	10.68
710	6.39	1.06	48	0.08	> 999	16.6	330	10.86
715	6.37	1.06	40	0	> 999	16.32	330	10.88
720	6.43	1.06	34	0	> 999	16.41	330	10.89
725	6.7	1.06	17	0	> 999	16.71	330	10.82
730	6.76	1.06	13	0	801	16.49	330	10.80
735	6.86	1.06	5	0	660	16.49	330	10.82
740	6.94	1.06	0	0	527	16.72	330	10.82
745	6.98	1.06	-1	0	385	16.81	330	10.70
750	7.02	1.06	-3	0	385	16.86	330	10.78
755	7.04	1.06	-1	0	380	16.86	330	10.80

COMMENTS: **Sampled @ 0800** **Fe+2=2.4**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**
The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/28/2010	FIELD PERSONNEL:	J.Nelson
WEATHER:	75-85°F Sunny		

MONITOR WELL #: MW17S WELL DEPTH: 15'
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 10.00-15.00

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 11.2 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: 1.2 DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.40 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
730	6.55	1.86	-1	1.32	> 999	22.82	200	7.38
735	6.64	1.78	-18	0.24	> 999	23.04	200	7.38
740	6.72	1.81	-40	0	365	22.88	200	7.38
745	6.74	7.83	-75	0	102	22.15	200	7.41
750	6.73	1.82	-93	0	43.7	21.9	200	7.41
755	6.73	1.82	-101	0	35.2	21.82	200	7.41
800	6.75	1.82	-103	0	30.2	21.75	200	7.41
805	6.77	1.83	-114	0	29.1	21.7	200	7.41
810	6.79	1.85	-119	0	23.3	21.69	200	7.41
815	6.82	1.85	-124	0	23.7	21.64	200	7.41
820	6.84	1.85	-127	0	22.5	21.6	200	7.41

COMMENTS: **Sampled @ 0820** **Fe+2=.06**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/28/2010	FIELD PERSONNEL:	J.Nelson
WEATHER:	75-85°F Sunny		

MONITOR WELL #: MW17I WELL DEPTH: 44.35'
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 39.35-44.35'

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 41.85 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: 3.8 DEPTH TO WATER BEFORE PUMP INSTALLATION: 7.93 ft below TOC

TIME	pH (pH units)	SPECIFIC CONDUCTIVITY (Ms/cm)	REDOX POTENTIAL (mv)	DISSOLVED OXYGEN (mg/l)	TURBIDITY (NTU)	TEMPERATURE (degrees C)	PUMPING RATE	DEPTH TO WATER
	reading	reading	reading	reading	reading	reading	(ml/min)	(ft below TOC)
955	6.52	2.86	-101	1.5	216	19.79	400	8.76
1000	6.51	2.89	-115	0	69.2	19.85	300	10.27
1005	6.51	2.96	-115	0	84.9	20.98	250	10.51
1010	6.51	2.98	-114	0	102	21.1	250	10.68
1015	6.51	3.42	-113	0	160	21.22	250	10.76
1020	6.51	3.39	-114	0	156	21.24	250	10.81
1025	6.53	3.16	-114	0	159	21.38	250	10.85
1030	6.54	3.08	-116	0	156	21.46	250	10.88
1035	6.55	2.99	-118	0	159	21.42	250	10.88
1040	6.57	2.99	-119	0	240	21.42	250	10.88
1045	6.58	3.38	-111	0	239	21.19	250	10.88
1050	6.58	3.3	-113	0	229	20.92	250	10.88
1055	6.6	2.95	-118	0	230	20.89	250	10.88
1100	6.6	2.85	-119	0	225	21.04	250	10.88
1105	6.61	2.81	-121	0	225	20.75	250	10.88

COMMENTS: **Sampled @ 1110** **Fe+2=6.5**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/28/2010	FIELD PERSONNEL:	R. Kamenitzer
WEATHER:	75-85°F Sunny		

MONITOR WELL #: MW18S WELL DEPTH: 14.15
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 4.15-14.15

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 10.15 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: < 1.0 DEPTH TO WATER BEFORE PUMP INSTALLATION: 5.80 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
742	7.26	4.98	-100	2.06	775	19.86	525	6.10
747	7.38	4.94	-96	2.56	547	19.54	400	6.15
752	7.52	4.95	-103	2.16	324	19.29	400	6.15
757	7.58	4.93	-110	1.99	244	19.09	400	6.15
802	7.64	4.8	-114	1.8	181	18.96	400	6.15
807	7.7	4.91	-116	2.07	130	18.79	400	6.15
812	7.76	4.9	-120	2.08	134	18.69	400	6.15
817	7.8	4.87	-118	2.39	60	18.57	400	6.15
822	7.84	4.86	-121	2.21	66.3	18.61	400	6.15
827	7.88	4.89	-127	0.9	59.2	18.33	400	6.15
832	7.9	4.92	-131	0.88	58.9	18.25	400	6.15
837	7.95	4.92	-139	0.84	54.8	18.27	400	6.15
842	7.96	4.93	-140	0.81	56.3	18.11	400	6.15

COMMENTS: **Sampled @ 0845** **Fe+2=.4**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**
The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/28/2010	FIELD PERSONNEL:	R. Kamenitzer
WEATHER:	75-85°F Sunny		

MONITOR WELL #: MW18I WELL DEPTH: 56.2
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 51.2-56.2'

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 54 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: <1 DEPTH TO WATER BEFORE PUMP INSTALLATION: 8.40 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
938	7.57	3.56	-47	4.33	> 999	17.07	270	8.25
943	7.52	3.57	-59	0.95	> 999	17.13	270	8.25
948	7.58	3.27	-67	0.48	> 999	17.02	270	8.25
953	7.61	3.13	-66	0.55	943	16.99	270	8.25
958	7.64	3.05	-66	0.35	793	16.87	270	8.25
1003	7.65	2.92	-69	0.29	668	17.5	270	8.25
1008	7.66	2.86	-71	0.26	666	16.92	270	8.25
1013	7.67	2.79	-71	0.24	546	17.01	270	8.25
1018	7.67	2.77	-71	0.23	483	17.05	270	8.25
1023	7.68	2.74	-71	0.22	476	16.94	270	8.25
1028	7.68	2.71	-70	0.21	450	17.1	270	8.25

COMMENTS: **Sampled @ 1035** **Fe+2=0.6**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**
The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/28/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	75-85°F Sunny		

MONITOR WELL #: MW19S WELL DEPTH: 15.00'
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 5.00-15.00'

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 10 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: < 1.0 DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.64 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
707	7.44	2.78	-137	4.51	-5	19.82	350	4.64
712	7.04	3.86	-164	0	-5	19	350	4.68
717	7.16	2.99	-181	0	487	19.34	350	4.68
722	7.25	3.01	-202	0	456	19.24	350	4.68
727	7.32	3.15	-216	0	447	19.2	350	4.68
732	7.44	3.16	-234	0	372	19.22	350	4.68
737	7.44	3.15	-234	0	380	19.2	350	4.68
742	7.45	3.14	-240	0	377	19.19	350	4.68
747	7.45	3.15	-241	0	375	19.2	350	4.68

COMMENTS: **Sampled @ 0800** **Fe+2=2.0**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**
The pumping rate was decreased to 250 ml/min prior to sampling

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

LOW FLOW SAMPLING
DATA SHEET

SITE:	Gowanus Canal Groundwater Investigation	CONSULTING FIRM:	The Louis Berger Group, Inc
DATE:	6/28/2010	FIELD PERSONNEL:	J.Ganz
WEATHER:	75-85°F Sunny		

MONITOR WELL #: MW19I WELL DEPTH: 59.11'
WELL PERMIT #: _____ WELL DIAMETER: 2" SCREENED/OPEN INTERVAL: 54.11-59.11'

WATER QUALITY METER & SERIAL No.:
PID BACKGROUND : < 1.0 PUMP INTAKE DEPTH: 56.61 ft below TOC
PID BENEATH OUTER CAP: < 1.0
PID BENEATH INNER CAP: < 1.0 DEPTH TO WATER BEFORE PUMP INSTALLATION: 6.49 ft below TOC

TIME	pH (pH units) reading	SPECIFIC CONDUCTIVITY (Ms/cm) reading	REDOX POTENTIAL (mv) reading	DISSOLVED OXYGEN (mg/l) reading	TURBIDITY (NTU) reading	TEMPERATURE (degrees C) reading	PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
909	8.11	8.37	-26	1.18	> 999	16.62	250	6.49
914	7.95	9.69	-95	0	> 999	16.62	250	6.27
919	7.96	9.96	-100	0	> 999	16.36	250	6.25
924	7.98	12.2	-103	0	> 999	16.21	250	6.25
929	7.99	9.93	-81	0	760	16.45	250	6.25
934	7.98	9.99	-52	0	433	16.21	250	6.25
939	7.96	12.6	-87	0	359	16.35	250	6.25
944	7.95	12.5	-94	0	261	16.22	250	6.25
949	7.94	12.5	-96	0	227	16.22	250	6.25
954	7.93	12.5	-96	0	223	16.22	250	6.25
959	7.92	12.7	-97	0	220	16.08	250	6.25
1004	7.92	12.5	-96	0	219	16	250	6.25

COMMENTS: **Sampled @1015** **Fe+2=01.6**
ANALYSIS: **VOC+10, SVOC+20, Pesticides, PCBs, TAL Metals**

***INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ±0.1 for pH; ±3% for Specific Conductivity and Temperature; ±10 mv for Redox Potential; and ±10% for Dissolved Oxygen and Turbidity**

Appendix D
Field Documentation

D-07 – CSO Sampling Field Forms

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CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy, Graham Shakey, Casey Stokes (HDR)
Subcontractor/Crew: Traffic Safety

Station ID: OH-005
Time: 1310
Water Depth: 12.3 - 12.85
Tide: not recorded
Weather: Sunny - 80° - low humid

CSO Sediment Sample ID: GC-SDOH005
Grab Penetration 0.5 ft
Sample Time: H_2O - 1330, Sed - 1415

Number of Sampling Attempts: >10

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.76	6.09	24.77	0.3	0.661	Over Range	-96	dark brown/gray

Floating Debris (describe): Floating solids - brown color
Water Color: brown - very turbid
Clarity: Very turbid - brown
Turbidity: Very turbid - brown
Sheen: none detected

Sample Analytical Parameters:

TCL VOCs	✓
TCL SVOCs	✓
TCL Pesticides	✓
TCL PCBs	✓
TAL Metals + Hg	✓
Cyanide	✓
TOC	✓
Grainsize	
AVS/SEM	
Toxicity	

Bottleware/Preservation:

5 ~~3x~~ 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
8 oz Amber, wide mouth glass; protect from light, 4°C
8 oz wide mouth glass; 4°C
8 oz wide mouth glass; 4°C
8 oz wide mouth glass; 4°C + filtered 0.45um
8 oz wide mouth glass; 4°C
4 oz wide mouth glass; 4°C
4 oz wide mouth glass; no headspace; 4°C
3 x 1-gallon HDPE buckets; 4°C

CSO wastewater ID
GC-SWOH005-DW-1

- wastewater samples collected from the 0-0.5 interval using laboratory cleaned certified HDPE bottleware
- VOC sample collected + poured at a slow rate to prevent volatilization

SED SAMPLE DESCRIPTION

Color: Black (10YR 2/1)
Moisture: Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors:
worms noted

PID - 0.0 ; CO - 0.0 ; H_2S - 0.0 ; LEL - 0.0 ; O_2 - 20.9

COMMENTS/OBSERVATIONS

Frank Biscardi (NYCDEP) + Melissa (GEI) performing oversight

Sampler Signature/Date [signature] 6/30/10

On Carroll St - in between 3rd + 4th Aves

Reviewed by [signature] Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy G. Sharkey C. Stokes (HDR)
Subcontractor/Crew: Traffic Safety

Station ID: OH-006
Time: 1800
Water Depth: 18.7 - 19.1' btoc
Tide:
Weather: Sunny - 80° - low humid

CSO Sediment Sample ID: Not Sampled
Grab Penetration 0.0 ft
Sample Time: H_2O - 1815 Sed - NA

Number of Sampling Attempts: >10

Problems During Collection: no sediment collected - unable to collect sediment sample

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
3.98	7.03	22.53	0.6	1.22	177	-42	brown - suspended solids

Floating Debris (describe): brown floating solids in water
Water Color: clear water - floating solids
Clarity: clear water - floating solids
Turbidity: floating solids
Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C
PCB Congeners	✓	

Not Sampled

CSO Wastewater ID
GC-SWOH006-DW-1

- wastewater samples collected from the 0-0.5' interval using certified laboratory cleaned HDPE bottleware
- VOC sample collected + poured at a slow rate to prevent volatilization

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf 1 coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors:

NO SEDIMENT SAMPLE

COMMENTS/OBSERVATIONS

No sediment sample collected - no measurable sediment in CSO chamber

PID - 0.0 ; H_2S - 0.0 ; CO - 0.0 ; LEL - 0 ; O_2 - 20.9

Frank Biscardi (NYCDEP) + Melissa (GEI) performing oversight

Sampler Signature/Date [signature] 6/30/10

On 3rd Ave
- in between 18th + 19th st

Reviewed by [signature] Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy, J. Bales, G. Sharkey
Station ID: OH-007
Time: 0900
Subcontractor/Crew: None
Water Depth: 11.9 - No bottom measurement - pump @ bottom
Tide: Not Recorded
Weather: Sunny - 80° - low humid

Bottom - Approx 56" below top of water

CSO Sediment Sample ID: GC-SDOH007
Grab Penetration 0.5 ft
Sample Time: H_2O - 1000, Sed - 1045

Number of Sampling Attempts: Sediment >10 ; wastewater >10

Problems During Collection: - Sediment sample collected from interceptor chamber
- wastewater sample collected from pumping station

QC SAMPLE DATA

QA/QC SampleIDs: NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity % ~~(ppt)~~	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
0.99	8.00	23.36	0.15	3.95	64.2	-85	

Floating Debris (describe): garbage + sewage
Water Color: brown / clear
Clarity: Cloudy
Turbidity: cloudy
Sheen: none observed

~~CSO Wastewater~~ GC-SWOH007-DW-1

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C + Filtered (0.45um)
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C
PCB Cong	✓	

- wet chem parameters collected
- wastewater samples collected from the 0-0.5' interval using certified laboratory clean HDPE bottleware
- VOC sample collected + poured @ slow rate to prevent volatilization

SED SAMPLE DESCRIPTION

Color: 10 YR 2/1 - Black
Moisture: Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay Gravelly silt
Minor Description: Organic Mottled Plastic M.Plastic Nodules Vf / coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors:
strong septic like odor
worms noted in sediment
PID 2.5 ; CO - 0.0 ; H_2S - 0.0 ; LEL - 0.0 ; LL

COMMENTS/OBSERVATIONS

- pumps turned on @ 1020 while collecting H_2O sample
- Wastewater sample not collected from 2nd Ave interceptor chamber
- wastewater sample collected from pumping station adjacent to tide gate (OK as per Bill McMillen
- Sediment sample collected interceptor chamber
- no sediment in pumping stations

Frank Biscardi (NYCDEP) + Melissa (GEI) provide oversight

Sampler Signature/Date [signature] 7/1/2010

On 2nd Ave - in between 5th + 6th sts

Ferrous Iron result: 0.55 mg/L

Reviewed by [signature] Date 7/14/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy C. Stokes G. Sherkey
Station ID: RH-031
Time: 1700
Subcontractor/Crew: Traffic Control
Water Depth: 12.6 - 14.8 btoc
Tide: Not Recorded
Weather: Sunny - 80° - low humid

CSO Sediment Sample ID: GC-SDRH031
Grab Penetration 0.5 ft
Sample Time: H_2O - 1710 Sed - 1730

Number of Sampling Attempts: >10 sediment >10 wastewater

Problems During Collection: Sediment is very soft - difficult to fill bottles

QC SAMPLE DATA

QA/QC SampleIDs:
NONE (circled) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.63	7.08	26.46	0.8	1.54	260	-101	Cloudy / brown

Floating Debris (describe): None observed
Water Color: brown - Floating solids
Clarity: Cloudy
Turbidity: Cloudy
Sheen: none observed

Sample Analytical Parameters:

		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C + filtered (0.45um)
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C
PCB Cong	✓	8 oz WM Amber

CSO Wastewater ID
GC-SWRH031-DW-1

- wastewater samples collected from the 0-0.5' interval using certified laboratory cleaned HDPE bottleware
- VOC sample poured at a slow rate to prevent volitilization

SED SAMPLE DESCRIPTION

Color: Black (10YR 2/1)
Moisture: Dry Sl. Moist Moist V.Moist Wet (circled)
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand (circled) Gravel Grvly Clay
Minor Description: Organic (circled) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose (circled)
Other Descriptors:
Strong septic-like odor
PID - 0.0 ; H_2S - 0.0 ; CO - 0.0 ; LEL - 0.0 ; O_2 - 20.9

COMMENTS/OBSERVATIONS

- traffic very busy in intersection - traffic control shuts down intersection
sediment in pipe (Pipe is approx 72" diameter as per NYCDEP)
sediment collected in CSO channel
Frank Biscardi - NYCDEP - onsite performing oversight
Mellisso - GEI onsite providing oversight

Sampler Signature/Date [signature] 6/30/10

In intersection of Bond, Lorraine, + Hamilton Ave.

Reviewed by [signature] Date 7/19/10

ALERT FIRE DEPARTMENT THAT WE ARE WORKING ACROSS ST!!!

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy, J. Boles, C. Stokes
Subcontractor/Crew: Traffic Management
Station ID: RH-033
Time: 0830 6/30/10
Water Depth: Not Recorded - Approx 9'
Tide: Not Recorded
Weather: Sunny - 80° - low humid

CSO Sediment Sample ID: GC-SDRH033
Grab Penetration: 0.5 ft
Sample Time: H_2O - 840, Sed - 915

Number of Sampling Attempts: >10

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs: (NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
8.62	6.20	22.58	0.7	1.40	514	6	Cloudy

Floating Debris (describe): Floating solids
Water Color: brown - cloudy
Clarity: brown - cloudy
Turbidity: brown - cloudy - floating solids
Sheen: none observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C + Filtered (0.45um)
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand (Gravelly Sand) Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / (SA / SR) Rounded
Well (poorly) mod - sorted well / (poorly) mod - cemented (Loose)
Other Descriptors:

Strong organic like odor
PID - 0.0 ; H_2S - 0.0 ; CO - 0.0 ; LEL - 0 ; O_2 - 20.9

COMMENTS/OBSERVATIONS

Frank Bascone (NYCDEP) + Melissa (GEI) perform oversight

Sampler Signature/Date: 6/30/10

On Douglass St - Corner of Nevins

Reviewed by _____ Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Dave Reamer, Graham Sharkey
Subcontractor/Crew: none
Station ID: RH-034
Time: 0950 (surface water)
Water Depth: NA
Tide: mid tide
Weather: 66-78° Sunny, low-med humidity

CSO Sediment Sample ID: - no sample collected **Grab Penetration** 0 ft **Sample Time:** —

Number of Sampling Attempts: - no sediment in CSO sampling location

Problems During Collection: - no sediment in CSO sampling location

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
~~4.05~~ 4.45	6.75	12.05	0.7	1.49	82.0	104	

Floating Debris (describe): present - paper and feces
Water Color: brown
Clarity: - none
Turbidity: high
Sheen: none

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C + Filtered (0.45 um)
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC		4 oz wide mouth glass; 4°C
Grainsize	no	
AVS/SEM	no	4 oz wide mouth glass; no headspace; 4°C
Toxicity	no	3 x 1-gallon HDPE buckets; 4°C

+ Geochem samples

CSO wastewater ID: GC-SWRH034-DW-1

SED SAMPLE DESCRIPTION

N/A

Color: **Moisture:** Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors:

COMMENTS/OBSERVATIONS

- used 24hour discrete sampler (ISCO 6700) to collect composite sample.

Ferrous iron result = 0.00 mg/L

Sampler Signature/Date _____ 7/1/10

Reviewed by _____ Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy, G. Sharkey, C. Stokes
Subcontractor/Crew: Traffic Control
Station ID: RH-035
Time: 1445
Water Depth: 6.40 - 7.50
Tide: Not Recorded
Weather: Sunny - 80° - low humid

CSO Sediment Sample ID: GC-SDRH035
Grab Penetration: 0.5 ft
Sample Time: H_2O - 1515, Sed - 1545

Number of Sampling Attempts: 7/0

Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE (DUP) D-06302010-02, MS/MSD _____
SEDIMENT

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
2.59	7.15	26.52	0.4	0.778	286	-74	cloudy

Floating Debris (describe): none observed
Water Color: brown / cloudy
Clarity: cloudy
Turbidity: cloudy
Sheen: none observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C + Filtered (0.45um)
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

CSO wastewater ID: GC-SWRH035-DW-1
- wastewater samples collected from the 0.0-0.5' interval using certified laboratory cleaned HDPE bottleware
- VOC sample collected & poured at a slow rate to prevent volatilization

SED SAMPLE DESCRIPTION

Color: Black (10YR 2/1)
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand (Gravelly Sand) Gravel Grvly Clay
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / (SA / SR) / Rounded
Well / (poorly) / mod - sorted well / (poorly) / mod - cemented (Loose)
Other Descriptors:
Strong septic like odor

PID - 0.0 ; H_2S - 0.0 ; CO - 0.0 ; LEL - 0 ; O_2 - 20.9

COMMENTS/OBSERVATIONS

Frank Bascardi (NYCDEP) + Melissa (GEI) perform oversight

Sampler Signature/Date: 6/30/10

On Bond Street
- noted as secondary (B) location
- up stream from tide gate
- round manhole
- near corner of 4th St

Reviewed by _____ Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy, G. Shockey, C. Stokes (HDR)
Subcontractor/Crew: Traffic Control
Station ID: RH-036
Time: 1130
Water Depth: 7.55 - 7.85
Tide: Not Measured
Weather: Sunny - 80°s - low humid

CSO Sediment Sample ID: GC-SDRH036
Grab Penetration: 0.5 ft
Sample Time: H_2O - 1145, sed - 1235
Number of Sampling Attempts: >10
Problems During Collection: None

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____ (MS/MSD) MSD collected for H_2O + sed

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.55	6.97	23.29	0.4	0.851	118	145	clear - floating solids

Floating Debris (describe): sanitary waste
Water Color: clear - floating solids
Clarity: clear - floating solids
Turbidity: clear - floating solids
Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C + Filtered (0.45)
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

CSO Wastewater ID
GC-SWRH036-DW-1
- wastewater samples collected from the 0.0-0.5' interval using certified laboratory cleaned HDPE bottleware
- VOC sample collected & poured at a slow rate to prevent volatilization

SED SAMPLE DESCRIPTION

Color: Black (10YR 2/1)
Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand (Gravelly Sand) Gravel Grvly Clay — Silty Sand
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors:
- Few gravel (angular/subangular)
- organic - septic-like odor
- worms noted @ approx 1/4" long in sediment

PID - 0.0 ; CO - 0.0 ; H_2S - 0.0 ; LEL - 0

COMMENTS/OBSERVATIONS

Floating debris noted - garbage + toilet paper

Frank Boscardi (NYC DEP) + Melissa (GEI) performing oversight

Sampler Signature/Date 6/30/10

On Nevins St (curb) at the end of President St.

Reviewed by _____ Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy, G. Sherkey, C. Stokes
Station ID: RH-037
Time: 1005
Subcontractor/Crew: Traffic Control
Water Depth: 9.0 - 9.1' Stdg
Tide: not recorded
Weather: Sunny - 80° - low humid

CSO Sediment Sample ID: GC-SDRH037
Grab Penetration: 0.5 ft
Sample Time: H_2O - 1030, sed - 1100

Number of Sampling Attempts: >10

Problems During Collection: Unable to collect sediment sample from main channel in CSO - collected from side

QC SAMPLE DATA

QA/QC SampleIDs:
NONE ___ DUP D-063020I0-01, MS/MSD ___
WASTEWATER

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
7.90	7.62	21.29	0.3	0.677	72.2	49	brown solids - clear H_2O

Floating Debris (describe): Floating brown solids in water
Water Color: Clear - brown floating solids in water
Clarity: clear - floating solids
Turbidity: Floating solids
Sheen: Clear "oil"-like substance floating on water surface

Sample Analytical Parameters:

		Bottleware/Preservation:
TCL VOCs	✓	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	✓	8 oz wide mouth glass; 4°C
TCL PCBs	✓	8 oz wide mouth glass; 4°C
TAL Metals + Hg	✓	8 oz wide mouth glass; 4°C + Filtered (0.45)
Cyanide	✓	8 oz wide mouth glass; 4°C
TOC	✓	4 oz wide mouth glass; 4°C
Grainsize		
AVS/SEM		4 oz wide mouth glass; no headspace; 4°C
Toxicity		3 x 1-gallon HDPE buckets; 4°C

CSO Wastewater ID
GC-SWRH037-DW-1

- wastewater samples collected from the 0.0-0.5' interval using certified laboratory cleaned HDPE bottleware
- VOC sample collected + poured at a slow rate to prevent volitalization

SED SAMPLE DESCRIPTION

Color: Black (10YR 2/1) / D. Brown (10YR 4/3) Moisture: Dry Sl. Moist Moist V.Moist (Wet)
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay (Sandy Silt)
Minor Description: (Organic) Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang (SA / SR) / Rounded
Well / (poorly) / mod - sorted well / (poorly) / mod - cemented (Loose)
Other Descriptors:

Worms noted in sediment
PID-0.7 ; CO-0.0 ; H_2S-0.0 ; LEL ; 20.9

COMMENTS/OBSERVATIONS

- sediment sample not collected from the main channel of CSO chamber - sediment sample collected from platform area below stairs + under sides
- "Oil"-like residue noted on water surface while collecting sample - Oil-like substance is non-water soluble, slick, clear, not sticky/tacky, floats on water

Frank Bascardi (NYDEC) + Melissa (GEI) performing oversight

Sampler Signature/Date 6/30/10

On Nevins at the end of Sackett St. - in front of private driveway/entrance

Reviewed by ___ Date 7/19/10

CSO Sediment Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: M. Murphy J. Bolas G. Shockley
Subcontractor/Crew: None
Station ID: RH-038
Time: 0800
Water Depth: 15.1 - 15.35 bloc
Tide: not measured
Weather: Sunny - 75° - low humid

CSO Sediment Sample ID: Sediment Sample NOT COLLECTED
Grab Penetration: 0.10 ft
Sample Time: H_2O - 825, sed - NA
Number of Sampling Attempts: >10
Problems During Collection: no sediment noted in chamber - unable to collect sediment sample

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
4.95	10.35	25.80	0.17	4.46	106	-48	cloudy - white - floating solids

Floating Debris (describe): white floating solids
Water Color: white - cloudy
Clarity: cloudy
Turbidity: cloudy
Sheen: not observed

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	3x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	8 oz Amber, wide mouth glass; protect from light, 4°C
TCL Pesticides	8 oz wide mouth glass; 4°C
TCL PCBs	8 oz wide mouth glass; 4°C
TAL Metals + Hg	8 oz wide mouth glass; 4°C
Cyanide	8 oz wide mouth glass; 4°C
TOC	4 oz wide mouth glass; 4°C
Grainsize	
AVS/SEM	4 oz wide mouth glass; no headspace; 4°C
Toxicity	3 x 1-gallon HDPE buckets; 4°C

CSO Wastewater ID
GC-SWRH038-DW-1
- Wastewater samples collected from the 0-0.5 interval using certified laboratory cleaned HDPE bottleware
- VOC sample collected & poured at a slow rate to prevent volatilization

SED SAMPLE DESCRIPTION

Color:
Moisture: Dry Sl. Moist Moist V.Moist Wet
Major Description: Clay Silty Clay Silt Clayey Sand Sandy Clay Sand Gravelly Sand Gravel Grvly Clay
Minor Description: Organic Mottled Plastic M.Plastic Nodules vf f coarse-grained Ang / SA / SR / Rounded
Well / poorly / mod - sorted well / poorly / mod - cemented Loose
Other Descriptors:
No Sediment in interceptor chamber - no sample collected

COMMENTS/OBSERVATIONS

PID - 0.0 ; CO - 0.0 ; H_2S - 0.0 ; LEL - 0.0 ; O_2 - 20.8

Frank Bascardi (NYCDEP) + Melissa (GET) perform oversight

Sampler Signature/Date 7/1/10

On Degraw St (sidewalk) - corner of Degraw + Nevins

Reviewed by _____ Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy
~~Mary Velasquez~~ James Boles
Subcontractor/Crew: Traffic Management

Station ID: OH-005
Time: 1800
Water Depth: 12.3 - 13.0'
Tide: Not Recorded
Weather: Partly Sunny - 70° - Humid

CSO Wastewater Sample ID: GC-SWOH005-WW-1
Sample Depth (below top surface): 0.5' ft
Sample Time: 1915

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: >10
Problems During Collection:
NO Sediment sample collected

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.47	7.18	27.01	0.2	0.426	~~0~~ 426 (mm)	157	brwn / cloudy
					103		

Floating Debris (describe): Flecks brown solids
Water Color: Brwn. / turbid
Clarity: Cloudy
Turbidity: Brown flecky solids
Sheen: Not observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	√	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C
TCL SVOCs	√	2 x 1 L amber glass; 4°C
TCL Pesticides	√	2 x 1 L amber glass; 4°C
TCL PCBs	√	2 x 1 L amber glass; 4°C
TAL Metals + Hg (& filtered)	√	2 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	√	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	√	1 x 1 500 ml HDPE; 4°C
Wet Chemistry		2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H2SO4; 4 x 250 ml HDPE, 1 x 250 ml amber H2SO4

PID = Not Recorded
CO =
H_2S =
LEL =
O_2 =

COMMENTS/OBSERVATIONS

- Wastewater samples collected from 0.0 - 0.5' interval using certified laboratory cleaned HDPE bottleware (disposable)
- VOC sample collected & poured at slow rate to prevent volatilization

- Close off traffic access to street

- Andy Judd / Julien Ness onsite during sample collection

Biscardi
Frank ~~Soviero~~ (NYCDEP) Melissa Fetter + Brett Stitt (GEI) provided oversight

Sampler Signature/Date 7/13/10

- On Carroll St. in between 3rd & 4th Ave

Reviewed by _____ Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy	Station ID:	RH - 033
	~~Mary Velasquez~~ (MV) Jenes Belas	Time:	~1420
Subcontractor/Crew:	Traffic Management	Water Depth:	5.3 - 7.05
		Tide:	Not Recorded
		Weather:	slight Rain / Drizzle

CSO Wastewater Sample ID: GC-SWRH033-WW-1 Sample Depth (below top surface) 0.5 ft Sample Time: 1435

Wet or Dry Weather Event: Wet

Number of Sampling Attempts: >10

Problems During Collection: GEI collects additional 2l liters of sample volume
NO Sediment Sample Collected

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP D-071B2010-01, MS/MSD

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.04	6.15	26.03	0.2	0.320	123	244	cloudy / white

Floating Debris (describe): Floating solids - brown
Water Color: Clear - Floating solids
Clarity: cloudy - white
Turbidity: turbid
Sheen: not observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	√	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C
TCL SVOCs	√	2 x 1 L amber glass; 4°C
TCL Pesticides	√	2 x 1 L amber glass; 4°C
TCL PCBs	√	2 x 1 L amber glass; 4°C
TAL Metals + Hg (& filtered)	√	2 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	√	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	√	1 x 1 500 ml HDPE; 4°C
Wet Chemistry		2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H2SO4; 4 x 250 ml HDPE, 1 x 250 ml amber H2SO4

PID =
CO = Not collected - Rain
H_2S =
LEL =
O_2 =

COMMENTS/OBSERVATIONS

- Wastewater samples collected from 0.0 ft to 0.5 ft interval using certified laboratory cleaned HDPE bottleware (disposable)
- VOC sample collected & poured at slow rate to prevent volatilization

- After VOC collection chamber "empties" & water level drops to approx 0.5' bgs

Biscardi (MM)
Frank ~~Soriero~~ (NYCDEP) + Brett Still (GEI) provide oversight

Sampler Signature/Date 7/13/10

- On Douglass st, corner of Nevins

Reviewed by _____ Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Michael Murphy, ~~Mary Velasquez~~ Mike Broscoe (GRB)
Subcontractor/Crew: ~~Traffic Management~~
Station ID: RH-034
Time: 1930
Water Depth: NR
Tide: NR (Not Recorded)
Weather: Rain storms - 70-80°

CSO Wastewater Sample ID: GC-SWRH034-WW-1
Sample Depth (below top surface): 1.0 ft
Sample Time: 1430

Wet or Dry Weather Event: Wet
Number of Sampling Attempts: 1 - 24 hour composite
Problems During Collection: 24 hour samplers shut off before full volumes could be collected - collect only 2 Amber jars + (illegible)

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
							Not recorded

Floating Debris (describe): Floating garbage - refuse - bottles
Water Color: brown - floating solids
Clarity: cloudy
Turbidity: cloudy
Sheen: none observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	√	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C
TCL SVOCs	√	2 x 1 L amber glass; 4°C
TCL Pesticides	√	2 x 1 L amber glass; 4°C
TCL PCBs	√	2 x 1 L amber glass; 4°C
TAL Metals + Hg (& filtered)	√ (DF see below)	2 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	√	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	√	1 x 1 500 ml HDPE; 4°C
Wet Chemistry	√	2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H2SO4; 4 x 250 ml HDPE, 1 x 250 ml amber H2SO4

COMMENTS/OBSERVATIONS

- sample collected using 24-hour ISCO composite sampler
- sample was collected via ISCO pump into a 10-L tote and then poured into sample bottleware
- VOC sample collected + poured at a slow enough rate to prevent volatilization
- low volume - sample submitted for SVOC, total metals + dissolved metals + TSS (DF)

Sampler Signature/Date: 7/14/10

Gowanus pumping station on Butler St.

Reviewed by _____ Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy	Station ID:	RH-036
	~~Mary Velasquez~~ James Bolus	Time:	1635
Subcontractor/Crew:	Traffic Management	Water Depth:	7.7-7.9
		Tide:	low tide Not Recorded
		Weather:	Overcast - 70° - humid

CSO Wastewater Sample ID: GC-SW RH036-WW-1 **Sample Depth (below top surface)** 0.2 ft **Sample Time:** 1705

Wet or Dry Weather Event: Wet

Number of Sampling Attempts: >10

Problems During Collection:

NO Sediment sample collected

QC SAMPLE DATA

QA/QC SampleIDs:

~~NONE~~ DUP _____ , MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
8.04	7.07	25.03	0.4	0.801	47.2	122	Brown / cloudy

Floating Debris (describe): Floating solids - toilet paper

Water Color: brown

Clarity: cloudy

Turbidity: Cloudy / Brown

Sheen: Not observed

Sample Analytical Parameters:

		Bottleware/Preservation:
TCL VOCs	√	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C
TCL SVOCs	√	2 x 1 L amber glass; 4°C
TCL Pesticides	√	2 x 1 L amber glass; 4°C
TCL PCBs	√	2 x 1 L amber glass; 4°C
TAL Metals + Hg (& filtered)	√	2 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	√	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	√	1 x 1 500 ml HDPE; 4°C
Wet Chemistry		2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H2SO4; 4 x 250 ml HDPE, 1 x 250 ml amber H2SO4

PID = Not
CO = Recorded
H_2S =
LEL =
O_2 =

COMMENTS/OBSERVATIONS

- Wastewater samples collected from 0.0' - 0.5' interval using certified laboratory cleared HDPE bottleware (disposable)
- VOC sample collected & poured at slow rate to prevent volatilization

Frank ~~[illegible]~~ Biscardi (NYCDEP) Melissa Falter + Brett Still (GEI) [illegible]

Sampler Signature/Date [signature] 7/13/10

- On Nevins St. (curb) at the end of President St.

Reviewed by [signature] Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors:	Michael Murphy	Station ID:	RH-037
	~~Mary Velasquez~~ (MM) James Bales	Time:	1610
Subcontractor/Crew:	Traffic Management	Water Depth:	8.8 - 9.0
		Tide:	low Not Recorded
		Weather:	Overcast 70°-humid

CSO Wastewater Sample ID: GC-SWR037-WW-1 **Sample Depth (below top surface)** 0.2 ft **Sample Time:** 1615

Wet or Dry Weather Event: Wet

Number of Sampling Attempts: >10

Problems During Collection:

No Sediment Sample collected

QC SAMPLE DATA

QA/QC SampleIDs:

NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
5.14	6.83	25.23	0.3	0.664	486	78	white / cloudy

Floating Debris (describe): Observed - Floating solids

Water Color: White - Cloudy

Clarity: White / Cloudy

Turbidity: White / cloudy

Sheen: None observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	√	5x 40 mL VOA vials, no headspace; HCL to pH <2; 4°C
TCL SVOCs	√	2 x 1 L amber glass; 4°C
TCL Pesticides	√	2 x 1 L amber glass; 4°C
TCL PCBs	√	2 x 1 L amber glass; 4°C
TAL Metals + Hg (& filtered)	√	2 x 1 L HDPE; HNO3 to pH < 2, 4°C
Cyanide	√	1 x 1 L HDPE; NaOH to pH > 12, 4°C
TSS	√	1 x 1 500 ml HDPE; 4°C
Wet Chemistry		2 x 250 ml HDPE; HNO3; 1 x 250 ml HDPE H2SO4; 4 x 250 ml HDPE, 1 x 250 ml amber H2SO4

PID=
CO= Not
H_2S= Recorded
LEL=
O_2=

COMMENTS/OBSERVATIONS

- Wastewater samples collected from 0.0' - 0.5' interval using certified laboratory cleared HDPE bottleware (disposable)
- VOC sample collected & poured at slow rate to prevent volatilization

Frank ~~Sovieto~~ Bisbards (MM) (NYCDEP) Mollissa Falter + Brett Still (GEI) provide oversight

Sampler Signature/Date [signature] 7/13/10

- On Nevins at the end of Sackett St. (in front of private entrance)

Reviewed by [signature] Date 7/19/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: James Balas / CH2M Hill
Mike Pantilano / HDR
Subcontractor/Crew: Matt Papulce / Traffic management

Station ID: RH031
Time: 1215 9/28/10
Water Depth: 11.6 - 15.3
Tide: High
Weather: cloudy humid 70's

CSO Sample ID: GE SWRH031-WW-2
Grab Penetration 1 ft
Sample Time: 1230
Wet or Dry Event: wet
Number of Sampling Attempts: 5
Problems During Collection: NONE

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
2.34	6.89	23.45	0.7	1.35	449	41	none

Floating Debris (describe): floatables, leaf/organic matter, white specs
Water Color: Cloudy brown
Clarity: low
Turbidity: high
Sheen: none

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	X	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	2 X 1L amber glass 4°C
TCL Pesticides	X	2 X 1L amber glass 4°C
TCL PCBs	X	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	X	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	X	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	X	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

water level dropping, GEI collecting split samples
but higher than dry weather conditions

Sampler Signature/Date 9/28/10

Reviewed by _____ Date 10/21/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: James Balas / CDM
Mike Pantliano / Matt Paparo / HDR
Subcontractor/Crew: Traffic Management

Station ID: RH035
Time: 1145 9/28/10
Water Depth: 4.75
Tide: high
Weather: Rain - heavy - windy 70's

CSO Sample ID: GC-SWRH035-WW-2
Grab Penetration: 1 ft
Sample Time: 1155
Wet or Dry Event: wet
Number of Sampling Attempts: 5 - using 3 liter container
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
6.15	7.15	23.6	.1	.244	209	81	none

Floating Debris (describe): leaves, raw sewage, garbage, floatables,
Water Color: Cloudy brown
Clarity: Poor
Turbidity: high
Sheen: None

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	X	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	2 X 1L amber glass 4°C
TCL Pesticides	X	2 X 1L amber glass 4°C
TCL PCBs	X	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	X	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	X	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	X	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

water flowing at high rate -

Sampler Signature/Date 9/28/10

Reviewed by _____ Date 10/[illegible]/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

OH

Samplers/Inspectors: James Balcus
Matt P.
Subcontractor/Crew: Mike P. / HDR
traffic management

Station ID: RH006
Time: 0720 9/30/10
Water Depth: 18.0 - current too high to tap bottom
Tide:
Weather: drizzling / overcast

CSO Sample ID: GC-SWRH006-1W0-3
Grab Penetration 0-1 ft
Sample Time: 0725
Wet or Dry Event: wet
Number of Sampling Attempts: 4
Problems During Collection: ~~Traffic management~~ buckets breaking due to fast current

QC SAMPLE DATA

QA/QC SampleIDs:
NONE
DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
8.72	5.60	21.26	.232	.354	275	333	

Floating Debris (describe): ~~none~~ floatables, white particles, leaf litter
Water Color: brownish gray
Clarity: low
Turbidity: high
Sheen: none

Sample Analytical Parameters: **Bottleware/Preservation:**

TCL VOCs	X	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	2 X 1L amber glass 4°C
TCL Pesticides	X	2 X 1L amber glass 4°C
TCL PCBs	X	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	X	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	X	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	X	1X 1 500ml HDPE, 4°C
Wet Chemistry	X	Various

COMMENTS/OBSERVATIONS

current at high rate ~ ~~breaking~~ SG
CFT split sampling

Sampler Signature/Date _____ 9/30/10

Reviewed by _____ Date 10/21/10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: James Balas
mike P
Subcontractor/Crew: Matt P
Traffic management

Station ID: OH007
Time: 0805 9/30/10
Water Depth: 5.43
Tide: Low
Weather: drizzling, 70's

CSO Sample ID: GC-GWOH007-WW3
Grab Penetration 0-1 ft
Sample Time: 0810
Wet or Dry Event: wet
Number of Sampling Attempts: 5
Problems During Collection:

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP dup-01, MS/MSD

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
9.22	6.93	22.45	.235	.362	116	152	5.6 pid reading

Floating Debris (describe): ~~clear brown tint~~ floatables
Water Color: clear - beige tint
Clarity: clear
Turbidity: low
Sheen: present

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	X	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	2 X 1L amber glass 4°C
TCL Pesticides	X	2 X 1L amber glass 4°C
TCL PCBs	X	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	X	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	X	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	X	1X 1 500ml HDPE, 4°C
Wet Chemistry	X	Various

COMMENTS/OBSERVATIONS

Chemical odor present

Ferrous Iron = 0.0 mg/L

Sampler Signature/Date James Balas 9/30/10

Reviewed by [signature] Date 10-21-10

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reamer, J. Balas
Subcontractor/Crew: Traffic Management Inc.
Station ID: RH-031
Time: 0616
Water Depth: 10.0'
Tide: -
Weather: Moderate rain

CSO Sample ID: GC-SWRH-031-WW-3
Grab Penetration: 0.5 ft
Sample Time: 0616
Wet or Dry Event: wet
Number of Sampling Attempts: ~5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
9.87	7.33	20.17	0.0	0.058	148	189	

Floating Debris (describe): Brown floatables, white debris
Water Color: light brown
Clarity: moderate
Turbidity: 148
Sheen: none

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	2 X 1L amber glass 4°C
TCL Pesticides	✓	2 X 1L amber glass 4°C
TCL PCBs	✓	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	✓	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	✓	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	✓	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

Sampler Signature/Date: [signature] 10/1/10

Reviewed by_____ Date _____

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: Dave Reams > CH2M
James Balas
Subcontractor/Crew: Traffic Management Inc.

Station ID: RH-033
Time: 0710 10/1/10
Water Depth: 5.6'
Tide: —
Weather: Moderate rain

CSO Sample ID: GC-SWRH-033-W-3
Grab Penetration 0.5 ft
Sample Time: 0710
Wet or Dry Event: wet
Number of Sampling Attempts: ~5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
8.68	11.12	26.65	0.9	1.79	295	-37	

Floating Debris (describe): some floatables + paper
Water Color: v. light brown
Clarity: - moderate
Turbidity: high
Sheen: none

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	X	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	X	2 X 1L amber glass 4°C
TCL Pesticides	X	2 X 1L amber glass 4°C
TCL PCBs	X	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	X	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	X	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	X	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

- Moderate / heavy rain still occuring, water level in sewer is high.

Sampler Signature/Date [signature] 10/1/10

Reviewed by_____ Date _____

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reamer, J. Bales
Subcontractor/Crew: Traffic Management Inc
Station ID: RH-034
Time: 0900
Water Depth: ~20'
Tide:
Weather:

CSO Sample ID: GC-SW RH-034-WW-3
Grab / Penetration: Composite ~20' BGS
Sample Time: 0900
Wet or Dry Event: wet
Number of Sampling Attempts: ~5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
NONE DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments

Floating Debris (describe): Brown floatables + leaves
Water Color: M. brown
Clarity: poor
Turbidity: —
Sheen: —

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	2 X 1L amber glass 4°C
TCL Pesticides	✓	2 X 1L amber glass 4°C
TCL PCBs	✓	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	✓	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide		2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	✓	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

- ISCO Sampler #2 stopped working over night. Sample collected from Isco Sampler #1 which was collected over 24 hours
- water quality readings not collected due to limited sample volume

Sampler Signature/Date: 10-11-12

Reviewed by_____ Date _____

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reaver
J. Bakis
Subcontractor/Crew: Traffic Management Inc.

Station ID: RH-035
Time: 0540
Water Depth: 0 (water flowing from manhole)
Tide: -
Weather: Heavy! Rain

CSO Sample ID: GC-SWRH-035-WW-03
Grab Penetration: 0.5 ft
Sample Time: 0540
Wet or Dry Event: wet
Number of Sampling Attempts: ~5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
8.13	6.92	21.17	0.1	0.123	107	199	

Floating Debris (describe): Brown floatables w/ paper
Water Color: light brown
Clarity: moderate
Turbidity: low
Sheen: none

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	2 X 1L amber glass 4°C
TCL Pesticides	✓	2 X 1L amber glass 4°C
TCL PCBs	✓	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	✓	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	✓	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	✓	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

- water flow was flowing out of man hole cover -

Sampler Signature/Date: [signature] 10-1-10

Reviewed by _____ Date _____

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reaver > CH2M Hill
J. Balas
Subcontractor/Crew: Traffic Management Inc.

Station ID: RH-036
Time: 0820
Water Depth: 4.5'
Tide:
Weather: Moderate rain

CSO Sample ID: GC-SWRH-036-WW-3
Grab Penetration: 0.5 ft
Sample Time: 0820
Wet or Dry Event: wet
Number of Sampling Attempts: 5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
16.20	7.69	19.53	0.1	0.143	101	255	

Floating Debris (describe): 30% sediment observed
Water Color: v. light brown
Clarity: moderate
Turbidity: low
Sheen: not observed

Sample Analytical Parameters: / **Bottleware/Preservation:**

TCL VOCs	✓	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	2 X 1L amber glass 4°C
TCL Pesticides	✓	2 X 1L amber glass 4°C
TCL PCBs	✓	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	✓	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	✓	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	✓	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

Sampler Signature/Date: 10/1/10

Reviewed by _____ Date _____

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reamer / CH2M
J. Balas
Subcontractor/Crew: Traffic Management Inc.

Station ID: RH-037
Time: 0750
Water Depth: 8.4'
Tide:
Weather: Moderate to heavy rain

CSO Sample ID: GC-RH-037-WW-3
Grab Penetration: 0.5 ft
Sample Time: 0750

Wet or Dry Event: Wet

Number of Sampling Attempts: -5

Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:

(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
10.86	7.96	19.86	0.1	0.170	217	143	

Floating Debris (describe): none noticed
Water Color: cloudy, light brown
Clarity: cloudy, poor
Turbidity: moderate
Sheen: - none

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	2 X 1L amber glass 4°C
TCL Pesticides	✓	2 X 1L amber glass 4°C
TCL PCBs	✓	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	✓	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	✓	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	✓	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

- Rain increasing while sampling. Original water depth = 8.4' but rain caused water level to rise 2' steadily while sampling

Sampler Signature/Date: 10/1/10

Reviewed by _____ Date _____

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reamer > CH2M
J. Bakas
Subcontractor/Crew: Traffic Management Inc.

Station ID: RH-038
Time: 0730
Water Depth: 9.01
Tide: -
Weather: Moderate to light rain

CSO Sample ID: GC-SWRH-038-WW-3
Grab Penetration: 0.5 ft
Sample Time: 0730
Wet or Dry Event: wet
Number of Sampling Attempts: ~5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
7.31	9.05	20.51	0.2	0.338	86.1	73	

Floating Debris (describe): Brown floatables, white objects
Water Color: light brown
Clarity: Moderate
Turbidity: low
Sheen: slight "film" present

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	2 X 1L amber glass 4°C
TCL Pesticides	✓	2 X 1L amber glass 4°C
TCL PCBs	✓	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	✓	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	✓	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	✓	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

Rain stopped at 0737, resumed rain at 0745
- water level in sewers is still high

Sampler Signature/Date: [signature] 10/1/10

Reviewed by _____ Date _____

CSO Wastewater Sampling Form
Gowanus Canal Remedial Investigation
Brooklyn, Kings County, New York

Samplers/Inspectors: D. Reaver / CH2M
J. Balas
Subcontractor/Crew: Traffic Management Inc.

Station ID: OH-005
Time: 0940
Water Depth: 11.8'
Tide:
Weather: light rain

CSO Sample ID: GC-SWOH-005-WW-3
Grab Penetration: 0.5 ft
Sample Time: 0840
Wet or Dry Event: wet
Number of Sampling Attempts: ~5
Problems During Collection: none

QC SAMPLE DATA

QA/QC SampleIDs:
(NONE) DUP _____, MS/MSD _____

SURFACE WATER DATA & CONDITIONS

DO (mg/L)	pH (SU)	Temp (C)	Salinity (ppt)	Sp Cond (mS/cm^3)	Turbidity (NTU)	ORP (mV)	Comments
14.63	7.44	19.76	0.1	0.155	85.6	271	

Floating Debris (describe): cloudy no floatables observed
Water Color: cloudy
Clarity: ~~poor~~ good
Turbidity: low
Sheen: none observed

Sample Analytical Parameters:		Bottleware/Preservation:
TCL VOCs	✓	5x 40 mL vials/TerraCore with stir bar, 1-40 mL vial,full; 4°C
TCL SVOCs	✓	2 X 1L amber glass 4°C
TCL Pesticides	✓	2 X 1L amber glass 4°C
TCL PCBs	✓	2 X 1L amber glass 4°C
TAL Metals + Hg (Filtered)	✓	2X1L HDPE, HN03 to PH < 2, 4°C
Cyanide	✓	2 x 1L HDPE, NaOH to PH > 12, 4°C
TSS	✓	1X 1 500ml HDPE, 4°C
Wet Chemistry		Various

COMMENTS/OBSERVATIONS

Sampler Signature/Date _____ 10-1-10

Reviewed by_____ Date _____

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Appendix D
Field Documentation

D-08 – Air Sampling Field Forms

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Appendix D
Field Documentation

D-08 – Air Sampling Field Forms

USEPA Air Sampling Field Forms

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CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal Superfund Site

Project #: 395863.03.03

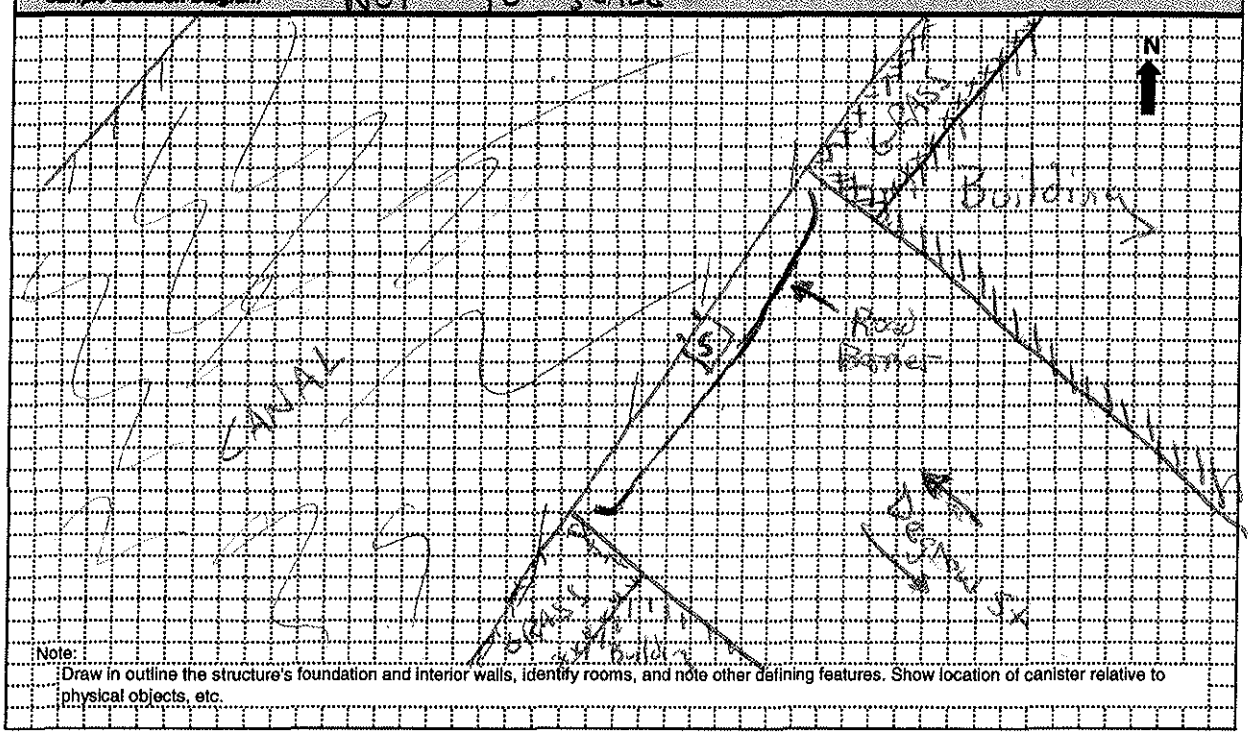
By: MM

Date: 9/1/10 - 9/8/10 - 9/9/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)	
501	GC-AS501-C-1	2798	4999	-29/-30	24-hour	9/1/10 1734	9/8/10 1939	-5	24-hour	
501	GC-AS501-S-1	2907	2839	0/-28	24-hour	9/1/10 1726	9/9/10 0814	-10	~~4~~ ~~4~~	← RAN >24 hours

Sample Location Diagram NOT TO SCALE



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - traffic - vehicle

[S] - sample location

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

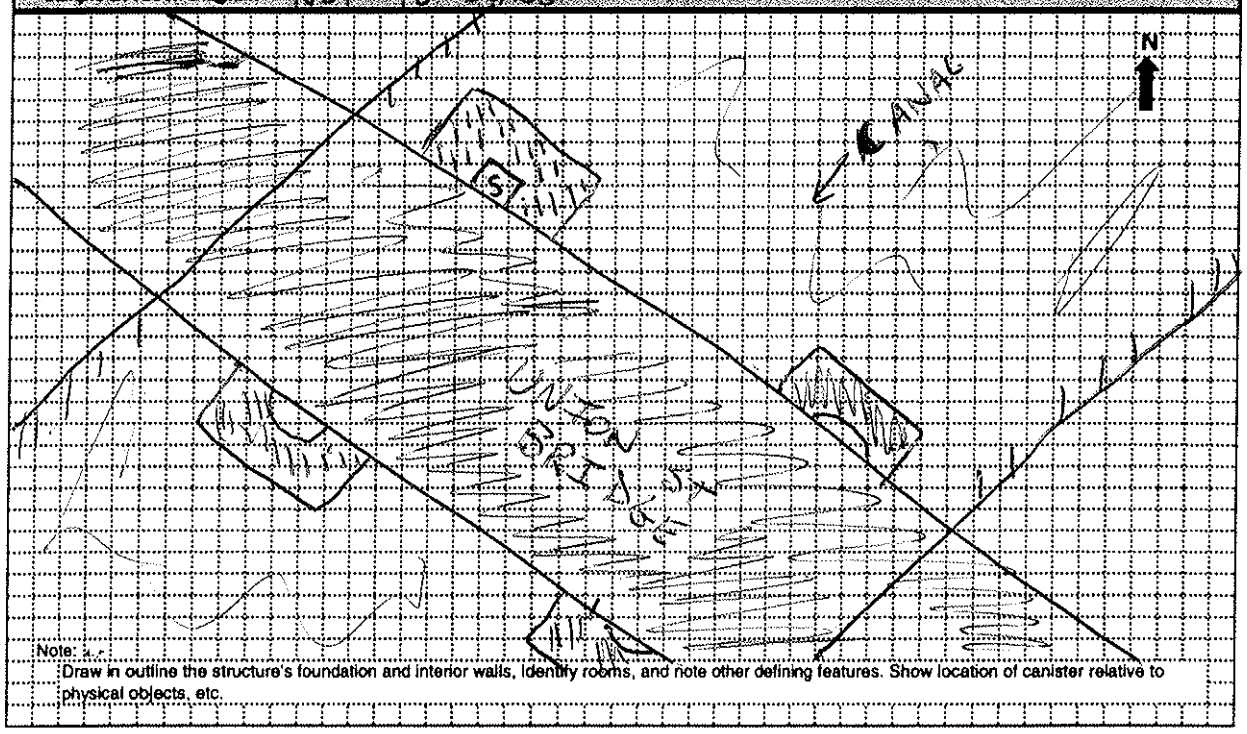
Project Name: Gowanus Canal Superfund Site Project #: 395863.03.03

By: MM Date: 7/7/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
502	GC-AS502-C-1	3090	3055	0/-29.5	24-hour	7/7/10 1510	7/8/10 1742	-3.5	24-hour
502	GC-AS502-S-1	2537	3938	0/29.5	24-hour	7/7/10 1512	7/8/10 1831	-4.0	24-hour

Sample Location Diagram NOT TO SCALE



Note: Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - traffic - boat/vehicle

S1 - sample location

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

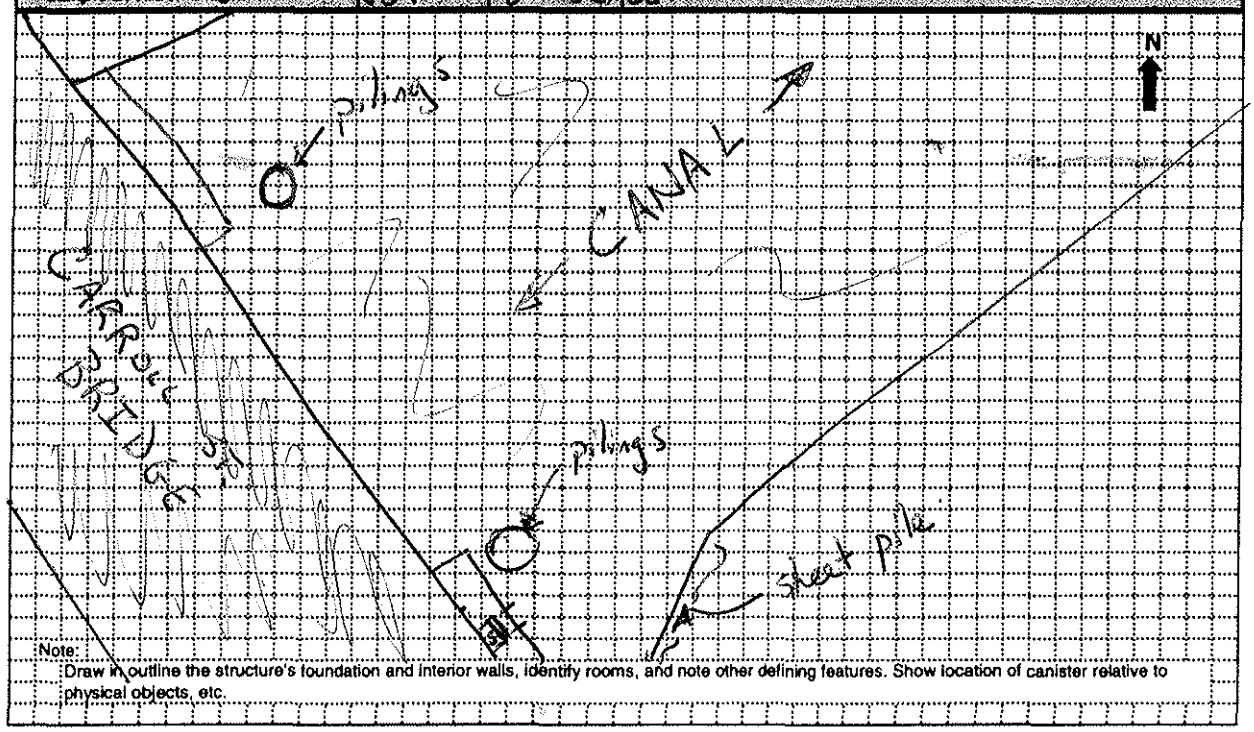
Project Name: Gowanus Canal SuperFund site Project #: 395863.03.03

By: MM Date: 7/7/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
503	GC-AS503-C-1	2754	4764	0/-30+	24-hour	7-7-10 1540	7-8-10 1841	-4.5	24-hour
503	GC-AS503-C-1	3431	3130	0/29.5	24-hour	7-7-10 1540	7-8-10 1804	-4.0	24-hour

Sample Location Diagram NOT TO SCALE



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - vehicle traffic

[5] - sample location

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

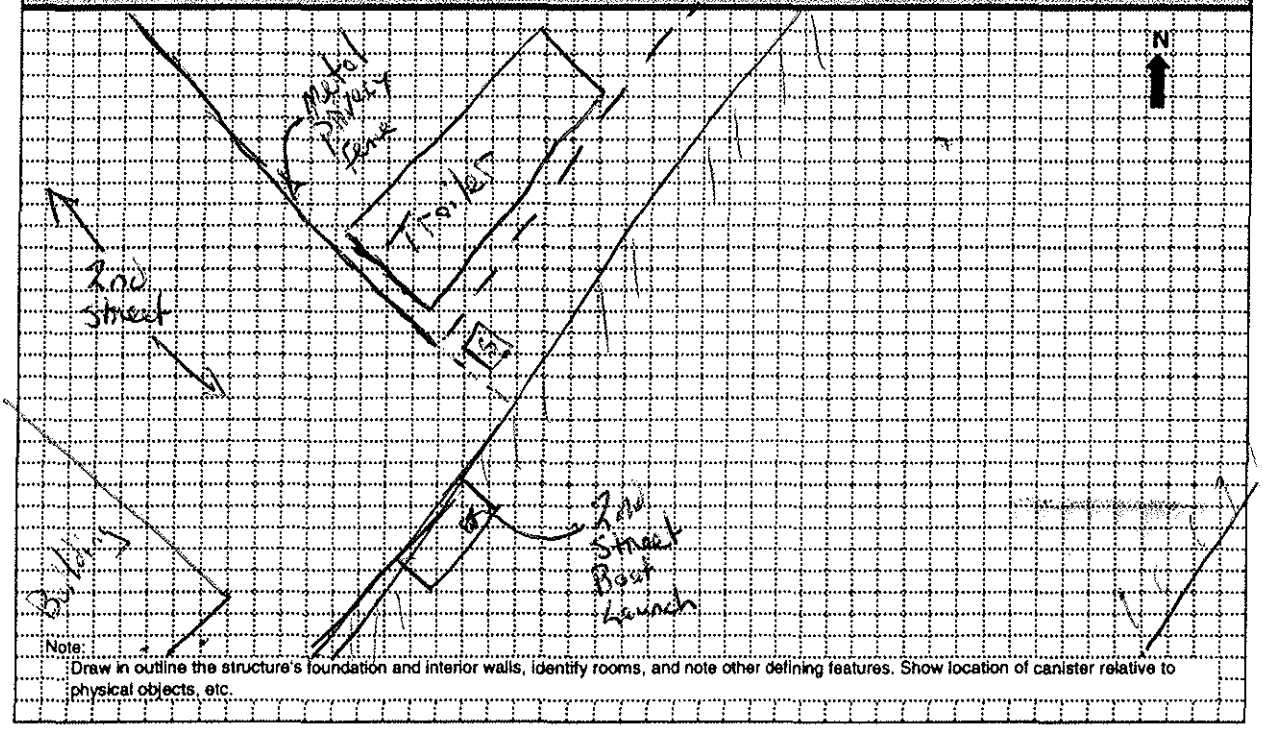
Project Name: Gowanus Canal Superfund Site Project #: 395863.03.03

By: MM Date: 7/7/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
504	GC-AS504-C-1	2854	4768	0/-30	24-hour	7-7-10 1610	7-8-10 1811	-5	24-hour
504	GC-AS504-S-1	3927	3993	0/-29	24-hour	7-7-10 1610	7-8-10 1908	-6.5	24-hour

Sample Location Diagram



Note: Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - pedestrian

[S] - Sample location

MM

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal Superfund Site

Project #: 395863.03.03

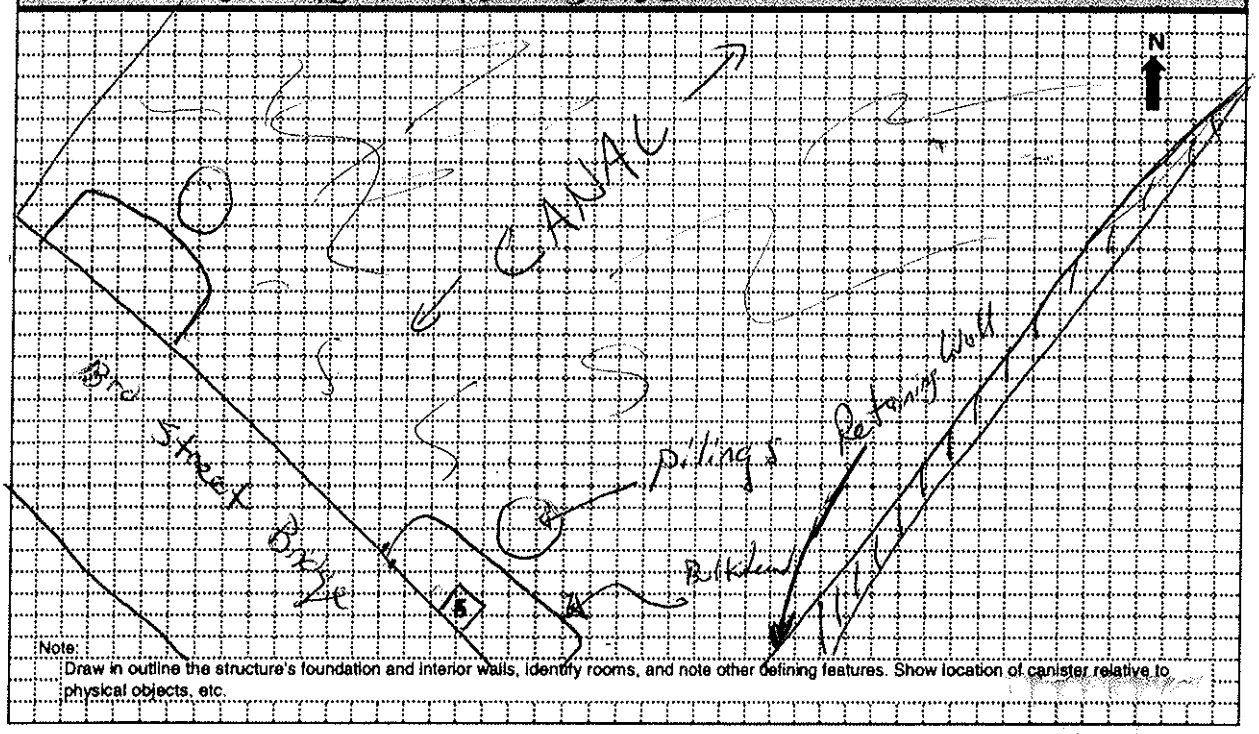
By: MM

Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
505	GC-AS505-C-1	3533	3959	0/-29	24-hour	7-7-10 1706	7-8-10 1822	-6.0	24-hour
505	GC-AS505-S-1	4434	4778	0/-30+	24-hour	7-7-10 1706	7-8-10 1435	-8.0	24-hour
505	D-07082010-01	3164	4537	-2/-30+	24-hour	7-7-10 1706	7-8-10 1821	-5.5	24-hour

Sample Location Diagram NOT TO SCALE



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - boat/vehicle traffic

Duplicate is of GC-AS505-C-1

[5] - sample location

CH2M HILL *Applied Sciences Laboratory* Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

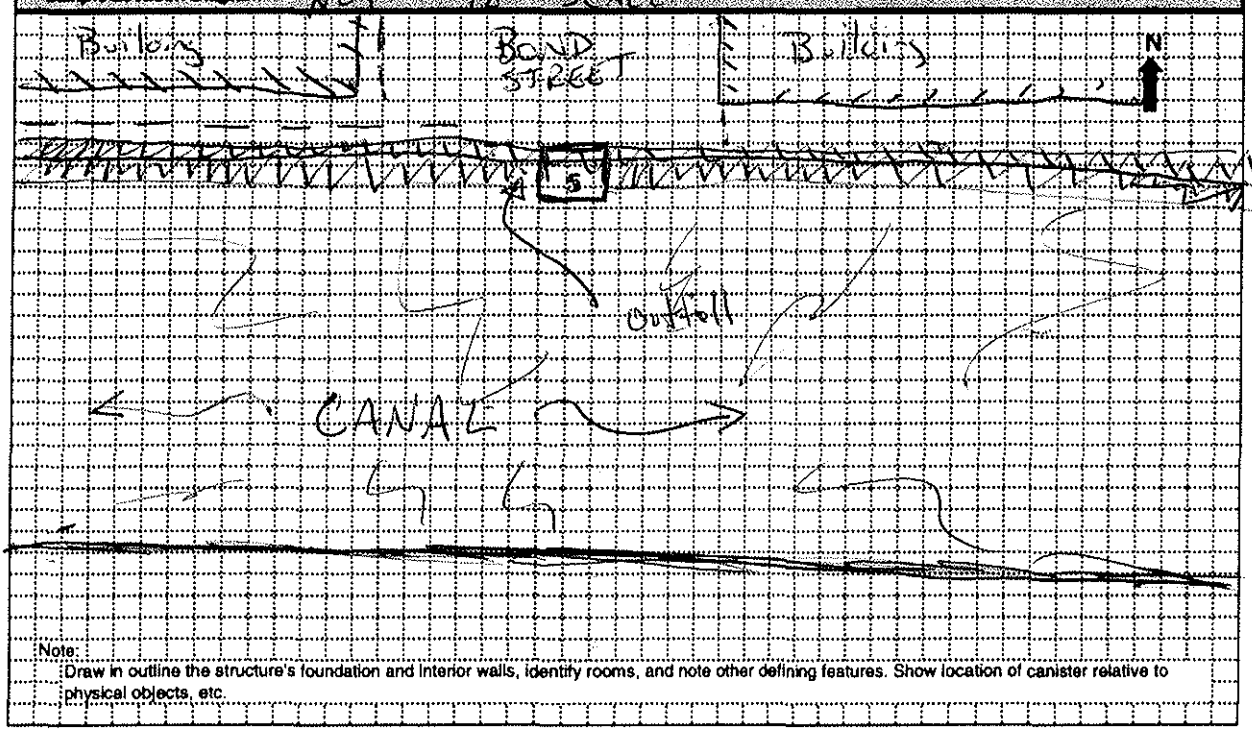
Project Name: Gowanus Canal Superfund Site Project #: 395863.03.03

By: MM Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
506	GC-AS506-C-1	2693	4747	0/-30+	24-hour	7/7/10 1555	7/8/10 1824	-7	24-hour
506	GC-AS506-S-1	4927	3954	0/-30+	24-hour	7/7/10 1555	7/8/10 1815	-4	24-hour
506	D-070820210-02	3351	3026	0/-30+	24-hour	7/7/10 1555	7/8/10 1823	-7	24-hour

Sample Location Diagram NOT TO SCALE



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible intense - boat/vehicle traffic - outfall - nearby building is being painted

- Duplicate is of GC-AS506-S-1

[5] - sample location

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal Superfund Site

Project #: 395863.03.03

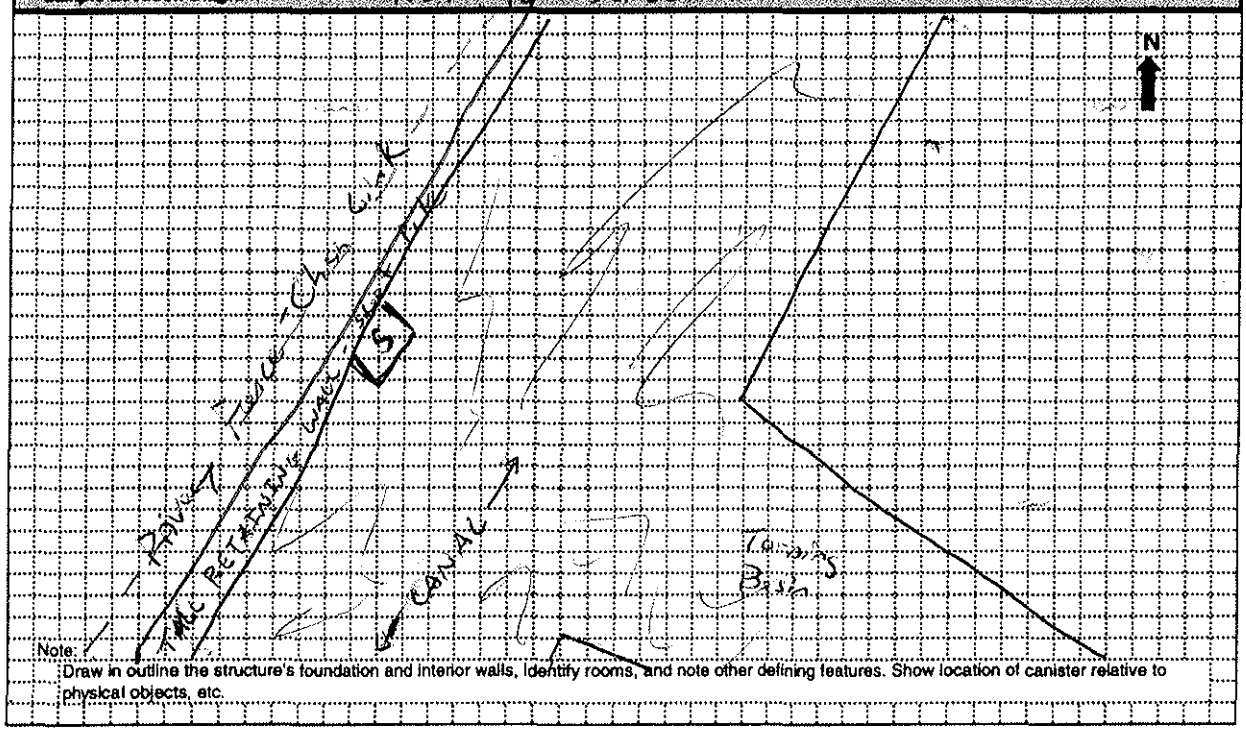
By: MN

Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
507	GC-AS507-C-1	2689	3934	0/-27	24-hour	7/7/10 1614	7/8/10 1647	-4.0	24-hour
507	GC-AS507-S-1	3370	4520	0/-30+	24-hour	7/7/10 1614	7/8/10 1920	-4.5	24-hour
507 *	FB-070810-01	4142	3183	0/0	N/A	7/7/10 1615	7/8/10 1920	0	N/A
	* Field Blank was brought to the field and unopened								
	N/A - Not Applicable - not opened								

Sample Location Diagram NOT TO SCALE



Note: Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): Possible influence - boat traffic

[S] - Sample location

MN

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal Superfund

Project #: 395863.03.03

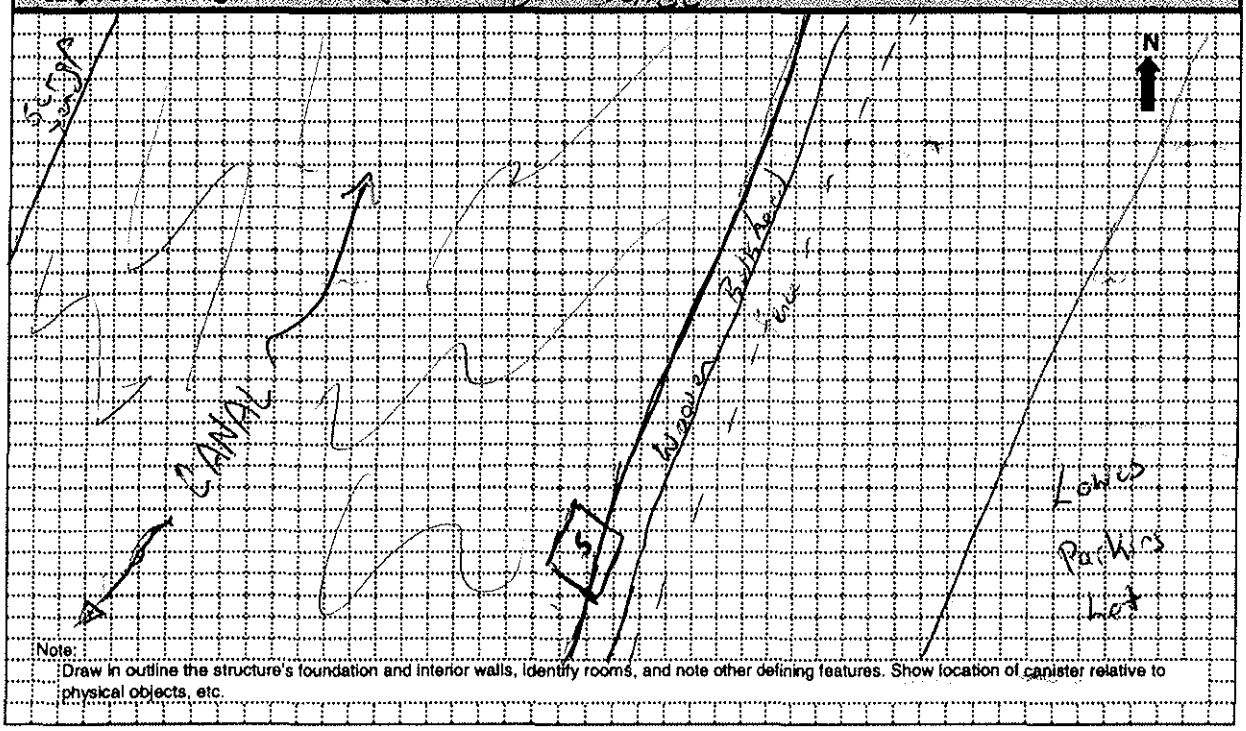
By: MM

Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	(MM) Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
508	GC-AS508-C-1	2911	3962	0/-30	24-hour	7/7/10 1843	7/8/10 1452	-5	24-hour
508	GC-AS508-S-1	2745	3767	0/-30	24-hour	7/7/10 1543	7/8/10 1925	-5	24-hour

Sample Location Diagram NOT TO SCALE



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): Possible influence - boat/pedestrian traffic

[5] - Sample location

CH2M HILL *Applied Sciences Laboratory* Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

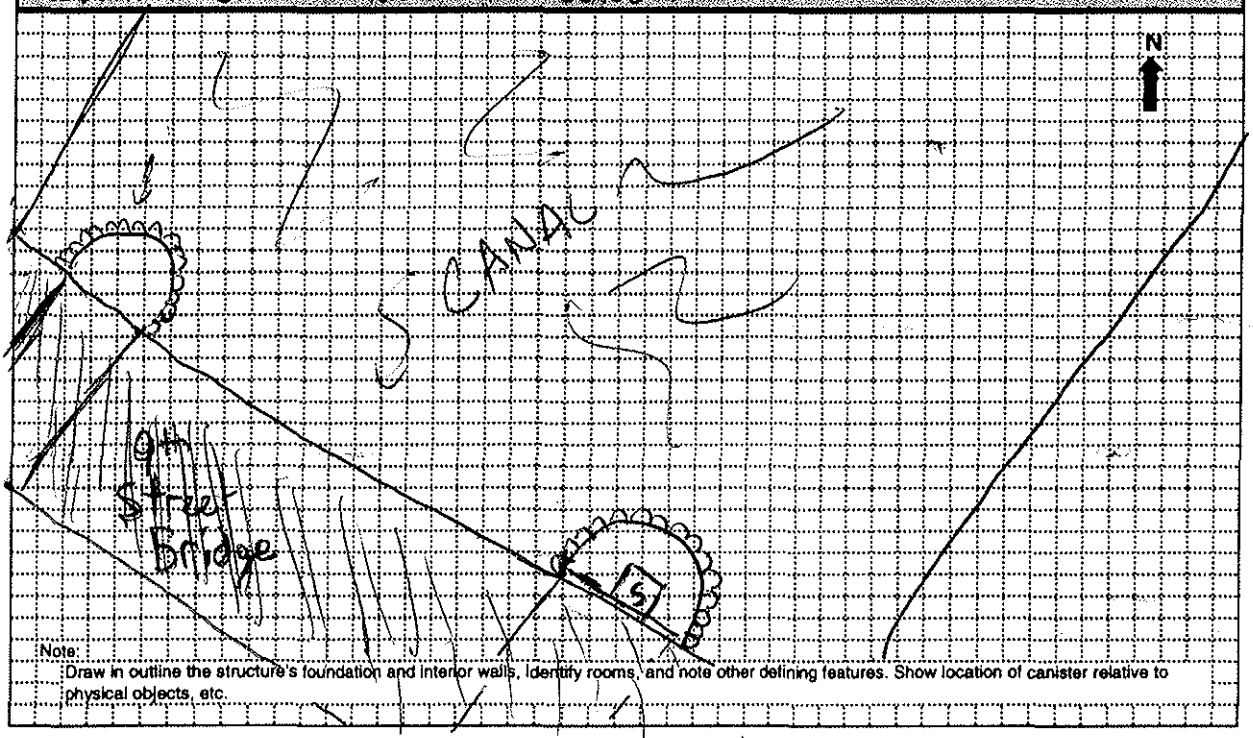
Project Name: Gowanus Canal Superfund Site Project #: 395863.03.03

By: MM Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
509	GC-AS509-C-1	4275	5002	0/-30+	24-hour	7/7/10 1521	7/8/10 1907	-5.5	24-hr.
509	GC-AS509-S-1	3766	3765	0/-30+	24hour	7/7/10 1522	7/8/10 1907	-4.0	24hour

Sample Location Diagram NOT TO SCALE



Note: Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - boat traffic

5 - sample location

MM

CH2M HILL *Applied Sciences Laboratory* Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

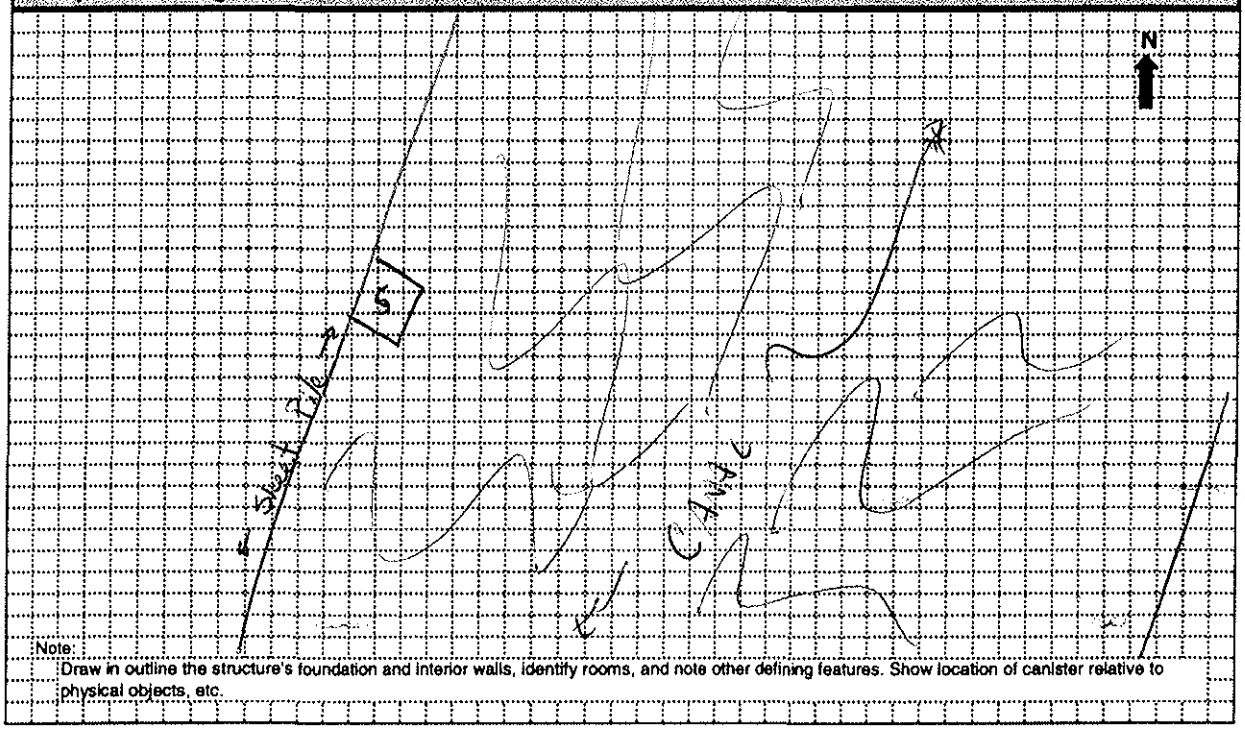
Project Name: Oswego Canal Super Fund Site Project #: 395863.03.03

By: MM Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
510	GC-AS510-C-1	4557	Not Recorded	-8/-30+	24-hour	7/7/10 1457	7/8/10 1918	-9.5	24-hour
510	GC-AS510-S-1	2847	Not Recorded	0/-30	24-hour	7/7/10 1457	7/8/10 1918	-6.0	24-hour

Sample Location Diagram



Note: Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): Possible Inflow - boat traffic

[S] - sample location

MM

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Cowanus Canal Superfund site

Project #: 395863.03.03

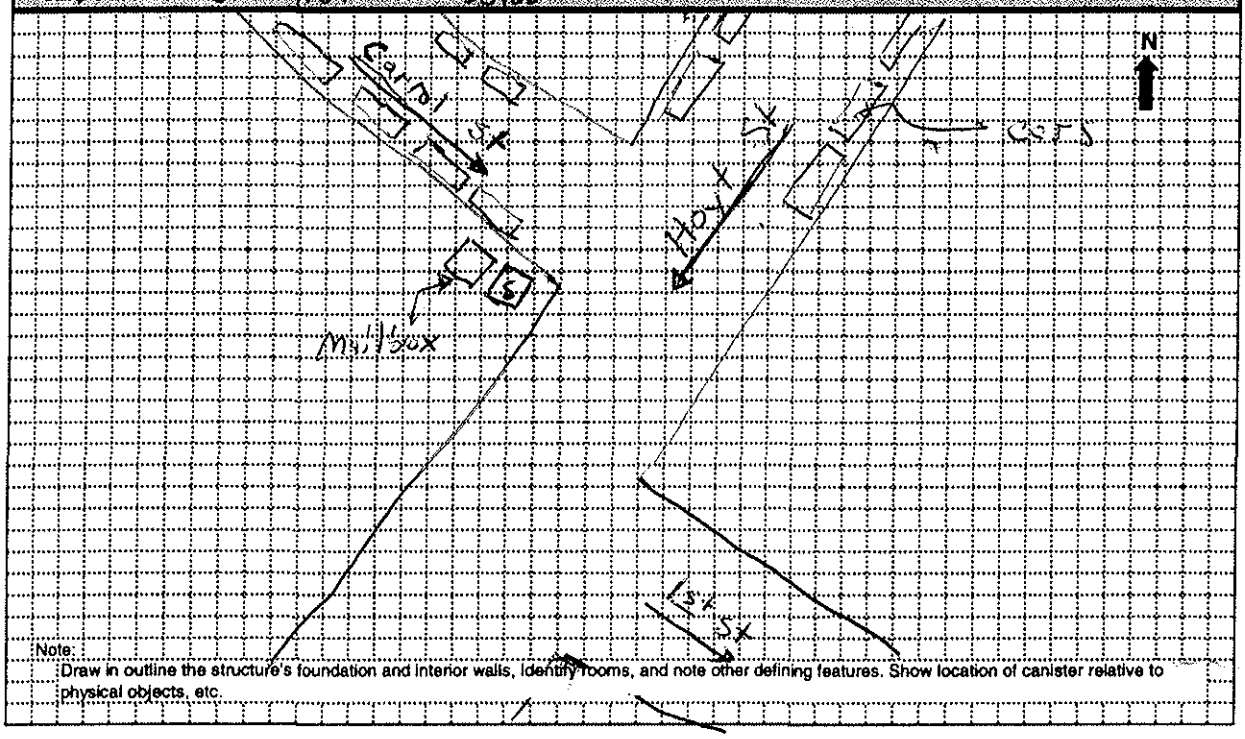
By: MM

Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
S11	GC-AS501-S-1	6750	7279808	0/-30+	24-hour	7/7/10 1430	7/8/10 2151	-6	24-hour

Sample Location Diagram NOT TO SCALE



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - vehicle/pedestrian traffic

[5] - sample location

MM

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Cowanus Canal SuperFund Site

Project #: 395863.03.03

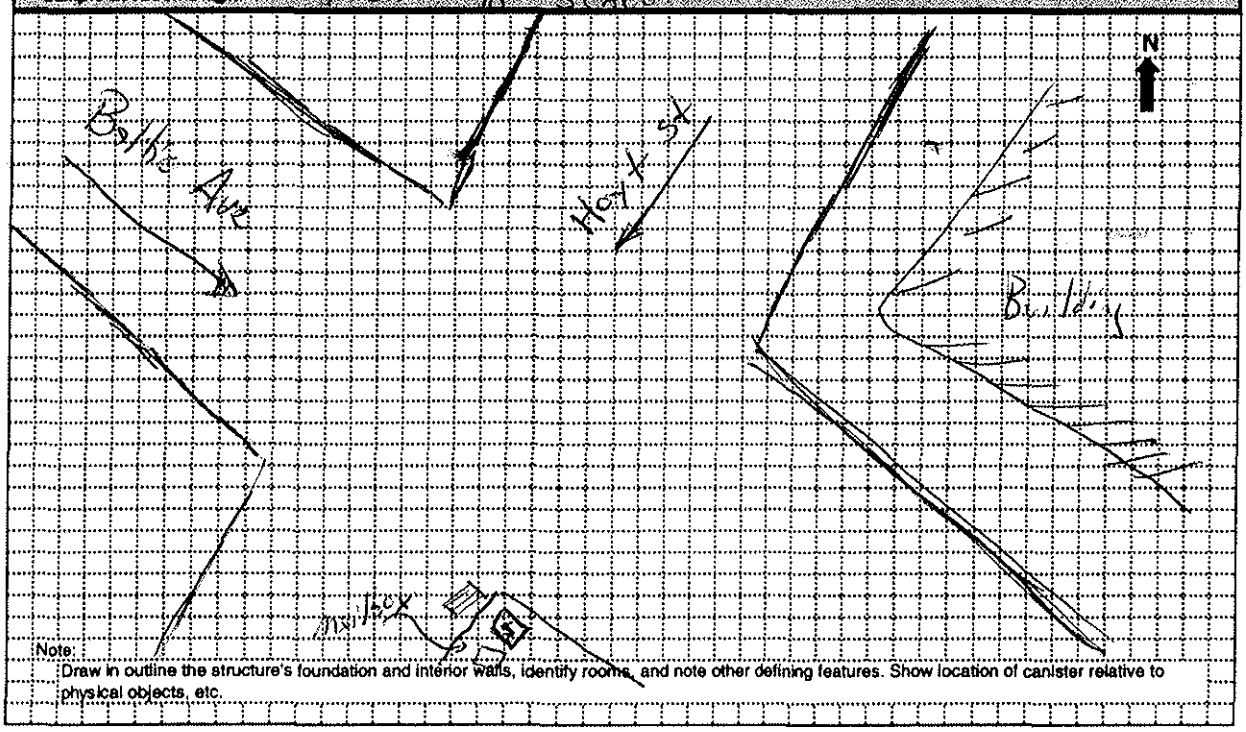
By: MM

Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
512	SC-A5512-S-1	2708	2994	0/-30	24-hour	7/7/10 1613	7/8/10 1853	-5.0	24-hour

Sample Location Diagram NOT TO SCALE



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): Possible influence - vehicle/pedestrian traffic - sewer directly underneath 1/2 in front

[S] - sample location

MM

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Jowaus Canal SuperFund Site

Project #: 3958

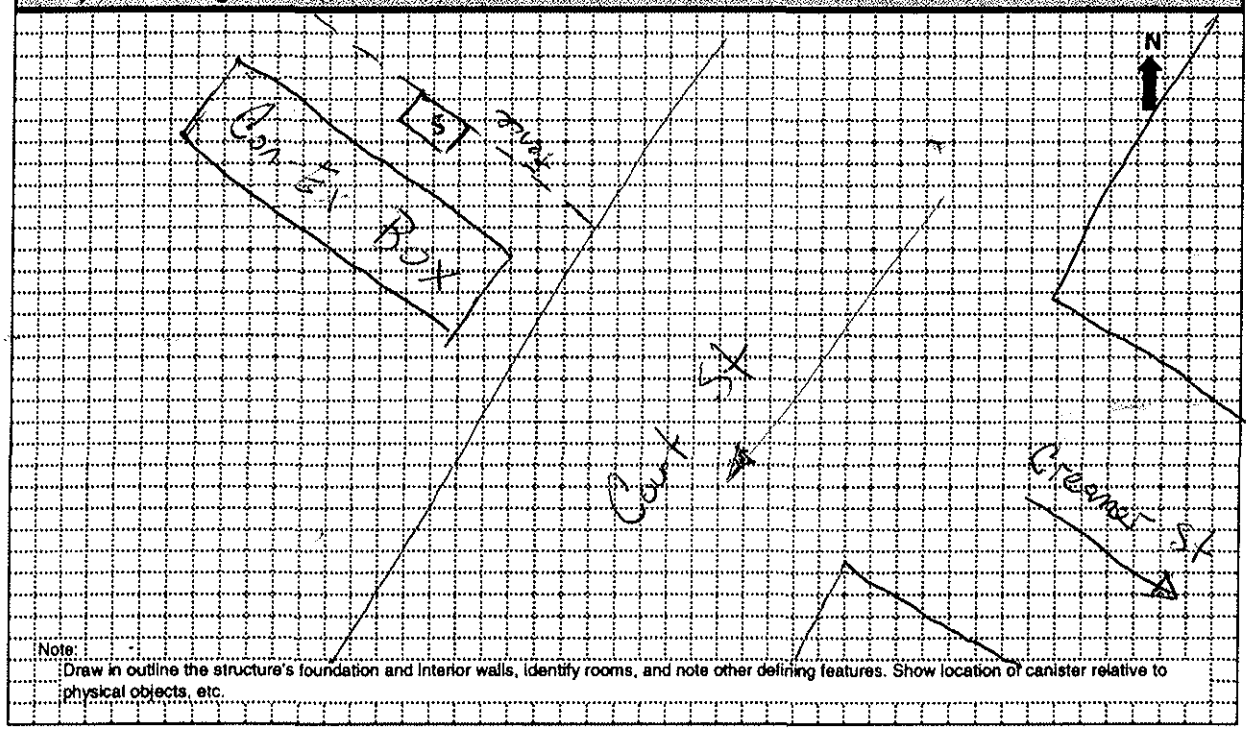
By: MM

Date: 7/7/10 - 7/8/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
513	GC-A5513-S-1	2583	4046	0/-30	24-hour	7/7/10 1950	7/8/10 2141	-6	24-hour

Sample Location Diagram



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence - pedestrian traffic

[S] - sample location

MM

Low Flow Air Sampling Form

Field Technician: Michael Murphy
Date: 7/7/10

Temp (C) — Barometric Pressure — see attachment

LOCATION	SAMPLE	PUMP #	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Start	End	Start	End	
510	S-1	12819	SKC	1513	1435	—	24-hour	5.001	✓					chm070610-27
	C-1	13453	SKC	1513	1538	—	24-hour	4.996	✓					chm070610-19
						Total Time:	24-hour							
509	S-1	12822	SKC	1530	1548	—	24-hour	4.9951	✓					chm 070610-17
	C-1	08770	SKC	1531	1550	—	24 hour	5.0033	✓					chm 070610-4
						Total Time:	24 hour							
508	S-1	13806	SKC	1544	1600	—	24-hour	5.0013	✓					chm 070610-23
	C-1	07749	SKC	1544	1602	—	24-hour	4.9982	✓					chm070610-7
						Total Time:	24-hour							
507	S-1	13542	SKC	1622	1624	—	24-hour	4.9946	✓					chm070610-9
	C-1	03012	SKC	1622	1624	—	24-hour	5.006	✓					chm070610-28
						Total Time:	24-hour							
506	S-1	13541	SKC	1601	1601	—	24-hour	5.001	✓					chm070610-13
	C-1	12801	SKC	1602	1601	—	24-hour	5.0013	✓					chm070610-24
						Total Time:	24-hour							

DR

Low Flow Air Sampling Form

Field Technician: John G. Mathis (HDR)
Date: 7-7-10

Temp (C) — Barometric Pressure — see attachment

LOCATION	SAMPLE	PUMP #	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Temp (C) Start	Temp (C) End	Barometric Pressure Start	Barometric Pressure End	
504	GC-AS 504-S-1	13441	SKC	1608	1622	1454	24-hour	5.0086	✓					CHM070610-11
						Total Time:	24-hour							
504	Dup-01	13000	SKC	1608	1622	1454	24-hour	4.9972	✓					CHM070610-15 Street level @ 504
						Total Time:	24-hour							
505	GC-AS 505-C-01	13355	SKC	1658	1703		24-hour	5.016						CHM070610-12
						Total Time:	24-hour							
505	GC-AS 505-S-01	08459	SKC	1658	1705		24-hour	5.001						must hit "mode" to start pump CHM070610-18
						Total Time:	24-hour							
505	Dup-02	13793	SKC	1658	1707			5.016						CHM070610-16
						Total Time:	~Approx 19 hour							

Dup-01: Blind Duplicate of "Street" level sample @ Station 504

Dup-02: Blind Duplicate of "Canal" level sample @ station 505

DK

* This battery pack was replaced in morning, with the new battery pack it ran for 82 minutes & then shut down due to "Flow Fault" Total minutes run was 1025 + 82 = 1107 minutes

Low Flow Air Sampling Form

Field Technician: John G., Matthew M.
Date: 07-09-10

Temp (C) — Barometric Pressure — * see attachment

LOCATION	SAMPLE	PUMP #	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Temp (C) Start	Temp (C) End	Barometric Pressure Start	Barometric Pressure End	
502	GC-AS 502-C-1	10390	SKC	1509	1511	1442 (min)	24-hour	5.0012	✓					CHM070610-1
							Total Time:							
502	GC-AS 502-S-1	13418	SKC	1510	1511	1441 (min)	24-hour	4.996	✓					CHM070610-14
							Total Time:							
503	GC-AS 503-C-1	13444	SKC	1539	1539	1440	24-hour	5.0048	✓					CHM070610-2
							Total Time:							
503	GC-AS 503-S-1	08377	SKC	1538	1538	1440	24-hour	4.9942	✓					CHM070610-22
							Total Time:		-					
504	GC-AS 504-C-1	10387	SKC	1608	1622	1454	24-hour	5.0007	✓					CHM070610-26
							Total Time:							

*End of puf tube cracked on 502 canal - used zip tie to secure cable

DR

Low Flow Air Sampling Form

Field Technician: James Balas
Date: 7-7-10

Temp (C) Barometric Pressure

see attachment.

LOCATION	SAMPLE	PUMP #	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Start	End	Start	End	
GC-AS514	-S-1	13565	SKC	1430	1549	—	24-hour	5.006	✓					
							24-hour							
						Total Time:	24-hour							
GC-AS512	-S-1	13450	SKC	1613	1558	—	24-hour	5.0007	✓					CHM070610-4
						Total Time:	24-hour							
GC-AS501	-S-1	13854	SKC	1720	←	1806 1436	24-hour	5.0007	✓					CHM070610-21
						Total Time:	24-hour							
GC-AS501	-C-1	03016	SKC	1734	←	1806	24-hour	4.9972						CHM070610-6
						Total Time:	24-hour							
GC-AS513	-S-1	07748	SKC	1950	←	1517	24-hour	5.0089						CHM070610-10
						Total Time:	24-hour							

DR

Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location: Gowanus
Sampler: TE-PUF
Date: 7-Jul-10
Tech: M. Murphy

CONDITIONS

Sea Level Pressure (in Hg):	29.95	Corrected Pressure (mm Hg):	761
Temperature (deg F):	88	Temperature (deg K):	304
Seasonal SL Press. (in Hg):	30.00	Corrected Seasonal (mm Hg):	762
Seasonal Temp. (deg F):	90	Seasonal Temp. (deg K):	305

CALIBRATION ORIFICE

Make:	Thermo	Qstd Slope:	9.58590
Model:		Qstd Intercept:	-0.03182
Serial#:		Date Certified:	2005

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	7.20	0.281	70.0	8.29	Slope =	32.3926
2	6.60	0.269	60.0	7.67	Intercept =	-0.9040
3	5.30	0.241	50.0	7.00	Corr. coeff.=	0.9948
4	4.60	0.225	40.0	6.26		
5	3.40	0.194	30.0	5.42	# of Observations	5

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location: Gowanus
Sampler: TE-PUF
Date: 7-Jul-10
Tech: M. Murphy

CONDITIONS

Sea Level Pressure (in Hg):	29.95	Corrected Pressure (mm Hg):	761
Temperature (deg F):	88	Temperature (deg K):	304
Seasonal SL Press. (in Hg):	30.00	Corrected Seasonal (mm Hg):	762
Seasonal Temp. (deg F):	90	Seasonal Temp. (deg K):	305

CALIBRATION ORIFICE

Make:	Thermo	Qstd Slope:	9.58590
Model:		Qstd Intercept:	-0.03182
Serial#:		Date Certified:	2005

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.90	0.275	70.0	8.29	Slope =	37.4830
2	6.10	0.258	60.0	7.67	Intercept =	-1.9853
3	5.20	0.239	50.0	7.00	Corr. coeff.=	0.9936
4	4.20	0.215	40.0	6.26		
5	3.70	0.202	30.0	5.42	# of Observations	5

Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal

Project #: 395863.03.03

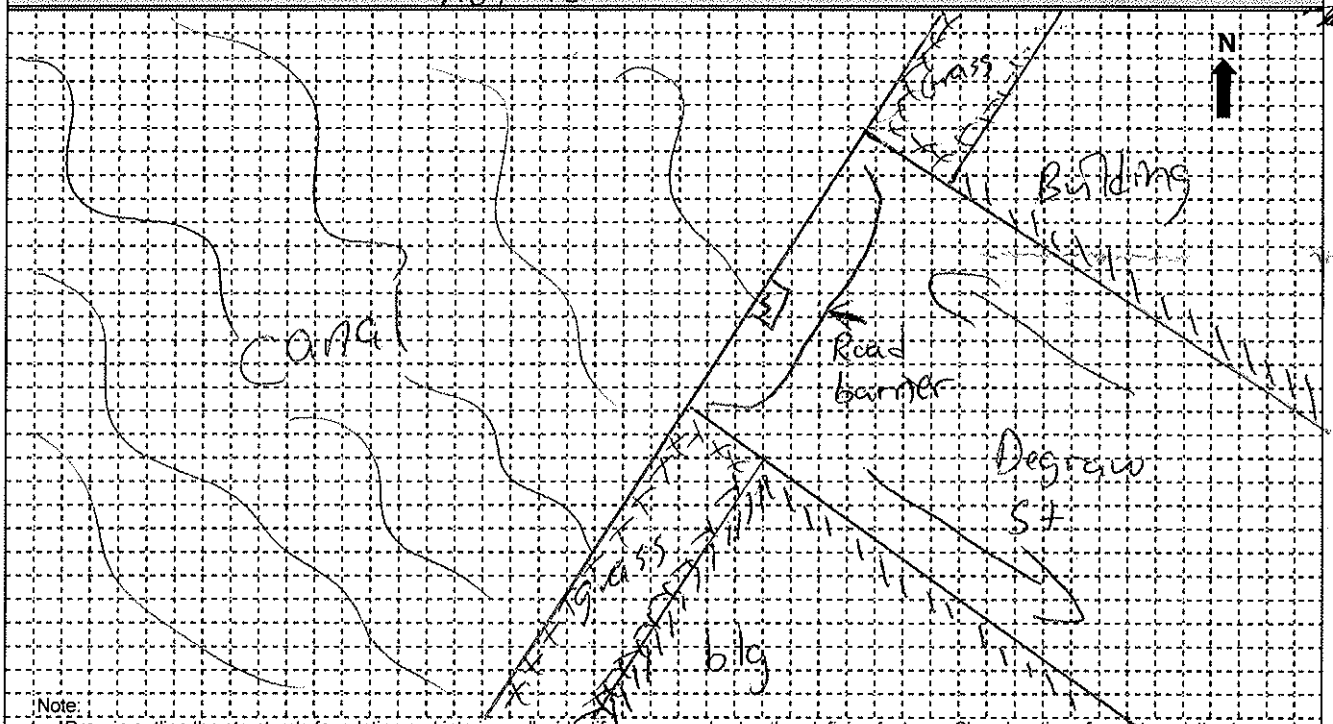
By: JBL RC

Date: 7/28/10 - 7/29/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	7/28/10 Start Date & Time	7/29/10 End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
SG1	GC-AS501-S	3138	4031	+5/-26	—	1202	1041	0	—
SG1	GC-AS501-C	3391	3450	-1/>-30	—	1202	1200	-9	—
						7/28/10	7/29/10		

Sample Location Diagram not to scale



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): possible influence of vehicles

[5] - road barrier

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

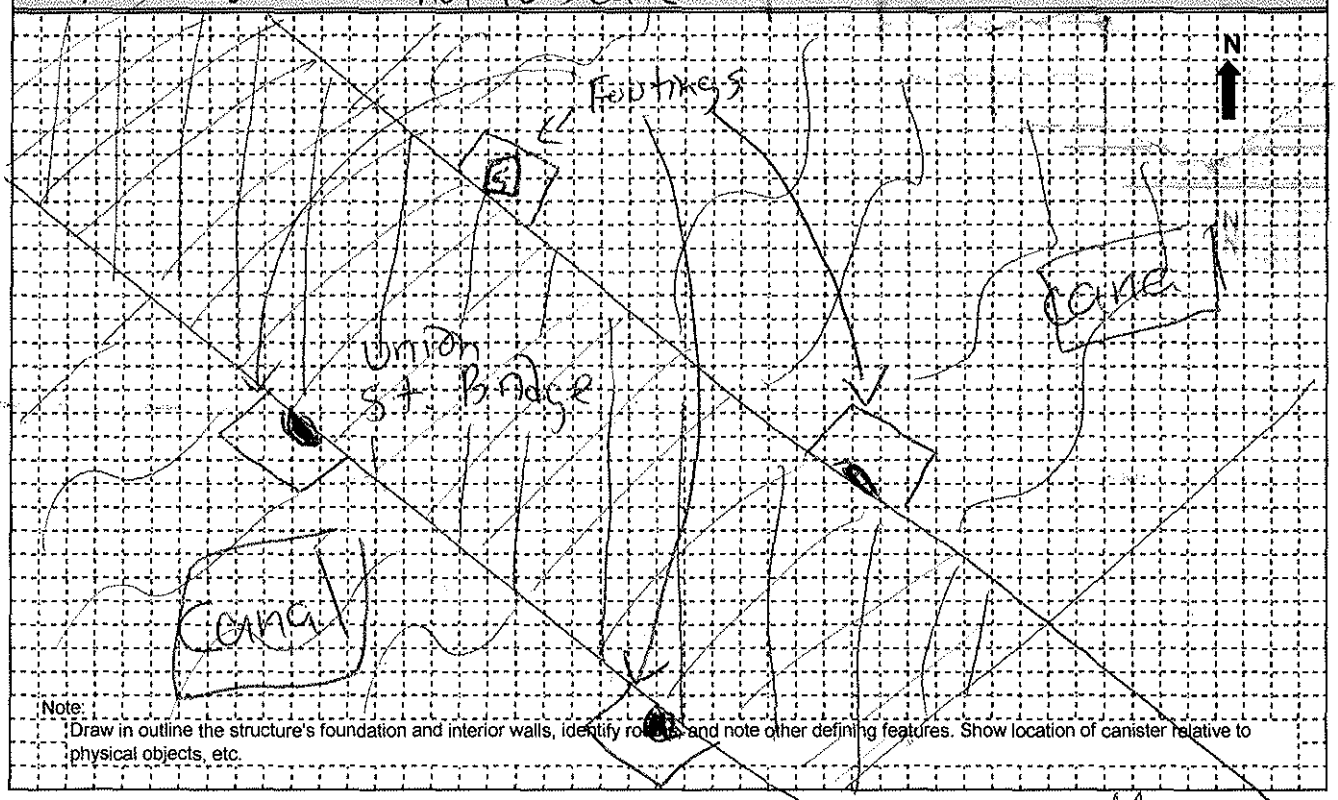
Project Name: Gowanus Canal Project #: 395863

By: JMA / KLD Date: 7/28 - 7/29

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
SD2C	GC-AS602-5	2634	3069	0/28.5	—	7/28/10 0951	7/29/10 1058	6	—
SD2S	GC-AS602-5	2973	4037	-1/30+	—	7/28/10 0951	7/29/10 1146	7	—
						7/28	7/29		

Sample Location Diagram NOT to scale



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances): boat + street traffic

5 - sample location

CH2M HILL *Applied Sciences Laboratory*

Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal

Project #: 395863

By: JMG / KD

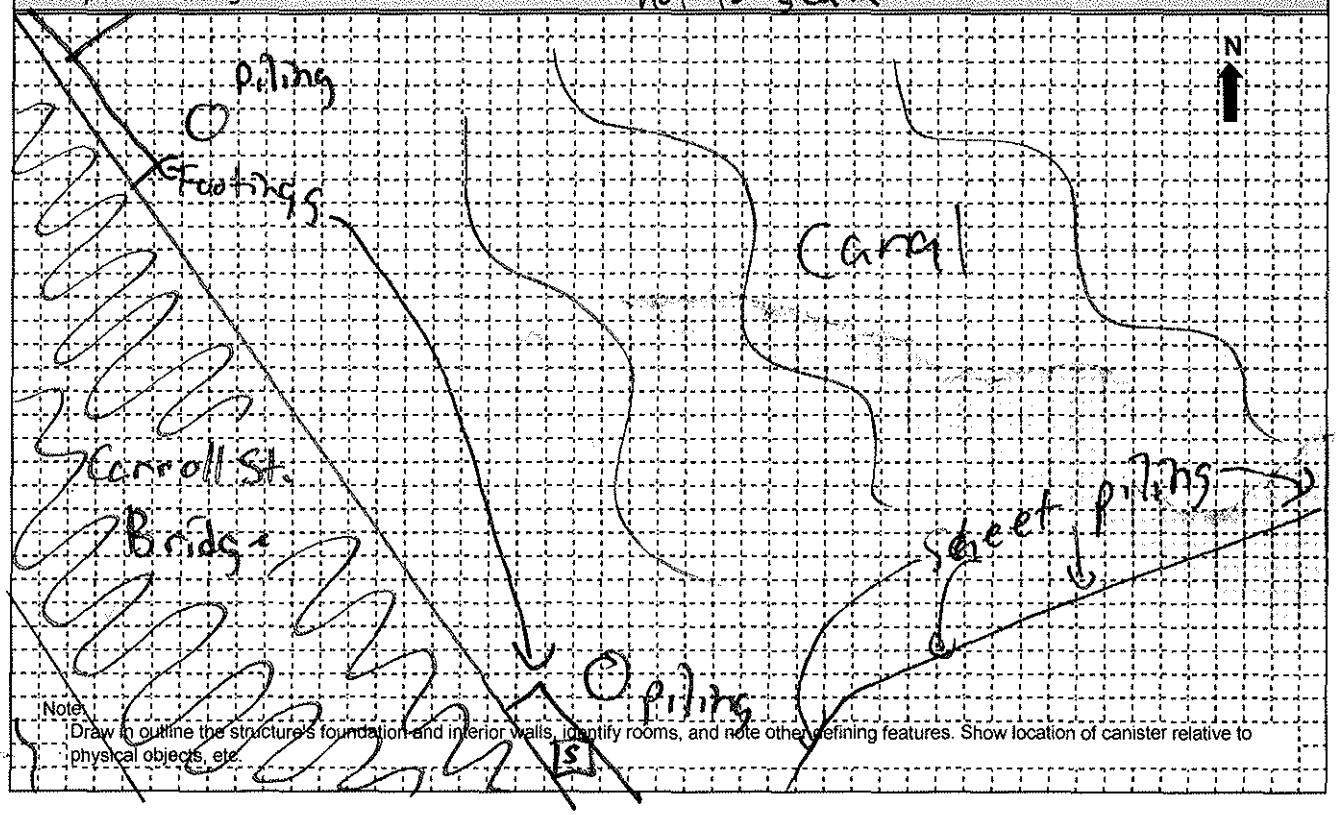
Date: 7/28 - 7/29

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
503 C	GC-AS503-C-2	3271	4490	30+	—	7/28/10 0925	7/29/10 1152	8	—
503 S	GC-AS503-S-2	2946	3954	30+	—	7/28/10 0925	7/29/10 1107	6	—

Sample Location Diagram

not to scale



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

S - sample location

(B2)

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal

Project #: 395813

By: MaHM Don H

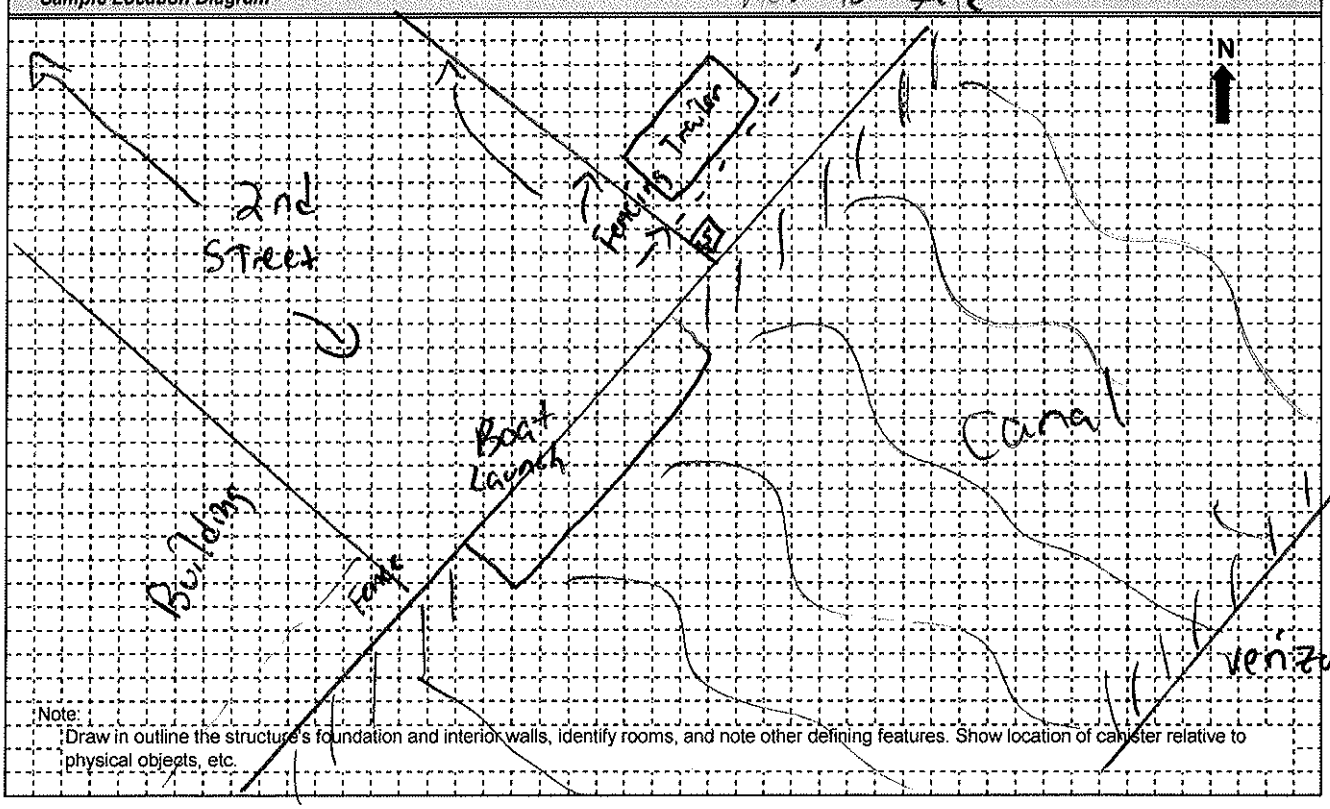
Date: 7/28 - 7/29

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Date & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
504-C	GC-AS504-C-2	2641	3766	0/30(+)	—	7/28 0950	7/29 1113	8	— NF
504-S	GC-AS504-S-2	3792	4938	0/30.0	—	7/28 0950	7/29 1113	6	—

Sample Location Diagram

not to scale



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

S - sample location

B

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal

Project #: 395863

By: JB JMG/KLD

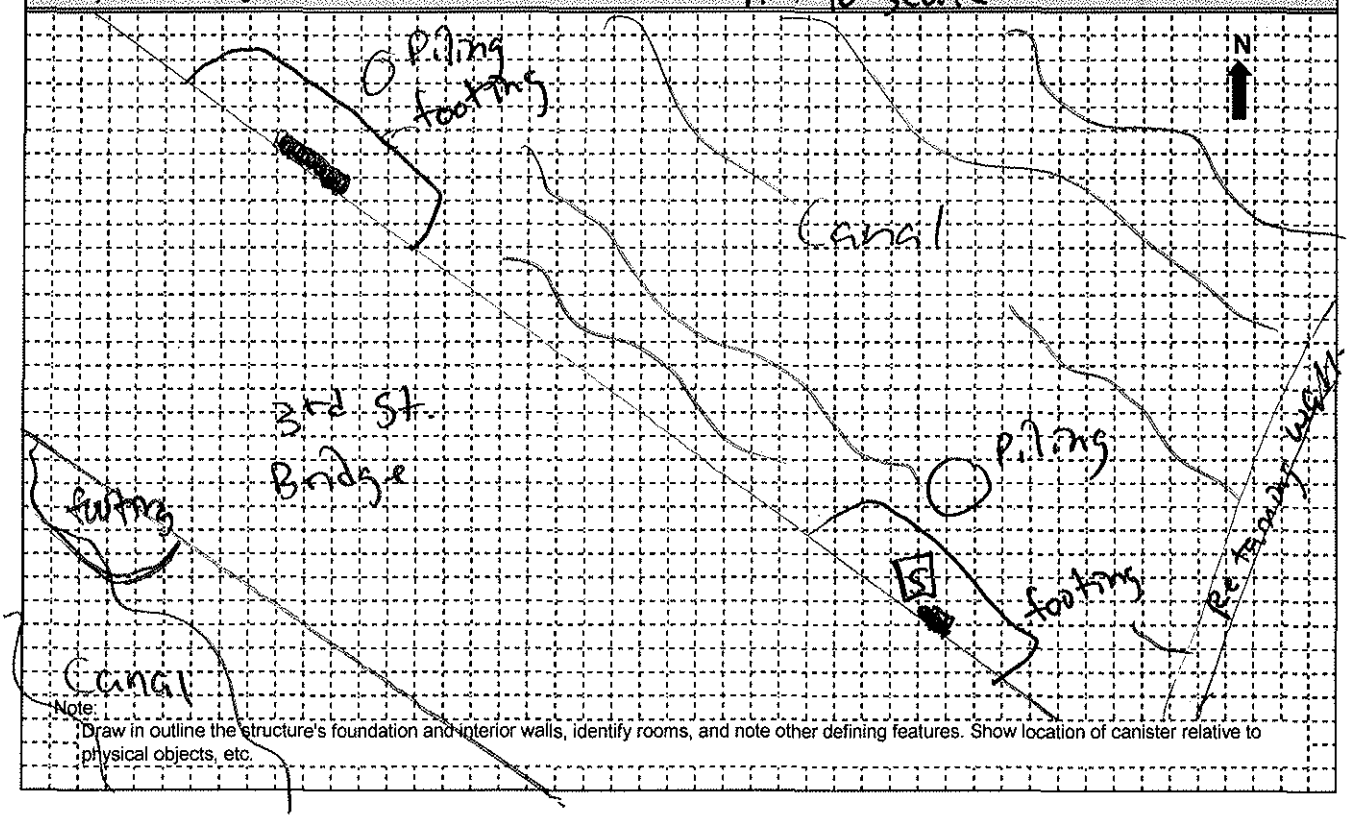
Date: 7/28/10 - 7/29/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
505C-Dup	D-07292010-3	3324	4931	0/30+	—	7/28/10 1033	7/29/10 1403	13	—
505S	GC-AS505-S-2	3085	2756	0/30	—	7/28/10 1033	7/29/10 1122	7	—
						7/28/10 - 7/29/10			
505-C ~~Dup~~	GC-AS505-C-2	3654	4054	0/29.5	—	7/28/10 1033	7/29/10 1403	5	—

Sample Location Diagram

not to scale



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

S - sampling location

JB

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal

Project #: 395863

By: ~~JAB~~ JMG/KUD

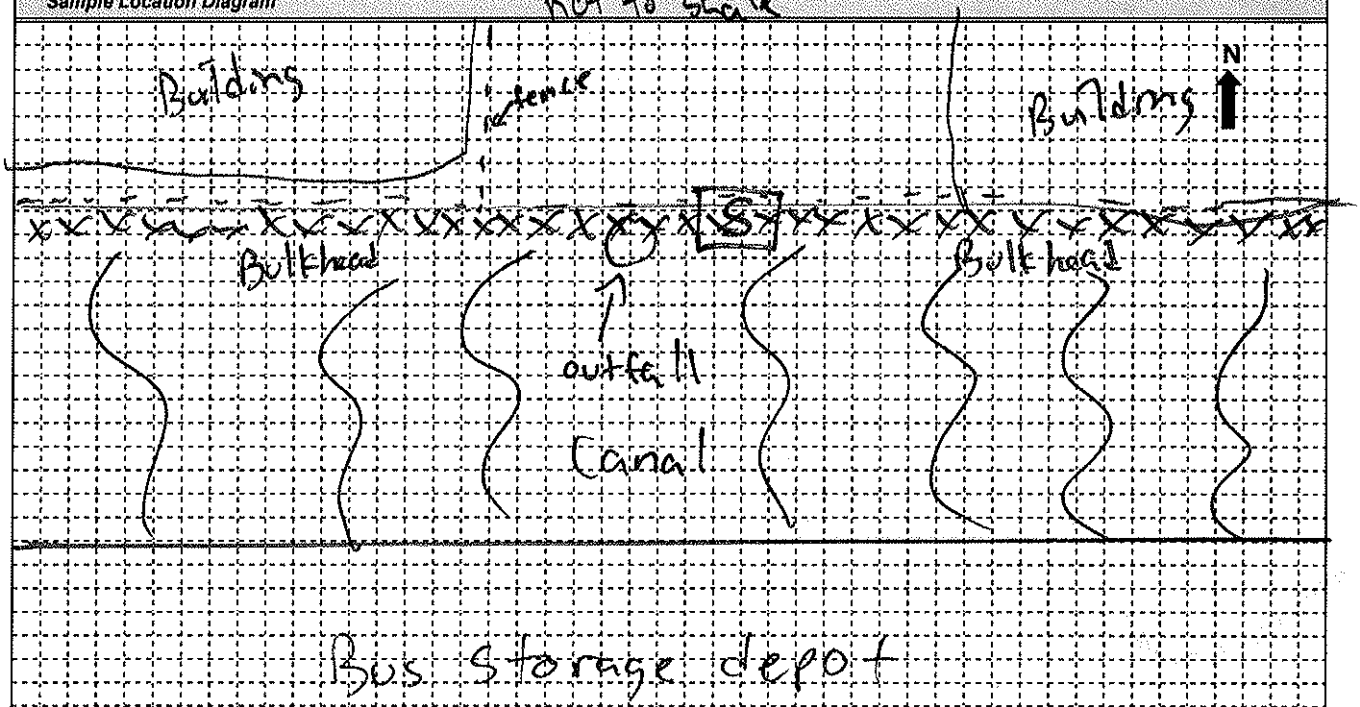
Date: 7/28/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
506 C	GC-AS506-C-2	3262	3739	+1/27.5		7/28/10 1123	7/29/10 1353	10 (just under)	
506 S	GC-AS506-S-2	3624	3989	-2/30		7/28/10 1123	7/29/10 1135	7	
						7/28/10	7/29/10		
506-S Dup	~~GC-T~~ D-07292010-AY	3531	3022	0/30		1123	7/29/10 1135	7	

No (+) Allu (+ no Allu in Y)

Sample Location Diagram



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

S - sample location

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

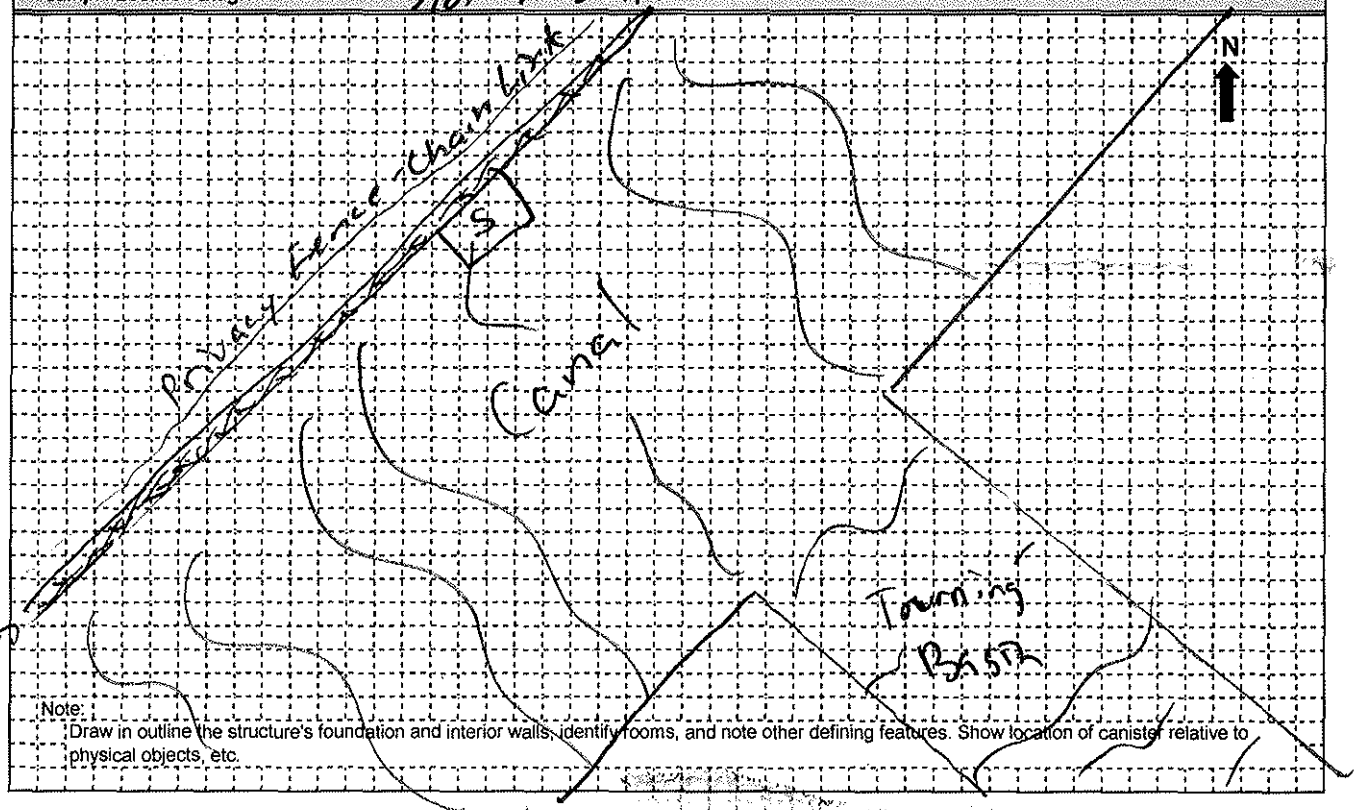
Project Name: Gowanus Canal — Project #: 395863

By: SB JMA/KD — Date: 7/28/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
507 S	GC-A5507-S-2	2602	3107	-2/30"	—	7/28/10 1001	7/29/10 1337	7	—
507 C	GC-A5507-C-2	3620	4750	-1/30"	—	7/10/28 1204	7/29/10 1337	9	—
					7/28/10-7/29/10				
507 Field Blank	FB-072910-01	4271	4731	0	—	7/28 1204	7/29 1338	0	—

Sample Location Diagram not to scale



Note: Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

[S] - sample location

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal

Project #: 395863

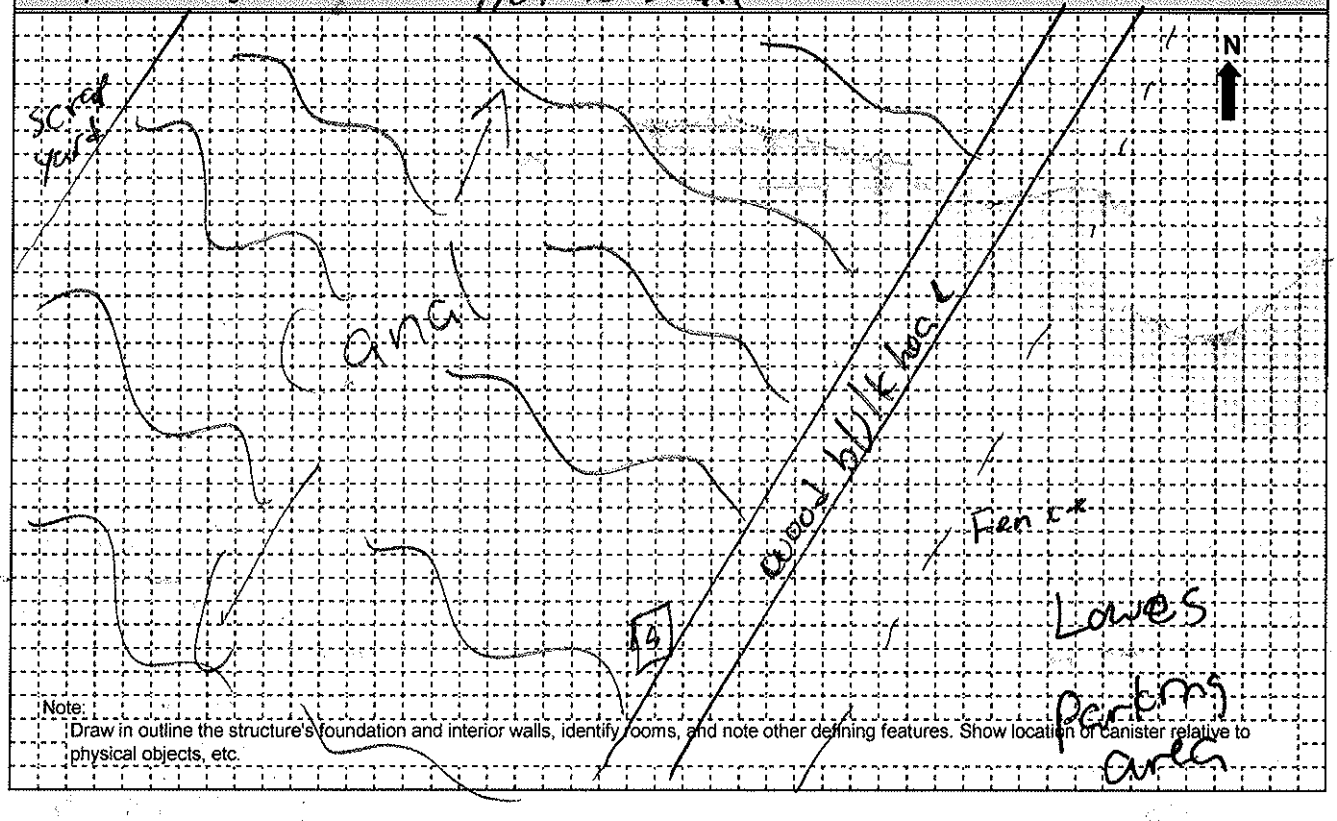
By: Matt M. Don H.

Date: 7/28 - 7/29

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
508-C	GC-AS508-C-3	2701	3747	30	—	7/28 1051	7/29 1250	8.0	—
508-S	GC-AS508-S-3	3550	4764	30	—	7/28 1051	7/29 1130	6.0	—

Sample Location Diagram



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

[S] - sample location

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister)

Project Information

Project Name: Gowanus Canal

Project #: 395863

By: Matt M. Donlt

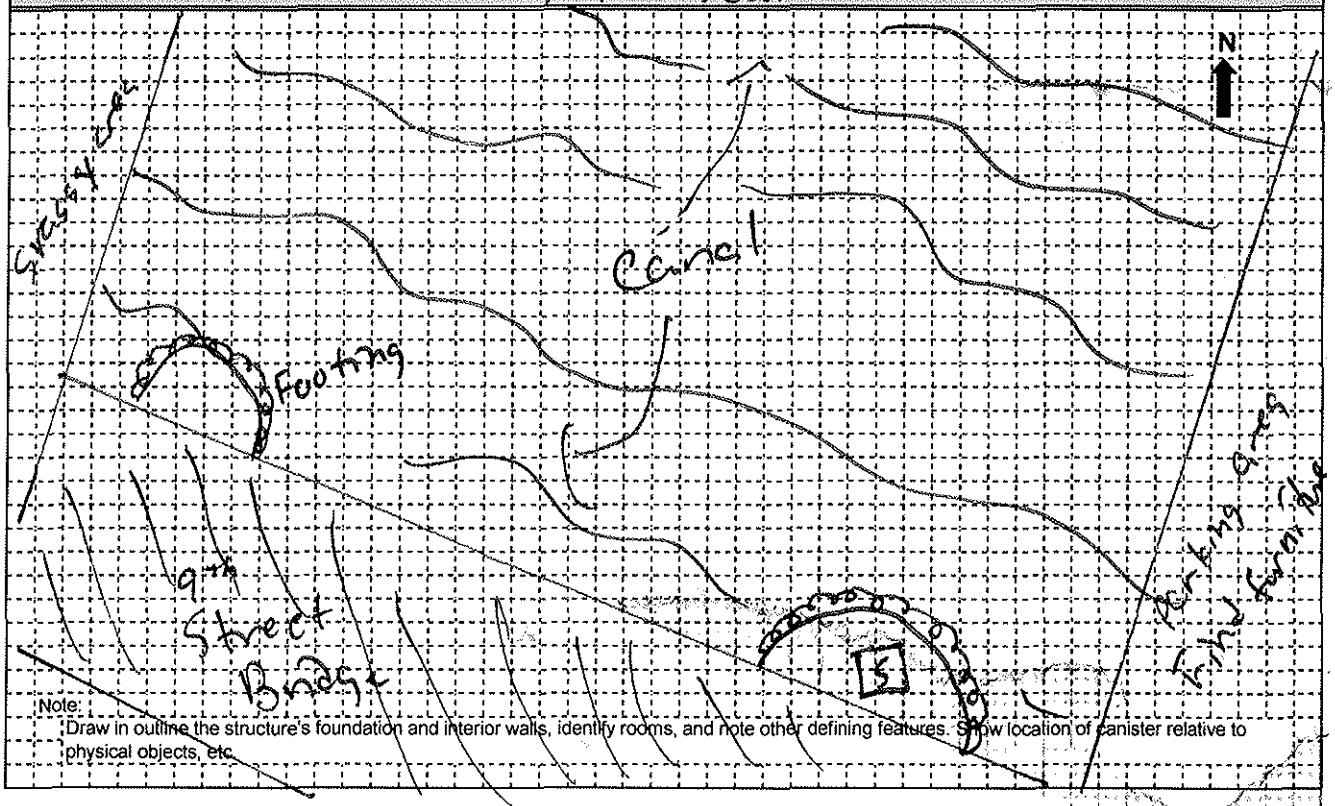
Date: 7/28-7/29

Sampling Data Log

Sample Location	Field ID (M3)	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)
509-C	GC-A5509-C-2	3317	3742	-2/30(+)	—	7/28/1124	7/29/1304	8.0	—
509-S	GC-A5509-S-2	3530	3767	0/30(+)	—	7/28/1124	7/29/1138	7.0	—
						7/28/10	-7/29/10		

Sample Location Diagram

Not to scale



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

5 - sample location

(B)

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Sheet 1 of 1

Ambient Air, Outdoor Air & Crawl Space Air Sampling Log (Summa Canister) (NF = No Filter)

Project Information

Project Name: Gowanus Canal

Project #: 395863

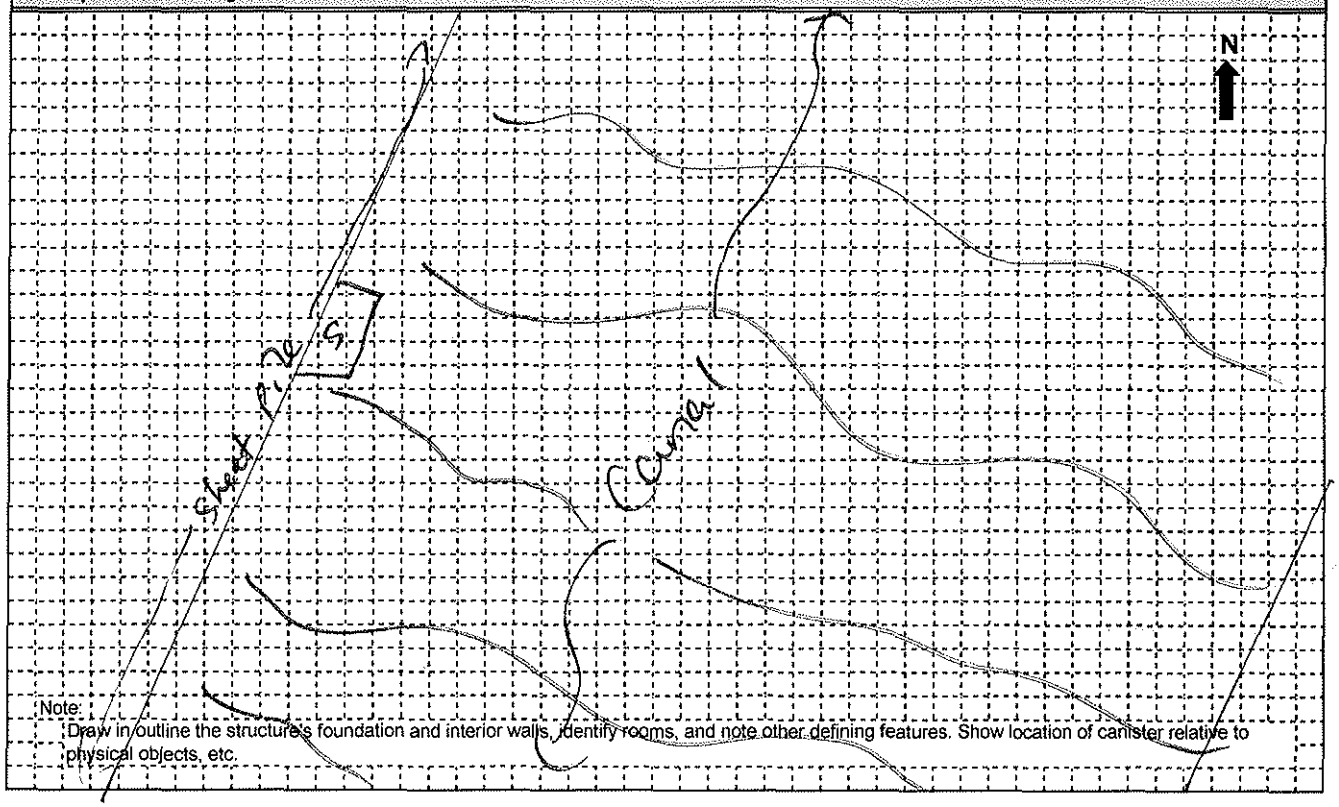
By: MatM. DanH

Date: 7/28/10 - 7/29/10

Sampling Data Log

Sample Location	Field ID	Canister ID	Flow Controller ID	Initial Canister Pressure ("Hg)	Initial Flow Controller Rate (ml/min)	Start Date & Time	End Data & Time	Final Pressure ("Hg)	Final Flow Controller Rate (ml/min)	
S10 - S	GC-AS510-S-2	3814	4045	-1/30(+)	—	7/28/1202	7/29/1215	8.0	—	
S10 - C	GC-AS510-C-2 (NM)	~~3576~~	2840	-1/30(+)	—	7/28/1202	7/29/1428	10.5	—	NF
		3569				7/28/10	7/29/10			

Sample Location Diagram



Note:
Draw in outline the structure's foundation and interior walls, identify rooms, and note other defining features. Show location of canister relative to physical objects, etc.

Other Observations and Comments (note any unique circumstances):

[5] - sampling location

Street level - 3138 (can #)
Canal level - 3391 (can #)

Low Flow Air Sampling Form

Field Technician: J. Balas, R. Clennon
Date: 7/28/10

Temp (C) Barometric Pressure

PAH Sampler #	LOCATION	SAMPLE	PUMP #	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Start	End	Start	End
					7/28/10	7/29/10	1019			~4.8				
(S) CHM072210-34	501	GC-AS 501-S / GC-AS 501-C	13541 (S)	SKC	1202	1202	NA	24hr	5.00	~~5.00~~	* See		excel	table
(C) CHM072210-49			13494 (C)	SKC	1202	1202	1443	24hr	4.99	4.84				
							Total Time:							
							Total Time:							
							Total Time:							
							Total Time:							
							Total Time:							

13

Low Flow Air Sampling Form

Field Technician: JMG / KLD
Date: 7/28/10 - 7/29/10

Tube #	LOCATION	SAMPLE	PUMP # (Pine S/N)	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Temp (C) Start	Temp (C) End	Barometric Pressure Start	Barometric Pressure End
CHM072210 - 42	503S		13793	SKCPCXR8	0927	0939	1454		5.0	5.5+				
CHM072210 - 45	503C		13433	SKCPCXR8	0927	0939	1454		*	5.5+				
							Total Time:							
- 30	502S		13806	same	0952	1011	1460		4.99	5.5+				
- 31	~~503C~~ (A) 502C		10387	same	0952	1011	1460		4.99	5.5+				
							Total Time:							
- 38	505S		12801	same	1035	1035	1442		4.99	5.5+				
- 39	505C		12819	same	1035	1035	1442		5.00	5.5+				
- 53	505C Dup		13865	same	1035	1035	1442		5.00	5.5+				
							Total Time:							
- 52	506S		13000	same	1125	1129	1445		5.00	5.2				
- 43	506C		12822	same	1125	1129	1445		5.01	5.2				
							Total Time:							
- 48	507S		13543	same	1206		1457		5.00	5.5+				
- 35	507C		07743	same	1206		97*		5.01	fluctuating				
							Total Time:							

* Flow-Start was not on Post-It see excel spread sheet

* Pump checked @ ~~[illegible]~~ on 7/29, not running, battery replaced @ 1048. Pump appeared to do nothing, but was running when picked up @ 1206.

Low Flow Air Sampling Form

Field Technician: Matt M. Don. H.
Date: 7/28/10

Temp (C) | Barometric Pressure

LOCATION	SAMPLE	PUMP #	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Start	End	Start	End
			PAH # 55 - (M3)								*See excel table		
504-S		10390	CHM07231O-55	0951	0952		1443	5.001		0648			
						Total Time:							
			PAH # 32 - (M3)										
504-C		08458	CHM07231O-32	0951	1300*	28 min	28	5.01		0645			
		07770	"	1323	0958		0857	5.00					
						Total Time:							
			PAH #										
504-SD		13418	CHM07231O-29	0951	0956		1157	5.00					
						Total Time:							
			PAH #										
508-S		08377	CHM07231O-56	1052	1124		1473	5.01					
						Total Time:							
			PAH #										
508-C		13355	CHM07231O-41	1052	1124		1473	5.0					
						Total Time:							

* See Back for Comment

Battery issue

Battery issue

1056 attempted to pull PAH pump but had to move due to traffic

(OB)

504C : When we checked 504C @ ~1300 we noticed that the 504C pump was running but it only showed 18 min run time (the other 2 in the cage were @ ~190 min)
I hit "Hold" button & it stopped, I hit "Start" & it ran for ~2 min before it stopped again (it was not showing Lo Batt or any problems ... possibly a "set-up configuration
Contacted CH2M & decided to replace pump
CH2M brought new pump (07770).
The Initial pump ran for 28 min before we switched it out

Low Flow Air Sampling Form

Field Technician: Matt M, Don H.
Date: 7/28/10

Temp (C) | Barometric Pressure

LOCATION	SAMPLE	PUMP #	PUMP TYPE	START TIME	END TIME	TOTALIZER READING	RUN TIME	FLOW START (Lpm)	FLOW END (Lpm)	Start	End	Start	End
			PAH B						X see excel table				
509-S		13547	CHM077310-54	1125	1140		1454	5.01		0633			
						Total Time:							
			PAH B										
509-C		03016	CHM077310-46	1125	1140		1454	5.0					
						Total Time:							
			PAH B										
510-C		13441	CHM077310-47	1202	1203		1441	4.99					
						Total Time:							
			PAH B										
510-S		13450	CHM077310-44	1202	1203		1441	4.99		0657			
						Total Time:							
						Total Time:							

(B)

Appendix D
Field Documentation

D-08 – Air Sampling Field Forms

USEPA Air Sampling Field Summary Tables

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Appendix D-8
VOC Sampling Summary - Round 1
Gowanus Canal Remedial Investigation
Brooklyn, NY

Sample Location	Canister ID	Flow Controller ID	Initial Pressure (PSI) [1]	Final Pressure (PSI)	Start Date	Start Time	End Date	End Time
GC-AS501-S-1	2907	2839	-28	-10	7/7/2010	1720	7/9/2010	914
GC-AS501-C-1	2798	4999	-20	-5	7/7/2010	1734	7/8/2010	1927
GC-AS502-S-1	2537	3938	-29.5	-4	7/7/2010	1512	7/8/2010	1731
GC-AS502-C-1	3090	3055	-29.5	-3.5	7/7/2010	1510	7/8/2010	1742
GC-AS503-S-1	3431	3130	-29.5	-4	7/7/2010	1540	7/8/2010	1804
GC-AS503-C-1	2754	4764	> -30	-4.5	7/7/2010	1540	7/8/2010	1841
GC-AS504-S-1	3927	3993	-29	-6.5	7/7/2010	1610	7/8/2010	1909
GC-AS504-C-1	2854	4768	-30	-5	7/7/2010	1610	7/8/2010	1811
GC-AS505-S-1	4434	4748	> -30	-8	7/7/2010	1706	7/8/2010	1935
GC-AS505-C-1	3533	3959	-29	-6	7/7/2010	1706	7/8/2010	1822
GC-AS506-S-1	4927	3954	> -30	-4	7/7/2010	1555	7/8/2010	1815
GC-AS506-C-1	2693	4747	> -30	-7	7/7/2010	1555	7/8/2010	1824
GC-AS507-S-1	3370	4520	> -30	-4.5	7/7/2010	1614	7/8/2010	1920
GC-AS507-C-1	2689	3934	-27	-4	7/7/2010	1614	7/8/2010	1647
GC-AS508-S-1	2745	3767	-30	-5	7/7/2010	1543	7/8/2010	1925
GC-AS508-C-1	2911	2962	-30	-5	7/7/2010	1543	7/8/2010	1452
GC-AS509-S-1	3766	3765	> -30	-4	7/7/2010	1522	7/8/2010	1907
GC-AS509-C-1	4275	5002	> -30	-5.5	7/7/2010	1521	7/8/2010	1907
GC-AS510-S-1	2847	NA	-30	-6	7/7/2010	1457	7/8/2010	1918
GC-AS510-C-1	4557	NA	> -30	-9.5	7/7/2010	1457	7/8/2010	1918
GC-AS511-S-1	6750	SN: 7279808	> -30	-6	7/7/2010	1430	7/8/2010	2151
GC-AS512-S-1	2708	2994	-30	-5	7/7/2010	1613	7/8/2010	1853
GC-AS513-S-1	2583	4046	-30	-6	7/7/2010	1950	7/8/2010	1241
D-07082010-01	3164	4537	> -30	-5.5	7/7/2010	1706	7/8/2010	1821
D-07082010-02	3351	3026	> -30	-7	7/7/2010	1555	7/8/2010	1823
FB-07082010-01	4142	3183	0	0	7/7/2010	1615	7/8/2010	1920

[1] - Initial pressure recorded immediately after opening air canister
PSI = Pounds per Square Inch

Appendix D-8
VOC Sampling Summary - Round 2
Gowanus Canal Remedial Investigation
Brooklyn, NY

Sample Location	Canister ID	Flow Controller ID	Initial Pressure (PSI) [1]	Final Pressure (PSI)	Start Date	Start Time	End Date	End Time
GC-AS501-S-2	3138	4031	-20	0	7/28/2010	1202	7/29/2010	1041
GC-AS501-C-2	3138	4031	> -30	-9	7/28/2010	1202	7/29/2010	1200
GC-AS502-S-2	2973	4037	> -30	-7	7/28/2010	951	7/29/2010	1146
GC-AS502-C-2	2634	3069	-28.5	-6	7/28/2010	951	7/29/2010	1058
GC-AS503-S-2	2946	3954	> -30	-6	7/28/2010	925	7/29/2010	1107
GC-AS503-C-2	3271	4490	> -30	-8	7/28/2010	925	7/29/2010	1152
GC-AS504-S-2	3792	4938	-30	-6	7/28/2010	950	7/29/2010	1113
GC-AS504-C-2	2641	3766	> -30	-8	7/28/2010	950	7/29/2010	1113
GC-AS505-S-2	3085	2756	-30	-7	7/28/2010	1033	7/29/2010	1122
GC-AS505-C-2	3654	4054	-29.5	-5	7/28/2010	1033	7/29/2010	1403
GC-AS506-S-2	3624	3989	-30	-7	7/28/2010	1123	7/29/2010	1135
GC-AS506-C-2	3262	3739	27.5	-10	7/28/2010	1123	7/29/2010	1353
GC-AS507-S-2	2602	3107	> -30	-7	7/28/2010	1204	7/29/2010	1337
GC-AS507-C-2	3620	4750	> -30	-9	7/28/2010	1204	7/29/2010	1337
GC-AS508-S-2	3550	4764	> -30	-6	7/28/2010	1051	7/29/2010	1132
GC-AS508-C-2	2701	3747	> -30	-8	7/28/2010	1051	7/29/2010	1256
GC-AS509-S-2	3530	3767	> -30	-7	7/28/2010	1124	7/29/2010	1138
GC-AS509-C-2	3317	3742	> -30	-8	7/28/2010	1124	7/29/2010	1304
GC-AS510-S-2	3014	4045	> -30	-8	7/28/2010	1202	7/29/2010	1215
GC-AS510-C-2	3569	2840	> -30	-10.5	7/28/2010	1202	7/29/2010	1420
D-07292010-01	3324	4931	> -30	-13	7/28/2010	1033	7/29/2010	1403
D-07082010-02	3531	3022	-30	-7	7/28/2010	1123	7/29/2010	1135
FB-07292010-01	4271	4731	0	0	7/28/2010	1204	7/29/2010	1338

Notes:

[1] - Initial pressure recorded immediately after opening air canister

PSI = Pounds per Square Inch

Appendix D-8
PAH Sampling Summary - Round 1
Gowanus Canal Remedial Investigation
Brooklyn, NY

Sample Location	Start Date	Start Time	End Date	End Time	Average Flow Rate (Liters per minute)	Total Length of Sampling Period (minutes)	Total Approximate Volume of Air Pumped through Tube (Liters)
GC-AS501-S-1	7/7/2010	1720	7/8/2010	1806	5.0007	1486	7431.0
GC-AS501-C-1	7/7/2010	1734	7/8/2010	1806	4.9972	1472	7355.9
GC-AS502-S-1	7/7/2010	1510	7/8/2010	1511	4.996	1441	7199.2
GC-AS502-C-1	7/7/2010	1509	7/8/2010	1511	5.0012	1442	7211.7
GC-AS503-S-1	7/7/2010	1538	7/8/2010	1538	4.992	1440	7188.5
GC-AS503-C-1	7/7/2010	1539	7/8/2010	1539	5.0048	1440	7206.9
GC-AS504-S-1	7/7/2010	1608	7/8/2010	1622	5.0007	1454	7271.0
GC-AS504-C-1	7/7/2010	1608	7/8/2010	1622	5.0026	1454	7273.8
GC-AS505-S-1	7/7/2010	1658	7/8/2010	1705	5.001	1447	7236.4
GC-AS505-C-1	7/7/2010	1658	7/8/2010	1703	5.016	1445	7248.1
GC-AS506-S-1	7/7/2010	1601	7/8/2010	1601	5.001	1440	7201.4
GC-AS506-C-1	7/7/2010	1602	7/8/2010	1601	5.0013	1439	7196.9
GC-AS507-S-1	7/7/2010	1622	7/8/2010	1624	4.9946	1442	7202.2
GC-AS507-C-1	7/7/2010	1622	7/8/2010	1624	5.006	1442	7218.7
GC-AS508-S-1	7/7/2010	1544	7/8/2010	1600	5.0013	1456	7281.9
GC-AS508-C-1	7/7/2010	1544	7/8/2010	1602	4.9992	1458	7288.8
GC-AS509-S-1	7/7/2010	1530	7/8/2010	1548	4.9951	1458	7282.9
GC-AS509-C-1	7/7/2010	1531	7/8/2010	1550	5.0033	1459	7299.8
GC-AS510-S-1	7/7/2010	1513	7/8/2010	1435	5.001	1402	7011.4
GC-AS510-C-1	7/7/2010	1513	7/8/2010	1538	4.996	1465	7319.1
GC-AS511-S-1	7/7/2010	1430	7/8/2010	1547	5.006	1517	7594.1
GC-AS512-S-1	7/7/2010	1613	7/8/2010	1558	5.0007	1425	7126.0
GC-AS513-S-1	7/7/2010	1950	7/8/2010	1517	5.0089	1233	6176.0
D-07082010-01	7/7/2010	1608	7/8/2010	1622	5.000	1454	7270.0
D-07082010-02	7/7/2010	1658	7/8/2010	1123	5.000	1059	5295.0
FB-07082010-01	7/7/2010	1630	7/8/2010	1630	0	1440	0.0

Appendix D-8
PAH Sampling Summary - Round 1
Gowanus Canal Remedial Investigation
Brooklyn, NY

Sample Location	Test America ID	Temp Start (F)	Barometric Pressure Start (Inches)	Temp End (F)	Barometric Pressure End (Inches)	Comments
GC-AS501-S-1	CHM070610-21	89	29.953	83	29.969	
GC-AS501-C-1	CHM070610-6	89	29.953	83	29.969	
GC-AS502-S-1	CHM070610-14	92	29.956	87	29.988	
GC-AS502-C-1	CHM070610-1	92	29.956	87	29.988	
GC-AS503-S-1	CHM070610-22	92	29.956	86	29.989	
GC-AS503-C-1	CHM070610-2	92	29.956	86	29.989	
GC-AS504-S-1	CHM070610-20	90	29.955	84	29.986	
GC-AS504-C-1	CHM070610-11	90	29.955	84	29.986	
GC-AS505-S-1	CHM070610-18	89	29.954	83	29.974	
GC-AS505-C-1	CHM070610-12	89	29.954	83	29.974	
GC-AS506-S-1	CHM070610-13	91	29.955	85	29.986	
GC-AS506-C-1	CHM070610-24	91	29.955	85	29.986	
GC-AS507-S-1	-	90	29.955	84	29.986	
GC-AS507-C-1	CHM070610-28	90	29.955	84	29.986	
GC-AS508-S-1	CHM070610-23	93	29.956	85	29.986	
GC-AS508-C-1	CHM070610-7	93	29.956	85	29.986	
GC-AS509-S-1	CHM070610-17	92	29.956	86	29.989	
GC-AS509-C-1	-	92	29.956	86	29.989	
GC-AS510-S-1	CHM070610-27	92	29.956	86	29.987	
GC-AS510-C-1	CHM070610-19	92	29.956	86	29.989	
GC-AS511-S-1	-	97	29.953	86	29.989	
GC-AS512-S-1	CHM070610-4	90.5	29.955	85	29.986	
GC-AS513-S-1	CHM070610-10	85	29.955	87	29.988	*pump stopped sometime between 1517 and 1930. End time noted as 1517 which was the last known time when the pump was running.
D-07082010-01	-	90.5	29.855	84	29.986	
D-07082010-02	-	89	29.954	84	29.986	*total time pump ran = 18.45 hours
FB-07082010-01	-	88.3	29.952	84	29.986	

Appendix D-8
PAH Sampling Summary - Round 2
Gowanus Canal Remedial Investigation
Brooklyn, NY

Sample Location	Start Date	Start Time	End Date	End Time	Average Flow Rate (Liters per minute)	Total Length of Sampling Period (minutes)	Total Approximate Volume of Air Pumped through Tube (Liters)
GC-AS501-S-2	7/28/2010	12:02	7/29/2010	12:02	4.90	1440	7056.0
GC-AS501-C-2	7/28/2010	12:02	7/29/2010	12:02	4.92	1440	7077.6
GC-AS502-S-2	7/28/2010	9:52	7/29/2010	9:39	4.87	1454	7081.0
GC-AS502-C-2	7/28/2010	9:52	7/29/2010	9:39	4.86	1454	7059.2
GC-AS503-S-2	7/28/2010	9:27	7/29/2010	9:39	4.86	1454	7059.2
GC-AS503-C-2	7/28/2010	9:27	7/29/2010	9:39	4.85	1454	7044.6
GC-AS504-S-2	7/28/2010	9:51	7/29/2010	9:52	4.81	1454	6986.5
GC-AS504-C-2	7/28/2010	9:51	7/29/2010	9:52	4.90	885	4336.5
GC-AS505-S-2	7/28/2010	10:35	7/29/2010	10:35	4.90	1442	7058.6
GC-AS505-C-2	7/28/2010	10:35	7/29/2010	10:35	4.91	1442	7080.2
GC-AS506-S-2	7/28/2010	11:25	7/29/2010	11:29	4.90	1445	7080.5
GC-AS506-C-2	7/28/2010	11:25	7/29/2010	11:29	4.87	1445	7037.2
GC-AS507-S-2	7/28/2010	12:06	7/29/2010	12:21	4.93	1457	7175.7
GC-AS507-C-2	7/28/2010	12:06	7/29/2010	12:06	5.01	97 ?	NA
GC-AS508-S-2	7/28/2010	10:52	7/29/2010	11:24	4.86	1472	7146.6
GC-AS508-C-2	7/28/2010	10:52	7/29/2010	11:24	4.83	1472	7102.4
GC-AS509-S-2	7/28/2010	11:25	7/29/2010	11:40	4.89	1455	7107.7
GC-AS509-C-2	7/28/2010	11:25	7/29/2010	11:40	4.86	1455	7064.0
GC-AS510-S-1	7/28/2010	12:02	7/29/2010	12:03	4.89	1441	7046.5
GC-AS510-C-1	7/28/2010	12:02	7/29/2010	12:03	4.86	1441	7003.3
D-07292010-01	7/28/2010	10:35	7/29/2010	10:35	4.87	1442	7022.5
D-07292010-02	7/28/2010	9:51	7/29/2010	9:56	4.88	1157	5646.2
FB-07292010-01	7/28/2010	12:00	7/29/2010	12:00	NA	1440	NA

Appendix D-8
PAH Sampling Summary - Round 2
Gowanus Canal Remedial Investigation
Brooklyn, NY

Sample Location	Test America ID	Temp Start (F)	Barometric Pressure Start (Inches)	Temp End (F)	Barometric Pressure End (Inches)	Comments
GC-AS501-S-2	CHM072210-34	87	29.971	85	29.811	
GC-AS501-C-2	CHM072210-49	87	29.971	85	29.811	*pump display screen malfunctioning
GC-AS502-S-2	CHM072210-30	84	29.984	78	29.817	
GC-AS502-C-2	CHM072210-31	84	29.984	78	29.817	
GC-AS503-S-2	CHM072210-42	82	29.987	78	29.82	
GC-AS503-C-2	CHM072210-45	82	29.987	78	29.82	
GC-AS504-S-2	CHM072210-55	84	29.984	78	29.82	
GC-AS504-C-2	CHM072210-32	84	29.984	78	29.82	battery issue
GC-AS505-S-2	CHM072210-38	86	29.973	83	29.878	
GC-AS505-C-2	CHM072210-39	86	29.973	83	29.878	
GC-AS506-S-2	CHM072210-52	85	29.973	83	29.816	
GC-AS506-C-2	CHM072210-43	85	29.973	83	29.816	
GC-AS507-S-2	CHM072210-48	87	29.971	86	29.807	
GC-AS507-C-2	CHM072210-35	87	29.971	85	29.811	Pump appeared to running sporadically. Run time unknown.
GC-AS508-S-2	CHM072210-56	85	29.975	83	29.816	Attempted to pull PAH pump earlier but had to move boat due to boat traffic
GC-AS508-C-2	CHM072210-41	85	29.975	83	29.816	
GC-AS509-S-2	CHM072210-54	85	29.973	85	29.811	
GC-AS509-C-2	CHM072210-46	85	29.973	85	29.811	
GC-AS510-S-1	CHM072210-44	87	29.971	85	29.811	
GC-AS510-C-1	CHM072210-47	87	29.971	85	29.811	
D-07292010-01	CHM072210-53	86	29.973	83	29.817	
D-07292010-02	CHM072210-29	84	29.984	78	29.818	
FB-07292010-01	CHM072210-	87	29.971	NA	NA	

Appendix D-8
PCB Sampling Summary - Round 1
Gowanus Canal Remedial Investigation
Brooklyn, NY

Sample Location	Start Date	Start Time	End Date	End Time	Flow Rate (Liters per minute)	Total Length of Sampling Period (min)	Total Volume of Air Pumped through Tube (Liters)
GC-AS506-S-1	7/7/2010	1935	7/8/2010	1935	250	1440	360000
D-07082010-03	7/7/2010	1935	7/8/2010	1938	250	1443	360750
FB-07082010-02	7/7/2010	1930	7/8/2010	1930	0	1443	0

Sample Location	Temp Start (F)	Barometric Pressure Start (Inches)	Temp End (F)	Barometric Pressure End (Inches)	Comments
GC-AS506-S-1	85	29.955	79	29.969	
D-07082010-03	85	29.955	79	29.969	
FB-07082010-02	85	29.955	79	29.969	

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Appendix D
Field Documentation

D-09 – Monthly Water Level Measurement Summaries

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Appendix D-9
Monthly Water Level Measurement Summary - July 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

July 26, 2010
Tide: High @ 9:03am

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-1S	7/26/2010	NR	9.57	8.89	<1	8.76	NP	17.0	NP	0.13	
MW-1I	7/26/2010	NR	9.59	9.42	3.2	6.84	NP	39.8	NP	2.58	
MW-2S	7/26/2010	NR	5.49	5.02	<1	3.07	NP	12.9	NP	1.95	
MW-2I	7/26/2010	NR	5.57	5.28	<1	2.76	NP	34.6	NP	2.52	
MW-3S	7/26/2010	9:15	7.03	6.62	0.7	4.58	NP	15.0	NP	2.04	
MW-3I	7/26/2010	9:15	7.03	6.62	1.0	4.20	NP	43.0	NP	2.42	
MW-4S	7/26/2010	9:26	8.90	8.62	0.0	5.46	NP	13.0	NP	3.16	
MW-4I	7/26/2010	9:29	8.90	8.56	1.0	5.87	NP	39.0	NP	2.69	
MW-5S	7/26/2010	10:00	6.30	5.84	19.7	3.42	NP	13.0	NP	2.42	
MW-5I	7/26/2010	10:08	6.30	5.86	4.4	3.27	NP	35.0	NP	2.59	
MW-6S	7/26/2010	10:01	7.43	7.18	69.2	3.36	NP	13.0	NP	3.82	
MW-6I	7/26/2010	10:03	7.43	7.21	0.8	4.74	NP	35.0	NP	2.47	
MW-7S	7/26/2010	9:35	7.09	6.44	0.4	4.61	NP	13.0	NP	1.83	
MW-7I	7/26/2010	9:37	7.09	6.39	44.5	3.91	31.20	35.0	3.80	2.48	NAPL measurement is approximate
MW-8S	7/26/2010	9:38	7.51	7.13	39.1	3.38	NP	13.0	NP	3.75	
MW-8I	7/26/2010	9:40	7.51	7.17	13.3	4.35	NP	39.0	NP	2.82	
MW-9S	7/26/2010	NR	10.47	10.21	2.8	8.85	NP	14.9	NP	1.36	
MW-9I	7/26/2010	NR	10.32	9.76	<1	7.32	NP	39.2	NP	2.44	
MW-10S	7/26/2010	NR	13.63	13.31	<1	10.10	NP	15.0	NP	3.21	
MW-10I	7/26/2010	NR	13.74	13.46	<1	10.98	NP	45.0	NP	2.48	
MW-11S	7/26/2010	9:07	9.99	9.75	0.0	7.72	NP	14.0	NP	2.03	
MW-11I	7/26/2010	9:09	9.99	9.75	0.0	7.25	NP	45.0	NP	2.50	
MW-12S	7/26/2010	9:01	12.29	11.84	359.0	9.35	NP	14.0	NP	2.49	Petro like odor
MW-12I	7/26/2010	9:00	12.29	11.75	10.4	9.21	NP	45.0	NP	2.54	
MW-13S	7/26/2010	9:23	6.43	5.85	8.3	4.06	NP	13.0	NP	1.79	
MW-13I	7/26/2010	9:26	6.43	5.82	1.3	4.51	NP	56.0	NP	1.31	Silty bottom; grayish brown sandy silt on bottom of probe, tar-like odor
MW-14S	7/26/2010	9:17	7.19	7.04	0.0	4.37	NP	13.0	NP	2.67	
MW-14I	7/26/2010	9:20	7.19	7.05	1.3	4.65	NP	56.0	NP	2.40	
MW-15S	7/26/2010	9:09	7.85	7.46	2.0	6.57	NP	13.0	NP	0.89	
MW-15I	7/26/2010	9:07	7.85	7.49	0.6	5.35	NP	60.0	NP	2.14	
MW-16S	7/26/2010	9:02	7.31	6.72	0.0	4.21	NP	13.0	NP	2.51	
MW-16I	7/26/2010	9:00	7.31	6.77	0.0	4.48	NP	59.0	NP	2.29	
MW-17S	7/26/2010	NR	10.41	9.89	<1	7.39	NP	15.0	NP	2.50	
MW-17I	7/26/2010	NR	10.32	9.94	<1	7.52	NP	44.4	NP	2.42	
MW-18S	7/26/2010	NR	11.35	10.89	<1	5.75	NP	14.6	NP	5.14	
MW-18I	7/26/2010	NR	11.08	10.52	<1	8.26	NP	56.7	NP	2.26	
MW-19S	7/26/2010	NR	12.08	11.44	<1	4.80	NP	15.0	NP	6.64	
MW-19I	7/26/2010	NR	12.14	11.69	<1	9.28	NP	59.1	NP	2.41	
MW-20S	7/26/2010	9:14	6.40	6.00	0.8	4.44	NP	13.0	NP	1.56	
MW-20I	7/26/2010	9:17	6.40	6.06	1.7	3.38	NP	39.0	NP	2.68	
MW-21S	7/26/2010	9:06	6.54	6.22	0.3	3.33	NP	13.0	NP	2.89	
MW-21I	7/26/2010	9:08	6.54	6.31	0.2	3.65	NP	38.0	NP	2.66	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-23S	7/26/2010	9:10	12.08	11.83	0.0	4.78	NP	13.0	NP	7.05	
MW-23I	7/26/2010	9:13	12.03	11.57	9.4	4.41	NP	39.0	NP	7.16	
MW-24S	7/26/2010	NR	8.99	8.71	NR	NR	NR	15.5	NR	NR	
MW-24I	7/26/2010	NR	8.99	8.71	NR	NR	NR	40.0	NR	NR	
MW-25S	7/26/2010	NR	22.74	22.25	NR	NR	NP	24.0	NP	NR	
MW-25I	7/26/2010	9:05	22.74	22.25	2.7	19.64	NP	43.0	NP	2.61	
MW-26S	7/26/2010	9:12	21.71	21.44	6.7	19.04	NP	24.0	NP	2.40	
MW-26I	7/26/2010	9:10	21.71	21.44	2.6	18.85	NP	39.0	NP	2.59	
MW-27S	7/26/2010	9:17	17.80	17.41	85.5	15.60	NP	23.0	NP	1.81	
MW-27I	7/26/2010	9:19	17.80	17.41	42.3	14.86	NP	40.0	NP	2.55	
MW-28S	7/26/2010	9:04	8.26	7.80	1.1	7.21	NP	13.0	NP	0.59	
MW-28I	7/26/2010	9:05	8.26	7.75	0.4	5.34	NP	37.0	NP	2.41	
MW-29S	7/26/2010	9:08	9.14	8.82	3.5	7.45	NP	13.0	NP	1.37	
MW-29I	7/26/2010	9:10	9.14	8.86	5.8	6.57	NP	37.0	NP	2.29	
MW-30S	7/26/2010	9:20	11.56	11.37	13.1	6.41	NP	19.0	NP	4.96	
MW-30I	7/26/2010	9:15	11.67	11.43	41.2	6.30	NP	37.0	NP	5.13	
MW-31S	7/26/2010	8:56	10.71	10.31	0.1	5.95	NP	15.0	NP	4.36	
MW-31I	7/26/2010	8:58	10.44	10.19	0.5	4.75	NP	35.0	NP	5.44	
MW-32S	7/26/2010	9:16	21.42	21.04	307.0	12.42	NP	22.0	NP	8.62	
MW-32I	7/26/2010	9:07	21.50	21.25	120.0	15.31	NP	46.0	NP	5.94	
MW-33S	7/26/2010	9:42	7.82	7.31	0.1	4.35	NP	13.0	NP	2.96	
MW-33I	7/26/2010	9:39	7.82	7.24	1.9	4.75	NP	39.0	NP	2.49	Fuel-like odor
MW-34S	7/26/2010	10:10	5.46	4.99	3.7	3.20	NP	13.0	NP	1.79	
MW-34I	7/26/2010	10:07	5.46	5.00	1.8	2.58	NP	34.0	NP	2.42	
MW-35S	7/26/2010	9:00	8.11	7.68	11.0	5.32	NP	13.0	NP	2.36	
MW-35I	7/26/2010	9:02	8.11	7.54	1.0	5.39	NP	33.0	NP	2.15	
MW-36S	7/26/2010	8:30	5.64	5.31	79.0	3.81	NP	13.0	NP	1.50	Slight odor
MW-36I	7/26/2010	8:52	5.64	5.24	1.9	2.61	NP	38.0	NP	2.63	
MW-37S	7/26/2010	9:21	12.43	12.05	0.7	10.55	NP	20.0	NP	1.50	
MW-37I	7/26/2010	9:19	12.43	11.99	0.3	9.01	NP	42.0	NP	2.98	
MW-38S	7/26/2010	10:29	11.68	11.33	0.2	9.84	NP	13.0	NP	1.49	
MW-38I	7/26/2010	10:30	11.68	11.32	0.7	8.17	NP	39.0	NP	3.15	
MW-39S	7/26/2010	9:05	18.38	18.14	22.1	13.37	NP	21.0	NP	4.77	
MW-39I	7/26/2010	9:10	18.38	18.16	4.5	15.16	NP	40.0	NP	3.00	
MW-40S	7/26/2010	9:34	12.30	11.74	168.0	10.45	3.52	13.5	6.93	1.29 [2]	LNAPL Present
MW-40I	7/26/2010	9:12	12.42	11.50	1.2	5.25	NP	58.0	NP	6.25	
MW-41S	7/26/2010	9:03	11.94	11.26	1.3	2.99	NP	13.5	NP	8.27	
MW-41I	7/26/2010	9:00	11.92	11.46	1.4	5.21	NP	58.0	NP	6.25	
MW-42S	7/26/2010	9:00	7.03	6.81	0.0	4.98	NP	13.0	NP	1.83	
MW-42I	7/26/2010	9:01	7.03	6.82	0.1	4.03	NP	38.0	NP	2.79	
MW-43S	7/26/2010	8:43	5.61	5.39	7.0	3.65	NP	13.0	NP	1.74	
MW-43I	7/26/2010	8:45	5.61	5.40	3.0	2.82	NP	37.5	NP	2.58	Fuel-like odor

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-44S	7/26/2010	9:03	5.23	4.72	0.2	3.39	NP	13.0	NP	1.33	
MW-44I	7/26/2010	9:01	5.23	4.73	0.3	2.19	NP	45.0	NP	2.54	
MW-45S	7/26/2010	9:07	4.94	4.49	5.8	3.30	NP	14.0	NP	1.19	
MW-45I	7/26/2010	9:09	4.94	4.50	76.0	1.87	NP	41.0	NP	2.63	
MW-46I [1]	7/26/2010	9:04	5.15	4.76	1.4	2.12	NP	57.0	NP	2.64	
MW-47S	7/26/2010	9:13	5.46	4.53	16.0	3.91	NP	28.0	NP	0.62	
MW-47I	7/26/2010	9:14	5.46	4.62	8.0	2.07	NP	44.0	NP	2.55	

Notes:

MW-28I - Installed by USEPA

MW-30I - Installed by National Grid

MW-18I - Installed by NYC

Original Staff Gauge ID	Standardized EPA Staff Gauge ID
Stream Gauge - Gowanus Pump Station	SGMW-2
Stream Gauge - Former Power Station	SGMW-9
Stream Gauge - DOT	SGMW-18
Canal-Gate Station	SGMW-23
Canal-Degraw St	SGMW-31
Canal-Union St	SG-Union
Canal-Mazzei	SGMW-32

[1] - Montitoring well MW-46I was originally mislabled as MW-46D. This well is screened in the intermediate zone and is identified in the report as MW-26I.

[2] - MW-40S – Elevation not compensated for LNAPL thickness

NAPL observed in monitoring well

NP - No Product

NA - Not applicable

NR - Not recorded

All interface probes were calibrated to within 0.1 inch on 07/26/10

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Appendix D-9
Monthly Water Level Measurement Summary - August 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

August 23, 2010
Tide: Low @ 14:07pm

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation (NVGD88)	Top of Inner Casing Elevation (NVGD88)	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC (NVGD88)	Comments, Product Description (if applicable)
MW-1S	8/23/2010	NR	9.57	8.89	<1	7.91	NP	17.0	NP	0.98	
MW-1I	8/23/2010	NR	9.59	9.42	<1	6.72	NP	39.8	NP	2.70	
MW-2S	8/23/2010	NR	5.49	5.02	<1	2.29	NP	12.9	NP	2.73	
MW-2I	8/23/2010	NR	5.57	5.28	<1	2.68	NP	34.6	NP	2.60	
MW-3S	8/23/2010	14:22	7.03	6.62	0.0	7.27	NP	15.0	NP	-0.65	
MW-3I	8/23/2010	14:26	7.03	6.62	0.0	4.37	NP	43.0	NP	2.25	
MW-4S	8/23/2010	14:04	8.90	8.62	0.0	5.62	NP	13.0	NP	3.00	
MW-4I	8/23/2010	14:08	8.90	8.56	0.0	5.82	NP	39.0	NP	2.74	
MW-5S	8/23/2010	14:02	6.30	5.84	8.5	3.27	NP	13.0	NP	2.57	Slight unknown odor
MW-5I	8/23/2010	14:06	6.30	5.86	0.0	3.44	NP	35.0	NP	2.42	
MW-6S	8/23/2010	14:12	7.43	7.18	83.0	2.66	NP	13.0	NP	4.52	Petro like odor
MW-6I	8/23/2010	14:18	7.43	7.21	0.9	4.77	NP	35.0	NP	2.44	
MW-7S	8/23/2010	15:02	7.09	6.44	0.0	7.23	NP	13.0	NP	-0.79	
MW-7I	8/23/2010	15:06	7.09	6.39	46.0	3.40	Unknown	35.0	Unknown	2.99	DNAPL present in well, unable to measure thickness
MW-8S	8/23/2010	15:17	7.51	7.13	12.7	2.05	NP	13.0	NA	5.08	strong unknown odor
MW-8I	8/23/2010	15:13	7.51	7.17	0.4	4.63	NP	39.0	NA	2.54	
MW-9S	8/23/2010	NR	10.47	10.21	<1	8.36	NP	14.9	NP	1.85	
MW-9I	8/23/2010	NR	10.32	9.76	<1	7.37	NP	39.2	NP	2.39	
MW-10S	8/23/2010	NR	13.63	13.31	<1	14.00	NP	15.0	NP	-0.69	
MW-10I	8/23/2010	NR	13.74	13.46	<1	10.94	NP	45.0	NP	2.52	
MW-11S	8/23/2010	14:03	9.99	9.75	7.6	7.40	NP	14.0	NP	2.35	
MW-11I	8/23/2010	14:06	9.99	9.75	31.3	7.32	NP	45.0	NP	2.43	odor on probe
MW-12S	8/23/2010	14:14	12.29	11.84	1,039	9.37	NP	14.0	NP	2.47	
MW-12I	8/23/2010	14:17	12.29	11.75	38.0	9.29	NP	45.0	NP	2.46	odor on probe
MW-13S	8/23/2010	14:30	6.43	5.85	45.9	3.75	NP	13.0	NP	2.10	
MW-13I	8/23/2010	14:33	6.43	5.82	32.7	4.31	NP	56.0	NP	1.51	
MW-14S	8/23/2010	14:20	7.19	7.04	12.0	4.21	NP	13.0	NP	2.83	
MW-14I	8/23/2010	14:23	7.19	7.05	2.1	5.16	NP	56.0	NP	1.89	
MW-15S	8/23/2010	14:12	7.85	7.46	0.0	5.54	NP	13.0	NP	1.92	
MW-15I	8/23/2010	14:10	7.85	7.49	1.1	6.95	NP	60.0	NP	0.54	
MW-16S	8/23/2010	14:02	7.31	6.72	2.0	4.20	NP	13.0	NP	2.52	
MW-16I	8/23/2010	14:00	7.31	6.77	1.3	5.46	NP	59.0	NP	1.31	
MW-17S	8/23/2010	NR	10.41	9.89	1.7	6.93	NP	15.0	NP	2.96	
MW-17I	8/23/2010	NR	10.32	9.94	1.7	7.65	NP	44.4	NP	2.29	
MW-18S	8/23/2010	NR	11.35	10.89	<1	5.41	NP	14.6	NP	5.48	
MW-18I	8/23/2010	NR	11.08	10.52	<1	8.61	NP	56.7	NP	1.91	
MW-19S	8/23/2010	NR	12.08	11.44	<1	4.45	NP	15.0	NP	6.99	
MW-19I	8/23/2010	NR	12.14	11.69	<1	9.32	NP	59.1	NP	2.37	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation (NVGD88)	Top of Inner Casing Elevation (NVGD88)	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC (NVGD88)	Comments, Product Description (if applicable)
MW-20S	8/23/2010	14:41	6.40	6.00	0.0	4.00	NP	13.0	NP	2.00	
MW-20I	8/23/2010	14:44	6.40	6.06	0.0	3.72	NP	39.0	NP	2.34	
MW-21S	8/23/2010	14:34	6.54	6.22	0.0	2.90	NP	13.0	NP	3.32	
MW-21I	8/23/2010	14:36	6.54	6.31	0.0	3.86	NP	38.0	NP	2.45	
MW-23S	8/23/2010	13:59	12.08	11.83	3.5	4.76	NP	13.0	NP	7.07	
MW-23I	8/23/2010	14:02	12.03	11.57	3.2	4.83	NP	39.0	NP	6.74	
MW-24S	8/23/2010	14:00	8.99	8.71	0.4	6.14	NP	15.5	NP	2.57	
MW-24I	8/23/2010	14:00	8.99	8.71	0.4	6.23	NP	40.0	NP	2.48	
MW-25S	8/23/2010	14:48	22.74	22.25	0.0	20.50	NP	24.0	NP	1.75	
MW-25I	8/23/2010	14:49	22.74	22.25	0.1	19.77	NP	43.0	NP	2.48	
MW-26S	8/23/2010	14:45	21.71	21.44	0.5	18.98	NP	24.0	NP	2.46	
MW-26I	8/23/2010	14:46	21.71	21.44	0.3	18.93	NP	39.0	NP	2.51	
MW-27S	8/23/2010	14:42	17.80	17.41	0.0	17.85	NP	23.0	NP	-0.44	
MW-27I	8/23/2010	14:42	17.80	17.41	0.3	14.91	NP	40.0	NP	2.50	
MW-28S	8/23/2010	14:15	8.26	7.80	20.3	4.56	NP	13.0	NP	3.24	
MW-28I	8/23/2010	14:15	8.26	7.75	20.1	5.41	NP	37.0	NP	2.34	
MW-29S	8/23/2010	14:20	9.14	8.82	39.7	6.05	NP	13.0	NP	2.77	
MW-29I	8/23/2010	14:22	9.14	8.86	20.2	6.41	NP	37.0	NP	2.45	
MW-30S	8/23/2010	14:05	11.56	11.37	NR	6.94	NP	19.0	NP	4.43	Unknown product at water surface
MW-30I	8/23/2010	14:02	11.67	11.43	0.0	6.39	NP	37.0	NP	5.04	PID not functioning properly
MW-31S	8/23/2010	NR	10.71	10.31	NR	NR	NP	15.0	NP	NR	Unable to access well
MW-31I	8/23/2010	NR	10.44	10.19	NR	NR	NP	35.0	NP	NR	Unable to access well
MW-32S	8/23/2010	13:55	21.42	21.04	0.0	12.33	NP	22.0	NP	8.71	slight napthalene-like odor
MW-32I	8/23/2010	14:07	21.50	21.25	0.9	15.07	NP	46.0	NP	6.18	
MW-33S	8/23/2010	14:34	7.82	7.31	0.0	4.19	NP	13.0	NP	3.12	
MW-33I	8/23/2010	14:36	7.82	7.24	1.2	4.59	NP	39.0	NP	2.65	
MW-34S	8/23/2010	14:12	5.46	4.99	0.5	3.44	NP	13.0	NP	1.55	slight product odor
MW-34I	8/23/2010	14:10	5.46	5.00	3.1	2.69	NP	34.0	NP	2.31	
MW-35S	8/23/2010	14:08	8.11	7.68	40.1	3.75	NP	13.0	NP	3.93	
MW-35I	8/23/2010	14:10	8.11	7.54	35.0	4.48	NP	33.0	NP	3.06	
MW-36S	8/23/2010	14:35	5.64	5.31	193.0	3.57	NP	13.0	NP	1.74	Strong unknown odor
MW-36I	8/23/2010	14:37	5.64	5.24	0.0	2.78	NP	38.0	NP	2.46	
MW-37S	8/23/2010	14:29	12.43	12.05	0.0	10.13	NP	20.0	NP	1.92	
MW-37I	8/23/2010	14:29	12.43	11.99	0.0	9.37	NP	42.0	NP	2.62	
MW-38S	8/23/2010	14:24	11.68	11.33	0.0	8.54	NP	13.0	NP	2.79	
MW-38I	8/23/2010	14:25	11.68	11.32	0.0	8.21	NP	39.0	NP	3.11	
MW-39S	8/23/2010	14:15	18.38	18.14	4.8	12.70	NP	21.0	NP	5.44	
MW-39I	8/23/2010	14:15	18.38	18.16	0.6	14.88	NP	40.0	NP	3.28	
MW-40S	8/23/2010	14:14	12.30	11.74	0.3	10.24	3.31	13.5	6.93	1.50 [2]	6.93ft of LNAPL
MW-40I	8/23/2010	14:12	12.42	11.50	16.8	6.81	NP	58.0	NP	4.69	
MW-41S	8/23/2010	14:02	11.94	11.26	0.4	3.13	NP	13.5	NP	8.13	
MW-41I	8/23/2010	14:04	11.92	11.46	0.3	5.81	NP	58.0	NP	5.65	
MW-42S	8/23/2010	14:21	7.03	6.81	0.0	7.21	NP	13.0	NP	-0.40	
MW-42I	8/23/2010	14:23	7.03	6.82	0.0	4.46	NP	38.0	NP	2.36	
MW-43S	8/23/2010	14:45	5.61	5.39	0.0	2.35	NP	13.0	NP	3.04	
MW-43I	8/23/2010	14:50	5.61	5.40	0.0	2.90	Unknown	37.5	Unknown	2.50	no DNAPL detected by probe but probe is coated in product.
MW-44S	8/23/2010	14:10	5.23	4.72	0.0	3.04	NP	13.0	NP	1.68	
MW-44I	8/23/2010	14:10	5.23	4.73	0.0	2.22	NP	45.0	NP	2.51	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation (NVGD88)	Top of Inner Casing Elevation (NVGD88)	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC (NVGD88)	Comments, Product Description (if applicable)
MW-45S	8/23/2010	14:30	4.94	4.49	>1,000	2.46	NP	14.0	NP	2.03	PID continued to elevate past 1000ppm
MW-45I	8/23/2010	14:30	4.94	4.50	1,407	1.94	NP	41.0	NP	2.56	
MW-46I [1]	8/23/2010	14:20	5.15	4.76	0.0	2.19	NP	57.0	NP	2.57	
MW-47S	8/23/2010	14:25	5.46	4.53	0.0	3.17	NP	28.0	NP	1.36	
MW-47I	8/23/2010	14:25	5.46	4.62	0.0	2.11	NP	44.0	NP	2.51	
SGMW-2	8/23/2010	NR	9.78	NA	NA	10.45	NP	NA	NP	-0.67	
SGMW-3	8/23/2010	14:30	5.16	NA	NA	5.90	NP	NA	NP	-0.74	
SGMW-8	8/23/2010	15:15	5.22	NA	NA	5.75	NP	NA	NP	-0.53	
SGMW-9	8/23/2010	NR	10.20	NA	NA	10.45	NP	NA	NP	-0.25	
SGMW-13	8/23/2010	14:35	4.38	NA	NA	5.10	NP	NA	NP	-0.72	
SGMW-15	8/23/2010	14:06	6.97	NA	NA	7.54	NP	NA	NP	-0.57	
SGMW-18	8/23/2010	NR	8.83	NA	NA	9.99	NP	NA	NP	-1.16	
SGMW-23	8/23/2010	14:07	11.31	NA	NA	7.63	NP	NA	NP	3.68	Gate Station
SGMW-24	8/23/2010	14:05	7.35	NA	NA	7.91	NP	NA	NP	-0.56	
SGMW-27	8/23/2010	14:52	6.38	NA	NA	7.20	NP	NA	NP	-0.82	
SGMW-28	8/23/2010	14:18	9.03	NA	NA	10.81	NP	NA	NP	-1.78	
SGMW-31	8/23/2010	14:10	9.23	NA	NA	6.83	NP	NA	NP	2.40	Degraw
SGMW-37	8/23/2010	14:32	8.89	NA	NA	9.61	NP	NA	NP	-0.72	
SGMW-42	8/23/2010	14:20	5.74	NA	NA	6.66	NP	NA	NP	-0.92	
SGMW-45	8/23/2010	14:35	5.76	NA	NA	6.88	NP	NA	NP	-1.12	
SG-Union	8/23/2010	14:31	17.19	NA	NA	18.05	NP	NA	NP	-0.86	Union
SGMW-32	8/23/2010	14:15	10.64	NA	NA	8.25	NP	NA	NP	2.39	Mazzei

Notes:

MW-28I - Installed by USEPA

MW-30I - Installed by National Grid

MW-18I - Installed by NYC

Original Staff Gauge ID	Standardized EPA Staff Gauge ID
Stream Gauge - Gowanus Pump Station	SGMW-2
Stream Gauge - Former Power Station	SGMW-9
Stream Gauge - DOT	SGMW-18
Canal-Gate Station	SGMW-23
Canal-Degraw St	SGMW-31
Canal-Union St	SG-Union
Canal-Mazzei	SGMW-32

[1] - Montitoring well MW-46I was originally mislabled as MW-46D. This well is screened in the intermediate zone and is identified in the report as MW-26I.

[2] - MW-40S – Elevation not compensated for LNAPL thickness

NAPL observed in monitoring well

NP - No Product

NA - Not applicable

NR - Not recorded

All interface probes were calibrated to within 0.1 inch on 08/23/10

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Appendix D-9
Monthly Water Level Measurement Summary - September 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

September 29, 2010
Tide: High @ 12:01pm

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-1S	9/29/2010	NR	9.57	8.89	<1	8.41	NP	17.0	NP	0.48	
MW-1I	9/29/2010	NR	9.59	9.42	<1	6.84	NP	39.8	NP	2.58	
MW-2S	9/29/2010	NR	5.49	5.02	<1	2.60	NP	12.9	NP	2.42	
MW-2I	9/29/2010	NR	5.57	5.28	<1	2.77	NP	34.6	NP	2.51	
MW-3S	9/29/2010	12:13	7.03	6.62	0.2	3.95	NP	15.0	NA	2.67	
MW-3I	9/29/2010	12:14	7.03	6.62	0.2	4.16	NP	43.0	NA	2.46	
MW-4S	9/29/2010	12:01	8.90	8.62	0.0	5.38	NP	13.0	NA	3.24	
MW-4I	9/29/2010	12:04	8.90	8.56	0.6	5.94	NP	39.0	NA	2.62	
MW-5S	9/29/2010	12:25	6.30	5.84	10.3	3.25	NP	13.0	NA	2.59	Strong odor
MW-5I	9/29/2010	12:27	6.30	5.86	6.2	3.16	NP	35.0	NA	2.70	
MW-6S	9/29/2010	12:15	7.43	7.18	13.3	2.88	NP	13.0	NA	4.30	Organic like odor
MW-6I	9/29/2010	12:15	7.43	7.21	1.8	4.50	NP	35.0	NA	2.71	
MW-7S	9/29/2010	11:43	7.09	6.44	0.2	3.91	NP	13.0	NA	2.53	
MW-7I	9/29/2010	11:44	7.09	6.39	117.0	3.94	Unknown	35.0	Unknown	2.45	DNAPL present, > 1/4" on bottom of well? Cannot get exact measurmemt
MW-8S	9/29/2010	12:02	7.51	7.13	18.8	3.28	NP	13.0	NA	3.85	
MW-8I	9/29/2010	12:01	7.51	7.17	0.6	4.29	NP	39.0	NA	2.88	Slight unknown odor
MW-9S	9/29/2010	NR	10.47	10.21	<1	8.51	NP	14.9	NP	1.70	
MW-9I	9/29/2010	NR	10.32	9.76	<1	7.29	NP	39.2	NP	2.47	
MW-10S	9/29/2010	NR	13.63	13.31	<1	10.10	NP	15.0	NP	3.21	
MW-10I	9/29/2010	NR	13.74	13.46	<1	10.93	NP	45.0	NP	2.53	
MW-11S	9/29/2010	12:58	9.99	9.75	2.0	7.58	NP	14.0	NA	2.17	
MW-11I	9/29/2010	13:00	9.99	9.75	31.4	7.21	NP	45.0	NA	2.54	DNAPL present, at least 0.01" but could not get accurate measurement.
MW-12S	9/29/2010	12:53	12.29	11.84	6.4	9.41	NP	14.0	NA	2.43	
MW-12I	9/29/2010	13:00	12.29	11.75	495	9.18	NP	45.0	NA	2.57	
MW-13S	9/29/2010	12:36	6.43	5.85	30.4	3.84	NP	13.0	NA	2.01	
MW-13I	9/29/2010	12:37	6.43	5.82	11.4	3.23	NP	56.0	NA	2.59	
MW-14S	9/29/2010	12:37	7.19	7.04	10.8	4.09	NP	13.0	NA	2.95	
MW-14I	9/29/2010	12:40	7.19	7.05	1.2	4.41	NP	56.0	NA	2.64	
MW-15S	9/29/2010	12:10	7.85	7.46	0.2	6.08	NP	13.0	NA	1.38	
MW-15I	9/29/2010	12:12	7.85	7.49	0.4	4.82	NP	60.0	NA	2.67	
MW-16S	9/29/2010	12:29	7.31	6.72	0.0	4.13	NP	13.0	NA	2.59	
MW-16I	9/29/2010	12:30	7.31	6.77	1.0	4.09	NP	59.0	NA	2.68	
MW-17S	9/29/2010	NR	10.41	9.89	<1	7.58	NP	15.0	NP	2.31	
MW-17I	9/29/2010	NR	10.32	9.94	<1	7.41	NP	44.4	NP	2.53	
MW-18S	9/29/2010	NR	11.35	10.89	<1	5.48	NP	14.6	NP	5.41	
MW-18I	9/29/2010	NR	11.08	10.52	<1	7.95	NP	56.7	NP	2.57	
MW-19S	9/29/2010	NR	12.08	11.44	<1	9.12	NP	15.0	NP	2.32	
MW-19I	9/29/2010	NR	12.14	11.69	<1	4.55	NP	59.1	NP	7.14	
MW-20S	9/29/2010	12:49	6.40	6.00	20.7	4.00	NP	13.0	NA	2.00	
MW-20I	9/29/2010	13:52	6.40	6.06	0.7	3.61	NP	39.0	NA	2.45	Strong petro like odor
MW-21S	9/29/2010	13:01	6.54	6.22	0.2	3.19	NP	13.0	NA	3.03	Rotten egg like odor

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-21I	9/29/2010	13:05	6.54	6.31	1.1	3.55	NP	38.0	NA	2.76	Strong unknown odor
MW-23S	9/29/2010	12:13	12.08	11.83	0.4	4.62	NP	13.0	NP	7.21	
MW-23I	9/29/2010	12:05	12.03	11.57	0.4	4.12	NP	39.0	NP	7.45	
MW-24S	9/29/2010	12:00	8.99	8.71	0.0	6.17	NP	15.5	NP	2.54	
MW-24I	9/29/2010	12:01	8.99	8.71	0.9	5.26	NP	40.0	NP	3.45	
MW-25S	9/29/2010	12:44	22.74	22.25	0.9	20.66	NP	24.0	NA	1.59	
MW-25I	9/29/2010	12:44	22.74	22.25	0.0	19.49	NP	43.0	NA	2.76	
MW-26S	9/29/2010	12:39	21.71	21.44	0.7	18.89	NP	24.0	NA	2.55	
MW-26I	9/29/2010	12:39	21.71	21.44	0.2	18.73	NP	39.0	NA	2.71	
MW-27S	9/29/2010	12:37	17.80	17.41	0.3	14.95	NP	23.0	NA	2.46	
MW-27I	9/29/2010	12:37	17.80	17.41	0.4	14.70	NP	40.0	NA	2.71	
MW-28S	9/29/2010	12:00	8.26	7.80	0.0	4.62	6.39	13.0	6.61	3.18	Petro like odor
MW-28I	9/29/2010	12:00	8.26	7.75	0.5	5.22	NP	37.0	NA	2.53	Petro like odor
MW-29S	9/29/2010	12:00	9.14	8.82	26.0	5.88	7.24	13.0	5.76	2.94	Petro like odor
MW-29I	9/29/2010	12:00	9.14	8.86	0.0	6.35	NP	37.0	NA	2.51	Petro like odor
MW-30S	9/29/2010	12:09	11.56	11.37	19.8	6.30	NP	19.0	NP	5.07	
MW-30I	9/29/2010	12:07	11.67	11.43	5.2	6.20	NP	37.0	NP	5.23	
MW-31S	9/29/2010	NR	10.71	10.31	NR	NR	NP	15.0	NP	NR	Unable to access well
MW-31I	9/29/2010	NR	10.44	10.19	NR	NR	NP	35.0	NP	NR	Unable to access well
MW-32S	9/29/2010	NR	21.42	21.04	0.0	12.62	NP	22.0	NP	8.42	Time was not noted
MW-32I	9/29/2010	NR	21.50	21.25	0.0	15.29	NP	46.0	NP	5.96	Time was not noted
MW-33S	9/29/2010	12:30	7.82	7.31	0.8	4.33	NP	13.0	NP	2.98	
MW-33I	9/29/2010	12:32	7.82	7.24	0.0	4.79	NP	39.0	NA	2.45	
MW-34S	9/29/2010	12:07	5.46	4.99	1.5	2.91	NP	13.0	NA	2.08	
MW-34I	9/29/2010	12:10	5.46	5.00	0.1	2.57	NP	34.0	NA	2.43	
MW-35S	9/29/2010	12:02	8.11	7.68	1.8	3.91	11.80	13.0	1.20	3.77	
MW-35I	9/29/2010	12:05	8.11	7.54	1.6	4.84	NP	33.0	NA	2.70	
MW-36S	9/29/2010	13:58	5.64	5.31	137	3.29	NP	13.0	NA	2.02	
MW-36I	9/29/2010	14:00	5.64	5.24	1.6	2.29	NP	38.0	NA	2.95	
MW-37S	9/29/2010	12:20	12.43	12.05	0.0	10.44	NP	20.0	NA	1.61	
MW-37I	9/29/2010	12:20	12.43	11.99	0.0	8.85	NP	42.0	NA	3.14	
MW-38S	9/29/2010	12:28	11.68	11.33	0.0	9.46	NP	13.0	NA	1.87	
MW-38I	9/29/2010	12:28	11.68	11.32	0.0	8.06	NP	39.0	NA	3.26	
MW-39S	9/29/2010	12:12	18.38	18.14	14.2	13.21	NP	21.0	NA	4.93	
MW-39I	9/29/2010	12:12	18.38	18.16	1.0	15.10	NP	40.0	NA	3.06	
MW-40S	9/29/2010	12:28	12.30	11.74	23.0	7.65	3.03	13.5	6.44	4.09 [2]	LNAPL from 3.03 - 7.65'; strong odor
MW-40I	9/29/2010	12:22	12.42	11.50	18.0	4.98	NP	58.0	NP	6.52	
MW-41S	9/29/2010	12:14	11.94	11.26	0.3	2.77	NP	13.5	NP	8.49	
MW-41I	9/29/2010	12:10	11.92	11.46	0.3	5.01	NP	58.0	NP	6.45	
MW-42S	9/29/2010	13:11	7.03	6.81	0.4	4.33	NP	13.0	NA	2.48	
MW-42I	9/29/2010	13:08	7.03	6.82	0.4	3.97	NP	38.0	NA	2.85	
MW-43S	9/29/2010	14:15	5.61	5.39	6.2	3.19	NP	13.0	NA	2.20	
MW-43I	9/29/2010	14:12	5.61	5.40	1.7	2.77	Unknown	37.5	Unkown	2.63	
MW-44S	9/29/2010	12:00	5.23	4.72	0.7	3.22	NP	13.0	NA	1.50	Petro like odor
MW-44I	9/29/2010	12:01	5.23	4.73	0.3	2.15	NP	45.0	NA	2.58	
MW-45S	9/29/2010	12:18	4.94	4.49	3.2	2.70	NP	14.0	NA	1.79	Slight petro like odor
MW-45I	9/29/2010	12:20	4.94	4.50	30.1	1.84	NP	41.0	NA	2.66	Faint smell
MW-46I [1]	9/29/2010	12:12	5.15	4.76	4.5	2.11	NP	57.0	NA	2.65	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-47S	9/29/2010	12:25	5.46	4.53	2.1	2.91	NP	28.0	NA	1.62	
MW-47I	9/29/2010	12:27	5.46	4.62	4.4	2.06	NP	44.0	NA	2.56	Strong odor (like car exhaust)
SGMW-2	9/29/2010	NA	9.78	NA	NA	8.740	NP	NA	NP	1.04	
SGMW-3	9/29/2010	12:18	5.16	NA	NA	2.45	NP	NA	NP	2.71	
SGMW-8	9/29/2010	12:00	5.22	NA	NA	2.56	NP	NA	NP	2.66	
SGMW-9	9/29/2010	NA	10.20	NA	NA	8.74	NP	NA	NP	1.46	
SGMW-13	9/29/2010	12:47	4.38	NA	NA	1.75	NP	NA	NP	2.63	
SGMW-15	9/29/2010	12:23	6.97	NA	NA	4.11	NP	NA	NP	2.86	
SGMW-18	9/29/2010	NA	8.83	NA	NA	6.72	NP	NA	NP	2.11	
SGMW-23	9/29/2010	12:00	11.31	NA	NA	4.30	NP	NA	NP	7.01	Gate Station
SGMW-24	9/29/2010	12:03	7.35	NA	NA	4.71	NP	NA	NP	2.64	
SGMW-27	9/29/2010	12:46	6.38	NA	NA	4.00	NP	NA	NP	2.38	
SGMW-28	9/29/2010	11:59	9.03	NA	NA	6.50	NP	NA	NP	2.53	
SGMW-31	9/29/2010	12:00	9.23	NA	NA	6.38	NP	NA	NP	2.85	
SGMW-37	9/29/2010	12:21	8.89	NA	NA	6.25	NP	NA	NP	2.64	
SGMW-42	9/29/2010	13:15	5.74	NA	NA	3.73	NP	NA	NP	2.01	
SGMW-45	9/29/2010	12:41	5.76	NA	NA	1.78	NP	NA	NP	3.98	Data inaccurate, data collected at bulkhead and not survey point.
SG-Union	9/29/2010	12:27	17.19	NA	NA	14.67	NP	NA	NP	2.52	
SGMW-32	9/29/2010	12:05	10.64	NA	NA	5.15	NP	NA	NP	5.49	

Notes:

MW-28I - Installed by USEPA

MW-30I - Installed by National Grid

MW-18I - Installed by NYC

Original Staff Gauge ID	Standardized EPA Staff Gauge ID
Stream Gauge Gowanus Pump Station	SGMW-2
Stream Gauge Former Power Station	SGMW-9
Stream Gauge DOT	SGMW-18
Canal-Gate Station	SGMW-23
Canal-Degraw St	SGMW-31
Canal-Union St	SG-Union
Canal-Mazzei	SGMW-32

[1] - Montitoring well MW-46I was originally mislabled as MW-46D. This well is screened in the intermediate zone and is identified in the report as MW-26I.

[2] - MW-40S – Elevation not compensated for LNAPL thickness

NAPL observed in monitoring well

NP - No Product

NA - Not applicable

NR - Not recorded

All interface probes were calibrated to within 0.1 inch on 09/29/1(

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Appendix D-9
Monthly Water Level Measurement Summary - October 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

October 22, 2010
Tide: Low @ 14:38pm

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-1S	10/22/2010	NR	9.57	8.89	<1	8.63	NP	17.0	NP	0.26	
MW-1I	10/22/2010	NR	9.59	9.42	<1	7.08	NP	39.8	NP	2.34	
MW-2S	10/22/2010	NR	5.49	5.02	<1	2.98	NP	12.9	NP	2.04	
MW-2I	10/22/2010	NR	5.57	5.28	<1	3.12	NP	34.6	NP	2.16	
MW-3S	10/22/2010	13:54	7.03	6.62	0.5	6.69	NP	15.0	NP	-0.07	
MW-3I	10/22/2010	13:55	7.03	6.62	5.4	5.26	NP	43.0	NP	1.36	
MW-4S	10/22/2010	14:01	8.90	8.62	0.0	4.67	NP	13.0	NP	3.95	
MW-4I	10/22/2010	14:02	8.90	8.56	0.0	6.44	NP	39.0	NP	2.12	
MW-5S	10/22/2010	14:34	6.30	5.84	5.1	3.29	NP	13.0	NP	2.55	
MW-5I	10/22/2010	14:32	6.30	5.86	0.1	4.30	NP	35.0	NP	1.56	
MW-6S	10/22/2010	14:27	7.43	7.18	2.0	2.63	NP	13.0	NP	4.55	Strong organic like odor
MW-6I	10/22/2010	14:30	7.43	7.21	3.7	5.42	NP	35.0	NP	1.79	
MW-7S	10/22/2010	14:10	7.09	6.44	0.1	9.21	NP	13.0	NP	-2.77	
MW-7I	10/22/2010	14:02	7.09	6.39	60.1	4.32	32.60	35.0	30.68	2.07	Coal tar like odor. Unable to get accurate thickness measurement. ~2.4 of DNAPL present
MW-8S	10/22/2010	14:15	7.51	7.13	0.5	2.79	NP	13.0	NP	4.34	
MW-8I	10/22/2010	14:19	7.51	7.17	0.0	4.98	NP	39.0	NP	2.19	
MW-9S	10/22/2010	NR	10.47	10.21	<1	8.99	NP	14.9	NP	1.22	
MW-9I	10/22/2010	NR	10.32	9.76	<1	7.91	NP	39.2	NP	1.85	
MW-10S	10/22/2010	NR	13.63	13.31	<1	9.55	NP	15.0	NP	3.76	
MW-10I	10/22/2010	NR	13.74	13.46	<1	11.35	NP	45.0	NP	2.11	
MW-11S	10/22/2010	13:52	9.99	9.75	0.1	7.62	NP	14.0	NP	2.13	
MW-11I	10/22/2010	13:49	9.99	9.75	13.5	7.83	NP	45.0	NP	1.92	
MW-12S	10/22/2010	14:03	12.29	11.84	8.9	9.23	NP	14.0	NP	2.61	
MW-12I	10/22/2010	13:59	12.29	11.75	6.1	9.76	NP	45.0	NP	1.99	
MW-13S	10/22/2010	NR	6.43	5.85	NR	NR	NP	13.0	NP	NR	No access to property
MW-13I	10/22/2010	NR	6.43	5.82	NR	NR	NP	56.0	NP	NR	No access to property
MW-14S	10/22/2010	NR	7.19	7.04	NR	NR	NP	13.0	NP	NR	No access to property
MW-14I	10/22/2010	NR	7.19	7.05	NR	NR	NP	56.0	NP	NR	No access to property
MW-15S	10/22/2010	14:10	7.85	7.46	0.0	9.45	NP	13.0	NP	-1.99	
MW-15I	10/22/2010	14:12	7.85	7.49	0.0	8.87	NP	60.0	NP	-1.38	
MW-16S	10/22/2010	13:56	7.31	6.72	0.7	4.05	NP	13.0	NP	2.67	
MW-16I	10/22/2010	13:58	7.31	6.77	22.0	6.96	NP	59.0	NP	-0.19	
MW-17S	10/22/2010	NR	10.41	9.89	<1	7.80	NP	15.0	NP	2.09	
MW-17I	10/22/2010	NR	10.32	9.94	<1	8.58	NP	44.4	NP	1.36	
MW-18S	10/22/2010	NR	11.35	10.89	<1	5.61	NP	14.6	NP	5.28	
MW-18I	10/22/2010	NR	11.08	10.52	<1	9.82	NP	56.7	NP	0.70	
MW-19S	10/22/2010	NR	12.08	11.44	2.3	4.59	NP	15.0	NP	6.85	
MW-19I	10/22/2010	NR	12.14	11.69	<1	10.11	NP	59.1	NP	1.58	
MW-20S	10/22/2010	14:11	6.40	6.00	0.0	4.68	NP	13.0	NP	1.32	
MW-20I	10/22/2010	14:13	6.40	6.06	0.0	3.67	NP	39.0	NP	2.39	Strong odor, petro like
MW-21S	10/22/2010	13:53	6.54	6.22	0.0	2.15	NP	13.0	NP	4.07	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-21I	10/22/2010	13:51	6.54	6.31	0.0	4.39	NP	38.0	NP	1.92	
MW-23S	10/22/2010	14:43	12.08	11.83	0.6	4.32	NP	13.0	NP	7.51	1" DNAPL blebs on probe tip
MW-23I	10/22/2010	14:45	12.03	11.57	0.1	4.94	NP	39.0	NP	6.63	Bleb of LNAPL at 4 ft when tape removed from well
MW-24S	10/22/2010	14:47	8.99	8.71	0.0	5.97	NP	15.5	NP	2.74	
MW-24I	10/22/2010	14:45	8.99	8.71	0.2	7.27	NP	40.0	NP	1.44	
MW-25S	10/22/2010	13:53	22.74	22.25	0.0	20.58	NP	24.0	NP	1.67	
MW-25I	10/22/2010	13:52	22.74	22.25	0.0	20.35	NP	43.0	NP	1.90	
MW-26S	10/22/2010	14:01	21.71	21.44	0.0	19.39	NP	24.0	NP	2.05	
MW-26I	10/22/2010	13:58	21.71	21.44	0.0	19.44	NP	39.0	NP	2.00	
MW-27S	10/22/2010	14:05	17.80	17.41	0.0	18.71	NP	23.0	NP	-1.30	
MW-27I	10/22/2010	14:03	17.80	17.41	0.0	15.44	NP	40.0	NP	1.97	
MW-28S	10/22/2010	14:24	8.26	7.80	0.0	5.23	NP	13.0	NP	2.57	petro like odor
MW-28I	10/22/2010	14:25	8.26	7.75	0.0	5.90	NP	37.0	NP	1.85	petro like odor
MW-29S	10/22/2010	14:32	9.14	8.82	0.0	5.71	NP	13.0	NP	3.11	petro like odor
MW-29I	10/22/2010	14:30	9.14	8.86	19.4	7.11	NP	37.0	NP	1.75	petro like odor
MW-30S	10/22/2010	14:40	11.56	11.37	42.9	7.83	NP	19.0	NP	3.54	
MW-30I	10/22/2010	14:45	11.67	11.43	0.6	7.31	NP	37.0	NP	4.12	
MW-31S	10/22/2010	NR	10.71	10.31	NR	NR	NR	15.0	NR	NR	Unable to access well
MW-31I	10/22/2010	NR	10.44	10.19	NR	NR	NR	35.0	NR	NR	Unable to access well
MW-32S	10/22/2010	14:15	21.42	21.04	0.8	11.73	NP	22.0	NP	9.31	
MW-32I	10/22/2010	14:32	21.50	21.25	0.0	15.35	NP	46.0	NP	5.90	
MW-33S	10/22/2010	14:11	7.82	7.31	0.0	4.22	NP	13.0	NP	3.09	
MW-33I	10/22/2010	14:12	7.82	7.24	0.0	4.95	NP	39.0	NP	2.29	
MW-34S	10/22/2010	13:50	5.46	4.99	0.0	3.33	NP	13.0	NP	1.66	
MW-34I	10/22/2010	13:51	5.46	5.00	0.0	3.66	NP	34.0	NP	1.34	
MW-35S	10/22/2010	14:18	8.11	7.68	0.3	5.50	NP	13.0	NP	2.18	petro like odor
MW-35I	10/22/2010	14:19	8.11	7.54	0.1	5.72	NP	33.0	NP	1.82	petro like odor
MW-36S	10/22/2010	13:19	5.64	5.31	0.0	3.78	NP	13.0	NP	1.53	
MW-36I	10/22/2010	13:21	5.64	5.24	110.0	3.55	NP	38.0	NP	1.69	
MW-37S	10/22/2010	14:17	12.43	12.05	0.0	10.20	NP	20.0	NP	1.85	
MW-37I	10/22/2010	14:15	12.43	11.99	0.0	9.96	NP	42.0	NP	2.03	
MW-38S	10/22/2010	14:28	11.68	11.33	0.0	8.34	NP	13.0	NP	2.99	
MW-38I	10/22/2010	14:25	11.68	11.32	0.0	8.79	NP	39.0	NP	2.53	
MW-39S	10/22/2010	14:36	18.38	18.14	7.5	13.21	NP	21.0	NP	4.93	
MW-39I	10/22/2010	14:37	18.38	18.16	0.0	15.19	NP	40.0	NP	2.97	
MW-40S	10/22/2010	15:01	12.30	11.74	133.0	9.43	3.15	13.5	6.28	2.31[2]	6.28' of LNAPL present
MW-40I	10/22/2010	14:53	12.42	11.50	10.2	7.52	NP	58.0	NP	3.98	
MW-41S	10/22/2010	14:38	11.94	11.26	0.2	2.55	NP	13.5	NP	8.71	
MW-41I	10/22/2010	14:30	11.92	11.46	0.1	7.21	NP	58.0	NP	4.25	
MW-42S	10/22/2010	13:57	7.03	6.81	0.0	9.72	NP	13.0	NP	-2.91	
MW-42I	10/22/2010	13:59	7.03	6.82	0.0	5.13	NP	38.0	NP	1.69	
MW-43S	10/22/2010	13:25	5.61	5.39	0.7	2.80	NP	13.0	NP	2.59	
MW-43I	10/22/2010	13:27	5.61	5.40	0.0	3.76	NP	37.5	NP	1.64	
MW-44S	10/22/2010	14:23	5.23	4.72	0.0	3.76	NP	13.0	NP	0.96	
MW-44I	10/22/2010	14:26	5.23	4.73	0.0	2.78	NP	45.0	NP	1.95	
MW-45S	10/22/2010	14:34	4.94	4.49	211	2.67	NP	14.0	NP	1.82	
MW-45I	10/22/2010	14:37	4.94	4.50	7.6	2.50	NP	41.0	NP	2.00	Strong odor, petro like
MW-46I[1]	10/22/2010	14:28	5.15	4.76	0.2	2.70	NP	57.0	NP	2.06	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-47S	10/22/2010	14:42	5.46	4.53	21.7	4.05	NP	28.0	NP	0.48	petro like odor
MW-47I	10/22/2010	14:45	5.46	4.62	2.1	2.68	NP	44.0	NP	1.94	petro like odor
SGMW-2	10/22/2010	NR	9.78	NA	NR	12.79	NP	NA	NP	-3.01	
SGMW-3	10/22/2010	13:56	5.16	NA	NR	9.94	NP	NA	NP	-4.78	
SGMW-8	10/22/2010	13:55	5.22	NA	NR	8.10	NP	NA	NP	-2.88	
SGMW-9	10/22/2010	NR	10.20	NA	NR	13.20	NP	NA	NP	-3.00	
SGMW-13	10/22/2010	NR	4.38	NA	NR	NR	NR	NA	NR	NR	No access to property
SGMW-15	10/22/2010	14:23	6.97	NA	NR	10.10	NP	NA	NP	-3.13	
SGMW-18	10/22/2010	NR	8.83	NA	NR	12.30	NP	NA	NP	-3.47	
SGMW-23	10/22/2010	14:35	11.31	NA	NR	10.05	NP	NA	NP	1.26	
SGMW-24	10/22/2010	14:53	7.35	NA	NR	11.14	NP	NA	NP	-3.79	Product floating in the canal, heavy sheen
SGMW-27	10/22/2010	13:50	6.38	NA	NR	9.34	NP	NA	NP	-2.96	
SGMW-28	10/22/2010	14:40	9.03	NA	NR	12.24	NP	NA	NP	-3.21	
SGMW-31	10/22/2010	14:30	9.23	NA	NR	8.35	NP	NA	NP	0.88	
SGMW-37	10/22/2010	14:14	8.89	NA	NR	11.73	NP	NA	NP	-2.84	
SGMW-42	10/22/2010	14:05	5.74	NA	0.0	8.75	NP	NA	NP	-3.01	No water present, top of sediment measured
SGMW-45	10/22/2010	14:50	5.76	NA	0.0	9.20	NP	NA	NP	-3.44	
SG-Union	10/22/2010	14:25	17.19	NA	NR	20.61	NP	NA	NP	-3.42	
SGMW-32	10/22/2010	14:30	10.64	NA	NR	10.55	NP	NA	NP	0.09	

Notes:

MW-28I - Installed by USEPA
MW-30I - Installed by National Grid
MW-18I - Installed by NYC

Original Staff Gauge ID	Standardized EPA Staff Gauge ID
Stream Gauge Gowanus Pump Station	SGMW-2
Stream Gauge Former Power Station	SGMW-9
Stream Gauge DOT	SGMW-18
Canal-Gate Station	SGMW-23
Canal-Degraw St	SGMW-31
Canal-Union St	SG-Union
Canal-Mazzei	SGMW-32

[1] - Montitoring well MW-46I was originally mislabled as MW-46D. This well is screened in the intermediate zone and is identified in the report as MW-26I.
[2] MW-40S – Elevation not compensated for LNAPL thickness
NAPL observed in monitoring well
NP - No Product
NA - Not applicable
NR - Not recorded
All interface probes were calibrated to within 0.1 inch on 07/26/10

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Appendix D-9
Monthly Water Level Measurement Summary - November 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

November 22, 2010
Tide: Low @ 10:47am

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-1S	11/22/2010	NR	9.57	8.89	<1	8.24	NP	17.0	NP	0.65	
MW-1I	11/22/2010	NR	9.59	9.42	<1	7.06	NP	39.8	NP	2.36	
MW-2S	11/22/2010	NR	5.49	5.02	<1	3.50	NP	12.9	NP	1.52	
MW-2I	11/22/2010	NR	5.57	5.28	<1	2.90	NP	34.6	NP	2.38	
MW-3S	11/22/2010	11:45	7.03	6.62	0.1	6.21	NP	15.0	NP	0.41	
MW-3I	11/22/2010	11:46	7.03	6.62	0.3	4.51	NP	43.0	NP	2.11	
MW-4S	11/22/2010	11:39	8.90	8.62	0.0	4.79	NP	13.0	NP	3.83	
MW-4I	11/22/2010	11:40	8.90	8.56	0.1	6.07	NP	39.0	NP	2.49	
MW-5S	11/22/2010	11:05	6.30	5.84	5.0	3.49	NP	13.0	NP	2.35	
MW-5I	11/22/2010	11:06	6.30	5.86	1.0	3.54	NP	35.0	NP	2.32	
MW-6S	11/22/2010	10:54	7.43	7.18	4.7	3.11	NP	13.0	NP	4.07	
MW-6I	11/22/2010	10:55	7.43	7.21	0.5	4.82	NP	35.0	NP	2.39	
MW-7S	11/22/2010	9:43	7.09	6.44	0.0	4.31	NP	13.0	NP	2.13	
MW-7I	11/22/2010	9:45	7.09	6.39	10.0	4.00	30.60	32.6	2.00	2.39	DNAPL Present
MW-8S	11/22/2010	10:01	7.51	7.13	5.3	3.26	NP	13.0	NP	3.87	
MW-8I	11/22/2010	10:02	7.51	7.17	0.0	4.54	NP	39.0	NP	2.63	
MW-9S	11/22/2010	NR	10.47	10.21	<1	8.62	NP	14.9	NP	1.59	
MW-9I	11/22/2010	NR	10.32	9.76	<1	7.49	NP	39.2	NP	2.27	
MW-10S	11/22/2010	NR	13.63	13.31	<1	10.03	NP	15.0	NP	3.28	
MW-10I	11/22/2010	NR	13.74	13.46	<1	11.03	NP	45.0	NP	2.43	
MW-11S	11/22/2010	10:30	9.99	9.75	0.0	7.35	NP	14.0	NP	2.40	
MW-11I	11/22/2010	10:31	9.99	9.75	24.0	7.34	NP	45.0	NP	2.41	
MW-12S	11/22/2010	10:35	12.29	11.84	315.0	9.42	NP	14.0	NP	2.42	
MW-12I	11/22/2010	10:36	12.29	11.75	0.0	9.37	NP	45.0	NP	2.38	No product signal but blotchy tar-like substance on interface probe.
MW-13S	11/22/2010	10:36	6.43	5.85	9:36	3.67	NP	13.0	NP	NR	
MW-13I	11/22/2010	10:38	6.43	5.82	0.0	3.68	NP	56.0	NP	NR	
MW-14S	11/22/2010	10:30	7.19	7.04	4.7	4.25	NP	13.0	NP	NR	
MW-14I	11/22/2010	10:33	7.19	7.05	0.0	4.67	NP	56.0	NP	NR	
MW-15S	11/22/2010	11:03	7.85	7.46	0.0	6.51	NP	13.0	NP	0.95	
MW-15I	11/22/2010	11:05	7.85	7.49	0.0	6.06	NP	60.0	NP	1.43	
MW-16S	11/22/2010	10:52	7.31	6.72	0.8	4.12	NP	13.0	NP	2.60	
MW-16I	11/22/2010	10:54	7.31	6.77	0.3	4.73	NP	59.0	NP	2.04	
MW-17S	11/22/2010	NR	10.41	9.89	<1	8.16	NP	15.0	NP	1.73	
MW-17I	11/22/2010	NR	10.32	9.94	<1	7.59	NP	44.4	NP	2.35	
MW-18S	11/22/2010	NR	11.35	10.89	<1	5.85	NP	14.6	NP	5.04	
MW-18I	11/22/2010	NR	11.08	10.52	<1	8.45	NP	56.7	NP	2.07	
MW-19S	11/22/2010	NR	12.08	11.44	<1	5.40	NP	15.0	NP	6.04	
MW-19I	11/22/2010	NR	12.14	11.69	<1	9.22	NP	59.1	NP	2.47	
MW-20S	11/22/2010	10:15	6.40	6.00	0.2	3.91	NP	13.0	NP	2.09	
MW-20I	11/22/2010	10:18	6.40	6.06	0.4	3.81	NP	39.0	NP	2.25	
MW-21S	11/22/2010	10:38	6.54	6.22	0.0	3.30	NP	13.0	NP	2.92	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-21I	11/22/2010	10:39	6.54	6.31	0.6	3.88	NP	38.0	NP	2.43	
MW-23S	11/22/2010	10:45	12.08	11.83	NR	4.75	NP	13.0	NP	7.08	
MW-23I	11/22/2010	10:50	12.03	11.57	NR	5.12	NP	39.0	NP	6.45	
MW-24S	11/22/2010	11:17	8.99	8.71	0.1	6.08	NP	15.5	NP	2.63	
MW-24I	11/22/2010	11:18	8.99	8.71	0.5	6.32	NP	40.0	NP	2.39	
MW-25S	11/22/2010	10:55	22.74	22.25	0.5	20.60	NP	24.0	NP	1.65	
MW-25I	11/22/2010	10:58	22.74	22.25	0.5	19.77	NP	43.0	NP	2.48	
MW-26S	11/22/2010	10:45	21.71	21.44	0.4	19.00	NP	24.0	NP	2.44	
MW-26I	11/22/2010	10:48	21.71	21.44	0.1	18.95	NP	39.0	NP	2.49	
MW-27S	11/22/2010	10:35	17.80	17.41	0.1	15.91	NP	23.0	NP	1.50	
MW-27I	11/22/2010	10:38	17.80	17.41	0.1	14.95	NP	40.0	NP	2.46	
MW-28S	11/22/2010	12:00	8.26	7.80	1.8	5.54	NP	13.0	NP	2.26	Sheen on probe
MW-28I	11/22/2010	12:01	8.26	7.75	0.2	5.55	NP	37.0	NP	2.20	
MW-29S	11/22/2010	12:04	9.14	8.82	21.9	6.14	NP	13.0	NP	2.68	Sheen on probe
MW-29I	11/22/2010	12:05	9.14	8.86	4.7	6.67	NP	37.0	NP	2.19	
MW-30S	11/22/2010	10:18	11.56	11.37	8.3	6.30	NP	19.0	NP	5.07	
MW-30I	11/22/2010	10:44	11.67	11.43	6.2	6.35	NP	37.0	NP	5.08	
MW-31S	11/22/2010	NR	10.71	10.31	NR	NR	NR	NR	NR	NR	
MW-31I	11/22/2010	NR	10.44	10.19	NR	NR	NR	NR	NR	NR	
MW-32S	11/22/2010	10:30	21.42	21.04	0.0	12.58	NP	22.0	NP	8.46	
MW-32I	11/22/2010	10:40	21.50	21.25	0.0	15.39	NP	46.0	NP	5.86	
MW-33S	11/22/2010	12:13	7.82	7.31	0.1	4.48	NP	13.0	NP	2.83	
MW-33I	11/22/2010	12:14	7.82	7.24	6.3	4.81	NP	39.0	NP	2.43	
MW-34S	11/22/2010	10:32	5.46	4.99	0.5	2.73	NP	13.0	NP	2.26	
MW-34I	11/22/2010	10:33	5.46	5.00	0.6	2.67	NP	34.0	NP	2.33	
MW-35S	11/22/2010	11:54	8.11	7.68	3.2	5.32	NP	13.0	NP	2.36	
MW-35I	11/22/2010	11:55	8.11	7.54	0.1	5.51	NP	33.0	NP	2.03	
MW-36S	11/22/2010	10:22	5.64	5.31	43.0	2.83	NP	13.0	NP	2.48	
MW-36I	11/22/2010	10:24	5.64	5.24	2.0	2.72	NP	38.0	NP	2.52	
MW-37S	11/22/2010	10:56	12.43	12.05	0.0	10.27	NP	20.0	NP	1.78	
MW-37I	11/22/2010	10:55	12.43	11.99	0.0	10.59	NP	42.0	NP	1.40	
MW-38S	11/22/2010	11:06	11.68	11.33	0.0	8.46	NP	13.0	NP	2.87	
MW-38I	11/22/2010	11:07	11.68	11.32	0.0	8.41	NP	39.0	NP	2.91	
MW-39S	11/22/2010	10:44	18.38	18.14	3.3	13.56	NP	21.0	NP	4.58	
MW-39I	11/22/2010	10:45	18.38	18.16	0.9	15.27	NP	40.0	NP	2.89	
MW-40S	11/22/2010	10:38	12.30	11.74	124.6	12.40	NP	13.5	NP	-0.66	
MW-40I	11/22/2010	10:36	12.42	11.50	10.3	5.30	NP	58.0	NP	6.20	
MW-41S	11/22/2010	10:28	11.94	11.26	0.2	2.80	NP	13.5	NP	8.46	
MW-41I	11/22/2010	10:26	11.92	11.46	0.3	5.15	NP	58.0	NP	6.31	
MW-42S	11/22/2010	10:33	7.03	6.81	0.3	5.38	NP	13.0	NP	1.43	
MW-42I	11/22/2010	10:29	7.03	6.82	0.0	4.44	NP	38.0	NP	2.38	
MW-43S	11/22/2010	10:38	5.61	5.39	1.0	2.66	NP	13.0	NP	2.73	
MW-43I	11/22/2010	10:39	5.61	5.40	1.0	2.94	NP	37.5	NP	2.46	
MW-44S	11/22/2010	10:55	5.23	4.72	0.2	3.48	NP	13.0	NP	1.24	
MW-44I	11/22/2010	10:58	5.23	4.73	0.0	2.35	NP	45.0	NP	2.38	
MW-45S	11/22/2010	11:06	4.94	4.49	4.6	3.54	NP	14.0	NP	0.95	
MW-45I	11/22/2010	11:08	4.94	4.50	6.7	2.11	NP	41.0	NP	2.39	Faint petro like odor
MW-46I [1]	11/22/2010	11:03	5.15	4.76	0.2	3.31	NP	57.0	NP	1.45	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-47S	11/22/2010	11:14	5.46	4.53	12.9	3.70	NP	28.0	NP	0.83	Strong petro like odor
MW-47I	11/22/2010	11:17	5.46	4.62	2.1	2.28	2.27	44.0	0.01	2.34	LNAPL and DNAPL Detected in well
SGMW-2	11/22/2010	NR	9.78	NA	NA	8.95	NA	NA	NA	0.83	
SGMW-3	11/22/2010	10:45	5.16	NA	NA	4.25	NA	NA	NA	0.91	This benchmark may be bent upwards due to canal work.
SGMW-8	11/22/2010	9:57	5.22	NA	NA	3.16	NA	NA	NA	2.06	
SGMW-9	11/22/2010	NR	10.20	NA	NA	8.85	NA	NA	NA	1.35	
SGMW-13	11/22/2010	10:42	4.38	NA	NA	3.31	NA	NA	NA	1.07	
SGMW-15	11/22/2010	11:09	6.97	NA	NA	7.98	NA	NA	NA	-1.01	
SGMW-18	11/22/2010	NR	8.83	NA	NA	8.83	NA	NA	NA	0.00	
SGMW-23	11/22/2010	10:30	11.31	NA	NA	5.72	NA	NA	NA	5.59	
SGMW-24	11/22/2010	11:22	7.35	NA	NA	7.30	NA	NA	NA	0.05	
SGMW-27	11/22/2010	11:02	6.38	NA	NA	5.80	NA	NA	NA	0.58	
SGMW-28	11/22/2010	12:09	9.03	NA	NA	9.95	NA	NA	NA	-0.92	
SGMW-31	11/22/2010	10:30	9.23	NA	NA	5.15	NA	NA	NA	4.08	
SGMW-37	11/22/2010	11:00	8.89	NA	NA	8.20	NA	NA	NA	0.69	
SGMW-42	11/22/2010	10:37	5.74	NA	NA	4.96	NA	NA	NA	0.78	
SGMW-45	11/22/2010	11:30	5.76	NA	NA	6.46	NA	NA	NA	-0.70	
SG-Union	11/22/2010	10:33	17.19	NA	NA	16.15	NA	NA	NA	1.04	
SGMW-32	11/22/2010	10:30	10.64	NA	NA	6.61	NA	NA	NA	4.03	

Notes:

MW-28I - Installed by USEPA

MW-30I - Installed by National Grid

MW-18I - Installed by NYC

Original Staff Gauge ID	Standardized EPA Staff Gauge ID
Stream Gauge - Gowanus Pump Station	SGMW-2
Stream Gauge - Former Power Station	SGMW-9
Stream Gauge - DOT	SGMW-18
Canal-Gate Station	SGMW-23
Canal-Degraw St	SGMW-31
Canal-Union St	SG-Union
Canal-Mazzei	SGMW-32

[1] - Montitoring well MW-46I was originally mislabled as MW-46D. This well is screened in the intermediate zone and is identified in the report as MW-26I.

[2] - MW-40S – Elevation not compensated for LNAPL thickness

NAPL observed in monitoring well

NP - No Product

NA - Not applicable

NR - Not recorded

All interface probes were calibrated to within 0.1 inch on 11/22/10

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Appendix D-9
Monthly Water Level Measurement Summary - December, 2010
Gowanus Canal Remedial Investigation
Brooklyn, NY

December 20, 2010
Tide: Low @ 1:33pm

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-1S	12/20/2010	NR	9.57	8.89	<1	8.34	NP	17.0	NP	0.55	
MW-1I	12/20/2010	NR	9.59	9.42	<1	6.94	NP	39.8	NP	2.48	
MW-2S	12/20/2010	NR	5.49	5.02	<1	3.12	NP	12.9	NP	1.90	
MW-2I	12/20/2010	NR	5.57	5.28	<1	2.93	NP	34.6	NP	2.35	
MW-3S	12/20/2010	13:55	7.03	6.62	1.3	8.26	NP	15.0	NP	-1.64	
MW-3I	12/20/2010	13:58	7.03	6.62	0.0	4.88	NP	43.0	NP	1.74	
MW-4S	12/20/2010	13:20	8.90	8.62	0.0	4.53	NP	13.0	NP	4.09	
MW-4I	12/20/2010	13:22	8.90	8.56	0.7	6.23	NP	39.0	NP	2.33	
MW-5S	12/20/2010	14:20	6.30	5.84	5.9	3.99	NP	13.0	NP	1.85	
MW-5I	12/20/2010	14:22	6.30	5.86	0.5	3.46	NP	35.0	NP	2.40	
MW-6S	12/20/2010	14:30	7.43	7.18	2.7	3.05	NP	13.0	NP	4.13	
MW-6I	12/20/2010	14:33	7.43	7.21	0.5	5.21	NP	35.0	NP	2.00	
MW-7S	12/20/2010	13:50	7.09	6.44	0.0	8.65	NP	13.0	NP	-2.21	
MW-7I	12/20/2010	13:55	7.09	6.39	5.2	4.15	29.80	32.6	2.80	2.24	Strong odor, DNAPL present
MW-8S	12/20/2010	14:14	7.51	7.13	0.0	2.95	NP	13.0	NP	4.18	
MW-8I	12/20/2010	14:12	7.51	7.17	1.8	4.92	NP	39.0	NP	2.25	
MW-9S	12/20/2010	NR	10.47	10.21	<1	8.83	NP	14.9	NP	1.38	
MW-9I	12/20/2010	NR	10.32	9.76	<1	7.75	NP	39.2	NP	2.01	
MW-10S	12/20/2010	NR	13.63	13.31	<1	9.94	NP	15.0	NP	3.37	
MW-10I	12/20/2010	NR	13.74	13.46	<1	11.25	NP	45.0	NP	2.21	
MW-11S	12/20/2010	14:17	9.99	9.75	36.3	7.40	7.39	14.0	0.01	2.35	
MW-11I	12/20/2010	14:18	9.99	9.75	0.7	7.66	NP	45.0	NP	2.09	DNAPL-Steady tone and globules on probe
MW-12S	12/20/2010	14:16	12.29	11.84	984.0	9.36	NP	14.0	NP	2.48	
MW-12I	12/20/2010	14:17	12.29	11.75	1.0	9.65	NP	45.0	NP	2.10	odor-mothball like
MW-13S	12/20/2010	14:07	6.43	5.85	66.2	4.22	NP	13.0	NP	1.63	
MW-13I	12/20/2010	14:06	6.43	5.82	1.6	5.20	NP	56.0	NP	0.62	
MW-14S	12/20/2010	13:56	7.19	7.04	2.0	4.33	NP	13.0	NP	2.71	
MW-14I	12/20/2010	13:57	7.19	7.05	0	5.94	NP	56.0	NP	1.11	
MW-15S	12/20/2010	13:30	7.85	7.46	0	6.43	NP	13.0	NP	1.03	
MW-15I	12/20/2010	13:32	7.85	7.49	0	18.20	NP	60.0	NP	-10.71	
MW-16S	12/20/2010	13:43	7.31	6.72	0	4.11	NP	13.0	NP	2.61	
MW-16I	12/20/2010	13:45	7.31	6.77	0	6.63	NP	59.0	NP	0.14	
MW-17S	12/20/2010	NR	10.41	9.89	<1	8.46	NP	15.0	NP	1.43	
MW-17I	12/20/2010	NR	10.32	9.94	<1	8.19	NP	44.4	NP	1.75	
MW-18S	12/20/2010	NR	11.35	10.89	<1	5.78	NP	14.6	NP	5.11	
MW-18I	12/20/2010	NR	11.08	10.52	<1	9.35	NP	56.7	NP	1.17	
MW-19S	12/20/2010	NR	12.08	11.44	<1	5.35	NP	15.0	NP	6.09	
MW-19I	12/20/2010	NR	12.14	11.69	<1	9.85	NP	59.1	NP	1.84	
MW-20S	12/20/2010	13:50	6.40	6.00	27.7	4.48	NP	13.0	NP	1.52	
MW-20I	12/20/2010	13:50	6.40	6.06	34	4.21	NP	39.0	NP	1.85	
MW-21S	12/20/2010	13:31	6.54	6.22	25.4	3.40	NP	13.0	NP	2.82	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-21I	12/20/2010	13:32	6.54	6.31	0	4.31	NP	38.0	NP	2.00	rotten egg like odor
MW-23S	12/20/2010	13:35	12.08	11.83	0.3	4.90	NP	13.0	NP	6.93	
MW-23I	12/20/2010	13:38	12.03	11.57	0.4	NA	5.51	39.0	7.33	NA	
MW-24S	12/20/2010	14:30	8.99	8.71	0	6.05	NP	15.5	NP	2.66	
MW-24I	12/20/2010	14:30	8.99	8.71	0	6.68	NP	40.0	NP	2.03	
MW-25S	12/20/2010	13:56	22.74	22.25	0	20.68	NP	24.0	NP	1.57	
MW-25I	12/20/2010	13:56	22.74	22.25	0	20.25	NP	43.0	NP	2.00	
MW-26S	12/20/2010	14:02	21.71	21.44	0.1	19.30	NP	24.0	NP	2.14	
MW-26I	12/20/2010	14:02	21.71	21.44	0.2	19.33	NP	39.0	NP	2.11	
MW-27S	12/20/2010	14:07	17.80	17.41	0.2	16.73	NP	23.0	NP	0.68	
MW-27I	12/20/2010	14:07	17.80	17.41	0.2	15.35	NP	40.0	NP	2.06	
MW-28S	12/20/2010	13:37	8.26	7.80	1.9	5.50	NP	13.0	NP	2.30	
MW-28I	12/20/2010	13:37	8.26	7.75	0.2	5.71	NP	37.0	NP	2.04	
MW-29S	12/20/2010	13:42	9.14	8.82	24.5	6.14	NP	13.0	NP	2.68	
MW-29I	12/20/2010	13:42	9.14	8.86	1.90	6.73	NP	37.0	NP	2.13	
MW-30S	12/20/2010	14:00	11.56	11.37	27.70	7.55	NP	19.0	NP	3.82	
MW-30I	12/20/2010	14:06	11.67	11.43	5.70	6.95	NP	37.0	NP	4.48	
MW-31S	12/20/2010	NR	10.71	10.31	NR	NR	NR	NR	NR	NR	
MW-31I	12/20/2010	14:55	10.44	10.19	13.20	19:12	NR	NR	NR	5.39	
MW-32S	12/20/2010	14:31	21.42	21.04	0.00	12.71	NP	22.0	NP	8.33	
MW-32I	12/20/2010	14:32	21.50	21.25	0.00	15.30	NP	46.0	NP	5.95	
MW-33S	12/20/2010	13:20	7.82	7.31	0.00	4.45	NP	13.0	NP	2.86	
MW-33I	12/20/2010	13:20	7.82	7.24	44.0	4.75	NP	39.0	NP	2.49	
MW-34S	12/20/2010	13:10	5.46	4.99	0.2	3.55	NP	13.0	NP	1.44	
MW-34I	12/20/2010	13:14	5.46	5.00	0.3	3.09	NP	34.0	NP	1.91	
MW-35S	12/20/2010	13:30	8.11	7.68	0.9	5.39	NP	13.0	NP	2.29	
MW-35I	12/20/2010	13:30	8.11	7.54	0.5	5.46	NP	33.0	NP	2.08	
MW-36S	12/20/2010	13:32	5.64	5.31	0.3	3.52	NP	13.0	NP	1.79	
MW-36I	12/20/2010	13:35	5.64	5.24	5.3	3.27	NP	38.0	NP	1.97	
MW-37S	12/20/2010	14:14	12.43	12.05	0.0	10.09	NP	20.0	NP	1.96	
MW-37I	12/20/2010	14:13	12.43	11.99	0.0	9.66	NP	42.0	NP	2.33	
MW-38S	12/20/2010	14:01	11.68	11.33	0.3	8.50	NP	13.0	NP	2.83	
MW-38I	12/20/2010	14:02	11.68	11.32	0.2	8.63	NP	39.0	NP	2.69	
MW-39S	12/20/2010	14:21	18.38	18.14	10.2	13.52	NP	21.0	NP	4.62	
MW-39I	12/20/2010	14:22	18.38	18.16	1.5	15.12	NP	40.0	NP	3.04	
MW-40S	12/20/2010	14:23	12.30	11.74	142.0	3.40	0.04	13.5	3.36	8.34	
MW-40I	12/20/2010	14:19	12.42	11.50	169.0	6.99	NP	58.0	NP	4.51	
MW-41S	12/20/2010	14:10	11.94	11.26	0.3	2.70	NP	13.5	NP	8.56	
MW-41I	12/20/2010	14:13	11.92	11.46	0.1	6.81	NP	58.0	NP	4.65	
MW-42S	12/20/2010	13:37	7.03	6.81	1.1	8.75	NP	13.0	NP	-1.94	
MW-42I	12/20/2010	13:37	7.03	6.82	26.0	4.95	NP	38.0	NP	1.87	Slight petro like odor
MW-43S	12/20/2010	13:45	5.61	5.39	0.3	2.50	NP	13.0	NP	2.89	moderate odor
MW-43I	12/20/2010	13:47	5.61	5.40	0.4	3.40	NP	37.5	NP	2.00	
MW-44S	12/20/2010	13:18	5.23	4.72	2.1	3.72	NP	13.0	NP	1.00	
MW-44I	12/20/2010	13:20	5.23	4.73	3.4	2.64	NP	45.0	NP	2.09	
MW-45S	12/20/2010	13:26	4.94	4.49	5.7	3.87	NP	14.0	NP	0.62	
MW-45I	12/20/2010	13:27	4.94	4.50	53.6	2.34	NP	41.0	NP	2.16	
MW-46I [1]	12/20/2010	13:24	5.15	4.76	17.2	2.59	NP	57.0	NP	2.17	

Well ID No.	Date (mm/dd/yyyy)	Time (24-hr)	Top of Protective Casing Elevation NVGD88	Top of Inner Casing Elevation NVGD88	Well Head PID Readings (ppm)	Depth to Water from BTIC (feet)	Depth to Top of Product from BTIC (feet)	Depth to Bottom of Well (feet)	Product Thickness If any (feet)	Elevation to water from BTIC NVGD88	Comments, Product Description (if applicable)
MW-47S	12/20/2010	13:29	5.46	4.53	61.5	3.69	NP	28.0	NP	0.84	
MW-47I	12/20/2010	13:30	5.46	4.62	20.3	2.49	43.80	44.0	0.20	2.13	
SGMW-2	12/20/2010	NR	9.78	NA	NA	12.12	NA	NA	NA	-2.34	
SGMW-3	12/20/2010	14:04	5.16	NA	NA	7.14	NA	NA	NA	-1.98	
SGMW-8	12/20/2010	14:10	5.22	NA	NA	7.25	NA	NA	NA	-2.03	
SGMW-9	12/20/2010	NR	10.20	NA	NA	12.40	NA	NA	NA	-2.20	
SGMW-13	12/20/2010	14:10	4.38	NA	NA	6.40	NA	NA	NA	-2.02	
SGMW-15	12/20/2010	13:39	6.97	NA	NA	5.95	NA	NA	NA	1.02	Collected measurements from top of bolt
SGMW-18	12/20/2010	NR	8.83	NA	NA	11.75	NA	NA	NA	-2.92	
SGMW-23	12/20/2010	13:30	11.31	NA	NA	8.74	NA	NA	NA	2.57	
SGMW-24	12/20/2010	14:35	7.35	NA	NA	9.30	NA	NA	NA	-1.95	
SGMW-27	12/20/2010	14:52	6.38	NA	NA	7.84	NA	NA	NA	-1.46	
SGMW-28	12/20/2010	15:04	9.03	NA	NA	10.15	NA	NA	NA	-1.12	
SGMW-31	12/20/2010	13:44	9.23	NA	NA	8.38	NA	NA	NA	0.85	
SGMW-37	12/20/2010	14:30	8.89	NA	NA	10.51	NA	NA	NA	-1.62	
SGMW-42	12/20/2010	13:40	5.74	NA	NA	8.15	NA	NA	NA	-2.41	
SGMW-45	12/20/2010	13:20	5.76	NA	NA	8.31	NA	NA	NA	-2.55	
SG-Union	12/20/2010	13:50	17.19	NA	NA	16.60	NA	NA	NA	0.59	
SGMW-32	12/20/2010	13:31	10.64	NA	NA	10.11	NA	NA	NA	0.53	

Notes:

MW-28I - Installed by USEPA
MW-30I - Installed by National Grid
MW-18I - Installed by NYC

Original Staff Gauge ID	Standardized EPA Staff Gauge ID
Stream Gauge - Gowanus Pump Station	SGMW-2
Stream Gauge - Former Power Station	SGMW-9
Stream Gauge - DOT	SGMW-18
Canal-Gate Station	SGMW-23
Canal-Degraw St	SGMW-31
Canal-Union St	SG-Union
Canal-Mazzei	SGMW-32

[1] - Montitoring well MW-46I was originally mislabled as MW-46D. This well is screened in the intermediate zone and is identified in the report as MW-26I.

[2] - MW-40S – Elevation not compensated for LNAPL thickness

NAPL observed in monitoring well

NP - No Product
NA - Not applicable
NR - Not recorded
All interface probes were calibrated to within 0.1 inch on 12/20/1C

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Appendix D
Field Documentation

D-10 – CSO Traffic Management Plans

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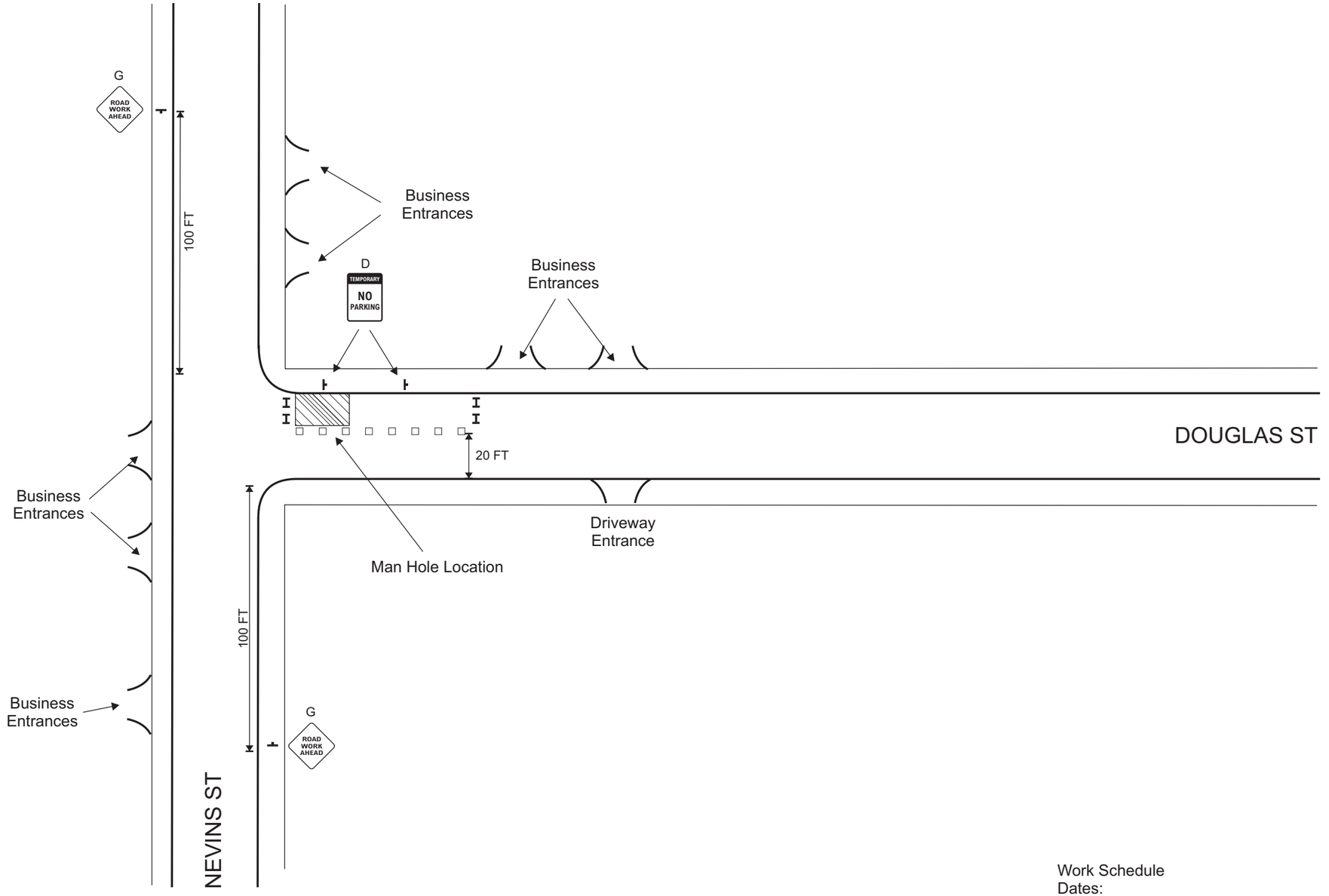

Work Schedule
Dates:
Times:

Not to Scale

LEGEND

- □ – Channelizing Devices
- ● – High Level Flag Tree
- H – Type I Barricade
- ⊥ – Sign with stand
- ▭ – Trailer Arrow Board
- ▭ – Message Board
- ▨ – Work Zone

MUNICIPALITY

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N E S W

SPEED LIMIT

SPEED LIMIT 25

SIGN SIZES

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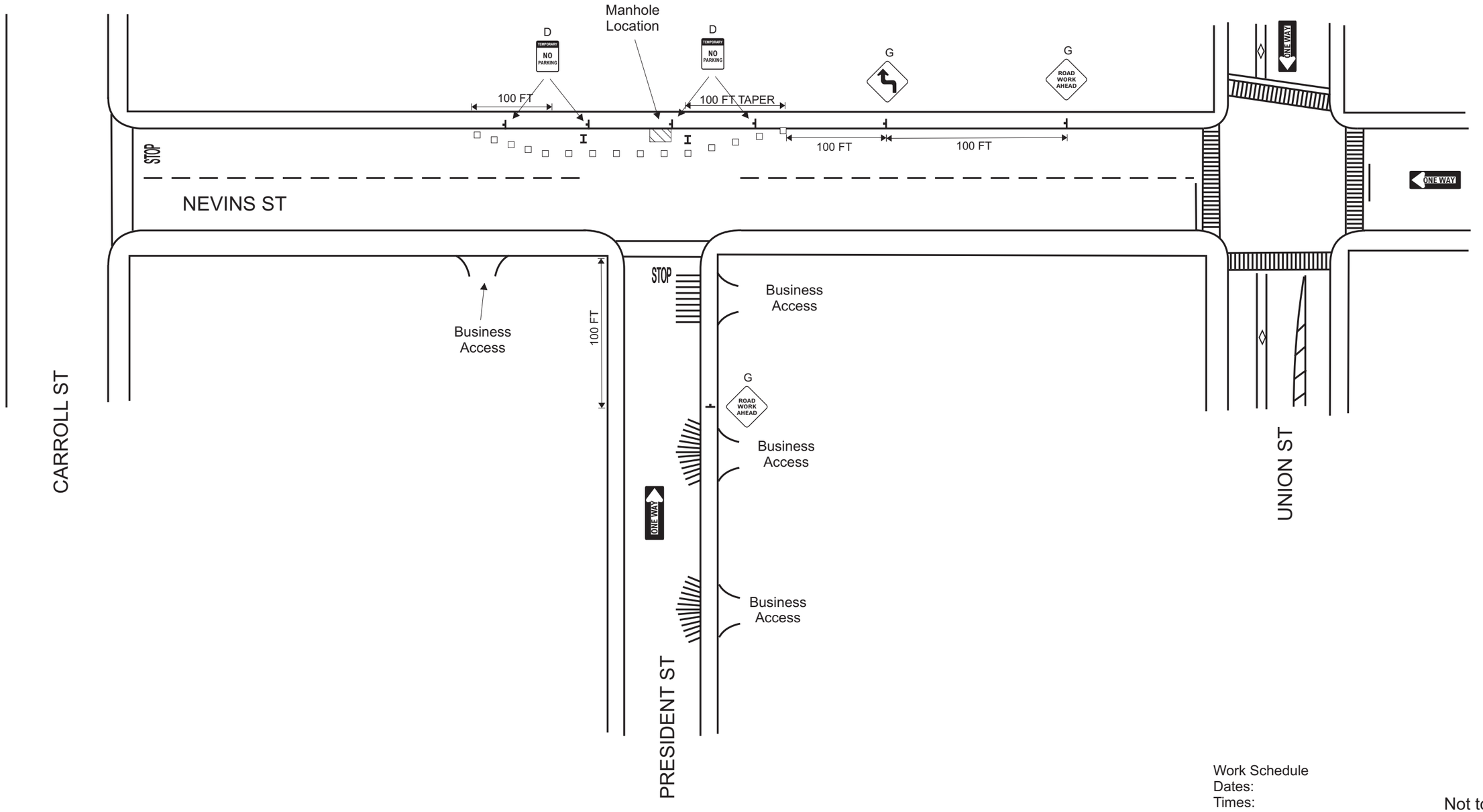
- ○ Eng. Grade ○ H.I.P ○ Dia. Grade

TMI TRAFFIC MANAGEMENT INCORPORATED
39 McDermott Road
North Haven, CT 06473
P: 800-763-3999 F: 213-725-6561

Reviewed By: Date:

INFORMATION

Owner	City of Brooklyn
Project Name	Project Number
Prime Contractor	Traffic Control Contractor: Traffic Management, Inc.
Phone	Sheet Number: 1 of 1 / Date: 6-22-10
Prepared By	Craig Brisbois



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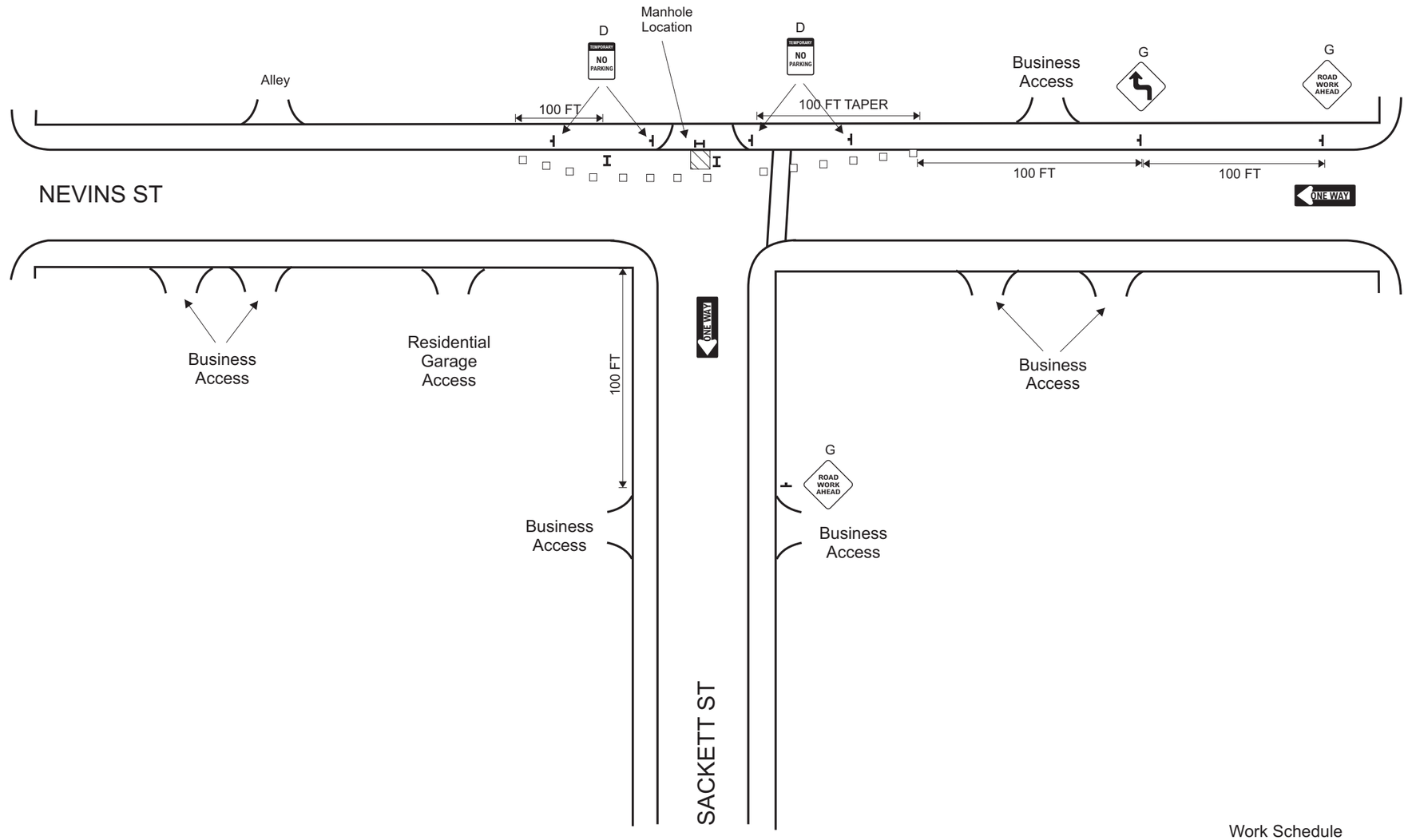

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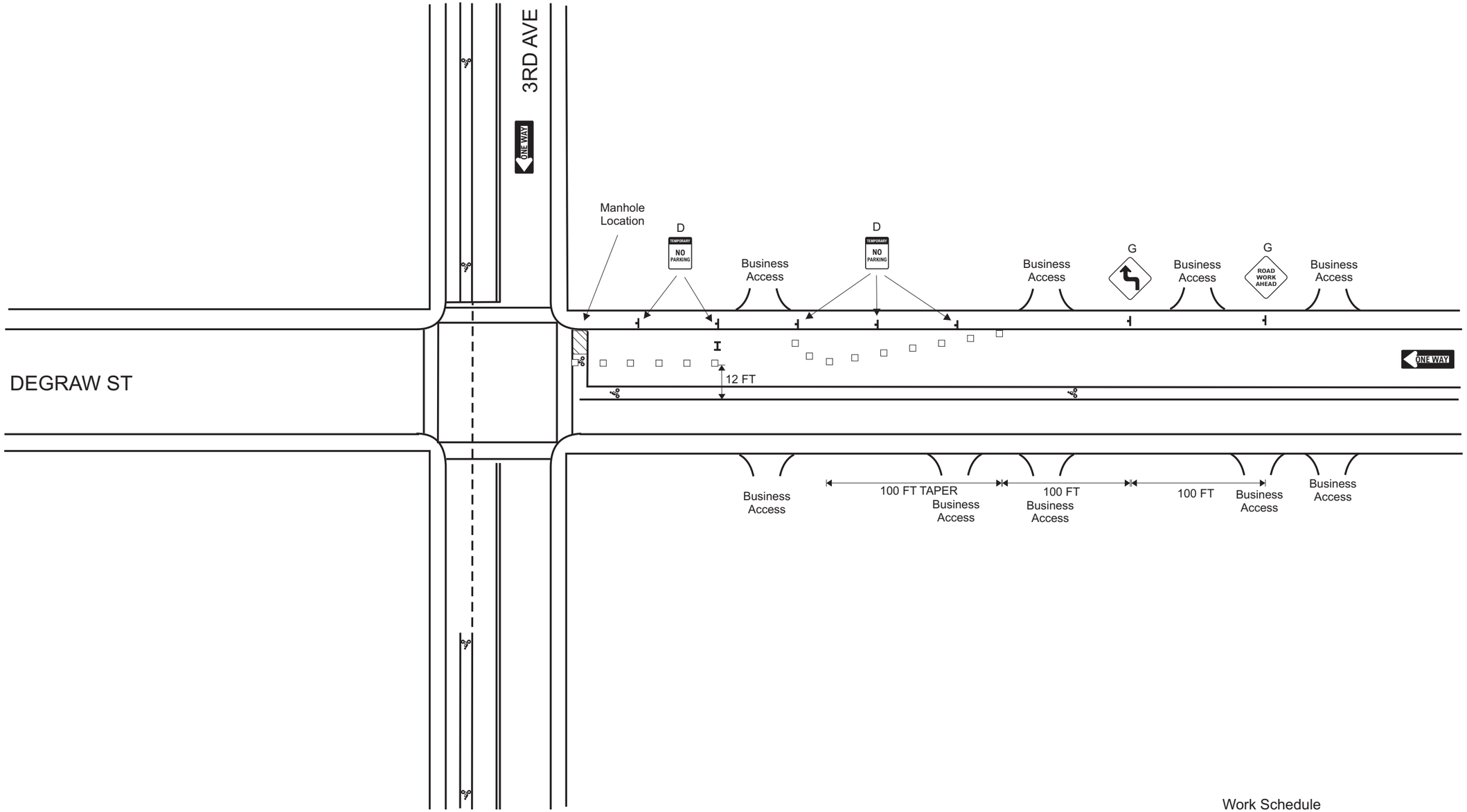

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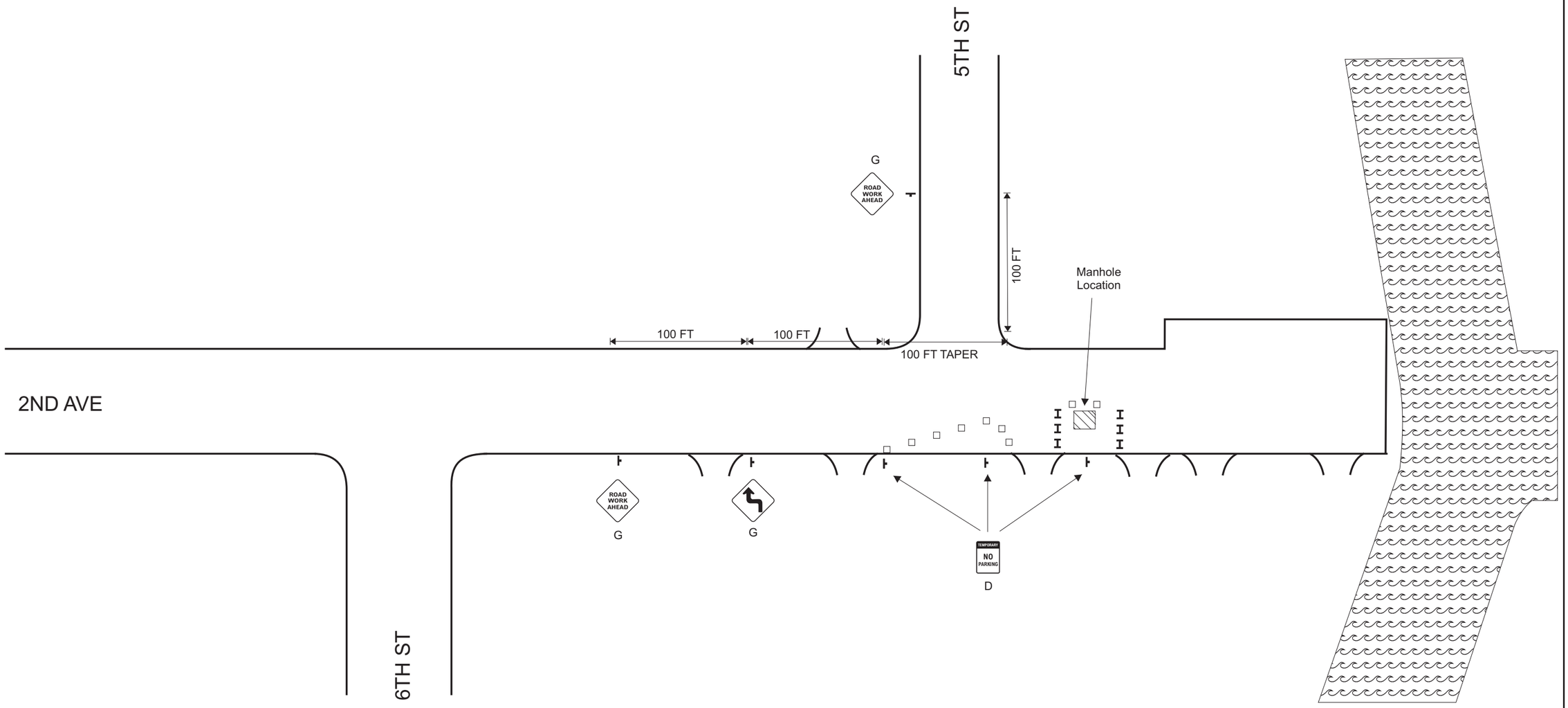

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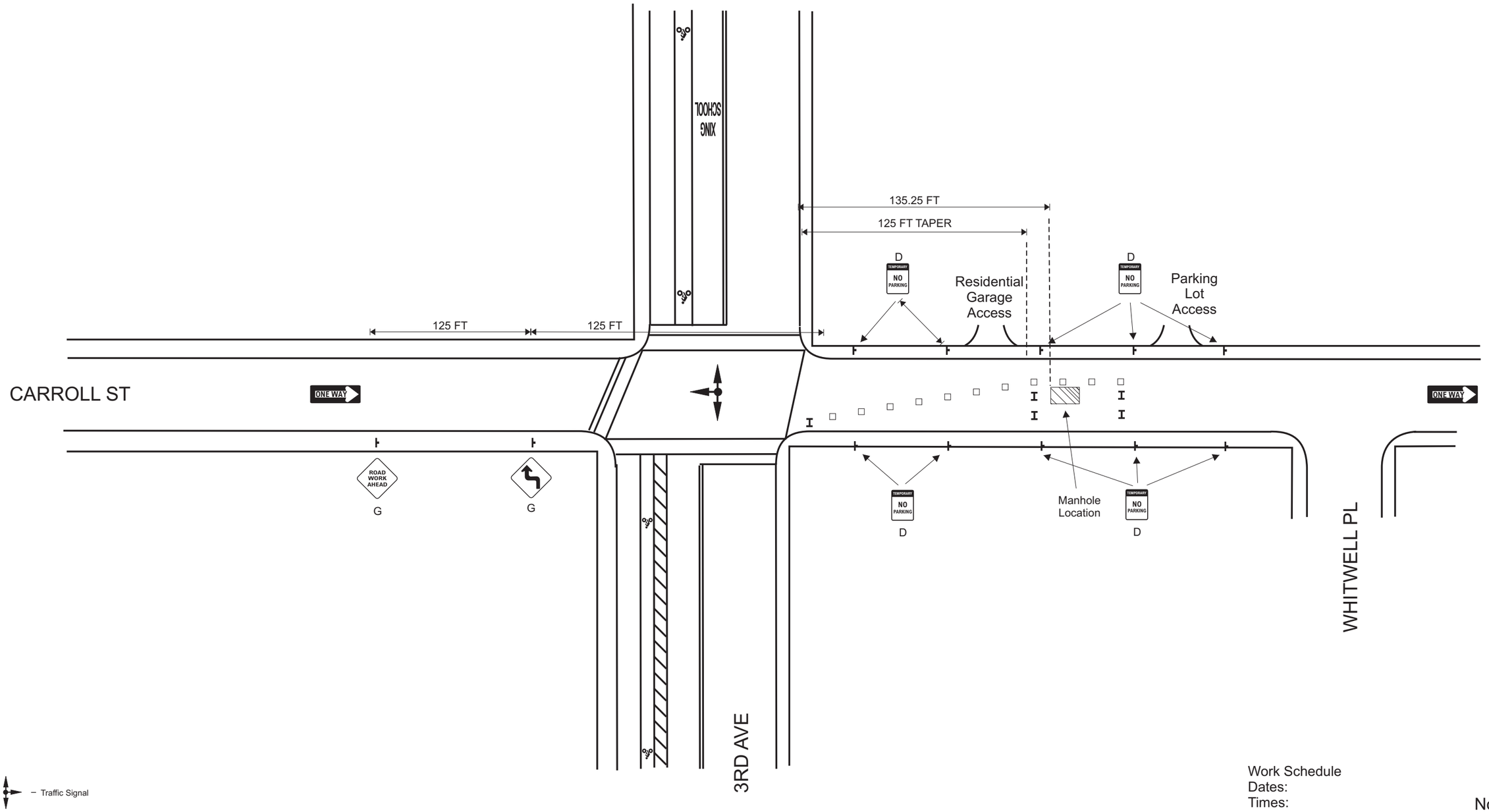

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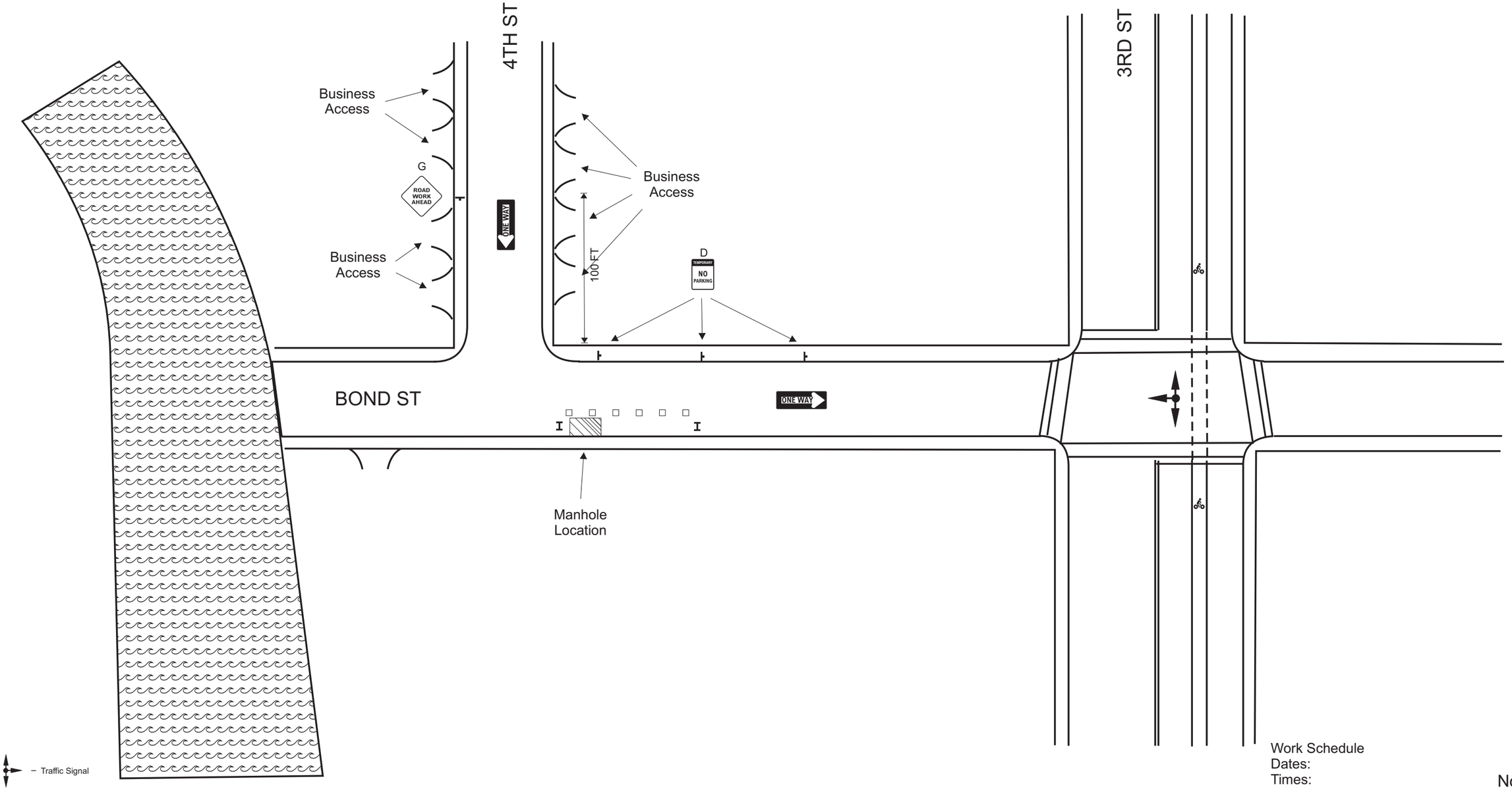

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SPEED LIMIT 25

SIGN SIZES

- ○ A) 18x18 ○ F) 30x36 ○ K) 18x48
- ○ B) 18x24 ○ G) 36x36 ○ L) 24x48
- ○ C) 24x24 ○ H) 36x48 ○ M) 30x48
- ○ D) 24x30 ○ I) 48x48 ○ N) Other:
- ○ E) 30x30 ○ J) 48x60 ○

○ Eng. Grade ○ H.I.P ○ Dia. Grade

TMI TRAFFIC MANAGEMENT INCORPORATED
39 McDermott Road
North Haven, CT 06473
P: 800-763-3999 F: 213-725-6561

Reviewed By: Date:

INFORMATION

Owner: City of Brooklyn

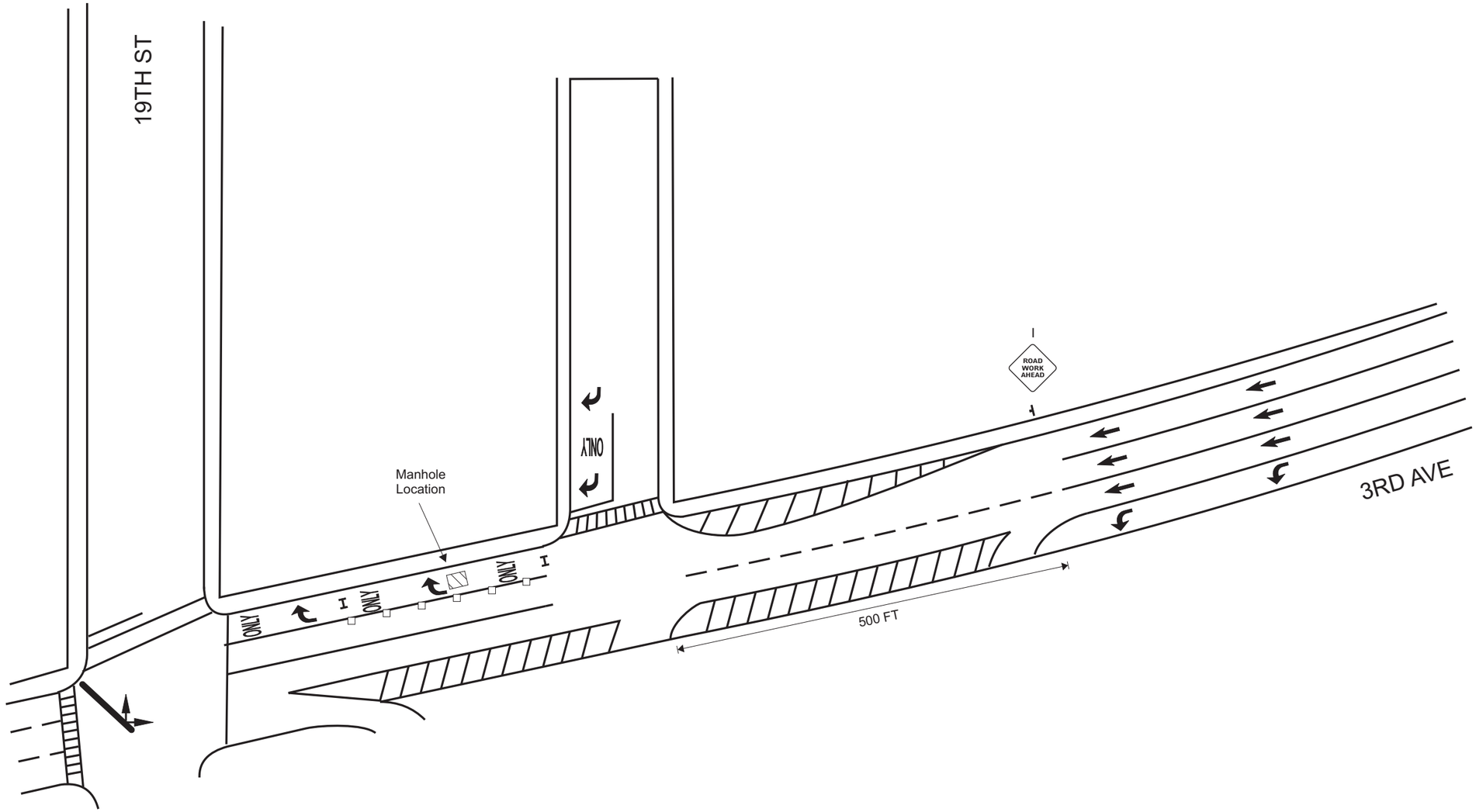
Project Name / Project Number

Prime Contractor: Traffic Management, Inc.

Traffic Control Contractor

Phone / Sheet Number: 1 of 1 / Date: 6-22-10

Prepared By: Craig Brisbois



Work Schedule
Dates:
Times:

Not to Scale

LEGEND

- □ – Channelizing Devices
- ● – High Level Flag Tree
- H – Type I Barricade
- ⊥ – Sign with stand
- ▨ – Trailer Arrow Board
- ⊣⊢ – Message Board
- ▨ – Work Zone

MUNICIPALITY

SPEED LIMIT

SPEED LIMIT

SPEED LIMIT 45

SIGN SIZES

- ○ A) 18x18 ○ F) 30x36 ○ K) 18x48
- ○ B) 18x24 ○ G) 36x36 ○ L) 24x48
- ○ C) 24x24 ○ H) 36x48 ○ M) 30x48
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TRAFFIC MANAGEMENT INCORPORATED
39 McDermott Road
North Haven, CT 06473
P: 800-763-3999 F: 213-725-6561

Reviewed By: Date:

INFORMATION

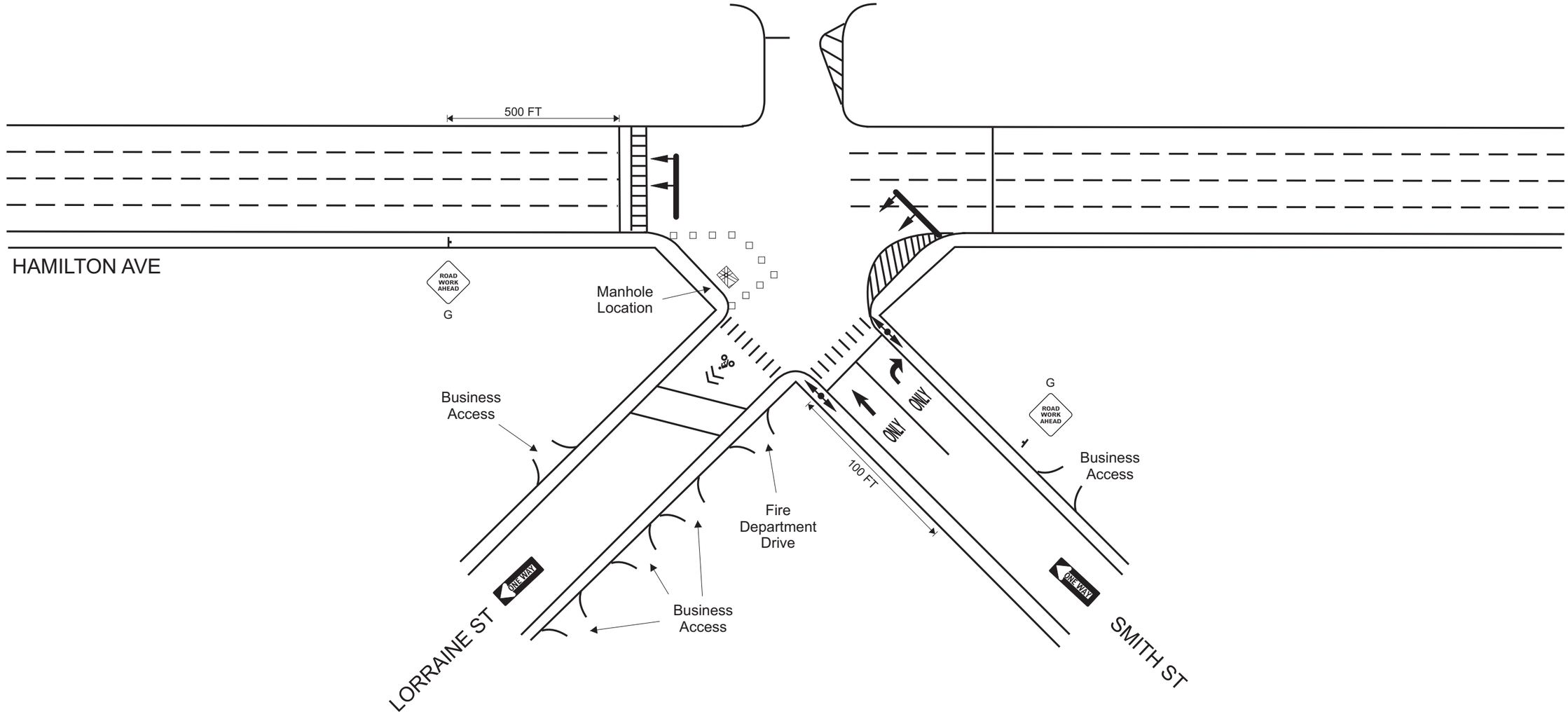
Owner: **City of Brooklyn**

Project Name | Project Number

Prime Contractor | Traffic Control Contractor: Traffic Management, Inc.

Phone | Sheet Number: 1 of 1 | Date: 6-22-10

Prepared By: Craig Brisbois



Work Schedule
Dates:
Times:

Not to Scale

LEGEND

- □ – Channelizing Devices
- ● – High Level Flag Tree
- H – Type I Barricade
- – Sign with stand
- – Trailer Arrow Board
- – Message Board
- – Work Zone

MUNICIPALITY

SPEED LIMIT

N E S W

SPEED LIMIT

SPEED LIMIT 25

SIGN SIZES

- ○ A) 18x18 ○ F) 30x36 ○ K) 18x48
- ○ B) 18x24 ○ G) 36x36 ○ L) 24x48
- ○ C) 24x24 ○ H) 36x48 ○ M) 30x48
- ○ D) 24x30 ○ I) 48x48 ○ N) Other:
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Owner	City of Brooklyn
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Prime Contractor	Traffic Control Contractor: Traffic Management, Inc.
Phone	Sheet Number: 1 of 1 — Date: 6-22-10
Prepared By	Craig Brisbois

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Appendix D
Field Documentation

D-11 – Weather Tracking Logs

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Appendix D
Field Documentation

D-11 – Weather Tracking Logs

USEPA Field Office Weather Station Log

296 Bond St., Brooklyn NY 11231

(Corner of Bond St. & Sackett St.)

Longitude: 40˚40'50.16" Latitude: 73˚59'22.20"

(Datum: WGS84)

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Gowanus Phase III Weather Data 6/18/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/18/10	12:15a	66.9	67.1	66.9	71	57.2	0.0	WSW	0.00	4.0	WSW	66.9	67.3	67.3	30.070	0.00	0.00	0.000	0.020
6/18/10	12:30a	66.7	66.9	66.7	72	57.4	1.0	WSW	0.25	4.0	WSW	66.7	67.2	67.2	30.071	0.00	0.00	0.000	0.018
6/18/10	12:45a	66.5	66.7	66.5	72	57.2	0.0	SW	0.00	6.0	SW	66.5	66.9	66.9	30.072	0.00	0.00	0.000	0.016
6/18/10	1:00a	66.4	66.5	66.4	72	57.1	0.0	WSW	0.00	4.0	WSW	66.4	66.8	66.8	30.077	0.00	0.00	0.000	0.015
6/18/10	1:15a	66.2	66.4	66.2	72	56.9	0.0	WSW	0.00	4.0	WSW	66.2	66.6	66.6	30.074	0.00	0.00	0.000	0.012
6/18/10	1:30a	66.1	66.2	66.0	73	57.2	0.0	NNW	0.00	5.0	NNW	66.1	66.5	66.5	30.072	0.00	0.00	0.000	0.011
6/18/10	1:45a	66.2	66.2	66.0	73	57.3	0.0	NNW	0.00	4.0	NNW	66.2	66.6	66.6	30.070	0.00	0.00	0.000	0.012
6/18/10	2:00a	66.4	66.4	66.2	72	57.1	0.0	NNE	0.00	5.0	NNE	66.4	66.8	66.8	30.071	0.00	0.00	0.000	0.015
6/18/10	2:15a	66.4	66.5	66.4	72	57.1	0.0	NNE	0.00	2.0	NNE	66.4	66.8	66.8	30.075	0.00	0.00	0.000	0.015
6/18/10	2:30a	66.3	66.4	66.2	73	57.4	0.0	NNE	0.00	5.0	NNE	66.3	66.7	66.7	30.076	0.00	0.00	0.000	0.014
6/18/10	2:45a	66.0	66.2	66.0	74	57.5	0.0	NNE	0.00	5.0	NNE	66.0	66.4	66.4	30.074	0.00	0.00	0.000	0.010
6/18/10	3:00a	65.7	66.0	65.7	75	57.6	0.0	---	0.00	0.0	---	65.7	66.1	66.1	30.081	0.00	0.00	0.000	0.007
6/18/10	3:15a	65.4	65.7	65.4	76	57.6	0.0	---	0.00	0.0	---	65.4	65.9	65.9	30.084	0.00	0.00	0.000	0.004
6/18/10	3:30a	65.3	65.5	65.3	76	57.5	0.0	NNE	0.00	1.0	NNE	65.3	65.7	65.7	30.085	0.00	0.00	0.000	0.003
6/18/10	3:45a	65.1	65.3	65.1	77	57.7	0.0	NNE	0.00	1.0	NNE	65.1	65.6	65.6	30.085	0.00	0.00	0.000	0.001
6/18/10	4:00a	64.9	65.1	64.9	78	57.9	0.0	NNE	0.00	2.0	NNE	64.9	65.4	65.4	30.087	0.00	0.00	0.001	0.000
6/18/10	4:15a	64.7	64.9	64.7	77	57.3	0.0	NNE	0.00	1.0	NNE	64.7	65.1	65.1	30.086	0.00	0.00	0.003	0.000
6/18/10	4:30a	64.5	64.7	64.5	78	57.5	0.0	NNE	0.00	1.0	NNE	64.5	64.9	64.9	30.087	0.00	0.00	0.005	0.000
6/18/10	4:45a	64.4	64.5	64.4	79	57.7	0.0	---	0.00	0.0	---	64.4	64.9	64.9	30.093	0.00	0.00	0.006	0.000
6/18/10	5:00a	64.2	64.4	64.2	79	57.5	0.0	NNE	0.00	1.0	NNE	64.2	64.7	64.7	30.095	0.00	0.00	0.008	0.000
6/18/10	5:15a	64.2	64.2	64.2	79	57.5	0.0	NNE	0.00	1.0	NNE	64.2	64.7	64.7	30.105	0.00	0.00	0.008	0.000
6/18/10	5:30a	64.1	64.2	64.1	79	57.5	0.0	NNE	0.00	1.0	NNE	64.1	64.5	64.5	30.116	0.00	0.00	0.009	0.000
6/18/10	5:45a	64.1	64.1	64.0	79	57.5	0.0	NNE	0.00	2.0	NNE	64.1	64.5	64.5	30.116	0.00	0.00	0.009	0.000
6/18/10	6:00a	64.0	64.1	64.0	80	57.7	0.0	NNE	0.00	1.0	NNE	64.0	64.5	64.5	30.119	0.00	0.00	0.010	0.000
6/18/10	6:15a	64.1	64.1	64.0	80	57.8	0.0	NNE	0.00	2.0	NNE	64.1	64.6	64.6	30.126	0.00	0.00	0.009	0.000
6/18/10	6:30a	64.7	64.7	64.1	79	58.0	0.0	NNE	0.00	1.0	NNE	64.7	65.3	65.3	30.133	0.00	0.00	0.003	0.000
6/18/10	6:45a	65.7	65.7	64.7	77	58.3	0.0	NNE	0.00	1.0	NNE	65.7	66.3	66.3	30.141	0.00	0.00	0.000	0.007
6/18/10	7:00a	67.0	67.0	65.6	74	58.4	0.0	NNE	0.00	1.0	NNE	67.0	67.6	67.6	30.147	0.00	0.00	0.000	0.021
6/18/10	7:15a	68.7	68.7	67.0	71	58.9	0.0	W	0.00	4.0	W	68.7	69.3	69.3	30.149	0.00	0.00	0.000	0.039
6/18/10	7:30a	70.0	70.0	68.7	69	59.4	0.0	W	0.00	4.0	W	70.0	70.0	70.0	30.153	0.00	0.00	0.000	0.052
6/18/10	7:45a	71.1	71.1	70.1	66	59.2	0.0	W	0.00	1.0	W	71.1	71.1	71.1	30.150	0.00	0.00	0.000	0.064
6/18/10	8:00a	72.0	72.0	71.1	64	59.2	0.0	N	0.00	4.0	NNW	72.0	72.2	72.2	30.159	0.00	0.00	0.000	0.073
6/18/10	8:15a	73.0	73.0	72.0	63	59.7	0.0	W	0.00	6.0	NW	73.0	73.6	73.6	30.162	0.00	0.00	0.000	0.083
6/18/10	8:30a	73.5	73.6	73.1	61	59.2	1.0	NNW	0.25	7.0	N	73.5	74.1	74.1	30.162	0.00	0.00	0.000	0.089
6/18/10	8:45a	74.5	74.5	73.4	61	60.2	0.0	NNW	0.00	2.0	NNW	74.5	75.4	75.4	30.161	0.00	0.00	0.000	0.099
6/18/10	9:00a	76.1	76.1	74.5	58	60.2	0.0	ENE	0.00	5.0	ENE	76.1	76.6	76.6	30.166	0.00	0.00	0.000	0.116
6/18/10	9:15a	77.0	77.0	76.1	57	60.6	0.0	ENE	0.00	4.0	ENE	77.0	77.5	77.5	30.168	0.00	0.00	0.000	0.125
6/18/10	9:30a	78.1	78.1	77.1	55	60.6	1.0	ENE	0.25	5.0	ENE	78.1	78.6	78.6	30.162	0.00	0.00	0.000	0.136
6/18/10	9:45a	78.9	79.2	78.1	54	60.8	0.0	ENE	0.00	5.0	SW	78.9	79.4	79.4	30.162	0.00	0.00	0.000	0.145
6/18/10	10:00a	80.4	80.4	78.9	51	60.6	0.0	ESE	0.00	4.0	ESE	80.4	80.7	80.7	30.161	0.00	0.00	0.000	0.160
6/18/10	10:15a	80.4	81.0	80.4	48	58.9	1.0	N	0.25	5.0	NNE	80.4	80.3	80.3	30.157	0.00	0.00	0.000	0.160
6/18/10	10:30a	81.6	81.6	80.3	47	59.4	0.0	NNW	0.00	2.0	NNW	81.6	81.6	81.6	30.150	0.00	0.00	0.000	0.173
6/18/10	10:45a	82.2	82.2	81.4	45	58.7	1.0	N	0.25	5.0	ESE	82.2	82.2	82.2	30.154	0.00	0.00	0.000	0.179
6/18/10	11:00a	82.3	82.4	81.8	46	59.4	1.0	NNE	0.25	5.0	NNE	82.3	82.5	82.5	30.151	0.00	0.00	0.000	0.180
6/18/10	11:15a	83.6	83.6	82.1	45	60.0	0.0	NE	0.00	2.0	NE	83.6	84.5	84.5	30.149	0.00	0.00	0.000	0.194
6/18/10	11:30a	83.2	84.5	83.2	44	59.0	1.0	E	0.25	8.0	NNE	83.2	83.7	83.7	30.145	0.00	0.00	0.000	0.190
6/18/10	11:45a	84.3	84.3	83.3	44	60.0	1.0	ENE	0.25	5.0	N	84.3	85.2	85.2	30.146	0.00	0.00	0.000	0.201
6/18/10	12:00p	85.7	85.7	84.3	41	59.3	0.0	NNE	0.00	4.0	NNE	85.7	86.0	86.0	30.146	0.00	0.00	0.000	0.216
6/18/10	12:15p	84.9	86.2	84.9	42	59.2	1.0	N	0.25	6.0	N	84.9	85.4	85.4	30.157	0.00	0.00	0.000	0.207
6/18/10	12:30p	84.7	85.3	84.7	42	59.1	1.0	WSW	0.25	7.0	WSW	84.7	85.2	85.2	30.155	0.00	0.00	0.000	0.205
6/18/10	12:45p	85.6	85.6	84.7	42	59.9	1.0	SW	0.25	7.0	SW	85.6	86.1	86.1	30.153	0.00	0.00	0.000	0.215
6/18/10	1:00p	87.0	87.6	85.6	39	59.0	1.0	SW	0.25	6.0	SW	87.0	87.2	87.2	30.149	0.00	0.00	0.000	0.229
6/18/10	1:15p	86.5	86.9	85.9	40	59.3	1.0	WSW	0.25	7.0	WSW	86.5	86.8	86.8	30.146	0.00	0.00	0.000	0.224

Gowanus Phase III Weather Data 6/18/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/18/10	1:30p	86.8	86.8	86.5	38	58.1	1.0	WSW	0.25	5.0	SW	86.8	86.7	86.7	30.145	0.00	0.00	0.000	0.227
6/18/10	1:45p	88.1	88.1	86.8	38	59.3	1.0	W	0.25	4.0	W	88.1	87.8	87.8	30.145	0.00	0.00	0.000	0.241
6/18/10	2:00p	86.4	88.1	86.4	40	59.2	1.0	SW	0.25	7.0	W	86.4	86.7	86.7	30.147	0.00	0.00	0.000	0.223
6/18/10	2:15p	87.2	87.4	86.4	39	59.2	2.0	SW	0.50	8.0	SW	87.2	87.3	87.3	30.147	0.00	0.00	0.000	0.231
6/18/10	2:30p	88.2	88.2	87.1	36	57.9	0.0	W	0.00	4.0	E	88.2	87.4	87.4	30.142	0.00	0.00	0.000	0.242
6/18/10	2:45p	87.5	88.3	87.1	36	57.3	1.0	ENE	0.25	8.0	WNW	87.5	86.8	86.8	30.133	0.00	0.00	0.000	0.234
6/18/10	3:00p	87.3	87.5	87.1	34	55.5	1.0	ENE	0.25	5.0	NW	87.3	86.2	86.2	30.133	0.00	0.00	0.000	0.232
6/18/10	3:15p	88.5	88.5	87.3	35	57.4	1.0	ESE	0.25	7.0	NW	88.5	87.6	87.6	30.131	0.00	0.00	0.000	0.245
6/18/10	3:30p	87.8	88.7	87.8	34	55.9	1.0	W	0.25	7.0	SSW	87.8	86.5	86.5	30.131	0.00	0.00	0.000	0.238
6/18/10	3:45p	87.3	88.0	87.3	33	54.7	1.0	E	0.25	5.0	E	87.3	86.0	86.0	30.130	0.00	0.00	0.000	0.232
6/18/10	4:00p	86.0	87.3	85.9	35	55.2	1.0	ENE	0.25	6.0	ENE	86.0	85.3	85.3	30.132	0.00	0.00	0.000	0.219
6/18/10	4:15p	85.8	86.2	85.8	34	54.2	1.0	SW	0.25	5.0	NW	85.8	84.9	84.9	30.135	0.00	0.00	0.000	0.217
6/18/10	4:30p	85.8	85.9	85.7	36	55.8	1.0	ENE	0.25	6.0	SW	85.8	85.3	85.3	30.132	0.00	0.00	0.000	0.217
6/18/10	4:45p	85.0	85.8	85.0	36	55.1	1.0	ENE	0.25	5.0	N	85.0	84.4	84.4	30.131	0.00	0.00	0.000	0.208
6/18/10	5:00p	84.3	85.0	84.3	36	54.4	1.0	E	0.25	5.0	E	84.3	83.8	83.8	30.131	0.00	0.00	0.000	0.201
6/18/10	5:15p	83.6	84.2	83.4	38	55.3	2.0	NE	0.50	7.0	NW	83.6	83.3	83.3	30.133	0.00	0.00	0.000	0.194
6/18/10	5:30p	83.8	83.9	83.7	37	54.7	1.0	NNE	0.25	6.0	NW	83.8	83.4	83.4	30.128	0.00	0.00	0.000	0.196
6/18/10	5:45p	82.7	83.8	82.6	38	54.5	2.0	NW	0.50	8.0	WNW	82.7	82.0	82.0	30.129	0.00	0.00	0.000	0.184
6/18/10	6:00p	83.0	83.0	82.7	38	54.8	1.0	NW	0.25	7.0	WNW	83.0	82.3	82.3	30.127	0.00	0.00	0.000	0.188
6/18/10	6:15p	82.4	83.0	82.4	40	55.7	1.0	E	0.25	7.0	WNW	82.4	81.9	81.9	30.126	0.00	0.00	0.000	0.181
6/18/10	6:30p	82.2	82.4	82.2	40	55.5	1.0	NNE	0.25	8.0	NW	82.2	81.6	81.6	30.128	0.00	0.00	0.000	0.179
6/18/10	6:45p	81.1	82.1	81.1	41	55.2	3.0	WNW	0.75	7.0	WNW	81.1	80.2	80.2	30.129	0.00	0.00	0.000	0.168
6/18/10	7:00p	80.6	81.1	80.6	41	54.7	2.0	NW	0.50	7.0	NW	80.6	79.7	79.7	30.126	0.00	0.00	0.000	0.162
6/18/10	7:15p	80.3	80.6	80.3	42	55.1	1.0	NW	0.25	6.0	NW	80.3	79.5	79.5	30.128	0.00	0.00	0.000	0.159
6/18/10	7:30p	79.8	80.3	79.8	42	54.7	1.0	NW	0.25	6.0	W	79.8	79.1	79.1	30.126	0.00	0.00	0.000	0.154
6/18/10	7:45p	79.3	79.9	79.3	43	54.9	1.0	NNW	0.25	7.0	NW	79.3	78.8	78.8	30.127	0.00	0.00	0.000	0.149
6/18/10	8:00p	78.7	79.3	78.7	43	54.3	1.0	ENE	0.25	4.0	ENE	78.7	78.2	78.2	30.130	0.00	0.00	0.000	0.143
6/18/10	8:15p	78.3	78.7	78.3	44	54.6	1.0	ENE	0.25	5.0	ENE	78.3	77.8	77.8	30.130	0.00	0.00	0.000	0.139
6/18/10	8:30p	77.6	78.2	77.6	45	54.6	0.0	ENE	0.00	4.0	ENE	77.6	77.2	77.2	30.128	0.00	0.00	0.000	0.131
6/18/10	8:45p	77.1	77.6	77.1	46	54.7	1.0	NE	0.25	6.0	WNW	77.1	76.7	76.7	30.121	0.00	0.00	0.000	0.126
6/18/10	9:00p	76.8	77.1	76.8	47	55.0	0.0	NNE	0.00	3.0	NNE	76.8	76.4	76.4	30.121	0.00	0.00	0.000	0.123
6/18/10	9:15p	76.5	76.8	76.5	48	55.3	0.0	NNW	0.00	4.0	NNE	76.5	76.3	76.3	30.130	0.00	0.00	0.000	0.120
6/18/10	9:30p	76.2	76.5	76.2	48	55.1	0.0	NE	0.00	5.0	WNW	76.2	76.0	76.0	30.138	0.00	0.00	0.000	0.117
6/18/10	9:45p	75.6	76.2	75.6	49	55.1	0.0	NW	0.00	6.0	WSW	75.6	75.6	75.6	30.142	0.00	0.00	0.000	0.110
6/18/10	10:00p	75.3	75.6	75.3	48	54.3	0.0	NNW	0.00	5.0	NW	75.3	75.2	75.2	30.146	0.00	0.00	0.000	0.107
6/18/10	10:15p	74.9	75.3	74.9	46	52.7	0.0	NNW	0.00	1.0	NNW	74.9	74.6	74.6	30.150	0.00	0.00	0.000	0.103
6/18/10	10:30p	74.6	74.9	74.6	46	52.4	0.0	NNW	0.00	2.0	NNW	74.6	74.3	74.3	30.150	0.00	0.00	0.000	0.100
6/18/10	10:45p	74.2	74.6	74.2	48	53.2	0.0	ESE	0.00	1.0	ESE	74.2	73.9	73.9	30.147	0.00	0.00	0.000	0.096
6/18/10	11:00p	73.9	74.3	73.9	48	53.0	0.0	ESE	0.00	2.0	ESE	73.9	73.5	73.5	30.146	0.00	0.00	0.000	0.093
6/18/10	11:15p	73.5	73.9	73.5	48	52.6	0.0	ESE	0.00	2.0	ESE	73.5	73.0	73.0	30.155	0.00	0.00	0.000	0.089
6/18/10	11:30p	73.0	73.5	73.0	49	52.7	0.0	ESE	0.00	1.0	ESE	73.0	72.4	72.4	30.159	0.00	0.00	0.000	0.083
6/18/10	11:45p	72.6	73.0	72.6	51	53.4	0.0	---	0.00	0.0	---	72.6	72.0	72.0	30.159	0.00	0.00	0.000	0.079
6/19/10	12:00a	72.2	72.6	72.2	52	53.6	0.0	ESE	0.00	1.0	ESE	72.2	71.5	71.5	30.162	0.00	0.00	0.000	0.075

Gowanus Phase III Weather Data 6/19/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/19/10	12:15a	71.7	72.2	71.7	54	54.2	0.0	ESE	0.00	1.0	ESE	71.7	71.0	71.0	30.173	0.00	0.00	0.000	0.070
6/19/10	12:30a	71.3	71.7	71.3	56	54.8	0.0	---	0.00	0.0	---	71.3	70.5	70.5	30.171	0.00	0.00	0.000	0.066
6/19/10	12:45a	71.1	71.3	71.1	56	54.6	0.0	ESE	0.00	1.0	ESE	71.1	70.2	70.2	30.169	0.00	0.00	0.000	0.064
6/19/10	1:00a	70.8	71.1	70.8	58	55.3	0.0	ESE	0.00	2.0	ESE	70.8	70.0	70.0	30.177	0.00	0.00	0.000	0.060
6/19/10	1:15a	70.3	70.8	70.3	61	56.2	0.0	ESE	0.00	1.0	ESE	70.3	69.7	69.7	30.176	0.00	0.00	0.000	0.055
6/19/10	1:30a	69.9	70.4	69.9	62	56.3	0.0	---	0.00	0.0	---	69.9	69.3	69.3	30.176	0.00	0.00	0.000	0.051
6/19/10	1:45a	69.6	69.9	69.6	63	56.4	0.0	---	0.00	0.0	---	69.6	69.2	69.2	30.175	0.00	0.00	0.000	0.048
6/19/10	2:00a	69.3	69.6	69.3	63	56.2	0.0	---	0.00	0.0	---	69.3	68.9	68.9	30.171	0.00	0.00	0.000	0.045
6/19/10	2:15a	69.0	69.3	69.0	63	55.9	0.0	---	0.00	0.0	---	69.0	68.7	68.7	30.172	0.00	0.00	0.000	0.042
6/19/10	2:30a	68.6	69.0	68.6	65	56.4	0.0	---	0.00	0.0	---	68.6	68.6	68.6	30.172	0.00	0.00	0.000	0.037
6/19/10	2:45a	68.6	68.6	68.4	67	57.2	0.0	ESE	0.00	1.0	ESE	68.6	68.8	68.8	30.174	0.00	0.00	0.000	0.037
6/19/10	3:00a	68.5	68.7	68.5	69	57.9	0.0	---	0.00	0.0	---	68.5	68.9	68.9	30.164	0.00	0.00	0.000	0.036
6/19/10	3:15a	68.2	68.5	68.2	72	58.8	0.0	ESE	0.00	1.0	ESE	68.2	68.9	68.9	30.158	0.00	0.00	0.000	0.033
6/19/10	3:30a	67.9	68.2	67.9	74	59.3	0.0	ESE	0.00	1.0	ESE	67.9	68.7	68.7	30.155	0.00	0.00	0.000	0.030
6/19/10	3:45a	67.5	67.9	67.5	76	59.7	0.0	---	0.00	0.0	---	67.5	68.4	68.4	30.161	0.00	0.00	0.000	0.026
6/19/10	4:00a	67.1	67.5	67.1	77	59.6	0.0	---	0.00	0.0	---	67.1	68.0	68.0	30.164	0.00	0.00	0.000	0.022
6/19/10	4:15a	66.9	67.1	66.9	78	59.8	0.0	ESE	0.00	2.0	ESE	66.9	67.8	67.8	30.165	0.00	0.00	0.000	0.020
6/19/10	4:30a	66.7	66.9	66.7	79	60.0	0.0	ESE	0.00	2.0	ESE	66.7	67.7	67.7	30.161	0.00	0.00	0.000	0.018
6/19/10	4:45a	66.5	66.7	66.5	80	60.1	0.0	ESE	0.00	1.0	ESE	66.5	67.5	67.5	30.161	0.00	0.00	0.000	0.016
6/19/10	5:00a	66.4	66.5	66.4	81	60.4	0.0	---	0.00	0.0	---	66.4	67.4	67.4	30.165	0.00	0.00	0.000	0.015
6/19/10	5:15a	66.2	66.4	66.2	81	60.2	0.0	ESE	0.00	1.0	ESE	66.2	67.2	67.2	30.173	0.00	0.00	0.000	0.012
6/19/10	5:30a	66.1	66.2	66.1	83	60.8	0.0	ESE	0.00	2.0	ESE	66.1	67.1	67.1	30.171	0.00	0.00	0.000	0.011
6/19/10	5:45a	65.9	66.1	65.9	84	60.9	0.0	ESE	0.00	1.0	ESE	65.9	66.9	66.9	30.175	0.00	0.00	0.000	0.009
6/19/10	6:00a	66.0	66.0	65.9	85	61.4	0.0	ESE	0.00	1.0	ESE	66.0	67.0	67.0	30.176	0.00	0.00	0.000	0.010
6/19/10	6:15a	66.1	66.1	65.9	85	61.5	0.0	ESE	0.00	1.0	ESE	66.1	67.1	67.1	30.177	0.00	0.00	0.000	0.011
6/19/10	6:30a	66.7	66.7	66.1	84	61.7	0.0	ESE	0.00	1.0	ESE	66.7	67.9	67.9	30.179	0.00	0.00	0.000	0.018
6/19/10	6:45a	67.6	67.6	66.7	82	61.9	0.0	ESE	0.00	2.0	ESE	67.6	68.9	68.9	30.184	0.00	0.00	0.000	0.027
6/19/10	7:00a	68.9	68.9	67.6	80	62.5	0.0	ESE	0.00	1.0	ESE	68.9	70.4	70.4	30.180	0.00	0.00	0.000	0.041
6/19/10	7:15a	70.3	70.3	69.0	77	62.7	0.0	ESE	0.00	4.0	ESE	70.3	71.2	71.2	30.179	0.00	0.00	0.000	0.055
6/19/10	7:30a	71.5	71.5	70.3	75	63.2	0.0	ENE	0.00	4.0	ESE	71.5	72.4	72.4	30.178	0.00	0.00	0.000	0.068
6/19/10	7:45a	72.5	72.5	71.6	73	63.4	0.0	ESE	0.00	4.0	ESE	72.5	73.6	73.6	30.176	0.00	0.00	0.000	0.078
6/19/10	8:00a	73.6	73.6	72.6	71	63.6	0.0	ESE	0.00	4.0	ESE	73.6	75.1	75.1	30.177	0.00	0.00	0.000	0.090
6/19/10	8:15a	74.1	74.2	73.6	69	63.3	0.0	ENE	0.00	5.0	SW	74.1	75.6	75.6	30.178	0.00	0.00	0.000	0.095
6/19/10	8:30a	74.2	74.2	73.8	69	63.4	0.0	ENE	0.00	4.0	SE	74.2	75.7	75.7	30.177	0.00	0.00	0.000	0.096
6/19/10	8:45a	74.7	74.7	74.2	68	63.4	0.0	ENE	0.00	5.0	ENE	74.7	76.2	76.2	30.165	0.00	0.00	0.000	0.101
6/19/10	9:00a	75.7	75.7	74.7	67	64.0	0.0	ENE	0.00	4.0	E	75.7	77.1	77.1	30.161	0.00	0.00	0.000	0.111
6/19/10	9:15a	76.1	76.7	75.8	66	63.9	0.0	E	0.00	4.0	ENE	76.1	77.4	77.4	30.161	0.00	0.00	0.000	0.116
6/19/10	9:30a	76.7	77.1	76.1	64	63.6	0.0	NE	0.00	3.0	NE	76.7	77.9	77.9	30.161	0.00	0.00	0.000	0.122
6/19/10	9:45a	77.9	78.0	76.4	62	63.8	0.0	NW	0.00	4.0	SSW	77.9	79.0	79.0	30.163	0.00	0.00	0.000	0.134
6/19/10	10:00a	77.0	78.0	77.0	62	63.0	1.0	NW	0.25	6.0	NW	77.0	78.0	78.0	30.158	0.00	0.00	0.000	0.125
6/19/10	10:15a	78.1	78.4	77.0	58	62.1	1.0	W	0.25	6.0	W	78.1	78.9	78.9	30.146	0.00	0.00	0.000	0.136
6/19/10	10:30a	77.0	78.1	77.0	56	60.1	2.0	NW	0.50	6.0	WNW	77.0	77.4	77.4	30.146	0.00	0.00	0.000	0.125
6/19/10	10:45a	78.9	78.9	77.0	55	61.4	1.0	WNW	0.25	6.0	NNE	78.9	79.5	79.5	30.146	0.00	0.00	0.000	0.145
6/19/10	11:00a	81.1	81.5	79.0	51	61.3	1.0	SW	0.25	5.0	NW	81.1	81.5	81.5	30.135	0.00	0.00	0.000	0.168
6/19/10	11:15a	81.8	81.8	80.8	50	61.3	0.0	SW	0.00	6.0	SW	81.8	82.3	82.3	30.142	0.00	0.00	0.000	0.175
6/19/10	11:30a	82.0	82.3	81.8	51	62.1	1.0	SW	0.25	5.0	SW	82.0	82.8	82.8	30.138	0.00	0.00	0.000	0.177
6/19/10	11:45a	83.0	83.1	82.0	52	63.6	0.0	SW	0.00	3.0	SW	83.0	84.5	84.5	30.143	0.00	0.00	0.000	0.188
6/19/10	12:00p	83.5	83.5	83.0	53	64.6	1.0	ENE	0.25	7.0	NW	83.5	85.4	85.4	30.143	0.00	0.00	0.000	0.193
6/19/10	12:15p	80.5	83.6	80.5	58	64.4	2.0	NW	0.50	6.0	W	80.5	81.7	81.7	30.141	0.00	0.00	0.000	0.161
6/19/10	12:30p	80.6	80.6	80.3	60	65.4	2.0	WNW	0.50	7.0	NNW	80.6	82.1	82.1	30.140	0.00	0.00	0.000	0.162
6/19/10	12:45p	79.8	80.7	79.6	62	65.6	3.0	NE	0.75	9.0	NNW	79.8	81.3	81.3	30.143	0.00	0.00	0.000	0.154
6/19/10	1:00p	79.3	80.0	79.3	63	65.6	3.0	NW	0.75	10.0	NNE	79.3	80.8	80.8	30.141	0.00	0.00	0.000	0.149
6/19/10	1:15p	79.9	79.9	78.9	63	66.2	3.0	NW	0.75	8.0	WSW	79.9	81.6	81.6	30.134	0.00	0.00	0.000	0.155

Gowanus Phase III Weather Data 6/19/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/19/10	1:30p	79.8	80.4	79.7	63	66.1	3.0	NW	0.75	8.0	S	79.8	81.5	81.5	30.131	0.00	0.00	0.000	0.154
6/19/10	1:45p	79.2	79.8	78.8	64	66.0	3.0	WNW	0.75	9.0	WNW	79.2	80.8	80.8	30.130	0.00	0.00	0.000	0.148
6/19/10	2:00p	79.1	79.6	79.1	64	65.9	4.0	NE	1.00	8.0	NNW	79.1	80.7	80.7	30.120	0.00	0.00	0.000	0.147
6/19/10	2:15p	79.5	79.5	79.1	64	66.3	3.0	NW	0.75	8.0	WNW	79.5	81.2	81.2	30.116	0.00	0.00	0.000	0.151
6/19/10	2:30p	79.3	79.7	79.2	65	66.5	4.0	NW	1.00	8.0	WNW	79.3	81.1	81.1	30.115	0.00	0.00	0.000	0.149
6/19/10	2:45p	79.8	79.8	79.0	64	66.5	3.0	ENE	0.75	9.0	NW	79.8	81.6	81.6	30.111	0.00	0.00	0.000	0.154
6/19/10	3:00p	79.3	80.3	79.3	65	66.5	3.0	NW	0.75	9.0	NNW	79.3	81.1	81.1	30.101	0.00	0.00	0.000	0.149
6/19/10	3:15p	78.7	79.3	78.6	67	66.8	4.0	WNW	1.00	12.0	W	78.7	80.5	80.5	30.099	0.00	0.00	0.000	0.143
6/19/10	3:30p	79.2	79.3	78.7	67	67.3	4.0	WNW	1.00	10.0	NW	79.2	81.2	81.2	30.090	0.00	0.00	0.000	0.148
6/19/10	3:45p	78.4	79.3	78.4	68	67.0	4.0	WNW	1.00	12.0	W	78.4	80.3	80.3	30.086	0.00	0.00	0.000	0.140
6/19/10	4:00p	78.2	78.7	78.2	68	66.8	4.0	NW	1.00	9.0	NW	78.2	80.0	80.0	30.084	0.00	0.00	0.000	0.137
6/19/10	4:15p	78.0	78.2	77.8	68	66.6	4.0	WNW	1.00	10.0	E	78.0	79.8	79.8	30.082	0.00	0.00	0.000	0.135
6/19/10	4:30p	77.7	78.1	77.5	68	66.3	4.0	ENE	1.00	12.0	WNW	77.7	79.4	79.4	30.069	0.00	0.00	0.000	0.132
6/19/10	4:45p	77.6	77.7	77.6	70	67.0	3.0	NW	0.75	10.0	WNW	77.6	79.6	79.6	30.069	0.00	0.00	0.000	0.131
6/19/10	5:00p	77.3	77.8	77.2	70	66.7	4.0	ENE	1.00	8.0	NW	77.3	79.2	79.2	30.070	0.00	0.00	0.000	0.128
6/19/10	5:15p	76.1	77.3	76.1	73	66.8	4.0	WNW	1.00	10.0	W	76.1	78.3	78.3	30.067	0.00	0.00	0.000	0.116
6/19/10	5:30p	76.1	76.2	75.9	74	67.2	3.0	NE	0.75	11.0	NW	76.1	78.4	78.4	30.063	0.00	0.00	0.000	0.116
6/19/10	5:45p	75.9	76.1	75.9	74	67.0	2.0	ENE	0.50	9.0	WNW	75.9	78.2	78.2	30.058	0.00	0.00	0.000	0.114
6/19/10	6:00p	75.2	75.8	75.2	74	66.3	4.0	ENE	1.00	10.0	WNW	75.2	77.3	77.3	30.054	0.00	0.00	0.000	0.106
6/19/10	6:15p	74.4	75.1	74.4	76	66.3	4.0	NW	1.00	8.0	NW	74.4	76.4	76.4	30.049	0.00	0.00	0.000	0.098
6/19/10	6:30p	74.1	74.4	74.1	77	66.4	4.0	NW	1.00	10.0	W	74.1	76.1	76.1	30.053	0.00	0.00	0.000	0.095
6/19/10	6:45p	73.8	74.1	73.8	78	66.5	4.0	NW	1.00	9.0	NW	73.8	75.7	75.7	30.047	0.00	0.00	0.000	0.092
6/19/10	7:00p	73.5	73.8	73.5	78	66.2	3.0	NW	0.75	8.0	NNW	73.5	75.3	75.3	30.040	0.00	0.00	0.000	0.089
6/19/10	7:15p	73.3	73.5	73.3	79	66.4	3.0	WNW	0.75	6.0	WNW	73.3	75.1	75.1	30.037	0.00	0.00	0.000	0.086
6/19/10	7:30p	73.3	73.3	73.1	79	66.4	2.0	NW	0.50	6.0	W	73.3	75.1	75.1	30.036	0.00	0.00	0.000	0.086
6/19/10	7:45p	73.1	73.2	73.1	80	66.6	1.0	NW	0.25	6.0	ENE	73.1	74.9	74.9	30.031	0.00	0.00	0.000	0.084
6/19/10	8:00p	72.7	73.1	72.7	81	66.5	2.0	WNW	0.50	6.0	WNW	72.7	74.4	74.4	30.023	0.00	0.00	0.000	0.080
6/19/10	8:15p	72.3	72.6	72.3	82	66.5	2.0	WNW	0.50	6.0	W	72.3	74.0	74.0	30.023	0.00	0.00	0.000	0.076
6/19/10	8:30p	72.4	72.4	72.3	82	66.6	1.0	WNW	0.25	6.0	WNW	72.4	74.1	74.1	30.026	0.00	0.00	0.000	0.077
6/19/10	8:45p	72.4	72.5	72.4	81	66.2	1.0	ENE	0.25	5.0	WNW	72.4	74.0	74.0	30.023	0.00	0.00	0.000	0.077
6/19/10	9:00p	72.3	72.4	72.2	81	66.1	1.0	NW	0.25	3.0	NW	72.3	73.9	73.9	30.022	0.00	0.00	0.000	0.076
6/19/10	9:15p	72.2	72.2	72.2	82	66.4	1.0	NW	0.25	6.0	NW	72.2	73.8	73.8	30.022	0.00	0.00	0.000	0.075
6/19/10	9:30p	72.3	72.3	72.3	82	66.5	1.0	NW	0.25	5.0	NW	72.3	74.0	74.0	30.023	0.00	0.00	0.000	0.076
6/19/10	9:45p	72.3	72.4	72.3	82	66.5	0.0	ESE	0.00	4.0	NW	72.3	74.0	74.0	30.024	0.00	0.00	0.000	0.076
6/19/10	10:00p	72.4	72.4	72.3	82	66.6	0.0	NNW	0.00	2.0	NW	72.4	74.1	74.1	30.023	0.00	0.00	0.000	0.077
6/19/10	10:15p	72.6	72.6	72.4	81	66.4	0.0	NNW	0.00	1.0	NNW	72.6	74.3	74.3	30.021	0.00	0.00	0.000	0.079
6/19/10	10:30p	72.6	72.6	72.5	81	66.4	0.0	NNW	0.00	4.0	NNW	72.6	74.3	74.3	30.015	0.00	0.00	0.000	0.079
6/19/10	10:45p	72.8	72.8	72.7	81	66.6	0.0	NNW	0.00	2.0	NNW	72.8	74.6	74.6	30.011	0.00	0.00	0.000	0.081
6/19/10	11:00p	73.1	73.1	72.8	81	66.9	0.0	NNW	0.00	2.0	NNW	73.1	75.0	75.0	30.009	0.00	0.00	0.000	0.084
6/19/10	11:15p	73.8	73.8	73.2	79	66.9	0.0	WNW	0.00	2.0	WNW	73.8	75.7	75.7	30.009	0.00	0.00	0.000	0.092
6/19/10	11:30p	74.0	74.0	73.8	78	66.7	0.0	---	0.00	0.0	---	74.0	76.0	76.0	30.012	0.00	0.00	0.000	0.094
6/19/10	11:45p	74.1	74.1	74.0	78	66.8	0.0	NW	0.00	3.0	NW	74.1	76.1	76.1	30.006	0.00	0.00	0.000	0.095
6/20/10	12:00a	73.9	74.1	73.9	78	66.6	0.0	NW	0.00	1.0	NW	73.9	75.8	75.8	30.005	0.00	0.00	0.000	0.093

Gowanus Phase III Weather Data 6/20/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/20/10	12:15a	73.9	73.9	73.9	79	67.0	0.0	NW	0.00	2.0	NW	73.9	75.9	75.9	30.005	0.00	0.00	0.000	0.093
6/20/10	12:30a	73.7	73.8	73.7	79	66.8	0.0	---	0.00	0.0	---	73.7	75.6	75.6	30.005	0.00	0.00	0.000	0.091
6/20/10	12:45a	73.6	73.7	73.6	80	67.0	0.0	NW	0.00	1.0	NW	73.6	75.5	75.5	29.998	0.00	0.00	0.000	0.090
6/20/10	1:00a	73.5	73.6	73.5	81	67.3	0.0	W	0.00	2.0	W	73.5	75.5	75.5	30.002	0.00	0.00	0.000	0.089
6/20/10	1:15a	73.3	73.5	73.3	82	67.5	0.0	NW	0.00	2.0	NW	73.3	75.3	75.3	29.991	0.00	0.00	0.000	0.086
6/20/10	1:30a	73.2	73.3	73.2	82	67.4	0.0	NE	0.00	5.0	ENE	73.2	75.2	75.2	29.992	0.00	0.00	0.000	0.085
6/20/10	1:45a	73.1	73.2	73.1	83	67.6	0.0	E	0.00	4.0	SW	73.1	75.1	75.1	30.002	0.00	0.00	0.000	0.084
6/20/10	2:00a	73.0	73.1	73.0	84	67.9	0.0	SW	0.00	5.0	SW	73.0	75.0	75.0	30.006	0.00	0.00	0.000	0.083
6/20/10	2:15a	72.8	73.0	72.8	84	67.7	0.0	SW	0.00	1.0	SW	72.8	74.8	74.8	30.005	0.00	0.00	0.000	0.081
6/20/10	2:30a	72.8	72.8	72.8	84	67.7	0.0	SSW	0.00	2.0	SW	72.8	74.8	74.8	29.992	0.00	0.00	0.000	0.081
6/20/10	2:45a	72.8	72.8	72.8	85	68.0	0.0	WSW	0.00	2.0	SSW	72.8	74.8	74.8	29.991	0.00	0.00	0.000	0.081
6/20/10	3:00a	72.9	72.9	72.8	85	68.1	0.0	WSW	0.00	2.0	WSW	72.9	75.0	75.0	29.990	0.00	0.00	0.000	0.082
6/20/10	3:15a	72.8	72.9	72.8	85	68.0	0.0	---	0.00	0.0	---	72.8	74.8	74.8	29.991	0.00	0.00	0.000	0.081
6/20/10	3:30a	72.8	72.8	72.8	85	68.0	0.0	WSW	0.00	2.0	WSW	72.8	74.8	74.8	29.988	0.00	0.00	0.000	0.081
6/20/10	3:45a	72.8	72.8	72.7	85	68.0	0.0	---	0.00	0.0	---	72.8	74.8	74.8	29.979	0.00	0.00	0.000	0.081
6/20/10	4:00a	72.8	72.8	72.8	85	68.0	0.0	WSW	0.00	1.0	WSW	72.8	74.8	74.8	29.977	0.00	0.00	0.000	0.081
6/20/10	4:15a	72.9	72.9	72.8	84	67.8	0.0	WSW	0.00	1.0	WSW	72.9	74.9	74.9	29.975	0.00	0.00	0.000	0.082
6/20/10	4:30a	72.9	72.9	72.9	84	67.8	0.0	WSW	0.00	1.0	WSW	72.9	74.9	74.9	29.967	0.00	0.00	0.000	0.082
6/20/10	4:45a	72.8	72.9	72.8	84	67.7	0.0	---	0.00	0.0	---	72.8	74.8	74.8	29.971	0.00	0.00	0.000	0.081
6/20/10	5:00a	72.8	72.8	72.8	85	68.0	0.0	WSW	0.00	1.0	WSW	72.8	74.8	74.8	29.970	0.00	0.00	0.000	0.081
6/20/10	5:15a	72.8	72.8	72.8	85	68.0	0.0	---	0.00	0.0	---	72.8	74.8	74.8	29.970	0.00	0.00	0.000	0.081
6/20/10	5:30a	72.8	72.8	72.7	85	68.0	0.0	WSW	0.00	1.0	WSW	72.8	74.8	74.8	29.973	0.00	0.00	0.000	0.081
6/20/10	5:45a	72.8	72.8	72.8	85	68.0	0.0	---	0.00	0.0	---	72.8	74.8	74.8	29.967	0.00	0.00	0.000	0.081
6/20/10	6:00a	72.9	72.9	72.8	85	68.1	0.0	---	0.00	0.0	---	72.9	75.0	75.0	29.976	0.00	0.00	0.000	0.082
6/20/10	6:15a	73.1	73.1	72.9	85	68.3	0.0	SW	0.00	2.0	WSW	73.1	75.2	75.2	29.971	0.00	0.00	0.000	0.084
6/20/10	6:30a	73.6	73.6	73.1	84	68.5	0.0	---	0.00	0.0	---	73.6	75.7	75.7	29.971	0.00	0.00	0.000	0.090
6/20/10	6:45a	74.0	74.0	73.6	83	68.5	0.0	SW	0.00	2.0	SW	74.0	76.1	76.1	29.971	0.00	0.00	0.000	0.094
6/20/10	7:00a	74.4	74.4	74.0	83	68.9	0.0	---	0.00	0.0	---	74.4	76.8	76.8	29.965	0.00	0.00	0.000	0.098
6/20/10	7:15a	75.0	75.0	74.4	82	69.1	0.0	SSW	0.00	1.0	SSW	75.0	77.7	77.7	29.975	0.00	0.00	0.000	0.104
6/20/10	7:30a	75.6	75.6	75.0	81	69.4	0.0	---	0.00	0.0	---	75.6	78.4	78.4	29.974	0.00	0.00	0.000	0.110
6/20/10	7:45a	76.6	76.6	75.7	79	69.6	0.0	SSW	0.00	2.0	SW	76.6	79.5	79.5	29.973	0.00	0.00	0.000	0.121
6/20/10	8:00a	76.7	76.8	76.6	79	69.7	0.0	WSW	0.00	5.0	WSW	76.7	79.6	79.6	29.975	0.00	0.00	0.000	0.122
6/20/10	8:15a	78.6	78.6	76.7	77	70.8	0.0	WSW	0.00	4.0	WSW	78.6	81.8	81.8	29.976	0.00	0.00	0.000	0.142
6/20/10	8:30a	78.0	78.8	78.0	77	70.2	0.0	WSW	0.00	2.0	W	78.0	80.9	80.9	29.975	0.00	0.00	0.000	0.135
6/20/10	8:45a	78.9	78.9	78.0	76	70.7	0.0	WSW	0.00	1.0	WSW	78.9	82.0	82.0	29.968	0.00	0.00	0.000	0.145
6/20/10	9:00a	78.7	79.4	78.7	75	70.1	1.0	WSW	0.25	4.0	W	78.7	81.6	81.6	29.973	0.00	0.00	0.000	0.143
6/20/10	9:15a	78.7	78.7	78.4	77	70.9	0.0	WSW	0.00	2.0	WSW	78.7	81.9	81.9	29.969	0.00	0.00	0.000	0.143
6/20/10	9:30a	79.8	79.8	78.7	75	71.2	0.0	WSW	0.00	1.0	WSW	79.8	83.3	83.3	29.963	0.00	0.00	0.000	0.154
6/20/10	9:45a	80.5	80.5	79.7	75	71.8	0.0	WSW	0.00	5.0	WSW	80.5	84.5	84.5	29.960	0.00	0.00	0.000	0.161
6/20/10	10:00a	83.0	83.0	80.9	70	72.2	0.0	SW	0.00	5.0	WSW	83.0	88.4	88.4	29.957	0.00	0.00	0.000	0.188
6/20/10	10:15a	83.0	83.0	82.5	70	72.2	0.0	WSW	0.00	2.0	WSW	83.0	88.4	88.4	29.954	0.00	0.00	0.000	0.188
6/20/10	10:30a	83.2	83.9	83.2	70	72.4	1.0	SW	0.25	7.0	SSW	83.2	88.9	88.9	29.957	0.00	0.00	0.000	0.190
6/20/10	10:45a	81.7	83.1	81.7	71	71.4	1.0	SW	0.25	5.0	WSW	81.7	86.0	86.0	29.945	0.00	0.00	0.000	0.174
6/20/10	11:00a	82.2	82.4	81.7	72	72.3	0.0	SW	0.00	4.0	SW	82.2	87.2	87.2	29.946	0.00	0.00	0.000	0.179
6/20/10	11:15a	83.3	83.3	82.0	70	72.5	0.0	SW	0.00	1.0	SW	83.3	89.2	89.2	29.943	0.00	0.00	0.000	0.191
6/20/10	11:30a	83.1	83.6	83.1	70	72.3	0.0	SW	0.00	2.0	SW	83.1	88.6	88.6	29.942	0.00	0.00	0.000	0.189
6/20/10	11:45a	84.7	84.7	83.1	69	73.4	0.0	N	0.00	2.0	SW	84.7	91.9	91.9	29.937	0.00	0.00	0.000	0.205
6/20/10	12:00p	87.3	87.3	85.0	64	73.6	0.0	W	0.00	1.0	W	87.3	95.6	95.6	29.938	0.00	0.00	0.000	0.232
6/20/10	12:15p	88.1	88.1	87.5	61	73.0	0.0	WSW	0.00	3.0	SSW	88.1	95.5	95.5	29.932	0.00	0.00	0.000	0.241
6/20/10	12:30p	89.1	89.1	88.0	58	72.4	0.0	E	0.00	4.0	NNW	89.1	96.8	96.8	29.928	0.00	0.00	0.000	0.251
6/20/10	12:45p	90.6	90.6	89.2	54	71.7	1.0	SW	0.25	5.0	WSW	90.6	98.3	98.3	29.928	0.00	0.00	0.000	0.267
6/20/10	1:00p	91.1	91.1	90.6	55	72.7	1.0	WSW	0.25	4.0	SW	91.1	99.9	99.9	29.923	0.00	0.00	0.000	0.272
6/20/10	1:15p	91.8	92.1	91.2	54	72.8	0.0	ENE	0.00	5.0	ENE	91.8	101.0	101.0	29.912	0.00	0.00	0.000	0.279

Gowanus Phase III Weather Data 6/20/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/20/10	1:30p	92.2	92.2	91.0	56	74.2	1.0	NW	0.25	5.0	NW	92.2	103.2	103.2	29.912	0.00	0.00	0.000	0.283
6/20/10	1:45p	92.2	92.4	91.4	53	72.6	1.0	NNW	0.25	7.0	WSW	92.2	101.4	101.4	29.908	0.00	0.00	0.000	0.283
6/20/10	2:00p	92.1	92.3	91.8	54	73.1	1.0	SW	0.25	8.0	SSW	92.1	101.7	101.7	29.900	0.00	0.00	0.000	0.282
6/20/10	2:15p	93.0	93.0	92.2	53	73.3	1.0	NNW	0.25	5.0	S	93.0	103.2	103.2	29.896	0.00	0.00	0.000	0.292
6/20/10	2:30p	93.6	93.6	92.8	53	73.9	1.0	SSW	0.25	6.0	SSW	93.6	104.7	104.7	29.887	0.00	0.00	0.000	0.298
6/20/10	2:45p	93.7	94.1	93.7	52	73.4	1.0	ESE	0.25	5.0	SE	93.7	104.2	104.2	29.889	0.00	0.00	0.000	0.299
6/20/10	3:00p	93.4	93.9	93.4	52	73.1	1.0	SSW	0.25	8.0	SSW	93.4	103.5	103.5	29.884	0.00	0.00	0.000	0.296
6/20/10	3:15p	94.3	94.3	93.3	51	73.4	0.0	SW	0.00	2.0	NNW	94.3	104.9	104.9	29.882	0.00	0.00	0.000	0.305
6/20/10	3:30p	94.6	95.3	94.5	49	72.5	0.0	SW	0.00	4.0	WSW	94.6	104.2	104.2	29.880	0.00	0.00	0.000	0.308
6/20/10	3:45p	92.9	94.4	92.7	50	71.5	1.0	SW	0.25	8.0	SW	92.9	101.0	101.0	29.881	0.00	0.00	0.000	0.291
6/20/10	4:00p	92.3	93.3	92.3	49	70.4	2.0	SW	0.50	11.0	NE	92.3	99.3	99.3	29.891	0.00	0.00	0.000	0.284
6/20/10	4:15p	88.4	91.5	88.4	54	69.6	2.0	NNE	0.50	7.0	NNE	88.4	93.7	93.7	29.896	0.00	0.00	0.000	0.244
6/20/10	4:30p	87.5	88.4	87.5	52	67.7	1.0	W	0.25	6.0	WSW	87.5	91.4	91.4	29.887	0.00	0.00	0.000	0.234
6/20/10	4:45p	87.8	87.8	87.3	50	66.8	0.0	WSW	0.00	4.0	WSW	87.8	91.1	91.1	29.883	0.00	0.00	0.000	0.238
6/20/10	5:00p	89.4	89.4	87.8	47	66.5	1.0	WSW	0.25	4.0	W	89.4	93.2	93.2	29.882	0.00	0.00	0.000	0.254
6/20/10	5:15p	90.4	90.5	89.5	46	66.8	1.0	WSW	0.25	5.0	NNE	90.4	94.4	94.4	29.881	0.00	0.00	0.000	0.265
6/20/10	5:30p	90.7	90.7	90.5	45	66.4	1.0	WSW	0.25	4.0	SW	90.7	94.6	94.6	29.881	0.00	0.00	0.000	0.268
6/20/10	5:45p	91.0	91.1	90.8	46	67.3	1.0	W	0.25	5.0	SW	91.0	95.5	95.5	29.883	0.00	0.00	0.000	0.271
6/20/10	6:00p	90.8	91.1	90.8	47	67.8	1.0	W	0.25	5.0	WSW	90.8	95.5	95.5	29.884	0.00	0.00	0.000	0.269
6/20/10	6:15p	90.7	90.8	90.6	47	67.7	0.0	W	0.00	5.0	SW	90.7	95.3	95.3	29.891	0.00	0.00	0.000	0.268
6/20/10	6:30p	90.7	90.7	90.6	45	66.4	0.0	NW	0.00	3.0	WSW	90.7	94.6	94.6	29.895	0.00	0.00	0.000	0.268
6/20/10	6:45p	90.4	90.7	90.4	44	65.5	1.0	W	0.25	6.0	SSW	90.4	93.6	93.6	29.897	0.00	0.00	0.000	0.265
6/20/10	7:00p	89.9	90.3	89.9	43	64.4	0.0	NE	0.00	4.0	NE	89.9	92.3	92.3	29.898	0.00	0.00	0.000	0.259
6/20/10	7:15p	89.6	89.9	89.6	44	64.8	0.0	SE	0.00	5.0	E	89.6	92.3	92.3	29.899	0.00	0.00	0.000	0.256
6/20/10	7:30p	88.9	89.6	88.9	45	64.8	1.0	WNW	0.25	5.0	SW	88.9	91.7	91.7	29.902	0.00	0.00	0.000	0.249
6/20/10	7:45p	88.4	88.8	88.4	46	65.0	1.0	WNW	0.25	5.0	W	88.4	90.9	90.9	29.911	0.00	0.00	0.000	0.244
6/20/10	8:00p	88.1	88.4	88.1	47	65.3	0.0	WNW	0.00	5.0	WNW	88.1	90.6	90.6	29.915	0.00	0.00	0.000	0.241
6/20/10	8:15p	87.5	88.0	87.5	48	65.4	0.0	WNW	0.00	2.0	WNW	87.5	90.1	90.1	29.917	0.00	0.00	0.000	0.234
6/20/10	8:30p	87.0	87.5	87.0	50	66.1	0.0	W	0.00	5.0	W	87.0	90.1	90.1	29.923	0.00	0.00	0.000	0.229
6/20/10	8:45p	86.4	87.0	86.4	50	65.6	0.0	W	0.00	4.0	WSW	86.4	89.0	89.0	29.928	0.00	0.00	0.000	0.223
6/20/10	9:00p	86.1	86.4	86.1	50	65.3	0.0	WSW	0.00	2.0	WSW	86.1	88.4	88.4	29.933	0.00	0.00	0.000	0.220
6/20/10	9:15p	85.4	86.1	85.4	53	66.3	0.0	W	0.00	4.0	W	85.4	88.1	88.1	29.943	0.00	0.00	0.000	0.213
6/20/10	9:30p	85.2	85.4	85.2	53	66.1	0.0	W	0.00	2.0	NNW	85.2	87.8	87.8	29.950	0.00	0.00	0.000	0.210
6/20/10	9:45p	85.3	85.4	85.3	53	66.2	0.0	NNE	0.00	4.0	NNE	85.3	88.0	88.0	29.959	0.00	0.00	0.000	0.211
6/20/10	10:00p	85.2	85.4	85.2	52	65.6	1.0	N	0.25	8.0	NNE	85.2	87.6	87.6	29.970	0.00	0.00	0.000	0.210
6/20/10	10:15p	85.0	85.2	85.0	53	66.0	0.0	N	0.00	4.0	N	85.0	87.5	87.5	29.973	0.00	0.00	0.000	0.208
6/20/10	10:30p	84.6	85.0	84.6	53	65.6	0.0	N	0.00	5.0	WSW	84.6	87.0	87.0	29.974	0.00	0.00	0.000	0.204
6/20/10	10:45p	84.2	84.6	84.2	53	65.2	1.0	NE	0.25	6.0	NNE	84.2	86.5	86.5	29.974	0.00	0.00	0.000	0.200
6/20/10	11:00p	83.9	84.2	83.9	53	64.9	1.0	NE	0.25	5.0	NE	83.9	86.1	86.1	29.974	0.00	0.00	0.000	0.197
6/20/10	11:15p	83.5	83.9	83.5	53	64.6	1.0	NE	0.25	6.0	NE	83.5	85.4	85.4	29.977	0.00	0.00	0.000	0.193
6/20/10	11:30p	83.0	83.5	83.0	54	64.6	1.0	NE	0.25	5.0	WSW	83.0	84.8	84.8	29.980	0.00	0.00	0.000	0.188
6/20/10	11:45p	82.7	83.0	82.7	55	64.9	1.0	NE	0.25	5.0	NE	82.7	84.4	84.4	29.982	0.00	0.00	0.000	0.184
6/21/10	12:00a	82.5	82.7	82.4	55	64.7	1.0	NW	0.25	5.0	N	82.5	84.2	84.2	29.980	0.00	0.00	0.000	0.182

Gowanus Phase III Weather Data 6/21/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/21/10	12:15a	82.2	82.4	82.2	55	64.4	1.0	ENE	0.25	5.0	NE	82.2	83.7	83.7	29.982	0.00	0.00	0.000	0.179
6/21/10	12:30a	81.9	82.2	81.9	55	64.1	0.0	NNW	0.00	2.0	NNW	81.9	83.3	83.3	29.984	0.00	0.00	0.000	0.176
6/21/10	12:45a	81.6	81.9	81.6	55	63.9	1.0	NE	0.25	5.0	NE	81.6	82.8	82.8	29.988	0.00	0.00	0.000	0.173
6/21/10	1:00a	81.2	81.6	81.2	56	64.0	0.0	NE	0.00	2.0	NE	81.2	82.4	82.4	29.989	0.00	0.00	0.000	0.169
6/21/10	1:15a	80.8	81.1	80.8	57	64.1	1.0	NE	0.25	5.0	NE	80.8	82.0	82.0	29.987	0.00	0.00	0.000	0.165
6/21/10	1:30a	80.5	80.8	80.5	58	64.4	0.0	NE	0.00	2.0	NE	80.5	81.7	81.7	29.989	0.00	0.00	0.000	0.161
6/21/10	1:45a	80.3	80.5	80.3	58	64.2	0.0	NE	0.00	2.0	NE	80.3	81.5	81.5	29.989	0.00	0.00	0.000	0.159
6/21/10	2:00a	80.1	80.3	80.1	58	64.0	0.0	NE	0.00	7.0	NNE	80.1	81.2	81.2	29.990	0.00	0.00	0.000	0.157
6/21/10	2:15a	79.8	80.1	79.8	59	64.2	0.0	NNE	0.00	2.0	NNE	79.8	80.9	80.9	29.990	0.00	0.00	0.000	0.154
6/21/10	2:30a	79.6	79.7	79.6	58	63.5	0.0	NNE	0.00	5.0	NNE	79.6	80.6	80.6	29.990	0.00	0.00	0.000	0.152
6/21/10	2:45a	79.4	79.6	79.4	58	63.3	0.0	NNE	0.00	4.0	NNE	79.4	80.4	80.4	29.992	0.00	0.00	0.000	0.150
6/21/10	3:00a	79.0	79.3	79.0	58	63.0	1.0	W	0.25	5.0	NE	79.0	79.9	79.9	29.996	0.00	0.00	0.000	0.146
6/21/10	3:15a	78.7	78.9	78.7	58	62.7	1.0	NNW	0.25	5.0	NW	78.7	79.6	79.6	29.996	0.00	0.00	0.000	0.143
6/21/10	3:30a	78.5	78.7	78.5	57	62.0	1.0	W	0.25	7.0	W	78.5	79.2	79.2	29.998	0.00	0.00	0.000	0.141
6/21/10	3:45a	78.1	78.4	78.1	57	61.6	1.0	NE	0.25	6.0	N	78.1	78.8	78.8	29.997	0.00	0.00	0.000	0.136
6/21/10	4:00a	77.8	78.1	77.8	58	61.8	0.0	W	0.00	6.0	SW	77.8	78.5	78.5	30.001	0.00	0.00	0.000	0.133
6/21/10	4:15a	77.6	77.8	77.6	58	61.7	1.0	NE	0.25	8.0	NE	77.6	78.3	78.3	30.004	0.00	0.00	0.000	0.131
6/21/10	4:30a	77.4	77.5	77.4	58	61.5	1.0	NE	0.25	8.0	WSW	77.4	78.1	78.1	30.005	0.00	0.00	0.000	0.129
6/21/10	4:45a	76.7	77.3	76.7	60	61.8	0.0	NE	0.00	1.0	NE	76.7	77.5	77.5	30.008	0.00	0.00	0.000	0.122
6/21/10	5:00a	76.5	76.7	76.5	59	61.1	1.0	NNE	0.25	6.0	NE	76.5	77.2	77.2	30.013	0.00	0.00	0.000	0.120
6/21/10	5:15a	76.4	76.5	76.4	59	61.0	0.0	NNE	0.00	5.0	NNE	76.4	77.1	77.1	30.020	0.00	0.00	0.000	0.119
6/21/10	5:30a	76.0	76.4	76.0	60	61.1	0.0	NNW	0.00	4.0	NNE	76.0	76.7	76.7	30.023	0.00	0.00	0.000	0.115
6/21/10	5:45a	75.7	76.0	75.7	60	60.8	0.0	NNW	0.00	2.0	NNW	75.7	76.5	76.5	30.036	0.00	0.00	0.000	0.111
6/21/10	6:00a	75.5	75.7	75.5	61	61.1	0.0	NNW	0.00	4.0	NNW	75.5	76.4	76.4	30.040	0.00	0.00	0.000	0.109
6/21/10	6:15a	75.5	75.5	75.5	61	61.1	0.0	N	0.00	4.0	N	75.5	76.4	76.4	30.051	0.00	0.00	0.000	0.109
6/21/10	6:30a	75.5	75.6	75.5	61	61.1	0.0	NNW	0.00	2.0	NNW	75.5	76.4	76.4	30.056	0.00	0.00	0.000	0.109
6/21/10	6:45a	75.8	75.8	75.5	61	61.4	0.0	NNW	0.00	2.0	NNW	75.8	76.6	76.6	30.058	0.00	0.00	0.000	0.113
6/21/10	7:00a	76.6	76.6	75.8	59	61.2	1.0	NNE	0.25	6.0	NNE	76.6	77.3	77.3	30.058	0.00	0.00	0.000	0.121
6/21/10	7:15a	77.5	77.5	76.7	57	61.1	1.0	W	0.25	6.0	SW	77.5	78.1	78.1	30.067	0.00	0.00	0.000	0.130
6/21/10	7:30a	78.4	78.4	77.7	56	61.4	0.0	NW	0.00	4.0	NE	78.4	79.0	79.0	30.070	0.00	0.00	0.000	0.140
6/21/10	7:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.077	0.00	0.00	---	---
6/21/10	8:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.082	0.00	0.00	---	---
6/21/10	8:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.083	0.00	0.00	---	---
6/21/10	8:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.087	0.00	0.00	---	---
6/21/10	8:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.088	0.00	0.00	---	---
6/21/10	9:00a	82.8	82.8	82.4	50	62.3	1.0	W	0.25	6.0	SW	82.8	83.9	83.9	30.081	0.00	0.00	0.000	0.185
6/21/10	9:15a	83.5	83.5	83.2	50	62.9	1.0	NW	0.25	5.0	WSW	83.5	85.0	85.0	30.080	0.00	0.00	0.000	0.193
6/21/10	9:30a	84.3	84.3	83.5	49	63.1	1.0	WSW	0.25	7.0	WSW	84.3	86.0	86.0	30.078	0.00	0.00	0.000	0.201
6/21/10	9:45a	84.8	84.8	84.3	48	62.9	1.0	W	0.25	6.0	W	84.8	86.3	86.3	30.080	0.00	0.00	0.000	0.206
6/21/10	10:00a	85.0	85.0	84.8	48	63.1	2.0	WSW	0.50	7.0	WSW	85.0	86.5	86.5	30.076	0.00	0.00	0.000	0.208
6/21/10	10:15a	85.2	85.2	84.8	46	62.1	2.0	WSW	0.50	6.0	SW	85.2	86.4	86.4	30.068	0.00	0.00	0.000	0.210
6/21/10	10:30a	86.4	86.4	85.3	45	62.5	2.0	W	0.50	9.0	NNE	86.4	87.7	87.7	30.068	0.00	0.00	0.000	0.223
6/21/10	10:45a	86.1	86.6	86.0	45	62.3	2.0	W	0.50	6.0	W	86.1	87.2	87.2	30.068	0.00	0.00	0.000	0.220
6/21/10	11:00a	87.2	87.2	86.0	43	62.0	1.0	W	0.25	7.0	ENE	87.2	88.3	88.3	30.065	0.00	0.00	0.000	0.231
6/21/10	11:15a	87.0	87.3	86.9	43	61.8	2.0	W	0.50	8.0	NNE	87.0	88.1	88.1	30.055	0.00	0.00	0.000	0.229
6/21/10	11:30a	88.1	88.5	87.0	41	61.4	2.0	W	0.50	8.0	W	88.1	88.6	88.6	30.052	0.00	0.00	0.000	0.241
6/21/10	11:45a	88.6	88.6	87.8	42	62.6	1.0	NNE	0.25	6.0	W	88.6	90.0	90.0	30.055	0.00	0.00	0.000	0.246
6/21/10	12:39p	89.4	89.4	89.3	41	62.6	1.0	NE	0.25	4.0	WNW	89.4	90.9	90.9	30.065	0.00	0.00	0.000	0.254
6/21/10	12:45p	---	---	---	41	---	0.0	---	0.00	0.0	---	---	---	---	30.066	0.00	0.00	---	---
6/21/10	1:00p	89.9	90.0	88.8	41	63.0	2.0	W	0.50	11.0	NE	89.9	91.5	91.5	30.066	0.00	0.00	0.000	0.259
6/21/10	1:15p	89.6	89.9	89.5	41	62.8	2.0	WSW	0.50	7.0	NNE	89.6	91.1	91.1	29.969	0.00	0.00	0.000	0.256
6/21/10	2:15p	90.2	90.2	89.7	41	63.3	2.0	W	0.50	10.0	W	90.2	92.0	92.0	29.954	0.00	0.00	0.000	0.262
6/21/10	2:30p	90.8	91.0	90.5	41	63.9	3.0	WSW	0.75	10.0	NNE	90.8	93.0	93.0	29.954	0.00	0.00	0.000	0.269

Gowanus Phase III Weather Data 6/21/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/21/10	2:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.951	0.00	0.00	---	---
6/21/10	3:00p	90.4	90.5	90.3	40	62.8	2.0	WSW	0.50	7.0	SSW	90.4	91.9	91.9	29.955	0.00	0.00	0.000	0.265
6/21/10	3:15p	90.1	90.5	90.1	42	63.9	2.0	NNE	0.50	11.0	N	90.1	92.2	92.2	29.954	0.00	0.00	0.000	0.261
6/21/10	3:30p	90.6	90.8	90.1	41	63.7	2.0	NE	0.50	9.0	NNE	90.6	92.7	92.7	29.956	0.00	0.00	0.000	0.267
6/21/10	3:45p	90.9	90.9	90.5	41	63.9	2.0	NE	0.50	8.0	NE	90.9	93.2	93.2	29.957	0.00	0.00	0.000	0.270
6/21/10	4:00p	90.0	90.9	90.0	42	63.8	2.0	WSW	0.50	11.0	NNE	90.0	92.0	92.0	29.956	0.00	0.00	0.000	0.260
6/21/10	4:15p	90.0	90.0	89.6	43	64.5	2.0	WSW	0.50	7.0	SW	90.0	92.5	92.5	29.957	0.00	0.00	0.000	0.260
6/21/10	4:30p	88.9	90.0	88.9	43	63.5	1.0	WSW	0.25	8.0	NNE	88.9	90.9	90.9	29.956	0.00	0.00	0.000	0.249
6/21/10	4:45p	88.0	88.8	88.0	44	63.4	1.0	SW	0.25	7.0	SW	88.0	89.4	89.4	29.956	0.00	0.00	0.000	0.240
6/21/10	5:00p	88.5	88.7	88.1	43	63.1	2.0	WSW	0.50	5.0	WSW	88.5	90.1	90.1	29.956	0.00	0.00	0.000	0.245
6/21/10	5:15p	88.0	88.5	88.0	43	62.7	3.0	WSW	0.75	7.0	NNE	88.0	89.1	89.1	29.958	0.00	0.00	0.000	0.240
6/21/10	5:30p	88.4	88.4	87.9	44	63.7	2.0	WSW	0.50	8.0	N	88.4	90.2	90.2	29.959	0.00	0.00	0.000	0.244
6/21/10	5:45p	88.2	88.4	88.2	43	62.9	1.0	NW	0.25	6.0	SW	88.2	89.5	89.5	29.966	0.00	0.00	0.000	0.242
6/21/10	6:00p	88.3	88.3	88.1	44	63.6	1.0	NE	0.25	6.0	NNW	88.3	90.0	90.0	29.971	0.00	0.00	0.000	0.243
6/21/10	6:15p	88.2	88.3	88.2	43	62.9	1.0	NNW	0.25	10.0	N	88.2	89.5	89.5	29.972	0.00	0.00	0.000	0.242
6/21/10	6:30p	87.6	88.2	87.6	44	63.0	1.0	NNE	0.25	6.0	NNE	87.6	89.0	89.0	29.972	0.00	0.00	0.000	0.235
6/21/10	6:45p	87.3	87.5	87.3	44	62.7	1.0	WSW	0.25	7.0	NE	87.3	88.7	88.7	29.971	0.00	0.00	0.000	0.232
6/21/10	7:00p	87.2	87.3	87.2	44	62.6	1.0	WSW	0.25	7.0	WSW	87.2	88.6	88.6	29.976	0.00	0.00	0.000	0.231
6/21/10	7:15p	87.1	87.2	87.1	44	62.5	0.0	SW	0.00	4.0	SW	87.1	88.5	88.5	29.973	0.00	0.00	0.000	0.230
6/21/10	7:30p	86.4	87.1	86.4	45	62.5	0.0	SSW	0.00	3.0	SW	86.4	87.7	87.7	29.980	0.00	0.00	0.000	0.223
6/21/10	7:45p	85.8	86.4	85.8	46	62.6	0.0	WSW	0.00	4.0	SW	85.8	87.1	87.1	29.985	0.00	0.00	0.000	0.217
6/21/10	8:00p	85.5	85.8	85.5	46	62.4	0.0	WSW	0.00	4.0	WSW	85.5	86.7	86.7	29.987	0.00	0.00	0.000	0.214
6/21/10	8:15p	85.2	85.5	85.2	47	62.7	1.0	WSW	0.25	6.0	N	85.2	86.6	86.6	29.987	0.00	0.00	0.000	0.210
6/21/10	8:30p	85.0	85.2	85.0	47	62.5	0.0	NNE	0.00	8.0	N	85.0	86.3	86.3	29.987	0.00	0.00	0.000	0.208
6/21/10	8:45p	84.7	85.0	84.6	47	62.2	0.0	NNE	0.00	5.0	NNE	84.7	86.0	86.0	29.996	0.00	0.00	0.000	0.205
6/21/10	9:00p	84.4	84.6	84.4	47	62.0	0.0	NE	0.00	5.0	NE	84.4	85.8	85.8	30.002	0.00	0.00	0.000	0.202
6/21/10	9:15p	84.2	84.4	84.2	47	61.8	0.0	NE	0.00	5.0	NE	84.2	85.6	85.6	30.003	0.00	0.00	0.000	0.200
6/21/10	9:30p	83.9	84.2	83.9	48	62.1	0.0	NE	0.00	6.0	NE	83.9	85.4	85.4	30.015	0.00	0.00	0.000	0.197
6/21/10	9:45p	83.5	83.8	83.5	47	61.1	0.0	NE	0.00	4.0	NE	83.5	84.6	84.6	30.018	0.00	0.00	0.000	0.193
6/21/10	10:00p	83.2	83.5	83.2	48	61.5	1.0	NE	0.25	7.0	NE	83.2	84.2	84.2	30.020	0.00	0.00	0.000	0.190
6/21/10	10:15p	83.0	83.2	83.0	48	61.3	1.0	NW	0.25	5.0	NNE	83.0	83.9	83.9	30.027	0.00	0.00	0.000	0.188
6/21/10	10:30p	82.6	82.9	82.6	49	61.5	0.0	N	0.00	4.0	N	82.6	83.4	83.4	30.027	0.00	0.00	0.000	0.183
6/21/10	10:45p	82.2	82.6	82.2	49	61.1	1.0	W	0.25	6.0	WSW	82.2	82.8	82.8	30.032	0.00	0.00	0.000	0.179
6/21/10	11:00p	82.1	82.2	82.1	49	61.0	1.0	NE	0.25	6.0	NE	82.1	82.6	82.6	30.032	0.00	0.00	0.000	0.178
6/21/10	11:15p	81.9	82.1	81.9	49	60.9	0.0	NE	0.00	5.0	NE	81.9	82.3	82.3	30.035	0.00	0.00	0.000	0.176
6/21/10	11:30p	81.6	81.9	81.6	49	60.6	2.0	NNE	0.50	8.0	NE	81.6	81.9	81.9	30.039	0.00	0.00	0.000	0.173
6/21/10	11:45p	81.3	81.6	81.3	50	60.9	1.0	NNE	0.25	6.0	NNE	81.3	81.6	81.6	30.042	0.00	0.00	0.000	0.170
6/22/10	12:00a	81.1	81.3	81.1	51	61.3	0.0	NNW	0.00	2.0	NW	81.1	81.5	81.5	30.048	0.00	0.00	0.000	0.168

Gowanus Phase III Weather Data 6/22/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/22/10	12:15a	80.9	81.1	80.9	51	61.1	0.0	NNE	0.00	5.0	NNE	80.9	81.2	81.2	30.041	0.00	0.00	0.000	0.166
6/22/10	12:30a	80.7	80.9	80.7	51	60.9	0.0	NNE	0.00	5.0	NNE	80.7	81.0	81.0	30.047	0.00	0.00	0.000	0.164
6/22/10	12:45a	80.6	80.7	80.6	51	60.8	0.0	SSE	0.00	4.0	S	80.6	80.9	80.9	30.048	0.00	0.00	0.000	0.162
6/22/10	1:00a	80.5	80.6	80.5	50	60.1	1.0	S	0.25	5.0	NNW	80.5	80.6	80.6	30.047	0.00	0.00	0.000	0.161
6/22/10	1:15a	80.4	80.5	80.4	50	60.1	1.0	NNE	0.25	6.0	SE	80.4	80.5	80.5	30.048	0.00	0.00	0.000	0.160
6/22/10	1:30a	80.3	80.5	80.3	49	59.4	1.0	NNE	0.25	7.0	E	80.3	80.3	80.3	30.049	0.00	0.00	0.000	0.159
6/22/10	1:45a	80.1	80.3	80.1	49	59.2	1.0	NE	0.25	5.0	NE	80.1	80.1	80.1	30.047	0.00	0.00	0.000	0.157
6/22/10	2:00a	79.7	80.1	79.7	49	58.8	1.0	SE	0.25	6.0	N	79.7	79.7	79.7	30.046	0.00	0.00	0.000	0.153
6/22/10	2:15a	79.3	79.7	79.3	49	58.5	1.0	SE	0.25	7.0	E	79.3	79.4	79.4	30.033	0.00	0.00	0.000	0.149
6/22/10	2:30a	78.8	79.3	78.8	50	58.6	1.0	S	0.25	4.0	ESE	78.8	79.0	79.0	30.033	0.00	0.00	0.000	0.144
6/22/10	2:45a	78.4	78.7	78.4	51	58.8	0.0	SE	0.00	4.0	SE	78.4	78.6	78.6	30.034	0.00	0.00	0.000	0.140
6/22/10	3:00a	78.1	78.5	78.1	52	59.0	0.0	SE	0.00	2.0	SE	78.1	78.3	78.3	30.033	0.00	0.00	0.000	0.136
6/22/10	3:15a	77.9	78.1	77.9	53	59.4	0.0	SE	0.00	2.0	SE	77.9	78.2	78.2	30.037	0.00	0.00	0.000	0.134
6/22/10	3:30a	77.7	77.9	77.7	53	59.2	0.0	SE	0.00	1.0	SE	77.7	77.9	77.9	30.041	0.00	0.00	0.000	0.132
6/22/10	3:45a	77.5	77.7	77.5	54	59.5	0.0	SE	0.00	1.0	SE	77.5	77.8	77.8	30.033	0.00	0.00	0.000	0.130
6/22/10	4:00a	77.3	77.5	77.3	54	59.4	0.0	SE	0.00	2.0	SE	77.3	77.6	77.6	30.034	0.00	0.00	0.000	0.128
6/22/10	4:15a	77.1	77.3	77.1	55	59.7	0.0	SSE	0.00	4.0	SSE	77.1	77.4	77.4	30.047	0.00	0.00	0.000	0.126
6/22/10	4:30a	76.7	77.1	76.7	55	59.3	0.0	SSE	0.00	2.0	SSE	76.7	77.0	77.0	30.053	0.00	0.00	0.000	0.122
6/22/10	4:45a	76.7	76.7	76.6	54	58.8	0.0	SSE	0.00	1.0	SSE	76.7	76.9	76.9	30.062	0.00	0.00	0.000	0.122
6/22/10	5:00a	76.6	76.7	76.6	54	58.7	0.0	SE	0.00	5.0	SE	76.6	76.8	76.8	30.064	0.00	0.00	0.000	0.121
6/22/10	5:15a	76.3	76.6	76.3	54	58.4	0.0	SE	0.00	1.0	SE	76.3	76.5	76.5	30.066	0.00	0.00	0.000	0.118
6/22/10	5:30a	76.4	76.4	76.3	53	58.0	0.0	SE	0.00	3.0	SE	76.4	76.5	76.5	30.078	0.00	0.00	0.000	0.119
6/22/10	5:45a	76.4	76.4	76.3	53	58.0	0.0	NNE	0.00	4.0	NNE	76.4	76.5	76.5	30.079	0.00	0.00	0.000	0.119
6/22/10	6:00a	76.4	76.4	76.4	52	57.5	0.0	NNE	0.00	1.0	NNE	76.4	76.5	76.5	30.079	0.00	0.00	0.000	0.119
6/22/10	6:15a	76.4	76.4	76.3	53	58.0	0.0	NNE	0.00	1.0	NNE	76.4	76.5	76.5	30.083	0.00	0.00	0.000	0.119
6/22/10	6:30a	76.4	76.4	76.4	54	58.5	0.0	NNE	0.00	1.0	NNE	76.4	76.6	76.6	30.080	0.00	0.00	0.000	0.119
6/22/10	6:45a	76.6	76.6	76.4	53	58.2	0.0	NNE	0.00	3.0	NNE	76.6	76.7	76.7	30.085	0.00	0.00	0.000	0.121
6/22/10	7:00a	77.2	77.2	76.6	52	58.2	0.0	NNE	0.00	3.0	NNE	77.2	77.2	77.2	30.089	0.00	0.00	0.000	0.127
6/22/10	7:15a	77.8	77.8	77.2	52	58.8	0.0	ESE	0.00	3.0	ESE	77.8	78.0	78.0	30.092	0.00	0.00	0.000	0.133
6/22/10	7:30a	79.3	79.3	77.9	50	59.0	0.0	SE	0.00	4.0	SE	79.3	79.5	79.5	30.090	0.00	0.00	0.000	0.149
6/22/10	7:45a	80.5	80.5	79.3	49	59.6	0.0	SSW	0.00	4.0	SSW	80.5	80.5	80.5	30.094	0.00	0.00	0.000	0.161
6/22/10	8:00a	80.6	80.7	80.4	49	59.7	0.0	SE	0.00	5.0	NNW	80.6	80.6	80.6	30.095	0.00	0.00	0.000	0.162
6/22/10	8:15a	81.3	81.3	80.6	49	60.3	0.0	NE	0.00	2.0	NE	81.3	81.5	81.5	30.099	0.00	0.00	0.000	0.170
6/22/10	8:30a	80.6	81.3	80.6	50	60.2	0.0	ENE	0.00	4.0	ENE	80.6	80.8	80.8	30.095	0.00	0.00	0.000	0.162
6/22/10	8:45a	80.9	80.9	80.0	50	60.5	0.0	ENE	0.00	4.0	ENE	80.9	81.1	81.1	30.095	0.00	0.00	0.000	0.166
6/22/10	9:00a	82.5	82.5	80.9	49	61.4	0.0	ENE	0.00	3.0	ENE	82.5	83.3	83.3	30.094	0.00	0.00	0.000	0.182
6/22/10	9:15a	82.8	83.1	82.5	48	61.1	0.0	ENE	0.00	4.0	ENE	82.8	83.6	83.6	30.094	0.00	0.00	0.000	0.185
6/22/10	9:30a	83.3	83.4	82.8	48	61.6	0.0	ENE	0.00	3.0	ENE	83.3	84.4	84.4	30.092	0.00	0.00	0.000	0.191
6/22/10	9:45a	83.0	83.5	83.0	48	61.3	0.0	ENE	0.00	2.0	ENE	83.0	83.9	83.9	30.091	0.00	0.00	0.000	0.188
6/22/10	10:00a	84.1	84.1	82.9	47	61.7	0.0	ENE	0.00	4.0	ENE	84.1	85.5	85.5	30.095	0.00	0.00	0.000	0.199
6/22/10	10:15a	84.7	84.9	84.5	46	61.6	1.0	ENE	0.25	5.0	WNW	84.7	85.9	85.9	30.096	0.00	0.00	0.000	0.205
6/22/10	10:30a	84.6	85.1	84.6	47	62.1	1.0	NW	0.25	5.0	WNW	84.6	85.9	85.9	30.093	0.00	0.00	0.000	0.204
6/22/10	10:45a	85.0	85.0	84.2	47	62.5	1.0	ESE	0.25	6.0	WNW	85.0	86.3	86.3	30.090	0.00	0.00	0.000	0.208
6/22/10	11:00a	85.2	85.3	85.0	46	62.1	1.0	E	0.25	7.0	W	85.2	86.4	86.4	30.085	0.00	0.00	0.000	0.210
6/22/10	11:15a	84.9	85.2	84.9	47	62.4	1.0	E	0.25	6.0	NW	84.9	86.2	86.2	30.081	0.00	0.00	0.000	0.207
6/22/10	11:30a	85.5	85.5	84.9	45	61.7	1.0	NNW	0.25	5.0	W	85.5	86.5	86.5	30.079	0.00	0.00	0.000	0.214
6/22/10	11:45a	85.7	85.7	85.2	45	61.9	1.0	ENE	0.25	5.0	NW	85.7	86.8	86.8	30.079	0.00	0.00	0.000	0.216
6/22/10	12:00p	85.8	85.9	85.6	45	62.0	2.0	WNW	0.50	6.0	WNW	85.8	86.9	86.9	30.077	0.00	0.00	0.000	0.217
6/22/10	12:15p	86.1	86.1	85.8	45	62.3	1.0	NE	0.25	5.0	WNW	86.1	87.2	87.2	30.076	0.00	0.00	0.000	0.220
6/22/10	12:30p	86.8	86.8	86.1	44	62.3	1.0	E	0.25	7.0	WNW	86.8	88.1	88.1	30.075	0.00	0.00	0.000	0.227
6/22/10	12:45p	86.7	86.9	86.7	44	62.2	2.0	NW	0.50	5.0	E	86.7	87.9	87.9	30.075	0.00	0.00	0.000	0.226
6/22/10	1:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.065	0.00	0.00	---	---
6/22/10	1:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---

Gowanus Phase III Weather Data 6/22/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/22/10	1:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.060	0.00	0.00	---	---
6/22/10	1:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.050	0.00	0.00	---	---
6/22/10	2:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.048	0.00	0.00	---	---
6/22/10	2:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.043	0.00	0.00	---	---
6/22/10	2:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.042	0.00	0.00	---	---
6/22/10	2:45p	85.4	85.4	85.4	48	63.5	1.0	N	0.25	3.0	N	85.4	87.0	87.0	30.035	0.00	0.00	0.000	0.213
6/22/10	3:00p	83.9	85.4	83.9	50	63.3	2.0	NW	0.50	8.0	NW	83.9	85.6	85.6	30.033	0.00	0.00	0.000	0.197
6/22/10	3:15p	83.5	83.9	83.5	53	64.6	3.0	NW	0.75	7.0	W	83.5	85.4	85.4	30.028	0.00	0.00	0.000	0.193
6/22/10	3:30p	82.4	83.6	82.4	54	64.1	3.0	NW	0.75	8.0	NW	82.4	83.8	83.8	30.019	0.00	0.00	0.000	0.181
6/22/10	3:45p	81.9	82.4	81.9	55	64.1	2.0	ENE	0.50	9.0	NW	81.9	83.3	83.3	30.015	0.00	0.00	0.000	0.176
6/22/10	4:00p	80.8	81.9	80.8	59	65.1	3.0	NW	0.75	8.0	NW	80.8	82.3	82.3	30.004	0.00	0.00	0.000	0.165
6/22/10	4:15p	79.7	80.8	79.7	60	64.6	2.0	E	0.50	9.0	WNW	79.7	80.9	80.9	30.004	0.00	0.00	0.000	0.153
6/22/10	4:30p	78.4	79.7	78.4	66	66.1	2.0	ENE	0.50	8.0	NW	78.4	80.0	80.0	30.004	0.00	0.00	0.000	0.140
6/22/10	4:45p	78.6	78.7	78.4	66	66.3	1.0	NE	0.25	6.0	NW	78.6	80.3	80.3	30.003	0.00	0.00	0.000	0.142
6/22/10	5:00p	78.5	78.7	78.4	66	66.2	1.0	NNW	0.25	8.0	NW	78.5	80.2	80.2	30.004	0.00	0.00	0.000	0.141
6/22/10	5:15p	78.0	78.4	78.0	68	66.6	1.0	E	0.25	9.0	WSW	78.0	79.8	79.8	30.004	0.00	0.00	0.000	0.135
6/22/10	5:30p	77.7	78.1	77.7	70	67.1	2.0	E	0.50	6.0	ESE	77.7	79.7	79.7	30.002	0.00	0.00	0.000	0.132
6/22/10	5:45p	77.5	77.8	77.5	70	66.9	1.0	E	0.25	6.0	N	77.5	79.5	79.5	29.988	0.00	0.00	0.000	0.130
6/22/10	6:00p	77.4	77.5	77.3	68	66.0	3.0	NW	0.75	9.0	NW	77.4	79.1	79.1	29.985	0.00	0.00	0.000	0.129
6/22/10	6:15p	77.8	77.8	77.4	68	66.4	3.0	NW	0.75	8.0	NW	77.8	79.5	79.5	29.988	0.00	0.00	0.000	0.133
6/22/10	6:30p	77.6	77.8	77.6	69	66.6	2.0	NNW	0.50	6.0	NW	77.6	79.4	79.4	29.987	0.00	0.00	0.000	0.131
6/22/10	6:45p	77.3	77.7	77.3	71	67.2	3.0	WNW	0.75	11.0	WNW	77.3	79.4	79.4	29.978	0.00	0.00	0.000	0.128
6/22/10	7:00p	77.1	77.4	77.0	74	68.2	2.0	ENE	0.50	7.0	NW	77.1	79.5	79.5	29.978	0.00	0.00	0.000	0.126
6/22/10	7:15p	77.0	77.1	77.0	76	68.9	2.0	NW	0.50	7.0	WNW	77.0	79.6	79.6	29.975	0.00	0.00	0.000	0.125
6/22/10	7:30p	76.9	77.1	76.9	77	69.1	3.0	NW	0.75	7.0	W	76.9	79.6	79.6	29.959	0.00	0.00	0.000	0.124
6/22/10	7:45p	76.3	76.9	76.3	81	70.0	3.0	NW	0.75	9.0	WNW	76.3	79.3	79.3	29.961	0.00	0.00	0.000	0.118
6/22/10	8:00p	75.3	76.3	75.3	86	70.8	2.0	NE	0.50	9.0	WNW	75.3	78.4	78.4	29.986	0.05	1.09	0.000	0.107
6/22/10	8:15p	74.8	75.2	74.7	90	71.7	0.0	NW	0.00	5.0	NNE	74.8	78.0	78.0	29.986	0.11	2.33	0.000	0.102
6/22/10	8:30p	74.2	74.8	74.2	89	70.7	1.0	NE	0.25	5.0	NE	74.2	76.8	76.8	29.965	0.09	1.17	0.000	0.096
6/22/10	8:45p	74.3	74.3	74.1	89	70.8	1.0	NW	0.25	7.0	NW	74.3	76.9	76.9	29.971	0.01	0.15	0.000	0.097
6/22/10	9:00p	74.3	74.4	74.3	89	70.8	2.0	NNW	0.50	7.0	NNW	74.3	76.9	76.9	29.970	0.00	0.00	0.000	0.097
6/22/10	9:15p	74.1	74.3	74.1	88	70.3	1.0	NE	0.25	5.0	NNE	74.1	76.5	76.5	29.958	0.00	0.00	0.000	0.095
6/22/10	9:30p	74.0	74.1	74.0	87	69.9	1.0	NE	0.25	6.0	W	74.0	76.3	76.3	29.956	0.00	0.00	0.000	0.094
6/22/10	9:45p	73.8	73.9	73.8	85	69.0	0.0	NE	0.00	4.0	NE	73.8	76.0	76.0	29.959	0.00	0.00	0.000	0.092
6/22/10	10:00p	73.9	73.9	73.8	85	69.1	0.0	NE	0.00	4.0	NE	73.9	76.1	76.1	29.958	0.00	0.00	0.000	0.093
6/22/10	10:15p	74.0	74.0	73.9	87	69.9	0.0	NE	0.00	1.0	NE	74.0	76.3	76.3	29.963	0.00	0.00	0.000	0.094
6/22/10	10:30p	74.1	74.1	73.9	88	70.3	0.0	---	0.00	0.0	---	74.1	76.5	76.5	29.956	0.00	0.00	0.000	0.095
6/22/10	10:45p	74.5	74.5	74.1	87	70.4	0.0	NE	0.00	1.0	NE	74.5	77.2	77.2	29.960	0.00	0.00	0.000	0.099
6/22/10	11:00p	74.7	74.7	74.5	86	70.2	0.0	---	0.00	0.0	---	74.7	77.5	77.5	29.958	0.00	0.00	0.000	0.101
6/22/10	11:15p	74.8	74.9	74.6	85	70.0	0.0	---	0.00	0.0	---	74.8	77.6	77.6	29.951	0.00	0.00	0.000	0.102
6/22/10	11:30p	74.9	74.9	74.8	85	70.1	0.0	---	0.00	0.0	---	74.9	77.8	77.8	29.943	0.00	0.00	0.000	0.103
6/22/10	11:45p	75.0	75.0	74.9	85	70.2	0.0	---	0.00	0.0	---	75.0	78.0	78.0	29.940	0.00	0.00	0.000	0.104
6/23/10	12:00a	75.0	75.0	74.9	83	69.5	0.0	NE	0.00	2.0	NE	75.0	77.8	77.8	29.941	0.00	0.00	0.000	0.104

Gowanus Phase III Weather Data 6/23/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/23/10	12:15a	75.1	75.1	75.0	83	69.6	0.0	NE	0.00	2.0	NE	75.1	77.9	77.9	29.936	0.00	0.00	0.000	0.105
6/23/10	12:30a	75.0	75.1	75.0	83	69.5	0.0	NE	0.00	1.0	NE	75.0	77.8	77.8	29.935	0.00	0.00	0.000	0.104
6/23/10	12:45a	74.9	75.0	74.9	83	69.4	0.0	NE	0.00	1.0	NE	74.9	77.6	77.6	29.937	0.00	0.00	0.000	0.103
6/23/10	1:00a	74.7	74.9	74.7	83	69.2	0.0	NE	0.00	4.0	NE	74.7	77.3	77.3	29.926	0.00	0.00	0.000	0.101
6/23/10	1:15a	74.4	74.7	74.4	84	69.2	0.0	NE	0.00	5.0	NE	74.4	76.9	76.9	29.925	0.00	0.00	0.000	0.098
6/23/10	1:30a	74.0	74.4	74.0	86	69.5	0.0	NE	0.00	1.0	NE	74.0	76.2	76.2	29.924	0.00	0.00	0.000	0.094
6/23/10	1:45a	73.7	74.0	73.7	87	69.6	0.0	NE	0.00	1.0	NE	73.7	76.0	76.0	29.919	0.00	0.00	0.000	0.091
6/23/10	2:00a	73.5	73.7	73.5	88	69.7	0.0	NE	0.00	1.0	NE	73.5	75.8	75.8	29.911	0.00	0.00	0.000	0.089
6/23/10	2:15a	73.5	73.5	73.5	88	69.7	0.0	NE	0.00	1.0	NE	73.5	75.8	75.8	29.911	0.00	0.00	0.000	0.089
6/23/10	2:30a	73.4	73.5	73.4	88	69.6	0.0	NE	0.00	1.0	NE	73.4	75.7	75.7	29.909	0.00	0.00	0.000	0.088
6/23/10	2:45a	73.5	73.5	73.4	88	69.7	0.0	NE	0.00	2.0	NE	73.5	75.8	75.8	29.907	0.00	0.00	0.000	0.089
6/23/10	3:00a	73.6	73.6	73.5	88	69.8	0.0	NE	0.00	2.0	NE	73.6	75.9	75.9	29.901	0.00	0.00	0.000	0.090
6/23/10	3:15a	73.7	73.8	73.6	87	69.6	0.0	NE	0.00	4.0	NE	73.7	76.0	76.0	29.894	0.00	0.00	0.000	0.091
6/23/10	3:30a	73.7	73.8	73.6	88	69.9	0.0	NE	0.00	5.0	NE	73.7	76.0	76.0	29.894	0.00	0.00	0.000	0.091
6/23/10	3:45a	73.6	73.7	73.6	88	69.8	0.0	NE	0.00	1.0	NE	73.6	75.9	75.9	29.894	0.00	0.00	0.000	0.090
6/23/10	4:00a	73.4	73.6	73.4	88	69.6	0.0	---	0.00	0.0	---	73.4	75.7	75.7	29.894	0.00	0.00	0.000	0.088
6/23/10	4:15a	73.3	73.4	73.3	88	69.5	0.0	NE	0.00	1.0	NE	73.3	75.6	75.6	29.894	0.00	0.00	0.000	0.086
6/23/10	4:30a	73.1	73.3	73.1	89	69.7	0.0	---	0.00	0.0	---	73.1	75.5	75.5	29.895	0.00	0.00	0.000	0.084
6/23/10	4:45a	73.0	73.1	73.0	89	69.6	0.0	NE	0.00	2.0	NE	73.0	75.4	75.4	29.901	0.00	0.00	0.000	0.083
6/23/10	5:00a	73.1	73.1	73.0	89	69.7	0.0	NE	0.00	1.0	NE	73.1	75.5	75.5	29.897	0.00	0.00	0.000	0.084
6/23/10	5:15a	72.9	73.1	72.9	89	69.5	0.0	NE	0.00	1.0	NE	72.9	75.3	75.3	29.909	0.00	0.00	0.000	0.082
6/23/10	5:30a	73.0	73.0	72.9	89	69.6	0.0	NE	0.00	1.0	NE	73.0	75.4	75.4	29.912	0.00	0.00	0.000	0.083
6/23/10	5:45a	73.0	73.0	73.0	89	69.6	0.0	NE	0.00	2.0	NE	73.0	75.4	75.4	29.911	0.00	0.00	0.000	0.083
6/23/10	6:00a	73.0	73.0	72.9	89	69.6	0.0	NE	0.00	1.0	NE	73.0	75.4	75.4	29.911	0.00	0.00	0.000	0.083
6/23/10	6:15a	73.2	73.2	73.0	88	69.4	0.0	NE	0.00	1.0	NE	73.2	75.5	75.5	29.913	0.00	0.00	0.000	0.085
6/23/10	6:30a	73.5	73.5	73.2	88	69.7	0.0	NE	0.00	4.0	NE	73.5	75.8	75.8	29.919	0.00	0.00	0.000	0.089
6/23/10	6:45a	74.1	74.1	73.5	87	70.0	0.0	NE	0.00	2.0	NE	74.1	76.5	76.5	29.921	0.00	0.00	0.000	0.095
6/23/10	7:00a	74.8	74.8	74.1	85	70.0	0.0	NE	0.00	4.0	NE	74.8	77.6	77.6	29.925	0.00	0.00	0.000	0.102
6/23/10	7:15a	76.3	76.3	74.9	83	70.8	0.0	NE	0.00	5.0	NE	76.3	79.5	79.5	29.925	0.00	0.00	0.000	0.118
6/23/10	7:30a	77.4	77.4	76.3	80	70.7	1.0	NE	0.25	6.0	WSW	77.4	80.6	80.6	29.926	0.00	0.00	0.000	0.129
6/23/10	7:45a	78.5	78.5	77.4	78	71.1	0.0	W	0.00	4.0	W	78.5	81.8	81.8	29.941	0.00	0.00	0.000	0.141
6/23/10	8:00a	79.8	79.8	78.6	75	71.2	0.0	W	0.00	4.0	W	79.8	83.3	83.3	29.949	0.00	0.00	0.000	0.154
6/23/10	8:15a	81.3	81.3	79.8	72	71.4	1.0	WSW	0.25	5.0	SW	81.3	85.4	85.4	29.956	0.00	0.00	0.000	0.170
6/23/10	8:30a	82.6	82.6	81.4	67	70.5	1.0	WSW	0.25	6.0	SW	82.6	86.8	86.8	29.956	0.00	0.00	0.000	0.183
6/23/10	8:45a	83.4	83.4	82.7	64	69.9	1.0	WSW	0.25	6.0	WSW	83.4	87.6	87.6	29.941	0.00	0.00	0.000	0.192
6/23/10	9:00a	84.1	84.1	83.4	61	69.2	1.0	WSW	0.25	6.0	SW	84.1	88.2	88.2	29.939	0.00	0.00	0.000	0.199
6/23/10	9:15a	84.2	84.4	84.1	61	69.3	1.0	WSW	0.25	5.0	WSW	84.2	88.3	88.3	29.941	0.00	0.00	0.000	0.200
6/23/10	9:30a	84.9	85.0	84.2	60	69.5	1.0	WSW	0.25	8.0	SW	84.9	89.2	89.2	29.941	0.00	0.00	0.000	0.207
6/23/10	9:45a	85.3	85.3	84.9	60	69.8	1.0	W	0.25	8.0	SW	85.3	90.0	90.0	29.941	0.00	0.00	0.000	0.211
6/23/10	10:00a	85.5	85.5	85.1	58	69.0	2.0	SW	0.50	8.0	SW	85.5	89.8	89.8	29.941	0.00	0.00	0.000	0.214
6/23/10	10:15a	85.6	85.6	85.3	58	69.1	2.0	WSW	0.50	9.0	SW	85.6	90.0	90.0	29.941	0.00	0.00	0.000	0.215
6/23/10	10:30a	86.1	86.4	85.6	57	69.1	1.0	WSW	0.25	8.0	WSW	86.1	90.6	90.6	29.939	0.00	0.00	0.000	0.220
6/23/10	10:45a	86.5	86.5	86.1	57	69.5	1.0	W	0.25	9.0	N	86.5	91.5	91.5	29.940	0.00	0.00	0.000	0.224
6/23/10	11:00a	85.8	86.5	85.7	56	68.3	3.0	W	0.75	14.0	NNE	85.8	89.7	89.7	29.941	0.00	0.00	0.000	0.217
6/23/10	11:15a	85.7	86.1	85.7	57	68.7	2.0	SW	0.50	8.0	NE	85.7	89.8	89.8	29.941	0.00	0.00	0.000	0.216
6/23/10	11:30a	86.0	86.0	85.6	56	68.5	2.0	W	0.50	7.0	NE	86.0	90.1	90.1	29.937	0.00	0.00	0.000	0.219
6/23/10	11:45a	86.2	86.2	85.9	56	68.7	1.0	WSW	0.25	7.0	SW	86.2	90.5	90.5	29.925	0.00	0.00	0.000	0.221
6/23/10	12:00p	86.8	86.9	86.2	56	69.2	1.0	WSW	0.25	8.0	SW	86.8	91.7	91.7	29.924	0.00	0.00	0.000	0.227
6/23/10	12:15p	88.0	88.0	86.8	54	69.3	1.0	W	0.25	6.0	WSW	88.0	92.8	92.8	29.917	0.00	0.00	0.000	0.240
6/23/10	12:30p	88.7	88.7	88.1	53	69.4	2.0	WSW	0.50	8.0	WSW	88.7	94.0	94.0	29.910	0.00	0.00	0.000	0.247
6/23/10	12:45p	89.3	89.4	88.7	53	69.9	1.0	WSW	0.25	7.0	SW	89.3	95.2	95.2	29.904	0.00	0.00	0.000	0.253
6/23/10	1:00p	91.4	91.4	89.3	49	69.6	1.0	WSW	0.25	7.0	SW	91.4	97.5	97.5	29.900	0.00	0.00	0.000	0.275
6/23/10	1:15p	89.9	91.4	89.9	51	69.3	2.0	WSW	0.50	9.0	SSW	89.9	95.4	95.4	29.893	0.00	0.00	0.000	0.259

Gowanus Phase III Weather Data 6/23/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/23/10	1:30p	92.1	92.1	89.9	48	69.6	1.0	WSW	0.25	7.0	SW	92.1	98.4	98.4	29.892	0.00	0.00	0.000	0.282
6/23/10	1:45p	91.9	92.1	91.8	47	68.8	2.0	WSW	0.50	8.0	W	91.9	97.6	97.6	29.886	0.00	0.00	0.000	0.280
6/23/10	2:00p	92.4	92.4	91.8	47	69.2	2.0	WSW	0.50	10.0	SSW	92.4	98.6	98.6	29.885	0.00	0.00	0.000	0.285
6/23/10	2:15p	93.3	93.5	92.4	44	68.1	1.0	WSW	0.25	6.0	WSW	93.3	98.9	98.9	29.881	0.00	0.00	0.000	0.295
6/23/10	2:30p	92.5	93.3	92.1	46	68.7	2.0	WSW	0.50	10.0	SW	92.5	98.3	98.3	29.880	0.00	0.00	0.000	0.286
6/23/10	2:45p	93.0	93.0	92.5	46	69.2	2.0	WSW	0.50	9.0	NNW	93.0	99.3	99.3	29.879	0.00	0.00	0.000	0.292
6/23/10	3:00p	93.2	93.6	93.0	45	68.7	2.0	WSW	0.50	7.0	SW	93.2	99.2	99.2	29.883	0.00	0.00	0.000	0.294
6/23/10	3:15p	94.1	94.1	92.9	46	70.2	2.0	WSW	0.50	7.0	SW	94.1	101.5	101.5	29.882	0.00	0.00	0.000	0.303
6/23/10	3:30p	92.3	94.1	92.3	46	68.5	2.0	WSW	0.50	8.0	W	92.3	97.9	97.9	29.880	0.00	0.00	0.000	0.284
6/23/10	3:45p	93.7	93.7	91.9	46	69.8	1.0	WSW	0.25	6.0	SW	93.7	100.7	100.7	29.879	0.00	0.00	0.000	0.299
6/23/10	4:00p	92.4	93.9	92.4	46	68.6	2.0	W	0.50	8.0	SW	92.4	98.1	98.1	29.878	0.00	0.00	0.000	0.285
6/23/10	4:15p	92.1	92.4	92.1	47	69.0	1.0	WSW	0.25	7.0	SW	92.1	98.0	98.0	29.869	0.00	0.00	0.000	0.282
6/23/10	4:30p	91.8	92.1	91.8	46	68.1	2.0	WSW	0.50	8.0	WSW	91.8	97.0	97.0	29.864	0.00	0.00	0.000	0.279
6/23/10	4:45p	92.4	92.4	91.9	46	68.6	0.0	WSW	0.00	6.0	WSW	92.4	98.1	98.1	29.863	0.00	0.00	0.000	0.285
6/23/10	5:00p	92.0	92.5	92.0	46	68.3	2.0	WSW	0.50	8.0	W	92.0	97.3	97.3	29.864	0.00	0.00	0.000	0.281
6/23/10	5:15p	91.4	91.9	91.4	48	69.0	1.0	W	0.25	6.0	WSW	91.4	97.1	97.1	29.864	0.00	0.00	0.000	0.275
6/23/10	5:30p	91.4	91.4	91.3	48	69.0	1.0	SW	0.25	6.0	SW	91.4	97.1	97.1	29.855	0.00	0.00	0.000	0.275
6/23/10	5:45p	91.3	91.5	91.3	46	67.6	1.0	W	0.25	6.0	SW	91.3	96.1	96.1	29.854	0.00	0.00	0.000	0.274
6/23/10	6:00p	90.7	91.3	90.7	48	68.3	1.0	NW	0.25	9.0	N	90.7	95.7	95.7	29.858	0.00	0.00	0.000	0.268
6/23/10	6:15p	90.8	90.8	90.6	49	69.0	1.0	W	0.25	4.0	W	90.8	96.3	96.3	29.858	0.00	0.00	0.000	0.269
6/23/10	6:30p	90.3	90.8	90.3	48	67.9	1.0	WSW	0.25	7.0	SSW	90.3	95.0	95.0	29.852	0.00	0.00	0.000	0.264
6/23/10	6:45p	90.1	90.2	90.1	47	67.2	2.0	W	0.50	9.0	NE	90.1	94.2	94.2	29.859	0.00	0.00	0.000	0.261
6/23/10	7:00p	89.8	90.1	89.8	49	68.1	1.0	W	0.25	5.0	W	89.8	94.5	94.5	29.863	0.00	0.00	0.000	0.258
6/23/10	7:15p	89.5	89.8	89.5	50	68.4	1.0	WSW	0.25	5.0	WSW	89.5	94.4	94.4	29.860	0.00	0.00	0.000	0.255
6/23/10	7:30p	89.2	89.5	89.2	51	68.7	0.0	NE	0.00	2.0	NE	89.2	94.3	94.3	29.864	0.00	0.00	0.000	0.252
6/23/10	7:45p	88.7	89.2	88.7	51	68.2	0.0	E	0.00	3.0	E	88.7	93.3	93.3	29.862	0.00	0.00	0.000	0.247
6/23/10	8:00p	88.1	88.7	88.1	52	68.3	0.0	SE	0.00	1.0	SE	88.1	92.3	92.3	29.863	0.00	0.00	0.000	0.241
6/23/10	8:15p	87.8	88.1	87.8	53	68.5	0.0	SE	0.00	2.0	SE	87.8	92.2	92.2	29.854	0.00	0.00	0.000	0.238
6/23/10	8:30p	87.5	87.8	87.5	54	68.8	0.0	SE	0.00	1.0	SE	87.5	92.1	92.1	29.863	0.00	0.00	0.000	0.234
6/23/10	8:45p	86.9	87.5	86.9	57	69.8	1.0	SW	0.25	4.0	SE	86.9	92.3	92.3	29.864	0.00	0.00	0.000	0.228
6/23/10	9:00p	86.5	86.9	86.5	57	69.5	0.0	SW	0.00	4.0	SW	86.5	91.5	91.5	29.864	0.00	0.00	0.000	0.224
6/23/10	9:15p	86.2	86.5	86.2	57	69.2	0.0	SW	0.00	4.0	SW	86.2	90.8	90.8	29.864	0.00	0.00	0.000	0.221
6/23/10	9:30p	86.0	86.2	86.0	57	69.0	0.0	SW	0.00	3.0	SW	86.0	90.4	90.4	29.863	0.00	0.00	0.000	0.219
6/23/10	9:45p	85.7	86.0	85.7	57	68.7	0.0	SW	0.00	1.0	SW	85.7	89.8	89.8	29.864	0.00	0.00	0.000	0.216
6/23/10	10:00p	85.5	85.7	85.5	57	68.5	0.0	SW	0.00	1.0	SW	85.5	89.5	89.5	29.863	0.00	0.00	0.000	0.214
6/23/10	10:15p	85.3	85.5	85.3	58	68.8	0.0	SW	0.00	1.0	SW	85.3	89.4	89.4	29.858	0.00	0.00	0.000	0.211
6/23/10	10:30p	84.8	85.3	84.8	58	68.4	0.0	---	0.00	0.0	---	84.8	88.5	88.5	29.848	0.00	0.00	0.000	0.206
6/23/10	10:45p	84.6	84.8	84.6	59	68.7	0.0	SW	0.00	1.0	SW	84.6	88.5	88.5	29.848	0.00	0.00	0.000	0.204
6/23/10	11:00p	84.4	84.6	84.4	58	68.0	0.0	SW	0.00	1.0	SW	84.4	87.9	87.9	29.844	0.00	0.00	0.000	0.202
6/23/10	11:15p	84.2	84.4	84.2	59	68.3	0.0	---	0.00	0.0	---	84.2	87.8	87.8	29.834	0.00	0.00	0.000	0.200
6/23/10	11:30p	83.9	84.2	83.9	60	68.5	0.0	---	0.00	0.0	---	83.9	87.5	87.5	29.833	0.00	0.00	0.000	0.197
6/23/10	11:45p	83.5	83.9	83.5	60	68.2	0.0	---	0.00	0.0	---	83.5	86.7	86.7	29.829	0.00	0.00	0.000	0.193
6/24/10	12:00a	83.2	83.5	83.2	60	67.9	0.0	---	0.00	0.0	---	83.2	86.1	86.1	29.820	0.00	0.00	0.000	0.190

Gowanus Phase III Weather Data 6/24/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/24/10	12:15a	83.2	83.3	83.2	60	67.9	0.0	---	0.00	0.0	---	83.2	86.1	86.1	29.817	0.00	0.00	0.000	0.190
6/24/10	12:30a	83.3	83.3	83.2	60	68.0	0.0	SW	0.00	1.0	SW	83.3	86.3	86.3	29.816	0.00	0.00	0.000	0.191
6/24/10	12:45a	83.4	83.4	83.3	60	68.1	0.0	SW	0.00	1.0	SW	83.4	86.5	86.5	29.812	0.00	0.00	0.000	0.192
6/24/10	1:00a	83.1	83.4	83.1	60	67.8	0.0	---	0.00	0.0	---	83.1	85.9	85.9	29.813	0.00	0.00	0.000	0.189
6/24/10	1:15a	82.9	83.1	82.9	61	68.1	0.0	---	0.00	0.0	---	82.9	85.8	85.8	29.811	0.00	0.00	0.000	0.186
6/24/10	1:30a	83.1	83.1	82.9	61	68.3	0.0	---	0.00	0.0	---	83.1	86.1	86.1	29.806	0.00	0.00	0.000	0.189
6/24/10	1:45a	83.3	83.3	83.0	61	68.4	0.0	WSW	0.00	1.0	WSW	83.3	86.6	86.6	29.811	0.00	0.00	0.000	0.191
6/24/10	2:00a	82.9	83.3	82.9	62	68.5	0.0	WSW	0.00	2.0	WSW	82.9	86.0	86.0	29.817	0.00	0.00	0.000	0.186
6/24/10	2:15a	82.3	82.9	82.3	63	68.4	0.0	WSW	0.00	4.0	WSW	82.3	85.3	85.3	29.816	0.00	0.00	0.000	0.180
6/24/10	2:30a	81.9	82.3	81.9	64	68.5	0.0	WSW	0.00	1.0	WSW	81.9	84.8	84.8	29.807	0.00	0.00	0.000	0.176
6/24/10	2:45a	81.6	81.9	81.6	64	68.2	0.0	WSW	0.00	4.0	WSW	81.6	84.3	84.3	29.808	0.00	0.00	0.000	0.173
6/24/10	3:00a	81.6	81.7	81.6	65	68.7	0.0	W	0.00	1.0	W	81.6	84.5	84.5	29.806	0.00	0.00	0.000	0.173
6/24/10	3:15a	81.4	81.6	81.4	65	68.5	0.0	W	0.00	1.0	W	81.4	84.2	84.2	29.804	0.00	0.00	0.000	0.171
6/24/10	3:30a	81.2	81.4	81.1	65	68.3	0.0	W	0.00	3.0	WSW	81.2	83.8	83.8	29.802	0.00	0.00	0.000	0.169
6/24/10	3:45a	80.8	81.1	80.8	66	68.4	0.0	WSW	0.00	1.0	WSW	80.8	83.4	83.4	29.802	0.00	0.00	0.000	0.165
6/24/10	4:00a	80.5	80.8	80.5	67	68.5	0.0	SW	0.00	5.0	SW	80.5	83.1	83.1	29.799	0.00	0.00	0.000	0.161
6/24/10	4:15a	80.2	80.5	80.2	68	68.7	0.0	SW	0.00	1.0	SW	80.2	82.7	82.7	29.788	0.00	0.00	0.000	0.158
6/24/10	4:30a	80.1	80.2	80.1	67	68.2	0.0	SW	0.00	2.0	SW	80.1	82.4	82.4	29.786	0.00	0.00	0.000	0.157
6/24/10	4:45a	80.2	80.2	80.1	67	68.2	0.0	WSW	0.00	3.0	WSW	80.2	82.6	82.6	29.788	0.00	0.00	0.000	0.158
6/24/10	5:00a	80.1	80.2	80.1	68	68.6	0.0	---	0.00	0.0	---	80.1	82.6	82.6	29.784	0.00	0.00	0.000	0.157
6/24/10	5:15a	80.1	80.2	80.1	68	68.6	0.0	WSW	0.00	1.0	WSW	80.1	82.6	82.6	29.775	0.00	0.00	0.000	0.157
6/24/10	5:30a	79.9	80.1	79.9	68	68.4	0.0	WSW	0.00	1.0	WSW	79.9	82.3	82.3	29.777	0.00	0.00	0.000	0.155
6/24/10	5:45a	79.6	79.9	79.6	69	68.5	0.0	WSW	0.00	1.0	WSW	79.6	82.0	82.0	29.773	0.00	0.00	0.000	0.152
6/24/10	6:00a	79.4	79.6	79.4	69	68.3	0.0	WSW	0.00	5.0	SSW	79.4	81.7	81.7	29.774	0.00	0.00	0.000	0.150
6/24/10	6:15a	79.7	79.7	79.4	69	68.6	0.0	WSW	0.00	4.0	SSW	79.7	82.1	82.1	29.771	0.00	0.00	0.000	0.153
6/24/10	6:30a	80.2	80.2	79.7	67	68.2	0.0	WSW	0.00	4.0	WSW	80.2	82.6	82.6	29.771	0.00	0.00	0.000	0.158
6/24/10	6:45a	80.7	80.7	80.2	66	68.3	0.0	SW	0.00	3.0	SW	80.7	83.2	83.2	29.773	0.00	0.00	0.000	0.164
6/24/10	7:00a	81.0	81.0	80.7	66	68.6	0.0	SW	0.00	6.0	SW	81.0	83.7	83.7	29.771	0.00	0.00	0.000	0.167
6/24/10	7:15a	81.5	81.5	81.0	65	68.6	0.0	SW	0.00	4.0	SW	81.5	84.3	84.3	29.767	0.00	0.00	0.000	0.172
6/24/10	7:30a	83.0	83.0	81.5	61	68.2	0.0	SW	0.00	7.0	SSW	83.0	85.9	85.9	29.756	0.00	0.00	0.000	0.188
6/24/10	7:45a	83.7	83.7	83.0	60	68.3	1.0	WSW	0.25	7.0	SSW	83.7	87.1	87.1	29.754	0.00	0.00	0.000	0.195
6/24/10	8:00a	84.9	84.9	83.7	57	68.0	0.0	WSW	0.00	7.0	S	84.9	88.4	88.4	29.755	0.00	0.00	0.000	0.207
6/24/10	8:15a	85.2	85.4	84.9	57	68.2	1.0	WSW	0.25	6.0	SW	85.2	88.9	88.9	29.750	0.00	0.00	0.000	0.210
6/24/10	8:30a	85.8	85.9	85.2	56	68.3	1.0	SW	0.25	5.0	W	85.8	89.7	89.7	29.748	0.00	0.00	0.000	0.217
6/24/10	8:45a	85.5	86.0	85.5	56	68.0	2.0	SW	0.50	9.0	SW	85.5	89.1	89.1	29.752	0.00	0.00	0.000	0.214
6/24/10	9:00a	86.5	86.5	85.4	54	67.9	2.0	WSW	0.50	7.0	SW	86.5	90.4	90.4	29.740	0.00	0.00	0.000	0.224
6/24/10	9:15a	88.6	88.6	86.6	52	68.7	1.0	WSW	0.25	8.0	WSW	88.6	93.5	93.5	29.740	0.00	0.00	0.000	0.246
6/24/10	9:30a	88.6	89.0	88.4	53	69.3	2.0	SW	0.50	7.0	SW	88.6	93.8	93.8	29.732	0.00	0.00	0.000	0.246
6/24/10	9:45a	89.8	89.8	88.6	53	70.4	1.0	WSW	0.25	6.0	WSW	89.8	96.1	96.1	29.738	0.00	0.00	0.000	0.258
6/24/10	10:00a	90.2	90.7	89.8	53	70.8	2.0	WSW	0.50	10.0	WSW	90.2	96.9	96.9	29.735	0.00	0.00	0.000	0.262
6/24/10	10:15a	91.1	91.1	90.0	53	71.6	2.0	WSW	0.50	7.0	WSW	91.1	98.9	98.9	29.726	0.00	0.00	0.000	0.272
6/24/10	10:30a	92.3	92.3	91.1	53	72.7	2.0	WSW	0.50	8.0	WSW	92.3	101.6	101.6	29.724	0.00	0.00	0.000	0.284
6/24/10	10:45a	91.7	92.3	91.7	53	72.1	2.0	WSW	0.50	8.0	SSW	91.7	100.2	100.2	29.722	0.00	0.00	0.000	0.278
6/24/10	11:00a	92.2	92.3	91.5	52	72.0	2.0	WSW	0.50	9.0	SW	92.2	100.8	100.8	29.725	0.00	0.00	0.000	0.283
6/24/10	11:15a	92.5	92.7	92.3	51	71.7	2.0	WSW	0.50	10.0	WSW	92.5	100.8	100.8	29.723	0.00	0.00	0.000	0.286
6/24/10	11:30a	92.9	92.9	92.4	51	72.1	3.0	WSW	0.75	11.0	SSW	92.9	101.7	101.7	29.719	0.00	0.00	0.000	0.291
6/24/10	11:45a	93.9	94.0	92.9	50	72.4	2.0	WSW	0.50	8.0	SW	93.9	103.2	103.2	29.724	0.00	0.00	0.000	0.301
6/24/10	12:00p	94.6	94.6	94.0	49	72.5	2.0	WSW	0.50	8.0	W	94.6	104.2	104.2	29.723	0.00	0.00	0.000	0.308
6/24/10	12:15p	92.5	94.6	92.5	50	71.2	3.0	SW	0.75	8.0	SW	92.5	100.1	100.1	29.724	0.00	0.00	0.000	0.286
6/24/10	12:30p	91.1	92.4	91.1	53	71.6	2.0	WSW	0.50	8.0	SW	91.1	98.9	98.9	29.721	0.00	0.00	0.000	0.272
6/24/10	12:45p	91.0	91.1	91.0	53	71.5	2.0	WSW	0.50	9.0	SW	91.0	98.7	98.7	29.725	0.00	0.00	0.000	0.271
6/24/10	1:00p	90.8	91.0	90.6	54	71.9	2.0	SW	0.50	9.0	SSW	90.8	98.7	98.7	29.719	0.00	0.00	0.000	0.269
6/24/10	1:15p	92.0	92.0	90.7	53	72.4	2.0	SW	0.50	9.0	SW	92.0	100.9	100.9	29.713	0.00	0.00	0.000	0.281

Gowanus Phase III Weather Data 6/24/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/24/10	1:30p	93.2	93.5	92.2	51	72.4	3.0	SW	0.75	12.0	SW	93.2	102.3	102.3	29.714	0.00	0.00	0.000	0.294
6/24/10	1:45p	94.4	94.4	93.2	49	72.3	3.0	WSW	0.75	10.0	SW	94.4	103.8	103.8	29.712	0.00	0.00	0.000	0.306
6/24/10	2:00p	94.6	94.9	94.4	49	72.5	3.0	WSW	0.75	10.0	S	94.6	104.2	104.2	29.708	0.00	0.00	0.000	0.308
6/24/10	2:15p	95.2	95.2	94.6	48	72.4	3.0	WSW	0.75	11.0	WSW	95.2	105.0	105.0	29.688	0.00	0.00	0.000	0.315
6/24/10	2:30p	95.6	95.7	95.2	47	72.2	3.0	SW	0.75	9.0	SW	95.6	105.4	105.4	29.677	0.00	0.00	0.000	0.319
6/24/10	2:45p	95.5	95.7	95.0	47	72.1	2.0	WSW	0.50	9.0	SW	95.5	105.2	105.2	29.678	0.00	0.00	0.000	0.318
6/24/10	3:00p	95.9	96.2	95.6	46	71.8	3.0	WSW	0.75	11.0	SW	95.9	105.5	105.5	29.682	0.00	0.00	0.000	0.322
6/24/10	3:15p	94.6	95.9	94.5	48	71.9	1.0	NNE	0.25	10.0	ENE	94.6	103.7	103.7	29.679	0.00	0.00	0.000	0.308
6/24/10	3:30p	94.5	94.9	94.5	47	71.2	2.0	WSW	0.50	7.0	SW	94.5	102.9	102.9	29.680	0.00	0.00	0.000	0.307
6/24/10	3:45p	93.1	94.5	93.1	47	69.9	2.0	SW	0.50	8.0	SSW	93.1	100.0	100.0	29.680	0.00	0.00	0.000	0.293
6/24/10	4:00p	92.2	93.1	92.2	47	69.1	2.0	WSW	0.50	12.0	SSW	92.2	98.2	98.2	29.686	0.00	0.00	0.000	0.283
6/24/10	4:15p	91.8	92.2	91.8	49	69.9	2.0	SW	0.50	8.0	W	91.8	98.3	98.3	29.693	0.00	0.00	0.000	0.279
6/24/10	4:30p	91.9	91.9	91.6	50	70.6	2.0	WSW	0.50	7.0	WNW	91.9	98.9	98.9	29.680	0.00	0.00	0.000	0.280
6/24/10	4:45p	92.7	92.7	91.9	49	70.7	3.0	WSW	0.75	7.0	W	92.7	100.1	100.1	29.689	0.00	0.00	0.000	0.289
6/24/10	5:00p	92.0	92.7	92.0	50	70.7	2.0	WSW	0.50	10.0	SW	92.0	99.1	99.1	29.694	0.00	0.00	0.000	0.281
6/24/10	5:15p	91.4	92.1	91.4	49	69.6	3.0	W	0.75	12.0	WSW	91.4	97.5	97.5	29.693	0.00	0.00	0.000	0.275
6/24/10	5:30p	91.1	91.4	91.1	49	69.3	3.0	WSW	0.75	8.0	SW	91.1	96.9	96.9	29.687	0.00	0.00	0.000	0.272
6/24/10	5:45p	91.4	91.4	91.0	49	69.6	2.0	SW	0.50	9.0	SW	91.4	97.5	97.5	29.678	0.00	0.00	0.000	0.275
6/24/10	6:00p	91.4	91.7	91.4	47	68.3	2.0	WSW	0.50	8.0	SW	91.4	96.7	96.7	29.673	0.00	0.00	0.000	0.275
6/24/10	6:15p	91.3	91.4	91.3	46	67.6	2.0	WSW	0.50	11.0	WSW	91.3	96.1	96.1	29.679	0.00	0.00	0.000	0.274
6/24/10	6:30p	90.9	91.3	90.9	46	67.3	2.0	W	0.50	12.0	SW	90.9	95.3	95.3	29.691	0.00	0.00	0.000	0.270
6/24/10	6:45p	90.5	90.9	90.5	46	66.9	2.0	WSW	0.50	9.0	WSW	90.5	94.6	94.6	29.698	0.00	0.00	0.000	0.266
6/24/10	7:00p	90.2	90.5	90.2	44	65.3	2.0	W	0.50	8.0	SW	90.2	93.2	93.2	29.703	0.00	0.00	0.000	0.262
6/24/10	7:15p	89.6	90.2	89.6	46	66.1	1.0	WSW	0.25	6.0	W	89.6	93.1	93.1	29.709	0.00	0.00	0.000	0.256
6/24/10	7:30p	88.8	89.6	88.8	48	66.6	1.0	WSW	0.25	6.0	SW	88.8	92.5	92.5	29.711	0.00	0.00	0.000	0.248
6/24/10	7:45p	88.4	88.8	88.4	49	66.8	0.0	W	0.00	4.0	W	88.4	92.0	92.0	29.719	0.00	0.00	0.000	0.244
6/24/10	8:00p	87.9	88.4	87.9	50	66.9	1.0	WSW	0.25	7.0	SW	87.9	91.3	91.3	29.725	0.00	0.00	0.000	0.239
6/24/10	8:15p	87.4	87.9	87.4	50	66.5	1.0	WSW	0.25	6.0	WSW	87.4	90.6	90.6	29.728	0.00	0.00	0.000	0.233
6/24/10	8:30p	87.0	87.4	87.0	51	66.7	0.0	WSW	0.00	5.0	WSW	87.0	90.4	90.4	29.736	0.00	0.00	0.000	0.229
6/24/10	8:45p	86.9	87.0	86.9	52	67.2	0.0	WSW	0.00	4.0	NW	86.9	90.6	90.6	29.740	0.00	0.00	0.000	0.228
6/24/10	9:00p	86.6	86.8	86.6	52	66.9	0.0	WSW	0.00	2.0	WSW	86.6	90.0	90.0	29.754	0.00	0.00	0.000	0.225
6/24/10	9:15p	86.4	86.6	86.4	54	67.8	0.0	WSW	0.00	1.0	WSW	86.4	90.2	90.2	29.757	0.00	0.00	0.000	0.223
6/24/10	9:30p	86.0	86.4	86.0	55	68.0	0.0	WNW	0.00	2.0	WNW	86.0	89.7	89.7	29.767	0.00	0.00	0.000	0.219
6/24/10	9:45p	85.4	85.9	85.4	56	67.9	0.0	NW	0.00	2.0	NW	85.4	88.9	88.9	29.771	0.00	0.00	0.000	0.213
6/24/10	10:00p	85.0	85.4	85.0	57	68.1	0.0	WNW	0.00	1.0	WNW	85.0	88.5	88.5	29.784	0.00	0.00	0.000	0.208
6/24/10	10:15p	84.7	85.0	84.7	57	67.8	0.0	WNW	0.00	1.0	WNW	84.7	88.1	88.1	29.786	0.00	0.00	0.000	0.205
6/24/10	10:30p	84.4	84.7	84.4	58	68.0	0.0	WNW	0.00	2.0	WNW	84.4	87.9	87.9	29.793	0.00	0.00	0.000	0.202
6/24/10	10:45p	84.2	84.4	84.2	58	67.8	0.0	WNW	0.00	1.0	WNW	84.2	87.6	87.6	29.800	0.00	0.00	0.000	0.200
6/24/10	11:00p	83.9	84.2	83.9	60	68.5	0.0	WNW	0.00	2.0	WNW	83.9	87.5	87.5	29.802	0.00	0.00	0.000	0.197
6/24/10	11:15p	83.6	83.9	83.6	61	68.7	0.0	WNW	0.00	2.0	WNW	83.6	87.2	87.2	29.806	0.00	0.00	0.000	0.194
6/24/10	11:30p	83.6	83.6	83.5	60	68.2	1.0	NE	0.25	8.0	NNE	83.6	86.9	86.9	29.818	0.00	0.00	0.000	0.194
6/24/10	11:45p	82.7	83.5	82.7	59	66.9	2.0	NNE	0.50	8.0	NNW	82.7	85.1	85.1	29.830	0.00	0.00	0.000	0.184
6/25/10	12:00a	82.3	82.6	82.3	57	65.5	1.0	NW	0.25	9.0	NNE	82.3	84.2	84.2	29.829	0.00	0.00	0.000	0.180

Gowanus Phase III Weather Data 6/25/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/25/10	12:15a	81.9	82.2	81.9	58	65.7	1.0	NNE	0.25	9.0	NE	81.9	83.7	83.7	29.832	0.00	0.00	0.000	0.176
6/25/10	12:30a	81.4	82.0	81.4	61	66.7	1.0	W	0.25	6.0	WSW	81.4	83.5	83.5	29.833	0.00	0.00	0.000	0.171
6/25/10	12:45a	81.0	81.4	81.0	63	67.2	0.0	W	0.00	2.0	W	81.0	83.2	83.2	29.834	0.00	0.00	0.000	0.167
6/25/10	1:00a	80.9	81.0	80.9	61	66.2	1.0	W	0.25	4.0	W	80.9	82.7	82.7	29.842	0.00	0.00	0.000	0.166
6/25/10	1:15a	80.8	80.9	80.8	58	64.6	1.0	NNE	0.25	6.0	NNE	80.8	82.1	82.1	29.848	0.00	0.00	0.000	0.165
6/25/10	1:30a	79.8	80.8	79.8	60	64.7	2.0	NW	0.50	8.0	NW	79.8	81.1	81.1	29.848	0.00	0.00	0.000	0.154
6/25/10	1:45a	79.1	79.8	79.1	61	64.5	1.0	WSW	0.25	5.0	WSW	79.1	80.3	80.3	29.849	0.00	0.00	0.000	0.147
6/25/10	2:00a	78.7	79.1	78.7	62	64.6	2.0	WSW	0.50	6.0	SW	78.7	80.0	80.0	29.850	0.00	0.00	0.000	0.143
6/25/10	2:15a	78.1	78.7	78.1	63	64.5	1.0	WSW	0.25	6.0	WSW	78.1	79.3	79.3	29.849	0.00	0.00	0.000	0.136
6/25/10	2:30a	77.6	78.1	77.6	64	64.5	1.0	NNW	0.25	6.0	SSW	77.6	78.9	78.9	29.848	0.00	0.00	0.000	0.131
6/25/10	2:45a	77.2	77.6	77.2	64	64.1	1.0	NW	0.25	7.0	NW	77.2	78.4	78.4	29.849	0.00	0.00	0.000	0.127
6/25/10	3:00a	76.7	77.2	76.7	65	64.0	1.0	NNW	0.25	6.0	NNE	76.7	78.0	78.0	29.849	0.00	0.00	0.000	0.122
6/25/10	3:15a	76.4	76.7	76.4	66	64.2	1.0	NE	0.25	6.0	WSW	76.4	77.8	77.8	29.849	0.00	0.00	0.000	0.119
6/25/10	3:30a	76.2	76.4	76.1	66	64.0	1.0	NE	0.25	6.0	NE	76.2	77.5	77.5	29.854	0.00	0.00	0.000	0.117
6/25/10	3:45a	75.8	76.1	75.8	66	63.6	1.0	NW	0.25	6.0	WSW	75.8	77.1	77.1	29.859	0.00	0.00	0.000	0.113
6/25/10	4:00a	75.6	75.8	75.6	66	63.4	2.0	W	0.50	8.0	WSW	75.6	76.9	76.9	29.863	0.00	0.00	0.000	0.110
6/25/10	4:15a	75.4	75.6	75.4	66	63.2	1.0	NE	0.25	7.0	WSW	75.4	76.8	76.8	29.878	0.00	0.00	0.000	0.108
6/25/10	4:30a	75.1	75.4	75.1	67	63.4	2.0	NNE	0.50	7.0	NE	75.1	76.6	76.6	29.880	0.00	0.00	0.000	0.105
6/25/10	4:45a	74.7	75.1	74.7	67	63.0	1.0	NW	0.25	7.0	N	74.7	76.1	76.1	29.884	0.00	0.00	0.000	0.101
6/25/10	5:00a	74.5	74.7	74.5	67	62.8	0.0	NNW	0.00	6.0	NW	74.5	75.9	75.9	29.896	0.00	0.00	0.000	0.099
6/25/10	5:15a	74.2	74.5	74.2	68	63.0	1.0	NNW	0.25	5.0	N	74.2	75.7	75.7	29.908	0.00	0.00	0.000	0.096
6/25/10	5:30a	74.0	74.2	74.0	69	63.2	1.0	NE	0.25	6.0	NNE	74.0	75.5	75.5	29.914	0.00	0.00	0.000	0.094
6/25/10	5:45a	73.7	74.0	73.7	69	62.9	1.0	NW	0.25	4.0	NW	73.7	75.1	75.1	29.923	0.00	0.00	0.000	0.091
6/25/10	6:00a	73.6	73.7	73.6	69	62.8	1.0	NNE	0.25	6.0	NNE	73.6	74.9	74.9	29.925	0.00	0.00	0.000	0.090
6/25/10	6:15a	73.5	73.6	73.5	70	63.1	1.0	WNW	0.25	6.0	W	73.5	74.8	74.8	29.928	0.00	0.00	0.000	0.089
6/25/10	6:30a	73.8	73.8	73.5	69	63.0	0.0	SW	0.00	4.0	SSW	73.8	75.2	75.2	29.935	0.00	0.00	0.000	0.092
6/25/10	6:45a	74.1	74.1	73.8	69	63.3	0.0	ENE	0.00	4.0	SW	74.1	75.6	75.6	29.940	0.00	0.00	0.000	0.095
6/25/10	7:00a	74.8	74.8	74.1	68	63.5	0.0	ENE	0.00	2.0	ENE	74.8	76.3	76.3	29.945	0.00	0.00	0.000	0.102
6/25/10	7:15a	75.5	75.5	74.8	66	63.3	0.0	ENE	0.00	7.0	NE	75.5	76.9	76.9	29.955	0.00	0.00	0.000	0.109
6/25/10	7:30a	75.8	75.8	75.5	65	63.2	1.0	NNW	0.25	5.0	NE	75.8	77.0	77.0	29.957	0.00	0.00	0.000	0.113
6/25/10	7:45a	76.5	76.5	75.8	64	63.4	1.0	NNE	0.25	5.0	NNE	76.5	77.7	77.7	29.958	0.00	0.00	0.000	0.120
6/25/10	8:00a	77.9	77.9	76.5	63	64.3	0.0	ESE	0.00	5.0	NNE	77.9	79.1	79.1	29.965	0.00	0.00	0.000	0.134
6/25/10	8:15a	78.4	78.5	77.9	61	63.8	1.0	NW	0.25	4.0	NNW	78.4	79.5	79.5	29.969	0.00	0.00	0.000	0.140
6/25/10	8:30a	79.5	79.5	78.5	59	63.9	1.0	N	0.25	5.0	N	79.5	80.6	80.6	29.967	0.00	0.00	0.000	0.151
6/25/10	8:45a	81.0	81.0	79.5	57	64.3	0.0	N	0.00	3.0	N	81.0	82.2	82.2	29.969	0.00	0.00	0.000	0.167
6/25/10	9:00a	82.2	82.2	81.1	54	63.9	0.0	E	0.00	4.0	E	82.2	83.5	83.5	29.970	0.00	0.00	0.000	0.179
6/25/10	9:15a	82.3	83.1	82.2	53	63.5	0.0	SW	0.00	6.0	SW	82.3	83.5	83.5	29.971	0.00	0.00	0.000	0.180
6/25/10	9:30a	81.9	82.3	81.8	54	63.6	1.0	W	0.25	5.0	WSW	81.9	83.1	83.1	29.972	0.00	0.00	0.000	0.176
6/25/10	9:45a	82.5	82.6	81.9	52	63.1	1.0	WSW	0.25	6.0	SW	82.5	83.7	83.7	29.970	0.00	0.00	0.000	0.182
6/25/10	10:00a	82.7	82.7	82.2	52	63.3	1.0	W	0.25	8.0	SW	82.7	84.0	84.0	29.972	0.00	0.00	0.000	0.184
6/25/10	10:15a	82.7	82.7	82.2	51	62.7	1.0	WSW	0.25	6.0	S	82.7	83.9	83.9	29.972	0.00	0.00	0.000	0.184
6/25/10	10:30a	83.2	83.5	82.8	51	63.2	1.0	WSW	0.25	6.0	NNE	83.2	84.7	84.7	29.974	0.00	0.00	0.000	0.190
6/25/10	10:45a	83.8	83.8	83.2	50	63.2	1.0	WSW	0.25	7.0	NNE	83.8	85.5	85.5	29.975	0.00	0.00	0.000	0.196
6/25/10	11:00a	84.9	85.0	83.9	48	63.0	1.0	WSW	0.25	6.0	SW	84.9	86.4	86.4	29.972	0.00	0.00	0.000	0.207
6/25/10	11:15a	84.3	85.2	84.1	48	62.5	2.0	WSW	0.50	6.0	SW	84.3	85.8	85.8	29.972	0.00	0.00	0.000	0.201
6/25/10	11:30a	84.9	84.9	84.3	48	63.0	1.0	W	0.25	6.0	WSW	84.9	86.4	86.4	29.971	0.00	0.00	0.000	0.207
6/25/10	11:45a	85.5	85.9	84.7	47	63.0	1.0	WSW	0.25	7.0	WSW	85.5	86.9	86.9	29.971	0.00	0.00	0.000	0.214
6/25/10	12:00p	85.8	85.9	85.3	47	63.2	1.0	SW	0.25	5.0	WSW	85.8	87.3	87.3	29.972	0.00	0.00	0.000	0.217
6/25/10	12:15p	87.2	87.2	85.6	46	63.9	1.0	W	0.25	6.0	SW	87.2	89.1	89.1	29.970	0.00	0.00	0.000	0.231
6/25/10	12:30p	87.4	87.9	87.2	43	62.2	1.0	WNW	0.25	6.0	SW	87.4	88.5	88.5	29.968	0.00	0.00	0.000	0.233
6/25/10	12:45p	86.9	87.3	86.5	44	62.4	1.0	SW	0.25	7.0	NNE	86.9	88.2	88.2	29.962	0.00	0.00	0.000	0.228
6/25/10	1:00p	88.2	88.2	86.9	42	62.2	1.0	WSW	0.25	6.0	WSW	88.2	89.1	89.1	29.956	0.00	0.00	0.000	0.242
6/25/10	1:15p	89.0	89.2	88.2	42	62.9	1.0	WSW	0.25	6.0	WSW	89.0	90.8	90.8	29.953	0.00	0.00	0.000	0.250

Gowanus Phase III Weather Data 6/25/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/25/10	1:30p	89.1	89.2	89.0	42	63.0	1.0	W	0.25	5.0	W	89.1	90.9	90.9	29.952	0.00	0.00	0.000	0.251
6/25/10	1:45p	89.9	89.9	88.8	41	63.0	1.0	SW	0.25	6.0	NNE	89.9	91.5	91.5	29.941	0.00	0.00	0.000	0.259
6/25/10	2:00p	88.8	89.8	88.5	42	62.7	2.0	WSW	0.50	7.0	SW	88.8	90.4	90.4	29.940	0.00	0.00	0.000	0.248
6/25/10	2:15p	89.3	89.3	88.6	44	64.5	1.0	SW	0.25	7.0	W	89.3	91.9	91.9	29.938	0.00	0.00	0.000	0.253
6/25/10	2:30p	90.1	90.3	89.5	41	63.2	1.0	SW	0.25	6.0	SW	90.1	91.8	91.8	29.933	0.00	0.00	0.000	0.261
6/25/10	2:45p	90.3	90.3	89.6	41	63.4	1.0	SW	0.25	8.0	SW	90.3	92.1	92.1	29.930	0.00	0.00	0.000	0.264
6/25/10	3:00p	88.8	90.2	88.8	42	62.7	2.0	SW	0.50	6.0	SW	88.8	90.4	90.4	29.931	0.00	0.00	0.000	0.248
6/25/10	3:15p	88.2	88.6	88.0	43	62.9	1.0	SW	0.25	7.0	SW	88.2	89.5	89.5	29.926	0.00	0.00	0.000	0.242
6/25/10	3:30p	89.0	89.3	88.3	43	63.6	2.0	WSW	0.50	8.0	SSW	89.0	91.1	91.1	29.927	0.00	0.00	0.000	0.250
6/25/10	3:45p	89.1	89.7	89.0	45	65.0	1.0	WSW	0.25	7.0	SW	89.1	92.0	92.0	29.926	0.00	0.00	0.000	0.251
6/25/10	4:00p	88.4	89.0	88.4	46	65.0	1.0	NW	0.25	4.0	WSW	88.4	90.9	90.9	29.927	0.00	0.00	0.000	0.244
6/25/10	4:15p	86.8	88.4	86.8	48	64.8	1.0	E	0.25	6.0	N	86.8	89.2	89.2	29.929	0.00	0.00	0.000	0.227
6/25/10	4:30p	85.2	86.7	85.2	51	65.0	1.0	E	0.25	6.0	NW	85.2	87.3	87.3	29.926	0.00	0.00	0.000	0.210
6/25/10	4:45p	85.0	85.3	85.0	51	64.8	1.0	E	0.25	6.0	NNE	85.0	87.0	87.0	29.927	0.00	0.00	0.000	0.208
6/25/10	5:00p	84.1	84.9	84.1	51	64.0	2.0	NW	0.50	9.0	WNW	84.1	86.1	86.1	29.926	0.00	0.00	0.000	0.199
6/25/10	5:15p	82.4	84.0	82.4	53	63.5	3.0	NW	0.75	8.0	NW	82.4	83.7	83.7	29.930	0.00	0.00	0.000	0.181
6/25/10	5:30p	82.3	82.4	82.2	53	63.5	1.0	ENE	0.25	6.0	WNW	82.3	83.5	83.5	29.931	0.00	0.00	0.000	0.180
6/25/10	5:45p	82.1	82.3	81.9	55	64.3	2.0	NE	0.50	10.0	NNW	82.1	83.5	83.5	29.925	0.00	0.00	0.000	0.178
6/25/10	6:00p	82.3	82.6	82.1	54	64.0	1.0	ENE	0.25	7.0	NE	82.3	83.7	83.7	29.925	0.00	0.00	0.000	0.180
6/25/10	6:15p	81.7	82.4	81.7	56	64.5	1.0	ENE	0.25	6.0	ENE	81.7	83.1	83.1	29.924	0.00	0.00	0.000	0.174
6/25/10	6:30p	81.0	81.7	80.9	57	64.3	2.0	NW	0.50	7.0	W	81.0	82.2	82.2	29.923	0.00	0.00	0.000	0.167
6/25/10	6:45p	80.9	80.9	80.7	57	64.2	1.0	NW	0.25	6.0	NW	80.9	82.1	82.1	29.924	0.00	0.00	0.000	0.166
6/25/10	7:00p	80.6	81.1	80.6	57	64.0	1.0	NW	0.25	7.0	NNW	80.6	81.7	81.7	29.925	0.00	0.00	0.000	0.162
6/25/10	7:15p	80.2	80.6	80.2	57	63.6	1.0	ENE	0.25	6.0	WNW	80.2	81.2	81.2	29.925	0.00	0.00	0.000	0.158
6/25/10	7:30p	79.5	80.2	79.5	58	63.4	1.0	ENE	0.25	6.0	NW	79.5	80.5	80.5	29.924	0.00	0.00	0.000	0.151
6/25/10	7:45p	79.1	79.5	79.1	59	63.5	1.0	ENE	0.25	5.0	N	79.1	80.1	80.1	29.926	0.00	0.00	0.000	0.147
6/25/10	8:00p	78.4	79.1	78.3	62	64.3	1.0	ENE	0.25	5.0	WNW	78.4	79.6	79.6	29.924	0.00	0.00	0.000	0.140
6/25/10	8:15p	78.2	78.4	78.2	63	64.6	1.0	ENE	0.25	5.0	NNE	78.2	79.5	79.5	29.923	0.00	0.00	0.000	0.137
6/25/10	8:30p	78.0	78.2	78.0	62	63.9	0.0	ENE	0.00	5.0	ENE	78.0	79.1	79.1	29.925	0.00	0.00	0.000	0.135
6/25/10	8:45p	77.6	78.0	77.6	62	63.5	0.0	ENE	0.00	5.0	N	77.6	78.7	78.7	29.922	0.00	0.00	0.000	0.131
6/25/10	9:00p	77.4	77.6	77.4	61	62.9	1.0	ENE	0.25	6.0	WNW	77.4	78.3	78.3	29.926	0.00	0.00	0.000	0.129
6/25/10	9:15p	77.6	77.6	77.4	60	62.6	1.0	NE	0.25	6.0	ENE	77.6	78.5	78.5	29.927	0.00	0.00	0.000	0.131
6/25/10	9:30p	77.6	77.6	77.5	61	63.1	0.0	NE	0.00	4.0	NE	77.6	78.6	78.6	29.937	0.00	0.00	0.000	0.131
6/25/10	9:45p	77.5	77.6	77.5	61	63.0	0.0	NE	0.00	2.0	NE	77.5	78.5	78.5	29.942	0.00	0.00	0.000	0.130
6/25/10	10:00p	77.3	77.5	77.2	63	63.7	0.0	NE	0.00	4.0	NE	77.3	78.4	78.4	29.950	0.00	0.00	0.000	0.128
6/25/10	10:15p	77.0	77.2	77.0	64	63.9	0.0	NE	0.00	1.0	NE	77.0	78.2	78.2	29.947	0.00	0.00	0.000	0.125
6/25/10	10:30p	77.2	77.2	77.0	64	64.1	0.0	NE	0.00	2.0	NE	77.2	78.4	78.4	29.941	0.00	0.00	0.000	0.127
6/25/10	10:45p	77.1	77.2	77.1	64	64.0	0.0	NE	0.00	2.0	NE	77.1	78.3	78.3	29.941	0.00	0.00	0.000	0.126
6/25/10	11:00p	76.8	77.1	76.8	65	64.1	0.0	NE	0.00	2.0	NE	76.8	78.1	78.1	29.940	0.00	0.00	0.000	0.123
6/25/10	11:15p	76.6	76.8	76.6	66	64.4	0.0	NE	0.00	2.0	NE	76.6	78.0	78.0	29.937	0.00	0.00	0.000	0.121
6/25/10	11:30p	76.4	76.6	76.4	67	64.6	0.0	NE	0.00	1.0	NE	76.4	77.9	77.9	29.938	0.00	0.00	0.000	0.119
6/25/10	11:45p	76.2	76.4	76.2	68	64.9	0.0	NE	0.00	2.0	NE	76.2	77.8	77.8	29.937	0.00	0.00	0.000	0.117
6/26/10	12:00a	76.1	76.2	76.1	68	64.8	0.0	---	0.00	0.0	---	76.1	77.7	77.7	29.935	0.00	0.00	0.000	0.116

Gowanus Phase III Weather Data 6/26/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/26/10	12:15a	76.1	76.1	76.1	68	64.8	0.0	NE	0.00	1.0	NE	76.1	77.7	77.7	29.931	0.00	0.00	0.000	0.116
6/26/10	12:30a	75.9	76.1	75.9	68	64.6	0.0	NE	0.00	1.0	NE	75.9	77.5	77.5	29.927	0.00	0.00	0.000	0.114
6/26/10	12:45a	75.8	75.9	75.8	68	64.5	0.0	NE	0.00	1.0	NE	75.8	77.4	77.4	29.926	0.00	0.00	0.000	0.113
6/26/10	1:00a	75.6	75.8	75.6	68	64.3	0.0	---	0.00	0.0	---	75.6	77.2	77.2	29.926	0.00	0.00	0.000	0.110
6/26/10	1:15a	75.4	75.6	75.4	69	64.5	0.0	---	0.00	0.0	---	75.4	77.0	77.0	29.925	0.00	0.00	0.000	0.108
6/26/10	1:30a	75.1	75.4	75.1	69	64.2	0.0	---	0.00	0.0	---	75.1	76.7	76.7	29.925	0.00	0.00	0.000	0.105
6/26/10	1:45a	74.9	75.1	74.9	70	64.5	0.0	---	0.00	0.0	---	74.9	76.6	76.6	29.921	0.00	0.00	0.000	0.103
6/26/10	2:00a	74.8	74.9	74.8	70	64.4	0.0	---	0.00	0.0	---	74.8	76.5	76.5	29.914	0.00	0.00	0.000	0.102
6/26/10	2:15a	74.7	74.8	74.6	70	64.3	0.0	---	0.00	0.0	---	74.7	76.4	76.4	29.912	0.00	0.00	0.000	0.101
6/26/10	2:30a	74.6	74.7	74.6	70	64.2	0.0	---	0.00	0.0	---	74.6	76.3	76.3	29.911	0.00	0.00	0.000	0.100
6/26/10	2:45a	74.5	74.6	74.5	71	64.5	0.0	---	0.00	0.0	---	74.5	76.2	76.2	29.909	0.00	0.00	0.000	0.099
6/26/10	3:00a	74.2	74.5	74.2	72	64.6	0.0	---	0.00	0.0	---	74.2	75.9	75.9	29.909	0.00	0.00	0.000	0.096
6/26/10	3:15a	74.0	74.2	74.0	72	64.4	0.0	---	0.00	0.0	---	74.0	75.7	75.7	29.910	0.00	0.00	0.000	0.094
6/26/10	3:30a	73.8	74.0	73.8	73	64.6	0.0	NE	0.00	1.0	NE	73.8	75.5	75.5	29.914	0.00	0.00	0.000	0.092
6/26/10	3:45a	73.4	73.8	73.4	74	64.6	0.0	NE	0.00	1.0	NE	73.4	75.0	75.0	29.914	0.00	0.00	0.000	0.088
6/26/10	4:00a	73.1	73.4	73.1	75	64.7	0.0	NE	0.00	4.0	NE	73.1	74.6	74.6	29.912	0.00	0.00	0.000	0.084
6/26/10	4:15a	73.0	73.1	73.0	76	65.0	0.0	NE	0.00	1.0	NE	73.0	74.6	74.6	29.910	0.00	0.00	0.000	0.083
6/26/10	4:30a	72.8	73.0	72.8	76	64.8	0.0	NE	0.00	3.0	NE	72.8	74.3	74.3	29.903	0.00	0.00	0.000	0.081
6/26/10	4:45a	72.7	72.8	72.7	76	64.7	0.0	NE	0.00	2.0	NE	72.7	74.1	74.1	29.906	0.00	0.00	0.000	0.080
6/26/10	5:00a	72.6	72.7	72.6	76	64.6	0.0	NE	0.00	2.0	NE	72.6	74.0	74.0	29.910	0.00	0.00	0.000	0.079
6/26/10	5:15a	72.5	72.6	72.5	76	64.5	0.0	NE	0.00	2.0	NE	72.5	73.8	73.8	29.904	0.00	0.00	0.000	0.078
6/26/10	5:30a	72.4	72.5	72.4	76	64.4	0.0	NE	0.00	1.0	NE	72.4	73.7	73.7	29.905	0.00	0.00	0.000	0.077
6/26/10	5:45a	72.3	72.4	72.3	77	64.7	0.0	NE	0.00	2.0	NE	72.3	73.6	73.6	29.906	0.00	0.00	0.000	0.076
6/26/10	6:00a	72.1	72.3	72.1	78	64.9	0.0	NE	0.00	2.0	NE	72.1	73.4	73.4	29.910	0.00	0.00	0.000	0.074
6/26/10	6:15a	72.2	72.2	72.1	78	65.0	0.0	NE	0.00	1.0	NE	72.2	73.5	73.5	29.911	0.00	0.00	0.000	0.075
6/26/10	6:30a	72.4	72.4	72.2	77	64.8	0.0	NE	0.00	4.0	NE	72.4	73.7	73.7	29.910	0.00	0.00	0.000	0.077
6/26/10	6:45a	72.6	72.6	72.4	77	65.0	0.0	NE	0.00	3.0	NE	72.6	74.0	74.0	29.906	0.00	0.00	0.000	0.079
6/26/10	7:00a	73.6	73.6	72.6	76	65.6	0.0	NE	0.00	1.0	NE	73.6	75.4	75.4	29.905	0.00	0.00	0.000	0.090
6/26/10	7:15a	74.9	74.9	73.6	72	65.3	0.0	NE	0.00	2.0	NE	74.9	76.7	76.7	29.906	0.00	0.00	0.000	0.103
6/26/10	7:30a	76.4	76.4	74.9	69	65.5	0.0	NE	0.00	2.0	NE	76.4	78.1	78.1	29.907	0.00	0.00	0.000	0.119
6/26/10	7:45a	76.9	76.9	76.4	68	65.5	0.0	NE	0.00	5.0	NE	76.9	78.6	78.6	29.911	0.00	0.00	0.000	0.124
6/26/10	8:00a	77.9	77.9	76.9	66	65.6	0.0	NE	0.00	1.0	NE	77.9	79.4	79.4	29.911	0.00	0.00	0.000	0.134
6/26/10	8:15a	79.0	79.0	78.0	64	65.8	0.0	NE	0.00	2.0	NE	79.0	80.6	80.6	29.912	0.00	0.00	0.000	0.146
6/26/10	8:30a	79.5	79.9	79.1	62	65.3	0.0	NE	0.00	6.0	NE	79.5	81.0	81.0	29.910	0.00	0.00	0.000	0.151
6/26/10	8:45a	80.3	80.3	79.5	61	65.6	0.0	NE	0.00	2.0	NE	80.3	81.9	81.9	29.910	0.00	0.00	0.000	0.159
6/26/10	9:00a	82.3	82.3	80.8	58	66.0	0.0	NE	0.00	2.0	NE	82.3	84.3	84.3	29.909	0.00	0.00	0.000	0.180
6/26/10	9:15a	82.5	82.6	82.3	57	65.7	0.0	NE	0.00	4.0	NE	82.5	84.5	84.5	29.908	0.00	0.00	0.000	0.182
6/26/10	9:30a	82.3	82.5	82.1	57	65.5	1.0	SW	0.25	6.0	SW	82.3	84.2	84.2	29.908	0.00	0.00	0.000	0.180
6/26/10	9:45a	83.5	83.5	82.3	54	65.1	1.0	WSW	0.25	6.0	SW	83.5	85.6	85.6	29.902	0.00	0.00	0.000	0.193
6/26/10	10:00a	83.4	83.6	83.4	54	65.0	1.0	WSW	0.25	5.0	SW	83.4	85.4	85.4	29.897	0.00	0.00	0.000	0.192
6/26/10	10:15a	84.1	84.3	83.4	53	65.1	1.0	SW	0.25	5.0	SW	84.1	86.4	86.4	29.894	0.00	0.00	0.000	0.199
6/26/10	10:30a	84.6	84.6	84.2	52	65.0	1.0	SW	0.25	6.0	SW	84.6	86.8	86.8	29.894	0.00	0.00	0.000	0.204
6/26/10	10:45a	86.2	86.2	84.6	50	65.4	1.0	WSW	0.25	5.0	WSW	86.2	88.6	88.6	29.894	0.00	0.00	0.000	0.221
6/26/10	11:00a	86.6	86.6	85.9	49	65.2	1.0	SW	0.25	7.0	SW	86.6	89.1	89.1	29.893	0.00	0.00	0.000	0.225
6/26/10	11:15a	87.8	88.2	86.7	46	64.4	1.0	SW	0.25	7.0	WSW	87.8	89.8	89.8	29.885	0.00	0.00	0.000	0.238
6/26/10	11:30a	88.4	88.4	87.2	44	63.7	2.0	SW	0.50	7.0	SSW	88.4	90.2	90.2	29.881	0.00	0.00	0.000	0.244
6/26/10	11:45a	89.3	89.3	88.2	41	62.5	1.0	WSW	0.25	6.0	SSW	89.3	90.8	90.8	29.879	0.00	0.00	0.000	0.253
6/26/10	12:00p	89.3	89.7	89.3	42	63.2	2.0	W	0.50	10.0	SSW	89.3	91.1	91.1	29.877	0.00	0.00	0.000	0.253
6/26/10	12:15p	90.8	90.8	89.4	39	62.4	1.0	W	0.25	6.0	SW	90.8	92.2	92.2	29.864	0.00	0.00	0.000	0.269
6/26/10	12:30p	90.7	90.9	90.7	40	63.1	1.0	WSW	0.25	6.0	WSW	90.7	92.4	92.4	29.863	0.00	0.00	0.000	0.268
6/26/10	12:45p	90.8	91.0	90.3	40	63.1	2.0	SW	0.50	7.0	SW	90.8	92.6	92.6	29.863	0.00	0.00	0.000	0.269
6/26/10	1:00p	90.4	90.7	89.8	39	62.1	2.0	WSW	0.50	8.0	WSW	90.4	91.6	91.6	29.859	0.00	0.00	0.000	0.265
6/26/10	1:15p	91.2	91.3	90.4	40	63.5	2.0	WSW	0.50	11.0	SW	91.2	93.2	93.2	29.849	0.00	0.00	0.000	0.273

Gowanus Phase III Weather Data 6/26/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/26/10	1:30p	91.8	92.2	91.3	38	62.6	1.0	SW	0.25	8.0	SSW	91.8	93.4	93.4	29.849	0.00	0.00	0.000	0.279
6/26/10	1:45p	92.7	92.7	91.8	36	61.8	1.0	SW	0.25	7.0	SSW	92.7	94.0	94.0	29.847	0.00	0.00	0.000	0.289
6/26/10	2:00p	92.0	93.1	92.0	36	61.2	2.0	WSW	0.50	6.0	SW	92.0	93.0	93.0	29.842	0.00	0.00	0.000	0.281
6/26/10	2:15p	93.0	93.1	92.0	36	62.1	1.0	WSW	0.25	7.0	SSE	93.0	94.5	94.5	29.834	0.00	0.00	0.000	0.292
6/26/10	2:30p	93.3	93.3	93.0	34	60.7	1.0	WSW	0.25	7.0	SW	93.3	94.2	94.2	29.833	0.00	0.00	0.000	0.295
6/26/10	2:45p	93.6	93.6	93.3	33	60.2	2.0	W	0.50	6.0	SW	93.6	94.3	94.3	29.827	0.00	0.00	0.000	0.298
6/26/10	3:00p	94.1	94.2	93.6	34	61.4	1.0	WSW	0.25	6.0	WSW	94.1	95.3	95.3	29.818	0.00	0.00	0.000	0.303
6/26/10	3:15p	93.7	94.1	93.7	34	61.1	2.0	WSW	0.50	6.0	SW	93.7	94.7	94.7	29.817	0.00	0.00	0.000	0.299
6/26/10	3:30p	92.9	93.7	92.9	35	61.2	1.0	SW	0.25	6.0	WSW	92.9	93.9	93.9	29.815	0.00	0.00	0.000	0.291
6/26/10	3:45p	92.8	92.9	92.6	36	61.9	1.0	WSW	0.25	7.0	SW	92.8	94.2	94.2	29.815	0.00	0.00	0.000	0.290
6/26/10	4:00p	92.2	92.8	92.2	36	61.4	1.0	WSW	0.25	5.0	WSW	92.2	93.3	93.3	29.804	0.00	0.00	0.000	0.283
6/26/10	4:15p	91.0	92.1	91.0	37	61.1	1.0	WSW	0.25	5.0	SW	91.0	91.9	91.9	29.801	0.00	0.00	0.000	0.271
6/26/10	4:30p	90.9	91.0	90.8	38	61.8	1.0	W	0.25	6.0	WSW	90.9	92.1	92.1	29.796	0.00	0.00	0.000	0.270
6/26/10	4:45p	90.7	91.0	90.7	38	61.6	1.0	WSW	0.25	6.0	WSW	90.7	91.8	91.8	29.794	0.00	0.00	0.000	0.268
6/26/10	5:00p	90.5	90.7	90.5	39	62.2	1.0	WSW	0.25	4.0	SW	90.5	91.7	91.7	29.792	0.00	0.00	0.000	0.266
6/26/10	5:15p	90.5	90.6	90.5	39	62.2	0.0	WSW	0.00	3.0	WSW	90.5	91.7	91.7	29.790	0.00	0.00	0.000	0.266
6/26/10	5:30p	90.0	90.5	90.0	39	61.7	1.0	WSW	0.25	6.0	WSW	90.0	90.9	90.9	29.787	0.00	0.00	0.000	0.260
6/26/10	5:45p	89.7	90.1	89.7	40	62.2	0.0	WSW	0.00	6.0	W	89.7	90.8	90.8	29.785	0.00	0.00	0.000	0.257
6/26/10	6:00p	88.8	89.7	88.8	41	62.1	0.0	W	0.00	5.0	W	88.8	90.0	90.0	29.779	0.00	0.00	0.000	0.248
6/26/10	6:15p	88.9	88.9	88.8	42	62.8	0.0	WSW	0.00	2.0	WSW	88.9	90.6	90.6	29.775	0.00	0.00	0.000	0.249
6/26/10	6:30p	88.4	88.9	88.4	43	63.1	0.0	WSW	0.00	2.0	WSW	88.4	89.9	89.9	29.772	0.00	0.00	0.000	0.244
6/26/10	6:45p	88.0	88.4	88.0	43	62.7	0.0	WSW	0.00	1.0	WSW	88.0	89.1	89.1	29.779	0.00	0.00	0.000	0.240
6/26/10	7:00p	87.6	88.0	87.6	46	64.3	0.0	WSW	0.00	2.0	WSW	87.6	89.6	89.6	29.783	0.00	0.00	0.000	0.235
6/26/10	7:15p	86.3	87.5	86.3	49	64.9	0.0	WSW	0.00	2.0	WSW	86.3	88.5	88.5	29.785	0.00	0.00	0.000	0.222
6/26/10	7:30p	85.2	86.3	85.2	51	65.0	0.0	WSW	0.00	1.0	WSW	85.2	87.3	87.3	29.786	0.00	0.00	0.000	0.210
6/26/10	7:45p	84.9	85.2	84.9	50	64.2	0.0	WSW	0.00	1.0	WSW	84.9	86.7	86.7	29.783	0.00	0.00	0.000	0.207
6/26/10	8:00p	84.9	84.9	84.8	50	64.2	0.0	W	0.00	1.0	W	84.9	86.7	86.7	29.783	0.00	0.00	0.000	0.207
6/26/10	8:15p	85.0	85.0	84.9	49	63.7	0.0	W	0.00	1.0	W	85.0	86.6	86.6	29.785	0.00	0.00	0.000	0.208
6/26/10	8:30p	85.1	85.1	85.0	49	63.8	0.0	---	0.00	0.0	---	85.1	86.8	86.8	29.784	0.00	0.00	0.000	0.209
6/26/10	8:45p	85.0	85.1	85.0	49	63.7	0.0	W	0.00	2.0	W	85.0	86.6	86.6	29.783	0.00	0.00	0.000	0.208
6/26/10	9:00p	84.8	85.0	84.8	50	64.1	0.0	W	0.00	1.0	W	84.8	86.6	86.6	29.779	0.00	0.00	0.000	0.206
6/26/10	9:15p	84.5	84.8	84.5	50	63.8	0.0	---	0.00	0.0	---	84.5	86.3	86.3	29.785	0.00	0.00	0.000	0.203
6/26/10	9:30p	84.3	84.5	84.3	51	64.2	0.0	W	0.00	1.0	W	84.3	86.3	86.3	29.787	0.00	0.00	0.000	0.201
6/26/10	9:45p	84.1	84.3	84.1	51	64.0	0.0	W	0.00	1.0	W	84.1	86.1	86.1	29.788	0.00	0.00	0.000	0.199
6/26/10	10:00p	83.9	84.1	83.9	50	63.3	0.0	WNW	0.00	2.0	WNW	83.9	85.6	85.6	29.793	0.00	0.00	0.000	0.197
6/26/10	10:15p	83.7	83.9	83.7	50	63.1	0.0	WNW	0.00	2.0	WNW	83.7	85.3	85.3	29.792	0.00	0.00	0.000	0.195
6/26/10	10:30p	83.5	83.7	83.5	51	63.5	0.0	NNW	0.00	1.0	NNW	83.5	85.2	85.2	29.789	0.00	0.00	0.000	0.193
6/26/10	10:45p	83.3	83.5	83.3	51	63.3	0.0	NNW	0.00	1.0	NNW	83.3	84.8	84.8	29.787	0.00	0.00	0.000	0.191
6/26/10	11:00p	83.2	83.4	83.2	51	63.2	0.0	---	0.00	0.0	---	83.2	84.7	84.7	29.787	0.00	0.00	0.000	0.190
6/26/10	11:15p	83.2	83.2	83.2	51	63.2	0.0	NNW	0.00	1.0	NNW	83.2	84.7	84.7	29.787	0.00	0.00	0.000	0.190
6/26/10	11:30p	83.1	83.2	83.1	51	63.1	0.0	NNW	0.00	1.0	NNW	83.1	84.5	84.5	29.786	0.00	0.00	0.000	0.189
6/26/10	11:45p	83.0	83.1	83.0	51	63.0	0.0	---	0.00	0.0	---	83.0	84.3	84.3	29.787	0.00	0.00	0.000	0.188
6/27/10	12:00a	82.7	83.0	82.7	52	63.3	0.0	---	0.00	0.0	---	82.7	84.0	84.0	29.786	0.00	0.00	0.000	0.184

Gowanus Phase III Weather Data 6/27/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/27/10	12:15a	82.4	82.7	82.4	54	64.1	0.0	---	0.00	0.0	---	82.4	83.8	83.8	29.783	0.00	0.00	0.000	0.181
6/27/10	12:30a	81.6	82.4	81.6	55	63.9	0.0	---	0.00	0.0	---	81.6	82.8	82.8	29.785	0.00	0.00	0.000	0.173
6/27/10	12:45a	81.4	81.6	81.4	55	63.7	0.0	---	0.00	1.0	NNW	81.4	82.5	82.5	29.779	0.00	0.00	0.000	0.171
6/27/10	1:00a	81.4	81.4	81.3	55	63.7	0.0	---	0.00	0.0	---	81.4	82.5	82.5	29.775	0.00	0.00	0.000	0.171
6/27/10	1:15a	81.8	81.8	81.4	53	63.0	0.0	NNW	0.00	1.0	NNW	81.8	82.8	82.8	29.772	0.00	0.00	0.000	0.175
6/27/10	1:30a	81.9	81.9	81.8	53	63.1	0.0	N	0.00	1.0	N	81.9	82.9	82.9	29.771	0.00	0.00	0.000	0.176
6/27/10	1:45a	81.9	81.9	81.9	54	63.6	0.0	ENE	0.00	4.0	ENE	81.9	83.1	83.1	29.770	0.00	0.00	0.000	0.176
6/27/10	2:00a	81.5	81.9	81.5	54	63.3	0.0	E	0.00	2.0	E	81.5	82.5	82.5	29.768	0.00	0.00	0.000	0.172
6/27/10	2:15a	80.9	81.4	80.9	56	63.7	0.0	E	0.00	2.0	E	80.9	81.9	81.9	29.767	0.00	0.00	0.000	0.166
6/27/10	2:30a	79.7	80.9	79.7	59	64.1	1.0	E	0.25	4.0	NNW	79.7	80.8	80.8	29.764	0.00	0.00	0.000	0.153
6/27/10	2:45a	78.9	79.7	78.9	60	63.8	0.0	ESE	0.00	4.0	NE	78.9	80.0	80.0	29.758	0.00	0.00	0.000	0.145
6/27/10	3:00a	78.3	78.8	78.3	62	64.2	0.0	NNE	0.00	6.0	N	78.3	79.5	79.5	29.756	0.00	0.00	0.000	0.139
6/27/10	3:15a	77.9	78.3	77.9	63	64.3	0.0	ESE	0.00	4.0	E	77.9	79.1	79.1	29.756	0.00	0.00	0.000	0.134
6/27/10	3:30a	77.5	77.9	77.5	65	64.8	0.0	ESE	0.00	2.0	ESE	77.5	78.9	78.9	29.753	0.00	0.00	0.000	0.130
6/27/10	3:45a	77.3	77.5	77.3	65	64.6	0.0	SE	0.00	1.0	SE	77.3	78.6	78.6	29.752	0.00	0.00	0.000	0.128
6/27/10	4:00a	77.0	77.3	77.0	67	65.2	0.0	SE	0.00	2.0	SE	77.0	78.5	78.5	29.744	0.00	0.00	0.000	0.125
6/27/10	4:15a	76.8	77.0	76.8	67	65.0	0.0	SE	0.00	1.0	SE	76.8	78.3	78.3	29.743	0.00	0.00	0.000	0.123
6/27/10	4:30a	76.7	76.8	76.7	67	64.9	0.0	---	0.00	0.0	---	76.7	78.2	78.2	29.755	0.00	0.00	0.000	0.122
6/27/10	4:45a	76.6	76.7	76.6	68	65.2	0.0	SE	0.00	1.0	SE	76.6	78.2	78.2	29.757	0.00	0.00	0.000	0.121
6/27/10	5:00a	76.6	76.6	76.6	68	65.2	0.0	SE	0.00	1.0	SE	76.6	78.2	78.2	29.756	0.00	0.00	0.000	0.121
6/27/10	5:15a	76.5	76.6	76.5	68	65.1	0.0	SE	0.00	1.0	SE	76.5	78.1	78.1	29.756	0.00	0.00	0.000	0.120
6/27/10	5:30a	76.4	76.5	76.4	69	65.5	0.0	SE	0.00	1.0	SE	76.4	78.1	78.1	29.756	0.00	0.00	0.000	0.119
6/27/10	5:45a	76.3	76.4	76.3	69	65.4	0.0	SE	0.00	2.0	SE	76.3	78.0	78.0	29.755	0.00	0.00	0.000	0.118
6/27/10	6:00a	76.4	76.4	76.3	69	65.5	0.0	SE	0.00	1.0	SE	76.4	78.1	78.1	29.755	0.00	0.00	0.000	0.119
6/27/10	6:15a	76.4	76.4	76.3	70	65.9	0.0	---	0.00	0.0	---	76.4	78.2	78.2	29.756	0.00	0.00	0.000	0.119
6/27/10	6:30a	76.7	76.7	76.4	70	66.2	0.0	SE	0.00	1.0	SE	76.7	78.6	78.6	29.757	0.00	0.00	0.000	0.122
6/27/10	6:45a	77.0	77.0	76.7	70	66.5	0.0	SE	0.00	1.0	SE	77.0	78.9	78.9	29.757	0.00	0.00	0.000	0.125
6/27/10	7:00a	77.4	77.4	77.1	70	66.8	0.0	---	0.00	0.0	---	77.4	79.3	79.3	29.755	0.00	0.00	0.000	0.129
6/27/10	7:15a	78.1	78.1	77.4	69	67.1	0.0	SE	0.00	1.0	SE	78.1	80.0	80.0	29.741	0.00	0.00	0.000	0.136
6/27/10	7:30a	79.7	79.7	78.2	67	67.8	0.0	SE	0.00	1.0	SE	79.7	81.9	81.9	29.755	0.00	0.00	0.000	0.153
6/27/10	7:45a	80.9	80.9	79.7	65	68.0	0.0	SE	0.00	1.0	SE	80.9	83.4	83.4	29.754	0.00	0.00	0.000	0.166
6/27/10	8:00a	81.5	81.5	81.0	65	68.6	0.0	SE	0.00	2.0	SE	81.5	84.3	84.3	29.743	0.00	0.00	0.000	0.172
6/27/10	8:15a	81.7	81.8	81.5	65	68.8	0.0	SE	0.00	1.0	SE	81.7	84.7	84.7	29.741	0.00	0.00	0.000	0.174
6/27/10	8:30a	81.8	81.8	81.7	67	69.8	0.0	SE	0.00	2.0	SE	81.8	85.3	85.3	29.741	0.00	0.00	0.000	0.175
6/27/10	8:45a	81.2	81.8	81.2	68	69.6	0.0	SE	0.00	2.0	SE	81.2	84.4	84.4	29.741	0.00	0.00	0.000	0.169
6/27/10	9:00a	80.7	81.2	80.7	71	70.4	0.0	SE	0.00	1.0	SE	80.7	84.1	84.1	29.740	0.00	0.00	0.000	0.164
6/27/10	9:15a	80.5	80.7	80.5	71	70.2	0.0	SE	0.00	2.0	SE	80.5	83.7	83.7	29.736	0.00	0.00	0.000	0.161
6/27/10	9:30a	80.6	80.7	80.5	72	70.7	0.0	NW	0.00	5.0	WNW	80.6	84.1	84.1	29.724	0.00	0.00	0.000	0.162
6/27/10	9:45a	80.1	80.5	80.1	74	71.1	0.0	NE	0.00	2.0	ENE	80.1	83.6	83.6	29.724	0.00	0.00	0.000	0.157
6/27/10	10:00a	81.6	81.6	80.1	71	71.3	0.0	NE	0.00	4.0	NE	81.6	85.8	85.8	29.726	0.00	0.00	0.000	0.173
6/27/10	10:15a	82.9	82.9	81.7	70	72.1	1.0	SW	0.25	4.0	ENE	82.9	88.2	88.2	29.733	0.00	0.00	0.000	0.186
6/27/10	10:30a	86.0	86.0	83.1	65	72.9	0.0	WSW	0.00	2.0	SW	86.0	93.4	93.4	29.729	0.00	0.00	0.000	0.219
6/27/10	10:45a	88.2	88.2	86.1	61	73.0	0.0	SW	0.00	2.0	NW	88.2	95.8	95.8	29.737	0.00	0.00	0.000	0.242
6/27/10	11:00a	86.0	88.1	85.9	63	71.9	0.0	SW	0.00	4.0	SW	86.0	92.6	92.6	29.729	0.00	0.00	0.000	0.219
6/27/10	11:15a	86.5	87.1	86.1	61	71.5	1.0	SW	0.25	6.0	SW	86.5	92.9	92.9	29.727	0.00	0.00	0.000	0.224
6/27/10	11:30a	87.1	87.1	86.5	60	71.5	1.0	SW	0.25	5.0	SW	87.1	93.7	93.7	29.720	0.00	0.00	0.000	0.230
6/27/10	11:45a	89.0	89.0	87.1	56	71.3	0.0	SW	0.00	2.0	SW	89.0	95.8	95.8	29.725	0.00	0.00	0.000	0.250
6/27/10	12:00p	88.8	89.2	88.8	56	71.1	0.0	WSW	0.00	4.0	SW	88.8	95.3	95.3	29.724	0.00	0.00	0.000	0.248
6/27/10	12:15p	90.1	90.1	88.8	54	71.2	0.0	SW	0.00	2.0	SW	90.1	97.2	97.2	29.719	0.00	0.00	0.000	0.261
6/27/10	12:30p	91.4	91.4	90.1	52	71.3	1.0	SW	0.25	5.0	WSW	91.4	99.0	99.0	29.711	0.00	0.00	0.000	0.275
6/27/10	12:45p	92.8	92.8	91.5	50	71.4	0.0	WSW	0.00	4.0	WSW	92.8	100.8	100.8	29.708	0.00	0.00	0.000	0.290
6/27/10	1:00p	93.3	93.5	92.8	49	71.3	0.0	SW	0.00	4.0	WSW	93.3	101.4	101.4	29.698	0.00	0.00	0.000	0.295
6/27/10	1:15p	91.6	93.3	91.6	51	70.9	1.0	SW	0.25	6.0	SSW	91.6	98.9	98.9	29.694	0.00	0.00	0.000	0.277

Gowanus Phase III Weather Data 6/27/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/27/10	1:30p	91.8	92.1	91.6	51	71.1	0.0	SW	0.00	5.0	SW	91.8	99.3	99.3	29.689	0.00	0.00	0.000	0.279
6/27/10	1:45p	91.7	92.0	91.7	51	71.0	1.0	W	0.25	5.0	SW	91.7	99.1	99.1	29.682	0.00	0.00	0.000	0.278
6/27/10	2:00p	91.0	91.6	91.0	56	73.1	1.0	NNW	0.25	8.0	WNW	91.0	100.2	100.2	29.684	0.00	0.00	0.000	0.271
6/27/10	2:15p	88.3	90.3	88.0	59	72.2	2.0	NW	0.50	8.0	NW	88.3	95.3	95.3	29.684	0.00	0.00	0.000	0.243
6/27/10	2:30p	89.2	89.2	88.4	58	72.5	1.0	ENE	0.25	6.0	NW	89.2	97.0	97.0	29.680	0.00	0.00	0.000	0.252
6/27/10	2:45p	90.5	90.5	89.3	56	72.7	1.0	NW	0.25	7.0	WNW	90.5	99.1	99.1	29.679	0.00	0.00	0.000	0.266
6/27/10	3:00p	90.8	91.0	90.6	56	72.9	0.0	NNE	0.00	3.0	NNE	90.8	99.8	99.8	29.676	0.00	0.00	0.000	0.269
6/27/10	3:15p	90.8	91.2	90.8	56	72.9	1.0	NW	0.25	7.0	NW	90.8	99.8	99.8	29.670	0.00	0.00	0.000	0.269
6/27/10	3:30p	92.1	92.1	90.8	54	73.1	0.0	NW	0.00	2.0	WNW	92.1	101.7	101.7	29.663	0.00	0.00	0.000	0.282
6/27/10	3:45p	91.8	93.0	91.8	54	72.8	1.0	NNW	0.25	4.0	NNE	91.8	101.0	101.0	29.662	0.00	0.00	0.000	0.279
6/27/10	4:00p	93.1	93.1	91.8	51	72.3	1.0	WSW	0.25	5.0	WSW	93.1	102.1	102.1	29.654	0.00	0.00	0.000	0.293
6/27/10	4:15p	93.7	93.8	93.2	50	72.3	0.0	WSW	0.00	4.0	SSW	93.7	102.7	102.7	29.650	0.00	0.00	0.000	0.299
6/27/10	4:30p	92.9	93.7	92.9	49	70.9	1.0	WSW	0.25	6.0	SW	92.9	100.5	100.5	29.648	0.00	0.00	0.000	0.291
6/27/10	4:45p	92.7	92.9	92.7	50	71.3	1.0	WSW	0.25	6.0	WSW	92.7	100.6	100.6	29.642	0.00	0.00	0.000	0.289
6/27/10	5:00p	92.6	92.8	92.6	49	70.6	1.0	WSW	0.25	7.0	SW	92.6	99.9	99.9	29.637	0.00	0.00	0.000	0.287
6/27/10	5:15p	93.3	93.3	92.6	48	70.7	0.0	WNW	0.00	2.0	WNW	93.3	100.9	100.9	29.635	0.00	0.00	0.000	0.295
6/27/10	5:30p	92.9	93.3	92.6	48	70.3	1.0	WSW	0.25	9.0	WSW	92.9	100.0	100.0	29.633	0.00	0.00	0.000	0.291
6/27/10	5:45p	93.0	93.1	92.9	48	70.4	1.0	WSW	0.25	7.0	SSW	93.0	100.2	100.2	29.630	0.00	0.00	0.000	0.292
6/27/10	6:00p	92.8	93.0	92.8	49	70.8	1.0	WSW	0.25	5.0	SW	92.8	100.3	100.3	29.630	0.00	0.00	0.000	0.290
6/27/10	6:15p	92.6	92.8	92.6	47	69.4	1.0	WSW	0.25	7.0	SW	92.6	99.0	99.0	29.631	0.00	0.00	0.000	0.287
6/27/10	6:30p	92.6	92.6	92.5	47	69.4	1.0	WSW	0.25	6.0	SW	92.6	99.0	99.0	29.632	0.00	0.00	0.000	0.287
6/27/10	6:45p	92.2	92.6	92.2	48	69.7	0.0	WSW	0.00	5.0	SW	92.2	98.6	98.6	29.632	0.00	0.00	0.000	0.283
6/27/10	7:00p	91.8	92.2	91.8	50	70.5	0.0	WSW	0.00	6.0	SW	91.8	98.7	98.7	29.635	0.00	0.00	0.000	0.279
6/27/10	7:15p	91.5	91.8	91.5	51	70.8	0.0	W	0.00	3.0	W	91.5	98.7	98.7	29.633	0.00	0.00	0.000	0.276
6/27/10	7:30p	91.1	91.5	91.1	51	70.5	0.0	WSW	0.00	4.0	WSW	91.1	97.8	97.8	29.632	0.00	0.00	0.000	0.272
6/27/10	7:45p	90.6	91.1	90.6	51	70.0	0.0	WSW	0.00	4.0	W	90.6	96.8	96.8	29.628	0.00	0.00	0.000	0.267
6/27/10	8:00p	90.2	90.5	90.2	52	70.2	0.0	WSW	0.00	1.0	W	90.2	96.4	96.4	29.629	0.00	0.00	0.000	0.262
6/27/10	8:15p	89.6	90.2	89.6	53	70.2	0.0	WSW	0.00	2.0	WSW	89.6	95.8	95.8	29.629	0.00	0.00	0.000	0.256
6/27/10	8:30p	89.1	89.5	89.1	54	70.3	0.0	WSW	0.00	4.0	WSW	89.1	95.2	95.2	29.621	0.00	0.00	0.000	0.251
6/27/10	8:45p	88.9	89.1	88.9	54	70.1	0.0	WSW	0.00	1.0	WSW	88.9	94.8	94.8	29.631	0.00	0.00	0.000	0.249
6/27/10	9:00p	88.7	88.9	88.7	54	69.9	0.0	WSW	0.00	1.0	WSW	88.7	94.4	94.4	29.640	0.00	0.00	0.000	0.247
6/27/10	9:15p	88.4	88.7	88.4	55	70.2	0.0	WSW	0.00	1.0	WSW	88.4	94.0	94.0	29.637	0.00	0.00	0.000	0.244
6/27/10	9:30p	88.0	88.4	88.0	56	70.3	0.0	WSW	0.00	1.0	WSW	88.0	93.5	93.5	29.636	0.00	0.00	0.000	0.240
6/27/10	9:45p	87.8	88.0	87.8	56	70.1	0.0	WSW	0.00	1.0	WSW	87.8	93.2	93.2	29.635	0.00	0.00	0.000	0.238
6/27/10	10:00p	87.6	87.8	87.6	56	70.0	0.0	---	0.00	0.0	---	87.6	92.9	92.9	29.636	0.00	0.00	0.000	0.235
6/27/10	10:15p	87.6	87.6	87.6	56	70.0	0.0	---	0.00	0.0	---	87.6	92.9	92.9	29.633	0.00	0.00	0.000	0.235
6/27/10	10:30p	87.9	87.9	87.6	55	69.7	0.0	WSW	0.00	2.0	WSW	87.9	93.0	93.0	29.633	0.00	0.00	0.000	0.239
6/27/10	10:45p	87.7	88.0	87.7	56	70.1	0.0	WSW	0.00	1.0	WSW	87.7	93.1	93.1	29.631	0.00	0.00	0.000	0.236
6/27/10	11:00p	87.2	87.7	87.2	56	69.6	0.0	NW	0.00	1.0	WNW	87.2	92.4	92.4	29.620	0.00	0.00	0.000	0.231
6/27/10	11:15p	87.1	87.2	87.1	56	69.5	0.0	N	0.00	2.0	NW	87.1	92.3	92.3	29.616	0.00	0.00	0.000	0.230
6/27/10	11:30p	87.1	87.1	87.1	56	69.5	0.0	NE	0.00	5.0	ENE	87.1	92.3	92.3	29.617	0.00	0.00	0.000	0.230
6/27/10	11:45p	86.9	87.1	86.9	59	70.8	0.0	ENE	0.00	4.0	ENE	86.9	93.0	93.0	29.615	0.00	0.00	0.000	0.228
6/28/10	12:00a	86.5	86.9	86.5	60	71.0	0.0	E	0.00	3.0	E	86.5	92.5	92.5	29.617	0.00	0.00	0.000	0.224

Gowanus Phase III Weather Data 6/28/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/28/10	12:15a	86.1	86.5	86.1	62	71.6	0.0	E	0.00	2.0	E	86.1	92.5	92.5	29.616	0.00	0.00	0.000	0.220
6/28/10	12:30a	85.8	86.1	85.8	63	71.7	0.0	E	0.00	4.0	E	85.8	92.2	92.2	29.617	0.00	0.00	0.000	0.217
6/28/10	12:45a	85.9	85.9	85.8	63	71.8	0.0	E	0.00	2.0	E	85.9	92.4	92.4	29.616	0.00	0.00	0.000	0.218
6/28/10	1:00a	85.8	85.9	85.8	64	72.2	0.0	E	0.00	4.0	E	85.8	92.6	92.6	29.606	0.00	0.00	0.000	0.217
6/28/10	1:15a	85.5	85.8	85.5	65	72.4	0.0	E	0.00	4.0	E	85.5	92.3	92.3	29.601	0.00	0.00	0.000	0.214
6/28/10	1:30a	85.2	85.5	85.2	65	72.1	0.0	ENE	0.00	5.0	ENE	85.2	91.6	91.6	29.598	0.00	0.00	0.000	0.210
6/28/10	1:45a	85.0	85.2	85.0	66	72.4	0.0	NE	0.00	1.0	NE	85.0	91.5	91.5	29.587	0.00	0.00	0.000	0.208
6/28/10	2:00a	85.0	85.0	84.9	66	72.4	1.0	ENE	0.25	6.0	SW	85.0	91.5	91.5	29.585	0.00	0.00	0.000	0.208
6/28/10	2:15a	84.9	85.0	84.9	66	72.3	0.0	SW	0.00	4.0	WSW	84.9	91.3	91.3	29.583	0.00	0.00	0.000	0.207
6/28/10	2:30a	84.8	84.9	84.8	66	72.2	0.0	NE	0.00	4.0	ENE	84.8	91.1	91.1	29.578	0.00	0.00	0.000	0.206
6/28/10	2:45a	84.8	84.8	84.8	65	71.7	0.0	E	0.00	2.0	E	84.8	90.7	90.7	29.573	0.00	0.00	0.000	0.206
6/28/10	3:00a	84.9	84.9	84.8	64	71.4	1.0	ESE	0.25	5.0	ENE	84.9	90.6	90.6	29.564	0.00	0.00	0.000	0.207
6/28/10	3:15a	85.0	85.0	84.9	64	71.5	0.0	ENE	0.00	4.0	ENE	85.0	90.8	90.8	29.560	0.00	0.00	0.000	0.208
6/28/10	3:30a	85.2	85.2	85.1	63	71.2	0.0	SSW	0.00	2.0	SSW	85.2	90.9	90.9	29.561	0.00	0.00	0.000	0.210
6/28/10	3:45a	85.1	85.3	85.1	63	71.1	1.0	SW	0.25	8.0	SW	85.1	90.6	90.6	29.559	0.00	0.00	0.000	0.209
6/28/10	4:00a	84.7	85.1	84.7	64	71.2	0.0	SW	0.00	2.0	SW	84.7	90.2	90.2	29.558	0.00	0.00	0.000	0.205
6/28/10	4:15a	84.3	84.7	84.3	65	71.2	0.0	SW	0.00	4.0	SW	84.3	89.8	89.8	29.557	0.00	0.00	0.000	0.201
6/28/10	4:30a	84.0	84.3	84.0	65	71.0	0.0	WSW	0.00	1.0	WSW	84.0	89.2	89.2	29.555	0.00	0.00	0.000	0.198
6/28/10	4:45a	83.8	84.0	83.8	66	71.2	1.0	SW	0.25	7.0	SSW	83.8	89.1	89.1	29.552	0.00	0.00	0.000	0.196
6/28/10	5:00a	83.7	83.8	83.7	66	71.1	0.0	WSW	0.00	4.0	WSW	83.7	88.8	88.8	29.555	0.00	0.00	0.000	0.195
6/28/10	5:15a	83.4	83.6	83.4	67	71.3	0.0	SSW	0.00	2.0	SSW	83.4	88.5	88.5	29.557	0.00	0.00	0.000	0.192
6/28/10	5:30a	83.0	83.4	83.0	68	71.3	0.0	SSW	0.00	5.0	SW	83.0	87.8	87.8	29.562	0.00	0.00	0.000	0.188
6/28/10	5:45a	82.8	83.0	82.8	69	71.6	0.0	SW	0.00	4.0	SW	82.8	87.7	87.7	29.569	0.00	0.00	0.000	0.185
6/28/10	6:00a	83.0	83.0	82.8	69	71.8	0.0	SW	0.00	2.0	E	83.0	88.1	88.1	29.571	0.00	0.00	0.000	0.188
6/28/10	6:15a	83.0	83.1	83.0	69	71.8	0.0	SW	0.00	1.0	SW	83.0	88.1	88.1	29.571	0.00	0.00	0.000	0.188
6/28/10	6:30a	82.9	83.0	82.9	69	71.7	0.0	SW	0.00	4.0	SW	82.9	87.9	87.9	29.572	0.00	0.00	0.000	0.186
6/28/10	6:45a	83.0	83.0	82.9	69	71.8	0.0	SW	0.00	5.0	SW	83.0	88.1	88.1	29.572	0.00	0.00	0.000	0.188
6/28/10	7:00a	83.4	83.4	83.1	68	71.7	0.0	WSW	0.00	1.0	WSW	83.4	88.8	88.8	29.571	0.00	0.00	0.000	0.192
6/28/10	7:15a	84.3	84.3	83.5	67	72.1	0.0	WSW	0.00	6.0	SW	84.3	90.5	90.5	29.578	0.00	0.00	0.000	0.201
6/28/10	7:30a	84.8	84.8	84.3	67	72.6	1.0	SW	0.25	6.0	SW	84.8	91.4	91.4	29.586	0.00	0.00	0.000	0.206
6/28/10	7:45a	85.0	85.0	84.7	67	72.8	1.0	SW	0.25	7.0	SW	85.0	91.8	91.8	29.586	0.00	0.00	0.000	0.208
6/28/10	8:00a	86.7	86.7	85.0	65	73.5	0.0	WSW	0.00	5.0	SSE	86.7	94.9	94.9	29.587	0.00	0.00	0.000	0.226
6/28/10	8:15a	88.2	88.2	86.7	62	73.5	0.0	SW	0.00	5.0	SW	88.2	96.2	96.2	29.587	0.00	0.00	0.000	0.242
6/28/10	8:30a	88.7	89.0	88.2	61	73.5	1.0	SW	0.25	9.0	WSW	88.7	97.0	97.0	29.587	0.00	0.00	0.000	0.247
6/28/10	8:45a	89.0	89.0	88.7	59	72.8	2.0	SW	0.50	9.0	WSW	89.0	96.9	96.9	29.586	0.00	0.00	0.000	0.250
6/28/10	9:00a	89.3	89.5	89.0	58	72.6	2.0	SW	0.50	9.0	SW	89.3	97.2	97.2	29.586	0.00	0.00	0.000	0.253
6/28/10	9:15a	90.2	90.2	89.3	57	72.9	2.0	WSW	0.50	9.0	SSW	90.2	98.8	98.8	29.586	0.00	0.00	0.000	0.262
6/28/10	9:30a	91.8	91.9	90.2	54	72.8	1.0	SW	0.25	11.0	SW	91.8	101.0	101.0	29.578	0.00	0.00	0.000	0.279
6/28/10	9:45a	91.0	91.8	90.9	54	72.0	2.0	WSW	0.50	8.0	SE	91.0	99.2	99.2	29.572	0.00	0.00	0.000	0.271
6/28/10	10:00a	91.7	91.7	91.0	54	72.7	2.0	WSW	0.50	8.0	W	91.7	100.8	100.8	29.571	0.00	0.00	0.000	0.278
6/28/10	10:15a	91.7	91.9	91.6	54	72.7	2.0	SW	0.50	11.0	WSW	91.7	100.8	100.8	29.571	0.00	0.00	0.000	0.278
6/28/10	10:30a	93.3	93.3	91.8	52	73.0	2.0	WSW	0.50	8.0	SW	93.3	103.3	103.3	29.572	0.00	0.00	0.000	0.295
6/28/10	10:45a	93.0	93.6	93.0	52	72.8	3.0	SW	0.75	8.0	SSW	93.0	102.6	102.6	29.571	0.00	0.00	0.000	0.292
6/28/10	11:00a	93.6	93.6	93.1	50	72.2	2.0	SW	0.50	8.0	SW	93.6	102.5	102.5	29.570	0.00	0.00	0.000	0.298
6/28/10	11:15a	93.9	93.9	93.4	50	72.4	3.0	SW	0.75	8.0	SW	93.9	103.2	103.2	29.571	0.00	0.00	0.000	0.301
6/28/10	11:30a	95.9	95.9	94.1	47	72.4	2.0	SW	0.50	6.0	WSW	95.9	106.1	106.1	29.572	0.00	0.00	0.000	0.322
6/28/10	11:45a	96.3	96.3	96.0	47	72.8	2.0	WSW	0.50	9.0	WSW	96.3	107.0	107.0	29.571	0.00	0.00	0.000	0.326
6/28/10	12:00p	96.7	97.0	96.3	46	72.5	2.0	WSW	0.50	7.0	SSW	96.7	107.3	107.3	29.571	0.00	0.00	0.000	0.330
6/28/10	12:15p	95.9	96.7	95.9	47	72.4	2.0	SW	0.50	8.0	WSW	95.9	106.1	106.1	29.570	0.00	0.00	0.000	0.322
6/28/10	12:30p	96.3	96.3	95.5	48	73.4	2.0	WSW	0.50	7.0	SW	96.3	107.6	107.6	29.570	0.00	0.00	0.000	0.326
6/28/10	12:45p	95.5	96.5	95.5	48	72.7	2.0	WSW	0.50	7.0	SW	95.5	105.7	105.7	29.567	0.00	0.00	0.000	0.318
6/28/10	1:00p	94.4	95.5	94.4	50	72.9	1.0	WSW	0.25	6.0	SSW	94.4	104.3	104.3	29.570	0.00	0.00	0.000	0.306
6/28/10	1:15p	93.7	94.4	93.7	51	72.8	1.0	WSW	0.25	6.0	SW	93.7	103.5	103.5	29.571	0.00	0.00	0.000	0.299

Gowanus Phase III Weather Data 6/28/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/28/10	1:30p	93.8	93.8	93.4	51	72.9	1.0	WSW	0.25	6.0	WSW	93.8	103.7	103.7	29.571	0.00	0.00	0.000	0.300
6/28/10	1:45p	94.2	94.2	93.7	49	72.1	2.0	WSW	0.50	9.0	SW	94.2	103.3	103.3	29.571	0.00	0.00	0.000	0.304
6/28/10	2:00p	95.1	95.1	94.2	48	72.3	3.0	WSW	0.75	8.0	SW	95.1	104.8	104.8	29.571	0.00	0.00	0.000	0.314
6/28/10	2:15p	94.6	95.3	94.5	49	72.5	3.0	SW	0.75	10.0	SW	94.6	104.2	104.2	29.567	0.00	0.00	0.000	0.308
6/28/10	2:30p	95.9	96.0	94.6	47	72.4	3.0	WSW	0.75	9.0	SSW	95.9	106.1	106.1	29.556	0.00	0.00	0.000	0.322
6/28/10	2:45p	95.6	96.3	95.6	48	72.8	3.0	SW	0.75	11.0	SSW	95.6	106.0	106.0	29.555	0.00	0.00	0.000	0.319
6/28/10	3:00p	97.5	97.6	95.6	46	73.2	2.0	SW	0.50	7.0	SW	97.5	109.1	109.1	29.555	0.00	0.00	0.000	0.339
6/28/10	3:15p	96.3	97.7	96.3	46	72.2	2.0	WSW	0.50	7.0	WSW	96.3	106.4	106.4	29.556	0.00	0.00	0.000	0.326
6/28/10	3:30p	---	96.1	95.5	---	---	2.0	SW	0.50	6.0	WSW	---	---	---	29.565	0.00	0.00	---	---
6/28/10	3:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.571	0.00	0.00	---	---
6/28/10	4:00p	89.6	90.1	89.6	56	71.8	2.0	W	0.50	9.0	N	89.6	97.0	97.0	29.569	0.00	0.00	0.000	0.256
6/28/10	4:15p	90.0	90.0	89.5	56	72.2	2.0	W	0.50	8.0	SW	90.0	97.9	97.9	29.571	0.00	0.00	0.000	0.260
6/28/10	4:30p	89.0	89.9	89.0	57	71.8	2.0	NNE	0.50	8.0	NNE	89.0	96.2	96.2	29.571	0.00	0.00	0.000	0.250
6/28/10	4:45p	88.0	89.0	88.0	57	70.9	2.0	WSW	0.50	7.0	SW	88.0	93.8	93.8	29.573	0.00	0.00	0.000	0.240
6/28/10	5:00p	87.1	88.0	87.1	60	71.5	2.0	WSW	0.50	12.0	NNE	87.1	93.7	93.7	29.587	0.00	0.00	0.000	0.230
6/28/10	5:15p	86.0	87.1	86.0	63	71.9	3.0	WSW	0.75	11.0	ENE	86.0	92.6	92.6	29.596	0.00	0.00	0.000	0.219
6/28/10	5:30p	84.1	86.0	84.1	67	72.0	2.0	WSW	0.50	11.0	ENE	84.1	90.1	90.1	29.589	0.00	0.00	0.000	0.199
6/28/10	5:45p	83.1	84.0	83.1	70	72.3	2.0	WSW	0.50	7.0	WSW	83.1	88.6	88.6	29.586	0.00	0.00	0.000	0.189
6/28/10	6:00p	82.7	83.0	82.6	71	72.3	1.0	WSW	0.25	5.0	WSW	82.7	88.1	88.1	29.577	0.00	0.00	0.000	0.184
6/28/10	6:15p	83.0	83.0	82.7	71	72.6	0.0	WSW	0.00	4.0	WSW	83.0	88.7	88.7	29.570	0.00	0.00	0.000	0.188
6/28/10	6:30p	83.6	83.6	83.0	69	72.3	1.0	WSW	0.25	4.0	WSW	83.6	89.6	89.6	29.585	0.00	0.00	0.000	0.194
6/28/10	6:45p	84.1	84.1	83.6	68	72.4	1.0	SW	0.25	4.0	WSW	84.1	90.4	90.4	29.599	0.00	0.00	0.000	0.199
6/28/10	7:00p	84.5	84.5	84.1	67	72.3	1.0	SW	0.25	5.0	SW	84.5	90.8	90.8	29.601	0.00	0.00	0.000	0.203
6/28/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.601	0.00	0.00	---	---
6/28/10	7:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.595	0.00	0.00	---	---
6/28/10	7:45p	84.6	84.6	84.6	65	71.5	0.0	SW	0.00	2.0	SW	84.6	90.3	90.3	29.600	0.00	0.00	0.000	0.204
6/28/10	8:00p	84.4	84.6	84.4	66	71.8	0.0	SW	0.00	4.0	WSW	84.4	90.3	90.3	29.590	0.00	0.00	0.000	0.202
6/28/10	8:15p	84.2	84.4	84.2	67	72.0	1.0	SW	0.25	4.0	SW	84.2	90.3	90.3	29.590	0.00	0.00	0.000	0.200
6/28/10	8:30p	83.8	84.1	83.8	67	71.7	0.0	SW	0.00	4.0	SW	83.8	89.4	89.4	29.590	0.00	0.00	0.000	0.196
6/28/10	8:45p	83.8	83.8	83.7	69	72.5	0.0	WSW	0.00	2.0	SW	83.8	90.1	90.1	29.597	0.00	0.00	0.000	0.196
6/28/10	9:00p	83.4	83.8	83.4	70	72.6	0.0	SW	0.00	4.0	W	83.4	89.4	89.4	29.601	0.00	0.00	0.000	0.192
6/28/10	9:15p	82.9	83.4	82.9	72	72.9	0.0	SW	0.00	6.0	SW	82.9	88.9	88.9	29.602	0.00	0.00	0.000	0.186
6/28/10	9:30p	82.9	82.9	82.8	71	72.5	0.0	SW	0.00	2.0	SW	82.9	88.5	88.5	29.609	0.00	0.00	0.000	0.186
6/28/10	9:45p	82.8	82.9	82.8	71	72.4	0.0	SW	0.00	1.0	SW	82.8	88.3	88.3	29.617	0.00	0.00	0.000	0.185
6/28/10	10:00p	82.8	82.9	82.8	71	72.4	0.0	SW	0.00	2.0	SW	82.8	88.3	88.3	29.617	0.00	0.00	0.000	0.185
6/28/10	10:15p	82.7	82.8	82.7	70	71.9	0.0	SW	0.00	4.0	SW	82.7	87.8	87.8	29.626	0.00	0.00	0.000	0.184
6/28/10	10:30p	82.7	82.7	82.7	70	71.9	0.0	SW	0.00	1.0	SW	82.7	87.8	87.8	29.631	0.00	0.00	0.000	0.184
6/28/10	10:45p	82.5	82.7	82.5	69	71.3	0.0	SW	0.00	4.0	SW	82.5	87.1	87.1	29.633	0.00	0.00	0.000	0.182
6/28/10	11:00p	82.5	82.6	82.5	68	70.9	0.0	SW	0.00	3.0	SW	82.5	86.8	86.8	29.637	0.00	0.00	0.000	0.182
6/28/10	11:15p	82.6	82.6	82.5	68	71.0	0.0	SW	0.00	2.0	SW	82.6	87.0	87.0	29.643	0.00	0.00	0.000	0.183
6/28/10	11:30p	82.6	82.6	82.5	68	71.0	0.0	SW	0.00	4.0	SW	82.6	87.0	87.0	29.647	0.00	0.00	0.000	0.183
6/28/10	11:45p	82.5	82.6	82.5	69	71.3	0.0	SW	0.00	4.0	SW	82.5	87.1	87.1	29.647	0.00	0.00	0.000	0.182
6/29/10	12:00a	82.4	82.5	82.4	70	71.6	0.0	SW	0.00	2.0	SW	82.4	87.1	87.1	29.648	0.00	0.00	0.000	0.181

Gowanus Phase III Weather Data 6/29/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/29/10	12:15a	82.0	82.4	82.0	71	71.7	0.0	SW	0.00	1.0	SW	82.0	86.5	86.5	29.648	0.00	0.00	0.000	0.177
6/29/10	12:30a	81.8	82.0	81.8	72	71.9	0.0	SW	0.00	2.0	SW	81.8	86.4	86.4	29.649	0.00	0.00	0.000	0.175
6/29/10	12:45a	81.6	81.8	81.6	72	71.7	0.0	SW	0.00	2.0	SW	81.6	86.0	86.0	29.648	0.00	0.00	0.000	0.173
6/29/10	1:00a	81.4	81.6	81.4	72	71.5	0.0	SW	0.00	2.0	SW	81.4	85.6	85.6	29.650	0.00	0.00	0.000	0.171
6/29/10	1:15a	81.3	81.4	81.3	73	71.8	0.0	SW	0.00	2.0	SW	81.3	85.6	85.6	29.660	0.00	0.00	0.000	0.170
6/29/10	1:30a	81.1	81.3	81.1	73	71.6	0.0	SW	0.00	1.0	SW	81.1	85.2	85.2	29.660	0.00	0.00	0.000	0.168
6/29/10	1:45a	81.0	81.1	81.0	75	72.3	0.0	WSW	0.00	1.0	WSW	81.0	85.4	85.4	29.656	0.00	0.00	0.000	0.167
6/29/10	2:00a	80.9	81.0	80.9	76	72.6	0.0	WSW	0.00	1.0	WSW	80.9	85.4	85.4	29.651	0.00	0.00	0.000	0.166
6/29/10	2:15a	80.7	80.9	80.7	77	72.8	0.0	WSW	0.00	1.0	WSW	80.7	85.3	85.3	29.651	0.00	0.00	0.000	0.164
6/29/10	2:30a	80.6	80.8	80.6	77	72.7	0.0	WSW	0.00	6.0	WSW	80.6	85.1	85.1	29.651	0.00	0.00	0.000	0.162
6/29/10	2:45a	80.6	80.6	80.6	79	73.5	0.0	WSW	0.00	1.0	WSW	80.6	85.5	85.5	29.657	0.00	0.00	0.000	0.162
6/29/10	3:00a	80.4	80.6	80.4	80	73.7	0.0	SW	0.00	4.0	SW	80.4	85.3	85.3	29.661	0.00	0.00	0.000	0.160
6/29/10	3:15a	80.0	80.5	80.0	81	73.6	0.0	WSW	0.00	5.0	WSW	80.0	84.7	84.7	29.663	0.00	0.00	0.000	0.156
6/29/10	3:30a	79.9	80.0	79.9	81	73.5	0.0	NNW	0.00	4.0	NW	79.9	84.5	84.5	29.663	0.00	0.00	0.000	0.155
6/29/10	3:45a	79.7	79.9	79.6	82	73.7	0.0	NW	0.00	1.0	NW	79.7	84.4	84.4	29.664	0.00	0.00	0.000	0.153
6/29/10	4:00a	79.4	79.6	79.4	82	73.4	0.0	NW	0.00	2.0	NW	79.4	83.9	83.9	29.664	0.00	0.00	0.000	0.150
6/29/10	4:15a	79.2	79.4	79.2	82	73.2	0.0	NW	0.00	2.0	NW	79.2	83.5	83.5	29.665	0.00	0.00	0.000	0.148
6/29/10	4:30a	78.8	79.2	78.8	83	73.2	0.0	NW	0.00	2.0	NW	78.8	83.0	83.0	29.673	0.00	0.00	0.000	0.144
6/29/10	4:45a	78.7	78.8	78.7	83	73.1	0.0	NW	0.00	1.0	NW	78.7	82.9	82.9	29.677	0.00	0.00	0.000	0.143
6/29/10	5:00a	78.7	78.7	78.7	84	73.5	0.0	NW	0.00	2.0	NW	78.7	83.1	83.1	29.679	0.00	0.00	0.000	0.143
6/29/10	5:15a	78.7	78.7	78.7	84	73.5	0.0	NW	0.00	2.0	NW	78.7	83.1	83.1	29.682	0.00	0.00	0.000	0.143
6/29/10	5:30a	78.7	78.7	78.7	84	73.5	0.0	NW	0.00	1.0	NW	78.7	83.1	83.1	29.691	0.00	0.00	0.000	0.143
6/29/10	5:45a	78.7	78.7	78.7	83	73.1	0.0	NW	0.00	1.0	NW	78.7	82.9	82.9	29.694	0.00	0.00	0.000	0.143
6/29/10	6:00a	78.7	78.7	78.7	83	73.1	0.0	NW	0.00	4.0	NW	78.7	82.9	82.9	29.697	0.00	0.00	0.000	0.143
6/29/10	6:15a	78.7	78.7	78.7	82	72.7	0.0	NW	0.00	4.0	NW	78.7	82.7	82.7	29.704	0.00	0.00	0.000	0.143
6/29/10	6:30a	78.9	78.9	78.7	81	72.6	0.0	NW	0.00	1.0	NW	78.9	82.8	82.8	29.710	0.00	0.00	0.000	0.145
6/29/10	6:45a	79.5	79.6	78.9	79	72.4	0.0	NW	0.00	4.0	NW	79.5	83.5	83.5	29.712	0.00	0.00	0.000	0.151
6/29/10	7:00a	80.3	80.3	79.6	76	72.0	0.0	NW	0.00	2.0	NW	80.3	84.3	84.3	29.720	0.00	0.00	0.000	0.159
6/29/10	7:15a	81.3	81.3	80.3	74	72.2	0.0	NW	0.00	2.0	NW	81.3	85.8	85.8	29.725	0.00	0.00	0.000	0.170
6/29/10	7:30a	81.8	81.8	81.4	72	71.9	0.0	NW	0.00	1.0	NW	81.8	86.4	86.4	29.725	0.00	0.00	0.000	0.175
6/29/10	7:45a	81.9	81.9	81.8	70	71.2	1.0	SW	0.25	5.0	WSW	81.9	86.1	86.1	29.726	0.00	0.00	0.000	0.176
6/29/10	8:00a	82.4	82.4	81.9	68	70.8	0.0	SW	0.00	5.0	SW	82.4	86.6	86.6	29.728	0.00	0.00	0.000	0.181
6/29/10	8:15a	83.1	83.1	82.4	67	71.0	1.0	WNW	0.25	6.0	NNE	83.1	87.7	87.7	29.738	0.00	0.00	0.000	0.189
6/29/10	8:30a	82.7	83.3	82.7	67	70.6	1.0	WSW	0.25	5.0	WSW	82.7	86.9	86.9	29.739	0.00	0.00	0.000	0.184
6/29/10	8:45a	82.5	82.7	82.5	67	70.4	1.0	WSW	0.25	5.0	WSW	82.5	86.6	86.6	29.741	0.00	0.00	0.000	0.182
6/29/10	9:00a	83.0	83.0	82.4	67	70.9	0.0	W	0.00	6.0	WSW	83.0	87.5	87.5	29.741	0.00	0.00	0.000	0.188
6/29/10	9:15a	85.0	85.0	83.0	64	71.5	1.0	WSW	0.25	6.0	NE	85.0	90.8	90.8	29.742	0.00	0.00	0.000	0.208
6/29/10	9:30a	86.2	86.3	85.0	60	70.7	1.0	WSW	0.25	5.0	WSW	86.2	91.9	91.9	29.745	0.00	0.00	0.000	0.221
6/29/10	9:45a	87.5	87.5	86.3	59	71.4	1.0	NE	0.25	6.0	WSW	87.5	93.9	93.9	29.747	0.00	0.00	0.000	0.234
6/29/10	10:00a	88.8	88.9	87.5	57	71.6	1.0	SW	0.25	7.0	SW	88.8	95.7	95.7	29.754	0.00	0.00	0.000	0.248
6/29/10	10:15a	88.8	89.0	88.6	55	70.5	1.0	SW	0.25	8.0	SW	88.8	94.9	94.9	29.752	0.00	0.00	0.000	0.248
6/29/10	10:30a	89.5	89.7	88.9	52	69.5	1.0	WSW	0.25	9.0	SSW	89.5	95.2	95.2	29.753	0.00	0.00	0.000	0.255
6/29/10	10:45a	90.0	90.0	89.4	49	68.3	1.0	WSW	0.25	5.0	SW	90.0	94.7	94.7	29.754	0.00	0.00	0.000	0.260
6/29/10	11:00a	91.0	91.1	90.0	47	68.0	1.0	WSW	0.25	7.0	SW	91.0	95.9	95.9	29.755	0.00	0.00	0.000	0.271
6/29/10	11:15a	91.5	91.5	90.8	46	67.8	2.0	W	0.50	6.0	W	91.5	96.4	96.4	29.756	0.00	0.00	0.000	0.276
6/29/10	11:30a	91.7	91.7	91.1	46	68.0	2.0	WSW	0.50	8.0	WNW	91.7	96.8	96.8	29.755	0.00	0.00	0.000	0.278
6/29/10	11:45a	90.1	91.9	90.1	47	67.2	2.0	WSW	0.50	8.0	SW	90.1	94.2	94.2	29.756	0.00	0.00	0.000	0.261
6/29/10	12:00p	90.2	90.3	90.0	46	66.6	1.0	WSW	0.25	7.0	SW	90.2	94.0	94.0	29.758	0.00	0.00	0.000	0.262
6/29/10	12:15p	90.2	90.9	90.2	45	66.0	2.0	WSW	0.50	7.0	WSW	90.2	93.7	93.7	29.765	0.00	0.00	0.000	0.262
6/29/10	12:30p	92.0	92.0	90.2	42	65.6	1.0	WSW	0.25	7.0	W	92.0	95.5	95.5	29.764	0.00	0.00	0.000	0.281
6/29/10	12:45p	92.8	92.8	92.0	41	65.6	2.0	WSW	0.50	7.0	SW	92.8	96.4	96.4	29.757	0.00	0.00	0.000	0.290
6/29/10	1:00p	92.2	93.1	92.2	41	65.1	1.0	W	0.25	6.0	WSW	92.2	95.3	95.3	29.756	0.00	0.00	0.000	0.283
6/29/10	1:15p	92.2	92.4	92.1	39	63.7	1.0	WSW	0.25	7.0	WSW	92.2	94.5	94.5	29.756	0.00	0.00	0.000	0.283

Gowanus Phase III Weather Data 6/29/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/29/10	1:30p	93.0	93.0	92.2	40	65.1	1.0	W	0.25	7.0	SW	93.0	96.3	96.3	29.757	0.00	0.00	0.000	0.292
6/29/10	1:45p	92.9	93.1	92.8	40	65.0	1.0	WSW	0.25	6.0	W	92.9	96.1	96.1	29.760	0.00	0.00	0.000	0.291
6/29/10	2:00p	92.2	92.9	92.1	40	64.4	2.0	W	0.50	8.0	S	92.2	94.9	94.9	29.762	0.00	0.00	0.000	0.283
6/29/10	2:15p	91.4	92.5	91.4	42	65.1	2.0	SW	0.50	10.0	S	91.4	94.5	94.5	29.765	0.00	0.00	0.000	0.275
6/29/10	2:30p	89.4	91.4	89.4	47	66.5	2.0	NNW	0.50	7.0	NW	89.4	93.2	93.2	29.768	0.00	0.00	0.000	0.254
6/29/10	2:45p	89.2	89.4	89.1	47	66.3	2.0	NE	0.50	10.0	NNE	89.2	92.9	92.9	29.771	0.00	0.00	0.000	0.252
6/29/10	3:00p	88.4	89.3	88.4	48	66.2	3.0	W	0.75	14.0	NNE	88.4	91.6	91.6	29.772	0.00	0.00	0.000	0.244
6/29/10	3:15p	89.5	89.5	88.3	46	66.0	2.0	WSW	0.50	6.0	WSW	89.5	93.0	93.0	29.773	0.00	0.00	0.000	0.255
6/29/10	3:30p	89.3	89.6	89.3	47	66.4	1.0	WSW	0.25	9.0	SW	89.3	93.0	93.0	29.773	0.00	0.00	0.000	0.253
6/29/10	3:45p	87.5	89.2	87.5	44	62.9	2.0	WSW	0.50	8.0	WSW	87.5	88.9	88.9	29.781	0.00	0.00	0.000	0.234
6/29/10	4:00p	87.8	87.8	87.5	43	62.5	2.0	WSW	0.50	10.0	SSW	87.8	88.9	88.9	29.784	0.00	0.00	0.000	0.238
6/29/10	4:15p	87.1	88.2	87.1	48	65.0	2.0	WNW	0.50	9.0	NE	87.1	89.6	89.6	29.787	0.00	0.00	0.000	0.230
6/29/10	4:30p	87.1	87.1	86.7	47	64.4	2.0	WSW	0.50	10.0	N	87.1	89.3	89.3	29.787	0.00	0.00	0.000	0.230
6/29/10	4:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.785	0.00	0.00	---	---
6/29/10	5:00p	88.5	88.5	88.5	39	60.4	1.0	WSW	0.25	5.0	WSW	88.5	88.8	88.8	29.785	0.00	0.00	0.000	0.245
6/29/10	5:15p	---	88.5	88.5	---	---	4.0	WSW	1.00	5.0	WSW	---	---	---	29.782	0.00	0.00	---	---
6/29/10	5:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.782	0.00	0.00	---	---
6/29/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.784	0.00	0.00	---	---
6/29/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.784	0.00	0.00	---	---
6/29/10	6:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.786	0.00	0.00	---	---
6/29/10	6:30p	86.7	86.9	86.7	43	61.5	2.0	WSW	0.50	9.0	SW	86.7	87.7	87.7	29.791	0.00	0.00	0.000	0.226
6/29/10	6:45p	86.9	87.0	86.7	41	60.4	2.0	WSW	0.50	9.0	SW	86.9	87.5	87.5	29.799	0.00	0.00	0.000	0.228
6/29/10	7:00p	86.5	86.9	86.5	40	59.3	2.0	WSW	0.50	9.0	SW	86.5	86.8	86.8	29.802	0.00	0.00	0.000	0.224
6/29/10	7:15p	85.9	86.5	85.9	38	57.3	2.0	W	0.50	10.0	WSW	85.9	85.7	85.7	29.807	0.00	0.00	0.000	0.218
6/29/10	7:30p	85.3	85.9	85.3	39	57.5	2.0	WSW	0.50	7.0	WSW	85.3	85.3	85.3	29.813	0.00	0.00	0.000	0.211
6/29/10	7:45p	84.7	85.3	84.7	39	57.0	2.0	WSW	0.50	8.0	WSW	84.7	84.7	84.7	29.820	0.00	0.00	0.000	0.205
6/29/10	8:00p	84.1	84.7	84.1	39	56.5	3.0	WSW	0.75	8.0	WSW	84.1	84.2	84.2	29.831	0.00	0.00	0.000	0.199
6/29/10	8:15p	83.6	84.1	83.6	40	56.7	1.0	WSW	0.25	8.0	SW	83.6	83.7	83.7	29.833	0.00	0.00	0.000	0.194
6/29/10	8:30p	83.2	83.6	83.2	41	57.1	2.0	SW	0.50	9.0	WSW	83.2	83.2	83.2	29.835	0.00	0.00	0.000	0.190
6/29/10	8:45p	82.8	83.2	82.8	42	57.4	1.0	SW	0.25	7.0	SSW	82.8	82.7	82.7	29.846	0.00	0.00	0.000	0.185
6/29/10	9:00p	82.4	82.8	82.4	42	57.0	1.0	WSW	0.25	7.0	SW	82.4	82.1	82.1	29.849	0.00	0.00	0.000	0.181
6/29/10	9:15p	82.1	82.4	82.1	44	58.0	0.0	WSW	0.00	6.0	SW	82.1	81.9	81.9	29.859	0.00	0.00	0.000	0.178
6/29/10	9:30p	81.8	82.1	81.8	44	57.8	1.0	WSW	0.25	6.0	WSW	81.8	81.5	81.5	29.864	0.00	0.00	0.000	0.175
6/29/10	9:45p	81.4	81.8	81.4	45	58.0	1.0	ENE	0.25	5.0	ENE	81.4	81.1	81.1	29.877	0.00	0.00	0.000	0.171
6/29/10	10:00p	79.6	81.4	79.6	50	59.3	3.0	N	0.75	14.0	NNE	79.6	79.7	79.7	29.884	0.00	0.00	0.000	0.152
6/29/10	10:15p	78.3	79.6	78.3	48	57.0	3.0	ENE	0.75	10.0	ENE	78.3	78.2	78.2	29.894	0.00	0.00	0.000	0.139
6/29/10	10:30p	77.4	78.2	77.4	48	56.2	3.0	WNW	0.75	13.0	NE	77.4	77.1	77.1	29.897	0.00	0.00	0.000	0.129
6/29/10	10:45p	76.7	77.4	76.7	48	55.5	2.0	ENE	0.50	10.0	NNE	76.7	76.4	76.4	29.901	0.00	0.00	0.000	0.122
6/29/10	11:00p	76.0	76.7	76.0	48	54.9	3.0	NE	0.75	11.0	N	76.0	75.8	75.8	29.910	0.00	0.00	0.000	0.115
6/29/10	11:15p	75.2	76.0	75.2	46	53.0	3.0	WSW	0.75	13.0	NE	75.2	75.0	75.0	29.922	0.00	0.00	0.000	0.106
6/29/10	11:30p	74.6	75.2	74.6	45	51.9	3.0	NNE	0.75	12.0	NNE	74.6	74.2	74.2	29.927	0.00	0.00	0.000	0.100
6/29/10	11:45p	74.2	74.6	74.2	45	51.5	3.0	NNE	0.75	10.0	NNE	74.2	73.7	73.7	29.936	0.00	0.00	0.000	0.096
6/30/10	12:00a	73.7	74.2	73.7	44	50.4	3.0	WSW	0.75	10.0	NE	73.7	72.9	72.9	29.938	0.00	0.00	0.000	0.091

Gowanus Phase III Weather Data 6/30/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/30/10	12:15a	73.1	73.7	73.1	44	49.9	2.0	NNW	0.50	10.0	NE	73.1	72.2	72.2	29.940	0.00	0.00	0.000	0.084
6/30/10	12:30a	72.7	73.1	72.7	44	49.5	2.0	NW	0.50	8.0	N	72.7	71.6	71.6	29.951	0.00	0.00	0.000	0.080
6/30/10	12:45a	72.2	72.7	72.2	43	48.5	3.0	NE	0.75	12.0	NNE	72.2	70.7	70.7	29.954	0.00	0.00	0.000	0.075
6/30/10	1:00a	71.8	72.2	71.8	43	48.1	2.0	NE	0.50	9.0	ENE	71.8	70.1	70.1	29.955	0.00	0.00	0.000	0.071
6/30/10	1:15a	71.5	71.8	71.5	43	47.8	2.0	NW	0.50	7.0	NNW	71.5	69.6	69.6	29.955	0.00	0.00	0.000	0.068
6/30/10	1:30a	71.2	71.5	71.2	44	48.2	2.0	NNE	0.50	10.0	NNE	71.2	69.3	69.3	29.961	0.00	0.00	0.000	0.065
6/30/10	1:45a	70.9	71.2	70.9	43	47.3	1.0	NE	0.25	7.0	NNE	70.9	68.8	68.8	29.971	0.00	0.00	0.000	0.061
6/30/10	2:00a	70.5	70.9	70.5	43	46.9	1.0	N	0.25	7.0	N	70.5	68.3	68.3	29.971	0.00	0.00	0.000	0.057
6/30/10	2:15a	70.2	70.6	70.2	44	47.3	2.0	W	0.50	12.0	N	70.2	68.0	68.0	29.972	0.00	0.00	0.000	0.054
6/30/10	2:30a	69.9	70.2	69.9	45	47.6	1.0	ENE	0.25	5.0	NE	69.9	67.7	67.7	29.973	0.00	0.00	0.000	0.051
6/30/10	2:45a	69.6	69.9	69.6	45	47.3	2.0	WNW	0.50	9.0	NNE	69.6	67.5	67.5	29.977	0.00	0.00	0.000	0.048
6/30/10	3:00a	69.2	69.6	69.2	46	47.5	2.0	NNE	0.50	7.0	NE	69.2	67.3	67.3	29.983	0.00	0.00	0.000	0.044
6/30/10	3:15a	68.9	69.2	68.9	47	47.8	1.0	NNE	0.25	8.0	NNE	68.9	67.2	67.2	29.985	0.00	0.00	0.000	0.041
6/30/10	3:30a	68.5	68.9	68.5	47	47.5	2.0	W	0.50	7.0	N	68.5	66.8	66.8	29.981	0.00	0.00	0.000	0.036
6/30/10	3:45a	68.2	68.5	68.2	48	47.8	1.0	NNE	0.25	6.0	WSW	68.2	66.7	66.7	29.987	0.00	0.00	0.000	0.033
6/30/10	4:00a	67.9	68.2	67.9	48	47.5	1.0	NW	0.25	8.0	NNE	67.9	66.4	66.4	29.987	0.00	0.00	0.000	0.030
6/30/10	4:15a	67.5	67.9	67.5	49	47.7	1.0	NW	0.25	9.0	ENE	67.5	66.0	66.0	29.989	0.00	0.00	0.000	0.026
6/30/10	4:30a	67.2	67.5	67.2	50	47.9	1.0	NNW	0.25	9.0	NNE	67.2	65.8	65.8	30.002	0.00	0.00	0.000	0.023
6/30/10	4:45a	66.9	67.2	66.9	50	47.6	1.0	NNE	0.25	9.0	NNE	66.9	65.5	65.5	30.004	0.00	0.00	0.000	0.020
6/30/10	5:00a	66.6	66.9	66.6	52	48.4	1.0	NNE	0.25	6.0	N	66.6	65.3	65.3	30.017	0.00	0.00	0.000	0.017
6/30/10	5:15a	66.3	66.6	66.3	52	48.1	1.0	E	0.25	10.0	NE	66.3	65.0	65.0	30.027	0.00	0.00	0.000	0.014
6/30/10	5:30a	65.7	66.3	65.7	53	48.1	2.0	ENE	0.50	10.0	W	65.7	64.4	64.4	30.032	0.00	0.00	0.000	0.007
6/30/10	5:45a	65.0	65.7	65.0	54	47.9	2.0	NNE	0.50	9.0	N	65.0	63.7	63.7	30.035	0.00	0.00	0.000	0.000
6/30/10	6:00a	64.7	65.0	64.7	53	47.2	2.0	NNW	0.50	9.0	ENE	64.7	63.3	63.3	30.044	0.00	0.00	0.003	0.000
6/30/10	6:15a	64.5	64.7	64.5	52	46.5	1.0	NE	0.25	8.0	N	64.5	63.0	63.0	30.047	0.00	0.00	0.005	0.000
6/30/10	6:30a	64.6	64.7	64.5	51	46.1	2.0	NE	0.50	10.0	NNE	64.6	63.0	63.0	30.050	0.00	0.00	0.004	0.000
6/30/10	6:45a	64.7	64.7	64.5	50	45.6	1.0	NNE	0.25	6.0	NNW	64.7	63.0	63.0	30.057	0.00	0.00	0.003	0.000
6/30/10	7:00a	65.0	65.0	64.7	49	45.4	2.0	W	0.50	8.0	W	65.0	63.2	63.2	30.064	0.00	0.00	0.000	0.000
6/30/10	7:15a	65.9	65.9	65.0	47	45.1	2.0	NNE	0.50	8.0	NE	65.9	64.0	64.0	30.064	0.00	0.00	0.000	0.009
6/30/10	7:30a	66.4	66.4	65.9	45	44.4	2.0	NE	0.50	10.0	NNE	66.4	64.4	64.4	30.064	0.00	0.00	0.000	0.015
6/30/10	7:45a	66.5	66.5	66.4	46	45.1	2.0	NE	0.50	7.0	NNE	66.5	64.6	64.6	30.064	0.00	0.00	0.000	0.016
6/30/10	8:00a	67.2	67.2	66.5	45	45.1	2.0	NNW	0.50	7.0	N	67.2	65.3	65.3	30.064	0.00	0.00	0.000	0.023
6/30/10	8:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.067	0.00	0.00	---	---
6/30/10	8:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---
6/30/10	8:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---
6/30/10	9:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.063	0.00	0.00	---	---
6/30/10	9:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---
6/30/10	9:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---
6/30/10	9:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---
6/30/10	10:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.062	0.00	0.00	---	---
6/30/10	10:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.060	0.00	0.00	---	---
6/30/10	10:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.059	0.00	0.00	---	---
6/30/10	10:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.058	0.00	0.00	---	---
6/30/10	11:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.058	0.00	0.00	---	---
6/30/10	11:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.054	0.00	0.00	---	---
6/30/10	11:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.052	0.00	0.00	---	---
6/30/10	11:45a	75.6	75.7	75.6	36	46.8	2.0	W	0.50	7.0	N	75.6	74.5	74.5	30.048	0.00	0.00	0.000	0.110
6/30/10	12:00p	75.6	75.8	75.2	36	46.8	2.0	NNE	0.50	8.0	NNE	75.6	74.5	74.5	30.047	0.00	0.00	0.000	0.110
6/30/10	12:15p	76.3	76.3	75.8	34	45.9	2.0	SW	0.50	7.0	NNW	76.3	75.1	75.1	30.044	0.00	0.00	0.000	0.118
6/30/10	12:30p	75.4	76.9	75.2	36	46.6	3.0	SW	0.75	10.0	SW	75.4	74.3	74.3	30.038	0.00	0.00	0.000	0.108
6/30/10	12:45p	77.8	77.8	75.5	33	46.4	2.0	WSW	0.50	7.0	WSW	77.8	76.4	76.4	30.033	0.00	0.00	0.000	0.133
6/30/10	1:00p	78.7	78.7	77.8	33	47.2	1.0	SW	0.25	8.0	SW	78.7	77.3	77.3	30.033	0.00	0.00	0.000	0.143
6/30/10	1:15p	78.7	79.0	78.4	32	46.4	2.0	SW	0.50	7.0	SW	78.7	77.2	77.2	30.023	0.00	0.00	0.000	0.143

Gowanus Phase III Weather Data 6/30/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
6/30/10	1:30p	79.6	79.6	78.7	32	47.1	2.0	SW	0.50	10.0	WNW	79.6	77.9	77.9	30.021	0.00	0.00	0.000	0.152
6/30/10	1:45p	79.1	79.6	79.1	32	46.7	3.0	SW	0.75	8.0	SW	79.1	77.5	77.5	30.018	0.00	0.00	0.000	0.147
6/30/10	2:00p	80.2	80.3	79.1	32	47.7	2.0	WSW	0.50	10.0	WSW	80.2	78.4	78.4	30.018	0.00	0.00	0.000	0.158
6/30/10	2:15p	81.7	81.7	80.3	30	47.2	1.0	SW	0.25	10.0	SW	81.7	79.8	79.8	30.017	0.00	0.00	0.000	0.174
6/30/10	2:30p	81.9	81.9	81.4	31	48.3	1.0	WSW	0.25	7.0	SW	81.9	80.1	80.1	30.015	0.00	0.00	0.000	0.176
6/30/10	2:45p	80.8	82.4	80.8	32	48.2	3.0	SW	0.75	9.0	WSW	80.8	79.0	79.0	30.007	0.00	0.00	0.000	0.165
6/30/10	3:00p	82.0	82.0	80.7	31	48.4	2.0	WSW	0.50	7.0	WSW	82.0	80.2	80.2	30.008	0.00	0.00	0.000	0.177
6/30/10	3:15p	83.2	83.4	82.0	28	46.7	2.0	SW	0.50	9.0	SSW	83.2	81.0	81.0	30.003	0.00	0.00	0.000	0.190
6/30/10	3:30p	82.3	83.2	82.2	30	47.8	2.0	SW	0.50	7.0	SW	82.3	80.4	80.4	30.003	0.00	0.00	0.000	0.180
6/30/10	3:45p	82.7	82.7	82.1	29	47.2	2.0	W	0.50	9.0	SW	82.7	80.6	80.6	30.002	0.00	0.00	0.000	0.184
6/30/10	4:00p	82.0	82.7	81.9	30	47.5	2.0	SW	0.50	10.0	SW	82.0	80.1	80.1	29.998	0.00	0.00	0.000	0.177
6/30/10	4:15p	81.5	82.0	81.5	30	47.1	2.0	SW	0.50	8.0	W	81.5	79.5	79.5	29.994	0.00	0.00	0.000	0.172
6/30/10	4:30p	80.3	81.5	80.3	31	46.9	2.0	WSW	0.50	9.0	SW	80.3	78.4	78.4	29.990	0.00	0.00	0.000	0.159
6/30/10	4:45p	80.6	80.6	80.1	31	47.2	2.0	WSW	0.50	8.0	SW	80.6	78.7	78.7	29.987	0.00	0.00	0.000	0.162
6/30/10	5:00p	80.6	80.8	80.5	32	48.0	1.0	SW	0.25	7.0	SW	80.6	78.8	78.8	29.987	0.00	0.00	0.000	0.162
6/30/10	5:15p	80.6	80.8	80.6	32	48.0	1.0	WSW	0.25	8.0	WSW	80.6	78.8	78.8	29.986	0.00	0.00	0.000	0.162
6/30/10	5:30p	80.2	80.6	80.1	33	48.5	2.0	SW	0.50	8.0	SW	80.2	78.5	78.5	29.984	0.00	0.00	0.000	0.158
6/30/10	5:45p	80.0	80.3	80.0	33	48.3	2.0	SW	0.50	7.0	WSW	80.0	78.3	78.3	29.981	0.00	0.00	0.000	0.156
6/30/10	6:00p	79.8	80.1	79.8	33	48.1	2.0	WSW	0.50	8.0	WSW	79.8	78.2	78.2	29.984	0.00	0.00	0.000	0.154
6/30/10	6:15p	79.8	79.8	79.4	33	48.1	1.0	WSW	0.25	7.0	WSW	79.8	78.2	78.2	29.986	0.00	0.00	0.000	0.154
6/30/10	6:30p	79.3	79.8	79.3	34	48.5	2.0	SW	0.50	7.0	SW	79.3	77.9	77.9	29.987	0.00	0.00	0.000	0.149
6/30/10	6:45p	79.2	79.4	79.2	35	49.2	1.0	WSW	0.25	6.0	W	79.2	77.9	77.9	29.988	0.00	0.00	0.000	0.148
6/30/10	7:00p	78.7	79.1	78.7	36	49.5	2.0	SW	0.50	7.0	SW	78.7	77.5	77.5	29.993	0.00	0.00	0.000	0.143
6/30/10	7:15p	78.2	78.7	78.2	36	49.1	1.0	WSW	0.25	6.0	WSW	78.2	77.0	77.0	30.002	0.00	0.00	0.000	0.137
6/30/10	7:30p	77.5	78.2	77.5	38	49.9	1.0	ENE	0.25	12.0	N	77.5	76.5	76.5	30.003	0.00	0.00	0.000	0.130
6/30/10	7:45p	76.8	77.5	76.8	38	49.3	1.0	WSW	0.25	8.0	SW	76.8	75.9	75.9	30.005	0.00	0.00	0.000	0.123
6/30/10	8:00p	75.8	76.8	75.8	39	49.1	1.0	NNE	0.25	6.0	WSW	75.8	74.9	74.9	30.017	0.00	0.00	0.000	0.113
6/30/10	8:15p	75.2	75.8	75.2	39	48.5	2.0	WNW	0.50	8.0	NNE	75.2	74.3	74.3	30.020	0.00	0.00	0.000	0.106
6/30/10	8:30p	74.8	75.2	74.8	40	48.9	1.0	NNE	0.25	9.0	NNE	74.8	74.0	74.0	30.022	0.00	0.00	0.000	0.102
6/30/10	8:45p	74.2	74.8	74.2	40	48.3	1.0	WSW	0.25	7.0	N	74.2	73.3	73.3	30.031	0.00	0.00	0.000	0.096
6/30/10	9:00p	73.9	74.2	73.9	41	48.7	1.0	WNW	0.25	7.0	NNE	73.9	73.0	73.0	30.032	0.00	0.00	0.000	0.093
6/30/10	9:15p	73.7	73.9	73.7	40	47.9	1.0	N	0.25	9.0	NNE	73.7	72.7	72.7	30.033	0.00	0.00	0.000	0.091
6/30/10	9:30p	73.4	73.7	73.4	40	47.6	1.0	WSW	0.25	9.0	SW	73.4	72.3	72.3	30.035	0.00	0.00	0.000	0.088
6/30/10	9:45p	73.2	73.4	73.2	41	48.1	1.0	NNW	0.25	5.0	NNE	73.2	72.1	72.1	30.047	0.00	0.00	0.000	0.085
6/30/10	10:00p	73.0	73.2	73.0	41	47.9	1.0	W	0.25	6.0	WNW	73.0	71.8	71.8	30.049	0.00	0.00	0.000	0.083
6/30/10	10:15p	72.8	73.0	72.8	41	47.7	1.0	NNE	0.25	9.0	N	72.8	71.5	71.5	30.050	0.00	0.00	0.000	0.081
6/30/10	10:30p	72.6	72.8	72.6	41	47.5	1.0	NNE	0.25	8.0	E	72.6	71.1	71.1	30.059	0.00	0.00	0.000	0.079
6/30/10	10:45p	72.4	72.6	72.4	41	47.4	1.0	ENE	0.25	7.0	NNW	72.4	70.8	70.8	30.061	0.00	0.00	0.000	0.077
6/30/10	11:00p	72.1	72.4	72.1	42	47.7	1.0	NNW	0.25	9.0	NNE	72.1	70.5	70.5	30.065	0.00	0.00	0.000	0.074
6/30/10	11:15p	71.8	72.1	71.8	41	46.8	1.0	ENE	0.25	5.0	NE	71.8	69.9	69.9	30.068	0.00	0.00	0.000	0.071
6/30/10	11:30p	71.4	71.8	71.4	41	46.5	1.0	ENE	0.25	6.0	ENE	71.4	69.3	69.3	30.074	0.00	0.00	0.000	0.067
6/30/10	11:45p	71.0	71.5	71.0	41	46.1	1.0	N	0.25	8.0	ENE	71.0	68.7	68.7	30.079	0.00	0.00	0.000	0.063
7/01/10	12:00a	70.6	71.0	70.6	41	45.7	2.0	NW	0.50	11.0	NNE	70.6	68.2	68.2	30.079	0.00	0.00	0.000	0.058

Gowanus Phase III Weather Data 7/01/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/01/10	12:15a	70.3	70.6	70.3	41	45.5	1.0	NE	0.25	6.0	NNE	70.3	67.8	67.8	30.081	0.00	0.00	0.000	0.055
7/01/10	12:30a	70.2	70.3	70.2	41	45.4	2.0	NW	0.50	7.0	N	70.2	67.7	67.7	30.081	0.00	0.00	0.000	0.054
7/01/10	12:45a	70.2	70.2	70.1	42	46.0	1.0	NNE	0.25	9.0	N	70.2	67.8	67.8	30.079	0.00	0.00	0.000	0.054
7/01/10	1:00a	70.2	70.2	70.2	40	44.7	1.0	NW	0.25	8.0	NNE	70.2	67.6	67.6	30.079	0.00	0.00	0.000	0.054
7/01/10	1:15a	70.0	70.2	70.0	41	45.2	1.0	W	0.25	7.0	NE	70.0	67.4	67.4	30.081	0.00	0.00	0.000	0.052
7/01/10	1:30a	69.6	70.0	69.6	42	45.5	1.0	NE	0.25	7.0	ENE	69.6	67.2	67.2	30.089	0.00	0.00	0.000	0.048
7/01/10	1:45a	69.4	69.6	69.4	42	45.3	1.0	WSW	0.25	8.0	NNE	69.4	67.1	67.1	30.093	0.00	0.00	0.000	0.046
7/01/10	2:00a	69.1	69.4	69.1	43	45.7	1.0	W	0.25	7.0	W	69.1	67.0	67.0	30.091	0.00	0.00	0.000	0.043
7/01/10	2:15a	68.6	69.1	68.6	44	45.8	2.0	NE	0.50	9.0	NNE	68.6	66.6	66.6	30.088	0.00	0.00	0.000	0.037
7/01/10	2:30a	68.4	68.6	68.4	44	45.6	2.0	WSW	0.50	9.0	N	68.4	66.4	66.4	30.092	0.00	0.00	0.000	0.035
7/01/10	2:45a	68.2	68.4	68.2	44	45.4	1.0	ENE	0.25	11.0	NNE	68.2	66.3	66.3	30.091	0.00	0.00	0.000	0.033
7/01/10	3:00a	68.1	68.2	68.0	45	45.9	1.0	NNE	0.25	7.0	N	68.1	66.3	66.3	30.092	0.00	0.00	0.000	0.032
7/01/10	3:15a	67.7	68.1	67.7	46	46.2	1.0	ESE	0.25	7.0	SW	67.7	66.0	66.0	30.094	0.00	0.00	0.000	0.028
7/01/10	3:30a	67.5	67.7	67.5	47	46.6	0.0	NE	0.00	6.0	N	67.5	65.8	65.8	30.092	0.00	0.00	0.000	0.026
7/01/10	3:45a	67.2	67.5	67.2	48	46.8	0.0	NW	0.00	2.0	NW	67.2	65.6	65.6	30.093	0.00	0.00	0.000	0.023
7/01/10	4:00a	66.8	67.2	66.8	48	46.5	0.0	NNE	0.00	6.0	N	66.8	65.2	65.2	30.091	0.00	0.00	0.000	0.019
7/01/10	4:15a	66.6	66.8	66.6	49	46.8	1.0	NE	0.25	6.0	N	66.6	65.0	65.0	30.094	0.00	0.00	0.000	0.017
7/01/10	4:30a	66.4	66.6	66.4	49	46.7	0.0	N	0.00	5.0	N	66.4	64.8	64.8	30.095	0.00	0.00	0.000	0.015
7/01/10	4:45a	66.0	66.4	66.0	51	47.3	1.0	W	0.25	8.0	W	66.0	64.5	64.5	30.097	0.00	0.00	0.000	0.010
7/01/10	5:00a	65.8	66.1	65.8	51	47.2	1.0	WNW	0.25	5.0	N	65.8	64.3	64.3	30.106	0.00	0.00	0.000	0.008
7/01/10	5:15a	65.4	65.8	65.4	52	47.3	1.0	ENE	0.25	5.0	ENE	65.4	63.9	63.9	30.109	0.00	0.00	0.000	0.004
7/01/10	5:30a	65.1	65.4	65.1	53	47.5	0.0	ENE	0.00	5.0	NNW	65.1	63.7	63.7	30.109	0.00	0.00	0.000	0.001
7/01/10	5:45a	65.0	65.1	64.9	53	47.4	0.0	N	0.00	6.0	N	65.0	63.6	63.6	30.110	0.00	0.00	0.000	0.000
7/01/10	6:00a	64.8	65.0	64.8	54	47.8	1.0	WNW	0.25	7.0	NE	64.8	63.5	63.5	30.115	0.00	0.00	0.002	0.000
7/01/10	6:15a	64.6	64.8	64.5	55	48.1	0.0	NW	0.00	4.0	WNW	64.6	63.4	63.4	30.121	0.00	0.00	0.004	0.000
7/01/10	6:30a	64.5	64.5	64.5	56	48.4	1.0	WSW	0.25	6.0	SW	64.5	63.3	63.3	30.123	0.00	0.00	0.005	0.000
7/01/10	6:45a	64.9	64.9	64.5	56	48.8	1.0	WSW	0.25	5.0	W	64.9	63.8	63.8	30.124	0.00	0.00	0.001	0.000
7/01/10	7:00a	65.4	65.4	64.9	55	48.8	1.0	WSW	0.25	7.0	SW	65.4	64.2	64.2	30.125	0.00	0.00	0.000	0.004
7/01/10	7:15a	66.3	66.3	65.4	54	49.2	1.0	WSW	0.25	7.0	SW	66.3	65.2	65.2	30.126	0.00	0.00	0.000	0.014
7/01/10	7:30a	67.0	67.0	66.3	53	49.3	1.0	WSW	0.25	6.0	WSW	67.0	65.9	65.9	30.129	0.00	0.00	0.000	0.021
7/01/10	7:45a	67.6	67.6	67.0	53	49.9	1.0	W	0.25	5.0	SW	67.6	66.6	66.6	30.129	0.00	0.00	0.000	0.027
7/01/10	8:00a	68.2	68.3	67.7	51	49.4	1.0	NW	0.25	8.0	NNW	68.2	67.0	67.0	30.138	0.00	0.00	0.000	0.033
7/01/10	8:15a	68.0	68.3	68.0	51	49.2	2.0	WSW	0.50	9.0	E	68.0	66.8	66.8	30.141	0.00	0.00	0.000	0.031
7/01/10	8:30a	68.7	68.7	68.0	50	49.3	1.0	NE	0.25	9.0	NE	68.7	67.3	67.3	30.142	0.00	0.00	0.000	0.039
7/01/10	8:45a	69.3	69.3	68.7	50	49.9	2.0	WSW	0.50	7.0	SW	69.3	67.8	67.8	30.141	0.00	0.00	0.000	0.045
7/01/10	9:00a	70.6	70.6	69.3	48	50.0	1.0	W	0.25	8.0	NNE	70.6	68.9	68.9	30.141	0.00	0.00	0.000	0.058
7/01/10	9:15a	70.6	70.6	70.4	48	50.0	2.0	WSW	0.50	9.0	WSW	70.6	68.9	68.9	30.139	0.00	0.00	0.000	0.058
7/01/10	9:30a	70.8	71.2	70.7	48	50.1	2.0	WSW	0.50	9.0	W	70.8	69.1	69.1	30.135	0.00	0.00	0.000	0.060
7/01/10	9:45a	71.6	71.6	70.8	48	50.9	2.0	WSW	0.50	7.0	NNE	71.6	70.3	70.3	30.128	0.00	0.00	0.000	0.069
7/01/10	10:00a	72.5	72.6	71.6	46	50.5	2.0	WSW	0.50	6.0	SW	72.5	71.4	71.4	30.124	0.00	0.00	0.000	0.078
7/01/10	10:15a	72.9	73.2	72.4	43	49.1	2.0	WSW	0.50	7.0	SSE	72.9	71.8	71.8	30.124	0.00	0.00	0.000	0.082
7/01/10	10:30a	74.1	74.1	72.9	44	50.8	1.0	SW	0.25	7.0	SW	74.1	73.5	73.5	30.123	0.00	0.00	0.000	0.095
7/01/10	10:45a	74.2	74.5	74.1	43	50.3	2.0	WSW	0.50	6.0	WSW	74.2	73.5	73.5	30.118	0.00	0.00	0.000	0.096
7/01/10	11:00a	74.9	74.9	74.0	43	50.9	1.0	WSW	0.25	6.0	WSW	74.9	74.4	74.4	30.112	0.00	0.00	0.000	0.103
7/01/10	11:15a	74.9	75.3	74.6	43	50.9	2.0	W	0.50	9.0	N	74.9	74.4	74.4	30.113	0.00	0.00	0.000	0.103
7/01/10	11:30a	76.2	76.2	74.9	41	50.8	2.0	WSW	0.50	8.0	SW	76.2	75.4	75.4	30.110	0.00	0.00	0.000	0.117
7/01/10	11:45a	76.2	76.2	75.6	40	50.1	2.0	W	0.50	7.0	ENE	76.2	75.3	75.3	30.108	0.00	0.00	0.000	0.117
7/01/10	12:00p	76.8	76.8	75.9	39	50.0	2.0	WSW	0.50	6.0	WSW	76.8	75.9	75.9	30.098	0.00	0.00	0.000	0.123
7/01/10	12:15p	77.6	77.6	76.8	38	50.0	1.0	WSW	0.25	7.0	NNE	77.6	76.6	76.6	30.095	0.00	0.00	0.000	0.131
7/01/10	12:30p	77.9	78.0	77.6	38	50.2	2.0	WSW	0.50	7.0	NE	77.9	76.9	76.9	30.094	0.00	0.00	0.000	0.134
7/01/10	12:45p	76.8	77.9	76.7	40	50.6	2.0	WSW	0.50	7.0	NNE	76.8	76.0	76.0	30.093	0.00	0.00	0.000	0.123
7/01/10	1:00p	77.6	77.6	76.8	38	50.0	2.0	WNW	0.50	10.0	NNE	77.6	76.6	76.6	30.088	0.00	0.00	0.000	0.131
7/01/10	1:15p	77.3	77.8	77.3	39	50.4	2.0	W	0.50	7.0	NNE	77.3	76.4	76.4	30.085	0.00	0.00	0.000	0.128

Gowanus Phase III Weather Data 7/01/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/01/10	1:30p	77.3	77.4	77.1	39	50.4	3.0	WSW	0.75	10.0	WSW	77.3	76.4	76.4	30.085	0.00	0.00	0.000	0.128
7/01/10	1:45p	77.4	77.5	76.9	37	49.1	2.0	NNW	0.50	10.0	NNE	77.4	76.4	76.4	30.081	0.00	0.00	0.000	0.129
7/01/10	2:00p	79.6	79.6	77.1	35	49.5	2.0	WSW	0.50	12.0	N	79.6	78.2	78.2	30.080	0.00	0.00	0.000	0.152
7/01/10	2:15p	78.2	79.6	78.2	37	49.8	2.0	NE	0.50	13.0	NNE	78.2	77.1	77.1	30.078	0.00	0.00	0.000	0.137
7/01/10	2:30p	78.2	78.6	78.2	37	49.8	2.0	SW	0.50	8.0	SSW	78.2	77.1	77.1	30.077	0.00	0.00	0.000	0.137
7/01/10	2:45p	77.5	78.2	77.5	38	49.9	1.0	WSW	0.25	8.0	N	77.5	76.5	76.5	30.078	0.00	0.00	0.000	0.130
7/01/10	3:00p	79.4	79.4	77.3	36	50.1	2.0	WSW	0.50	10.0	WSW	79.4	78.2	78.2	30.078	0.00	0.00	0.000	0.150
7/01/10	3:15p	78.6	79.5	78.5	37	50.1	3.0	WSW	0.75	14.0	SSW	78.6	77.5	77.5	30.076	0.00	0.00	0.000	0.142
7/01/10	3:30p	77.8	79.0	77.8	37	49.4	2.0	WSW	0.50	8.0	WSW	77.8	76.7	76.7	30.076	0.00	0.00	0.000	0.133
7/01/10	3:45p	77.3	77.8	77.3	36	48.3	2.0	W	0.50	10.0	NE	77.3	76.3	76.3	30.073	0.00	0.00	0.000	0.128
7/01/10	4:00p	77.3	77.3	76.8	37	49.0	3.0	WSW	0.75	11.0	N	77.3	76.3	76.3	30.073	0.00	0.00	0.000	0.128
7/01/10	4:15p	77.8	77.8	77.3	37	49.4	3.0	WSW	0.75	11.0	N	77.8	76.7	76.7	30.070	0.00	0.00	0.000	0.133
7/01/10	4:30p	78.1	78.2	77.8	36	49.0	3.0	SW	0.75	8.0	WSW	78.1	76.9	76.9	30.069	0.00	0.00	0.000	0.136
7/01/10	4:45p	77.9	78.1	77.9	35	48.0	2.0	WSW	0.50	8.0	SSW	77.9	76.6	76.6	30.069	0.00	0.00	0.000	0.134
7/01/10	5:00p	77.2	77.9	76.9	36	48.2	2.0	NE	0.50	11.0	NW	77.2	76.2	76.2	30.070	0.00	0.00	0.000	0.127
7/01/10	5:15p	77.6	77.6	77.2	38	50.0	2.0	WSW	0.50	8.0	SW	77.6	76.6	76.6	30.074	0.00	0.00	0.000	0.131
7/01/10	5:30p	76.6	77.6	76.6	37	48.4	2.0	WSW	0.50	9.0	NNE	76.6	75.6	75.6	30.068	0.00	0.00	0.000	0.121
7/01/10	5:45p	76.9	77.2	76.6	37	48.6	3.0	WSW	0.75	8.0	SW	76.9	76.0	76.0	30.071	0.00	0.00	0.000	0.124
7/01/10	6:00p	76.4	76.9	76.4	37	48.2	3.0	WSW	0.75	10.0	NE	76.4	75.4	75.4	30.076	0.00	0.00	0.000	0.119
7/01/10	6:15p	75.9	76.4	75.9	38	48.5	2.0	WSW	0.50	8.0	SW	75.9	74.9	74.9	30.077	0.00	0.00	0.000	0.114
7/01/10	6:30p	75.7	75.9	75.7	38	48.3	3.0	NE	0.75	12.0	SW	75.7	74.7	74.7	30.078	0.00	0.00	0.000	0.111
7/01/10	6:45p	75.8	75.8	75.7	38	48.4	2.0	NNE	0.50	12.0	N	75.8	74.8	74.8	30.079	0.00	0.00	0.000	0.113
7/01/10	7:00p	75.8	75.9	75.8	38	48.4	2.0	NE	0.50	9.0	N	75.8	74.8	74.8	30.080	0.00	0.00	0.000	0.113
7/01/10	7:15p	75.6	75.9	75.6	39	48.9	2.0	W	0.50	8.0	NNE	75.6	74.7	74.7	30.085	0.00	0.00	0.000	0.110
7/01/10	7:30p	74.9	75.6	74.8	37	46.9	2.0	WSW	0.50	9.0	E	74.9	73.9	73.9	30.092	0.00	0.00	0.000	0.103
7/01/10	7:45p	74.3	74.8	74.3	38	47.0	2.0	NNE	0.50	9.0	N	74.3	73.3	73.3	30.095	0.00	0.00	0.000	0.097
7/01/10	8:00p	73.7	74.2	73.7	38	46.5	2.0	NE	0.50	11.0	NNE	73.7	72.5	72.5	30.096	0.00	0.00	0.000	0.091
7/01/10	8:15p	73.3	73.8	73.3	39	46.8	2.0	W	0.50	9.0	N	73.3	72.0	72.0	30.098	0.00	0.00	0.000	0.086
7/01/10	8:30p	72.9	73.3	72.9	40	47.2	1.0	ENE	0.25	6.0	NE	72.9	71.5	71.5	30.103	0.00	0.00	0.000	0.082
7/01/10	8:45p	72.7	72.9	72.7	40	47.0	1.0	ENE	0.25	6.0	SW	72.7	71.2	71.2	30.109	0.00	0.00	0.000	0.080
7/01/10	9:00p	72.2	72.7	72.2	41	47.2	2.0	NE	0.50	8.0	NE	72.2	70.5	70.5	30.111	0.00	0.00	0.000	0.075
7/01/10	9:15p	71.8	72.2	71.8	41	46.8	3.0	WSW	0.75	9.0	N	71.8	69.9	69.9	30.118	0.00	0.00	0.000	0.071
7/01/10	9:30p	71.5	71.8	71.5	42	47.2	2.0	ENE	0.50	9.0	NNE	71.5	69.5	69.5	30.126	0.00	0.00	0.000	0.068
7/01/10	9:45p	71.2	71.5	71.2	43	47.6	2.0	N	0.50	8.0	ENE	71.2	69.2	69.2	30.131	0.00	0.00	0.000	0.065
7/01/10	10:00p	70.9	71.2	70.9	43	47.3	1.0	NNE	0.25	8.0	NNE	70.9	68.8	68.8	30.137	0.00	0.00	0.000	0.061
7/01/10	10:15p	70.7	70.9	70.6	44	47.7	2.0	NNE	0.50	8.0	NNE	70.7	68.6	68.6	30.137	0.00	0.00	0.000	0.059
7/01/10	10:30p	70.4	70.6	70.4	45	48.0	2.0	WNW	0.50	12.0	NE	70.4	68.3	68.3	30.140	0.00	0.00	0.000	0.056
7/01/10	10:45p	69.9	70.4	69.9	45	47.6	1.0	NNE	0.25	8.0	NE	69.9	67.7	67.7	30.140	0.00	0.00	0.000	0.051
7/01/10	11:00p	69.7	69.9	69.7	45	47.4	1.0	NE	0.25	7.0	WSW	69.7	67.6	67.6	30.141	0.00	0.00	0.000	0.049
7/01/10	11:15p	69.4	69.7	69.4	46	47.7	2.0	W	0.50	9.0	NE	69.4	67.5	67.5	30.141	0.00	0.00	0.000	0.046
7/01/10	11:30p	69.2	69.4	69.2	46	47.5	1.0	E	0.25	7.0	NE	69.2	67.3	67.3	30.141	0.00	0.00	0.000	0.044
7/01/10	11:45p	69.0	69.2	69.0	46	47.4	1.0	SSE	0.25	7.0	WSW	69.0	67.2	67.2	30.142	0.00	0.00	0.000	0.042
7/02/10	12:00a	68.6	69.0	68.6	46	47.0	2.0	NE	0.50	8.0	WSW	68.6	66.8	66.8	30.147	0.00	0.00	0.000	0.037

Gowanus Phase III Weather Data 7/02/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/02/10	12:15a	68.0	68.6	68.0	48	47.6	2.0	ENE	0.50	8.0	NNW	68.0	66.5	66.5	30.146	0.00	0.00	0.000	0.031
7/02/10	12:30a	67.8	68.0	67.7	48	47.4	1.0	NNE	0.25	10.0	N	67.8	66.3	66.3	30.143	0.00	0.00	0.000	0.029
7/02/10	12:45a	67.5	67.7	67.5	49	47.7	2.0	NE	0.50	8.0	NNE	67.5	66.0	66.0	30.141	0.00	0.00	0.000	0.026
7/02/10	1:00a	67.3	67.5	67.3	50	48.0	2.0	NE	0.50	7.0	NNE	67.3	65.9	65.9	30.146	0.00	0.00	0.000	0.024
7/02/10	1:15a	67.0	67.3	67.0	50	47.7	2.0	WSW	0.50	8.0	NNE	67.0	65.6	65.6	30.153	0.00	0.00	0.000	0.021
7/02/10	1:30a	66.8	67.0	66.7	51	48.1	2.0	W	0.50	8.0	NNE	66.8	65.5	65.5	30.156	0.00	0.00	0.000	0.019
7/02/10	1:45a	66.5	66.8	66.5	51	47.8	2.0	W	0.50	8.0	NE	66.5	65.1	65.1	30.154	0.00	0.00	0.000	0.016
7/02/10	2:00a	66.2	66.5	66.2	52	48.0	1.0	NNE	0.25	9.0	NNE	66.2	64.8	64.8	30.154	0.00	0.00	0.000	0.012
7/02/10	2:15a	65.9	66.2	65.9	53	48.3	1.0	NE	0.25	8.0	NE	65.9	64.6	64.6	30.154	0.00	0.00	0.000	0.009
7/02/10	2:30a	65.7	65.9	65.7	53	48.1	1.0	NE	0.25	5.0	NE	65.7	64.4	64.4	30.155	0.00	0.00	0.000	0.007
7/02/10	2:45a	65.6	65.7	65.6	53	48.0	1.0	NE	0.25	7.0	WSW	65.6	64.3	64.3	30.156	0.00	0.00	0.000	0.006
7/02/10	3:00a	65.3	65.6	65.3	54	48.2	1.0	WNW	0.25	9.0	NNE	65.3	64.0	64.0	30.156	0.00	0.00	0.000	0.003
7/02/10	3:15a	65.2	65.3	65.2	54	48.1	1.0	E	0.25	8.0	NNE	65.2	63.9	63.9	30.157	0.00	0.00	0.000	0.002
7/02/10	3:30a	65.0	65.2	65.0	54	47.9	1.0	N	0.25	7.0	NNE	65.0	63.7	63.7	30.158	0.00	0.00	0.000	0.000
7/02/10	3:45a	64.7	65.0	64.7	55	48.2	1.0	NNE	0.25	7.0	NE	64.7	63.5	63.5	30.162	0.00	0.00	0.003	0.000
7/02/10	4:00a	64.6	64.8	64.6	55	48.1	0.0	NNW	0.00	5.0	WNW	64.6	63.4	63.4	30.159	0.00	0.00	0.004	0.000
7/02/10	4:15a	64.5	64.7	64.5	56	48.4	0.0	WNW	0.00	5.0	WNW	64.5	63.3	63.3	30.159	0.00	0.00	0.005	0.000
7/02/10	4:30a	64.5	64.5	64.4	55	48.0	0.0	NW	0.00	4.0	NW	64.5	63.3	63.3	30.167	0.00	0.00	0.005	0.000
7/02/10	4:45a	64.7	64.7	64.5	55	48.2	1.0	WNW	0.25	6.0	NNW	64.7	63.5	63.5	30.170	0.00	0.00	0.003	0.000
7/02/10	5:00a	64.4	64.7	64.4	56	48.4	1.0	NNW	0.25	5.0	NW	64.4	63.2	63.2	30.170	0.00	0.00	0.006	0.000
7/02/10	5:15a	64.2	64.4	64.2	56	48.2	1.0	NNE	0.25	6.0	NE	64.2	63.0	63.0	30.172	0.00	0.00	0.008	0.000
7/02/10	5:30a	64.0	64.3	64.0	56	48.0	0.0	NE	0.00	4.0	NE	64.0	62.8	62.8	30.172	0.00	0.00	0.010	0.000
7/02/10	5:45a	63.8	64.0	63.8	57	48.3	0.0	NE	0.00	4.0	NE	63.8	62.6	62.6	30.174	0.00	0.00	0.013	0.000
7/02/10	6:00a	63.8	63.8	63.7	57	48.3	0.0	NNE	0.00	5.0	NNE	63.8	62.6	62.6	30.172	0.00	0.00	0.013	0.000
7/02/10	6:15a	63.8	63.8	63.7	57	48.3	0.0	SE	0.00	4.0	SE	63.8	62.6	62.6	30.172	0.00	0.00	0.013	0.000
7/02/10	6:30a	64.0	64.0	63.8	57	48.5	0.0	SSE	0.00	2.0	SE	64.0	62.9	62.9	30.174	0.00	0.00	0.010	0.000
7/02/10	6:45a	64.5	64.5	64.0	56	48.4	1.0	SSE	0.25	7.0	WSW	64.5	63.3	63.3	30.175	0.00	0.00	0.005	0.000
7/02/10	7:00a	65.4	65.4	64.5	55	48.8	1.0	NNW	0.25	6.0	NNE	65.4	64.2	64.2	30.179	0.00	0.00	0.000	0.004
7/02/10	7:15a	66.3	66.3	65.4	54	49.2	1.0	NNW	0.25	6.0	N	66.3	65.2	65.2	30.183	0.00	0.00	0.000	0.014
7/02/10	7:30a	67.8	67.8	66.3	52	49.5	0.0	ESE	0.00	5.0	ENE	67.8	66.7	66.7	30.186	0.00	0.00	0.000	0.029
7/02/10	7:45a	68.9	69.0	68.0	51	50.0	1.0	NNE	0.25	6.0	NNE	68.9	67.6	67.6	30.186	0.00	0.00	0.000	0.041
7/02/10	8:00a	69.0	69.0	68.5	50	49.6	1.0	NNW	0.25	6.0	NNE	69.0	67.6	67.6	30.189	0.00	0.00	0.000	0.042
7/02/10	8:15a	69.8	69.8	69.0	49	49.8	1.0	WNW	0.25	6.0	SW	69.8	68.1	68.1	30.195	0.00	0.00	0.000	0.050
7/02/10	8:30a	70.5	70.5	69.7	49	50.4	1.0	NW	0.25	8.0	N	70.5	68.9	68.9	30.198	0.00	0.00	0.000	0.057
7/02/10	8:45a	71.9	71.9	70.5	48	51.1	1.0	NNE	0.25	10.0	NNE	71.9	70.8	70.8	30.200	0.00	0.00	0.000	0.072
7/02/10	9:00a	73.7	73.7	71.9	45	51.0	1.0	N	0.25	6.0	N	73.7	73.0	73.0	30.203	0.00	0.00	0.000	0.091
7/02/10	9:15a	73.2	73.8	73.1	45	50.6	1.0	SSW	0.25	6.0	NNE	73.2	72.4	72.4	30.203	0.00	0.00	0.000	0.085
7/02/10	9:30a	75.3	75.3	73.3	43	51.3	1.0	ESE	0.25	6.0	NE	75.3	74.8	74.8	30.203	0.00	0.00	0.000	0.107
7/02/10	9:45a	75.5	75.5	74.9	42	50.8	1.0	ESE	0.25	8.0	NNE	75.5	74.8	74.8	30.202	0.00	0.00	0.000	0.109
7/02/10	10:00a	75.7	76.0	75.5	42	51.0	1.0	SE	0.25	10.0	N	75.7	75.0	75.0	30.202	0.00	0.00	0.000	0.111
7/02/10	10:15a	76.6	76.6	75.7	41	51.1	1.0	ESE	0.25	7.0	E	76.6	75.8	75.8	30.200	0.00	0.00	0.000	0.121
7/02/10	10:30a	75.7	76.8	75.7	41	50.3	3.0	E	0.75	9.0	E	75.7	74.9	74.9	30.196	0.00	0.00	0.000	0.111
7/02/10	10:45a	76.6	76.6	75.4	40	50.5	2.0	NNE	0.50	9.0	ESE	76.6	75.8	75.8	30.196	0.00	0.00	0.000	0.121
7/02/10	11:00a	77.4	77.4	76.6	38	49.8	2.0	N	0.50	11.0	NE	77.4	76.4	76.4	30.196	0.00	0.00	0.000	0.129
7/02/10	11:15a	77.3	77.4	76.8	37	49.0	3.0	NNE	0.75	12.0	NE	77.3	76.3	76.3	30.189	0.00	0.00	0.000	0.128
7/02/10	11:30a	77.6	77.6	76.9	38	50.0	2.0	N	0.50	12.0	NE	77.6	76.6	76.6	30.187	0.00	0.00	0.000	0.131
7/02/10	11:45a	78.6	78.6	77.6	38	50.9	1.0	NNW	0.25	9.0	NE	78.6	77.6	77.6	30.184	0.00	0.00	0.000	0.142
7/02/10	12:00p	77.6	78.9	77.6	35	47.8	2.0	W	0.50	7.0	N	77.6	76.4	76.4	30.183	0.00	0.00	0.000	0.131
7/02/10	12:15p	77.1	77.4	77.1	36	48.1	2.0	NNE	0.50	8.0	N	77.1	76.1	76.1	30.179	0.00	0.00	0.000	0.126
7/02/10	12:30p	77.0	77.5	77.0	37	48.7	2.0	NNE	0.50	8.0	N	77.0	76.1	76.1	30.178	0.00	0.00	0.000	0.125
7/02/10	12:45p	77.5	77.5	76.9	37	49.2	1.0	NNE	0.25	7.0	NNE	77.5	76.5	76.5	30.172	0.00	0.00	0.000	0.130
7/02/10	1:00p	79.7	79.9	77.5	34	48.8	1.0	E	0.25	5.0	ESE	79.7	78.2	78.2	30.169	0.00	0.00	0.000	0.153
7/02/10	1:15p	79.3	79.6	78.7	33	47.7	1.0	N	0.25	7.0	N	79.3	77.8	77.8	30.159	0.00	0.00	0.000	0.149

Gowanus Phase III Weather Data 7/02/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/02/10	1:30p	79.1	80.0	79.1	35	49.1	1.0	NE	0.25	8.0	NNE	79.1	77.9	77.9	30.160	0.00	0.00	0.000	0.147
7/02/10	1:45p	79.3	79.3	79.0	34	48.5	1.0	NE	0.25	8.0	NNE	79.3	77.9	77.9	30.156	0.00	0.00	0.000	0.149
7/02/10	2:00p	79.4	79.6	78.8	34	48.6	1.0	E	0.25	7.0	NNE	79.4	78.0	78.0	30.156	0.00	0.00	0.000	0.150
7/02/10	2:15p	78.9	79.4	78.9	33	47.3	2.0	E	0.50	10.0	N	78.9	77.5	77.5	30.156	0.00	0.00	0.000	0.145
7/02/10	2:30p	81.2	81.2	78.8	33	49.4	1.0	WNW	0.25	7.0	NNE	81.2	79.5	79.5	30.153	0.00	0.00	0.000	0.169
7/02/10	2:45p	80.7	82.3	80.7	33	48.9	2.0	NE	0.50	8.0	W	80.7	79.0	79.0	30.150	0.00	0.00	0.000	0.164
7/02/10	3:00p	81.6	81.9	80.7	32	48.9	1.0	NNE	0.25	6.0	NE	81.6	79.9	79.9	30.141	0.00	0.00	0.000	0.173
7/02/10	3:15p	82.8	83.0	81.3	31	49.1	1.0	ENE	0.25	6.0	NNE	82.8	81.0	81.0	30.138	0.00	0.00	0.000	0.185
7/02/10	3:30p	82.5	82.8	81.7	32	49.7	1.0	E	0.25	8.0	NNE	82.5	80.8	80.8	30.132	0.00	0.00	0.000	0.182
7/02/10	3:45p	83.6	83.6	82.5	31	49.8	2.0	WSW	0.50	6.0	WSW	83.6	82.0	82.0	30.132	0.00	0.00	0.000	0.194
7/02/10	4:00p	82.4	83.7	82.4	32	49.6	1.0	E	0.25	5.0	S	82.4	80.7	80.7	30.127	0.00	0.00	0.000	0.181
7/02/10	4:15p	81.7	82.4	81.5	33	49.8	2.0	ENE	0.50	8.0	ESE	81.7	80.1	80.1	30.126	0.00	0.00	0.000	0.174
7/02/10	4:30p	81.5	81.8	81.5	33	49.6	1.0	E	0.25	5.0	N	81.5	79.9	79.9	30.124	0.00	0.00	0.000	0.172
7/02/10	4:45p	81.8	81.8	81.4	33	49.9	1.0	E	0.25	7.0	N	81.8	80.2	80.2	30.115	0.00	0.00	0.000	0.175
7/02/10	5:00p	81.3	81.9	81.3	34	50.2	2.0	WSW	0.50	8.0	NNE	81.3	79.8	79.8	30.114	0.00	0.00	0.000	0.170
7/02/10	5:15p	81.3	81.3	81.2	34	50.2	2.0	WNW	0.50	9.0	N	81.3	79.8	79.8	30.112	0.00	0.00	0.000	0.170
7/02/10	5:30p	80.5	81.3	80.5	35	50.3	1.0	NE	0.25	7.0	NNE	80.5	79.0	79.0	30.110	0.00	0.00	0.000	0.161
7/02/10	5:45p	80.1	80.6	80.1	35	50.0	1.0	NNW	0.25	8.0	NNE	80.1	78.6	78.6	30.104	0.00	0.00	0.000	0.157
7/02/10	6:00p	80.3	80.3	80.0	36	50.9	1.0	NE	0.25	6.0	ENE	80.3	78.9	78.9	30.099	0.00	0.00	0.000	0.159
7/02/10	6:15p	80.2	80.3	80.1	35	50.1	1.0	NE	0.25	6.0	NE	80.2	78.7	78.7	30.101	0.00	0.00	0.000	0.158
7/02/10	6:30p	80.1	80.2	80.1	35	50.0	1.0	WSW	0.25	5.0	NNW	80.1	78.6	78.6	30.095	0.00	0.00	0.000	0.157
7/02/10	6:45p	80.3	80.3	80.1	36	50.9	0.0	WSW	0.00	3.0	WSW	80.3	78.9	78.9	30.097	0.00	0.00	0.000	0.159
7/02/10	7:00p	79.8	80.2	79.8	35	49.7	1.0	N	0.25	5.0	N	79.8	78.4	78.4	30.097	0.00	0.00	0.000	0.154
7/02/10	7:15p	79.6	79.8	79.6	36	50.3	0.0	WNW	0.00	4.0	WNW	79.6	78.3	78.3	30.103	0.00	0.00	0.000	0.152
7/02/10	7:30p	79.3	79.6	79.3	36	50.0	0.0	W	0.00	3.0	W	79.3	78.1	78.1	30.104	0.00	0.00	0.000	0.149
7/02/10	7:45p	79.1	79.3	79.1	38	51.3	0.0	W	0.00	2.0	W	79.1	78.1	78.1	30.104	0.00	0.00	0.000	0.147
7/02/10	8:00p	78.7	79.1	78.7	38	51.0	0.0	WNW	0.00	2.0	WNW	78.7	77.7	77.7	30.100	0.00	0.00	0.000	0.143
7/02/10	8:15p	78.4	78.7	78.4	38	50.7	0.0	WSW	0.00	4.0	WSW	78.4	77.4	77.4	30.100	0.00	0.00	0.000	0.140
7/02/10	8:30p	78.0	78.4	78.0	39	51.0	0.0	WSW	0.00	3.0	WSW	78.0	77.0	77.0	30.097	0.00	0.00	0.000	0.135
7/02/10	8:45p	77.5	78.0	77.5	40	51.3	0.0	WSW	0.00	2.0	WSW	77.5	76.6	76.6	30.099	0.00	0.00	0.000	0.130
7/02/10	9:00p	77.2	77.5	77.2	40	51.0	0.0	WSW	0.00	1.0	WSW	77.2	76.4	76.4	30.103	0.00	0.00	0.000	0.127
7/02/10	9:15p	76.9	77.2	76.9	41	51.4	0.0	WSW	0.00	2.0	WSW	76.9	76.2	76.2	30.107	0.00	0.00	0.000	0.124
7/02/10	9:30p	76.6	76.9	76.6	42	51.8	0.0	WSW	0.00	1.0	WSW	76.6	75.9	75.9	30.110	0.00	0.00	0.000	0.121
7/02/10	9:45p	76.3	76.6	76.3	43	52.2	0.0	WSW	0.00	1.0	WSW	76.3	75.7	75.7	30.110	0.00	0.00	0.000	0.118
7/02/10	10:00p	75.9	76.3	75.9	44	52.4	0.0	WSW	0.00	1.0	WSW	75.9	75.4	75.4	30.111	0.00	0.00	0.000	0.114
7/02/10	10:15p	75.6	75.8	75.6	45	52.8	0.0	WSW	0.00	1.0	WSW	75.6	75.2	75.2	30.114	0.00	0.00	0.000	0.110
7/02/10	10:30p	75.4	75.6	75.4	45	52.6	0.0	WSW	0.00	1.0	WSW	75.4	75.1	75.1	30.113	0.00	0.00	0.000	0.108
7/02/10	10:45p	75.2	75.4	75.2	46	53.0	0.0	WSW	0.00	2.0	WSW	75.2	75.0	75.0	30.111	0.00	0.00	0.000	0.106
7/02/10	11:00p	74.9	75.2	74.9	46	52.7	0.0	WSW	0.00	1.0	WSW	74.9	74.6	74.6	30.111	0.00	0.00	0.000	0.103
7/02/10	11:15p	74.7	74.9	74.7	48	53.7	0.0	WSW	0.00	2.0	WSW	74.7	74.5	74.5	30.112	0.00	0.00	0.000	0.101
7/02/10	11:30p	74.6	74.8	74.6	48	53.6	0.0	WSW	0.00	1.0	WSW	74.6	74.4	74.4	30.111	0.00	0.00	0.000	0.100
7/02/10	11:45p	74.1	74.6	74.1	49	53.7	0.0	---	0.00	0.0	---	74.1	73.8	73.8	30.114	0.00	0.00	0.000	0.095
7/03/10	12:00a	73.5	74.2	73.5	51	54.3	0.0	WSW	0.00	1.0	WSW	73.5	73.2	73.2	30.117	0.00	0.00	0.000	0.089

Gowanus Phase III Weather Data 7/03/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/03/10	12:15a	72.4	73.5	72.4	52	53.8	0.0	SW	0.00	6.0	SW	72.4	71.8	71.8	30.118	0.00	0.00	0.000	0.077
7/03/10	12:30a	71.7	72.4	71.7	53	53.7	0.0	SW	0.00	2.0	SW	71.7	70.9	70.9	30.119	0.00	0.00	0.000	0.070
7/03/10	12:45a	71.3	71.7	71.3	54	53.8	0.0	SW	0.00	1.0	SW	71.3	70.4	70.4	30.117	0.00	0.00	0.000	0.066
7/03/10	1:00a	70.9	71.3	70.9	55	53.9	0.0	SW	0.00	5.0	SW	70.9	69.9	69.9	30.123	0.00	0.00	0.000	0.061
7/03/10	1:15a	70.6	70.9	70.6	55	53.6	0.0	WSW	0.00	4.0	SW	70.6	69.5	69.5	30.124	0.00	0.00	0.000	0.058
7/03/10	1:30a	70.0	70.6	70.0	57	54.1	0.0	WSW	0.00	6.0	SW	70.0	68.9	68.9	30.124	0.00	0.00	0.000	0.052
7/03/10	1:45a	69.7	70.0	69.7	57	53.8	0.0	SW	0.00	5.0	SW	69.7	68.7	68.7	30.117	0.00	0.00	0.000	0.049
7/03/10	2:00a	69.5	69.7	69.5	57	53.6	0.0	W	0.00	2.0	W	69.5	68.5	68.5	30.116	0.00	0.00	0.000	0.047
7/03/10	2:15a	69.2	69.4	69.1	59	54.3	0.0	SW	0.00	4.0	WSW	69.2	68.5	68.5	30.120	0.00	0.00	0.000	0.044
7/03/10	2:30a	68.9	69.1	68.9	60	54.4	0.0	SW	0.00	3.0	SW	68.9	68.3	68.3	30.119	0.00	0.00	0.000	0.041
7/03/10	2:45a	68.6	68.9	68.6	61	54.6	0.0	SW	0.00	2.0	SW	68.6	68.2	68.2	30.116	0.00	0.00	0.000	0.037
7/03/10	3:00a	68.6	68.7	68.6	61	54.6	0.0	WSW	0.00	6.0	WSW	68.6	68.2	68.2	30.112	0.00	0.00	0.000	0.037
7/03/10	3:15a	68.4	68.6	68.4	62	54.9	0.0	WSW	0.00	3.0	WSW	68.4	68.2	68.2	30.111	0.00	0.00	0.000	0.035
7/03/10	3:30a	68.1	68.4	68.1	62	54.6	0.0	WSW	0.00	4.0	WSW	68.1	68.0	68.0	30.116	0.00	0.00	0.000	0.032
7/03/10	3:45a	68.0	68.1	68.0	63	54.9	0.0	WSW	0.00	3.0	WSW	68.0	68.0	68.0	30.121	0.00	0.00	0.000	0.031
7/03/10	4:00a	67.8	68.0	67.8	64	55.2	0.0	WSW	0.00	1.0	WSW	67.8	67.9	67.9	30.121	0.00	0.00	0.000	0.029
7/03/10	4:15a	67.6	67.8	67.6	63	54.6	0.0	WSW	0.00	1.0	WSW	67.6	67.5	67.5	30.123	0.00	0.00	0.000	0.027
7/03/10	4:30a	67.5	67.6	67.5	63	54.5	0.0	WSW	0.00	2.0	WSW	67.5	67.4	67.4	30.125	0.00	0.00	0.000	0.026
7/03/10	4:45a	67.4	67.5	67.4	64	54.8	0.0	WSW	0.00	3.0	WSW	67.4	67.4	67.4	30.126	0.00	0.00	0.000	0.025
7/03/10	5:00a	67.1	67.4	67.1	65	54.9	0.0	WSW	0.00	1.0	WSW	67.1	67.1	67.1	30.131	0.00	0.00	0.000	0.022
7/03/10	5:15a	66.9	67.1	66.9	65	54.7	0.0	---	0.00	0.0	---	66.9	66.9	66.9	30.138	0.00	0.00	0.000	0.020
7/03/10	5:30a	66.7	66.9	66.7	65	54.6	0.0	---	0.00	0.0	---	66.7	66.6	66.6	30.139	0.00	0.00	0.000	0.018
7/03/10	5:45a	66.6	66.8	66.6	64	54.0	0.0	WSW	0.00	1.0	WSW	66.6	66.4	66.4	30.140	0.00	0.00	0.000	0.017
7/03/10	6:00a	66.7	66.8	66.6	63	53.7	0.0	---	0.00	0.0	---	66.7	66.4	66.4	30.141	0.00	0.00	0.000	0.018
7/03/10	6:15a	67.2	67.2	66.7	62	53.7	0.0	WSW	0.00	1.0	WSW	67.2	66.9	66.9	30.141	0.00	0.00	0.000	0.023
7/03/10	6:30a	67.8	67.8	67.2	61	53.9	0.0	WSW	0.00	2.0	WSW	67.8	67.6	67.6	30.141	0.00	0.00	0.000	0.029
7/03/10	6:45a	68.5	68.5	67.9	62	55.0	0.0	WSW	0.00	1.0	WSW	68.5	68.2	68.2	30.141	0.00	0.00	0.000	0.036
7/03/10	7:00a	69.2	69.2	68.5	60	54.7	0.0	WSW	0.00	1.0	WSW	69.2	68.6	68.6	30.143	0.00	0.00	0.000	0.044
7/03/10	7:15a	70.1	70.1	69.2	59	55.1	0.0	WSW	0.00	2.0	WSW	70.1	69.2	69.2	30.146	0.00	0.00	0.000	0.053
7/03/10	7:30a	71.3	71.3	70.0	57	55.3	0.0	WSW	0.00	2.0	WSW	71.3	70.6	70.6	30.145	0.00	0.00	0.000	0.066
7/03/10	7:45a	72.3	72.3	71.3	55	55.2	0.0	WSW	0.00	2.0	WSW	72.3	72.0	72.0	30.149	0.00	0.00	0.000	0.076
7/03/10	8:00a	72.9	72.9	72.3	53	54.8	0.0	WSW	0.00	2.0	WSW	72.9	72.7	72.7	30.153	0.00	0.00	0.000	0.082
7/03/10	8:15a	73.9	73.9	72.9	52	55.2	0.0	WSW	0.00	2.0	WSW	73.9	73.8	73.8	30.151	0.00	0.00	0.000	0.093
7/03/10	8:30a	75.5	75.5	74.0	49	55.0	0.0	WSW	0.00	2.0	WSW	75.5	75.5	75.5	30.155	0.00	0.00	0.000	0.109
7/03/10	8:45a	76.2	76.2	75.5	49	55.6	0.0	WSW	0.00	2.0	WSW	76.2	76.1	76.1	30.154	0.00	0.00	0.000	0.117
7/03/10	9:00a	77.1	77.2	76.2	47	55.3	0.0	WSW	0.00	5.0	WSW	77.1	76.7	76.7	30.149	0.00	0.00	0.000	0.126
7/03/10	9:15a	78.5	78.5	77.1	46	56.0	0.0	W	0.00	5.0	W	78.5	78.2	78.2	30.146	0.00	0.00	0.000	0.141
7/03/10	9:30a	79.6	79.6	78.6	45	56.4	0.0	NW	0.00	4.0	NW	79.6	79.2	79.2	30.143	0.00	0.00	0.000	0.152
7/03/10	9:45a	80.7	80.7	79.7	43	56.1	0.0	W	0.00	4.0	W	80.7	80.1	80.1	30.141	0.00	0.00	0.000	0.164
7/03/10	10:00a	81.2	81.2	80.3	43	56.6	1.0	WSW	0.25	4.0	WSW	81.2	80.6	80.6	30.138	0.00	0.00	0.000	0.169
7/03/10	10:15a	82.1	82.3	81.2	41	56.1	0.0	NW	0.00	5.0	NE	82.1	81.6	81.6	30.126	0.00	0.00	0.000	0.178
7/03/10	10:30a	83.5	83.5	82.0	40	56.6	0.0	ENE	0.00	3.0	SE	83.5	83.5	83.5	30.118	0.00	0.00	0.000	0.193
7/03/10	10:45a	84.5	84.5	83.6	38	56.1	0.0	NW	0.00	5.0	SW	84.5	84.3	84.3	30.110	0.00	0.00	0.000	0.203
7/03/10	11:00a	84.3	85.0	84.3	37	55.2	1.0	SW	0.25	6.0	WSW	84.3	84.0	84.0	30.109	0.00	0.00	0.000	0.201
7/03/10	11:15a	84.7	84.8	84.3	36	54.8	1.0	SW	0.25	5.0	WSW	84.7	84.1	84.1	30.105	0.00	0.00	0.000	0.205
7/03/10	11:30a	85.4	85.4	84.4	36	55.4	1.0	WSW	0.25	6.0	WSW	85.4	84.8	84.8	30.097	0.00	0.00	0.000	0.213
7/03/10	11:45a	85.3	86.4	85.3	36	55.3	1.0	WSW	0.25	7.0	WSW	85.3	84.7	84.7	30.095	0.00	0.00	0.000	0.211
7/03/10	12:00p	86.8	86.8	85.2	34	55.1	0.0	WSW	0.00	7.0	N	86.8	85.8	85.8	30.088	0.00	0.00	0.000	0.227
7/03/10	12:15p	86.2	87.1	86.2	34	54.5	1.0	NNE	0.25	11.0	N	86.2	85.3	85.3	30.082	0.00	0.00	0.000	0.221
7/03/10	12:30p	85.8	86.7	85.8	34	54.2	1.0	NNE	0.25	7.0	NE	85.8	84.9	84.9	30.079	0.00	0.00	0.000	0.217
7/03/10	12:45p	86.8	86.8	85.8	33	54.2	1.0	SW	0.25	6.0	SW	86.8	85.6	85.6	30.078	0.00	0.00	0.000	0.227
7/03/10	1:00p	87.9	87.9	86.8	32	54.4	1.0	NNW	0.25	5.0	NE	87.9	86.1	86.1	30.067	0.00	0.00	0.000	0.239
7/03/10	1:15p	89.1	89.5	87.9	32	55.4	1.0	E	0.25	6.0	NNE	89.1	87.7	87.7	30.064	0.00	0.00	0.000	0.251

Gowanus Phase III Weather Data 7/03/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/03/10	1:30p	89.1	89.4	89.1	31	54.5	1.0	W	0.25	6.0	W	89.1	87.5	87.5	30.062	0.00	0.00	0.000	0.251
7/03/10	1:45p	89.3	89.3	88.4	32	55.6	1.0	SW	0.25	8.0	WSW	89.3	88.1	88.1	30.056	0.00	0.00	0.000	0.253
7/03/10	2:00p	89.5	89.7	89.2	31	54.9	0.0	NW	0.00	3.0	NNW	89.5	88.2	88.2	30.049	0.00	0.00	0.000	0.255
7/03/10	2:15p	91.5	91.5	89.5	30	55.7	0.0	SSW	0.00	5.0	SSW	91.5	90.8	90.8	30.046	0.00	0.00	0.000	0.276
7/03/10	2:30p	91.8	93.0	91.7	29	55.0	1.0	SW	0.25	7.0	SSW	91.8	90.8	90.8	30.040	0.00	0.00	0.000	0.279
7/03/10	2:45p	91.3	92.2	91.3	30	55.5	1.0	SW	0.25	7.0	WSW	91.3	90.6	90.6	30.033	0.00	0.00	0.000	0.274
7/03/10	3:00p	92.4	92.4	91.2	29	55.5	0.0	W	0.00	5.0	WSW	92.4	91.6	91.6	30.027	0.00	0.00	0.000	0.285
7/03/10	3:15p	92.6	93.1	92.5	29	55.7	1.0	WSW	0.25	8.0	SSW	92.6	91.8	91.8	30.019	0.00	0.00	0.000	0.287
7/03/10	3:30p	92.5	92.6	92.3	29	55.6	1.0	WSW	0.25	5.0	SW	92.5	91.7	91.7	30.017	0.00	0.00	0.000	0.286
7/03/10	3:45p	92.9	92.9	92.5	29	56.0	0.0	SW	0.00	4.0	W	92.9	92.2	92.2	30.015	0.00	0.00	0.000	0.291
7/03/10	4:00p	92.8	93.4	92.8	30	56.8	0.0	NW	0.00	3.0	WNW	92.8	92.4	92.4	30.009	0.00	0.00	0.000	0.290
7/03/10	4:15p	91.6	92.8	91.6	30	55.8	1.0	SSE	0.25	6.0	SSW	91.6	90.9	90.9	30.010	0.00	0.00	0.000	0.277
7/03/10	4:30p	90.3	91.6	90.3	31	55.6	1.0	SW	0.25	6.0	SW	90.3	89.5	89.5	30.004	0.00	0.00	0.000	0.264
7/03/10	4:45p	89.0	90.3	89.0	34	57.0	1.0	NE	0.25	5.0	ENE	89.0	88.0	88.0	30.001	0.00	0.00	0.000	0.250
7/03/10	5:00p	87.7	89.0	87.7	36	57.4	2.0	NE	0.50	9.0	W	87.7	86.9	86.9	30.002	0.00	0.00	0.000	0.236
7/03/10	5:15p	87.4	87.8	87.4	37	57.9	1.0	NE	0.25	8.0	NW	87.4	86.9	86.9	30.002	0.00	0.00	0.000	0.233
7/03/10	5:30p	85.0	87.4	84.8	39	57.3	3.0	NW	0.75	11.0	WNW	85.0	84.9	84.9	30.001	0.00	0.00	0.000	0.208
7/03/10	5:45p	84.7	85.0	84.4	39	57.0	3.0	NW	0.75	8.0	NW	84.7	84.7	84.7	29.996	0.00	0.00	0.000	0.205
7/03/10	6:00p	84.9	85.0	84.6	39	57.2	1.0	WNW	0.25	6.0	WNW	84.9	84.8	84.8	29.990	0.00	0.00	0.000	0.207
7/03/10	6:15p	84.1	84.9	84.1	40	57.2	2.0	NE	0.50	7.0	NW	84.1	84.4	84.4	29.987	0.00	0.00	0.000	0.199
7/03/10	6:30p	83.8	84.0	83.8	41	57.6	2.0	NNW	0.50	6.0	WNW	83.8	84.1	84.1	29.987	0.00	0.00	0.000	0.196
7/03/10	6:45p	83.9	83.9	83.6	41	57.7	1.0	NW	0.25	8.0	NW	83.9	84.3	84.3	29.986	0.00	0.00	0.000	0.197
7/03/10	7:00p	83.6	84.1	83.6	41	57.4	2.0	NW	0.50	6.0	NE	83.6	83.8	83.8	29.987	0.00	0.00	0.000	0.194
7/03/10	7:15p	83.7	83.7	83.4	41	57.5	1.0	NE	0.25	5.0	NNW	83.7	84.0	84.0	29.987	0.00	0.00	0.000	0.195
7/03/10	7:30p	83.3	83.8	83.3	42	57.8	1.0	ENE	0.25	4.0	ENE	83.3	83.5	83.5	29.986	0.00	0.00	0.000	0.191
7/03/10	7:45p	83.4	83.5	83.3	43	58.6	0.0	NE	0.00	6.0	WNW	83.4	83.8	83.8	29.983	0.00	0.00	0.000	0.192
7/03/10	8:00p	83.4	83.5	83.3	44	59.2	0.0	NW	0.00	4.0	NW	83.4	84.0	84.0	29.983	0.00	0.00	0.000	0.192
7/03/10	8:15p	83.2	83.4	83.2	45	59.6	0.0	NNE	0.00	4.0	NW	83.2	83.8	83.8	29.984	0.00	0.00	0.000	0.190
7/03/10	8:30p	82.8	83.2	82.8	46	59.9	0.0	NW	0.00	1.0	NW	82.8	83.3	83.3	29.983	0.00	0.00	0.000	0.185
7/03/10	8:45p	82.4	82.8	82.4	48	60.7	0.0	NW	0.00	1.0	NW	82.4	83.0	83.0	29.980	0.00	0.00	0.000	0.181
7/03/10	9:00p	82.2	82.4	82.1	49	61.1	0.0	NW	0.00	1.0	NW	82.2	82.8	82.8	29.983	0.00	0.00	0.000	0.179
7/03/10	9:15p	81.9	82.2	81.9	50	61.4	0.0	---	0.00	0.0	---	81.9	82.5	82.5	29.987	0.00	0.00	0.000	0.176
7/03/10	9:30p	81.8	82.0	81.7	50	61.3	0.0	NW	0.00	1.0	NW	81.8	82.3	82.3	29.990	0.00	0.00	0.000	0.175
7/03/10	9:45p	81.4	81.8	81.4	52	62.1	0.0	---	0.00	0.0	---	81.4	82.1	82.1	29.991	0.00	0.00	0.000	0.171
7/03/10	10:00p	80.7	81.4	80.7	53	62.0	0.0	---	0.00	0.0	---	80.7	81.3	81.3	29.992	0.00	0.00	0.000	0.164
7/03/10	10:15p	80.2	80.6	80.2	54	62.0	0.0	---	0.00	0.0	---	80.2	80.8	80.8	29.988	0.00	0.00	0.000	0.158
7/03/10	10:30p	80.2	80.2	80.1	54	62.0	0.0	NW	0.00	1.0	NW	80.2	80.8	80.8	29.986	0.00	0.00	0.000	0.158
7/03/10	10:45p	80.0	80.2	80.0	55	62.4	0.0	---	0.00	0.0	---	80.0	80.7	80.7	29.986	0.00	0.00	0.000	0.156
7/03/10	11:00p	79.3	80.0	79.3	55	61.7	0.0	---	0.00	0.0	---	79.3	79.9	79.9	29.986	0.00	0.00	0.000	0.149
7/03/10	11:15p	79.0	79.3	78.9	54	60.9	0.0	---	0.00	0.0	---	79.0	79.5	79.5	29.987	0.00	0.00	0.000	0.146
7/03/10	11:30p	79.2	79.3	79.0	53	60.6	0.0	NW	0.00	1.0	NW	79.2	79.6	79.6	29.987	0.00	0.00	0.000	0.148
7/03/10	11:45p	79.3	79.3	79.2	52	60.1	0.0	NW	0.00	1.0	NW	79.3	79.7	79.7	29.988	0.00	0.00	0.000	0.149
7/04/10	12:00a	79.1	79.3	79.1	52	60.0	0.0	NW	0.00	1.0	NW	79.1	79.5	79.5	29.988	0.00	0.00	0.000	0.147

Gowanus Phase III Weather Data 7/04/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/04/10	12:15a	79.3	79.3	79.1	50	59.0	0.0	NW	0.00	1.0	NW	79.3	79.5	79.5	29.987	0.00	0.00	0.000	0.149
7/04/10	12:30a	79.2	79.4	79.2	51	59.5	0.0	NW	0.00	1.0	NW	79.2	79.5	79.5	29.987	0.00	0.00	0.000	0.148
7/04/10	12:45a	78.9	79.2	78.9	51	59.2	0.0	NW	0.00	1.0	NW	78.9	79.2	79.2	29.985	0.00	0.00	0.000	0.145
7/04/10	1:00a	78.7	78.9	78.7	50	58.5	0.0	NW	0.00	4.0	NW	78.7	78.8	78.8	29.986	0.00	0.00	0.000	0.143
7/04/10	1:15a	78.5	78.7	78.5	50	58.3	0.0	NW	0.00	2.0	WNW	78.5	78.6	78.6	29.983	0.00	0.00	0.000	0.141
7/04/10	1:30a	78.2	78.5	78.2	50	58.0	0.0	---	0.00	0.0	---	78.2	78.2	78.2	29.980	0.00	0.00	0.000	0.137
7/04/10	1:45a	77.8	78.2	77.8	52	58.8	0.0	NW	0.00	1.0	NW	77.8	78.0	78.0	29.982	0.00	0.00	0.000	0.133
7/04/10	2:00a	77.3	77.8	77.3	52	58.3	0.0	NW	0.00	1.0	NW	77.3	77.4	77.4	29.980	0.00	0.00	0.000	0.128
7/04/10	2:15a	77.1	77.3	77.1	52	58.1	0.0	NW	0.00	1.0	NW	77.1	77.1	77.1	29.984	0.00	0.00	0.000	0.126
7/04/10	2:30a	76.7	77.1	76.7	54	58.8	0.0	---	0.00	0.0	---	76.7	76.9	76.9	29.983	0.00	0.00	0.000	0.122
7/04/10	2:45a	76.3	76.7	76.3	53	57.9	0.0	WNW	0.00	2.0	WNW	76.3	76.5	76.5	29.977	0.00	0.00	0.000	0.118
7/04/10	3:00a	76.0	76.3	76.0	55	58.7	0.0	WNW	0.00	3.0	WNW	76.0	76.3	76.3	29.979	0.00	0.00	0.000	0.115
7/04/10	3:15a	75.6	76.0	75.6	54	57.8	0.0	WNW	0.00	2.0	WNW	75.6	75.9	75.9	29.978	0.00	0.00	0.000	0.110
7/04/10	3:30a	75.2	75.6	75.2	55	57.9	0.0	WNW	0.00	2.0	WNW	75.2	75.7	75.7	29.981	0.00	0.00	0.000	0.106
7/04/10	3:45a	75.0	75.2	75.0	55	57.7	0.0	WNW	0.00	1.0	WNW	75.0	75.5	75.5	29.981	0.00	0.00	0.000	0.104
7/04/10	4:00a	74.7	75.0	74.7	56	58.0	0.0	WNW	0.00	1.0	WNW	74.7	75.2	75.2	29.973	0.00	0.00	0.000	0.101
7/04/10	4:15a	74.5	74.7	74.5	56	57.8	0.0	WNW	0.00	2.0	WNW	74.5	74.9	74.9	29.979	0.00	0.00	0.000	0.099
7/04/10	4:30a	74.3	74.5	74.3	56	57.6	0.0	WNW	0.00	1.0	WNW	74.3	74.7	74.7	29.980	0.00	0.00	0.000	0.097
7/04/10	4:45a	74.0	74.3	74.0	57	57.8	0.0	---	0.00	0.0	---	74.0	74.4	74.4	29.980	0.00	0.00	0.000	0.094
7/04/10	5:00a	73.8	74.0	73.8	58	58.1	0.0	WNW	0.00	1.0	WNW	73.8	74.2	74.2	29.986	0.00	0.00	0.000	0.092
7/04/10	5:15a	73.5	73.8	73.5	59	58.3	0.0	WNW	0.00	1.0	WNW	73.5	74.0	74.0	29.986	0.00	0.00	0.000	0.089
7/04/10	5:30a	73.3	73.5	73.3	59	58.1	0.0	WNW	0.00	1.0	WNW	73.3	73.7	73.7	29.986	0.00	0.00	0.000	0.086
7/04/10	5:45a	73.1	73.3	73.1	60	58.4	0.0	WNW	0.00	1.0	WNW	73.1	73.5	73.5	29.987	0.00	0.00	0.000	0.084
7/04/10	6:00a	73.0	73.1	73.0	59	57.8	0.0	WNW	0.00	1.0	WNW	73.0	73.3	73.3	29.987	0.00	0.00	0.000	0.083
7/04/10	6:15a	72.8	73.0	72.8	60	58.1	0.0	WNW	0.00	1.0	WNW	72.8	73.1	73.1	29.987	0.00	0.00	0.000	0.081
7/04/10	6:30a	72.9	72.9	72.8	59	57.7	0.0	WNW	0.00	2.0	WNW	72.9	73.2	73.2	29.988	0.00	0.00	0.000	0.082
7/04/10	6:45a	73.4	73.4	72.9	60	58.7	0.0	WNW	0.00	2.0	WNW	73.4	73.9	73.9	29.988	0.00	0.00	0.000	0.088
7/04/10	7:00a	74.5	74.5	73.4	58	58.8	0.0	WNW	0.00	4.0	WNW	74.5	75.1	75.1	29.989	0.00	0.00	0.000	0.099
7/04/10	7:15a	75.8	75.8	74.6	56	59.0	0.0	W	0.00	4.0	W	75.8	76.2	76.2	29.987	0.00	0.00	0.000	0.113
7/04/10	7:30a	76.2	76.2	75.9	55	58.9	1.0	SW	0.25	5.0	SW	76.2	76.5	76.5	29.987	0.00	0.00	0.000	0.117
7/04/10	7:45a	76.9	76.9	76.2	54	59.0	1.0	SW	0.25	5.0	SW	76.9	77.1	77.1	29.987	0.00	0.00	0.000	0.124
7/04/10	8:00a	78.2	78.3	76.9	51	58.6	1.0	SW	0.25	5.0	SW	78.2	78.3	78.3	29.990	0.00	0.00	0.000	0.137
7/04/10	8:15a	79.3	79.3	78.3	50	59.0	0.0	WSW	0.00	4.0	SW	79.3	79.5	79.5	29.988	0.00	0.00	0.000	0.149
7/04/10	8:30a	81.8	81.8	79.4	47	59.6	0.0	WSW	0.00	4.0	WSW	81.8	81.9	81.9	29.988	0.00	0.00	0.000	0.175
7/04/10	8:45a	81.7	81.9	81.4	46	58.9	1.0	WSW	0.25	5.0	WSW	81.7	81.6	81.6	29.987	0.00	0.00	0.000	0.174
7/04/10	9:00a	83.6	83.6	81.7	45	60.0	0.0	SW	0.00	3.0	W	83.6	84.5	84.5	29.986	0.00	0.00	0.000	0.194
7/04/10	9:15a	83.2	84.5	83.2	45	59.6	1.0	SW	0.25	5.0	SW	83.2	83.8	83.8	29.986	0.00	0.00	0.000	0.190
7/04/10	9:30a	85.4	85.4	83.2	43	60.4	0.0	SW	0.00	5.0	SW	85.4	86.1	86.1	29.986	0.00	0.00	0.000	0.213
7/04/10	9:45a	87.5	87.5	85.4	41	60.9	0.0	WSW	0.00	4.0	WSW	87.5	88.0	88.0	29.979	0.00	0.00	0.000	0.234
7/04/10	10:00a	88.1	88.3	87.5	40	60.7	1.0	WSW	0.25	6.0	WSW	88.1	88.3	88.3	29.974	0.00	0.00	0.000	0.241
7/04/10	10:15a	89.7	89.7	88.1	40	62.2	0.0	WNW	0.00	4.0	WSW	89.7	90.8	90.8	29.972	0.00	0.00	0.000	0.257
7/04/10	10:30a	91.2	91.2	89.7	38	62.0	0.0	W	0.00	4.0	W	91.2	92.5	92.5	29.971	0.00	0.00	0.000	0.273
7/04/10	10:45a	91.3	91.3	90.9	37	61.4	1.0	SW	0.25	5.0	SW	91.3	92.3	92.3	29.967	0.00	0.00	0.000	0.274
7/04/10	11:00a	93.3	93.3	91.4	35	61.6	1.0	WSW	0.25	6.0	WSW	93.3	94.4	94.4	29.968	0.00	0.00	0.000	0.295
7/04/10	11:15a	93.0	93.5	92.8	35	61.3	1.0	WSW	0.25	5.0	S	93.0	94.0	94.0	29.960	0.00	0.00	0.000	0.292
7/04/10	11:30a	93.7	93.7	92.9	34	61.1	2.0	WSW	0.50	6.0	SW	93.7	94.7	94.7	29.956	0.00	0.00	0.000	0.299
7/04/10	11:45a	94.1	94.2	93.7	33	60.6	2.0	W	0.50	10.0	N	94.1	95.0	95.0	29.954	0.00	0.00	0.000	0.303
7/04/10	12:00p	94.1	94.1	93.7	33	60.6	2.0	WSW	0.50	8.0	WSW	94.1	95.0	95.0	29.950	0.00	0.00	0.000	0.303
7/04/10	12:15p	95.4	95.4	94.2	32	60.9	1.0	W	0.25	9.0	WSW	95.4	96.5	96.5	29.942	0.00	0.00	0.000	0.317
7/04/10	12:30p	96.5	96.5	95.5	30	60.0	1.0	W	0.25	7.0	W	96.5	97.3	97.3	29.938	0.00	0.00	0.000	0.328
7/04/10	12:45p	97.0	97.0	96.2	31	61.4	1.0	W	0.25	8.0	SW	97.0	98.5	98.5	29.931	0.00	0.00	0.000	0.333
7/04/10	1:00p	97.2	97.4	97.0	30	60.6	1.0	WSW	0.25	7.0	SW	97.2	98.3	98.3	29.932	0.00	0.00	0.000	0.335
7/04/10	1:15p	97.4	97.7	97.2	30	60.8	2.0	WSW	0.50	7.0	WSW	97.4	98.6	98.6	29.927	0.00	0.00	0.000	0.338

Gowanus Phase III Weather Data 7/04/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/04/10	1:30p	97.8	97.8	97.1	29	60.2	2.0	WSW	0.50	8.0	S	97.8	98.9	98.9	29.925	0.00	0.00	0.000	0.342
7/04/10	1:45p	97.8	98.3	97.8	28	59.2	2.0	WSW	0.50	8.0	SW	97.8	98.5	98.5	29.924	0.00	0.00	0.000	0.342
7/04/10	2:00p	98.3	98.5	97.8	27	58.6	2.0	WSW	0.50	11.0	WSW	98.3	98.9	98.9	29.921	0.00	0.00	0.000	0.347
7/04/10	2:15p	99.2	99.3	98.3	27	59.3	1.0	SW	0.25	7.0	SSW	99.2	100.2	100.2	29.915	0.00	0.00	0.000	0.356
7/04/10	2:30p	99.2	99.3	99.1	26	58.3	2.0	WSW	0.50	9.0	S	99.2	99.9	99.9	29.913	0.00	0.00	0.000	0.356
7/04/10	2:45p	99.7	100.0	99.2	27	59.8	2.0	W	0.50	7.0	SW	99.7	101.0	101.0	29.909	0.00	0.00	0.000	0.361
7/04/10	3:00p	100.1	100.1	99.6	26	59.0	2.0	W	0.50	8.0	W	100.1	101.2	101.2	29.909	0.00	0.00	0.000	0.366
7/04/10	3:15p	99.2	100.1	99.2	27	59.3	2.0	WSW	0.50	8.0	WSW	99.2	100.2	100.2	29.895	0.00	0.00	0.000	0.356
7/04/10	3:30p	99.2	99.2	98.6	26	58.3	2.0	WSW	0.50	9.0	W	99.2	99.9	99.9	29.893	0.00	0.00	0.000	0.356
7/04/10	3:45p	99.4	99.5	99.2	27	59.5	2.0	W	0.50	8.0	SW	99.4	100.5	100.5	29.894	0.00	0.00	0.000	0.358
7/04/10	4:00p	99.1	99.5	99.1	27	59.3	1.0	WSW	0.25	7.0	W	99.1	100.1	100.1	29.893	0.00	0.00	0.000	0.355
7/04/10	4:15p	98.3	99.0	98.2	27	58.6	1.0	W	0.25	7.0	SW	98.3	98.9	98.9	29.891	0.00	0.00	0.000	0.347
7/04/10	4:30p	97.6	98.3	97.6	28	59.0	1.0	WSW	0.25	6.0	WSW	97.6	98.2	98.2	29.886	0.00	0.00	0.000	0.340
7/04/10	4:45p	97.8	97.8	97.6	28	59.2	1.0	WSW	0.25	5.0	WSW	97.8	98.5	98.5	29.878	0.00	0.00	0.000	0.342
7/04/10	5:00p	97.3	97.8	97.2	28	58.7	2.0	WSW	0.50	8.0	WSW	97.3	97.8	97.8	29.877	0.00	0.00	0.000	0.336
7/04/10	5:15p	97.1	97.4	97.1	28	58.6	2.0	WSW	0.50	7.0	SSW	97.1	97.5	97.5	29.874	0.00	0.00	0.000	0.334
7/04/10	5:30p	97.3	97.3	97.1	28	58.7	1.0	W	0.25	9.0	SW	97.3	97.8	97.8	29.866	0.00	0.00	0.000	0.336
7/04/10	5:45p	97.2	97.3	97.2	28	58.7	1.0	WSW	0.25	6.0	W	97.2	97.6	97.6	29.864	0.00	0.00	0.000	0.335
7/04/10	6:00p	96.8	97.2	96.8	28	58.3	1.0	WSW	0.25	6.0	WSW	96.8	97.0	97.0	29.862	0.00	0.00	0.000	0.331
7/04/10	6:15p	96.5	96.8	96.5	29	59.0	1.0	WSW	0.25	6.0	W	96.5	97.0	97.0	29.864	0.00	0.00	0.000	0.328
7/04/10	6:30p	96.4	96.6	96.4	29	59.0	1.0	WSW	0.25	4.0	WSW	96.4	96.8	96.8	29.864	0.00	0.00	0.000	0.327
7/04/10	6:45p	96.0	96.4	96.0	31	60.5	0.0	WSW	0.00	2.0	WSW	96.0	97.0	97.0	29.864	0.00	0.00	0.000	0.323
7/04/10	7:00p	95.0	95.9	95.0	32	60.5	0.0	WSW	0.00	4.0	WSW	95.0	96.0	96.0	29.864	0.00	0.00	0.000	0.313
7/04/10	7:15p	94.8	95.0	94.8	33	61.2	0.0	WSW	0.00	5.0	WSW	94.8	96.0	96.0	29.864	0.00	0.00	0.000	0.310
7/04/10	7:30p	94.2	94.8	94.2	33	60.7	0.0	SW	0.00	4.0	SW	94.2	95.1	95.1	29.866	0.00	0.00	0.000	0.304
7/04/10	7:45p	93.7	94.2	93.7	33	60.3	0.0	SW	0.00	6.0	SW	93.7	94.4	94.4	29.874	0.00	0.00	0.000	0.299
7/04/10	8:00p	93.4	93.7	93.4	34	60.8	0.0	SW	0.00	2.0	SW	93.4	94.3	94.3	29.867	0.00	0.00	0.000	0.296
7/04/10	8:15p	92.8	93.4	92.8	35	61.1	0.0	W	0.00	3.0	W	92.8	93.7	93.7	29.873	0.00	0.00	0.000	0.290
7/04/10	8:30p	92.3	92.8	92.3	36	61.5	0.0	W	0.00	4.0	W	92.3	93.4	93.4	29.875	0.00	0.00	0.000	0.284
7/04/10	8:45p	91.6	92.3	91.6	36	60.9	0.0	W	0.00	2.0	W	91.6	92.4	92.4	29.875	0.00	0.00	0.000	0.277
7/04/10	9:00p	91.1	91.6	91.1	35	59.6	0.0	W	0.00	1.0	W	91.1	91.3	91.3	29.879	0.00	0.00	0.000	0.272
7/04/10	9:15p	90.8	91.1	90.8	35	59.4	0.0	W	0.00	2.0	W	90.8	90.9	90.9	29.889	0.00	0.00	0.000	0.269
7/04/10	9:30p	90.2	90.8	90.2	36	59.6	0.0	W	0.00	1.0	W	90.2	90.4	90.4	29.891	0.00	0.00	0.000	0.262
7/04/10	9:45p	89.8	90.2	89.8	37	60.1	0.0	---	0.00	0.0	---	89.8	90.1	90.1	29.894	0.00	0.00	0.000	0.258
7/04/10	10:00p	89.7	89.8	89.7	38	60.7	0.0	W	0.00	2.0	W	89.7	90.3	90.3	29.896	0.00	0.00	0.000	0.257
7/04/10	10:15p	89.2	89.7	89.2	39	61.0	0.0	W	0.00	1.0	W	89.2	89.9	89.9	29.896	0.00	0.00	0.000	0.252
7/04/10	10:30p	88.5	89.1	88.5	41	61.8	0.0	W	0.00	2.0	W	88.5	89.4	89.4	29.898	0.00	0.00	0.000	0.245
7/04/10	10:45p	87.6	88.5	87.6	42	61.7	0.0	W	0.00	2.0	W	87.6	88.4	88.4	29.895	0.00	0.00	0.000	0.235
7/04/10	11:00p	87.1	87.6	87.1	43	61.9	0.0	W	0.00	1.0	W	87.1	88.2	88.2	29.898	0.00	0.00	0.000	0.230
7/04/10	11:15p	86.5	87.1	86.5	43	61.3	0.0	W	0.00	1.0	W	86.5	87.4	87.4	29.908	0.00	0.00	0.000	0.224
7/04/10	11:30p	85.9	86.5	85.9	43	60.8	0.0	W	0.00	1.0	W	85.9	86.6	86.6	29.908	0.00	0.00	0.000	0.218
7/04/10	11:45p	85.6	85.9	85.6	44	61.2	0.0	W	0.00	2.0	W	85.6	86.5	86.5	29.908	0.00	0.00	0.000	0.215
7/05/10	12:00a	85.6	85.6	85.6	43	60.5	0.0	W	0.00	2.0	W	85.6	86.3	86.3	29.908	0.00	0.00	0.000	0.215

Gowanus Phase III Weather Data 7/05/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/05/10	12:15a	85.4	85.6	85.4	44	61.0	0.0	W	0.00	1.0	W	85.4	86.3	86.3	29.909	0.00	0.00	0.000	0.213
7/05/10	12:30a	84.9	85.4	84.9	45	61.2	0.0	W	0.00	1.0	W	84.9	85.9	85.9	29.908	0.00	0.00	0.000	0.207
7/05/10	12:45a	84.3	84.9	84.3	45	60.6	0.0	---	0.00	0.0	---	84.3	85.4	85.4	29.906	0.00	0.00	0.000	0.201
7/05/10	1:00a	83.8	84.2	83.8	46	60.8	0.0	---	0.00	0.0	---	83.8	84.9	84.9	29.909	0.00	0.00	0.000	0.196
7/05/10	1:15a	83.3	83.8	83.3	47	61.0	0.0	W	0.00	4.0	W	83.3	84.3	84.3	29.906	0.00	0.00	0.000	0.191
7/05/10	1:30a	83.0	83.3	83.0	47	60.7	0.0	WSW	0.00	5.0	WSW	83.0	83.8	83.8	29.904	0.00	0.00	0.000	0.188
7/05/10	1:45a	82.7	83.0	82.7	47	60.4	0.0	WSW	0.00	2.0	WSW	82.7	83.3	83.3	29.900	0.00	0.00	0.000	0.184
7/05/10	2:00a	82.1	82.7	82.1	49	61.0	0.0	WSW	0.00	2.0	WSW	82.1	82.6	82.6	29.904	0.00	0.00	0.000	0.178
7/05/10	2:15a	81.8	82.1	81.8	50	61.3	0.0	WSW	0.00	2.0	WSW	81.8	82.3	82.3	29.906	0.00	0.00	0.000	0.175
7/05/10	2:30a	81.2	81.8	81.2	51	61.4	0.0	WSW	0.00	2.0	WSW	81.2	81.6	81.6	29.908	0.00	0.00	0.000	0.169
7/05/10	2:45a	80.7	81.2	80.7	52	61.4	0.0	WSW	0.00	1.0	WSW	80.7	81.1	81.1	29.909	0.00	0.00	0.000	0.164
7/05/10	3:00a	80.3	80.7	80.3	52	61.1	0.0	---	0.00	0.0	---	80.3	80.7	80.7	29.909	0.00	0.00	0.000	0.159
7/05/10	3:15a	79.8	80.3	79.8	53	61.1	0.0	---	0.00	0.0	---	79.8	80.3	80.3	29.906	0.00	0.00	0.000	0.154
7/05/10	3:30a	79.5	79.8	79.4	53	60.9	0.0	WSW	0.00	2.0	WSW	79.5	79.9	79.9	29.907	0.00	0.00	0.000	0.151
7/05/10	3:45a	79.4	79.4	79.4	53	60.8	0.0	WSW	0.00	4.0	WSW	79.4	79.8	79.8	29.907	0.00	0.00	0.000	0.150
7/05/10	4:00a	79.1	79.4	79.1	54	61.0	0.0	WSW	0.00	1.0	WSW	79.1	79.6	79.6	29.909	0.00	0.00	0.000	0.147
7/05/10	4:15a	78.7	79.1	78.7	54	60.7	0.0	WSW	0.00	2.0	WSW	78.7	79.2	79.2	29.910	0.00	0.00	0.000	0.143
7/05/10	4:30a	78.2	78.7	78.2	56	61.2	0.0	---	0.00	0.0	---	78.2	78.8	78.8	29.913	0.00	0.00	0.000	0.137
7/05/10	4:45a	77.9	78.2	77.9	56	60.9	0.0	---	0.00	0.0	---	77.9	78.5	78.5	29.918	0.00	0.00	0.000	0.134
7/05/10	5:00a	77.7	77.9	77.7	57	61.3	0.0	WSW	0.00	1.0	WSW	77.7	78.3	78.3	29.920	0.00	0.00	0.000	0.132
7/05/10	5:15a	77.5	77.7	77.5	57	61.1	0.0	WSW	0.00	1.0	WSW	77.5	78.1	78.1	29.924	0.00	0.00	0.000	0.130
7/05/10	5:30a	77.4	77.5	77.3	57	61.0	0.0	WSW	0.00	1.0	WSW	77.4	78.0	78.0	29.925	0.00	0.00	0.000	0.129
7/05/10	5:45a	77.1	77.4	77.1	60	62.1	0.0	WSW	0.00	1.0	WSW	77.1	77.9	77.9	29.925	0.00	0.00	0.000	0.126
7/05/10	6:00a	77.0	77.1	77.0	60	62.0	0.0	WSW	0.00	1.0	WSW	77.0	77.8	77.8	29.929	0.00	0.00	0.000	0.125
7/05/10	6:15a	77.2	77.2	77.0	60	62.2	0.0	---	0.00	0.0	---	77.2	78.0	78.0	29.929	0.00	0.00	0.000	0.127
7/05/10	6:30a	77.4	77.4	77.2	59	61.9	0.0	WSW	0.00	1.0	WSW	77.4	78.1	78.1	29.932	0.00	0.00	0.000	0.129
7/05/10	6:45a	77.6	77.6	77.3	59	62.1	0.0	WSW	0.00	2.0	WSW	77.6	78.4	78.4	29.939	0.00	0.00	0.000	0.131
7/05/10	7:00a	78.5	78.5	77.6	58	62.5	0.0	WSW	0.00	2.0	WSW	78.5	79.3	79.3	29.941	0.00	0.00	0.000	0.141
7/05/10	7:15a	80.6	80.6	78.6	55	62.9	0.0	WSW	0.00	1.0	WSW	80.6	81.4	81.4	29.942	0.00	0.00	0.000	0.162
7/05/10	7:30a	81.9	82.0	80.6	53	63.1	0.0	WSW	0.00	2.0	WSW	81.9	82.9	82.9	29.945	0.00	0.00	0.000	0.176
7/05/10	7:45a	83.2	83.2	81.9	52	63.7	0.0	WSW	0.00	2.0	WSW	83.2	84.8	84.8	29.948	0.00	0.00	0.000	0.190
7/05/10	8:00a	84.5	84.5	83.3	49	63.2	0.0	WSW	0.00	3.0	WSW	84.5	86.2	86.2	29.951	0.00	0.00	0.000	0.203
7/05/10	8:15a	85.3	85.3	84.5	48	63.4	0.0	WSW	0.00	4.0	WSW	85.3	86.9	86.9	29.953	0.00	0.00	0.000	0.211
7/05/10	8:30a	85.2	85.5	85.2	48	63.3	0.0	WSW	0.00	4.0	WSW	85.2	86.7	86.7	29.952	0.00	0.00	0.000	0.210
7/05/10	8:45a	86.2	86.2	85.2	47	63.6	0.0	WSW	0.00	2.0	WSW	86.2	87.9	87.9	29.953	0.00	0.00	0.000	0.221
7/05/10	9:00a	88.1	88.1	86.2	45	64.1	0.0	WSW	0.00	2.0	WSW	88.1	89.9	89.9	29.956	0.00	0.00	0.000	0.241
7/05/10	9:15a	89.7	89.7	88.2	42	63.6	0.0	WSW	0.00	5.0	WSW	89.7	91.7	91.7	29.955	0.00	0.00	0.000	0.257
7/05/10	9:30a	89.8	89.8	89.3	41	63.0	0.0	WSW	0.00	2.0	WSW	89.8	91.4	91.4	29.954	0.00	0.00	0.000	0.258
7/05/10	9:45a	90.5	90.5	89.8	41	63.6	0.0	W	0.00	4.0	W	90.5	92.5	92.5	29.951	0.00	0.00	0.000	0.266
7/05/10	10:00a	90.9	90.9	90.5	41	63.9	1.0	WSW	0.25	6.0	N	90.9	93.2	93.2	29.951	0.00	0.00	0.000	0.270
7/05/10	10:15a	91.3	91.3	90.3	41	64.3	1.0	WSW	0.25	6.0	N	91.3	93.8	93.8	29.953	0.00	0.00	0.000	0.274
7/05/10	10:30a	92.2	92.2	91.2	41	65.1	0.0	WNW	0.00	3.0	WNW	92.2	95.3	95.3	29.952	0.00	0.00	0.000	0.283
7/05/10	10:45a	93.0	93.2	92.3	40	65.1	1.0	W	0.25	5.0	W	93.0	96.3	96.3	29.949	0.00	0.00	0.000	0.292
7/05/10	11:00a	93.5	93.5	92.9	40	65.6	1.0	WNW	0.25	6.0	WSW	93.5	97.2	97.2	29.942	0.00	0.00	0.000	0.297
7/05/10	11:15a	93.3	93.9	93.3	40	65.4	1.0	NE	0.25	9.0	NNE	93.3	96.8	96.8	29.941	0.00	0.00	0.000	0.295
7/05/10	11:30a	94.4	94.4	93.2	39	65.6	1.0	N	0.25	6.0	NNE	94.4	98.3	98.3	29.940	0.00	0.00	0.000	0.306
7/05/10	11:45a	95.3	95.6	94.4	37	64.9	1.0	WSW	0.25	5.0	WSW	95.3	98.7	98.7	29.937	0.00	0.00	0.000	0.316
7/05/10	12:00p	95.6	95.6	94.7	37	65.2	0.0	SW	0.00	5.0	SW	95.6	99.3	99.3	29.932	0.00	0.00	0.000	0.319
7/05/10	12:15p	97.3	97.3	95.7	35	65.1	1.0	WSW	0.25	6.0	WSW	97.3	100.8	100.8	29.926	0.00	0.00	0.000	0.336
7/05/10	12:30p	97.6	97.6	96.9	34	64.5	1.0	N	0.25	5.0	WSW	97.6	100.9	100.9	29.925	0.00	0.00	0.000	0.340
7/05/10	12:45p	97.5	97.6	97.1	35	65.2	1.0	WSW	0.25	6.0	SW	97.5	101.2	101.2	29.924	0.00	0.00	0.000	0.339
7/05/10	1:00p	98.3	98.4	97.5	34	65.1	1.0	WSW	0.25	6.0	SW	98.3	102.1	102.1	29.924	0.00	0.00	0.000	0.347
7/05/10	1:15p	98.2	98.3	98.0	34	65.0	1.0	WSW	0.25	5.0	WSW	98.2	101.9	101.9	29.917	0.00	0.00	0.000	0.346

Gowanus Phase III Weather Data 7/05/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/05/10	1:30p	99.2	99.2	98.2	32	64.2	1.0	ENE	0.25	6.0	ENE	99.2	102.5	102.5	29.911	0.00	0.00	0.000	0.356
7/05/10	1:45p	99.6	99.7	99.3	31	63.6	1.0	W	0.25	7.0	NE	99.6	102.6	102.6	29.910	0.00	0.00	0.000	0.360
7/05/10	2:00p	101.0	101.0	99.6	30	63.9	0.0	WSW	0.00	5.0	WSW	101.0	104.2	104.2	29.909	0.00	0.00	0.000	0.375
7/05/10	2:15p	100.1	101.1	99.9	31	64.0	1.0	SW	0.25	7.0	SW	100.1	103.4	103.4	29.908	0.00	0.00	0.000	0.366
7/05/10	2:30p	100.8	101.1	100.1	30	63.7	1.0	SW	0.25	6.0	SW	100.8	103.9	103.9	29.905	0.00	0.00	0.000	0.373
7/05/10	2:45p	101.7	101.7	100.8	29	63.5	1.0	WSW	0.25	5.0	SW	101.7	105.0	105.0	29.902	0.00	0.00	0.000	0.382
7/05/10	3:00p	100.2	101.7	100.2	29	62.2	1.0	WSW	0.25	6.0	WSW	100.2	102.5	102.5	29.901	0.00	0.00	0.000	0.367
7/05/10	3:15p	101.4	101.4	100.2	30	64.2	1.0	WSW	0.25	6.0	SSW	101.4	104.9	104.9	29.900	0.00	0.00	0.000	0.379
7/05/10	3:30p	101.4	102.1	101.4	29	63.2	1.0	NNE	0.25	4.0	WSW	101.4	104.5	104.5	29.896	0.00	0.00	0.000	0.379
7/05/10	3:45p	102.2	102.3	101.3	29	63.9	0.0	WSW	0.00	5.0	WSW	102.2	105.8	105.8	29.897	0.00	0.00	0.000	0.387
7/05/10	4:00p	100.9	102.3	100.9	29	62.8	1.0	W	0.25	6.0	NNE	100.9	103.6	103.6	29.895	0.00	0.00	0.000	0.374
7/05/10	4:15p	99.3	100.9	99.3	30	62.4	1.0	N	0.25	5.0	WSW	99.3	101.5	101.5	29.894	0.00	0.00	0.000	0.357
7/05/10	4:30p	99.8	99.8	99.2	30	62.8	0.0	NNW	0.00	5.0	WSW	99.8	102.3	102.3	29.893	0.00	0.00	0.000	0.363
7/05/10	4:45p	100.3	100.3	99.8	29	62.3	0.0	WNW	0.00	2.0	WNW	100.3	102.7	102.7	29.892	0.00	0.00	0.000	0.368
7/05/10	5:00p	99.6	100.2	99.6	30	62.7	1.0	WSW	0.25	6.0	SW	99.6	102.0	102.0	29.890	0.00	0.00	0.000	0.360
7/05/10	5:15p	99.6	99.8	99.6	29	61.7	0.0	SW	0.00	5.0	SW	99.6	101.6	101.6	29.891	0.00	0.00	0.000	0.360
7/05/10	5:30p	99.0	99.5	99.0	30	62.1	0.0	SW	0.00	6.0	WSW	99.0	101.0	101.0	29.891	0.00	0.00	0.000	0.354
7/05/10	5:45p	98.7	99.0	98.7	31	62.8	0.0	SW	0.00	7.0	SW	98.7	101.1	101.1	29.891	0.00	0.00	0.000	0.351
7/05/10	6:00p	98.5	98.8	98.5	32	63.6	1.0	SW	0.25	5.0	SW	98.5	101.4	101.4	29.890	0.00	0.00	0.000	0.349
7/05/10	6:15p	97.8	98.5	97.8	33	63.8	0.0	SW	0.00	5.0	WSW	97.8	100.7	100.7	29.893	0.00	0.00	0.000	0.342
7/05/10	6:30p	97.0	97.8	97.0	34	64.0	0.0	SW	0.00	5.0	WSW	97.0	99.8	99.8	29.894	0.00	0.00	0.000	0.333
7/05/10	6:45p	96.8	97.0	96.8	34	63.8	0.0	WSW	0.00	3.0	WSW	96.8	99.5	99.5	29.894	0.00	0.00	0.000	0.331
7/05/10	7:00p	96.4	96.8	96.4	35	64.3	0.0	WSW	0.00	2.0	WSW	96.4	99.3	99.3	29.896	0.00	0.00	0.000	0.327
7/05/10	7:15p	95.4	96.4	95.4	37	65.0	1.0	NW	0.25	4.0	WNW	95.4	98.9	98.9	29.902	0.00	0.00	0.000	0.317
7/05/10	7:30p	94.3	95.4	94.2	38	64.8	0.0	WNW	0.00	4.0	WNW	94.3	97.6	97.6	29.908	0.00	0.00	0.000	0.305
7/05/10	7:45p	93.5	94.3	93.5	39	64.8	0.0	NW	0.00	5.0	NW	93.5	96.7	96.7	29.910	0.00	0.00	0.000	0.297
7/05/10	8:00p	92.5	93.5	92.5	40	64.7	0.0	NW	0.00	5.0	NNW	92.5	95.4	95.4	29.911	0.00	0.00	0.000	0.286
7/05/10	8:15p	91.8	92.4	91.8	42	65.4	0.0	NW	0.00	2.0	NW	91.8	95.1	95.1	29.911	0.00	0.00	0.000	0.279
7/05/10	8:30p	91.4	91.8	91.4	43	65.8	0.0	NW	0.00	1.0	NW	91.4	94.9	94.9	29.912	0.00	0.00	0.000	0.275
7/05/10	8:45p	90.9	91.3	90.9	44	66.0	0.0	NW	0.00	1.0	NW	90.9	94.5	94.5	29.913	0.00	0.00	0.000	0.270
7/05/10	9:00p	90.6	90.9	90.6	45	66.3	0.0	---	0.00	0.0	---	90.6	94.4	94.4	29.923	0.00	0.00	0.000	0.267
7/05/10	9:15p	90.3	90.6	90.3	46	66.7	0.0	---	0.00	0.0	---	90.3	94.2	94.2	29.925	0.00	0.00	0.000	0.264
7/05/10	9:30p	89.3	90.3	89.3	47	66.4	0.0	---	0.00	0.0	---	89.3	93.0	93.0	29.930	0.00	0.00	0.000	0.253
7/05/10	9:45p	88.5	89.3	88.5	49	66.9	0.0	---	0.00	0.0	---	88.5	92.2	92.2	29.936	0.00	0.00	0.000	0.245
7/05/10	10:00p	88.3	88.5	88.3	50	67.3	0.0	---	0.00	0.0	---	88.3	92.1	92.1	29.939	0.00	0.00	0.000	0.243
7/05/10	10:15p	87.8	88.3	87.8	51	67.4	0.0	---	0.00	0.0	---	87.8	91.5	91.5	29.940	0.00	0.00	0.000	0.238
7/05/10	10:30p	87.6	87.8	87.6	51	67.2	0.0	---	0.00	0.0	---	87.6	91.2	91.2	29.941	0.00	0.00	0.000	0.235
7/05/10	10:45p	87.5	87.6	87.5	52	67.7	0.0	---	0.00	0.0	---	87.5	91.4	91.4	29.940	0.00	0.00	0.000	0.234
7/05/10	11:00p	87.4	87.5	87.4	53	68.2	0.0	---	0.00	0.0	---	87.4	91.6	91.6	29.941	0.00	0.00	0.000	0.233
7/05/10	11:15p	87.1	87.4	87.1	53	67.9	0.0	---	0.00	0.0	---	87.1	91.2	91.2	29.941	0.00	0.00	0.000	0.230
7/05/10	11:30p	87.1	87.1	87.1	54	68.4	0.0	---	0.00	0.0	---	87.1	91.6	91.6	29.941	0.00	0.00	0.000	0.230
7/05/10	11:45p	87.2	87.2	87.1	54	68.5	0.0	---	0.00	0.0	---	87.2	91.7	91.7	29.941	0.00	0.00	0.000	0.231
7/06/10	12:00a	87.3	87.3	87.1	52	67.5	0.0	---	0.00	0.0	---	87.3	91.2	91.2	29.942	0.00	0.00	0.000	0.232

Gowanus Phase III Weather Data 7/06/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/06/10	12:15a	87.4	87.4	87.3	52	67.6	0.0	---	0.00	0.0	---	87.4	91.3	91.3	29.942	0.00	0.00	0.000	0.233
7/06/10	12:30a	87.2	87.4	87.2	53	68.0	0.0	---	0.00	0.0	---	87.2	91.4	91.4	29.942	0.00	0.00	0.000	0.231
7/06/10	12:45a	86.9	87.2	86.9	54	68.3	0.0	---	0.00	0.0	---	86.9	91.3	91.3	29.942	0.00	0.00	0.000	0.228
7/06/10	1:00a	86.6	86.9	86.6	54	68.0	0.0	---	0.00	0.0	---	86.6	90.6	90.6	29.940	0.00	0.00	0.000	0.225
7/06/10	1:15a	86.4	86.6	86.3	54	67.8	0.0	---	0.00	0.0	---	86.4	90.2	90.2	29.939	0.00	0.00	0.000	0.223
7/06/10	1:30a	86.1	86.4	86.1	54	67.5	0.0	---	0.00	0.0	---	86.1	89.6	89.6	29.937	0.00	0.00	0.000	0.220
7/06/10	1:45a	85.9	86.1	85.9	52	66.2	0.0	---	0.00	0.0	---	85.9	88.6	88.6	29.939	0.00	0.00	0.000	0.218
7/06/10	2:00a	85.9	86.0	85.9	52	66.2	0.0	---	0.00	0.0	---	85.9	88.6	88.6	29.939	0.00	0.00	0.000	0.218
7/06/10	2:15a	86.0	86.0	85.9	51	65.8	0.0	NW	0.00	1.0	NW	86.0	88.5	88.5	29.938	0.00	0.00	0.000	0.219
7/06/10	2:30a	86.0	86.1	86.0	52	66.3	0.0	---	0.00	0.0	---	86.0	88.8	88.8	29.939	0.00	0.00	0.000	0.219
7/06/10	2:45a	85.7	86.1	85.7	53	66.6	0.0	---	0.00	0.0	---	85.7	88.6	88.6	29.939	0.00	0.00	0.000	0.216
7/06/10	3:00a	85.2	85.7	85.2	54	66.7	0.0	---	0.00	0.0	---	85.2	88.0	88.0	29.937	0.00	0.00	0.000	0.210
7/06/10	3:15a	84.7	85.2	84.7	56	67.3	0.0	---	0.00	0.0	---	84.7	87.8	87.8	29.938	0.00	0.00	0.000	0.205
7/06/10	3:30a	84.5	84.7	84.4	56	67.1	0.0	NW	0.00	1.0	NW	84.5	87.5	87.5	29.937	0.00	0.00	0.000	0.203
7/06/10	3:45a	84.4	84.5	84.4	56	67.0	0.0	---	0.00	0.0	---	84.4	87.4	87.4	29.939	0.00	0.00	0.000	0.202
7/06/10	4:00a	84.0	84.4	84.0	57	67.1	0.0	---	0.00	0.0	---	84.0	87.0	87.0	29.939	0.00	0.00	0.000	0.198
7/06/10	4:15a	83.8	84.0	83.8	55	65.9	0.0	NW	0.00	1.0	NW	83.8	86.3	86.3	29.940	0.00	0.00	0.000	0.196
7/06/10	4:30a	83.7	83.8	83.7	56	66.3	0.0	---	0.00	0.0	---	83.7	86.3	86.3	29.940	0.00	0.00	0.000	0.195
7/06/10	4:45a	83.5	83.7	83.5	56	66.2	0.0	---	0.00	0.0	---	83.5	85.9	85.9	29.941	0.00	0.00	0.000	0.193
7/06/10	5:00a	83.4	83.5	83.4	56	66.1	0.0	---	0.00	0.0	---	83.4	85.8	85.8	29.945	0.00	0.00	0.000	0.192
7/06/10	5:15a	83.2	83.4	83.2	57	66.4	0.0	---	0.00	0.0	---	83.2	85.6	85.6	29.953	0.00	0.00	0.000	0.190
7/06/10	5:30a	83.0	83.3	83.0	58	66.7	0.0	---	0.00	0.0	---	83.0	85.4	85.4	29.956	0.00	0.00	0.000	0.188
7/06/10	5:45a	83.1	83.1	83.0	58	66.8	0.0	NW	0.00	1.0	NW	83.1	85.6	85.6	29.958	0.00	0.00	0.000	0.189
7/06/10	6:00a	83.3	83.3	83.1	58	67.0	0.0	---	0.00	0.0	---	83.3	85.9	85.9	29.964	0.00	0.00	0.000	0.191
7/06/10	6:15a	83.5	83.5	83.3	58	67.2	0.0	---	0.00	0.0	---	83.5	86.3	86.3	29.960	0.00	0.00	0.000	0.193
7/06/10	6:30a	83.8	83.8	83.5	58	67.4	0.0	---	0.00	0.0	---	83.8	86.9	86.9	29.965	0.00	0.00	0.000	0.196
7/06/10	6:45a	84.5	84.5	83.8	58	68.1	0.0	NW	0.00	1.0	NW	84.5	88.0	88.0	29.968	0.00	0.00	0.000	0.203
7/06/10	7:00a	85.6	85.6	84.5	58	69.1	0.0	---	0.00	0.0	---	85.6	90.0	90.0	29.971	0.00	0.00	0.000	0.215
7/06/10	7:15a	87.3	87.3	85.6	57	70.2	0.0	---	0.00	0.0	---	87.3	92.9	92.9	29.972	0.00	0.00	0.000	0.232
7/06/10	7:30a	88.9	88.9	87.3	56	71.2	0.0	NW	0.00	2.0	NW	88.9	95.5	95.5	29.975	0.00	0.00	0.000	0.249
7/06/10	7:45a	90.3	90.3	88.9	54	71.4	0.0	NNW	0.00	1.0	NW	90.3	97.6	97.6	29.974	0.00	0.00	0.000	0.264
7/06/10	8:00a	90.9	90.9	90.3	54	72.0	0.0	NW	0.00	4.0	NW	90.9	99.0	99.0	29.973	0.00	0.00	0.000	0.270
7/06/10	8:15a	91.8	91.8	90.9	53	72.2	0.0	WSW	0.00	3.0	WSW	91.8	100.5	100.5	29.975	0.00	0.00	0.000	0.279
7/06/10	8:30a	92.6	92.6	91.8	52	72.4	0.0	WSW	0.00	3.0	WSW	92.6	101.7	101.7	29.975	0.00	0.00	0.000	0.287
7/06/10	8:45a	93.8	93.8	92.6	50	72.3	0.0	NW	0.00	2.0	NW	93.8	103.0	103.0	29.977	0.00	0.00	0.000	0.300
7/06/10	9:00a	95.3	95.3	93.8	49	73.1	0.0	WNW	0.00	3.0	WNW	95.3	105.8	105.8	29.977	0.00	0.00	0.000	0.316
7/06/10	9:15a	95.4	95.4	95.3	49	73.2	1.0	NNW	0.25	4.0	NE	95.4	106.1	106.1	29.975	0.00	0.00	0.000	0.317
7/06/10	9:30a	95.9	95.9	95.4	48	73.1	1.0	WSW	0.25	6.0	NNE	95.9	106.7	106.7	29.972	0.00	0.00	0.000	0.322
7/06/10	9:45a	97.4	97.4	95.9	45	72.5	0.0	N	0.00	5.0	N	97.4	108.2	108.2	29.972	0.00	0.00	0.000	0.338
7/06/10	10:00a	97.9	97.9	97.1	44	72.3	1.0	NNW	0.25	5.0	NNE	97.9	108.7	108.7	29.975	0.00	0.00	0.000	0.343
7/06/10	10:15a	98.4	98.6	97.8	43	72.1	1.0	NNE	0.25	6.0	ESE	98.4	109.1	109.1	29.979	0.00	0.00	0.000	0.348
7/06/10	10:30a	98.7	98.7	98.2	43	72.3	1.0	S	0.25	7.0	NNE	98.7	109.8	109.8	29.977	0.00	0.00	0.000	0.351
7/06/10	10:45a	98.9	99.0	98.7	42	71.8	1.0	SSE	0.25	5.0	S	98.9	109.6	109.6	29.979	0.00	0.00	0.000	0.353
7/06/10	11:00a	98.9	99.2	98.8	41	71.1	1.0	SSE	0.25	6.0	N	98.9	108.8	108.8	29.978	0.00	0.00	0.000	0.353
7/06/10	11:15a	98.9	99.0	98.9	40	70.4	1.0	N	0.25	7.0	NNE	98.9	108.1	108.1	29.974	0.00	0.00	0.000	0.353
7/06/10	11:30a	100.0	100.0	98.8	39	70.6	1.0	SE	0.25	6.0	NNW	100.0	109.7	109.7	29.975	0.00	0.00	0.000	0.365
7/06/10	11:45a	100.6	100.7	100.1	38	70.4	1.0	N	0.25	8.0	N	100.6	110.1	110.1	29.973	0.00	0.00	0.000	0.371
7/06/10	12:00p	100.5	100.6	100.3	39	71.0	1.0	ENE	0.25	9.0	N	100.5	110.8	110.8	29.971	0.00	0.00	0.000	0.370
7/06/10	12:15p	101.6	101.6	100.5	38	71.3	1.0	ESE	0.25	6.0	NNW	101.6	112.4	112.4	29.969	0.00	0.00	0.000	0.381
7/06/10	12:30p	101.6	102.2	101.6	38	71.3	1.0	NNW	0.25	6.0	N	101.6	112.4	112.4	29.961	0.00	0.00	0.000	0.381
7/06/10	12:45p	102.0	102.1	101.8	37	70.8	1.0	NNW	0.25	5.0	N	102.0	112.3	112.3	29.956	0.00	0.00	0.000	0.385
7/06/10	1:00p	101.2	102.0	100.9	38	70.9	1.0	NNE	0.25	8.0	NNE	101.2	111.5	111.5	29.953	0.00	0.00	0.000	0.377
7/06/10	1:15p	101.9	102.0	101.2	37	70.7	1.0	SSE	0.25	6.0	NNE	101.9	112.1	112.1	29.946	0.00	0.00	0.000	0.384

Gowanus Phase III Weather Data 7/06/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/06/10	1:30p	103.3	103.5	101.8	36	71.2	1.0	NNW	0.25	7.0	N	103.3	114.4	114.4	29.941	0.00	0.00	0.000	0.399
7/06/10	1:45p	104.0	104.0	103.2	36	71.8	1.0	WNW	0.25	5.0	NE	104.0	116.1	116.1	29.940	0.00	0.00	0.000	0.406
7/06/10	2:00p	104.0	104.1	103.3	35	70.9	1.0	NE	0.25	6.0	NNE	104.0	115.0	115.0	29.939	0.00	0.00	0.000	0.406
7/06/10	2:15p	105.3	105.5	104.0	36	72.9	0.0	W	0.00	4.0	W	105.3	119.6	119.6	29.938	0.00	0.00	0.000	0.420
7/06/10	2:30p	102.8	105.2	102.8	38	72.3	2.0	SW	0.50	8.0	SW	102.8	115.3	115.3	29.936	0.00	0.00	0.000	0.394
7/06/10	2:45p	104.0	104.0	102.8	37	72.6	1.0	SW	0.25	8.0	SW	104.0	117.3	117.3	29.929	0.00	0.00	0.000	0.406
7/06/10	3:00p	105.3	105.3	103.9	35	72.1	1.0	SW	0.25	5.0	WSW	105.3	118.4	118.4	29.927	0.00	0.00	0.000	0.420
7/06/10	3:15p	107.2	107.2	105.4	33	72.0	0.0	SW	0.00	4.0	WSW	107.2	120.6	120.6	29.927	0.00	0.00	0.000	0.440
7/06/10	3:30p	106.1	107.2	106.1	32	70.1	1.0	WSW	0.25	6.0	SSW	106.1	116.4	116.4	29.926	0.00	0.00	0.000	0.428
7/06/10	3:45p	104.3	106.1	104.3	34	70.3	2.0	WSW	0.50	7.0	WSW	104.3	114.6	114.6	29.925	0.00	0.00	0.000	0.409
7/06/10	4:00p	103.9	104.2	103.5	35	70.8	1.0	SW	0.25	5.0	SSW	103.9	114.8	114.8	29.920	0.00	0.00	0.000	0.405
7/06/10	4:15p	102.9	103.9	102.9	35	70.0	1.0	WSW	0.25	6.0	SW	102.9	112.4	112.4	29.917	0.00	0.00	0.000	0.395
7/06/10	4:30p	103.6	103.6	102.9	34	69.7	0.0	WSW	0.00	4.0	SW	103.6	113.0	113.0	29.917	0.00	0.00	0.000	0.402
7/06/10	4:45p	102.5	103.6	102.5	35	69.6	1.0	SW	0.25	8.0	SW	102.5	111.4	111.4	29.912	0.00	0.00	0.000	0.391
7/06/10	5:00p	102.0	102.5	101.9	35	69.2	0.0	WSW	0.00	5.0	WSW	102.0	110.2	110.2	29.911	0.00	0.00	0.000	0.385
7/06/10	5:15p	101.5	102.0	101.5	38	71.2	1.0	SW	0.25	5.0	WSW	101.5	112.2	112.2	29.910	0.00	0.00	0.000	0.380
7/06/10	5:30p	101.2	101.5	101.2	38	70.9	1.0	ENE	0.25	6.0	NW	101.2	111.5	111.5	29.906	0.00	0.00	0.000	0.377
7/06/10	5:45p	99.2	101.1	99.2	40	70.6	2.0	NW	0.50	8.0	W	99.2	108.8	108.8	29.903	0.00	0.00	0.000	0.356
7/06/10	6:00p	98.4	99.2	98.4	41	70.6	2.0	WNW	0.50	7.0	WNW	98.4	107.7	107.7	29.899	0.00	0.00	0.000	0.348
7/06/10	6:15p	98.2	98.4	98.2	40	69.7	2.0	WNW	0.50	8.0	WNW	98.2	106.5	106.5	29.900	0.00	0.00	0.000	0.346
7/06/10	6:30p	97.7	98.2	97.7	41	70.0	2.0	NW	0.50	7.0	NW	97.7	106.2	106.2	29.902	0.00	0.00	0.000	0.341
7/06/10	6:45p	97.3	97.7	97.2	42	70.4	1.0	WNW	0.25	6.0	WNW	97.3	106.0	106.0	29.907	0.00	0.00	0.000	0.336
7/06/10	7:00p	97.5	97.5	97.3	41	69.8	0.0	WNW	0.00	6.0	ENE	97.5	105.7	105.7	29.906	0.00	0.00	0.000	0.339
7/06/10	7:15p	97.3	97.5	97.3	42	70.4	1.0	NNW	0.25	7.0	WNW	97.3	106.0	106.0	29.909	0.00	0.00	0.000	0.336
7/06/10	7:30p	96.7	97.4	96.7	42	69.8	2.0	NW	0.50	7.0	WNW	96.7	104.7	104.7	29.910	0.00	0.00	0.000	0.330
7/06/10	7:45p	96.1	96.7	96.1	43	70.0	2.0	NW	0.50	8.0	W	96.1	104.1	104.1	29.910	0.00	0.00	0.000	0.324
7/06/10	8:00p	95.9	96.2	95.9	44	70.5	1.0	ENE	0.25	6.0	NW	95.9	104.3	104.3	29.911	0.00	0.00	0.000	0.322
7/06/10	8:15p	95.7	95.9	95.7	45	71.0	1.0	SSE	0.25	6.0	W	95.7	104.4	104.4	29.913	0.00	0.00	0.000	0.320
7/06/10	8:30p	95.2	95.7	95.2	46	71.2	0.0	NNW	0.00	5.0	NE	95.2	103.9	103.9	29.917	0.00	0.00	0.000	0.315
7/06/10	8:45p	94.8	95.2	94.8	47	71.4	0.0	NE	0.00	2.0	N	94.8	103.6	103.6	29.923	0.00	0.00	0.000	0.310
7/06/10	9:00p	94.2	94.8	94.2	48	71.5	0.0	NE	0.00	4.0	NE	94.2	102.8	102.8	29.924	0.00	0.00	0.000	0.304
7/06/10	9:15p	93.9	94.2	93.9	49	71.8	0.0	NE	0.00	4.0	NE	93.9	102.7	102.7	29.925	0.00	0.00	0.000	0.301
7/06/10	9:30p	93.6	93.9	93.6	49	71.6	0.0	SSE	0.00	2.0	NE	93.6	102.0	102.0	29.926	0.00	0.00	0.000	0.298
7/06/10	9:45p	93.5	93.6	93.5	50	72.1	0.0	SW	0.00	4.0	SW	93.5	102.3	102.3	29.926	0.00	0.00	0.000	0.297
7/06/10	10:00p	92.9	93.5	92.9	51	72.1	0.0	SW	0.00	2.0	SW	92.9	101.7	101.7	29.928	0.00	0.00	0.000	0.291
7/06/10	10:15p	92.4	92.9	92.4	50	71.1	0.0	SW	0.00	5.0	SW	92.4	99.9	99.9	29.930	0.00	0.00	0.000	0.285
7/06/10	10:30p	91.9	92.4	91.9	50	70.6	0.0	WSW	0.00	4.0	WSW	91.9	98.9	98.9	29.931	0.00	0.00	0.000	0.280
7/06/10	10:45p	91.4	91.9	91.4	51	70.7	0.0	WSW	0.00	2.0	WSW	91.4	98.5	98.5	29.925	0.00	0.00	0.000	0.275
7/06/10	11:00p	91.2	91.4	91.2	51	70.5	0.0	WSW	0.00	2.0	WSW	91.2	98.0	98.0	29.925	0.00	0.00	0.000	0.273
7/06/10	11:15p	91.0	91.2	91.0	51	70.4	0.0	SW	0.00	3.0	WSW	91.0	97.6	97.6	29.925	0.00	0.00	0.000	0.271
7/06/10	11:30p	90.8	91.0	90.8	52	70.7	0.0	SW	0.00	2.0	SW	90.8	97.7	97.7	29.926	0.00	0.00	0.000	0.269
7/06/10	11:45p	90.5	90.8	90.5	52	70.5	0.0	SW	0.00	1.0	SW	90.5	97.1	97.1	29.926	0.00	0.00	0.000	0.266
7/07/10	12:00a	90.3	90.5	90.3	52	70.3	0.0	---	0.00	0.0	---	90.3	96.7	96.7	29.927	0.00	0.00	0.000	0.264

Gowanus Phase III Weather Data 7/07/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/07/10	12:15a	90.1	90.3	90.1	53	70.7	0.0	---	0.00	0.0	---	90.1	96.7	96.7	29.925	0.00	0.00	0.000	0.261
7/07/10	12:30a	89.9	90.1	89.9	54	71.0	0.0	---	0.00	0.0	---	89.9	96.8	96.8	29.927	0.00	0.00	0.000	0.259
7/07/10	12:45a	89.7	89.9	89.7	54	70.8	0.0	---	0.00	0.0	---	89.7	96.4	96.4	29.926	0.00	0.00	0.000	0.257
7/07/10	1:00a	89.3	89.7	89.3	58	72.6	0.0	WSW	0.00	1.0	SW	89.3	97.2	97.2	29.925	0.00	0.00	0.000	0.253
7/07/10	1:15a	88.5	89.3	88.5	60	72.8	0.0	---	0.00	0.0	---	88.5	96.1	96.1	29.925	0.00	0.00	0.000	0.245
7/07/10	1:30a	88.1	88.6	88.1	57	70.9	0.0	---	0.00	0.0	---	88.1	94.1	94.1	29.925	0.00	0.00	0.000	0.241
7/07/10	1:45a	88.3	88.3	88.1	59	72.2	0.0	SW	0.00	1.0	SW	88.3	95.3	95.3	29.927	0.00	0.00	0.000	0.243
7/07/10	2:00a	88.4	88.5	88.3	60	72.7	0.0	SSW	0.00	2.0	SSW	88.4	95.9	95.9	29.928	0.00	0.00	0.000	0.244
7/07/10	2:15a	88.3	88.4	88.3	59	72.2	0.0	SSW	0.00	2.0	SSW	88.3	95.3	95.3	29.933	0.00	0.00	0.000	0.243
7/07/10	2:30a	88.2	88.3	88.2	58	71.6	0.0	SW	0.00	1.0	SW	88.2	94.7	94.7	29.935	0.00	0.00	0.000	0.242
7/07/10	2:45a	88.1	88.3	88.1	57	70.9	0.0	S	0.00	2.0	SE	88.1	94.1	94.1	29.935	0.00	0.00	0.000	0.241
7/07/10	3:00a	88.0	88.2	88.0	57	70.9	0.0	S	0.00	1.0	S	88.0	93.8	93.8	29.936	0.00	0.00	0.000	0.240
7/07/10	3:15a	88.0	88.0	87.9	56	70.3	0.0	S	0.00	2.0	S	88.0	93.5	93.5	29.934	0.00	0.00	0.000	0.240
7/07/10	3:30a	88.5	88.5	88.0	53	69.2	0.0	SSE	0.00	5.0	SE	88.5	93.6	93.6	29.933	0.00	0.00	0.000	0.245
7/07/10	3:45a	89.0	89.0	88.5	50	67.9	0.0	NNE	0.00	4.0	NE	89.0	93.7	93.7	29.935	0.00	0.00	0.000	0.250
7/07/10	4:00a	89.2	89.2	89.0	49	67.5	1.0	N	0.25	8.0	NNE	89.2	93.6	93.6	29.935	0.00	0.00	0.000	0.252
7/07/10	4:15a	88.9	89.2	88.8	50	67.9	1.0	NNE	0.25	8.0	N	88.9	93.5	93.5	29.938	0.00	0.00	0.000	0.249
7/07/10	4:30a	88.7	88.8	88.7	50	67.7	1.0	NNW	0.25	6.0	NE	88.7	93.0	93.0	29.939	0.00	0.00	0.000	0.247
7/07/10	4:45a	88.5	88.7	88.5	50	67.5	0.0	N	0.00	5.0	N	88.5	92.5	92.5	29.940	0.00	0.00	0.000	0.245
7/07/10	5:00a	88.2	88.6	88.2	50	67.2	0.0	S	0.00	4.0	S	88.2	91.9	91.9	29.941	0.00	0.00	0.000	0.242
7/07/10	5:15a	88.1	88.2	88.0	49	66.5	0.0	ESE	0.00	3.0	S	88.1	91.3	91.3	29.944	0.00	0.00	0.000	0.241
7/07/10	5:30a	88.3	88.3	88.1	48	66.1	1.0	NNE	0.25	6.0	N	88.3	91.4	91.4	29.944	0.00	0.00	0.000	0.243
7/07/10	5:45a	88.5	88.5	88.3	47	65.7	0.0	NNE	0.00	5.0	NE	88.5	91.5	91.5	29.948	0.00	0.00	0.000	0.245
7/07/10	6:00a	88.6	88.6	88.5	47	65.8	0.0	NNE	0.00	5.0	N	88.6	91.7	91.7	29.952	0.00	0.00	0.000	0.246
7/07/10	6:15a	88.6	88.6	88.6	46	65.2	0.0	S	0.00	5.0	SSW	88.6	91.4	91.4	29.955	0.00	0.00	0.000	0.246
7/07/10	6:30a	88.4	88.6	88.4	47	65.6	1.0	NNE	0.25	8.0	NNE	88.4	91.3	91.3	29.956	0.00	0.00	0.000	0.244
7/07/10	6:45a	88.3	88.4	88.2	48	66.1	1.0	NNE	0.25	6.0	N	88.3	91.4	91.4	29.956	0.00	0.00	0.000	0.243
7/07/10	7:00a	89.0	89.0	88.3	47	66.2	1.0	NNW	0.25	6.0	NNE	89.0	92.6	92.6	29.964	0.00	0.00	0.000	0.250
7/07/10	7:15a	90.2	90.2	89.0	47	67.2	0.0	WNW	0.00	5.0	N	90.2	94.4	94.4	29.966	0.00	0.00	0.000	0.262
7/07/10	7:30a	90.5	90.5	90.2	47	67.5	1.0	NNW	0.25	7.0	NE	90.5	95.0	95.0	29.970	0.00	0.00	0.000	0.266
7/07/10	7:45a	90.3	90.5	90.2	47	67.3	2.0	N	0.50	8.0	N	90.3	94.6	94.6	29.972	0.00	0.00	0.000	0.264
7/07/10	8:00a	90.8	90.8	90.3	47	67.8	1.0	ENE	0.25	6.0	NW	90.8	95.5	95.5	29.977	0.00	0.00	0.000	0.269
7/07/10	8:15a	91.1	91.2	90.6	47	68.1	2.0	NW	0.50	8.0	NW	91.1	96.1	96.1	29.978	0.00	0.00	0.000	0.272
7/07/10	8:30a	91.9	92.0	91.1	46	68.2	1.0	ESE	0.25	7.0	NNW	91.9	97.2	97.2	29.973	0.00	0.00	0.000	0.280
7/07/10	8:45a	92.2	92.2	91.8	45	67.8	1.0	N	0.25	7.0	N	92.2	97.3	97.3	29.973	0.00	0.00	0.000	0.283
7/07/10	9:00a	92.6	92.6	92.1	45	68.2	2.0	ESE	0.50	7.0	ENE	92.6	98.0	98.0	29.971	0.00	0.00	0.000	0.287
7/07/10	9:15a	93.5	93.5	92.6	42	67.0	2.0	N	0.50	10.0	NNE	93.5	98.2	98.2	29.972	0.00	0.00	0.000	0.297
7/07/10	9:30a	93.8	94.0	93.5	41	66.5	3.0	N	0.75	11.0	NNE	93.8	98.3	98.3	29.972	0.00	0.00	0.000	0.300
7/07/10	9:45a	94.7	94.7	93.8	40	66.6	2.0	N	0.50	8.0	NW	94.7	99.4	99.4	29.974	0.00	0.00	0.000	0.309
7/07/10	10:00a	94.8	95.0	94.5	40	66.7	3.0	ESE	0.75	10.0	N	94.8	99.6	99.6	29.975	0.00	0.00	0.000	0.310
7/07/10	10:15a	95.1	95.1	94.8	40	67.0	2.0	E	0.50	10.0	NNE	95.1	100.2	100.2	29.976	0.00	0.00	0.000	0.314
7/07/10	10:30a	95.1	95.1	94.8	40	67.0	3.0	ESE	0.75	10.0	E	95.1	100.2	100.2	29.975	0.00	0.00	0.000	0.314
7/07/10	10:45a	96.0	96.0	95.2	39	67.0	3.0	E	0.75	9.0	E	96.0	101.3	101.3	29.972	0.00	0.00	0.000	0.323
7/07/10	11:00a	96.1	96.4	95.9	39	67.1	3.0	N	0.75	9.0	NE	96.1	101.5	101.5	29.970	0.00	0.00	0.000	0.324
7/07/10	11:15a	97.1	97.1	96.2	39	68.0	2.0	N	0.50	7.0	NNW	97.1	103.5	103.5	29.968	0.00	0.00	0.000	0.334
7/07/10	11:30a	97.9	97.9	97.0	39	68.7	1.0	NE	0.25	10.0	N	97.9	105.1	105.1	29.961	0.00	0.00	0.000	0.343
7/07/10	11:45a	98.7	98.7	98.0	38	68.7	2.0	NNE	0.50	7.0	NNE	98.7	105.9	105.9	29.957	0.00	0.00	0.000	0.351
7/07/10	12:00p	100.1	100.1	98.7	38	69.9	1.0	NW	0.25	8.0	N	100.1	108.9	108.9	29.956	0.00	0.00	0.000	0.366
7/07/10	12:15p	99.3	100.2	99.3	38	69.2	2.0	N	0.50	7.0	NNE	99.3	107.2	107.2	29.957	0.00	0.00	0.000	0.357
7/07/10	12:30p	99.2	99.9	99.2	38	69.1	2.0	E	0.50	8.0	NNE	99.2	107.0	107.0	29.959	0.00	0.00	0.000	0.356
7/07/10	12:45p	99.5	99.6	99.2	38	69.4	3.0	E	0.75	9.0	N	99.5	107.6	107.6	29.957	0.00	0.00	0.000	0.359
7/07/10	1:00p	99.8	99.8	99.2	37	68.9	2.0	SE	0.50	11.0	SSE	99.8	107.4	107.4	29.956	0.00	0.00	0.000	0.363
7/07/10	1:15p	99.9	100.0	99.8	38	69.7	1.0	SSE	0.25	10.0	N	99.9	108.5	108.5	29.956	0.00	0.00	0.000	0.364

Gowanus Phase III Weather Data 7/07/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/07/10	1:30p	100.0	100.4	99.9	38	69.8	2.0	NNW	0.50	7.0	NNE	100.0	108.7	108.7	29.953	0.00	0.00	0.000	0.365
7/07/10	1:45p	100.7	100.7	100.0	37	69.7	1.0	SSE	0.25	7.0	NE	100.7	109.3	109.3	29.950	0.00	0.00	0.000	0.372
7/07/10	2:00p	100.8	101.4	100.7	37	69.8	1.0	E	0.25	7.0	E	100.8	109.6	109.6	29.949	0.00	0.00	0.000	0.373
7/07/10	2:15p	100.3	100.8	100.1	36	68.5	1.0	SE	0.25	9.0	NE	100.3	107.5	107.5	29.949	0.00	0.00	0.000	0.368
7/07/10	2:30p	97.1	100.8	97.1	47	73.5	3.0	E	0.75	9.0	W	97.1	108.9	108.9	29.953	0.00	0.00	0.000	0.334
7/07/10	2:45p	93.9	97.0	93.9	52	73.6	4.0	NW	1.00	11.0	WNW	93.9	104.7	104.7	29.953	0.00	0.00	0.000	0.301
7/07/10	3:00p	92.1	93.9	92.1	55	73.6	4.0	NW	1.00	11.0	WNW	92.1	102.3	102.3	29.954	0.00	0.00	0.000	0.282
7/07/10	3:15p	92.1	92.6	92.1	54	73.1	5.0	NNW	1.25	11.0	WNW	92.1	101.7	101.7	29.956	0.00	0.00	0.000	0.282
7/07/10	3:30p	92.9	92.9	92.0	54	73.8	3.0	WNW	0.75	10.0	NW	92.9	103.7	103.7	29.955	0.00	0.00	0.000	0.291
7/07/10	3:45p	93.4	93.4	92.7	53	73.7	3.0	NW	0.75	9.0	WNW	93.4	104.2	104.2	29.956	0.00	0.00	0.000	0.296
7/07/10	4:00p	91.5	93.4	91.5	55	73.1	4.0	WNW	1.00	10.0	WNW	91.5	100.9	100.9	29.955	0.00	0.00	0.000	0.276
7/07/10	4:15p	90.5	91.5	90.5	56	72.7	4.0	WNW	1.00	10.0	NNW	90.5	99.1	99.1	29.955	0.00	0.00	0.000	0.266
7/07/10	4:30p	89.9	90.5	89.8	56	72.1	4.0	WNW	1.00	12.0	NW	89.9	97.7	97.7	29.954	0.00	0.00	0.000	0.259
7/07/10	4:45p	89.6	90.1	89.6	56	71.8	4.0	WNW	1.00	11.0	WNW	89.6	97.0	97.0	29.955	0.00	0.00	0.000	0.256
7/07/10	5:00p	89.5	90.2	89.4	56	71.7	4.0	WNW	1.00	11.0	WNW	89.5	96.8	96.8	29.954	0.00	0.00	0.000	0.255
7/07/10	5:15p	89.0	89.5	89.0	56	71.3	4.0	WNW	1.00	11.0	W	89.0	95.8	95.8	29.953	0.00	0.00	0.000	0.250
7/07/10	5:30p	89.0	89.0	88.8	56	71.3	3.0	W	0.75	9.0	NNW	89.0	95.8	95.8	29.953	0.00	0.00	0.000	0.250
7/07/10	5:45p	89.0	89.1	88.8	56	71.3	3.0	NW	0.75	8.0	NW	89.0	95.8	95.8	29.953	0.00	0.00	0.000	0.250
7/07/10	6:00p	88.7	89.0	88.4	56	71.0	2.0	NW	0.50	8.0	NW	88.7	95.1	95.1	29.949	0.00	0.00	0.000	0.247
7/07/10	6:15p	88.2	88.8	88.2	58	71.6	2.0	NW	0.50	6.0	W	88.2	94.7	94.7	29.951	0.00	0.00	0.000	0.242
7/07/10	6:30p	88.3	88.6	88.3	57	71.1	1.0	E	0.25	7.0	WNW	88.3	94.5	94.5	29.952	0.00	0.00	0.000	0.243
7/07/10	6:45p	87.1	88.3	87.1	60	71.5	2.0	NW	0.50	9.0	NW	87.1	93.7	93.7	29.952	0.00	0.00	0.000	0.230
7/07/10	7:00p	87.0	87.1	86.9	61	71.9	1.0	E	0.25	7.0	WNW	87.0	94.0	94.0	29.955	0.00	0.00	0.000	0.229
7/07/10	7:15p	86.3	87.0	86.3	61	71.3	2.0	WNW	0.50	7.0	WNW	86.3	92.5	92.5	29.955	0.00	0.00	0.000	0.222
7/07/10	7:30p	85.7	86.3	85.7	63	71.7	1.0	NW	0.25	9.0	W	85.7	92.0	92.0	29.956	0.00	0.00	0.000	0.216
7/07/10	7:45p	85.6	85.7	85.6	63	71.6	1.0	SE	0.25	6.0	E	85.6	91.8	91.8	29.955	0.00	0.00	0.000	0.215
7/07/10	8:00p	85.2	85.6	85.2	65	72.1	0.0	WNW	0.00	5.0	E	85.2	91.6	91.6	29.956	0.00	0.00	0.000	0.210
7/07/10	8:15p	84.7	85.2	84.7	65	71.6	0.0	E	0.00	5.0	E	84.7	90.5	90.5	29.956	0.00	0.00	0.000	0.205
7/07/10	8:30p	83.7	84.7	83.6	66	71.1	2.0	E	0.50	6.0	NW	83.7	88.8	88.8	29.956	0.00	0.00	0.000	0.195
7/07/10	8:45p	83.3	83.6	83.3	68	71.6	1.0	WNW	0.25	5.0	NW	83.3	88.5	88.5	29.958	0.00	0.00	0.000	0.191
7/07/10	9:00p	82.9	83.3	82.9	69	71.7	1.0	WNW	0.25	6.0	W	82.9	87.9	87.9	29.957	0.00	0.00	0.000	0.186
7/07/10	9:15p	82.6	82.9	82.5	70	71.8	1.0	WNW	0.25	5.0	WNW	82.6	87.6	87.6	29.966	0.00	0.00	0.000	0.183
7/07/10	9:30p	82.6	82.7	82.6	71	72.2	1.0	NNW	0.25	5.0	NW	82.6	87.9	87.9	29.971	0.00	0.00	0.000	0.183
7/07/10	9:45p	82.2	82.6	82.2	72	72.3	0.0	N	0.00	4.0	N	82.2	87.2	87.2	29.974	0.00	0.00	0.000	0.179
7/07/10	10:00p	82.0	82.2	82.0	73	72.5	0.0	N	0.00	2.0	N	82.0	87.0	87.0	29.974	0.00	0.00	0.000	0.177
7/07/10	10:15p	81.8	82.0	81.8	74	72.7	0.0	N	0.00	2.0	N	81.8	86.8	86.8	29.974	0.00	0.00	0.000	0.175
7/07/10	10:30p	82.0	82.0	81.8	74	72.9	0.0	ESE	0.00	2.0	ESE	82.0	87.3	87.3	29.972	0.00	0.00	0.000	0.177
7/07/10	10:45p	82.2	82.3	82.0	72	72.3	0.0	ESE	0.00	1.0	ESE	82.2	87.2	87.2	29.973	0.00	0.00	0.000	0.179
7/07/10	11:00p	82.3	82.3	82.2	72	72.4	0.0	ESE	0.00	2.0	ESE	82.3	87.5	87.5	29.974	0.00	0.00	0.000	0.180
7/07/10	11:15p	82.3	82.3	82.3	72	72.4	0.0	ESE	0.00	1.0	ESE	82.3	87.5	87.5	29.976	0.00	0.00	0.000	0.180
7/07/10	11:30p	82.4	82.4	82.3	72	72.5	0.0	ESE	0.00	1.0	ESE	82.4	87.7	87.7	29.977	0.00	0.00	0.000	0.181
7/07/10	11:45p	82.3	82.4	82.3	73	72.8	0.0	ESE	0.00	2.0	ESE	82.3	87.7	87.7	29.981	0.00	0.00	0.000	0.180
7/08/10	12:00a	82.4	82.5	82.4	73	72.9	0.0	ESE	0.00	2.0	ESE	82.4	88.0	88.0	29.977	0.00	0.00	0.000	0.181

Gowanus Phase III Weather Data 7/08/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/08/10	12:15a	81.8	82.4	81.8	75	73.1	1.0	ESE	0.25	4.0	E	81.8	87.1	87.1	29.978	0.00	0.00	0.000	0.175
7/08/10	12:30a	80.8	81.8	80.8	81	74.4	1.0	NNW	0.25	5.0	W	80.8	86.4	86.4	29.976	0.00	0.00	0.000	0.165
7/08/10	12:45a	79.6	80.8	79.6	83	74.0	1.0	NNW	0.25	6.0	SE	79.6	84.4	84.4	29.976	0.00	0.00	0.000	0.152
7/08/10	1:00a	78.8	79.6	78.8	85	73.9	1.0	WNW	0.25	8.0	WNW	78.8	83.4	83.4	29.979	0.00	0.00	0.000	0.144
7/08/10	1:15a	78.3	78.8	78.3	86	73.8	1.0	E	0.25	5.0	E	78.3	82.7	82.7	29.982	0.00	0.00	0.000	0.139
7/08/10	1:30a	78.3	78.4	78.2	86	73.8	0.0	E	0.00	4.0	E	78.3	82.7	82.7	29.982	0.00	0.00	0.000	0.139
7/08/10	1:45a	78.4	78.4	78.3	86	73.9	0.0	E	0.00	3.0	E	78.4	82.9	82.9	29.981	0.00	0.00	0.000	0.140
7/08/10	2:00a	78.7	78.7	78.4	86	74.2	0.0	E	0.00	1.0	E	78.7	83.4	83.4	29.974	0.00	0.00	0.000	0.143
7/08/10	2:15a	78.8	78.8	78.7	85	73.9	0.0	E	0.00	1.0	E	78.8	83.4	83.4	29.972	0.00	0.00	0.000	0.144
7/08/10	2:30a	79.1	79.1	78.8	85	74.2	0.0	E	0.00	1.0	E	79.1	83.9	83.9	29.972	0.00	0.00	0.000	0.147
7/08/10	2:45a	79.3	79.3	79.1	85	74.4	0.0	E	0.00	1.0	E	79.3	84.3	84.3	29.973	0.00	0.00	0.000	0.149
7/08/10	3:00a	79.3	79.4	79.3	85	74.4	0.0	E	0.00	4.0	E	79.3	84.3	84.3	29.971	0.00	0.00	0.000	0.149
7/08/10	3:15a	79.1	79.4	79.1	86	74.5	0.0	E	0.00	3.0	E	79.1	84.1	84.1	29.971	0.00	0.00	0.000	0.147
7/08/10	3:30a	79.3	79.3	79.1	86	74.7	0.0	E	0.00	1.0	E	79.3	84.5	84.5	29.971	0.00	0.00	0.000	0.149
7/08/10	3:45a	79.3	79.3	79.2	85	74.4	0.0	E	0.00	2.0	E	79.3	84.3	84.3	29.970	0.00	0.00	0.000	0.149
7/08/10	4:00a	79.3	79.4	79.3	85	74.4	0.0	E	0.00	1.0	E	79.3	84.3	84.3	29.965	0.00	0.00	0.000	0.149
7/08/10	4:15a	79.5	79.5	79.3	84	74.2	0.0	---	0.00	0.0	---	79.5	84.4	84.4	29.969	0.00	0.00	0.000	0.151
7/08/10	4:30a	79.8	79.8	79.5	83	74.2	0.0	E	0.00	3.0	E	79.8	84.8	84.8	29.967	0.00	0.00	0.000	0.154
7/08/10	4:45a	80.0	80.1	79.8	83	74.4	0.0	E	0.00	3.0	E	80.0	85.2	85.2	29.971	0.00	0.00	0.000	0.156
7/08/10	5:00a	79.8	80.0	79.7	83	74.2	0.0	E	0.00	1.0	E	79.8	84.8	84.8	29.971	0.00	0.00	0.000	0.154
7/08/10	5:15a	79.7	79.8	79.7	84	74.4	0.0	E	0.00	1.0	E	79.7	84.8	84.8	29.972	0.00	0.00	0.000	0.153
7/08/10	5:30a	79.6	79.7	79.6	84	74.3	0.0	E	0.00	1.0	E	79.6	84.6	84.6	29.972	0.00	0.00	0.000	0.152
7/08/10	5:45a	79.6	79.7	79.6	85	74.7	0.0	E	0.00	1.0	E	79.6	84.8	84.8	29.973	0.00	0.00	0.000	0.152
7/08/10	6:00a	79.6	79.6	79.6	85	74.7	0.0	E	0.00	1.0	E	79.6	84.8	84.8	29.984	0.00	0.00	0.000	0.152
7/08/10	6:15a	79.7	79.7	79.6	85	74.8	0.0	E	0.00	4.0	E	79.7	85.0	85.0	29.987	0.00	0.00	0.000	0.153
7/08/10	6:30a	79.7	79.7	79.6	86	75.1	0.0	E	0.00	2.0	E	79.7	85.3	85.3	29.987	0.00	0.00	0.000	0.153
7/08/10	6:45a	79.7	79.8	79.6	86	75.1	0.0	E	0.00	2.0	E	79.7	85.3	85.3	29.987	0.00	0.00	0.000	0.153
7/08/10	7:00a	79.5	79.8	79.5	86	74.9	1.0	E	0.25	6.0	E	79.5	84.9	84.9	29.995	0.00	0.00	0.000	0.151
7/08/10	7:15a	79.4	79.5	79.4	86	74.8	1.0	E	0.25	4.0	E	79.4	84.7	84.7	30.000	0.00	0.00	0.000	0.150
7/08/10	7:30a	79.1	79.4	79.1	86	74.5	0.0	E	0.00	4.0	E	79.1	84.1	84.1	30.000	0.00	0.00	0.000	0.147
7/08/10	7:45a	78.8	79.3	78.8	86	74.3	1.0	E	0.25	7.0	WNW	78.8	83.6	83.6	30.004	0.00	0.00	0.000	0.144
7/08/10	8:00a	78.4	78.8	78.3	88	74.5	1.0	NNW	0.25	5.0	N	78.4	83.2	83.2	30.005	0.00	0.00	0.000	0.140
7/08/10	8:15a	78.7	78.7	78.4	87	74.5	0.0	NNW	0.00	3.0	NNW	78.7	83.6	83.6	30.007	0.00	0.00	0.000	0.143
7/08/10	8:30a	79.1	79.1	78.7	86	74.5	0.0	NE	0.00	5.0	NE	79.1	84.1	84.1	30.005	0.00	0.00	0.000	0.147
7/08/10	8:45a	79.4	79.4	79.1	86	74.8	1.0	NNW	0.25	6.0	NNW	79.4	84.7	84.7	30.015	0.00	0.00	0.000	0.150
7/08/10	9:00a	79.4	79.5	79.4	85	74.5	1.0	NNW	0.25	6.0	NW	79.4	84.5	84.5	30.014	0.00	0.00	0.000	0.150
7/08/10	9:15a	79.5	79.5	79.2	80	72.8	1.0	NNW	0.25	6.0	WNW	79.5	83.7	83.7	30.015	0.00	0.00	0.000	0.151
7/08/10	9:30a	79.4	79.8	79.4	80	72.7	1.0	E	0.25	6.0	NNW	79.4	83.5	83.5	30.017	0.00	0.00	0.000	0.150
7/08/10	9:45a	79.1	79.4	79.1	81	72.8	1.0	NW	0.25	5.0	WNW	79.1	83.2	83.2	30.012	0.00	0.00	0.000	0.147
7/08/10	10:00a	79.7	79.7	79.0	80	73.0	0.0	NNW	0.00	5.0	NNW	79.7	84.0	84.0	30.006	0.00	0.00	0.000	0.153
7/08/10	10:15a	80.9	80.9	79.7	76	72.6	0.0	NNW	0.00	2.0	NNW	80.9	85.4	85.4	30.003	0.00	0.00	0.000	0.166
7/08/10	10:30a	81.3	81.4	80.9	75	72.6	1.0	NNW	0.25	6.0	NW	81.3	86.0	86.0	30.008	0.00	0.00	0.000	0.170
7/08/10	10:45a	81.2	81.2	81.0	77	73.3	1.0	ENE	0.25	5.0	N	81.2	86.3	86.3	30.008	0.00	0.00	0.000	0.169
7/08/10	11:00a	80.9	81.2	80.8	78	73.4	2.0	NNW	0.50	6.0	NNW	80.9	85.9	85.9	30.014	0.00	0.00	0.000	0.166
7/08/10	11:15a	81.6	81.8	80.9	77	73.7	1.0	NNW	0.25	6.0	WSW	81.6	87.2	87.2	30.015	0.00	0.00	0.000	0.173
7/08/10	11:30a	81.7	81.7	81.1	77	73.8	1.0	NW	0.25	6.0	WNW	81.7	87.4	87.4	30.014	0.00	0.00	0.000	0.174
7/08/10	11:45a	81.2	81.7	81.2	77	73.3	2.0	NW	0.50	7.0	WNW	81.2	86.3	86.3	30.013	0.00	0.00	0.000	0.169
7/08/10	12:00p	81.1	81.2	80.9	78	73.6	2.0	NW	0.50	6.0	NW	81.1	86.3	86.3	30.008	0.00	0.00	0.000	0.168
7/08/10	12:15p	82.3	82.3	81.1	75	73.6	1.0	ESE	0.25	7.0	E	82.3	88.3	88.3	30.003	0.00	0.00	0.000	0.180
7/08/10	12:30p	83.4	83.4	82.4	72	73.4	1.0	ENE	0.25	4.0	ENE	83.4	90.1	90.1	30.004	0.00	0.00	0.000	0.192
7/08/10	12:45p	83.1	83.7	83.1	72	73.1	1.0	ESE	0.25	7.0	WNW	83.1	89.3	89.3	30.002	0.00	0.00	0.000	0.189
7/08/10	1:00p	83.7	83.7	83.0	70	72.9	2.0	SE	0.50	9.0	WNW	83.7	90.1	90.1	30.002	0.00	0.00	0.000	0.195
7/08/10	1:15p	84.9	84.9	83.8	66	72.3	2.0	E	0.50	7.0	NW	84.9	91.3	91.3	30.001	0.00	0.00	0.000	0.207

Gowanus Phase III Weather Data 7/08/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/08/10	1:30p	85.5	85.8	84.9	63	71.5	2.0	NW	0.50	7.0	WNW	85.5	91.5	91.5	30.000	0.00	0.00	0.000	0.214
7/08/10	1:45p	86.1	86.1	85.3	62	71.6	2.0	NW	0.50	8.0	WNW	86.1	92.5	92.5	30.001	0.00	0.00	0.000	0.220
7/08/10	2:00p	86.5	86.5	86.1	61	71.5	2.0	NNW	0.50	8.0	NW	86.5	92.9	92.9	29.998	0.00	0.00	0.000	0.224
7/08/10	2:15p	86.3	86.5	85.8	59	70.3	2.0	WNW	0.50	8.0	WNW	86.3	91.8	91.8	29.994	0.00	0.00	0.000	0.222
7/08/10	2:30p	86.0	86.5	85.6	58	69.5	3.0	WNW	0.75	9.0	WNW	86.0	90.8	90.8	29.987	0.00	0.00	0.000	0.219
7/08/10	2:45p	86.1	86.2	85.9	57	69.1	3.0	WNW	0.75	8.0	NW	86.1	90.6	90.6	29.987	0.00	0.00	0.000	0.220
7/08/10	3:00p	86.9	86.9	86.1	57	69.8	2.0	E	0.50	9.0	WNW	86.9	92.3	92.3	29.988	0.00	0.00	0.000	0.228
7/08/10	3:15p	87.0	87.4	87.0	57	69.9	2.0	E	0.50	7.0	W	87.0	92.5	92.5	29.988	0.00	0.00	0.000	0.229
7/08/10	3:30p	87.2	87.3	87.0	55	69.1	2.0	NW	0.50	10.0	WNW	87.2	92.1	92.1	29.988	0.00	0.00	0.000	0.231
7/08/10	3:45p	86.3	87.1	86.0	55	68.2	3.0	NNW	0.75	10.0	WNW	86.3	90.3	90.3	29.989	0.00	0.00	0.000	0.222
7/08/10	4:00p	85.2	86.3	85.2	55	67.2	3.0	NW	0.75	9.0	NW	85.2	88.3	88.3	29.986	0.00	0.00	0.000	0.210
7/08/10	4:15p	84.7	85.3	84.7	57	67.8	3.0	NNW	0.75	8.0	NW	84.7	88.1	88.1	29.986	0.00	0.00	0.000	0.205
7/08/10	4:30p	83.7	84.7	83.7	58	67.4	3.0	N	0.75	7.0	NW	83.7	86.7	86.7	29.984	0.00	0.00	0.000	0.195
7/08/10	4:45p	83.6	83.8	83.6	63	69.7	3.0	NW	0.75	10.0	WNW	83.6	87.7	87.7	29.974	0.00	0.00	0.000	0.194
7/08/10	5:00p	83.9	84.0	83.6	62	69.5	3.0	E	0.75	10.0	WNW	83.9	88.1	88.1	29.971	0.00	0.00	0.000	0.197
7/08/10	5:15p	83.7	83.9	83.6	65	70.7	3.0	ENE	0.75	8.0	NW	83.7	88.5	88.5	29.969	0.00	0.00	0.000	0.195
7/08/10	5:30p	82.5	83.7	82.5	68	70.9	4.0	NW	1.00	12.0	NNW	82.5	86.8	86.8	29.967	0.00	0.00	0.000	0.182
7/08/10	5:45p	82.1	82.5	81.8	70	71.3	3.0	NW	0.75	12.0	W	82.1	86.5	86.5	29.959	0.00	0.00	0.000	0.178
7/08/10	6:00p	82.3	82.4	82.1	68	70.7	2.0	ENE	0.50	9.0	NW	82.3	86.4	86.4	29.957	0.00	0.00	0.000	0.180
7/08/10	6:15p	82.3	82.3	82.1	68	70.7	2.0	WNW	0.50	8.0	E	82.3	86.4	86.4	29.959	0.00	0.00	0.000	0.180
7/08/10	6:30p	81.8	82.3	81.8	69	70.6	3.0	WNW	0.75	10.0	NW	81.8	85.7	85.7	29.963	0.00	0.00	0.000	0.175
7/08/10	6:45p	81.4	81.8	81.4	72	71.5	3.0	NNW	0.75	9.0	NW	81.4	85.6	85.6	29.967	0.00	0.00	0.000	0.171
7/08/10	7:00p	80.6	81.4	80.6	75	71.9	3.0	NW	0.75	9.0	SSW	80.6	84.7	84.7	29.969	0.00	0.00	0.000	0.162
7/08/10	7:15p	80.0	80.7	80.0	76	71.8	3.0	NNW	0.75	8.0	NW	80.0	83.8	83.8	29.963	0.00	0.00	0.000	0.156
7/08/10	7:30p	79.7	80.0	79.7	76	71.5	3.0	NW	0.75	10.0	NW	79.7	83.3	83.3	29.969	0.00	0.00	0.000	0.153
7/08/10	7:45p	79.9	80.0	79.7	76	71.7	1.0	WNW	0.25	6.0	W	79.9	83.6	83.6	29.972	0.00	0.00	0.000	0.155
7/08/10	8:00p	79.6	80.0	79.5	78	72.1	2.0	N	0.50	8.0	WNW	79.6	83.5	83.5	29.972	0.00	0.00	0.000	0.152
7/08/10	8:15p	79.4	79.6	79.4	79	72.3	1.0	N	0.25	7.0	N	79.4	83.3	83.3	29.979	0.00	0.00	0.000	0.150
7/08/10	8:30p	79.0	79.5	79.0	81	72.7	1.0	WNW	0.25	6.0	WNW	79.0	83.0	83.0	29.984	0.00	0.00	0.000	0.146
7/08/10	8:45p	78.7	79.0	78.7	82	72.7	1.0	NW	0.25	6.0	NNE	78.7	82.7	82.7	29.986	0.00	0.00	0.000	0.143
7/08/10	9:00p	78.7	78.7	78.6	83	73.1	1.0	WNW	0.25	6.0	WNW	78.7	82.9	82.9	29.986	0.00	0.00	0.000	0.143
7/08/10	9:15p	78.4	78.7	78.4	83	72.8	2.0	NW	0.50	8.0	NW	78.4	82.4	82.4	29.987	0.00	0.00	0.000	0.140
7/08/10	9:30p	78.7	78.7	78.4	83	73.1	1.0	WNW	0.25	6.0	WNW	78.7	82.9	82.9	29.990	0.00	0.00	0.000	0.143
7/08/10	9:45p	78.5	78.7	78.5	83	72.9	1.0	NNW	0.25	7.0	NW	78.5	82.6	82.6	30.001	0.00	0.00	0.000	0.141
7/08/10	10:00p	78.3	78.5	78.3	84	73.1	2.0	NNW	0.50	6.0	NNW	78.3	82.4	82.4	29.998	0.00	0.00	0.000	0.139
7/08/10	10:15p	78.2	78.3	78.2	84	73.0	3.0	NW	0.75	7.0	NW	78.2	82.3	82.3	30.000	0.00	0.00	0.000	0.137
7/08/10	10:30p	78.3	78.3	78.2	84	73.1	2.0	NNW	0.50	7.0	WNW	78.3	82.4	82.4	30.000	0.00	0.00	0.000	0.139
7/08/10	10:45p	78.5	78.5	78.3	83	72.9	1.0	SE	0.25	6.0	NW	78.5	82.6	82.6	29.997	0.00	0.00	0.000	0.141
7/08/10	11:00p	78.4	78.7	78.4	83	72.8	1.0	NW	0.25	8.0	NW	78.4	82.4	82.4	29.997	0.00	0.00	0.000	0.140
7/08/10	11:15p	78.3	78.4	78.2	84	73.1	2.0	WNW	0.50	7.0	NNW	78.3	82.4	82.4	29.999	0.00	0.00	0.000	0.139
7/08/10	11:30p	78.5	78.7	78.3	84	73.3	0.0	N	0.00	5.0	NNW	78.5	82.7	82.7	30.001	0.00	0.00	0.000	0.141
7/08/10	11:45p	78.2	78.6	78.2	84	73.0	1.0	NNW	0.25	6.0	WNW	78.2	82.3	82.3	30.002	0.00	0.00	0.000	0.137
7/09/10	12:00a	78.4	78.4	78.2	84	73.2	1.0	E	0.25	5.0	NNW	78.4	82.6	82.6	30.002	0.00	0.00	0.000	0.140

Gowanus Phase III Weather Data 7/09/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/09/10	12:15a	78.1	78.4	78.1	85	73.2	2.0	NNW	0.50	8.0	N	78.1	82.3	82.3	30.000	0.00	0.00	0.000	0.136
7/09/10	12:30a	78.0	78.1	77.9	85	73.1	1.0	NNW	0.25	7.0	NNW	78.0	82.1	82.1	29.997	0.00	0.00	0.000	0.135
7/09/10	12:45a	77.9	78.0	77.9	85	73.0	1.0	N	0.25	7.0	NNW	77.9	82.0	82.0	29.998	0.00	0.00	0.000	0.134
7/09/10	1:00a	77.6	77.9	77.6	85	72.7	1.0	NNW	0.25	6.0	NW	77.6	81.5	81.5	29.993	0.00	0.00	0.000	0.131
7/09/10	1:15a	77.6	77.7	77.6	85	72.7	1.0	WNW	0.25	5.0	WNW	77.6	81.5	81.5	29.990	0.00	0.00	0.000	0.131
7/09/10	1:30a	77.6	77.7	77.6	84	72.4	0.0	NE	0.00	5.0	NNE	77.6	81.4	81.4	29.989	0.00	0.00	0.000	0.131
7/09/10	1:45a	77.6	77.6	77.6	82	71.7	1.0	NNW	0.25	6.0	NNW	77.6	81.1	81.1	29.987	0.00	0.00	0.000	0.131
7/09/10	2:00a	77.6	77.6	77.6	82	71.7	1.0	N	0.25	5.0	N	77.6	81.1	81.1	29.981	0.00	0.00	0.000	0.131
7/09/10	2:15a	77.6	77.6	77.6	82	71.7	0.0	NNW	0.00	6.0	WNW	77.6	81.1	81.1	29.985	0.00	0.00	0.000	0.131
7/09/10	2:30a	77.7	77.7	77.6	82	71.8	0.0	WNW	0.00	6.0	WNW	77.7	81.2	81.2	29.984	0.00	0.00	0.000	0.132
7/09/10	2:45a	77.6	77.7	77.6	82	71.7	0.0	N	0.00	4.0	NNW	77.6	81.1	81.1	29.976	0.00	0.00	0.000	0.131
7/09/10	3:00a	77.4	77.6	77.4	83	71.8	0.0	N	0.00	5.0	NNW	77.4	80.9	80.9	29.973	0.00	0.00	0.000	0.129
7/09/10	3:15a	77.3	77.4	77.3	83	71.7	0.0	NNE	0.00	2.0	N	77.3	80.8	80.8	29.972	0.00	0.00	0.000	0.128
7/09/10	3:30a	77.1	77.3	77.1	84	71.9	1.0	WNW	0.25	7.0	NW	77.1	80.6	80.6	29.971	0.00	0.00	0.000	0.126
7/09/10	3:45a	77.0	77.1	77.0	84	71.8	0.0	NNW	0.00	2.0	NNW	77.0	80.5	80.5	29.972	0.00	0.00	0.000	0.125
7/09/10	4:00a	76.7	77.0	76.7	85	71.8	0.0	NNW	0.00	2.0	NNW	76.7	80.2	80.2	29.971	0.00	0.00	0.000	0.122
7/09/10	4:15a	76.7	76.8	76.7	85	71.8	0.0	WNW	0.00	4.0	WNW	76.7	80.2	80.2	29.970	0.00	0.00	0.000	0.122
7/09/10	4:30a	76.7	76.8	76.7	85	71.8	0.0	WNW	0.00	4.0	WNW	76.7	80.2	80.2	29.970	0.00	0.00	0.000	0.122
7/09/10	4:45a	76.6	76.7	76.6	86	72.1	0.0	WNW	0.00	5.0	WNW	76.6	80.1	80.1	29.969	0.00	0.00	0.000	0.121
7/09/10	5:00a	76.6	76.6	76.5	86	72.1	0.0	WNW	0.00	1.0	WNW	76.6	80.1	80.1	29.967	0.00	0.00	0.000	0.121
7/09/10	5:15a	76.4	76.6	76.4	86	71.9	0.0	WNW	0.00	2.0	WNW	76.4	79.8	79.8	29.962	0.00	0.00	0.000	0.119
7/09/10	5:30a	76.3	76.4	76.3	87	72.1	1.0	WNW	0.25	6.0	NW	76.3	79.8	79.8	29.966	0.00	0.00	0.000	0.118
7/09/10	5:45a	76.2	76.3	76.2	87	72.0	0.0	NNW	0.00	5.0	NNW	76.2	79.6	79.6	29.968	0.00	0.00	0.000	0.117
7/09/10	6:00a	76.4	76.4	76.2	87	72.2	0.0	NNW	0.00	5.0	NNW	76.4	79.9	79.9	29.970	0.00	0.00	0.000	0.119
7/09/10	6:15a	76.4	76.4	76.4	87	72.2	0.0	NNW	0.00	1.0	NNW	76.4	79.9	79.9	29.970	0.00	0.00	0.000	0.119
7/09/10	6:30a	76.5	76.5	76.4	87	72.3	0.0	NNW	0.00	4.0	N	76.5	80.0	80.0	29.970	0.00	0.00	0.000	0.120
7/09/10	6:45a	76.9	76.9	76.5	86	72.4	0.0	N	0.00	4.0	NNW	76.9	80.5	80.5	29.969	0.00	0.00	0.000	0.124
7/09/10	7:00a	77.5	77.5	76.9	84	72.3	0.0	NNW	0.00	2.0	NNW	77.5	81.2	81.2	29.970	0.00	0.00	0.000	0.130
7/09/10	7:15a	78.6	78.6	77.5	83	73.0	0.0	NNW	0.00	4.0	NNW	78.6	82.7	82.7	29.971	0.00	0.00	0.000	0.142
7/09/10	7:30a	78.7	78.7	78.6	82	72.7	0.0	NW	0.00	5.0	NW	78.7	82.7	82.7	29.971	0.00	0.00	0.000	0.143
7/09/10	7:45a	79.1	79.1	78.7	82	73.1	1.0	SE	0.25	5.0	NNW	79.1	83.3	83.3	29.969	0.00	0.00	0.000	0.147
7/09/10	8:00a	79.1	79.5	79.1	80	72.4	1.0	NW	0.25	6.0	W	79.1	83.0	83.0	29.968	0.00	0.00	0.000	0.147
7/09/10	8:15a	79.1	79.1	78.9	80	72.4	1.0	N	0.25	6.0	NW	79.1	83.0	83.0	29.968	0.00	0.00	0.000	0.147
7/09/10	8:30a	79.3	79.3	79.1	80	72.6	1.0	NNW	0.25	6.0	NW	79.3	83.3	83.3	29.970	0.00	0.00	0.000	0.149
7/09/10	8:45a	79.5	79.5	79.2	79	72.4	2.0	NNW	0.50	8.0	WNW	79.5	83.5	83.5	29.967	0.00	0.00	0.000	0.151
7/09/10	9:00a	80.6	80.6	79.5	77	72.7	2.0	NNW	0.50	8.0	NNW	80.6	85.1	85.1	29.956	0.00	0.00	0.000	0.162
7/09/10	9:15a	82.2	82.2	80.7	73	72.7	3.0	WNW	0.75	8.0	NE	82.2	87.5	87.5	29.954	0.00	0.00	0.000	0.179
7/09/10	9:30a	83.6	83.6	82.2	70	72.8	1.0	E	0.25	7.0	W	83.6	89.9	89.9	29.945	0.00	0.00	0.000	0.194
7/09/10	9:45a	83.7	84.0	83.7	69	72.4	1.0	NW	0.25	7.0	NW	83.7	89.8	89.8	29.947	0.00	0.00	0.000	0.195
7/09/10	10:00a	84.4	84.6	83.6	67	72.2	2.0	WNW	0.50	7.0	WNW	84.4	90.7	90.7	29.950	0.00	0.00	0.000	0.202
7/09/10	10:15a	84.6	84.7	84.1	67	72.4	2.0	NNW	0.50	7.0	WNW	84.6	91.0	91.0	29.951	0.00	0.00	0.000	0.204
7/09/10	10:30a	82.9	84.6	82.9	69	71.7	3.0	WNW	0.75	8.0	WNW	82.9	87.9	87.9	29.953	0.00	0.00	0.000	0.186
7/09/10	10:45a	84.7	84.7	82.8	68	73.0	2.0	WNW	0.50	7.0	W	84.7	91.6	91.6	29.951	0.00	0.00	0.000	0.205
7/09/10	11:00a	84.6	84.8	84.3	64	71.1	3.0	WNW	0.75	8.0	WSW	84.6	90.0	90.0	29.942	0.00	0.00	0.000	0.204
7/09/10	11:15a	85.2	85.3	84.6	66	72.6	1.0	WNW	0.25	6.0	NW	85.2	91.9	91.9	29.942	0.00	0.00	0.000	0.210
7/09/10	11:30a	85.0	85.3	84.9	66	72.4	2.0	WNW	0.50	9.0	WNW	85.0	91.5	91.5	29.940	0.00	0.00	0.000	0.208
7/09/10	11:45a	86.0	86.0	85.0	63	71.9	2.0	NW	0.50	10.0	WNW	86.0	92.6	92.6	29.939	0.00	0.00	0.000	0.219
7/09/10	12:00p	85.3	86.2	85.3	66	72.6	4.0	WNW	1.00	9.0	SE	85.3	92.2	92.2	29.940	0.00	0.00	0.000	0.211
7/09/10	12:15p	86.1	86.1	85.3	63	72.0	2.0	ESE	0.50	11.0	NW	86.1	92.9	92.9	29.932	0.00	0.00	0.000	0.220
7/09/10	12:30p	86.8	86.9	86.0	62	72.2	3.0	NW	0.75	11.0	NNW	86.8	94.0	94.0	29.935	0.00	0.00	0.000	0.227
7/09/10	12:45p	86.1	86.8	86.0	66	73.4	4.0	NW	1.00	11.0	NW	86.1	94.0	94.0	29.928	0.00	0.00	0.000	0.220
7/09/10	1:00p	85.8	86.5	85.8	67	73.6	5.0	WNW	1.25	13.0	WNW	85.8	93.7	93.7	29.926	0.00	0.00	0.000	0.217
7/09/10	1:15p	85.5	85.8	85.4	67	73.3	4.0	WNW	1.00	11.0	WNW	85.5	93.0	93.0	29.926	0.00	0.00	0.000	0.214

Gowanus Phase III Weather Data 7/09/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/09/10	1:30p	85.4	85.6	85.3	67	73.2	3.0	E	0.75	9.0	NW	85.4	92.8	92.8	29.923	0.00	0.00	0.000	0.213
7/09/10	1:45p	86.8	86.8	85.4	65	73.6	3.0	NNE	0.75	10.0	NE	86.8	95.2	95.2	29.909	0.00	0.00	0.000	0.227
7/09/10	2:00p	86.7	87.1	86.7	63	72.6	3.0	NW	0.75	10.0	WNW	86.7	94.2	94.2	29.906	0.00	0.00	0.000	0.226
7/09/10	2:15p	86.7	86.7	85.8	62	72.1	4.0	WNW	1.00	11.0	W	86.7	93.8	93.8	29.894	0.00	0.00	0.000	0.226
7/09/10	2:30p	85.9	86.7	85.9	63	71.8	5.0	E	1.25	13.0	W	85.9	92.4	92.4	29.893	0.00	0.00	0.000	0.218
7/09/10	2:45p	87.4	87.4	85.6	62	72.8	3.0	NW	0.75	8.0	WNW	87.4	94.9	94.9	29.883	0.00	0.00	0.000	0.233
7/09/10	3:00p	86.7	87.7	86.7	63	72.6	3.0	NE	0.75	12.0	W	86.7	94.2	94.2	29.875	0.00	0.00	0.000	0.226
7/09/10	3:15p	86.8	87.0	86.6	60	71.2	4.0	E	1.00	10.0	NNE	86.8	93.2	93.2	29.866	0.00	0.00	0.000	0.227
7/09/10	3:30p	86.1	86.9	86.1	63	72.0	5.0	WNW	1.25	12.0	WNW	86.1	92.9	92.9	29.863	0.00	0.00	0.000	0.220
7/09/10	3:45p	86.6	86.8	86.1	62	72.0	3.0	NW	0.75	9.0	ENE	86.6	93.5	93.5	29.857	0.00	0.00	0.000	0.225
7/09/10	4:00p	85.5	86.6	85.5	63	71.5	4.0	WNW	1.00	13.0	NNW	85.5	91.5	91.5	29.852	0.00	0.00	0.000	0.214
7/09/10	4:15p	85.0	85.4	85.0	64	71.5	4.0	WNW	1.00	9.0	N	85.0	90.8	90.8	29.848	0.00	0.00	0.000	0.208
7/09/10	4:30p	84.5	85.0	84.3	65	71.4	4.0	WNW	1.00	11.0	W	84.5	90.1	90.1	29.842	0.00	0.00	0.000	0.203
7/09/10	4:45p	84.5	84.6	84.4	65	71.4	3.0	NNW	0.75	9.0	W	84.5	90.1	90.1	29.833	0.00	0.00	0.000	0.203
7/09/10	5:00p	83.7	84.5	83.7	66	71.1	4.0	NE	1.00	10.0	W	83.7	88.8	88.8	29.830	0.00	0.00	0.000	0.195
7/09/10	5:15p	83.8	84.1	83.7	67	71.7	3.0	NNW	0.75	9.0	WNW	83.8	89.4	89.4	29.824	0.00	0.00	0.000	0.196
7/09/10	5:30p	83.7	84.1	83.7	68	72.0	3.0	NW	0.75	10.0	NW	83.7	89.5	89.5	29.815	0.00	0.00	0.000	0.195
7/09/10	5:45p	82.8	83.8	82.8	68	71.2	4.0	NNW	1.00	10.0	NW	82.8	87.4	87.4	29.805	0.00	0.00	0.000	0.185
7/09/10	6:00p	82.5	82.8	82.4	70	71.7	4.0	NW	1.00	8.0	W	82.5	87.4	87.4	29.802	0.00	0.00	0.000	0.182
7/09/10	6:15p	82.5	82.5	82.3	70	71.7	4.0	NW	1.00	9.0	W	82.5	87.4	87.4	29.808	0.00	0.00	0.000	0.182
7/09/10	6:30p	81.9	82.5	81.9	73	72.4	3.0	NNW	0.75	9.0	W	81.9	86.8	86.8	29.813	0.00	0.00	0.000	0.176
7/09/10	6:45p	81.4	81.9	81.4	75	72.7	3.0	NNW	0.75	9.0	WNW	81.4	86.2	86.2	29.815	0.00	0.00	0.000	0.171
7/09/10	7:00p	81.0	81.4	80.9	75	72.3	4.0	WNW	1.00	9.0	WNW	81.0	85.4	85.4	29.815	0.00	0.00	0.000	0.167
7/09/10	7:15p	80.5	81.1	80.5	77	72.6	4.0	WNW	1.00	11.0	WSW	80.5	84.9	84.9	29.818	0.00	0.00	0.000	0.161
7/09/10	7:30p	80.0	80.5	79.9	78	72.5	3.0	NW	0.75	9.0	NW	80.0	84.1	84.1	29.820	0.00	0.00	0.000	0.156
7/09/10	7:45p	79.5	80.0	79.4	80	72.8	4.0	WNW	1.00	11.0	WNW	79.5	83.7	83.7	29.818	0.00	0.00	0.000	0.151
7/09/10	8:00p	79.7	79.8	79.4	80	73.0	1.0	N	0.25	6.0	NW	79.7	84.0	84.0	29.817	0.00	0.00	0.000	0.153
7/09/10	8:15p	79.7	79.7	79.6	79	72.6	2.0	NW	0.50	6.0	NW	79.7	83.8	83.8	29.816	0.00	0.00	0.000	0.153
7/09/10	8:30p	79.3	79.6	79.3	77	71.5	2.0	NNW	0.50	8.0	NNW	79.3	82.8	82.8	29.820	0.00	0.00	0.000	0.149
7/09/10	8:45p	79.0	79.3	79.0	78	71.6	2.0	NW	0.50	7.0	NW	79.0	82.5	82.5	29.821	0.00	0.00	0.000	0.146
7/09/10	9:00p	78.7	79.0	78.7	79	71.6	2.0	NNW	0.50	10.0	NW	78.7	82.2	82.2	29.830	0.00	0.00	0.000	0.143
7/09/10	9:15p	78.7	78.8	78.7	80	72.0	2.0	NNW	0.50	7.0	WNW	78.7	82.4	82.4	29.831	0.00	0.00	0.000	0.143
7/09/10	9:30p	78.5	78.7	78.5	81	72.2	2.0	NW	0.50	9.0	WSW	78.5	82.3	82.3	29.834	0.00	0.00	0.000	0.141
7/09/10	9:45p	78.2	78.5	78.2	81	71.9	2.0	NNW	0.50	6.0	NW	78.2	81.8	81.8	29.834	0.00	0.00	0.000	0.137
7/09/10	10:00p	78.4	78.4	78.2	81	72.1	2.0	N	0.50	8.0	WNW	78.4	82.1	82.1	29.833	0.00	0.00	0.000	0.140
7/09/10	10:15p	78.2	78.4	78.2	81	71.9	2.0	WNW	0.50	7.0	WNW	78.2	81.8	81.8	29.833	0.00	0.00	0.000	0.137
7/09/10	10:30p	78.0	78.2	77.9	82	72.1	2.0	NW	0.50	8.0	SSW	78.0	81.7	81.7	29.833	0.00	0.00	0.000	0.135
7/09/10	10:45p	78.2	78.2	78.0	81	71.9	0.0	NW	0.00	6.0	W	78.2	81.8	81.8	29.832	0.00	0.00	0.000	0.137
7/09/10	11:00p	77.7	78.2	77.7	82	71.8	2.0	NW	0.50	7.0	W	77.7	81.2	81.2	29.832	0.00	0.00	0.000	0.132
7/09/10	11:15p	77.9	77.9	77.7	83	72.3	1.0	NNW	0.25	6.0	NNW	77.9	81.7	81.7	29.832	0.00	0.00	0.000	0.134
7/09/10	11:30p	77.7	77.9	77.7	83	72.1	1.0	NNW	0.25	5.0	NNW	77.7	81.4	81.4	29.829	0.00	0.00	0.000	0.132
7/09/10	11:45p	77.6	77.7	77.5	83	72.0	1.0	NW	0.25	6.0	WNW	77.6	81.2	81.2	29.818	0.00	0.00	0.000	0.131
7/10/10	12:00a	77.5	77.6	77.5	83	71.9	0.0	N	0.00	2.0	N	77.5	81.1	81.1	29.817	0.00	0.00	0.000	0.130

Gowanus Phase III Weather Data 7/10/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/10/10	12:15a	77.4	77.5	77.4	82	71.5	1.0	NW	0.25	4.0	NNW	77.4	80.8	80.8	29.816	0.00	0.00	0.000	0.129
7/10/10	12:30a	77.5	77.5	77.3	82	71.6	0.0	NNW	0.00	5.0	NNW	77.5	81.0	81.0	29.817	0.00	0.00	0.000	0.130
7/10/10	12:45a	77.5	77.6	77.5	82	71.6	0.0	NNW	0.00	4.0	NNW	77.5	81.0	81.0	29.811	0.00	0.00	0.000	0.130
7/10/10	1:00a	77.6	77.7	77.5	82	71.7	0.0	ESE	0.00	3.0	ESE	77.6	81.1	81.1	29.804	0.00	0.00	0.000	0.131
7/10/10	1:15a	77.2	77.7	77.2	82	71.3	1.0	NW	0.25	7.0	WNW	77.2	80.5	80.5	29.801	0.00	0.00	0.000	0.127
7/10/10	1:30a	77.2	77.2	77.1	83	71.6	0.0	NNW	0.00	6.0	NW	77.2	80.7	80.7	29.794	0.00	0.00	0.000	0.127
7/10/10	1:45a	77.2	77.2	77.1	83	71.6	0.0	NNW	0.00	4.0	NNW	77.2	80.7	80.7	29.795	0.00	0.00	0.000	0.127
7/10/10	2:00a	77.1	77.2	77.0	82	71.2	0.0	NNW	0.00	4.0	ENE	77.1	80.4	80.4	29.787	0.00	0.00	0.000	0.126
7/10/10	2:15a	77.1	77.2	77.0	82	71.2	0.0	NNW	0.00	2.0	NNW	77.1	80.4	80.4	29.787	0.00	0.00	0.000	0.126
7/10/10	2:30a	77.0	77.2	77.0	83	71.4	0.0	N	0.00	6.0	WNW	77.0	80.4	80.4	29.786	0.00	0.00	0.000	0.125
7/10/10	2:45a	76.9	77.0	76.9	83	71.3	0.0	ENE	0.00	4.0	ENE	76.9	80.2	80.2	29.776	0.00	0.00	0.000	0.124
7/10/10	3:00a	76.7	76.9	76.7	84	71.5	0.0	ENE	0.00	3.0	ENE	76.7	80.1	80.1	29.778	0.00	0.00	0.000	0.122
7/10/10	3:15a	76.4	76.7	76.4	84	71.2	0.0	E	0.00	5.0	ENE	76.4	79.7	79.7	29.772	0.00	0.00	0.000	0.119
7/10/10	3:30a	76.3	76.4	76.3	85	71.5	0.0	E	0.00	4.0	E	76.3	79.6	79.6	29.772	0.00	0.00	0.000	0.118
7/10/10	3:45a	76.3	76.3	76.2	85	71.5	0.0	E	0.00	2.0	E	76.3	79.6	79.6	29.772	0.00	0.00	0.000	0.118
7/10/10	4:00a	76.4	76.4	76.3	85	71.6	0.0	---	0.00	0.0	---	76.4	79.8	79.8	29.772	0.00	0.00	0.000	0.119
7/10/10	4:15a	76.2	76.4	76.2	85	71.4	0.0	E	0.00	1.0	E	76.2	79.5	79.5	29.773	0.00	0.00	0.000	0.117
7/10/10	4:30a	76.2	76.3	76.2	85	71.4	0.0	E	0.00	1.0	E	76.2	79.5	79.5	29.775	0.00	0.00	0.000	0.117
7/10/10	4:45a	76.1	76.2	76.1	86	71.6	0.0	E	0.00	1.0	E	76.1	79.4	79.4	29.776	0.00	0.00	0.000	0.116
7/10/10	5:00a	76.1	76.1	76.0	86	71.6	0.0	---	0.00	0.0	---	76.1	79.4	79.4	29.773	0.00	0.00	0.000	0.116
7/10/10	5:15a	76.1	76.1	76.1	86	71.6	0.0	E	0.00	1.0	E	76.1	79.4	79.4	29.778	0.00	0.00	0.000	0.116
7/10/10	5:30a	76.2	76.2	76.1	86	71.7	0.0	E	0.00	2.0	E	76.2	79.5	79.5	29.782	0.00	0.00	0.000	0.117
7/10/10	5:45a	76.2	76.3	76.2	86	71.7	0.0	E	0.00	2.0	E	76.2	79.5	79.5	29.780	0.00	0.00	0.000	0.117
7/10/10	6:00a	75.9	76.2	75.9	87	71.8	0.0	E	0.00	2.0	E	75.9	79.2	79.2	29.777	0.00	0.00	0.000	0.114
7/10/10	6:15a	75.8	75.9	75.8	87	71.7	0.0	E	0.00	2.0	E	75.8	79.1	79.1	29.773	0.00	0.00	0.000	0.113
7/10/10	6:30a	76.0	76.0	75.8	86	71.5	0.0	E	0.00	2.0	E	76.0	79.3	79.3	29.772	0.00	0.00	0.000	0.115
7/10/10	6:45a	76.4	76.4	76.0	85	71.6	0.0	E	0.00	1.0	E	76.4	79.8	79.8	29.772	0.00	0.00	0.000	0.119
7/10/10	7:00a	77.2	77.2	76.4	84	72.0	0.0	E	0.00	2.0	E	77.2	80.8	80.8	29.771	0.00	0.00	0.000	0.127
7/10/10	7:15a	78.7	78.7	77.3	81	72.4	0.0	E	0.00	3.0	E	78.7	82.5	82.5	29.772	0.00	0.00	0.000	0.143
7/10/10	7:30a	79.7	79.7	78.7	78	72.2	0.0	E	0.00	4.0	E	79.7	83.6	83.6	29.778	0.00	0.00	0.000	0.153
7/10/10	7:45a	80.7	80.9	79.7	77	72.8	0.0	NE	0.00	3.0	NW	80.7	85.3	85.3	29.784	0.00	0.00	0.000	0.164
7/10/10	8:00a	79.7	80.7	79.7	79	72.6	0.0	WNW	0.00	2.0	WNW	79.7	83.8	83.8	29.787	0.00	0.00	0.000	0.153
7/10/10	8:15a	79.4	79.7	79.3	79	72.3	0.0	WSW	0.00	5.0	WSW	79.4	83.3	83.3	29.788	0.00	0.00	0.000	0.150
7/10/10	8:30a	79.8	79.8	79.3	78	72.3	1.0	WSW	0.25	5.0	W	79.8	83.8	83.8	29.795	0.00	0.00	0.000	0.154
7/10/10	8:45a	80.0	80.0	79.7	77	72.1	0.0	WSW	0.00	2.0	WSW	80.0	84.0	84.0	29.797	0.00	0.00	0.000	0.156
7/10/10	9:00a	81.0	81.0	80.1	74	71.9	0.0	WSW	0.00	2.0	WSW	81.0	85.2	85.2	29.798	0.00	0.00	0.000	0.167
7/10/10	9:15a	80.7	81.0	80.7	74	71.6	1.0	WSW	0.25	5.0	WSW	80.7	84.7	84.7	29.801	0.00	0.00	0.000	0.164
7/10/10	9:30a	80.6	80.9	80.6	74	71.5	1.0	WSW	0.25	5.0	SW	80.6	84.5	84.5	29.800	0.00	0.00	0.000	0.162
7/10/10	9:45a	80.9	80.9	80.3	72	71.0	1.0	WSW	0.25	5.0	SW	80.9	84.6	84.6	29.798	0.00	0.00	0.000	0.166
7/10/10	10:00a	81.3	81.3	80.9	72	71.4	1.0	WSW	0.25	4.0	WSW	81.3	85.4	85.4	29.799	0.00	0.00	0.000	0.170
7/10/10	10:15a	82.0	82.0	81.3	70	71.2	0.0	WSW	0.00	5.0	WSW	82.0	86.3	86.3	29.799	0.00	0.00	0.000	0.177
7/10/10	10:30a	82.4	82.4	82.0	71	72.0	0.0	WSW	0.00	2.0	WSW	82.4	87.4	87.4	29.800	0.00	0.00	0.000	0.181
7/10/10	10:45a	82.5	82.7	82.4	69	71.3	0.0	WSW	0.00	4.0	WSW	82.5	87.1	87.1	29.796	0.00	0.00	0.000	0.182
7/10/10	11:00a	82.1	82.6	82.1	70	71.3	1.0	WSW	0.25	5.0	WSW	82.1	86.5	86.5	29.795	0.00	0.00	0.000	0.178
7/10/10	11:15a	82.3	82.3	82.0	69	71.1	0.0	WSW	0.00	3.0	WSW	82.3	86.7	86.7	29.787	0.00	0.00	0.000	0.180
7/10/10	11:30a	82.4	82.4	82.3	69	71.2	0.0	WSW	0.00	2.0	WSW	82.4	86.9	86.9	29.780	0.00	0.00	0.000	0.181
7/10/10	11:45a	82.7	82.7	82.4	69	71.5	0.0	---	0.00	0.0	---	82.7	87.5	87.5	29.783	0.00	0.00	0.000	0.184
7/10/10	12:00p	82.8	82.8	82.7	69	71.6	0.0	WSW	0.00	4.0	WSW	82.8	87.7	87.7	29.786	0.00	0.00	0.000	0.185
7/10/10	12:15p	82.7	82.9	82.7	69	71.5	0.0	WSW	0.00	4.0	WSW	82.7	87.5	87.5	29.787	0.00	0.00	0.000	0.184
7/10/10	12:30p	82.9	83.0	82.7	68	71.3	0.0	WSW	0.00	4.0	WSW	82.9	87.6	87.6	29.788	0.00	0.00	0.000	0.186
7/10/10	12:45p	82.4	83.2	82.3	69	71.2	1.0	WSW	0.25	5.0	WSW	82.4	86.9	86.9	29.793	0.00	0.00	0.000	0.181
7/10/10	1:00p	82.6	82.6	82.4	68	71.0	1.0	SW	0.25	7.0	SW	82.6	87.0	87.0	29.792	0.00	0.00	0.000	0.183
7/10/10	1:15p	82.1	82.8	82.1	69	70.9	1.0	SW	0.25	7.0	SW	82.1	86.3	86.3	29.796	0.00	0.00	0.000	0.178

Gowanus Phase III Weather Data 7/10/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/10/10	1:30p	81.1	82.1	81.1	69	70.0	2.0	N	0.50	8.0	WSW	81.1	84.4	84.4	29.794	0.00	0.00	0.000	0.168
7/10/10	1:45p	81.6	81.6	81.1	68	70.0	1.0	NE	0.25	5.0	N	81.6	85.1	85.1	29.787	0.00	0.00	0.000	0.173
7/10/10	2:00p	81.6	81.6	81.4	68	70.0	1.0	N	0.25	5.0	NNE	81.6	85.1	85.1	29.786	0.00	0.00	0.000	0.173
7/10/10	2:15p	82.2	82.2	81.7	69	71.0	0.0	NNW	0.00	2.0	N	82.2	86.5	86.5	29.785	0.00	0.00	0.000	0.179
7/10/10	2:30p	83.2	83.2	82.2	67	71.1	0.0	NNW	0.00	4.0	WSW	83.2	88.0	88.0	29.786	0.00	0.00	0.000	0.190
7/10/10	2:45p	83.0	83.2	83.0	66	70.5	1.0	WSW	0.25	4.0	WSW	83.0	87.2	87.2	29.789	0.00	0.00	0.000	0.188
7/10/10	3:00p	81.6	82.6	81.6	68	70.0	1.0	W	0.25	7.0	N	81.6	85.1	85.1	29.790	0.00	0.00	0.000	0.173
7/10/10	3:15p	80.9	81.5	80.9	69	69.8	1.0	N	0.25	7.0	NNW	80.9	84.1	84.1	29.791	0.00	0.00	0.000	0.166
7/10/10	3:30p	80.8	80.9	80.8	69	69.7	0.0	NE	0.00	4.0	WNW	80.8	83.9	83.9	29.791	0.00	0.00	0.000	0.165
7/10/10	3:45p	80.6	80.8	80.6	69	69.5	0.0	SW	0.00	4.0	ESE	80.6	83.6	83.6	29.793	0.00	0.00	0.000	0.162
7/10/10	4:00p	80.4	80.6	80.4	69	69.3	1.0	NW	0.25	5.0	W	80.4	83.2	83.2	29.797	0.00	0.00	0.000	0.160
7/10/10	4:15p	80.2	80.4	80.2	71	69.9	0.0	N	0.00	5.0	NE	80.2	83.2	83.2	29.791	0.00	0.00	0.000	0.158
7/10/10	4:30p	80.0	80.2	80.0	70	69.3	0.0	ESE	0.00	5.0	N	80.0	82.7	82.7	29.788	0.00	0.00	0.000	0.156
7/10/10	4:45p	80.2	80.2	80.0	70	69.5	0.0	E	0.00	3.0	E	80.2	83.0	83.0	29.796	0.00	0.00	0.000	0.158
7/10/10	5:00p	80.3	80.3	80.2	70	69.6	0.0	E	0.00	2.0	E	80.3	83.2	83.2	29.798	0.00	0.00	0.000	0.159
7/10/10	5:15p	80.3	80.3	80.3	70	69.6	0.0	E	0.00	3.0	E	80.3	83.2	83.2	29.800	0.00	0.00	0.000	0.159
7/10/10	5:30p	79.3	80.4	79.3	79	72.2	0.0	E	0.00	5.0	ENE	79.3	83.1	83.1	29.803	0.31	8.11	0.000	0.149
7/10/10	5:45p	74.5	78.8	74.5	87	70.4	1.0	NNW	0.25	6.0	WNW	74.5	77.2	77.2	29.798	0.21	8.11	0.000	0.099
7/10/10	6:00p	74.7	74.7	74.4	88	70.9	0.0	NNE	0.00	1.0	NNE	74.7	77.7	77.7	29.796	0.00	0.04	0.000	0.101
7/10/10	6:15p	75.1	75.1	74.7	90	72.0	0.0	---	0.00	0.0	---	75.1	78.5	78.5	29.792	0.00	0.00	0.000	0.105
7/10/10	6:30p	76.0	76.0	75.1	91	73.2	0.0	---	0.00	0.0	---	76.0	79.6	79.6	29.791	0.00	0.00	0.000	0.115
7/10/10	6:45p	76.7	76.7	76.0	90	73.5	0.0	---	0.00	0.0	---	76.7	80.5	80.5	29.793	0.00	0.00	0.000	0.122
7/10/10	7:00p	77.2	77.2	76.7	88	73.4	0.0	---	0.00	0.0	---	77.2	81.2	81.2	29.794	0.00	0.00	0.000	0.127
7/10/10	7:15p	77.2	77.3	77.1	83	71.6	0.0	NNE	0.00	1.0	NNE	77.2	80.7	80.7	29.800	0.00	0.00	0.000	0.127
7/10/10	7:30p	77.5	77.5	77.2	83	71.9	0.0	NNE	0.00	1.0	NNE	77.5	81.1	81.1	29.802	0.00	0.00	0.000	0.130
7/10/10	7:45p	77.9	77.9	77.5	81	71.6	0.0	NNE	0.00	1.0	NNE	77.9	81.4	81.4	29.802	0.00	0.00	0.000	0.134
7/10/10	8:00p	77.8	77.9	77.8	82	71.9	0.0	NNE	0.00	1.0	NNE	77.8	81.4	81.4	29.802	0.00	0.00	0.000	0.133
7/10/10	8:15p	77.9	77.9	77.7	81	71.6	0.0	NNE	0.00	1.0	NNE	77.9	81.4	81.4	29.803	0.00	0.00	0.000	0.134
7/10/10	8:30p	77.9	77.9	77.8	78	70.5	0.0	ENE	0.00	2.0	ENE	77.9	81.0	81.0	29.803	0.00	0.00	0.000	0.134
7/10/10	8:45p	77.9	78.0	77.9	78	70.5	0.0	ENE	0.00	2.0	ENE	77.9	81.0	81.0	29.804	0.00	0.00	0.000	0.134
7/10/10	9:00p	77.9	78.0	77.9	78	70.5	0.0	ENE	0.00	2.0	ENE	77.9	81.0	81.0	29.803	0.00	0.00	0.000	0.134
7/10/10	9:15p	77.8	77.9	77.8	78	70.4	0.0	ENE	0.00	2.0	ENE	77.8	80.8	80.8	29.814	0.00	0.00	0.000	0.133
7/10/10	9:30p	77.9	77.9	77.8	78	70.5	0.0	ENE	0.00	1.0	ENE	77.9	81.0	81.0	29.818	0.00	0.00	0.000	0.134
7/10/10	9:45p	77.7	77.9	77.7	78	70.3	0.0	E	0.00	1.0	E	77.7	80.7	80.7	29.822	0.00	0.00	0.000	0.132
7/10/10	10:00p	77.5	77.7	77.5	78	70.1	0.0	E	0.00	1.0	E	77.5	80.4	80.4	29.823	0.00	0.00	0.000	0.130
7/10/10	10:15p	77.3	77.5	77.3	78	69.9	0.0	E	0.00	1.0	E	77.3	80.2	80.2	29.820	0.00	0.00	0.000	0.128
7/10/10	10:30p	77.3	77.3	77.3	79	70.3	0.0	E	0.00	1.0	E	77.3	80.3	80.3	29.820	0.00	0.00	0.000	0.128
7/10/10	10:45p	77.1	77.3	77.1	80	70.5	0.0	---	0.00	0.0	---	77.1	80.1	80.1	29.822	0.00	0.00	0.000	0.126
7/10/10	11:00p	77.1	77.1	77.1	79	70.1	0.0	---	0.00	0.0	---	77.1	80.0	80.0	29.821	0.00	0.00	0.000	0.126
7/10/10	11:15p	77.1	77.1	77.1	79	70.1	0.0	E	0.00	1.0	E	77.1	80.0	80.0	29.824	0.00	0.00	0.000	0.126
7/10/10	11:30p	77.0	77.1	76.9	79	70.0	0.0	E	0.00	1.0	E	77.0	79.9	79.9	29.823	0.00	0.00	0.000	0.125
7/10/10	11:45p	77.0	77.0	76.9	79	70.0	0.0	E	0.00	2.0	E	77.0	79.9	79.9	29.823	0.00	0.00	0.000	0.125
7/11/10	12:00a	76.9	77.0	76.9	79	69.9	0.0	---	0.00	0.0	---	76.9	79.8	79.8	29.820	0.00	0.00	0.000	0.124

Gowanus Phase III Weather Data 7/11/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/11/10	12:15a	76.8	76.9	76.8	77	69.0	0.0	E	0.00	4.0	E	76.8	79.5	79.5	29.817	0.00	0.00	0.000	0.123
7/11/10	12:30a	76.8	76.8	76.8	78	69.4	0.0	E	0.00	5.0	NE	76.8	79.6	79.6	29.817	0.00	0.00	0.000	0.123
7/11/10	12:45a	76.5	76.8	76.5	76	68.4	0.0	ESE	0.00	6.0	NE	76.5	79.1	79.1	29.815	0.00	0.00	0.000	0.120
7/11/10	1:00a	76.2	76.5	76.2	78	68.8	0.0	SE	0.00	2.0	ESE	76.2	78.9	78.9	29.814	0.00	0.00	0.000	0.117
7/11/10	1:15a	75.9	76.3	75.9	79	68.9	0.0	SE	0.00	1.0	SE	75.9	78.7	78.7	29.810	0.00	0.00	0.000	0.114
7/11/10	1:30a	75.7	75.9	75.7	79	68.7	0.0	SE	0.00	2.0	SE	75.7	78.4	78.4	29.816	0.00	0.00	0.000	0.111
7/11/10	1:45a	75.4	75.7	75.4	80	68.8	0.0	SE	0.00	1.0	SE	75.4	78.1	78.1	29.813	0.00	0.00	0.000	0.108
7/11/10	2:00a	75.3	75.4	75.3	81	69.1	0.0	---	0.00	0.0	---	75.3	78.0	78.0	29.803	0.00	0.00	0.000	0.107
7/11/10	2:15a	75.3	75.3	75.3	82	69.4	0.0	SE	0.00	3.0	SE	75.3	78.1	78.1	29.802	0.00	0.00	0.000	0.107
7/11/10	2:30a	75.2	75.3	75.2	82	69.3	0.0	S	0.00	2.0	S	75.2	78.0	78.0	29.799	0.00	0.00	0.000	0.106
7/11/10	2:45a	75.3	75.3	75.2	82	69.4	0.0	S	0.00	2.0	S	75.3	78.1	78.1	29.794	0.00	0.00	0.000	0.107
7/11/10	3:00a	75.4	75.4	75.3	82	69.5	0.0	S	0.00	1.0	S	75.4	78.2	78.2	29.793	0.00	0.00	0.000	0.108
7/11/10	3:15a	75.4	75.4	75.4	81	69.2	0.0	S	0.00	1.0	S	75.4	78.1	78.1	29.794	0.00	0.00	0.000	0.108
7/11/10	3:30a	75.3	75.4	75.3	80	68.7	0.0	S	0.00	1.0	S	75.3	77.9	77.9	29.791	0.00	0.00	0.000	0.107
7/11/10	3:45a	75.4	75.4	75.3	79	68.4	0.0	---	0.00	0.0	---	75.4	78.0	78.0	29.792	0.00	0.00	0.000	0.108
7/11/10	4:00a	75.5	75.6	75.4	78	68.2	0.0	S	0.00	1.0	S	75.5	78.0	78.0	29.789	0.00	0.00	0.000	0.109
7/11/10	4:15a	75.5	75.6	75.5	78	68.2	0.0	---	0.00	0.0	---	75.5	78.0	78.0	29.789	0.00	0.00	0.000	0.109
7/11/10	4:30a	75.2	75.5	75.2	79	68.2	0.0	---	0.00	0.0	---	75.2	77.7	77.7	29.786	0.00	0.00	0.000	0.106
7/11/10	4:45a	75.0	75.2	75.0	79	68.0	0.0	---	0.00	0.0	---	75.0	77.4	77.4	29.789	0.00	0.00	0.000	0.104
7/11/10	5:00a	74.8	75.0	74.8	82	68.9	0.0	---	0.00	0.0	---	74.8	77.4	77.4	29.800	0.00	0.00	0.000	0.102
7/11/10	5:15a	74.5	74.8	74.5	84	69.3	0.0	---	0.00	0.0	---	74.5	77.0	77.0	29.795	0.00	0.00	0.000	0.099
7/11/10	5:30a	74.3	74.5	74.3	84	69.1	0.0	S	0.00	1.0	S	74.3	76.7	76.7	29.799	0.00	0.00	0.000	0.097
7/11/10	5:45a	74.5	74.5	74.3	84	69.3	0.0	S	0.00	1.0	S	74.5	77.0	77.0	29.800	0.00	0.00	0.000	0.099
7/11/10	6:00a	74.7	74.7	74.5	84	69.5	0.0	S	0.00	1.0	S	74.7	77.4	77.4	29.800	0.00	0.00	0.000	0.101
7/11/10	6:15a	74.6	74.7	74.6	84	69.4	0.0	---	0.00	0.0	---	74.6	77.2	77.2	29.803	0.00	0.00	0.000	0.100
7/11/10	6:30a	74.8	74.8	74.6	84	69.6	0.0	---	0.00	0.0	---	74.8	77.6	77.6	29.804	0.00	0.00	0.000	0.102
7/11/10	6:45a	74.8	74.8	74.7	84	69.6	0.0	---	0.00	0.0	---	74.8	77.6	77.6	29.807	0.00	0.00	0.000	0.102
7/11/10	7:00a	75.8	75.8	74.8	82	69.9	0.0	---	0.00	0.0	---	75.8	78.8	78.8	29.815	0.00	0.00	0.000	0.113
7/11/10	7:15a	77.4	77.4	75.8	79	70.4	0.0	S	0.00	1.0	S	77.4	80.4	80.4	29.814	0.00	0.00	0.000	0.129
7/11/10	7:30a	78.9	78.9	77.4	75	70.3	0.0	S	0.00	1.0	S	78.9	81.9	81.9	29.816	0.00	0.00	0.000	0.145
7/11/10	7:45a	79.4	79.4	78.9	74	70.4	0.0	S	0.00	1.0	S	79.4	82.5	82.5	29.817	0.00	0.00	0.000	0.150
7/11/10	8:00a	79.8	79.8	79.3	74	70.8	0.0	S	0.00	1.0	S	79.8	83.1	83.1	29.818	0.00	0.00	0.000	0.154
7/11/10	8:15a	81.1	81.1	79.8	71	70.8	0.0	E	0.00	2.0	S	81.1	84.8	84.8	29.822	0.00	0.00	0.000	0.168
7/11/10	8:30a	81.7	81.7	81.1	69	70.5	0.0	N	0.00	5.0	N	81.7	85.5	85.5	29.830	0.00	0.00	0.000	0.174
7/11/10	8:45a	83.3	83.4	81.7	65	70.3	0.0	NNE	0.00	2.0	NNE	83.3	87.6	87.6	29.830	0.00	0.00	0.000	0.191
7/11/10	9:00a	83.2	83.4	82.9	65	70.2	1.0	E	0.25	5.0	E	83.2	87.4	87.4	29.828	0.00	0.00	0.000	0.190
7/11/10	9:15a	84.1	84.2	83.2	63	70.1	0.0	E	0.00	2.0	E	84.1	88.8	88.8	29.822	0.00	0.00	0.000	0.199
7/11/10	9:30a	84.4	84.7	84.1	63	70.4	0.0	E	0.00	2.0	E	84.4	89.3	89.3	29.825	0.00	0.00	0.000	0.202
7/11/10	9:45a	83.1	84.4	83.1	67	71.0	1.0	WNW	0.25	5.0	E	83.1	87.7	87.7	29.821	0.00	0.00	0.000	0.189
7/11/10	10:00a	81.5	83.0	81.5	69	70.3	1.0	WSW	0.25	5.0	WNW	81.5	85.2	85.2	29.818	0.00	0.00	0.000	0.172
7/11/10	10:15a	82.6	82.6	81.5	66	70.1	1.0	NNE	0.25	5.0	NNE	82.6	86.5	86.5	29.815	0.00	0.00	0.000	0.183
7/11/10	10:30a	84.2	84.2	82.7	64	70.7	0.0	N	0.00	5.0	NNE	84.2	89.3	89.3	29.814	0.00	0.00	0.000	0.200
7/11/10	10:45a	85.9	85.9	84.2	61	70.9	1.0	WSW	0.25	8.0	N	85.9	91.7	91.7	29.815	0.00	0.00	0.000	0.218
7/11/10	11:00a	86.4	86.4	86.0	59	70.4	1.0	WNW	0.25	6.0	N	86.4	92.0	92.0	29.817	0.00	0.00	0.000	0.223
7/11/10	11:15a	85.8	86.4	85.8	59	69.8	1.0	WNW	0.25	7.0	NNE	85.8	90.7	90.7	29.817	0.00	0.00	0.000	0.217
7/11/10	11:30a	85.2	85.8	85.0	58	68.8	1.0	WNW	0.25	5.0	SW	85.2	89.2	89.2	29.817	0.00	0.00	0.000	0.210
7/11/10	11:45a	87.5	87.5	85.3	54	68.8	1.0	WSW	0.25	6.0	NNE	87.5	92.1	92.1	29.817	0.00	0.00	0.000	0.234
7/11/10	12:00p	87.9	87.9	87.4	54	69.2	1.0	NE	0.25	8.0	SW	87.9	92.6	92.6	29.817	0.00	0.00	0.000	0.239
7/11/10	12:15p	88.3	88.6	88.0	53	69.0	1.0	NNE	0.25	6.0	WNW	88.3	93.1	93.1	29.817	0.00	0.00	0.000	0.243
7/11/10	12:30p	88.6	88.6	88.0	53	69.3	1.0	WNW	0.25	7.0	NNE	88.6	93.8	93.8	29.817	0.00	0.00	0.000	0.246
7/11/10	12:45p	88.6	88.6	88.2	53	69.3	0.0	WNW	0.00	5.0	NNE	88.6	93.8	93.8	29.814	0.00	0.00	0.000	0.246
7/11/10	1:00p	90.5	90.5	88.6	49	68.7	1.0	WNW	0.25	5.0	W	90.5	95.7	95.7	29.807	0.00	0.00	0.000	0.266
7/11/10	1:15p	91.6	91.6	90.5	46	67.9	1.0	NW	0.25	5.0	NE	91.6	96.6	96.6	29.802	0.00	0.00	0.000	0.277

Gowanus Phase III Weather Data 7/11/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/11/10	1:30p	91.1	91.7	91.1	48	68.7	1.0	WSW	0.25	6.0	ENE	91.1	96.5	96.5	29.802	0.00	0.00	0.000	0.272
7/11/10	1:45p	90.8	91.1	90.6	47	67.8	1.0	WSW	0.25	6.0	SW	90.8	95.5	95.5	29.798	0.00	0.00	0.000	0.269
7/11/10	2:00p	90.5	91.1	90.5	48	68.1	1.0	W	0.25	6.0	WSW	90.5	95.3	95.3	29.788	0.00	0.00	0.000	0.266
7/11/10	2:15p	91.8	91.8	90.5	46	68.1	1.0	ENE	0.25	5.0	N	91.8	97.0	97.0	29.787	0.00	0.00	0.000	0.279
7/11/10	2:30p	94.5	94.5	91.8	42	67.9	0.0	NW	0.00	2.0	NNW	94.5	100.2	100.2	29.787	0.00	0.00	0.000	0.307
7/11/10	2:45p	93.1	95.1	93.1	43	67.3	1.0	W	0.25	6.0	NNE	93.1	98.0	98.0	29.786	0.00	0.00	0.000	0.293
7/11/10	3:00p	93.2	93.2	92.6	43	67.4	1.0	WSW	0.25	6.0	WSW	93.2	98.2	98.2	29.783	0.00	0.00	0.000	0.294
7/11/10	3:15p	94.0	94.1	93.3	44	68.8	0.0	W	0.00	4.0	W	94.0	100.3	100.3	29.785	0.00	0.00	0.000	0.302
7/11/10	3:30p	94.0	94.1	93.6	43	68.1	0.0	WSW	0.00	4.0	WSW	94.0	99.7	99.7	29.785	0.00	0.00	0.000	0.302
7/11/10	3:45p	91.8	94.1	91.8	48	69.3	1.0	WSW	0.25	4.0	WSW	91.8	97.8	97.8	29.787	0.00	0.00	0.000	0.279
7/11/10	4:00p	89.3	91.7	89.3	52	69.4	1.0	WSW	0.25	5.0	WSW	89.3	94.9	94.9	29.797	0.00	0.00	0.000	0.253
7/11/10	4:15p	86.6	89.2	86.6	61	71.5	0.0	SW	0.00	4.0	SW	86.6	93.2	93.2	29.791	0.00	0.00	0.000	0.225
7/11/10	4:30p	85.8	86.6	85.8	58	69.3	0.0	ENE	0.00	5.0	E	85.8	90.4	90.4	29.787	0.00	0.00	0.000	0.217
7/11/10	4:45p	85.3	85.8	85.3	60	69.8	1.0	NW	0.25	6.0	NW	85.3	90.0	90.0	29.787	0.00	0.00	0.000	0.211
7/11/10	5:00p	85.1	85.3	85.1	65	72.0	0.0	N	0.00	2.0	N	85.1	91.3	91.3	29.788	0.00	0.00	0.000	0.209
7/11/10	5:15p	84.1	85.1	84.1	71	73.7	0.0	N	0.00	1.0	N	84.1	91.5	91.5	29.786	0.02	0.31	0.000	0.199
7/11/10	5:30p	84.4	84.4	84.1	66	71.8	0.0	N	0.00	1.0	N	84.4	90.3	90.3	29.779	0.00	0.00	0.000	0.202
7/11/10	5:45p	84.4	84.4	84.3	62	70.0	0.0	N	0.00	1.0	N	84.4	89.0	89.0	29.782	0.00	0.00	0.000	0.202
7/11/10	6:00p	84.9	84.9	84.4	60	69.5	0.0	N	0.00	1.0	N	84.9	89.2	89.2	29.784	0.00	0.00	0.000	0.207
7/11/10	6:15p	85.3	85.3	84.9	61	70.3	0.0	---	0.00	0.0	---	85.3	90.4	90.4	29.784	0.00	0.00	0.000	0.211
7/11/10	6:30p	84.9	85.3	84.9	61	69.9	0.0	N	0.00	1.0	N	84.9	89.6	89.6	29.785	0.00	0.00	0.000	0.207
7/11/10	6:45p	85.1	85.1	84.8	62	70.6	0.0	NW	0.00	7.0	NW	85.1	90.3	90.3	29.787	0.00	0.00	0.000	0.209
7/11/10	7:00p	84.6	85.1	84.6	63	70.6	1.0	NW	0.25	5.0	NW	84.6	89.7	89.7	29.787	0.00	0.00	0.000	0.204
7/11/10	7:15p	84.0	84.6	84.0	64	70.5	0.0	NNW	0.00	2.0	N	84.0	88.9	88.9	29.783	0.00	0.00	0.000	0.198
7/11/10	7:30p	83.9	84.0	83.8	66	71.3	0.0	NNW	0.00	2.0	NNW	83.9	89.3	89.3	29.784	0.00	0.00	0.000	0.197
7/11/10	7:45p	83.8	83.9	83.7	66	71.2	0.0	NW	0.00	2.0	NNW	83.8	89.1	89.1	29.787	0.00	0.00	0.000	0.196
7/11/10	8:00p	83.5	83.8	83.5	64	70.0	0.0	NE	0.00	5.0	NE	83.5	87.8	87.8	29.787	0.00	0.00	0.000	0.193
7/11/10	8:15p	82.9	83.5	82.9	63	69.0	1.0	NE	0.25	6.0	NNE	82.9	86.3	86.3	29.787	0.00	0.00	0.000	0.186
7/11/10	8:30p	82.6	82.9	82.6	63	68.7	0.0	NE	0.00	4.0	NE	82.6	85.8	85.8	29.797	0.00	0.00	0.000	0.183
7/11/10	8:45p	82.2	82.6	82.2	64	68.8	0.0	ENE	0.00	2.0	S	82.2	85.3	85.3	29.801	0.00	0.00	0.000	0.179
7/11/10	9:00p	81.8	82.2	81.8	66	69.3	0.0	ESE	0.00	4.0	ESE	81.8	85.1	85.1	29.802	0.00	0.00	0.000	0.175
7/11/10	9:15p	81.3	81.8	81.3	68	69.7	1.0	NE	0.25	5.0	NE	81.3	84.6	84.6	29.802	0.00	0.00	0.000	0.170
7/11/10	9:30p	81.2	81.3	81.2	69	70.1	0.0	NE	0.00	1.0	NE	81.2	84.6	84.6	29.805	0.00	0.00	0.000	0.169
7/11/10	9:45p	81.1	81.2	81.1	69	70.0	0.0	NE	0.00	3.0	NE	81.1	84.4	84.4	29.815	0.00	0.00	0.000	0.168
7/11/10	10:00p	81.0	81.1	81.0	70	70.3	0.0	NE	0.00	1.0	NE	81.0	84.4	84.4	29.816	0.00	0.00	0.000	0.167
7/11/10	10:15p	80.8	81.0	80.8	70	70.1	0.0	NE	0.00	4.0	NE	80.8	84.1	84.1	29.817	0.00	0.00	0.000	0.165
7/11/10	10:30p	80.5	80.8	80.5	71	70.2	0.0	NE	0.00	4.0	NE	80.5	83.7	83.7	29.818	0.00	0.00	0.000	0.161
7/11/10	10:45p	80.2	80.5	80.2	73	70.8	0.0	NE	0.00	3.0	NE	80.2	83.6	83.6	29.818	0.00	0.00	0.000	0.158
7/11/10	11:00p	79.9	80.2	79.9	74	70.9	0.0	---	0.00	0.0	---	79.9	83.3	83.3	29.825	0.00	0.00	0.000	0.155
7/11/10	11:15p	79.6	79.9	79.6	75	71.0	0.0	---	0.00	0.0	---	79.6	83.0	83.0	29.832	0.00	0.00	0.000	0.152
7/11/10	11:30p	79.2	79.6	79.2	76	71.0	0.0	NE	0.00	2.0	NE	79.2	82.5	82.5	29.833	0.00	0.00	0.000	0.148
7/11/10	11:45p	78.8	79.2	78.8	77	71.0	0.0	NE	0.00	3.0	NE	78.8	82.0	82.0	29.832	0.00	0.00	0.000	0.144
7/12/10	12:00a	78.7	78.7	78.6	77	70.9	0.0	NE	0.00	2.0	NE	78.7	81.9	81.9	29.832	0.00	0.00	0.000	0.143

Gowanus Phase III Weather Data 7/12/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/12/10	12:15a	78.3	78.6	78.3	78	70.9	0.0	NE	0.00	2.0	NE	78.3	81.5	81.5	29.833	0.00	0.00	0.000	0.139
7/12/10	12:30a	78.1	78.3	78.0	78	70.7	0.0	NE	0.00	2.0	NE	78.1	81.2	81.2	29.833	0.00	0.00	0.000	0.136
7/12/10	12:45a	77.7	78.0	77.7	78	70.3	0.0	NE	0.00	2.0	NE	77.7	80.7	80.7	29.833	0.00	0.00	0.000	0.132
7/12/10	1:00a	77.4	77.7	77.4	78	70.0	0.0	NE	0.00	4.0	NE	77.4	80.3	80.3	29.834	0.00	0.00	0.000	0.129
7/12/10	1:15a	77.0	77.4	77.0	79	70.0	0.0	---	0.00	0.0	---	77.0	79.9	79.9	29.833	0.00	0.00	0.000	0.125
7/12/10	1:30a	76.7	77.0	76.7	79	69.7	0.0	---	0.00	0.0	---	76.7	79.6	79.6	29.833	0.00	0.00	0.000	0.122
7/12/10	1:45a	76.4	76.7	76.4	80	69.8	0.0	---	0.00	0.0	---	76.4	79.3	79.3	29.833	0.00	0.00	0.000	0.119
7/12/10	2:00a	76.0	76.4	76.0	80	69.4	0.0	---	0.00	0.0	---	76.0	78.9	78.9	29.833	0.00	0.00	0.000	0.115
7/12/10	2:15a	75.7	76.0	75.7	80	69.1	0.0	---	0.00	0.0	---	75.7	78.5	78.5	29.833	0.00	0.00	0.000	0.111
7/12/10	2:30a	75.6	75.7	75.6	79	68.6	0.0	---	0.00	0.0	---	75.6	78.2	78.2	29.833	0.00	0.00	0.000	0.110
7/12/10	2:45a	75.8	75.8	75.6	78	68.4	0.0	---	0.00	0.0	---	75.8	78.4	78.4	29.833	0.00	0.00	0.000	0.113
7/12/10	3:00a	75.8	75.8	75.8	79	68.8	0.0	NE	0.00	1.0	NE	75.8	78.5	78.5	29.833	0.00	0.00	0.000	0.113
7/12/10	3:15a	75.5	75.8	75.5	80	68.9	0.0	NE	0.00	1.0	NE	75.5	78.2	78.2	29.833	0.00	0.00	0.000	0.109
7/12/10	3:30a	75.2	75.5	75.2	81	69.0	0.0	NE	0.00	1.0	NE	75.2	77.9	77.9	29.832	0.00	0.00	0.000	0.106
7/12/10	3:45a	74.9	75.2	74.9	82	69.0	0.0	NE	0.00	1.0	NE	74.9	77.5	77.5	29.831	0.00	0.00	0.000	0.103
7/12/10	4:00a	74.6	74.9	74.6	83	69.1	0.0	---	0.00	0.0	---	74.6	77.1	77.1	29.831	0.00	0.00	0.000	0.100
7/12/10	4:15a	74.3	74.6	74.3	83	68.8	0.0	---	0.00	0.0	---	74.3	76.6	76.6	29.833	0.00	0.00	0.000	0.097
7/12/10	4:30a	74.1	74.3	74.1	82	68.3	0.0	NE	0.00	1.0	NE	74.1	76.2	76.2	29.835	0.00	0.00	0.000	0.095
7/12/10	4:45a	73.9	74.1	73.9	80	67.3	0.0	---	0.00	0.0	---	73.9	75.9	75.9	29.833	0.00	0.00	0.000	0.093
7/12/10	5:00a	73.7	74.0	73.7	79	66.8	0.0	---	0.00	0.0	---	73.7	75.6	75.6	29.837	0.00	0.00	0.000	0.091
7/12/10	5:15a	73.6	73.7	73.5	78	66.3	0.0	---	0.00	0.0	---	73.6	75.4	75.4	29.847	0.00	0.00	0.000	0.090
7/12/10	5:30a	73.5	73.5	73.5	77	65.8	0.0	NE	0.00	2.0	NE	73.5	75.3	75.3	29.849	0.00	0.00	0.000	0.089
7/12/10	5:45a	73.4	73.5	73.4	78	66.1	0.0	---	0.00	0.0	---	73.4	75.2	75.2	29.848	0.00	0.00	0.000	0.088
7/12/10	6:00a	73.1	73.4	73.1	78	65.8	0.0	NE	0.00	2.0	NE	73.1	74.8	74.8	29.848	0.00	0.00	0.000	0.084
7/12/10	6:15a	73.1	73.1	73.0	77	65.5	0.0	---	0.00	0.0	---	73.1	74.8	74.8	29.848	0.00	0.00	0.000	0.084
7/12/10	6:30a	73.3	73.3	73.1	75	64.9	0.0	NE	0.00	1.0	NE	73.3	74.9	74.9	29.854	0.00	0.00	0.000	0.086
7/12/10	6:45a	73.8	73.8	73.3	72	64.2	0.0	NE	0.00	1.0	NE	73.8	75.4	75.4	29.859	0.00	0.00	0.000	0.092
7/12/10	7:00a	74.9	74.9	73.8	68	63.6	0.0	NE	0.00	2.0	NE	74.9	76.4	76.4	29.858	0.00	0.00	0.000	0.103
7/12/10	7:15a	77.0	77.0	75.0	65	64.3	0.0	NE	0.00	1.0	NE	77.0	78.3	78.3	29.857	0.00	0.00	0.000	0.125
7/12/10	7:30a	77.7	77.7	77.0	63	64.1	0.0	NE	0.00	1.0	NE	77.7	78.9	78.9	29.861	0.00	0.00	0.000	0.132
7/12/10	7:45a	78.8	78.8	77.8	60	63.7	0.0	NE	0.00	2.0	NE	78.8	79.9	79.9	29.861	0.00	0.00	0.000	0.144
7/12/10	8:00a	79.4	79.4	78.8	59	63.8	0.0	NE	0.00	2.0	NE	79.4	80.5	80.5	29.864	0.00	0.00	0.000	0.150
7/12/10	8:15a	80.4	80.4	79.3	58	64.3	0.0	NE	0.00	2.0	NE	80.4	81.6	81.6	29.865	0.00	0.00	0.000	0.160
7/12/10	8:30a	82.2	82.2	80.4	57	65.4	0.0	NE	0.00	2.0	NE	82.2	84.0	84.0	29.871	0.00	0.00	0.000	0.179
7/12/10	8:45a	81.4	82.2	81.3	57	64.7	0.0	NE	0.00	2.0	NE	81.4	82.8	82.8	29.877	0.00	0.00	0.000	0.171
7/12/10	9:00a	81.2	81.8	81.2	55	63.5	1.0	SW	0.25	5.0	SW	81.2	82.2	82.2	29.876	0.00	0.00	0.000	0.169
7/12/10	9:15a	83.1	83.1	81.2	51	63.1	0.0	SW	0.00	3.0	SW	83.1	84.5	84.5	29.871	0.00	0.00	0.000	0.189
7/12/10	9:30a	84.4	84.6	83.2	49	63.2	0.0	SW	0.00	5.0	SW	84.4	86.1	86.1	29.874	0.00	0.00	0.000	0.202
7/12/10	9:45a	85.7	85.7	84.7	47	63.1	0.0	SW	0.00	4.0	SW	85.7	87.2	87.2	29.877	0.00	0.00	0.000	0.216
7/12/10	10:00a	87.7	87.7	86.1	44	63.1	0.0	WSW	0.00	1.0	WSW	87.7	89.1	89.1	29.877	0.00	0.00	0.000	0.236
7/12/10	10:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.866	0.00	0.00	---	---
7/12/10	10:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.869	0.00	0.00	---	---
7/12/10	10:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.869	0.00	0.00	---	---
7/12/10	11:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.878	0.00	0.00	---	---
7/12/10	11:15a	87.4	87.4	87.3	41	60.8	1.0	WSW	0.25	5.0	SSW	87.4	88.0	88.0	29.884	0.00	0.00	0.000	0.233
7/12/10	11:30a	88.8	88.8	87.4	40	61.4	0.0	SW	0.00	5.0	S	88.8	89.6	89.6	29.883	0.00	0.00	0.000	0.248
7/12/10	11:45a	91.0	91.0	88.8	38	61.9	1.0	SW	0.25	7.0	SSW	91.0	92.2	92.2	29.879	0.00	0.00	0.000	0.271
7/12/10	12:00p	91.9	92.1	91.0	36	61.1	1.0	WSW	0.25	7.0	SW	91.9	92.8	92.8	29.879	0.00	0.00	0.000	0.280
7/12/10	12:15p	91.7	91.8	91.0	36	61.0	1.0	SW	0.25	6.0	ESE	91.7	92.5	92.5	29.866	0.00	0.00	0.000	0.278
7/12/10	12:30p	92.0	92.1	91.7	36	61.2	1.0	NW	0.25	5.0	E	92.0	93.0	93.0	29.863	0.00	0.00	0.000	0.281
7/12/10	12:45p	91.8	92.1	91.2	35	60.3	2.0	NW	0.50	9.0	NNW	91.8	92.3	92.3	29.856	0.00	0.00	0.000	0.279
7/12/10	1:00p	92.4	92.4	91.8	34	60.0	1.0	WSW	0.25	6.0	NW	92.4	92.9	92.9	29.854	0.00	0.00	0.000	0.285
7/12/10	1:15p	93.3	93.5	92.5	32	59.0	1.0	WSW	0.25	7.0	WSW	93.3	93.6	93.6	29.857	0.00	0.00	0.000	0.295

Gowanus Phase III Weather Data 7/12/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/12/10	1:30p	92.9	93.2	92.7	32	58.7	2.0	E	0.50	6.0	E	92.9	93.1	93.1	29.864	0.00	0.00	0.000	0.291
7/12/10	1:45p	93.8	93.8	92.8	30	57.7	1.0	SW	0.25	6.0	SW	93.8	93.7	93.7	29.863	0.00	0.00	0.000	0.300
7/12/10	2:00p	93.6	93.8	93.0	33	60.2	1.0	SW	0.25	6.0	ESE	93.6	94.3	94.3	29.864	0.00	0.00	0.000	0.298
7/12/10	2:15p	93.7	93.8	93.5	33	60.3	1.0	SW	0.25	6.0	SSW	93.7	94.4	94.4	29.864	0.00	0.00	0.000	0.299
7/12/10	2:30p	92.0	93.7	91.9	34	59.6	2.0	WNW	0.50	8.0	WNW	92.0	92.4	92.4	29.868	0.00	0.00	0.000	0.281
7/12/10	2:45p	91.4	92.2	91.4	41	64.4	2.0	ENE	0.50	7.0	NW	91.4	94.0	94.0	29.864	0.00	0.00	0.000	0.275
7/12/10	3:00p	90.8	91.4	90.8	41	63.9	3.0	ESE	0.75	11.0	WNW	90.8	93.0	93.0	29.863	0.00	0.00	0.000	0.269
7/12/10	3:15p	89.9	90.9	89.8	40	62.3	4.0	WNW	1.00	10.0	NNW	89.9	91.1	91.1	29.864	0.00	0.00	0.000	0.259
7/12/10	3:30p	88.9	89.8	88.7	45	64.8	5.0	WNW	1.25	12.0	ESE	88.9	91.7	91.7	29.860	0.00	0.00	0.000	0.249
7/12/10	3:45p	87.7	89.1	87.7	49	66.2	4.0	N	1.00	14.0	NNW	87.7	90.7	90.7	29.855	0.00	0.00	0.000	0.236
7/12/10	4:00p	86.6	87.7	86.5	52	66.9	5.0	NW	1.25	14.0	NNW	86.6	90.0	90.0	29.851	0.00	0.00	0.000	0.225
7/12/10	4:15p	86.0	86.7	86.0	55	68.0	5.0	NW	1.25	14.0	N	86.0	89.7	89.7	29.858	0.00	0.00	0.000	0.219
7/12/10	4:30p	85.0	86.0	85.0	57	68.1	5.0	E	1.25	14.0	ENE	85.0	88.5	88.5	29.849	0.00	0.00	0.000	0.208
7/12/10	4:45p	84.2	85.3	84.2	60	68.8	6.0	NW	1.50	14.0	WNW	84.2	88.0	88.0	29.848	0.00	0.00	0.000	0.200
7/12/10	5:00p	83.6	84.2	83.6	65	70.6	6.0	WNW	1.50	12.0	W	83.6	88.3	88.3	29.845	0.00	0.00	0.000	0.194
7/12/10	5:15p	83.0	83.6	82.9	68	71.3	6.0	NW	1.50	15.0	WNW	83.0	87.8	87.8	29.846	0.00	0.00	0.000	0.188
7/12/10	5:30p	82.6	83.0	82.5	70	71.8	6.0	WNW	1.50	13.0	W	82.6	87.6	87.6	29.846	0.00	0.00	0.000	0.183
7/12/10	5:45p	82.8	82.8	82.5	70	72.0	5.0	WNW	1.25	14.0	NNW	82.8	88.0	88.0	29.847	0.00	0.00	0.000	0.185
7/12/10	6:00p	82.2	82.8	82.2	72	72.3	5.0	NW	1.25	14.0	NW	82.2	87.2	87.2	29.846	0.00	0.00	0.000	0.179
7/12/10	6:15p	81.9	82.3	81.8	73	72.4	4.0	WNW	1.00	10.0	NNW	81.9	86.8	86.8	29.848	0.00	0.00	0.000	0.176
7/12/10	6:30p	81.7	81.9	81.7	74	72.6	4.0	WNW	1.00	10.0	WNW	81.7	86.6	86.6	29.848	0.00	0.00	0.000	0.174
7/12/10	6:45p	80.7	81.6	80.7	77	72.8	6.0	NW	1.50	13.0	NNW	80.7	85.3	85.3	29.850	0.00	0.00	0.000	0.164
7/12/10	7:00p	80.6	80.7	80.5	78	73.1	5.0	WNW	1.25	11.0	WNW	80.6	85.3	85.3	29.853	0.00	0.00	0.000	0.162
7/12/10	7:15p	80.9	80.9	80.6	76	72.6	3.0	WNW	0.75	11.0	NW	80.9	85.4	85.4	29.851	0.00	0.00	0.000	0.166
7/12/10	7:30p	81.2	81.2	80.9	75	72.5	3.0	NW	0.75	8.0	NW	81.2	85.8	85.8	29.857	0.00	0.00	0.000	0.169
7/12/10	7:45p	80.5	81.2	80.5	78	73.0	3.0	NW	0.75	8.0	NNE	80.5	85.1	85.1	29.864	0.00	0.00	0.000	0.161
7/12/10	8:00p	80.5	80.5	80.4	78	73.0	1.0	NE	0.25	10.0	W	80.5	85.1	85.1	29.868	0.00	0.00	0.000	0.161
7/12/10	8:15p	80.7	80.7	80.5	77	72.8	1.0	NW	0.25	7.0	NNE	80.7	85.3	85.3	29.871	0.00	0.00	0.000	0.164
7/12/10	8:30p	80.9	80.9	80.7	75	72.2	0.0	WNW	0.00	6.0	NNE	80.9	85.2	85.2	29.869	0.00	0.00	0.000	0.166
7/12/10	8:45p	81.2	81.2	81.0	73	71.7	1.0	NW	0.25	6.0	N	81.2	85.4	85.4	29.870	0.00	0.00	0.000	0.169
7/12/10	9:00p	81.2	81.2	81.1	73	71.7	1.0	NNW	0.25	5.0	NNW	81.2	85.4	85.4	29.874	0.00	0.00	0.000	0.169
7/12/10	9:15p	81.3	81.3	81.2	72	71.4	1.0	E	0.25	6.0	SE	81.3	85.4	85.4	29.879	0.00	0.00	0.000	0.170
7/12/10	9:30p	81.5	81.5	81.3	71	71.2	0.0	N	0.00	4.0	N	81.5	85.6	85.6	29.883	0.00	0.00	0.000	0.172
7/12/10	9:45p	80.9	81.5	80.9	64	67.6	1.0	W	0.25	7.0	SW	80.9	83.2	83.2	29.894	0.00	0.00	0.000	0.166
7/12/10	10:00p	79.5	80.9	79.5	65	66.7	1.0	WSW	0.25	6.0	WSW	79.5	81.3	81.3	29.895	0.00	0.00	0.000	0.151
7/12/10	10:15p	78.7	79.5	78.7	65	65.9	1.0	WSW	0.25	5.0	WSW	78.7	80.3	80.3	29.895	0.00	0.00	0.000	0.143
7/12/10	10:30p	78.3	78.7	78.3	66	66.0	1.0	SW	0.25	5.0	SW	78.3	79.9	79.9	29.904	0.00	0.00	0.000	0.139
7/12/10	10:45p	77.9	78.3	77.9	68	66.5	0.0	SW	0.00	5.0	SW	77.9	79.7	79.7	29.904	0.00	0.00	0.000	0.134
7/12/10	11:00p	77.7	77.9	77.6	69	66.7	0.0	SW	0.00	4.0	SW	77.7	79.5	79.5	29.909	0.00	0.00	0.000	0.132
7/12/10	11:15p	77.2	77.6	77.2	70	66.7	0.0	SW	0.00	2.0	SW	77.2	79.1	79.1	29.909	0.00	0.00	0.000	0.127
7/12/10	11:30p	77.0	77.2	77.0	69	66.0	0.0	SW	0.00	4.0	SW	77.0	78.8	78.8	29.915	0.00	0.00	0.000	0.125
7/12/10	11:45p	77.0	77.1	77.0	69	66.0	0.0	SW	0.00	2.0	SW	77.0	78.8	78.8	29.917	0.00	0.00	0.000	0.125
7/13/10	12:00a	76.8	77.0	76.8	69	65.9	0.0	SW	0.00	1.0	SW	76.8	78.6	78.6	29.922	0.00	0.00	0.000	0.123

Gowanus Phase III Weather Data 7/13/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/13/10	12:15a	76.8	76.8	76.8	69	65.9	0.0	SW	0.00	1.0	SW	76.8	78.6	78.6	29.921	0.00	0.00	0.000	0.123
7/13/10	12:30a	76.8	76.9	76.8	70	66.3	0.0	SW	0.00	2.0	SW	76.8	78.7	78.7	29.917	0.00	0.00	0.000	0.123
7/13/10	12:45a	76.4	76.8	76.4	72	66.7	0.0	SW	0.00	2.0	SW	76.4	78.5	78.5	29.913	0.00	0.00	0.000	0.119
7/13/10	1:00a	75.7	76.4	75.7	73	66.4	0.0	SW	0.00	1.0	SW	75.7	77.8	77.8	29.910	0.00	0.00	0.000	0.111
7/13/10	1:15a	75.6	75.7	75.6	74	66.7	0.0	---	0.00	0.0	---	75.6	77.8	77.8	29.910	0.00	0.00	0.000	0.110
7/13/10	1:30a	75.5	75.6	75.5	73	66.2	0.0	SW	0.00	2.0	SW	75.5	77.6	77.6	29.908	0.00	0.00	0.000	0.109
7/13/10	1:45a	75.6	75.6	75.5	73	66.3	0.0	---	0.00	0.0	---	75.6	77.7	77.7	29.909	0.00	0.00	0.000	0.110
7/13/10	2:00a	75.7	75.7	75.6	73	66.4	0.0	---	0.00	0.0	---	75.7	77.8	77.8	29.907	0.00	0.00	0.000	0.111
7/13/10	2:15a	76.1	76.1	75.7	73	66.8	0.0	SW	0.00	1.0	SW	76.1	78.3	78.3	29.907	0.00	0.00	0.000	0.116
7/13/10	2:30a	76.4	76.4	76.1	72	66.7	0.0	---	0.00	0.0	---	76.4	78.5	78.5	29.903	0.00	0.00	0.000	0.119
7/13/10	2:45a	76.8	76.8	76.4	72	67.1	0.0	SW	0.00	2.0	SW	76.8	78.9	78.9	29.900	0.00	0.00	0.000	0.123
7/13/10	3:00a	77.1	77.1	76.8	72	67.4	0.0	WSW	0.00	2.0	WSW	77.1	79.2	79.2	29.902	0.00	0.00	0.000	0.126
7/13/10	3:15a	77.4	77.4	77.1	72	67.7	0.0	WSW	0.00	4.0	WSW	77.4	79.6	79.6	29.897	0.00	0.00	0.000	0.129
7/13/10	3:30a	77.3	77.4	77.3	73	68.0	0.0	WSW	0.00	4.0	WSW	77.3	79.6	79.6	29.893	0.00	0.00	0.000	0.128
7/13/10	3:45a	77.2	77.3	77.2	75	68.7	0.0	WSW	0.00	2.0	WSW	77.2	79.7	79.7	29.895	0.00	0.00	0.000	0.127
7/13/10	4:00a	77.0	77.2	77.0	77	69.2	0.0	WSW	0.00	5.0	W	77.0	79.7	79.7	29.894	0.00	0.00	0.000	0.125
7/13/10	4:15a	76.8	77.0	76.8	80	70.2	0.0	NNW	0.00	5.0	NNW	76.8	79.8	79.8	29.894	0.00	0.00	0.000	0.123
7/13/10	4:30a	76.7	76.8	76.7	82	70.8	0.0	NNW	0.00	2.0	NNW	76.7	79.9	79.9	29.894	0.00	0.00	0.000	0.122
7/13/10	4:45a	76.7	76.8	76.7	83	71.1	0.0	NNW	0.00	3.0	NNW	76.7	80.0	80.0	29.895	0.00	0.00	0.000	0.122
7/13/10	5:00a	76.7	76.7	76.7	84	71.5	0.0	NNW	0.00	5.0	N	76.7	80.1	80.1	29.894	0.00	0.00	0.000	0.122
7/13/10	5:15a	76.8	76.8	76.7	85	71.9	0.0	NNW	0.00	7.0	WNW	76.8	80.3	80.3	29.894	0.00	0.00	0.000	0.123
7/13/10	5:30a	76.9	76.9	76.8	86	72.4	0.0	NNW	0.00	4.0	NNW	76.9	80.5	80.5	29.896	0.00	0.00	0.000	0.124
7/13/10	5:45a	77.0	77.0	76.9	86	72.5	0.0	NW	0.00	5.0	NW	77.0	80.7	80.7	29.899	0.00	0.00	0.000	0.125
7/13/10	6:00a	77.0	77.0	77.0	87	72.8	1.0	NW	0.25	6.0	NW	77.0	80.8	80.8	29.896	0.00	0.00	0.000	0.125
7/13/10	6:15a	77.2	77.2	77.0	87	73.0	0.0	WNW	0.00	5.0	WNW	77.2	81.1	81.1	29.897	0.00	0.00	0.000	0.127
7/13/10	6:30a	77.3	77.3	77.2	87	73.1	1.0	WNW	0.25	6.0	WNW	77.3	81.2	81.2	29.897	0.00	0.00	0.000	0.128
7/13/10	6:45a	77.5	77.5	77.3	87	73.3	0.0	WNW	0.00	2.0	WNW	77.5	81.6	81.6	29.894	0.00	0.00	0.000	0.130
7/13/10	7:00a	77.6	77.6	77.4	86	73.1	1.0	WNW	0.25	5.0	W	77.6	81.6	81.6	29.894	0.00	0.00	0.000	0.131
7/13/10	7:15a	78.1	78.1	77.6	84	72.9	1.0	WNW	0.25	5.0	WSW	78.1	82.1	82.1	29.894	0.00	0.00	0.000	0.136
7/13/10	7:30a	79.0	79.0	78.2	82	73.0	1.0	NW	0.25	6.0	WNW	79.0	83.2	83.2	29.898	0.00	0.00	0.000	0.146
7/13/10	7:45a	79.9	79.9	79.0	79	72.8	1.0	NNW	0.25	6.0	ESE	79.9	84.2	84.2	29.908	0.00	0.00	0.000	0.155
7/13/10	8:00a	79.5	79.9	79.5	80	72.8	2.0	NW	0.50	7.0	WNW	79.5	83.7	83.7	29.908	0.00	0.00	0.000	0.151
7/13/10	8:15a	79.3	79.5	79.3	81	73.0	1.0	NW	0.25	5.0	WNW	79.3	83.5	83.5	29.906	0.00	0.00	0.000	0.149
7/13/10	8:30a	79.2	79.4	79.2	82	73.2	1.0	ESE	0.25	7.0	NNW	79.2	83.5	83.5	29.910	0.00	0.00	0.000	0.148
7/13/10	8:45a	79.4	79.4	79.1	83	73.8	1.0	WNW	0.25	6.0	WNW	79.4	84.1	84.1	29.910	0.00	0.00	0.000	0.150
7/13/10	9:00a	79.6	79.6	79.5	82	73.6	1.0	NNW	0.25	5.0	NNW	79.6	84.2	84.2	29.909	0.00	0.00	0.000	0.152
7/13/10	9:15a	79.7	79.7	79.6	82	73.7	1.0	NNW	0.25	4.0	NNW	79.7	84.4	84.4	29.907	0.00	0.00	0.000	0.153
7/13/10	9:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.910	0.00	0.00	---	---
7/13/10	9:45a	80.4	80.4	80.0	81	74.0	2.0	NW	0.50	6.0	NNE	80.4	85.5	85.5	29.905	0.00	0.00	0.000	0.160
7/13/10	10:00a	81.3	81.4	80.5	80	74.5	2.0	E	0.50	8.0	WNW	81.3	87.2	87.2	29.900	0.00	0.00	0.000	0.170
7/13/10	10:15a	81.4	81.4	81.2	79	74.3	2.0	NNW	0.50	8.0	WNW	81.4	87.2	87.2	29.898	0.00	0.00	0.000	0.171
7/13/10	10:30a	81.6	81.8	81.4	79	74.5	3.0	E	0.75	10.0	NW	81.6	87.7	87.7	29.908	0.00	0.00	0.000	0.173
7/13/10	10:45a	80.7	81.6	80.7	80	74.0	4.0	WNW	1.00	11.0	WNW	80.7	85.9	85.9	29.895	0.00	0.00	0.000	0.164
7/13/10	11:00a	80.9	81.1	80.7	80	74.1	3.0	NW	0.75	8.0	W	80.9	86.3	86.3	29.894	0.00	0.00	0.000	0.166
7/13/10	11:15a	80.9	80.9	80.7	79	73.8	4.0	ESE	1.00	12.0	NW	80.9	86.1	86.1	29.889	0.00	0.00	0.000	0.166
7/13/10	11:30a	80.7	80.9	80.7	81	74.3	4.0	NW	1.00	9.0	WNW	80.7	86.1	86.1	29.895	0.00	0.00	0.000	0.164
7/13/10	11:45a	80.1	80.7	80.1	82	74.1	4.0	NW	1.00	10.0	WNW	80.1	85.1	85.1	29.889	0.00	0.00	0.000	0.157
7/13/10	12:00p	79.7	80.1	79.7	83	74.1	4.0	NW	1.00	11.0	W	79.7	84.6	84.6	29.885	0.00	0.00	0.000	0.153
7/13/10	12:15p	79.0	79.7	79.0	87	74.8	3.0	NW	0.75	10.0	WNW	79.0	84.1	84.1	29.883	0.01	0.00	0.000	0.146
7/13/10	12:30p	78.5	79.0	78.5	89	75.0	3.0	NNW	0.75	9.0	NW	78.5	83.6	83.6	29.877	0.03	0.34	0.000	0.141
7/13/10	12:45p	78.2	78.5	78.2	90	75.0	1.0	NNW	0.25	7.0	NW	78.2	83.2	83.2	29.875	0.05	0.56	0.000	0.137
7/13/10	1:00p	77.7	78.2	77.7	92	75.2	3.0	NW	0.75	9.0	NW	77.7	82.5	82.5	29.864	0.20	2.55	0.000	0.132
7/13/10	1:15p	77.6	77.7	77.6	93	75.4	2.0	WNW	0.50	10.0	NW	77.6	82.4	82.4	29.864	0.09	1.68	0.000	0.131

Gowanus Phase III Weather Data 7/13/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/13/10	1:30p	75.5	77.6	75.5	92	73.0	4.0	NW	1.00	11.0	NNE	75.5	79.1	79.1	29.872	0.26	2.80	0.000	0.109
7/13/10	1:45p	74.7	75.5	74.7	93	72.5	3.0	ENE	0.75	12.0	SW	74.7	78.0	78.0	29.863	0.37	5.14	0.000	0.101
7/13/10	2:00p	75.3	75.3	74.7	93	73.1	2.0	NW	0.50	8.0	NW	75.3	78.9	78.9	29.859	0.01	0.42	0.000	0.107
7/13/10	2:15p	76.2	76.2	75.3	94	74.3	2.0	NNW	0.50	7.0	WNW	76.2	80.2	80.2	29.848	0.00	0.04	0.000	0.117
7/13/10	2:30p	78.7	78.7	76.2	94	76.8	2.0	NNW	0.50	8.0	NW	78.7	84.9	84.9	29.843	0.00	0.00	0.000	0.143
7/13/10	2:45p	78.7	78.9	78.7	91	75.8	3.0	NW	0.75	8.0	NW	78.7	84.3	84.3	29.858	0.00	0.00	0.000	0.143
7/13/10	3:00p	78.8	78.8	78.7	91	75.9	1.0	NE	0.25	5.0	NNE	78.8	84.5	84.5	29.854	0.00	0.00	0.000	0.144
7/13/10	3:15p	78.2	78.8	78.2	90	75.0	3.0	N	0.75	11.0	WNW	78.2	83.2	83.2	29.848	0.01	0.00	0.000	0.137
7/13/10	3:30p	77.7	78.2	77.7	89	74.2	1.0	NW	0.25	5.0	NNW	77.7	82.1	82.1	29.847	0.01	0.04	0.000	0.132
7/13/10	3:45p	77.9	77.9	77.6	90	74.7	1.0	NE	0.25	6.0	NW	77.9	82.6	82.6	29.838	0.00	0.00	0.000	0.134
7/13/10	4:00p	78.3	78.3	78.0	90	75.1	1.0	NW	0.25	5.0	NW	78.3	83.4	83.4	29.833	0.00	0.00	0.000	0.139
7/13/10	4:15p	78.5	78.6	78.3	91	75.7	2.0	NW	0.50	6.0	NNW	78.5	83.9	83.9	29.830	0.00	0.00	0.000	0.141
7/13/10	4:30p	78.6	78.7	78.5	91	75.8	2.0	NNW	0.50	8.0	WNW	78.6	84.1	84.1	29.830	0.00	0.00	0.000	0.142
7/13/10	4:45p	78.7	78.7	78.6	89	75.2	2.0	NW	0.50	9.0	W	78.7	83.9	83.9	29.817	0.00	0.00	0.000	0.143
7/13/10	5:00p	79.0	79.0	78.7	90	75.8	2.0	NW	0.50	7.0	WNW	79.0	84.7	84.7	29.817	0.00	0.00	0.000	0.146
7/13/10	5:15p	79.2	79.2	78.9	90	76.0	2.0	NW	0.50	8.0	NW	79.2	85.1	85.1	29.809	0.00	0.00	0.000	0.148
7/13/10	5:30p	79.4	79.4	79.1	89	75.9	3.0	NW	0.75	8.0	W	79.4	85.3	85.3	29.811	0.00	0.00	0.000	0.150
7/13/10	5:45p	79.6	79.7	79.4	88	75.7	3.0	NW	0.75	10.0	WNW	79.6	85.5	85.5	29.802	0.00	0.00	0.000	0.152
7/13/10	6:00p	79.6	79.7	79.6	88	75.7	3.0	NW	0.75	10.0	NW	79.6	85.5	85.5	29.806	0.00	0.00	0.000	0.152
7/13/10	6:15p	79.6	79.6	79.4	87	75.4	2.0	WNW	0.50	6.0	NNW	79.6	85.3	85.3	29.804	0.00	0.00	0.000	0.152
7/13/10	6:30p	79.4	79.6	79.4	87	75.2	2.0	NW	0.50	7.0	NNW	79.4	84.9	84.9	29.804	0.00	0.00	0.000	0.150
7/13/10	6:45p	79.7	79.7	79.3	88	75.8	0.0	NNW	0.00	5.0	NNW	79.7	85.7	85.7	29.804	0.01	0.00	0.000	0.153
7/13/10	7:00p	80.0	80.0	79.7	87	75.8	0.0	ENE	0.00	3.0	E	80.0	86.1	86.1	29.804	0.00	0.00	0.000	0.156
7/13/10	7:15p	80.2	80.2	80.0	85	75.3	0.0	E	0.00	3.0	E	80.2	86.0	86.0	29.807	0.00	0.00	0.000	0.158
7/13/10	7:30p	80.2	80.4	80.2	84	74.9	0.0	E	0.00	2.0	E	80.2	85.8	85.8	29.815	0.00	0.00	0.000	0.158
7/13/10	7:45p	79.9	80.2	79.9	84	74.6	0.0	E	0.00	2.0	E	79.9	85.2	85.2	29.817	0.00	0.00	0.000	0.155
7/13/10	8:00p	79.7	79.9	79.7	85	74.8	0.0	WNW	0.00	4.0	WNW	79.7	85.0	85.0	29.816	0.00	0.00	0.000	0.153
7/13/10	8:15p	78.8	79.7	78.8	86	74.3	0.0	WNW	0.00	4.0	WNW	78.8	83.6	83.6	29.818	0.00	0.00	0.000	0.144
7/13/10	8:30p	78.4	78.7	78.4	87	74.2	1.0	NW	0.25	5.0	NW	78.4	83.1	83.1	29.822	0.00	0.00	0.000	0.140
7/13/10	8:45p	78.2	78.3	78.2	88	74.4	0.0	NW	0.00	2.0	NW	78.2	82.9	82.9	29.816	0.00	0.00	0.000	0.137
7/13/10	9:00p	78.3	78.3	78.2	88	74.5	0.0	---	0.00	0.0	---	78.3	83.1	83.1	29.816	0.00	0.00	0.000	0.139
7/13/10	9:15p	78.3	78.3	78.3	87	74.1	0.0	NW	0.00	4.0	NW	78.3	82.9	82.9	29.823	0.00	0.00	0.000	0.139
7/13/10	9:30p	78.1	78.3	78.1	88	74.3	0.0	NW	0.00	2.0	NW	78.1	82.7	82.7	29.831	0.00	0.00	0.000	0.136
7/13/10	9:45p	78.0	78.1	78.0	89	74.5	0.0	NW	0.00	2.0	NW	78.0	82.7	82.7	29.826	0.00	0.00	0.000	0.135
7/13/10	10:00p	78.0	78.0	78.0	89	74.5	0.0	---	0.00	0.0	---	78.0	82.7	82.7	29.829	0.00	0.00	0.000	0.135
7/13/10	10:15p	78.0	78.0	77.9	89	74.5	0.0	---	0.00	0.0	---	78.0	82.7	82.7	29.829	0.00	0.00	0.000	0.135
7/13/10	10:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.831	0.00	0.00	---	---
7/13/10	10:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.833	0.00	0.00	---	---
7/13/10	11:00p	78.0	78.2	78.0	89	74.5	0.0	WNW	0.00	1.0	WNW	78.0	82.7	82.7	29.832	0.00	0.00	0.000	0.135
7/13/10	11:15p	77.5	78.0	77.5	88	73.7	0.0	WNW	0.00	2.0	WNW	77.5	81.7	81.7	29.832	0.00	0.00	0.000	0.130
7/13/10	11:30p	77.1	77.4	77.1	86	72.6	0.0	WNW	0.00	1.0	WNW	77.1	80.8	80.8	29.820	0.00	0.00	0.000	0.126
7/13/10	11:45p	77.1	77.1	77.1	86	72.6	0.0	WNW	0.00	1.0	WNW	77.1	80.8	80.8	29.828	0.00	0.00	0.000	0.126
7/14/10	12:00a	76.9	77.1	76.9	86	72.4	0.0	---	0.00	0.0	---	76.9	80.5	80.5	29.832	0.00	0.00	0.000	0.124

Gowanus Phase III Weather Data 7/14/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/14/10	12:15a	76.8	76.9	76.8	86	72.3	0.0	WNW	0.00	1.0	WNW	76.8	80.4	80.4	29.832	0.00	0.00	0.000	0.123
7/14/10	12:30a	76.8	76.8	76.7	87	72.6	0.0	WNW	0.00	1.0	WNW	76.8	80.5	80.5	29.832	0.00	0.00	0.000	0.123
7/14/10	12:45a	76.8	76.8	76.7	87	72.6	0.0	WNW	0.00	1.0	WNW	76.8	80.5	80.5	29.828	0.00	0.00	0.000	0.123
7/14/10	1:00a	76.8	76.8	76.8	87	72.6	0.0	---	0.00	0.0	---	76.8	80.5	80.5	29.827	0.00	0.00	0.000	0.123
7/14/10	1:15a	76.8	76.8	76.7	88	73.0	0.0	---	0.00	0.0	---	76.8	80.5	80.5	29.829	0.00	0.00	0.000	0.123
7/14/10	1:30a	76.8	76.8	76.7	87	72.6	0.0	---	0.00	0.0	---	76.8	80.5	80.5	29.827	0.00	0.00	0.000	0.123
7/14/10	1:45a	76.9	76.9	76.8	86	72.4	0.0	---	0.00	0.0	---	76.9	80.5	80.5	29.827	0.00	0.00	0.000	0.124
7/14/10	2:00a	76.9	77.0	76.9	86	72.4	0.0	---	0.00	0.0	---	76.9	80.5	80.5	29.830	0.00	0.00	0.000	0.124
7/14/10	2:15a	77.0	77.0	76.9	86	72.5	0.0	---	0.00	0.0	---	77.0	80.7	80.7	29.822	0.00	0.00	0.000	0.125
7/14/10	2:30a	77.1	77.1	77.0	87	72.9	0.0	---	0.00	0.0	---	77.1	80.9	80.9	29.820	0.00	0.00	0.000	0.126
7/14/10	2:45a	77.2	77.2	77.1	87	73.0	0.0	---	0.00	0.0	---	77.2	81.1	81.1	29.819	0.00	0.00	0.000	0.127
7/14/10	3:00a	77.2	77.2	77.2	88	73.4	0.0	---	0.00	0.0	---	77.2	81.2	81.2	29.818	0.00	0.00	0.000	0.127
7/14/10	3:15a	77.3	77.3	77.2	88	73.5	0.0	---	0.00	0.0	---	77.3	81.3	81.3	29.818	0.00	0.00	0.000	0.128
7/14/10	3:30a	77.3	77.3	77.2	89	73.8	0.0	WNW	0.00	1.0	WNW	77.3	81.4	81.4	29.818	0.00	0.00	0.000	0.128
7/14/10	3:45a	77.2	77.3	77.1	90	74.0	0.0	---	0.00	0.0	---	77.2	81.4	81.4	29.817	0.00	0.00	0.000	0.127
7/14/10	4:00a	77.1	77.2	77.1	91	74.3	0.0	---	0.00	0.0	---	77.1	81.3	81.3	29.816	0.00	0.00	0.000	0.126
7/14/10	4:15a	77.1	77.1	77.1	92	74.6	0.0	---	0.00	0.0	---	77.1	81.4	81.4	29.811	0.00	0.00	0.000	0.126
7/14/10	4:30a	77.1	77.1	77.1	92	74.6	0.0	WNW	0.00	1.0	WNW	77.1	81.4	81.4	29.816	0.00	0.00	0.000	0.126
7/14/10	4:45a	77.0	77.1	77.0	92	74.5	0.0	---	0.00	0.0	---	77.0	81.2	81.2	29.817	0.00	0.00	0.000	0.125
7/14/10	5:00a	77.0	77.0	77.0	92	74.5	0.0	---	0.00	0.0	---	77.0	81.2	81.2	29.817	0.00	0.00	0.000	0.125
7/14/10	5:15a	76.9	77.0	76.9	92	74.4	0.0	---	0.00	0.0	---	76.9	81.1	81.1	29.817	0.00	0.00	0.000	0.124
7/14/10	5:30a	76.7	76.9	76.7	92	74.2	0.0	---	0.00	0.0	---	76.7	80.7	80.7	29.818	0.00	0.00	0.000	0.122
7/14/10	5:45a	76.7	76.8	76.7	92	74.2	0.0	WNW	0.00	2.0	WNW	76.7	80.7	80.7	29.831	0.00	0.00	0.000	0.122
7/14/10	6:00a	76.7	76.8	76.7	92	74.2	0.0	WNW	0.00	1.0	WNW	76.7	80.7	80.7	29.832	0.00	0.00	0.000	0.122
7/14/10	6:15a	76.6	76.7	76.6	92	74.1	0.0	WNW	0.00	2.0	WNW	76.6	80.6	80.6	29.824	0.00	0.00	0.000	0.121
7/14/10	6:30a	76.5	76.6	76.5	93	74.3	0.0	---	0.00	0.0	---	76.5	80.6	80.6	29.818	0.00	0.00	0.000	0.120
7/14/10	6:45a	76.5	76.5	76.5	93	74.3	0.0	---	0.00	0.0	---	76.5	80.6	80.6	29.829	0.01	0.00	0.000	0.120
7/14/10	7:00a	76.6	76.6	76.5	93	74.4	0.0	---	0.00	0.0	---	76.6	80.7	80.7	29.842	0.00	0.00	0.000	0.121
7/14/10	7:15a	76.7	76.7	76.6	93	74.5	0.0	---	0.00	0.0	---	76.7	80.8	80.8	29.833	0.02	0.12	0.000	0.122
7/14/10	7:30a	76.6	76.7	76.6	94	74.7	0.0	---	0.00	0.0	---	76.6	80.8	80.8	29.824	0.02	0.12	0.000	0.121
7/14/10	7:45a	76.9	76.9	76.6	94	75.0	0.0	NE	0.00	2.0	WSW	76.9	81.3	81.3	29.820	0.00	0.00	0.000	0.124
7/14/10	8:00a	76.6	76.9	76.6	92	74.1	0.0	S	0.00	4.0	N	76.6	80.6	80.6	29.834	0.00	0.00	0.000	0.121
7/14/10	8:15a	76.5	76.6	76.5	92	74.0	0.0	SE	0.00	4.0	SE	76.5	80.5	80.5	29.842	0.00	0.00	0.000	0.120
7/14/10	8:30a	76.2	76.5	76.2	90	73.1	1.0	E	0.25	4.0	WNW	76.2	79.8	79.8	29.847	0.00	0.00	0.000	0.117
7/14/10	8:45a	75.9	76.2	75.9	90	72.8	1.0	ESE	0.25	5.0	ESE	75.9	79.4	79.4	29.848	0.00	0.00	0.000	0.114
7/14/10	9:00a	75.3	75.9	75.3	90	72.2	1.0	NE	0.25	6.0	S	75.3	78.7	78.7	29.848	0.06	1.86	0.000	0.107
7/14/10	9:15a	74.7	75.2	74.7	91	71.9	1.0	S	0.25	6.0	S	74.7	77.9	77.9	29.848	0.02	0.60	0.000	0.101
7/14/10	9:30a	74.4	74.7	74.4	91	71.6	1.0	NW	0.25	6.0	NW	74.4	77.3	77.3	29.846	0.00	0.00	0.000	0.098
7/14/10	9:45a	74.3	74.4	74.3	91	71.5	1.0	SE	0.25	4.0	ENE	74.3	77.1	77.1	29.855	0.01	0.00	0.000	0.097
7/14/10	10:00a	74.7	74.7	74.5	91	71.9	0.0	E	0.00	1.0	E	74.7	77.9	77.9	29.850	0.01	0.04	0.000	0.101
7/14/10	10:15a	74.9	74.9	74.7	91	72.1	0.0	E	0.00	1.0	E	74.9	78.3	78.3	29.853	0.00	0.00	0.000	0.103
7/14/10	10:30a	75.3	75.3	74.9	91	72.5	0.0	E	0.00	1.0	E	75.3	78.8	78.8	29.849	0.00	0.00	0.000	0.107
7/14/10	10:45a	75.8	75.8	75.3	90	72.7	0.0	E	0.00	1.0	E	75.8	79.3	79.3	29.850	0.00	0.00	0.000	0.113
7/14/10	11:00a	77.2	77.2	75.8	87	73.0	0.0	E	0.00	2.0	E	77.2	81.1	81.1	29.859	0.00	0.00	0.000	0.127
7/14/10	11:15a	78.2	78.2	77.3	84	73.0	0.0	NNW	0.00	6.0	NW	78.2	82.3	82.3	29.855	0.00	0.00	0.000	0.137
7/14/10	11:30a	78.5	78.5	78.2	82	72.5	1.0	NW	0.25	5.0	NW	78.5	82.4	82.4	29.862	0.00	0.00	0.000	0.141
7/14/10	11:45a	79.7	79.7	78.5	79	72.6	1.0	E	0.25	5.0	NW	79.7	83.8	83.8	29.862	0.00	0.00	0.000	0.153
7/14/10	12:00p	80.9	80.9	79.7	75	72.2	0.0	E	0.00	4.0	E	80.9	85.2	85.2	29.860	0.00	0.00	0.000	0.166
7/14/10	12:15p	81.3	81.3	80.9	76	73.0	0.0	E	0.00	2.0	E	81.3	86.3	86.3	29.863	0.00	0.00	0.000	0.170
7/14/10	12:30p	81.8	82.0	81.3	73	72.3	0.0	E	0.00	4.0	E	81.8	86.6	86.6	29.864	0.00	0.00	0.000	0.175
7/14/10	12:45p	81.7	81.8	81.7	72	71.8	0.0	ESE	0.00	4.0	ESE	81.7	86.2	86.2	29.863	0.00	0.00	0.000	0.174
7/14/10	1:00p	81.9	82.1	81.7	73	72.4	0.0	ESE	0.00	5.0	ESE	81.9	86.8	86.8	29.861	0.00	0.00	0.000	0.176
7/14/10	1:15p	82.1	82.1	81.9	72	72.2	1.0	WSW	0.25	3.0	ESE	82.1	87.0	87.0	29.861	0.00	0.00	0.000	0.178

Gowanus Phase III Weather Data 7/14/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/14/10	1:30p	82.8	82.8	82.2	70	72.0	0.0	SW	0.00	1.0	W	82.8	88.0	88.0	29.861	0.00	0.00	0.000	0.185
7/14/10	1:45p	82.8	83.1	82.7	69	71.6	0.0	W	0.00	4.0	W	82.8	87.7	87.7	29.861	0.00	0.00	0.000	0.185
7/14/10	2:00p	82.7	82.7	82.4	71	72.3	1.0	N	0.25	5.0	WNW	82.7	88.1	88.1	29.858	0.00	0.00	0.000	0.184
7/14/10	2:15p	82.4	82.7	82.4	73	72.9	0.0	ESE	0.00	5.0	NW	82.4	88.0	88.0	29.862	0.00	0.00	0.000	0.181
7/14/10	2:30p	82.1	82.4	82.1	74	73.0	0.0	SSE	0.00	1.0	SSE	82.1	87.5	87.5	29.857	0.00	0.00	0.000	0.178
7/14/10	2:45p	81.1	82.0	81.1	76	72.8	1.0	NW	0.25	5.0	N	81.1	85.8	85.8	29.863	0.00	0.00	0.000	0.168
7/14/10	3:00p	80.2	81.1	80.2	79	73.1	1.0	N	0.25	5.0	NNE	80.2	84.7	84.7	29.864	0.00	0.00	0.000	0.158
7/14/10	3:15p	79.3	80.2	79.3	80	72.6	0.0	NE	0.00	5.0	E	79.3	83.3	83.3	29.866	0.00	0.00	0.000	0.149
7/14/10	3:30p	78.6	79.3	78.6	82	72.6	1.0	SE	0.25	6.0	E	78.6	82.6	82.6	29.866	0.00	0.00	0.000	0.142
7/14/10	3:45p	78.4	78.6	78.3	82	72.4	1.0	ESE	0.25	8.0	N	78.4	82.3	82.3	29.866	0.00	0.00	0.000	0.140
7/14/10	4:00p	78.3	78.5	78.3	83	72.7	1.0	N	0.25	5.0	NNE	78.3	82.3	82.3	29.865	0.00	0.00	0.000	0.139
7/14/10	4:15p	78.2	78.3	78.1	83	72.6	1.0	ENE	0.25	6.0	NNW	78.2	82.1	82.1	29.864	0.00	0.00	0.000	0.137
7/14/10	4:30p	78.3	78.4	78.2	82	72.3	1.0	E	0.25	5.0	E	78.3	82.1	82.1	29.863	0.00	0.00	0.000	0.139
7/14/10	4:45p	78.3	78.4	78.2	81	72.0	2.0	E	0.50	8.0	E	78.3	82.0	82.0	29.864	0.00	0.00	0.000	0.139
7/14/10	5:00p	78.5	78.5	78.3	81	72.2	1.0	E	0.25	8.0	NNW	78.5	82.3	82.3	29.864	0.00	0.00	0.000	0.141
7/14/10	5:15p	78.7	78.7	78.5	80	72.0	1.0	S	0.25	7.0	NNE	78.7	82.4	82.4	29.864	0.00	0.00	0.000	0.143
7/14/10	5:30p	78.9	78.9	78.7	79	71.8	2.0	N	0.50	9.0	N	78.9	82.5	82.5	29.864	0.00	0.00	0.000	0.145
7/14/10	5:45p	79.2	79.2	78.9	78	71.7	1.0	ENE	0.25	10.0	NNW	79.2	82.8	82.8	29.865	0.00	0.00	0.000	0.148
7/14/10	6:00p	79.3	79.3	79.2	77	71.5	2.0	ESE	0.50	6.0	N	79.3	82.8	82.8	29.869	0.00	0.00	0.000	0.149
7/14/10	6:15p	79.4	79.4	79.3	76	71.2	1.0	N	0.25	8.0	NE	79.4	82.8	82.8	29.864	0.00	0.00	0.000	0.150
7/14/10	6:30p	79.3	79.4	79.2	77	71.5	1.0	SE	0.25	6.0	NW	79.3	82.8	82.8	29.864	0.00	0.00	0.000	0.149
7/14/10	6:45p	79.0	79.3	79.0	78	71.6	1.0	SE	0.25	7.0	ESE	79.0	82.5	82.5	29.864	0.00	0.00	0.000	0.146
7/14/10	7:00p	78.7	78.9	78.7	79	71.6	1.0	S	0.25	5.0	NNE	78.7	82.2	82.2	29.870	0.00	0.00	0.000	0.143
7/14/10	7:15p	78.7	78.7	78.7	79	71.6	2.0	ESE	0.50	7.0	ENE	78.7	82.2	82.2	29.875	0.00	0.00	0.000	0.143
7/14/10	7:30p	78.5	78.7	78.5	80	71.8	2.0	E	0.50	7.0	NNW	78.5	82.1	82.1	29.877	0.00	0.00	0.000	0.141
7/14/10	7:45p	78.4	78.6	78.4	80	71.7	1.0	SE	0.25	7.0	N	78.4	82.0	82.0	29.878	0.00	0.00	0.000	0.140
7/14/10	8:00p	78.2	78.4	78.2	81	71.9	3.0	ESE	0.75	7.0	ESE	78.2	81.8	81.8	29.880	0.00	0.00	0.000	0.137
7/14/10	8:15p	78.1	78.2	78.0	82	72.2	1.0	S	0.25	6.0	SSE	78.1	81.8	81.8	29.883	0.00	0.00	0.000	0.136
7/14/10	8:30p	77.9	78.1	77.9	83	72.3	0.0	ESE	0.00	5.0	ESE	77.9	81.7	81.7	29.886	0.00	0.00	0.000	0.134
7/14/10	8:45p	77.8	77.9	77.8	83	72.2	0.0	ENE	0.00	3.0	ENE	77.8	81.5	81.5	29.894	0.00	0.00	0.000	0.133
7/14/10	9:00p	77.8	77.8	77.7	83	72.2	1.0	E	0.25	4.0	E	77.8	81.5	81.5	29.893	0.00	0.00	0.000	0.133
7/14/10	9:15p	77.9	77.9	77.7	82	72.0	1.0	S	0.25	5.0	SSE	77.9	81.5	81.5	29.910	0.00	0.00	0.000	0.134
7/14/10	9:30p	77.9	77.9	77.8	82	72.0	1.0	N	0.25	7.0	ENE	77.9	81.5	81.5	29.911	0.00	0.00	0.000	0.134
7/14/10	9:45p	78.0	78.0	77.9	82	72.1	1.0	NNW	0.25	5.0	N	78.0	81.7	81.7	29.916	0.00	0.00	0.000	0.135
7/14/10	10:00p	77.8	78.0	77.8	83	72.2	1.0	ENE	0.25	10.0	NNW	77.8	81.5	81.5	29.916	0.00	0.00	0.000	0.133
7/14/10	10:15p	77.8	77.9	77.8	83	72.2	1.0	ENE	0.25	6.0	N	77.8	81.5	81.5	29.914	0.00	0.00	0.000	0.133
7/14/10	10:30p	77.7	77.8	77.7	83	72.1	0.0	E	0.00	5.0	S	77.7	81.4	81.4	29.910	0.00	0.00	0.000	0.132
7/14/10	10:45p	77.8	77.8	77.7	83	72.2	0.0	ESE	0.00	4.0	SSE	77.8	81.5	81.5	29.911	0.00	0.00	0.000	0.133
7/14/10	11:00p	77.7	77.8	77.7	83	72.1	1.0	ENE	0.25	4.0	NE	77.7	81.4	81.4	29.920	0.00	0.00	0.000	0.132
7/14/10	11:15p	77.7	77.8	77.7	83	72.1	1.0	E	0.25	8.0	NNW	77.7	81.4	81.4	29.916	0.00	0.00	0.000	0.132
7/14/10	11:30p	76.7	77.7	76.7	86	72.2	3.0	NNE	0.75	10.0	NNE	76.7	80.3	80.3	29.925	0.00	0.00	0.000	0.122
7/14/10	11:45p	75.9	76.7	75.9	87	71.8	3.0	ESE	0.75	9.0	E	75.9	79.2	79.2	29.926	0.00	0.00	0.000	0.114
7/15/10	12:00a	75.6	75.9	75.6	88	71.8	1.0	NNE	0.25	10.0	N	75.6	78.9	78.9	29.926	0.00	0.00	0.000	0.110

Gowanus Phase III Weather Data 7/15/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/15/10	12:15a	75.3	75.7	75.3	89	71.8	1.0	NNE	0.25	7.0	NNW	75.3	78.7	78.7	29.930	0.00	0.00	0.000	0.107
7/15/10	12:30a	74.7	75.3	74.7	91	71.9	1.0	SSE	0.25	7.0	N	74.7	77.9	77.9	29.932	0.00	0.00	0.000	0.101
7/15/10	12:45a	74.4	74.7	74.4	92	71.9	1.0	E	0.25	5.0	SSW	74.4	77.4	77.4	29.936	0.00	0.00	0.000	0.098
7/15/10	1:00a	74.2	74.4	74.2	92	71.7	1.0	SSE	0.25	7.0	ESE	74.2	77.0	77.0	29.926	0.00	0.00	0.000	0.096
7/15/10	1:15a	74.3	74.3	74.2	92	71.8	1.0	SE	0.25	6.0	ESE	74.3	77.2	77.2	29.924	0.00	0.00	0.000	0.097
7/15/10	1:30a	74.4	74.4	74.3	91	71.6	1.0	S	0.25	6.0	ESE	74.4	77.3	77.3	29.925	0.00	0.00	0.000	0.098
7/15/10	1:45a	74.5	74.5	74.4	90	71.4	1.0	NNW	0.25	7.0	NNE	74.5	77.4	77.4	29.925	0.00	0.00	0.000	0.099
7/15/10	2:00a	74.5	74.6	74.5	90	71.4	1.0	SSW	0.25	7.0	NNE	74.5	77.4	77.4	29.926	0.00	0.00	0.000	0.099
7/15/10	2:15a	74.5	74.5	74.5	90	71.4	1.0	E	0.25	7.0	NNW	74.5	77.4	77.4	29.926	0.00	0.00	0.000	0.099
7/15/10	2:30a	74.4	74.5	74.4	89	70.9	1.0	E	0.25	5.0	S	74.4	77.1	77.1	29.928	0.00	0.00	0.000	0.098
7/15/10	2:45a	74.4	74.5	74.4	89	70.9	1.0	ESE	0.25	5.0	SSW	74.4	77.1	77.1	29.939	0.00	0.00	0.000	0.098
7/15/10	3:00a	74.4	74.5	74.4	89	70.9	1.0	ENE	0.25	5.0	NNE	74.4	77.1	77.1	29.926	0.00	0.00	0.000	0.098
7/15/10	3:15a	74.2	74.4	74.2	89	70.7	1.0	SSW	0.25	6.0	SW	74.2	76.8	76.8	29.925	0.00	0.00	0.000	0.096
7/15/10	3:30a	74.2	74.3	74.2	88	70.4	1.0	SSE	0.25	7.0	NNE	74.2	76.7	76.7	29.928	0.00	0.00	0.000	0.096
7/15/10	3:45a	74.1	74.2	74.1	88	70.3	1.0	SE	0.25	7.0	N	74.1	76.5	76.5	29.938	0.00	0.00	0.000	0.095
7/15/10	4:00a	74.0	74.1	74.0	87	69.9	1.0	NNE	0.25	7.0	N	74.0	76.3	76.3	29.928	0.00	0.00	0.000	0.094
7/15/10	4:15a	73.9	74.0	73.8	87	69.8	1.0	SSE	0.25	6.0	SE	73.9	76.2	76.2	29.929	0.00	0.00	0.000	0.093
7/15/10	4:30a	73.7	73.9	73.7	88	69.9	1.0	E	0.25	7.0	S	73.7	76.0	76.0	29.925	0.00	0.00	0.000	0.091
7/15/10	4:45a	73.6	73.7	73.6	88	69.8	1.0	SE	0.25	5.0	ESE	73.6	75.9	75.9	29.925	0.00	0.00	0.000	0.090
7/15/10	5:00a	73.7	73.7	73.6	88	69.9	1.0	NNE	0.25	5.0	NE	73.7	76.0	76.0	29.928	0.00	0.00	0.000	0.091
7/15/10	5:15a	73.8	73.8	73.7	88	70.0	0.0	SSW	0.00	2.0	SSW	73.8	76.1	76.1	29.935	0.00	0.00	0.000	0.092
7/15/10	5:30a	73.9	73.9	73.8	88	70.1	0.0	SSW	0.00	5.0	NW	73.9	76.2	76.2	29.941	0.00	0.00	0.000	0.093
7/15/10	5:45a	74.0	74.0	73.9	87	69.9	0.0	W	0.00	4.0	ENE	74.0	76.3	76.3	29.944	0.00	0.00	0.000	0.094
7/15/10	6:00a	74.2	74.2	74.0	87	70.1	0.0	SE	0.00	4.0	S	74.2	76.7	76.7	29.954	0.00	0.00	0.000	0.096
7/15/10	6:15a	74.4	74.4	74.2	86	69.9	0.0	S	0.00	5.0	NNW	74.4	77.0	77.0	29.957	0.00	0.00	0.000	0.098
7/15/10	6:30a	74.8	74.8	74.4	84	69.6	1.0	ESE	0.25	6.0	SE	74.8	77.6	77.6	29.967	0.00	0.00	0.000	0.102
7/15/10	6:45a	74.8	74.9	74.8	83	69.3	1.0	S	0.25	9.0	N	74.8	77.5	77.5	29.972	0.00	0.00	0.000	0.102
7/15/10	7:00a	74.7	74.8	74.6	83	69.2	1.0	NW	0.25	6.0	E	74.7	77.3	77.3	29.985	0.00	0.00	0.000	0.101
7/15/10	7:15a	75.1	75.1	74.7	81	68.9	0.0	NNE	0.00	4.0	ENE	75.1	77.7	77.7	29.976	0.00	0.00	0.000	0.105
7/15/10	7:30a	75.6	75.6	75.1	81	69.4	1.0	ESE	0.25	5.0	WSW	75.6	78.4	78.4	29.983	0.00	0.00	0.000	0.110
7/15/10	7:45a	76.0	76.0	75.7	80	69.4	1.0	NNW	0.25	6.0	NNE	76.0	78.9	78.9	29.987	0.00	0.00	0.000	0.115
7/15/10	8:00a	76.4	76.4	76.1	79	69.4	1.0	NNE	0.25	4.0	SW	76.4	79.2	79.2	29.987	0.00	0.00	0.000	0.119
7/15/10	8:15a	76.6	76.7	76.4	78	69.2	0.0	SSE	0.00	2.0	NW	76.6	79.4	79.4	29.987	0.00	0.00	0.000	0.121
7/15/10	8:30a	76.9	76.9	76.6	78	69.5	1.0	ESE	0.25	6.0	ESE	76.9	79.7	79.7	29.987	0.00	0.00	0.000	0.124
7/15/10	8:45a	77.4	77.4	76.9	76	69.2	1.0	ENE	0.25	6.0	NE	77.4	80.1	80.1	29.986	0.00	0.00	0.000	0.129
7/15/10	9:00a	77.2	77.4	77.1	76	69.0	2.0	S	0.50	6.0	W	77.2	79.8	79.8	29.988	0.00	0.00	0.000	0.127
7/15/10	9:15a	77.2	77.3	77.2	76	69.0	1.0	NNE	0.25	5.0	NNE	77.2	79.8	79.8	30.002	0.00	0.00	0.000	0.127
7/15/10	9:30a	77.0	77.2	76.9	76	68.9	1.0	ESE	0.25	5.0	ESE	77.0	79.6	79.6	30.002	0.00	0.00	0.000	0.125
7/15/10	9:45a	77.8	77.8	77.0	75	69.2	1.0	ESE	0.25	5.0	NNW	77.8	80.4	80.4	30.003	0.00	0.00	0.000	0.133
7/15/10	10:00a	77.6	77.9	77.6	75	69.0	1.0	SE	0.25	7.0	NE	77.6	80.2	80.2	30.003	0.00	0.00	0.000	0.131
7/15/10	10:15a	78.2	78.2	77.6	75	69.6	1.0	E	0.25	5.0	E	78.2	80.9	80.9	30.003	0.00	0.00	0.000	0.137
7/15/10	10:30a	78.4	78.4	78.1	74	69.4	1.0	SSE	0.25	5.0	E	78.4	81.0	81.0	30.001	0.00	0.00	0.000	0.140
7/15/10	10:45a	80.5	80.5	78.4	71	70.2	1.0	S	0.25	4.0	N	80.5	83.7	83.7	29.994	0.00	0.00	0.000	0.161
7/15/10	11:00a	81.5	81.5	80.6	69	70.3	1.0	SSE	0.25	5.0	NNW	81.5	85.2	85.2	29.995	0.00	0.00	0.000	0.172
7/15/10	11:15a	81.2	81.6	80.8	69	70.1	1.0	N	0.25	8.0	N	81.2	84.6	84.6	29.989	0.00	0.00	0.000	0.169
7/15/10	11:30a	82.4	82.5	81.3	67	70.3	1.0	SE	0.25	7.0	N	82.4	86.4	86.4	29.987	0.00	0.00	0.000	0.181
7/15/10	11:45a	83.3	83.3	82.4	66	70.8	1.0	E	0.25	6.0	N	83.3	87.9	87.9	29.988	0.00	0.00	0.000	0.191
7/15/10	12:00p	83.3	83.4	83.2	66	70.8	1.0	SE	0.25	7.0	ESE	83.3	87.9	87.9	29.986	0.00	0.00	0.000	0.191
7/15/10	12:15p	84.1	84.1	83.3	64	70.6	1.0	NNW	0.25	6.0	E	84.1	89.1	89.1	29.985	0.00	0.00	0.000	0.199
7/15/10	12:30p	84.5	84.5	84.0	63	70.5	1.0	S	0.25	5.0	SE	84.5	89.5	89.5	29.982	0.00	0.00	0.000	0.203
7/15/10	12:45p	85.1	85.1	84.2	63	71.1	0.0	E	0.00	5.0	E	85.1	90.6	90.6	29.984	0.00	0.00	0.000	0.209
7/15/10	1:00p	86.8	86.8	85.4	60	71.2	0.0	ESE	0.00	3.0	ESE	86.8	93.2	93.2	29.987	0.00	0.00	0.000	0.227
7/15/10	1:15p	86.4	86.8	86.3	60	70.9	1.0	N	0.25	6.0	N	86.4	92.3	92.3	29.986	0.00	0.00	0.000	0.223

Gowanus Phase III Weather Data 7/15/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/15/10	1:30p	86.4	86.6	86.2	60	70.9	1.0	NE	0.25	6.0	NNE	86.4	92.3	92.3	29.984	0.00	0.00	0.000	0.223
7/15/10	1:45p	86.5	86.6	86.1	61	71.5	1.0	NW	0.25	5.0	NNE	86.5	92.9	92.9	29.976	0.00	0.00	0.000	0.224
7/15/10	2:00p	86.2	86.6	86.2	60	70.7	0.0	NE	0.00	5.0	NE	86.2	91.9	91.9	29.977	0.00	0.00	0.000	0.221
7/15/10	2:15p	87.2	87.2	85.9	59	71.1	1.0	NNW	0.25	5.0	NNE	87.2	93.5	93.5	29.973	0.00	0.00	0.000	0.231
7/15/10	2:30p	87.7	88.5	87.3	59	71.6	1.0	ESE	0.25	5.0	NW	87.7	94.1	94.1	29.976	0.00	0.00	0.000	0.236
7/15/10	2:45p	85.4	87.6	85.4	63	71.4	2.0	ENE	0.50	8.0	WNW	85.4	91.3	91.3	29.979	0.00	0.00	0.000	0.213
7/15/10	3:00p	83.8	85.4	83.7	66	71.2	3.0	NW	0.75	9.0	NW	83.8	89.1	89.1	29.974	0.00	0.00	0.000	0.196
7/15/10	3:15p	85.1	85.1	83.8	64	71.5	2.0	WNW	0.50	8.0	WNW	85.1	91.0	91.0	29.970	0.00	0.00	0.000	0.209
7/15/10	3:30p	84.5	85.2	84.5	65	71.4	2.0	NW	0.50	7.0	WNW	84.5	90.1	90.1	29.971	0.00	0.00	0.000	0.203
7/15/10	3:45p	84.5	84.8	84.5	65	71.4	1.0	NW	0.25	7.0	WNW	84.5	90.1	90.1	29.970	0.00	0.00	0.000	0.203
7/15/10	4:00p	85.2	85.3	84.6	65	72.1	1.0	W	0.25	7.0	WNW	85.2	91.6	91.6	29.962	0.00	0.00	0.000	0.210
7/15/10	4:15p	85.1	85.1	84.9	65	72.0	1.0	WNW	0.25	6.0	NW	85.1	91.3	91.3	29.962	0.00	0.00	0.000	0.209
7/15/10	4:30p	84.7	85.1	84.6	65	71.6	1.0	NW	0.25	6.0	NW	84.7	90.5	90.5	29.961	0.00	0.00	0.000	0.205
7/15/10	4:45p	84.1	84.7	84.1	66	71.5	2.0	NW	0.50	9.0	WNW	84.1	89.7	89.7	29.957	0.00	0.00	0.000	0.199
7/15/10	5:00p	83.4	84.1	83.3	67	71.3	2.0	NW	0.50	6.0	NW	83.4	88.5	88.5	29.969	0.00	0.00	0.000	0.192
7/15/10	5:15p	83.8	83.8	83.3	66	71.2	1.0	WNW	0.25	7.0	NW	83.8	89.1	89.1	29.971	0.00	0.00	0.000	0.196
7/15/10	5:30p	83.3	83.8	83.3	67	71.2	1.0	NW	0.25	7.0	NW	83.3	88.2	88.2	29.969	0.00	0.00	0.000	0.191
7/15/10	5:45p	83.4	83.5	83.2	67	71.3	1.0	NW	0.25	6.0	WNW	83.4	88.5	88.5	29.971	0.00	0.00	0.000	0.192
7/15/10	6:00p	83.2	83.5	83.2	67	71.1	1.0	NW	0.25	8.0	W	83.2	88.0	88.0	29.966	0.00	0.00	0.000	0.190
7/15/10	6:15p	82.5	83.2	82.5	67	70.4	3.0	NW	0.75	8.0	NW	82.5	86.6	86.6	29.971	0.00	0.00	0.000	0.182
7/15/10	6:30p	82.7	82.7	82.3	67	70.6	2.0	NW	0.50	7.0	WNW	82.7	86.9	86.9	29.971	0.00	0.00	0.000	0.184
7/15/10	6:45p	82.5	82.8	82.5	67	70.4	1.0	NW	0.25	5.0	NW	82.5	86.6	86.6	29.963	0.00	0.00	0.000	0.182
7/15/10	7:00p	82.3	82.5	82.2	68	70.7	1.0	NNW	0.25	6.0	NW	82.3	86.4	86.4	29.963	0.00	0.00	0.000	0.180
7/15/10	7:15p	81.2	82.2	81.2	69	70.1	2.0	NW	0.50	9.0	WNW	81.2	84.6	84.6	29.958	0.00	0.00	0.000	0.169
7/15/10	7:30p	80.4	81.1	80.4	71	70.1	2.0	NW	0.50	8.0	NW	80.4	83.6	83.6	29.956	0.00	0.00	0.000	0.160
7/15/10	7:45p	79.7	80.3	79.7	72	69.9	2.0	NW	0.50	7.0	NNW	79.7	82.6	82.6	29.956	0.00	0.00	0.000	0.153
7/15/10	8:00p	79.2	79.7	79.2	74	70.2	1.0	NW	0.25	7.0	NE	79.2	82.2	82.2	29.963	0.00	0.00	0.000	0.148
7/15/10	8:15p	78.8	79.2	78.8	74	69.8	2.0	NW	0.50	7.0	NW	78.8	81.6	81.6	29.968	0.00	0.00	0.000	0.144
7/15/10	8:30p	78.6	78.7	78.5	75	70.0	1.0	NNW	0.25	5.0	WNW	78.6	81.4	81.4	29.968	0.00	0.00	0.000	0.142
7/15/10	8:45p	78.5	78.6	78.5	76	70.3	1.0	NW	0.25	7.0	NW	78.5	81.5	81.5	29.968	0.00	0.00	0.000	0.141
7/15/10	9:00p	77.9	78.4	77.9	77	70.1	1.0	NNW	0.25	6.0	W	77.9	80.8	80.8	29.969	0.00	0.00	0.000	0.134
7/15/10	9:15p	77.4	77.9	77.4	78	70.0	1.0	NW	0.25	5.0	NW	77.4	80.3	80.3	29.967	0.00	0.00	0.000	0.129
7/15/10	9:30p	77.3	77.4	77.3	79	70.3	1.0	NW	0.25	6.0	WNW	77.3	80.3	80.3	29.972	0.00	0.00	0.000	0.128
7/15/10	9:45p	77.1	77.3	77.1	79	70.1	0.0	WNW	0.00	2.0	WNW	77.1	80.0	80.0	29.981	0.00	0.00	0.000	0.126
7/15/10	10:00p	77.1	77.1	77.0	80	70.5	0.0	NW	0.00	4.0	NW	77.1	80.1	80.1	29.986	0.00	0.00	0.000	0.126
7/15/10	10:15p	77.0	77.1	76.9	81	70.7	0.0	NW	0.00	2.0	NW	77.0	80.1	80.1	29.989	0.00	0.00	0.000	0.125
7/15/10	10:30p	76.9	77.0	76.9	81	70.6	0.0	NNW	0.00	3.0	NNW	76.9	80.0	80.0	29.987	0.00	0.00	0.000	0.124
7/15/10	10:45p	76.5	76.9	76.5	83	70.9	0.0	E	0.00	5.0	NNW	76.5	79.7	79.7	29.987	0.00	0.00	0.000	0.120
7/15/10	11:00p	76.4	76.5	76.4	83	70.9	0.0	E	0.00	3.0	E	76.4	79.6	79.6	29.994	0.00	0.00	0.000	0.119
7/15/10	11:15p	76.1	76.4	76.1	82	70.2	0.0	E	0.00	2.0	E	76.1	79.1	79.1	29.994	0.00	0.00	0.000	0.116
7/15/10	11:30p	76.1	76.1	76.1	82	70.2	0.0	W	0.00	4.0	W	76.1	79.1	79.1	29.988	0.00	0.00	0.000	0.116
7/15/10	11:45p	76.1	76.1	76.1	82	70.2	0.0	WNW	0.00	4.0	WNW	76.1	79.1	79.1	29.988	0.00	0.00	0.000	0.116
7/16/10	12:00a	76.0	76.1	76.0	82	70.1	0.0	WNW	0.00	5.0	WNW	76.0	79.0	79.0	29.991	0.00	0.00	0.000	0.115

Gowanus Phase III Weather Data 7/16/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/16/10	12:15a	76.1	76.1	76.0	83	70.6	0.0	WNW	0.00	2.0	WNW	76.1	79.2	79.2	29.987	0.00	0.00	0.000	0.116
7/16/10	12:30a	76.1	76.1	76.1	82	70.2	0.0	NNE	0.00	2.0	NNE	76.1	79.1	79.1	29.986	0.00	0.00	0.000	0.116
7/16/10	12:45a	76.0	76.1	76.0	83	70.5	0.0	N	0.00	2.0	N	76.0	79.1	79.1	29.987	0.00	0.00	0.000	0.115
7/16/10	1:00a	76.0	76.1	76.0	83	70.5	0.0	ENE	0.00	4.0	ENE	76.0	79.1	79.1	29.977	0.00	0.00	0.000	0.115
7/16/10	1:15a	76.0	76.0	75.9	82	70.1	0.0	E	0.00	4.0	ENE	76.0	79.0	79.0	29.983	0.00	0.00	0.000	0.115
7/16/10	1:30a	76.2	76.2	76.0	82	70.3	0.0	SSW	0.00	4.0	SSE	76.2	79.3	79.3	29.981	0.00	0.00	0.000	0.117
7/16/10	1:45a	76.3	76.3	76.2	83	70.8	0.0	SSW	0.00	4.0	SSW	76.3	79.5	79.5	29.980	0.00	0.00	0.000	0.118
7/16/10	2:00a	76.1	76.3	76.1	84	70.9	0.0	ENE	0.00	5.0	ENE	76.1	79.3	79.3	29.984	0.00	0.00	0.000	0.116
7/16/10	2:15a	76.0	76.1	76.0	84	70.8	0.0	E	0.00	4.0	SSE	76.0	79.1	79.1	29.978	0.00	0.00	0.000	0.115
7/16/10	2:30a	75.9	76.0	75.9	85	71.1	0.0	E	0.00	6.0	ENE	75.9	79.1	79.1	29.973	0.00	0.00	0.000	0.114
7/16/10	2:45a	75.8	75.9	75.8	85	71.0	0.0	NE	0.00	2.0	NE	75.8	79.0	79.0	29.971	0.00	0.00	0.000	0.113
7/16/10	3:00a	75.7	75.8	75.7	85	70.9	0.0	NE	0.00	4.0	NE	75.7	78.8	78.8	29.967	0.00	0.00	0.000	0.111
7/16/10	3:15a	75.6	75.7	75.6	85	70.8	0.0	NE	0.00	4.0	NE	75.6	78.7	78.7	29.968	0.00	0.00	0.000	0.110
7/16/10	3:30a	75.7	75.7	75.6	85	70.9	0.0	NE	0.00	2.0	NE	75.7	78.8	78.8	29.967	0.00	0.00	0.000	0.111
7/16/10	3:45a	75.5	75.7	75.5	86	71.0	0.0	SSE	0.00	5.0	E	75.5	78.7	78.7	29.970	0.00	0.00	0.000	0.109
7/16/10	4:00a	75.4	75.5	75.4	86	70.9	0.0	E	0.00	2.0	E	75.4	78.6	78.6	29.961	0.00	0.00	0.000	0.108
7/16/10	4:15a	75.3	75.4	75.3	86	70.8	0.0	E	0.00	5.0	E	75.3	78.4	78.4	29.956	0.00	0.00	0.000	0.107
7/16/10	4:30a	75.3	75.3	75.3	86	70.8	0.0	E	0.00	1.0	E	75.3	78.4	78.4	29.958	0.00	0.00	0.000	0.107
7/16/10	4:45a	75.3	75.3	75.3	87	71.2	0.0	E	0.00	2.0	E	75.3	78.5	78.5	29.956	0.00	0.00	0.000	0.107
7/16/10	5:00a	75.4	75.4	75.3	87	71.3	0.0	S	0.00	2.0	S	75.4	78.6	78.6	29.956	0.00	0.00	0.000	0.108
7/16/10	5:15a	75.5	75.5	75.4	87	71.4	0.0	S	0.00	4.0	S	75.5	78.7	78.7	29.956	0.00	0.00	0.000	0.109
7/16/10	5:30a	75.5	75.5	75.4	87	71.4	0.0	S	0.00	2.0	S	75.5	78.7	78.7	29.955	0.00	0.00	0.000	0.109
7/16/10	5:45a	75.6	75.6	75.5	87	71.5	0.0	S	0.00	1.0	S	75.6	78.9	78.9	29.959	0.00	0.00	0.000	0.110
7/16/10	6:00a	75.7	75.7	75.6	88	71.9	0.0	S	0.00	2.0	S	75.7	79.0	79.0	29.964	0.00	0.00	0.000	0.111
7/16/10	6:15a	75.6	75.7	75.6	88	71.8	0.0	SW	0.00	3.0	SW	75.6	78.9	78.9	29.965	0.00	0.00	0.000	0.110
7/16/10	6:30a	75.6	75.6	75.6	88	71.8	0.0	SW	0.00	2.0	SW	75.6	78.9	78.9	29.966	0.00	0.00	0.000	0.110
7/16/10	6:45a	75.5	75.6	75.5	89	72.0	0.0	SW	0.00	2.0	SW	75.5	78.9	78.9	29.964	0.00	0.00	0.000	0.109
7/16/10	7:00a	75.6	75.6	75.5	89	72.1	0.0	SW	0.00	1.0	SW	75.6	79.0	79.0	29.960	0.00	0.00	0.000	0.110
7/16/10	7:15a	75.8	75.8	75.6	88	72.0	0.0	SW	0.00	4.0	SW	75.8	79.2	79.2	29.959	0.00	0.00	0.000	0.113
7/16/10	7:30a	76.2	76.2	75.8	87	72.0	0.0	SW	0.00	3.0	SW	76.2	79.6	79.6	29.966	0.00	0.00	0.000	0.117
7/16/10	7:45a	76.8	76.8	76.3	86	72.3	0.0	SW	0.00	1.0	SW	76.8	80.4	80.4	29.958	0.00	0.00	0.000	0.123
7/16/10	8:00a	77.6	77.6	76.8	84	72.4	0.0	SW	0.00	2.0	SW	77.6	81.4	81.4	29.961	0.00	0.00	0.000	0.131
7/16/10	8:15a	78.8	78.8	77.6	82	72.8	0.0	SW	0.00	5.0	SW	78.8	82.9	82.9	29.961	0.00	0.00	0.000	0.144
7/16/10	8:30a	79.6	79.8	78.9	80	72.9	1.0	SW	0.25	5.0	SW	79.6	83.8	83.8	29.956	0.00	0.00	0.000	0.152
7/16/10	8:45a	81.4	81.4	79.6	77	73.5	0.0	SW	0.00	2.0	SW	81.4	86.7	86.7	29.948	0.00	0.00	0.000	0.171
7/16/10	9:00a	82.4	82.4	81.5	75	73.7	0.0	SW	0.00	2.0	SW	82.4	88.5	88.5	29.942	0.00	0.00	0.000	0.181
7/16/10	9:15a	83.1	83.1	82.5	73	73.5	0.0	W	0.00	4.0	W	83.1	89.7	89.7	29.938	0.00	0.00	0.000	0.189
7/16/10	9:30a	83.2	83.6	83.0	74	74.0	1.0	E	0.25	4.0	WNW	83.2	90.3	90.3	29.940	0.00	0.00	0.000	0.190
7/16/10	9:45a	83.8	83.8	83.1	73	74.2	0.0	E	0.00	5.0	E	83.8	91.5	91.5	29.934	0.00	0.00	0.000	0.196
7/16/10	10:00a	84.8	84.8	83.9	71	74.3	0.0	E	0.00	5.0	WSW	84.8	92.8	92.8	29.926	0.00	0.00	0.000	0.206
7/16/10	10:15a	85.0	85.2	84.8	71	74.5	1.0	E	0.25	5.0	N	85.0	93.2	93.2	29.924	0.00	0.00	0.000	0.208
7/16/10	10:30a	84.8	85.0	84.6	72	74.8	2.0	E	0.50	6.0	WNW	84.8	93.2	93.2	29.923	0.00	0.00	0.000	0.206
7/16/10	10:45a	86.5	86.5	84.8	69	75.1	1.0	ESE	0.25	4.0	ESE	86.5	96.0	96.0	29.921	0.00	0.00	0.000	0.224
7/16/10	11:00a	87.4	87.5	86.6	67	75.1	1.0	E	0.25	8.0	WSW	87.4	96.9	96.9	29.913	0.00	0.00	0.000	0.233
7/16/10	11:15a	88.3	88.3	87.1	67	75.9	1.0	SW	0.25	7.0	SW	88.3	98.6	98.6	29.910	0.00	0.00	0.000	0.243
7/16/10	11:30a	89.9	89.9	88.4	65	76.6	1.0	NE	0.25	6.0	WNW	89.9	102.5	102.5	29.906	0.00	0.00	0.000	0.259
7/16/10	11:45a	88.6	90.1	88.6	66	75.8	2.0	NW	0.50	7.0	NNW	88.6	99.0	99.0	29.906	0.00	0.00	0.000	0.246
7/16/10	12:00p	89.5	89.5	88.2	65	76.2	1.0	E	0.25	5.0	WNW	89.5	101.2	101.2	29.897	0.00	0.00	0.000	0.255
7/16/10	12:15p	90.7	90.7	89.5	63	76.4	1.0	NE	0.25	6.0	E	90.7	103.5	103.5	29.894	0.00	0.00	0.000	0.268
7/16/10	12:30p	90.8	90.8	90.5	64	76.9	1.0	NE	0.25	6.0	W	90.8	104.4	104.4	29.883	0.00	0.00	0.000	0.269
7/16/10	12:45p	89.8	90.8	89.5	65	76.5	2.0	NW	0.50	7.0	NW	89.8	102.2	102.2	29.878	0.00	0.00	0.000	0.258
7/16/10	1:00p	90.8	90.8	89.8	63	76.5	2.0	NW	0.50	7.0	WNW	90.8	103.7	103.7	29.866	0.00	0.00	0.000	0.269
7/16/10	1:15p	91.8	91.8	90.8	61	76.4	1.0	NW	0.25	8.0	WNW	91.8	105.1	105.1	29.863	0.00	0.00	0.000	0.279

Gowanus Phase III Weather Data 7/16/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/16/10	1:30p	92.6	92.6	91.9	60	76.7	1.0	NW	0.25	7.0	WNW	92.6	106.6	106.6	29.852	0.00	0.00	0.000	0.287
7/16/10	1:45p	91.6	92.7	91.6	62	76.7	2.0	E	0.50	7.0	WNW	91.6	105.3	105.3	29.847	0.00	0.00	0.000	0.277
7/16/10	2:00p	91.9	91.9	91.5	61	76.5	2.0	NW	0.50	10.0	ESE	91.9	105.4	105.4	29.843	0.00	0.00	0.000	0.280
7/16/10	2:15p	89.6	90.9	89.6	67	77.2	0.0	S	0.00	3.0	S	89.6	102.7	102.7	29.839	0.02	0.16	0.000	0.256
7/16/10	2:30p	90.1	90.1	88.9	66	77.2	1.0	SW	0.25	4.0	SW	90.1	103.7	103.7	29.837	0.00	0.00	0.000	0.261
7/16/10	2:45p	88.0	90.3	88.0	59	71.9	3.0	NW	0.75	9.0	WNW	88.0	94.5	94.5	29.833	0.00	0.00	0.000	0.240
7/16/10	3:00p	88.8	88.8	87.2	60	73.1	1.0	NW	0.25	6.0	WNW	88.8	96.8	96.8	29.822	0.00	0.00	0.000	0.248
7/16/10	3:15p	91.5	91.5	88.9	62	76.6	1.0	E	0.25	5.0	NNE	91.5	105.0	105.0	29.817	0.00	0.00	0.000	0.276
7/16/10	3:30p	90.6	91.8	90.6	66	77.7	2.0	WNW	0.50	7.0	WNW	90.6	105.1	105.1	29.815	0.00	0.00	0.000	0.267
7/16/10	3:45p	91.8	91.8	90.5	61	76.4	1.0	NE	0.25	5.0	WNW	91.8	105.1	105.1	29.803	0.00	0.00	0.000	0.279
7/16/10	4:00p	93.5	93.5	91.8	54	74.4	1.0	ENE	0.25	6.0	NW	93.5	105.2	105.2	29.802	0.00	0.00	0.000	0.297
7/16/10	4:15p	94.0	94.0	93.5	53	74.3	1.0	NE	0.25	8.0	NE	94.0	105.7	105.7	29.798	0.00	0.00	0.000	0.302
7/16/10	4:30p	92.7	94.1	92.7	58	75.8	2.0	NW	0.50	8.0	WSW	92.7	105.7	105.7	29.798	0.00	0.00	0.000	0.289
7/16/10	4:45p	91.8	92.7	91.8	58	74.9	2.0	NW	0.50	8.0	WNW	91.8	103.3	103.3	29.796	0.00	0.00	0.000	0.279
7/16/10	5:00p	92.5	92.5	91.8	55	74.0	1.0	NE	0.25	6.0	WNW	92.5	103.3	103.3	29.790	0.00	0.00	0.000	0.286
7/16/10	5:15p	93.5	93.5	92.5	54	74.4	1.0	E	0.25	6.0	SW	93.5	105.2	105.2	29.789	0.00	0.00	0.000	0.297
7/16/10	5:30p	94.0	94.1	93.5	53	74.3	1.0	SW	0.25	6.0	ESE	94.0	105.7	105.7	29.788	0.00	0.00	0.000	0.302
7/16/10	5:45p	93.0	93.9	93.0	53	73.3	2.0	ENE	0.50	9.0	SSW	93.0	103.2	103.2	29.788	0.00	0.00	0.000	0.292
7/16/10	6:00p	92.6	93.0	92.6	53	73.0	1.0	SW	0.25	6.0	SSE	92.6	102.3	102.3	29.794	0.00	0.00	0.000	0.287
7/16/10	6:15p	92.3	92.5	92.3	54	73.2	1.0	SW	0.25	6.0	SW	92.3	102.2	102.2	29.796	0.00	0.00	0.000	0.284
7/16/10	6:30p	91.8	92.3	91.8	54	72.8	1.0	WSW	0.25	6.0	WSW	91.8	101.0	101.0	29.801	0.00	0.00	0.000	0.279
7/16/10	6:45p	91.7	91.8	91.7	53	72.1	1.0	WSW	0.25	7.0	S	91.7	100.2	100.2	29.801	0.00	0.00	0.000	0.278
7/16/10	7:00p	91.7	91.7	91.6	53	72.1	1.0	WSW	0.25	5.0	WSW	91.7	100.2	100.2	29.800	0.00	0.00	0.000	0.278
7/16/10	7:15p	91.6	91.8	91.6	53	72.0	1.0	WSW	0.25	6.0	SW	91.6	100.0	100.0	29.795	0.00	0.00	0.000	0.277
7/16/10	7:30p	90.7	91.5	90.7	53	71.2	1.0	SW	0.25	6.0	SW	90.7	98.0	98.0	29.789	0.00	0.00	0.000	0.268
7/16/10	7:45p	90.2	90.7	90.2	53	70.8	0.0	SW	0.00	4.0	SW	90.2	96.9	96.9	29.792	0.00	0.00	0.000	0.262
7/16/10	8:00p	89.9	90.2	89.9	54	71.0	1.0	W	0.25	5.0	W	89.9	96.8	96.8	29.794	0.00	0.00	0.000	0.259
7/16/10	8:15p	89.4	89.9	89.4	56	71.6	0.0	W	0.00	5.0	W	89.4	96.6	96.6	29.796	0.00	0.00	0.000	0.254
7/16/10	8:30p	88.6	89.4	88.6	58	71.9	0.0	W	0.00	3.0	W	88.6	95.6	95.6	29.797	0.00	0.00	0.000	0.246
7/16/10	8:45p	88.3	88.6	88.3	59	72.2	0.0	W	0.00	1.0	W	88.3	95.3	95.3	29.798	0.00	0.00	0.000	0.243
7/16/10	9:00p	88.4	88.4	88.2	59	72.2	0.0	W	0.00	3.0	W	88.4	95.5	95.5	29.802	0.00	0.00	0.000	0.244
7/16/10	9:15p	88.2	88.4	88.2	59	72.1	1.0	W	0.25	7.0	SW	88.2	95.0	95.0	29.814	0.00	0.00	0.000	0.242
7/16/10	9:30p	88.0	88.3	88.0	59	71.9	1.0	WSW	0.25	7.0	SW	88.0	94.5	94.5	29.817	0.00	0.00	0.000	0.240
7/16/10	9:45p	87.5	88.0	87.5	58	70.9	0.0	WSW	0.00	6.0	WSW	87.5	93.5	93.5	29.821	0.00	0.00	0.000	0.234
7/16/10	10:00p	87.1	87.5	87.1	58	70.5	0.0	SW	0.00	2.0	SW	87.1	93.0	93.0	29.823	0.00	0.00	0.000	0.230
7/16/10	10:15p	86.7	87.1	86.7	59	70.7	0.0	SW	0.00	2.0	SW	86.7	92.6	92.6	29.831	0.00	0.00	0.000	0.226
7/16/10	10:30p	86.3	86.7	86.3	60	70.8	0.0	SW	0.00	2.0	SW	86.3	92.1	92.1	29.826	0.00	0.00	0.000	0.222
7/16/10	10:45p	85.8	86.3	85.8	61	70.8	0.0	SW	0.00	5.0	SW	85.8	91.5	91.5	29.826	0.00	0.00	0.000	0.217
7/16/10	11:00p	85.6	85.8	85.6	60	70.1	0.0	SW	0.00	4.0	SW	85.6	90.7	90.7	29.832	0.00	0.00	0.000	0.215
7/16/10	11:15p	85.1	85.6	85.1	61	70.1	0.0	SW	0.00	4.0	WSW	85.1	90.0	90.0	29.834	0.00	0.00	0.000	0.209
7/16/10	11:30p	84.8	85.1	84.8	62	70.3	0.0	SW	0.00	5.0	SW	84.8	89.7	89.7	29.833	0.00	0.00	0.000	0.206
7/16/10	11:45p	84.3	84.8	84.3	63	70.3	0.0	SW	0.00	4.0	SW	84.3	89.1	89.1	29.834	0.00	0.00	0.000	0.201
7/17/10	12:00a	83.8	84.3	83.8	64	70.3	0.0	SW	0.00	4.0	SW	83.8	88.5	88.5	29.833	0.00	0.00	0.000	0.196

Gowanus Phase III Weather Data 7/17/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/17/10	12:15a	83.6	83.8	83.6	64	70.1	0.0	SW	0.00	4.0	WSW	83.6	88.0	88.0	29.835	0.00	0.00	0.000	0.194
7/17/10	12:30a	83.4	83.6	83.4	64	69.9	0.0	WSW	0.00	5.0	SW	83.4	87.6	87.6	29.833	0.00	0.00	0.000	0.192
7/17/10	12:45a	83.1	83.4	83.1	65	70.1	0.0	WSW	0.00	2.0	WSW	83.1	87.1	87.1	29.832	0.00	0.00	0.000	0.189
7/17/10	1:00a	82.8	83.1	82.8	66	70.3	0.0	WSW	0.00	4.0	WSW	82.8	86.8	86.8	29.833	0.00	0.00	0.000	0.185
7/17/10	1:15a	82.5	82.8	82.5	67	70.4	0.0	WSW	0.00	3.0	WSW	82.5	86.6	86.6	29.836	0.00	0.00	0.000	0.182
7/17/10	1:30a	82.2	82.5	82.2	68	70.6	0.0	WSW	0.00	2.0	WSW	82.2	86.2	86.2	29.837	0.00	0.00	0.000	0.179
7/17/10	1:45a	82.0	82.2	82.0	68	70.4	0.0	WSW	0.00	2.0	WSW	82.0	85.9	85.9	29.842	0.00	0.00	0.000	0.177
7/17/10	2:00a	81.8	82.0	81.8	68	70.2	0.0	WSW	0.00	2.0	WSW	81.8	85.5	85.5	29.847	0.00	0.00	0.000	0.175
7/17/10	2:15a	81.6	81.8	81.6	69	70.4	0.0	WSW	0.00	3.0	WSW	81.6	85.3	85.3	29.848	0.00	0.00	0.000	0.173
7/17/10	2:30a	81.2	81.5	81.2	69	70.1	0.0	WSW	0.00	3.0	WSW	81.2	84.6	84.6	29.848	0.00	0.00	0.000	0.169
7/17/10	2:45a	80.9	81.2	80.9	70	70.2	1.0	WSW	0.25	7.0	SW	80.9	84.2	84.2	29.848	0.00	0.00	0.000	0.166
7/17/10	3:00a	80.7	80.9	80.7	71	70.4	0.0	WSW	0.00	4.0	WSW	80.7	84.1	84.1	29.851	0.00	0.00	0.000	0.164
7/17/10	3:15a	80.5	80.7	80.5	71	70.2	0.0	WSW	0.00	4.0	WSW	80.5	83.7	83.7	29.856	0.00	0.00	0.000	0.161
7/17/10	3:30a	80.2	80.5	80.2	72	70.4	0.0	WSW	0.00	4.0	WSW	80.2	83.4	83.4	29.850	0.00	0.00	0.000	0.158
7/17/10	3:45a	79.9	80.2	79.9	73	70.5	0.0	WSW	0.00	2.0	WSW	79.9	83.1	83.1	29.852	0.00	0.00	0.000	0.155
7/17/10	4:00a	79.6	79.9	79.6	74	70.6	0.0	WSW	0.00	5.0	WSW	79.6	82.8	82.8	29.853	0.00	0.00	0.000	0.152
7/17/10	4:15a	79.3	79.6	79.3	74	70.3	0.0	WSW	0.00	2.0	WSW	79.3	82.3	82.3	29.854	0.00	0.00	0.000	0.149
7/17/10	4:30a	79.3	79.4	79.3	74	70.3	0.0	WSW	0.00	2.0	WSW	79.3	82.3	82.3	29.860	0.00	0.00	0.000	0.149
7/17/10	4:45a	79.1	79.3	79.1	75	70.5	0.0	WSW	0.00	2.0	WSW	79.1	82.2	82.2	29.863	0.00	0.00	0.000	0.147
7/17/10	5:00a	78.9	79.1	78.9	75	70.3	0.0	WSW	0.00	4.0	WSW	78.9	81.9	81.9	29.864	0.00	0.00	0.000	0.145
7/17/10	5:15a	78.7	78.9	78.7	75	70.1	0.0	WSW	0.00	5.0	WSW	78.7	81.6	81.6	29.863	0.00	0.00	0.000	0.143
7/17/10	5:30a	78.5	78.7	78.5	76	70.3	0.0	WSW	0.00	1.0	WSW	78.5	81.5	81.5	29.864	0.00	0.00	0.000	0.141
7/17/10	5:45a	78.2	78.5	78.2	77	70.4	0.0	WSW	0.00	1.0	WSW	78.2	81.2	81.2	29.867	0.00	0.00	0.000	0.137
7/17/10	6:00a	78.2	78.2	78.2	77	70.4	0.0	WSW	0.00	2.0	WSW	78.2	81.2	81.2	29.877	0.00	0.00	0.000	0.137
7/17/10	6:15a	78.3	78.3	78.2	77	70.5	0.0	WSW	0.00	5.0	WSW	78.3	81.3	81.3	29.879	0.00	0.00	0.000	0.139
7/17/10	6:30a	78.5	78.5	78.3	77	70.7	0.0	WSW	0.00	2.0	WSW	78.5	81.6	81.6	29.880	0.00	0.00	0.000	0.141
7/17/10	6:45a	78.5	78.7	78.5	77	70.7	0.0	WSW	0.00	3.0	WSW	78.5	81.6	81.6	29.882	0.00	0.00	0.000	0.141
7/17/10	7:00a	78.5	78.6	78.5	77	70.7	0.0	WSW	0.00	2.0	WSW	78.5	81.6	81.6	29.882	0.00	0.00	0.000	0.141
7/17/10	7:15a	78.6	78.6	78.4	77	70.8	0.0	WSW	0.00	2.0	WSW	78.6	81.8	81.8	29.885	0.00	0.00	0.000	0.142
7/17/10	7:30a	79.6	79.6	78.6	75	71.0	0.0	WSW	0.00	4.0	WSW	79.6	83.0	83.0	29.891	0.00	0.00	0.000	0.152
7/17/10	7:45a	80.2	80.2	79.6	74	71.2	0.0	WSW	0.00	4.0	WSW	80.2	83.8	83.8	29.886	0.00	0.00	0.000	0.158
7/17/10	8:00a	81.8	81.8	80.2	71	71.5	0.0	WSW	0.00	3.0	WSW	81.8	86.2	86.2	29.889	0.00	0.00	0.000	0.175
7/17/10	8:15a	81.3	82.0	81.2	71	71.0	1.0	WSW	0.25	5.0	WSW	81.3	85.2	85.2	29.894	0.00	0.00	0.000	0.170
7/17/10	8:30a	82.7	82.7	81.2	67	70.6	1.0	SW	0.25	6.0	WSW	82.7	86.9	86.9	29.894	0.00	0.00	0.000	0.184
7/17/10	8:45a	83.2	83.2	82.7	66	70.7	0.0	WSW	0.00	5.0	WSW	83.2	87.7	87.7	29.890	0.00	0.00	0.000	0.190
7/17/10	9:00a	85.6	85.6	83.3	60	70.1	0.0	WSW	0.00	5.0	WSW	85.6	90.7	90.7	29.885	0.00	0.00	0.000	0.215
7/17/10	9:15a	85.9	86.1	85.7	57	68.9	0.0	WSW	0.00	4.0	WSW	85.9	90.2	90.2	29.881	0.00	0.00	0.000	0.218
7/17/10	9:30a	86.7	86.7	85.9	56	69.1	0.0	NE	0.00	3.0	ENE	86.7	91.5	91.5	29.880	0.00	0.00	0.000	0.226
7/17/10	9:45a	87.2	87.5	86.7	54	68.5	1.0	N	0.25	6.0	N	87.2	91.7	91.7	29.879	0.00	0.00	0.000	0.231
7/17/10	10:00a	88.2	88.2	87.2	52	68.4	0.0	W	0.00	4.0	W	88.2	92.5	92.5	29.880	0.00	0.00	0.000	0.242
7/17/10	10:15a	87.8	88.6	87.8	50	66.8	1.0	WSW	0.25	7.0	SW	87.8	91.1	91.1	29.879	0.00	0.00	0.000	0.238
7/17/10	10:30a	89.0	89.1	87.8	48	66.8	1.0	WSW	0.25	8.0	SW	89.0	93.0	93.0	29.877	0.00	0.00	0.000	0.250
7/17/10	10:45a	90.2	90.2	88.7	47	67.2	0.0	SW	0.00	4.0	SW	90.2	94.4	94.4	29.869	0.00	0.00	0.000	0.262
7/17/10	11:00a	90.8	90.8	90.1	46	67.2	0.0	SW	0.00	5.0	WSW	90.8	95.1	95.1	29.875	0.00	0.00	0.000	0.269
7/17/10	11:15a	92.0	92.0	91.0	45	67.6	0.0	W	0.00	3.0	NW	92.0	96.9	96.9	29.876	0.00	0.00	0.000	0.281
7/17/10	11:30a	92.6	92.9	92.1	43	66.8	1.0	WSW	0.25	7.0	SW	92.6	97.1	97.1	29.877	0.00	0.00	0.000	0.287
7/17/10	11:45a	92.6	92.6	92.1	43	66.8	1.0	SW	0.25	6.0	SW	92.6	97.1	97.1	29.867	0.00	0.00	0.000	0.287
7/17/10	12:00p	93.1	93.1	92.6	42	66.6	1.0	WSW	0.25	8.0	WSW	93.1	97.5	97.5	29.865	0.00	0.00	0.000	0.293
7/17/10	12:15p	94.1	94.1	93.1	41	66.8	1.0	SW	0.25	6.0	SW	94.1	98.8	98.8	29.864	0.00	0.00	0.000	0.303
7/17/10	12:30p	93.1	94.1	93.1	42	66.6	1.0	SW	0.25	7.0	SW	93.1	97.5	97.5	29.863	0.00	0.00	0.000	0.293
7/17/10	12:45p	93.7	93.7	93.0	40	65.7	2.0	WSW	0.50	8.0	S	93.7	97.6	97.6	29.861	0.00	0.00	0.000	0.299
7/17/10	1:00p	95.1	95.2	93.7	39	66.2	1.0	W	0.25	5.0	W	95.1	99.6	99.6	29.860	0.00	0.00	0.000	0.314
7/17/10	1:15p	95.5	95.5	94.8	38	65.9	2.0	WSW	0.50	7.0	SW	95.5	99.7	99.7	29.848	0.00	0.00	0.000	0.318

Gowanus Phase III Weather Data 7/17/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/17/10	1:30p	95.3	95.5	95.2	38	65.7	1.0	W	0.25	6.0	SW	95.3	99.4	99.4	29.848	0.00	0.00	0.000	0.316
7/17/10	1:45p	96.7	96.7	95.4	37	66.1	1.0	W	0.25	6.0	SW	96.7	101.2	101.2	29.841	0.00	0.00	0.000	0.330
7/17/10	2:00p	96.2	96.9	96.0	37	65.7	2.0	WSW	0.50	10.0	WSW	96.2	100.3	100.3	29.840	0.00	0.00	0.000	0.325
7/17/10	2:15p	96.3	96.5	96.1	37	65.8	2.0	WSW	0.50	9.0	WSW	96.3	100.5	100.5	29.832	0.00	0.00	0.000	0.326
7/17/10	2:30p	95.5	96.4	95.5	38	65.9	1.0	W	0.25	5.0	WSW	95.5	99.7	99.7	29.831	0.00	0.00	0.000	0.318
7/17/10	2:45p	96.6	96.6	95.5	37	66.1	1.0	W	0.25	9.0	SSW	96.6	101.1	101.1	29.825	0.00	0.00	0.000	0.329
7/17/10	3:00p	94.8	96.7	94.8	38	65.2	2.0	SW	0.50	11.0	SW	94.8	98.4	98.4	29.821	0.00	0.00	0.000	0.310
7/17/10	3:15p	96.3	96.3	94.7	37	65.8	2.0	SW	0.50	7.0	WSW	96.3	100.5	100.5	29.816	0.00	0.00	0.000	0.326
7/17/10	3:30p	95.8	96.3	95.7	37	65.4	2.0	WSW	0.50	10.0	SW	95.8	99.6	99.6	29.810	0.00	0.00	0.000	0.321
7/17/10	3:45p	95.2	95.8	95.0	37	64.8	2.0	WSW	0.50	8.0	WSW	95.2	98.6	98.6	29.811	0.00	0.00	0.000	0.315
7/17/10	4:00p	95.7	95.8	95.2	37	65.3	1.0	WSW	0.25	6.0	WSW	95.7	99.4	99.4	29.802	0.00	0.00	0.000	0.320
7/17/10	4:15p	94.6	95.7	94.6	37	64.3	2.0	SW	0.50	7.0	SW	94.6	97.5	97.5	29.800	0.00	0.00	0.000	0.308
7/17/10	4:30p	94.2	94.7	94.2	40	66.2	2.0	WSW	0.50	8.0	SSW	94.2	98.5	98.5	29.789	0.00	0.00	0.000	0.304
7/17/10	4:45p	94.0	94.2	94.0	39	65.3	2.0	WSW	0.50	8.0	SW	94.0	97.6	97.6	29.792	0.00	0.00	0.000	0.302
7/17/10	5:00p	93.7	94.1	93.7	41	66.4	2.0	WSW	0.50	7.0	SW	93.7	98.1	98.1	29.787	0.00	0.00	0.000	0.299
7/17/10	5:15p	93.3	93.7	93.3	42	66.8	2.0	WSW	0.50	8.0	SSW	93.3	97.9	97.9	29.787	0.00	0.00	0.000	0.295
7/17/10	5:30p	93.2	93.3	93.1	42	66.7	1.0	WSW	0.25	8.0	SW	93.2	97.7	97.7	29.786	0.00	0.00	0.000	0.294
7/17/10	5:45p	92.6	93.2	92.6	44	67.5	1.0	WSW	0.25	7.0	SSW	92.6	97.5	97.5	29.789	0.00	0.00	0.000	0.287
7/17/10	6:00p	92.5	92.6	92.4	44	67.4	1.0	WSW	0.25	6.0	WSW	92.5	97.4	97.4	29.796	0.00	0.00	0.000	0.286
7/17/10	6:15p	91.4	92.5	91.4	45	67.1	2.0	WSW	0.50	12.0	WSW	91.4	95.8	95.8	29.799	0.00	0.00	0.000	0.275
7/17/10	6:30p	91.1	91.4	91.1	46	67.4	1.0	WSW	0.25	6.0	SW	91.1	95.7	95.7	29.799	0.00	0.00	0.000	0.272
7/17/10	6:45p	90.8	91.1	90.8	47	67.8	1.0	W	0.25	7.0	SSW	90.8	95.5	95.5	29.802	0.00	0.00	0.000	0.269
7/17/10	7:00p	90.4	90.8	90.4	47	67.4	1.0	WSW	0.25	7.0	W	90.4	94.8	94.8	29.802	0.00	0.00	0.000	0.265
7/17/10	7:15p	90.0	90.4	90.0	48	67.7	1.0	W	0.25	8.0	WSW	90.0	94.4	94.4	29.803	0.00	0.00	0.000	0.260
7/17/10	7:30p	89.8	90.0	89.8	49	68.1	1.0	WSW	0.25	10.0	SSW	89.8	94.5	94.5	29.803	0.00	0.00	0.000	0.258
7/17/10	7:45p	89.1	89.8	89.1	49	67.5	2.0	SW	0.50	8.0	SW	89.1	93.5	93.5	29.802	0.00	0.00	0.000	0.251
7/17/10	8:00p	88.8	89.1	88.8	50	67.8	1.0	SW	0.25	7.0	SW	88.8	93.2	93.2	29.802	0.00	0.00	0.000	0.248
7/17/10	8:15p	88.3	88.8	88.3	51	67.9	1.0	SW	0.25	6.0	SW	88.3	92.4	92.4	29.802	0.00	0.00	0.000	0.243
7/17/10	8:30p	87.8	88.3	87.8	52	68.0	1.0	SW	0.25	7.0	SW	87.8	91.8	91.8	29.802	0.00	0.00	0.000	0.238
7/17/10	8:45p	87.5	87.8	87.5	53	68.3	1.0	SW	0.25	6.0	WSW	87.5	91.8	91.8	29.802	0.00	0.00	0.000	0.234
7/17/10	9:00p	87.1	87.5	87.1	54	68.4	0.0	SW	0.00	5.0	SW	87.1	91.6	91.6	29.803	0.00	0.00	0.000	0.230
7/17/10	9:15p	86.8	87.1	86.8	54	68.2	0.0	SW	0.00	7.0	WSW	86.8	91.0	91.0	29.805	0.00	0.00	0.000	0.227
7/17/10	9:30p	86.5	86.8	86.5	54	67.9	0.0	SSW	0.00	5.0	SSW	86.5	90.4	90.4	29.806	0.00	0.00	0.000	0.224
7/17/10	9:45p	86.2	86.5	86.2	55	68.1	0.0	SW	0.00	4.0	SW	86.2	90.1	90.1	29.813	0.00	0.00	0.000	0.221
7/17/10	10:00p	85.9	86.2	85.9	55	67.9	0.0	SW	0.00	6.0	SW	85.9	89.5	89.5	29.812	0.00	0.00	0.000	0.218
7/17/10	10:15p	85.5	85.9	85.5	56	68.0	0.0	SW	0.00	5.0	SW	85.5	89.1	89.1	29.803	0.00	0.00	0.000	0.214
7/17/10	10:30p	85.1	85.5	85.1	57	68.2	0.0	SW	0.00	2.0	SW	85.1	88.7	88.7	29.801	0.00	0.00	0.000	0.209
7/17/10	10:45p	84.8	85.1	84.8	57	67.9	0.0	SW	0.00	4.0	SW	84.8	88.2	88.2	29.799	0.00	0.00	0.000	0.206
7/17/10	11:00p	84.6	84.8	84.6	56	67.2	0.0	SW	0.00	3.0	SW	84.6	87.6	87.6	29.801	0.00	0.00	0.000	0.204
7/17/10	11:15p	84.6	84.6	84.6	56	67.2	0.0	WSW	0.00	5.0	SW	84.6	87.6	87.6	29.803	0.00	0.00	0.000	0.204
7/17/10	11:30p	84.1	84.6	84.1	59	68.2	0.0	SW	0.00	4.0	SW	84.1	87.6	87.6	29.797	0.00	0.00	0.000	0.199
7/17/10	11:45p	83.6	84.1	83.6	61	68.7	1.0	SW	0.25	5.0	SW	83.6	87.2	87.2	29.802	0.00	0.00	0.000	0.194
7/18/10	12:00a	83.3	83.6	83.3	63	69.4	0.0	WSW	0.00	6.0	WSW	83.3	87.1	87.1	29.802	0.00	0.00	0.000	0.191

Gowanus Phase III Weather Data 7/18/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/18/10	12:15a	83.3	83.4	83.3	63	69.4	0.0	W	0.00	6.0	WSW	83.3	87.1	87.1	29.810	0.00	0.00	0.000	0.191
7/18/10	12:30a	83.0	83.3	83.0	64	69.6	0.0	W	0.00	6.0	SW	83.0	86.7	86.7	29.815	0.00	0.00	0.000	0.188
7/18/10	12:45a	82.7	83.0	82.7	65	69.7	0.0	SW	0.00	4.0	SW	82.7	86.4	86.4	29.814	0.00	0.00	0.000	0.184
7/18/10	1:00a	82.5	82.7	82.5	66	70.0	0.0	SW	0.00	2.0	SW	82.5	86.3	86.3	29.814	0.00	0.00	0.000	0.182
7/18/10	1:15a	82.4	82.6	82.4	66	69.9	0.0	SW	0.00	1.0	SW	82.4	86.1	86.1	29.811	0.00	0.00	0.000	0.181
7/18/10	1:30a	82.3	82.4	82.3	66	69.8	0.0	SW	0.00	1.0	SW	82.3	86.0	86.0	29.816	0.00	0.00	0.000	0.180
7/18/10	1:45a	82.1	82.3	82.1	68	70.5	0.0	SW	0.00	1.0	SW	82.1	86.1	86.1	29.816	0.00	0.00	0.000	0.178
7/18/10	2:00a	81.8	82.1	81.8	68	70.2	0.0	---	0.00	0.0	---	81.8	85.5	85.5	29.812	0.00	0.00	0.000	0.175
7/18/10	2:15a	81.5	81.8	81.5	69	70.3	0.0	SW	0.00	1.0	SW	81.5	85.2	85.2	29.805	0.00	0.00	0.000	0.172
7/18/10	2:30a	81.3	81.5	81.3	70	70.6	0.0	---	0.00	0.0	---	81.3	85.0	85.0	29.802	0.00	0.00	0.000	0.170
7/18/10	2:45a	81.2	81.3	81.2	70	70.5	0.0	SW	0.00	1.0	SW	81.2	84.8	84.8	29.800	0.00	0.00	0.000	0.169
7/18/10	3:00a	81.3	81.3	81.2	71	71.0	0.0	SW	0.00	4.0	SW	81.3	85.2	85.2	29.800	0.00	0.00	0.000	0.170
7/18/10	3:15a	81.2	81.3	81.2	71	70.9	0.0	SW	0.00	1.0	SW	81.2	85.0	85.0	29.797	0.00	0.00	0.000	0.169
7/18/10	3:30a	81.1	81.2	81.1	72	71.2	0.0	SW	0.00	4.0	SW	81.1	85.0	85.0	29.794	0.00	0.00	0.000	0.168
7/18/10	3:45a	80.8	81.1	80.8	72	70.9	0.0	SW	0.00	1.0	SW	80.8	84.5	84.5	29.799	0.00	0.00	0.000	0.165
7/18/10	4:00a	80.5	80.8	80.5	74	71.4	0.0	SW	0.00	2.0	SW	80.5	84.3	84.3	29.797	0.00	0.00	0.000	0.161
7/18/10	4:15a	80.1	80.4	80.1	75	71.5	0.0	SW	0.00	1.0	SW	80.1	83.8	83.8	29.796	0.00	0.00	0.000	0.157
7/18/10	4:30a	79.8	80.1	79.7	76	71.6	0.0	SW	0.00	3.0	SW	79.8	83.5	83.5	29.795	0.00	0.00	0.000	0.154
7/18/10	4:45a	79.6	79.7	79.5	76	71.4	0.0	SW	0.00	1.0	SW	79.6	83.1	83.1	29.796	0.00	0.00	0.000	0.152
7/18/10	5:00a	79.4	79.5	79.4	77	71.6	0.0	SW	0.00	5.0	SW	79.4	83.0	83.0	29.789	0.00	0.00	0.000	0.150
7/18/10	5:15a	79.3	79.4	79.3	77	71.5	0.0	SW	0.00	2.0	SW	79.3	82.8	82.8	29.790	0.00	0.00	0.000	0.149
7/18/10	5:30a	79.2	79.3	79.2	77	71.4	0.0	SW	0.00	4.0	SW	79.2	82.6	82.6	29.798	0.00	0.00	0.000	0.148
7/18/10	5:45a	79.0	79.2	79.0	78	71.6	0.0	SW	0.00	1.0	SW	79.0	82.5	82.5	29.800	0.00	0.00	0.000	0.146
7/18/10	6:00a	78.8	79.0	78.8	78	71.4	0.0	SW	0.00	1.0	SW	78.8	82.2	82.2	29.802	0.00	0.00	0.000	0.144
7/18/10	6:15a	78.9	78.9	78.8	78	71.5	0.0	SW	0.00	4.0	SW	78.9	82.3	82.3	29.804	0.00	0.00	0.000	0.145
7/18/10	6:30a	79.1	79.1	78.9	77	71.3	0.0	SW	0.00	2.0	SW	79.1	82.5	82.5	29.808	0.00	0.00	0.000	0.147
7/18/10	6:45a	79.4	79.4	79.1	76	71.2	0.0	SW	0.00	3.0	SW	79.4	82.8	82.8	29.806	0.00	0.00	0.000	0.150
7/18/10	7:00a	80.3	80.3	79.4	74	71.3	0.0	SW	0.00	2.0	SW	80.3	84.0	84.0	29.803	0.00	0.00	0.000	0.159
7/18/10	7:15a	81.2	81.2	80.3	72	71.3	0.0	SW	0.00	6.0	SW	81.2	85.2	85.2	29.810	0.00	0.00	0.000	0.169
7/18/10	7:30a	81.9	81.9	81.2	70	71.2	0.0	SW	0.00	4.0	SSW	81.9	86.1	86.1	29.805	0.00	0.00	0.000	0.176
7/18/10	7:45a	82.4	82.4	81.9	69	71.2	1.0	SW	0.25	5.0	SSW	82.4	86.9	86.9	29.815	0.00	0.00	0.000	0.181
7/18/10	8:00a	83.4	83.5	82.4	67	71.3	0.0	SW	0.00	5.0	SW	83.4	88.5	88.5	29.815	0.00	0.00	0.000	0.192
7/18/10	8:15a	84.4	84.5	83.4	64	70.9	0.0	SW	0.00	6.0	WSW	84.4	89.6	89.6	29.818	0.00	0.00	0.000	0.202
7/18/10	8:30a	85.1	85.1	84.5	63	71.1	0.0	WSW	0.00	4.0	WSW	85.1	90.6	90.6	29.819	0.00	0.00	0.000	0.209
7/18/10	8:45a	85.8	85.8	85.1	62	71.3	0.0	WSW	0.00	5.0	WSW	85.8	91.8	91.8	29.818	0.00	0.00	0.000	0.217
7/18/10	9:00a	87.6	87.6	85.9	59	71.5	0.0	WSW	0.00	4.0	WSW	87.6	94.0	94.0	29.817	0.00	0.00	0.000	0.235
7/18/10	9:15a	88.7	88.7	87.6	56	71.0	0.0	SSW	0.00	4.0	WSW	88.7	95.1	95.1	29.817	0.00	0.00	0.000	0.247
7/18/10	9:30a	89.4	89.4	88.7	54	70.6	1.0	WSW	0.25	6.0	WSW	89.4	95.8	95.8	29.818	0.00	0.00	0.000	0.254
7/18/10	9:45a	89.2	89.5	89.2	54	70.4	1.0	WSW	0.25	8.0	SSW	89.2	95.4	95.4	29.820	0.00	0.00	0.000	0.252
7/18/10	10:00a	89.7	89.7	89.0	54	70.8	1.0	WSW	0.25	7.0	WSW	89.7	96.4	96.4	29.825	0.00	0.00	0.000	0.257
7/18/10	10:15a	90.7	90.8	89.8	52	70.7	1.0	WSW	0.25	7.0	WSW	90.7	97.5	97.5	29.829	0.00	0.00	0.000	0.268
7/18/10	10:30a	90.5	90.6	90.3	52	70.5	1.0	SW	0.25	6.0	WNW	90.5	97.1	97.1	29.827	0.00	0.00	0.000	0.266
7/18/10	10:45a	91.3	91.3	90.5	51	70.6	1.0	SW	0.25	6.0	SSW	91.3	98.2	98.2	29.822	0.00	0.00	0.000	0.274
7/18/10	11:00a	91.9	91.9	91.2	50	70.6	1.0	WSW	0.25	5.0	WSW	91.9	98.9	98.9	29.818	0.00	0.00	0.000	0.280
7/18/10	11:15a	93.5	93.5	91.9	48	70.9	0.0	WSW	0.00	4.0	WSW	93.5	101.3	101.3	29.822	0.00	0.00	0.000	0.297
7/18/10	11:30a	93.4	94.1	93.3	46	69.5	1.0	SW	0.25	6.0	SW	93.4	100.1	100.1	29.826	0.00	0.00	0.000	0.296
7/18/10	11:45a	93.5	94.0	93.4	44	68.3	1.0	SW	0.25	12.0	SSW	93.5	99.3	99.3	29.831	0.00	0.00	0.000	0.297
7/18/10	12:00p	94.0	94.1	93.5	44	68.8	1.0	WSW	0.25	5.0	W	94.0	100.3	100.3	29.833	0.00	0.00	0.000	0.302
7/18/10	12:15p	94.5	94.5	93.5	43	68.5	1.0	NE	0.25	9.0	NE	94.5	100.7	100.7	29.833	0.00	0.00	0.000	0.307
7/18/10	12:30p	94.7	94.7	94.1	43	68.7	1.0	WSW	0.25	6.0	W	94.7	101.1	101.1	29.832	0.00	0.00	0.000	0.309
7/18/10	12:45p	95.6	95.8	94.8	41	68.1	1.0	W	0.25	8.0	SW	95.6	101.8	101.8	29.832	0.00	0.00	0.000	0.319
7/18/10	1:00p	96.3	96.3	95.3	41	68.8	1.0	WSW	0.25	7.0	SW	96.3	103.2	103.2	29.828	0.00	0.00	0.000	0.326
7/18/10	1:15p	96.8	97.0	96.3	40	68.5	1.0	WSW	0.25	6.0	WSW	96.8	103.6	103.6	29.823	0.00	0.00	0.000	0.331

Gowanus Phase III Weather Data 7/18/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/18/10	1:30p	95.5	96.8	95.5	39	66.6	2.0	W	0.50	7.0	W	95.5	100.4	100.4	29.819	0.00	0.00	0.000	0.318
7/18/10	1:45p	95.7	95.7	95.5	39	66.8	1.0	NW	0.25	5.0	WSW	95.7	100.7	100.7	29.817	0.00	0.00	0.000	0.320
7/18/10	2:00p	93.2	95.7	93.2	42	66.7	1.0	W	0.25	6.0	W	93.2	97.7	97.7	29.815	0.00	0.00	0.000	0.294
7/18/10	2:15p	92.8	93.1	92.7	43	67.0	1.0	W	0.25	6.0	W	92.8	97.4	97.4	29.813	0.00	0.00	0.000	0.290
7/18/10	2:30p	94.5	94.5	92.8	43	68.5	1.0	WSW	0.25	6.0	WSW	94.5	100.7	100.7	29.808	0.00	0.00	0.000	0.307
7/18/10	2:45p	95.7	95.7	94.5	42	68.9	1.0	W	0.25	8.0	SW	95.7	102.6	102.6	29.808	0.00	0.00	0.000	0.320
7/18/10	3:00p	95.3	95.8	95.3	43	69.3	1.0	W	0.25	8.0	SW	95.3	102.4	102.4	29.802	0.00	0.00	0.000	0.316
7/18/10	3:15p	95.4	95.8	95.3	41	68.0	1.0	SW	0.25	7.0	SW	95.4	101.4	101.4	29.802	0.00	0.00	0.000	0.317
7/18/10	3:30p	95.6	95.6	95.0	42	68.8	1.0	W	0.25	7.0	SW	95.6	102.4	102.4	29.802	0.00	0.00	0.000	0.319
7/18/10	3:45p	96.1	96.5	95.6	41	68.6	1.0	WSW	0.25	6.0	WSW	96.1	102.8	102.8	29.796	0.00	0.00	0.000	0.324
7/18/10	4:00p	95.6	96.1	95.6	40	67.4	1.0	WSW	0.25	6.0	WSW	95.6	101.2	101.2	29.791	0.00	0.00	0.000	0.319
7/18/10	4:15p	95.3	95.6	95.3	41	67.9	1.0	W	0.25	7.0	SW	95.3	101.2	101.2	29.788	0.00	0.00	0.000	0.316
7/18/10	4:30p	94.9	95.3	94.9	41	67.5	1.0	WSW	0.25	6.0	S	94.9	100.4	100.4	29.788	0.00	0.00	0.000	0.311
7/18/10	4:45p	94.8	95.1	94.8	40	66.7	1.0	SW	0.25	8.0	W	94.8	99.6	99.6	29.787	0.00	0.00	0.000	0.310
7/18/10	5:00p	94.2	94.7	94.2	40	66.2	1.0	W	0.25	8.0	SSW	94.2	98.5	98.5	29.788	0.00	0.00	0.000	0.304
7/18/10	5:15p	94.0	94.2	94.0	40	66.0	1.0	WSW	0.25	7.0	W	94.0	98.1	98.1	29.790	0.00	0.00	0.000	0.302
7/18/10	5:30p	93.1	93.9	93.1	41	65.9	2.0	WSW	0.50	8.0	SSE	93.1	97.0	97.0	29.788	0.00	0.00	0.000	0.293
7/18/10	5:45p	93.2	93.2	93.1	41	66.0	1.0	WSW	0.25	9.0	W	93.2	97.2	97.2	29.789	0.00	0.00	0.000	0.294
7/18/10	6:00p	93.1	93.2	93.1	40	65.2	2.0	WSW	0.50	7.0	W	93.1	96.5	96.5	29.794	0.00	0.00	0.000	0.293
7/18/10	6:15p	92.1	93.0	92.1	40	64.3	2.0	WSW	0.50	9.0	WSW	92.1	94.7	94.7	29.795	0.00	0.00	0.000	0.282
7/18/10	6:30p	91.8	92.1	91.8	40	64.0	2.0	WSW	0.50	8.0	SSW	91.8	94.2	94.2	29.801	0.00	0.00	0.000	0.279
7/18/10	6:45p	91.8	91.8	91.7	41	64.7	1.0	WSW	0.25	6.0	SW	91.8	94.7	94.7	29.802	0.00	0.00	0.000	0.279
7/18/10	7:00p	91.3	91.8	91.3	40	63.6	2.0	WSW	0.50	7.0	SW	91.3	93.4	93.4	29.805	0.00	0.00	0.000	0.274
7/18/10	7:15p	90.9	91.3	90.9	41	63.9	2.0	W	0.50	8.0	WSW	90.9	93.2	93.2	29.816	0.00	0.00	0.000	0.270
7/18/10	7:30p	90.5	90.9	90.5	40	62.9	1.0	WSW	0.25	8.0	NW	90.5	92.0	92.0	29.814	0.00	0.00	0.000	0.266
7/18/10	7:45p	90.2	90.5	90.2	41	63.3	1.0	WSW	0.25	6.0	WSW	90.2	92.0	92.0	29.817	0.00	0.00	0.000	0.262
7/18/10	8:00p	89.7	90.2	89.7	42	63.6	1.0	WSW	0.25	8.0	WSW	89.7	91.7	91.7	29.818	0.00	0.00	0.000	0.257
7/18/10	8:15p	89.4	89.7	89.4	42	63.3	0.0	WSW	0.00	5.0	WSW	89.4	91.3	91.3	29.819	0.00	0.00	0.000	0.254
7/18/10	8:30p	89.0	89.4	89.0	42	62.9	1.0	SW	0.25	5.0	WSW	89.0	90.8	90.8	29.822	0.00	0.00	0.000	0.250
7/18/10	8:45p	88.8	89.0	88.8	43	63.4	0.0	WSW	0.00	5.0	WSW	88.8	90.7	90.7	29.827	0.00	0.00	0.000	0.248
7/18/10	9:00p	88.4	88.8	88.4	44	63.7	0.0	SW	0.00	4.0	WSW	88.4	90.2	90.2	29.832	0.00	0.00	0.000	0.244
7/18/10	9:15p	88.0	88.4	88.0	45	64.0	0.0	SW	0.00	5.0	SW	88.0	89.7	89.7	29.837	0.00	0.00	0.000	0.240
7/18/10	9:30p	87.6	87.9	87.6	45	63.6	0.0	SW	0.00	3.0	SW	87.6	89.3	89.3	29.846	0.00	0.00	0.000	0.235
7/18/10	9:45p	87.1	87.6	87.1	46	63.8	0.0	WSW	0.00	1.0	WSW	87.1	89.0	89.0	29.845	0.00	0.00	0.000	0.230
7/18/10	10:00p	86.9	87.1	86.9	47	64.2	0.0	WSW	0.00	1.0	WSW	86.9	89.0	89.0	29.848	0.00	0.00	0.000	0.228
7/18/10	10:15p	86.6	86.9	86.6	47	64.0	0.0	WSW	0.00	1.0	WSW	86.6	88.5	88.5	29.849	0.00	0.00	0.000	0.225
7/18/10	10:30p	86.4	86.6	86.4	47	63.8	0.0	WSW	0.00	1.0	WSW	86.4	88.2	88.2	29.850	0.00	0.00	0.000	0.223
7/18/10	10:45p	86.2	86.4	86.2	47	63.6	0.0	WSW	0.00	1.0	WSW	86.2	87.9	87.9	29.848	0.00	0.00	0.000	0.221
7/18/10	11:00p	85.9	86.2	85.9	48	63.9	0.0	---	0.00	0.0	---	85.9	87.6	87.6	29.848	0.00	0.00	0.000	0.218
7/18/10	11:15p	85.6	85.9	85.6	49	64.2	0.0	---	0.00	0.0	---	85.6	87.4	87.4	29.848	0.00	0.00	0.000	0.215
7/18/10	11:30p	85.2	85.6	85.2	50	64.5	0.0	---	0.00	0.0	---	85.2	87.1	87.1	29.848	0.00	0.00	0.000	0.210
7/18/10	11:45p	84.8	85.2	84.7	51	64.7	0.0	WSW	0.00	1.0	WSW	84.8	86.8	86.8	29.845	0.00	0.00	0.000	0.206
7/19/10	12:00a	84.7	84.8	84.7	51	64.6	0.0	---	0.00	0.0	---	84.7	86.7	86.7	29.839	0.00	0.00	0.000	0.205

Gowanus Phase III Weather Data 7/19/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/19/10	12:15a	83.9	84.6	83.9	52	64.4	0.0	---	0.00	0.0	---	83.9	86.0	86.0	29.842	0.00	0.00	0.000	0.197
7/19/10	12:30a	83.6	83.9	83.6	53	64.7	0.0	---	0.00	0.0	---	83.6	85.6	85.6	29.836	0.00	0.00	0.000	0.194
7/19/10	12:45a	83.4	83.6	83.4	53	64.5	0.0	---	0.00	0.0	---	83.4	85.3	85.3	29.833	0.00	0.00	0.000	0.192
7/19/10	1:00a	83.2	83.4	83.2	54	64.8	0.0	---	0.00	0.0	---	83.2	85.1	85.1	29.833	0.00	0.00	0.000	0.190
7/19/10	1:15a	82.6	83.1	82.6	56	65.3	0.0	---	0.00	0.0	---	82.6	84.5	84.5	29.833	0.00	0.00	0.000	0.183
7/19/10	1:30a	82.4	82.6	82.4	56	65.1	0.0	---	0.00	0.0	---	82.4	84.2	84.2	29.833	0.00	0.00	0.000	0.181
7/19/10	1:45a	82.6	82.6	82.4	56	65.3	0.0	---	0.00	0.0	---	82.6	84.5	84.5	29.833	0.00	0.00	0.000	0.183
7/19/10	2:00a	82.3	82.5	82.3	56	65.0	0.0	---	0.00	0.0	---	82.3	84.0	84.0	29.833	0.00	0.00	0.000	0.180
7/19/10	2:15a	82.2	82.3	82.2	57	65.4	0.0	---	0.00	0.0	---	82.2	84.0	84.0	29.832	0.00	0.00	0.000	0.179
7/19/10	2:30a	82.6	82.6	82.2	59	66.8	0.0	---	0.00	0.0	---	82.6	84.9	84.9	29.833	0.00	0.00	0.000	0.183
7/19/10	2:45a	82.3	82.6	82.3	61	67.5	0.0	---	0.00	0.0	---	82.3	84.9	84.9	29.830	0.00	0.00	0.000	0.180
7/19/10	3:00a	81.8	82.3	81.8	62	67.5	0.0	---	0.00	0.0	---	81.8	84.3	84.3	29.831	0.00	0.00	0.000	0.175
7/19/10	3:15a	81.6	81.8	81.6	63	67.8	0.0	---	0.00	0.0	---	81.6	84.2	84.2	29.827	0.00	0.00	0.000	0.173
7/19/10	3:30a	81.2	81.6	81.2	64	67.9	0.0	---	0.00	0.0	---	81.2	83.7	83.7	29.818	0.00	0.00	0.000	0.169
7/19/10	3:45a	81.0	81.2	81.0	65	68.1	0.0	---	0.00	0.0	---	81.0	83.5	83.5	29.818	0.00	0.00	0.000	0.167
7/19/10	4:00a	81.1	81.1	80.9	64	67.8	0.0	---	0.00	0.0	---	81.1	83.5	83.5	29.810	0.00	0.00	0.000	0.168
7/19/10	4:15a	81.4	81.4	81.2	64	68.1	0.0	---	0.00	0.0	---	81.4	84.0	84.0	29.811	0.00	0.00	0.000	0.171
7/19/10	4:30a	81.2	81.4	81.2	63	67.4	0.0	---	0.00	0.0	---	81.2	83.5	83.5	29.814	0.00	0.00	0.000	0.169
7/19/10	4:45a	81.6	81.6	81.2	64	68.2	0.0	WSW	0.00	1.0	WSW	81.6	84.3	84.3	29.818	0.00	0.00	0.000	0.173
7/19/10	5:00a	81.4	81.7	81.4	66	68.9	0.0	WNW	0.00	4.0	WNW	81.4	84.4	84.4	29.817	0.00	0.00	0.000	0.171
7/19/10	5:15a	81.1	81.4	81.1	67	69.1	0.0	NNE	0.00	1.0	WNW	81.1	84.0	84.0	29.818	0.00	0.00	0.000	0.168
7/19/10	5:30a	80.8	81.1	80.8	69	69.7	0.0	NNE	0.00	3.0	NNW	80.8	83.9	83.9	29.822	0.00	0.00	0.000	0.165
7/19/10	5:45a	80.5	80.8	80.5	72	70.6	0.0	NNW	0.00	1.0	NNW	80.5	83.9	83.9	29.820	0.00	0.00	0.000	0.161
7/19/10	6:00a	80.2	80.5	80.2	75	71.6	0.0	NNW	0.00	2.0	NNW	80.2	84.0	84.0	29.824	0.00	0.00	0.000	0.158
7/19/10	6:15a	79.9	80.2	79.8	78	72.4	0.0	N	0.00	2.0	NNW	79.9	84.0	84.0	29.832	0.00	0.00	0.000	0.155
7/19/10	6:30a	79.7	79.9	79.7	80	73.0	0.0	NW	0.00	4.0	NNW	79.7	84.0	84.0	29.824	0.00	0.00	0.000	0.153
7/19/10	6:45a	79.8	79.8	79.7	80	73.1	0.0	NW	0.00	1.0	NW	79.8	84.2	84.2	29.819	0.00	0.00	0.000	0.154
7/19/10	7:00a	80.0	80.0	79.8	81	73.6	0.0	NW	0.00	1.0	NW	80.0	84.7	84.7	29.816	0.00	0.00	0.000	0.156
7/19/10	7:15a	81.2	81.2	80.0	79	74.1	0.0	NW	0.00	1.0	NW	81.2	86.7	86.7	29.807	0.00	0.00	0.000	0.169
7/19/10	7:30a	82.6	82.6	81.2	75	73.9	0.0	NW	0.00	1.0	NW	82.6	89.1	89.1	29.802	0.00	0.00	0.000	0.183
7/19/10	7:45a	83.6	83.6	82.7	74	74.4	0.0	NW	0.00	1.0	NW	83.6	91.3	91.3	29.801	0.00	0.00	0.000	0.194
7/19/10	8:00a	84.1	84.1	83.6	73	74.5	0.0	ENE	0.00	4.0	NW	84.1	92.2	92.2	29.804	0.00	0.00	0.000	0.199
7/19/10	8:15a	84.2	84.2	84.0	71	73.8	0.0	E	0.00	4.0	ENE	84.2	91.7	91.7	29.819	0.00	0.00	0.000	0.200
7/19/10	8:30a	83.3	84.1	83.3	71	72.9	1.0	SW	0.25	6.0	SSW	83.3	89.5	89.5	29.831	0.00	0.00	0.000	0.191
7/19/10	8:45a	83.0	83.3	83.0	73	73.4	0.0	WSW	0.00	4.0	WSW	83.0	89.4	89.4	29.817	0.00	0.00	0.000	0.188
7/19/10	9:00a	82.7	83.0	82.7	69	71.5	1.0	WSW	0.25	8.0	N	82.7	87.5	87.5	29.818	0.00	0.00	0.000	0.184
7/19/10	9:15a	82.0	82.6	82.0	67	70.0	1.0	WSW	0.25	7.0	WSW	82.0	85.6	85.6	29.817	0.00	0.00	0.000	0.177
7/19/10	9:30a	81.9	82.0	81.9	67	69.9	0.0	WSW	0.00	1.0	WSW	81.9	85.5	85.5	29.812	0.00	0.00	0.000	0.176
7/19/10	9:45a	81.2	81.9	81.2	68	69.6	0.0	WSW	0.00	1.0	WSW	81.2	84.4	84.4	29.829	0.00	0.00	0.000	0.169
7/19/10	10:00a	79.1	81.2	79.1	78	71.6	0.0	WSW	0.00	4.0	WSW	79.1	82.6	82.6	29.827	0.08	2.41	0.000	0.147
7/19/10	10:15a	77.1	78.9	77.1	82	71.2	0.0	NNE	0.00	2.0	NNE	77.1	80.4	80.4	29.817	0.01	0.14	0.000	0.126
7/19/10	10:30a	77.5	77.5	76.9	85	72.6	0.0	NNE	0.00	1.0	NNE	77.5	81.3	81.3	29.805	0.00	0.00	0.000	0.130
7/19/10	10:45a	79.3	79.3	77.5	82	73.3	0.0	NNE	0.00	4.0	NNE	79.3	83.7	83.7	29.817	0.00	0.00	0.000	0.149
7/19/10	11:00a	79.9	79.9	79.4	77	72.0	0.0	WSW	0.00	4.0	WSW	79.9	83.8	83.8	29.815	0.00	0.00	0.000	0.155
7/19/10	11:15a	80.4	80.5	79.9	75	71.7	0.0	WSW	0.00	5.0	WSW	80.4	84.3	84.3	29.811	0.00	0.00	0.000	0.160
7/19/10	11:30a	80.8	80.8	80.4	73	71.3	1.0	NNW	0.25	6.0	ESE	80.8	84.6	84.6	29.810	0.00	0.00	0.000	0.165
7/19/10	11:45a	82.1	82.1	80.8	71	71.8	1.0	NE	0.25	5.0	S	82.1	86.8	86.8	29.802	0.00	0.00	0.000	0.178
7/19/10	12:00p	84.2	84.2	82.4	68	72.5	1.0	NNW	0.25	4.0	NNW	84.2	90.6	90.6	29.795	0.00	0.00	0.000	0.200
7/19/10	12:15p	85.3	85.3	84.1	67	73.1	1.0	NE	0.25	4.0	NE	85.3	92.5	92.5	29.789	0.00	0.00	0.000	0.211
7/19/10	12:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.787	0.00	0.00	---	---
7/19/10	12:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.786	0.00	0.00	---	---
7/19/10	1:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.782	0.00	0.00	---	---
7/19/10	1:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.782	0.00	0.00	---	---

Gowanus Phase III Weather Data 7/19/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/19/10	1:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.771	0.00	0.00	---	---
7/19/10	1:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.764	0.00	0.00	---	---
7/19/10	2:00p	---	---	---	---	---	3.0	E	0.75	4.0	E	---	---	---	29.764	0.00	0.00	---	---
7/19/10	2:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.754	0.00	0.00	---	---
7/19/10	2:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.754	0.00	0.00	---	---
7/19/10	2:45p	91.2	91.4	91.0	57	73.8	2.0	ENE	0.50	8.0	WNW	91.2	101.2	101.2	29.751	0.00	0.00	0.000	0.273
7/19/10	3:00p	92.7	92.7	91.2	55	74.2	1.0	SW	0.25	9.0	SW	92.7	103.8	103.8	29.748	0.00	0.00	0.000	0.289
7/19/10	3:15p	94.2	94.2	92.8	53	74.4	1.0	SW	0.25	7.0	WSW	94.2	106.2	106.2	29.744	0.00	0.00	0.000	0.304
7/19/10	3:30p	93.3	94.4	93.3	53	73.6	2.0	E	0.50	6.0	SE	93.3	104.0	104.0	29.737	0.00	0.00	0.000	0.295
7/19/10	3:45p	95.1	95.2	93.3	50	73.5	1.0	SW	0.25	6.0	SW	95.1	105.9	105.9	29.727	0.00	0.00	0.000	0.314
7/19/10	4:00p	94.5	95.1	94.5	50	73.0	1.0	E	0.25	7.0	S	94.5	104.5	104.5	29.726	0.00	0.00	0.000	0.307
7/19/10	4:15p	93.0	94.4	93.0	52	72.8	2.0	SW	0.50	10.0	SSW	93.0	102.6	102.6	29.726	0.00	0.00	0.000	0.292
7/19/10	4:30p	92.6	93.0	92.5	52	72.4	1.0	NE	0.25	8.0	SW	92.6	101.7	101.7	29.725	0.00	0.00	0.000	0.287
7/19/10	4:45p	93.4	93.4	92.6	52	73.1	1.0	E	0.25	6.0	ENE	93.4	103.5	103.5	29.725	0.00	0.00	0.000	0.296
7/19/10	5:00p	93.6	93.7	93.4	52	73.3	1.0	WSW	0.25	6.0	WSW	93.6	104.0	104.0	29.719	0.00	0.00	0.000	0.298
7/19/10	5:15p	93.8	93.9	93.6	52	73.5	1.0	SSE	0.25	7.0	SW	93.8	104.4	104.4	29.724	0.00	0.00	0.000	0.300
7/19/10	5:30p	93.4	93.8	93.3	54	74.3	1.0	SW	0.25	7.0	WSW	93.4	104.9	104.9	29.734	0.00	0.00	0.000	0.296
7/19/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.740	0.00	0.00	---	---
7/19/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.733	0.00	0.00	---	---
7/19/10	6:15p	91.8	91.8	91.8	52	71.7	2.0	SW	0.50	7.0	WSW	91.8	99.9	99.9	29.728	0.00	0.00	0.000	0.279
7/19/10	6:30p	91.4	91.8	91.4	53	71.9	1.0	WSW	0.25	4.0	SW	91.4	99.6	99.6	29.731	0.00	0.00	0.000	0.275
7/19/10	6:45p	91.0	91.3	91.0	54	72.0	1.0	SW	0.25	7.0	WSW	91.0	99.2	99.2	29.741	0.00	0.00	0.000	0.271
7/19/10	7:00p	90.8	91.1	90.8	55	72.4	1.0	SW	0.25	5.0	SW	90.8	99.2	99.2	29.753	0.00	0.00	0.000	0.269
7/19/10	7:15p	90.8	90.8	90.8	56	72.9	0.0	WSW	0.00	5.0	WSW	90.8	99.8	99.8	29.757	0.00	0.00	0.000	0.269
7/19/10	7:30p	---	90.7	90.7	---	---	2.0	WSW	0.50	6.0	SW	---	---	---	29.777	0.00	0.00	---	---
7/19/10	7:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.787	0.00	0.00	---	---
7/19/10	8:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.785	0.00	0.00	---	---
7/19/10	8:15p	84.1	84.5	84.1	57	67.2	1.0	E	0.25	6.0	E	84.1	87.2	87.2	29.785	0.00	0.00	0.000	0.199
7/19/10	8:30p	83.8	84.1	83.8	57	66.9	1.0	ENE	0.25	4.0	NNW	83.8	86.7	86.7	29.785	0.00	0.00	0.000	0.196
7/19/10	8:45p	83.8	83.8	83.7	58	67.4	0.0	ENE	0.00	3.0	ENE	83.8	86.9	86.9	29.793	0.00	0.00	0.000	0.196
7/19/10	9:00p	84.0	84.0	83.8	59	68.1	1.0	ENE	0.25	6.0	NNE	84.0	87.5	87.5	29.795	0.00	0.00	0.000	0.198
7/19/10	9:15p	83.6	84.0	83.6	59	67.8	1.0	NE	0.25	5.0	NW	83.6	86.7	86.7	29.802	0.00	0.00	0.000	0.194
7/19/10	9:30p	83.6	83.6	83.6	60	68.2	0.0	SE	0.00	5.0	NW	83.6	86.9	86.9	29.802	0.00	0.00	0.000	0.194
7/19/10	9:45p	83.8	83.8	83.6	61	68.9	0.0	N	0.00	5.0	N	83.8	87.6	87.6	29.819	0.00	0.00	0.000	0.196
7/19/10	10:00p	84.2	84.2	83.8	61	69.3	1.0	NE	0.25	6.0	NNE	84.2	88.3	88.3	29.818	0.00	0.00	0.000	0.200
7/19/10	10:15p	82.3	84.2	82.3	72	72.4	0.0	NW	0.00	2.0	WNW	82.3	87.5	87.5	29.817	0.03	0.58	0.000	0.180
7/19/10	10:30p	80.3	82.0	80.3	78	72.8	0.0	NE	0.00	1.0	NE	80.3	84.7	84.7	29.816	0.00	0.00	0.000	0.159
7/19/10	10:45p	79.9	80.3	79.9	79	72.8	0.0	---	0.00	0.0	---	79.9	84.2	84.2	29.803	0.00	0.00	0.000	0.155
7/19/10	11:00p	79.9	79.9	79.8	80	73.2	0.0	---	0.00	0.0	---	79.9	84.3	84.3	29.805	0.00	0.00	0.000	0.155
7/19/10	11:15p	79.5	79.9	79.5	82	73.5	0.0	---	0.00	0.0	---	79.5	84.1	84.1	29.809	0.00	0.00	0.000	0.151
7/19/10	11:30p	79.5	79.6	79.5	82	73.5	0.0	---	0.00	0.0	---	79.5	84.1	84.1	29.810	0.00	0.00	0.000	0.151
7/19/10	11:45p	79.5	79.5	79.4	81	73.2	0.0	---	0.00	0.0	---	79.5	83.9	83.9	29.819	0.00	0.00	0.000	0.151
7/20/10	12:00a	79.8	79.8	79.5	80	73.1	0.0	NE	0.00	1.0	NE	79.8	84.2	84.2	29.832	0.00	0.00	0.000	0.154

Gowanus Phase III Weather Data 7/20/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/20/10	12:15a	79.7	79.8	79.7	80	73.0	0.0	NE	0.00	1.0	NE	79.7	84.0	84.0	29.832	0.00	0.00	0.000	0.153
7/20/10	12:30a	79.7	79.7	79.7	78	72.2	0.0	---	0.00	0.0	---	79.7	83.6	83.6	29.831	0.00	0.00	0.000	0.153
7/20/10	12:45a	79.9	79.9	79.7	79	72.8	0.0	---	0.00	0.0	---	79.9	84.2	84.2	29.831	0.00	0.00	0.000	0.155
7/20/10	1:00a	79.9	79.9	79.9	79	72.8	0.0	NE	0.00	1.0	NE	79.9	84.2	84.2	29.818	0.00	0.00	0.000	0.155
7/20/10	1:15a	79.7	79.9	79.7	79	72.6	0.0	NE	0.00	4.0	NE	79.7	83.8	83.8	29.819	0.00	0.00	0.000	0.153
7/20/10	1:30a	79.5	79.7	79.5	78	72.0	0.0	NE	0.00	2.0	NE	79.5	83.3	83.3	29.818	0.00	0.00	0.000	0.151
7/20/10	1:45a	79.3	79.5	79.3	79	72.2	0.0	NE	0.00	2.0	NE	79.3	83.1	83.1	29.817	0.00	0.00	0.000	0.149
7/20/10	2:00a	79.2	79.4	79.2	79	72.1	0.0	NE	0.00	1.0	NE	79.2	83.0	83.0	29.819	0.00	0.00	0.000	0.148
7/20/10	2:15a	79.0	79.2	79.0	80	72.3	0.0	NE	0.00	1.0	NE	79.0	82.8	82.8	29.821	0.00	0.00	0.000	0.146
7/20/10	2:30a	78.8	79.0	78.8	80	72.1	0.0	NE	0.00	1.0	NE	78.8	82.5	82.5	29.821	0.00	0.00	0.000	0.144
7/20/10	2:45a	78.7	78.8	78.7	80	72.0	0.0	NE	0.00	1.0	NE	78.7	82.4	82.4	29.823	0.00	0.00	0.000	0.143
7/20/10	3:00a	78.5	78.7	78.5	80	71.8	0.0	---	0.00	0.0	---	78.5	82.1	82.1	29.819	0.00	0.00	0.000	0.141
7/20/10	3:15a	78.2	78.5	78.2	80	71.5	0.0	NE	0.00	1.0	NE	78.2	81.7	81.7	29.825	0.00	0.00	0.000	0.137
7/20/10	3:30a	78.1	78.2	78.1	81	71.8	0.0	NE	0.00	1.0	NE	78.1	81.7	81.7	29.830	0.00	0.00	0.000	0.136
7/20/10	3:45a	78.0	78.1	78.0	81	71.7	0.0	---	0.00	0.0	---	78.0	81.5	81.5	29.831	0.00	0.00	0.000	0.135
7/20/10	4:00a	77.9	78.0	77.9	81	71.6	0.0	NE	0.00	2.0	NE	77.9	81.4	81.4	29.830	0.00	0.00	0.000	0.134
7/20/10	4:15a	77.8	77.9	77.8	80	71.1	0.0	---	0.00	0.0	---	77.8	81.1	81.1	29.831	0.00	0.00	0.000	0.133
7/20/10	4:30a	77.8	77.8	77.7	79	70.8	0.0	NE	0.00	2.0	NE	77.8	81.0	81.0	29.831	0.00	0.00	0.000	0.133
7/20/10	4:45a	77.8	77.8	77.8	77	70.0	0.0	NE	0.00	1.0	NE	77.8	80.7	80.7	29.833	0.00	0.00	0.000	0.133
7/20/10	5:00a	78.0	78.0	77.8	75	69.4	0.0	NE	0.00	1.0	NE	78.0	80.6	80.6	29.836	0.00	0.00	0.000	0.135
7/20/10	5:15a	77.9	78.0	77.9	75	69.3	0.0	NE	0.00	1.0	NE	77.9	80.5	80.5	29.844	0.00	0.00	0.000	0.134
7/20/10	5:30a	77.6	77.8	77.6	75	69.0	0.0	NE	0.00	2.0	NE	77.6	80.2	80.2	29.848	0.00	0.00	0.000	0.131
7/20/10	5:45a	77.5	77.6	77.5	76	69.3	0.0	NE	0.00	1.0	NE	77.5	80.2	80.2	29.857	0.00	0.00	0.000	0.130
7/20/10	6:00a	77.5	77.5	77.5	75	68.9	0.0	NE	0.00	5.0	NE	77.5	80.0	80.0	29.862	0.00	0.00	0.000	0.130
7/20/10	6:15a	77.5	77.5	77.5	74	68.6	0.0	NE	0.00	4.0	NE	77.5	79.9	79.9	29.863	0.00	0.00	0.000	0.130
7/20/10	6:30a	77.6	77.6	77.5	74	68.7	0.0	ENE	0.00	6.0	NNE	77.6	80.0	80.0	29.865	0.00	0.00	0.000	0.131
7/20/10	6:45a	77.6	77.6	77.5	74	68.7	0.0	N	0.00	5.0	N	77.6	80.0	80.0	29.876	0.00	0.00	0.000	0.131
7/20/10	7:00a	78.1	78.1	77.6	73	68.7	0.0	NNW	0.00	1.0	NNW	78.1	80.5	80.5	29.869	0.00	0.00	0.000	0.136
7/20/10	7:15a	78.0	78.1	78.0	74	69.0	0.0	---	0.00	0.0	---	78.0	80.5	80.5	29.870	0.00	0.00	0.000	0.135
7/20/10	7:30a	78.6	78.6	78.0	74	69.6	0.0	NNW	0.00	1.0	NNW	78.6	81.3	81.3	29.871	0.00	0.00	0.000	0.142
7/20/10	7:45a	79.7	79.7	78.6	72	69.9	0.0	NNW	0.00	2.0	NNW	79.7	82.6	82.6	29.880	0.00	0.00	0.000	0.153
7/20/10	8:00a	79.8	79.8	79.7	71	69.6	0.0	NNW	0.00	1.0	NNW	79.8	82.6	82.6	29.889	0.00	0.00	0.000	0.154
7/20/10	8:15a	81.6	81.6	79.8	67	69.6	0.0	NNW	0.00	2.0	NNW	81.6	84.9	84.9	29.889	0.00	0.00	0.000	0.173
7/20/10	8:30a	83.2	83.2	81.6	64	69.8	0.0	ESE	0.00	2.0	NE	83.2	87.1	87.1	29.894	0.00	0.00	0.000	0.190
7/20/10	8:45a	84.3	84.3	83.3	63	70.3	0.0	SSE	0.00	2.0	SSE	84.3	89.1	89.1	29.907	0.00	0.00	0.000	0.201
7/20/10	9:00a	83.9	84.4	83.9	63	70.0	0.0	SSE	0.00	1.0	SSE	83.9	88.4	88.4	29.912	0.00	0.00	0.000	0.197
7/20/10	9:15a	83.4	83.9	83.4	63	69.5	1.0	WSW	0.25	5.0	NNW	83.4	87.3	87.3	29.901	0.00	0.00	0.000	0.192
7/20/10	9:30a	84.5	84.5	83.4	61	69.6	1.0	E	0.25	6.0	NNE	84.5	88.9	88.9	29.895	0.00	0.00	0.000	0.203
7/20/10	9:45a	86.0	86.0	84.6	59	70.0	0.0	SE	0.00	4.0	ESE	86.0	91.1	91.1	29.895	0.00	0.00	0.000	0.219
7/20/10	10:00a	85.8	86.3	85.8	59	69.8	0.0	SE	0.00	5.0	N	85.8	90.7	90.7	29.887	0.00	0.00	0.000	0.217
7/20/10	10:15a	86.1	86.1	85.3	57	69.1	1.0	SSE	0.25	6.0	N	86.1	90.6	90.6	29.894	0.00	0.00	0.000	0.220
7/20/10	10:30a	86.6	86.6	86.1	57	69.6	0.0	ENE	0.00	5.0	NNW	86.6	91.7	91.7	29.894	0.00	0.00	0.000	0.225
7/20/10	10:45a	87.8	87.9	86.6	55	69.6	1.0	ENE	0.25	5.0	ENE	87.8	92.8	92.8	29.894	0.00	0.00	0.000	0.238
7/20/10	11:00a	88.4	88.4	87.7	54	69.6	0.0	ENE	0.00	2.0	NNW	88.4	93.7	93.7	29.910	0.00	0.00	0.000	0.244
7/20/10	11:15a	88.4	88.6	88.4	55	70.2	0.0	NNW	0.00	5.0	N	88.4	94.0	94.0	29.909	0.00	0.00	0.000	0.244
7/20/10	11:30a	87.1	88.5	87.1	57	70.0	1.0	W	0.25	5.0	NNE	87.1	92.6	92.6	29.910	0.00	0.00	0.000	0.230
7/20/10	11:45a	87.4	87.4	87.1	55	69.3	0.0	NNW	0.00	5.0	W	87.4	92.3	92.3	29.915	0.00	0.00	0.000	0.233
7/20/10	12:00p	87.4	87.4	87.2	57	70.3	0.0	W	0.00	5.0	W	87.4	93.0	93.0	29.921	0.00	0.00	0.000	0.233
7/20/10	12:15p	86.6	87.6	86.6	58	70.1	0.0	WSW	0.00	5.0	WSW	86.6	92.0	92.0	29.924	0.00	0.00	0.000	0.225
7/20/10	12:30p	86.1	86.6	85.9	58	69.6	1.0	WSW	0.25	4.0	WSW	86.1	91.0	91.0	29.921	0.00	0.00	0.000	0.220
7/20/10	12:45p	86.9	87.2	86.3	55	68.8	0.0	WSW	0.00	5.0	WSW	86.9	91.6	91.6	29.926	0.00	0.00	0.000	0.228
7/20/10	1:00p	86.5	86.9	86.5	55	68.4	0.0	WSW	0.00	3.0	WSW	86.5	90.8	90.8	29.925	0.00	0.00	0.000	0.224
7/20/10	1:15p	86.2	86.5	86.1	56	68.7	0.0	WSW	0.00	2.0	WSW	86.2	90.5	90.5	29.924	0.00	0.00	0.000	0.221

Gowanus Phase III Weather Data 7/20/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/20/10	1:30p	86.7	86.7	86.1	56	69.1	0.0	WSW	0.00	2.0	WSW	86.7	91.5	91.5	29.926	0.00	0.00	0.000	0.226
7/20/10	1:45p	86.2	86.7	86.2	57	69.2	0.0	WSW	0.00	6.0	SW	86.2	90.8	90.8	29.928	0.00	0.00	0.000	0.221
7/20/10	2:00p	85.0	86.1	84.9	60	69.6	1.0	SW	0.25	5.0	SW	85.0	89.4	89.4	29.925	0.00	0.00	0.000	0.208
7/20/10	2:15p	85.4	85.4	85.0	58	68.9	1.0	SW	0.25	6.0	SW	85.4	89.6	89.6	29.923	0.00	0.00	0.000	0.213
7/20/10	2:30p	88.0	88.0	85.4	54	69.3	1.0	WSW	0.25	6.0	WSW	88.0	92.8	92.8	29.911	0.00	0.00	0.000	0.240
7/20/10	2:45p	88.3	88.8	88.2	53	69.0	1.0	SW	0.25	7.0	SW	88.3	93.1	93.1	29.925	0.00	0.00	0.000	0.243
7/20/10	3:00p	89.3	89.3	88.2	53	69.9	1.0	SW	0.25	5.0	SW	89.3	95.2	95.2	29.918	0.00	0.00	0.000	0.253
7/20/10	3:15p	91.1	91.1	89.4	49	69.3	1.0	WSW	0.25	7.0	S	91.1	96.9	96.9	29.919	0.00	0.00	0.000	0.272
7/20/10	3:30p	91.7	91.7	91.1	48	69.2	1.0	WSW	0.25	6.0	WSW	91.7	97.6	97.6	29.917	0.00	0.00	0.000	0.278
7/20/10	3:45p	90.7	91.7	90.6	49	68.9	2.0	SW	0.50	9.0	SW	90.7	96.1	96.1	29.921	0.00	0.00	0.000	0.268
7/20/10	4:00p	90.8	91.1	90.8	48	68.4	1.0	SW	0.25	7.0	SW	90.8	95.9	95.9	29.920	0.00	0.00	0.000	0.269
7/20/10	4:15p	89.4	90.8	89.4	50	68.3	1.0	WSW	0.25	5.0	WSW	89.4	94.3	94.3	29.917	0.00	0.00	0.000	0.254
7/20/10	4:30p	89.4	89.4	89.2	49	67.7	0.0	SW	0.00	6.0	WSW	89.4	93.9	93.9	29.910	0.00	0.00	0.000	0.254
7/20/10	4:45p	89.5	89.5	89.3	48	67.2	0.0	WSW	0.00	5.0	WSW	89.5	93.7	93.7	29.908	0.00	0.00	0.000	0.255
7/20/10	5:00p	89.5	89.5	89.1	48	67.2	1.0	SW	0.25	6.0	WSW	89.5	93.7	93.7	29.902	0.00	0.00	0.000	0.255
7/20/10	5:15p	89.0	89.5	88.9	48	66.8	1.0	WSW	0.25	6.0	WSW	89.0	93.0	93.0	29.895	0.00	0.00	0.000	0.250
7/20/10	5:30p	89.4	89.4	89.0	47	66.5	1.0	WSW	0.25	6.0	SW	89.4	93.2	93.2	29.890	0.00	0.00	0.000	0.254
7/20/10	5:45p	88.4	89.4	88.4	47	65.6	1.0	WSW	0.25	5.0	WSW	88.4	91.3	91.3	29.889	0.00	0.00	0.000	0.244
7/20/10	6:00p	88.7	88.7	88.3	47	65.9	0.0	WSW	0.00	5.0	WSW	88.7	91.9	91.9	29.889	0.00	0.00	0.000	0.247
7/20/10	6:15p	88.2	88.7	88.2	49	66.6	0.0	SSW	0.00	4.0	WSW	88.2	91.5	91.5	29.887	0.00	0.00	0.000	0.242
7/20/10	6:30p	88.2	88.2	88.1	47	65.4	0.0	SW	0.00	4.0	SW	88.2	90.8	90.8	29.893	0.00	0.00	0.000	0.242
7/20/10	6:45p	88.1	88.2	88.1	48	65.9	0.0	SW	0.00	4.0	WSW	88.1	90.9	90.9	29.893	0.00	0.00	0.000	0.241
7/20/10	7:00p	87.4	88.1	87.4	47	64.7	0.0	WSW	0.00	4.0	WSW	87.4	89.7	89.7	29.895	0.00	0.00	0.000	0.233
7/20/10	7:15p	87.4	87.5	87.3	48	65.3	0.0	WSW	0.00	3.0	WSW	87.4	90.0	90.0	29.907	0.00	0.00	0.000	0.233
7/20/10	7:30p	87.1	87.5	87.1	47	64.4	0.0	WSW	0.00	4.0	WSW	87.1	89.3	89.3	29.910	0.00	0.00	0.000	0.230
7/20/10	7:45p	86.8	87.1	86.8	49	65.3	0.0	WSW	0.00	4.0	WSW	86.8	89.4	89.4	29.910	0.00	0.00	0.000	0.227
7/20/10	8:00p	86.4	86.7	86.4	50	65.6	0.0	WSW	0.00	4.0	WSW	86.4	89.0	89.0	29.911	0.00	0.00	0.000	0.223
7/20/10	8:15p	86.0	86.4	86.0	52	66.3	0.0	WSW	0.00	2.0	WSW	86.0	88.8	88.8	29.911	0.00	0.00	0.000	0.219
7/20/10	8:30p	85.5	86.0	85.5	52	65.9	0.0	WSW	0.00	2.0	WSW	85.5	88.0	88.0	29.910	0.00	0.00	0.000	0.214
7/20/10	8:45p	85.1	85.5	85.1	53	66.0	0.0	WSW	0.00	1.0	WSW	85.1	87.6	87.6	29.923	0.00	0.00	0.000	0.209
7/20/10	9:00p	84.7	85.1	84.7	54	66.2	0.0	WSW	0.00	4.0	WSW	84.7	87.3	87.3	29.925	0.00	0.00	0.000	0.205
7/20/10	9:15p	84.6	84.7	84.6	54	66.1	0.0	WSW	0.00	3.0	WSW	84.6	87.2	87.2	29.927	0.00	0.00	0.000	0.204
7/20/10	9:30p	84.4	84.6	84.4	54	65.9	0.0	WSW	0.00	1.0	WSW	84.4	86.9	86.9	29.933	0.00	0.00	0.000	0.202
7/20/10	9:45p	84.3	84.4	84.3	54	65.8	0.0	WSW	0.00	2.0	WSW	84.3	86.8	86.8	29.937	0.00	0.00	0.000	0.201
7/20/10	10:00p	84.0	84.3	84.0	55	66.1	0.0	WSW	0.00	2.0	WSW	84.0	86.6	86.6	29.937	0.00	0.00	0.000	0.198
7/20/10	10:15p	83.8	84.0	83.8	56	66.4	0.0	WSW	0.00	2.0	WSW	83.8	86.5	86.5	29.934	0.00	0.00	0.000	0.196
7/20/10	10:30p	83.7	83.8	83.7	57	66.8	0.0	WSW	0.00	1.0	WSW	83.7	86.5	86.5	29.934	0.00	0.00	0.000	0.195
7/20/10	10:45p	83.5	83.7	83.5	59	67.7	0.0	WSW	0.00	1.0	WSW	83.5	86.5	86.5	29.931	0.00	0.00	0.000	0.193
7/20/10	11:00p	83.3	83.5	83.3	61	68.4	0.0	WSW	0.00	1.0	WSW	83.3	86.6	86.6	29.933	0.00	0.00	0.000	0.191
7/20/10	11:15p	83.1	83.3	83.1	61	68.3	0.0	WSW	0.00	2.0	WSW	83.1	86.1	86.1	29.935	0.00	0.00	0.000	0.189
7/20/10	11:30p	82.7	83.1	82.7	63	68.8	0.0	WSW	0.00	2.0	WSW	82.7	85.9	85.9	29.938	0.00	0.00	0.000	0.184
7/20/10	11:45p	82.3	82.7	82.3	64	68.9	0.0	WSW	0.00	4.0	WSW	82.3	85.5	85.5	29.935	0.00	0.00	0.000	0.180
7/21/10	12:00a	82.1	82.3	82.1	65	69.2	0.0	SSW	0.00	5.0	WSW	82.1	85.4	85.4	29.931	0.00	0.00	0.000	0.178

Gowanus Phase III Weather Data 7/21/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/21/10	12:15a	81.8	82.1	81.8	66	69.3	0.0	SSW	0.00	3.0	SSW	81.8	85.1	85.1	29.932	0.00	0.00	0.000	0.175
7/21/10	12:30a	81.8	81.8	81.8	66	69.3	0.0	---	0.00	0.0	---	81.8	85.1	85.1	29.930	0.00	0.00	0.000	0.175
7/21/10	12:45a	81.5	81.8	81.5	68	69.9	0.0	SSW	0.00	2.0	SSW	81.5	85.0	85.0	29.926	0.00	0.00	0.000	0.172
7/21/10	1:00a	81.2	81.5	81.2	68	69.6	0.0	SSW	0.00	1.0	SSW	81.2	84.4	84.4	29.925	0.00	0.00	0.000	0.169
7/21/10	1:15a	81.0	81.2	81.0	69	69.9	0.0	SSW	0.00	1.0	SSW	81.0	84.2	84.2	29.923	0.00	0.00	0.000	0.167
7/21/10	1:30a	80.7	81.0	80.7	70	70.0	0.0	SSW	0.00	2.0	SSW	80.7	83.9	83.9	29.913	0.00	0.00	0.000	0.164
7/21/10	1:45a	80.5	80.7	80.5	70	69.8	0.0	SSW	0.00	1.0	SSW	80.5	83.5	83.5	29.910	0.00	0.00	0.000	0.161
7/21/10	2:00a	80.5	80.6	80.5	71	70.2	0.0	SSW	0.00	2.0	SSW	80.5	83.7	83.7	29.908	0.00	0.00	0.000	0.161
7/21/10	2:15a	80.4	80.5	80.4	71	70.1	0.0	SSW	0.00	1.0	SSW	80.4	83.6	83.6	29.905	0.00	0.00	0.000	0.160
7/21/10	2:30a	80.4	80.4	80.4	71	70.1	0.0	SSW	0.00	1.0	SSW	80.4	83.6	83.6	29.910	0.00	0.00	0.000	0.160
7/21/10	2:45a	80.4	80.5	80.4	71	70.1	0.0	SSW	0.00	1.0	SSW	80.4	83.6	83.6	29.910	0.00	0.00	0.000	0.160
7/21/10	3:00a	80.1	80.4	80.1	73	70.7	0.0	SSW	0.00	1.0	SSW	80.1	83.4	83.4	29.910	0.00	0.00	0.000	0.157
7/21/10	3:15a	80.0	80.2	80.0	73	70.6	0.0	SSW	0.00	5.0	SSW	80.0	83.2	83.2	29.908	0.00	0.00	0.000	0.156
7/21/10	3:30a	79.7	80.0	79.7	73	70.3	0.0	SSW	0.00	1.0	SSW	79.7	82.8	82.8	29.909	0.00	0.00	0.000	0.153
7/21/10	3:45a	79.6	79.8	79.6	74	70.6	0.0	SSW	0.00	1.0	SSW	79.6	82.8	82.8	29.907	0.00	0.00	0.000	0.152
7/21/10	4:00a	79.3	79.6	79.3	74	70.3	0.0	SSW	0.00	1.0	SSW	79.3	82.3	82.3	29.902	0.00	0.00	0.000	0.149
7/21/10	4:15a	79.1	79.3	79.1	75	70.5	0.0	SSW	0.00	1.0	SSW	79.1	82.2	82.2	29.898	0.00	0.00	0.000	0.147
7/21/10	4:30a	78.9	79.1	78.9	75	70.3	0.0	SSW	0.00	1.0	SSW	78.9	81.9	81.9	29.896	0.00	0.00	0.000	0.145
7/21/10	4:45a	78.7	78.9	78.7	76	70.5	0.0	---	0.00	0.0	---	78.7	81.7	81.7	29.896	0.00	0.00	0.000	0.143
7/21/10	5:00a	78.7	78.7	78.7	76	70.5	0.0	---	0.00	0.0	---	78.7	81.7	81.7	29.898	0.00	0.00	0.000	0.143
7/21/10	5:15a	78.6	78.7	78.6	76	70.4	0.0	---	0.00	0.0	---	78.6	81.6	81.6	29.906	0.00	0.00	0.000	0.142
7/21/10	5:30a	78.6	78.7	78.6	76	70.4	0.0	SSW	0.00	1.0	SSW	78.6	81.6	81.6	29.915	0.00	0.00	0.000	0.142
7/21/10	5:45a	78.6	78.7	78.6	77	70.8	0.0	SSW	0.00	1.0	SSW	78.6	81.8	81.8	29.914	0.00	0.00	0.000	0.142
7/21/10	6:00a	78.5	78.6	78.5	78	71.1	0.0	SSW	0.00	1.0	SSW	78.5	81.8	81.8	29.918	0.00	0.00	0.000	0.141
7/21/10	6:15a	78.5	78.6	78.5	78	71.1	0.0	SSW	0.00	1.0	SSW	78.5	81.8	81.8	29.914	0.00	0.00	0.000	0.141
7/21/10	6:30a	78.7	78.7	78.5	78	71.3	0.0	SSW	0.00	1.0	SSW	78.7	82.1	82.1	29.910	0.00	0.00	0.000	0.143
7/21/10	6:45a	78.9	78.9	78.7	77	71.1	0.0	SSW	0.00	1.0	SSW	78.9	82.2	82.2	29.909	0.00	0.00	0.000	0.145
7/21/10	7:00a	79.3	79.3	78.9	77	71.5	0.0	SSW	0.00	2.0	SSW	79.3	82.8	82.8	29.910	0.00	0.00	0.000	0.149
7/21/10	7:15a	80.3	80.3	79.4	76	72.0	0.0	SSW	0.00	4.0	SSW	80.3	84.3	84.3	29.909	0.00	0.00	0.000	0.159
7/21/10	7:30a	81.0	81.0	80.4	75	72.3	0.0	SSW	0.00	2.0	SSW	81.0	85.4	85.4	29.910	0.00	0.00	0.000	0.167
7/21/10	7:45a	81.7	81.7	81.0	73	72.2	0.0	SSW	0.00	2.0	SSW	81.7	86.4	86.4	29.911	0.00	0.00	0.000	0.174
7/21/10	8:00a	81.6	82.0	81.6	74	72.5	1.0	SW	0.25	5.0	SW	81.6	86.4	86.4	29.911	0.00	0.00	0.000	0.173
7/21/10	8:15a	82.3	82.3	81.5	73	72.8	1.0	WSW	0.25	4.0	WSW	82.3	87.7	87.7	29.915	0.00	0.00	0.000	0.180
7/21/10	8:30a	82.6	82.8	82.3	72	72.7	1.0	WSW	0.25	6.0	WSW	82.6	88.2	88.2	29.915	0.00	0.00	0.000	0.183
7/21/10	8:45a	82.9	83.2	82.6	72	72.9	1.0	SW	0.25	5.0	WSW	82.9	88.9	88.9	29.919	0.00	0.00	0.000	0.186
7/21/10	9:00a	83.9	83.9	82.9	70	73.1	1.0	SW	0.25	5.0	SW	83.9	90.7	90.7	29.911	0.00	0.00	0.000	0.197
7/21/10	9:15a	85.3	85.3	83.8	67	73.1	0.0	SW	0.00	4.0	SW	85.3	92.5	92.5	29.908	0.00	0.00	0.000	0.211
7/21/10	9:30a	86.2	86.6	85.3	64	72.6	1.0	SW	0.25	6.0	SW	86.2	93.5	93.5	29.912	0.00	0.00	0.000	0.221
7/21/10	9:45a	86.4	86.4	85.7	64	72.8	1.0	WSW	0.25	6.0	SW	86.4	93.9	93.9	29.911	0.00	0.00	0.000	0.223
7/21/10	10:00a	87.5	87.6	86.3	62	72.9	2.0	SW	0.50	6.0	SW	87.5	95.0	95.0	29.910	0.00	0.00	0.000	0.234
7/21/10	10:15a	89.1	89.1	87.4	60	73.4	1.0	WSW	0.25	5.0	SW	89.1	97.5	97.5	29.907	0.00	0.00	0.000	0.251
7/21/10	10:30a	89.0	89.6	88.8	59	72.8	1.0	WSW	0.25	7.0	SW	89.0	96.9	96.9	29.906	0.00	0.00	0.000	0.250
7/21/10	10:45a	90.2	90.2	89.0	57	72.9	1.0	SW	0.25	6.0	SW	90.2	98.8	98.8	29.896	0.00	0.00	0.000	0.262
7/21/10	11:00a	91.1	91.1	90.2	55	72.7	1.0	WSW	0.25	5.0	SW	91.1	99.9	99.9	29.894	0.00	0.00	0.000	0.272
7/21/10	11:15a	91.7	91.7	91.0	55	73.2	1.0	SW	0.25	7.0	SW	91.7	101.4	101.4	29.893	0.00	0.00	0.000	0.278
7/21/10	11:30a	91.3	91.8	90.9	56	73.4	1.0	SW	0.25	7.0	SW	91.3	101.0	101.0	29.887	0.00	0.00	0.000	0.274
7/21/10	11:45a	91.2	92.0	91.1	55	72.8	1.0	SW	0.25	7.0	SW	91.2	100.2	100.2	29.883	0.00	0.00	0.000	0.273
7/21/10	12:00p	93.5	93.5	91.1	52	73.2	0.0	WSW	0.00	6.0	SW	93.5	103.7	103.7	29.879	0.00	0.00	0.000	0.297
7/21/10	12:15p	94.0	94.2	93.6	50	72.5	1.0	SW	0.25	6.0	SSW	94.0	103.4	103.4	29.879	0.00	0.00	0.000	0.302
7/21/10	12:30p	91.1	94.0	91.1	54	72.1	1.0	SW	0.25	6.0	WSW	91.1	99.4	99.4	29.878	0.00	0.00	0.000	0.272
7/21/10	12:45p	92.8	92.8	91.0	54	73.7	1.0	ENE	0.25	6.0	N	92.8	103.4	103.4	29.875	0.00	0.00	0.000	0.290
7/21/10	1:00p	92.2	93.0	92.1	54	73.2	1.0	NNW	0.25	9.0	NW	92.2	102.0	102.0	29.865	0.00	0.00	0.000	0.283
7/21/10	1:15p	94.3	94.3	92.0	53	74.5	1.0	SSW	0.25	6.0	E	94.3	106.5	106.5	29.861	0.00	0.00	0.000	0.305

Gowanus Phase III Weather Data 7/21/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/21/10	1:30p	94.8	95.0	94.4	50	73.3	1.0	ENE	0.25	6.0	NW	94.8	105.2	105.2	29.853	0.00	0.00	0.000	0.310
7/21/10	1:45p	93.3	94.8	93.3	51	72.5	1.0	E	0.25	6.0	SE	93.3	102.6	102.6	29.849	0.00	0.00	0.000	0.295
7/21/10	2:00p	94.0	94.1	93.1	51	73.1	2.0	ENE	0.50	7.0	E	94.0	104.2	104.2	29.844	0.00	0.00	0.000	0.302
7/21/10	2:15p	94.5	94.6	93.8	51	73.6	1.0	E	0.25	7.0	ENE	94.5	105.4	105.4	29.835	0.00	0.00	0.000	0.307
7/21/10	2:30p	92.8	94.5	92.7	53	73.2	2.0	ESE	0.50	7.0	NE	92.8	102.8	102.8	29.830	0.00	0.00	0.000	0.290
7/21/10	2:45p	93.9	94.0	92.8	51	73.0	1.0	ENE	0.25	6.0	NNE	93.9	103.9	103.9	29.829	0.00	0.00	0.000	0.301
7/21/10	3:00p	94.0	94.0	93.7	52	73.7	1.0	E	0.25	6.0	E	94.0	104.9	104.9	29.825	0.00	0.00	0.000	0.302
7/21/10	3:15p	94.3	94.6	94.0	51	73.4	1.0	E	0.25	6.0	NNW	94.3	104.9	104.9	29.818	0.00	0.00	0.000	0.305
7/21/10	3:30p	93.8	94.0	93.8	52	73.5	1.0	NNW	0.25	6.0	NNW	93.8	104.4	104.4	29.816	0.00	0.00	0.000	0.300
7/21/10	3:45p	91.3	93.8	91.3	58	74.4	3.0	NNW	0.75	8.0	NNW	91.3	102.0	102.0	29.811	0.00	0.00	0.000	0.274
7/21/10	4:00p	92.0	92.1	91.3	56	74.1	2.0	NW	0.50	8.0	WNW	92.0	102.7	102.7	29.804	0.00	0.00	0.000	0.281
7/21/10	4:15p	91.4	92.0	91.2	56	73.5	1.0	NE	0.25	7.0	NW	91.4	101.2	101.2	29.802	0.00	0.00	0.000	0.275
7/21/10	4:30p	92.8	92.8	91.4	53	73.2	0.0	SSE	0.00	4.0	E	92.8	102.8	102.8	29.790	0.00	0.00	0.000	0.290
7/21/10	4:45p	93.0	93.3	92.9	53	73.3	0.0	E	0.00	5.0	E	93.0	103.2	103.2	29.786	0.00	0.00	0.000	0.292
7/21/10	5:00p	92.6	93.0	92.6	54	73.5	1.0	NNE	0.25	5.0	SSW	92.6	103.0	103.0	29.779	0.00	0.00	0.000	0.287
7/21/10	5:15p	92.3	92.6	92.2	54	73.2	2.0	NNE	0.50	8.0	SW	92.3	102.2	102.2	29.771	0.00	0.00	0.000	0.284
7/21/10	5:30p	93.1	93.1	92.3	53	73.4	1.0	ENE	0.25	5.0	ENE	93.1	103.5	103.5	29.769	0.00	0.00	0.000	0.293
7/21/10	5:45p	92.3	93.0	92.3	52	72.1	1.0	WSW	0.25	5.0	SW	92.3	101.0	101.0	29.762	0.00	0.00	0.000	0.284
7/21/10	6:00p	91.8	92.3	91.8	53	72.2	2.0	WSW	0.50	10.0	SW	91.8	100.5	100.5	29.760	0.00	0.00	0.000	0.279
7/21/10	6:15p	91.6	91.9	91.6	54	72.6	1.0	SW	0.25	9.0	SW	91.6	100.6	100.6	29.761	0.00	0.00	0.000	0.277
7/21/10	6:30p	91.7	91.7	91.5	52	71.6	2.0	SW	0.50	8.0	SW	91.7	99.7	99.7	29.771	0.00	0.00	0.000	0.278
7/21/10	6:45p	91.5	91.9	91.5	52	71.4	1.0	SW	0.25	8.0	SSW	91.5	99.2	99.2	29.771	0.00	0.00	0.000	0.276
7/21/10	7:00p	90.8	91.5	90.8	55	72.4	2.0	W	0.50	8.0	SSW	90.8	99.2	99.2	29.773	0.00	0.00	0.000	0.269
7/21/10	7:15p	90.0	90.8	90.0	57	72.7	2.0	WSW	0.50	9.0	WSW	90.0	98.4	98.4	29.780	0.00	0.00	0.000	0.260
7/21/10	7:30p	88.6	90.0	88.6	59	72.4	2.0	WSW	0.50	8.0	W	88.6	96.0	96.0	29.783	0.00	0.00	0.000	0.246
7/21/10	7:45p	87.5	88.6	87.5	60	71.9	1.0	WSW	0.25	8.0	WSW	87.5	94.3	94.3	29.785	0.00	0.00	0.000	0.234
7/21/10	8:00p	86.5	87.5	86.5	59	70.5	2.0	WSW	0.50	7.0	SW	86.5	92.2	92.2	29.787	0.00	0.00	0.000	0.224
7/21/10	8:15p	85.9	86.3	85.8	57	68.9	1.0	SW	0.25	6.0	SW	85.9	90.2	90.2	29.786	0.00	0.00	0.000	0.218
7/21/10	8:30p	86.1	86.1	85.9	57	69.1	0.0	SW	0.00	3.0	SW	86.1	90.6	90.6	29.788	0.00	0.00	0.000	0.220
7/21/10	8:45p	86.3	86.3	86.1	57	69.3	0.0	SW	0.00	4.0	SW	86.3	91.1	91.1	29.797	0.00	0.00	0.000	0.222
7/21/10	9:00p	86.1	86.3	86.0	58	69.6	0.0	WSW	0.00	2.0	SW	86.1	91.0	91.0	29.802	0.00	0.00	0.000	0.220
7/21/10	9:15p	86.1	86.1	86.0	59	70.1	0.0	N	0.00	5.0	NNE	86.1	91.3	91.3	29.816	0.00	0.00	0.000	0.220
7/21/10	9:30p	85.8	86.1	85.8	59	69.8	1.0	WNW	0.25	6.0	N	85.8	90.7	90.7	29.817	0.00	0.00	0.000	0.217
7/21/10	9:45p	85.5	85.8	85.5	60	70.0	0.0	NNW	0.00	4.0	NW	85.5	90.5	90.5	29.820	0.00	0.00	0.000	0.214
7/21/10	10:00p	85.0	85.5	85.0	60	69.6	0.0	NNW	0.00	2.0	NNW	85.0	89.4	89.4	29.817	0.00	0.00	0.000	0.208
7/21/10	10:15p	84.5	85.0	84.5	60	69.1	0.0	WSW	0.00	4.0	WSW	84.5	88.5	88.5	29.815	0.00	0.00	0.000	0.203
7/21/10	10:30p	84.0	84.5	84.0	62	69.6	0.0	WSW	0.00	2.0	WSW	84.0	88.3	88.3	29.818	0.00	0.00	0.000	0.198
7/21/10	10:45p	82.1	84.0	82.1	63	68.3	2.0	NNE	0.50	10.0	NNE	82.1	85.0	85.0	29.830	0.00	0.00	0.000	0.178
7/21/10	11:00p	81.8	82.1	81.8	64	68.4	0.0	ENE	0.00	6.0	ENE	81.8	84.7	84.7	29.837	0.00	0.00	0.000	0.175
7/21/10	11:15p	81.8	81.8	81.8	63	68.0	0.0	ENE	0.00	5.0	ENE	81.8	84.5	84.5	29.841	0.00	0.00	0.000	0.175
7/21/10	11:30p	81.6	81.8	81.6	64	68.2	0.0	ENE	0.00	2.0	ENE	81.6	84.3	84.3	29.833	0.00	0.00	0.000	0.173
7/21/10	11:45p	81.3	81.7	81.3	65	68.4	0.0	ENE	0.00	3.0	ENE	81.3	84.0	84.0	29.832	0.00	0.00	0.000	0.170
7/22/10	12:00a	81.1	81.3	81.1	65	68.2	0.0	E	0.00	4.0	ENE	81.1	83.7	83.7	29.834	0.00	0.00	0.000	0.168

Gowanus Phase III Weather Data 7/22/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/22/10	12:15a	81.1	81.1	81.1	65	68.2	0.0	W	0.00	2.0	W	81.1	83.7	83.7	29.839	0.00	0.00	0.000	0.168
7/22/10	12:30a	81.2	81.2	81.1	64	67.9	0.0	W	0.00	6.0	WSW	81.2	83.7	83.7	29.846	0.00	0.00	0.000	0.169
7/22/10	12:45a	81.4	81.4	81.2	63	67.6	1.0	WSW	0.25	5.0	WSW	81.4	83.8	83.8	29.847	0.00	0.00	0.000	0.171
7/22/10	1:00a	80.5	81.4	80.5	68	69.0	0.0	WSW	0.00	4.0	WSW	80.5	83.2	83.2	29.845	0.00	0.00	0.000	0.161
7/22/10	1:15a	79.8	80.5	79.8	67	67.9	0.0	WSW	0.00	4.0	WSW	79.8	82.0	82.0	29.838	0.00	0.00	0.000	0.154
7/22/10	1:30a	80.0	80.0	79.8	66	67.6	0.0	WSW	0.00	3.0	WSW	80.0	82.1	82.1	29.842	0.00	0.00	0.000	0.156
7/22/10	1:45a	79.6	80.0	79.6	66	67.2	1.0	WSW	0.25	6.0	WSW	79.6	81.6	81.6	29.847	0.00	0.00	0.000	0.152
7/22/10	2:00a	79.3	79.6	79.3	64	66.1	0.0	WSW	0.00	6.0	WSW	79.3	81.0	81.0	29.846	0.00	0.00	0.000	0.149
7/22/10	2:15a	79.4	79.4	79.3	62	65.2	1.0	WSW	0.25	5.0	WSW	79.4	80.8	80.8	29.841	0.00	0.00	0.000	0.150
7/22/10	2:30a	79.2	79.4	79.2	62	65.1	1.0	WSW	0.25	7.0	SW	79.2	80.6	80.6	29.847	0.00	0.00	0.000	0.148
7/22/10	2:45a	78.8	79.2	78.8	62	64.7	1.0	WSW	0.25	7.0	WSW	78.8	80.1	80.1	29.847	0.00	0.00	0.000	0.144
7/22/10	3:00a	78.6	78.8	78.6	63	64.9	1.0	SW	0.25	6.0	WSW	78.6	80.0	80.0	29.848	0.00	0.00	0.000	0.142
7/22/10	3:15a	78.2	78.6	78.2	65	65.5	1.0	WNW	0.25	6.0	SW	78.2	79.7	79.7	29.848	0.00	0.00	0.000	0.137
7/22/10	3:30a	78.0	78.2	78.0	67	66.2	0.0	W	0.00	5.0	WSW	78.0	79.6	79.6	29.849	0.00	0.00	0.000	0.135
7/22/10	3:45a	77.6	78.0	77.6	68	66.2	0.0	WSW	0.00	4.0	WSW	77.6	79.3	79.3	29.850	0.00	0.00	0.000	0.131
7/22/10	4:00a	77.2	77.6	77.2	66	65.0	1.0	WSW	0.25	5.0	WSW	77.2	78.6	78.6	29.861	0.00	0.00	0.000	0.127
7/22/10	4:15a	77.0	77.2	77.0	66	64.8	0.0	WNW	0.00	5.0	WNW	77.0	78.4	78.4	29.858	0.00	0.00	0.000	0.125
7/22/10	4:30a	76.7	77.0	76.7	67	64.9	0.0	WSW	0.00	5.0	WNW	76.7	78.2	78.2	29.856	0.00	0.00	0.000	0.122
7/22/10	4:45a	76.5	76.7	76.4	69	65.6	0.0	WSW	0.00	4.0	WSW	76.5	78.2	78.2	29.862	0.00	0.00	0.000	0.120
7/22/10	5:00a	76.5	76.5	76.4	68	65.1	1.0	WSW	0.25	7.0	W	76.5	78.1	78.1	29.864	0.00	0.00	0.000	0.120
7/22/10	5:15a	76.5	76.5	76.5	68	65.1	0.0	WSW	0.00	3.0	WSW	76.5	78.1	78.1	29.865	0.00	0.00	0.000	0.120
7/22/10	5:30a	76.3	76.5	76.3	68	65.0	1.0	WSW	0.25	5.0	WSW	76.3	77.9	77.9	29.864	0.00	0.00	0.000	0.118
7/22/10	5:45a	76.1	76.3	76.1	69	65.2	0.0	WSW	0.00	6.0	SSW	76.1	77.8	77.8	29.875	0.00	0.00	0.000	0.116
7/22/10	6:00a	75.8	76.1	75.8	69	64.9	0.0	WSW	0.00	5.0	WSW	75.8	77.5	77.5	29.879	0.00	0.00	0.000	0.113
7/22/10	6:15a	75.8	75.8	75.7	69	64.9	1.0	WSW	0.25	5.0	WSW	75.8	77.5	77.5	29.883	0.00	0.00	0.000	0.113
7/22/10	6:30a	75.9	75.9	75.7	68	64.6	1.0	WSW	0.25	6.0	SW	75.9	77.5	77.5	29.880	0.00	0.00	0.000	0.114
7/22/10	6:45a	76.2	76.2	75.9	68	64.9	1.0	W	0.25	5.0	W	76.2	77.8	77.8	29.892	0.00	0.00	0.000	0.117
7/22/10	7:00a	77.2	77.2	76.2	66	65.0	1.0	WSW	0.25	5.0	W	77.2	78.6	78.6	29.895	0.00	0.00	0.000	0.127
7/22/10	7:15a	78.2	78.2	77.3	63	64.6	1.0	WSW	0.25	8.0	SSW	78.2	79.5	79.5	29.896	0.00	0.00	0.000	0.137
7/22/10	7:30a	78.7	78.7	78.2	62	64.6	1.0	W	0.25	6.0	WSW	78.7	80.0	80.0	29.907	0.00	0.00	0.000	0.143
7/22/10	7:45a	78.9	78.9	78.7	60	63.8	2.0	WSW	0.50	8.0	WSW	78.9	80.0	80.0	29.909	0.00	0.00	0.000	0.145
7/22/10	8:00a	79.4	79.4	79.0	58	63.3	1.0	WSW	0.25	5.0	WSW	79.4	80.4	80.4	29.910	0.00	0.00	0.000	0.150
7/22/10	8:15a	80.0	80.0	79.5	57	63.4	1.0	WSW	0.25	6.0	WSW	80.0	80.9	80.9	29.914	0.00	0.00	0.000	0.156
7/22/10	8:30a	80.9	80.9	80.1	56	63.7	1.0	WSW	0.25	6.0	SW	80.9	81.9	81.9	29.909	0.00	0.00	0.000	0.166
7/22/10	8:45a	81.3	81.4	80.9	55	63.6	2.0	WSW	0.50	7.0	SW	81.3	82.4	82.4	29.910	0.00	0.00	0.000	0.170
7/22/10	9:00a	81.5	81.6	81.2	55	63.8	2.0	WSW	0.50	10.0	WSW	81.5	82.7	82.7	29.909	0.00	0.00	0.000	0.172
7/22/10	9:15a	81.9	82.0	81.5	54	63.6	2.0	WSW	0.50	7.0	SW	81.9	83.1	83.1	29.908	0.00	0.00	0.000	0.176
7/22/10	9:30a	82.2	82.2	81.7	54	63.9	3.0	WSW	0.75	8.0	SW	82.2	83.5	83.5	29.910	0.00	0.00	0.000	0.179
7/22/10	9:45a	83.0	83.0	82.5	52	63.6	3.0	WSW	0.75	9.0	W	83.0	84.5	84.5	29.911	0.00	0.00	0.000	0.188
7/22/10	10:00a	83.9	83.9	83.0	50	63.3	2.0	WSW	0.50	7.0	WSW	83.9	85.6	85.6	29.910	0.00	0.00	0.000	0.197
7/22/10	10:15a	85.5	85.5	83.9	50	64.7	1.0	WSW	0.25	6.0	WSW	85.5	87.5	87.5	29.909	0.00	0.00	0.000	0.214
7/22/10	10:30a	85.5	85.9	85.5	48	63.6	2.0	WSW	0.50	8.0	W	85.5	87.1	87.1	29.902	0.00	0.00	0.000	0.214
7/22/10	10:45a	87.2	87.3	85.5	46	63.9	1.0	E	0.25	7.0	SW	87.2	89.1	89.1	29.909	0.00	0.00	0.000	0.231
7/22/10	11:00a	86.6	87.2	86.6	46	63.4	2.0	WSW	0.50	9.0	N	86.6	88.3	88.3	29.909	0.00	0.00	0.000	0.225
7/22/10	11:15a	86.9	87.1	86.6	45	63.0	2.0	WSW	0.50	7.0	WSW	86.9	88.5	88.5	29.910	0.00	0.00	0.000	0.228
7/22/10	11:30a	87.0	87.0	86.7	45	63.1	3.0	WSW	0.75	9.0	NE	87.0	88.6	88.6	29.908	0.00	0.00	0.000	0.229
7/22/10	11:45a	86.9	87.7	86.9	44	62.4	3.0	WSW	0.75	10.0	SSW	86.9	88.2	88.2	29.910	0.00	0.00	0.000	0.228
7/22/10	12:00p	87.8	87.8	86.8	44	63.2	3.0	WSW	0.75	10.0	NNW	87.8	89.2	89.2	29.910	0.00	0.00	0.000	0.238
7/22/10	12:15p	88.7	88.7	88.0	43	63.3	2.0	SW	0.50	6.0	SW	88.7	90.5	90.5	29.910	0.00	0.00	0.000	0.247
7/22/10	12:30p	88.2	88.9	88.2	44	63.5	3.0	WSW	0.75	11.0	SW	88.2	89.8	89.8	29.910	0.00	0.00	0.000	0.242
7/22/10	12:45p	88.3	88.4	88.2	42	62.3	3.0	WSW	0.75	8.0	WSW	88.3	89.3	89.3	29.910	0.00	0.00	0.000	0.243
7/22/10	1:00p	87.6	88.4	87.6	43	62.3	3.0	WSW	0.75	12.0	N	87.6	88.7	88.7	29.918	0.00	0.00	0.000	0.235
7/22/10	1:15p	88.4	88.4	87.5	42	62.4	3.0	WSW	0.75	8.0	WSW	88.4	89.5	89.5	29.915	0.00	0.00	0.000	0.244

Gowanus Phase III Weather Data 7/22/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/22/10	1:30p	88.2	89.3	88.2	41	61.5	3.0	WSW	0.75	8.0	NNE	88.2	88.8	88.8	29.912	0.00	0.00	0.000	0.242
7/22/10	1:45p	88.6	88.6	87.9	41	61.9	2.0	W	0.50	7.0	NNE	88.6	89.6	89.6	29.911	0.00	0.00	0.000	0.246
7/22/10	2:00p	88.7	89.0	88.6	41	62.0	3.0	WSW	0.75	9.0	W	88.7	89.8	89.8	29.910	0.00	0.00	0.000	0.247
7/22/10	2:15p	90.8	90.8	88.8	38	61.7	2.0	WSW	0.50	10.0	SW	90.8	91.9	91.9	29.910	0.00	0.00	0.000	0.269
7/22/10	2:30p	89.5	90.8	89.5	39	61.3	3.0	WSW	0.75	8.0	SW	89.5	90.3	90.3	29.908	0.00	0.00	0.000	0.255
7/22/10	2:45p	90.4	90.4	89.4	39	62.1	2.0	WSW	0.50	7.0	WSW	90.4	91.6	91.6	29.900	0.00	0.00	0.000	0.265
7/22/10	3:00p	90.3	90.7	90.3	38	61.2	3.0	W	0.75	11.0	WSW	90.3	91.1	91.1	29.896	0.00	0.00	0.000	0.264
7/22/10	3:15p	90.4	90.4	89.7	38	61.3	3.0	W	0.75	9.0	WSW	90.4	91.3	91.3	29.903	0.00	0.00	0.000	0.265
7/22/10	3:30p	90.0	90.7	90.0	37	60.2	3.0	WSW	0.75	10.0	NE	90.0	90.4	90.4	29.908	0.00	0.00	0.000	0.260
7/22/10	3:45p	89.5	90.0	89.5	38	60.5	2.0	WSW	0.50	12.0	NNE	89.5	90.0	90.0	29.906	0.00	0.00	0.000	0.255
7/22/10	4:00p	88.3	89.6	88.3	39	60.2	2.0	WSW	0.50	8.0	N	88.3	88.4	88.4	29.909	0.00	0.00	0.000	0.243
7/22/10	4:15p	89.6	89.6	88.3	38	60.6	2.0	WSW	0.50	9.0	SW	89.6	90.1	90.1	29.909	0.00	0.00	0.000	0.256
7/22/10	4:30p	90.3	90.3	89.6	37	60.5	2.0	WSW	0.50	8.0	WSW	90.3	90.9	90.9	29.909	0.00	0.00	0.000	0.264
7/22/10	4:45p	89.4	90.3	89.4	38	60.5	3.0	WSW	0.75	10.0	SW	89.4	89.9	89.9	29.909	0.00	0.00	0.000	0.254
7/22/10	5:00p	89.3	89.5	89.3	38	60.4	3.0	WSW	0.75	10.0	WSW	89.3	89.7	89.7	29.910	0.00	0.00	0.000	0.253
7/22/10	5:15p	89.2	89.3	89.2	38	60.3	2.0	WNW	0.50	11.0	N	89.2	89.6	89.6	29.910	0.00	0.00	0.000	0.252
7/22/10	5:30p	88.5	89.1	88.5	39	60.4	1.0	NNW	0.25	8.0	NE	88.5	88.8	88.8	29.911	0.00	0.00	0.000	0.245
7/22/10	5:45p	88.4	88.5	88.4	40	61.0	2.0	WSW	0.50	9.0	NNE	88.4	88.9	88.9	29.910	0.00	0.00	0.000	0.244
7/22/10	6:00p	88.5	88.5	88.2	40	61.1	2.0	WSW	0.50	10.0	N	88.5	89.0	89.0	29.910	0.00	0.00	0.000	0.245
7/22/10	6:15p	88.3	88.5	88.2	40	60.9	3.0	NNW	0.75	11.0	NNE	88.3	88.7	88.7	29.910	0.00	0.00	0.000	0.243
7/22/10	6:30p	87.9	88.3	87.9	39	59.8	3.0	WSW	0.75	12.0	N	87.9	87.8	87.8	29.909	0.00	0.00	0.000	0.239
7/22/10	6:45p	87.1	87.9	87.1	41	60.5	1.0	W	0.25	6.0	W	87.1	87.7	87.7	29.912	0.00	0.00	0.000	0.230
7/22/10	7:00p	87.2	87.2	87.1	41	60.6	2.0	SW	0.50	9.0	NNW	87.2	87.8	87.8	29.914	0.00	0.00	0.000	0.231
7/22/10	7:15p	87.1	87.4	87.1	41	60.5	2.0	WSW	0.50	10.0	NNE	87.1	87.7	87.7	29.912	0.00	0.00	0.000	0.230
7/22/10	7:30p	86.4	87.1	86.4	42	60.6	2.0	N	0.50	10.0	N	86.4	87.1	87.1	29.925	0.00	0.00	0.000	0.223
7/22/10	7:45p	86.2	86.4	86.2	43	61.1	1.0	NNW	0.25	9.0	NNE	86.2	87.0	87.0	29.925	0.00	0.00	0.000	0.221
7/22/10	8:00p	86.0	86.1	86.0	43	60.9	1.0	NE	0.25	7.0	NNE	86.0	86.7	86.7	29.925	0.00	0.00	0.000	0.219
7/22/10	8:15p	85.7	86.0	85.7	43	60.6	1.0	N	0.25	7.0	NNE	85.7	86.4	86.4	29.925	0.00	0.00	0.000	0.216
7/22/10	8:30p	85.4	85.7	85.4	43	60.4	1.0	N	0.25	5.0	N	85.4	86.1	86.1	29.931	0.00	0.00	0.000	0.213
7/22/10	8:45p	85.1	85.4	85.1	44	60.7	1.0	SE	0.25	7.0	NE	85.1	85.9	85.9	29.934	0.00	0.00	0.000	0.209
7/22/10	9:00p	85.0	85.1	85.0	43	60.0	1.0	N	0.25	8.0	NNE	85.0	85.6	85.6	29.940	0.00	0.00	0.000	0.208
7/22/10	9:15p	84.9	85.0	84.9	44	60.6	1.0	NE	0.25	6.0	WNW	84.9	85.7	85.7	29.941	0.00	0.00	0.000	0.207
7/22/10	9:30p	84.8	84.9	84.8	43	59.8	1.0	N	0.25	6.0	N	84.8	85.5	85.5	29.953	0.00	0.00	0.000	0.206
7/22/10	9:45p	84.4	84.8	84.4	45	60.7	1.0	N	0.25	5.0	N	84.4	85.5	85.5	29.956	0.00	0.00	0.000	0.202
7/22/10	10:00p	84.1	84.4	84.1	45	60.5	1.0	NNE	0.25	7.0	N	84.1	85.2	85.2	29.959	0.00	0.00	0.000	0.199
7/22/10	10:15p	83.9	84.1	83.9	46	60.9	1.0	ENE	0.25	5.0	ENE	83.9	85.1	85.1	29.966	0.00	0.00	0.000	0.197
7/22/10	10:30p	83.6	83.9	83.6	46	60.6	1.0	N	0.25	8.0	WSW	83.6	84.6	84.6	29.965	0.00	0.00	0.000	0.194
7/22/10	10:45p	83.3	83.6	83.3	46	60.4	0.0	ESE	0.00	4.0	ESE	83.3	84.1	84.1	29.970	0.00	0.00	0.000	0.191
7/22/10	11:00p	83.1	83.3	83.1	47	60.8	1.0	NNW	0.25	7.0	N	83.1	83.9	83.9	29.971	0.00	0.00	0.000	0.189
7/22/10	11:15p	82.7	83.1	82.7	47	60.4	0.0	N	0.00	5.0	N	82.7	83.3	83.3	29.971	0.00	0.00	0.000	0.184
7/22/10	11:30p	82.5	82.7	82.5	48	60.8	0.0	N	0.00	4.0	N	82.5	83.1	83.1	29.982	0.00	0.00	0.000	0.182
7/22/10	11:45p	82.5	82.5	82.4	48	60.8	0.0	E	0.00	5.0	NE	82.5	83.1	83.1	29.983	0.00	0.00	0.000	0.182
7/23/10	12:00a	82.4	82.5	82.4	47	60.1	0.0	E	0.00	4.0	E	82.4	82.8	82.8	29.986	0.00	0.00	0.000	0.181

Gowanus Phase III Weather Data 7/23/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/23/10	12:15a	82.3	82.4	82.3	45	58.8	1.0	NNE	0.25	7.0	NNE	82.3	82.4	82.4	29.978	0.00	0.00	0.000	0.180
7/23/10	12:30a	82.3	82.4	82.3	45	58.8	1.0	N	0.25	7.0	NNE	82.3	82.4	82.4	29.973	0.00	0.00	0.000	0.180
7/23/10	12:45a	82.1	82.3	82.1	45	58.7	0.0	ENE	0.00	6.0	ENE	82.1	82.1	82.1	29.972	0.00	0.00	0.000	0.178
7/23/10	1:00a	81.9	82.1	81.9	46	59.1	0.0	ENE	0.00	1.0	ENE	81.9	81.9	81.9	29.972	0.00	0.00	0.000	0.176
7/23/10	1:15a	81.8	81.9	81.8	46	59.0	0.0	ENE	0.00	1.0	ENE	81.8	81.8	81.8	29.973	0.00	0.00	0.000	0.175
7/23/10	1:30a	81.6	81.8	81.6	46	58.8	0.0	ENE	0.00	1.0	ENE	81.6	81.5	81.5	29.971	0.00	0.00	0.000	0.173
7/23/10	1:45a	81.5	81.6	81.5	46	58.7	0.0	ENE	0.00	1.0	ENE	81.5	81.4	81.4	29.971	0.00	0.00	0.000	0.172
7/23/10	2:00a	81.3	81.5	81.3	46	58.5	0.0	---	0.00	0.0	---	81.3	81.1	81.1	29.972	0.00	0.00	0.000	0.170
7/23/10	2:15a	81.0	81.3	81.0	49	60.0	0.0	---	0.00	0.0	---	81.0	81.1	81.1	29.972	0.00	0.00	0.000	0.167
7/23/10	2:30a	80.6	80.9	80.6	50	60.2	0.0	---	0.00	0.0	---	80.6	80.8	80.8	29.971	0.00	0.00	0.000	0.162
7/23/10	2:45a	80.4	80.6	80.4	51	60.6	0.0	---	0.00	0.0	---	80.4	80.7	80.7	29.973	0.00	0.00	0.000	0.160
7/23/10	3:00a	80.4	80.4	80.4	52	61.2	0.0	ENE	0.00	2.0	ENE	80.4	80.8	80.8	29.973	0.00	0.00	0.000	0.160
7/23/10	3:15a	80.1	80.4	80.1	54	62.0	0.0	ENE	0.00	1.0	ENE	80.1	80.7	80.7	29.971	0.00	0.00	0.000	0.157
7/23/10	3:30a	79.9	80.1	79.9	54	61.8	0.0	---	0.00	0.0	---	79.9	80.5	80.5	29.970	0.00	0.00	0.000	0.155
7/23/10	3:45a	79.7	79.9	79.7	55	62.1	0.0	ENE	0.00	1.0	ENE	79.7	80.4	80.4	29.970	0.00	0.00	0.000	0.153
7/23/10	4:00a	79.4	79.7	79.4	56	62.3	0.0	---	0.00	0.0	---	79.4	80.1	80.1	29.971	0.00	0.00	0.000	0.150
7/23/10	4:15a	79.1	79.4	79.1	55	61.5	0.0	---	0.00	0.0	---	79.1	79.7	79.7	29.971	0.00	0.00	0.000	0.147
7/23/10	4:30a	79.0	79.1	78.9	56	62.0	0.0	---	0.00	0.0	---	79.0	79.7	79.7	29.970	0.00	0.00	0.000	0.146
7/23/10	4:45a	78.9	78.9	78.9	55	61.4	0.0	---	0.00	0.0	---	78.9	79.5	79.5	29.970	0.00	0.00	0.000	0.145
7/23/10	5:00a	78.9	78.9	78.9	54	60.8	0.0	ENE	0.00	1.0	ENE	78.9	79.4	79.4	29.971	0.00	0.00	0.000	0.145
7/23/10	5:15a	78.9	79.0	78.9	54	60.8	0.0	---	0.00	0.0	---	78.9	79.4	79.4	29.970	0.00	0.00	0.000	0.145
7/23/10	5:30a	78.9	79.0	78.9	54	60.8	0.0	---	0.00	0.0	---	78.9	79.4	79.4	29.970	0.00	0.00	0.000	0.145
7/23/10	5:45a	78.8	78.9	78.7	55	61.3	0.0	---	0.00	0.0	---	78.8	79.4	79.4	29.971	0.00	0.00	0.000	0.144
7/23/10	6:00a	78.7	78.8	78.7	57	62.2	0.0	---	0.00	0.0	---	78.7	79.5	79.5	29.972	0.00	0.00	0.000	0.143
7/23/10	6:15a	78.7	78.7	78.7	57	62.2	0.0	---	0.00	0.0	---	78.7	79.5	79.5	29.980	0.00	0.00	0.000	0.143
7/23/10	6:30a	78.8	78.8	78.7	56	61.8	0.0	---	0.00	0.0	---	78.8	79.5	79.5	29.981	0.00	0.00	0.000	0.144
7/23/10	6:45a	79.6	79.6	78.9	54	61.5	0.0	ENE	0.00	2.0	ENE	79.6	80.2	80.2	29.984	0.00	0.00	0.000	0.152
7/23/10	7:00a	79.9	79.9	79.6	53	61.2	0.0	NW	0.00	5.0	NW	79.9	80.4	80.4	29.986	0.00	0.00	0.000	0.155
7/23/10	7:15a	80.9	80.9	79.9	52	61.6	0.0	NW	0.00	4.0	NW	80.9	81.4	81.4	29.984	0.00	0.00	0.000	0.166
7/23/10	7:30a	81.5	81.5	80.9	51	61.6	0.0	ESE	0.00	4.0	ESE	81.5	82.0	82.0	29.984	0.00	0.00	0.000	0.172
7/23/10	7:45a	82.2	82.2	81.5	49	61.1	0.0	ESE	0.00	5.0	ESE	82.2	82.8	82.8	29.986	0.00	0.00	0.000	0.179
7/23/10	8:00a	82.4	82.7	82.3	49	61.3	1.0	E	0.25	5.0	NW	82.4	83.1	83.1	29.980	0.00	0.00	0.000	0.181
7/23/10	8:15a	82.2	82.4	82.2	50	61.7	0.0	ESE	0.00	4.0	ESE	82.2	82.9	82.9	29.986	0.00	0.00	0.000	0.179
7/23/10	8:30a	82.1	82.2	82.0	51	62.2	0.0	ESE	0.00	4.0	ESE	82.1	82.9	82.9	29.976	0.00	0.00	0.000	0.178
7/23/10	8:45a	81.8	82.1	81.8	52	62.5	1.0	ESE	0.25	5.0	ESE	81.8	82.6	82.6	29.973	0.00	0.00	0.000	0.175
7/23/10	9:00a	81.8	81.8	81.7	54	63.5	1.0	ESE	0.25	5.0	ESE	81.8	82.9	82.9	29.974	0.00	0.00	0.000	0.175
7/23/10	9:15a	82.1	82.1	81.8	54	63.8	1.0	ESE	0.25	5.0	ESE	82.1	83.4	83.4	29.971	0.00	0.00	0.000	0.178
7/23/10	9:30a	82.5	82.5	82.1	56	65.2	0.0	ESE	0.00	4.0	ESE	82.5	84.3	84.3	29.971	0.00	0.00	0.000	0.182
7/23/10	9:45a	82.5	82.6	82.5	55	64.7	0.0	ESE	0.00	4.0	ESE	82.5	84.2	84.2	29.968	0.00	0.00	0.000	0.182
7/23/10	10:00a	82.8	82.8	82.5	56	65.5	0.0	ESE	0.00	2.0	ESE	82.8	84.8	84.8	29.971	0.00	0.00	0.000	0.185
7/23/10	10:15a	82.7	82.9	82.7	58	66.4	0.0	ESE	0.00	4.0	ESE	82.7	84.9	84.9	29.970	0.00	0.00	0.000	0.184
7/23/10	10:30a	82.4	82.7	82.4	58	66.1	0.0	ESE	0.00	4.0	ESE	82.4	84.5	84.5	29.965	0.00	0.00	0.000	0.181
7/23/10	10:45a	82.9	82.9	82.4	57	66.1	0.0	ESE	0.00	3.0	ESE	82.9	85.1	85.1	29.957	0.00	0.00	0.000	0.186
7/23/10	11:00a	82.5	82.9	82.5	57	65.7	1.0	ESE	0.25	5.0	ESE	82.5	84.5	84.5	29.956	0.00	0.00	0.000	0.182
7/23/10	11:15a	82.3	82.5	82.3	58	66.0	1.0	ESE	0.25	4.0	ESE	82.3	84.3	84.3	29.956	0.00	0.00	0.000	0.180
7/23/10	11:30a	82.1	82.3	82.1	61	67.3	1.0	SE	0.25	5.0	SE	82.1	84.6	84.6	29.956	0.00	0.00	0.000	0.178
7/23/10	11:45a	81.8	82.1	81.8	61	67.0	1.0	ENE	0.25	5.0	ENE	81.8	84.1	84.1	29.956	0.00	0.00	0.000	0.175
7/23/10	12:00p	81.5	81.8	81.5	65	68.6	1.0	NW	0.25	5.0	NNW	81.5	84.3	84.3	29.958	0.00	0.00	0.000	0.172
7/23/10	12:15p	80.3	81.5	80.3	72	70.4	0.0	NW	0.00	3.0	NW	80.3	83.6	83.6	29.971	0.08	0.84	0.000	0.159
7/23/10	12:30p	77.6	80.2	77.6	80	70.9	0.0	NW	0.00	1.0	NW	77.6	80.8	80.8	29.966	0.07	0.74	0.000	0.131
7/23/10	12:45p	77.1	77.6	77.0	82	71.2	0.0	ENE	0.00	2.0	NE	77.1	80.4	80.4	29.941	0.00	0.00	0.000	0.126
7/23/10	1:00p	77.7	77.7	77.0	84	72.5	0.0	ENE	0.00	5.0	N	77.7	81.5	81.5	29.937	0.00	0.00	0.000	0.132
7/23/10	1:15p	78.9	78.9	77.7	82	72.9	1.0	NNW	0.25	5.0	NE	78.9	83.0	83.0	29.924	0.00	0.00	0.000	0.145

Gowanus Phase III Weather Data 7/23/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/23/10	1:30p	80.0	80.0	79.0	79	72.9	0.0	ENE	0.00	4.0	NNW	80.0	84.3	84.3	29.919	0.00	0.00	0.000	0.156
7/23/10	1:45p	80.9	80.9	80.0	80	74.1	0.0	ESE	0.00	3.0	ESE	80.9	86.3	86.3	29.911	0.00	0.00	0.000	0.166
7/23/10	2:00p	81.6	81.6	80.9	80	74.8	0.0	ESE	0.00	5.0	ESE	81.6	87.9	87.9	29.911	0.00	0.00	0.000	0.173
7/23/10	2:15p	81.4	81.6	81.2	82	75.4	1.0	NNW	0.25	5.0	W	81.4	88.0	88.0	29.909	0.00	0.00	0.000	0.171
7/23/10	2:30p	81.1	81.4	81.1	84	75.8	0.0	ESE	0.00	5.0	ESE	81.1	87.8	87.8	29.895	0.01	0.00	0.000	0.168
7/23/10	2:45p	80.7	81.1	80.7	85	75.8	0.0	ESE	0.00	5.0	ESE	80.7	87.1	87.1	29.893	0.00	0.00	0.000	0.164
7/23/10	3:00p	80.6	80.7	80.5	86	76.0	0.0	ESE	0.00	2.0	ESE	80.6	87.2	87.2	29.882	0.00	0.00	0.000	0.162
7/23/10	3:15p	81.2	81.2	80.6	86	76.6	0.0	ESE	0.00	2.0	ESE	81.2	88.6	88.6	29.880	0.00	0.00	0.000	0.169
7/23/10	3:30p	82.3	82.3	81.3	84	77.0	0.0	ESE	0.00	2.0	ESE	82.3	90.9	90.9	29.878	0.00	0.00	0.000	0.180
7/23/10	3:45p	83.9	83.9	82.3	80	77.1	0.0	ESE	0.00	2.0	ESE	83.9	94.2	94.2	29.868	0.00	0.00	0.000	0.197
7/23/10	4:00p	85.1	85.1	83.9	78	77.5	0.0	ESE	0.00	1.0	ESE	85.1	95.9	95.9	29.862	0.00	0.00	0.000	0.209
7/23/10	4:15p	85.7	85.8	85.2	77	77.7	0.0	ESE	0.00	6.0	ESE	85.7	97.0	97.0	29.853	0.00	0.00	0.000	0.216
7/23/10	4:30p	86.3	86.3	85.7	75	77.4	0.0	ESE	0.00	1.0	ESE	86.3	97.8	97.8	29.849	0.00	0.00	0.000	0.222
7/23/10	4:45p	86.8	86.8	86.3	74	77.5	0.0	ESE	0.00	5.0	ESE	86.8	98.7	98.7	29.844	0.00	0.00	0.000	0.227
7/23/10	5:00p	87.0	87.1	86.8	73	77.3	1.0	ESE	0.25	5.0	ESE	87.0	98.8	98.8	29.833	0.00	0.00	0.000	0.229
7/23/10	5:15p	87.4	87.4	86.9	72	77.3	1.0	ESE	0.25	5.0	ESE	87.4	99.0	99.0	29.832	0.00	0.00	0.000	0.233
7/23/10	5:30p	88.2	88.2	87.4	71	77.6	0.0	ENE	0.00	4.0	ENE	88.2	100.2	100.2	29.830	0.00	0.00	0.000	0.242
7/23/10	5:45p	88.4	88.4	88.2	71	77.8	0.0	E	0.00	4.0	E	88.4	100.9	100.9	29.817	0.00	0.00	0.000	0.244
7/23/10	6:00p	88.5	88.6	88.4	70	77.5	0.0	E	0.00	4.0	E	88.5	100.7	100.7	29.814	0.00	0.00	0.000	0.245
7/23/10	6:15p	88.1	88.4	88.1	71	77.5	1.0	E	0.25	5.0	E	88.1	99.8	99.8	29.816	0.00	0.00	0.000	0.241
7/23/10	6:30p	87.7	88.1	87.7	71	77.1	1.0	E	0.25	5.0	E	87.7	99.0	99.0	29.817	0.00	0.00	0.000	0.236
7/23/10	6:45p	87.8	87.8	87.6	71	77.2	0.0	ENE	0.00	5.0	NW	87.8	99.2	99.2	29.814	0.00	0.00	0.000	0.238
7/23/10	7:00p	88.3	88.3	87.8	69	76.8	1.0	NW	0.25	5.0	NW	88.3	99.5	99.5	29.812	0.00	0.00	0.000	0.243
7/23/10	7:15p	88.9	88.9	88.3	66	76.1	0.0	NW	0.00	2.0	NW	88.9	99.9	99.9	29.821	0.00	0.00	0.000	0.249
7/23/10	7:30p	89.3	89.3	88.9	66	76.4	0.0	W	0.00	5.0	W	89.3	101.1	101.1	29.816	0.00	0.00	0.000	0.253
7/23/10	7:45p	89.9	89.9	89.3	63	75.6	1.0	ESE	0.25	5.0	SW	89.9	101.3	101.3	29.803	0.00	0.00	0.000	0.259
7/23/10	8:00p	90.1	90.2	89.9	62	75.3	0.0	SSE	0.00	4.0	SE	90.1	101.3	101.3	29.808	0.00	0.00	0.000	0.261
7/23/10	8:15p	90.0	90.1	90.0	62	75.2	0.0	NNW	0.00	5.0	SW	90.0	101.0	101.0	29.805	0.00	0.00	0.000	0.260
7/23/10	8:30p	89.7	90.0	89.7	62	74.9	0.0	WSW	0.00	6.0	SW	89.7	100.2	100.2	29.819	0.00	0.00	0.000	0.257
7/23/10	8:45p	89.5	89.7	89.5	62	74.8	1.0	NNE	0.25	6.0	NNE	89.5	99.6	99.6	29.837	0.00	0.00	0.000	0.255
7/23/10	9:00p	83.9	89.5	83.9	73	74.3	4.0	NNE	1.00	15.0	NE	83.9	91.7	91.7	29.818	0.01	0.00	0.000	0.197
7/23/10	9:15p	81.8	83.8	81.7	81	75.4	2.0	N	0.50	8.0	NE	81.8	88.7	88.7	29.831	0.01	0.50	0.000	0.175
7/23/10	9:30p	81.9	81.9	81.7	82	75.9	0.0	ESE	0.00	6.0	ESE	81.9	89.3	89.3	29.818	0.00	0.00	0.000	0.176
7/23/10	9:45p	81.8	81.9	81.8	83	76.1	0.0	ESE	0.00	1.0	ESE	81.8	89.3	89.3	29.824	0.00	0.00	0.000	0.175
7/23/10	10:00p	81.7	81.8	81.6	84	76.4	0.0	ESE	0.00	1.0	ESE	81.7	89.3	89.3	29.822	0.00	0.00	0.000	0.174
7/23/10	10:15p	81.7	81.7	81.7	84	76.4	0.0	---	0.00	0.0	---	81.7	89.3	89.3	29.823	0.00	0.00	0.000	0.174
7/23/10	10:30p	81.5	81.7	81.5	85	76.6	0.0	---	0.00	0.0	---	81.5	89.1	89.1	29.818	0.00	0.00	0.000	0.172
7/23/10	10:45p	82.2	82.2	81.5	78	74.7	0.0	ESE	0.00	4.0	ESE	82.2	88.9	88.9	29.820	0.00	0.00	0.000	0.179
7/23/10	11:00p	84.8	84.8	82.2	72	74.8	0.0	SE	0.00	5.0	SW	84.8	93.2	93.2	29.815	0.00	0.00	0.000	0.206
7/23/10	11:15p	85.8	85.8	84.8	70	74.9	0.0	SW	0.00	4.0	SW	85.8	94.8	94.8	29.816	0.00	0.00	0.000	0.217
7/23/10	11:30p	85.9	85.9	85.8	70	75.0	0.0	WSW	0.00	4.0	NW	85.9	95.1	95.1	29.818	0.00	0.00	0.000	0.218
7/23/10	11:45p	85.7	85.9	85.7	71	75.2	0.0	WSW	0.00	1.0	WSW	85.7	94.9	94.9	29.818	0.00	0.00	0.000	0.216
7/24/10	12:00a	85.8	85.8	85.7	70	74.9	0.0	WSW	0.00	4.0	WSW	85.8	94.8	94.8	29.819	0.00	0.00	0.000	0.217

Gowanus Phase III Weather Data 7/24/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/24/10	12:15a	86.0	86.0	85.7	70	75.1	1.0	WSW	0.25	8.0	SW	86.0	95.3	95.3	29.818	0.00	0.00	0.000	0.219
7/24/10	12:30a	86.3	86.4	86.0	69	74.9	1.0	SSW	0.25	10.0	SW	86.3	95.6	95.6	29.805	0.00	0.00	0.000	0.222
7/24/10	12:45a	85.9	86.3	85.9	69	74.5	0.0	SW	0.00	5.0	WSW	85.9	94.7	94.7	29.802	0.00	0.00	0.000	0.218
7/24/10	1:00a	85.8	85.9	85.8	67	73.6	0.0	SW	0.00	5.0	S	85.8	93.7	93.7	29.808	0.00	0.00	0.000	0.217
7/24/10	1:15a	85.9	85.9	85.8	67	73.7	0.0	SW	0.00	5.0	SW	85.9	93.9	93.9	29.814	0.00	0.00	0.000	0.218
7/24/10	1:30a	85.8	85.9	85.7	66	73.1	0.0	SW	0.00	5.0	SW	85.8	93.3	93.3	29.807	0.00	0.00	0.000	0.217
7/24/10	1:45a	85.7	85.8	85.7	67	73.5	0.0	W	0.00	5.0	SW	85.7	93.5	93.5	29.805	0.00	0.00	0.000	0.216
7/24/10	2:00a	85.6	85.8	85.6	68	73.8	0.0	SW	0.00	4.0	SW	85.6	93.6	93.6	29.802	0.00	0.00	0.000	0.215
7/24/10	2:15a	85.3	85.6	85.3	69	74.0	0.0	WSW	0.00	2.0	WSW	85.3	93.3	93.3	29.802	0.00	0.00	0.000	0.211
7/24/10	2:30a	85.0	85.3	85.0	71	74.5	0.0	WSW	0.00	2.0	WSW	85.0	93.2	93.2	29.800	0.00	0.00	0.000	0.208
7/24/10	2:45a	84.9	85.1	84.9	72	74.9	0.0	WSW	0.00	1.0	WSW	84.9	93.4	93.4	29.801	0.00	0.00	0.000	0.207
7/24/10	3:00a	84.5	84.9	84.5	73	74.9	0.0	WSW	0.00	2.0	WSW	84.5	92.9	92.9	29.796	0.00	0.00	0.000	0.203
7/24/10	3:15a	84.4	84.5	84.3	73	74.8	0.0	WSW	0.00	3.0	WSW	84.4	92.8	92.8	29.789	0.00	0.00	0.000	0.202
7/24/10	3:30a	84.3	84.4	84.3	74	75.1	0.0	WSW	0.00	3.0	WSW	84.3	92.9	92.9	29.787	0.00	0.00	0.000	0.201
7/24/10	3:45a	84.2	84.3	84.2	74	75.0	0.0	WSW	0.00	2.0	WSW	84.2	92.7	92.7	29.784	0.00	0.00	0.000	0.200
7/24/10	4:00a	84.1	84.2	84.1	74	74.9	0.0	SW	0.00	4.0	SW	84.1	92.5	92.5	29.773	0.00	0.00	0.000	0.199
7/24/10	4:15a	84.1	84.1	84.0	74	74.9	0.0	SW	0.00	4.0	SW	84.1	92.5	92.5	29.773	0.00	0.00	0.000	0.199
7/24/10	4:30a	83.9	84.1	83.9	74	74.7	0.0	SW	0.00	1.0	SW	83.9	92.1	92.1	29.774	0.00	0.00	0.000	0.197
7/24/10	4:45a	84.0	84.0	83.9	74	74.8	0.0	SW	0.00	2.0	SW	84.0	92.3	92.3	29.781	0.00	0.00	0.000	0.198
7/24/10	5:00a	83.9	84.0	83.9	75	75.1	0.0	SW	0.00	4.0	SW	83.9	92.4	92.4	29.786	0.00	0.00	0.000	0.197
7/24/10	5:15a	83.6	83.9	83.6	75	74.8	0.0	SW	0.00	5.0	SW	83.6	91.7	91.7	29.786	0.00	0.00	0.000	0.194
7/24/10	5:30a	83.4	83.6	83.4	75	74.6	0.0	SW	0.00	2.0	SW	83.4	91.1	91.1	29.788	0.00	0.00	0.000	0.192
7/24/10	5:45a	83.0	83.4	83.0	76	74.6	0.0	SW	0.00	2.0	SW	83.0	90.4	90.4	29.793	0.00	0.00	0.000	0.188
7/24/10	6:00a	82.6	83.0	82.6	77	74.7	0.0	SW	0.00	2.0	SW	82.6	89.7	89.7	29.801	0.00	0.00	0.000	0.183
7/24/10	6:15a	82.7	82.7	82.6	76	74.4	0.0	SW	0.00	2.0	SW	82.7	89.6	89.6	29.802	0.00	0.00	0.000	0.184
7/24/10	6:30a	82.7	82.7	82.6	76	74.4	0.0	SW	0.00	1.0	SW	82.7	89.6	89.6	29.808	0.00	0.00	0.000	0.184
7/24/10	6:45a	82.8	82.8	82.7	76	74.5	0.0	SW	0.00	1.0	SW	82.8	89.9	89.9	29.817	0.00	0.00	0.000	0.185
7/24/10	7:00a	83.2	83.2	82.8	75	74.4	0.0	SW	0.00	2.0	SW	83.2	90.6	90.6	29.814	0.00	0.00	0.000	0.190
7/24/10	7:15a	84.0	84.0	83.2	73	74.4	0.0	SW	0.00	2.0	SW	84.0	92.0	92.0	29.816	0.00	0.00	0.000	0.198
7/24/10	7:30a	84.2	84.2	84.0	72	74.2	0.0	SW	0.00	2.0	SW	84.2	92.0	92.0	29.817	0.00	0.00	0.000	0.200
7/24/10	7:45a	84.9	84.9	84.1	71	74.4	0.0	WSW	0.00	3.0	SW	84.9	93.0	93.0	29.820	0.00	0.00	0.000	0.207
7/24/10	8:00a	86.2	86.2	85.0	69	74.8	1.0	WSW	0.25	5.0	SW	86.2	95.4	95.4	29.821	0.00	0.00	0.000	0.221
7/24/10	8:15a	87.0	87.0	86.2	66	74.3	1.0	WSW	0.25	6.0	WSW	87.0	96.0	96.0	29.831	0.00	0.00	0.000	0.229
7/24/10	8:30a	86.4	87.0	86.4	67	74.1	1.0	WSW	0.25	5.0	WSW	86.4	95.0	95.0	29.832	0.00	0.00	0.000	0.223
7/24/10	8:45a	86.2	86.4	86.1	67	74.0	0.0	WSW	0.00	5.0	W	86.2	94.6	94.6	29.822	0.00	0.00	0.000	0.221
7/24/10	9:00a	86.6	86.6	86.1	65	73.4	0.0	W	0.00	3.0	WSW	86.6	94.7	94.7	29.820	0.00	0.00	0.000	0.225
7/24/10	9:15a	87.6	87.6	86.7	63	73.4	0.0	WSW	0.00	5.0	WSW	87.6	95.5	95.5	29.819	0.00	0.00	0.000	0.235
7/24/10	9:30a	89.0	89.0	87.6	62	74.3	0.0	SW	0.00	5.0	SW	89.0	98.2	98.2	29.822	0.00	0.00	0.000	0.250
7/24/10	9:45a	90.6	90.6	89.0	58	73.8	1.0	SW	0.25	5.0	WSW	90.6	100.3	100.3	29.828	0.00	0.00	0.000	0.267
7/24/10	10:00a	91.2	91.2	90.6	56	73.3	1.0	WSW	0.25	7.0	SW	91.2	100.7	100.7	29.828	0.00	0.00	0.000	0.273
7/24/10	10:15a	91.8	91.8	91.3	55	73.3	1.0	WSW	0.25	7.0	SSW	91.8	101.6	101.6	29.823	0.00	0.00	0.000	0.279
7/24/10	10:30a	92.8	92.9	91.8	53	73.2	1.0	WSW	0.25	6.0	W	92.8	102.8	102.8	29.824	0.00	0.00	0.000	0.290
7/24/10	10:45a	93.8	93.8	92.7	52	73.5	1.0	W	0.25	7.0	WSW	93.8	104.4	104.4	29.830	0.00	0.00	0.000	0.300
7/24/10	11:00a	94.9	94.9	93.8	51	73.9	1.0	SW	0.25	6.0	SW	94.9	106.3	106.3	29.831	0.00	0.00	0.000	0.311
7/24/10	11:15a	95.2	95.3	94.9	51	74.2	1.0	W	0.25	8.0	WSW	95.2	107.1	107.1	29.832	0.00	0.00	0.000	0.315
7/24/10	11:30a	94.9	95.2	94.8	51	73.9	1.0	SW	0.25	7.0	SW	94.9	106.3	106.3	29.833	0.00	0.00	0.000	0.311
7/24/10	11:45a	95.1	95.4	94.9	51	74.1	1.0	SW	0.25	7.0	W	95.1	106.8	106.8	29.832	0.00	0.00	0.000	0.314
7/24/10	12:00p	95.3	95.4	95.1	50	73.7	1.0	WSW	0.25	6.0	SW	95.3	106.4	106.4	29.832	0.00	0.00	0.000	0.316
7/24/10	12:15p	96.3	96.3	95.3	50	74.6	1.0	SW	0.25	7.0	SW	96.3	108.9	108.9	29.826	0.00	0.00	0.000	0.326
7/24/10	12:30p	97.2	97.2	96.4	49	74.9	1.0	SW	0.25	7.0	S	97.2	110.4	110.4	29.824	0.00	0.00	0.000	0.335
7/24/10	12:45p	96.7	97.2	96.4	49	74.4	1.0	SW	0.25	6.0	SSW	96.7	109.2	109.2	29.822	0.00	0.00	0.000	0.330
7/24/10	1:00p	97.8	97.8	96.7	48	74.8	1.0	WSW	0.25	6.0	SW	97.8	111.3	111.3	29.822	0.00	0.00	0.000	0.342
7/24/10	1:15p	97.6	98.6	97.6	48	74.6	2.0	WSW	0.50	8.0	SW	97.6	110.8	110.8	29.819	0.00	0.00	0.000	0.340

Gowanus Phase III Weather Data 7/24/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/24/10	1:30p	97.4	97.5	97.2	48	74.4	1.0	WSW	0.25	7.0	SW	97.4	110.3	110.3	29.817	0.00	0.00	0.000	0.338
7/24/10	1:45p	97.4	97.9	97.3	48	74.4	1.0	W	0.25	6.0	WSW	97.4	110.3	110.3	29.817	0.00	0.00	0.000	0.338
7/24/10	2:00p	98.0	98.0	97.4	48	75.0	1.0	WSW	0.25	8.0	SW	98.0	111.8	111.8	29.817	0.00	0.00	0.000	0.344
7/24/10	2:15p	99.2	99.2	98.1	47	75.4	1.0	WSW	0.25	7.0	SW	99.2	114.1	114.1	29.817	0.00	0.00	0.000	0.356
7/24/10	2:30p	98.7	99.4	98.7	47	75.0	2.0	WSW	0.50	8.0	SW	98.7	112.8	112.8	29.817	0.00	0.00	0.000	0.351
7/24/10	2:45p	97.8	98.6	97.2	49	75.4	2.0	SW	0.50	7.0	SW	97.8	112.0	112.0	29.812	0.00	0.00	0.000	0.342
7/24/10	3:00p	98.7	98.7	97.8	49	76.2	1.0	SW	0.25	6.0	SW	98.7	114.3	114.3	29.809	0.00	0.00	0.000	0.351
7/24/10	3:15p	98.9	99.4	98.7	48	75.8	2.0	SW	0.50	9.0	WSW	98.9	114.1	114.1	29.803	0.00	0.00	0.000	0.353
7/24/10	3:30p	99.3	99.3	98.6	47	75.5	2.0	WSW	0.50	7.0	SW	99.3	114.4	114.4	29.801	0.00	0.00	0.000	0.357
7/24/10	3:45p	98.7	99.3	98.2	48	75.6	3.0	SW	0.75	8.0	SSW	98.7	113.6	113.6	29.793	0.00	0.00	0.000	0.351
7/24/10	4:00p	99.5	99.6	98.7	45	74.4	1.0	W	0.25	6.0	SSW	99.5	113.3	113.3	29.789	0.00	0.00	0.000	0.359
7/24/10	4:15p	98.8	99.5	98.6	46	74.4	1.0	WSW	0.25	7.0	WSW	98.8	112.3	112.3	29.787	0.00	0.00	0.000	0.352
7/24/10	4:30p	98.3	98.8	98.1	48	75.2	2.0	SW	0.50	7.0	SW	98.3	112.5	112.5	29.787	0.00	0.00	0.000	0.347
7/24/10	4:45p	98.4	98.7	98.3	46	74.1	1.0	SW	0.25	7.0	SW	98.4	111.3	111.3	29.787	0.00	0.00	0.000	0.348
7/24/10	5:00p	97.6	98.4	97.5	46	73.3	2.0	SW	0.50	9.0	SSW	97.6	109.4	109.4	29.789	0.00	0.00	0.000	0.340
7/24/10	5:15p	97.7	97.8	97.5	45	72.8	1.0	SW	0.25	7.0	WNW	97.7	108.9	108.9	29.787	0.00	0.00	0.000	0.341
7/24/10	5:30p	96.7	97.7	96.7	46	72.5	1.0	WSW	0.25	8.0	SSW	96.7	107.3	107.3	29.785	0.00	0.00	0.000	0.330
7/24/10	5:45p	96.4	96.7	96.3	46	72.2	1.0	WSW	0.25	7.0	W	96.4	106.6	106.6	29.783	0.00	0.00	0.000	0.327
7/24/10	6:00p	96.2	96.4	96.2	46	72.1	1.0	WSW	0.25	7.0	WSW	96.2	106.2	106.2	29.770	0.00	0.00	0.000	0.325
7/24/10	6:15p	95.9	96.2	95.9	46	71.8	1.0	SW	0.25	7.0	SW	95.9	105.5	105.5	29.766	0.00	0.00	0.000	0.322
7/24/10	6:30p	95.6	95.9	95.6	46	71.5	1.0	WSW	0.25	5.0	WNW	95.6	104.8	104.8	29.758	0.00	0.00	0.000	0.319
7/24/10	6:45p	95.6	95.7	95.6	48	72.8	0.0	SW	0.00	5.0	W	95.6	106.0	106.0	29.762	0.00	0.00	0.000	0.319
7/24/10	7:00p	95.1	95.6	95.1	49	72.9	1.0	WSW	0.25	6.0	WSW	95.1	105.4	105.4	29.770	0.00	0.00	0.000	0.314
7/24/10	7:15p	95.0	95.1	95.0	48	72.2	0.0	WSW	0.00	4.0	SW	95.0	104.6	104.6	29.779	0.00	0.00	0.000	0.313
7/24/10	7:30p	94.3	95.0	94.3	50	72.8	1.0	WSW	0.25	5.0	WSW	94.3	104.1	104.1	29.786	0.00	0.00	0.000	0.305
7/24/10	7:45p	93.6	94.3	93.6	52	73.3	1.0	WSW	0.25	5.0	WSW	93.6	104.0	104.0	29.787	0.00	0.00	0.000	0.298
7/24/10	8:00p	93.0	93.6	93.0	54	73.9	0.0	WSW	0.00	5.0	SW	93.0	103.9	103.9	29.787	0.00	0.00	0.000	0.292
7/24/10	8:15p	92.4	93.0	92.4	56	74.4	1.0	WSW	0.25	5.0	WSW	92.4	103.7	103.7	29.784	0.00	0.00	0.000	0.285
7/24/10	8:30p	91.8	92.4	91.8	57	74.4	0.0	SW	0.00	5.0	SW	91.8	102.7	102.7	29.787	0.00	0.00	0.000	0.279
7/24/10	8:45p	91.5	91.8	91.5	58	74.6	1.0	SW	0.25	5.0	SW	91.5	102.5	102.5	29.787	0.00	0.00	0.000	0.276
7/24/10	9:00p	91.3	91.5	91.3	58	74.4	0.0	SW	0.00	4.0	SW	91.3	102.0	102.0	29.787	0.00	0.00	0.000	0.274
7/24/10	9:15p	91.2	91.3	91.2	58	74.4	0.0	SW	0.00	7.0	SW	91.2	101.8	101.8	29.783	0.00	0.00	0.000	0.273
7/24/10	9:30p	91.2	91.2	91.2	58	74.4	0.0	SW	0.00	5.0	SW	91.2	101.8	101.8	29.776	0.00	0.00	0.000	0.273
7/24/10	9:45p	91.1	91.2	91.1	59	74.8	0.0	SW	0.00	1.0	SW	91.1	102.0	102.0	29.771	0.00	0.00	0.000	0.272
7/24/10	10:00p	91.1	91.1	91.1	59	74.8	0.0	SW	0.00	1.0	SW	91.1	102.0	102.0	29.771	0.00	0.00	0.000	0.272
7/24/10	10:15p	91.2	91.2	91.1	59	74.9	0.0	WSW	0.00	5.0	SW	91.2	102.3	102.3	29.770	0.00	0.00	0.000	0.273
7/24/10	10:30p	91.3	91.3	91.2	59	75.0	0.0	SW	0.00	3.0	SW	91.3	102.5	102.5	29.764	0.00	0.00	0.000	0.274
7/24/10	10:45p	90.8	91.3	90.8	60	75.0	0.0	ESE	0.00	5.0	SW	90.8	101.8	101.8	29.761	0.00	0.00	0.000	0.269
7/24/10	11:00p	90.3	90.8	90.3	61	75.0	0.0	ESE	0.00	3.0	ESE	90.3	101.2	101.2	29.755	0.00	0.00	0.000	0.264
7/24/10	11:15p	90.4	90.4	90.3	61	75.1	0.0	ESE	0.00	4.0	ESE	90.4	101.4	101.4	29.762	0.00	0.00	0.000	0.265
7/24/10	11:30p	90.4	90.5	90.4	62	75.6	0.0	SW	0.00	6.0	SW	90.4	102.0	102.0	29.760	0.00	0.00	0.000	0.265
7/24/10	11:45p	90.1	90.4	90.1	64	76.3	1.0	W	0.25	6.0	W	90.1	102.5	102.5	29.759	0.00	0.00	0.000	0.261
7/25/10	12:00a	90.0	90.1	90.0	65	76.6	0.0	W	0.00	5.0	ENE	90.0	102.8	102.8	29.756	0.00	0.00	0.000	0.260

Gowanus Phase III Weather Data 7/25/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/25/10	12:15a	89.7	90.0	89.7	65	76.4	0.0	E	0.00	2.0	E	89.7	101.8	101.8	29.755	0.00	0.00	0.000	0.257
7/25/10	12:30a	89.7	89.8	89.7	66	76.8	0.0	ESE	0.00	4.0	ESE	89.7	102.4	102.4	29.740	0.00	0.00	0.000	0.257
7/25/10	12:45a	89.7	89.7	89.7	66	76.8	0.0	SE	0.00	4.0	SE	89.7	102.4	102.4	29.752	0.00	0.00	0.000	0.257
7/25/10	1:00a	88.1	89.7	88.1	70	77.1	1.0	SSW	0.25	11.0	WNW	88.1	99.3	99.3	29.783	0.04	0.97	0.000	0.241
7/25/10	1:15a	82.6	87.7	82.6	81	76.2	0.0	WSW	0.00	5.0	WSW	82.6	90.9	90.9	29.761	0.00	0.04	0.000	0.183
7/25/10	1:30a	82.0	82.5	82.0	83	76.3	0.0	---	0.00	0.0	---	82.0	89.8	89.8	29.755	0.00	0.00	0.000	0.177
7/25/10	1:45a	82.1	82.1	81.9	83	76.4	0.0	WSW	0.00	4.0	WSW	82.1	90.1	90.1	29.749	0.00	0.00	0.000	0.178
7/25/10	2:00a	82.4	82.4	82.0	81	76.0	0.0	WSW	0.00	1.0	WSW	82.4	90.3	90.3	29.743	0.00	0.00	0.000	0.181
7/25/10	2:15a	82.6	82.6	82.4	80	75.8	0.0	WSW	0.00	4.0	WSW	82.6	90.6	90.6	29.746	0.00	0.00	0.000	0.183
7/25/10	2:30a	82.5	82.6	82.5	80	75.7	0.0	WSW	0.00	4.0	WSW	82.5	90.3	90.3	29.740	0.00	0.00	0.000	0.182
7/25/10	2:45a	82.5	82.6	82.5	79	75.3	0.0	WSW	0.00	2.0	WSW	82.5	90.0	90.0	29.742	0.00	0.00	0.000	0.182
7/25/10	3:00a	82.6	82.6	82.5	78	75.0	0.0	WSW	0.00	4.0	SW	82.6	90.0	90.0	29.740	0.00	0.00	0.000	0.183
7/25/10	3:15a	82.3	82.6	82.3	78	74.7	0.0	WSW	0.00	4.0	WSW	82.3	89.2	89.2	29.740	0.00	0.00	0.000	0.180
7/25/10	3:30a	82.1	82.3	82.1	77	74.2	0.0	WSW	0.00	3.0	WSW	82.1	88.3	88.3	29.730	0.00	0.00	0.000	0.178
7/25/10	3:45a	82.0	82.1	82.0	76	73.7	0.0	WSW	0.00	4.0	WSW	82.0	87.8	87.8	29.735	0.00	0.00	0.000	0.177
7/25/10	4:00a	81.9	82.0	81.9	76	73.6	0.0	WSW	0.00	5.0	WSW	81.9	87.6	87.6	29.740	0.00	0.00	0.000	0.176
7/25/10	4:15a	81.8	81.9	81.8	75	73.1	0.0	WSW	0.00	3.0	WSW	81.8	87.1	87.1	29.740	0.00	0.00	0.000	0.175
7/25/10	4:30a	81.6	81.8	81.6	74	72.5	0.0	WSW	0.00	5.0	WSW	81.6	86.4	86.4	29.744	0.00	0.00	0.000	0.173
7/25/10	4:45a	81.5	81.7	81.5	74	72.4	0.0	WSW	0.00	1.0	WSW	81.5	86.2	86.2	29.742	0.00	0.00	0.000	0.172
7/25/10	5:00a	81.3	81.5	81.3	74	72.2	0.0	WSW	0.00	2.0	WSW	81.3	85.8	85.8	29.749	0.00	0.00	0.000	0.170
7/25/10	5:15a	81.2	81.3	81.2	75	72.5	0.0	WSW	0.00	1.0	WSW	81.2	85.8	85.8	29.756	0.00	0.00	0.000	0.169
7/25/10	5:30a	81.0	81.2	81.0	74	71.9	0.0	WSW	0.00	2.0	WSW	81.0	85.2	85.2	29.765	0.00	0.00	0.000	0.167
7/25/10	5:45a	80.9	81.0	80.9	74	71.8	0.0	WSW	0.00	4.0	WSW	80.9	85.0	85.0	29.767	0.00	0.00	0.000	0.166
7/25/10	6:00a	80.7	80.9	80.7	75	72.0	0.0	WSW	0.00	1.0	WSW	80.7	84.9	84.9	29.763	0.00	0.00	0.000	0.164
7/25/10	6:15a	80.5	80.7	80.5	75	71.8	0.0	WSW	0.00	1.0	WSW	80.5	84.5	84.5	29.769	0.00	0.00	0.000	0.161
7/25/10	6:30a	80.5	80.5	80.5	75	71.8	0.0	WSW	0.00	1.0	WSW	80.5	84.5	84.5	29.757	0.00	0.00	0.000	0.161
7/25/10	6:45a	80.6	80.6	80.4	75	71.9	1.0	WSW	0.25	5.0	WSW	80.6	84.7	84.7	29.770	0.00	0.00	0.000	0.162
7/25/10	7:00a	81.5	81.5	80.6	74	72.4	0.0	WSW	0.00	3.0	WSW	81.5	86.2	86.2	29.772	0.00	0.00	0.000	0.172
7/25/10	7:15a	82.5	82.5	81.5	72	72.6	0.0	WSW	0.00	4.0	WSW	82.5	87.9	87.9	29.782	0.00	0.00	0.000	0.182
7/25/10	7:30a	83.2	83.2	82.5	71	72.8	0.0	W	0.00	4.0	W	83.2	89.2	89.2	29.786	0.00	0.00	0.000	0.190
7/25/10	7:45a	83.9	83.9	83.2	70	73.1	0.0	W	0.00	5.0	WSW	83.9	90.7	90.7	29.787	0.00	0.00	0.000	0.197
7/25/10	8:00a	84.6	84.6	83.9	69	73.3	1.0	WSW	0.25	6.0	WSW	84.6	91.7	91.7	29.791	0.00	0.00	0.000	0.204
7/25/10	8:15a	85.2	85.2	84.5	68	73.4	1.0	WSW	0.25	6.0	SW	85.2	92.7	92.7	29.790	0.00	0.00	0.000	0.210
7/25/10	8:30a	85.8	85.9	85.2	67	73.6	1.0	WSW	0.25	5.0	WSW	85.8	93.7	93.7	29.795	0.00	0.00	0.000	0.217
7/25/10	8:45a	87.0	87.0	85.8	65	73.8	0.0	SW	0.00	4.0	SW	87.0	95.6	95.6	29.797	0.00	0.00	0.000	0.229
7/25/10	9:00a	87.4	87.5	87.0	64	73.7	1.0	SW	0.25	5.0	WSW	87.4	95.7	95.7	29.790	0.00	0.00	0.000	0.233
7/25/10	9:15a	88.2	88.2	87.4	62	73.5	0.0	WSW	0.00	5.0	SW	88.2	96.2	96.2	29.786	0.00	0.00	0.000	0.242
7/25/10	9:30a	88.9	89.1	88.3	60	73.2	1.0	WSW	0.25	5.0	WSW	88.9	97.1	97.1	29.785	0.00	0.00	0.000	0.249
7/25/10	9:45a	89.2	89.2	88.9	59	73.0	1.0	WSW	0.25	6.0	WSW	89.2	97.4	97.4	29.776	0.00	0.00	0.000	0.252
7/25/10	10:00a	89.3	89.4	89.2	58	72.6	2.0	WSW	0.50	7.0	WSW	89.3	97.2	97.2	29.785	0.00	0.00	0.000	0.253
7/25/10	10:15a	89.5	89.7	89.3	57	72.3	2.0	WSW	0.50	7.0	W	89.5	97.3	97.3	29.786	0.00	0.00	0.000	0.255
7/25/10	10:30a	90.0	90.0	89.3	56	72.2	1.0	WSW	0.25	8.0	NNW	90.0	97.9	97.9	29.787	0.00	0.00	0.000	0.260
7/25/10	10:45a	90.6	90.8	90.1	54	71.7	2.0	WSW	0.50	8.0	NE	90.6	98.3	98.3	29.786	0.00	0.00	0.000	0.267
7/25/10	11:00a	91.4	91.5	90.5	54	72.4	1.0	WSW	0.25	7.0	WSW	91.4	100.1	100.1	29.780	0.00	0.00	0.000	0.275
7/25/10	11:15a	91.8	91.8	91.4	52	71.7	1.0	WSW	0.25	6.0	W	91.8	99.9	99.9	29.774	0.00	0.00	0.000	0.279
7/25/10	11:30a	91.7	91.8	91.5	52	71.6	2.0	WSW	0.50	8.0	SSW	91.7	99.7	99.7	29.773	0.00	0.00	0.000	0.278
7/25/10	11:45a	92.5	92.5	91.7	51	71.7	1.0	ENE	0.25	6.0	WSW	92.5	100.8	100.8	29.772	0.00	0.00	0.000	0.286
7/25/10	12:00p	92.8	92.8	92.1	51	72.0	2.0	NE	0.50	7.0	SW	92.8	101.4	101.4	29.771	0.00	0.00	0.000	0.290
7/25/10	12:15p	93.5	93.6	92.8	50	72.1	1.0	WSW	0.25	5.0	SW	93.5	102.3	102.3	29.769	0.00	0.00	0.000	0.297
7/25/10	12:30p	93.9	94.0	93.5	49	71.8	1.0	SW	0.25	6.0	WSW	93.9	102.7	102.7	29.767	0.00	0.00	0.000	0.301
7/25/10	12:45p	94.8	94.8	93.9	48	72.0	1.0	NW	0.25	5.0	SW	94.8	104.1	104.1	29.757	0.00	0.00	0.000	0.310
7/25/10	1:00p	93.2	94.8	93.1	50	71.8	2.0	NE	0.50	8.0	NNE	93.2	101.6	101.6	29.754	0.00	0.00	0.000	0.294
7/25/10	1:15p	94.5	94.6	93.3	49	72.4	1.0	NNE	0.25	9.0	NE	94.5	104.0	104.0	29.740	0.00	0.00	0.000	0.307

Gowanus Phase III Weather Data 7/25/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/25/10	1:30p	94.6	95.1	94.5	49	72.5	1.0	ESE	0.25	6.0	SSW	94.6	104.2	104.2	29.736	0.00	0.00	0.000	0.308
7/25/10	1:45p	95.1	95.1	94.2	48	72.3	1.0	WSW	0.25	5.0	WSW	95.1	104.8	104.8	29.733	0.00	0.00	0.000	0.314
7/25/10	2:00p	95.1	96.3	95.1	47	71.7	1.0	NW	0.25	7.0	NNE	95.1	104.2	104.2	29.728	0.00	0.00	0.000	0.314
7/25/10	2:15p	95.6	95.6	94.8	47	72.2	0.0	NW	0.00	6.0	WSW	95.6	105.4	105.4	29.725	0.00	0.00	0.000	0.319
7/25/10	2:30p	96.6	96.7	95.6	46	72.4	1.0	WSW	0.25	4.0	WSW	96.6	107.1	107.1	29.724	0.00	0.00	0.000	0.329
7/25/10	2:45p	95.2	96.6	95.2	47	71.8	0.0	WSW	0.00	4.0	WSW	95.2	104.5	104.5	29.723	0.00	0.00	0.000	0.315
7/25/10	3:00p	93.1	95.2	93.1	50	71.7	1.0	SW	0.25	6.0	SSW	93.1	101.4	101.4	29.728	0.00	0.00	0.000	0.293
7/25/10	3:15p	86.1	93.1	86.1	62	71.6	3.0	SW	0.75	13.0	NE	86.1	92.5	92.5	29.779	0.00	0.00	0.000	0.220
7/25/10	3:30p	76.8	85.8	76.8	82	70.9	4.0	WSW	1.00	15.0	SW	76.8	80.0	80.0	29.799	0.02	0.15	0.000	0.123
7/25/10	3:45p	75.9	76.7	75.9	76	67.8	4.0	NE	1.00	11.0	ENE	75.9	78.4	78.4	29.789	0.00	0.00	0.000	0.114
7/25/10	4:00p	76.2	76.2	75.8	76	68.1	4.0	NE	1.00	11.0	NNE	76.2	78.7	78.7	29.787	0.00	0.00	0.000	0.117
7/25/10	4:15p	75.7	76.4	75.7	78	68.4	2.0	WSW	0.50	10.0	N	75.7	78.3	78.3	29.817	0.01	0.00	0.000	0.111
7/25/10	4:30p	74.7	75.5	74.6	80	68.1	1.0	W	0.25	9.0	NW	74.7	77.0	77.0	29.800	0.01	0.04	0.000	0.101
7/25/10	4:45p	74.2	74.7	74.2	81	68.0	1.0	WSW	0.25	5.0	NW	74.2	76.4	76.4	29.773	0.01	0.04	0.000	0.096
7/25/10	5:00p	74.4	74.4	74.2	82	68.5	0.0	W	0.00	1.0	W	74.4	76.7	76.7	29.756	0.01	0.06	0.000	0.098
7/25/10	5:15p	75.0	75.0	74.4	81	68.8	0.0	---	0.00	0.0	---	75.0	77.6	77.6	29.742	0.00	0.00	0.000	0.104
7/25/10	5:30p	75.9	75.9	75.0	82	70.0	0.0	---	0.00	0.0	---	75.9	78.9	78.9	29.745	0.00	0.00	0.000	0.114
7/25/10	5:45p	76.6	76.6	76.0	79	69.6	0.0	W	0.00	4.0	W	76.6	79.5	79.5	29.756	0.00	0.00	0.000	0.121
7/25/10	6:00p	76.7	76.7	76.5	78	69.3	0.0	W	0.00	4.0	W	76.7	79.5	79.5	29.751	0.00	0.00	0.000	0.122
7/25/10	6:15p	77.3	77.3	76.7	79	70.3	0.0	W	0.00	1.0	W	77.3	80.3	80.3	29.757	0.00	0.00	0.000	0.128
7/25/10	6:30p	77.8	77.8	77.3	76	69.6	0.0	WNW	0.00	2.0	W	77.8	80.5	80.5	29.771	0.00	0.00	0.000	0.133
7/25/10	6:45p	77.7	77.8	77.6	77	69.9	1.0	WSW	0.25	5.0	SW	77.7	80.6	80.6	29.797	0.00	0.00	0.000	0.132
7/25/10	7:00p	77.9	78.0	77.8	78	70.5	1.0	WSW	0.25	5.0	SW	77.9	81.0	81.0	29.799	0.00	0.00	0.000	0.134
7/25/10	7:15p	78.0	78.0	77.9	77	70.2	1.0	WSW	0.25	6.0	WSW	78.0	80.9	80.9	29.798	0.00	0.00	0.000	0.135
7/25/10	7:30p	77.6	77.9	77.6	77	69.8	1.0	WSW	0.25	6.0	SW	77.6	80.4	80.4	29.802	0.00	0.00	0.000	0.131
7/25/10	7:45p	77.6	77.6	77.5	77	69.8	0.0	SW	0.00	5.0	W	77.6	80.4	80.4	29.802	0.00	0.00	0.000	0.131
7/25/10	8:00p	77.5	77.6	77.5	78	70.1	1.0	SW	0.25	5.0	SW	77.5	80.4	80.4	29.809	0.00	0.00	0.000	0.130
7/25/10	8:15p	77.5	77.6	77.5	78	70.1	1.0	SW	0.25	7.0	SW	77.5	80.4	80.4	29.814	0.00	0.00	0.000	0.130
7/25/10	8:30p	77.5	77.6	77.5	78	70.1	1.0	WSW	0.25	5.0	SW	77.5	80.4	80.4	29.813	0.00	0.00	0.000	0.130
7/25/10	8:45p	77.4	77.5	77.4	78	70.0	1.0	WSW	0.25	6.0	WSW	77.4	80.3	80.3	29.814	0.00	0.00	0.000	0.129
7/25/10	9:00p	77.3	77.4	77.3	79	70.3	0.0	WSW	0.00	4.0	WSW	77.3	80.3	80.3	29.818	0.00	0.00	0.000	0.128
7/25/10	9:15p	77.1	77.3	77.1	79	70.1	0.0	NW	0.00	4.0	NW	77.1	80.0	80.0	29.823	0.00	0.00	0.000	0.126
7/25/10	9:30p	77.0	77.1	77.0	79	70.0	0.0	NW	0.00	4.0	NW	77.0	79.9	79.9	29.832	0.00	0.00	0.000	0.125
7/25/10	9:45p	77.0	77.0	77.0	79	70.0	0.0	WSW	0.00	5.0	WSW	77.0	79.9	79.9	29.835	0.00	0.00	0.000	0.125
7/25/10	10:00p	76.9	77.0	76.9	79	69.9	0.0	WSW	0.00	5.0	WSW	76.9	79.8	79.8	29.846	0.00	0.00	0.000	0.124
7/25/10	10:15p	76.7	76.9	76.7	79	69.7	1.0	WSW	0.25	6.0	WSW	76.7	79.6	79.6	29.848	0.00	0.00	0.000	0.122
7/25/10	10:30p	76.6	76.7	76.6	78	69.2	0.0	WSW	0.00	6.0	W	76.6	79.4	79.4	29.848	0.00	0.00	0.000	0.121
7/25/10	10:45p	76.7	76.7	76.6	76	68.6	1.0	WSW	0.25	4.0	WSW	76.7	79.3	79.3	29.850	0.00	0.00	0.000	0.122
7/25/10	11:00p	76.8	76.8	76.7	72	67.1	1.0	WSW	0.25	8.0	NNE	76.8	78.9	78.9	29.858	0.00	0.00	0.000	0.123
7/25/10	11:15p	76.7	76.8	76.7	72	67.0	1.0	N	0.25	7.0	NNE	76.7	78.8	78.8	29.863	0.00	0.00	0.000	0.122
7/25/10	11:30p	76.6	76.8	76.6	71	66.5	1.0	NE	0.25	6.0	N	76.6	78.6	78.6	29.864	0.00	0.00	0.000	0.121
7/25/10	11:45p	76.4	76.6	76.4	70	65.9	1.0	NNE	0.25	6.0	NNE	76.4	78.2	78.2	29.865	0.00	0.00	0.000	0.119
7/26/10	12:00a	76.1	76.4	76.0	68	64.8	1.0	NE	0.25	12.0	NE	76.1	77.7	77.7	29.866	0.00	0.00	0.000	0.116

Gowanus Phase III Weather Data 7/26/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/26/10	12:15a	75.8	76.1	75.8	66	63.6	1.0	NNE	0.25	7.0	NNE	75.8	77.1	77.1	29.866	0.00	0.00	0.000	0.113
7/26/10	12:30a	75.4	75.8	75.4	64	62.4	2.0	ENE	0.50	10.0	WSW	75.4	76.6	76.6	29.878	0.00	0.00	0.000	0.108
7/26/10	12:45a	74.8	75.4	74.8	64	61.8	3.0	NNE	0.75	12.0	NNE	74.8	76.0	76.0	29.879	0.00	0.00	0.000	0.102
7/26/10	1:00a	74.3	74.9	74.3	64	61.3	2.0	N	0.50	8.0	NNE	74.3	75.4	75.4	29.887	0.00	0.00	0.000	0.097
7/26/10	1:15a	73.9	74.3	73.9	64	61.0	2.0	NNE	0.50	8.0	NNE	73.9	75.0	75.0	29.894	0.00	0.00	0.000	0.093
7/26/10	1:30a	73.5	73.9	73.5	64	60.6	2.0	NNE	0.50	8.0	WSW	73.5	74.4	74.4	29.896	0.00	0.00	0.000	0.089
7/26/10	1:45a	73.1	73.5	73.1	64	60.2	1.0	NNW	0.25	7.0	WSW	73.1	73.8	73.8	29.898	0.00	0.00	0.000	0.084
7/26/10	2:00a	72.9	73.1	72.9	64	60.0	2.0	W	0.50	8.0	NNE	72.9	73.5	73.5	29.902	0.00	0.00	0.000	0.082
7/26/10	2:15a	72.7	72.9	72.7	63	59.4	1.0	N	0.25	8.0	N	72.7	73.1	73.1	29.909	0.00	0.00	0.000	0.080
7/26/10	2:30a	72.6	72.8	72.6	63	59.3	1.0	NNE	0.25	8.0	NNE	72.6	73.0	73.0	29.909	0.00	0.00	0.000	0.079
7/26/10	2:45a	72.5	72.6	72.5	63	59.2	1.0	WNW	0.25	8.0	NNE	72.5	72.9	72.9	29.909	0.00	0.00	0.000	0.078
7/26/10	3:00a	72.5	72.6	72.5	63	59.2	1.0	NE	0.25	5.0	NNE	72.5	72.9	72.9	29.910	0.00	0.00	0.000	0.078
7/26/10	3:15a	72.4	72.6	72.4	63	59.1	1.0	ENE	0.25	7.0	NE	72.4	72.7	72.7	29.915	0.00	0.00	0.000	0.077
7/26/10	3:30a	72.4	72.5	72.4	64	59.5	1.0	N	0.25	7.0	N	72.4	72.8	72.8	29.910	0.00	0.00	0.000	0.077
7/26/10	3:45a	72.1	72.4	72.1	65	59.7	1.0	SSE	0.25	5.0	ENE	72.1	72.4	72.4	29.911	0.00	0.00	0.000	0.074
7/26/10	4:00a	71.9	72.1	71.9	66	59.9	1.0	NNW	0.25	5.0	N	71.9	72.2	72.2	29.917	0.00	0.00	0.000	0.072
7/26/10	4:15a	71.7	71.9	71.7	66	59.7	0.0	N	0.00	6.0	NE	71.7	72.0	72.0	29.922	0.00	0.00	0.000	0.070
7/26/10	4:30a	71.5	71.7	71.5	67	60.0	0.0	NE	0.00	5.0	NE	71.5	71.8	71.8	29.925	0.00	0.00	0.000	0.068
7/26/10	4:45a	71.1	71.5	71.1	69	60.4	0.0	NE	0.00	4.0	NE	71.1	71.4	71.4	29.931	0.00	0.00	0.000	0.064
7/26/10	5:00a	70.8	71.1	70.7	69	60.1	0.0	WSW	0.00	6.0	WSW	70.8	71.0	71.0	29.939	0.00	0.00	0.000	0.060
7/26/10	5:15a	70.5	70.8	70.5	70	60.2	1.0	WSW	0.25	5.0	WSW	70.5	70.8	70.8	29.942	0.00	0.00	0.000	0.057
7/26/10	5:30a	70.3	70.5	70.2	70	60.1	1.0	WSW	0.25	5.0	WSW	70.3	70.5	70.5	29.950	0.00	0.00	0.000	0.055
7/26/10	5:45a	70.2	70.3	70.2	70	60.0	1.0	WSW	0.25	5.0	WSW	70.2	70.4	70.4	29.958	0.00	0.00	0.000	0.054
7/26/10	6:00a	70.0	70.2	70.0	70	59.8	0.0	WSW	0.00	4.0	WSW	70.0	70.1	70.1	29.971	0.00	0.00	0.000	0.052
7/26/10	6:15a	69.9	70.0	69.9	71	60.1	0.0	WSW	0.00	3.0	WSW	69.9	70.1	70.1	29.972	0.00	0.00	0.000	0.051
7/26/10	6:30a	70.1	70.1	69.9	70	59.9	0.0	WSW	0.00	5.0	WSW	70.1	70.2	70.2	29.974	0.00	0.00	0.000	0.053
7/26/10	6:45a	70.6	70.6	70.1	70	60.3	0.0	SW	0.00	5.0	WSW	70.6	70.9	70.9	29.974	0.00	0.00	0.000	0.058
7/26/10	7:00a	71.5	71.5	70.6	69	60.8	1.0	SW	0.25	5.0	SW	71.5	72.0	72.0	29.974	0.00	0.00	0.000	0.068
7/26/10	7:15a	72.3	72.3	71.5	68	61.1	0.0	SW	0.00	4.0	SW	72.3	73.0	73.0	29.982	0.00	0.00	0.000	0.076
7/26/10	7:30a	72.8	72.8	72.3	67	61.2	0.0	SW	0.00	5.0	SW	72.8	73.6	73.6	29.985	0.00	0.00	0.000	0.081
7/26/10	7:45a	74.1	74.1	72.8	65	61.6	0.0	SW	0.00	5.0	SW	74.1	75.3	75.3	29.987	0.00	0.00	0.000	0.095
7/26/10	8:00a	76.0	76.0	74.1	63	62.5	0.0	SW	0.00	2.0	SW	76.0	77.0	77.0	29.987	0.00	0.00	0.000	0.115
7/26/10	8:15a	75.4	76.0	75.4	61	61.0	1.0	SW	0.25	5.0	SW	75.4	76.3	76.3	29.987	0.00	0.00	0.000	0.108
7/26/10	8:30a	75.1	75.4	75.1	61	60.7	1.0	SW	0.25	6.0	WSW	75.1	76.1	76.1	29.987	0.00	0.00	0.000	0.105
7/26/10	8:45a	76.5	76.5	75.1	60	61.6	1.0	WSW	0.25	4.0	WSW	76.5	77.3	77.3	29.988	0.00	0.00	0.000	0.120
7/26/10	9:00a	77.3	77.3	76.5	58	61.4	1.0	SW	0.25	7.0	SSW	77.3	77.9	77.9	29.991	0.00	0.00	0.000	0.128
7/26/10	9:15a	78.4	78.4	77.3	57	61.9	1.0	WSW	0.25	5.0	WSW	78.4	79.1	79.1	29.991	0.00	0.00	0.000	0.140
7/26/10	9:30a	79.9	79.9	78.4	54	61.8	0.0	SW	0.00	4.0	SW	79.9	80.5	80.5	29.989	0.00	0.00	0.000	0.155
7/26/10	9:45a	80.7	81.2	79.9	51	60.9	1.0	SW	0.25	6.0	SW	80.7	81.0	81.0	29.988	0.00	0.00	0.000	0.164
7/26/10	10:00a	81.0	81.1	80.7	50	60.6	0.0	WSW	0.00	5.0	SW	81.0	81.2	81.2	29.992	0.00	0.00	0.000	0.167
7/26/10	10:15a	82.1	82.1	81.1	48	60.5	1.0	WSW	0.25	6.0	WSW	82.1	82.5	82.5	29.991	0.00	0.00	0.000	0.178
7/26/10	10:30a	82.3	82.3	81.8	45	58.8	1.0	WSW	0.25	5.0	WSW	82.3	82.4	82.4	29.990	0.00	0.00	0.000	0.180
7/26/10	10:45a	83.2	83.2	82.2	43	58.4	1.0	W	0.25	8.0	NNE	83.2	83.5	83.5	29.990	0.00	0.00	0.000	0.190
7/26/10	11:00a	83.8	83.8	83.1	43	58.9	1.0	WSW	0.25	6.0	NE	83.8	84.5	84.5	29.987	0.00	0.00	0.000	0.196
7/26/10	11:15a	83.6	84.2	83.6	42	58.1	2.0	WNW	0.50	10.0	NNE	83.6	84.0	84.0	29.987	0.00	0.00	0.000	0.194
7/26/10	11:30a	84.5	84.8	83.5	42	58.9	2.0	NW	0.50	6.0	N	84.5	85.0	85.0	29.986	0.00	0.00	0.000	0.203
7/26/10	11:45a	84.3	84.5	84.3	42	58.7	2.0	WSW	0.50	8.0	N	84.3	84.9	84.9	29.985	0.00	0.00	0.000	0.201
7/26/10	12:00p	85.1	85.1	84.2	41	58.8	2.0	WSW	0.50	7.0	ENE	85.1	85.4	85.4	29.983	0.00	0.00	0.000	0.209
7/26/10	12:15p	85.2	85.2	85.0	41	58.8	2.0	N	0.50	10.0	N	85.2	85.5	85.5	29.972	0.00	0.00	0.000	0.210
7/26/10	12:30p	85.9	85.9	85.3	40	58.8	2.0	WSW	0.50	8.0	W	85.9	86.1	86.1	29.972	0.00	0.00	0.000	0.218
7/26/10	12:45p	86.5	87.0	86.0	38	57.9	2.0	WSW	0.50	9.0	SW	86.5	86.4	86.4	29.971	0.00	0.00	0.000	0.224
7/26/10	1:00p	86.5	86.5	86.3	38	57.9	3.0	WSW	0.75	8.0	S	86.5	86.4	86.4	29.969	0.00	0.00	0.000	0.224
7/26/10	1:15p	87.3	87.3	86.5	38	58.6	2.0	WSW	0.50	9.0	N	87.3	87.1	87.1	29.971	0.00	0.00	0.000	0.232

Gowanus Phase III Weather Data 7/26/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/26/10	1:30p	86.8	87.6	86.7	39	58.9	2.0	WSW	0.50	10.0	SSW	86.8	86.9	86.9	29.960	0.00	0.00	0.000	0.227
7/26/10	1:45p	88.1	88.1	86.8	36	57.8	3.0	WSW	0.75	10.0	WSW	88.1	87.2	87.2	29.956	0.00	0.00	0.000	0.241
7/26/10	2:00p	88.6	88.6	87.9	37	59.0	2.0	WSW	0.50	8.0	NE	88.6	88.3	88.3	29.955	0.00	0.00	0.000	0.246
7/26/10	2:15p	88.4	88.6	88.4	34	56.5	3.0	WSW	0.75	8.0	W	88.4	87.2	87.2	29.951	0.00	0.00	0.000	0.244
7/26/10	2:30p	88.5	88.5	88.0	36	58.1	2.0	WSW	0.50	10.0	SW	88.5	87.9	87.9	29.941	0.00	0.00	0.000	0.245
7/26/10	2:45p	88.7	89.0	88.5	37	59.1	3.0	SW	0.75	9.0	N	88.7	88.5	88.5	29.941	0.00	0.00	0.000	0.247
7/26/10	3:00p	88.9	89.0	88.4	36	58.5	3.0	WSW	0.75	11.0	SW	88.9	88.5	88.5	29.939	0.00	0.00	0.000	0.249
7/26/10	3:15p	89.6	89.6	89.0	36	59.1	3.0	WSW	0.75	9.0	W	89.6	89.6	89.6	29.938	0.00	0.00	0.000	0.256
7/26/10	3:30p	89.8	89.9	89.5	37	60.1	3.0	WSW	0.75	10.0	SW	89.8	90.1	90.1	29.930	0.00	0.00	0.000	0.258
7/26/10	3:45p	88.5	90.0	88.5	37	58.9	2.0	W	0.50	10.0	NNE	88.5	88.2	88.2	29.926	0.00	0.00	0.000	0.245
7/26/10	4:00p	88.2	88.7	88.2	38	59.4	2.0	WSW	0.50	9.0	N	88.2	87.9	87.9	29.925	0.00	0.00	0.000	0.242
7/26/10	4:15p	87.8	88.2	87.8	38	59.0	3.0	SW	0.75	11.0	NNE	87.8	87.4	87.4	29.922	0.00	0.00	0.000	0.238
7/26/10	4:30p	87.7	87.8	87.3	39	59.7	2.0	WSW	0.50	9.0	NNE	87.7	87.6	87.6	29.918	0.00	0.00	0.000	0.236
7/26/10	4:45p	86.8	87.7	86.8	40	59.6	3.0	NW	0.75	8.0	SW	86.8	87.2	87.2	29.917	0.00	0.00	0.000	0.227
7/26/10	5:00p	86.3	86.8	86.3	40	59.1	3.0	WSW	0.75	8.0	WSW	86.3	86.6	86.6	29.914	0.00	0.00	0.000	0.222
7/26/10	5:15p	86.7	86.7	86.2	40	59.5	3.0	W	0.75	11.0	NNW	86.7	87.0	87.0	29.915	0.00	0.00	0.000	0.226
7/26/10	5:30p	87.0	87.0	86.7	41	60.5	3.0	WSW	0.75	9.0	WSW	87.0	87.6	87.6	29.912	0.00	0.00	0.000	0.229
7/26/10	5:45p	86.5	87.0	86.4	42	60.7	3.0	W	0.75	9.0	SW	86.5	87.2	87.2	29.915	0.00	0.00	0.000	0.224
7/26/10	6:00p	86.7	86.7	86.4	41	60.2	2.0	NNW	0.50	10.0	NNE	86.7	87.3	87.3	29.916	0.00	0.00	0.000	0.226
7/26/10	6:15p	86.5	86.8	86.5	41	60.0	3.0	WSW	0.75	14.0	NNE	86.5	87.0	87.0	29.924	0.00	0.00	0.000	0.224
7/26/10	6:30p	86.2	86.5	86.2	40	59.0	3.0	WSW	0.75	15.0	N	86.2	86.4	86.4	29.920	0.00	0.00	0.000	0.221
7/26/10	6:45p	85.5	86.1	85.5	42	59.8	2.0	WSW	0.50	15.0	N	85.5	86.0	86.0	29.924	0.00	0.00	0.000	0.214
7/26/10	7:00p	85.3	85.5	85.3	42	59.6	2.0	WSW	0.50	12.0	SW	85.3	85.8	85.8	29.925	0.00	0.00	0.000	0.211
7/26/10	7:15p	85.0	85.3	85.0	43	60.0	2.0	WNW	0.50	9.0	SW	85.0	85.6	85.6	29.925	0.00	0.00	0.000	0.208
7/26/10	7:30p	84.7	85.0	84.7	43	59.7	2.0	WSW	0.50	7.0	SW	84.7	85.4	85.4	29.925	0.00	0.00	0.000	0.205
7/26/10	7:45p	84.4	84.7	84.4	43	59.5	1.0	NNW	0.25	6.0	N	84.4	85.1	85.1	29.927	0.00	0.00	0.000	0.202
7/26/10	8:00p	83.9	84.4	83.9	43	59.0	2.0	ENE	0.50	8.0	NNW	83.9	84.6	84.6	29.929	0.00	0.00	0.000	0.197
7/26/10	8:15p	83.5	83.9	83.5	42	58.0	2.0	NNW	0.50	10.0	NE	83.5	83.8	83.8	29.936	0.00	0.00	0.000	0.193
7/26/10	8:30p	83.1	83.5	83.1	42	57.6	2.0	NW	0.50	11.0	N	83.1	83.2	83.2	29.940	0.00	0.00	0.000	0.189
7/26/10	8:45p	82.7	83.1	82.7	43	57.9	1.0	WSW	0.25	8.0	WSW	82.7	82.7	82.7	29.941	0.00	0.00	0.000	0.184
7/26/10	9:00p	82.5	82.8	82.5	43	57.7	2.0	N	0.50	7.0	NNW	82.5	82.4	82.4	29.953	0.00	0.00	0.000	0.182
7/26/10	9:15p	82.2	82.5	82.2	43	57.5	1.0	NW	0.25	8.0	NE	82.2	82.0	82.0	29.956	0.00	0.00	0.000	0.179
7/26/10	9:30p	82.0	82.2	82.0	44	57.9	1.0	W	0.25	5.0	NE	82.0	81.8	81.8	29.960	0.00	0.00	0.000	0.177
7/26/10	9:45p	81.6	82.0	81.6	45	58.2	1.0	NE	0.25	9.0	NNE	81.6	81.4	81.4	29.969	0.00	0.00	0.000	0.173
7/26/10	10:00p	81.3	81.6	81.3	46	58.5	1.0	W	0.25	9.0	NNW	81.3	81.1	81.1	29.972	0.00	0.00	0.000	0.170
7/26/10	10:15p	80.9	81.3	80.9	47	58.8	1.0	W	0.25	5.0	W	80.9	80.7	80.7	29.981	0.00	0.00	0.000	0.166
7/26/10	10:30p	80.5	80.8	80.5	48	59.0	1.0	N	0.25	5.0	W	80.5	80.4	80.4	29.986	0.00	0.00	0.000	0.161
7/26/10	10:45p	80.1	80.5	80.1	48	58.6	1.0	NNW	0.25	8.0	N	80.1	80.0	80.0	29.987	0.00	0.00	0.000	0.157
7/26/10	11:00p	79.6	80.1	79.6	49	58.8	0.0	NNW	0.00	3.0	NNW	79.6	79.6	79.6	29.992	0.00	0.00	0.000	0.152
7/26/10	11:15p	79.1	79.6	79.1	48	57.7	0.0	N	0.00	6.0	N	79.1	79.1	79.1	29.990	0.00	0.00	0.000	0.147
7/26/10	11:30p	78.7	79.1	78.7	50	58.5	0.0	NNW	0.00	4.0	NNW	78.7	78.8	78.8	29.997	0.00	0.00	0.000	0.143
7/26/10	11:45p	78.4	78.7	78.4	51	58.8	0.0	NNW	0.00	2.0	NNW	78.4	78.6	78.6	30.002	0.00	0.00	0.000	0.140
7/27/10	12:00a	78.1	78.4	78.1	52	59.0	0.0	NNW	0.00	5.0	NW	78.1	78.3	78.3	30.003	0.00	0.00	0.000	0.136

Gowanus Phase III Weather Data 7/27/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/27/10	12:15a	78.0	78.1	78.0	52	58.9	0.0	NNW	0.00	5.0	NNW	78.0	78.2	78.2	30.002	0.00	0.00	0.000	0.135
7/27/10	12:30a	78.0	78.0	77.9	50	57.9	1.0	ENE	0.25	5.0	NE	78.0	78.0	78.0	30.003	0.00	0.00	0.000	0.135
7/27/10	12:45a	77.9	78.0	77.9	50	57.8	0.0	ENE	0.00	6.0	NNW	77.9	77.9	77.9	30.008	0.00	0.00	0.000	0.134
7/27/10	1:00a	77.3	77.9	77.3	52	58.3	0.0	N	0.00	2.0	N	77.3	77.4	77.4	30.012	0.00	0.00	0.000	0.128
7/27/10	1:15a	77.0	77.3	77.0	52	58.0	0.0	NNW	0.00	2.0	NNW	77.0	77.0	77.0	30.010	0.00	0.00	0.000	0.125
7/27/10	1:30a	76.9	77.0	76.9	52	57.9	0.0	N	0.00	6.0	NNE	76.9	76.9	76.9	30.016	0.00	0.00	0.000	0.124
7/27/10	1:45a	76.6	76.9	76.6	52	57.7	0.0	NNW	0.00	2.0	NNW	76.6	76.6	76.6	30.015	0.00	0.00	0.000	0.121
7/27/10	2:00a	76.3	76.6	76.3	52	57.4	0.0	NNW	0.00	2.0	NNW	76.3	76.4	76.4	30.017	0.00	0.00	0.000	0.118
7/27/10	2:15a	76.0	76.3	76.0	54	58.2	0.0	NNW	0.00	1.0	NNW	76.0	76.2	76.2	30.018	0.00	0.00	0.000	0.115
7/27/10	2:30a	75.4	76.0	75.4	56	58.6	0.0	NNW	0.00	2.0	NNW	75.4	75.9	75.9	30.015	0.00	0.00	0.000	0.108
7/27/10	2:45a	74.9	75.4	74.9	56	58.1	0.0	NW	0.00	1.0	NNW	74.9	75.5	75.5	30.017	0.00	0.00	0.000	0.103
7/27/10	3:00a	74.7	74.9	74.7	56	58.0	0.0	NNW	0.00	1.0	NNW	74.7	75.2	75.2	30.017	0.00	0.00	0.000	0.101
7/27/10	3:15a	74.6	74.7	74.6	56	57.9	0.0	NW	0.00	2.0	NW	74.6	75.1	75.1	30.016	0.00	0.00	0.000	0.100
7/27/10	3:30a	74.3	74.6	74.3	57	58.1	0.0	NW	0.00	2.0	NW	74.3	74.8	74.8	30.018	0.00	0.00	0.000	0.097
7/27/10	3:45a	74.1	74.3	74.1	57	57.9	0.0	NW	0.00	2.0	NW	74.1	74.5	74.5	30.018	0.00	0.00	0.000	0.095
7/27/10	4:00a	73.9	74.1	73.9	58	58.2	0.0	NW	0.00	1.0	NW	73.9	74.4	74.4	30.019	0.00	0.00	0.000	0.093
7/27/10	4:15a	73.7	73.9	73.7	58	58.0	0.0	NW	0.00	1.0	NW	73.7	74.1	74.1	30.019	0.00	0.00	0.000	0.091
7/27/10	4:30a	73.3	73.7	73.3	59	58.1	0.0	---	0.00	0.0	---	73.3	73.7	73.7	30.022	0.00	0.00	0.000	0.086
7/27/10	4:45a	73.1	73.3	73.1	60	58.4	0.0	NW	0.00	1.0	NW	73.1	73.5	73.5	30.025	0.00	0.00	0.000	0.084
7/27/10	5:00a	73.0	73.1	73.0	60	58.3	0.0	NW	0.00	2.0	NW	73.0	73.4	73.4	30.031	0.00	0.00	0.000	0.083
7/27/10	5:15a	72.9	73.0	72.9	61	58.7	0.0	NW	0.00	2.0	NW	72.9	73.3	73.3	30.033	0.00	0.00	0.000	0.082
7/27/10	5:30a	72.8	72.9	72.8	62	59.0	0.0	NW	0.00	4.0	NW	72.8	73.2	73.2	30.035	0.00	0.00	0.000	0.081
7/27/10	5:45a	72.8	72.9	72.8	62	59.0	0.0	WNW	0.00	4.0	WNW	72.8	73.2	73.2	30.036	0.00	0.00	0.000	0.081
7/27/10	6:00a	72.6	72.8	72.6	63	59.3	0.0	WNW	0.00	4.0	WNW	72.6	73.0	73.0	30.038	0.00	0.00	0.000	0.079
7/27/10	6:15a	72.6	72.7	72.6	66	60.6	0.0	WNW	0.00	3.0	WNW	72.6	73.2	73.2	30.044	0.00	0.00	0.000	0.079
7/27/10	6:30a	72.4	72.6	72.4	68	61.2	0.0	WNW	0.00	1.0	WNW	72.4	73.1	73.1	30.048	0.00	0.00	0.000	0.077
7/27/10	6:45a	72.8	72.8	72.3	67	61.2	0.0	WNW	0.00	1.0	WNW	72.8	73.6	73.6	30.049	0.00	0.00	0.000	0.081
7/27/10	7:00a	74.4	74.4	72.9	64	61.4	0.0	WNW	0.00	2.0	WNW	74.4	75.5	75.5	30.051	0.00	0.00	0.000	0.098
7/27/10	7:15a	75.3	75.4	74.5	61	60.9	0.0	WNW	0.00	4.0	WNW	75.3	76.2	76.2	30.061	0.00	0.00	0.000	0.107
7/27/10	7:30a	76.0	76.0	75.2	59	60.6	0.0	WNW	0.00	2.0	WNW	76.0	76.6	76.6	30.064	0.00	0.00	0.000	0.115
7/27/10	7:45a	77.5	77.5	76.0	57	61.1	0.0	WNW	0.00	4.0	WNW	77.5	78.1	78.1	30.066	0.00	0.00	0.000	0.130
7/27/10	8:00a	77.6	77.8	77.5	56	60.7	0.0	SW	0.00	5.0	WSW	77.6	78.1	78.1	30.068	0.00	0.00	0.000	0.131
7/27/10	8:15a	79.1	79.1	77.7	54	61.0	0.0	SW	0.00	3.0	SW	79.1	79.6	79.6	30.070	0.00	0.00	0.000	0.147
7/27/10	8:30a	80.1	80.1	79.1	52	60.9	0.0	SW	0.00	4.0	SW	80.1	80.5	80.5	30.065	0.00	0.00	0.000	0.157
7/27/10	8:45a	80.0	80.4	80.0	52	60.8	1.0	WSW	0.25	6.0	WSW	80.0	80.3	80.3	30.062	0.00	0.00	0.000	0.156
7/27/10	9:00a	80.5	80.5	80.0	52	61.3	1.0	WSW	0.25	5.0	W	80.5	80.9	80.9	30.062	0.00	0.00	0.000	0.161
7/27/10	9:15a	81.5	81.5	80.4	51	61.6	1.0	WSW	0.25	6.0	WSW	81.5	82.0	82.0	30.061	0.00	0.00	0.000	0.172
7/27/10	9:30a	82.7	82.7	81.5	50	62.2	1.0	SW	0.25	6.0	N	82.7	83.7	83.7	30.051	0.00	0.00	0.000	0.184
7/27/10	9:45a	84.1	84.1	82.8	48	62.3	0.0	SW	0.00	2.0	WSW	84.1	85.6	85.6	30.050	0.00	0.00	0.000	0.199
7/27/10	10:00a	84.6	84.6	84.1	47	62.1	1.0	WSW	0.25	5.0	SW	84.6	85.9	85.9	30.057	0.00	0.00	0.000	0.204
7/27/10	10:15a	85.2	85.2	84.6	47	62.7	0.0	WSW	0.00	5.0	WSW	85.2	86.6	86.6	30.050	0.00	0.00	0.000	0.210
7/27/10	10:30a	84.8	85.3	84.7	47	62.3	1.0	SW	0.25	7.0	SW	84.8	86.1	86.1	30.049	0.00	0.00	0.000	0.206
7/27/10	10:45a	86.4	86.4	84.9	45	62.5	1.0	WSW	0.25	6.0	E	86.4	87.7	87.7	30.047	0.00	0.00	0.000	0.223
7/27/10	11:00a	87.6	87.7	86.4	43	62.3	1.0	WSW	0.25	7.0	N	87.6	88.7	88.7	30.046	0.00	0.00	0.000	0.235
7/27/10	11:15a	88.0	88.1	87.2	42	62.0	1.0	NNE	0.25	8.0	NNE	88.0	88.7	88.7	30.048	0.00	0.00	0.000	0.240
7/27/10	11:30a	89.3	89.3	88.0	41	62.5	1.0	NW	0.25	5.0	N	89.3	90.8	90.8	30.046	0.00	0.00	0.000	0.253
7/27/10	11:45a	89.2	89.4	89.0	39	61.0	1.0	WSW	0.25	7.0	NNE	89.2	89.9	89.9	30.038	0.00	0.00	0.000	0.252
7/27/10	12:00p	90.4	90.4	89.2	37	60.6	0.0	SW	0.00	5.0	SW	90.4	91.0	91.0	30.033	0.00	0.00	0.000	0.265
7/27/10	12:15p	90.4	90.8	89.9	34	58.2	1.0	WSW	0.25	6.0	SW	90.4	90.2	90.2	30.036	0.00	0.00	0.000	0.265
7/27/10	12:30p	91.4	91.5	90.4	31	56.5	1.0	WNW	0.25	7.0	NNE	91.4	90.9	90.9	30.033	0.00	0.00	0.000	0.275
7/27/10	12:45p	91.8	91.8	91.2	32	57.7	1.0	W	0.25	5.0	W	91.8	91.6	91.6	30.033	0.00	0.00	0.000	0.279
7/27/10	1:00p	92.1	92.1	91.7	32	58.0	1.0	WSW	0.25	6.0	NNW	92.1	92.0	92.0	30.032	0.00	0.00	0.000	0.282
7/27/10	1:15p	92.4	92.8	92.1	31	57.4	1.0	W	0.25	6.0	WSW	92.4	92.2	92.2	30.023	0.00	0.00	0.000	0.285

Gowanus Phase III Weather Data 7/27/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/27/10	1:30p	92.8	92.8	92.1	31	57.7	1.0	SW	0.25	8.0	WSW	92.8	92.7	92.7	30.021	0.00	0.00	0.000	0.290
7/27/10	1:45p	92.8	93.1	92.6	30	56.8	1.0	SW	0.25	5.0	SW	92.8	92.4	92.4	30.021	0.00	0.00	0.000	0.290
7/27/10	2:00p	93.1	93.2	92.6	30	57.1	1.0	SW	0.25	6.0	SW	93.1	92.8	92.8	30.018	0.00	0.00	0.000	0.293
7/27/10	2:15p	92.1	93.5	92.1	32	58.0	2.0	SW	0.50	6.0	SSW	92.1	92.0	92.0	30.018	0.00	0.00	0.000	0.282
7/27/10	2:30p	93.4	93.4	92.1	30	57.3	1.0	SW	0.25	6.0	SW	93.4	93.2	93.2	30.019	0.00	0.00	0.000	0.296
7/27/10	2:45p	91.8	93.5	91.8	31	56.9	2.0	SW	0.50	10.0	SSW	91.8	91.4	91.4	30.017	0.00	0.00	0.000	0.279
7/27/10	3:00p	92.7	92.7	91.6	32	58.5	1.0	WSW	0.25	10.0	SSW	92.7	92.8	92.8	30.012	0.00	0.00	0.000	0.289
7/27/10	3:15p	93.7	93.8	92.8	32	59.4	1.0	WSW	0.25	5.0	SW	93.7	94.2	94.2	30.008	0.00	0.00	0.000	0.299
7/27/10	3:30p	93.7	94.4	93.7	31	58.5	1.0	WSW	0.25	7.0	WNW	93.7	93.9	93.9	30.003	0.00	0.00	0.000	0.299
7/27/10	3:45p	92.5	93.6	92.5	32	58.4	1.0	S	0.25	6.0	NW	92.5	92.5	92.5	30.003	0.00	0.00	0.000	0.286
7/27/10	4:00p	91.3	92.5	91.3	33	58.2	1.0	ESE	0.25	7.0	NE	91.3	91.2	91.2	30.004	0.00	0.00	0.000	0.274
7/27/10	4:15p	89.7	91.3	89.7	36	59.2	2.0	ENE	0.50	9.0	W	89.7	89.7	89.7	30.002	0.00	0.00	0.000	0.257
7/27/10	4:30p	88.8	89.9	88.8	38	59.9	3.0	E	0.75	10.0	WNW	88.8	89.0	89.0	30.003	0.00	0.00	0.000	0.248
7/27/10	4:45p	88.0	88.8	87.7	39	59.9	3.0	NW	0.75	9.0	WNW	88.0	87.8	87.8	30.000	0.00	0.00	0.000	0.240
7/27/10	5:00p	87.7	88.4	87.7	39	59.7	4.0	NE	1.00	9.0	NNW	87.7	87.6	87.6	29.992	0.00	0.00	0.000	0.236
7/27/10	5:15p	87.2	87.7	87.2	40	59.9	4.0	NW	1.00	9.0	NNW	87.2	87.5	87.5	29.993	0.00	0.00	0.000	0.231
7/27/10	5:30p	87.4	87.4	86.9	40	60.1	3.0	NNW	0.75	11.0	WNW	87.4	87.7	87.7	29.987	0.00	0.00	0.000	0.233
7/27/10	5:45p	87.4	87.7	87.4	41	60.8	3.0	NW	0.75	8.0	N	87.4	88.0	88.0	29.988	0.00	0.00	0.000	0.233
7/27/10	6:00p	86.8	87.4	86.7	41	60.3	4.0	WNW	1.00	10.0	WNW	86.8	87.4	87.4	29.987	0.00	0.00	0.000	0.227
7/27/10	6:15p	87.2	87.2	86.7	41	60.6	2.0	NNW	0.50	8.0	W	87.2	87.8	87.8	29.987	0.00	0.00	0.000	0.231
7/27/10	6:30p	87.2	87.2	86.9	37	57.8	1.0	NNW	0.25	7.0	WNW	87.2	86.8	86.8	29.991	0.00	0.00	0.000	0.231
7/27/10	6:45p	88.2	88.2	87.3	34	56.3	1.0	SW	0.25	6.0	SSE	88.2	86.9	86.9	29.993	0.00	0.00	0.000	0.242
7/27/10	7:00p	88.2	88.3	88.2	33	55.5	1.0	SW	0.25	6.0	SW	88.2	86.6	86.6	29.988	0.00	0.00	0.000	0.242
7/27/10	7:15p	87.9	88.2	87.9	35	56.8	1.0	SW	0.25	6.0	W	87.9	86.7	86.7	29.989	0.00	0.00	0.000	0.239
7/27/10	7:30p	87.5	87.9	87.5	37	58.0	0.0	WSW	0.00	4.0	SW	87.5	87.0	87.0	29.987	0.00	0.00	0.000	0.234
7/27/10	7:45p	87.0	87.5	87.0	34	55.2	0.0	WSW	0.00	4.0	WSW	87.0	86.0	86.0	29.987	0.00	0.00	0.000	0.229
7/27/10	8:00p	86.5	87.0	86.5	37	57.1	0.0	WSW	0.00	2.0	WSW	86.5	86.2	86.2	29.987	0.00	0.00	0.000	0.224
7/27/10	8:15p	85.9	86.5	85.9	39	58.1	0.0	WSW	0.00	4.0	WSW	85.9	85.9	85.9	29.987	0.00	0.00	0.000	0.218
7/27/10	8:30p	85.4	85.9	85.4	41	59.0	0.0	WSW	0.00	3.0	WSW	85.4	85.7	85.7	29.989	0.00	0.00	0.000	0.213
7/27/10	8:45p	84.9	85.4	84.9	43	59.9	0.0	SW	0.00	1.0	SW	84.9	85.6	85.6	29.992	0.00	0.00	0.000	0.207
7/27/10	9:00p	84.4	84.9	84.4	43	59.5	0.0	SW	0.00	1.0	SW	84.4	85.1	85.1	30.000	0.00	0.00	0.000	0.202
7/27/10	9:15p	84.0	84.4	84.0	44	59.7	0.0	SW	0.00	1.0	SW	84.0	84.9	84.9	30.002	0.00	0.00	0.000	0.198
7/27/10	9:30p	83.7	84.0	83.7	45	60.1	0.0	SW	0.00	2.0	SW	83.7	84.6	84.6	30.005	0.00	0.00	0.000	0.195
7/27/10	9:45p	83.3	83.7	83.3	46	60.4	0.0	SW	0.00	1.0	SW	83.3	84.1	84.1	30.009	0.00	0.00	0.000	0.191
7/27/10	10:00p	82.9	83.3	82.9	46	60.0	0.0	---	0.00	0.0	---	82.9	83.5	83.5	30.008	0.00	0.00	0.000	0.186
7/27/10	10:15p	82.6	83.0	82.6	50	62.1	0.0	---	0.00	0.0	---	82.6	83.6	83.6	30.013	0.00	0.00	0.000	0.183
7/27/10	10:30p	82.2	82.6	82.2	50	61.7	0.0	SW	0.00	1.0	SW	82.2	82.9	82.9	30.010	0.00	0.00	0.000	0.179
7/27/10	10:45p	81.8	82.2	81.8	50	61.3	0.0	---	0.00	0.0	---	81.8	82.3	82.3	30.005	0.00	0.00	0.000	0.175
7/27/10	11:00p	81.7	81.8	81.7	54	63.4	0.0	SW	0.00	1.0	SW	81.7	82.8	82.8	30.007	0.00	0.00	0.000	0.174
7/27/10	11:15p	81.1	81.7	81.1	57	64.4	0.0	SW	0.00	1.0	SW	81.1	82.4	82.4	30.005	0.00	0.00	0.000	0.168
7/27/10	11:30p	80.5	81.1	80.5	58	64.4	0.0	---	0.00	0.0	---	80.5	81.7	81.7	30.002	0.00	0.00	0.000	0.161
7/27/10	11:45p	80.4	80.5	80.4	58	64.3	0.0	WSW	0.00	1.0	WSW	80.4	81.6	81.6	30.002	0.00	0.00	0.000	0.160
7/28/10	12:00a	80.3	80.4	80.3	58	64.2	0.0	WSW	0.00	1.0	SW	80.3	81.5	81.5	30.004	0.00	0.00	0.000	0.159

Gowanus Phase III Weather Data 7/28/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/28/10	12:15a	80.0	80.3	80.0	58	63.9	0.0	WSW	0.00	4.0	WSW	80.0	81.1	81.1	30.003	0.00	0.00	0.000	0.156
7/28/10	12:30a	79.8	79.9	79.8	58	63.7	0.0	WSW	0.00	4.0	WSW	79.8	80.8	80.8	30.002	0.00	0.00	0.000	0.154
7/28/10	12:45a	79.4	79.7	79.4	58	63.3	0.0	---	0.00	0.0	---	79.4	80.4	80.4	30.004	0.00	0.00	0.000	0.150
7/28/10	1:00a	79.1	79.4	79.1	59	63.5	0.0	SW	0.00	1.0	SW	79.1	80.1	80.1	30.003	0.00	0.00	0.000	0.147
7/28/10	1:15a	78.8	79.1	78.8	61	64.2	0.0	---	0.00	0.0	---	78.8	80.0	80.0	30.003	0.00	0.00	0.000	0.144
7/28/10	1:30a	78.7	78.9	78.7	60	63.6	0.0	SW	0.00	3.0	SW	78.7	79.7	79.7	30.002	0.00	0.00	0.000	0.143
7/28/10	1:45a	78.6	78.7	78.6	61	64.0	0.0	SW	0.00	1.0	SW	78.6	79.7	79.7	30.002	0.00	0.00	0.000	0.142
7/28/10	2:00a	78.2	78.6	78.2	63	64.6	0.0	SW	0.00	2.0	SW	78.2	79.5	79.5	30.002	0.00	0.00	0.000	0.137
7/28/10	2:15a	77.9	78.2	77.8	65	65.2	0.0	SW	0.00	1.0	SW	77.9	79.3	79.3	30.003	0.00	0.00	0.000	0.134
7/28/10	2:30a	77.5	77.8	77.5	66	65.2	0.0	SW	0.00	2.0	SW	77.5	79.0	79.0	30.008	0.00	0.00	0.000	0.130
7/28/10	2:45a	77.3	77.5	77.3	65	64.6	0.0	SW	0.00	4.0	SW	77.3	78.6	78.6	30.009	0.00	0.00	0.000	0.128
7/28/10	3:00a	77.1	77.3	77.1	64	64.0	0.0	SW	0.00	6.0	SW	77.1	78.3	78.3	30.016	0.00	0.00	0.000	0.126
7/28/10	3:15a	77.1	77.2	77.1	63	63.5	0.0	SW	0.00	1.0	SW	77.1	78.2	78.2	30.011	0.00	0.00	0.000	0.126
7/28/10	3:30a	76.8	77.1	76.8	63	63.2	0.0	SW	0.00	2.0	SW	76.8	77.9	77.9	30.015	0.00	0.00	0.000	0.123
7/28/10	3:45a	76.6	76.9	76.6	62	62.6	0.0	SW	0.00	4.0	SW	76.6	77.6	77.6	30.016	0.00	0.00	0.000	0.121
7/28/10	4:00a	76.5	76.6	76.5	62	62.5	0.0	SW	0.00	2.0	SW	76.5	77.5	77.5	30.017	0.00	0.00	0.000	0.120
7/28/10	4:15a	76.4	76.5	76.4	63	62.9	0.0	SW	0.00	2.0	SW	76.4	77.4	77.4	30.022	0.00	0.00	0.000	0.119
7/28/10	4:30a	76.3	76.4	76.3	63	62.8	0.0	SW	0.00	1.0	SW	76.3	77.3	77.3	30.027	0.00	0.00	0.000	0.118
7/28/10	4:45a	76.2	76.3	76.2	64	63.1	0.0	SW	0.00	1.0	SW	76.2	77.3	77.3	30.023	0.00	0.00	0.000	0.117
7/28/10	5:00a	76.0	76.2	76.0	64	62.9	0.0	---	0.00	0.0	---	76.0	77.1	77.1	30.018	0.00	0.00	0.000	0.115
7/28/10	5:15a	75.8	76.0	75.8	65	63.2	0.0	---	0.00	0.0	---	75.8	77.0	77.0	30.018	0.00	0.00	0.000	0.113
7/28/10	5:30a	75.7	75.8	75.7	65	63.1	0.0	SW	0.00	1.0	SW	75.7	76.9	76.9	30.018	0.00	0.00	0.000	0.111
7/28/10	5:45a	75.8	75.8	75.7	65	63.2	0.0	---	0.00	0.0	---	75.8	77.0	77.0	30.016	0.00	0.00	0.000	0.113
7/28/10	6:00a	75.8	75.8	75.7	65	63.2	0.0	---	0.00	0.0	---	75.8	77.0	77.0	30.013	0.00	0.00	0.000	0.113
7/28/10	6:15a	75.8	75.8	75.7	65	63.2	0.0	---	0.00	0.0	---	75.8	77.0	77.0	30.007	0.00	0.00	0.000	0.113
7/28/10	6:30a	75.9	75.9	75.7	66	63.7	0.0	---	0.00	0.0	---	75.9	77.2	77.2	30.008	0.00	0.00	0.000	0.114
7/28/10	6:45a	76.3	76.3	75.9	66	64.1	0.0	SW	0.00	1.0	SW	76.3	77.7	77.7	30.002	0.00	0.00	0.000	0.118
7/28/10	7:00a	77.5	77.5	76.3	64	64.4	0.0	SW	0.00	1.0	SW	77.5	78.8	78.8	30.002	0.00	0.00	0.000	0.130
7/28/10	7:15a	78.4	78.4	77.6	63	64.8	0.0	SW	0.00	1.0	SW	78.4	79.7	79.7	30.002	0.00	0.00	0.000	0.140
7/28/10	7:30a	78.7	78.7	78.4	64	65.5	0.0	WSW	0.00	2.0	SW	78.7	80.2	80.2	30.002	0.00	0.00	0.000	0.143
7/28/10	7:45a	79.3	79.3	78.7	64	66.1	0.0	WSW	0.00	2.0	ENE	79.3	81.0	81.0	30.002	0.00	0.00	0.000	0.149
7/28/10	8:00a	80.1	80.1	79.4	64	66.8	0.0	NE	0.00	4.0	NNE	80.1	82.0	82.0	30.001	0.00	0.00	0.000	0.157
7/28/10	8:15a	80.3	80.5	80.1	64	67.0	0.0	W	0.00	2.0	NNW	80.3	82.3	82.3	30.001	0.00	0.00	0.000	0.159
7/28/10	8:30a	80.8	80.8	80.3	64	67.5	0.0	WSW	0.00	3.0	WSW	80.8	83.0	83.0	29.989	0.00	0.00	0.000	0.165
7/28/10	8:45a	82.4	82.4	80.9	62	68.1	0.0	WSW	0.00	1.0	WSW	82.4	85.2	85.2	29.988	0.00	0.00	0.000	0.181
7/28/10	9:00a	82.9	82.9	82.5	61	68.1	0.0	SW	0.00	5.0	SW	82.9	85.8	85.8	29.989	0.00	0.00	0.000	0.186
7/28/10	9:15a	81.9	82.9	81.9	63	68.1	0.0	SW	0.00	4.0	SW	81.9	84.6	84.6	29.990	0.00	0.00	0.000	0.176
7/28/10	9:30a	82.3	82.3	81.6	63	68.4	1.0	SW	0.25	5.0	SW	82.3	85.3	85.3	29.987	0.00	0.00	0.000	0.180
7/28/10	9:45a	84.2	84.2	82.5	61	69.3	0.0	SW	0.00	2.0	SW	84.2	88.3	88.3	29.984	0.00	0.00	0.000	0.200
7/28/10	10:00a	83.9	84.2	83.9	61	69.0	1.0	SW	0.25	6.0	SW	83.9	87.8	87.8	29.982	0.00	0.00	0.000	0.197
7/28/10	10:15a	83.8	83.8	83.5	62	69.4	1.0	SW	0.25	8.0	SW	83.8	87.9	87.9	29.979	0.00	0.00	0.000	0.196
7/28/10	10:30a	86.2	86.2	83.8	59	70.2	0.0	SW	0.00	4.0	SW	86.2	91.6	91.6	29.973	0.00	0.00	0.000	0.221
7/28/10	10:45a	86.6	86.8	86.3	58	70.1	1.0	SW	0.25	5.0	SW	86.6	92.0	92.0	29.975	0.00	0.00	0.000	0.225
7/28/10	11:00a	85.8	86.6	85.8	59	69.8	1.0	WSW	0.25	7.0	SW	85.8	90.7	90.7	29.975	0.00	0.00	0.000	0.217
7/28/10	11:15a	85.4	85.9	85.4	60	69.9	1.0	WSW	0.25	6.0	SE	85.4	90.2	90.2	29.978	0.00	0.00	0.000	0.213
7/28/10	11:30a	85.2	85.4	85.1	61	70.2	1.0	SW	0.25	7.0	SSW	85.2	90.2	90.2	29.973	0.00	0.00	0.000	0.210
7/28/10	11:45a	86.8	86.8	85.2	59	70.8	1.0	SW	0.25	6.0	WSW	86.8	92.8	92.8	29.972	0.00	0.00	0.000	0.227
7/28/10	12:00p	87.1	87.6	86.9	59	71.0	1.0	SW	0.25	7.0	WSW	87.1	93.4	93.4	29.971	0.00	0.00	0.000	0.230
7/28/10	12:15p	86.8	87.1	86.5	60	71.2	1.0	SW	0.25	6.0	SW	86.8	93.2	93.2	29.971	0.00	0.00	0.000	0.227
7/28/10	12:30p	87.4	87.4	86.6	59	71.3	1.0	SW	0.25	6.0	SSW	87.4	93.8	93.8	29.960	0.00	0.00	0.000	0.233
7/28/10	12:45p	89.4	89.4	87.4	56	71.6	1.0	SW	0.25	7.0	SW	89.4	96.6	96.6	29.956	0.00	0.00	0.000	0.254
7/28/10	1:00p	90.0	90.4	89.4	56	72.2	1.0	S	0.25	10.0	W	90.0	97.9	97.9	29.956	0.00	0.00	0.000	0.260
7/28/10	1:15p	89.9	90.0	89.3	55	71.6	1.0	SSW	0.25	6.0	SE	89.9	97.2	97.2	29.947	0.00	0.00	0.000	0.259

Gowanus Phase III Weather Data 7/28/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/28/10	1:30p	90.9	90.9	90.0	54	72.0	1.0	SW	0.25	7.0	SW	90.9	99.0	99.0	29.941	0.00	0.00	0.000	0.270
7/28/10	1:45p	91.1	91.9	90.9	54	72.1	1.0	ESE	0.25	7.0	NE	91.1	99.4	99.4	29.937	0.00	0.00	0.000	0.272
7/28/10	2:00p	89.0	91.1	89.0	56	71.3	2.0	E	0.50	6.0	ESE	89.0	95.8	95.8	29.931	0.00	0.00	0.000	0.250
7/28/10	2:15p	89.9	89.9	88.7	56	72.1	1.0	ESE	0.25	5.0	ENE	89.9	97.7	97.7	29.928	0.00	0.00	0.000	0.259
7/28/10	2:30p	89.8	90.1	89.8	55	71.5	1.0	E	0.25	7.0	NE	89.8	97.0	97.0	29.925	0.00	0.00	0.000	0.258
7/28/10	2:45p	89.4	89.8	89.4	55	71.1	1.0	E	0.25	7.0	NE	89.4	96.2	96.2	29.926	0.00	0.00	0.000	0.254
7/28/10	3:00p	89.1	89.6	89.1	56	71.4	1.0	ESE	0.25	6.0	E	89.1	96.0	96.0	29.914	0.00	0.00	0.000	0.251
7/28/10	3:15p	88.6	89.0	88.6	57	71.4	2.0	E	0.50	9.0	ENE	88.6	95.2	95.2	29.910	0.00	0.00	0.000	0.246
7/28/10	3:30p	90.1	90.1	88.6	56	72.3	1.0	ENE	0.25	5.0	ENE	90.1	98.1	98.1	29.908	0.00	0.00	0.000	0.261
7/28/10	3:45p	90.4	90.9	90.1	56	72.6	1.0	ENE	0.25	5.0	ENE	90.4	98.8	98.8	29.904	0.00	0.00	0.000	0.265
7/28/10	4:00p	90.5	90.8	90.4	55	72.1	2.0	NE	0.50	8.0	WNW	90.5	98.5	98.5	29.895	0.00	0.00	0.000	0.266
7/28/10	4:15p	90.4	90.5	90.2	54	71.5	2.0	ESE	0.50	7.0	ENE	90.4	97.8	97.8	29.892	0.00	0.00	0.000	0.265
7/28/10	4:30p	90.2	90.7	90.2	54	71.3	2.0	ENE	0.50	10.0	NNW	90.2	97.4	97.4	29.884	0.00	0.00	0.000	0.262
7/28/10	4:45p	90.7	90.7	90.2	53	71.2	1.0	ENE	0.25	8.0	E	90.7	98.0	98.0	29.883	0.00	0.00	0.000	0.268
7/28/10	5:00p	89.9	90.8	89.9	54	71.0	2.0	ENE	0.50	8.0	NNW	89.9	96.8	96.8	29.880	0.00	0.00	0.000	0.259
7/28/10	5:15p	90.0	90.2	89.9	54	71.1	1.0	ENE	0.25	6.0	ENE	90.0	96.9	96.9	29.879	0.00	0.00	0.000	0.260
7/28/10	5:30p	89.8	90.1	89.8	54	70.9	1.0	E	0.25	7.0	ENE	89.8	96.6	96.6	29.872	0.00	0.00	0.000	0.258
7/28/10	5:45p	89.6	89.8	89.6	54	70.8	2.0	E	0.50	8.0	ENE	89.6	96.2	96.2	29.868	0.00	0.00	0.000	0.256
7/28/10	6:00p	89.2	89.6	89.1	55	70.9	2.0	ENE	0.50	7.0	ENE	89.2	95.8	95.8	29.864	0.00	0.00	0.000	0.252
7/28/10	6:15p	88.9	89.3	88.9	55	70.6	1.0	ENE	0.25	7.0	E	88.9	95.2	95.2	29.862	0.00	0.00	0.000	0.249
7/28/10	6:30p	89.0	89.0	88.8	55	70.7	1.0	SW	0.25	7.0	SW	89.0	95.4	95.4	29.853	0.00	0.00	0.000	0.250
7/28/10	6:45p	88.5	88.9	88.5	55	70.3	1.0	SW	0.25	8.0	N	88.5	94.3	94.3	29.854	0.00	0.00	0.000	0.245
7/28/10	7:00p	88.2	88.5	88.2	56	70.5	1.0	ENE	0.25	7.0	ENE	88.2	93.9	93.9	29.859	0.00	0.00	0.000	0.242
7/28/10	7:15p	87.9	88.2	87.9	56	70.2	1.0	NNW	0.25	6.0	E	87.9	93.3	93.3	29.858	0.00	0.00	0.000	0.239
7/28/10	7:30p	87.7	87.9	87.7	57	70.6	1.0	SE	0.25	6.0	SW	87.7	93.4	93.4	29.861	0.00	0.00	0.000	0.236
7/28/10	7:45p	87.2	87.6	87.2	57	70.1	1.0	SW	0.25	6.0	SSW	87.2	92.8	92.8	29.864	0.00	0.00	0.000	0.231
7/28/10	8:00p	87.1	87.2	87.1	58	70.5	1.0	SE	0.25	5.0	ESE	87.1	93.0	93.0	29.864	0.00	0.00	0.000	0.230
7/28/10	8:15p	86.8	87.1	86.8	58	70.2	1.0	SW	0.25	5.0	SSE	86.8	92.5	92.5	29.869	0.00	0.00	0.000	0.227
7/28/10	8:30p	86.5	86.8	86.4	59	70.5	0.0	SW	0.00	5.0	SW	86.5	92.2	92.2	29.874	0.00	0.00	0.000	0.224
7/28/10	8:45p	86.0	86.5	86.0	59	70.0	1.0	SW	0.25	5.0	SW	86.0	91.1	91.1	29.873	0.00	0.00	0.000	0.219
7/28/10	9:00p	85.8	86.0	85.8	60	70.3	0.0	SSW	0.00	5.0	W	85.8	91.1	91.1	29.876	0.00	0.00	0.000	0.217
7/28/10	9:15p	85.6	85.8	85.6	60	70.1	0.0	SW	0.00	5.0	SW	85.6	90.7	90.7	29.869	0.00	0.00	0.000	0.215
7/28/10	9:30p	85.5	85.6	85.5	62	71.0	0.0	SW	0.00	4.0	SW	85.5	91.2	91.2	29.875	0.00	0.00	0.000	0.214
7/28/10	9:45p	85.0	85.4	85.0	66	72.4	0.0	SSE	0.00	3.0	ENE	85.0	91.5	91.5	29.874	0.00	0.00	0.000	0.208
7/28/10	10:00p	84.2	85.0	84.2	70	73.3	0.0	WSW	0.00	5.0	SE	84.2	91.3	91.3	29.877	0.00	0.00	0.000	0.200
7/28/10	10:15p	83.4	84.2	83.4	72	73.4	0.0	ENE	0.00	5.0	ENE	83.4	90.1	90.1	29.866	0.00	0.00	0.000	0.192
7/28/10	10:30p	82.7	83.4	82.7	73	73.2	0.0	ESE	0.00	5.0	E	82.7	88.7	88.7	29.864	0.00	0.00	0.000	0.184
7/28/10	10:45p	82.2	82.7	82.2	74	73.1	0.0	ESE	0.00	4.0	ESE	82.2	87.8	87.8	29.861	0.00	0.00	0.000	0.179
7/28/10	11:00p	81.8	82.2	81.8	74	72.7	1.0	E	0.25	5.0	E	81.8	86.8	86.8	29.852	0.00	0.00	0.000	0.175
7/28/10	11:15p	81.5	81.8	81.5	75	72.8	1.0	NE	0.25	6.0	ENE	81.5	86.5	86.5	29.848	0.00	0.00	0.000	0.172
7/28/10	11:30p	81.2	81.5	81.2	76	72.9	0.0	SE	0.00	5.0	SE	81.2	86.1	86.1	29.849	0.00	0.00	0.000	0.169
7/28/10	11:45p	81.1	81.2	81.1	76	72.8	0.0	WSW	0.00	6.0	SW	81.1	85.8	85.8	29.848	0.00	0.00	0.000	0.168
7/29/10	12:00a	80.8	81.1	80.8	77	72.9	0.0	N	0.00	4.0	N	80.8	85.5	85.5	29.849	0.00	0.00	0.000	0.165

Gowanus Phase III Weather Data 7/29/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
7/29/10	12:15a	80.5	80.8	80.5	78	73.0	1.0	ESE	0.25	6.0	NNW	80.5	85.1	85.1	29.847	0.00	0.00	0.000	0.161
7/29/10	12:30a	80.3	80.5	80.3	78	72.8	0.0	NNW	0.00	1.0	NW	80.3	84.7	84.7	29.848	0.00	0.00	0.000	0.159
7/29/10	12:45a	80.2	80.3	80.2	79	73.1	1.0	NNW	0.25	4.0	NNW	80.2	84.7	84.7	29.846	0.00	0.00	0.000	0.158
7/29/10	1:00a	80.1	80.2	80.1	79	73.0	0.0	SW	0.00	5.0	SW	80.1	84.5	84.5	29.846	0.00	0.00	0.000	0.157
7/29/10	1:15a	80.0	80.1	80.0	79	72.9	0.0	S	0.00	1.0	SW	80.0	84.3	84.3	29.842	0.00	0.00	0.000	0.156
7/29/10	1:30a	79.9	80.1	79.9	80	73.2	0.0	SSE	0.00	4.0	SSW	79.9	84.3	84.3	29.834	0.00	0.00	0.000	0.155
7/29/10	1:45a	79.7	79.9	79.7	80	73.0	1.0	E	0.25	4.0	E	79.7	84.0	84.0	29.833	0.00	0.00	0.000	0.153
7/29/10	2:00a	79.5	79.7	79.5	81	73.2	1.0	ESE	0.25	6.0	SW	79.5	83.9	83.9	29.828	0.00	0.00	0.000	0.151
7/29/10	2:15a	79.5	79.5	79.4	80	72.8	1.0	SSW	0.25	6.0	SW	79.5	83.7	83.7	29.826	0.00	0.00	0.000	0.151
7/29/10	2:30a	79.5	79.5	79.4	80	72.8	0.0	WSW	0.00	6.0	SW	79.5	83.7	83.7	29.831	0.00	0.00	0.000	0.151
7/29/10	2:45a	79.3	79.5	79.3	80	72.6	1.0	SW	0.25	5.0	SW	79.3	83.3	83.3	29.830	0.00	0.00	0.000	0.149
7/29/10	3:00a	79.1	79.3	79.1	80	72.4	0.0	SW	0.00	5.0	SW	79.1	83.0	83.0	29.830	0.00	0.00	0.000	0.147
7/29/10	3:15a	78.9	79.1	78.9	80	72.2	0.0	SW	0.00	5.0	WSW	78.9	82.7	82.7	29.820	0.00	0.00	0.000	0.145
7/29/10	3:30a	78.8	79.0	78.8	80	72.1	1.0	WSW	0.25	5.0	WSW	78.8	82.5	82.5	29.811	0.00	0.00	0.000	0.144
7/29/10	3:45a	78.7	78.8	78.7	80	72.0	1.0	SW	0.25	6.0	WSW	78.7	82.4	82.4	29.802	0.00	0.00	0.000	0.143
7/29/10	4:00a	78.7	78.7	78.7	81	72.4	1.0	SW	0.25	5.0	SW	78.7	82.5	82.5	29.801	0.00	0.00	0.000	0.143
7/29/10	4:15a	78.6	78.7	78.6	81	72.3	0.0	SW	0.00	2.0	SW	78.6	82.4	82.4	29.802	0.00	0.00	0.000	0.142
7/29/10	4:30a	78.6	78.6	78.5	81	72.3	0.0	WSW	0.00	6.0	WSW	78.6	82.4	82.4	29.801	0.00	0.00	0.000	0.142
7/29/10	4:45a	78.5	78.5	78.5	81	72.2	1.0	SW	0.25	6.0	ESE	78.5	82.3	82.3	29.804	0.00	0.00	0.000	0.141
7/29/10	5:00a	78.4	78.5	78.4	82	72.4	0.0	WSW	0.00	4.0	WSW	78.4	82.3	82.3	29.805	0.00	0.00	0.000	0.140
7/29/10	5:15a	78.3	78.4	78.3	82	72.3	0.0	WSW	0.00	2.0	WSW	78.3	82.1	82.1	29.805	0.00	0.00	0.000	0.139
7/29/10	5:30a	78.3	78.4	78.3	82	72.3	0.0	WNW	0.00	6.0	SSW	78.3	82.1	82.1	29.810	0.00	0.00	0.000	0.139
7/29/10	5:45a	78.2	78.3	78.1	83	72.6	0.0	WNW	0.00	2.0	WNW	78.2	82.1	82.1	29.802	0.00	0.00	0.000	0.137
7/29/10	6:00a	78.1	78.2	78.1	83	72.5	0.0	WNW	0.00	2.0	WNW	78.1	82.0	82.0	29.805	0.00	0.00	0.000	0.136
7/29/10	6:15a	78.0	78.1	78.0	83	72.4	0.0	WNW	0.00	4.0	WNW	78.0	81.8	81.8	29.816	0.00	0.00	0.000	0.135
7/29/10	6:30a	78.1	78.1	78.0	83	72.5	0.0	W	0.00	4.0	WNW	78.1	82.0	82.0	29.811	0.00	0.00	0.000	0.136
7/29/10	6:45a	78.2	78.2	78.1	83	72.6	0.0	W	0.00	4.0	W	78.2	82.1	82.1	29.816	0.00	0.00	0.000	0.137
7/29/10	7:00a	78.7	78.8	78.3	82	72.7	0.0	W	0.00	5.0	W	78.7	82.7	82.7	29.820	0.00	0.00	0.000	0.143
7/29/10	7:15a	78.9	78.9	78.8	82	72.9	1.0	W	0.25	4.0	W	78.9	83.0	83.0	29.835	0.00	0.00	0.000	0.145
7/29/10	7:30a	79.3	79.3	78.9	82	73.3	0.0	WSW	0.00	4.0	WSW	79.3	83.7	83.7	29.836	0.00	0.00	0.000	0.149
7/29/10	7:45a	78.8	79.4	78.8	86	74.3	0.0	WSW	0.00	5.0	WSW	78.8	83.6	83.6	29.833	0.01	0.00	0.000	0.144
7/29/10	8:00a	77.7	78.8	77.7	89	74.2	1.0	SW	0.25	5.0	WSW	77.7	82.1	82.1	29.833	0.02	0.11	0.000	0.132
7/29/10	8:15a	77.4	77.7	77.4	90	74.2	1.0	NNE	0.25	5.0	NNE	77.4	81.7	81.7	29.816	0.01	0.11	0.000	0.129
7/29/10	8:30a	77.4	77.4	77.3	91	74.6	0.0	N	0.00	2.0	N	77.4	81.8	81.8	29.816	0.00	0.04	0.000	0.129
7/29/10	8:45a	77.8	77.8	77.4	91	75.0	0.0	NNW	0.00	4.0	NNW	77.8	82.6	82.6	29.813	0.00	0.00	0.000	0.133
7/29/10	9:00a	78.5	78.5	77.8	89	75.0	0.0	NW	0.00	3.0	NW	78.5	83.6	83.6	29.814	0.00	0.00	0.000	0.141
7/29/10	9:15a	78.7	78.7	78.6	86	74.2	0.0	W	0.00	3.0	W	78.7	83.4	83.4	29.816	0.00	0.00	0.000	0.143
7/29/10	9:30a	78.2	78.7	78.2	86	73.7	1.0	SW	0.25	5.0	WSW	78.2	82.6	82.6	29.817	0.00	0.00	0.000	0.137
7/29/10	9:45a	78.6	78.6	78.2	85	73.7	0.0	SW	0.00	2.0	SW	78.6	83.1	83.1	29.820	0.00	0.00	0.000	0.142
7/29/10	10:00a	78.7	78.9	78.5	84	73.5	1.0	SW	0.25	5.0	SW	78.7	83.1	83.1	29.818	0.00	0.00	0.000	0.143
7/29/10	10:15a	80.9	80.9	78.7	81	74.5	1.0	SW	0.25	6.0	SW	80.9	86.6	86.6	29.817	0.00	0.00	0.000	0.166
7/29/10	10:30a	83.0	83.0	80.9	76	74.6	1.0	SW	0.25	6.0	SSW	83.0	90.4	90.4	29.818	0.00	0.00	0.000	0.188
7/29/10	10:45a	81.9	83.1	81.9	76	73.6	1.0	SW	0.25	5.0	SW	81.9	87.6	87.6	29.817	0.01	0.00	0.000	0.176
7/29/10	11:00a	80.9	81.8	80.9	78	73.4	1.0	SW	0.25	9.0	SW	80.9	85.9	85.9	29.818	0.00	0.00	0.000	0.166
7/29/10	11:15a	82.9	82.9	80.9	74	73.8	1.0	SW	0.25	7.0	SW	82.9	89.5	89.5	29.817	0.00	0.00	0.000	0.186
7/29/10	11:30a	83.8	83.8	83.1	72	73.8	2.0	SW	0.50	6.0	SSW	83.8	91.1	91.1	29.816	0.00	0.00	0.000	0.196
7/29/10	11:45a	85.2	85.2	83.8	70	74.3	1.0	SW	0.25	4.0	SW	85.2	93.4	93.4	29.811	0.00	0.00	0.000	0.210
7/29/10	12:00p	85.6	86.0	85.2	69	74.3	1.0	SW	0.25	6.0	SW	85.6	94.0	94.0	29.811	0.00	0.00	0.000	0.215
7/29/10	12:15p	86.0	86.0	85.6	68	74.2	0.0	SW	0.00	6.0	SW	86.0	94.5	94.5	29.807	0.00	0.00	0.000	0.219
7/29/10	12:30p	85.5	86.1	85.5	67	73.3	1.0	WSW	0.25	7.0	SW	85.5	93.0	93.0	29.803	0.00	0.00	0.000	0.214
7/29/10	12:45p	---	85.5	85.5	---	---	0.0	---	0.00	0.0	---	---	---	---	29.801	0.00	0.00	---	---
7/29/10	1:00p	86.5	86.5	86.4	---	---	0.0	NW	0.00	2.0	NW	86.5	---	---	29.789	0.00	0.00	0.000	0.224
7/29/10	1:15p	88.2	88.2	86.6	62	73.5	1.0	NW	0.25	5.0	NE	88.2	96.2	96.2	29.787	0.00	0.00	0.000	0.242

Gowanus Phase III Weather Data 8/07/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/07/10	4:15p	81.7	82.5	81.7	49	60.7	4.0	NW	1.00	9.0	WNW	81.7	82.0	82.0	29.899	0.00	0.00	0.000	0.174
8/07/10	4:30p	82.7	82.7	81.6	47	60.4	2.0	NW	0.50	8.0	NW	82.7	83.3	83.3	29.897	0.00	0.00	0.000	0.184
8/07/10	4:45p	82.5	82.9	82.5	48	60.8	3.0	NNE	0.75	9.0	NNW	82.5	83.1	83.1	29.902	0.00	0.00	0.000	0.182
8/07/10	5:00p	81.8	82.3	81.8	47	59.6	3.0	NW	0.75	9.0	NW	81.8	81.9	81.9	29.906	0.00	0.00	0.000	0.175
8/07/10	5:15p	82.0	82.2	81.8	51	62.1	2.0	E	0.50	11.0	WNW	82.0	82.8	82.8	29.903	0.00	0.00	0.000	0.177
8/07/10	5:30p	80.9	82.0	80.8	55	63.2	4.0	NW	1.00	11.0	N	80.9	81.8	81.8	29.909	0.00	0.00	0.000	0.166
8/07/10	5:45p	80.8	80.9	80.6	55	63.1	3.0	NW	0.75	9.0	W	80.8	81.7	81.7	29.899	0.00	0.00	0.000	0.165
8/07/10	6:00p	80.9	80.9	80.5	55	63.2	3.0	NE	0.75	10.0	WNW	80.9	81.8	81.8	29.900	0.00	0.00	0.000	0.166
8/07/10	6:15p	80.8	80.8	80.6	58	64.6	2.0	NW	0.50	8.0	NNW	80.8	82.1	82.1	29.900	0.00	0.00	0.000	0.165
8/07/10	6:30p	79.4	80.8	79.4	61	64.8	5.0	NW	1.25	11.0	WNW	79.4	80.7	80.7	29.903	0.00	0.00	0.000	0.150
8/07/10	6:45p	79.2	79.4	79.2	60	64.1	5.0	NW	1.25	11.0	W	79.2	80.3	80.3	29.903	0.00	0.00	0.000	0.148
8/07/10	7:00p	79.3	79.3	79.2	61	64.7	5.0	NW	1.25	10.0	NNW	79.3	80.6	80.6	29.899	0.00	0.00	0.000	0.149
8/07/10	7:15p	79.1	79.3	79.0	61	64.5	4.0	NW	1.00	12.0	WNW	79.1	80.3	80.3	29.907	0.00	0.00	0.000	0.147
8/07/10	7:30p	79.0	79.3	79.0	62	64.9	3.0	NW	0.75	9.0	WNW	79.0	80.3	80.3	29.908	0.00	0.00	0.000	0.146
8/07/10	7:45p	78.7	79.0	78.7	64	65.5	3.0	WNW	0.75	8.0	WNW	78.7	80.2	80.2	29.905	0.00	0.00	0.000	0.143
8/07/10	8:00p	78.3	78.7	78.3	66	66.0	2.0	NW	0.50	8.0	W	78.3	79.9	79.9	29.910	0.00	0.00	0.000	0.139
8/07/10	8:15p	77.9	78.3	77.9	68	66.5	3.0	NW	0.75	7.0	NW	77.9	79.7	79.7	29.911	0.00	0.00	0.000	0.134
8/07/10	8:30p	77.8	77.9	77.8	69	66.8	2.0	NW	0.50	7.0	WNW	77.8	79.7	79.7	29.916	0.00	0.00	0.000	0.133
8/07/10	8:45p	77.8	77.8	77.8	69	66.8	1.0	NNW	0.25	6.0	W	77.8	79.7	79.7	29.922	0.00	0.00	0.000	0.133
8/07/10	9:00p	77.6	77.8	77.5	71	67.4	1.0	WNW	0.25	6.0	NW	77.6	79.7	79.7	29.925	0.00	0.00	0.000	0.131
8/07/10	9:15p	77.4	77.5	77.4	72	67.7	1.0	NNW	0.25	5.0	NW	77.4	79.6	79.6	29.925	0.00	0.00	0.000	0.129
8/07/10	9:30p	77.0	77.4	77.0	73	67.7	2.0	WNW	0.50	9.0	W	77.0	79.3	79.3	29.926	0.00	0.00	0.000	0.125
8/07/10	9:45p	77.0	77.0	77.0	73	67.7	1.0	NW	0.25	5.0	NW	77.0	79.3	79.3	29.936	0.00	0.00	0.000	0.125
8/07/10	10:00p	77.0	77.0	77.0	73	67.7	0.0	NW	0.00	4.0	NW	77.0	79.3	79.3	29.940	0.00	0.00	0.000	0.125
8/07/10	10:15p	76.8	77.0	76.8	74	67.9	0.0	NW	0.00	2.0	NW	76.8	79.2	79.2	29.940	0.00	0.00	0.000	0.123
8/07/10	10:30p	76.9	76.9	76.8	74	68.0	0.0	NW	0.00	1.0	NW	76.9	79.3	79.3	29.941	0.00	0.00	0.000	0.124
8/07/10	10:45p	76.7	76.9	76.7	73	67.4	0.0	NW	0.00	1.0	NW	76.7	78.9	78.9	29.948	0.00	0.00	0.000	0.122
8/07/10	11:00p	76.7	76.8	76.7	72	67.0	0.0	NW	0.00	1.0	NW	76.7	78.8	78.8	29.951	0.00	0.00	0.000	0.122
8/07/10	11:15p	76.8	76.8	76.7	71	66.7	0.0	NW	0.00	1.0	NW	76.8	78.8	78.8	29.953	0.00	0.00	0.000	0.123
8/07/10	11:30p	76.9	77.0	76.8	71	66.8	0.0	ENE	0.00	4.0	NE	76.9	78.9	78.9	29.956	0.00	0.00	0.000	0.124
8/07/10	11:45p	76.7	77.0	76.7	72	67.0	0.0	NNE	0.00	4.0	NW	76.7	78.8	78.8	29.957	0.00	0.00	0.000	0.122
8/08/10	12:00a	76.6	76.7	76.6	73	67.3	0.0	NNE	0.00	1.0	NNE	76.6	78.8	78.8	29.959	0.00	0.00	0.000	0.121

Gowanus Phase III Weather Data 8/08/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/08/10	12:15a	76.4	76.6	76.4	74	67.5	0.0	N	0.00	2.0	NE	76.4	78.7	78.7	29.962	0.00	0.00	0.000	0.119
8/08/10	12:30a	76.1	76.4	76.1	75	67.6	0.0	N	0.00	2.0	N	76.1	78.5	78.5	29.965	0.00	0.00	0.000	0.116
8/08/10	12:45a	75.8	76.1	75.8	75	67.3	0.0	NE	0.00	7.0	NNW	75.8	78.1	78.1	29.966	0.00	0.00	0.000	0.113
8/08/10	1:00a	75.5	75.7	75.5	76	67.4	0.0	ENE	0.00	5.0	ENE	75.5	77.8	77.8	29.967	0.00	0.00	0.000	0.109
8/08/10	1:15a	75.3	75.5	75.3	78	68.0	0.0	ENE	0.00	4.0	ENE	75.3	77.7	77.7	29.967	0.00	0.00	0.000	0.107
8/08/10	1:30a	75.1	75.3	75.1	78	67.8	0.0	ENE	0.00	1.0	ENE	75.1	77.5	77.5	29.969	0.00	0.00	0.000	0.105
8/08/10	1:45a	74.9	75.1	74.9	80	68.3	0.0	E	0.00	4.0	E	74.9	77.4	77.4	29.970	0.00	0.00	0.000	0.103
8/08/10	2:00a	74.8	74.9	74.8	80	68.2	0.0	E	0.00	1.0	E	74.8	77.2	77.2	29.969	0.00	0.00	0.000	0.102
8/08/10	2:15a	74.8	74.8	74.7	81	68.6	0.0	E	0.00	1.0	E	74.8	77.3	77.3	29.970	0.00	0.00	0.000	0.102
8/08/10	2:30a	74.6	74.8	74.6	81	68.4	0.0	E	0.00	6.0	SW	74.6	77.0	77.0	29.971	0.00	0.00	0.000	0.100
8/08/10	2:45a	74.5	74.6	74.5	82	68.6	0.0	SW	0.00	2.0	SW	74.5	76.9	76.9	29.971	0.00	0.00	0.000	0.099
8/08/10	3:00a	74.4	74.5	74.4	81	68.2	0.0	SW	0.00	2.0	SW	74.4	76.7	76.7	29.970	0.00	0.00	0.000	0.098
8/08/10	3:15a	74.3	74.4	74.3	81	68.1	0.0	SW	0.00	2.0	SW	74.3	76.5	76.5	29.966	0.00	0.00	0.000	0.097
8/08/10	3:30a	74.2	74.3	74.2	81	68.0	0.0	SW	0.00	2.0	SW	74.2	76.4	76.4	29.964	0.00	0.00	0.000	0.096
8/08/10	3:45a	74.1	74.2	74.1	82	68.3	0.0	SW	0.00	1.0	SW	74.1	76.2	76.2	29.970	0.00	0.00	0.000	0.095
8/08/10	4:00a	74.0	74.1	74.0	82	68.2	0.0	SW	0.00	2.0	SW	74.0	76.1	76.1	29.971	0.00	0.00	0.000	0.094
8/08/10	4:15a	73.9	74.0	73.9	82	68.1	0.0	SW	0.00	2.0	SW	73.9	76.0	76.0	29.972	0.00	0.00	0.000	0.093
8/08/10	4:30a	74.1	74.1	73.9	81	67.9	0.0	SW	0.00	1.0	SW	74.1	76.2	76.2	29.973	0.00	0.00	0.000	0.095
8/08/10	4:45a	74.4	74.4	74.1	81	68.2	0.0	SW	0.00	4.0	SW	74.4	76.7	76.7	29.971	0.00	0.00	0.000	0.098
8/08/10	5:00a	74.5	74.5	74.4	81	68.3	0.0	---	0.00	0.0	---	74.5	76.8	76.8	29.971	0.00	0.00	0.000	0.099
8/08/10	5:15a	74.6	74.6	74.5	80	68.0	0.0	SW	0.00	1.0	SW	74.6	76.9	76.9	29.974	0.00	0.00	0.000	0.100
8/08/10	5:30a	74.5	74.6	74.5	80	67.9	0.0	SW	0.00	1.0	SW	74.5	76.8	76.8	29.979	0.00	0.00	0.000	0.099
8/08/10	5:45a	74.6	74.6	74.5	80	68.0	0.0	SW	0.00	2.0	SW	74.6	76.9	76.9	29.985	0.00	0.00	0.000	0.100
8/08/10	6:00a	74.4	74.6	74.4	80	67.8	0.0	SW	0.00	2.0	SW	74.4	76.6	76.6	29.986	0.00	0.00	0.000	0.098
8/08/10	6:15a	74.4	74.4	74.3	81	68.2	0.0	SW	0.00	2.0	SW	74.4	76.7	76.7	29.987	0.00	0.00	0.000	0.098
8/08/10	6:30a	74.4	74.4	74.3	80	67.8	0.0	SW	0.00	1.0	SW	74.4	76.6	76.6	29.987	0.00	0.00	0.000	0.098
8/08/10	6:45a	74.6	74.6	74.4	80	68.0	0.0	SW	0.00	1.0	SW	74.6	76.9	76.9	29.987	0.00	0.00	0.000	0.100
8/08/10	7:00a	74.8	74.8	74.6	79	67.8	0.0	SW	0.00	2.0	SW	74.8	77.1	77.1	29.987	0.00	0.00	0.000	0.102
8/08/10	7:15a	75.1	75.1	74.8	79	68.1	0.0	SW	0.00	1.0	SW	75.1	77.6	77.6	29.992	0.00	0.00	0.000	0.105
8/08/10	7:30a	75.2	75.2	75.0	79	68.2	0.0	SW	0.00	2.0	SW	75.2	77.7	77.7	29.997	0.00	0.00	0.000	0.106
8/08/10	7:45a	75.3	75.3	75.2	78	68.0	0.0	SW	0.00	2.0	SW	75.3	77.7	77.7	30.002	0.00	0.00	0.000	0.107
8/08/10	8:00a	75.3	75.4	75.3	78	68.0	0.0	SW	0.00	2.0	SW	75.3	77.7	77.7	30.004	0.00	0.00	0.000	0.107
8/08/10	8:15a	75.5	75.5	75.3	78	68.2	0.0	SW	0.00	5.0	SW	75.5	78.0	78.0	30.010	0.00	0.00	0.000	0.109
8/08/10	8:30a	75.6	75.6	75.4	78	68.3	0.0	SW	0.00	2.0	SW	75.6	78.2	78.2	30.010	0.00	0.00	0.000	0.110
8/08/10	8:45a	75.9	75.9	75.6	79	68.9	0.0	SSW	0.00	2.0	SW	75.9	78.7	78.7	30.005	0.00	0.00	0.000	0.114
8/08/10	9:00a	76.5	76.5	75.9	79	69.5	0.0	SSW	0.00	2.0	SSW	76.5	79.4	79.4	30.007	0.00	0.00	0.000	0.120
8/08/10	9:15a	79.3	79.3	76.6	75	70.7	0.0	SSW	0.00	2.0	SSW	79.3	82.5	82.5	30.012	0.00	0.00	0.000	0.149
8/08/10	9:30a	80.4	80.4	79.3	72	70.5	1.0	WSW	0.25	5.0	WSW	80.4	83.8	83.8	30.015	0.00	0.00	0.000	0.160
8/08/10	9:45a	79.8	80.5	79.8	73	70.4	0.0	WSW	0.00	4.0	WSW	79.8	82.9	82.9	30.009	0.00	0.00	0.000	0.154
8/08/10	10:00a	79.4	79.7	79.3	73	70.0	0.0	SW	0.00	4.0	SW	79.4	82.3	82.3	30.008	0.00	0.00	0.000	0.150
8/08/10	10:15a	80.3	80.3	79.4	71	70.0	0.0	WSW	0.00	2.0	WSW	80.3	83.4	83.4	30.005	0.00	0.00	0.000	0.159
8/08/10	10:30a	81.0	81.0	80.2	71	70.7	1.0	ESE	0.25	5.0	ESE	81.0	84.6	84.6	30.003	0.00	0.00	0.000	0.167
8/08/10	10:45a	82.7	82.7	81.0	68	71.1	1.0	WSW	0.25	6.0	NW	82.7	87.2	87.2	30.004	0.00	0.00	0.000	0.184
8/08/10	11:00a	84.0	84.0	82.8	65	71.0	0.0	SW	0.00	5.0	WSW	84.0	89.2	89.2	30.004	0.00	0.00	0.000	0.198
8/08/10	11:15a	84.1	84.2	84.0	61	69.2	1.0	ENE	0.25	6.0	WNW	84.1	88.2	88.2	30.003	0.00	0.00	0.000	0.199
8/08/10	11:30a	85.7	85.7	83.9	58	69.2	1.0	ESE	0.25	5.0	NW	85.7	90.2	90.2	30.002	0.00	0.00	0.000	0.216
8/08/10	11:45a	85.4	86.1	85.4	58	68.9	2.0	NE	0.50	7.0	SW	85.4	89.6	89.6	30.002	0.00	0.00	0.000	0.213
8/08/10	12:00p	86.0	86.0	85.4	58	69.5	1.0	E	0.25	6.0	NNE	86.0	90.8	90.8	30.002	0.00	0.00	0.000	0.219
8/08/10	12:15p	86.7	86.7	86.0	57	69.6	1.0	NNW	0.25	5.0	NNE	86.7	91.9	91.9	29.993	0.00	0.00	0.000	0.226
8/08/10	12:30p	87.2	87.2	86.5	55	69.1	1.0	WNW	0.25	8.0	W	87.2	92.1	92.1	29.988	0.00	0.00	0.000	0.231
8/08/10	12:45p	87.6	87.8	87.2	55	69.4	1.0	NE	0.25	6.0	WSW	87.6	92.6	92.6	29.987	0.00	0.00	0.000	0.235
8/08/10	1:00p	86.4	87.5	86.4	58	69.9	2.0	NW	0.50	7.0	NW	86.4	91.6	91.6	29.987	0.00	0.00	0.000	0.223
8/08/10	1:15p	87.0	87.0	86.2	58	70.4	1.0	WNW	0.25	6.0	WNW	87.0	92.9	92.9	29.986	0.00	0.00	0.000	0.229

Gowanus Phase III Weather Data 8/08/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/08/10	1:30p	88.8	88.8	87.0	55	70.5	1.0	NNW	0.25	6.0	NW	88.8	94.9	94.9	29.984	0.00	0.00	0.000	0.248
8/08/10	1:45p	86.3	88.8	86.3	59	70.3	3.0	WNW	0.75	11.0	WNW	86.3	91.8	91.8	29.981	0.00	0.00	0.000	0.222
8/08/10	2:00p	86.3	86.4	86.0	58	69.8	2.0	WNW	0.50	7.0	WNW	86.3	91.4	91.4	29.973	0.00	0.00	0.000	0.222
8/08/10	2:15p	85.4	86.4	85.4	59	69.4	3.0	NW	0.75	12.0	NW	85.4	89.9	89.9	29.972	0.00	0.00	0.000	0.213
8/08/10	2:30p	86.1	86.1	85.4	60	70.6	4.0	NW	1.00	10.0	WNW	86.1	91.7	91.7	29.971	0.00	0.00	0.000	0.220
8/08/10	2:45p	84.7	86.0	84.6	60	69.3	5.0	WNW	1.25	10.0	NNW	84.7	88.9	88.9	29.971	0.00	0.00	0.000	0.205
8/08/10	3:00p	85.3	85.8	84.7	58	68.8	4.0	WNW	1.00	11.0	WNW	85.3	89.4	89.4	29.971	0.00	0.00	0.000	0.211
8/08/10	3:15p	85.6	85.9	85.3	53	66.5	4.0	WNW	1.00	11.0	WNW	85.6	88.4	88.4	29.959	0.00	0.00	0.000	0.215
8/08/10	3:30p	85.5	85.5	85.0	53	66.4	5.0	WNW	1.25	11.0	NNW	85.5	88.3	88.3	29.956	0.00	0.00	0.000	0.214
8/08/10	3:45p	85.2	85.5	85.1	55	67.2	5.0	NW	1.25	11.0	W	85.2	88.3	88.3	29.955	0.00	0.00	0.000	0.210
8/08/10	4:00p	84.9	85.2	84.9	51	64.8	5.0	WNW	1.25	12.0	WNW	84.9	86.9	86.9	29.951	0.00	0.00	0.000	0.207
8/08/10	4:15p	83.9	84.9	83.9	51	63.8	6.0	WNW	1.50	14.0	WNW	83.9	85.8	85.8	29.946	0.00	0.00	0.000	0.197
8/08/10	4:30p	83.2	83.9	83.2	62	68.8	5.0	NW	1.25	12.0	NNE	83.2	86.6	86.6	29.946	0.00	0.00	0.000	0.190
8/08/10	4:45p	82.1	83.2	82.1	62	67.8	6.0	NW	1.50	16.0	W	82.1	84.8	84.8	29.944	0.00	0.00	0.000	0.178
8/08/10	5:00p	82.2	82.3	81.9	63	68.3	5.0	WNW	1.25	12.0	WNW	82.2	85.1	85.1	29.945	0.00	0.00	0.000	0.179
8/08/10	5:15p	81.5	82.1	81.5	65	68.6	5.0	WNW	1.25	10.0	WNW	81.5	84.3	84.3	29.943	0.00	0.00	0.000	0.172
8/08/10	5:30p	81.2	81.6	81.1	68	69.6	6.0	WNW	1.50	15.0	WNW	81.2	84.4	84.4	29.945	0.00	0.00	0.000	0.169
8/08/10	5:45p	81.5	81.7	81.2	68	69.9	4.0	WNW	1.00	9.0	WNW	81.5	85.0	85.0	29.942	0.00	0.00	0.000	0.172
8/08/10	6:00p	80.8	81.6	80.8	70	70.1	4.0	WNW	1.00	14.0	WNW	80.8	84.1	84.1	29.942	0.00	0.00	0.000	0.165
8/08/10	6:15p	80.0	80.7	80.0	72	70.2	6.0	NW	1.50	15.0	WNW	80.0	83.1	83.1	29.948	0.00	0.00	0.000	0.156
8/08/10	6:30p	79.7	79.9	79.7	73	70.3	6.0	WNW	1.50	12.0	NW	79.7	82.8	82.8	29.955	0.00	0.00	0.000	0.153
8/08/10	6:45p	79.4	79.7	79.3	76	71.2	5.0	NW	1.25	12.0	NE	79.4	82.8	82.8	29.954	0.00	0.00	0.000	0.150
8/08/10	7:00p	78.9	79.4	78.9	79	71.8	6.0	NW	1.50	13.0	WNW	78.9	82.5	82.5	29.956	0.00	0.00	0.000	0.145
8/08/10	7:15p	78.7	78.9	78.7	78	71.3	6.0	WNW	1.50	11.0	NW	78.7	82.1	82.1	29.956	0.00	0.00	0.000	0.143
8/08/10	7:30p	79.2	79.3	78.7	79	72.1	3.0	NNW	0.75	9.0	WNW	79.2	83.0	83.0	29.956	0.00	0.00	0.000	0.148
8/08/10	7:45p	78.7	79.2	78.7	80	72.0	5.0	WNW	1.25	11.0	NW	78.7	82.4	82.4	29.957	0.00	0.00	0.000	0.143
8/08/10	8:00p	78.7	78.7	78.6	80	72.0	5.0	WNW	1.25	11.0	NNW	78.7	82.4	82.4	29.956	0.00	0.00	0.000	0.143
8/08/10	8:15p	78.7	78.7	78.6	81	72.4	3.0	NW	0.75	7.0	NW	78.7	82.5	82.5	29.957	0.00	0.00	0.000	0.143
8/08/10	8:30p	78.5	78.7	78.5	81	72.2	2.0	WNW	0.50	7.0	WNW	78.5	82.3	82.3	29.963	0.00	0.00	0.000	0.141
8/08/10	8:45p	78.4	78.5	78.4	81	72.1	2.0	WNW	0.50	7.0	W	78.4	82.1	82.1	29.963	0.00	0.00	0.000	0.140
8/08/10	9:00p	78.4	78.4	78.4	80	71.7	3.0	NW	0.75	7.0	N	78.4	82.0	82.0	29.968	0.00	0.00	0.000	0.140
8/08/10	9:15p	78.4	78.4	78.3	80	71.7	1.0	NW	0.25	9.0	NW	78.4	82.0	82.0	29.972	0.00	0.00	0.000	0.140
8/08/10	9:30p	78.3	78.4	78.3	80	71.6	1.0	W	0.25	5.0	NW	78.3	81.8	81.8	29.975	0.00	0.00	0.000	0.139
8/08/10	9:45p	78.2	78.3	78.2	80	71.5	1.0	W	0.25	5.0	NNW	78.2	81.7	81.7	29.976	0.00	0.00	0.000	0.137
8/08/10	10:00p	78.1	78.2	78.1	80	71.4	1.0	NW	0.25	6.0	NW	78.1	81.5	81.5	29.974	0.00	0.00	0.000	0.136
8/08/10	10:15p	78.1	78.2	78.1	80	71.4	0.0	N	0.00	4.0	NNW	78.1	81.5	81.5	29.973	0.00	0.00	0.000	0.136
8/08/10	10:30p	78.1	78.1	78.0	80	71.4	0.0	NNW	0.00	2.0	NW	78.1	81.5	81.5	29.975	0.00	0.00	0.000	0.136
8/08/10	10:45p	78.1	78.2	78.1	81	71.8	0.0	ENE	0.00	5.0	ENE	78.1	81.7	81.7	29.973	0.00	0.00	0.000	0.136
8/08/10	11:00p	78.0	78.1	78.0	81	71.7	0.0	E	0.00	5.0	E	78.0	81.5	81.5	29.973	0.00	0.00	0.000	0.135
8/08/10	11:15p	77.9	78.0	77.9	82	72.0	0.0	S	0.00	5.0	ENE	77.9	81.5	81.5	29.976	0.00	0.00	0.000	0.134
8/08/10	11:30p	77.8	77.9	77.7	82	71.9	0.0	ENE	0.00	2.0	ENE	77.8	81.4	81.4	29.978	0.00	0.00	0.000	0.133
8/08/10	11:45p	77.7	77.8	77.6	82	71.8	0.0	ENE	0.00	2.0	ENE	77.7	81.2	81.2	29.978	0.00	0.00	0.000	0.132
8/09/10	12:00a	77.5	77.7	77.5	83	71.9	0.0	ENE	0.00	4.0	ENE	77.5	81.1	81.1	29.982	0.00	0.00	0.000	0.130

Gowanus Phase III Weather Data 8/09/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/09/10	12:15a	77.4	77.5	77.4	83	71.8	0.0	ENE	0.00	1.0	ENE	77.4	80.9	80.9	29.981	0.00	0.00	0.000	0.129
8/09/10	12:30a	77.3	77.4	77.3	83	71.7	0.0	ENE	0.00	2.0	ENE	77.3	80.8	80.8	29.975	0.00	0.00	0.000	0.128
8/09/10	12:45a	77.1	77.3	77.1	84	71.9	0.0	ENE	0.00	4.0	ENE	77.1	80.6	80.6	29.974	0.00	0.00	0.000	0.126
8/09/10	1:00a	76.9	77.1	76.9	84	71.7	0.0	E	0.00	2.0	E	76.9	80.3	80.3	29.975	0.00	0.00	0.000	0.124
8/09/10	1:15a	76.7	76.9	76.7	85	71.8	0.0	E	0.00	2.0	E	76.7	80.2	80.2	29.975	0.00	0.00	0.000	0.122
8/09/10	1:30a	76.6	76.7	76.6	85	71.7	0.0	E	0.00	1.0	E	76.6	80.0	80.0	29.973	0.00	0.00	0.000	0.121
8/09/10	1:45a	76.4	76.5	76.4	86	71.9	0.0	E	0.00	4.0	E	76.4	79.8	79.8	29.971	0.00	0.00	0.000	0.119
8/09/10	2:00a	76.1	76.4	76.1	86	71.6	0.0	E	0.00	4.0	E	76.1	79.4	79.4	29.971	0.00	0.00	0.000	0.116
8/09/10	2:15a	76.0	76.2	76.0	86	71.5	0.0	E	0.00	1.0	E	76.0	79.3	79.3	29.971	0.00	0.00	0.000	0.115
8/09/10	2:30a	75.9	76.0	75.9	85	71.1	0.0	E	0.00	1.0	E	75.9	79.1	79.1	29.972	0.00	0.00	0.000	0.114
8/09/10	2:45a	75.7	75.9	75.7	86	71.2	0.0	E	0.00	1.0	E	75.7	78.9	78.9	29.972	0.00	0.00	0.000	0.111
8/09/10	3:00a	75.4	75.7	75.4	85	70.6	0.0	E	0.00	3.0	E	75.4	78.5	78.5	29.971	0.00	0.00	0.000	0.108
8/09/10	3:15a	75.1	75.4	75.1	86	70.6	0.0	E	0.00	4.0	E	75.1	78.2	78.2	29.971	0.00	0.00	0.000	0.105
8/09/10	3:30a	74.9	75.1	74.9	86	70.4	0.0	E	0.00	2.0	E	74.9	77.9	77.9	29.972	0.00	0.00	0.000	0.103
8/09/10	3:45a	74.8	74.9	74.8	87	70.7	0.0	E	0.00	1.0	E	74.8	77.8	77.8	29.972	0.00	0.00	0.000	0.102
8/09/10	4:00a	74.6	74.8	74.6	87	70.5	0.0	E	0.00	2.0	E	74.6	77.4	77.4	29.972	0.00	0.00	0.000	0.100
8/09/10	4:15a	74.6	74.6	74.5	87	70.5	0.0	E	0.00	2.0	E	74.6	77.4	77.4	29.974	0.00	0.00	0.000	0.100
8/09/10	4:30a	74.5	74.6	74.5	87	70.4	0.0	E	0.00	4.0	E	74.5	77.2	77.2	29.972	0.00	0.00	0.000	0.099
8/09/10	4:45a	74.4	74.5	74.4	87	70.3	0.0	E	0.00	1.0	E	74.4	77.0	77.0	29.974	0.00	0.00	0.000	0.098
8/09/10	5:00a	74.4	74.4	74.4	87	70.3	0.0	E	0.00	3.0	E	74.4	77.0	77.0	29.975	0.00	0.00	0.000	0.098
8/09/10	5:15a	74.4	74.4	74.4	87	70.3	0.0	E	0.00	2.0	E	74.4	77.0	77.0	29.974	0.00	0.00	0.000	0.098
8/09/10	5:30a	74.4	74.4	74.4	88	70.6	0.0	---	0.00	0.0	---	74.4	77.1	77.1	29.973	0.00	0.00	0.000	0.098
8/09/10	5:45a	74.3	74.4	74.3	88	70.5	0.0	E	0.00	2.0	E	74.3	76.9	76.9	29.976	0.00	0.00	0.000	0.097
8/09/10	6:00a	74.3	74.3	74.2	88	70.5	0.0	E	0.00	2.0	E	74.3	76.9	76.9	29.982	0.00	0.00	0.000	0.097
8/09/10	6:15a	74.2	74.3	74.2	89	70.7	0.0	E	0.00	3.0	E	74.2	76.8	76.8	29.984	0.00	0.00	0.000	0.096
8/09/10	6:30a	74.2	74.2	74.2	89	70.7	0.0	E	0.00	1.0	E	74.2	76.8	76.8	29.984	0.00	0.00	0.000	0.096
8/09/10	6:45a	74.4	74.4	74.2	89	70.9	0.0	E	0.00	2.0	E	74.4	77.1	77.1	29.987	0.00	0.00	0.000	0.098
8/09/10	7:00a	74.9	74.9	74.4	89	71.4	0.0	E	0.00	1.0	E	74.9	78.1	78.1	29.990	0.00	0.00	0.000	0.103
8/09/10	7:15a	75.5	75.5	74.9	87	71.4	0.0	E	0.00	1.0	E	75.5	78.7	78.7	29.996	0.00	0.00	0.000	0.109
8/09/10	7:30a	76.0	76.0	75.5	86	71.5	0.0	E	0.00	5.0	E	76.0	79.3	79.3	29.996	0.00	0.00	0.000	0.115
8/09/10	7:45a	76.6	76.6	76.0	84	71.4	1.0	ESE	0.25	6.0	ESE	76.6	79.9	79.9	29.997	0.00	0.00	0.000	0.121
8/09/10	8:00a	77.6	77.6	76.6	82	71.7	0.0	ESE	0.00	4.0	ESE	77.6	81.1	81.1	29.997	0.00	0.00	0.000	0.131
8/09/10	8:15a	78.9	78.9	77.6	79	71.8	0.0	ESE	0.00	2.0	ESE	78.9	82.5	82.5	29.999	0.00	0.00	0.000	0.145
8/09/10	8:30a	79.2	79.2	78.9	78	71.7	1.0	ESE	0.25	5.0	ESE	79.2	82.8	82.8	29.998	0.00	0.00	0.000	0.148
8/09/10	8:45a	80.4	80.4	79.2	76	72.1	0.0	ESE	0.00	2.0	ESE	80.4	84.5	84.5	29.995	0.00	0.00	0.000	0.160
8/09/10	9:00a	81.7	81.7	80.4	74	72.6	0.0	ESE	0.00	1.0	ESE	81.7	86.6	86.6	29.990	0.00	0.00	0.000	0.174
8/09/10	9:15a	82.1	82.3	81.7	72	72.2	1.0	ESE	0.25	6.0	SW	82.1	87.0	87.0	29.987	0.00	0.00	0.000	0.178
8/09/10	9:30a	82.9	82.9	82.0	71	72.5	0.0	SW	0.00	5.0	SW	82.9	88.5	88.5	29.985	0.00	0.00	0.000	0.186
8/09/10	9:45a	83.6	83.6	82.9	69	72.3	0.0	SW	0.00	5.0	SSW	83.6	89.6	89.6	29.984	0.00	0.00	0.000	0.194
8/09/10	10:00a	84.8	84.8	83.7	67	72.6	0.0	SW	0.00	6.0	SW	84.8	91.4	91.4	29.984	0.00	0.00	0.000	0.206
8/09/10	10:15a	85.6	85.6	84.8	65	72.5	1.0	SW	0.25	5.0	SW	85.6	92.5	92.5	29.977	0.00	0.00	0.000	0.215
8/09/10	10:30a	87.9	88.0	85.6	62	73.3	0.0	SSE	0.00	2.0	SSE	87.9	95.5	95.5	29.983	0.00	0.00	0.000	0.239
8/09/10	10:45a	88.2	88.2	87.6	61	73.0	0.0	SW	0.00	5.0	SW	88.2	95.8	95.8	29.978	0.00	0.00	0.000	0.242
8/09/10	11:00a	88.6	89.1	88.2	59	72.4	1.0	SW	0.25	5.0	WSW	88.6	96.0	96.0	29.970	0.00	0.00	0.000	0.246
8/09/10	11:15a	88.9	89.0	88.6	59	72.7	1.0	SW	0.25	5.0	WNW	88.9	96.7	96.7	29.971	0.00	0.00	0.000	0.249
8/09/10	11:30a	88.5	89.1	88.5	58	71.8	1.0	NW	0.25	4.0	W	88.5	95.4	95.4	29.970	0.00	0.00	0.000	0.245
8/09/10	11:45a	89.7	89.8	88.4	57	72.4	1.0	ESE	0.25	5.0	SW	89.7	97.7	97.7	29.972	0.00	0.00	0.000	0.257
8/09/10	12:00p	89.3	89.7	89.3	57	72.1	1.0	NW	0.25	5.0	ENE	89.3	96.8	96.8	29.972	0.00	0.00	0.000	0.253
8/09/10	12:15p	90.1	90.1	89.3	55	71.8	1.0	NW	0.25	6.0	SW	90.1	97.6	97.6	29.969	0.00	0.00	0.000	0.261
8/09/10	12:30p	90.5	90.9	90.1	53	71.0	1.0	WNW	0.25	7.0	SW	90.5	97.6	97.6	29.957	0.00	0.00	0.000	0.266
8/09/10	12:45p	90.6	90.8	90.2	53	71.1	2.0	WNW	0.50	8.0	WNW	90.6	97.8	97.8	29.956	0.00	0.00	0.000	0.267
8/09/10	1:00p	91.1	91.1	90.5	52	71.0	2.0	NE	0.50	6.0	ENE	91.1	98.4	98.4	29.955	0.00	0.00	0.000	0.272
8/09/10	1:15p	93.1	93.1	91.2	49	71.1	1.0	ENE	0.25	7.0	WNW	93.1	100.9	100.9	29.949	0.00	0.00	0.000	0.293

Gowanus Phase III Weather Data 8/09/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/09/10	1:30p	92.5	93.7	92.5	50	71.2	2.0	ENE	0.50	7.0	NNE	92.5	100.1	100.1	29.943	0.00	0.00	0.000	0.286
8/09/10	1:45p	91.0	92.6	91.0	53	71.5	2.0	WNW	0.50	8.0	WNW	91.0	98.7	98.7	29.943	0.00	0.00	0.000	0.271
8/09/10	2:00p	90.6	90.9	90.1	53	71.1	3.0	NW	0.75	12.0	W	90.6	97.8	97.8	29.940	0.00	0.00	0.000	0.267
8/09/10	2:15p	90.4	90.9	90.4	54	71.5	3.0	NW	0.75	9.0	NW	90.4	97.8	97.8	29.936	0.00	0.00	0.000	0.265
8/09/10	2:30p	89.2	90.4	89.2	56	71.5	4.0	NW	1.00	9.0	W	89.2	96.2	96.2	29.934	0.00	0.00	0.000	0.252
8/09/10	2:45p	89.2	89.2	88.7	56	71.5	3.0	WNW	0.75	9.0	NNW	89.2	96.2	96.2	29.928	0.00	0.00	0.000	0.252
8/09/10	3:00p	90.2	90.3	89.2	54	71.3	3.0	WNW	0.75	8.0	WNW	90.2	97.4	97.4	29.925	0.00	0.00	0.000	0.262
8/09/10	3:15p	89.6	90.4	89.6	55	71.3	3.0	NW	0.75	9.0	WNW	89.6	96.6	96.6	29.925	0.00	0.00	0.000	0.256
8/09/10	3:30p	88.6	89.5	88.6	57	71.4	4.0	NW	1.00	9.0	N	88.6	95.2	95.2	29.922	0.00	0.00	0.000	0.246
8/09/10	3:45p	86.6	88.6	86.6	60	71.1	5.0	NW	1.25	12.0	WNW	86.6	92.8	92.8	29.922	0.00	0.00	0.000	0.225
8/09/10	4:00p	85.5	86.8	85.5	61	70.5	6.0	NW	1.50	12.0	WNW	85.5	90.8	90.8	29.917	0.00	0.00	0.000	0.214
8/09/10	4:15p	85.2	85.6	85.2	61	70.2	6.0	WNW	1.50	13.0	SW	85.2	90.2	90.2	29.912	0.00	0.00	0.000	0.210
8/09/10	4:30p	84.8	85.2	84.4	60	69.4	6.0	NW	1.50	12.0	NNW	84.8	89.1	89.1	29.910	0.00	0.00	0.000	0.206
8/09/10	4:45p	85.6	85.6	84.8	56	68.1	5.0	WNW	1.25	13.0	NW	85.6	89.3	89.3	29.907	0.00	0.00	0.000	0.215
8/09/10	5:00p	85.5	85.6	85.2	57	68.5	6.0	WNW	1.50	14.0	WNW	85.5	89.5	89.5	29.903	0.00	0.00	0.000	0.214
8/09/10	5:15p	85.3	85.7	85.3	57	68.3	5.0	WNW	1.25	13.0	NW	85.3	89.1	89.1	29.895	0.00	0.00	0.000	0.211
8/09/10	5:30p	85.1	85.3	85.1	56	67.6	7.0	WNW	1.75	14.0	W	85.1	88.4	88.4	29.894	0.00	0.00	0.000	0.209
8/09/10	5:45p	85.7	85.8	85.0	54	67.1	5.0	WNW	1.25	13.0	W	85.7	88.9	88.9	29.889	0.00	0.00	0.000	0.216
8/09/10	6:00p	85.9	85.9	85.8	54	67.3	4.0	WNW	1.00	10.0	W	85.9	89.2	89.2	29.888	0.00	0.00	0.000	0.218
8/09/10	6:15p	86.0	86.2	85.9	55	68.0	4.0	NW	1.00	10.0	WNW	86.0	89.7	89.7	29.885	0.00	0.00	0.000	0.219
8/09/10	6:30p	85.9	86.1	85.9	56	68.4	2.0	NW	0.50	9.0	WNW	85.9	89.9	89.9	29.882	0.00	0.00	0.000	0.218
8/09/10	6:45p	85.7	86.0	85.7	57	68.7	3.0	NW	0.75	10.0	WNW	85.7	89.8	89.8	29.879	0.00	0.00	0.000	0.216
8/09/10	7:00p	84.8	85.7	84.8	59	68.9	3.0	NW	0.75	10.0	NW	84.8	88.8	88.8	29.879	0.00	0.00	0.000	0.206
8/09/10	7:15p	84.3	84.8	84.3	60	68.9	3.0	WNW	0.75	9.0	WNW	84.3	88.2	88.2	29.878	0.00	0.00	0.000	0.201
8/09/10	7:30p	84.2	84.3	84.1	60	68.8	2.0	NNW	0.50	7.0	WNW	84.2	88.0	88.0	29.878	0.00	0.00	0.000	0.200
8/09/10	7:45p	84.4	84.4	84.2	59	68.5	2.0	NW	0.50	10.0	W	84.4	88.1	88.1	29.879	0.00	0.00	0.000	0.202
8/09/10	8:00p	84.5	84.6	84.4	59	68.6	1.0	N	0.25	6.0	NW	84.5	88.3	88.3	29.879	0.00	0.00	0.000	0.203
8/09/10	8:15p	84.1	84.5	84.1	60	68.7	1.0	NW	0.25	6.0	NW	84.1	87.9	87.9	29.880	0.00	0.00	0.000	0.199
8/09/10	8:30p	84.1	84.1	84.0	60	68.7	1.0	NNW	0.25	6.0	ENE	84.1	87.9	87.9	29.886	0.00	0.00	0.000	0.199
8/09/10	8:45p	84.1	84.2	84.1	60	68.7	1.0	NE	0.25	6.0	ENE	84.1	87.9	87.9	29.892	0.00	0.00	0.000	0.199
8/09/10	9:00p	84.1	84.1	84.0	60	68.7	1.0	E	0.25	6.0	WNW	84.1	87.9	87.9	29.894	0.00	0.00	0.000	0.199
8/09/10	9:15p	84.3	84.3	84.1	59	68.4	0.0	ENE	0.00	5.0	ENE	84.3	88.0	88.0	29.895	0.00	0.00	0.000	0.201
8/09/10	9:30p	84.1	84.3	84.1	59	68.2	0.0	ENE	0.00	5.0	ENE	84.1	87.6	87.6	29.894	0.00	0.00	0.000	0.199
8/09/10	9:45p	83.9	84.1	83.9	60	68.5	1.0	NNE	0.25	5.0	N	83.9	87.5	87.5	29.898	0.00	0.00	0.000	0.197
8/09/10	10:00p	83.4	83.9	83.4	60	68.1	0.0	NE	0.00	6.0	NE	83.4	86.5	86.5	29.907	0.00	0.00	0.000	0.192
8/09/10	10:15p	83.2	83.4	83.1	59	67.4	1.0	NE	0.25	4.0	NW	83.2	85.9	85.9	29.909	0.00	0.00	0.000	0.190
8/09/10	10:30p	83.2	83.2	83.2	59	67.4	0.0	NE	0.00	5.0	WSW	83.2	85.9	85.9	29.909	0.00	0.00	0.000	0.190
8/09/10	10:45p	83.3	83.3	83.2	58	67.0	1.0	WSW	0.25	7.0	SW	83.3	85.9	85.9	29.908	0.00	0.00	0.000	0.191
8/09/10	11:00p	83.4	83.4	83.3	58	67.1	0.0	WSW	0.00	4.0	WSW	83.4	86.1	86.1	29.908	0.00	0.00	0.000	0.192
8/09/10	11:15p	83.3	83.4	83.3	57	66.5	0.0	SW	0.00	6.0	SW	83.3	85.8	85.8	29.908	0.00	0.00	0.000	0.191
8/09/10	11:30p	83.3	83.4	83.3	56	66.0	0.0	SW	0.00	4.0	WSW	83.3	85.6	85.6	29.904	0.00	0.00	0.000	0.191
8/09/10	11:45p	83.3	83.3	83.3	54	64.9	0.0	WSW	0.00	1.0	WSW	83.3	85.3	85.3	29.898	0.00	0.00	0.000	0.191
8/10/10	12:00a	83.1	83.3	83.1	54	64.7	0.0	SW	0.00	6.0	WSW	83.1	84.9	84.9	29.903	0.00	0.00	0.000	0.189

Gowanus Phase III Weather Data 8/10/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/10/10	12:15a	82.8	83.1	82.8	56	65.5	0.0	WSW	0.00	6.0	WSW	82.8	84.8	84.8	29.901	0.00	0.00	0.000	0.185
8/10/10	12:30a	82.4	82.8	82.4	57	65.6	1.0	SW	0.25	6.0	SW	82.4	84.3	84.3	29.895	0.00	0.00	0.000	0.181
8/10/10	12:45a	82.1	82.4	82.1	58	65.9	1.0	SW	0.25	7.0	SW	82.1	84.0	84.0	29.894	0.00	0.00	0.000	0.178
8/10/10	1:00a	81.8	82.1	81.8	59	66.1	0.0	SW	0.00	2.0	SW	81.8	83.7	83.7	29.892	0.00	0.00	0.000	0.175
8/10/10	1:15a	81.4	81.8	81.4	60	66.2	0.0	SW	0.00	4.0	SW	81.4	83.3	83.3	29.882	0.00	0.00	0.000	0.171
8/10/10	1:30a	81.1	81.4	81.1	61	66.4	0.0	SW	0.00	5.0	SSW	81.1	83.0	83.0	29.881	0.00	0.00	0.000	0.168
8/10/10	1:45a	80.7	81.1	80.7	62	66.5	0.0	SW	0.00	6.0	SW	80.7	82.6	82.6	29.881	0.00	0.00	0.000	0.164
8/10/10	2:00a	80.5	80.7	80.5	63	66.7	0.0	SW	0.00	2.0	SW	80.5	82.5	82.5	29.882	0.00	0.00	0.000	0.161
8/10/10	2:15a	80.3	80.5	80.3	64	67.0	0.0	SW	0.00	2.0	SW	80.3	82.3	82.3	29.879	0.00	0.00	0.000	0.159
8/10/10	2:30a	80.0	80.2	80.0	65	67.2	0.0	SW	0.00	1.0	SW	80.0	82.0	82.0	29.879	0.00	0.00	0.000	0.156
8/10/10	2:45a	79.7	80.0	79.7	67	67.8	0.0	SW	0.00	2.0	SW	79.7	81.9	81.9	29.879	0.00	0.00	0.000	0.153
8/10/10	3:00a	79.5	79.7	79.5	68	68.0	0.0	SW	0.00	1.0	SW	79.5	81.7	81.7	29.880	0.00	0.00	0.000	0.151
8/10/10	3:15a	79.4	79.5	79.4	69	68.3	0.0	SW	0.00	4.0	SW	79.4	81.7	81.7	29.879	0.00	0.00	0.000	0.150
8/10/10	3:30a	79.4	79.4	79.4	70	68.8	0.0	SW	0.00	1.0	SW	79.4	81.9	81.9	29.886	0.00	0.00	0.000	0.150
8/10/10	3:45a	79.6	79.6	79.4	69	68.5	0.0	SW	0.00	2.0	SW	79.6	82.0	82.0	29.891	0.00	0.00	0.000	0.152
8/10/10	4:00a	79.8	79.8	79.6	68	68.3	0.0	SW	0.00	2.0	SW	79.8	82.1	82.1	29.884	0.00	0.00	0.000	0.154
8/10/10	4:15a	79.8	79.8	79.8	67	67.9	0.0	SW	0.00	4.0	SW	79.8	82.0	82.0	29.881	0.00	0.00	0.000	0.154
8/10/10	4:30a	79.9	79.9	79.8	67	68.0	0.0	SW	0.00	1.0	SW	79.9	82.1	82.1	29.881	0.00	0.00	0.000	0.155
8/10/10	4:45a	79.8	79.9	79.8	67	67.9	0.0	SW	0.00	2.0	SW	79.8	82.0	82.0	29.880	0.00	0.00	0.000	0.154
8/10/10	5:00a	79.8	79.8	79.8	67	67.9	0.0	SW	0.00	1.0	SW	79.8	82.0	82.0	29.878	0.00	0.00	0.000	0.154
8/10/10	5:15a	79.7	79.8	79.7	67	67.8	0.0	SW	0.00	2.0	SW	79.7	81.9	81.9	29.879	0.00	0.00	0.000	0.153
8/10/10	5:30a	79.7	79.7	79.7	67	67.8	0.0	SW	0.00	1.0	SW	79.7	81.9	81.9	29.879	0.00	0.00	0.000	0.153
8/10/10	5:45a	79.6	79.7	79.6	68	68.1	0.0	SW	0.00	1.0	SW	79.6	81.9	81.9	29.880	0.00	0.00	0.000	0.152
8/10/10	6:00a	79.6	79.6	79.5	68	68.1	0.0	SW	0.00	1.0	SW	79.6	81.9	81.9	29.881	0.00	0.00	0.000	0.152
8/10/10	6:15a	79.6	79.6	79.5	68	68.1	0.0	---	0.00	0.0	---	79.6	81.9	81.9	29.884	0.00	0.00	0.000	0.152
8/10/10	6:30a	79.5	79.6	79.5	68	68.0	0.0	SW	0.00	2.0	SW	79.5	81.7	81.7	29.891	0.00	0.00	0.000	0.151
8/10/10	6:45a	79.5	79.5	79.5	69	68.4	0.0	---	0.00	0.0	---	79.5	81.9	81.9	29.893	0.00	0.00	0.000	0.151
8/10/10	7:00a	79.7	79.7	79.5	69	68.6	0.0	---	0.00	0.0	---	79.7	82.1	82.1	29.894	0.00	0.00	0.000	0.153
8/10/10	7:15a	80.0	80.0	79.6	69	68.9	0.0	SW	0.00	2.0	SW	80.0	82.6	82.6	29.894	0.00	0.00	0.000	0.156
8/10/10	7:30a	81.3	81.3	80.0	66	68.9	0.0	NNE	0.00	6.0	N	81.3	84.2	84.2	29.898	0.00	0.00	0.000	0.170
8/10/10	7:45a	82.2	82.3	81.3	65	69.3	0.0	ENE	0.00	3.0	ENE	82.2	85.5	85.5	29.895	0.00	0.00	0.000	0.179
8/10/10	8:00a	82.1	82.2	82.1	65	69.2	0.0	NNW	0.00	1.0	NNW	82.1	85.4	85.4	29.895	0.00	0.00	0.000	0.178
8/10/10	8:15a	81.5	82.1	81.5	66	69.0	0.0	N	0.00	5.0	NNW	81.5	84.5	84.5	29.895	0.00	0.00	0.000	0.172
8/10/10	8:30a	81.6	81.6	81.4	66	69.1	0.0	NNE	0.00	4.0	N	81.6	84.7	84.7	29.894	0.00	0.00	0.000	0.173
8/10/10	8:45a	82.2	82.2	81.6	65	69.3	0.0	S	0.00	2.0	S	82.2	85.5	85.5	29.891	0.00	0.00	0.000	0.179
8/10/10	9:00a	82.3	82.4	82.1	65	69.4	0.0	E	0.00	4.0	W	82.3	85.7	85.7	29.891	0.00	0.00	0.000	0.180
8/10/10	9:15a	82.6	82.6	82.3	64	69.2	0.0	E	0.00	5.0	N	82.6	86.0	86.0	29.886	0.00	0.00	0.000	0.183
8/10/10	9:30a	83.9	83.9	82.6	62	69.5	0.0	NNE	0.00	3.0	NNW	83.9	88.1	88.1	29.885	0.00	0.00	0.000	0.197
8/10/10	9:45a	83.9	84.2	83.9	62	69.5	1.0	NW	0.25	5.0	NW	83.9	88.1	88.1	29.887	0.00	0.00	0.000	0.197
8/10/10	10:00a	84.2	84.3	83.9	61	69.3	1.0	NW	0.25	6.0	NW	84.2	88.3	88.3	29.884	0.00	0.00	0.000	0.200
8/10/10	10:15a	84.0	84.2	84.0	60	68.6	1.0	WNW	0.25	6.0	WNW	84.0	87.7	87.7	29.881	0.00	0.00	0.000	0.198
8/10/10	10:30a	84.4	84.4	84.0	60	69.0	0.0	E	0.00	4.0	E	84.4	88.4	88.4	29.884	0.00	0.00	0.000	0.202
8/10/10	10:45a	85.0	85.0	84.4	59	69.1	0.0	E	0.00	3.0	E	85.0	89.1	89.1	29.888	0.00	0.00	0.000	0.208
8/10/10	11:00a	85.5	85.5	85.0	58	69.0	0.0	E	0.00	3.0	E	85.5	89.8	89.8	29.888	0.00	0.00	0.000	0.214
8/10/10	11:15a	86.4	86.5	85.6	57	69.4	0.0	E	0.00	5.0	E	86.4	91.3	91.3	29.882	0.00	0.00	0.000	0.223
8/10/10	11:30a	86.9	86.9	86.3	57	69.8	0.0	E	0.00	2.0	E	86.9	92.3	92.3	29.877	0.00	0.00	0.000	0.228
8/10/10	11:45a	88.3	88.3	86.9	55	70.1	0.0	E	0.00	4.0	E	88.3	93.8	93.8	29.875	0.00	0.00	0.000	0.243
8/10/10	12:00p	88.8	88.8	88.3	54	70.0	0.0	WNW	0.00	4.0	WNW	88.8	94.6	94.6	29.872	0.00	0.00	0.000	0.248
8/10/10	12:15p	89.8	89.8	88.8	54	70.9	0.0	NNE	0.00	4.0	NW	89.8	96.6	96.6	29.868	0.00	0.00	0.000	0.258
8/10/10	12:30p	91.0	91.0	89.9	52	70.9	1.0	WSW	0.25	5.0	SW	91.0	98.1	98.1	29.865	0.00	0.00	0.000	0.271
8/10/10	12:45p	90.5	91.1	90.5	52	70.5	2.0	SW	0.50	6.0	SW	90.5	97.1	97.1	29.868	0.00	0.00	0.000	0.266
8/10/10	1:00p	90.2	90.4	90.0	52	70.2	2.0	SW	0.50	9.0	SW	90.2	96.4	96.4	29.864	0.00	0.00	0.000	0.262
8/10/10	1:15p	91.2	91.5	90.2	51	70.5	1.0	WSW	0.25	6.0	WSW	91.2	98.0	98.0	29.863	0.00	0.00	0.000	0.273

Gowanus Phase III Weather Data 8/10/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/10/10	1:30p	91.0	91.1	90.8	51	70.4	0.0	SW	0.00	5.0	WSW	91.0	97.6	97.6	29.859	0.00	0.00	0.000	0.271
8/10/10	1:45p	91.2	91.2	91.0	50	70.0	0.0	WSW	0.00	5.0	WSW	91.2	97.5	97.5	29.850	0.00	0.00	0.000	0.273
8/10/10	2:00p	91.2	91.2	91.0	50	70.0	0.0	SW	0.00	4.0	WNW	91.2	97.5	97.5	29.848	0.00	0.00	0.000	0.273
8/10/10	2:15p	91.5	91.5	91.0	49	69.6	1.0	NNW	0.25	4.0	NW	91.5	97.7	97.7	29.842	0.00	0.00	0.000	0.276
8/10/10	2:30p	93.2	93.4	91.5	47	70.0	0.0	WSW	0.00	3.0	NE	93.2	100.2	100.2	29.839	0.00	0.00	0.000	0.294
8/10/10	2:45p	93.5	93.9	93.2	46	69.6	1.0	W	0.25	7.0	W	93.5	100.3	100.3	29.836	0.00	0.00	0.000	0.297
8/10/10	3:00p	93.0	93.5	92.8	46	69.2	1.0	ESE	0.25	4.0	ESE	93.0	99.3	99.3	29.839	0.00	0.00	0.000	0.292
8/10/10	3:15p	92.8	93.3	92.8	46	69.0	1.0	SW	0.25	6.0	SW	92.8	98.9	98.9	29.839	0.00	0.00	0.000	0.290
8/10/10	3:30p	91.7	92.8	91.7	48	69.2	1.0	SW	0.25	5.0	SSW	91.7	97.6	97.6	29.833	0.00	0.00	0.000	0.278
8/10/10	3:45p	90.9	91.6	90.8	49	69.1	0.0	WSW	0.00	5.0	WSW	90.9	96.5	96.5	29.831	0.00	0.00	0.000	0.270
8/10/10	4:00p	90.7	90.9	90.7	50	69.5	1.0	SW	0.25	5.0	SW	90.7	96.5	96.5	29.822	0.00	0.00	0.000	0.268
8/10/10	4:15p	90.8	90.9	90.7	49	69.0	0.0	W	0.00	4.0	ENE	90.8	96.3	96.3	29.819	0.00	0.00	0.000	0.269
8/10/10	4:30p	90.7	90.9	90.7	50	69.5	0.0	ENE	0.00	4.0	ENE	90.7	96.5	96.5	29.818	0.00	0.00	0.000	0.268
8/10/10	4:45p	90.3	90.7	90.3	51	69.7	0.0	ENE	0.00	2.0	ENE	90.3	96.2	96.2	29.817	0.00	0.00	0.000	0.264
8/10/10	5:00p	90.2	90.3	90.1	51	69.6	0.0	E	0.00	2.0	E	90.2	96.0	96.0	29.815	0.00	0.00	0.000	0.262
8/10/10	5:15p	90.0	90.3	90.0	51	69.4	0.0	E	0.00	4.0	E	90.0	95.6	95.6	29.815	0.00	0.00	0.000	0.260
8/10/10	5:30p	89.3	90.0	89.3	52	69.4	0.0	E	0.00	4.0	E	89.3	94.9	94.9	29.812	0.00	0.00	0.000	0.253
8/10/10	5:45p	89.3	89.3	89.2	52	69.4	0.0	ESE	0.00	2.0	ESE	89.3	94.9	94.9	29.809	0.00	0.00	0.000	0.253
8/10/10	6:00p	88.8	89.3	88.8	52	68.9	1.0	SSW	0.25	5.0	ESE	88.8	93.9	93.9	29.805	0.00	0.00	0.000	0.248
8/10/10	6:15p	88.4	88.8	88.4	53	69.1	0.0	SSW	0.00	2.0	SSW	88.4	93.3	93.3	29.802	0.00	0.00	0.000	0.244
8/10/10	6:30p	88.3	88.4	88.3	54	69.5	0.0	SSW	0.00	2.0	SW	88.3	93.5	93.5	29.805	0.00	0.00	0.000	0.243
8/10/10	6:45p	87.1	88.3	87.1	56	69.5	0.0	NW	0.00	4.0	W	87.1	92.3	92.3	29.802	0.00	0.00	0.000	0.230
8/10/10	7:00p	86.0	87.1	86.0	57	69.0	0.0	NE	0.00	4.0	N	86.0	90.4	90.4	29.811	0.00	0.00	0.000	0.219
8/10/10	7:15p	85.7	86.0	85.7	59	69.7	0.0	W	0.00	5.0	W	85.7	90.5	90.5	29.808	0.00	0.00	0.000	0.216
8/10/10	7:30p	85.3	85.7	85.3	60	69.8	0.0	WSW	0.00	3.0	SW	85.3	90.0	90.0	29.809	0.00	0.00	0.000	0.211
8/10/10	7:45p	84.8	85.3	84.8	62	70.3	0.0	NNE	0.00	6.0	NW	84.8	89.7	89.7	29.815	0.00	0.00	0.000	0.206
8/10/10	8:00p	84.9	84.9	84.8	63	70.9	0.0	NE	0.00	1.0	NE	84.9	90.2	90.2	29.815	0.00	0.00	0.000	0.207
8/10/10	8:15p	84.9	84.9	84.9	64	71.4	0.0	NE	0.00	2.0	NE	84.9	90.6	90.6	29.812	0.00	0.00	0.000	0.207
8/10/10	8:30p	84.5	84.9	84.5	64	71.0	0.0	NE	0.00	3.0	NE	84.5	89.8	89.8	29.812	0.00	0.00	0.000	0.203
8/10/10	8:45p	84.2	84.5	84.2	64	70.7	0.0	NE	0.00	2.0	NE	84.2	89.3	89.3	29.816	0.00	0.00	0.000	0.200
8/10/10	9:00p	84.0	84.2	84.0	65	71.0	0.0	NE	0.00	2.0	NE	84.0	89.2	89.2	29.816	0.00	0.00	0.000	0.198
8/10/10	9:15p	84.0	84.0	84.0	65	71.0	0.0	NE	0.00	1.0	NE	84.0	89.2	89.2	29.818	0.00	0.00	0.000	0.198
8/10/10	9:30p	83.9	84.0	83.9	66	71.3	0.0	---	0.00	0.0	---	83.9	89.3	89.3	29.817	0.00	0.00	0.000	0.197
8/10/10	9:45p	83.8	83.9	83.8	67	71.7	0.0	---	0.00	0.0	---	83.8	89.4	89.4	29.818	0.00	0.00	0.000	0.196
8/10/10	10:00p	83.7	83.8	83.6	68	72.0	0.0	---	0.00	0.0	---	83.7	89.5	89.5	29.829	0.00	0.00	0.000	0.195
8/10/10	10:15p	83.3	83.7	83.3	69	72.1	0.0	---	0.00	0.0	---	83.3	88.8	88.8	29.829	0.00	0.00	0.000	0.191
8/10/10	10:30p	83.1	83.3	83.1	69	71.9	0.0	NE	0.00	1.0	NE	83.1	88.3	88.3	29.832	0.00	0.00	0.000	0.189
8/10/10	10:45p	82.9	83.2	82.9	70	72.1	0.0	NE	0.00	1.0	NE	82.9	88.2	88.2	29.832	0.00	0.00	0.000	0.186
8/10/10	11:00p	82.7	82.9	82.7	71	72.3	0.0	NE	0.00	1.0	NE	82.7	88.1	88.1	29.830	0.00	0.00	0.000	0.184
8/10/10	11:15p	82.5	82.7	82.5	71	72.1	0.0	---	0.00	0.0	---	82.5	87.6	87.6	29.823	0.00	0.00	0.000	0.182
8/10/10	11:30p	82.4	82.5	82.4	71	72.0	0.0	---	0.00	0.0	---	82.4	87.4	87.4	29.825	0.00	0.00	0.000	0.181
8/10/10	11:45p	82.4	82.4	82.3	71	72.0	0.0	NE	0.00	1.0	NE	82.4	87.4	87.4	29.820	0.00	0.00	0.000	0.181
8/11/10	12:00a	82.4	82.5	82.4	72	72.5	0.0	---	0.00	0.0	---	82.4	87.7	87.7	29.822	0.00	0.00	0.000	0.181

Gowanus Phase III Weather Data 8/11/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/11/10	12:15a	82.3	82.4	82.3	72	72.4	0.0	NE	0.00	1.0	NE	82.3	87.5	87.5	29.821	0.00	0.00	0.000	0.180
8/11/10	12:30a	82.3	82.4	82.3	72	72.4	0.0	---	0.00	0.0	---	82.3	87.5	87.5	29.820	0.00	0.00	0.000	0.180
8/11/10	12:45a	82.1	82.3	82.1	73	72.6	0.0	NE	0.00	1.0	NE	82.1	87.3	87.3	29.817	0.00	0.00	0.000	0.178
8/11/10	1:00a	81.9	82.1	81.9	73	72.4	0.0	NE	0.00	1.0	NE	81.9	86.8	86.8	29.816	0.00	0.00	0.000	0.176
8/11/10	1:15a	81.8	81.9	81.8	74	72.7	0.0	NE	0.00	1.0	NE	81.8	86.8	86.8	29.816	0.00	0.00	0.000	0.175
8/11/10	1:30a	81.6	81.8	81.6	74	72.5	0.0	---	0.00	0.0	---	81.6	86.4	86.4	29.815	0.00	0.00	0.000	0.173
8/11/10	1:45a	81.4	81.6	81.4	75	72.7	0.0	---	0.00	0.0	---	81.4	86.2	86.2	29.814	0.00	0.00	0.000	0.171
8/11/10	2:00a	81.3	81.4	81.3	75	72.6	0.0	---	0.00	0.0	---	81.3	86.0	86.0	29.810	0.00	0.00	0.000	0.170
8/11/10	2:15a	81.1	81.3	81.1	75	72.4	0.0	---	0.00	0.0	---	81.1	85.6	85.6	29.807	0.00	0.00	0.000	0.168
8/11/10	2:30a	81.1	81.1	81.0	76	72.8	0.0	NE	0.00	1.0	NE	81.1	85.8	85.8	29.809	0.00	0.00	0.000	0.168
8/11/10	2:45a	81.1	81.1	81.0	75	72.4	0.0	NE	0.00	1.0	NE	81.1	85.6	85.6	29.809	0.00	0.00	0.000	0.168
8/11/10	3:00a	81.0	81.1	81.0	75	72.3	0.0	NE	0.00	1.0	NE	81.0	85.4	85.4	29.817	0.00	0.00	0.000	0.167
8/11/10	3:15a	81.0	81.0	80.9	76	72.7	0.0	NE	0.00	1.0	NE	81.0	85.6	85.6	29.817	0.00	0.00	0.000	0.167
8/11/10	3:30a	80.9	81.0	80.9	75	72.2	0.0	NE	0.00	1.0	NE	80.9	85.2	85.2	29.817	0.00	0.00	0.000	0.166
8/11/10	3:45a	80.7	80.9	80.7	74	71.6	0.0	---	0.00	0.0	---	80.7	84.7	84.7	29.811	0.00	0.00	0.000	0.164
8/11/10	4:00a	80.5	80.7	80.5	73	71.0	0.0	NE	0.00	1.0	NE	80.5	84.1	84.1	29.810	0.00	0.00	0.000	0.161
8/11/10	4:15a	80.9	80.9	80.5	70	70.2	0.0	NE	0.00	2.0	NE	80.9	84.2	84.2	29.812	0.00	0.00	0.000	0.166
8/11/10	4:30a	81.6	81.6	80.9	68	70.0	0.0	N	0.00	5.0	N	81.6	85.1	85.1	29.812	0.00	0.00	0.000	0.173
8/11/10	4:45a	81.5	81.6	81.5	68	69.9	0.0	N	0.00	2.0	N	81.5	85.0	85.0	29.814	0.00	0.00	0.000	0.172
8/11/10	5:00a	81.4	81.5	81.4	68	69.8	0.0	N	0.00	2.0	N	81.4	84.8	84.8	29.816	0.00	0.00	0.000	0.171
8/11/10	5:15a	81.1	81.4	81.1	68	69.5	0.0	N	0.00	2.0	N	81.1	84.2	84.2	29.814	0.00	0.00	0.000	0.168
8/11/10	5:30a	80.8	81.1	80.8	68	69.2	0.0	N	0.00	3.0	N	80.8	83.7	83.7	29.813	0.00	0.00	0.000	0.165
8/11/10	5:45a	80.6	80.8	80.6	69	69.5	0.0	NW	0.00	4.0	NW	80.6	83.6	83.6	29.811	0.00	0.00	0.000	0.162
8/11/10	6:00a	80.3	80.6	80.3	69	69.2	0.0	NW	0.00	4.0	NW	80.3	83.1	83.1	29.811	0.00	0.00	0.000	0.159
8/11/10	6:15a	80.2	80.3	80.2	69	69.1	0.0	N	0.00	6.0	N	80.2	82.9	82.9	29.815	0.00	0.00	0.000	0.158
8/11/10	6:30a	80.1	80.2	80.1	70	69.4	0.0	N	0.00	4.0	N	80.1	82.9	82.9	29.813	0.00	0.00	0.000	0.157
8/11/10	6:45a	80.0	80.1	80.0	70	69.3	1.0	NE	0.25	7.0	NNE	80.0	82.7	82.7	29.814	0.00	0.00	0.000	0.156
8/11/10	7:00a	79.7	80.0	79.7	70	69.0	1.0	NE	0.25	6.0	NNE	79.7	82.3	82.3	29.818	0.00	0.00	0.000	0.153
8/11/10	7:15a	79.7	79.7	79.7	71	69.5	0.0	NNW	0.00	6.0	N	79.7	82.4	82.4	29.827	0.00	0.00	0.000	0.153
8/11/10	7:30a	80.9	80.9	79.8	69	69.8	0.0	NNW	0.00	6.0	NE	80.9	84.1	84.1	29.821	0.00	0.00	0.000	0.166
8/11/10	7:45a	82.0	82.0	81.0	66	69.5	0.0	NNE	0.00	4.0	NNE	82.0	85.4	85.4	29.820	0.00	0.00	0.000	0.177
8/11/10	8:00a	82.2	82.3	82.0	66	69.7	1.0	SSW	0.25	5.0	ESE	82.2	85.8	85.8	29.822	0.00	0.00	0.000	0.179
8/11/10	8:15a	82.2	82.2	82.1	66	69.7	1.0	SSE	0.25	5.0	N	82.2	85.8	85.8	29.824	0.00	0.00	0.000	0.179
8/11/10	8:30a	83.1	83.1	82.2	65	70.1	0.0	S	0.00	7.0	NNE	83.1	87.1	87.1	29.829	0.00	0.00	0.000	0.189
8/11/10	8:45a	84.1	84.1	83.1	63	70.1	1.0	S	0.25	5.0	NNE	84.1	88.8	88.8	29.831	0.00	0.00	0.000	0.199
8/11/10	9:00a	84.4	84.7	84.2	62	70.0	1.0	SSW	0.25	5.0	NNE	84.4	89.0	89.0	29.831	0.00	0.00	0.000	0.202
8/11/10	9:15a	84.1	84.4	83.8	63	70.1	1.0	N	0.25	5.0	ENE	84.1	88.8	88.8	29.830	0.00	0.00	0.000	0.199
8/11/10	9:30a	84.8	84.8	84.1	61	69.9	1.0	NNE	0.25	8.0	NNW	84.8	89.4	89.4	29.831	0.00	0.00	0.000	0.206
8/11/10	9:45a	86.0	86.0	84.8	59	70.0	1.0	SSE	0.25	7.0	NNE	86.0	91.1	91.1	29.833	0.00	0.00	0.000	0.219
8/11/10	10:00a	87.0	87.0	86.0	58	70.4	1.0	NNW	0.25	7.0	N	87.0	92.9	92.9	29.834	0.00	0.00	0.000	0.229
8/11/10	10:15a	87.9	88.1	87.1	56	70.2	1.0	ESE	0.25	7.0	SE	87.9	93.3	93.3	29.835	0.00	0.00	0.000	0.239
8/11/10	10:30a	87.9	87.9	87.6	57	70.8	1.0	SSE	0.25	6.0	ENE	87.9	93.7	93.7	29.833	0.00	0.00	0.000	0.239
8/11/10	10:45a	87.5	88.1	87.5	56	69.9	1.0	SSE	0.25	6.0	N	87.5	92.8	92.8	29.830	0.00	0.00	0.000	0.234
8/11/10	11:00a	88.2	88.2	87.5	54	69.5	1.0	N	0.25	8.0	NE	88.2	93.2	93.2	29.826	0.00	0.00	0.000	0.242
8/11/10	11:15a	88.8	88.8	88.2	53	69.5	1.0	ESE	0.25	8.0	N	88.8	94.3	94.3	29.824	0.00	0.00	0.000	0.248
8/11/10	11:30a	89.5	89.5	88.8	52	69.5	1.0	S	0.25	7.0	N	89.5	95.2	95.2	29.820	0.00	0.00	0.000	0.255
8/11/10	11:45a	90.6	90.6	89.4	52	70.6	1.0	NNW	0.25	6.0	ENE	90.6	97.3	97.3	29.824	0.00	0.00	0.000	0.267
8/11/10	12:00p	91.3	91.3	90.4	50	70.1	1.0	N	0.25	8.0	NNE	91.3	97.7	97.7	29.829	0.00	0.00	0.000	0.274
8/11/10	12:15p	91.0	91.3	90.8	49	69.2	1.0	N	0.25	6.0	SSE	91.0	96.7	96.7	29.821	0.00	0.00	0.000	0.271
8/11/10	12:30p	91.3	91.6	91.0	49	69.5	1.0	ESE	0.25	5.0	NNW	91.3	97.3	97.3	29.822	0.00	0.00	0.000	0.274
8/11/10	12:45p	91.1	91.5	91.0	49	69.3	1.0	ESE	0.25	7.0	WSW	91.1	96.9	96.9	29.821	0.00	0.00	0.000	0.272
8/11/10	1:00p	91.1	91.1	90.5	49	69.3	1.0	NE	0.25	6.0	N	91.1	96.9	96.9	29.818	0.00	0.00	0.000	0.272
8/11/10	1:15p	91.1	91.4	90.9	47	68.1	1.0	NNE	0.25	10.0	NNE	91.1	96.1	96.1	29.817	0.00	0.00	0.000	0.272

Gowanus Phase III Weather Data 8/11/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/11/10	1:30p	92.6	92.6	91.2	44	67.5	1.0	ENE	0.25	6.0	E	92.6	97.5	97.5	29.814	0.00	0.00	0.000	0.287
8/11/10	1:45p	93.7	93.7	92.6	44	68.5	1.0	NNW	0.25	4.0	SE	93.7	99.7	99.7	29.809	0.00	0.00	0.000	0.299
8/11/10	2:00p	94.4	94.4	93.7	44	69.1	1.0	NW	0.25	5.0	W	94.4	101.1	101.1	29.802	0.00	0.00	0.000	0.306
8/11/10	2:15p	95.0	95.0	94.3	44	69.7	1.0	SE	0.25	5.0	WSW	95.0	102.3	102.3	29.801	0.00	0.00	0.000	0.313
8/11/10	2:30p	94.9	95.1	94.8	44	69.6	1.0	NE	0.25	5.0	NE	94.9	102.1	102.1	29.797	0.00	0.00	0.000	0.311
8/11/10	2:45p	94.1	95.0	94.1	45	69.5	1.0	SSE	0.25	6.0	N	94.1	101.0	101.0	29.797	0.00	0.00	0.000	0.303
8/11/10	3:00p	93.9	94.1	93.5	45	69.3	1.0	E	0.25	8.0	NNE	93.9	100.6	100.6	29.793	0.00	0.00	0.000	0.301
8/11/10	3:15p	93.5	94.2	93.5	48	70.9	1.0	ENE	0.25	6.0	NNE	93.5	101.3	101.3	29.800	0.00	0.00	0.000	0.297
8/11/10	3:30p	87.9	93.4	87.9	56	70.2	3.0	WNW	0.75	9.0	W	87.9	93.3	93.3	29.797	0.00	0.00	0.000	0.239
8/11/10	3:45p	87.7	88.0	87.7	57	70.6	3.0	WNW	0.75	8.0	NW	87.7	93.4	93.4	29.795	0.00	0.00	0.000	0.236
8/11/10	4:00p	87.0	87.7	87.0	60	71.4	3.0	NW	0.75	8.0	W	87.0	93.6	93.6	29.795	0.00	0.00	0.000	0.229
8/11/10	4:15p	86.3	87.0	86.3	63	72.2	3.0	WNW	0.75	10.0	NNE	86.3	93.3	93.3	29.798	0.00	0.00	0.000	0.222
8/11/10	4:30p	85.4	86.2	85.3	65	72.3	4.0	NW	1.00	8.0	NNE	85.4	92.0	92.0	29.790	0.00	0.00	0.000	0.213
8/11/10	4:45p	84.2	85.4	84.2	69	72.9	5.0	WNW	1.25	11.0	WNW	84.2	91.0	91.0	29.787	0.00	0.00	0.000	0.200
8/11/10	5:00p	83.6	84.2	83.6	67	71.5	4.0	WNW	1.00	10.0	WNW	83.6	88.9	88.9	29.787	0.00	0.00	0.000	0.194
8/11/10	5:15p	83.2	83.6	83.2	68	71.5	3.0	WNW	0.75	10.0	SW	83.2	88.3	88.3	29.787	0.00	0.00	0.000	0.190
8/11/10	5:30p	83.1	83.3	83.0	65	70.1	4.0	NW	1.00	10.0	NW	83.1	87.1	87.1	29.787	0.00	0.00	0.000	0.189
8/11/10	5:45p	82.8	83.2	82.8	63	68.9	3.0	NW	0.75	10.0	N	82.8	86.1	86.1	29.790	0.00	0.00	0.000	0.185
8/11/10	6:00p	82.4	82.8	82.4	64	69.0	4.0	NW	1.00	9.0	NNW	82.4	85.7	85.7	29.792	0.00	0.00	0.000	0.181
8/11/10	6:15p	82.1	82.5	82.1	63	68.3	4.0	NW	1.00	11.0	WNW	82.1	85.0	85.0	29.791	0.00	0.00	0.000	0.178
8/11/10	6:30p	81.7	82.1	81.7	64	68.3	3.0	WNW	0.75	10.0	W	81.7	84.5	84.5	29.795	0.00	0.00	0.000	0.174
8/11/10	6:45p	80.9	81.7	80.9	67	68.9	3.0	NW	0.75	8.0	WNW	80.9	83.7	83.7	29.800	0.00	0.00	0.000	0.166
8/11/10	7:00p	80.6	80.9	80.6	69	69.5	2.0	NE	0.50	10.0	NW	80.6	83.6	83.6	29.802	0.00	0.00	0.000	0.162
8/11/10	7:15p	80.5	80.7	80.5	69	69.4	1.0	NW	0.25	6.0	W	80.5	83.4	83.4	29.803	0.00	0.00	0.000	0.161
8/11/10	7:30p	79.8	80.5	79.8	71	69.6	2.0	E	0.50	7.0	WNW	79.8	82.6	82.6	29.805	0.00	0.00	0.000	0.154
8/11/10	7:45p	79.4	79.8	79.4	72	69.6	2.0	NW	0.50	8.0	SSE	79.4	82.2	82.2	29.806	0.00	0.00	0.000	0.150
8/11/10	8:00p	78.9	79.4	78.9	73	69.5	1.0	WNW	0.25	6.0	WNW	78.9	81.6	81.6	29.815	0.00	0.00	0.000	0.145
8/11/10	8:15p	78.7	78.9	78.7	75	70.1	1.0	WNW	0.25	7.0	WNW	78.7	81.6	81.6	29.814	0.00	0.00	0.000	0.143
8/11/10	8:30p	78.2	78.7	78.2	76	70.0	2.0	ENE	0.50	7.0	WNW	78.2	81.0	81.0	29.817	0.00	0.00	0.000	0.137
8/11/10	8:45p	77.9	78.3	77.9	77	70.1	2.0	WNW	0.50	8.0	NW	77.9	80.8	80.8	29.824	0.00	0.00	0.000	0.134
8/11/10	9:00p	77.9	77.9	77.9	79	70.9	1.0	WNW	0.25	7.0	NW	77.9	81.1	81.1	29.829	0.00	0.00	0.000	0.134
8/11/10	9:15p	77.8	77.9	77.7	80	71.1	1.0	NW	0.25	7.0	W	77.8	81.1	81.1	29.832	0.00	0.00	0.000	0.133
8/11/10	9:30p	77.6	77.8	77.6	80	70.9	1.0	NNW	0.25	5.0	NW	77.6	80.8	80.8	29.830	0.00	0.00	0.000	0.131
8/11/10	9:45p	77.5	77.6	77.5	80	70.8	1.0	NNW	0.25	6.0	NW	77.5	80.7	80.7	29.833	0.00	0.00	0.000	0.130
8/11/10	10:00p	77.3	77.5	77.3	80	70.6	1.0	NNW	0.25	6.0	WNW	77.3	80.4	80.4	29.835	0.00	0.00	0.000	0.128
8/11/10	10:15p	77.3	77.3	77.2	80	70.6	1.0	NW	0.25	5.0	NNW	77.3	80.4	80.4	29.843	0.00	0.00	0.000	0.128
8/11/10	10:30p	77.5	77.5	77.3	79	70.5	0.0	ENE	0.00	2.0	ENE	77.5	80.6	80.6	29.837	0.00	0.00	0.000	0.130
8/11/10	10:45p	77.3	77.5	77.3	79	70.3	1.0	NW	0.25	5.0	NW	77.3	80.3	80.3	29.843	0.00	0.00	0.000	0.128
8/11/10	11:00p	77.3	77.4	77.3	78	69.9	1.0	WNW	0.25	6.0	WNW	77.3	80.2	80.2	29.842	0.00	0.00	0.000	0.128
8/11/10	11:15p	77.4	77.4	77.3	78	70.0	1.0	NW	0.25	5.0	NW	77.4	80.3	80.3	29.847	0.00	0.00	0.000	0.129
8/11/10	11:30p	77.4	77.5	77.4	78	70.0	0.0	NW	0.00	5.0	NW	77.4	80.3	80.3	29.848	0.00	0.00	0.000	0.129
8/11/10	11:45p	77.3	77.5	77.3	78	69.9	2.0	NW	0.50	5.0	NW	77.3	80.2	80.2	29.848	0.00	0.00	0.000	0.128
8/12/10	12:00a	77.2	77.3	77.2	79	70.2	1.0	ENE	0.25	7.0	W	77.2	80.2	80.2	29.848	0.00	0.00	0.000	0.127

Gowanus Phase III Weather Data 8/12/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/12/10	12:15a	77.1	77.2	77.0	80	70.5	1.0	NW	0.25	7.0	NW	77.1	80.1	80.1	29.848	0.00	0.00	0.000	0.126
8/12/10	12:30a	77.0	77.1	77.0	80	70.4	1.0	NNW	0.25	7.0	WNW	77.0	80.0	80.0	29.849	0.00	0.00	0.000	0.125
8/12/10	12:45a	77.0	77.0	76.9	80	70.4	1.0	NW	0.25	7.0	WNW	77.0	80.0	80.0	29.848	0.00	0.00	0.000	0.125
8/12/10	1:00a	76.8	76.9	76.7	81	70.5	1.0	NW	0.25	6.0	NW	76.8	79.9	79.9	29.848	0.00	0.00	0.000	0.123
8/12/10	1:15a	76.7	76.8	76.7	81	70.4	1.0	NW	0.25	6.0	NNW	76.7	79.8	79.8	29.846	0.00	0.00	0.000	0.122
8/12/10	1:30a	76.6	76.7	76.6	81	70.3	2.0	WNW	0.50	7.0	WNW	76.6	79.7	79.7	29.834	0.00	0.00	0.000	0.121
8/12/10	1:45a	76.4	76.6	76.4	82	70.5	1.0	WNW	0.25	6.0	WNW	76.4	79.5	79.5	29.836	0.00	0.00	0.000	0.119
8/12/10	2:00a	76.4	76.5	76.4	82	70.5	1.0	ENE	0.25	5.0	ENE	76.4	79.5	79.5	29.836	0.00	0.00	0.000	0.119
8/12/10	2:15a	76.3	76.4	76.3	81	70.0	1.0	NNW	0.25	4.0	NNW	76.3	79.3	79.3	29.840	0.00	0.00	0.000	0.118
8/12/10	2:30a	76.2	76.3	76.2	80	69.6	1.0	NW	0.25	5.0	NW	76.2	79.1	79.1	29.841	0.00	0.00	0.000	0.117
8/12/10	2:45a	76.1	76.2	76.1	79	69.1	1.0	NW	0.25	6.0	NW	76.1	78.9	78.9	29.835	0.00	0.00	0.000	0.116
8/12/10	3:00a	76.0	76.1	76.0	79	69.0	1.0	W	0.25	5.0	W	76.0	78.8	78.8	29.836	0.00	0.00	0.000	0.115
8/12/10	3:15a	76.1	76.1	76.0	78	68.7	1.0	ENE	0.25	4.0	ENE	76.1	78.8	78.8	29.834	0.00	0.00	0.000	0.116
8/12/10	3:30a	76.0	76.1	76.0	78	68.6	1.0	NE	0.25	5.0	NNW	76.0	78.7	78.7	29.832	0.00	0.00	0.000	0.115
8/12/10	3:45a	75.9	76.0	75.9	79	68.9	0.0	NNW	0.00	4.0	NNW	75.9	78.7	78.7	29.830	0.00	0.00	0.000	0.114
8/12/10	4:00a	75.9	76.0	75.9	79	68.9	0.0	ESE	0.00	5.0	E	75.9	78.7	78.7	29.831	0.00	0.00	0.000	0.114
8/12/10	4:15a	75.8	75.9	75.8	79	68.8	0.0	ESE	0.00	5.0	E	75.8	78.5	78.5	29.826	0.00	0.00	0.000	0.113
8/12/10	4:30a	75.8	75.8	75.7	79	68.8	1.0	NNW	0.25	5.0	NW	75.8	78.5	78.5	29.821	0.00	0.00	0.000	0.113
8/12/10	4:45a	75.7	75.8	75.7	79	68.7	0.0	NNW	0.00	5.0	NNW	75.7	78.4	78.4	29.818	0.00	0.00	0.000	0.111
8/12/10	5:00a	75.5	75.7	75.5	80	68.9	0.0	ENE	0.00	4.0	ENE	75.5	78.2	78.2	29.819	0.00	0.00	0.000	0.109
8/12/10	5:15a	75.4	75.5	75.4	80	68.8	1.0	E	0.25	4.0	E	75.4	78.1	78.1	29.824	0.00	0.00	0.000	0.108
8/12/10	5:30a	75.3	75.4	75.3	79	68.3	1.0	E	0.25	5.0	E	75.3	77.8	77.8	29.832	0.00	0.00	0.000	0.107
8/12/10	5:45a	75.4	75.4	75.3	79	68.4	0.0	E	0.00	4.0	E	75.4	78.0	78.0	29.833	0.00	0.00	0.000	0.108
8/12/10	6:00a	75.5	75.5	75.4	79	68.5	0.0	N	0.00	5.0	N	75.5	78.1	78.1	29.832	0.00	0.00	0.000	0.109
8/12/10	6:15a	75.6	75.6	75.5	78	68.3	1.0	E	0.25	5.0	ENE	75.6	78.2	78.2	29.833	0.00	0.00	0.000	0.110
8/12/10	6:30a	75.5	75.6	75.5	79	68.5	1.0	ENE	0.25	5.0	NE	75.5	78.1	78.1	29.833	0.00	0.00	0.000	0.109
8/12/10	6:45a	75.3	75.5	75.3	79	68.3	1.0	ESE	0.25	6.0	ESE	75.3	77.8	77.8	29.835	0.00	0.00	0.000	0.107
8/12/10	7:00a	75.5	75.5	75.3	79	68.5	1.0	SE	0.25	5.0	NNW	75.5	78.1	78.1	29.833	0.00	0.00	0.000	0.109
8/12/10	7:15a	75.4	75.5	75.3	79	68.4	1.0	E	0.25	8.0	NW	75.4	78.0	78.0	29.836	0.00	0.00	0.000	0.108
8/12/10	7:30a	75.2	75.4	75.2	80	68.6	1.0	E	0.25	6.0	E	75.2	77.8	77.8	29.834	0.00	0.00	0.000	0.106
8/12/10	7:45a	75.1	75.2	75.1	80	68.5	2.0	E	0.50	8.0	WNW	75.1	77.6	77.6	29.848	0.00	0.00	0.000	0.105
8/12/10	8:00a	75.1	75.1	75.0	81	68.9	1.0	E	0.25	6.0	E	75.1	77.7	77.7	29.847	0.00	0.00	0.000	0.105
8/12/10	8:15a	74.7	75.1	74.7	83	69.2	2.0	NW	0.50	7.0	NW	74.7	77.3	77.3	29.839	0.00	0.00	0.000	0.101
8/12/10	8:30a	74.2	74.7	74.2	85	69.4	2.0	ENE	0.50	9.0	E	74.2	76.6	76.6	29.848	0.00	0.00	0.000	0.096
8/12/10	8:45a	74.3	74.3	74.1	84	69.1	1.0	WNW	0.25	6.0	NW	74.3	76.7	76.7	29.848	0.00	0.00	0.000	0.097
8/12/10	9:00a	74.5	74.5	74.3	83	69.0	1.0	WNW	0.25	6.0	WNW	74.5	77.0	77.0	29.850	0.00	0.00	0.000	0.099
8/12/10	9:15a	74.7	74.7	74.5	82	68.8	1.0	NW	0.25	5.0	NNW	74.7	77.2	77.2	29.851	0.00	0.00	0.000	0.101
8/12/10	9:30a	74.9	75.0	74.7	81	68.7	1.0	NW	0.25	5.0	WNW	74.9	77.4	77.4	29.855	0.00	0.00	0.000	0.103
8/12/10	9:45a	75.3	75.3	74.9	80	68.7	1.0	E	0.25	6.0	NW	75.3	77.9	77.9	29.856	0.00	0.00	0.000	0.107
8/12/10	10:00a	75.6	75.6	75.3	78	68.3	1.0	ENE	0.25	4.0	NNW	75.6	78.2	78.2	29.849	0.00	0.00	0.000	0.110
8/12/10	10:15a	75.7	75.8	75.6	76	67.6	2.0	NW	0.50	7.0	ESE	75.7	78.1	78.1	29.852	0.00	0.00	0.000	0.111
8/12/10	10:30a	75.9	76.0	75.7	79	68.9	1.0	E	0.25	6.0	ENE	75.9	78.7	78.7	29.856	0.00	0.00	0.000	0.114
8/12/10	10:45a	75.8	75.9	75.7	80	69.2	0.0	SE	0.00	6.0	E	75.8	78.6	78.6	29.856	0.00	0.00	0.000	0.113
8/12/10	11:00a	75.9	76.0	75.8	78	68.5	1.0	ENE	0.25	5.0	WNW	75.9	78.6	78.6	29.857	0.00	0.00	0.000	0.114
8/12/10	11:15a	76.2	76.2	75.9	77	68.5	1.0	SE	0.25	6.0	NNW	76.2	78.8	78.8	29.854	0.00	0.00	0.000	0.117
8/12/10	11:30a	76.4	76.4	76.2	71	66.3	2.0	E	0.50	8.0	NNE	76.4	78.4	78.4	29.856	0.00	0.00	0.000	0.119
8/12/10	11:45a	76.8	76.8	76.4	68	65.4	3.0	E	0.75	8.0	E	76.8	78.4	78.4	29.856	0.00	0.00	0.000	0.123
8/12/10	12:00p	76.6	76.8	76.6	71	66.5	3.0	E	0.75	9.0	NW	76.6	78.6	78.6	29.856	0.00	0.00	0.000	0.121
8/12/10	12:15p	76.3	76.6	76.3	72	66.6	4.0	NW	1.00	11.0	WNW	76.3	78.4	78.4	29.850	0.00	0.00	0.000	0.118
8/12/10	12:30p	76.4	76.4	76.3	72	66.7	4.0	NW	1.00	12.0	NNE	76.4	78.5	78.5	29.850	0.00	0.00	0.000	0.119
8/12/10	12:45p	76.0	76.5	76.0	73	66.7	2.0	E	0.50	8.0	NNE	76.0	78.2	78.2	29.852	0.00	0.00	0.000	0.115
8/12/10	1:00p	75.6	76.0	75.6	74	66.7	1.0	E	0.25	6.0	ESE	75.6	77.8	77.8	29.853	0.00	0.00	0.000	0.110
8/12/10	1:15p	75.2	75.6	75.2	74	66.3	3.0	ESE	0.75	8.0	WNW	75.2	77.3	77.3	29.860	0.00	0.00	0.000	0.106

Gowanus Phase III Weather Data 8/12/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/12/10	1:30p	75.4	75.4	75.2	73	66.1	2.0	E	0.50	6.0	ENE	75.4	77.4	77.4	29.855	0.00	0.00	0.000	0.108
8/12/10	1:45p	75.5	75.6	75.3	74	66.6	2.0	ESE	0.50	7.0	E	75.5	77.7	77.7	29.860	0.00	0.00	0.000	0.109
8/12/10	2:00p	75.3	75.5	75.3	74	66.4	2.0	E	0.50	8.0	NW	75.3	77.4	77.4	29.861	0.00	0.00	0.000	0.107
8/12/10	2:15p	75.6	75.6	75.4	74	66.7	2.0	NW	0.50	7.0	WNW	75.6	77.8	77.8	29.863	0.00	0.00	0.000	0.110
8/12/10	2:30p	75.2	75.6	75.2	76	67.1	2.0	ENE	0.50	7.0	NW	75.2	77.4	77.4	29.862	0.00	0.00	0.000	0.106
8/12/10	2:45p	74.9	75.2	74.9	77	67.2	2.0	NW	0.50	8.0	WNW	74.9	77.1	77.1	29.863	0.00	0.00	0.000	0.103
8/12/10	3:00p	74.9	75.0	74.9	75	66.4	1.0	E	0.25	5.0	WNW	74.9	77.0	77.0	29.864	0.00	0.00	0.000	0.103
8/12/10	3:15p	74.9	75.0	74.9	75	66.4	2.0	NW	0.50	7.0	NW	74.9	77.0	77.0	29.864	0.00	0.00	0.000	0.103
8/12/10	3:30p	74.1	74.9	74.0	73	64.9	2.0	NW	0.50	6.0	WNW	74.1	75.9	75.9	29.865	0.00	0.00	0.000	0.095
8/12/10	3:45p	73.2	74.0	73.2	76	65.2	2.0	NW	0.50	7.0	WNW	73.2	74.8	74.8	29.864	0.00	0.00	0.000	0.085
8/12/10	4:00p	73.4	73.4	73.1	77	65.7	1.0	E	0.25	5.0	NW	73.4	75.1	75.1	29.865	0.00	0.00	0.000	0.088
8/12/10	4:15p	74.2	74.2	73.4	75	65.8	1.0	NW	0.25	6.0	NW	74.2	76.1	76.1	29.864	0.00	0.00	0.000	0.096
8/12/10	4:30p	74.2	74.4	74.2	76	66.1	1.0	ESE	0.25	5.0	NNW	74.2	76.2	76.2	29.863	0.01	0.00	0.000	0.096
8/12/10	4:45p	74.1	74.2	74.1	77	66.4	0.0	NW	0.00	3.0	NNW	74.1	76.1	76.1	29.853	0.00	0.00	0.000	0.095
8/12/10	5:00p	74.5	74.5	74.2	76	66.4	2.0	NW	0.50	9.0	NW	74.5	76.6	76.6	29.853	0.00	0.00	0.000	0.099
8/12/10	5:15p	74.7	74.7	74.5	76	66.6	2.0	NW	0.50	7.0	NW	74.7	76.8	76.8	29.853	0.00	0.00	0.000	0.101
8/12/10	5:30p	74.7	74.8	74.7	76	66.6	1.0	ESE	0.25	6.0	NW	74.7	76.8	76.8	29.862	0.00	0.00	0.000	0.101
8/12/10	5:45p	74.6	74.7	74.6	76	66.5	1.0	ESE	0.25	6.0	NW	74.6	76.7	76.7	29.862	0.00	0.00	0.000	0.100
8/12/10	6:00p	74.6	74.6	74.6	76	66.5	1.0	SE	0.25	5.0	E	74.6	76.7	76.7	29.864	0.00	0.00	0.000	0.100
8/12/10	6:15p	74.6	74.7	74.5	76	66.5	1.0	SSE	0.25	5.0	ESE	74.6	76.7	76.7	29.864	0.00	0.00	0.000	0.100
8/12/10	6:30p	74.2	74.6	74.2	77	66.5	1.0	NNW	0.25	7.0	E	74.2	76.2	76.2	29.865	0.00	0.00	0.000	0.096
8/12/10	6:45p	73.7	74.2	73.7	79	66.8	1.0	ESE	0.25	5.0	ESE	73.7	75.6	75.6	29.864	0.00	0.00	0.000	0.091
8/12/10	7:00p	73.5	73.7	73.5	80	66.9	1.0	ESE	0.25	6.0	ESE	73.5	75.4	75.4	29.864	0.00	0.00	0.000	0.089
8/12/10	7:15p	73.4	73.5	73.3	79	66.5	1.0	ESE	0.25	6.0	N	73.4	75.2	75.2	29.876	0.00	0.00	0.000	0.088
8/12/10	7:30p	73.2	73.3	73.2	77	65.6	2.0	ESE	0.50	7.0	ENE	73.2	74.9	74.9	29.879	0.00	0.00	0.000	0.085
8/12/10	7:45p	73.1	73.2	73.1	78	65.8	1.0	ENE	0.25	6.0	ESE	73.1	74.8	74.8	29.881	0.00	0.00	0.000	0.084
8/12/10	8:00p	73.1	73.1	73.1	77	65.5	2.0	ENE	0.50	5.0	NNW	73.1	74.8	74.8	29.889	0.00	0.00	0.000	0.084
8/12/10	8:15p	73.1	73.2	73.1	76	65.1	1.0	ENE	0.25	5.0	ENE	73.1	74.7	74.7	29.893	0.00	0.00	0.000	0.084
8/12/10	8:30p	73.1	73.1	73.1	75	64.7	2.0	E	0.50	7.0	ESE	73.1	74.6	74.6	29.894	0.00	0.00	0.000	0.084
8/12/10	8:45p	73.1	73.2	73.1	75	64.7	1.0	E	0.25	7.0	NW	73.1	74.6	74.6	29.908	0.00	0.00	0.000	0.084
8/12/10	9:00p	73.0	73.1	73.0	76	65.0	1.0	SE	0.25	5.0	ESE	73.0	74.6	74.6	29.909	0.00	0.00	0.000	0.083
8/12/10	9:15p	72.9	73.0	72.9	76	64.9	1.0	SE	0.25	6.0	E	72.9	74.4	74.4	29.913	0.00	0.00	0.000	0.082
8/12/10	9:30p	72.9	72.9	72.9	76	64.9	1.0	SE	0.25	7.0	NW	72.9	74.4	74.4	29.912	0.00	0.00	0.000	0.082
8/12/10	9:45p	72.6	72.9	72.6	77	65.0	1.0	E	0.25	6.0	ESE	72.6	74.0	74.0	29.912	0.00	0.00	0.000	0.079
8/12/10	10:00p	72.1	72.6	72.1	78	64.9	1.0	ESE	0.25	6.0	ESE	72.1	73.4	73.4	29.921	0.01	0.00	0.000	0.074
8/12/10	10:15p	71.7	72.1	71.7	81	65.6	0.0	SE	0.00	2.0	SE	71.7	73.2	73.2	29.921	0.01	0.06	0.000	0.070
8/12/10	10:30p	71.3	71.7	71.3	81	65.2	0.0	SE	0.00	2.0	SE	71.3	72.7	72.7	29.923	0.00	0.00	0.000	0.066
8/12/10	10:45p	71.3	71.3	71.3	81	65.2	0.0	SE	0.00	5.0	SE	71.3	72.7	72.7	29.923	0.00	0.00	0.000	0.066
8/12/10	11:00p	71.2	71.3	71.2	82	65.4	0.0	E	0.00	4.0	E	71.2	72.7	72.7	29.925	0.00	0.00	0.000	0.065
8/12/10	11:15p	70.9	71.2	70.9	83	65.5	0.0	SSE	0.00	2.0	SSE	70.9	72.5	72.5	29.923	0.00	0.00	0.000	0.061
8/12/10	11:30p	70.7	70.9	70.7	83	65.3	0.0	SSE	0.00	2.0	SSE	70.7	72.2	72.2	29.920	0.00	0.00	0.000	0.059
8/12/10	11:45p	70.8	70.8	70.7	83	65.4	0.0	SSE	0.00	1.0	SSE	70.8	72.3	72.3	29.919	0.01	0.00	0.000	0.060
8/13/10	12:00a	70.8	70.8	70.8	83	65.4	0.0	SSE	0.00	2.0	SSE	70.8	72.3	72.3	29.926	0.00	0.00	0.000	0.060

Gowanus Phase III Weather Data 8/13/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/13/10	12:15a	71.0	71.0	70.8	82	65.2	0.0	SSW	0.00	2.0	SSW	71.0	72.5	72.5	29.926	0.00	0.00	0.000	0.063
8/13/10	12:30a	71.0	71.0	71.0	83	65.6	0.0	W	0.00	2.0	SW	71.0	72.6	72.6	29.926	0.00	0.00	0.000	0.063
8/13/10	12:45a	70.8	71.0	70.8	82	65.0	0.0	W	0.00	1.0	W	70.8	72.3	72.3	29.931	0.00	0.00	0.000	0.060
8/13/10	1:00a	70.6	70.8	70.6	82	64.8	0.0	S	0.00	4.0	SW	70.6	72.0	72.0	29.934	0.01	0.00	0.000	0.058
8/13/10	1:15a	70.5	70.6	70.5	82	64.7	0.0	S	0.00	4.0	S	70.5	71.9	71.9	29.938	0.00	0.00	0.000	0.057
8/13/10	1:30a	70.5	70.6	70.5	81	64.4	0.0	S	0.00	4.0	SSW	70.5	71.8	71.8	29.937	0.00	0.00	0.000	0.057
8/13/10	1:45a	70.6	70.6	70.5	79	63.8	0.0	S	0.00	5.0	S	70.6	71.7	71.7	29.940	0.00	0.00	0.000	0.058
8/13/10	2:00a	70.7	70.7	70.6	79	63.9	1.0	S	0.25	4.0	WSW	70.7	71.8	71.8	29.935	0.00	0.00	0.000	0.059
8/13/10	2:15a	70.7	70.7	70.7	78	63.5	1.0	WNW	0.25	5.0	ESE	70.7	71.7	71.7	29.937	0.00	0.00	0.000	0.059
8/13/10	2:30a	70.6	70.7	70.6	77	63.0	1.0	SE	0.25	5.0	SE	70.6	71.5	71.5	29.934	0.00	0.00	0.000	0.058
8/13/10	2:45a	70.5	70.6	70.5	77	62.9	1.0	S	0.25	4.0	N	70.5	71.4	71.4	29.935	0.00	0.00	0.000	0.057
8/13/10	3:00a	70.5	70.5	70.4	77	62.9	0.0	NNW	0.00	5.0	NNW	70.5	71.4	71.4	29.941	0.00	0.00	0.000	0.057
8/13/10	3:15a	70.5	70.5	70.5	77	62.9	0.0	S	0.00	6.0	SSE	70.5	71.4	71.4	29.940	0.00	0.00	0.000	0.057
8/13/10	3:30a	70.5	70.5	70.5	77	62.9	0.0	SSE	0.00	6.0	S	70.5	71.4	71.4	29.941	0.00	0.00	0.000	0.057
8/13/10	3:45a	70.6	70.6	70.5	76	62.7	0.0	WSW	0.00	6.0	WSW	70.6	71.4	71.4	29.940	0.00	0.00	0.000	0.058
8/13/10	4:00a	70.6	70.6	70.5	75	62.3	1.0	ENE	0.25	5.0	NNW	70.6	71.3	71.3	29.941	0.00	0.00	0.000	0.058
8/13/10	4:15a	70.6	70.6	70.6	75	62.3	1.0	NNW	0.25	5.0	NNW	70.6	71.3	71.3	29.941	0.00	0.00	0.000	0.058
8/13/10	4:30a	70.6	70.6	70.6	74	61.9	1.0	E	0.25	5.0	SSW	70.6	71.2	71.2	29.943	0.00	0.00	0.000	0.058
8/13/10	4:45a	70.6	70.6	70.5	74	61.9	1.0	ENE	0.25	6.0	SSW	70.6	71.2	71.2	29.949	0.00	0.00	0.000	0.058
8/13/10	5:00a	70.6	70.6	70.5	73	61.5	1.0	SSE	0.25	5.0	ESE	70.6	71.1	71.1	29.954	0.00	0.00	0.000	0.058
8/13/10	5:15a	70.6	70.6	70.5	73	61.5	1.0	SSE	0.25	5.0	N	70.6	71.1	71.1	29.955	0.00	0.00	0.000	0.058
8/13/10	5:30a	70.6	70.6	70.6	72	61.1	1.0	ESE	0.25	5.0	SSW	70.6	71.1	71.1	29.956	0.00	0.00	0.000	0.058
8/13/10	5:45a	70.5	70.6	70.5	72	61.0	1.0	SSE	0.25	7.0	S	70.5	70.9	70.9	29.965	0.00	0.00	0.000	0.057
8/13/10	6:00a	70.5	70.6	70.5	72	61.0	1.0	S	0.25	6.0	ESE	70.5	70.9	70.9	29.971	0.00	0.00	0.000	0.057
8/13/10	6:15a	70.5	70.5	70.4	73	61.4	1.0	SSE	0.25	6.0	NNW	70.5	71.0	71.0	29.975	0.00	0.00	0.000	0.057
8/13/10	6:30a	70.5	70.5	70.4	73	61.4	1.0	SE	0.25	6.0	ESE	70.5	71.0	71.0	29.981	0.00	0.00	0.000	0.057
8/13/10	6:45a	70.4	70.5	70.4	73	61.3	1.0	SE	0.25	6.0	E	70.4	70.9	70.9	29.981	0.00	0.00	0.000	0.056
8/13/10	7:00a	70.4	70.4	70.4	74	61.7	2.0	NE	0.50	8.0	ESE	70.4	71.0	71.0	29.976	0.00	0.00	0.000	0.056
8/13/10	7:15a	70.4	70.4	70.3	75	62.1	1.0	E	0.25	5.0	NNW	70.4	71.1	71.1	29.987	0.00	0.00	0.000	0.056
8/13/10	7:30a	70.3	70.4	70.3	76	62.4	2.0	ESE	0.50	6.0	ESE	70.3	71.1	71.1	29.986	0.00	0.00	0.000	0.055
8/13/10	7:45a	70.3	70.4	70.2	75	62.0	1.0	E	0.25	8.0	ENE	70.3	71.0	71.0	29.988	0.00	0.00	0.000	0.055
8/13/10	8:00a	70.3	70.4	70.3	74	61.6	2.0	ENE	0.50	8.0	N	70.3	70.9	70.9	29.992	0.00	0.00	0.000	0.055
8/13/10	8:15a	70.6	70.6	70.3	73	61.5	1.0	ESE	0.25	5.0	E	70.6	71.1	71.1	29.998	0.00	0.00	0.000	0.058
8/13/10	8:30a	70.9	70.9	70.6	70	60.6	1.0	ESE	0.25	8.0	SW	70.9	71.3	71.3	30.002	0.00	0.00	0.000	0.061
8/13/10	8:45a	71.0	71.0	70.9	71	61.1	2.0	ESE	0.50	6.0	ESE	71.0	71.5	71.5	30.002	0.00	0.00	0.000	0.063
8/13/10	9:00a	71.3	71.3	71.0	70	61.0	1.0	NE	0.25	5.0	N	71.3	71.8	71.8	30.004	0.00	0.00	0.000	0.066
8/13/10	9:15a	71.8	71.8	71.3	67	60.2	1.0	NW	0.25	6.0	NW	71.8	72.2	72.2	30.012	0.00	0.00	0.000	0.071
8/13/10	9:30a	72.3	72.3	71.8	63	59.0	2.0	E	0.50	7.0	E	72.3	72.6	72.6	30.007	0.00	0.00	0.000	0.076
8/13/10	9:45a	72.8	72.8	72.3	59	57.6	3.0	ESE	0.75	8.0	E	72.8	73.0	73.0	30.006	0.00	0.00	0.000	0.081
8/13/10	10:00a	74.2	74.2	72.9	55	57.0	3.0	NNW	0.75	8.0	ESE	74.2	74.5	74.5	30.007	0.00	0.00	0.000	0.096
8/13/10	10:15a	75.9	75.9	74.2	50	55.9	2.0	ENE	0.50	8.0	NW	75.9	75.9	75.9	30.016	0.00	0.00	0.000	0.114
8/13/10	10:30a	76.5	76.5	75.9	46	54.2	4.0	E	1.00	11.0	WNW	76.5	76.1	76.1	30.016	0.00	0.00	0.000	0.120
8/13/10	10:45a	77.3	77.3	76.5	46	54.9	4.0	NW	1.00	11.0	E	77.3	76.9	76.9	30.018	0.00	0.00	0.000	0.128
8/13/10	11:00a	78.3	78.3	77.4	45	55.2	3.0	NNW	0.75	8.0	NW	78.3	77.9	77.9	30.022	0.00	0.00	0.000	0.139
8/13/10	11:15a	79.1	79.1	78.3	46	56.5	2.0	E	0.50	7.0	NW	79.1	78.9	78.9	30.030	0.00	0.00	0.000	0.147
8/13/10	11:30a	78.9	79.7	78.9	49	58.1	3.0	NNW	0.75	9.0	NNW	78.9	79.0	79.0	30.031	0.00	0.00	0.000	0.145
8/13/10	11:45a	79.3	79.3	78.7	49	58.5	3.0	N	0.75	8.0	WNW	79.3	79.4	79.4	30.033	0.00	0.00	0.000	0.149
8/13/10	12:00p	78.2	79.3	78.2	50	58.0	4.0	NW	1.00	11.0	WNW	78.2	78.2	78.2	30.033	0.00	0.00	0.000	0.137
8/13/10	12:15p	77.8	78.2	77.8	49	57.1	4.0	WNW	1.00	11.0	WNW	77.8	77.7	77.7	30.032	0.00	0.00	0.000	0.133
8/13/10	12:30p	78.4	78.4	77.8	49	57.7	5.0	WNW	1.25	9.0	W	78.4	78.4	78.4	30.031	0.00	0.00	0.000	0.140
8/13/10	12:45p	79.3	79.3	78.3	47	57.3	4.0	NW	1.00	11.0	WSW	79.3	79.2	79.2	30.033	0.00	0.00	0.000	0.149
8/13/10	1:00p	79.0	79.4	79.0	51	59.3	4.0	WNW	1.00	10.0	WNW	79.0	79.3	79.3	30.027	0.00	0.00	0.000	0.146
8/13/10	1:15p	78.9	79.0	78.7	51	59.2	3.0	WNW	0.75	9.0	WNW	78.9	79.2	79.2	30.032	0.00	0.00	0.000	0.145

Gowanus Phase III Weather Data 8/13/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/13/10	1:30p	78.9	79.1	78.7	51	59.2	3.0	NW	0.75	8.0	W	78.9	79.2	79.2	30.034	0.00	0.00	0.000	0.145
8/13/10	1:45p	78.9	79.0	78.7	53	60.3	3.0	WNW	0.75	10.0	NW	78.9	79.3	79.3	30.034	0.00	0.00	0.000	0.145
8/13/10	2:00p	78.9	79.3	78.9	53	60.3	4.0	WNW	1.00	11.0	NNE	78.9	79.3	79.3	30.034	0.00	0.00	0.000	0.145
8/13/10	2:15p	77.3	78.9	77.3	55	59.9	5.0	WNW	1.25	11.0	W	77.3	77.7	77.7	30.036	0.00	0.00	0.000	0.128
8/13/10	2:30p	77.1	77.5	77.1	56	60.2	4.0	WNW	1.00	9.0	WSW	77.1	77.5	77.5	30.038	0.00	0.00	0.000	0.126
8/13/10	2:45p	78.2	78.2	77.1	55	60.7	4.0	WNW	1.00	10.0	W	78.2	78.7	78.7	30.042	0.00	0.00	0.000	0.137
8/13/10	3:00p	79.1	79.1	78.2	55	61.5	4.0	WNW	1.00	11.0	NW	79.1	79.7	79.7	30.033	0.00	0.00	0.000	0.147
8/13/10	3:15p	78.7	79.4	78.7	54	60.7	4.0	NW	1.00	10.0	WNW	78.7	79.2	79.2	30.033	0.00	0.00	0.000	0.143
8/13/10	3:30p	78.2	78.7	78.0	53	59.7	3.0	NW	0.75	9.0	NW	78.2	78.5	78.5	30.036	0.00	0.00	0.000	0.137
8/13/10	3:45p	77.6	78.2	77.6	56	60.7	3.0	NW	0.75	8.0	WNW	77.6	78.1	78.1	30.035	0.00	0.00	0.000	0.131
8/13/10	4:00p	77.0	77.6	77.0	58	61.1	3.0	NW	0.75	10.0	W	77.0	77.6	77.6	30.036	0.00	0.00	0.000	0.125
8/13/10	4:15p	76.0	77.0	76.0	58	60.2	4.0	WNW	1.00	10.0	W	76.0	76.5	76.5	30.045	0.00	0.00	0.000	0.115
8/13/10	4:30p	76.0	76.2	75.9	58	60.2	4.0	WNW	1.00	10.0	NW	76.0	76.5	76.5	30.046	0.00	0.00	0.000	0.115
8/13/10	4:45p	75.8	76.2	75.8	59	60.4	4.0	WNW	1.00	9.0	W	75.8	76.5	76.5	30.037	0.00	0.00	0.000	0.113
8/13/10	5:00p	76.0	76.2	75.8	57	59.7	3.0	WNW	0.75	9.0	NW	76.0	76.5	76.5	30.046	0.00	0.00	0.000	0.115
8/13/10	5:15p	75.6	76.0	75.6	58	59.8	4.0	WNW	1.00	12.0	NNW	75.6	76.2	76.2	30.040	0.00	0.00	0.000	0.110
8/13/10	5:30p	75.6	75.6	75.2	59	60.3	4.0	WNW	1.00	11.0	NW	75.6	76.3	76.3	30.035	0.00	0.00	0.000	0.110
8/13/10	5:45p	74.8	75.6	74.7	60	60.0	5.0	WNW	1.25	11.0	NW	74.8	75.7	75.7	30.036	0.00	0.00	0.000	0.102
8/13/10	6:00p	75.1	75.3	74.8	60	60.3	3.0	WNW	0.75	7.0	WNW	75.1	76.0	76.0	30.044	0.00	0.00	0.000	0.105
8/13/10	6:15p	75.0	75.3	74.9	57	58.7	3.0	WNW	0.75	9.0	WNW	75.0	75.7	75.7	30.041	0.00	0.00	0.000	0.104
8/13/10	6:30p	74.9	75.0	74.7	56	58.1	3.0	WNW	0.75	8.0	WNW	74.9	75.5	75.5	30.041	0.00	0.00	0.000	0.103
8/13/10	6:45p	74.9	74.9	74.7	57	58.6	2.0	WNW	0.50	7.0	WNW	74.9	75.5	75.5	30.034	0.00	0.00	0.000	0.103
8/13/10	7:00p	74.4	75.0	74.4	59	59.1	3.0	NW	0.75	7.0	NW	74.4	75.1	75.1	30.035	0.00	0.00	0.000	0.098
8/13/10	7:15p	74.2	74.4	74.2	57	58.0	2.0	NNW	0.50	7.0	NW	74.2	74.7	74.7	30.033	0.00	0.00	0.000	0.096
8/13/10	7:30p	73.6	74.2	73.6	58	57.9	3.0	WNW	0.75	8.0	WNW	73.6	74.0	74.0	30.034	0.00	0.00	0.000	0.090
8/13/10	7:45p	73.3	73.6	73.3	59	58.1	2.0	NW	0.50	7.0	W	73.3	73.7	73.7	30.041	0.00	0.00	0.000	0.086
8/13/10	8:00p	73.0	73.3	73.0	63	59.7	2.0	NW	0.50	6.0	NNW	73.0	73.6	73.6	30.038	0.00	0.00	0.000	0.083
8/13/10	8:15p	72.7	73.0	72.7	65	60.3	1.0	NNW	0.25	6.0	NNW	72.7	73.3	73.3	30.036	0.00	0.00	0.000	0.080
8/13/10	8:30p	72.5	72.6	72.4	64	59.6	1.0	WNW	0.25	6.0	W	72.5	72.9	72.9	30.039	0.00	0.00	0.000	0.078
8/13/10	8:45p	72.4	72.5	72.4	62	58.6	1.0	WNW	0.25	5.0	WNW	72.4	72.6	72.6	30.048	0.00	0.00	0.000	0.077
8/13/10	9:00p	72.3	72.4	72.2	63	59.0	1.0	W	0.25	5.0	WNW	72.3	72.6	72.6	30.049	0.00	0.00	0.000	0.076
8/13/10	9:15p	72.2	72.3	72.2	64	59.3	1.0	NNW	0.25	5.0	NW	72.2	72.5	72.5	30.053	0.00	0.00	0.000	0.075
8/13/10	9:30p	72.1	72.2	72.1	65	59.7	1.0	NNW	0.25	7.0	WNW	72.1	72.4	72.4	30.052	0.00	0.00	0.000	0.074
8/13/10	9:45p	72.0	72.1	72.0	65	59.6	2.0	WNW	0.50	9.0	WNW	72.0	72.3	72.3	30.052	0.00	0.00	0.000	0.073
8/13/10	10:00p	71.9	72.0	71.9	64	59.1	2.0	NNW	0.50	7.0	N	71.9	72.1	72.1	30.055	0.00	0.00	0.000	0.072
8/13/10	10:15p	71.9	72.0	71.9	64	59.1	1.0	NW	0.25	6.0	NW	71.9	72.1	72.1	30.052	0.00	0.00	0.000	0.072
8/13/10	10:30p	71.9	71.9	71.8	65	59.5	1.0	WNW	0.25	8.0	WNW	71.9	72.2	72.2	30.049	0.00	0.00	0.000	0.072
8/13/10	10:45p	71.8	71.9	71.8	64	59.0	2.0	NW	0.50	8.0	NW	71.8	71.9	71.9	30.050	0.00	0.00	0.000	0.071
8/13/10	11:00p	71.6	71.8	71.6	65	59.2	1.0	NW	0.25	7.0	NW	71.6	71.7	71.7	30.050	0.00	0.00	0.000	0.069
8/13/10	11:15p	71.5	71.6	71.5	65	59.1	1.0	NW	0.25	5.0	NW	71.5	71.6	71.6	30.052	0.00	0.00	0.000	0.068
8/13/10	11:30p	71.3	71.5	71.3	66	59.4	1.0	NW	0.25	4.0	NW	71.3	71.4	71.4	30.062	0.00	0.00	0.000	0.066
8/13/10	11:45p	71.3	71.3	71.2	65	58.9	1.0	NW	0.25	6.0	NW	71.3	71.3	71.3	30.065	0.00	0.00	0.000	0.066
8/14/10	12:00a	71.2	71.3	71.2	64	58.4	1.0	WNW	0.25	6.0	NW	71.2	71.1	71.1	30.072	0.00	0.00	0.000	0.065

Gowanus Phase III Weather Data 8/14/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/14/10	12:15a	71.1	71.2	71.1	64	58.3	1.0	NW	0.25	6.0	NW	71.1	71.0	71.0	30.077	0.00	0.00	0.000	0.064
8/14/10	12:30a	71.1	71.2	71.1	64	58.3	0.0	E	0.00	4.0	E	71.1	71.0	71.0	30.078	0.00	0.00	0.000	0.064
8/14/10	12:45a	71.1	71.1	71.0	64	58.3	1.0	WNW	0.25	7.0	WNW	71.1	71.0	71.0	30.083	0.00	0.00	0.000	0.064
8/14/10	1:00a	71.0	71.1	71.0	64	58.2	1.0	WNW	0.25	6.0	WNW	71.0	70.8	70.8	30.086	0.00	0.00	0.000	0.063
8/14/10	1:15a	70.8	71.0	70.8	65	58.4	1.0	NW	0.25	6.0	NW	70.8	70.7	70.7	30.083	0.00	0.00	0.000	0.060
8/14/10	1:30a	70.6	70.8	70.6	66	58.7	0.0	NW	0.00	2.0	NW	70.6	70.5	70.5	30.086	0.00	0.00	0.000	0.058
8/14/10	1:45a	70.5	70.7	70.5	65	58.2	0.0	E	0.00	5.0	NW	70.5	70.3	70.3	30.087	0.00	0.00	0.000	0.057
8/14/10	2:00a	70.3	70.5	70.3	66	58.4	0.0	ESE	0.00	4.0	ESE	70.3	70.1	70.1	30.092	0.00	0.00	0.000	0.055
8/14/10	2:15a	70.1	70.3	70.1	66	58.2	0.0	ESE	0.00	1.0	ESE	70.1	69.9	69.9	30.090	0.00	0.00	0.000	0.053
8/14/10	2:30a	70.0	70.1	70.0	66	58.1	0.0	ESE	0.00	1.0	ESE	70.0	69.8	69.8	30.089	0.00	0.00	0.000	0.052
8/14/10	2:45a	69.8	70.0	69.8	65	57.5	0.0	ESE	0.00	2.0	ESE	69.8	69.5	69.5	30.086	0.00	0.00	0.000	0.050
8/14/10	3:00a	69.6	69.8	69.6	65	57.3	0.0	ESE	0.00	1.0	ESE	69.6	69.4	69.4	30.094	0.00	0.00	0.000	0.048
8/14/10	3:15a	69.5	69.6	69.5	64	56.8	0.0	ESE	0.00	2.0	ESE	69.5	69.2	69.2	30.092	0.00	0.00	0.000	0.047
8/14/10	3:30a	69.5	69.5	69.5	64	56.8	0.0	ESE	0.00	3.0	ESE	69.5	69.2	69.2	30.093	0.00	0.00	0.000	0.047
8/14/10	3:45a	69.3	69.5	69.3	65	57.0	0.0	ESE	0.00	1.0	ESE	69.3	69.1	69.1	30.093	0.00	0.00	0.000	0.045
8/14/10	4:00a	69.0	69.3	69.0	65	56.7	0.0	ESE	0.00	1.0	ESE	69.0	68.9	68.9	30.095	0.00	0.00	0.000	0.042
8/14/10	4:15a	68.9	69.0	68.9	65	56.6	0.0	ESE	0.00	1.0	ESE	68.9	68.8	68.8	30.097	0.00	0.00	0.000	0.041
8/14/10	4:30a	68.6	68.9	68.6	65	56.4	0.0	ESE	0.00	1.0	ESE	68.6	68.6	68.6	30.094	0.00	0.00	0.000	0.037
8/14/10	4:45a	68.5	68.6	68.5	65	56.3	0.0	ESE	0.00	2.0	ESE	68.5	68.5	68.5	30.095	0.00	0.00	0.000	0.036
8/14/10	5:00a	68.5	68.5	68.5	65	56.3	0.0	ESE	0.00	1.0	ESE	68.5	68.5	68.5	30.094	0.00	0.00	0.000	0.036
8/14/10	5:15a	68.5	68.5	68.4	65	56.3	0.0	ESE	0.00	2.0	ESE	68.5	68.5	68.5	30.095	0.00	0.00	0.000	0.036
8/14/10	5:30a	68.4	68.5	68.4	64	55.7	0.0	ESE	0.00	4.0	ESE	68.4	68.4	68.4	30.097	0.00	0.00	0.000	0.035
8/14/10	5:45a	68.3	68.4	68.3	64	55.6	0.0	ESE	0.00	4.0	ESE	68.3	68.3	68.3	30.099	0.00	0.00	0.000	0.034
8/14/10	6:00a	68.0	68.3	68.0	65	55.8	0.0	ESE	0.00	1.0	ESE	68.0	68.2	68.2	30.106	0.00	0.00	0.000	0.031
8/14/10	6:15a	67.7	68.0	67.7	66	55.9	0.0	ESE	0.00	1.0	ESE	67.7	67.9	67.9	30.110	0.00	0.00	0.000	0.028
8/14/10	6:30a	67.5	67.7	67.5	66	55.7	0.0	---	0.00	0.0	---	67.5	67.7	67.7	30.110	0.00	0.00	0.000	0.026
8/14/10	6:45a	67.9	67.9	67.5	66	56.1	0.0	ESE	0.00	1.0	ESE	67.9	68.2	68.2	30.111	0.00	0.00	0.000	0.030
8/14/10	7:00a	69.6	69.6	67.9	62	56.0	0.0	ESE	0.00	4.0	ESE	69.6	69.1	69.1	30.114	0.00	0.00	0.000	0.048
8/14/10	7:15a	70.7	70.7	69.6	60	56.1	0.0	ESE	0.00	2.0	ESE	70.7	70.1	70.1	30.120	0.00	0.00	0.000	0.059
8/14/10	7:30a	71.7	71.7	70.8	58	56.1	1.0	ESE	0.25	4.0	ESE	71.7	71.3	71.3	30.118	0.00	0.00	0.000	0.070
8/14/10	7:45a	72.1	72.1	71.6	58	56.5	1.0	NNW	0.25	5.0	NNW	72.1	71.9	71.9	30.118	0.00	0.00	0.000	0.074
8/14/10	8:00a	72.8	72.8	72.1	57	56.7	1.0	E	0.25	6.0	E	72.8	72.9	72.9	30.120	0.00	0.00	0.000	0.081
8/14/10	8:15a	73.8	73.8	72.8	55	56.6	0.0	E	0.00	5.0	E	73.8	74.0	74.0	30.125	0.00	0.00	0.000	0.092
8/14/10	8:30a	74.0	74.1	73.5	54	56.3	1.0	NE	0.25	6.0	NW	74.0	74.1	74.1	30.126	0.00	0.00	0.000	0.094
8/14/10	8:45a	73.7	74.1	73.6	54	56.0	2.0	NW	0.50	7.0	NNE	73.7	73.7	73.7	30.126	0.00	0.00	0.000	0.091
8/14/10	9:00a	74.1	74.1	73.6	55	56.9	2.0	NNW	0.50	6.0	NW	74.1	74.3	74.3	30.122	0.00	0.00	0.000	0.095
8/14/10	9:15a	74.0	74.1	73.9	54	56.3	2.0	NW	0.50	7.0	WNW	74.0	74.1	74.1	30.117	0.00	0.00	0.000	0.094
8/14/10	9:30a	74.6	74.7	74.1	53	56.3	2.0	NW	0.50	9.0	WNW	74.6	74.8	74.8	30.125	0.00	0.00	0.000	0.100
8/14/10	9:45a	75.3	75.3	74.4	53	57.0	2.0	N	0.50	9.0	W	75.3	75.6	75.6	30.125	0.00	0.00	0.000	0.107
8/14/10	10:00a	75.1	75.4	75.0	53	56.8	2.0	NNW	0.50	9.0	NW	75.1	75.4	75.4	30.124	0.00	0.00	0.000	0.105
8/14/10	10:15a	75.8	76.1	75.1	51	56.4	2.0	WNW	0.50	7.0	NW	75.8	75.9	75.9	30.123	0.00	0.00	0.000	0.113
8/14/10	10:30a	75.8	76.4	75.6	52	56.9	2.0	NW	0.50	8.0	WNW	75.8	75.9	75.9	30.121	0.00	0.00	0.000	0.113
8/14/10	10:45a	76.0	76.0	75.6	52	57.1	2.0	NW	0.50	7.0	E	76.0	76.1	76.1	30.120	0.00	0.00	0.000	0.115
8/14/10	11:00a	76.4	76.4	76.0	52	57.5	2.0	NW	0.50	7.0	W	76.4	76.5	76.5	30.118	0.00	0.00	0.000	0.119
8/14/10	11:15a	76.2	76.4	76.2	50	56.2	4.0	WNW	1.00	10.0	WNW	76.2	76.2	76.2	30.112	0.00	0.00	0.000	0.117
8/14/10	11:30a	76.3	76.7	76.2	50	56.3	3.0	WNW	0.75	10.0	WNW	76.3	76.2	76.2	30.110	0.00	0.00	0.000	0.118
8/14/10	11:45a	76.5	76.7	76.4	52	57.6	3.0	NW	0.75	8.0	WNW	76.5	76.6	76.6	30.108	0.00	0.00	0.000	0.120
8/14/10	12:00p	77.1	77.1	76.5	46	54.7	3.0	NW	0.75	8.0	W	77.1	76.7	76.7	30.112	0.00	0.00	0.000	0.126
8/14/10	12:15p	76.3	77.1	76.3	49	55.7	3.0	WNW	0.75	9.0	W	76.3	76.2	76.2	30.111	0.00	0.00	0.000	0.118
8/14/10	12:30p	77.0	77.1	76.3	49	56.4	2.0	NNW	0.50	9.0	WNW	77.0	76.7	76.7	30.113	0.00	0.00	0.000	0.125
8/14/10	12:45p	77.3	77.5	77.0	47	55.5	2.0	NW	0.50	10.0	WNW	77.3	77.0	77.0	30.111	0.00	0.00	0.000	0.128
8/14/10	1:00p	78.0	78.0	77.3	46	55.5	2.0	E	0.50	7.0	NW	78.0	77.7	77.7	30.111	0.00	0.00	0.000	0.135
8/14/10	1:15p	77.4	77.9	77.4	46	55.0	3.0	WNW	0.75	8.0	W	77.4	77.0	77.0	30.111	0.00	0.00	0.000	0.129

Gowanus Phase III Weather Data 8/14/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/14/10	1:30p	77.3	77.4	77.0	47	55.5	3.0	NW	0.75	7.0	NW	77.3	77.0	77.0	30.112	0.00	0.00	0.000	0.128
8/14/10	1:45p	77.4	77.5	77.3	48	56.2	2.0	NNW	0.50	9.0	E	77.4	77.1	77.1	30.111	0.00	0.00	0.000	0.129
8/14/10	2:00p	78.5	78.5	77.3	49	57.7	2.0	WNW	0.50	9.0	WNW	78.5	78.5	78.5	30.110	0.00	0.00	0.000	0.141
8/14/10	2:15p	77.6	78.5	77.6	48	56.4	4.0	WNW	1.00	9.0	NW	77.6	77.4	77.4	30.104	0.00	0.00	0.000	0.131
8/14/10	2:30p	78.1	78.2	77.5	49	57.4	3.0	WNW	0.75	9.0	W	78.1	78.0	78.0	30.100	0.00	0.00	0.000	0.136
8/14/10	2:45p	77.5	78.1	77.1	50	57.4	4.0	WNW	1.00	11.0	NW	77.5	77.4	77.4	30.095	0.00	0.00	0.000	0.130
8/14/10	3:00p	77.5	77.7	77.4	51	57.9	4.0	NW	1.00	10.0	NW	77.5	77.5	77.5	30.095	0.00	0.00	0.000	0.130
8/14/10	3:15p	77.1	77.6	77.1	52	58.1	4.0	WNW	1.00	10.0	WNW	77.1	77.1	77.1	30.095	0.00	0.00	0.000	0.126
8/14/10	3:30p	77.5	77.5	77.1	51	57.9	3.0	NW	0.75	8.0	NW	77.5	77.5	77.5	30.095	0.00	0.00	0.000	0.130
8/14/10	3:45p	77.6	77.8	77.2	51	58.0	3.0	NW	0.75	10.0	WNW	77.6	77.6	77.6	30.094	0.00	0.00	0.000	0.131
8/14/10	4:00p	76.5	77.6	76.5	53	58.1	3.0	WNW	0.75	9.0	NW	76.5	76.6	76.6	30.092	0.00	0.00	0.000	0.120
8/14/10	4:15p	76.5	76.6	76.3	51	57.0	3.0	NNE	0.75	8.0	SW	76.5	76.5	76.5	30.087	0.00	0.00	0.000	0.120
8/14/10	4:30p	75.9	76.5	75.8	51	56.5	3.0	WNW	0.75	9.0	NNW	75.9	76.0	76.0	30.091	0.00	0.00	0.000	0.114
8/14/10	4:45p	75.7	75.9	75.5	53	57.4	3.0	NW	0.75	8.0	W	75.7	75.9	75.9	30.081	0.00	0.00	0.000	0.111
8/14/10	5:00p	75.1	75.7	75.1	52	56.3	4.0	WNW	1.00	10.0	WNW	75.1	75.3	75.3	30.082	0.00	0.00	0.000	0.105
8/14/10	5:15p	75.3	75.4	75.0	55	58.0	3.0	W	0.75	10.0	WSW	75.3	75.7	75.7	30.079	0.00	0.00	0.000	0.107
8/14/10	5:30p	75.2	75.3	75.0	56	58.4	2.0	WNW	0.50	7.0	WNW	75.2	75.7	75.7	30.081	0.00	0.00	0.000	0.106
8/14/10	5:45p	74.9	75.3	74.8	57	58.6	3.0	WNW	0.75	9.0	NW	74.9	75.5	75.5	30.089	0.00	0.00	0.000	0.103
8/14/10	6:00p	74.4	74.9	74.4	59	59.1	3.0	WNW	0.75	11.0	WSW	74.4	75.1	75.1	30.084	0.00	0.00	0.000	0.098
8/14/10	6:15p	74.4	74.4	74.2	59	59.1	1.0	ESE	0.25	6.0	SE	74.4	75.1	75.1	30.080	0.00	0.00	0.000	0.098
8/14/10	6:30p	74.0	74.4	74.0	61	59.7	3.0	WNW	0.75	11.0	W	74.0	74.8	74.8	30.079	0.00	0.00	0.000	0.094
8/14/10	6:45p	73.7	74.0	73.7	63	60.3	2.0	NW	0.50	9.0	NW	73.7	74.6	74.6	30.074	0.00	0.00	0.000	0.091
8/14/10	7:00p	73.3	73.8	73.3	64	60.4	3.0	NW	0.75	8.0	NNE	73.3	74.1	74.1	30.078	0.00	0.00	0.000	0.086
8/14/10	7:15p	73.0	73.3	73.0	66	61.0	3.0	NNW	0.75	10.0	WNW	73.0	73.8	73.8	30.078	0.00	0.00	0.000	0.083
8/14/10	7:30p	72.9	73.1	72.9	67	61.3	2.0	WNW	0.50	7.0	NW	72.9	73.7	73.7	30.075	0.00	0.00	0.000	0.082
8/14/10	7:45p	72.6	72.9	72.6	67	61.0	2.0	NNW	0.50	7.0	WNW	72.6	73.3	73.3	30.077	0.00	0.00	0.000	0.079
8/14/10	8:00p	72.5	72.6	72.5	67	60.9	1.0	NNE	0.25	7.0	WNW	72.5	73.2	73.2	30.078	0.00	0.00	0.000	0.078
8/14/10	8:15p	72.2	72.5	72.2	67	60.6	2.0	NW	0.50	8.0	NNE	72.2	72.7	72.7	30.071	0.00	0.00	0.000	0.075
8/14/10	8:30p	72.3	72.3	72.2	67	60.7	1.0	NW	0.25	6.0	NW	72.3	72.9	72.9	30.071	0.00	0.00	0.000	0.076
8/14/10	8:45p	72.2	72.3	72.2	67	60.6	1.0	NNW	0.25	7.0	NW	72.2	72.7	72.7	30.078	0.00	0.00	0.000	0.075
8/14/10	9:00p	72.2	72.2	72.1	67	60.6	2.0	WNW	0.50	7.0	NW	72.2	72.7	72.7	30.078	0.00	0.00	0.000	0.075
8/14/10	9:15p	72.2	72.2	72.2	68	61.0	0.0	NW	0.00	4.0	NW	72.2	72.8	72.8	30.079	0.00	0.00	0.000	0.075
8/14/10	9:30p	72.2	72.2	72.1	68	61.0	1.0	NNW	0.25	5.0	NNW	72.2	72.8	72.8	30.079	0.00	0.00	0.000	0.075
8/14/10	9:45p	72.1	72.1	72.1	68	61.0	1.0	NNW	0.25	5.0	WNW	72.1	72.7	72.7	30.081	0.00	0.00	0.000	0.074
8/14/10	10:00p	72.1	72.1	72.1	68	61.0	1.0	NNW	0.25	6.0	W	72.1	72.7	72.7	30.079	0.00	0.00	0.000	0.074
8/14/10	10:15p	72.0	72.1	71.9	69	61.3	2.0	WNW	0.50	10.0	N	72.0	72.6	72.6	30.078	0.00	0.00	0.000	0.073
8/14/10	10:30p	71.9	72.0	71.9	69	61.2	1.0	NNW	0.25	6.0	NNW	71.9	72.5	72.5	30.078	0.00	0.00	0.000	0.072
8/14/10	10:45p	71.9	71.9	71.9	69	61.2	1.0	NW	0.25	4.0	NW	71.9	72.5	72.5	30.077	0.00	0.00	0.000	0.072
8/14/10	11:00p	71.9	72.0	71.9	68	60.8	1.0	NNW	0.25	5.0	NNW	71.9	72.4	72.4	30.076	0.00	0.00	0.000	0.072
8/14/10	11:15p	71.9	72.0	71.9	68	60.8	1.0	NW	0.25	6.0	NW	71.9	72.4	72.4	30.078	0.00	0.00	0.000	0.072
8/14/10	11:30p	71.9	71.9	71.9	68	60.8	1.0	NNW	0.25	5.0	NNW	71.9	72.4	72.4	30.069	0.00	0.00	0.000	0.072
8/14/10	11:45p	71.9	71.9	71.9	69	61.2	0.0	N	0.00	5.0	N	71.9	72.5	72.5	30.075	0.00	0.00	0.000	0.072
8/15/10	12:00a	71.8	71.9	71.8	68	60.7	0.0	WNW	0.00	4.0	WNW	71.8	72.3	72.3	30.075	0.00	0.00	0.000	0.071

Gowanus Phase III Weather Data 8/15/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/15/10	12:15a	71.8	71.9	71.8	68	60.7	0.0	WNW	0.00	4.0	WNW	71.8	72.3	72.3	30.076	0.00	0.00	0.000	0.071
8/15/10	12:30a	71.9	71.9	71.8	67	60.3	1.0	NW	0.25	5.0	NW	71.9	72.3	72.3	30.073	0.00	0.00	0.000	0.072
8/15/10	12:45a	71.9	72.0	71.9	66	59.9	0.0	N	0.00	4.0	NNE	71.9	72.2	72.2	30.068	0.00	0.00	0.000	0.072
8/15/10	1:00a	71.9	71.9	71.9	67	60.3	0.0	N	0.00	5.0	NNW	71.9	72.3	72.3	30.064	0.00	0.00	0.000	0.072
8/15/10	1:15a	71.7	71.9	71.7	67	60.2	0.0	NNW	0.00	2.0	NNW	71.7	72.1	72.1	30.067	0.00	0.00	0.000	0.070
8/15/10	1:30a	71.7	71.7	71.6	67	60.2	0.0	NNW	0.00	1.0	NNW	71.7	72.1	72.1	30.064	0.00	0.00	0.000	0.070
8/15/10	1:45a	71.7	71.7	71.6	67	60.2	0.0	NNW	0.00	2.0	NNW	71.7	72.1	72.1	30.064	0.00	0.00	0.000	0.070
8/15/10	2:00a	71.7	71.7	71.6	67	60.2	0.0	NNW	0.00	3.0	NNW	71.7	72.1	72.1	30.060	0.00	0.00	0.000	0.070
8/15/10	2:15a	71.7	71.7	71.6	67	60.2	0.0	NNW	0.00	4.0	NNW	71.7	72.1	72.1	30.061	0.00	0.00	0.000	0.070
8/15/10	2:30a	71.6	71.7	71.6	68	60.5	0.0	NNW	0.00	4.0	NNW	71.6	72.0	72.0	30.062	0.00	0.00	0.000	0.069
8/15/10	2:45a	71.4	71.6	71.4	68	60.3	0.0	NNW	0.00	1.0	NNW	71.4	71.7	71.7	30.063	0.00	0.00	0.000	0.067
8/15/10	3:00a	71.3	71.4	71.3	70	61.0	0.0	NNW	0.00	1.0	NNW	71.3	71.8	71.8	30.063	0.00	0.00	0.000	0.066
8/15/10	3:15a	71.3	71.3	71.3	70	61.0	0.0	NNW	0.00	1.0	NNW	71.3	71.8	71.8	30.066	0.00	0.00	0.000	0.066
8/15/10	3:30a	71.3	71.3	71.3	71	61.4	0.0	NNW	0.00	2.0	NNW	71.3	71.9	71.9	30.064	0.00	0.00	0.000	0.066
8/15/10	3:45a	71.3	71.3	71.3	72	61.8	0.0	NW	0.00	3.0	NW	71.3	71.9	71.9	30.058	0.00	0.00	0.000	0.066
8/15/10	4:00a	71.2	71.3	71.2	72	61.7	0.0	NNW	0.00	4.0	NNW	71.2	71.8	71.8	30.052	0.00	0.00	0.000	0.065
8/15/10	4:15a	71.2	71.2	71.2	73	62.1	0.0	NNW	0.00	2.0	NNW	71.2	71.9	71.9	30.055	0.00	0.00	0.000	0.065
8/15/10	4:30a	71.2	71.2	71.1	73	62.1	0.0	NNW	0.00	1.0	NNW	71.2	71.9	71.9	30.060	0.00	0.00	0.000	0.065
8/15/10	4:45a	71.2	71.2	71.2	73	62.1	0.0	NNW	0.00	1.0	NNW	71.2	71.9	71.9	30.050	0.00	0.00	0.000	0.065
8/15/10	5:00a	71.2	71.3	71.2	73	62.1	0.0	NNW	0.00	1.0	NNW	71.2	71.9	71.9	30.048	0.00	0.00	0.000	0.065
8/15/10	5:15a	71.2	71.3	71.2	73	62.1	0.0	NNW	0.00	3.0	NNW	71.2	71.9	71.9	30.048	0.00	0.00	0.000	0.065
8/15/10	5:30a	71.2	71.2	71.2	74	62.5	0.0	NNW	0.00	3.0	NNW	71.2	72.0	72.0	30.043	0.00	0.00	0.000	0.065
8/15/10	5:45a	71.3	71.3	71.2	74	62.6	0.0	WNW	0.00	4.0	NNW	71.3	72.1	72.1	30.040	0.00	0.00	0.000	0.066
8/15/10	6:00a	71.4	71.4	71.3	73	62.3	0.0	WNW	0.00	5.0	WNW	71.4	72.1	72.1	30.044	0.00	0.00	0.000	0.067
8/15/10	6:15a	71.5	71.5	71.4	73	62.4	0.0	WNW	0.00	4.0	WNW	71.5	72.3	72.3	30.048	0.00	0.00	0.000	0.068
8/15/10	6:30a	71.5	71.5	71.4	74	62.8	0.0	WNW	0.00	1.0	WNW	71.5	72.3	72.3	30.048	0.00	0.00	0.000	0.068
8/15/10	6:45a	71.7	71.7	71.5	73	62.6	0.0	WNW	0.00	2.0	WNW	71.7	72.5	72.5	30.047	0.00	0.00	0.000	0.070
8/15/10	7:00a	71.9	71.9	71.7	73	62.8	1.0	WNW	0.25	6.0	WNW	71.9	72.8	72.8	30.039	0.00	0.00	0.000	0.072
8/15/10	7:15a	72.3	72.3	71.9	73	63.2	1.0	NW	0.25	5.0	NW	72.3	73.3	73.3	30.039	0.00	0.00	0.000	0.076
8/15/10	7:30a	72.9	72.9	72.3	72	63.3	1.0	NW	0.25	5.0	NW	72.9	74.1	74.1	30.045	0.00	0.00	0.000	0.082
8/15/10	7:45a	73.3	73.3	72.9	72	63.7	0.0	NW	0.00	4.0	NW	73.3	74.7	74.7	30.043	0.00	0.00	0.000	0.086
8/15/10	8:00a	73.9	73.9	73.3	71	63.9	2.0	NNW	0.50	8.0	WNW	73.9	75.5	75.5	30.043	0.00	0.00	0.000	0.093
8/15/10	8:15a	74.6	74.7	73.9	70	64.2	1.0	NNW	0.25	6.0	N	74.6	76.3	76.3	30.046	0.00	0.00	0.000	0.100
8/15/10	8:30a	74.3	74.7	74.3	71	64.3	2.0	NW	0.50	9.0	NNW	74.3	76.0	76.0	30.040	0.00	0.00	0.000	0.097
8/15/10	8:45a	75.0	75.0	74.3	70	64.5	2.0	NW	0.50	8.0	W	75.0	76.7	76.7	30.033	0.00	0.00	0.000	0.104
8/15/10	9:00a	75.8	75.8	74.9	69	64.9	1.0	SE	0.25	8.0	NW	75.8	77.5	77.5	30.034	0.00	0.00	0.000	0.113
8/15/10	9:15a	75.7	76.1	75.7	69	64.8	1.0	NNW	0.25	8.0	WNW	75.7	77.4	77.4	30.035	0.00	0.00	0.000	0.111
8/15/10	9:30a	76.0	76.1	75.7	69	65.1	2.0	ENE	0.50	7.0	N	76.0	77.7	77.7	30.035	0.00	0.00	0.000	0.115
8/15/10	9:45a	77.3	77.3	76.0	67	65.5	1.0	ENE	0.25	7.0	NW	77.3	78.9	78.9	30.037	0.00	0.00	0.000	0.128
8/15/10	10:00a	76.6	77.3	76.5	68	65.2	2.0	N	0.50	10.0	WNW	76.6	78.2	78.2	30.035	0.00	0.00	0.000	0.121
8/15/10	10:15a	75.9	76.7	75.8	69	65.0	3.0	ENE	0.75	11.0	WNW	75.9	77.6	77.6	30.044	0.00	0.00	0.000	0.114
8/15/10	10:30a	76.4	76.4	75.9	69	65.5	3.0	NW	0.75	10.0	NNW	76.4	78.1	78.1	30.046	0.00	0.00	0.000	0.119
8/15/10	10:45a	76.6	76.7	76.4	68	65.2	3.0	NW	0.75	10.0	NW	76.6	78.2	78.2	30.046	0.00	0.00	0.000	0.121
8/15/10	11:00a	76.7	76.9	76.6	68	65.3	3.0	NW	0.75	9.0	WNW	76.7	78.3	78.3	30.048	0.00	0.00	0.000	0.122
8/15/10	11:15a	76.3	76.7	76.2	68	65.0	3.0	NW	0.75	9.0	W	76.3	77.9	77.9	30.046	0.00	0.00	0.000	0.118
8/15/10	11:30a	76.3	76.5	76.2	68	65.0	3.0	NNW	0.75	8.0	WNW	76.3	77.9	77.9	30.039	0.00	0.00	0.000	0.118
8/15/10	11:45a	76.3	76.5	76.3	68	65.0	2.0	NNW	0.50	7.0	NNE	76.3	77.9	77.9	30.037	0.00	0.00	0.000	0.118
8/15/10	12:00p	76.0	76.3	75.9	68	64.7	3.0	NW	0.75	9.0	WNW	76.0	77.6	77.6	30.033	0.00	0.00	0.000	0.115
8/15/10	12:15p	76.3	76.4	76.0	68	65.0	2.0	NNW	0.50	9.0	WNW	76.3	77.9	77.9	30.033	0.00	0.00	0.000	0.118
8/15/10	12:30p	76.5	76.5	76.3	68	65.1	2.0	NW	0.50	7.0	WNW	76.5	78.1	78.1	30.026	0.00	0.00	0.000	0.120
8/15/10	12:45p	77.3	77.3	76.5	68	65.9	2.0	NW	0.50	8.0	NW	77.3	79.0	79.0	30.021	0.00	0.00	0.000	0.128
8/15/10	1:00p	76.8	77.3	76.6	69	65.9	4.0	NW	1.00	12.0	WNW	76.8	78.6	78.6	30.021	0.00	0.00	0.000	0.123
8/15/10	1:15p	76.6	76.8	76.6	68	65.2	4.0	NW	1.00	12.0	W	76.6	78.2	78.2	30.017	0.00	0.00	0.000	0.121

Gowanus Phase III Weather Data 8/15/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/15/10	1:30p	76.6	76.8	76.6	68	65.2	4.0	NW	1.00	9.0	WNW	76.6	78.2	78.2	30.017	0.00	0.00	0.000	0.121
8/15/10	1:45p	76.7	76.9	76.6	68	65.3	3.0	NW	0.75	10.0	NW	76.7	78.3	78.3	30.017	0.00	0.00	0.000	0.122
8/15/10	2:00p	76.6	76.8	76.5	68	65.2	3.0	WNW	0.75	8.0	WNW	76.6	78.2	78.2	30.011	0.00	0.00	0.000	0.121
8/15/10	2:15p	76.6	76.6	76.5	69	65.7	3.0	NW	0.75	10.0	WNW	76.6	78.3	78.3	30.012	0.00	0.00	0.000	0.121
8/15/10	2:30p	76.7	76.7	76.5	69	65.8	4.0	NW	1.00	10.0	NNW	76.7	78.4	78.4	30.007	0.00	0.00	0.000	0.122
8/15/10	2:45p	76.6	76.8	76.6	69	65.7	4.0	NW	1.00	11.0	NW	76.6	78.3	78.3	30.002	0.00	0.00	0.000	0.121
8/15/10	3:00p	76.6	76.6	76.4	69	65.7	4.0	NW	1.00	12.0	WNW	76.6	78.3	78.3	30.000	0.00	0.00	0.000	0.121
8/15/10	3:15p	76.5	76.7	76.5	70	66.0	4.0	WNW	1.00	9.0	WNW	76.5	78.4	78.4	29.991	0.00	0.00	0.000	0.120
8/15/10	3:30p	76.5	76.7	76.5	70	66.0	4.0	NW	1.00	11.0	NW	76.5	78.4	78.4	29.988	0.00	0.00	0.000	0.120
8/15/10	3:45p	76.5	76.5	76.4	71	66.4	3.0	NW	0.75	9.0	W	76.5	78.5	78.5	29.993	0.00	0.00	0.000	0.120
8/15/10	4:00p	75.8	76.5	75.8	74	66.9	3.0	NW	0.75	12.0	WNW	75.8	78.0	78.0	29.990	0.00	0.00	0.000	0.113
8/15/10	4:15p	75.4	75.8	75.4	74	66.5	4.0	NNW	1.00	10.0	WNW	75.4	77.5	77.5	29.989	0.00	0.00	0.000	0.108
8/15/10	4:30p	75.5	75.5	75.4	73	66.2	4.0	NW	1.00	10.0	N	75.5	77.6	77.6	29.988	0.00	0.00	0.000	0.109
8/15/10	4:45p	75.7	75.7	75.5	72	66.0	3.0	NNW	0.75	12.0	WNW	75.7	77.7	77.7	29.987	0.00	0.00	0.000	0.111
8/15/10	5:00p	75.6	75.7	75.6	72	65.9	4.0	NW	1.00	10.0	WSW	75.6	77.6	77.6	29.985	0.00	0.00	0.000	0.110
8/15/10	5:15p	75.8	75.9	75.6	73	66.5	3.0	NNW	0.75	11.0	WNW	75.8	77.9	77.9	29.984	0.00	0.00	0.000	0.113
8/15/10	5:30p	75.5	75.8	75.5	78	68.2	3.0	N	0.75	10.0	NNW	75.5	78.0	78.0	29.986	0.00	0.00	0.000	0.109
8/15/10	5:45p	74.0	75.5	74.0	79	67.1	3.0	NW	0.75	10.0	NW	74.0	76.0	76.0	29.979	0.00	0.00	0.000	0.094
8/15/10	6:00p	74.0	74.0	73.9	79	67.1	2.0	NW	0.50	8.0	W	74.0	76.0	76.0	29.973	0.00	0.00	0.000	0.094
8/15/10	6:15p	74.4	74.4	74.0	77	66.7	2.0	NW	0.50	8.0	WNW	74.4	76.5	76.5	29.973	0.00	0.00	0.000	0.098
8/15/10	6:30p	74.4	74.5	74.4	80	67.8	1.0	NNW	0.25	8.0	NNW	74.4	76.6	76.6	29.972	0.00	0.00	0.000	0.098
8/15/10	6:45p	74.2	74.5	74.2	79	67.3	3.0	NW	0.75	9.0	NW	74.2	76.3	76.3	29.972	0.01	0.00	0.000	0.096
8/15/10	7:00p	74.1	74.2	74.1	82	68.3	2.0	NW	0.50	9.0	NW	74.1	76.2	76.2	29.967	0.00	0.00	0.000	0.095
8/15/10	7:15p	74.0	74.1	74.0	78	66.7	2.0	WNW	0.50	8.0	WNW	74.0	76.0	76.0	29.971	0.00	0.00	0.000	0.094
8/15/10	7:30p	73.4	74.0	73.4	76	65.4	1.0	NW	0.25	7.0	ENE	73.4	75.1	75.1	29.971	0.00	0.00	0.000	0.088
8/15/10	7:45p	72.9	73.4	72.9	77	65.3	0.0	ENE	0.00	5.0	ENE	72.9	74.5	74.5	29.971	0.01	0.00	0.000	0.082
8/15/10	8:00p	72.0	72.9	72.0	81	65.8	1.0	ENE	0.25	9.0	WNW	72.0	73.5	73.5	29.975	0.02	0.06	0.000	0.073
8/15/10	8:15p	70.9	72.0	70.9	84	65.8	0.0	ENE	0.00	4.0	ENE	70.9	72.6	72.6	29.972	0.00	0.04	0.000	0.061
8/15/10	8:30p	70.5	70.8	70.5	84	65.4	0.0	ENE	0.00	2.0	ENE	70.5	72.1	72.1	29.965	0.00	0.00	0.000	0.057
8/15/10	8:45p	70.4	70.4	70.3	82	64.6	0.0	ENE	0.00	5.0	ENE	70.4	71.8	71.8	29.960	0.00	0.00	0.000	0.056
8/15/10	9:00p	70.7	70.7	70.4	82	64.9	0.0	ENE	0.00	4.0	N	70.7	72.1	72.1	29.963	0.00	0.00	0.000	0.059
8/15/10	9:15p	71.1	71.1	70.7	82	65.3	0.0	N	0.00	2.0	N	71.1	72.6	72.6	29.965	0.00	0.00	0.000	0.064
8/15/10	9:30p	71.5	71.5	71.1	83	66.1	0.0	N	0.00	4.0	N	71.5	73.1	73.1	29.961	0.00	0.00	0.000	0.068
8/15/10	9:45p	72.4	72.4	71.6	85	67.6	0.0	N	0.00	5.0	NNW	72.4	74.3	74.3	29.963	0.00	0.00	0.000	0.077
8/15/10	10:00p	73.2	73.2	72.4	85	68.4	0.0	NNW	0.00	4.0	NNW	73.2	75.3	75.3	29.958	0.00	0.00	0.000	0.085
8/15/10	10:15p	74.0	74.0	73.2	84	68.9	2.0	NW	0.50	8.0	W	74.0	76.2	76.2	29.956	0.00	0.00	0.000	0.094
8/15/10	10:30p	74.4	74.4	74.1	84	69.2	2.0	NW	0.50	7.0	W	74.4	76.9	76.9	29.955	0.00	0.00	0.000	0.098
8/15/10	10:45p	74.3	74.4	74.3	84	69.1	1.0	NW	0.25	7.0	WNW	74.3	76.7	76.7	29.956	0.00	0.00	0.000	0.097
8/15/10	11:00p	74.3	74.4	74.3	84	69.1	0.0	NE	0.00	5.0	E	74.3	76.7	76.7	29.956	0.00	0.00	0.000	0.097
8/15/10	11:15p	74.2	74.3	74.1	82	68.3	0.0	ENE	0.00	5.0	ENE	74.2	76.4	76.4	29.956	0.00	0.00	0.000	0.096
8/15/10	11:30p	74.1	74.2	74.0	81	67.9	0.0	ENE	0.00	2.0	ENE	74.1	76.2	76.2	29.955	0.00	0.00	0.000	0.095
8/15/10	11:45p	74.0	74.1	74.0	81	67.8	0.0	ENE	0.00	4.0	ENE	74.0	76.0	76.0	29.954	0.00	0.00	0.000	0.094
8/16/10	12:00a	73.8	74.0	73.8	81	67.6	0.0	ENE	0.00	4.0	ENE	73.8	75.8	75.8	29.953	0.00	0.00	0.000	0.092

Gowanus Phase III Weather Data 8/16/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/16/10	12:15a	73.6	73.8	73.6	81	67.4	0.0	ENE	0.00	4.0	ENE	73.6	75.6	75.6	29.945	0.00	0.00	0.000	0.090
8/16/10	12:30a	73.2	73.6	73.2	80	66.7	2.0	NW	0.50	9.0	NW	73.2	75.0	75.0	29.945	0.00	0.00	0.000	0.085
8/16/10	12:45a	72.7	73.2	72.7	81	66.5	1.0	ESE	0.25	5.0	E	72.7	74.4	74.4	29.949	0.00	0.00	0.000	0.080
8/16/10	1:00a	72.0	72.6	72.0	82	66.2	2.0	NW	0.50	6.0	W	72.0	73.6	73.6	29.941	0.00	0.00	0.000	0.073
8/16/10	1:15a	71.4	72.0	71.4	83	66.0	1.0	NW	0.25	5.0	NW	71.4	73.0	73.0	29.940	0.00	0.00	0.000	0.067
8/16/10	1:30a	71.1	71.4	71.1	85	66.4	1.0	WNW	0.25	7.0	NW	71.1	72.9	72.9	29.939	0.00	0.00	0.000	0.064
8/16/10	1:45a	71.0	71.1	70.9	86	66.6	1.0	NW	0.25	6.0	WNW	71.0	72.9	72.9	29.929	0.00	0.00	0.000	0.063
8/16/10	2:00a	71.1	71.1	70.9	86	66.7	1.0	NW	0.25	5.0	NW	71.1	73.0	73.0	29.925	0.00	0.00	0.000	0.064
8/16/10	2:15a	71.3	71.3	71.1	86	66.9	0.0	NW	0.00	2.0	NW	71.3	73.2	73.2	29.927	0.00	0.00	0.000	0.066
8/16/10	2:30a	71.6	71.6	71.3	86	67.2	0.0	NW	0.00	2.0	NW	71.6	73.5	73.5	29.926	0.00	0.00	0.000	0.069
8/16/10	2:45a	72.0	72.0	71.6	85	67.2	0.0	NW	0.00	1.0	NW	72.0	73.8	73.8	29.926	0.00	0.00	0.000	0.073
8/16/10	3:00a	72.4	72.4	72.0	85	67.6	0.0	NW	0.00	2.0	NW	72.4	74.3	74.3	29.925	0.00	0.00	0.000	0.077
8/16/10	3:15a	72.6	72.6	72.4	86	68.2	0.0	NW	0.00	1.0	NW	72.6	74.7	74.7	29.924	0.00	0.00	0.000	0.079
8/16/10	3:30a	72.8	72.8	72.6	86	68.4	0.0	NW	0.00	1.0	NW	72.8	74.9	74.9	29.922	0.00	0.00	0.000	0.081
8/16/10	3:45a	73.0	73.0	72.8	87	68.9	0.0	NW	0.00	1.0	NW	73.0	75.3	75.3	29.920	0.00	0.00	0.000	0.083
8/16/10	4:00a	73.2	73.2	73.0	87	69.1	0.0	NW	0.00	2.0	NNW	73.2	75.5	75.5	29.914	0.00	0.00	0.000	0.085
8/16/10	4:15a	73.4	73.4	73.2	86	69.0	0.0	NNW	0.00	1.0	NNW	73.4	75.6	75.6	29.911	0.00	0.00	0.000	0.088
8/16/10	4:30a	73.7	73.7	73.4	86	69.2	0.0	NNW	0.00	2.0	NNW	73.7	75.9	75.9	29.911	0.00	0.00	0.000	0.091
8/16/10	4:45a	73.9	73.9	73.7	86	69.4	0.0	NNW	0.00	3.0	NNW	73.9	76.1	76.1	29.910	0.00	0.00	0.000	0.093
8/16/10	5:00a	74.1	74.1	73.9	85	69.3	0.0	NNW	0.00	1.0	NNW	74.1	76.4	76.4	29.910	0.00	0.00	0.000	0.095
8/16/10	5:15a	74.2	74.2	74.1	86	69.7	0.0	ESE	0.00	1.0	NNW	74.2	76.6	76.6	29.915	0.00	0.00	0.000	0.096
8/16/10	5:30a	74.4	74.4	74.2	85	69.6	0.0	ESE	0.00	4.0	ESE	74.4	76.9	76.9	29.920	0.00	0.00	0.000	0.098
8/16/10	5:45a	74.5	74.5	74.4	85	69.7	0.0	ESE	0.00	1.0	ESE	74.5	77.1	77.1	29.922	0.00	0.00	0.000	0.099
8/16/10	6:00a	74.6	74.6	74.5	85	69.8	0.0	ESE	0.00	2.0	ESE	74.6	77.3	77.3	29.922	0.00	0.00	0.000	0.100
8/16/10	6:15a	74.6	74.7	74.6	86	70.1	0.0	N	0.00	5.0	NNE	74.6	77.3	77.3	29.924	0.00	0.00	0.000	0.100
8/16/10	6:30a	74.7	74.7	74.6	86	70.2	0.0	ENE	0.00	2.0	ENE	74.7	77.5	77.5	29.925	0.00	0.00	0.000	0.101
8/16/10	6:45a	74.8	74.8	74.7	86	70.3	0.0	ENE	0.00	2.0	ENE	74.8	77.7	77.7	29.926	0.00	0.00	0.000	0.102
8/16/10	7:00a	74.9	74.9	74.8	86	70.4	0.0	ENE	0.00	2.0	ENE	74.9	77.9	77.9	29.926	0.00	0.00	0.000	0.103
8/16/10	7:15a	75.0	75.0	74.9	86	70.5	0.0	ENE	0.00	5.0	ENE	75.0	78.1	78.1	29.926	0.00	0.00	0.000	0.104
8/16/10	7:30a	75.1	75.1	74.9	86	70.6	0.0	SSE	0.00	3.0	SSE	75.1	78.2	78.2	29.927	0.00	0.00	0.000	0.105
8/16/10	7:45a	75.3	75.3	75.1	85	70.5	0.0	SSE	0.00	2.0	ESE	75.3	78.4	78.4	29.927	0.00	0.00	0.000	0.107
8/16/10	8:00a	75.5	75.5	75.3	86	71.0	0.0	S	0.00	2.0	S	75.5	78.7	78.7	29.927	0.00	0.00	0.000	0.109
8/16/10	8:15a	75.6	75.6	75.5	86	71.1	0.0	S	0.00	3.0	S	75.6	78.8	78.8	29.926	0.00	0.00	0.000	0.110
8/16/10	8:30a	76.1	76.1	75.6	85	71.3	0.0	S	0.00	2.0	E	76.1	79.3	79.3	29.926	0.00	0.00	0.000	0.116
8/16/10	8:45a	76.6	76.6	76.1	84	71.4	0.0	ESE	0.00	6.0	ESE	76.6	79.9	79.9	29.925	0.00	0.00	0.000	0.121
8/16/10	9:00a	77.1	77.1	76.6	84	71.9	0.0	ESE	0.00	5.0	ESE	77.1	80.6	80.6	29.926	0.00	0.00	0.000	0.126
8/16/10	9:15a	77.3	77.3	77.1	83	71.7	0.0	SW	0.00	4.0	SW	77.3	80.8	80.8	29.925	0.00	0.00	0.000	0.128
8/16/10	9:30a	77.6	77.6	77.3	83	72.0	0.0	SW	0.00	6.0	WSW	77.6	81.2	81.2	29.925	0.00	0.00	0.000	0.131
8/16/10	9:45a	78.7	78.7	77.6	82	72.7	0.0	SW	0.00	2.0	SW	78.7	82.7	82.7	29.925	0.00	0.00	0.000	0.143
8/16/10	10:00a	79.8	79.8	78.7	80	73.1	0.0	SW	0.00	2.0	SW	79.8	84.2	84.2	29.925	0.00	0.00	0.000	0.154
8/16/10	10:15a	80.8	80.8	79.8	78	73.3	0.0	SW	0.00	5.0	SSW	80.8	85.7	85.7	29.926	0.00	0.00	0.000	0.165
8/16/10	10:30a	81.0	81.2	80.8	78	73.5	0.0	SSW	0.00	4.0	SSW	81.0	86.1	86.1	29.932	0.00	0.00	0.000	0.167
8/16/10	10:45a	80.6	81.0	80.6	78	73.1	0.0	SW	0.00	5.0	SW	80.6	85.3	85.3	29.934	0.00	0.00	0.000	0.162
8/16/10	11:00a	80.5	80.6	80.4	79	73.4	0.0	SW	0.00	2.0	SW	80.5	85.3	85.3	29.933	0.00	0.00	0.000	0.161
8/16/10	11:15a	81.0	81.0	80.5	78	73.5	0.0	SW	0.00	2.0	SW	81.0	86.1	86.1	29.935	0.00	0.00	0.000	0.167
8/16/10	11:30a	81.7	81.7	81.0	77	73.8	0.0	SW	0.00	1.0	SW	81.7	87.4	87.4	29.932	0.00	0.00	0.000	0.174
8/16/10	11:45a	82.0	82.0	81.7	76	73.7	0.0	SW	0.00	1.0	SW	82.0	87.8	87.8	29.927	0.00	0.00	0.000	0.177
8/16/10	12:00p	82.1	82.1	82.0	76	73.8	0.0	SW	0.00	2.0	SW	82.1	88.0	88.0	29.925	0.00	0.00	0.000	0.178
8/16/10	12:15p	82.1	82.3	82.1	76	73.8	0.0	E	0.00	4.0	E	82.1	88.0	88.0	29.914	0.00	0.00	0.000	0.178
8/16/10	12:30p	83.1	83.1	82.1	75	74.4	1.0	NNE	0.25	5.0	N	83.1	90.4	90.4	29.913	0.00	0.00	0.000	0.189
8/16/10	12:45p	83.6	83.7	83.1	74	74.4	1.0	ESE	0.25	7.0	NNW	83.6	91.3	91.3	29.911	0.00	0.00	0.000	0.194
8/16/10	1:00p	83.8	84.0	83.6	73	74.2	0.0	E	0.00	4.0	ESE	83.8	91.5	91.5	29.909	0.00	0.00	0.000	0.196
8/16/10	1:15p	83.3	83.8	83.2	74	74.1	2.0	E	0.50	7.0	NNW	83.3	90.5	90.5	29.908	0.00	0.00	0.000	0.191

Gowanus Phase III Weather Data 8/16/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/16/10	1:30p	83.9	83.9	83.4	73	74.3	0.0	ENE	0.00	4.0	E	83.9	91.7	91.7	29.905	0.00	0.00	0.000	0.197
8/16/10	1:45p	84.5	84.5	83.9	72	74.5	0.0	W	0.00	5.0	SSW	84.5	92.6	92.6	29.898	0.00	0.00	0.000	0.203
8/16/10	2:00p	85.3	85.3	84.5	71	74.8	0.0	SW	0.00	2.0	SW	85.3	94.0	94.0	29.898	0.00	0.00	0.000	0.211
8/16/10	2:15p	85.7	85.7	85.3	70	74.8	0.0	E	0.00	4.0	E	85.7	94.6	94.6	29.895	0.00	0.00	0.000	0.216
8/16/10	2:30p	85.2	85.7	85.2	71	74.7	1.0	NNW	0.25	6.0	NNW	85.2	93.7	93.7	29.896	0.00	0.00	0.000	0.210
8/16/10	2:45p	85.3	85.3	85.2	71	74.8	1.0	NNW	0.25	5.0	NW	85.3	94.0	94.0	29.894	0.00	0.00	0.000	0.211
8/16/10	3:00p	85.4	85.5	85.3	71	74.9	1.0	NW	0.25	6.0	NW	85.4	94.2	94.2	29.894	0.00	0.00	0.000	0.213
8/16/10	3:15p	84.7	85.4	84.7	73	75.1	2.0	NW	0.50	7.0	WNW	84.7	93.3	93.3	29.890	0.00	0.00	0.000	0.205
8/16/10	3:30p	83.9	84.7	83.9	74	74.7	2.0	NW	0.50	8.0	NW	83.9	92.1	92.1	29.887	0.00	0.00	0.000	0.197
8/16/10	3:45p	84.2	84.2	83.9	74	75.0	2.0	WNW	0.50	6.0	W	84.2	92.7	92.7	29.880	0.00	0.00	0.000	0.200
8/16/10	4:00p	84.3	84.3	84.2	74	75.1	2.0	WNW	0.50	7.0	NW	84.3	92.9	92.9	29.875	0.00	0.00	0.000	0.201
8/16/10	4:15p	85.0	85.0	84.3	73	75.4	2.0	NNW	0.50	7.0	NW	85.0	93.9	93.9	29.868	0.00	0.00	0.000	0.208
8/16/10	4:30p	84.5	85.3	84.5	73	74.9	2.0	NW	0.50	8.0	WNW	84.5	92.9	92.9	29.869	0.00	0.00	0.000	0.203
8/16/10	4:45p	83.2	84.4	83.2	76	74.8	1.0	ESE	0.25	8.0	WNW	83.2	90.9	90.9	29.875	0.00	0.00	0.000	0.190
8/16/10	5:00p	82.3	83.2	82.1	78	74.7	1.0	NNW	0.25	7.0	NE	82.3	89.2	89.2	29.863	0.00	0.00	0.000	0.180
8/16/10	5:15p	82.6	82.8	82.3	71	72.2	2.0	NW	0.50	8.0	WNW	82.6	87.9	87.9	29.864	0.00	0.00	0.000	0.183
8/16/10	5:30p	83.5	83.8	82.6	65	70.5	2.0	NNW	0.50	11.0	NW	83.5	88.0	88.0	29.864	0.00	0.00	0.000	0.193
8/16/10	5:45p	83.1	83.6	83.1	65	70.1	3.0	NW	0.75	10.0	W	83.1	87.1	87.1	29.866	0.00	0.00	0.000	0.189
8/16/10	6:00p	82.5	83.1	82.5	68	70.9	2.0	NW	0.50	7.0	NW	82.5	86.8	86.8	29.867	0.00	0.00	0.000	0.182
8/16/10	6:15p	82.5	82.6	82.5	72	72.6	1.0	NNW	0.25	5.0	NNW	82.5	87.9	87.9	29.890	0.00	0.00	0.000	0.182
8/16/10	6:30p	79.0	82.4	79.0	84	73.7	0.0	WNW	0.00	6.0	WNW	79.0	83.5	83.5	29.906	0.36	3.53	0.000	0.146
8/16/10	6:45p	75.9	78.9	75.8	89	72.4	1.0	W	0.25	6.0	WNW	75.9	79.3	79.3	29.880	0.13	1.48	0.000	0.114
8/16/10	7:00p	77.4	77.4	75.9	90	74.2	1.0	NW	0.25	8.0	WNW	77.4	81.7	81.7	29.864	0.00	0.00	0.000	0.129
8/16/10	7:15p	78.0	78.0	77.4	89	74.5	0.0	NW	0.00	3.0	NW	78.0	82.7	82.7	29.875	0.00	0.00	0.000	0.135
8/16/10	7:30p	78.2	78.2	78.0	90	75.0	0.0	NW	0.00	1.0	NW	78.2	83.2	83.2	29.874	0.03	0.22	0.000	0.137
8/16/10	7:45p	78.1	78.2	78.0	91	75.3	0.0	NW	0.00	1.0	NW	78.1	83.1	83.1	29.879	0.05	0.54	0.000	0.136
8/16/10	8:00p	77.8	78.1	77.8	92	75.3	0.0	NW	0.00	1.0	NW	77.8	82.7	82.7	29.881	0.13	2.76	0.000	0.133
8/16/10	8:15p	77.5	77.8	77.5	92	75.0	0.0	NW	0.00	1.0	NW	77.5	82.1	82.1	29.880	0.00	0.00	0.000	0.130
8/16/10	8:30p	77.3	77.5	77.2	92	74.8	0.0	---	0.00	0.0	---	77.3	81.8	81.8	29.880	0.00	0.00	0.000	0.128
8/16/10	8:45p	77.1	77.3	77.1	92	74.6	0.0	---	0.00	0.0	---	77.1	81.4	81.4	29.890	0.00	0.00	0.000	0.126
8/16/10	9:00p	77.1	77.1	77.1	93	74.9	0.0	---	0.00	0.0	---	77.1	81.5	81.5	29.892	0.00	0.00	0.000	0.126
8/16/10	9:15p	77.4	77.4	77.1	93	75.2	0.0	NW	0.00	1.0	NW	77.4	82.0	82.0	29.894	0.00	0.00	0.000	0.129
8/16/10	9:30p	77.3	77.4	77.3	93	75.1	0.0	NW	0.00	1.0	NW	77.3	81.9	81.9	29.894	0.00	0.00	0.000	0.128
8/16/10	9:45p	77.2	77.4	77.2	93	75.0	0.0	---	0.00	0.0	---	77.2	81.7	81.7	29.894	0.00	0.00	0.000	0.127
8/16/10	10:00p	77.1	77.2	77.1	92	74.6	0.0	---	0.00	0.0	---	77.1	81.4	81.4	29.894	0.00	0.00	0.000	0.126
8/16/10	10:15p	76.9	77.0	76.9	93	74.7	0.0	---	0.00	0.0	---	76.9	81.2	81.2	29.895	0.00	0.00	0.000	0.124
8/16/10	10:30p	76.9	76.9	76.8	93	74.7	0.0	---	0.00	0.0	---	76.9	81.2	81.2	29.895	0.00	0.00	0.000	0.124
8/16/10	10:45p	76.7	76.9	76.7	93	74.5	0.0	---	0.00	0.0	---	76.7	80.8	80.8	29.904	0.00	0.00	0.000	0.122
8/16/10	11:00p	76.5	76.7	76.5	93	74.3	0.0	---	0.00	0.0	---	76.5	80.6	80.6	29.908	0.00	0.00	0.000	0.120
8/16/10	11:15p	76.3	76.5	76.3	93	74.1	0.0	---	0.00	0.0	---	76.3	80.3	80.3	29.910	0.00	0.00	0.000	0.118
8/16/10	11:30p	76.3	76.3	76.3	94	74.4	0.0	---	0.00	0.0	---	76.3	80.4	80.4	29.910	0.00	0.00	0.000	0.118
8/16/10	11:45p	76.2	76.3	76.2	94	74.3	0.0	---	0.00	0.0	---	76.2	80.2	80.2	29.911	0.00	0.00	0.000	0.117
8/17/10	12:00a	76.2	76.3	76.2	94	74.3	0.0	---	0.00	0.0	---	76.2	80.2	80.2	29.910	0.00	0.00	0.000	0.117

Gowanus Phase III Weather Data 8/17/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/17/10	12:15a	76.2	76.3	76.2	94	74.3	0.0	---	0.00	0.0	---	76.2	80.2	80.2	29.909	0.00	0.00	0.000	0.117
8/17/10	12:30a	76.1	76.2	76.1	94	74.2	0.0	---	0.00	0.0	---	76.1	80.0	80.0	29.912	0.00	0.00	0.000	0.116
8/17/10	12:45a	76.2	76.2	76.1	94	74.3	0.0	---	0.00	0.0	---	76.2	80.2	80.2	29.914	0.00	0.00	0.000	0.117
8/17/10	1:00a	76.4	76.4	76.2	95	74.9	0.0	---	0.00	0.0	---	76.4	80.6	80.6	29.906	0.00	0.00	0.000	0.119
8/17/10	1:15a	76.3	76.4	76.2	94	74.4	0.0	---	0.00	0.0	---	76.3	80.4	80.4	29.909	0.00	0.00	0.000	0.118
8/17/10	1:30a	76.6	76.6	76.2	94	74.7	0.0	NW	0.00	2.0	NW	76.6	80.8	80.8	29.910	0.00	0.00	0.000	0.121
8/17/10	1:45a	76.7	76.7	76.6	93	74.5	0.0	NW	0.00	1.0	NW	76.7	80.8	80.8	29.918	0.00	0.00	0.000	0.122
8/17/10	2:00a	76.9	76.9	76.7	92	74.4	0.0	NW	0.00	1.0	NW	76.9	81.1	81.1	29.919	0.00	0.00	0.000	0.124
8/17/10	2:15a	76.9	76.9	76.8	91	74.1	0.0	NW	0.00	1.0	NW	76.9	81.0	81.0	29.910	0.00	0.00	0.000	0.124
8/17/10	2:30a	76.8	76.9	76.8	91	74.0	0.0	NW	0.00	1.0	NW	76.8	80.8	80.8	29.910	0.00	0.00	0.000	0.123
8/17/10	2:45a	76.6	76.8	76.6	91	73.8	0.0	---	0.00	0.0	---	76.6	80.5	80.5	29.912	0.00	0.00	0.000	0.121
8/17/10	3:00a	76.4	76.6	76.4	91	73.6	0.0	---	0.00	0.0	---	76.4	80.2	80.2	29.913	0.00	0.00	0.000	0.119
8/17/10	3:15a	76.1	76.4	76.1	91	73.3	0.0	---	0.00	0.0	---	76.1	79.7	79.7	29.917	0.00	0.00	0.000	0.116
8/17/10	3:30a	75.7	76.1	75.7	91	72.9	0.0	---	0.00	0.0	---	75.7	79.3	79.3	29.921	0.00	0.00	0.000	0.111
8/17/10	3:45a	75.1	75.6	75.1	92	72.6	0.0	---	0.00	0.0	---	75.1	78.6	78.6	29.925	0.00	0.00	0.000	0.105
8/17/10	4:00a	74.8	75.1	74.8	92	72.3	0.0	NW	0.00	1.0	NW	74.8	78.1	78.1	29.926	0.00	0.00	0.000	0.102
8/17/10	4:15a	74.8	74.8	74.7	92	72.3	0.0	---	0.00	0.0	---	74.8	78.1	78.1	29.928	0.00	0.00	0.000	0.102
8/17/10	4:30a	74.7	74.8	74.7	92	72.2	0.0	---	0.00	0.0	---	74.7	78.0	78.0	29.937	0.00	0.00	0.000	0.101
8/17/10	4:45a	74.4	74.7	74.4	92	71.9	0.0	---	0.00	0.0	---	74.4	77.4	77.4	29.940	0.00	0.00	0.000	0.098
8/17/10	5:00a	74.2	74.4	74.1	93	72.0	0.0	---	0.00	0.0	---	74.2	77.1	77.1	29.941	0.00	0.00	0.000	0.096
8/17/10	5:15a	73.8	74.2	73.8	93	71.6	0.0	---	0.00	0.0	---	73.8	76.5	76.5	29.941	0.00	0.00	0.000	0.092
8/17/10	5:30a	73.5	73.8	73.5	92	71.0	0.0	---	0.00	0.0	---	73.5	76.1	76.1	29.941	0.00	0.00	0.000	0.089
8/17/10	5:45a	73.3	73.5	73.3	92	70.8	0.0	---	0.00	0.0	---	73.3	75.9	75.9	29.944	0.00	0.00	0.000	0.086
8/17/10	6:00a	73.1	73.3	73.1	92	70.6	0.0	---	0.00	0.0	---	73.1	75.7	75.7	29.943	0.00	0.00	0.000	0.084
8/17/10	6:15a	73.0	73.1	73.0	92	70.5	0.0	---	0.00	0.0	---	73.0	75.6	75.6	29.946	0.00	0.00	0.000	0.083
8/17/10	6:30a	73.0	73.0	73.0	92	70.5	0.0	---	0.00	0.0	---	73.0	75.6	75.6	29.955	0.00	0.00	0.000	0.083
8/17/10	6:45a	73.2	73.2	73.0	91	70.4	0.0	---	0.00	0.0	---	73.2	75.8	75.8	29.956	0.00	0.00	0.000	0.085
8/17/10	7:00a	73.5	73.5	73.2	91	70.7	0.0	---	0.00	0.0	---	73.5	76.0	76.0	29.965	0.00	0.00	0.000	0.089
8/17/10	7:15a	74.3	74.3	73.5	90	71.2	0.0	---	0.00	0.0	---	74.3	77.0	77.0	29.972	0.00	0.00	0.000	0.097
8/17/10	7:30a	75.3	75.3	74.4	87	71.2	0.0	NW	0.00	2.0	NW	75.3	78.5	78.5	29.974	0.00	0.00	0.000	0.107
8/17/10	7:45a	75.9	75.9	75.3	86	71.4	0.0	NW	0.00	1.0	NW	75.9	79.1	79.1	29.973	0.00	0.00	0.000	0.114
8/17/10	8:00a	76.8	76.8	76.0	85	71.9	0.0	NW	0.00	4.0	NNW	76.8	80.3	80.3	29.976	0.00	0.00	0.000	0.123
8/17/10	8:15a	78.1	78.1	76.8	82	72.2	0.0	NW	0.00	2.0	NW	78.1	81.8	81.8	29.985	0.00	0.00	0.000	0.136
8/17/10	8:30a	79.4	79.4	78.2	79	72.3	0.0	NW	0.00	1.0	NW	79.4	83.3	83.3	29.982	0.00	0.00	0.000	0.150
8/17/10	8:45a	80.5	80.5	79.5	76	72.2	0.0	NW	0.00	2.0	NW	80.5	84.7	84.7	29.971	0.00	0.00	0.000	0.161
8/17/10	9:00a	81.3	81.3	80.5	75	72.6	0.0	NW	0.00	2.0	NW	81.3	86.0	86.0	29.970	0.00	0.00	0.000	0.170
8/17/10	9:15a	82.3	82.3	81.3	73	72.8	0.0	NW	0.00	4.0	NW	82.3	87.7	87.7	29.971	0.00	0.00	0.000	0.180
8/17/10	9:30a	83.6	83.6	82.3	70	72.8	0.0	NW	0.00	5.0	WNW	83.6	89.9	89.9	29.973	0.00	0.00	0.000	0.194
8/17/10	9:45a	84.1	84.1	83.6	68	72.4	0.0	WNW	0.00	5.0	NW	84.1	90.4	90.4	29.972	0.00	0.00	0.000	0.199
8/17/10	10:00a	85.6	85.6	84.1	63	71.6	0.0	WNW	0.00	1.0	WNW	85.6	91.8	91.8	29.982	0.00	0.00	0.000	0.215
8/17/10	10:15a	86.8	86.8	85.7	61	71.7	0.0	WNW	0.00	2.0	WNW	86.8	93.6	93.6	29.981	0.00	0.00	0.000	0.227
8/17/10	10:30a	87.4	87.4	86.8	60	71.8	0.0	WNW	0.00	3.0	WNW	87.4	94.1	94.1	29.982	0.00	0.00	0.000	0.233
8/17/10	10:45a	87.5	87.5	87.1	58	70.9	0.0	WNW	0.00	4.0	WNW	87.5	93.5	93.5	29.979	0.00	0.00	0.000	0.234
8/17/10	11:00a	87.1	87.5	87.1	59	71.0	1.0	W	0.25	5.0	W	87.1	93.4	93.4	29.983	0.00	0.00	0.000	0.230
8/17/10	11:15a	87.4	87.5	87.1	54	68.7	0.0	WSW	0.00	4.0	NW	87.4	92.0	92.0	29.986	0.00	0.00	0.000	0.233
8/17/10	11:30a	87.1	87.4	87.0	54	68.4	0.0	NNW	0.00	5.0	N	87.1	91.6	91.6	29.984	0.00	0.00	0.000	0.230
8/17/10	11:45a	87.4	87.5	87.1	54	68.7	0.0	WSW	0.00	6.0	WSW	87.4	92.0	92.0	29.980	0.00	0.00	0.000	0.233
8/17/10	12:00p	87.0	87.7	86.9	54	68.3	1.0	NNE	0.25	7.0	NNE	87.0	91.5	91.5	29.979	0.00	0.00	0.000	0.229
8/17/10	12:15p	87.3	87.5	87.0	55	69.2	0.0	NNW	0.00	5.0	N	87.3	92.2	92.2	29.976	0.00	0.00	0.000	0.232
8/17/10	12:30p	87.8	88.3	87.3	54	69.1	0.0	NNE	0.00	4.0	WNW	87.8	92.5	92.5	29.976	0.00	0.00	0.000	0.238
8/17/10	12:45p	87.7	87.8	87.5	55	69.5	0.0	NNE	0.00	5.0	NNE	87.7	92.7	92.7	29.974	0.00	0.00	0.000	0.236
8/17/10	1:00p	88.2	88.2	87.7	54	69.5	0.0	NNE	0.00	5.0	NNE	88.2	93.2	93.2	29.971	0.00	0.00	0.000	0.242
8/17/10	1:15p	88.6	88.9	88.2	52	68.7	0.0	W	0.00	5.0	W	88.6	93.5	93.5	29.970	0.00	0.00	0.000	0.246

Gowanus Phase III Weather Data 8/17/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/17/10	1:30p	89.2	89.2	88.6	50	68.1	0.0	W	0.00	1.0	W	89.2	94.0	94.0	29.968	0.00	0.00	0.000	0.252
8/17/10	1:45p	88.9	89.4	88.9	49	67.3	0.0	N	0.00	5.0	NNE	88.9	93.1	93.1	29.958	0.00	0.00	0.000	0.249
8/17/10	2:00p	89.0	89.1	88.9	49	67.4	0.0	NW	0.00	2.0	NW	89.0	93.3	93.3	29.959	0.00	0.00	0.000	0.250
8/17/10	2:15p	89.0	89.0	88.4	48	66.8	0.0	N	0.00	4.0	NNW	89.0	93.0	93.0	29.958	0.00	0.00	0.000	0.250
8/17/10	2:30p	90.4	90.4	89.1	47	67.4	0.0	WNW	0.00	4.0	WSW	90.4	94.8	94.8	29.956	0.00	0.00	0.000	0.265
8/17/10	2:45p	91.0	91.0	90.4	46	67.3	0.0	SW	0.00	4.0	W	91.0	95.5	95.5	29.951	0.00	0.00	0.000	0.271
8/17/10	3:00p	92.5	92.5	91.1	45	68.1	0.0	WNW	0.00	5.0	NNE	92.5	97.9	97.9	29.946	0.00	0.00	0.000	0.286
8/17/10	3:15p	92.6	92.8	92.5	43	66.8	0.0	NW	0.00	4.0	NW	92.6	97.1	97.1	29.941	0.00	0.00	0.000	0.287
8/17/10	3:30p	92.4	93.0	92.4	43	66.7	0.0	SW	0.00	6.0	SW	92.4	96.7	96.7	29.940	0.00	0.00	0.000	0.285
8/17/10	3:45p	93.0	93.1	92.4	43	67.2	1.0	SSW	0.25	4.0	SSW	93.0	97.8	97.8	29.937	0.00	0.00	0.000	0.292
8/17/10	4:00p	92.8	93.1	92.8	42	66.3	0.0	SSW	0.00	2.0	SSW	92.8	96.9	96.9	29.934	0.00	0.00	0.000	0.290
8/17/10	4:15p	91.8	92.8	91.8	44	66.8	0.0	SSE	0.00	4.0	S	91.8	96.1	96.1	29.937	0.00	0.00	0.000	0.279
8/17/10	4:30p	91.4	91.8	91.3	44	66.4	0.0	SW	0.00	5.0	SW	91.4	95.4	95.4	29.928	0.00	0.00	0.000	0.275
8/17/10	4:45p	90.9	91.4	90.9	45	66.6	1.0	SW	0.25	7.0	SSW	90.9	94.9	94.9	29.931	0.00	0.00	0.000	0.270
8/17/10	5:00p	91.0	91.0	90.8	45	66.7	0.0	SW	0.00	6.0	SSW	91.0	95.1	95.1	29.933	0.00	0.00	0.000	0.271
8/17/10	5:15p	90.5	91.0	90.5	46	66.9	1.0	SW	0.25	6.0	SW	90.5	94.6	94.6	29.933	0.00	0.00	0.000	0.266
8/17/10	5:30p	89.0	90.5	89.0	48	66.8	3.0	NW	0.75	9.0	W	89.0	93.0	93.0	29.939	0.00	0.00	0.000	0.250
8/17/10	5:45p	87.5	89.0	87.5	45	63.5	3.0	W	0.75	10.0	W	87.5	89.1	89.1	29.940	0.00	0.00	0.000	0.234
8/17/10	6:00p	86.5	87.4	86.3	47	63.9	4.0	NW	1.00	9.0	WNW	86.5	88.4	88.4	29.936	0.00	0.00	0.000	0.224
8/17/10	6:15p	86.4	86.6	86.4	47	63.8	2.0	NW	0.50	9.0	WNW	86.4	88.2	88.2	29.932	0.00	0.00	0.000	0.223
8/17/10	6:30p	86.1	86.4	86.0	52	66.4	2.0	NW	0.50	9.0	W	86.1	89.0	89.0	29.936	0.00	0.00	0.000	0.220
8/17/10	6:45p	86.4	86.5	86.1	54	67.8	0.0	NNW	0.00	6.0	NNW	86.4	90.2	90.2	29.941	0.00	0.00	0.000	0.223
8/17/10	7:00p	85.7	86.4	85.7	58	69.2	0.0	NNW	0.00	5.0	WSW	85.7	90.2	90.2	29.942	0.00	0.00	0.000	0.216
8/17/10	7:15p	85.7	85.7	85.7	60	70.2	0.0	E	0.00	2.0	E	85.7	90.9	90.9	29.943	0.00	0.00	0.000	0.216
8/17/10	7:30p	85.3	85.7	85.3	58	68.8	0.0	E	0.00	1.0	E	85.3	89.4	89.4	29.944	0.00	0.00	0.000	0.211
8/17/10	7:45p	85.0	85.3	85.0	56	67.5	0.0	E	0.00	1.0	E	85.0	88.2	88.2	29.952	0.00	0.00	0.000	0.208
8/17/10	8:00p	84.4	85.0	84.4	55	66.5	0.0	E	0.00	1.0	E	84.4	87.1	87.1	29.957	0.00	0.00	0.000	0.202
8/17/10	8:15p	84.0	84.4	84.0	52	64.5	0.0	E	0.00	1.0	E	84.0	86.1	86.1	29.959	0.00	0.00	0.000	0.198
8/17/10	8:30p	83.8	83.9	83.8	49	62.6	0.0	E	0.00	1.0	E	83.8	85.3	85.3	29.968	0.00	0.00	0.000	0.196
8/17/10	8:45p	83.5	83.8	83.5	49	62.3	0.0	E	0.00	2.0	E	83.5	84.9	84.9	29.969	0.00	0.00	0.000	0.193
8/17/10	9:00p	83.3	83.5	83.3	48	61.6	0.0	E	0.00	3.0	SSW	83.3	84.4	84.4	29.971	0.00	0.00	0.000	0.191
8/17/10	9:15p	83.1	83.3	83.1	50	62.5	0.0	SSW	0.00	1.0	SSW	83.1	84.4	84.4	29.973	0.00	0.00	0.000	0.189
8/17/10	9:30p	82.4	83.0	82.4	51	62.5	0.0	SSW	0.00	2.0	SSW	82.4	83.4	83.4	29.983	0.00	0.00	0.000	0.181
8/17/10	9:45p	82.0	82.4	82.0	52	62.6	0.0	SSW	0.00	1.0	SSW	82.0	82.9	82.9	29.985	0.00	0.00	0.000	0.177
8/17/10	10:00p	81.7	82.0	81.7	53	62.9	0.0	SSW	0.00	1.0	SSW	81.7	82.6	82.6	29.986	0.00	0.00	0.000	0.174
8/17/10	10:15p	81.6	81.7	81.6	53	62.8	0.0	SSW	0.00	1.0	SSW	81.6	82.5	82.5	29.990	0.00	0.00	0.000	0.173
8/17/10	10:30p	81.6	81.6	81.6	54	63.3	0.0	SSW	0.00	4.0	SSW	81.6	82.6	82.6	29.987	0.00	0.00	0.000	0.173
8/17/10	10:45p	81.3	81.6	81.3	52	62.0	0.0	SSW	0.00	2.0	SSW	81.3	81.9	81.9	30.002	0.00	0.00	0.000	0.170
8/17/10	11:00p	81.1	81.3	81.0	52	61.8	0.0	SSW	0.00	1.0	SSW	81.1	81.6	81.6	30.002	0.00	0.00	0.000	0.168
8/17/10	11:15p	80.9	81.0	80.9	52	61.6	0.0	SSW	0.00	2.0	SSW	80.9	81.4	81.4	30.003	0.00	0.00	0.000	0.166
8/17/10	11:30p	80.7	80.9	80.7	54	62.5	0.0	SSW	0.00	2.0	SSW	80.7	81.4	81.4	30.003	0.00	0.00	0.000	0.164
8/17/10	11:45p	80.5	80.7	80.5	53	61.8	0.0	SSW	0.00	2.0	SSW	80.5	81.0	81.0	30.013	0.00	0.00	0.000	0.161
8/18/10	12:00a	80.4	80.5	80.4	53	61.7	0.0	SSW	0.00	1.0	SSW	80.4	80.9	80.9	30.002	0.00	0.00	0.000	0.160

Gowanus Phase III Weather Data 8/18/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/18/10	12:15a	80.1	80.4	80.1	54	62.0	0.0	---	0.00	0.0	---	80.1	80.7	80.7	30.003	0.00	0.00	0.000	0.157
8/18/10	12:30a	80.0	80.0	79.9	53	61.3	0.0	SSW	0.00	1.0	SSW	80.0	80.5	80.5	30.007	0.00	0.00	0.000	0.156
8/18/10	12:45a	80.0	80.1	80.0	52	60.8	0.0	SSW	0.00	1.0	SSW	80.0	80.3	80.3	30.002	0.00	0.00	0.000	0.156
8/18/10	1:00a	80.1	80.1	80.0	53	61.4	0.0	NW	0.00	4.0	NW	80.1	80.6	80.6	30.003	0.00	0.00	0.000	0.157
8/18/10	1:15a	79.7	80.1	79.7	55	62.1	0.0	NW	0.00	1.0	NW	79.7	80.4	80.4	30.009	0.00	0.00	0.000	0.153
8/18/10	1:30a	79.3	79.7	79.3	56	62.2	0.0	NW	0.00	4.0	NW	79.3	80.0	80.0	30.006	0.00	0.00	0.000	0.149
8/18/10	1:45a	79.0	79.4	79.0	56	62.0	0.0	NW	0.00	1.0	NW	79.0	79.7	79.7	30.012	0.00	0.00	0.000	0.146
8/18/10	2:00a	78.8	79.0	78.8	56	61.8	0.0	NW	0.00	1.0	NW	78.8	79.5	79.5	30.013	0.00	0.00	0.000	0.144
8/18/10	2:15a	78.7	78.9	78.7	56	61.7	0.0	NW	0.00	2.0	NW	78.7	79.4	79.4	30.015	0.00	0.00	0.000	0.143
8/18/10	2:30a	78.4	78.7	78.4	59	62.9	0.0	NW	0.00	1.0	NW	78.4	79.3	79.3	30.018	0.00	0.00	0.000	0.140
8/18/10	2:45a	77.8	78.4	77.8	58	61.8	0.0	NW	0.00	2.0	NW	77.8	78.5	78.5	30.017	0.00	0.00	0.000	0.133
8/18/10	3:00a	78.0	78.0	77.8	57	61.5	0.0	ENE	0.00	4.0	NNE	78.0	78.7	78.7	30.016	0.00	0.00	0.000	0.135
8/18/10	3:15a	78.1	78.2	78.0	56	61.1	0.0	ENE	0.00	4.0	ENE	78.1	78.7	78.7	30.014	0.00	0.00	0.000	0.136
8/18/10	3:30a	78.2	78.2	78.1	57	61.7	1.0	N	0.25	8.0	N	78.2	78.9	78.9	30.016	0.00	0.00	0.000	0.137
8/18/10	3:45a	77.9	78.2	77.9	57	61.4	0.0	ESE	0.00	3.0	ESE	77.9	78.5	78.5	30.016	0.00	0.00	0.000	0.134
8/18/10	4:00a	77.5	77.9	77.5	57	61.1	0.0	S	0.00	5.0	ESE	77.5	78.1	78.1	30.008	0.00	0.00	0.000	0.130
8/18/10	4:15a	77.0	77.5	77.0	59	61.6	0.0	ESE	0.00	1.0	E	77.0	77.7	77.7	30.009	0.00	0.00	0.000	0.125
8/18/10	4:30a	76.6	77.0	76.6	60	61.7	0.0	ESE	0.00	2.0	ESE	76.6	77.4	77.4	30.006	0.00	0.00	0.000	0.121
8/18/10	4:45a	76.3	76.6	76.3	60	61.4	0.0	ESE	0.00	2.0	ESE	76.3	77.0	77.0	30.002	0.00	0.00	0.000	0.118
8/18/10	5:00a	76.1	76.3	76.1	60	61.2	1.0	NNE	0.25	8.0	NNE	76.1	76.8	76.8	30.006	0.00	0.00	0.000	0.116
8/18/10	5:15a	75.9	76.1	75.9	60	61.0	1.0	SSE	0.25	6.0	N	75.9	76.6	76.6	30.013	0.00	0.00	0.000	0.114
8/18/10	5:30a	75.8	75.9	75.8	60	60.9	0.0	S	0.00	4.0	S	75.8	76.5	76.5	30.016	0.00	0.00	0.000	0.113
8/18/10	5:45a	75.9	75.9	75.8	60	61.0	0.0	ESE	0.00	4.0	ESE	75.9	76.6	76.6	30.019	0.00	0.00	0.000	0.114
8/18/10	6:00a	75.8	75.9	75.8	60	60.9	0.0	SE	0.00	3.0	SE	75.8	76.5	76.5	30.032	0.00	0.00	0.000	0.113
8/18/10	6:15a	75.8	75.8	75.8	60	60.9	0.0	SE	0.00	2.0	SE	75.8	76.5	76.5	30.034	0.00	0.00	0.000	0.113
8/18/10	6:30a	75.7	75.8	75.7	60	60.8	0.0	SE	0.00	5.0	WNW	75.7	76.5	76.5	30.035	0.00	0.00	0.000	0.111
8/18/10	6:45a	75.8	75.8	75.7	59	60.4	0.0	NW	0.00	5.0	N	75.8	76.5	76.5	30.034	0.00	0.00	0.000	0.113
8/18/10	7:00a	76.1	76.1	75.8	59	60.7	0.0	N	0.00	1.0	N	76.1	76.7	76.7	30.034	0.00	0.00	0.000	0.116
8/18/10	7:15a	76.4	76.4	76.1	58	60.5	0.0	ESE	0.00	3.0	ESE	76.4	77.0	77.0	30.043	0.00	0.00	0.000	0.119
8/18/10	7:30a	76.8	76.8	76.4	58	60.9	0.0	N	0.00	5.0	SE	76.8	77.4	77.4	30.049	0.00	0.00	0.000	0.123
8/18/10	7:45a	77.0	77.0	76.8	58	61.1	0.0	E	0.00	4.0	E	77.0	77.6	77.6	30.051	0.00	0.00	0.000	0.125
8/18/10	8:00a	77.2	77.2	77.0	56	60.3	0.0	WSW	0.00	4.0	E	77.2	77.6	77.6	30.049	0.00	0.00	0.000	0.127
8/18/10	8:15a	77.1	77.3	77.1	56	60.2	1.0	E	0.25	5.0	E	77.1	77.5	77.5	30.053	0.00	0.00	0.000	0.126
8/18/10	8:30a	76.9	77.1	76.9	56	60.0	1.0	E	0.25	5.0	NNE	76.9	77.3	77.3	30.057	0.00	0.00	0.000	0.124
8/18/10	8:45a	77.0	77.0	76.8	57	60.6	0.0	ESE	0.00	2.0	ESE	77.0	77.5	77.5	30.050	0.00	0.00	0.000	0.125
8/18/10	9:00a	77.3	77.3	77.0	56	60.4	0.0	ESE	0.00	2.0	ESE	77.3	77.8	77.8	30.048	0.00	0.00	0.000	0.128
8/18/10	9:15a	77.7	77.7	77.3	55	60.2	0.0	ESE	0.00	2.0	ESE	77.7	78.1	78.1	30.048	0.00	0.00	0.000	0.132
8/18/10	9:30a	78.0	78.1	77.7	53	59.5	0.0	ESE	0.00	3.0	ESE	78.0	78.3	78.3	30.043	0.00	0.00	0.000	0.135
8/18/10	9:45a	78.1	78.1	78.0	53	59.6	1.0	ESE	0.25	5.0	ESE	78.1	78.4	78.4	30.039	0.00	0.00	0.000	0.136
8/18/10	10:00a	78.4	78.4	78.1	52	59.3	1.0	ESE	0.25	5.0	WNW	78.4	78.7	78.7	30.041	0.00	0.00	0.000	0.140
8/18/10	10:15a	78.7	78.7	78.4	51	59.0	1.0	ESE	0.25	6.0	ESE	78.7	78.9	78.9	30.040	0.00	0.00	0.000	0.143
8/18/10	10:30a	79.2	79.2	78.7	52	60.1	1.0	E	0.25	7.0	NW	79.2	79.6	79.6	30.034	0.00	0.00	0.000	0.148
8/18/10	10:45a	79.4	79.4	79.2	50	59.1	1.0	ENE	0.25	6.0	ENE	79.4	79.6	79.6	30.034	0.00	0.00	0.000	0.150
8/18/10	11:00a	79.5	79.6	79.4	48	58.1	2.0	WNW	0.50	9.0	WNW	79.5	79.4	79.4	30.032	0.00	0.00	0.000	0.151
8/18/10	11:15a	79.7	79.7	79.4	46	57.1	2.0	NW	0.50	7.0	WNW	79.7	79.4	79.4	30.032	0.00	0.00	0.000	0.153
8/18/10	11:30a	79.9	79.9	79.6	45	56.7	2.0	NNW	0.50	9.0	WNW	79.9	79.5	79.5	30.032	0.00	0.00	0.000	0.155
8/18/10	11:45a	80.7	80.7	79.9	43	56.1	2.0	NNW	0.50	8.0	WNW	80.7	80.1	80.1	30.030	0.00	0.00	0.000	0.164
8/18/10	12:00p	80.6	80.8	80.6	43	56.0	3.0	NW	0.75	10.0	W	80.6	80.0	80.0	30.028	0.00	0.00	0.000	0.162
8/18/10	12:15p	81.5	81.5	80.5	45	58.1	3.0	NW	0.75	11.0	WNW	81.5	81.3	81.3	30.021	0.00	0.00	0.000	0.172
8/18/10	12:30p	82.0	82.3	81.5	45	58.6	2.0	WNW	0.50	7.0	WNW	82.0	81.9	81.9	30.017	0.00	0.00	0.000	0.177
8/18/10	12:45p	81.3	82.0	81.3	46	58.5	2.0	WNW	0.50	8.0	NW	81.3	81.1	81.1	30.011	0.00	0.00	0.000	0.170
8/18/10	1:00p	80.5	81.3	80.5	48	59.0	2.0	WNW	0.50	10.0	ENE	80.5	80.4	80.4	30.008	0.00	0.00	0.000	0.161
8/18/10	1:15p	80.6	80.6	80.4	50	60.2	1.0	WNW	0.25	6.0	WNW	80.6	80.8	80.8	30.006	0.00	0.00	0.000	0.162

Gowanus Phase III Weather Data 8/18/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/18/10	1:30p	80.5	80.9	80.5	54	62.3	2.0	NNW	0.50	7.0	NNW	80.5	81.2	81.2	30.004	0.00	0.00	0.000	0.161
8/18/10	1:45p	80.6	80.6	80.3	56	63.5	1.0	N	0.25	6.0	WNW	80.6	81.6	81.6	30.007	0.00	0.00	0.000	0.162
8/18/10	2:00p	80.7	81.0	80.5	56	63.5	2.0	WSW	0.50	7.0	WSW	80.7	81.7	81.7	30.009	0.00	0.00	0.000	0.164
8/18/10	2:15p	81.5	81.5	80.8	57	64.8	1.0	ENE	0.25	5.0	W	81.5	83.0	83.0	30.014	0.00	0.00	0.000	0.172
8/18/10	2:30p	81.8	82.0	81.6	56	64.6	1.0	W	0.25	4.0	NNW	81.8	83.3	83.3	30.009	0.00	0.00	0.000	0.175
8/18/10	2:45p	82.3	82.3	81.7	56	65.0	0.0	E	0.00	5.0	W	82.3	84.0	84.0	30.002	0.00	0.00	0.000	0.180
8/18/10	3:00p	82.9	82.9	82.3	53	64.0	1.0	E	0.25	5.0	E	82.9	84.5	84.5	30.000	0.00	0.00	0.000	0.186
8/18/10	3:15p	82.8	83.1	82.8	55	65.0	1.0	NNW	0.25	6.0	NW	82.8	84.6	84.6	29.988	0.00	0.00	0.000	0.185
8/18/10	3:30p	82.4	82.8	82.4	56	65.1	1.0	NW	0.25	5.0	NW	82.4	84.2	84.2	29.988	0.00	0.00	0.000	0.181
8/18/10	3:45p	82.4	82.5	82.3	58	66.1	0.0	E	0.00	5.0	ENE	82.4	84.5	84.5	29.985	0.00	0.00	0.000	0.181
8/18/10	4:00p	81.5	82.4	81.5	61	66.8	1.0	NNW	0.25	5.0	NNW	81.5	83.6	83.6	29.973	0.00	0.00	0.000	0.172
8/18/10	4:15p	81.6	81.6	81.3	61	66.8	1.0	NNW	0.25	6.0	NW	81.6	83.8	83.8	29.968	0.00	0.00	0.000	0.173
8/18/10	4:30p	80.8	81.6	80.8	62	66.6	2.0	NW	0.50	6.0	WNW	80.8	82.7	82.7	29.968	0.00	0.00	0.000	0.165
8/18/10	4:45p	81.1	81.1	80.8	61	66.4	1.0	NNW	0.25	6.0	W	81.1	83.0	83.0	29.959	0.00	0.00	0.000	0.168
8/18/10	5:00p	81.1	81.2	81.1	60	65.9	0.0	NNW	0.00	5.0	NNW	81.1	82.8	82.8	29.963	0.00	0.00	0.000	0.168
8/18/10	5:15p	81.3	81.3	81.1	61	66.6	1.0	NW	0.25	5.0	W	81.3	83.3	83.3	29.958	0.00	0.00	0.000	0.170
8/18/10	5:30p	80.7	81.3	80.7	63	66.9	1.0	WNW	0.25	6.0	NW	80.7	82.7	82.7	29.956	0.00	0.00	0.000	0.164
8/18/10	5:45p	80.3	80.7	80.3	65	67.5	1.0	WNW	0.25	5.0	WNW	80.3	82.5	82.5	29.948	0.00	0.00	0.000	0.159
8/18/10	6:00p	79.4	80.3	79.4	68	67.9	1.0	NW	0.25	4.0	WNW	79.4	81.6	81.6	29.955	0.00	0.00	0.000	0.150
8/18/10	6:15p	78.7	79.4	78.7	70	68.1	1.0	NW	0.25	4.0	NW	78.7	80.9	80.9	29.955	0.00	0.00	0.000	0.143
8/18/10	6:30p	78.6	78.7	78.6	70	68.0	0.0	NW	0.00	4.0	NW	78.6	80.8	80.8	29.956	0.00	0.00	0.000	0.142
8/18/10	6:45p	78.1	78.6	78.1	71	67.9	0.0	NW	0.00	4.0	NW	78.1	80.3	80.3	29.956	0.00	0.00	0.000	0.136
8/18/10	7:00p	77.5	78.1	77.5	71	67.4	0.0	ENE	0.00	5.0	ENE	77.5	79.6	79.6	29.949	0.00	0.00	0.000	0.130
8/18/10	7:15p	77.4	77.5	77.4	71	67.3	0.0	ENE	0.00	4.0	N	77.4	79.5	79.5	29.956	0.00	0.00	0.000	0.129
8/18/10	7:30p	77.1	77.4	77.1	71	67.0	0.0	ESE	0.00	4.0	ESE	77.1	79.1	79.1	29.954	0.00	0.00	0.000	0.126
8/18/10	7:45p	77.0	77.2	77.0	72	67.3	0.0	ESE	0.00	2.0	ESE	77.0	79.1	79.1	29.955	0.00	0.00	0.000	0.125
8/18/10	8:00p	76.7	77.0	76.7	71	66.6	0.0	ESE	0.00	3.0	ESE	76.7	78.7	78.7	29.955	0.00	0.00	0.000	0.122
8/18/10	8:15p	76.7	76.8	76.7	70	66.2	0.0	ESE	0.00	2.0	ESE	76.7	78.6	78.6	29.951	0.00	0.00	0.000	0.122
8/18/10	8:30p	76.7	76.8	76.7	70	66.2	0.0	ESE	0.00	2.0	ESE	76.7	78.6	78.6	29.944	0.00	0.00	0.000	0.122
8/18/10	8:45p	76.6	76.7	76.6	70	66.1	0.0	ESE	0.00	2.0	ESE	76.6	78.5	78.5	29.946	0.00	0.00	0.000	0.121
8/18/10	9:00p	76.5	76.6	76.5	67	64.7	0.0	ESE	0.00	2.0	ESE	76.5	78.0	78.0	29.952	0.00	0.00	0.000	0.120
8/18/10	9:15p	76.5	76.5	76.5	65	63.9	0.0	ESE	0.00	1.0	ESE	76.5	77.8	77.8	29.955	0.00	0.00	0.000	0.120
8/18/10	9:30p	76.4	76.5	76.4	62	62.4	0.0	ESE	0.00	2.0	ESE	76.4	77.3	77.3	29.954	0.00	0.00	0.000	0.119
8/18/10	9:45p	76.3	76.4	76.3	63	62.8	0.0	ESE	0.00	2.0	ESE	76.3	77.3	77.3	29.948	0.00	0.00	0.000	0.118
8/18/10	10:00p	75.9	76.3	75.9	67	64.2	0.0	ESE	0.00	4.0	ESE	75.9	77.3	77.3	29.952	0.00	0.00	0.000	0.114
8/18/10	10:15p	75.7	75.9	75.7	67	64.0	0.0	ESE	0.00	1.0	ESE	75.7	77.1	77.1	29.952	0.00	0.00	0.000	0.111
8/18/10	10:30p	75.6	75.8	75.6	68	64.3	0.0	ESE	0.00	2.0	ESE	75.6	77.2	77.2	29.956	0.00	0.00	0.000	0.110
8/18/10	10:45p	75.6	75.6	75.5	68	64.3	0.0	---	0.00	0.0	---	75.6	77.2	77.2	29.952	0.00	0.00	0.000	0.110
8/18/10	11:00p	75.6	75.6	75.5	68	64.3	0.0	---	0.00	0.0	---	75.6	77.2	77.2	29.955	0.00	0.00	0.000	0.110
8/18/10	11:15p	75.6	75.6	75.6	68	64.3	0.0	ESE	0.00	1.0	ESE	75.6	77.2	77.2	29.942	0.00	0.00	0.000	0.110
8/18/10	11:30p	75.4	75.6	75.4	69	64.5	0.0	ESE	0.00	1.0	ESE	75.4	77.0	77.0	29.941	0.00	0.00	0.000	0.108
8/18/10	11:45p	75.3	75.4	75.3	70	64.8	0.0	---	0.00	0.0	---	75.3	77.0	77.0	29.941	0.00	0.00	0.000	0.107
8/19/10	12:00a	75.1	75.3	75.1	70	64.6	0.0	---	0.00	0.0	---	75.1	76.8	76.8	29.933	0.00	0.00	0.000	0.105

Gowanus Phase III Weather Data 8/19/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/19/10	12:15a	75.1	75.1	75.1	71	65.1	0.0	---	0.00	0.0	---	75.1	76.9	76.9	29.927	0.00	0.00	0.000	0.105
8/19/10	12:30a	74.9	75.1	74.9	75	66.4	0.0	---	0.00	0.0	---	74.9	77.0	77.0	29.926	0.00	0.00	0.000	0.103
8/19/10	12:45a	74.5	74.9	74.5	76	66.4	0.0	---	0.00	0.0	---	74.5	76.6	76.6	29.924	0.00	0.00	0.000	0.099
8/19/10	1:00a	74.1	74.4	74.0	77	66.4	0.0	---	0.00	0.0	---	74.1	76.1	76.1	29.921	0.00	0.00	0.000	0.095
8/19/10	1:15a	73.7	74.0	73.7	78	66.4	0.0	---	0.00	0.0	---	73.7	75.6	75.6	29.912	0.00	0.00	0.000	0.091
8/19/10	1:30a	73.5	73.7	73.5	79	66.6	0.0	---	0.00	0.0	---	73.5	75.4	75.4	29.913	0.00	0.00	0.000	0.089
8/19/10	1:45a	73.2	73.5	73.2	79	66.3	0.0	---	0.00	0.0	---	73.2	75.0	75.0	29.909	0.00	0.00	0.000	0.085
8/19/10	2:00a	72.9	73.2	72.9	79	66.0	0.0	ESE	0.00	1.0	ESE	72.9	74.6	74.6	29.905	0.00	0.00	0.000	0.082
8/19/10	2:15a	72.8	72.9	72.8	79	65.9	0.0	---	0.00	0.0	---	72.8	74.5	74.5	29.899	0.00	0.00	0.000	0.081
8/19/10	2:30a	72.8	72.8	72.8	78	65.5	0.0	---	0.00	0.0	---	72.8	74.4	74.4	29.899	0.00	0.00	0.000	0.081
8/19/10	2:45a	72.8	72.8	72.8	78	65.5	0.0	---	0.00	0.0	---	72.8	74.4	74.4	29.897	0.00	0.00	0.000	0.081
8/19/10	3:00a	72.7	72.8	72.7	79	65.8	0.0	---	0.00	0.0	---	72.7	74.3	74.3	29.898	0.00	0.00	0.000	0.080
8/19/10	3:15a	72.6	72.7	72.6	79	65.7	0.0	---	0.00	0.0	---	72.6	74.2	74.2	29.896	0.00	0.00	0.000	0.079
8/19/10	3:30a	72.4	72.6	72.4	80	65.9	0.0	---	0.00	0.0	---	72.4	74.0	74.0	29.897	0.00	0.00	0.000	0.077
8/19/10	3:45a	72.3	72.4	72.3	80	65.8	0.0	ESE	0.00	1.0	ESE	72.3	73.8	73.8	29.897	0.00	0.00	0.000	0.076
8/19/10	4:00a	72.2	72.3	72.2	81	66.0	0.0	---	0.00	0.0	---	72.2	73.8	73.8	29.895	0.00	0.00	0.000	0.075
8/19/10	4:15a	72.0	72.2	72.0	81	65.8	0.0	---	0.00	0.0	---	72.0	73.5	73.5	29.894	0.00	0.00	0.000	0.073
8/19/10	4:30a	71.9	72.0	71.9	80	65.4	0.0	---	0.00	0.0	---	71.9	73.3	73.3	29.894	0.00	0.00	0.000	0.072
8/19/10	4:45a	71.7	71.9	71.7	80	65.2	0.0	---	0.00	0.0	---	71.7	73.1	73.1	29.893	0.00	0.00	0.000	0.070
8/19/10	5:00a	71.4	71.7	71.4	81	65.3	0.0	---	0.00	0.0	---	71.4	72.8	72.8	29.893	0.00	0.00	0.000	0.067
8/19/10	5:15a	71.2	71.4	71.2	81	65.1	0.0	---	0.00	0.0	---	71.2	72.6	72.6	29.894	0.00	0.00	0.000	0.065
8/19/10	5:30a	70.9	71.2	70.9	82	65.1	0.0	---	0.00	0.0	---	70.9	72.4	72.4	29.895	0.00	0.00	0.000	0.061
8/19/10	5:45a	71.0	71.0	70.8	82	65.2	0.0	---	0.00	0.0	---	71.0	72.5	72.5	29.898	0.00	0.00	0.000	0.063
8/19/10	6:00a	71.1	71.1	71.0	81	65.0	0.0	---	0.00	0.0	---	71.1	72.5	72.5	29.904	0.00	0.00	0.000	0.064
8/19/10	6:15a	71.0	71.1	71.0	82	65.2	0.0	---	0.00	0.0	---	71.0	72.5	72.5	29.905	0.00	0.00	0.000	0.063
8/19/10	6:30a	70.9	71.0	70.9	82	65.1	0.0	---	0.00	0.0	---	70.9	72.4	72.4	29.906	0.00	0.00	0.000	0.061
8/19/10	6:45a	70.9	70.9	70.8	82	65.1	0.0	---	0.00	0.0	---	70.9	72.4	72.4	29.899	0.00	0.00	0.000	0.061
8/19/10	7:00a	71.5	71.5	70.9	82	65.7	0.0	---	0.00	0.0	---	71.5	73.0	73.0	29.899	0.00	0.00	0.000	0.068
8/19/10	7:15a	72.7	72.7	71.5	79	65.8	0.0	---	0.00	0.0	---	72.7	74.3	74.3	29.905	0.00	0.00	0.000	0.080
8/19/10	7:30a	74.8	74.8	72.8	75	66.3	0.0	---	0.00	0.0	---	74.8	76.9	76.9	29.907	0.00	0.00	0.000	0.102
8/19/10	7:45a	76.8	76.8	74.8	71	66.7	0.0	ESE	0.00	1.0	ESE	76.8	78.8	78.8	29.906	0.00	0.00	0.000	0.123
8/19/10	8:00a	77.6	77.6	76.8	67	65.8	0.0	---	0.00	0.0	---	77.6	79.2	79.2	29.908	0.00	0.00	0.000	0.131
8/19/10	8:15a	78.2	78.2	77.6	65	65.5	0.0	ESE	0.00	1.0	ESE	78.2	79.7	79.7	29.907	0.00	0.00	0.000	0.137
8/19/10	8:30a	78.4	78.5	78.1	61	63.8	0.0	ESE	0.00	2.0	ESE	78.4	79.5	79.5	29.909	0.00	0.00	0.000	0.140
8/19/10	8:45a	79.8	79.8	78.4	60	64.7	0.0	ESE	0.00	4.0	E	79.8	81.1	81.1	29.901	0.00	0.00	0.000	0.154
8/19/10	9:00a	81.6	81.6	79.8	58	65.4	0.0	ESE	0.00	1.0	ESE	81.6	83.3	83.3	29.898	0.00	0.00	0.000	0.173
8/19/10	9:15a	83.1	83.1	81.6	55	65.3	0.0	ESE	0.00	2.0	ESE	83.1	85.1	85.1	29.896	0.00	0.00	0.000	0.189
8/19/10	9:30a	82.7	83.1	82.7	56	65.4	0.0	ESE	0.00	4.0	ESE	82.7	84.6	84.6	29.896	0.00	0.00	0.000	0.184
8/19/10	9:45a	82.3	82.7	82.2	55	64.5	0.0	ESE	0.00	3.0	ESE	82.3	83.9	83.9	29.896	0.00	0.00	0.000	0.180
8/19/10	10:00a	83.3	83.3	82.2	54	64.9	0.0	ESE	0.00	2.0	ESE	83.3	85.3	85.3	29.898	0.00	0.00	0.000	0.191
8/19/10	10:15a	84.0	84.0	83.3	53	65.0	0.0	SSW	0.00	5.0	SSW	84.0	86.3	86.3	29.897	0.00	0.00	0.000	0.198
8/19/10	10:30a	85.0	85.0	84.1	51	64.8	0.0	SW	0.00	2.0	SW	85.0	87.0	87.0	29.896	0.00	0.00	0.000	0.208
8/19/10	10:45a	85.4	85.4	84.8	52	65.8	0.0	SW	0.00	5.0	SW	85.4	87.9	87.9	29.896	0.00	0.00	0.000	0.213
8/19/10	11:00a	85.5	85.7	85.5	51	65.3	1.0	SW	0.25	4.0	SW	85.5	87.8	87.8	29.894	0.00	0.00	0.000	0.214
8/19/10	11:15a	85.4	85.6	85.0	51	65.2	1.0	SW	0.25	5.0	SW	85.4	87.6	87.6	29.895	0.00	0.00	0.000	0.213
8/19/10	11:30a	85.4	85.5	85.3	51	65.2	0.0	SW	0.00	4.0	SW	85.4	87.6	87.6	29.894	0.00	0.00	0.000	0.213
8/19/10	11:45a	86.5	86.5	85.4	49	65.1	1.0	SW	0.25	7.0	SW	86.5	88.9	88.9	29.893	0.00	0.00	0.000	0.224
8/19/10	12:00p	86.2	86.5	85.6	48	64.2	1.0	SW	0.25	6.0	SSW	86.2	88.1	88.1	29.888	0.00	0.00	0.000	0.221
8/19/10	12:15p	88.0	88.0	86.3	43	62.7	0.0	WSW	0.00	5.0	WSW	88.0	89.1	89.1	29.883	0.00	0.00	0.000	0.240
8/19/10	12:30p	88.6	88.7	88.0	41	61.9	1.0	WSW	0.25	6.0	WSW	88.6	89.6	89.6	29.880	0.00	0.00	0.000	0.246
8/19/10	12:45p	89.1	89.1	88.5	41	62.3	0.0	SW	0.00	3.0	SW	89.1	90.5	90.5	29.878	0.00	0.00	0.000	0.251
8/19/10	1:00p	88.7	89.4	88.7	41	62.0	0.0	NW	0.00	4.0	WNW	88.7	89.8	89.8	29.868	0.00	0.00	0.000	0.247
8/19/10	1:15p	89.2	89.2	88.4	41	62.4	0.0	SSW	0.00	5.0	SSW	89.2	90.6	90.6	29.863	0.00	0.00	0.000	0.252

Gowanus Phase III Weather Data 8/19/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/19/10	1:30p	89.7	89.8	89.2	41	62.9	1.0	WSW	0.25	6.0	SW	89.7	91.2	91.2	29.863	0.00	0.00	0.000	0.257
8/19/10	1:45p	89.3	89.9	89.3	40	61.8	1.0	WSW	0.25	6.0	NW	89.3	90.4	90.4	29.863	0.00	0.00	0.000	0.253
8/19/10	2:00p	89.2	89.2	88.2	40	61.7	1.0	SE	0.25	6.0	S	89.2	90.2	90.2	29.862	0.00	0.00	0.000	0.252
8/19/10	2:15p	91.2	91.2	89.2	40	63.5	0.0	NNW	0.00	2.0	NNW	91.2	93.2	93.2	29.862	0.00	0.00	0.000	0.273
8/19/10	2:30p	91.3	91.5	91.2	39	62.9	0.0	SW	0.00	6.0	SSW	91.3	93.0	93.0	29.849	0.00	0.00	0.000	0.274
8/19/10	2:45p	91.5	91.7	91.3	38	62.3	0.0	SW	0.00	3.0	W	91.5	93.0	93.0	29.840	0.00	0.00	0.000	0.276
8/19/10	3:00p	92.0	92.0	90.9	38	62.8	0.0	W	0.00	3.0	WSW	92.0	93.7	93.7	29.835	0.00	0.00	0.000	0.281
8/19/10	3:15p	92.6	92.6	92.1	37	62.5	0.0	WSW	0.00	5.0	WSW	92.6	94.3	94.3	29.833	0.00	0.00	0.000	0.287
8/19/10	3:30p	92.1	92.8	92.1	37	62.1	1.0	SSW	0.25	6.0	SSW	92.1	93.5	93.5	29.825	0.00	0.00	0.000	0.282
8/19/10	3:45p	92.2	92.2	91.8	37	62.2	0.0	WSW	0.00	6.0	W	92.2	93.7	93.7	29.817	0.00	0.00	0.000	0.283
8/19/10	4:00p	90.5	92.3	90.5	39	62.2	1.0	SW	0.25	6.0	WNW	90.5	91.7	91.7	29.816	0.00	0.00	0.000	0.266
8/19/10	4:15p	88.9	90.5	88.9	40	61.5	2.0	WNW	0.50	9.0	WNW	88.9	89.8	89.8	29.814	0.00	0.00	0.000	0.249
8/19/10	4:30p	86.7	88.9	86.7	44	62.2	5.0	WNW	1.25	9.0	NW	86.7	87.9	87.9	29.808	0.00	0.00	0.000	0.226
8/19/10	4:45p	86.6	86.7	86.3	45	62.7	3.0	WNW	0.75	8.0	WNW	86.6	88.0	88.0	29.803	0.00	0.00	0.000	0.225
8/19/10	5:00p	86.2	86.6	86.2	45	62.4	2.0	W	0.50	6.0	W	86.2	87.4	87.4	29.803	0.00	0.00	0.000	0.221
8/19/10	5:15p	85.5	86.1	85.5	47	63.0	2.0	WNW	0.50	9.0	WNW	85.5	86.9	86.9	29.802	0.00	0.00	0.000	0.214
8/19/10	5:30p	84.1	85.5	84.1	46	61.1	2.0	NNW	0.50	8.0	WNW	84.1	85.3	85.3	29.802	0.00	0.00	0.000	0.199
8/19/10	5:45p	83.9	84.1	83.9	44	59.7	3.0	W	0.75	10.0	W	83.9	84.8	84.8	29.802	0.00	0.00	0.000	0.197
8/19/10	6:00p	83.7	83.8	83.6	45	60.1	3.0	WNW	0.75	9.0	W	83.7	84.6	84.6	29.802	0.00	0.00	0.000	0.195
8/19/10	6:15p	83.3	83.7	83.3	48	61.6	2.0	NW	0.50	8.0	NNW	83.3	84.4	84.4	29.802	0.00	0.00	0.000	0.191
8/19/10	6:30p	82.6	83.2	82.5	50	62.1	2.0	NW	0.50	9.0	NW	82.6	83.6	83.6	29.802	0.00	0.00	0.000	0.183
8/19/10	6:45p	82.0	82.6	82.0	51	62.1	2.0	NW	0.50	8.0	WNW	82.0	82.8	82.8	29.802	0.00	0.00	0.000	0.177
8/19/10	7:00p	81.7	82.1	81.7	51	61.8	3.0	WNW	0.75	8.0	W	81.7	82.3	82.3	29.801	0.00	0.00	0.000	0.174
8/19/10	7:15p	81.1	81.8	81.1	51	61.3	3.0	NW	0.75	7.0	WNW	81.1	81.5	81.5	29.802	0.00	0.00	0.000	0.168
8/19/10	7:30p	81.0	81.0	80.9	51	61.2	1.0	NW	0.25	5.0	WNW	81.0	81.3	81.3	29.803	0.00	0.00	0.000	0.167
8/19/10	7:45p	80.9	81.0	80.9	52	61.6	1.0	N	0.25	4.0	NNW	80.9	81.4	81.4	29.806	0.00	0.00	0.000	0.166
8/19/10	8:00p	80.5	80.9	80.5	52	61.3	1.0	N	0.25	5.0	ENE	80.5	80.9	80.9	29.804	0.00	0.00	0.000	0.161
8/19/10	8:15p	79.9	80.5	79.9	54	61.8	1.0	NNW	0.25	6.0	WNW	79.9	80.5	80.5	29.806	0.00	0.00	0.000	0.155
8/19/10	8:30p	79.5	79.9	79.5	57	62.9	1.0	WNW	0.25	7.0	W	79.5	80.4	80.4	29.814	0.00	0.00	0.000	0.151
8/19/10	8:45p	79.3	79.5	79.3	61	64.7	0.0	N	0.00	4.0	N	79.3	80.6	80.6	29.817	0.00	0.00	0.000	0.149
8/19/10	9:00p	79.0	79.3	79.0	62	64.9	1.0	NNW	0.25	6.0	W	79.0	80.3	80.3	29.818	0.00	0.00	0.000	0.146
8/19/10	9:15p	78.7	79.0	78.7	63	65.0	1.0	N	0.25	5.0	NNW	78.7	80.1	80.1	29.821	0.00	0.00	0.000	0.143
8/19/10	9:30p	78.7	78.7	78.7	63	65.0	0.0	NNW	0.00	2.0	NNW	78.7	80.1	80.1	29.820	0.00	0.00	0.000	0.143
8/19/10	9:45p	78.7	78.7	78.7	61	64.1	0.0	NW	0.00	4.0	NE	78.7	79.9	79.9	29.818	0.00	0.00	0.000	0.143
8/19/10	10:00p	78.9	78.9	78.7	60	63.8	0.0	ESE	0.00	5.0	ESE	78.9	80.0	80.0	29.818	0.00	0.00	0.000	0.145
8/19/10	10:15p	78.7	78.9	78.7	61	64.1	0.0	NE	0.00	4.0	NE	78.7	79.9	79.9	29.818	0.00	0.00	0.000	0.143
8/19/10	10:30p	78.7	78.7	78.7	63	65.0	0.0	NE	0.00	1.0	NE	78.7	80.1	80.1	29.820	0.00	0.00	0.000	0.143
8/19/10	10:45p	78.5	78.7	78.5	64	65.3	0.0	NE	0.00	1.0	NE	78.5	79.9	79.9	29.823	0.00	0.00	0.000	0.141
8/19/10	11:00p	78.4	78.5	78.4	66	66.1	0.0	NE	0.00	2.0	NE	78.4	80.0	80.0	29.823	0.00	0.00	0.000	0.140
8/19/10	11:15p	78.2	78.4	78.2	67	66.3	0.0	NE	0.00	1.0	NE	78.2	79.9	79.9	29.818	0.00	0.00	0.000	0.137
8/19/10	11:30p	77.9	78.2	77.9	68	66.5	0.0	---	0.00	0.0	---	77.9	79.7	79.7	29.816	0.00	0.00	0.000	0.134
8/19/10	11:45p	77.8	77.9	77.7	68	66.4	0.0	---	0.00	0.0	---	77.8	79.5	79.5	29.816	0.00	0.00	0.000	0.133
8/20/10	12:00a	77.8	77.8	77.8	68	66.4	0.0	---	0.00	0.0	---	77.8	79.5	79.5	29.816	0.00	0.00	0.000	0.133

Gowanus Phase III Weather Data 8/20/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/20/10	12:15a	77.8	77.9	77.8	68	66.4	0.0	---	0.00	0.0	---	77.8	79.5	79.5	29.816	0.00	0.00	0.000	0.133
8/20/10	12:30a	78.1	78.1	77.8	66	65.8	0.0	NE	0.00	1.0	NE	78.1	79.6	79.6	29.817	0.00	0.00	0.000	0.136
8/20/10	12:45a	78.0	78.1	78.0	67	66.2	0.0	---	0.00	0.0	---	78.0	79.6	79.6	29.817	0.00	0.00	0.000	0.135
8/20/10	1:00a	77.8	78.1	77.8	67	66.0	0.0	NE	0.00	1.0	NE	77.8	79.4	79.4	29.816	0.00	0.00	0.000	0.133
8/20/10	1:15a	77.7	77.9	77.7	67	65.9	0.0	---	0.00	0.0	---	77.7	79.3	79.3	29.817	0.00	0.00	0.000	0.132
8/20/10	1:30a	77.3	77.7	77.3	67	65.5	0.0	---	0.00	0.0	---	77.3	78.9	78.9	29.819	0.00	0.00	0.000	0.128
8/20/10	1:45a	77.2	77.3	77.2	67	65.4	0.0	---	0.00	0.0	---	77.2	78.8	78.8	29.821	0.00	0.00	0.000	0.127
8/20/10	2:00a	77.1	77.2	77.1	68	65.7	0.0	NE	0.00	2.0	NE	77.1	78.8	78.8	29.824	0.00	0.00	0.000	0.126
8/20/10	2:15a	76.9	77.1	76.9	69	66.0	0.0	---	0.00	0.0	---	76.9	78.7	78.7	29.822	0.00	0.00	0.000	0.124
8/20/10	2:30a	76.8	76.9	76.8	69	65.9	0.0	NE	0.00	1.0	NE	76.8	78.6	78.6	29.819	0.00	0.00	0.000	0.123
8/20/10	2:45a	76.6	76.8	76.6	69	65.7	0.0	NE	0.00	1.0	NE	76.6	78.3	78.3	29.822	0.00	0.00	0.000	0.121
8/20/10	3:00a	76.5	76.6	76.5	70	66.0	0.0	NE	0.00	2.0	NE	76.5	78.4	78.4	29.824	0.00	0.00	0.000	0.120
8/20/10	3:15a	76.4	76.5	76.4	70	65.9	0.0	NE	0.00	1.0	NE	76.4	78.2	78.2	29.827	0.00	0.00	0.000	0.119
8/20/10	3:30a	76.1	76.4	76.1	71	66.0	0.0	---	0.00	0.0	---	76.1	78.0	78.0	29.827	0.00	0.00	0.000	0.116
8/20/10	3:45a	75.8	76.1	75.8	70	65.3	0.0	NE	0.00	1.0	NE	75.8	77.6	77.6	29.830	0.00	0.00	0.000	0.113
8/20/10	4:00a	75.7	75.8	75.7	70	65.2	0.0	NE	0.00	4.0	NE	75.7	77.5	77.5	29.831	0.00	0.00	0.000	0.111
8/20/10	4:15a	75.6	75.8	75.6	70	65.1	0.0	---	0.00	0.0	---	75.6	77.4	77.4	29.833	0.00	0.00	0.000	0.110
8/20/10	4:30a	75.4	75.6	75.4	71	65.3	0.0	---	0.00	0.0	---	75.4	77.2	77.2	29.832	0.00	0.00	0.000	0.108
8/20/10	4:45a	75.1	75.4	75.1	72	65.5	0.0	---	0.00	0.0	---	75.1	77.0	77.0	29.834	0.00	0.00	0.000	0.105
8/20/10	5:00a	75.1	75.1	75.0	72	65.5	0.0	NE	0.00	1.0	NE	75.1	77.0	77.0	29.839	0.00	0.00	0.000	0.105
8/20/10	5:15a	75.2	75.2	75.1	73	65.9	0.0	NE	0.00	1.0	NE	75.2	77.2	77.2	29.843	0.00	0.00	0.000	0.106
8/20/10	5:30a	74.9	75.2	74.9	73	65.7	0.0	---	0.00	0.0	---	74.9	76.8	76.8	29.847	0.00	0.00	0.000	0.103
8/20/10	5:45a	74.7	74.9	74.7	73	65.5	0.0	---	0.00	0.0	---	74.7	76.6	76.6	29.849	0.00	0.00	0.000	0.101
8/20/10	6:00a	74.4	74.7	74.4	74	65.6	0.0	---	0.00	0.0	---	74.4	76.3	76.3	29.852	0.00	0.00	0.000	0.098
8/20/10	6:15a	74.4	74.4	74.3	73	65.2	0.0	NE	0.00	1.0	NE	74.4	76.2	76.2	29.857	0.00	0.00	0.000	0.098
8/20/10	6:30a	74.5	74.5	74.4	73	65.3	0.0	NE	0.00	1.0	NE	74.5	76.4	76.4	29.861	0.00	0.00	0.000	0.099
8/20/10	6:45a	74.8	74.8	74.5	72	65.2	0.0	NE	0.00	1.0	NE	74.8	76.6	76.6	29.864	0.00	0.00	0.000	0.102
8/20/10	7:00a	75.4	75.4	74.8	72	65.7	0.0	NE	0.00	1.0	NE	75.4	77.3	77.3	29.864	0.00	0.00	0.000	0.108
8/20/10	7:15a	76.2	76.2	75.4	71	66.1	0.0	NE	0.00	1.0	NE	76.2	78.1	78.1	29.864	0.00	0.00	0.000	0.117
8/20/10	7:30a	77.1	77.1	76.2	68	65.7	0.0	NE	0.00	1.0	NE	77.1	78.8	78.8	29.867	0.00	0.00	0.000	0.126
8/20/10	7:45a	78.1	78.1	77.1	66	65.8	0.0	NE	0.00	1.0	NE	78.1	79.6	79.6	29.873	0.00	0.00	0.000	0.136
8/20/10	8:00a	79.3	79.3	78.1	63	65.6	0.0	NE	0.00	1.0	NE	79.3	80.8	80.8	29.878	0.00	0.00	0.000	0.149
8/20/10	8:15a	80.3	80.3	79.4	62	66.1	0.0	NE	0.00	2.0	NE	80.3	82.0	82.0	29.880	0.00	0.00	0.000	0.159
8/20/10	8:30a	80.2	80.3	80.0	62	66.0	1.0	W	0.25	6.0	W	80.2	81.9	81.9	29.880	0.00	0.00	0.000	0.158
8/20/10	8:45a	81.1	81.1	80.2	60	65.9	0.0	W	0.00	5.0	W	81.1	82.8	82.8	29.879	0.00	0.00	0.000	0.168
8/20/10	9:00a	81.6	81.6	81.1	58	65.4	1.0	WNW	0.25	5.0	WNW	81.6	83.3	83.3	29.877	0.00	0.00	0.000	0.173
8/20/10	9:15a	82.4	82.4	81.6	57	65.6	0.0	W	0.00	4.0	W	82.4	84.3	84.3	29.869	0.00	0.00	0.000	0.181
8/20/10	9:30a	83.2	83.2	82.4	55	65.4	1.0	W	0.25	4.0	W	83.2	85.2	85.2	29.872	0.00	0.00	0.000	0.190
8/20/10	9:45a	83.8	83.8	83.2	54	65.4	1.0	WSW	0.25	6.0	SSW	83.8	86.1	86.1	29.868	0.00	0.00	0.000	0.196
8/20/10	10:00a	84.4	84.4	83.9	53	65.4	1.0	W	0.25	6.0	W	84.4	86.8	86.8	29.870	0.00	0.00	0.000	0.202
8/20/10	10:15a	84.9	84.9	84.4	52	65.3	1.0	SW	0.25	6.0	SW	84.9	87.1	87.1	29.867	0.00	0.00	0.000	0.207
8/20/10	10:30a	85.0	85.0	84.7	53	66.0	1.0	WSW	0.25	6.0	WSW	85.0	87.5	87.5	29.864	0.00	0.00	0.000	0.208
8/20/10	10:45a	86.0	86.0	85.1	52	66.3	1.0	SW	0.25	5.0	SW	86.0	88.8	88.8	29.868	0.00	0.00	0.000	0.219
8/20/10	11:00a	86.8	86.8	86.0	51	66.5	1.0	WSW	0.25	6.0	WSW	86.8	90.1	90.1	29.870	0.00	0.00	0.000	0.227
8/20/10	11:15a	87.2	87.2	86.9	50	66.3	1.0	WSW	0.25	7.0	NE	87.2	90.4	90.4	29.869	0.00	0.00	0.000	0.231
8/20/10	11:30a	87.7	87.7	87.2	49	66.2	1.0	WSW	0.25	6.0	E	87.7	90.7	90.7	29.876	0.00	0.00	0.000	0.236
8/20/10	11:45a	88.1	88.1	87.6	49	66.5	1.0	WSW	0.25	6.0	WSW	88.1	91.3	91.3	29.879	0.00	0.00	0.000	0.241
8/20/10	12:00p	88.0	88.2	87.7	48	65.8	2.0	NNE	0.50	8.0	NNE	88.0	90.7	90.7	29.881	0.00	0.00	0.000	0.240
8/20/10	12:15p	89.3	89.3	87.9	47	66.4	1.0	N	0.25	5.0	N	89.3	93.0	93.0	29.879	0.00	0.00	0.000	0.253
8/20/10	12:30p	90.3	90.3	89.3	46	66.7	1.0	W	0.25	7.0	N	90.3	94.2	94.2	29.876	0.00	0.00	0.000	0.264
8/20/10	12:45p	89.6	90.4	89.6	47	66.7	1.0	WNW	0.25	7.0	NNE	89.6	93.5	93.5	29.877	0.00	0.00	0.000	0.256
8/20/10	1:00p	89.1	89.6	89.0	47	66.2	1.0	NNW	0.25	7.0	NNE	89.1	92.8	92.8	29.879	0.00	0.00	0.000	0.251
8/20/10	1:15p	88.7	89.4	88.7	47	65.9	2.0	W	0.50	8.0	NNE	88.7	91.9	91.9	29.877	0.00	0.00	0.000	0.247

Gowanus Phase III Weather Data 8/20/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/20/10	1:30p	89.3	89.4	88.6	45	65.2	2.0	NNE	0.50	7.0	ENE	89.3	92.3	92.3	29.878	0.00	0.00	0.000	0.253
8/20/10	1:45p	90.2	90.2	89.2	45	66.0	1.0	WSW	0.25	6.0	SW	90.2	93.7	93.7	29.878	0.00	0.00	0.000	0.262
8/20/10	2:00p	90.6	90.8	90.2	42	64.4	1.0	NE	0.25	6.0	NNE	90.6	93.1	93.1	29.879	0.00	0.00	0.000	0.267
8/20/10	2:15p	91.2	91.2	90.6	37	61.3	1.0	N	0.25	8.0	NNE	91.2	92.2	92.2	29.877	0.00	0.00	0.000	0.273
8/20/10	2:30p	91.3	91.3	90.9	35	59.8	1.0	W	0.25	6.0	SW	91.3	91.6	91.6	29.876	0.00	0.00	0.000	0.274
8/20/10	2:45p	93.0	93.1	91.3	33	59.6	1.0	NW	0.25	7.0	NE	93.0	93.5	93.5	29.879	0.00	0.00	0.000	0.292
8/20/10	3:00p	92.3	93.0	92.3	34	59.9	2.0	WSW	0.50	9.0	E	92.3	92.8	92.8	29.878	0.00	0.00	0.000	0.284
8/20/10	3:15p	92.4	92.4	91.9	34	60.0	1.0	WSW	0.25	6.0	SW	92.4	92.9	92.9	29.877	0.00	0.00	0.000	0.285
8/20/10	3:30p	91.7	92.6	91.7	34	59.3	1.0	ESE	0.25	5.0	NNW	91.7	92.0	92.0	29.877	0.00	0.00	0.000	0.278
8/20/10	3:45p	92.4	92.4	91.7	31	57.4	1.0	W	0.25	7.0	WSW	92.4	92.2	92.2	29.877	0.00	0.00	0.000	0.285
8/20/10	4:00p	90.6	92.4	90.6	32	56.7	2.0	WSW	0.50	6.0	W	90.6	90.1	90.1	29.869	0.00	0.00	0.000	0.267
8/20/10	4:15p	89.9	90.5	89.9	31	55.2	1.0	SW	0.25	6.0	W	89.9	89.0	89.0	29.870	0.00	0.00	0.000	0.259
8/20/10	4:30p	89.5	89.9	89.5	30	54.0	1.0	WSW	0.25	6.0	WSW	89.5	88.0	88.0	29.864	0.00	0.00	0.000	0.255
8/20/10	4:45p	89.3	89.5	89.3	30	53.8	1.0	WSW	0.25	8.0	NNE	89.3	87.6	87.6	29.864	0.00	0.00	0.000	0.253
8/20/10	5:00p	89.0	89.4	89.0	32	55.3	1.0	WSW	0.25	7.0	NNE	89.0	87.5	87.5	29.865	0.00	0.00	0.000	0.250
8/20/10	5:15p	89.2	89.2	89.0	32	55.5	1.0	WSW	0.25	5.0	WSW	89.2	87.9	87.9	29.871	0.00	0.00	0.000	0.252
8/20/10	5:30p	89.0	89.2	89.0	31	54.4	1.0	N	0.25	7.0	N	89.0	87.3	87.3	29.870	0.00	0.00	0.000	0.250
8/20/10	5:45p	88.9	89.0	88.8	31	54.4	0.0	N	0.00	5.0	N	88.9	87.1	87.1	29.868	0.00	0.00	0.000	0.249
8/20/10	6:00p	88.6	88.9	88.6	30	53.2	0.0	WSW	0.00	6.0	ENE	88.6	86.5	86.5	29.871	0.00	0.00	0.000	0.246
8/20/10	6:15p	88.3	88.6	88.3	30	52.9	1.0	W	0.25	6.0	WNW	88.3	86.1	86.1	29.878	0.00	0.00	0.000	0.243
8/20/10	6:30p	88.0	88.2	88.0	31	53.6	0.0	NNW	0.00	2.0	NNW	88.0	85.9	85.9	29.876	0.00	0.00	0.000	0.240
8/20/10	6:45p	87.6	88.0	87.6	31	53.2	0.0	NNW	0.00	4.0	N	87.6	85.7	85.7	29.878	0.00	0.00	0.000	0.235
8/20/10	7:00p	87.2	87.6	87.2	31	52.9	0.0	NNE	0.00	4.0	N	87.2	85.5	85.5	29.879	0.00	0.00	0.000	0.231
8/20/10	7:15p	86.7	87.1	86.7	31	52.4	0.0	W	0.00	4.0	NW	86.7	85.1	85.1	29.885	0.00	0.00	0.000	0.226
8/20/10	7:30p	86.1	86.7	86.1	31	51.9	0.0	N	0.00	4.0	N	86.1	84.6	84.6	29.889	0.00	0.00	0.000	0.220
8/20/10	7:45p	85.6	86.1	85.6	33	53.2	0.0	N	0.00	4.0	N	85.6	84.5	84.5	29.894	0.00	0.00	0.000	0.215
8/20/10	8:00p	85.3	85.6	85.3	34	53.8	0.0	NNW	0.00	4.0	NNE	85.3	84.3	84.3	29.895	0.00	0.00	0.000	0.211
8/20/10	8:15p	84.9	85.3	84.9	35	54.2	1.0	NNW	0.25	7.0	NNE	84.9	84.1	84.1	29.899	0.00	0.00	0.000	0.207
8/20/10	8:30p	84.7	84.9	84.6	35	54.0	1.0	NNE	0.25	7.0	NNE	84.7	83.9	83.9	29.909	0.00	0.00	0.000	0.205
8/20/10	8:45p	84.2	84.6	84.2	35	53.6	0.0	ESE	0.00	4.0	ESE	84.2	83.5	83.5	29.915	0.00	0.00	0.000	0.200
8/20/10	9:00p	83.4	84.2	83.4	44	59.2	1.0	ESE	0.25	6.0	E	83.4	84.0	84.0	29.926	0.00	0.00	0.000	0.192
8/20/10	9:15p	82.2	83.4	82.2	46	59.4	2.0	E	0.50	6.0	SSW	82.2	82.4	82.4	29.933	0.00	0.00	0.000	0.179
8/20/10	9:30p	81.6	82.2	81.6	46	58.8	1.0	E	0.25	6.0	NW	81.6	81.5	81.5	29.937	0.00	0.00	0.000	0.173
8/20/10	9:45p	80.9	81.6	80.9	48	59.4	1.0	E	0.25	6.0	ENE	80.9	80.9	80.9	29.943	0.00	0.00	0.000	0.166
8/20/10	10:00p	80.3	80.9	80.3	47	58.2	1.0	NNE	0.25	7.0	W	80.3	80.1	80.1	29.942	0.00	0.00	0.000	0.159
8/20/10	10:15p	79.7	80.3	79.7	47	57.7	1.0	E	0.25	6.0	NW	79.7	79.5	79.5	29.956	0.00	0.00	0.000	0.153
8/20/10	10:30p	79.4	79.7	79.4	47	57.4	1.0	ENE	0.25	4.0	NNE	79.4	79.3	79.3	29.955	0.00	0.00	0.000	0.150
8/20/10	10:45p	78.9	79.4	78.9	48	57.5	1.0	SE	0.25	6.0	S	78.9	78.9	78.9	29.960	0.00	0.00	0.000	0.145
8/20/10	11:00p	78.7	78.9	78.7	48	57.4	1.0	NE	0.25	5.0	N	78.7	78.7	78.7	29.963	0.00	0.00	0.000	0.143
8/20/10	11:15p	78.2	78.7	78.2	46	55.7	1.0	E	0.25	6.0	NE	78.2	77.9	77.9	29.961	0.00	0.00	0.000	0.137
8/20/10	11:30p	78.0	78.2	78.0	44	54.3	1.0	SE	0.25	5.0	ESE	78.0	77.5	77.5	29.969	0.00	0.00	0.000	0.135
8/20/10	11:45p	77.7	78.0	77.7	45	54.7	0.0	E	0.00	5.0	E	77.7	77.3	77.3	29.964	0.00	0.00	0.000	0.132
8/21/10	12:00a	77.3	77.7	77.3	45	54.3	0.0	E	0.00	5.0	E	77.3	76.8	76.8	29.971	0.00	0.00	0.000	0.128

Gowanus Phase III Weather Data 8/21/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/21/10	12:15a	77.0	77.3	77.0	45	54.0	1.0	E	0.25	5.0	SSE	77.0	76.5	76.5	29.985	0.00	0.00	0.000	0.125
8/21/10	12:30a	76.7	77.0	76.7	44	53.1	1.0	SSE	0.25	6.0	S	76.7	76.2	76.2	29.978	0.00	0.00	0.000	0.122
8/21/10	12:45a	76.5	76.7	76.5	44	53.0	1.0	ESE	0.25	5.0	E	76.5	76.0	76.0	29.974	0.00	0.00	0.000	0.120
8/21/10	1:00a	76.2	76.5	76.2	44	52.7	1.0	E	0.25	6.0	SSW	76.2	75.7	75.7	29.986	0.00	0.00	0.000	0.117
8/21/10	1:15a	76.1	76.2	76.1	46	53.8	1.0	S	0.25	3.0	SW	76.1	75.8	75.8	29.991	0.00	0.00	0.000	0.116
8/21/10	1:30a	75.6	76.1	75.6	47	53.9	1.0	ESE	0.25	5.0	NE	75.6	75.4	75.4	29.986	0.00	0.00	0.000	0.110
8/21/10	1:45a	75.1	75.6	75.1	49	54.6	1.0	SSW	0.25	6.0	N	75.1	75.1	75.1	29.985	0.00	0.00	0.000	0.105
8/21/10	2:00a	74.6	75.1	74.6	49	54.2	1.0	S	0.25	5.0	ESE	74.6	74.5	74.5	29.977	0.00	0.00	0.000	0.100
8/21/10	2:15a	74.2	74.6	74.2	50	54.4	1.0	SSE	0.25	5.0	ESE	74.2	74.0	74.0	29.980	0.00	0.00	0.000	0.096
8/21/10	2:30a	73.8	74.2	73.8	50	54.0	1.0	ESE	0.25	5.0	ESE	73.8	73.5	73.5	29.972	0.00	0.00	0.000	0.092
8/21/10	2:45a	73.5	73.8	73.5	51	54.3	1.0	N	0.25	7.0	SSE	73.5	73.2	73.2	29.971	0.00	0.00	0.000	0.089
8/21/10	3:00a	73.2	73.5	73.2	51	54.0	1.0	ESE	0.25	6.0	ESE	73.2	72.8	72.8	29.957	0.00	0.00	0.000	0.085
8/21/10	3:15a	73.0	73.1	73.0	49	52.7	1.0	ESE	0.25	5.0	ESE	73.0	72.4	72.4	29.958	0.00	0.00	0.000	0.083
8/21/10	3:30a	72.8	73.0	72.8	48	52.0	0.0	S	0.00	3.0	SE	72.8	72.1	72.1	29.956	0.00	0.00	0.000	0.081
8/21/10	3:45a	72.6	72.8	72.6	47	51.2	0.0	NNW	0.00	5.0	NNW	72.6	71.7	71.7	29.960	0.00	0.00	0.000	0.079
8/21/10	4:00a	72.4	72.6	72.4	47	51.0	1.0	ESE	0.25	5.0	N	72.4	71.4	71.4	29.964	0.00	0.00	0.000	0.077
8/21/10	4:15a	72.0	72.4	72.0	48	51.2	1.0	N	0.25	4.0	WSW	72.0	70.9	70.9	29.971	0.00	0.00	0.000	0.073
8/21/10	4:30a	71.7	72.0	71.7	51	52.6	1.0	S	0.25	5.0	ESE	71.7	70.7	70.7	29.974	0.00	0.00	0.000	0.070
8/21/10	4:45a	71.4	71.7	71.4	53	53.4	0.0	SE	0.00	4.0	SE	71.4	70.4	70.4	29.978	0.00	0.00	0.000	0.067
8/21/10	5:00a	71.3	71.4	71.3	55	54.3	0.0	SE	0.00	5.0	SE	71.3	70.5	70.5	29.982	0.00	0.00	0.000	0.066
8/21/10	5:15a	71.0	71.3	71.0	56	54.5	0.0	S	0.00	4.0	S	71.0	70.1	70.1	29.987	0.00	0.00	0.000	0.063
8/21/10	5:30a	70.7	71.0	70.7	56	54.2	0.0	SSE	0.00	4.0	NE	70.7	69.7	69.7	29.987	0.00	0.00	0.000	0.059
8/21/10	5:45a	70.4	70.7	70.4	57	54.4	1.0	SE	0.25	4.0	ESE	70.4	69.4	69.4	30.000	0.00	0.00	0.000	0.056
8/21/10	6:00a	70.1	70.4	70.1	58	54.6	0.0	SSW	0.00	4.0	SSW	70.1	69.1	69.1	30.007	0.00	0.00	0.000	0.053
8/21/10	6:15a	70.0	70.1	70.0	59	55.0	0.0	NNE	0.00	5.0	NNE	70.0	69.1	69.1	30.014	0.00	0.00	0.000	0.052
8/21/10	6:30a	69.9	70.0	69.9	60	55.4	0.0	NNE	0.00	2.0	NNE	69.9	69.1	69.1	30.007	0.00	0.00	0.000	0.051
8/21/10	6:45a	69.8	69.9	69.8	62	56.2	0.0	NNE	0.00	2.0	NNE	69.8	69.2	69.2	30.005	0.00	0.00	0.000	0.050
8/21/10	7:00a	69.8	69.8	69.8	62	56.2	0.0	ESE	0.00	2.0	NNE	69.8	69.2	69.2	30.016	0.00	0.00	0.000	0.050
8/21/10	7:15a	70.0	70.0	69.7	63	56.8	0.0	S	0.00	5.0	N	70.0	69.5	69.5	30.018	0.00	0.00	0.000	0.052
8/21/10	7:30a	71.2	71.2	70.1	62	57.5	0.0	SSW	0.00	4.0	S	71.2	70.9	70.9	30.019	0.00	0.00	0.000	0.065
8/21/10	7:45a	71.7	71.7	71.2	61	57.5	1.0	N	0.25	6.0	ESE	71.7	71.6	71.6	30.018	0.00	0.00	0.000	0.070
8/21/10	8:00a	72.0	72.0	71.7	62	58.3	1.0	NNE	0.25	5.0	N	72.0	72.1	72.1	30.025	0.00	0.00	0.000	0.073
8/21/10	8:15a	72.7	72.7	72.1	63	59.4	0.0	SSE	0.00	4.0	SE	72.7	73.1	73.1	30.029	0.00	0.00	0.000	0.080
8/21/10	8:30a	74.2	74.2	72.7	61	59.9	0.0	SE	0.00	4.0	NNE	74.2	75.0	75.0	30.027	0.00	0.00	0.000	0.096
8/21/10	8:45a	74.4	74.6	74.2	62	60.5	0.0	S	0.00	4.0	SSE	74.4	75.4	75.4	30.026	0.00	0.00	0.000	0.098
8/21/10	9:00a	74.4	74.5	74.3	62	60.5	0.0	S	0.00	5.0	NNE	74.4	75.4	75.4	30.021	0.00	0.00	0.000	0.098
8/21/10	9:15a	74.8	74.8	74.3	63	61.4	0.0	N	0.00	5.0	N	74.8	75.9	75.9	30.023	0.00	0.00	0.000	0.102
8/21/10	9:30a	76.5	76.5	74.8	63	63.0	0.0	N	0.00	4.0	SE	76.5	77.6	77.6	30.030	0.00	0.00	0.000	0.120
8/21/10	9:45a	77.6	77.6	76.6	62	63.5	1.0	SSE	0.25	4.0	N	77.6	78.7	78.7	30.030	0.00	0.00	0.000	0.131
8/21/10	10:00a	78.3	78.3	77.6	60	63.3	1.0	NW	0.25	5.0	NNW	78.3	79.3	79.3	30.033	0.00	0.00	0.000	0.139
8/21/10	10:15a	78.8	78.9	78.3	59	63.3	0.0	N	0.00	5.0	NNW	78.8	79.8	79.8	30.033	0.00	0.00	0.000	0.144
8/21/10	10:30a	79.5	79.6	78.8	58	63.4	1.0	NNW	0.25	5.0	NNW	79.5	80.5	80.5	30.029	0.00	0.00	0.000	0.151
8/21/10	10:45a	79.9	80.1	79.6	57	63.3	1.0	E	0.25	5.0	NNE	79.9	80.8	80.8	30.028	0.00	0.00	0.000	0.155
8/21/10	11:00a	80.9	80.9	79.9	56	63.7	1.0	NNE	0.25	5.0	NNW	80.9	81.9	81.9	30.030	0.00	0.00	0.000	0.166
8/21/10	11:15a	81.8	81.9	81.0	55	64.1	1.0	N	0.25	6.0	NW	81.8	83.1	83.1	30.023	0.00	0.00	0.000	0.175
8/21/10	11:30a	82.0	82.1	81.7	54	63.7	0.0	ESE	0.00	2.0	N	82.0	83.2	83.2	30.025	0.00	0.00	0.000	0.177
8/21/10	11:45a	82.6	82.6	81.9	54	64.3	0.0	ESE	0.00	4.0	E	82.6	84.2	84.2	30.018	0.00	0.00	0.000	0.183
8/21/10	12:00p	82.7	82.9	82.5	55	64.9	1.0	E	0.25	5.0	NNW	82.7	84.4	84.4	30.016	0.00	0.00	0.000	0.184
8/21/10	12:15p	82.5	83.0	82.5	55	64.7	0.0	ESE	0.00	5.0	ESE	82.5	84.2	84.2	30.018	0.00	0.00	0.000	0.182
8/21/10	12:30p	83.2	83.2	82.5	47	60.9	0.0	ESE	0.00	2.0	ESE	83.2	84.1	84.1	30.018	0.00	0.00	0.000	0.190
8/21/10	12:45p	83.4	83.9	83.2	49	62.2	1.0	ESE	0.25	6.0	W	83.4	84.7	84.7	30.018	0.00	0.00	0.000	0.192
8/21/10	1:00p	82.9	83.4	82.7	50	62.4	1.0	NNW	0.25	8.0	WNW	82.9	84.0	84.0	30.019	0.00	0.00	0.000	0.186
8/21/10	1:15p	82.6	83.0	82.6	54	64.3	1.0	NW	0.25	6.0	WNW	82.6	84.2	84.2	30.018	0.00	0.00	0.000	0.183

Gowanus Phase III Weather Data 8/21/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/21/10	1:30p	82.3	82.5	82.3	56	65.0	2.0	N	0.50	7.0	WNW	82.3	84.0	84.0	30.017	0.00	0.00	0.000	0.180
8/21/10	1:45p	81.5	82.3	81.5	57	64.8	2.0	NW	0.50	7.0	WNW	81.5	83.0	83.0	30.013	0.00	0.00	0.000	0.172
8/21/10	2:00p	81.1	81.5	81.1	59	65.4	2.0	ESE	0.50	7.0	NW	81.1	82.7	82.7	30.014	0.00	0.00	0.000	0.168
8/21/10	2:15p	80.7	81.1	80.4	60	65.5	2.0	WNW	0.50	7.0	NNW	80.7	82.3	82.3	30.006	0.00	0.00	0.000	0.164
8/21/10	2:30p	81.1	81.1	80.6	61	66.4	2.0	NNW	0.50	7.0	WNW	81.1	83.0	83.0	30.010	0.00	0.00	0.000	0.168
8/21/10	2:45p	81.4	81.4	81.1	55	63.7	2.0	NNW	0.50	10.0	WNW	81.4	82.5	82.5	30.004	0.00	0.00	0.000	0.171
8/21/10	3:00p	81.9	81.9	81.5	51	62.0	2.0	WNW	0.50	7.0	WNW	81.9	82.6	82.6	30.002	0.00	0.00	0.000	0.176
8/21/10	3:15p	82.1	82.1	81.8	51	62.2	2.0	WNW	0.50	6.0	W	82.1	82.9	82.9	29.997	0.00	0.00	0.000	0.178
8/21/10	3:30p	82.0	82.4	82.0	51	62.1	2.0	E	0.50	7.0	NW	82.0	82.8	82.8	29.987	0.00	0.00	0.000	0.177
8/21/10	3:45p	81.0	82.0	80.9	56	63.8	2.0	NW	0.50	6.0	WNW	81.0	82.1	82.1	29.984	0.00	0.00	0.000	0.167
8/21/10	4:00p	80.6	81.0	80.6	57	64.0	2.0	WNW	0.50	8.0	WNW	80.6	81.7	81.7	29.985	0.00	0.00	0.000	0.162
8/21/10	4:15p	80.7	80.7	80.4	58	64.5	2.0	NW	0.50	6.0	NW	80.7	82.0	82.0	29.985	0.00	0.00	0.000	0.164
8/21/10	4:30p	80.8	80.8	80.6	53	62.1	2.0	WNW	0.50	6.0	WNW	80.8	81.4	81.4	29.977	0.00	0.00	0.000	0.165
8/21/10	4:45p	80.6	80.8	80.4	54	62.4	2.0	WNW	0.50	7.0	NW	80.6	81.3	81.3	29.973	0.00	0.00	0.000	0.162
8/21/10	5:00p	81.0	81.0	80.5	54	62.8	1.0	NNW	0.25	6.0	NW	81.0	81.8	81.8	29.970	0.00	0.00	0.000	0.167
8/21/10	5:15p	80.1	81.0	80.1	56	63.0	2.0	NW	0.50	8.0	WNW	80.1	80.9	80.9	29.971	0.00	0.00	0.000	0.157
8/21/10	5:30p	79.6	80.1	79.6	63	65.9	2.0	WNW	0.50	7.0	WNW	79.6	81.2	81.2	29.965	0.00	0.00	0.000	0.152
8/21/10	5:45p	79.5	79.5	79.3	56	62.4	1.0	W	0.25	7.0	NW	79.5	80.3	80.3	29.965	0.00	0.00	0.000	0.151
8/21/10	6:00p	79.5	79.6	79.4	62	65.3	1.0	NNW	0.25	8.0	WNW	79.5	81.0	81.0	29.968	0.00	0.00	0.000	0.151
8/21/10	6:15p	78.9	79.6	78.9	59	63.4	3.0	WNW	0.75	11.0	W	78.9	79.9	79.9	29.957	0.00	0.00	0.000	0.145
8/21/10	6:30p	78.9	79.1	78.9	59	63.4	1.0	WNW	0.25	7.0	WNW	78.9	79.9	79.9	29.959	0.00	0.00	0.000	0.145
8/21/10	6:45p	78.5	78.9	78.5	65	65.8	2.0	NW	0.50	8.0	W	78.5	80.0	80.0	29.959	0.00	0.00	0.000	0.141
8/21/10	7:00p	78.0	78.5	78.0	71	67.8	2.0	NW	0.50	7.0	NW	78.0	80.1	80.1	29.963	0.00	0.00	0.000	0.135
8/21/10	7:15p	77.5	78.0	77.5	75	68.9	2.0	NW	0.50	8.0	NW	77.5	80.0	80.0	29.963	0.00	0.00	0.000	0.130
8/21/10	7:30p	77.5	77.6	77.5	78	70.1	1.0	NNE	0.25	7.0	WNW	77.5	80.4	80.4	29.969	0.00	0.00	0.000	0.130
8/21/10	7:45p	77.1	77.5	77.1	80	70.5	2.0	N	0.50	7.0	NW	77.1	80.1	80.1	29.961	0.00	0.00	0.000	0.126
8/21/10	8:00p	76.8	77.1	76.7	81	70.5	2.0	NW	0.50	9.0	NW	76.8	79.9	79.9	29.970	0.00	0.00	0.000	0.123
8/21/10	8:15p	76.8	76.9	76.8	82	70.9	1.0	NW	0.25	6.0	NW	76.8	80.0	80.0	29.974	0.00	0.00	0.000	0.123
8/21/10	8:30p	76.9	76.9	76.8	82	71.0	1.0	NW	0.25	7.0	W	76.9	80.1	80.1	29.981	0.00	0.00	0.000	0.124
8/21/10	8:45p	77.0	77.0	76.8	82	71.1	1.0	N	0.25	5.0	N	77.0	80.2	80.2	29.987	0.00	0.00	0.000	0.125
8/21/10	9:00p	77.0	77.1	77.0	83	71.4	1.0	NW	0.25	6.0	NW	77.0	80.4	80.4	29.990	0.00	0.00	0.000	0.125
8/21/10	9:15p	77.0	77.0	77.0	84	71.8	2.0	NNW	0.50	7.0	NW	77.0	80.5	80.5	29.987	0.00	0.00	0.000	0.125
8/21/10	9:30p	77.1	77.1	77.0	84	71.9	1.0	NW	0.25	6.0	SE	77.1	80.6	80.6	29.987	0.00	0.00	0.000	0.126
8/21/10	9:45p	77.1	77.2	77.1	84	71.9	2.0	WNW	0.50	6.0	WNW	77.1	80.6	80.6	29.986	0.00	0.00	0.000	0.126
8/21/10	10:00p	77.1	77.1	77.0	84	71.9	1.0	NW	0.25	8.0	N	77.1	80.6	80.6	29.986	0.00	0.00	0.000	0.126
8/21/10	10:15p	77.1	77.1	77.1	83	71.5	3.0	NNW	0.75	10.0	NW	77.1	80.5	80.5	29.986	0.00	0.00	0.000	0.126
8/21/10	10:30p	77.1	77.1	77.0	83	71.5	2.0	NW	0.50	9.0	NW	77.1	80.5	80.5	29.980	0.00	0.00	0.000	0.126
8/21/10	10:45p	77.1	77.2	77.1	84	71.9	2.0	NNW	0.50	9.0	NW	77.1	80.6	80.6	29.971	0.00	0.00	0.000	0.126
8/21/10	11:00p	77.1	77.1	77.1	84	71.9	2.0	WNW	0.50	8.0	W	77.1	80.6	80.6	29.978	0.00	0.00	0.000	0.126
8/21/10	11:15p	77.0	77.1	77.0	85	72.1	2.0	NNW	0.50	11.0	WNW	77.0	80.6	80.6	29.983	0.00	0.00	0.000	0.125
8/21/10	11:30p	77.0	77.0	77.0	85	72.1	2.0	NW	0.50	7.0	WNW	77.0	80.6	80.6	29.978	0.00	0.00	0.000	0.125
8/21/10	11:45p	77.0	77.0	77.0	85	72.1	1.0	NW	0.25	7.0	W	77.0	80.6	80.6	29.986	0.00	0.00	0.000	0.125
8/22/10	12:00a	77.0	77.0	77.0	85	72.1	2.0	NW	0.50	8.0	WNW	77.0	80.6	80.6	29.975	0.00	0.00	0.000	0.125

Gowanus Phase III Weather Data 8/22/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/22/10	12:15a	77.0	77.0	77.0	86	72.5	1.0	NNW	0.25	7.0	NW	77.0	80.7	80.7	29.968	0.00	0.00	0.000	0.125
8/22/10	12:30a	77.1	77.1	77.0	85	72.2	2.0	NNW	0.50	10.0	NNW	77.1	80.7	80.7	29.927	0.00	0.00	0.000	0.126
8/22/10	12:45a	77.1	77.1	77.0	85	72.2	2.0	NW	0.50	10.0	NW	77.1	80.7	80.7	29.958	0.00	0.00	0.000	0.126
8/22/10	1:00a	77.1	77.1	77.0	85	72.2	1.0	NE	0.25	6.0	W	77.1	80.7	80.7	29.961	0.00	0.00	0.000	0.126
8/22/10	1:15a	77.1	77.1	77.1	85	72.2	1.0	NNW	0.25	6.0	NNW	77.1	80.7	80.7	29.957	0.00	0.00	0.000	0.126
8/22/10	1:30a	77.1	77.2	77.1	85	72.2	1.0	NNW	0.25	6.0	NNE	77.1	80.7	80.7	29.960	0.00	0.00	0.000	0.126
8/22/10	1:45a	77.1	77.2	77.1	85	72.2	1.0	NNW	0.25	6.0	NW	77.1	80.7	80.7	29.955	0.00	0.00	0.000	0.126
8/22/10	2:00a	77.1	77.1	77.1	86	72.6	2.0	NW	0.50	6.0	W	77.1	80.8	80.8	29.955	0.00	0.00	0.000	0.126
8/22/10	2:15a	77.1	77.1	77.0	86	72.6	1.0	E	0.25	7.0	NW	77.1	80.8	80.8	29.946	0.00	0.00	0.000	0.126
8/22/10	2:30a	77.1	77.1	77.0	86	72.6	1.0	NW	0.25	4.0	NW	77.1	80.8	80.8	29.941	0.00	0.00	0.000	0.126
8/22/10	2:45a	77.2	77.2	77.1	86	72.7	0.0	NW	0.00	4.0	NW	77.2	81.0	81.0	29.939	0.00	0.00	0.000	0.127
8/22/10	3:00a	77.2	77.2	77.1	87	73.0	1.0	NW	0.25	6.0	NNW	77.2	81.1	81.1	29.940	0.00	0.00	0.000	0.127
8/22/10	3:15a	77.0	77.2	77.0	88	73.2	1.0	NW	0.25	5.0	WNW	77.0	80.8	80.8	29.932	0.00	0.00	0.000	0.125
8/22/10	3:30a	76.7	77.0	76.7	90	73.5	0.0	NW	0.00	6.0	W	76.7	80.5	80.5	29.929	0.01	0.00	0.000	0.122
8/22/10	3:45a	76.7	76.7	76.6	90	73.5	2.0	NW	0.50	7.0	WNW	76.7	80.5	80.5	29.925	0.00	0.00	0.000	0.122
8/22/10	4:00a	76.6	76.7	76.6	91	73.8	2.0	NNW	0.50	6.0	NW	76.6	80.5	80.5	29.913	0.00	0.00	0.000	0.121
8/22/10	4:15a	76.5	76.6	76.5	91	73.7	1.0	N	0.25	5.0	NNW	76.5	80.4	80.4	29.925	0.00	0.00	0.000	0.120
8/22/10	4:30a	76.6	76.6	76.5	91	73.8	1.0	NW	0.25	5.0	NW	76.6	80.5	80.5	29.920	0.00	0.00	0.000	0.121
8/22/10	4:45a	76.6	76.7	76.6	91	73.8	1.0	N	0.25	6.0	NNW	76.6	80.5	80.5	29.909	0.00	0.00	0.000	0.121
8/22/10	5:00a	76.6	76.6	76.6	91	73.8	1.0	NW	0.25	6.0	WNW	76.6	80.5	80.5	29.911	0.00	0.00	0.000	0.121
8/22/10	5:15a	76.6	76.7	76.6	91	73.8	1.0	E	0.25	5.0	E	76.6	80.5	80.5	29.912	0.00	0.00	0.000	0.121
8/22/10	5:30a	76.5	76.6	76.5	91	73.7	1.0	E	0.25	4.0	E	76.5	80.4	80.4	29.909	0.00	0.00	0.000	0.120
8/22/10	5:45a	76.3	76.5	76.3	91	73.5	0.0	NNW	0.00	5.0	NNW	76.3	80.1	80.1	29.898	0.00	0.00	0.000	0.118
8/22/10	6:00a	76.4	76.4	76.3	92	73.9	0.0	N	0.00	4.0	N	76.4	80.3	80.3	29.906	0.00	0.00	0.000	0.119
8/22/10	6:15a	76.5	76.5	76.4	92	74.0	1.0	NNW	0.25	4.0	NNW	76.5	80.5	80.5	29.905	0.01	0.00	0.000	0.120
8/22/10	6:30a	76.4	76.5	76.4	91	73.6	1.0	NW	0.25	9.0	NW	76.4	80.2	80.2	29.902	0.00	0.00	0.000	0.119
8/22/10	6:45a	76.4	76.4	76.4	91	73.6	1.0	W	0.25	9.0	WNW	76.4	80.2	80.2	29.905	0.00	0.00	0.000	0.119
8/22/10	7:00a	76.5	76.5	76.4	90	73.3	1.0	NNW	0.25	6.0	NW	76.5	80.3	80.3	29.903	0.00	0.00	0.000	0.120
8/22/10	7:15a	76.5	76.6	76.4	91	73.7	1.0	NNE	0.25	6.0	WNW	76.5	80.4	80.4	29.898	0.00	0.00	0.000	0.120
8/22/10	7:30a	76.5	76.5	76.5	91	73.7	1.0	N	0.25	6.0	NW	76.5	80.4	80.4	29.907	0.00	0.00	0.000	0.120
8/22/10	7:45a	76.6	76.6	76.5	90	73.4	2.0	NW	0.50	7.0	WNW	76.6	80.4	80.4	29.908	0.00	0.00	0.000	0.121
8/22/10	8:00a	76.7	76.7	76.5	90	73.5	2.0	NW	0.50	8.0	NW	76.7	80.5	80.5	29.904	0.00	0.00	0.000	0.122
8/22/10	8:15a	76.8	76.8	76.7	91	74.0	1.0	NW	0.25	5.0	NW	76.8	80.8	80.8	29.911	0.00	0.00	0.000	0.123
8/22/10	8:30a	76.9	76.9	76.8	90	73.7	2.0	NW	0.50	8.0	NW	76.9	80.9	80.9	29.907	0.00	0.00	0.000	0.124
8/22/10	8:45a	77.1	77.1	76.9	90	73.9	3.0	NW	0.75	8.0	NNW	77.1	81.2	81.2	29.905	0.00	0.00	0.000	0.126
8/22/10	9:00a	77.1	77.2	77.1	90	73.9	3.0	WNW	0.75	9.0	NW	77.1	81.2	81.2	29.899	0.00	0.00	0.000	0.126
8/22/10	9:15a	77.5	77.5	77.2	89	74.0	3.0	NW	0.75	8.0	NNW	77.5	81.8	81.8	29.895	0.00	0.00	0.000	0.130
8/22/10	9:30a	77.4	77.6	77.4	90	74.2	2.0	NNW	0.50	7.0	NW	77.4	81.7	81.7	29.895	0.00	0.00	0.000	0.129
8/22/10	9:45a	77.1	77.4	77.1	90	73.9	2.0	WNW	0.50	7.0	WNW	77.1	81.2	81.2	29.893	0.00	0.00	0.000	0.126
8/22/10	10:00a	77.0	77.1	77.0	90	73.8	3.0	NW	0.75	12.0	NW	77.0	81.0	81.0	29.891	0.02	0.30	0.000	0.125
8/22/10	10:15a	76.7	77.0	76.7	91	73.9	4.0	WNW	1.00	9.0	WNW	76.7	80.6	80.6	29.895	0.03	0.38	0.000	0.122
8/22/10	10:30a	76.8	76.8	76.7	91	74.0	5.0	WNW	1.25	13.0	NNW	76.8	80.8	80.8	29.893	0.00	0.00	0.000	0.123
8/22/10	10:45a	76.9	76.9	76.8	92	74.4	3.0	NW	0.75	12.0	WNW	76.9	81.1	81.1	29.879	0.00	0.00	0.000	0.124
8/22/10	11:00a	77.0	77.0	76.9	91	74.2	4.0	NW	1.00	12.0	WNW	77.0	81.1	81.1	29.877	0.00	0.00	0.000	0.125
8/22/10	11:15a	77.0	77.1	77.0	91	74.2	4.0	NW	1.00	10.0	W	77.0	81.1	81.1	29.869	0.01	0.00	0.000	0.125
8/22/10	11:30a	77.3	77.3	77.0	91	74.5	3.0	NW	0.75	9.0	NNW	77.3	81.6	81.6	29.863	0.00	0.00	0.000	0.128
8/22/10	11:45a	78.0	78.0	77.3	90	74.8	3.0	NW	0.75	8.0	WNW	78.0	82.8	82.8	29.863	0.00	0.00	0.000	0.135
8/22/10	12:00p	78.7	78.7	78.0	88	74.8	4.0	NW	1.00	9.0	WNW	78.7	83.8	83.8	29.852	0.01	0.00	0.000	0.143
8/22/10	12:15p	79.0	79.0	78.7	86	74.5	4.0	WNW	1.00	13.0	WNW	79.0	83.9	83.9	29.852	0.00	0.00	0.000	0.146
8/22/10	12:30p	78.7	79.1	78.7	87	74.5	4.0	WNW	1.00	12.0	WNW	78.7	83.6	83.6	29.854	0.00	0.00	0.000	0.143
8/22/10	12:45p	78.8	78.8	78.7	86	74.3	4.0	NW	1.00	12.0	WNW	78.8	83.6	83.6	29.847	0.00	0.00	0.000	0.144
8/22/10	1:00p	79.2	79.2	78.8	85	74.3	5.0	NW	1.25	13.0	W	79.2	84.1	84.1	29.839	0.00	0.00	0.000	0.148
8/22/10	1:15p	79.8	79.8	79.3	83	74.2	5.0	WNW	1.25	14.0	WNW	79.8	84.8	84.8	29.830	0.00	0.00	0.000	0.154

Gowanus Phase III Weather Data 8/22/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/22/10	1:30p	80.5	80.7	79.8	82	74.5	5.0	WNW	1.25	12.0	WNW	80.5	86.0	86.0	29.820	0.00	0.00	0.000	0.161
8/22/10	1:45p	79.9	80.5	79.9	83	74.3	5.0	NW	1.25	12.0	N	79.9	85.0	85.0	29.818	0.00	0.00	0.000	0.155
8/22/10	2:00p	79.0	79.9	79.0	85	74.1	6.0	WNW	1.50	12.0	NNE	79.0	83.7	83.7	29.812	0.00	0.00	0.000	0.146
8/22/10	2:15p	77.5	79.0	77.5	85	72.6	6.0	NW	1.50	16.0	W	77.5	81.3	81.3	29.812	0.02	0.99	0.000	0.130
8/22/10	2:30p	74.4	77.4	74.4	89	70.9	3.0	WNW	0.75	15.0	NW	74.4	77.1	77.1	29.805	0.20	3.11	0.000	0.098
8/22/10	2:45p	74.2	74.4	74.2	93	72.0	0.0	WNW	0.00	6.0	NNE	74.2	77.1	77.1	29.805	0.61	7.89	0.000	0.096
8/22/10	3:00p	75.0	75.0	74.2	93	72.8	5.0	NW	1.25	13.0	WNW	75.0	78.6	78.6	29.801	0.07	3.37	0.000	0.104
8/22/10	3:15p	75.8	75.8	75.0	91	73.0	5.0	NW	1.25	16.0	WNW	75.8	79.4	79.4	29.794	0.00	0.00	0.000	0.113
8/22/10	3:30p	76.1	76.1	75.8	89	72.6	5.0	NW	1.25	12.0	WNW	76.1	79.6	79.6	29.786	0.00	0.00	0.000	0.116
8/22/10	3:45p	76.2	76.2	76.1	87	72.0	5.0	NW	1.25	13.0	WSW	76.2	79.6	79.6	29.779	0.00	0.00	0.000	0.117
8/22/10	4:00p	75.8	76.2	75.8	90	72.7	5.0	WNW	1.25	12.0	WSW	75.8	79.3	79.3	29.777	0.01	0.00	0.000	0.113
8/22/10	4:15p	75.9	75.9	75.7	90	72.8	5.0	NW	1.25	15.0	S	75.9	79.4	79.4	29.774	0.00	0.00	0.000	0.114
8/22/10	4:30p	75.7	75.9	75.7	89	72.2	5.0	WNW	1.25	13.0	WNW	75.7	79.1	79.1	29.770	0.00	0.00	0.000	0.111
8/22/10	4:45p	75.6	75.7	75.6	89	72.1	4.0	WNW	1.00	8.0	WNW	75.6	79.0	79.0	29.765	0.00	0.00	0.000	0.110
8/22/10	5:00p	75.7	75.7	75.6	90	72.6	5.0	NW	1.25	11.0	NW	75.7	79.2	79.2	29.769	0.00	0.00	0.000	0.111
8/22/10	5:15p	75.6	75.7	75.5	90	72.5	6.0	NW	1.50	15.0	NW	75.6	79.1	79.1	29.771	0.00	0.00	0.000	0.110
8/22/10	5:30p	75.4	75.6	75.4	89	71.9	6.0	NW	1.50	14.0	SW	75.4	78.8	78.8	29.757	0.00	0.00	0.000	0.108
8/22/10	5:45p	75.1	75.4	75.1	90	72.0	5.0	WNW	1.25	13.0	W	75.1	78.5	78.5	29.751	0.00	0.00	0.000	0.105
8/22/10	6:00p	75.1	75.1	75.0	90	72.0	4.0	WNW	1.00	14.0	WNW	75.1	78.5	78.5	29.749	0.01	0.00	0.000	0.105
8/22/10	6:15p	74.8	75.1	74.8	91	72.0	5.0	NW	1.25	12.0	WNW	74.8	78.1	78.1	29.754	0.01	0.05	0.000	0.102
8/22/10	6:30p	74.4	74.8	74.4	92	71.9	4.0	WNW	1.00	9.0	WNW	74.4	77.4	77.4	29.756	0.01	0.11	0.000	0.098
8/22/10	6:45p	74.1	74.4	74.1	92	71.6	4.0	WNW	1.00	10.0	WNW	74.1	76.8	76.8	29.756	0.00	0.00	0.000	0.095
8/22/10	7:00p	74.1	74.1	74.1	91	71.3	3.0	NW	0.75	11.0	NW	74.1	76.7	76.7	29.753	0.00	0.00	0.000	0.095
8/22/10	7:15p	73.8	74.1	73.8	91	71.0	3.0	NNW	0.75	13.0	WNW	73.8	76.3	76.3	29.755	0.03	0.61	0.000	0.092
8/22/10	7:30p	73.7	73.8	73.6	92	71.2	3.0	NNW	0.75	8.0	WNW	73.7	76.3	76.3	29.741	0.00	0.00	0.000	0.091
8/22/10	7:45p	73.7	73.7	73.7	92	71.2	2.0	NW	0.50	8.0	N	73.7	76.3	76.3	29.741	0.00	0.00	0.000	0.091
8/22/10	8:00p	73.8	73.8	73.7	93	71.6	2.0	NW	0.50	8.0	NW	73.8	76.5	76.5	29.740	0.01	0.00	0.000	0.092
8/22/10	8:15p	73.9	73.9	73.8	94	72.1	1.0	W	0.25	8.0	WNW	73.9	76.8	76.8	29.739	0.04	0.89	0.000	0.093
8/22/10	8:30p	74.3	74.3	73.9	94	72.5	2.0	NW	0.50	8.0	WNW	74.3	77.4	77.4	29.727	0.00	0.00	0.000	0.097
8/22/10	8:45p	74.5	74.5	74.3	93	72.3	0.0	NNE	0.00	4.0	NNE	74.5	77.7	77.7	29.738	0.00	0.00	0.000	0.099
8/22/10	9:00p	74.4	74.5	74.4	93	72.2	0.0	NNE	0.00	1.0	NNE	74.4	77.5	77.5	29.736	0.00	0.00	0.000	0.098
8/22/10	9:15p	74.3	74.4	74.3	93	72.1	0.0	SW	0.00	7.0	NNE	74.3	77.3	77.3	29.746	0.05	1.72	0.000	0.097
8/22/10	9:30p	72.3	74.3	72.3	93	70.2	1.0	W	0.25	5.0	WSW	72.3	74.9	74.9	29.741	0.32	3.62	0.000	0.076
8/22/10	9:45p	72.1	72.3	72.1	93	70.0	0.0	NNE	0.00	5.0	NNW	72.1	74.7	74.7	29.737	0.00	0.00	0.000	0.074
8/22/10	10:00p	72.3	72.3	72.1	92	69.8	1.0	NNE	0.25	8.0	N	72.3	74.8	74.8	29.740	0.00	0.00	0.000	0.076
8/22/10	10:15p	72.4	72.4	72.3	91	69.6	0.0	NNW	0.00	4.0	NNW	72.4	74.8	74.8	29.741	0.00	0.00	0.000	0.077
8/22/10	10:30p	72.1	72.4	72.1	90	69.0	1.0	NNW	0.25	5.0	NNW	72.1	74.3	74.3	29.739	0.00	0.00	0.000	0.074
8/22/10	10:45p	72.2	72.2	72.1	91	69.4	1.0	WSW	0.25	7.0	SW	72.2	74.6	74.6	29.741	0.00	0.00	0.000	0.075
8/22/10	11:00p	72.4	72.5	72.2	90	69.3	1.0	NE	0.25	5.0	NE	72.4	74.7	74.7	29.749	0.00	0.00	0.000	0.077
8/22/10	11:15p	72.4	72.4	72.3	87	68.3	0.0	WSW	0.00	5.0	ENE	72.4	74.5	74.5	29.744	0.00	0.00	0.000	0.077
8/22/10	11:30p	72.4	72.4	72.4	89	69.0	0.0	N	0.00	2.0	N	72.4	74.6	74.6	29.741	0.00	0.00	0.000	0.077
8/22/10	11:45p	72.4	72.4	72.4	89	69.0	0.0	NNW	0.00	4.0	NNW	72.4	74.6	74.6	29.741	0.00	0.00	0.000	0.077
8/23/10	12:00a	72.4	72.4	72.4	89	69.0	0.0	NE	0.00	5.0	SSE	72.4	74.6	74.6	29.741	0.00	0.00	0.000	0.077

Gowanus Phase III Weather Data 8/23/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/23/10	12:15a	72.5	72.5	72.4	89	69.1	0.0	NE	0.00	5.0	NE	72.5	74.8	74.8	29.743	0.00	0.00	0.000	0.078
8/23/10	12:30a	72.3	72.5	72.3	88	68.5	0.0	NNE	0.00	7.0	NNE	72.3	74.4	74.4	29.744	0.00	0.00	0.000	0.076
8/23/10	12:45a	71.8	72.3	71.8	88	68.1	0.0	NNE	0.00	2.0	NNE	71.8	73.8	73.8	29.741	0.00	0.00	0.000	0.071
8/23/10	1:00a	71.4	71.8	71.4	87	67.3	1.0	NNE	0.25	6.0	NE	71.4	73.4	73.4	29.740	0.00	0.00	0.000	0.067
8/23/10	1:15a	71.3	71.4	71.3	87	67.2	1.0	NE	0.25	6.0	NE	71.3	73.3	73.3	29.740	0.00	0.00	0.000	0.066
8/23/10	1:30a	71.0	71.3	71.0	88	67.3	1.0	N	0.25	5.0	ENE	71.0	73.0	73.0	29.741	0.00	0.00	0.000	0.063
8/23/10	1:45a	70.5	70.9	70.5	88	66.8	1.0	N	0.25	8.0	NNE	70.5	72.4	72.4	29.738	0.00	0.00	0.000	0.057
8/23/10	2:00a	70.3	70.5	70.3	88	66.6	1.0	NNW	0.25	6.0	NNE	70.3	72.2	72.2	29.740	0.00	0.00	0.000	0.055
8/23/10	2:15a	69.9	70.3	69.9	89	66.5	1.0	NNE	0.25	5.0	NNE	69.9	71.8	71.8	29.737	0.00	0.00	0.000	0.051
8/23/10	2:30a	69.3	69.9	69.3	90	66.2	1.0	NNW	0.25	6.0	W	69.3	71.3	71.3	29.740	0.00	0.00	0.000	0.045
8/23/10	2:45a	69.1	69.3	69.1	90	66.0	0.0	WSW	0.00	3.0	WSW	69.1	71.1	71.1	29.740	0.00	0.00	0.000	0.043
8/23/10	3:00a	69.3	69.3	69.0	89	65.9	0.0	NNE	0.00	6.0	NNE	69.3	71.2	71.2	29.740	0.00	0.00	0.000	0.045
8/23/10	3:15a	69.5	69.5	69.3	88	65.8	0.0	NNW	0.00	4.0	NNW	69.5	71.4	71.4	29.742	0.00	0.00	0.000	0.047
8/23/10	3:30a	69.7	69.7	69.5	88	66.0	0.0	NNW	0.00	5.0	NNW	69.7	71.5	71.5	29.741	0.00	0.00	0.000	0.049
8/23/10	3:45a	69.8	69.8	69.7	87	65.8	0.0	NW	0.00	3.0	NW	69.8	71.5	71.5	29.744	0.00	0.00	0.000	0.050
8/23/10	4:00a	69.9	69.9	69.8	87	65.9	0.0	NW	0.00	2.0	NW	69.9	71.6	71.6	29.741	0.00	0.00	0.000	0.051
8/23/10	4:15a	69.7	69.9	69.7	88	66.0	0.0	---	0.00	0.0	---	69.7	71.5	71.5	29.740	0.00	0.00	0.000	0.049
8/23/10	4:30a	69.5	69.7	69.5	88	65.8	0.0	NW	0.00	1.0	NW	69.5	71.4	71.4	29.741	0.00	0.00	0.000	0.047
8/23/10	4:45a	69.5	69.5	69.5	88	65.8	0.0	---	0.00	0.0	---	69.5	71.4	71.4	29.747	0.00	0.00	0.000	0.047
8/23/10	5:00a	69.7	69.7	69.5	89	66.3	0.0	---	0.00	0.0	---	69.7	71.6	71.6	29.754	0.00	0.00	0.000	0.049
8/23/10	5:15a	70.0	70.0	69.7	89	66.6	0.0	NW	0.00	1.0	NW	70.0	71.9	71.9	29.755	0.00	0.00	0.000	0.052
8/23/10	5:30a	70.0	70.0	70.0	89	66.6	0.0	NW	0.00	1.0	NW	70.0	71.9	71.9	29.756	0.00	0.00	0.000	0.052
8/23/10	5:45a	69.9	70.1	69.9	89	66.5	0.0	NW	0.00	2.0	NW	69.9	71.8	71.8	29.756	0.00	0.00	0.000	0.051
8/23/10	6:00a	69.9	69.9	69.8	90	66.8	0.0	NW	0.00	1.0	NW	69.9	71.9	71.9	29.761	0.00	0.00	0.000	0.051
8/23/10	6:15a	69.7	69.8	69.7	91	67.0	0.0	NW	0.00	1.0	NW	69.7	71.8	71.8	29.771	0.00	0.00	0.000	0.049
8/23/10	6:30a	69.5	69.7	69.5	90	66.4	0.0	NW	0.00	3.0	NW	69.5	71.5	71.5	29.771	0.00	0.00	0.000	0.047
8/23/10	6:45a	69.4	69.5	69.4	92	67.0	0.0	---	0.00	0.0	---	69.4	71.6	71.6	29.772	0.00	0.00	0.000	0.046
8/23/10	7:00a	69.4	69.4	69.3	92	67.0	0.0	---	0.00	0.0	---	69.4	71.6	71.6	29.772	0.01	0.00	0.000	0.046
8/23/10	7:15a	69.4	69.4	69.4	93	67.3	0.0	---	0.00	0.0	---	69.4	71.6	71.6	29.776	0.00	0.00	0.000	0.046
8/23/10	7:30a	69.6	69.6	69.4	93	67.5	0.0	---	0.00	0.0	---	69.6	71.9	71.9	29.783	0.00	0.00	0.000	0.048
8/23/10	7:45a	70.4	70.4	69.7	93	68.3	0.0	NW	0.00	2.0	NW	70.4	72.8	72.8	29.786	0.01	0.00	0.000	0.056
8/23/10	8:00a	70.6	70.6	70.4	93	68.5	0.0	WNW	0.00	5.0	WNW	70.6	73.0	73.0	29.788	0.02	0.17	0.000	0.058
8/23/10	8:15a	70.8	70.8	70.6	92	68.4	2.0	NNW	0.50	9.0	E	70.8	73.2	73.2	29.791	0.00	0.00	0.000	0.060
8/23/10	8:30a	70.7	70.8	70.6	91	67.9	4.0	E	1.00	11.0	NW	70.7	72.9	72.9	29.794	0.00	0.00	0.000	0.059
8/23/10	8:45a	70.8	70.9	70.6	91	68.0	2.0	ESE	0.50	7.0	E	70.8	73.1	73.1	29.791	0.00	0.00	0.000	0.060
8/23/10	9:00a	70.8	71.0	70.8	89	67.4	3.0	ESE	0.75	10.0	WNW	70.8	72.9	72.9	29.797	0.00	0.00	0.000	0.060
8/23/10	9:15a	70.8	70.8	70.8	89	67.4	3.0	E	0.75	9.0	E	70.8	72.9	72.9	29.802	0.00	0.00	0.000	0.060
8/23/10	9:30a	71.0	71.0	70.8	89	67.6	3.0	ESE	0.75	10.0	ENE	71.0	73.1	73.1	29.805	0.00	0.00	0.000	0.063
8/23/10	9:45a	71.0	71.1	70.9	89	67.6	3.0	E	0.75	8.0	E	71.0	73.1	73.1	29.817	0.00	0.00	0.000	0.063
8/23/10	10:00a	70.6	71.0	70.6	90	67.5	3.0	E	0.75	8.0	S	70.6	72.7	72.7	29.821	0.02	0.14	0.000	0.058
8/23/10	10:15a	70.0	70.6	70.0	92	67.6	2.0	E	0.50	7.0	NNW	70.0	72.2	72.2	29.831	0.02	0.14	0.000	0.052
8/23/10	10:30a	69.8	70.0	69.8	92	67.4	1.0	SE	0.25	5.0	E	69.8	72.0	72.0	29.836	0.02	0.16	0.000	0.050
8/23/10	10:45a	69.7	69.8	69.6	93	67.6	2.0	ENE	0.50	6.0	N	69.7	72.0	72.0	29.839	0.00	0.00	0.000	0.049
8/23/10	11:00a	69.6	69.7	69.5	92	67.2	2.0	E	0.50	8.0	NNW	69.6	71.8	71.8	29.840	0.00	0.00	0.000	0.048
8/23/10	11:15a	69.5	69.6	69.5	91	66.8	2.0	E	0.50	7.0	NNW	69.5	71.6	71.6	29.837	0.00	0.00	0.000	0.047
8/23/10	11:30a	69.5	69.5	69.4	90	66.4	3.0	ESE	0.75	8.0	ENE	69.5	71.5	71.5	29.846	0.00	0.00	0.000	0.047
8/23/10	11:45a	69.8	69.8	69.5	90	66.7	3.0	E	0.75	8.0	WNW	69.8	71.8	71.8	29.848	0.00	0.00	0.000	0.050
8/23/10	12:00p	70.1	70.1	69.9	89	66.7	3.0	ESE	0.75	9.0	N	70.1	72.0	72.0	29.848	0.00	0.00	0.000	0.053
8/23/10	12:15p	70.3	70.3	70.1	88	66.6	3.0	ESE	0.75	8.0	WSW	70.3	72.2	72.2	29.849	0.00	0.00	0.000	0.055
8/23/10	12:30p	70.1	70.3	70.1	87	66.0	3.0	ESE	0.75	9.0	NW	70.1	71.8	71.8	29.849	0.00	0.00	0.000	0.053
8/23/10	12:45p	70.1	70.1	70.0	86	65.7	1.0	SSW	0.25	5.0	ENE	70.1	71.7	71.7	29.855	0.00	0.00	0.000	0.053
8/23/10	1:00p	69.9	70.1	69.9	86	65.5	3.0	ESE	0.75	10.0	ESE	69.9	71.5	71.5	29.860	0.00	0.00	0.000	0.051
8/23/10	1:15p	69.7	69.9	69.6	84	64.6	3.0	ESE	0.75	8.0	WNW	69.7	71.2	71.2	29.860	0.00	0.00	0.000	0.049

Gowanus Phase III Weather Data 8/23/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/23/10	1:30p	69.9	69.9	69.8	84	64.8	3.0	E	0.75	8.0	N	69.9	71.4	71.4	29.862	0.00	0.00	0.000	0.051
8/23/10	1:45p	70.1	70.1	69.9	83	64.7	3.0	E	0.75	9.0	NNW	70.1	71.5	71.5	29.862	0.00	0.00	0.000	0.053
8/23/10	2:00p	70.3	70.3	70.1	82	64.5	3.0	ESE	0.75	8.0	SE	70.3	71.6	71.6	29.864	0.00	0.00	0.000	0.055
8/23/10	2:15p	70.4	70.4	70.3	82	64.6	2.0	SSE	0.50	9.0	SE	70.4	71.8	71.8	29.866	0.00	0.00	0.000	0.056
8/23/10	2:30p	70.5	70.5	70.4	81	64.4	4.0	NNE	1.00	9.0	ENE	70.5	71.8	71.8	29.866	0.00	0.00	0.000	0.057
8/23/10	2:45p	70.7	70.7	70.5	80	64.2	3.0	SSE	0.75	13.0	N	70.7	71.9	71.9	29.865	0.00	0.00	0.000	0.059
8/23/10	3:00p	70.8	70.8	70.7	79	64.0	2.0	ESE	0.50	11.0	ESE	70.8	72.0	72.0	29.866	0.00	0.00	0.000	0.060
8/23/10	3:15p	71.0	71.0	70.7	78	63.8	4.0	ESE	1.00	9.0	NE	71.0	72.1	72.1	29.871	0.00	0.00	0.000	0.063
8/23/10	3:30p	71.2	71.2	71.0	78	64.0	3.0	SE	0.75	11.0	NE	71.2	72.3	72.3	29.868	0.00	0.00	0.000	0.065
8/23/10	3:45p	71.3	71.3	71.2	77	63.7	3.0	SE	0.75	9.0	ESE	71.3	72.3	72.3	29.870	0.00	0.00	0.000	0.066
8/23/10	4:00p	71.3	71.4	71.3	77	63.7	4.0	E	1.00	10.0	NE	71.3	72.3	72.3	29.871	0.00	0.00	0.000	0.066
8/23/10	4:15p	71.3	71.4	71.3	77	63.7	3.0	E	0.75	9.0	NNW	71.3	72.3	72.3	29.878	0.00	0.00	0.000	0.066
8/23/10	4:30p	70.9	71.3	70.9	77	63.3	4.0	E	1.00	10.0	ESE	70.9	71.9	71.9	29.878	0.00	0.00	0.000	0.061
8/23/10	4:45p	70.7	70.9	70.7	76	62.8	3.0	SE	0.75	11.0	NE	70.7	71.5	71.5	29.881	0.00	0.00	0.000	0.059
8/23/10	5:00p	70.6	70.7	70.6	76	62.7	3.0	SE	0.75	12.0	SE	70.6	71.4	71.4	29.884	0.00	0.00	0.000	0.058
8/23/10	5:15p	70.4	70.6	70.4	76	62.5	3.0	SE	0.75	10.0	NNW	70.4	71.2	71.2	29.892	0.00	0.00	0.000	0.056
8/23/10	5:30p	70.2	70.4	70.2	75	61.9	4.0	N	1.00	15.0	NNW	70.2	70.8	70.8	29.894	0.00	0.00	0.000	0.054
8/23/10	5:45p	70.2	70.2	70.1	75	61.9	3.0	SE	0.75	11.0	NNE	70.2	70.8	70.8	29.895	0.00	0.00	0.000	0.054
8/23/10	6:00p	69.9	70.1	69.9	76	62.0	3.0	SE	0.75	11.0	NE	69.9	70.6	70.6	29.901	0.00	0.00	0.000	0.051
8/23/10	6:15p	69.7	69.9	69.7	75	61.4	3.0	SSE	0.75	10.0	NNW	69.7	70.4	70.4	29.907	0.00	0.00	0.000	0.049
8/23/10	6:30p	69.4	69.7	69.4	76	61.5	4.0	S	1.00	10.0	NNW	69.4	70.3	70.3	29.910	0.00	0.00	0.000	0.046
8/23/10	6:45p	67.8	69.4	67.8	83	62.4	3.0	NNE	0.75	8.0	NNE	67.8	69.2	69.2	29.917	0.00	0.00	0.000	0.029
8/23/10	7:00p	67.4	67.8	67.3	84	62.4	2.0	S	0.50	9.0	N	67.4	68.7	68.7	29.918	0.00	0.00	0.000	0.025
8/23/10	7:15p	67.9	67.9	67.4	81	61.9	2.0	NNE	0.50	12.0	SSW	67.9	69.2	69.2	29.925	0.00	0.00	0.000	0.030
8/23/10	7:30p	68.3	68.3	67.9	80	61.9	3.0	NE	0.75	12.0	SSE	68.3	69.7	69.7	29.929	0.01	0.00	0.000	0.034
8/23/10	7:45p	67.8	68.3	67.8	81	61.8	4.0	NE	1.00	10.0	E	67.8	69.1	69.1	29.930	0.00	0.00	0.000	0.029
8/23/10	8:00p	67.3	67.8	67.3	83	62.0	3.0	NE	0.75	8.0	N	67.3	68.6	68.6	29.939	0.00	0.00	0.000	0.024
8/23/10	8:15p	66.8	67.3	66.8	84	61.8	2.0	ESE	0.50	7.0	SSW	66.8	68.0	68.0	29.941	0.00	0.00	0.000	0.019
8/23/10	8:30p	66.6	66.8	66.6	83	61.3	2.0	SSE	0.50	12.0	NNE	66.6	67.7	67.7	29.941	0.00	0.00	0.000	0.017
8/23/10	8:45p	67.2	67.2	66.6	79	60.5	3.0	ESE	0.75	8.0	SSW	67.2	68.3	68.3	29.943	0.00	0.00	0.000	0.023
8/23/10	9:00p	67.4	67.5	67.2	78	60.3	4.0	SE	1.00	12.0	NNW	67.4	68.4	68.4	29.949	0.00	0.00	0.000	0.025
8/23/10	9:15p	67.5	67.5	67.4	77	60.0	3.0	SE	0.75	9.0	NE	67.5	68.5	68.5	29.948	0.00	0.00	0.000	0.026
8/23/10	9:30p	67.4	67.4	67.4	77	59.9	3.0	NE	0.75	10.0	NE	67.4	68.3	68.3	29.948	0.00	0.00	0.000	0.025
8/23/10	9:45p	67.5	67.5	67.4	76	59.7	2.0	S	0.50	12.0	S	67.5	68.4	68.4	29.956	0.00	0.00	0.000	0.026
8/23/10	10:00p	67.5	67.5	67.5	76	59.7	3.0	ESE	0.75	8.0	N	67.5	68.4	68.4	29.958	0.00	0.00	0.000	0.026
8/23/10	10:15p	67.4	67.5	67.4	75	59.2	3.0	S	0.75	9.0	NNE	67.4	68.2	68.2	29.960	0.00	0.00	0.000	0.025
8/23/10	10:30p	67.3	67.4	67.3	75	59.1	3.0	ESE	0.75	7.0	NNE	67.3	68.1	68.1	29.967	0.00	0.00	0.000	0.024
8/23/10	10:45p	67.3	67.3	67.3	75	59.1	2.0	ESE	0.50	11.0	NNE	67.3	68.1	68.1	29.969	0.00	0.00	0.000	0.024
8/23/10	11:00p	67.1	67.3	67.1	75	58.9	3.0	ESE	0.75	8.0	N	67.1	67.8	67.8	29.971	0.00	0.00	0.000	0.022
8/23/10	11:15p	67.1	67.1	67.1	75	58.9	3.0	ENE	0.75	12.0	NNW	67.1	67.8	67.8	29.971	0.00	0.00	0.000	0.022
8/23/10	11:30p	66.9	67.1	66.9	75	58.7	3.0	S	0.75	11.0	N	66.9	67.6	67.6	29.971	0.00	0.00	0.000	0.020
8/23/10	11:45p	66.8	66.9	66.8	75	58.6	2.0	NNW	0.50	11.0	NNE	66.8	67.5	67.5	29.966	0.00	0.00	0.000	0.019
8/24/10	12:00a	66.2	66.8	66.2	78	59.1	2.0	NNE	0.50	8.0	NNE	66.2	67.0	67.0	29.969	0.00	0.00	0.000	0.012

Gowanus Phase III Weather Data 8/24/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/24/10	12:15a	66.1	66.2	66.0	78	59.0	2.0	NNW	0.50	8.0	N	66.1	66.9	66.9	29.965	0.00	0.00	0.000	0.011
8/24/10	12:30a	66.1	66.1	66.1	78	59.0	2.0	SSE	0.50	7.0	ENE	66.1	66.9	66.9	29.965	0.00	0.00	0.000	0.011
8/24/10	12:45a	66.1	66.1	66.0	77	58.7	1.0	SW	0.25	6.0	N	66.1	66.8	66.8	29.961	0.00	0.00	0.000	0.011
8/24/10	1:00a	66.1	66.1	66.1	77	58.7	1.0	NNW	0.25	8.0	N	66.1	66.8	66.8	29.959	0.00	0.00	0.000	0.011
8/24/10	1:15a	66.2	66.2	66.1	76	58.4	2.0	NNE	0.50	11.0	NNW	66.2	66.8	66.8	29.957	0.00	0.00	0.000	0.012
8/24/10	1:30a	66.3	66.4	66.2	75	58.1	3.0	NNE	0.75	10.0	NE	66.3	66.9	66.9	29.953	0.00	0.00	0.000	0.014
8/24/10	1:45a	66.4	66.4	66.3	75	58.2	2.0	ESE	0.50	9.0	NNW	66.4	67.0	67.0	29.941	0.00	0.00	0.000	0.015
8/24/10	2:00a	66.5	66.5	66.4	75	58.3	2.0	NNE	0.50	8.0	E	66.5	67.1	67.1	29.929	0.00	0.00	0.000	0.016
8/24/10	2:15a	66.5	66.5	66.5	75	58.3	3.0	NNE	0.75	8.0	E	66.5	67.1	67.1	29.927	0.00	0.00	0.000	0.016
8/24/10	2:30a	66.5	66.5	66.4	75	58.3	3.0	ENE	0.75	9.0	NNE	66.5	67.1	67.1	29.926	0.00	0.00	0.000	0.016
8/24/10	2:45a	66.6	66.6	66.5	75	58.4	3.0	NNE	0.75	13.0	ENE	66.6	67.2	67.2	29.926	0.00	0.00	0.000	0.017
8/24/10	3:00a	66.6	66.6	66.5	75	58.4	2.0	S	0.50	8.0	NNE	66.6	67.2	67.2	29.926	0.00	0.00	0.000	0.017
8/24/10	3:15a	66.7	66.7	66.5	75	58.5	2.0	N	0.50	7.0	NNE	66.7	67.3	67.3	29.926	0.00	0.00	0.000	0.018
8/24/10	3:30a	66.8	66.8	66.7	74	58.2	1.0	SSW	0.25	10.0	NNE	66.8	67.4	67.4	29.926	0.00	0.00	0.000	0.019
8/24/10	3:45a	66.8	66.8	66.8	75	58.6	1.0	NE	0.25	5.0	ESE	66.8	67.5	67.5	29.926	0.00	0.00	0.000	0.019
8/24/10	4:00a	66.8	66.8	66.7	75	58.6	2.0	NNE	0.50	13.0	NNE	66.8	67.5	67.5	29.924	0.00	0.00	0.000	0.019
8/24/10	4:15a	66.9	66.9	66.8	75	58.7	2.0	NNW	0.50	11.0	NW	66.9	67.6	67.6	29.923	0.00	0.00	0.000	0.020
8/24/10	4:30a	66.8	66.9	66.8	75	58.6	1.0	NE	0.25	6.0	NNW	66.8	67.5	67.5	29.925	0.00	0.00	0.000	0.019
8/24/10	4:45a	66.8	66.8	66.8	75	58.6	3.0	SSE	0.75	8.0	ENE	66.8	67.5	67.5	29.921	0.00	0.00	0.000	0.019
8/24/10	5:00a	66.8	66.8	66.7	75	58.6	2.0	SSE	0.50	7.0	N	66.8	67.5	67.5	29.916	0.00	0.00	0.000	0.019
8/24/10	5:15a	66.8	66.9	66.7	75	58.6	3.0	NE	0.75	18.0	NNW	66.8	67.5	67.5	29.914	0.00	0.00	0.000	0.019
8/24/10	5:30a	66.7	66.8	66.7	75	58.5	3.0	NNE	0.75	10.0	NNE	66.7	67.3	67.3	29.923	0.00	0.00	0.000	0.018
8/24/10	5:45a	66.5	66.7	66.5	76	58.7	3.0	N	0.75	9.0	SSE	66.5	67.2	67.2	29.923	0.00	0.00	0.000	0.016
8/24/10	6:00a	66.4	66.5	66.3	76	58.6	2.0	NNE	0.50	10.0	N	66.4	67.1	67.1	29.925	0.00	0.00	0.000	0.015
8/24/10	6:15a	66.6	66.6	66.4	75	58.4	2.0	S	0.50	13.0	NW	66.6	67.2	67.2	29.927	0.00	0.00	0.000	0.017
8/24/10	6:30a	66.7	66.7	66.6	75	58.5	2.0	E	0.50	9.0	NNE	66.7	67.3	67.3	29.937	0.00	0.00	0.000	0.018
8/24/10	6:45a	66.7	66.8	66.7	75	58.5	4.0	ESE	1.00	11.0	S	66.7	67.3	67.3	29.941	0.00	0.00	0.000	0.018
8/24/10	7:00a	66.3	66.7	66.3	76	58.5	2.0	N	0.50	9.0	NW	66.3	66.9	66.9	29.942	0.00	0.00	0.000	0.014
8/24/10	7:15a	65.8	66.3	65.8	79	59.1	3.0	SSE	0.75	8.0	N	65.8	66.6	66.6	29.949	0.00	0.00	0.000	0.008
8/24/10	7:30a	65.5	65.8	65.5	80	59.2	2.0	SSE	0.50	10.0	NE	65.5	66.3	66.3	29.956	0.00	0.00	0.000	0.005
8/24/10	7:45a	65.6	65.6	65.5	80	59.3	1.0	NNE	0.25	8.0	NNE	65.6	66.4	66.4	29.956	0.00	0.00	0.000	0.006
8/24/10	8:00a	66.2	66.2	65.6	77	58.8	1.0	ESE	0.25	7.0	N	66.2	66.9	66.9	29.957	0.00	0.00	0.000	0.012
8/24/10	8:15a	66.8	66.8	66.2	75	58.6	2.0	SE	0.50	11.0	NNE	66.8	67.5	67.5	29.959	0.00	0.00	0.000	0.019
8/24/10	8:30a	67.2	67.2	66.9	73	58.2	2.0	NNE	0.50	13.0	NE	67.2	67.8	67.8	29.963	0.00	0.00	0.000	0.023
8/24/10	8:45a	67.6	67.6	67.3	73	58.6	2.0	N	0.50	7.0	NNW	67.6	68.3	68.3	29.960	0.00	0.00	0.000	0.027
8/24/10	9:00a	67.9	67.9	67.6	72	58.5	2.0	S	0.50	11.0	NNE	67.9	68.6	68.6	29.956	0.00	0.00	0.000	0.030
8/24/10	9:15a	68.3	68.3	67.9	71	58.5	2.0	S	0.50	7.0	NNE	68.3	68.9	68.9	29.959	0.00	0.00	0.000	0.034
8/24/10	9:30a	68.5	68.5	68.2	71	58.7	2.0	E	0.50	8.0	NNE	68.5	69.1	69.1	29.957	0.00	0.00	0.000	0.036
8/24/10	9:45a	68.7	68.7	68.5	71	58.9	3.0	E	0.75	8.0	NE	68.7	69.3	69.3	29.959	0.00	0.00	0.000	0.039
8/24/10	10:00a	68.7	68.7	68.6	72	59.3	3.0	N	0.75	9.0	NNW	68.7	69.4	69.4	29.958	0.00	0.00	0.000	0.039
8/24/10	10:15a	68.8	68.8	68.7	72	59.4	2.0	ESE	0.50	8.0	NNE	68.8	69.5	69.5	29.958	0.00	0.00	0.000	0.040
8/24/10	10:30a	68.8	68.8	68.7	72	59.4	2.0	N	0.50	7.0	N	68.8	69.5	69.5	29.957	0.00	0.00	0.000	0.040
8/24/10	10:45a	69.1	69.1	68.8	72	59.7	1.0	SSE	0.25	8.0	NW	69.1	69.7	69.7	29.957	0.00	0.00	0.000	0.043
8/24/10	11:00a	69.3	69.3	69.1	71	59.5	2.0	N	0.50	11.0	N	69.3	69.7	69.7	29.959	0.00	0.00	0.000	0.045
8/24/10	11:15a	68.5	69.3	68.5	74	59.9	3.0	E	0.75	9.0	ENE	68.5	69.4	69.4	29.964	0.00	0.00	0.000	0.036
8/24/10	11:30a	68.9	68.9	68.5	73	59.9	1.0	ESE	0.25	6.0	SSE	68.9	69.7	69.7	29.959	0.00	0.00	0.000	0.041
8/24/10	11:45a	68.6	69.0	68.6	76	60.7	2.0	SE	0.50	7.0	NW	68.6	69.7	69.7	29.960	0.00	0.00	0.000	0.037
8/24/10	12:00p	67.6	68.6	67.6	79	60.9	3.0	N	0.75	9.0	NNE	67.6	68.7	68.7	29.957	0.00	0.00	0.000	0.027
8/24/10	12:15p	67.2	67.6	67.2	83	61.9	1.0	SSW	0.25	7.0	S	67.2	68.5	68.5	29.961	0.00	0.00	0.000	0.023
8/24/10	12:30p	66.3	67.1	66.3	85	61.7	1.0	N	0.25	6.0	NNE	66.3	67.4	67.4	29.956	0.01	0.00	0.000	0.014
8/24/10	12:45p	66.6	66.6	66.3	84	61.6	2.0	N	0.50	10.0	NNW	66.6	67.7	67.7	29.953	0.00	0.00	0.000	0.017
8/24/10	1:00p	66.6	66.7	66.6	86	62.3	0.0	N	0.00	5.0	NW	66.6	67.8	67.8	29.953	0.00	0.00	0.000	0.017
8/24/10	1:15p	67.0	67.0	66.6	85	62.3	1.0	N	0.25	8.0	N	67.0	68.3	68.3	29.949	0.00	0.00	0.000	0.021

Gowanus Phase III Weather Data 8/24/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/24/10	1:30p	67.6	67.6	67.0	83	62.3	1.0	ENE	0.25	6.0	SE	67.6	68.9	68.9	29.952	0.00	0.00	0.000	0.027
8/24/10	1:45p	68.1	68.1	67.6	82	62.4	1.0	NNE	0.25	6.0	ENE	68.1	69.5	69.5	29.949	0.00	0.00	0.000	0.032
8/24/10	2:00p	68.5	68.5	68.1	79	61.7	2.0	ESE	0.50	6.0	SSW	68.5	69.8	69.8	29.942	0.00	0.00	0.000	0.036
8/24/10	2:15p	68.9	68.9	68.4	78	61.8	2.0	NE	0.50	8.0	WSW	68.9	70.2	70.2	29.942	0.00	0.00	0.000	0.041
8/24/10	2:30p	69.0	69.0	68.9	77	61.5	2.0	SSE	0.50	10.0	SSE	69.0	70.2	70.2	29.941	0.00	0.00	0.000	0.042
8/24/10	2:45p	69.0	69.0	68.9	76	61.1	3.0	SE	0.75	10.0	ESE	69.0	70.1	70.1	29.937	0.00	0.00	0.000	0.042
8/24/10	3:00p	69.4	69.4	69.0	75	61.1	2.0	S	0.50	7.0	NW	69.4	70.2	70.2	29.929	0.00	0.00	0.000	0.046
8/24/10	3:15p	69.6	69.6	69.4	74	60.9	2.0	N	0.50	10.0	N	69.6	70.3	70.3	29.926	0.00	0.00	0.000	0.048
8/24/10	3:30p	69.9	69.9	69.7	73	60.8	3.0	S	0.75	9.0	NE	69.9	70.3	70.3	29.926	0.00	0.00	0.000	0.051
8/24/10	3:45p	70.1	70.1	69.9	72	60.7	3.0	N	0.75	12.0	NNE	70.1	70.4	70.4	29.926	0.00	0.00	0.000	0.053
8/24/10	4:00p	70.3	70.3	70.1	72	60.8	2.0	NNE	0.50	10.0	N	70.3	70.7	70.7	29.926	0.00	0.00	0.000	0.055
8/24/10	4:15p	69.9	70.2	69.9	72	60.5	4.0	NNW	1.00	8.0	SSE	69.9	70.2	70.2	29.923	0.00	0.00	0.000	0.051
8/24/10	4:30p	70.1	70.1	69.9	72	60.7	3.0	E	0.75	7.0	NNW	70.1	70.4	70.4	29.921	0.00	0.00	0.000	0.053
8/24/10	4:45p	70.2	70.2	70.0	73	61.1	3.0	NE	0.75	13.0	NNE	70.2	70.6	70.6	29.919	0.00	0.00	0.000	0.054
8/24/10	5:00p	70.2	70.3	70.2	73	61.1	2.0	NE	0.50	8.0	E	70.2	70.6	70.6	29.918	0.00	0.00	0.000	0.054
8/24/10	5:15p	70.2	70.2	70.1	73	61.1	3.0	S	0.75	14.0	NNE	70.2	70.6	70.6	29.912	0.00	0.00	0.000	0.054
8/24/10	5:30p	70.2	70.3	70.2	73	61.1	2.0	N	0.50	8.0	NW	70.2	70.6	70.6	29.911	0.00	0.00	0.000	0.054
8/24/10	5:45p	70.0	70.2	70.0	74	61.3	3.0	N	0.75	9.0	N	70.0	70.5	70.5	29.913	0.00	0.00	0.000	0.052
8/24/10	6:00p	69.7	70.0	69.7	75	61.4	2.0	S	0.50	8.0	N	69.7	70.4	70.4	29.911	0.00	0.00	0.000	0.049
8/24/10	6:15p	69.1	69.7	69.1	77	61.6	2.0	S	0.50	7.0	N	69.1	70.3	70.3	29.911	0.00	0.00	0.000	0.043
8/24/10	6:30p	69.1	69.1	69.0	77	61.6	2.0	SSE	0.50	7.0	ESE	69.1	70.3	70.3	29.910	0.00	0.00	0.000	0.043
8/24/10	6:45p	69.1	69.3	69.1	77	61.6	2.0	NNW	0.50	8.0	N	69.1	70.3	70.3	29.910	0.00	0.00	0.000	0.043
8/24/10	7:00p	68.5	69.2	68.5	80	62.1	3.0	ESE	0.75	10.0	W	68.5	69.9	69.9	29.907	0.00	0.00	0.000	0.036
8/24/10	7:15p	68.4	68.5	68.4	79	61.6	2.0	NNW	0.50	12.0	NE	68.4	69.7	69.7	29.906	0.00	0.00	0.000	0.035
8/24/10	7:30p	68.2	68.4	68.2	80	61.8	2.0	ENE	0.50	8.0	NNW	68.2	69.5	69.5	29.899	0.00	0.00	0.000	0.033
8/24/10	7:45p	67.7	68.2	67.7	82	62.0	2.0	N	0.50	8.0	NNE	67.7	69.0	69.0	29.900	0.00	0.00	0.000	0.028
8/24/10	8:00p	67.6	67.7	67.6	82	61.9	2.0	NNW	0.50	9.0	N	67.6	68.9	68.9	29.895	0.00	0.00	0.000	0.027
8/24/10	8:15p	67.4	67.6	67.4	83	62.1	2.0	N	0.50	9.0	E	67.4	68.7	68.7	29.895	0.00	0.00	0.000	0.025
8/24/10	8:30p	67.3	67.4	67.3	83	62.0	2.0	WSW	0.50	9.0	ENE	67.3	68.6	68.6	29.896	0.00	0.00	0.000	0.024
8/24/10	8:45p	67.1	67.3	67.1	83	61.8	2.0	E	0.50	9.0	NE	67.1	68.3	68.3	29.895	0.00	0.00	0.000	0.022
8/24/10	9:00p	67.4	67.4	67.1	82	61.7	4.0	N	1.00	10.0	NNE	67.4	68.7	68.7	29.893	0.00	0.00	0.000	0.025
8/24/10	9:15p	67.4	67.5	67.4	82	61.7	2.0	S	0.50	9.0	NE	67.4	68.7	68.7	29.894	0.00	0.00	0.000	0.025
8/24/10	9:30p	67.4	67.5	67.4	82	61.7	2.0	N	0.50	9.0	NE	67.4	68.7	68.7	29.884	0.00	0.00	0.000	0.025
8/24/10	9:45p	67.5	67.5	67.4	82	61.8	2.0	S	0.50	8.0	NNE	67.5	68.8	68.8	29.889	0.00	0.00	0.000	0.026
8/24/10	10:00p	67.6	67.6	67.5	81	61.6	1.0	ENE	0.25	10.0	N	67.6	68.9	68.9	29.892	0.00	0.00	0.000	0.027
8/24/10	10:15p	67.7	67.8	67.6	81	61.7	2.0	E	0.50	8.0	ESE	67.7	69.0	69.0	29.893	0.00	0.00	0.000	0.028
8/24/10	10:30p	67.8	67.9	67.7	81	61.8	2.0	N	0.50	6.0	N	67.8	69.1	69.1	29.882	0.00	0.00	0.000	0.029
8/24/10	10:45p	67.9	67.9	67.8	80	61.5	2.0	N	0.50	8.0	NNW	67.9	69.2	69.2	29.882	0.00	0.00	0.000	0.030
8/24/10	11:00p	67.7	67.9	67.7	82	62.0	2.0	ESE	0.50	10.0	N	67.7	69.0	69.0	29.888	0.00	0.00	0.000	0.028
8/24/10	11:15p	66.7	67.7	66.7	84	61.7	1.0	N	0.25	8.0	N	66.7	67.9	67.9	29.883	0.00	0.00	0.000	0.018
8/24/10	11:30p	66.5	66.7	66.4	85	61.8	1.0	NW	0.25	5.0	NNE	66.5	67.7	67.7	29.880	0.00	0.00	0.000	0.016
8/24/10	11:45p	66.5	66.5	66.4	85	61.8	1.0	NE	0.25	9.0	NE	66.5	67.7	67.7	29.880	0.00	0.00	0.000	0.016
8/25/10	12:00a	66.3	66.5	66.3	85	61.7	2.0	NE	0.50	12.0	NNE	66.3	67.4	67.4	29.877	0.00	0.00	0.000	0.014

Gowanus Phase III Weather Data 8/25/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/25/10	12:15a	66.0	66.3	66.0	87	62.0	1.0	NNE	0.25	9.0	NNE	66.0	67.1	67.1	29.878	0.00	0.00	0.000	0.010
8/25/10	12:30a	65.7	66.0	65.6	87	61.7	1.0	NNE	0.25	10.0	NE	65.7	66.7	66.7	29.867	0.00	0.00	0.000	0.007
8/25/10	12:45a	65.5	65.6	65.5	88	61.9	1.0	ENE	0.25	6.0	N	65.5	66.6	66.6	29.864	0.00	0.00	0.000	0.005
8/25/10	1:00a	65.3	65.5	65.3	89	62.0	1.0	N	0.25	10.0	NE	65.3	66.3	66.3	29.858	0.01	0.00	0.000	0.003
8/25/10	1:15a	65.2	65.3	65.2	90	62.2	1.0	NW	0.25	6.0	NE	65.2	66.3	66.3	29.856	0.01	0.04	0.000	0.002
8/25/10	1:30a	64.9	65.2	64.9	90	61.9	1.0	NNE	0.25	5.0	NNE	64.9	65.9	65.9	29.849	0.00	0.00	0.001	0.000
8/25/10	1:45a	64.9	64.9	64.9	90	61.9	1.0	N	0.25	11.0	NNE	64.9	65.9	65.9	29.847	0.00	0.00	0.001	0.000
8/25/10	2:00a	64.8	64.9	64.7	90	61.8	2.0	NNE	0.50	8.0	NE	64.8	65.8	65.8	29.835	0.00	0.00	0.002	0.000
8/25/10	2:15a	64.7	64.8	64.7	91	62.0	1.0	NE	0.25	5.0	NE	64.7	65.7	65.7	29.835	0.00	0.00	0.003	0.000
8/25/10	2:30a	64.6	64.7	64.6	91	61.9	0.0	NNW	0.00	4.0	SSE	64.6	65.6	65.6	29.833	0.02	0.39	0.004	0.000
8/25/10	2:45a	64.7	64.7	64.6	91	62.0	1.0	NE	0.25	7.0	N	64.7	65.7	65.7	29.829	0.00	0.00	0.003	0.000
8/25/10	3:00a	64.7	64.8	64.7	91	62.0	1.0	NNE	0.25	7.0	NNE	64.7	65.7	65.7	29.824	0.06	0.94	0.003	0.000
8/25/10	3:15a	64.7	64.7	64.6	92	62.3	1.0	N	0.25	6.0	NE	64.7	65.7	65.7	29.817	0.07	0.82	0.003	0.000
8/25/10	3:30a	64.7	64.7	64.6	92	62.3	1.0	NNE	0.25	7.0	N	64.7	65.7	65.7	29.816	0.01	0.13	0.003	0.000
8/25/10	3:45a	64.8	64.9	64.7	91	62.1	1.0	NNW	0.25	6.0	NNE	64.8	65.8	65.8	29.816	0.00	0.00	0.002	0.000
8/25/10	4:00a	64.8	64.9	64.8	91	62.1	2.0	NNE	0.50	8.0	NNE	64.8	65.8	65.8	29.810	0.01	0.00	0.002	0.000
8/25/10	4:15a	64.8	64.8	64.8	92	62.4	1.0	NNW	0.25	7.0	N	64.8	65.8	65.8	29.806	0.00	0.00	0.002	0.000
8/25/10	4:30a	64.7	64.8	64.7	92	62.3	1.0	N	0.25	7.0	NNE	64.7	65.7	65.7	29.803	0.04	0.36	0.003	0.000
8/25/10	4:45a	64.7	64.7	64.7	93	62.6	0.0	NNE	0.00	4.0	NNE	64.7	65.8	65.8	29.803	0.01	0.13	0.003	0.000
8/25/10	5:00a	64.6	64.7	64.6	93	62.5	0.0	SW	0.00	1.0	SW	64.6	65.6	65.6	29.808	0.01	0.30	0.004	0.000
8/25/10	5:15a	64.6	64.6	64.6	93	62.5	0.0	NNE	0.00	5.0	N	64.6	65.6	65.6	29.805	0.01	0.04	0.004	0.000
8/25/10	5:30a	64.8	64.8	64.6	93	62.7	0.0	NNE	0.00	2.0	NNE	64.8	65.9	65.9	29.804	0.01	0.04	0.002	0.000
8/25/10	5:45a	64.8	64.8	64.7	93	62.7	1.0	NNE	0.25	5.0	N	64.8	65.9	65.9	29.803	0.02	0.11	0.002	0.000
8/25/10	6:00a	64.8	64.8	64.8	93	62.7	0.0	NNE	0.00	5.0	NNE	64.8	65.9	65.9	29.806	0.02	0.15	0.002	0.000
8/25/10	6:15a	64.8	64.8	64.8	93	62.7	0.0	NNE	0.00	4.0	NNE	64.8	65.9	65.9	29.808	0.03	0.15	0.002	0.000
8/25/10	6:30a	64.9	64.9	64.8	93	62.8	0.0	NNE	0.00	2.0	NNE	64.9	66.0	66.0	29.811	0.01	0.08	0.001	0.000
8/25/10	6:45a	65.0	65.0	64.9	93	62.9	0.0	---	0.00	0.0	---	65.0	66.1	66.1	29.816	0.00	0.04	0.000	0.000
8/25/10	7:00a	65.2	65.2	65.0	94	63.4	0.0	NNE	0.00	5.0	NNE	65.2	66.4	66.4	29.817	0.03	0.12	0.000	0.002
8/25/10	7:15a	65.3	65.3	65.2	94	63.5	0.0	NNE	0.00	4.0	NNE	65.3	66.5	66.5	29.817	0.00	0.00	0.000	0.003
8/25/10	7:30a	65.4	65.4	65.3	94	63.6	0.0	NNE	0.00	4.0	NNE	65.4	66.6	66.6	29.818	0.01	0.00	0.000	0.004
8/25/10	7:45a	65.6	65.6	65.4	94	63.8	0.0	NNE	0.00	2.0	NNE	65.6	66.9	66.9	29.820	0.00	0.00	0.000	0.006
8/25/10	8:00a	65.8	65.8	65.5	93	63.7	1.0	NNE	0.25	7.0	NNE	65.8	67.1	67.1	29.818	0.00	0.00	0.000	0.008
8/25/10	8:15a	65.8	65.8	65.8	93	63.7	0.0	NNE	0.00	4.0	NNE	65.8	67.1	67.1	29.819	0.00	0.00	0.000	0.008
8/25/10	8:30a	65.7	65.8	65.7	93	63.6	0.0	NNE	0.00	4.0	NNE	65.7	67.0	67.0	29.828	0.05	0.84	0.000	0.007
8/25/10	8:45a	65.7	65.7	65.7	94	63.9	0.0	NNE	0.00	2.0	NNE	65.7	67.0	67.0	29.825	0.13	1.49	0.000	0.007
8/25/10	9:00a	65.9	65.9	65.7	94	64.1	0.0	NNE	0.00	2.0	NNE	65.9	67.3	67.3	29.819	0.00	0.00	0.000	0.009
8/25/10	9:15a	66.0	66.0	65.9	94	64.2	0.0	NNE	0.00	2.0	NNE	66.0	67.4	67.4	29.826	0.01	0.00	0.000	0.010
8/25/10	9:30a	66.1	66.1	65.9	94	64.3	0.0	---	0.00	0.0	---	66.1	67.5	67.5	29.830	0.02	0.08	0.000	0.011
8/25/10	9:45a	66.1	66.1	66.0	94	64.3	0.0	NNE	0.00	1.0	NNE	66.1	67.5	67.5	29.832	0.02	0.09	0.000	0.011
8/25/10	10:00a	66.2	66.2	66.1	94	64.4	0.0	---	0.00	0.0	---	66.2	67.6	67.6	29.833	0.01	0.08	0.000	0.012
8/25/10	10:15a	66.3	66.4	66.2	94	64.5	0.0	NNE	0.00	1.0	NNE	66.3	67.7	67.7	29.833	0.01	0.07	0.000	0.014
8/25/10	10:30a	66.3	66.3	66.2	94	64.5	0.0	NNE	0.00	2.0	NNE	66.3	67.7	67.7	29.833	0.00	0.00	0.000	0.014
8/25/10	10:45a	66.7	66.7	66.3	94	64.9	0.0	NNE	0.00	2.0	NNE	66.7	68.2	68.2	29.833	0.01	0.00	0.000	0.018
8/25/10	11:00a	66.7	66.8	66.7	94	64.9	0.0	NNE	0.00	1.0	NNE	66.7	68.2	68.2	29.834	0.01	0.04	0.000	0.018
8/25/10	11:15a	66.6	66.7	66.6	94	64.8	0.0	NNE	0.00	2.0	NNE	66.6	68.1	68.1	29.833	0.02	0.12	0.000	0.017
8/25/10	11:30a	66.6	66.7	66.6	94	64.8	0.0	NNE	0.00	1.0	NNE	66.6	68.1	68.1	29.833	0.03	0.14	0.000	0.017
8/25/10	11:45a	66.7	66.8	66.6	94	64.9	0.0	NNE	0.00	2.0	NNE	66.7	68.2	68.2	29.833	0.03	0.19	0.000	0.018
8/25/10	12:00p	66.8	66.9	66.7	94	65.0	0.0	NNE	0.00	4.0	NNE	66.8	68.3	68.3	29.833	0.02	0.10	0.000	0.019
8/25/10	12:15p	67.0	67.0	66.7	94	65.2	0.0	NNE	0.00	4.0	NNE	67.0	68.6	68.6	29.831	0.03	0.21	0.000	0.021
8/25/10	12:30p	67.0	67.0	66.9	94	65.2	1.0	NNE	0.25	4.0	NNE	67.0	68.6	68.6	29.830	0.02	0.16	0.000	0.021
8/25/10	12:45p	67.3	67.3	67.0	94	65.5	0.0	NNE	0.00	5.0	NNE	67.3	69.0	69.0	29.824	0.00	0.00	0.000	0.024
8/25/10	1:00p	67.8	67.8	67.3	93	65.7	0.0	NNE	0.00	2.0	NNE	67.8	69.6	69.6	29.818	0.00	0.00	0.000	0.029
8/25/10	1:15p	67.6	67.8	67.6	92	65.2	0.0	NNE	0.00	3.0	NNE	67.6	69.3	69.3	29.820	0.00	0.00	0.000	0.027

Gowanus Phase III Weather Data 8/25/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/25/10	1:30p	67.9	67.9	67.6	92	65.5	0.0	NNE	0.00	2.0	NNE	67.9	69.7	69.7	29.830	0.00	0.00	0.000	0.030
8/25/10	1:45p	68.0	68.0	67.9	91	65.3	0.0	NNE	0.00	2.0	NNE	68.0	69.7	69.7	29.827	0.01	0.00	0.000	0.031
8/25/10	2:00p	68.2	68.2	68.0	92	65.8	0.0	NNE	0.00	3.0	NNE	68.2	70.0	70.0	29.822	0.00	0.00	0.000	0.033
8/25/10	2:15p	68.2	68.3	68.2	91	65.5	0.0	NNE	0.00	7.0	NNE	68.2	70.0	70.0	29.819	0.00	0.00	0.000	0.033
8/25/10	2:30p	68.7	68.7	68.2	91	66.0	0.0	NNE	0.00	2.0	NNE	68.7	70.7	70.7	29.814	0.00	0.00	0.000	0.039
8/25/10	2:45p	69.0	69.1	68.7	90	65.9	0.0	NNE	0.00	4.0	NNE	69.0	71.0	71.0	29.811	0.00	0.00	0.000	0.042
8/25/10	3:00p	69.2	69.2	69.0	90	66.1	0.0	NNE	0.00	4.0	NNE	69.2	71.2	71.2	29.811	0.00	0.00	0.000	0.044
8/25/10	3:15p	69.2	69.3	69.2	89	65.8	0.0	NNE	0.00	2.0	NNE	69.2	71.1	71.1	29.811	0.00	0.00	0.000	0.044
8/25/10	3:30p	69.3	69.3	69.1	89	65.9	0.0	NNE	0.00	5.0	NNE	69.3	71.2	71.2	29.813	0.00	0.00	0.000	0.045
8/25/10	3:45p	69.5	69.6	69.3	89	66.1	0.0	NNE	0.00	4.0	NNE	69.5	71.4	71.4	29.811	0.00	0.00	0.000	0.047
8/25/10	4:00p	69.7	69.7	69.6	89	66.3	0.0	NNE	0.00	2.0	NNE	69.7	71.6	71.6	29.810	0.00	0.00	0.000	0.049
8/25/10	4:15p	69.8	69.8	69.6	88	66.1	0.0	NNE	0.00	2.0	NNE	69.8	71.6	71.6	29.806	0.00	0.00	0.000	0.050
8/25/10	4:30p	70.3	70.3	69.8	87	66.2	0.0	NNE	0.00	3.0	NNE	70.3	72.1	72.1	29.808	0.00	0.00	0.000	0.055
8/25/10	4:45p	70.6	70.6	70.3	86	66.2	1.0	NNE	0.25	6.0	NNE	70.6	72.4	72.4	29.811	0.00	0.00	0.000	0.058
8/25/10	5:00p	70.7	70.7	70.6	86	66.3	0.0	NNW	0.00	5.0	NW	70.7	72.5	72.5	29.817	0.00	0.00	0.000	0.059
8/25/10	5:15p	70.7	70.8	70.7	84	65.6	0.0	NW	0.00	5.0	W	70.7	72.3	72.3	29.818	0.00	0.00	0.000	0.059
8/25/10	5:30p	70.7	70.7	70.7	84	65.6	0.0	W	0.00	4.0	W	70.7	72.3	72.3	29.817	0.00	0.00	0.000	0.059
8/25/10	5:45p	70.6	70.7	70.6	85	65.9	0.0	W	0.00	2.0	W	70.6	72.3	72.3	29.817	0.00	0.00	0.000	0.058
8/25/10	6:00p	70.3	70.6	70.3	86	65.9	1.0	W	0.25	5.0	W	70.3	72.0	72.0	29.818	0.00	0.00	0.000	0.055
8/25/10	6:15p	70.1	70.2	70.1	86	65.7	0.0	W	0.00	4.0	W	70.1	71.7	71.7	29.820	0.00	0.00	0.000	0.053
8/25/10	6:30p	69.9	70.1	69.9	87	65.9	0.0	W	0.00	5.0	W	69.9	71.6	71.6	29.825	0.00	0.00	0.000	0.051
8/25/10	6:45p	69.6	69.9	69.6	88	65.9	0.0	NE	0.00	5.0	WSW	69.6	71.4	71.4	29.824	0.00	0.00	0.000	0.048
8/25/10	7:00p	69.5	69.5	69.5	88	65.8	0.0	NE	0.00	4.0	NE	69.5	71.4	71.4	29.826	0.00	0.00	0.000	0.047
8/25/10	7:15p	69.5	69.5	69.4	89	66.1	0.0	NE	0.00	2.0	NE	69.5	71.4	71.4	29.825	0.00	0.00	0.000	0.047
8/25/10	7:30p	69.3	69.5	69.3	88	65.6	0.0	NE	0.00	3.0	NE	69.3	71.2	71.2	29.826	0.00	0.00	0.000	0.045
8/25/10	7:45p	69.3	69.3	69.3	88	65.6	0.0	ENE	0.00	2.0	NE	69.3	71.2	71.2	29.832	0.00	0.00	0.000	0.045
8/25/10	8:00p	69.3	69.4	69.3	87	65.3	0.0	WSW	0.00	5.0	WSW	69.3	71.1	71.1	29.833	0.00	0.00	0.000	0.045
8/25/10	8:15p	69.4	69.4	69.3	88	65.7	0.0	WSW	0.00	2.0	WSW	69.4	71.3	71.3	29.834	0.00	0.00	0.000	0.046
8/25/10	8:30p	69.2	69.4	69.2	89	65.8	0.0	WSW	0.00	2.0	WSW	69.2	71.1	71.1	29.837	0.00	0.00	0.000	0.044
8/25/10	8:45p	68.9	69.2	68.9	89	65.5	0.0	WSW	0.00	1.0	WSW	68.9	70.8	70.8	29.839	0.00	0.00	0.000	0.041
8/25/10	9:00p	68.8	68.9	68.8	90	65.7	0.0	WSW	0.00	1.0	WSW	68.8	70.7	70.7	29.836	0.00	0.00	0.000	0.040
8/25/10	9:15p	69.0	69.0	68.8	90	65.9	0.0	WSW	0.00	1.0	WSW	69.0	71.0	71.0	29.842	0.00	0.00	0.000	0.042
8/25/10	9:30p	69.1	69.1	69.0	90	66.0	0.0	WSW	0.00	2.0	WSW	69.1	71.1	71.1	29.844	0.00	0.00	0.000	0.043
8/25/10	9:45p	69.1	69.1	69.0	91	66.4	0.0	---	0.00	0.0	---	69.1	71.2	71.2	29.844	0.00	0.00	0.000	0.043
8/25/10	10:00p	69.1	69.1	69.0	91	66.4	0.0	---	0.00	0.0	---	69.1	71.2	71.2	29.839	0.00	0.00	0.000	0.043
8/25/10	10:15p	69.1	69.1	69.0	91	66.4	0.0	WSW	0.00	2.0	WSW	69.1	71.2	71.2	29.840	0.00	0.00	0.000	0.043
8/25/10	10:30p	69.3	69.3	69.1	90	66.2	0.0	WSW	0.00	1.0	WSW	69.3	71.3	71.3	29.842	0.00	0.00	0.000	0.045
8/25/10	10:45p	69.3	69.3	69.3	89	65.9	0.0	WSW	0.00	1.0	WSW	69.3	71.2	71.2	29.842	0.00	0.00	0.000	0.045
8/25/10	11:00p	69.4	69.4	69.3	88	65.7	0.0	WSW	0.00	1.0	WSW	69.4	71.3	71.3	29.846	0.00	0.00	0.000	0.046
8/25/10	11:15p	69.4	69.4	69.4	87	65.4	0.0	WSW	0.00	1.0	WSW	69.4	71.2	71.2	29.844	0.00	0.00	0.000	0.046
8/25/10	11:30p	69.1	69.4	69.1	88	65.4	0.0	WSW	0.00	1.0	WSW	69.1	71.0	71.0	29.844	0.00	0.00	0.000	0.043
8/25/10	11:45p	68.8	69.1	68.8	88	65.1	0.0	WSW	0.00	1.0	WSW	68.8	70.7	70.7	29.847	0.00	0.00	0.000	0.040
8/26/10	12:00a	68.9	68.9	68.8	88	65.2	0.0	WSW	0.00	2.0	WSW	68.9	70.8	70.8	29.847	0.00	0.00	0.000	0.041

Gowanus Phase III Weather Data 8/26/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/26/10	12:15a	69.0	69.0	68.9	88	65.3	0.0	---	0.00	0.0	---	69.0	70.9	70.9	29.848	0.00	0.00	0.000	0.042
8/26/10	12:30a	69.0	69.0	69.0	89	65.6	0.0	---	0.00	1.0	WSW	69.0	71.0	71.0	29.848	0.00	0.00	0.000	0.042
8/26/10	12:45a	68.9	69.0	68.9	89	65.5	0.0	---	0.00	0.0	---	68.9	70.8	70.8	29.849	0.00	0.00	0.000	0.041
8/26/10	1:00a	68.8	68.9	68.8	90	65.7	0.0	---	0.00	0.0	---	68.8	70.7	70.7	29.849	0.00	0.00	0.000	0.040
8/26/10	1:15a	68.7	68.8	68.7	90	65.6	0.0	WSW	0.00	1.0	WSW	68.7	70.6	70.6	29.849	0.00	0.00	0.000	0.039
8/26/10	1:30a	68.6	68.7	68.6	90	65.5	0.0	---	0.00	0.0	---	68.6	70.5	70.5	29.850	0.00	0.00	0.000	0.037
8/26/10	1:45a	68.8	68.8	68.6	90	65.7	0.0	WSW	0.00	2.0	WSW	68.8	70.7	70.7	29.849	0.00	0.00	0.000	0.040
8/26/10	2:00a	69.0	69.0	68.8	89	65.6	0.0	WSW	0.00	1.0	WSW	69.0	71.0	71.0	29.850	0.00	0.00	0.000	0.042
8/26/10	2:15a	69.2	69.2	69.0	88	65.5	0.0	WSW	0.00	2.0	WSW	69.2	71.1	71.1	29.849	0.00	0.00	0.000	0.044
8/26/10	2:30a	69.2	69.2	69.2	87	65.2	0.0	WSW	0.00	3.0	WSW	69.2	71.0	71.0	29.854	0.00	0.00	0.000	0.044
8/26/10	2:45a	69.0	69.2	69.0	87	65.0	0.0	WSW	0.00	2.0	WSW	69.0	70.9	70.9	29.854	0.00	0.00	0.000	0.042
8/26/10	3:00a	68.8	69.0	68.8	87	64.8	0.0	WSW	0.00	2.0	WSW	68.8	70.6	70.6	29.858	0.00	0.00	0.000	0.040
8/26/10	3:15a	68.4	68.8	68.4	87	64.4	0.0	WSW	0.00	3.0	WSW	68.4	70.1	70.1	29.857	0.00	0.00	0.000	0.035
8/26/10	3:30a	68.2	68.4	68.2	87	64.2	0.0	WSW	0.00	2.0	WSW	68.2	69.8	69.8	29.855	0.00	0.00	0.000	0.033
8/26/10	3:45a	67.9	68.1	67.9	88	64.2	0.0	WSW	0.00	2.0	WSW	67.9	69.5	69.5	29.851	0.00	0.00	0.000	0.030
8/26/10	4:00a	67.6	67.9	67.6	88	63.9	0.0	WSW	0.00	2.0	WSW	67.6	69.1	69.1	29.853	0.00	0.00	0.000	0.027
8/26/10	4:15a	67.3	67.6	67.3	89	63.9	0.0	WSW	0.00	1.0	WSW	67.3	68.8	68.8	29.853	0.00	0.00	0.000	0.024
8/26/10	4:30a	67.2	67.4	67.1	89	63.8	0.0	WSW	0.00	1.0	WSW	67.2	68.7	68.7	29.856	0.00	0.00	0.000	0.023
8/26/10	4:45a	67.0	67.2	67.0	89	63.6	0.0	---	0.00	0.0	---	67.0	68.5	68.5	29.860	0.00	0.00	0.000	0.021
8/26/10	5:00a	66.6	67.0	66.6	89	63.3	0.0	---	0.00	0.0	---	66.6	68.0	68.0	29.859	0.00	0.00	0.000	0.017
8/26/10	5:15a	66.2	66.6	66.2	90	63.2	0.0	---	0.00	0.0	---	66.2	67.5	67.5	29.864	0.00	0.00	0.000	0.012
8/26/10	5:30a	65.9	66.2	65.9	91	63.2	0.0	---	0.00	0.0	---	65.9	67.2	67.2	29.864	0.00	0.00	0.000	0.009
8/26/10	5:45a	65.7	65.9	65.7	91	63.0	0.0	---	0.00	0.0	---	65.7	66.9	66.9	29.869	0.00	0.00	0.000	0.007
8/26/10	6:00a	65.6	65.7	65.6	91	62.9	0.0	---	0.00	0.0	---	65.6	66.8	66.8	29.876	0.00	0.00	0.000	0.006
8/26/10	6:15a	65.4	65.6	65.4	91	62.7	0.0	---	0.00	0.0	---	65.4	66.6	66.6	29.879	0.00	0.00	0.000	0.004
8/26/10	6:30a	65.1	65.4	65.1	92	62.7	0.0	---	0.00	0.0	---	65.1	66.2	66.2	29.880	0.00	0.00	0.000	0.001
8/26/10	6:45a	65.0	65.1	65.0	92	62.6	0.0	---	0.00	0.0	---	65.0	66.1	66.1	29.889	0.00	0.00	0.000	0.000
8/26/10	7:00a	65.4	65.4	65.0	92	63.0	0.0	---	0.00	0.0	---	65.4	66.6	66.6	29.892	0.00	0.00	0.000	0.004
8/26/10	7:15a	66.9	66.9	65.5	90	63.9	0.0	WSW	0.00	1.0	WSW	66.9	68.4	68.4	29.895	0.00	0.00	0.000	0.020
8/26/10	7:30a	69.2	69.2	67.0	85	64.5	0.0	WSW	0.00	1.0	WSW	69.2	70.9	70.9	29.896	0.00	0.00	0.000	0.044
8/26/10	7:45a	70.6	70.6	69.3	83	65.2	0.0	WSW	0.00	1.0	WSW	70.6	72.1	72.1	29.900	0.00	0.00	0.000	0.058
8/26/10	8:00a	71.2	71.2	70.6	81	65.1	0.0	WSW	0.00	1.0	WSW	71.2	72.6	72.6	29.905	0.00	0.00	0.000	0.065
8/26/10	8:15a	72.0	72.0	71.3	79	65.1	0.0	WSW	0.00	2.0	WSW	72.0	73.3	73.3	29.908	0.00	0.00	0.000	0.073
8/26/10	8:30a	72.6	72.6	72.0	77	65.0	0.0	WSW	0.00	3.0	WSW	72.6	74.0	74.0	29.910	0.00	0.00	0.000	0.079
8/26/10	8:45a	73.0	73.0	72.7	76	65.0	1.0	WSW	0.25	5.0	WSW	73.0	74.6	74.6	29.909	0.00	0.00	0.000	0.083
8/26/10	9:00a	74.2	74.2	73.0	75	65.8	0.0	WSW	0.00	6.0	SW	74.2	76.1	76.1	29.911	0.00	0.00	0.000	0.096
8/26/10	9:15a	75.7	75.7	74.2	72	66.0	0.0	WSW	0.00	7.0	SW	75.7	77.7	77.7	29.918	0.00	0.00	0.000	0.111
8/26/10	9:30a	76.6	76.7	75.7	69	65.7	1.0	WSW	0.25	5.0	WSW	76.6	78.3	78.3	29.914	0.00	0.00	0.000	0.121
8/26/10	9:45a	76.9	77.0	76.5	68	65.5	1.0	W	0.25	6.0	W	76.9	78.6	78.6	29.917	0.00	0.00	0.000	0.124
8/26/10	10:00a	76.4	76.9	76.4	70	65.9	1.0	WNW	0.25	7.0	WSW	76.4	78.2	78.2	29.912	0.00	0.00	0.000	0.119
8/26/10	10:15a	77.0	77.0	76.2	69	66.0	1.0	W	0.25	6.0	SSW	77.0	78.8	78.8	29.916	0.00	0.00	0.000	0.125
8/26/10	10:30a	78.3	78.3	77.1	68	66.9	1.0	W	0.25	6.0	WSW	78.3	80.2	80.2	29.914	0.00	0.00	0.000	0.139
8/26/10	10:45a	78.4	78.6	78.3	67	66.5	1.0	WSW	0.25	6.0	SW	78.4	80.2	80.2	29.915	0.00	0.00	0.000	0.140
8/26/10	11:00a	78.7	78.7	78.5	67	66.8	1.0	WSW	0.25	5.0	WSW	78.7	80.5	80.5	29.921	0.00	0.00	0.000	0.143
8/26/10	11:15a	79.7	79.7	78.7	64	66.4	1.0	SW	0.25	6.0	NE	79.7	81.5	81.5	29.924	0.00	0.00	0.000	0.153
8/26/10	11:30a	80.7	80.7	79.9	62	66.5	1.0	N	0.25	7.0	N	80.7	82.6	82.6	29.923	0.00	0.00	0.000	0.164
8/26/10	11:45a	80.6	80.6	80.4	61	65.9	1.0	NNE	0.25	6.0	NNW	80.6	82.3	82.3	29.919	0.00	0.00	0.000	0.162
8/26/10	12:00p	80.9	81.0	80.7	60	65.7	2.0	NNE	0.50	6.0	SW	80.9	82.6	82.6	29.917	0.00	0.00	0.000	0.166
8/26/10	12:15p	80.5	80.9	80.5	60	65.3	2.0	NE	0.50	10.0	NNE	80.5	82.0	82.0	29.911	0.00	0.00	0.000	0.161
8/26/10	12:30p	81.0	81.0	80.3	58	64.8	1.0	N	0.25	8.0	N	81.0	82.4	82.4	29.910	0.00	0.00	0.000	0.167
8/26/10	12:45p	81.8	81.8	80.8	59	66.1	1.0	NNE	0.25	8.0	NE	81.8	83.7	83.7	29.910	0.00	0.00	0.000	0.175
8/26/10	1:00p	81.5	82.1	81.5	59	65.8	1.0	W	0.25	8.0	NNE	81.5	83.3	83.3	29.911	0.00	0.00	0.000	0.172
8/26/10	1:15p	83.0	83.0	81.5	57	66.2	1.0	W	0.25	7.0	WSW	83.0	85.2	85.2	29.910	0.00	0.00	0.000	0.188

Gowanus Phase III Weather Data 8/26/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/26/10	1:30p	82.5	83.5	82.5	56	65.2	1.0	WSW	0.25	7.0	NNW	82.5	84.3	84.3	29.910	0.00	0.00	0.000	0.182
8/26/10	1:45p	82.9	82.9	81.5	52	63.5	1.0	WSW	0.25	7.0	SW	82.9	84.3	84.3	29.907	0.00	0.00	0.000	0.186
8/26/10	2:00p	83.3	83.4	83.0	52	63.8	2.0	WSW	0.50	6.0	N	83.3	85.0	85.0	29.906	0.00	0.00	0.000	0.191
8/26/10	2:15p	83.9	83.9	83.3	48	62.1	1.0	WSW	0.25	8.0	SW	83.9	85.4	85.4	29.903	0.00	0.00	0.000	0.197
8/26/10	2:30p	85.2	85.4	83.9	47	62.7	1.0	WSW	0.25	7.0	NNW	85.2	86.6	86.6	29.903	0.00	0.00	0.000	0.210
8/26/10	2:45p	84.1	85.2	84.1	46	61.1	2.0	W	0.50	8.0	ENE	84.1	85.3	85.3	29.898	0.00	0.00	0.000	0.199
8/26/10	3:00p	84.6	84.6	84.1	44	60.3	1.0	WSW	0.25	6.0	SW	84.6	85.5	85.5	29.896	0.00	0.00	0.000	0.204
8/26/10	3:15p	85.0	85.5	84.8	44	60.6	1.0	SW	0.25	8.0	N	85.0	85.8	85.8	29.899	0.00	0.00	0.000	0.208
8/26/10	3:30p	84.5	85.0	84.4	44	60.2	1.0	WSW	0.25	5.0	W	84.5	85.4	85.4	29.899	0.00	0.00	0.000	0.203
8/26/10	3:45p	83.9	84.8	83.9	43	59.0	2.0	WSW	0.50	6.0	WSW	83.9	84.6	84.6	29.901	0.00	0.00	0.000	0.197
8/26/10	4:00p	82.3	83.6	82.2	45	58.8	2.0	NE	0.50	9.0	E	82.3	82.4	82.4	29.902	0.00	0.00	0.000	0.180
8/26/10	4:15p	81.8	82.3	81.6	45	58.4	2.0	NNE	0.50	12.0	NNW	81.8	81.6	81.6	29.907	0.00	0.00	0.000	0.175
8/26/10	4:30p	82.4	82.4	81.8	45	58.9	2.0	W	0.50	9.0	NE	82.4	82.5	82.5	29.909	0.00	0.00	0.000	0.181
8/26/10	4:45p	81.7	82.5	81.7	45	58.3	1.0	W	0.25	6.0	WSW	81.7	81.5	81.5	29.910	0.00	0.00	0.000	0.174
8/26/10	5:00p	81.3	81.7	81.3	44	57.3	2.0	W	0.50	7.0	ENE	81.3	80.9	80.9	29.911	0.00	0.00	0.000	0.170
8/26/10	5:15p	80.9	81.3	80.9	44	56.9	1.0	W	0.25	7.0	N	80.9	80.4	80.4	29.912	0.00	0.00	0.000	0.166
8/26/10	5:30p	80.8	80.9	80.7	44	56.9	2.0	WSW	0.50	8.0	NE	80.8	80.3	80.3	29.913	0.00	0.00	0.000	0.165
8/26/10	5:45p	80.7	80.9	80.6	45	57.4	1.0	NE	0.25	6.0	NNE	80.7	80.3	80.3	29.913	0.00	0.00	0.000	0.164
8/26/10	6:00p	80.6	80.8	80.6	45	57.3	1.0	W	0.25	5.0	N	80.6	80.2	80.2	29.918	0.00	0.00	0.000	0.162
8/26/10	6:15p	80.5	80.5	80.5	45	57.2	0.0	---	0.00	0.0	---	80.5	80.1	80.1	29.921	0.00	0.00	0.000	0.161
8/26/10	6:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.922	0.00	0.00	---	---
8/26/10	6:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.925	0.00	0.00	---	---
8/26/10	7:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.931	0.00	0.00	---	---
8/26/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.939	0.00	0.00	---	---
8/26/10	7:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.942	0.00	0.00	---	---
8/26/10	7:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.951	0.00	0.00	---	---
8/26/10	8:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.956	0.00	0.00	---	---
8/26/10	8:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.969	0.00	0.00	---	---
8/26/10	8:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.973	0.00	0.00	---	---
8/26/10	8:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.983	0.00	0.00	---	---
8/26/10	9:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.986	0.00	0.00	---	---
8/26/10	9:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.988	0.00	0.00	---	---
8/26/10	9:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.995	0.00	0.00	---	---
8/26/10	9:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.002	0.00	0.00	---	---
8/26/10	10:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.002	0.00	0.00	---	---
8/26/10	10:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
8/26/10	10:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
8/26/10	10:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.005	0.00	0.00	---	---
8/26/10	11:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.011	0.00	0.00	---	---
8/26/10	11:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.017	0.00	0.00	---	---
8/26/10	11:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.016	0.00	0.00	---	---
8/26/10	11:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.019	0.00	0.00	---	---
8/27/10	12:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.020	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/27/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/27/10	12:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.021	0.00	0.00	---	---
8/27/10	12:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.021	0.00	0.00	---	---
8/27/10	12:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.032	0.00	0.00	---	---
8/27/10	1:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/27/10	1:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.032	0.00	0.00	---	---
8/27/10	1:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/27/10	1:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/27/10	2:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.034	0.00	0.00	---	---
8/27/10	2:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.036	0.00	0.00	---	---
8/27/10	2:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.038	0.00	0.00	---	---
8/27/10	2:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.040	0.00	0.00	---	---
8/27/10	3:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.043	0.00	0.00	---	---
8/27/10	3:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.042	0.00	0.00	---	---
8/27/10	3:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.047	0.00	0.00	---	---
8/27/10	3:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.049	0.00	0.00	---	---
8/27/10	4:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.051	0.00	0.00	---	---
8/27/10	4:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.051	0.00	0.00	---	---
8/27/10	4:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.053	0.00	0.00	---	---
8/27/10	4:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.063	0.00	0.00	---	---
8/27/10	5:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.060	0.00	0.00	---	---
8/27/10	5:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.058	0.00	0.00	---	---
8/27/10	5:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.063	0.00	0.00	---	---
8/27/10	5:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.062	0.00	0.00	---	---
8/27/10	6:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---
8/27/10	6:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.066	0.00	0.00	---	---
8/27/10	6:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.075	0.00	0.00	---	---
8/27/10	6:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.079	0.00	0.00	---	---
8/27/10	7:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.081	0.00	0.00	---	---
8/27/10	7:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.087	0.00	0.00	---	---
8/27/10	7:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.092	0.00	0.00	---	---
8/27/10	7:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/27/10	8:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/27/10	8:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.099	0.00	0.00	---	---
8/27/10	8:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.102	0.00	0.00	---	---
8/27/10	8:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.105	0.00	0.00	---	---
8/27/10	9:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.105	0.00	0.00	---	---
8/27/10	9:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.105	0.00	0.00	---	---
8/27/10	9:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.103	0.00	0.00	---	---
8/27/10	9:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.106	0.00	0.00	---	---
8/27/10	10:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.107	0.00	0.00	---	---
8/27/10	10:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/27/10	10:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/27/10	10:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/27/10	11:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/27/10	11:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.102	0.00	0.00	---	---
8/27/10	11:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/27/10	11:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/27/10	12:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.094	0.00	0.00	---	---
8/27/10	12:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.090	0.00	0.00	---	---
8/27/10	12:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.083	0.00	0.00	---	---
8/27/10	12:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/27/10	1:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/27/10	1:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/27/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/27/10	1:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/27/10	1:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/27/10	2:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.075	0.00	0.00	---	---
8/27/10	2:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.069	0.00	0.00	---	---
8/27/10	2:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.064	0.00	0.00	---	---
8/27/10	2:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.058	0.00	0.00	---	---
8/27/10	3:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.052	0.00	0.00	---	---
8/27/10	3:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.049	0.00	0.00	---	---
8/27/10	3:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.042	0.00	0.00	---	---
8/27/10	3:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.036	0.00	0.00	---	---
8/27/10	4:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/27/10	4:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/27/10	4:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/27/10	4:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/27/10	5:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.026	0.00	0.00	---	---
8/27/10	5:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.027	0.00	0.00	---	---
8/27/10	5:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.027	0.00	0.00	---	---
8/27/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.025	0.00	0.00	---	---
8/27/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.025	0.00	0.00	---	---
8/27/10	6:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.024	0.00	0.00	---	---
8/27/10	6:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.021	0.00	0.00	---	---
8/27/10	6:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.027	0.00	0.00	---	---
8/27/10	7:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.032	0.00	0.00	---	---
8/27/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.034	0.00	0.00	---	---
8/27/10	7:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.034	0.00	0.00	---	---
8/27/10	7:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.038	0.00	0.00	---	---
8/27/10	8:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.045	0.00	0.00	---	---
8/27/10	8:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.049	0.00	0.00	---	---
8/27/10	8:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.050	0.00	0.00	---	---
8/27/10	8:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.060	0.00	0.00	---	---
8/27/10	9:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.065	0.00	0.00	---	---
8/27/10	9:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.072	0.00	0.00	---	---
8/27/10	9:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.079	0.00	0.00	---	---
8/27/10	9:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.078	0.00	0.00	---	---
8/27/10	10:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/27/10	10:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/27/10	10:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.081	0.00	0.00	---	---
8/27/10	10:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.082	0.00	0.00	---	---
8/27/10	11:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.084	0.00	0.00	---	---
8/27/10	11:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.085	0.00	0.00	---	---
8/27/10	11:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.088	0.00	0.00	---	---
8/27/10	11:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.088	0.00	0.00	---	---
8/28/10	12:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/28/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/28/10	12:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.099	0.00	0.00	---	---
8/28/10	12:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.105	0.00	0.00	---	---
8/28/10	12:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.111	0.00	0.00	---	---
8/28/10	1:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.113	0.00	0.00	---	---
8/28/10	1:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.111	0.00	0.00	---	---
8/28/10	1:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.111	0.00	0.00	---	---
8/28/10	1:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/28/10	2:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/28/10	2:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.100	0.00	0.00	---	---
8/28/10	2:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.097	0.00	0.00	---	---
8/28/10	2:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.097	0.00	0.00	---	---
8/28/10	3:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.106	0.00	0.00	---	---
8/28/10	3:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/28/10	3:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.107	0.00	0.00	---	---
8/28/10	3:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/28/10	4:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.111	0.00	0.00	---	---
8/28/10	4:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.119	0.00	0.00	---	---
8/28/10	4:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/28/10	4:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	5:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.127	0.00	0.00	---	---
8/28/10	5:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.128	0.00	0.00	---	---
8/28/10	5:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.131	0.00	0.00	---	---
8/28/10	5:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/28/10	6:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.142	0.00	0.00	---	---
8/28/10	6:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.146	0.00	0.00	---	---
8/28/10	6:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.153	0.00	0.00	---	---
8/28/10	6:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/28/10	7:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.160	0.00	0.00	---	---
8/28/10	7:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.160	0.00	0.00	---	---
8/28/10	7:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.164	0.00	0.00	---	---
8/28/10	7:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.171	0.00	0.00	---	---
8/28/10	8:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.172	0.00	0.00	---	---
8/28/10	8:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.174	0.00	0.00	---	---
8/28/10	8:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.179	0.00	0.00	---	---
8/28/10	8:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.184	0.00	0.00	---	---
8/28/10	9:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.185	0.00	0.00	---	---
8/28/10	9:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.186	0.00	0.00	---	---
8/28/10	9:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/28/10	9:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/28/10	10:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/28/10	10:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.188	0.00	0.00	---	---
8/28/10	10:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.188	0.00	0.00	---	---
8/28/10	10:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.190	0.00	0.00	---	---
8/28/10	11:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.198	0.00	0.00	---	---
8/28/10	11:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.199	0.00	0.00	---	---
8/28/10	11:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.200	0.00	0.00	---	---
8/28/10	11:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.193	0.00	0.00	---	---
8/28/10	12:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.189	0.00	0.00	---	---
8/28/10	12:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.188	0.00	0.00	---	---
8/28/10	12:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.188	0.00	0.00	---	---
8/28/10	12:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.177	0.00	0.00	---	---
8/28/10	1:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.172	0.00	0.00	---	---
8/28/10	1:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.170	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/28/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/28/10	1:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.169	0.00	0.00	---	---
8/28/10	1:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.167	0.00	0.00	---	---
8/28/10	2:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.163	0.00	0.00	---	---
8/28/10	2:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/28/10	2:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.155	0.00	0.00	---	---
8/28/10	2:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.144	0.00	0.00	---	---
8/28/10	3:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/28/10	3:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.136	0.00	0.00	---	---
8/28/10	3:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.132	0.00	0.00	---	---
8/28/10	3:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.129	0.00	0.00	---	---
8/28/10	4:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.128	0.00	0.00	---	---
8/28/10	4:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.129	0.00	0.00	---	---
8/28/10	4:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	4:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	5:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/28/10	5:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/28/10	5:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/28/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/28/10	6:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/28/10	6:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.123	0.00	0.00	---	---
8/28/10	6:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.116	0.00	0.00	---	---
8/28/10	7:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.116	0.00	0.00	---	---
8/28/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.119	0.00	0.00	---	---
8/28/10	7:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.123	0.00	0.00	---	---
8/28/10	7:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.124	0.00	0.00	---	---
8/28/10	8:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	8:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	8:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	8:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/28/10	9:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.130	0.00	0.00	---	---
8/28/10	9:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.133	0.00	0.00	---	---
8/28/10	9:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.138	0.00	0.00	---	---
8/28/10	9:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/28/10	10:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/28/10	10:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/28/10	10:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.139	0.00	0.00	---	---
8/28/10	10:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/28/10	11:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/28/10	11:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.147	0.00	0.00	---	---
8/28/10	11:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.149	0.00	0.00	---	---
8/28/10	11:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.152	0.00	0.00	---	---
8/29/10	12:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.154	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/29/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/29/10	12:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	12:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/29/10	12:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	1:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	1:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.149	0.00	0.00	---	---
8/29/10	1:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.155	0.00	0.00	---	---
8/29/10	1:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	2:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.151	0.00	0.00	---	---
8/29/10	2:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.148	0.00	0.00	---	---
8/29/10	2:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.152	0.00	0.00	---	---
8/29/10	2:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.154	0.00	0.00	---	---
8/29/10	3:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/29/10	3:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.153	0.00	0.00	---	---
8/29/10	3:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.153	0.00	0.00	---	---
8/29/10	3:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.148	0.00	0.00	---	---
8/29/10	4:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.147	0.00	0.00	---	---
8/29/10	4:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.150	0.00	0.00	---	---
8/29/10	4:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.151	0.00	0.00	---	---
8/29/10	4:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	5:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	5:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/29/10	5:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/29/10	5:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	6:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/29/10	6:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	6:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.165	0.00	0.00	---	---
8/29/10	6:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.171	0.00	0.00	---	---
8/29/10	7:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.174	0.00	0.00	---	---
8/29/10	7:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.174	0.00	0.00	---	---
8/29/10	7:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.181	0.00	0.00	---	---
8/29/10	7:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.179	0.00	0.00	---	---
8/29/10	8:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.183	0.00	0.00	---	---
8/29/10	8:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.184	0.00	0.00	---	---
8/29/10	8:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/29/10	8:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/29/10	9:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.186	0.00	0.00	---	---
8/29/10	9:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.186	0.00	0.00	---	---
8/29/10	9:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.186	0.00	0.00	---	---
8/29/10	9:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/29/10	10:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/29/10	10:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.188	0.00	0.00	---	---
8/29/10	10:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/29/10	10:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.183	0.00	0.00	---	---
8/29/10	11:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.176	0.00	0.00	---	---
8/29/10	11:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.173	0.00	0.00	---	---
8/29/10	11:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.172	0.00	0.00	---	---
8/29/10	11:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.172	0.00	0.00	---	---
8/29/10	12:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.172	0.00	0.00	---	---
8/29/10	12:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/29/10	12:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/29/10	12:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.155	0.00	0.00	---	---
8/29/10	1:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.152	0.00	0.00	---	---
8/29/10	1:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.147	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/29/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/29/10	1:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.143	0.00	0.00	---	---
8/29/10	1:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/29/10	2:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.136	0.00	0.00	---	---
8/29/10	2:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.128	0.00	0.00	---	---
8/29/10	2:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/29/10	2:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.112	0.00	0.00	---	---
8/29/10	3:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/29/10	3:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.104	0.00	0.00	---	---
8/29/10	3:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/29/10	3:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/29/10	4:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.091	0.00	0.00	---	---
8/29/10	4:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.091	0.00	0.00	---	---
8/29/10	4:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.085	0.00	0.00	---	---
8/29/10	4:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.081	0.00	0.00	---	---
8/29/10	5:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/29/10	5:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.079	0.00	0.00	---	---
8/29/10	5:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.079	0.00	0.00	---	---
8/29/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.081	0.00	0.00	---	---
8/29/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.080	0.00	0.00	---	---
8/29/10	6:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.081	0.00	0.00	---	---
8/29/10	6:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.081	0.00	0.00	---	---
8/29/10	6:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.083	0.00	0.00	---	---
8/29/10	7:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.087	0.00	0.00	---	---
8/29/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.091	0.00	0.00	---	---
8/29/10	7:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/29/10	7:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/29/10	8:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/29/10	8:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.097	0.00	0.00	---	---
8/29/10	8:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.097	0.00	0.00	---	---
8/29/10	8:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/29/10	9:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/29/10	9:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.116	0.00	0.00	---	---
8/29/10	9:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.122	0.00	0.00	---	---
8/29/10	9:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.121	0.00	0.00	---	---
8/29/10	10:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.120	0.00	0.00	---	---
8/29/10	10:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.120	0.00	0.00	---	---
8/29/10	10:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.123	0.00	0.00	---	---
8/29/10	10:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.123	0.00	0.00	---	---
8/29/10	11:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.124	0.00	0.00	---	---
8/29/10	11:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.124	0.00	0.00	---	---
8/29/10	11:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/29/10	11:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/30/10	12:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/30/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/30/10	12:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/30/10	12:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/30/10	12:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/30/10	1:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.127	0.00	0.00	---	---
8/30/10	1:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.127	0.00	0.00	---	---
8/30/10	1:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.127	0.00	0.00	---	---
8/30/10	1:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/30/10	2:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.134	0.00	0.00	---	---
8/30/10	2:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.139	0.00	0.00	---	---
8/30/10	2:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.139	0.00	0.00	---	---
8/30/10	2:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.142	0.00	0.00	---	---
8/30/10	3:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.143	0.00	0.00	---	---
8/30/10	3:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/30/10	3:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.142	0.00	0.00	---	---
8/30/10	3:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.143	0.00	0.00	---	---
8/30/10	4:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.142	0.00	0.00	---	---
8/30/10	4:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.143	0.00	0.00	---	---
8/30/10	4:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.142	0.00	0.00	---	---
8/30/10	4:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.142	0.00	0.00	---	---
8/30/10	5:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.142	0.00	0.00	---	---
8/30/10	5:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.144	0.00	0.00	---	---
8/30/10	5:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.143	0.00	0.00	---	---
8/30/10	5:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.143	0.00	0.00	---	---
8/30/10	6:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.146	0.00	0.00	---	---
8/30/10	6:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.154	0.00	0.00	---	---
8/30/10	6:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.159	0.00	0.00	---	---
8/30/10	6:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.167	0.00	0.00	---	---
8/30/10	7:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.167	0.00	0.00	---	---
8/30/10	7:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.173	0.00	0.00	---	---
8/30/10	7:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.176	0.00	0.00	---	---
8/30/10	7:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.182	0.00	0.00	---	---
8/30/10	8:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.184	0.00	0.00	---	---
8/30/10	8:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.186	0.00	0.00	---	---
8/30/10	8:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/30/10	8:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.188	0.00	0.00	---	---
8/30/10	9:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.189	0.00	0.00	---	---
8/30/10	9:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.197	0.00	0.00	---	---
8/30/10	9:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.200	0.00	0.00	---	---
8/30/10	9:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.201	0.00	0.00	---	---
8/30/10	10:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.201	0.00	0.00	---	---
8/30/10	10:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.200	0.00	0.00	---	---
8/30/10	10:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.201	0.00	0.00	---	---
8/30/10	10:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.201	0.00	0.00	---	---
8/30/10	11:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.197	0.00	0.00	---	---
8/30/10	11:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.197	0.00	0.00	---	---
8/30/10	11:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/30/10	11:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.187	0.00	0.00	---	---
8/30/10	12:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.179	0.00	0.00	---	---
8/30/10	12:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.175	0.00	0.00	---	---
8/30/10	12:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.172	0.00	0.00	---	---
8/30/10	12:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.170	0.00	0.00	---	---
8/30/10	1:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.162	0.00	0.00	---	---
8/30/10	1:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/30/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/30/10	1:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.157	0.00	0.00	---	---
8/30/10	1:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.156	0.00	0.00	---	---
8/30/10	2:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.155	0.00	0.00	---	---
8/30/10	2:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.148	0.00	0.00	---	---
8/30/10	2:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.143	0.00	0.00	---	---
8/30/10	2:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.141	0.00	0.00	---	---
8/30/10	3:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.140	0.00	0.00	---	---
8/30/10	3:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.132	0.00	0.00	---	---
8/30/10	3:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.132	0.00	0.00	---	---
8/30/10	3:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/30/10	4:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.122	0.00	0.00	---	---
8/30/10	4:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.113	0.00	0.00	---	---
8/30/10	4:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/30/10	4:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/30/10	5:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.107	0.00	0.00	---	---
8/30/10	5:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	5:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.103	0.00	0.00	---	---
8/30/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.100	0.00	0.00	---	---
8/30/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.099	0.00	0.00	---	---
8/30/10	6:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.100	0.00	0.00	---	---
8/30/10	6:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/30/10	6:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/30/10	7:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/30/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/30/10	7:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/30/10	7:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/30/10	8:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.100	0.00	0.00	---	---
8/30/10	8:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.102	0.00	0.00	---	---
8/30/10	8:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.107	0.00	0.00	---	---
8/30/10	8:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/30/10	9:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	9:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	9:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	9:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/30/10	10:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/30/10	10:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	10:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/30/10	10:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/30/10	11:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	11:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	11:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.108	0.00	0.00	---	---
8/30/10	11:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/31/10	12:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/31/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/31/10	12:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.111	0.00	0.00	---	---
8/31/10	12:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.111	0.00	0.00	---	---
8/31/10	12:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/31/10	1:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/31/10	1:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/31/10	1:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/31/10	1:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.104	0.00	0.00	---	---
8/31/10	2:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.103	0.00	0.00	---	---
8/31/10	2:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.104	0.00	0.00	---	---
8/31/10	2:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.102	0.00	0.00	---	---
8/31/10	2:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.103	0.00	0.00	---	---
8/31/10	3:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.101	0.00	0.00	---	---
8/31/10	3:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/31/10	3:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/31/10	3:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/31/10	4:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.096	0.00	0.00	---	---
8/31/10	4:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.102	0.00	0.00	---	---
8/31/10	4:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.102	0.00	0.00	---	---
8/31/10	4:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.104	0.00	0.00	---	---
8/31/10	5:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.105	0.00	0.00	---	---
8/31/10	5:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.109	0.00	0.00	---	---
8/31/10	5:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/31/10	5:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.111	0.00	0.00	---	---
8/31/10	6:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.112	0.00	0.00	---	---
8/31/10	6:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.121	0.00	0.00	---	---
8/31/10	6:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.121	0.00	0.00	---	---
8/31/10	6:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.129	0.00	0.00	---	---
8/31/10	7:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.135	0.00	0.00	---	---
8/31/10	7:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.136	0.00	0.00	---	---
8/31/10	7:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.138	0.00	0.00	---	---
8/31/10	7:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.138	0.00	0.00	---	---
8/31/10	8:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.132	0.00	0.00	---	---
8/31/10	8:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.138	0.00	0.00	---	---
8/31/10	8:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.138	0.00	0.00	---	---
8/31/10	8:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.135	0.00	0.00	---	---
8/31/10	9:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.134	0.00	0.00	---	---
8/31/10	9:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.133	0.00	0.00	---	---
8/31/10	9:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.128	0.00	0.00	---	---
8/31/10	9:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.127	0.00	0.00	---	---
8/31/10	10:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.126	0.00	0.00	---	---
8/31/10	10:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.125	0.00	0.00	---	---
8/31/10	10:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.123	0.00	0.00	---	---
8/31/10	10:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.115	0.00	0.00	---	---
8/31/10	11:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.112	0.00	0.00	---	---
8/31/10	11:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.110	0.00	0.00	---	---
8/31/10	11:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.103	0.00	0.00	---	---
8/31/10	11:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.100	0.00	0.00	---	---
8/31/10	12:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.095	0.00	0.00	---	---
8/31/10	12:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.089	0.00	0.00	---	---
8/31/10	12:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.082	0.00	0.00	---	---
8/31/10	12:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.078	0.00	0.00	---	---
8/31/10	1:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.069	0.00	0.00	---	---
8/31/10	1:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.065	0.00	0.00	---	---

Gowanus Phase III Weather Data 8/31/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
8/31/10	1:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.062	0.00	0.00	---	---
8/31/10	1:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.056	0.00	0.00	---	---
8/31/10	2:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.053	0.00	0.00	---	---
8/31/10	2:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.049	0.00	0.00	---	---
8/31/10	2:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.047	0.00	0.00	---	---
8/31/10	2:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.034	0.00	0.00	---	---
8/31/10	3:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.034	0.00	0.00	---	---
8/31/10	3:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.025	0.00	0.00	---	---
8/31/10	3:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.020	0.00	0.00	---	---
8/31/10	3:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.018	0.00	0.00	---	---
8/31/10	4:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.017	0.00	0.00	---	---
8/31/10	4:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.015	0.00	0.00	---	---
8/31/10	4:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.010	0.00	0.00	---	---
8/31/10	4:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.006	0.00	0.00	---	---
8/31/10	5:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.006	0.00	0.00	---	---
8/31/10	5:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.005	0.00	0.00	---	---
8/31/10	5:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.004	0.00	0.00	---	---
8/31/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.004	0.00	0.00	---	---
8/31/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
8/31/10	6:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.002	0.00	0.00	---	---
8/31/10	6:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
8/31/10	6:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
8/31/10	7:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
8/31/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
8/31/10	7:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.004	0.00	0.00	---	---
8/31/10	7:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.006	0.00	0.00	---	---
8/31/10	8:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.014	0.00	0.00	---	---
8/31/10	8:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.018	0.00	0.00	---	---
8/31/10	8:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.020	0.00	0.00	---	---
8/31/10	8:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.022	0.00	0.00	---	---
8/31/10	9:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.022	0.00	0.00	---	---
8/31/10	9:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.027	0.00	0.00	---	---
8/31/10	9:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.030	0.00	0.00	---	---
8/31/10	9:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.029	0.00	0.00	---	---
8/31/10	10:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.030	0.00	0.00	---	---
8/31/10	10:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.030	0.00	0.00	---	---
8/31/10	10:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.028	0.00	0.00	---	---
8/31/10	10:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/31/10	11:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.030	0.00	0.00	---	---
8/31/10	11:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/31/10	11:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
8/31/10	11:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.032	0.00	0.00	---	---
9/01/10	12:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---

Gowanus Phase III Weather Data 9/01/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/01/10	12:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.032	0.00	0.00	---	---
9/01/10	12:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.028	0.00	0.00	---	---
9/01/10	12:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.023	0.00	0.00	---	---
9/01/10	1:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.021	0.00	0.00	---	---
9/01/10	1:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.020	0.00	0.00	---	---
9/01/10	1:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.020	0.00	0.00	---	---
9/01/10	1:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.015	0.00	0.00	---	---
9/01/10	2:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.010	0.00	0.00	---	---
9/01/10	2:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.009	0.00	0.00	---	---
9/01/10	2:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.005	0.00	0.00	---	---
9/01/10	2:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	3:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	3:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	3:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	3:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	4:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.004	0.00	0.00	---	---
9/01/10	4:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	4:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	4:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	5:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	5:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.003	0.00	0.00	---	---
9/01/10	5:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.010	0.00	0.00	---	---
9/01/10	5:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.017	0.00	0.00	---	---
9/01/10	6:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.019	0.00	0.00	---	---
9/01/10	6:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.025	0.00	0.00	---	---
9/01/10	6:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.029	0.00	0.00	---	---
9/01/10	6:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.033	0.00	0.00	---	---
9/01/10	7:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.034	0.00	0.00	---	---
9/01/10	7:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.034	0.00	0.00	---	---
9/01/10	7:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	30.035	0.00	0.00	---	---
9/01/10	7:45a	80.7	80.7	80.7	63	66.9	0.0	N	0.00	1.0	N	80.7	82.7	82.7	30.035	0.00	0.00	0.000	0.164
9/01/10	8:00a	81.7	81.7	80.8	62	67.4	0.0	---	0.00	0.0	---	81.7	84.1	84.1	30.034	0.00	0.00	0.000	0.174
9/01/10	8:15a	83.1	83.1	81.8	61	68.3	0.0	---	0.00	0.0	---	83.1	86.1	86.1	30.033	0.00	0.00	0.000	0.189
9/01/10	8:30a	85.0	85.0	83.4	56	67.5	0.0	N	0.00	1.0	N	85.0	88.2	88.2	30.031	0.00	0.00	0.000	0.208
9/01/10	8:45a	86.8	86.8	85.1	52	67.1	0.0	---	0.00	0.0	---	86.8	90.4	90.4	30.031	0.00	0.00	0.000	0.227
9/01/10	9:00a	87.7	87.7	86.9	51	67.3	0.0	NW	0.00	2.0	NNW	87.7	91.3	91.3	30.032	0.00	0.00	0.000	0.236
9/01/10	9:15a	88.0	88.2	87.8	50	67.0	0.0	NW	0.00	2.0	NW	88.0	91.4	91.4	30.033	0.00	0.00	0.000	0.240
9/01/10	9:30a	88.5	88.5	87.9	49	66.9	0.0	NW	0.00	1.0	NW	88.5	92.2	92.2	30.033	0.00	0.00	0.000	0.245
9/01/10	9:45a	89.7	89.7	88.5	48	67.4	0.0	NW	0.00	1.0	NW	89.7	94.0	94.0	30.032	0.00	0.00	0.000	0.257
9/01/10	10:00a	91.6	91.6	89.8	45	67.3	0.0	NW	0.00	1.0	NW	91.6	96.2	96.2	30.032	0.00	0.00	0.000	0.277
9/01/10	10:15a	92.0	92.0	91.6	44	67.0	0.0	WNW	0.00	4.0	NW	92.0	96.4	96.4	30.029	0.00	0.00	0.000	0.281
9/01/10	10:30a	93.2	93.3	92.1	41	66.0	0.0	WNW	0.00	1.0	WNW	93.2	97.2	97.2	30.027	0.00	0.00	0.000	0.294
9/01/10	10:45a	94.1	94.1	93.2	40	66.1	0.0	WNW	0.00	2.0	WNW	94.1	98.3	98.3	30.022	0.00	0.00	0.000	0.303
9/01/10	11:00a	93.5	94.6	93.5	40	65.6	1.0	WSW	0.25	5.0	S	93.5	97.2	97.2	30.018	0.00	0.00	0.000	0.297
9/01/10	11:15a	94.4	94.4	93.5	35	62.5	0.0	WSW	0.00	4.0	WSW	94.4	96.0	96.0	30.017	0.00	0.00	0.000	0.306
9/01/10	11:30a	96.1	96.1	94.4	35	64.0	0.0	WSW	0.00	2.0	SW	96.1	98.8	98.8	30.017	0.00	0.00	0.000	0.324
9/01/10	11:45a	96.2	96.5	96.2	36	64.9	0.0	WSW	0.00	2.0	WSW	96.2	99.6	99.6	30.016	0.00	0.00	0.000	0.325
9/01/10	12:00p	94.9	96.2	94.9	36	63.8	1.0	SW	0.25	6.0	SSW	94.9	97.4	97.4	30.015	0.00	0.00	0.000	0.311
9/01/10	12:15p	96.3	96.3	94.9	36	65.0	0.0	SW	0.00	7.0	SW	96.3	99.8	99.8	30.004	0.00	0.00	0.000	0.326
9/01/10	12:30p	96.5	96.5	96.3	36	65.2	0.0	SW	0.00	5.0	SW	96.5	100.2	100.2	30.003	0.00	0.00	0.000	0.328
9/01/10	12:45p	95.9	96.5	95.6	38	66.2	1.0	SW	0.25	5.0	SSW	95.9	100.5	100.5	30.002	0.00	0.00	0.000	0.322
9/01/10	1:00p	96.6	96.6	96.0	36	65.3	1.0	SW	0.25	5.0	WSW	96.6	100.3	100.3	29.998	0.00	0.00	0.000	0.329
9/01/10	1:15p	98.0	98.0	96.7	34	64.9	1.0	SW	0.25	5.0	SW	98.0	101.6	101.6	29.988	0.00	0.00	0.000	0.344

Gowanus Phase III Weather Data 9/01/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/01/10	1:30p	97.6	97.8	96.9	35	65.3	1.0	SW	0.25	4.0	WSW	97.6	101.4	101.4	29.986	0.00	0.00	0.000	0.340
9/01/10	1:45p	99.2	99.2	97.7	33	65.0	0.0	SW	0.00	2.0	SW	99.2	103.1	103.1	29.985	0.00	0.00	0.000	0.356
9/01/10	2:00p	99.5	99.5	99.2	32	64.4	1.0	SSW	0.25	4.0	SW	99.5	103.0	103.0	29.982	0.00	0.00	0.000	0.359
9/01/10	2:15p	98.9	99.5	98.3	31	63.0	1.0	SW	0.25	5.0	SW	98.9	101.4	101.4	29.972	0.00	0.00	0.000	0.353
9/01/10	2:30p	99.4	99.5	99.0	32	64.3	0.0	SW	0.00	5.0	SW	99.4	102.9	102.9	29.965	0.00	0.00	0.000	0.358
9/01/10	2:45p	100.2	100.2	99.4	31	64.1	0.0	SSW	0.00	6.0	SW	100.2	103.6	103.6	29.956	0.00	0.00	0.000	0.367
9/01/10	3:00p	100.3	100.3	100.0	31	64.2	0.0	SW	0.00	2.0	SSW	100.3	103.8	103.8	29.955	0.00	0.00	0.000	0.368
9/01/10	3:15p	99.5	100.3	99.5	32	64.4	1.0	WNW	0.25	5.0	NNE	99.5	103.0	103.0	29.952	0.00	0.00	0.000	0.359
9/01/10	3:30p	97.6	99.6	97.6	35	65.3	1.0	WNW	0.25	8.0	WNW	97.6	101.4	101.4	29.941	0.00	0.00	0.000	0.340
9/01/10	3:45p	95.0	97.4	95.0	39	66.2	3.0	NW	0.75	9.0	NW	95.0	99.4	99.4	29.942	0.00	0.00	0.000	0.313
9/01/10	4:00p	93.1	94.9	93.1	42	66.6	3.0	NW	0.75	7.0	NNW	93.1	97.5	97.5	29.944	0.00	0.00	0.000	0.293
9/01/10	4:15p	91.5	93.1	91.5	43	65.8	3.0	NW	0.75	10.0	NNW	91.5	95.1	95.1	29.945	0.00	0.00	0.000	0.276
9/01/10	4:30p	91.1	91.4	90.9	43	65.5	3.0	NW	0.75	7.0	WSW	91.1	94.4	94.4	29.944	0.00	0.00	0.000	0.272
9/01/10	4:45p	90.1	91.4	90.1	46	66.5	3.0	NNW	0.75	11.0	WNW	90.1	93.8	93.8	29.942	0.00	0.00	0.000	0.261
9/01/10	5:00p	89.6	90.2	89.6	45	65.4	4.0	WNW	1.00	10.0	W	89.6	92.7	92.7	29.941	0.00	0.00	0.000	0.256
9/01/10	5:15p	90.1	90.1	89.4	46	66.5	2.0	NE	0.50	7.0	WNW	90.1	93.8	93.8	29.938	0.00	0.00	0.000	0.261
9/01/10	5:30p	90.1	90.4	90.1	45	65.9	3.0	NW	0.75	10.0	WNW	90.1	93.5	93.5	29.940	0.00	0.00	0.000	0.261
9/01/10	5:45p	89.8	89.8	89.3	46	66.3	3.0	NW	0.75	10.0	NW	89.8	93.4	93.4	29.941	0.00	0.00	0.000	0.258
9/01/10	6:00p	89.0	89.8	89.0	46	65.5	5.0	NW	1.25	12.0	NW	89.0	92.3	92.3	29.940	0.00	0.00	0.000	0.250
9/01/10	6:15p	88.6	88.7	88.5	45	64.5	5.0	NW	1.25	11.0	NW	88.6	91.0	91.0	29.938	0.00	0.00	0.000	0.246
9/01/10	6:30p	88.3	88.6	88.3	48	66.1	6.0	WNW	1.50	11.0	WNW	88.3	91.4	91.4	29.933	0.00	0.00	0.000	0.243
9/01/10	6:45p	88.3	88.3	88.3	50	67.3	3.0	NW	0.75	8.0	WNW	88.3	92.1	92.1	29.927	0.00	0.00	0.000	0.243
9/01/10	7:00p	87.5	88.2	87.5	52	67.7	4.0	WNW	1.00	8.0	W	87.5	91.4	91.4	29.924	0.00	0.00	0.000	0.234
9/01/10	7:15p	86.9	87.5	86.9	55	68.8	2.0	NW	0.50	7.0	WNW	86.9	91.6	91.6	29.925	0.00	0.00	0.000	0.228
9/01/10	7:30p	85.1	86.4	85.1	61	70.1	2.0	WNW	0.50	7.0	WNW	85.1	90.0	90.0	29.926	0.00	0.00	0.000	0.209
9/01/10	7:45p	84.8	85.1	84.8	62	70.3	0.0	WNW	0.00	4.0	WNW	84.8	89.7	89.7	29.927	0.00	0.00	0.000	0.206
9/01/10	8:00p	84.6	84.8	84.6	64	71.1	0.0	S	0.00	2.0	S	84.6	90.0	90.0	29.926	0.00	0.00	0.000	0.204
9/01/10	8:15p	84.0	84.5	84.0	65	71.0	0.0	NW	0.00	2.0	WSW	84.0	89.2	89.2	29.926	0.00	0.00	0.000	0.198
9/01/10	8:30p	83.6	83.9	83.6	67	71.5	0.0	NNW	0.00	5.0	NNW	83.6	88.9	88.9	29.928	0.00	0.00	0.000	0.194
9/01/10	8:45p	83.5	83.6	83.5	68	71.8	0.0	NNW	0.00	1.0	NNW	83.5	89.0	89.0	29.933	0.00	0.00	0.000	0.193
9/01/10	9:00p	83.8	83.8	83.5	66	71.2	0.0	NNW	0.00	1.0	NNW	83.8	89.1	89.1	29.935	0.00	0.00	0.000	0.196
9/01/10	9:15p	84.2	84.2	83.8	66	71.6	0.0	---	0.00	0.0	---	84.2	89.9	89.9	29.938	0.00	0.00	0.000	0.200
9/01/10	9:30p	84.7	84.7	84.3	64	71.2	0.0	NNE	0.00	1.0	NNW	84.7	90.2	90.2	29.939	0.00	0.00	0.000	0.205
9/01/10	9:45p	85.2	85.2	84.7	63	71.2	0.0	NNE	0.00	1.0	NNE	85.2	90.9	90.9	29.940	0.00	0.00	0.000	0.210
9/01/10	10:00p	85.5	85.5	85.2	60	70.0	0.0	N	0.00	1.0	NNE	85.5	90.5	90.5	29.941	0.00	0.00	0.000	0.214
9/01/10	10:15p	86.1	86.1	85.5	57	69.1	0.0	NW	0.00	4.0	NE	86.1	90.6	90.6	29.942	0.00	0.00	0.000	0.220
9/01/10	10:30p	86.3	86.4	86.3	57	69.3	0.0	E	0.00	5.0	NW	86.3	91.1	91.1	29.949	0.00	0.00	0.000	0.222
9/01/10	10:45p	85.8	86.3	85.8	57	68.8	0.0	SW	0.00	3.0	SW	85.8	90.0	90.0	29.954	0.00	0.00	0.000	0.217
9/01/10	11:00p	85.3	85.6	85.3	57	68.3	0.0	SW	0.00	7.0	SW	85.3	89.1	89.1	29.955	0.00	0.00	0.000	0.211
9/01/10	11:15p	85.0	85.3	85.0	58	68.6	0.0	SW	0.00	2.0	SW	85.0	88.8	88.8	29.957	0.00	0.00	0.000	0.208
9/01/10	11:30p	84.5	84.9	84.5	58	68.1	0.0	SW	0.00	2.0	SW	84.5	88.0	88.0	29.959	0.00	0.00	0.000	0.203
9/01/10	11:45p	84.1	84.5	84.1	59	68.2	0.0	SW	0.00	4.0	SW	84.1	87.6	87.6	29.964	0.00	0.00	0.000	0.199
9/02/10	12:00a	83.7	84.0	83.7	59	67.8	0.0	SW	0.00	4.0	SW	83.7	86.9	86.9	29.959	0.00	0.00	0.000	0.195

Gowanus Phase III Weather Data 9/02/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/02/10	12:15a	83.4	83.6	83.4	59	67.6	0.0	SW	0.00	4.0	SW	83.4	86.3	86.3	29.958	0.00	0.00	0.000	0.192
9/02/10	12:30a	83.2	83.4	83.2	59	67.4	0.0	SW	0.00	5.0	SW	83.2	85.9	85.9	29.957	0.00	0.00	0.000	0.190
9/02/10	12:45a	83.0	83.2	83.0	59	67.2	0.0	SW	0.00	2.0	SW	83.0	85.5	85.5	29.959	0.00	0.00	0.000	0.188
9/02/10	1:00a	82.5	82.9	82.5	60	67.2	0.0	SW	0.00	4.0	SW	82.5	84.9	84.9	29.963	0.00	0.00	0.000	0.182
9/02/10	1:15a	82.2	82.5	82.2	61	67.4	0.0	SW	0.00	1.0	SW	82.2	84.7	84.7	29.959	0.00	0.00	0.000	0.179
9/02/10	1:30a	81.9	82.1	81.9	62	67.6	0.0	SW	0.00	1.0	SW	81.9	84.4	84.4	29.958	0.00	0.00	0.000	0.176
9/02/10	1:45a	81.7	81.9	81.7	62	67.4	0.0	SW	0.00	4.0	SW	81.7	84.1	84.1	29.956	0.00	0.00	0.000	0.174
9/02/10	2:00a	81.6	81.7	81.6	63	67.8	0.0	SW	0.00	2.0	SW	81.6	84.2	84.2	29.956	0.00	0.00	0.000	0.173
9/02/10	2:15a	81.3	81.5	81.3	63	67.5	0.0	SW	0.00	1.0	SW	81.3	83.7	83.7	29.955	0.00	0.00	0.000	0.170
9/02/10	2:30a	81.1	81.3	81.1	64	67.8	0.0	SW	0.00	2.0	SW	81.1	83.5	83.5	29.954	0.00	0.00	0.000	0.168
9/02/10	2:45a	80.9	81.1	80.9	64	67.6	0.0	SW	0.00	1.0	SW	80.9	83.2	83.2	29.952	0.00	0.00	0.000	0.166
9/02/10	3:00a	80.8	80.9	80.8	64	67.5	0.0	SW	0.00	2.0	SW	80.8	83.0	83.0	29.953	0.00	0.00	0.000	0.165
9/02/10	3:15a	80.7	80.8	80.7	64	67.4	0.0	SW	0.00	2.0	SW	80.7	82.9	82.9	29.956	0.00	0.00	0.000	0.164
9/02/10	3:30a	80.6	80.7	80.6	64	67.3	0.0	---	0.00	0.0	---	80.6	82.7	82.7	29.957	0.00	0.00	0.000	0.162
9/02/10	3:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.955	0.00	0.00	---	---
9/02/10	4:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.953	0.00	0.00	---	---
9/02/10	4:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.951	0.00	0.00	---	---
9/02/10	4:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.955	0.00	0.00	---	---
9/02/10	4:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.956	0.00	0.00	---	---
9/02/10	5:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.955	0.00	0.00	---	---
9/02/10	5:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.954	0.00	0.00	---	---
9/02/10	5:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.955	0.00	0.00	---	---
9/02/10	5:45a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.955	0.00	0.00	---	---
9/02/10	6:00a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.955	0.00	0.00	---	---
9/02/10	6:15a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.955	0.00	0.00	---	---
9/02/10	6:30a	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.956	0.00	0.00	---	---
9/02/10	6:45a	78.7	78.7	78.7	67	66.8	0.0	SSW	0.00	1.0	SSW	78.7	80.5	80.5	29.958	0.00	0.00	0.000	0.143
9/02/10	7:00a	78.7	78.7	78.7	67	66.8	0.0	SSW	0.00	3.0	SSW	78.7	80.5	80.5	29.961	0.00	0.00	0.000	0.143
9/02/10	7:15a	78.8	78.8	78.7	67	66.9	0.0	SSW	0.00	2.0	SSW	78.8	80.7	80.7	29.965	0.00	0.00	0.000	0.144
9/02/10	7:30a	79.1	79.1	78.9	67	67.2	0.0	SSW	0.00	2.0	SSW	79.1	81.1	81.1	29.969	0.00	0.00	0.000	0.147
9/02/10	7:45a	79.7	79.7	79.2	66	67.3	0.0	SSW	0.00	1.0	SSW	79.7	81.7	81.7	29.969	0.00	0.00	0.000	0.153
9/02/10	8:00a	80.7	80.7	79.8	65	67.8	0.0	SSW	0.00	2.0	SSW	80.7	83.0	83.0	29.970	0.00	0.00	0.000	0.164
9/02/10	8:15a	80.2	80.7	80.2	67	68.2	0.0	NNE	0.00	4.0	ENE	80.2	82.6	82.6	29.967	0.00	0.00	0.000	0.158
9/02/10	8:30a	81.7	81.7	80.3	65	68.8	0.0	NNE	0.00	1.0	NNE	81.7	84.7	84.7	29.971	0.00	0.00	0.000	0.174
9/02/10	8:45a	83.1	83.1	81.7	64	69.7	0.0	WSW	0.00	2.0	SW	83.1	86.9	86.9	29.971	0.00	0.00	0.000	0.189
9/02/10	9:00a	83.4	83.4	83.1	64	69.9	1.0	WSW	0.25	4.0	SW	83.4	87.6	87.6	29.971	0.00	0.00	0.000	0.192
9/02/10	9:15a	84.7	84.7	83.4	63	70.7	0.0	SW	0.00	1.0	SW	84.7	89.9	89.9	29.969	0.00	0.00	0.000	0.205
9/02/10	9:30a	85.2	85.7	84.7	61	70.2	0.0	WSW	0.00	2.0	WSW	85.2	90.2	90.2	29.967	0.00	0.00	0.000	0.210
9/02/10	9:45a	85.7	85.7	85.1	62	71.2	0.0	SW	0.00	4.0	WSW	85.7	91.6	91.6	29.968	0.00	0.00	0.000	0.216
9/02/10	10:00a	86.6	86.6	85.8	60	71.1	0.0	SW	0.00	5.0	SW	86.6	92.8	92.8	29.970	0.00	0.00	0.000	0.225
9/02/10	10:15a	87.3	87.3	86.7	59	71.2	0.0	SW	0.00	2.0	S	87.3	93.6	93.6	29.969	0.00	0.00	0.000	0.232
9/02/10	10:30a	88.6	88.6	87.5	57	71.4	0.0	SSW	0.00	5.0	SSW	88.6	95.2	95.2	29.961	0.00	0.00	0.000	0.246
9/02/10	10:45a	89.3	89.3	88.6	57	72.1	0.0	SW	0.00	4.0	SSW	89.3	96.8	96.8	29.959	0.00	0.00	0.000	0.253
9/02/10	11:00a	90.4	90.5	89.5	55	72.0	0.0	SW	0.00	2.0	SW	90.4	98.3	98.3	29.955	0.00	0.00	0.000	0.265
9/02/10	11:15a	91.4	91.7	90.4	53	71.9	0.0	SW	0.00	4.0	SW	91.4	99.6	99.6	29.955	0.00	0.00	0.000	0.275
9/02/10	11:30a	92.1	92.1	91.2	53	72.5	0.0	SW	0.00	2.0	SW	92.1	101.1	101.1	29.950	0.00	0.00	0.000	0.282
9/02/10	11:45a	93.1	93.2	92.4	52	72.9	0.0	SW	0.00	4.0	SW	93.1	102.8	102.8	29.950	0.00	0.00	0.000	0.293
9/02/10	12:00p	93.0	93.3	92.9	52	72.8	1.0	E	0.25	4.0	NNE	93.0	102.6	102.6	29.947	0.00	0.00	0.000	0.292
9/02/10	12:15p	91.5	92.9	91.3	52	71.4	1.0	NW	0.25	5.0	W	91.5	99.2	99.2	29.942	0.00	0.00	0.000	0.276
9/02/10	12:30p	92.3	92.3	91.3	48	69.8	2.0	NNW	0.50	8.0	W	92.3	98.8	98.8	29.941	0.00	0.00	0.000	0.284
9/02/10	12:45p	92.5	92.5	92.1	50	71.2	2.0	NE	0.50	7.0	NW	92.5	100.1	100.1	29.939	0.00	0.00	0.000	0.286
9/02/10	1:00p	91.2	92.7	91.2	55	72.8	3.0	NW	0.75	9.0	NNW	91.2	100.2	100.2	29.940	0.00	0.00	0.000	0.273
9/02/10	1:15p	89.8	91.1	89.8	57	72.5	3.0	NW	0.75	10.0	NW	89.8	97.9	97.9	29.940	0.00	0.00	0.000	0.258

Gowanus Phase III Weather Data 9/02/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/02/10	1:30p	89.9	89.9	89.3	58	73.1	2.0	NW	0.50	8.0	NW	89.9	98.6	98.6	29.938	0.00	0.00	0.000	0.259
9/02/10	1:45p	91.3	91.6	89.9	54	72.3	2.0	W	0.50	7.0	W	91.3	99.9	99.9	29.932	0.00	0.00	0.000	0.274
9/02/10	2:00p	91.7	91.8	91.2	55	73.2	2.0	W	0.50	6.0	NW	91.7	101.4	101.4	29.929	0.00	0.00	0.000	0.278
9/02/10	2:15p	93.6	93.6	91.6	53	73.9	1.0	N	0.25	5.0	WNW	93.6	104.7	104.7	29.925	0.00	0.00	0.000	0.298
9/02/10	2:30p	92.9	93.6	92.9	54	73.8	2.0	NNW	0.50	7.0	WNW	92.9	103.7	103.7	29.924	0.00	0.00	0.000	0.291
9/02/10	2:45p	93.1	93.1	92.5	53	73.4	2.0	NW	0.50	6.0	WNW	93.1	103.5	103.5	29.911	0.00	0.00	0.000	0.293
9/02/10	3:00p	93.6	93.8	93.1	51	72.7	2.0	NW	0.50	8.0	WNW	93.6	103.2	103.2	29.907	0.00	0.00	0.000	0.298
9/02/10	3:15p	92.4	93.7	92.4	55	73.9	3.0	WNW	0.75	9.0	WNW	92.4	103.1	103.1	29.903	0.00	0.00	0.000	0.285
9/02/10	3:30p	91.4	92.3	91.4	56	73.5	4.0	WNW	1.00	11.0	W	91.4	101.2	101.2	29.897	0.00	0.00	0.000	0.275
9/02/10	3:45p	92.0	92.0	91.4	55	73.5	3.0	NW	0.75	8.0	NNW	92.0	102.1	102.1	29.896	0.00	0.00	0.000	0.281
9/02/10	4:00p	91.4	92.0	91.3	55	73.0	5.0	WNW	1.25	10.0	W	91.4	100.7	100.7	29.893	0.00	0.00	0.000	0.275
9/02/10	4:15p	92.8	92.8	91.5	51	72.0	2.0	ENE	0.50	6.0	NW	92.8	101.4	101.4	29.893	0.00	0.00	0.000	0.290
9/02/10	4:30p	92.7	92.9	92.5	52	72.5	3.0	E	0.75	9.0	ESE	92.7	101.9	101.9	29.892	0.00	0.00	0.000	0.289
9/02/10	4:45p	---	92.7	92.6	---	---	2.0	ENE	0.50	4.0	ESE	---	---	---	29.893	0.00	0.00	---	---
9/02/10	5:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.895	0.00	0.00	---	---
9/02/10	5:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.887	0.00	0.00	---	---
9/02/10	5:30p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.882	0.00	0.00	---	---
9/02/10	5:45p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.884	0.00	0.00	---	---
9/02/10	6:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.883	0.00	0.00	---	---
9/02/10	6:15p	88.8	88.8	88.7	58	72.1	3.0	NW	0.75	7.0	N	88.8	96.1	96.1	29.879	0.00	0.00	0.000	0.248
9/02/10	6:30p	88.8	88.8	88.8	57	71.6	2.0	NW	0.50	9.0	N	88.8	95.7	95.7	29.880	0.00	0.00	0.000	0.248
9/02/10	6:45p	88.7	88.9	88.7	57	71.5	2.0	NNE	0.50	5.0	WNW	88.7	95.5	95.5	29.880	0.00	0.00	0.000	0.247
9/02/10	7:00p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.878	0.00	0.00	---	---
9/02/10	7:15p	---	---	---	---	---	0.0	---	0.00	0.0	---	---	---	---	29.878	0.00	0.00	---	---
9/02/10	7:30p	87.8	87.9	87.8	57	70.7	1.0	NE	0.25	5.0	NNE	87.8	93.6	93.6	29.878	0.00	0.00	0.000	0.238
9/02/10	7:45p	87.4	87.8	87.4	58	70.8	1.0	ENE	0.25	7.0	WNW	87.4	93.4	93.4	29.878	0.00	0.00	0.000	0.233
9/02/10	8:00p	87.2	87.4	87.1	57	70.1	1.0	ENE	0.25	6.0	ENE	87.2	92.8	92.8	29.879	0.00	0.00	0.000	0.231
9/02/10	8:15p	86.8	87.2	86.8	58	70.2	1.0	E	0.25	7.0	WNW	86.8	92.5	92.5	29.885	0.00	0.00	0.000	0.227
9/02/10	8:30p	85.9	86.7	85.9	57	68.9	1.0	ENE	0.25	7.0	NW	85.9	90.2	90.2	29.889	0.00	0.00	0.000	0.218
9/02/10	8:45p	85.7	85.9	85.7	56	68.2	1.0	NE	0.25	5.0	ENE	85.7	89.5	89.5	29.893	0.00	0.00	0.000	0.216
9/02/10	9:00p	85.3	85.7	85.3	56	67.8	1.0	NNW	0.25	5.0	SW	85.3	88.8	88.8	29.894	0.00	0.00	0.000	0.211
9/02/10	9:15p	84.9	85.3	84.9	55	66.9	1.0	ENE	0.25	5.0	NW	84.9	87.8	87.8	29.893	0.00	0.00	0.000	0.207
9/02/10	9:30p	84.3	84.9	84.3	55	66.4	1.0	ENE	0.25	6.0	NNW	84.3	87.0	87.0	29.894	0.00	0.00	0.000	0.201
9/02/10	9:45p	83.8	84.2	83.8	54	65.4	1.0	ENE	0.25	6.0	ENE	83.8	86.1	86.1	29.895	0.00	0.00	0.000	0.196
9/02/10	10:00p	83.3	83.7	83.3	53	64.4	1.0	ENE	0.25	6.0	SE	83.3	85.1	85.1	29.896	0.00	0.00	0.000	0.191
9/02/10	10:15p	83.0	83.3	83.0	54	64.6	1.0	ENE	0.25	5.0	ENE	83.0	84.8	84.8	29.896	0.00	0.00	0.000	0.188
9/02/10	10:30p	82.8	83.0	82.8	54	64.5	0.0	NE	0.00	5.0	NE	82.8	84.5	84.5	29.896	0.00	0.00	0.000	0.185
9/02/10	10:45p	82.5	82.8	82.5	55	64.7	1.0	ENE	0.25	5.0	NE	82.5	84.2	84.2	29.898	0.00	0.00	0.000	0.182
9/02/10	11:00p	82.2	82.5	82.2	55	64.4	1.0	ENE	0.25	5.0	ENE	82.2	83.7	83.7	29.895	0.00	0.00	0.000	0.179
9/02/10	11:15p	81.9	82.2	81.9	55	64.1	0.0	NNW	0.00	5.0	NNW	81.9	83.3	83.3	29.895	0.00	0.00	0.000	0.176
9/02/10	11:30p	81.4	81.9	81.4	58	65.2	0.0	W	0.00	5.0	ENE	81.4	83.0	83.0	29.894	0.00	0.00	0.000	0.171
9/02/10	11:45p	80.8	81.4	80.8	60	65.6	0.0	WSW	0.00	6.0	NNE	80.8	82.4	82.4	29.891	0.00	0.00	0.000	0.165
9/03/10	12:00a	80.5	80.8	80.5	60	65.3	0.0	ENE	0.00	4.0	NE	80.5	82.0	82.0	29.879	0.00	0.00	0.000	0.161

Gowanus Phase III Weather Data 9/03/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/03/10	12:15a	80.2	80.5	80.2	60	65.1	0.0	ENE	0.00	2.0	ENE	80.2	81.6	81.6	29.879	0.00	0.00	0.000	0.158
9/03/10	12:30a	80.0	80.2	79.9	61	65.3	0.0	ENE	0.00	4.0	ENE	80.0	81.4	81.4	29.879	0.00	0.00	0.000	0.156
9/03/10	12:45a	79.5	79.9	79.5	61	64.9	0.0	ENE	0.00	4.0	ENE	79.5	80.8	80.8	29.876	0.00	0.00	0.000	0.151
9/03/10	1:00a	79.3	79.5	79.2	61	64.7	0.0	ENE	0.00	2.0	ENE	79.3	80.6	80.6	29.864	0.00	0.00	0.000	0.149
9/03/10	1:15a	79.0	79.3	79.0	62	64.9	0.0	ENE	0.00	1.0	ENE	79.0	80.3	80.3	29.862	0.00	0.00	0.000	0.146
9/03/10	1:30a	78.9	79.0	78.9	62	64.8	0.0	E	0.00	2.0	E	78.9	80.2	80.2	29.862	0.00	0.00	0.000	0.145
9/03/10	1:45a	78.9	78.9	78.8	62	64.8	0.0	E	0.00	1.0	E	78.9	80.2	80.2	29.862	0.00	0.00	0.000	0.145
9/03/10	2:00a	78.8	78.9	78.8	60	63.7	0.0	E	0.00	2.0	E	78.8	79.9	79.9	29.860	0.00	0.00	0.000	0.144
9/03/10	2:15a	78.8	78.8	78.8	60	63.7	0.0	E	0.00	1.0	E	78.8	79.9	79.9	29.849	0.00	0.00	0.000	0.144
9/03/10	2:30a	78.7	78.8	78.7	61	64.1	0.0	E	0.00	2.0	E	78.7	79.9	79.9	29.848	0.00	0.00	0.000	0.143
9/03/10	2:45a	78.5	78.7	78.5	62	64.4	0.0	E	0.00	1.0	E	78.5	79.7	79.7	29.844	0.00	0.00	0.000	0.141
9/03/10	3:00a	78.4	78.5	78.3	62	64.3	0.0	E	0.00	1.0	E	78.4	79.6	79.6	29.837	0.00	0.00	0.000	0.140
9/03/10	3:15a	78.4	78.4	78.3	63	64.8	0.0	E	0.00	1.0	E	78.4	79.7	79.7	29.842	0.00	0.00	0.000	0.140
9/03/10	3:30a	78.3	78.5	78.3	64	65.1	0.0	E	0.00	1.0	E	78.3	79.7	79.7	29.838	0.00	0.00	0.000	0.139
9/03/10	3:45a	78.1	78.3	78.1	65	65.4	0.0	E	0.00	1.0	E	78.1	79.5	79.5	29.836	0.00	0.00	0.000	0.136
9/03/10	4:00a	78.0	78.1	77.9	66	65.7	0.0	E	0.00	1.0	E	78.0	79.5	79.5	29.833	0.00	0.00	0.000	0.135
9/03/10	4:15a	77.9	78.0	77.9	65	65.2	0.0	E	0.00	1.0	E	77.9	79.3	79.3	29.830	0.00	0.00	0.000	0.134
9/03/10	4:30a	77.9	77.9	77.9	65	65.2	0.0	E	0.00	1.0	E	77.9	79.3	79.3	29.828	0.00	0.00	0.000	0.134
9/03/10	4:45a	77.7	77.9	77.7	66	65.4	0.0	---	0.00	0.0	---	77.7	79.2	79.2	29.818	0.00	0.00	0.000	0.132
9/03/10	5:00a	77.6	77.8	77.6	65	64.9	0.0	---	0.00	0.0	---	77.6	79.0	79.0	29.819	0.00	0.00	0.000	0.131
9/03/10	5:15a	77.6	77.7	77.6	65	64.9	0.0	E	0.00	1.0	E	77.6	79.0	79.0	29.817	0.00	0.00	0.000	0.131
9/03/10	5:30a	77.5	77.6	77.5	64	64.4	0.0	---	0.00	0.0	---	77.5	78.8	78.8	29.815	0.00	0.00	0.000	0.130
9/03/10	5:45a	77.4	77.5	77.4	68	66.0	0.0	---	0.00	0.0	---	77.4	79.1	79.1	29.812	0.00	0.00	0.000	0.129
9/03/10	6:00a	77.2	77.4	77.2	68	65.8	0.0	---	0.00	0.0	---	77.2	78.9	78.9	29.807	0.00	0.00	0.000	0.127
9/03/10	6:15a	77.3	77.3	77.2	67	65.5	0.0	---	0.00	0.0	---	77.3	78.9	78.9	29.804	0.00	0.00	0.000	0.128
9/03/10	6:30a	77.4	77.4	77.3	67	65.6	0.0	---	0.00	0.0	---	77.4	79.0	79.0	29.806	0.00	0.00	0.000	0.129
9/03/10	6:45a	77.4	77.4	77.4	68	66.0	0.0	---	0.00	0.0	---	77.4	79.1	79.1	29.806	0.00	0.00	0.000	0.129
9/03/10	7:00a	77.5	77.5	77.3	72	67.8	0.0	---	0.00	0.0	---	77.5	79.7	79.7	29.804	0.00	0.00	0.000	0.130
9/03/10	7:15a	77.6	77.6	77.5	71	67.4	0.0	---	0.00	0.0	---	77.6	79.7	79.7	29.804	0.00	0.00	0.000	0.131
9/03/10	7:30a	78.3	78.3	77.6	72	68.5	0.0	E	0.00	1.0	E	78.3	80.6	80.6	29.802	0.00	0.00	0.000	0.139
9/03/10	7:45a	78.7	78.7	78.3	71	68.5	0.0	E	0.00	1.0	E	78.7	81.0	81.0	29.798	0.00	0.00	0.000	0.143
9/03/10	8:00a	79.3	79.3	78.8	71	69.1	0.0	---	0.00	0.0	---	79.3	81.9	81.9	29.798	0.00	0.00	0.000	0.149
9/03/10	8:15a	80.4	80.4	79.7	71	70.1	0.0	E	0.00	2.0	E	80.4	83.6	83.6	29.790	0.00	0.00	0.000	0.160
9/03/10	8:30a	81.9	81.9	80.5	70	71.2	0.0	E	0.00	2.0	E	81.9	86.1	86.1	29.781	0.00	0.00	0.000	0.176
9/03/10	8:45a	81.1	81.9	81.1	71	70.8	0.0	NNW	0.00	4.0	ENE	81.1	84.8	84.8	29.771	0.00	0.00	0.000	0.168
9/03/10	9:00a	81.7	81.7	81.0	70	71.0	0.0	NNW	0.00	4.0	NNW	81.7	85.7	85.7	29.762	0.00	0.00	0.000	0.174
9/03/10	9:15a	82.5	82.5	81.7	69	71.3	0.0	NNW	0.00	2.0	NNW	82.5	87.1	87.1	29.752	0.00	0.00	0.000	0.182
9/03/10	9:30a	82.8	82.9	82.5	68	71.2	0.0	NE	0.00	6.0	S	82.8	87.4	87.4	29.743	0.00	0.00	0.000	0.185
9/03/10	9:45a	83.5	83.5	82.9	67	71.4	0.0	SSE	0.00	4.0	NNE	83.5	88.7	88.7	29.732	0.00	0.00	0.000	0.193
9/03/10	10:00a	83.3	83.5	83.3	66	70.8	1.0	SE	0.25	6.0	NNE	83.3	87.9	87.9	29.733	0.00	0.00	0.000	0.191
9/03/10	10:15a	83.6	83.6	83.3	66	71.0	1.0	SE	0.25	6.0	SE	83.6	88.6	88.6	29.726	0.00	0.00	0.000	0.194
9/03/10	10:30a	83.2	83.5	83.2	67	71.1	1.0	NNE	0.25	5.0	NNE	83.2	88.0	88.0	29.721	0.00	0.00	0.000	0.190
9/03/10	10:45a	83.2	83.5	83.2	67	71.1	1.0	ESE	0.25	4.0	ESE	83.2	88.0	88.0	29.713	0.00	0.00	0.000	0.190
9/03/10	11:00a	82.9	83.1	82.8	68	71.3	1.0	ENE	0.25	7.0	NNW	82.9	87.6	87.6	29.703	0.00	0.00	0.000	0.186
9/03/10	11:15a	82.9	83.2	82.9	68	71.3	1.0	ESE	0.25	8.0	SE	82.9	87.6	87.6	29.691	0.00	0.00	0.000	0.186
9/03/10	11:30a	82.8	82.9	82.8	69	71.6	1.0	ESE	0.25	5.0	ESE	82.8	87.7	87.7	29.679	0.00	0.00	0.000	0.185
9/03/10	11:45a	82.7	82.8	82.6	69	71.5	1.0	SE	0.25	6.0	NNE	82.7	87.5	87.5	29.675	0.00	0.00	0.000	0.184
9/03/10	12:00p	83.9	83.9	82.8	67	71.8	1.0	ESE	0.25	6.0	ESE	83.9	89.6	89.6	29.670	0.00	0.00	0.000	0.197
9/03/10	12:15p	84.6	84.6	84.0	67	72.4	1.0	N	0.25	6.0	N	84.6	91.0	91.0	29.663	0.00	0.00	0.000	0.204
9/03/10	12:30p	84.5	84.7	84.5	67	72.3	1.0	SE	0.25	6.0	N	84.5	90.8	90.8	29.648	0.00	0.00	0.000	0.203
9/03/10	12:45p	84.9	84.9	84.4	66	72.3	1.0	SE	0.25	6.0	E	84.9	91.3	91.3	29.639	0.00	0.00	0.000	0.207
9/03/10	1:00p	85.8	85.8	84.8	66	73.1	1.0	NNE	0.25	6.0	NNE	85.8	93.3	93.3	29.634	0.00	0.00	0.000	0.217
9/03/10	1:15p	86.0	86.2	85.8	65	72.9	1.0	ESE	0.25	7.0	E	86.0	93.4	93.4	29.632	0.00	0.00	0.000	0.219

Gowanus Phase III Weather Data 9/03/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/03/10	1:30p	86.0	86.1	85.9	65	72.9	1.0	NNE	0.25	8.0	NNE	86.0	93.4	93.4	29.619	0.00	0.00	0.000	0.219
9/03/10	1:45p	85.7	86.1	85.7	65	72.6	2.0	S	0.50	10.0	N	85.7	92.7	92.7	29.613	0.00	0.00	0.000	0.216
9/03/10	2:00p	85.8	85.9	85.7	66	73.1	1.0	ESE	0.25	8.0	N	85.8	93.3	93.3	29.602	0.00	0.00	0.000	0.217
9/03/10	2:15p	85.2	85.8	85.2	68	73.4	2.0	ESE	0.50	8.0	ESE	85.2	92.7	92.7	29.598	0.00	0.00	0.000	0.210
9/03/10	2:30p	84.2	85.2	84.2	70	73.3	2.0	NNE	0.50	11.0	NE	84.2	91.3	91.3	29.583	0.00	0.00	0.000	0.200
9/03/10	2:45p	83.3	84.1	83.2	71	72.9	3.0	NNE	0.75	9.0	NNW	83.3	89.5	89.5	29.570	0.00	0.00	0.000	0.191
9/03/10	3:00p	83.2	83.8	83.2	73	73.6	2.0	ENE	0.50	9.0	NE	83.2	89.9	89.9	29.571	0.00	0.00	0.000	0.190
9/03/10	3:15p	82.2	83.2	82.2	76	73.9	3.0	ESE	0.75	11.0	NNE	82.2	88.3	88.3	29.556	0.00	0.00	0.000	0.179
9/03/10	3:30p	82.5	82.5	82.1	75	73.8	3.0	NNE	0.75	11.0	N	82.5	88.8	88.8	29.551	0.00	0.00	0.000	0.182
9/03/10	3:45p	82.1	82.6	82.1	75	73.4	3.0	ENE	0.75	13.0	N	82.1	87.8	87.8	29.538	0.00	0.00	0.000	0.178
9/03/10	4:00p	81.6	82.1	81.6	75	72.9	3.0	ENE	0.75	11.0	NNW	81.6	86.7	86.7	29.525	0.00	0.00	0.000	0.173
9/03/10	4:15p	81.1	81.6	81.1	76	72.8	4.0	ENE	1.00	10.0	NNW	81.1	85.8	85.8	29.523	0.00	0.00	0.000	0.168
9/03/10	4:30p	80.9	81.1	80.9	76	72.6	4.0	ENE	1.00	10.0	NNE	80.9	85.4	85.4	29.525	0.00	0.00	0.000	0.166
9/03/10	4:45p	80.8	80.9	80.7	77	72.9	4.0	E	1.00	9.0	NNE	80.8	85.5	85.5	29.514	0.00	0.00	0.000	0.165
9/03/10	5:00p	81.1	81.1	80.8	76	72.8	2.0	N	0.50	11.0	NNE	81.1	85.8	85.8	29.509	0.00	0.00	0.000	0.168
9/03/10	5:15p	82.1	82.1	81.1	75	73.4	1.0	SSE	0.25	7.0	S	82.1	87.8	87.8	29.503	0.00	0.00	0.000	0.178
9/03/10	5:30p	82.9	82.9	82.1	73	73.4	1.0	SSE	0.25	6.0	N	82.9	89.2	89.2	29.494	0.00	0.00	0.000	0.186
9/03/10	5:45p	83.4	83.4	82.9	71	73.0	1.0	S	0.25	6.0	SSE	83.4	89.7	89.7	29.497	0.00	0.00	0.000	0.192
9/03/10	6:00p	83.6	83.6	83.4	69	72.3	1.0	NE	0.25	6.0	NE	83.6	89.6	89.6	29.494	0.00	0.00	0.000	0.194
9/03/10	6:15p	83.4	83.6	83.4	70	72.6	1.0	NNE	0.25	7.0	NE	83.4	89.4	89.4	29.488	0.00	0.00	0.000	0.192
9/03/10	6:30p	83.1	83.4	83.0	70	72.3	2.0	WSW	0.50	8.0	NNE	83.1	88.6	88.6	29.483	0.00	0.00	0.000	0.189
9/03/10	6:45p	83.1	83.1	83.0	69	71.9	3.0	ENE	0.75	11.0	NNE	83.1	88.3	88.3	29.479	0.00	0.00	0.000	0.189
9/03/10	7:00p	83.2	83.2	83.1	68	71.5	1.0	NNE	0.25	6.0	W	83.2	88.3	88.3	29.479	0.00	0.00	0.000	0.190
9/03/10	7:15p	82.9	83.1	82.8	69	71.7	1.0	NE	0.25	8.0	N	82.9	87.9	87.9	29.482	0.00	0.00	0.000	0.186
9/03/10	7:30p	82.9	82.9	82.8	69	71.7	1.0	NNE	0.25	7.0	NNE	82.9	87.9	87.9	29.484	0.00	0.00	0.000	0.186
9/03/10	7:45p	82.9	82.9	82.9	69	71.7	0.0	NE	0.00	3.0	NE	82.9	87.9	87.9	29.492	0.00	0.00	0.000	0.186
9/03/10	8:00p	82.7	82.9	82.7	69	71.5	1.0	ENE	0.25	6.0	NE	82.7	87.5	87.5	29.491	0.00	0.00	0.000	0.184
9/03/10	8:15p	82.7	82.8	82.6	70	71.9	1.0	NE	0.25	5.0	ENE	82.7	87.8	87.8	29.483	0.00	0.00	0.000	0.184
9/03/10	8:30p	82.5	82.6	82.5	70	71.7	0.0	N	0.00	4.0	S	82.5	87.4	87.4	29.483	0.00	0.00	0.000	0.182
9/03/10	8:45p	82.3	82.5	82.3	69	71.1	1.0	N	0.25	6.0	W	82.3	86.7	86.7	29.481	0.00	0.00	0.000	0.180
9/03/10	9:00p	81.8	82.3	81.8	69	70.6	1.0	WNW	0.25	6.0	N	81.8	85.7	85.7	29.491	0.00	0.00	0.000	0.175
9/03/10	9:15p	81.4	81.8	81.4	69	70.2	1.0	WSW	0.25	7.0	N	81.4	85.0	85.0	29.494	0.00	0.00	0.000	0.171
9/03/10	9:30p	81.2	81.4	81.2	69	70.1	0.0	NNE	0.00	4.0	N	81.2	84.6	84.6	29.493	0.00	0.00	0.000	0.169
9/03/10	9:45p	81.1	81.2	81.1	69	70.0	1.0	NNE	0.25	6.0	NNE	81.1	84.4	84.4	29.481	0.00	0.00	0.000	0.168
9/03/10	10:00p	81.1	81.1	81.1	69	70.0	1.0	NNE	0.25	6.0	NNE	81.1	84.4	84.4	29.479	0.00	0.00	0.000	0.168
9/03/10	10:15p	81.2	81.2	81.1	69	70.1	0.0	NNE	0.00	5.0	NNE	81.2	84.6	84.6	29.477	0.00	0.00	0.000	0.169
9/03/10	10:30p	81.2	81.2	81.2	69	70.1	0.0	ESE	0.00	2.0	NNW	81.2	84.6	84.6	29.473	0.00	0.00	0.000	0.169
9/03/10	10:45p	81.1	81.2	81.1	69	70.0	1.0	NNW	0.25	5.0	SW	81.1	84.4	84.4	29.462	0.00	0.00	0.000	0.168
9/03/10	11:00p	80.9	81.1	80.9	70	70.2	0.0	N	0.00	4.0	N	80.9	84.2	84.2	29.463	0.00	0.00	0.000	0.166
9/03/10	11:15p	80.4	80.9	80.4	70	69.7	0.0	N	0.00	1.0	N	80.4	83.4	83.4	29.463	0.00	0.00	0.000	0.160
9/03/10	11:30p	80.2	80.4	80.2	70	69.5	0.0	N	0.00	2.0	N	80.2	83.0	83.0	29.463	0.00	0.00	0.000	0.158
9/03/10	11:45p	79.6	80.2	79.6	71	69.4	0.0	N	0.00	1.0	N	79.6	82.3	82.3	29.462	0.00	0.00	0.000	0.152
9/04/10	12:00a	79.1	79.6	79.1	71	68.9	0.0	N	0.00	2.0	NNW	79.1	81.6	81.6	29.463	0.00	0.00	0.000	0.147

Gowanus Phase III Weather Data 9/04/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/04/10	12:15a	78.7	79.1	78.7	71	68.5	0.0	NNW	0.00	4.0	NNW	78.7	81.0	81.0	29.463	0.00	0.00	0.000	0.143
9/04/10	12:30a	78.4	78.7	78.4	71	68.2	0.0	NW	0.00	2.0	NW	78.4	80.6	80.6	29.465	0.00	0.00	0.000	0.140
9/04/10	12:45a	78.4	78.4	78.3	72	68.6	1.0	WSW	0.25	5.0	WSW	78.4	80.8	80.8	29.485	0.00	0.00	0.000	0.140
9/04/10	1:00a	78.1	78.4	78.1	72	68.3	0.0	WSW	0.00	5.0	WSW	78.1	80.4	80.4	29.482	0.00	0.00	0.000	0.136
9/04/10	1:15a	77.9	78.1	77.9	72	68.1	0.0	WSW	0.00	4.0	WSW	77.9	80.1	80.1	29.481	0.00	0.00	0.000	0.134
9/04/10	1:30a	77.7	77.9	77.7	73	68.4	0.0	WSW	0.00	3.0	WSW	77.7	80.0	80.0	29.482	0.00	0.00	0.000	0.132
9/04/10	1:45a	77.8	77.8	77.7	72	68.0	0.0	WSW	0.00	6.0	WSW	77.8	80.0	80.0	29.483	0.00	0.00	0.000	0.133
9/04/10	2:00a	77.8	77.8	77.8	72	68.0	0.0	WSW	0.00	4.0	WSW	77.8	80.0	80.0	29.483	0.00	0.00	0.000	0.133
9/04/10	2:15a	77.7	77.8	77.6	72	68.0	0.0	WSW	0.00	2.0	WSW	77.7	79.9	79.9	29.482	0.00	0.00	0.000	0.132
9/04/10	2:30a	77.6	77.6	77.6	72	67.9	0.0	WSW	0.00	4.0	WSW	77.6	79.8	79.8	29.481	0.00	0.00	0.000	0.131
9/04/10	2:45a	77.9	77.9	77.6	70	67.3	1.0	W	0.25	6.0	S	77.9	79.9	79.9	29.492	0.00	0.00	0.000	0.134
9/04/10	3:00a	78.0	78.1	77.9	70	67.4	0.0	WSW	0.00	5.0	WSW	78.0	80.0	80.0	29.485	0.00	0.00	0.000	0.135
9/04/10	3:15a	77.6	78.0	77.6	71	67.4	0.0	SW	0.00	6.0	SW	77.6	79.7	79.7	29.493	0.00	0.00	0.000	0.131
9/04/10	3:30a	77.3	77.6	77.3	71	67.2	1.0	WSW	0.25	5.0	WSW	77.3	79.4	79.4	29.502	0.00	0.00	0.000	0.128
9/04/10	3:45a	77.5	77.5	77.1	54	59.5	2.0	WSW	0.50	11.0	NNE	77.5	77.8	77.8	29.510	0.00	0.00	0.000	0.130
9/04/10	4:00a	77.5	77.7	77.5	51	57.9	2.0	W	0.50	8.0	W	77.5	77.5	77.5	29.515	0.00	0.00	0.000	0.130
9/04/10	4:15a	77.1	77.5	77.1	47	55.3	2.0	W	0.50	7.0	W	77.1	76.7	76.7	29.524	0.00	0.00	0.000	0.126
9/04/10	4:30a	76.6	77.1	76.6	50	56.6	1.0	W	0.25	5.0	W	76.6	76.5	76.5	29.528	0.00	0.00	0.000	0.121
9/04/10	4:45a	76.1	76.6	76.1	51	56.7	1.0	WSW	0.25	6.0	W	76.1	76.1	76.1	29.532	0.00	0.00	0.000	0.116
9/04/10	5:00a	75.7	76.1	75.7	51	56.3	1.0	WSW	0.25	7.0	W	75.7	75.8	75.8	29.539	0.00	0.00	0.000	0.111
9/04/10	5:15a	75.2	75.6	75.2	51	55.8	1.0	NW	0.25	6.0	W	75.2	75.4	75.4	29.540	0.00	0.00	0.000	0.106
9/04/10	5:30a	74.7	75.2	74.7	52	55.9	0.0	W	0.00	5.0	W	74.7	74.9	74.9	29.541	0.00	0.00	0.000	0.101
9/04/10	5:45a	74.4	74.7	74.3	52	55.6	1.0	W	0.25	6.0	WSW	74.4	74.4	74.4	29.543	0.00	0.00	0.000	0.098
9/04/10	6:00a	74.0	74.3	74.0	53	55.8	1.0	WSW	0.25	5.0	WSW	74.0	74.0	74.0	29.555	0.00	0.00	0.000	0.094
9/04/10	6:15a	73.7	74.0	73.7	54	56.0	1.0	W	0.25	5.0	WSW	73.7	73.7	73.7	29.558	0.00	0.00	0.000	0.091
9/04/10	6:30a	73.3	73.6	73.3	55	56.2	1.0	WSW	0.25	4.0	WSW	73.3	73.4	73.4	29.569	0.00	0.00	0.000	0.086
9/04/10	6:45a	73.2	73.3	73.2	55	56.1	1.0	W	0.25	8.0	SW	73.2	73.2	73.2	29.571	0.00	0.00	0.000	0.085
9/04/10	7:00a	73.1	73.2	73.1	56	56.5	1.0	WSW	0.25	6.0	WSW	73.1	73.2	73.2	29.573	0.00	0.00	0.000	0.084
9/04/10	7:15a	73.4	73.4	73.1	56	56.7	1.0	WNW	0.25	4.0	WNW	73.4	73.6	73.6	29.582	0.00	0.00	0.000	0.088
9/04/10	7:30a	73.7	73.7	73.4	56	57.0	1.0	W	0.25	6.0	SW	73.7	73.9	73.9	29.587	0.00	0.00	0.000	0.091
9/04/10	7:45a	73.9	74.1	73.8	57	57.7	1.0	WSW	0.25	7.0	WSW	73.9	74.3	74.3	29.589	0.00	0.00	0.000	0.093
9/04/10	8:00a	74.0	74.0	73.8	60	59.2	2.0	W	0.50	7.0	SW	74.0	74.7	74.7	29.590	0.00	0.00	0.000	0.094
9/04/10	8:15a	74.6	74.6	74.0	61	60.3	2.0	WSW	0.50	10.0	WSW	74.6	75.5	75.5	29.597	0.00	0.00	0.000	0.100
9/04/10	8:30a	75.1	75.1	74.6	60	60.3	2.0	WSW	0.50	9.0	E	75.1	76.0	76.0	29.599	0.00	0.00	0.000	0.105
9/04/10	8:45a	74.8	75.2	74.8	57	58.5	2.0	WSW	0.50	7.0	SW	74.8	75.4	75.4	29.601	0.00	0.00	0.000	0.102
9/04/10	9:00a	75.4	75.4	74.8	56	58.6	2.0	WSW	0.50	8.0	SW	75.4	75.9	75.9	29.602	0.00	0.00	0.000	0.108
9/04/10	9:15a	75.9	75.9	75.4	51	56.5	3.0	WSW	0.75	8.0	W	75.9	76.0	76.0	29.602	0.00	0.00	0.000	0.114
9/04/10	9:30a	75.9	76.1	75.8	50	55.9	3.0	W	0.75	10.0	WSW	75.9	75.9	75.9	29.605	0.00	0.00	0.000	0.114
9/04/10	9:45a	76.6	76.6	76.0	49	56.0	2.0	W	0.50	8.0	SW	76.6	76.4	76.4	29.602	0.00	0.00	0.000	0.121
9/04/10	10:00a	77.1	77.1	76.5	47	55.3	2.0	WSW	0.50	11.0	SSW	77.1	76.7	76.7	29.608	0.00	0.00	0.000	0.126
9/04/10	10:15a	77.7	77.7	77.1	43	53.4	3.0	WSW	0.75	8.0	SSW	77.7	77.1	77.1	29.605	0.00	0.00	0.000	0.132
9/04/10	10:30a	78.3	78.5	77.7	41	52.7	3.0	WSW	0.75	11.0	SW	78.3	77.5	77.5	29.610	0.00	0.00	0.000	0.139
9/04/10	10:45a	79.1	79.1	78.3	39	52.0	2.0	WSW	0.50	10.0	SW	79.1	78.2	78.2	29.610	0.00	0.00	0.000	0.147
9/04/10	11:00a	79.1	79.2	78.7	40	52.7	3.0	W	0.75	12.0	SW	79.1	78.3	78.3	29.610	0.00	0.00	0.000	0.147
9/04/10	11:15a	79.2	79.2	79.0	39	52.1	3.0	SW	0.75	9.0	SSW	79.2	78.3	78.3	29.616	0.00	0.00	0.000	0.148
9/04/10	11:30a	79.7	79.7	79.0	38	51.8	2.0	NW	0.50	10.0	W	79.7	78.6	78.6	29.617	0.00	0.00	0.000	0.153
9/04/10	11:45a	80.5	80.5	79.7	38	52.6	2.0	WSW	0.50	8.0	WSW	80.5	79.3	79.3	29.611	0.00	0.00	0.000	0.161
9/04/10	12:00p	80.3	80.5	80.0	38	52.4	4.0	WSW	1.00	9.0	W	80.3	79.1	79.1	29.613	0.00	0.00	0.000	0.159
9/04/10	12:15p	80.6	80.8	80.3	37	51.9	3.0	WSW	0.75	10.0	WSW	80.6	79.3	79.3	29.613	0.00	0.00	0.000	0.162
9/04/10	12:30p	80.4	80.6	80.3	38	52.5	4.0	WSW	1.00	10.0	SW	80.4	79.2	79.2	29.616	0.00	0.00	0.000	0.160
9/04/10	12:45p	80.8	81.0	80.4	37	52.1	4.0	W	1.00	10.0	WNW	80.8	79.5	79.5	29.617	0.00	0.00	0.000	0.165
9/04/10	1:00p	81.6	81.7	80.8	38	53.5	2.0	W	0.50	8.0	WSW	81.6	80.6	80.6	29.617	0.00	0.00	0.000	0.173
9/04/10	1:15p	81.0	82.0	81.0	38	53.0	3.0	SW	0.75	11.0	SW	81.0	79.8	79.8	29.617	0.00	0.00	0.000	0.167

Gowanus Phase III Weather Data 9/04/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/04/10	1:30p	81.5	81.5	80.9	37	52.7	3.0	W	0.75	11.0	SW	81.5	80.3	80.3	29.618	0.00	0.00	0.000	0.172
9/04/10	1:45p	82.2	82.2	81.5	38	54.1	2.0	W	0.50	9.0	SW	82.2	81.3	81.3	29.618	0.00	0.00	0.000	0.179
9/04/10	2:00p	82.8	82.8	82.2	37	53.9	2.0	WSW	0.50	10.0	SW	82.8	81.9	81.9	29.617	0.00	0.00	0.000	0.185
9/04/10	2:15p	82.1	83.0	82.1	38	54.0	2.0	WSW	0.50	9.0	SW	82.1	81.2	81.2	29.616	0.00	0.00	0.000	0.178
9/04/10	2:30p	81.3	82.0	81.1	38	53.3	3.0	WSW	0.75	9.0	WSW	81.3	80.2	80.2	29.619	0.00	0.00	0.000	0.170
9/04/10	2:45p	81.2	82.2	81.2	38	53.2	3.0	SW	0.75	13.0	SSW	81.2	80.1	80.1	29.618	0.00	0.00	0.000	0.169
9/04/10	3:00p	81.5	81.6	81.2	38	53.4	2.0	WNW	0.50	8.0	WSW	81.5	80.4	80.4	29.620	0.00	0.00	0.000	0.172
9/04/10	3:15p	81.2	81.5	81.0	38	53.2	3.0	W	0.75	9.0	W	81.2	80.1	80.1	29.623	0.00	0.00	0.000	0.169
9/04/10	3:30p	80.3	81.2	80.3	38	52.4	4.0	W	1.00	12.0	WSW	80.3	79.1	79.1	29.632	0.00	0.00	0.000	0.159
9/04/10	3:45p	80.5	80.5	80.2	39	53.3	2.0	WSW	0.50	9.0	SW	80.5	79.4	79.4	29.633	0.00	0.00	0.000	0.161
9/04/10	4:00p	79.0	80.6	79.0	38	51.2	3.0	W	0.75	9.0	W	79.0	78.0	78.0	29.633	0.00	0.00	0.000	0.146
9/04/10	4:15p	78.7	79.0	78.7	39	51.7	3.0	SW	0.75	9.0	SW	78.7	77.8	77.8	29.633	0.00	0.00	0.000	0.143
9/04/10	4:30p	79.3	79.3	78.7	38	51.5	3.0	WSW	0.75	10.0	WSW	79.3	78.3	78.3	29.633	0.00	0.00	0.000	0.149
9/04/10	4:45p	79.2	79.4	79.2	37	50.7	4.0	W	1.00	11.0	SW	79.2	78.1	78.1	29.635	0.00	0.00	0.000	0.148
9/04/10	5:00p	78.5	79.2	78.5	38	50.8	3.0	W	0.75	11.0	W	78.5	77.5	77.5	29.642	0.00	0.00	0.000	0.141
9/04/10	5:15p	78.7	78.7	78.4	37	50.2	4.0	WSW	1.00	11.0	WSW	78.7	77.6	77.6	29.645	0.00	0.00	0.000	0.143
9/04/10	5:30p	78.4	78.7	78.4	38	50.7	3.0	WSW	0.75	9.0	SW	78.4	77.4	77.4	29.642	0.00	0.00	0.000	0.140
9/04/10	5:45p	78.5	78.5	78.3	38	50.8	3.0	W	0.75	8.0	WSW	78.5	77.5	77.5	29.647	0.00	0.00	0.000	0.141
9/04/10	6:00p	78.2	78.6	78.2	38	50.5	2.0	WSW	0.50	11.0	W	78.2	77.2	77.2	29.653	0.00	0.00	0.000	0.137
9/04/10	6:15p	77.8	78.2	77.8	38	50.2	3.0	SW	0.75	11.0	WSW	77.8	76.8	76.8	29.662	0.00	0.00	0.000	0.133
9/04/10	6:30p	77.2	77.8	77.2	40	51.0	2.0	WNW	0.50	7.0	WSW	77.2	76.4	76.4	29.664	0.00	0.00	0.000	0.127
9/04/10	6:45p	76.7	77.2	76.7	41	51.2	2.0	W	0.50	9.0	WSW	76.7	75.9	75.9	29.674	0.00	0.00	0.000	0.122
9/04/10	7:00p	76.2	76.7	76.2	42	51.4	2.0	WSW	0.50	8.0	SW	76.2	75.5	75.5	29.679	0.00	0.00	0.000	0.117
9/04/10	7:15p	75.7	76.2	75.7	43	51.6	1.0	WSW	0.25	8.0	SW	75.7	75.1	75.1	29.682	0.00	0.00	0.000	0.111
9/04/10	7:30p	75.3	75.7	75.3	42	50.6	2.0	WSW	0.50	9.0	SW	75.3	74.7	74.7	29.694	0.00	0.00	0.000	0.107
9/04/10	7:45p	74.8	75.3	74.8	42	50.2	2.0	WSW	0.50	10.0	W	74.8	74.2	74.2	29.697	0.00	0.00	0.000	0.102
9/04/10	8:00p	74.4	74.8	74.4	43	50.4	2.0	WSW	0.50	11.0	SSW	74.4	73.8	73.8	29.710	0.00	0.00	0.000	0.098
9/04/10	8:15p	73.9	74.4	73.9	44	50.6	3.0	W	0.75	11.0	SW	73.9	73.2	73.2	29.725	0.00	0.00	0.000	0.093
9/04/10	8:30p	73.5	73.9	73.5	44	50.2	2.0	WSW	0.50	10.0	W	73.5	72.7	72.7	29.728	0.00	0.00	0.000	0.089
9/04/10	8:45p	73.1	73.5	73.1	44	49.9	2.0	W	0.50	8.0	SSE	73.1	72.2	72.2	29.741	0.00	0.00	0.000	0.084
9/04/10	9:00p	72.8	73.1	72.8	45	50.2	2.0	W	0.50	8.0	SW	72.8	71.8	71.8	29.755	0.00	0.00	0.000	0.081
9/04/10	9:15p	72.1	72.8	72.1	46	50.2	2.0	WSW	0.50	7.0	WSW	72.1	70.8	70.8	29.759	0.00	0.00	0.000	0.074
9/04/10	9:30p	71.3	72.0	71.3	48	50.6	2.0	W	0.50	10.0	WSW	71.3	69.9	69.9	29.772	0.00	0.00	0.000	0.066
9/04/10	9:45p	70.7	71.3	70.7	48	50.0	2.0	W	0.50	7.0	W	70.7	69.0	69.0	29.771	0.00	0.00	0.000	0.059
9/04/10	10:00p	70.2	70.7	70.2	47	49.0	1.0	WSW	0.25	7.0	WSW	70.2	68.3	68.3	29.779	0.00	0.00	0.000	0.054
9/04/10	10:15p	69.8	70.2	69.8	47	48.7	2.0	WSW	0.50	6.0	WSW	69.8	67.9	67.9	29.787	0.00	0.00	0.000	0.050
9/04/10	10:30p	69.4	69.7	69.4	48	48.9	1.0	W	0.25	7.0	W	69.4	67.7	67.7	29.793	0.00	0.00	0.000	0.046
9/04/10	10:45p	68.6	69.4	68.6	48	48.1	2.0	W	0.50	9.0	WSW	68.6	67.0	67.0	29.801	0.00	0.00	0.000	0.037
9/04/10	11:00p	68.0	68.6	68.0	48	47.6	3.0	W	0.75	11.0	WSW	68.0	66.5	66.5	29.803	0.00	0.00	0.000	0.031
9/04/10	11:15p	67.6	68.0	67.6	50	48.3	2.0	WSW	0.50	8.0	WSW	67.6	66.3	66.3	29.809	0.00	0.00	0.000	0.027
9/04/10	11:30p	67.2	67.6	67.2	50	47.9	1.0	WNW	0.25	9.0	W	67.2	65.8	65.8	29.817	0.00	0.00	0.000	0.023
9/04/10	11:45p	66.9	67.2	66.9	52	48.7	1.0	W	0.25	7.0	SSW	66.9	65.7	65.7	29.824	0.00	0.00	0.000	0.020
9/05/10	12:00a	66.5	66.9	66.5	53	48.8	1.0	W	0.25	9.0	ESE	66.5	65.3	65.3	29.830	0.00	0.00	0.000	0.016

Gowanus Phase III Weather Data 9/05/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/05/10	12:15a	66.2	66.5	66.2	53	48.6	1.0	W	0.25	7.0	SSE	66.2	64.9	64.9	29.833	0.00	0.00	0.000	0.012
9/05/10	12:30a	66.0	66.2	66.0	55	49.4	1.0	WSW	0.25	8.0	SW	66.0	64.9	64.9	29.839	0.00	0.00	0.000	0.010
9/05/10	12:45a	65.7	66.0	65.7	55	49.1	1.0	NW	0.25	6.0	NNE	65.7	64.6	64.6	29.845	0.00	0.00	0.000	0.007
9/05/10	1:00a	65.4	65.7	65.4	55	48.8	1.0	WSW	0.25	6.0	SW	65.4	64.2	64.2	29.840	0.00	0.00	0.000	0.004
9/05/10	1:15a	65.2	65.4	65.2	55	48.6	1.0	WSW	0.25	5.0	WSW	65.2	64.0	64.0	29.834	0.00	0.00	0.000	0.002
9/05/10	1:30a	65.0	65.2	65.0	56	48.9	1.0	WSW	0.25	9.0	WSW	65.0	63.9	63.9	29.833	0.00	0.00	0.000	0.000
9/05/10	1:45a	64.9	65.0	64.8	56	48.8	0.0	WSW	0.00	5.0	WSW	64.9	63.8	63.8	29.833	0.00	0.00	0.001	0.000
9/05/10	2:00a	64.6	64.9	64.6	56	48.5	1.0	WSW	0.25	7.0	SW	64.6	63.4	63.4	29.835	0.00	0.00	0.004	0.000
9/05/10	2:15a	64.5	64.7	64.5	56	48.4	0.0	SW	0.00	5.0	NNW	64.5	63.3	63.3	29.833	0.00	0.00	0.005	0.000
9/05/10	2:30a	64.5	64.5	64.4	56	48.4	0.0	WSW	0.00	5.0	WSW	64.5	63.3	63.3	29.831	0.00	0.00	0.005	0.000
9/05/10	2:45a	64.4	64.5	64.4	56	48.4	1.0	WSW	0.25	5.0	SW	64.4	63.2	63.2	29.833	0.00	0.00	0.006	0.000
9/05/10	3:00a	64.3	64.4	64.3	57	48.7	0.0	WSW	0.00	4.0	WSW	64.3	63.2	63.2	29.833	0.00	0.00	0.007	0.000
9/05/10	3:15a	64.2	64.3	64.2	57	48.6	1.0	W	0.25	5.0	WSW	64.2	63.1	63.1	29.835	0.00	0.00	0.008	0.000
9/05/10	3:30a	64.0	64.2	64.0	57	48.5	0.0	W	0.00	1.0	W	64.0	62.9	62.9	29.833	0.00	0.00	0.010	0.000
9/05/10	3:45a	63.8	64.0	63.8	57	48.3	1.0	W	0.25	5.0	W	63.8	62.6	62.6	29.832	0.00	0.00	0.013	0.000
9/05/10	4:00a	63.6	63.8	63.6	58	48.5	1.0	SW	0.25	6.0	WSW	63.6	62.5	62.5	29.833	0.00	0.00	0.015	0.000
9/05/10	4:15a	63.5	63.6	63.5	58	48.5	0.0	SW	0.00	4.0	SW	63.5	62.4	62.4	29.834	0.00	0.00	0.016	0.000
9/05/10	4:30a	63.4	63.5	63.4	58	48.4	0.0	SW	0.00	5.0	SW	63.4	62.2	62.2	29.834	0.00	0.00	0.017	0.000
9/05/10	4:45a	63.3	63.4	63.3	59	48.7	0.0	SW	0.00	3.0	SW	63.3	62.2	62.2	29.840	0.00	0.00	0.018	0.000
9/05/10	5:00a	63.1	63.3	63.1	59	48.5	0.0	SW	0.00	2.0	SW	63.1	62.0	62.0	29.842	0.00	0.00	0.020	0.000
9/05/10	5:15a	63.1	63.2	63.1	59	48.5	0.0	SW	0.00	4.0	SW	63.1	62.0	62.0	29.849	0.00	0.00	0.020	0.000
9/05/10	5:30a	63.1	63.1	63.1	60	49.0	0.0	SW	0.00	2.0	SW	63.1	62.0	62.0	29.856	0.00	0.00	0.020	0.000
9/05/10	5:45a	62.8	63.1	62.8	62	49.6	0.0	SW	0.00	4.0	SW	62.8	61.9	61.9	29.863	0.00	0.00	0.023	0.000
9/05/10	6:00a	62.5	62.8	62.5	63	49.7	0.0	SW	0.00	4.0	SW	62.5	61.7	61.7	29.864	0.00	0.00	0.026	0.000
9/05/10	6:15a	62.5	62.5	62.4	62	49.3	0.0	SW	0.00	4.0	SW	62.5	61.6	61.6	29.873	0.00	0.00	0.026	0.000
9/05/10	6:30a	62.6	62.6	62.5	63	49.8	1.0	SW	0.25	6.0	SW	62.6	61.8	61.8	29.879	0.00	0.00	0.025	0.000
9/05/10	6:45a	62.7	62.7	62.6	62	49.5	1.0	SW	0.25	5.0	WSW	62.7	61.8	61.8	29.882	0.00	0.00	0.024	0.000
9/05/10	7:00a	62.8	62.8	62.7	62	49.6	1.0	SW	0.25	8.0	SW	62.8	61.9	61.9	29.894	0.00	0.00	0.023	0.000
9/05/10	7:15a	63.4	63.4	62.8	60	49.3	1.0	WSW	0.25	7.0	SW	63.4	62.4	62.4	29.895	0.00	0.00	0.017	0.000
9/05/10	7:30a	63.9	63.9	63.4	60	49.7	1.0	SW	0.25	7.0	SW	63.9	63.0	63.0	29.906	0.00	0.00	0.011	0.000
9/05/10	7:45a	63.5	64.0	63.5	60	49.4	2.0	SW	0.50	7.0	SSW	63.5	62.5	62.5	29.910	0.00	0.00	0.016	0.000
9/05/10	8:00a	64.0	64.0	63.5	61	50.3	1.0	SW	0.25	6.0	SW	64.0	63.2	63.2	29.912	0.00	0.00	0.010	0.000
9/05/10	8:15a	65.6	65.6	64.0	59	50.9	0.0	W	0.00	2.0	W	65.6	64.8	64.8	29.921	0.00	0.00	0.000	0.006
9/05/10	8:30a	66.1	66.3	65.6	57	50.4	1.0	WSW	0.25	9.0	SW	66.1	65.2	65.2	29.925	0.00	0.00	0.000	0.011
9/05/10	8:45a	66.6	66.6	66.1	55	49.9	1.0	W	0.25	6.0	WSW	66.6	65.6	65.6	29.925	0.00	0.00	0.000	0.017
9/05/10	9:00a	67.1	67.2	66.6	54	49.9	2.0	WSW	0.50	6.0	WSW	67.1	66.1	66.1	29.931	0.00	0.00	0.000	0.022
9/05/10	9:15a	67.6	67.6	67.1	53	49.9	2.0	SW	0.50	9.0	WSW	67.6	66.6	66.6	29.932	0.00	0.00	0.000	0.027
9/05/10	9:30a	68.8	68.8	67.7	50	49.4	2.0	WSW	0.50	6.0	SW	68.8	67.4	67.4	29.936	0.00	0.00	0.000	0.040
9/05/10	9:45a	69.6	69.6	68.8	48	49.0	2.0	WSW	0.50	7.0	SW	69.6	67.8	67.8	29.939	0.00	0.00	0.000	0.048
9/05/10	10:00a	70.4	70.4	69.6	46	48.6	2.0	W	0.50	8.0	WNW	70.4	68.4	68.4	29.939	0.00	0.00	0.000	0.056
9/05/10	10:15a	71.0	71.2	70.5	46	49.2	1.0	WSW	0.25	9.0	WSW	71.0	69.2	69.2	29.941	0.00	0.00	0.000	0.063
9/05/10	10:30a	71.6	71.6	71.0	45	49.1	1.0	W	0.25	8.0	SW	71.6	70.0	70.0	29.940	0.00	0.00	0.000	0.069
9/05/10	10:45a	72.6	72.7	71.4	43	48.8	1.0	SW	0.25	8.0	SSW	72.6	71.3	71.3	29.941	0.00	0.00	0.000	0.079
9/05/10	11:00a	72.4	72.6	72.1	42	48.0	2.0	SW	0.50	7.0	WSW	72.4	70.9	70.9	29.941	0.00	0.00	0.000	0.077
9/05/10	11:15a	73.0	73.4	72.4	40	47.2	1.0	WSW	0.25	12.0	SW	73.0	71.7	71.7	29.941	0.00	0.00	0.000	0.083
9/05/10	11:30a	72.9	73.4	72.9	40	47.2	2.0	WSW	0.50	10.0	W	72.9	71.5	71.5	29.940	0.00	0.00	0.000	0.082
9/05/10	11:45a	74.0	74.1	72.9	38	46.8	2.0	WSW	0.50	10.0	W	74.0	72.9	72.9	29.941	0.00	0.00	0.000	0.094
9/05/10	12:00p	74.8	74.9	74.0	36	46.1	2.0	W	0.50	9.0	W	74.8	73.7	73.7	29.938	0.00	0.00	0.000	0.102
9/05/10	12:15p	74.9	74.9	74.2	38	47.6	2.0	WSW	0.50	9.0	SW	74.9	73.9	73.9	29.929	0.00	0.00	0.000	0.103
9/05/10	12:30p	75.3	75.4	74.9	38	47.9	2.0	WSW	0.50	7.0	WSW	75.3	74.3	74.3	29.926	0.00	0.00	0.000	0.107
9/05/10	12:45p	76.3	76.4	75.4	35	46.6	2.0	WSW	0.50	8.0	SW	76.3	75.2	75.2	29.926	0.00	0.00	0.000	0.118
9/05/10	1:00p	75.6	76.2	75.6	36	46.8	3.0	WSW	0.75	8.0	S	75.6	74.5	74.5	29.926	0.00	0.00	0.000	0.110
9/05/10	1:15p	75.5	76.2	75.3	36	46.7	3.0	SW	0.75	10.0	SSW	75.5	74.4	74.4	29.925	0.00	0.00	0.000	0.109

Gowanus Phase III Weather Data 9/05/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/05/10	1:30p	75.8	76.7	75.6	35	46.2	2.0	SW	0.50	11.0	S	75.8	74.6	74.6	29.925	0.00	0.00	0.000	0.113
9/05/10	1:45p	77.3	77.4	75.9	34	46.7	2.0	WSW	0.50	7.0	SW	77.3	76.2	76.2	29.925	0.00	0.00	0.000	0.128
9/05/10	2:00p	77.4	77.4	77.0	35	47.6	2.0	SW	0.50	9.0	SW	77.4	76.3	76.3	29.925	0.00	0.00	0.000	0.129
9/05/10	2:15p	79.2	79.3	77.4	33	47.6	1.0	SW	0.25	7.0	SW	79.2	77.7	77.7	29.925	0.00	0.00	0.000	0.148
9/05/10	2:30p	78.7	79.2	78.7	34	48.0	2.0	SW	0.50	10.0	WSW	78.7	77.4	77.4	29.923	0.00	0.00	0.000	0.143
9/05/10	2:45p	78.5	78.7	77.8	35	48.6	3.0	WSW	0.75	9.0	WSW	78.5	77.3	77.3	29.922	0.00	0.00	0.000	0.141
9/05/10	3:00p	79.6	79.6	78.4	33	48.0	1.0	WSW	0.25	9.0	SW	79.6	78.0	78.0	29.913	0.00	0.00	0.000	0.152
9/05/10	3:15p	79.6	79.8	79.4	34	48.8	1.0	W	0.25	8.0	SW	79.6	78.1	78.1	29.913	0.00	0.00	0.000	0.152
9/05/10	3:30p	78.9	79.8	78.8	33	47.3	2.0	WSW	0.50	9.0	SW	78.9	77.5	77.5	29.916	0.00	0.00	0.000	0.145
9/05/10	3:45p	78.5	78.9	78.5	33	47.0	2.0	WSW	0.50	10.0	SSW	78.5	77.1	77.1	29.912	0.00	0.00	0.000	0.141
9/05/10	4:00p	77.8	78.4	77.8	34	47.2	1.0	WSW	0.25	7.0	SSE	77.8	76.5	76.5	29.911	0.00	0.00	0.000	0.133
9/05/10	4:15p	77.3	77.8	77.3	35	47.5	1.0	W	0.25	8.0	WSW	77.3	76.2	76.2	29.911	0.00	0.00	0.000	0.128
9/05/10	4:30p	76.9	77.4	76.9	36	47.9	1.0	SW	0.25	8.0	WSW	76.9	75.9	75.9	29.913	0.00	0.00	0.000	0.124
9/05/10	4:45p	76.6	76.9	76.6	36	47.6	2.0	WSW	0.50	8.0	SW	76.6	75.6	75.6	29.912	0.00	0.00	0.000	0.121
9/05/10	5:00p	76.6	76.7	76.5	35	46.9	2.0	WSW	0.50	7.0	SW	76.6	75.5	75.5	29.914	0.00	0.00	0.000	0.121
9/05/10	5:15p	76.6	76.6	76.5	36	47.6	1.0	WSW	0.25	6.0	W	76.6	75.6	75.6	29.919	0.00	0.00	0.000	0.121
9/05/10	5:30p	76.5	76.6	76.4	36	47.6	1.0	WSW	0.25	6.0	W	76.5	75.5	75.5	29.925	0.00	0.00	0.000	0.120
9/05/10	5:45p	76.2	76.5	76.2	36	47.3	1.0	WSW	0.25	8.0	WSW	76.2	75.1	75.1	29.926	0.00	0.00	0.000	0.117
9/05/10	6:00p	76.1	76.2	76.1	37	47.9	1.0	WSW	0.25	5.0	WSW	76.1	75.0	75.0	29.927	0.00	0.00	0.000	0.116
9/05/10	6:15p	75.7	76.0	75.7	37	47.6	1.0	SW	0.25	6.0	N	75.7	74.6	74.6	29.934	0.00	0.00	0.000	0.111
9/05/10	6:30p	75.1	75.7	75.1	37	47.0	1.0	WSW	0.25	6.0	WNW	75.1	74.1	74.1	29.941	0.00	0.00	0.000	0.105
9/05/10	6:45p	74.6	75.1	74.6	38	47.3	0.0	W	0.00	5.0	W	74.6	73.6	73.6	29.944	0.00	0.00	0.000	0.100
9/05/10	7:00p	74.2	74.6	74.2	40	48.3	1.0	W	0.25	5.0	WSW	74.2	73.3	73.3	29.956	0.00	0.00	0.000	0.096
9/05/10	7:15p	73.7	74.2	73.7	40	47.9	1.0	WSW	0.25	6.0	WSW	73.7	72.7	72.7	29.958	0.00	0.00	0.000	0.091
9/05/10	7:30p	73.3	73.7	73.3	41	48.2	1.0	WSW	0.25	5.0	SW	73.3	72.2	72.2	29.970	0.00	0.00	0.000	0.086
9/05/10	7:45p	72.9	73.3	72.9	42	48.5	0.0	WSW	0.00	2.0	WSW	72.9	71.7	71.7	29.973	0.00	0.00	0.000	0.082
9/05/10	8:00p	72.6	72.9	72.6	42	48.2	1.0	W	0.25	4.0	W	72.6	71.2	71.2	29.984	0.00	0.00	0.000	0.079
9/05/10	8:15p	72.3	72.6	72.3	42	47.9	1.0	WSW	0.25	7.0	NNE	72.3	70.8	70.8	29.988	0.00	0.00	0.000	0.076
9/05/10	8:30p	72.0	72.3	72.0	43	48.3	1.0	SW	0.25	5.0	SW	72.0	70.4	70.4	30.001	0.00	0.00	0.000	0.073
9/05/10	8:45p	71.7	72.0	71.7	43	48.0	0.0	WSW	0.00	4.0	WSW	71.7	69.9	69.9	30.005	0.00	0.00	0.000	0.070
9/05/10	9:00p	71.3	71.7	71.3	43	47.6	0.0	ENE	0.00	4.0	NE	71.3	69.4	69.4	30.014	0.00	0.00	0.000	0.066
9/05/10	9:15p	71.1	71.3	71.1	44	48.1	0.0	ENE	0.00	4.0	ENE	71.1	69.1	69.1	30.018	0.00	0.00	0.000	0.064
9/05/10	9:30p	70.8	71.1	70.8	45	48.4	0.0	E	0.00	2.0	E	70.8	68.8	68.8	30.018	0.00	0.00	0.000	0.060
9/05/10	9:45p	70.4	70.8	70.4	45	48.0	0.0	E	0.00	4.0	E	70.4	68.3	68.3	30.020	0.00	0.00	0.000	0.056
9/05/10	10:00p	70.1	70.4	70.1	45	47.8	0.0	E	0.00	2.0	E	70.1	67.9	67.9	30.027	0.00	0.00	0.000	0.053
9/05/10	10:15p	69.9	70.1	69.9	45	47.6	0.0	E	0.00	3.0	E	69.9	67.7	67.7	30.031	0.00	0.00	0.000	0.051
9/05/10	10:30p	69.6	69.9	69.6	45	47.3	0.0	E	0.00	5.0	E	69.6	67.5	67.5	30.033	0.00	0.00	0.000	0.048
9/05/10	10:45p	69.4	69.6	69.4	46	47.7	0.0	E	0.00	5.0	E	69.4	67.5	67.5	30.034	0.00	0.00	0.000	0.046
9/05/10	11:00p	69.0	69.4	69.0	47	47.9	0.0	E	0.00	1.0	E	69.0	67.3	67.3	30.044	0.00	0.00	0.000	0.042
9/05/10	11:15p	68.8	69.0	68.8	47	47.7	0.0	E	0.00	1.0	E	68.8	67.1	67.1	30.048	0.00	0.00	0.000	0.040
9/05/10	11:30p	68.6	68.8	68.6	48	48.1	0.0	E	0.00	2.0	E	68.6	67.0	67.0	30.049	0.00	0.00	0.000	0.037
9/05/10	11:45p	68.3	68.6	68.3	48	47.8	0.0	E	0.00	1.0	E	68.3	66.8	66.8	30.050	0.00	0.00	0.000	0.034
9/06/10	12:00a	67.7	68.2	67.7	50	48.4	0.0	---	0.00	0.0	---	67.7	66.4	66.4	30.051	0.00	0.00	0.000	0.028

Gowanus Phase III Weather Data 9/06/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/06/10	12:15a	67.3	67.7	67.3	50	48.0	0.0	E	0.00	1.0	E	67.3	65.9	65.9	30.052	0.00	0.00	0.000	0.024
9/06/10	12:30a	67.4	67.4	67.2	50	48.1	0.0	E	0.00	2.0	E	67.4	66.0	66.0	30.053	0.00	0.00	0.000	0.025
9/06/10	12:45a	67.2	67.4	67.2	51	48.5	0.0	---	0.00	0.0	---	67.2	65.9	65.9	30.059	0.00	0.00	0.000	0.023
9/06/10	1:00a	66.7	67.1	66.7	52	48.5	0.0	---	0.00	0.0	---	66.7	65.4	65.4	30.063	0.00	0.00	0.000	0.018
9/06/10	1:15a	66.5	66.7	66.5	53	48.8	0.0	---	0.00	0.0	---	66.5	65.3	65.3	30.065	0.00	0.00	0.000	0.016
9/06/10	1:30a	66.2	66.5	66.1	54	49.1	0.0	---	0.00	0.0	---	66.2	65.0	65.0	30.071	0.00	0.00	0.000	0.012
9/06/10	1:45a	66.1	66.2	66.1	53	48.5	0.0	E	0.00	1.0	E	66.1	64.8	64.8	30.078	0.00	0.00	0.000	0.011
9/06/10	2:00a	65.8	66.1	65.8	55	49.2	0.0	---	0.00	0.0	---	65.8	64.7	64.7	30.077	0.00	0.00	0.000	0.008
9/06/10	2:15a	65.6	65.8	65.6	55	49.0	0.0	E	0.00	1.0	E	65.6	64.5	64.5	30.079	0.00	0.00	0.000	0.006
9/06/10	2:30a	65.5	65.6	65.5	55	48.9	0.0	E	0.00	1.0	E	65.5	64.4	64.4	30.081	0.00	0.00	0.000	0.005
9/06/10	2:45a	65.3	65.5	65.3	55	48.7	0.0	E	0.00	1.0	E	65.3	64.1	64.1	30.091	0.00	0.00	0.000	0.003
9/06/10	3:00a	65.1	65.4	65.1	55	48.5	0.0	---	0.00	0.0	---	65.1	63.9	63.9	30.094	0.00	0.00	0.000	0.001
9/06/10	3:15a	64.9	65.1	64.9	55	48.3	0.0	E	0.00	1.0	E	64.9	63.7	63.7	30.095	0.00	0.00	0.001	0.000
9/06/10	3:30a	64.8	65.0	64.8	55	48.2	0.0	E	0.00	1.0	E	64.8	63.6	63.6	30.100	0.00	0.00	0.002	0.000
9/06/10	3:45a	64.5	64.8	64.5	57	48.9	0.0	---	0.00	0.0	---	64.5	63.4	63.4	30.100	0.00	0.00	0.005	0.000
9/06/10	4:00a	64.0	64.5	64.0	59	49.4	0.0	---	0.00	0.0	---	64.0	63.0	63.0	30.104	0.00	0.00	0.010	0.000
9/06/10	4:15a	63.5	64.0	63.5	59	48.9	0.0	---	0.00	0.0	---	63.5	62.4	62.4	30.107	0.00	0.00	0.016	0.000
9/06/10	4:30a	63.1	63.4	63.1	59	48.5	0.0	---	0.00	0.0	---	63.1	62.0	62.0	30.110	0.00	0.00	0.020	0.000
9/06/10	4:45a	62.7	63.1	62.7	61	49.1	0.0	---	0.00	0.0	---	62.7	61.7	61.7	30.111	0.00	0.00	0.024	0.000
9/06/10	5:00a	62.5	62.7	62.5	61	48.9	0.0	---	0.00	0.0	---	62.5	61.5	61.5	30.114	0.00	0.00	0.026	0.000
9/06/10	5:15a	62.1	62.5	62.1	61	48.5	0.0	---	0.00	0.0	---	62.1	61.0	61.0	30.116	0.00	0.00	0.030	0.000
9/06/10	5:30a	61.9	62.1	61.9	62	48.7	0.0	---	0.00	0.0	---	61.9	60.9	60.9	30.117	0.00	0.00	0.032	0.000
9/06/10	5:45a	61.9	62.0	61.9	62	48.7	0.0	---	0.00	0.0	---	61.9	60.9	60.9	30.122	0.00	0.00	0.032	0.000
9/06/10	6:00a	61.8	61.9	61.8	63	49.1	0.0	---	0.00	0.0	---	61.8	60.9	60.9	30.126	0.00	0.00	0.033	0.000
9/06/10	6:15a	61.6	61.8	61.6	65	49.7	0.0	---	0.00	0.0	---	61.6	60.9	60.9	30.134	0.00	0.00	0.035	0.000
9/06/10	6:30a	61.7	61.7	61.6	66	50.2	0.0	---	0.00	0.0	---	61.7	61.0	61.0	30.142	0.00	0.00	0.034	0.000
9/06/10	6:45a	61.9	61.9	61.6	68	51.2	0.0	---	0.00	0.0	---	61.9	61.3	61.3	30.152	0.00	0.00	0.032	0.000
9/06/10	7:00a	62.6	62.6	61.9	66	51.1	0.0	E	0.00	1.0	E	62.6	62.0	62.0	30.156	0.00	0.00	0.025	0.000
9/06/10	7:15a	63.8	63.8	62.6	65	51.8	0.0	E	0.00	1.0	E	63.8	63.3	63.3	30.164	0.00	0.00	0.013	0.000
9/06/10	7:30a	64.7	64.7	63.9	63	51.8	0.0	E	0.00	4.0	E	64.7	64.2	64.2	30.171	0.00	0.00	0.003	0.000
9/06/10	7:45a	65.4	65.4	64.7	62	52.0	0.0	E	0.00	1.0	E	65.4	64.8	64.8	30.172	0.00	0.00	0.000	0.004
9/06/10	8:00a	67.0	67.0	65.4	58	51.7	0.0	E	0.00	1.0	E	67.0	66.3	66.3	30.172	0.00	0.00	0.000	0.021
9/06/10	8:15a	68.1	68.1	67.0	55	51.3	0.0	E	0.00	1.0	E	68.1	67.3	67.3	30.174	0.00	0.00	0.000	0.032
9/06/10	8:30a	69.2	69.2	68.2	53	51.3	0.0	E	0.00	2.0	E	69.2	68.0	68.0	30.173	0.00	0.00	0.000	0.044
9/06/10	8:45a	70.5	70.5	69.3	51	51.5	0.0	E	0.00	2.0	E	70.5	69.0	69.0	30.175	0.00	0.00	0.000	0.057
9/06/10	9:00a	72.5	72.5	70.6	49	52.2	0.0	E	0.00	1.0	E	72.5	71.7	71.7	30.183	0.00	0.00	0.000	0.078
9/06/10	9:15a	73.0	73.0	72.5	48	52.1	0.0	E	0.00	2.0	E	73.0	72.3	72.3	30.187	0.00	0.00	0.000	0.083
9/06/10	9:30a	73.2	73.7	73.0	46	51.2	0.0	E	0.00	4.0	E	73.2	72.4	72.4	30.188	0.00	0.00	0.000	0.085
9/06/10	9:45a	74.7	74.7	73.3	44	51.3	0.0	E	0.00	2.0	E	74.7	74.2	74.2	30.191	0.00	0.00	0.000	0.101
9/06/10	10:00a	75.8	75.8	74.7	43	51.7	0.0	E	0.00	2.0	E	75.8	75.2	75.2	30.196	0.00	0.00	0.000	0.113
9/06/10	10:15a	77.0	77.0	75.8	41	51.5	0.0	E	0.00	2.0	E	77.0	76.3	76.3	30.200	0.00	0.00	0.000	0.125
9/06/10	10:30a	78.1	78.1	77.1	40	51.8	0.0	E	0.00	2.0	E	78.1	77.2	77.2	30.201	0.00	0.00	0.000	0.136
9/06/10	10:45a	77.8	78.1	77.1	39	50.9	1.0	SW	0.25	7.0	SW	77.8	76.8	76.8	30.198	0.00	0.00	0.000	0.133
9/06/10	11:00a	78.7	78.8	77.8	38	51.0	0.0	WNW	0.00	4.0	WSW	78.7	77.7	77.7	30.191	0.00	0.00	0.000	0.143
9/06/10	11:15a	78.4	78.7	78.4	36	49.2	0.0	SSW	0.00	5.0	SSW	78.4	77.2	77.2	30.187	0.00	0.00	0.000	0.140
9/06/10	11:30a	78.0	78.4	78.0	38	50.3	1.0	SW	0.25	8.0	WSW	78.0	76.9	76.9	30.186	0.00	0.00	0.000	0.135
9/06/10	11:45a	79.1	79.1	77.9	36	49.8	0.0	WSW	0.00	5.0	SW	79.1	78.0	78.0	30.186	0.00	0.00	0.000	0.147
9/06/10	12:00p	79.1	79.1	78.9	35	49.1	1.0	SW	0.25	5.0	WSW	79.1	77.9	77.9	30.184	0.00	0.00	0.000	0.147
9/06/10	12:15p	80.0	80.1	79.1	34	49.1	0.0	WSW	0.00	5.0	SW	80.0	78.4	78.4	30.180	0.00	0.00	0.000	0.156
9/06/10	12:30p	79.8	80.2	79.4	34	48.9	1.0	NNW	0.25	5.0	NW	79.8	78.3	78.3	30.180	0.00	0.00	0.000	0.154
9/06/10	12:45p	79.4	79.8	79.1	34	48.6	1.0	WNW	0.25	5.0	WNW	79.4	78.0	78.0	30.172	0.00	0.00	0.000	0.150
9/06/10	1:00p	80.3	80.3	79.4	33	48.6	1.0	SE	0.25	5.0	ESE	80.3	78.6	78.6	30.173	0.00	0.00	0.000	0.159
9/06/10	1:15p	81.0	81.0	80.1	32	48.4	1.0	SW	0.25	5.0	SW	81.0	79.2	79.2	30.172	0.00	0.00	0.000	0.167

Gowanus Phase III Weather Data 9/06/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/06/10	1:30p	79.4	81.1	78.8	32	47.0	1.0	NNW	0.25	8.0	NW	79.4	77.7	77.7	30.167	0.00	0.00	0.000	0.150
9/06/10	1:45p	80.0	80.2	79.4	35	49.9	1.0	W	0.25	5.0	NW	80.0	78.5	78.5	30.157	0.00	0.00	0.000	0.156
9/06/10	2:00p	79.1	80.0	78.7	38	51.3	2.0	NW	0.50	7.0	NNE	79.1	78.1	78.1	30.150	0.00	0.00	0.000	0.147
9/06/10	2:15p	79.2	79.9	79.2	39	52.1	1.0	NNW	0.25	8.0	WNW	79.2	78.3	78.3	30.145	0.00	0.00	0.000	0.148
9/06/10	2:30p	78.6	79.2	78.3	40	52.3	3.0	NNW	0.75	8.0	WNW	78.6	77.8	77.8	30.142	0.00	0.00	0.000	0.142
9/06/10	2:45p	78.2	78.7	78.0	42	53.2	2.0	WNW	0.50	8.0	WNW	78.2	77.5	77.5	30.141	0.00	0.00	0.000	0.137
9/06/10	3:00p	78.7	78.8	78.2	42	53.7	2.0	NNW	0.50	9.0	WNW	78.7	78.1	78.1	30.133	0.00	0.00	0.000	0.143
9/06/10	3:15p	78.2	78.9	78.0	44	54.5	3.0	ENE	0.75	12.0	WNW	78.2	77.7	77.7	30.131	0.00	0.00	0.000	0.137
9/06/10	3:30p	76.5	78.2	76.5	45	53.6	4.0	NW	1.00	9.0	WNW	76.5	76.0	76.0	30.127	0.00	0.00	0.000	0.120
9/06/10	3:45p	76.2	76.5	76.2	46	53.9	4.0	WNW	1.00	9.0	WNW	76.2	75.9	75.9	30.125	0.00	0.00	0.000	0.117
9/06/10	4:00p	76.0	76.5	75.8	50	56.0	3.0	W	0.75	11.0	WNW	76.0	76.0	76.0	30.120	0.00	0.00	0.000	0.115
9/06/10	4:15p	75.6	76.0	75.6	50	55.6	4.0	NW	1.00	11.0	W	75.6	75.6	75.6	30.121	0.00	0.00	0.000	0.110
9/06/10	4:30p	75.4	75.6	75.3	48	54.3	4.0	W	1.00	13.0	W	75.4	75.3	75.3	30.124	0.00	0.00	0.000	0.108
9/06/10	4:45p	75.6	75.7	75.3	50	55.6	4.0	NW	1.00	11.0	WNW	75.6	75.6	75.6	30.124	0.00	0.00	0.000	0.110
9/06/10	5:00p	75.6	75.9	75.4	49	55.1	2.0	WNW	0.50	10.0	WNW	75.6	75.6	75.6	30.125	0.00	0.00	0.000	0.110
9/06/10	5:15p	75.1	75.6	75.1	52	56.3	4.0	WNW	1.00	9.0	NNW	75.1	75.3	75.3	30.128	0.00	0.00	0.000	0.105
9/06/10	5:30p	74.9	75.1	74.8	51	55.6	3.0	NW	0.75	9.0	W	74.9	75.0	75.0	30.137	0.00	0.00	0.000	0.103
9/06/10	5:45p	74.8	74.9	74.8	52	56.0	3.0	WNW	0.75	8.0	WNW	74.8	75.0	75.0	30.134	0.00	0.00	0.000	0.102
9/06/10	6:00p	74.7	74.9	74.7	52	55.9	3.0	NW	0.75	11.0	NW	74.7	74.9	74.9	30.131	0.00	0.00	0.000	0.101
9/06/10	6:15p	74.5	74.7	74.4	55	57.3	3.0	NNW	0.75	9.0	NNW	74.5	74.8	74.8	30.128	0.00	0.00	0.000	0.099
9/06/10	6:30p	73.7	74.5	73.7	58	58.0	4.0	NW	1.00	11.0	W	73.7	74.1	74.1	30.130	0.00	0.00	0.000	0.091
9/06/10	6:45p	73.4	73.7	73.4	61	59.1	3.0	NNW	0.75	11.0	WNW	73.4	74.0	74.0	30.127	0.00	0.00	0.000	0.088
9/06/10	7:00p	73.0	73.4	73.0	62	59.2	3.0	WNW	0.75	9.0	NW	73.0	73.5	73.5	30.128	0.00	0.00	0.000	0.083
9/06/10	7:15p	72.8	73.0	72.8	64	59.9	3.0	WNW	0.75	8.0	W	72.8	73.4	73.4	30.132	0.00	0.00	0.000	0.081
9/06/10	7:30p	72.7	72.8	72.6	65	60.3	2.0	NW	0.50	6.0	WNW	72.7	73.3	73.3	30.134	0.00	0.00	0.000	0.080
9/06/10	7:45p	72.5	72.7	72.4	66	60.5	3.0	NW	0.75	12.0	NW	72.5	73.1	73.1	30.136	0.00	0.00	0.000	0.078
9/06/10	8:00p	72.4	72.5	72.4	67	60.8	3.0	NW	0.75	9.0	NW	72.4	73.0	73.0	30.142	0.00	0.00	0.000	0.077
9/06/10	8:15p	72.5	72.5	72.4	68	61.3	2.0	NW	0.50	8.0	W	72.5	73.2	73.2	30.147	0.00	0.00	0.000	0.078
9/06/10	8:30p	72.6	72.6	72.5	68	61.4	2.0	NW	0.50	6.0	NW	72.6	73.4	73.4	30.145	0.00	0.00	0.000	0.079
9/06/10	8:45p	72.6	72.6	72.6	68	61.4	2.0	WNW	0.50	6.0	NW	72.6	73.4	73.4	30.153	0.00	0.00	0.000	0.079
9/06/10	9:00p	72.7	72.7	72.6	68	61.5	1.0	NW	0.25	6.0	NW	72.7	73.5	73.5	30.154	0.00	0.00	0.000	0.080
9/06/10	9:15p	72.7	72.7	72.6	67	61.1	1.0	W	0.25	6.0	SE	72.7	73.4	73.4	30.146	0.00	0.00	0.000	0.080
9/06/10	9:30p	72.9	73.0	72.7	66	60.9	1.0	NE	0.25	6.0	ESE	72.9	73.6	73.6	30.143	0.00	0.00	0.000	0.082
9/06/10	9:45p	72.8	73.0	72.8	65	60.3	1.0	ESE	0.25	6.0	N	72.8	73.4	73.4	30.142	0.00	0.00	0.000	0.081
9/06/10	10:00p	72.5	72.8	72.5	66	60.5	1.0	ENE	0.25	6.0	NE	72.5	73.1	73.1	30.149	0.00	0.00	0.000	0.078
9/06/10	10:15p	72.3	72.5	72.3	66	60.3	0.0	ENE	0.00	5.0	ENE	72.3	72.8	72.8	30.157	0.00	0.00	0.000	0.076
9/06/10	10:30p	72.3	72.4	72.3	66	60.3	0.0	SSW	0.00	5.0	SSW	72.3	72.8	72.8	30.167	0.00	0.00	0.000	0.076
9/06/10	10:45p	72.2	72.3	72.2	66	60.2	0.0	SSW	0.00	3.0	SW	72.2	72.7	72.7	30.164	0.00	0.00	0.000	0.075
9/06/10	11:00p	72.1	72.2	72.1	67	60.5	0.0	SW	0.00	5.0	SW	72.1	72.6	72.6	30.159	0.00	0.00	0.000	0.074
9/06/10	11:15p	72.0	72.1	72.0	67	60.4	0.0	SW	0.00	2.0	SW	72.0	72.5	72.5	30.150	0.00	0.00	0.000	0.073
9/06/10	11:30p	72.0	72.0	72.0	68	60.9	1.0	SSW	0.25	4.0	SW	72.0	72.5	72.5	30.148	0.00	0.00	0.000	0.073
9/06/10	11:45p	71.7	72.0	71.7	70	61.4	1.0	SW	0.25	5.0	SSW	71.7	72.3	72.3	30.154	0.00	0.00	0.000	0.070
9/07/10	12:00a	71.5	71.7	71.5	70	61.2	1.0	SSW	0.25	5.0	SSW	71.5	72.0	72.0	30.156	0.00	0.00	0.000	0.068

Gowanus Phase III Weather Data 9/07/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/07/10	12:15a	71.4	71.5	71.4	71	61.5	1.0	SW	0.25	7.0	SW	71.4	72.0	72.0	30.156	0.00	0.00	0.000	0.067
9/07/10	12:30a	71.3	71.4	71.3	71	61.4	0.0	SSW	0.00	6.0	SSW	71.3	71.9	71.9	30.154	0.00	0.00	0.000	0.066
9/07/10	12:45a	71.2	71.3	71.1	72	61.7	0.0	SW	0.00	6.0	SW	71.2	71.8	71.8	30.157	0.00	0.00	0.000	0.065
9/07/10	1:00a	71.1	71.2	71.1	73	62.0	0.0	SW	0.00	5.0	SW	71.1	71.8	71.8	30.157	0.00	0.00	0.000	0.064
9/07/10	1:15a	71.0	71.1	71.0	73	61.9	1.0	SSW	0.25	6.0	S	71.0	71.6	71.6	30.156	0.00	0.00	0.000	0.063
9/07/10	1:30a	70.9	71.0	70.9	73	61.8	0.0	SW	0.00	5.0	SW	70.9	71.5	71.5	30.153	0.00	0.00	0.000	0.061
9/07/10	1:45a	70.9	70.9	70.8	73	61.8	0.0	WSW	0.00	5.0	SW	70.9	71.5	71.5	30.149	0.00	0.00	0.000	0.061
9/07/10	2:00a	70.8	70.9	70.8	74	62.1	0.0	WSW	0.00	5.0	WSW	70.8	71.5	71.5	30.142	0.00	0.00	0.000	0.060
9/07/10	2:15a	70.7	70.8	70.6	74	62.0	0.0	WSW	0.00	5.0	SW	70.7	71.4	71.4	30.142	0.00	0.00	0.000	0.059
9/07/10	2:30a	70.4	70.7	70.4	74	61.7	0.0	WSW	0.00	4.0	WSW	70.4	71.0	71.0	30.145	0.00	0.00	0.000	0.056
9/07/10	2:45a	70.1	70.5	70.1	74	61.4	1.0	SW	0.25	6.0	SW	70.1	70.6	70.6	30.142	0.00	0.00	0.000	0.053
9/07/10	3:00a	69.9	70.1	69.9	75	61.6	0.0	SSW	0.00	2.0	SSW	69.9	70.5	70.5	30.141	0.00	0.00	0.000	0.051
9/07/10	3:15a	69.8	69.9	69.7	75	61.5	0.0	SSW	0.00	4.0	SSW	69.8	70.5	70.5	30.140	0.00	0.00	0.000	0.050
9/07/10	3:30a	69.7	69.8	69.6	75	61.4	0.0	SW	0.00	3.0	SW	69.7	70.4	70.4	30.139	0.00	0.00	0.000	0.049
9/07/10	3:45a	69.4	69.7	69.4	75	61.1	0.0	SW	0.00	4.0	SW	69.4	70.2	70.2	30.143	0.00	0.00	0.000	0.046
9/07/10	4:00a	69.3	69.5	69.3	76	61.4	0.0	SW	0.00	3.0	SW	69.3	70.3	70.3	30.143	0.00	0.00	0.000	0.045
9/07/10	4:15a	69.1	69.3	69.1	77	61.6	0.0	---	0.00	0.0	---	69.1	70.3	70.3	30.141	0.00	0.00	0.000	0.043
9/07/10	4:30a	68.9	69.1	68.9	76	61.0	0.0	SW	0.00	4.0	SW	68.9	70.0	70.0	30.141	0.00	0.00	0.000	0.041
9/07/10	4:45a	68.9	68.9	68.9	76	61.0	0.0	WSW	0.00	4.0	WSW	68.9	70.0	70.0	30.142	0.00	0.00	0.000	0.041
9/07/10	5:00a	68.7	68.9	68.7	77	61.2	0.0	WSW	0.00	1.0	WSW	68.7	69.9	69.9	30.145	0.00	0.00	0.000	0.039
9/07/10	5:15a	68.6	68.7	68.5	78	61.5	0.0	WSW	0.00	2.0	WSW	68.6	69.8	69.8	30.144	0.00	0.00	0.000	0.037
9/07/10	5:30a	68.5	68.6	68.5	78	61.4	0.0	WSW	0.00	3.0	WSW	68.5	69.7	69.7	30.144	0.00	0.00	0.000	0.036
9/07/10	5:45a	68.5	68.5	68.5	77	61.0	0.0	WSW	0.00	2.0	WSW	68.5	69.6	69.6	30.148	0.00	0.00	0.000	0.036
9/07/10	6:00a	68.4	68.5	68.4	78	61.3	0.0	WSW	0.00	1.0	WSW	68.4	69.6	69.6	30.157	0.00	0.00	0.000	0.035
9/07/10	6:15a	68.2	68.4	68.2	78	61.1	0.0	WSW	0.00	2.0	WSW	68.2	69.4	69.4	30.157	0.00	0.00	0.000	0.033
9/07/10	6:30a	68.1	68.3	68.1	79	61.3	0.0	WSW	0.00	1.0	WSW	68.1	69.3	69.3	30.156	0.00	0.00	0.000	0.032
9/07/10	6:45a	68.3	68.3	68.1	78	61.2	0.0	WSW	0.00	1.0	WSW	68.3	69.5	69.5	30.154	0.00	0.00	0.000	0.034
9/07/10	7:00a	68.6	68.6	68.3	77	61.1	0.0	WSW	0.00	4.0	WSW	68.6	69.7	69.7	30.152	0.00	0.00	0.000	0.037
9/07/10	7:15a	69.0	69.0	68.6	76	61.1	0.0	W	0.00	4.0	W	69.0	70.1	70.1	30.151	0.00	0.00	0.000	0.042
9/07/10	7:30a	69.8	69.8	69.0	75	61.5	0.0	W	0.00	5.0	WNW	69.8	70.5	70.5	30.144	0.00	0.00	0.000	0.050
9/07/10	7:45a	70.6	70.6	69.9	74	61.9	0.0	W	0.00	1.0	W	70.6	71.2	71.2	30.153	0.00	0.00	0.000	0.058
9/07/10	8:00a	71.0	71.0	70.6	75	62.7	1.0	SW	0.25	6.0	SSW	71.0	71.8	71.8	30.141	0.00	0.00	0.000	0.063
9/07/10	8:15a	72.2	72.2	71.1	73	63.1	0.0	SW	0.00	5.0	SW	72.2	73.2	73.2	30.141	0.00	0.00	0.000	0.075
9/07/10	8:30a	73.2	73.2	72.3	73	64.0	1.0	SW	0.25	7.0	SW	73.2	74.6	74.6	30.149	0.00	0.00	0.000	0.085
9/07/10	8:45a	74.0	74.0	73.2	73	64.8	1.0	SW	0.25	5.0	SW	74.0	75.8	75.8	30.152	0.00	0.00	0.000	0.094
9/07/10	9:00a	74.8	74.8	74.0	72	65.2	1.0	SW	0.25	7.0	SW	74.8	76.6	76.6	30.142	0.00	0.00	0.000	0.102
9/07/10	9:15a	76.0	76.0	74.9	70	65.5	1.0	WSW	0.25	5.0	SSW	76.0	77.8	77.8	30.136	0.00	0.00	0.000	0.115
9/07/10	9:30a	76.7	76.7	75.9	69	65.8	1.0	SSW	0.25	8.0	SSW	76.7	78.4	78.4	30.139	0.00	0.00	0.000	0.122
9/07/10	9:45a	78.2	78.2	76.8	67	66.3	0.0	W	0.00	5.0	SSW	78.2	79.9	79.9	30.134	0.00	0.00	0.000	0.137
9/07/10	10:00a	77.9	78.2	77.7	66	65.6	1.0	SW	0.25	7.0	S	77.9	79.4	79.4	30.133	0.00	0.00	0.000	0.134
9/07/10	10:15a	79.8	79.8	77.9	63	66.1	0.0	SW	0.00	4.0	SW	79.8	81.5	81.5	30.129	0.00	0.00	0.000	0.154
9/07/10	10:30a	80.4	80.4	79.7	61	65.7	1.0	SW	0.25	4.0	SW	80.4	82.0	82.0	30.126	0.00	0.00	0.000	0.160
9/07/10	10:45a	81.1	81.3	80.4	59	65.4	1.0	SSW	0.25	5.0	SSW	81.1	82.7	82.7	30.124	0.00	0.00	0.000	0.168
9/07/10	11:00a	81.1	81.1	80.8	59	65.4	1.0	SSW	0.25	6.0	SW	81.1	82.7	82.7	30.117	0.00	0.00	0.000	0.168
9/07/10	11:15a	82.6	82.7	81.1	56	65.3	1.0	WSW	0.25	7.0	WSW	82.6	84.5	84.5	30.110	0.00	0.00	0.000	0.183
9/07/10	11:30a	83.1	83.1	82.6	56	65.8	1.0	SW	0.25	4.0	SW	83.1	85.2	85.2	30.106	0.00	0.00	0.000	0.189
9/07/10	11:45a	83.8	83.8	83.2	55	65.9	1.0	SW	0.25	6.0	SW	83.8	86.3	86.3	30.095	0.00	0.00	0.000	0.196
9/07/10	12:00p	85.3	85.3	83.8	53	66.2	1.0	SW	0.25	4.0	SSW	85.3	88.0	88.0	30.088	0.00	0.00	0.000	0.211
9/07/10	12:15p	86.7	86.7	85.4	52	67.0	0.0	W	0.00	5.0	W	86.7	90.2	90.2	30.079	0.00	0.00	0.000	0.226
9/07/10	12:30p	86.5	86.9	86.1	51	66.2	2.0	E	0.50	7.0	WNW	86.5	89.5	89.5	30.069	0.00	0.00	0.000	0.224
9/07/10	12:45p	86.5	87.0	86.5	50	65.7	2.0	E	0.50	8.0	WNW	86.5	89.1	89.1	30.064	0.00	0.00	0.000	0.224
9/07/10	1:00p	87.2	87.2	86.5	49	65.7	2.0	SW	0.50	9.0	SW	87.2	90.1	90.1	30.056	0.00	0.00	0.000	0.231
9/07/10	1:15p	87.6	87.9	87.2	48	65.5	1.0	WSW	0.25	7.0	W	87.6	90.2	90.2	30.049	0.00	0.00	0.000	0.235

Gowanus Phase III Weather Data 9/07/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/07/10	1:30p	87.6	87.8	87.5	49	66.1	2.0	ENE	0.50	7.0	ENE	87.6	90.6	90.6	30.037	0.00	0.00	0.000	0.235
9/07/10	1:45p	87.8	87.8	87.2	47	65.1	2.0	NE	0.50	7.0	NE	87.8	90.1	90.1	30.033	0.00	0.00	0.000	0.238
9/07/10	2:00p	88.7	89.0	87.8	46	65.3	1.0	W	0.25	6.0	NE	88.7	91.6	91.6	30.025	0.00	0.00	0.000	0.247
9/07/10	2:15p	89.2	89.4	88.7	45	65.1	2.0	ENE	0.50	8.0	ENE	89.2	92.2	92.2	30.018	0.00	0.00	0.000	0.252
9/07/10	2:30p	88.5	89.1	88.4	47	65.7	1.0	ENE	0.25	7.0	NW	88.5	91.5	91.5	30.011	0.00	0.00	0.000	0.245
9/07/10	2:45p	86.7	88.5	86.7	52	67.0	3.0	NW	0.75	11.0	NNW	86.7	90.2	90.2	30.005	0.00	0.00	0.000	0.226
9/07/10	3:00p	86.7	87.5	86.7	53	67.5	3.0	NW	0.75	8.0	WNW	86.7	90.5	90.5	29.999	0.00	0.00	0.000	0.226
9/07/10	3:15p	85.8	86.5	85.7	54	67.2	4.0	NW	1.00	8.0	WNW	85.8	89.1	89.1	29.990	0.00	0.00	0.000	0.217
9/07/10	3:30p	84.9	85.7	84.9	58	68.5	3.0	WNW	0.75	10.0	WNW	84.9	88.6	88.6	29.986	0.00	0.00	0.000	0.207
9/07/10	3:45p	84.1	85.3	84.1	59	68.2	4.0	NW	1.00	11.0	W	84.1	87.6	87.6	29.982	0.00	0.00	0.000	0.199
9/07/10	4:00p	83.5	84.0	83.3	61	68.6	5.0	WNW	1.25	11.0	NW	83.5	87.0	87.0	29.976	0.00	0.00	0.000	0.193
9/07/10	4:15p	82.9	83.4	82.8	62	68.5	5.0	WNW	1.25	10.0	WNW	82.9	86.0	86.0	29.970	0.00	0.00	0.000	0.186
9/07/10	4:30p	83.1	83.4	82.9	62	68.7	4.0	WNW	1.00	12.0	WNW	83.1	86.4	86.4	29.966	0.00	0.00	0.000	0.189
9/07/10	4:45p	82.9	83.0	82.8	63	69.0	4.0	WNW	1.00	10.0	W	82.9	86.3	86.3	29.958	0.00	0.00	0.000	0.186
9/07/10	5:00p	82.6	83.1	82.6	63	68.7	4.0	NW	1.00	9.0	W	82.6	85.8	85.8	29.956	0.00	0.00	0.000	0.183
9/07/10	5:15p	82.7	82.8	82.6	64	69.3	4.0	NW	1.00	11.0	NW	82.7	86.2	86.2	29.955	0.00	0.00	0.000	0.184
9/07/10	5:30p	82.7	82.7	82.5	65	69.7	3.0	NW	0.75	8.0	WNW	82.7	86.4	86.4	29.952	0.00	0.00	0.000	0.184
9/07/10	5:45p	82.5	82.8	82.5	65	69.5	3.0	NW	0.75	10.0	W	82.5	86.0	86.0	29.955	0.00	0.00	0.000	0.182
9/07/10	6:00p	83.0	83.0	82.5	63	69.1	2.0	NW	0.50	8.0	NW	83.0	86.4	86.4	29.948	0.00	0.00	0.000	0.188
9/07/10	6:15p	82.9	83.0	82.9	63	69.0	4.0	NW	1.00	10.0	NW	82.9	86.3	86.3	29.943	0.00	0.00	0.000	0.186
9/07/10	6:30p	82.1	82.9	82.1	65	69.2	4.0	WNW	1.00	10.0	WNW	82.1	85.4	85.4	29.942	0.00	0.00	0.000	0.178
9/07/10	6:45p	81.8	82.1	81.8	67	69.8	2.0	NW	0.50	8.0	WNW	81.8	85.3	85.3	29.942	0.00	0.00	0.000	0.175
9/07/10	7:00p	80.9	81.8	80.9	69	69.8	3.0	NW	0.75	12.0	W	80.9	84.1	84.1	29.940	0.00	0.00	0.000	0.166
9/07/10	7:15p	80.5	80.9	80.5	70	69.8	2.0	ENE	0.50	7.0	NNW	80.5	83.5	83.5	29.936	0.00	0.00	0.000	0.161
9/07/10	7:30p	80.0	80.5	80.0	71	69.7	2.0	ENE	0.50	8.0	NNW	80.0	82.9	82.9	29.931	0.00	0.00	0.000	0.156
9/07/10	7:45p	79.8	80.0	79.8	71	69.6	2.0	ENE	0.50	7.0	WNW	79.8	82.6	82.6	29.927	0.00	0.00	0.000	0.154
9/07/10	8:00p	79.5	79.7	79.5	72	69.7	3.0	NE	0.75	9.0	W	79.5	82.3	82.3	29.927	0.00	0.00	0.000	0.151
9/07/10	8:15p	79.4	79.5	79.4	72	69.6	2.0	NE	0.50	7.0	WNW	79.4	82.2	82.2	29.927	0.00	0.00	0.000	0.150
9/07/10	8:30p	79.3	79.4	79.3	72	69.5	2.0	NE	0.50	11.0	NW	79.3	82.0	82.0	29.930	0.00	0.00	0.000	0.149
9/07/10	8:45p	79.1	79.3	79.1	72	69.3	2.0	ENE	0.50	7.0	ENE	79.1	81.7	81.7	29.935	0.00	0.00	0.000	0.147
9/07/10	9:00p	78.8	79.1	78.8	72	69.0	2.0	NE	0.50	7.0	ENE	78.8	81.3	81.3	29.940	0.00	0.00	0.000	0.144
9/07/10	9:15p	78.4	78.8	78.4	73	69.0	2.0	ENE	0.50	6.0	ENE	78.4	80.9	80.9	29.936	0.00	0.00	0.000	0.140
9/07/10	9:30p	78.1	78.4	78.1	74	69.1	1.0	NNE	0.25	6.0	ENE	78.1	80.6	80.6	29.937	0.00	0.00	0.000	0.136
9/07/10	9:45p	77.9	78.1	77.9	74	68.9	1.0	ENE	0.25	7.0	ENE	77.9	80.4	80.4	29.938	0.00	0.00	0.000	0.134
9/07/10	10:00p	77.6	77.9	77.6	74	68.7	1.0	NE	0.25	8.0	ENE	77.6	80.0	80.0	29.929	0.00	0.00	0.000	0.131
9/07/10	10:15p	77.3	77.6	77.3	74	68.4	1.0	NE	0.25	5.0	N	77.3	79.7	79.7	29.926	0.00	0.00	0.000	0.128
9/07/10	10:30p	77.2	77.3	77.2	74	68.3	1.0	ENE	0.25	7.0	NE	77.2	79.6	79.6	29.923	0.00	0.00	0.000	0.127
9/07/10	10:45p	77.0	77.2	77.0	75	68.5	1.0	NE	0.25	4.0	ENE	77.0	79.5	79.5	29.912	0.00	0.00	0.000	0.125
9/07/10	11:00p	76.9	77.0	76.9	75	68.4	1.0	NE	0.25	6.0	N	76.9	79.4	79.4	29.910	0.00	0.00	0.000	0.124
9/07/10	11:15p	76.9	76.9	76.8	75	68.4	0.0	NNW	0.00	4.0	NE	76.9	79.4	79.4	29.908	0.00	0.00	0.000	0.124
9/07/10	11:30p	76.8	76.9	76.7	75	68.3	1.0	E	0.25	5.0	E	76.8	79.3	79.3	29.909	0.00	0.00	0.000	0.123
9/07/10	11:45p	76.7	76.8	76.7	75	68.2	0.0	ENE	0.00	3.0	ENE	76.7	79.2	79.2	29.908	0.00	0.00	0.000	0.122
9/08/10	12:00a	76.5	76.7	76.5	75	68.0	0.0	ENE	0.00	5.0	E	76.5	79.0	79.0	29.904	0.00	0.00	0.000	0.120

Gowanus Phase III Weather Data 9/08/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/08/10	12:15a	76.3	76.5	76.3	76	68.2	0.0	NNE	0.00	4.0	NNE	76.3	78.8	78.8	29.899	0.00	0.00	0.000	0.118
9/08/10	12:30a	76.4	76.4	76.3	75	67.9	0.0	SE	0.00	4.0	WSW	76.4	78.8	78.8	29.895	0.00	0.00	0.000	0.119
9/08/10	12:45a	76.5	76.5	76.4	75	68.0	0.0	SW	0.00	3.0	SW	76.5	79.0	79.0	29.892	0.00	0.00	0.000	0.120
9/08/10	1:00a	76.4	76.5	76.4	75	67.9	0.0	S	0.00	4.0	S	76.4	78.8	78.8	29.880	0.00	0.00	0.000	0.119
9/08/10	1:15a	76.4	76.4	76.4	75	67.9	0.0	ENE	0.00	5.0	SSE	76.4	78.8	78.8	29.879	0.00	0.00	0.000	0.119
9/08/10	1:30a	76.2	76.4	76.2	75	67.7	0.0	ENE	0.00	6.0	ENE	76.2	78.6	78.6	29.869	0.00	0.00	0.000	0.117
9/08/10	1:45a	76.1	76.3	76.1	75	67.6	0.0	SW	0.00	4.0	SW	76.1	78.5	78.5	29.864	0.00	0.00	0.000	0.116
9/08/10	2:00a	76.1	76.1	76.0	74	67.2	1.0	SE	0.25	5.0	SSE	76.1	78.4	78.4	29.863	0.00	0.00	0.000	0.116
9/08/10	2:15a	76.0	76.1	76.0	73	66.7	0.0	ESE	0.00	5.0	SE	76.0	78.2	78.2	29.850	0.00	0.00	0.000	0.115
9/08/10	2:30a	75.9	76.0	75.9	73	66.6	0.0	SW	0.00	4.0	SW	75.9	78.0	78.0	29.848	0.00	0.00	0.000	0.114
9/08/10	2:45a	75.8	75.8	75.8	73	66.5	0.0	WSW	0.00	2.0	W	75.8	77.9	77.9	29.843	0.00	0.00	0.000	0.113
9/08/10	3:00a	75.8	75.8	75.8	73	66.5	0.0	SW	0.00	5.0	SW	75.8	77.9	77.9	29.833	0.00	0.00	0.000	0.113
9/08/10	3:15a	75.6	75.8	75.6	73	66.3	0.0	SSW	0.00	7.0	SW	75.6	77.7	77.7	29.827	0.00	0.00	0.000	0.110
9/08/10	3:30a	75.5	75.6	75.5	73	66.2	0.0	SW	0.00	5.0	SW	75.5	77.6	77.6	29.821	0.00	0.00	0.000	0.109
9/08/10	3:45a	75.4	75.5	75.4	73	66.1	1.0	SW	0.25	5.0	SW	75.4	77.4	77.4	29.831	0.00	0.00	0.000	0.108
9/08/10	4:00a	75.3	75.4	75.3	74	66.4	0.0	SSW	0.00	5.0	SW	75.3	77.4	77.4	29.815	0.00	0.00	0.000	0.107
9/08/10	4:15a	75.4	75.4	75.3	73	66.1	0.0	SW	0.00	5.0	SW	75.4	77.4	77.4	29.816	0.00	0.00	0.000	0.108
9/08/10	4:30a	75.4	75.5	75.4	73	66.1	0.0	SW	0.00	4.0	SW	75.4	77.4	77.4	29.804	0.00	0.00	0.000	0.108
9/08/10	4:45a	75.4	75.5	75.4	73	66.1	0.0	WSW	0.00	5.0	SW	75.4	77.4	77.4	29.803	0.00	0.00	0.000	0.108
9/08/10	5:00a	75.5	75.5	75.4	73	66.2	1.0	SW	0.25	9.0	SW	75.5	77.6	77.6	29.799	0.00	0.00	0.000	0.109
9/08/10	5:15a	75.4	75.5	75.4	74	66.5	1.0	ENE	0.25	6.0	SW	75.4	77.5	77.5	29.796	0.00	0.00	0.000	0.108
9/08/10	5:30a	75.3	75.4	75.3	74	66.4	0.0	SW	0.00	6.0	SSW	75.3	77.4	77.4	29.792	0.00	0.00	0.000	0.107
9/08/10	5:45a	75.3	75.4	75.3	74	66.4	1.0	SSW	0.25	5.0	SSW	75.3	77.4	77.4	29.788	0.00	0.00	0.000	0.107
9/08/10	6:00a	75.4	75.4	75.4	74	66.5	1.0	SW	0.25	9.0	SW	75.4	77.5	77.5	29.786	0.00	0.00	0.000	0.108
9/08/10	6:15a	75.3	75.4	75.3	74	66.4	0.0	SW	0.00	2.0	SW	75.3	77.4	77.4	29.784	0.00	0.00	0.000	0.107
9/08/10	6:30a	75.3	75.3	75.3	74	66.4	1.0	SW	0.25	6.0	SW	75.3	77.4	77.4	29.775	0.00	0.00	0.000	0.107
9/08/10	6:45a	75.3	75.3	75.3	74	66.4	0.0	WSW	0.00	4.0	WSW	75.3	77.4	77.4	29.778	0.00	0.00	0.000	0.107
9/08/10	7:00a	75.5	75.5	75.3	73	66.2	0.0	WSW	0.00	2.0	WSW	75.5	77.6	77.6	29.771	0.00	0.00	0.000	0.109
9/08/10	7:15a	75.7	75.7	75.5	73	66.4	0.0	WSW	0.00	3.0	SSW	75.7	77.8	77.8	29.768	0.00	0.00	0.000	0.111
9/08/10	7:30a	75.7	75.7	75.7	72	66.0	0.0	SSE	0.00	4.0	SSE	75.7	77.7	77.7	29.769	0.00	0.00	0.000	0.111
9/08/10	7:45a	75.8	75.8	75.7	72	66.1	0.0	SSW	0.00	5.0	SW	75.8	77.8	77.8	29.770	0.00	0.00	0.000	0.113
9/08/10	8:00a	75.8	75.8	75.8	72	66.1	0.0	SSW	0.00	4.0	SSW	75.8	77.8	77.8	29.763	0.00	0.00	0.000	0.113
9/08/10	8:15a	76.0	76.0	75.8	72	66.3	0.0	SW	0.00	5.0	SSW	76.0	78.0	78.0	29.756	0.00	0.00	0.000	0.115
9/08/10	8:30a	76.3	76.3	76.0	72	66.6	0.0	SW	0.00	4.0	SSE	76.3	78.4	78.4	29.754	0.00	0.00	0.000	0.118
9/08/10	8:45a	77.0	77.0	76.4	70	66.5	1.0	SW	0.25	6.0	SW	77.0	78.9	78.9	29.755	0.00	0.00	0.000	0.125
9/08/10	9:00a	77.7	77.7	77.0	69	66.7	1.0	SW	0.25	7.0	SW	77.7	79.5	79.5	29.756	0.00	0.00	0.000	0.132
9/08/10	9:15a	80.1	80.1	77.9	65	67.3	0.0	WSW	0.00	5.0	W	80.1	82.1	82.1	29.754	0.00	0.00	0.000	0.157
9/08/10	9:30a	81.2	81.2	80.2	64	67.9	1.0	WSW	0.25	5.0	W	81.2	83.7	83.7	29.745	0.00	0.00	0.000	0.169
9/08/10	9:45a	81.1	81.5	81.0	63	67.3	2.0	SW	0.50	10.0	SW	81.1	83.3	83.3	29.744	0.00	0.00	0.000	0.168
9/08/10	10:00a	82.2	82.2	81.2	61	67.4	2.0	SW	0.50	8.0	SSW	82.2	84.7	84.7	29.740	0.00	0.00	0.000	0.179
9/08/10	10:15a	84.0	84.0	82.2	57	67.1	1.0	WSW	0.25	6.0	WSW	84.0	87.0	87.0	29.731	0.00	0.00	0.000	0.198
9/08/10	10:30a	84.7	84.7	84.0	56	67.3	2.0	WSW	0.50	9.0	WSW	84.7	87.8	87.8	29.726	0.00	0.00	0.000	0.205
9/08/10	10:45a	85.0	85.1	84.7	55	67.0	2.0	WSW	0.50	8.0	SW	85.0	87.9	87.9	29.722	0.00	0.00	0.000	0.208
9/08/10	11:00a	85.9	86.1	85.0	52	66.2	2.0	WSW	0.50	11.0	WSW	85.9	88.6	88.6	29.719	0.00	0.00	0.000	0.218
9/08/10	11:15a	86.8	86.8	85.9	51	66.5	1.0	WSW	0.25	8.0	W	86.8	90.1	90.1	29.712	0.00	0.00	0.000	0.227
9/08/10	11:30a	86.8	87.0	86.6	49	65.3	2.0	WSW	0.50	10.0	WSW	86.8	89.4	89.4	29.710	0.00	0.00	0.000	0.227
9/08/10	11:45a	87.5	87.5	86.9	46	64.2	3.0	W	0.75	12.0	SSW	87.5	89.5	89.5	29.708	0.00	0.00	0.000	0.234
9/08/10	12:00p	87.9	87.9	87.3	44	63.3	2.0	WSW	0.50	10.0	SW	87.9	89.3	89.3	29.698	0.00	0.00	0.000	0.239
9/08/10	12:15p	88.4	88.4	87.9	42	62.4	2.0	WSW	0.50	10.0	WSW	88.4	89.5	89.5	29.694	0.00	0.00	0.000	0.244
9/08/10	12:30p	89.4	89.5	88.5	40	61.9	2.0	WSW	0.50	8.0	S	89.4	90.5	90.5	29.688	0.00	0.00	0.000	0.254
9/08/10	12:45p	90.2	90.2	89.4	38	61.2	2.0	SW	0.50	10.0	SSW	90.2	91.0	91.0	29.680	0.00	0.00	0.000	0.262
9/08/10	1:00p	90.3	90.3	90.1	36	59.7	2.0	WSW	0.50	7.0	WSW	90.3	90.6	90.6	29.678	0.00	0.00	0.000	0.264
9/08/10	1:15p	90.4	90.4	90.2	35	59.0	2.0	WSW	0.50	8.0	WSW	90.4	90.4	90.4	29.666	0.00	0.00	0.000	0.265

Gowanus Phase III Weather Data 9/08/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/08/10	1:30p	91.1	91.1	90.4	35	59.6	2.0	W	0.50	7.0	SSW	91.1	91.3	91.3	29.664	0.00	0.00	0.000	0.272
9/08/10	1:45p	92.4	92.4	91.1	34	60.0	1.0	WSW	0.25	6.0	SW	92.4	92.9	92.9	29.662	0.00	0.00	0.000	0.285
9/08/10	2:00p	91.5	92.7	91.4	34	59.2	2.0	SW	0.50	8.0	WSW	91.5	91.7	91.7	29.650	0.00	0.00	0.000	0.276
9/08/10	2:15p	92.5	92.5	91.6	33	59.2	2.0	WSW	0.50	8.0	S	92.5	92.8	92.8	29.646	0.00	0.00	0.000	0.286
9/08/10	2:30p	91.9	92.5	91.9	30	56.0	2.0	WSW	0.50	9.0	WSW	91.9	91.3	91.3	29.636	0.00	0.00	0.000	0.280
9/08/10	2:45p	92.4	92.6	91.9	30	56.5	2.0	WSW	0.50	7.0	SW	92.4	91.9	91.9	29.632	0.00	0.00	0.000	0.285
9/08/10	3:00p	92.2	92.8	92.2	27	53.4	3.0	W	0.75	8.0	SW	92.2	90.7	90.7	29.627	0.00	0.00	0.000	0.283
9/08/10	3:15p	91.9	92.2	91.8	28	54.1	2.0	WSW	0.50	10.0	SW	91.9	90.6	90.6	29.624	0.00	0.00	0.000	0.280
9/08/10	3:30p	91.6	91.9	91.6	26	51.9	2.0	WSW	0.50	12.0	SW	91.6	89.6	89.6	29.619	0.00	0.00	0.000	0.277
9/08/10	3:45p	90.7	91.6	90.7	26	51.1	3.0	W	0.75	11.0	WSW	90.7	88.6	88.6	29.618	0.00	0.00	0.000	0.268
9/08/10	4:00p	89.5	90.7	89.5	27	51.1	4.0	W	1.00	15.0	SSW	89.5	87.2	87.2	29.624	0.00	0.00	0.000	0.255
9/08/10	4:15p	89.1	89.5	89.1	28	51.7	3.0	WNW	0.75	8.0	NW	89.1	86.8	86.8	29.621	0.00	0.00	0.000	0.251
9/08/10	4:30p	88.5	89.0	88.5	29	52.2	3.0	W	0.75	8.0	WSW	88.5	86.2	86.2	29.625	0.00	0.00	0.000	0.245
9/08/10	4:45p	88.2	88.5	88.2	30	52.9	2.0	WSW	0.50	8.0	WSW	88.2	86.0	86.0	29.632	0.00	0.00	0.000	0.242
9/08/10	5:00p	87.6	88.1	87.6	30	52.3	3.0	W	0.75	11.0	W	87.6	85.5	85.5	29.634	0.00	0.00	0.000	0.235
9/08/10	5:15p	87.1	87.6	87.1	29	51.0	3.0	W	0.75	9.0	WSW	87.1	85.1	85.1	29.640	0.00	0.00	0.000	0.230
9/08/10	5:30p	86.5	87.1	86.5	31	52.3	2.0	W	0.50	11.0	SW	86.5	85.0	85.0	29.647	0.00	0.00	0.000	0.224
9/08/10	5:45p	85.8	86.5	85.8	31	51.7	2.0	WSW	0.50	7.0	WNW	85.8	84.3	84.3	29.650	0.00	0.00	0.000	0.217
9/08/10	6:00p	84.9	85.8	84.9	32	51.7	2.0	WSW	0.50	7.0	WNW	84.9	83.5	83.5	29.655	0.00	0.00	0.000	0.207
9/08/10	6:15p	84.0	84.8	84.0	32	51.0	2.0	W	0.50	10.0	SW	84.0	82.7	82.7	29.662	0.00	0.00	0.000	0.198
9/08/10	6:30p	82.1	84.1	82.1	41	56.1	3.0	WSW	0.75	10.0	E	82.1	81.6	81.6	29.675	0.00	0.00	0.000	0.178
9/08/10	6:45p	80.2	82.1	80.2	44	56.3	3.0	NNE	0.75	10.0	WSW	80.2	79.7	79.7	29.680	0.00	0.00	0.000	0.158
9/08/10	7:00p	79.0	80.2	79.0	44	55.2	3.0	NW	0.75	9.0	NNE	79.0	78.6	78.6	29.691	0.00	0.00	0.000	0.146
9/08/10	7:15p	77.8	79.0	77.8	45	54.8	3.0	NW	0.75	11.0	WSW	77.8	77.4	77.4	29.696	0.00	0.00	0.000	0.133
9/08/10	7:30p	76.7	77.7	76.7	46	54.4	3.0	ENE	0.75	12.0	WSW	76.7	76.3	76.3	29.708	0.00	0.00	0.000	0.122
9/08/10	7:45p	75.7	76.6	75.7	47	54.0	3.0	NE	0.75	15.0	N	75.7	75.5	75.5	29.712	0.00	0.00	0.000	0.111
9/08/10	8:00p	74.8	75.6	74.8	49	54.4	3.0	ENE	0.75	10.0	NNE	74.8	74.7	74.7	29.725	0.00	0.00	0.000	0.102
9/08/10	8:15p	73.6	74.8	73.6	49	53.3	3.0	W	0.75	12.0	NNE	73.6	73.2	73.2	29.740	0.00	0.00	0.000	0.090
9/08/10	8:30p	72.3	73.5	72.3	50	52.6	4.0	W	1.00	11.0	SW	72.3	71.5	71.5	29.750	0.00	0.00	0.000	0.076
9/08/10	8:45p	71.6	72.3	71.6	52	53.0	3.0	WSW	0.75	11.0	NNE	71.6	70.7	70.7	29.757	0.00	0.00	0.000	0.069
9/08/10	9:00p	70.9	71.6	70.9	54	53.4	2.0	WSW	0.50	8.0	N	70.9	69.8	69.8	29.768	0.00	0.00	0.000	0.061
9/08/10	9:15p	70.3	70.9	70.3	55	53.4	3.0	WSW	0.75	10.0	N	70.3	69.1	69.1	29.763	0.00	0.00	0.000	0.055
9/08/10	9:30p	70.0	70.3	70.0	55	53.1	1.0	ENE	0.25	9.0	NNE	70.0	68.7	68.7	29.770	0.00	0.00	0.000	0.052
9/08/10	9:45p	69.8	70.0	69.8	55	52.9	2.0	ENE	0.50	8.0	N	69.8	68.6	68.6	29.771	0.00	0.00	0.000	0.050
9/08/10	10:00p	69.7	69.8	69.7	55	52.8	0.0	W	0.00	5.0	NE	69.7	68.5	68.5	29.770	0.00	0.00	0.000	0.049
9/08/10	10:15p	69.5	69.8	69.5	54	52.1	1.0	NE	0.25	9.0	NNE	69.5	68.3	68.3	29.770	0.00	0.00	0.000	0.047
9/08/10	10:30p	69.2	69.6	69.2	53	51.3	2.0	W	0.50	7.0	NE	69.2	68.0	68.0	29.772	0.00	0.00	0.000	0.044
9/08/10	10:45p	69.1	69.2	69.1	53	51.2	2.0	NNW	0.50	12.0	NNW	69.1	67.9	67.9	29.772	0.00	0.00	0.000	0.043
9/08/10	11:00p	68.9	69.1	68.8	53	51.1	2.0	N	0.50	9.0	N	68.9	67.8	67.8	29.772	0.00	0.00	0.000	0.041
9/08/10	11:15p	68.7	68.9	68.7	53	50.9	2.0	N	0.50	9.0	N	68.7	67.6	67.6	29.773	0.00	0.00	0.000	0.039
9/08/10	11:30p	68.5	68.7	68.5	54	51.2	1.0	WSW	0.25	9.0	SSW	68.5	67.5	67.5	29.779	0.00	0.00	0.000	0.036
9/08/10	11:45p	68.3	68.5	68.2	54	51.0	1.0	WNW	0.25	7.0	WSW	68.3	67.3	67.3	29.784	0.00	0.00	0.000	0.034
9/09/10	12:00a	68.0	68.3	68.0	54	50.7	1.0	WSW	0.25	5.0	WSW	68.0	67.1	67.1	29.783	0.00	0.00	0.000	0.031

Gowanus Phase III Weather Data 9/09/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/09/10	12:15a	67.8	68.0	67.8	54	50.5	2.0	WSW	0.50	7.0	NE	67.8	66.9	66.9	29.786	0.00	0.00	0.000	0.029
9/09/10	12:30a	67.6	67.8	67.6	56	51.3	1.0	E	0.25	7.0	N	67.6	66.9	66.9	29.792	0.00	0.00	0.000	0.027
9/09/10	12:45a	67.4	67.6	67.4	56	51.2	0.0	NW	0.00	4.0	NW	67.4	66.6	66.6	29.790	0.00	0.00	0.000	0.025
9/09/10	1:00a	67.2	67.4	67.2	57	51.4	0.0	N	0.00	7.0	N	67.2	66.5	66.5	29.789	0.00	0.00	0.000	0.023
9/09/10	1:15a	67.0	67.2	67.0	57	51.3	0.0	NNW	0.00	3.0	NNW	67.0	66.3	66.3	29.788	0.00	0.00	0.000	0.021
9/09/10	1:30a	66.7	67.0	66.7	58	51.5	1.0	WNW	0.25	6.0	WNW	66.7	66.0	66.0	29.786	0.00	0.00	0.000	0.018
9/09/10	1:45a	66.4	66.7	66.4	59	51.6	1.0	W	0.25	4.0	W	66.4	65.7	65.7	29.784	0.00	0.00	0.000	0.015
9/09/10	2:00a	66.3	66.5	66.3	59	51.5	1.0	W	0.25	6.0	WSW	66.3	65.6	65.6	29.777	0.00	0.00	0.000	0.014
9/09/10	2:15a	66.1	66.3	66.1	60	51.8	1.0	WSW	0.25	5.0	WSW	66.1	65.4	65.4	29.773	0.00	0.00	0.000	0.011
9/09/10	2:30a	65.9	66.1	65.9	60	51.6	1.0	WSW	0.25	7.0	WSW	65.9	65.2	65.2	29.771	0.00	0.00	0.000	0.009
9/09/10	2:45a	65.7	65.9	65.7	60	51.4	1.0	WSW	0.25	4.0	WSW	65.7	65.0	65.0	29.769	0.00	0.00	0.000	0.007
9/09/10	3:00a	65.5	65.7	65.5	60	51.2	0.0	SW	0.00	4.0	SW	65.5	64.8	64.8	29.760	0.00	0.00	0.000	0.005
9/09/10	3:15a	65.3	65.5	65.3	61	51.5	1.0	WSW	0.25	5.0	WSW	65.3	64.6	64.6	29.758	0.00	0.00	0.000	0.003
9/09/10	3:30a	65.0	65.3	65.0	62	51.7	1.0	W	0.25	5.0	W	65.0	64.4	64.4	29.758	0.00	0.00	0.000	0.000
9/09/10	3:45a	64.7	65.0	64.7	62	51.4	1.0	SW	0.25	6.0	WSW	64.7	64.1	64.1	29.759	0.00	0.00	0.003	0.000
9/09/10	4:00a	64.5	64.7	64.5	62	51.2	1.0	WSW	0.25	6.0	WSW	64.5	63.8	63.8	29.756	0.00	0.00	0.005	0.000
9/09/10	4:15a	64.4	64.5	64.4	63	51.5	0.0	SW	0.00	8.0	SW	64.4	63.8	63.8	29.753	0.00	0.00	0.006	0.000
9/09/10	4:30a	64.1	64.4	64.1	63	51.2	0.0	W	0.00	5.0	WSW	64.1	63.5	63.5	29.747	0.00	0.00	0.009	0.000
9/09/10	4:45a	63.8	64.1	63.8	64	51.4	0.0	WSW	0.00	5.0	WSW	63.8	63.2	63.2	29.743	0.00	0.00	0.013	0.000
9/09/10	5:00a	63.5	63.8	63.5	65	51.5	0.0	WSW	0.00	5.0	WSW	63.5	63.0	63.0	29.743	0.00	0.00	0.016	0.000
9/09/10	5:15a	63.4	63.6	63.4	65	51.4	1.0	SW	0.25	7.0	SW	63.4	62.8	62.8	29.748	0.00	0.00	0.017	0.000
9/09/10	5:30a	63.2	63.4	63.2	66	51.6	0.0	SW	0.00	4.0	SW	63.2	62.7	62.7	29.745	0.00	0.00	0.019	0.000
9/09/10	5:45a	63.2	63.2	63.2	66	51.6	0.0	SSE	0.00	7.0	SW	63.2	62.7	62.7	29.747	0.00	0.00	0.019	0.000
9/09/10	6:00a	63.1	63.2	63.1	66	51.6	0.0	WSW	0.00	4.0	WSW	63.1	62.6	62.6	29.742	0.00	0.00	0.020	0.000
9/09/10	6:15a	63.0	63.1	63.0	67	51.9	1.0	W	0.25	4.0	WSW	63.0	62.5	62.5	29.744	0.00	0.00	0.021	0.000
9/09/10	6:30a	62.9	63.1	62.9	67	51.8	0.0	W	0.00	4.0	WNW	62.9	62.4	62.4	29.742	0.00	0.00	0.022	0.000
9/09/10	6:45a	62.8	62.9	62.8	67	51.7	1.0	WSW	0.25	5.0	SSE	62.8	62.3	62.3	29.744	0.00	0.00	0.023	0.000
9/09/10	7:00a	62.8	62.8	62.7	67	51.7	1.0	WSW	0.25	5.0	WSW	62.8	62.3	62.3	29.745	0.00	0.00	0.023	0.000
9/09/10	7:15a	63.1	63.1	62.7	67	52.0	1.0	WSW	0.25	7.0	WSW	63.1	62.6	62.6	29.744	0.00	0.00	0.020	0.000
9/09/10	7:30a	63.8	63.9	63.1	66	52.2	1.0	WSW	0.25	5.0	WSW	63.8	63.3	63.3	29.752	0.00	0.00	0.013	0.000
9/09/10	7:45a	64.2	64.2	63.9	65	52.2	1.0	WSW	0.25	5.0	WNW	64.2	63.7	63.7	29.755	0.00	0.00	0.008	0.000
9/09/10	8:00a	64.5	64.5	64.2	64	52.0	1.0	WSW	0.25	7.0	SW	64.5	64.0	64.0	29.753	0.00	0.00	0.005	0.000
9/09/10	8:15a	64.4	64.5	64.3	65	52.4	1.0	W	0.25	5.0	WNW	64.4	64.0	64.0	29.751	0.00	0.00	0.006	0.000
9/09/10	8:30a	64.9	64.9	64.4	63	52.0	0.0	SW	0.00	6.0	WSW	64.9	64.4	64.4	29.742	0.00	0.00	0.001	0.000
9/09/10	8:45a	67.0	67.0	64.9	61	53.1	1.0	W	0.25	4.0	N	67.0	66.6	66.6	29.741	0.00	0.00	0.000	0.021
9/09/10	9:00a	67.8	67.8	67.0	59	52.9	1.0	WSW	0.25	10.0	SSW	67.8	67.4	67.4	29.741	0.00	0.00	0.000	0.029
9/09/10	9:15a	68.6	68.6	67.8	57	52.8	1.0	WSW	0.25	8.0	SSW	68.6	67.9	67.9	29.741	0.00	0.00	0.000	0.037
9/09/10	9:30a	69.1	69.3	68.6	55	52.2	2.0	WSW	0.50	8.0	W	69.1	68.1	68.1	29.741	0.00	0.00	0.000	0.043
9/09/10	9:45a	69.5	69.6	69.1	55	52.6	2.0	WSW	0.50	8.0	NNW	69.5	68.3	68.3	29.745	0.00	0.00	0.000	0.047
9/09/10	10:00a	70.3	70.3	69.2	54	52.9	3.0	W	0.75	8.0	NNW	70.3	69.0	69.0	29.741	0.00	0.00	0.000	0.055
9/09/10	10:15a	70.3	70.7	70.3	54	52.9	2.0	W	0.50	8.0	W	70.3	69.0	69.0	29.740	0.00	0.00	0.000	0.055
9/09/10	10:30a	69.5	70.4	69.5	55	52.6	2.0	W	0.50	7.0	WSW	69.5	68.3	68.3	29.741	0.00	0.00	0.000	0.047
9/09/10	10:45a	69.0	69.4	68.9	55	52.2	1.0	NW	0.25	8.0	SSW	69.0	68.0	68.0	29.741	0.00	0.00	0.000	0.042
9/09/10	11:00a	68.2	68.9	68.1	56	51.9	2.0	WSW	0.50	7.0	SW	68.2	67.5	67.5	29.740	0.00	0.00	0.000	0.033
9/09/10	11:15a	68.4	68.5	68.2	56	52.1	3.0	WSW	0.75	9.0	WSW	68.4	67.6	67.6	29.740	0.00	0.00	0.000	0.035
9/09/10	11:30a	70.1	70.1	68.4	53	52.2	2.0	W	0.50	7.0	NNE	70.1	68.7	68.7	29.739	0.00	0.00	0.000	0.053
9/09/10	11:45a	70.1	70.2	70.0	52	51.7	2.0	WSW	0.50	10.0	NNE	70.1	68.6	68.6	29.737	0.00	0.00	0.000	0.053
9/09/10	12:00p	69.6	70.0	69.5	54	52.2	2.0	SW	0.50	8.0	NNW	69.6	68.3	68.3	29.732	0.00	0.00	0.000	0.048
9/09/10	12:15p	70.4	70.4	69.4	52	51.9	2.0	W	0.50	8.0	WSW	70.4	69.0	69.0	29.731	0.00	0.00	0.000	0.056
9/09/10	12:30p	69.9	70.5	69.9	52	51.5	2.0	WSW	0.50	8.0	S	69.9	68.4	68.4	29.738	0.00	0.00	0.000	0.051
9/09/10	12:45p	69.4	69.8	69.3	52	51.0	3.0	WSW	0.75	8.0	WSW	69.4	68.0	68.0	29.732	0.00	0.00	0.000	0.046
9/09/10	1:00p	69.5	69.7	69.4	52	51.1	2.0	WSW	0.50	8.0	SSW	69.5	68.1	68.1	29.734	0.00	0.00	0.000	0.047
9/09/10	1:15p	69.9	69.9	69.4	52	51.5	2.0	WSW	0.50	7.0	SSW	69.9	68.4	68.4	29.730	0.00	0.00	0.000	0.051

Gowanus Phase III Weather Data 9/09/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/09/10	1:30p	69.5	69.9	69.5	52	51.1	2.0	W	0.50	8.0	SW	69.5	68.1	68.1	29.732	0.00	0.00	0.000	0.047
9/09/10	1:45p	70.3	70.3	69.5	52	51.8	3.0	WSW	0.75	7.0	W	70.3	68.9	68.9	29.726	0.00	0.00	0.000	0.055
9/09/10	2:00p	70.7	71.0	70.3	51	51.7	2.0	WSW	0.50	7.0	SW	70.7	69.3	69.3	29.725	0.00	0.00	0.000	0.059
9/09/10	2:15p	70.4	70.7	70.4	52	51.9	2.0	WSW	0.50	7.0	SSW	70.4	69.0	69.0	29.725	0.00	0.00	0.000	0.056
9/09/10	2:30p	70.4	70.4	70.3	52	51.9	2.0	WSW	0.50	9.0	W	70.4	69.0	69.0	29.724	0.00	0.00	0.000	0.056
9/09/10	2:45p	70.8	70.8	70.4	53	52.8	2.0	WSW	0.50	11.0	NNE	70.8	69.6	69.6	29.723	0.00	0.00	0.000	0.060
9/09/10	3:00p	70.7	71.0	70.6	50	51.1	3.0	WSW	0.75	11.0	NNE	70.7	69.2	69.2	29.718	0.00	0.00	0.000	0.059
9/09/10	3:15p	72.2	72.2	70.8	49	52.0	4.0	WSW	1.00	10.0	NNE	72.2	71.3	71.3	29.714	0.00	0.00	0.000	0.075
9/09/10	3:30p	71.5	72.5	71.5	49	51.3	2.0	WNW	0.50	11.0	NE	71.5	70.2	70.2	29.719	0.00	0.00	0.000	0.068
9/09/10	3:45p	70.8	71.5	70.8	51	51.8	2.0	NE	0.50	11.0	NE	70.8	69.4	69.4	29.721	0.00	0.00	0.000	0.060
9/09/10	4:00p	70.4	70.8	70.4	51	51.4	2.0	W	0.50	10.0	W	70.4	68.9	68.9	29.721	0.00	0.00	0.000	0.056
9/09/10	4:15p	70.4	70.6	70.4	52	51.9	2.0	WSW	0.50	7.0	W	70.4	69.0	69.0	29.723	0.00	0.00	0.000	0.056
9/09/10	4:30p	70.2	70.4	70.1	53	52.3	2.0	WNW	0.50	8.0	W	70.2	68.8	68.8	29.726	0.00	0.00	0.000	0.054
9/09/10	4:45p	69.9	70.2	69.9	54	52.5	3.0	WSW	0.75	7.0	SSW	69.9	68.5	68.5	29.726	0.00	0.00	0.000	0.051
9/09/10	5:00p	69.7	69.9	69.7	55	52.8	2.0	WSW	0.50	8.0	WSW	69.7	68.5	68.5	29.724	0.00	0.00	0.000	0.049
9/09/10	5:15p	69.9	69.9	69.8	54	52.5	2.0	NNE	0.50	11.0	NW	69.9	68.5	68.5	29.724	0.00	0.00	0.000	0.051
9/09/10	5:30p	70.2	70.2	69.8	54	52.8	2.0	WNW	0.50	8.0	NNW	70.2	68.9	68.9	29.726	0.00	0.00	0.000	0.054
9/09/10	5:45p	69.8	70.2	69.8	55	52.9	2.0	W	0.50	7.0	SW	69.8	68.6	68.6	29.729	0.00	0.00	0.000	0.050
9/09/10	6:00p	68.8	69.8	68.8	56	52.5	3.0	NNW	0.75	13.0	NE	68.8	67.9	67.9	29.735	0.00	0.00	0.000	0.040
9/09/10	6:15p	68.6	68.8	68.6	56	52.3	3.0	W	0.75	14.0	N	68.6	67.8	67.8	29.741	0.00	0.00	0.000	0.037
9/09/10	6:30p	68.3	68.6	68.3	56	52.0	3.0	W	0.75	9.0	W	68.3	67.5	67.5	29.746	0.00	0.00	0.000	0.034
9/09/10	6:45p	68.0	68.3	68.0	57	52.2	2.0	WSW	0.50	8.0	W	68.0	67.4	67.4	29.753	0.00	0.00	0.000	0.031
9/09/10	7:00p	67.7	68.0	67.7	58	52.4	2.0	WSW	0.50	8.0	SW	67.7	67.2	67.2	29.753	0.00	0.00	0.000	0.028
9/09/10	7:15p	67.4	67.7	67.4	58	52.1	3.0	WSW	0.75	10.0	NNE	67.4	66.8	66.8	29.756	0.00	0.00	0.000	0.025
9/09/10	7:30p	67.3	67.4	67.2	59	52.5	2.0	WSW	0.50	7.0	W	67.3	66.8	66.8	29.758	0.00	0.00	0.000	0.024
9/09/10	7:45p	67.1	67.3	67.1	58	51.8	3.0	ENE	0.75	11.0	N	67.1	66.5	66.5	29.767	0.00	0.00	0.000	0.022
9/09/10	8:00p	66.9	67.1	66.9	59	52.1	2.0	WNW	0.50	11.0	ENE	66.9	66.3	66.3	29.771	0.00	0.00	0.000	0.020
9/09/10	8:15p	66.8	66.9	66.8	58	51.5	2.0	WSW	0.50	8.0	NE	66.8	66.1	66.1	29.775	0.00	0.00	0.000	0.019
9/09/10	8:30p	66.7	66.8	66.7	59	51.9	3.0	WSW	0.75	8.0	NNE	66.7	66.1	66.1	29.787	0.00	0.00	0.000	0.018
9/09/10	8:45p	66.5	66.7	66.5	59	51.7	2.0	WSW	0.50	8.0	N	66.5	65.8	65.8	29.787	0.00	0.00	0.000	0.016
9/09/10	9:00p	66.1	66.5	66.1	59	51.4	3.0	W	0.75	14.0	N	66.1	65.3	65.3	29.792	0.00	0.00	0.000	0.011
9/09/10	9:15p	65.9	66.1	65.8	60	51.6	2.0	WNW	0.50	7.0	W	65.9	65.2	65.2	29.794	0.00	0.00	0.000	0.009
9/09/10	9:30p	65.9	65.9	65.8	61	52.1	3.0	WSW	0.75	8.0	NNE	65.9	65.3	65.3	29.788	0.00	0.00	0.000	0.009
9/09/10	9:45p	65.6	65.8	65.6	61	51.8	2.0	WSW	0.50	9.0	SW	65.6	65.0	65.0	29.786	0.00	0.00	0.000	0.006
9/09/10	10:00p	65.4	65.6	65.4	62	52.0	2.0	W	0.50	10.0	SW	65.4	64.8	64.8	29.785	0.00	0.00	0.000	0.004
9/09/10	10:15p	65.0	65.4	65.0	62	51.7	2.0	W	0.50	8.0	W	65.0	64.4	64.4	29.776	0.00	0.00	0.000	0.000
9/09/10	10:30p	64.9	65.0	64.9	62	51.6	2.0	WSW	0.50	9.0	SSW	64.9	64.3	64.3	29.773	0.00	0.00	0.001	0.000
9/09/10	10:45p	64.8	64.9	64.8	62	51.5	2.0	SW	0.50	8.0	SE	64.8	64.2	64.2	29.774	0.00	0.00	0.002	0.000
9/09/10	11:00p	64.7	64.8	64.7	63	51.8	2.0	WSW	0.50	6.0	WSW	64.7	64.2	64.2	29.774	0.00	0.00	0.003	0.000
9/09/10	11:15p	64.5	64.7	64.5	64	52.0	1.0	W	0.25	6.0	WSW	64.5	64.0	64.0	29.774	0.00	0.00	0.005	0.000
9/09/10	11:30p	64.4	64.5	64.4	64	52.0	2.0	WSW	0.50	7.0	SSW	64.4	63.9	63.9	29.784	0.00	0.00	0.006	0.000
9/09/10	11:45p	64.4	64.4	64.3	64	52.0	1.0	WSW	0.25	7.0	ENE	64.4	63.9	63.9	29.785	0.00	0.00	0.006	0.000
9/10/10	12:00a	64.5	64.6	64.4	63	51.6	1.0	WSW	0.25	6.0	WSW	64.5	63.9	63.9	29.784	0.00	0.00	0.005	0.000

Gowanus Phase III Weather Data 9/10/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/10/10	12:15a	64.4	64.6	64.4	64	52.0	1.0	W	0.25	7.0	W	64.4	63.9	63.9	29.778	0.00	0.00	0.006	0.000
9/10/10	12:30a	64.1	64.4	64.1	64	51.7	1.0	ENE	0.25	11.0	NNE	64.1	63.5	63.5	29.776	0.00	0.00	0.009	0.000
9/10/10	12:45a	63.9	64.1	63.9	65	51.9	1.0	NE	0.25	9.0	NE	63.9	63.4	63.4	29.779	0.00	0.00	0.011	0.000
9/10/10	1:00a	63.7	63.9	63.7	65	51.7	1.0	NNE	0.25	6.0	SW	63.7	63.2	63.2	29.772	0.00	0.00	0.014	0.000
9/10/10	1:15a	63.6	63.7	63.6	66	52.0	1.0	WSW	0.25	5.0	ENE	63.6	63.1	63.1	29.772	0.00	0.00	0.015	0.000
9/10/10	1:30a	63.5	63.6	63.4	66	51.9	1.0	NE	0.25	6.0	SW	63.5	63.0	63.0	29.771	0.00	0.00	0.016	0.000
9/10/10	1:45a	63.3	63.5	63.3	67	52.2	0.0	ENE	0.00	5.0	SSW	63.3	62.8	62.8	29.772	0.00	0.00	0.018	0.000
9/10/10	2:00a	63.2	63.3	63.2	67	52.1	1.0	SW	0.25	6.0	WSW	63.2	62.7	62.7	29.769	0.00	0.00	0.019	0.000
9/10/10	2:15a	63.0	63.2	63.0	68	52.3	1.0	NW	0.25	5.0	S	63.0	62.6	62.6	29.771	0.00	0.00	0.021	0.000
9/10/10	2:30a	62.9	63.0	62.9	68	52.2	1.0	WSW	0.25	5.0	NW	62.9	62.5	62.5	29.767	0.00	0.00	0.022	0.000
9/10/10	2:45a	62.7	62.9	62.7	68	52.0	0.0	NW	0.00	4.0	SSE	62.7	62.2	62.2	29.770	0.00	0.00	0.024	0.000
9/10/10	3:00a	62.7	62.7	62.7	68	52.0	1.0	WSW	0.25	5.0	SW	62.7	62.2	62.2	29.769	0.00	0.00	0.024	0.000
9/10/10	3:15a	62.7	62.7	62.6	68	52.0	1.0	WNW	0.25	5.0	WSW	62.7	62.2	62.2	29.760	0.00	0.00	0.024	0.000
9/10/10	3:30a	62.7	62.7	62.7	68	52.0	0.0	WNW	0.00	5.0	WNW	62.7	62.2	62.2	29.758	0.00	0.00	0.024	0.000
9/10/10	3:45a	62.6	62.7	62.6	69	52.3	0.0	WNW	0.00	4.0	WNW	62.6	62.2	62.2	29.759	0.00	0.00	0.025	0.000
9/10/10	4:00a	62.7	62.7	62.6	68	52.0	1.0	SW	0.25	5.0	W	62.7	62.2	62.2	29.761	0.00	0.00	0.024	0.000
9/10/10	4:15a	62.7	62.7	62.7	69	52.4	1.0	WSW	0.25	5.0	WSW	62.7	62.3	62.3	29.761	0.00	0.00	0.024	0.000
9/10/10	4:30a	62.7	62.7	62.7	69	52.4	1.0	WSW	0.25	5.0	WSW	62.7	62.3	62.3	29.759	0.00	0.00	0.024	0.000
9/10/10	4:45a	62.5	62.7	62.5	69	52.2	0.0	SSW	0.00	4.0	WSW	62.5	62.1	62.1	29.760	0.00	0.00	0.026	0.000
9/10/10	5:00a	62.3	62.5	62.3	70	52.4	1.0	WSW	0.25	4.0	WSW	62.3	61.9	61.9	29.758	0.00	0.00	0.028	0.000
9/10/10	5:15a	62.2	62.3	62.2	70	52.3	1.0	WSW	0.25	6.0	SW	62.2	61.7	61.7	29.761	0.00	0.00	0.029	0.000
9/10/10	5:30a	62.1	62.2	62.1	70	52.2	1.0	SW	0.25	5.0	SW	62.1	61.6	61.6	29.765	0.00	0.00	0.030	0.000
9/10/10	5:45a	62.0	62.1	62.0	71	52.5	1.0	WSW	0.25	6.0	WSW	62.0	61.6	61.6	29.771	0.00	0.00	0.031	0.000
9/10/10	6:00a	61.9	62.0	61.9	71	52.4	1.0	WSW	0.25	5.0	WSW	61.9	61.5	61.5	29.774	0.00	0.00	0.032	0.000
9/10/10	6:15a	61.8	61.9	61.8	71	52.3	1.0	WSW	0.25	6.0	W	61.8	61.3	61.3	29.780	0.00	0.00	0.033	0.000
9/10/10	6:30a	61.8	61.9	61.8	72	52.7	1.0	WNW	0.25	6.0	WSW	61.8	61.4	61.4	29.786	0.00	0.00	0.033	0.000
9/10/10	6:45a	61.8	61.9	61.8	71	52.3	1.0	NNW	0.25	7.0	N	61.8	61.3	61.3	29.787	0.00	0.00	0.033	0.000
9/10/10	7:00a	61.8	61.8	61.8	71	52.3	1.0	W	0.25	5.0	W	61.8	61.3	61.3	29.788	0.00	0.00	0.033	0.000
9/10/10	7:15a	62.4	62.4	61.8	71	52.9	0.0	WSW	0.00	6.0	WSW	62.4	62.0	62.0	29.798	0.00	0.00	0.027	0.000
9/10/10	7:30a	63.0	63.0	62.4	69	52.7	0.0	WSW	0.00	3.0	WSW	63.0	62.6	62.6	29.802	0.00	0.00	0.021	0.000
9/10/10	7:45a	63.4	63.4	63.0	69	53.0	0.0	WSW	0.00	4.0	W	63.4	63.1	63.1	29.798	0.00	0.00	0.017	0.000
9/10/10	8:00a	63.8	63.8	63.4	68	53.0	1.0	WSW	0.25	6.0	NE	63.8	63.5	63.5	29.801	0.00	0.00	0.013	0.000
9/10/10	8:15a	64.5	64.5	63.8	67	53.3	1.0	W	0.25	6.0	W	64.5	64.2	64.2	29.802	0.00	0.00	0.005	0.000
9/10/10	8:30a	65.6	65.6	64.6	66	53.9	1.0	NNW	0.25	5.0	NE	65.6	65.4	65.4	29.802	0.00	0.00	0.000	0.006
9/10/10	8:45a	66.8	66.8	65.7	63	53.8	1.0	NNW	0.25	7.0	WSW	66.8	66.6	66.6	29.804	0.00	0.00	0.000	0.019
9/10/10	9:00a	67.5	67.5	66.9	61	53.6	1.0	N	0.25	8.0	WSW	67.5	67.2	67.2	29.803	0.00	0.00	0.000	0.026
9/10/10	9:15a	68.2	68.2	67.5	61	54.2	1.0	ESE	0.25	7.0	NNE	68.2	67.9	67.9	29.802	0.00	0.00	0.000	0.033
9/10/10	9:30a	69.9	69.9	68.2	58	54.4	1.0	E	0.25	5.0	NNE	69.9	68.9	68.9	29.803	0.00	0.00	0.000	0.051
9/10/10	9:45a	69.7	70.1	69.5	58	54.3	1.0	NNE	0.25	7.0	NNE	69.7	68.8	68.8	29.806	0.00	0.00	0.000	0.049
9/10/10	10:00a	69.5	70.1	69.5	58	54.1	1.0	N	0.25	7.0	N	69.5	68.6	68.6	29.812	0.00	0.00	0.000	0.047
9/10/10	10:15a	70.3	70.3	69.5	56	53.9	1.0	W	0.25	6.0	SW	70.3	69.2	69.2	29.811	0.00	0.00	0.000	0.055
9/10/10	10:30a	70.1	70.3	70.1	57	54.2	1.0	NNW	0.25	5.0	ENE	70.1	69.0	69.0	29.810	0.00	0.00	0.000	0.053
9/10/10	10:45a	69.5	70.1	69.4	58	54.1	1.0	WSW	0.25	7.0	NNE	69.5	68.6	68.6	29.809	0.00	0.00	0.000	0.047
9/10/10	11:00a	69.6	69.6	69.5	58	54.2	1.0	WSW	0.25	6.0	NE	69.6	68.7	68.7	29.815	0.00	0.00	0.000	0.048
9/10/10	11:15a	70.1	70.1	69.6	56	53.7	1.0	NE	0.25	7.0	NE	70.1	68.9	68.9	29.811	0.00	0.00	0.000	0.053
9/10/10	11:30a	71.4	71.4	70.0	54	53.9	1.0	WSW	0.25	7.0	SW	71.4	70.5	70.5	29.807	0.00	0.00	0.000	0.067
9/10/10	11:45a	71.9	72.1	71.5	54	54.3	2.0	W	0.50	8.0	NNE	71.9	71.3	71.3	29.803	0.00	0.00	0.000	0.072
9/10/10	12:00p	72.3	72.6	71.9	52	53.7	2.0	W	0.50	6.0	NE	72.3	71.7	71.7	29.803	0.00	0.00	0.000	0.076
9/10/10	12:15p	72.2	72.5	72.0	52	53.6	1.0	ENE	0.25	6.0	NNE	72.2	71.5	71.5	29.805	0.00	0.00	0.000	0.075
9/10/10	12:30p	71.5	72.2	71.4	53	53.5	1.0	SW	0.25	8.0	SSW	71.5	70.6	70.6	29.806	0.00	0.00	0.000	0.068
9/10/10	12:45p	71.9	71.9	71.2	53	53.8	1.0	ENE	0.25	9.0	NNE	71.9	71.2	71.2	29.803	0.00	0.00	0.000	0.072
9/10/10	1:00p	72.0	72.1	71.9	52	53.4	1.0	ENE	0.25	8.0	N	72.0	71.3	71.3	29.802	0.00	0.00	0.000	0.073
9/10/10	1:15p	72.0	72.1	71.8	50	52.3	1.0	NNE	0.25	9.0	N	72.0	71.1	71.1	29.797	0.00	0.00	0.000	0.073

Gowanus Phase III Weather Data 9/10/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/10/10	1:30p	71.9	72.0	71.9	51	52.8	2.0	W	0.50	8.0	NNW	71.9	71.0	71.0	29.798	0.00	0.00	0.000	0.072
9/10/10	1:45p	73.0	73.0	71.9	51	53.8	2.0	WSW	0.50	7.0	WSW	73.0	72.6	72.6	29.799	0.00	0.00	0.000	0.083
9/10/10	2:00p	73.5	73.5	73.0	50	53.7	2.0	W	0.50	11.0	N	73.5	73.1	73.1	29.801	0.00	0.00	0.000	0.089
9/10/10	2:15p	73.3	74.2	73.3	47	51.8	3.0	W	0.75	12.0	N	73.3	72.6	72.6	29.802	0.00	0.00	0.000	0.086
9/10/10	2:30p	72.6	73.2	72.6	49	52.3	2.0	W	0.50	8.0	NNE	72.6	71.9	71.9	29.802	0.00	0.00	0.000	0.079
9/10/10	2:45p	72.5	72.6	72.4	50	52.8	2.0	W	0.50	8.0	N	72.5	71.8	71.8	29.802	0.00	0.00	0.000	0.078
9/10/10	3:00p	72.4	72.5	72.3	50	52.7	1.0	W	0.25	6.0	ENE	72.4	71.7	71.7	29.801	0.00	0.00	0.000	0.077
9/10/10	3:15p	71.8	72.4	71.8	51	52.7	2.0	E	0.50	8.0	NNE	71.8	70.9	70.9	29.796	0.00	0.00	0.000	0.071
9/10/10	3:30p	71.9	71.9	71.3	50	52.2	2.0	WSW	0.50	7.0	WNW	71.9	71.0	71.0	29.790	0.00	0.00	0.000	0.072
9/10/10	3:45p	72.1	72.6	72.0	47	50.8	2.0	WNW	0.50	11.0	NNE	72.1	70.9	70.9	29.793	0.00	0.00	0.000	0.074
9/10/10	4:00p	72.6	72.6	72.0	47	51.2	2.0	NE	0.50	8.0	NNE	72.6	71.7	71.7	29.798	0.00	0.00	0.000	0.079
9/10/10	4:15p	72.2	72.7	72.2	46	50.3	2.0	E	0.50	8.0	N	72.2	71.0	71.0	29.802	0.00	0.00	0.000	0.075
9/10/10	4:30p	71.3	72.1	71.3	49	51.1	3.0	NNE	0.75	9.0	NE	71.3	70.0	70.0	29.803	0.00	0.00	0.000	0.066
9/10/10	4:45p	71.0	71.3	71.0	49	50.9	1.0	SW	0.25	11.0	NNW	71.0	69.5	69.5	29.813	0.00	0.00	0.000	0.063
9/10/10	5:00p	71.0	71.1	71.0	48	50.3	2.0	W	0.50	8.0	WSW	71.0	69.4	69.4	29.809	0.00	0.00	0.000	0.063
9/10/10	5:15p	70.7	71.0	70.7	49	50.6	2.0	W	0.50	10.0	SE	70.7	69.1	69.1	29.817	0.00	0.00	0.000	0.059
9/10/10	5:30p	70.6	70.8	70.6	49	50.5	2.0	NNE	0.50	9.0	N	70.6	69.0	69.0	29.822	0.00	0.00	0.000	0.058
9/10/10	5:45p	70.1	70.5	70.1	50	50.6	2.0	NE	0.50	10.0	NE	70.1	68.4	68.4	29.829	0.00	0.00	0.000	0.053
9/10/10	6:00p	70.1	70.2	70.1	50	50.6	2.0	NNW	0.50	8.0	WSW	70.1	68.4	68.4	29.833	0.00	0.00	0.000	0.053
9/10/10	6:15p	69.8	70.1	69.8	50	50.3	2.0	W	0.50	7.0	N	69.8	68.2	68.2	29.838	0.00	0.00	0.000	0.050
9/10/10	6:30p	69.6	69.8	69.5	51	50.7	2.0	NNW	0.50	8.0	NNW	69.6	68.1	68.1	29.848	0.00	0.00	0.000	0.048
9/10/10	6:45p	69.2	69.5	69.2	51	50.3	2.0	W	0.50	9.0	NNW	69.2	67.8	67.8	29.850	0.00	0.00	0.000	0.044
9/10/10	7:00p	69.0	69.2	69.0	52	50.6	1.0	W	0.25	7.0	NNW	69.0	67.8	67.8	29.858	0.00	0.00	0.000	0.042
9/10/10	7:15p	68.8	69.0	68.8	53	51.0	1.0	NW	0.25	5.0	N	68.8	67.7	67.7	29.864	0.00	0.00	0.000	0.040
9/10/10	7:30p	68.7	68.8	68.7	53	50.9	1.0	NNW	0.25	8.0	NE	68.7	67.6	67.6	29.864	0.00	0.00	0.000	0.039
9/10/10	7:45p	68.1	68.7	68.1	54	50.8	2.0	NNE	0.50	8.0	NW	68.1	67.2	67.2	29.871	0.00	0.00	0.000	0.032
9/10/10	8:00p	67.9	68.1	67.9	54	50.6	2.0	NNW	0.50	10.0	WSW	67.9	67.0	67.0	29.879	0.00	0.00	0.000	0.030
9/10/10	8:15p	67.7	67.9	67.7	54	50.5	2.0	NNE	0.50	10.0	NNE	67.7	66.8	66.8	29.884	0.00	0.00	0.000	0.028
9/10/10	8:30p	67.7	67.7	67.7	54	50.5	2.0	ENE	0.50	8.0	NNE	67.7	66.8	66.8	29.894	0.00	0.00	0.000	0.028
9/10/10	8:45p	67.7	67.7	67.7	55	50.9	0.0	NNW	0.00	5.0	NE	67.7	66.9	66.9	29.895	0.00	0.00	0.000	0.028
9/10/10	9:00p	67.6	67.7	67.6	55	50.9	1.0	E	0.25	6.0	ENE	67.6	66.8	66.8	29.896	0.00	0.00	0.000	0.027
9/10/10	9:15p	67.5	67.6	67.5	55	50.8	0.0	SW	0.00	5.0	N	67.5	66.6	66.6	29.896	0.00	0.00	0.000	0.026
9/10/10	9:30p	67.3	67.5	67.3	55	50.6	1.0	NNE	0.25	9.0	NW	67.3	66.4	66.4	29.897	0.00	0.00	0.000	0.024
9/10/10	9:45p	67.2	67.3	67.2	56	51.0	1.0	WSW	0.25	6.0	WSW	67.2	66.4	66.4	29.899	0.00	0.00	0.000	0.023
9/10/10	10:00p	67.2	67.2	67.2	56	51.0	1.0	NNW	0.25	6.0	NW	67.2	66.4	66.4	29.902	0.00	0.00	0.000	0.023
9/10/10	10:15p	67.1	67.2	67.1	56	50.9	0.0	NNW	0.00	2.0	NNW	67.1	66.3	66.3	29.898	0.00	0.00	0.000	0.022
9/10/10	10:30p	66.5	67.0	66.5	57	50.8	1.0	NNW	0.25	6.0	W	66.5	65.7	65.7	29.910	0.00	0.00	0.000	0.016
9/10/10	10:45p	66.2	66.5	66.2	58	51.0	1.0	WSW	0.25	6.0	WSW	66.2	65.4	65.4	29.911	0.00	0.00	0.000	0.012
9/10/10	11:00p	65.9	66.2	65.9	58	50.7	1.0	NE	0.25	6.0	WNW	65.9	65.0	65.0	29.913	0.00	0.00	0.000	0.009
9/10/10	11:15p	65.7	65.9	65.7	58	50.5	1.0	NNW	0.25	7.0	NNE	65.7	64.8	64.8	29.912	0.00	0.00	0.000	0.007
9/10/10	11:30p	65.5	65.7	65.5	59	50.8	1.0	ENE	0.25	7.0	NE	65.5	64.7	64.7	29.911	0.00	0.00	0.000	0.005
9/10/10	11:45p	65.2	65.5	65.2	61	51.4	0.0	NE	0.00	4.0	NE	65.2	64.5	64.5	29.911	0.00	0.00	0.000	0.002
9/11/10	12:00a	64.8	65.2	64.8	61	51.0	1.0	NE	0.25	7.0	NNW	64.8	64.1	64.1	29.913	0.00	0.00	0.002	0.000

Gowanus Phase III Weather Data 9/11/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/11/10	12:15a	64.6	64.8	64.6	62	51.3	1.0	NNW	0.25	7.0	NNW	64.6	63.9	63.9	29.913	0.00	0.00	0.004	0.000
9/11/10	12:30a	64.4	64.5	64.4	62	51.1	0.0	NNW	0.00	5.0	N	64.4	63.7	63.7	29.912	0.00	0.00	0.006	0.000
9/11/10	12:45a	64.2	64.4	64.2	63	51.3	1.0	NNW	0.25	6.0	NNE	64.2	63.6	63.6	29.913	0.00	0.00	0.008	0.000
9/11/10	1:00a	64.0	64.2	64.0	63	51.1	1.0	NE	0.25	6.0	NE	64.0	63.3	63.3	29.914	0.00	0.00	0.010	0.000
9/11/10	1:15a	63.9	64.0	63.9	63	51.1	1.0	ENE	0.25	10.0	NE	63.9	63.2	63.2	29.913	0.00	0.00	0.011	0.000
9/11/10	1:30a	63.8	63.9	63.8	64	51.4	1.0	ESE	0.25	5.0	N	63.8	63.2	63.2	29.916	0.00	0.00	0.013	0.000
9/11/10	1:45a	63.6	63.8	63.6	64	51.2	1.0	ENE	0.25	10.0	N	63.6	63.0	63.0	29.915	0.00	0.00	0.015	0.000
9/11/10	2:00a	63.4	63.6	63.4	65	51.4	1.0	E	0.25	5.0	ENE	63.4	62.8	62.8	29.914	0.00	0.00	0.017	0.000
9/11/10	2:15a	63.3	63.4	63.2	65	51.3	1.0	NE	0.25	6.0	NNW	63.3	62.7	62.7	29.913	0.00	0.00	0.018	0.000
9/11/10	2:30a	63.2	63.3	63.2	65	51.2	1.0	NE	0.25	5.0	NE	63.2	62.6	62.6	29.915	0.00	0.00	0.019	0.000
9/11/10	2:45a	63.0	63.2	63.0	66	51.5	0.0	N	0.00	5.0	N	63.0	62.5	62.5	29.915	0.00	0.00	0.021	0.000
9/11/10	3:00a	62.8	63.0	62.8	67	51.7	0.0	N	0.00	2.0	N	62.8	62.3	62.3	29.912	0.00	0.00	0.023	0.000
9/11/10	3:15a	62.6	62.8	62.6	67	51.5	0.0	N	0.00	4.0	NNE	62.6	62.1	62.1	29.912	0.00	0.00	0.025	0.000
9/11/10	3:30a	62.6	62.6	62.5	67	51.5	1.0	N	0.25	7.0	NNE	62.6	62.1	62.1	29.911	0.00	0.00	0.025	0.000
9/11/10	3:45a	62.4	62.6	62.4	67	51.3	0.0	N	0.00	2.0	N	62.4	61.8	61.8	29.912	0.00	0.00	0.027	0.000
9/11/10	4:00a	62.3	62.4	62.3	68	51.6	0.0	N	0.00	5.0	NE	62.3	61.8	61.8	29.912	0.00	0.00	0.028	0.000
9/11/10	4:15a	62.2	62.3	62.1	68	51.5	1.0	NNW	0.25	6.0	NNE	62.2	61.7	61.7	29.912	0.00	0.00	0.029	0.000
9/11/10	4:30a	62.0	62.2	62.0	68	51.3	0.0	WSW	0.00	3.0	WSW	62.0	61.4	61.4	29.916	0.00	0.00	0.031	0.000
9/11/10	4:45a	61.7	62.0	61.7	69	51.4	0.0	WNW	0.00	5.0	WNW	61.7	61.1	61.1	29.916	0.00	0.00	0.034	0.000
9/11/10	5:00a	61.6	61.7	61.6	69	51.3	0.0	NNW	0.00	4.0	NNW	61.6	61.0	61.0	29.917	0.00	0.00	0.035	0.000
9/11/10	5:15a	61.4	61.6	61.4	70	51.5	0.0	NNW	0.00	3.0	NNW	61.4	60.8	60.8	29.925	0.00	0.00	0.037	0.000
9/11/10	5:30a	61.4	61.4	61.4	70	51.5	0.0	N	0.00	5.0	NNE	61.4	60.8	60.8	29.923	0.00	0.00	0.037	0.000
9/11/10	5:45a	61.2	61.4	61.2	70	51.3	0.0	N	0.00	4.0	N	61.2	60.6	60.6	29.925	0.00	0.00	0.040	0.000
9/11/10	6:00a	61.2	61.3	61.2	70	51.3	0.0	N	0.00	2.0	N	61.2	60.6	60.6	29.929	0.00	0.00	0.040	0.000
9/11/10	6:15a	61.3	61.3	61.2	70	51.4	0.0	N	0.00	4.0	NNE	61.3	60.7	60.7	29.929	0.00	0.00	0.039	0.000
9/11/10	6:30a	61.2	61.3	61.2	71	51.7	0.0	NNE	0.00	1.0	NNE	61.2	60.7	60.7	29.940	0.00	0.00	0.040	0.000
9/11/10	6:45a	60.8	61.2	60.8	71	51.3	0.0	NNE	0.00	1.0	NNE	60.8	60.3	60.3	29.941	0.00	0.00	0.044	0.000
9/11/10	7:00a	61.1	61.1	60.8	71	51.6	0.0	NNE	0.00	1.0	NNE	61.1	60.6	60.6	29.950	0.00	0.00	0.041	0.000
9/11/10	7:15a	61.6	61.6	61.1	72	52.5	0.0	NNE	0.00	1.0	NNE	61.6	61.2	61.2	29.953	0.00	0.00	0.035	0.000
9/11/10	7:30a	62.3	62.3	61.6	71	52.8	0.0	NNE	0.00	2.0	NNE	62.3	61.9	61.9	29.956	0.00	0.00	0.028	0.000
9/11/10	7:45a	63.0	63.0	62.3	68	52.3	0.0	NNE	0.00	4.0	NNE	63.0	62.6	62.6	29.961	0.00	0.00	0.021	0.000
9/11/10	8:00a	63.2	63.2	63.0	67	52.1	1.0	W	0.25	5.0	NNW	63.2	62.7	62.7	29.963	0.00	0.00	0.019	0.000
9/11/10	8:15a	64.3	64.3	63.2	65	52.3	1.0	N	0.25	8.0	N	64.3	63.9	63.9	29.966	0.00	0.00	0.007	0.000
9/11/10	8:30a	64.9	65.1	64.4	63	52.0	1.0	NNE	0.25	6.0	NNE	64.9	64.4	64.4	29.963	0.00	0.00	0.001	0.000
9/11/10	8:45a	65.4	65.4	64.7	63	52.5	1.0	NNW	0.25	6.0	N	65.4	64.9	64.9	29.968	0.00	0.00	0.000	0.004
9/11/10	9:00a	66.7	66.7	65.4	61	52.8	1.0	NNW	0.25	6.0	N	66.7	66.2	66.2	29.972	0.00	0.00	0.000	0.018
9/11/10	9:15a	67.7	67.7	66.8	58	52.4	1.0	NNW	0.25	6.0	NNE	67.7	67.2	67.2	29.973	0.00	0.00	0.000	0.028
9/11/10	9:30a	68.4	68.4	67.8	57	52.6	1.0	NE	0.25	8.0	NE	68.4	67.7	67.7	29.972	0.00	0.00	0.000	0.035
9/11/10	9:45a	69.8	69.8	68.4	55	52.9	1.0	NE	0.25	5.0	NNE	69.8	68.6	68.6	29.976	0.00	0.00	0.000	0.050
9/11/10	10:00a	70.9	70.9	69.8	52	52.4	1.0	N	0.25	6.0	E	70.9	69.6	69.6	29.974	0.00	0.00	0.000	0.061
9/11/10	10:15a	71.3	71.4	70.9	51	52.2	2.0	ESE	0.50	6.0	SSW	71.3	70.1	70.1	29.972	0.00	0.00	0.000	0.066
9/11/10	10:30a	72.0	72.0	71.2	50	52.3	1.0	S	0.25	6.0	S	72.0	71.1	71.1	29.972	0.00	0.00	0.000	0.073
9/11/10	10:45a	72.5	72.5	72.1	48	51.7	1.0	ESE	0.25	8.0	N	72.5	71.6	71.6	29.971	0.00	0.00	0.000	0.078
9/11/10	11:00a	73.7	73.7	72.5	47	52.2	1.0	SE	0.25	6.0	E	73.7	73.1	73.1	29.971	0.00	0.00	0.000	0.091
9/11/10	11:15a	75.3	75.3	73.7	46	53.1	1.0	ENE	0.25	5.0	NNW	75.3	75.1	75.1	29.966	0.00	0.00	0.000	0.107
9/11/10	11:30a	75.2	75.3	74.7	45	52.4	1.0	NNW	0.25	6.0	N	75.2	74.9	74.9	29.961	0.00	0.00	0.000	0.106
9/11/10	11:45a	75.7	75.8	74.9	44	52.2	1.0	W	0.25	6.0	NNE	75.7	75.2	75.2	29.960	0.00	0.00	0.000	0.111
9/11/10	12:00p	75.8	75.9	75.6	42	51.1	1.0	WSW	0.25	6.0	WSW	75.8	75.1	75.1	29.960	0.00	0.00	0.000	0.113
9/11/10	12:15p	76.6	76.6	75.9	41	51.1	1.0	WSW	0.25	9.0	N	76.6	75.8	75.8	29.956	0.00	0.00	0.000	0.121
9/11/10	12:30p	77.1	77.4	76.6	39	50.2	1.0	W	0.25	7.0	NNE	77.1	76.2	76.2	29.956	0.00	0.00	0.000	0.126
9/11/10	12:45p	76.9	77.0	76.6	38	49.4	2.0	NNE	0.50	8.0	NE	76.9	76.0	76.0	29.952	0.00	0.00	0.000	0.124
9/11/10	1:00p	78.7	78.9	76.9	35	48.7	1.0	NNW	0.25	6.0	W	78.7	77.5	77.5	29.946	0.00	0.00	0.000	0.143
9/11/10	1:15p	78.7	79.0	78.7	35	48.7	1.0	W	0.25	9.0	WSW	78.7	77.5	77.5	29.942	0.00	0.00	0.000	0.143

Gowanus Phase III Weather Data 9/11/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/11/10	1:30p	79.0	79.0	78.3	35	49.0	1.0	ENE	0.25	6.0	NE	79.0	77.8	77.8	29.941	0.00	0.00	0.000	0.146
9/11/10	1:45p	79.4	79.4	78.8	36	50.1	1.0	WSW	0.25	8.0	NE	79.4	78.2	78.2	29.933	0.00	0.00	0.000	0.150
9/11/10	2:00p	79.4	80.0	79.3	37	50.9	1.0	NE	0.25	8.0	N	79.4	78.3	78.3	29.926	0.00	0.00	0.000	0.150
9/11/10	2:15p	80.4	80.5	79.4	37	51.7	1.0	N	0.25	5.0	ENE	80.4	79.1	79.1	29.925	0.00	0.00	0.000	0.160
9/11/10	2:30p	79.8	80.4	79.7	38	51.9	1.0	S	0.25	5.0	SSE	79.8	78.6	78.6	29.925	0.00	0.00	0.000	0.154
9/11/10	2:45p	80.1	80.1	79.8	38	52.2	1.0	ESE	0.25	5.0	ESE	80.1	78.9	78.9	29.924	0.00	0.00	0.000	0.157
9/11/10	3:00p	80.6	80.9	79.9	37	51.9	1.0	N	0.25	7.0	N	80.6	79.3	79.3	29.924	0.00	0.00	0.000	0.162
9/11/10	3:15p	81.7	81.8	80.6	37	52.9	0.0	N	0.00	5.0	NNE	81.7	80.6	80.6	29.921	0.00	0.00	0.000	0.174
9/11/10	3:30p	80.6	81.7	80.6	37	51.9	1.0	E	0.25	6.0	ENE	80.6	79.3	79.3	29.915	0.00	0.00	0.000	0.162
9/11/10	3:45p	79.4	80.5	79.4	39	52.3	0.0	ESE	0.00	4.0	ESE	79.4	78.4	78.4	29.911	0.00	0.00	0.000	0.150
9/11/10	4:00p	78.7	79.4	78.6	40	52.3	1.0	N	0.25	7.0	NNE	78.7	77.9	77.9	29.912	0.00	0.00	0.000	0.143
9/11/10	4:15p	78.4	78.7	78.4	41	52.7	0.0	N	0.00	5.0	WNW	78.4	77.6	77.6	29.916	0.00	0.00	0.000	0.140
9/11/10	4:30p	78.4	78.5	78.4	41	52.7	1.0	N	0.25	4.0	N	78.4	77.6	77.6	29.915	0.00	0.00	0.000	0.140
9/11/10	4:45p	77.9	78.4	77.9	41	52.3	0.0	ESE	0.00	5.0	N	77.9	77.1	77.1	29.910	0.00	0.00	0.000	0.134
9/11/10	5:00p	78.0	78.0	77.7	41	52.4	0.0	E	0.00	5.0	NNE	78.0	77.2	77.2	29.910	0.00	0.00	0.000	0.135
9/11/10	5:15p	77.7	78.0	77.7	41	52.1	0.0	E	0.00	4.0	E	77.7	76.9	76.9	29.909	0.00	0.00	0.000	0.132
9/11/10	5:30p	76.7	77.7	76.7	43	52.5	2.0	E	0.50	8.0	WNW	76.7	76.1	76.1	29.910	0.00	0.00	0.000	0.122
9/11/10	5:45p	76.0	76.7	76.0	44	52.5	2.0	NW	0.50	7.0	NW	76.0	75.5	75.5	29.911	0.00	0.00	0.000	0.115
9/11/10	6:00p	74.8	76.0	74.8	45	52.0	2.0	NNW	0.50	8.0	NW	74.8	74.4	74.4	29.921	0.00	0.00	0.000	0.102
9/11/10	6:15p	73.6	74.8	73.6	47	52.1	3.0	WNW	0.75	9.0	NW	73.6	73.0	73.0	29.923	0.00	0.00	0.000	0.090
9/11/10	6:30p	73.0	73.6	73.0	48	52.1	2.0	NW	0.50	8.0	NW	73.0	72.3	72.3	29.925	0.00	0.00	0.000	0.083
9/11/10	6:45p	72.4	73.0	72.4	51	53.2	2.0	W	0.50	6.0	W	72.4	71.7	71.7	29.925	0.00	0.00	0.000	0.077
9/11/10	7:00p	71.8	72.4	71.8	54	54.3	2.0	NW	0.50	6.0	NNW	71.8	71.1	71.1	29.925	0.00	0.00	0.000	0.071
9/11/10	7:15p	71.0	71.8	71.0	56	54.5	2.0	NNW	0.50	8.0	WNW	71.0	70.1	70.1	29.926	0.00	0.00	0.000	0.063
9/11/10	7:30p	70.5	70.9	70.4	57	54.5	2.0	NW	0.50	8.0	NW	70.5	69.5	69.5	29.927	0.00	0.00	0.000	0.057
9/11/10	7:45p	70.1	70.5	70.1	60	55.6	2.0	NNW	0.50	8.0	WNW	70.1	69.3	69.3	29.928	0.00	0.00	0.000	0.053
9/11/10	8:00p	69.7	70.1	69.7	60	55.2	3.0	NNW	0.75	10.0	NNW	69.7	69.0	69.0	29.937	0.00	0.00	0.000	0.049
9/11/10	8:15p	69.3	69.7	69.3	62	55.7	3.0	NW	0.75	8.0	W	69.3	68.8	68.8	29.944	0.00	0.00	0.000	0.045
9/11/10	8:30p	69.0	69.3	69.0	64	56.3	2.0	WNW	0.50	8.0	WNW	69.0	68.8	68.8	29.954	0.00	0.00	0.000	0.042
9/11/10	8:45p	68.8	69.0	68.8	66	57.0	2.0	NW	0.50	7.0	W	68.8	68.9	68.9	29.963	0.00	0.00	0.000	0.040
9/11/10	9:00p	68.7	68.8	68.7	67	57.3	1.0	NW	0.25	7.0	WNW	68.7	68.9	68.9	29.971	0.00	0.00	0.000	0.039
9/11/10	9:15p	68.7	68.7	68.7	67	57.3	1.0	NE	0.25	7.0	WNW	68.7	68.9	68.9	29.969	0.00	0.00	0.000	0.039
9/11/10	9:30p	68.5	68.7	68.5	68	57.5	2.0	WNW	0.50	8.0	W	68.5	68.8	68.8	29.971	0.00	0.00	0.000	0.036
9/11/10	9:45p	68.5	68.6	68.5	68	57.5	1.0	ENE	0.25	7.0	NW	68.5	68.8	68.8	29.977	0.00	0.00	0.000	0.036
9/11/10	10:00p	68.5	68.5	68.5	69	57.9	1.0	NW	0.25	6.0	WNW	68.5	68.9	68.9	29.980	0.00	0.00	0.000	0.036
9/11/10	10:15p	68.3	68.5	68.3	70	58.1	2.0	WNW	0.50	8.0	WNW	68.3	68.8	68.8	29.986	0.00	0.00	0.000	0.034
9/11/10	10:30p	68.1	68.3	68.1	70	57.9	2.0	NW	0.50	7.0	WNW	68.1	68.7	68.7	29.987	0.00	0.00	0.000	0.032
9/11/10	10:45p	68.0	68.1	68.0	71	58.2	1.0	NW	0.25	5.0	E	68.0	68.7	68.7	29.989	0.00	0.00	0.000	0.031
9/11/10	11:00p	67.9	68.0	67.9	72	58.5	2.0	NW	0.50	6.0	NW	67.9	68.6	68.6	30.001	0.00	0.00	0.000	0.030
9/11/10	11:15p	67.7	67.9	67.7	73	58.7	2.0	NW	0.50	6.0	NW	67.7	68.4	68.4	30.002	0.00	0.00	0.000	0.028
9/11/10	11:30p	67.7	67.7	67.7	73	58.7	1.0	NNW	0.25	6.0	NNW	67.7	68.4	68.4	30.002	0.00	0.00	0.000	0.028
9/11/10	11:45p	67.8	67.8	67.7	73	58.8	1.0	NNW	0.25	5.0	NNW	67.8	68.5	68.5	30.003	0.00	0.00	0.000	0.029
9/12/10	12:00a	67.6	67.8	67.6	72	58.2	2.0	NNW	0.50	8.0	WNW	67.6	68.2	68.2	30.004	0.00	0.00	0.000	0.027

Gowanus Phase III Weather Data 9/12/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/12/10	12:15a	67.5	67.6	67.5	72	58.2	1.0	NNW	0.25	6.0	WNW	67.5	68.1	68.1	30.007	0.00	0.00	0.000	0.026
9/12/10	12:30a	67.3	67.4	67.3	72	58.0	2.0	NW	0.50	6.0	NNW	67.3	67.9	67.9	30.010	0.00	0.00	0.000	0.024
9/12/10	12:45a	67.3	67.3	67.2	72	58.0	1.0	NNW	0.25	7.0	WNW	67.3	67.9	67.9	30.003	0.00	0.00	0.000	0.024
9/12/10	1:00a	67.1	67.3	67.1	73	58.2	1.0	WNW	0.25	7.0	WSW	67.1	67.7	67.7	30.002	0.00	0.00	0.000	0.022
9/12/10	1:15a	67.0	67.1	67.0	73	58.1	1.0	NNW	0.25	6.0	NW	67.0	67.6	67.6	30.001	0.00	0.00	0.000	0.021
9/12/10	1:30a	66.9	67.0	66.9	74	58.3	2.0	NW	0.50	7.0	NW	66.9	67.5	67.5	30.001	0.00	0.00	0.000	0.020
9/12/10	1:45a	66.7	66.9	66.7	74	58.1	1.0	NNW	0.25	7.0	WNW	66.7	67.3	67.3	29.999	0.00	0.00	0.000	0.018
9/12/10	2:00a	66.6	66.7	66.5	74	58.1	1.0	NNW	0.25	6.0	WNW	66.6	67.2	67.2	29.999	0.00	0.00	0.000	0.017
9/12/10	2:15a	66.6	66.6	66.5	74	58.1	1.0	N	0.25	5.0	NW	66.6	67.2	67.2	30.002	0.00	0.00	0.000	0.017
9/12/10	2:30a	66.5	66.6	66.5	74	58.0	0.0	NW	0.00	5.0	NW	66.5	67.0	67.0	29.988	0.00	0.00	0.000	0.016
9/12/10	2:45a	66.4	66.5	66.4	74	57.9	0.0	E	0.00	2.0	NNW	66.4	66.9	66.9	29.987	0.00	0.00	0.000	0.015
9/12/10	3:00a	66.3	66.4	66.3	75	58.1	0.0	E	0.00	2.0	E	66.3	66.9	66.9	29.988	0.00	0.00	0.000	0.014
9/12/10	3:15a	66.3	66.3	66.2	75	58.1	1.0	E	0.25	5.0	E	66.3	66.9	66.9	29.985	0.00	0.00	0.000	0.014
9/12/10	3:30a	66.2	66.3	66.2	75	58.0	1.0	NNW	0.25	5.0	E	66.2	66.7	66.7	29.973	0.00	0.00	0.000	0.012
9/12/10	3:45a	66.2	66.3	66.2	75	58.0	2.0	NW	0.50	7.0	NW	66.2	66.7	66.7	29.970	0.00	0.00	0.000	0.012
9/12/10	4:00a	66.1	66.2	66.1	75	57.9	1.0	NW	0.25	7.0	NW	66.1	66.6	66.6	29.965	0.00	0.00	0.000	0.011
9/12/10	4:15a	66.1	66.1	66.1	74	57.6	1.0	NW	0.25	6.0	NW	66.1	66.6	66.6	29.966	0.00	0.00	0.000	0.011
9/12/10	4:30a	66.0	66.1	66.0	74	57.5	0.0	NNE	0.00	5.0	NNW	66.0	66.4	66.4	29.970	0.00	0.00	0.000	0.010
9/12/10	4:45a	65.9	66.0	65.9	73	57.0	1.0	NNW	0.25	4.0	NW	65.9	66.3	66.3	29.971	0.00	0.00	0.000	0.009
9/12/10	5:00a	65.7	65.9	65.7	73	56.8	1.0	NW	0.25	5.0	NW	65.7	66.0	66.0	29.971	0.00	0.00	0.000	0.007
9/12/10	5:15a	65.6	65.8	65.5	73	56.7	0.0	NNW	0.00	4.0	NNW	65.6	65.9	65.9	29.972	0.00	0.00	0.000	0.006
9/12/10	5:30a	65.4	65.6	65.4	74	56.9	0.0	ENE	0.00	4.0	ENE	65.4	65.7	65.7	29.972	0.00	0.00	0.000	0.004
9/12/10	5:45a	65.2	65.4	65.2	74	56.7	0.0	ENE	0.00	2.0	ENE	65.2	65.5	65.5	29.972	0.00	0.00	0.000	0.002
9/12/10	6:00a	65.0	65.2	65.0	74	56.5	0.0	ENE	0.00	4.0	ENE	65.0	65.2	65.2	29.972	0.00	0.00	0.000	0.000
9/12/10	6:15a	64.9	65.0	64.9	74	56.4	0.0	ENE	0.00	4.0	ENE	64.9	65.1	65.1	29.981	0.00	0.00	0.001	0.000
9/12/10	6:30a	64.8	64.9	64.8	75	56.7	0.0	ENE	0.00	1.0	ENE	64.8	65.1	65.1	29.986	0.00	0.00	0.002	0.000
9/12/10	6:45a	64.9	64.9	64.8	75	56.8	0.0	ENE	0.00	1.0	ENE	64.9	65.2	65.2	29.982	0.00	0.00	0.001	0.000
9/12/10	7:00a	64.9	64.9	64.9	75	56.8	0.0	ENE	0.00	2.0	ENE	64.9	65.2	65.2	29.992	0.00	0.00	0.001	0.000
9/12/10	7:15a	64.9	64.9	64.9	75	56.8	0.0	ENE	0.00	1.0	ENE	64.9	65.2	65.2	29.993	0.00	0.00	0.001	0.000
9/12/10	7:30a	65.0	65.0	64.8	74	56.5	0.0	ENE	0.00	4.0	ENE	65.0	65.2	65.2	29.993	0.00	0.00	0.000	0.000
9/12/10	7:45a	65.0	65.0	65.0	74	56.5	0.0	ENE	0.00	4.0	ENE	65.0	65.2	65.2	29.999	0.00	0.00	0.000	0.000
9/12/10	8:00a	64.9	65.0	64.9	74	56.4	1.0	ENE	0.25	6.0	NW	64.9	65.1	65.1	29.994	0.00	0.00	0.001	0.000
9/12/10	8:15a	64.8	64.9	64.8	74	56.3	1.0	SE	0.25	5.0	ESE	64.8	65.0	65.0	29.999	0.00	0.00	0.002	0.000
9/12/10	8:30a	64.9	64.9	64.8	73	56.0	0.0	E	0.00	4.0	E	64.9	65.1	65.1	29.994	0.00	0.00	0.001	0.000
9/12/10	8:45a	65.2	65.2	64.9	71	55.6	1.0	E	0.25	6.0	WNW	65.2	65.3	65.3	29.999	0.00	0.00	0.000	0.002
9/12/10	9:00a	65.4	65.4	65.2	70	55.4	1.0	ESE	0.25	5.0	NNW	65.4	65.5	65.5	30.001	0.00	0.00	0.000	0.004
9/12/10	9:15a	65.6	65.6	65.4	71	55.9	1.0	E	0.25	5.0	E	65.6	65.8	65.8	30.002	0.00	0.00	0.000	0.006
9/12/10	9:30a	65.8	65.8	65.6	71	56.1	1.0	E	0.25	6.0	NNW	65.8	66.0	66.0	30.003	0.00	0.00	0.000	0.008
9/12/10	9:45a	65.7	65.8	65.7	71	56.0	1.0	E	0.25	7.0	WNW	65.7	65.9	65.9	30.003	0.00	0.00	0.000	0.007
9/12/10	10:00a	65.8	65.8	65.7	72	56.5	1.0	ESE	0.25	6.0	NW	65.8	66.1	66.1	30.005	0.00	0.00	0.000	0.008
9/12/10	10:15a	65.8	65.8	65.8	73	56.9	3.0	NW	0.75	9.0	NW	65.8	66.1	66.1	30.004	0.00	0.00	0.000	0.008
9/12/10	10:30a	65.4	65.8	65.4	76	57.6	2.0	ENE	0.50	8.0	E	65.4	65.9	65.9	29.987	0.00	0.00	0.000	0.004
9/12/10	10:45a	64.8	65.4	64.8	79	58.1	4.0	NW	1.00	10.0	WNW	64.8	65.4	65.4	29.970	0.01	0.00	0.002	0.000
9/12/10	11:00a	64.7	64.8	64.6	80	58.4	1.0	E	0.25	7.0	E	64.7	65.3	65.3	29.992	0.00	0.00	0.003	0.000
9/12/10	11:15a	64.8	64.8	64.7	78	57.8	2.0	E	0.50	8.0	WNW	64.8	65.3	65.3	29.987	0.00	0.00	0.002	0.000
9/12/10	11:30a	65.0	65.0	64.8	76	57.2	2.0	ENE	0.50	7.0	NW	65.0	65.4	65.4	29.988	0.00	0.00	0.000	0.000
9/12/10	11:45a	65.3	65.3	65.0	73	56.4	3.0	ENE	0.75	9.0	WNW	65.3	65.5	65.5	30.002	0.00	0.00	0.000	0.003
9/12/10	12:00p	65.4	65.4	65.3	73	56.5	3.0	NNW	0.75	9.0	NW	65.4	65.7	65.7	29.991	0.00	0.00	0.000	0.004
9/12/10	12:15p	66.0	66.0	65.4	73	57.1	4.0	NW	1.00	11.0	WNW	66.0	66.4	66.4	29.992	0.00	0.00	0.000	0.010
9/12/10	12:30p	66.3	66.4	66.0	71	56.6	3.0	NW	0.75	9.0	NW	66.3	66.6	66.6	29.994	0.00	0.00	0.000	0.014
9/12/10	12:45p	66.3	66.3	66.2	73	57.4	4.0	WNW	1.00	9.0	W	66.3	66.7	66.7	29.988	0.00	0.00	0.000	0.014
9/12/10	1:00p	66.4	66.5	66.3	73	57.5	3.0	NW	0.75	10.0	WNW	66.4	66.9	66.9	29.990	0.00	0.00	0.000	0.015
9/12/10	1:15p	66.1	66.5	66.1	73	57.2	4.0	E	1.00	12.0	NNW	66.1	66.5	66.5	29.987	0.00	0.00	0.000	0.011

Gowanus Phase III Weather Data 9/12/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/12/10	1:30p	66.3	66.3	66.1	72	57.0	3.0	NW	0.75	9.0	NW	66.3	66.7	66.7	29.987	0.00	0.00	0.000	0.014
9/12/10	1:45p	66.3	66.3	66.3	72	57.0	3.0	E	0.75	8.0	ENE	66.3	66.7	66.7	29.986	0.00	0.00	0.000	0.014
9/12/10	2:00p	66.2	66.4	66.1	74	57.7	3.0	WNW	0.75	8.0	WNW	66.2	66.7	66.7	29.987	0.00	0.00	0.000	0.012
9/12/10	2:15p	65.4	66.1	65.4	78	58.4	2.0	NNW	0.50	6.0	ENE	65.4	66.0	66.0	29.987	0.00	0.00	0.000	0.004
9/12/10	2:30p	63.8	65.3	63.8	83	58.5	2.0	NNW	0.50	8.0	WNW	63.8	64.3	64.3	29.987	0.00	0.00	0.013	0.000
9/12/10	2:45p	63.1	63.7	63.1	86	58.8	2.0	NNW	0.50	7.0	WNW	63.1	63.6	63.6	29.988	0.00	0.00	0.020	0.000
9/12/10	3:00p	62.8	63.1	62.8	88	59.2	1.0	E	0.25	7.0	E	62.8	63.4	63.4	29.988	0.01	0.00	0.023	0.000
9/12/10	3:15p	62.5	62.7	62.5	89	59.2	1.0	E	0.25	6.0	E	62.5	63.1	63.1	29.987	0.04	0.47	0.026	0.000
9/12/10	3:30p	62.4	62.5	62.4	89	59.1	1.0	ESE	0.25	5.0	ESE	62.4	62.9	62.9	29.985	0.01	0.12	0.027	0.000
9/12/10	3:45p	62.0	62.4	61.9	90	59.0	0.0	SW	0.00	4.0	SW	62.0	62.5	62.5	29.987	0.01	0.05	0.031	0.000
9/12/10	4:00p	62.0	62.0	61.9	90	59.0	0.0	---	0.00	0.0	---	62.0	62.5	62.5	29.986	0.01	0.04	0.031	0.000
9/12/10	4:15p	62.0	62.1	61.9	91	59.3	0.0	SW	0.00	1.0	SW	62.0	62.5	62.5	29.987	0.02	0.11	0.031	0.000
9/12/10	4:30p	61.9	62.0	61.8	91	59.2	0.0	---	0.00	0.0	---	61.9	62.4	62.4	29.987	0.02	0.11	0.032	0.000
9/12/10	4:45p	62.0	62.0	61.9	91	59.3	0.0	---	0.00	0.0	---	62.0	62.5	62.5	29.988	0.00	0.00	0.031	0.000
9/12/10	5:00p	61.7	62.0	61.7	90	58.7	0.0	---	0.00	0.0	---	61.7	62.2	62.2	29.987	0.01	0.00	0.034	0.000
9/12/10	5:15p	61.8	61.8	61.7	90	58.8	0.0	---	0.00	0.0	---	61.8	62.3	62.3	29.987	0.00	0.00	0.033	0.000
9/12/10	5:30p	61.5	61.8	61.5	90	58.5	0.0	SW	0.00	1.0	SW	61.5	62.0	62.0	29.988	0.01	0.00	0.036	0.000
9/12/10	5:45p	61.5	61.6	61.5	91	58.8	0.0	---	0.00	0.0	---	61.5	62.0	62.0	29.990	0.00	0.00	0.036	0.000
9/12/10	6:00p	61.6	61.6	61.4	91	58.9	0.0	---	0.00	0.0	---	61.6	62.1	62.1	29.990	0.01	0.00	0.035	0.000
9/12/10	6:15p	61.7	61.7	61.6	92	59.4	0.0	---	0.00	0.0	---	61.7	62.2	62.2	29.994	0.01	0.00	0.034	0.000
9/12/10	6:30p	61.8	61.8	61.7	92	59.5	0.0	---	0.00	0.0	---	61.8	62.4	62.4	29.998	0.00	0.00	0.033	0.000
9/12/10	6:45p	61.9	61.9	61.8	92	59.5	0.0	WSW	0.00	1.0	WSW	61.9	62.5	62.5	30.000	0.00	0.00	0.032	0.000
9/12/10	7:00p	62.2	62.2	61.9	92	59.8	0.0	---	0.00	0.0	---	62.2	62.8	62.8	29.998	0.00	0.00	0.029	0.000
9/12/10	7:15p	62.3	62.3	62.2	92	59.9	0.0	WNW	0.00	1.0	WSW	62.3	62.9	62.9	29.998	0.01	0.00	0.028	0.000
9/12/10	7:30p	62.5	62.5	62.3	92	60.1	0.0	---	0.00	0.0	---	62.5	63.2	63.2	30.001	0.00	0.00	0.026	0.000
9/12/10	7:45p	62.2	62.5	62.2	91	59.5	0.0	ESE	0.00	5.0	E	62.2	62.8	62.8	30.002	0.00	0.00	0.029	0.000
9/12/10	8:00p	61.8	62.2	61.8	91	59.1	0.0	E	0.00	4.0	E	61.8	62.3	62.3	30.003	0.00	0.00	0.033	0.000
9/12/10	8:15p	61.7	61.8	61.7	90	58.7	0.0	E	0.00	4.0	E	61.7	62.2	62.2	30.007	0.00	0.00	0.034	0.000
9/12/10	8:30p	61.6	61.7	61.6	90	58.6	1.0	SSE	0.25	5.0	ESE	61.6	62.1	62.1	30.015	0.00	0.00	0.035	0.000
9/12/10	8:45p	61.5	61.6	61.5	89	58.2	1.0	ENE	0.25	6.0	ENE	61.5	61.9	61.9	30.018	0.00	0.00	0.036	0.000
9/12/10	9:00p	61.4	61.4	61.3	90	58.4	1.0	NNW	0.25	5.0	NW	61.4	61.8	61.8	30.018	0.00	0.00	0.037	0.000
9/12/10	9:15p	61.4	61.4	61.4	90	58.4	0.0	ESE	0.00	2.0	ESE	61.4	61.8	61.8	30.020	0.00	0.00	0.037	0.000
9/12/10	9:30p	61.2	61.4	61.2	90	58.2	0.0	E	0.00	3.0	E	61.2	61.6	61.6	30.017	0.00	0.00	0.040	0.000
9/12/10	9:45p	61.2	61.2	61.2	90	58.2	0.0	N	0.00	2.0	N	61.2	61.6	61.6	30.014	0.00	0.00	0.040	0.000
9/12/10	10:00p	61.1	61.2	61.1	90	58.1	0.0	N	0.00	5.0	E	61.1	61.5	61.5	30.009	0.00	0.00	0.041	0.000
9/12/10	10:15p	60.9	61.1	60.9	90	57.9	1.0	ENE	0.25	5.0	N	60.9	61.3	61.3	30.005	0.00	0.00	0.043	0.000
9/12/10	10:30p	60.8	60.9	60.8	91	58.2	0.0	E	0.00	5.0	NW	60.8	61.2	61.2	30.003	0.00	0.00	0.044	0.000
9/12/10	10:45p	60.7	60.9	60.7	91	58.1	1.0	E	0.25	5.0	NNW	60.7	61.1	61.1	30.003	0.00	0.00	0.045	0.000
9/12/10	11:00p	60.2	60.6	60.2	92	57.9	0.0	NE	0.00	5.0	NNW	60.2	60.6	60.6	30.002	0.01	0.00	0.050	0.000
9/12/10	11:15p	59.7	60.2	59.7	92	57.4	0.0	NE	0.00	2.0	NE	59.7	60.0	60.0	30.002	0.01	0.08	0.055	0.000
9/12/10	11:30p	59.8	59.8	59.7	92	57.5	0.0	ESE	0.00	4.0	ESE	59.8	60.1	60.1	30.001	0.00	0.00	0.054	0.000
9/12/10	11:45p	59.8	59.9	59.8	92	57.5	0.0	ESE	0.00	2.0	SSE	59.8	60.1	60.1	29.997	0.00	0.00	0.054	0.000
9/13/10	12:00a	59.9	59.9	59.8	91	57.3	0.0	SE	0.00	3.0	SE	59.9	60.2	60.2	29.990	0.01	0.00	0.053	0.000

Gowanus Phase III Weather Data 9/13/10

Date	Time	Temp Out	Hi Temp	Low Temp	Out Hum	Dew Pt.	Wind Speed	Wind Dir	Wind Run	Hi Speed	Hi Dir	Wind Chill	Heat Index	THW Index	Bar	Rain	Rain Rate	Heat D-D	Cool D-D
9/13/10	12:15a	60.1	60.2	59.9	90	57.2	0.0	ESE	0.00	3.0	ESE	60.1	60.4	60.4	29.987	0.00	0.00	0.051	0.000
9/13/10	12:30a	60.4	60.4	60.2	90	57.5	0.0	NNE	0.00	6.0	NNE	60.4	60.7	60.7	29.984	0.00	0.00	0.048	0.000
9/13/10	12:45a	60.6	60.6	60.4	89	57.3	0.0	NNE	0.00	1.0	NNE	60.6	60.9	60.9	29.983	0.00	0.00	0.046	0.000
9/13/10	1:00a	60.8	60.8	60.6	89	57.5	0.0	NNE	0.00	1.0	NNE	60.8	61.1	61.1	29.985	0.00	0.00	0.044	0.000
9/13/10	1:15a	61.0	61.0	60.8	89	57.7	0.0	NNE	0.00	2.0	NNE	61.0	61.4	61.4	29.983	0.00	0.00	0.042	0.000
9/13/10	1:30a	61.1	61.1	61.0	89	57.8	0.0	NNE	0.00	4.0	NNE	61.1	61.5	61.5	29.977	0.00	0.00	0.041	0.000
9/13/10	1:45a	61.2	61.2	61.1	88	57.6	0.0	NNE	0.00	2.0	NNE	61.2	61.5	61.5	29.973	0.00	0.00	0.040	0.000
9/13/10	2:00a	61.2	61.3	61.2	88	57.6	0.0	NE	0.00	3.0	NE	61.2	61.5	61.5	29.972	0.00	0.00	0.040	0.000
9/13/10	2:15a	61.0	61.2	61.0	88	57.4	0.0	S	0.00	3.0	S	61.0	61.3	61.3	29.971	0.00	0.00	0.042	0.000
9/13/10	2:30a	60.8	61.0	60.8	89	57.5	0.0	S	0.00	2.0	S	60.8	61.1	61.1	29.966	0.00	0.00	0.044	0.000
9/13/10	2:45a	60.7	60.8	60.7	90	57.7	0.0	NW	0.00	4.0	NW	60.7	61.1	61.1	29.969	0.00	0.00	0.045	0.000
9/13/10	3:00a	60.7	60.7	60.7	90	57.7	0.0	NE	0.00	2.0	ENE	60.7	61.1	61.1	29.965	0.00	0.00	0.045	0.000
9/13/10	3:15a	60.8	60.8	60.7	91	58.2	0.0	NE	0.00	5.0	NE	60.8	61.2	61.2	29.961	0.00	0.00	0.044	0.000
9/13/10	3:30a	60.9	60.9	60.8	91	58.3	0.0	NE	0.00	4.0	NE	60.9	61.3	61.3	29.961	0.00	0.00	0.043	0.000
9/13/10	3:45a	61.1	61.1	60.9	92	58.8	0.0	NE	0.00	3.0	NE	61.1	61.6	61.6	29.958	0.00	0.00	0.041	0.000
9/13/10	4:00a	60.9	61.1	60.8	92	58.6	0.0	NE	0.00	2.0	NE	60.9	61.3	61.3	29.958	0.00	0.00	0.043	0.000
9/13/10	4:15a	61.0	61.0	60.9	92	58.7	0.0	NE	0.00	2.0	NE	61.0	61.4	61.4	29.957	0.00	0.00	0.042	0.000
9/13/10	4:30a	61.0	61.0	60.9	91	58.4	0.0	NE	0.00	3.0	NE	61.0	61.4	61.4	29.956	0.00	0.00	0.042	0.000
9/13/10	4:45a	61.1	61.1	61.0	91	58.5	0.0	NE	0.00	1.0	NE	61.1	61.5	61.5	29.957	0.00	0.00	0.041	0.000
9/13/10	5:00a	61.2	61.2	61.1	91	58.6	0.0	NE	0.00	4.0	NE	61.2	61.6	61.6	29.958	0.00	0.00	0.040	0.000
9/13/10	5:15a	61.2	61.2	61.2	91	58.6	0.0	NE	0.00	1.0	NE	61.2	61.6	61.6	29.959	0.00	0.00	0.040	0.000
9/13/10	5:30a	61.3	61.3	61.2	91	58.7	0.0	NE	0.00	2.0	NE	61.3	61.8	61.8	29.957	0.00	0.00	0.039	0.000
9/13/10	5:45a	61.3	61.3	61.3	91	58.7	0.0	---	0.00	0.0	---	61.3	61.8	61.8	29.959	0.00	0.00	0.039	0.000
9/13/10	6:00a	61.4	61.4	61.3	91	58.7	0.0	NE	0.00	2.0	NE	61.4	61.9	61.9	29.961	0.00	0.00	0.037	0.000
9/13/10	6:15a	61.2	61.4	61.2	90	58.2	0.0	NE	0.00	6.0	NE	61.2	61.6	61.6	29.963	0.00	0.00	0.040	0.000
9/13/10	6:30a	61.2	61.3	61.2	90	58.2	0.0	---	0.00	0.0	---	61.2	61.6	61.6	29.966	0.00	0.00	0.040	0.000
9/13/10	6:45a	61.1	61.2	61.1	90	58.1	0.0	NE	0.00	4.0	NE	61.1	61.5	61.5	29.968	0.00	0.00	0.041	0.000
9/13/10	7:00a	61.2	61.2	61.1	90	58.2	0.0	NE	0.00	1.0	NE	61.2	61.6	61.6	29.969	0.00	0.00	0.040	0.000
9/13/10	7:15a	61.3	61.4	61.2	90	58.3	0.0	---	0.00	0.0	---	61.3	61.7	61.7	29.968	0.00	0.00	0.039	0.000
9/13/10	7:30a	61.7	61.7	61.3	90	58.7	0.0	NE	0.00	1.0	NE	61.7	62.2	62.2	29.967	0.00	0.00	0.034	0.000
9/13/10	7:45a	62.1	62.1	61.7	89	58.8	0.0	---	0.00	0.0	---	62.1	62.6	62.6	29.969	0.00	0.00	0.030	0.000
9/13/10	8:00a	62.4	62.4	62.1	88	58.8	0.0	NE	0.00	1.0	NE	62.4	62.9	62.9	29.972	0.00	0.00	0.027	0.000
9/13/10	8:15a	62.7	62.7	62.4	87	58.8	0.0	NE	0.00	1.0	NE	62.7	63.2	63.2	29.972	0.00	0.00	0.024	0.000
9/13/10	8:30a	63.0	63.0	62.7	86	58.7	0.0	---	0.00	0.0	---	63.0	63.5	63.5	29.972	0.00	0.00	0.021	0.000
9/13/10	8:45a	63.8	63.8	63.0	88	60.2	0.0	---	0.00	0.0	---	63.8	64.5	64.5	29.971	0.00	0.00	0.013	0.000
9/13/10	9:00a	65.0	65.0	63.8	84	60.0	0.0	NE	0.00	4.0	NE	65.0	65.8	65.8	29.963	0.00	0.00	0.000	0.000
9/13/10	9:15a	65.1	65.1	64.9	84	60.1	0.0	NE	0.00	2.0	NE	65.1	65.9	65.9	29.962	0.00	0.00	0.000	0.001
9/13/10	9:30a	65.8	65.8	65.1	80	59.5	0.0	NE	0.00	4.0	NE	65.8	66.7	66.7	29.960	0.00	0.00	0.000	0.008
9/13/10	9:45a	67.2	67.2	65.8	76	59.4	0.0	NE	0.00	5.0	NE	67.2	68.0	68.0	29.960	0.00	0.00	0.000	0.023

Appendix D
Field Documentation

D-11 – Weather Tracking Logs

USEPA Daily Weather Tracking Reports for Weather Dependant Sampling Events

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Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 6/17/2010
6:15

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**NA - Station not set up**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 17th (0.32") (stopped at ~5am)**
Last 24 hours (Field Office):	**NA - Station not set up**
Last 24 hours (Central Park):	**0.45**
Last 24 hours (La Quardia):	**0.32**
Last 24 hours (Kennedy):	**0.08**

Owl Head and Red Hook Pump Stations

Owl Head pump station max flow rate during last 24 hours (MDG):	**95**
Owl Head - current flow rate (MGD)	**25**
Wet / Dry Flows during last 24 hours:	**WET (went to dry between 3 and 4am)**
Red Hook pump station max flow rate during last 24 hours (MGD):	**95**
Red Hook - current flow rate (MGD)	**25**
Wet / Dry Flows during last 24 hours:	**WET (went to dry at 3:10am)**
* Strong sewage odor near canal	

Tides

Low Tide 1	**12:08 AM**
High Tide 1	**6:53am**
Low Tide 2	**7:11am**
High Tide 2	**6:09pm**

Pump Station Updates (throughout the day as needed)

Afternoon Report

Precipication During Last 8 hours (Field Office):	**NA**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	
Red Hook pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	

AM Forecast

La Guardia, NY		Kennedy Airport, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/17/2010		**6/17/2010**		**6/17/2010**	
7	1	7		7	1
8	1	8		8	1
9	1	9		9	1
10	1	10		10	1
11	1	11		11	1
12	1	12		12	1
13	1	13		13	1
14	1	14		14	1
15	1	15		15	1
16	1	16		16	1
17	1	17		17	1
18	0	18		18	0
19	0	19		19	0
20	0	20		20	0
21	0	21		21	0
22	0	22		22	0
23	0	23		23	0
6/18/2010		**6/18/2010**		**6/18/2010**	
0	0	0		0	0
1	0	1		1	0
2	0	2		2	0
3	0	3		3	0
4	0	4		4	0
5	0	5		5	0
6	0	6		6	0
7	0	7		7	0
8	0	8		8	0
9	0	9		9	0
10	0	10		10	0
11	0	11		11	0
12	0	12		12	0

PM Forecast

La Guardia, NY		Kennedy Airport, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/17/2010		**6/17/2010**		**6/17/2010**	
15		15		15	
17		17		17	
18		18		18	
19		19		19	
20		20		20	
22		22		22	
23		23		23	
6/18/2010		**6/18/2010**		**6/18/2010**	
0		0		0	
1		1		1	
2		2		2	
3		3		3	
4		4		4	
5		5		5	
6		6		6	
7		7		7	
8		8		8	
9		9		9	
10		10		10	
11		11		11	
12		12		12	
13		13		13	
14		14		14	
15		15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 6/18/2010
6:15

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**NA - no rain events yet**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 17th (0.32") (stopped at ~5am)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**102**
Owl Head - current flow rate (MGD)	**35**
Wet / Dry Flows during last 24 hours:	**DRY**
Red Hook max flow rate during last 24 hours (MGD):	**29**
Red Hook - current flow rate (MGD)	**16**
Wet / Dry Flows during last 24 hours:	**DRY**

Tides

Low Tide 1	**1:06am**
High Tide 1	**7:50am**
Low Tide 2	**1:56pm**
High Tide 2	**8:19pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Kennedy Airport, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/18/2010		**6/18/2010**		**6/18/2010**	
7	0	7		7	0
8	0	8		8	0
9	0	9		9	0
10	0	10		10	0
11	0	11		11	0
12	0	12		12	0
13	0	13		13	0
14	0	14		14	0
15	0	15		15	0
16	0	16		16	0
17	0	17		17	0
18	5	18		18	5
19	5	19		19	5
20	5	20		20	5
21	5	21		21	5
22	5	22		22	5
23	5	23		23	5
6/19/2010		**6/19/2010**		**6/19/2010**	
0	5	0		0	5
1	5	1		1	5
2	5	2		2	5
3	5	3		3	5
4	5	4		4	5
5	5	5		5	5
6	10	6		6	10
7	10	7		7	10
8	10	8		8	10
9	10	9		9	10
10	10	10		10	10
11	10	11		11	10
12	10	12		12	10

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Kennedy Airport, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/18/2010		**6/18/2010**		**6/18/2010**	
15		15		15	
17		17		17	
18		18		18	
19		19		19	
20		20		20	
22		22		22	
23		23		23	
6/19/2010		**6/19/2010**		**6/19/2010**	
0		0		0	
1		1		1	
2		2		2	
3		3		3	
4		4		4	
5		5		5	
6		6		6	
7		7		7	
8		8		8	
9		9		9	
10		10		10	
11		11		11	
12		12		12	
13		13		13	
14		14		14	
15		15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 6/19/2010
7:15

Actual Precipitation	
Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**No precip observed at office so far**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 17th (0.32") (stopped at ~5am)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**
Owl Head and Red Hook WPCP Stations	**No precip since June 17th, WPCPs remain in dry state.**
Owl Head max flow rate during last 24 hours (MDG):	**-**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**DRY**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**DRY**
Tides	
Low Tide 1	**8:49am**
High Tide 1	**2:03am**
Low Tide 2	**9:26pm**
High Tide 2	**2:51pm**
Pump Station Updates (throughout the day as needed)	

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/19/2010		6/19/2010	
7	0	7	0
8	0	8	0
9	0	9	0
10	0	10	0
11	0	11	0
12	0	12	0
13	0	13	0
14	0	14	0
15	2	15	2
16	2	16	2
17	2	17	2
18	10	18	10
19	10	19	10
20	10	20	10
21	10	21	10
22	10	22	10
23	10	23	10
6/20/2010		6/20/2010	
0	10	0	10
1	10	1	10
2	14	2	14
3	14	3	14
4	14	4	14
5	14	5	14
6	18	6	20
7	18	7	20
8	18	8	20
9	30	9	30
10	30	10	30
11	30	11	30
12	30	12	30

Afternoon Report

Precipication During Last 8 hours (Field Office):	**0**
Owl Head and Red Hook Pump Station	
Owl Head pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	
Red Hook pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/19/2010		6/19/2010	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
6/20/2010		6/20/2010	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 6/25/2010
07:00am

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**Trace**
Last 24 hours (La Quardia):	**0.05**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**~90**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry**
Red Hook max flow rate during last 24 hours (MGD):	**~30**
Red Hook - current flow rate (MGD)	**17**
Wet / Dry Flows during last 24 hours:	**Dry**

Tides

Low Tide 1	**2:03am**
High Tide 1	**7:55am**
Low Tide 2	**2:05pm**
High Tide 2	**8:10pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/25/2010		**6/25/2010**	
7	5	7	5
8	5	8	5
9	5	9	5
10	12	10	12
11	12	11	12
12	12	12	12
13	12	13	12
14	12	14	12
15	12	15	12
16	12	16	12
17	12	17	12
18	10	18	10
19	10	19	10
20	10	20	10
21	10	21	10
22	10	22	10
23	10	23	10
6/26/2010		**6/26/2010**	
0	10	0	10
1	10	1	10
2	10	2	10
3	10	3	10
4	10	4	10
5	10	5	10
6	6	6	6
7	6	7	6
8	6	8	6
9	6	9	6
10	6	10	6
11	6	11	6
12	6	12	6

Afternoon Report

Precipication During Last 8 hours (Field Office):	**0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	
Red Hook pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/25/2010		**6/25/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
6/26/2010		**6/26/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 6/28/2010
07:30am

Actual Precipitation	
Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**Trace**
Last 24 hours (Kennedy):	**0.00**
Owl Head and Red Hook WPCP Stations	
Owl Head max flow rate during last 24 hours (MDG):	**Unresponsive - need supervisor approval**
Owl Head - current flow rate (MGD)	**to release information.**
Wet / Dry Flows during last 24 hours:	**Assumed dry, no rain over the weekend**
Red Hook max flow rate during last 24 hours (MGD):	**35 @ 10-11pm**
Red Hook - current flow rate (MGD)	**21**
Wet / Dry Flows during last 24 hours:	**Dry**
Tides	
Low Tide 1	**4:15am**
High Tide 1	**10:13am**
Low Tide 2	**4:18pm**
High Tide 2	**10:17pm**
Pump Station Updates (throughout the day as needed)	

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/28/2010		**6/28/2010**	
7	-	7	-
8	16	8	15
9	19	9	18
10	19	10	18
11	19	11	18
12	43	12	41
13	43	13	41
14	43	14	41
15	61	15	61
16	61	16	61
17	61	17	61
18	55	18	57
19	55	19	57
20	55	20	57
21	47	21	48
22	47	22	48
23	47	23	48
6/29/2010		**6/29/2010**	
0	31	0	34
1	31	1	34
2	31	2	34
3	16	3	19
4	16	4	19
5	16	5	19
6	19	6	20
7	19	7	20
8	19	8	20
9	20	9	21
10	20	10	21
11	20	11	21
12	17	12	17

Afternoon Report

Precipication During Last 8 hours (Field Office):	**0**
Owl Head and Red Hook Pump Station	
Owl Head pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	
Red Hook pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/28/2010		**6/28/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
6/26/2010		**6/26/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 6/29/2010
06:15am

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.01**
Last 24 hours (La Quardia):	**0.02**
Last 24 hours (Kennedy):	**Trace**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**Unresponsive - need supervisor approval**
Owl Head - current flow rate (MGD)	**to release information.**
Wet / Dry Flows during last 24 hours:	**Assumed dry, no rain**
Red Hook max flow rate during last 24 hours (MGD):	**34**
Red Hook - current flow rate (MGD)	**18**
Wet / Dry Flows during last 24 hours:	**Dry**

Tides

Low Tide 1	**4:54am**
High Tide 1	**10:59am**
Low Tide 2	**4:59pm**
High Tide 2	**11:00pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/29/2010		**6/29/2010**	
7	13	7	13
8	13	8	13
9	13	9	13
10	13	10	13
11	13	11	13
12	10	12	13
13	10	13	10
14	10	14	10
15	10	15	10
16	10	16	10
17	10	17	10
18	13	18	13
19	13	19	10
20	10	20	10
21	10	21	10
22	10	22	10
23	10	23	10
6/30/2010		**6/30/2010**	
0	10	0	10
1	10	1	10
2	10	2	10
3	10	3	10
4	10	4	10
5	10	5	10
6	10	6	10
7	10	7	10
8	10	8	10
9	10	9	10
10	10	10	10
11	10	11	10
12	10	12	10

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/29/2010		**6/29/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
6/30/2010		**6/30/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 6/30/2010
11:30

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**Unresponsive - need supervisor approval**
Owl Head - current flow rate (MGD)	**to release information.**
Wet / Dry Flows during last 24 hours:	**Assumed dry, no rain**
Red Hook max flow rate during last 24 hours (MGD):	**28**
Red Hook - current flow rate (MGD)	**27**
Wet / Dry Flows during last 24 hours:	**Dry**

Tides

Low Tide 1	**5:32am**
High Tide 1	**11:45am**
Low Tide 2	**5:38pm**
High Tide 2	**11:43pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/30/2010		**6/30/2010**	
7	-	7	-
8	-	8	-
9	-	9	-
10	-	10	-
11	-	11	-
12	-	12	-
13	-	13	-
14	10	14	10
15	10	15	10
16	10	16	10
17	10	17	10
18	10	18	10
19	10	19	10
20	10	20	10
21	10	21	10
22	10	22	10
23	10	23	10
7/1/2010		**7/1/2010**	
0	10	0	10
1	10	1	10
2	10	2	10
3	10	3	10
4	10	4	10
5	10	5	10
6	10	6	10
7	10	7	10
8	10	8	10
9	10	9	10
10	10	10	10
11	10	11	10
12	10	12	10

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
6/30/2010		**6/30/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/1/2010		**7/1/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 7/1/2010
6:30

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**Unresponsive - need supervisor approval**
Owl Head - current flow rate (MGD)	**to release information.**
Wet / Dry Flows during last 24 hours:	**Assumed dry, no rain**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry - no rain**

Tides

Low Tide 1	**6:08am**
High Tide 1	**12:28pm**
Low Tide 2	**6:20pm**
High Tide 2	**-**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/1/2010		**7/1/2010**	
7	10	7	10
8	10	8	10
9	10	9	10
10	10	10	10
11	10	11	10
12	10	12	10
13	10	13	10
14	10	14	10
15	10	15	10
16	10	16	10
17	10	17	10
18	2	18	2
19	2	19	2
20	2	20	2
21	2	21	2
22	2	22	2
23	2	23	2
7/2/2010		**7/2/2010**	
0	2	0	2
1	2	1	2
2	2	2	2
3	2	3	2
4	2	4	2
5	2	5	2
6	0	6	0
7	0	7	0
8	0	8	0
9	0	9	0
10	0	10	0
11	0	11	0
12	0	12	0

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/1/2010		**7/1/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/2/2010		**7/2/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 7/6/2010
7:00

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**-**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 6/22/10**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 6/22/10**

Tides

Low Tide 1	**9:56am**
High Tide 1	**3:21am**
Low Tide 2	**11:06**
High Tide 2	**3:48pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/6/2010		**7/6/2010**	
7	0	7	0
8	0	8	0
9	0	9	0
10	0	10	0
11	0	11	0
12	0	12	0
13	0	13	5
14	0	14	5
15	0	15	5
16	0	16	5
17	0	17	5
18	5	18	5
19	5	19	5
20	5	20	5
21	5	21	5
22	5	22	5
23	5	23	5
7/7/2010		**7/7/2010**	
0	5	0	5
1	5	1	5
2	5	2	5
3	5	3	5
4	5	4	5
5	5	5	5
6	5	6	5
7	5	7	5
8	5	8	5
9	5	9	5
10	5	10	5
11	5	11	5
12	20	12	20

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/6/2010		**7/6/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/7/2010		**7/7/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

Date: 7/7/2010
6:15

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**~95**
Owl Head - current flow rate (MGD)	**~36-40**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 6/22/10**
Red Hook max flow rate during last 24 hours (MGD):	**32**
Red Hook - current flow rate (MGD)	**21**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 6/22/10**

Tides

Low Tide 1	**10:50am**
High Tide 1	**3:21am**
Low Tide 2	**11:58pm**
High Tide 2	**4:43pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/7/2010		7/7/2010	
7	2	7	2
8	2	8	2
9	2	9	2
10	2	10	2
11	2	11	2
12	7	12	7
13	7	13	7
14	7	14	7
15	8	15	8
16	8	16	8
17	8	17	8
18	7	18	7
19	7	19	7
20	7	20	7
21	10	21	10
22	10	22	10
23	10	23	10
7/7/2010		7/7/2010	
0	10	0	10
1	10	1	10
2	10	2	10
3	11	3	11
4	11	4	11
5	11	5	11
6	13	6	13
7	13	7	13
8	13	8	13
9	14	9	14
10	14	10	14
11	14	11	14
12	24	12	25

Afternoon Report

Precipication During Last 8 hours (Field Office):	**0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	
Red Hook pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/6/2010		7/6/2010	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/7/2010		7/7/2010	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

7/8/2010
7:15

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**June 22 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0.00**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**-**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 6/22/10**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 6/22/10**

Tides

Low Tide 1	**-**
High Tide 1	**5:28am**
Low Tide 2	**11:43am**
High Tide 2	**5:41pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/8/2010		**7/8/2010**	
7	20	7	20
8	20	8	20
9	20	9	20
10	10	10	20
11	10	11	10
12	12	12	12
13	12	13	12
14	12	14	12
15	12	15	14
16	14	16	14
17	14	17	14
18	14	18	14
19	14	19	14
20	14	20	14
21	10	21	10
22	10	22	10
23	10	23	10
7/9/2010		**7/9/2010**	
0	10	0	10
1	10	1	10
2	10	2	10
3	10	3	10
4	10	4	10
5	10	5	10
6	10	6	10
7	10	7	10
8	10	8	10
9	10	9	10
10	10	10	10
11	10	11	10
12	16	12	17

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/8/2010		**7/8/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/9/2010		**7/9/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

7/13/2010
6:40

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**July 12 @ ~9pm (0.26")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**June 22nd (0.16") (stopped at ~9pm)**
Last 24 hours (Field Office):	**0.00**
Last 24 hours (Central Park):	**Trace**
Last 24 hours (La Quardia):	**Trace**
Last 24 hours (Kennedy):	**Trace**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**-**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 7/10/10**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Dry - no rain since 7/10/10**

Tides

Low Tide 1	**4:05am**
High Tide 1	**8:59am**
Low Tide 2	**4:10pm**
High Tide 2	**9:06pm**

Pump Station Updates (throughout the day as needed)

Owls head - 213mgd @ 1345
Red Hook - 124 @ 1346
Red Hook - 124 @ 1500
Red Hook - 114 @ 1620
Owls Head - 37 @ 1830 - Transitioning to a dry pumping state

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/13/2010		**7/13/2010**	
7	50	7	50
8	50	8	50
9	50	9	50
10	50	10	50
11	50	11	50
12	50	12	50
13	50	13	50
14	40	14	40
15	40	15	40
16	70	16	70
17	70	17	70
18	70	18	70
19	70	19	70
20	80	20	80
21	80	21	80
22	80	22	80
23	80	23	80
7/14/2010		**7/14/2010**	
0	80	0	80
1	80	1	80
2	80	2	80
3	80	3	80
4	80	4	80
5	80	5	80
6	36	6	33
7	36	7	33
8	36	8	33
9	36	9	33
10	36	10	30
11	36	11	30
12	36	12	30

Afternoon Report

7/13/2010

20:00
Precipication During Last 8 hours (Field Office): 1.04

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):	**213 @ 7/13 1345.**
Wet / Dry Flows during last 8 hours:	**Wet ended around 7/13/10 1830**
Red Hook pump station average flow rate during last 8 hours (GPM):	**124 @ 7/13 1345.**
Wet / Dry Flows during last 8 hours:	**Wet ended around 7/13/10 1830**

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/13/2010		**7/13/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/14/2010		**7/14/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

7/14/2010
11:30

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**July 14 @ ended ~10am (0.15")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**July 13 (0.62")**
Last 24 hours (Field Office):	**0.00**
Last 24 hours (Central Park):	**0.84**
Last 24 hours (La Quardia):	**0.62**
Last 24 hours (Kennedy):	**0.85**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**213 @ 7/13 1345. No response this morning**
Owl Head - current flow rate (MGD)	**No response**
Wet / Dry Flows during last 24 hours:	**Wet ended around 7/13/10 1830 last night**
Red Hook max flow rate during last 24 hours (MGD):	**124 @ 7/13 1345.**
Red Hook - current flow rate (MGD)	**36 @ 0830**
Wet / Dry Flows during last 24 hours:	**Dry / rain tranisional period right in AM Wet ended around 7/13/10 1830**

Tides

Low Tide 1	**4:05am**
High Tide 1	**8:59am**
Low Tide 2	**4:10pm**
High Tide 2	**9:06pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/14/2010		**7/14/2010**	
7	-	7	-
8	-	8	-
9	-	9	-
10	-	10	-
11	71	11	71
12	71	12	71
13	73	13	71
14	71	14	47
15	71	15	47
16	71	16	47
17	71	17	36
18	49	18	36
19	49	19	36
20	28	20	21
21	28	21	21
22	28	22	21
23	28	23	13
7/15/2010		**7/15/2010**	
0	20	0	13
1	20	1	13
2	13	2	13
3	13	3	13
4	13	4	13
5	13	5	6
6	5	6	6
7	5	7	6
8	6	8	6
9	6	9	6
10	6	10	6
11	6	11	6
12	6	12	6

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	
Red Hook pump station average flow rate during last 8 hours (GPM):	
Wet / Dry Flows during last 8 hours:	

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/14/2010		**7/14/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/15/2010		**7/15/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

7/26/2010
14:00

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**July 19 - ended ~10am (0.12")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**July 25 ended around 9pm (0.14")**
Last 24 hours (Field Office):	**0.06**
Last 24 hours (Central Park):	**0.35**
Last 24 hours (La Quardia):	**0.14**
Last 24 hours (Kennedy):	**0.08**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**-**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Assumed DRY -no significant rain in Brooklyn**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Assumed DRY -no significant rain in Brooklyn**

Tides

Low Tide 1	**3:08am**
High Tide 1	**9:03am**
Low Tide 2	**3:15pm**
High Tide 2	**9:11pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/26/2010		**7/26/2010**	
7	-	7	-
8	-	8	-
9	-	9	-
10	-	10	-
11	-	11	-
12	-	12	-
13	-	13	-
14	-	14	-
15	0	15	0
16	0	16	0
17	0	17	0
18	0	18	0
19	0	19	0
20	0	20	0
21	0	21	0
22	0	22	0
23	0	23	0
7/27/2010		**7/27/2010**	
0	0	0	0
1	0	1	0
2	0	2	0
3	0	3	0
4	0	4	0
5	0	5	0
6	0	6	0
7	0	7	0
8	10	8	10
9	10	9	10
10	10	10	10
11	10	11	10
12	10	12	10

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/23/2010		**7/23/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/22/2010		**7/22/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

7/27/2010
7:30

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**July 19 - ended ~10am (0.12")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**July 25 ended around 9pm (0.14")**
Last 24 hours (Field Office):	**0.00**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**-**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Assumed DRY -no significant rain in Brooklyn**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Assumed DRY -no significant rain in Brooklyn**

Tides

Low Tide 1	**3:47am**
High Tide 1	**9:44am**
Low Tide 2	**3:54pm**
High Tide 2	**9:49pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/27/2010		7/27/2010	
7	-	7	-
8	3	8	3
9	3	9	3
10	3	10	3
11	3	11	3
12	3	12	3
13	3	13	3
14	3	14	3
15	3	15	3
16	3	16	3
17	3	17	3
18	3	18	3
19	3	19	3
20	3	20	3
21	3	21	3
22	3	22	3
23	3	23	3
7/28/2010	3	7/28/2010	3
0	3	0	3
1	3	1	3
2	3	2	3
3	3	3	3
4	3	4	3
5	3	5	3
6	6	6	6
7	6	7	6
8	6	8	6
9	6	9	6
10	6	10	6
11	6	11	6
12	6	12	11

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/27/2010		7/27/2010	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/28/2010		7/28/2010	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking

Morning Report

7/28/2010
12:30

Actual Precipitation

Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**July 19 - ended ~10am (0.12")**
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**July 25 ended around 9pm (0.14")**
Last 24 hours (Field Office):	**0.00**
Last 24 hours (Central Park):	**0.00**
Last 24 hours (La Quardia):	**0.00**
Last 24 hours (Kennedy):	**0.00**

Owl Head and Red Hook WPCP Stations

Owl Head max flow rate during last 24 hours (MDG):	**-**
Owl Head - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Assumed DRY -no significant rain in Brooklyn**
Red Hook max flow rate during last 24 hours (MGD):	**-**
Red Hook - current flow rate (MGD)	**-**
Wet / Dry Flows during last 24 hours:	**Assumed DRY -no significant rain in Brooklyn**

Tides

Low Tide 1	**4:23am**
High Tide 1	**10:24am**
Low Tide 2	**4:33pm**
High Tide 2	**10:27pm**

Pump Station Updates (throughout the day as needed)

AM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/28/2010		**7/28/2010**	
7	-	7	-
8	-	8	-
9	-	9	-
10	-	10	-
11	-	11	-
12	-	12	-
13	10	13	11
14	10	14	11
15	10	15	11
16	10	16	11
17	10	17	11
18	10	18	11
19	10	19	11
20	10	20	11
21	10	21	11
22	10	22	11
23	10	23	11
7/29/2010		**7/29/2010**	
0	10	0	11
1	10	1	11
2	10	2	10
3	10	3	10
4	10	4	10
5	10	5	10
6	31	6	31
7	31	7	31
8	31	8	31
9	60	9	60
10	60	10	60
11	60	11	60
12	60	12	60

Afternoon Report

Precipication During Last 8 hours (Field Office): **0**

Owl Head and Red Hook Pump Station

Owl Head pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:
Red Hook pump station average flow rate during last 8 hours (GPM):
Wet / Dry Flows during last 8 hours:

PM Forecast

La Guardia, NY		Central Park, NY	
Hour	Precip Potential (%)	Hour	Precip Potential (%)
7/27/2010		**7/27/2010**	
15		15	
17		17	
18		18	
19		19	
20		20	
22		22	
23		23	
7/28/2010		**7/28/2010**	
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
11		11	
12		12	
13		13	
14		14	
15		15	

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking		**AM Forecast**			
Morning Report		**La Guardia, NY**		**Central Park, NY**	
9/28/2010 7:00		**Hour**	**Precip Potential (%)**	**Hour**	**Precip Potential (%)**
Actual Precipitation					
Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**September 27 (1.30" - Park Slope Station - ended ~1500)**				
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**September 27 (1.02)**				
Last 24 hours (Field Office):	**1.30**				
Last 24 hours (Central Park):	**1.33**				
Last 24 hours (La Quardia):	**1.02**				
Last 24 hours (Kennedy):	**0.91**				
Owl Head and Red Hook WPCP Stations					
Owl Head max flow rate during last 24 hours (MDG):	**-**				
Owl Head - current flow rate (MGD)	**9/27 - 127 @ 1500**				
Wet / Dry Flows during last 24 hours:	**Wet at 1500 but began to transition towards dry at 1545**				
Red Hook max flow rate during last 24 hours (MGD):	**-**				
Red Hook - current flow rate (MGD)	**9/27 - 107 @ 1500 / 67 @ 1545**				
Wet / Dry Flows during last 24 hours:	**Wet at 1500 but began to transition towards dry at 1545**				
Tides					
High Tide 1	**NA**				
Low Tide 1	**NA**				
High Tide 2	**NA**				
Low Tide 2	**NA**				
Pump Station Updates (throughout the day as needed): - 1200 Owls head pumping at 114mgd (wet) and Red Hook at 38mgd but going much higher - 1212 Owls head pumpling at 188mgd and Red Hook at 114 mgd - 1303 Owls head pumping at 189 mgd. Beginning to transition away from wet.					

		PM Forecast			
Afternoon Report		**La Guardia, NY**		**Central Park, NY**	
Precipication During Last 8 hours (Field Office):	**0.21" ending at ~12:00**				
Owl Head and Red Hook Pump Station					
Owl Head pump station average flow rate during last 8 hours (GPM):					
Wet / Dry Flows during last 8 hours:					
Red Hook pump station average flow rate during last 8 hours (GPM):					
Wet / Dry Flows during last 8 hours:					

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking		**AM Forecast**			
Morning Report		**La Guardia, NY**		**Central Park, NY**	
9/30/2010 8:00		**Hour**	**Precip Potential (%)**	**Hour**	**Precip Potential (%)**
Actual Precipitation					
Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**September 30 (2.03" - Park Slope Station)**				
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**September 30 (0.82)**				
Last 24 hours (Field Office):	**~1.0"**				
Last 24 hours (Central Park):	**1.10**				
Last 24 hours (La Quardia):	**0.82**				
Last 24 hours (Kennedy):	**1.06**				
Owl Head and Red Hook WPCP Stations					
Owl Head max flow rate during last 24 hours (MDG):	**Throttled**				
Owl Head - current flow rate (MGD)	**Throttled**				
Wet / Dry Flows during last 24 hours:	**Wet in AM**				
Red Hook max flow rate during last 24 hours (MGD):	**Throttled**				
Red Hook - current flow rate (MGD)	**Throttled**				
Wet / Dry Flows during last 24 hours:	**Wet in AM**				
Tides					
High Tide 1	**NA**				
Low Tide 1	**NA**				
High Tide 2	**NA**				
Low Tide 2	**NA**				
Pump Station Updates (throughout the day as needed): Two samples collected today before the field crews noticed the water levels in the sewers was dropping steadily. No more samples were collected after water levels began dropping. \					

	PM Forecast	
Afternoon Report	**La Guardia, NY**	**Central Park, NY**
Precipitation During Last 8 hours (Field Office):		
Owl Head and Red Hook Pump Station		
Owl Head pump station average flow rate during last 8 hours (GPM):		
Wet / Dry Flows during last 8 hours:		
Red Hook pump station average flow rate during last 8 hours (GPM):		
Wet / Dry Flows during last 8 hours:		

Gowanus Canal Superfund Site
Phase 3 - RI/FS

Daily Weather Tracking		**AM Forecast**			
Morning Report		**La Guardia, NY**		**Central Park, NY**	
10/1/2010 12:00		**Hour**	**Precip Potential (%)**	**Hour**	**Precip Potential (%)**
Actual Precipitation					
Date of Last Significant Rainfall event (Field Office): (greater than 0.1")	**October 1 (2.03" - Park Slope Station)**				
Date of Last Significant Rainfall event (La Guardia): (greater than 0.1")	**October 1 (2.24" - Park Slope Station)**				
Last 24 hours (Field Office):	**NA**				
Last 24 hours (Central Park):	**2.46**				
Last 24 hours (La Quardia):	**2.24**				
Last 24 hours (Kennedy):	**2.02**				
Owl Head and Red Hook WPCP Stations					
Owl Head max flow rate during last 24 hours (MDG):	**Throttled all AM**				
Owl Head - current flow rate (MGD)	**Throttled all AM**				
Wet / Dry Flows during last 24 hours:	**Wet in AM**				
Red Hook max flow rate during last 24 hours (MGD):	**Throttled all AM**				
Red Hook - current flow rate (MGD)	**Throttled all AM**				
Wet / Dry Flows during last 24 hours:	**Wet in AM**				
Tides					
High Tide 1	**NA**				
Low Tide 1	**NA**				
High Tide 2	**NA**				
Low Tide 2	**NA**				
Pump Station Updates (throughout the day as needed):					

	PM Forecast	
Afternoon Report	**La Guardia, NY**	**Central Park, NY**
Precipitation During Last 8 hours (Field Office):		
Owl Head and Red Hook Pump Station		
Owl Head pump station average flow rate during last 8 hours (GPM):		
Wet / Dry Flows during last 8 hours:		
Red Hook pump station average flow rate during last 8 hours (GPM):		
Wet / Dry Flows during last 8 hours:		

Appendix D
Field Documentation

D-11 – Weather Tracking Logs

Park Slope Weather Station Log
(Station ID: KNYBROOK22)

Carroll St. – Between 5th Ave. and 6th Ave., Brooklyn, NY 11231

Longitude: 40˚40'28.03" Latitude: 73˚58'49.20"

(Datum: WGS84)

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History for KNYBROOK22

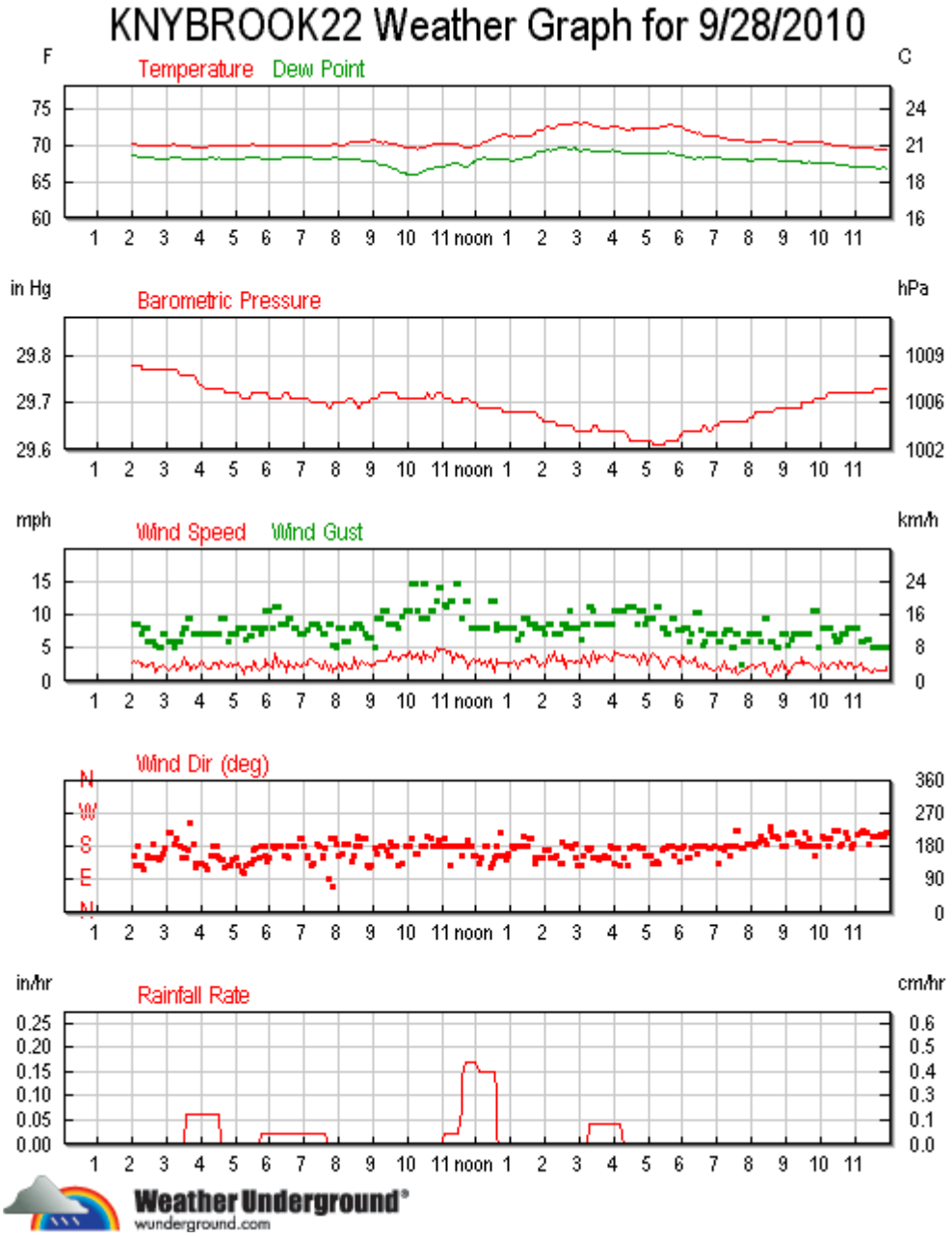
Park Slope, Brooklyn, NY 11215, Brooklyn, NY — Current Conditions

Daily Summary for September 28, 2010

	Current:	High:	Low:	Average:
Temperature:	**46.1** °F	**73.2** °F	**69.6** °F	**70.9** °F
Dew Point:	**24.2** °F	**69.9** °F	**66.3** °F	**68.3** °F
Humidity:	41%	94%	87%	91%
Wind Speed:	**5.5**mph	**5.0**mph	-	**2.7**mph
Wind Gust:	**14.0**mph	**14.8**mph	-	-
Wind:	WNW	-	-	South
Pressure:	**30.24**in	**29.81**in	**29.61**in	-
Precipitation:	**0.31**in			

Statistics for the rest of the month:

	High:	Low:	Average:
Temperature:	**94.3** °F	**56.6** °F	**70.7** °F
Dew Point:	**71.2** °F	**37.7** °F	**56.3** °F
Humidity:	95.0%	21.0%	62.1%
Wind Speed:	**23.3**mph from the SSE	-	**3.1**mph
Wind Gust:	**52.3**mph from the SSE	-	-
Wind:	-	-	SSW
Pressure:	**30.19**in	**29.45**in	-
Precipitation:	**7.88**in		



Tabular Data for September 28, 2010

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
00:00	**70.6** °F	**69.1** °F	**29.81**in	South	**2.5**mph	**9.6**mph	94%	**0.00**in	n/a	n/a
02:01	**70.5** °F	**68.8** °F	**29.78**in	SSE	**2.8**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
02:04	**70.5** °F	**68.8** °F	**29.78**in	SSE	**3.2**mph	**8.7**mph	94%	**0.00**in	n/a	n/a
02:06	**70.4** °F	**68.8** °F	**29.78**in	SE	**2.7**mph	**8.7**mph	94%	**0.00**in	n/a	n/a
02:11	**70.3** °F	**68.7** °F	**29.78**in	South	**3.2**mph	**8.7**mph	94%	**0.00**in	n/a	n/a
02:15	**70.3** °F	**68.7** °F	**29.78**in	SE	**2.9**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
02:16	**70.3** °F	**68.7** °F	**29.77**in	SE	**2.3**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
02:21	**70.2** °F	**68.6** °F	**29.77**in	ESE	**2.4**mph	**7.9**mph	94%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
02:26	**70.2** °F	**68.6** °F	**29.77**in	SSE	**2.2**mph	**7.9**mph	94%	**0.00**in	n/a	n/a
02:28	**70.2** °F	**68.5** °F	**29.77**in	SSE	**2.4**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
02:29	**70.2** °F	**68.5** °F	**29.77**in	SSE	**2.6**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
02:35	**70.1** °F	**68.5** °F	**29.77**in	South	**2.7**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
02:40	**70.1** °F	**68.4** °F	**29.77**in	SSE	**1.3**mph	**5.3**mph	94%	**0.00**in	n/a	n/a
02:45	**70.1** °F	**68.4** °F	**29.77**in	SSE	**2.3**mph	**5.2**mph	94%	**0.00**in	n/a	n/a
02:50	**70.1** °F	**68.4** °F	**29.77**in	SSE	**2.2**mph	**5.2**mph	94%	**0.00**in	n/a	n/a
02:52	**70.1** °F	**68.4** °F	**29.77**in	SSE	**2.4**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
02:57	**70.1** °F	**68.4** °F	**29.77**in	South	**2.3**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
03:02	**70.1** °F	**68.4** °F	**29.77**in	SW	**1.5**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
03:07	**70.3** °F	**68.6** °F	**29.77**in	SW	**1.9**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
03:12	**70.4** °F	**68.6** °F	**29.77**in	South	**2.5**mph	**5.2**mph	94%	**0.00**in	n/a	n/a
03:17	**70.3** °F	**68.6** °F	**29.77**in	SSW	**1.6**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
03:22	**70.3** °F	**68.6** °F	**29.76**in	South	**2.1**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
03:28	**70.2** °F	**68.4** °F	**29.76**in	SSE	**2.5**mph	**7.0**mph	93%	**0.00**in	n/a	n/a
03:29	**70.2** °F	**68.3** °F	**29.76**in	South	**3.6**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
03:33	**70.1** °F	**68.2** °F	**29.76**in	SSE	**2.5**mph	**7.9**mph	93%	**0.06**in	n/a	n/a
03:36	**70.1** °F	**68.2** °F	**29.76**in	South	**2.7**mph	**9.6**mph	93%	**0.06**in	n/a	n/a
03:41	**70.1** °F	**68.2** °F	**29.76**in	WSW	**1.5**mph	**9.6**mph	93%	**0.06**in	n/a	n/a
03:46	**70.0** °F	**68.2** °F	**29.76**in	South	**2.6**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
03:51	**70.0** °F	**68.2** °F	**29.75**in	SE	**2.1**mph	**7.0**mph	93%	**0.06**in	n/a	n/a
03:52	**70.0** °F	**68.2** °F	**29.75**in	SE	**1.9**mph	**7.0**mph	93%	**0.06**in	n/a	n/a
03:57	**70.0** °F	**68.2** °F	**29.74**in	SE	**2.6**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:02	**70.0** °F	**68.3** °F	**29.74**in	SE	**3.1**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:07	**69.9** °F	**68.3** °F	**29.73**in	SE	**2.1**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:12	**70.0** °F	**68.4** °F	**29.73**in	ESE	**2.0**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:17	**70.1** °F	**68.5** °F	**29.73**in	SSE	**1.9**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:22	**70.1** °F	**68.5** °F	**29.73**in	South	**2.8**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:27	**70.1** °F	**68.4** °F	**29.73**in	SSE	**2.9**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:28	**70.1** °F	**68.4** °F	**29.73**in	South	**2.4**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:30	**70.1** °F	**68.5** °F	**29.73**in	SSE	**1.9**mph	**7.0**mph	94%	**0.06**in	n/a	n/a
04:33	**70.1** °F	**68.4** °F	**29.73**in	SE	**3.2**mph	**9.6**mph	94%	**0.00**in	n/a	n/a
04:36	**70.1** °F	**68.4** °F	**29.73**in	SSE	**2.8**mph	**9.6**mph	94%	**0.00**in	n/a	n/a
04:41	**70.1** °F	**68.4** °F	**29.72**in	ESE	**2.5**mph	**9.6**mph	94%	**0.00**in	n/a	n/a
04:46	**70.2** °F	**68.4** °F	**29.72**in	SE	**2.3**mph	**6.1**mph	94%	**0.00**in	n/a	n/a
04:51	**70.1** °F	**68.4** °F	**29.72**in	SE	**2.7**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
04:54	**70.1** °F	**68.4** °F	**29.72**in	SSE	**2.5**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
04:55	**70.1** °F	**68.4** °F	**29.72**in	SSE	**2.1**mph	**7.0**mph	94%	**0.00**in	n/a	n/a
05:00	**70.1** °F	**68.3** °F	**29.72**in	SSE	**2.4**mph	**7.0**mph	93%	**0.00**in	n/a	n/a
05:05	**70.1** °F	**68.3** °F	**29.72**in	SE	**2.7**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:06	**70.1** °F	**68.3** °F	**29.72**in	SE	**2.5**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:11	**70.1** °F	**68.3** °F	**29.71**in	ESE	**1.8**mph	**7.9**mph	93%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
05:13	**70.2** °F	**68.4** °F	**29.71**in	ESE	**1.0**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:18	**70.3** °F	**68.5** °F	**29.71**in	SE	**2.3**mph	**6.2**mph	93%	**0.00**in	n/a	n/a
05:23	**70.3** °F	**68.5** °F	**29.71**in	SE	**2.3**mph	**6.7**mph	93%	**0.00**in	n/a	n/a
05:28	**70.4** °F	**68.6** °F	**29.72**in	SE	**1.6**mph	**6.7**mph	93%	**0.00**in	n/a	n/a
05:32	**70.4** °F	**68.5** °F	**29.72**in	South	**2.8**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:33	**70.4** °F	**68.5** °F	**29.72**in	SSE	**3.0**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:34	**70.3** °F	**68.5** °F	**29.72**in	South	**2.7**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:35	**70.3** °F	**68.5** °F	**29.72**in	South	**2.1**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:40	**70.3** °F	**68.5** °F	**29.72**in	SSE	**1.7**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
05:45	**70.2** °F	**68.4** °F	**29.72**in	South	**1.9**mph	**7.0**mph	93%	**0.02**in	n/a	n/a
05:50	**70.2** °F	**68.4** °F	**29.72**in	South	**2.3**mph	**7.9**mph	93%	**0.02**in	n/a	n/a
05:53	**70.2** °F	**68.3** °F	**29.72**in	SSE	**3.3**mph	**10.7**mph	93%	**0.02**in	n/a	n/a
05:55	**70.1** °F	**68.3** °F	**29.72**in	SE	**2.5**mph	**10.7**mph	93%	**0.02**in	n/a	n/a
05:58	**70.1** °F	**68.3** °F	**29.71**in	SSE	**2.4**mph	**10.7**mph	93%	**0.02**in	n/a	n/a
06:04	**70.1** °F	**68.3** °F	**29.71**in	South	**1.8**mph	**7.9**mph	94%	**0.02**in	n/a	n/a
06:10	**70.1** °F	**68.4** °F	**29.71**in	South	**4.3**mph	**11.3**mph	94%	**0.02**in	n/a	n/a
06:15	**70.1** °F	**68.3** °F	**29.71**in	South	**2.1**mph	**11.3**mph	94%	**0.02**in	n/a	n/a
06:20	**70.1** °F	**68.4** °F	**29.71**in	South	**3.2**mph	**8.6**mph	94%	**0.02**in	n/a	n/a
06:25	**70.1** °F	**68.5** °F	**29.72**in	SSE	**2.6**mph	**8.6**mph	94%	**0.02**in	n/a	n/a
06:27	**70.1** °F	**68.5** °F	**29.72**in	SSE	**1.4**mph	**8.6**mph	94%	**0.02**in	n/a	n/a
06:31	**70.1** °F	**68.5** °F	**29.72**in	SSE	**3.0**mph	**9.6**mph	94%	**0.02**in	n/a	n/a
06:32	**70.1** °F	**68.5** °F	**29.72**in	SSE	**2.4**mph	**9.6**mph	94%	**0.02**in	n/a	n/a
06:33	**70.1** °F	**68.5** °F	**29.72**in	South	**2.2**mph	**9.6**mph	94%	**0.02**in	n/a	n/a
06:37	**70.2** °F	**68.5** °F	**29.71**in	South	**2.5**mph	**9.6**mph	94%	**0.02**in	n/a	n/a
06:42	**70.2** °F	**68.6** °F	**29.71**in	South	**1.8**mph	**7.9**mph	94%	**0.02**in	n/a	n/a
06:47	**70.3** °F	**68.7** °F	**29.71**in	South	**2.8**mph	**7.9**mph	94%	**0.02**in	n/a	n/a
06:52	**70.3** °F	**68.7** °F	**29.71**in	SSW	**2.3**mph	**7.1**mph	94%	**0.02**in	n/a	n/a
06:57	**70.3** °F	**68.6** °F	**29.71**in	SSW	**2.2**mph	**7.0**mph	94%	**0.02**in	n/a	n/a
07:00	**70.3** °F	**68.6** °F	**29.71**in	South	**2.8**mph	**7.0**mph	94%	**0.02**in	n/a	n/a
07:05	**70.2** °F	**68.5** °F	**29.71**in	SSE	**2.6**mph	**7.8**mph	94%	**0.02**in	n/a	n/a
07:06	**70.2** °F	**68.5** °F	**29.71**in	SSE	**3.1**mph	**7.8**mph	94%	**0.02**in	n/a	n/a
07:11	**70.3** °F	**68.5** °F	**29.70**in	SE	**3.3**mph	**8.7**mph	94%	**0.02**in	n/a	n/a
07:16	**70.2** °F	**68.3** °F	**29.70**in	SE	**3.2**mph	**8.7**mph	93%	**0.02**in	n/a	n/a
07:21	**70.2** °F	**68.4** °F	**29.70**in	South	**2.8**mph	**8.7**mph	93%	**0.02**in	n/a	n/a
07:26	**70.2** °F	**68.4** °F	**29.70**in	South	**2.1**mph	**7.9**mph	93%	**0.02**in	n/a	n/a
07:31	**70.2** °F	**68.4** °F	**29.70**in	SSE	**1.8**mph	**7.0**mph	93%	**0.02**in	n/a	n/a
07:32	**70.2** °F	**68.4** °F	**29.70**in	SSE	**2.2**mph	**7.0**mph	93%	**0.02**in	n/a	n/a
07:36	**70.2** °F	**68.4** °F	**29.70**in	South	**3.1**mph	**7.0**mph	93%	**0.02**in	n/a	n/a
07:41	**70.2** °F	**68.4** °F	**29.69**in	East	**1.5**mph	**8.7**mph	93%	**0.00**in	n/a	n/a
07:46	**70.3** °F	**68.4** °F	**29.69**in	SSW	**2.4**mph	**8.7**mph	93%	**0.00**in	n/a	n/a
07:51	**70.4** °F	**68.5** °F	**29.70**in	ENE	**1.2**mph	**5.3**mph	93%	**0.00**in	n/a	n/a
07:52	**70.4** °F	**68.5** °F	**29.70**in	SSW	**1.8**mph	**5.3**mph	93%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
07:55	**70.4** °F	**68.5** °F	**29.70**in	South	**2.1**mph	**5.3**mph	93%	**0.00**in	n/a	n/a
07:56	**70.4** °F	**68.5** °F	**29.70**in	South	**1.9**mph	**5.2**mph	93%	**0.00**in	n/a	n/a
08:01	**70.3** °F	**68.3** °F	**29.70**in	SSE	**2.7**mph	**7.9**mph	93%	**0.00**in	n/a	n/a
08:06	**70.3** °F	**68.2** °F	**29.70**in	SSE	**1.7**mph	**7.9**mph	92%	**0.00**in	n/a	n/a
08:11	**70.3** °F	**68.2** °F	**29.70**in	South	**2.7**mph	**6.1**mph	92%	**0.00**in	n/a	n/a
08:16	**70.4** °F	**68.3** °F	**29.71**in	South	**1.9**mph	**6.1**mph	92%	**0.00**in	n/a	n/a
08:22	**70.6** °F	**68.4** °F	**29.71**in	SE	**1.8**mph	**7.9**mph	92%	**0.00**in	n/a	n/a
08:27	**70.6** °F	**68.3** °F	**29.70**in	SSE	**3.3**mph	**7.9**mph	92%	**0.00**in	n/a	n/a
08:28	**70.6** °F	**68.3** °F	**29.70**in	SSE	**3.7**mph	**7.9**mph	92%	**0.00**in	n/a	n/a
08:30	**70.7** °F	**68.3** °F	**29.70**in	South	**2.8**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
08:33	**70.7** °F	**68.3** °F	**29.69**in	SSW	**1.8**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
08:34	**70.7** °F	**68.3** °F	**29.69**in	SSW	**1.9**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
08:35	**70.7** °F	**68.3** °F	**29.69**in	South	**2.7**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
08:41	**70.7** °F	**68.1** °F	**29.70**in	SSW	**3.1**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
08:46	**70.7** °F	**68.1** °F	**29.70**in	SSW	**2.5**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
08:51	**70.8** °F	**68.1** °F	**29.70**in	SE	**2.7**mph	**6.5**mph	90%	**0.00**in	n/a	n/a
08:52	**70.8** °F	**68.1** °F	**29.70**in	SE	**2.6**mph	**6.5**mph	90%	**0.00**in	n/a	n/a
08:57	**70.9** °F	**68.1** °F	**29.71**in	SE	**2.2**mph	**6.5**mph	90%	**0.00**in	n/a	n/a
08:58	**70.9** °F	**68.1** °F	**29.71**in	SE	**2.5**mph	**6.5**mph	90%	**0.00**in	n/a	n/a
09:03	**70.9** °F	**68.0** °F	**29.71**in	South	**2.5**mph	**5.2**mph	90%	**0.00**in	n/a	n/a
09:08	**70.7** °F	**67.8** °F	**29.71**in	SSE	**3.0**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
09:13	**70.6** °F	**67.6** °F	**29.72**in	South	**3.2**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
09:18	**70.5** °F	**67.6** °F	**29.72**in	South	**3.0**mph	**10.6**mph	90%	**0.00**in	n/a	n/a
09:23	**70.6** °F	**67.6** °F	**29.72**in	South	**3.2**mph	**10.6**mph	90%	**0.00**in	n/a	n/a
09:28	**70.5** °F	**67.4** °F	**29.72**in	SSE	**3.7**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
09:29	**70.5** °F	**67.3** °F	**29.72**in	SSE	**4.4**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
09:31	**70.4** °F	**67.2** °F	**29.72**in	SSW	**3.9**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
09:34	**70.5** °F	**67.1** °F	**29.72**in	South	**3.3**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
09:39	**70.4** °F	**67.0** °F	**29.72**in	South	**3.6**mph	**8.7**mph	88%	**0.00**in	n/a	n/a
09:45	**70.3** °F	**66.7** °F	**29.71**in	SE	**3.1**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
09:50	**70.2** °F	**66.5** °F	**29.71**in	SE	**3.9**mph	**9.7**mph	87%	**0.00**in	n/a	n/a
09:56	**70.0** °F	**66.4** °F	**29.71**in	South	**4.0**mph	**10.6**mph	88%	**0.00**in	n/a	n/a
09:58	**69.9** °F	**66.3** °F	**29.71**in	South	**3.7**mph	**10.6**mph	88%	**0.00**in	n/a	n/a
10:03	**69.9** °F	**66.3** °F	**29.71**in	South	**4.6**mph	**10.6**mph	88%	**0.00**in	n/a	n/a
10:08	**69.9** °F	**66.3** °F	**29.71**in	SSW	**3.4**mph	**14.8**mph	88%	**0.00**in	n/a	n/a
10:13	**69.9** °F	**66.3** °F	**29.71**in	SSE	**3.7**mph	**14.8**mph	88%	**0.00**in	n/a	n/a
10:18	**69.7** °F	**66.3** °F	**29.71**in	SSE	**4.1**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
10:23	**69.8** °F	**66.5** °F	**29.71**in	South	**2.9**mph	**9.6**mph	89%	**0.00**in	n/a	n/a
10:28	**69.8** °F	**66.7** °F	**29.71**in	South	**4.5**mph	**14.8**mph	89%	**0.00**in	n/a	n/a
10:30	**69.9** °F	**66.7** °F	**29.71**in	South	**3.3**mph	**14.8**mph	89%	**0.00**in	n/a	n/a
10:35	**70.1** °F	**66.9** °F	**29.72**in	SSW	**3.8**mph	**9.6**mph	89%	**0.00**in	n/a	n/a
10:40	**70.2** °F	**67.0** °F	**29.71**in	SSW	**3.6**mph	**10.5**mph	89%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
10:45	**70.4** °F	**67.1** °F	**29.71**in	South	**3.0**mph	**10.5**mph	89%	**0.00**in	n/a	n/a
10:50	**70.4** °F	**67.2** °F	**29.72**in	South	**5.0**mph	**12.2**mph	89%	**0.00**in	n/a	n/a
10:55	**70.4** °F	**67.3** °F	**29.72**in	SSW	**4.4**mph	**14.0**mph	89%	**0.00**in	n/a	n/a
10:58	**70.5** °F	**67.3** °F	**29.72**in	South	**4.8**mph	**14.0**mph	89%	**0.00**in	n/a	n/a
11:03	**70.5** °F	**67.4** °F	**29.71**in	SSW	**4.8**mph	**11.5**mph	89%	**0.02**in	n/a	n/a
11:08	**70.5** °F	**67.5** °F	**29.71**in	South	**4.3**mph	**11.3**mph	90%	**0.02**in	n/a	n/a
11:13	**70.4** °F	**67.5** °F	**29.71**in	SE	**4.6**mph	**12.2**mph	90%	**0.02**in	n/a	n/a
11:19	**70.4** °F	**67.7** °F	**29.70**in	South	**2.9**mph	**12.2**mph	90%	**0.02**in	n/a	n/a
11:24	**70.5** °F	**67.8** °F	**29.70**in	South	**4.2**mph	**14.8**mph	91%	**0.02**in	n/a	n/a
11:29	**70.4** °F	**67.7** °F	**29.70**in	South	**3.5**mph	**14.8**mph	91%	**0.02**in	n/a	n/a
11:34	**70.2** °F	**67.6** °F	**29.70**in	SSE	**3.7**mph	**9.6**mph	91%	**0.07**in	n/a	n/a
11:35	**70.1** °F	**67.6** °F	**29.71**in	South	**3.9**mph	**9.6**mph	91%	**0.14**in	n/a	n/a
11:40	**69.9** °F	**67.3** °F	**29.71**in	South	**3.1**mph	**12.2**mph	91%	**0.17**in	n/a	n/a
11:45	**69.8** °F	**67.4** °F	**29.71**in	SSW	**1.9**mph	**12.2**mph	92%	**0.17**in	n/a	n/a
11:50	**69.9** °F	**67.7** °F	**29.70**in	South	**3.1**mph	**7.9**mph	92%	**0.17**in	n/a	n/a
11:55	**70.1** °F	**67.9** °F	**29.70**in	SSE	**3.3**mph	**7.9**mph	92%	**0.17**in	n/a	n/a
11:56	**70.1** °F	**68.0** °F	**29.70**in	SSE	**3.3**mph	**7.9**mph	92%	**0.17**in	n/a	n/a
11:58	**70.2** °F	**68.1** °F	**29.70**in	SSE	**2.8**mph	**7.9**mph	92%	**0.17**in	n/a	n/a
12:04	**70.3** °F	**68.2** °F	**29.69**in	SE	**3.4**mph	**7.9**mph	92%	**0.15**in	n/a	n/a
12:09	**70.5** °F	**68.3** °F	**29.69**in	SSE	**2.6**mph	**7.9**mph	92%	**0.15**in	n/a	n/a
12:14	**70.7** °F	**68.5** °F	**29.69**in	South	**3.2**mph	**7.9**mph	92%	**0.15**in	n/a	n/a
12:19	**70.8** °F	**68.4** °F	**29.69**in	South	**2.3**mph	**7.9**mph	91%	**0.15**in	n/a	n/a
12:24	**71.0** °F	**68.4** °F	**29.69**in	SE	**3.4**mph	**12.2**mph	91%	**0.15**in	n/a	n/a
12:29	**71.1** °F	**68.2** °F	**29.69**in	SE	**1.8**mph	**12.2**mph	90%	**0.15**in	n/a	n/a
12:31	**71.3** °F	**68.4** °F	**29.69**in	SSE	**1.4**mph	**12.2**mph	90%	**0.15**in	n/a	n/a
12:34	**71.4** °F	**68.4** °F	**29.69**in	South	**3.3**mph	**8.7**mph	90%	**0.10**in	n/a	n/a
12:36	**71.5** °F	**68.4** °F	**29.69**in	SSE	**2.4**mph	**7.8**mph	89%	**0.01**in	n/a	n/a
12:41	**71.6** °F	**68.3** °F	**29.69**in	SW	**2.8**mph	**7.9**mph	89%	**0.00**in	n/a	n/a
12:46	**71.7** °F	**68.3** °F	**29.68**in	SSE	**2.7**mph	**7.9**mph	89%	**0.00**in	n/a	n/a
12:51	**71.7** °F	**68.3** °F	**29.68**in	SSE	**2.9**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
12:56	**71.6** °F	**68.2** °F	**29.68**in	SSE	**2.1**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
12:57	**71.6** °F	**68.2** °F	**29.68**in	SSE	**2.7**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
13:02	**71.4** °F	**68.1** °F	**29.68**in	South	**2.9**mph	**7.9**mph	89%	**0.00**in	n/a	n/a
13:07	**71.3** °F	**68.1** °F	**29.68**in	South	**3.1**mph	**7.9**mph	89%	**0.00**in	n/a	n/a
13:13	**71.4** °F	**68.3** °F	**29.68**in	South	**1.9**mph	**6.2**mph	89%	**0.00**in	n/a	n/a
13:18	**71.4** °F	**68.4** °F	**29.68**in	South	**3.1**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
13:23	**71.4** °F	**68.5** °F	**29.68**in	SSW	**3.0**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
13:28	**71.5** °F	**68.6** °F	**29.68**in	South	**3.3**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
13:30	**71.4** °F	**68.5** °F	**29.68**in	South	**3.2**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
13:33	**71.4** °F	**68.5** °F	**29.68**in	SSW	**2.8**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
13:36	**71.5** °F	**68.6** °F	**29.68**in	SSW	**4.0**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
13:41	**71.7** °F	**68.8** °F	**29.68**in	SE	**3.3**mph	**8.7**mph	90%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
13:44	**71.9** °F	**69.0** °F	**29.68**in	SSE	**3.5**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
13:49	**72.2** °F	**69.3** °F	**29.67**in	SSE	**2.3**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
13:54	**72.3** °F	**69.4** °F	**29.67**in	SSE	**2.4**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
13:55	**72.4** °F	**69.5** °F	**29.66**in	SSE	**2.9**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
14:00	**72.5** °F	**69.5** °F	**29.66**in	South	**2.3**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
14:05	**72.7** °F	**69.6** °F	**29.66**in	South	**3.9**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
14:10	**72.6** °F	**69.5** °F	**29.66**in	SSE	**3.1**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
14:15	**72.6** °F	**69.6** °F	**29.66**in	SSE	**4.4**mph	**7.1**mph	89%	**0.00**in	n/a	n/a
14:20	**72.8** °F	**69.6** °F	**29.65**in	SSE	**3.2**mph	**7.1**mph	89%	**0.00**in	n/a	n/a
14:25	**73.0** °F	**69.9** °F	**29.65**in	SE	**3.2**mph	**7.0**mph	89%	**0.00**in	n/a	n/a
14:30	**73.0** °F	**69.8** °F	**29.65**in	SE	**3.2**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
14:31	**73.1** °F	**69.8** °F	**29.65**in	SSW	**3.8**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
14:35	**73.1** °F	**69.9** °F	**29.65**in	South	**2.0**mph	**8.7**mph	89%	**0.00**in	n/a	n/a
14:37	**73.1** °F	**69.8** °F	**29.65**in	South	**2.9**mph	**7.9**mph	89%	**0.00**in	n/a	n/a
14:43	**73.1** °F	**69.7** °F	**29.65**in	South	**3.0**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
14:48	**73.1** °F	**69.7** °F	**29.65**in	South	**3.2**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
14:53	**73.2** °F	**69.8** °F	**29.64**in	South	**2.7**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
14:54	**73.2** °F	**69.7** °F	**29.64**in	SSE	**3.2**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
14:58	**73.2** °F	**69.6** °F	**29.64**in	SE	**3.0**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
15:03	**73.1** °F	**69.5** °F	**29.64**in	SE	**2.7**mph	**6.2**mph	88%	**0.00**in	n/a	n/a
15:08	**73.2** °F	**69.7** °F	**29.64**in	SSE	**3.9**mph	**8.7**mph	88%	**0.00**in	n/a	n/a
15:13	**73.2** °F	**69.7** °F	**29.64**in	South	**3.2**mph	**8.7**mph	88%	**0.00**in	n/a	n/a
15:18	**73.1** °F	**69.6** °F	**29.64**in	South	**2.1**mph	**11.3**mph	88%	**0.04**in	n/a	n/a
15:19	**73.0** °F	**69.5** °F	**29.64**in	South	**3.4**mph	**11.3**mph	88%	**0.04**in	n/a	n/a
15:24	**72.8** °F	**69.3** °F	**29.65**in	SSE	**4.5**mph	**10.6**mph	88%	**0.04**in	n/a	n/a
15:29	**72.8** °F	**69.4** °F	**29.65**in	SSE	**2.7**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
15:34	**72.7** °F	**69.5** °F	**29.64**in	SSE	**4.0**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
15:35	**72.7** °F	**69.5** °F	**29.64**in	SSE	**3.4**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
15:40	**72.6** °F	**69.4** °F	**29.64**in	SSE	**3.7**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
15:45	**72.6** °F	**69.4** °F	**29.64**in	SSE	**3.8**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
15:50	**72.6** °F	**69.4** °F	**29.64**in	SSE	**3.3**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
15:55	**72.7** °F	**69.5** °F	**29.64**in	South	**3.0**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
15:57	**72.7** °F	**69.6** °F	**29.64**in	South	**3.1**mph	**8.7**mph	89%	**0.04**in	n/a	n/a
16:02	**72.7** °F	**69.4** °F	**29.64**in	SE	**4.5**mph	**10.5**mph	89%	**0.04**in	n/a	n/a
16:07	**72.7** °F	**69.4** °F	**29.64**in	South	**4.2**mph	**10.5**mph	89%	**0.04**in	n/a	n/a
16:12	**72.6** °F	**69.3** °F	**29.64**in	SE	**3.8**mph	**10.5**mph	89%	**0.04**in	n/a	n/a
16:18	**72.5** °F	**69.1** °F	**29.64**in	SSE	**3.8**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
16:23	**72.4** °F	**69.0** °F	**29.63**in	SE	**3.7**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
16:29	**72.4** °F	**69.0** °F	**29.62**in	South	**3.8**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
16:34	**72.5** °F	**69.1** °F	**29.62**in	South	**3.7**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
16:35	**72.4** °F	**69.1** °F	**29.62**in	South	**3.8**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
16:40	**72.5** °F	**69.1** °F	**29.62**in	South	**3.4**mph	**8.7**mph	89%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
16:44	**72.5** °F	**69.2** °F	**29.62**in	South	**2.5**mph	**10.5**mph	89%	**0.00**in	n/a	n/a
16:50	**72.5** °F	**69.1** °F	**29.62**in	South	**4.1**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
16:55	**72.6** °F	**69.1** °F	**29.62**in	SSE	**3.9**mph	**8.7**mph	88%	**0.00**in	n/a	n/a
16:58	**72.6** °F	**69.1** °F	**29.62**in	SSE	**2.6**mph	**9.6**mph	88%	**0.00**in	n/a	n/a
17:03	**72.5** °F	**69.0** °F	**29.62**in	SSE	**3.8**mph	**9.6**mph	88%	**0.00**in	n/a	n/a
17:08	**72.5** °F	**69.1** °F	**29.61**in	SE	**4.2**mph	**9.6**mph	88%	**0.00**in	n/a	n/a
17:13	**72.5** °F	**69.1** °F	**29.61**in	SE	**3.6**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
17:18	**72.6** °F	**69.1** °F	**29.61**in	SE	**3.6**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
17:23	**72.8** °F	**69.2** °F	**29.61**in	South	**2.1**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
17:28	**72.8** °F	**69.1** °F	**29.61**in	South	**2.0**mph	**7.9**mph	88%	**0.00**in	n/a	n/a
17:32	**72.9** °F	**69.2** °F	**29.62**in	South	**2.6**mph	**7.0**mph	87%	**0.00**in	n/a	n/a
17:34	**73.1** °F	**69.3** °F	**29.62**in	South	**3.4**mph	**7.0**mph	87%	**0.00**in	n/a	n/a
17:35	**73.1** °F	**69.3** °F	**29.62**in	South	**3.3**mph	**7.0**mph	87%	**0.00**in	n/a	n/a
17:40	**73.0** °F	**69.1** °F	**29.62**in	South	**3.6**mph	**9.6**mph	87%	**0.00**in	n/a	n/a
17:45	**72.9** °F	**69.0** °F	**29.62**in	SSE	**3.5**mph	**9.6**mph	87%	**0.00**in	n/a	n/a
17:50	**72.8** °F	**68.9** °F	**29.62**in	South	**3.0**mph	**7.8**mph	87%	**0.00**in	n/a	n/a
17:55	**72.8** °F	**68.9** °F	**29.63**in	SE	**2.1**mph	**7.8**mph	87%	**0.00**in	n/a	n/a
17:57	**72.7** °F	**68.9** °F	**29.63**in	South	**3.9**mph	**7.8**mph	87%	**0.00**in	n/a	n/a
18:02	**72.6** °F	**68.8** °F	**29.64**in	South	**3.4**mph	**7.9**mph	87%	**0.00**in	n/a	n/a
18:07	**72.4** °F	**68.7** °F	**29.64**in	SSE	**2.8**mph	**7.9**mph	87%	**0.00**in	n/a	n/a
18:12	**72.2** °F	**68.6** °F	**29.64**in	SSE	**3.0**mph	**6.1**mph	88%	**0.00**in	n/a	n/a
18:16	**72.1** °F	**68.5** °F	**29.64**in	South	**2.9**mph	**7.0**mph	88%	**0.00**in	n/a	n/a
18:21	**71.9** °F	**68.4** °F	**29.64**in	South	**3.5**mph	**10.4**mph	88%	**0.00**in	n/a	n/a
18:26	**71.8** °F	**68.5** °F	**29.64**in	SSE	**2.2**mph	**10.4**mph	89%	**0.00**in	n/a	n/a
18:27	**71.9** °F	**68.5** °F	**29.64**in	South	**2.2**mph	**10.4**mph	89%	**0.00**in	n/a	n/a
18:32	**71.8** °F	**68.5** °F	**29.64**in	South	**2.6**mph	**7.7**mph	89%	**0.00**in	n/a	n/a
18:35	**71.6** °F	**68.4** °F	**29.65**in	South	**1.9**mph	**5.3**mph	89%	**0.00**in	n/a	n/a
18:40	**71.6** °F	**68.5** °F	**29.65**in	South	**2.8**mph	**6.1**mph	89%	**0.00**in	n/a	n/a
18:45	**71.5** °F	**68.6** °F	**29.64**in	South	**2.0**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
18:50	**71.4** °F	**68.6** °F	**29.64**in	South	**2.0**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
18:55	**71.4** °F	**68.6** °F	**29.65**in	South	**1.5**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
19:01	**71.4** °F	**68.6** °F	**29.65**in	SE	**2.3**mph	**6.1**mph	90%	**0.00**in	n/a	n/a
19:06	**71.3** °F	**68.6** °F	**29.66**in	South	**1.7**mph	**6.1**mph	90%	**0.00**in	n/a	n/a
19:11	**71.3** °F	**68.4** °F	**29.66**in	South	**3.0**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
19:16	**71.2** °F	**68.3** °F	**29.66**in	South	**1.9**mph	**7.8**mph	90%	**0.00**in	n/a	n/a
19:21	**71.0** °F	**68.2** °F	**29.66**in	SSE	**1.9**mph	**7.8**mph	90%	**0.00**in	n/a	n/a
19:26	**71.0** °F	**68.3** °F	**29.66**in	South	**1.4**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
19:29	**71.0** °F	**68.3** °F	**29.66**in	South	**1.9**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
19:31	**71.0** °F	**68.3** °F	**29.66**in	South	**2.3**mph	**7.1**mph	91%	**0.00**in	n/a	n/a
19:33	**70.9** °F	**68.2** °F	**29.66**in	SW	**1.3**mph	**7.1**mph	91%	**0.00**in	n/a	n/a
19:37	**70.9** °F	**68.2** °F	**29.66**in	Calm		**7.1**mph	91%	**0.00**in	n/a	n/a
19:42	**70.9** °F	**68.3** °F	**29.66**in	South	**1.5**mph	**2.6**mph	91%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
19:47	**70.9** °F	**68.3** °F	**29.66**in	South	**1.5**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
19:52	**70.8** °F	**68.2** °F	**29.66**in	South	**2.1**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
19:54	**70.7** °F	**68.1** °F	**29.66**in	South	**2.0**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
19:57	**70.6** °F	**68.0** °F	**29.67**in	South	**2.2**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
20:02	**70.6** °F	**68.1** °F	**29.67**in	South	**2.4**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
20:07	**70.7** °F	**68.2** °F	**29.68**in	South	**1.9**mph	**7.1**mph	91%	**0.00**in	n/a	n/a
20:12	**70.7** °F	**68.2** °F	**29.68**in	SSW	**2.5**mph	**7.1**mph	91%	**0.00**in	n/a	n/a
20:17	**70.7** °F	**68.3** °F	**29.68**in	SSW	**2.4**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
20:22	**70.9** °F	**68.3** °F	**29.68**in	SSW	**2.9**mph	**9.6**mph	91%	**0.00**in	n/a	n/a
20:27	**70.9** °F	**68.4** °F	**29.68**in	South	**1.3**mph	**9.6**mph	91%	**0.00**in	n/a	n/a
20:32	**71.0** °F	**68.3** °F	**29.68**in	Calm		**6.1**mph	91%	**0.00**in	n/a	n/a
20:33	**71.0** °F	**68.3** °F	**29.68**in	Calm		**6.1**mph	91%	**0.00**in	n/a	n/a
20:38	**71.0** °F	**68.3** °F	**29.68**in	SSW	**1.6**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
20:43	**70.9** °F	**68.2** °F	**29.69**in	SSW	**2.4**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
20:48	**70.8** °F	**68.1** °F	**29.69**in	SSW	**1.6**mph	**5.2**mph	90%	**0.00**in	n/a	n/a
20:53	**70.6** °F	**68.0** °F	**29.69**in	South	**3.0**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
20:56	**70.6** °F	**68.0** °F	**29.69**in	South	**2.0**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
20:59	**70.6** °F	**68.0** °F	**29.69**in	South	**2.3**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
21:05	**70.5** °F	**68.0** °F	**29.69**in	Calm		**5.3**mph	91%	**0.00**in	n/a	n/a
21:10	**70.5** °F	**68.0** °F	**29.69**in	SW	**1.9**mph	**6.2**mph	91%	**0.00**in	n/a	n/a
21:15	**70.6** °F	**68.0** °F	**29.69**in	SW	**2.6**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
21:21	**70.7** °F	**68.0** °F	**29.69**in	SSW	**2.7**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
21:26	**70.7** °F	**68.0** °F	**29.69**in	South	**2.7**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
21:28	**70.7** °F	**67.9** °F	**29.70**in	South	**3.5**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
21:30	**70.6** °F	**67.9** °F	**29.70**in	South	**2.4**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
21:32	**70.6** °F	**67.9** °F	**29.70**in	SW	**2.9**mph	**7.0**mph	90%	**0.00**in	n/a	n/a
21:37	**70.6** °F	**67.9** °F	**29.70**in	South	**2.7**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
21:42	**70.7** °F	**68.0** °F	**29.70**in	SSW	**2.9**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
21:47	**70.7** °F	**67.9** °F	**29.70**in	South	**2.3**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
21:52	**70.7** °F	**67.9** °F	**29.71**in	SSE	**1.9**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
21:53	**70.7** °F	**67.9** °F	**29.71**in	South	**2.1**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
21:58	**70.6** °F	**67.8** °F	**29.71**in	South	**1.5**mph	**5.2**mph	90%	**0.00**in	n/a	n/a
22:03	**70.6** °F	**67.8** °F	**29.71**in	SSW	**2.7**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
22:08	**70.5** °F	**67.8** °F	**29.71**in	SSW	**2.1**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
22:13	**70.4** °F	**67.7** °F	**29.72**in	South	**1.9**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
22:18	**70.4** °F	**67.7** °F	**29.72**in	SSW	**2.6**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
22:23	**70.3** °F	**67.7** °F	**29.72**in	SW	**2.8**mph	**6.8**mph	91%	**0.00**in	n/a	n/a
22:28	**70.2** °F	**67.6** °F	**29.72**in	SW	**2.6**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
22:30	**70.2** °F	**67.6** °F	**29.72**in	SW	**2.0**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
22:34	**70.2** °F	**67.6** °F	**29.72**in	South	**3.1**mph	**6.2**mph	91%	**0.00**in	n/a	n/a
22:39	**70.2** °F	**67.6** °F	**29.72**in	South	**2.6**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
22:44	**70.1** °F	**67.6** °F	**29.72**in	SW	**1.9**mph	**7.0**mph	91%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
22:49	**70.2** °F	**67.6** °F	**29.72**in	SSW	**2.8**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
22:54	**70.0** °F	**67.4** °F	**29.72**in	South	**2.7**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
22:55	**70.0** °F	**67.4** °F	**29.72**in	South	**2.4**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
22:59	**70.0** °F	**67.4** °F	**29.72**in	South	**1.9**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
23:04	**69.9** °F	**67.4** °F	**29.72**in	SW	**2.3**mph	**7.9**mph	91%	**0.00**in	n/a	n/a
23:10	**69.9** °F	**67.4** °F	**29.72**in	SW	**2.9**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
23:15	**69.9** °F	**67.4** °F	**29.72**in	SW	**1.5**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
23:20	**69.8** °F	**67.4** °F	**29.72**in	SW	**2.0**mph	**6.2**mph	91%	**0.00**in	n/a	n/a
23:24	**69.8** °F	**67.3** °F	**29.72**in	South	**1.5**mph	**6.2**mph	91%	**0.00**in	n/a	n/a
23:30	**69.8** °F	**67.3** °F	**29.72**in	SSW	**1.3**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
23:35	**69.7** °F	**67.2** °F	**29.73**in	SSW	**1.8**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
23:40	**69.7** °F	**67.1** °F	**29.73**in	SSW	**1.6**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
23:45	**69.7** °F	**67.1** °F	**29.73**in	SSW	**1.7**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
23:50	**69.7** °F	**67.2** °F	**29.73**in	SSW	**1.5**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
23:55	**69.6** °F	**67.1** °F	**29.73**in	SW	**1.7**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
23:56	**69.6** °F	**67.1** °F	**29.73**in	SW	**2.3**mph	**5.2**mph	91%	**0.00**in	n/a	n/a

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History for KNYBROOK22

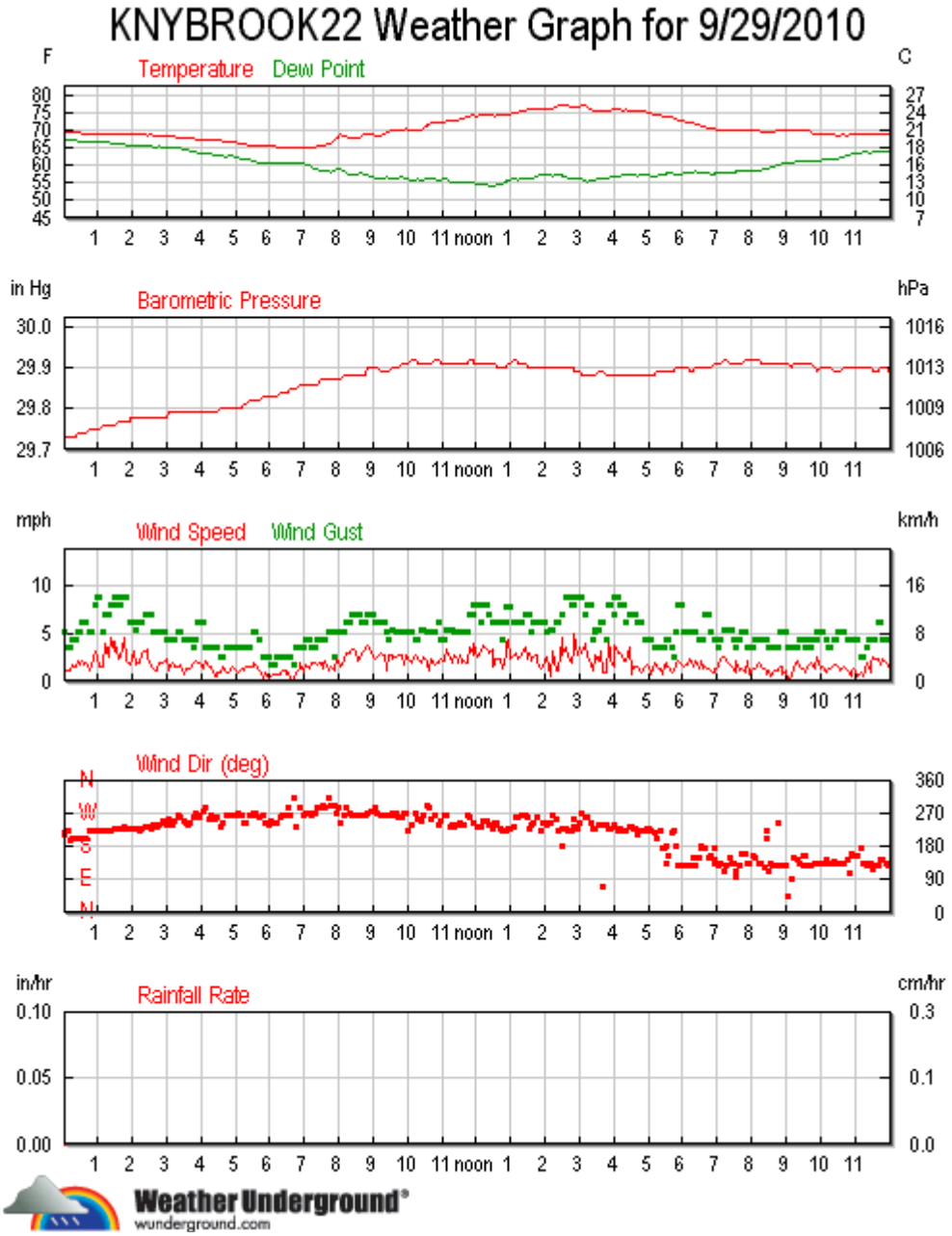
Park Slope, Brooklyn, NY 11215, Brooklyn, NY — Current Conditions

Daily Summary for September 29, 2010

	Current:	High:	Low:	Average:
Temperature:	**46.1** °F	**77.3** °F	**64.9** °F	**70.5** °F
Dew Point:	**24.2** °F	**67.2** °F	**54.0** °F	**59.7** °F
Humidity:	41%	92%	47%	69%
Wind Speed:	**4.1**mph	**5.0**mph	-	**1.9**mph
Wind Gust:	**14.0**mph	**8.7**mph	-	-
Wind:	West	-	-	SW
Pressure:	**30.24**in	**29.92**in	**29.73**in	-
Precipitation:	**0.00**in			

Statistics for the rest of the month:

	High:	Low:	Average:
Temperature:	**94.3** °F	**56.6** °F	**70.7** °F
Dew Point:	**71.2** °F	**37.7** °F	**56.3** °F
Humidity:	95.0%	21.0%	62.1%
Wind Speed:	**23.3**mph from the SSE	-	**3.1**mph
Wind Gust:	**52.3**mph from the SSE	-	-
Wind:	-	-	SSW
Pressure:	**30.19**in	**29.45**in	-
Precipitation:	**7.88**in		



Tabular Data for September 29, 2010

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
00:01	**69.6** °F	**67.2** °F	**29.73**in	SW	**1.1**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
00:02	**69.6** °F	**67.2** °F	**29.73**in	SSW	**1.4**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
00:03	**69.6** °F	**67.2** °F	**29.73**in	Calm		**5.2**mph	91%	**0.00**in	n/a	n/a
00:08	**69.6** °F	**67.2** °F	**29.73**in	SW	**1.2**mph	**3.5**mph	91%	**0.00**in	n/a	n/a
00:11	**69.6** °F	**67.2** °F	**29.73**in	SSW	**1.1**mph	**3.5**mph	91%	**0.00**in	n/a	n/a
00:16	**69.5** °F	**67.1** °F	**29.73**in	SSW	**1.8**mph	**4.4**mph	91%	**0.00**in	n/a	n/a
00:21	**69.4** °F	**67.0** °F	**29.73**in	SSW	**1.6**mph	**4.4**mph	91%	**0.00**in	n/a	n/a
00:26	**69.3** °F	**66.9** °F	**29.74**in	SSW	**2.1**mph	**5.2**mph	91%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
00:28	**69.3** °F	**66.8** °F	**29.74**in	SSW	**1.8**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
00:33	**69.1** °F	**66.7** °F	**29.74**in	SSW	**2.2**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
00:35	**69.1** °F	**66.6** °F	**29.74**in	SSW	**1.7**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
00:40	**69.0** °F	**66.6** °F	**29.74**in	SSW	**1.9**mph	**6.1**mph	91%	**0.00**in	n/a	n/a
00:45	**69.0** °F	**66.7** °F	**29.75**in	SW	**1.1**mph	**5.2**mph	92%	**0.00**in	n/a	n/a
00:50	**69.0** °F	**66.8** °F	**29.75**in	SW	**1.8**mph	**5.2**mph	92%	**0.00**in	n/a	n/a
00:55	**69.0** °F	**66.8** °F	**29.75**in	SW	**3.1**mph	**7.9**mph	92%	**0.00**in	n/a	n/a
00:58	**69.0** °F	**66.7** °F	**29.75**in	SW	**2.4**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
01:03	**69.1** °F	**66.7** °F	**29.75**in	SW	**1.6**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
01:08	**69.1** °F	**66.7** °F	**29.76**in	SW	**1.6**mph	**5.2**mph	91%	**0.00**in	n/a	n/a
01:13	**69.1** °F	**66.6** °F	**29.76**in	SW	**4.0**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
01:18	**69.0** °F	**66.4** °F	**29.76**in	SW	**2.5**mph	**7.0**mph	91%	**0.00**in	n/a	n/a
01:23	**69.0** °F	**66.2** °F	**29.76**in	SW	**4.5**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
01:28	**68.9** °F	**66.1** °F	**29.76**in	SW	**3.2**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
01:30	**68.9** °F	**66.1** °F	**29.76**in	SW	**4.2**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
01:35	**68.9** °F	**66.1** °F	**29.77**in	SW	**2.3**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
01:40	**68.9** °F	**66.0** °F	**29.77**in	SW	**2.5**mph	**7.9**mph	90%	**0.00**in	n/a	n/a
01:45	**68.8** °F	**65.9** °F	**29.77**in	SW	**4.6**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
01:50	**68.8** °F	**65.8** °F	**29.77**in	SW	**2.2**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
01:55	**68.8** °F	**65.7** °F	**29.77**in	SW	**1.9**mph	**6.1**mph	89%	**0.00**in	n/a	n/a
01:56	**68.8** °F	**65.7** °F	**29.78**in	SW	**1.7**mph	**6.1**mph	89%	**0.00**in	n/a	n/a
02:02	**68.8** °F	**65.7** °F	**29.78**in	SW	**3.1**mph	**6.1**mph	89%	**0.00**in	n/a	n/a
02:07	**68.7** °F	**65.6** °F	**29.78**in	SW	**1.8**mph	**5.3**mph	89%	**0.00**in	n/a	n/a
02:12	**68.7** °F	**65.5** °F	**29.78**in	SW	**1.9**mph	**6.2**mph	89%	**0.00**in	n/a	n/a
02:17	**68.6** °F	**65.5** °F	**29.78**in	SW	**2.9**mph	**6.2**mph	89%	**0.00**in	n/a	n/a
02:22	**68.6** °F	**65.4** °F	**29.78**in	SW	**3.1**mph	**7.0**mph	89%	**0.00**in	n/a	n/a
02:27	**68.5** °F	**65.4** °F	**29.78**in	SW	**3.4**mph	**7.0**mph	89%	**0.00**in	n/a	n/a
02:28	**68.5** °F	**65.4** °F	**29.78**in	SW	**2.5**mph	**7.0**mph	89%	**0.00**in	n/a	n/a
02:32	**68.6** °F	**65.4** °F	**29.78**in	SW	**1.5**mph	**7.0**mph	89%	**0.00**in	n/a	n/a
02:33	**68.6** °F	**65.4** °F	**29.78**in	SW	**1.6**mph	**7.0**mph	89%	**0.00**in	n/a	n/a
02:38	**68.4** °F	**65.2** °F	**29.78**in	WSW	**1.3**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
02:43	**68.4** °F	**65.2** °F	**29.78**in	SW	**1.2**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
02:48	**68.4** °F	**65.3** °F	**29.78**in	WSW	**1.9**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
02:53	**68.3** °F	**65.2** °F	**29.78**in	WSW	**2.0**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
02:55	**68.3** °F	**65.2** °F	**29.78**in	WSW	**2.2**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
03:00	**68.2** °F	**65.1** °F	**29.78**in	WSW	**2.3**mph	**4.4**mph	89%	**0.00**in	n/a	n/a
03:05	**68.2** °F	**65.1** °F	**29.79**in	WSW	**1.2**mph	**4.4**mph	89%	**0.00**in	n/a	n/a
03:10	**68.1** °F	**65.1** °F	**29.79**in	WSW	**1.9**mph	**4.4**mph	89%	**0.00**in	n/a	n/a
03:15	**68.1** °F	**65.0** °F	**29.79**in	WSW	**1.5**mph	**4.4**mph	89%	**0.00**in	n/a	n/a
03:20	**68.0** °F	**64.9** °F	**29.79**in	West	**1.5**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
03:25	**68.0** °F	**64.8** °F	**29.79**in	West	**1.7**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
03:30	**67.8** °F	**64.5** °F	**29.79**in	Calm		**4.4**mph	89%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
03:32	**67.8** °F	**64.4** °F	**29.79**in	WSW	**1.3**mph	**4.4**mph	88%	**0.00**in	n/a	n/a
03:37	**67.8** °F	**64.3** °F	**29.79**in	WSW	**1.3**mph	**4.4**mph	88%	**0.00**in	n/a	n/a
03:42	**67.6** °F	**64.0** °F	**29.79**in	WSW	**1.4**mph	**4.4**mph	88%	**0.00**in	n/a	n/a
03:47	**67.5** °F	**63.8** °F	**29.79**in	West	**2.0**mph	**3.5**mph	87%	**0.00**in	n/a	n/a
03:52	**67.4** °F	**63.7** °F	**29.79**in	West	**2.1**mph	**4.4**mph	87%	**0.00**in	n/a	n/a
03:55	**67.3** °F	**63.6** °F	**29.79**in	West	**2.0**mph	**6.1**mph	87%	**0.00**in	n/a	n/a
03:57	**67.2** °F	**63.5** °F	**29.79**in	West	**1.9**mph	**6.1**mph	87%	**0.00**in	n/a	n/a
03:58	**67.2** °F	**63.5** °F	**29.79**in	West	**2.0**mph	**6.1**mph	87%	**0.00**in	n/a	n/a
04:03	**67.2** °F	**63.5** °F	**29.79**in	West	**1.3**mph	**6.1**mph	87%	**0.00**in	n/a	n/a
04:08	**67.2** °F	**63.3** °F	**29.79**in	WNW	**2.1**mph	**3.5**mph	87%	**0.00**in	n/a	n/a
04:13	**67.2** °F	**63.3** °F	**29.79**in	WSW	**1.5**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
04:18	**67.3** °F	**63.2** °F	**29.79**in	West	**1.6**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
04:23	**67.2** °F	**63.1** °F	**29.79**in	Calm		**3.5**mph	86%	**0.00**in	n/a	n/a
04:28	**67.2** °F	**63.0** °F	**29.79**in	Calm		**3.5**mph	86%	**0.00**in	n/a	n/a
04:29	**67.2** °F	**63.0** °F	**29.79**in	West	**1.0**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
04:34	**67.0** °F	**62.8** °F	**29.80**in	Calm		**2.6**mph	86%	**0.00**in	n/a	n/a
04:39	**66.9** °F	**62.6** °F	**29.80**in	WSW	**1.5**mph	**2.6**mph	85%	**0.00**in	n/a	n/a
04:44	**66.8** °F	**62.5** °F	**29.80**in	Calm		**3.5**mph	85%	**0.00**in	n/a	n/a
04:49	**66.8** °F	**62.6** °F	**29.80**in	West	**1.0**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
04:55	**66.6** °F	**62.6** °F	**29.80**in	West	**1.5**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
05:00	**66.4** °F	**62.3** °F	**29.80**in	West	**1.2**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
05:05	**66.2** °F	**62.1** °F	**29.80**in	West	**1.0**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
05:10	**66.1** °F	**62.0** °F	**29.80**in	West	**1.3**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
05:15	**66.0** °F	**61.9** °F	**29.81**in	WSW	**1.2**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
05:19	**65.9** °F	**61.7** °F	**29.81**in	WSW	**1.5**mph	**3.5**mph	86%	**0.00**in	n/a	n/a
05:25	**65.8** °F	**61.5** °F	**29.82**in	West	**1.6**mph	**3.5**mph	85%	**0.00**in	n/a	n/a
05:30	**65.6** °F	**61.2** °F	**29.82**in	West	**1.6**mph	**5.2**mph	85%	**0.00**in	n/a	n/a
05:32	**65.6** °F	**61.1** °F	**29.82**in	West	**1.9**mph	**5.2**mph	85%	**0.00**in	n/a	n/a
05:36	**65.6** °F	**61.0** °F	**29.82**in	West	**1.7**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
05:41	**65.5** °F	**60.8** °F	**29.82**in	West	**1.1**mph	**4.4**mph	84%	**0.00**in	n/a	n/a
05:47	**65.4** °F	**60.6** °F	**29.83**in	Calm		**2.6**mph	84%	**0.00**in	n/a	n/a
05:52	**65.5** °F	**60.6** °F	**29.83**in	Calm		**2.6**mph	84%	**0.00**in	n/a	n/a
05:57	**65.3** °F	**60.5** °F	**29.83**in	Calm		**2.6**mph	84%	**0.00**in	n/a	n/a
06:02	**65.4** °F	**60.6** °F	**29.83**in	Calm		**1.8**mph	84%	**0.00**in	n/a	n/a
06:07	**65.4** °F	**60.5** °F	**29.83**in	Calm		**1.8**mph	84%	**0.00**in	n/a	n/a
06:12	**65.2** °F	**60.5** °F	**29.83**in	Calm		**2.6**mph	84%	**0.00**in	n/a	n/a
06:17	**65.2** °F	**60.5** °F	**29.84**in	Calm		**2.6**mph	84%	**0.00**in	n/a	n/a
06:22	**65.2** °F	**60.7** °F	**29.84**in	West	**1.2**mph	**2.6**mph	85%	**0.00**in	n/a	n/a
06:27	**65.2** °F	**60.7** °F	**29.84**in	West	**1.1**mph	**2.6**mph	85%	**0.00**in	n/a	n/a
06:28	**65.1** °F	**60.6** °F	**29.84**in	Calm		**2.6**mph	85%	**0.00**in	n/a	n/a
06:32	**65.0** °F	**60.5** °F	**29.84**in	WNW	**1.0**mph	**2.6**mph	85%	**0.00**in	n/a	n/a
06:36	**65.0** °F	**60.4** °F	**29.85**in	Calm		**2.6**mph	85%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
06:41	**65.0** °F	**60.5** °F	**29.85**in	Calm		**1.7**mph	85%	**0.00**in	n/a	n/a
06:46	**65.0** °F	**60.5** °F	**29.85**in	SW	**1.0**mph	**3.5**mph	85%	**0.00**in	n/a	n/a
06:51	**64.9** °F	**60.4** °F	**29.86**in	WNW	**1.4**mph	**3.5**mph	85%	**0.00**in	n/a	n/a
06:53	**64.9** °F	**60.5** °F	**29.86**in	WNW	**1.9**mph	**3.5**mph	85%	**0.00**in	n/a	n/a
06:58	**64.9** °F	**60.4** °F	**29.86**in	West	**1.0**mph	**3.5**mph	85%	**0.00**in	n/a	n/a
07:03	**64.9** °F	**60.2** °F	**29.86**in	West	**1.7**mph	**4.4**mph	84%	**0.00**in	n/a	n/a
07:08	**65.0** °F	**59.9** °F	**29.86**in	West	**1.4**mph	**4.4**mph	83%	**0.00**in	n/a	n/a
07:13	**65.1** °F	**59.5** °F	**29.86**in	West	**1.9**mph	**3.5**mph	82%	**0.00**in	n/a	n/a
07:18	**65.2** °F	**59.2** °F	**29.86**in	West	**1.9**mph	**3.5**mph	80%	**0.00**in	n/a	n/a
07:22	**65.3** °F	**59.0** °F	**29.86**in	WNW	**1.7**mph	**4.4**mph	79%	**0.00**in	n/a	n/a
07:28	**65.4** °F	**58.7** °F	**29.87**in	WNW	**2.0**mph	**4.4**mph	78%	**0.00**in	n/a	n/a
07:32	**65.5** °F	**58.6** °F	**29.87**in	WNW	**1.3**mph	**4.4**mph	77%	**0.00**in	n/a	n/a
07:34	**65.6** °F	**58.5** °F	**29.87**in	WNW	**1.9**mph	**4.4**mph	77%	**0.00**in	n/a	n/a
07:37	**65.7** °F	**58.4** °F	**29.87**in	WNW	**2.2**mph	**4.4**mph	76%	**0.00**in	n/a	n/a
07:42	**65.9** °F	**58.2** °F	**29.87**in	NW	**1.1**mph	**5.2**mph	75%	**0.00**in	n/a	n/a
07:46	**66.3** °F	**58.1** °F	**29.87**in	WNW	**1.5**mph	**5.2**mph	74%	**0.00**in	n/a	n/a
07:52	**67.1** °F	**58.4** °F	**29.87**in	WNW	**1.1**mph	**2.6**mph	73%	**0.00**in	n/a	n/a
07:57	**68.0** °F	**58.8** °F	**29.87**in	West	**2.3**mph	**5.2**mph	72%	**0.00**in	n/a	n/a
07:58	**68.0** °F	**58.8** °F	**29.87**in	WNW	**2.2**mph	**5.2**mph	71%	**0.00**in	n/a	n/a
08:03	**68.6** °F	**58.9** °F	**29.87**in	WSW	**1.5**mph	**5.2**mph	70%	**0.00**in	n/a	n/a
08:08	**68.5** °F	**58.3** °F	**29.88**in	West	**2.2**mph	**5.2**mph	69%	**0.00**in	n/a	n/a
08:13	**68.1** °F	**57.8** °F	**29.88**in	WNW	**2.9**mph	**6.2**mph	69%	**0.00**in	n/a	n/a
08:18	**67.7** °F	**57.3** °F	**29.88**in	West	**3.0**mph	**6.2**mph	69%	**0.00**in	n/a	n/a
08:23	**67.6** °F	**57.2** °F	**29.88**in	West	**3.3**mph	**7.0**mph	69%	**0.00**in	n/a	n/a
08:28	**67.5** °F	**57.3** °F	**29.88**in	West	**3.3**mph	**7.0**mph	69%	**0.00**in	n/a	n/a
08:29	**67.5** °F	**57.4** °F	**29.88**in	West	**3.2**mph	**7.0**mph	69%	**0.00**in	n/a	n/a
08:34	**67.8** °F	**57.6** °F	**29.88**in	West	**2.2**mph	**7.0**mph	69%	**0.00**in	n/a	n/a
08:35	**67.9** °F	**57.7** °F	**29.88**in	West	**2.4**mph	**7.0**mph	69%	**0.00**in	n/a	n/a
08:39	**68.5** °F	**57.9** °F	**29.88**in	West	**3.0**mph	**6.1**mph	68%	**0.00**in	n/a	n/a
08:45	**68.6** °F	**57.4** °F	**29.88**in	West	**3.3**mph	**6.1**mph	67%	**0.00**in	n/a	n/a
08:51	**68.8** °F	**57.1** °F	**29.90**in	West	**3.7**mph	**7.0**mph	65%	**0.00**in	n/a	n/a
08:57	**68.8** °F	**56.8** °F	**29.90**in	West	**3.2**mph	**7.0**mph	65%	**0.00**in	n/a	n/a
08:59	**68.7** °F	**56.6** °F	**29.90**in	West	**2.5**mph	**7.0**mph	65%	**0.00**in	n/a	n/a
09:03	**68.4** °F	**56.3** °F	**29.90**in	WNW	**2.3**mph	**6.1**mph	64%	**0.00**in	n/a	n/a
09:08	**68.2** °F	**56.2** °F	**29.90**in	West	**2.5**mph	**6.1**mph	65%	**0.00**in	n/a	n/a
09:14	**68.2** °F	**56.1** °F	**29.89**in	West	**3.0**mph	**6.1**mph	65%	**0.00**in	n/a	n/a
09:19	**68.7** °F	**56.4** °F	**29.89**in	West	**2.7**mph	**6.1**mph	64%	**0.00**in	n/a	n/a
09:23	**69.3** °F	**56.8** °F	**29.89**in	West	**1.2**mph	**5.2**mph	63%	**0.00**in	n/a	n/a
09:28	**69.6** °F	**56.5** °F	**29.89**in	West	**2.7**mph	**4.4**mph	62%	**0.00**in	n/a	n/a
09:34	**69.8** °F	**56.3** °F	**29.90**in	West	**2.8**mph	**5.3**mph	61%	**0.00**in	n/a	n/a
09:35	**69.8** °F	**56.3** °F	**29.90**in	West	**2.4**mph	**5.3**mph	61%	**0.00**in	n/a	n/a
09:40	**69.7** °F	**56.2** °F	**29.90**in	West	**2.5**mph	**5.2**mph	61%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
09:45	**69.7** °F	**56.3** °F	**29.90**in	West	**2.7**mph	**5.2**mph	61%	**0.00**in	n/a	n/a
09:50	**70.0** °F	**56.6** °F	**29.91**in	West	**2.8**mph	**5.2**mph	62%	**0.00**in	n/a	n/a
09:55	**70.2** °F	**56.5** °F	**29.91**in	West	**1.7**mph	**5.2**mph	61%	**0.00**in	n/a	n/a
09:57	**70.3** °F	**56.5** °F	**29.91**in	West	**2.8**mph	**5.2**mph	61%	**0.00**in	n/a	n/a
10:02	**70.2** °F	**56.1** °F	**29.91**in	SW	**2.3**mph	**5.2**mph	60%	**0.00**in	n/a	n/a
10:07	**69.9** °F	**55.8** °F	**29.92**in	WSW	**1.9**mph	**5.2**mph	60%	**0.00**in	n/a	n/a
10:13	**70.1** °F	**55.9** °F	**29.92**in	West	**2.7**mph	**4.4**mph	60%	**0.00**in	n/a	n/a
10:18	**70.2** °F	**56.0** °F	**29.91**in	WSW	**2.4**mph	**4.4**mph	60%	**0.00**in	n/a	n/a
10:23	**70.1** °F	**55.8** °F	**29.91**in	WSW	**2.0**mph	**5.3**mph	59%	**0.00**in	n/a	n/a
10:28	**70.3** °F	**55.9** °F	**29.91**in	West	**2.5**mph	**5.3**mph	59%	**0.00**in	n/a	n/a
10:33	**71.2** °F	**56.4** °F	**29.91**in	WNW	**2.2**mph	**5.2**mph	59%	**0.00**in	n/a	n/a
10:34	**71.4** °F	**56.5** °F	**29.91**in	WNW	**1.8**mph	**5.2**mph	58%	**0.00**in	n/a	n/a
10:37	**71.7** °F	**56.4** °F	**29.91**in	WNW	**1.2**mph	**5.2**mph	58%	**0.00**in	n/a	n/a
10:42	**71.9** °F	**56.3** °F	**29.91**in	WSW	**2.4**mph	**5.2**mph	57%	**0.00**in	n/a	n/a
10:48	**72.1** °F	**56.2** °F	**29.92**in	West	**1.8**mph	**5.2**mph	56%	**0.00**in	n/a	n/a
10:53	**71.9** °F	**55.9** °F	**29.92**in	WSW	**1.9**mph	**6.2**mph	56%	**0.00**in	n/a	n/a
10:54	**71.9** °F	**55.9** °F	**29.92**in	WSW	**2.2**mph	**6.2**mph	56%	**0.00**in	n/a	n/a
10:59	**71.9** °F	**55.8** °F	**29.91**in	WSW	**2.4**mph	**4.4**mph	56%	**0.00**in	n/a	n/a
11:04	**72.2** °F	**56.1** °F	**29.91**in	West	**2.2**mph	**4.4**mph	56%	**0.00**in	n/a	n/a
11:09	**72.8** °F	**56.0** °F	**29.91**in	West	**3.3**mph	**5.3**mph	55%	**0.00**in	n/a	n/a
11:14	**72.7** °F	**55.3** °F	**29.91**in	WSW	**2.4**mph	**5.3**mph	53%	**0.00**in	n/a	n/a
11:17	**72.6** °F	**55.1** °F	**29.91**in	WSW	**1.9**mph	**5.3**mph	53%	**0.00**in	n/a	n/a
11:22	**72.5** °F	**55.0** °F	**29.91**in	SW	**2.8**mph	**5.2**mph	53%	**0.00**in	n/a	n/a
11:28	**72.8** °F	**55.3** °F	**29.91**in	WSW	**2.4**mph	**5.2**mph	53%	**0.00**in	n/a	n/a
11:29	**72.9** °F	**55.2** °F	**29.91**in	WSW	**2.0**mph	**5.2**mph	53%	**0.00**in	n/a	n/a
11:33	**73.2** °F	**55.4** °F	**29.91**in	WSW	**2.7**mph	**5.2**mph	53%	**0.00**in	n/a	n/a
11:34	**73.3** °F	**55.4** °F	**29.91**in	WSW	**1.9**mph	**5.2**mph	53%	**0.00**in	n/a	n/a
11:39	**73.4** °F	**55.1** °F	**29.91**in	WSW	**2.2**mph	**5.2**mph	52%	**0.00**in	n/a	n/a
11:44	**73.6** °F	**55.0** °F	**29.91**in	West	**1.9**mph	**5.2**mph	51%	**0.00**in	n/a	n/a
11:49	**73.8** °F	**55.0** °F	**29.92**in	West	**3.6**mph	**7.0**mph	51%	**0.00**in	n/a	n/a
11:54	**74.1** °F	**55.2** °F	**29.92**in	WSW	**2.7**mph	**7.0**mph	51%	**0.00**in	n/a	n/a
11:56	**74.1** °F	**55.0** °F	**29.91**in	WSW	**4.0**mph	**7.9**mph	50%	**0.00**in	n/a	n/a
12:02	**74.0** °F	**54.6** °F	**29.91**in	SW	**2.6**mph	**7.9**mph	50%	**0.00**in	n/a	n/a
12:07	**74.1** °F	**54.5** °F	**29.91**in	WSW	**3.1**mph	**6.1**mph	49%	**0.00**in	n/a	n/a
12:12	**74.1** °F	**54.5** °F	**29.91**in	WSW	**3.8**mph	**7.9**mph	49%	**0.00**in	n/a	n/a
12:17	**74.1** °F	**54.4** °F	**29.91**in	WSW	**3.3**mph	**7.9**mph	49%	**0.00**in	n/a	n/a
12:22	**74.2** °F	**54.3** °F	**29.91**in	WSW	**2.9**mph	**7.0**mph	49%	**0.00**in	n/a	n/a
12:27	**74.2** °F	**54.1** °F	**29.91**in	WSW	**3.3**mph	**6.1**mph	49%	**0.00**in	n/a	n/a
12:29	**74.1** °F	**54.0** °F	**29.91**in	SW	**1.6**mph	**6.1**mph	49%	**0.00**in	n/a	n/a
12:31	**74.0** °F	**54.1** °F	**29.91**in	WSW	**1.7**mph	**6.1**mph	49%	**0.00**in	n/a	n/a
12:32	**74.0** °F	**54.2** °F	**29.91**in	WSW	**2.3**mph	**6.1**mph	49%	**0.00**in	n/a	n/a
12:37	**74.1** °F	**54.5** °F	**29.90**in	WSW	**2.3**mph	**6.1**mph	49%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
12:42	**74.1** °F	**54.5** °F	**29.90**in	SW	**2.3**mph	**6.1**mph	49%	**0.00**in	n/a	n/a
12:47	**74.3** °F	**54.8** °F	**29.90**in	SW	**1.3**mph	**4.4**mph	50%	**0.00**in	n/a	n/a
12:52	**74.4** °F	**55.4** °F	**29.90**in	SW	**2.8**mph	**6.1**mph	51%	**0.00**in	n/a	n/a
12:53	**74.5** °F	**55.5** °F	**29.90**in	SW	**4.0**mph	**7.8**mph	51%	**0.00**in	n/a	n/a
12:54	**74.5** °F	**55.6** °F	**29.91**in	SW	**4.4**mph	**7.8**mph	51%	**0.00**in	n/a	n/a
12:59	**74.5** °F	**55.9** °F	**29.91**in	SW	**2.4**mph	**7.8**mph	51%	**0.00**in	n/a	n/a
13:04	**74.7** °F	**56.1** °F	**29.92**in	SW	**2.8**mph	**6.2**mph	51%	**0.00**in	n/a	n/a
13:09	**75.0** °F	**56.0** °F	**29.92**in	West	**2.9**mph	**6.1**mph	51%	**0.00**in	n/a	n/a
13:14	**75.0** °F	**55.8** °F	**29.91**in	West	**2.3**mph	**6.1**mph	50%	**0.00**in	n/a	n/a
13:20	**75.5** °F	**56.0** °F	**29.91**in	West	**2.8**mph	**6.1**mph	50%	**0.00**in	n/a	n/a
13:25	**75.7** °F	**56.0** °F	**29.91**in	West	**3.5**mph	**7.0**mph	49%	**0.00**in	n/a	n/a
13:30	**75.9** °F	**56.1** °F	**29.90**in	West	**2.3**mph	**7.0**mph	49%	**0.00**in	n/a	n/a
13:31	**75.9** °F	**56.1** °F	**29.90**in	SW	**2.9**mph	**7.0**mph	49%	**0.00**in	n/a	n/a
13:35	**75.9** °F	**56.3** °F	**29.90**in	WSW	**2.1**mph	**5.2**mph	50%	**0.00**in	n/a	n/a
13:40	**76.0** °F	**56.5** °F	**29.90**in	WSW	**2.5**mph	**6.1**mph	50%	**0.00**in	n/a	n/a
13:45	**76.0** °F	**56.8** °F	**29.90**in	West	**2.7**mph	**6.1**mph	50%	**0.00**in	n/a	n/a
13:47	**76.0** °F	**57.0** °F	**29.90**in	West	**2.0**mph	**6.1**mph	51%	**0.00**in	n/a	n/a
13:52	**75.9** °F	**57.1** °F	**29.90**in	SW	**1.4**mph	**6.1**mph	51%	**0.00**in	n/a	n/a
13:55	**75.9** °F	**57.1** °F	**29.90**in	WSW	**1.6**mph	**6.1**mph	51%	**0.00**in	n/a	n/a
13:59	**76.0** °F	**57.2** °F	**29.90**in	WSW	**2.2**mph	**6.1**mph	51%	**0.00**in	n/a	n/a
14:04	**76.0** °F	**57.2** °F	**29.90**in	WSW	**2.5**mph	**5.2**mph	51%	**0.00**in	n/a	n/a
14:09	**75.8** °F	**57.1** °F	**29.90**in	Calm		**5.3**mph	51%	**0.00**in	n/a	n/a
14:14	**75.9** °F	**57.0** °F	**29.90**in	West	**3.2**mph	**5.3**mph	51%	**0.00**in	n/a	n/a
14:19	**76.4** °F	**57.2** °F	**29.90**in	WSW	**1.2**mph	**6.2**mph	50%	**0.00**in	n/a	n/a
14:24	**76.9** °F	**57.2** °F	**29.90**in	SW	**1.1**mph	**6.2**mph	50%	**0.00**in	n/a	n/a
14:29	**77.1** °F	**57.1** °F	**29.90**in	SW	**4.5**mph	**7.0**mph	49%	**0.00**in	n/a	n/a
14:31	**77.3** °F	**57.0** °F	**29.90**in	South	**2.7**mph	**7.0**mph	49%	**0.00**in	n/a	n/a
14:35	**77.2** °F	**56.6** °F	**29.90**in	SW	**3.5**mph	**8.7**mph	48%	**0.00**in	n/a	n/a
14:40	**77.0** °F	**56.2** °F	**29.90**in	SW	**2.6**mph	**8.7**mph	48%	**0.00**in	n/a	n/a
14:45	**76.8** °F	**56.1** °F	**29.90**in	SW	**1.9**mph	**7.9**mph	48%	**0.00**in	n/a	n/a
14:50	**76.8** °F	**56.2** °F	**29.90**in	WSW	**3.3**mph	**7.9**mph	48%	**0.00**in	n/a	n/a
14:51	**76.8** °F	**56.2** °F	**29.89**in	SW	**5.0**mph	**8.7**mph	48%	**0.00**in	n/a	n/a
14:56	**76.7** °F	**56.2** °F	**29.89**in	SW	**2.8**mph	**8.7**mph	48%	**0.00**in	n/a	n/a
15:00	**76.8** °F	**56.1** °F	**29.89**in	WSW	**3.5**mph	**8.7**mph	48%	**0.00**in	n/a	n/a
15:05	**77.1** °F	**56.3** °F	**29.88**in	West	**2.9**mph	**8.7**mph	48%	**0.00**in	n/a	n/a
15:10	**76.9** °F	**55.7** °F	**29.88**in	West	**3.9**mph	**7.0**mph	47%	**0.00**in	n/a	n/a
15:15	**76.4** °F	**55.4** °F	**29.88**in	West	**2.5**mph	**7.9**mph	47%	**0.00**in	n/a	n/a
15:20	**76.0** °F	**55.5** °F	**29.88**in	WSW	**1.7**mph	**7.9**mph	48%	**0.00**in	n/a	n/a
15:25	**75.6** °F	**55.5** °F	**29.88**in	SW	**1.2**mph	**4.4**mph	49%	**0.00**in	n/a	n/a
15:26	**75.6** °F	**55.6** °F	**29.88**in	SW	**2.5**mph	**5.2**mph	49%	**0.00**in	n/a	n/a
15:27	**75.6** °F	**55.7** °F	**29.88**in	SW	**2.8**mph	**5.3**mph	49%	**0.00**in	n/a	n/a
15:33	**75.4** °F	**56.0** °F	**29.89**in	WSW	**2.1**mph	**5.3**mph	50%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
15:36	**75.4** °F	**56.0** °F	**29.89**in	WSW	**3.2**mph	**6.1**mph	50%	**0.00**in	n/a	n/a
15:41	**75.5** °F	**56.1** °F	**29.89**in	Calm		**6.1**mph	50%	**0.00**in	n/a	n/a
15:47	**75.6** °F	**56.2** °F	**29.88**in	WSW	**1.0**mph	**4.4**mph	50%	**0.00**in	n/a	n/a
15:52	**75.6** °F	**56.5** °F	**29.88**in	SW	**4.0**mph	**7.9**mph	50%	**0.00**in	n/a	n/a
15:54	**75.7** °F	**56.6** °F	**29.88**in	SW	**3.4**mph	**7.9**mph	51%	**0.00**in	n/a	n/a
15:55	**75.7** °F	**56.7** °F	**29.88**in	SW	**2.1**mph	**7.9**mph	51%	**0.00**in	n/a	n/a
16:00	**75.8** °F	**56.9** °F	**29.88**in	WSW	**1.5**mph	**7.0**mph	51%	**0.00**in	n/a	n/a
16:01	**75.8** °F	**56.9** °F	**29.88**in	SW	**3.8**mph	**8.7**mph	51%	**0.00**in	n/a	n/a
16:06	**75.8** °F	**56.9** °F	**29.88**in	SW	**3.0**mph	**8.7**mph	51%	**0.00**in	n/a	n/a
16:11	**75.8** °F	**57.0** °F	**29.88**in	SW	**3.0**mph	**7.9**mph	51%	**0.00**in	n/a	n/a
16:16	**75.7** °F	**57.1** °F	**29.88**in	SW	**2.2**mph	**7.9**mph	51%	**0.00**in	n/a	n/a
16:22	**75.8** °F	**57.2** °F	**29.88**in	SW	**2.1**mph	**6.1**mph	52%	**0.00**in	n/a	n/a
16:27	**75.6** °F	**57.1** °F	**29.88**in	SW	**3.5**mph	**7.0**mph	52%	**0.00**in	n/a	n/a
16:30	**75.6** °F	**57.1** °F	**29.88**in	Calm		**7.0**mph	52%	**0.00**in	n/a	n/a
16:34	**75.6** °F	**57.1** °F	**29.88**in	SW	**1.6**mph	**7.0**mph	52%	**0.00**in	n/a	n/a
16:36	**75.6** °F	**57.1** °F	**29.88**in	SW	**1.6**mph	**7.0**mph	52%	**0.00**in	n/a	n/a
16:42	**75.4** °F	**57.0** °F	**29.88**in	SW	**1.6**mph	**6.1**mph	52%	**0.00**in	n/a	n/a
16:48	**75.3** °F	**57.4** °F	**29.88**in	SW	**1.0**mph	**6.1**mph	53%	**0.00**in	n/a	n/a
16:53	**75.2** °F	**57.6** °F	**29.88**in	SW	**1.5**mph	**4.4**mph	53%	**0.00**in	n/a	n/a
16:57	**75.1** °F	**57.6** °F	**29.88**in	SW	**1.7**mph	**4.4**mph	54%	**0.00**in	n/a	n/a
17:00	**75.0** °F	**57.5** °F	**29.88**in	SW	**1.6**mph	**4.4**mph	53%	**0.00**in	n/a	n/a
17:05	**74.7** °F	**57.0** °F	**29.88**in	Calm		**4.4**mph	53%	**0.00**in	n/a	n/a
17:10	**74.5** °F	**56.9** °F	**29.88**in	SW	**2.0**mph	**3.5**mph	53%	**0.00**in	n/a	n/a
17:15	**74.3** °F	**57.0** °F	**29.89**in	SSW	**1.6**mph	**3.5**mph	54%	**0.00**in	n/a	n/a
17:20	**74.2** °F	**57.2** °F	**29.89**in	SW	**1.3**mph	**3.5**mph	54%	**0.00**in	n/a	n/a
17:25	**74.0** °F	**57.3** °F	**29.89**in	Calm		**3.5**mph	55%	**0.00**in	n/a	n/a
17:27	**73.9** °F	**57.4** °F	**29.89**in	South	**1.6**mph	**3.5**mph	55%	**0.00**in	n/a	n/a
17:30	**73.9** °F	**57.6** °F	**29.89**in	South	**1.9**mph	**4.4**mph	56%	**0.00**in	n/a	n/a
17:31	**73.9** °F	**57.7** °F	**29.89**in	SE	**1.6**mph	**4.4**mph	56%	**0.00**in	n/a	n/a
17:34	**73.9** °F	**57.8** °F	**29.89**in	SSE	**1.5**mph	**4.4**mph	56%	**0.00**in	n/a	n/a
17:40	**73.7** °F	**57.7** °F	**29.89**in	SW	**1.0**mph	**3.5**mph	56%	**0.00**in	n/a	n/a
17:45	**73.4** °F	**57.5** °F	**29.89**in	SW	**1.1**mph	**2.6**mph	57%	**0.00**in	n/a	n/a
17:48	**73.2** °F	**57.4** °F	**29.90**in	South	**1.7**mph	**5.2**mph	57%	**0.00**in	n/a	n/a
17:53	**72.9** °F	**57.5** °F	**29.90**in	SE	**2.1**mph	**7.9**mph	57%	**0.00**in	n/a	n/a
17:58	**72.7** °F	**57.5** °F	**29.90**in	SE	**1.7**mph	**7.9**mph	58%	**0.00**in	n/a	n/a
18:03	**72.5** °F	**57.7** °F	**29.90**in	SE	**1.5**mph	**5.2**mph	59%	**0.00**in	n/a	n/a
18:08	**72.3** °F	**57.8** °F	**29.90**in	SE	**1.7**mph	**5.2**mph	59%	**0.00**in	n/a	n/a
18:13	**72.1** °F	**57.9** °F	**29.89**in	SE	**2.4**mph	**5.2**mph	60%	**0.00**in	n/a	n/a
18:18	**72.0** °F	**58.1** °F	**29.89**in	SSE	**1.5**mph	**5.2**mph	61%	**0.00**in	n/a	n/a
18:23	**71.8** °F	**58.2** °F	**29.90**in	SE	**2.1**mph	**5.2**mph	61%	**0.00**in	n/a	n/a
18:28	**71.4** °F	**58.1** °F	**29.90**in	SSE	**1.3**mph	**4.4**mph	62%	**0.00**in	n/a	n/a
18:31	**71.2** °F	**57.9** °F	**29.90**in	South	**1.8**mph	**4.4**mph	62%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
18:33	**71.1** °F	**57.9** °F	**29.90**in	South	**2.2**mph	**4.4**mph	62%	**0.00**in	n/a	n/a
18:35	**71.0** °F	**57.9** °F	**29.90**in	South	**1.4**mph	**4.4**mph	62%	**0.00**in	n/a	n/a
18:40	**70.9** °F	**57.9** °F	**29.90**in	South	**1.6**mph	**7.0**mph	63%	**0.00**in	n/a	n/a
18:45	**70.7** °F	**57.8** °F	**29.90**in	SSE	**1.3**mph	**7.0**mph	63%	**0.00**in	n/a	n/a
18:49	**70.5** °F	**57.6** °F	**29.90**in	SSE	**1.2**mph	**5.1**mph	63%	**0.00**in	n/a	n/a
18:54	**70.4** °F	**57.6** °F	**29.91**in	SE	**1.0**mph	**4.4**mph	63%	**0.00**in	n/a	n/a
18:55	**70.4** °F	**57.7** °F	**29.91**in	South	**1.0**mph	**4.4**mph	63%	**0.00**in	n/a	n/a
18:56	**70.3** °F	**57.7** °F	**29.91**in	SSE	**1.4**mph	**4.4**mph	63%	**0.00**in	n/a	n/a
18:57	**70.3** °F	**57.7** °F	**29.91**in	SE	**1.2**mph	**4.4**mph	63%	**0.00**in	n/a	n/a
19:02	**70.2** °F	**57.7** °F	**29.91**in	SE	**1.5**mph	**3.5**mph	64%	**0.00**in	n/a	n/a
19:07	**70.0** °F	**57.7** °F	**29.91**in	SE	**2.3**mph	**4.4**mph	64%	**0.00**in	n/a	n/a
19:12	**70.0** °F	**57.8** °F	**29.92**in	ESE	**2.5**mph	**5.3**mph	64%	**0.00**in	n/a	n/a
19:17	**69.9** °F	**57.8** °F	**29.92**in	SE	**2.2**mph	**5.3**mph	65%	**0.00**in	n/a	n/a
19:22	**69.8** °F	**57.8** °F	**29.91**in	SSE	**1.8**mph	**5.3**mph	65%	**0.00**in	n/a	n/a
19:27	**69.8** °F	**58.0** °F	**29.91**in	SE	**1.5**mph	**5.3**mph	65%	**0.00**in	n/a	n/a
19:28	**69.8** °F	**58.0** °F	**29.91**in	SE	**1.2**mph	**4.4**mph	65%	**0.00**in	n/a	n/a
19:32	**69.9** °F	**58.1** °F	**29.91**in	Calm		**3.5**mph	65%	**0.00**in	n/a	n/a
19:33	**70.0** °F	**58.1** °F	**29.91**in	East	**1.3**mph	**3.5**mph	65%	**0.00**in	n/a	n/a
19:34	**70.0** °F	**58.2** °F	**29.91**in	ESE	**2.2**mph	**4.4**mph	65%	**0.00**in	n/a	n/a
19:39	**70.1** °F	**58.3** °F	**29.91**in	SE	**1.2**mph	**4.4**mph	65%	**0.00**in	n/a	n/a
19:44	**70.1** °F	**58.3** °F	**29.91**in	SSE	**1.4**mph	**5.2**mph	65%	**0.00**in	n/a	n/a
19:49	**70.2** °F	**58.4** °F	**29.92**in	SSE	**1.0**mph	**5.2**mph	65%	**0.00**in	n/a	n/a
19:54	**70.1** °F	**58.3** °F	**29.92**in	SE	**2.1**mph	**3.5**mph	65%	**0.00**in	n/a	n/a
19:57	**70.0** °F	**58.3** °F	**29.92**in	Calm		**3.5**mph	65%	**0.00**in	n/a	n/a
20:02	**69.9** °F	**58.3** °F	**29.92**in	SSE	**1.4**mph	**3.5**mph	66%	**0.00**in	n/a	n/a
20:07	**69.7** °F	**58.4** °F	**29.92**in	SSE	**1.4**mph	**4.4**mph	66%	**0.00**in	n/a	n/a
20:12	**69.7** °F	**58.6** °F	**29.92**in	SE	**2.0**mph	**4.4**mph	67%	**0.00**in	n/a	n/a
20:17	**69.5** °F	**58.7** °F	**29.91**in	SE	**1.5**mph	**4.4**mph	68%	**0.00**in	n/a	n/a
20:22	**69.3** °F	**58.8** °F	**29.91**in	ESE	**1.4**mph	**4.4**mph	68%	**0.00**in	n/a	n/a
20:27	**69.4** °F	**59.1** °F	**29.91**in	SSW	**1.1**mph	**4.4**mph	69%	**0.00**in	n/a	n/a
20:28	**69.4** °F	**59.2** °F	**29.91**in	Calm		**4.4**mph	69%	**0.00**in	n/a	n/a
20:31	**69.4** °F	**59.2** °F	**29.91**in	ESE	**1.2**mph	**3.5**mph	69%	**0.00**in	n/a	n/a
20:34	**69.4** °F	**59.3** °F	**29.91**in	Calm		**3.5**mph	69%	**0.00**in	n/a	n/a
20:36	**69.4** °F	**59.4** °F	**29.91**in	Calm		**3.5**mph	70%	**0.00**in	n/a	n/a
20:41	**69.5** °F	**59.6** °F	**29.91**in	SE	**1.2**mph	**3.5**mph	70%	**0.00**in	n/a	n/a
20:46	**69.7** °F	**60.0** °F	**29.91**in	WSW	**1.1**mph	**3.5**mph	71%	**0.00**in	n/a	n/a
20:51	**69.8** °F	**60.3** °F	**29.91**in	SE	**1.5**mph	**5.2**mph	71%	**0.00**in	n/a	n/a
20:52	**69.8** °F	**60.4** °F	**29.91**in	SE	**1.5**mph	**5.2**mph	71%	**0.00**in	n/a	n/a
20:54	**69.9** °F	**60.5** °F	**29.91**in	Calm		**5.2**mph	71%	**0.00**in	n/a	n/a
20:59	**69.9** °F	**60.6** °F	**29.91**in	SE	**1.1**mph	**5.2**mph	72%	**0.00**in	n/a	n/a
21:04	**70.0** °F	**60.8** °F	**29.91**in	Calm		**3.5**mph	72%	**0.00**in	n/a	n/a
21:09	**70.0** °F	**60.9** °F	**29.90**in	Calm		**3.5**mph	72%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
21:14	69.9 °F	60.9 °F	29.91in	SSE	1.4mph	3.5mph	72%	0.00in	n/a	n/a
21:19	69.8 °F	61.0 °F	29.91in	SSE	2.2mph	3.5mph	73%	0.00in	n/a	n/a
21:24	69.8 °F	61.0 °F	29.91in	SE	1.6mph	4.4mph	73%	0.00in	n/a	n/a
21:29	69.8 °F	61.2 °F	29.91in	SE	1.3mph	4.4mph	73%	0.00in	n/a	n/a
21:31	69.8 °F	61.3 °F	29.91in	SSE	1.4mph	4.4mph	73%	0.00in	n/a	n/a
21:34	69.9 °F	61.4 °F	29.91in	Calm		3.5mph	74%	0.00in	n/a	n/a
21:39	69.7 °F	61.3 °F	29.91in	SE	1.8mph	4.4mph	74%	0.00in	n/a	n/a
21:45	69.4 °F	61.2 °F	29.91in	SE	2.0mph	3.5mph	74%	0.00in	n/a	n/a
21:50	69.1 °F	61.2 °F	29.90in	SE	1.4mph	4.4mph	75%	0.00in	n/a	n/a
21:54	68.9 °F	61.2 °F	29.89in	SE	2.6mph	4.4mph	76%	0.00in	n/a	n/a
21:55	68.9 °F	61.2 °F	29.89in	SE	2.5mph	5.2mph	76%	0.00in	n/a	n/a
21:59	68.8 °F	61.3 °F	29.90in	SE	1.3mph	5.2mph	76%	0.00in	n/a	n/a
22:04	68.8 °F	61.5 °F	29.90in	SE	1.6mph	5.2mph	77%	0.00in	n/a	n/a
22:09	68.9 °F	61.8 °F	29.90in	SE	1.0mph	4.4mph	77%	0.00in	n/a	n/a
22:14	68.9 °F	61.8 °F	29.90in	SE	1.4mph	3.5mph	78%	0.00in	n/a	n/a
22:19	68.7 °F	61.8 °F	29.90in	SE	1.4mph	3.5mph	78%	0.00in	n/a	n/a
22:24	68.6 °F	61.8 °F	29.89in	SE	1.8mph	4.4mph	78%	0.00in	n/a	n/a
22:29	68.5 °F	61.9 °F	29.89in	SE	1.8mph	4.4mph	79%	0.00in	n/a	n/a
22:32	68.4 °F	62.0 °F	29.89in	SE	1.6mph	5.2mph	79%	0.00in	n/a	n/a
22:35	68.4 °F	62.1 °F	29.89in	SE	1.2mph	5.2mph	80%	0.00in	n/a	n/a
22:40	68.6 °F	62.5 °F	29.90in	SE	1.6mph	5.2mph	80%	0.00in	n/a	n/a
22:46	68.5 °F	62.7 °F	29.90in	SSE	1.1mph	4.4mph	81%	0.00in	n/a	n/a
22:51	68.6 °F	63.1 °F	29.90in	Calm		4.4mph	82%	0.00in	n/a	n/a
22:53	68.7 °F	63.2 °F	29.90in	Calm		4.4mph	82%	0.00in	n/a	n/a
22:54	68.7 °F	63.3 °F	29.90in	Calm		4.4mph	82%	0.00in	n/a	n/a
22:59	68.7 °F	63.3 °F	29.90in	SSE	1.4mph	4.4mph	82%	0.00in	n/a	n/a
23:05	68.7 °F	63.4 °F	29.90in	Calm		4.4mph	82%	0.00in	n/a	n/a
23:10	68.8 °F	63.6 °F	29.90in	Calm		2.6mph	83%	0.00in	n/a	n/a
23:15	69.0 °F	63.8 °F	29.90in	Calm		2.6mph	83%	0.00in	n/a	n/a
23:20	69.0 °F	63.7 °F	29.90in	SE	1.9mph	3.5mph	83%	0.00in	n/a	n/a
23:25	68.9 °F	63.6 °F	29.90in	SE	1.4mph	4.4mph	83%	0.00in	n/a	n/a
23:27	68.8 °F	63.6 °F	29.90in	SE	1.0mph	4.4mph	83%	0.00in	n/a	n/a
23:29	68.8 °F	63.6 °F	29.90in	SE	1.7mph	4.4mph	83%	0.00in	n/a	n/a
23:33	68.8 °F	63.7 °F	29.89in	ESE	2.6mph	4.4mph	83%	0.00in	n/a	n/a
23:35	68.8 °F	63.7 °F	29.89in	SE	2.4mph	4.4mph	83%	0.00in	n/a	n/a
23:40	68.7 °F	63.7 °F	29.89in	SE	2.3mph	6.1mph	83%	0.00in	n/a	n/a
23:44	68.8 °F	63.8 °F	29.90in	SE	1.8mph	6.1mph	83%	0.00in	n/a	n/a
23:49	68.9 °F	63.8 °F	29.90in	SSE	2.3mph	4.4mph	83%	0.00in	n/a	n/a
23:54	68.8 °F	63.7 °F	29.90in	SE	1.9mph	4.4mph	83%	0.00in	n/a	n/a
23:58	68.8 °F	63.8 °F	29.89in	SE	1.6mph	4.4mph	83%	0.00in	n/a	n/a

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History for KNYBROOK22

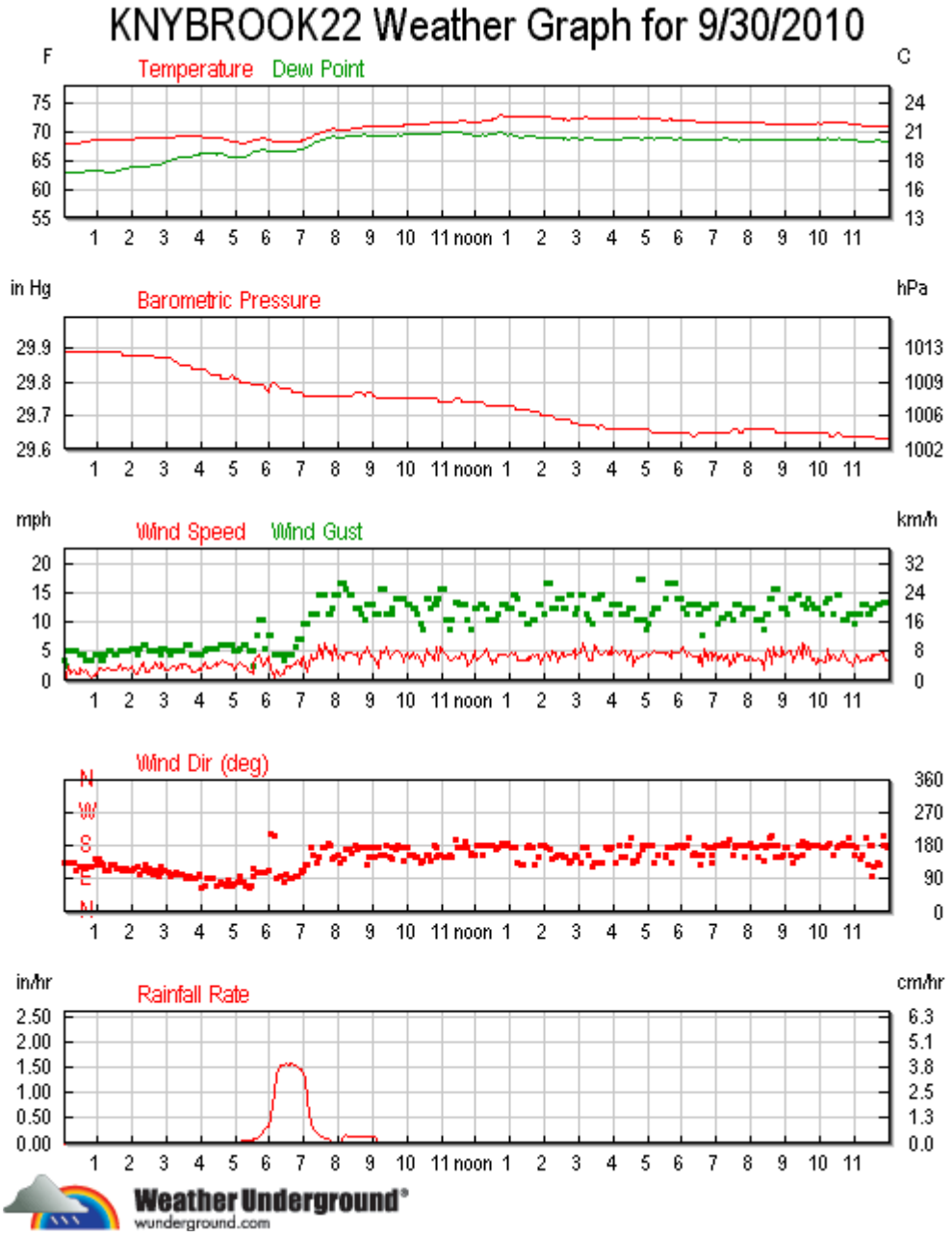
Park Slope, Brooklyn, NY 11215, Brooklyn, NY — Current Conditions

Daily Summary for September 30, 2010

	Current:	High:	Low:	Average:
Temperature:	**46.2** °F	**73.9** °F	**68.8** °F	**71.6** °F
Dew Point:	**24.3** °F	**70.8** °F	**63.8** °F	**68.6** °F
Humidity:	41%	95%	82%	90%
Wind Speed:	**4.0**mph	**6.3**mph	-	**3.5**mph
Wind Gust:	**13.1**mph	**17.4**mph	-	-
Wind:	WNW	-	-	SSE
Pressure:	**30.24**in	**29.89**in	**29.64**in	-
Precipitation:	**2.03**in			

Statistics for the rest of the month:

	High:	Low:	Average:
Temperature:	**94.3** °F	**56.6** °F	**70.7** °F
Dew Point:	**71.2** °F	**37.7** °F	**56.3** °F
Humidity:	95.0%	21.0%	62.1%
Wind Speed:	**23.3**mph from the SSE	-	**3.1**mph
Wind Gust:	**52.3**mph from the SSE	-	-
Wind:	-	-	SSW
Pressure:	**30.19**in	**29.45**in	-
Precipitation:	**7.88**in		



Tabular Data for September 30, 2010

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
00:00	**68.9** °F	**63.8** °F	**29.89**in	SE	**1.2**mph	**3.5**mph	83%	**0.00**in	n/a	n/a
00:01	**68.9** °F	**63.9** °F	**29.89**in	SSE	**1.2**mph	**3.5**mph	83%	**0.00**in	n/a	n/a
00:03	**68.9** °F	**63.9** °F	**29.89**in	Calm		**3.5**mph	83%	**0.00**in	n/a	n/a
00:05	**68.9** °F	**63.9** °F	**29.89**in	Calm		**2.6**mph	83%	**0.00**in	n/a	n/a
00:08	**68.9** °F	**63.9** °F	**29.89**in	SE	**2.6**mph	**5.2**mph	83%	**0.00**in	n/a	n/a
00:13	**68.8** °F	**63.9** °F	**29.89**in	SE	**1.2**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
00:18	**68.8** °F	**63.9** °F	**29.89**in	SE	**1.9**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
00:23	**69.0** °F	**64.0** °F	**29.89**in	ESE	**1.0**mph	**5.2**mph	84%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
00:28	**69.0** °F	**64.0** °F	**29.89**in	SE	**1.2**mph	**4.4**mph	83%	**0.00**in	n/a	n/a
00:30	**69.0** °F	**64.0** °F	**29.89**in	SE	**2.1**mph	**4.4**mph	83%	**0.00**in	n/a	n/a
00:34	**69.1** °F	**64.0** °F	**29.89**in	SE	**1.4**mph	**4.4**mph	83%	**0.00**in	n/a	n/a
00:39	**69.3** °F	**64.1** °F	**29.89**in	ESE	**1.8**mph	**3.5**mph	83%	**0.00**in	n/a	n/a
00:44	**69.4** °F	**64.1** °F	**29.89**in	Calm		**3.5**mph	83%	**0.00**in	n/a	n/a
00:49	**69.5** °F	**64.2** °F	**29.89**in	Calm		**3.5**mph	82%	**0.00**in	n/a	n/a
00:54	**69.7** °F	**64.2** °F	**29.89**in	SE	**1.2**mph	**4.4**mph	82%	**0.00**in	n/a	n/a
00:56	**69.7** °F	**64.2** °F	**29.89**in	Calm		**4.4**mph	82%	**0.00**in	n/a	n/a
00:59	**69.7** °F	**64.2** °F	**29.89**in	SE	**1.0**mph	**4.4**mph	82%	**0.00**in	n/a	n/a
01:02	**69.7** °F	**64.2** °F	**29.89**in	SSE	**2.2**mph	**4.4**mph	82%	**0.00**in	n/a	n/a
01:07	**69.6** °F	**64.1** °F	**29.89**in	SE	**2.0**mph	**3.5**mph	82%	**0.00**in	n/a	n/a
01:09	**69.6** °F	**64.1** °F	**29.89**in	SE	**1.9**mph	**3.5**mph	82%	**0.00**in	n/a	n/a
01:14	**69.6** °F	**64.0** °F	**29.89**in	ESE	**1.7**mph	**4.4**mph	82%	**0.00**in	n/a	n/a
01:19	**69.6** °F	**64.0** °F	**29.89**in	ESE	**2.0**mph	**5.2**mph	82%	**0.00**in	n/a	n/a
01:24	**69.6** °F	**64.0** °F	**29.89**in	SE	**1.7**mph	**5.2**mph	82%	**0.00**in	n/a	n/a
01:29	**69.5** °F	**63.9** °F	**29.89**in	SE	**1.9**mph	**4.4**mph	82%	**0.00**in	n/a	n/a
01:34	**69.6** °F	**64.1** °F	**29.89**in	ESE	**1.8**mph	**4.4**mph	82%	**0.00**in	n/a	n/a
01:39	**69.7** °F	**64.3** °F	**29.89**in	ESE	**2.8**mph	**5.2**mph	82%	**0.00**in	n/a	n/a
01:44	**69.7** °F	**64.4** °F	**29.88**in	ESE	**1.7**mph	**5.2**mph	83%	**0.00**in	n/a	n/a
01:49	**69.7** °F	**64.5** °F	**29.88**in	ESE	**2.0**mph	**5.2**mph	83%	**0.00**in	n/a	n/a
01:54	**69.6** °F	**64.6** °F	**29.88**in	ESE	**1.7**mph	**5.2**mph	83%	**0.00**in	n/a	n/a
01:59	**69.7** °F	**64.8** °F	**29.88**in	ESE	**2.5**mph	**5.3**mph	84%	**0.00**in	n/a	n/a
02:04	**69.7** °F	**64.9** °F	**29.88**in	ESE	**1.6**mph	**5.3**mph	84%	**0.00**in	n/a	n/a
02:09	**69.9** °F	**65.0** °F	**29.88**in	ESE	**1.0**mph	**4.4**mph	84%	**0.00**in	n/a	n/a
02:14	**70.0** °F	**65.0** °F	**29.88**in	ESE	**2.3**mph	**5.3**mph	84%	**0.00**in	n/a	n/a
02:19	**69.9** °F	**64.9** °F	**29.88**in	ESE	**3.1**mph	**6.1**mph	83%	**0.00**in	n/a	n/a
02:24	**69.8** °F	**64.9** °F	**29.88**in	SE	**1.4**mph	**6.1**mph	84%	**0.00**in	n/a	n/a
02:29	**69.8** °F	**64.9** °F	**29.88**in	ESE	**1.6**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
02:30	**69.8** °F	**65.0** °F	**29.88**in	ESE	**1.5**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
02:31	**69.9** °F	**65.0** °F	**29.88**in	ESE	**1.7**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
02:33	**69.9** °F	**65.1** °F	**29.88**in	ESE	**2.2**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
02:35	**69.9** °F	**65.1** °F	**29.88**in	ESE	**2.0**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
02:40	**69.9** °F	**65.2** °F	**29.87**in	ESE	**3.1**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
02:45	**69.9** °F	**65.2** °F	**29.87**in	East	**2.0**mph	**5.2**mph	84%	**0.00**in	n/a	n/a
02:50	**70.0** °F	**65.3** °F	**29.87**in	ESE	**2.2**mph	**4.4**mph	85%	**0.00**in	n/a	n/a
02:51	**70.0** °F	**65.3** °F	**29.87**in	SE	**3.1**mph	**5.3**mph	85%	**0.00**in	n/a	n/a
02:56	**69.9** °F	**65.5** °F	**29.87**in	ESE	**1.8**mph	**5.3**mph	85%	**0.00**in	n/a	n/a
03:02	**70.0** °F	**65.8** °F	**29.87**in	ESE	**1.8**mph	**5.2**mph	86%	**0.00**in	n/a	n/a
03:07	**70.1** °F	**66.0** °F	**29.87**in	East	**2.0**mph	**4.4**mph	86%	**0.00**in	n/a	n/a
03:12	**70.1** °F	**66.1** °F	**29.86**in	ESE	**2.6**mph	**5.2**mph	86%	**0.00**in	n/a	n/a
03:17	**70.3** °F	**66.3** °F	**29.86**in	ESE	**1.7**mph	**5.2**mph	86%	**0.00**in	n/a	n/a
03:22	**70.3** °F	**66.4** °F	**29.85**in	ESE	**2.9**mph	**5.2**mph	87%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
03:27	**70.4** °F	**66.4** °F	**29.85**in	ESE	**2.3**mph	**5.2**mph	87%	**0.00**in	n/a	n/a
03:28	**70.4** °F	**66.4** °F	**29.85**in	ESE	**2.7**mph	**5.2**mph	87%	**0.00**in	n/a	n/a
03:32	**70.4** °F	**66.6** °F	**29.85**in	East	**2.8**mph	**6.2**mph	87%	**0.00**in	n/a	n/a
03:35	**70.4** °F	**66.6** °F	**29.85**in	East	**2.7**mph	**6.2**mph	87%	**0.00**in	n/a	n/a
03:40	**70.4** °F	**66.6** °F	**29.85**in	East	**2.5**mph	**6.2**mph	87%	**0.00**in	n/a	n/a
03:45	**70.3** °F	**66.7** °F	**29.84**in	East	**1.5**mph	**4.4**mph	88%	**0.00**in	n/a	n/a
03:50	**70.3** °F	**66.9** °F	**29.84**in	East	**1.4**mph	**4.4**mph	88%	**0.00**in	n/a	n/a
03:56	**70.2** °F	**67.0** °F	**29.84**in	East	**1.7**mph	**4.4**mph	89%	**0.00**in	n/a	n/a
03:57	**70.2** °F	**67.1** °F	**29.84**in	East	**2.2**mph	**4.4**mph	89%	**0.00**in	n/a	n/a
04:02	**70.2** °F	**67.1** °F	**29.84**in	ENE	**1.9**mph	**4.4**mph	89%	**0.00**in	n/a	n/a
04:07	**70.1** °F	**67.1** °F	**29.84**in	ENE	**3.0**mph	**5.2**mph	89%	**0.00**in	n/a	n/a
04:12	**70.0** °F	**67.1** °F	**29.83**in	East	**2.0**mph	**5.3**mph	90%	**0.00**in	n/a	n/a
04:17	**70.0** °F	**67.1** °F	**29.82**in	East	**2.3**mph	**5.5**mph	90%	**0.00**in	n/a	n/a
04:22	**70.0** °F	**67.1** °F	**29.82**in	East	**2.5**mph	**5.5**mph	90%	**0.00**in	n/a	n/a
04:27	**69.9** °F	**67.1** °F	**29.82**in	ENE	**3.0**mph	**5.3**mph	90%	**0.00**in	n/a	n/a
04:28	**69.8** °F	**67.0** °F	**29.82**in	ENE	**2.6**mph	**5.3**mph	90%	**0.00**in	n/a	n/a
04:33	**69.8** °F	**67.1** °F	**29.82**in	East	**3.1**mph	**6.2**mph	90%	**0.00**in	n/a	n/a
04:34	**69.8** °F	**67.1** °F	**29.81**in	East	**3.2**mph	**6.2**mph	90%	**0.00**in	n/a	n/a
04:39	**69.8** °F	**67.1** °F	**29.81**in	ENE	**3.3**mph	**6.2**mph	91%	**0.00**in	n/a	n/a
04:44	**69.7** °F	**66.9** °F	**29.81**in	ENE	**3.2**mph	**6.1**mph	90%	**0.00**in	n/a	n/a
04:49	**69.5** °F	**66.7** °F	**29.81**in	East	**2.9**mph	**6.1**mph	90%	**0.01**in	n/a	n/a
04:54	**69.3** °F	**66.5** °F	**29.82**in	ENE	**2.7**mph	**6.1**mph	90%	**0.01**in	n/a	n/a
04:58	**69.3** °F	**66.5** °F	**29.81**in	ENE	**1.7**mph	**5.2**mph	90%	**0.01**in	n/a	n/a
05:03	**69.2** °F	**66.5** °F	**29.81**in	East	**2.7**mph	**5.2**mph	91%	**0.01**in	n/a	n/a
05:08	**69.0** °F	**66.4** °F	**29.80**in	East	**3.1**mph	**5.3**mph	91%	**0.03**in	n/a	n/a
05:13	**68.9** °F	**66.4** °F	**29.80**in	East	**2.5**mph	**6.1**mph	91%	**0.04**in	n/a	n/a
05:18	**69.0** °F	**66.6** °F	**29.80**in	ENE	**2.4**mph	**6.1**mph	92%	**0.04**in	n/a	n/a
05:23	**69.2** °F	**66.9** °F	**29.80**in	ENE	**1.4**mph	**5.2**mph	92%	**0.04**in	n/a	n/a
05:28	**69.4** °F	**67.2** °F	**29.79**in	ENE	**1.6**mph	**5.2**mph	92%	**0.07**in	n/a	n/a
05:31	**69.5** °F	**67.4** °F	**29.79**in	East	**1.3**mph	**2.6**mph	93%	**0.07**in	n/a	n/a
05:33	**69.6** °F	**67.5** °F	**29.79**in	ESE	**2.8**mph	**5.2**mph	93%	**0.09**in	n/a	n/a
05:37	**69.7** °F	**67.7** °F	**29.79**in	ESE	**4.1**mph	**7.9**mph	93%	**0.10**in	n/a	n/a
05:42	**69.7** °F	**67.7** °F	**29.79**in	ESE	**4.6**mph	**10.5**mph	93%	**0.13**in	n/a	n/a
05:47	**69.8** °F	**67.8** °F	**29.79**in	ESE	**2.5**mph	**10.5**mph	93%	**0.22**in	n/a	n/a
05:52	**69.8** °F	**67.9** °F	**29.78**in	ESE	**2.8**mph	**5.3**mph	93%	**0.27**in	n/a	n/a
05:57	**69.6** °F	**67.7** °F	**29.77**in	ESE	**4.0**mph	**7.9**mph	93%	**0.33**in	n/a	n/a
06:03	**69.5** °F	**67.6** °F	**29.79**in	SSW	**1.8**mph	**7.9**mph	93%	**0.52**in	n/a	n/a
06:08	**69.4** °F	**67.5** °F	**29.80**in	Calm		**4.4**mph	93%	**1.00**in	n/a	n/a
06:13	**69.4** °F	**67.6** °F	**29.79**in	East	**1.9**mph	**4.4**mph	93%	**1.35**in	n/a	n/a
06:19	**69.3** °F	**67.5** °F	**29.78**in	Calm		**4.4**mph	93%	**1.53**in	n/a	n/a
06:24	**69.3** °F	**67.6** °F	**29.78**in	East	**1.2**mph	**3.5**mph	94%	**1.56**in	n/a	n/a
06:29	**69.2** °F	**67.6** °F	**29.78**in	ESE	**2.4**mph	**4.4**mph	94%	**1.57**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
06:34	**69.3** °F	**67.7** °F	**29.78**in	East	**2.6**mph	**4.4**mph	94%	**1.55**in	n/a	n/a
06:35	**69.3** °F	**67.7** °F	**29.78**in	East	**2.1**mph	**4.4**mph	94%	**1.59**in	n/a	n/a
06:40	**69.3** °F	**67.7** °F	**29.77**in	East	**2.5**mph	**4.4**mph	94%	**1.58**in	n/a	n/a
06:45	**69.3** °F	**67.7** °F	**29.77**in	East	**2.7**mph	**5.8**mph	94%	**1.54**in	n/a	n/a
06:50	**69.4** °F	**67.8** °F	**29.77**in	East	**3.3**mph	**7.0**mph	94%	**1.50**in	n/a	n/a
06:55	**69.4** °F	**67.9** °F	**29.77**in	ESE	**2.4**mph	**7.0**mph	94%	**1.46**in	n/a	n/a
06:56	**69.5** °F	**67.9** °F	**29.77**in	ESE	**3.3**mph	**7.0**mph	94%	**1.44**in	n/a	n/a
07:00	**69.5** °F	**68.0** °F	**29.76**in	ESE	**4.2**mph	**9.6**mph	94%	**1.34**in	n/a	n/a
07:02	**69.6** °F	**68.1** °F	**29.76**in	SE	**2.2**mph	**9.6**mph	94%	**1.27**in	n/a	n/a
07:07	**69.8** °F	**68.3** °F	**29.76**in	SE	**1.4**mph	**9.6**mph	94%	**0.83**in	n/a	n/a
07:12	**70.1** °F	**68.6** °F	**29.76**in	South	**4.3**mph	**11.3**mph	95%	**0.40**in	n/a	n/a
07:17	**70.3** °F	**68.8** °F	**29.76**in	SSE	**3.5**mph	**11.3**mph	95%	**0.27**in	n/a	n/a
07:22	**70.5** °F	**69.1** °F	**29.76**in	SE	**3.8**mph	**11.3**mph	95%	**0.20**in	n/a	n/a
07:27	**70.7** °F	**69.4** °F	**29.76**in	SSE	**6.1**mph	**14.8**mph	95%	**0.17**in	n/a	n/a
07:32	**70.8** °F	**69.6** °F	**29.76**in	South	**3.9**mph	**14.8**mph	95%	**0.14**in	n/a	n/a
07:35	**70.9** °F	**69.7** °F	**29.76**in	South	**6.3**mph	**14.8**mph	95%	**0.10**in	n/a	n/a
07:41	**71.2** °F	**69.9** °F	**29.76**in	South	**4.8**mph	**11.3**mph	95%	**0.08**in	n/a	n/a
07:46	**71.3** °F	**70.1** °F	**29.76**in	South	**5.1**mph	**11.3**mph	95%	**0.03**in	n/a	n/a
07:51	**71.5** °F	**70.2** °F	**29.76**in	SSE	**3.6**mph	**12.2**mph	95%	**0.02**in	n/a	n/a
07:54	**71.5** °F	**70.2** °F	**29.76**in	SSE	**6.0**mph	**14.8**mph	95%	**0.02**in	n/a	n/a
07:59	**71.4** °F	**70.1** °F	**29.76**in	SSE	**3.9**mph	**14.8**mph	95%	**0.02**in	n/a	n/a
08:04	**71.4** °F	**70.1** °F	**29.76**in	SE	**4.4**mph	**16.6**mph	95%	**0.02**in	n/a	n/a
08:09	**71.4** °F	**70.1** °F	**29.76**in	SSE	**3.6**mph	**16.6**mph	95%	**0.14**in	n/a	n/a
08:14	**71.4** °F	**70.2** °F	**29.76**in	South	**4.7**mph	**15.7**mph	95%	**0.16**in	n/a	n/a
08:19	**71.4** °F	**70.2** °F	**29.76**in	South	**4.7**mph	**14.8**mph	95%	**0.14**in	n/a	n/a
08:24	**71.5** °F	**70.2** °F	**29.76**in	SSE	**4.7**mph	**14.8**mph	95%	**0.14**in	n/a	n/a
08:29	**71.6** °F	**70.3** °F	**29.77**in	South	**4.3**mph	**12.2**mph	95%	**0.14**in	n/a	n/a
08:32	**71.6** °F	**70.4** °F	**29.77**in	South	**4.0**mph	**12.2**mph	95%	**0.14**in	n/a	n/a
08:33	**71.6** °F	**70.3** °F	**29.77**in	South	**4.8**mph	**12.2**mph	95%	**0.14**in	n/a	n/a
08:35	**71.7** °F	**70.4** °F	**29.77**in	South	**2.9**mph	**12.2**mph	95%	**0.14**in	n/a	n/a
08:40	**71.7** °F	**70.4** °F	**29.77**in	South	**4.3**mph	**11.3**mph	95%	**0.14**in	n/a	n/a
08:45	**71.8** °F	**70.5** °F	**29.76**in	South	**4.8**mph	**10.5**mph	95%	**0.14**in	n/a	n/a
08:50	**71.8** °F	**70.4** °F	**29.77**in	South	**5.3**mph	**13.1**mph	95%	**0.14**in	n/a	n/a
08:51	**71.8** °F	**70.4** °F	**29.77**in	SE	**5.9**mph	**13.1**mph	95%	**0.14**in	n/a	n/a
08:52	**71.8** °F	**70.4** °F	**29.77**in	SSE	**4.8**mph	**13.1**mph	95%	**0.14**in	n/a	n/a
08:56	**71.9** °F	**70.4** °F	**29.77**in	South	**4.1**mph	**13.1**mph	95%	**0.14**in	n/a	n/a
08:59	**71.9** °F	**70.4** °F	**29.76**in	South	**4.0**mph	**13.1**mph	95%	**0.14**in	n/a	n/a
09:04	**71.8** °F	**70.4** °F	**29.76**in	SSE	**3.9**mph	**11.3**mph	95%	**0.14**in	n/a	n/a
09:09	**71.9** °F	**70.4** °F	**29.75**in	South	**2.1**mph	**11.3**mph	94%	**0.02**in	n/a	n/a
09:14	**71.9** °F	**70.4** °F	**29.75**in	SSE	**5.1**mph	**15.7**mph	94%	**0.00**in	n/a	n/a
09:19	**71.9** °F	**70.4** °F	**29.75**in	SSE	**4.9**mph	**15.7**mph	95%	**0.00**in	n/a	n/a
09:24	**71.9** °F	**70.4** °F	**29.75**in	South	**5.9**mph	**11.3**mph	95%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
09:29	**71.9** °F	**70.4** °F	**29.75**in	SSE	**3.7**mph	**11.3**mph	94%	**0.00**in	n/a	n/a
09:32	**71.9** °F	**70.4** °F	**29.75**in	SSE	**4.6**mph	**11.3**mph	94%	**0.00**in	n/a	n/a
09:35	**71.9** °F	**70.4** °F	**29.75**in	South	**4.5**mph	**12.2**mph	94%	**0.00**in	n/a	n/a
09:40	**71.9** °F	**70.4** °F	**29.75**in	South	**5.0**mph	**14.1**mph	94%	**0.00**in	n/a	n/a
09:45	**72.0** °F	**70.5** °F	**29.75**in	South	**5.2**mph	**14.1**mph	94%	**0.00**in	n/a	n/a
09:49	**72.0** °F	**70.4** °F	**29.75**in	South	**4.6**mph	**14.1**mph	94%	**0.00**in	n/a	n/a
09:54	**72.1** °F	**70.5** °F	**29.75**in	South	**3.0**mph	**14.0**mph	94%	**0.00**in	n/a	n/a
09:55	**72.2** °F	**70.5** °F	**29.75**in	SE	**3.6**mph	**14.0**mph	94%	**0.00**in	n/a	n/a
10:00	**72.3** °F	**70.6** °F	**29.75**in	South	**4.8**mph	**13.1**mph	94%	**0.00**in	n/a	n/a
10:05	**72.4** °F	**70.7** °F	**29.75**in	SSE	**3.7**mph	**13.1**mph	94%	**0.00**in	n/a	n/a
10:10	**72.4** °F	**70.7** °F	**29.75**in	SSE	**4.9**mph	**12.2**mph	94%	**0.00**in	n/a	n/a
10:14	**72.3** °F	**70.6** °F	**29.75**in	SSE	**3.7**mph	**12.2**mph	94%	**0.00**in	n/a	n/a
10:19	**72.3** °F	**70.6** °F	**29.75**in	SSE	**4.5**mph	**11.3**mph	94%	**0.00**in	n/a	n/a
10:24	**72.4** °F	**70.6** °F	**29.75**in	SE	**3.5**mph	**9.7**mph	94%	**0.00**in	n/a	n/a
10:29	**72.4** °F	**70.6** °F	**29.75**in	SE	**2.6**mph	**8.7**mph	93%	**0.00**in	n/a	n/a
10:34	**72.4** °F	**70.5** °F	**29.75**in	SSE	**5.4**mph	**14.0**mph	93%	**0.00**in	n/a	n/a
10:36	**72.4** °F	**70.6** °F	**29.75**in	SSE	**4.4**mph	**14.0**mph	93%	**0.00**in	n/a	n/a
10:41	**72.5** °F	**70.7** °F	**29.75**in	SE	**4.3**mph	**12.2**mph	93%	**0.00**in	n/a	n/a
10:46	**72.5** °F	**70.7** °F	**29.75**in	South	**3.6**mph	**13.1**mph	93%	**0.00**in	n/a	n/a
10:51	**72.6** °F	**70.7** °F	**29.75**in	South	**5.8**mph	**13.1**mph	93%	**0.00**in	n/a	n/a
10:52	**72.6** °F	**70.7** °F	**29.75**in	SSE	**5.6**mph	**14.0**mph	93%	**0.00**in	n/a	n/a
10:56	**72.6** °F	**70.7** °F	**29.74**in	SSE	**3.6**mph	**14.0**mph	93%	**0.00**in	n/a	n/a
10:58	**72.7** °F	**70.7** °F	**29.74**in	SSE	**5.6**mph	**15.7**mph	93%	**0.00**in	n/a	n/a
11:03	**72.7** °F	**70.8** °F	**29.74**in	SSE	**4.8**mph	**15.7**mph	93%	**0.00**in	n/a	n/a
11:08	**72.7** °F	**70.8** °F	**29.74**in	SSE	**4.3**mph	**10.5**mph	93%	**0.00**in	n/a	n/a
11:13	**72.7** °F	**70.8** °F	**29.74**in	SSE	**3.6**mph	**8.8**mph	93%	**0.00**in	n/a	n/a
11:18	**72.7** °F	**70.8** °F	**29.74**in	SSE	**3.6**mph	**10.5**mph	93%	**0.00**in	n/a	n/a
11:23	**72.8** °F	**70.8** °F	**29.75**in	SSW	**4.2**mph	**13.2**mph	93%	**0.00**in	n/a	n/a
11:28	**72.8** °F	**70.8** °F	**29.75**in	South	**3.8**mph	**13.2**mph	93%	**0.00**in	n/a	n/a
11:32	**73.0** °F	**70.8** °F	**29.75**in	South	**3.7**mph	**13.1**mph	92%	**0.00**in	n/a	n/a
11:36	**73.0** °F	**70.8** °F	**29.74**in	South	**4.9**mph	**13.1**mph	92%	**0.00**in	n/a	n/a
11:41	**72.9** °F	**70.6** °F	**29.74**in	South	**4.4**mph	**13.1**mph	92%	**0.00**in	n/a	n/a
11:46	**72.8** °F	**70.5** °F	**29.74**in	South	**2.6**mph	**10.5**mph	92%	**0.00**in	n/a	n/a
11:51	**72.8** °F	**70.5** °F	**29.74**in	SSE	**3.1**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
11:52	**72.8** °F	**70.5** °F	**29.74**in	SSE	**3.2**mph	**8.7**mph	92%	**0.00**in	n/a	n/a
11:57	**72.7** °F	**70.4** °F	**29.74**in	SSE	**5.0**mph	**12.2**mph	92%	**0.00**in	n/a	n/a
11:58	**72.7** °F	**70.3** °F	**29.74**in	SSE	**4.1**mph	**12.2**mph	92%	**0.00**in	n/a	n/a
12:03	**72.7** °F	**70.3** °F	**29.74**in	South	**3.6**mph	**12.2**mph	92%	**0.00**in	n/a	n/a
12:08	**72.7** °F	**70.4** °F	**29.74**in	South	**4.1**mph	**13.1**mph	92%	**0.00**in	n/a	n/a
12:13	**72.9** °F	**70.5** °F	**29.74**in	SSE	**4.3**mph	**13.1**mph	92%	**0.00**in	n/a	n/a
12:18	**72.9** °F	**70.4** °F	**29.73**in	South	**5.4**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
12:23	**73.0** °F	**70.5** °F	**29.73**in	South	**4.0**mph	**10.5**mph	91%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
12:28	**73.1** °F	**70.5** °F	**29.73**in	South	**2.7**mph	**10.5**mph	91%	**0.00**in	n/a	n/a
12:29	**73.2** °F	**70.5** °F	**29.73**in	South	**3.4**mph	**10.5**mph	91%	**0.00**in	n/a	n/a
12:34	**73.4** °F	**70.6** °F	**29.73**in	South	**3.4**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
12:35	**73.4** °F	**70.6** °F	**29.73**in	South	**3.1**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
12:40	**73.7** °F	**70.8** °F	**29.73**in	South	**4.3**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
12:45	**73.9** °F	**70.8** °F	**29.73**in	South	**4.5**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
12:50	**73.8** °F	**70.6** °F	**29.73**in	South	**4.6**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
12:51	**73.7** °F	**70.5** °F	**29.73**in	South	**4.4**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
12:56	**73.6** °F	**70.4** °F	**29.73**in	South	**4.2**mph	**12.2**mph	89%	**0.00**in	n/a	n/a
13:02	**73.7** °F	**70.5** °F	**29.73**in	South	**4.7**mph	**12.2**mph	89%	**0.00**in	n/a	n/a
13:05	**73.6** °F	**70.4** °F	**29.73**in	South	**4.3**mph	**14.8**mph	89%	**0.00**in	n/a	n/a
13:10	**73.7** °F	**70.4** °F	**29.72**in	South	**4.8**mph	**14.8**mph	89%	**0.00**in	n/a	n/a
13:13	**73.6** °F	**70.3** °F	**29.72**in	SE	**3.5**mph	**13.9**mph	89%	**0.00**in	n/a	n/a
13:18	**73.5** °F	**70.1** °F	**29.72**in	SE	**3.5**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
13:23	**73.5** °F	**70.1** °F	**29.72**in	SE	**3.3**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
13:28	**73.6** °F	**70.2** °F	**29.72**in	South	**3.4**mph	**9.6**mph	89%	**0.00**in	n/a	n/a
13:31	**73.5** °F	**70.2** °F	**29.72**in	South	**4.1**mph	**9.6**mph	89%	**0.00**in	n/a	n/a
13:33	**73.6** °F	**70.2** °F	**29.72**in	South	**3.6**mph	**9.6**mph	89%	**0.00**in	n/a	n/a
13:38	**73.5** °F	**70.2** °F	**29.71**in	South	**4.3**mph	**10.5**mph	89%	**0.00**in	n/a	n/a
13:44	**73.5** °F	**70.2** °F	**29.71**in	SE	**4.2**mph	**10.5**mph	89%	**0.00**in	n/a	n/a
13:49	**73.5** °F	**70.1** °F	**29.71**in	SSE	**4.5**mph	**13.1**mph	88%	**0.00**in	n/a	n/a
13:54	**73.6** °F	**70.1** °F	**29.70**in	South	**2.7**mph	**13.1**mph	88%	**0.00**in	n/a	n/a
13:59	**73.5** °F	**70.0** °F	**29.70**in	South	**4.2**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
14:04	**73.5** °F	**69.9** °F	**29.70**in	South	**4.8**mph	**16.6**mph	88%	**0.00**in	n/a	n/a
14:09	**73.5** °F	**69.9** °F	**29.70**in	South	**3.6**mph	**16.6**mph	88%	**0.00**in	n/a	n/a
14:14	**73.3** °F	**69.8** °F	**29.70**in	SE	**5.1**mph	**12.4**mph	88%	**0.00**in	n/a	n/a
14:19	**73.2** °F	**69.8** °F	**29.69**in	SSE	**4.9**mph	**12.4**mph	88%	**0.00**in	n/a	n/a
14:24	**73.3** °F	**69.9** °F	**29.69**in	SSE	**3.1**mph	**13.9**mph	88%	**0.00**in	n/a	n/a
14:29	**73.2** °F	**69.8** °F	**29.69**in	SSE	**4.7**mph	**13.9**mph	88%	**0.00**in	n/a	n/a
14:32	**73.1** °F	**69.7** °F	**29.69**in	SSE	**4.8**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
14:34	**73.2** °F	**69.8** °F	**29.69**in	SSE	**4.1**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
14:36	**73.2** °F	**69.8** °F	**29.69**in	SSE	**4.1**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
14:42	**73.1** °F	**69.7** °F	**29.69**in	SE	**4.5**mph	**14.8**mph	89%	**0.00**in	n/a	n/a
14:47	**73.2** °F	**69.8** °F	**29.68**in	SE	**4.5**mph	**14.8**mph	89%	**0.00**in	n/a	n/a
14:52	**73.4** °F	**69.8** °F	**29.68**in	SSE	**5.3**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
14:53	**73.4** °F	**69.9** °F	**29.68**in	SSE	**3.9**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
14:58	**73.4** °F	**69.8** °F	**29.68**in	SSE	**4.6**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
15:03	**73.3** °F	**69.7** °F	**29.67**in	SE	**4.7**mph	**14.8**mph	88%	**0.00**in	n/a	n/a
15:08	**73.3** °F	**69.7** °F	**29.67**in	South	**6.3**mph	**14.8**mph	88%	**0.00**in	n/a	n/a
15:13	**73.5** °F	**69.9** °F	**29.67**in	South	**4.4**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
15:18	**73.4** °F	**69.9** °F	**29.67**in	SSE	**3.4**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
15:23	**73.4** °F	**69.8** °F	**29.67**in	SE	**3.5**mph	**9.7**mph	88%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
15:28	**73.3** °F	**69.7** °F	**29.67**in	SE	**6.1**mph	**14.0**mph	88%	**0.00**in	n/a	n/a
15:33	**73.3** °F	**69.7** °F	**29.66**in	SE	**4.7**mph	**14.0**mph	88%	**0.00**in	n/a	n/a
15:36	**73.3** °F	**69.6** °F	**29.67**in	SE	**4.6**mph	**14.8**mph	88%	**0.00**in	n/a	n/a
15:41	**73.3** °F	**69.6** °F	**29.67**in	SE	**4.4**mph	**14.8**mph	88%	**0.00**in	n/a	n/a
15:46	**73.3** °F	**69.7** °F	**29.66**in	South	**5.1**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
15:51	**73.2** °F	**69.7** °F	**29.66**in	South	**4.4**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
15:53	**73.3** °F	**69.7** °F	**29.66**in	South	**4.6**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
15:56	**73.2** °F	**69.7** °F	**29.66**in	South	**5.7**mph	**13.1**mph	88%	**0.00**in	n/a	n/a
15:58	**73.2** °F	**69.7** °F	**29.66**in	South	**4.6**mph	**13.1**mph	88%	**0.00**in	n/a	n/a
16:04	**73.2** °F	**69.6** °F	**29.66**in	SE	**5.1**mph	**13.1**mph	88%	**0.00**in	n/a	n/a
16:09	**73.2** °F	**69.7** °F	**29.66**in	South	**4.3**mph	**13.1**mph	88%	**0.00**in	n/a	n/a
16:14	**73.2** °F	**69.7** °F	**29.66**in	SSE	**4.7**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
16:20	**73.3** °F	**69.8** °F	**29.66**in	SSE	**5.1**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
16:25	**73.3** °F	**69.8** °F	**29.66**in	South	**3.6**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
16:28	**73.4** °F	**69.8** °F	**29.66**in	South	**4.0**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
16:31	**73.4** °F	**69.8** °F	**29.66**in	SSW	**5.2**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
16:33	**73.4** °F	**69.8** °F	**29.66**in	SE	**3.5**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
16:34	**73.4** °F	**69.8** °F	**29.66**in	SE	**2.7**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
16:35	**73.4** °F	**69.8** °F	**29.66**in	SE	**2.5**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
16:40	**73.4** °F	**69.9** °F	**29.66**in	SE	**4.2**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
16:45	**73.5** °F	**69.9** °F	**29.66**in	SSE	**3.8**mph	**17.4**mph	88%	**0.00**in	n/a	n/a
16:51	**73.3** °F	**69.7** °F	**29.66**in	South	**4.1**mph	**17.4**mph	88%	**0.00**in	n/a	n/a
16:52	**73.3** °F	**69.7** °F	**29.66**in	South	**4.6**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
16:56	**73.3** °F	**69.8** °F	**29.66**in	South	**4.5**mph	**10.5**mph	88%	**0.00**in	n/a	n/a
16:57	**73.3** °F	**69.8** °F	**29.66**in	South	**4.9**mph	**8.7**mph	88%	**0.00**in	n/a	n/a
17:02	**73.4** °F	**69.9** °F	**29.66**in	South	**4.1**mph	**9.6**mph	88%	**0.00**in	n/a	n/a
17:07	**73.3** °F	**69.8** °F	**29.65**in	South	**4.8**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
17:12	**73.2** °F	**69.7** °F	**29.65**in	SE	**5.0**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
17:17	**73.2** °F	**69.8** °F	**29.65**in	SSE	**4.7**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
17:31	**73.1** °F	**69.8** °F	**29.65**in	SSE	**4.7**mph	**13.9**mph	89%	**0.00**in	n/a	n/a
17:32	**73.1** °F	**69.8** °F	**29.65**in	SSE	**4.6**mph	**13.9**mph	89%	**0.00**in	n/a	n/a
17:35	**73.1** °F	**69.8** °F	**29.65**in	South	**4.9**mph	**16.6**mph	89%	**0.00**in	n/a	n/a
17:40	**73.2** °F	**69.9** °F	**29.65**in	South	**3.8**mph	**16.6**mph	89%	**0.00**in	n/a	n/a
17:42	**73.1** °F	**69.8** °F	**29.65**in	SE	**5.0**mph	**16.6**mph	89%	**0.00**in	n/a	n/a
17:47	**73.1** °F	**69.6** °F	**29.65**in	South	**4.9**mph	**16.6**mph	88%	**0.00**in	n/a	n/a
17:52	**73.1** °F	**69.7** °F	**29.65**in	South	**4.8**mph	**13.9**mph	88%	**0.00**in	n/a	n/a
17:54	**73.1** °F	**69.8** °F	**29.65**in	South	**4.7**mph	**13.9**mph	89%	**0.00**in	n/a	n/a
17:57	**73.1** °F	**69.8** °F	**29.65**in	South	**5.1**mph	**13.9**mph	89%	**0.00**in	n/a	n/a
18:02	**73.1** °F	**69.7** °F	**29.65**in	South	**5.6**mph	**12.2**mph	88%	**0.00**in	n/a	n/a
18:07	**73.1** °F	**69.7** °F	**29.65**in	South	**4.0**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
18:12	**73.0** °F	**69.6** °F	**29.65**in	SSW	**4.9**mph	**13.1**mph	88%	**0.00**in	n/a	n/a
18:17	**73.0** °F	**69.6** °F	**29.64**in	SSE	**4.1**mph	**13.1**mph	88%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
18:22	**72.9** °F	**69.6** °F	**29.64**in	SSE	**4.0**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
18:27	**72.7** °F	**69.5** °F	**29.65**in	SSE	**4.1**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
18:28	**72.7** °F	**69.5** °F	**29.65**in	SSE	**3.2**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
18:32	**72.8** °F	**69.6** °F	**29.65**in	SE	**4.6**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
18:33	**72.8** °F	**69.6** °F	**29.65**in	SSE	**3.4**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
18:35	**72.8** °F	**69.6** °F	**29.65**in	SSE	**2.5**mph	**7.9**mph	89%	**0.00**in	n/a	n/a
18:40	**72.8** °F	**69.7** °F	**29.65**in	South	**5.5**mph	**12.2**mph	89%	**0.00**in	n/a	n/a
18:45	**72.8** °F	**69.6** °F	**29.65**in	South	**3.6**mph	**12.2**mph	89%	**0.00**in	n/a	n/a
18:46	**72.8** °F	**69.6** °F	**29.65**in	South	**4.6**mph	**12.2**mph	89%	**0.00**in	n/a	n/a
18:51	**72.8** °F	**69.6** °F	**29.65**in	SSE	**4.8**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
18:52	**72.8** °F	**69.6** °F	**29.65**in	SE	**3.6**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
18:56	**72.8** °F	**69.6** °F	**29.65**in	South	**4.2**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
18:58	**72.7** °F	**69.5** °F	**29.65**in	South	**4.9**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
19:03	**72.7** °F	**69.6** °F	**29.65**in	South	**3.3**mph	**9.7**mph	89%	**0.00**in	n/a	n/a
19:08	**72.7** °F	**69.6** °F	**29.65**in	South	**4.3**mph	**10.6**mph	89%	**0.00**in	n/a	n/a
19:13	**72.8** °F	**69.8** °F	**29.65**in	South	**3.6**mph	**10.6**mph	90%	**0.00**in	n/a	n/a
19:18	**72.8** °F	**69.8** °F	**29.65**in	South	**4.3**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
19:23	**72.8** °F	**69.7** °F	**29.65**in	SSW	**2.5**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
19:28	**72.7** °F	**69.6** °F	**29.66**in	SSE	**3.3**mph	**10.5**mph	89%	**0.00**in	n/a	n/a
19:29	**72.7** °F	**69.6** °F	**29.66**in	SSE	**4.3**mph	**10.5**mph	89%	**0.00**in	n/a	n/a
19:30	**72.7** °F	**69.6** °F	**29.66**in	SSE	**3.7**mph	**10.4**mph	89%	**0.00**in	n/a	n/a
19:32	**72.7** °F	**69.6** °F	**29.66**in	South	**3.7**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
19:33	**72.7** °F	**69.6** °F	**29.66**in	South	**3.1**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
19:35	**72.6** °F	**69.5** °F	**29.66**in	South	**4.8**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
19:40	**72.6** °F	**69.4** °F	**29.65**in	South	**4.2**mph	**13.1**mph	89%	**0.00**in	n/a	n/a
19:45	**72.6** °F	**69.5** °F	**29.65**in	South	**4.3**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
19:50	**72.5** °F	**69.5** °F	**29.66**in	South	**3.8**mph	**12.2**mph	89%	**0.00**in	n/a	n/a
19:51	**72.5** °F	**69.5** °F	**29.66**in	SSE	**3.5**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
19:56	**72.5** °F	**69.5** °F	**29.66**in	South	**3.6**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
19:57	**72.5** °F	**69.5** °F	**29.66**in	South	**4.0**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
19:58	**72.5** °F	**69.5** °F	**29.66**in	South	**4.0**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
20:03	**72.5** °F	**69.5** °F	**29.66**in	South	**3.3**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
20:08	**72.5** °F	**69.5** °F	**29.66**in	South	**3.5**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
20:13	**72.5** °F	**69.5** °F	**29.66**in	SSE	**3.7**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
20:18	**72.5** °F	**69.6** °F	**29.66**in	South	**3.6**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
20:23	**72.5** °F	**69.6** °F	**29.66**in	SE	**1.8**mph	**8.7**mph	90%	**0.00**in	n/a	n/a
20:28	**72.4** °F	**69.5** °F	**29.66**in	South	**4.4**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
20:30	**72.4** °F	**69.5** °F	**29.66**in	South	**5.4**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
20:33	**72.4** °F	**69.5** °F	**29.66**in	SSW	**4.9**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
20:35	**72.4** °F	**69.5** °F	**29.66**in	SSW	**2.8**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
20:40	**72.4** °F	**69.5** °F	**29.66**in	South	**5.6**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
20:42	**72.4** °F	**69.5** °F	**29.65**in	SSE	**4.0**mph	**15.7**mph	90%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
20:47	**72.4** °F	**69.6** °F	**29.65**in	South	**4.5**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
20:53	**72.4** °F	**69.5** °F	**29.65**in	SSE	**4.1**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
20:54	**72.4** °F	**69.5** °F	**29.65**in	SSE	**5.8**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
20:55	**72.4** °F	**69.5** °F	**29.65**in	SSE	**4.5**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
20:59	**72.4** °F	**69.6** °F	**29.65**in	South	**4.5**mph	**12.2**mph	90%	**0.00**in	n/a	n/a
21:04	**72.4** °F	**69.6** °F	**29.65**in	South	**4.8**mph	**11.5**mph	90%	**0.00**in	n/a	n/a
21:09	**72.4** °F	**69.5** °F	**29.65**in	SSE	**5.2**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
21:14	**72.4** °F	**69.6** °F	**29.65**in	SE	**3.1**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
21:19	**72.3** °F	**69.5** °F	**29.65**in	SSE	**4.8**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
21:24	**72.3** °F	**69.5** °F	**29.65**in	South	**5.6**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
21:29	**72.3** °F	**69.5** °F	**29.65**in	SSE	**3.8**mph	**13.1**mph	90%	**0.00**in	n/a	n/a
21:30	**72.3** °F	**69.5** °F	**29.65**in	South	**5.3**mph	**13.1**mph	90%	**0.00**in	n/a	n/a
21:31	**72.3** °F	**69.5** °F	**29.65**in	SSW	**6.3**mph	**13.1**mph	90%	**0.00**in	n/a	n/a
21:32	**72.2** °F	**69.5** °F	**29.65**in	South	**5.6**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
21:36	**72.3** °F	**69.6** °F	**29.65**in	South	**4.5**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
21:42	**72.3** °F	**69.6** °F	**29.65**in	South	**5.6**mph	**14.0**mph	91%	**0.00**in	n/a	n/a
21:47	**72.4** °F	**69.7** °F	**29.65**in	South	**3.5**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
21:52	**72.4** °F	**69.7** °F	**29.65**in	South	**3.7**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
21:53	**72.4** °F	**69.7** °F	**29.65**in	South	**2.9**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
21:56	**72.5** °F	**69.7** °F	**29.65**in	South	**3.2**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
21:58	**72.5** °F	**69.8** °F	**29.65**in	South	**3.9**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
22:03	**72.4** °F	**69.7** °F	**29.65**in	South	**3.6**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
22:09	**72.5** °F	**69.7** °F	**29.65**in	South	**3.1**mph	**13.2**mph	90%	**0.00**in	n/a	n/a
22:14	**72.6** °F	**69.8** °F	**29.65**in	South	**5.3**mph	**13.9**mph	90%	**0.00**in	n/a	n/a
22:19	**72.5** °F	**69.7** °F	**29.64**in	South	**3.6**mph	**13.9**mph	90%	**0.00**in	n/a	n/a
22:24	**72.5** °F	**69.7** °F	**29.64**in	SSE	**4.4**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
22:30	**72.6** °F	**69.7** °F	**29.65**in	South	**3.5**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
22:35	**72.6** °F	**69.8** °F	**29.65**in	South	**3.3**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
22:40	**72.6** °F	**69.7** °F	**29.64**in	South	**5.1**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
22:41	**72.6** °F	**69.7** °F	**29.64**in	South	**4.9**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
22:46	**72.5** °F	**69.7** °F	**29.64**in	South	**3.5**mph	**10.5**mph	90%	**0.00**in	n/a	n/a
22:51	**72.4** °F	**69.6** °F	**29.64**in	SSW	**3.2**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
22:55	**72.3** °F	**69.5** °F	**29.64**in	South	**3.2**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
22:57	**72.3** °F	**69.5** °F	**29.64**in	South	**2.6**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
23:01	**72.3** °F	**69.5** °F	**29.64**in	SSE	**3.5**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
23:06	**72.3** °F	**69.5** °F	**29.64**in	South	**4.4**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
23:11	**72.2** °F	**69.4** °F	**29.64**in	SSE	**3.1**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
23:16	**72.1** °F	**69.4** °F	**29.64**in	SSE	**3.4**mph	**13.1**mph	90%	**0.00**in	n/a	n/a
23:21	**72.1** °F	**69.4** °F	**29.64**in	SSW	**3.3**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
23:26	**72.0** °F	**69.3** °F	**29.64**in	SE	**4.1**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
23:28	**72.0** °F	**69.3** °F	**29.64**in	South	**3.4**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
23:30	**72.0** °F	**69.3** °F	**29.64**in	South	**4.5**mph	**12.2**mph	91%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
23:31	**72.0** °F	**69.3** °F	**29.64**in	East	**3.4**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
23:36	**72.0** °F	**69.4** °F	**29.64**in	SE	**4.6**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
23:41	**72.0** °F	**69.5** °F	**29.63**in	SE	**4.5**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
23:46	**72.0** °F	**69.5** °F	**29.63**in	SE	**4.6**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
23:51	**72.1** °F	**69.4** °F	**29.63**in	SSW	**4.8**mph	**13.2**mph	91%	**0.00**in	n/a	n/a
23:52	**72.1** °F	**69.4** °F	**29.63**in	South	**4.4**mph	**13.2**mph	91%	**0.00**in	n/a	n/a
23:55	**72.1** °F	**69.4** °F	**29.63**in	South	**3.5**mph	**13.2**mph	91%	**0.00**in	n/a	n/a
23:57	**72.1** °F	**69.4** °F	**29.63**in	South	**3.3**mph	**13.2**mph	91%	**0.00**in	n/a	n/a
00:00	**72.1** °F	**69.4** °F	**29.62**in	South	**6.0**mph	**14.8**mph	91%	**0.00**in	n/a	n/a
00:01	**72.1** °F	**69.4** °F	**29.62**in	SW	**4.8**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
00:04	**72.2** °F	**69.4** °F	**29.62**in	SSW	**4.8**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
00:06	**72.1** °F	**69.4** °F	**29.62**in	South	**3.3**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
00:11	**72.2** °F	**69.4** °F	**29.62**in	SE	**4.1**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
00:17	**72.1** °F	**69.4** °F	**29.62**in	SE	**3.8**mph	**9.6**mph	91%	**0.00**in	n/a	n/a
00:22	**72.1** °F	**69.4** °F	**29.62**in	SE	**3.3**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:27	**72.1** °F	**69.4** °F	**29.62**in	SE	**3.9**mph	**12.2**mph	91%	**0.00**in	n/a	n/a

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History for KNYBROOK22

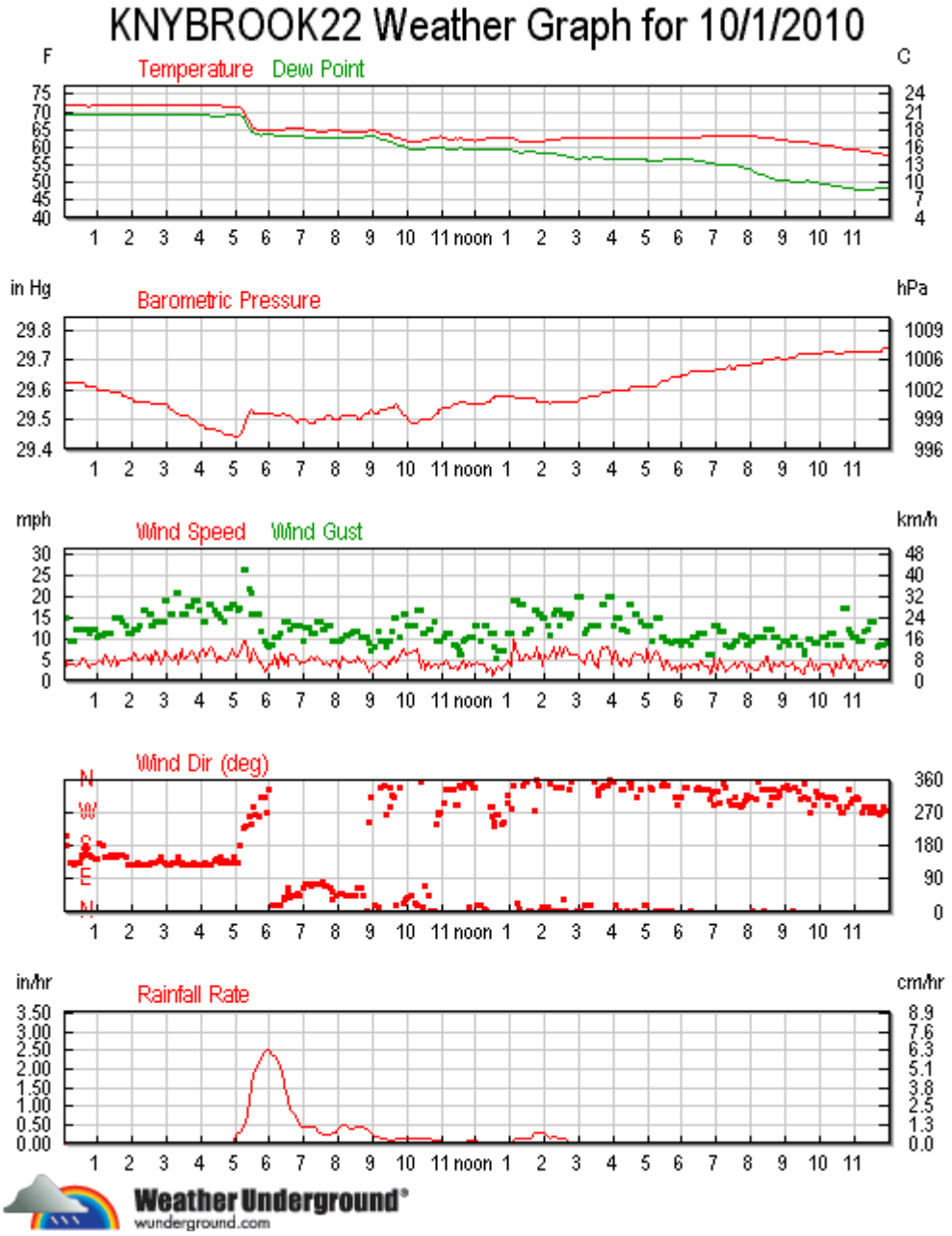
Park Slope, Brooklyn, NY 11215, Brooklyn, NY — Current Conditions

Daily Summary for October 1, 2010

	Current:	High:	Low:	Average:
Temperature:	**46.2** °F	**72.5** °F	**58.2** °F	**65.1** °F
Dew Point:	**24.4** °F	**69.6** °F	**48.4** °F	**60.2** °F
Humidity:	41%	96%	65%	84%
Wind Speed:	**2.9**mph	**9.8**mph	-	**4.5**mph
Wind Gust:	**13.1**mph	**26.2**mph	-	-
Wind:	WNW	-	-	North
Pressure:	**30.24**in	**29.74**in	**29.44**in	-
Precipitation:	**4.23**in			

Statistics for the rest of the month:

	High:	Low:	Average:
Temperature:	**75.9** °F	**43.5** °F	**58.5** °F
Dew Point:	**69.6** °F	**22.7** °F	**44.6** °F
Humidity:	96.0%	22.0%	61.6%
Wind Speed:	**14.5**mph from the WSW	-	**2.9**mph
Wind Gust:	**28.8**mph from the WSW	-	-
Wind:	-	-	SSW
Pressure:	**30.13**in	**29.40**in	-
Precipitation:	**10.66**in		



Tabular Data for October 1, 2010

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
00:00	**72.1** °F	**69.4** °F	**29.62**in	South	**6.0**mph	**14.8**mph	91%	**0.00**in	n/a	n/a
00:01	**72.1** °F	**69.4** °F	**29.62**in	SW	**4.8**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
00:04	**72.2** °F	**69.4** °F	**29.62**in	SSW	**4.8**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
00:06	**72.1** °F	**69.4** °F	**29.62**in	South	**3.3**mph	**14.8**mph	90%	**0.00**in	n/a	n/a
00:11	**72.2** °F	**69.4** °F	**29.62**in	SE	**4.1**mph	**9.6**mph	90%	**0.00**in	n/a	n/a
00:17	**72.1** °F	**69.4** °F	**29.62**in	SE	**3.8**mph	**9.6**mph	91%	**0.00**in	n/a	n/a
00:22	**72.1** °F	**69.4** °F	**29.62**in	SE	**3.3**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:27	**72.1** °F	**69.4** °F	**29.62**in	SE	**3.9**mph	**12.2**mph	91%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
00:32	**72.1** °F	**69.4** °F	**29.62**in	SSE	**5.3**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:33	**72.1** °F	**69.4** °F	**29.62**in	SSE	**4.7**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:34	**72.1** °F	**69.4** °F	**29.62**in	SSE	**5.1**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:39	**72.1** °F	**69.4** °F	**29.61**in	South	**4.3**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:44	**72.0** °F	**69.4** °F	**29.61**in	SSE	**3.2**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
00:49	**72.1** °F	**69.4** °F	**29.61**in	SSE	**4.1**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:54	**72.1** °F	**69.5** °F	**29.61**in	SE	**3.8**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
00:58	**72.1** °F	**69.5** °F	**29.60**in	SSE	**4.4**mph	**10.5**mph	91%	**0.00**in	n/a	n/a
01:03	**72.2** °F	**69.5** °F	**29.60**in	South	**5.0**mph	**10.6**mph	91%	**0.00**in	n/a	n/a
01:08	**72.2** °F	**69.5** °F	**29.60**in	South	**3.8**mph	**10.6**mph	91%	**0.00**in	n/a	n/a
01:09	**72.2** °F	**69.5** °F	**29.60**in	South	**4.3**mph	**10.6**mph	91%	**0.00**in	n/a	n/a
01:14	**72.2** °F	**69.4** °F	**29.60**in	SSE	**6.3**mph	**11.3**mph	90%	**0.00**in	n/a	n/a
01:19	**72.2** °F	**69.5** °F	**29.60**in	SSE	**4.5**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
01:24	**72.2** °F	**69.5** °F	**29.59**in	SSE	**3.4**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
01:29	**72.2** °F	**69.5** °F	**29.59**in	SSE	**5.9**mph	**14.8**mph	91%	**0.00**in	n/a	n/a
01:33	**72.1** °F	**69.4** °F	**29.59**in	SSE	**4.1**mph	**14.8**mph	91%	**0.00**in	n/a	n/a
01:34	**72.2** °F	**69.5** °F	**29.59**in	SSE	**3.5**mph	**14.8**mph	91%	**0.00**in	n/a	n/a
01:38	**72.2** °F	**69.5** °F	**29.59**in	SSE	**4.6**mph	**14.8**mph	91%	**0.00**in	n/a	n/a
01:43	**72.3** °F	**69.5** °F	**29.58**in	SSE	**4.8**mph	**14.0**mph	91%	**0.00**in	n/a	n/a
01:48	**72.2** °F	**69.5** °F	**29.58**in	SSE	**4.6**mph	**13.1**mph	90%	**0.00**in	n/a	n/a
01:54	**72.2** °F	**69.5** °F	**29.57**in	SE	**5.4**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
01:55	**72.2** °F	**69.5** °F	**29.57**in	SE	**5.1**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
01:59	**72.1** °F	**69.5** °F	**29.57**in	SE	**4.6**mph	**11.3**mph	91%	**0.00**in	n/a	n/a
02:04	**72.1** °F	**69.5** °F	**29.56**in	SE	**6.7**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
02:09	**72.2** °F	**69.5** °F	**29.56**in	SE	**4.8**mph	**12.2**mph	91%	**0.00**in	n/a	n/a
02:14	**72.1** °F	**69.4** °F	**29.56**in	SE	**4.8**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
02:19	**72.1** °F	**69.5** °F	**29.56**in	SE	**5.4**mph	**16.6**mph	91%	**0.00**in	n/a	n/a
02:24	**72.1** °F	**69.4** °F	**29.56**in	SE	**6.0**mph	**16.6**mph	91%	**0.00**in	n/a	n/a
02:29	**72.1** °F	**69.4** °F	**29.56**in	SE	**4.8**mph	**15.7**mph	91%	**0.00**in	n/a	n/a
02:30	**72.1** °F	**69.4** °F	**29.56**in	SE	**5.3**mph	**15.7**mph	91%	**0.00**in	n/a	n/a
02:32	**72.2** °F	**69.5** °F	**29.55**in	SE	**4.0**mph	**15.7**mph	91%	**0.00**in	n/a	n/a
02:34	**72.2** °F	**69.4** °F	**29.55**in	SE	**6.2**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
02:35	**72.2** °F	**69.4** °F	**29.55**in	SE	**4.6**mph	**13.1**mph	91%	**0.00**in	n/a	n/a
02:40	**72.2** °F	**69.5** °F	**29.55**in	SE	**7.2**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
02:45	**72.3** °F	**69.5** °F	**29.55**in	SE	**5.1**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
02:50	**72.3** °F	**69.5** °F	**29.55**in	SSE	**4.1**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
02:55	**72.4** °F	**69.5** °F	**29.55**in	SE	**5.8**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
02:56	**72.4** °F	**69.5** °F	**29.55**in	SE	**7.0**mph	**19.0**mph	90%	**0.00**in	n/a	n/a
03:01	**72.4** °F	**69.5** °F	**29.55**in	SE	**6.1**mph	**19.0**mph	90%	**0.00**in	n/a	n/a
03:06	**72.4** °F	**69.5** °F	**29.53**in	SE	**5.1**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
03:11	**72.4** °F	**69.5** °F	**29.53**in	SE	**5.0**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
03:16	**72.4** °F	**69.4** °F	**29.52**in	SE	**6.1**mph	**20.9**mph	90%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
03:21	**72.5** °F	**69.5** °F	**29.52**in	SSE	**4.1**mph	**20.9**mph	90%	**0.00**in	n/a	n/a
03:26	**72.5** °F	**69.5** °F	**29.51**in	SE	**7.6**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
03:27	**72.5** °F	**69.5** °F	**29.51**in	SE	**5.6**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
03:32	**72.5** °F	**69.6** °F	**29.51**in	SE	**5.1**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
03:33	**72.5** °F	**69.6** °F	**29.51**in	SE	**5.6**mph	**15.7**mph	90%	**0.00**in	n/a	n/a
03:38	**72.5** °F	**69.5** °F	**29.51**in	SE	**5.8**mph	**17.7**mph	90%	**0.00**in	n/a	n/a
03:43	**72.4** °F	**69.5** °F	**29.50**in	SE	**6.9**mph	**17.7**mph	90%	**0.00**in	n/a	n/a
03:48	**72.4** °F	**69.4** °F	**29.50**in	SE	**6.5**mph	**19.2**mph	90%	**0.00**in	n/a	n/a
03:53	**72.4** °F	**69.5** °F	**29.49**in	SE	**4.3**mph	**19.2**mph	90%	**0.00**in	n/a	n/a
03:58	**72.5** °F	**69.5** °F	**29.48**in	SE	**6.6**mph	**16.6**mph	90%	**0.00**in	n/a	n/a
04:03	**72.4** °F	**69.4** °F	**29.48**in	SE	**7.5**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
04:08	**72.5** °F	**69.5** °F	**29.47**in	SE	**5.7**mph	**14.0**mph	90%	**0.00**in	n/a	n/a
04:13	**72.5** °F	**69.4** °F	**29.47**in	SE	**7.1**mph	**18.3**mph	90%	**0.00**in	n/a	n/a
04:18	**72.4** °F	**69.3** °F	**29.47**in	SE	**8.1**mph	**18.3**mph	89%	**0.00**in	n/a	n/a
04:23	**72.4** °F	**69.3** °F	**29.47**in	SE	**6.7**mph	**16.8**mph	89%	**0.00**in	n/a	n/a
04:28	**72.4** °F	**69.3** °F	**29.46**in	SSE	**4.5**mph	**15.7**mph	89%	**0.00**in	n/a	n/a
04:30	**72.4** °F	**69.3** °F	**29.46**in	SSE	**5.6**mph	**15.7**mph	89%	**0.00**in	n/a	n/a
04:33	**72.3** °F	**69.3** °F	**29.46**in	SSE	**5.2**mph	**14.8**mph	90%	**0.03**in	n/a	n/a
04:35	**72.2** °F	**69.3** °F	**29.46**in	SE	**5.8**mph	**14.8**mph	90%	**0.03**in	n/a	n/a
04:40	**72.0** °F	**69.3** °F	**29.45**in	SE	**4.8**mph	**14.0**mph	91%	**0.03**in	n/a	n/a
04:45	**71.9** °F	**69.5** °F	**29.45**in	SE	**5.0**mph	**17.1**mph	91%	**0.04**in	n/a	n/a
04:50	**71.9** °F	**69.5** °F	**29.45**in	SE	**6.1**mph	**17.1**mph	92%	**0.04**in	n/a	n/a
04:53	**71.9** °F	**69.6** °F	**29.45**in	SE	**7.0**mph	**18.3**mph	92%	**0.04**in	n/a	n/a
04:54	**71.9** °F	**69.6** °F	**29.45**in	SE	**7.4**mph	**18.3**mph	92%	**0.04**in	n/a	n/a
04:58	**71.8** °F	**69.5** °F	**29.44**in	SSE	**6.0**mph	**18.3**mph	92%	**0.07**in	n/a	n/a
05:03	**71.6** °F	**69.4** °F	**29.44**in	SE	**5.7**mph	**16.6**mph	92%	**0.28**in	n/a	n/a
05:08	**71.6** °F	**69.5** °F	**29.45**in	South	**6.7**mph	**17.4**mph	93%	**0.30**in	n/a	n/a
05:13	**70.8** °F	**69.0** °F	**29.47**in	SW	**9.2**mph	**26.2**mph	93%	**0.43**in	n/a	n/a
05:18	**69.1** °F	**67.3** °F	**29.50**in	SW	**9.3**mph	**26.2**mph	93%	**0.54**in	n/a	n/a
05:23	**67.7** °F	**65.9** °F	**29.52**in	West	**4.2**mph	**21.8**mph	94%	**1.09**in	n/a	n/a
05:28	**66.5** °F	**64.9** °F	**29.53**in	WSW	**4.6**mph	**20.9**mph	94%	**1.59**in	n/a	n/a
05:29	**66.3** °F	**64.8** °F	**29.53**in	WSW	**6.4**mph	**15.7**mph	94%	**1.62**in	n/a	n/a
05:31	**66.0** °F	**64.5** °F	**29.52**in	WNW	**7.4**mph	**15.7**mph	94%	**1.76**in	n/a	n/a
05:35	**65.6** °F	**64.2** °F	**29.52**in	West	**6.4**mph	**15.7**mph	95%	**2.01**in	n/a	n/a
05:40	**65.2** °F	**63.9** °F	**29.52**in	West	**4.4**mph	**15.7**mph	95%	**2.13**in	n/a	n/a
05:45	**65.0** °F	**63.8** °F	**29.52**in	NW	**4.3**mph	**11.5**mph	95%	**2.32**in	n/a	n/a
05:50	**65.0** °F	**63.9** °F	**29.52**in	NW	**2.2**mph	**9.6**mph	95%	**2.44**in	n/a	n/a
05:55	**65.2** °F	**64.0** °F	**29.52**in	West	**2.4**mph	**8.7**mph	96%	**2.52**in	n/a	n/a
05:59	**65.2** °F	**64.0** °F	**29.52**in	NNW	**4.0**mph	**7.9**mph	96%	**2.50**in	n/a	n/a
06:05	**65.2** °F	**63.9** °F	**29.52**in	NNE	**3.7**mph	**8.6**mph	95%	**2.38**in	n/a	n/a
06:10	**65.1** °F	**63.8** °F	**29.51**in	NNE	**6.1**mph	**10.5**mph	95%	**2.38**in	n/a	n/a
06:15	**65.2** °F	**63.7** °F	**29.51**in	NNE	**3.0**mph	**10.5**mph	94%	**2.21**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
06:20	**65.3** °F	**63.7** °F	**29.51**in	NNE	**6.8**mph	**11.3**mph	94%	**2.07**in	n/a	n/a
06:25	**65.3** °F	**63.6** °F	**29.52**in	NE	**3.8**mph	**14.1**mph	94%	**1.61**in	n/a	n/a
06:26	**65.4** °F	**63.6** °F	**29.52**in	NE	**5.3**mph	**14.1**mph	94%	**1.54**in	n/a	n/a
06:31	**65.5** °F	**63.7** °F	**29.51**in	ENE	**3.6**mph	**14.1**mph	93%	**1.22**in	n/a	n/a
06:32	**65.5** °F	**63.7** °F	**29.51**in	NE	**5.4**mph	**14.1**mph	93%	**1.12**in	n/a	n/a
06:37	**65.5** °F	**63.6** °F	**29.51**in	NE	**6.3**mph	**12.2**mph	93%	**0.92**in	n/a	n/a
06:42	**65.6** °F	**63.6** °F	**29.50**in	NE	**6.3**mph	**13.1**mph	93%	**0.80**in	n/a	n/a
06:48	**65.5** °F	**63.5** °F	**29.49**in	NE	**4.9**mph	**13.1**mph	93%	**0.60**in	n/a	n/a
06:53	**65.5** °F	**63.4** °F	**29.50**in	NE	**4.0**mph	**13.1**mph	92%	**0.50**in	n/a	n/a
06:58	**65.5** °F	**63.4** °F	**29.50**in	ENE	**4.2**mph	**9.6**mph	92%	**0.46**in	n/a	n/a
07:03	**65.4** °F	**63.3** °F	**29.50**in	ENE	**4.4**mph	**12.5**mph	92%	**0.46**in	n/a	n/a
07:08	**65.3** °F	**63.2** °F	**29.49**in	ENE	**5.0**mph	**12.5**mph	92%	**0.43**in	n/a	n/a
07:13	**65.1** °F	**63.0** °F	**29.49**in	ENE	**5.6**mph	**11.3**mph	92%	**0.46**in	n/a	n/a
07:18	**65.0** °F	**63.0** °F	**29.49**in	ENE	**4.8**mph	**11.3**mph	93%	**0.44**in	n/a	n/a
07:23	**64.9** °F	**62.9** °F	**29.50**in	ENE	**5.6**mph	**13.8**mph	93%	**0.36**in	n/a	n/a
07:28	**64.9** °F	**63.0** °F	**29.50**in	ENE	**4.9**mph	**13.8**mph	93%	**0.26**in	n/a	n/a
07:33	**64.9** °F	**63.1** °F	**29.50**in	East	**3.9**mph	**12.2**mph	93%	**0.24**in	n/a	n/a
07:35	**64.9** °F	**63.2** °F	**29.50**in	ENE	**3.7**mph	**12.2**mph	93%	**0.24**in	n/a	n/a
07:40	**64.9** °F	**63.2** °F	**29.51**in	ENE	**4.5**mph	**13.1**mph	94%	**0.22**in	n/a	n/a
07:45	**65.0** °F	**63.2** °F	**29.51**in	ENE	**3.6**mph	**13.1**mph	94%	**0.22**in	n/a	n/a
07:50	**65.0** °F	**63.3** °F	**29.50**in	NE	**4.6**mph	**9.6**mph	93%	**0.26**in	n/a	n/a
07:51	**65.0** °F	**63.3** °F	**29.50**in	NNE	**4.5**mph	**9.6**mph	93%	**0.28**in	n/a	n/a
07:55	**65.0** °F	**63.2** °F	**29.50**in	NE	**5.0**mph	**9.6**mph	93%	**0.30**in	n/a	n/a
07:57	**65.0** °F	**63.2** °F	**29.50**in	NE	**4.2**mph	**9.6**mph	94%	**0.36**in	n/a	n/a
08:02	**65.0** °F	**63.3** °F	**29.50**in	NE	**2.8**mph	**9.6**mph	94%	**0.44**in	n/a	n/a
08:07	**64.9** °F	**63.3** °F	**29.51**in	NE	**5.9**mph	**9.7**mph	94%	**0.50**in	n/a	n/a
08:12	**64.8** °F	**63.2** °F	**29.51**in	NE	**4.8**mph	**10.6**mph	94%	**0.47**in	n/a	n/a
08:17	**64.8** °F	**63.3** °F	**29.51**in	NE	**4.3**mph	**10.6**mph	94%	**0.44**in	n/a	n/a
08:22	**64.8** °F	**63.2** °F	**29.51**in	NE	**4.3**mph	**11.3**mph	94%	**0.40**in	n/a	n/a
08:27	**64.7** °F	**63.2** °F	**29.51**in	NE	**4.9**mph	**11.5**mph	94%	**0.40**in	n/a	n/a
08:29	**64.7** °F	**63.2** °F	**29.51**in	NE	**4.5**mph	**11.5**mph	94%	**0.42**in	n/a	n/a
08:34	**64.7** °F	**63.2** °F	**29.50**in	ENE	**5.7**mph	**11.5**mph	94%	**0.44**in	n/a	n/a
08:39	**64.6** °F	**63.2** °F	**29.50**in	ENE	**4.4**mph	**10.5**mph	95%	**0.44**in	n/a	n/a
08:44	**64.8** °F	**63.3** °F	**29.51**in	NE	**5.0**mph	**10.5**mph	95%	**0.44**in	n/a	n/a
08:49	**64.8** °F	**63.4** °F	**29.52**in	North	**2.9**mph	**10.5**mph	94%	**0.38**in	n/a	n/a
08:54	**65.0** °F	**63.5** °F	**29.52**in	WSW	**2.0**mph	**8.8**mph	94%	**0.36**in	n/a	n/a
08:58	**65.1** °F	**63.6** °F	**29.53**in	NW	**2.9**mph	**7.0**mph	94%	**0.26**in	n/a	n/a
09:03	**65.1** °F	**63.5** °F	**29.52**in	NNE	**3.6**mph	**7.9**mph	94%	**0.18**in	n/a	n/a
09:09	**64.7** °F	**63.0** °F	**29.52**in	NNE	**4.3**mph	**11.5**mph	94%	**0.16**in	n/a	n/a
09:14	**64.4** °F	**62.6** °F	**29.53**in	NNW	**4.2**mph	**9.6**mph	94%	**0.14**in	n/a	n/a
09:19	**64.1** °F	**62.4** °F	**29.53**in	NNW	**3.4**mph	**9.6**mph	94%	**0.12**in	n/a	n/a
09:24	**64.1** °F	**62.3** °F	**29.53**in	West	**3.1**mph	**7.9**mph	94%	**0.12**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
09:30	**63.9** °F	**62.1** °F	**29.54**in	WNW	**4.6**mph	**9.6**mph	93%	**0.10**in	n/a	n/a
09:31	**63.8** °F	**62.0** °F	**29.54**in	NNW	**4.0**mph	**9.6**mph	93%	**0.10**in	n/a	n/a
09:34	**63.5** °F	**61.7** °F	**29.54**in	NW	**5.2**mph	**11.5**mph	93%	**0.10**in	n/a	n/a
09:36	**63.3** °F	**61.5** °F	**29.54**in	NW	**5.7**mph	**15.0**mph	93%	**0.10**in	n/a	n/a
09:41	**63.0** °F	**61.2** °F	**29.55**in	NNE	**4.2**mph	**15.0**mph	93%	**0.12**in	n/a	n/a
09:47	**62.8** °F	**60.9** °F	**29.53**in	NNW	**5.9**mph	**10.5**mph	93%	**0.15**in	n/a	n/a
09:53	**62.5** °F	**60.6** °F	**29.51**in	NNE	**7.5**mph	**15.7**mph	93%	**0.15**in	n/a	n/a
09:56	**62.4** °F	**60.4** °F	**29.51**in	NE	**6.1**mph	**15.7**mph	93%	**0.13**in	n/a	n/a
10:01	**62.2** °F	**60.2** °F	**29.50**in	NE	**6.1**mph	**13.1**mph	92%	**0.13**in	n/a	n/a
10:07	**62.2** °F	**60.0** °F	**29.49**in	NE	**6.5**mph	**12.9**mph	92%	**0.15**in	n/a	n/a
10:13	**62.1** °F	**59.8** °F	**29.49**in	NNE	**7.2**mph	**13.2**mph	92%	**0.13**in	n/a	n/a
10:18	**61.9** °F	**59.7** °F	**29.49**in	NNE	**7.7**mph	**16.6**mph	92%	**0.15**in	n/a	n/a
10:24	**62.0** °F	**59.7** °F	**29.50**in	North	**3.1**mph	**16.6**mph	91%	**0.15**in	n/a	n/a
10:29	**62.3** °F	**59.8** °F	**29.50**in	NNE	**4.6**mph	**11.3**mph	91%	**0.15**in	n/a	n/a
10:31	**62.3** °F	**59.9** °F	**29.50**in	ENE	**3.0**mph	**11.3**mph	91%	**0.15**in	n/a	n/a
10:32	**62.4** °F	**60.0** °F	**29.50**in	ENE	**2.4**mph	**11.3**mph	91%	**0.15**in	n/a	n/a
10:36	**62.6** °F	**60.1** °F	**29.50**in	NE	**4.3**mph	**12.2**mph	91%	**0.13**in	n/a	n/a
10:41	**62.8** °F	**60.2** °F	**29.50**in	North	**3.2**mph	**12.2**mph	90%	**0.11**in	n/a	n/a
10:46	**62.9** °F	**60.1** °F	**29.51**in	North	**4.1**mph	**14.0**mph	90%	**0.08**in	n/a	n/a
10:52	**63.1** °F	**60.1** °F	**29.52**in	WSW	**3.7**mph	**9.6**mph	89%	**0.06**in	n/a	n/a
10:53	**63.1** °F	**60.1** °F	**29.52**in	West	**3.0**mph	**9.6**mph	89%	**0.06**in	n/a	n/a
10:56	**63.2** °F	**60.2** °F	**29.53**in	West	**3.5**mph	**9.6**mph	89%	**0.06**in	n/a	n/a
10:58	**63.4** °F	**60.3** °F	**29.53**in	West	**4.0**mph	**9.6**mph	89%	**0.06**in	n/a	n/a
11:03	**63.3** °F	**60.2** °F	**29.54**in	WNW	**3.9**mph	**10.5**mph	89%	**0.02**in	n/a	n/a
11:09	**62.9** °F	**59.8** °F	**29.54**in	NNW	**5.0**mph	**11.3**mph	89%	**0.04**in	n/a	n/a
11:15	**62.7** °F	**59.6** °F	**29.54**in	NNW	**3.2**mph	**11.3**mph	89%	**0.02**in	n/a	n/a
11:20	**62.7** °F	**59.7** °F	**29.55**in	NNW	**3.1**mph	**8.7**mph	89%	**0.02**in	n/a	n/a
11:26	**62.8** °F	**59.9** °F	**29.55**in	WNW	**3.4**mph	**8.7**mph	90%	**0.02**in	n/a	n/a
11:27	**62.7** °F	**60.0** °F	**29.55**in	WNW	**2.6**mph	**7.8**mph	90%	**0.02**in	n/a	n/a
11:32	**62.8** °F	**60.1** °F	**29.56**in	NNW	**3.3**mph	**7.0**mph	90%	**0.04**in	n/a	n/a
11:33	**62.8** °F	**60.1** °F	**29.56**in	NNW	**3.1**mph	**6.1**mph	90%	**0.04**in	n/a	n/a
11:34	**62.8** °F	**60.1** °F	**29.56**in	NNW	**3.8**mph	**6.1**mph	90%	**0.04**in	n/a	n/a
11:38	**62.7** °F	**60.0** °F	**29.56**in	NNW	**5.0**mph	**9.6**mph	90%	**0.04**in	n/a	n/a
11:43	**62.4** °F	**59.7** °F	**29.56**in	North	**2.9**mph	**9.7**mph	90%	**0.04**in	n/a	n/a
11:48	**62.4** °F	**59.7** °F	**29.55**in	NNE	**4.3**mph	**10.5**mph	90%	**0.06**in	n/a	n/a
11:53	**62.3** °F	**59.7** °F	**29.55**in	North	**3.4**mph	**10.5**mph	90%	**0.06**in	n/a	n/a
11:54	**62.3** °F	**59.7** °F	**29.55**in	NNW	**3.8**mph	**10.5**mph	91%	**0.06**in	n/a	n/a
11:58	**62.2** °F	**59.6** °F	**29.55**in	NNW	**3.8**mph	**13.1**mph	91%	**0.06**in	n/a	n/a
12:03	**62.3** °F	**59.6** °F	**29.55**in	NNE	**4.2**mph	**13.1**mph	90%	**0.06**in	n/a	n/a
12:08	**62.4** °F	**59.7** °F	**29.55**in	NNE	**3.9**mph	**9.6**mph	90%	**0.04**in	n/a	n/a
12:14	**62.5** °F	**59.7** °F	**29.55**in	North	**3.7**mph	**13.1**mph	90%	**0.04**in	n/a	n/a
12:19	**62.8** °F	**59.7** °F	**29.56**in	North	**2.1**mph	**13.1**mph	89%	**0.04**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
12:24	**62.8** °F	**59.6** °F	**29.56**in	WNW	**2.9**mph	**11.3**mph	89%	**0.04**in	n/a	n/a
12:29	**62.9** °F	**59.7** °F	**29.57**in	WNW	**2.2**mph	**11.3**mph	89%	**0.04**in	n/a	n/a
12:30	**63.0** °F	**59.7** °F	**29.57**in	West	**1.2**mph	**11.3**mph	88%	**0.04**in	n/a	n/a
12:31	**63.0** °F	**59.7** °F	**29.57**in	SW	**1.6**mph	**11.3**mph	88%	**0.02**in	n/a	n/a
12:32	**63.0** °F	**59.8** °F	**29.58**in	WSW	**1.8**mph	**7.9**mph	88%	**0.02**in	n/a	n/a
12:34	**63.1** °F	**59.8** °F	**29.58**in	West	**2.3**mph	**5.2**mph	88%	**0.02**in	n/a	n/a
12:39	**63.2** °F	**59.9** °F	**29.58**in	West	**3.6**mph	**7.0**mph	88%	**0.02**in	n/a	n/a
12:44	**63.1** °F	**59.9** °F	**29.58**in	WSW	**2.4**mph	**7.0**mph	89%	**0.02**in	n/a	n/a
12:49	**63.1** °F	**59.9** °F	**29.58**in	WSW	**3.6**mph	**7.0**mph	89%	**0.00**in	n/a	n/a
12:54	**63.0** °F	**59.9** °F	**29.58**in	WNW	**4.2**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
12:55	**62.9** °F	**59.8** °F	**29.58**in	NW	**4.4**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
12:56	**62.9** °F	**59.8** °F	**29.58**in	NW	**4.6**mph	**11.3**mph	89%	**0.00**in	n/a	n/a
13:01	**62.9** °F	**59.6** °F	**29.58**in	WNW	**3.5**mph	**11.3**mph	88%	**0.00**in	n/a	n/a
13:06	**62.8** °F	**59.3** °F	**29.58**in	NNW	**9.8**mph	**19.2**mph	88%	**0.09**in	n/a	n/a
13:11	**62.4** °F	**59.0** °F	**29.57**in	NNE	**6.8**mph	**19.2**mph	88%	**0.11**in	n/a	n/a
13:16	**62.2** °F	**58.9** °F	**29.57**in	North	**6.2**mph	**18.1**mph	88%	**0.11**in	n/a	n/a
13:17	**62.2** °F	**58.9** °F	**29.57**in	North	**4.8**mph	**18.1**mph	88%	**0.11**in	n/a	n/a
13:22	**62.1** °F	**58.9** °F	**29.57**in	NNW	**4.9**mph	**18.1**mph	89%	**0.11**in	n/a	n/a
13:27	**62.1** °F	**59.0** °F	**29.57**in	North	**6.3**mph	**11.3**mph	89%	**0.13**in	n/a	n/a
13:28	**62.1** °F	**59.0** °F	**29.57**in	North	**6.0**mph	**11.3**mph	89%	**0.13**in	n/a	n/a
13:33	**62.1** °F	**59.1** °F	**29.57**in	North	**5.3**mph	**12.2**mph	89%	**0.15**in	n/a	n/a
13:36	**62.1** °F	**59.2** °F	**29.57**in	North	**5.3**mph	**12.2**mph	90%	**0.15**in	n/a	n/a
13:41	**62.1** °F	**59.1** °F	**29.57**in	West	**5.9**mph	**16.6**mph	89%	**0.26**in	n/a	n/a
13:46	**62.0** °F	**58.9** °F	**29.56**in	North	**8.2**mph	**16.6**mph	89%	**0.26**in	n/a	n/a
13:51	**62.0** °F	**58.8** °F	**29.56**in	NNW	**5.2**mph	**15.7**mph	89%	**0.26**in	n/a	n/a
13:52	**62.0** °F	**58.8** °F	**29.56**in	North	**6.0**mph	**15.7**mph	89%	**0.26**in	n/a	n/a
13:57	**62.1** °F	**58.8** °F	**29.56**in	NNE	**3.5**mph	**14.8**mph	88%	**0.26**in	n/a	n/a
14:00	**62.2** °F	**58.9** °F	**29.56**in	North	**6.1**mph	**14.8**mph	88%	**0.26**in	n/a	n/a
14:06	**62.3** °F	**58.9** °F	**29.56**in	NNE	**5.4**mph	**13.1**mph	88%	**0.17**in	n/a	n/a
14:11	**62.5** °F	**58.9** °F	**29.55**in	North	**5.9**mph	**10.6**mph	88%	**0.15**in	n/a	n/a
14:16	**62.5** °F	**58.7** °F	**29.56**in	North	**8.0**mph	**15.7**mph	87%	**0.17**in	n/a	n/a
14:21	**62.6** °F	**58.5** °F	**29.56**in	NNW	**5.4**mph	**16.6**mph	86%	**0.17**in	n/a	n/a
14:26	**62.7** °F	**58.3** °F	**29.56**in	North	**7.0**mph	**16.6**mph	85%	**0.15**in	n/a	n/a
14:27	**62.7** °F	**58.2** °F	**29.56**in	North	**7.9**mph	**13.3**mph	85%	**0.15**in	n/a	n/a
14:31	**62.8** °F	**58.1** °F	**29.56**in	NNW	**5.6**mph	**15.7**mph	84%	**0.13**in	n/a	n/a
14:32	**62.8** °F	**58.0** °F	**29.56**in	NE	**7.0**mph	**15.7**mph	84%	**0.13**in	n/a	n/a
14:37	**62.8** °F	**57.9** °F	**29.56**in	North	**8.0**mph	**15.7**mph	83%	**0.13**in	n/a	n/a
14:42	**62.8** °F	**57.7** °F	**29.56**in	NNW	**6.3**mph	**14.8**mph	83%	**0.02**in	n/a	n/a
14:47	**62.8** °F	**57.5** °F	**29.56**in	North	**6.3**mph	**15.7**mph	82%	**0.02**in	n/a	n/a
14:58	**62.8** °F	**57.2** °F	**29.56**in	North	**6.1**mph	**19.8**mph	81%	**0.02**in	n/a	n/a
15:03	**62.9** °F	**57.3** °F	**29.57**in	North	**4.8**mph	**19.8**mph	81%	**0.02**in	n/a	n/a
15:09	**63.1** °F	**57.4** °F	**29.57**in	NNE	**3.7**mph	**11.3**mph	81%	**0.02**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
15:14	**63.1** °F	**57.4** °F	**29.57**in	NNE	**6.1**mph	**12.2**mph	81%	**0.00**in	n/a	n/a
15:19	**63.0** °F	**57.3** °F	**29.58**in	NNE	**6.9**mph	**13.1**mph	81%	**0.00**in	n/a	n/a
15:26	**63.1** °F	**57.4** °F	**29.58**in	North	**3.8**mph	**13.1**mph	81%	**0.00**in	n/a	n/a
15:27	**63.1** °F	**57.4** °F	**29.58**in	North	**4.5**mph	**13.1**mph	81%	**0.00**in	n/a	n/a
15:33	**63.2** °F	**57.5** °F	**29.58**in	NW	**3.1**mph	**13.1**mph	81%	**0.00**in	n/a	n/a
15:34	**63.3** °F	**57.6** °F	**29.58**in	NNW	**4.0**mph	**13.1**mph	81%	**0.00**in	n/a	n/a
15:35	**63.3** °F	**57.6** °F	**29.58**in	NNW	**4.5**mph	**13.1**mph	81%	**0.00**in	n/a	n/a
15:40	**63.2** °F	**57.5** °F	**29.59**in	NNW	**8.0**mph	**18.3**mph	81%	**0.00**in	n/a	n/a
15:45	**63.1** °F	**57.3** °F	**29.59**in	NNW	**7.5**mph	**18.3**mph	81%	**0.00**in	n/a	n/a
15:50	**63.0** °F	**57.1** °F	**29.59**in	NNW	**8.1**mph	**20.0**mph	80%	**0.00**in	n/a	n/a
15:53	**63.0** °F	**57.1** °F	**29.59**in	North	**6.5**mph	**20.0**mph	80%	**0.00**in	n/a	n/a
15:56	**63.1** °F	**57.0** °F	**29.60**in	North	**5.1**mph	**20.0**mph	80%	**0.00**in	n/a	n/a
15:57	**63.2** °F	**57.1** °F	**29.60**in	North	**4.0**mph	**20.0**mph	80%	**0.00**in	n/a	n/a
15:59	**63.2** °F	**57.0** °F	**29.60**in	North	**6.0**mph	**13.1**mph	80%	**0.00**in	n/a	n/a
16:04	**63.1** °F	**57.0** °F	**29.60**in	NNE	**7.1**mph	**14.8**mph	80%	**0.00**in	n/a	n/a
16:09	**63.0** °F	**57.1** °F	**29.60**in	North	**3.9**mph	**14.8**mph	80%	**0.00**in	n/a	n/a
16:14	**63.0** °F	**57.2** °F	**29.60**in	NNW	**3.6**mph	**12.2**mph	81%	**0.00**in	n/a	n/a
16:19	**63.2** °F	**57.3** °F	**29.60**in	NNW	**5.1**mph	**12.2**mph	81%	**0.00**in	n/a	n/a
16:24	**63.1** °F	**57.2** °F	**29.60**in	North	**5.0**mph	**11.6**mph	80%	**0.00**in	n/a	n/a
16:29	**62.9** °F	**57.0** °F	**29.60**in	North	**3.6**mph	**18.3**mph	80%	**0.00**in	n/a	n/a
16:30	**62.9** °F	**57.0** °F	**29.61**in	NNW	**3.8**mph	**18.3**mph	80%	**0.00**in	n/a	n/a
16:32	**62.9** °F	**57.0** °F	**29.61**in	North	**5.0**mph	**18.3**mph	80%	**0.00**in	n/a	n/a
16:37	**62.8** °F	**56.9** °F	**29.61**in	North	**6.7**mph	**15.7**mph	80%	**0.00**in	n/a	n/a
16:42	**62.8** °F	**56.9** °F	**29.61**in	NW	**6.0**mph	**15.7**mph	80%	**0.00**in	n/a	n/a
16:48	**62.8** °F	**56.8** °F	**29.61**in	NNW	**6.1**mph	**14.0**mph	80%	**0.00**in	n/a	n/a
16:53	**62.9** °F	**56.8** °F	**29.61**in	NNE	**4.5**mph	**13.1**mph	80%	**0.00**in	n/a	n/a
16:54	**62.9** °F	**56.8** °F	**29.61**in	NNE	**4.4**mph	**13.1**mph	80%	**0.00**in	n/a	n/a
16:57	**63.0** °F	**56.8** °F	**29.61**in	NNE	**5.6**mph	**13.1**mph	79%	**0.00**in	n/a	n/a
16:59	**63.0** °F	**56.7** °F	**29.61**in	NNE	**7.4**mph	**13.1**mph	79%	**0.00**in	n/a	n/a
17:04	**63.0** °F	**56.6** °F	**29.61**in	NNW	**4.4**mph	**13.1**mph	79%	**0.00**in	n/a	n/a
17:09	**63.1** °F	**56.6** °F	**29.61**in	NNW	**5.3**mph	**9.6**mph	79%	**0.00**in	n/a	n/a
17:15	**63.0** °F	**56.5** °F	**29.61**in	North	**7.0**mph	**14.8**mph	79%	**0.00**in	n/a	n/a
17:20	**62.9** °F	**56.4** °F	**29.62**in	North	**5.1**mph	**14.8**mph	79%	**0.00**in	n/a	n/a
17:25	**62.8** °F	**56.6** °F	**29.63**in	NNW	**3.3**mph	**10.5**mph	79%	**0.00**in	n/a	n/a
17:28	**62.9** °F	**56.8** °F	**29.63**in	North	**2.4**mph	**10.5**mph	80%	**0.00**in	n/a	n/a
17:32	**62.9** °F	**56.9** °F	**29.63**in	North	**4.6**mph	**9.6**mph	80%	**0.00**in	n/a	n/a
17:36	**62.9** °F	**57.0** °F	**29.63**in	NNW	**4.8**mph	**9.6**mph	80%	**0.00**in	n/a	n/a
17:42	**63.0** °F	**57.0** °F	**29.64**in	North	**2.3**mph	**8.8**mph	80%	**0.00**in	n/a	n/a
17:47	**63.1** °F	**57.0** °F	**29.64**in	NW	**3.5**mph	**9.6**mph	80%	**0.00**in	n/a	n/a
17:52	**63.2** °F	**57.0** °F	**29.64**in	WNW	**2.0**mph	**9.6**mph	80%	**0.00**in	n/a	n/a
17:53	**63.2** °F	**57.0** °F	**29.64**in	NW	**3.0**mph	**9.6**mph	80%	**0.00**in	n/a	n/a
17:55	**63.2** °F	**57.0** °F	**29.64**in	NW	**3.5**mph	**9.6**mph	80%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
17:57	**63.2** °F	**57.0** °F	**29.64**in	NW	**4.0**mph	**9.6**mph	79%	**0.00**in	n/a	n/a
17:58	**63.2** °F	**57.0** °F	**29.65**in	NW	**2.6**mph	**8.7**mph	79%	**0.00**in	n/a	n/a
18:04	**63.2** °F	**57.0** °F	**29.65**in	NNW	**3.1**mph	**9.6**mph	79%	**0.00**in	n/a	n/a
18:09	**63.2** °F	**57.0** °F	**29.65**in	NNW	**3.7**mph	**9.6**mph	80%	**0.00**in	n/a	n/a
18:14	**63.2** °F	**57.0** °F	**29.66**in	North	**3.0**mph	**8.7**mph	79%	**0.00**in	n/a	n/a
18:19	**63.1** °F	**56.8** °F	**29.66**in	North	**4.0**mph	**10.5**mph	79%	**0.00**in	n/a	n/a
18:24	**63.1** °F	**56.7** °F	**29.66**in	NNW	**4.0**mph	**10.5**mph	79%	**0.00**in	n/a	n/a
18:29	**63.2** °F	**56.5** °F	**29.66**in	NNW	**2.4**mph	**11.3**mph	78%	**0.00**in	n/a	n/a
18:30	**63.2** °F	**56.5** °F	**29.66**in	NNW	**3.3**mph	**11.3**mph	78%	**0.00**in	n/a	n/a
18:33	**63.3** °F	**56.5** °F	**29.66**in	NNW	**4.7**mph	**11.3**mph	78%	**0.00**in	n/a	n/a
18:35	**63.4** °F	**56.4** °F	**29.66**in	NNW	**3.9**mph	**11.3**mph	77%	**0.00**in	n/a	n/a
18:40	**63.5** °F	**56.3** °F	**29.66**in	NNW	**3.3**mph	**11.3**mph	77%	**0.00**in	n/a	n/a
18:45	**63.6** °F	**56.1** °F	**29.66**in	NNW	**3.3**mph	**6.1**mph	76%	**0.00**in	n/a	n/a
18:50	**63.7** °F	**55.9** °F	**29.66**in	NW	**1.7**mph	**6.1**mph	75%	**0.00**in	n/a	n/a
18:51	**63.7** °F	**55.9** °F	**29.66**in	NW	**2.0**mph	**6.1**mph	75%	**0.00**in	n/a	n/a
18:52	**63.8** °F	**55.9** °F	**29.66**in	NNW	**2.2**mph	**6.1**mph	75%	**0.00**in	n/a	n/a
18:56	**63.8** °F	**55.8** °F	**29.66**in	WNW	**5.1**mph	**13.1**mph	75%	**0.00**in	n/a	n/a
18:57	**63.7** °F	**55.8** °F	**29.66**in	WNW	**3.6**mph	**13.1**mph	75%	**0.00**in	n/a	n/a
19:01	**63.7** °F	**55.6** °F	**29.67**in	NNW	**2.7**mph	**13.1**mph	74%	**0.00**in	n/a	n/a
19:06	**63.7** °F	**55.4** °F	**29.67**in	WNW	**5.3**mph	**11.5**mph	74%	**0.00**in	n/a	n/a
19:11	**63.6** °F	**55.4** °F	**29.67**in	North	**3.0**mph	**11.5**mph	74%	**0.00**in	n/a	n/a
19:17	**63.6** °F	**55.3** °F	**29.67**in	NNW	**2.1**mph	**8.7**mph	74%	**0.00**in	n/a	n/a
19:22	**63.8** °F	**55.5** °F	**29.68**in	NW	**3.1**mph	**7.9**mph	74%	**0.00**in	n/a	n/a
19:27	**63.7** °F	**55.6** °F	**29.67**in	WNW	**3.6**mph	**7.9**mph	74%	**0.00**in	n/a	n/a
19:28	**63.7** °F	**55.6** °F	**29.67**in	WNW	**4.0**mph	**8.7**mph	74%	**0.00**in	n/a	n/a
19:32	**63.7** °F	**55.4** °F	**29.67**in	NW	**4.3**mph	**9.6**mph	74%	**0.00**in	n/a	n/a
19:36	**63.6** °F	**55.2** °F	**29.68**in	WNW	**3.0**mph	**9.6**mph	73%	**0.00**in	n/a	n/a
19:41	**63.6** °F	**54.9** °F	**29.68**in	WNW	**4.3**mph	**10.6**mph	73%	**0.00**in	n/a	n/a
19:46	**63.6** °F	**54.7** °F	**29.68**in	WNW	**4.5**mph	**10.6**mph	72%	**0.00**in	n/a	n/a
19:51	**63.6** °F	**54.4** °F	**29.68**in	NW	**3.4**mph	**10.5**mph	71%	**0.00**in	n/a	n/a
19:52	**63.6** °F	**54.4** °F	**29.68**in	NW	**3.0**mph	**10.5**mph	71%	**0.00**in	n/a	n/a
19:54	**63.6** °F	**54.3** °F	**29.68**in	NW	**2.1**mph	**8.7**mph	71%	**0.00**in	n/a	n/a
19:56	**63.6** °F	**54.2** °F	**29.68**in	NW	**4.1**mph	**8.7**mph	71%	**0.00**in	n/a	n/a
19:58	**63.6** °F	**54.2** °F	**29.68**in	NW	**3.0**mph	**9.6**mph	70%	**0.00**in	n/a	n/a
20:03	**63.6** °F	**53.7** °F	**29.69**in	North	**3.0**mph	**9.6**mph	69%	**0.00**in	n/a	n/a
20:08	**63.5** °F	**53.2** °F	**29.69**in	NW	**2.7**mph	**10.5**mph	68%	**0.00**in	n/a	n/a
20:13	**63.3** °F	**52.8** °F	**29.69**in	North	**2.7**mph	**10.5**mph	68%	**0.00**in	n/a	n/a
20:18	**63.3** °F	**52.7** °F	**29.69**in	NNW	**4.2**mph	**10.5**mph	67%	**0.00**in	n/a	n/a
20:23	**63.3** °F	**52.5** °F	**29.70**in	North	**3.4**mph	**10.5**mph	67%	**0.00**in	n/a	n/a
20:28	**63.1** °F	**52.2** °F	**29.70**in	NNW	**5.8**mph	**12.2**mph	67%	**0.00**in	n/a	n/a
20:29	**63.1** °F	**52.1** °F	**29.70**in	NNW	**5.6**mph	**12.2**mph	67%	**0.00**in	n/a	n/a
20:33	**62.9** °F	**51.7** °F	**29.70**in	WNW	**2.5**mph	**12.2**mph	66%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
20:35	**63.0** °F	**51.7** °F	**29.70**in	NW	**2.1**mph	**12.2**mph	66%	**0.00**in	n/a	n/a
20:40	**62.9** °F	**51.5** °F	**29.70**in	NNW	**4.5**mph	**10.5**mph	65%	**0.00**in	n/a	n/a
20:45	**62.7** °F	**51.3** °F	**29.71**in	NW	**3.5**mph	**10.5**mph	65%	**0.00**in	n/a	n/a
20:50	**62.6** °F	**51.1** °F	**29.71**in	NNW	**3.5**mph	**7.9**mph	65%	**0.00**in	n/a	n/a
20:51	**62.6** °F	**51.1** °F	**29.71**in	NW	**4.1**mph	**7.9**mph	65%	**0.00**in	n/a	n/a
20:56	**62.4** °F	**51.0** °F	**29.70**in	NNW	**4.4**mph	**9.6**mph	65%	**0.00**in	n/a	n/a
20:57	**62.3** °F	**50.9** °F	**29.70**in	NNW	**3.9**mph	**9.6**mph	65%	**0.00**in	n/a	n/a
21:02	**62.3** °F	**50.9** °F	**29.70**in	NNW	**3.3**mph	**9.6**mph	66%	**0.00**in	n/a	n/a
21:07	**62.1** °F	**50.8** °F	**29.71**in	NNW	**3.5**mph	**8.7**mph	66%	**0.00**in	n/a	n/a
21:12	**62.0** °F	**50.7** °F	**29.71**in	North	**4.5**mph	**10.5**mph	66%	**0.00**in	n/a	n/a
21:17	**61.9** °F	**50.6** °F	**29.71**in	NNW	**2.5**mph	**10.5**mph	65%	**0.00**in	n/a	n/a
21:22	**61.9** °F	**50.5** °F	**29.72**in	NNW	**3.0**mph	**8.7**mph	65%	**0.00**in	n/a	n/a
21:27	**61.8** °F	**50.5** °F	**29.72**in	NW	**1.9**mph	**8.7**mph	66%	**0.00**in	n/a	n/a
21:32	**61.8** °F	**50.7** °F	**29.72**in	North	**1.8**mph	**7.0**mph	66%	**0.00**in	n/a	n/a
21:33	**61.8** °F	**50.7** °F	**29.72**in	North	**1.4**mph	**6.1**mph	66%	**0.00**in	n/a	n/a
21:34	**61.8** °F	**50.7** °F	**29.72**in	NW	**3.1**mph	**7.0**mph	66%	**0.00**in	n/a	n/a
21:40	**61.7** °F	**50.8** °F	**29.72**in	NW	**3.6**mph	**9.7**mph	67%	**0.00**in	n/a	n/a
21:45	**61.5** °F	**50.7** °F	**29.72**in	West	**5.3**mph	**9.7**mph	67%	**0.00**in	n/a	n/a
21:50	**61.4** °F	**50.6** °F	**29.72**in	WNW	**2.7**mph	**8.8**mph	67%	**0.00**in	n/a	n/a
21:53	**61.2** °F	**50.5** °F	**29.72**in	NNW	**3.9**mph	**8.8**mph	67%	**0.00**in	n/a	n/a
21:58	**61.2** °F	**50.3** °F	**29.72**in	NW	**2.7**mph	**8.8**mph	67%	**0.00**in	n/a	n/a
22:03	**61.1** °F	**50.2** °F	**29.72**in	NW	**4.0**mph	**10.5**mph	67%	**0.00**in	n/a	n/a
22:09	**61.0** °F	**50.2** °F	**29.73**in	NW	**4.1**mph	**10.5**mph	67%	**0.00**in	n/a	n/a
22:14	**60.9** °F	**50.1** °F	**29.73**in	WNW	**4.1**mph	**8.7**mph	67%	**0.00**in	n/a	n/a
22:19	**60.7** °F	**49.7** °F	**29.73**in	NW	**3.8**mph	**11.3**mph	66%	**0.00**in	n/a	n/a
22:24	**60.6** °F	**49.5** °F	**29.73**in	NW	**1.3**mph	**11.3**mph	66%	**0.00**in	n/a	n/a
22:29	**60.5** °F	**49.4** °F	**29.72**in	NW	**4.5**mph	**8.7**mph	66%	**0.00**in	n/a	n/a
22:34	**60.3** °F	**49.4** °F	**29.72**in	WNW	**2.8**mph	**8.7**mph	66%	**0.00**in	n/a	n/a
22:37	**60.3** °F	**49.4** °F	**29.72**in	West	**3.1**mph	**8.7**mph	66%	**0.00**in	n/a	n/a
22:42	**60.0** °F	**49.1** °F	**29.72**in	West	**6.4**mph	**17.4**mph	66%	**0.00**in	n/a	n/a
22:47	**59.9** °F	**48.9** °F	**29.73**in	WNW	**3.7**mph	**17.4**mph	66%	**0.00**in	n/a	n/a
22:52	**59.8** °F	**48.7** °F	**29.73**in	NNW	**3.0**mph	**12.2**mph	66%	**0.00**in	n/a	n/a
22:53	**59.8** °F	**48.7** °F	**29.73**in	WNW	**2.8**mph	**11.3**mph	66%	**0.00**in	n/a	n/a
22:58	**59.7** °F	**48.6** °F	**29.73**in	NW	**4.8**mph	**10.5**mph	66%	**0.00**in	n/a	n/a
23:03	**59.6** °F	**48.5** °F	**29.73**in	NW	**4.8**mph	**10.5**mph	66%	**0.00**in	n/a	n/a
23:08	**59.6** °F	**48.5** °F	**29.73**in	NW	**2.7**mph	**9.6**mph	66%	**0.00**in	n/a	n/a
23:13	**59.4** °F	**48.5** °F	**29.73**in	West	**2.6**mph	**9.6**mph	66%	**0.00**in	n/a	n/a
23:18	**59.3** °F	**48.5** °F	**29.73**in	WNW	**4.0**mph	**11.5**mph	67%	**0.00**in	n/a	n/a
23:23	**59.1** °F	**48.4** °F	**29.73**in	WNW	**4.9**mph	**12.2**mph	67%	**0.00**in	n/a	n/a
23:28	**59.0** °F	**48.4** °F	**29.73**in	West	**3.5**mph	**13.8**mph	67%	**0.00**in	n/a	n/a
23:29	**59.0** °F	**48.4** °F	**29.73**in	WNW	**4.1**mph	**13.8**mph	67%	**0.00**in	n/a	n/a
23:33	**58.9** °F	**48.4** °F	**29.73**in	West	**4.4**mph	**13.8**mph	67%	**0.00**in	n/a	n/a

Time	Temp.	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	Rainfall Rate (Hourly)	Conditions	Clouds
23:35	**58.9** °F	**48.4** °F	**29.73**in	WNW	**4.3**mph	**13.8**mph	68%	**0.00**in	n/a	n/a
23:40	**58.8** °F	**48.6** °F	**29.73**in	West	**4.1**mph	**7.9**mph	68%	**0.00**in	n/a	n/a
23:45	**58.7** °F	**48.8** °F	**29.73**in	West	**4.0**mph	**8.7**mph	69%	**0.00**in	n/a	n/a
23:48	**58.5** °F	**48.8** °F	**29.73**in	West	**4.3**mph	**8.7**mph	69%	**0.00**in	n/a	n/a
23:53	**58.3** °F	**48.8** °F	**29.74**in	WNW	**2.9**mph	**8.7**mph	70%	**0.00**in	n/a	n/a
23:57	**58.2** °F	**48.8** °F	**29.74**in	West	**4.5**mph	**8.9**mph	70%	**0.00**in	n/a	n/a

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Appendix D
Field Documentation

D-12 – Phase 3 Photographic Log

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Appendix D
Field Documentation

D-12 – Photographic Log

Survey of Outfall Pipes

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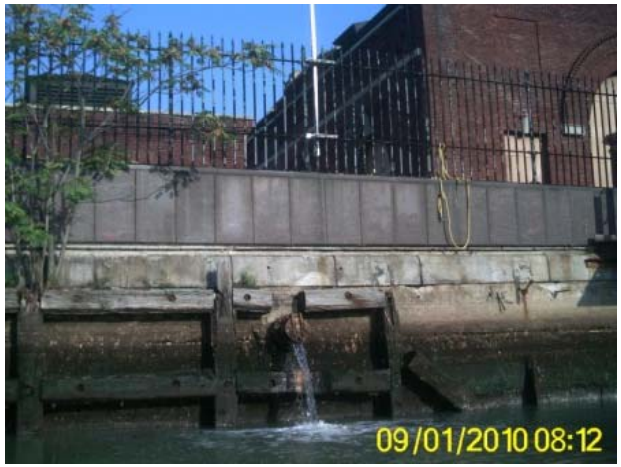
Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



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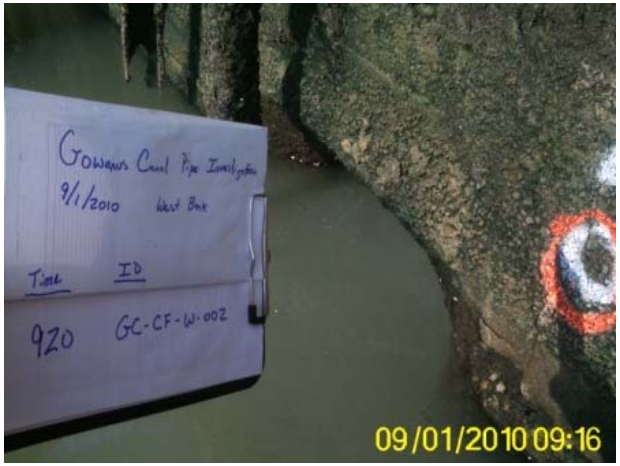


GC-CF-W-02



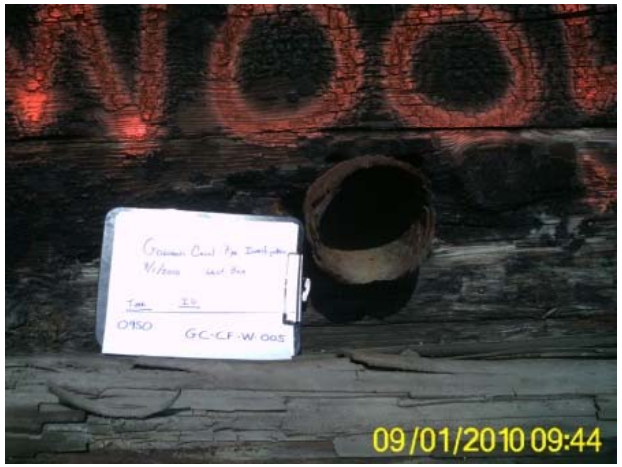
GC-CF-W-03



GC-CF-W-04

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



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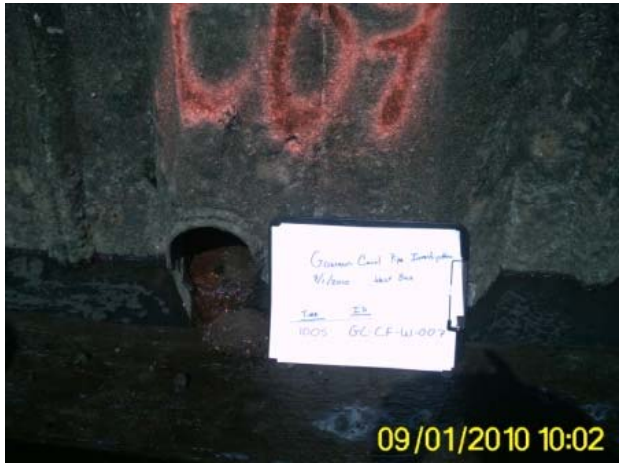
GC-CF-W-06



GC-CF-W-07



GC-CF-W-08

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-09



GC-CF-W-10



GC-CF-W-11



GC-CF-W-12

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-13



GC-CF-W-14



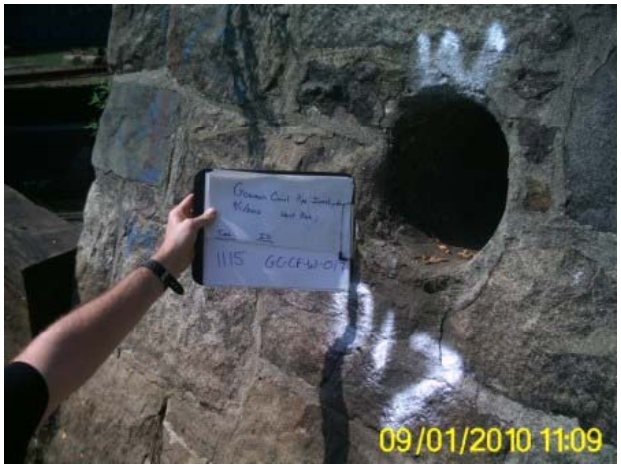
GC-CF-W-15



GC-CF-W-16

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-17



GC-CF-W-18



GC-CF-W-19



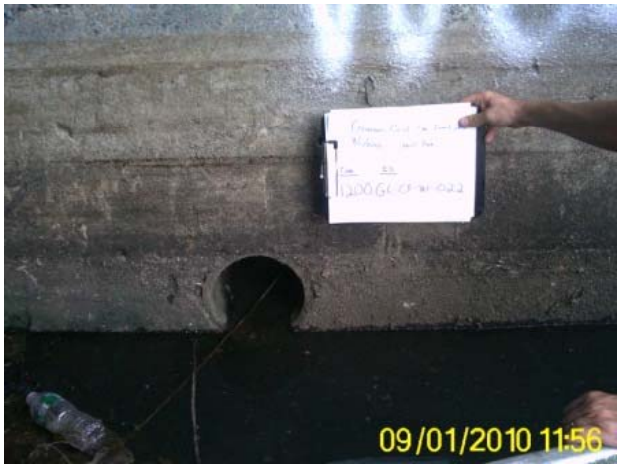
GC-CF-W-20

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-21



GC-CF-W-22



GC-CF-W-23



GC-CF-W-24

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-25



GC-CF-W-26



GC-CF-W-27



GC-CF-W-28

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-29



GC-CF-W-30



GC-CF-W-31



GC-CF-W-32

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-33



GC-CF-W-34



GC-CF-W-35



GC-CF-W-36

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-37



GC-CF-W-38



GC-CF-W-39



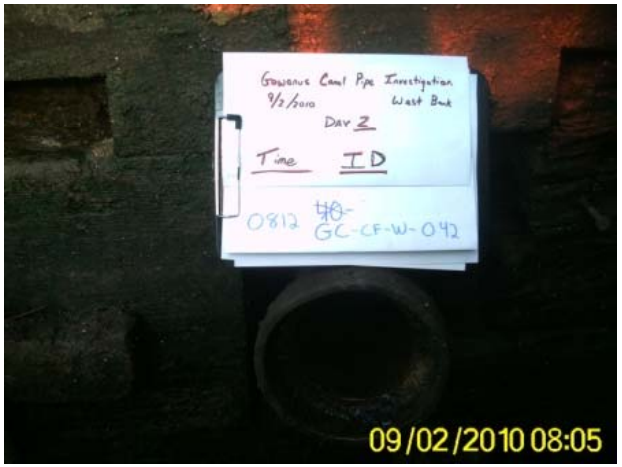
GC-CF-W-40

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-41



GC-CF-W-42



GC-CF-W-43



GC-CF-W-44

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

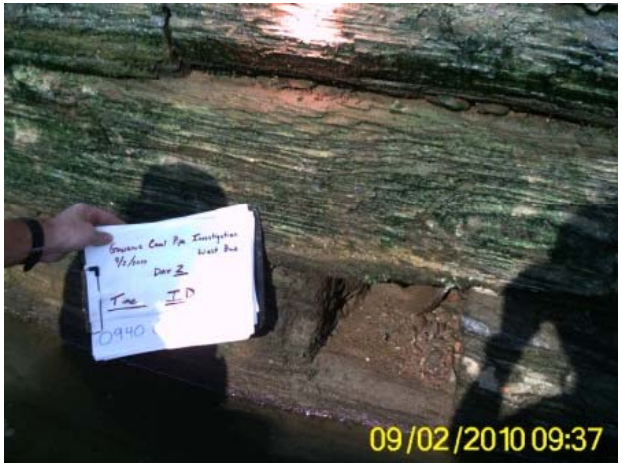
West Bank of Canal



GC-CF-W-45



GC-CF-W-46



GC-CF-W-47



GC-CF-W-48

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-49



GC-CF-W-50



GC-CF-W-51



GC-CF-W-52

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-53



GC-CF-W-54



GC-CF-W-55



GC-CF-W-56

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-57



GC-CF-W-58



GC-CF-W-59



GC-CF-W-60

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-61



GC-CF-W-62



GC-CF-W-63



GC-CF-W-64

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-65



GC-CF-W-66



GC-CF-W-67-70



GC-CF-W-71

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-72



GC-CF-W-73



GC-CF-W-74



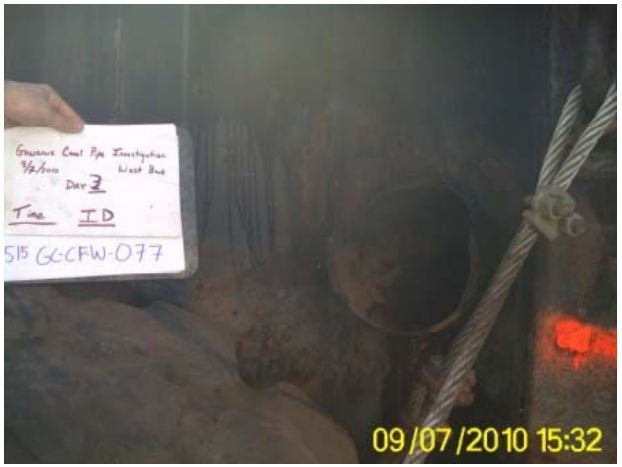
GC-CF-W-75

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-76



GC-CF-W-77



GC-CF-W-78



GC-CF-W-79-88

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

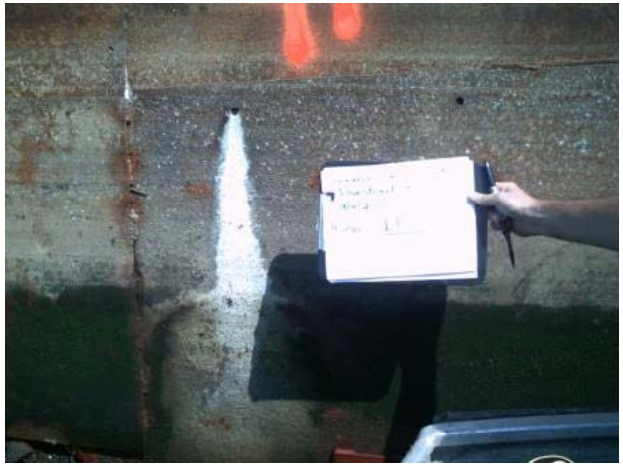
West Bank of Canal



GC-CF-W-89



GC-CF-W-90



GC-CF-W-91



GC-CF-W-92

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

West Bank of Canal



GC-CF-W-93



GC-CF-W-94



GC-CF-W-95



GC-CF-W-96

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-01



GC-CF-E-02



GC-CF-E-03



GC-CF-E-04

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-05



GC-CF-E-06



GC-CF-E-07



GC-CF-E-08

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-09



GC-CF-E-10



GC-CF-E-11



GC-CF-E-12

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-13



GC-CF-E-14



GC-CF-E-15



GC-CF-E-16

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-17



GC-CF-E-18



GC-CF-E-19



GC-CF-E-20

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-21



GC-CF-E-22



GC-CF-E-23



GC-CF-E-24

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-25



GC-CF-E-26



GC-CF-E-27



GC-CF-E-28

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-29



GC-CF-E-30



GC-CF-E-31



GC-CF-E-32

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

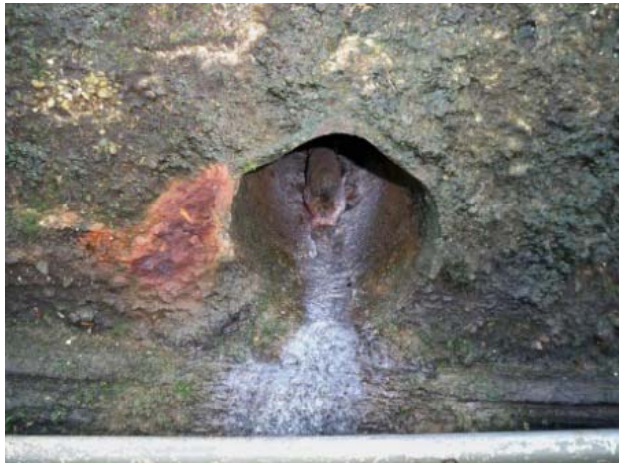
East Bank of Canal



GC-CF-E-33



GC-CF-E-34



GC-CF-E-35



GC-CF-E-36

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-37



GC-CF-E-38



GC-CF-E-39



GC-CF-E-40

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-41



GC-CF-E-42



GC-CF-E-45



GC-CF-E-46

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-47



GC-CF-E-48



GC-CF-E-49



GC-CF-E-50

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-51



GC-CF-E-52



GC-CF-E-53



GC-CF-E-54

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-55



GC-CF-E-56



GC-CF-E-57



GC-CF-E-58

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-59



GC-CF-E-60



GC-CF-E-61



GC-CF-E-62

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-63



GC-CF-E-64



GC-CF-E-65



GC-CF-E-66

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-67



GC-CF-E-68



GC-CF-E-69



GC-CF-E-70

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-71



GC-CF-E-72



GC-CF-E-73



GC-CF-E-74

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

East Bank of Canal



GC-CF-E-75



GC-CF-E-76



GC-CF-E-77

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

North Bank of Canal



GC-CF-N-01



GC-CF-N-02



GC-CF-N-03



GC-CF-N-04

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

North Bank of Canal



GC-CF-N-05

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 1



GC-CF-T1-01



GC-CF-T1-02



GC-CF-T1-03



GC-CF-T1-04

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 1



GC-CF-T1-05



GC-CF-T1-06

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 2



GC-CF-T2-01



GC-CF-T2-02



GC-CF-T2-03



GC-CF-T2-04

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 2



GC-CF-T2-05



GC-CF-T2-07



GC-CF-T2-08



GC-CF-T2-09

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 2



GC-CF-T2-10



GC-CF-T2-11

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 3



GC-CF-T3-01



GC-CF-T3-02



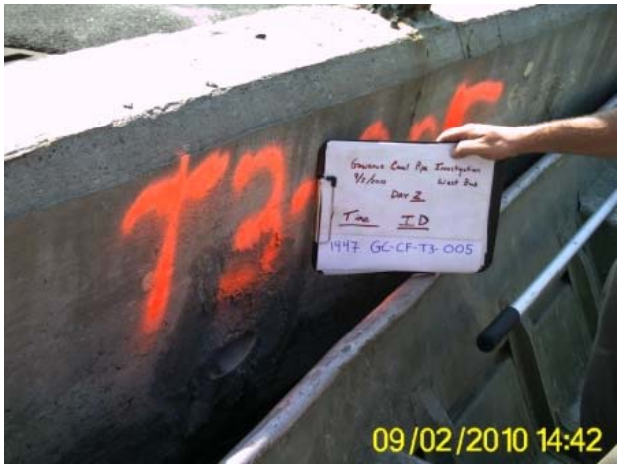
GC-CF-T3-03



GC-CF-T3-04

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

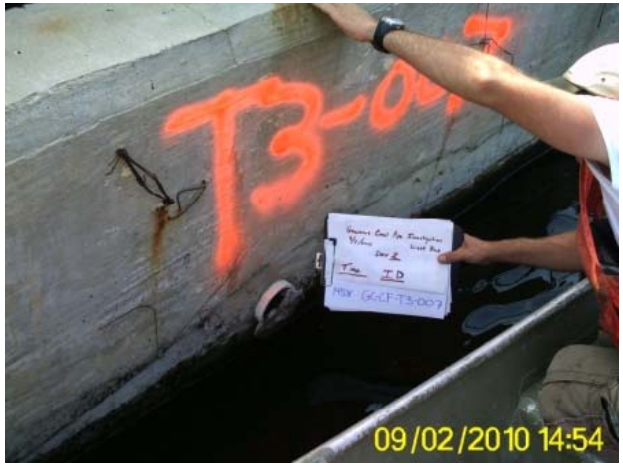
Turning Basin 3



GC-CF-T3-05



GC-CF-T3-06



GC-CF-T3-07



GC-CF-T3-08

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 3



GC-CF-T3-09



GC-CF-T3-10



GC-CF-T3-11



GC-CF-T3-12

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 3



GC-CF-T3-13



GC-CF-T3-14



GC-CF-T3-15



GC-CF-T3-16

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 3



GC-CF-T3-17



GC-CF-T3-18



GC-CF-T3-19



GC-CF-T3-20

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 4



GC-CF-T4-01



GC-CF-T4-02



GC-CF-T4-03



GC-CF-T4-04

Gowanus Canal - Remedial Investigation
Appendix D-12A – Survey of Outfall Pipes

Turning Basin 4



GC-CF-T4-05

Appendix D
Field Documentation

D-12 – Photographic Log

Groundwater Sampling Activities

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Gowanus Canal - Remedial Investigation
Appendix D-12B – Groundwater Sampling Activities



Equipment Setup - Close



Well Pair Construction



Equipment Setup - Wide

Gowanus Canal - Remedial Investigation
Appendix D-12B – Groundwater Sampling Activities



Purging Well – Collect Readings



Water Quality Parameter Readings



Water Quality Instruments



Grundfos Pump Control Box

Gowanus Canal - Remedial Investigation
Appendix D-12B – Groundwater Sampling Activities



Sample Collection



Purge Wells



Purge Wells – Collect Readings

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Appendix D
Field Documentation

D-12 – Photographic Log

CSO Sampling Activities

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Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

OH-005



Open manhole



View down manhole



CSO sediment

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

OH-006



Intersection



Manhole View

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

OH-007



Open manhole



View down Manhole



Open pump station



View into pump station

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

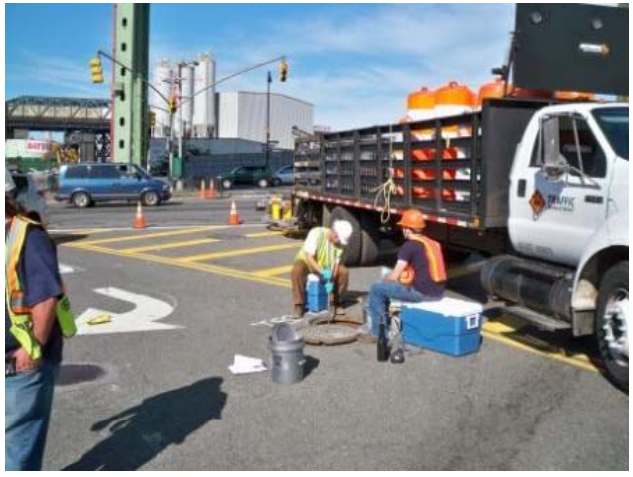
RH-031



Open manhole



View down manhole



Sample collection



CSO Sediment

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

RH-033



CSO Sediment



Open manhole



View down manhole

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

RH-034



ISCO 24-hr sampler location



ISCO 24-hr sampler in place



Sample tubing installed in separation chamber



Separation chamber - close

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

RH-035



Open manhole



View down manhole



Sample collection



CSO sediment

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

RH-036



Down manhole view



Open manhole view



CSO sediment

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

RH-037



Sample Collection



Filling Bottleware



View down manhole



CSO Sediment

Gowanus Canal - Remedial Investigation
Appendix D-12C - CSO Sampling Activities

RH-038



Open manhole



Street view



Down manhole view

Appendix D
Field Documentation

D-12 – Photographic Log

Air Sampling Activities

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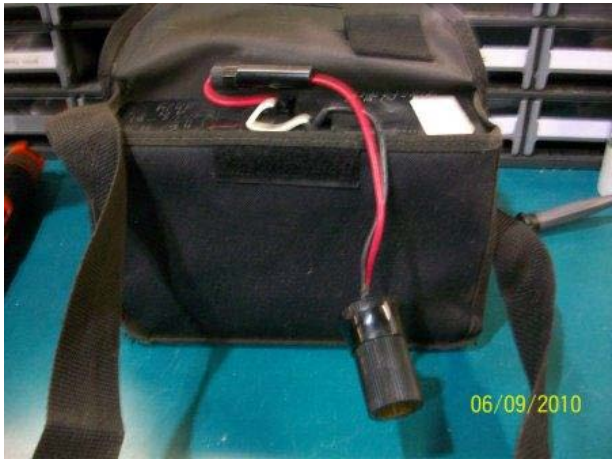
Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

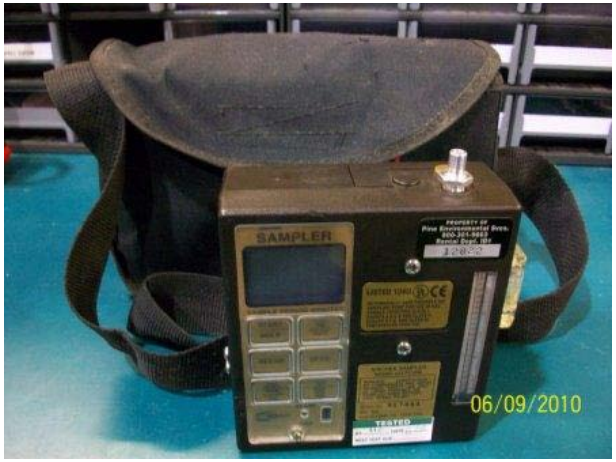
SKC Air Pump



SKC air pump



SKC air pump battery



SKC air pump w/battery

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 501



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 502



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 503



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 504



Wide view



Close view



Label

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 505



Wide view



Sampling Arrangement



Close view

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 506



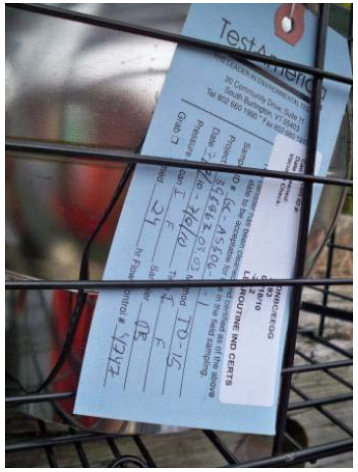
Wide view



Sampling arrangement



Close view



Label

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 506 – High Volume PCB Sample



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 507



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 508



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 509



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 510



Wide view



Sampling arrangement



Close view



Sampling equipment

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 511



Wide view



Sampling Arrangement



Close view

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 512



Wide view



Sampling arrangement



Do Not Disturb label

Gowanus Canal - Remedial Investigation
Appendix D-12D - Air Sampling Activities

Station 513

Photographs for Sample Station 513 Not Available

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Appendix D
Field Documentation

D-12 – Photographic Log

Surface Sediment Sampling Activities

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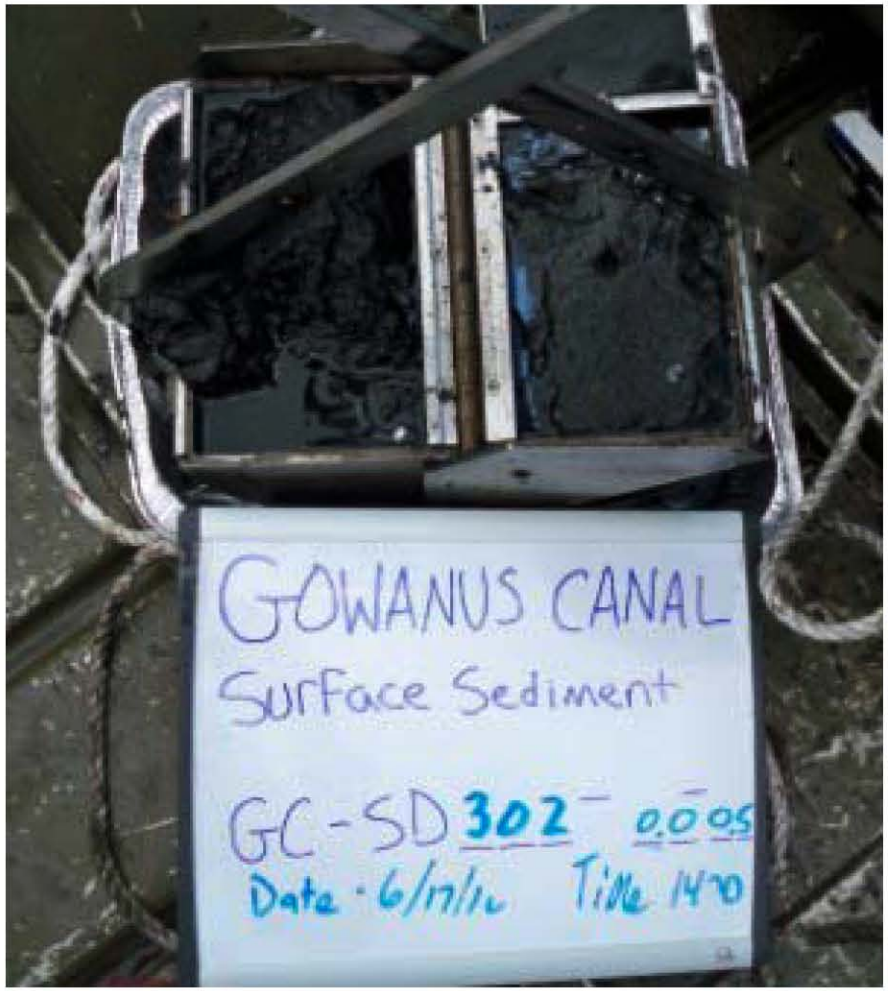
Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 301



Location 302

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 303



Location 304



Location 305

Photograph Not Available

Location 306

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities

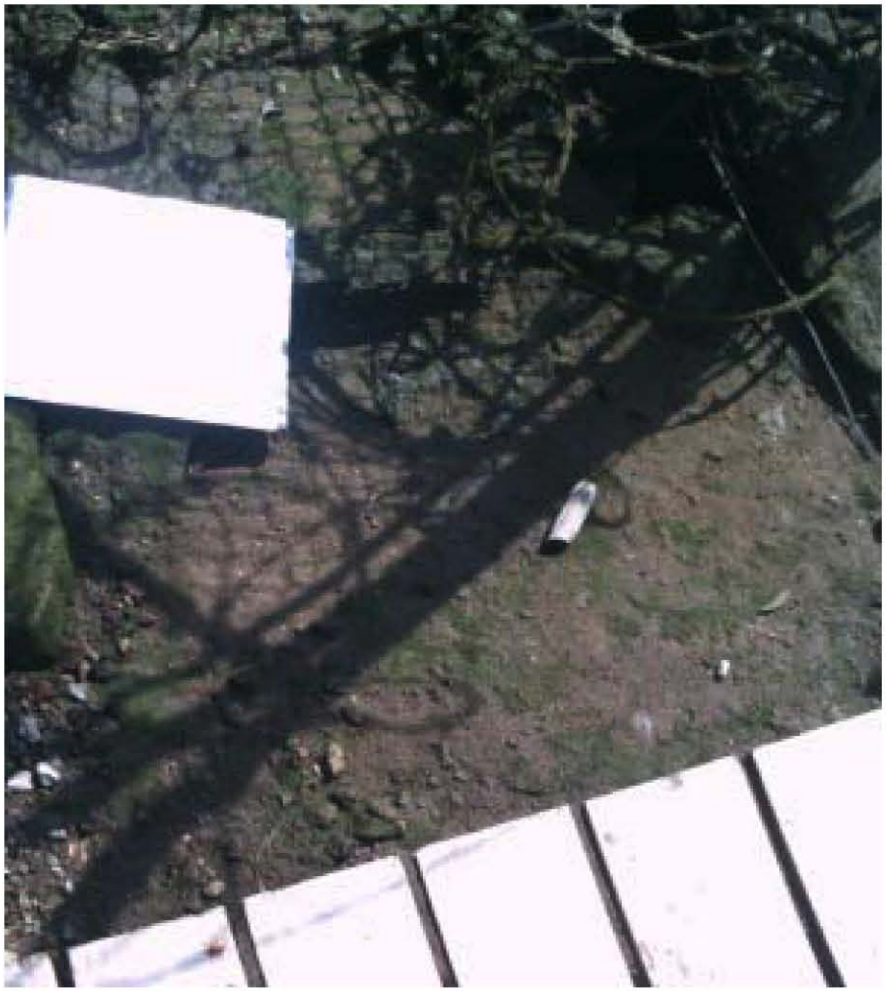


Location 307A



Location 307B

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 308A



Location 308B

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 309



Location 310

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities

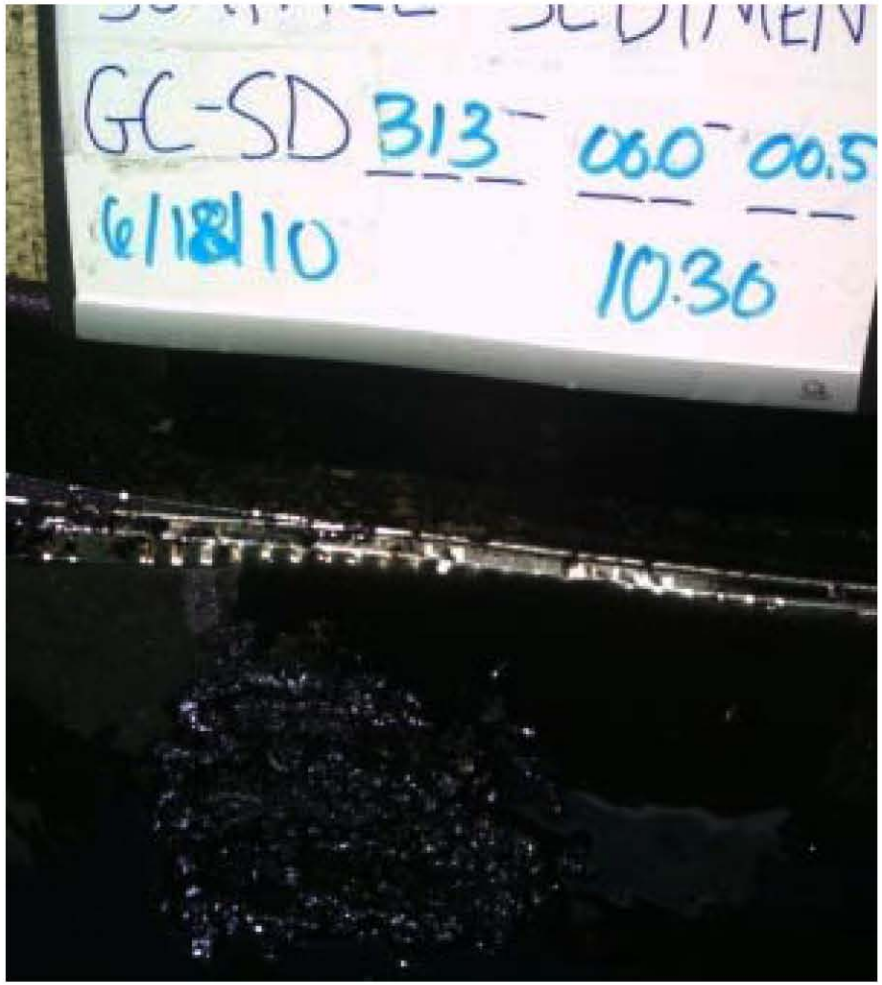


Location 311



Location 312

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 313



Location 314

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 315



Location 316

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 317



Location 318

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 319



Location 320

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 321



Location 322

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 323



Location 324

Photograph Not Available

Location 325



Location 326

Gowanus Canal - Remedial Investigation
Appendix D-12E - Surface Sediment Sampling Activities



Location 327



Location 328

Photograph Not Available

Location 329



Location 330

Photograph Not Available

Location 331



Location 332



Location 333

Photograph Not Available

Location 334



Location 335

Photograph Not Available

Location 336

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Appendix D
Field Documentation

D-12 – Photographic Log

PRP Oversight Activities

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Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

National Grid PRP Oversight – Drilling & Soil Sampling Activities



Hand Utility Clearing



Hydrovac Utility Clearing



Sonic Rig



Sonic Rig Recovery

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

National Grid PRP Oversight – Drilling & Soil Sampling Activities



Sonic Recovery Processing & Sampling



Sonic Rig Drilling Activities



Completed Well Pad

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

National Grid PRP Oversight – Drilling & Soil Sampling Activities



Auger Rig Drilling Activities



Auger Rig Setup



Track Mounted Auger Rig Drilling Activities

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

National Grid PRP Oversight – Drilling & Soil Sampling Activities



Auger Rig Recovery



Auger Rig Recovery Processing



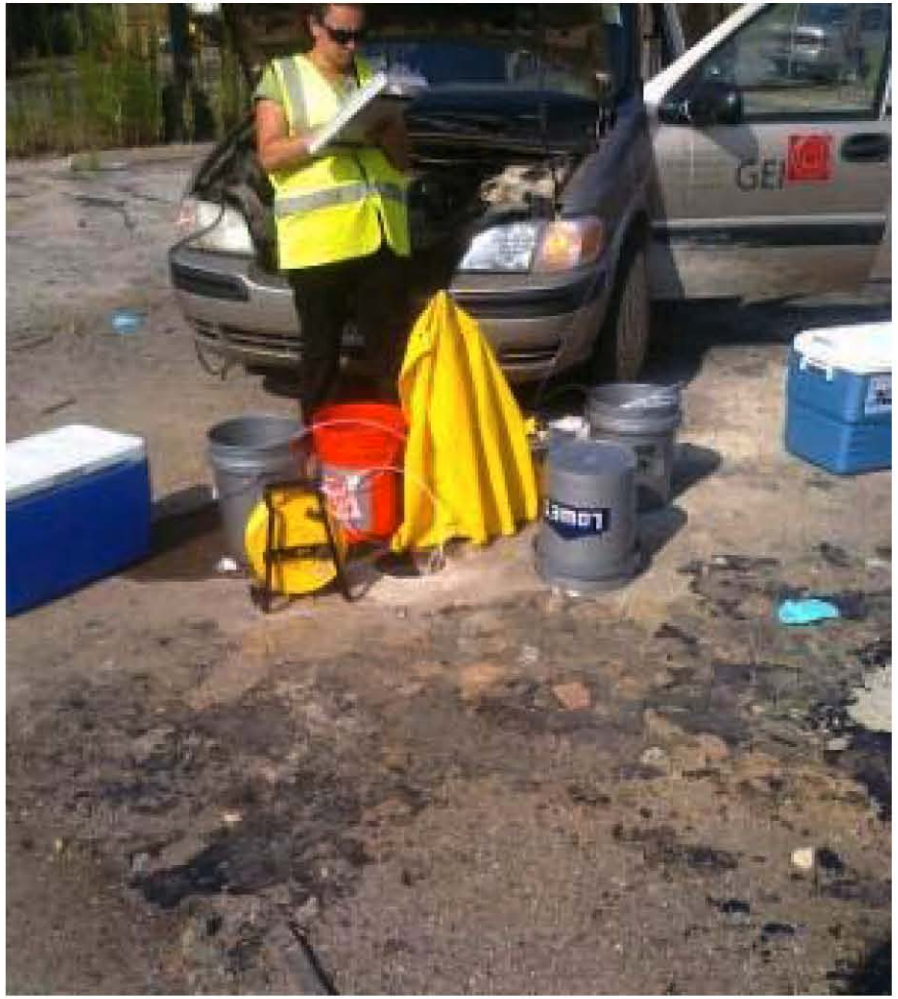
Sample Collection

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

National Grid PRP Oversight – Groundwater Sampling Activities



Well Development



Groundwater Sampling

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

National Grid PRP Oversight –Surface Water Sampling Activities



Surface Water Sampling



Surface Water Sampling Equipment

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

National Grid PRP Oversight –Surface Water Sampling Activities



Vessel Based Surface Water Sampling



Vessel Based Sample Collection

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

New York City PRP Oversight –Drilling & Soil Sampling Actvities



Auger Rig Drilling Activities - Wide



Auger Rig Drilling - Close



Auger Rig Drilling - Wide



Auger Rig Drilling - Close

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

New York City PRP Oversight –Drilling & Soil Sampling Actvities



Install Casing



Casing Installed



Install Filter Pack



Completed Well Pad

Gowanus Canal - Remedial Investigation
Appendix D-12F - PRP Oversight Activities

New York City PRP Oversight –Drilling & Soil Sampling Actvities



Auger Rig Recovery



Auger Rig Processing & Sampling



Encore VOC Samplers



Decontamination Station

Appendix D
Field Documentation

D-12 – Photographic Log

Staff Gauge Locations

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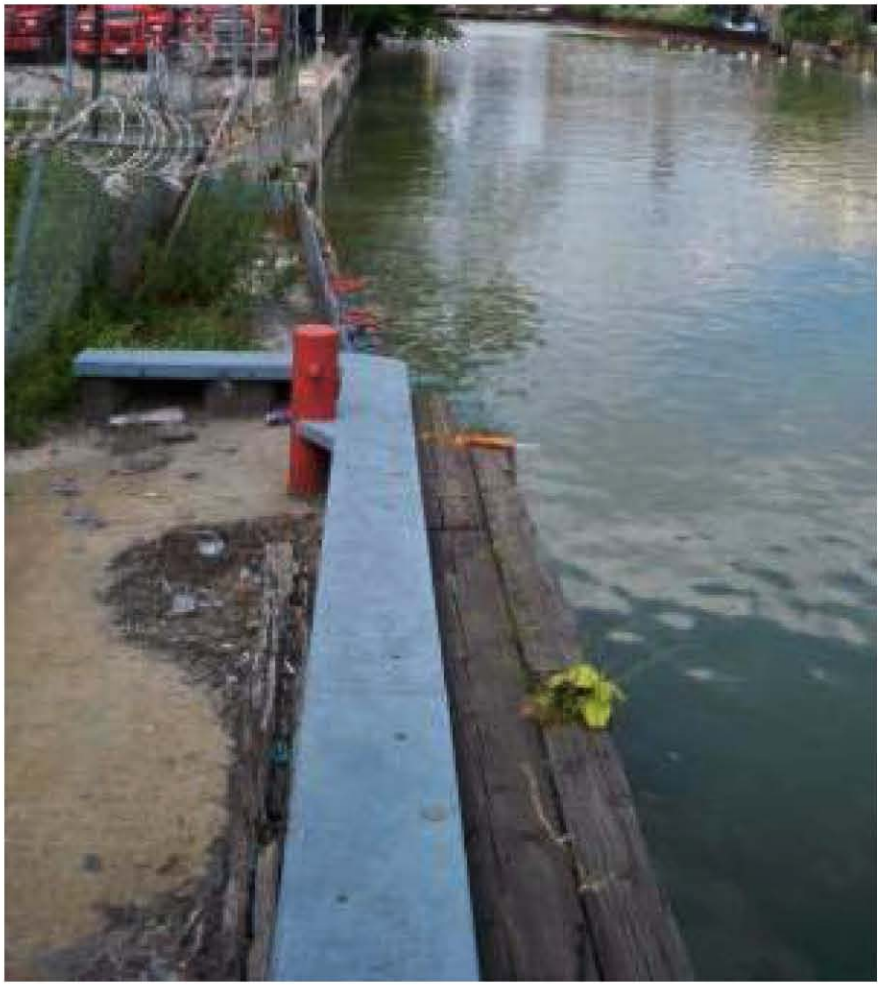
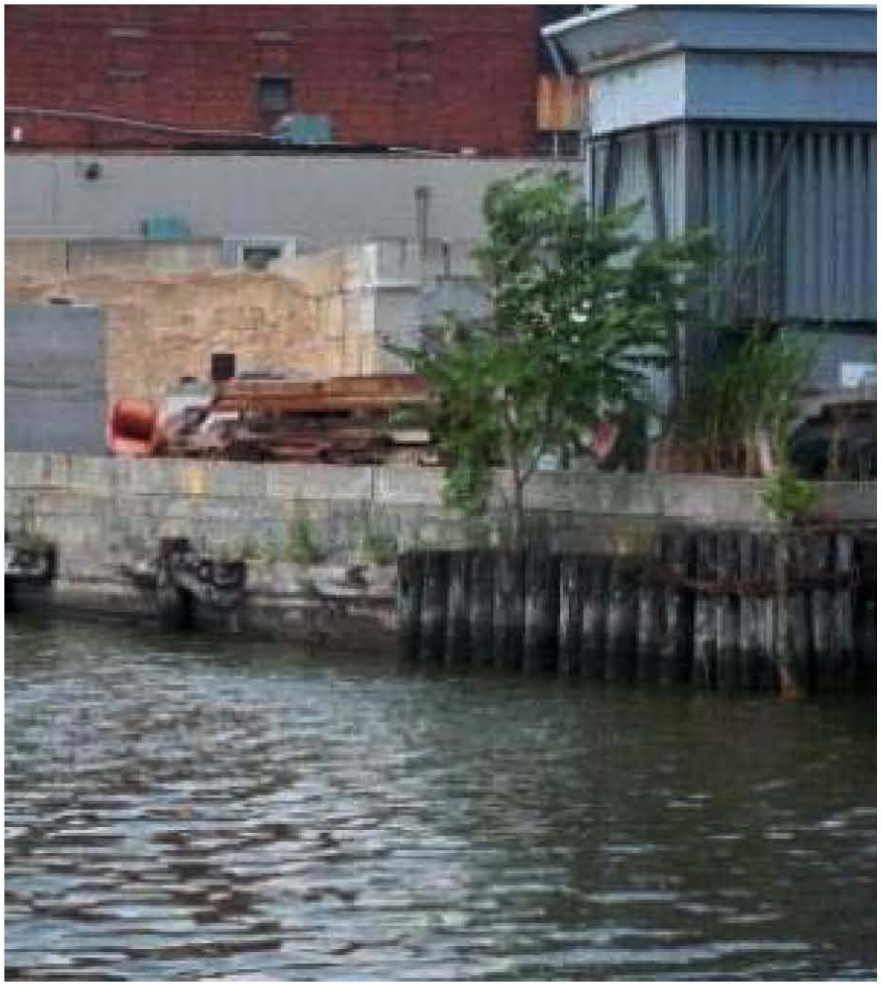
Gowanus Canal - Remedial Investigation
Appendix D-12G – Staff Gauge Locations

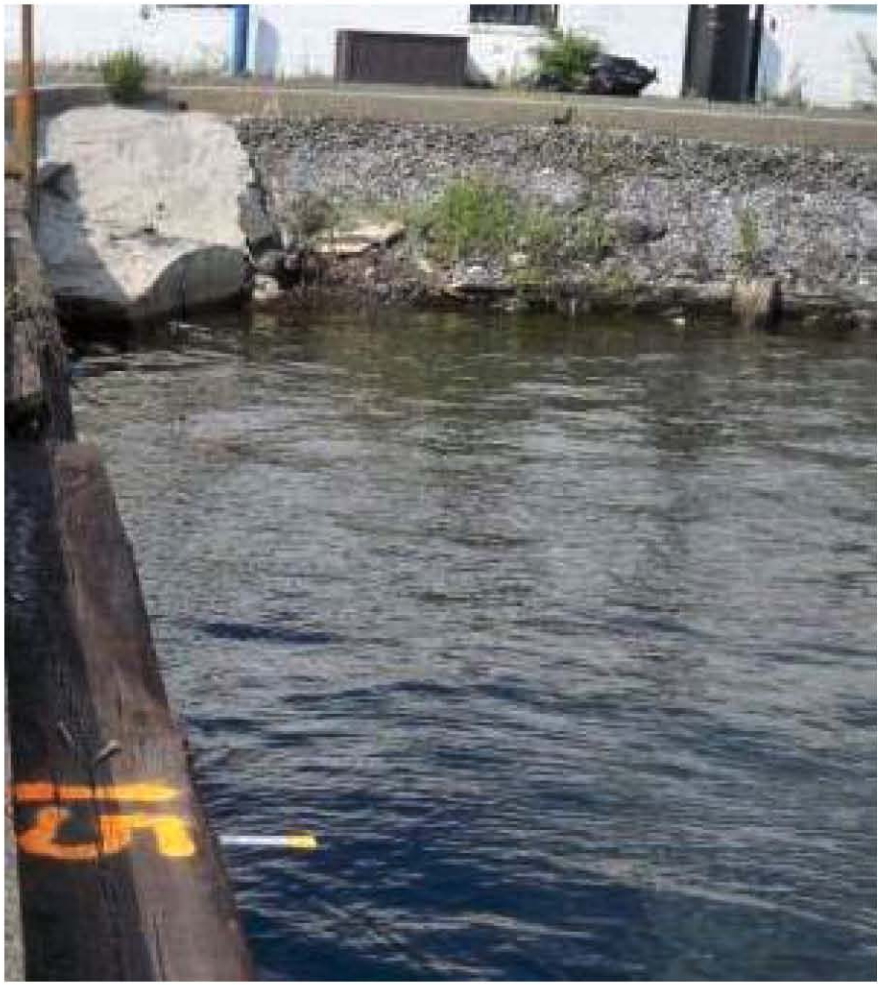


GC-SGMW-3



GC-SGMW-8

Gowanus Canal - Remedial Investigation
Appendix D-12G – Staff Gauge Locations

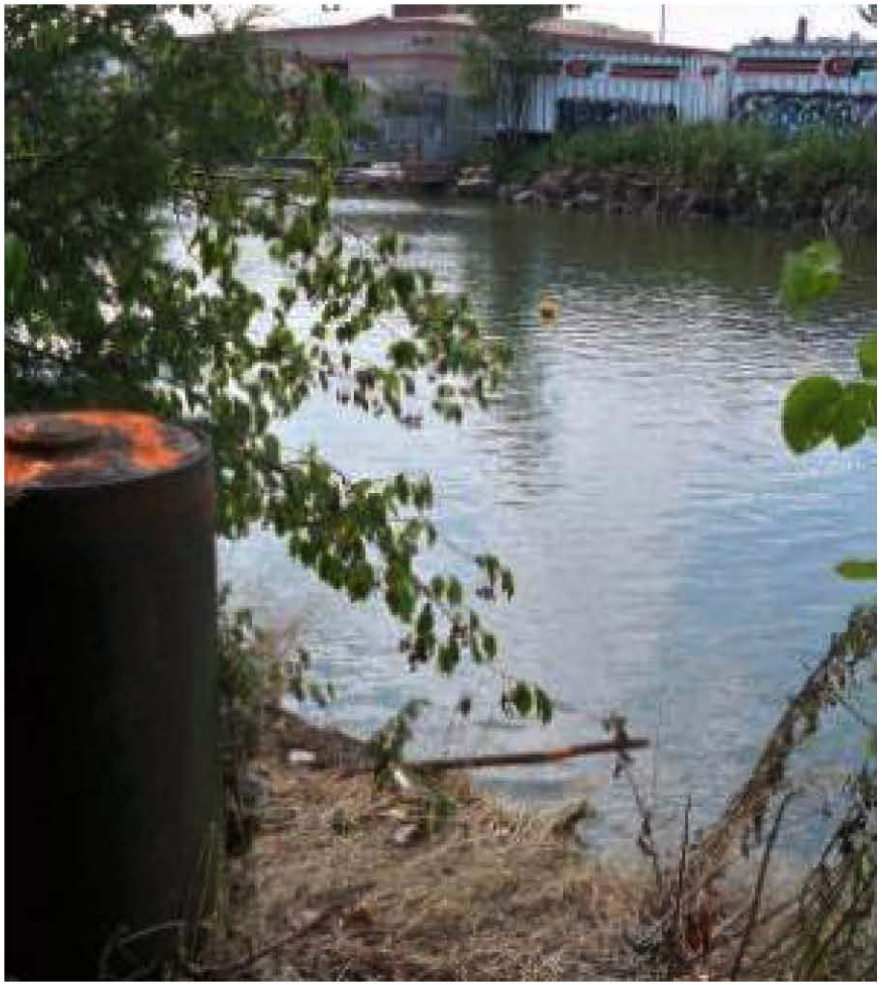


GC-SGMW-15



GC-SGMW-24

Gowanus Canal - Remedial Investigation
Appendix D-12G – Staff Gauge Locations



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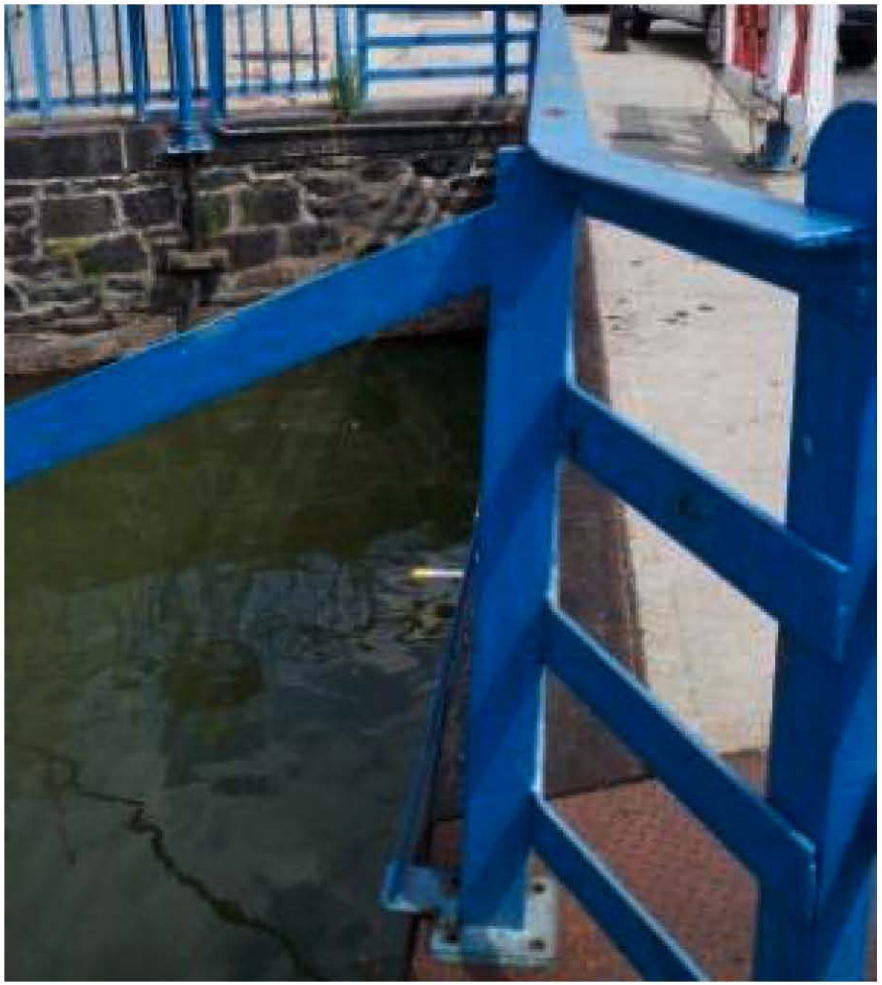
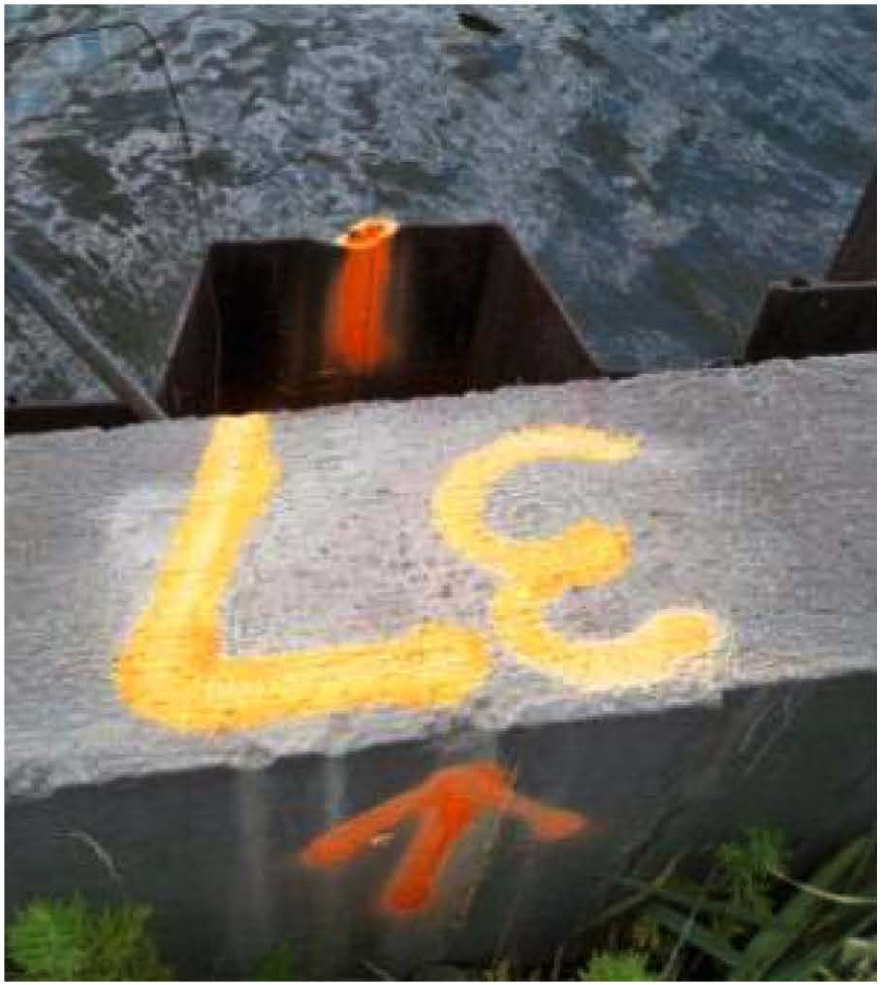


GC-SGMW-28

Gowanus Canal - Remedial Investigation
Appendix D-12G – Staff Gauge Locations



GC-SGMW-37



GC-SGMW-42

Gowanus Canal - Remedial Investigation
Appendix D-12G – Staff Gauge Locations



GC-SGMW-45

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Appendix D
Field Documentation

D-12 – Photographic Log

Tidal Study Canal Transducer Locations

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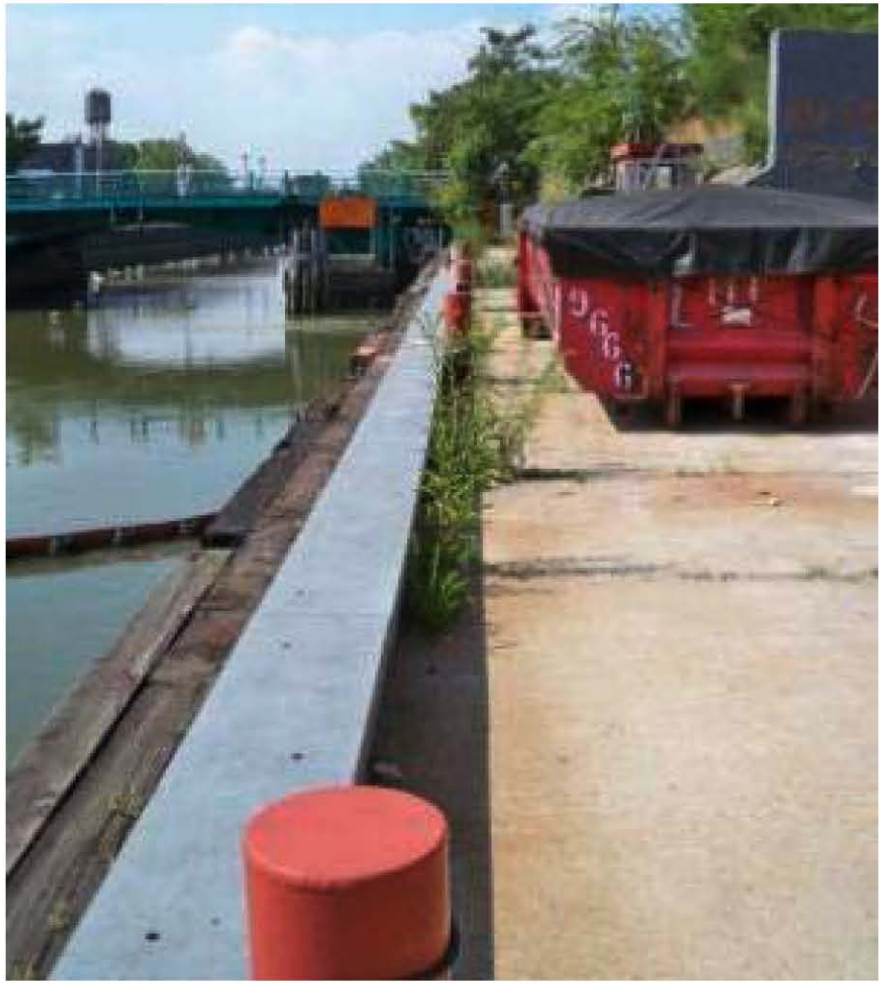
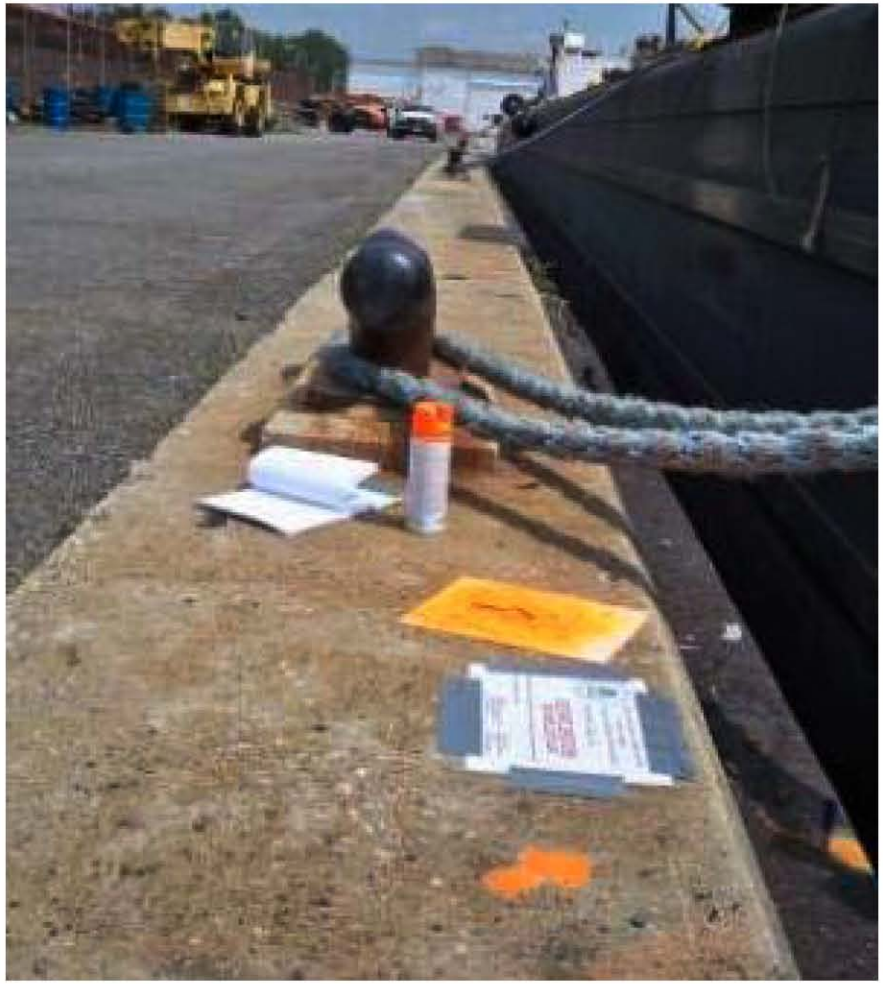
Gowanus Canal - Remedial Investigation
Appendix D-12H - Tidal Study Canal Transducer Locations



GC-TSMW-03



GC-TSMW-15

Gowanus Canal - Remedial Investigation
Appendix D-12H - Tidal Study Canal Transducer Locations



GC-TSMW-20

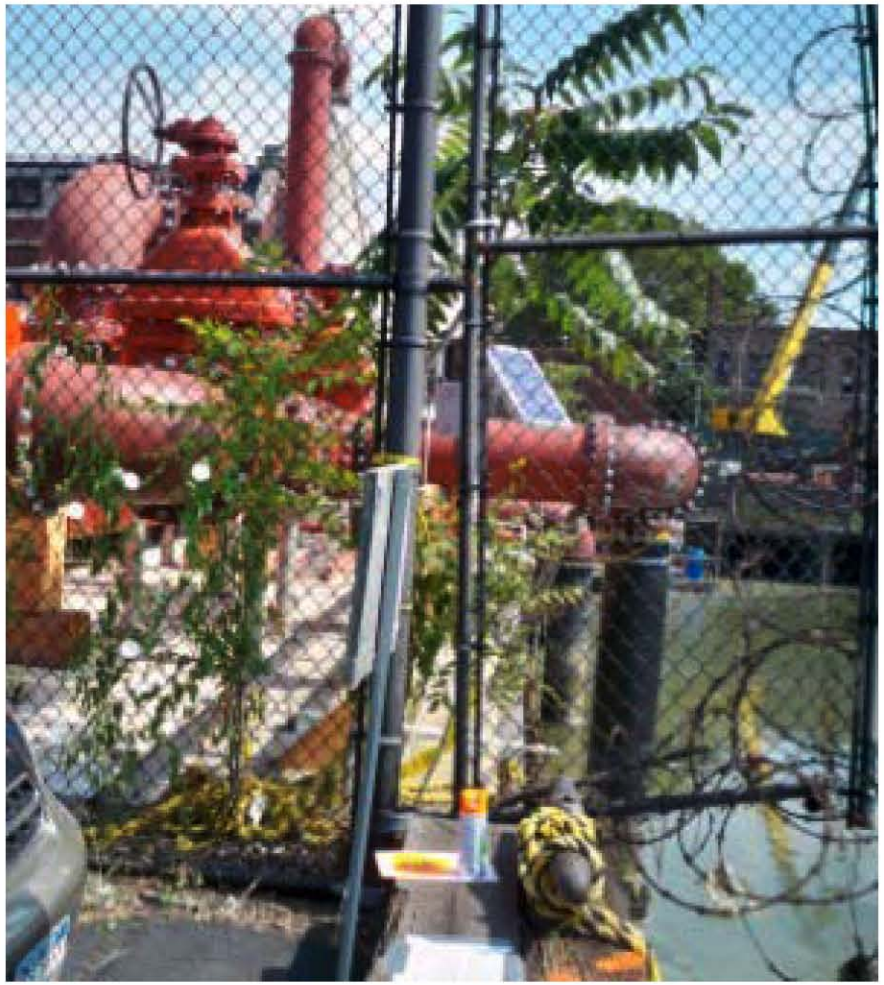


GC-TSMW-25

Gowanus Canal - Remedial Investigation
Appendix D-12H - Tidal Study Canal Transducer Locations



GC-TSMW-13



GC-TSMW-33

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WESTCOTT
GCMW-43
4-7'
5/17/10
05/17/2009


ONE WAY
DIRTY WATERS
DIRTY WATERS


DOT
Bridge Operations


05/17/2009


GGMW-43
7-17'
5/17/10
05/17/2009


05/17/2009


GGMW-43
17-27'
5/17/10
05/17/2009


GCMW-43
27-30'
5/17/30
05/17/2009


GCMW-43
30-32.5
05/17/2009


GCMW-43.
32.5-35'
05/17/2009


GCMW-43
35-37.5'
5/17/10
05/17/2009






9946618
E350
USDOT 327574
GVW 12300




TOP WESTCOTT


BAYSIDE FUEL OIL DEPOT
BOTTOM
GCMW-34
0-12'


GCMW-34
12-171
5/19/10
GoPenske.com
1-800-GO-PENSKE


GCMW-34
17-22
5|19|10
NORTH STAR
HONDA ENGINES
FILPRO


LONGYEAR
Environmental & Infrastructure
Drilling Services
PENSKE
Truck Rental
GoPenske.com
1-800-GO-PENSKE
HONDA
ENGINES
GCMW-34
27-27
5/19/10


GCMW-34
27-30'
5/19/10
Bottom


GCMW-34
30-33'
5/19/10
Bottom
GoPenske.com
1-800-GO-PENSKE
T300
Bobcat


GCMW-6
7- 10'
5/20/10


GLMW-6
10-19
TOP


Drilling Services
PUREGOLD
MEDIUM CHIPS
HOLE ABANDONMENT MATERIAL
50 lbs/22.68 kg
MADE IN THE USA
MEDIUM CHIPS
DEC Massachusetts
N47-177
COMMERCIAL
GLMW-6
14-17
TOP


LONGYEAR
Environmental & Infrastructure
Drilling Services
TOP
GCMW-6
17-22
5/20/10


Environmental & Infrastructure
Drilling Services
N47-177
GCMW-6
22-27
5/20/10


GC MW-6
27-29.5
5/20/10


GCMW-6
29.5-32.5
5/20/10


GCMW-05
7-[redacted]
5/21/10


KNAPHEIDE
GCMW-05
11-15
5/21/10
BOTTOM


KNAPHEIDE
MOOR
GMC
MITSUBISHI
FUSO
DANVERS MA
GLMW-05
17-18'


GC MW-05
27-31
5/21/10
SILICA
SEE BACK PANEL FOR
HEALTH WARNING


GCMW-05
31-35'
12/10


TOP
GCMW-12
7-10
5/24/10
BOTTOM
Environmental & Infrastructure
Drilling Services
PENSKE
Truck Rental


TOP
GCMW-12 Bottom
7-10
5/24/10
quiksilver


quiksilver
BOARDRIDING COMPANY
TOP
GCMW-12 BOTTOM
10-14.5
5/24/10


TOP
GCMW-12
17-23
5/24/10
Bottom


TOP
GCMW-12
BOTTOM
23-27
5/24/10
quiksilver
Truck Rental
Dedication at every turn.


TOP
GCMW- 12
BOTTOM
27-29
5/24/10
WEST
ALLSTAR
745-3366


TOP
GCMW-12
BOTTOM
29-33
5/24/10


TOP
GCMW-12
33-37
5/24/10
Bottom


Drilling Services
ALLSTAR
745-336
NO PARKING
NO PARKING
TOP
GCMW-12 Bottom
37-41
5/24/10
WEST


TOP
GCMW-12 BOTTOM
41-45
5/24/10
NO PARKING
NO PARKING
REMOVAL


TOP
BOTTOM
GCMW-11
7-9'
5/25/10


TOP
BOTTOM
GCMW-11
9-13'
5/25/10


TOP
BOTTOM
GCMW-11
13-17'
5/25/10


TOP
BOTTOM
GCMW-11
17-21.5
5/25/10


TOP
BOTTOM
GCMW-11
21.5-26.5
5/25/10
WHEATLAND
FIRE EQUIPMENT


TOP
BOTTOM
27-30
5/25


TOP
BOTTOM
GCMW-11
30-33'
5/25/10


TOP
Bottom
GCMW-11
33-37'
5/25/10
PUREGOLD
MEDIUM CHIPS
GETCO




TOP
BOTTOM
GCMW-11
37-41'
5/25/10


US EPA
TOP
BOTTOM
GCMW-11
41-45'
5/25/10


TOP
BOTTOM
GCMW-21
7-10
5/25/10


BOART LONGYEAR
Environmental & Infrastructure Drilling Services
TOP
BOTTOM
GCMW-21
10-13'
5/25/10


TOP
GCMW-21
13-17'
5/25/10
BOTTOM


TOP
GCNW-21
17-19'
5/25/10
BOTTOM


LONGYEAR
Environmental & Infrastructure
Drilling Services
PENSKE
TOP
GCMW-21
19-23'
5/25/10
BOTTOM


Drilling Services
TOP
GCMW-21
23-27'
5/25/10
Bottom


TOP
BOTTOM
GCMW-21
27-29'
5/25/10
WEST


BOART LONGYEAR
Environmental & Infrastructure
Drilling Services
TOP
GCMW-21
29-34
5/25/10
BOTTOM
38B


Environmental & Infrastructure
Drilling Services
TOP
BOTTOM
GCMW-21
34-38'
5/25/10


TOP
GCMW-42
7-12'
5/26/10
BOTTOM


TOP
GC MW-42
12-17'
5 |26 |10
BOTTOM


12-
5 126




TOP
BOTTOM
GCMW-42
17-18'
5/26/10


TOP
GC MW-42
18-23'
5/26/10
BOTTOM


TOP
GC MW-42
23-27'
5/26/10
BOTTOM


TOP
GCMW-42
27-31'
5/26/10
BOTTOM


TOP
GCMW-42
31-35'
5/26/10
BOTTOM


TOP
BOTTOM
GCMW-20
7-9'
5/26/10
WEST


TOP
BOTTOM
GCMW-20
9-13'
5/26/10


TOP
BOTTOM
GCMW-20
13-11'
5/26/10


TOP
BOTTOM
GCMW-20
36-39'
5/26/10
27-39A


TOP
BOTTOM
GCMW-20
33-36'
5/26/10


TOP
BOTTOM
GCMW-20
30-33
5/26/10


TOP
BOTTOM
GCMW-2P
27-30
5/26/10




PUREGOLD
MEDIUM CHIPS


ADLER
1-800-421-7471


202


C/S GRANULAR
C/S GRANULAR
PUREGOLD
MEDIUM CHIP
PUREGOLD
MEDIUM CHIP


202


TOP
BOTTOM
GCMW-03
4-7' concrete
5/27/10


TOP
BOTTOM
GCMW-03
7-9'
5/27/10


TOP
BOTTOM
GCMW-03
9-15'
5/27/10


GCMW-03
BOTTOM
9-15'
5/27/10

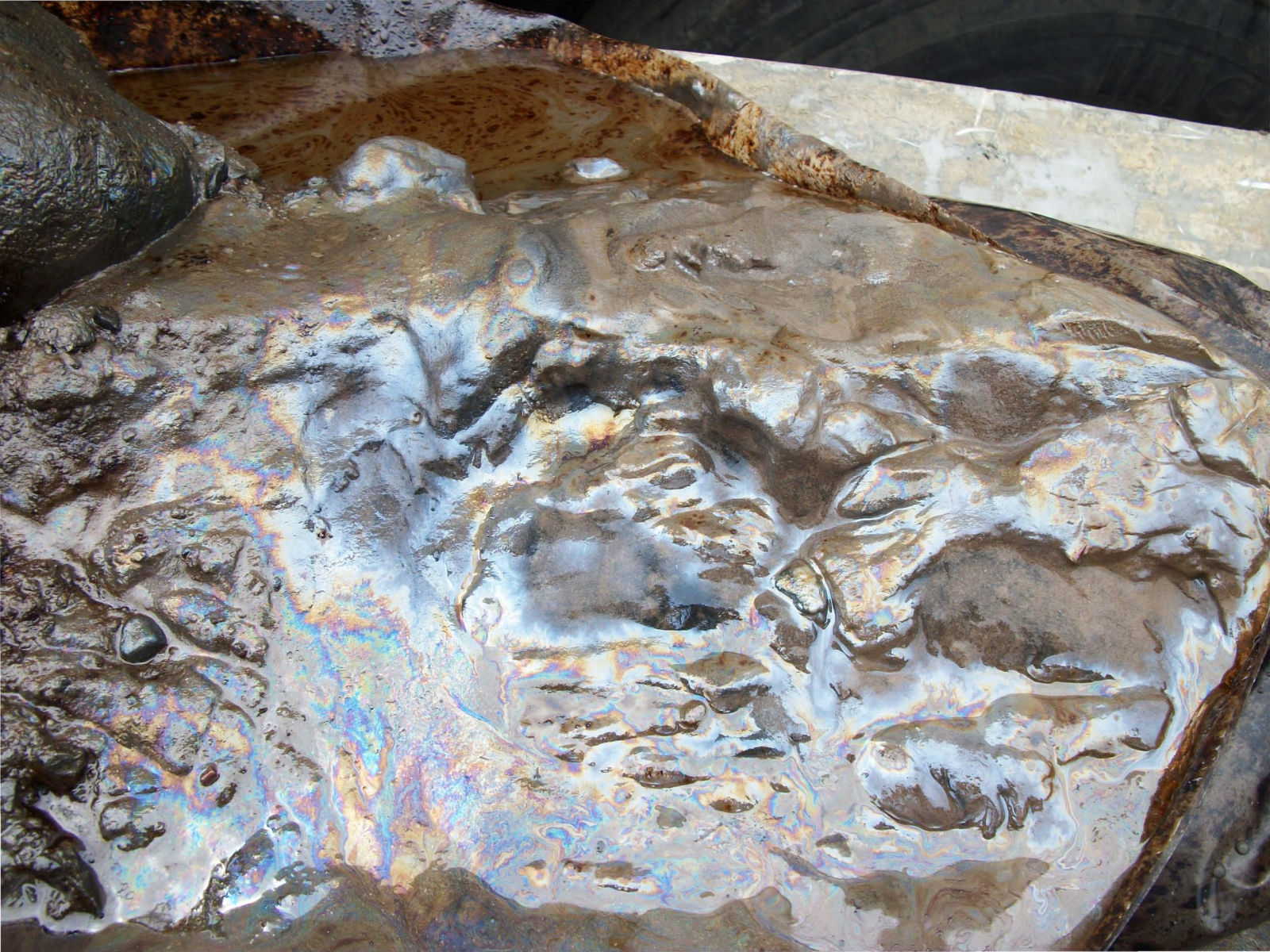

TOP
BOTTOM
GCMW-03
27-30'
5/27/10
SYSTEM
PUREGOLD MEDIUM CHIPS


TOP
BOTTOM
GCMW-03
30-34
5/27/10


TOP
BOTTOM
GCMW-03
34-37
5/27/10


TOP
BOTTOM
GCMW-03
37-39
5/27/10








TOP
GCMW-16
BOTTOM
7-11'
06/01/2010


OP GCMW-16 BOTTOM
11-17'
06/01/2010


TOP
GCMW-16
BOTTOM
17-22'
06/01/2010


TOP
GCMW-16
BOTTOM
22-27'
2010


TOP
GCMW-16
BOTTOM
34-37'
6-1-10


TOP
GCMW-16
30-34'
6-1-10
BOTTOM


TOP
GCMW-16
27-30'
6-1-10
BOTTOM


TOP
GCMW-16
BOTTOM
37-47'
6-1-10
WEST


TOP
GCMW-16
54-57'
6-1-10
BOTTOM
WEST


TOP
GCMW-16
50-54'
BOTTOM
6-1-10

TOP

GCMW-16

47-50'

6-1-10

BOTT

WEST


TOP
BOTTOM
GCMW-15
7-9'
6/2/10
WALL TOWNSHIP
ECRACKER
5




Drilling Services
TOP
BOTTOM
GCMW-15
9-14'
6/2/10


TOP
BOTTOM
GCMW-15
17-19
6/2/10


TOP
BOTTOM
GCMW-15
19-23'
6/2/10


TOP
BOTTOM
GCMW-15
23-27'
6/2/10


TOP
BOTTOM
GCMW-15
27-30'
6/2/10


TOP
BOTTOM
GCMW-15
30-33'
6/2/10


TOP
BOTTOM
GCMW-15
33-37'
6/2/10


LONGYEAR
Environmental & Infrastructure
Drilling Services
TOP
BOTTOM
GCMW-15
37-39
6/2/10
ERIE SERVICE


TOP
BOTTOM
GCMW-15
39-43.5
6/2/10


TOP
BOTTOM
GCMW-15
43-47'
6/2/10


Environmental & Infrastructure
Drilling Services
TOP
BOTTOM
GCMW-15
47-51
6/2/
N47 177


BOART LONGYEAR
Environmental & Infrastructure
Drilling Services
TOP
GCMW-15
47-51
6/2/10
BOTTOM
N47177


TOP
BOTTOM
GCMW-15
51-54.5'
6/2/10
DIESEL FUEL
N47·177


NO DUMPING
FINES UP TO $20,000
VEHICLES WILL BE IMPOUNDED
REPORT DUMPERS
REWARDS AVAILABLE
CALL (212)219-8090
TOP
BOTTOM
GCMW-04
7-9'
6/3/10
WEST


VEHICLES WILL
BE IMPOUNDED
REPORT DUMPERS
REWARDS AVAILABLE
CALL (212)219-8090
TOP
BOTTOM
GCMW-04
9-13'
6/3/10


TOP
BOTTOM
GCMW-04
13-17'
6/3/10


NO DUMPING
FINES UP TO $20,000
VEHICLES WILL BE IMPOUNDED
REPORT DUMPERS
REWARDS AVAILABLE
CALL (212)219-8090
TOP
BOTTOM
GCMW-04
17-19'
6/3/10
WEST


NO DUMPING
FINES UP TO $20,000
VEHICLES WILL BE IMPOUNDED
REPORT DUMPERS
REWARDS AVAILABLE
CALL (212)219-8090
N.Y.C. DEPT. OF SANITATION
TOP
BOTTOM
GCMW-04
19-23'
6/3/10


VEHICLES WILL
BE IMPOUNDED
REPORT DUMPERS
REWARDS AVAILABLE
CALL (212)219-8090
TOP
BOTTOM
GCMIW-04
23-27'
6/3/10


NO DUMPING
FINES UP TO $20,000
VEHICLES WILL BE IMPOUNDED
REPORT DUMPERS REWARDS AVAILABLE CALL (212)219-8090
TOP
BOTTOM
GCMW-04
27-28.5
6/3/10


FINES UP TO
$20,000
VEHICLES WILL
BE IMPOUNDED
REPORT DUMPERS
REWARDS AVAILABLE
CALL (212)219-8000
N.Y.C. DEPT. OF SANITATION
TOP
BOTTOM
GCMW-04
28.5-33'
6/3/10


VEHICLES
BE IMPOUNDED
REPORT DUMPERS
REWARDS AVAILABLE
CALL (212)
TOP
BOTTOM
GCMW-04
33-37'
6/3/10


TOP
BOTTOM
GCMW-24
4-7'
6/7/10
DURASKIN
XL


TOP
BOTTOM
GCMW-24
7-9'
6/7/10
WEST


TOP
BOTTOM
GCMW-24
9-13
6/7/10


TOP
BOTTOM
GCMW-24
13-17
6/7/10
KNAPHEIDE
DURASKIN


TOP
BOTTOM
GCMW-24
17-21
6/7/12


TOP
BOTTOM
GCMW-24
21-25
6/7/10


TOP
BOTTOM
GCMW-24
27-30
6/7/10
KNAPHEIDE


TOP
BOTTOM
GCMW-24
30-33'
6/7/10


TOP
BOTTOM
GCMW-24
33-37
6/7/10
KNAPHEIDE
DURASKIN


TOP
BOTTOM
GCMW-24
37-39'
6/7/10
40B


TOP
BOTTOM
GCMW-24
29-40'


TOP
BOTTOM
GCMW-45
7-9'


TOP
BOTTOM
GCMW-45
9-13'
6/8/10


TOP
BOTTOM
GCMW-45
13-17'
6/8/10


TOP
BOTTOM
GCMW-45
17-20
6/8/10


TOP
BOTTOM
GCMW-45
20-23'
6/8/10


REAC
TOP
BOTTOM
GCMW-45
23-27'
6/8/10
THIS CARTON IS
MADE FROM


TOP
BOTTOM
GCMW-45
27-29
6/8/10


TOP
BOTTOM
GCMW-45
29-33'
6/8/10


Pier House
5k
TOP
BOTTOM
GCMW-45
33-37'
6/8/10


TOP
BOTTOM
GCMW-45
37-41'
6/8/10


TOP
BOTTOM
GCMW-45
37-41'
6/8/10




TOP
BOTTOM
GCMW-44
7-9'
6/8/10
SWIFT
SWIFT


BOTTOM
GCMW-44
9-13'
6/8/10
SWIFT
SWIFT


Environmental & Infrastructure
Drilling Services
SWIFT
SWIFT
TOP
BOTTOM
GCMW-44
13-17'
6/8/10


TOP
BOTTOM
GCMW-44
17-19'
6/8/10
SWIFT


TOP
BOTTOM
GCMW-44
19-22.5
6/8/10
SWIFT
SWIFT


SWIFT
TOP
BOTTOM
GCMW-44
22.5-27'
6/8/10


TOP
BOTTOM
GCMW-44
27-29
6/8/10
SWIFT


BOART LONGYEAR
Environmental & Infrastructure Drilling Services
SWIFT
TOP
BOTTOM
GCMW-44
29-33
6/8/10


US EPA
SWIFT
TOP
BOTTOM
GCMW-44
33-37'
6/8/10


TOP
BOTTOM
GCMW-44
37-40
6/8/10


TOP
BOTTOM
GCMW-44
40-45
6/8/10
SWIFT
SWIFT
QUIKRETE
QUIKRETE


BOTTOM TOP
GCMW-39
7-9'
6/9/10


BOTTOM TOP
GCMW-39
9-13'
6/9/10
U-HAUL
LONGYEAR
Environmental & Infrastructure
Drilling Services


ooth, Aluminum Floor
Deck, EZ-Load Ramp
15,000 Locations...
elping Hands Along the Way!
uhaul.com
1-800-GO-U-HAUL
AD-88793
BOTTOM TOP
GCMW-39
13-17
6/9/10


BOTTOM TOP
GCMW-39
17-20'
6/9/10


BOTTOM TOP
GCMW-39
20-23.5'
6/9/10
US EPA


Hands Along the Way!
uhaul.com
-800-GO-U-HAUL
HOTLINE
CLOSE & LATCH DOOR
DANGER
ARIZONA
AD·88793
US EPA
BOTTOM TOP
GCMW-39
23.5-27
6/9/10


BOTTOM TOP
GCMW-39
27-29
6/9/10
DIESEL FUEL
DEC Massachusetts
N47 177
COMMERCIAL
FIBREGLAS MEDIUM CHIPS
WEST


BOTTOM TOP
GCMW-39
29-33
6/9/10
U-HAUL
U-CAN DO IT!
DIESEL FUEL


BOTTOM TOP
GCMW-39
29-33
19110
U-HAUL
U-CAN DO IT!
DIESEL FUEL
Get Help
Drilling Services


U-HAUL
U-CAN DO IT!
U-HAUL
U-CAN DO IT!
DIESEL FUEL
S-430
N47-177
BOTTOM TOP
GCMW-39
33.37'
6/9/10


Get Help
U-HAUL
U-CAN DO IT!
Drilling Services
S-430
N47-177
COMMERCIAL
BOTTOM TOP
GCMW-39
37-40'
6/9/10


BOTTOM TOP
GCMW-39
40-43'
6/9/10
U-HAUL
U-CAN DO IT!
DESIGNED FOR MOVING
DIESEL FUEL
PUREGOLD MEDIUM CHIPS
S-430
N47-177
COMMERCIAL


TOP
BOTTOM
GCMW-33
7-10'
6/10/10


TOP
BOTTOM
GCMW-33
10-13.5'
6/10/10


TOP
BOTTOM
GCMW-33
13.5-17'
6/10/10


TOP
BOTTOM
GCMW-33
17-21.5
6/10/10


TOP
BOTTOM
GCMW-33
20.5-23'
6/10/10


TOP
BOTTOM
GCMW-33
23-27
6/10/10


TOP
BOTTOM
GCMW-33
27-29
6/10/10


TOP
BOTTOM
GCMW-33
29-32'
6/10/10

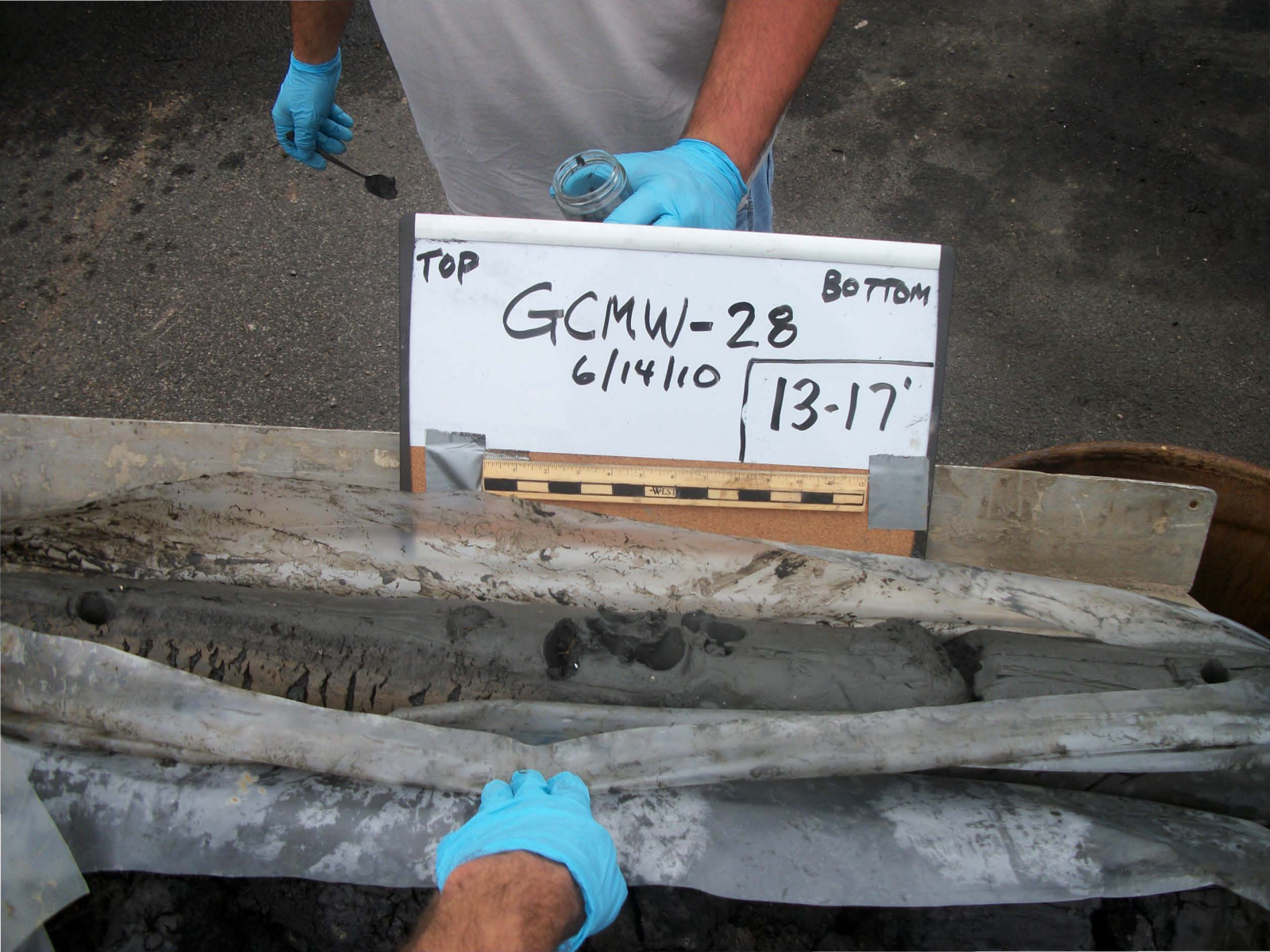

TOP
BOTTOM
GCMW-33
32-37'
6/10/10


TOP
BOTTOM
GCMW-33
37-39
6/10/10


TOP
BOTTOM
GCMW-28
6/14/10
4-7'


TOP
BOTTOM
GCMW-28
6/14/10
7-9'


TOP
BOTTOM
GCMW-28
6/14/10
9-13'


TOP
BOTTOM
GCMW-28
6/14/10
13-17'


TOP
BOTTOM
GCMW-28
6/14/10
17-20

TOP

BOTTOM

GCMW-28

6/14/10

20-24'


TOP
BOTTOM
GCMW-28
6/14/10
24-27'


TOP
GCMW-28
6/14/10
BOTTOM
27-30'

TOP
GCMW-28
6/14/10
BOTTOM
30-33'


TOP
BOTTOM
GCMW-28
6/14/10
33-37'
WEST


TOP
GCMW-35
BOTTOM
6/14/10 (7-10')
WEST


TOP
GCMW-35
BOTTOM
6/14/10 (10-13')


TOP
GCMW-35
BOTTOM
6/14/10 (13-17')


TOP
GCMW-35
BOTTOM
6/14/10
(17-22)
WEST

TOP GCMW-35 BOTTOM
6/14/10 (22-27')


TOP
GCMW-35
BOTTOM
6/14/10
(27-31')


TOP
GCMW-35
BOTTOM
6/14/10 (31-34')


TOP
GCMW-35
BOTTOM
6/14/10
(34-35')


TOP
GCMW-35
BOTTOM
6/14/10
(30-30½)
WEST


GCMW-29
TOP
6-7'
06/15/10

GCMW-29 TOP

7-9½'

06/15/10


GCMW-29
TOP
9½-13'
06/15/10


GCMW-29
TOP
13-17'
06/15/10


GCMW-29
19½-23
06/15/10
TOP


GCMW-29
TOP
23-27'
06/15/10
WEST


GCMW-29
TOP
27-31½
06/15/10
WEST


GCMW-29
TOP
31½-34
06/15/10


GCMW-29
TOP
34-37
06/15/10


←TOP GCMW-46
6/15/2010 7-10'


← TOP GCMW-46
6/15/2010 10-13½'
WEST


← TOP GCMW-46
6/15/2010 13½-17'


← TOP GCMW-46
6/15/2010 17-20½'


← TOP GCMW-46
6/15/2010 20½-23½'

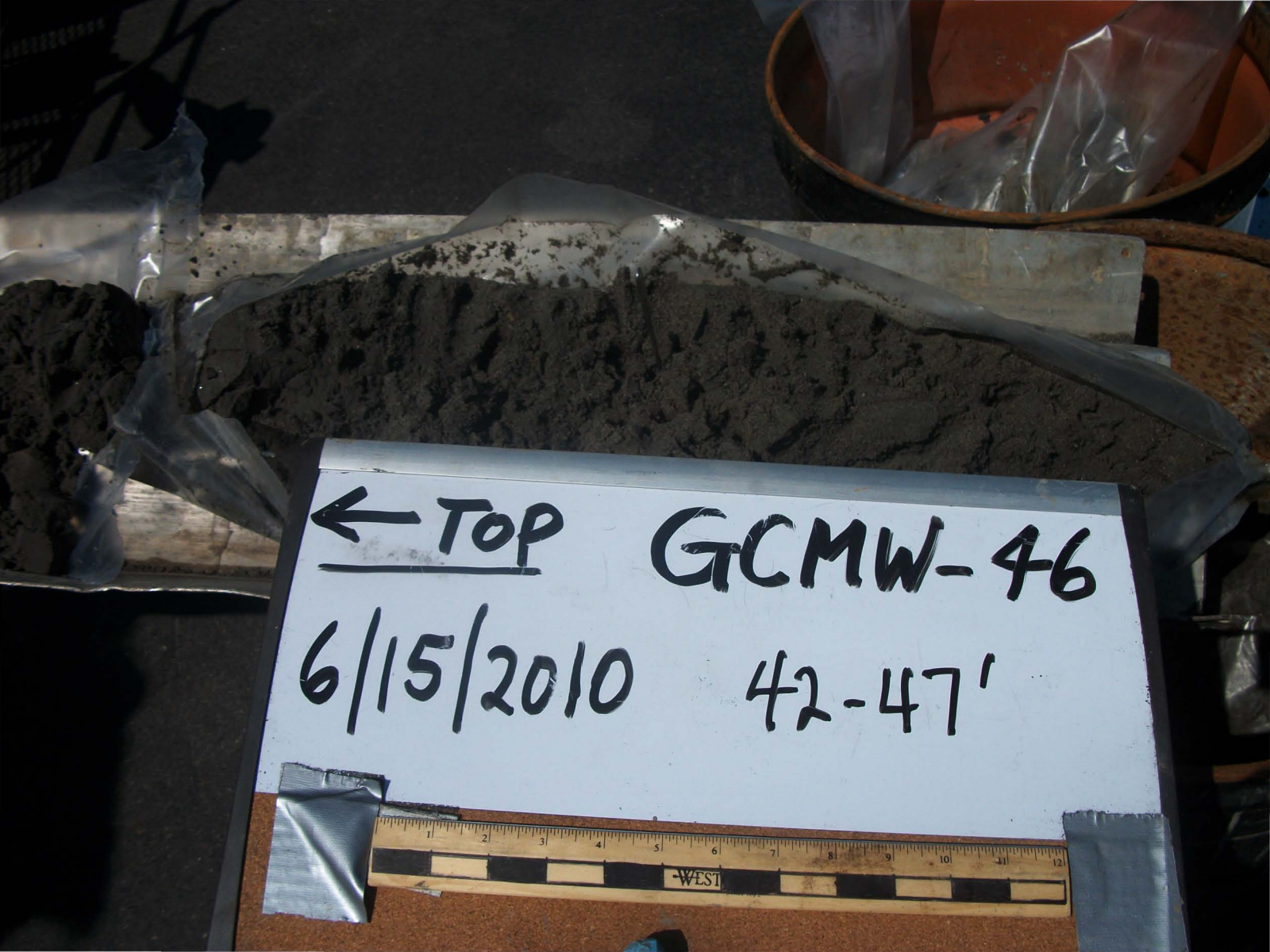

← TOP GCMW-46
6/15/2010 23½-27'


← TOP GCMW-46
6/15/2010 27-31'


←TOP GCMW-46
6/15/2010 31-34'


← TOP GCMW-46
6/15/2010 34-37'


← TOP GCMW-46
6/15/2010 37-42'
EXPO


← TOP
GCMW-46
6/15/2010
42-47'

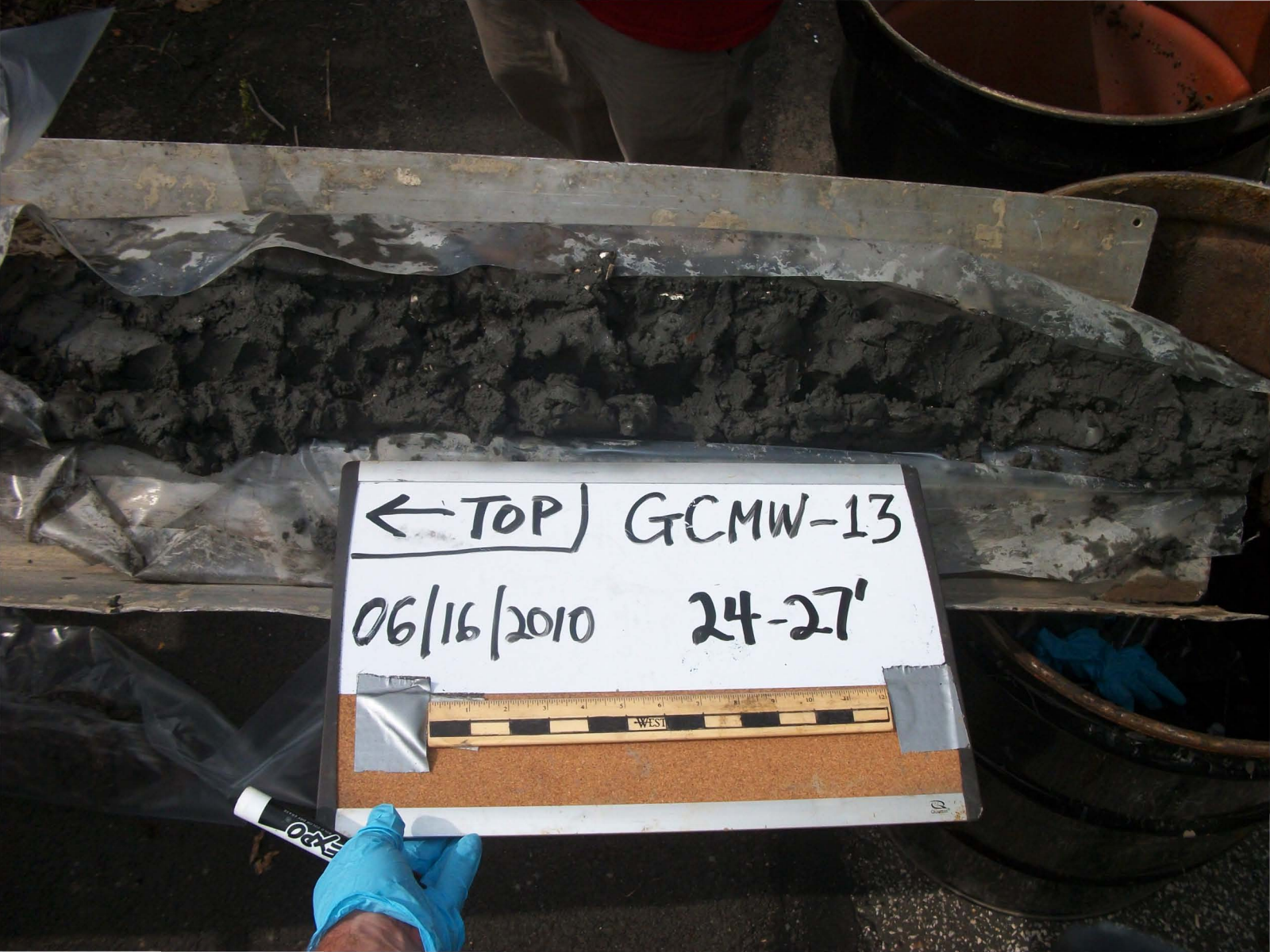
← TOP GCMW-46

6/15/2010 47-50'


← TOP GCMW-46
6/15/2010 50-54'


←TOP GCMW-46
6/15/2010 54-57'
WEST


←TOP GCMW-13
06/16/2010 7-17'


←TOP
GCMW-13
06/16/2010
24-27'


←TOP
GCMW-13
06/16/2010
20½-24'


←TOP
GCMW-13
06/16/2010
17-20½
WEST
EXPO


←TOP
GCMW-13
06/16/2010
27-30'
WEST


← TOP
GCMW--13
06/16/2010
37-40'


TOP
GCMW--13
06/16/2010
40'-43.5'


←TOP GCMW--13
06/16/2010 43.5'- 47'


← TOP
GCMW-13
06/16/2010
47-50

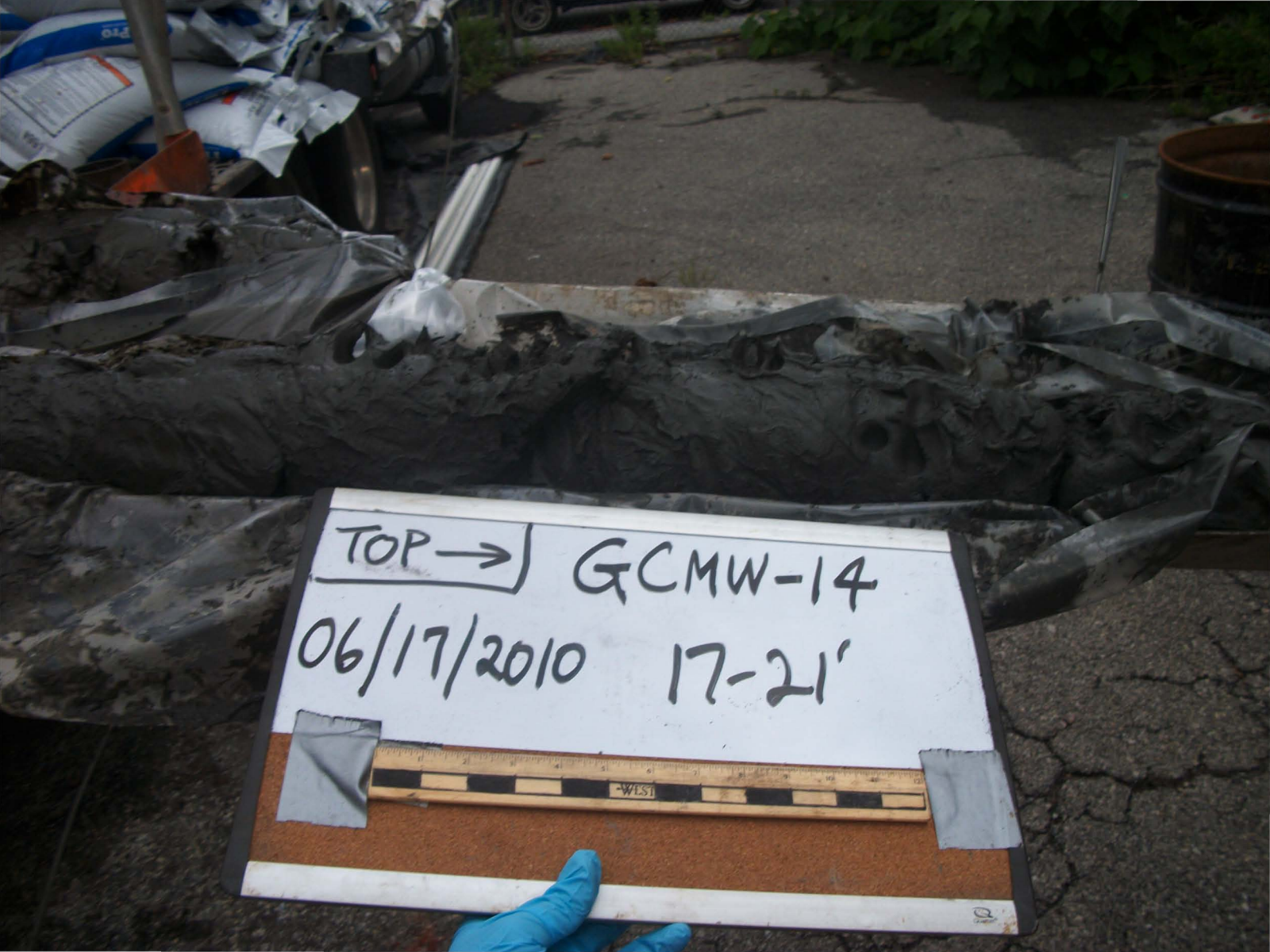

← TOP
GCMW-13
06/16/2010
50-53'


← TOP
GCMW-13
06/16/2010
53-56'
WEST


←TOP GCMW-14
06/17/2010 4-7'


TOP →
GCMW-14
06/17/2010
7-12'


TOP →
GCMW-14
06/17/2010
12-17'


TOP →
GCMW-14
06/17/2010
17-21'
WEST


TOP →
GCMW-14
06/17/2010
21-24'


TOP →
GCMW-14
06/17/2010
24-27'


TOP→ GCMW-14
06/17/2010 27-30'


TOP →
GCMW-14
06/17/2010
30-33'

TOP → GCMW-14

06/17/2010 33-37'


TOP →
GCMW-14
06/17/2010
48-52'
WEST


TOP→ GCMW-14
06/17/2010 52-56'


GCMW-08
13½-17
TOP
06/17/10
WEST


GCMW-08
TOP
10-13½
06/17/10
WEST


GCMW-08
7-10'
TOP
06/17/10
WEST


GCMW-08
TOP
17-20½
06/17/10
WEST


GCMW-08
20½-24
TOP
06/17/10
WEST


GCMW-08
TOP
27-30'
06/17/10


GCMW-08
TOP
30-34'
06/17/10
WEST


GCMW-
TOP
34-37'
06/17/10
WEST

GCMW-07
5-7'
TOP
6/20/2010


GCMW-07
17-27'
TOP
6/20/2010

GCMW-07
27-33'
TOP
6/20/2010


GCMW-37
4-5'
TOP
6/22/10
WEST


GCMW-37
5-7'
TOP
6/22/10


GCMW-37 TOP
7-8
6/22/10


GCMW-37
8-10'
TOP
6/22/10
WEST


GCMW-37
10-13
TOP
6/22/10


GCMW-37
13-17
TOP
6/22/10
WEST


GCMW-37
TOP
17-19
6/22/10


GCMW-37
TOP
19-21'
6/22/10


GCMW-37 TOP
21-24
6/22/10


GCMW-37 TOP
24-27'
6/22/10


GCMW-37 TOP
27-28 6/22/10



GCMW-37 TOP ←

29-32 6/22/10


GCMW-37
32-34'
TOP
6/22/10
WEST


GCMW-37
TOP
34.37
6/22/10
WEST


GCMW-37
28' (staining)
TOP
6/2




GCMW-37
37-40'
TOP
6/22/10


GCMW-37
40-42'
TOP
6/22/10

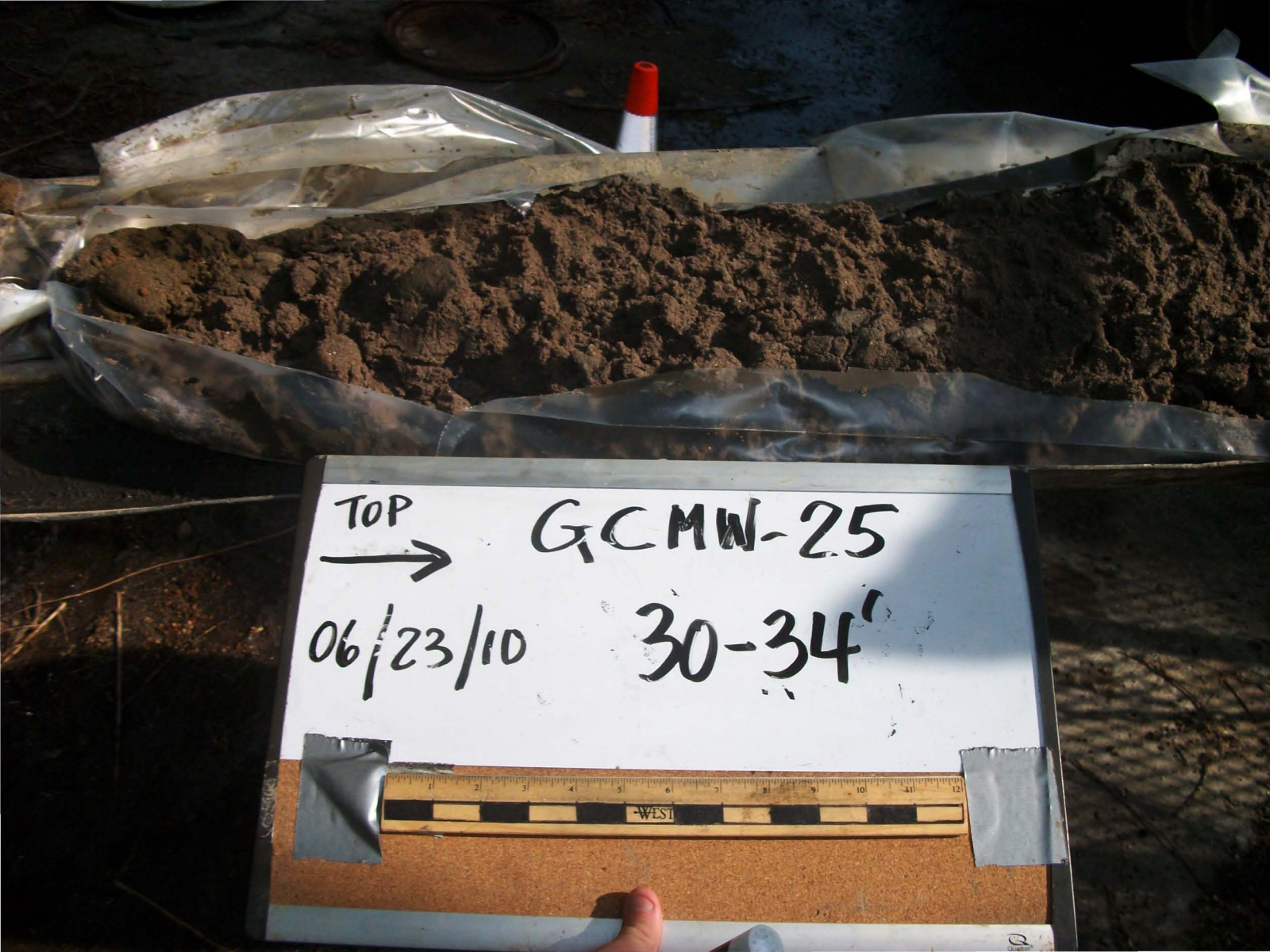

TOP
GCMW-25
06/23/10
13-17
WEST


TOP
GCMW-25
06/23/10
7-13'


TOP
GCMW-25
06/23/10
17-21'


TOP
GCMW-25
06/23/10
21-27'
(typical)
WEST


TOP
GCMW-25
29-30
06/23/10


TOP
GCMW-25
06/23/10
30-34'


DURASKIN
XL
TOP
GCMW-25
06/23/10
34-37'


TOP
GCMW-25
06/23/10
37-40


TOP
GCMW-25
06/23/10
40-43'
WEST


GIANTS
N47-177
TOP
GCMW-26
6/23/10
7-17'
(typical)

← TOP	GCMW-26
6/23/10	23-27


← TOP
GCMW-26
6/23/10
20-23


← TOP
GCMW-26
6/23/10
WEST


← TOP
GCMW-26
6/23/10
20-39
(typical)


TOP
GCMW-27
7-17
06/24/10


← TOP
GCMW-27
06/24/10
17-21


← TOP
GCMW-27
06/24/10
27-30
WEST


← TOP
GCMW-27
06/24/10
30-34
(upper core)


TOP
GCMW-27
06/24/10
34-37


IMPORTANT
USE HANDLE TO OPEN
← TOP
GCMW-27
06/24/10
37-40


← TOP
GCMW-27
06/24/10
40-43½


← TOP
GCMW-27
06/24/10
43½-47


←TOP GCMW-47
06/28/10 7-14


←TOP
GCMW-47
06/28/10
17-22


←TOP
GCMW-47
06/28/10
22-27'


← TOP
GCMW-47
06/28/10
37'
cutting shoe


← TOP
GCMW-47
06/28/10
37'
cutting shoe


←TOP
GCMW-47
06/28/10
27-30


←TOP
GCMW-47
06/28/10
30-33½


← TOP
GCMW-47
06/28/10
33½-37


35"
36"
TOP
GCMW-47


TOP
GCMW-47
06/28/10
37-40


TOP
GCMW-47
06/28/10
40-43½


TOP
GCMW-47
06/28/10
43½-47'
WEST




TOP
BOTTOM
GCMW-38
13-17
6/29/10
7-170


TOP
GCMW-38
17-20
6/29/10
BOTTOM


TOP
BOTTOM
GCMW-38
20-23
6/29/10


TOP
BOTTOM
GCMW-38
20-23
6/29/10




TOP
BOTTOM
GCMW-38
23-27
6/29/10


TOP
BOTTOM
GCMW-38
27-30
6/29/10

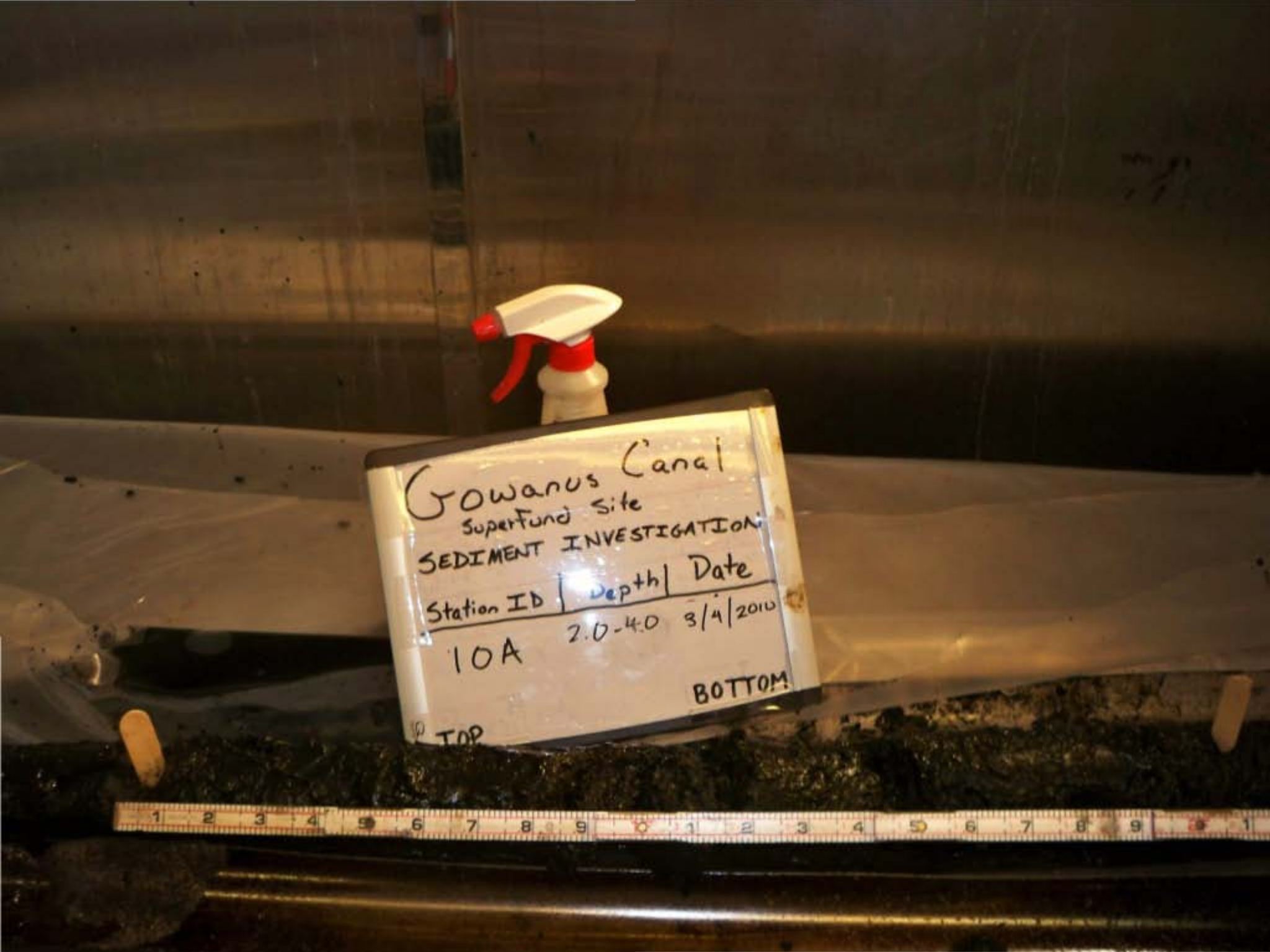

TOP
BOTTOM
GCMW-38
30-33
6/29/10

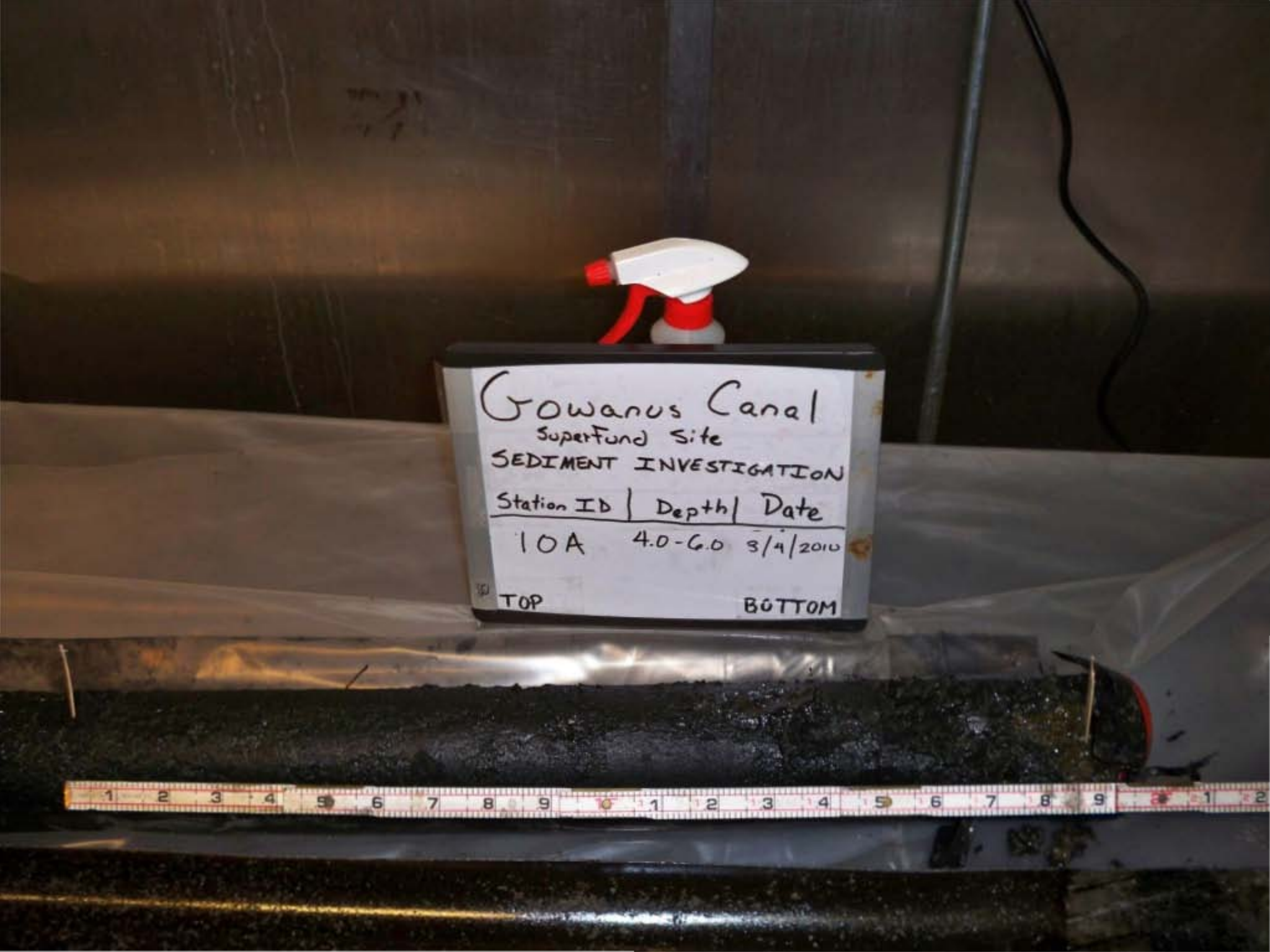

TOP
BOTTOM
GCMW-38
33-37
6/29/10

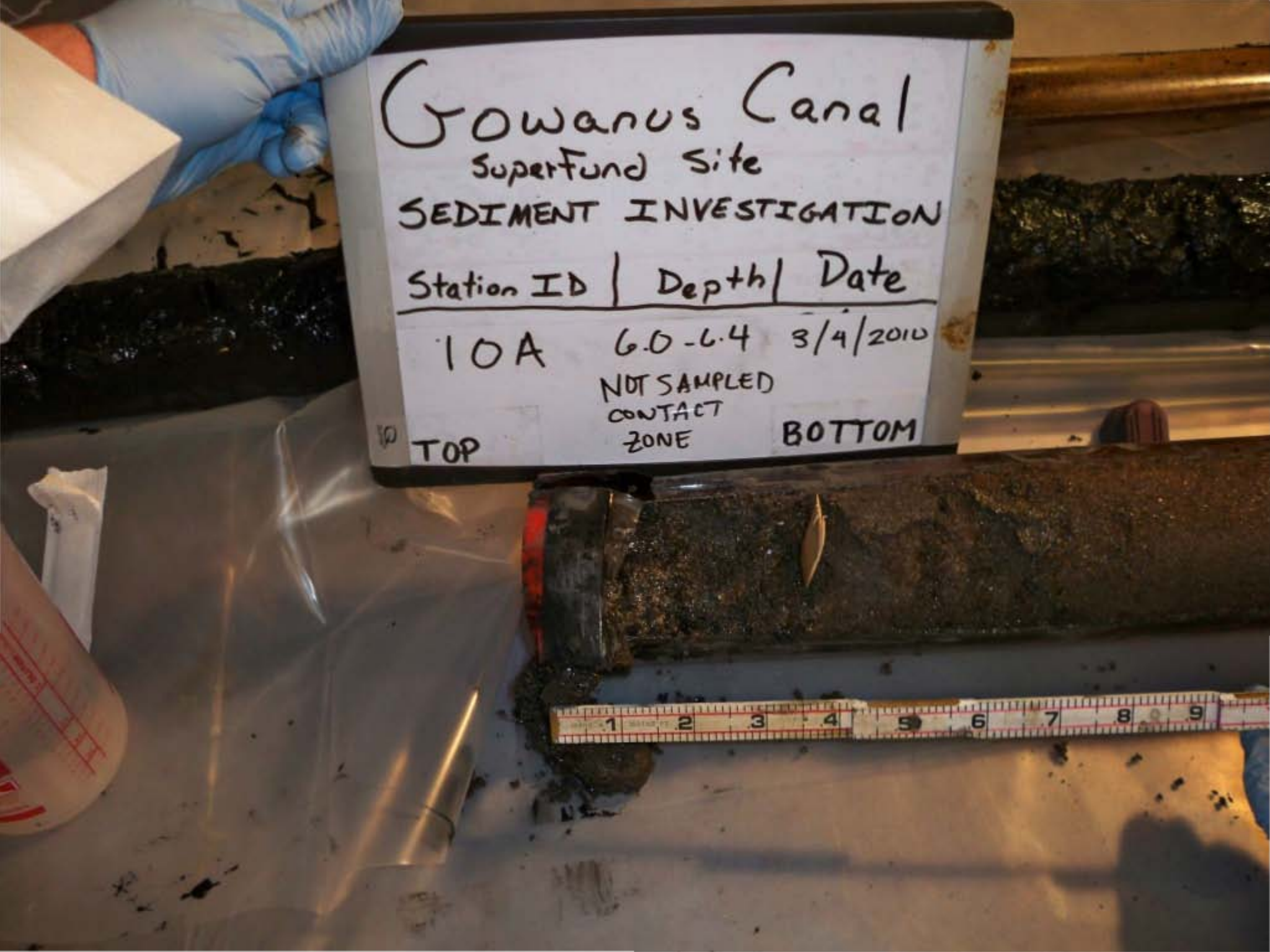

TOP
BOTTOM
GCMW-38
37-40
6/29/10


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
10A 0-2.0 3/4/2010
TOP

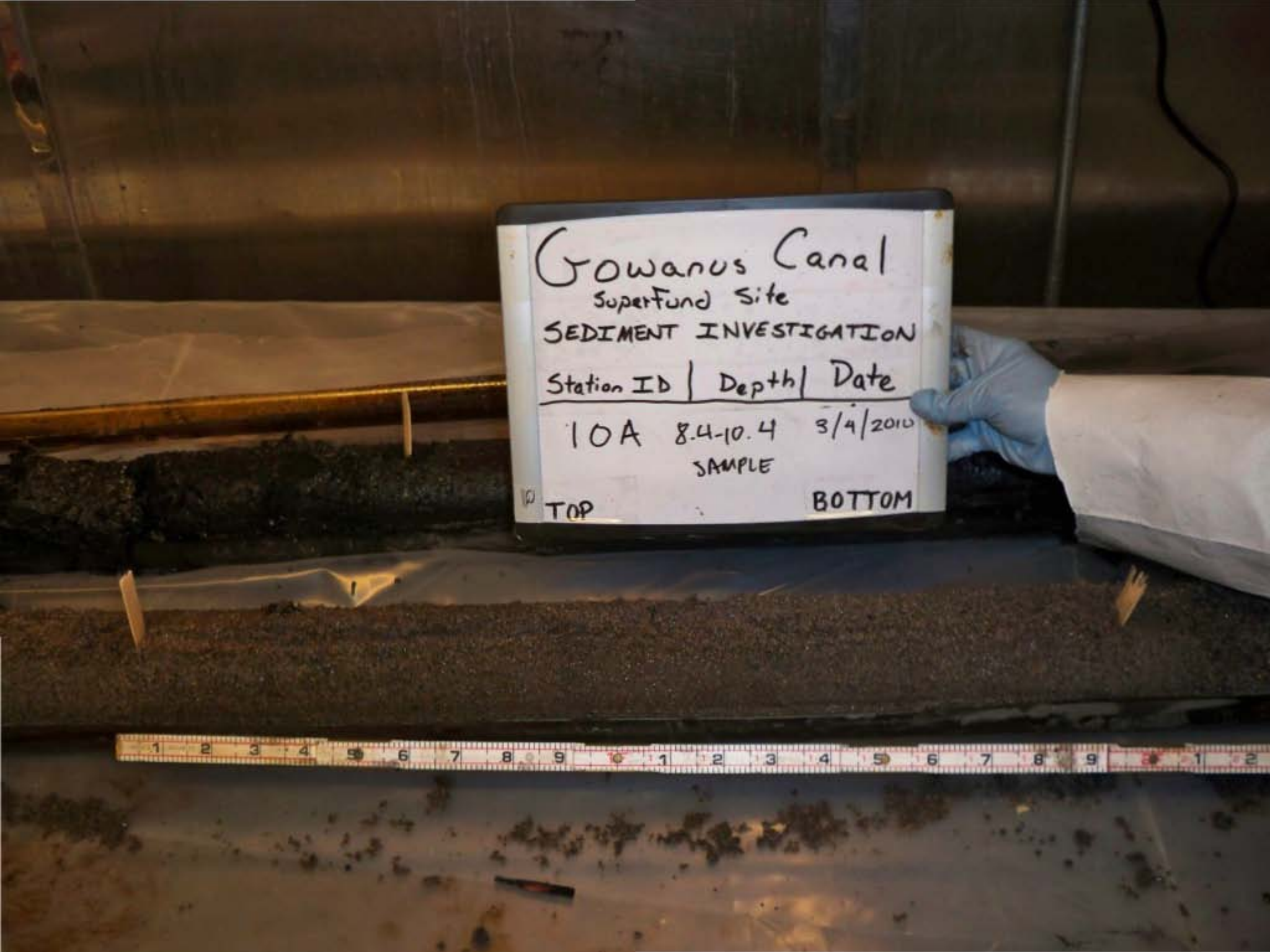

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
10A 10.4-11.2 3/4/2010
SAMPLE
TOP
BOTTOM

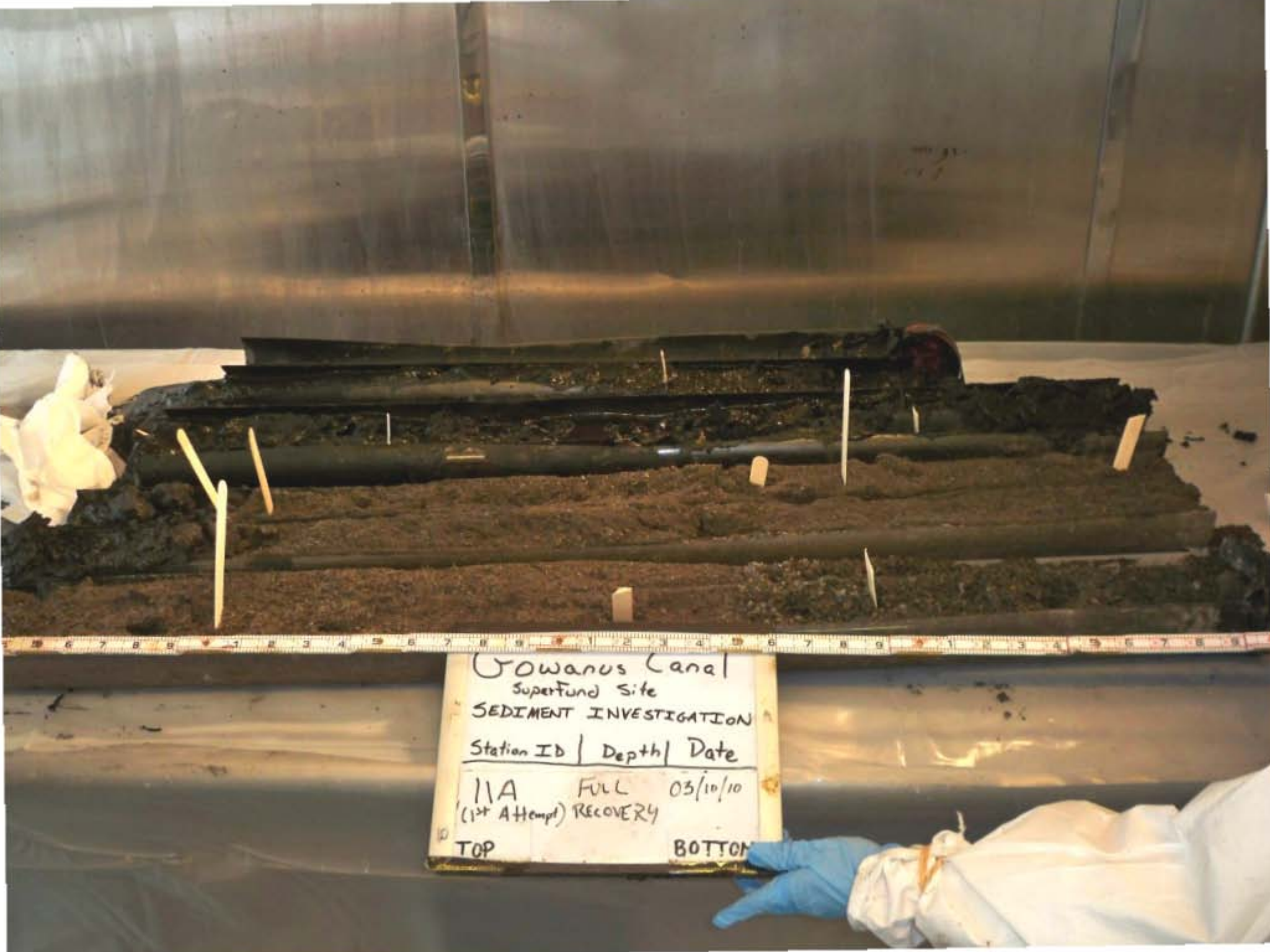

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
10A 2.0-4.0 3/4/2010
BOTTOM
TOP

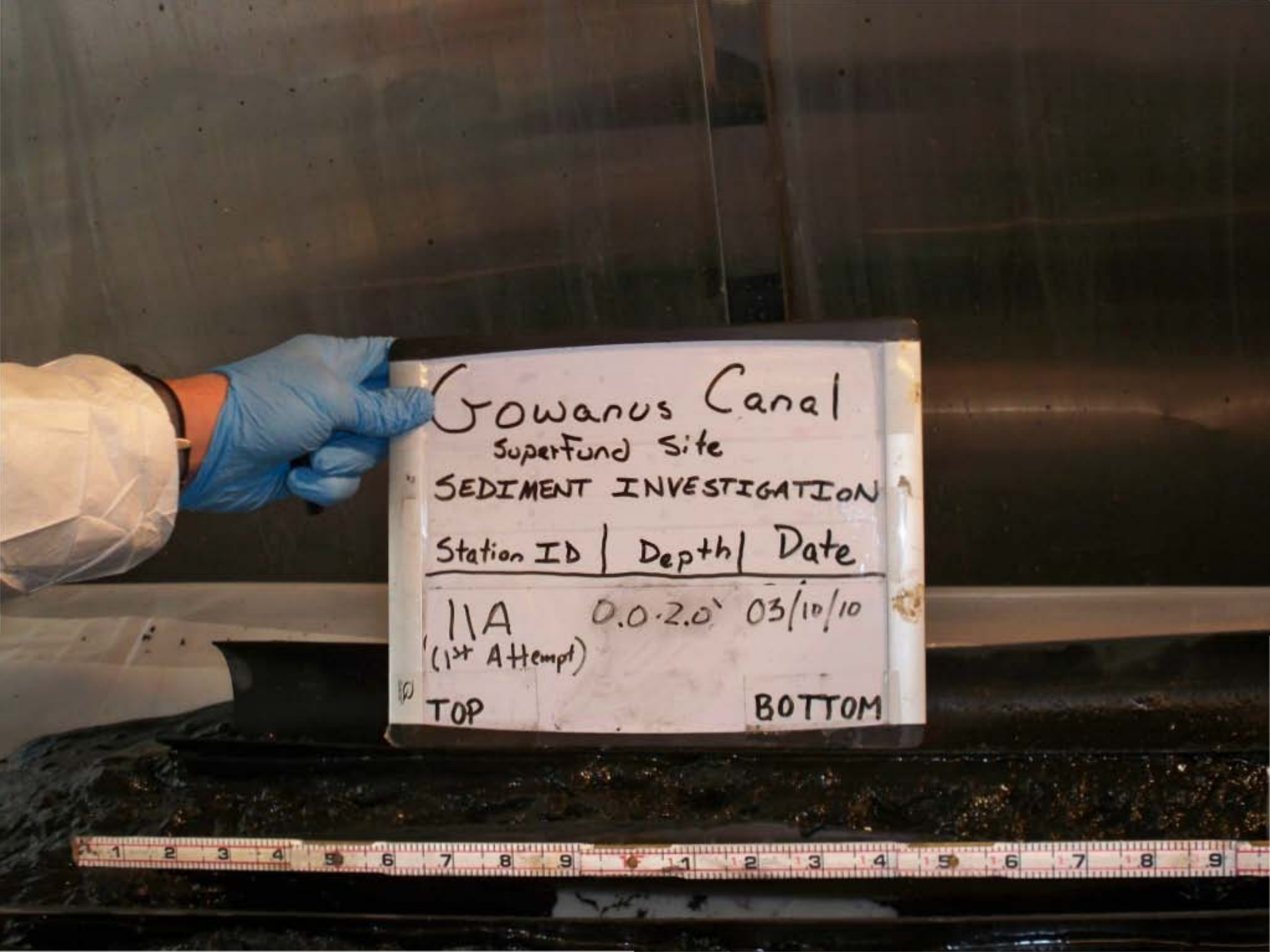

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
10A 4.0-6.0 3/4/2010
TOP
BOTTOM

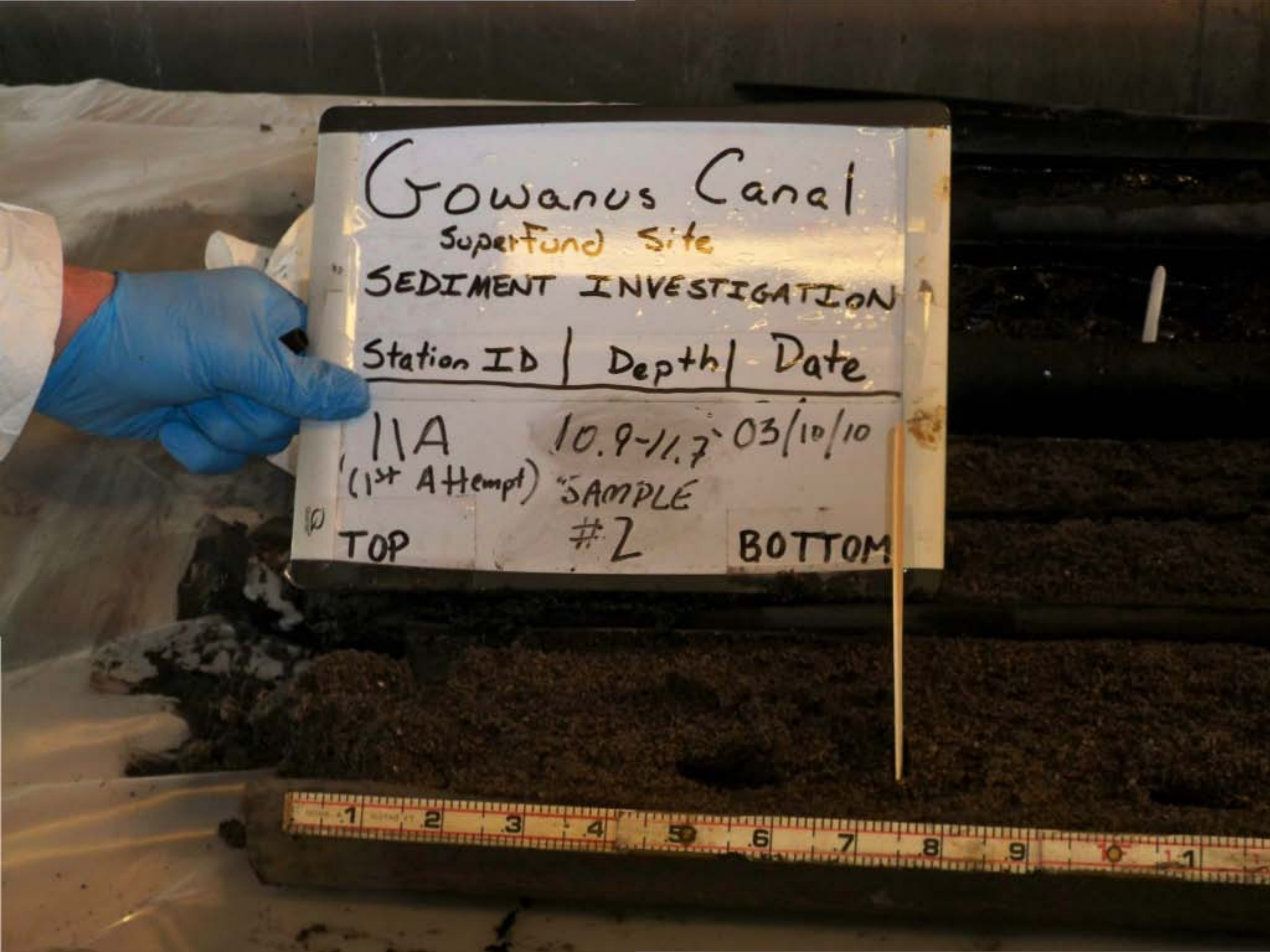

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
10A 6.0-6.4 3/4/2010
NOT SAMPLED
CONTACT
ZONE
TOP
BOTTOM

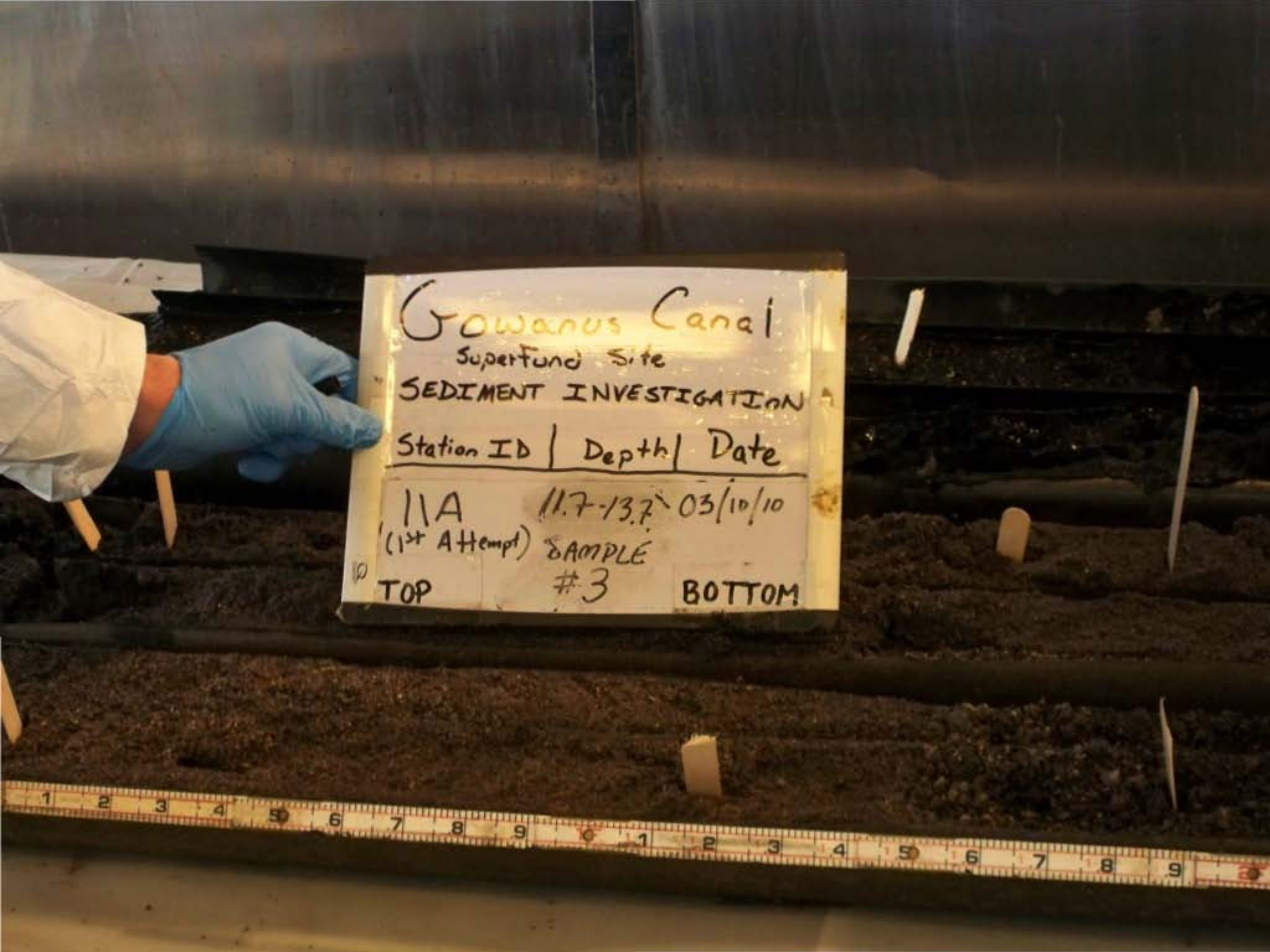

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
10A 6.4-8.4 3/4/2010
SAMPLE
TOP
BOTTOM

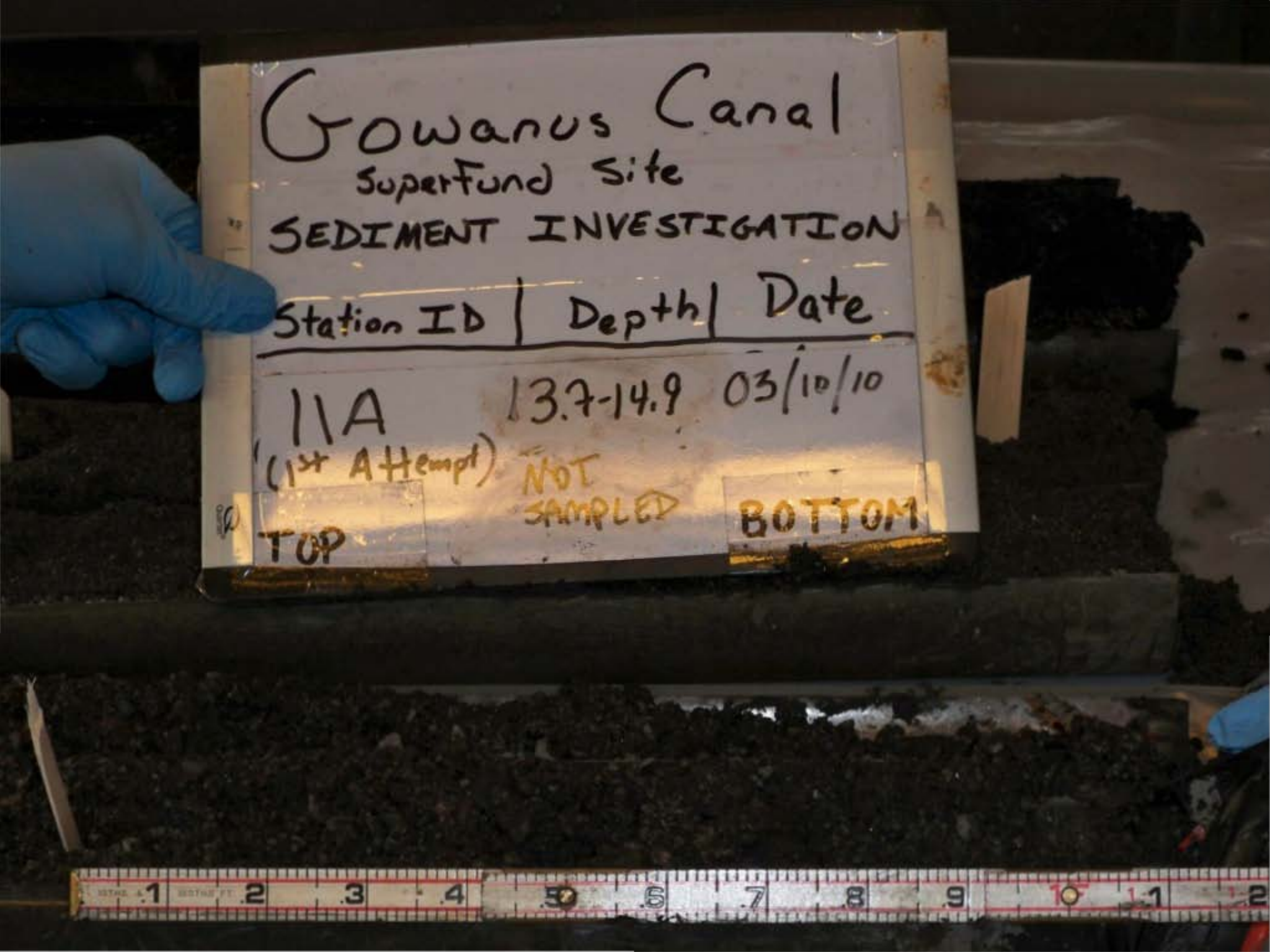

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
10A 8.4-10.4 3/4/2010
SAMPLE
TOP
BOTTOM

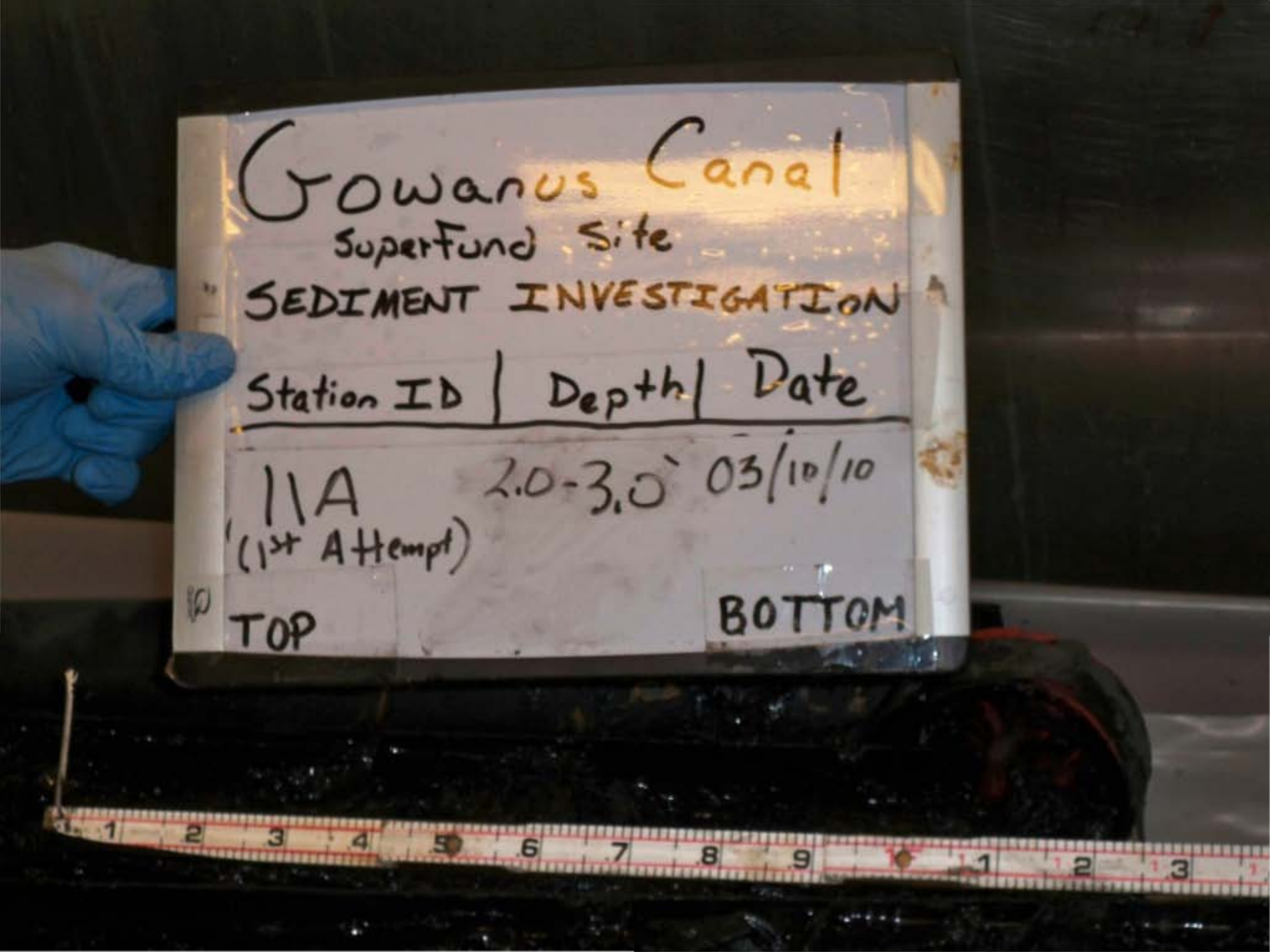

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A FULL 03/10/10
(1st Attempt) RECOVERY
TOP
BOTTOM

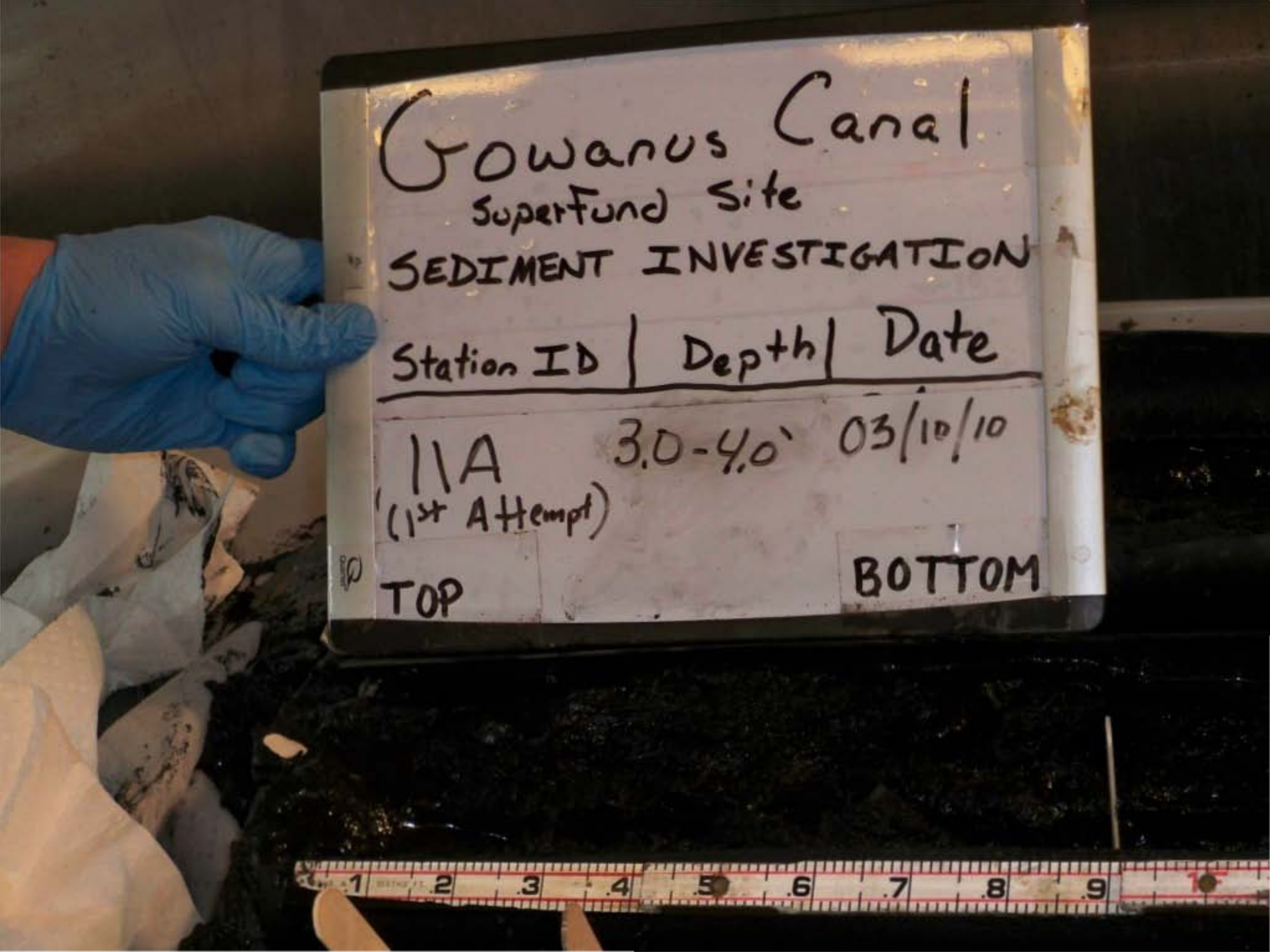

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 0.0-2.0' 03/10/10
(1st Attempt)
TOP
BOTTOM

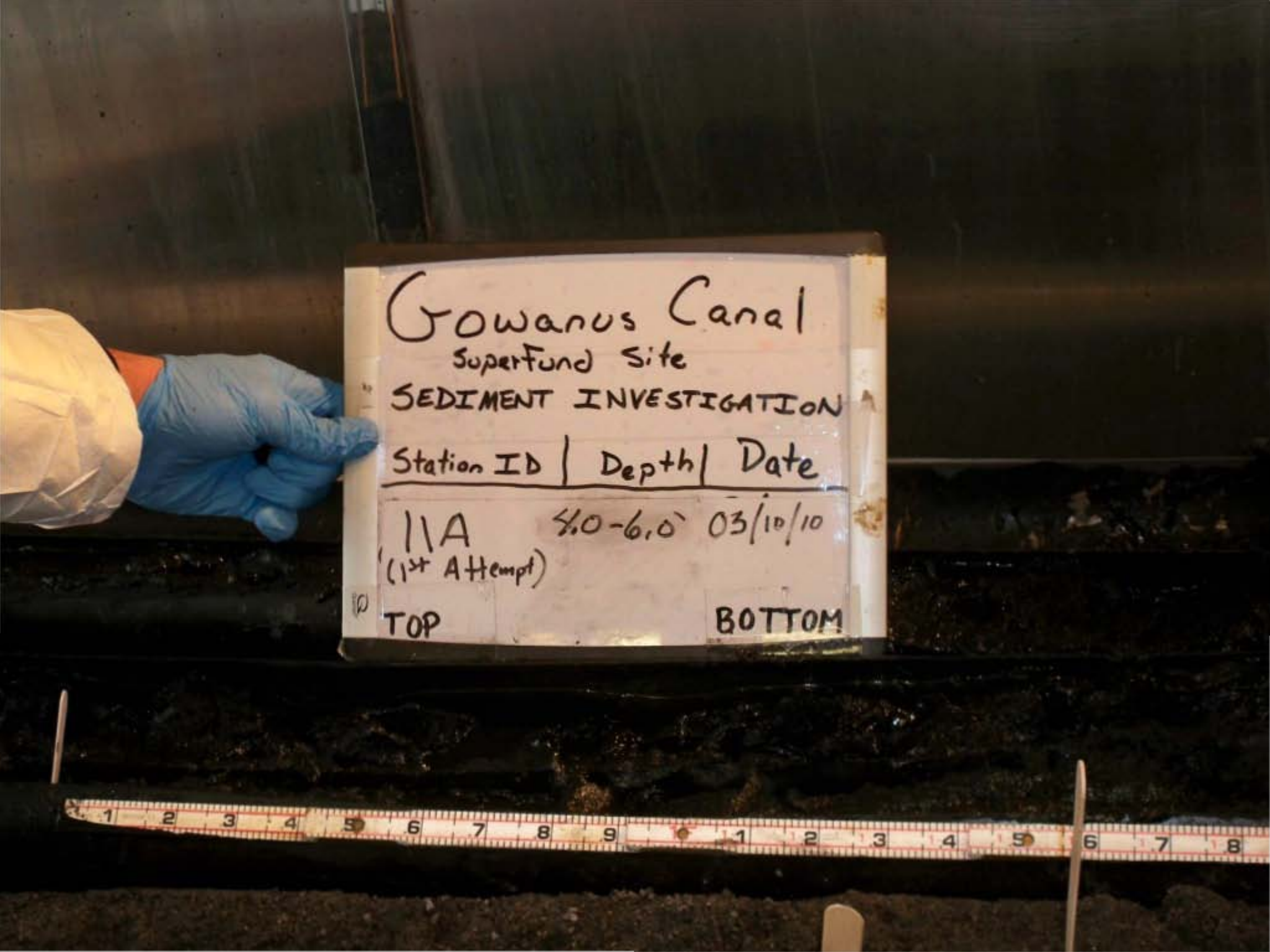

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 10.9-11.7' 03/10/10
(1st Attempt) SAMPLE
TOP #2 BOTTOM

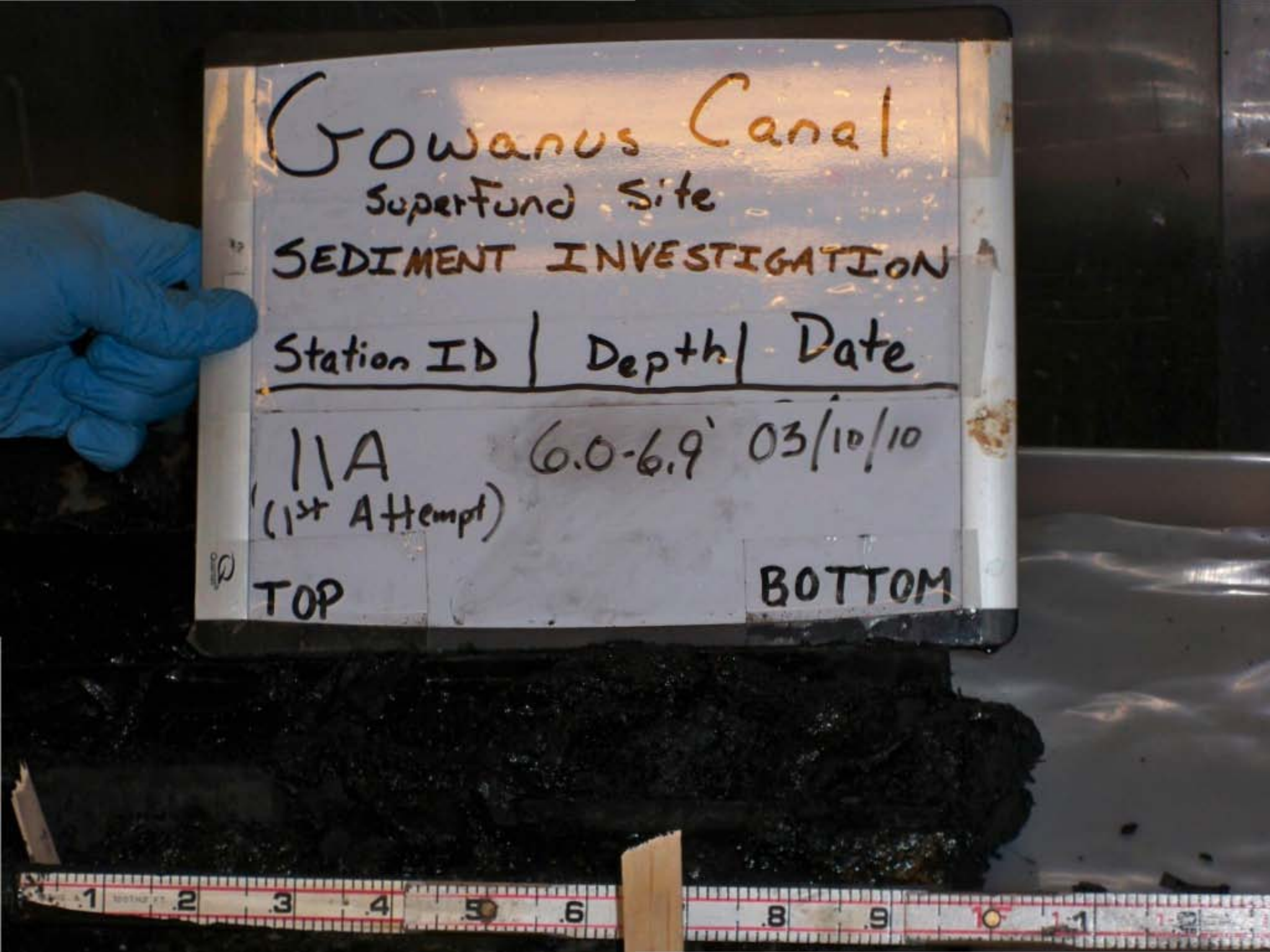

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 11.7-13.7' 03/10/10
(1st Attempt) SAMPLE
#3
TOP
BOTTOM

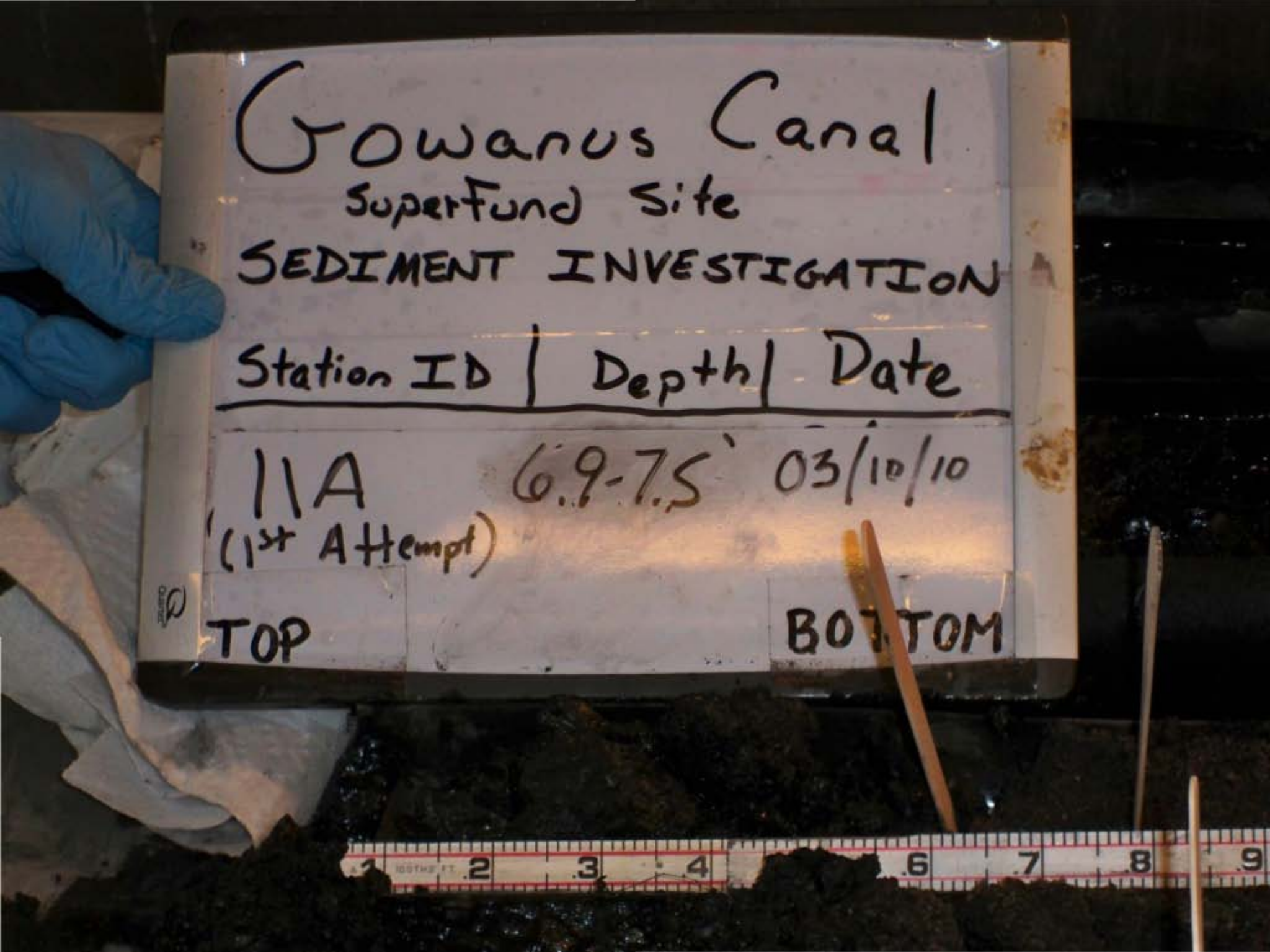

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 13.7-14.9 03/10/10
(1st Attempt) NOT SAMPLED
TOP
BOTTOM

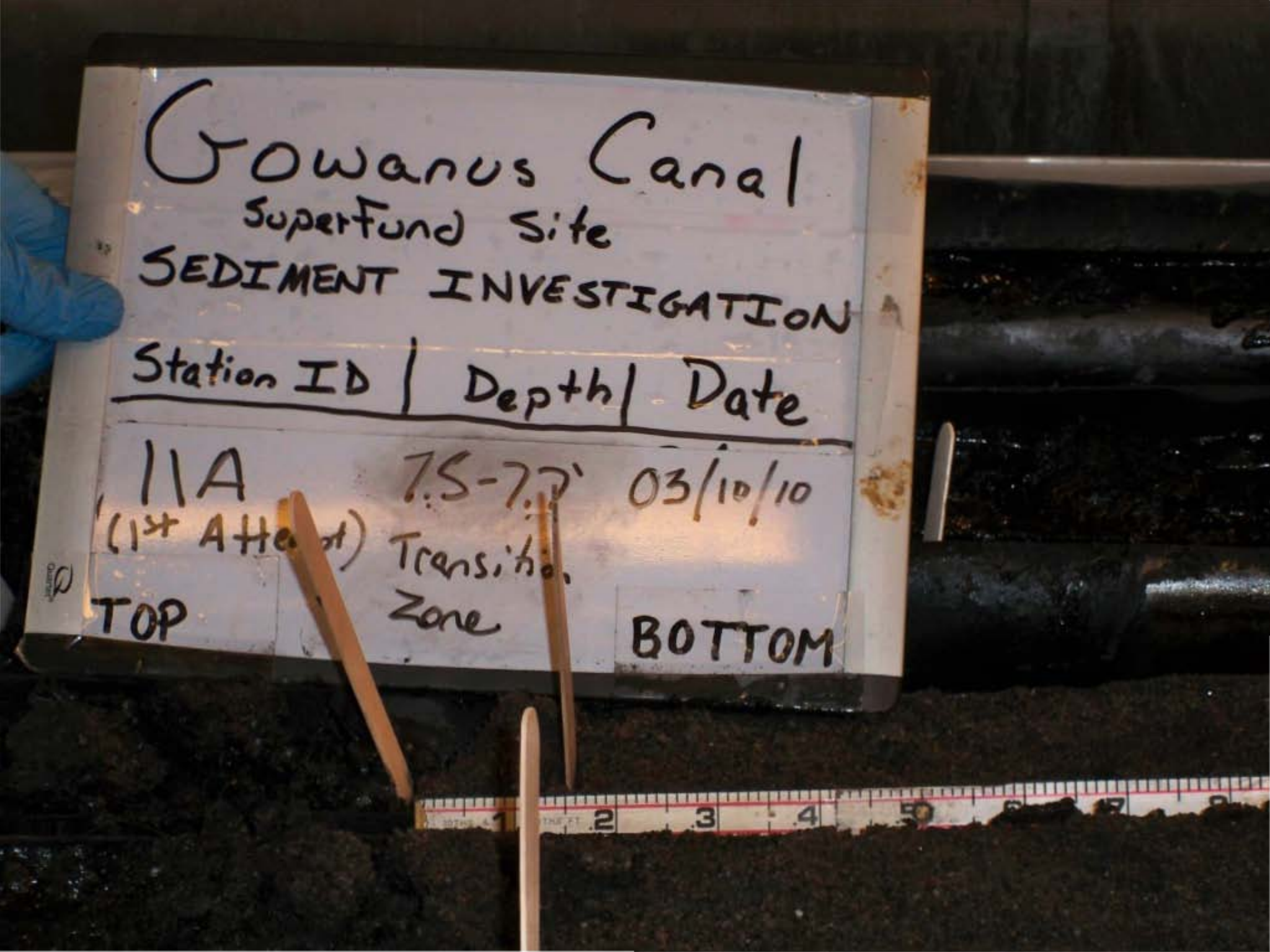

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 2.0-3.0' 03/10/10
(1st Attempt)
TOP
BOTTOM

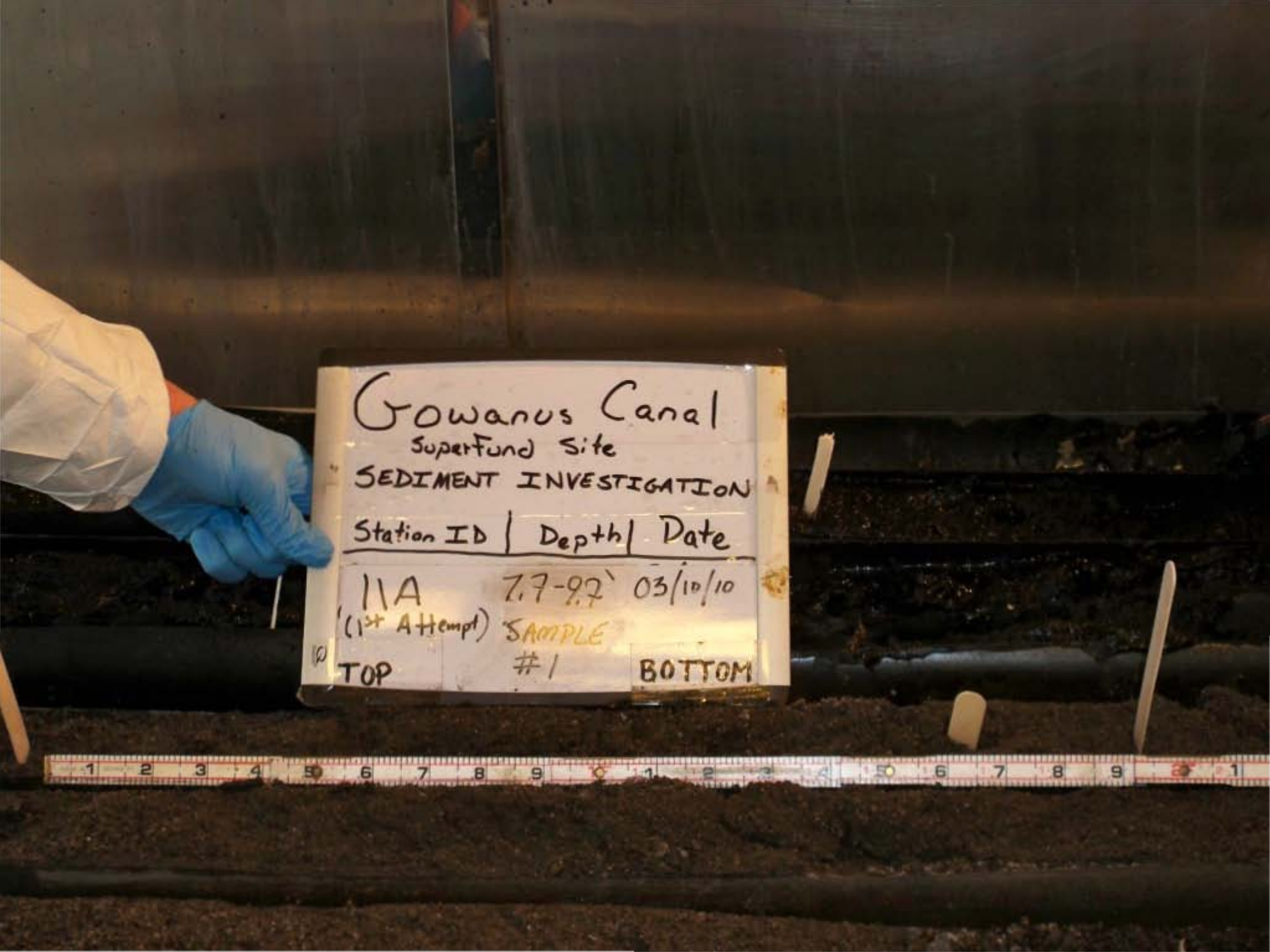

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 3.0-4.0' 03/10/10
(1st Attempt)
TOP
BOTTOM

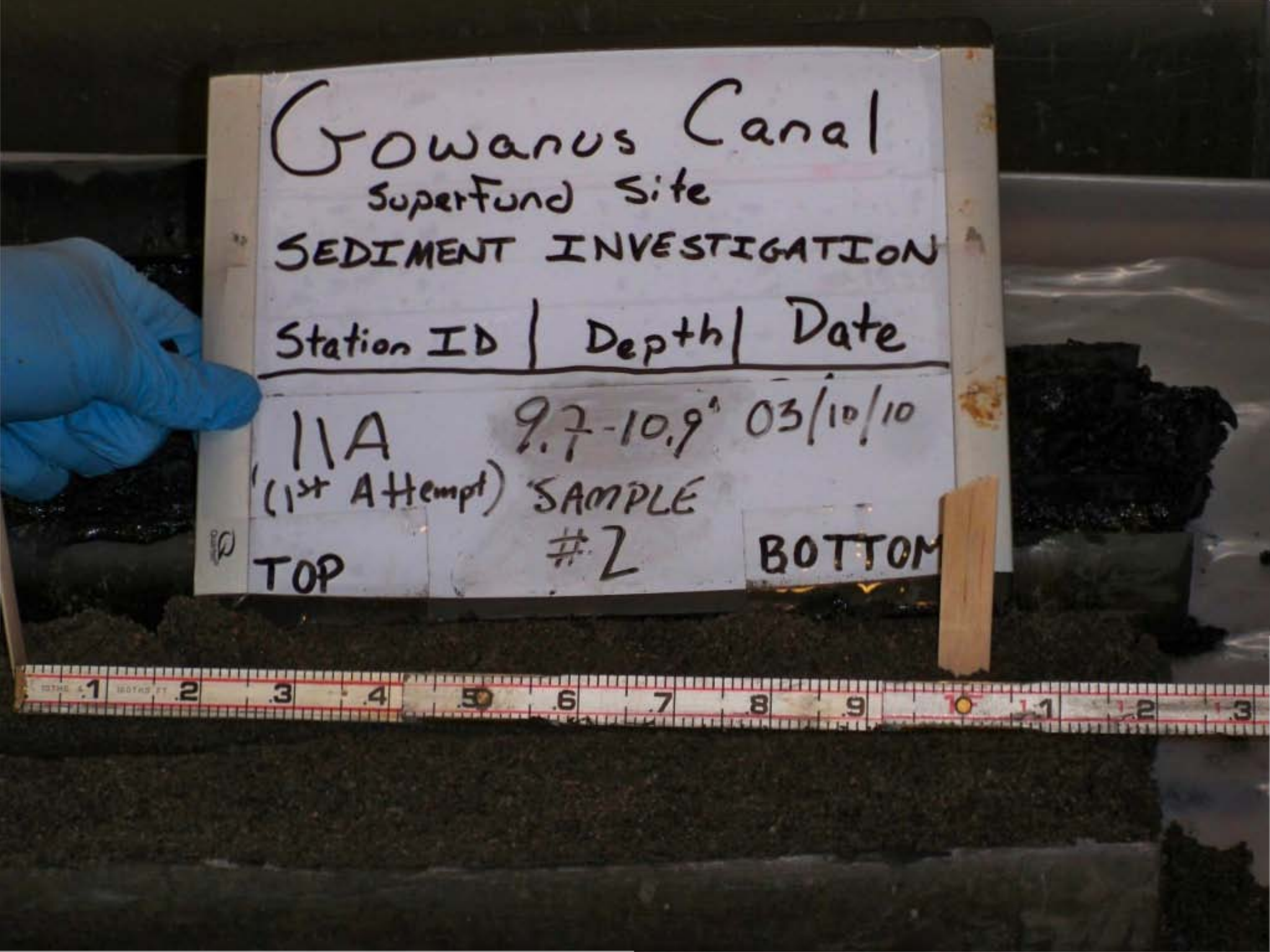

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 4.0-6.0' 03/10/10
(1st Attempt)
TOP
BOTTOM

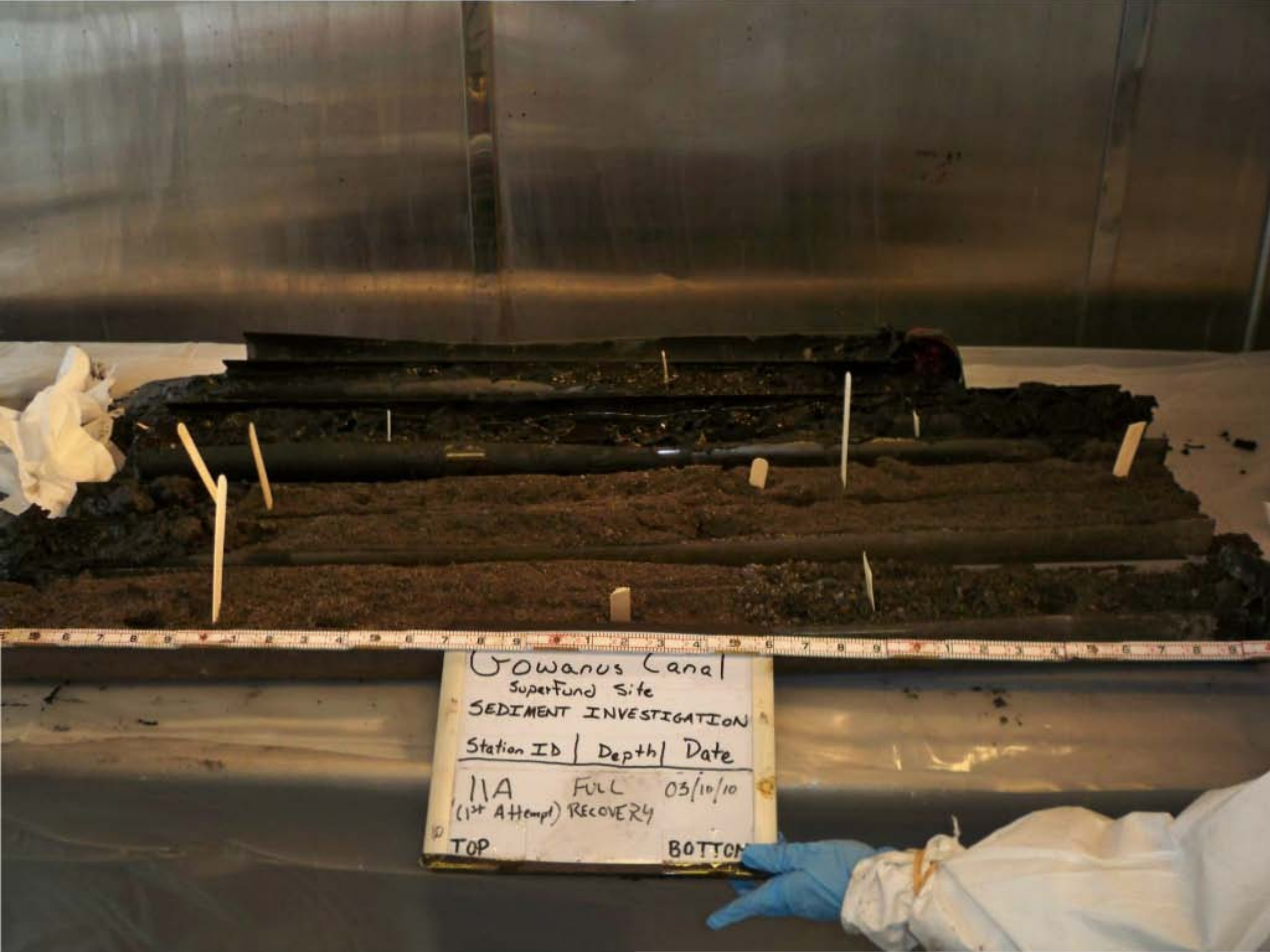

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A
(1st Attempt)
6.0-6.9'
03/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 6.9-7.5' 03/10/10
(1st Attempt)
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 7.5-7.7' 03/10/10
(1st Attempt) Transition Zone
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 7.7-9.7' 03/10/10
(1st Attempt) SAMPLE
TOP #1 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A 9.7-10.9' 03/10/10
(1st Attempt) SAMPLE
#2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A FULL 03/10/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
12A 0-4.5 3/4/10
TOP
BOTTOM



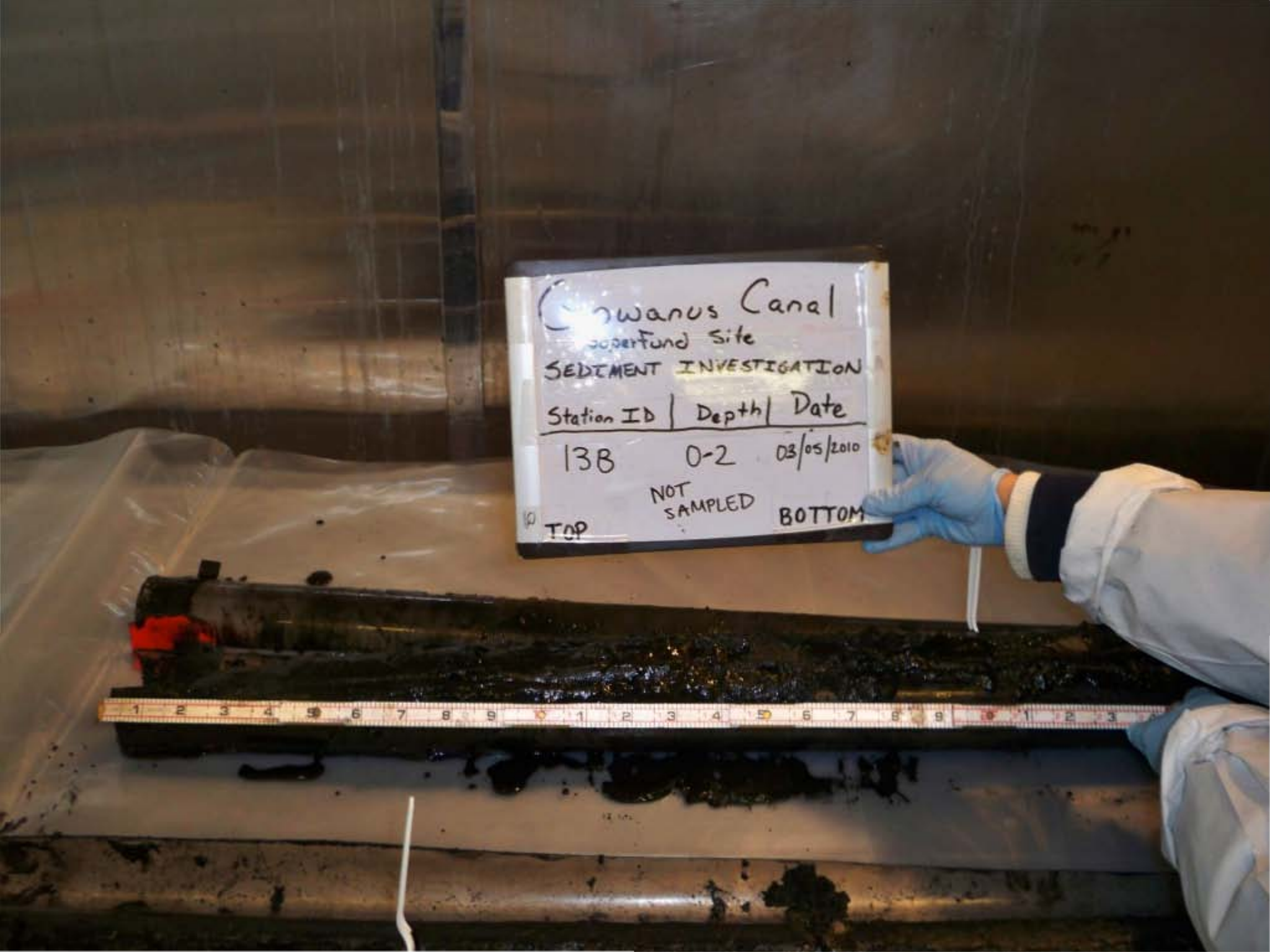




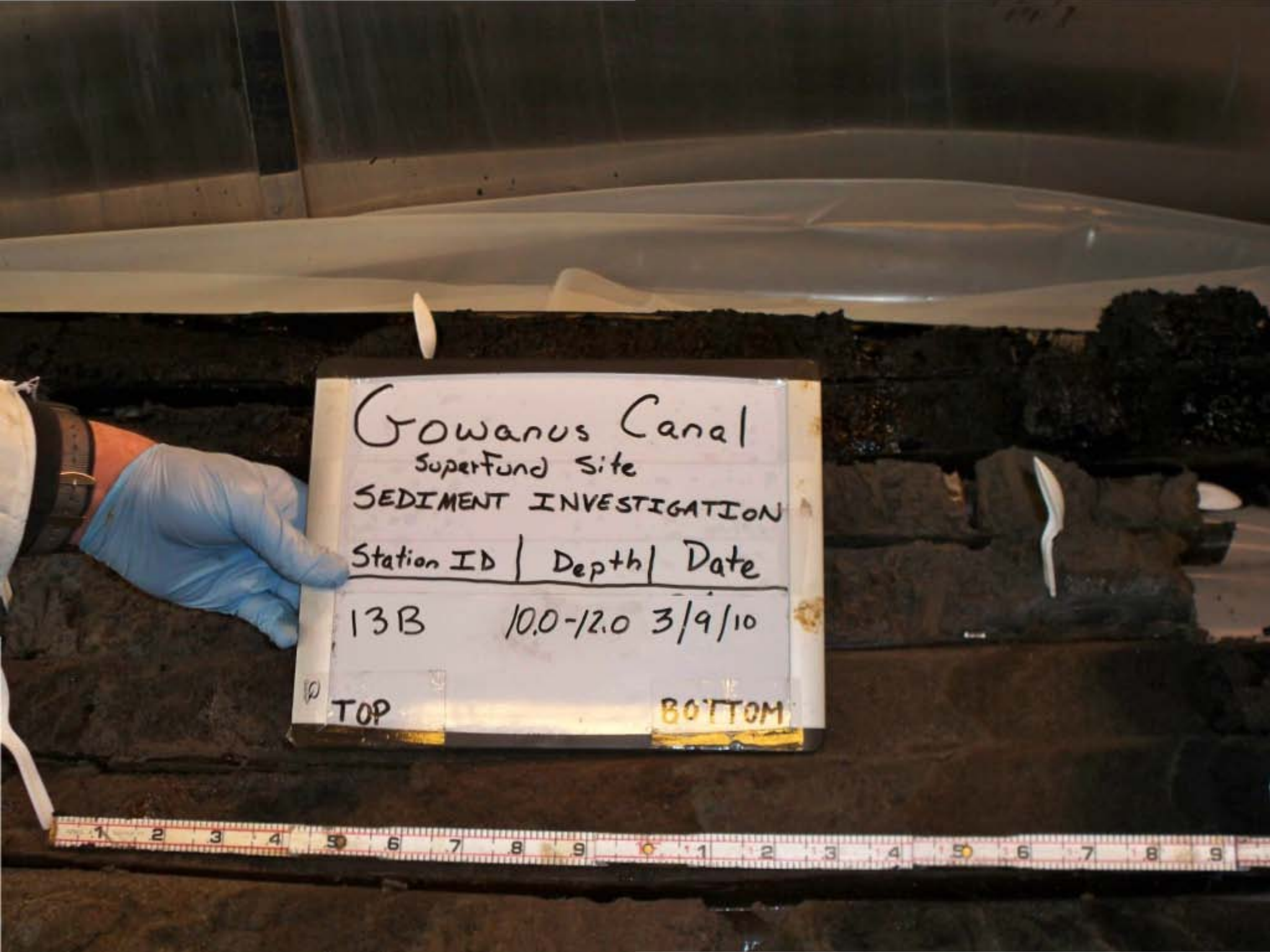


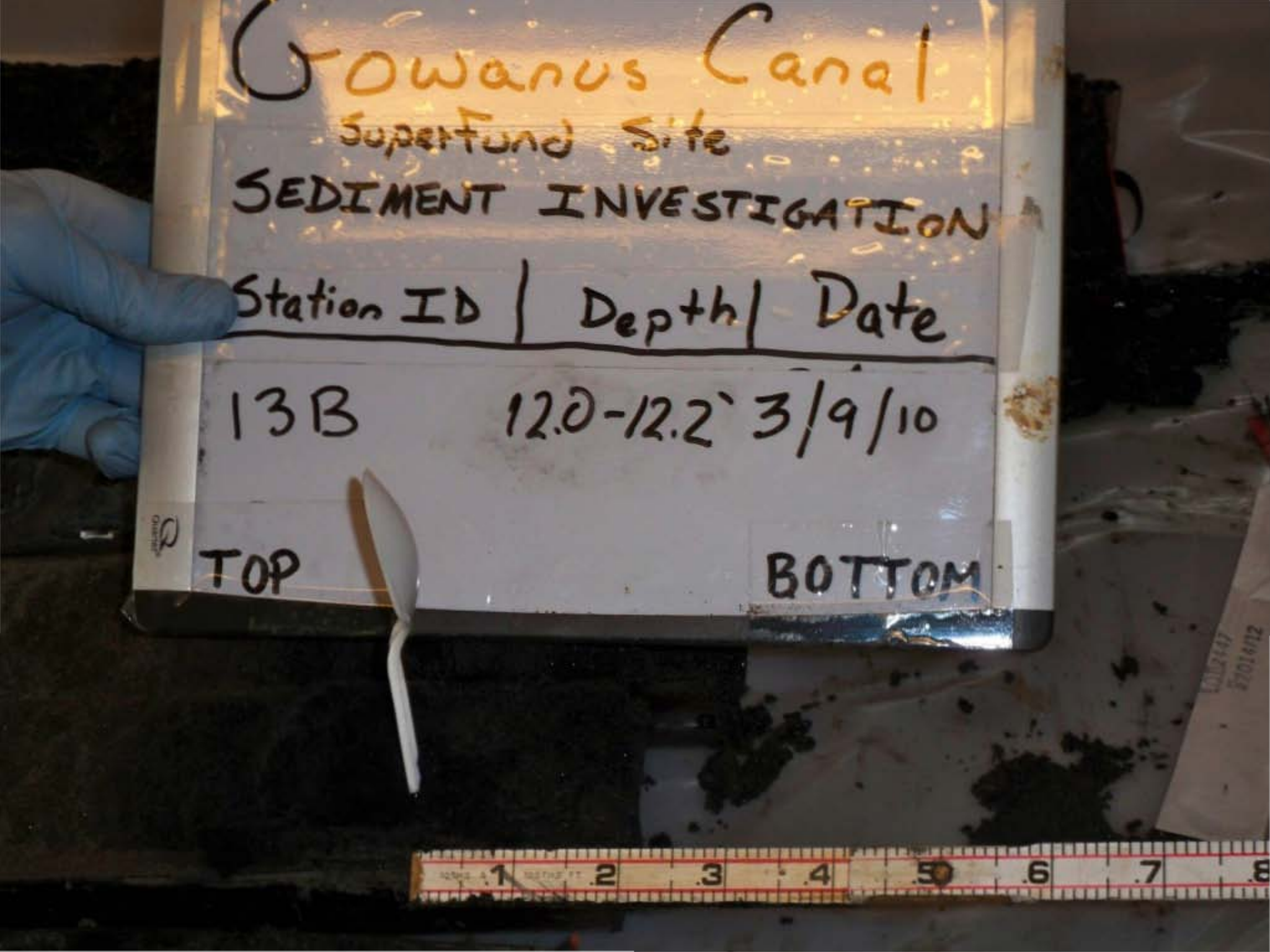

Gowanus Canal
SEDIMENT INVESTIGATION
Station ID | Depth | Date
3/4/10
TOP
BOTTOM

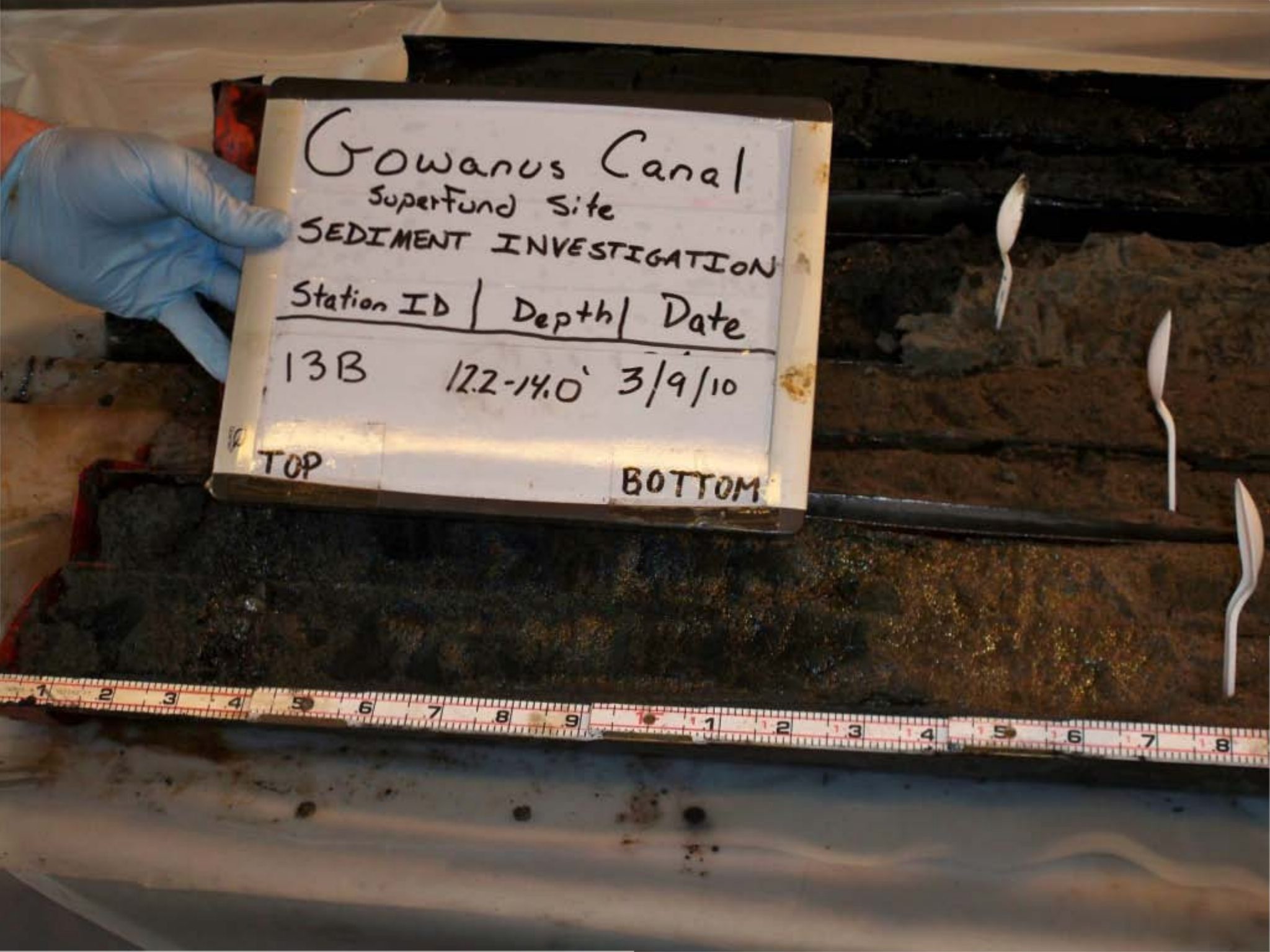

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B FULL RECOVERY 3/9/10
TOP
BOTTOM


Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 0-2 03/05/2010
NOT SAMPLED
TOP
BOTTOM

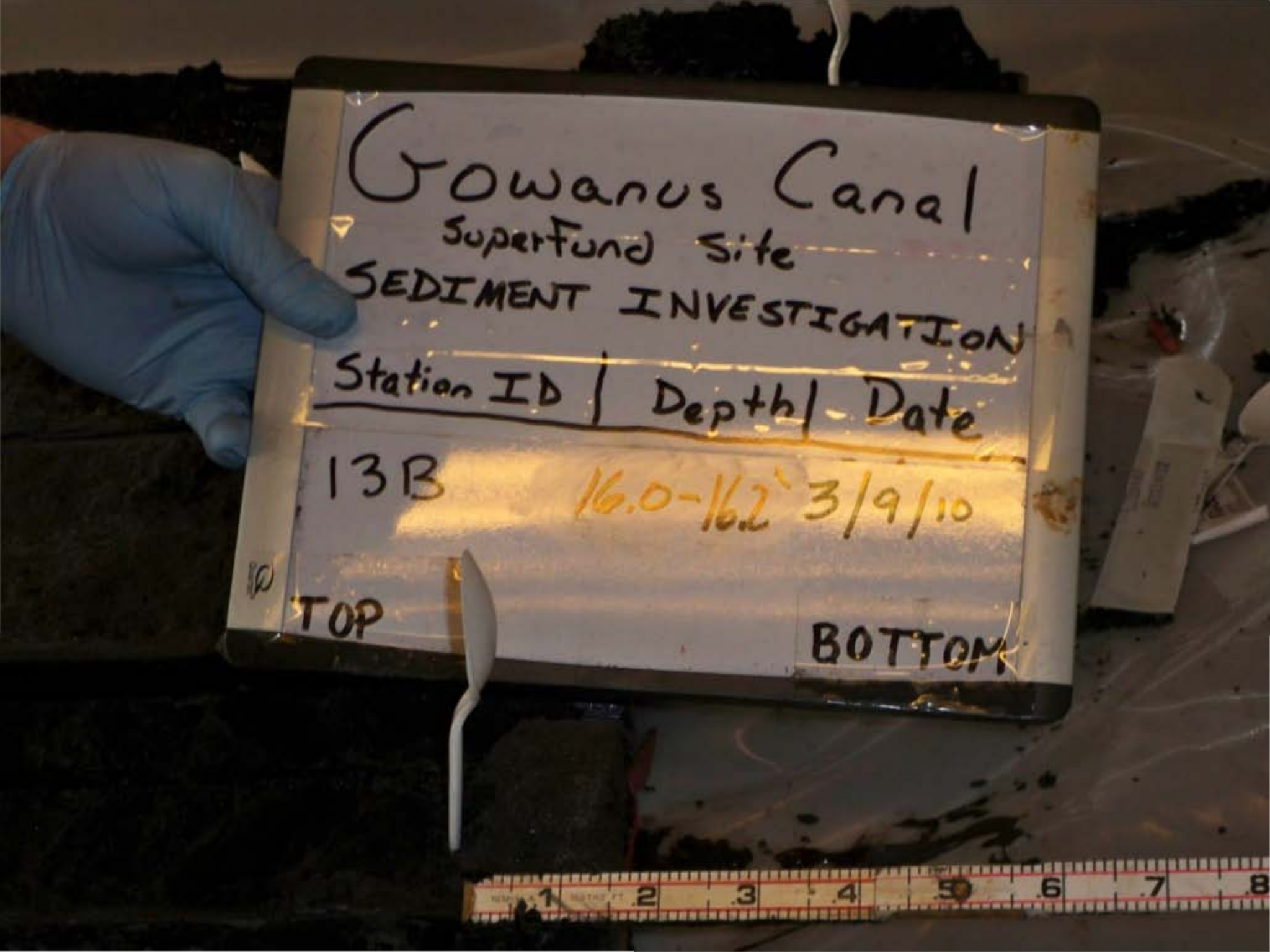

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Da
13B 0.0-2.0' 3/9/10
TOP
BOTTOM

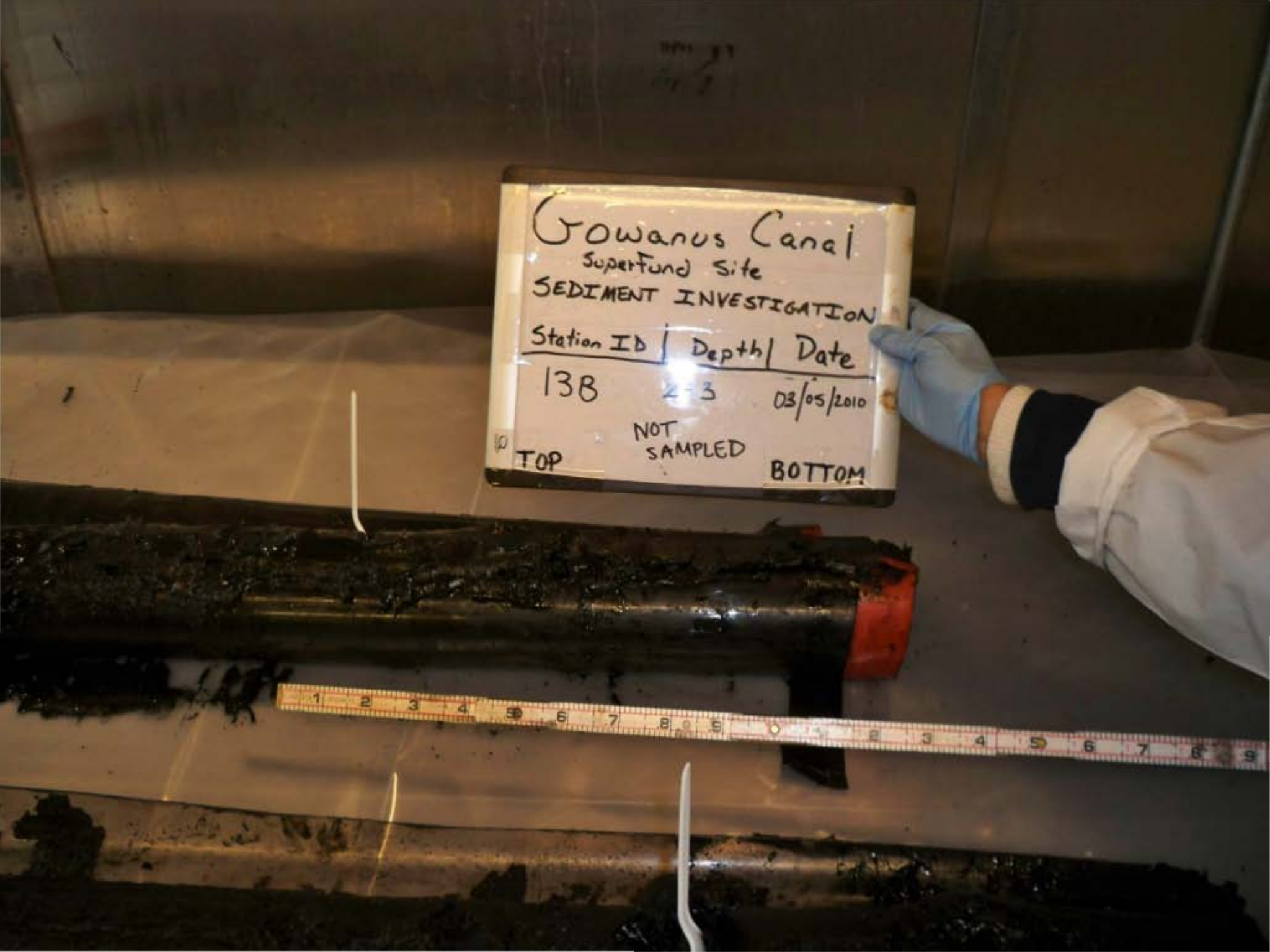

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 10.0-12.0 3/9/10
TOP
BOTTOM

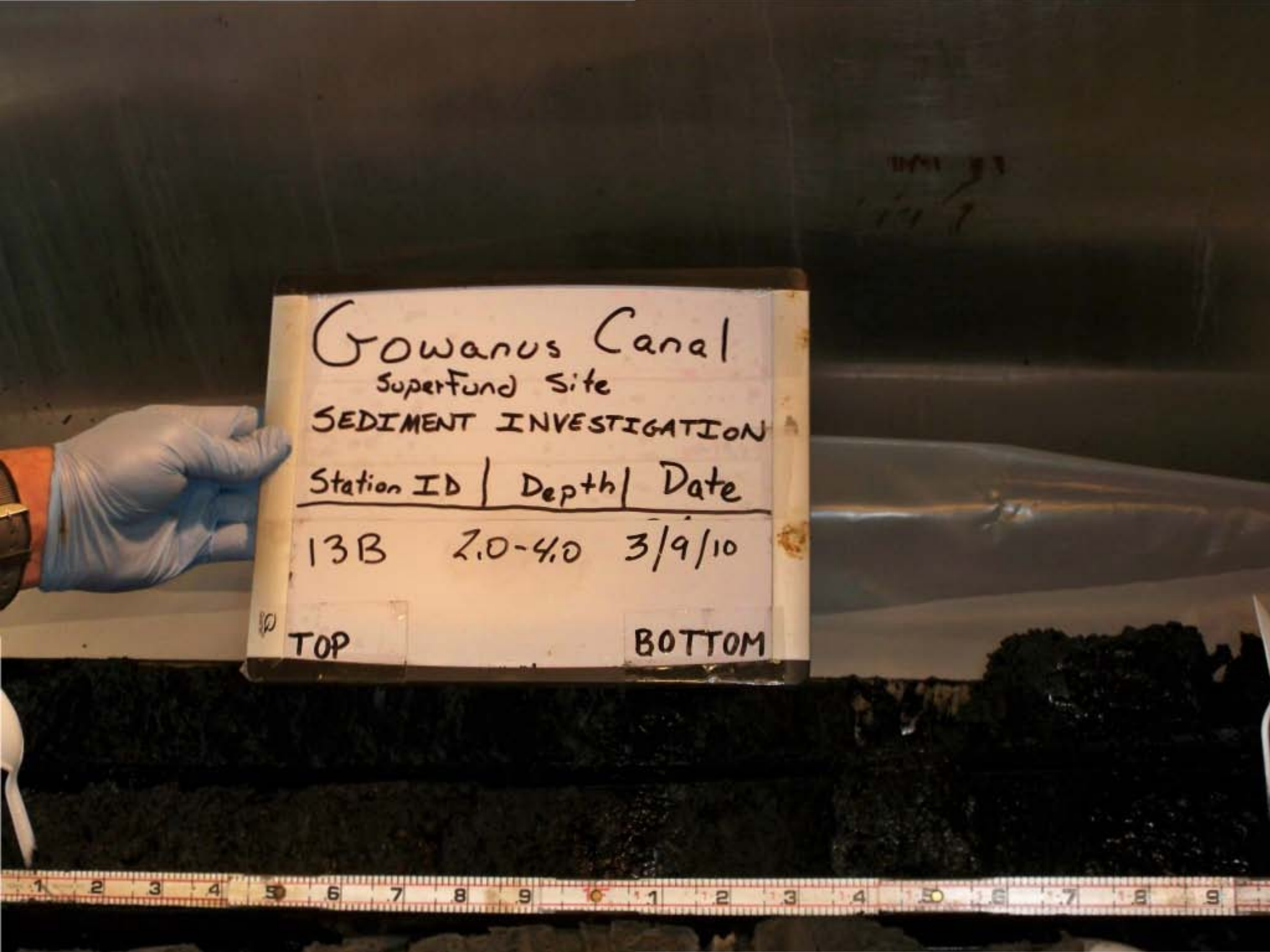

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 12.0-12.2' 3/9/10
TOP
BOTTOM

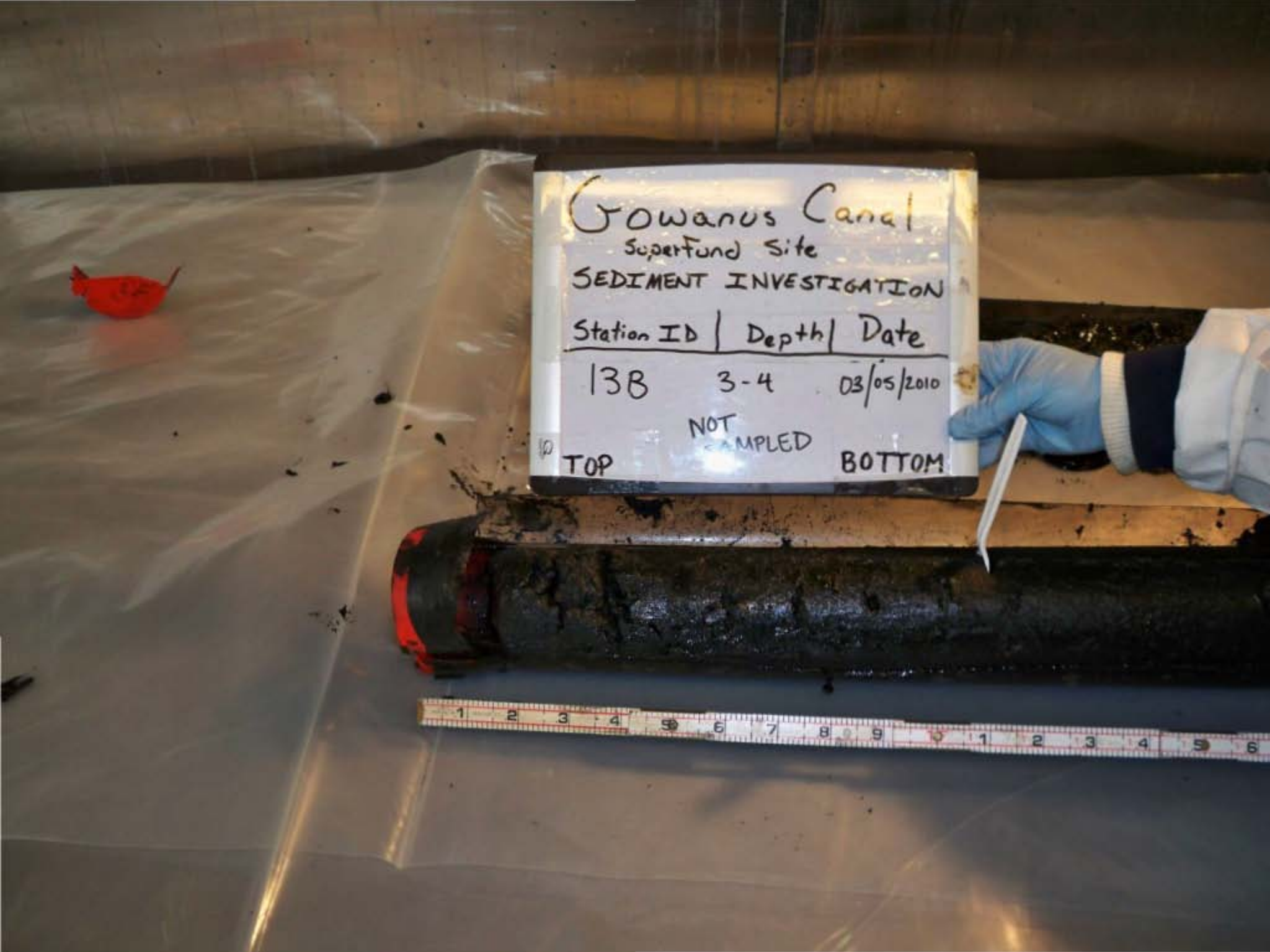

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 12.2-14.0' 3/9/10
TOP
BOTTOM

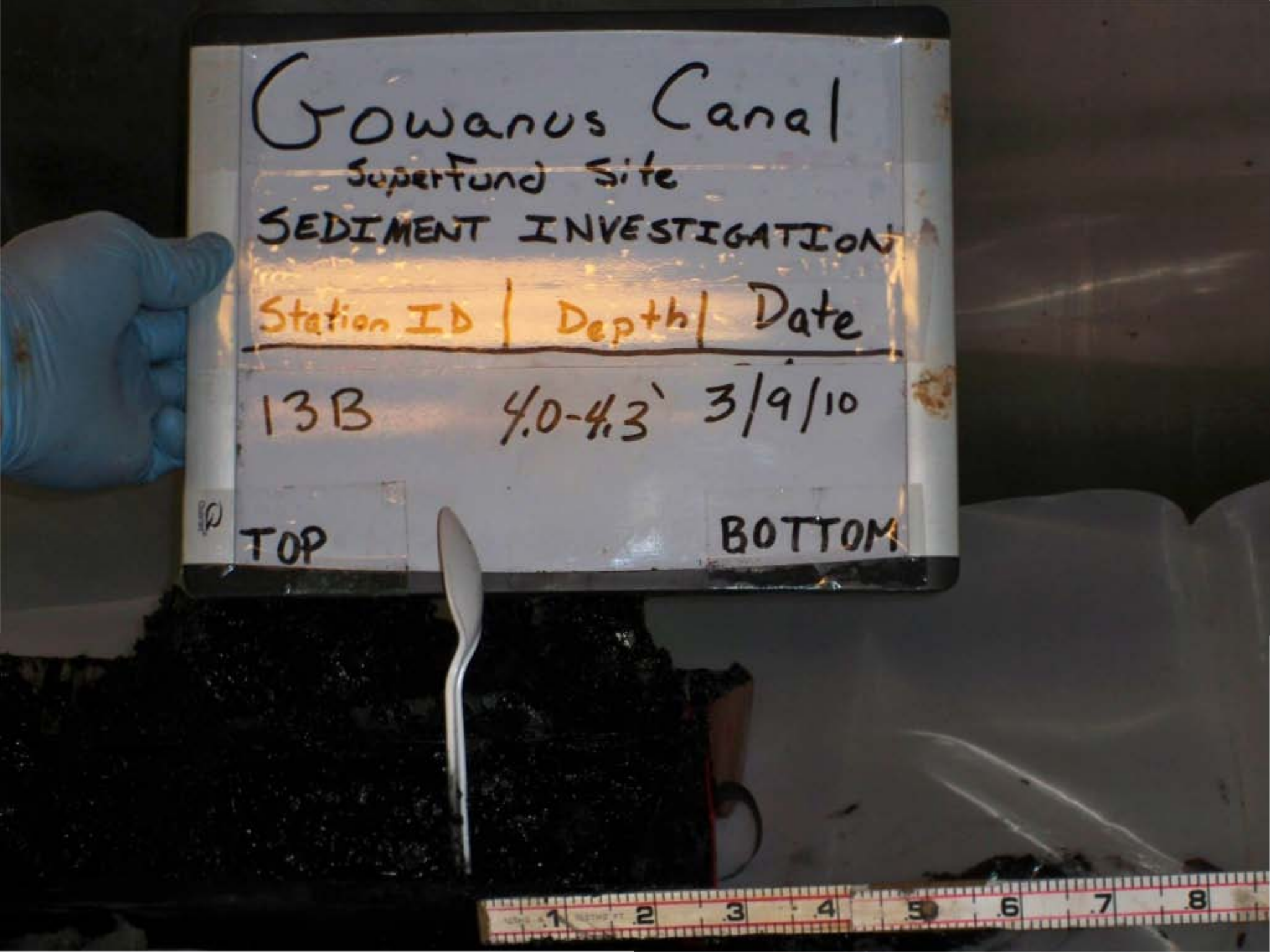

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 14.0-16.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 16.0-16.2' 3/9/10
TOP
BOTTOM

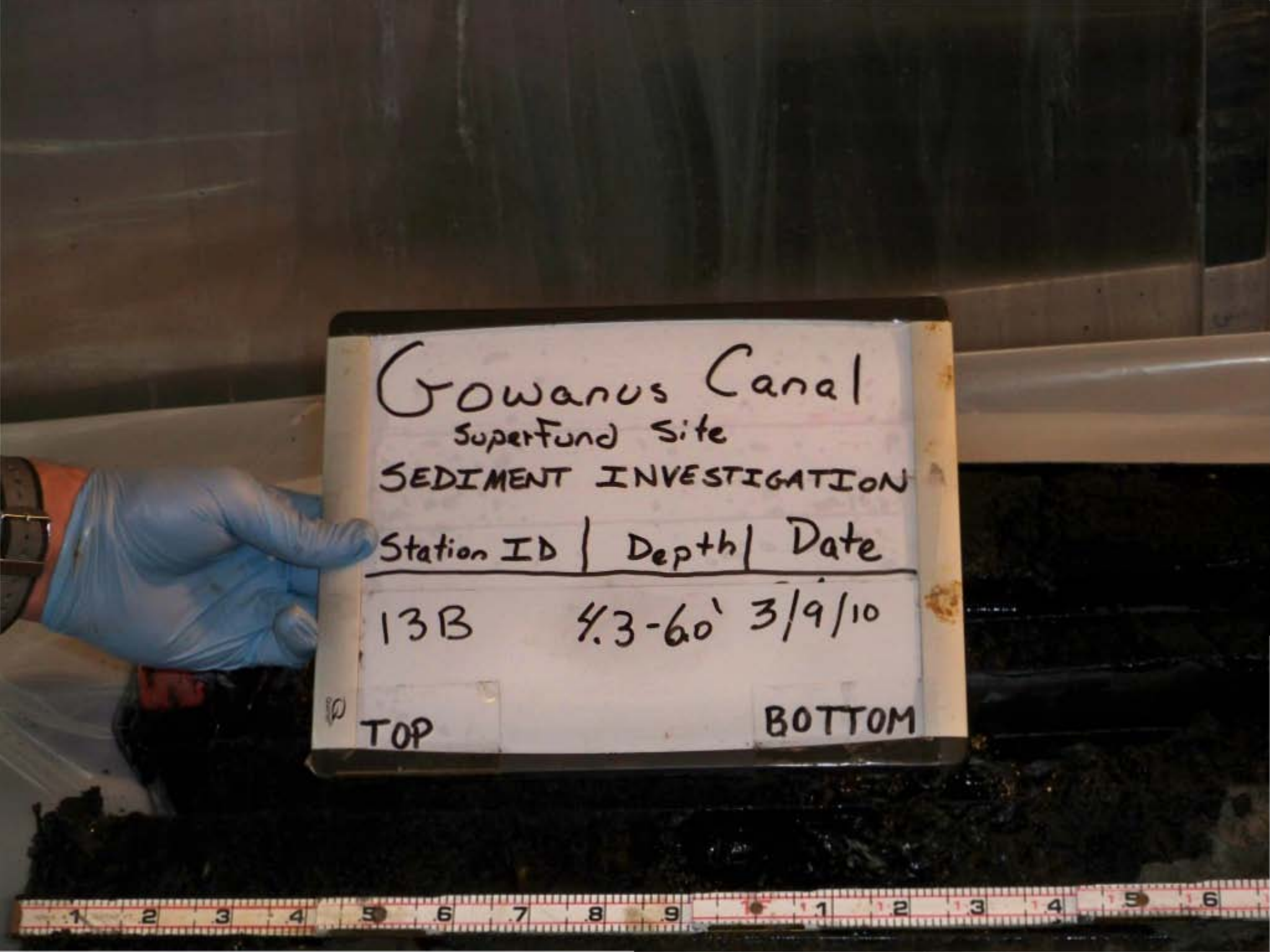

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 2-3 03/05/2010
NOT SAMPLED
TOP
BOTTOM

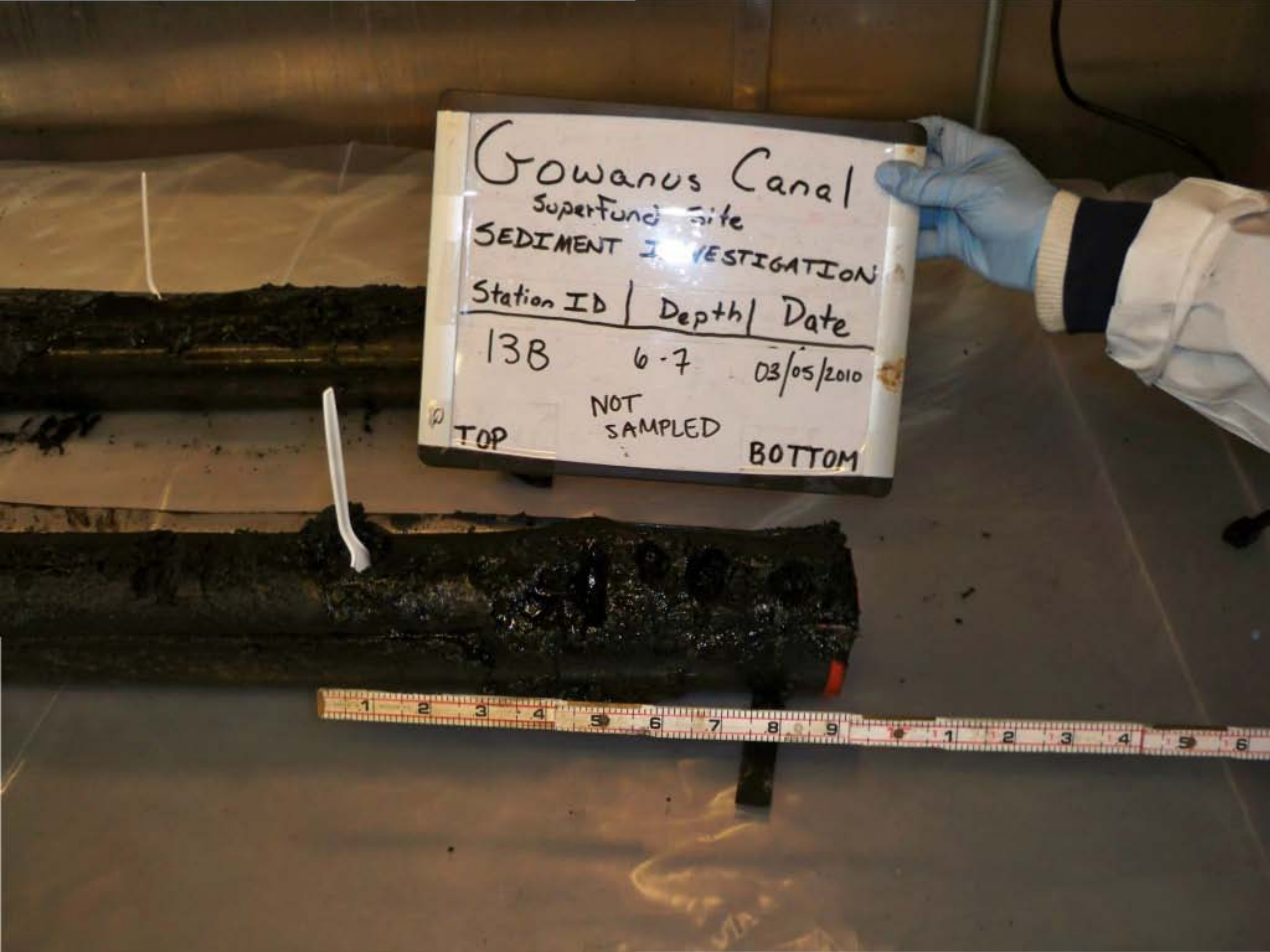

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 2.0-4.0 3/9/10
TOP
BOTTOM

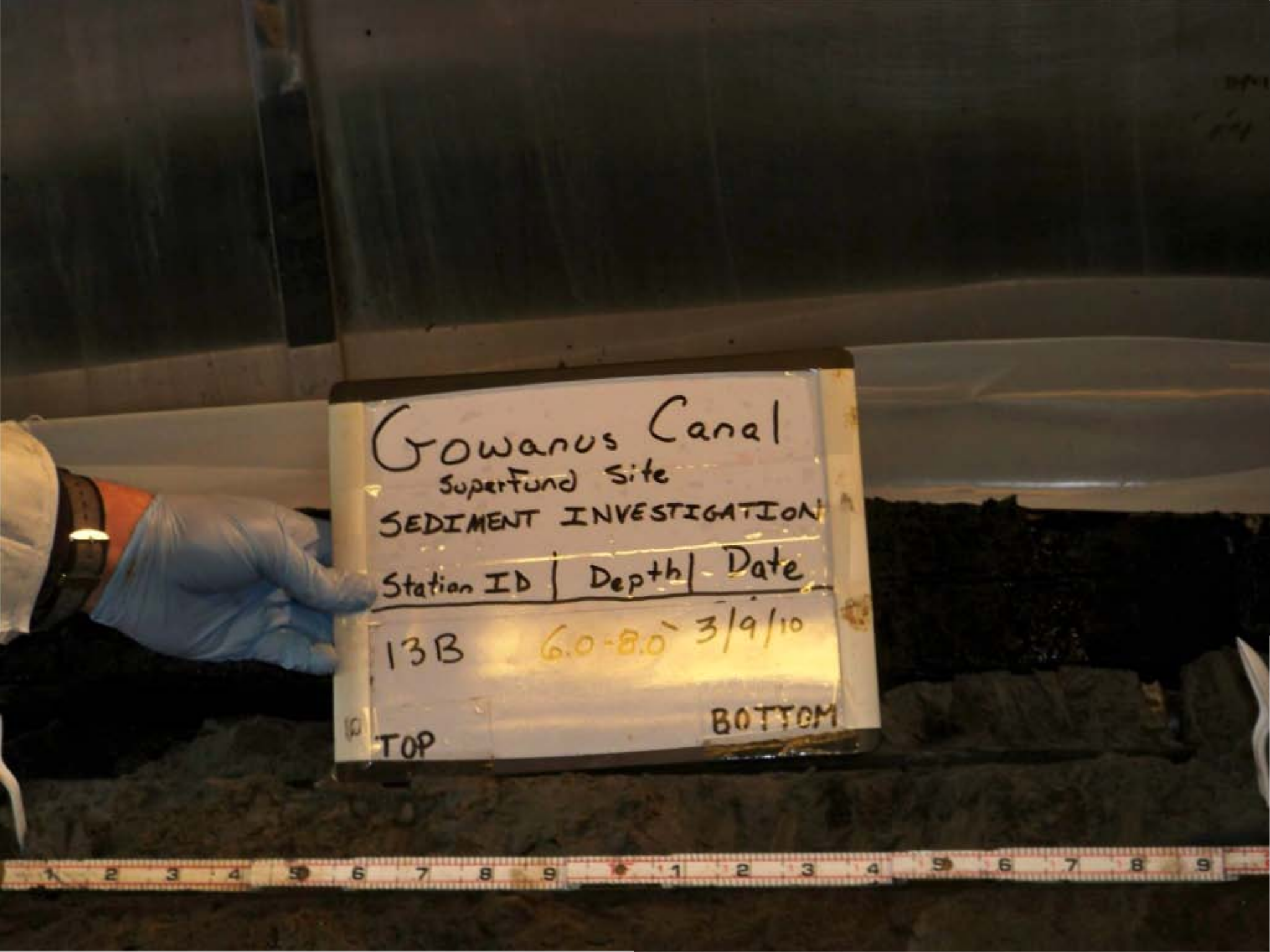

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 3-4 03/05/2010
NOT SAMPLED
TOP
BOTTOM

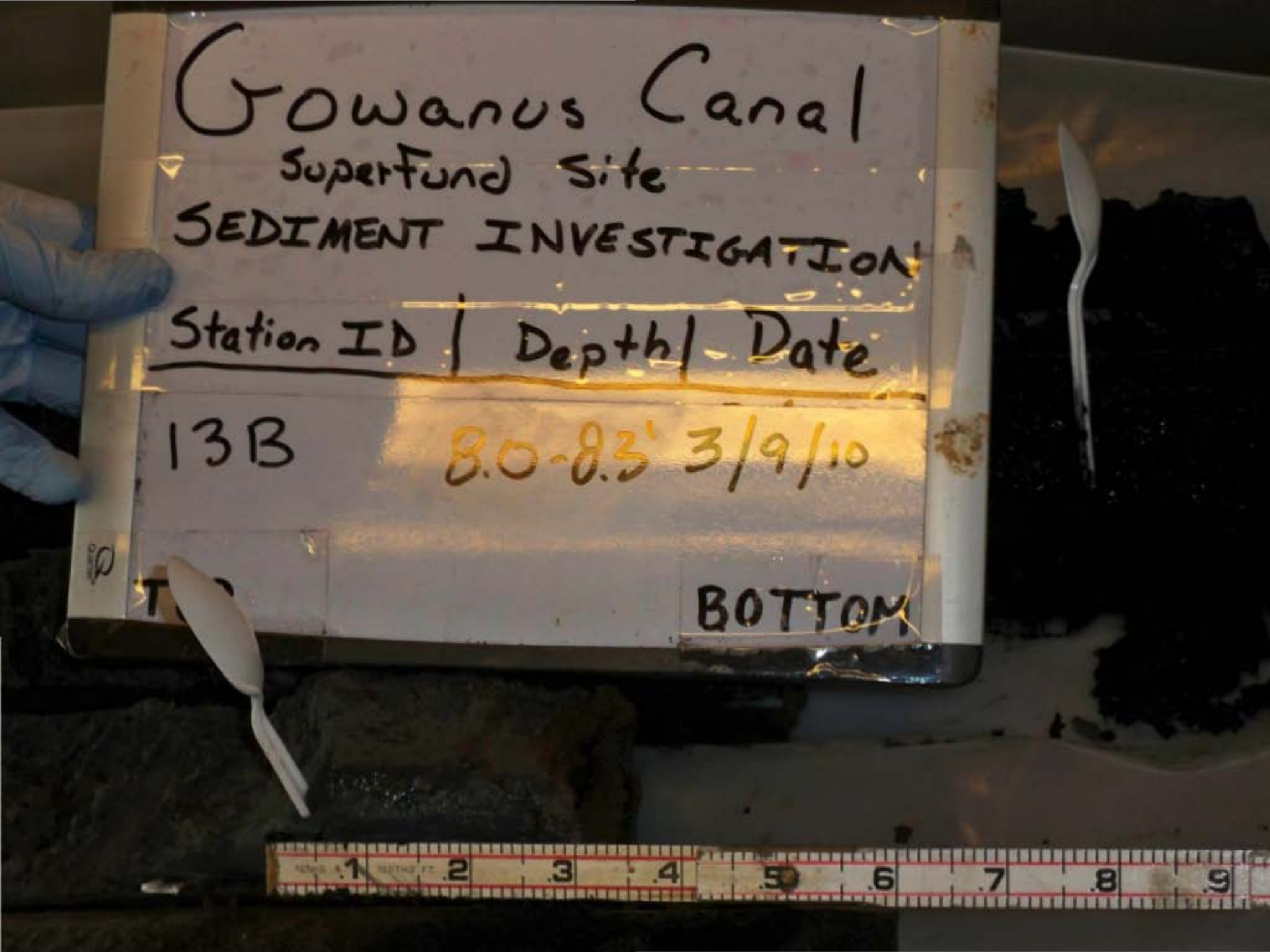

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 4.0-4.3' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
138 4-6 03/05/2010
NOT SAMPLED
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 4.3-6.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 6-7 03/05/2010
NOT SAMPLED
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 6.0-8.0' 3/9/10
TOP
BOTTOM

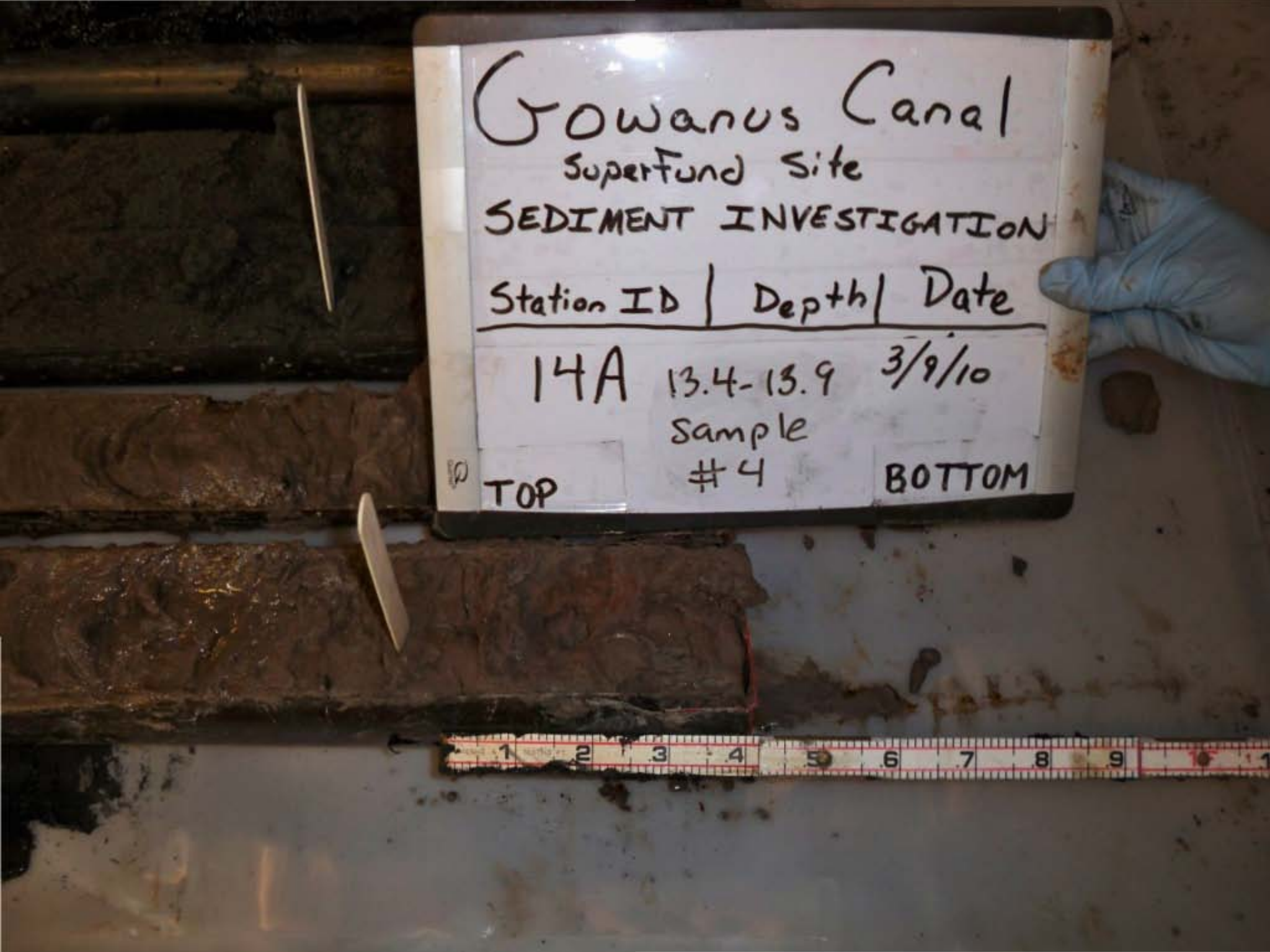

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 8.0-8.3' 3/9/10
BOTTOM

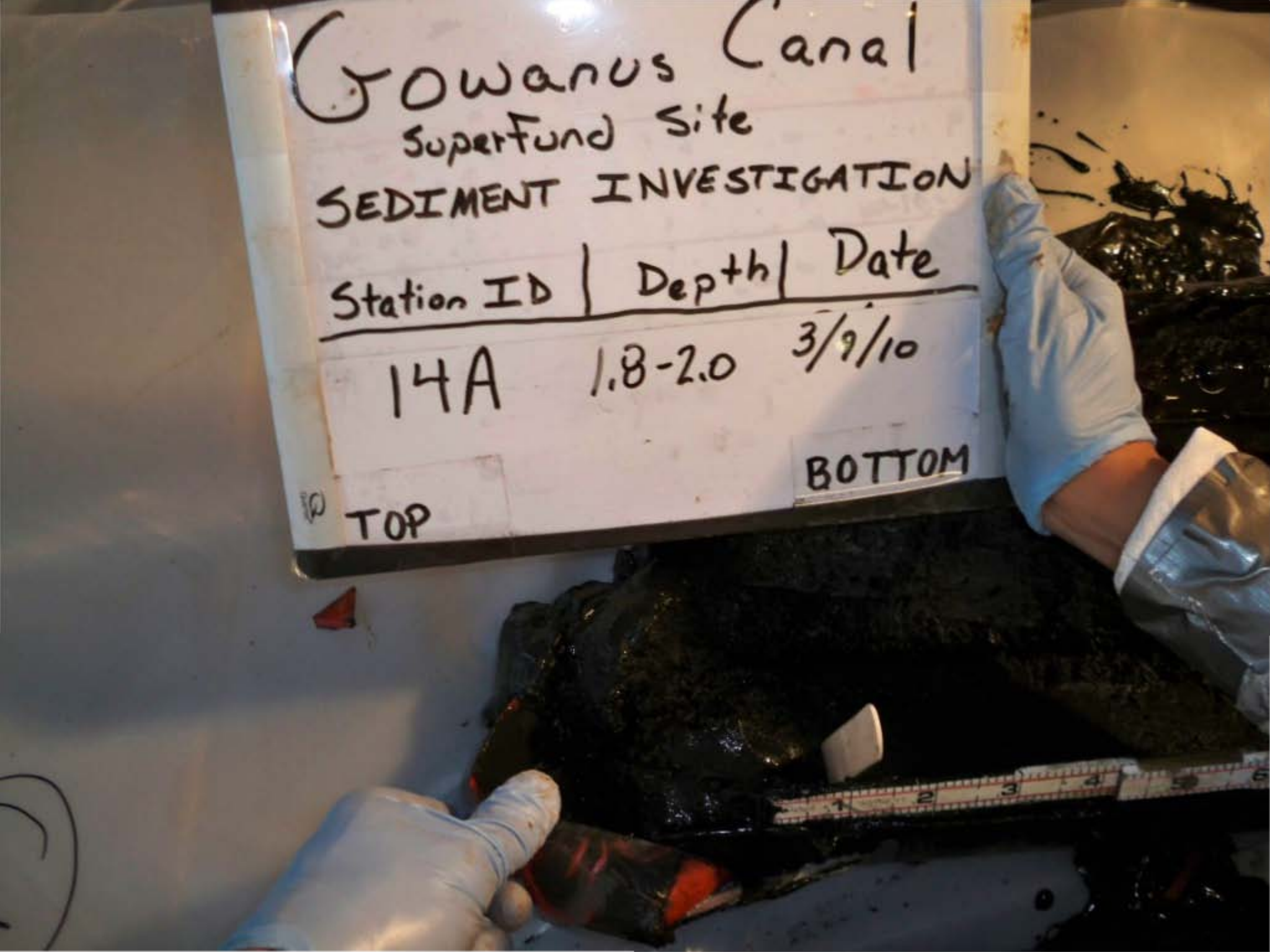

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B 8.3-10.0 3/9/10
TOP
BOTTOM

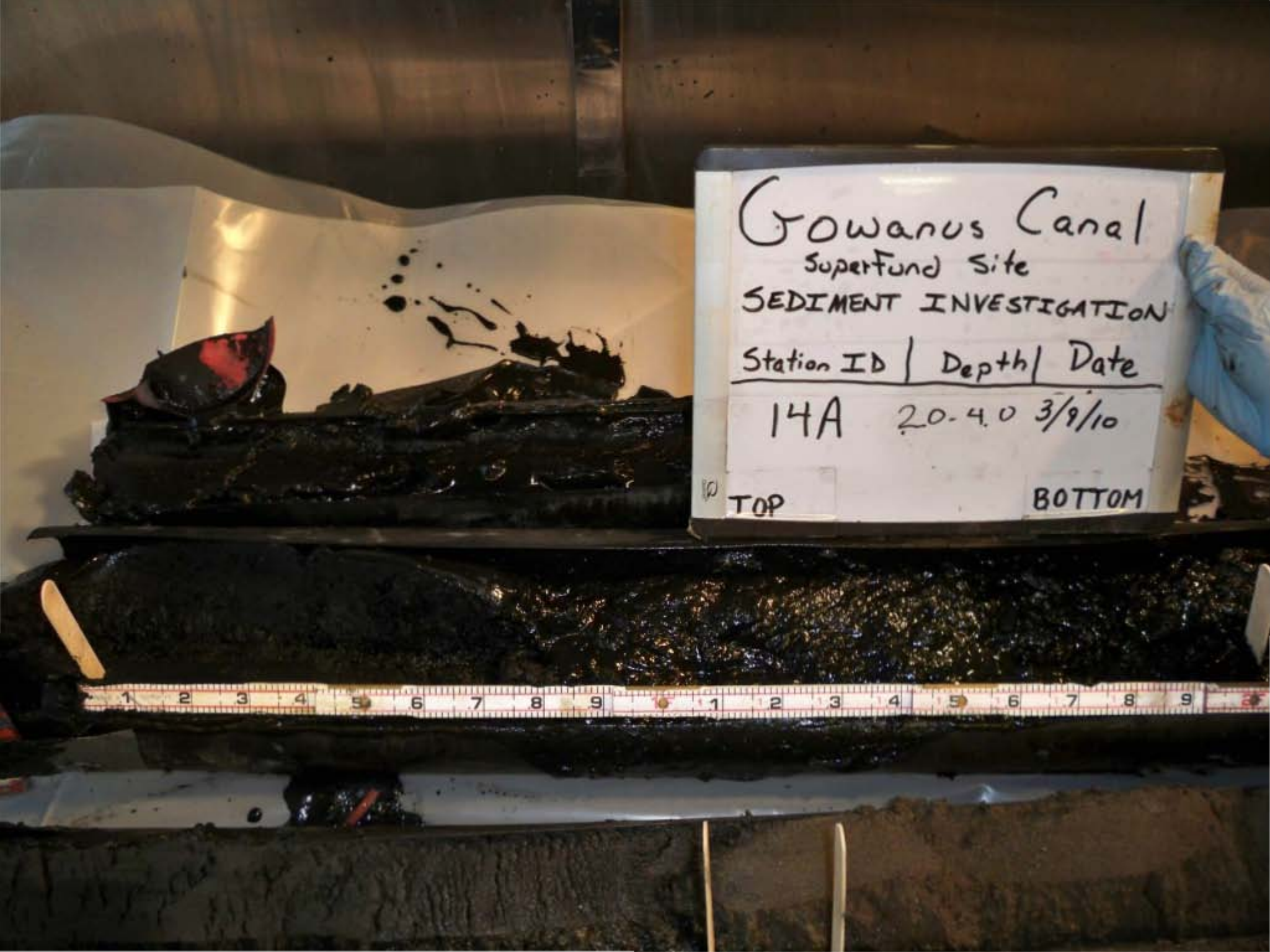

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B FULL RECOVERY 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 0-1.8' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 11.4-13.4 3/9/10
Sample #3
TOP
BOTTOM

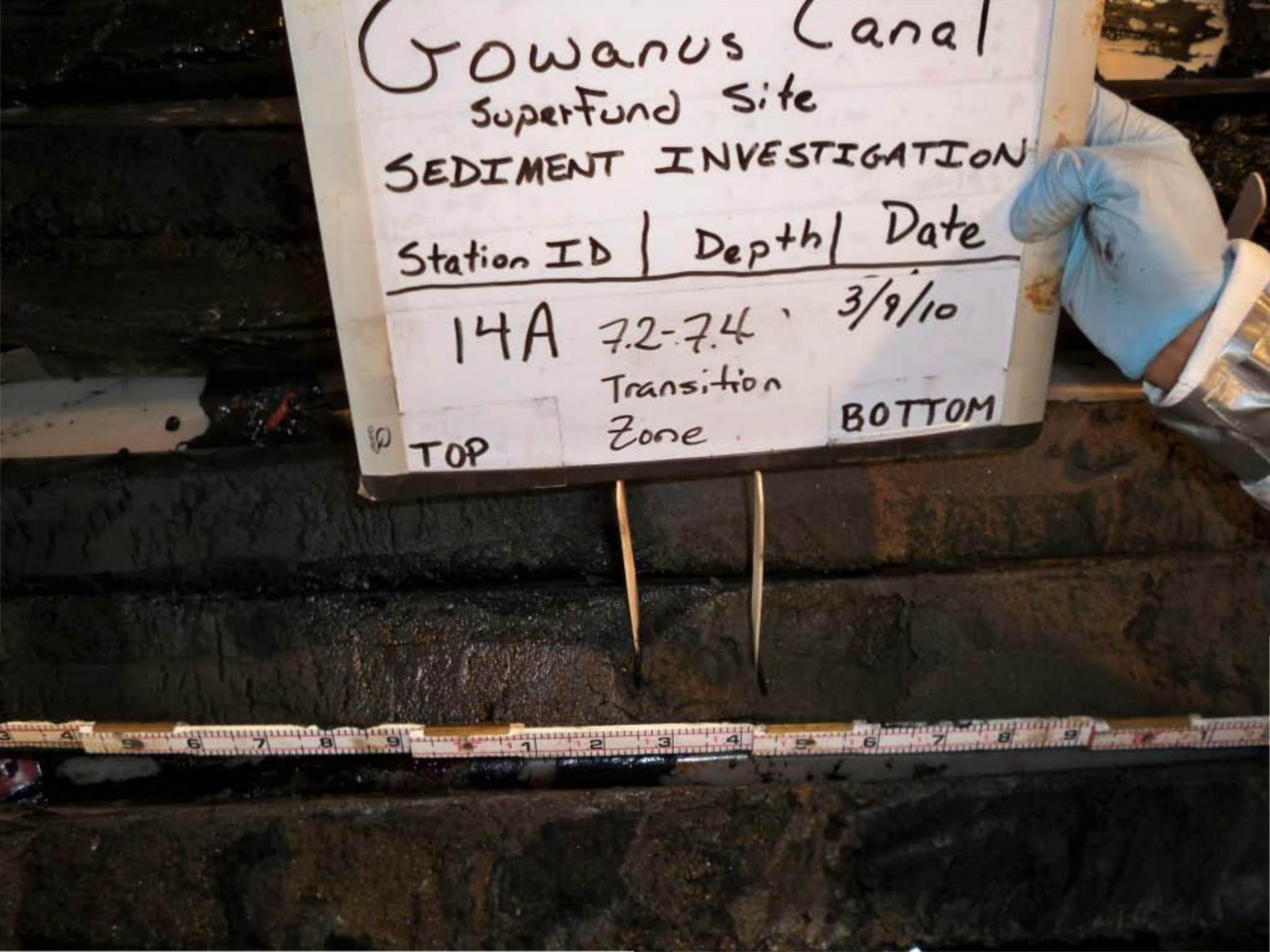

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 13.4-13.9 3/9/10
sample
#4
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 1.8-2.0 3/9/10
TOP
BOTTOM

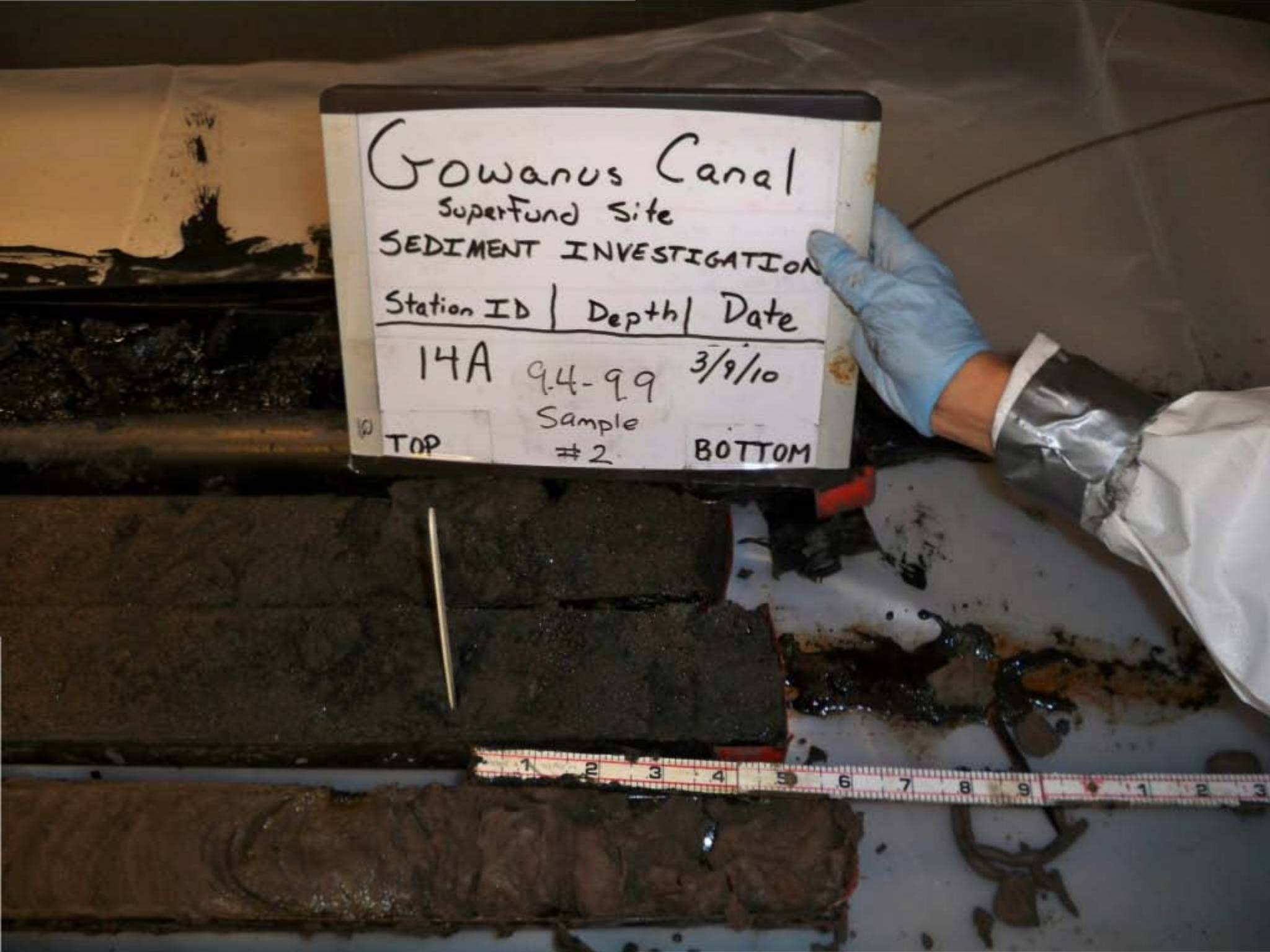

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 20-40 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 4.0-5.9 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 5.9-7.2 3/9/10
TOP
BOTTOM

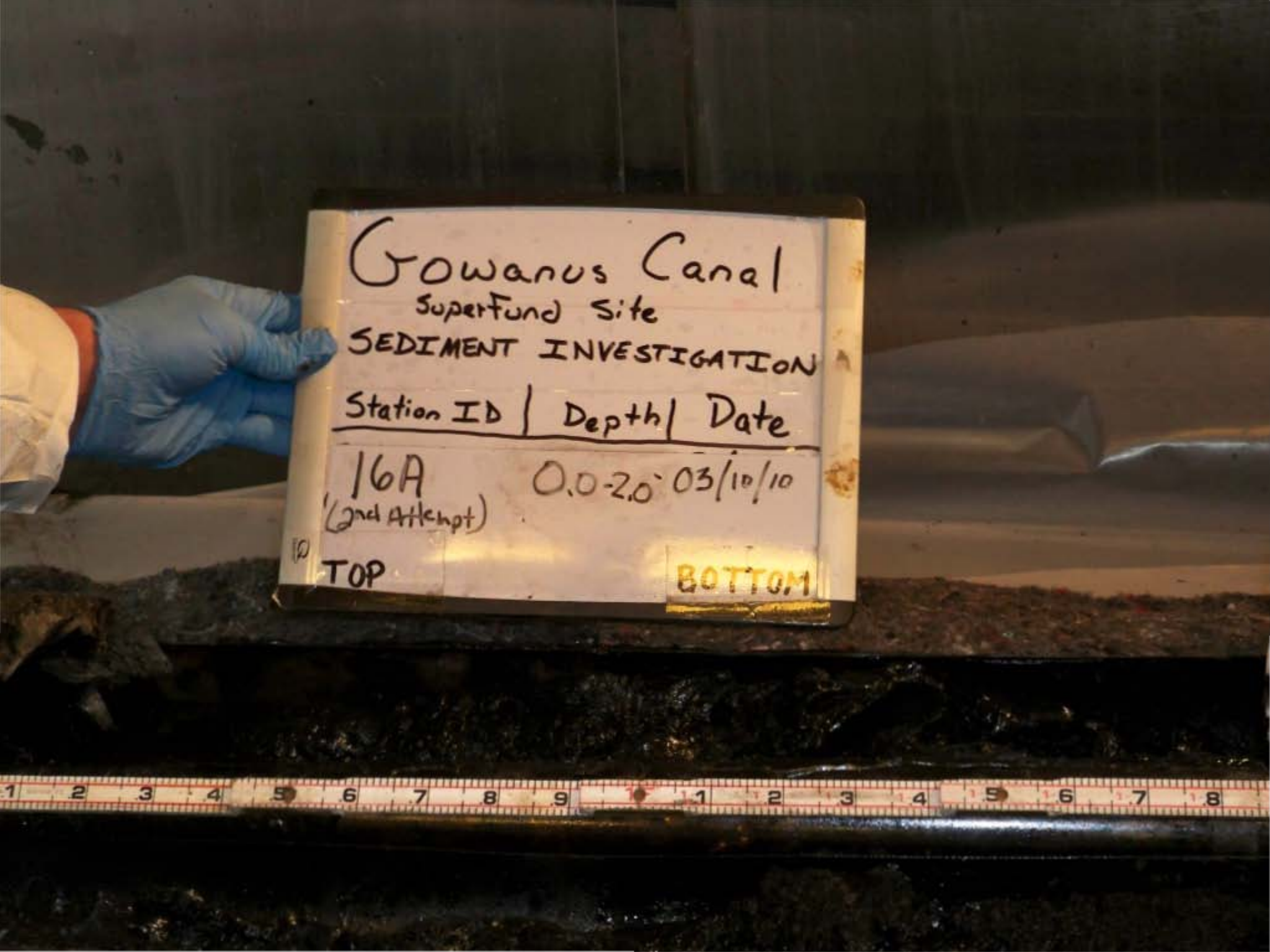

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 7.2-7.4' 3/9/10
Transition Zone
TOP
BOTTOM

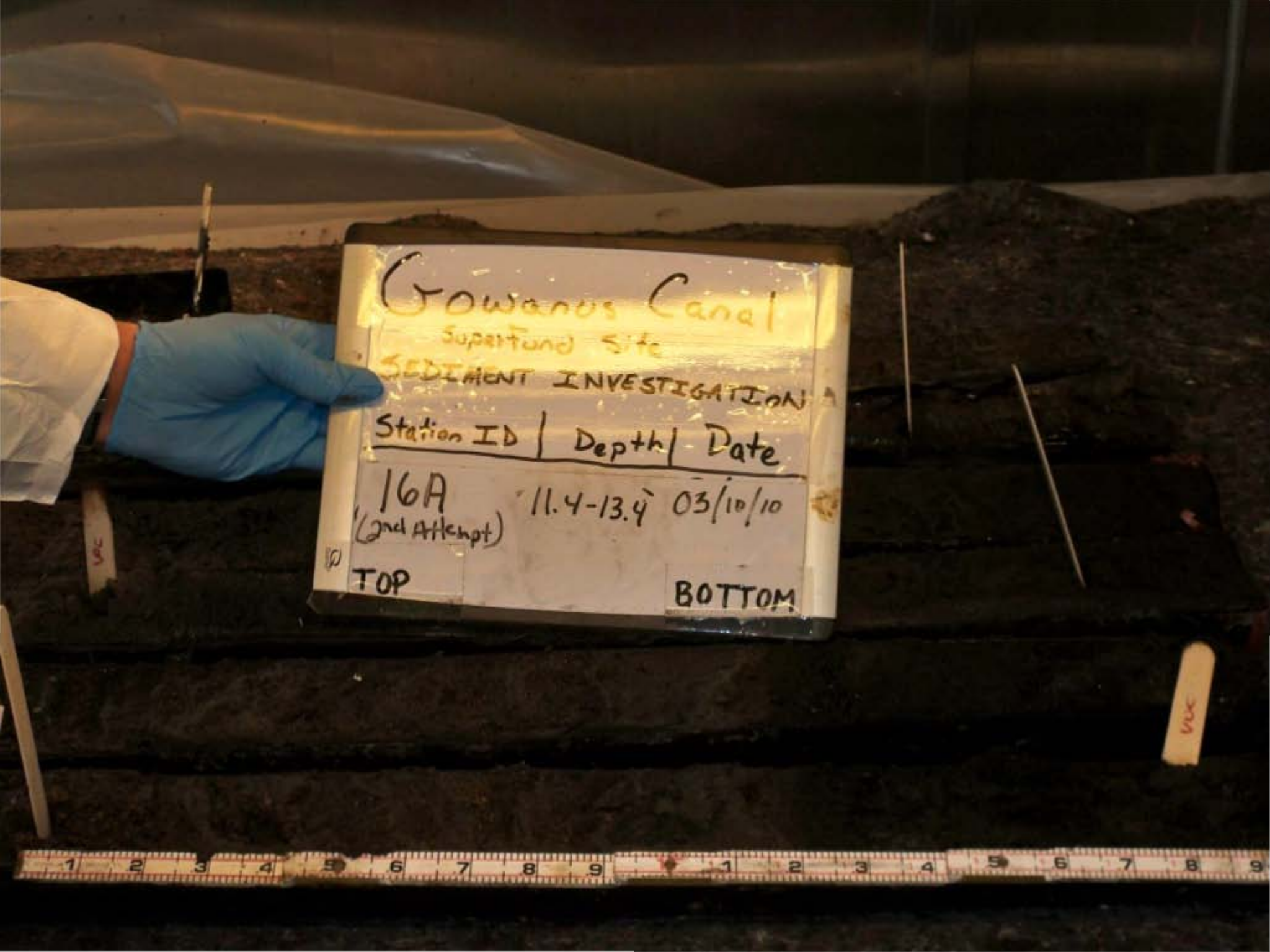

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 7.4-9.4 3/9/10
Sample #1
TOP
BOTTOM

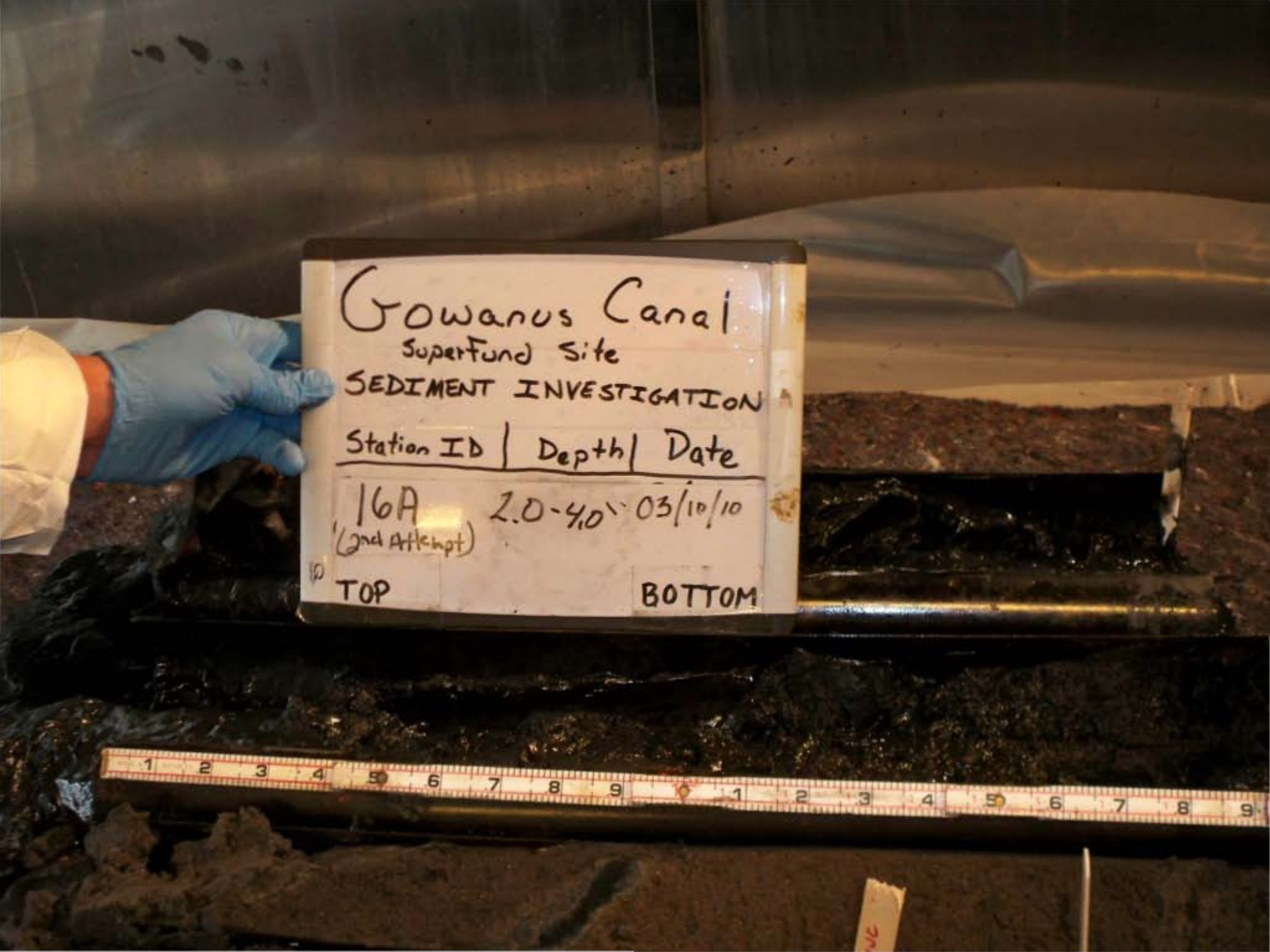

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 9.4-9.9 3/9/10
Sample #2
TOP
BOTTOM

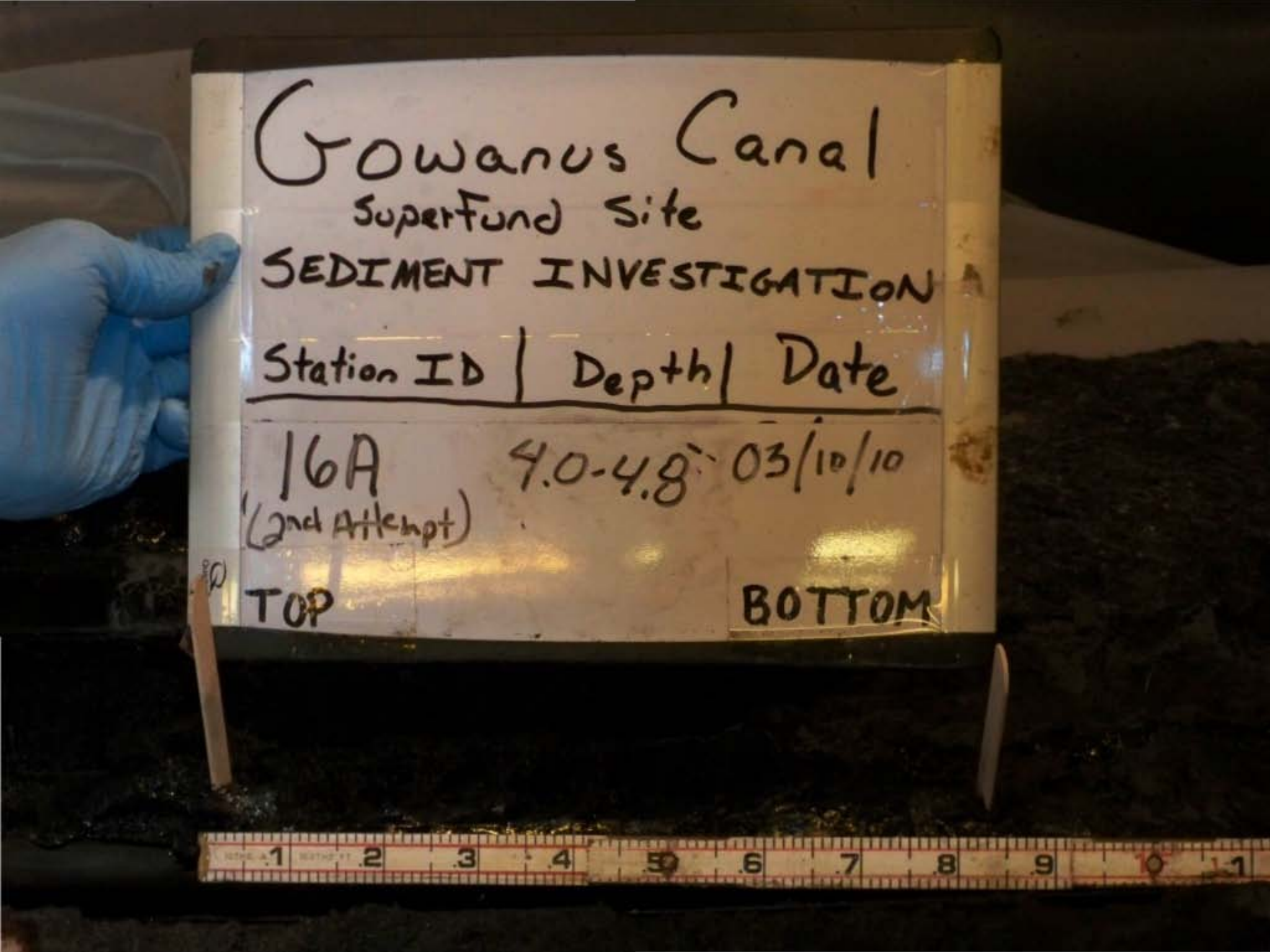

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14A 9.9-11.4 3/9/10
Sample #2
TOP
BOTTOM

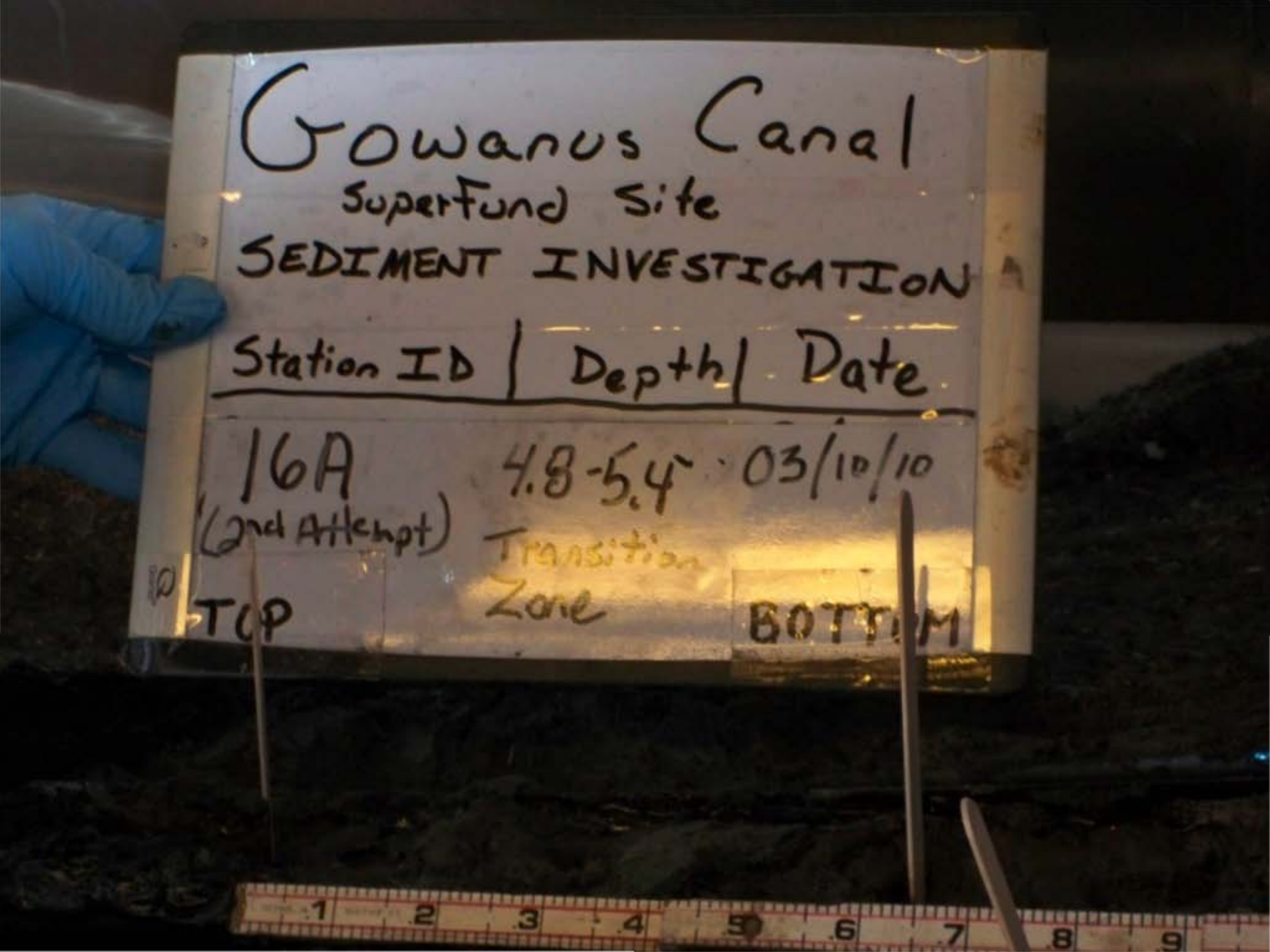

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A (2nd attempt) FULL RECOVERY 03/10/10
TOP
BOTTOM

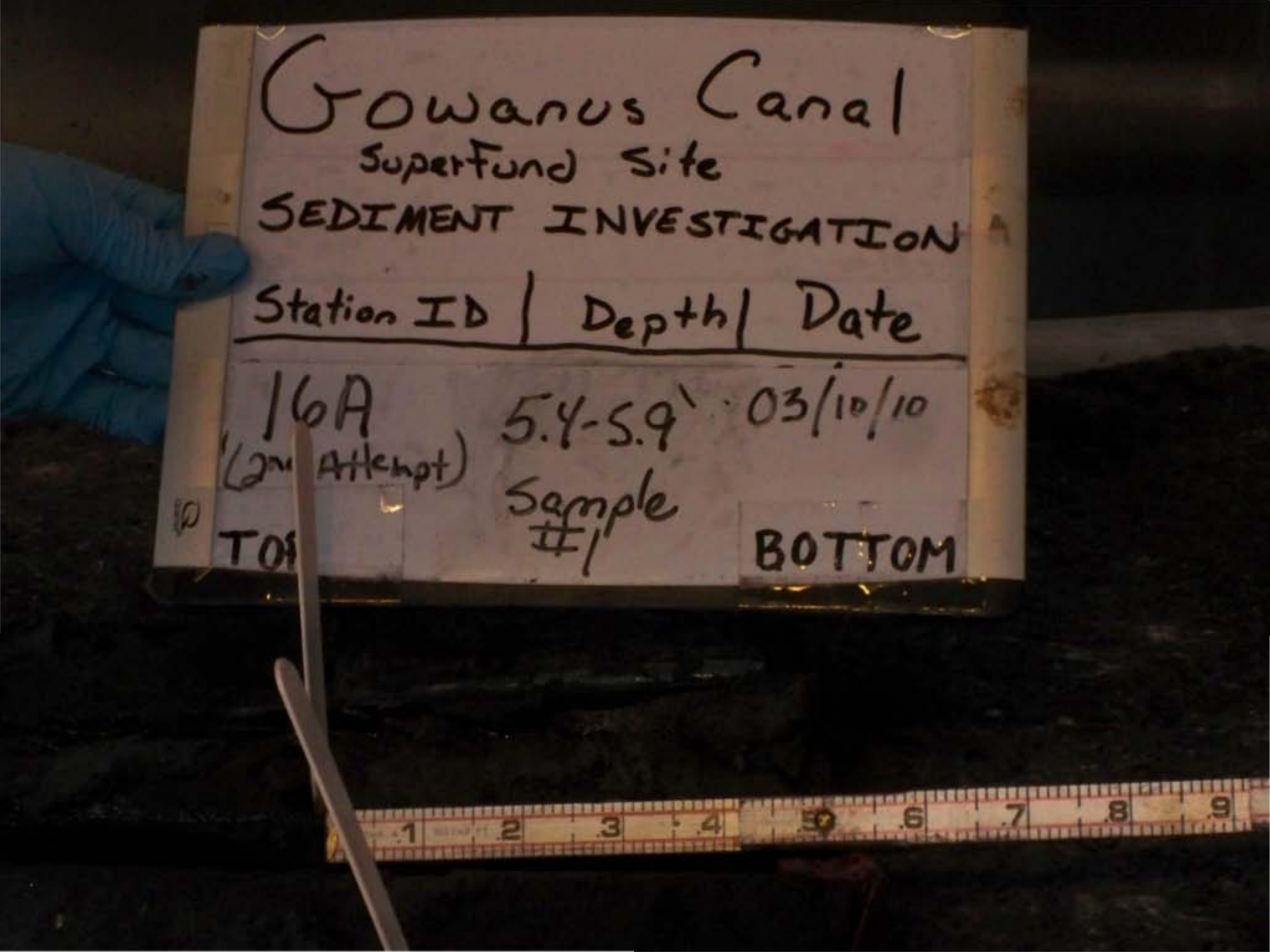

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A 0.0-2.0' 03/10/10
(2nd Attempt)
TOP
BOTTOM

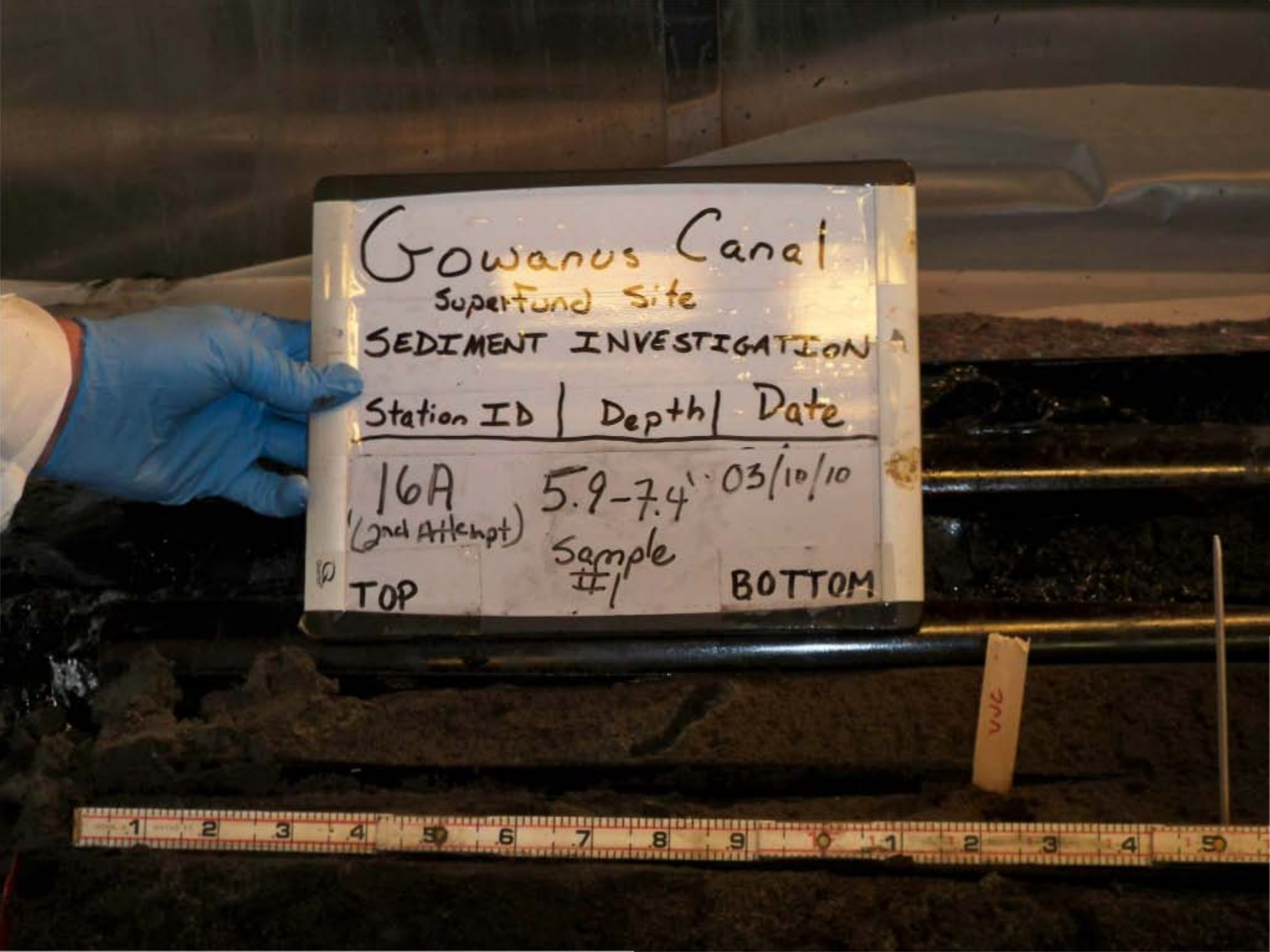

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A (2nd Attempt) 11.4-13.4' 03/10/10
TOP
BOTTOM

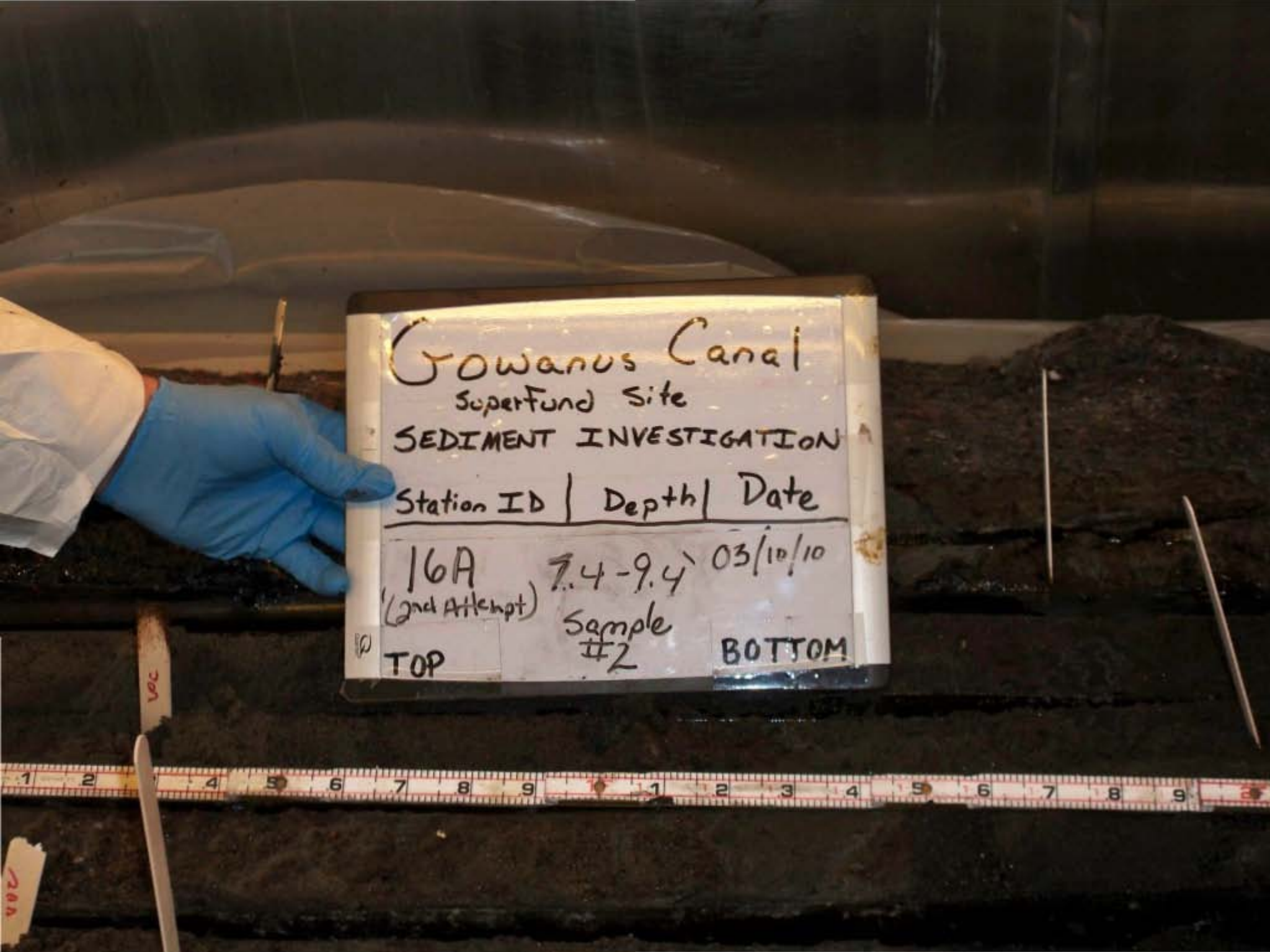

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A 2.0-4.0' 03/10/10
(2nd Attempt)
TOP
BOTTOM

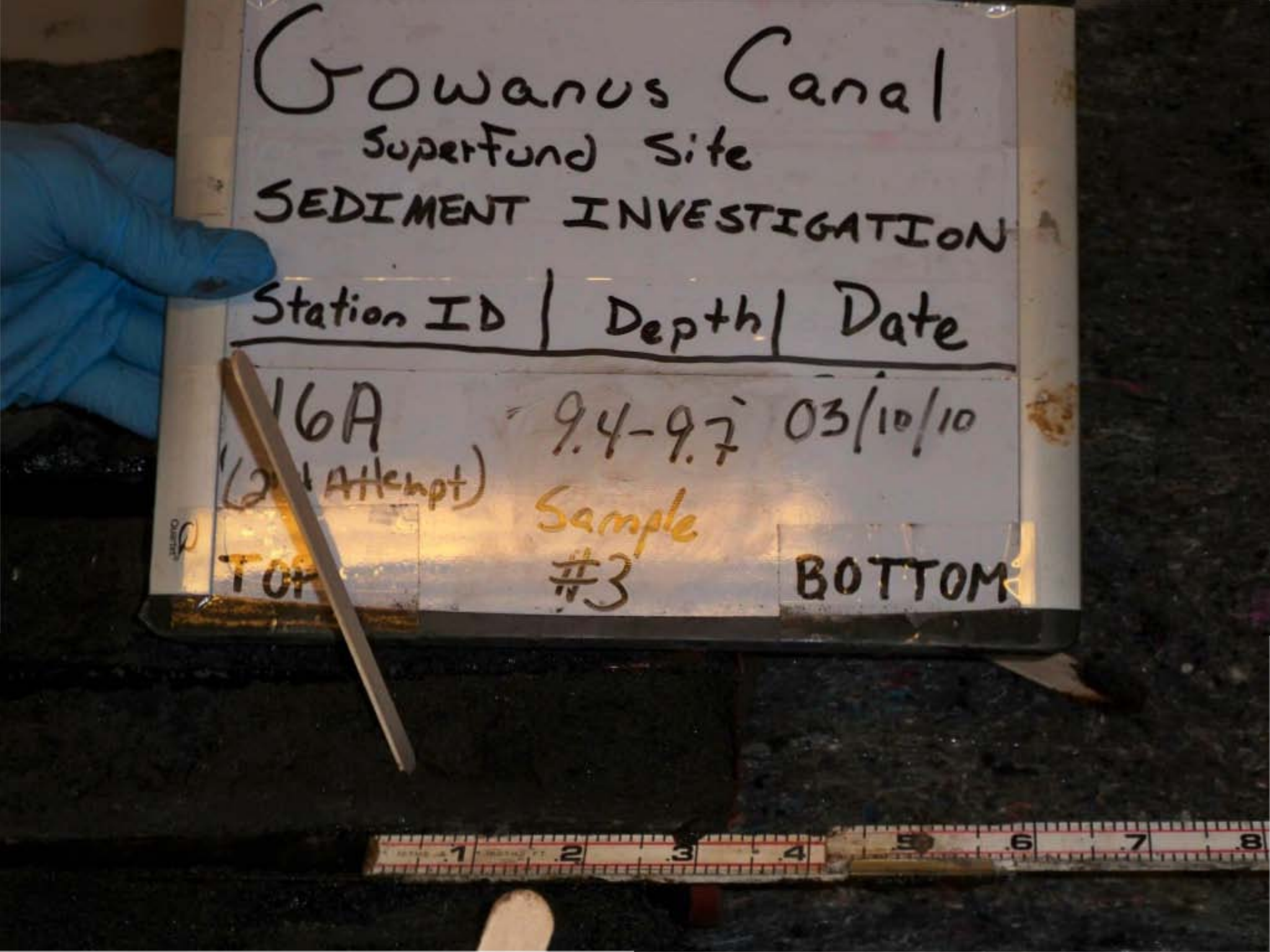

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A 4.0-4.8' 03/10/10
(2nd Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A
(2nd Attempt)
4.8-5.4
03/10/10
Transition
Zone
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A
(2nd Attempt)
5.4-5.9'
03/10/10
Sample #1
TOP
BOTTOM

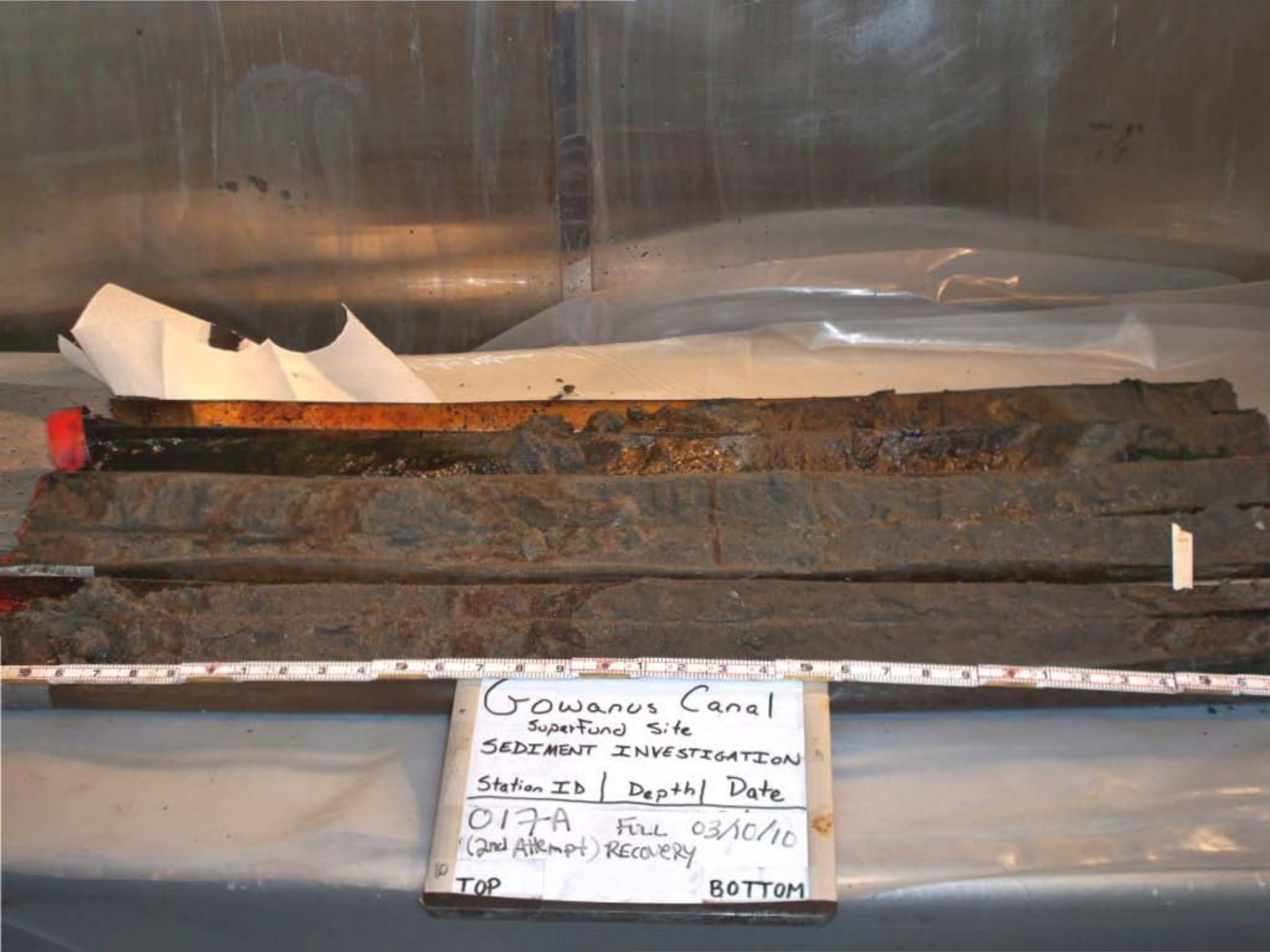

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A (2nd Attempt) 5.9-7.4' 03/10/10
Sample #1
TOP
BOTTOM

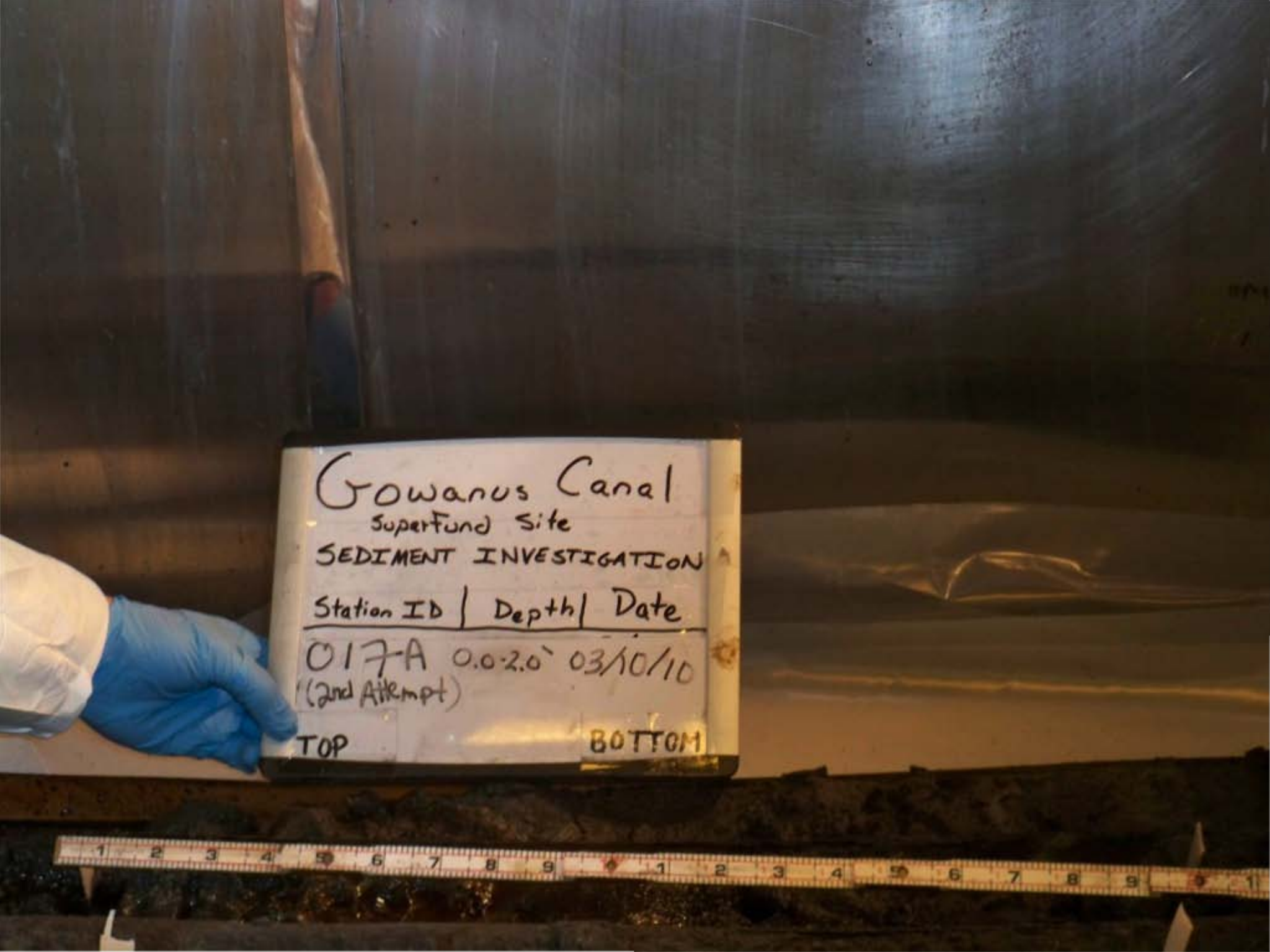

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A (2nd Attempt) 7.4-9.4' 03/10/10
Sample #2
TOP
BOTTOM

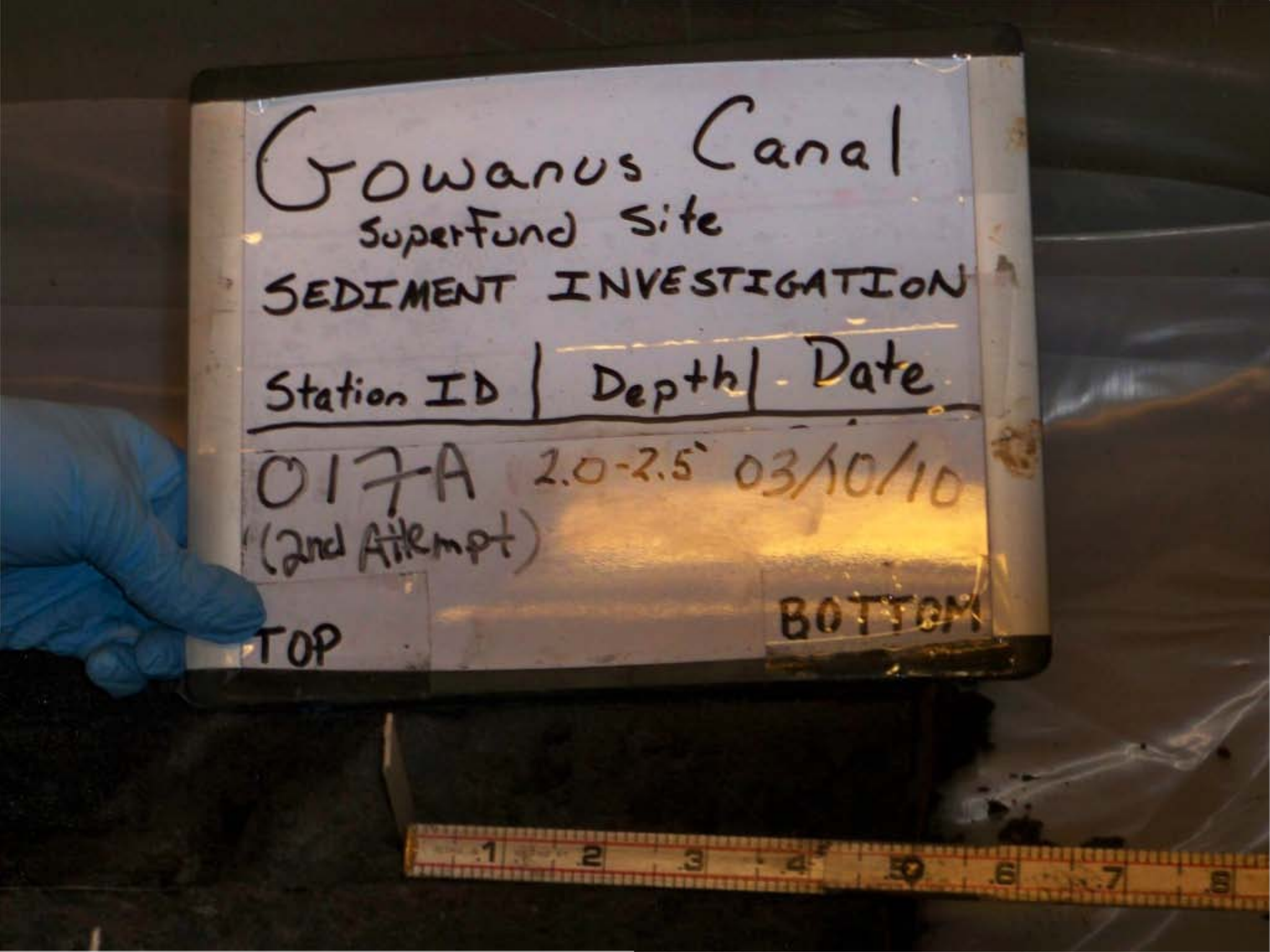

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A
(2nd Attempt)
9.4-9.7'
03/10/10
Sample
#3
TOP
BOTTOM

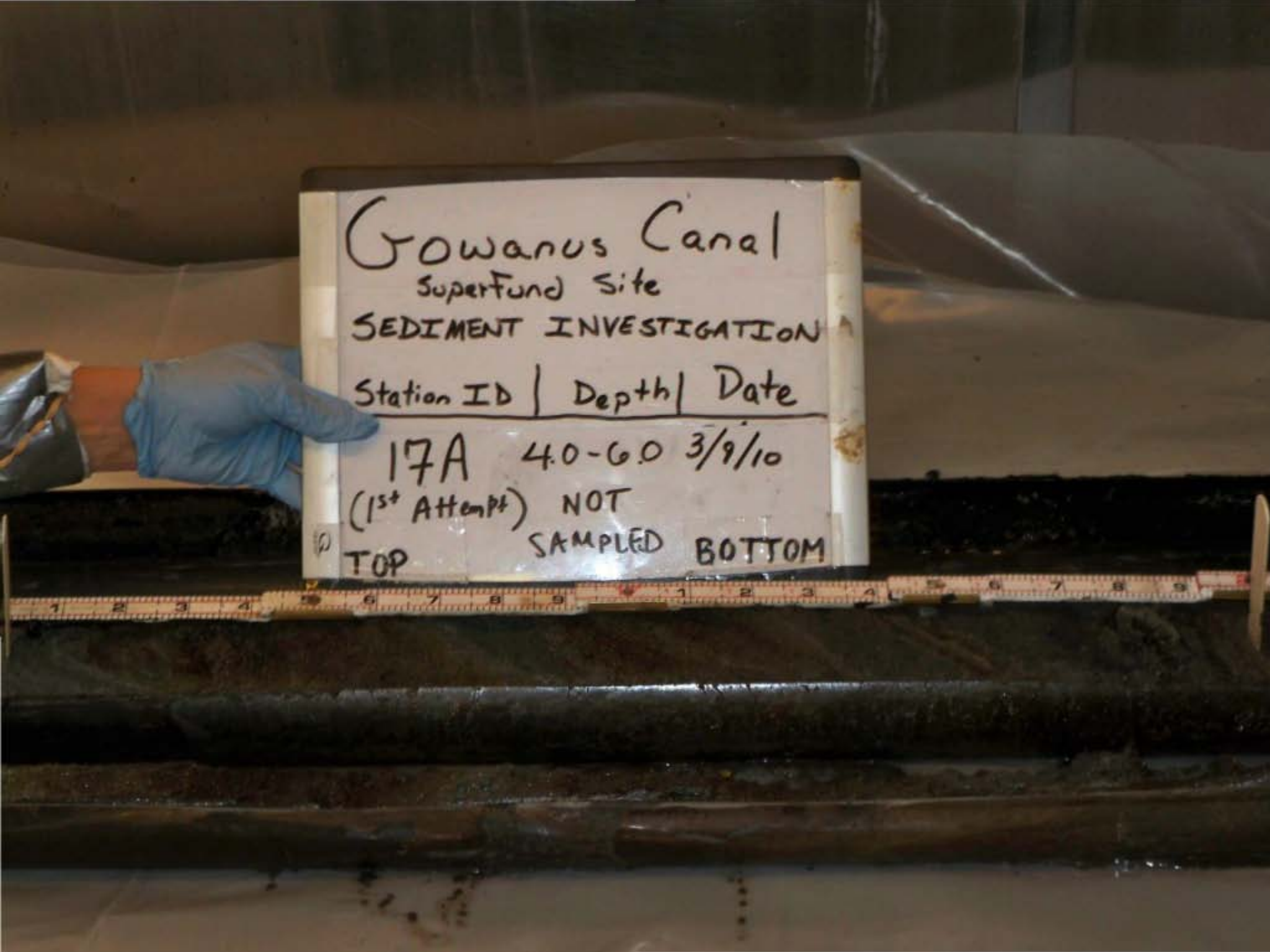

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A (2nd Attempt) 9.7-11.4' 03/10/10
Sample #3
TOP
BOTTOM

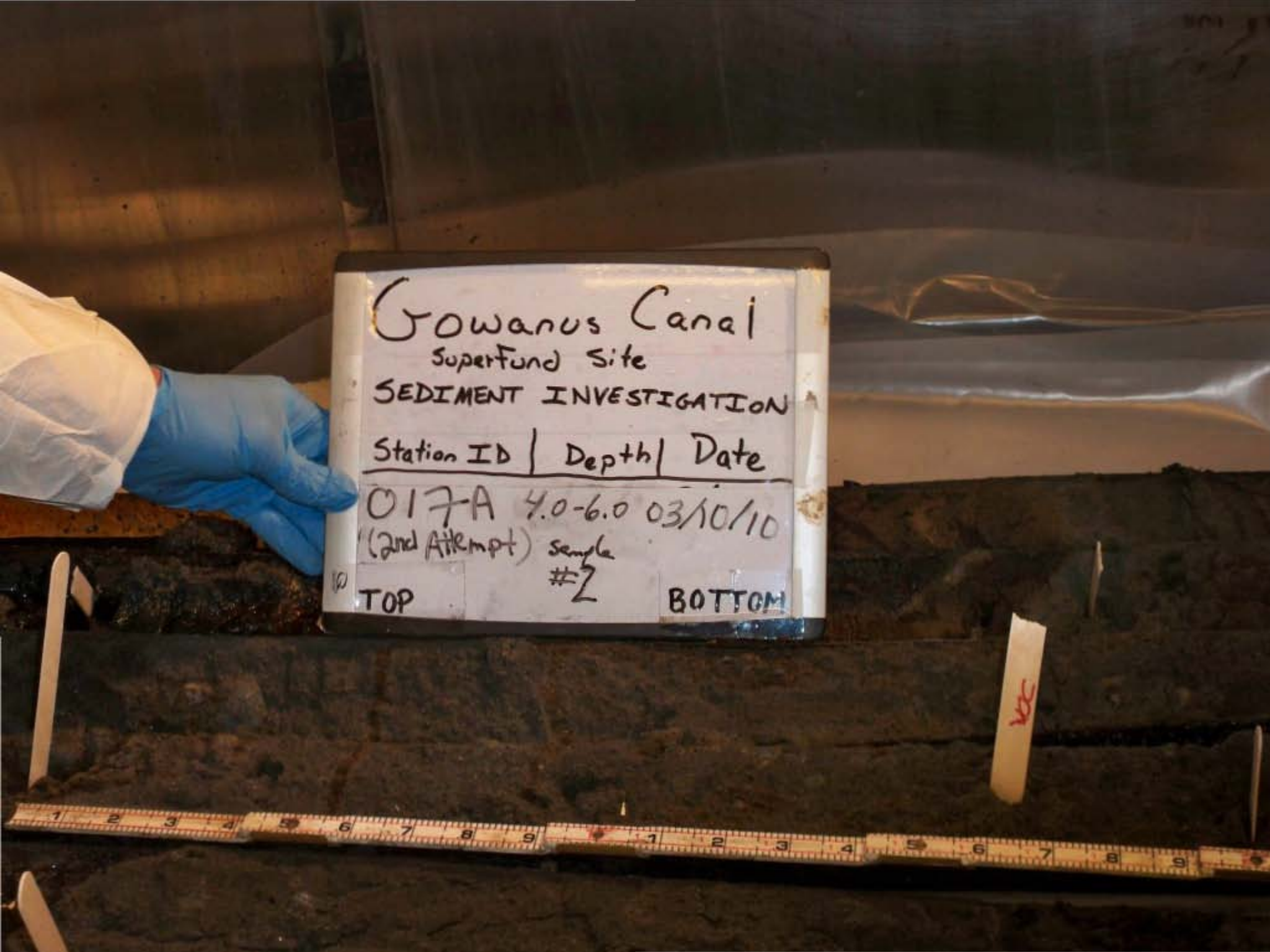

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A (2nd Attempt) FULL RECOVERY 03/10/10
TOP
BOTTOM

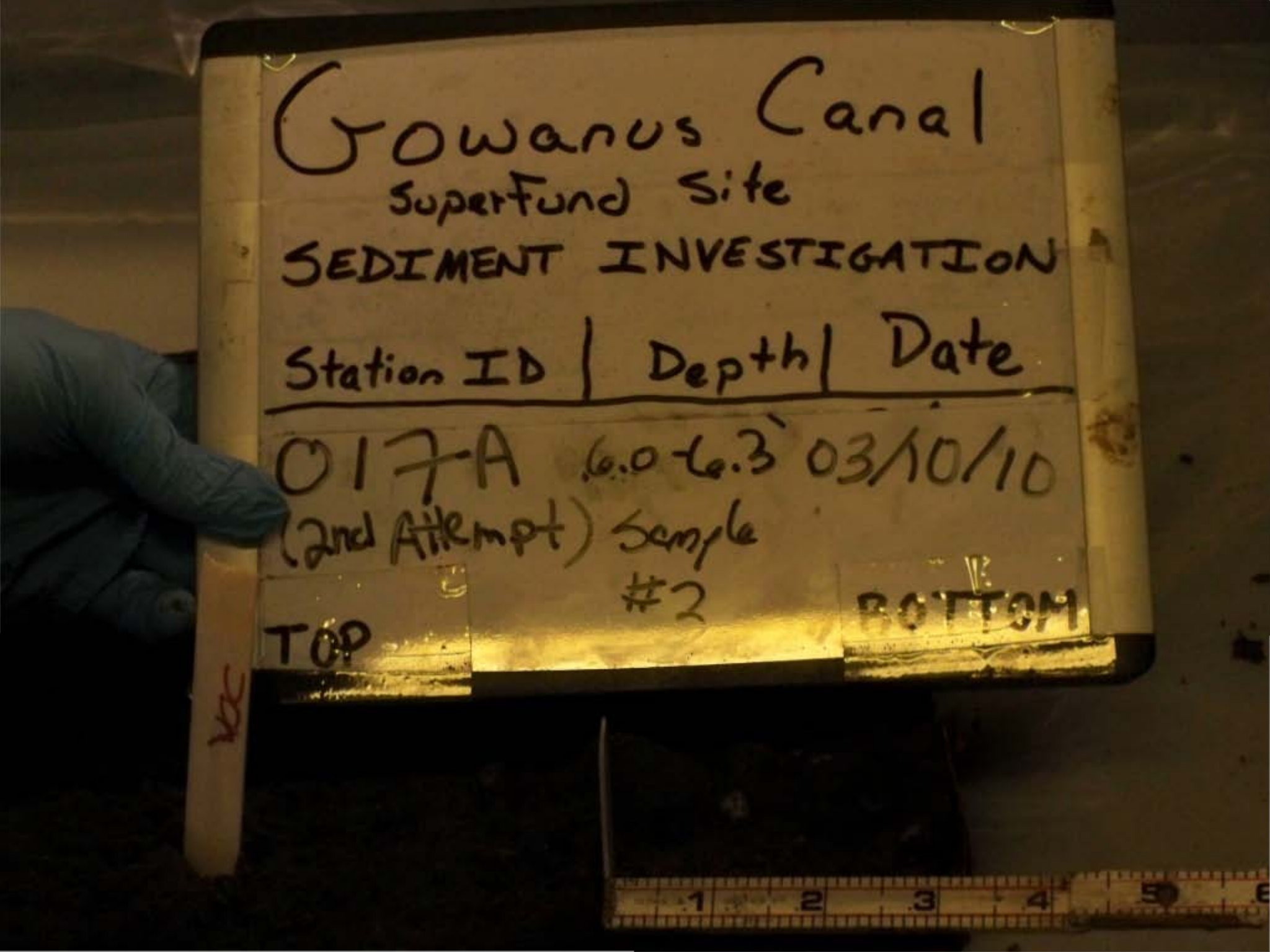

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017A FULL 03/10/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

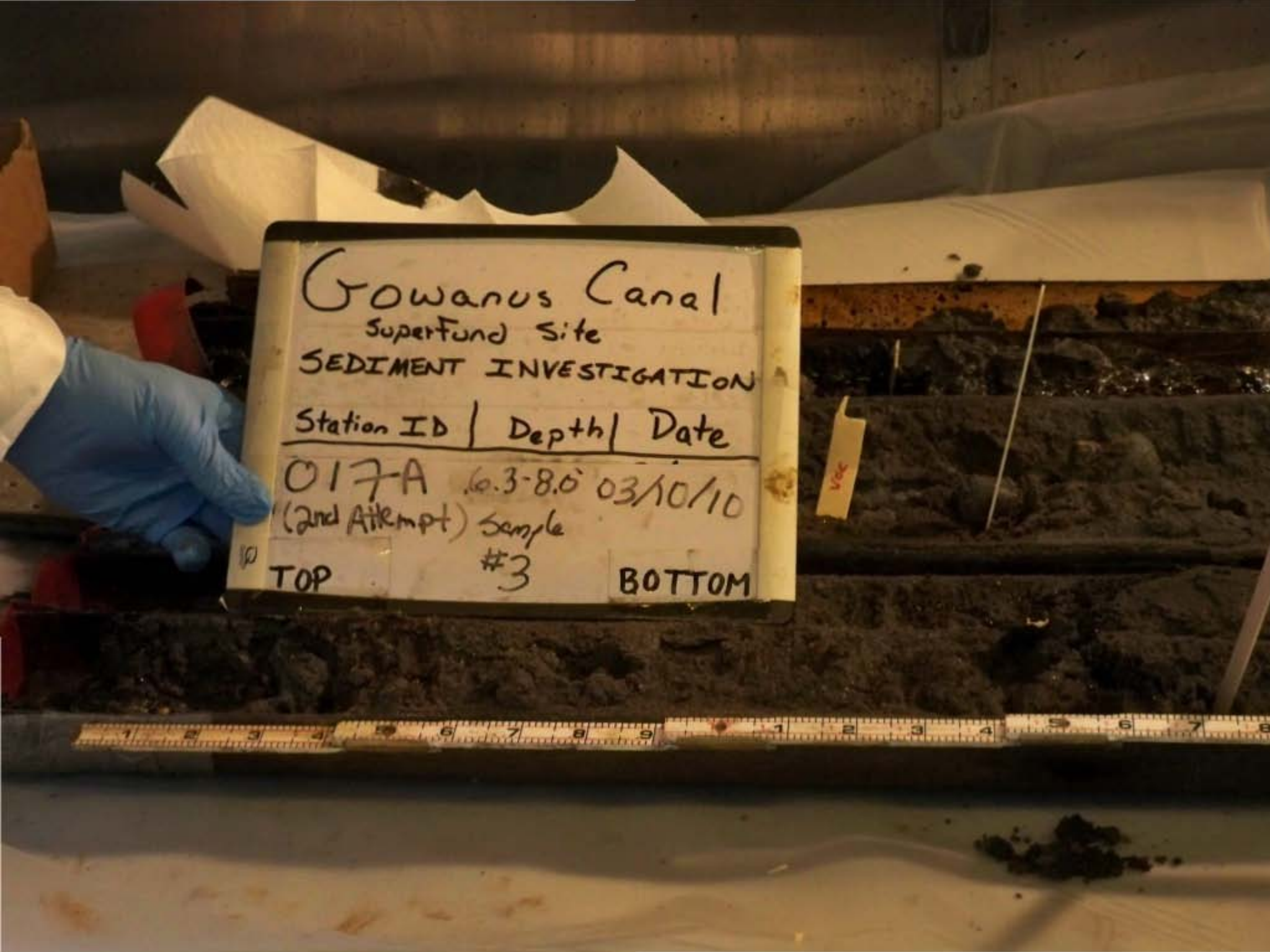

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017-A 0.0-2.0' 03/10/10
(2nd Attempt)
TOP
BOTTOM

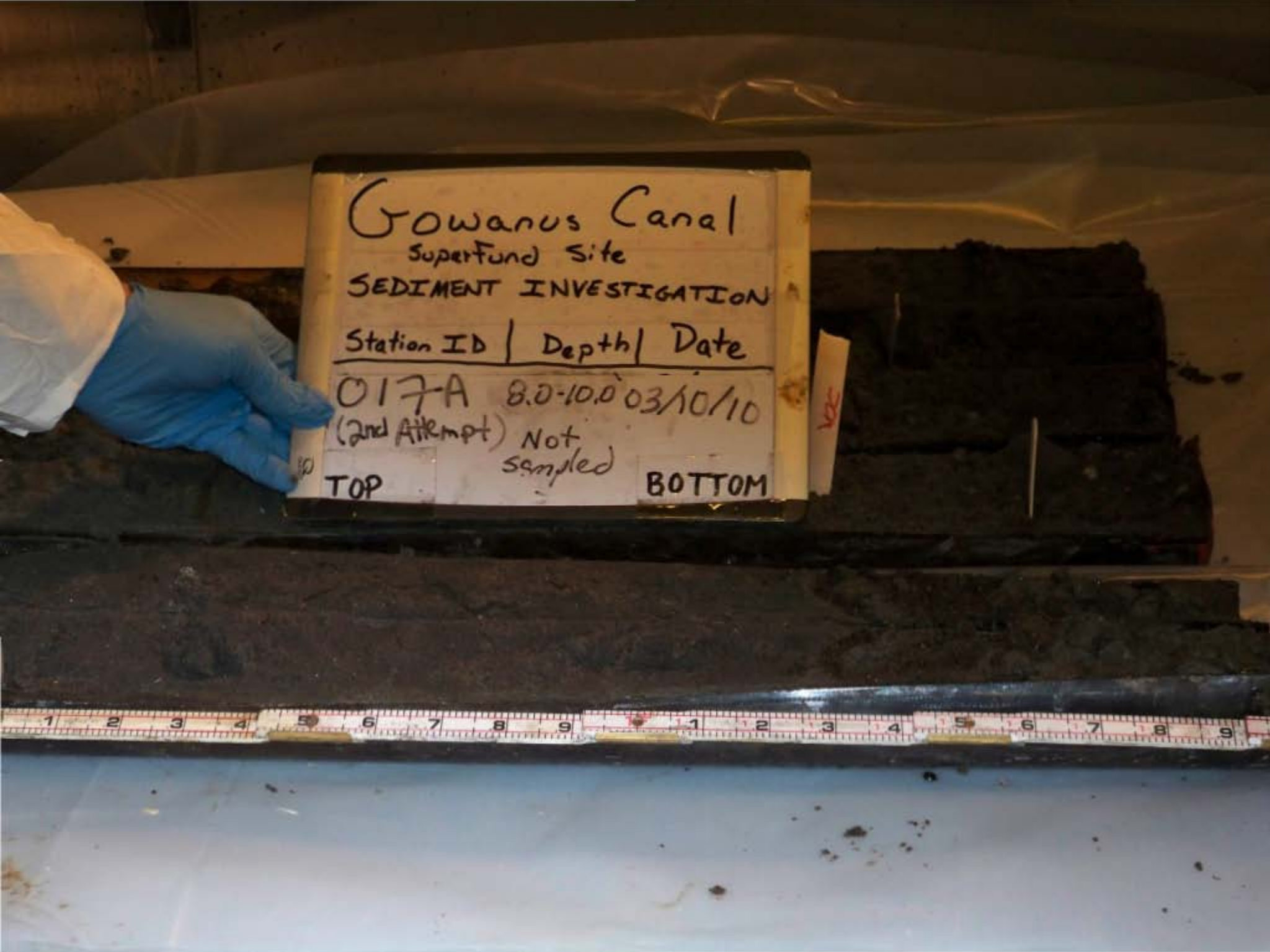

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017-A 2.0-2.5' 03/10/10
(2nd Attempt)
TOP
BOTTOM

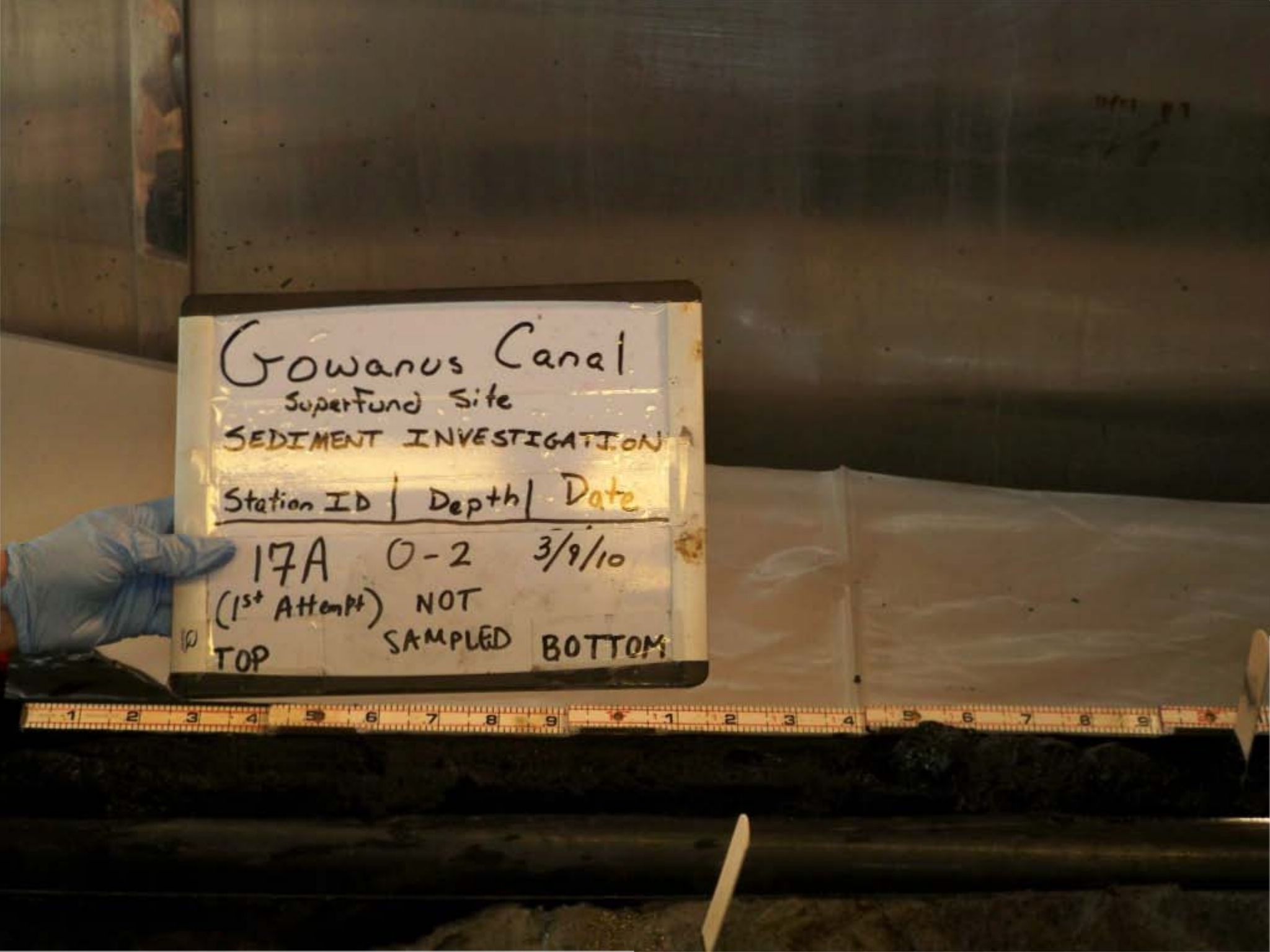

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
17A 4.0-6.0 3/9/10
(1st Attempt) NOT
SAMPLED
TOP
BOTTOM

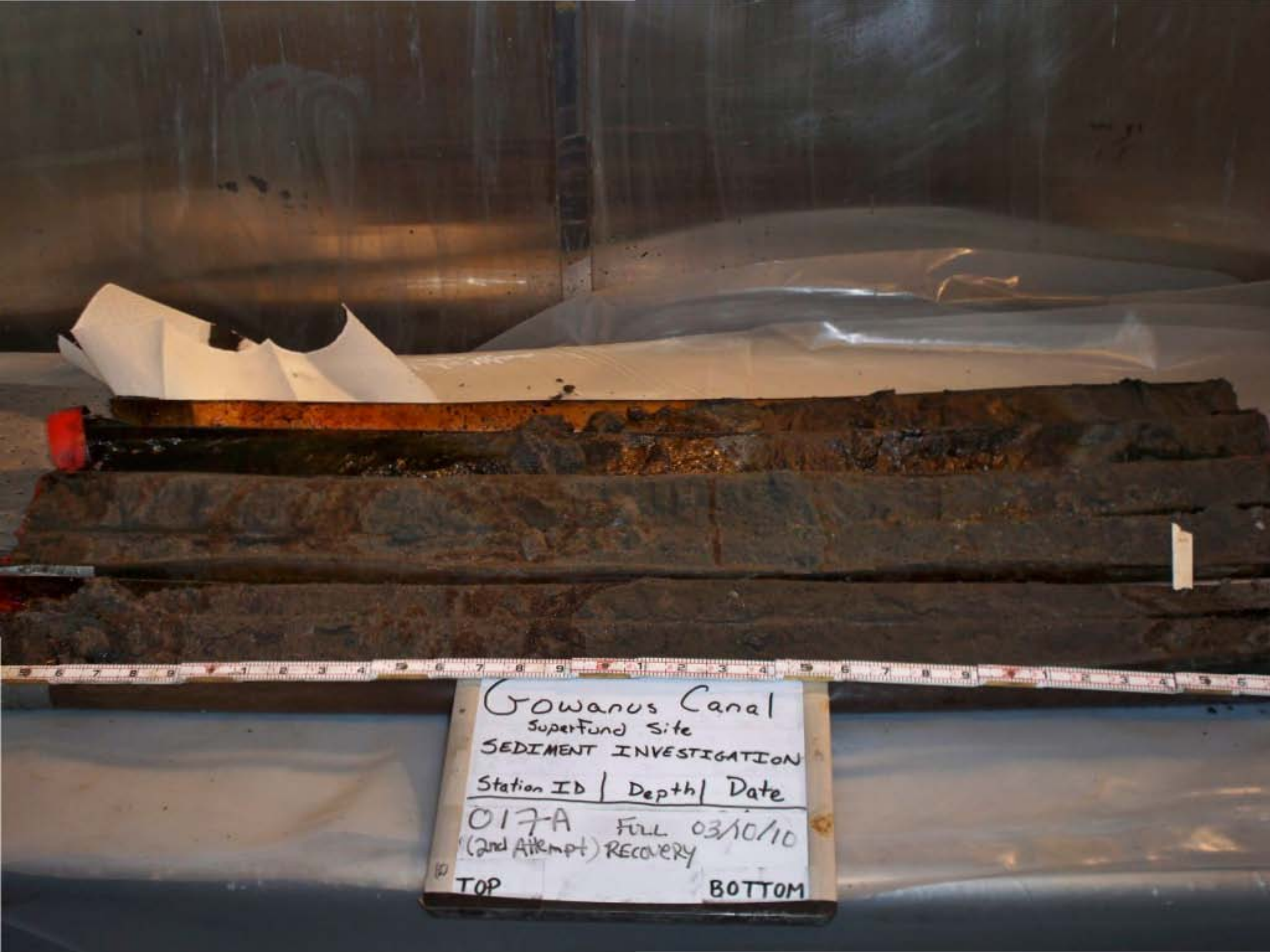

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017-A 4.0-6.0 03/10/10
(2nd Attempt) Sample #2
TOP
BOTTOM
VOC

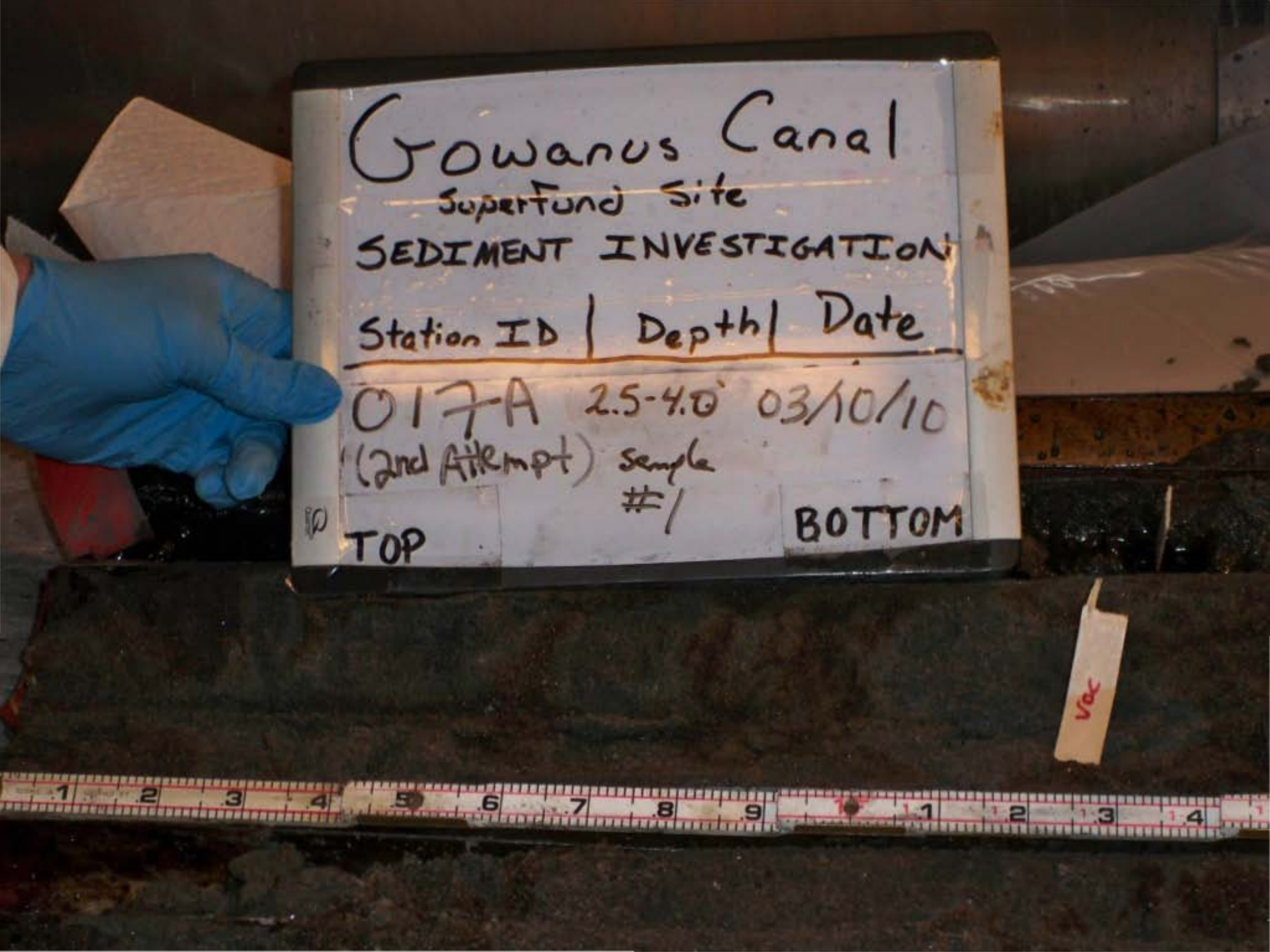

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017A 6.0-6.3' 03/10/10
(2nd Attempt) Sample
#2
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017-A 6.3-8.0' 03/10/10
(2nd Attempt) Sample
#3
TOP
BOTTOM

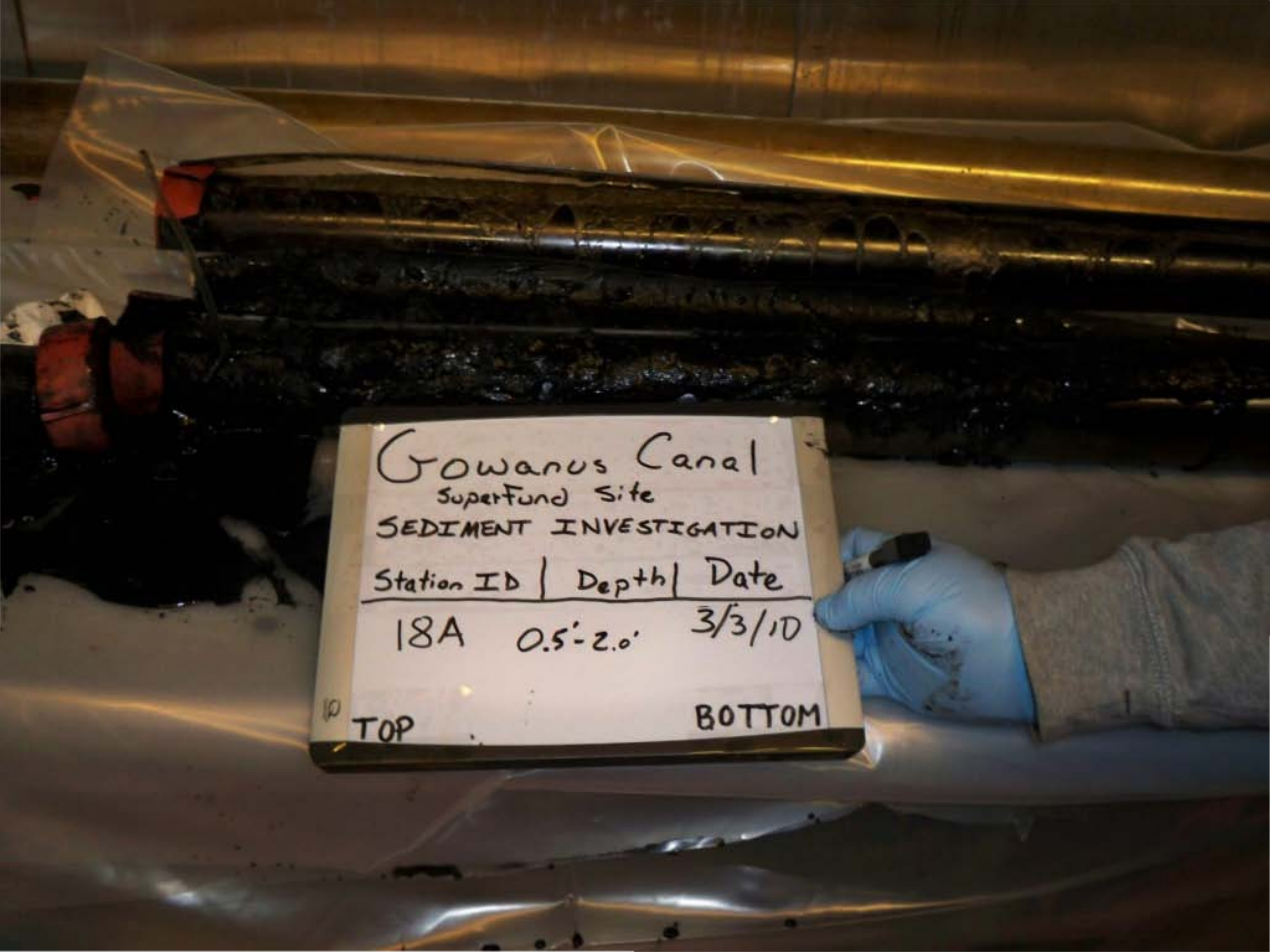

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017A 8.0-10.0 03/10/10
(2nd Attempt) Not sampled
TOP
BOTTOM

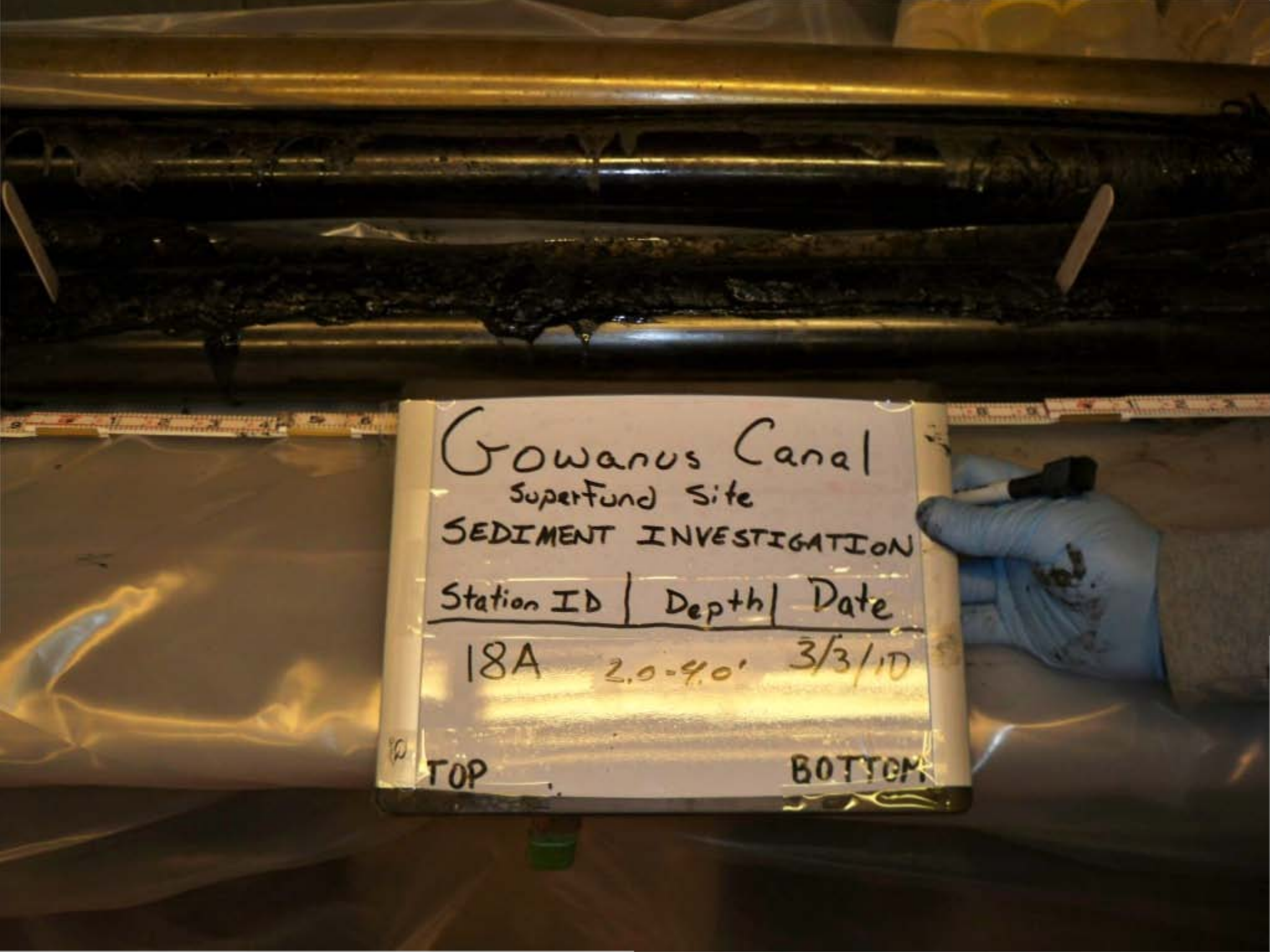

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
17A 0-2 3/9/10
(1st Attempt) NOT SAMPLED
TOP BOTTOM

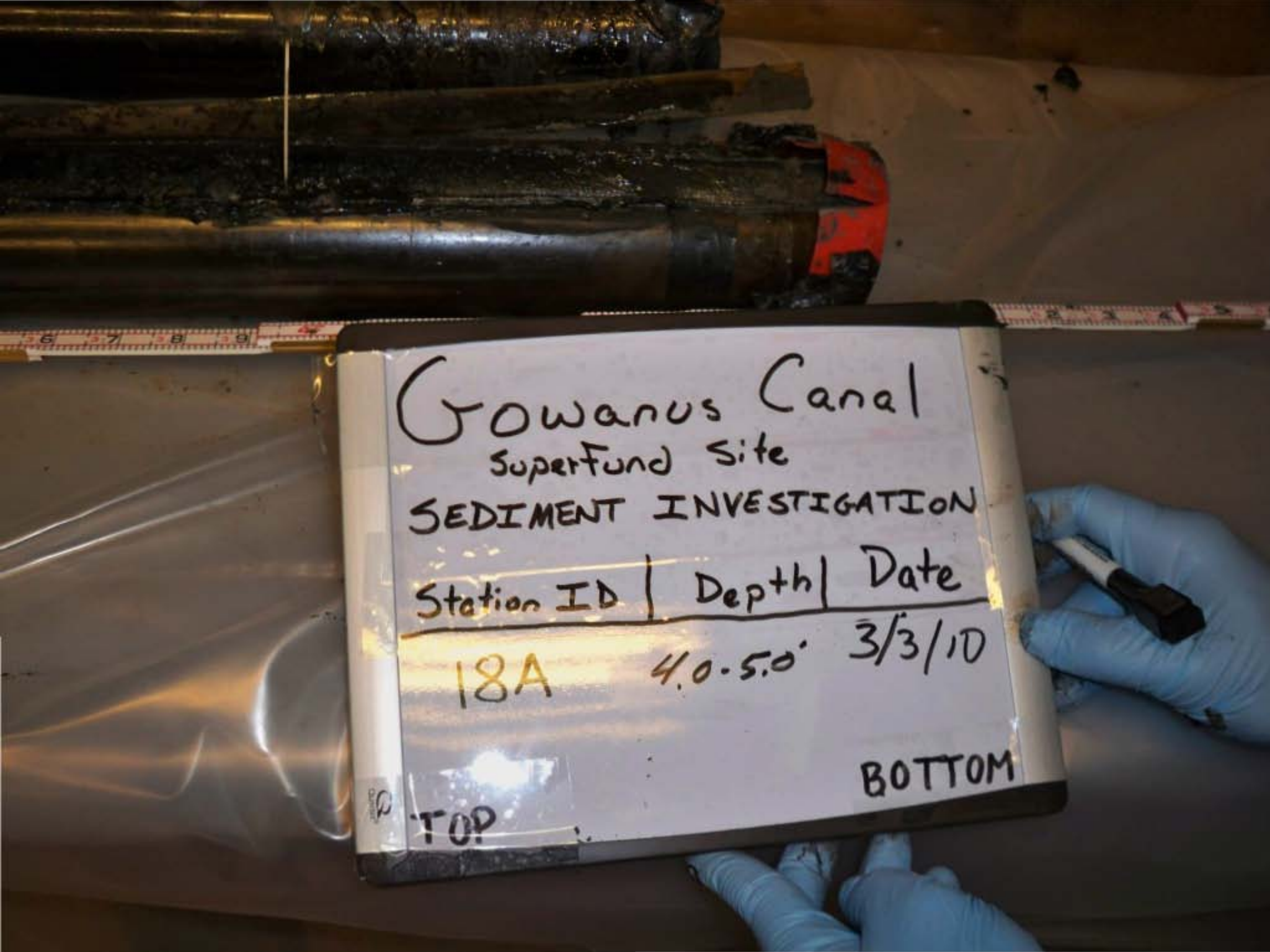

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017-A FULL 03/10/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

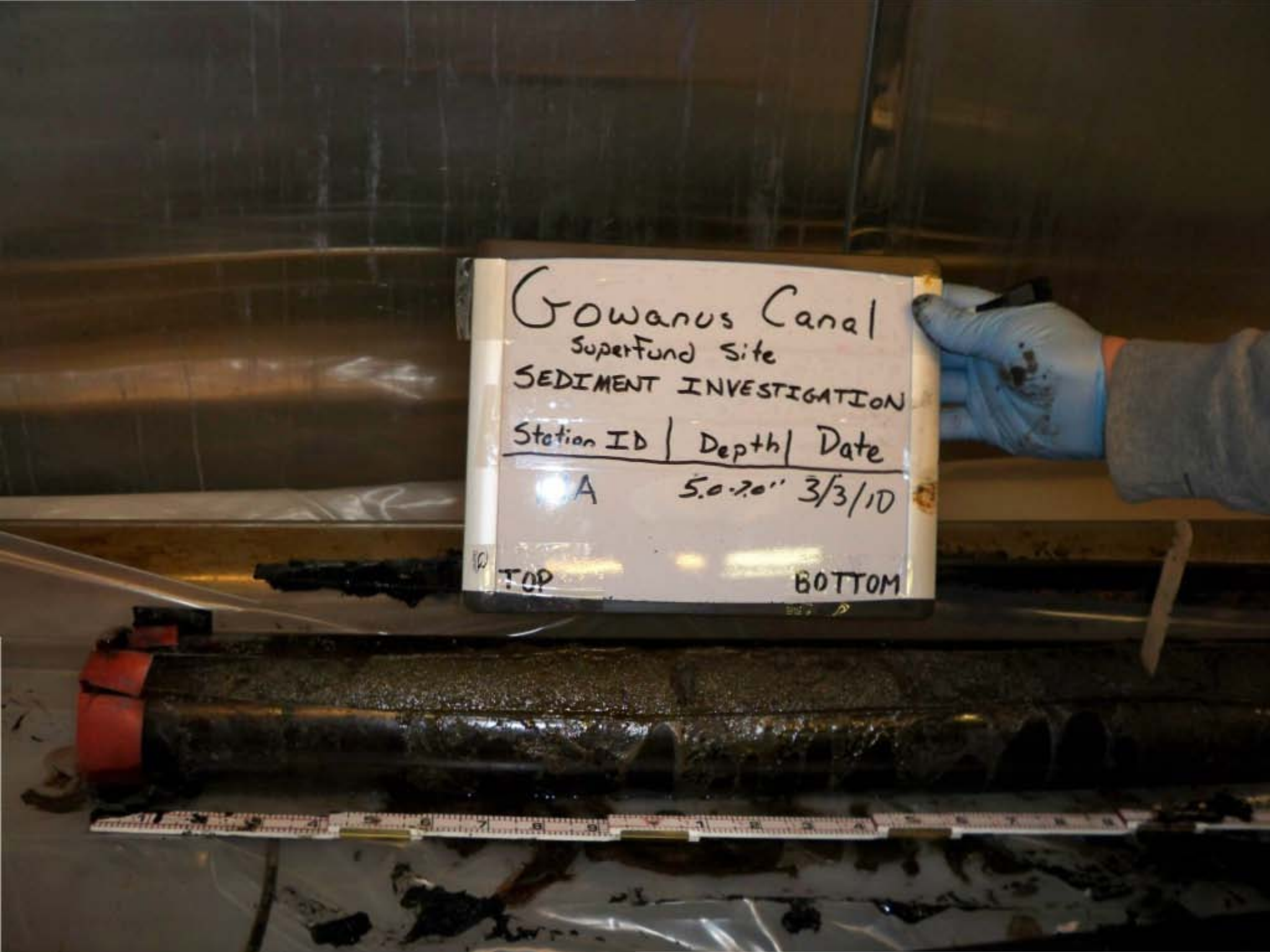

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017-A 2.5-4.0' 03/10/10
(2nd Attempt) Sample #1
TOP
BOTTOM
VOC

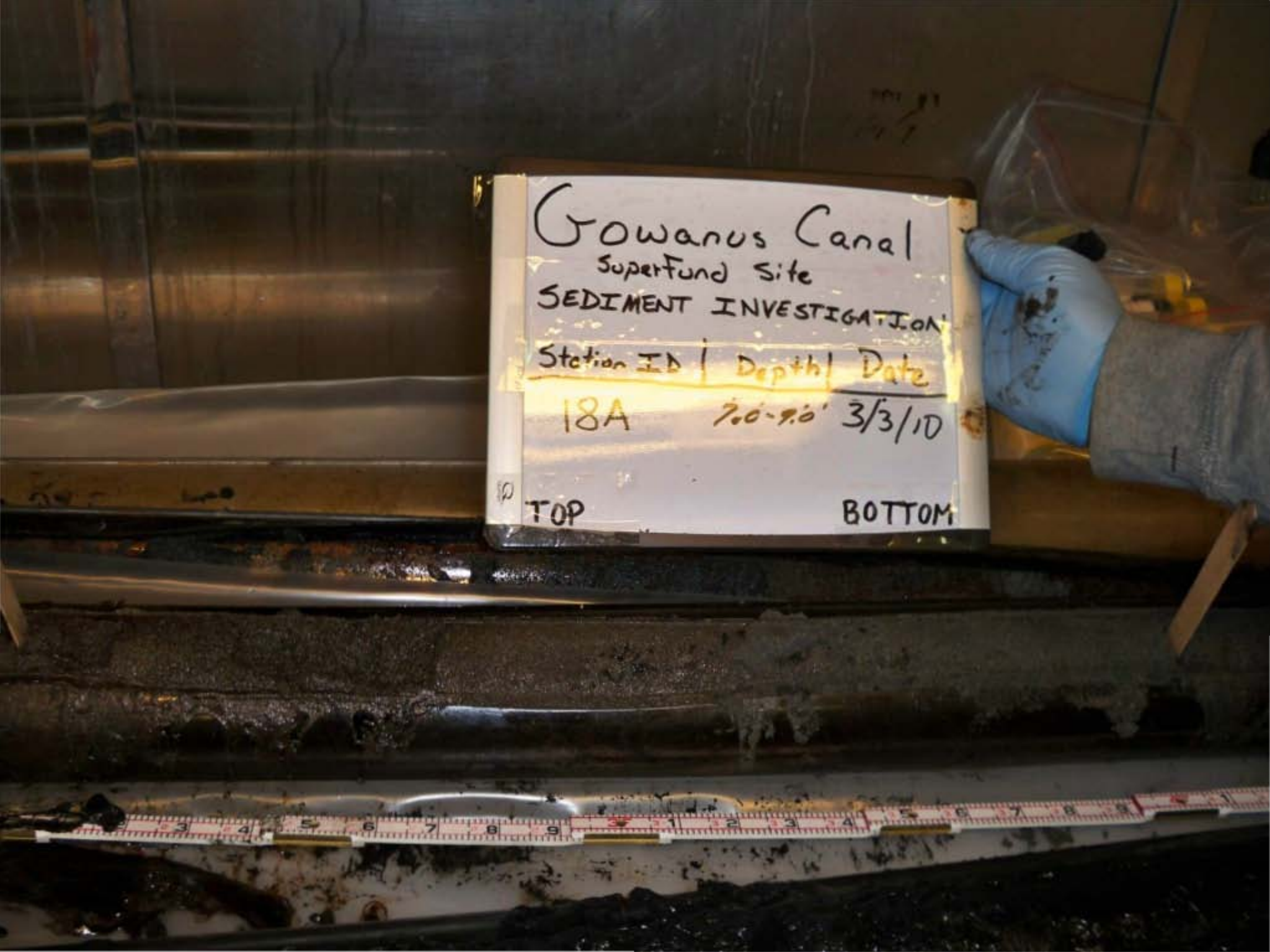

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
18A 0-0.5 3/3/10
TOP
BOTTOM

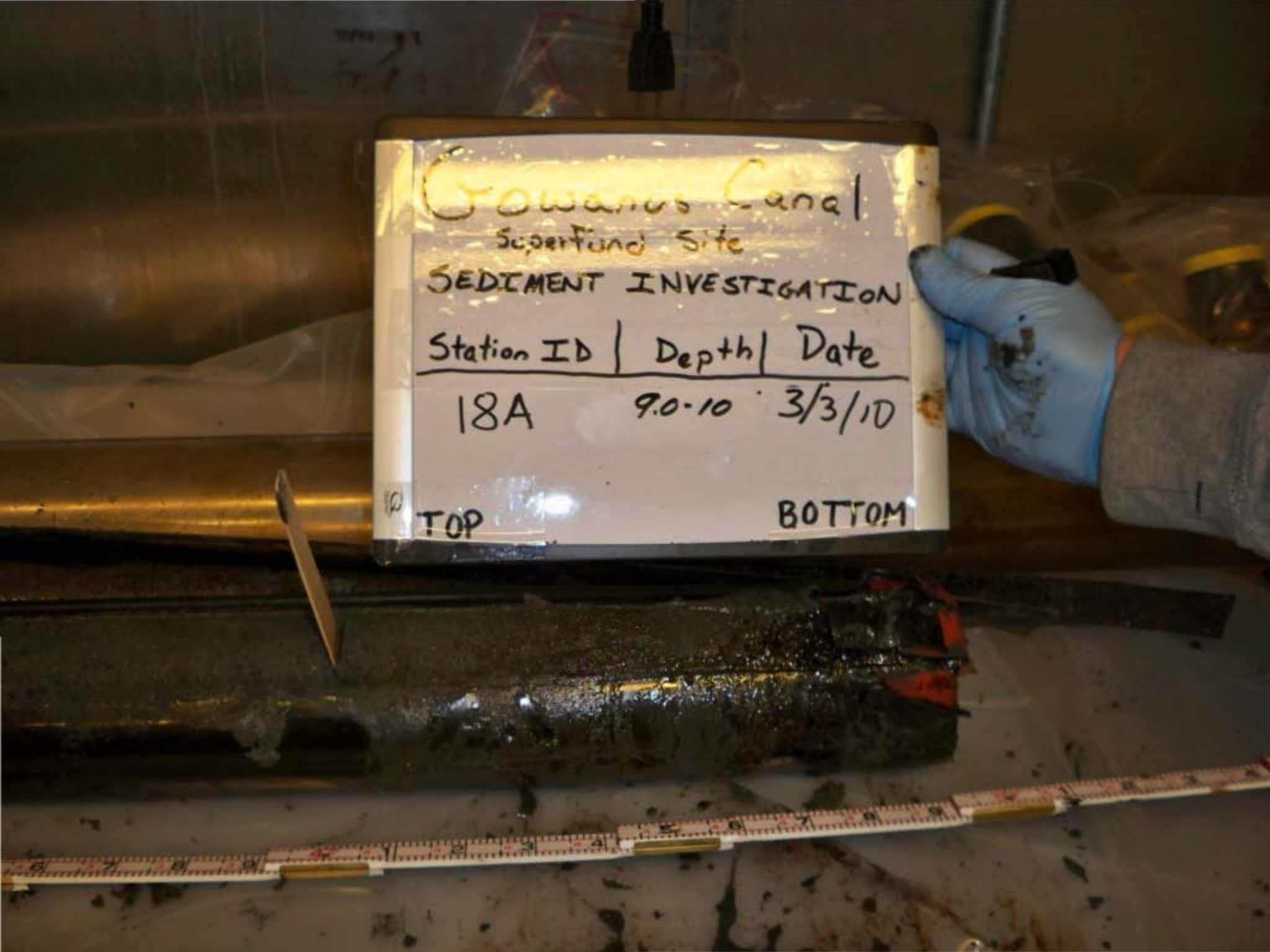

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
18A 0.5'-2.0' 3/3/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
18A 2.0-4.0' 3/3/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
18A 4.0-5.0' 3/3/10
TOP
BOTTOM

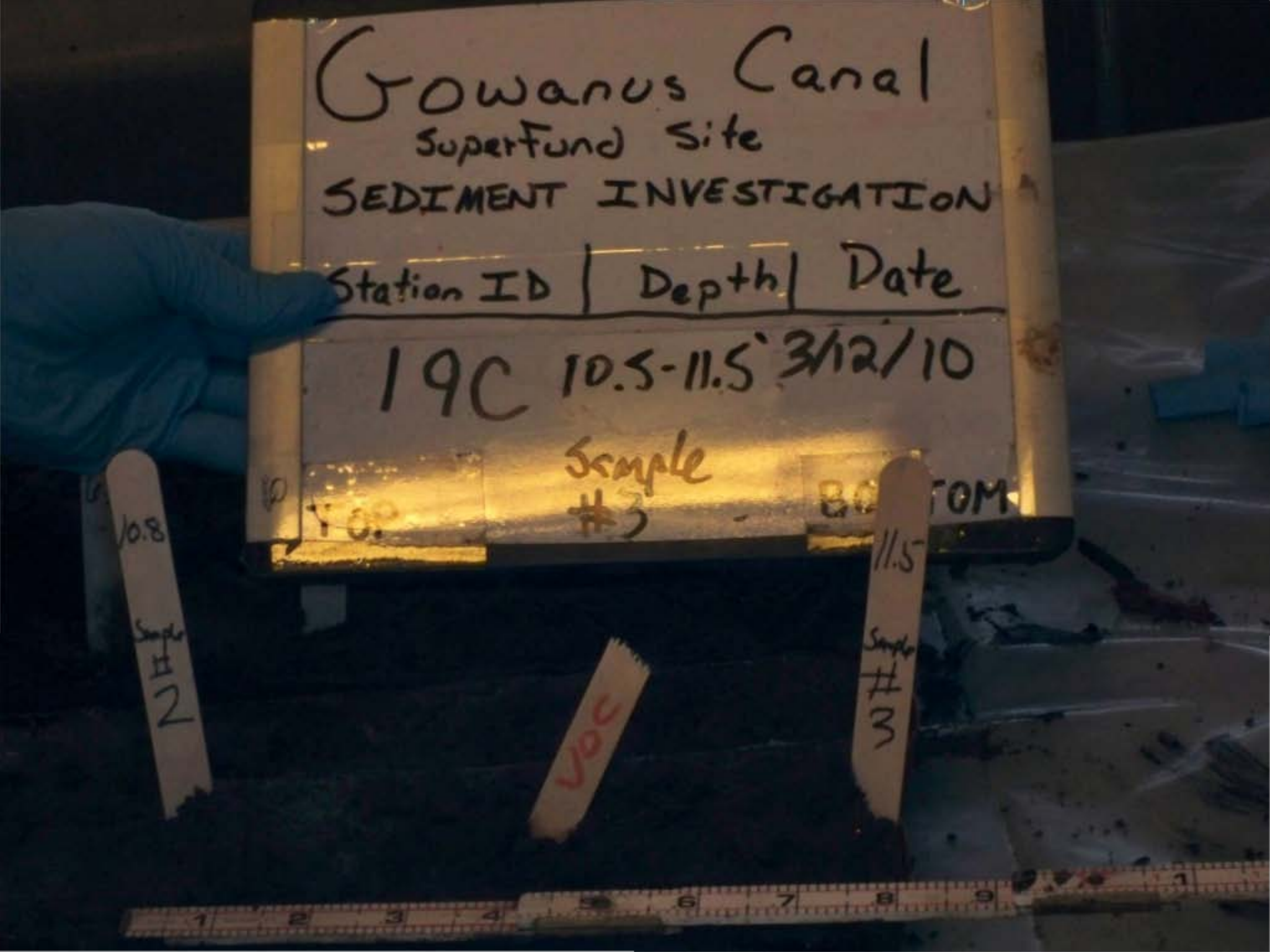

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
A 5.0-7.0" 3/3/10
TOP
BOTTOM

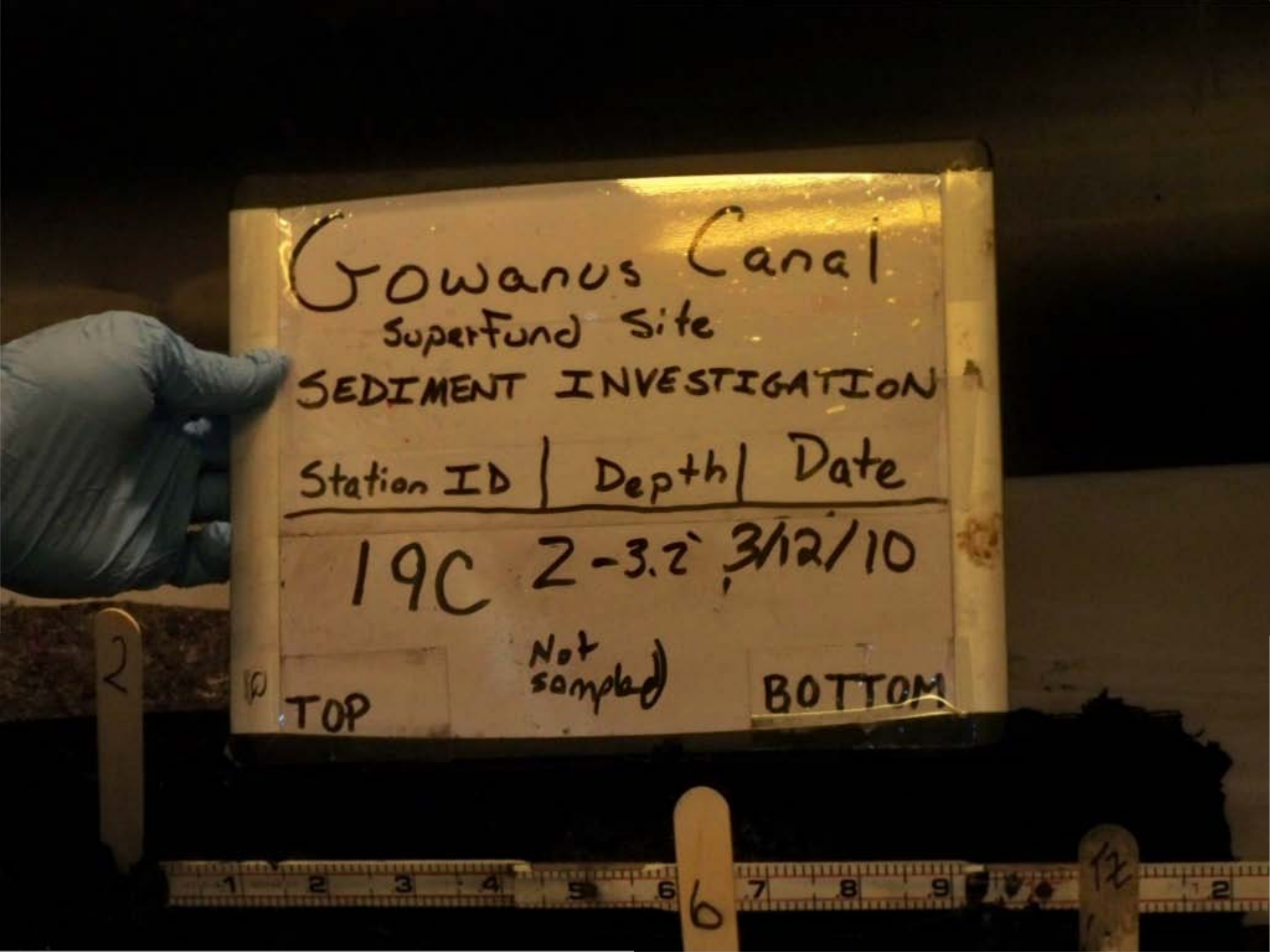

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
18A 7.0-9.0' 3/3/10
TOP
BOTTOM

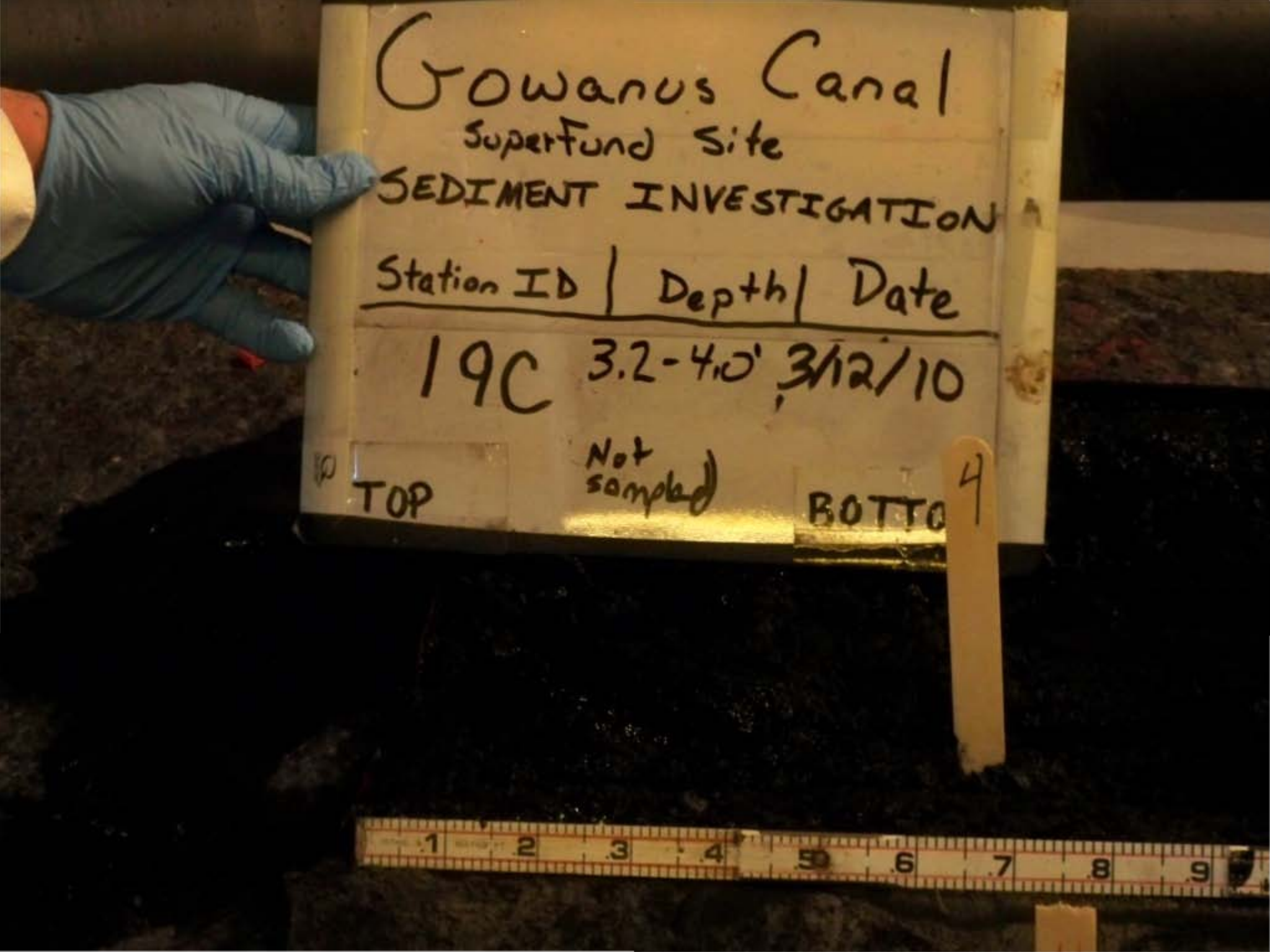

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
18A 9.0-10 3/3/10
TOP
BOTTOM

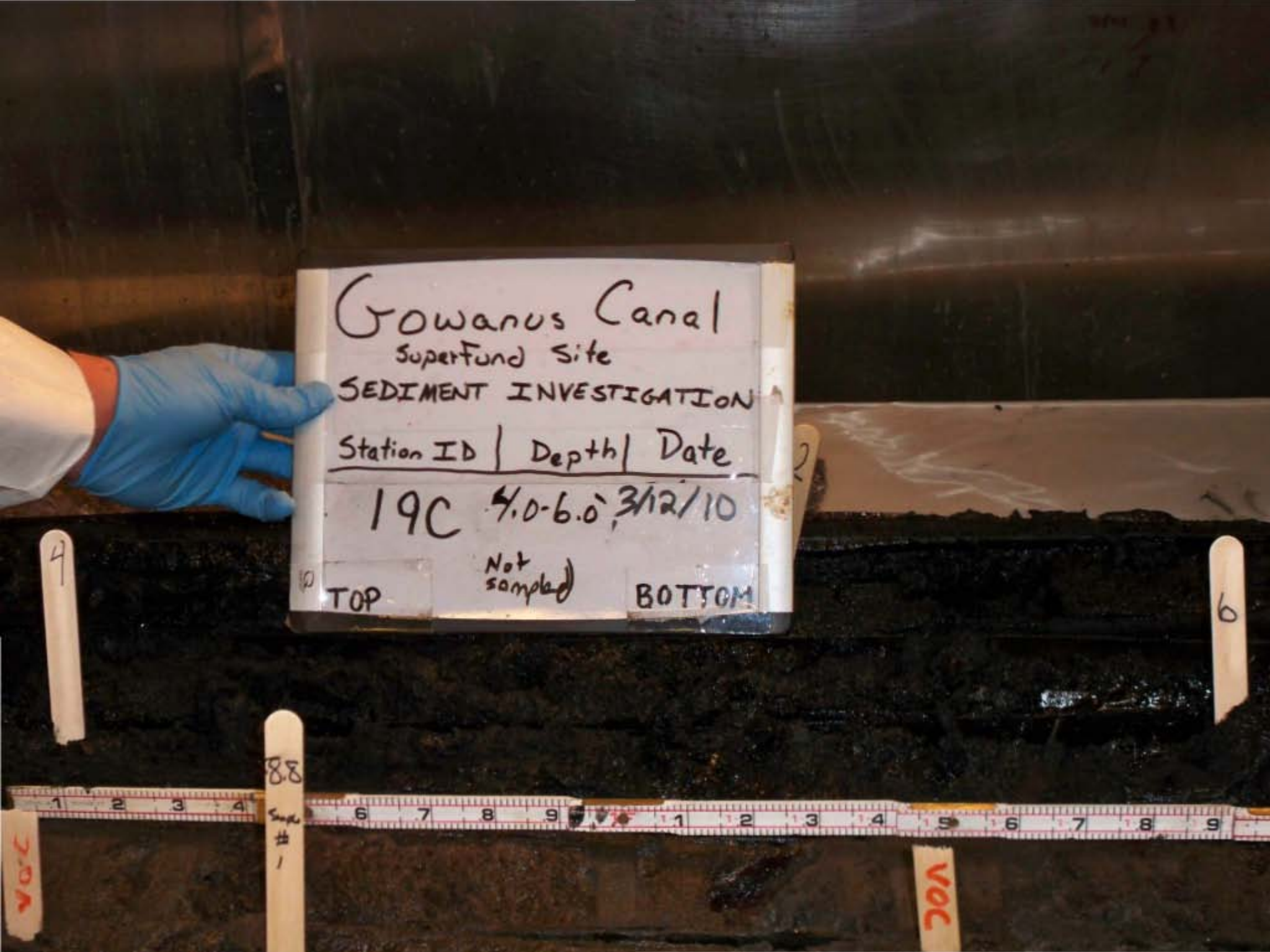

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C Full Recovery 3/12/10
TOP
BOTTOM

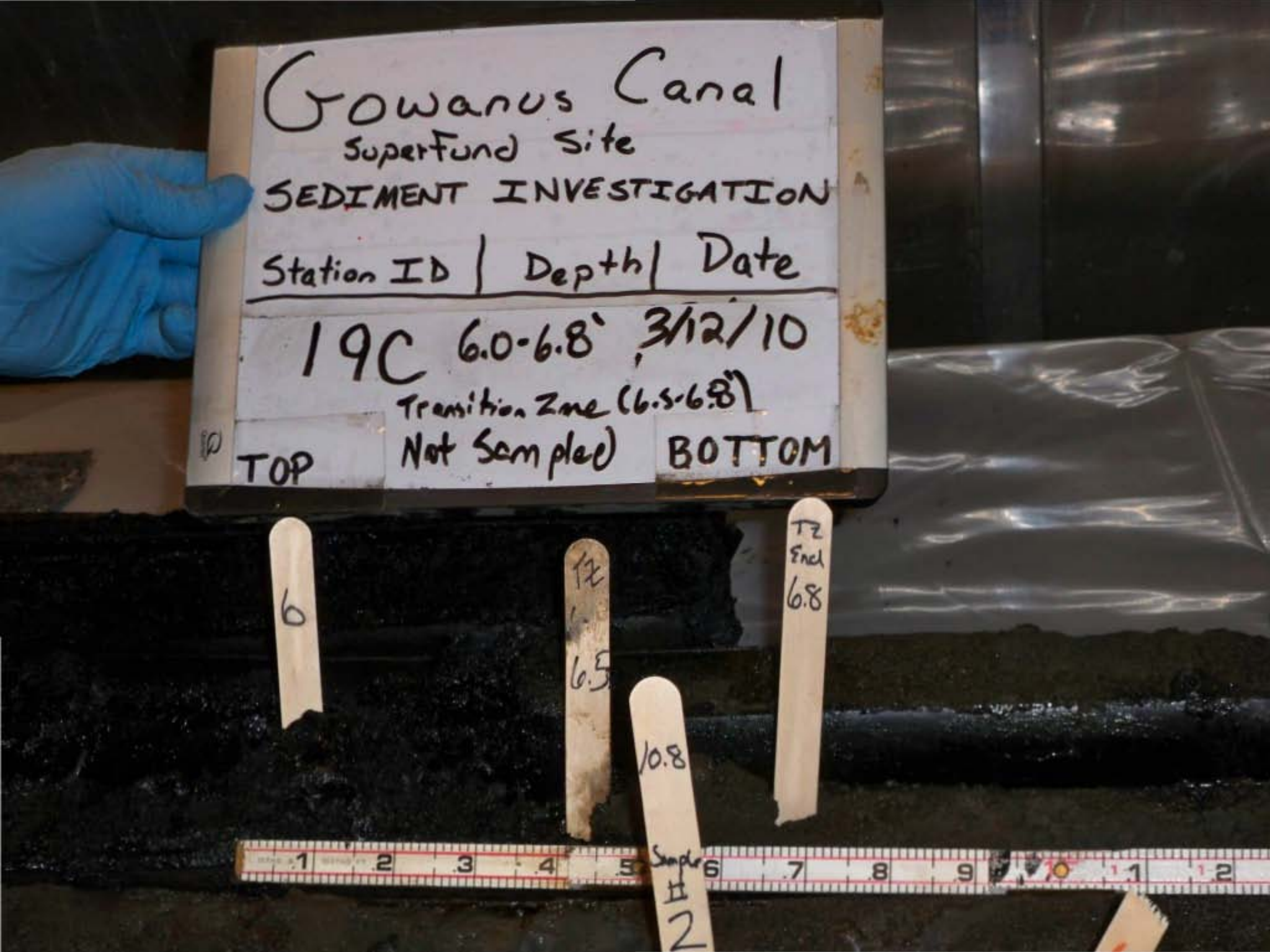

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 0-2' 3/12/10
Not sampled
TOP
BOTTOM

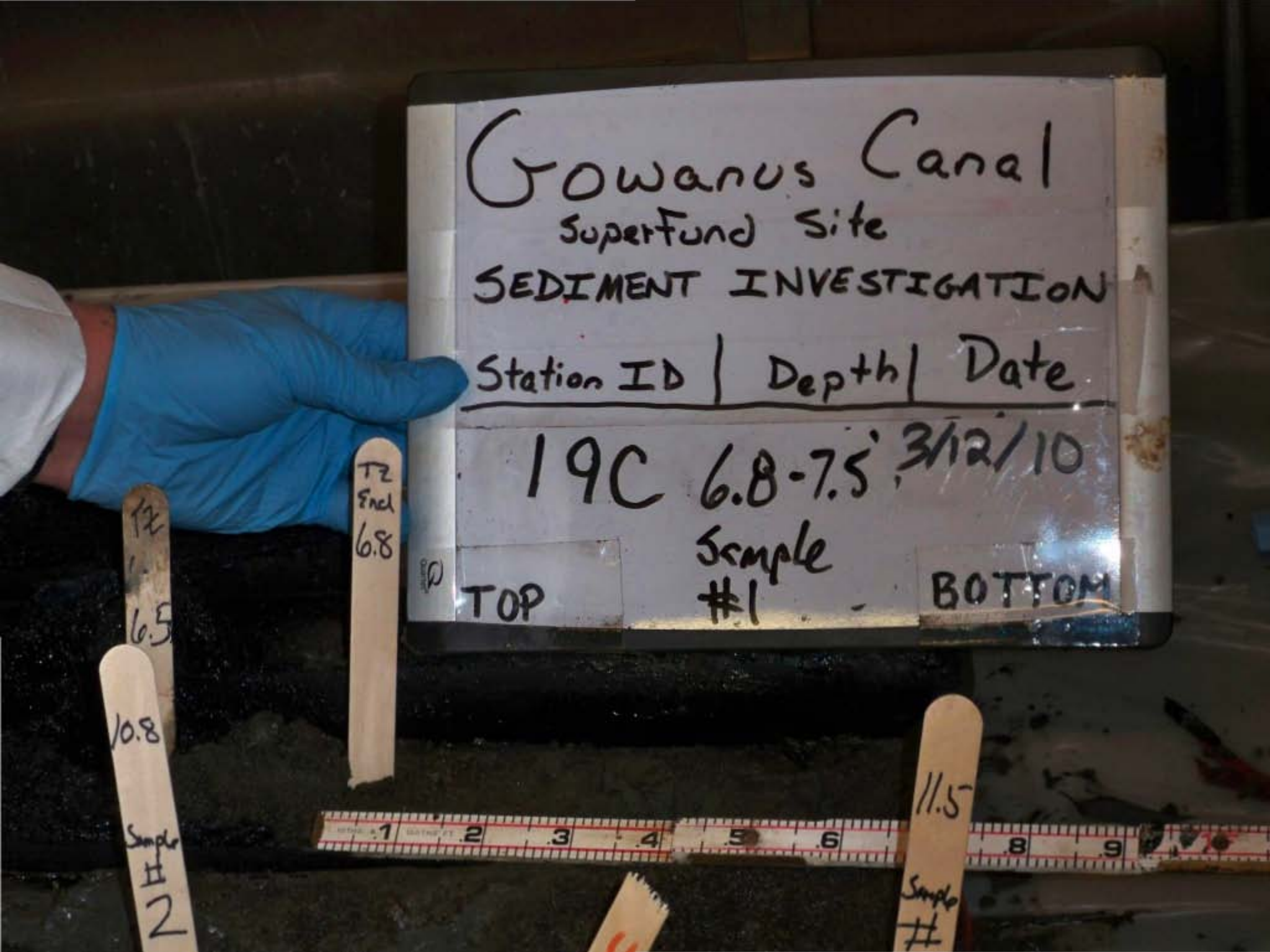

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 10.5-11.5 3/12/10
Sample #3
10.8
Sample #2
11.5
Sample #3
VOC

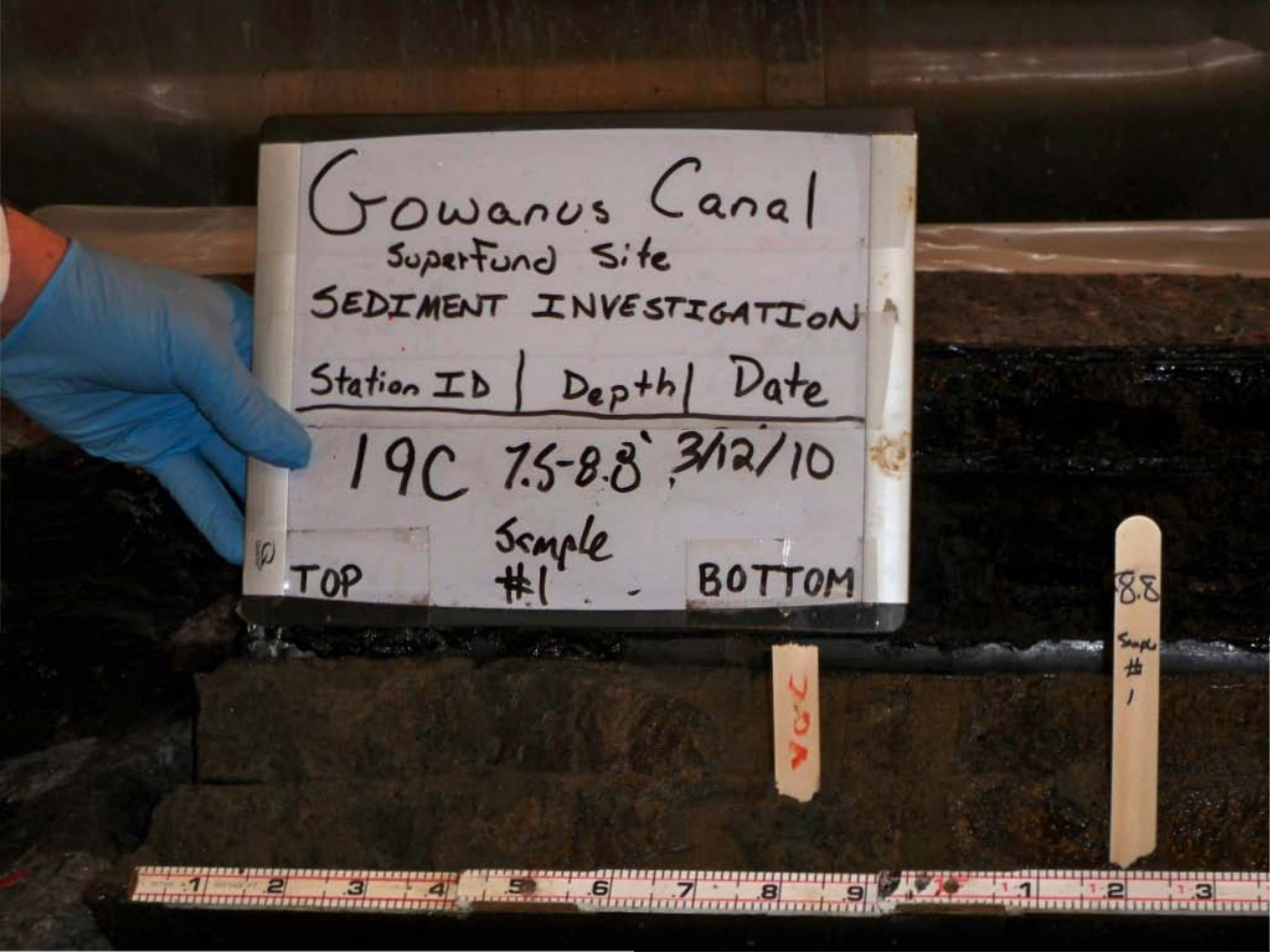

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 2-3.2' 3/12/10
Not sampled
TOP
BOTTOM

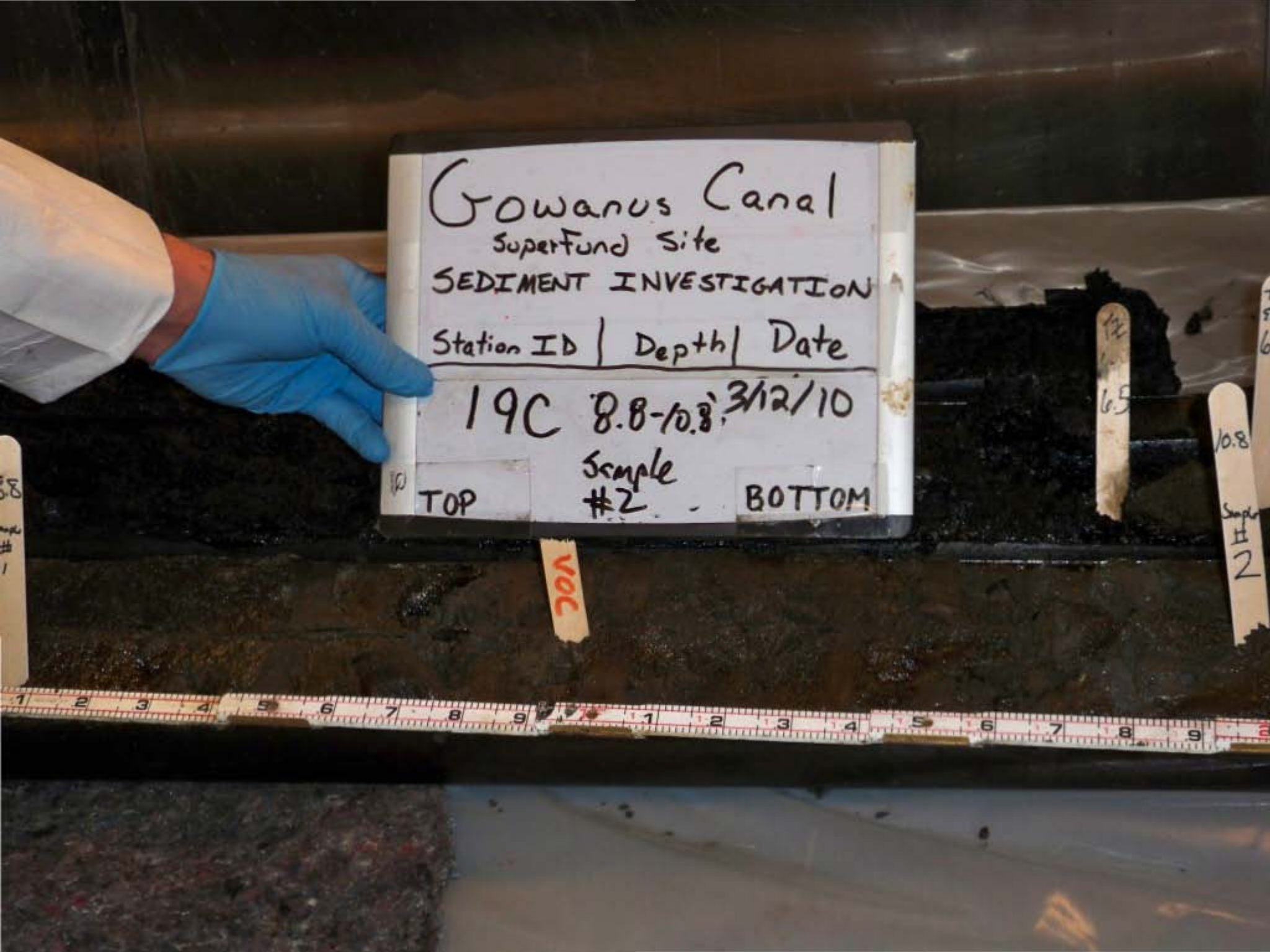

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 3.2-4.0' 3/12/10
TOP
Not sampled
BOTTO
4

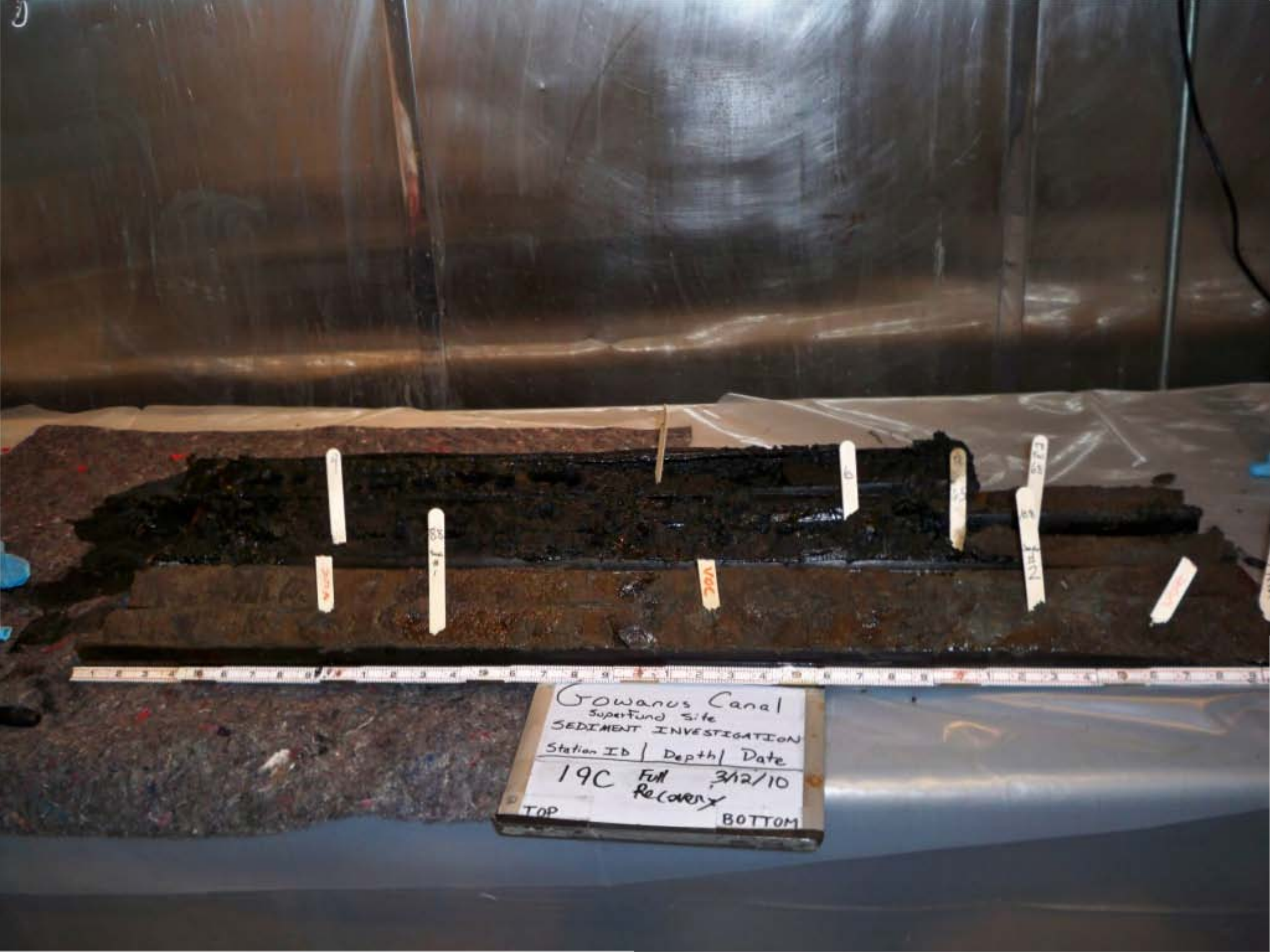

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 4.0-6.0' 3/12/10
TOP
Not sampled
BOTTOM
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 6.0-6.8' 3/12/10
Transition Zone (6.5-6.8')
TOP
Not Sampled
BOTTOM
6
TZ 6.5
TZ End 6.8
10.8
Sample # 2

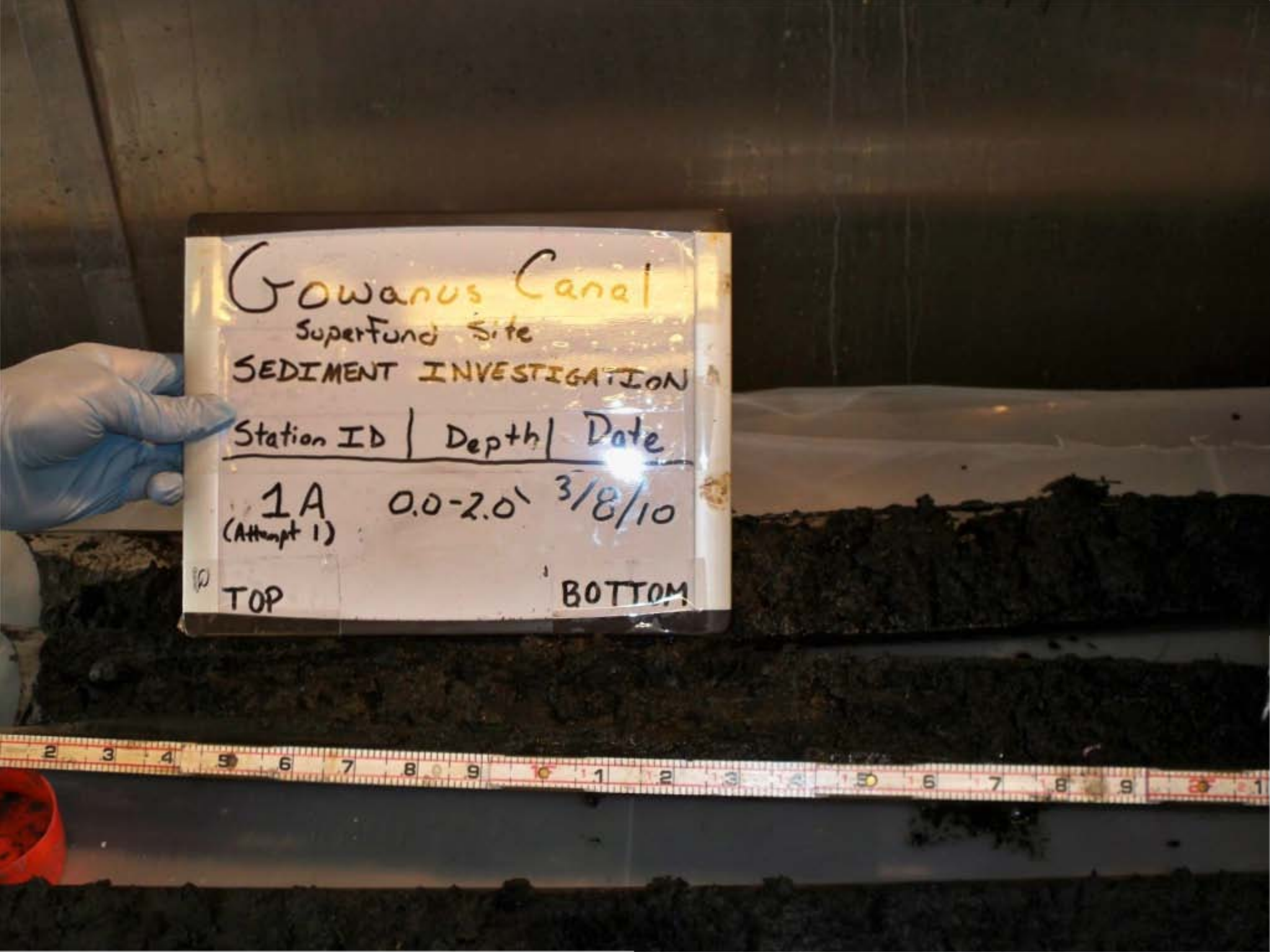

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 6.8-7.5' 3/12/10
Sample #1
TOP
BOTTOM
TZ 6.5
TZ End 6.8
10.8
Sample #2
11.5
Sample #

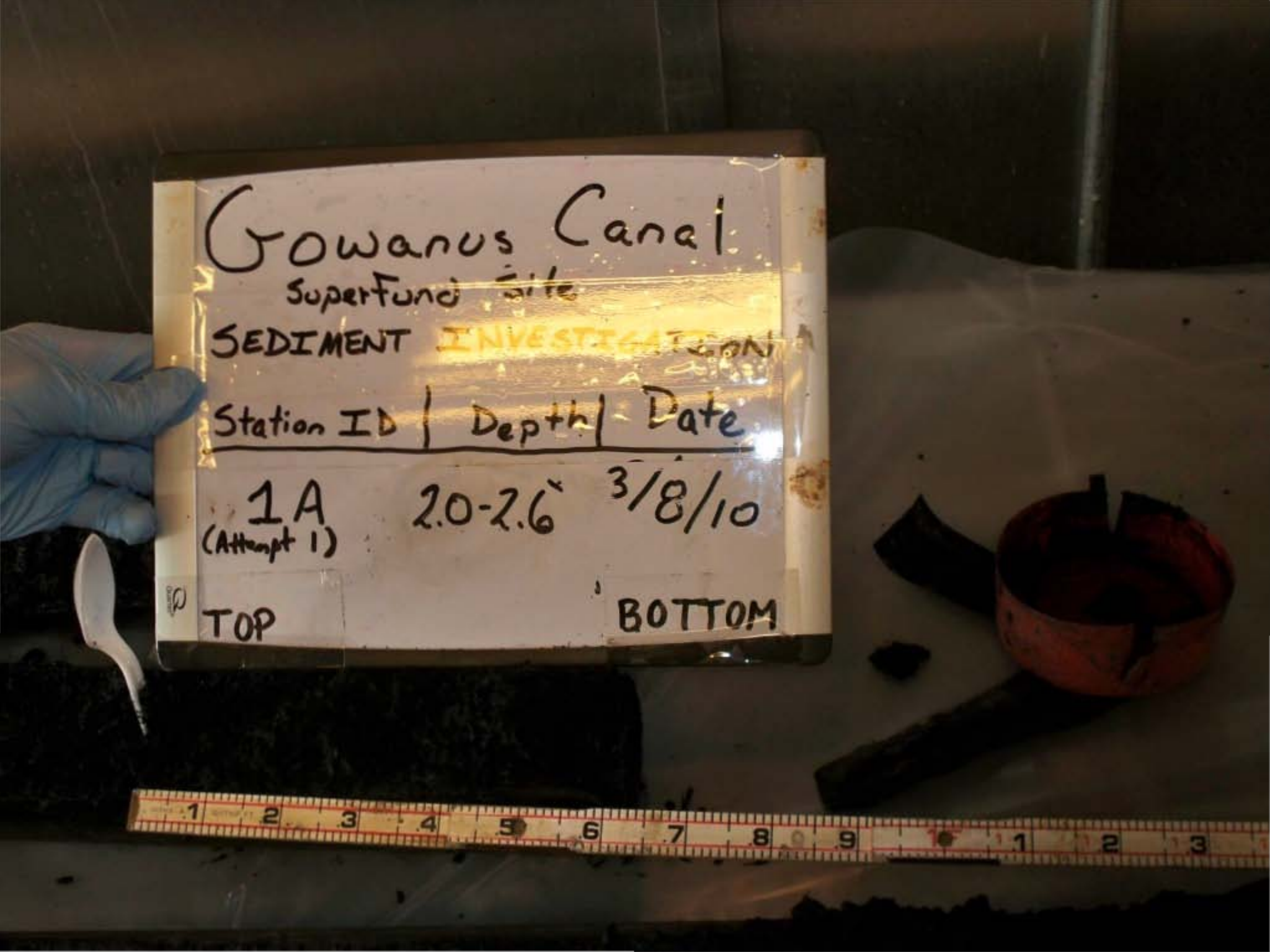

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 7.5-8.8' 3/12/10
TOP
Sample #1
BOTTOM
VOC
8.8
Sample #1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C 8.8-10.8' 3/12/10
Sample #2
TOP
BOTTOM
VOC
10.8
Sample #2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C Full 3/12/10
Recovery
TOP
BOTTOM

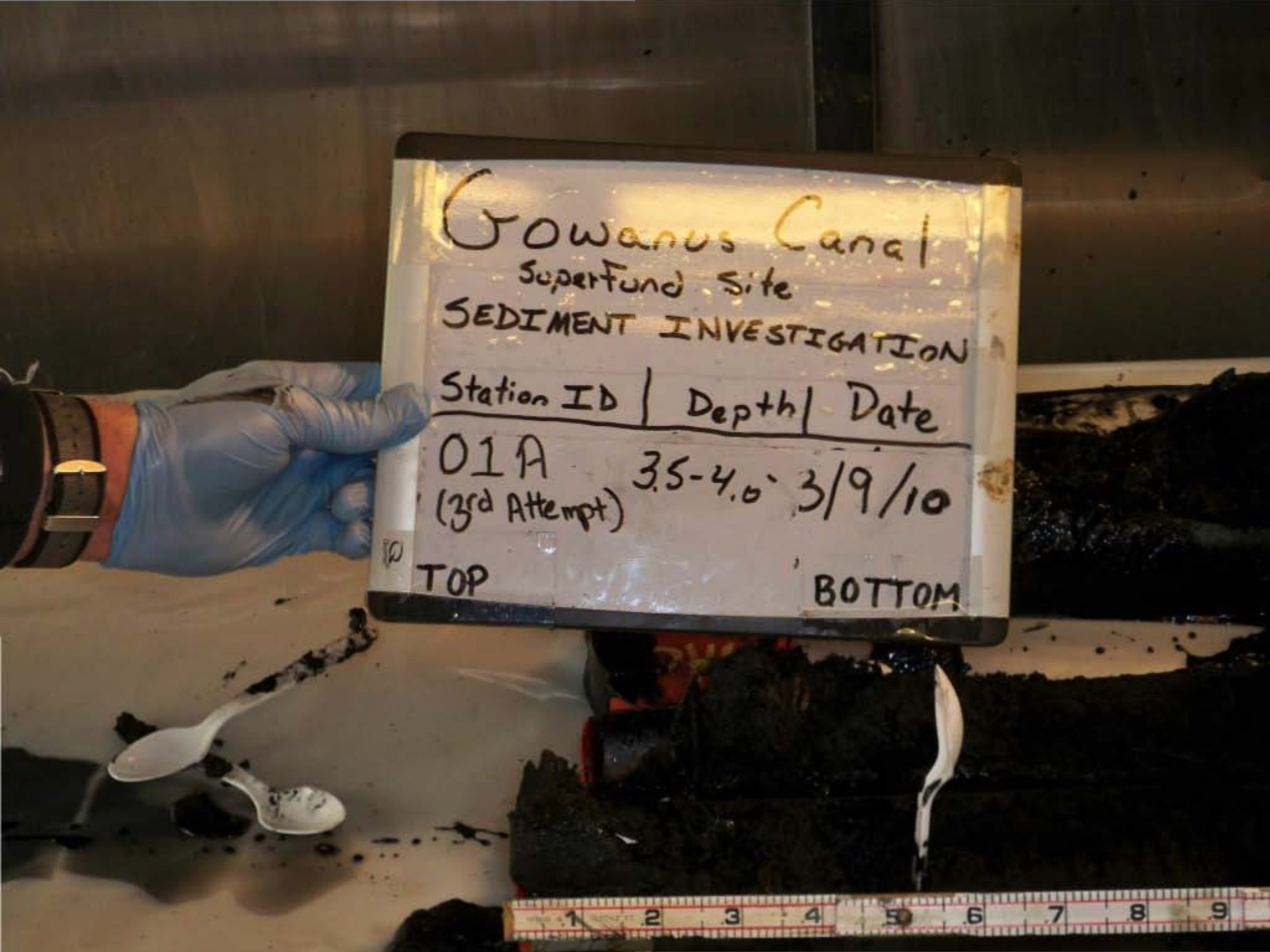

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A
(3rd Attempt)
Full
RECOVERY
3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A 0.0-2.0' 3/8/10
(Attempt 1)
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A (Attempt 1) 2.0-2.6' 3/8/10
TOP
BOTTOM

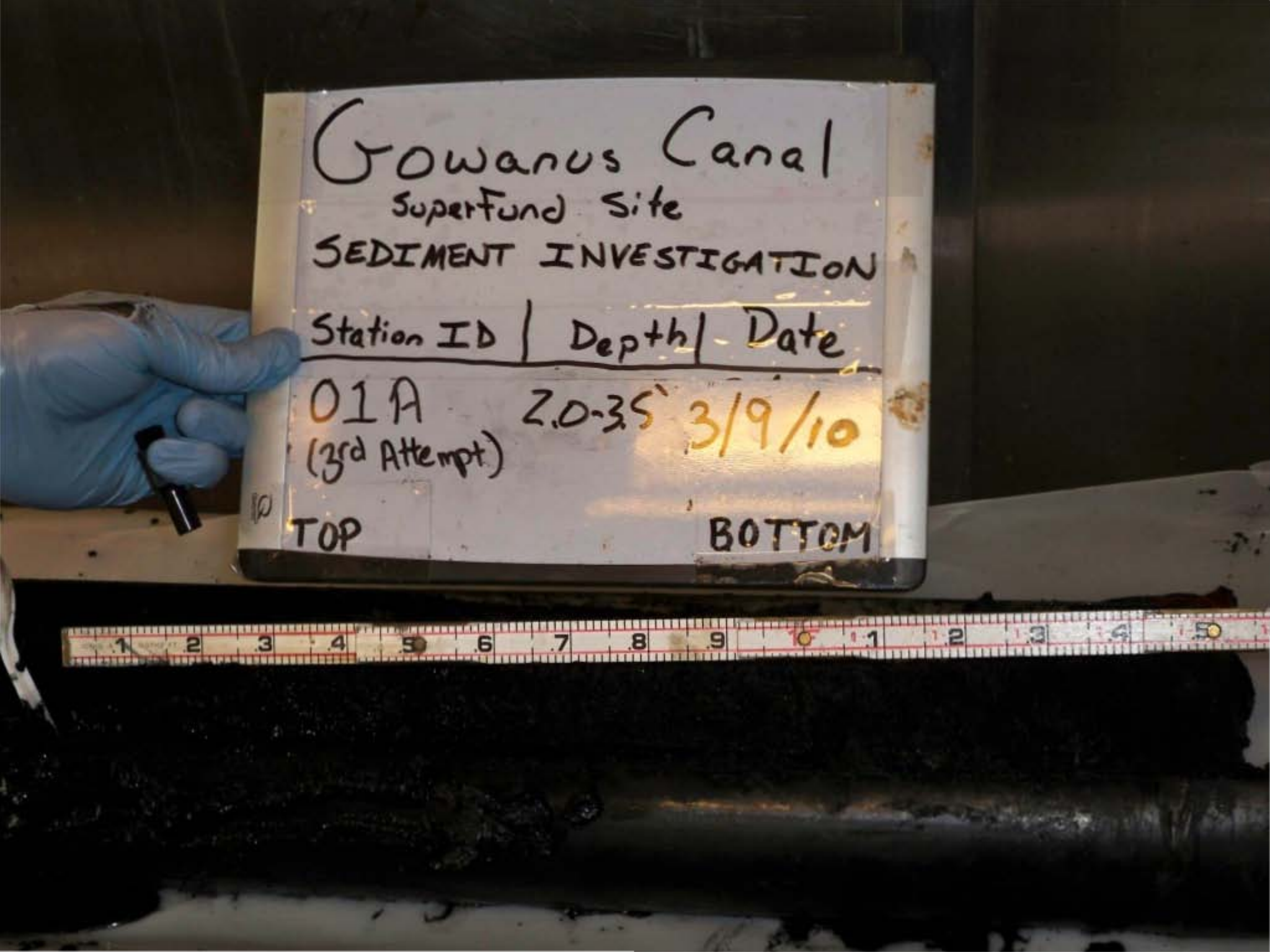

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A
(3rd Attempt)
Full
RECOVERY
3/9/10
TOP
BOTTOM

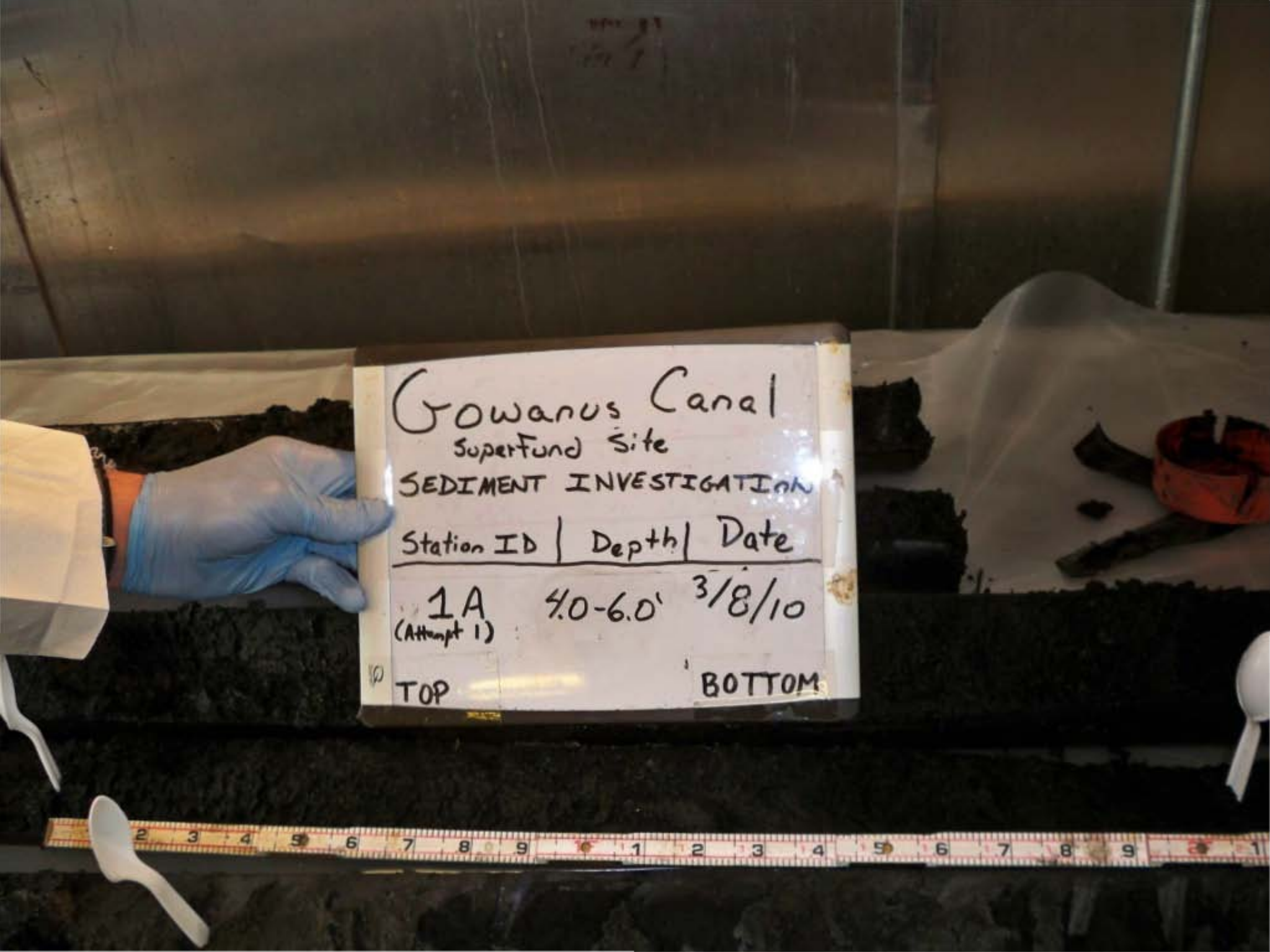

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A (Attempt 1) 2.6-4.0' 3/8/10
TOP
BOTTOM

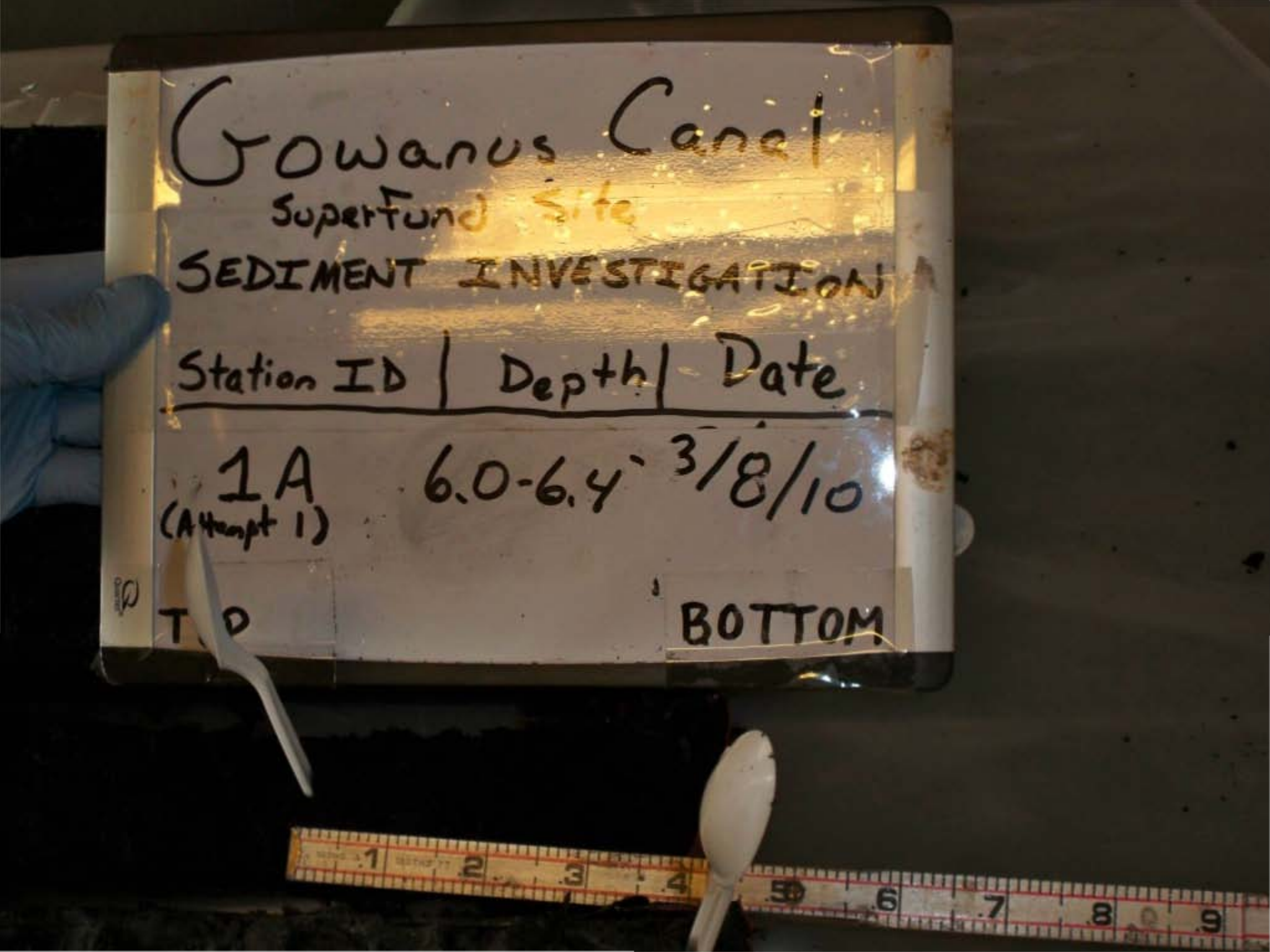

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A (3rd Attempt) 3.5-4.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A 4.0-6.0' 3/9/10
(3rd Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A 0.0-2.0' 3/9/10
(3rd Attempt)
TOP
BOTTOM

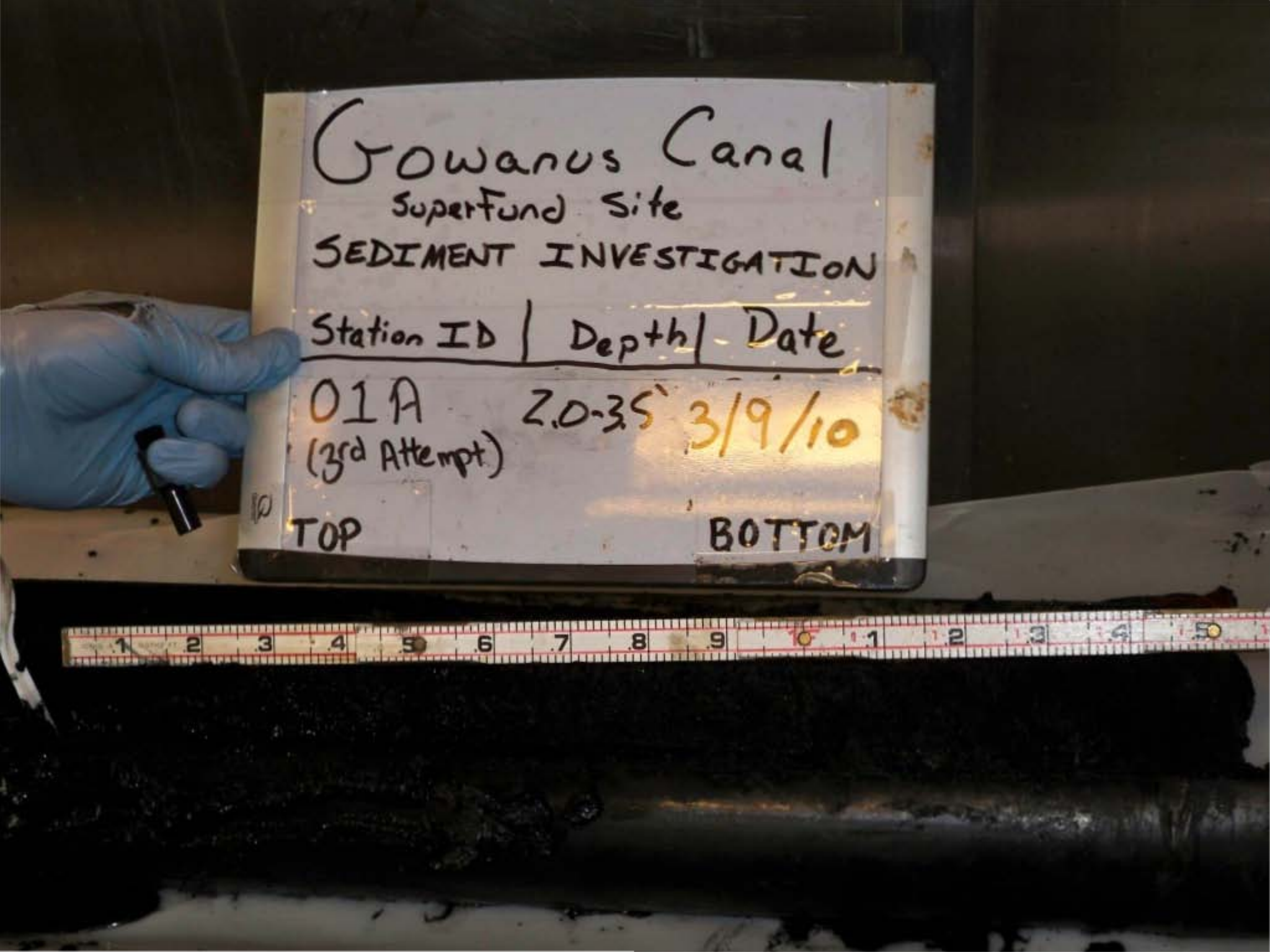

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A 2.0-3.5' 3/9/10
(3rd Attempt)
TOP
BOTTOM

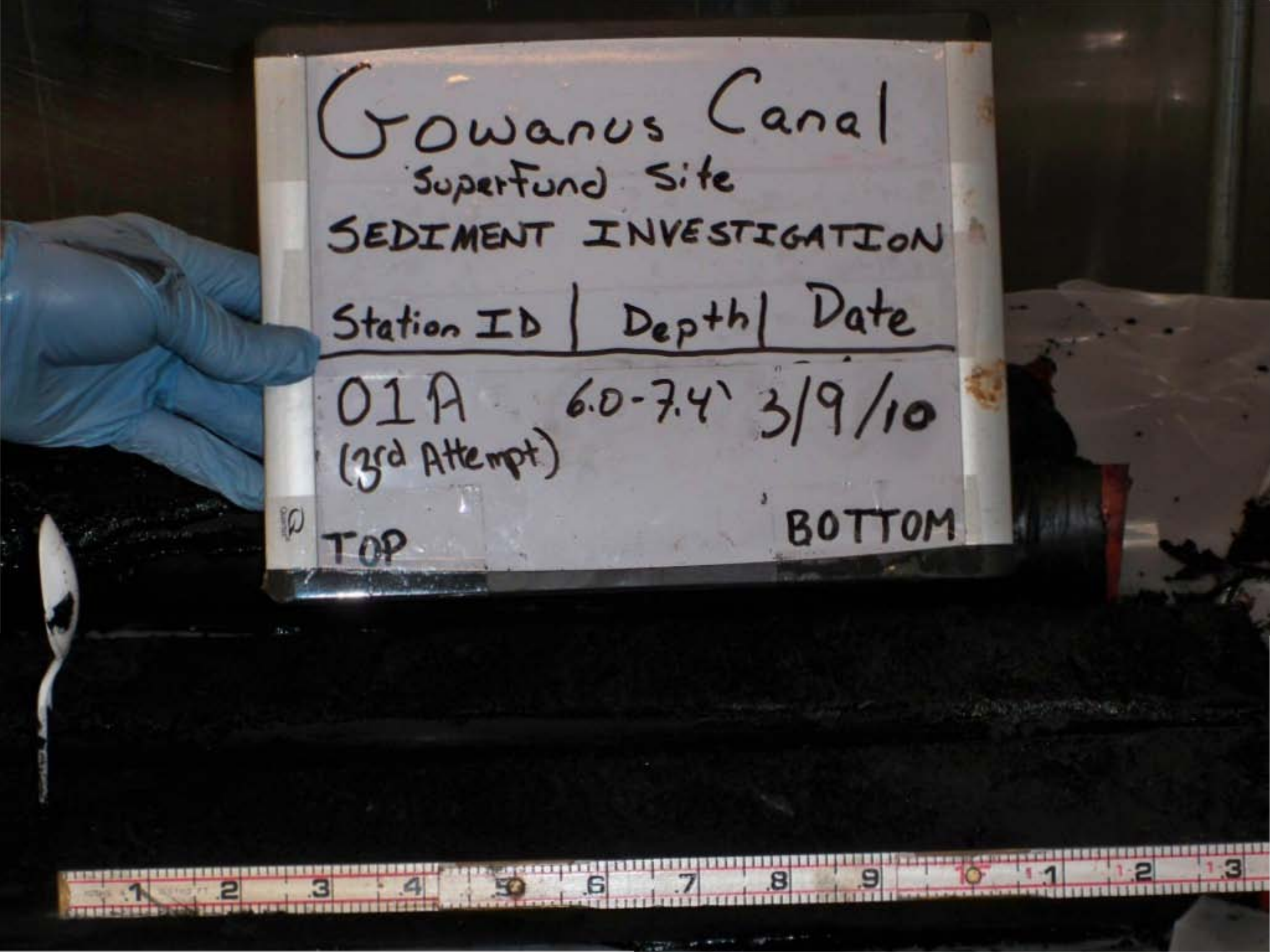

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A
(Attempt 1)
4.0-6.0'
3/8/10
TOP
BOTTOM

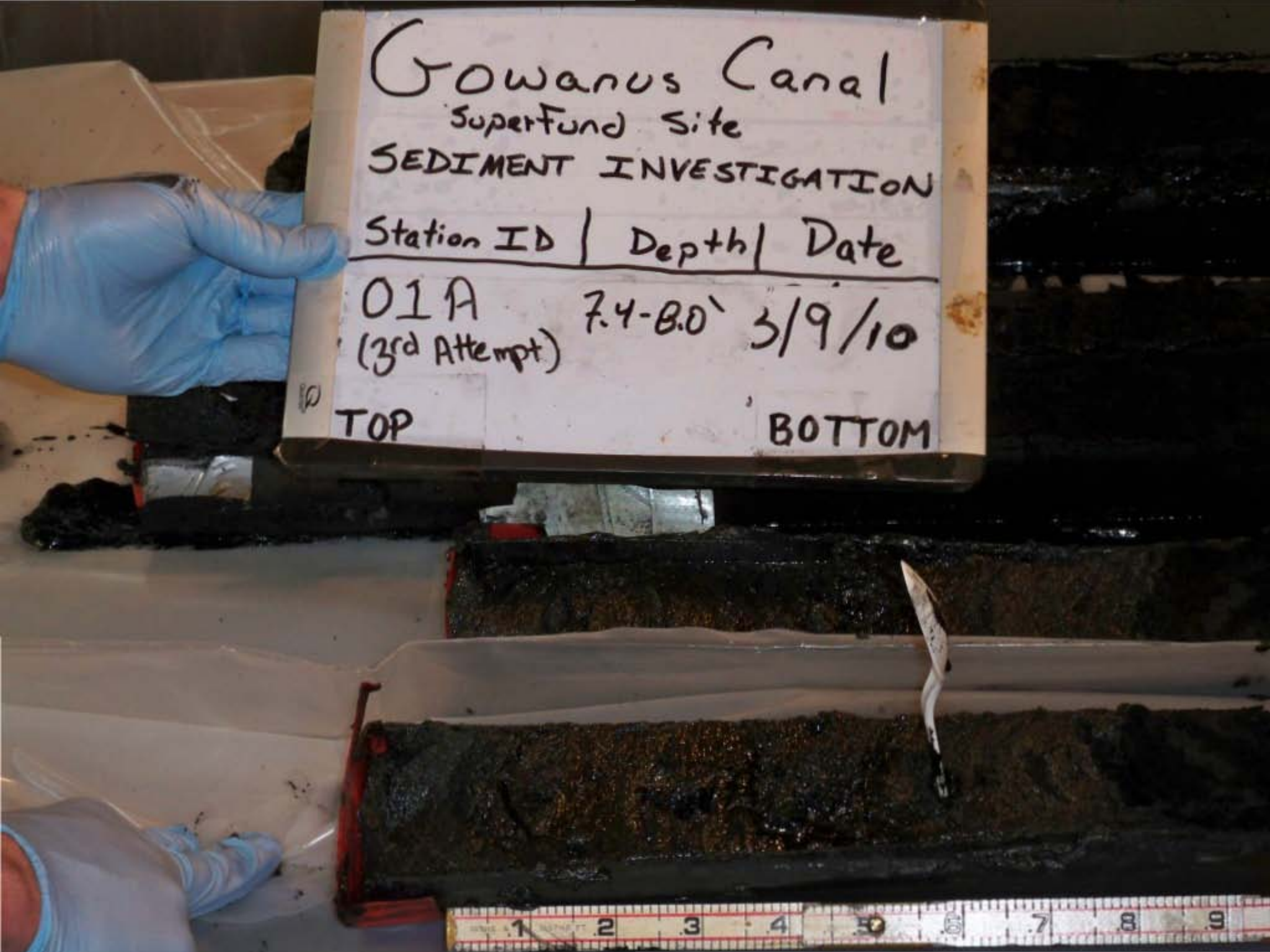

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A 6.0-6.4' 3/8/10
(Attempt 1)
TOP
BOTTOM

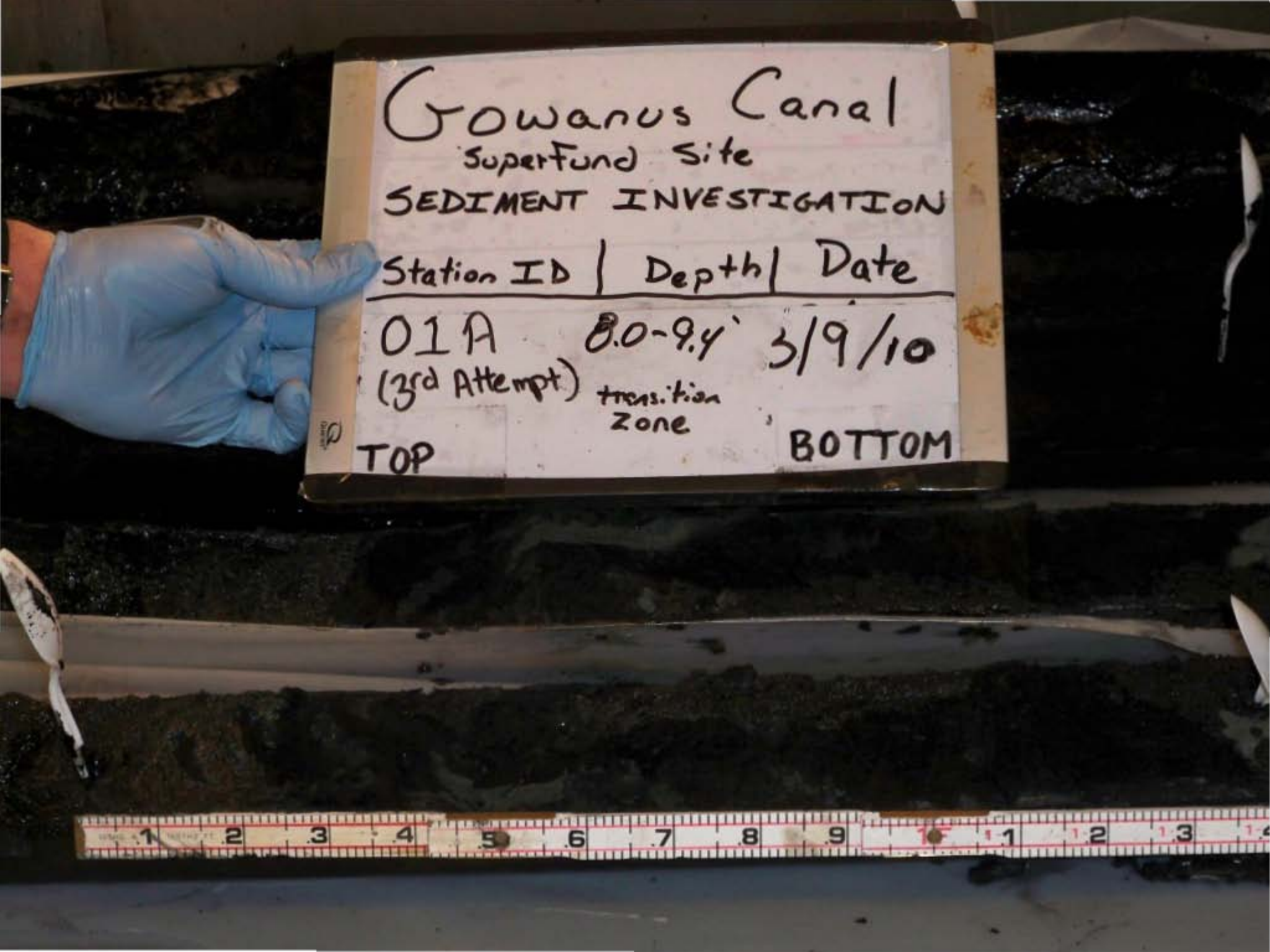

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A (Attempt 1) 6.4-8.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A (Attempt 1) 8.0-10.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A 2.0-3.5' 3/9/10
(3rd Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A 6.0-7.4' 3/9/10
(3rd Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A (3rd Attempt) 7.4-8.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A 8.0-9.4' 3/9/10
(3rd Attempt) transition zone
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A 9.4-11.4' 3/9/10
(3rd Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A (Attempt 1) Entire Recovery 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1A FULL RECOVERY 3/8/10
(2nd Attempt)
TOP NOT SAMPLED BOTTOM

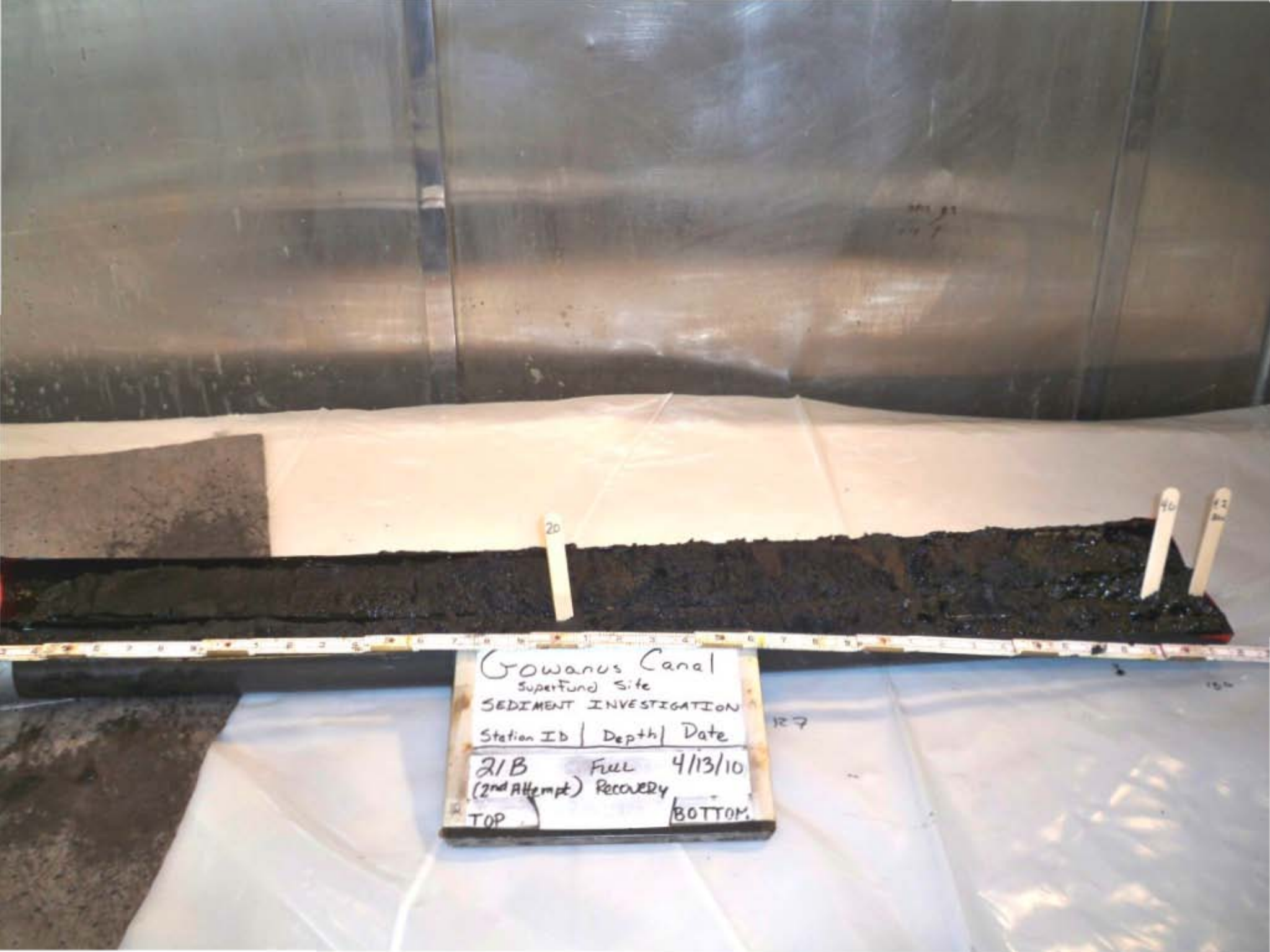

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A
(3rd Attempt)
Full
RECOVERY
3/9/10
TOP
BOTTOM


2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
20A (3rd Attempt) Full Recovery 3/11/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
20A 0-2' 3/11/2010
(3rd Attempt) Not Sampled
TOP BOTTOM


2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
20A (3rd Attempt) 2.0-3.9 3/11/2010
Not Sampled
TOP BOTTOM

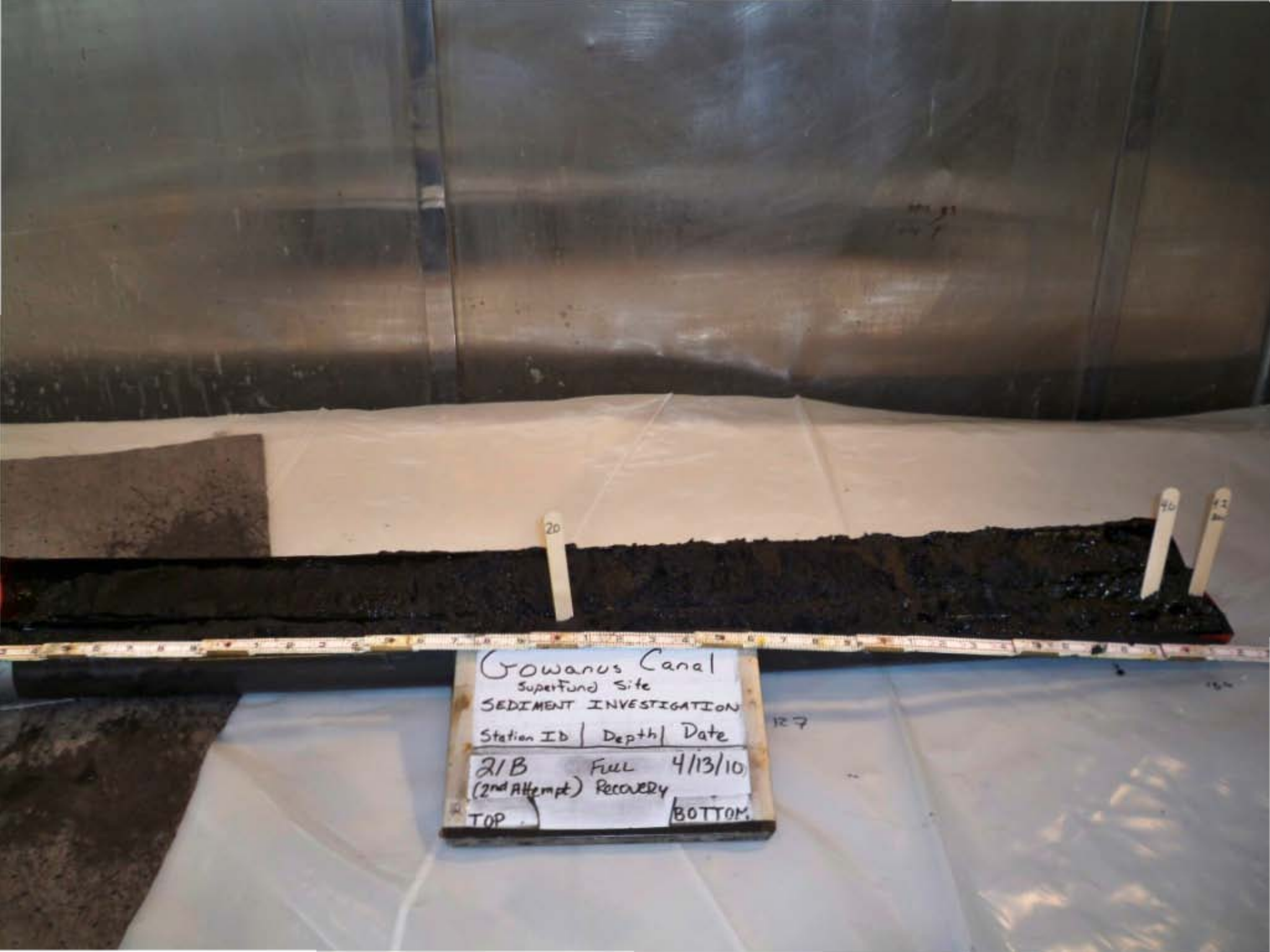

2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
20A (3rd Attempt) Full Recovery 3/11/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
21B (2nd Attempt) FULL Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
21B 0.0-2.0 4/13/10
(2nd Attempt) Not Sampled
TOP
BOTTOM

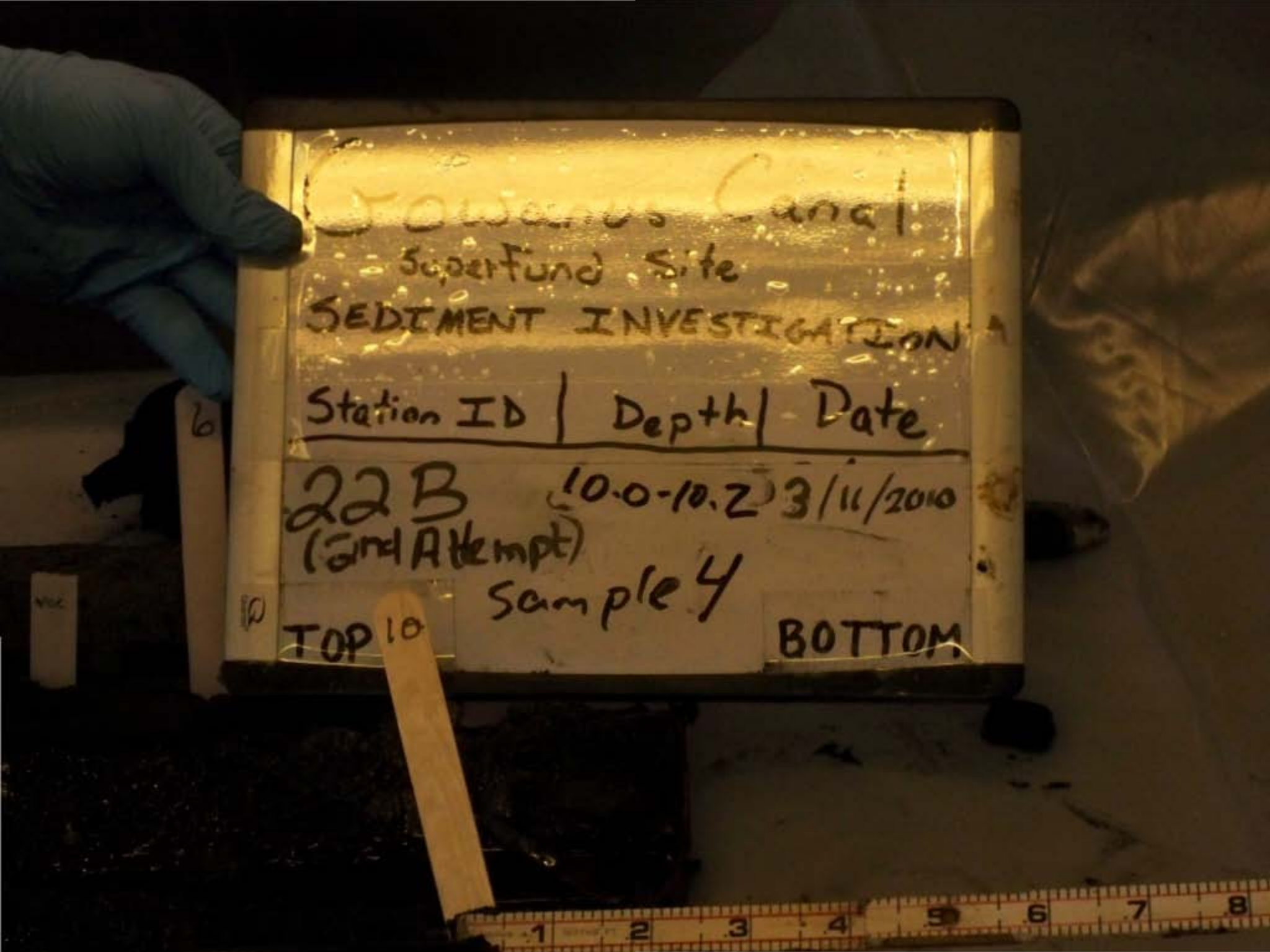

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
21B 2.0-4.0' 4/13/10
(2nd Attempt) Not sampled
TOP
BOTTOM

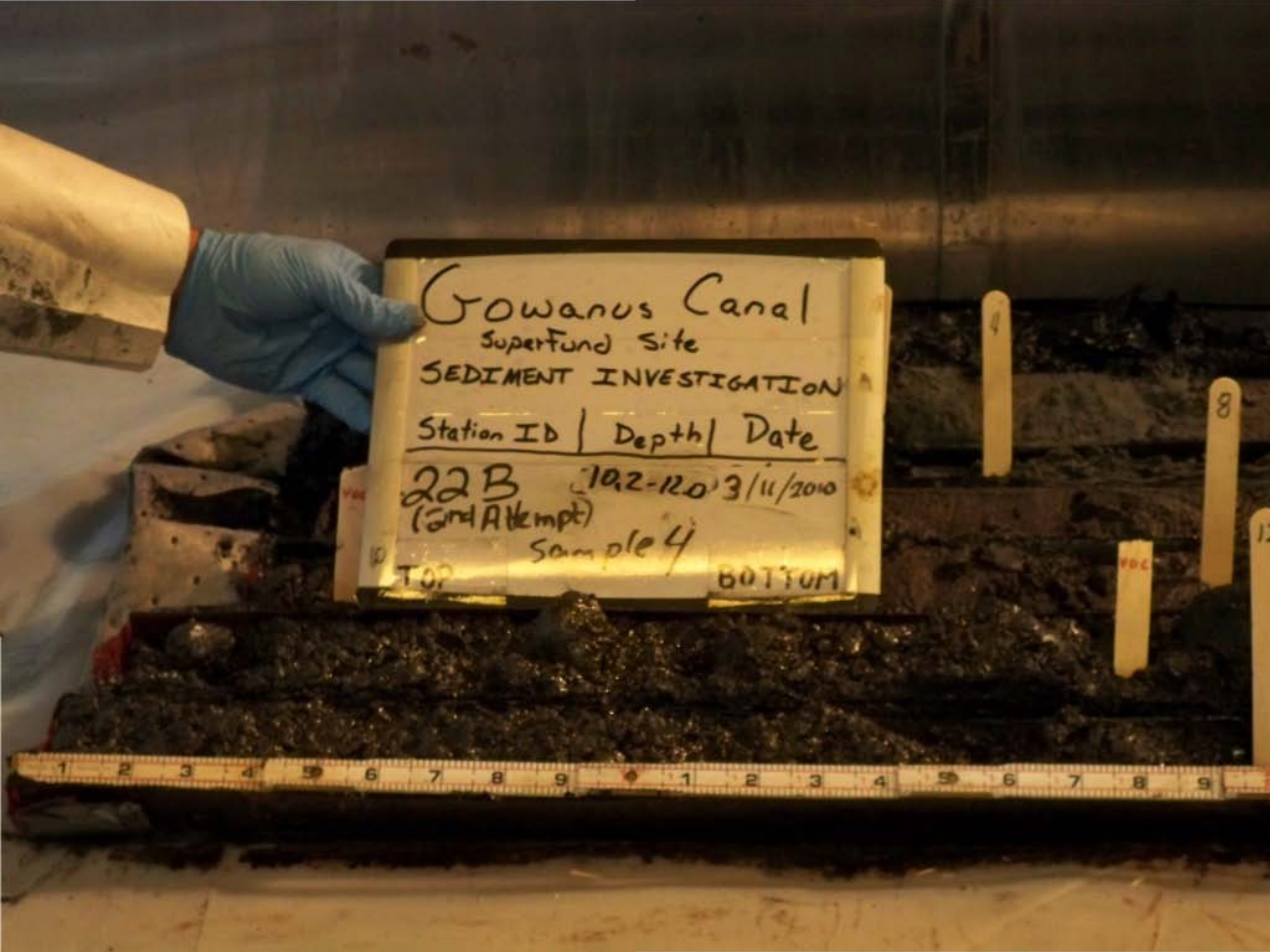

4.0
4.2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
21B 4.0-4.2' 4/13/10
(2nd Attempt) Not Sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
21B (2nd Attempt) FULL Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID / Depth / Date
22B FULL 3/11/2010
(2nd Attempt) RECOVERY
TOP
BOTTOM

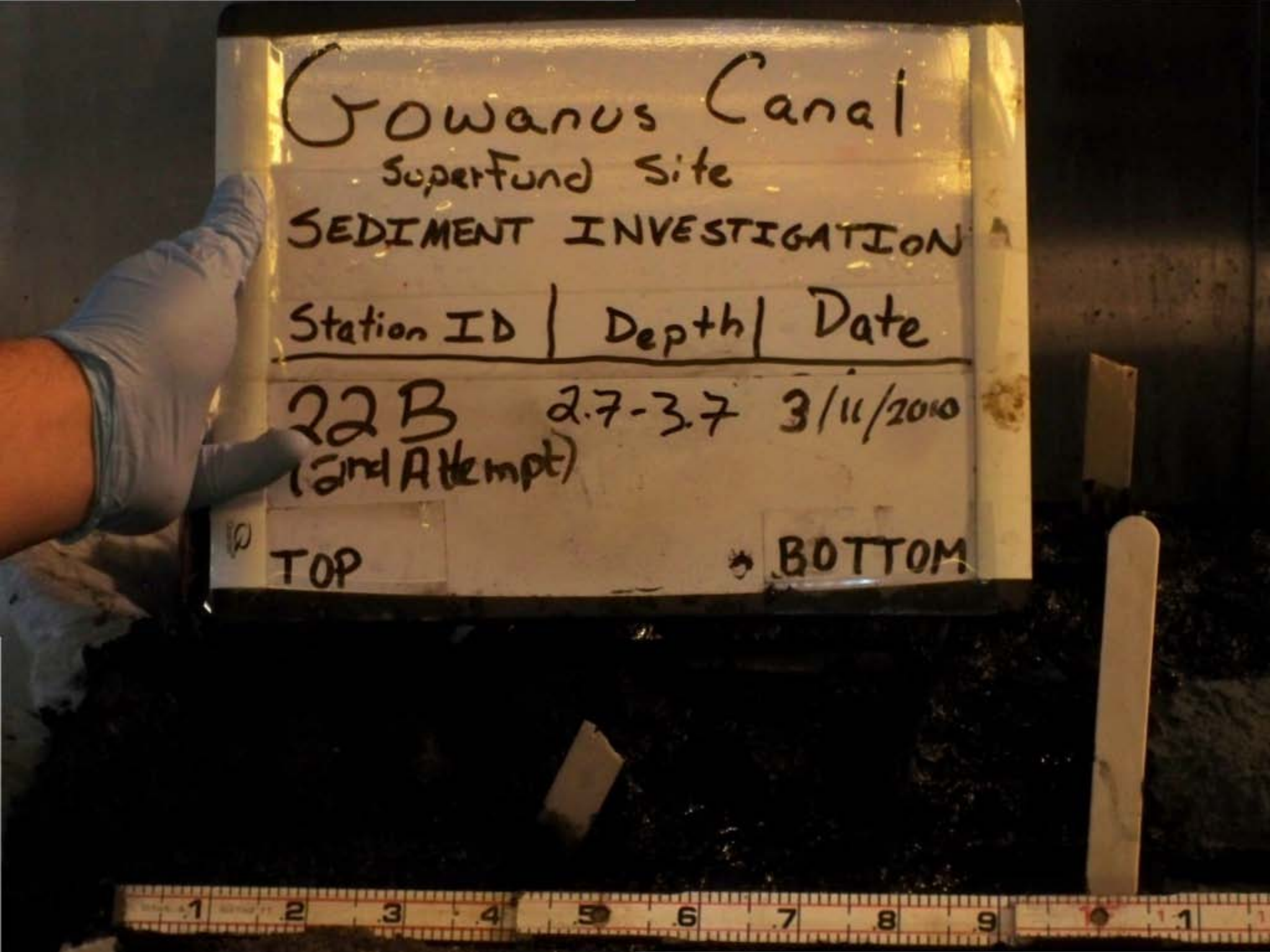

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 0.0-2.0 3/11/2010
(2nd Attempt)
TOP
BOTTOM

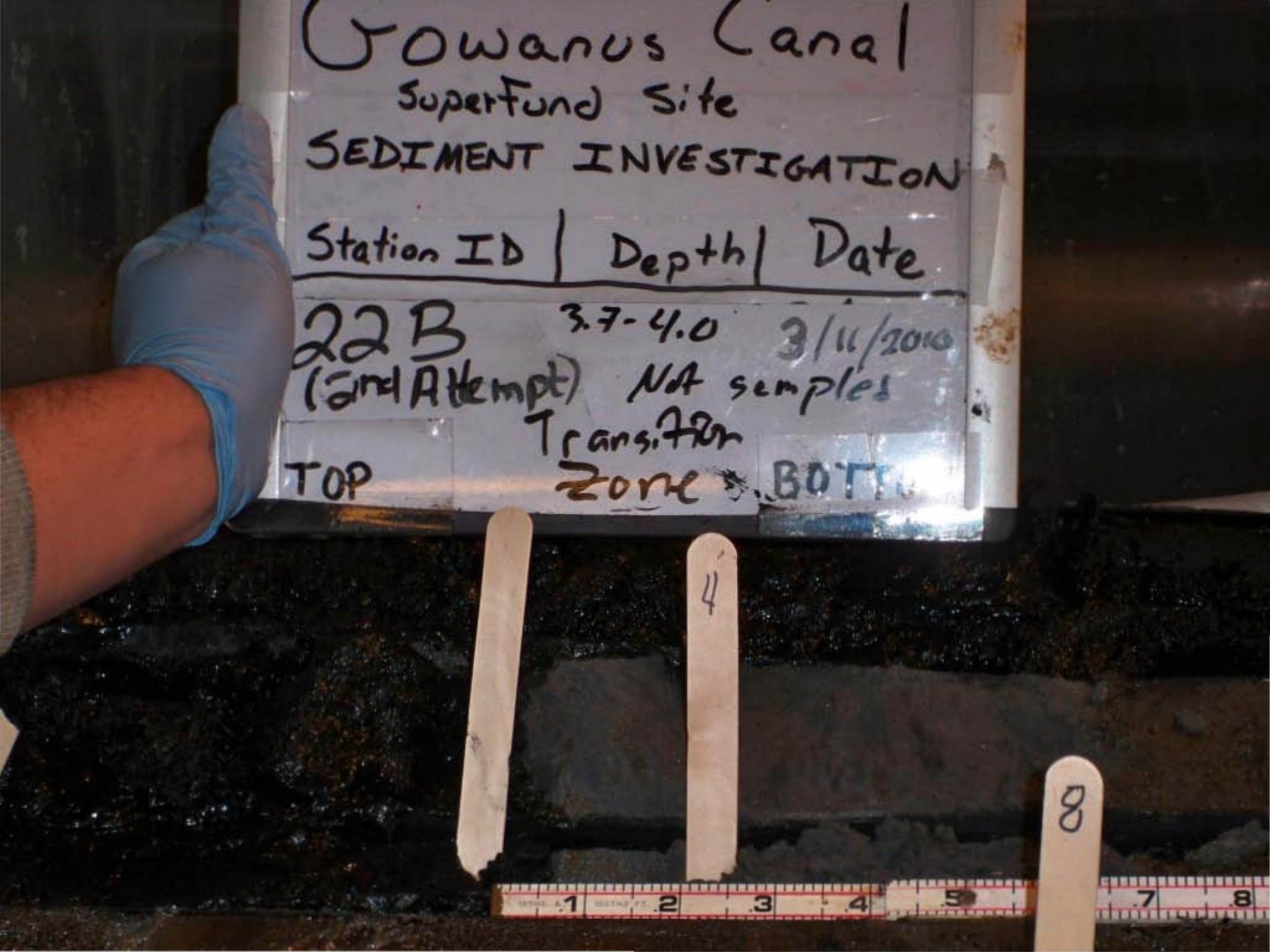

Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B (10.0-10.2) 3/11/2010
(2nd Attempt)
Sample 4
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B (10.2-12.0) 3/11/2010
(2nd Attempt)
Sample 4
TOP
BOTTOM

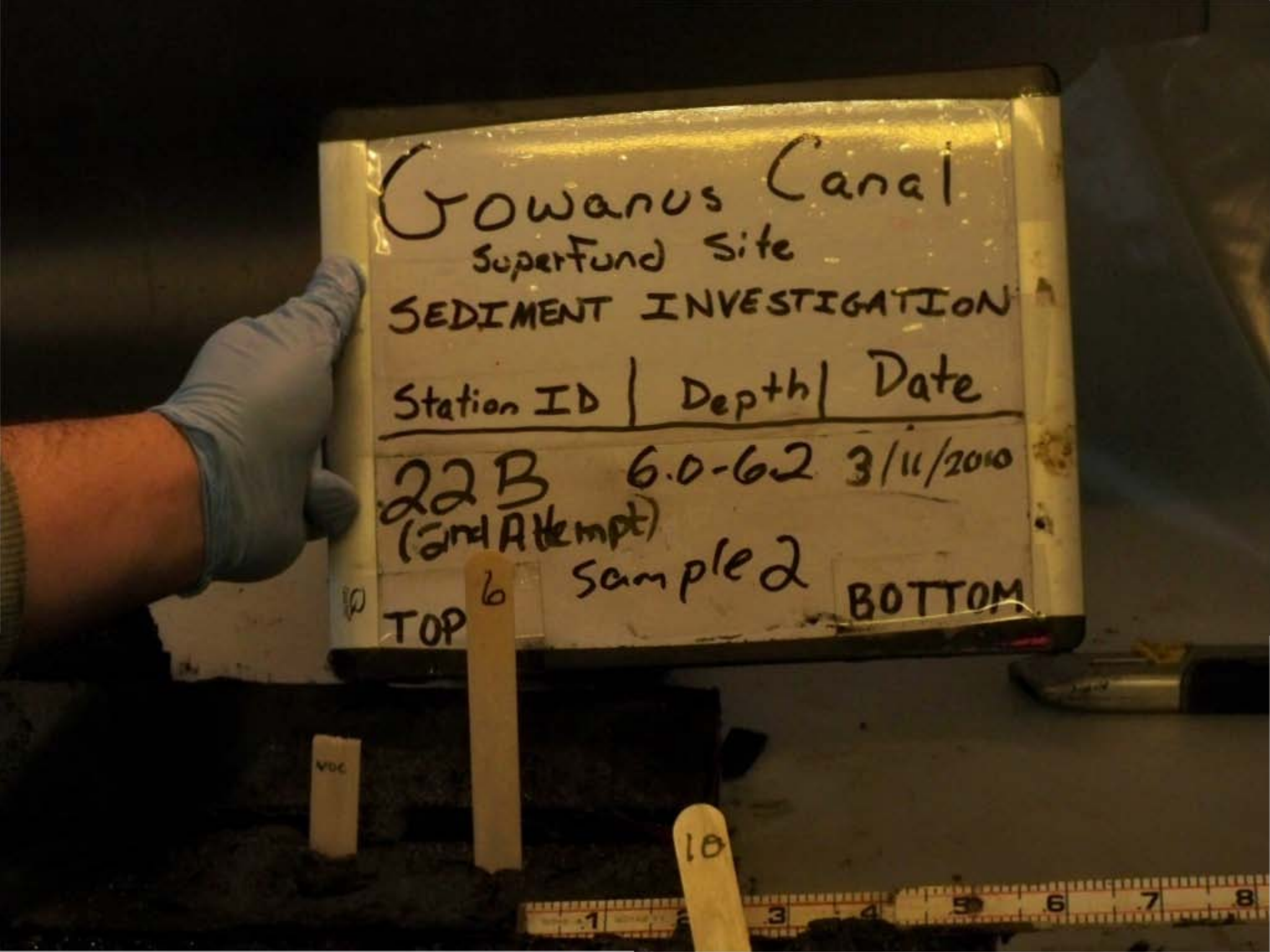

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 12.0-14.0 3/11/2010
(2nd Attempt)
Sample 5
TOP
BOTTOM

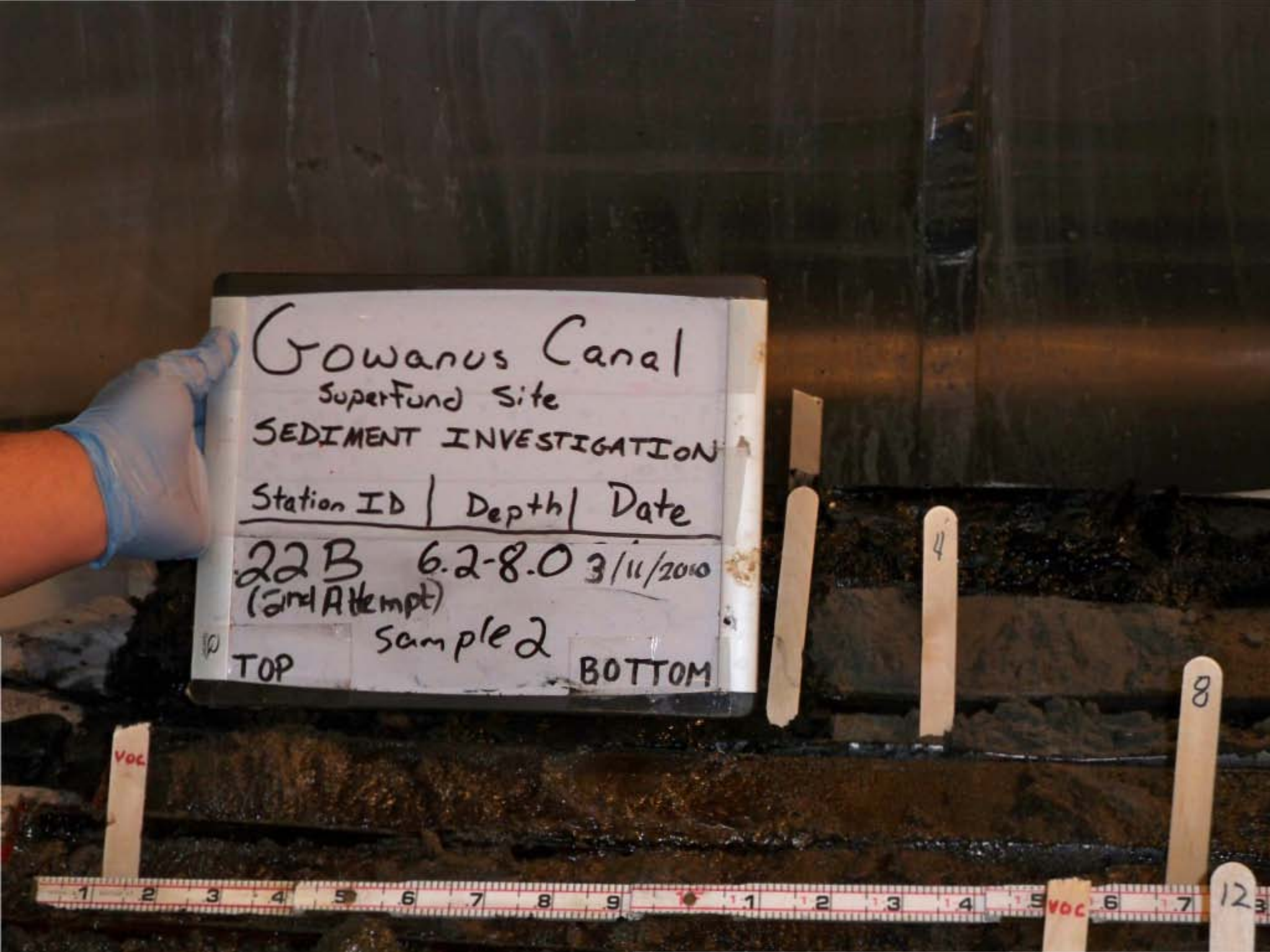

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 2.0-2.7 3/11/2010
(2nd Attempt)
TOP
BOTTOM

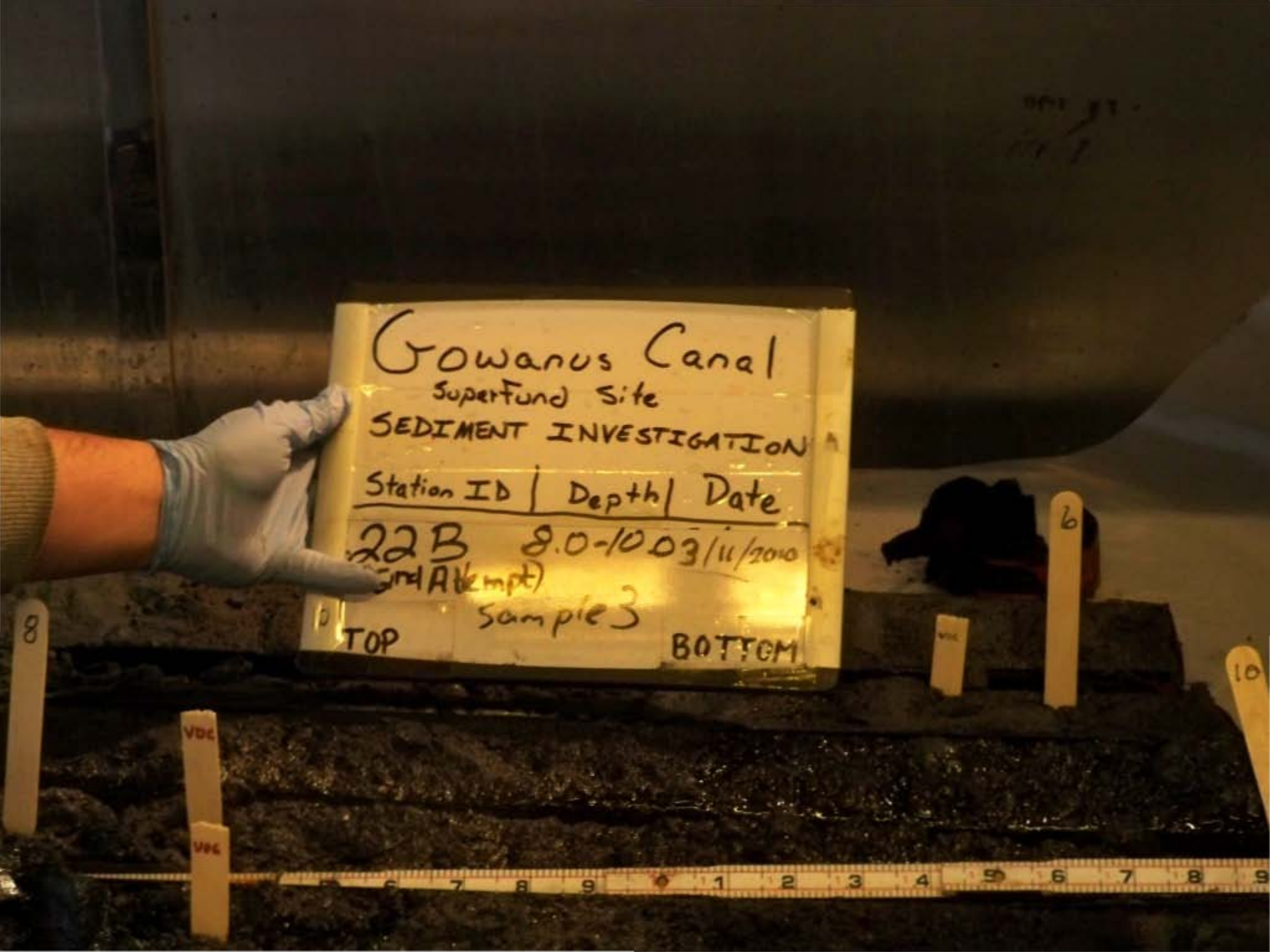

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 2.7-3.7 3/11/2010
(2nd Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 3.7-4.0 3/11/2010
(2nd Attempt) Not samples
Transition Zone
TOP BOTT
4
8

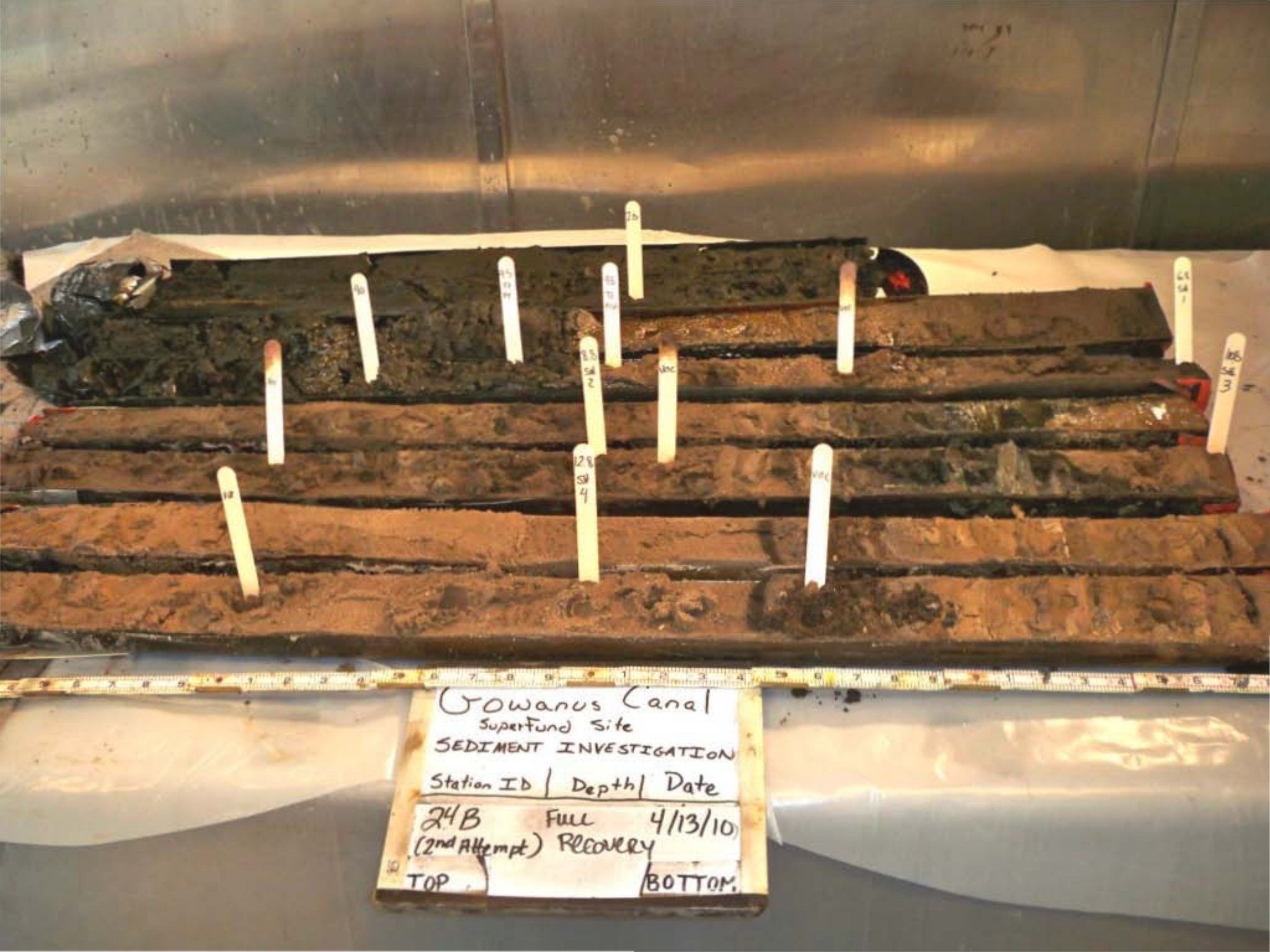

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 4.0-6.0 3/11/2010
(2nd Attempt) Sample #1
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 6.0-6.2 3/11/2010
(2nd Attempt)
Sample 2
TOP
BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 6.2-8.0 3/11/2010
(2nd Attempt)
Sample 2
TOP
BOTTOM
4
8
12
VOC

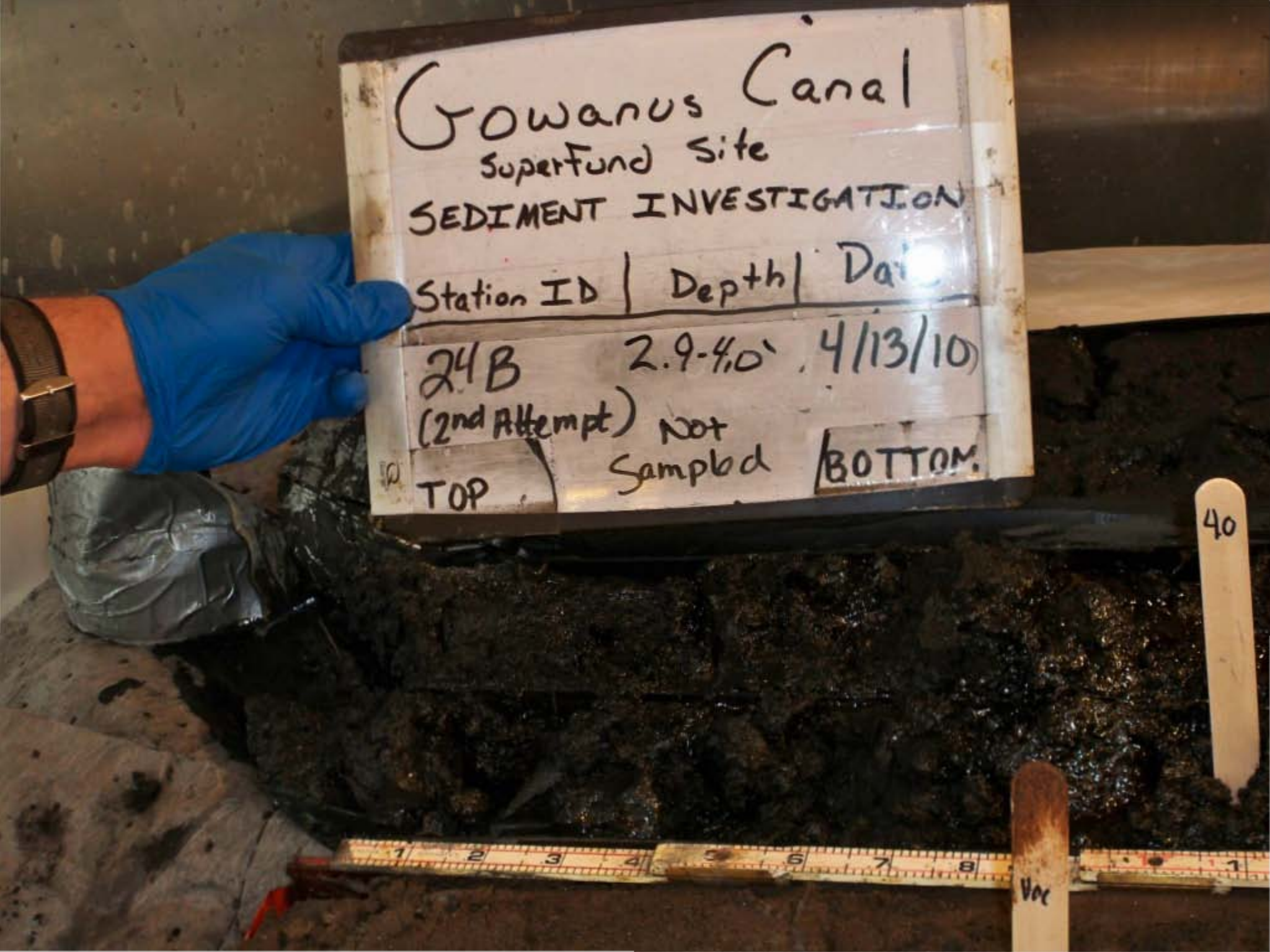

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
22B 8.0-10 03/11/2010
(2nd Attempt)
Sample 3
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID / Depth / Date
22B FULL 3/11/2010
(2nd Attempt) RECOVERY
TOP
BOTTOM

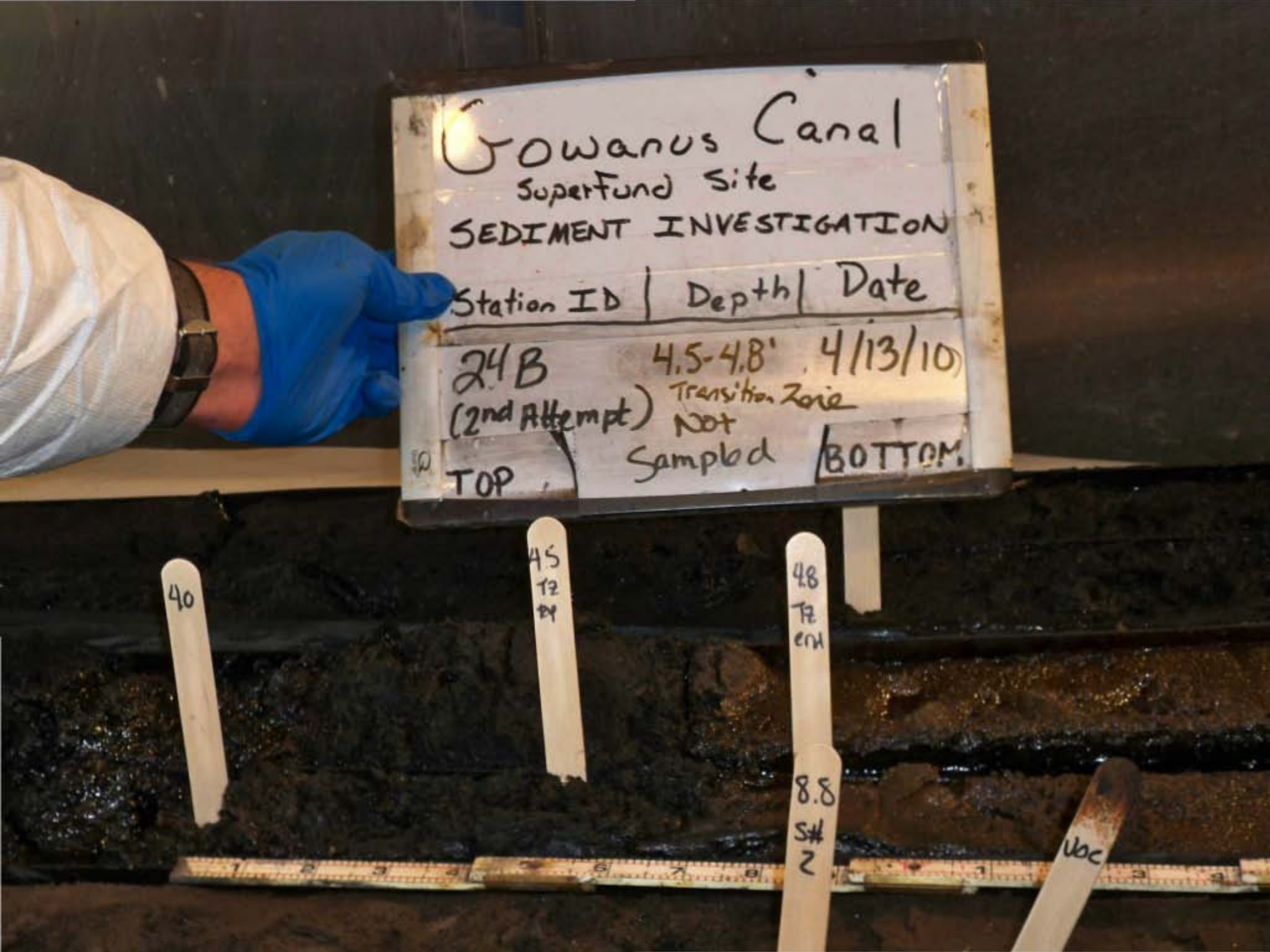

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B FULL 4/13/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

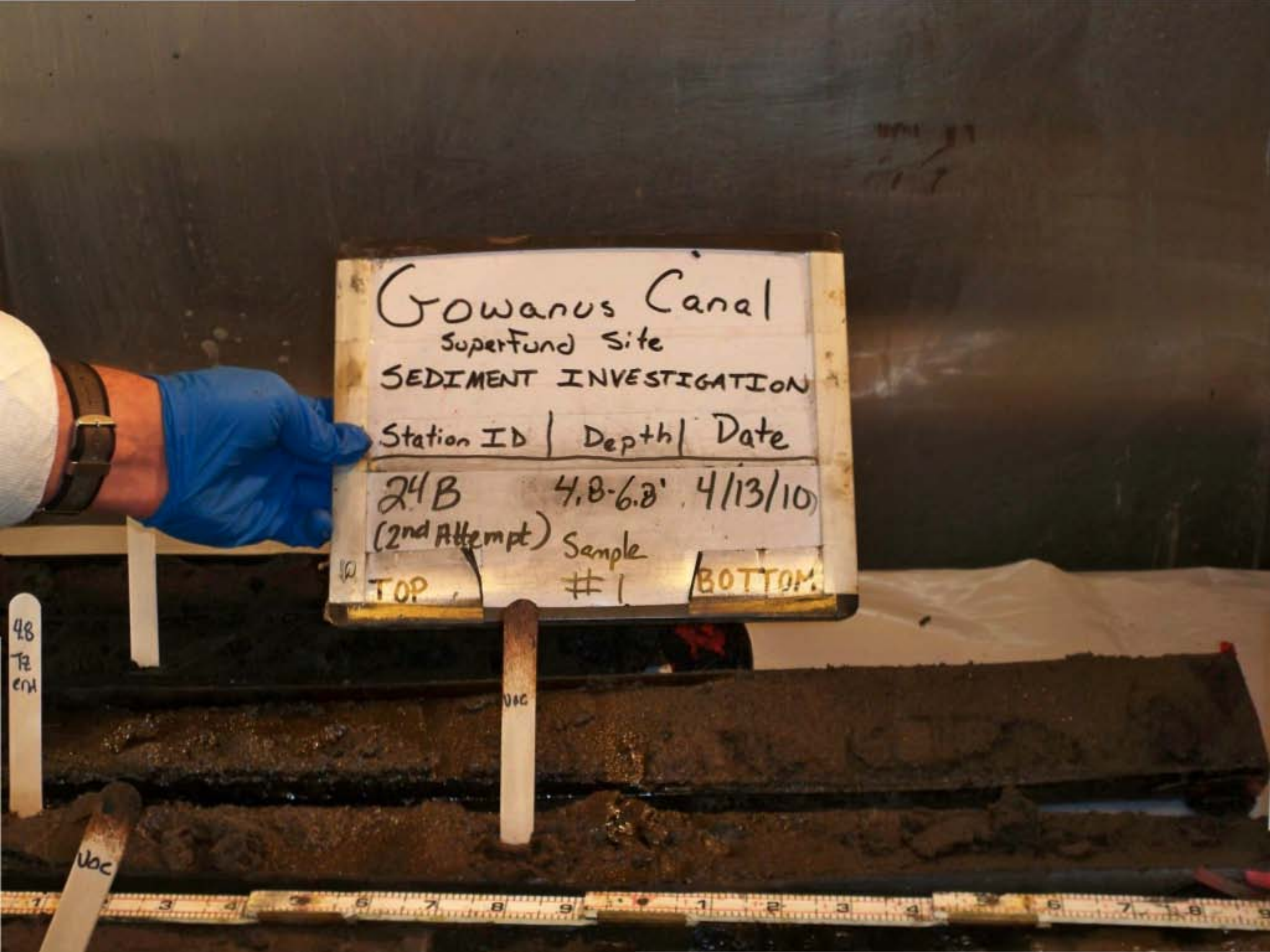

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 10.8-12.8' 4/13/10
(2nd Attempt) Sample #4
TOP | BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 12.8-14.8" 4/13/10
(2nd Attempt) Sample
TOP #5 BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Da
24B 2.9-4.0' 4/13/10
(2nd Attempt) Not Sampled
TOP
BOTTOM
40

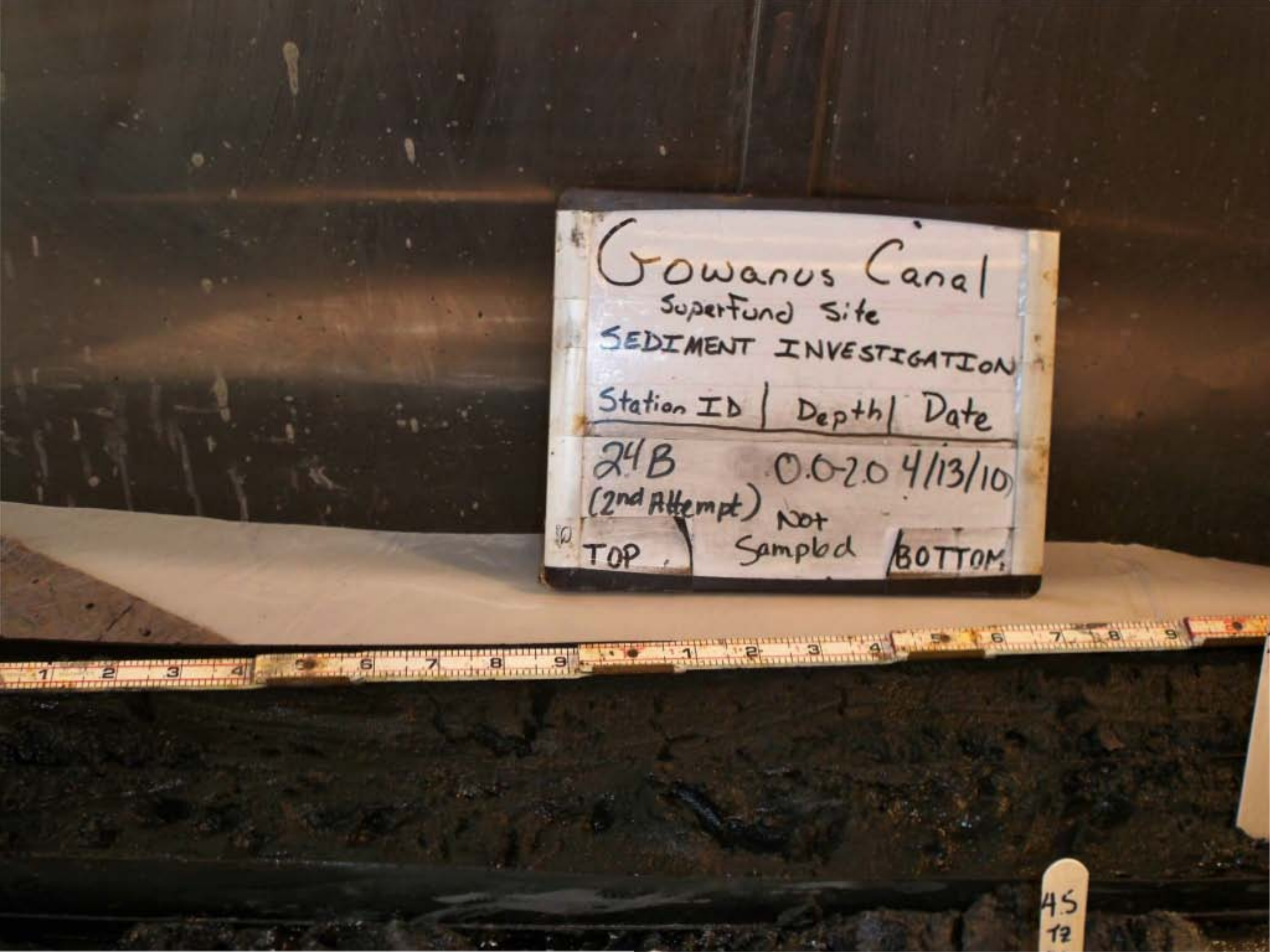

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 4.0-4.5' 4/13/10
(2nd Attempt)
Not Sampled
TOP
BOTTOM
4.0
4.5
4.8

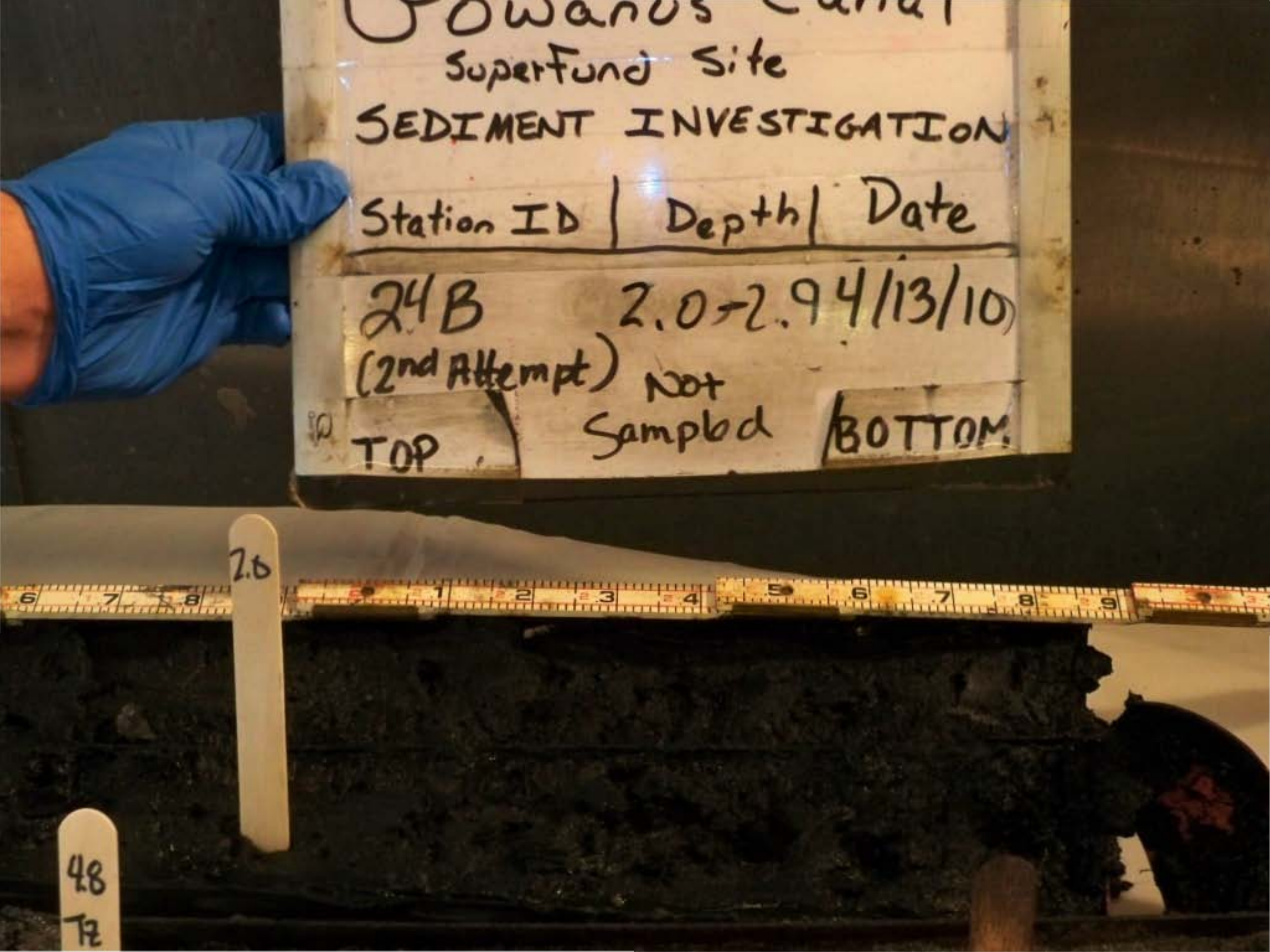

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 4.5-4.8' 4/13/10
(2nd Attempt) Transition Zone Not Sampled
TOP
BOTTOM
40
45 TZ BH
48 TZ BH
8.8 S# 2
UDC

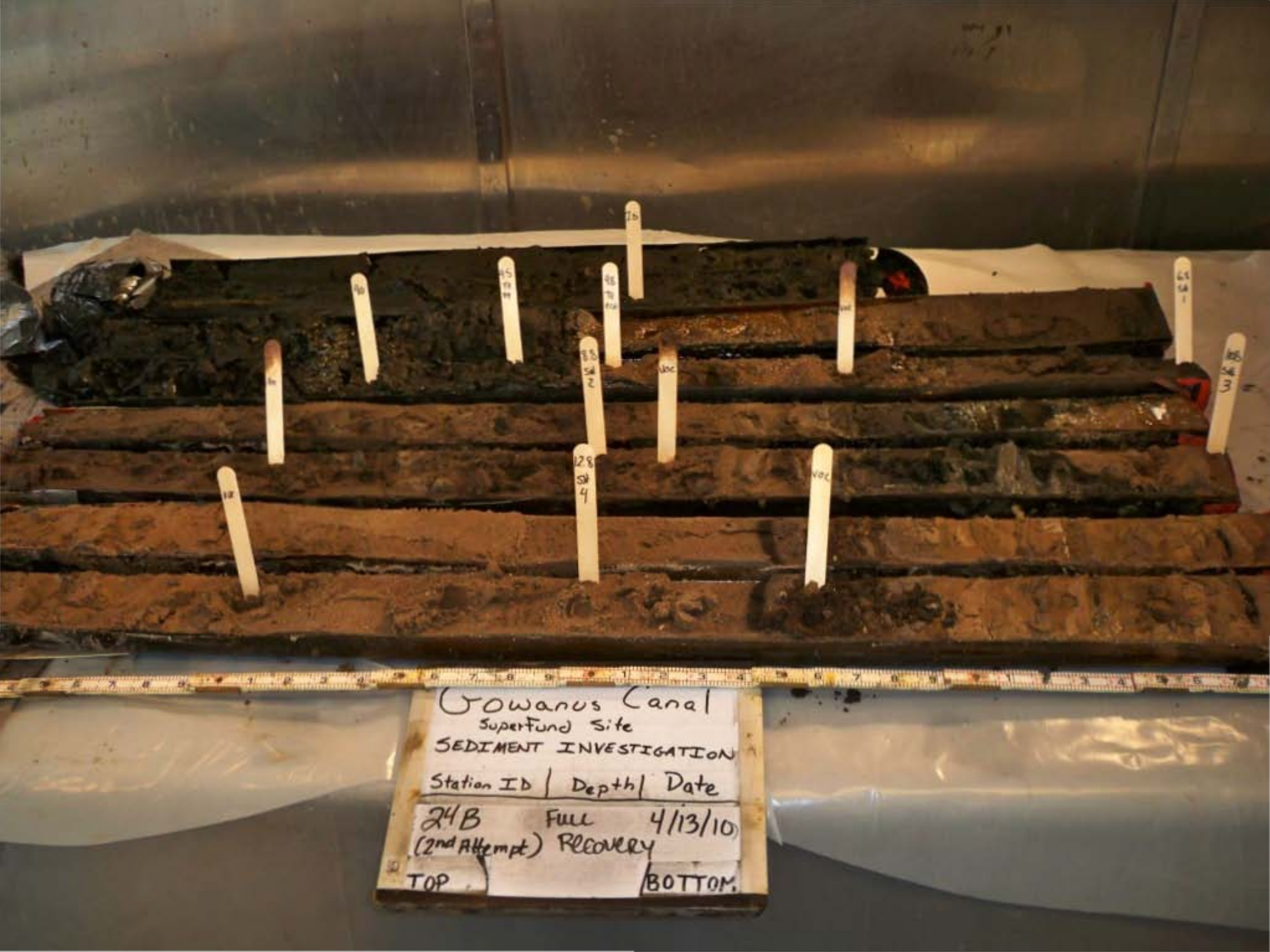

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 4.8-6.8' 4/13/10
(2nd Attempt) Sample
TOP #1 BOTTOM
48 TZ ENH
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 6.8-8.8' 4/13/10
(2nd Attempt) Sample #2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 8.8-10.8' 4/13/10
(2nd Attempt) Sample
TOP #3
VOC
VOC

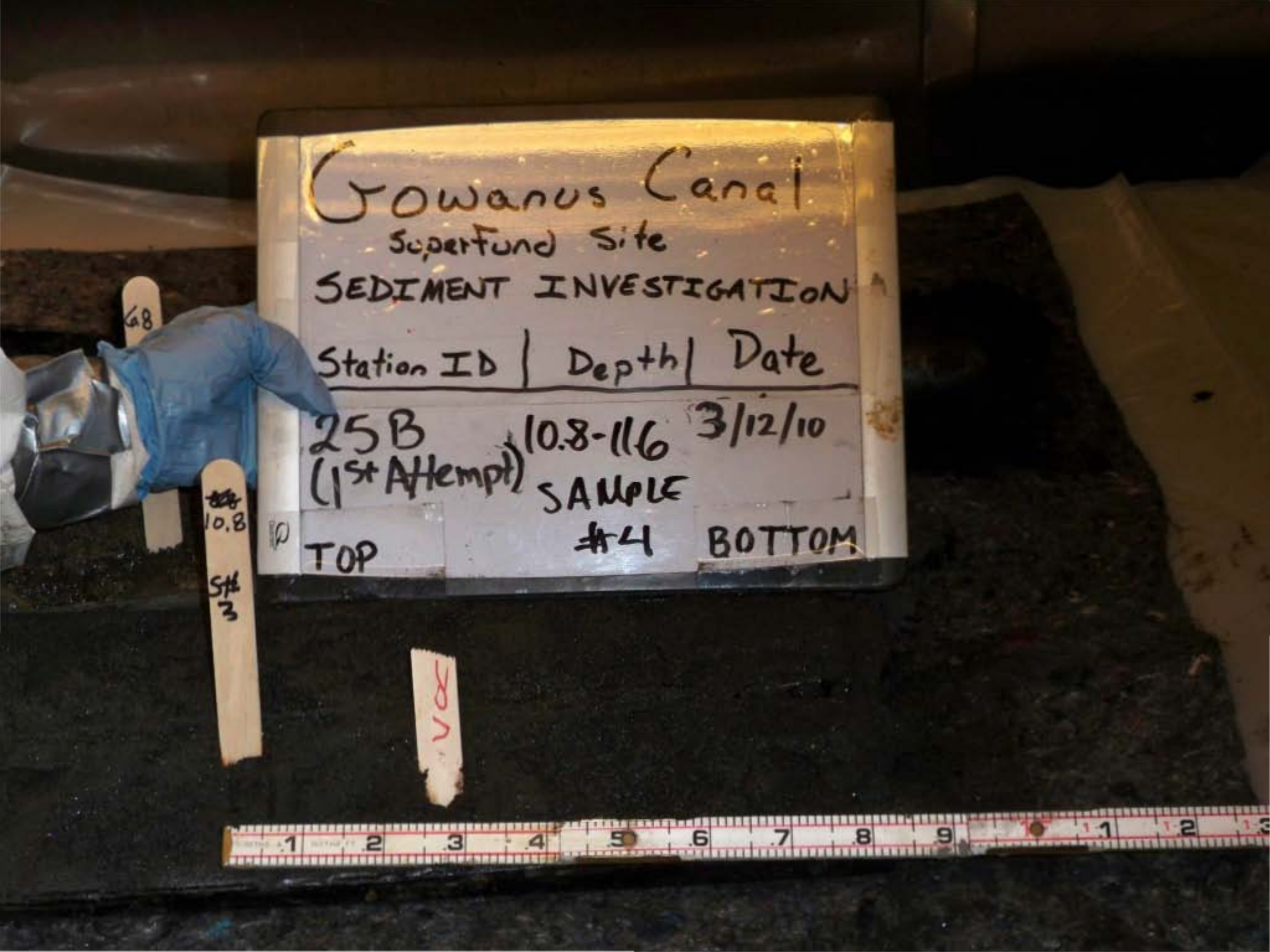

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 0.0-2.0 4/13/10
(2nd Attempt) Not
TOP Sampled BOTTOM
45
12


Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B 2.0-2.9 4/13/10
(2nd Attempt) Not Sampled
TOP
BOTTOM
2.0
48
72

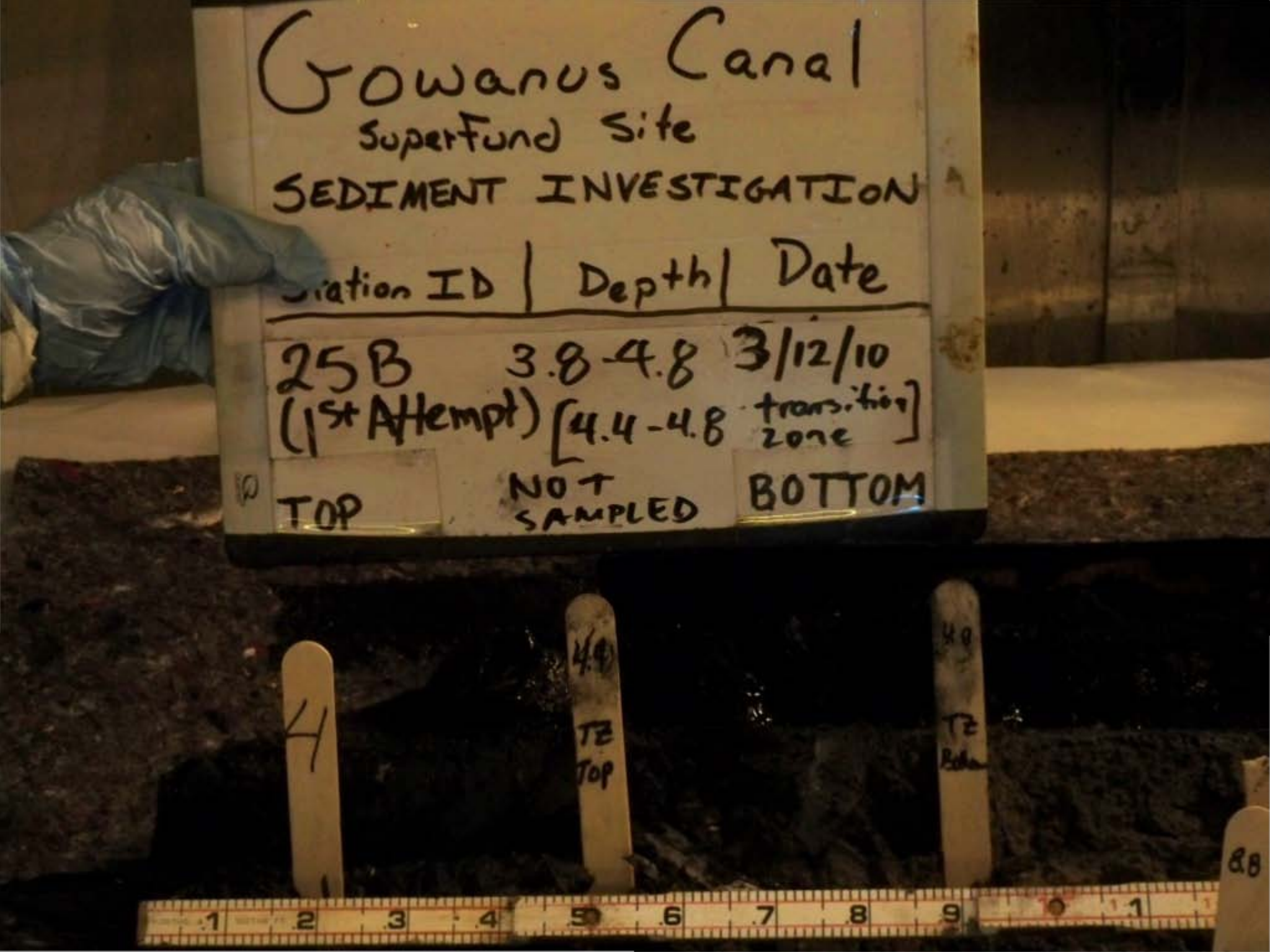

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B (2nd Attempt) FULL RECOVERY 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B FULL 3/12/10
(1st Attempt) RECOVERY
TOP
BOTTOM

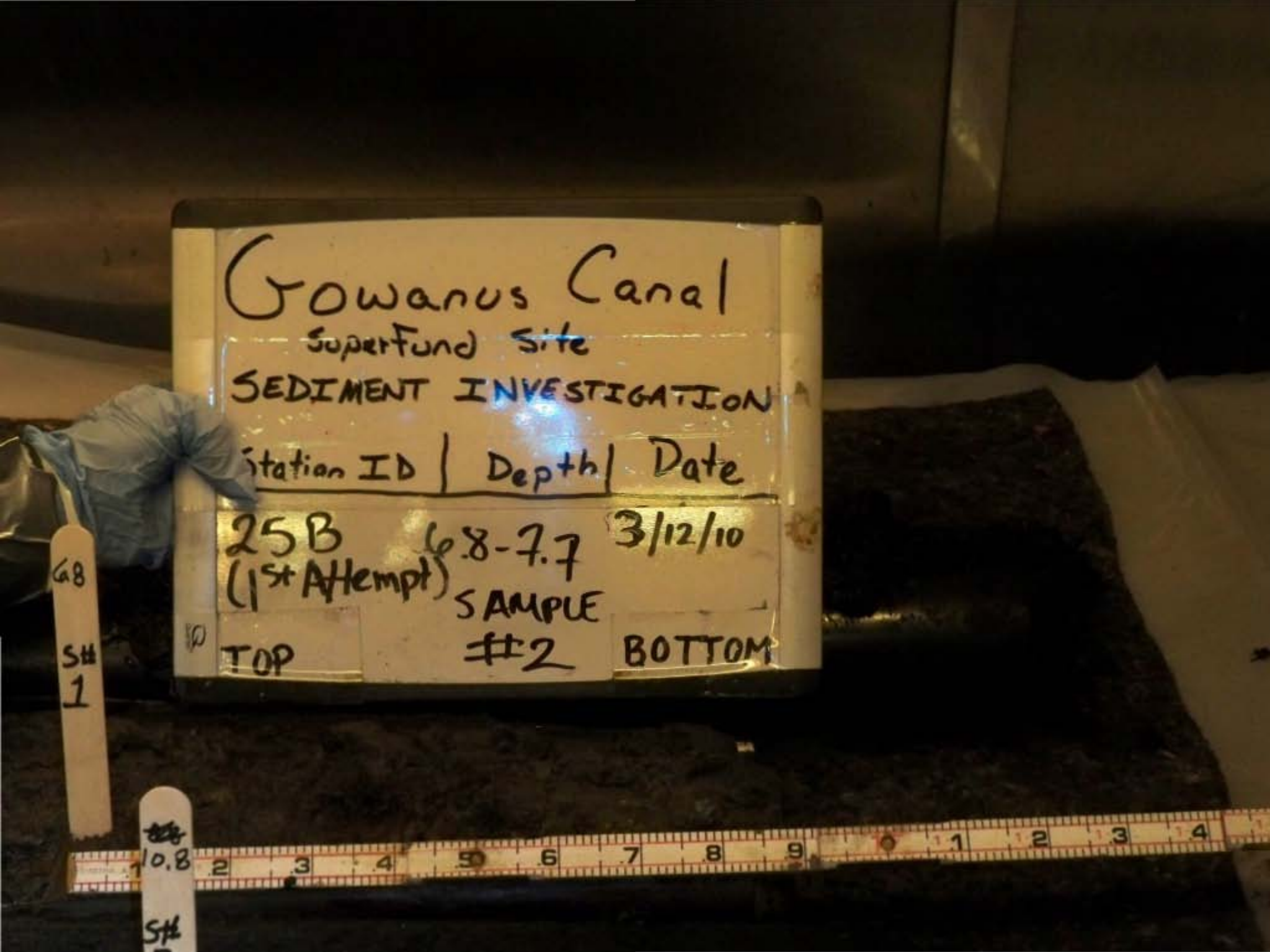

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B (1st Attempt) 0-2 3/12/10
NOT SAMPLED
TOP
BOTTOM

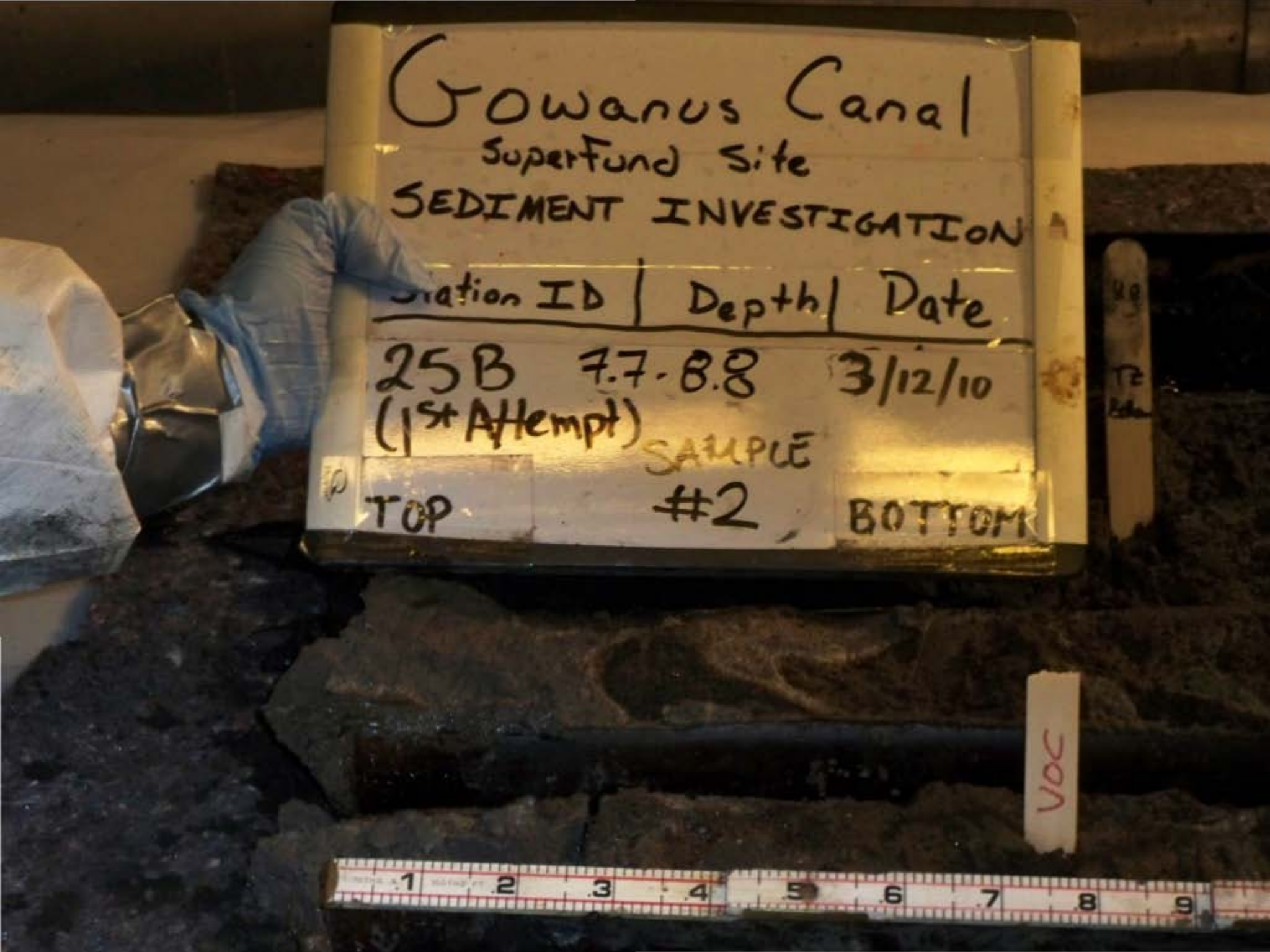

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B (1st Attempt) 10.8-11.6 3/12/10
SAMPLE #4
TOP BOTTOM
10.8
VOA


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B 2-3.8 3/12/10
(1st Attempt) NOT
TOP SAMPLED BOTTOM
2
SH 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B 3.8-4.8 3/12/10
(1st Attempt) [4.4-4.8 transition zone]
TOP
NOT SAMPLED
BOTTOM
4
4.4
TZ Top
4.8
TZ Bottom
8B


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
tation ID | Depth | Date
25B 4.8-6.8 3/12/10
(1st Attempt)
SAMPLE
TOP
BOTTOM
2
SH 1
SH 2
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B (1st Attempt) 6.8-7.7 3/12/10
SAMPLE #2
TOP
BOTTOM
G8
SH 1
10.8


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B 7.7-8.8 3/12/10
(1st Attempt)
SAMPLE
TOP #2 BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B 8.8-10.8 3/12/10
(1st Attempt)
SAMPLE
#3
TOP
BOTTOM
VGC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B FULL 3/12/10
(1st Attempt) RECOVERY
TOP
BOTTOM

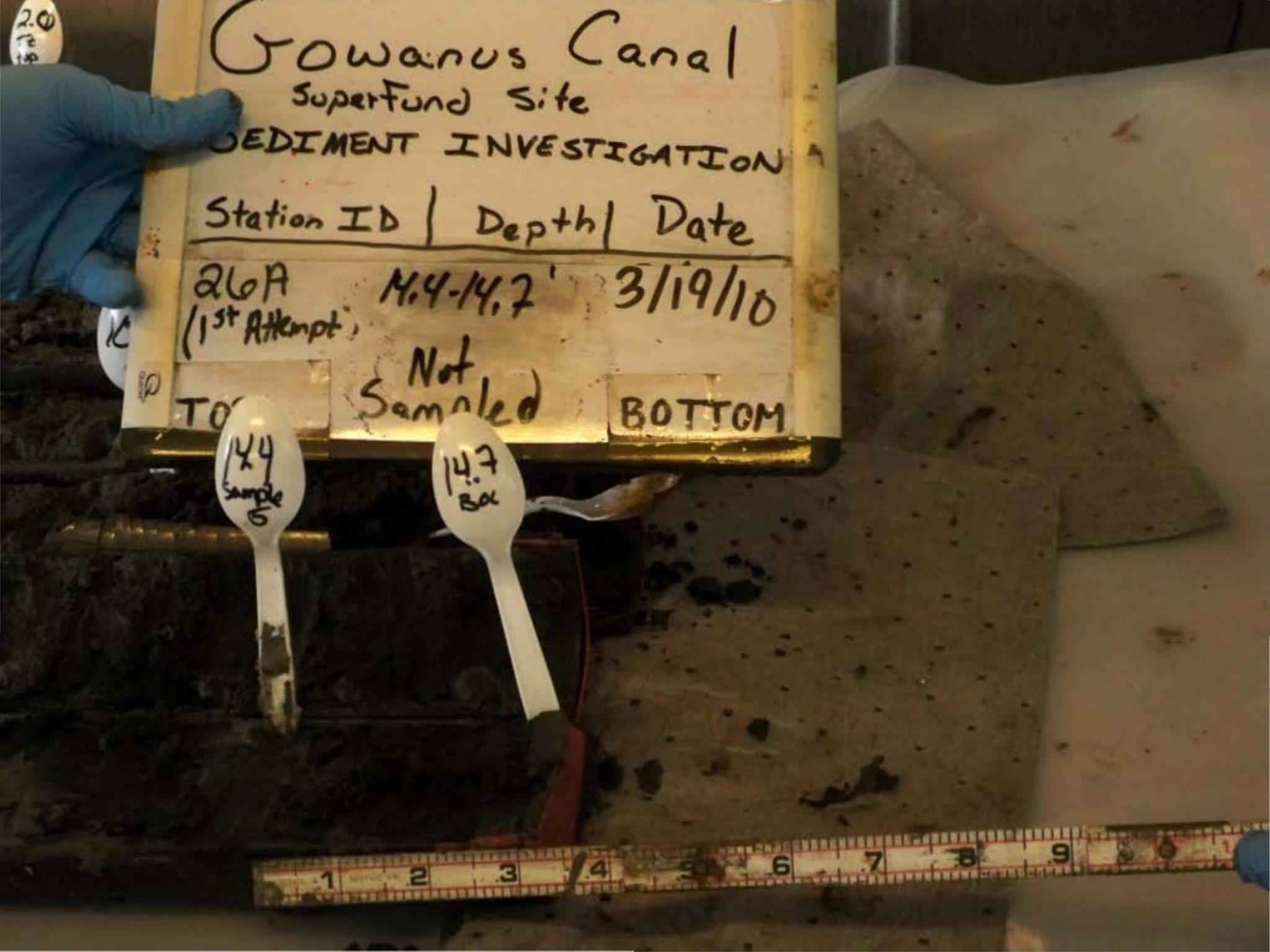

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) FULL RECOVERY 3/19/10
TOP
BOTTOM

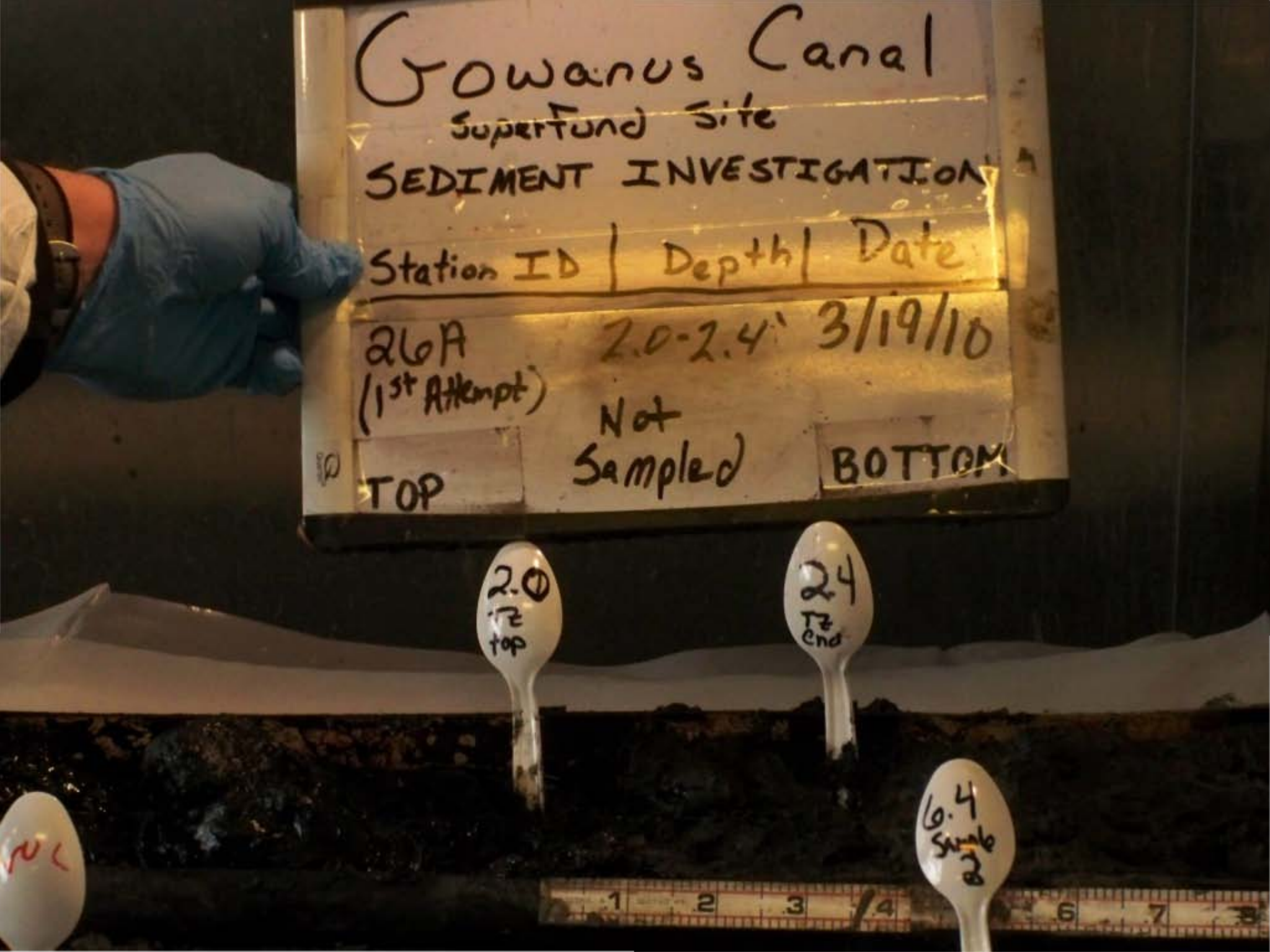

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 0.0-2.0' 3/19/10
Not Sampled
TOP
BOTTOM
4.4 Sample
2

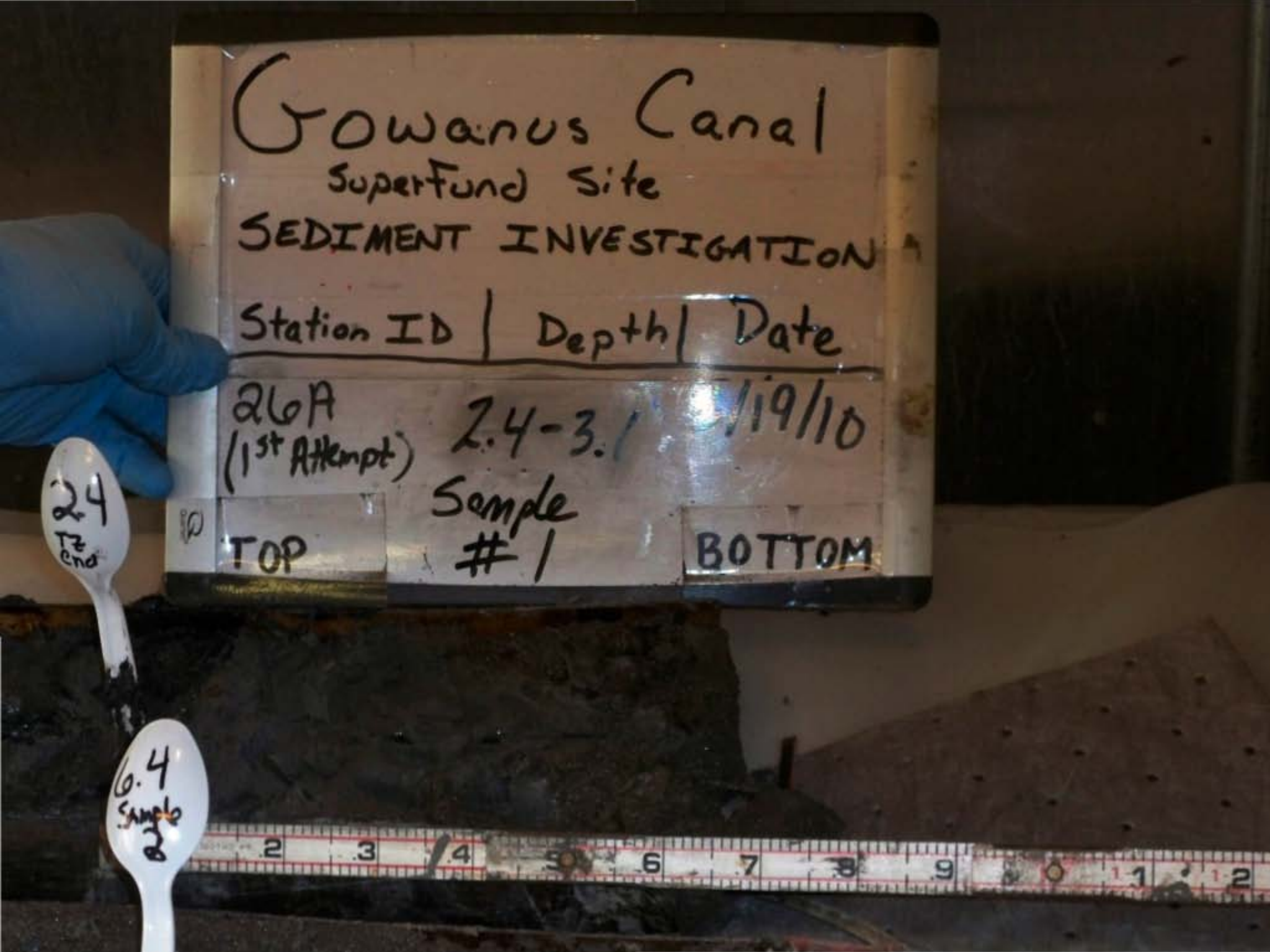

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 10.4-11.0 3/19/10
Sample #4
TOP
BOTTOM
2.0 12 top
10.4
144
147

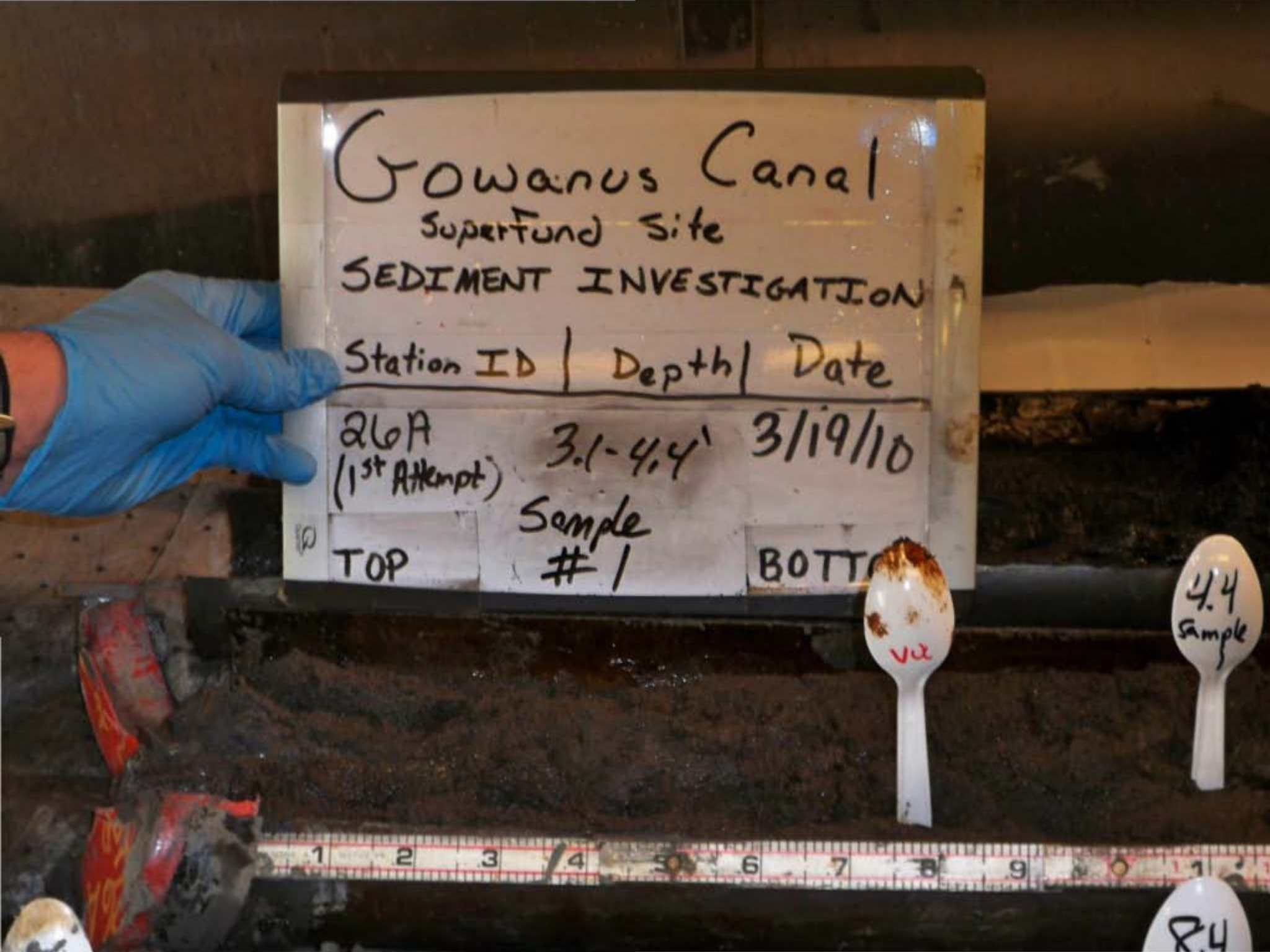

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 11.0-12.4 3/19/10
Sample #4
TOP
BOTTOM
4.4 Sample
8.4 Sample
12.4 Sample

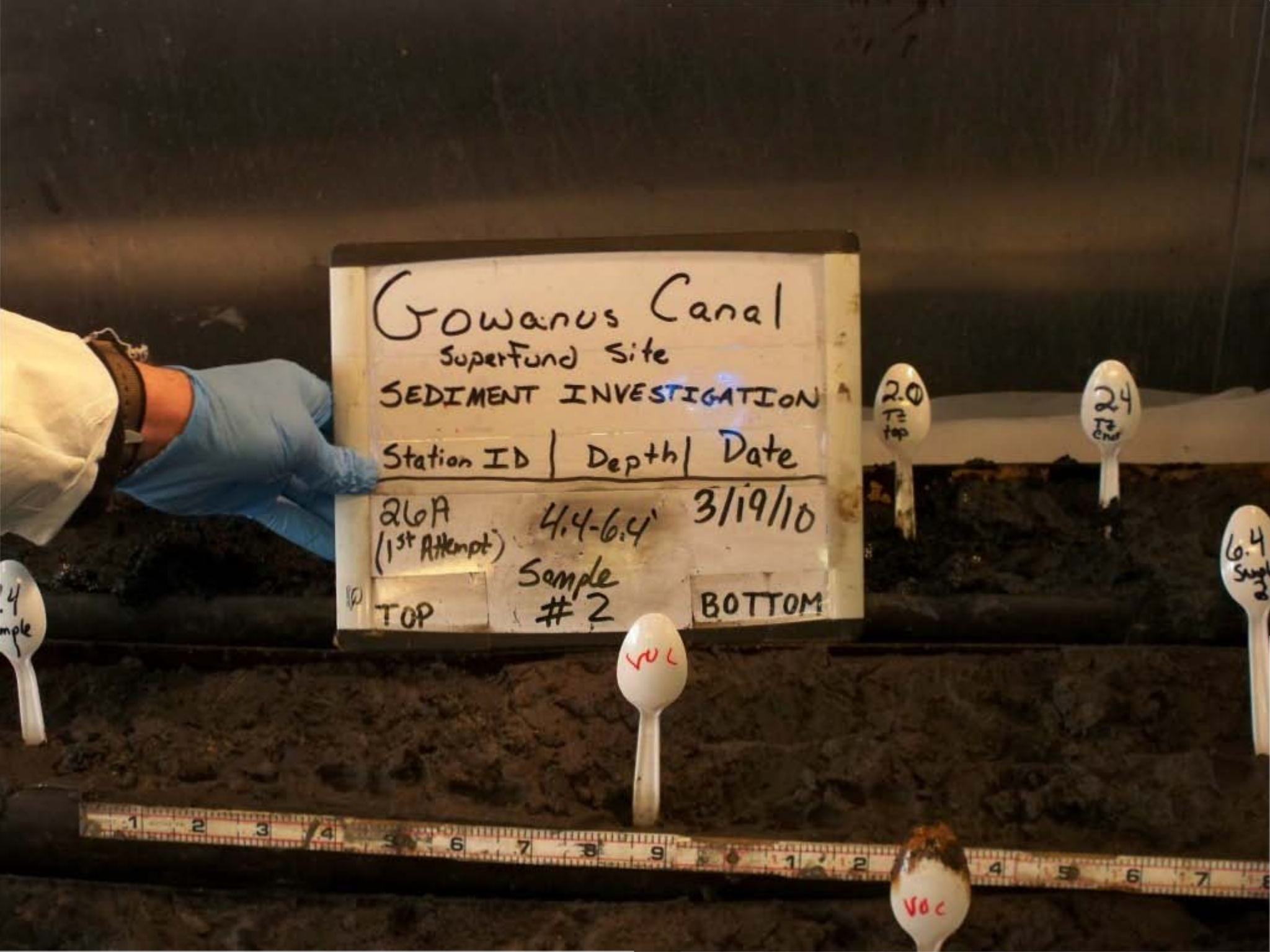

Gowanus Canal
Superfund Site
EDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 12.4-14.4 3/19/10
Sample #5
TOP
BOTTOM
VDC

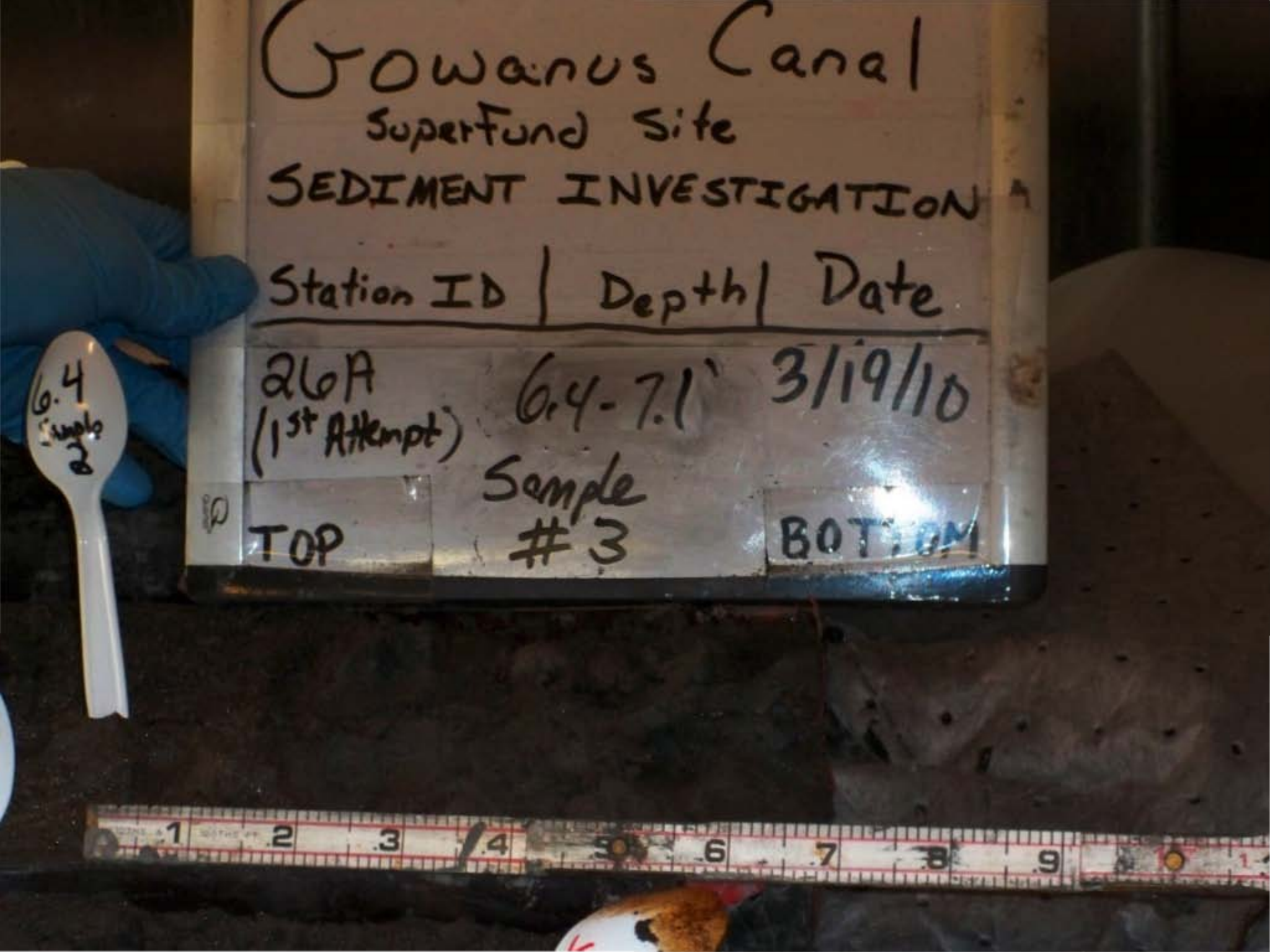

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 14.4-14.7' 3/19/10
Not Sampled
TOP
BOTTOM
14.4 sample
14.7 Bot

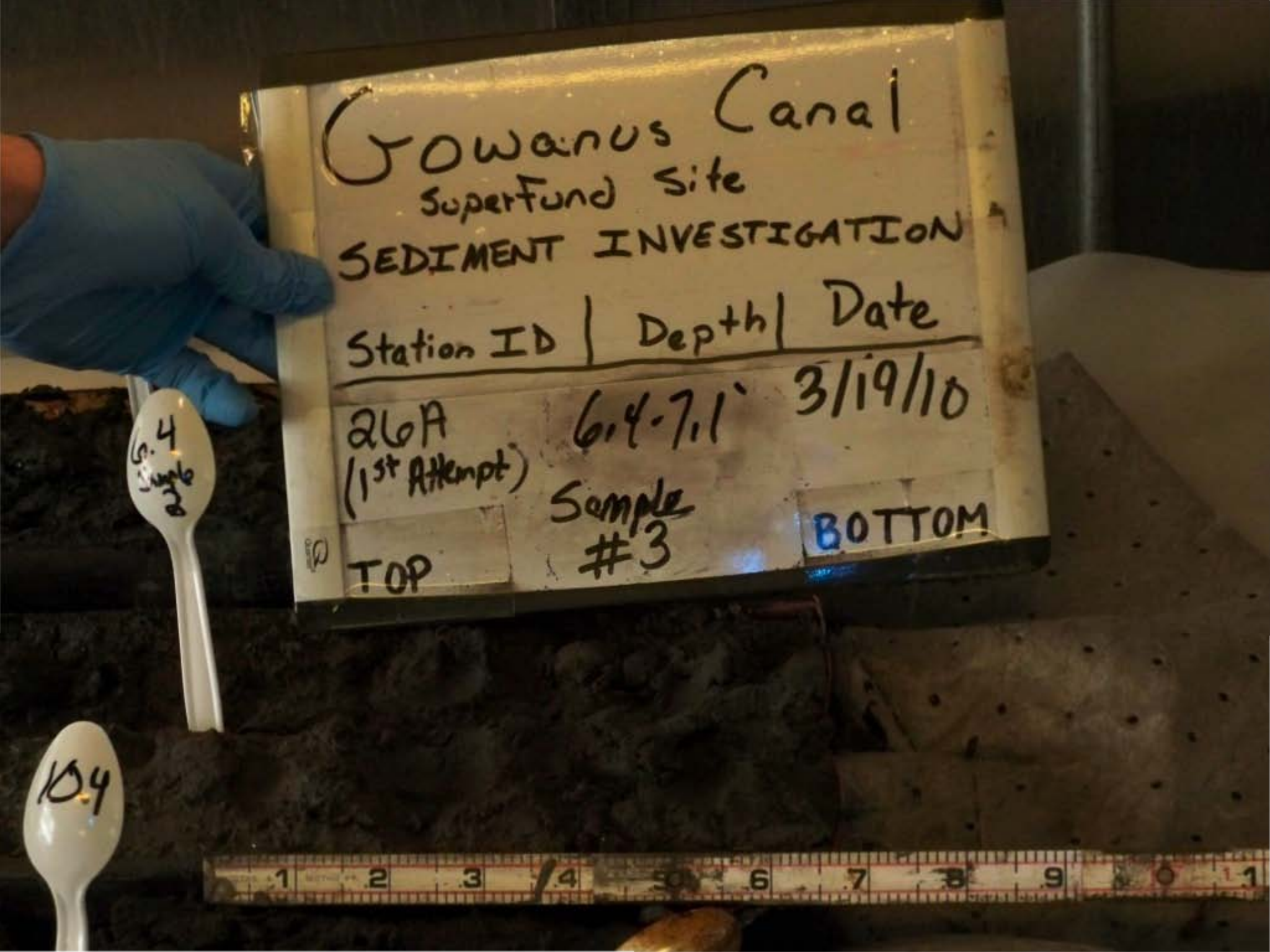

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 2.0-2.4' 3/19/10
Not Sampled
TOP
BOTTOM
2.0 RZ top
2.4 RZ end
6.4 Sample ID

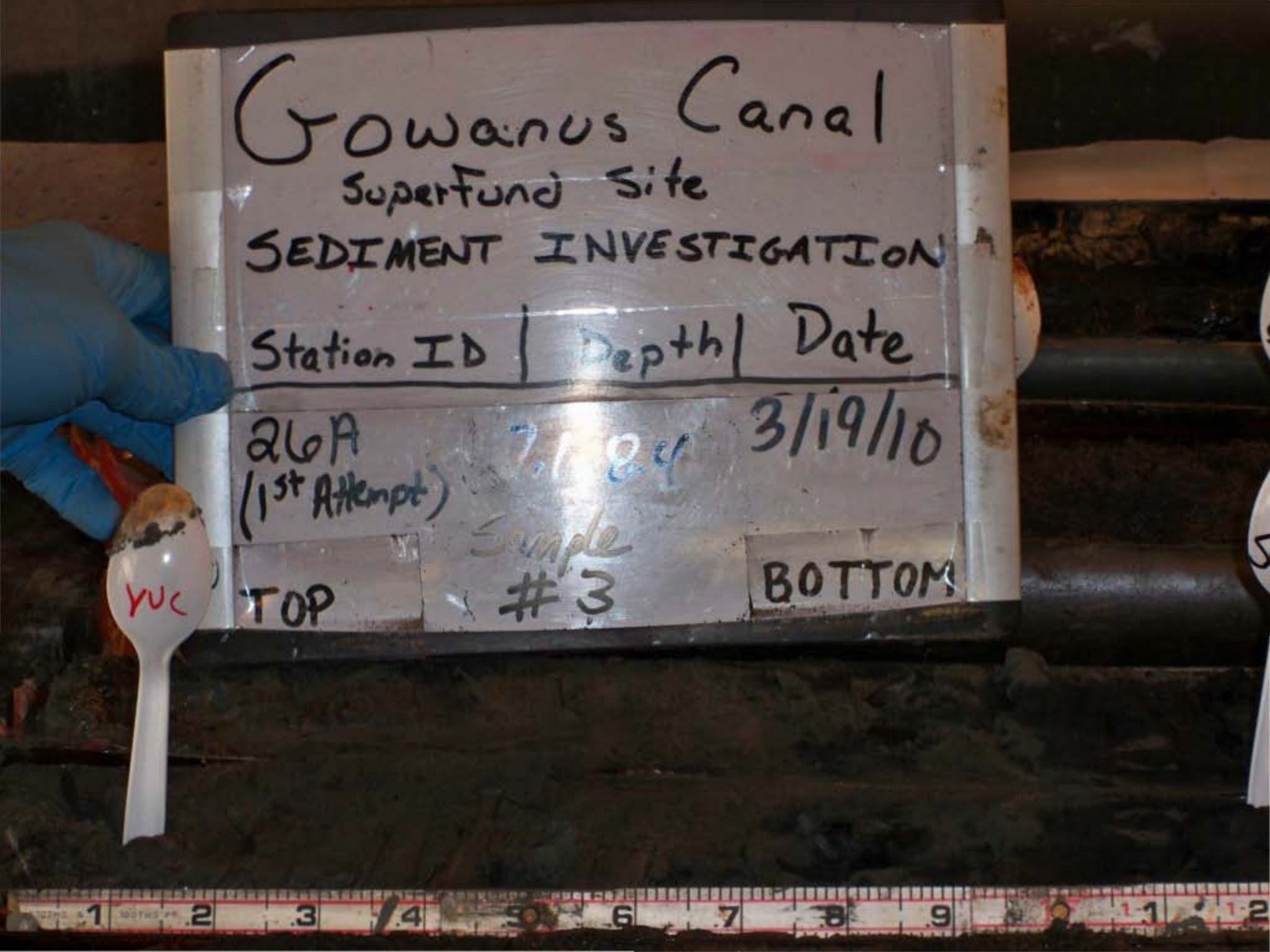

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 2.4-3.1 7/19/10
Sample #1
TOP
BOTTOM
2.4 Top Core
6.4 Sample 2

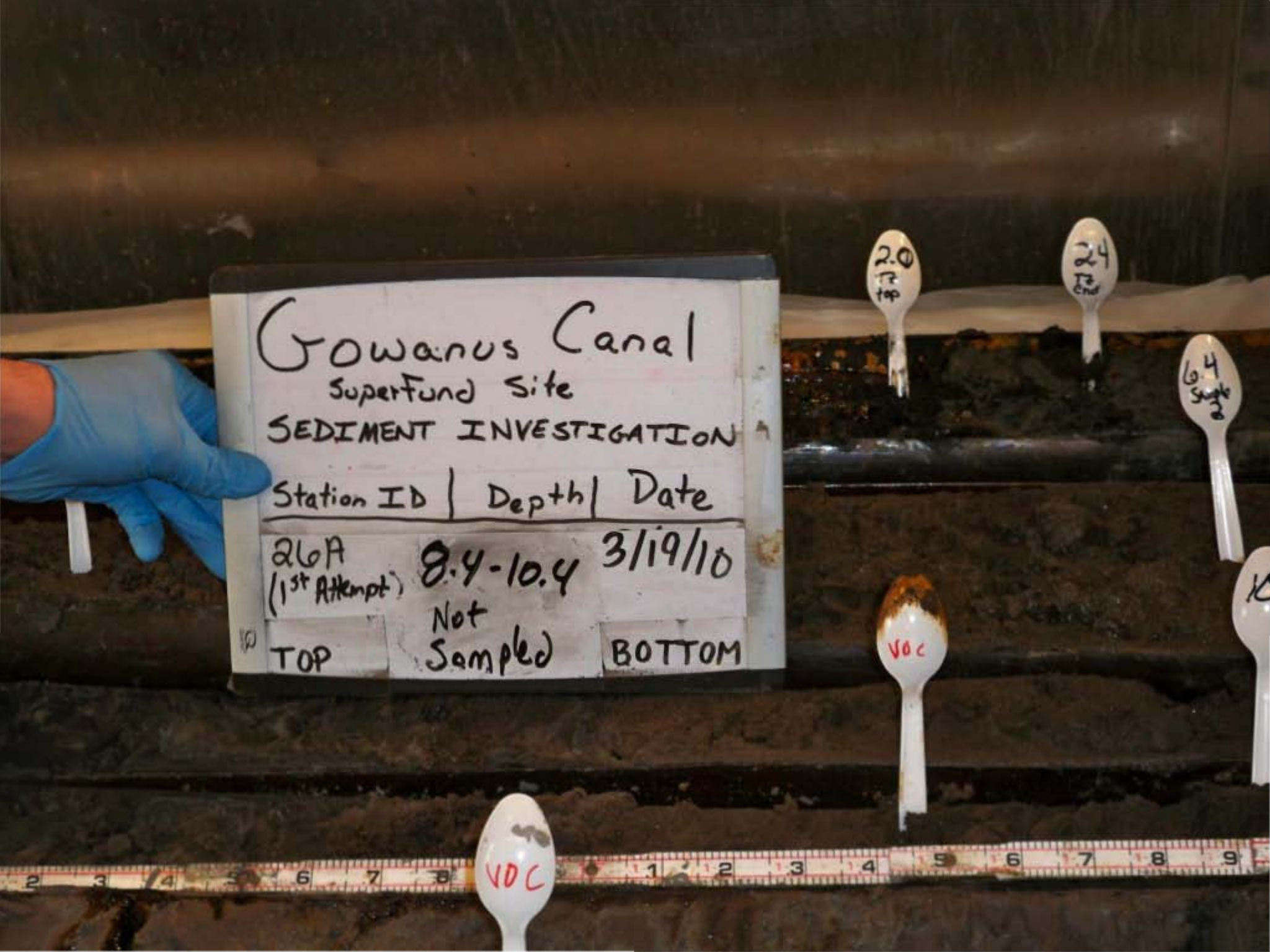

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 3.1-4.4' 3/19/10
TOP
Sample #1
4.4 Sample

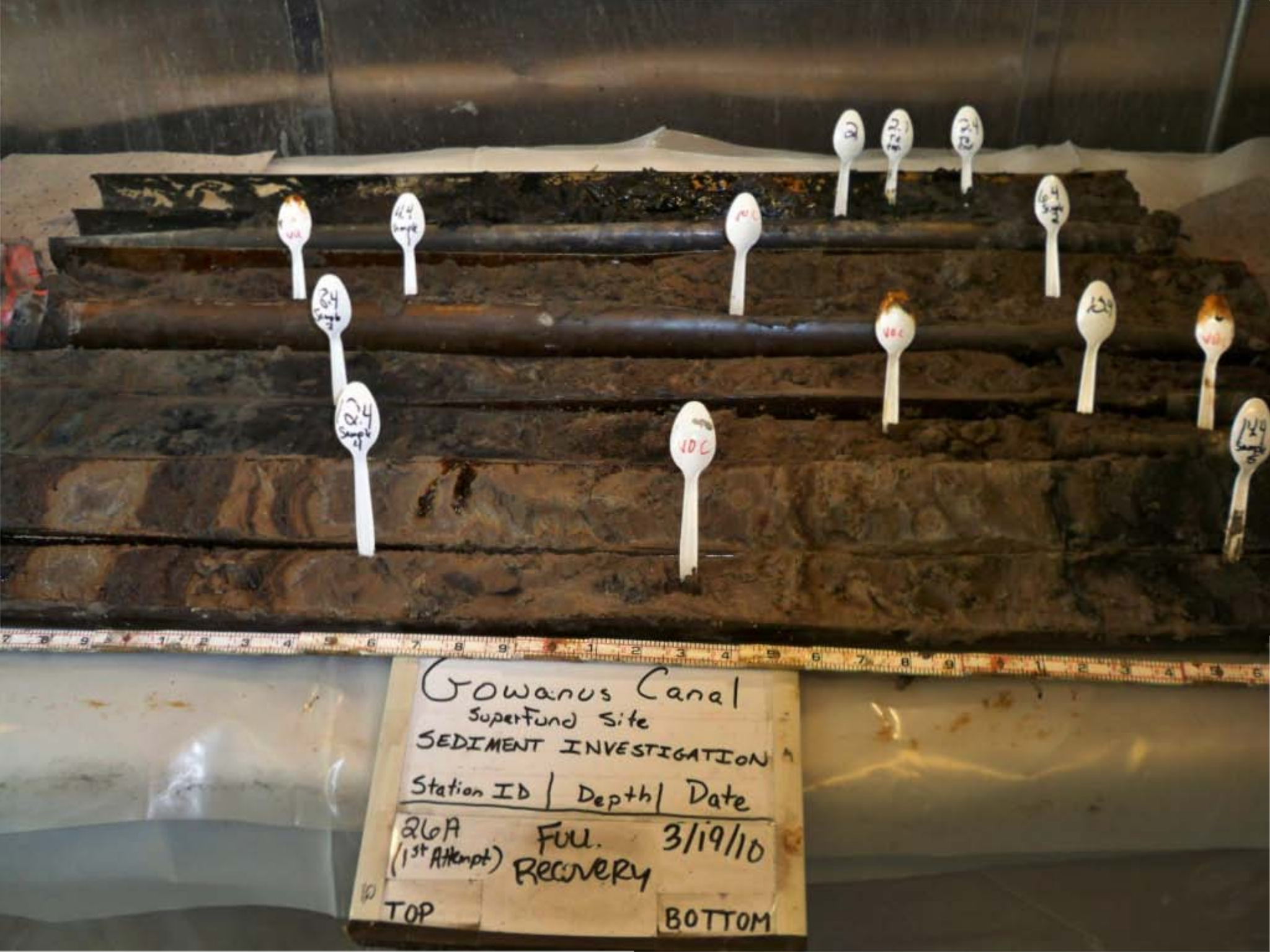

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 4.4-6.4' 3/19/10
Sample #2
TOP
BOTTOM
2.0 Top
2.4 End
6.4
VOC
VOC


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 6.4-7.1' 3/19/10
Sample #3
TOP
BOTTOM
6.4 Sample 2

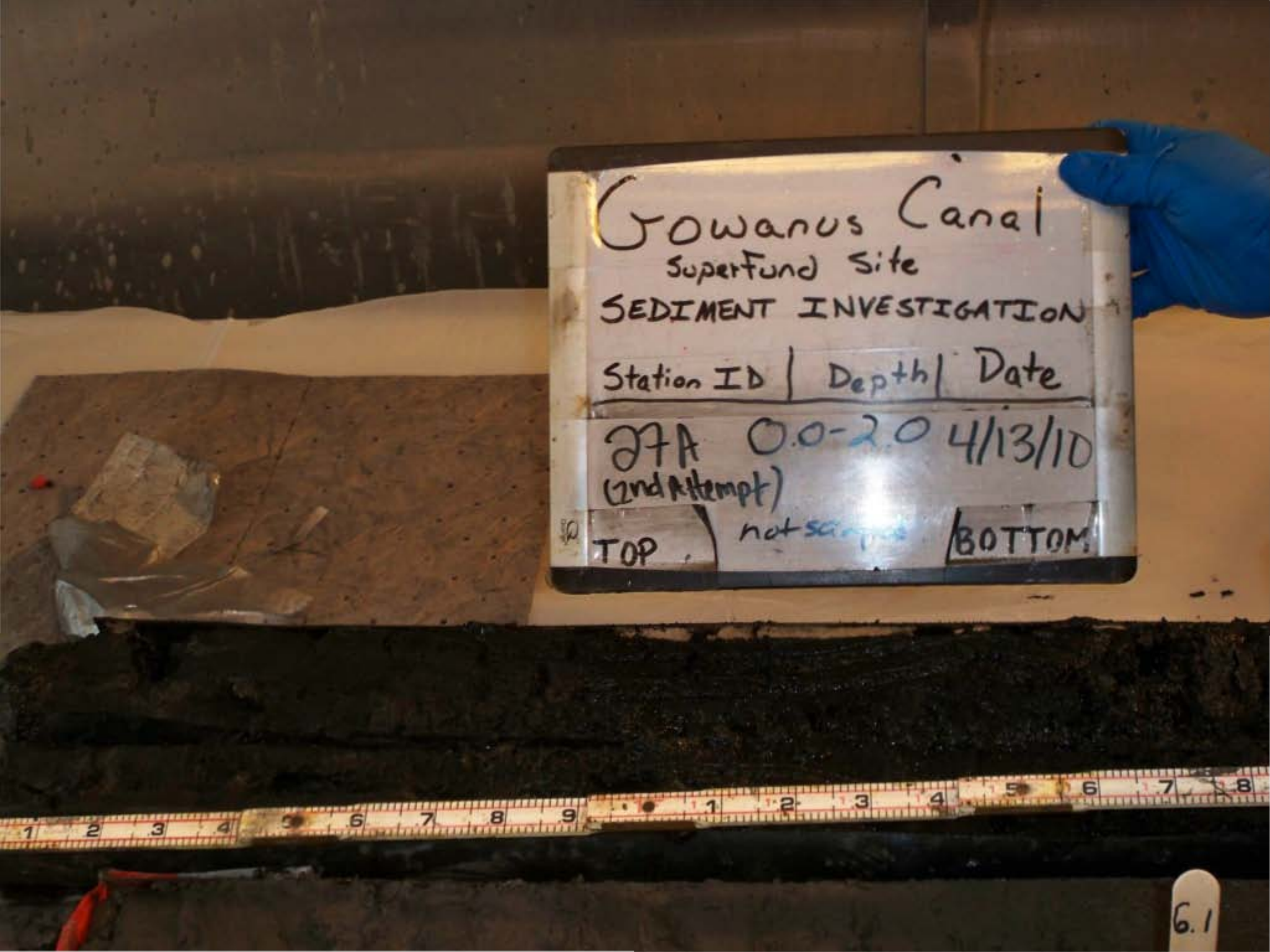

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 6.4-7.1' 3/19/10
Sample #3
TOP
BOTTOM
6.4 Sample 2
10.4

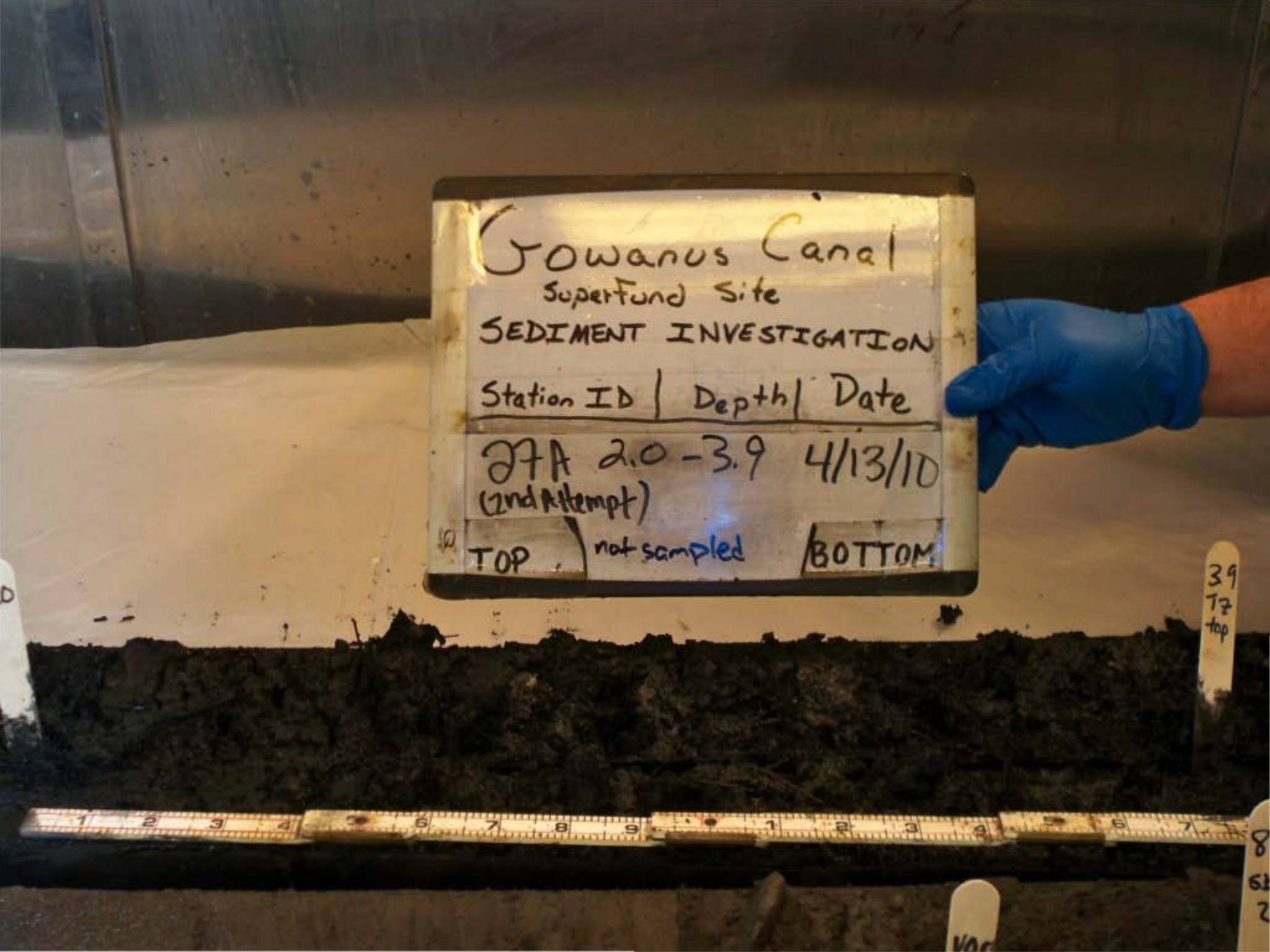

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A
(1st Attempt)
7.1 8.4
3/19/10
Sample
#3
TOP
BOTTOM
YUC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) 8.4-10.4 3/19/10
TOP Not Sampled BOTTOM
2.0 Top
2.4 End
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) Full. Recovery 3/19/10
TOP
BOTTOM

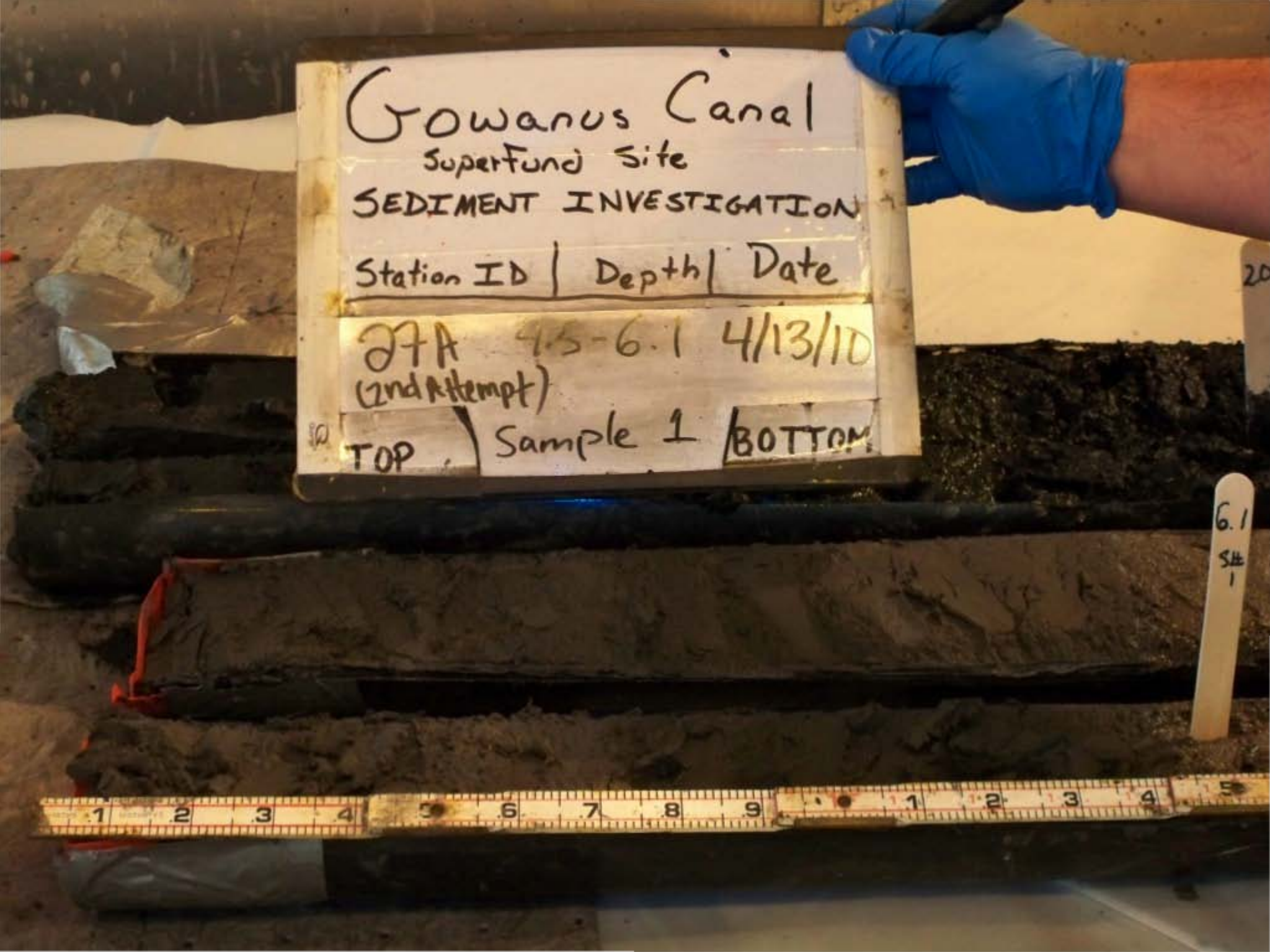

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A (2nd Attempt) Full Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A 0.0-2.0 4/13/10
(2nd Attempt)
TOP
BOTTOM
6.1

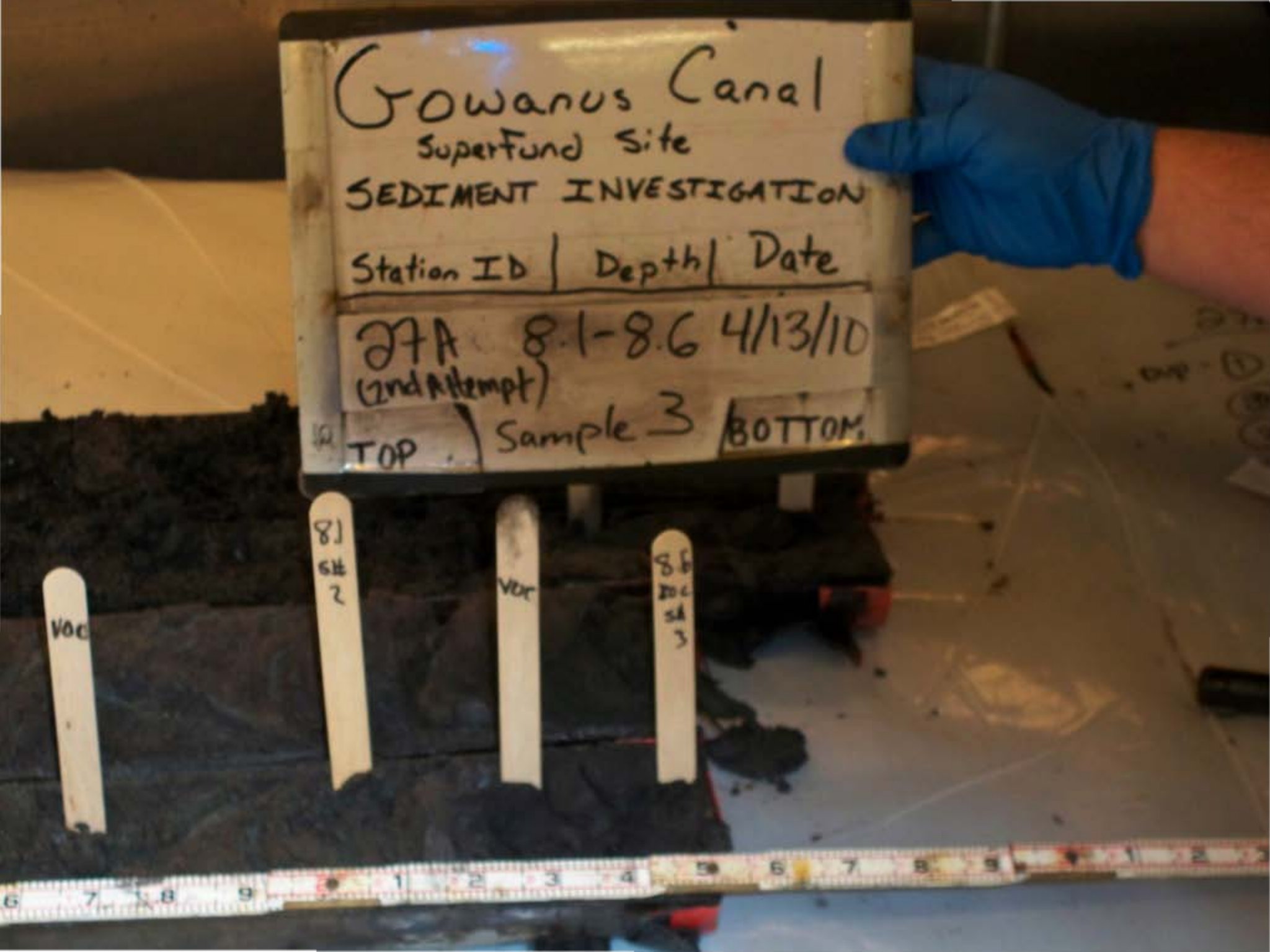

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A 2.0-3.9 4/13/10
(2nd Attempt)
TOP
not sampled
BOTTOM
39
T7
top


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A 3.9-4.1 4/13/10
(2nd attempt) transition zone
TOP not sampled BOTTOM
3.9 TZ top
4.1 TZ end
8.1
8.6


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A 4.1-4.5 4/13/10
(2nd Attempt)
TOP Sample 1 BOTTOM
39 Tz top
41 Tz end
VOC
8.6 BOC
27A
DUP - 1
2
3

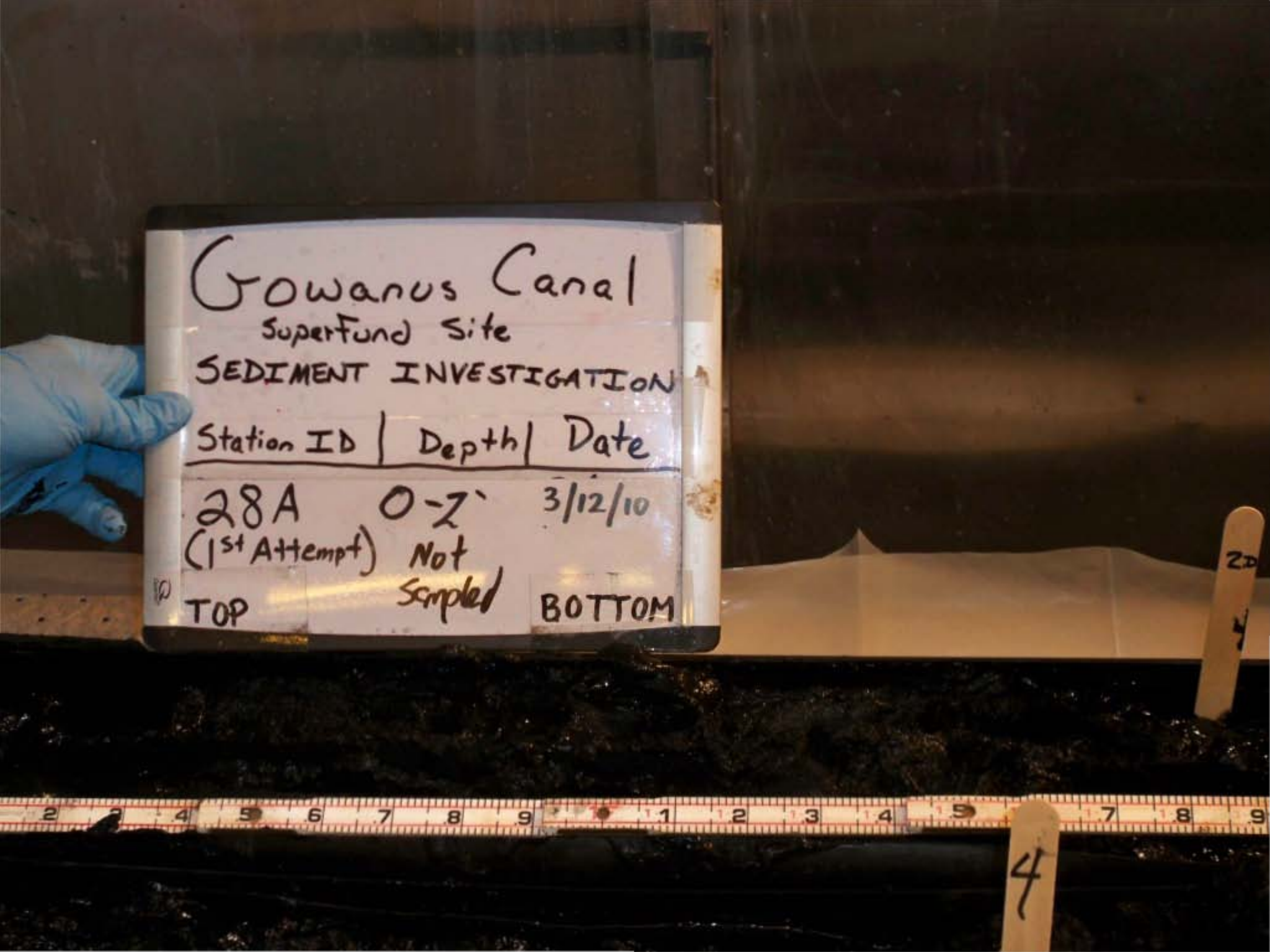

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A 4.5-6.1 4/13/10
(2nd Attempt)
TOP | Sample 1 | BOTTOM
6.1
Sh
1

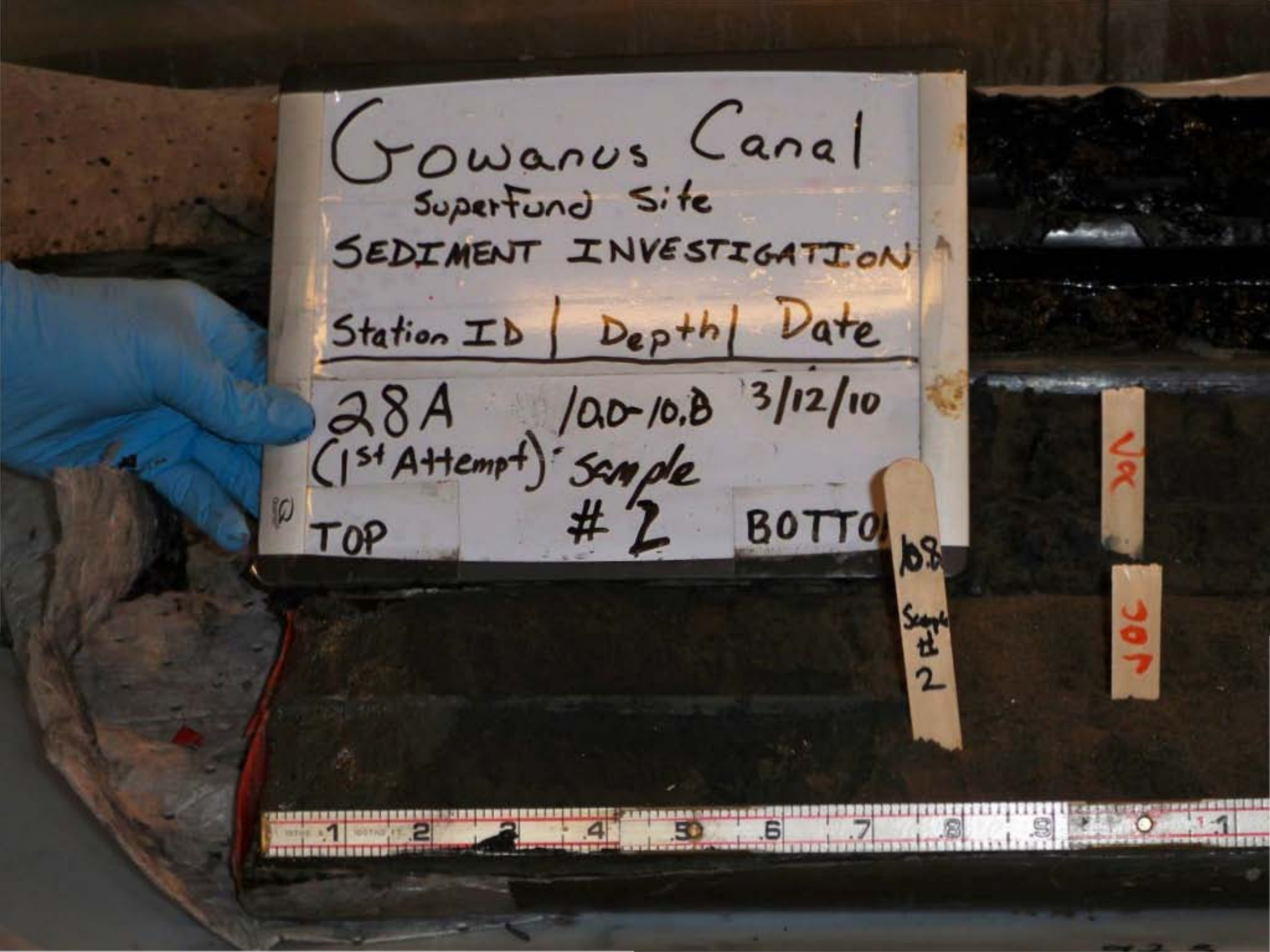

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A 6.1-8.1 4/13/10
(2nd Attempt)
TOP | Sample 2 | BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A 8.1-8.6 4/13/10
(2nd Attempt)
TOP | Sample 3 | BOTTOM
VOC
VOC

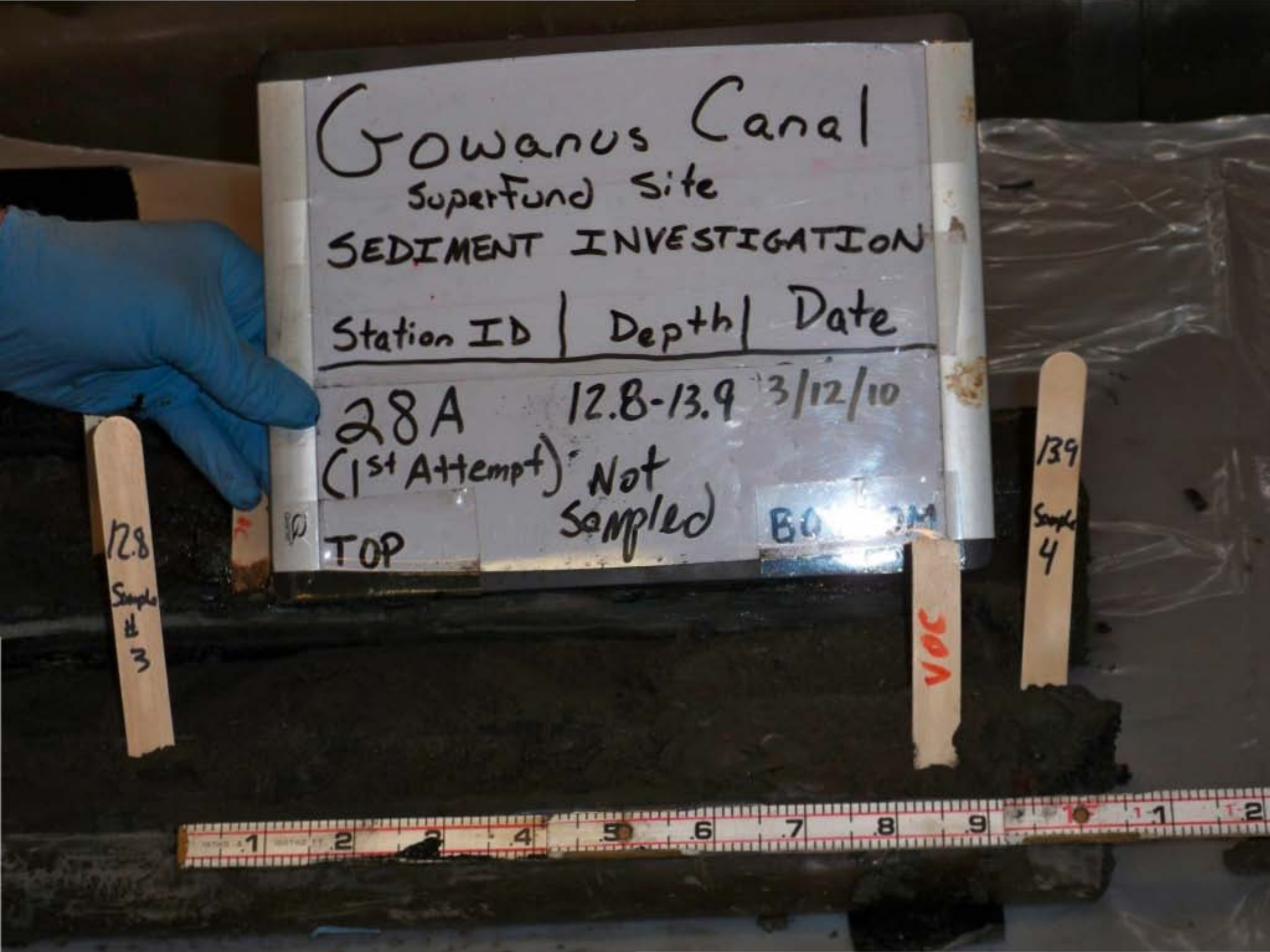

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A Full 4/13/10
(2nd Attempt) Recovery
TOP
BOTTOM

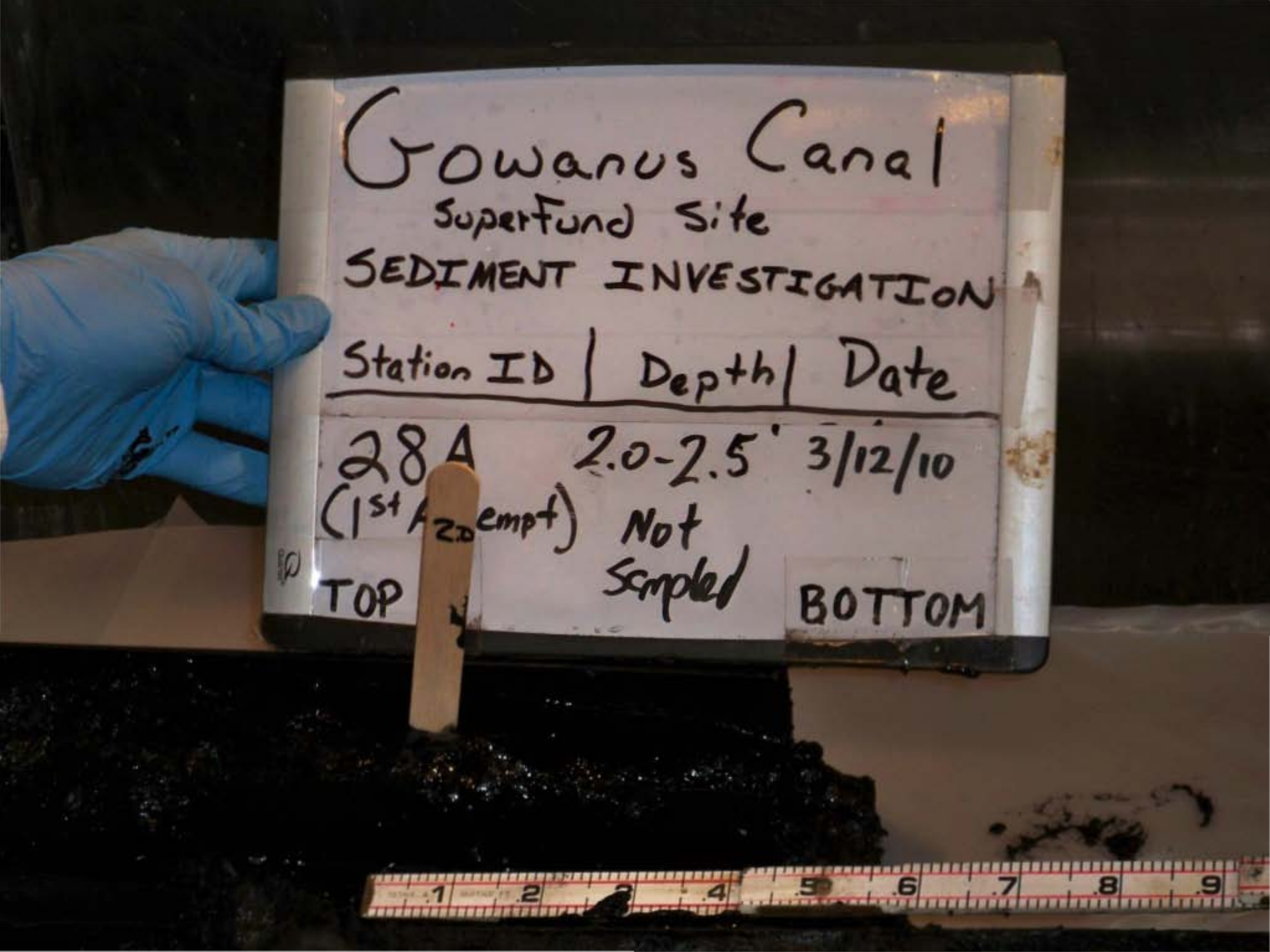

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A (1st Attempt) FULL RECOVERY 3/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 0-2' 3/12/10
(1st Attempt) Not Sampled
TOP BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A (1st Attempt)
10.0-10.8 Sample #2
3/12/10
TOP
BOTTO
10.8
Sample #2
VX
JOT


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 10.8-12.8 3/12/10
(1st Attempt) Sample
TOP #3 BOTTOM

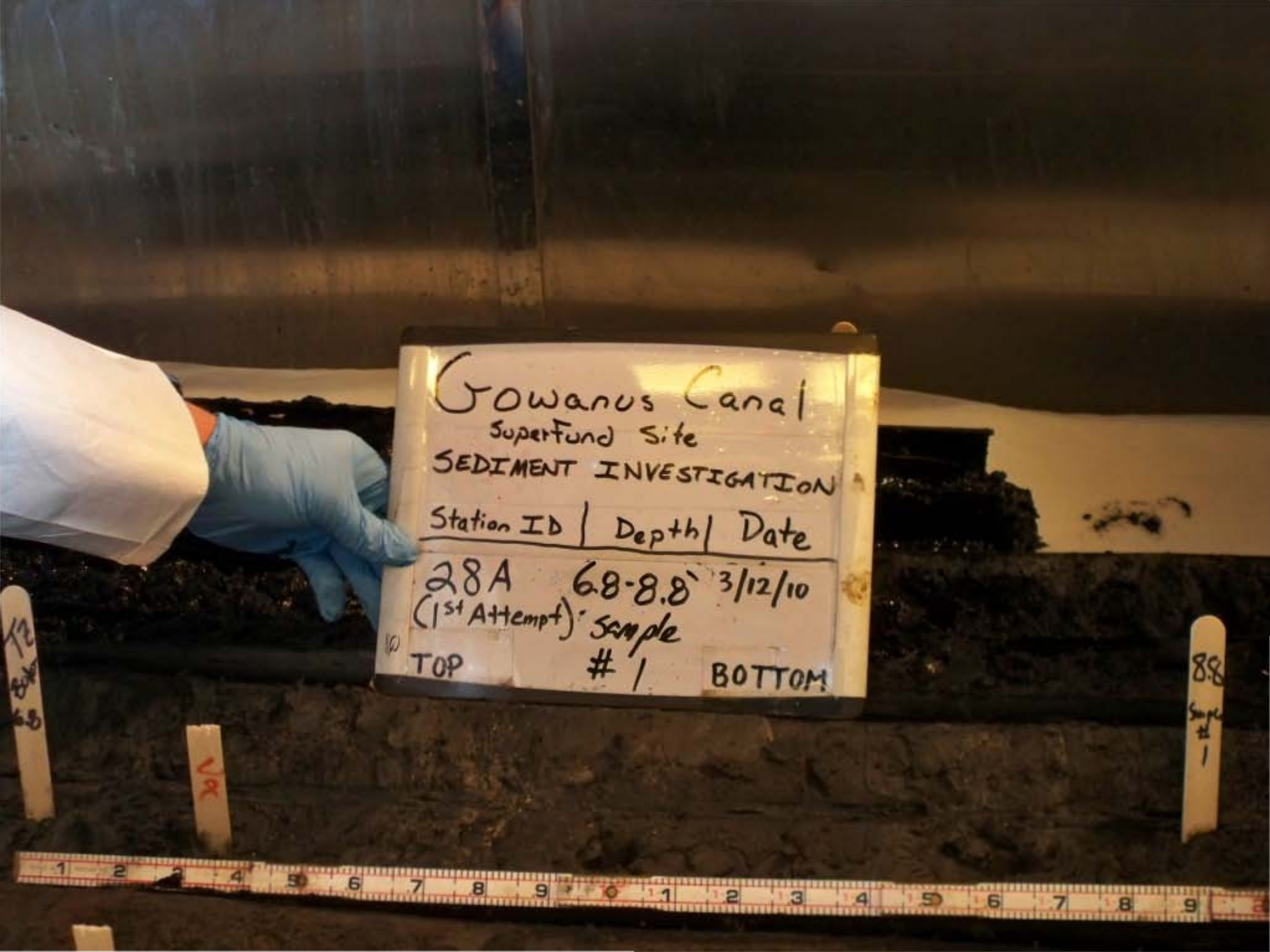

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 12.8-13.9 3/12/10
(1st Attempt) Not Sampled
TOP
12.8
Sample #3
VOC
13.9
Sample #4

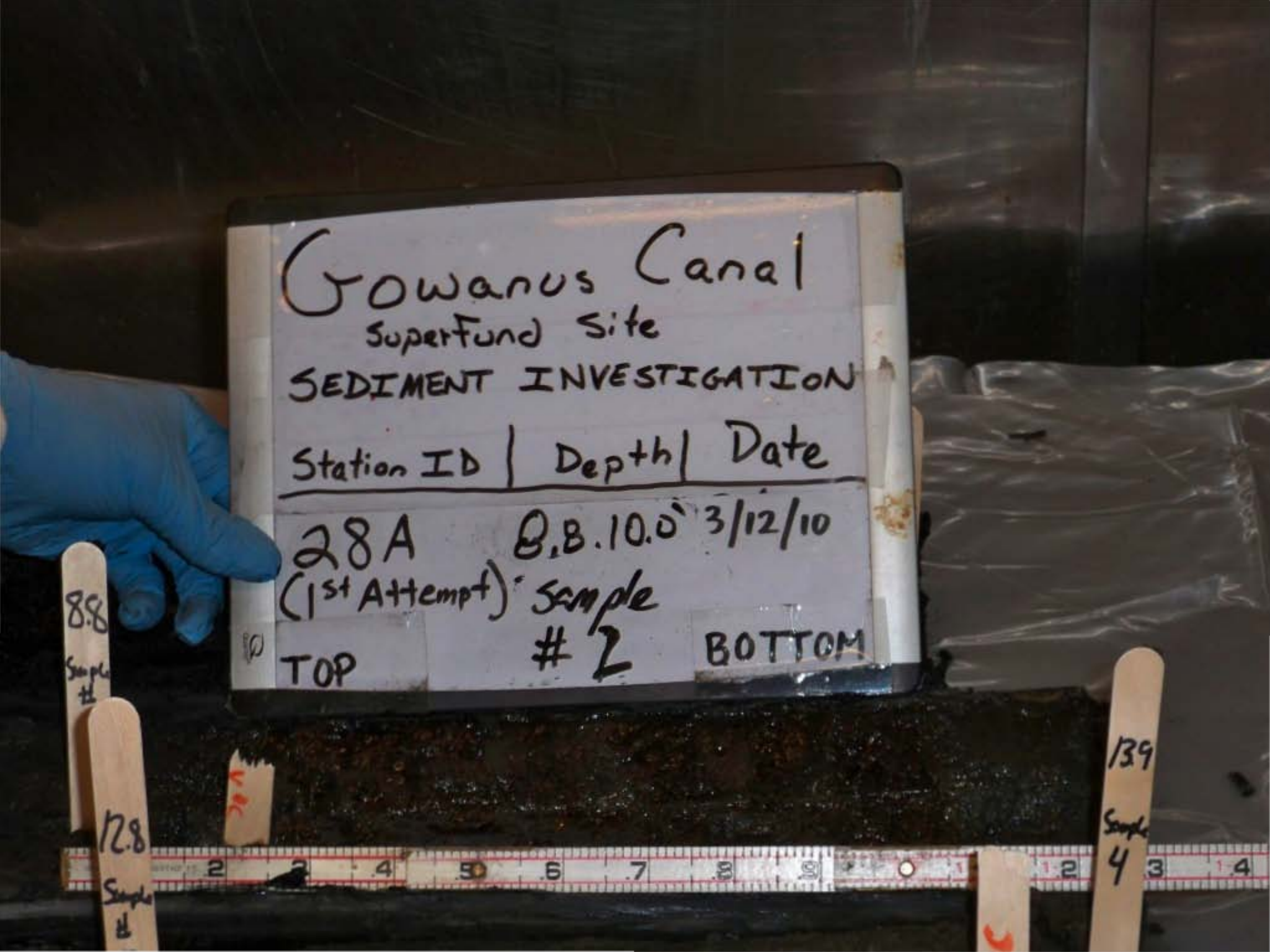

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 2.0-2.5' 3/12/10
(1st Attempt) Not Sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 2.5-4.0 3/12/10
(1st Attempt) Not Sampled
TOP
BOTTOM
4
12


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 4.0-6.0' 3/12/10
(1st Attempt) Not Sampled
TOP BOTTOM
4
6
8.8
Sample # 1

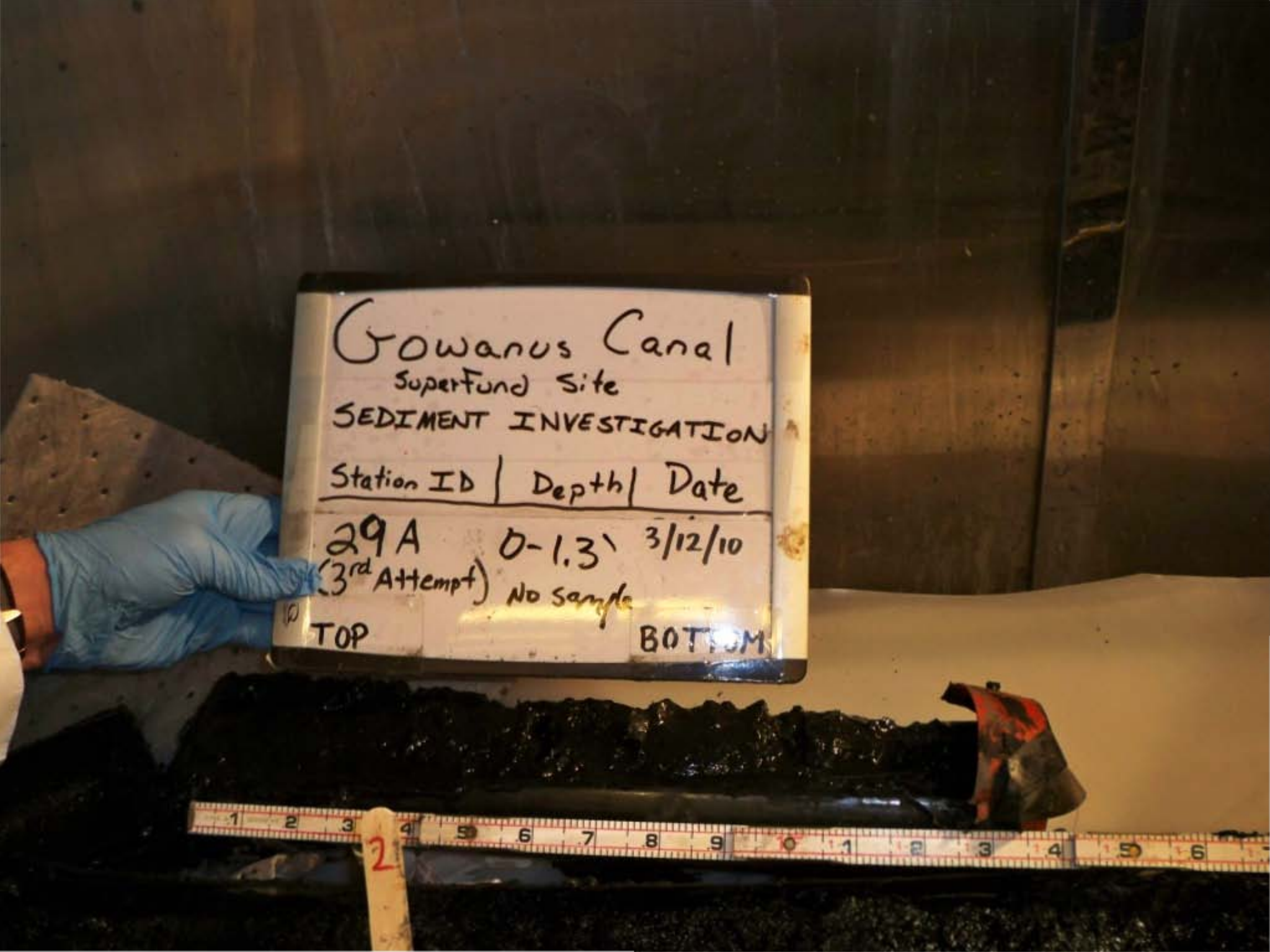

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 6.0-6.8' 3/12/10
(1st Attempt) T2-6.4-6
TOP
Not sampled
BOTTOM
T2
top
6.4
T2
6.8
10.8

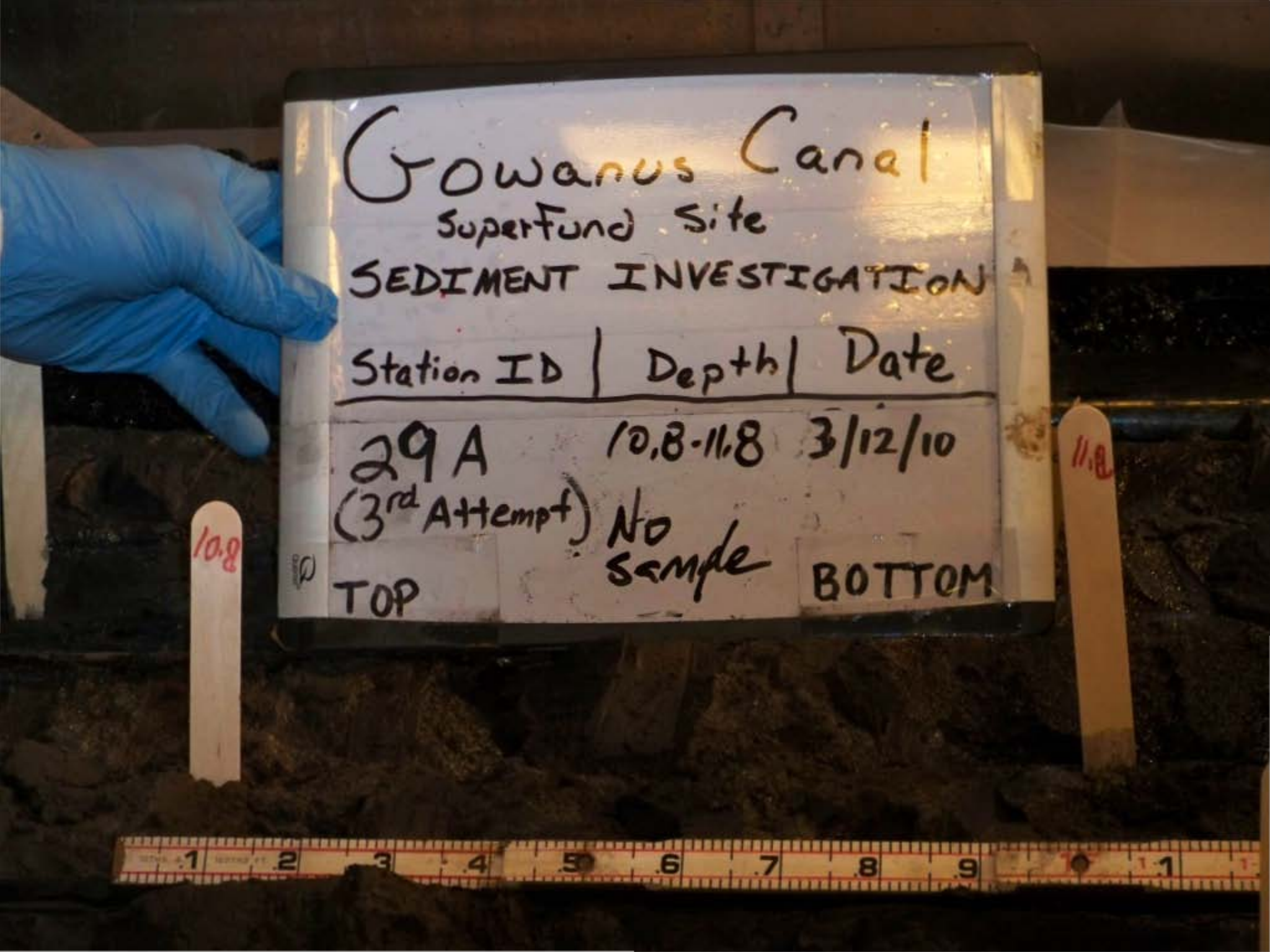

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A 6.8-8.8' 3/12/10
(1st Attempt) Sample
TOP #1 BOTTOM

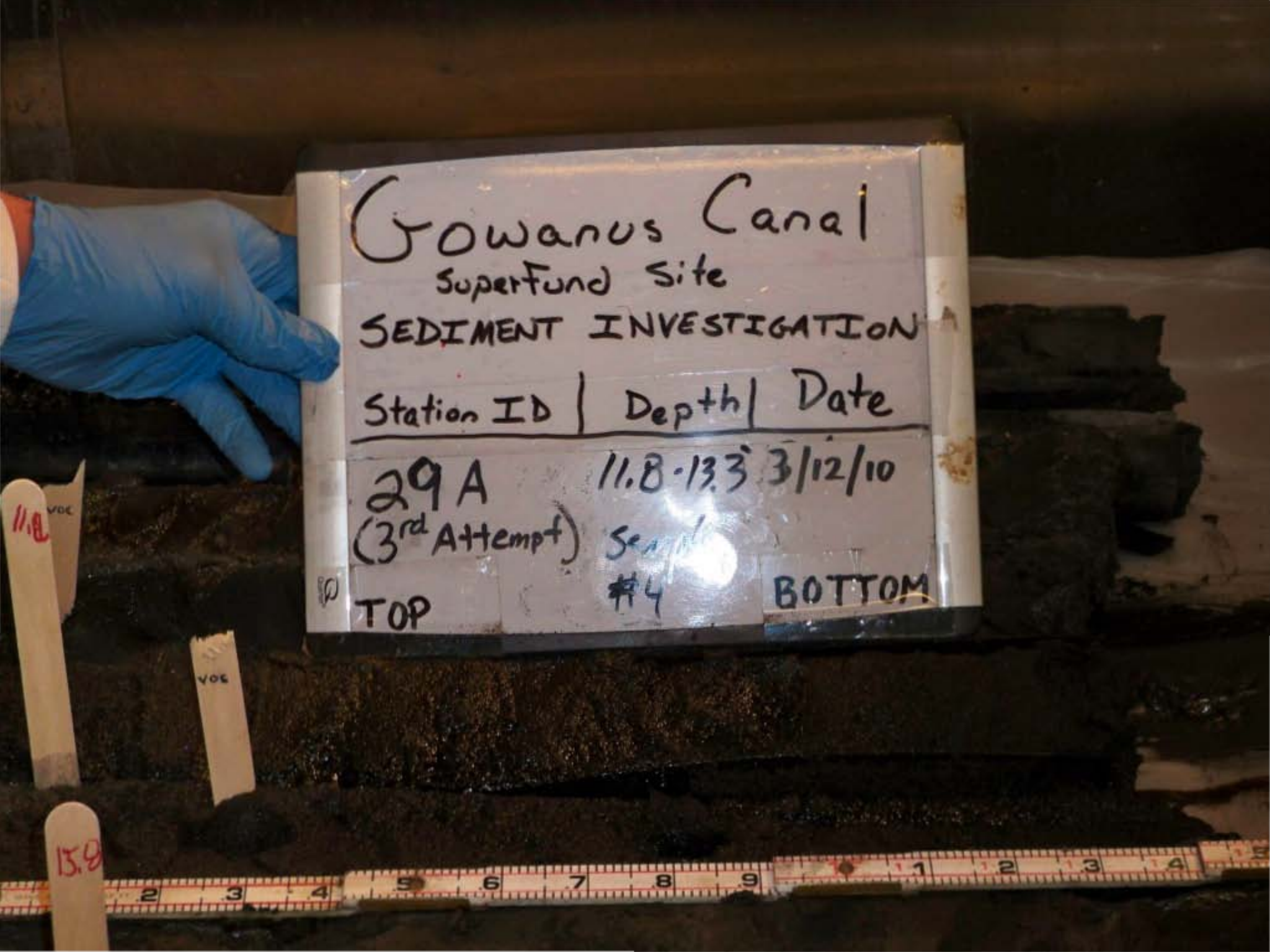

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A (1st Attempt) B.B. 10.0' 3/12/10
Sample #2
TOP
BOTTOM
8.8
12.8
13.9
4

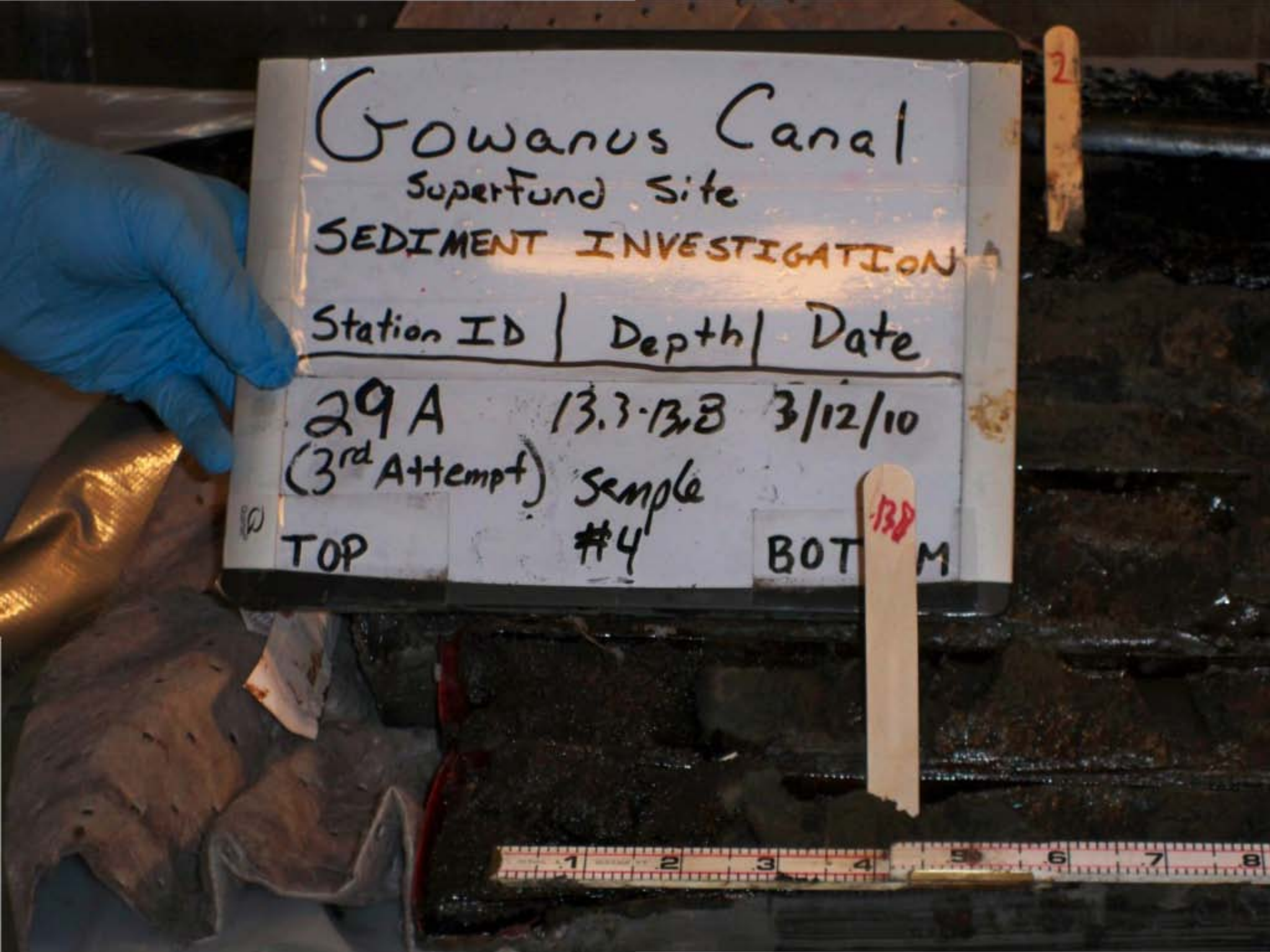

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A
(1st Attempt)
FULL RECOVERY
3/12/10
TOP
BOTTOM

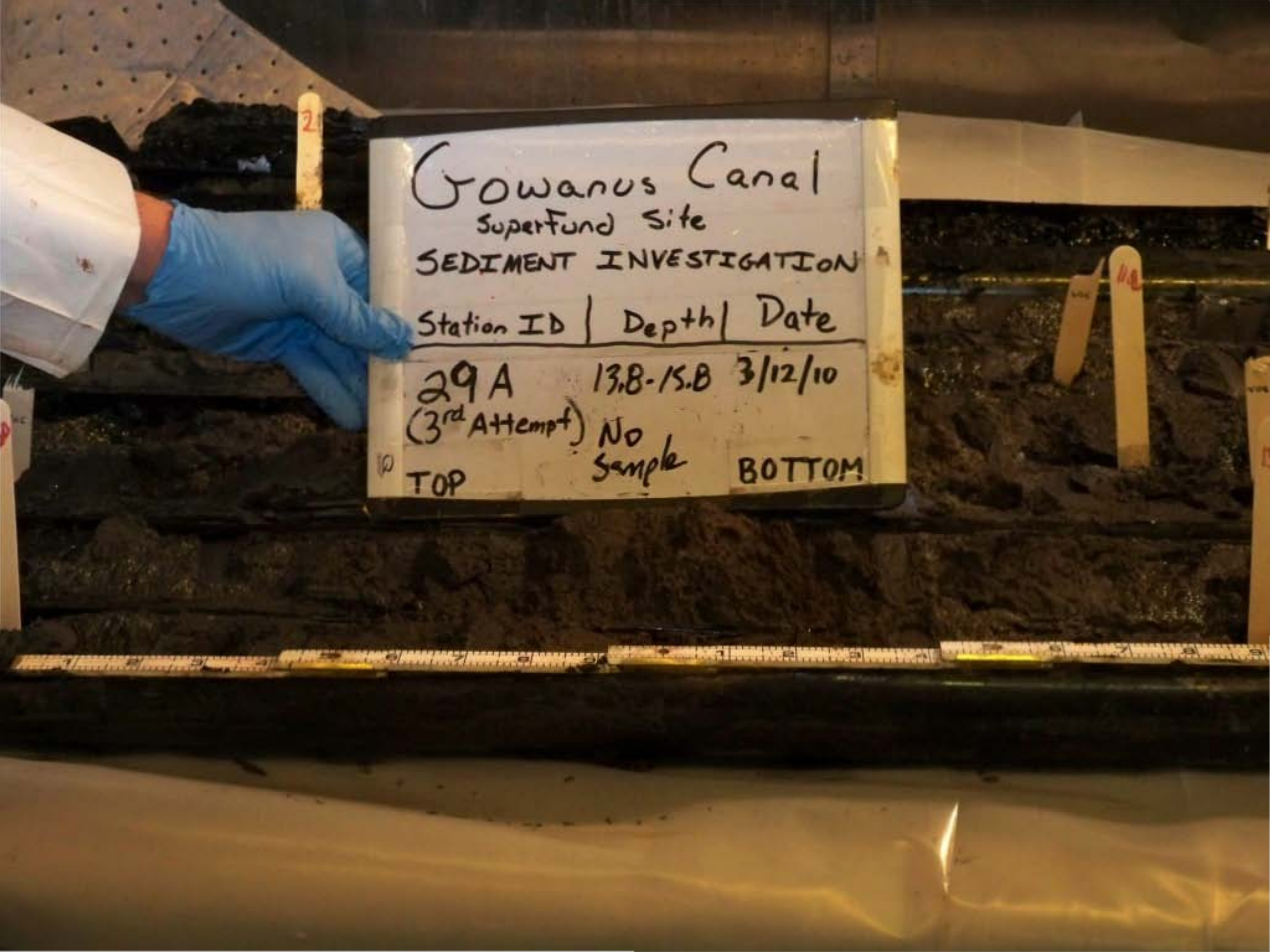

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A (3rd Attempt) FULL RECOVERY 3/12/10
TOP
BOTTOM

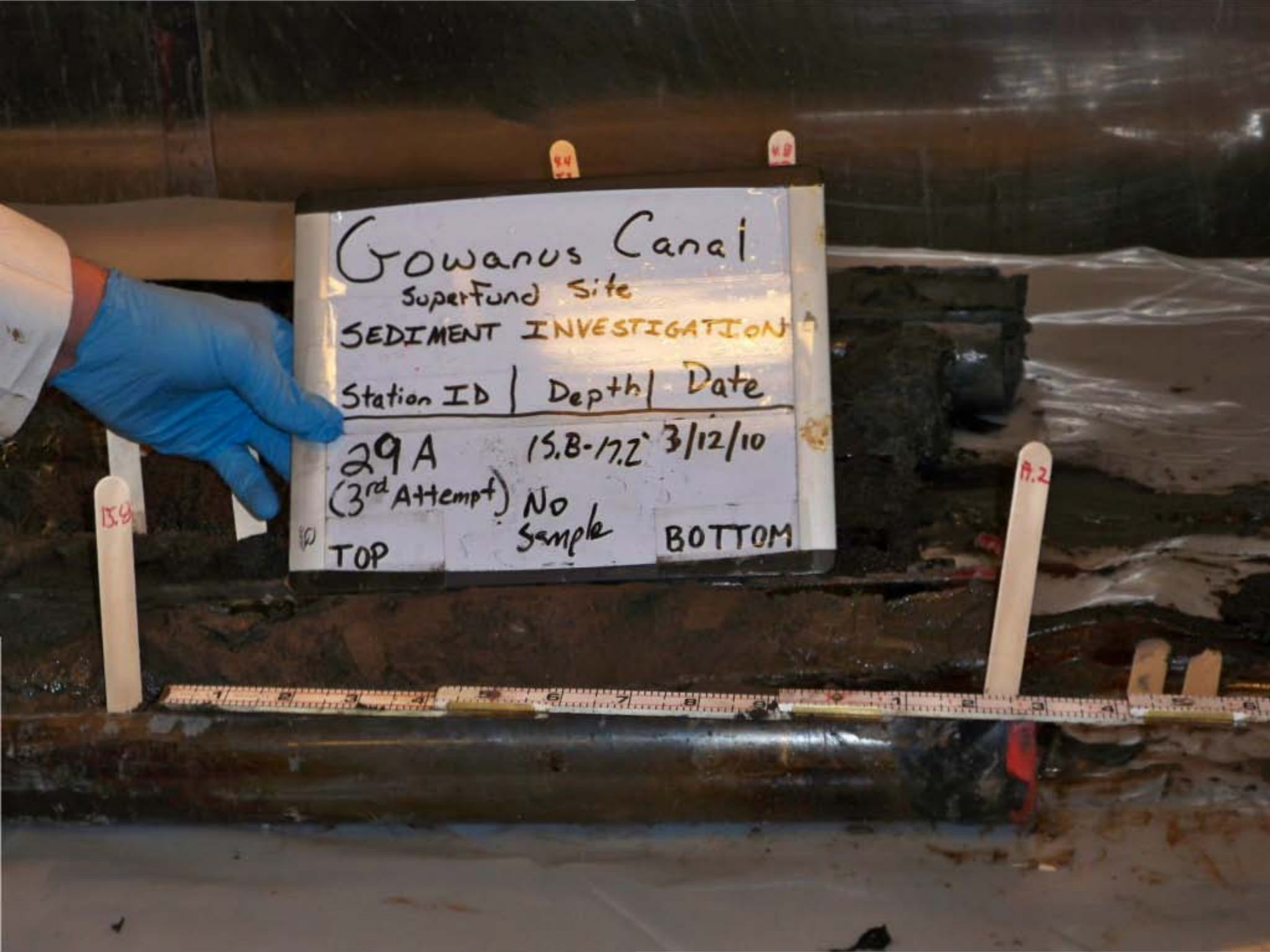

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 0-1.3' 3/12/10
(3rd Attempt) No sample
TOP
BOTTOM

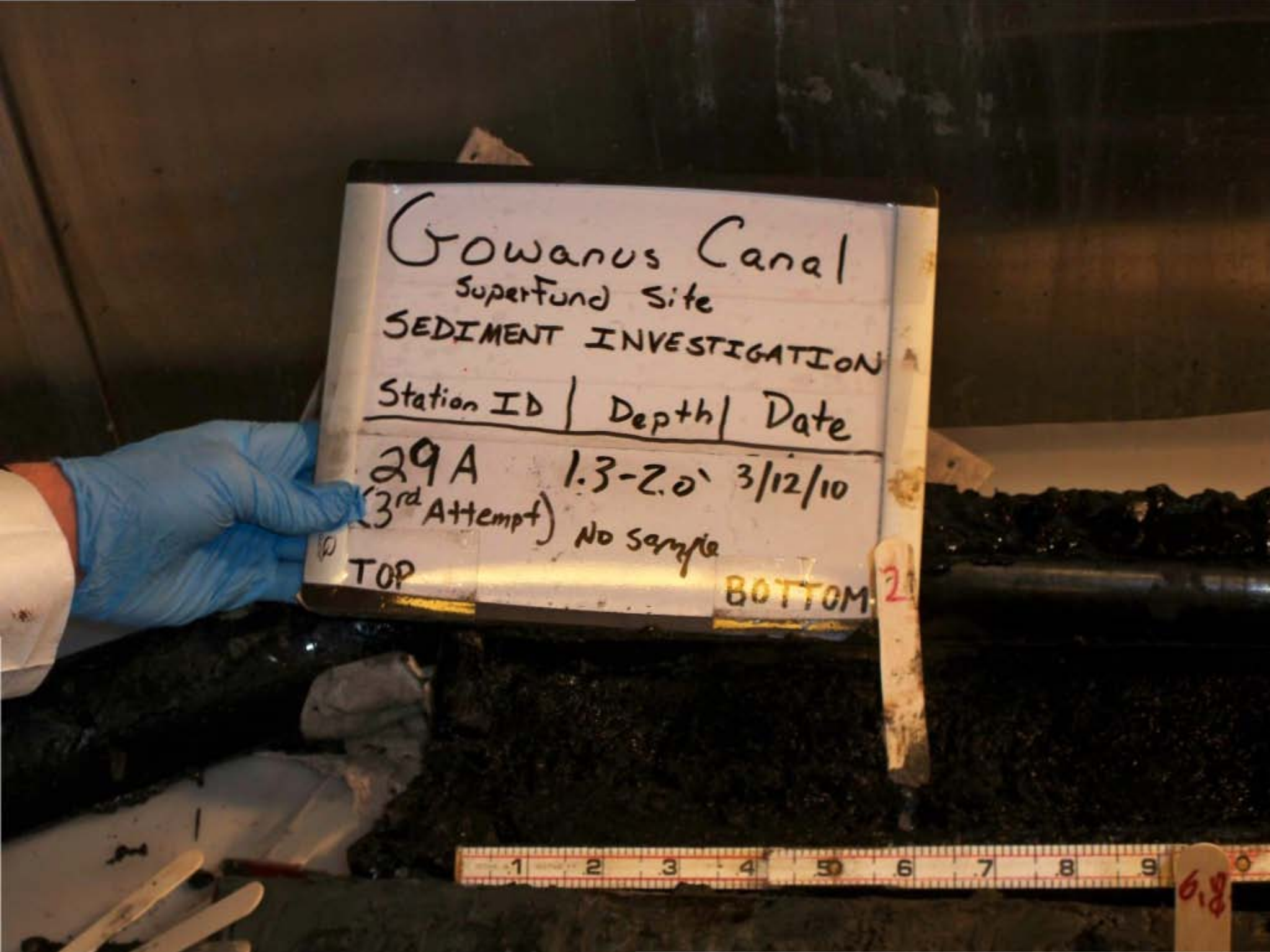

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 10.8-11.8 3/12/10
(3rd Attempt) No sample
TOP BOTTOM
10.8
11.8

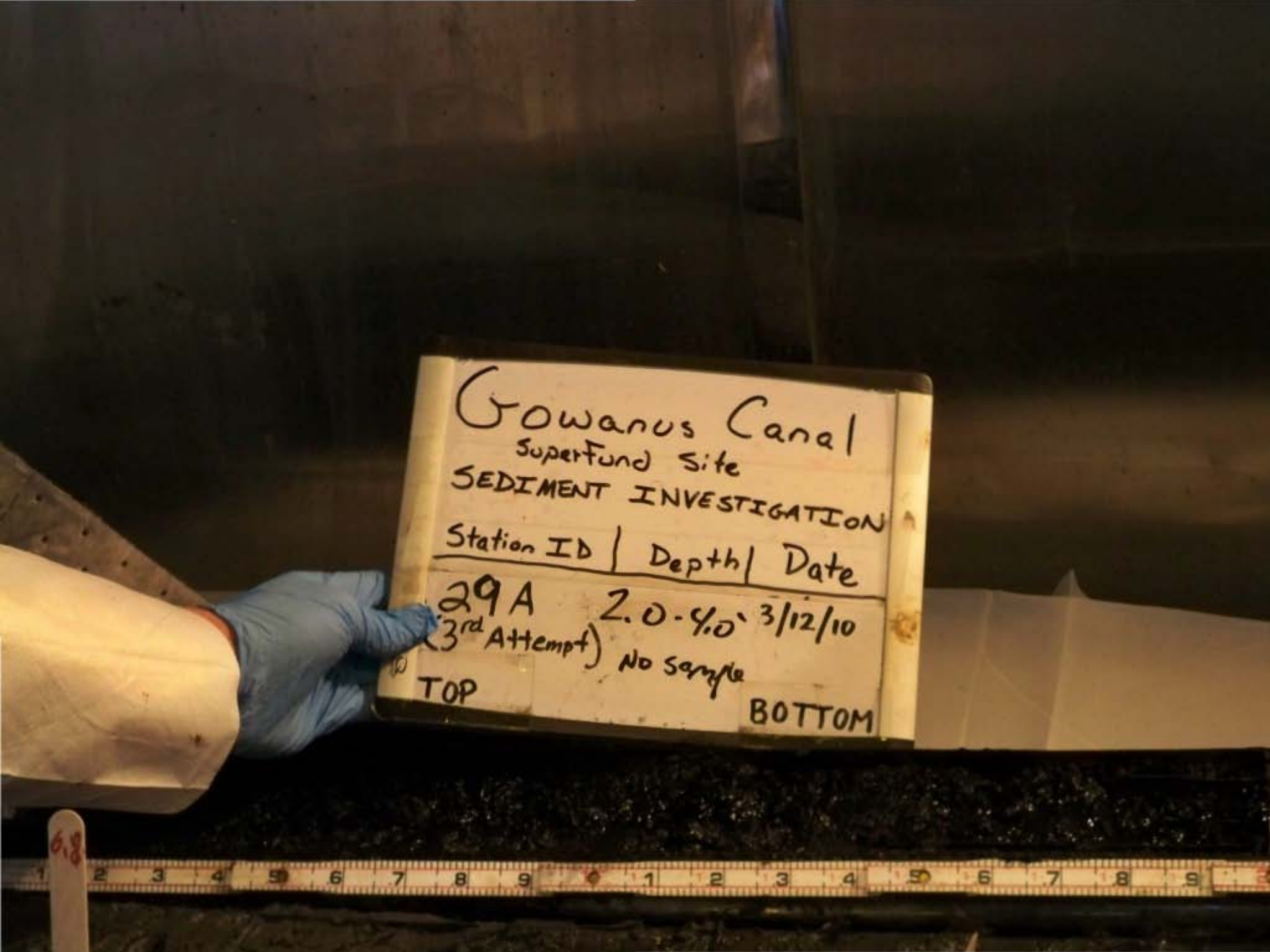

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A (3rd Attempt) 11.8-13.3 3/12/10
Sample #4
TOP
BOTTOM
11.8
13.3
VOC
VOC

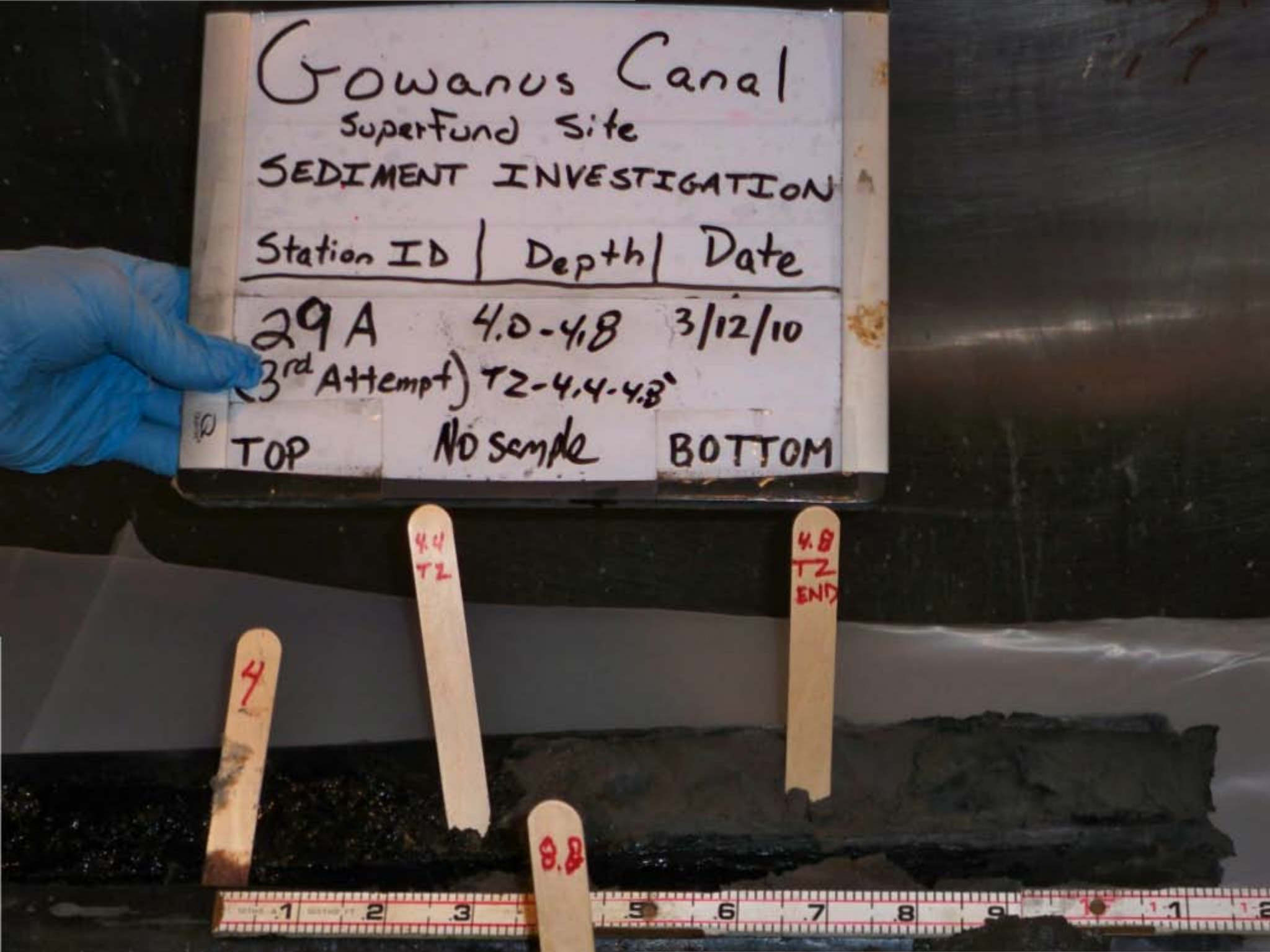

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 13.3-13.8 3/12/10
(3rd Attempt) Sample #4
TOP
BOTTOM
13.8

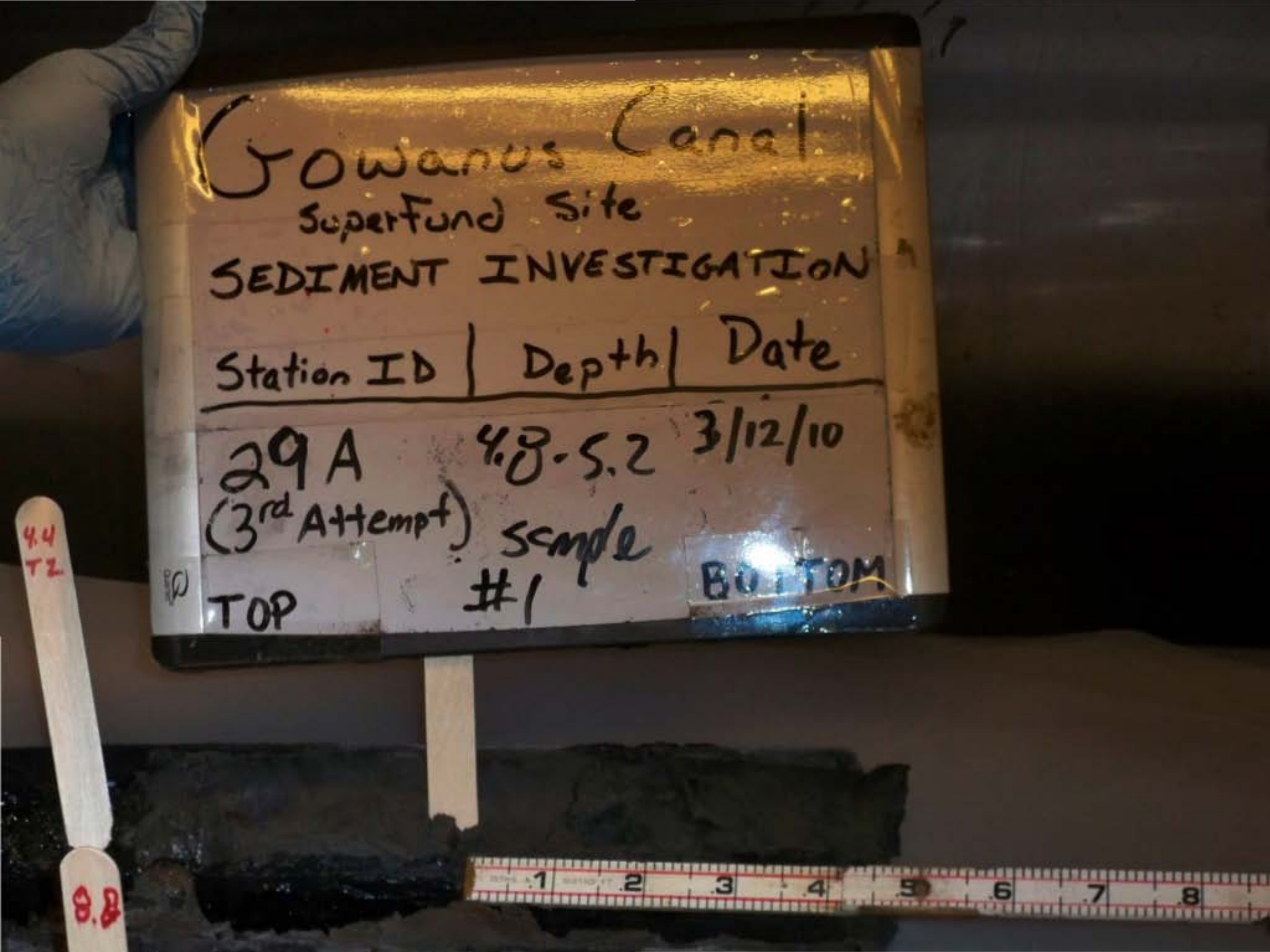

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 13.8-15.8 3/12/10
(3rd Attempt) No Sample
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A (3rd Attempt) 15.8-17.2' 3/12/10
No Sample
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 1.3-2.0' 3/12/10
(3rd Attempt) No sample
TOP
BOTTOM
21
1 2 3 4 5 6 7 8 9
6.8

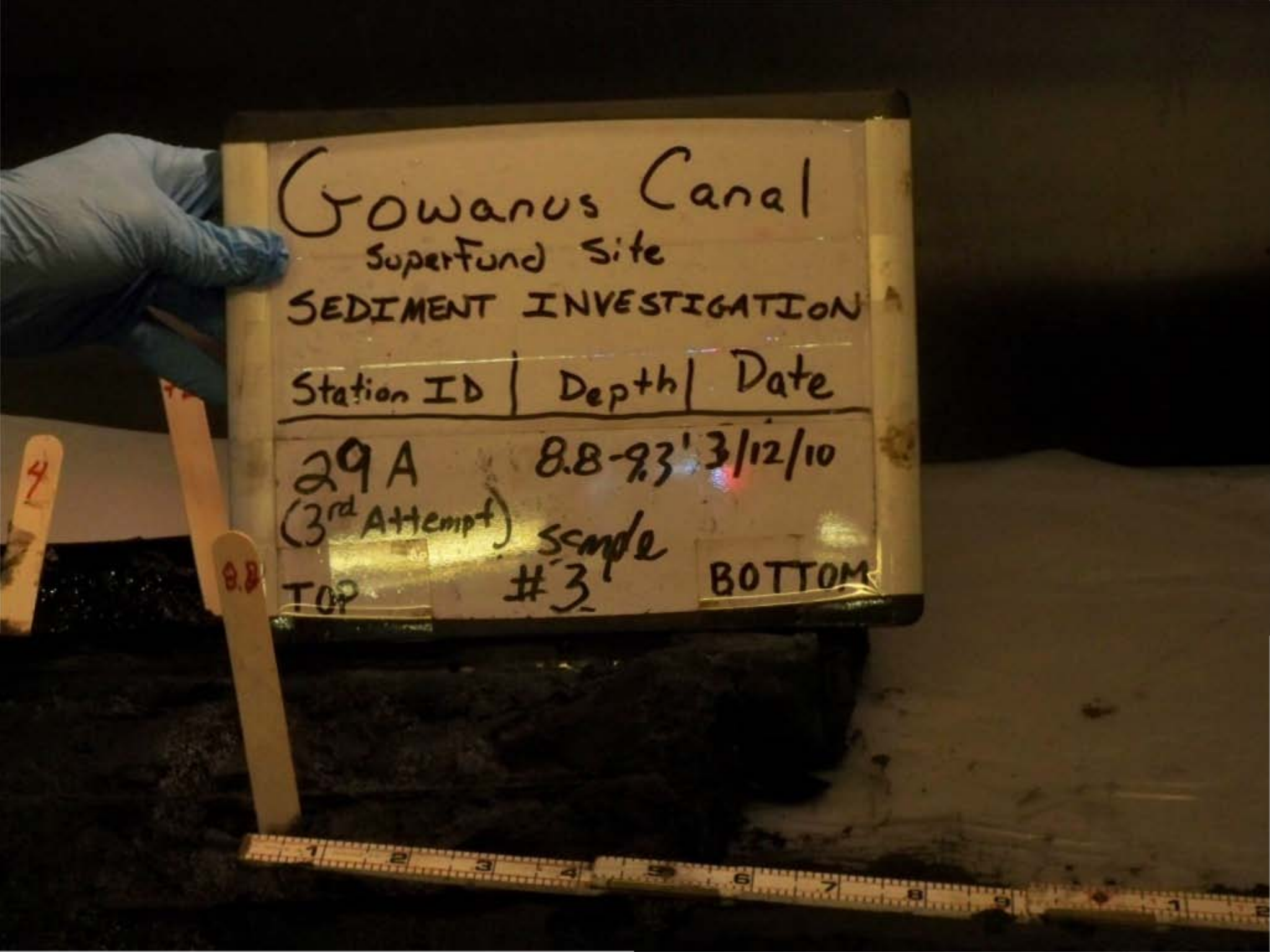

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 2.0-4.0' 3/12/10
(3rd Attempt) No sample
TOP
BOTTOM

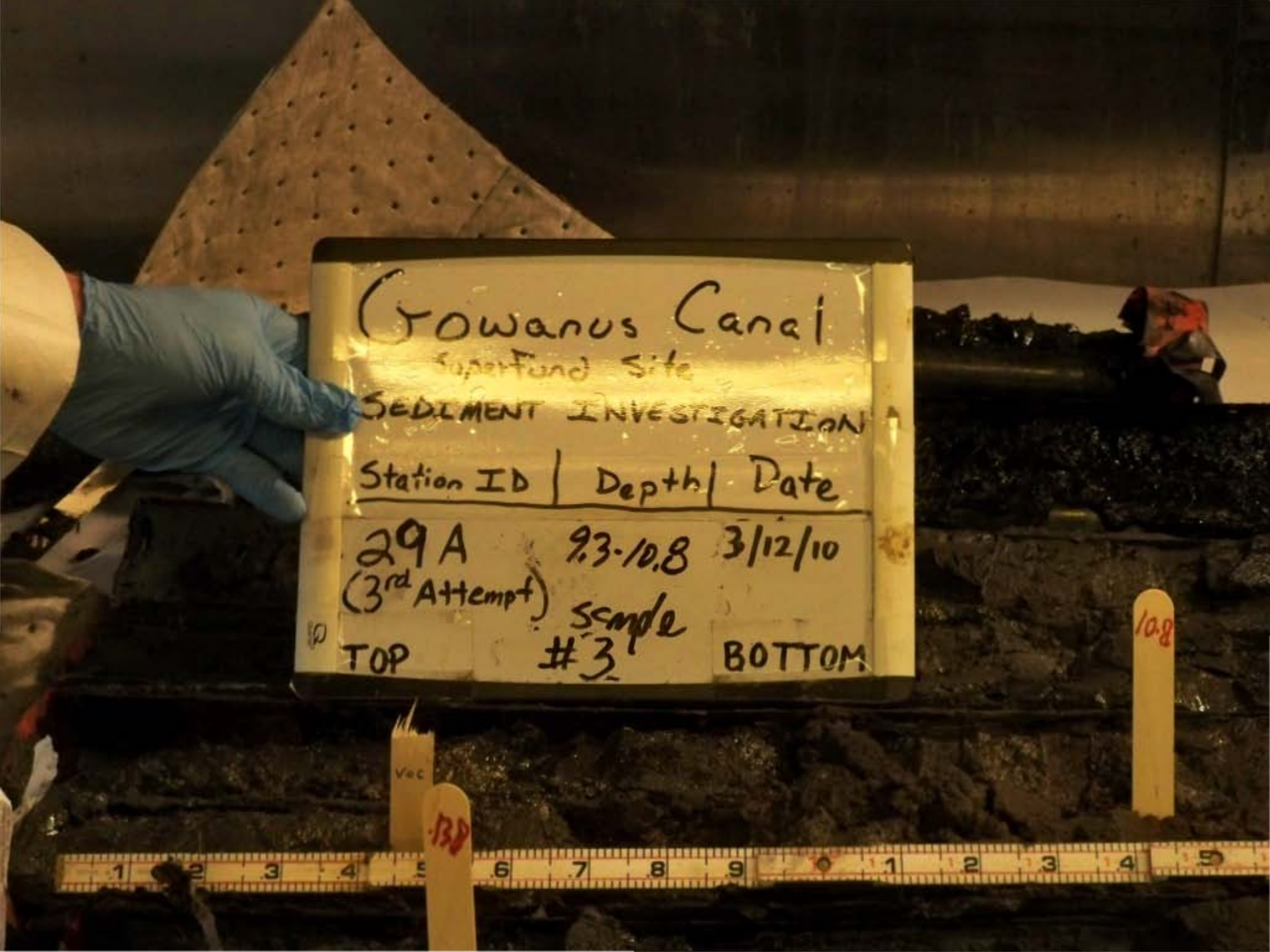

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 4.0-4.8 3/12/10
(3rd Attempt) TZ-4.4-4.8'
TOP No sample BOTTOM
4
4.4 TZ
4.8 TZ END
8.8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A (3rd Attempt) 4.8-5.2 3/12/10
sample #1
TOP
BOTTOM
4.4 TZ
8.8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 5.2-6.8 3/12/10
(3rd Attempt) sample
TOP #1 BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 6.8-8.8
(3rd Attempt)
sample
TOP #2 BOTTOM
6.8
10.8
11.8
8.8
4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A 8.8-9.3' 3/12/10
(3rd Attempt) sample
TOP #3 BOTTOM

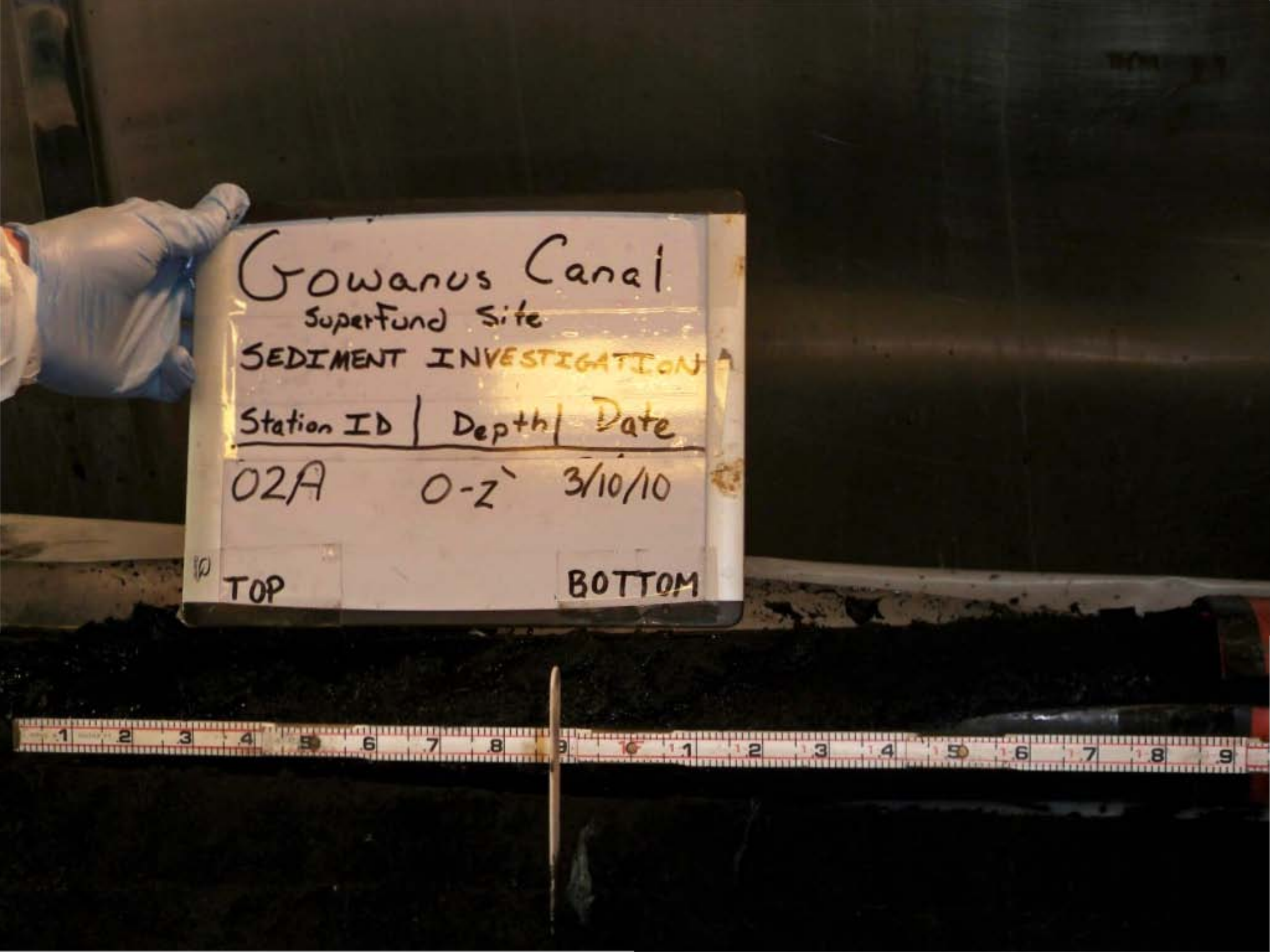

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A (3rd Attempt) 9.3-10.8 3/12/10
TOP
Sample #3
BOTTOM
10.8

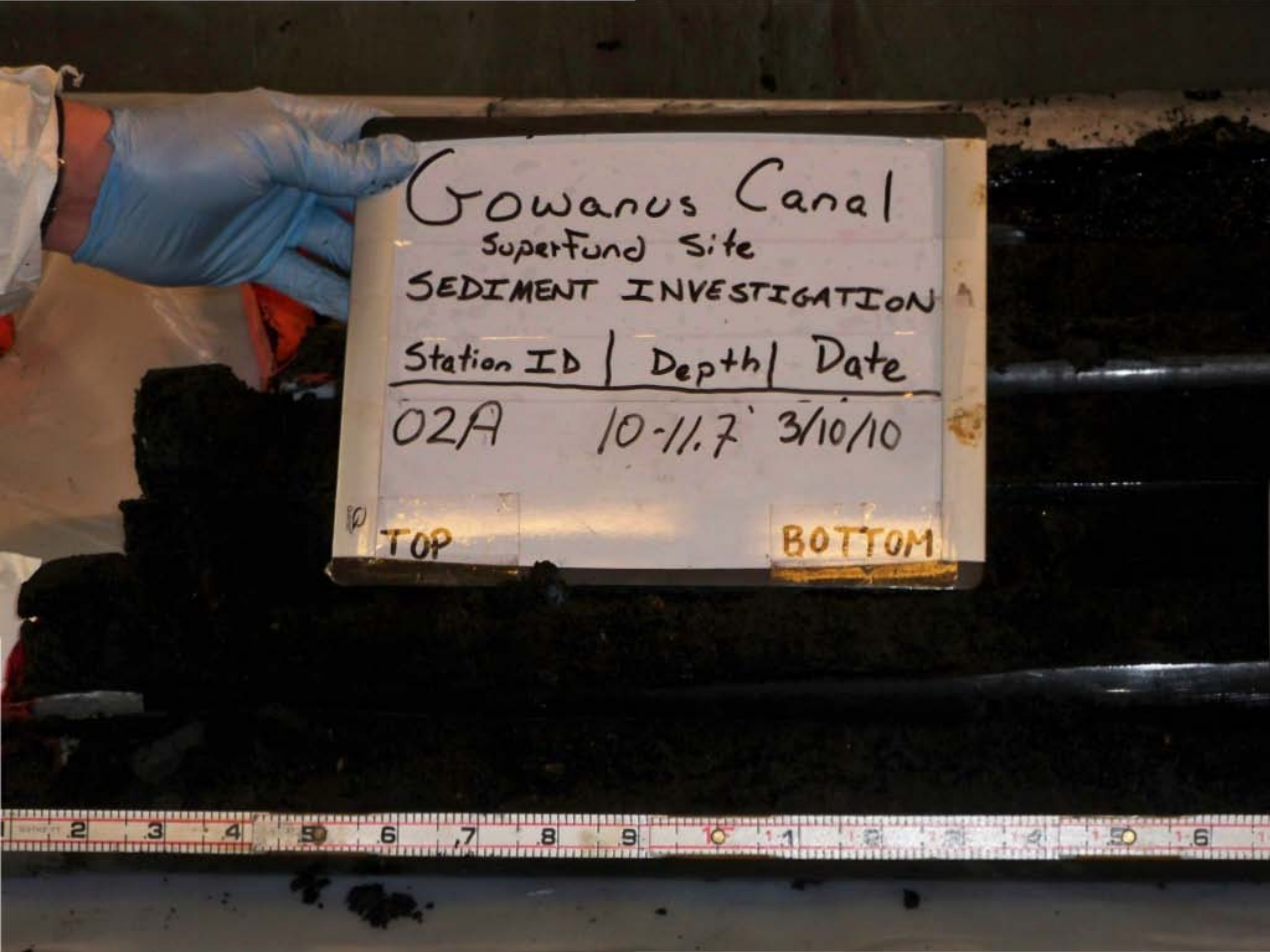

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A (3rd Attempt) FULL RECOVERY 3/12/10
TOP
BOTTOM

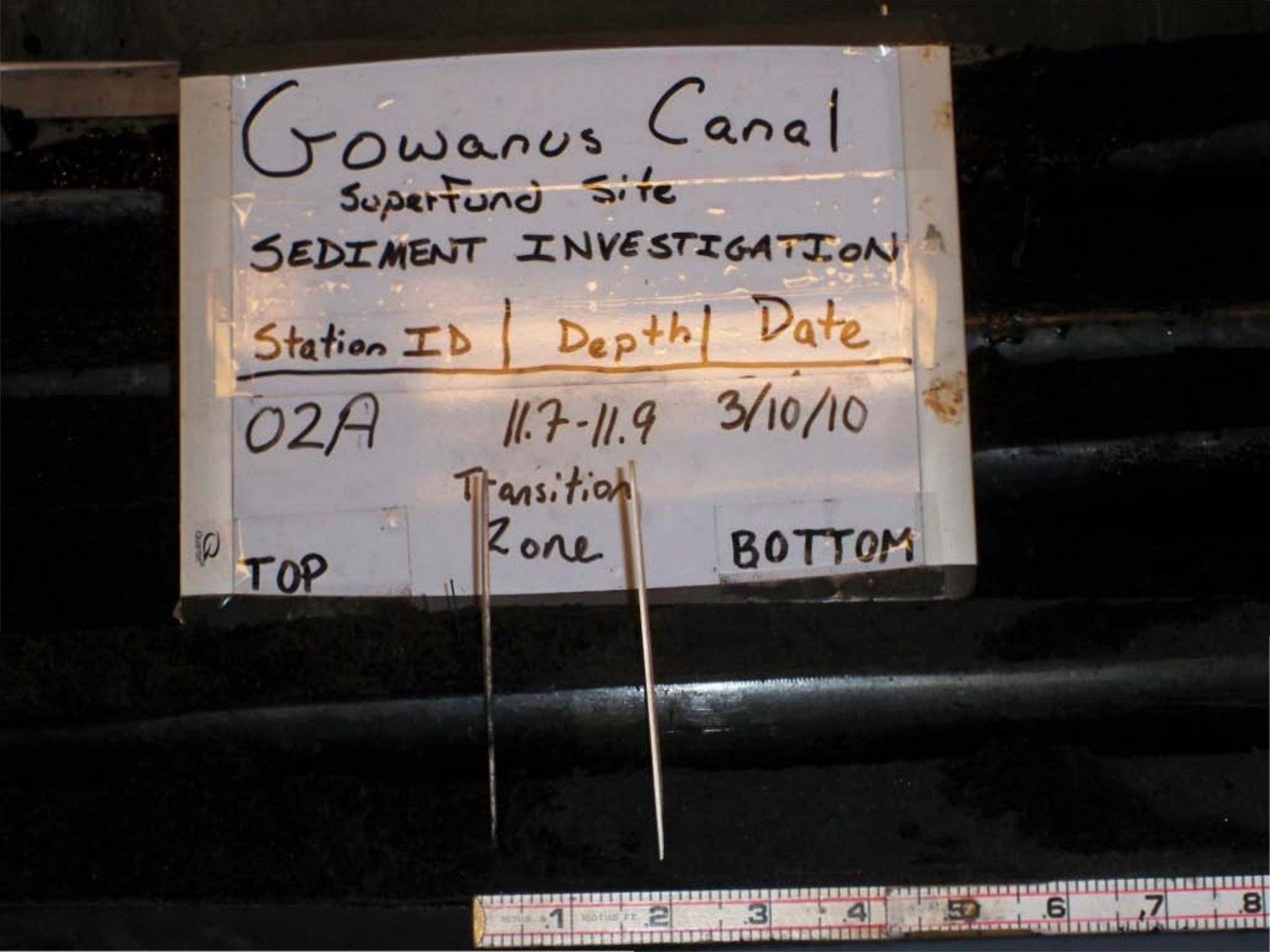

B.11




Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A FULL RECOVERY 3/10/10
TOP
BOTTOM

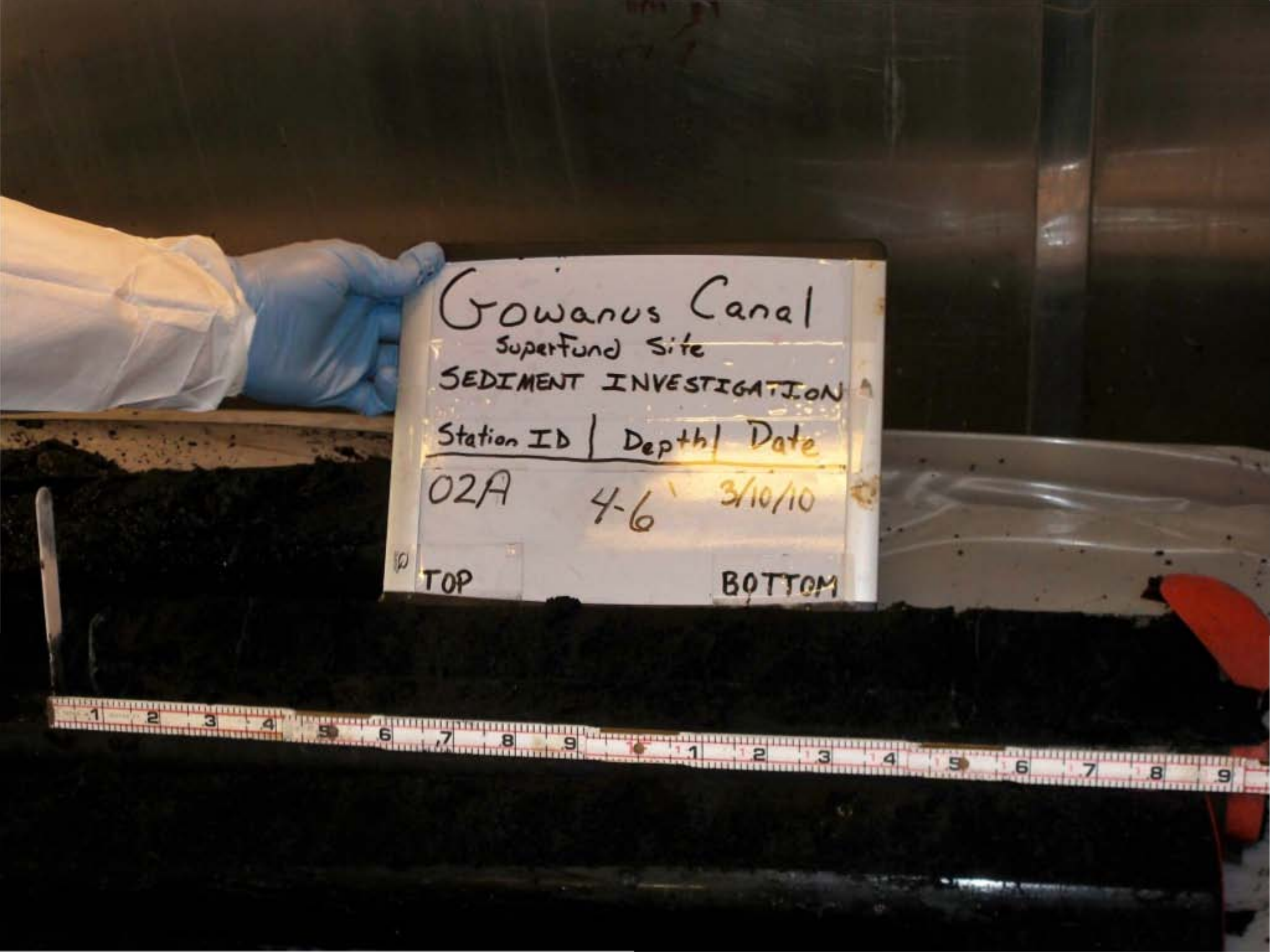

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 0-2' 3/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 10-11.7' 3/10/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 11.7-11.9 3/10/10
Transition Zone
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 11.9-13.9' 3/10/10
Sample #1
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 2-4' 3/10/10
TOP
BOTTOM

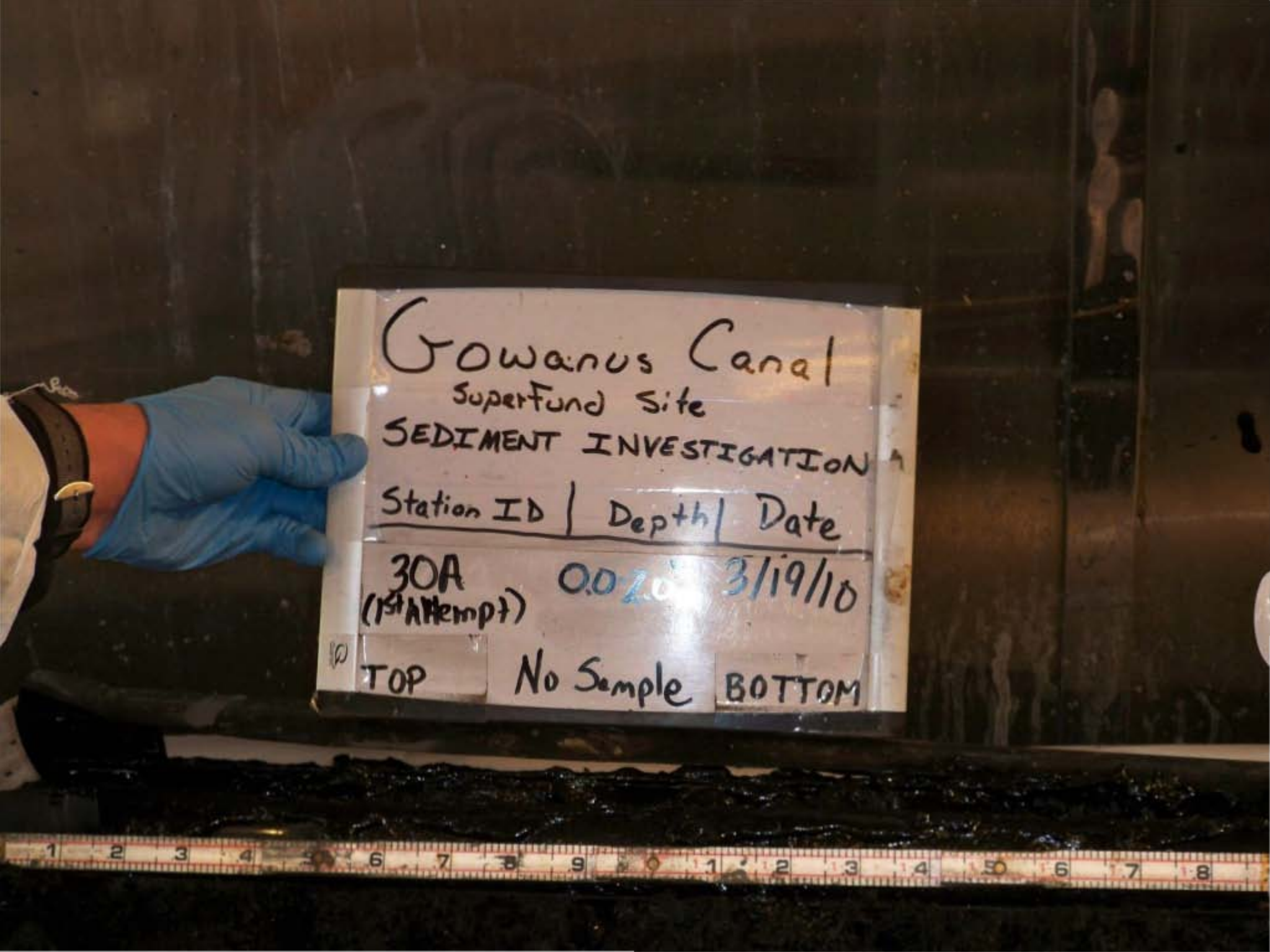

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 4-6 3/10/10
TOP
BOTTOM

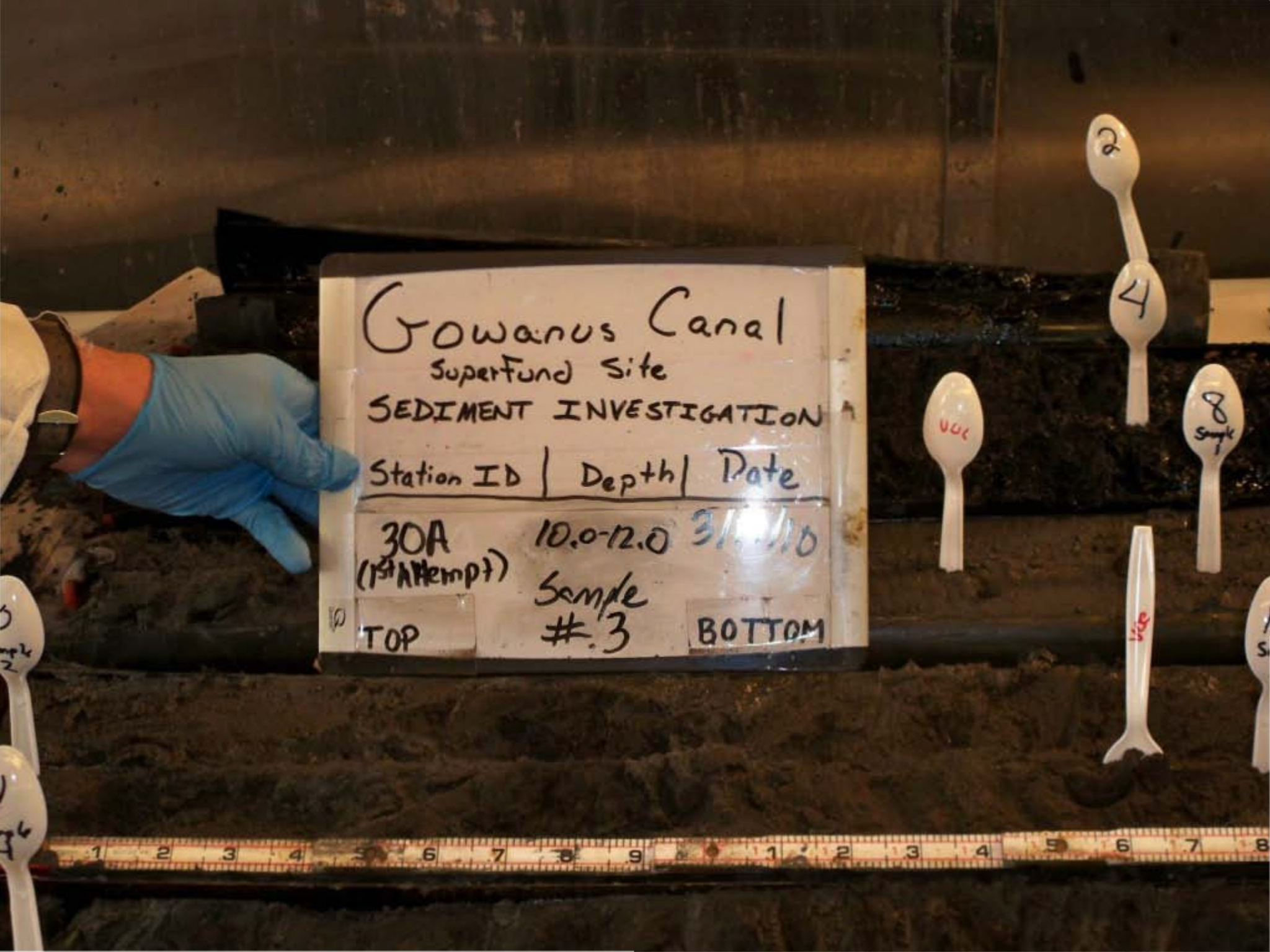

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 6-8' 3/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A 8-10' 3/10/10
TOP
BOTTOM

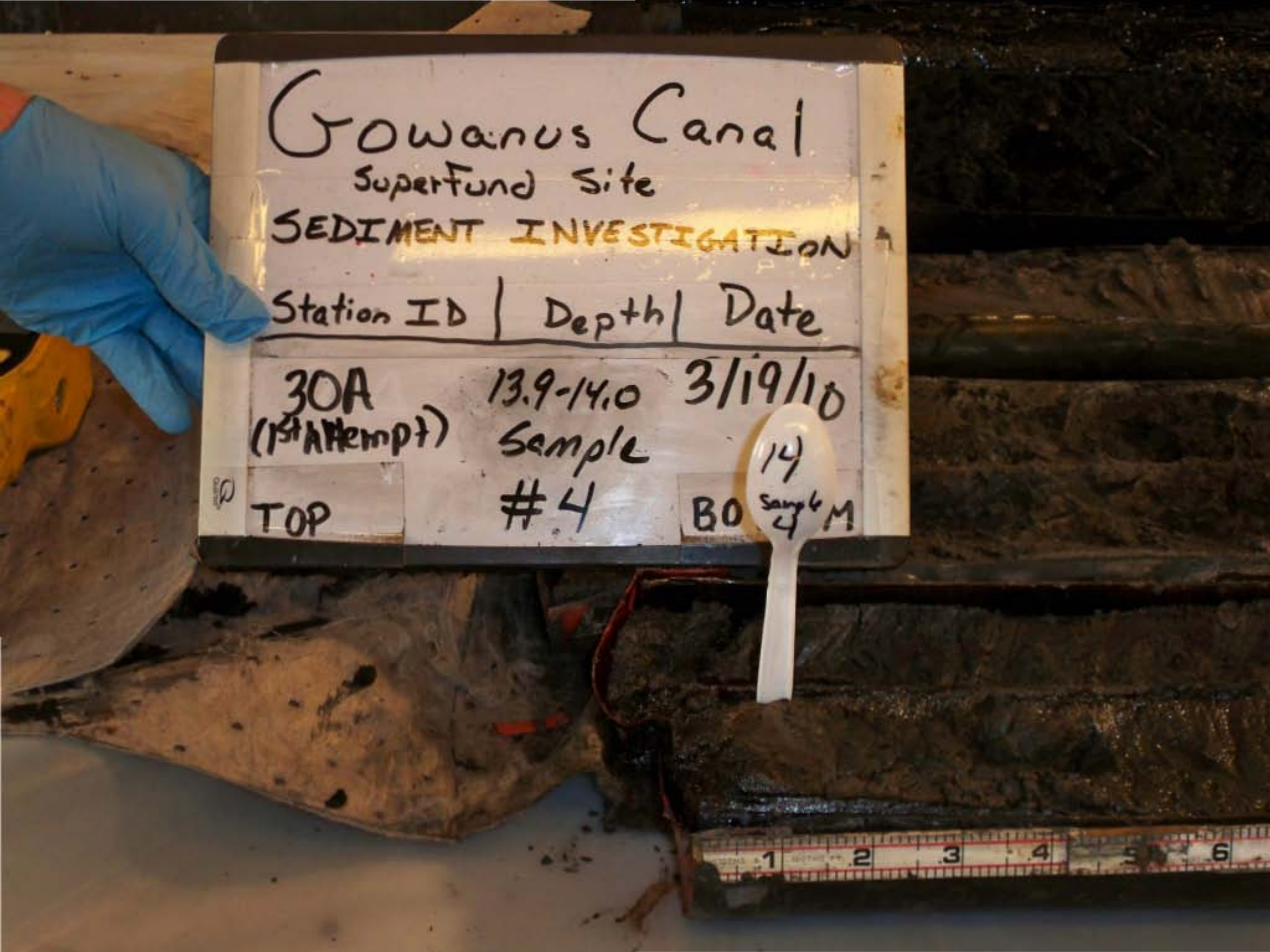

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A FULL RECOVERY 3/10/10
TOP
BOTTOM

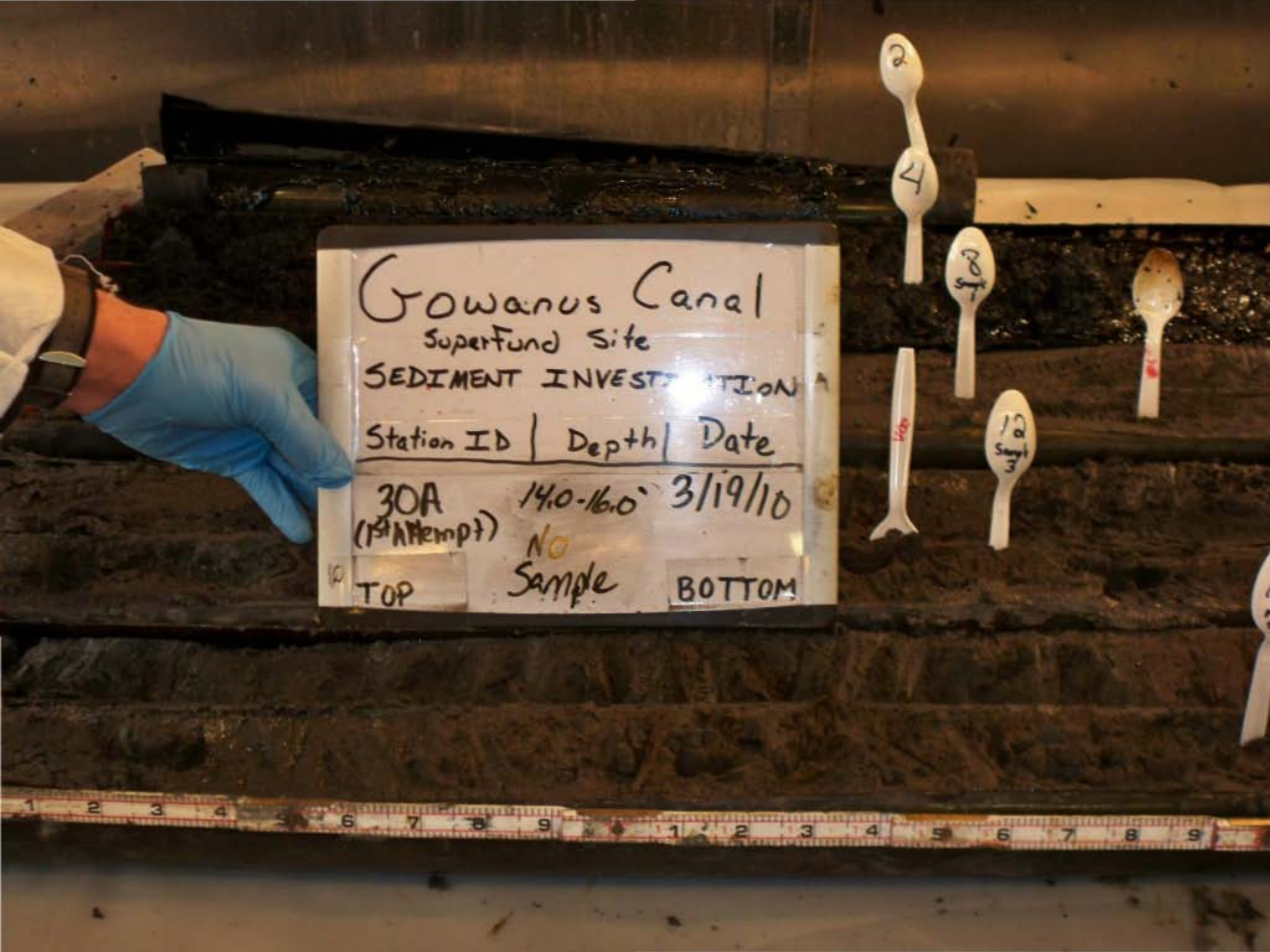

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A FULL 3/19/10
(1st Attempt) Recovery
TOP
BOTTOM

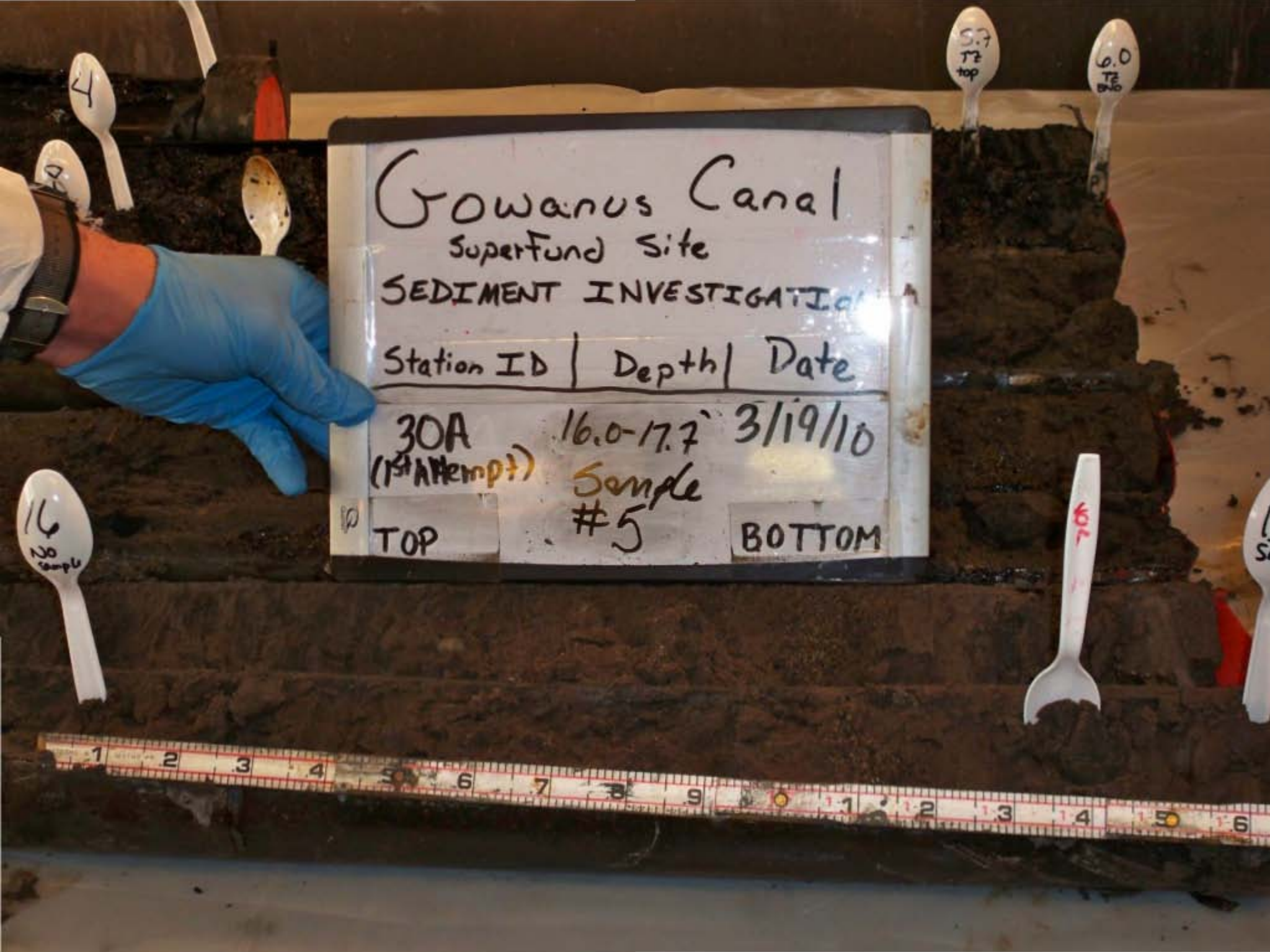

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) 0.0 2.0' 3/19/10
TOP
No Sample
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt)
10.0-12.0
Sample #3
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) 12.0-13.9 8/19/10
Sample #4
TOP
BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) | 13.9-14.0 | 3/19/10
Sample #4
TOP
BOTTOM
14
1
2
3
4
5
6

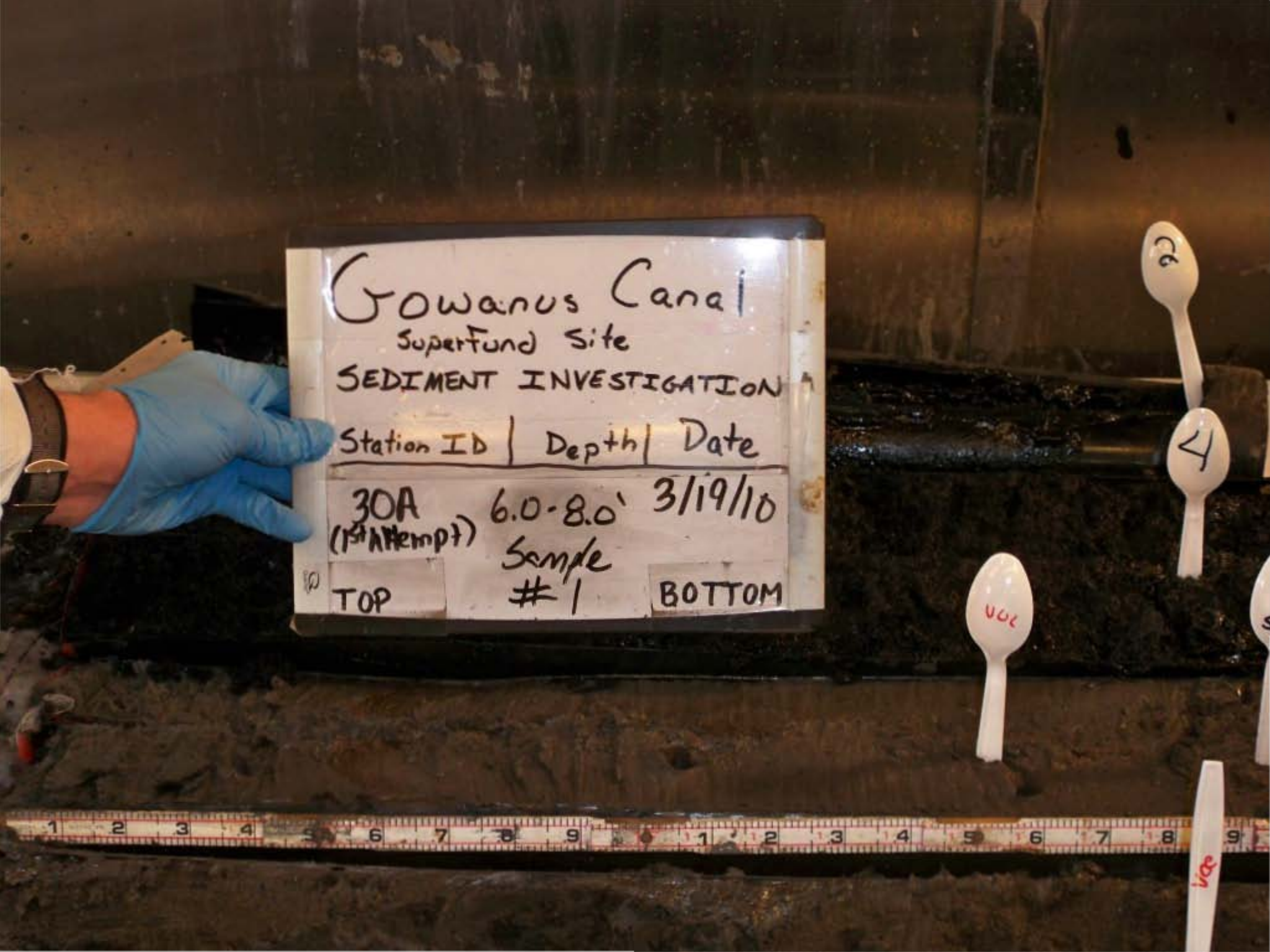

Gowanus Canal
Superfund Site
SEDIMENT INVEST TION
Station ID | Depth | Date
30A (1st Attempt) 14.0-16.0' 3/19/10
No Sample
TOP
BOTTOM

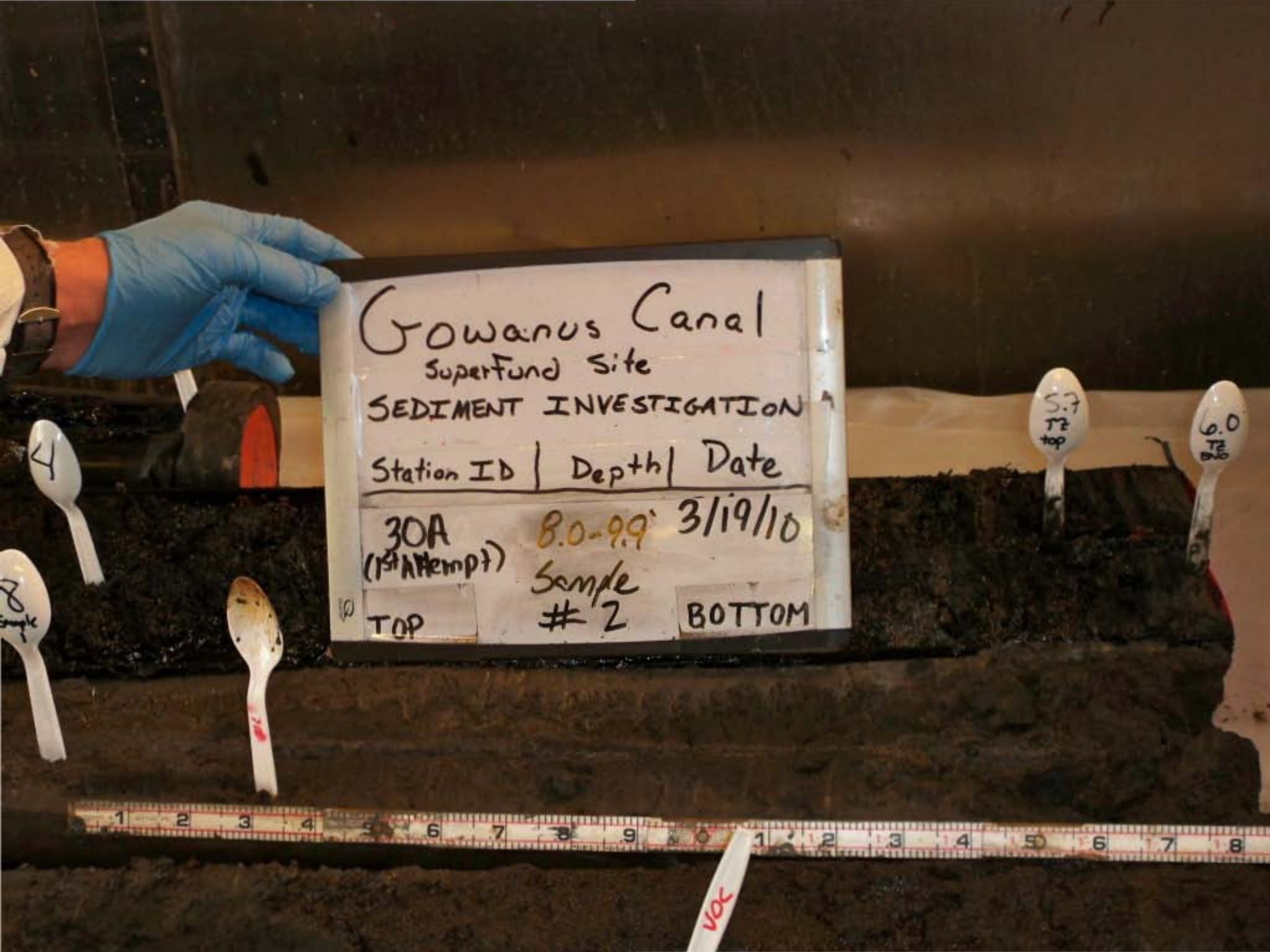

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
30A (1st Attempt) | 16.0-17.7' | 3/19/10
Sample #5
TOP
BOTTOM

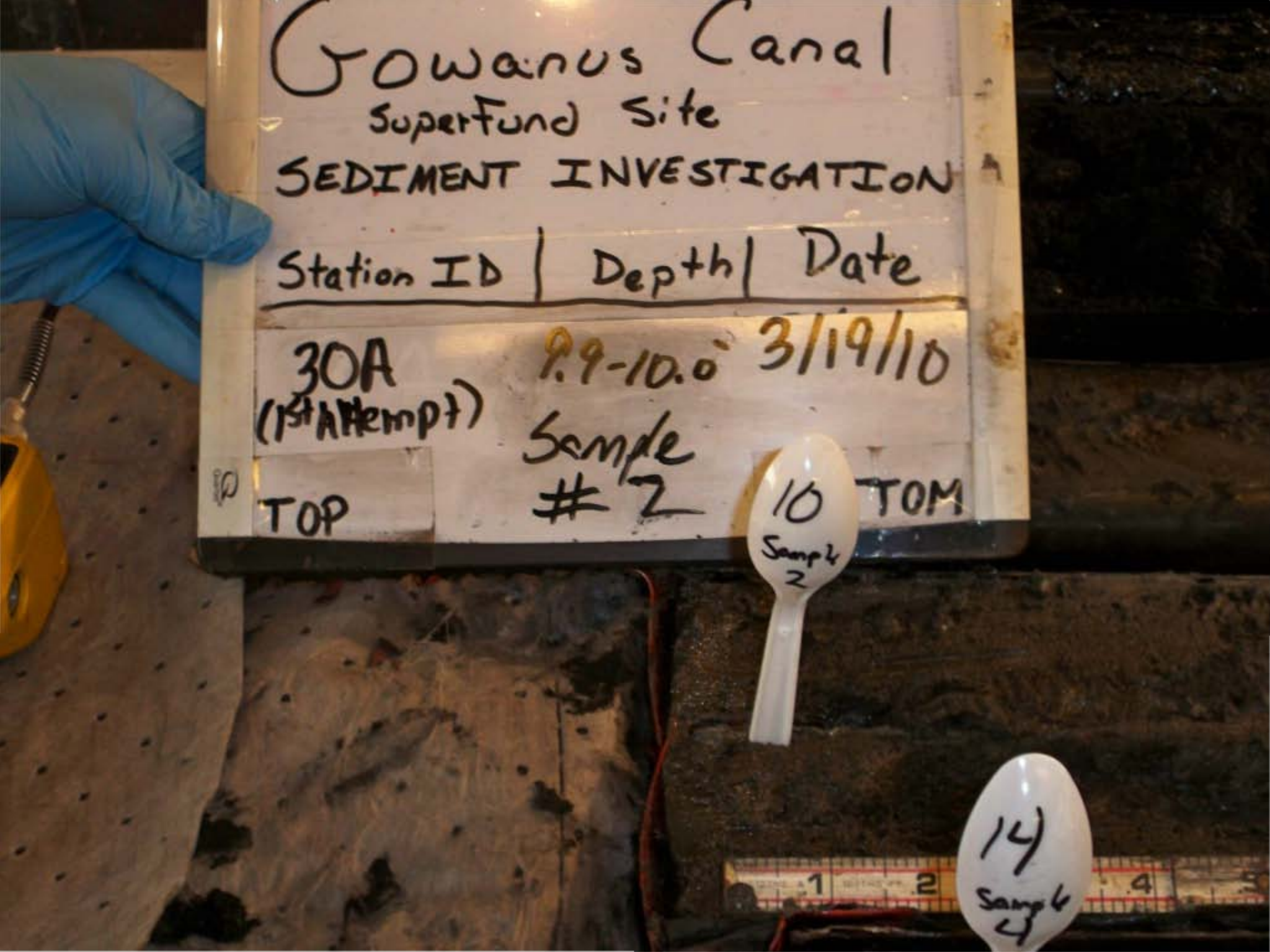

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) 2.0-4.0' 3/19/10
TOP
No Sample
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) 4.0-5.7' 3/19/10
TOP
No Sample
BOTTOM
5.7 TE top
0.0 TE BND


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A 5.2-6.0' 3/19/10
(1st Attempt) Transition Zone
TOP
No Sample
BOTTOM
5.7 TZ top
6.0 TZ BND

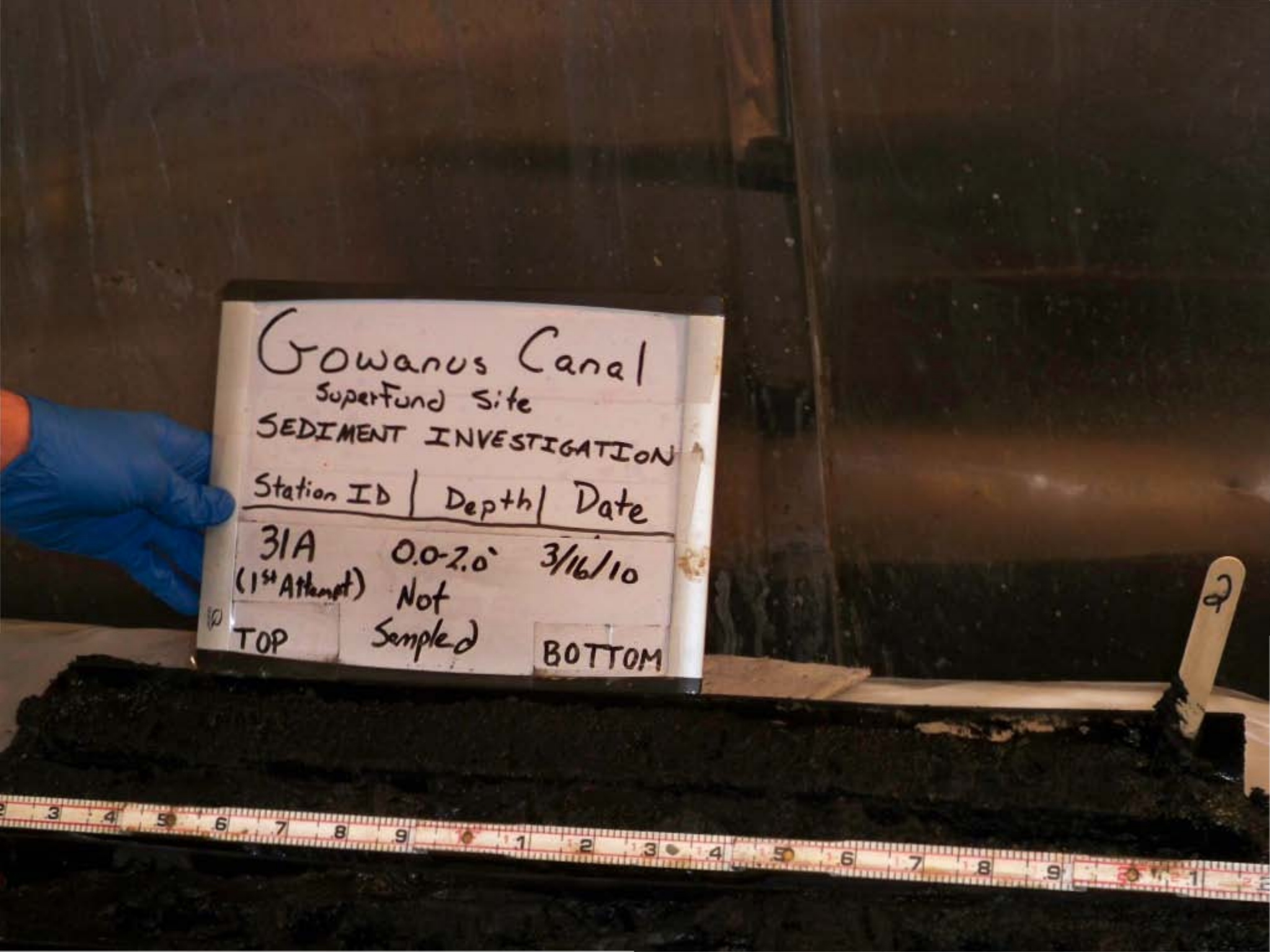

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) | 6.0-8.0' | 3/19/10
Sample #1
TOP
BOTTOM
VOC
VOC

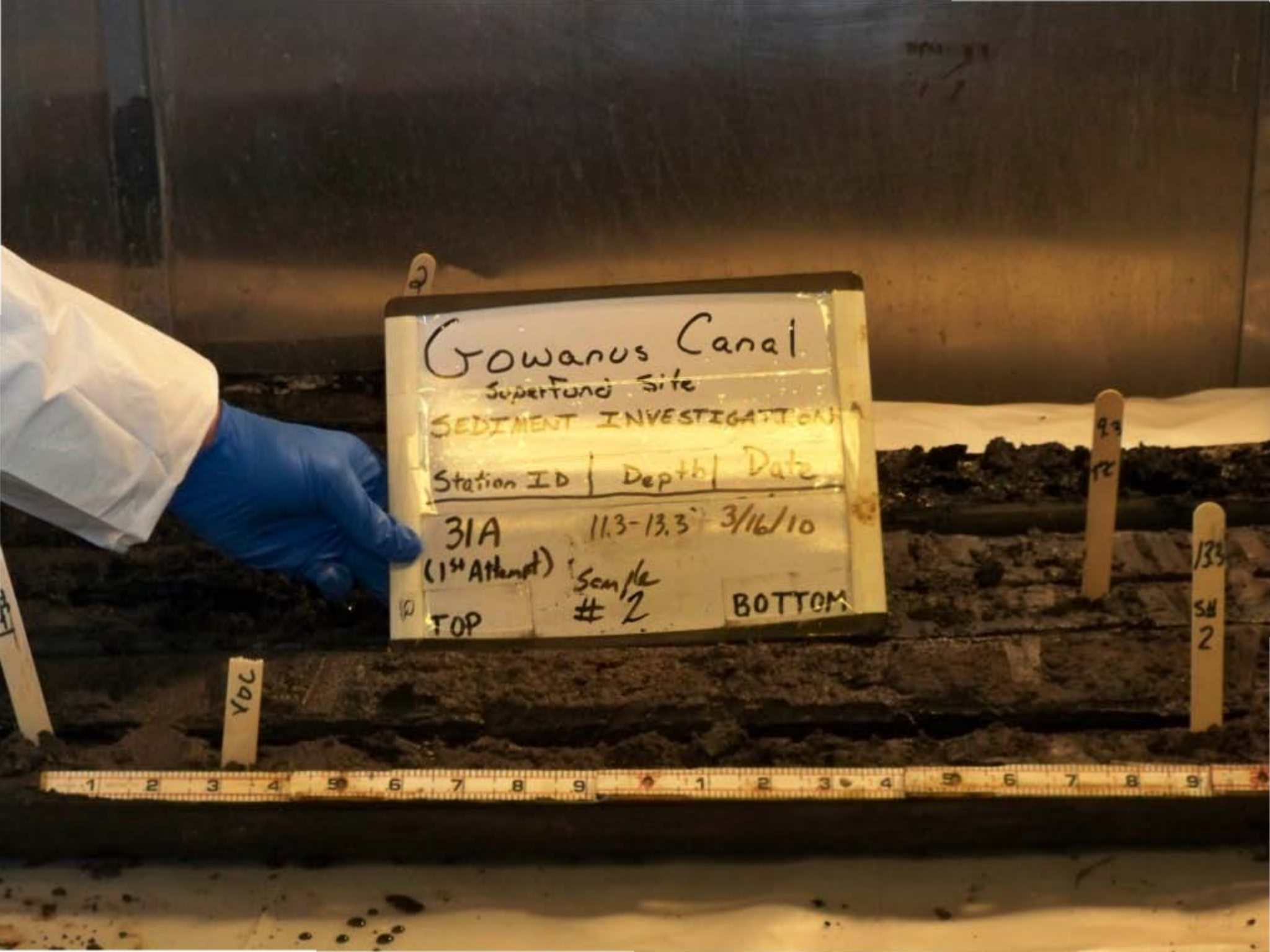

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) | 8.0-9.9' | 3/19/10
TOP
Sample #2
BOTTOM
VOC

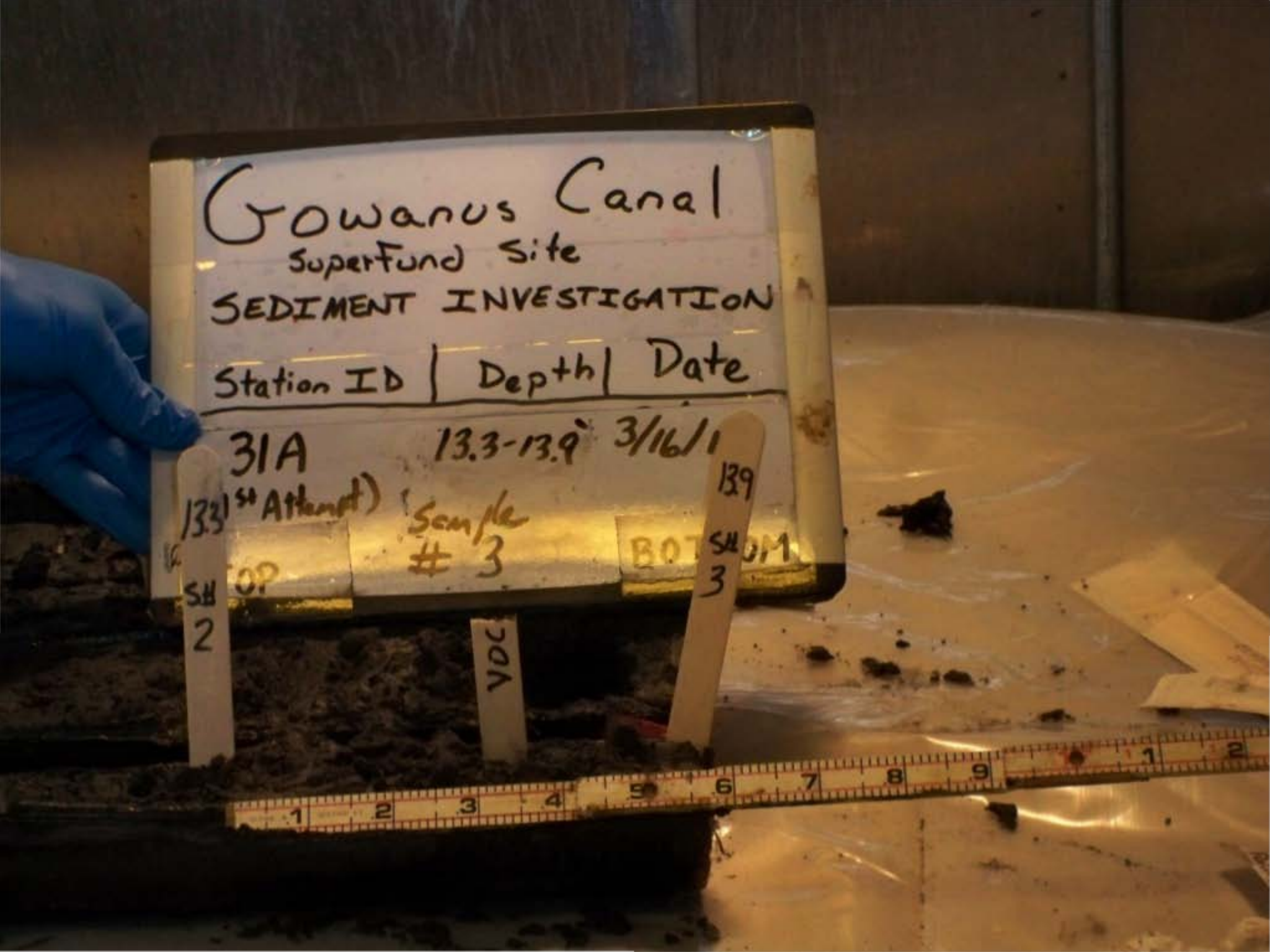

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A (1st Attempt) 9.9-10.0' 3/19/10
Sample #2
TOP
BOTTOM
10
Sample 2
14
Sample 4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A FULL 3/19/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A
(1st Attempt)
Full
Recovery
3/16/10
TOP
BOTTOM
VOC
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A (1st Attempt) 0.0-2.0' 3/16/10
Not Sampled
TOP
BOTTOM

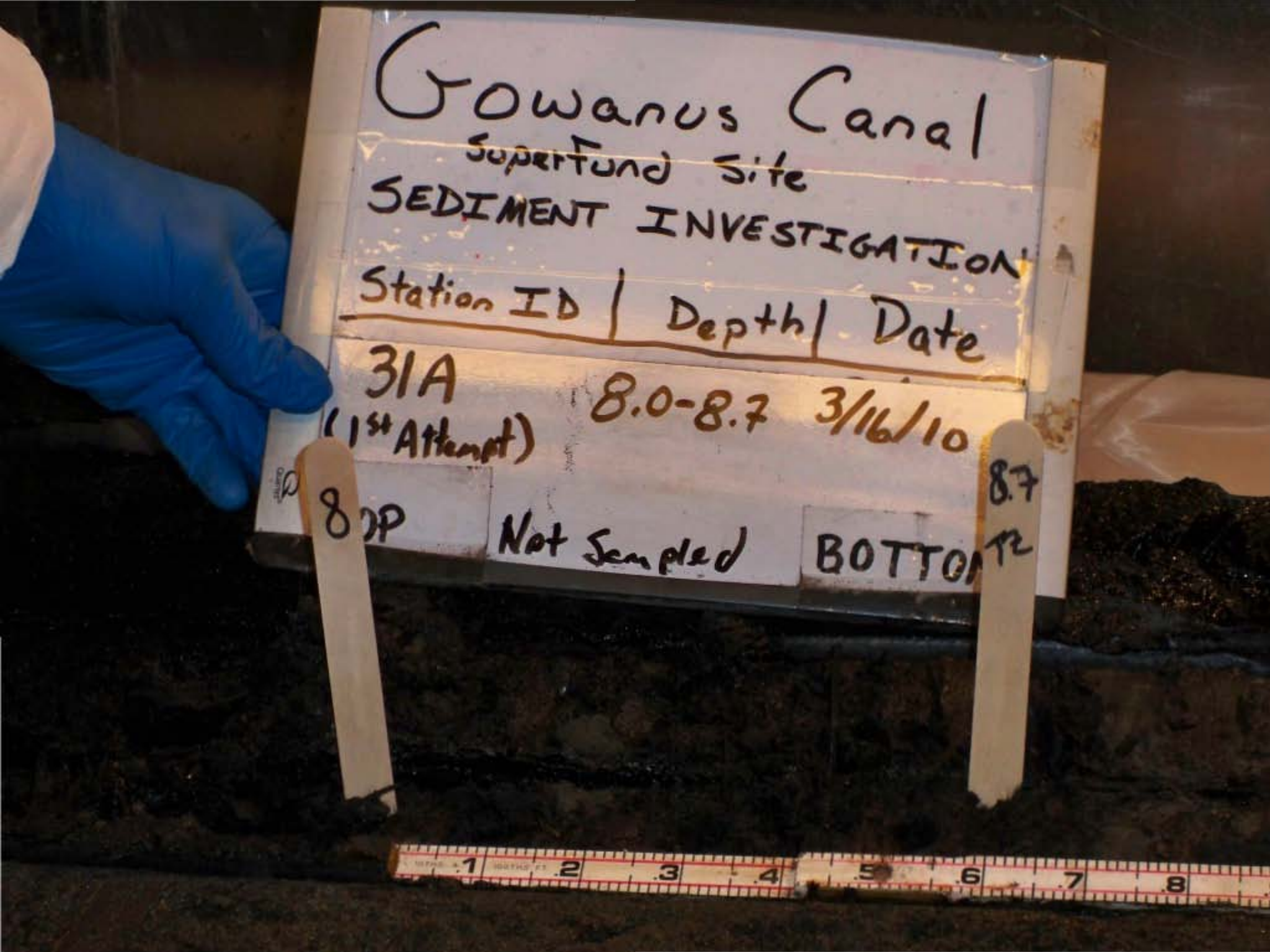

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A
11.3-13.3'
3/16/10
(1st Attempt)
Sample
2
TOP
BOTTOM
YDC
133
SW
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID
Depth
Date
31A
13.3-13.9
3/16/1
13.3
(1st Attempt)
Sample
3
13.9
SH
2
SH
3
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A (1st Attempt) 2.0-4.0' 3/16/10
Not Sampled
TOP
BOTTOM
2
4
8

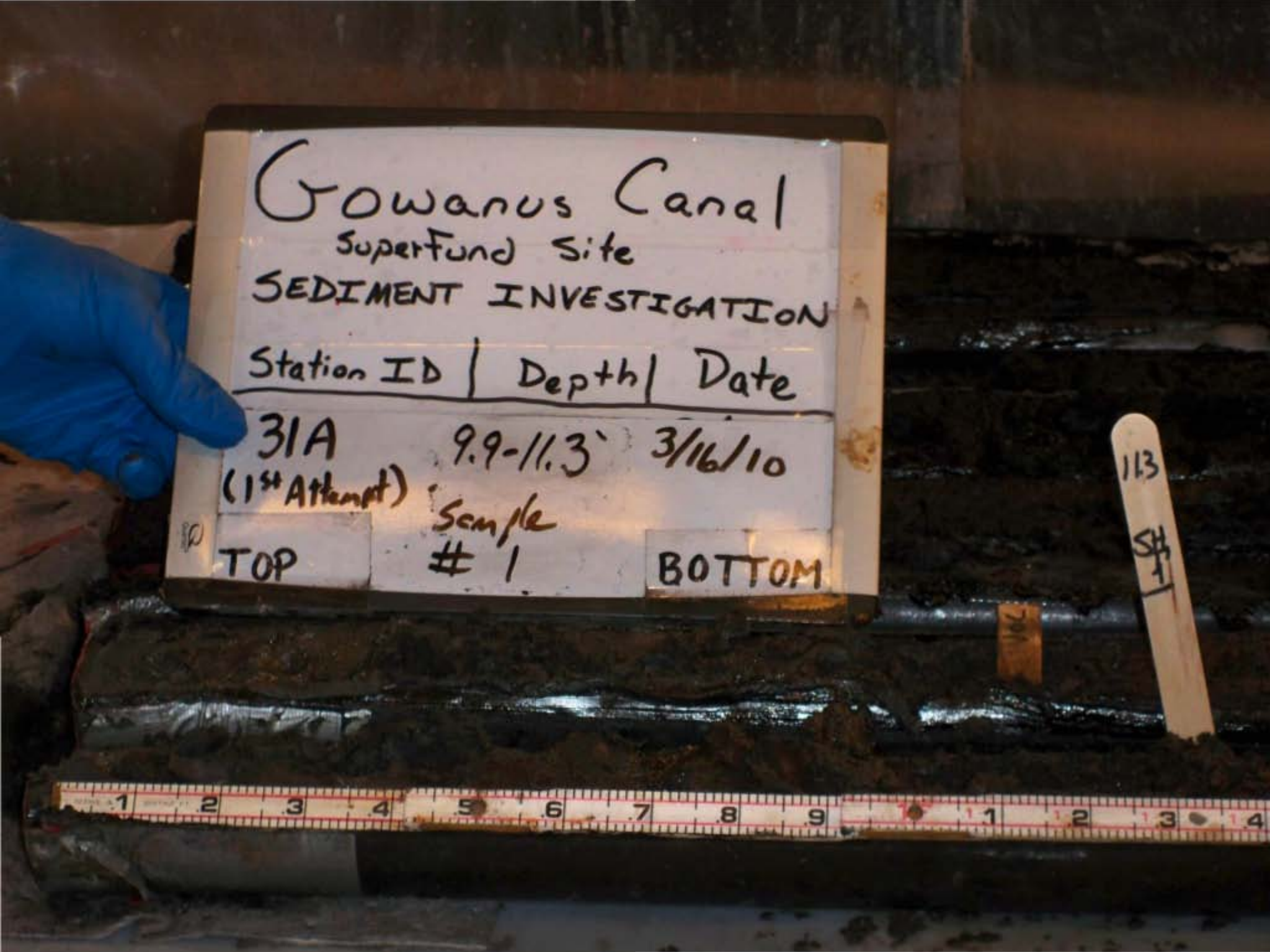

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A (1st Attempt) 4.0-5.9' 3/16/10
Not Sampled
TOP
BOTTOM
4
8.7 TR
9.3 TR


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A (1st Attempt) 5.9-8.0' 3/16/10
Not Sampled
TOP
BOTTOM
6
2
4
113


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A
(1st Attempt)
8.0-8.7
3/16/10
8
TOP
Not Sampled
BOTTOM
8.7
TOP


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A 8.7-9.3 3/11/10
(1st Attempt) Transition Zone
TOP Not Sampled TT BOTTOM
8.7 TZ
9.3 TZ
13.3
SH 2

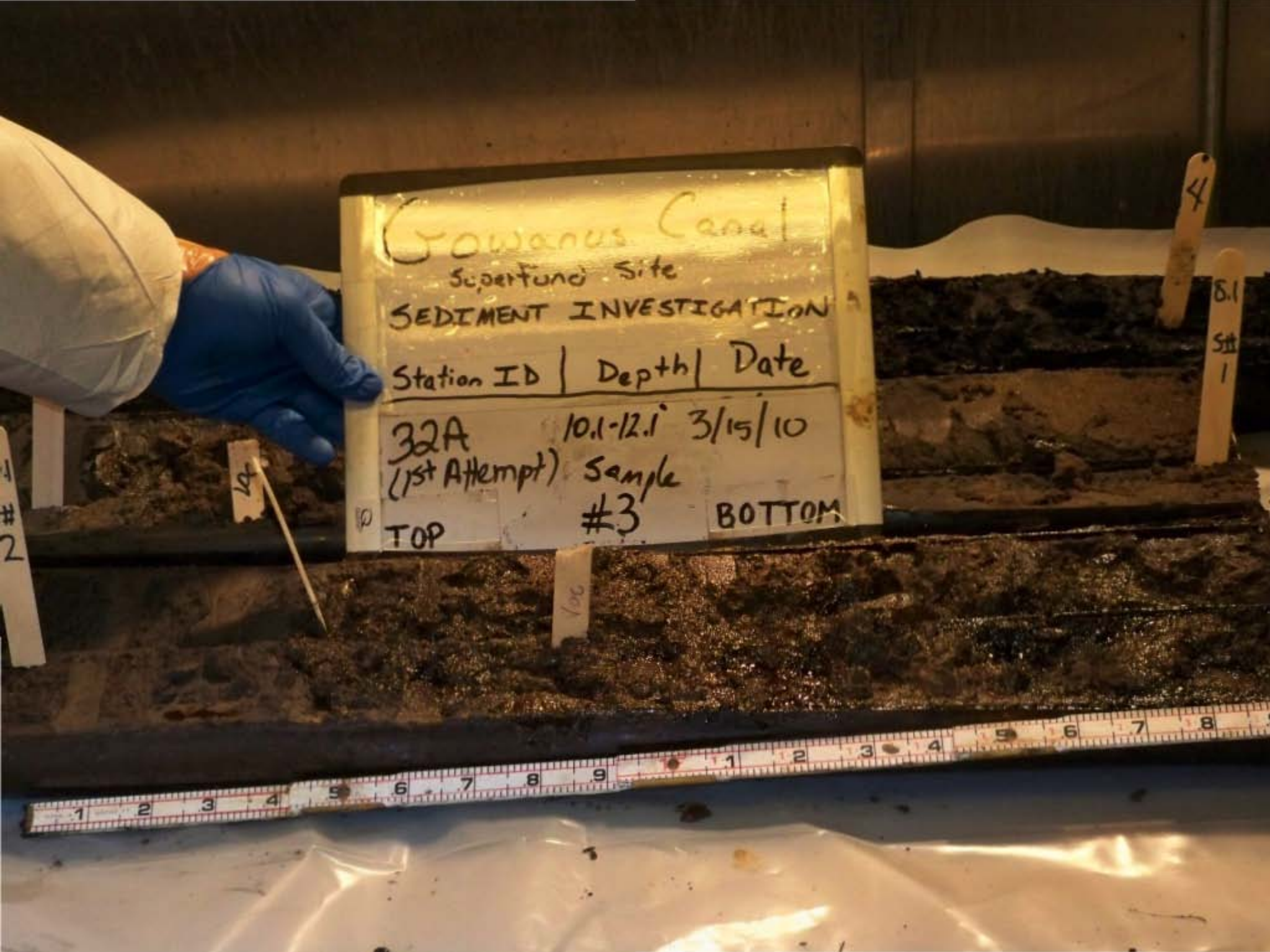

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
9.3-9.9' 3/16/10
(1 9.3 attempt)
Sample
#1
BOTTOM
133
SH
139
SH
3

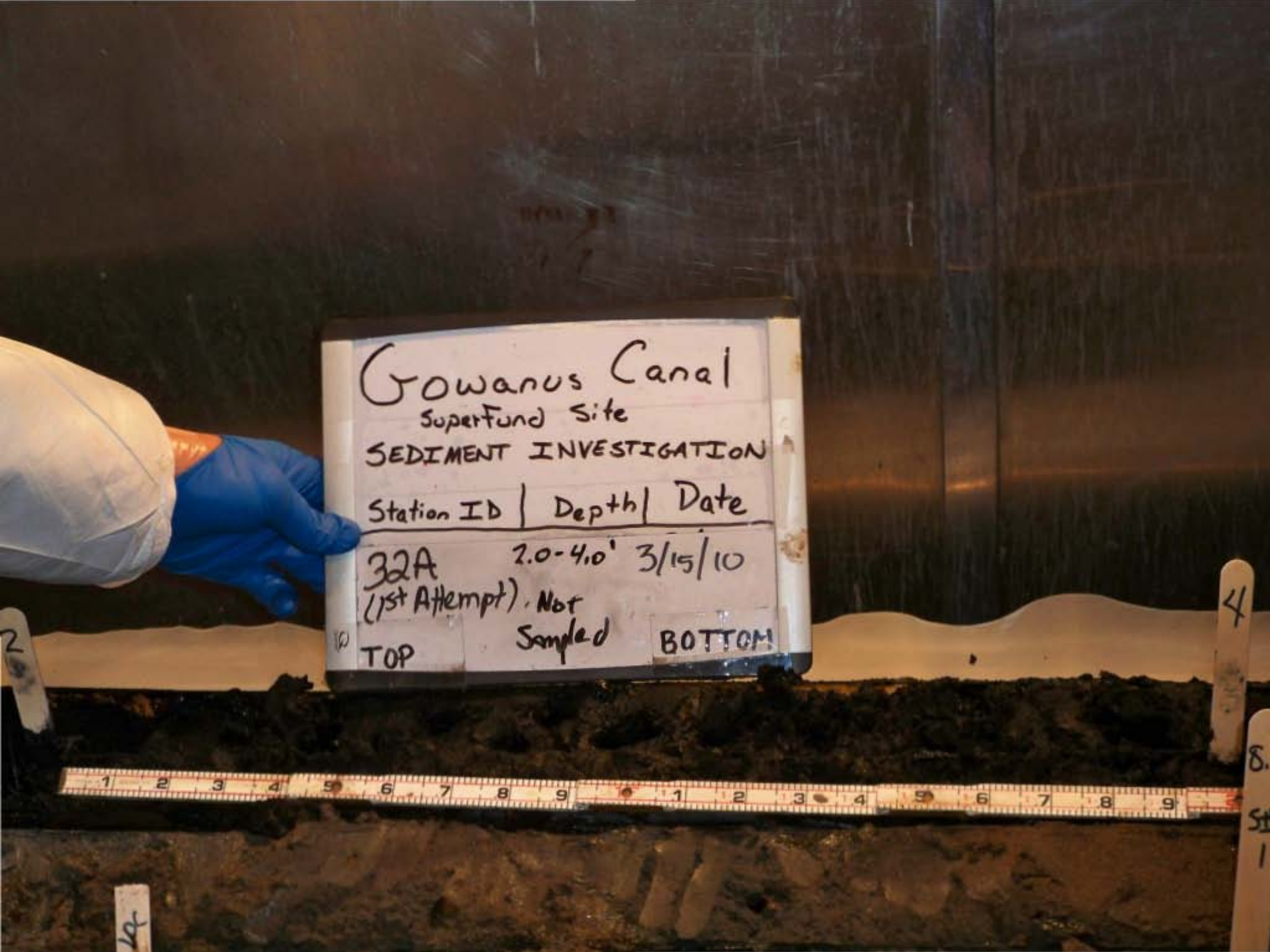

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A
(1st Attempt)
9.9-11.3'
3/16/10
Sample
#1
TOP
BOTTOM
11.3
SH1

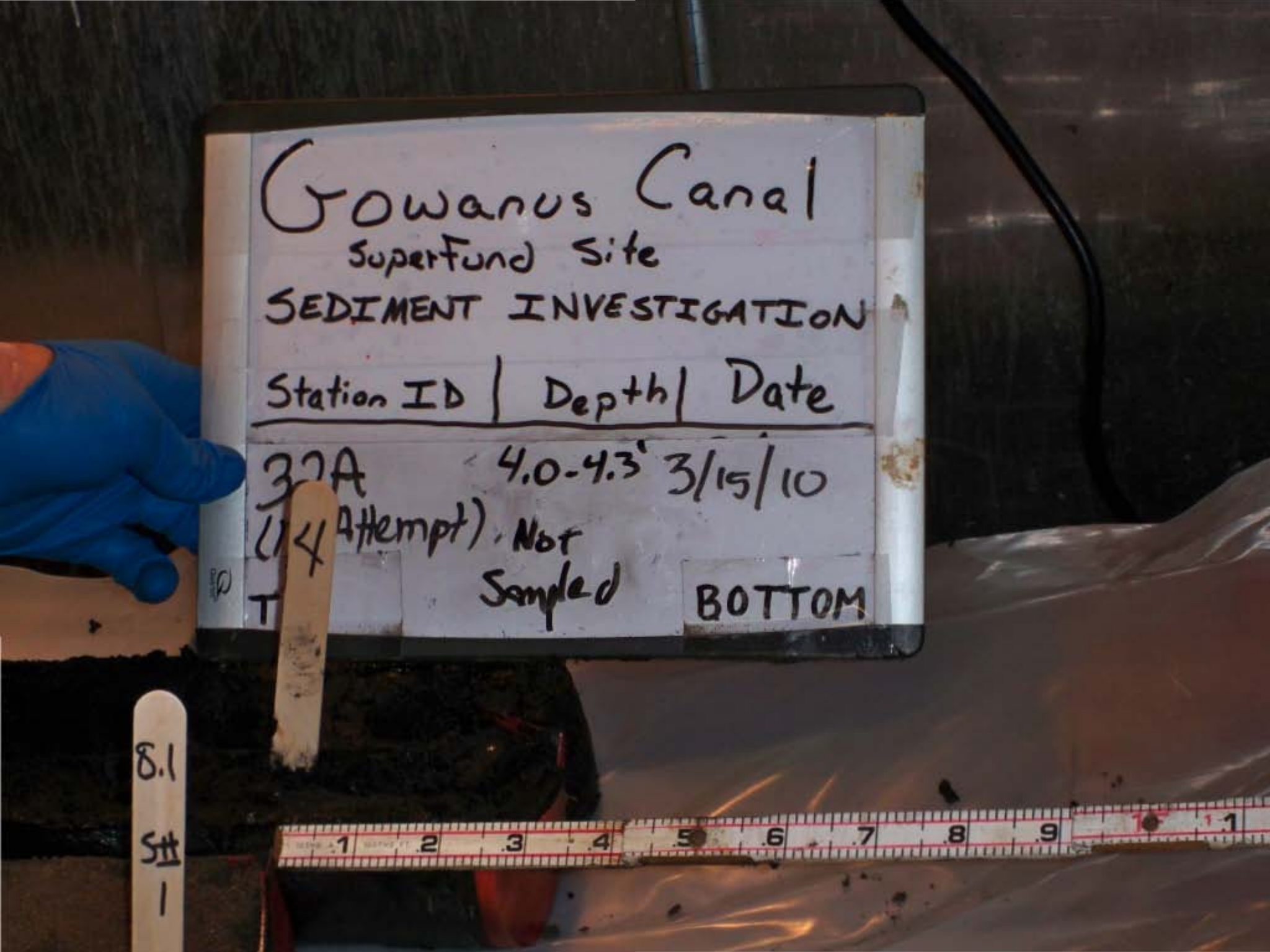

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A
(1st Attempt)
Full
Recovery
3/16/10
TOP
BOTTOM

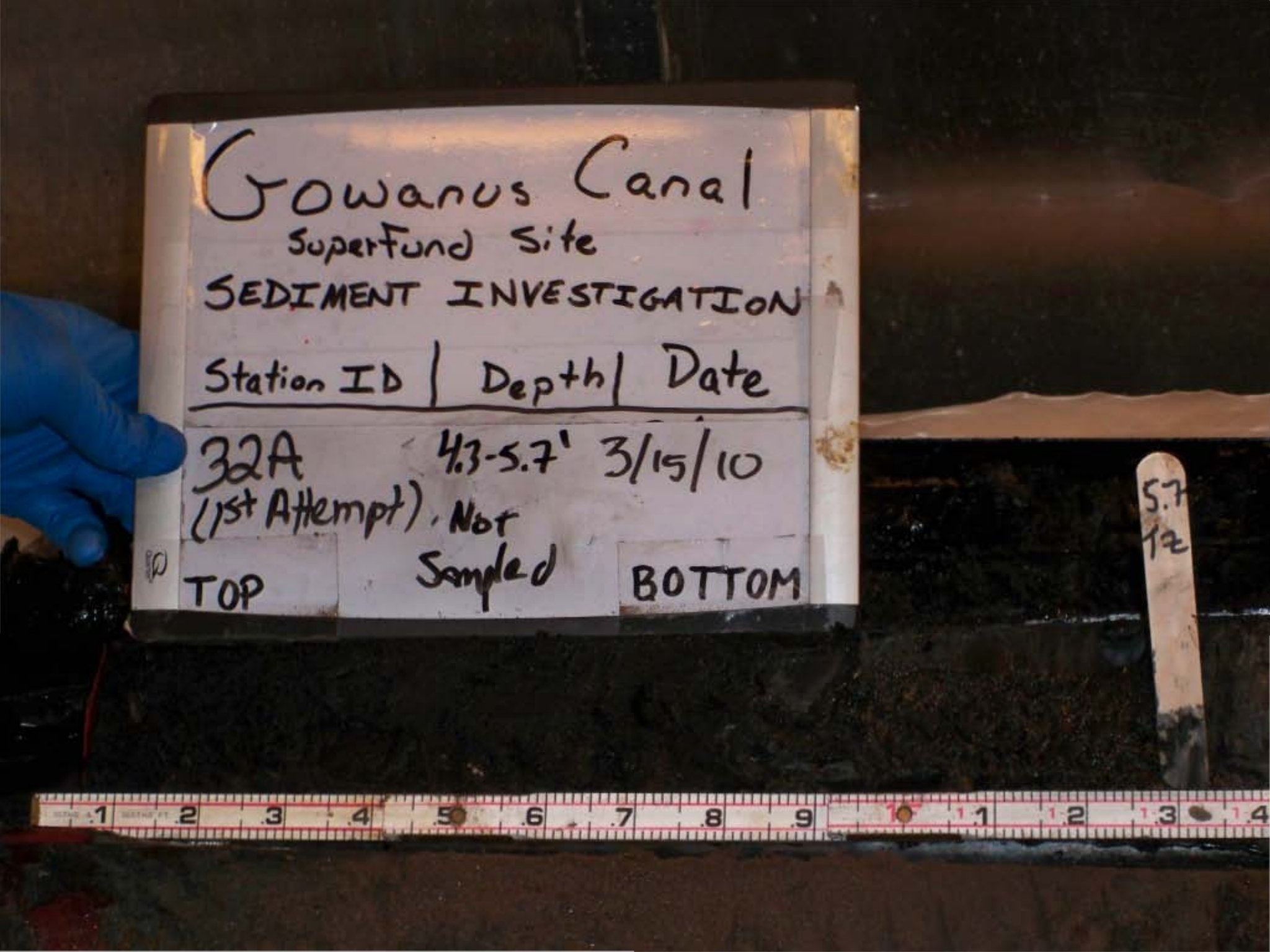

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A FULL 3/15/10
(1st Attempt) Recovery
TOP
BOTTOM

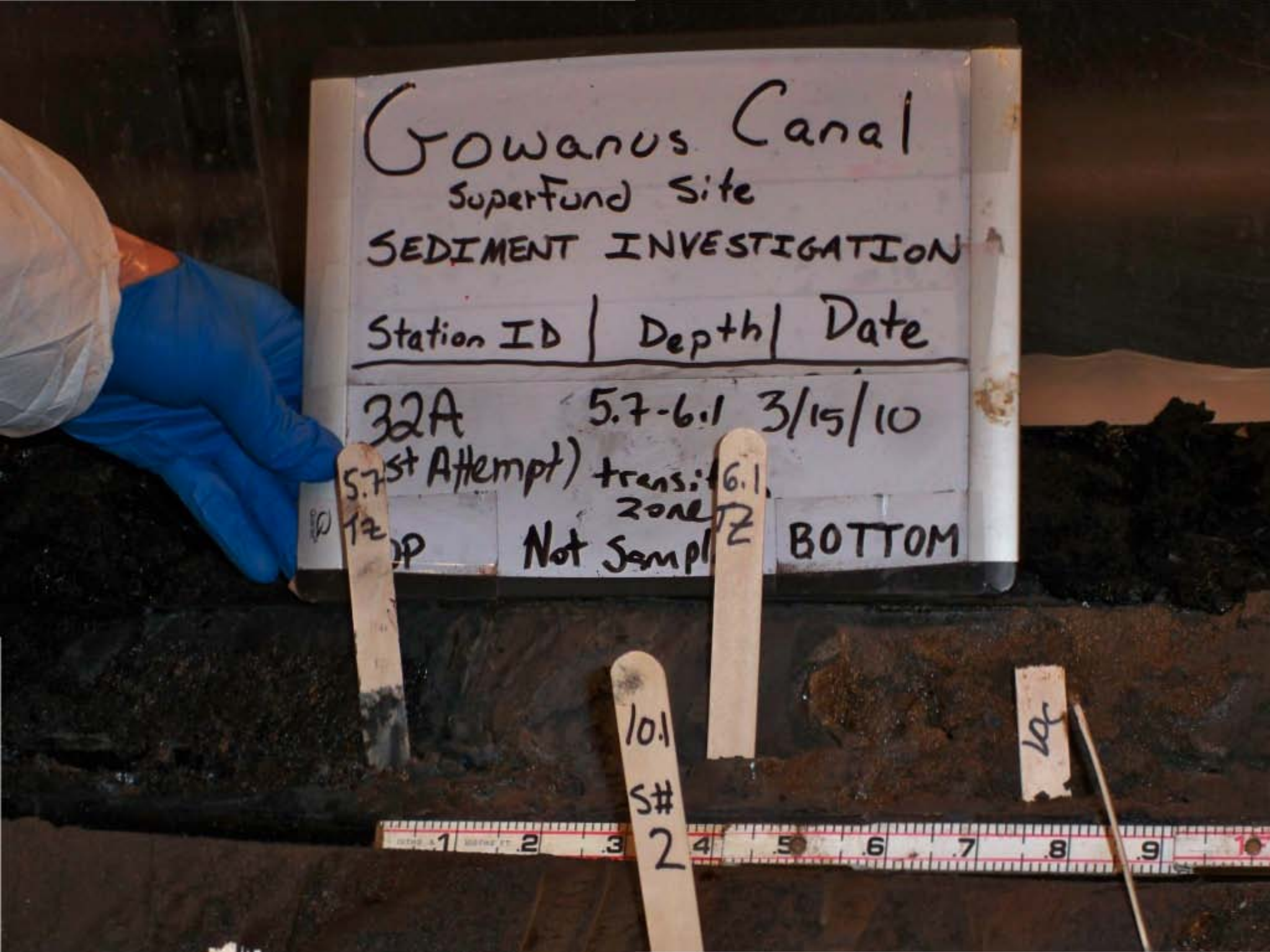

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A 0.0-2.0' 3/15/10
(1st Attempt). Not Sampled
TOP
BOTTOM
5.7
12


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A (1st Attempt) 10.1-12.1' 3/15/10
Sample #3
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A 2.0-4.0' 3/15/10
(1st Attempt). Not Sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A 4.0-4.3' 3/15/10
(1st Attempt). Not
Sampled
BOTTOM
8.1
Stt
1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A 4.3-5.7' 3/15/10
(1st Attempt). Not Sampled
TOP
BOTTOM
5.7
12


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A 5.7-6.1 3/15/10
(1st Attempt) trans: 6.1
zone
Not Sampl
BOTTOM
5.7
10.1
S#
2

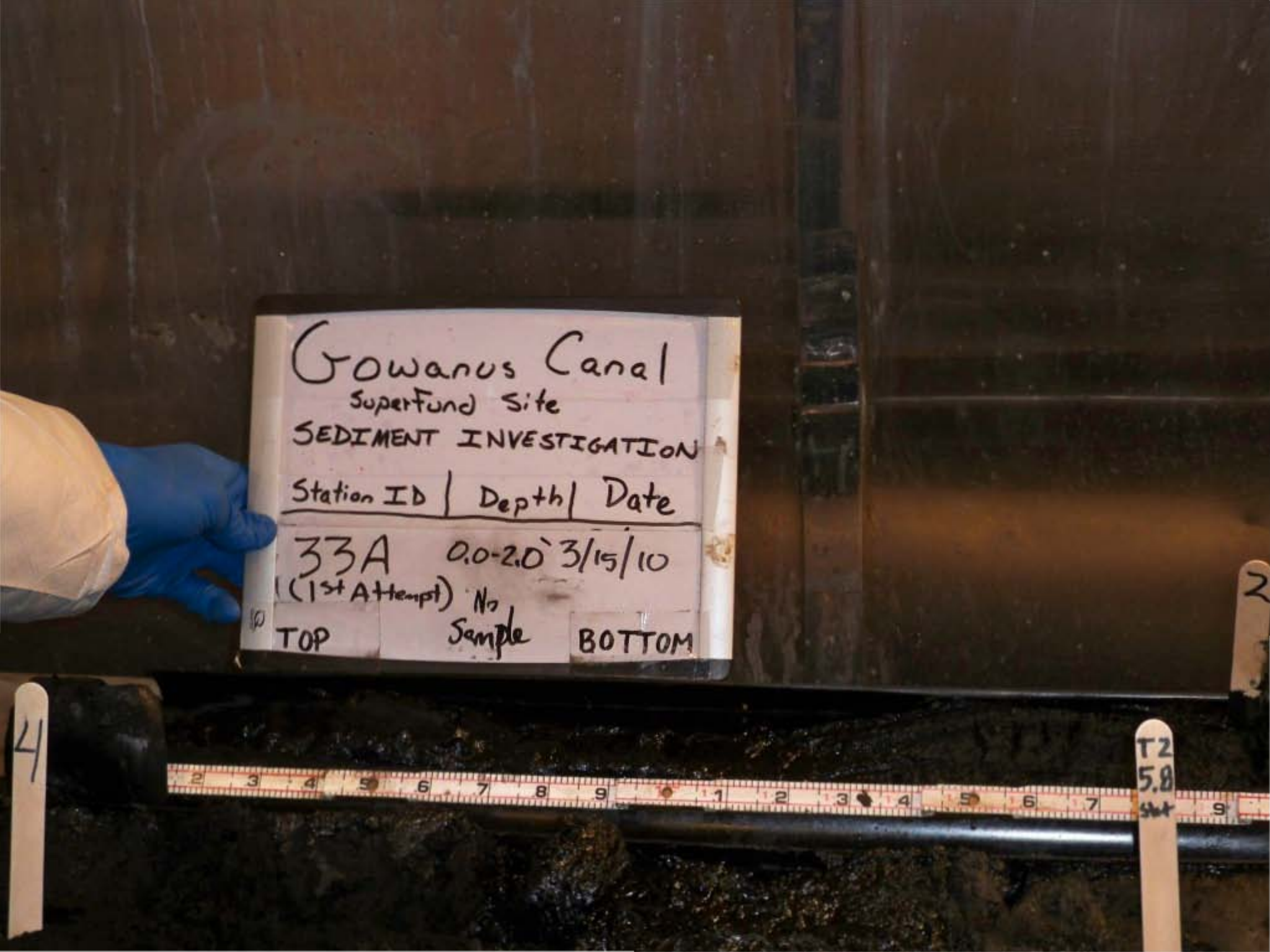

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A 6.1-8.1' 3/15/10
(1st Attempt) Sample
TOP #1 BOTTOM
4
8.1
1
3

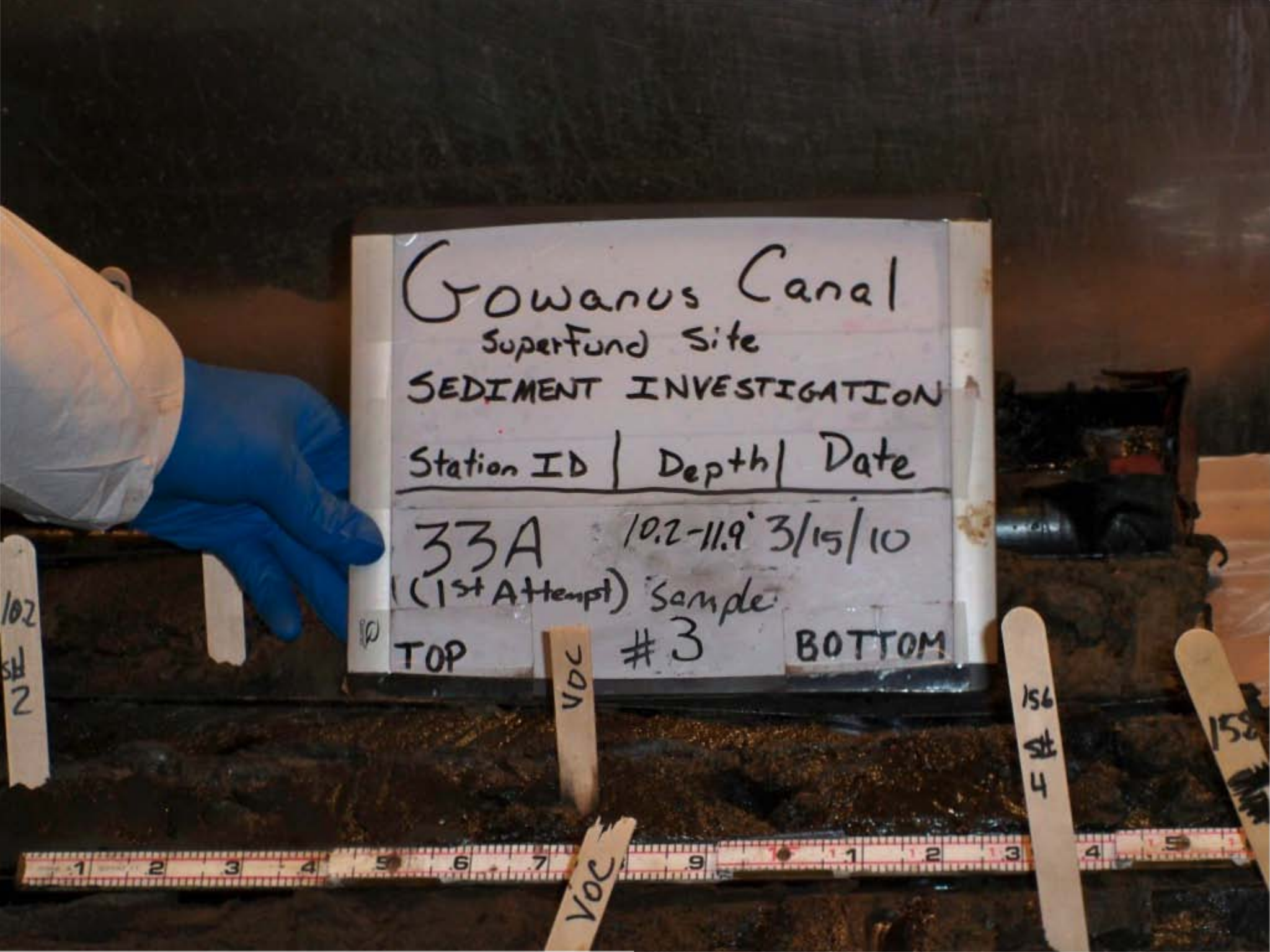

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A (1st Attempt) 8.1-10.1 3/15/10
Sample #2
TOP
BOTTOM
6.1
72
10.1
S#
2

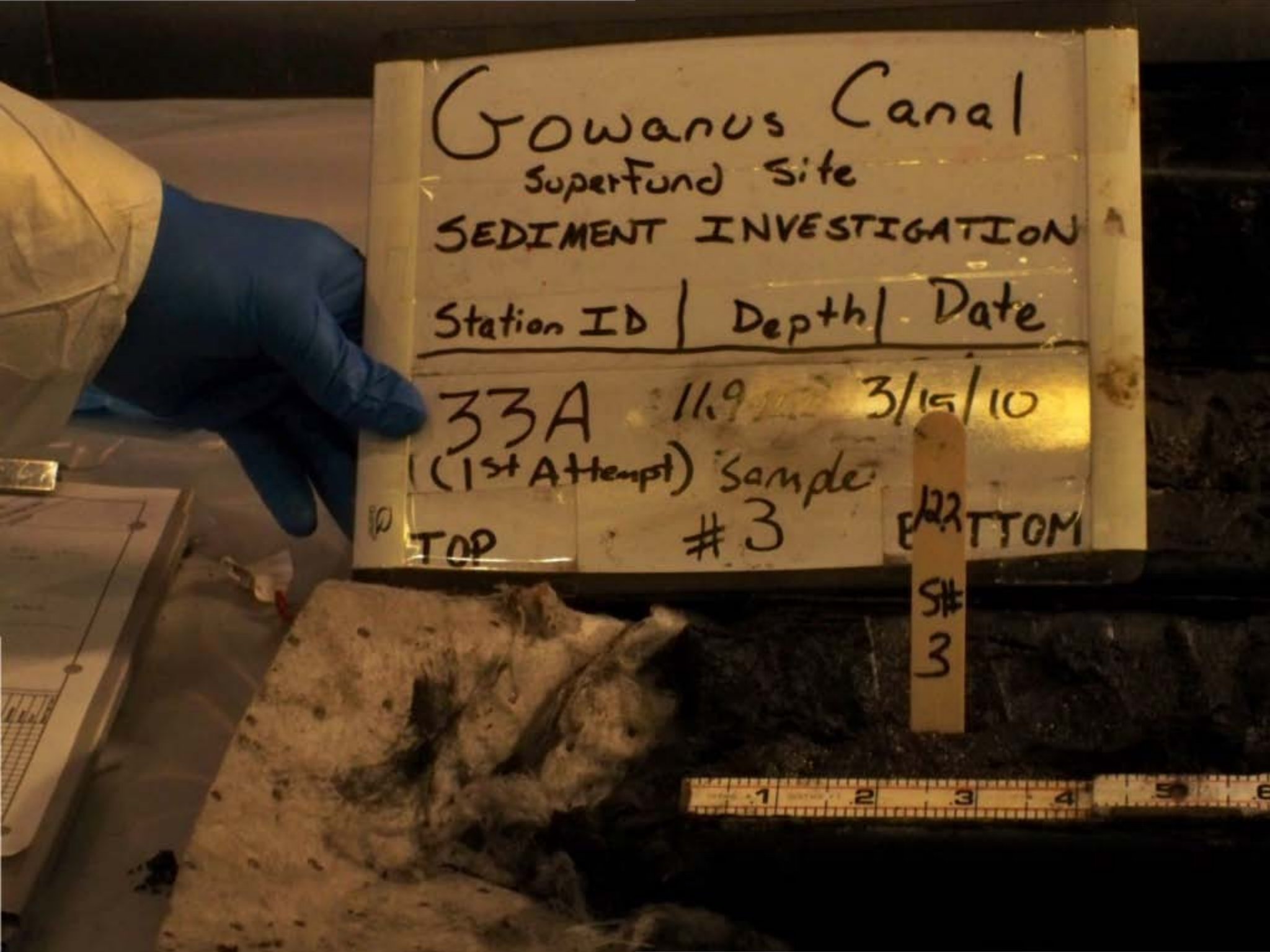
#
3

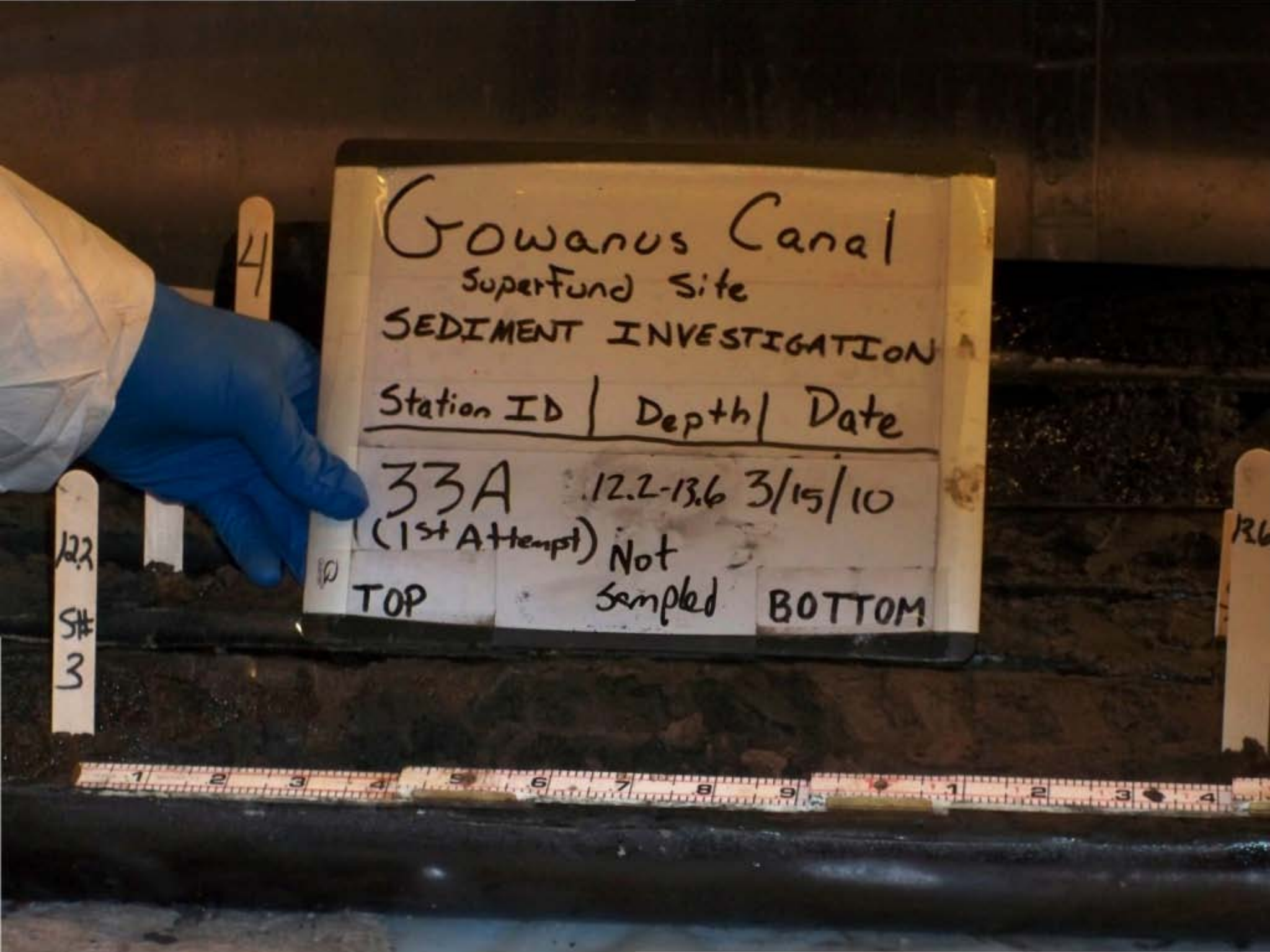

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A FULL 3/15/10
(1st Attempt) Recovery
TOP
BOTTOM

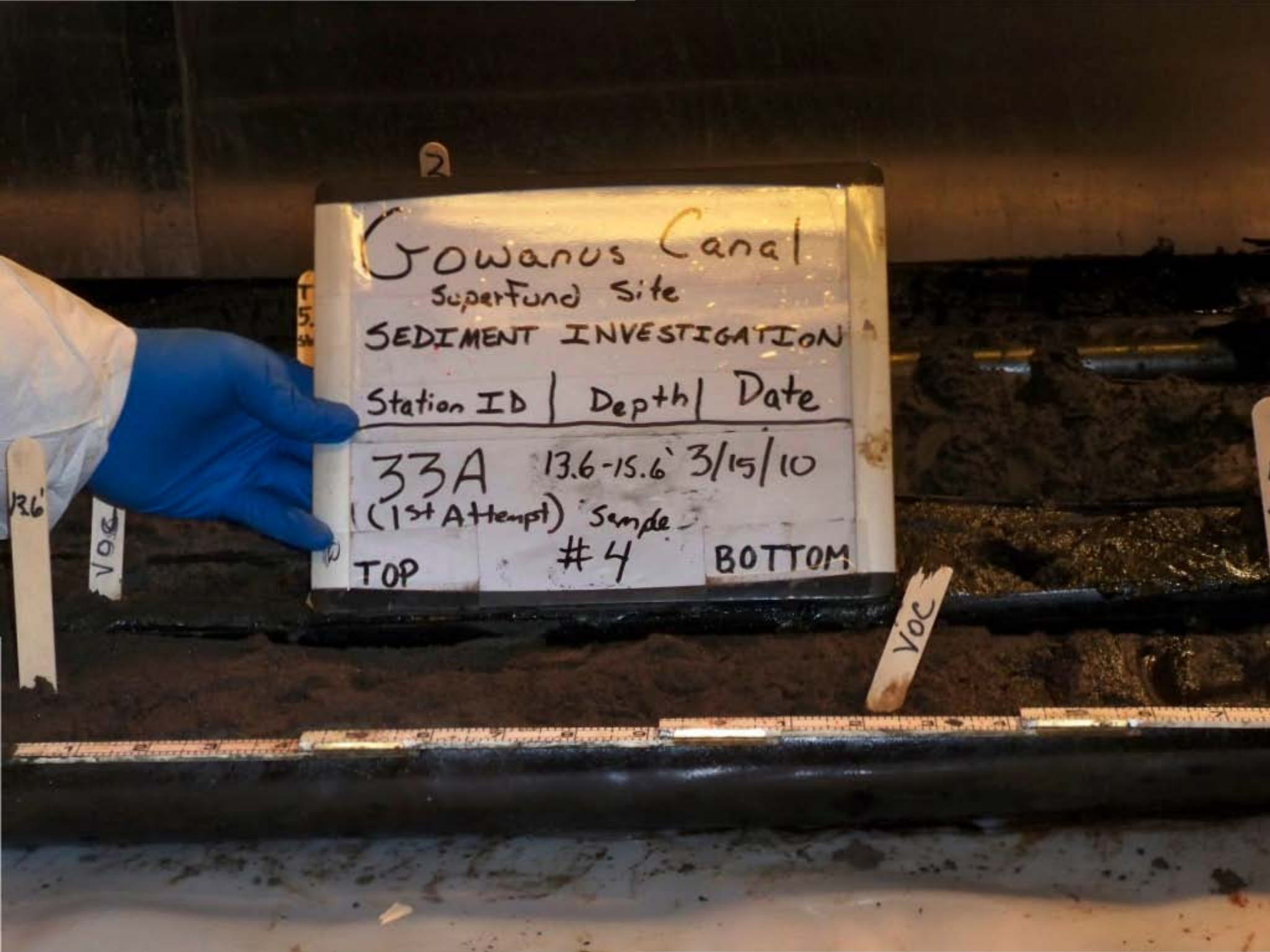

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A FULL 3/15/10
(1st Attempt) RECOVERY
TOP
BOTTOM
VOC
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 0.0-2.0' 3/15/10
(1st Attempt) No Sample
TOP
BOTTOM
T2
5.8

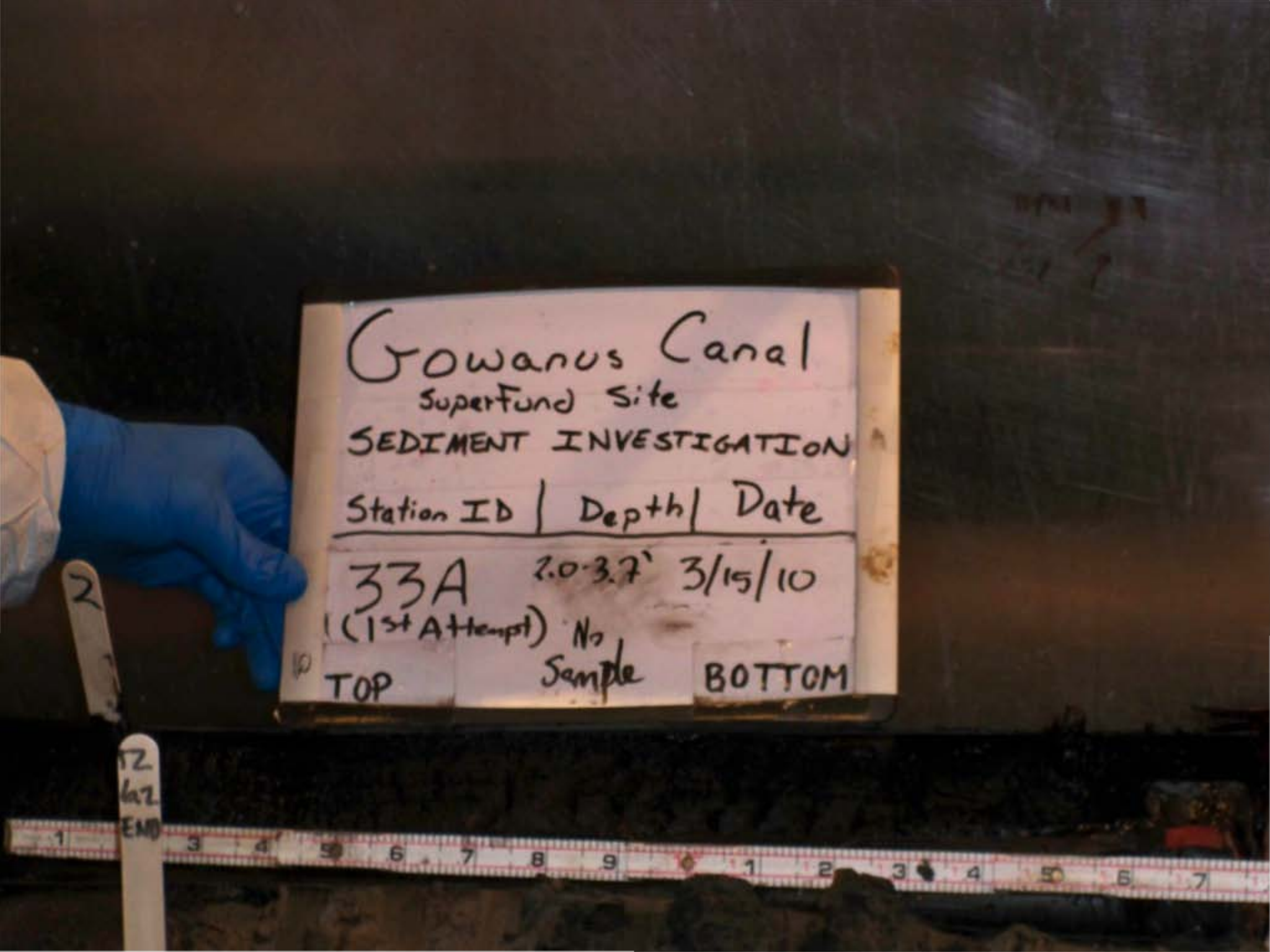

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 10.2-11.9' 3/15/10
(1st Attempt) Sample
TOP #3 BOTTOM
102 SH 2
VOC
VOC
156 SH 4
158

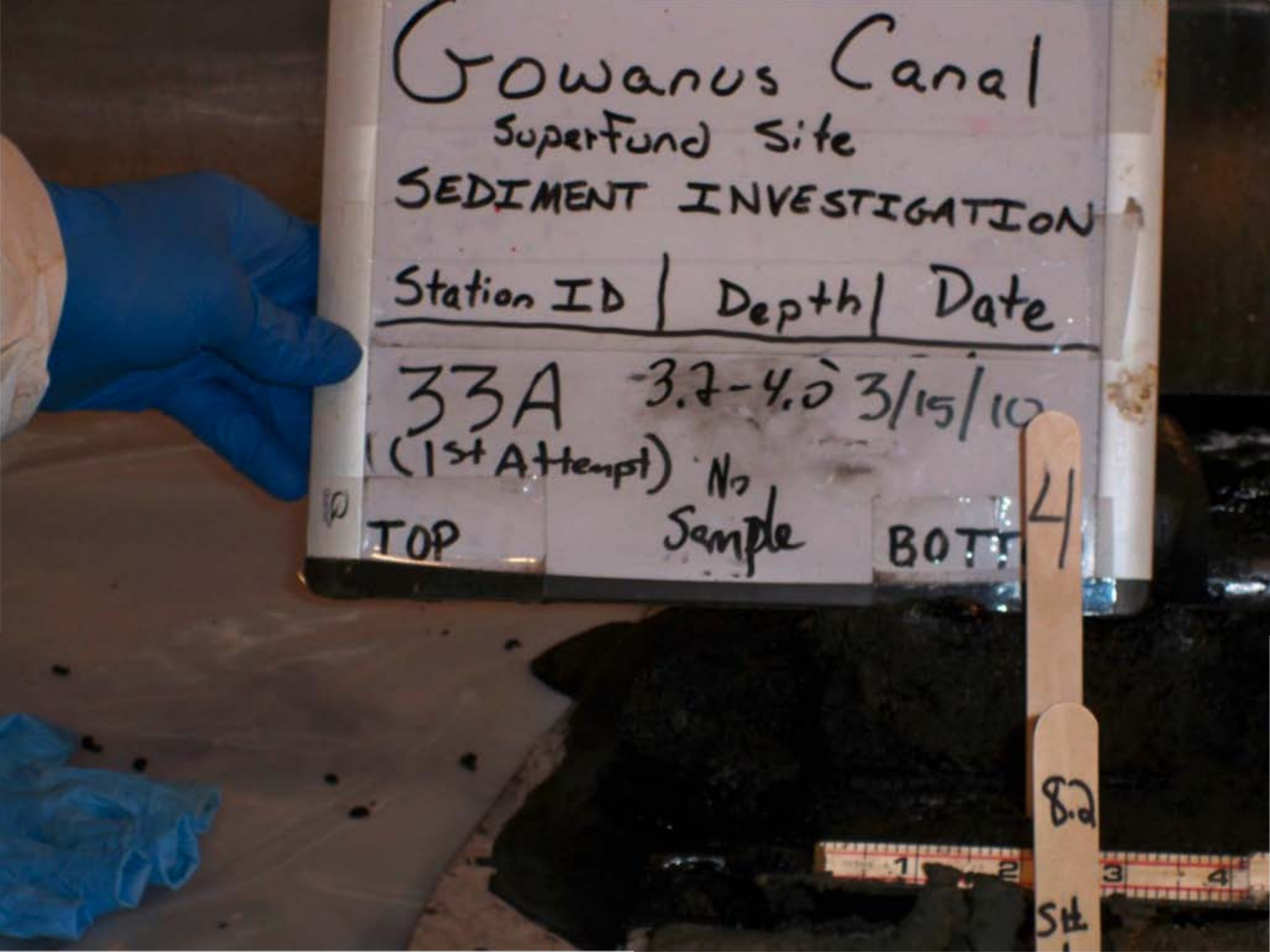

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 11.9 3/15/10
(1st Attempt) Sample
TOP #3 BOTTOM
St#
3

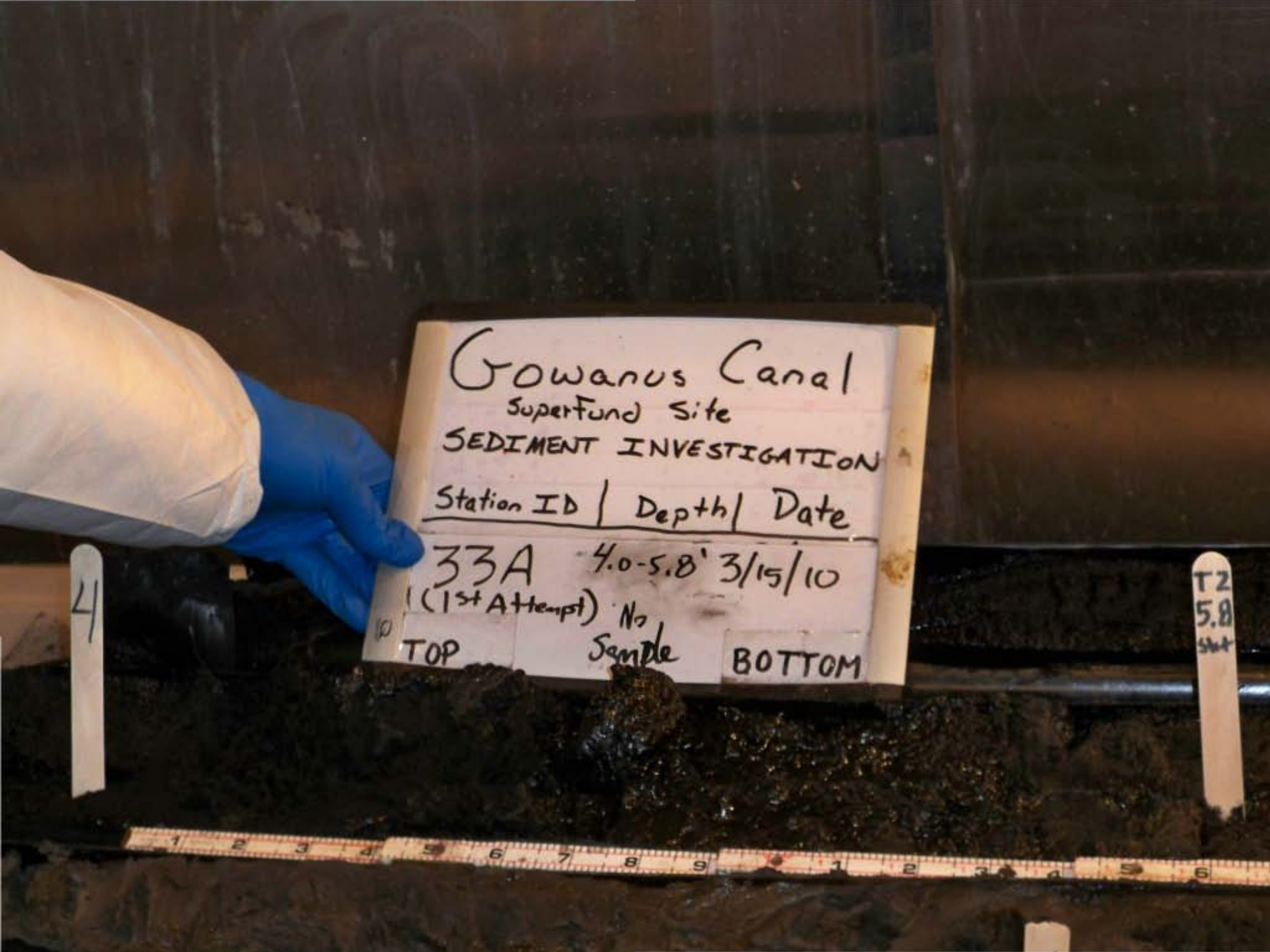

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 12.2-13.6 3/15/10
(1st Attempt) Not
Sampled
TOP
BOTTOM
12.2
S#
3

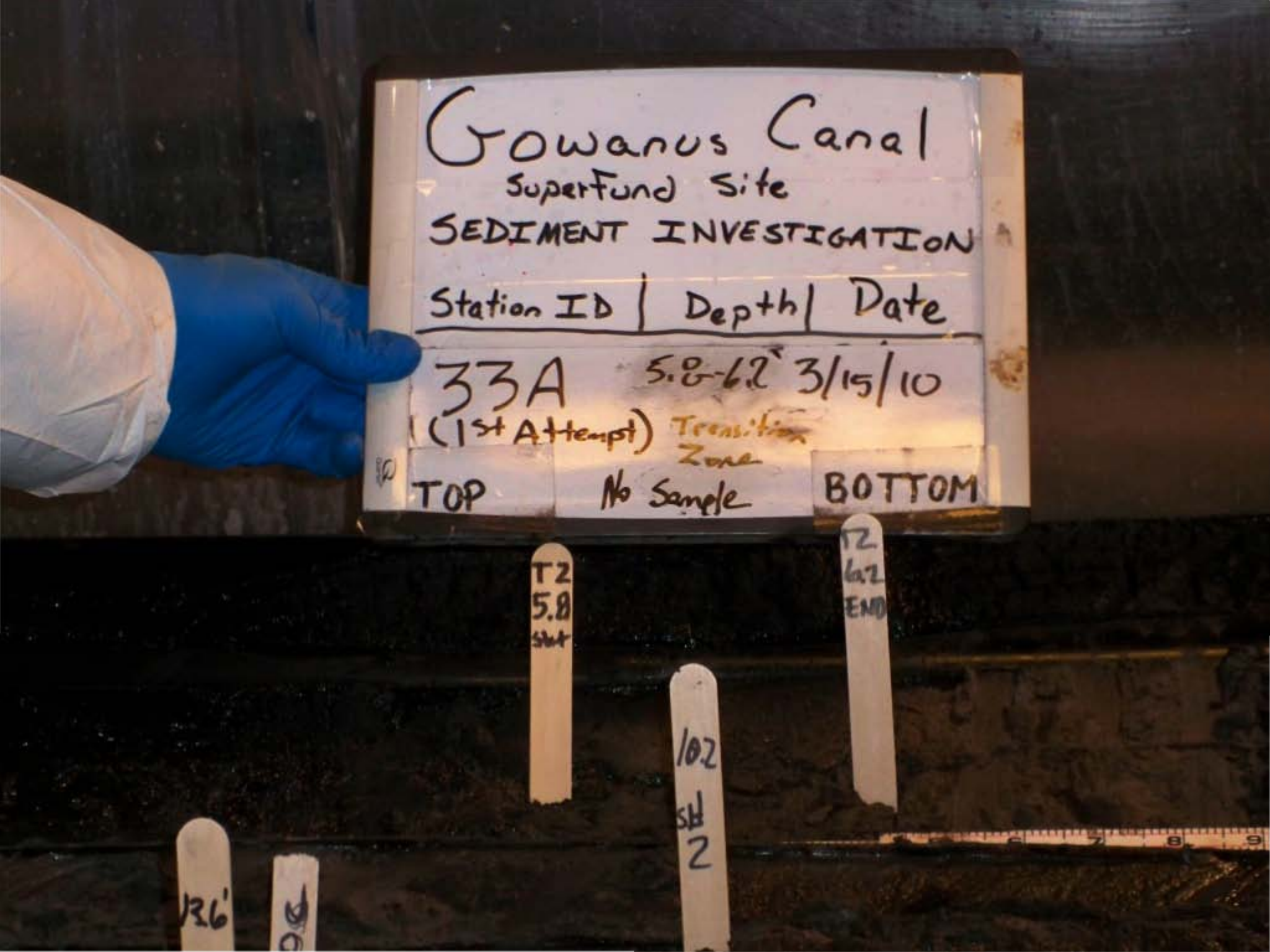

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 13.6-15.6' 3/15/10
(1st Attempt) Sample
TOP #4 BOTTOM
VOC
VOC

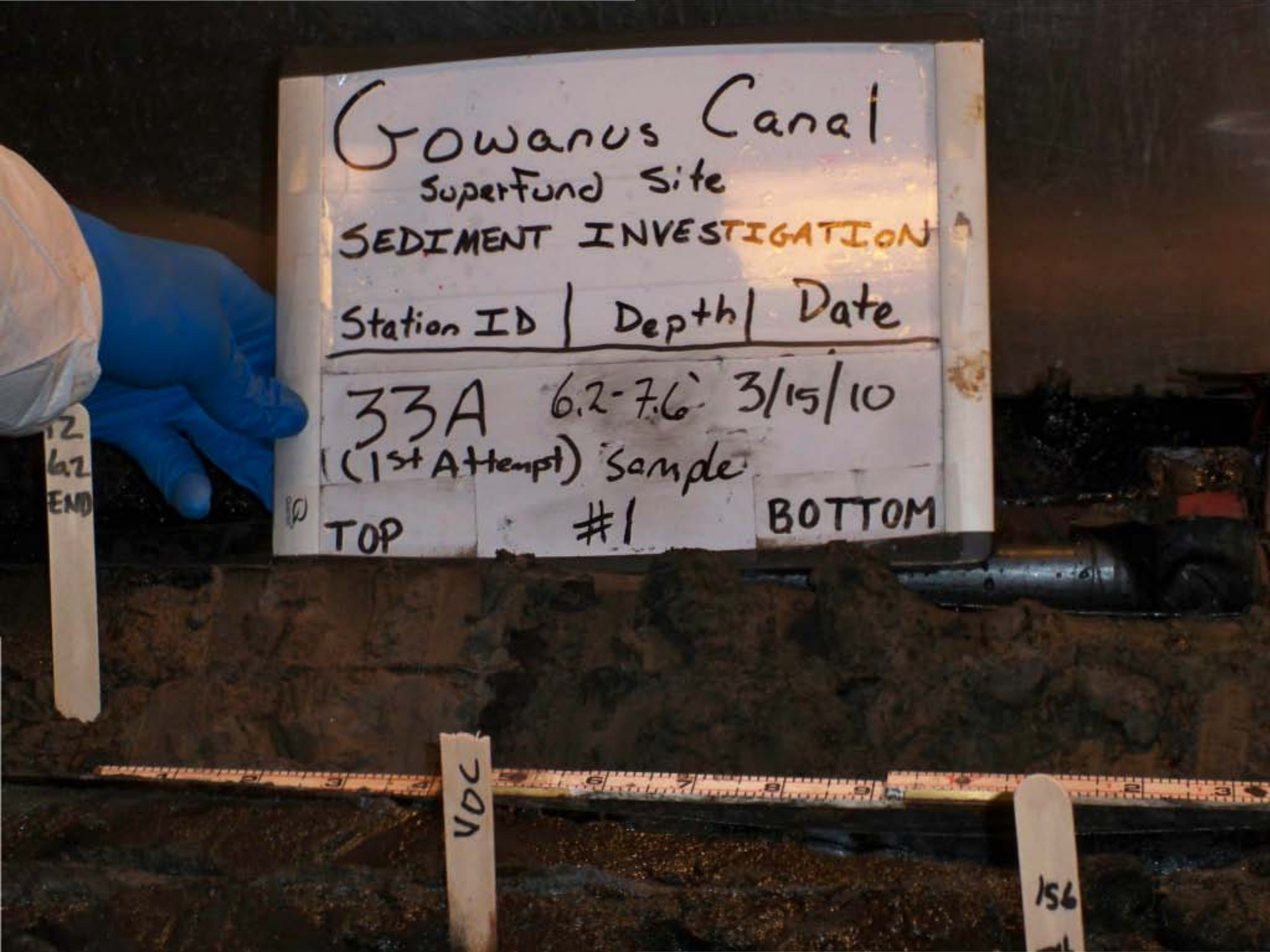

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
TOP
Sample
BOTTOM
VOC
VOC

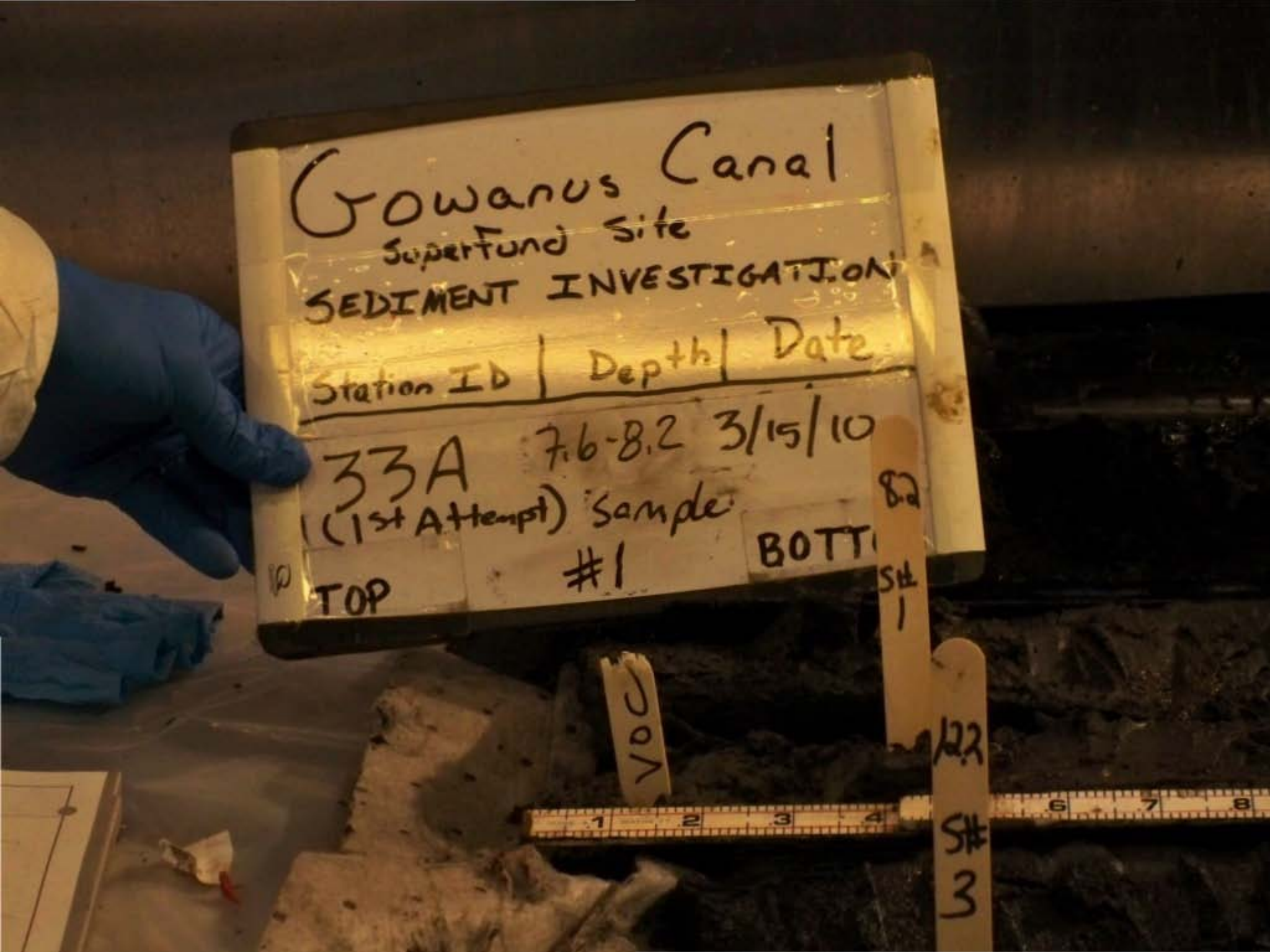

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 2.0-3.7' 3/15/10
(1st Attempt) No Sample
TOP
BOTTOM

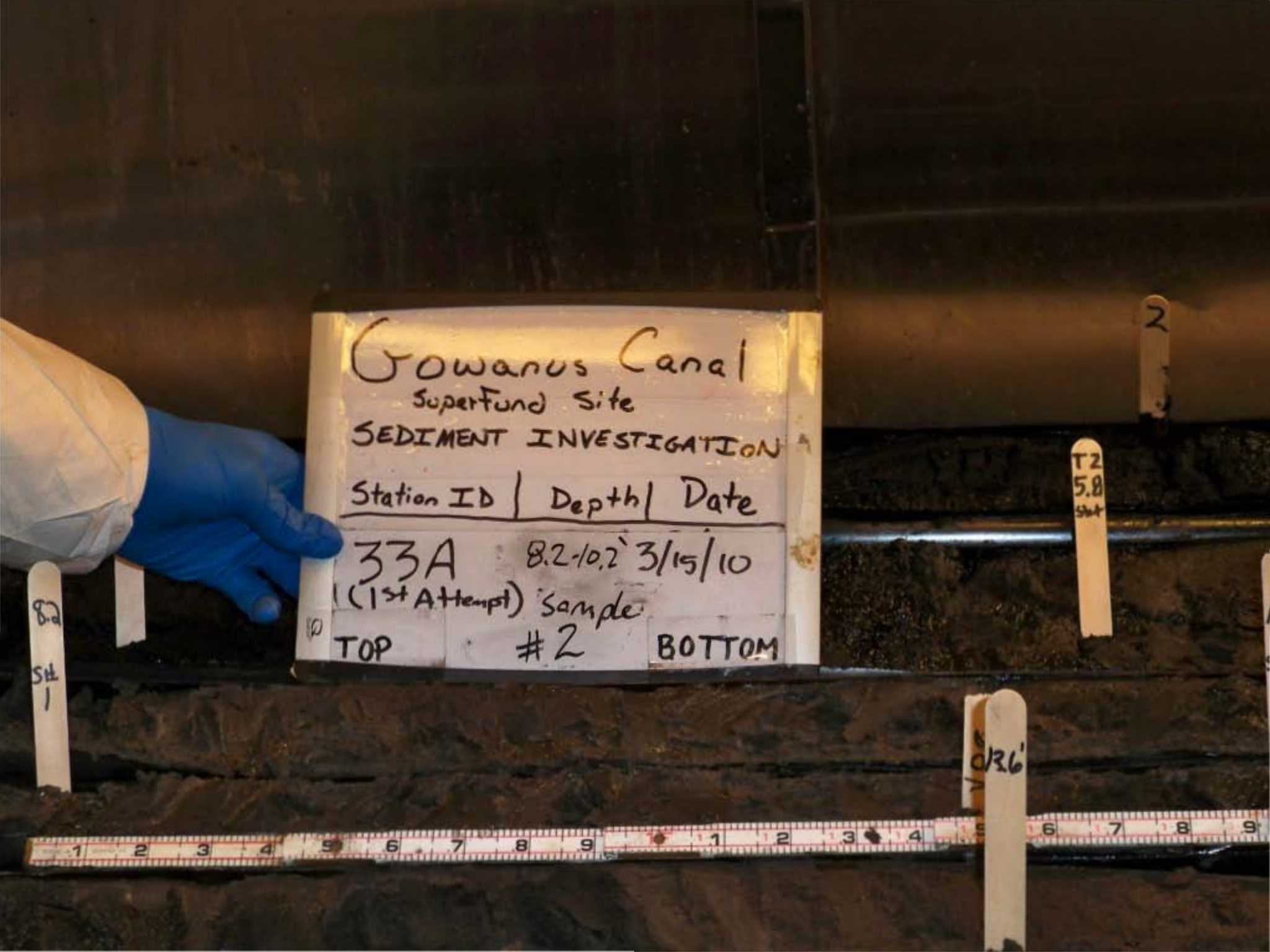

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A -3.7-4.0 3/15/10
(1st Attempt) No
TOP Sample BOTT
4
8.2

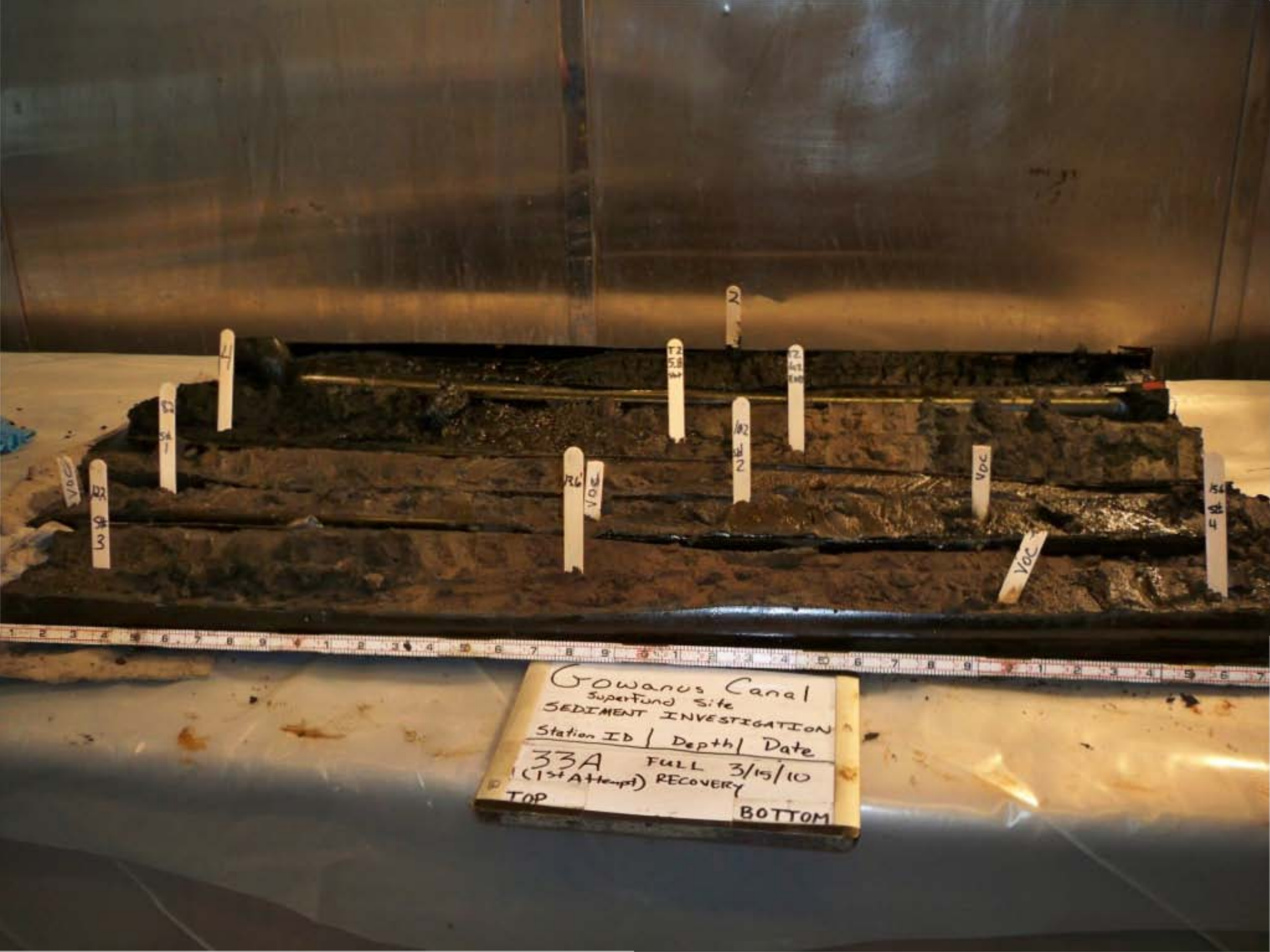

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 4.0-5.8' 3/15/10
(1st Attempt) No Sample
TOP
BOTTOM
T2
5.8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 5.8-6.2' 3/15/10
(1st Attempt) Transition Zone
TOP
No Sample
BOTTOM
T2 5.8 start
T2 6.2 END
102
SH 2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 6.2-7.6' 3/15/10
(1st Attempt) Sample
TOP #1 BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID
Depth
Date
33A
7.6-8.2
3/15/10
(1st Attempt) Sample
TOP
#1
BOTT
8.2
S# 1
VOC
12.2
S# 3

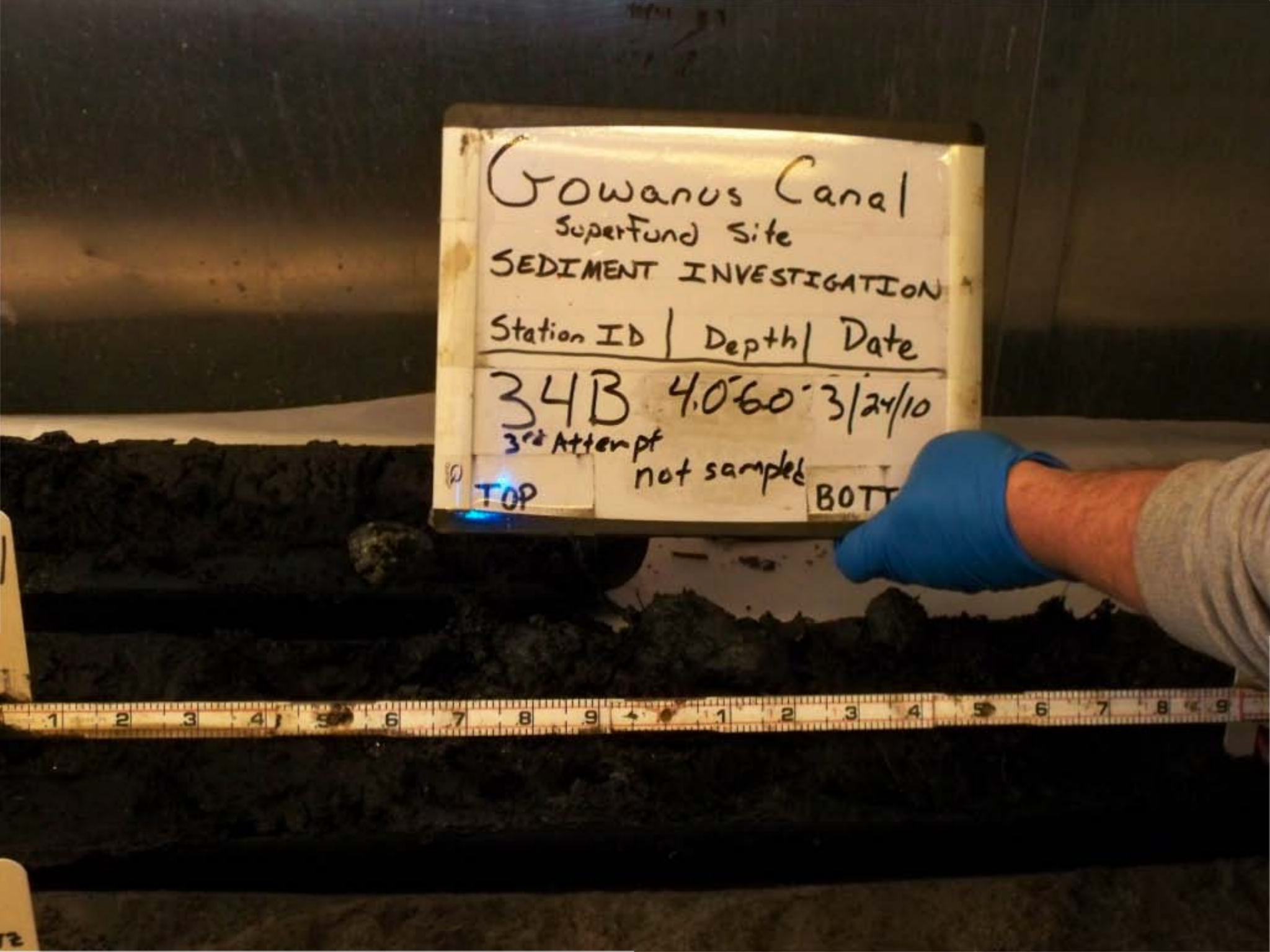

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A 8.2-10.2' 3/15/10
(1st Attempt) Sample
TOP #2 BOTTOM
T2
5.8
8.2
S#
1
13.6'

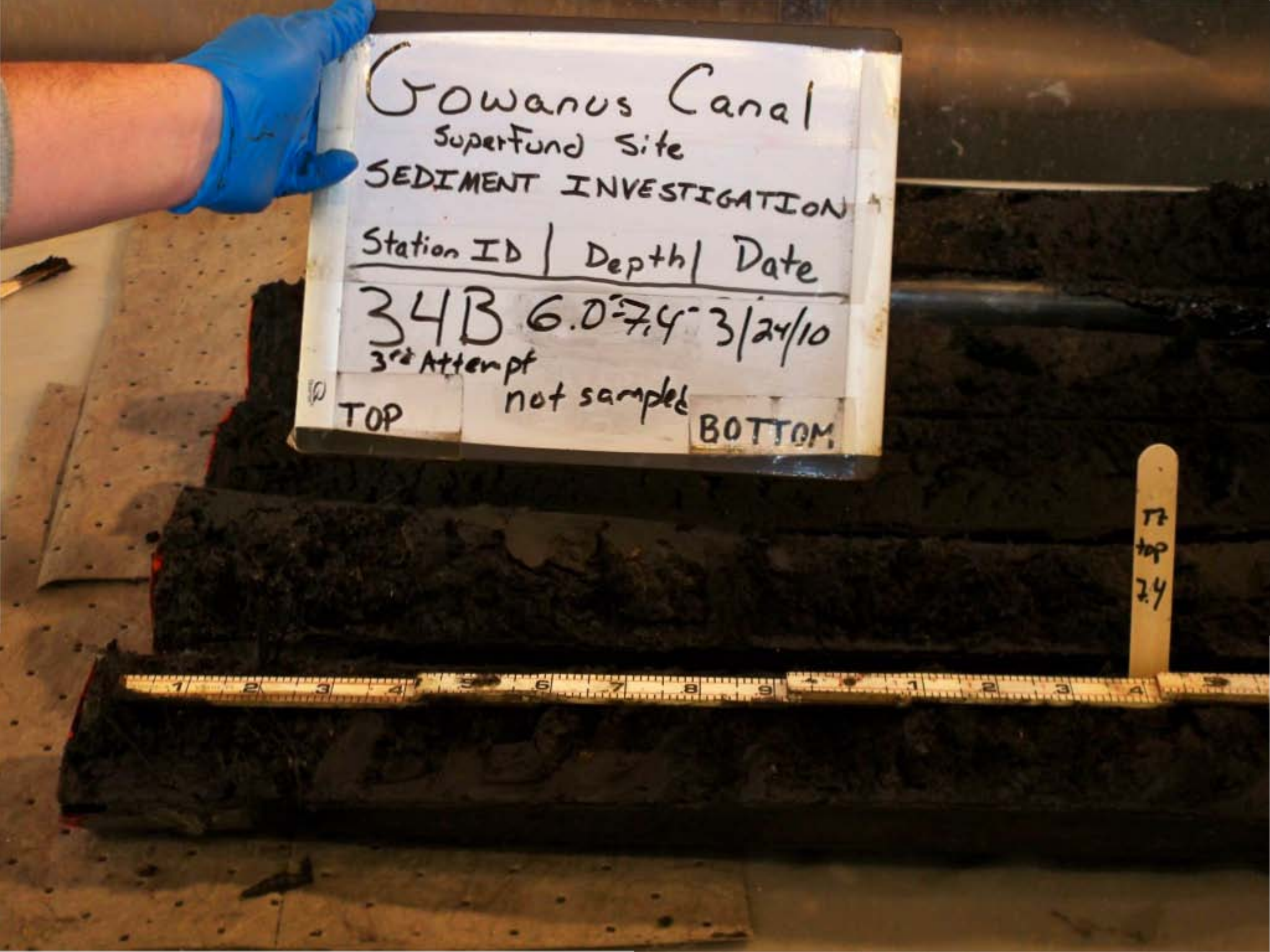

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A FULL 3/15/10
(1st Attempt) RECOVERY
TOP
BOTTOM
VOC

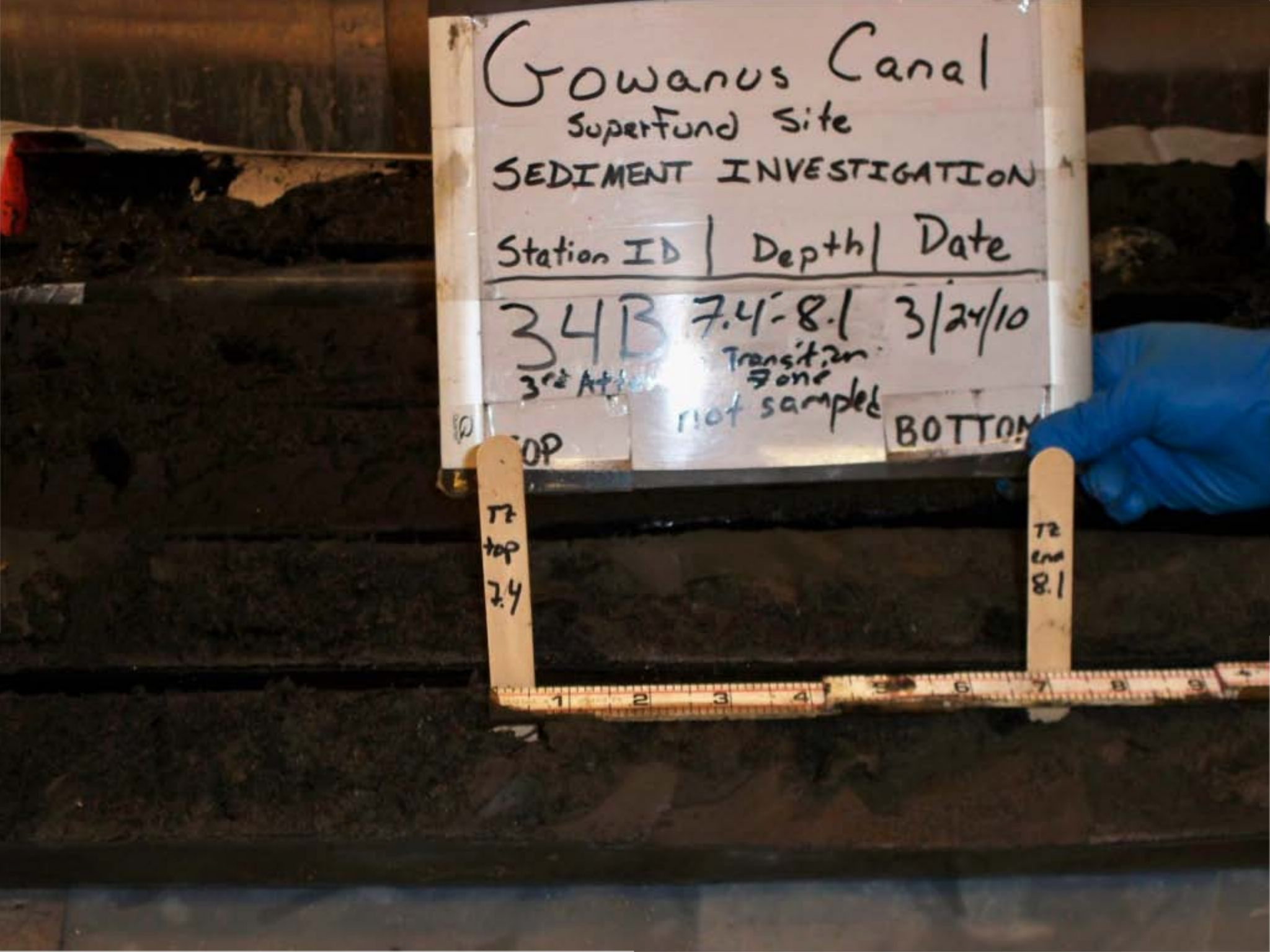

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
348 Full 3/16/10
(1st Attmpt) Recovery

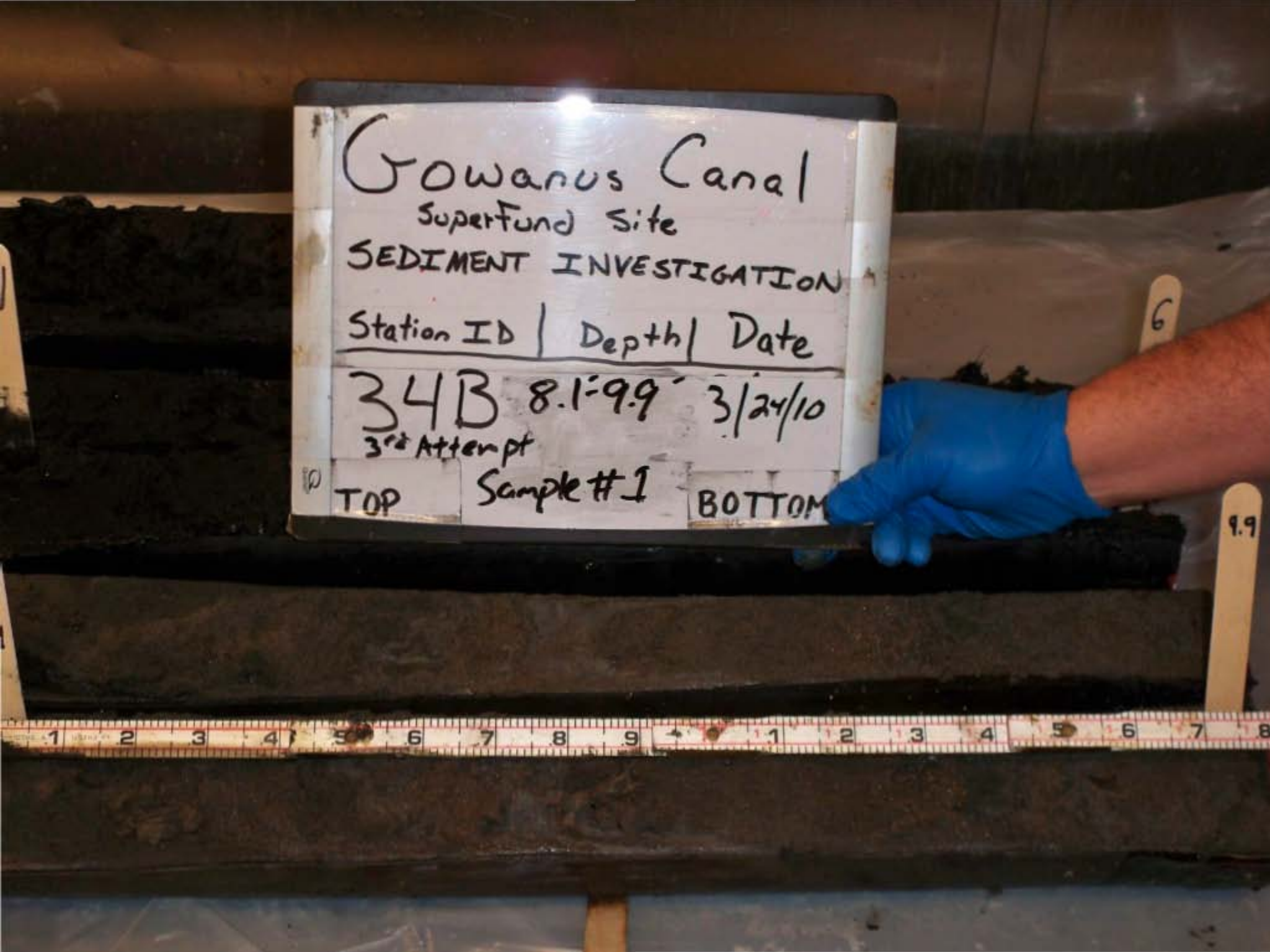

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
34B 0'-2.0' 3/24/10
3rd Attempt
not sampled
TOP
BOTTOM

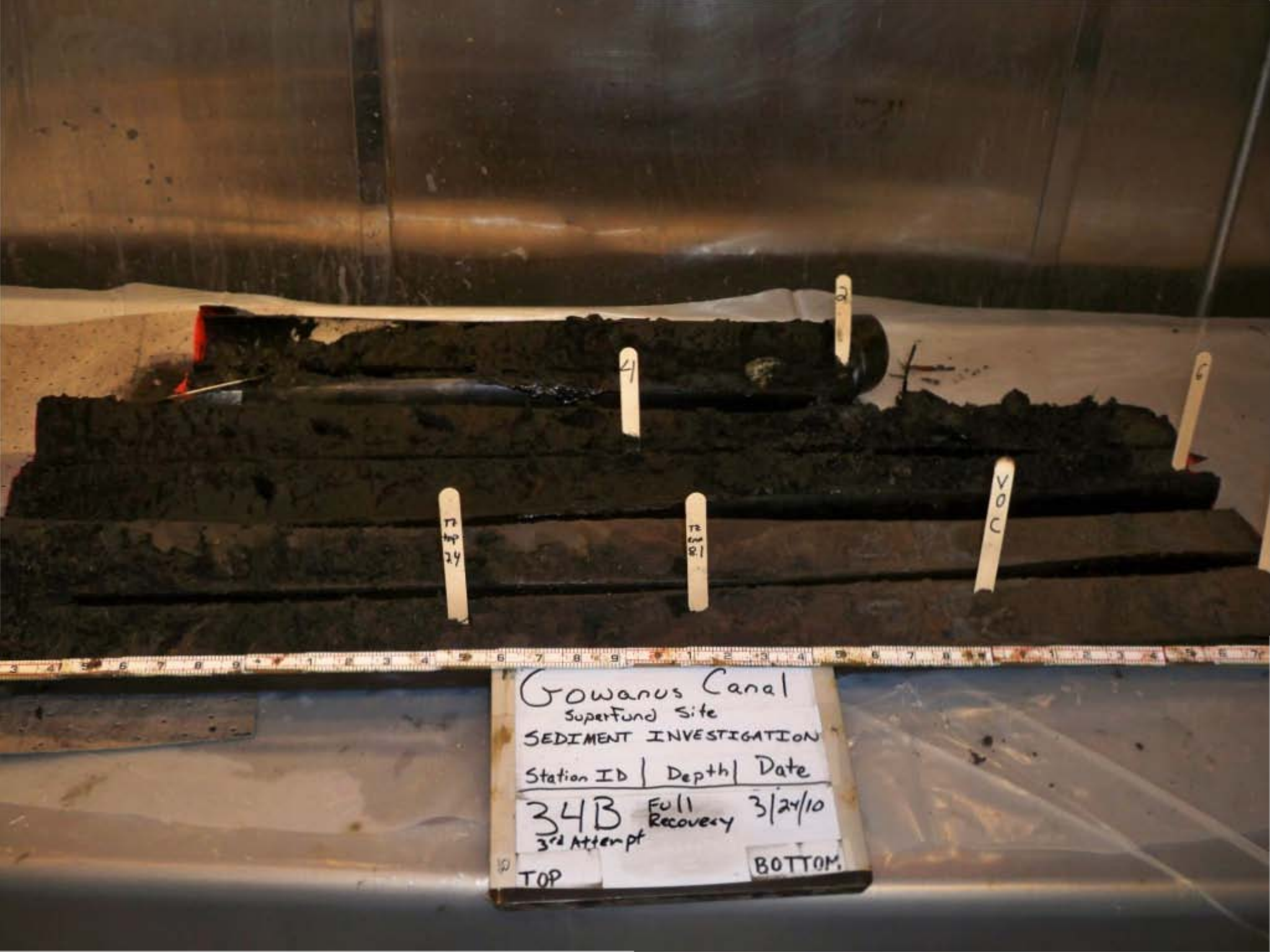

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
34B 20'-40' 3/24/10
3rd Attempt
not sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
34B 4.0'-6.0' 3/24/10
3rd Attempt
not sampled
TOP
BOTT


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
34B 6.0-7.4' 3/24/10
3rd Attempt
not sampled
TOP
BOTTOM
T7
top
7.4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
34B 7.4-8.1 3/24/10
3rd Attempt
Transition Zone not sampled
BOTTOM
TZ top 7.4
TZ end 8.1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
34B 8.1-9.9' 3/24/10
3rd Attempt
TOP Sample #1 BOTTOM
6
9.9


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
34B Full Recovery 3/24/10
3rd Attempt
TOP
BOTTOM
VOC

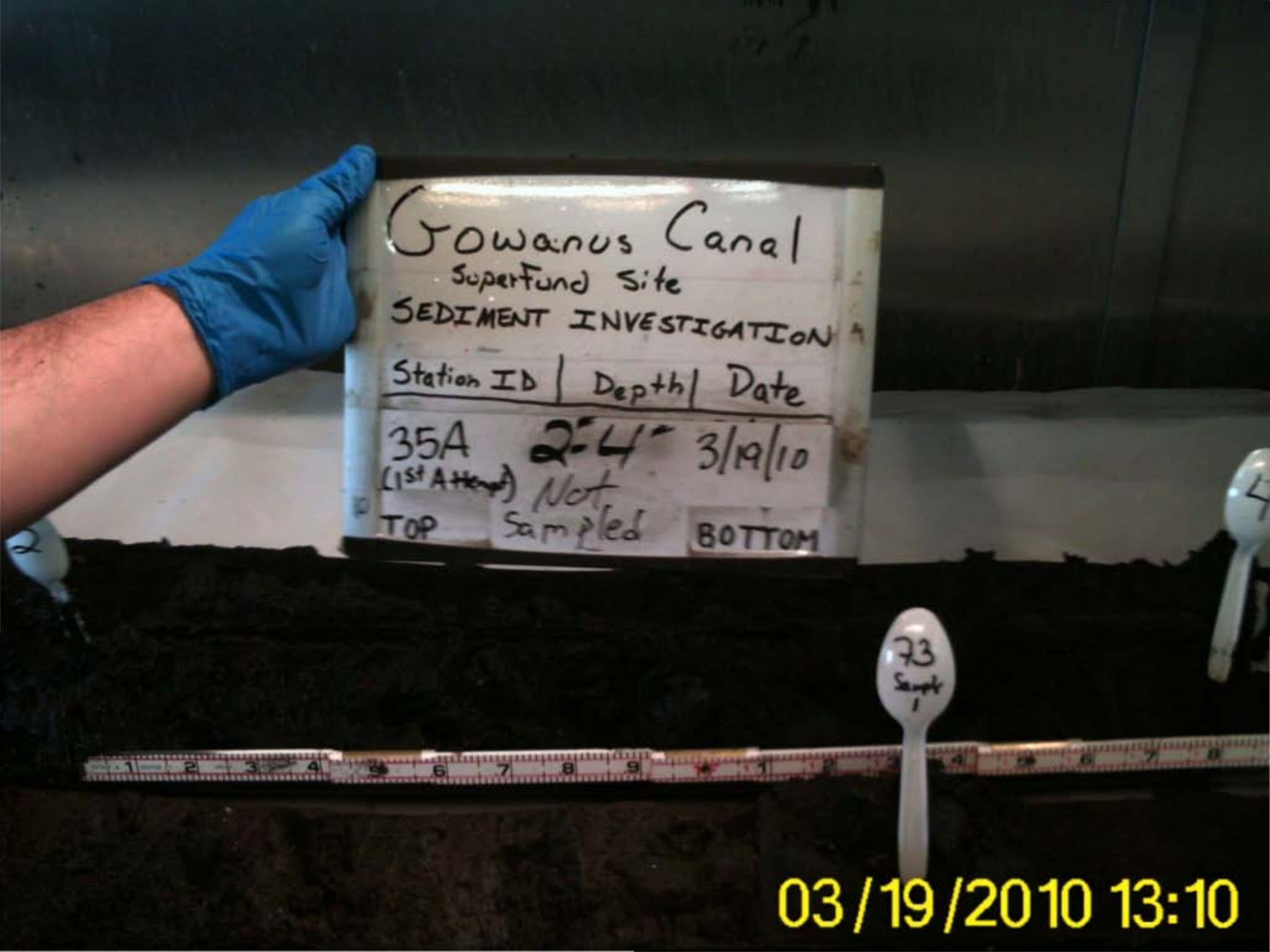

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
348 Full 3/16/10
(1st Attempt) Recovery


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
ation ID | Depth | Date
35A Full 3/19/10
(1st Attempt) Recovery
TOP BOTTOM
03/19/2010 13:08


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 0'-2' 3/19/10
(1st Attempt) Not
TOP Sampled BOTTOM
03/19/2010 13:09

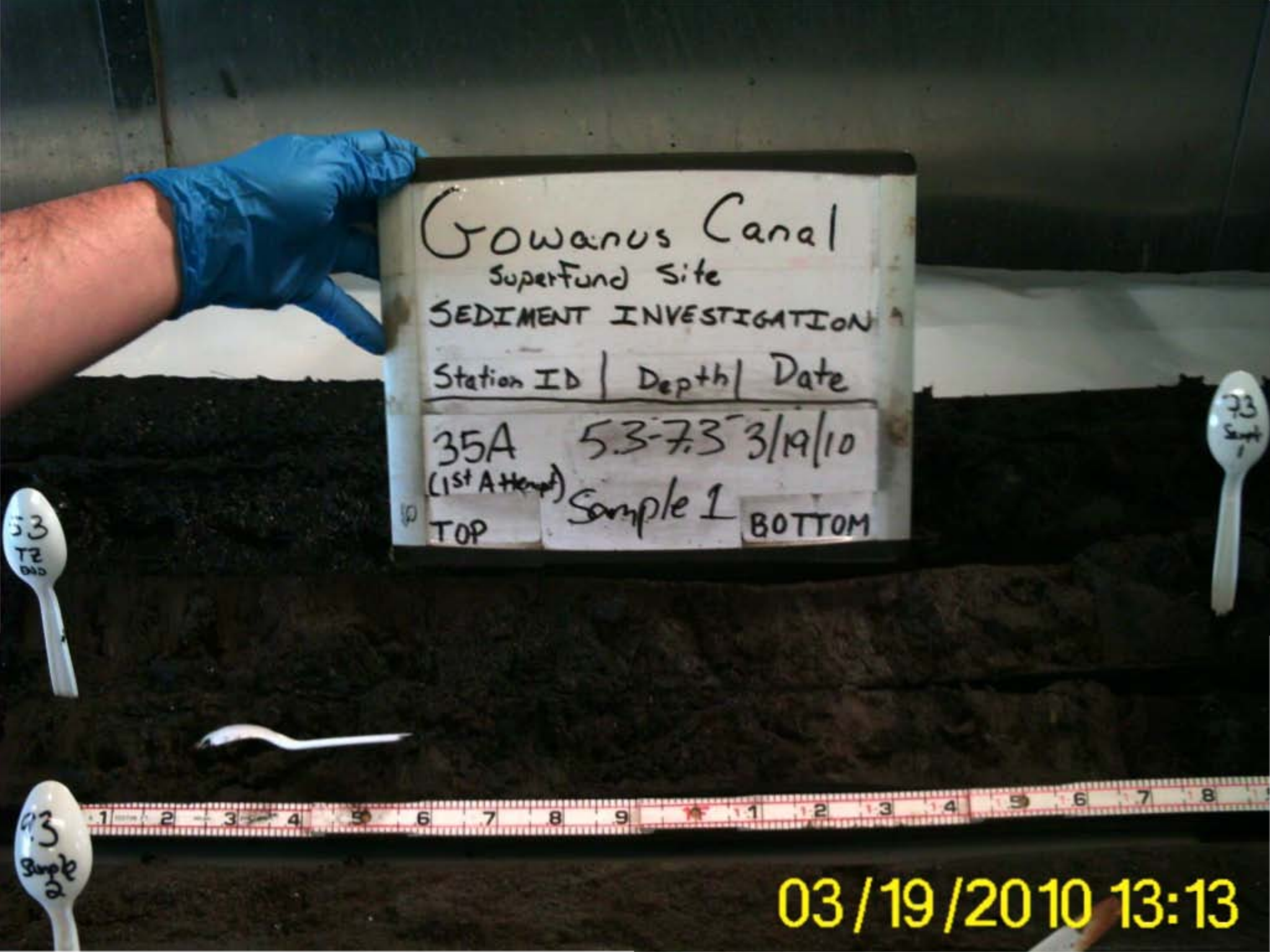

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 0'-2' 3/19/10
(1st Attempt) Not
TOP Sampled BOTTOM
S1
S3
03/19/2010 13:09


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 11.3'-11.7' 3/19/10
(1st Attempt)
Not sampled
TOP
BOTTOM
Sample 3
BOC
03/19/2010 13:16


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 2'-4' 3/19/10
(1st Attempt) Not
TOP Sampled BOTTOM
03/19/2010 13:10


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 4-5.1' 3/19/10
(1st Attempt) Not
TOP Sampled BOTTOM
03/19/2010 13:11


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A
(1st Attempt)
5.1-5.3
3/19/10
Transition Zone
Not Sampled
TOP
BOTTOM
5.1
TZ
5.3
TZ
9.3
Sample
2
03/19/2010 13:12


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 5.3-7.3 3/19/10
(1st Attempt) Sample 1
TOP BOTTOM
03/19/2010 13:13


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 7.3-7.9' 3/19/10
73 (Attempt)
Sample 2
BOTTOM
1.3
03/19/2010 13:14


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 7.9-9.3' 3/19/10
(1st Attempt)
Sample 2
TOP
BOT
53
T2
93
Sample
2
03/19/2010 13:14

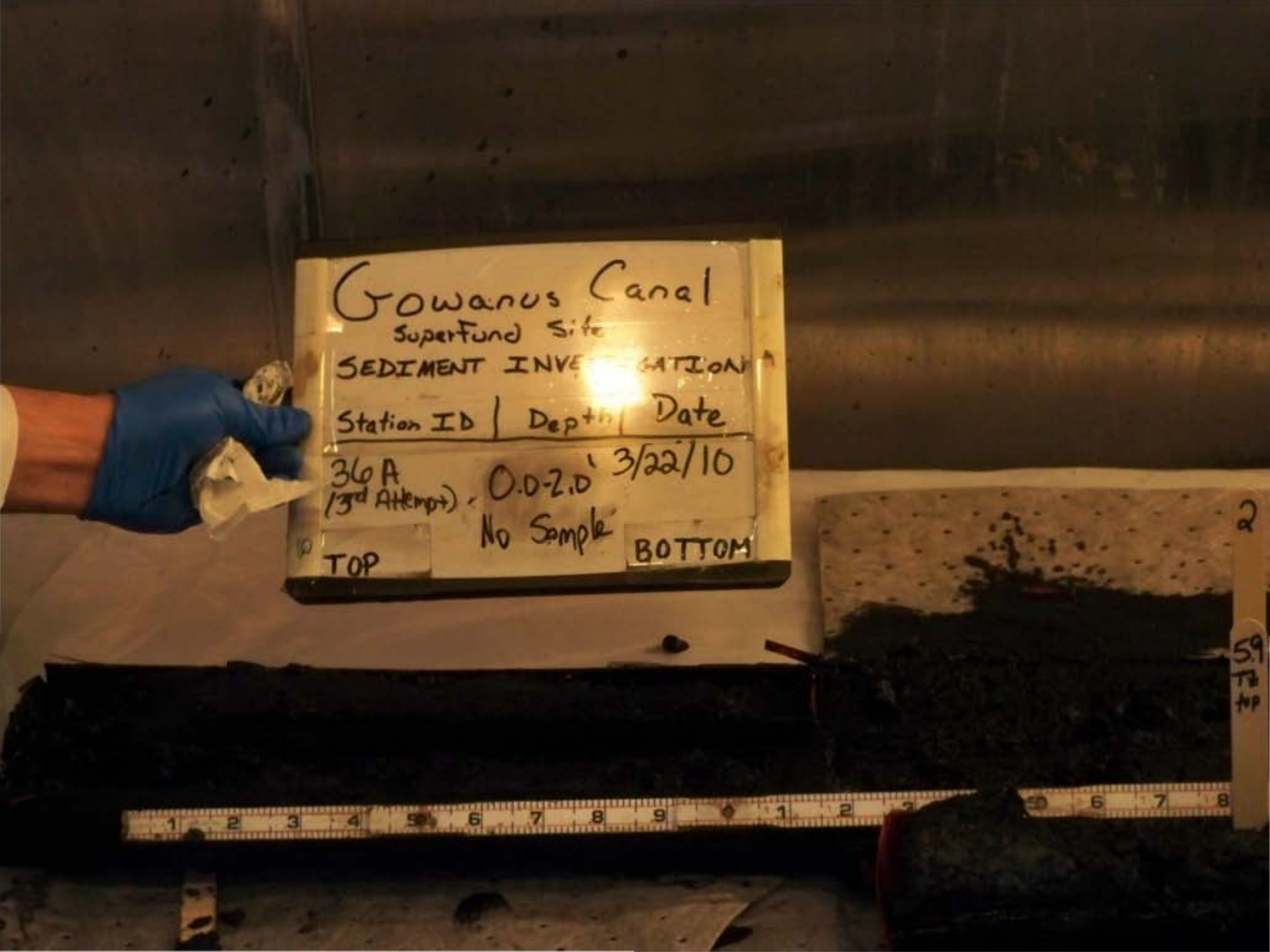

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
35A 93-113 3/19/10
(1st Attempt)
Sample 3
TOP
BOTTOM
03/19/2010 13:15

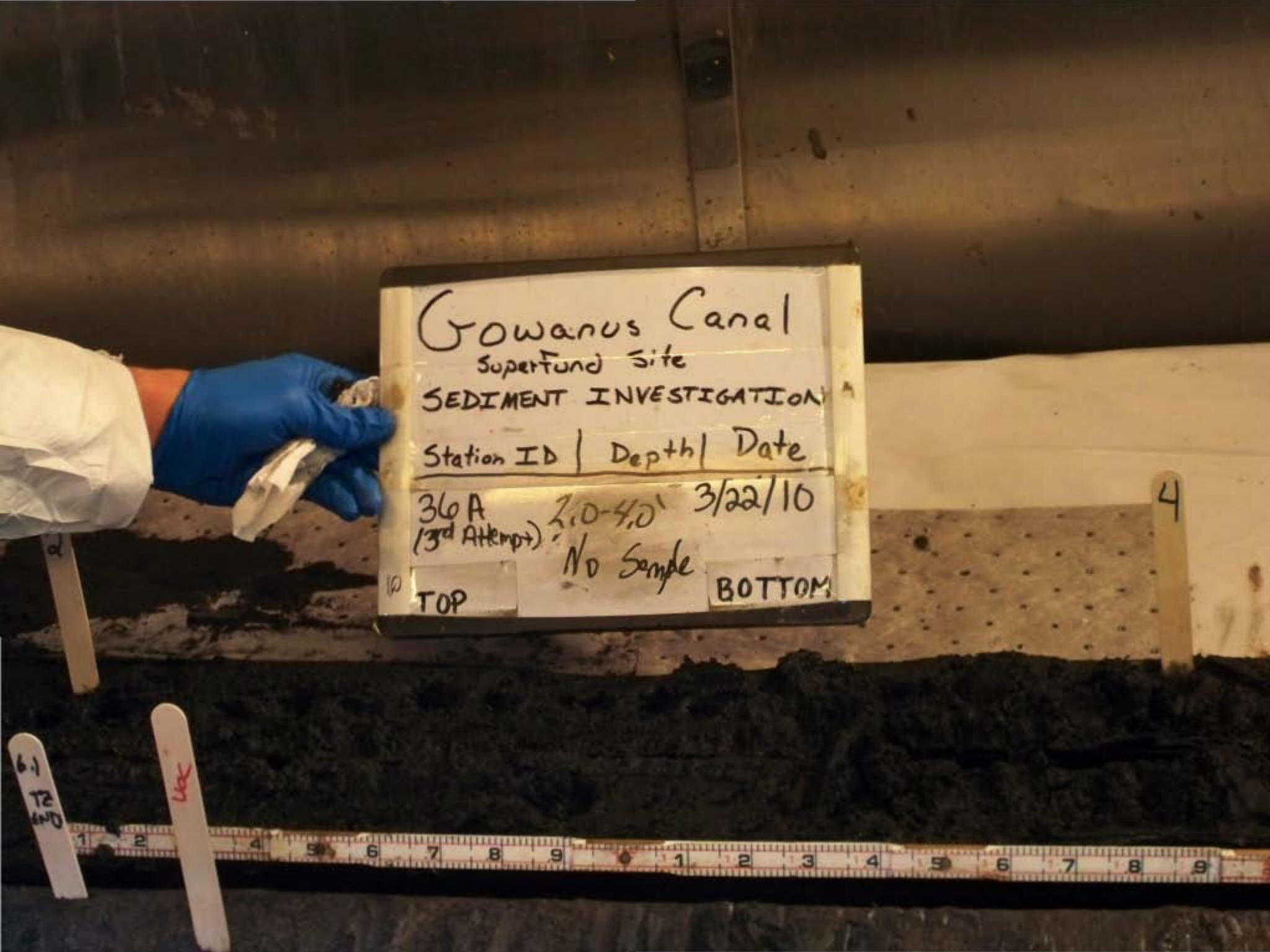

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
ation ID | Depth | Date
35A Full 3/19/10
(1st Attempt) Recovery
TOP
BOTTOM
03/19/2010 13:08

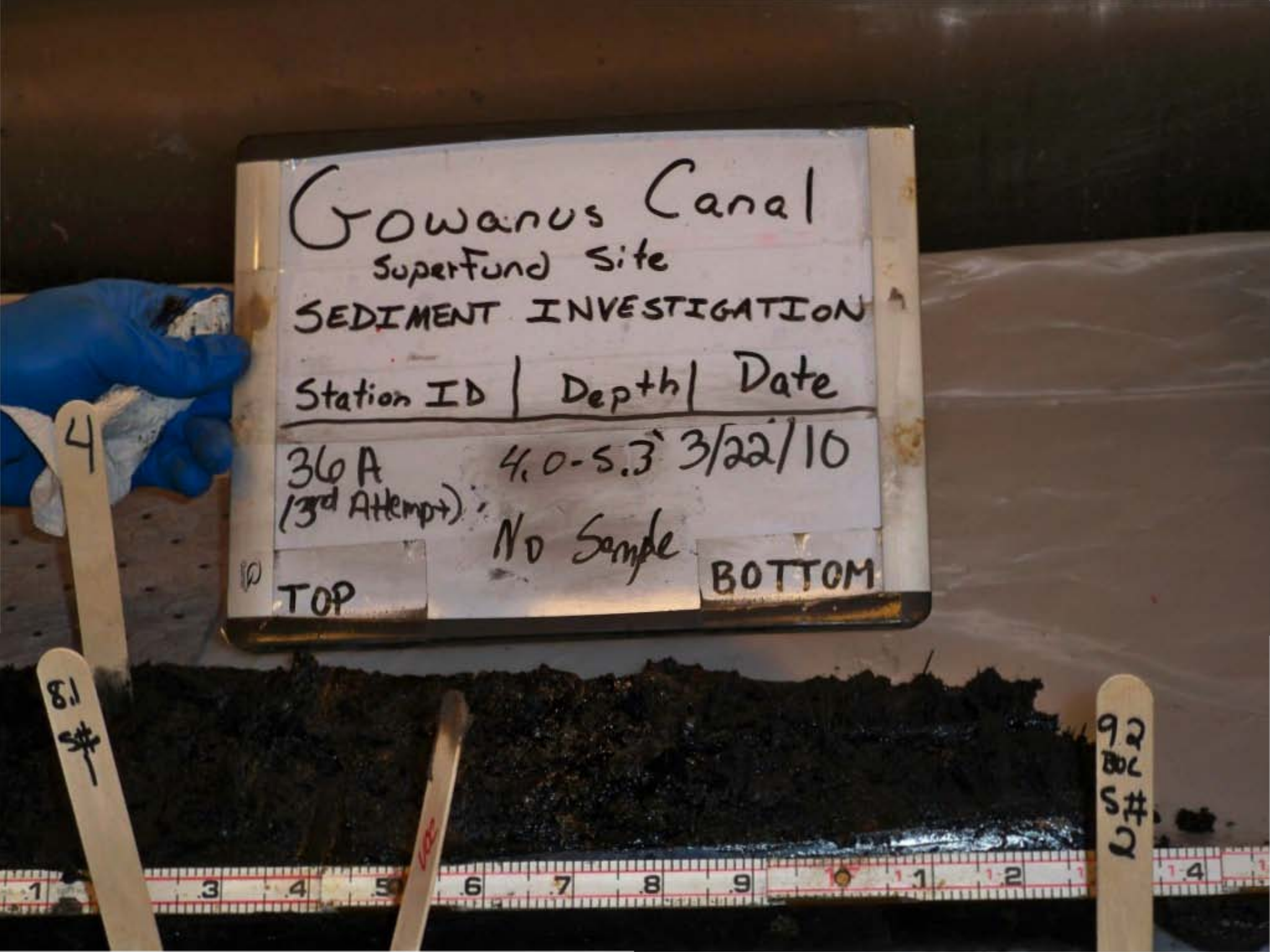
Core# 35A

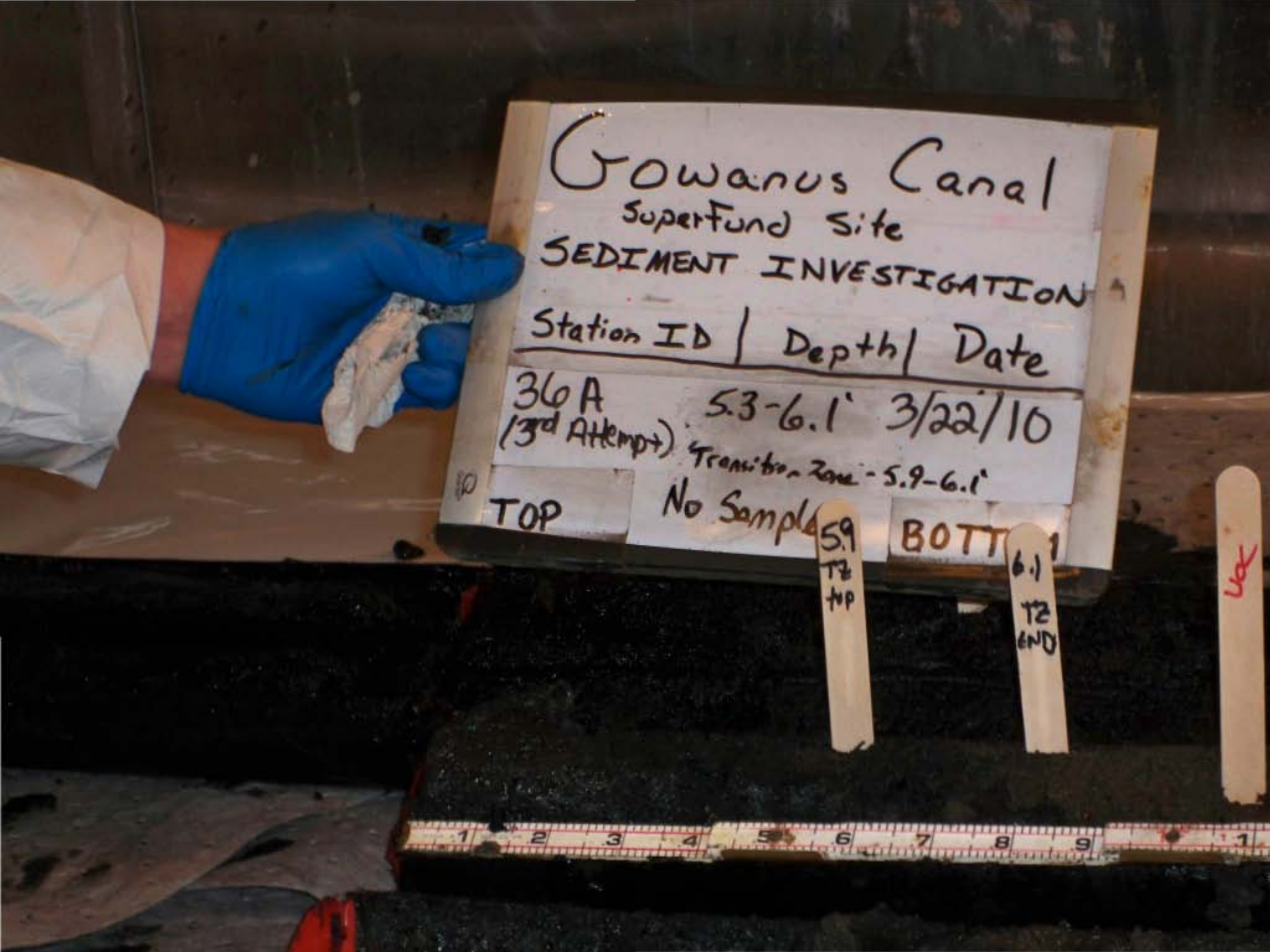
worm

3/19/10.


Gowanus Canal
Superfund Site
SEDIMENT INVE GATION
Station ID | Depth | Date
36A (3rd Attempt) - 0.0-2.0' 3/22/10
No Sample
TOP
BOTTOM
2
59
TOP


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A (3rd Attempt) 2.0-4.0' 3/22/10
No Sample
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A (3rd Attempt) 4.0-5.3' 3/22/10
No Sample
TOP
BOTTOM
4
8.1 S#
92 BOC S# 2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A (3rd Attempt) 5.3-6.1' 3/22/10
Transition Zone - 5.9-6.1'
TOP
No Sample
5.9 TZ top
6.1 TZ end
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A (3rd Attempt) 6.1-8.1' 3/22/10
Sample #1
TOP
BOTTOM
4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A (3rd Attempt) 8.1-9.2 3/22/10
Sample #2
TOP
BOTTOM

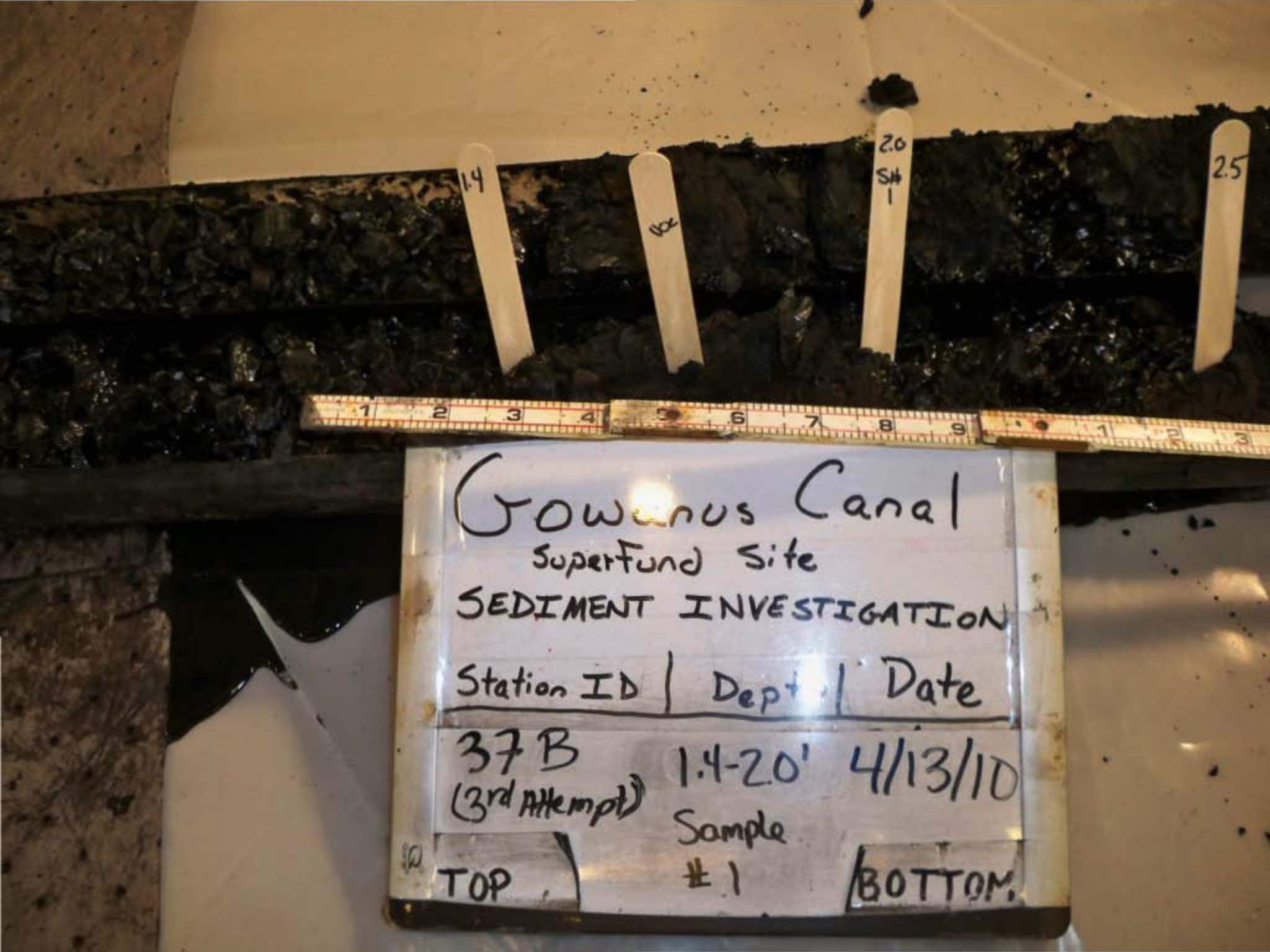

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A (1st Attempt) Bottom of Core - broken liner 3/22/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A (1st Attempt) Bottom of Core - broken liner 3/22/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
36A
(3rd Attempt), Full Recovery
3/22/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
37B
(3rd Attempt)
FULL RECOVERY
4/13/10
TOP
BOTTOM


1.4
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
37B (3rd Attempt) 0.0-1.4 4/13/10
Not Sampled
TOP
BOTTOM


1.4
2.0
SH
1
2.5
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
37B
(3rd Attempt)
1.4-2.0'
4/13/10
Sample
#1
TOP
BOTTOM

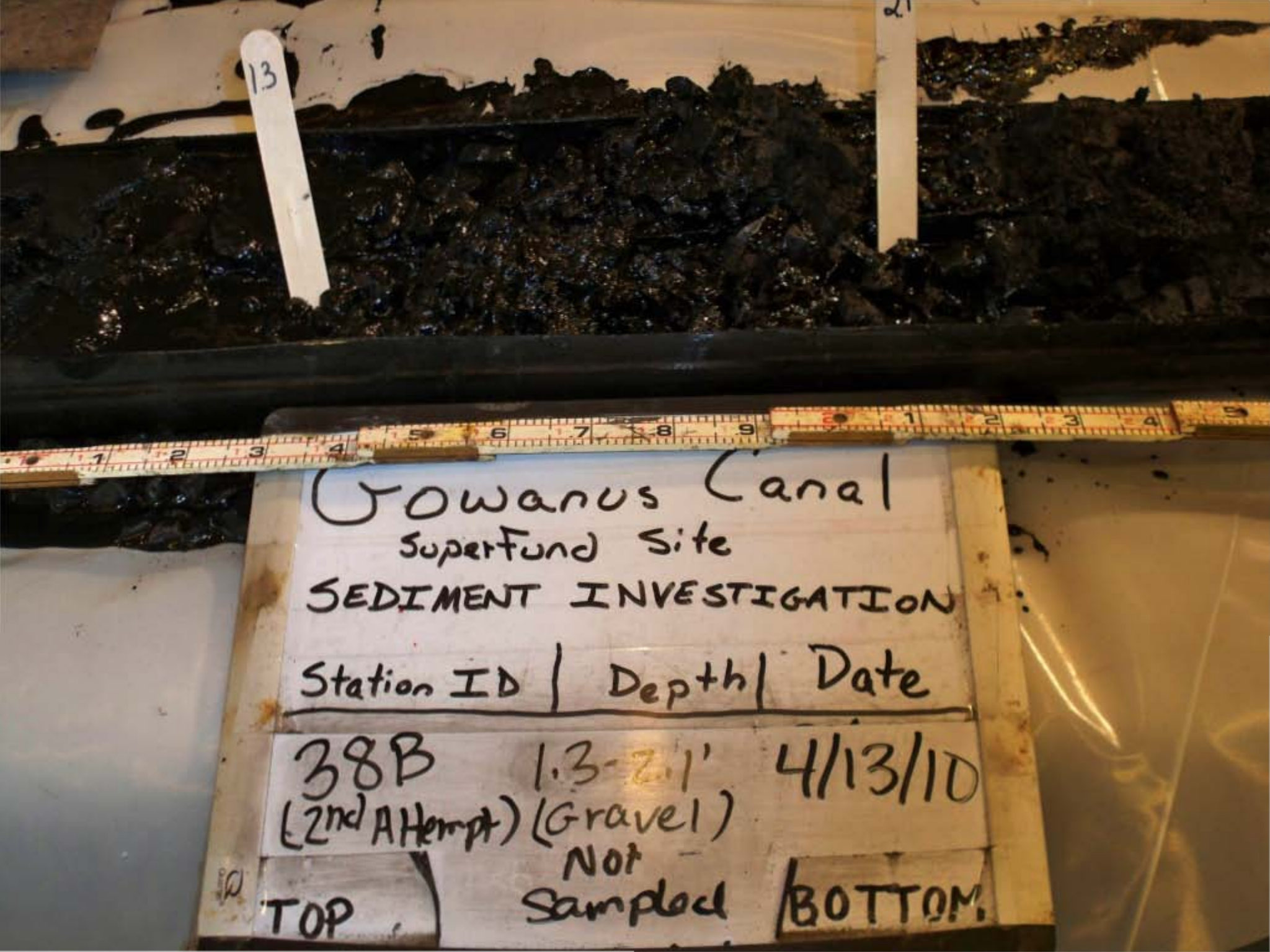

2.0
Sta
1
2.5
Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Dep | Date
37B
(3rd Attempt)
2.0-2.5'
4/13/10
Not
Sampled
TOP
BOTTOM


2.5
4.2
Bcc
Sed
2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
37B
(3rd Attempt)
2.5-4.2'
Sample
#2
4/13/10
TOP
BOTTOM

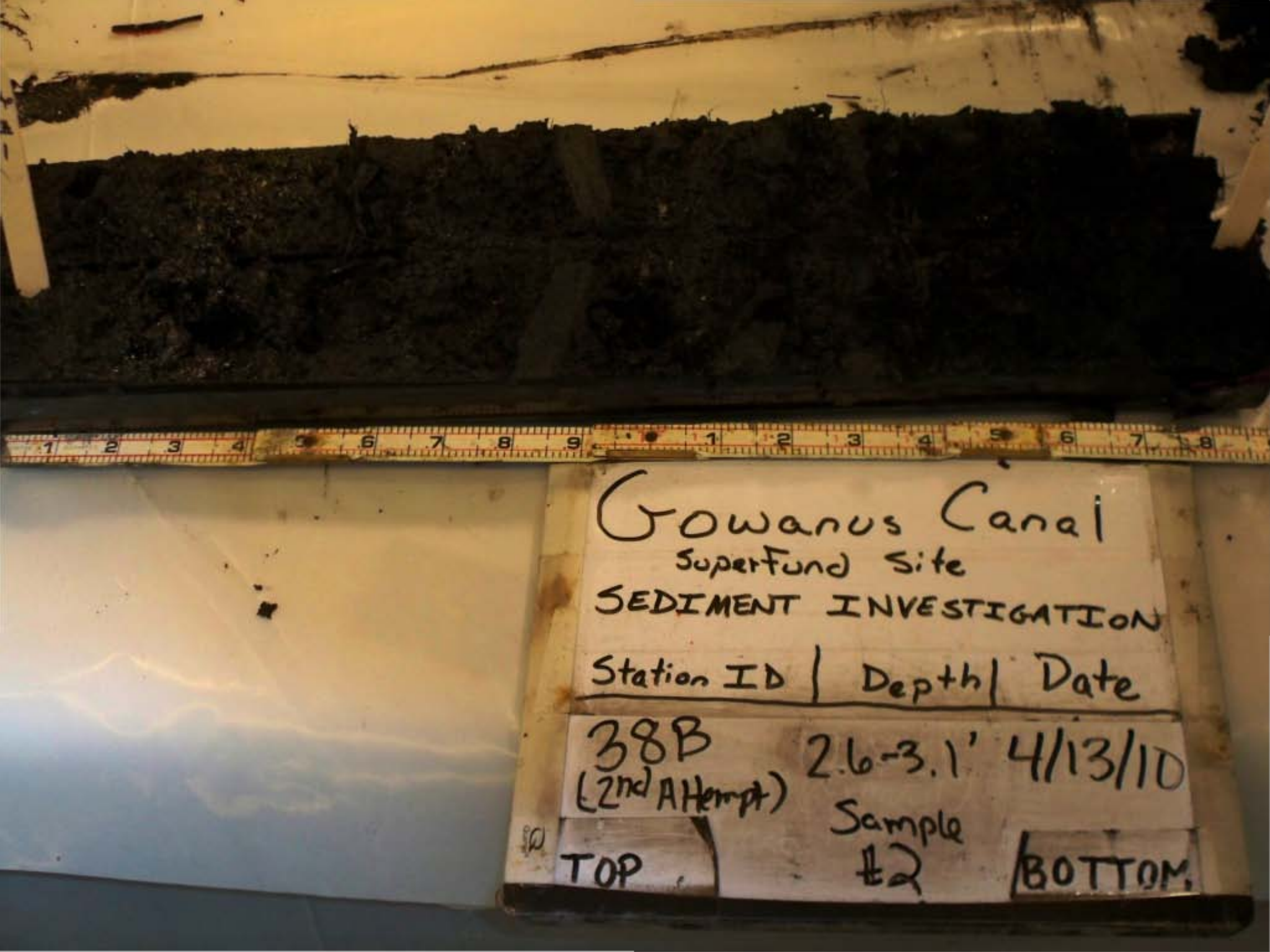

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
37B
(3rd Attempt)
FULL RECOVERY
4/13/10
TOP
BOTTOM

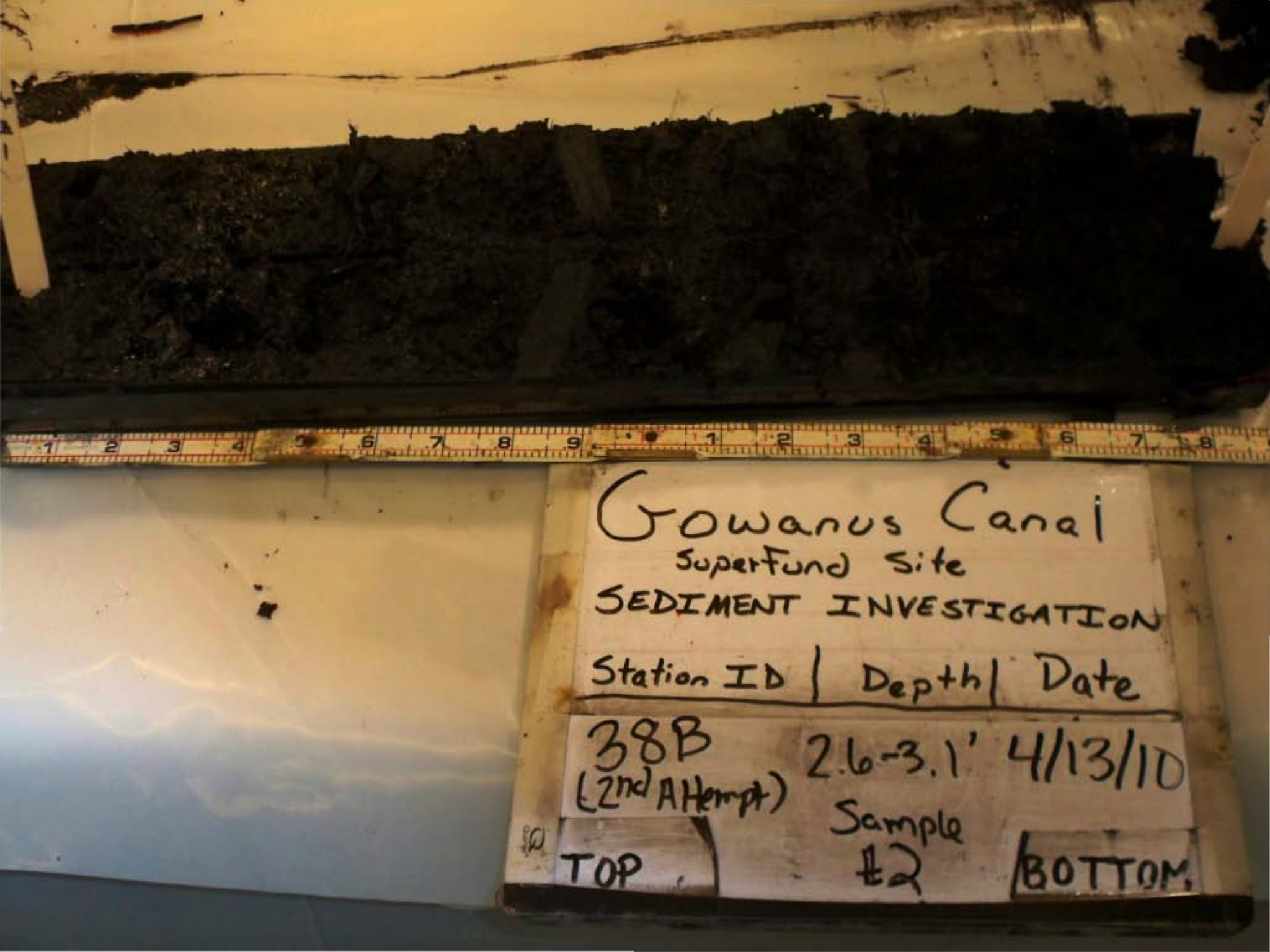

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B FULL 4/13/11
(2ND ATTEMPT) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B 0.0-1.3' 4/13/10
(2nd Attempt)
Not Sampled
TOP
BOTTOM
13


13
21
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B (2nd Attempt) 1.3-2.1' (Gravel) Not Sampled 4/13/10
TOP
BOTTOM

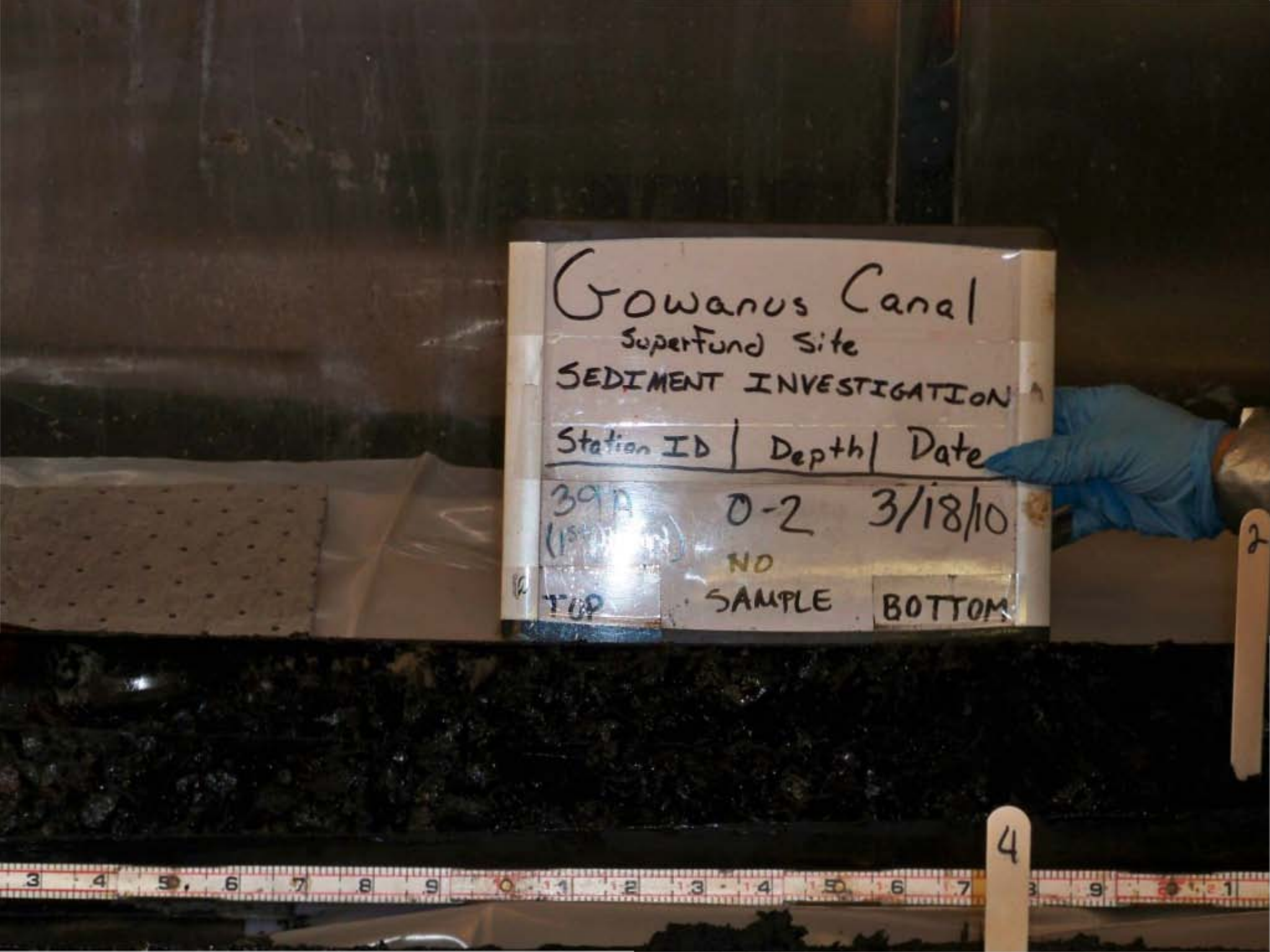

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B (2nd Attempt) 2.1-2.6' 4/13/10
Sample #1
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B (2nd Attempt) 2.6-3.1' 4/13/10
Sample #2
TOP
BOTTOM

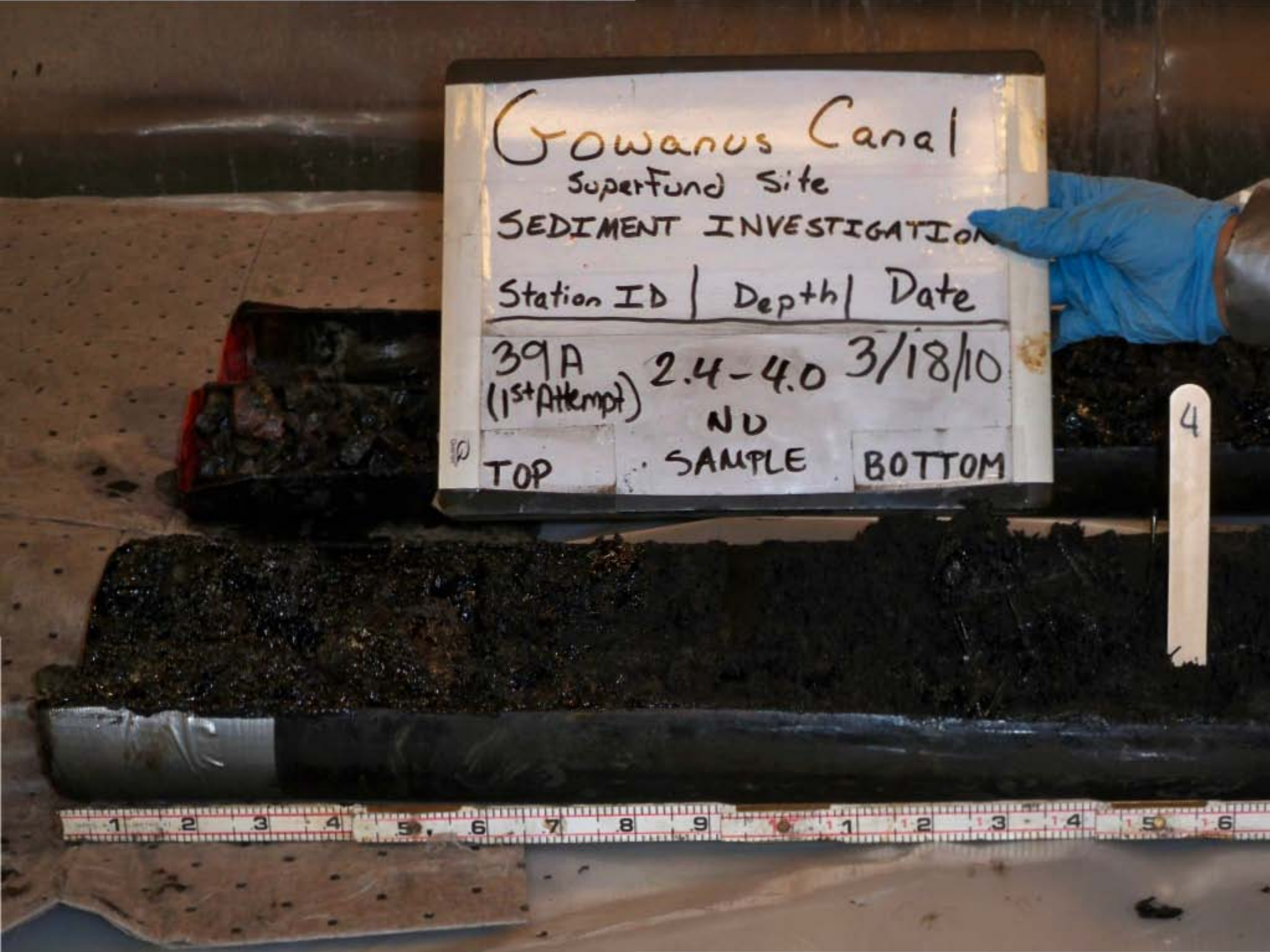

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B (2nd Attempt) 2.6-3.1' 4/13/10
Sample #2
TOP
BOTTOM

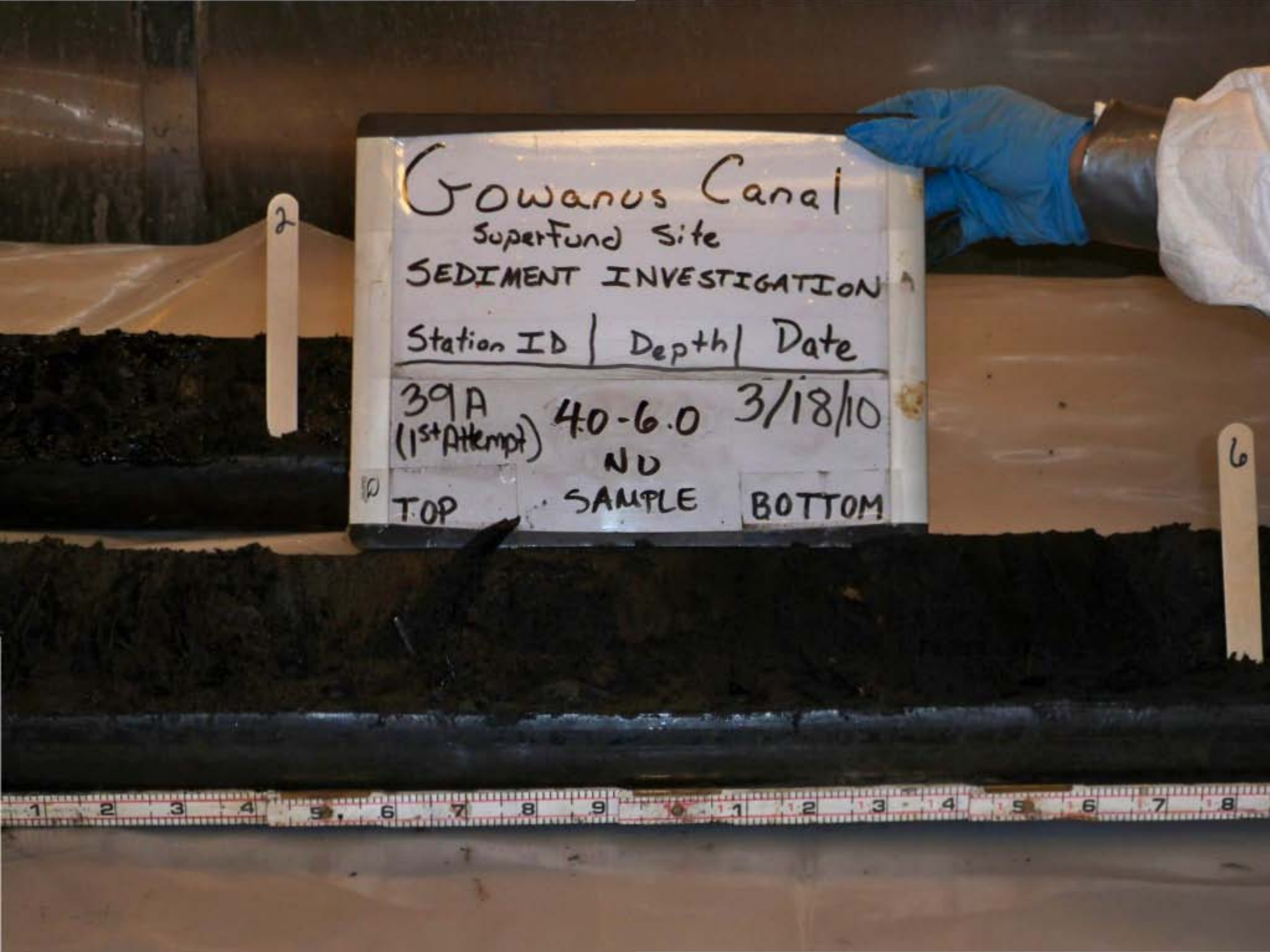

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B FULL 4/13/10
(2nd Attempt) RECOVERY
TOP
BOTTOM


2
4
6
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A FULL 3/18/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A 0-2 3/18/10
NO
SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A (1st Attempt) 2.0-24 3/18/10
NO SAMPLE
TOP
BOTTOM
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A (1st Attempt) 2.4-4.0 3/18/10
ND
TOP
SAMPLE
BOTTOM
4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A (1st Attempt) 4.0-6.0 3/18/10
ND
TOP SAMPLE BOTTOM
2
6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A (1st Attempt) 6.0-6.4 3/18/10
Transition Zone @ 6-6.1
TOP
NO SAMPLE
BOTTOM
6
6.1 TZ
6.4 DUP

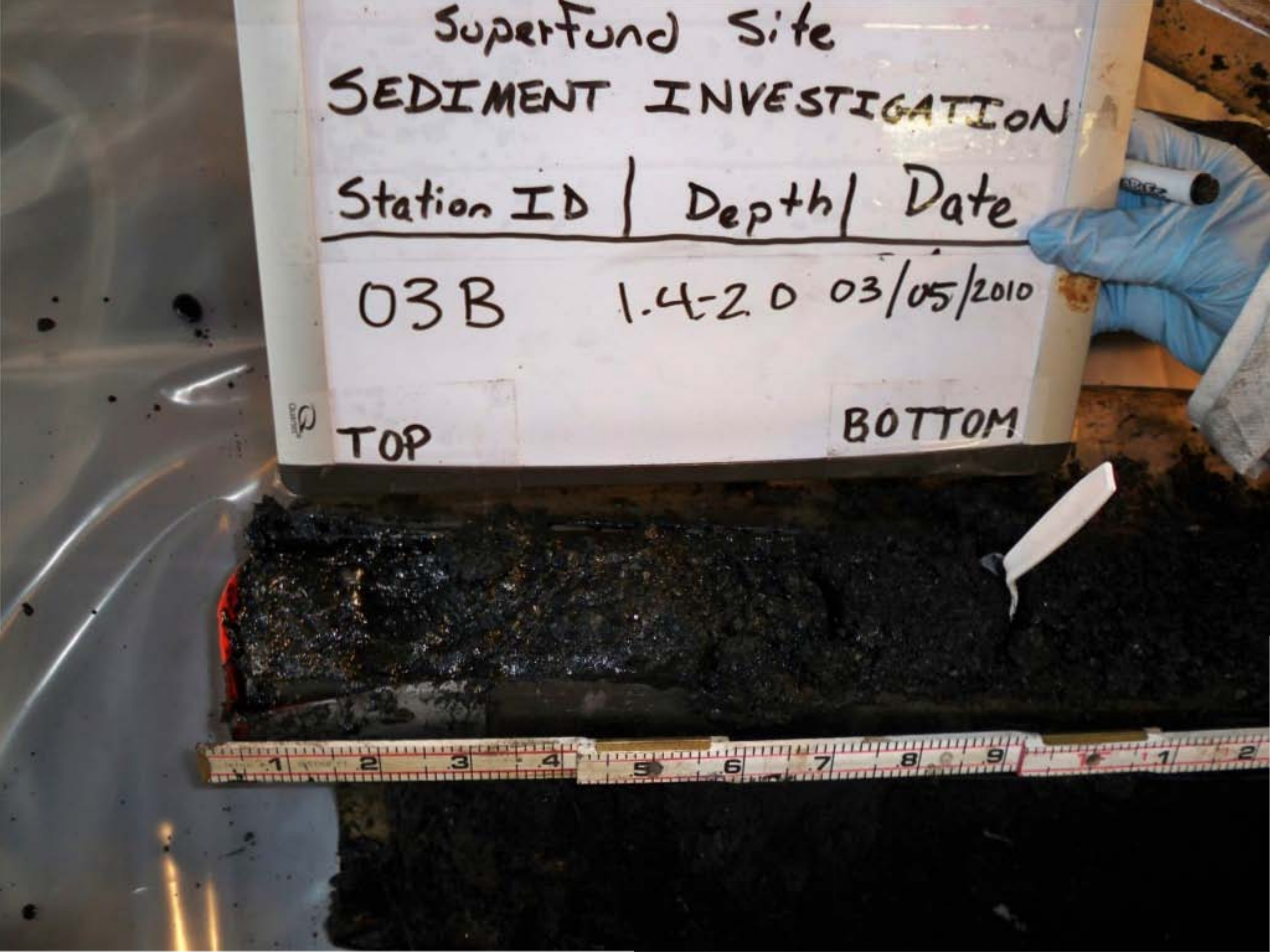

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A (1st Attempt) FULL RECOVERY 3/18/10
TOP
BOTTOM

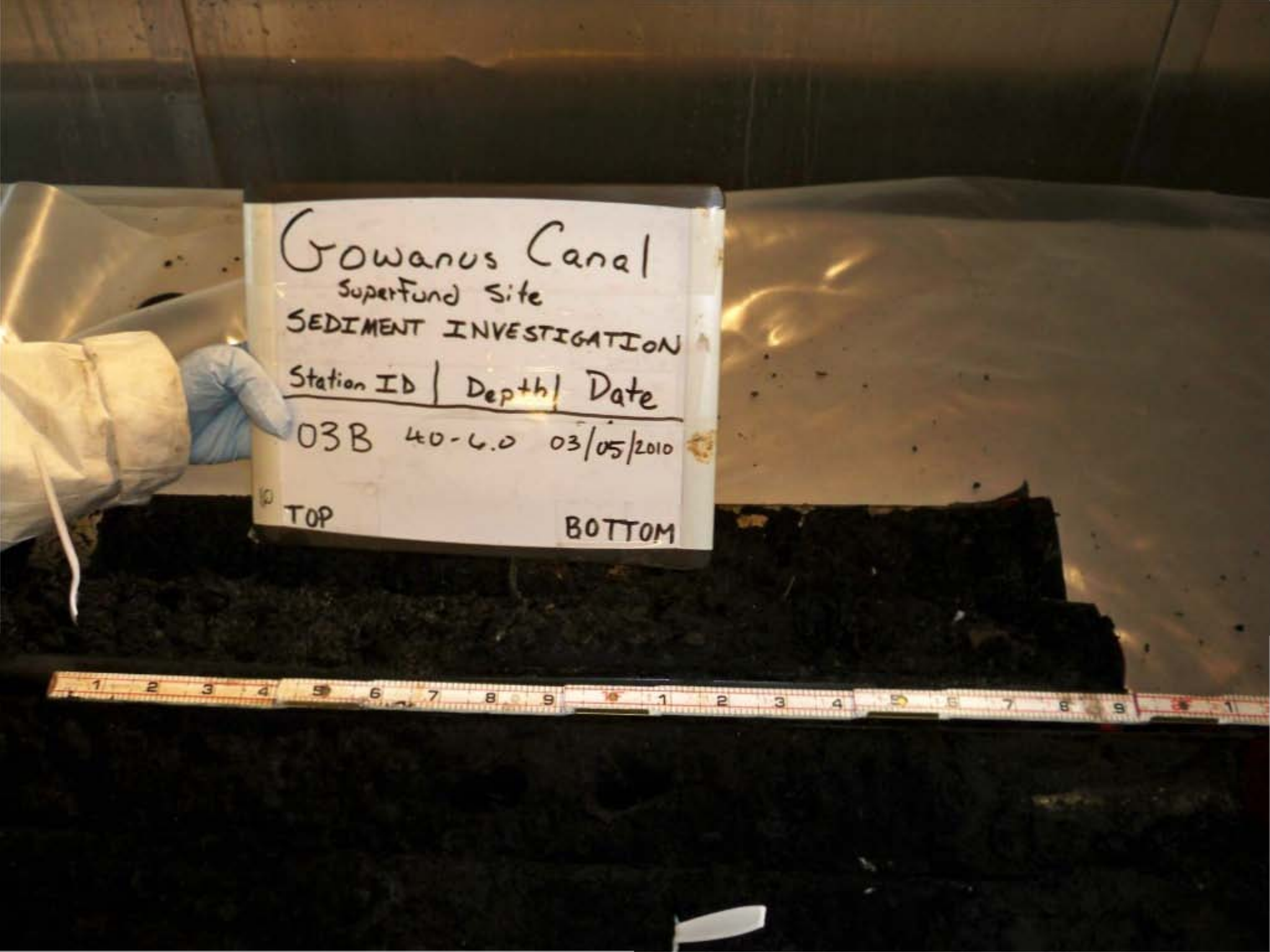

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B Full Recovery 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B 0-1.4 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B 10.0-11.0 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B 2.0-4.0 03/05/2010
TOP
BOTTOM


SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B 1.4-2.0 03/05/2010
TOP
BOTTOM

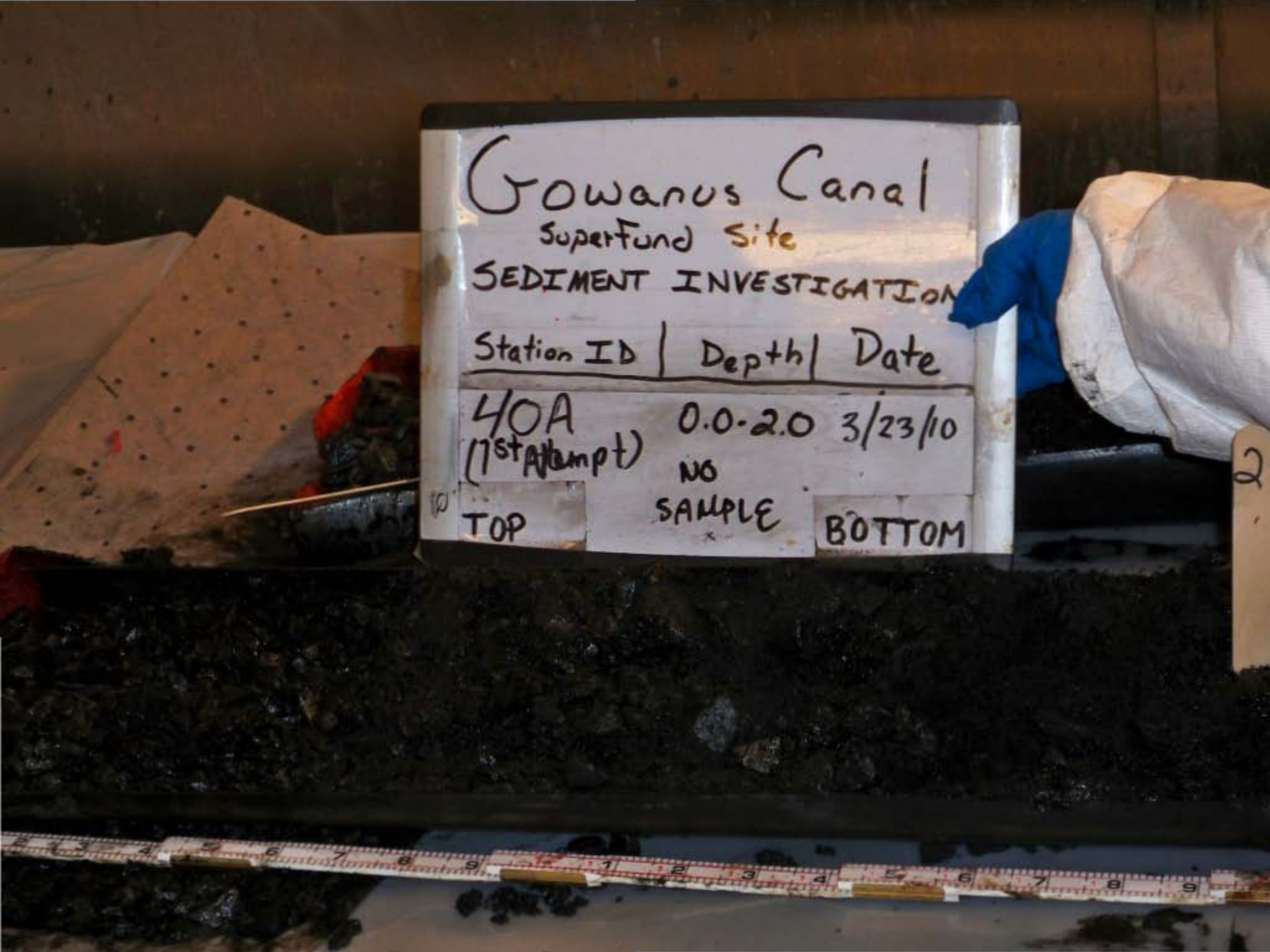

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B 40-6.0 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B 6.0-8.0 03/05/2010
TOP
BOTTOM

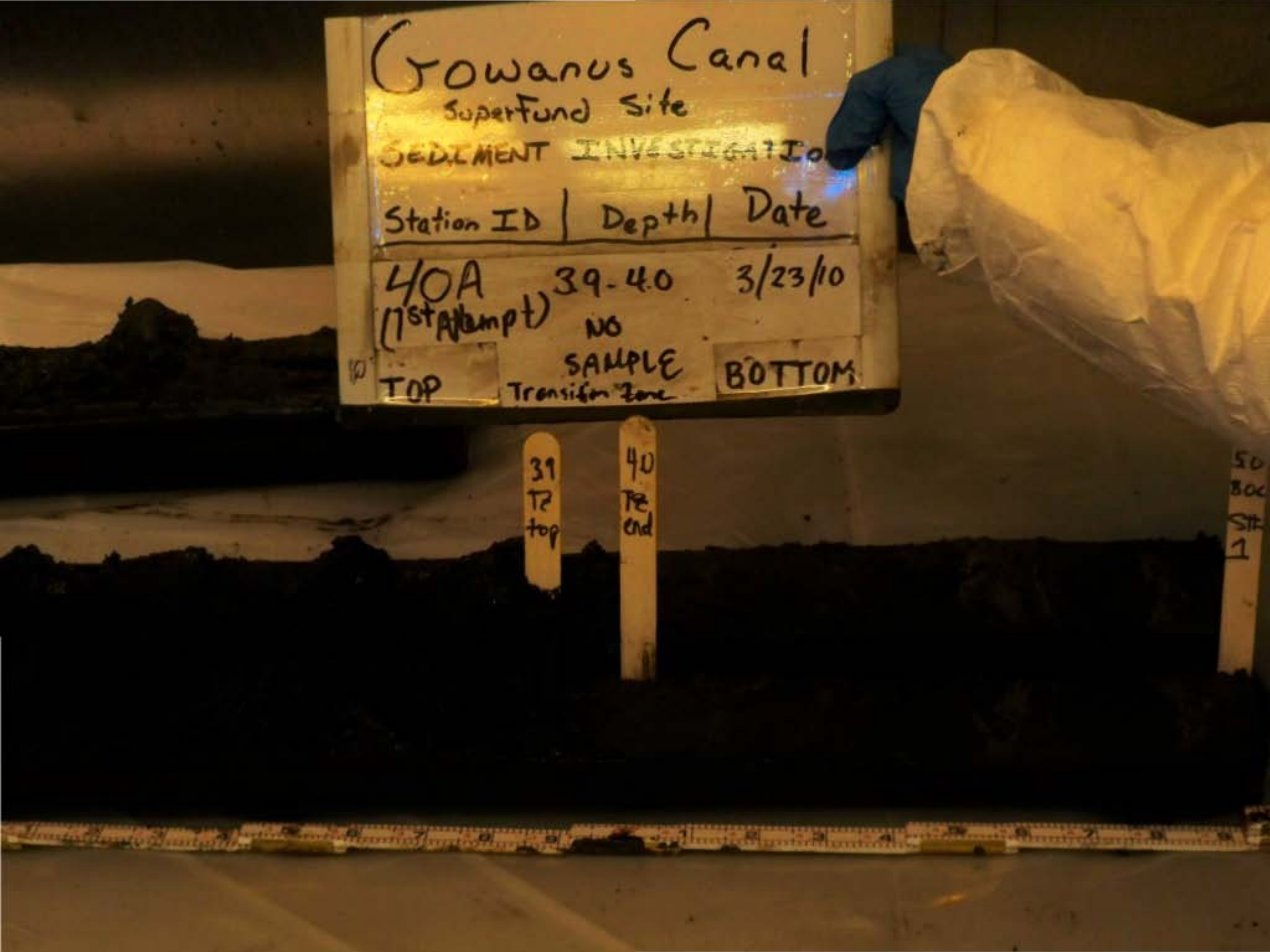

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B 8.0 - 10.0 03/05/2010
TOP
BOTTOM

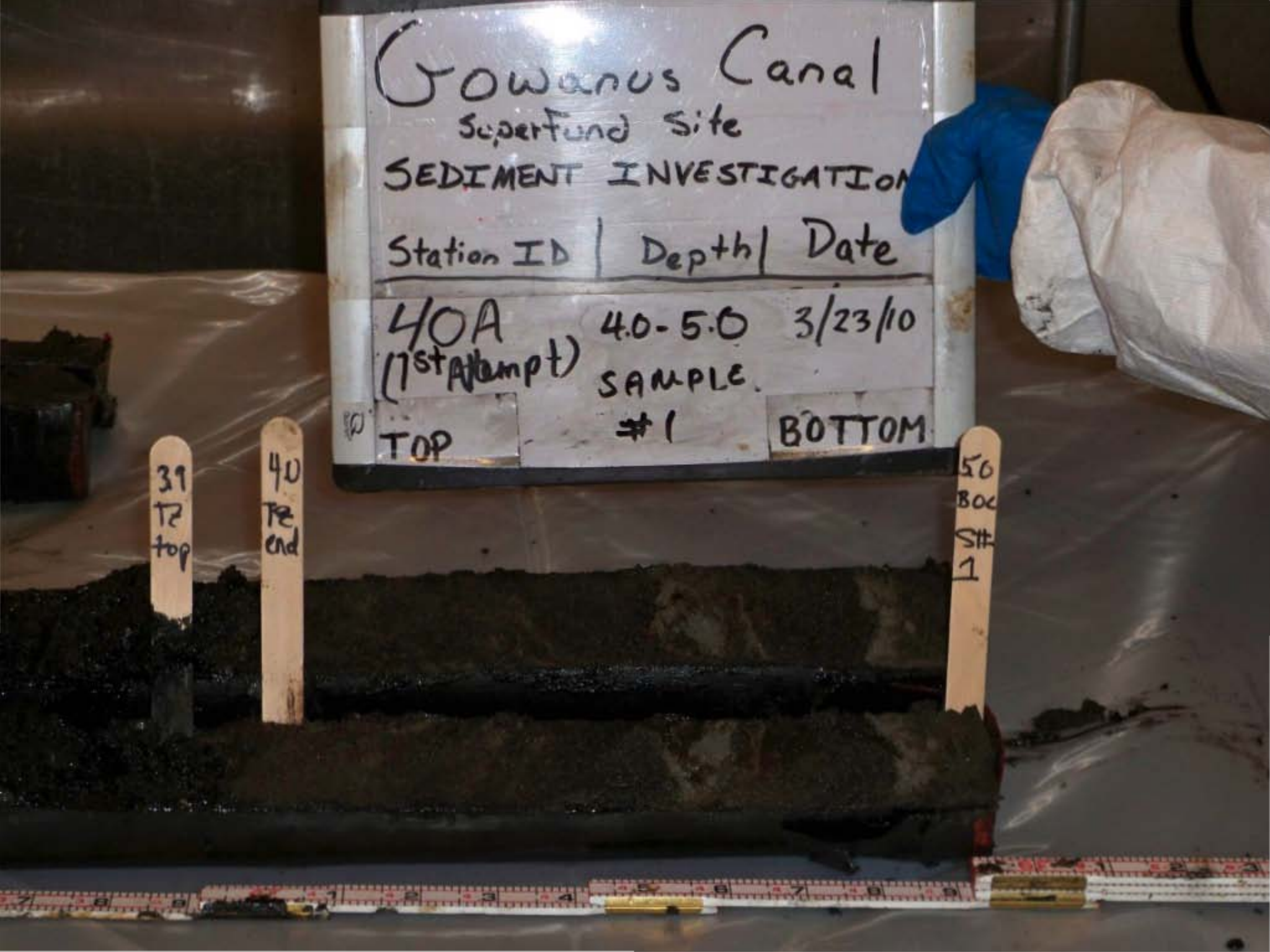

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
03B Full Recovery 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
40A (1st Attempt) FULL RECOVERY 3/23/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
40A (1st Attempt) 0.0-2.0 3/23/10
NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
40A (1st Attempt) 20-3.9 3/23/10
NO SAMPLE
TOP
BOTTOM

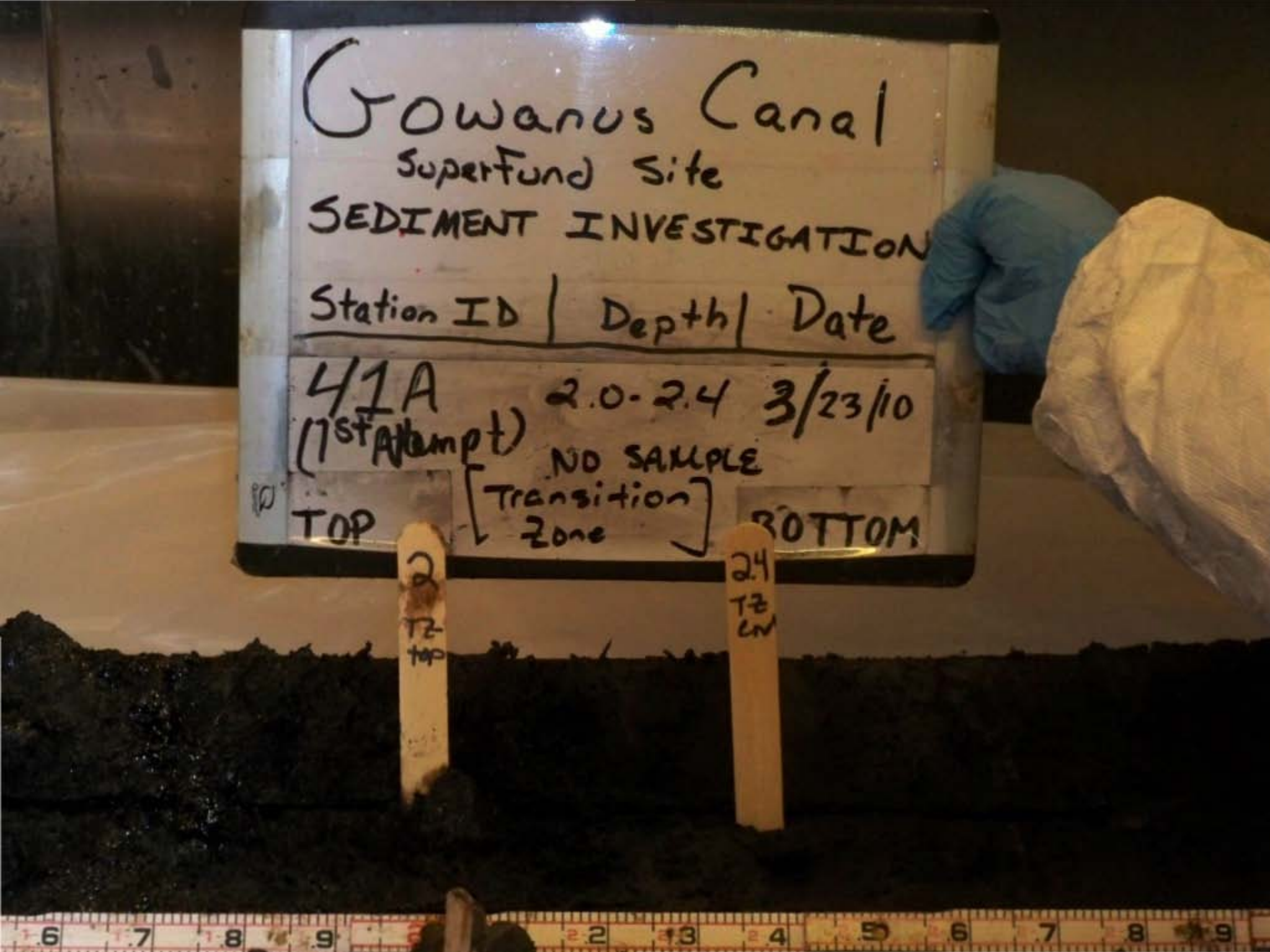

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
40A (1st Attempt) 39-40 3/23/10
NO SAMPLE
TOP
Transition Zone
BOTTOM
39 TZ top
40 TZ end


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
40A (1st Attempt) 4.0-5.0 3/23/10
SAMPLE #1
TOP
BOTTOM
39 TZ top
40 TZ end
50 BOC SH 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
40A (1st Attempt) FULL RECOVERY 3/23/10
TOP
BOTTOM

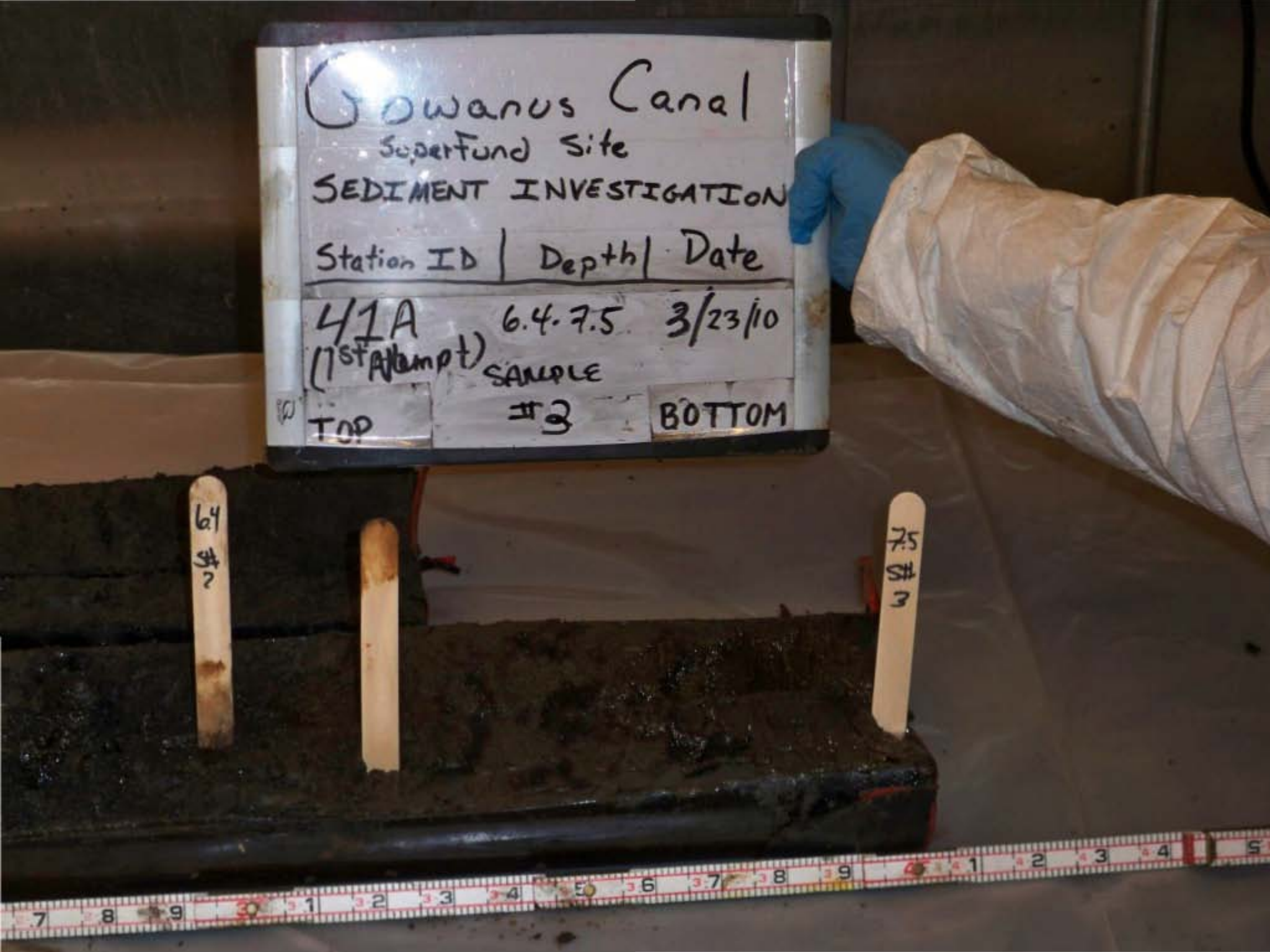

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A (1st Attempt) FULL Recovery 3/23/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A (1st Attempt) 0-2 3/23/10
NO SAMPLE
TOP
BOTTOM
4.4

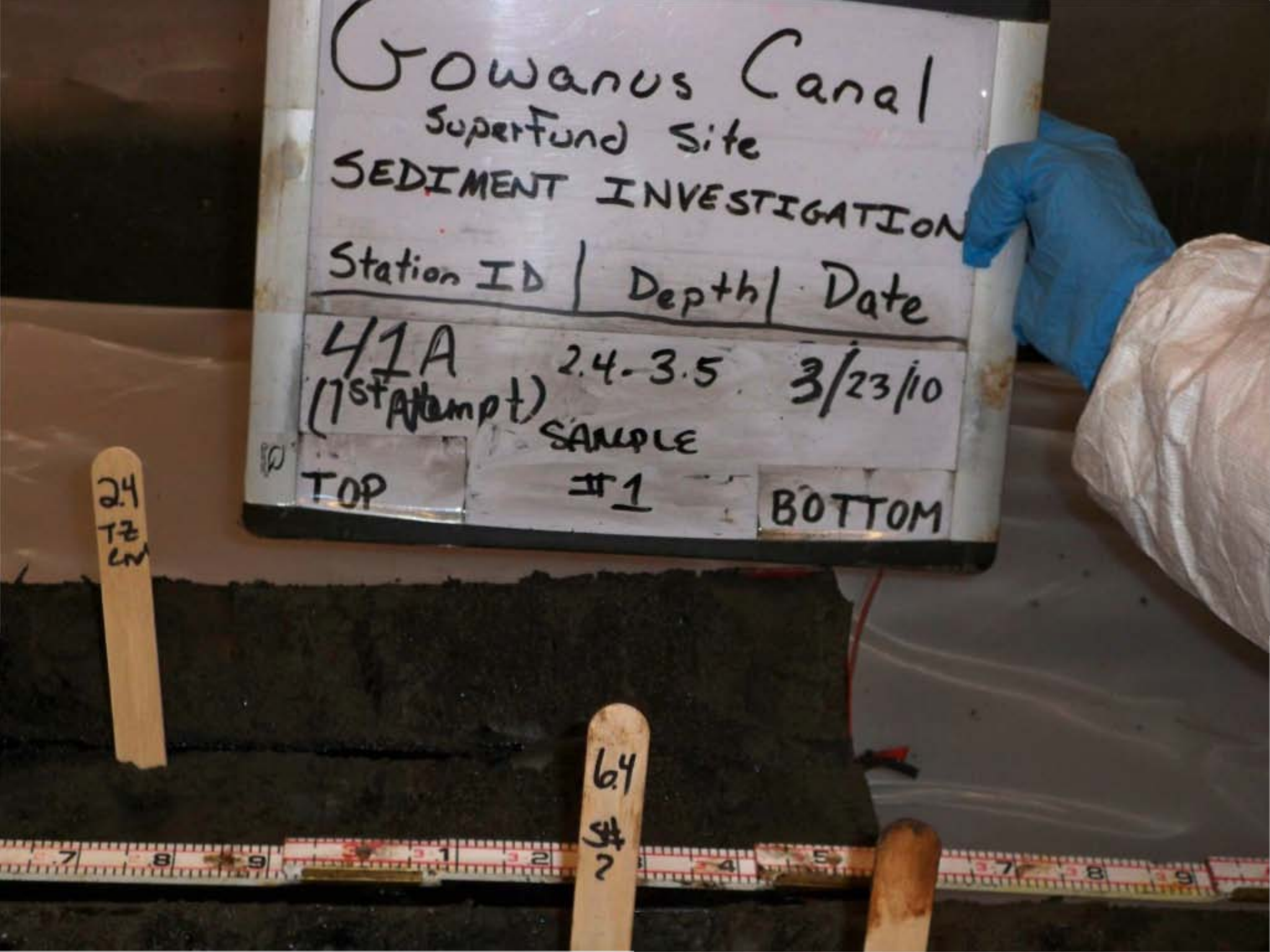

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A (1st Attempt) 2.0-2.4 3/23/10
NO SAMPLE
[Transition Zone]
TOP
BOTTOM
2
TZ top
24
TZ bot

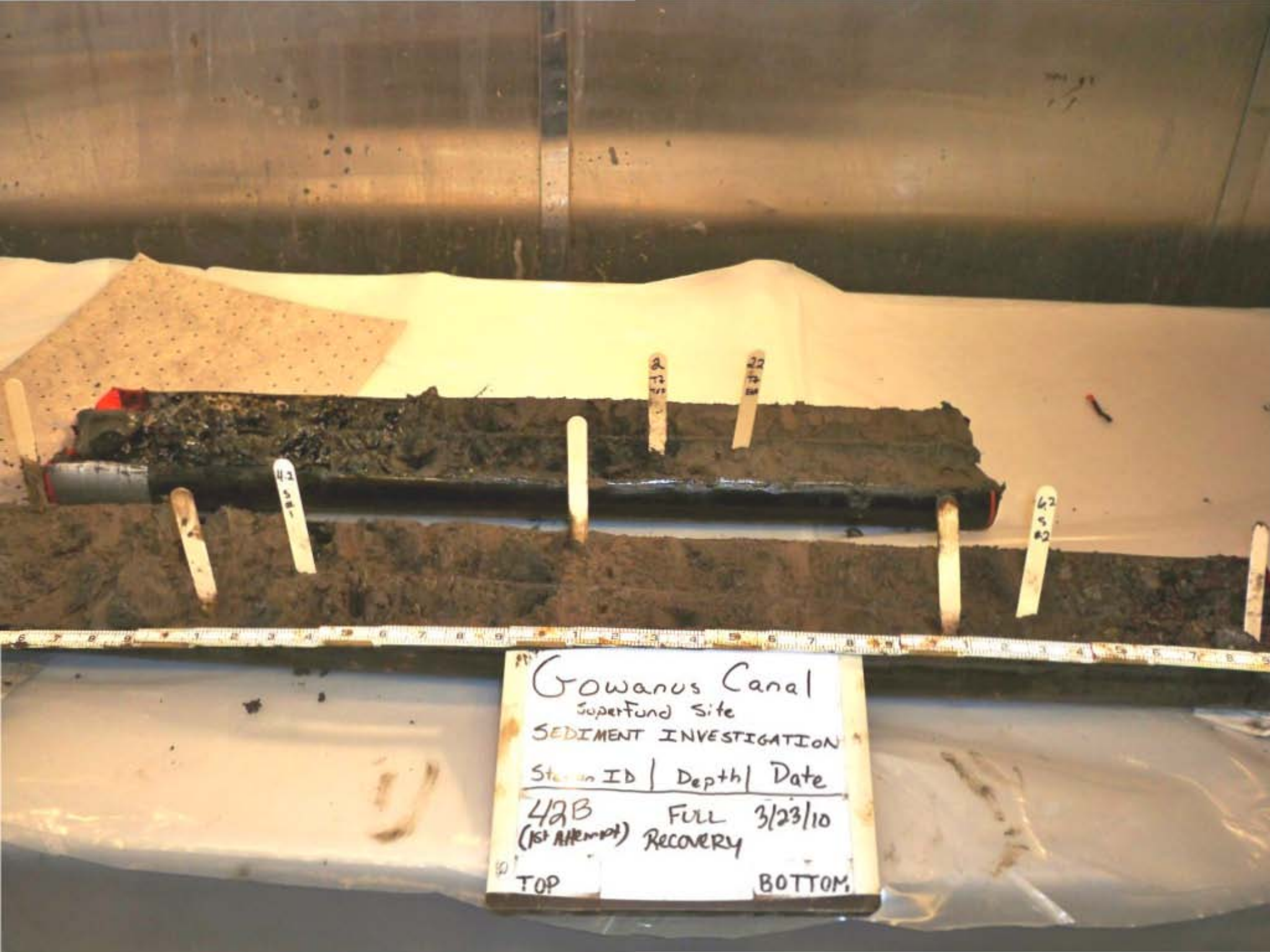

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A (1st Attempt) 3.5 4.4 3/23/10
SAMPLE #1
TOP
BOTTOM
4.4
S#1

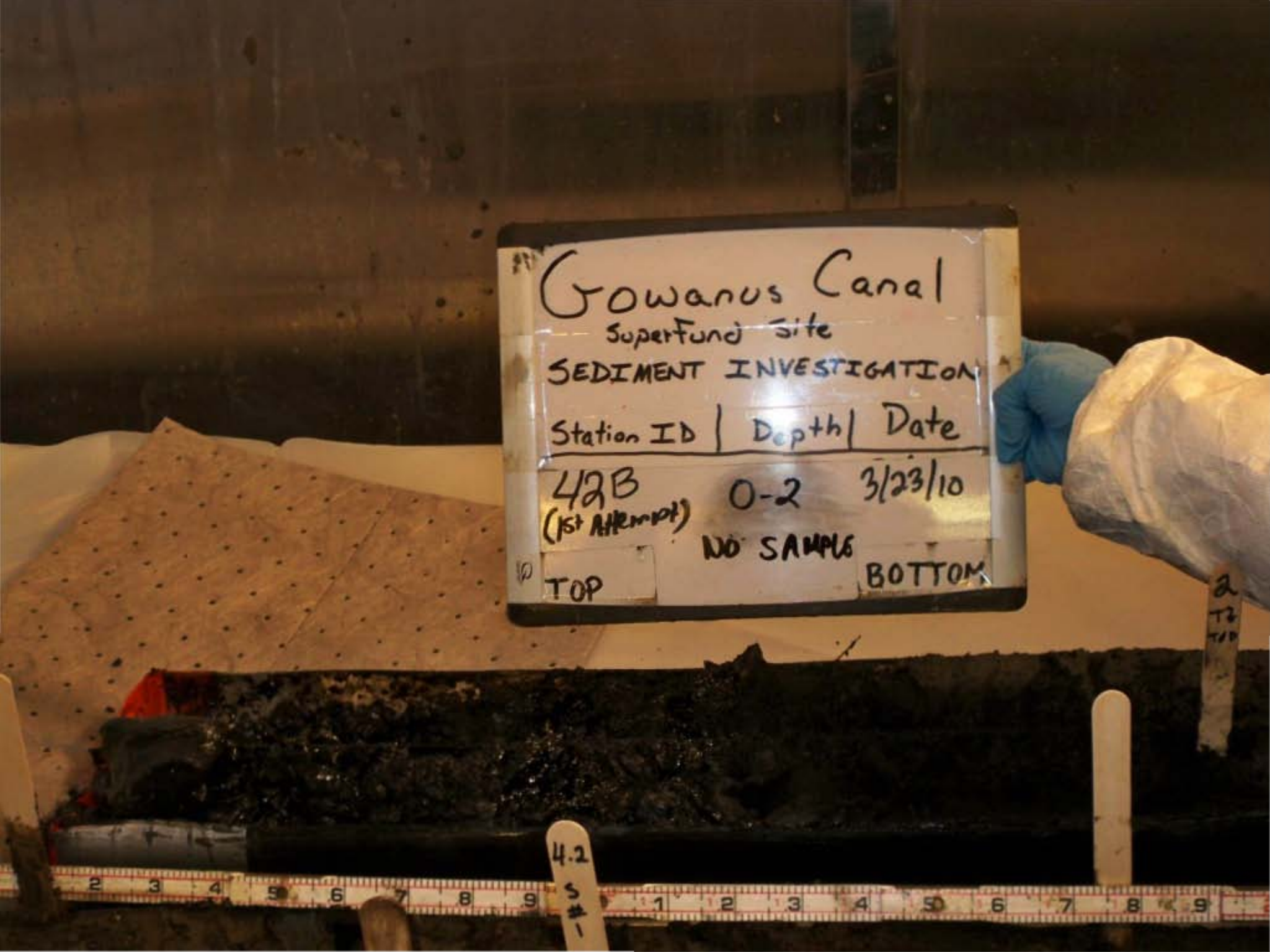

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A (1st Attempt) 4.4-6.4 3/23/10
SAMPLE #2
TOP
BOTTOM
64 #2

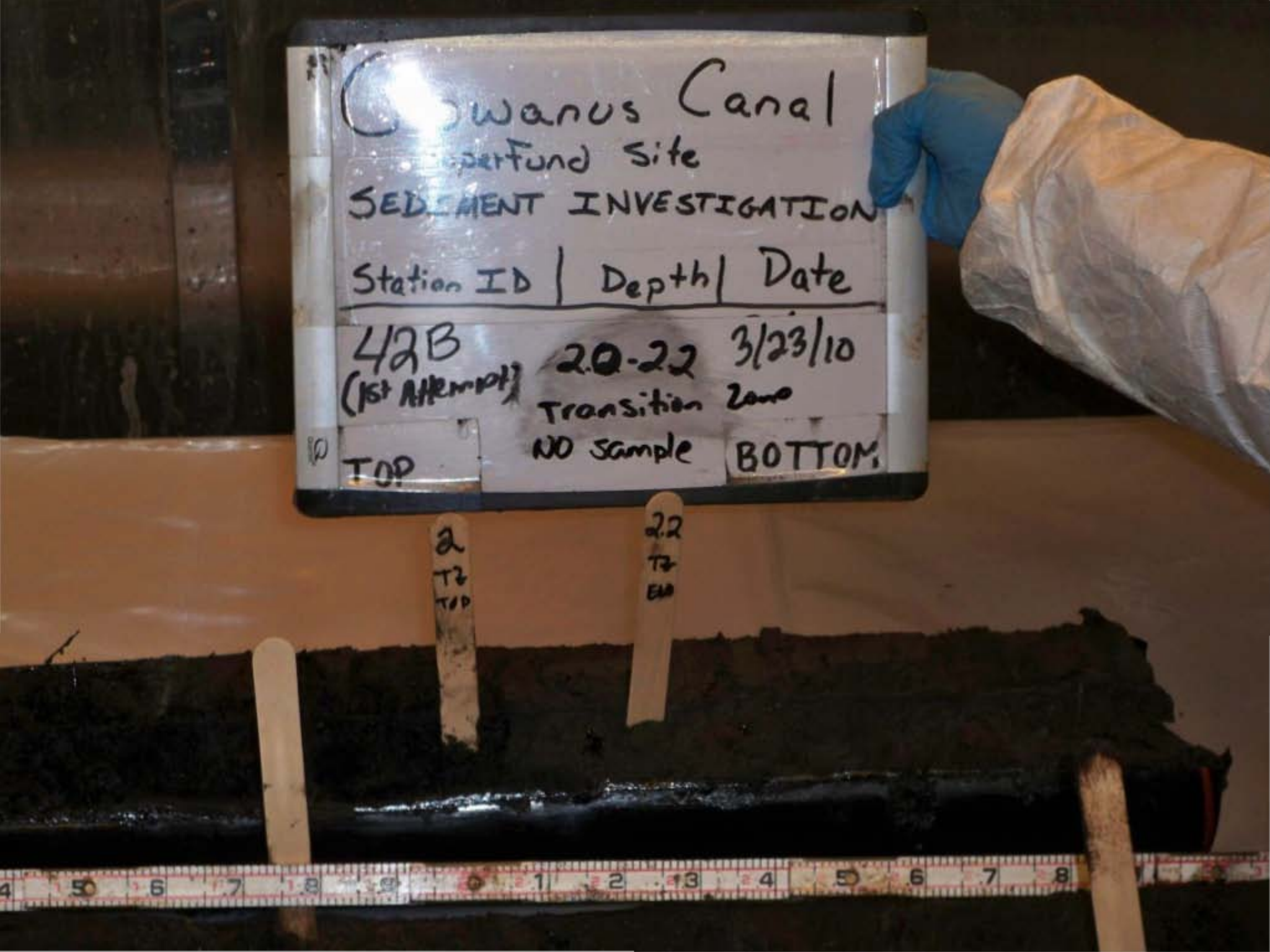

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A 6.4-7.5 3/23/10
(1st Attempt) SAMPLE
TOP #3 BOTTOM
6.4 S#2
7.5 S#3

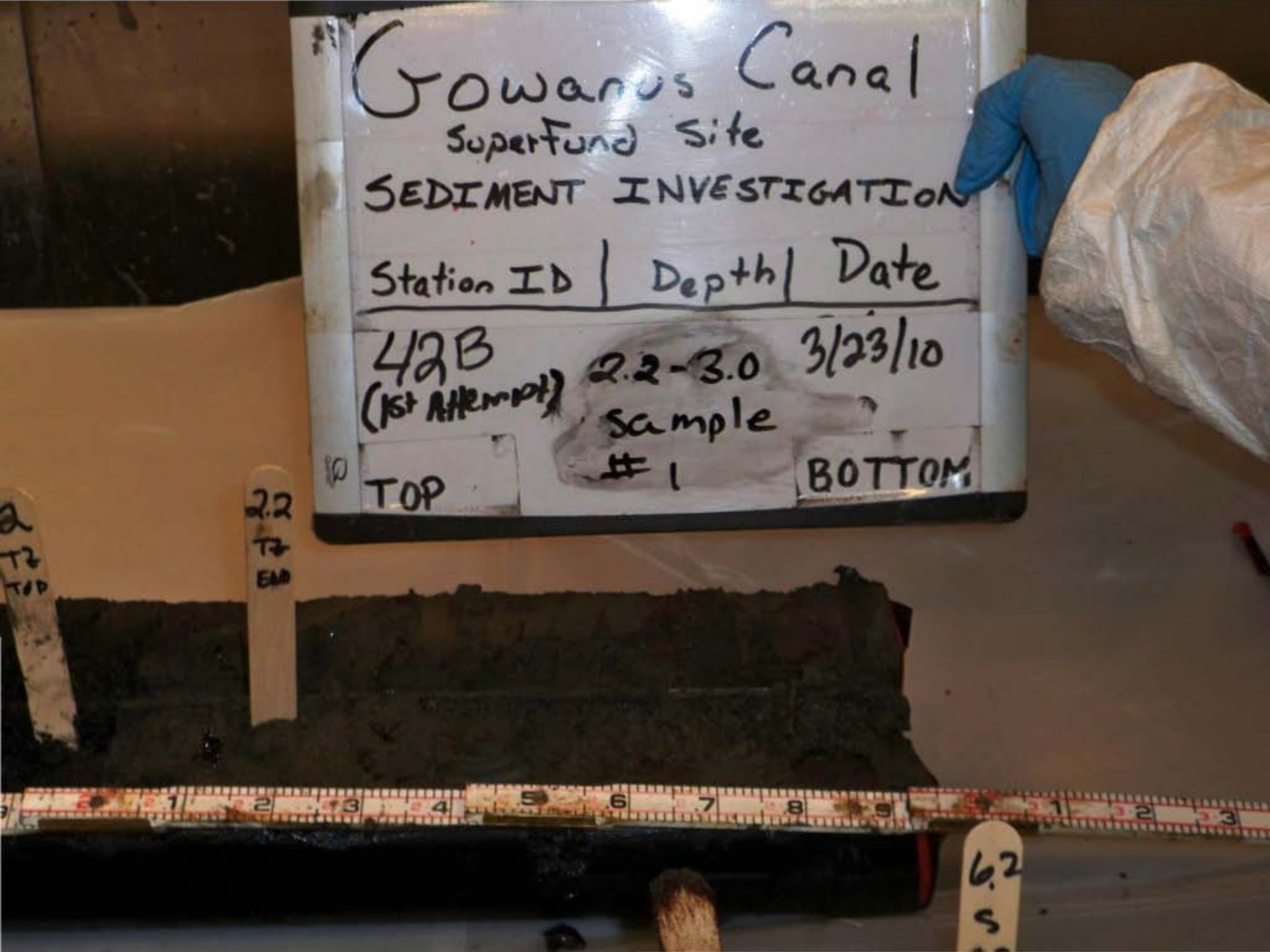

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A (1st Attempt) FULL Recovery 3/23/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A 2.4-3.5 3/23/10
(1st Attempt)
SAMPLE
#1
TOP
BOTTOM
2.4
TZ
CM
6.4
#2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
42B FULL 3/23/10
(1st ATTEMPT) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
42B (1st Attempt) 0-2 3/23/10
NO SAMPLE
TOP
BOTTOM
4.2
S
#1

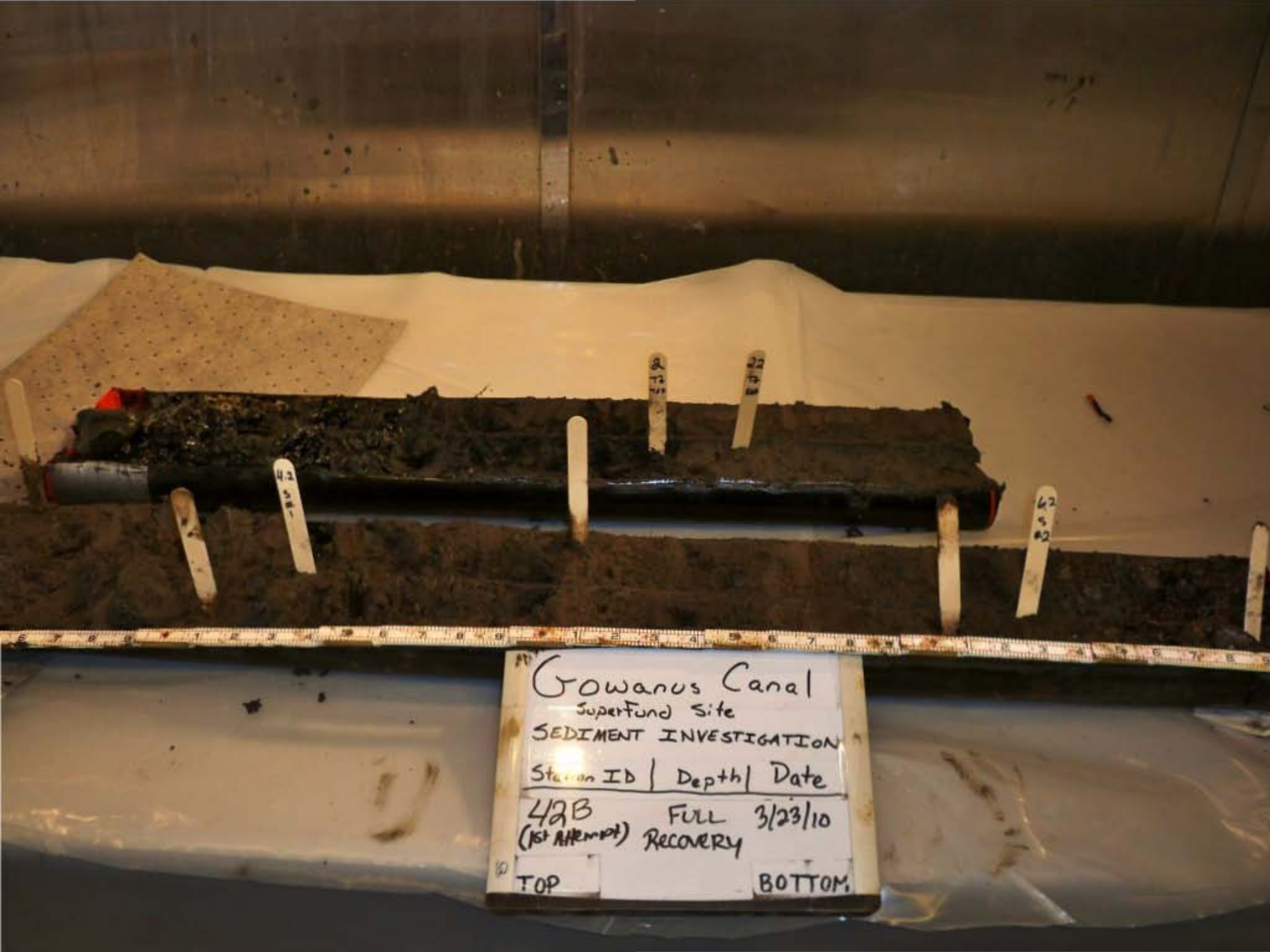

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
42B (1st Attempt) 20-22 3/23/10
Transition Zone
NO sample
TOP
BOTTOM
2 TZ TOP
22 TZ END

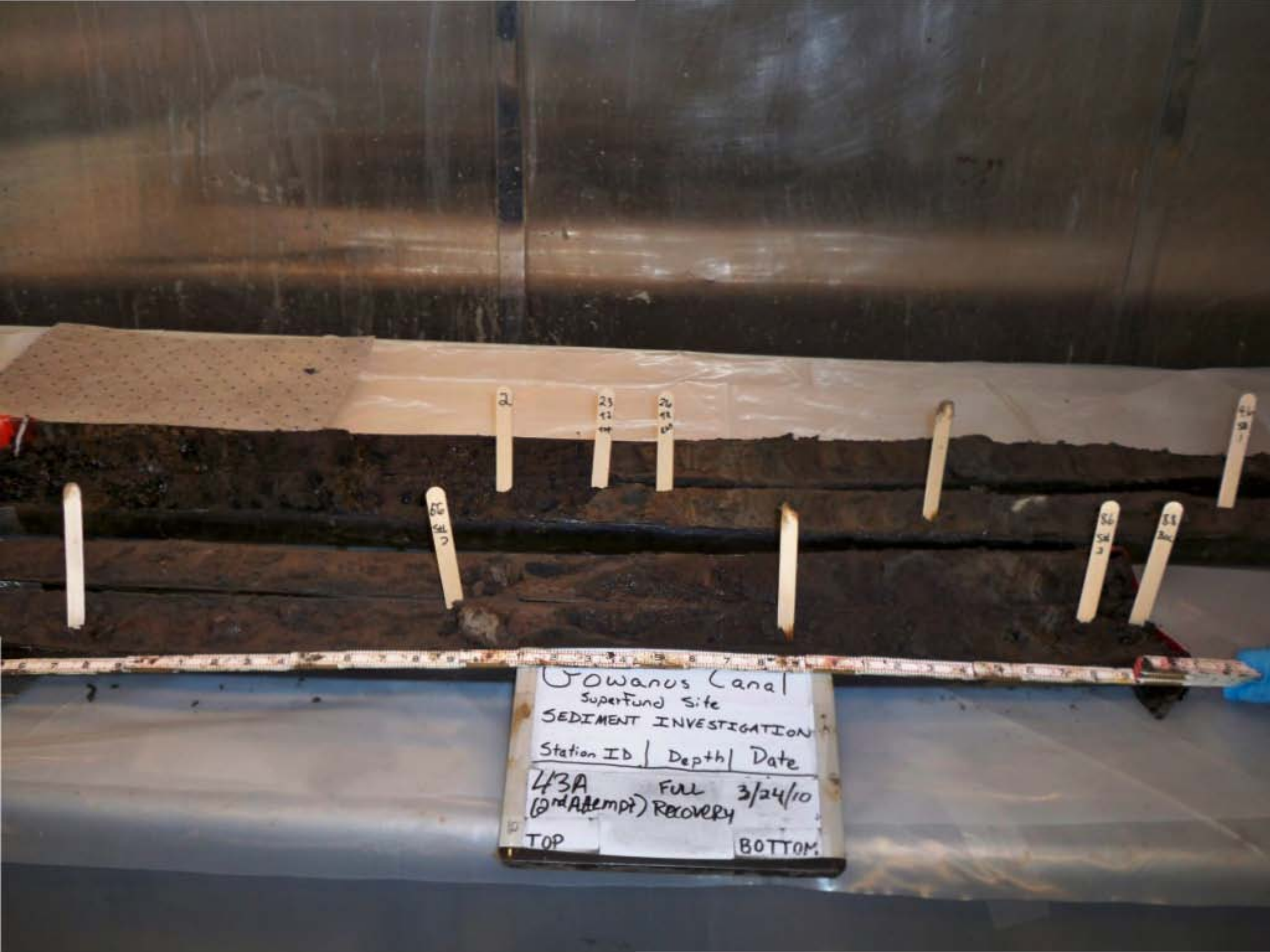

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
42B (1st Attempt) 2.2-3.0 3/23/10
sample #1
TOP
BOTTOM
2.2 T2 END
T2 TOP
6.2

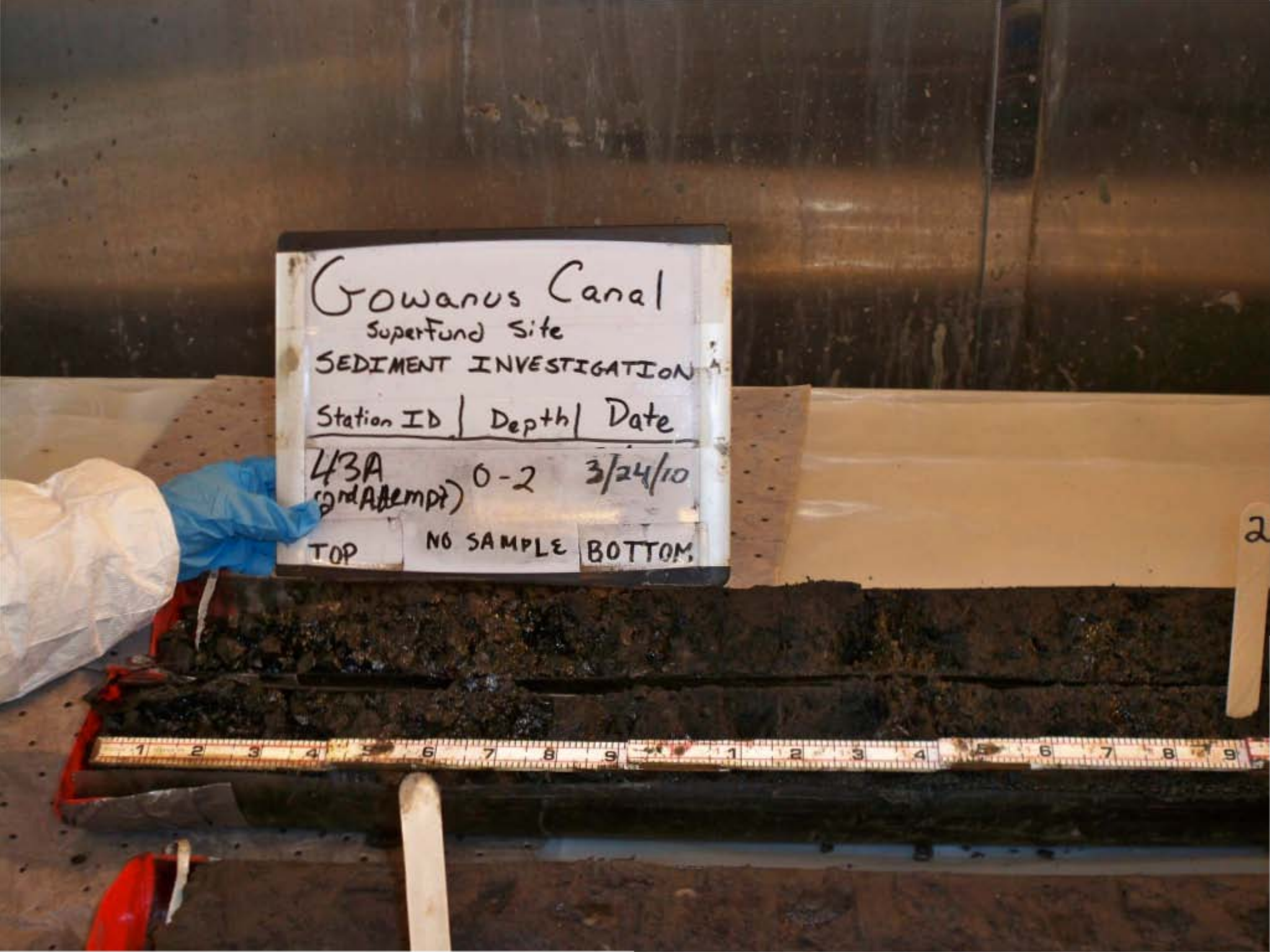

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
42B (1st Attempt) 3.0-4.2 3/23/10
Sample #1
TOP
BOTTOM
4.2 S #1

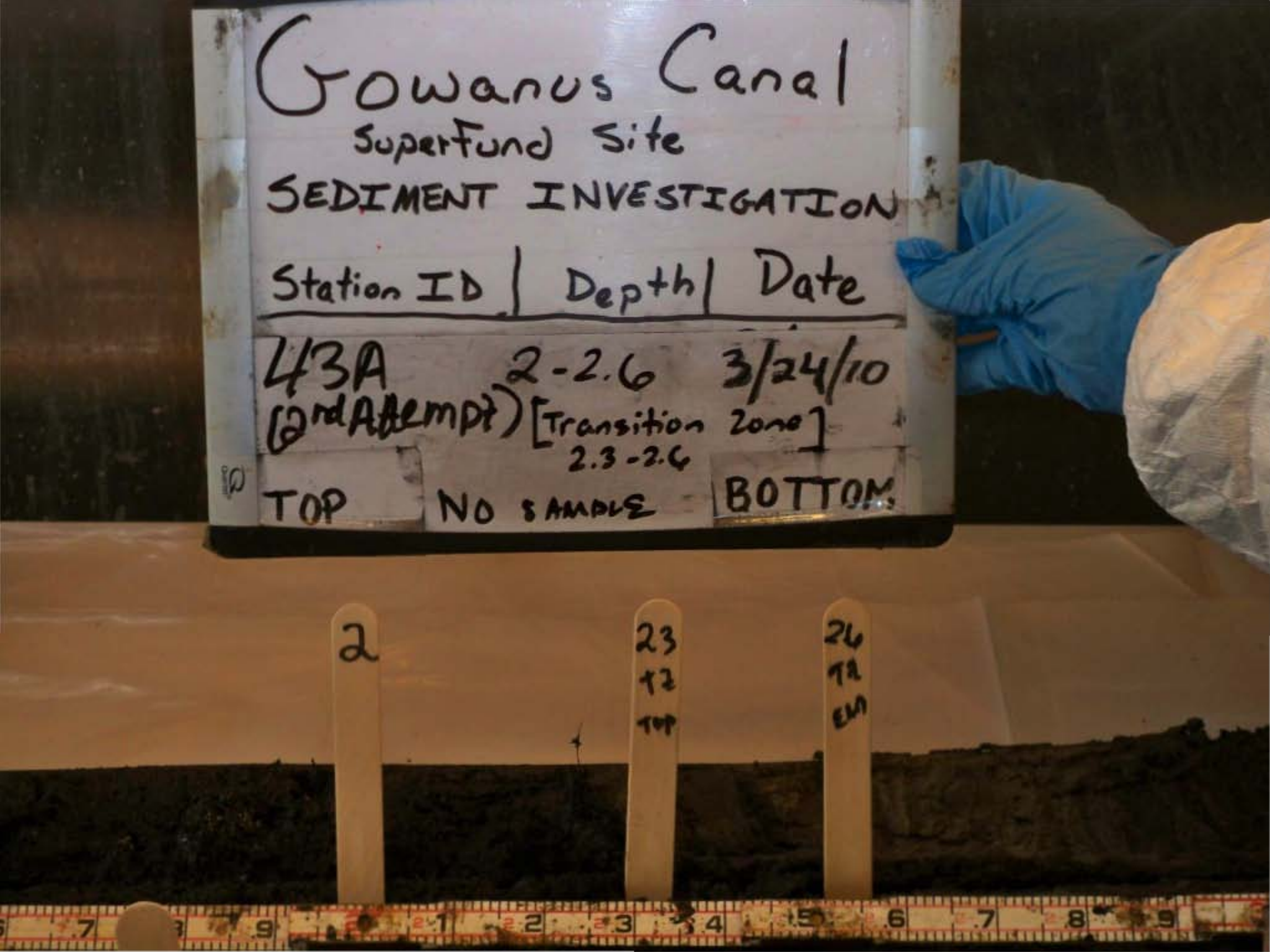

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
423
(1st Attempt)
4.2-6.2
3/23/10
SAMPLE
#2
TOP
BOTTOM
4.2
S#1
6.2
S
#2

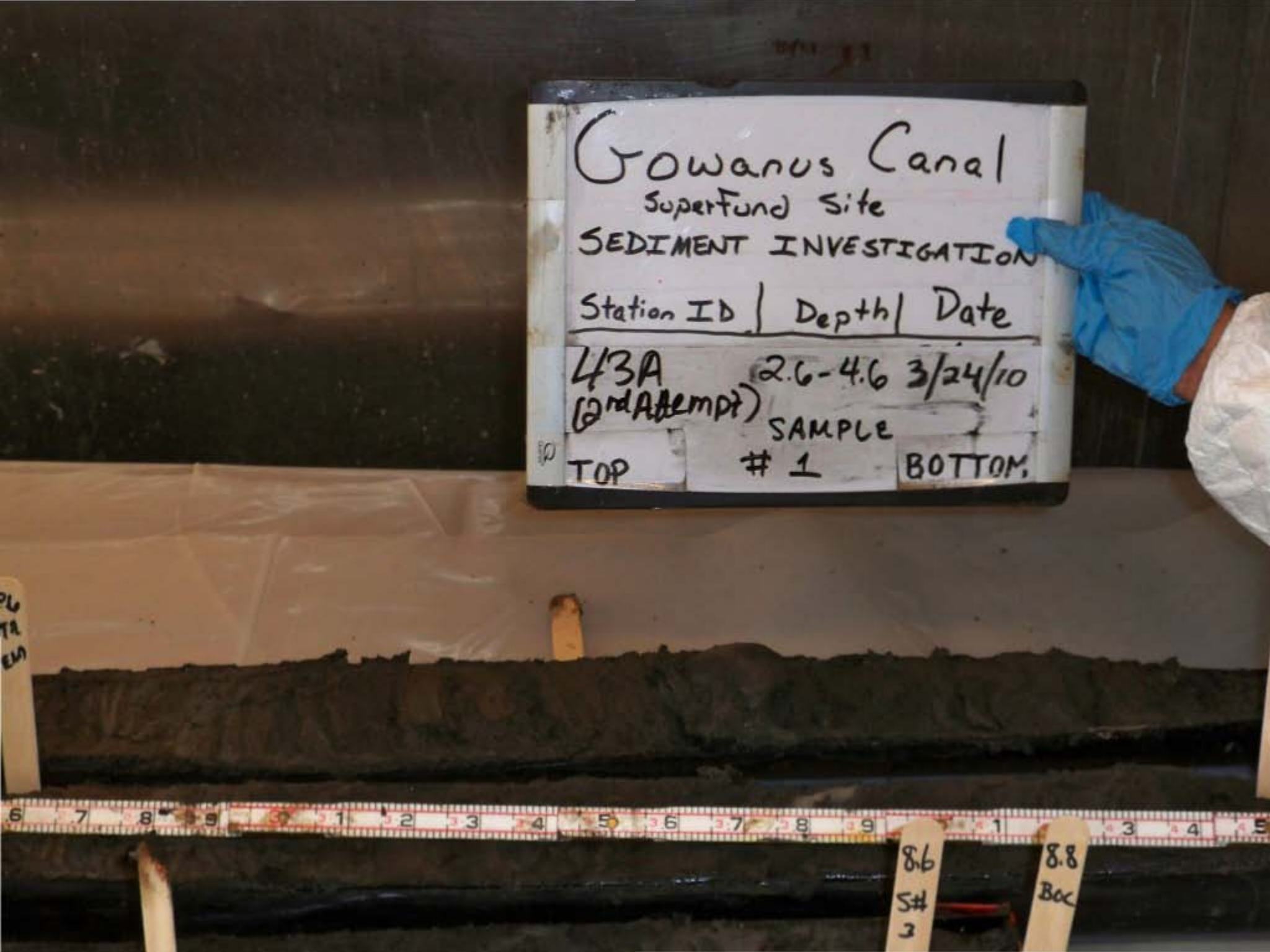

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
42B (1st Attempt) | 6.2-7.0 | 3/23/10
SAMPLE #3
TOP
BOTTOM
6.2 S #2
7.0 S #3 BOC

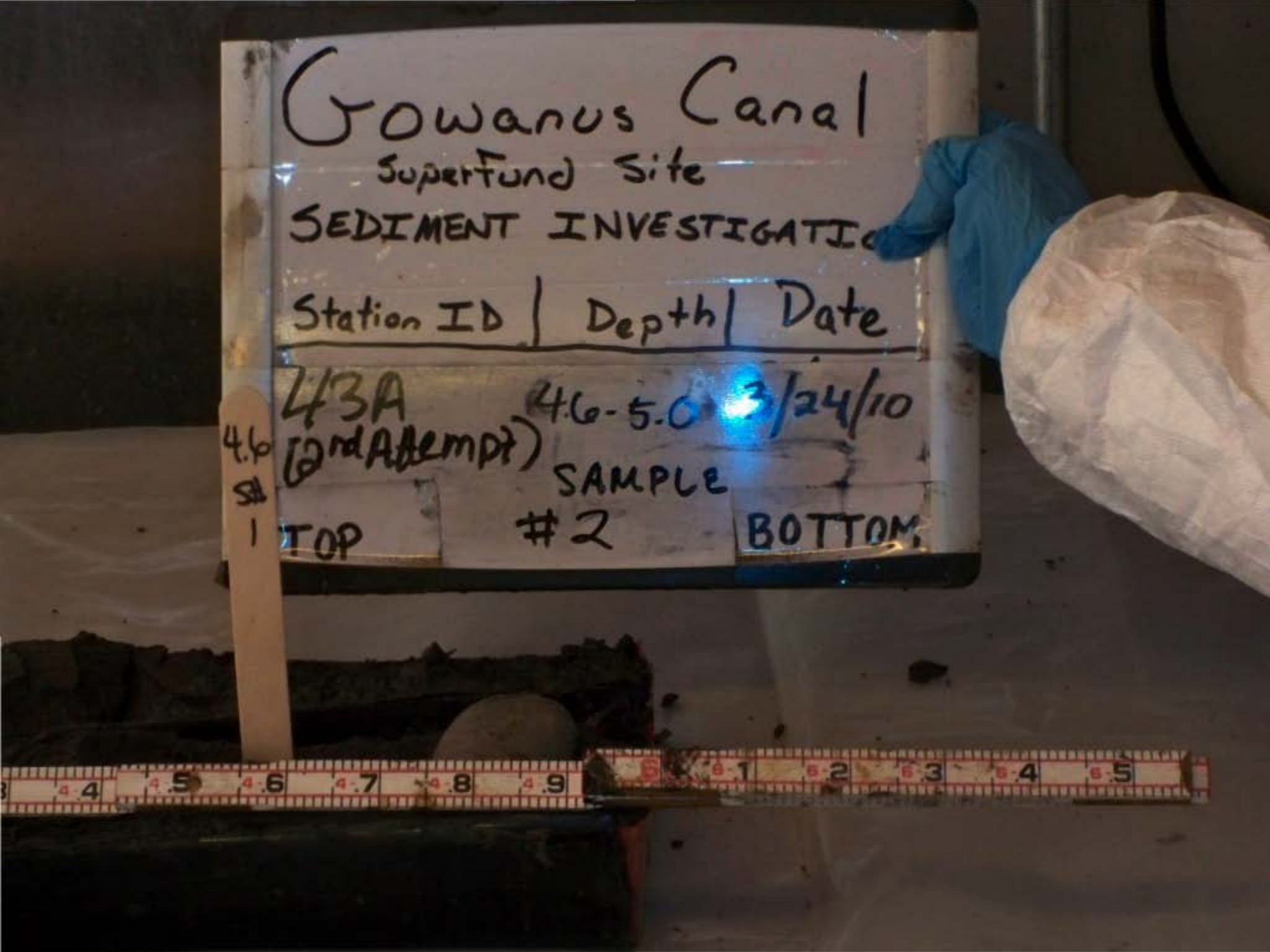

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
42B FULL 3/23/10
(1st Attempt) Recovery
TOP
BOTTOM

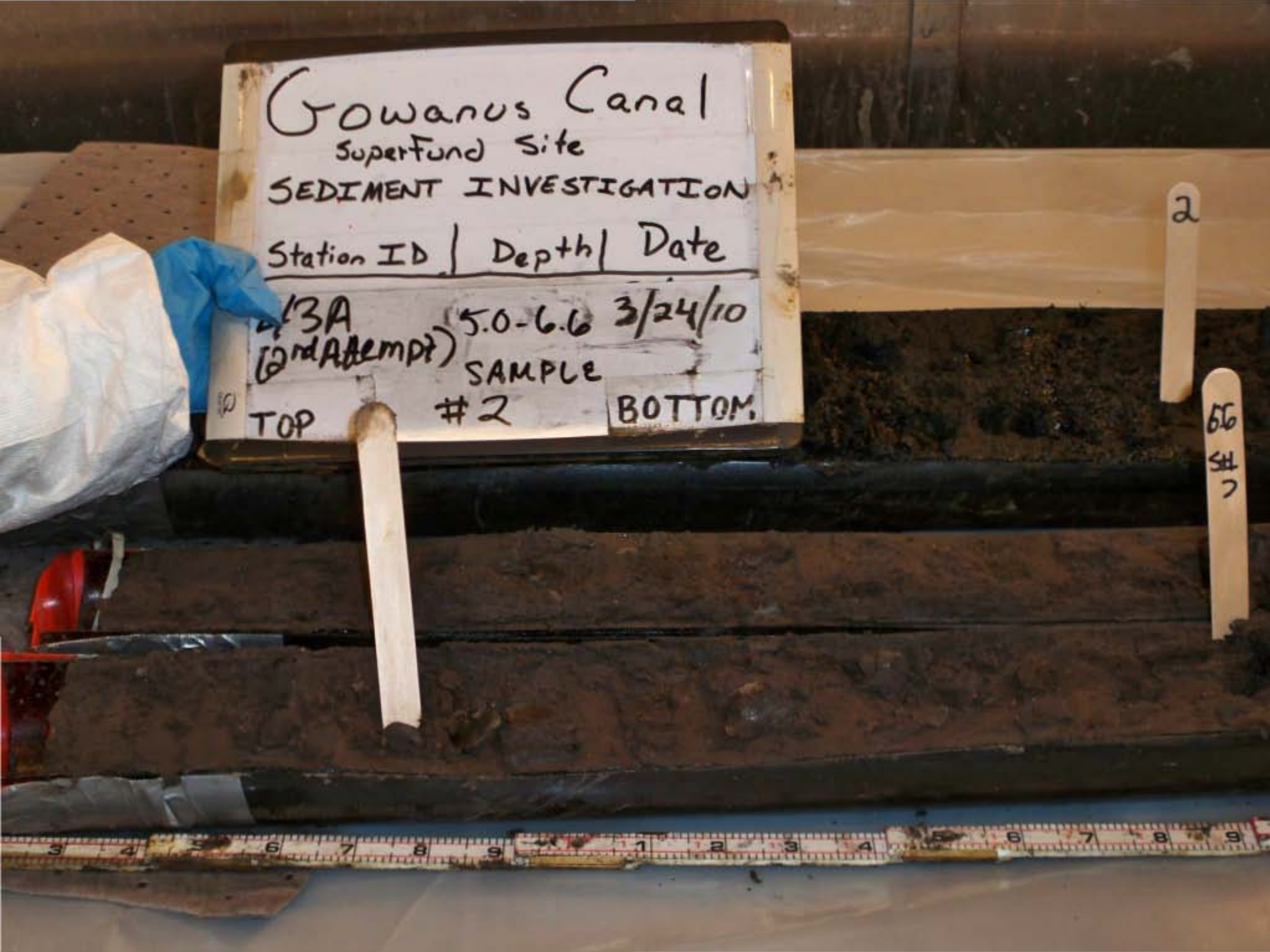

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A (2nd Attempt) FULL RECOVERY 3/24/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A (2nd Attempt) 0-2 3/24/10
TOP
NO SAMPLE
BOTTOM

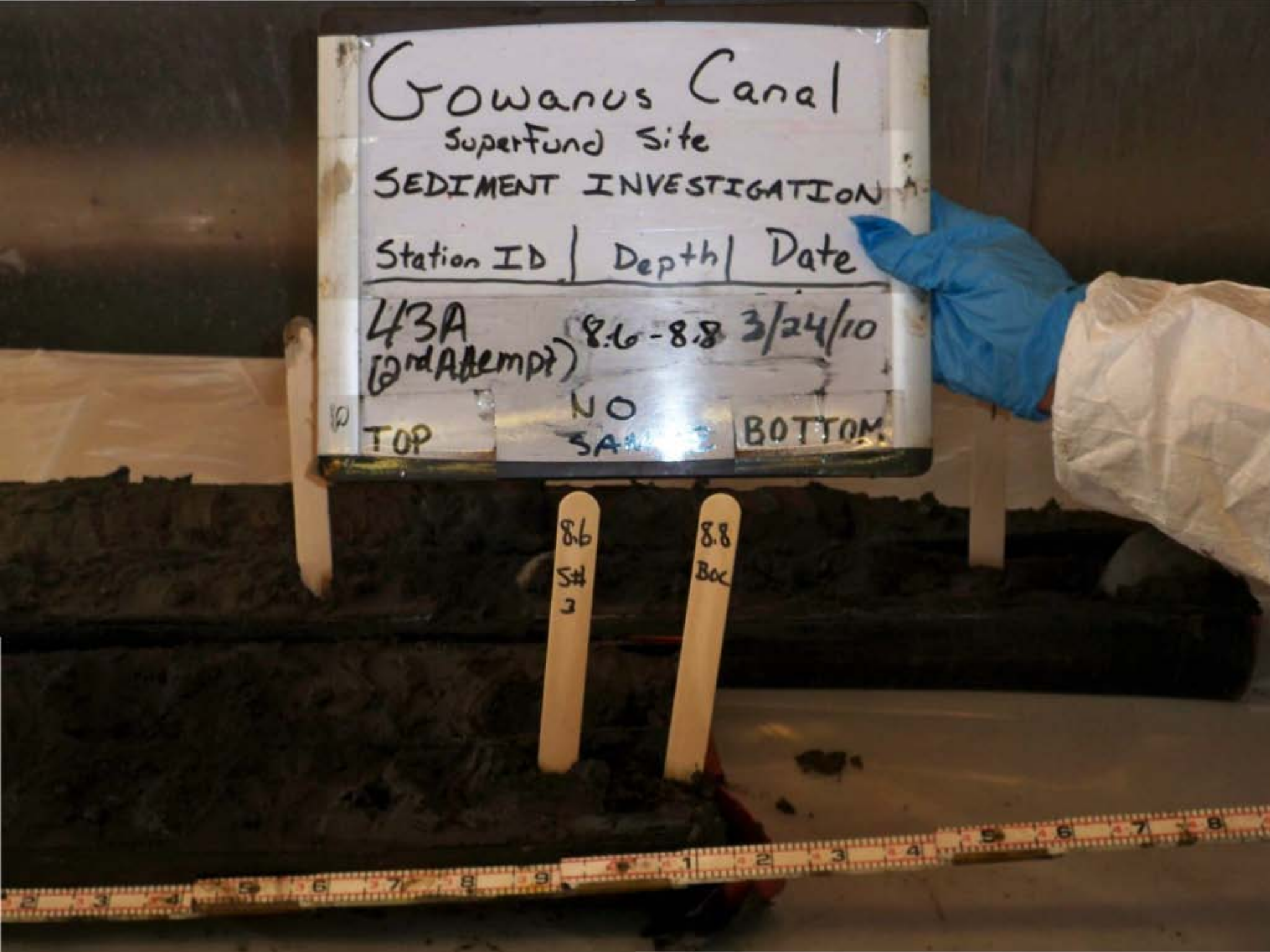

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A 2-2.6 3/24/10
(2nd Attempt) [Transition Zone]
2.3-2.6
TOP NO SAMPLE BOTTOM
2
23
TZ
TOP
26
TZ
BTM

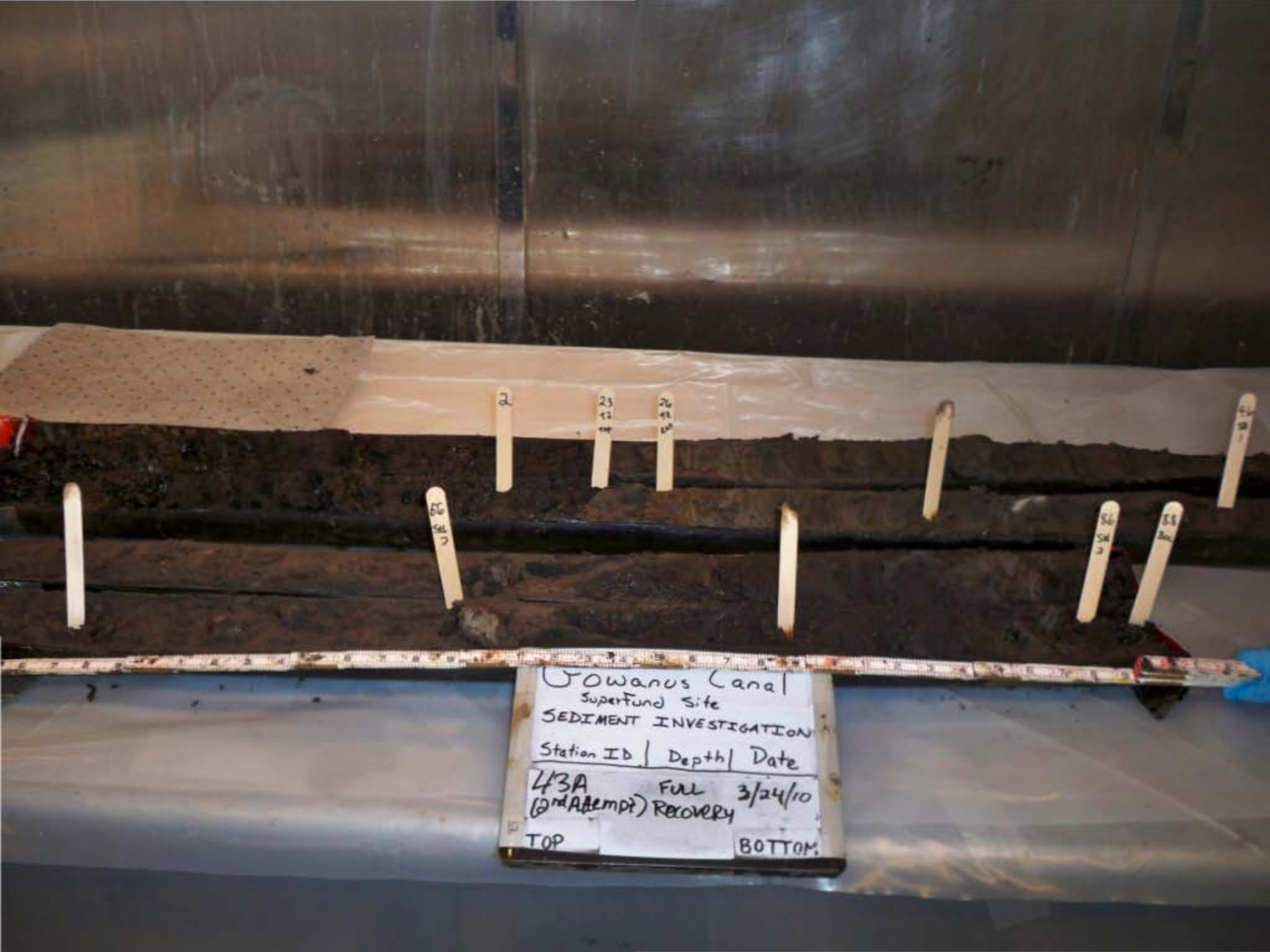

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A (2nd Attempt) 2.6-4.6 3/24/10
SAMPLE
TOP # 1 BOTTOM
8.6
S#
3
8.8
Bac

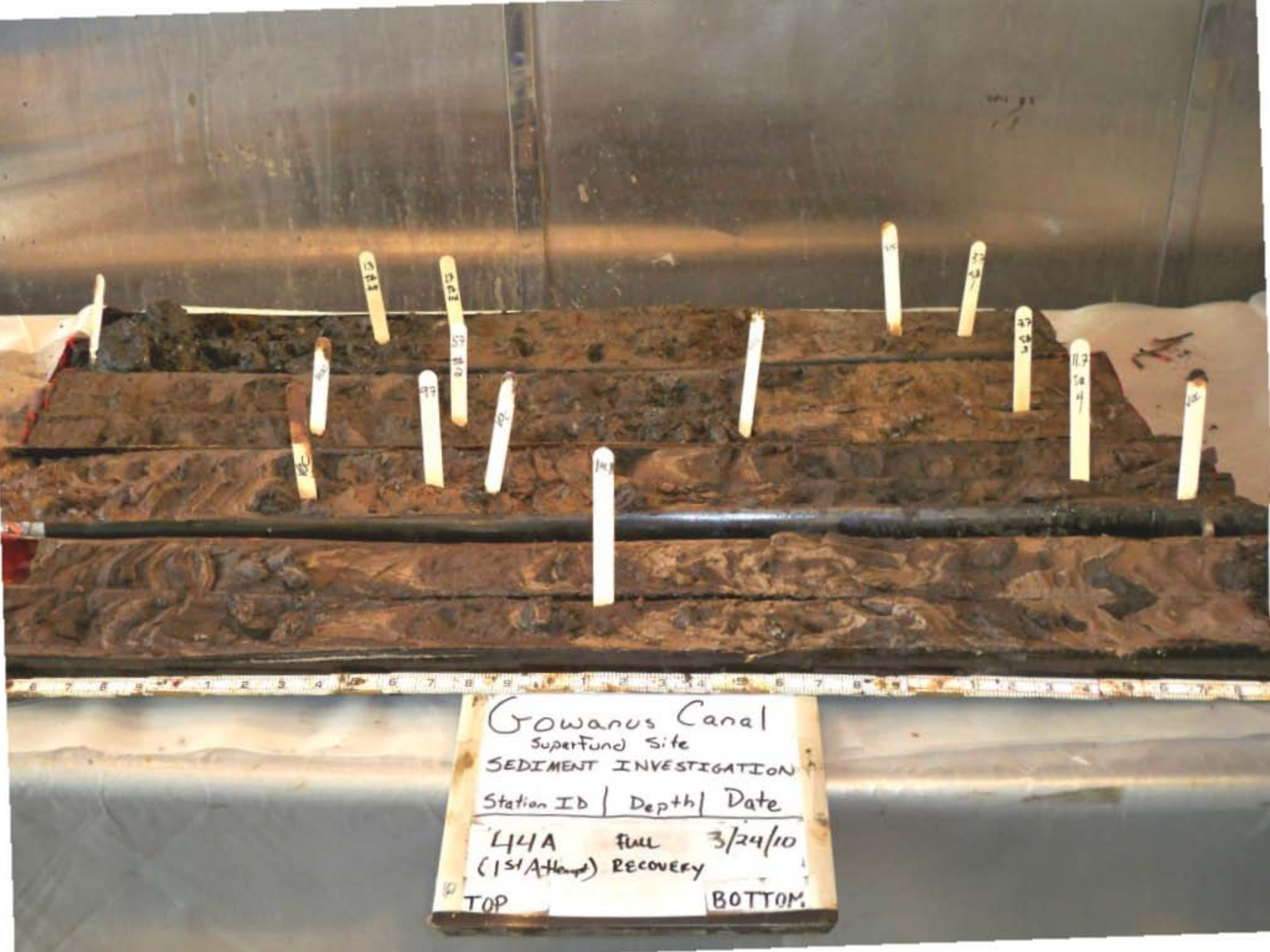

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
43A (2nd Attempt) 4.6-5.0 3/24/10
SAMPLE
#2
TOP
BOTTOM
4.6
SB
1

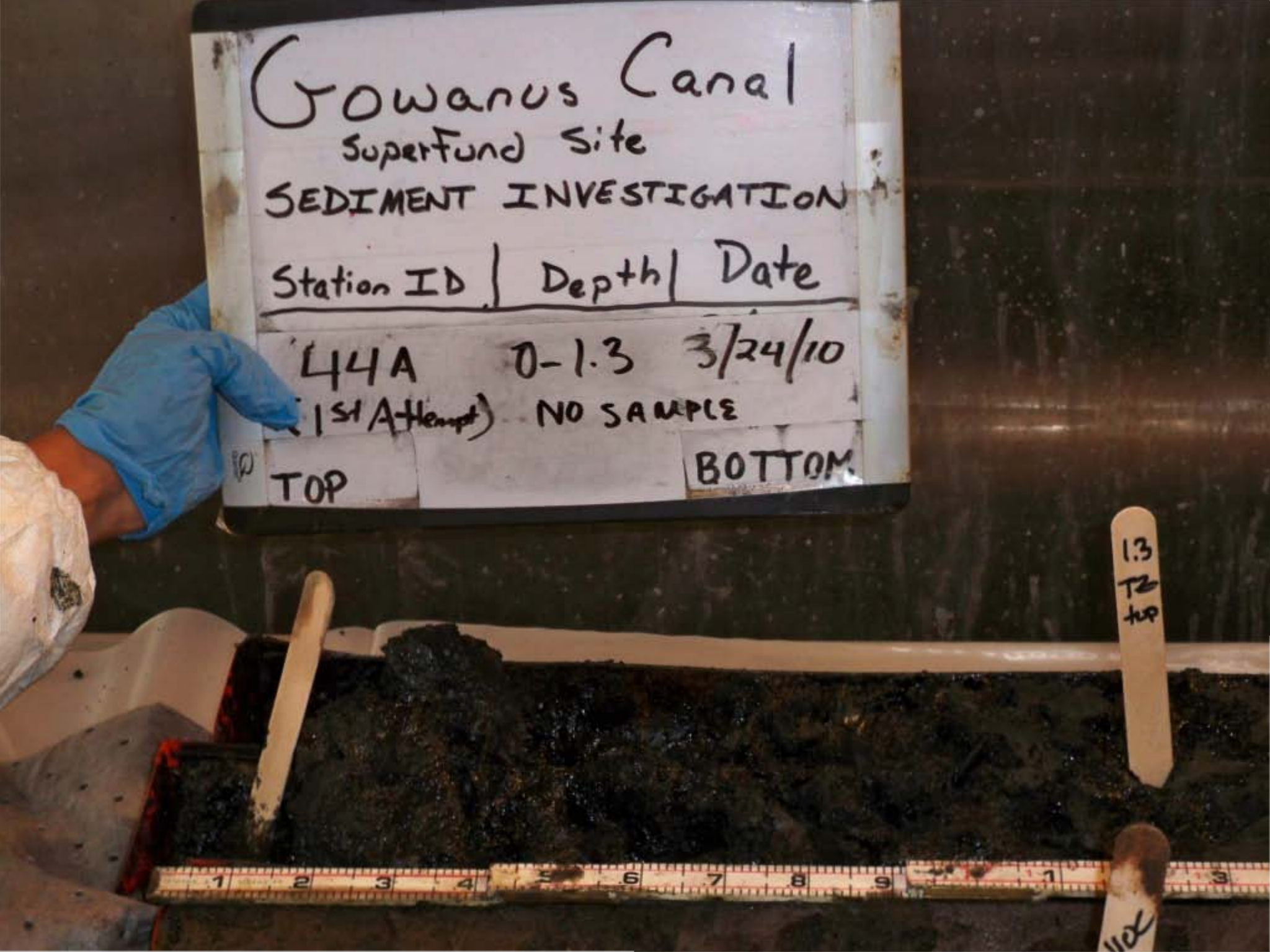

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
4/3A (2nd Attempt)
5.0-6.6
3/24/10
SAMPLE
TOP
#2
BOTTOM
2
66
SH
7

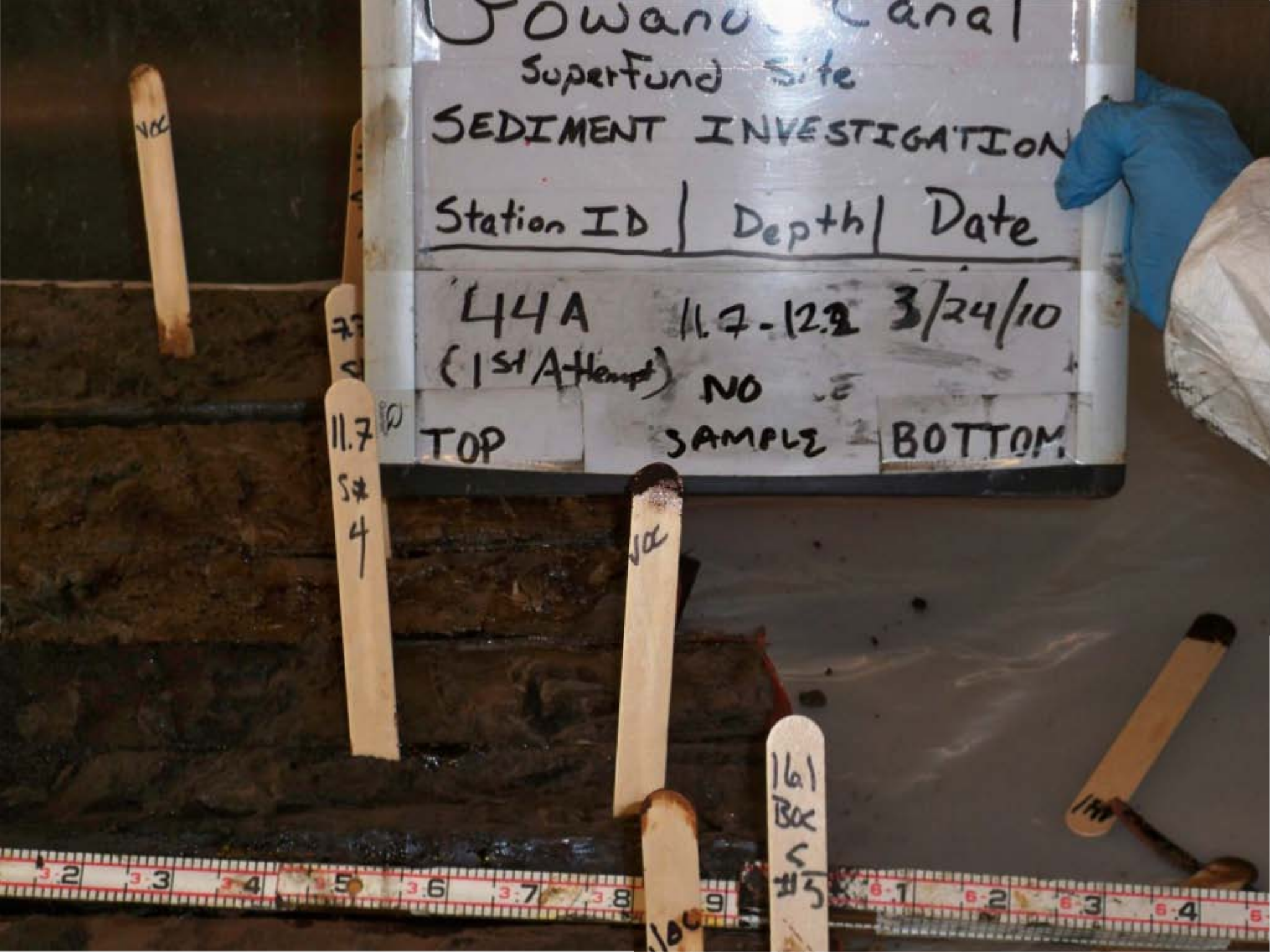

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A (2nd Attempt) 6.6-8.6 3/24/10
SAMPLE
TOP #3 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A (2nd Attempt) 8.6-8.8 3/24/10
TOP
NO
BOTTOM
8.6
S#
3
8.8
Bot

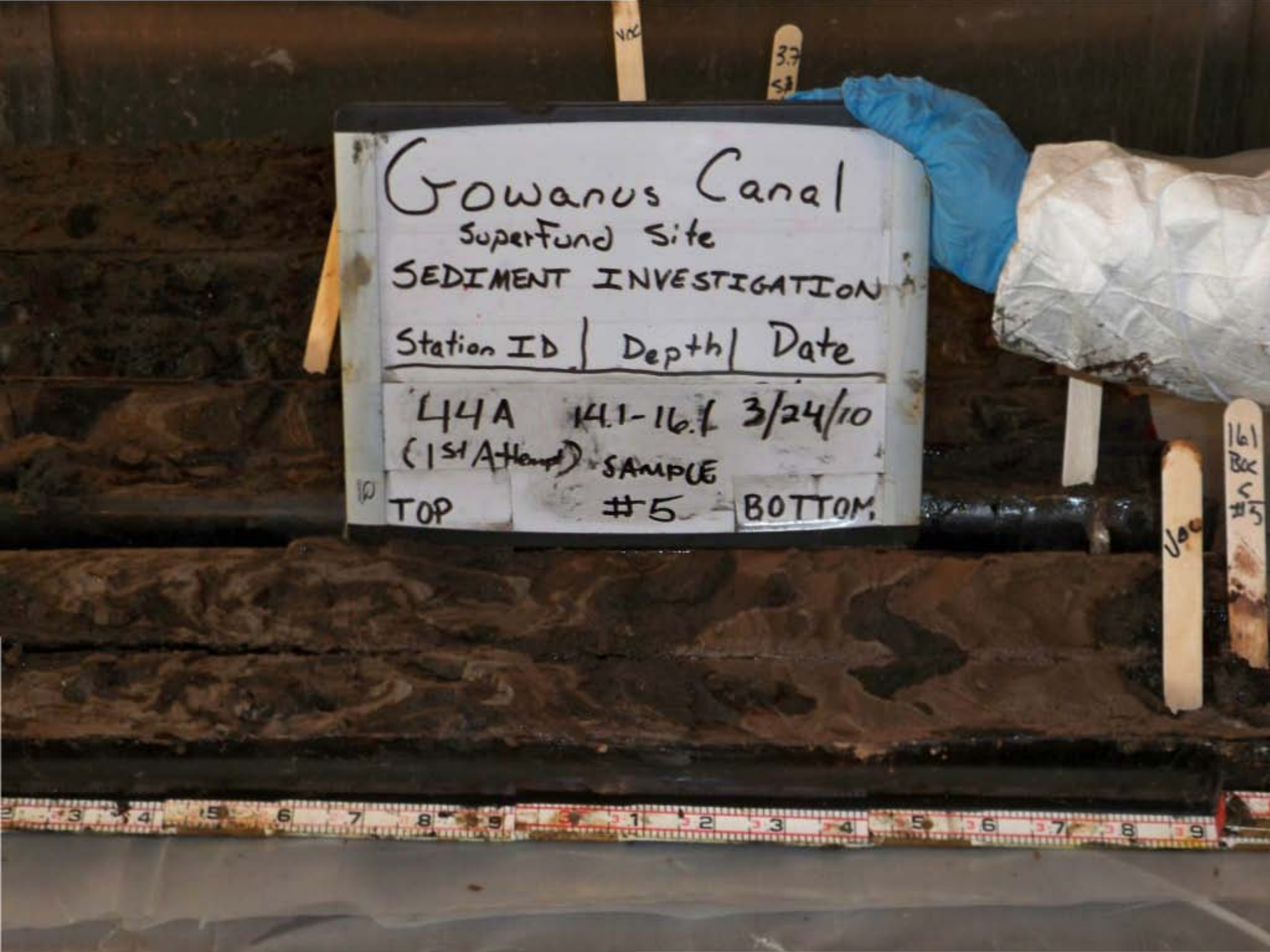

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A (2nd Attempt) FULL RECOVERY 3/24/10
TOP
BOTTOM

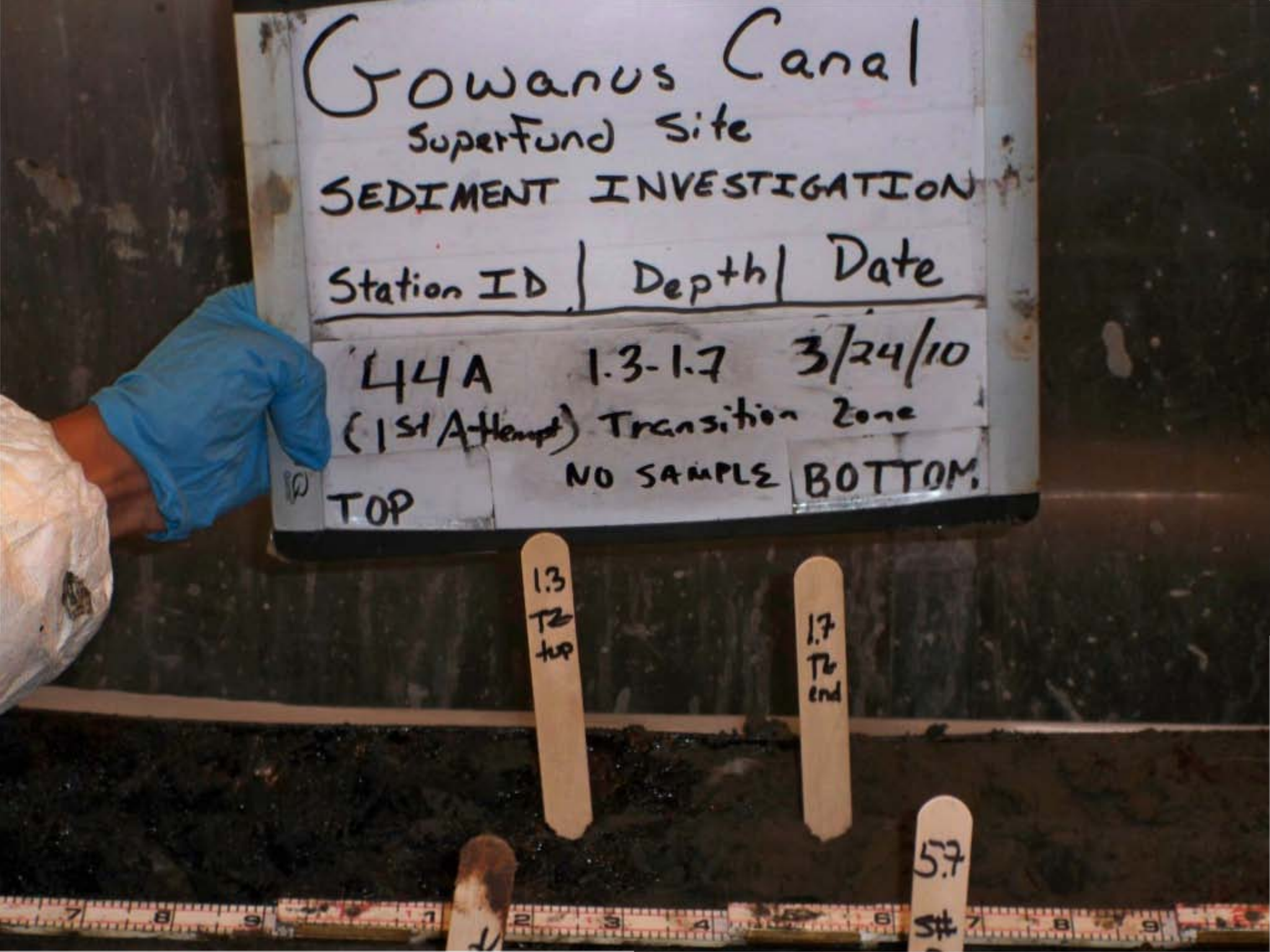

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A FULL 3/24/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A 0-1.3 3/24/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
1.3
TZ
top

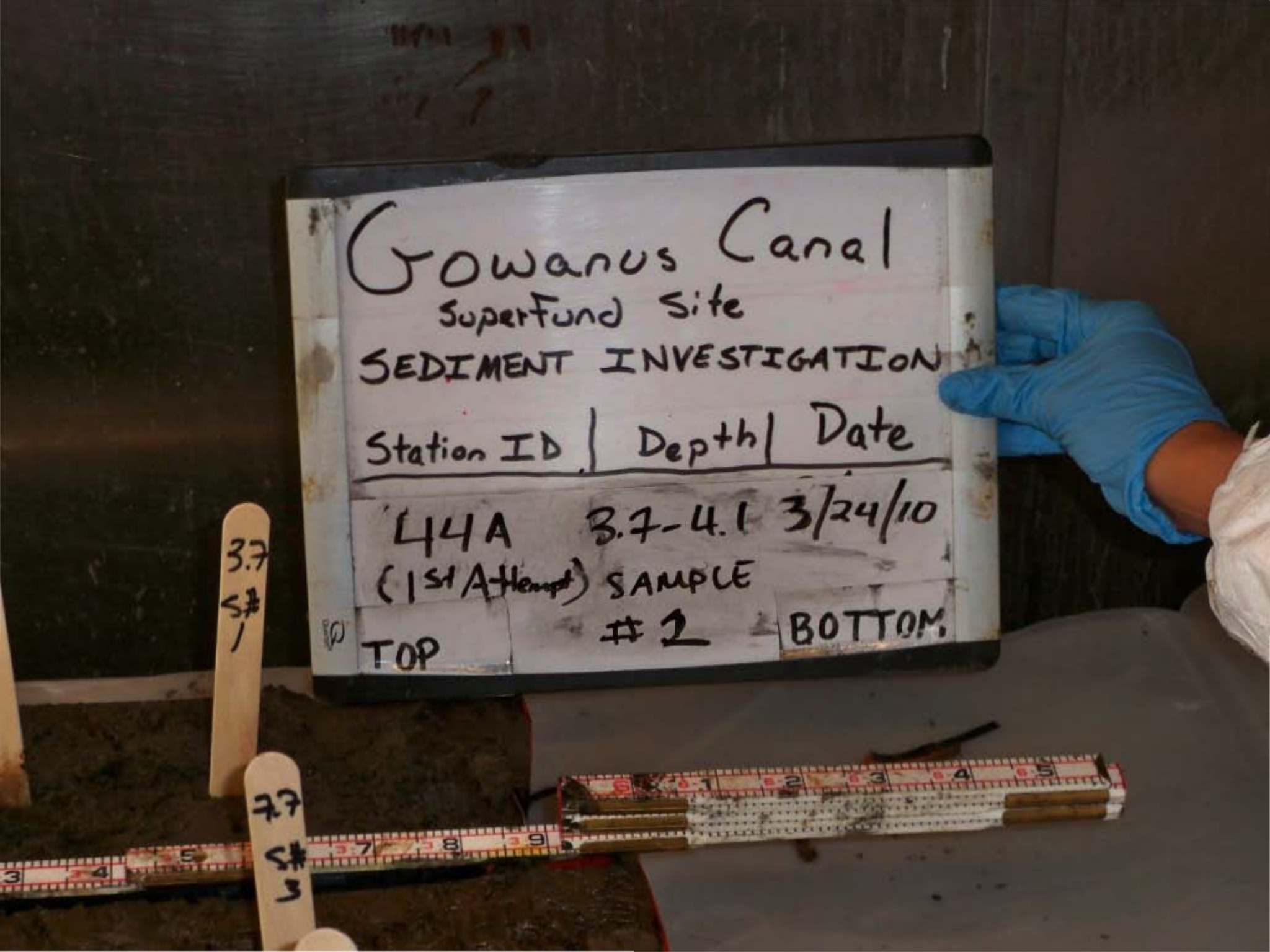

Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A 11.7-12.2 3/24/10
(1st Attempt) NO
TOP SAMPLE BOTTOM
11.7
S#
4
VOC
VOC
161
BOC
#5

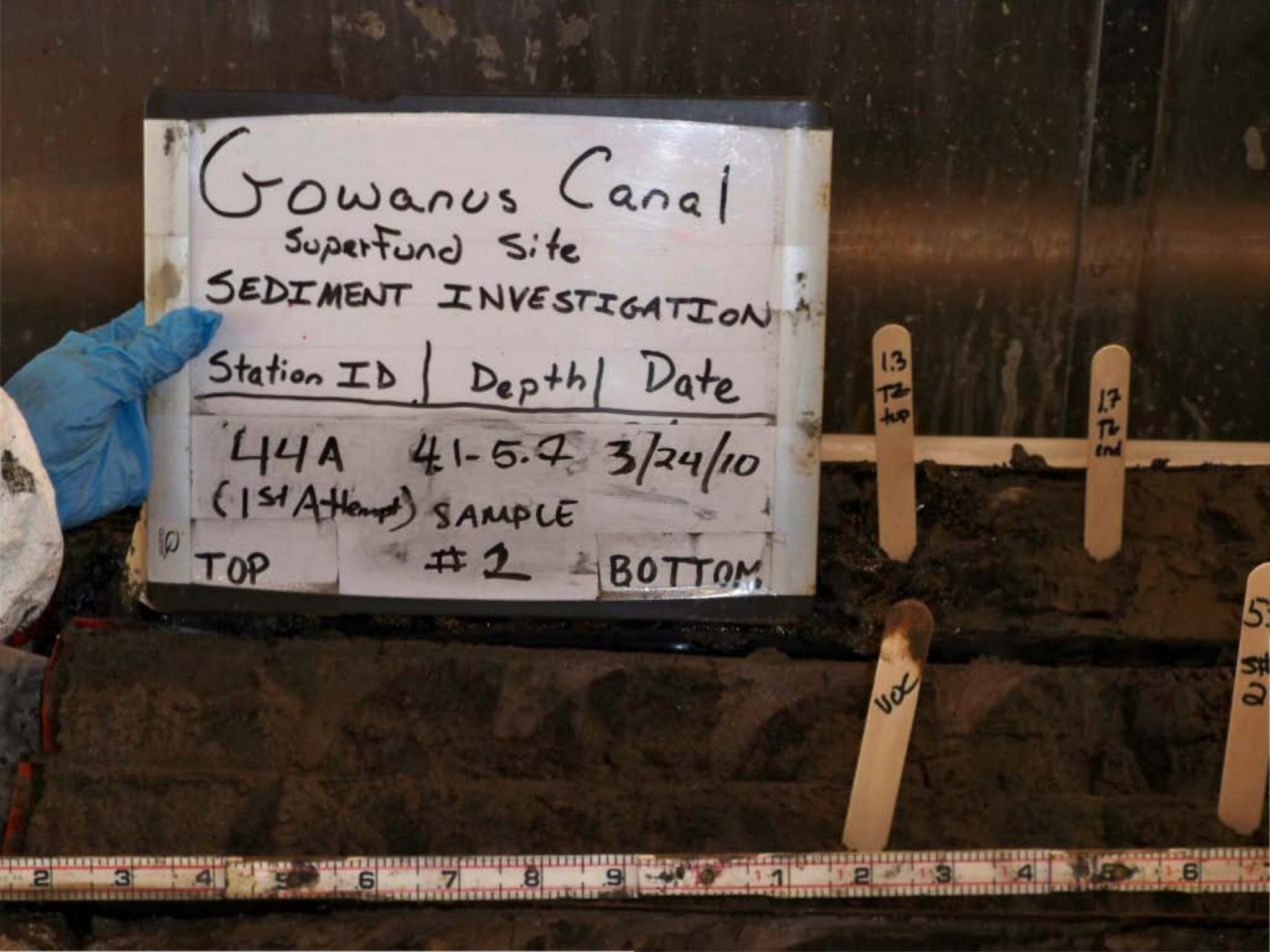

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
44A 12.2-14. | 3/24/00
(1st Attempt) NO SAMPLE
TOP
BOTTOM
57 #2
97
VOC

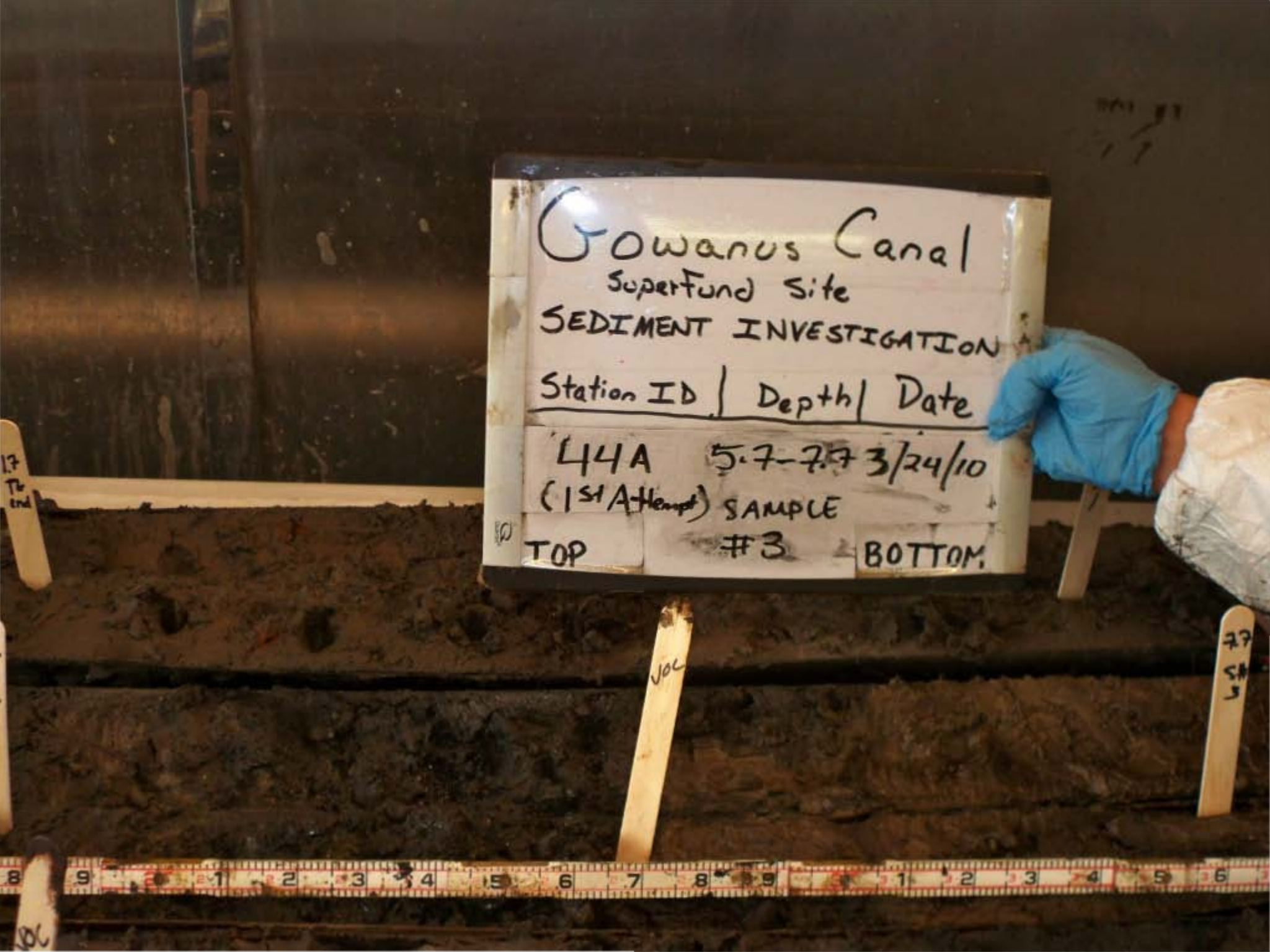

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
44A 14.1-16.1 3/24/10
(1st Attempt) SAMPLE
TOP #5 BOTTOM

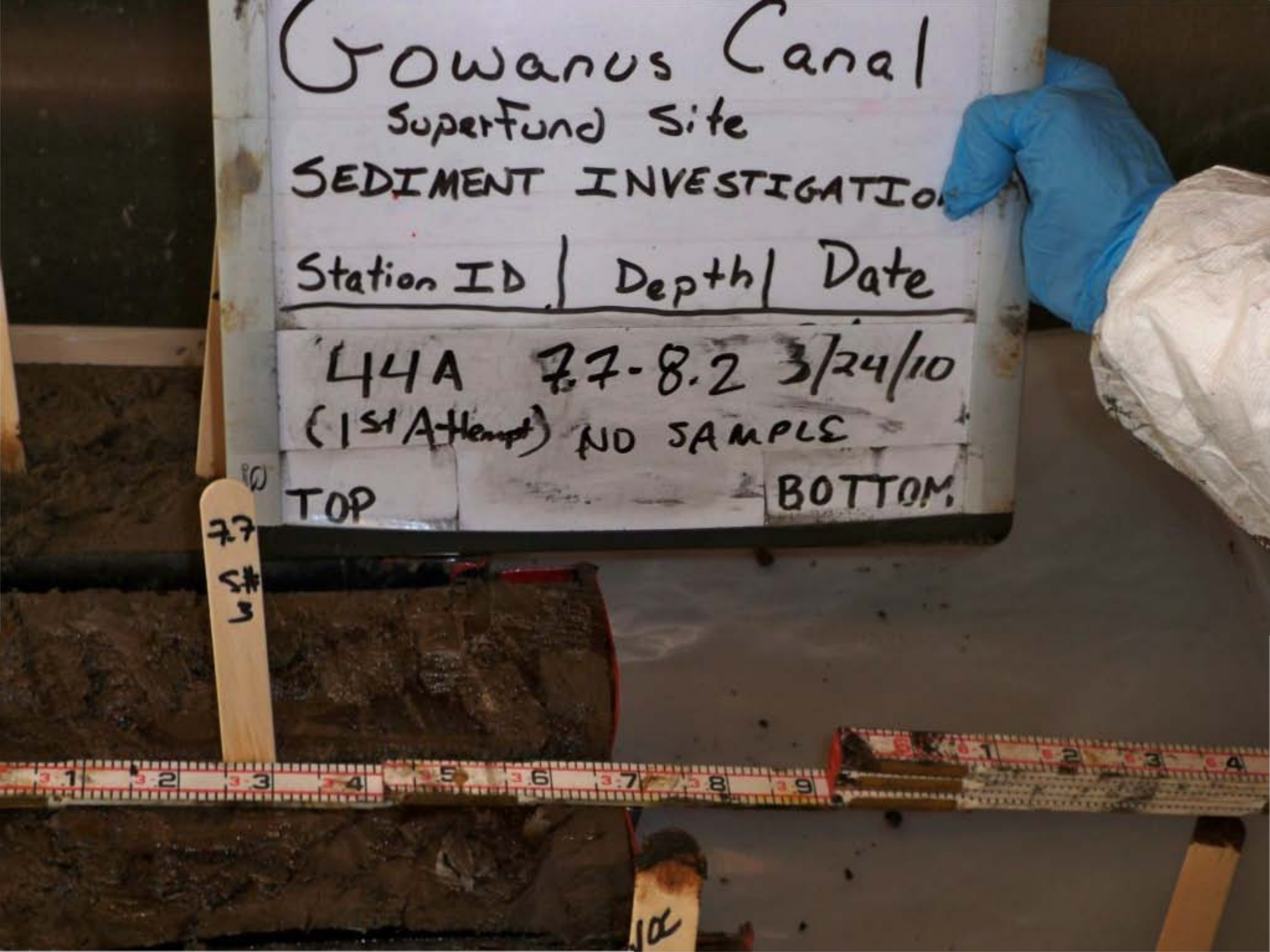

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
44A 1.3-1.7 3/24/10
(1st Attempt) Transition Zone
NO SAMPLE
TOP
BOTTOM
1.3 TZ top
1.7 TZ end
5.7

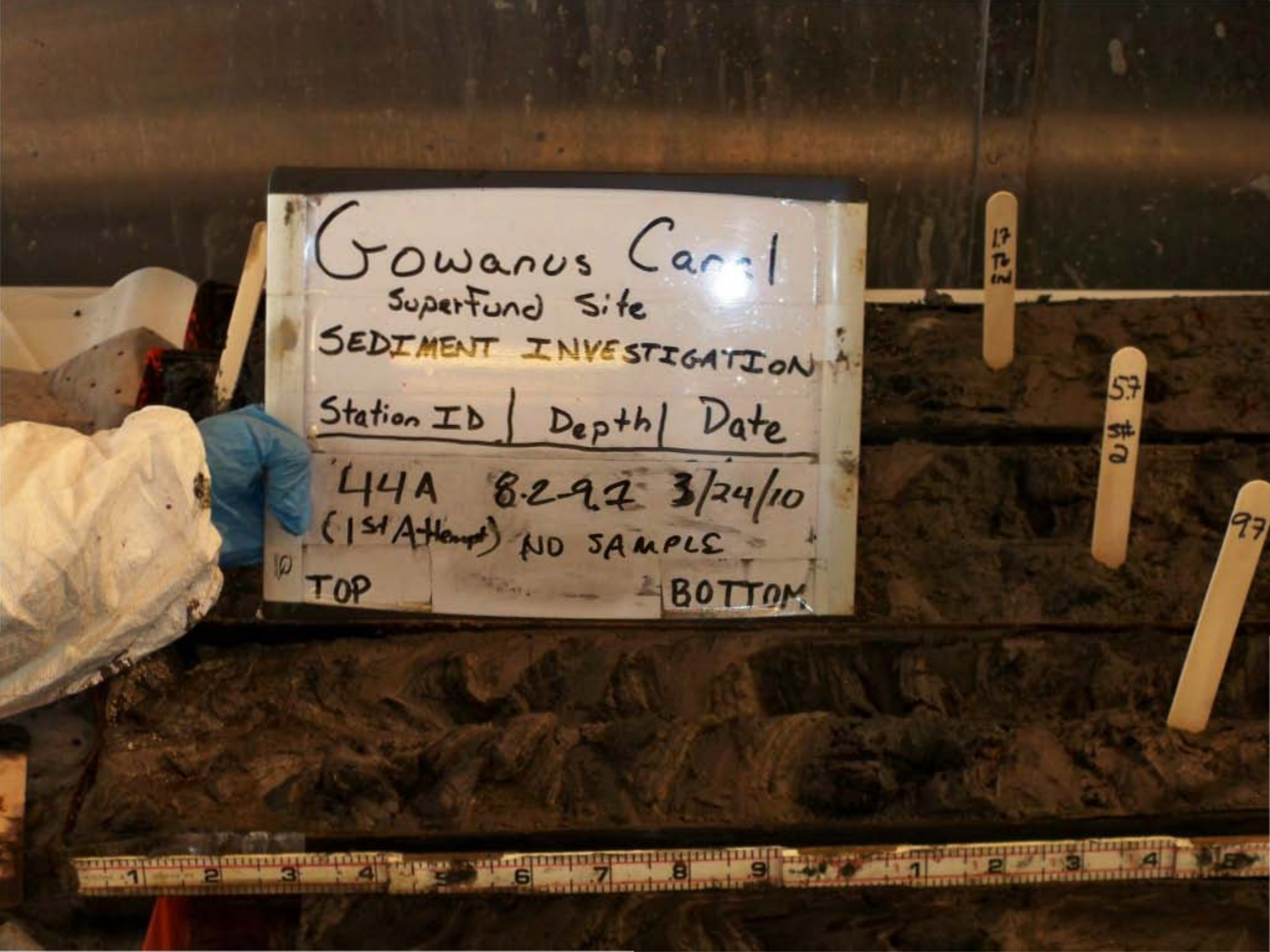

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A 1.7-3.7 3/24/10
(1st Attempt) SAMPLE
TOP #1 BOTTOM
VOC
VOC

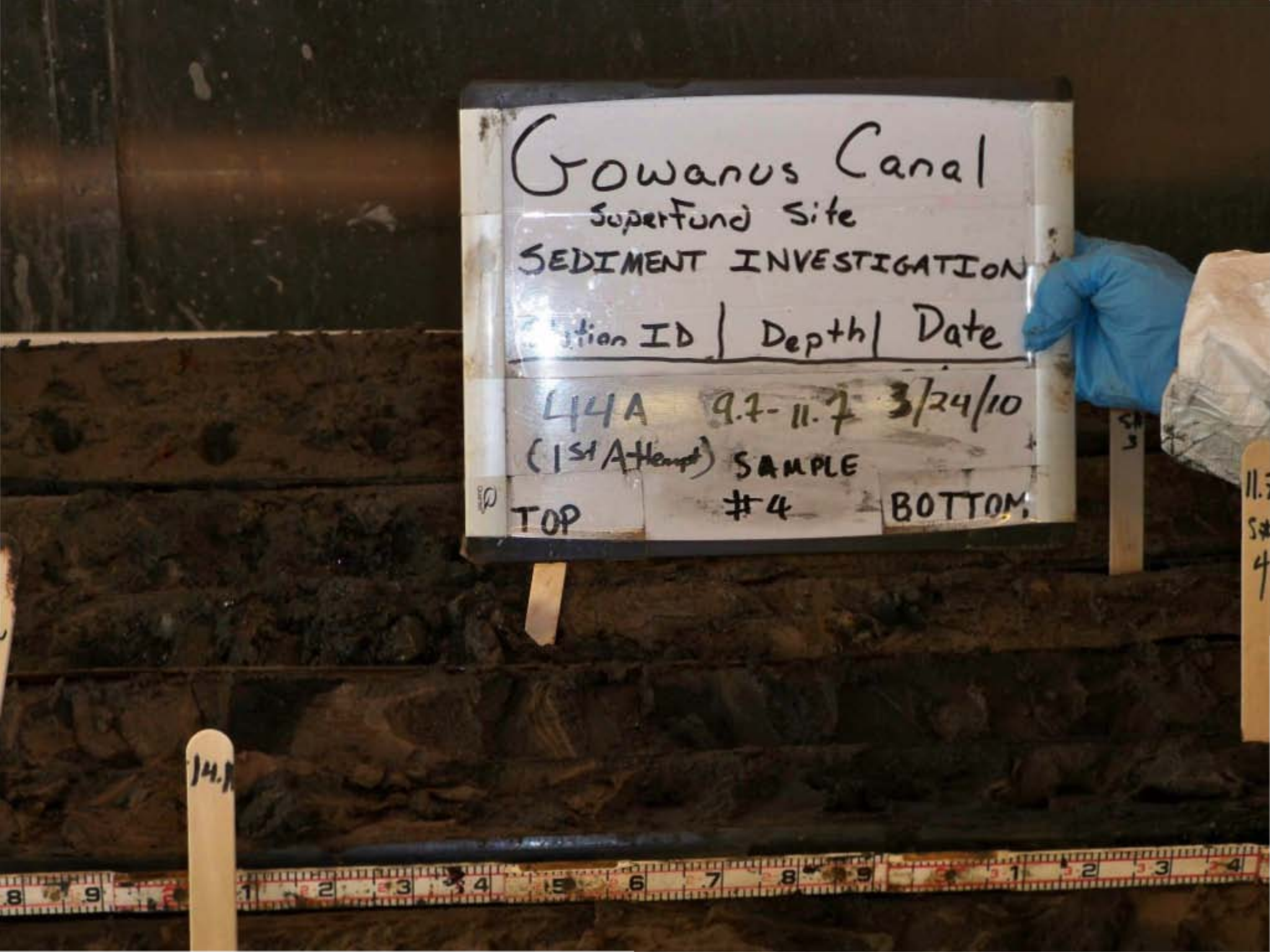

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
44A 3.7-4.1 3/24/10
(1st Attempt) SAMPLE
#2
TOP
BOTTOM
3.7
S#
1
7.7
S#
3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A 41-5.7 3/24/10
(1st Attempt) SAMPLE
TOP #2 BOTTOM
13 T2 top
17 T2 bot
VOL


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
44A 5.7-7.7 3/24/10
(1st Attempt) SAMPLE
TOP #3 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
44A 7.7-8.2 3/24/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
77
St#
3

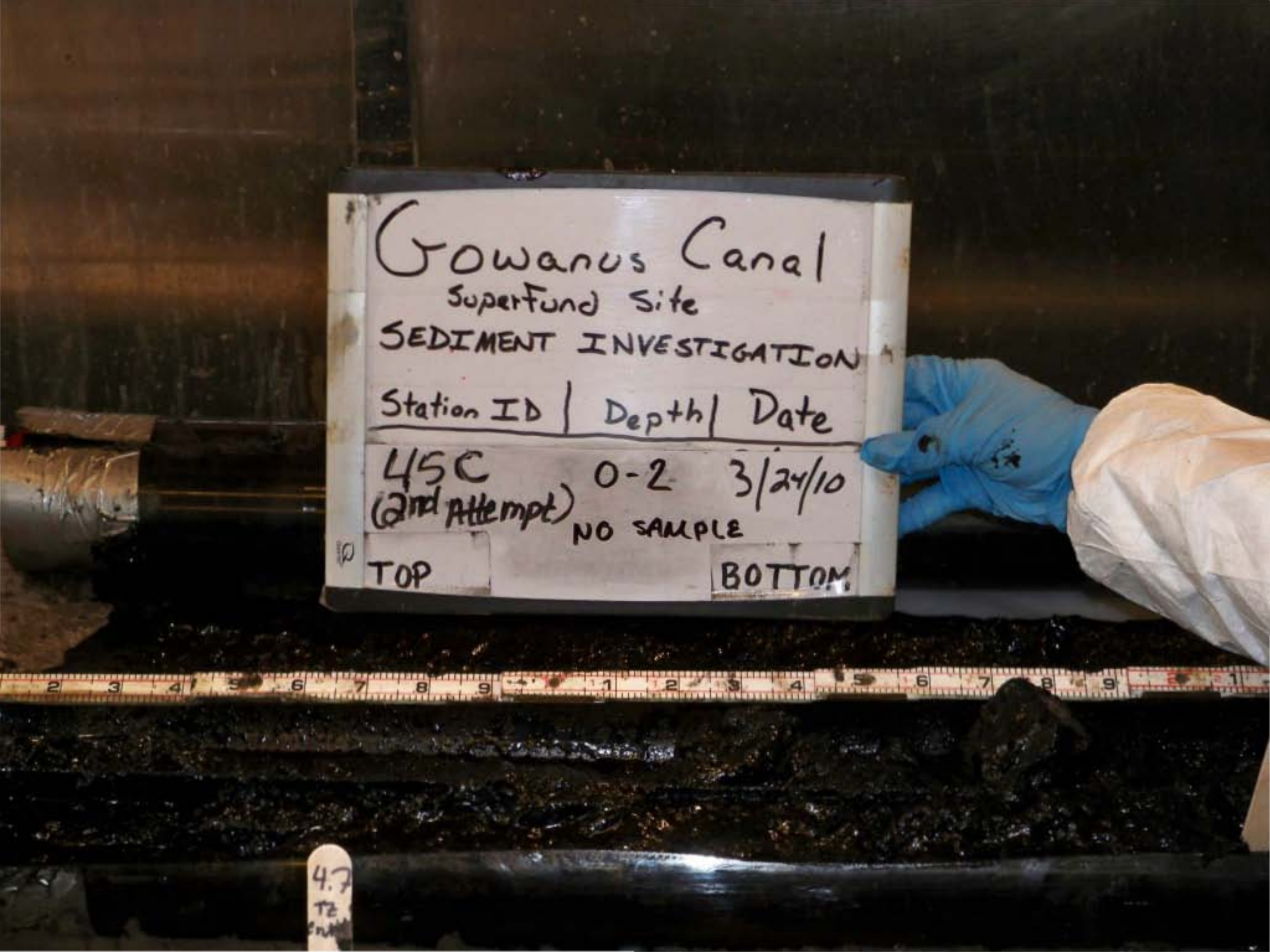

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A 8.2.97 3/24/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM

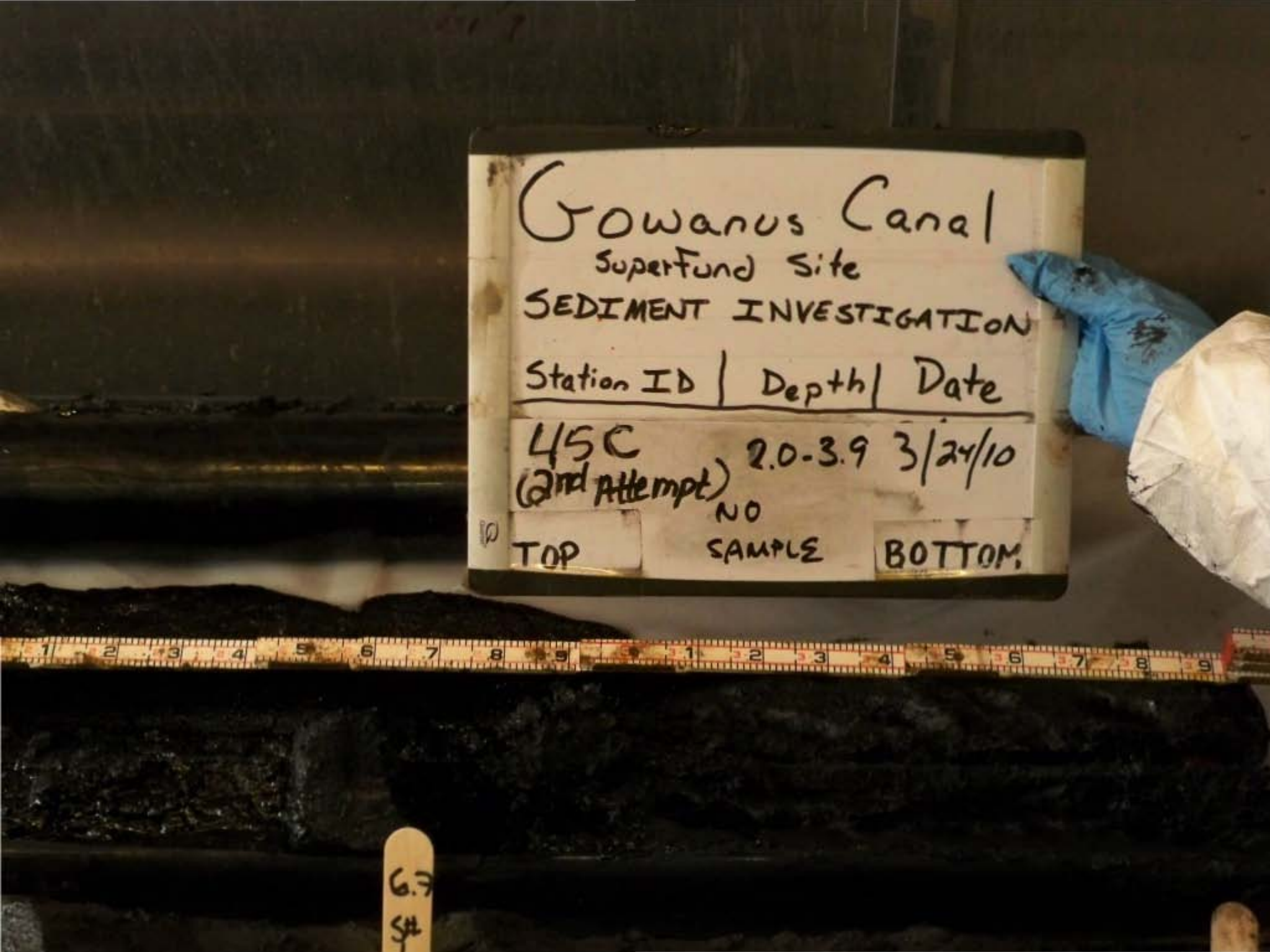

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A 9.7-11.7 3/24/10
(1st Attempt) SAMPLE
TOP #4 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
44A FULL 3/24/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C FULL 3/24/10
(2nd Attempt) Recovery
TOP
BOTTOM

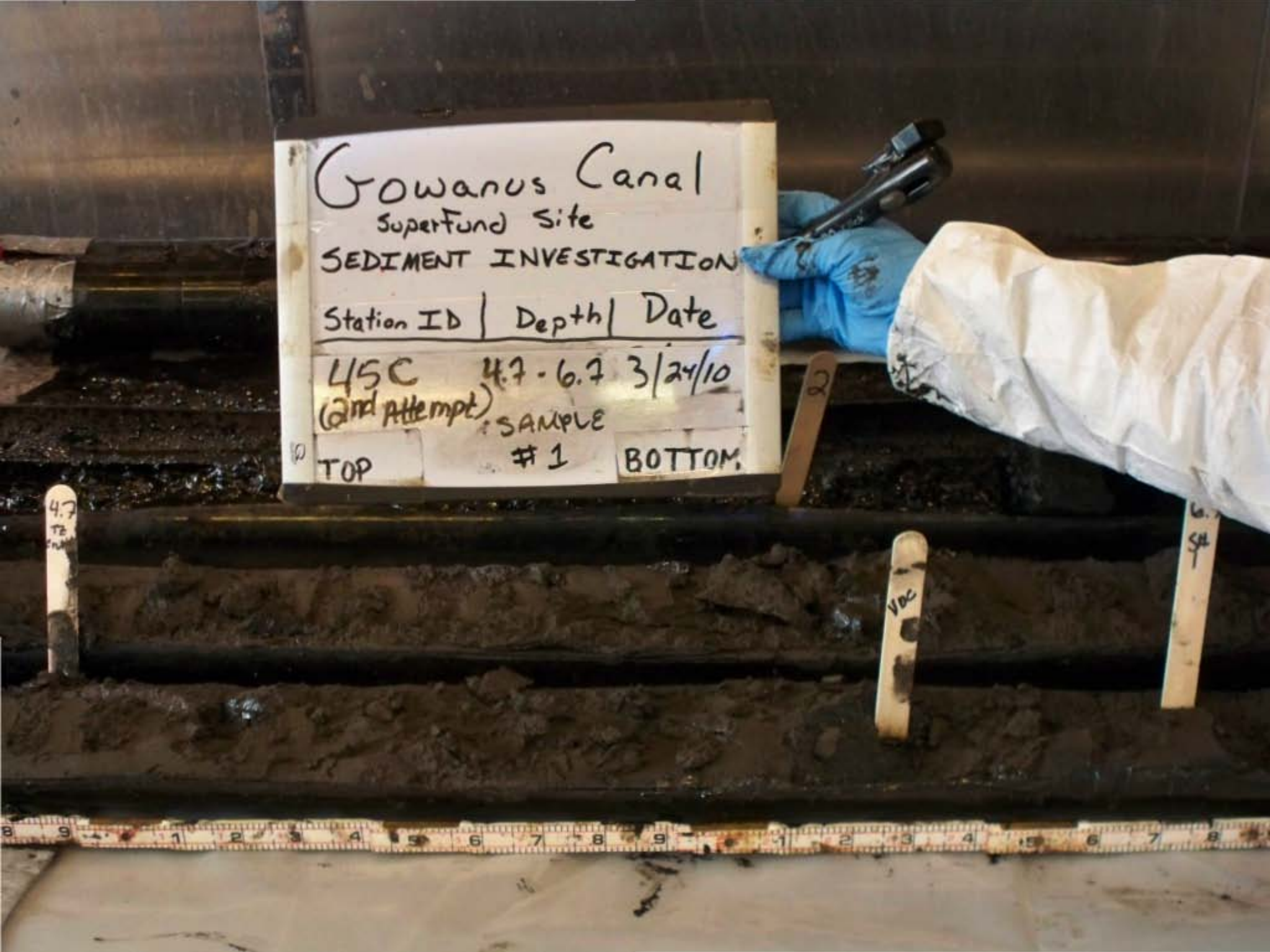

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C FULL 3/24/10
(2nd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C 0-2 3/24/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C (2nd Attempt) 2.0-3.9 3/24/10
NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C (2nd Attempt) 3.9-4.0 3/24/10
NO SAMPLE
TOP
4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATI
Station ID | Depth | Date
45C 4.0-4.7 3/24/10
(2nd Attempt) NO [Transition Zone]
TOP SAMPLE BOTTOM
4
4.7

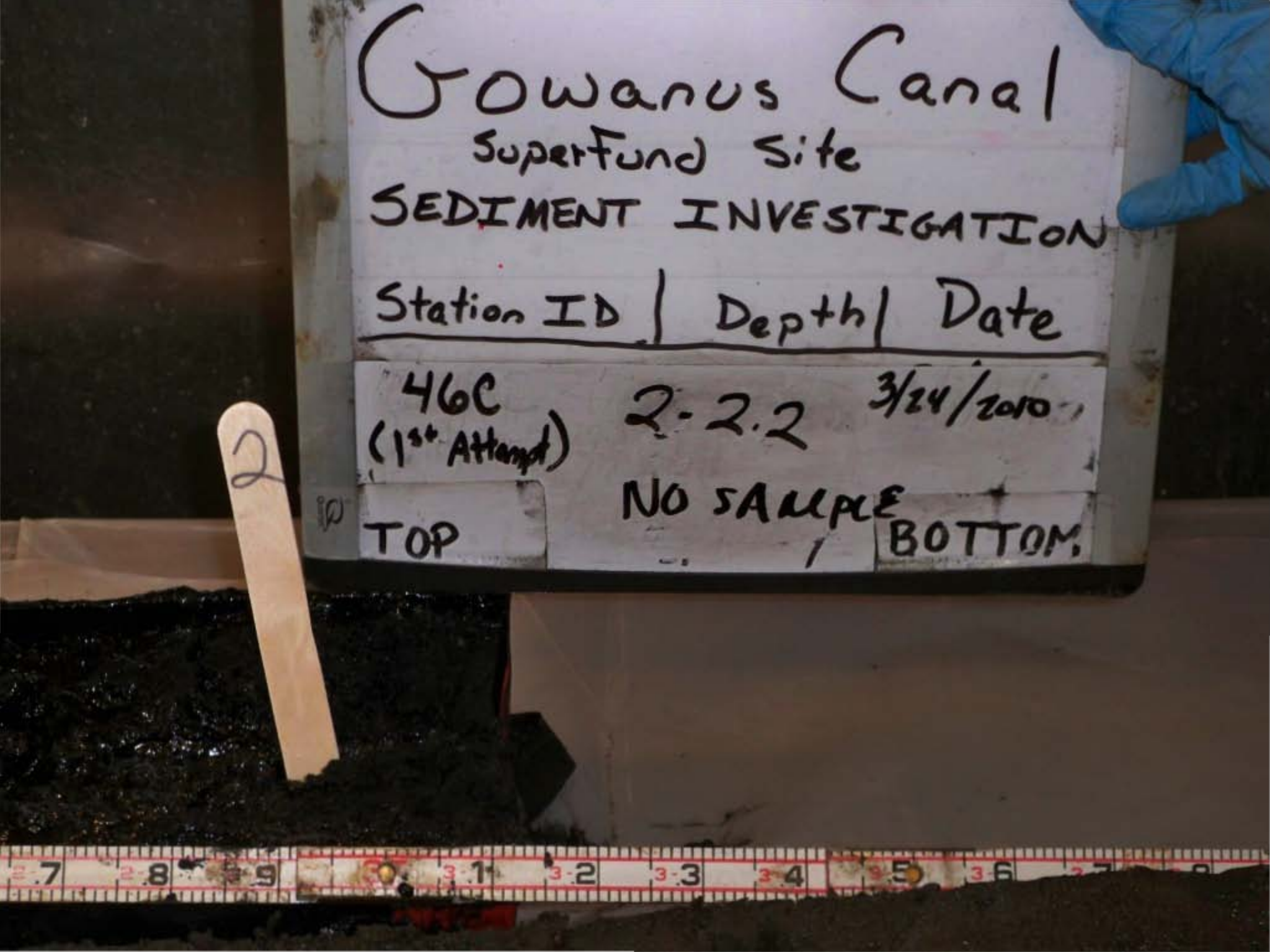

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C (2nd Attempt) 4.7 - 6.7 3/24/10
SAMPLE #1
TOP
BOTTOM

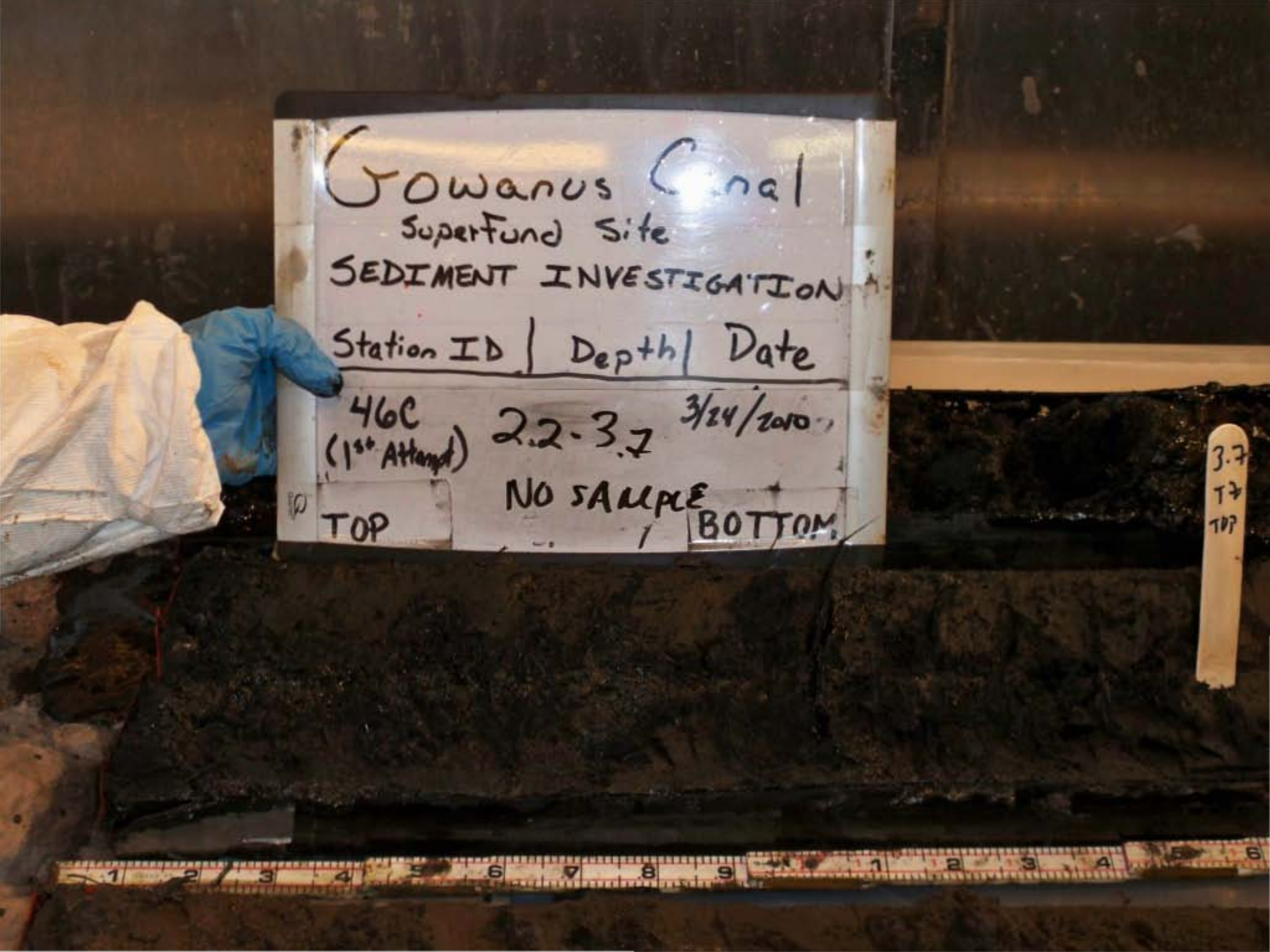

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C (2nd Attempt) 6.7-7.9 3/24/10
SAMPLE #2
TOP
BOTTOM
VOC
VOC

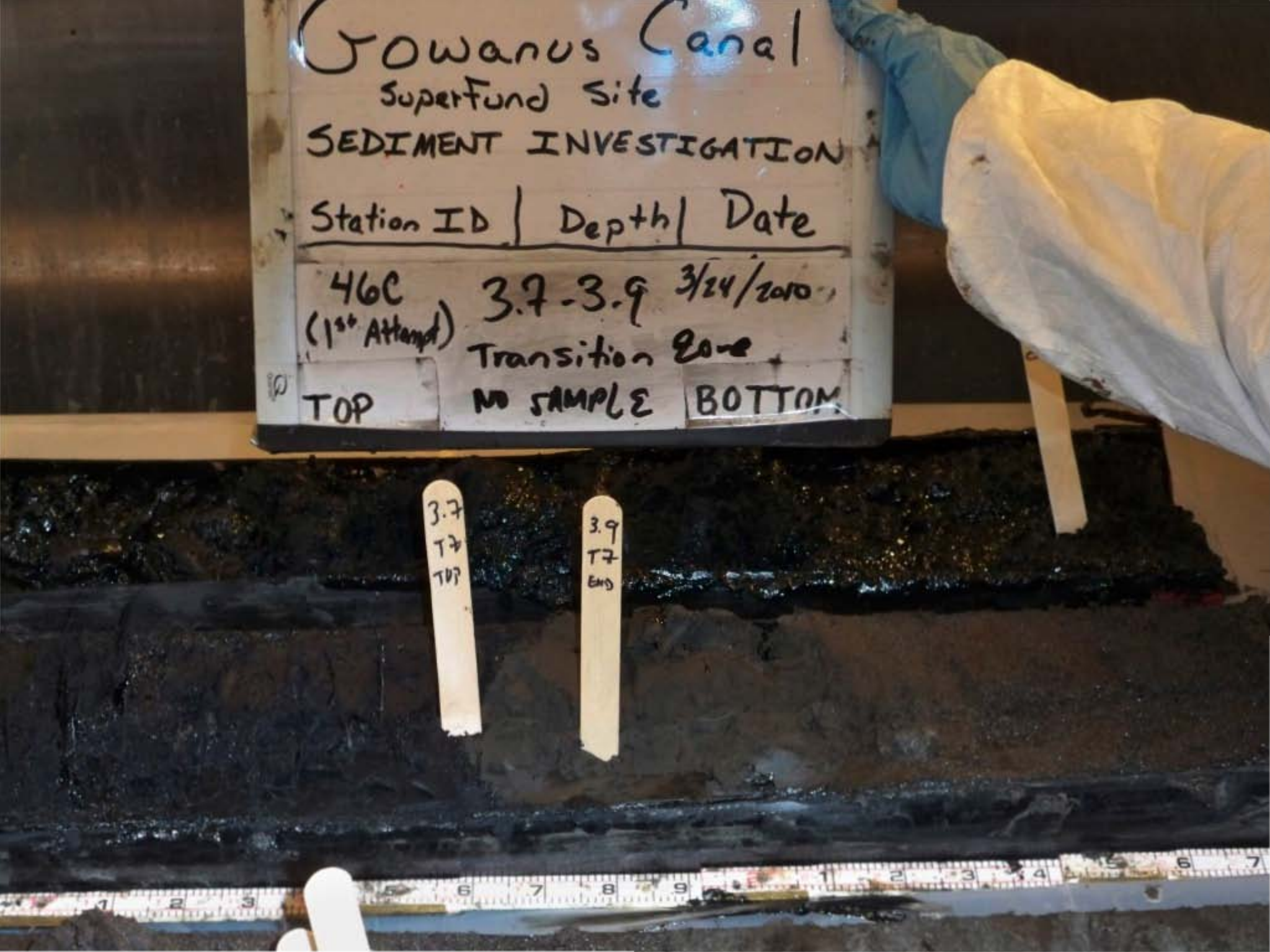

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C FULL 3/24/10
(2nd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
3/24/2010
46C
(1st Attempt)
Full
Recovery
TOP
BOTTOM

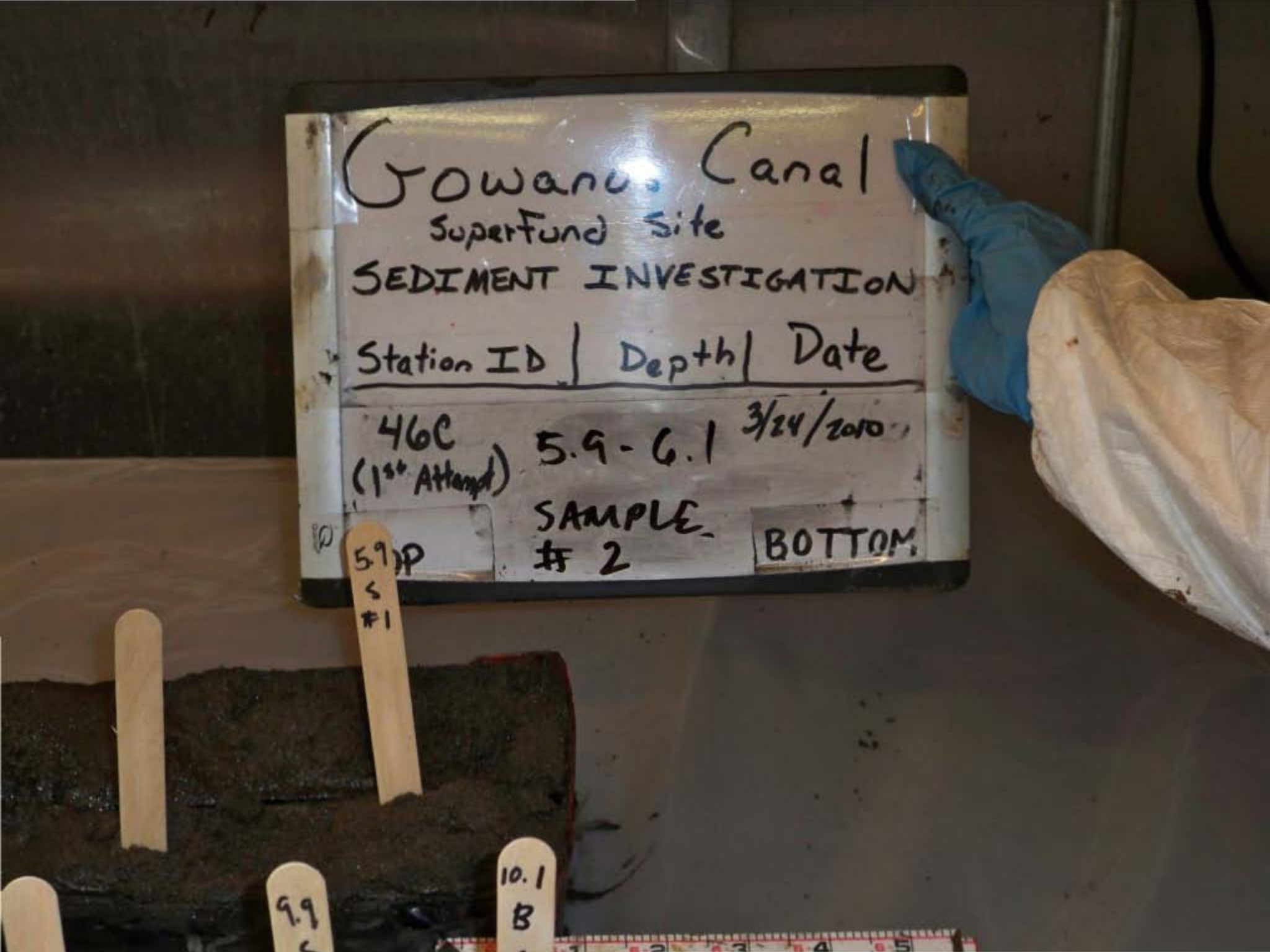

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 0-2 3/24/2010
NO SAMPLE
TOP
BOTTOM

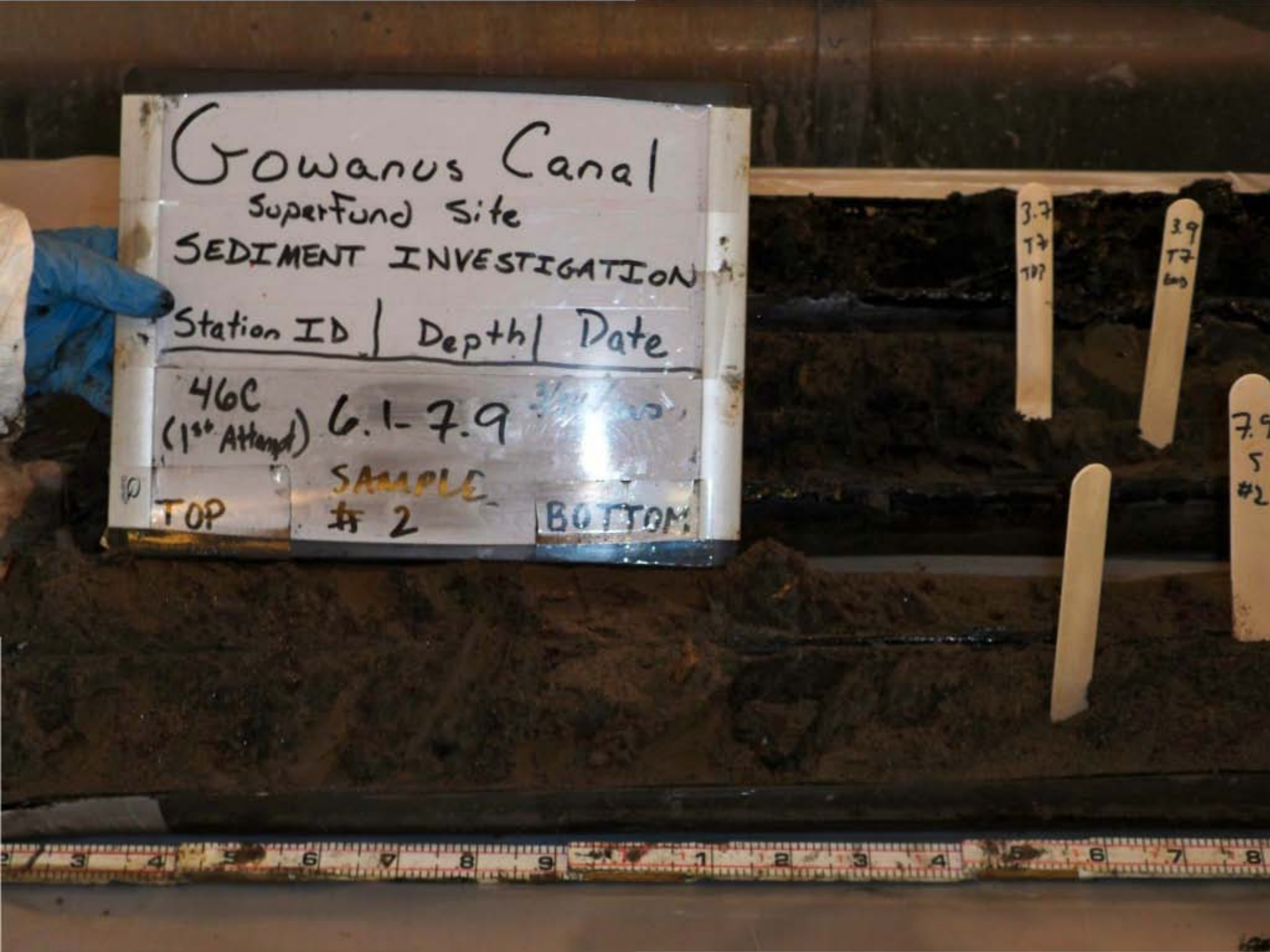

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 2-2.2 3/24/2010
NO SAMPLE
TOP
BOTTOM
2

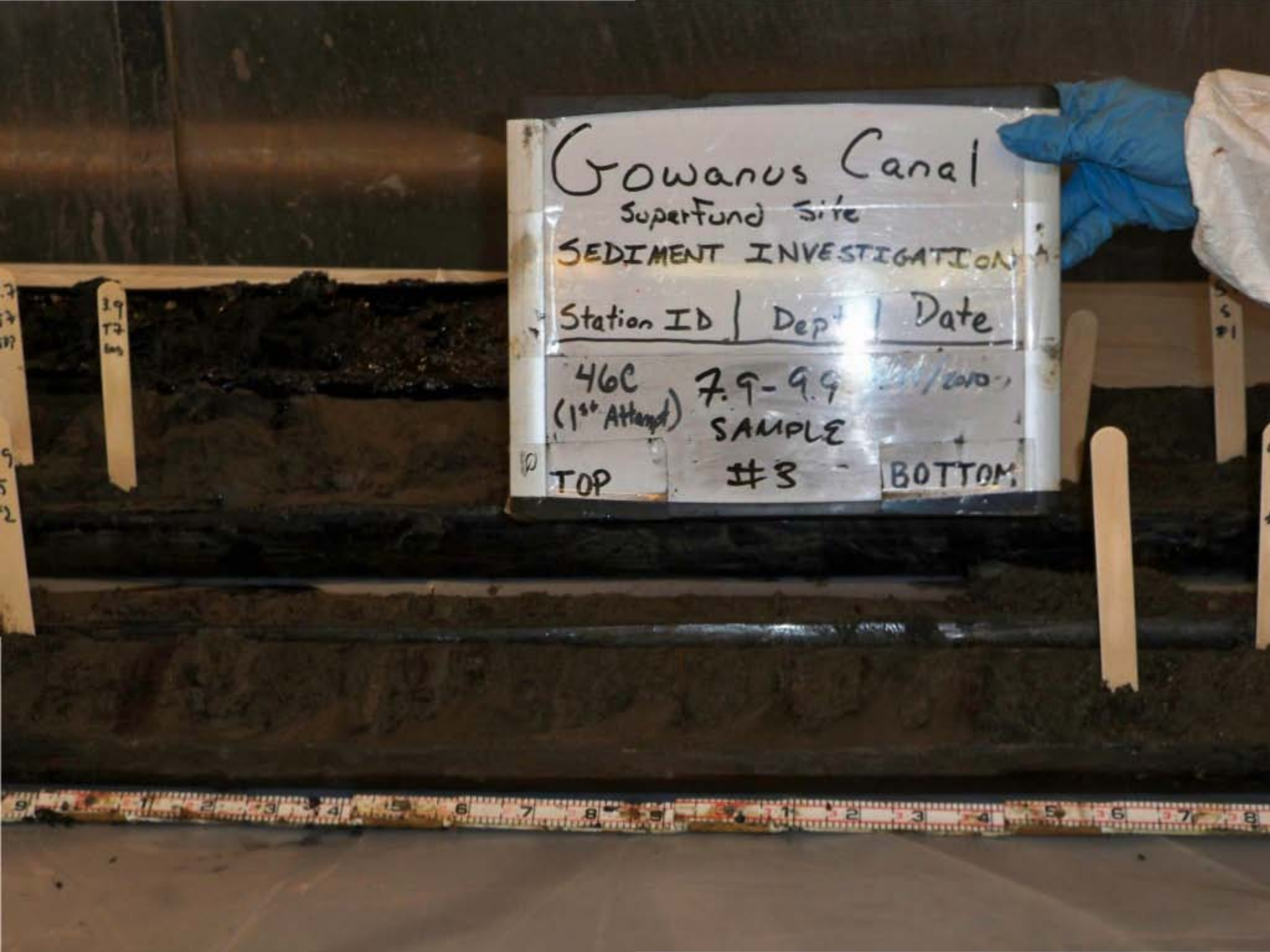

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 2.2-3.7 3/24/2010
NO SAMPLE
TOP
BOTTOM
3.7
T
TOP

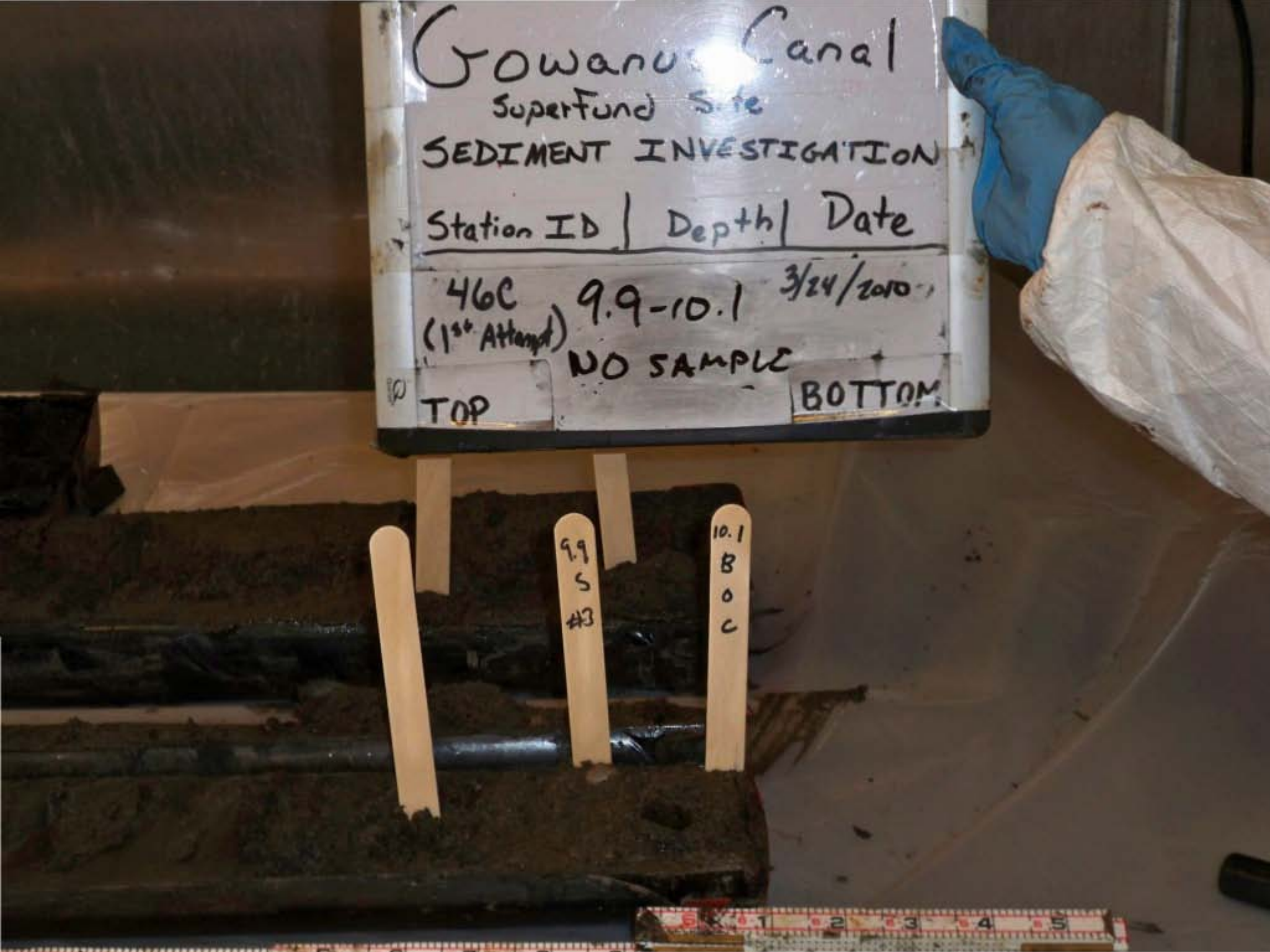

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 3.7-3.9 3/24/2010
Transition Zone
TOP NO SAMPLE BOTTOM
3.7 T7 TOP
3.9 T7 END


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 3.9-5.9 3/24/2010
TOP
SAMPLE # 1
BOTTOM
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 5.9-6.1 3/24/2010
SAMPLE # 2
BOTTOM
5.9 S #1
9.9
10.1 B

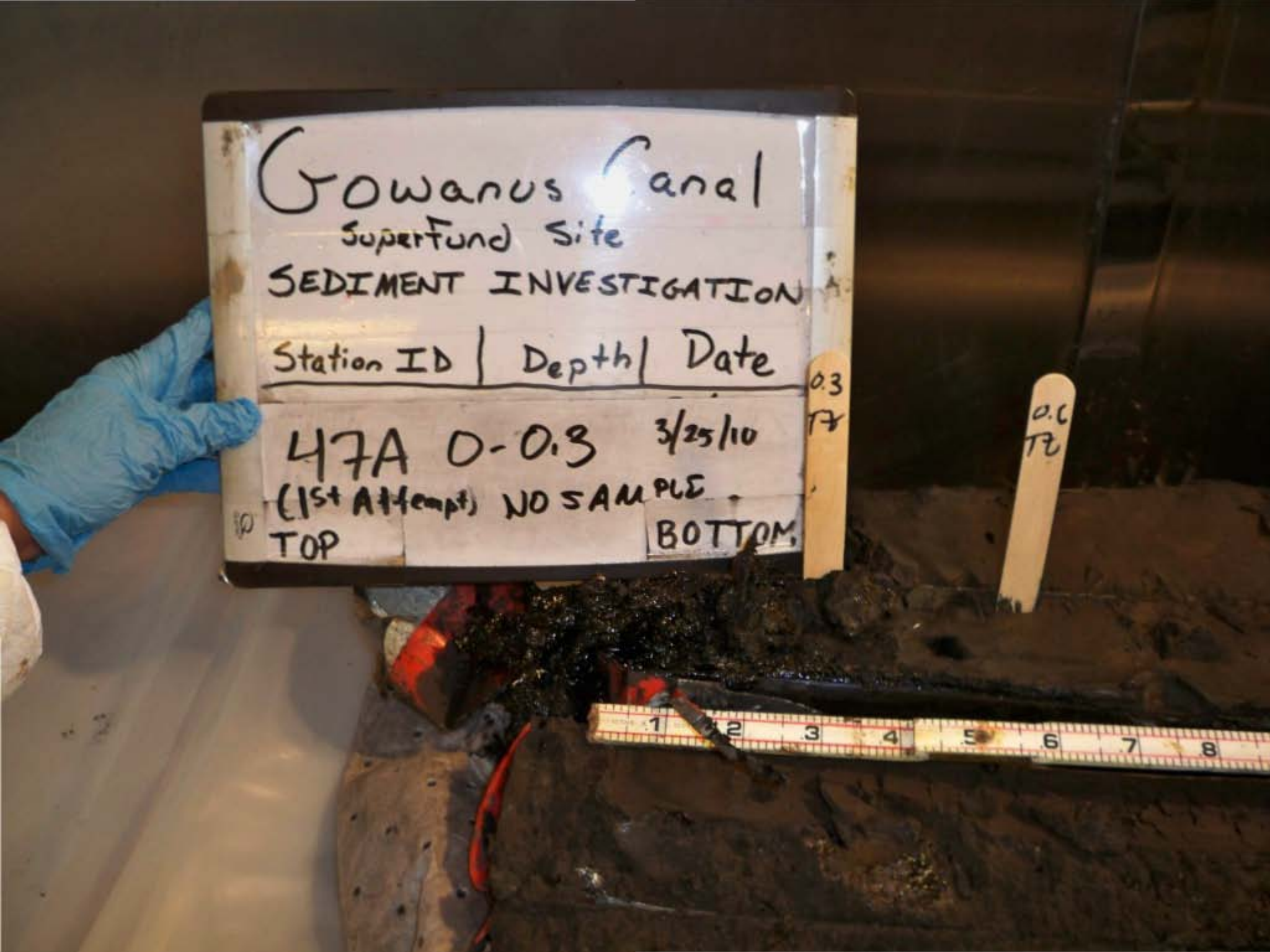

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C
(1st Attempt)
6.1-7.9
SAMPLE
2
TOP
BOTTOM
3.7
T7
TOP
3.9
T7
bot
7.9
5
#2

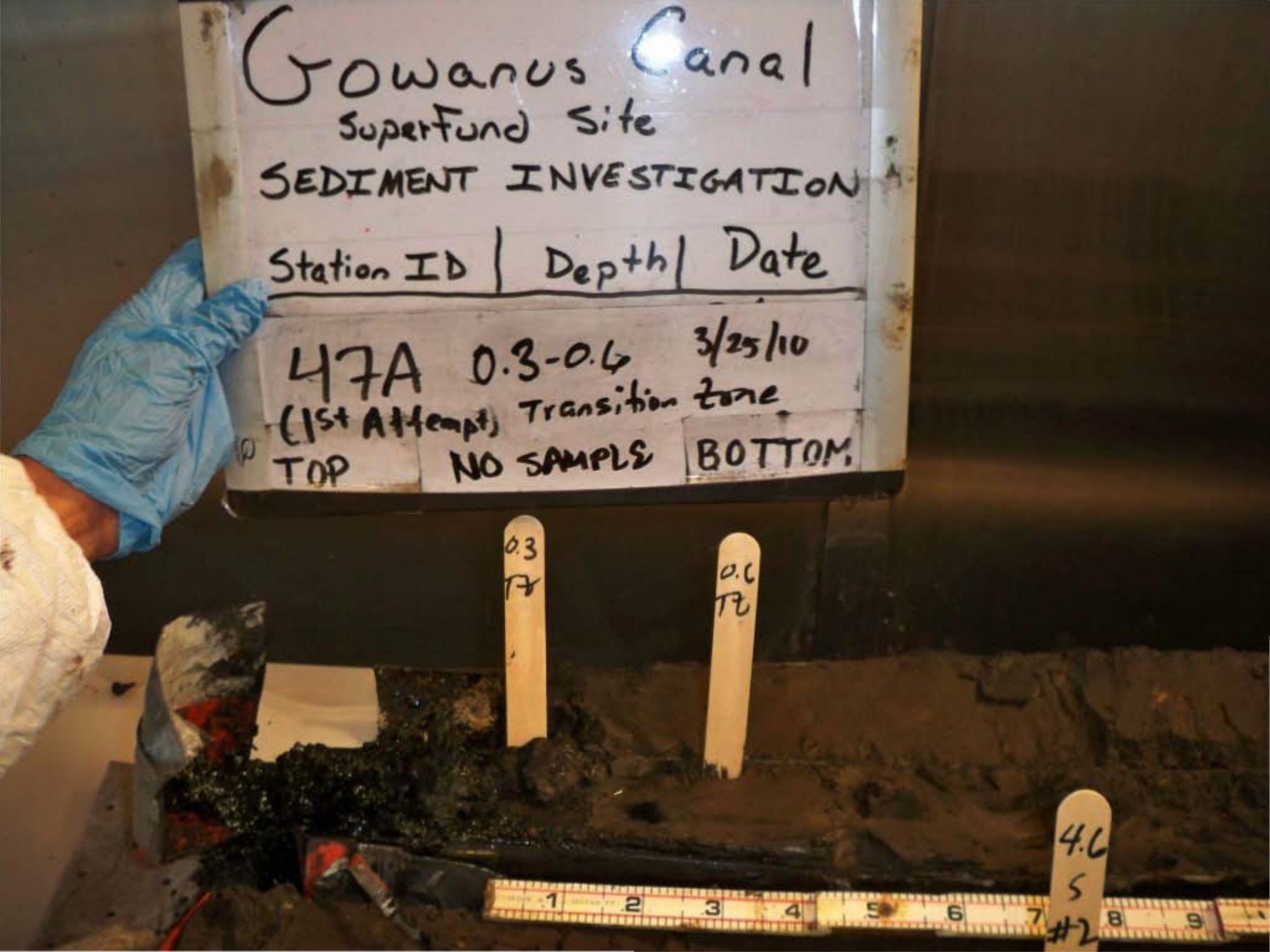

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 7.9-9.9 /2010
SAMPLE #3
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
46C (1st Attempt) 9.9-10.1 3/24/2010
NO SAMPLE
TOP
BOTTOM
9.9 S #3
10.1 B O C

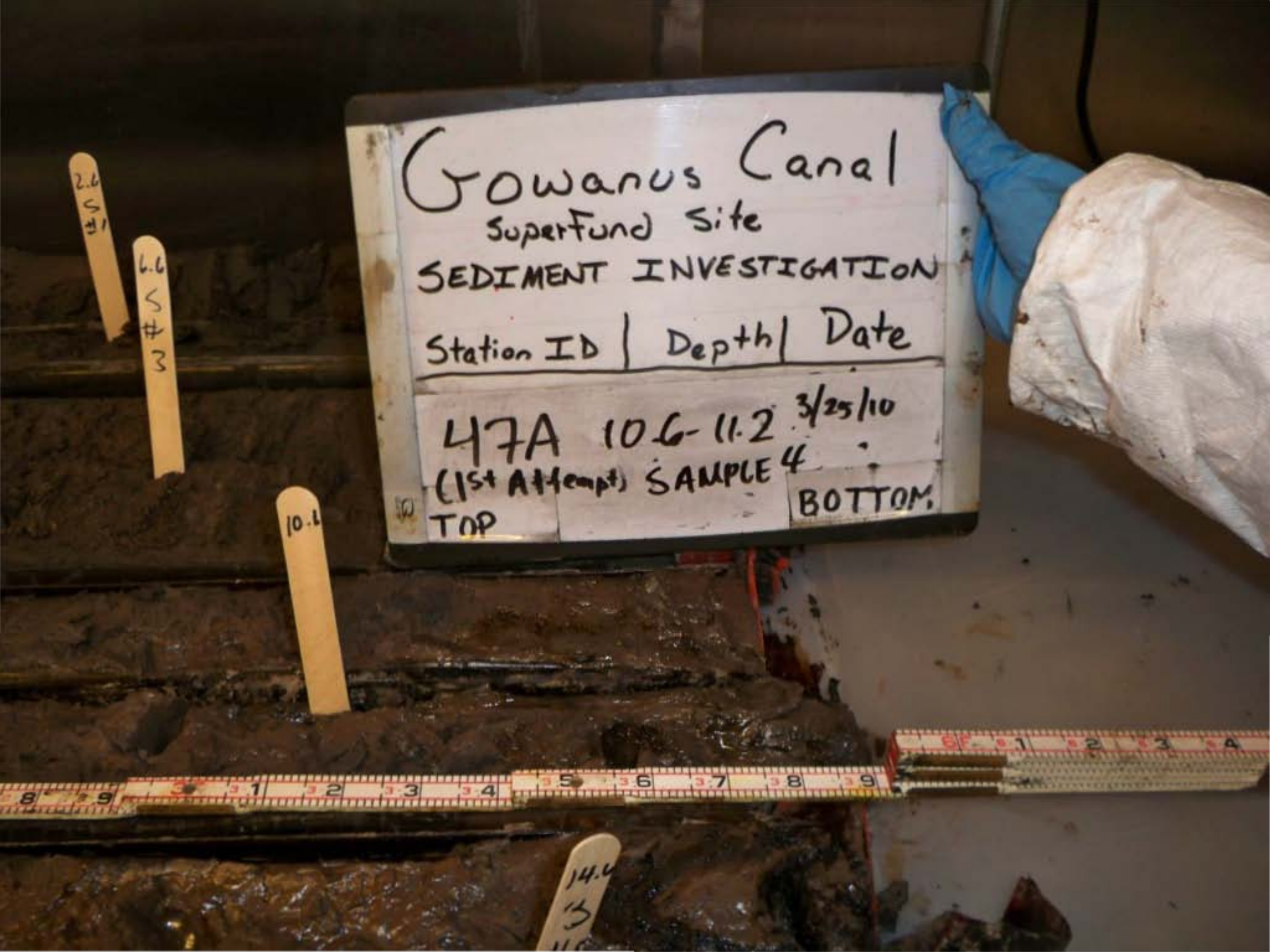

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
3/24/2010
46C
(1st Attempt)
Full
Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A
(1st Attempt)
FULL RECOVERY
3/25/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 0-0.3 3/25/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
0.3
TT
0.0
TT


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 0.3-0.6 3/25/10
(1st Attempt) Transition zone
TOP NO SAMPLE BOTTOM
0.3 TR
0.6 TR
4.6 S #2

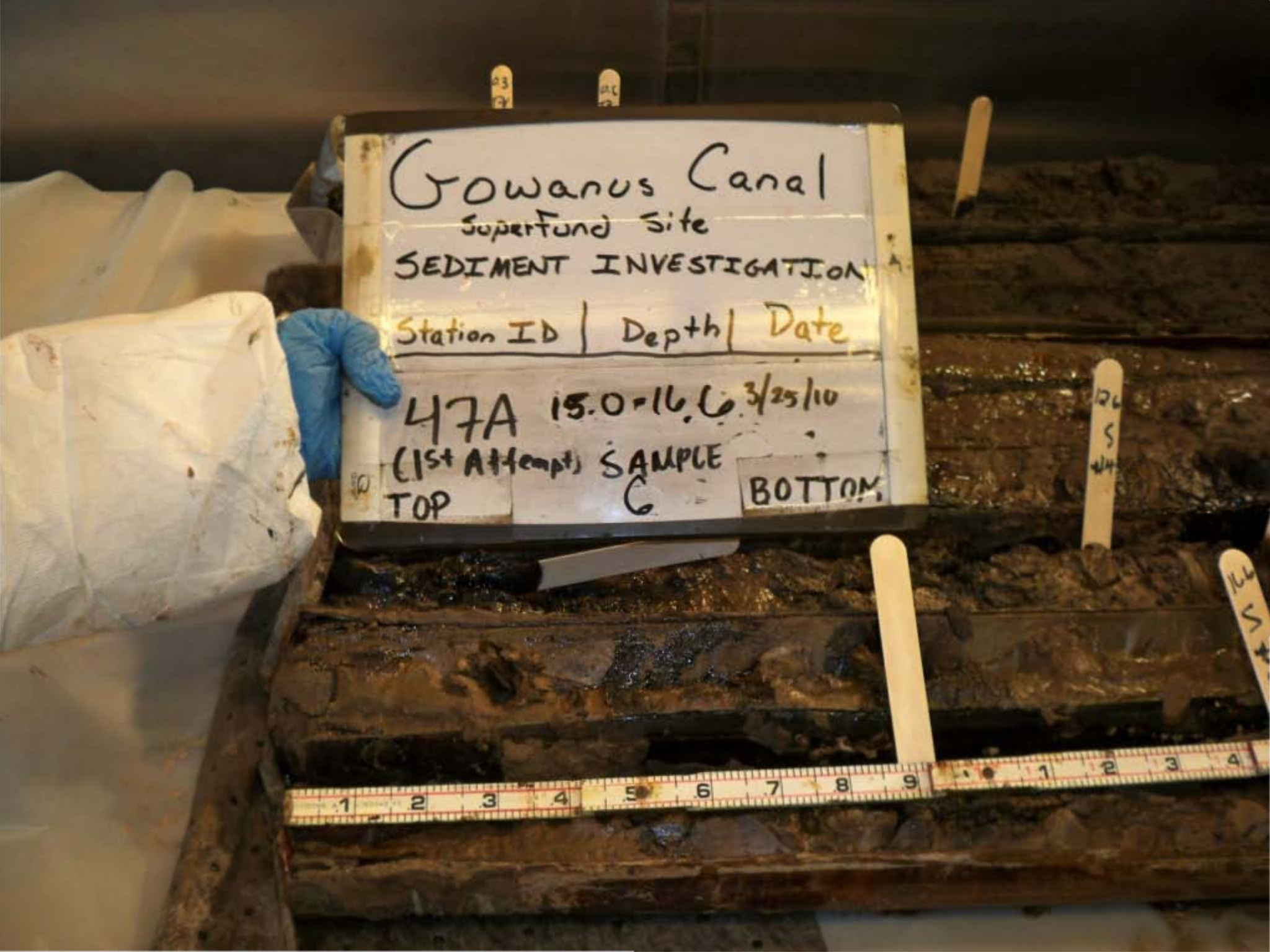

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A OC-26 3/25/10
(1st Attempt) SAMPLE
TOP #1 BOTTOM

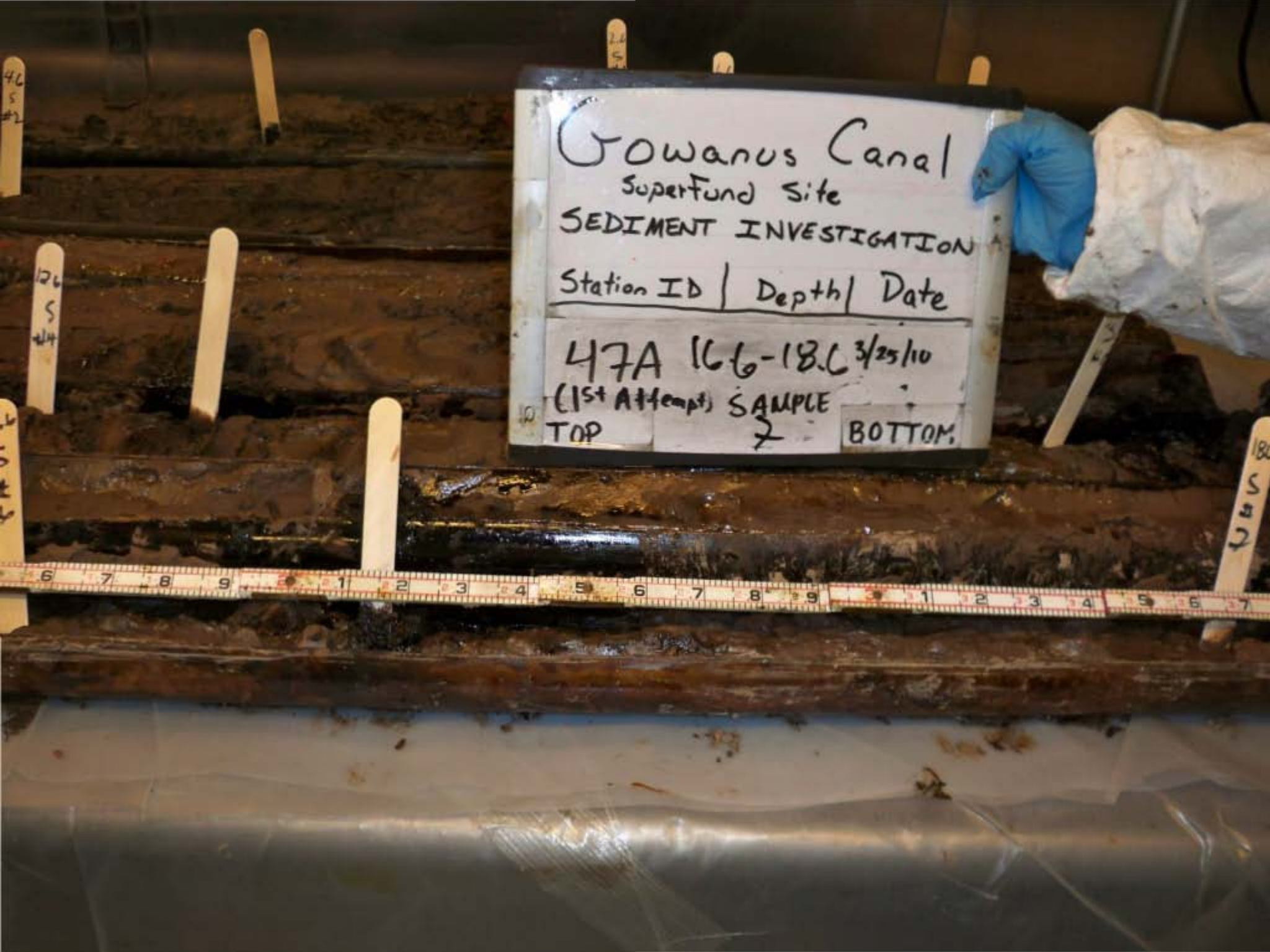

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 10.6-11.2 3/25/10
(1st Attempt) SAMPLE 4
TOP
BOTTOM
2.6 S #1
6.6 S #3
10.6
14.6 #3

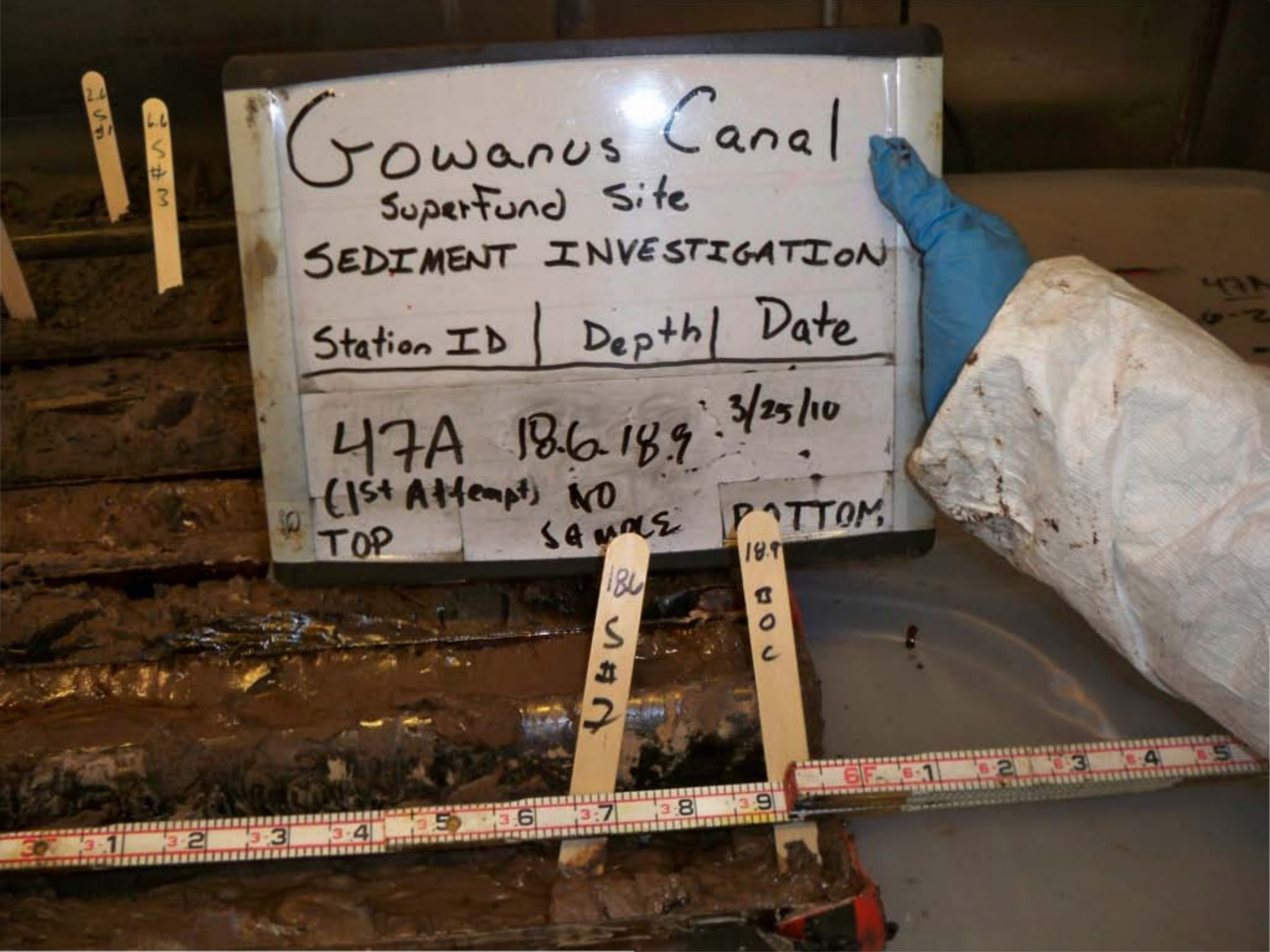

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 11.2-12.6
SAMPLE
4
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 12.6-14.6 3/25/10
(1st Attempt) SAMPLE
TOP
BOTTOM

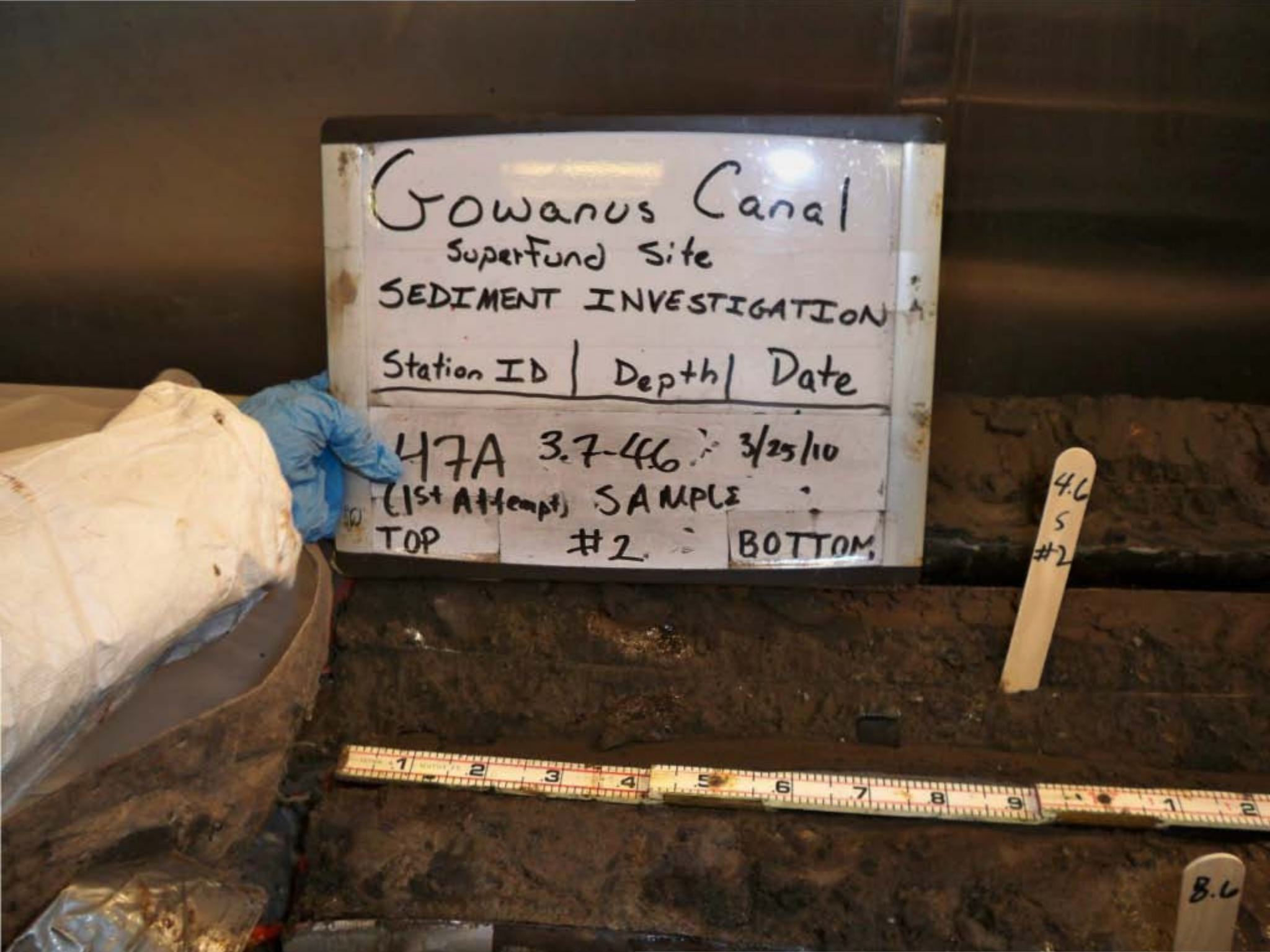

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 14.6-15.0 3/25/10
SAMPLE
6
BOTTOM
S #3
S #7
GhostDuster


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 15.0-16.6 3/25/10
(1st Attempt) SAMPLE
TOP C BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 16.6-18.6 3/25/10
(1st Attempt) SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 18.6 18.9 3/25/10
(1st Attempt) NO
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 2.6-3.7 3/25/10
(1st Attempt) SAMPLE
TOP #2 BOTTOM
2.6 S #1
6.6 S #3
10.6

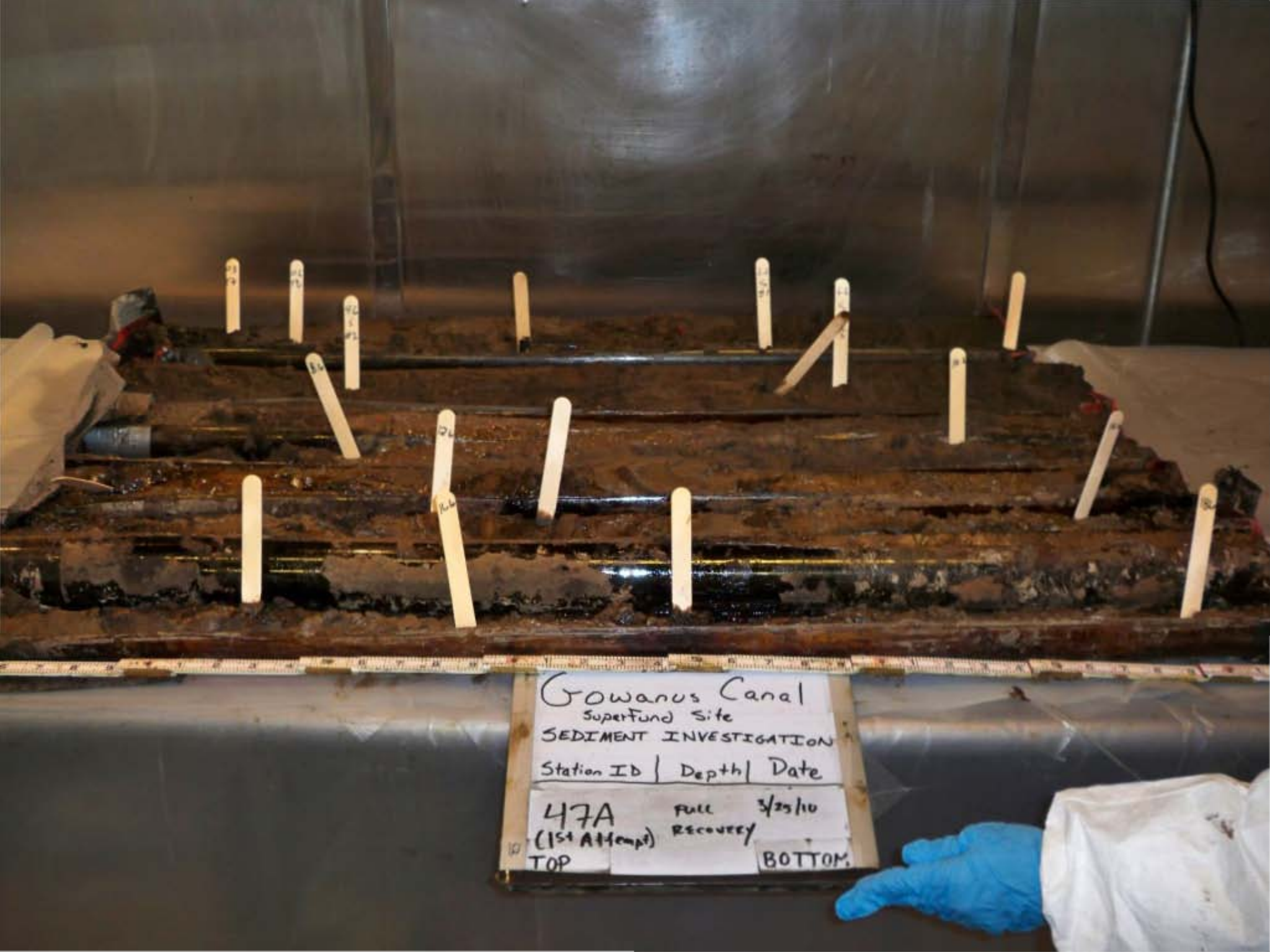

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 3.7-4.6 3/25/10
(1st Attempt) SAMPLE
TOP #2 BOTTOM
4.6
S
#2
8.6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 46-66 3/25/10
(1st Attempt) SAMPLE
TOP #3 BOTTOM
4.6 S #2
6.6 S #3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 6.6-7.6 3/23/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
6.6
S
#3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 7.6 - 8.6 3/25/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
8.6
12.6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A 8.6-10.6 3/25/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A
(1st Attempt)
Full Recovery
3/25/10
TOP
BOTTOM


Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
48A
(2nd Attempt)
FULL RECOVERY
3/29/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
48A 0-2 3/25/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

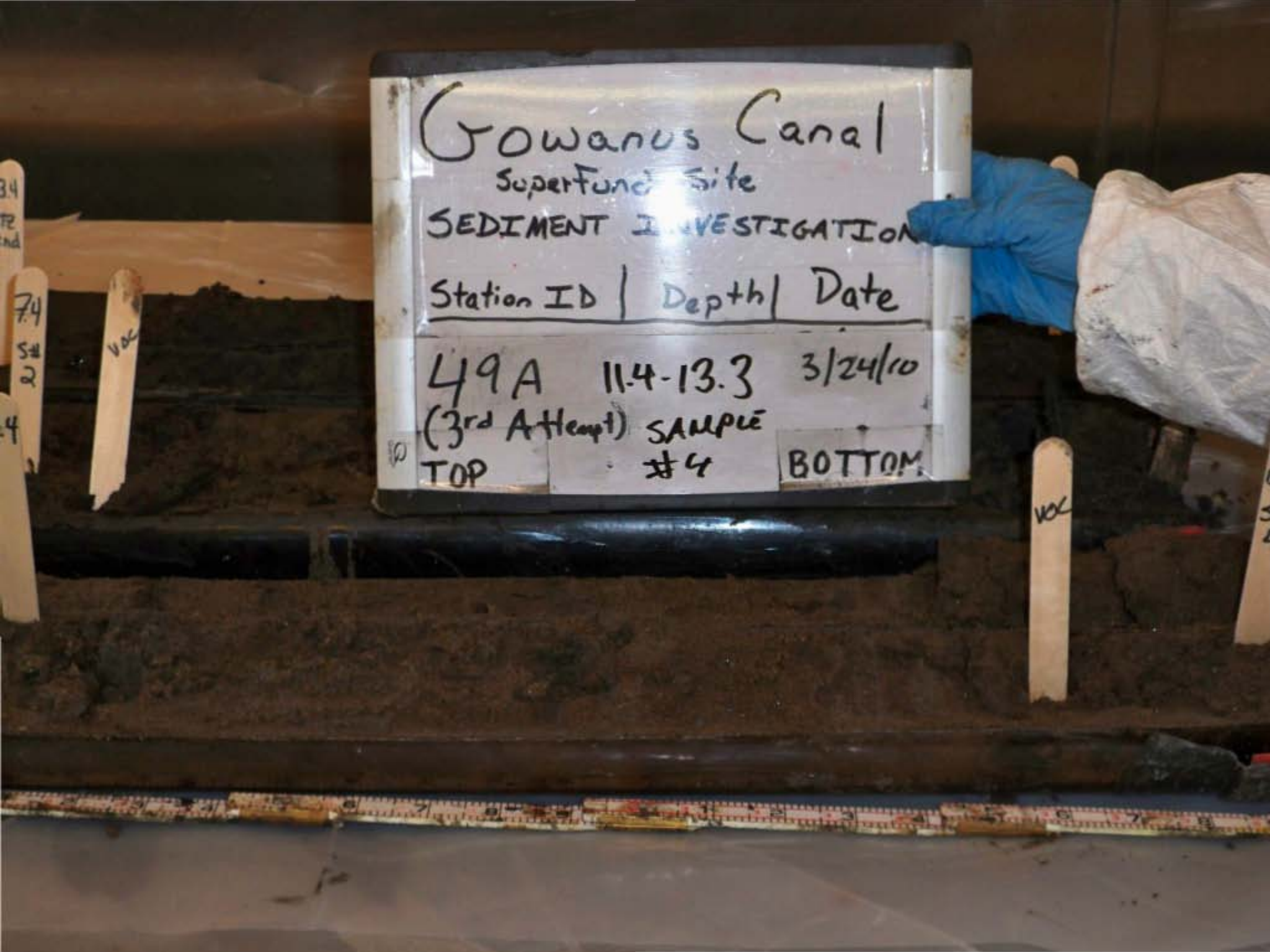

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
48A 2-4 3/25/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
2
4

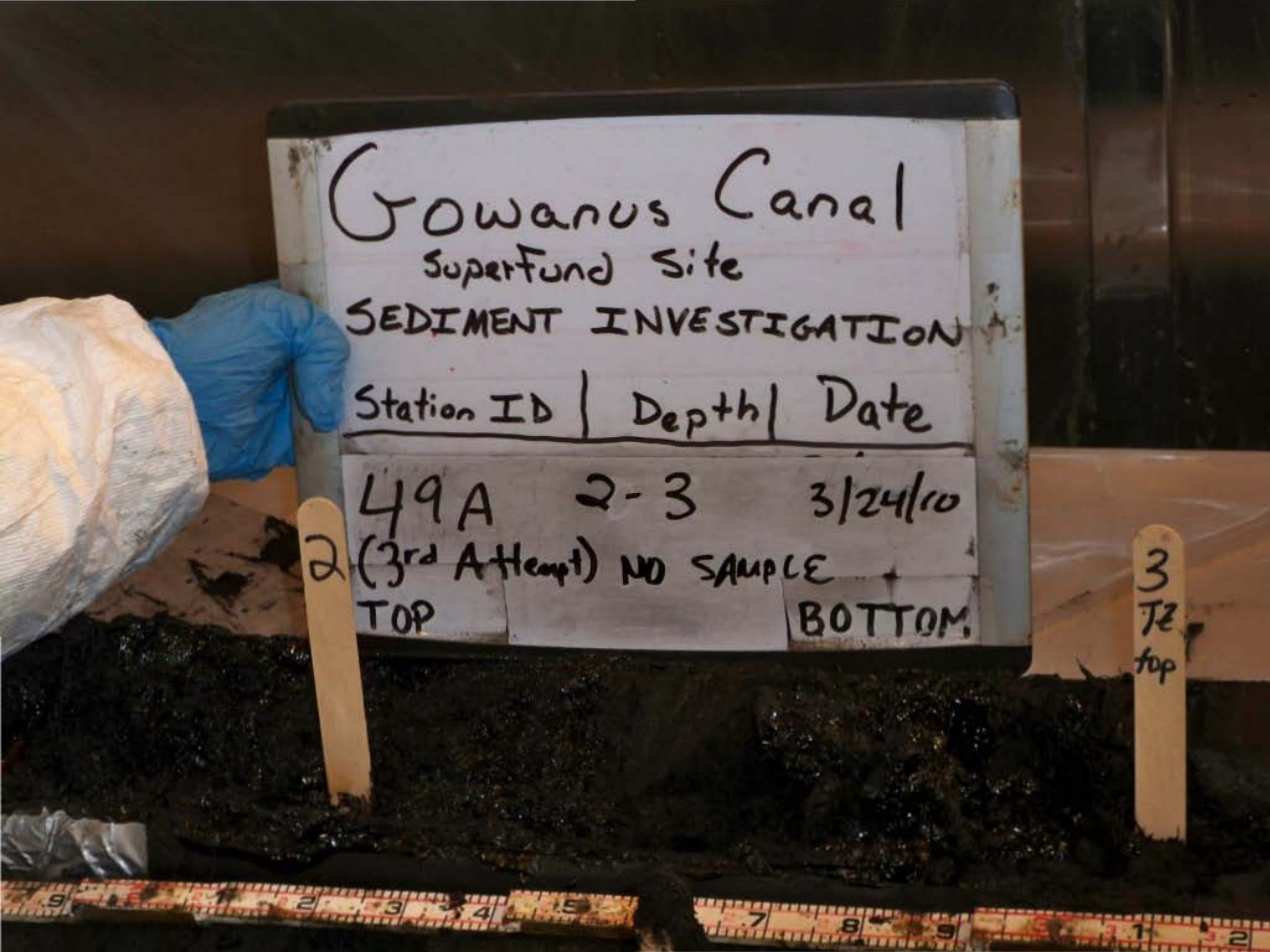

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
48A 4-5.5 3/25/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
4


wanus Canal
erfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
48A
(2nd Attempt)
FULL
RECOVERY
3/29/10
TOP
BOTTOM

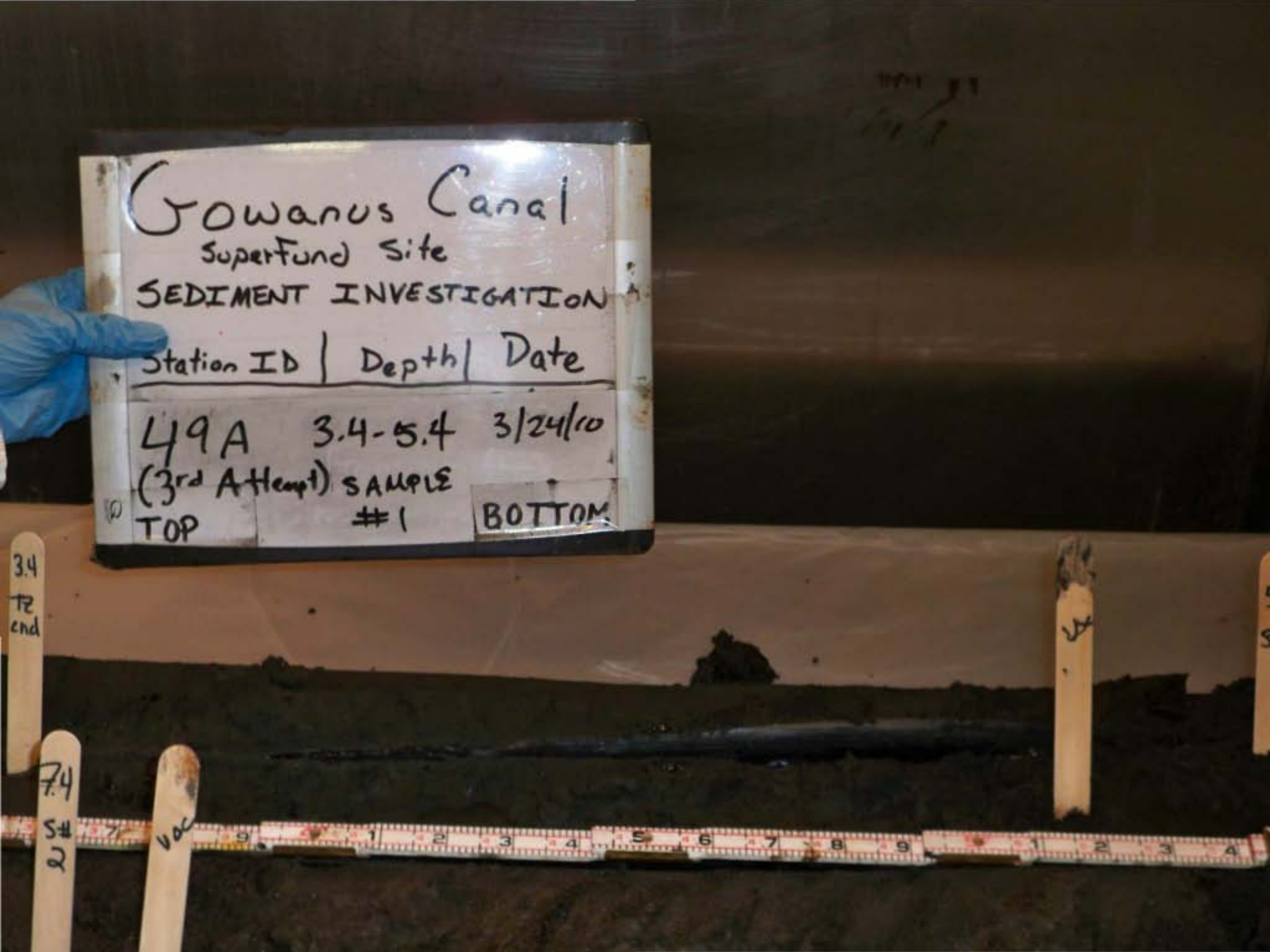

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A
(3rd Attempt)
FULL RECOVERY
3/24/10
TOP
BOTTOM

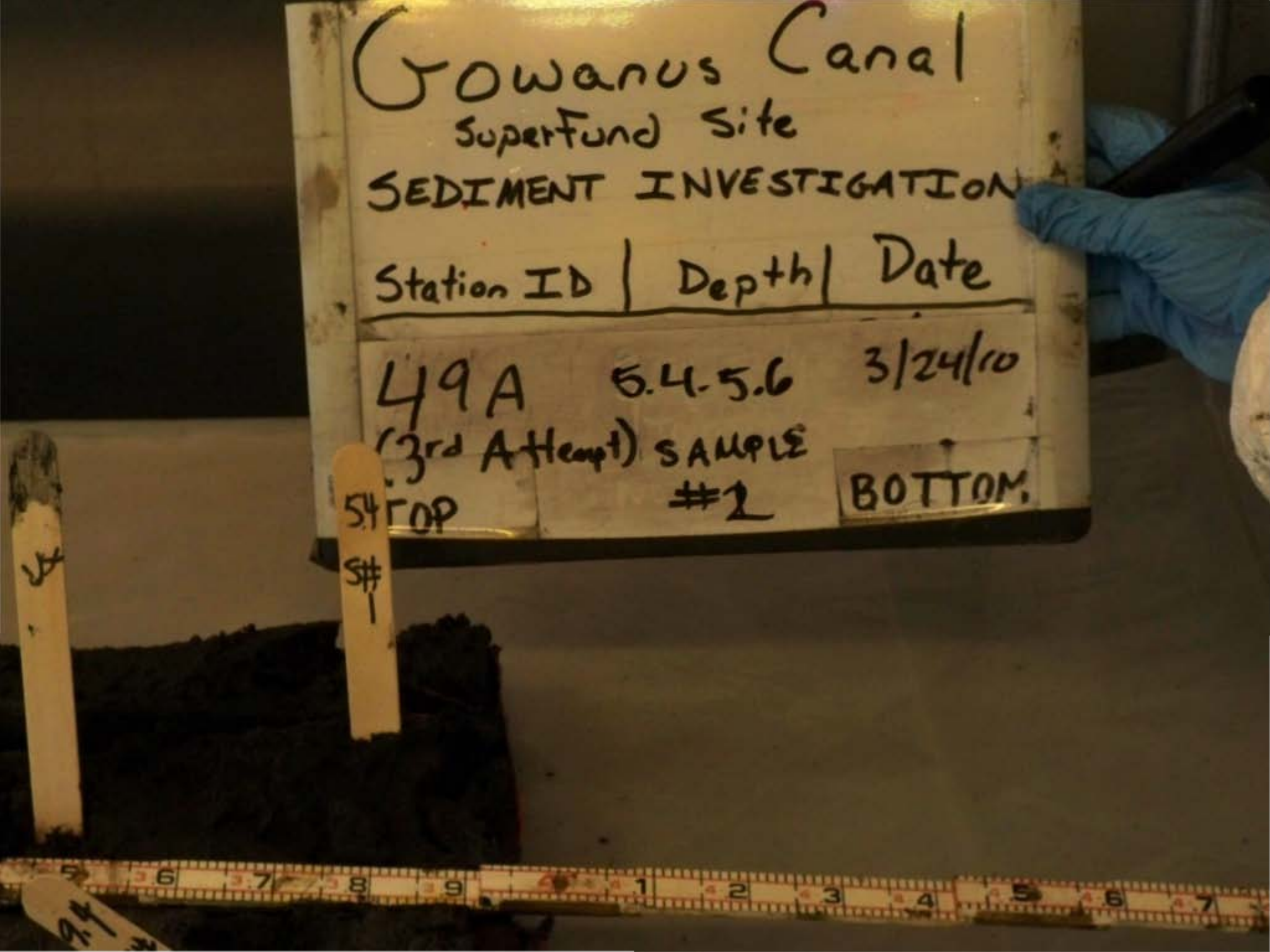

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 02 3/24/10
(3rd Attempt) NO SAMPLE
TOP
BOTTOM

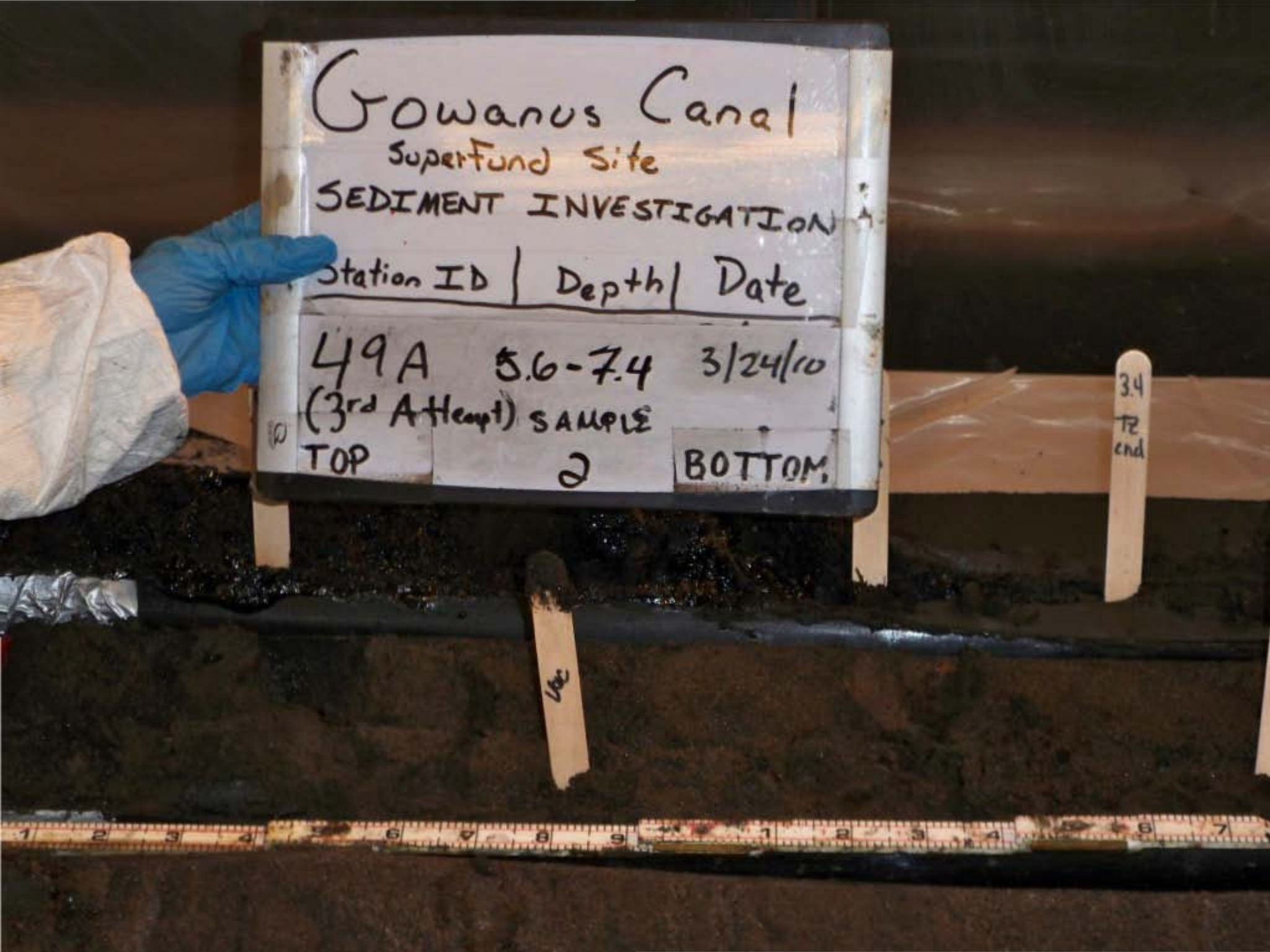

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 11.4-13.3 3/24/10
(3rd Attempt) SAMPLE #4
TOP
BOTTOM
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 2-3 3/24/10
(3rd Attempt) NO SAMPLE
TOP
BOTTOM
2
3
TE
top

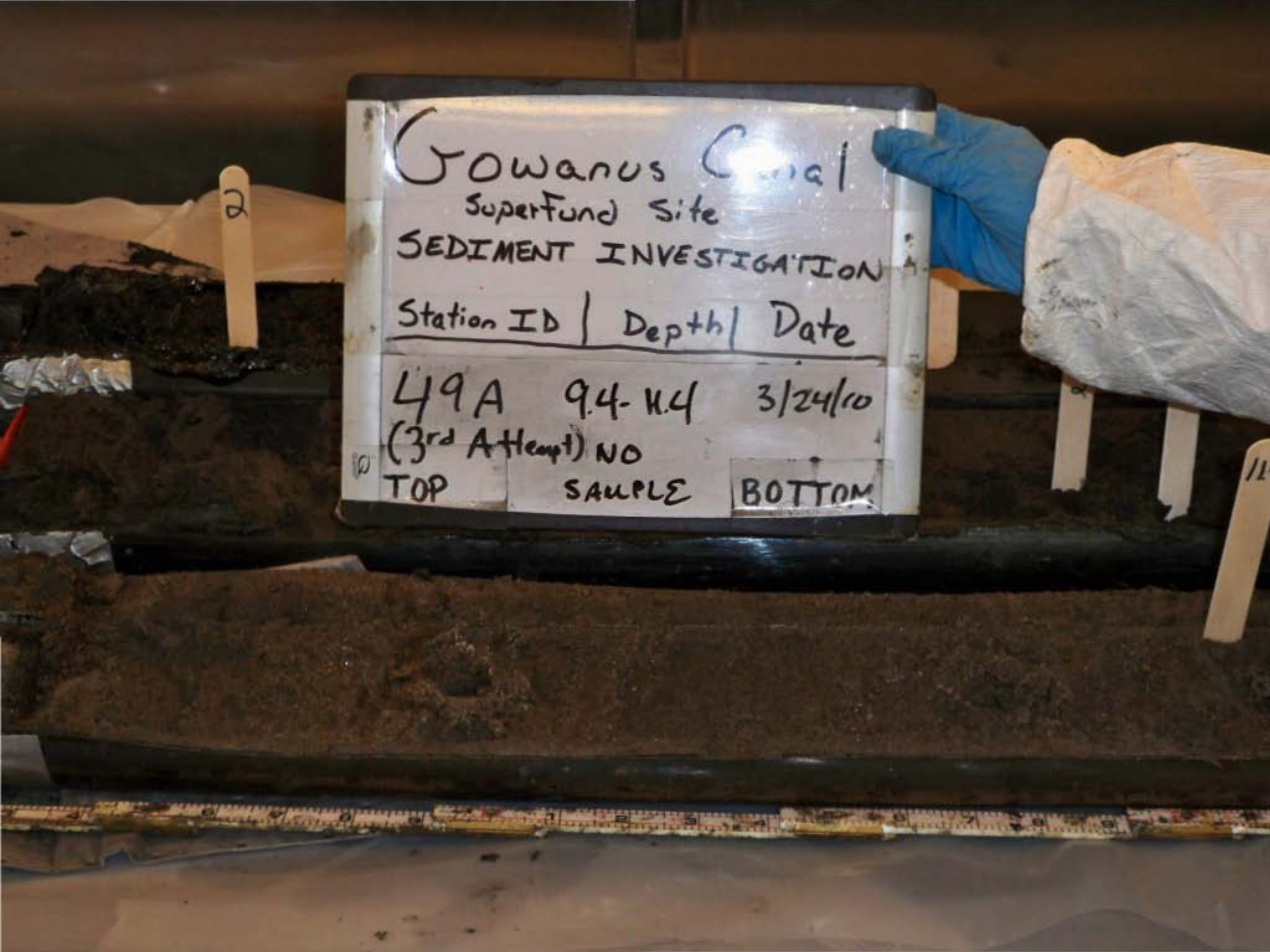

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 3.0-3.4 3/24/10
(3rd Attempt) [Transition Zone]
TOP NO SAMPLE BOTTOM
3 TZ top
3.4 TZ end
7.4 S#2
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 3.4-5.4 3/24/10
(3rd Attempt) SAMPLE #1
TOP BOTTOM
3.4
TR end
7.4
S#2
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 5.4-5.6 3/24/10
(3rd Attempt) SAMPLE #1
TOP
BOTTOM
54
S#
1

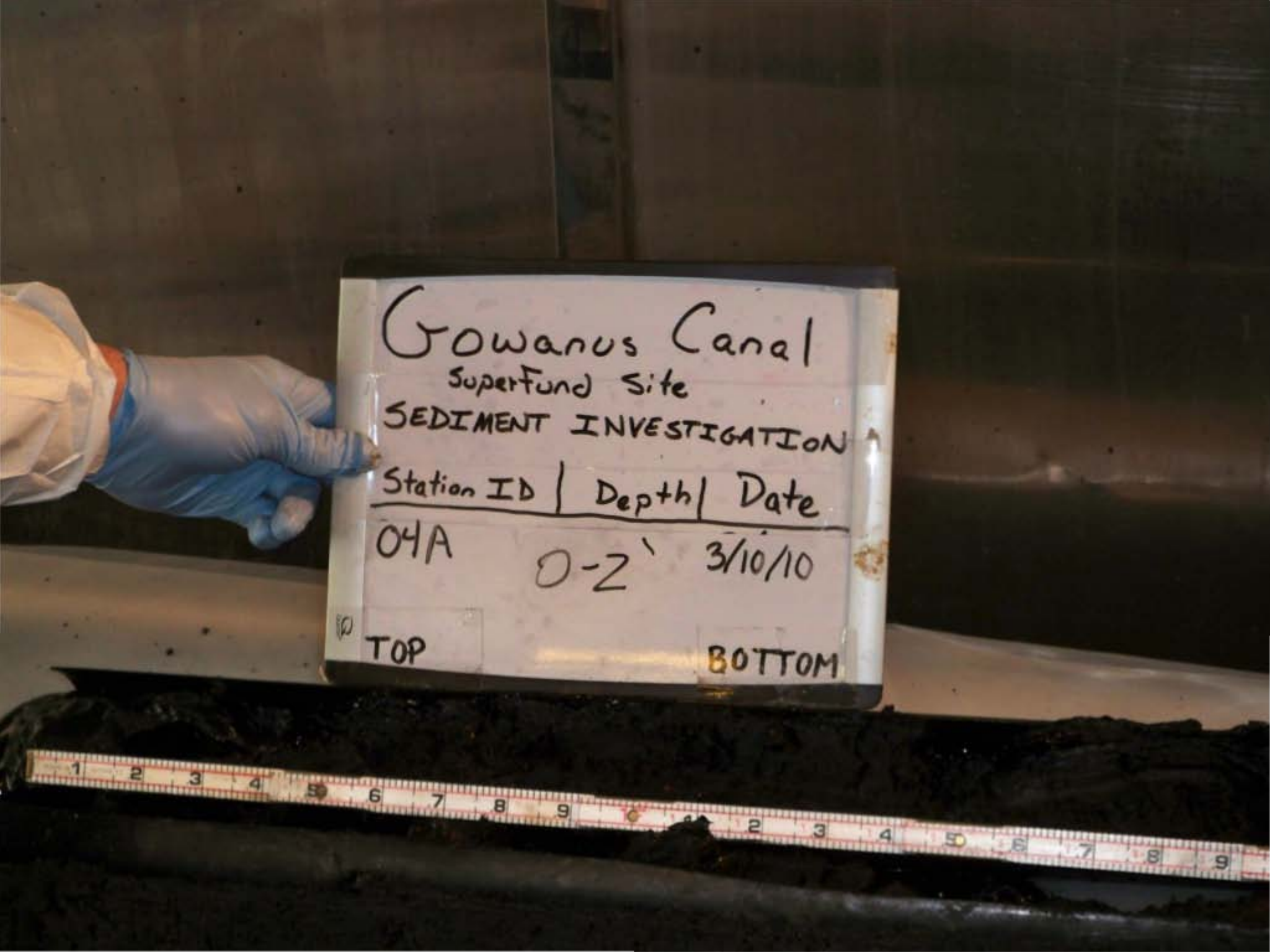

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 5.6-7.4 3/24/10
(3rd Attempt) SAMPLE
TOP 2 BOTTOM
3.4
TR
end
Vac

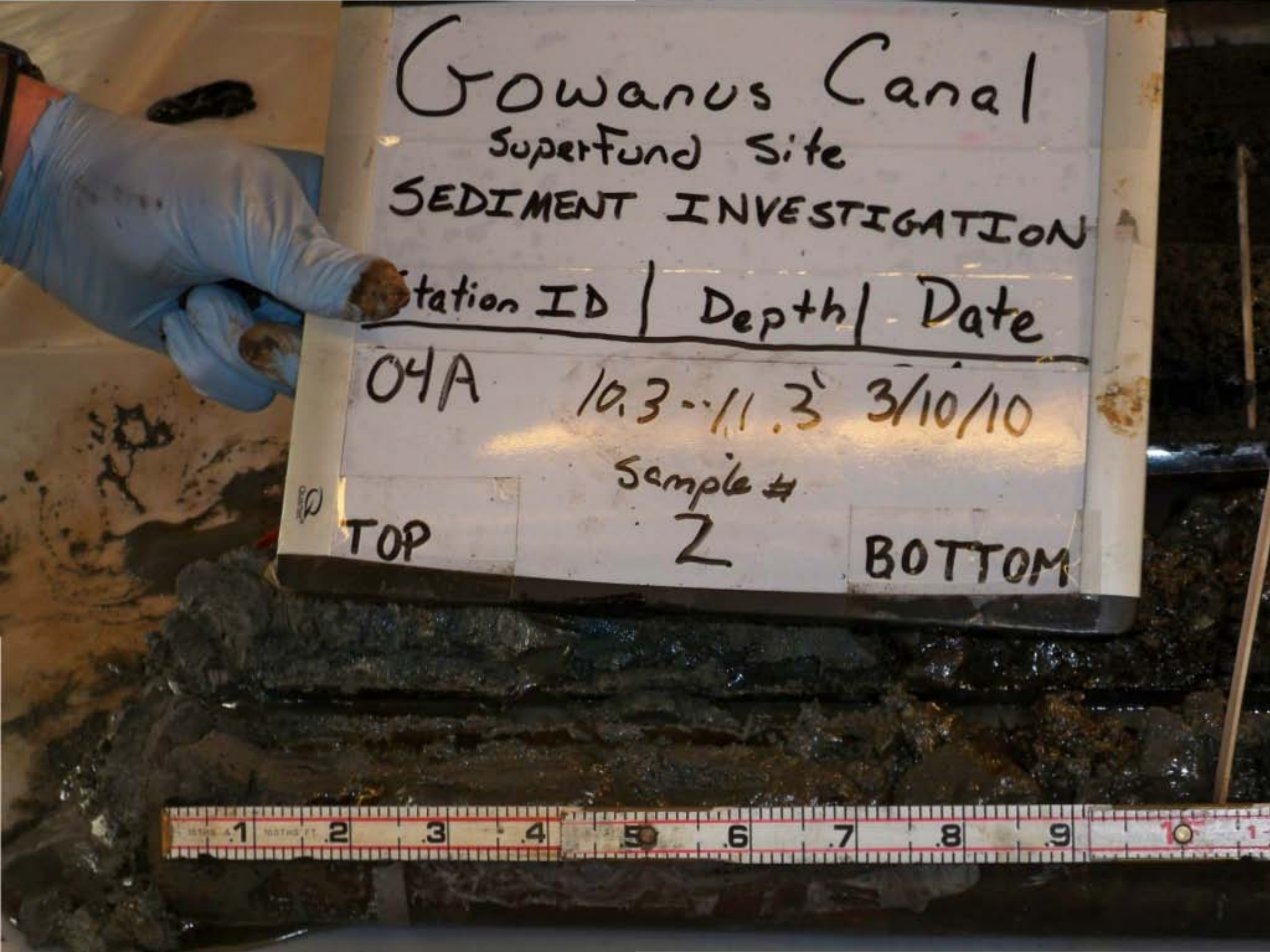

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 7.4 - 9.4 3/24/10
(3rd Attempt) SAMPLE
TOP 3 BOTTOM
VOC
VOC

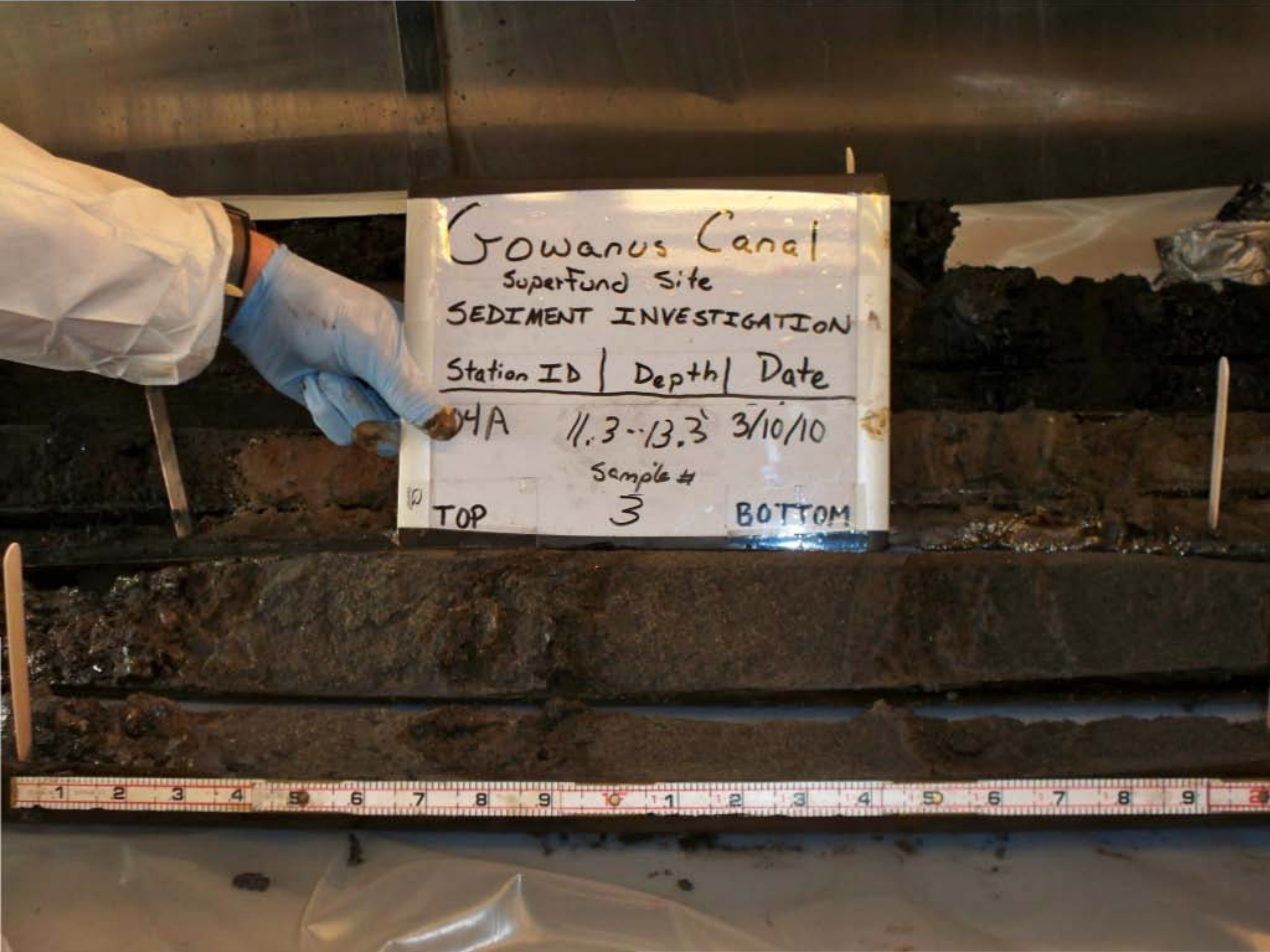

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A 9.4-11.4 3/24/10
(3rd Attempt) NO
TOP SAMPLE BOTTOM

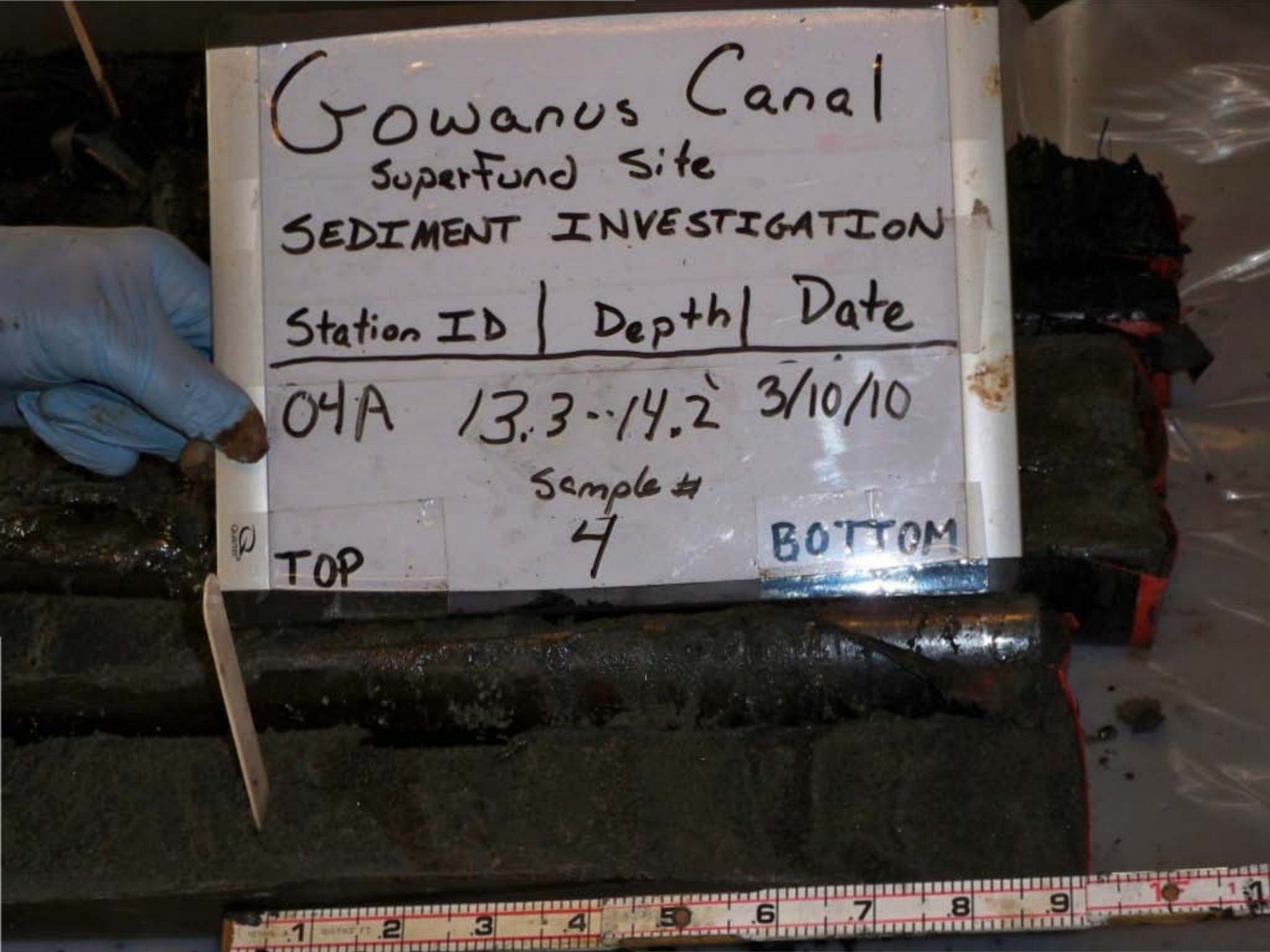

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A
(3rd Attempt)
FULL RECOVERY
3/24/10
TOP
BOTTOM

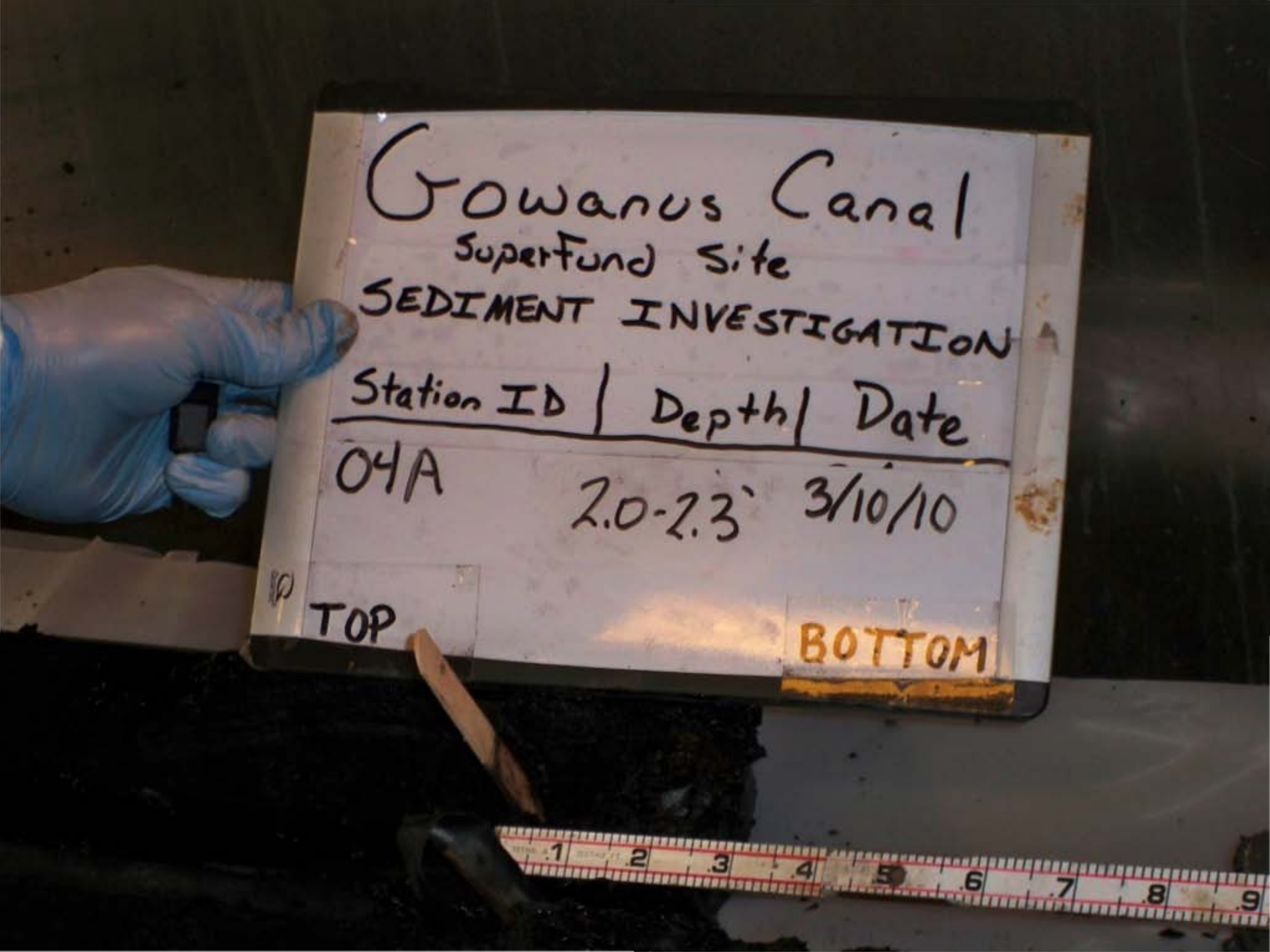

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A FULL RECOVERY 3/10/10
TOP
BOTTOM

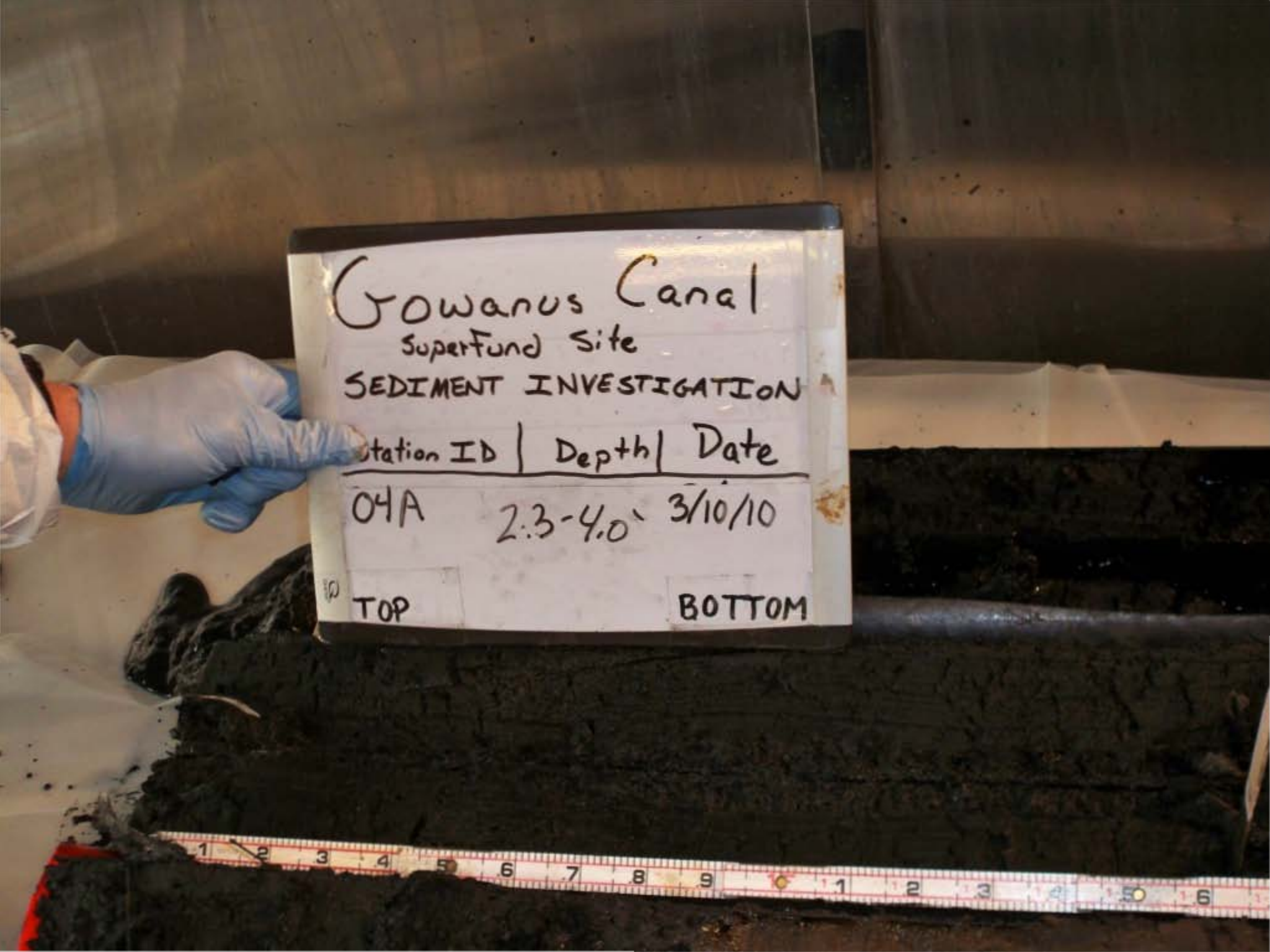

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 0-2' 3/10/10
TOP
BOTTOM

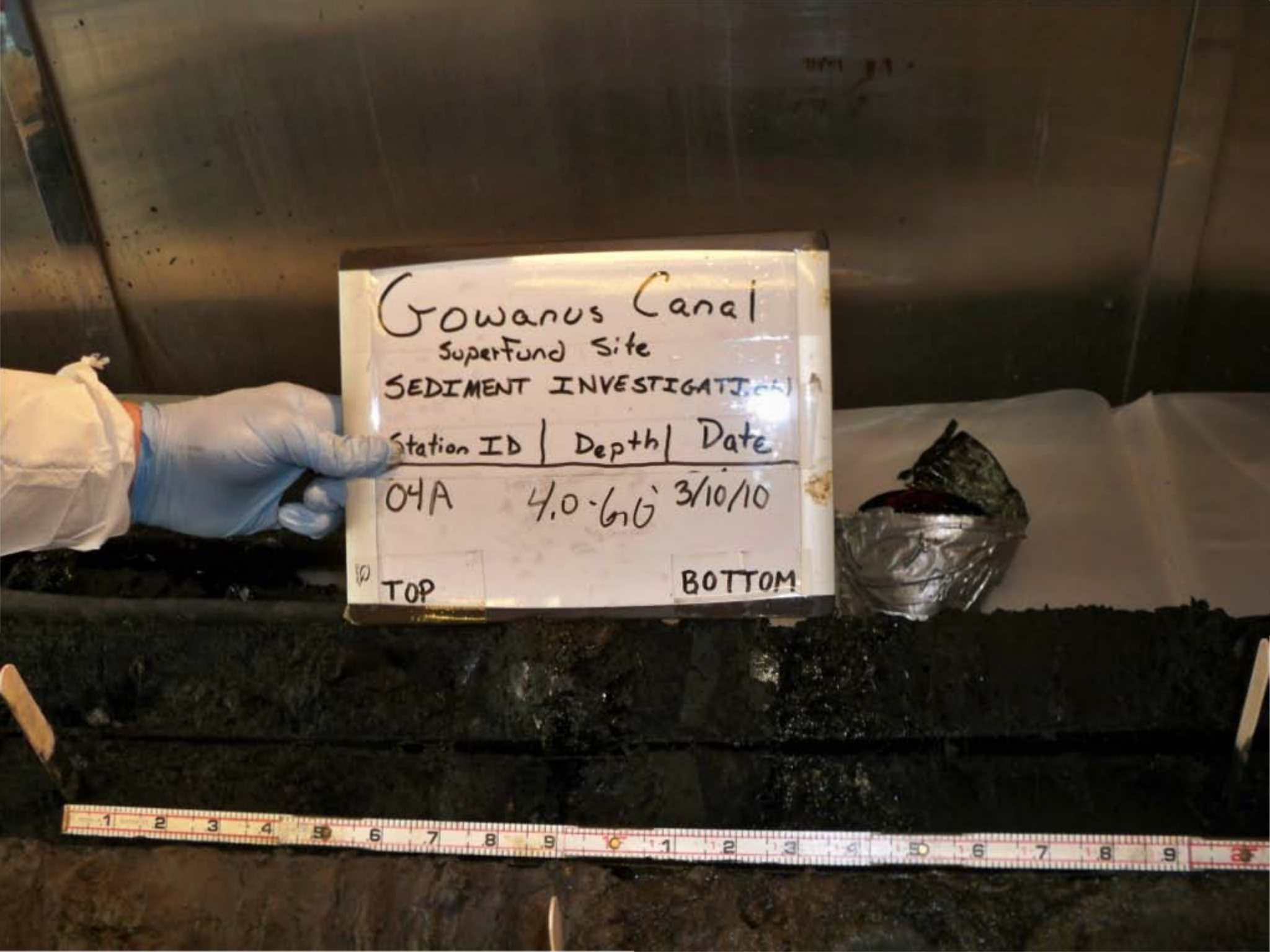

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 10.3 - 11.3' 3/10/10
Sample #
2
TOP
BOTTOM

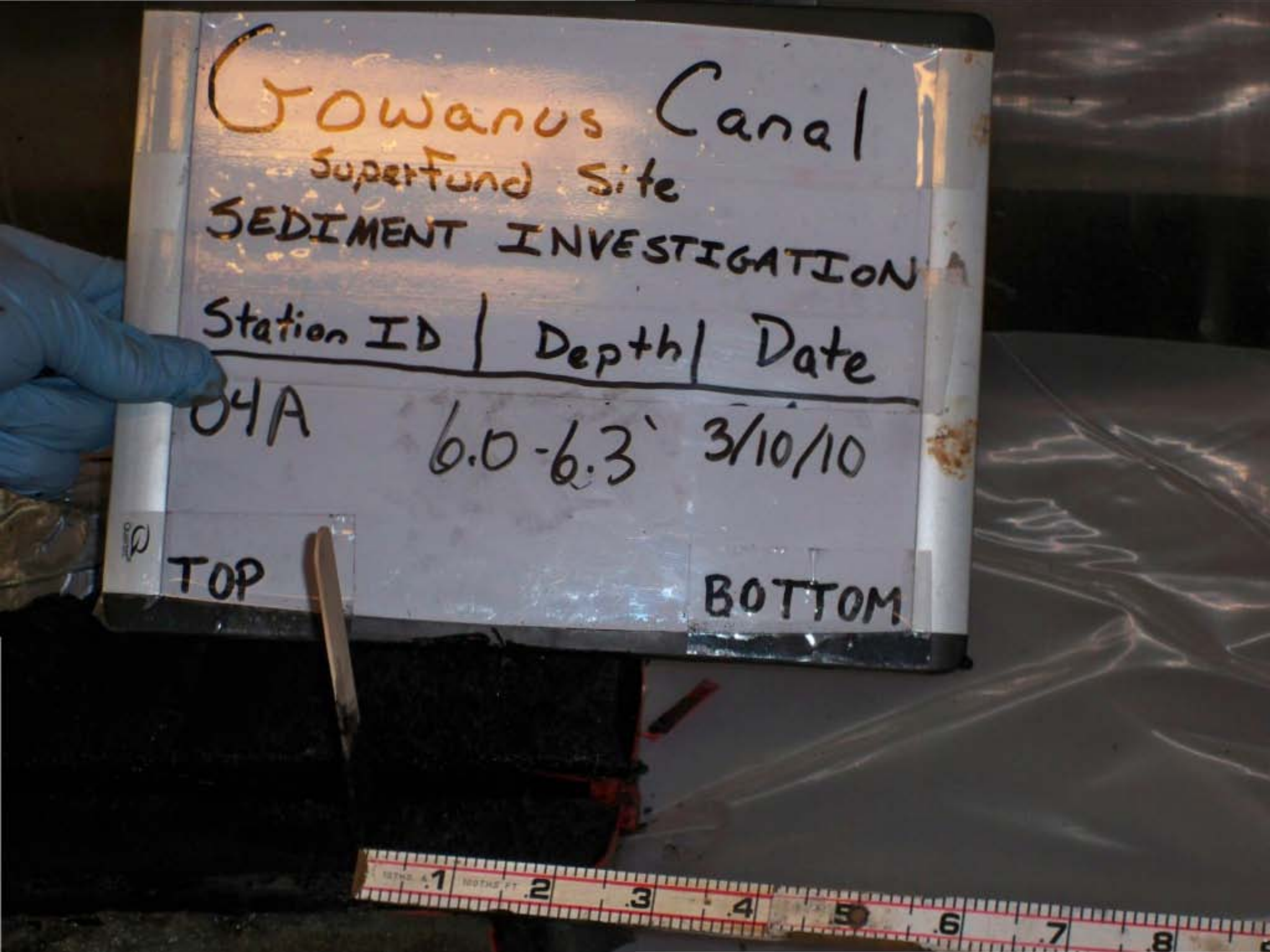

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
4A 11.3--13.3' 3/10/10
Sample #
TOP 3 BOTTOM

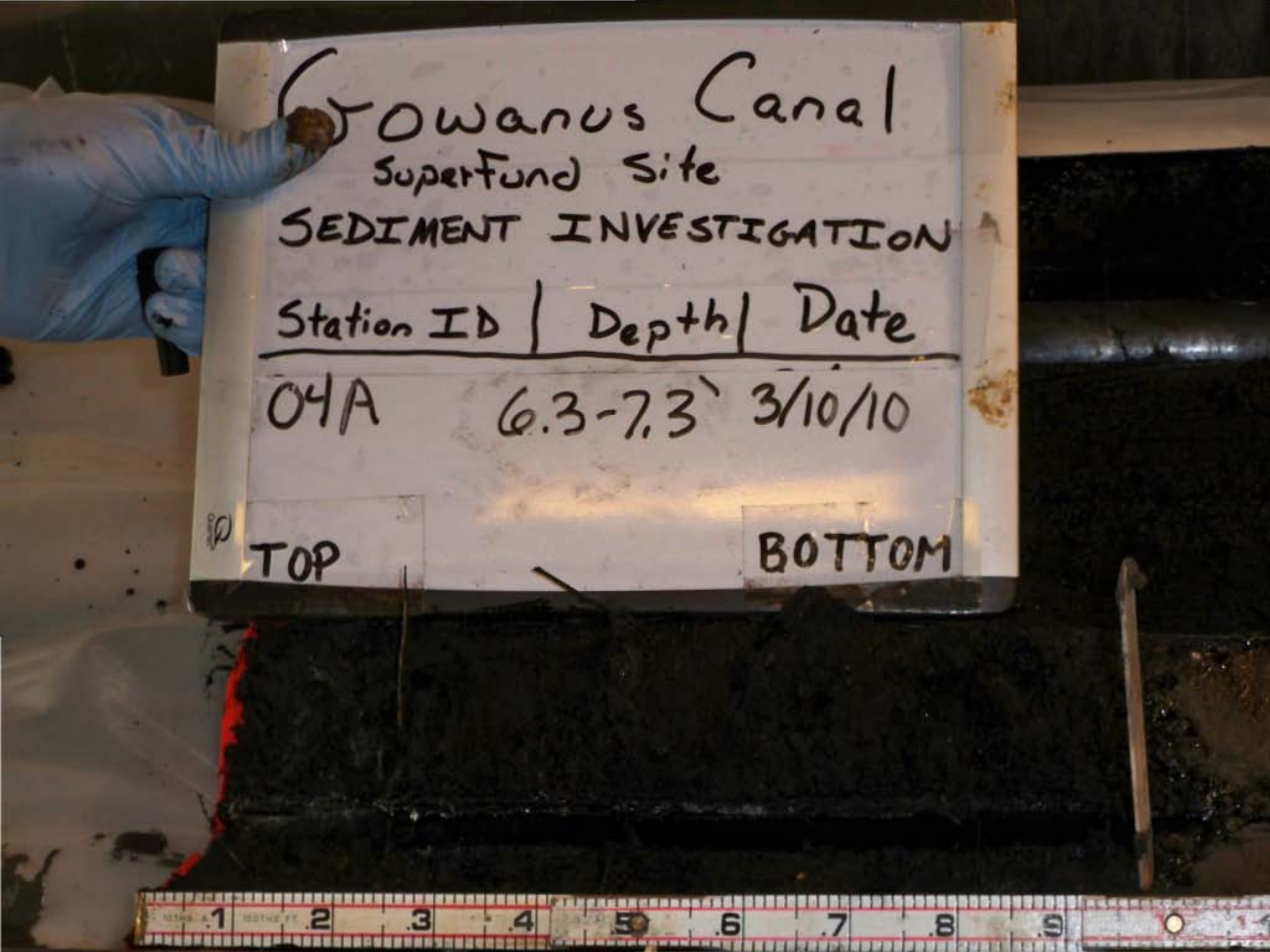

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 13.3--14.2' 3/10/10
Sample #
4
TOP
BOTTOM

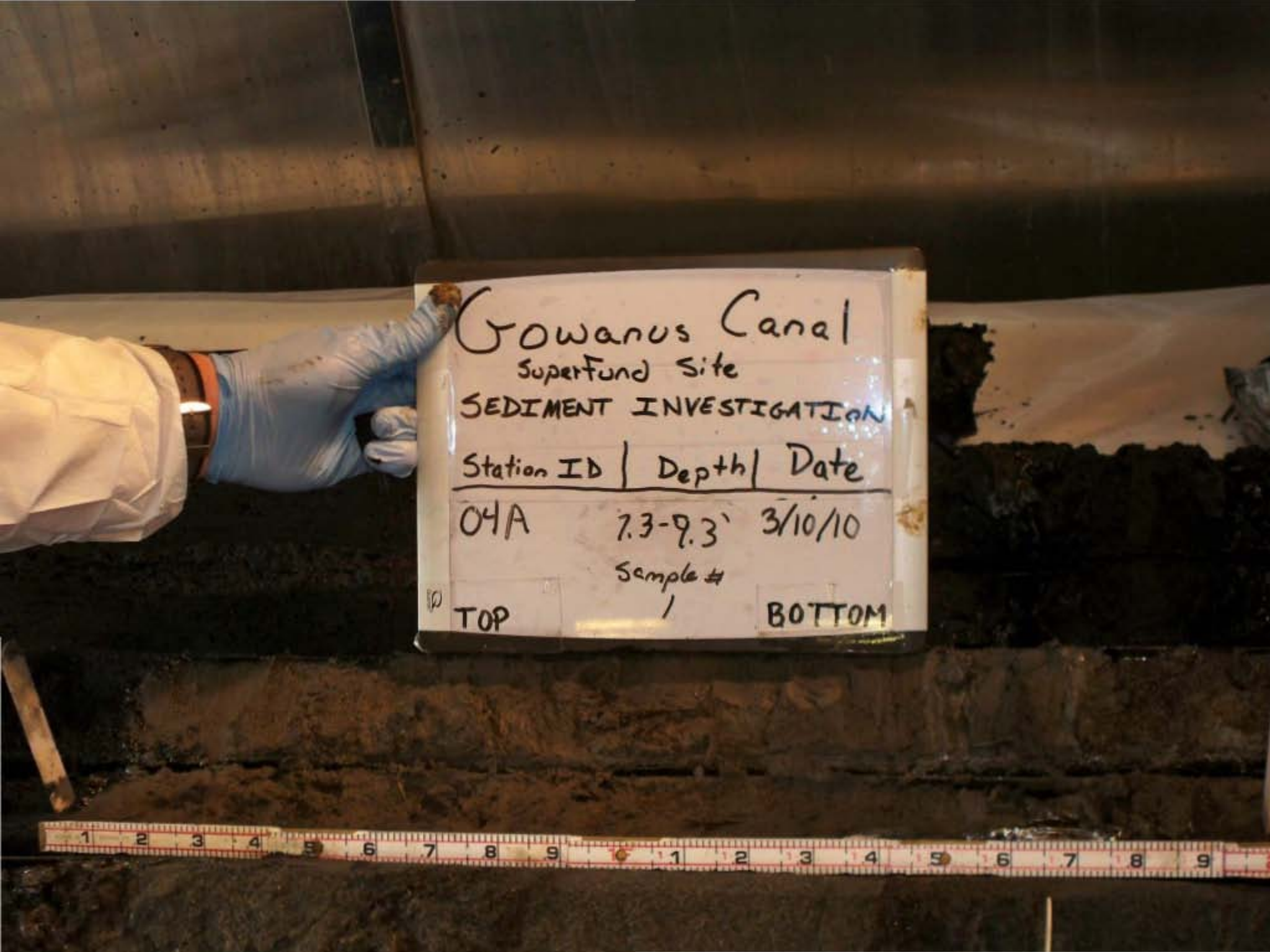

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 2.0-2.3' 3/10/10
TOP
BOTTOM

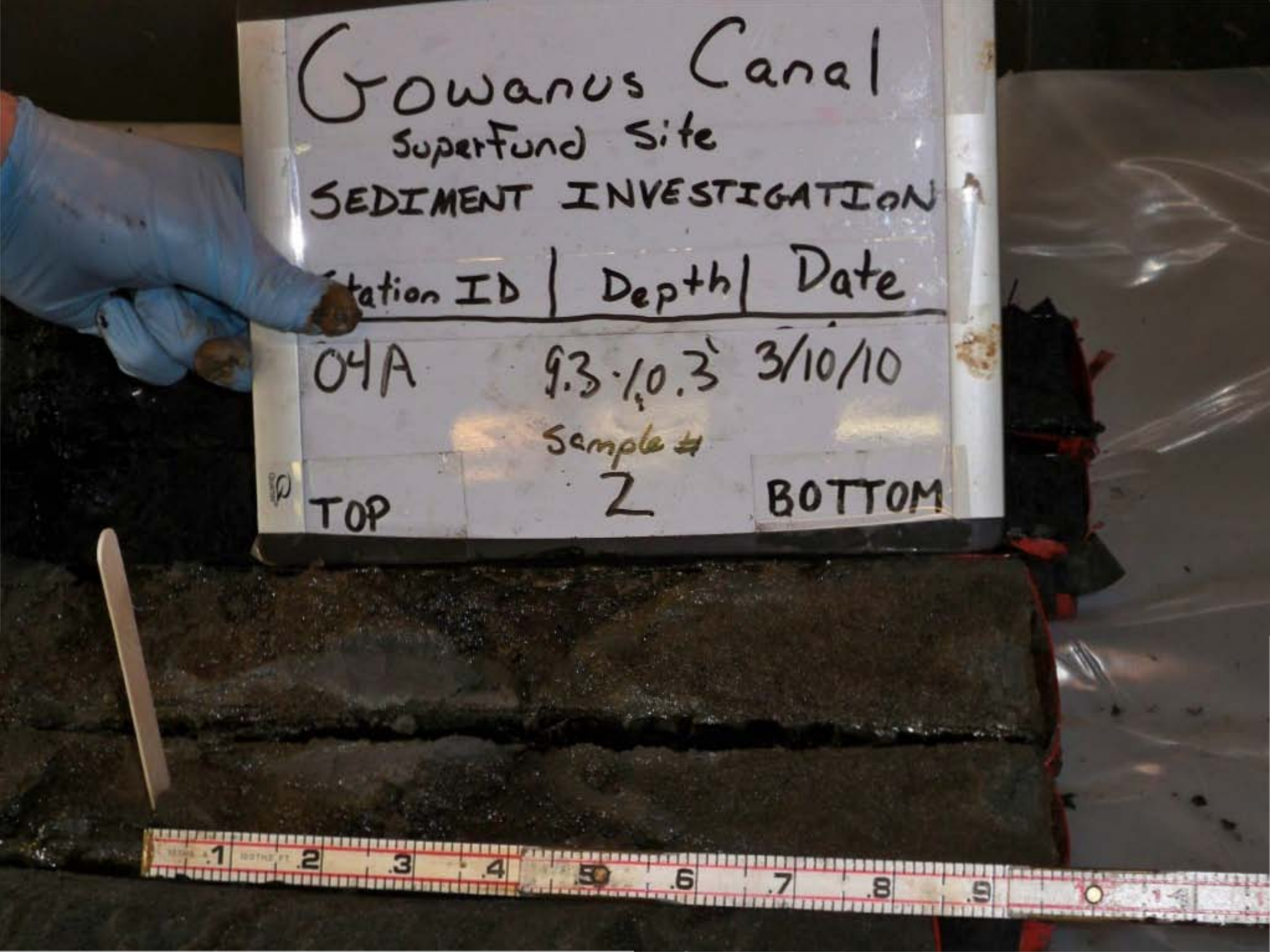

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 2.3-4.0' 3/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATI
Station ID | Depth | Date
04A 4.0-6.0' 3/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 6.0-6.3' 3/10/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 6.3-7.3' 3/10/10
TOP
BOTTOM

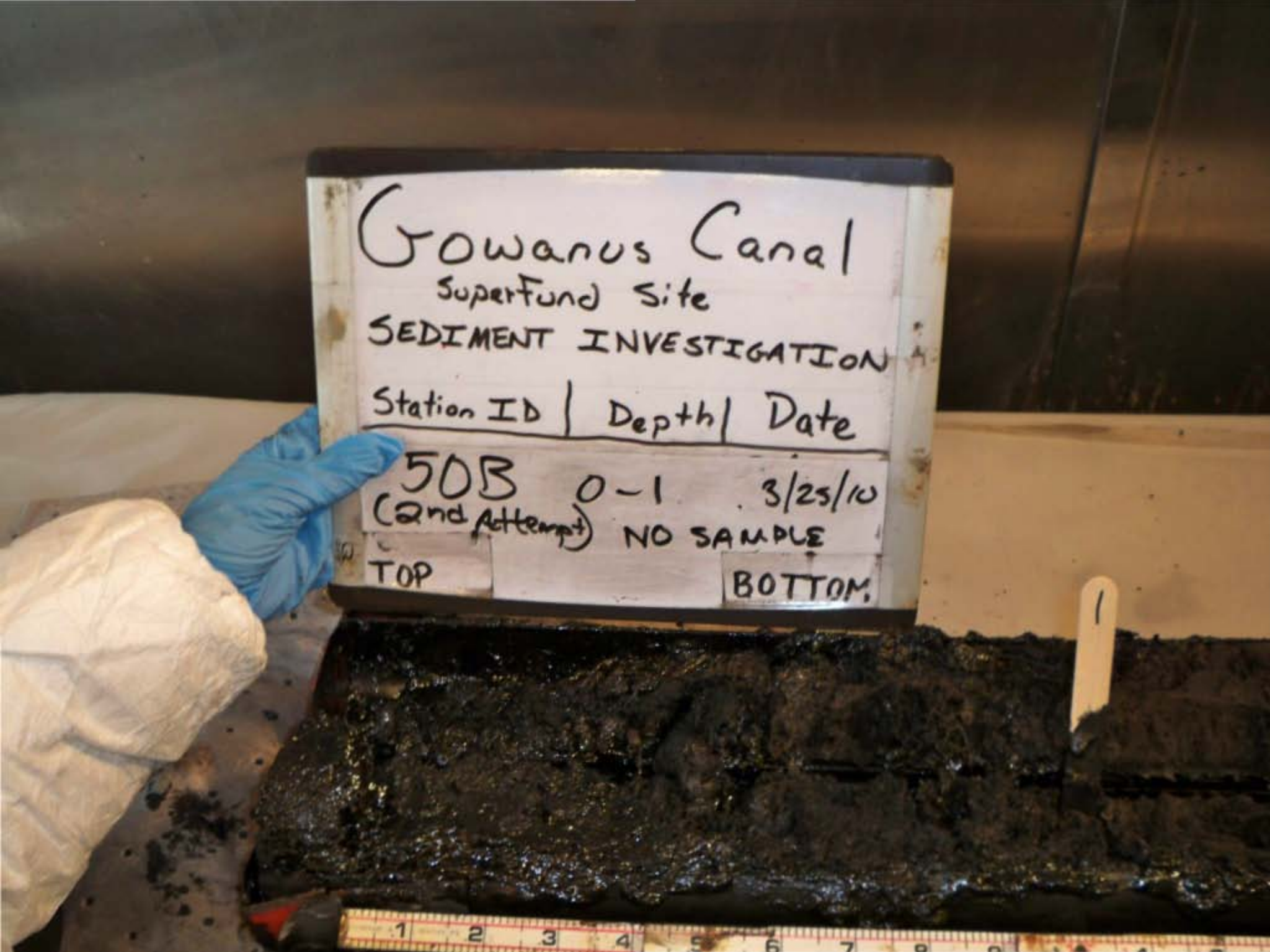

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
O4A 7.3-9.3' 3/10/10
Sample #
1
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A 9.3-10.3' 3/10/10
Sample #
2
TOP
BOTTOM

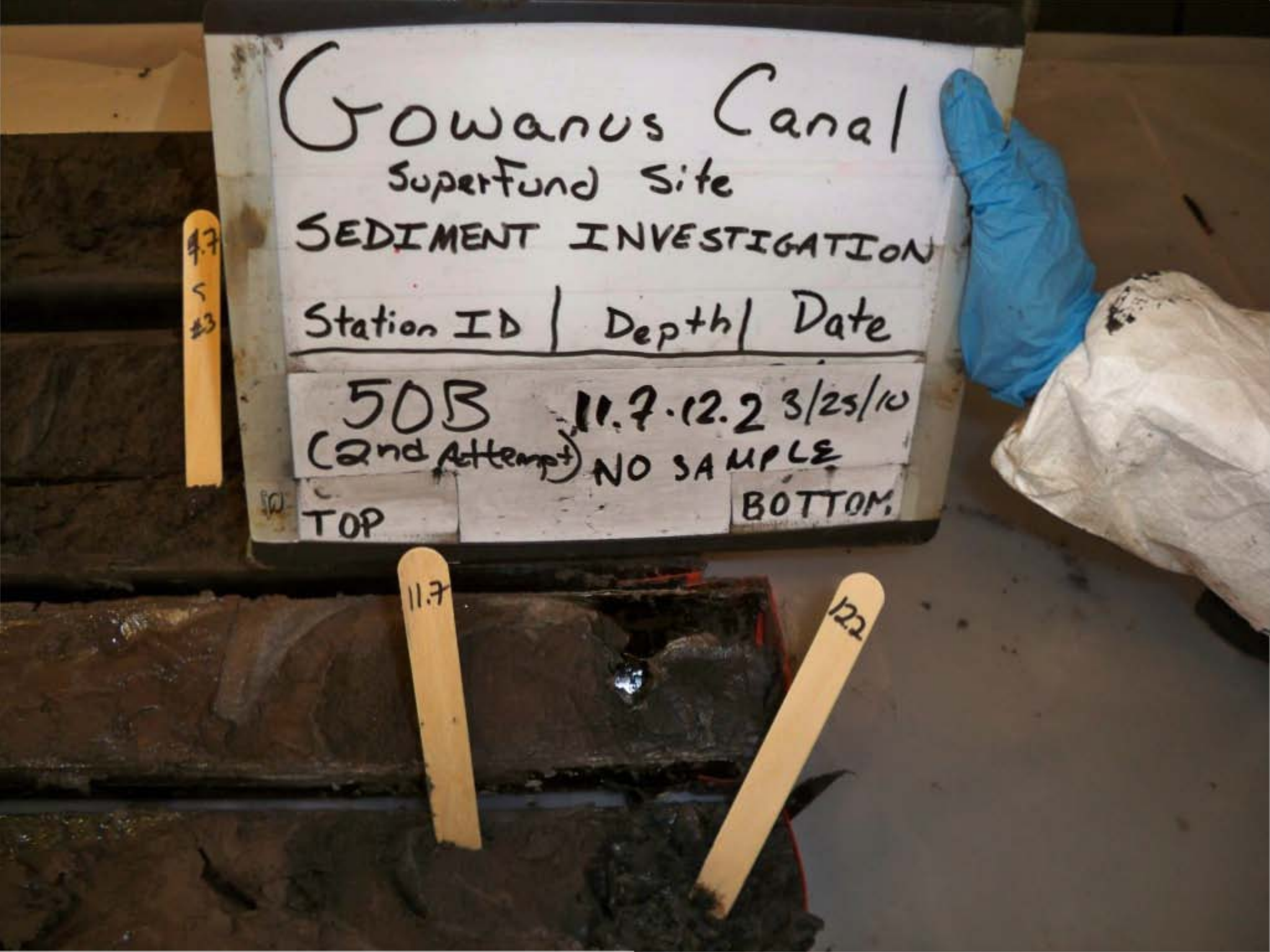

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A FULL RECOVERY 3/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A FULL RECOVERY 3/10/10
TOP
BOTTOM

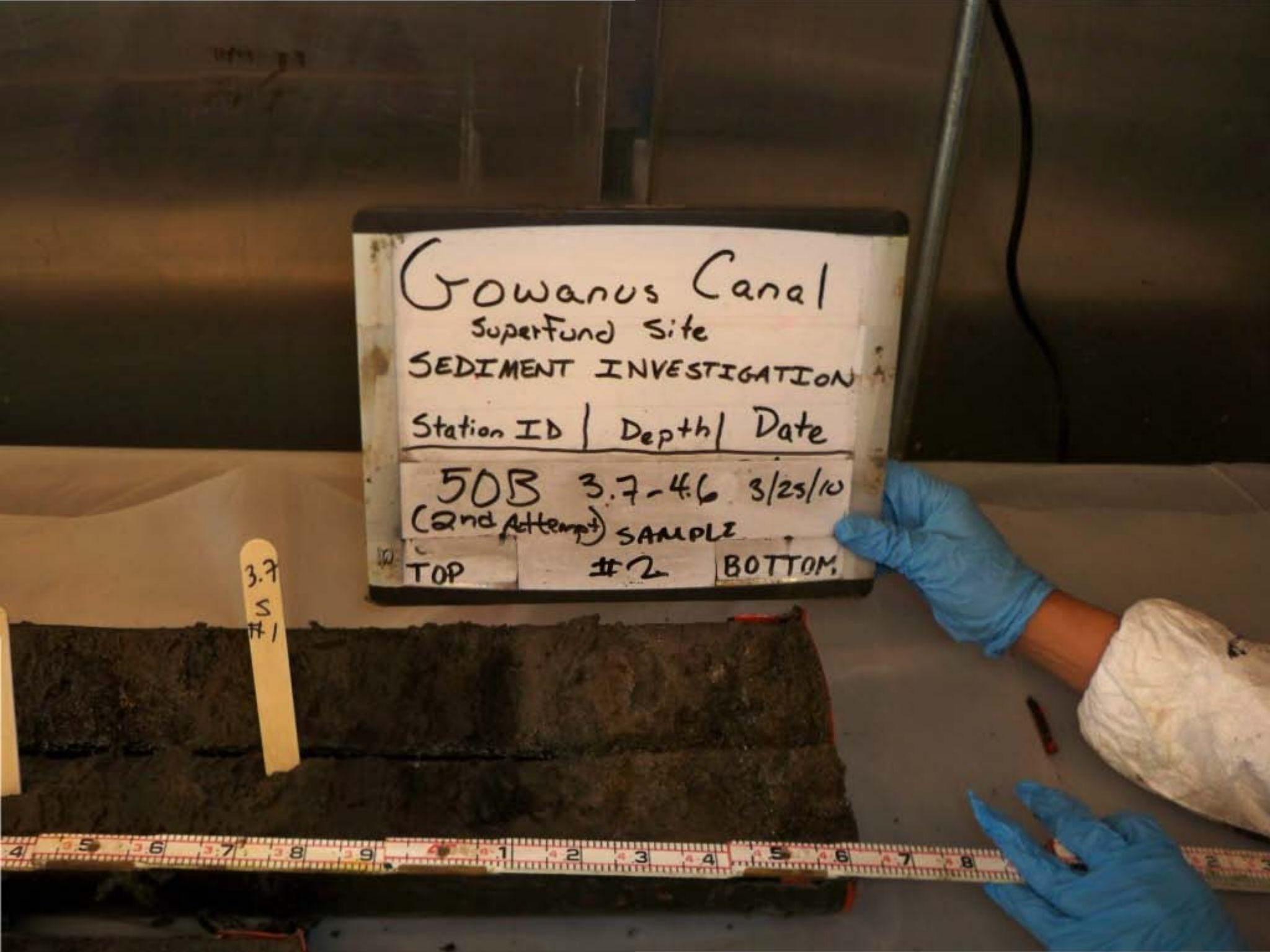

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B (2nd Attempt) FULL RECOVERY 3/25/10
TOP
BOTTOM

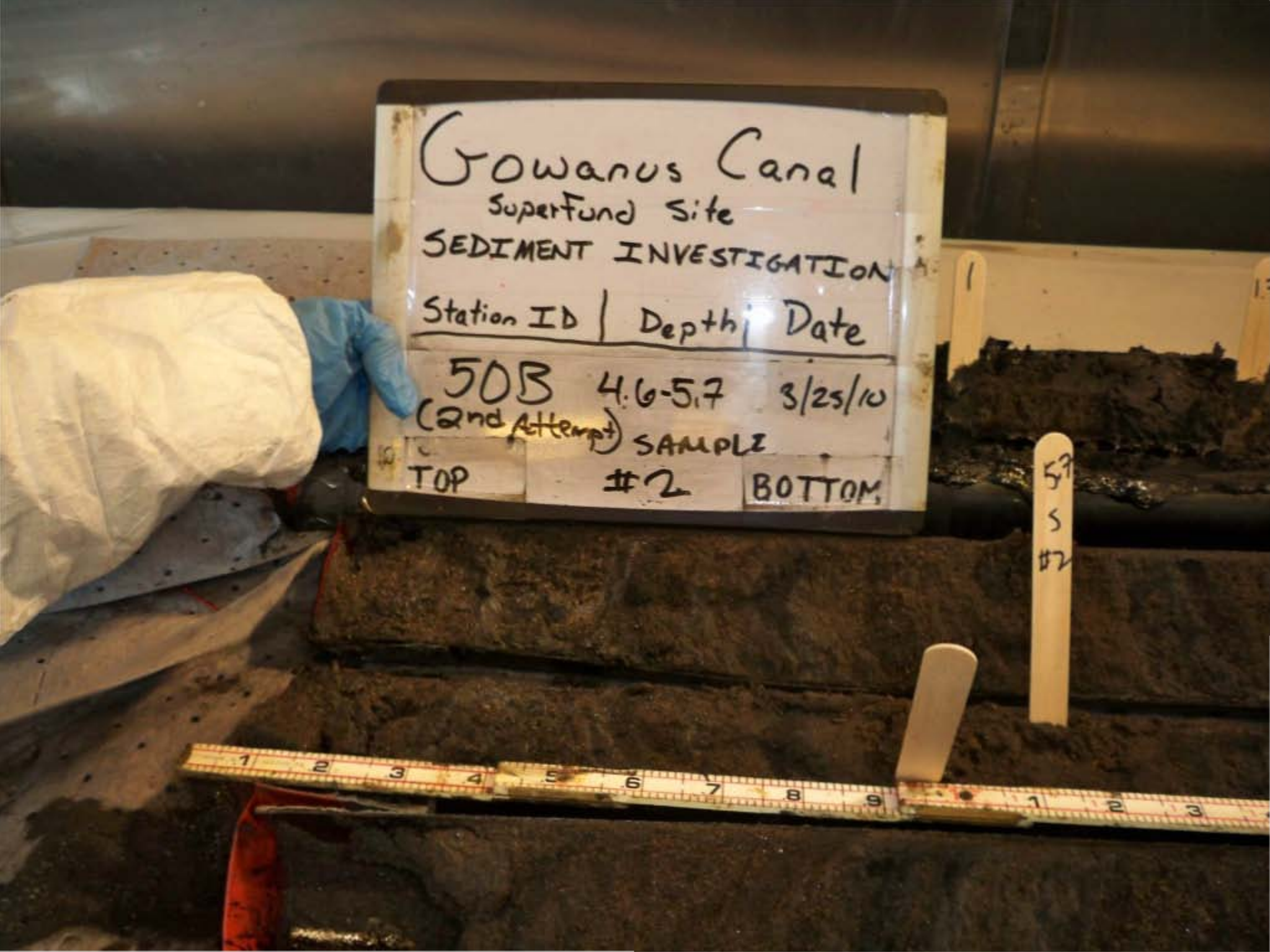

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 0-1 3/25/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

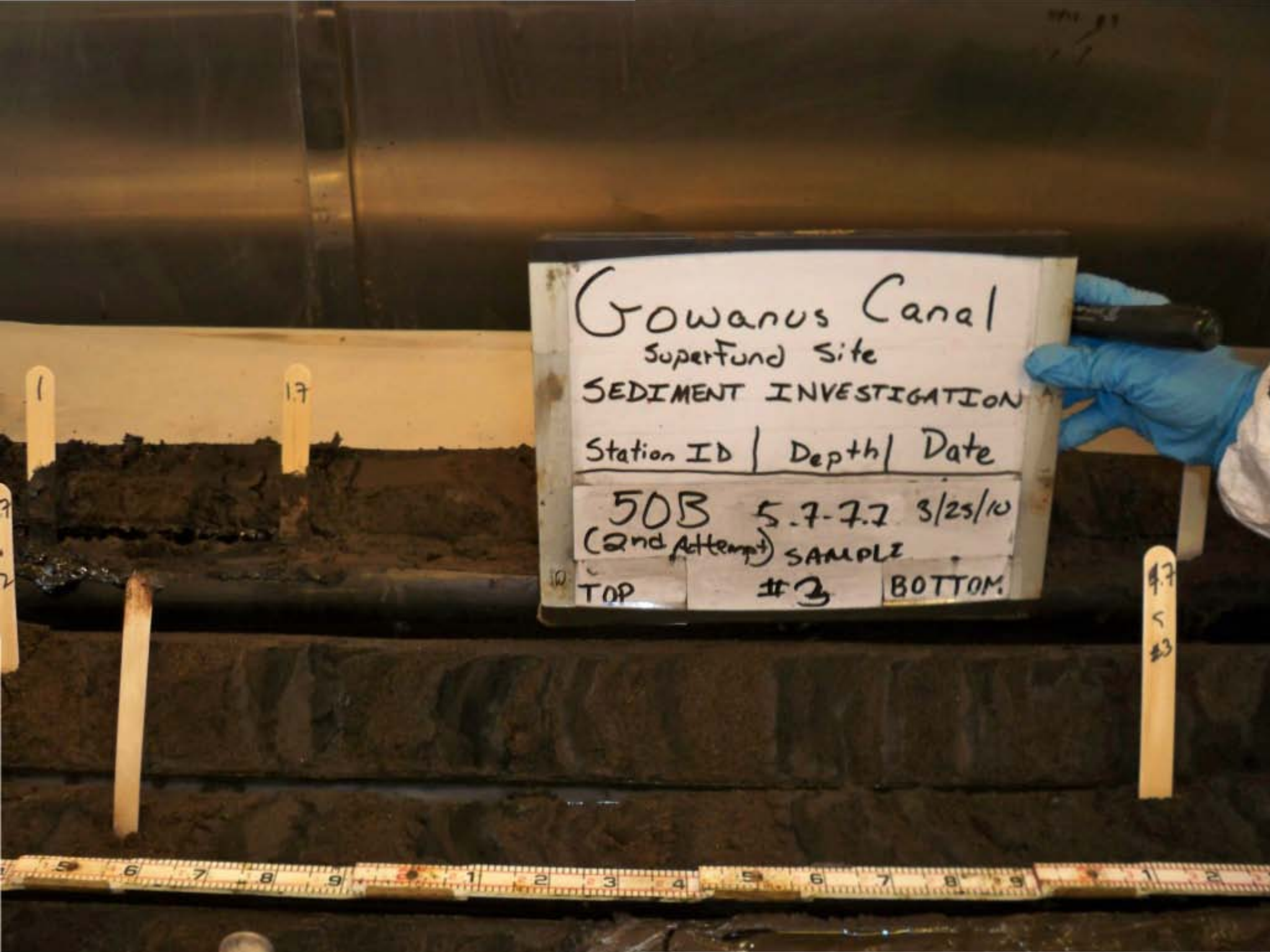

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 1-1.7 3/25/10
(2nd Attempt) Transition Zone
TOP NO SAMPLE BOTTOM
1
1.7

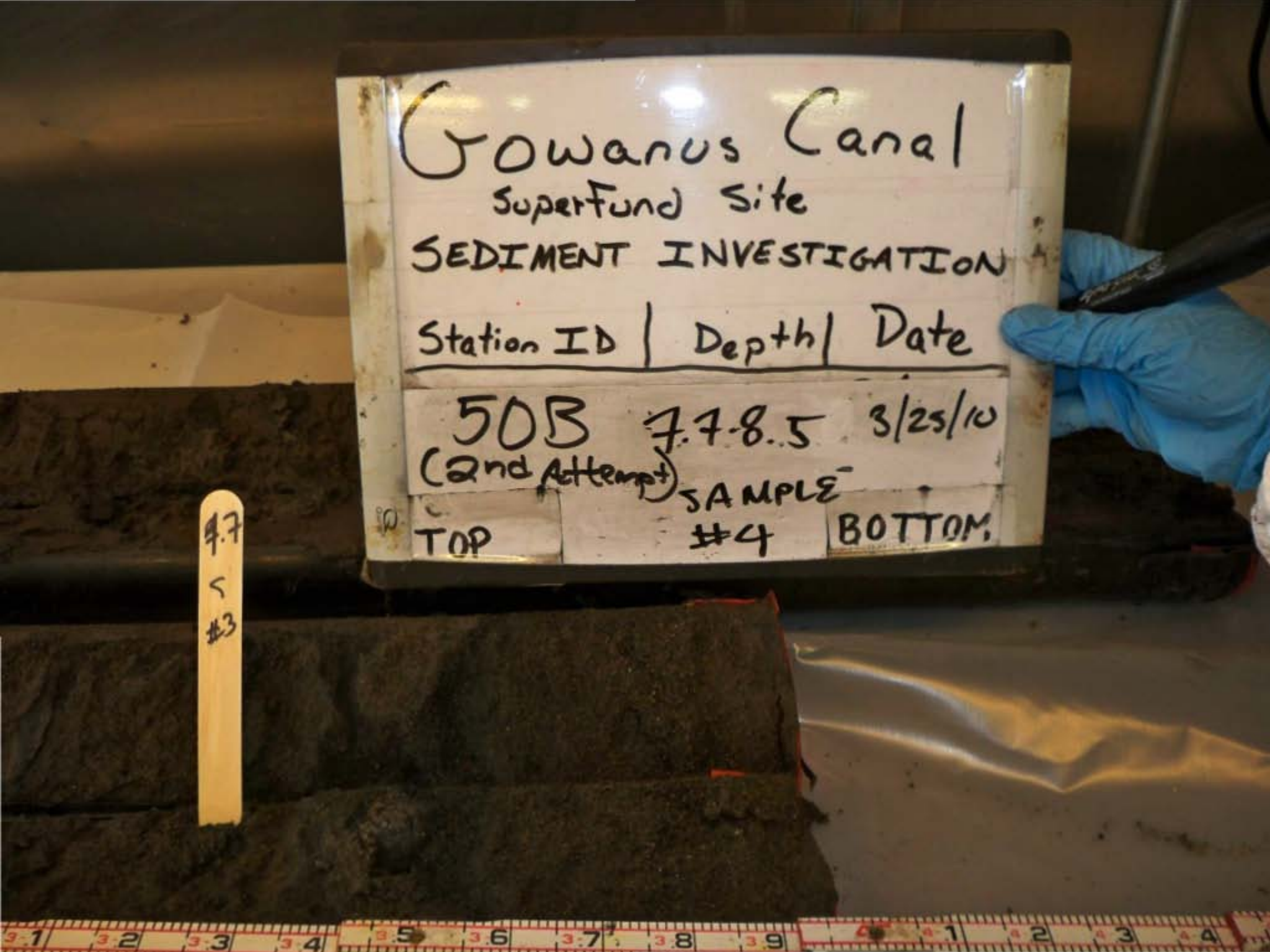

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 11.7-12.2 3/25/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
11.7
12.2

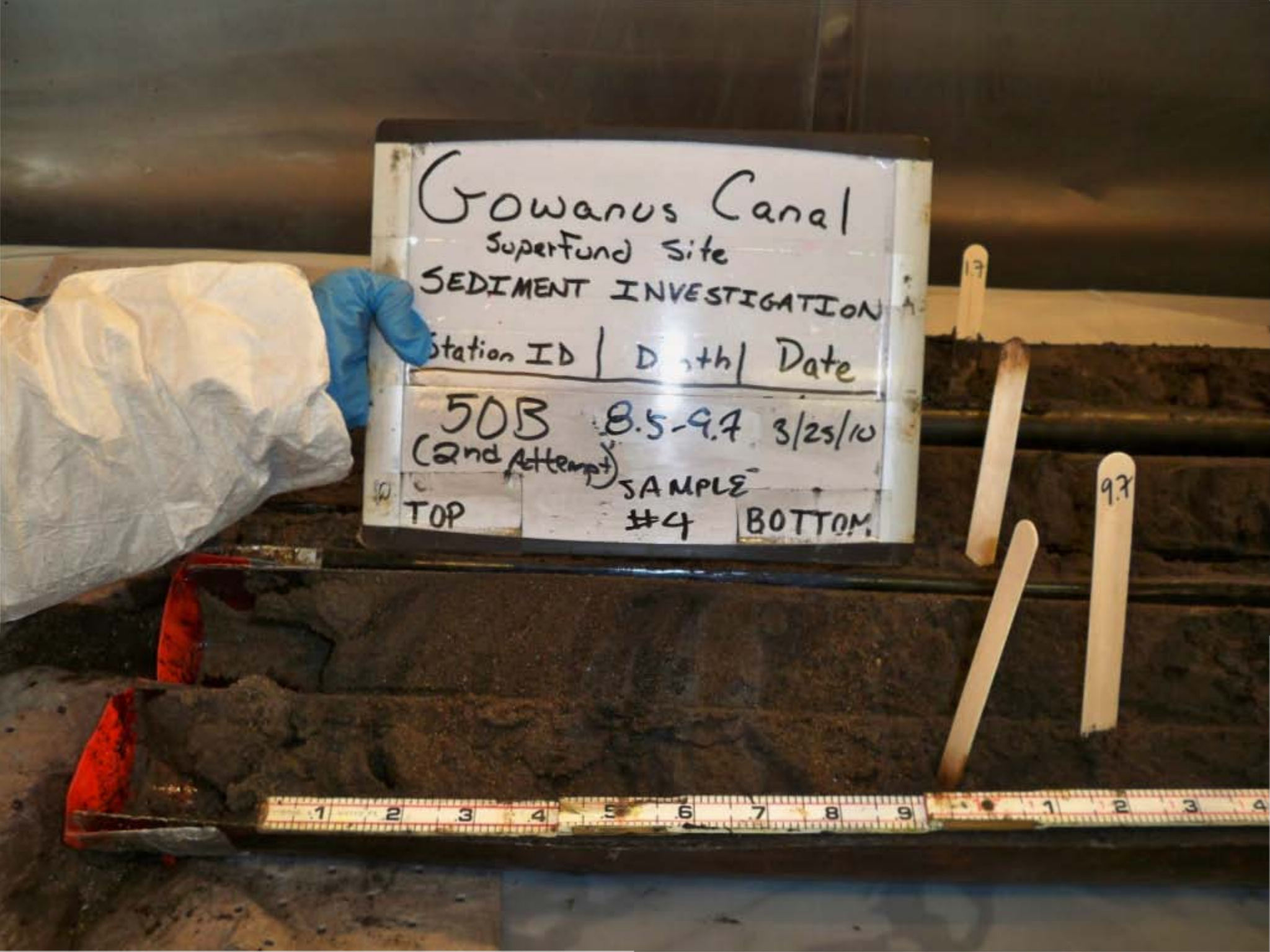

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 1.7-3.7 3/25/10
(2nd Attempt) SAMPLE
TOP #1 BOTTOM
1.7
3.7 < #1
4.7 < #3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SOB 3.7-4.6 3/25/10
(2nd Attempt) SAMPLE
TOP #2 BOTTOM
3.7
S
#1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 4.6-5.7 3/25/10
(2nd Attempt) SAMPLE
TOP #2 BOTTOM
57
S
#2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 5.7-7.7 3/25/10
(2nd Attempt) SAMPLE
TOP #3 BOTTOM

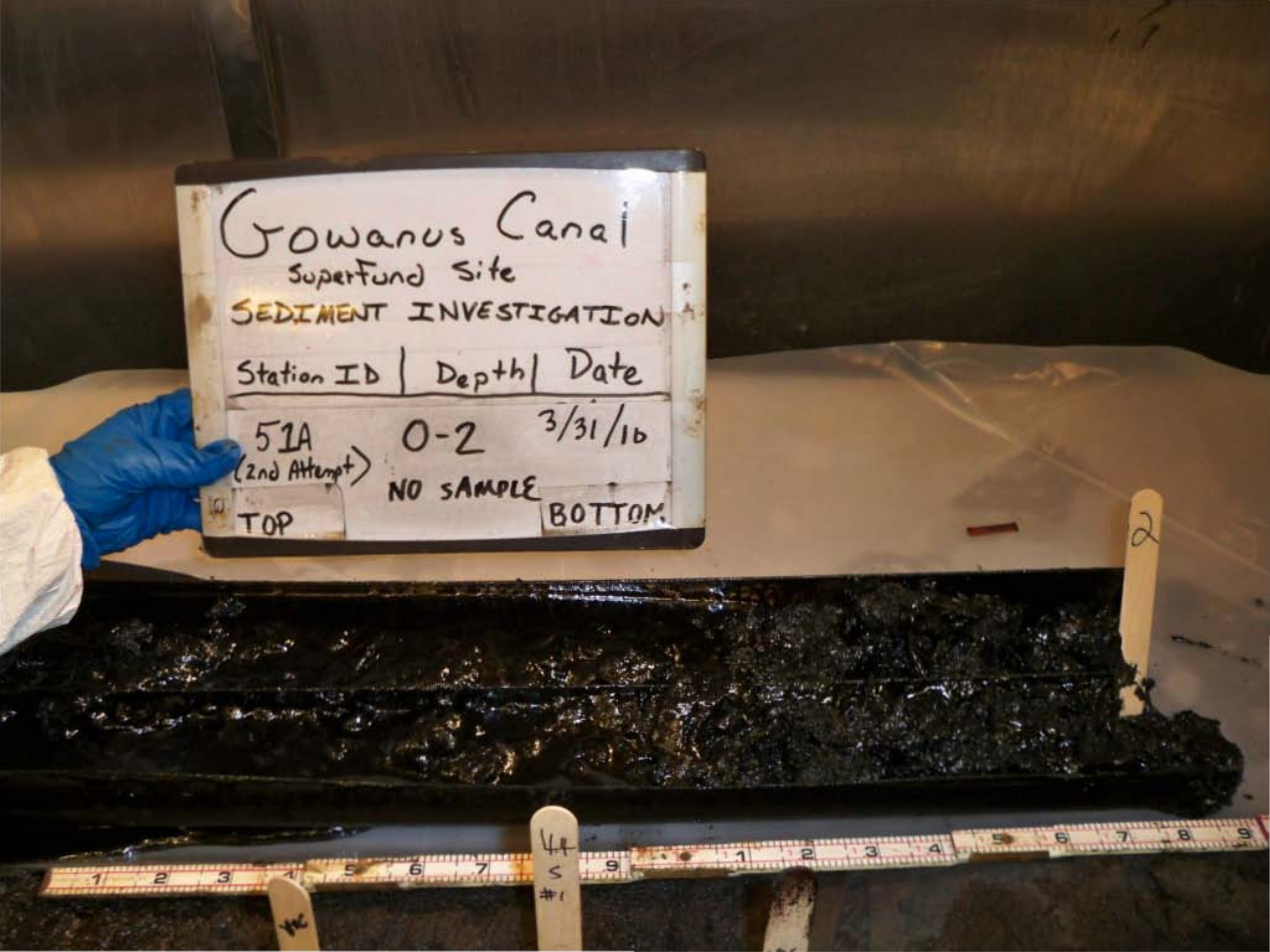

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 7.7-8.5 3/25/10
(2nd Attempt)
SAMPLE
TOP #4 BOTTOM
7.7
<
#3

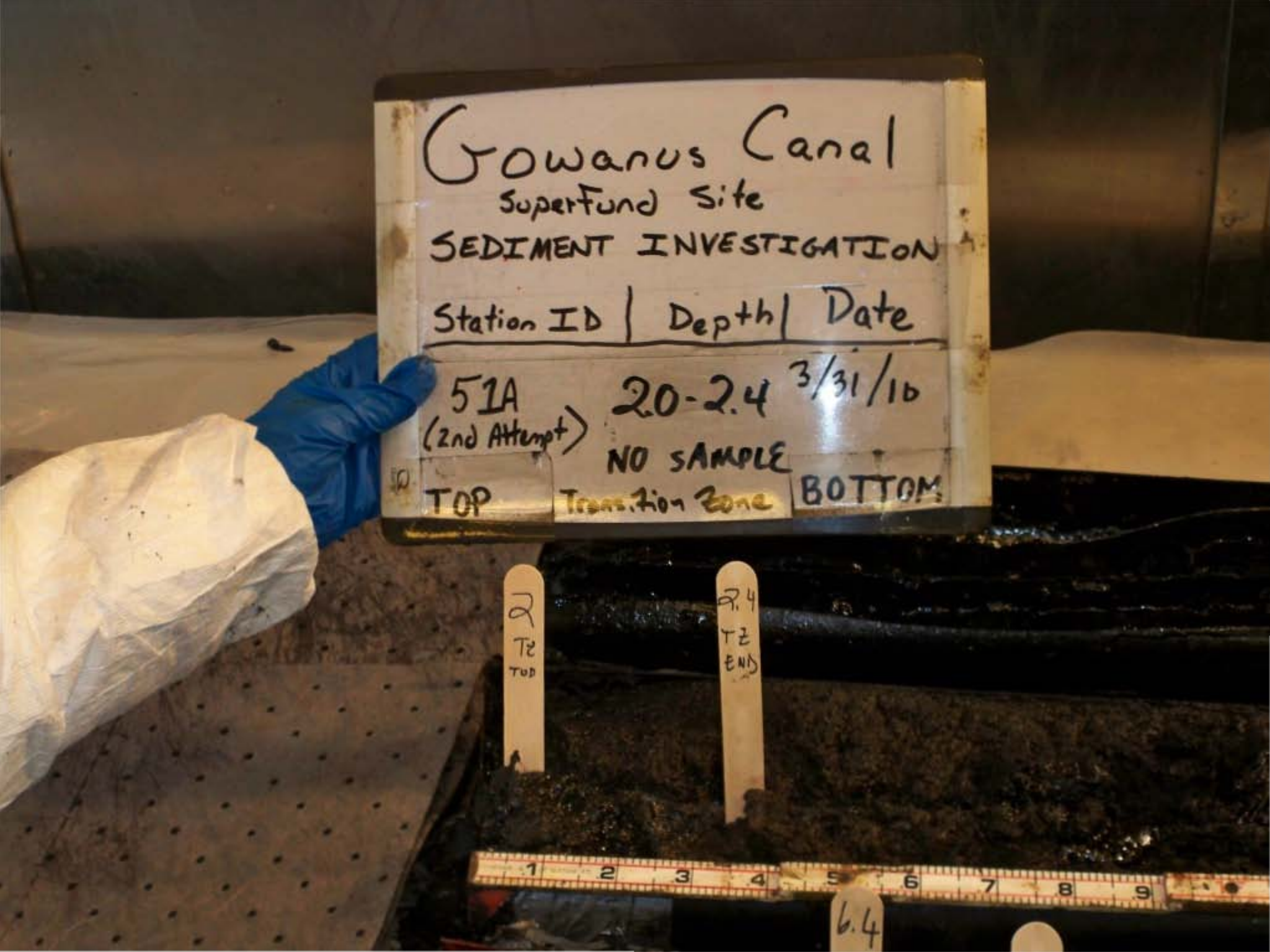

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 8.5-9.7 3/25/10
(2nd Attempt)
SAMPLE
TOP #4 BOTTOM
9.7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B 9.7-11.7 3/25/10
(2nd Attempt)
NO SAMPLE
TOP
BOTTOM
9.7
11.7

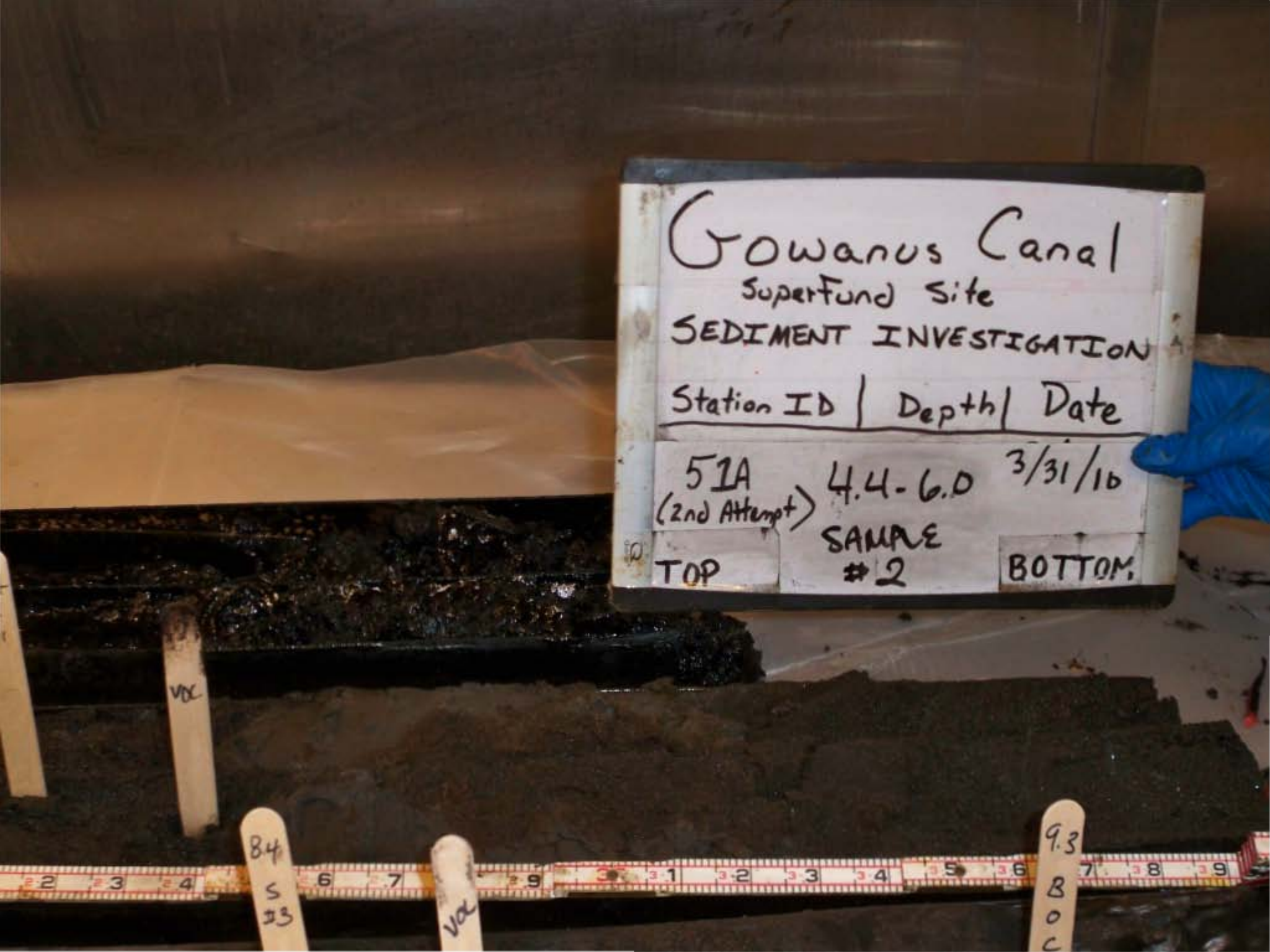

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B (2nd Attempt) FULL RECOVERY 3/25/10
TOP
BOTTOM

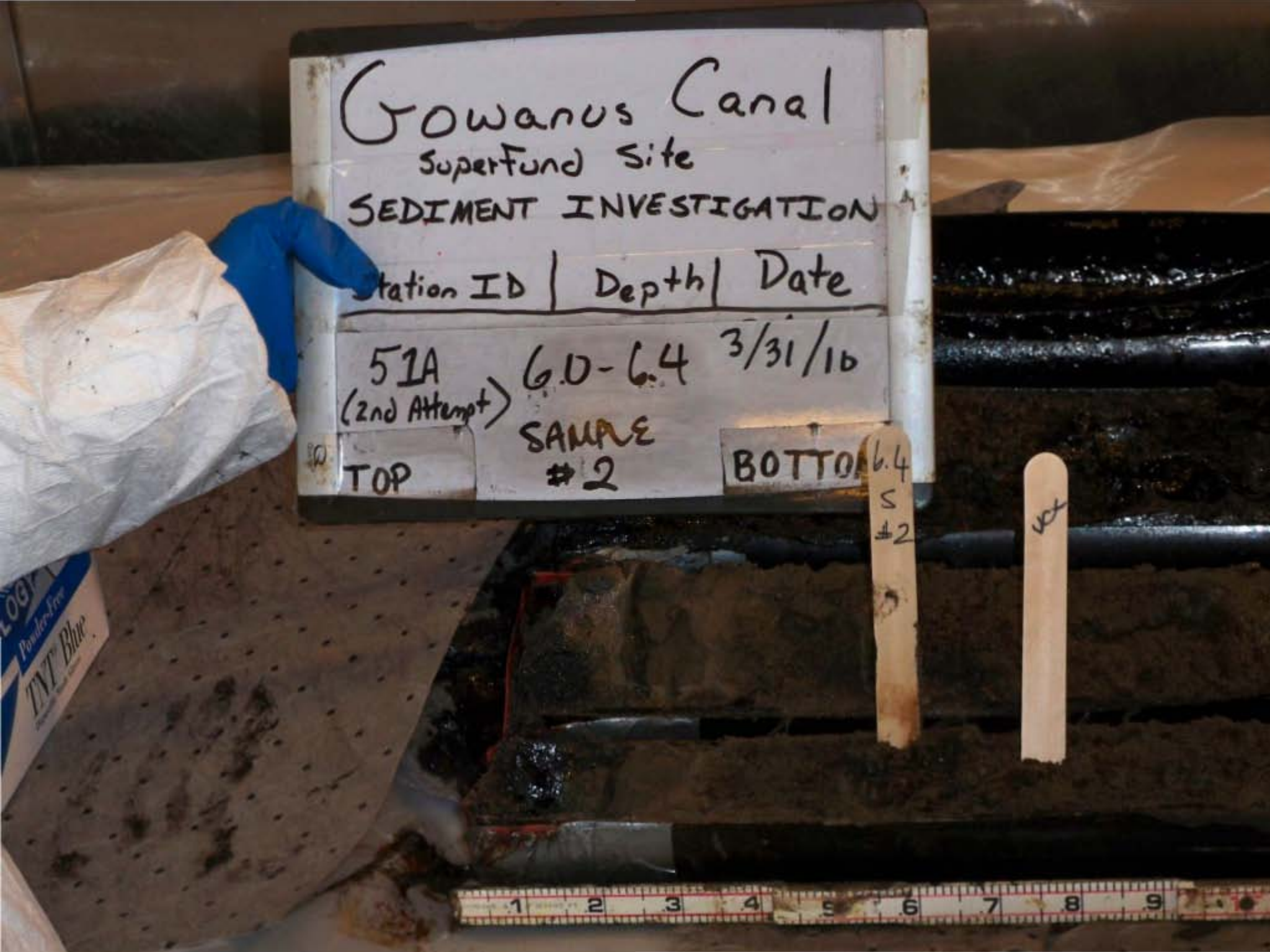

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) FULL RECOVERY 3/31/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) 0-2 3/31/16
NO SAMPLE
TOP
BOTTOM

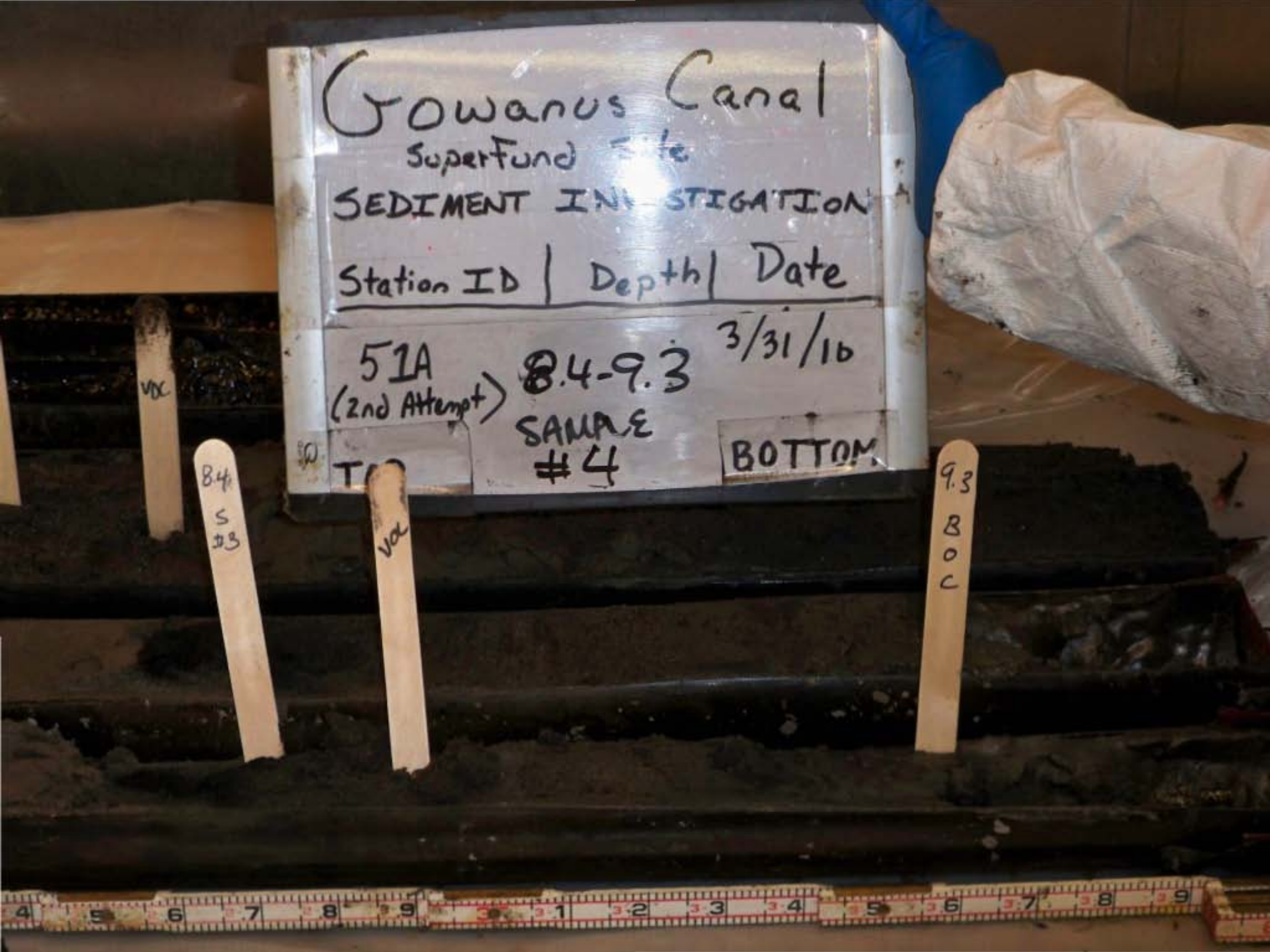

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) 20-2.4 3/31/10
NO SAMPLE
TOP Transition Zone BOTTOM
2 TZ TOP
2.4 TZ END
6.4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) 2.4-4.4 3/31/10
SAMPLE #1
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) 4.4-6.0 3/31/10
TOP
SAMPLE #2
BOTTOM
VOC
B4 S 13
VOC
9.3 B O C


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) 6.0-6.4 3/31/10
SAMPLE #2
TOP
BOTTOM
6.4 S #2
TNT Blue
Powder-Free


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) 6.4-8.4 3/31/16
SAMPLE #3
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) 8.4-9.3 3/31/10
SAMPLE #4
BOTTOM
VOC
8.4 S #3
VOC
9.3 BOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) FULL RECOVERY 3/31/10
TOP
BOTTOM

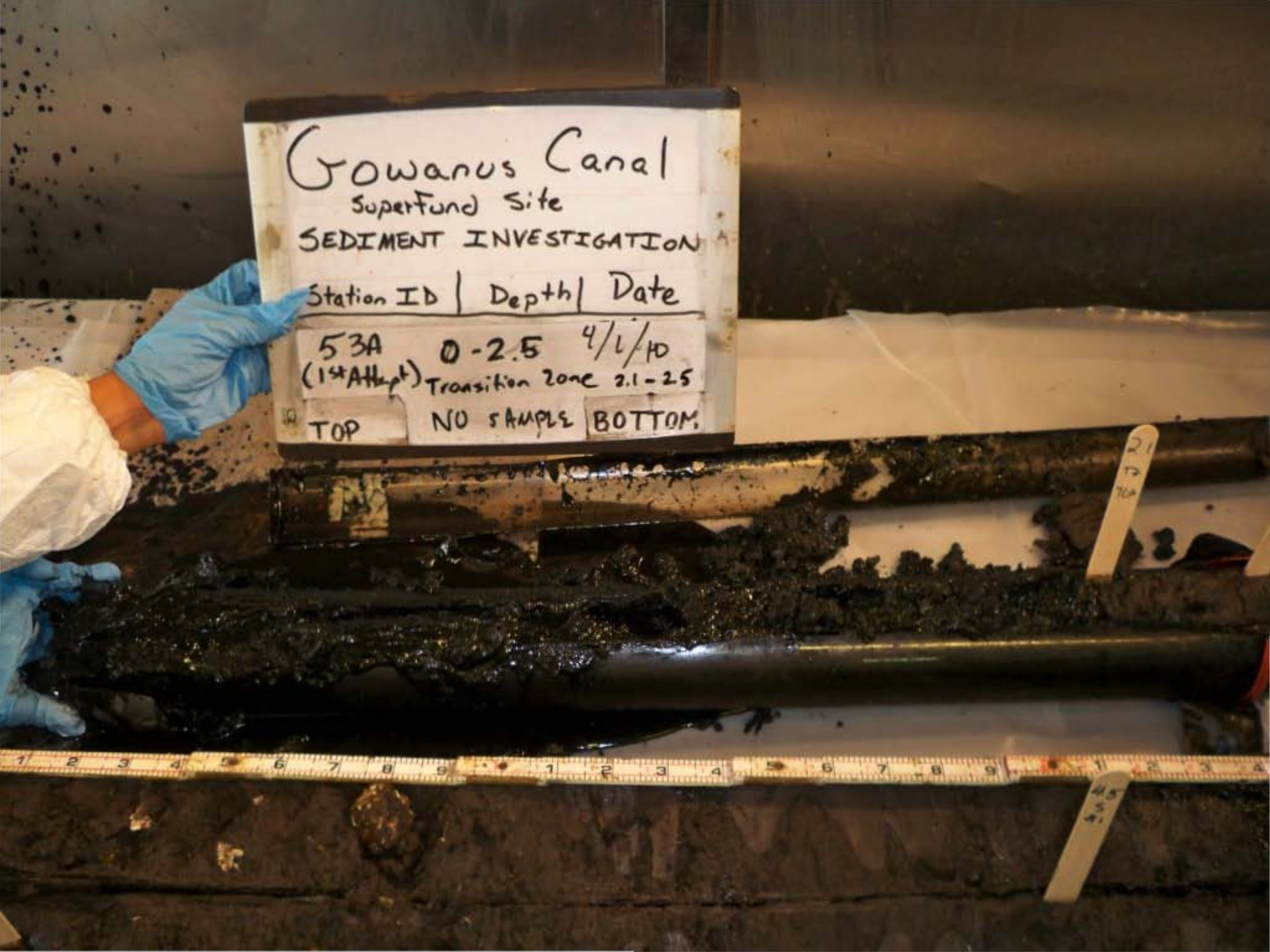

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
52A (2nd Attempt) FULL Recovery 3/25/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
52A 0-2 3/25/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
52A 2.0-3.2 3/25/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
52A (2nd Attempt) FULL Recovery 3/25/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A
(1st Attempt)
4/2/10
Full
Recovery
TOP
BOTTOM

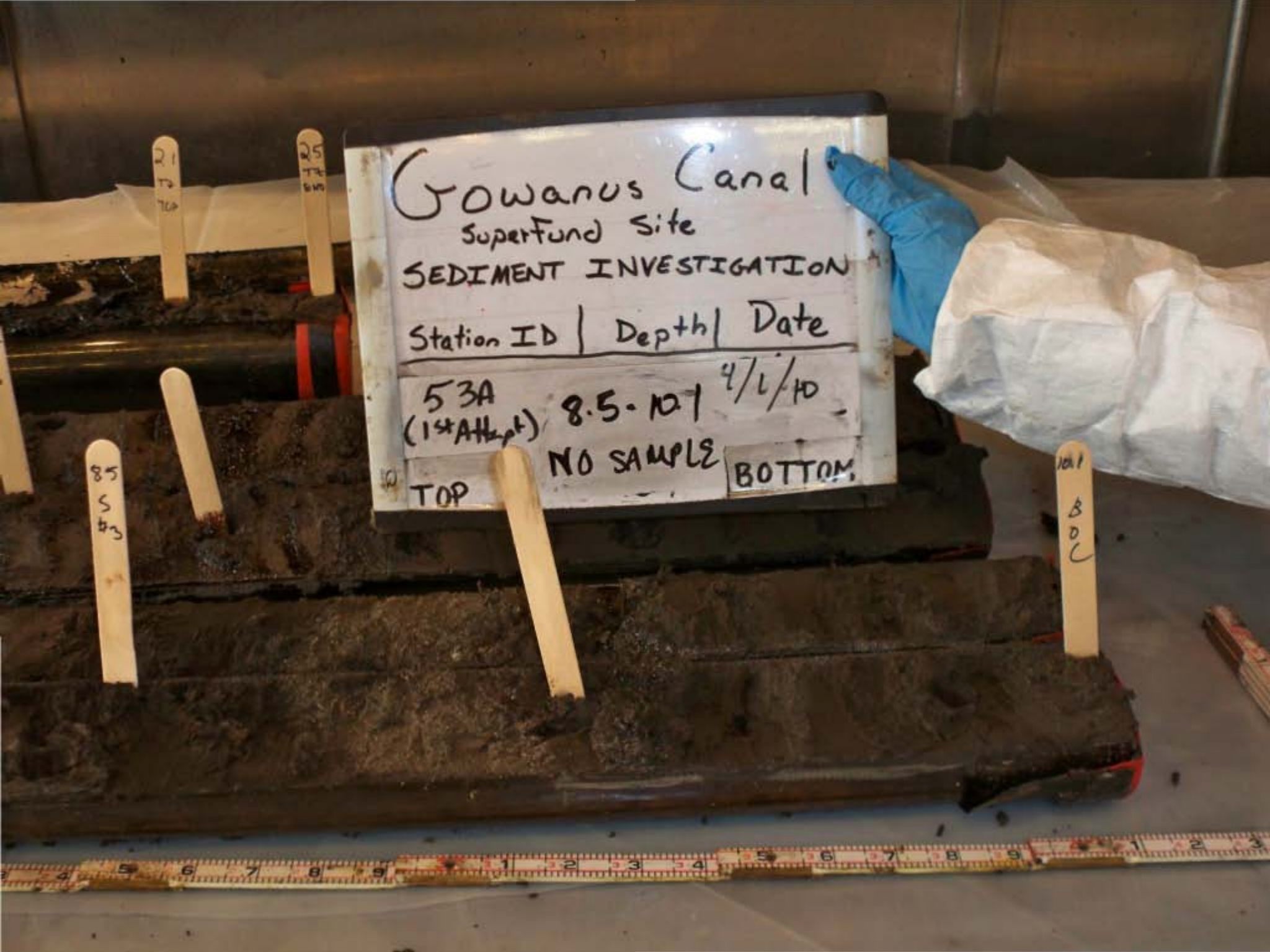

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A 0-2.5 4/1/10
(1st Attempt) Transition Zone 2.1-2.5
TOP NO SAMPLE BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A (1st Attempt) 2.5-4.5 4/1/10
SAMPLE
TOP II BOTTOM
4.5 S 41


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A (1st Attempt) 4.5-6.3 4/1/10
SAMPLE #2
TOP
BOTTOM
21 TP TOP
25 TP END
4.5 S #1
85 S #3

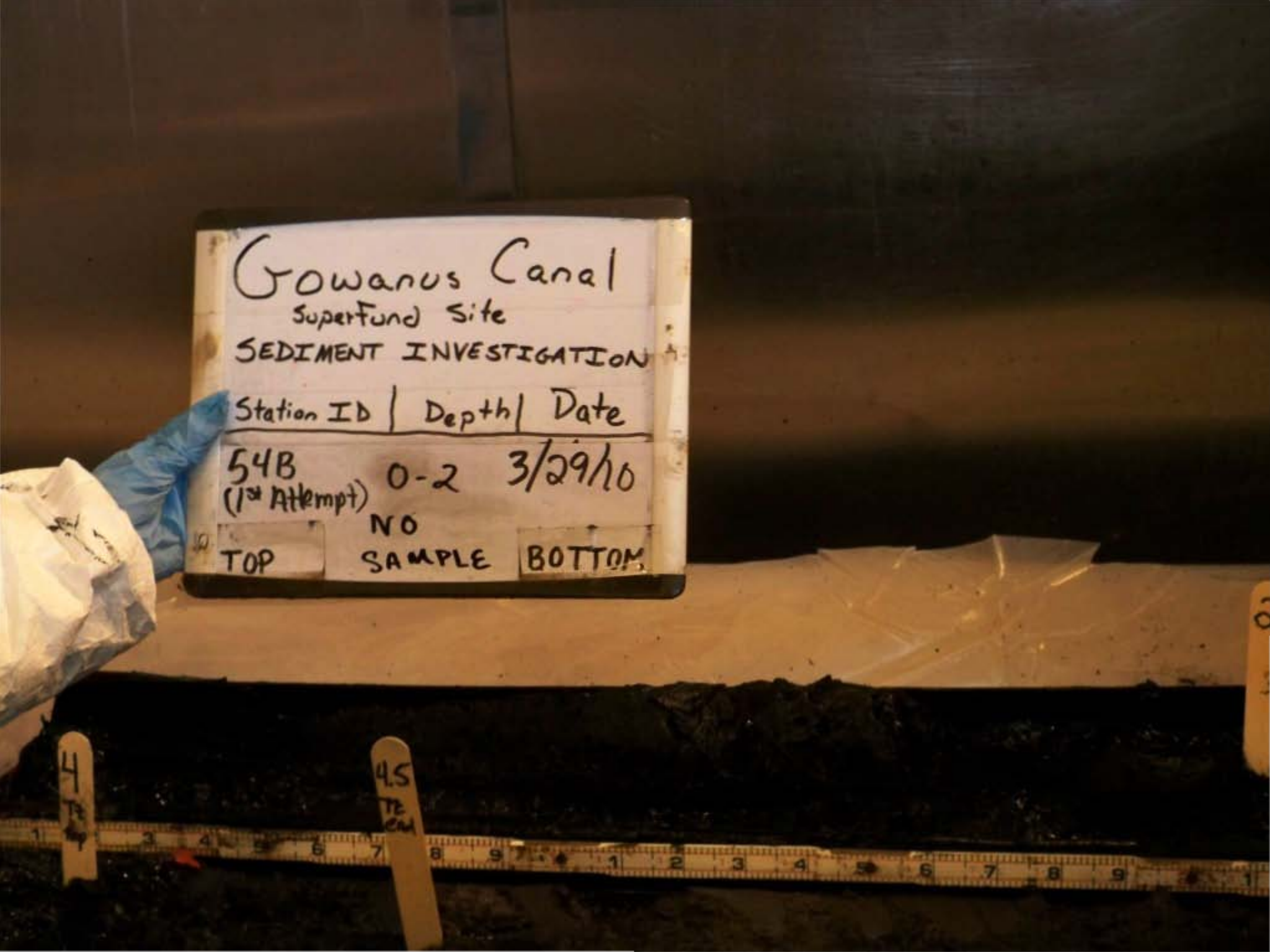

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A (1st Attempt) 6.3-6.7 4/1/10
SAMPLE #2
TOP
BOTTOM
S #2

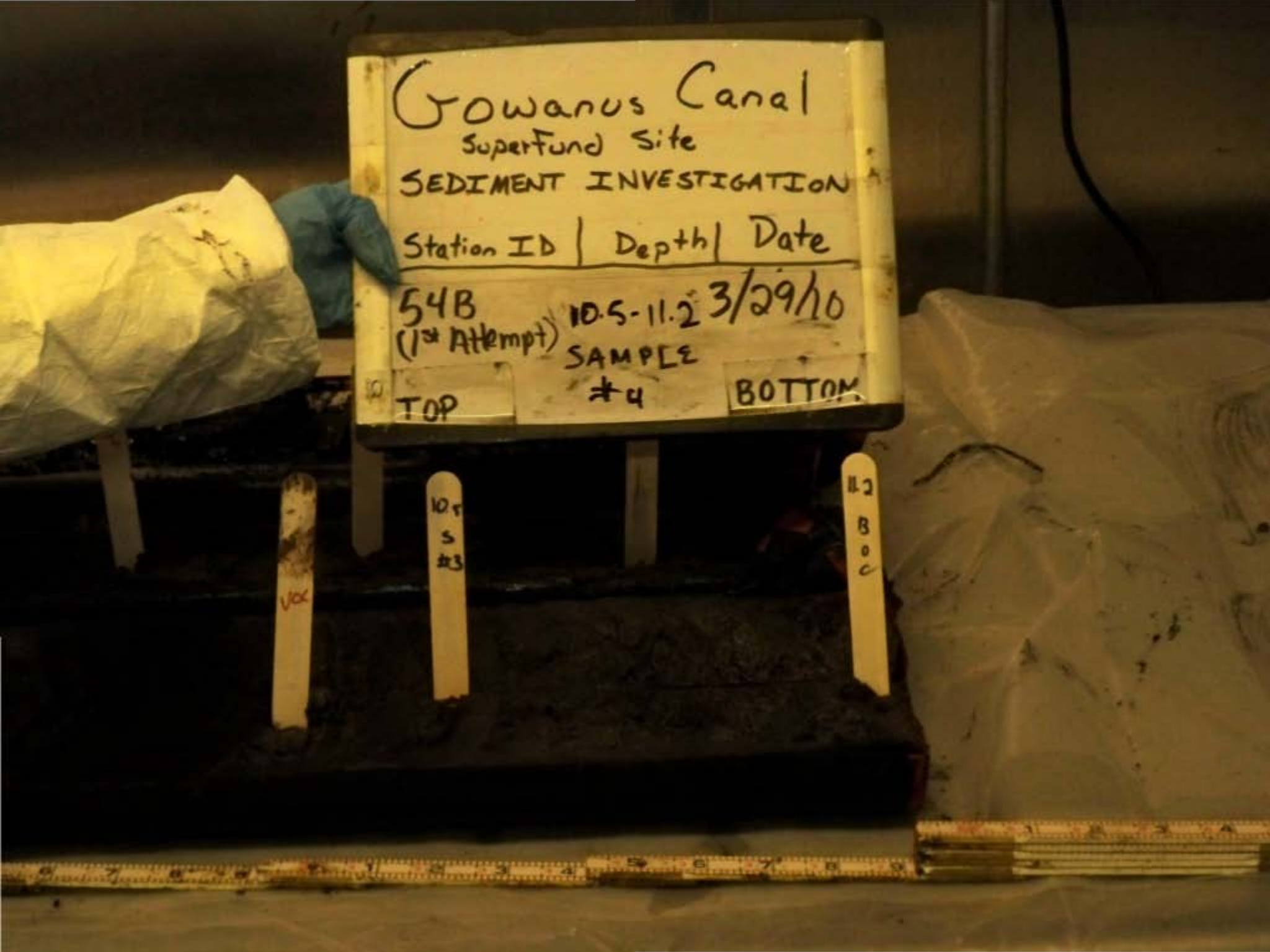

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A (1st Attempt)
6.5-8.5
4/1/10
SAMPLE #3.
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A (1st Attempt) 8.5-10' 4/1/10
NO SAMPLE
TOP
BOTTOM

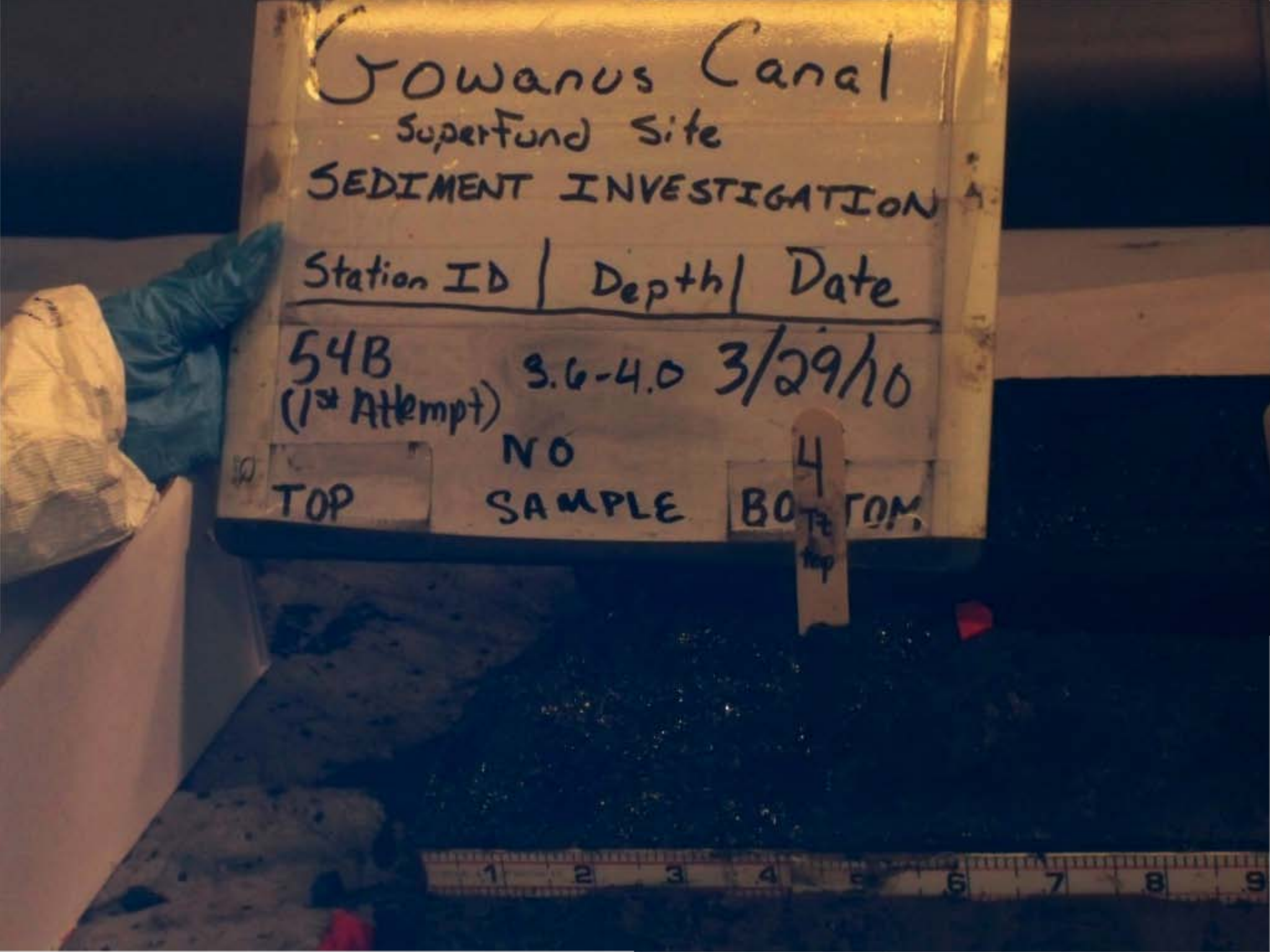

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A
(14Attempt)
4/1/10
Full
Recovery
TOP
BOTTOM

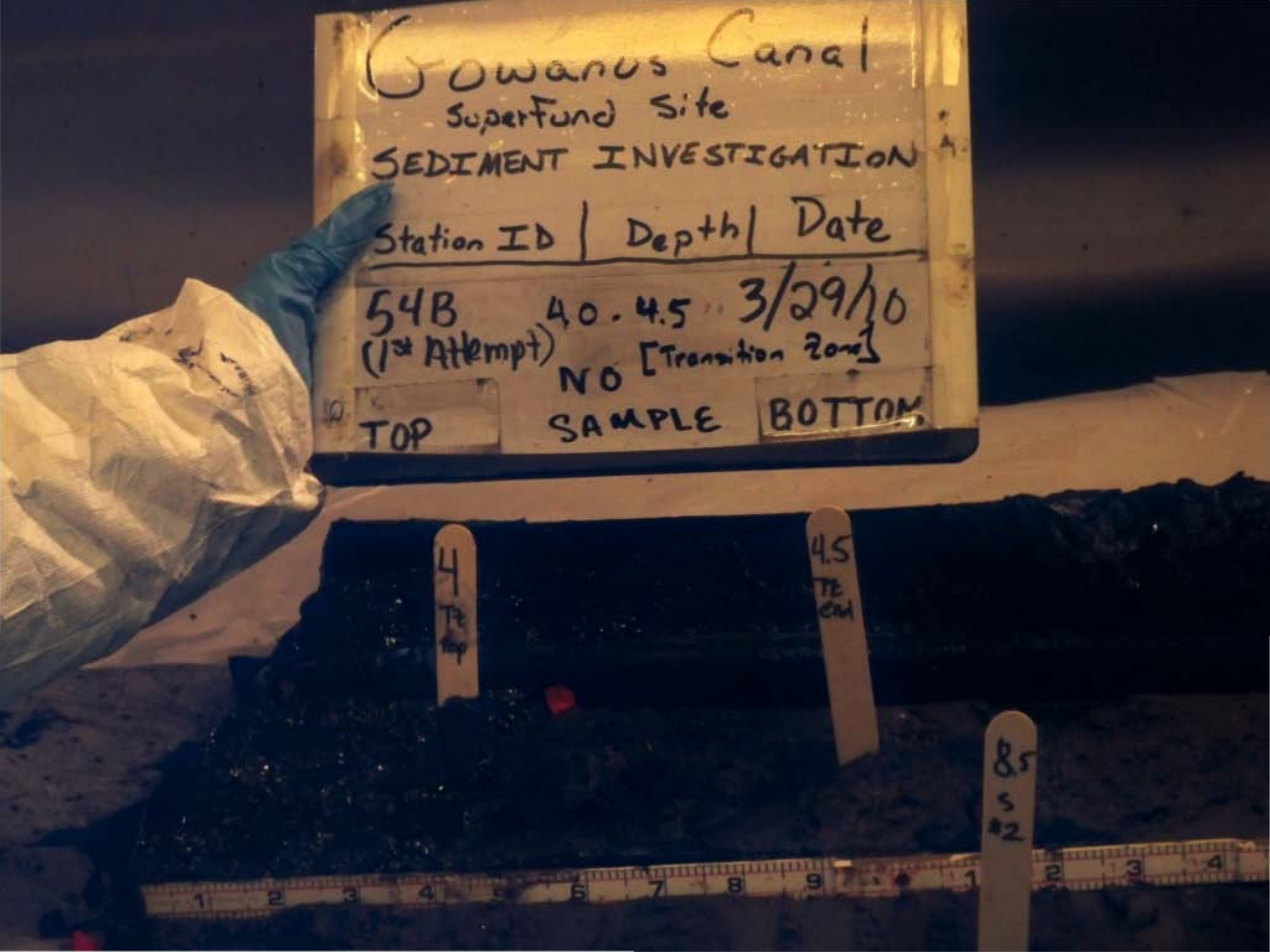

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) FULL RECOVERY 3/29/10
TOP
BOTTOM

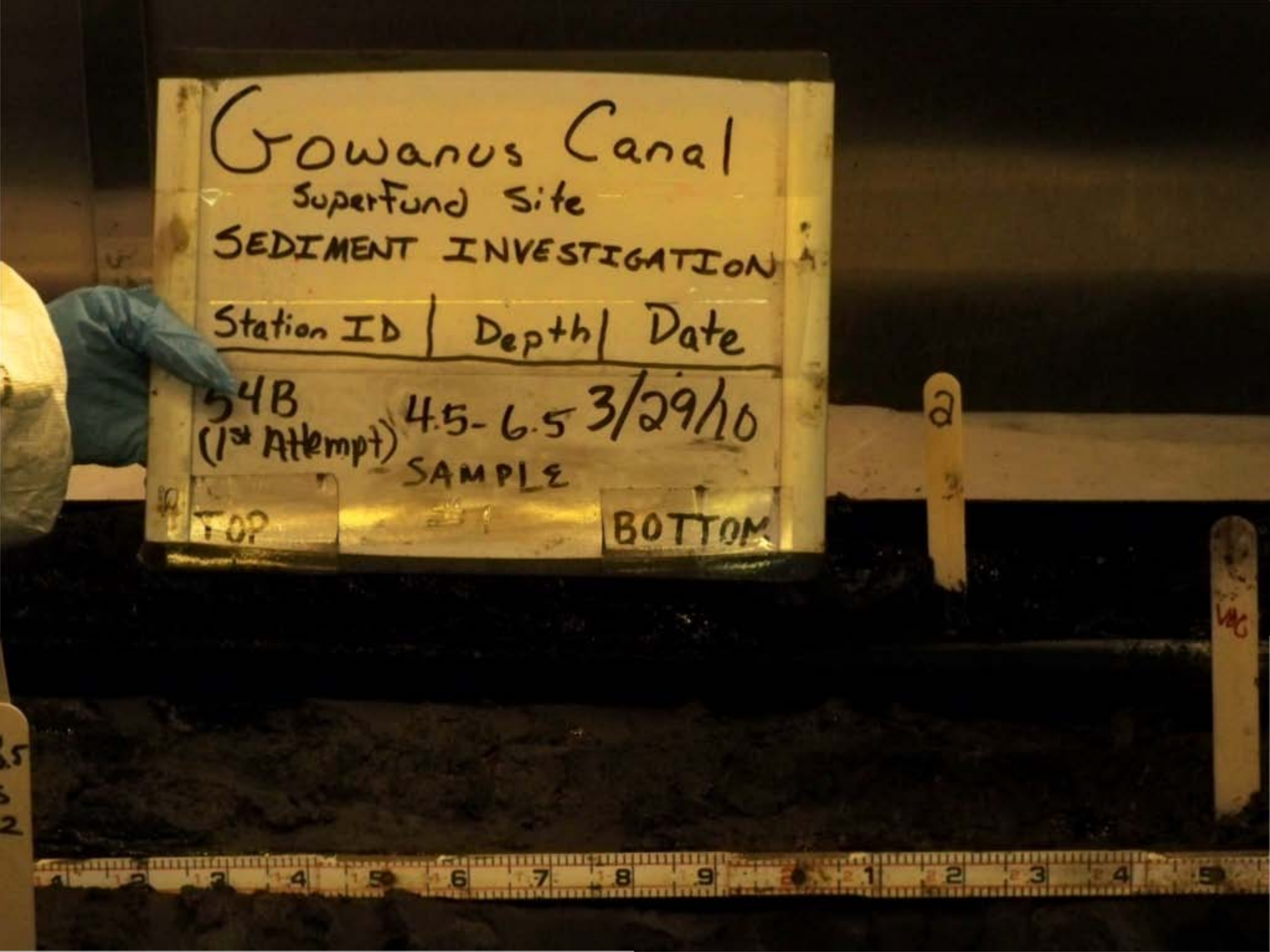

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) 0-2 3/29/10
NO SAMPLE
TOP
BOTTOM

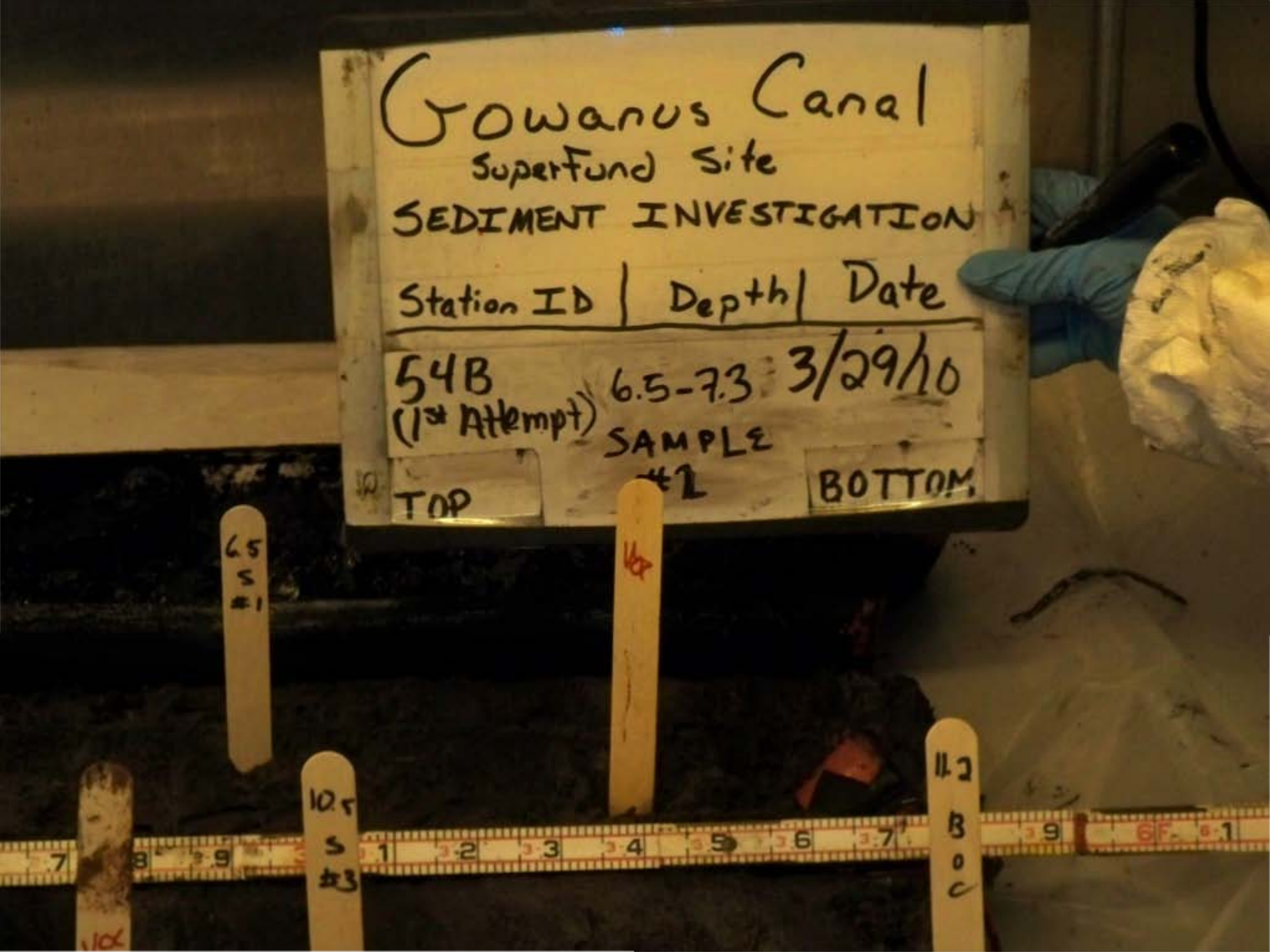

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B
(1st Attempt)
10.5-11.2
3/29/10
SAMPLE
#4
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID Depth Date
54B 2-3.6 3/29/10
(1st Attempt)
NO
SAMPLE
TOP
BOTTOM
a
GS
S
#1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) 3.6-4.0 3/29/10
NO SAMPLE
TOP
BOTTOM
4 Ft top


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B 40-4.5 3/29/10
(1st Attempt) [Transition Zone]
NO
TOP SAMPLE BOTTOM
4
4.5
8.5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) 4.5-6.5 3/29/10
SAMPLE
TOP
BOTTOM

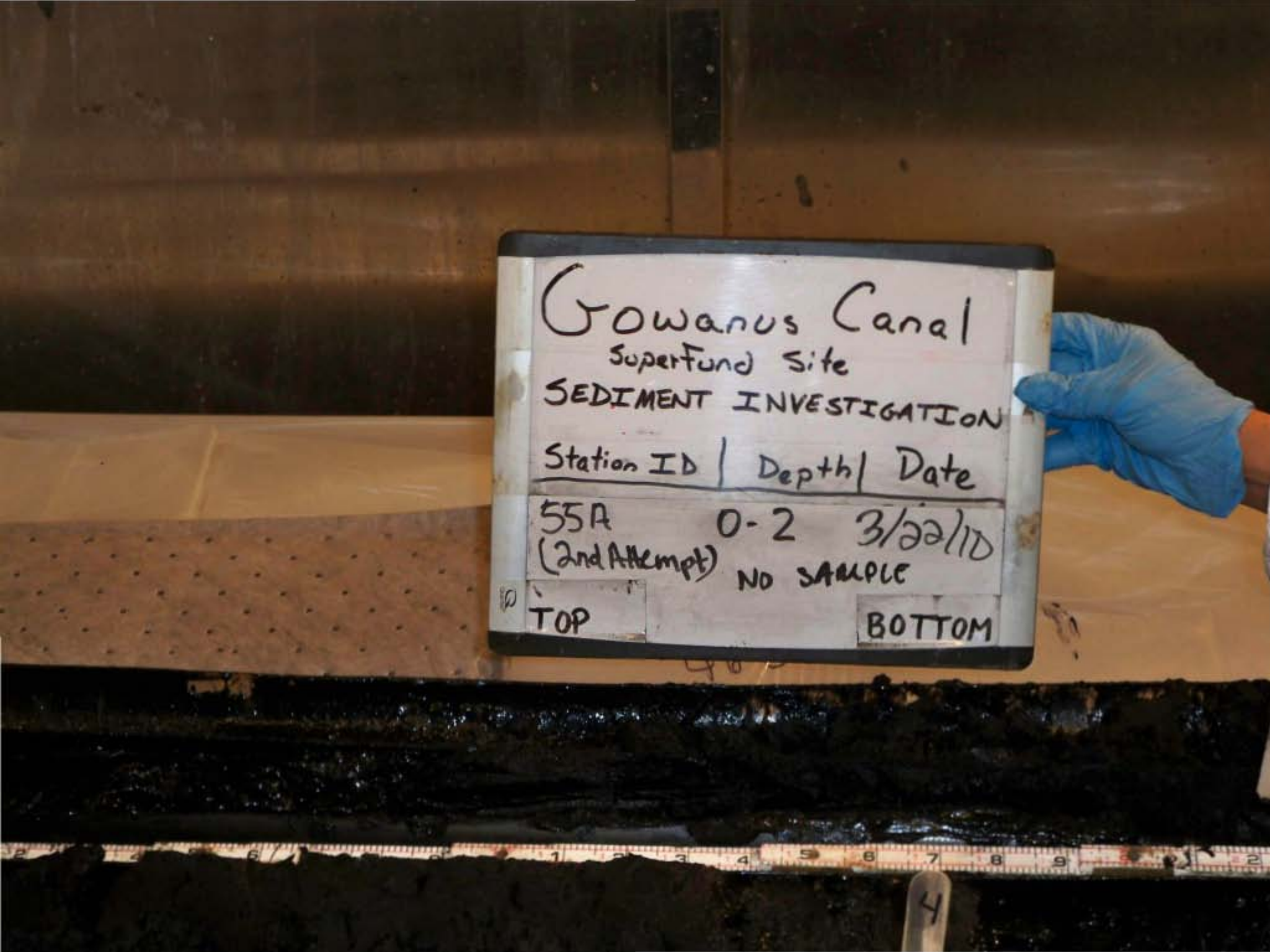

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) 6.5-7.3 3/29/10
SAMPLE #2
TOP
BOTTOM

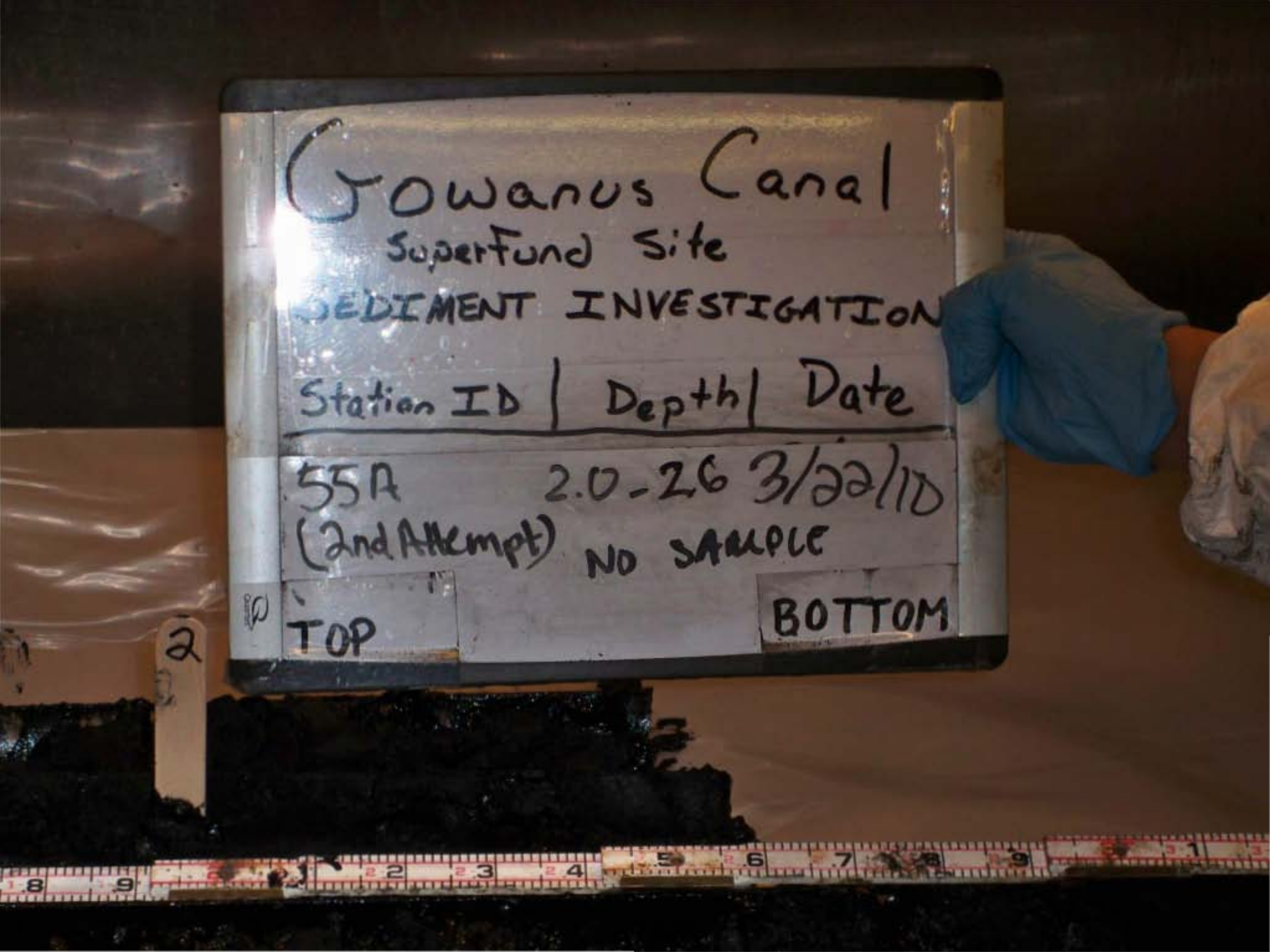

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) 6.5-8.5 3/29/10
SAMPLE #2
TOP
BOTTOM
8.5 S #2

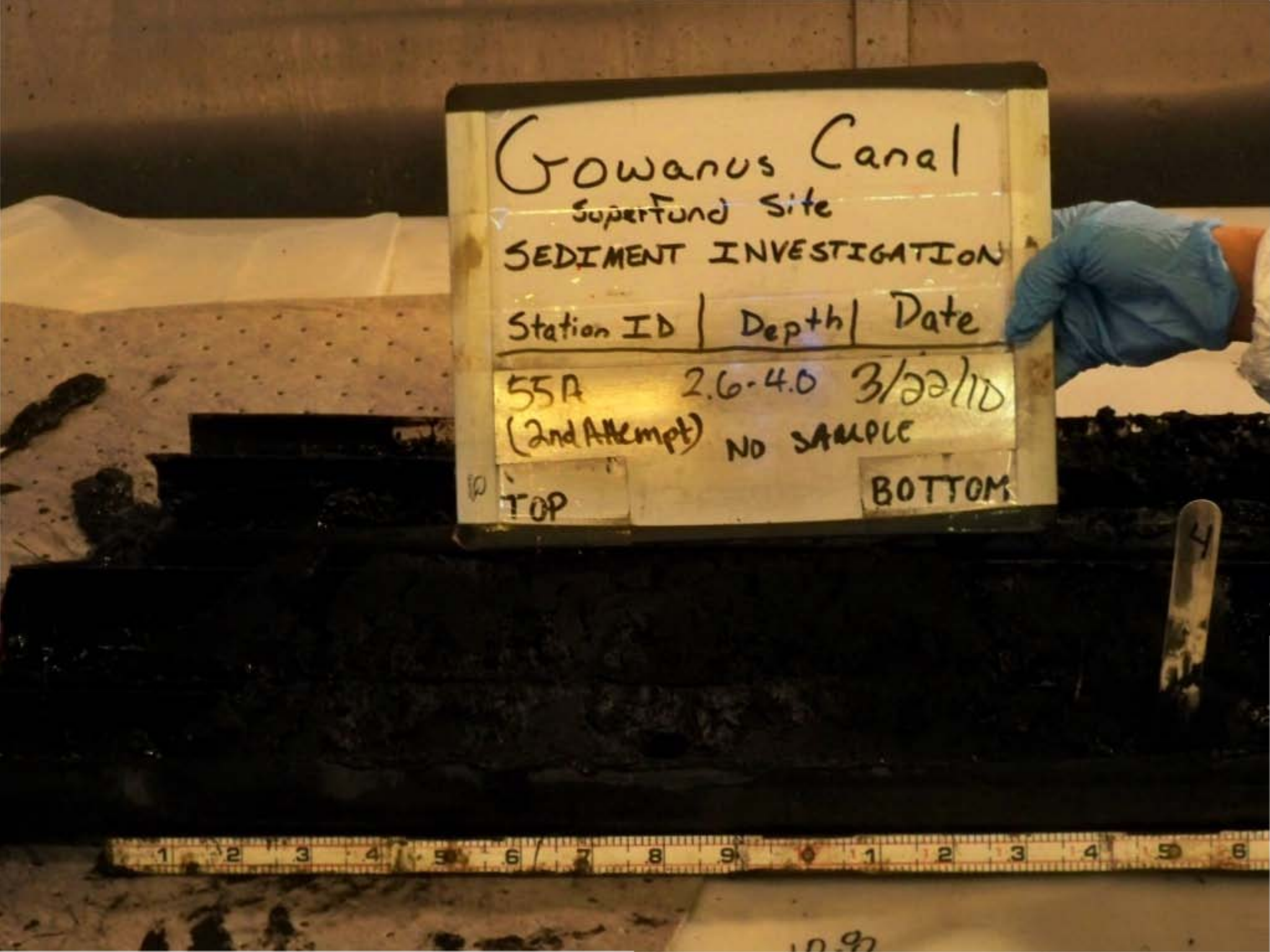

Gowanus Canal
Superfund Site
SEDIMENT INVE GATION
Station ID | Depth | Date
54B (1st Attempt) 8.5-10.5 3/29/10
SAMPLE #3
TOP
BOTTOM

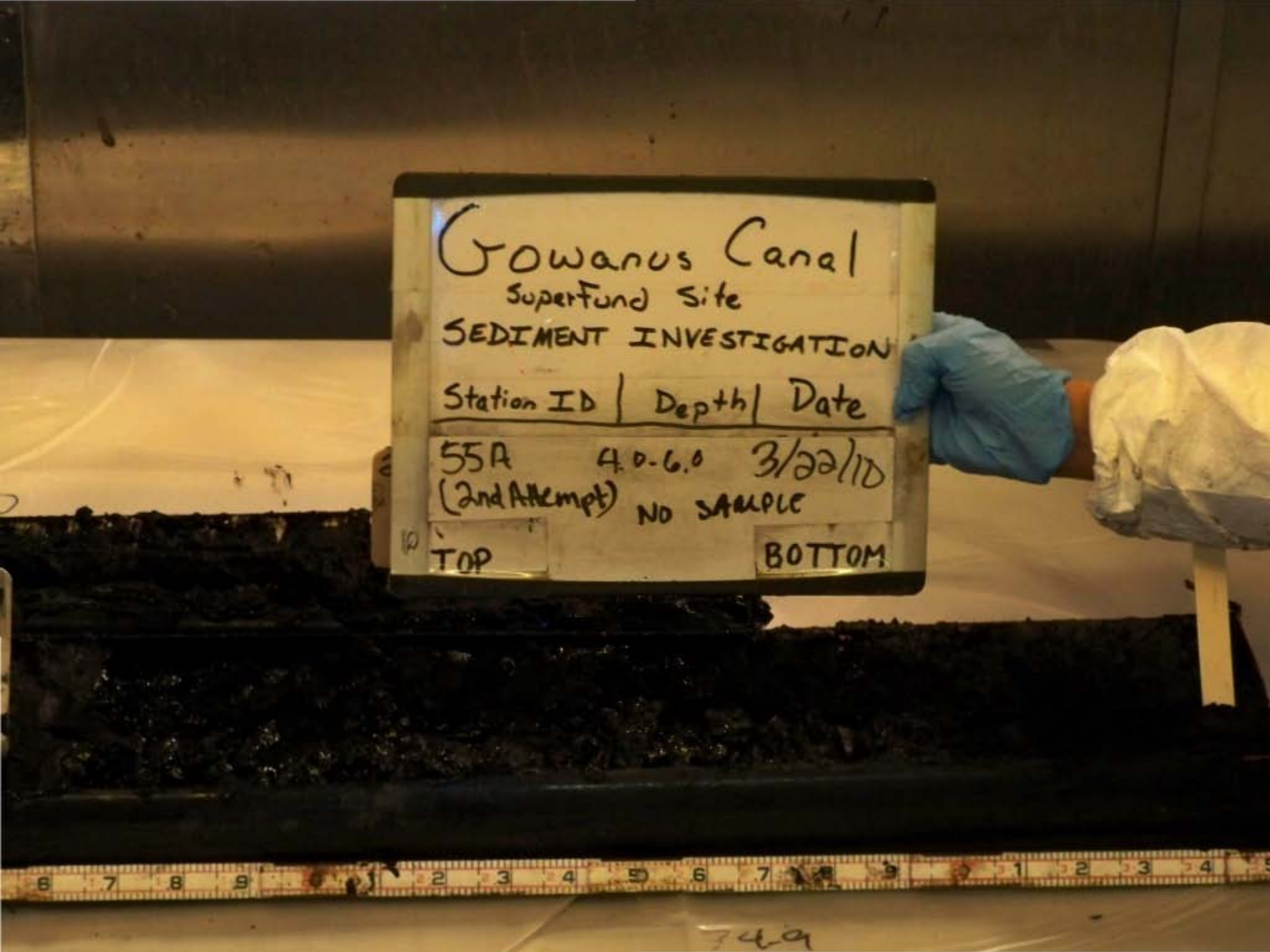

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) FULL RECOVERY 3/29/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
55A (2nd Attempt) Full Recovery 3/22/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
55A (2nd Attempt) 0-2 3/22/10
NO SAMPLE
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
55A 2.0-2.6 3/22/10
(2nd Attempt) NO SAMPLE
ID
TOP
BOTTOM

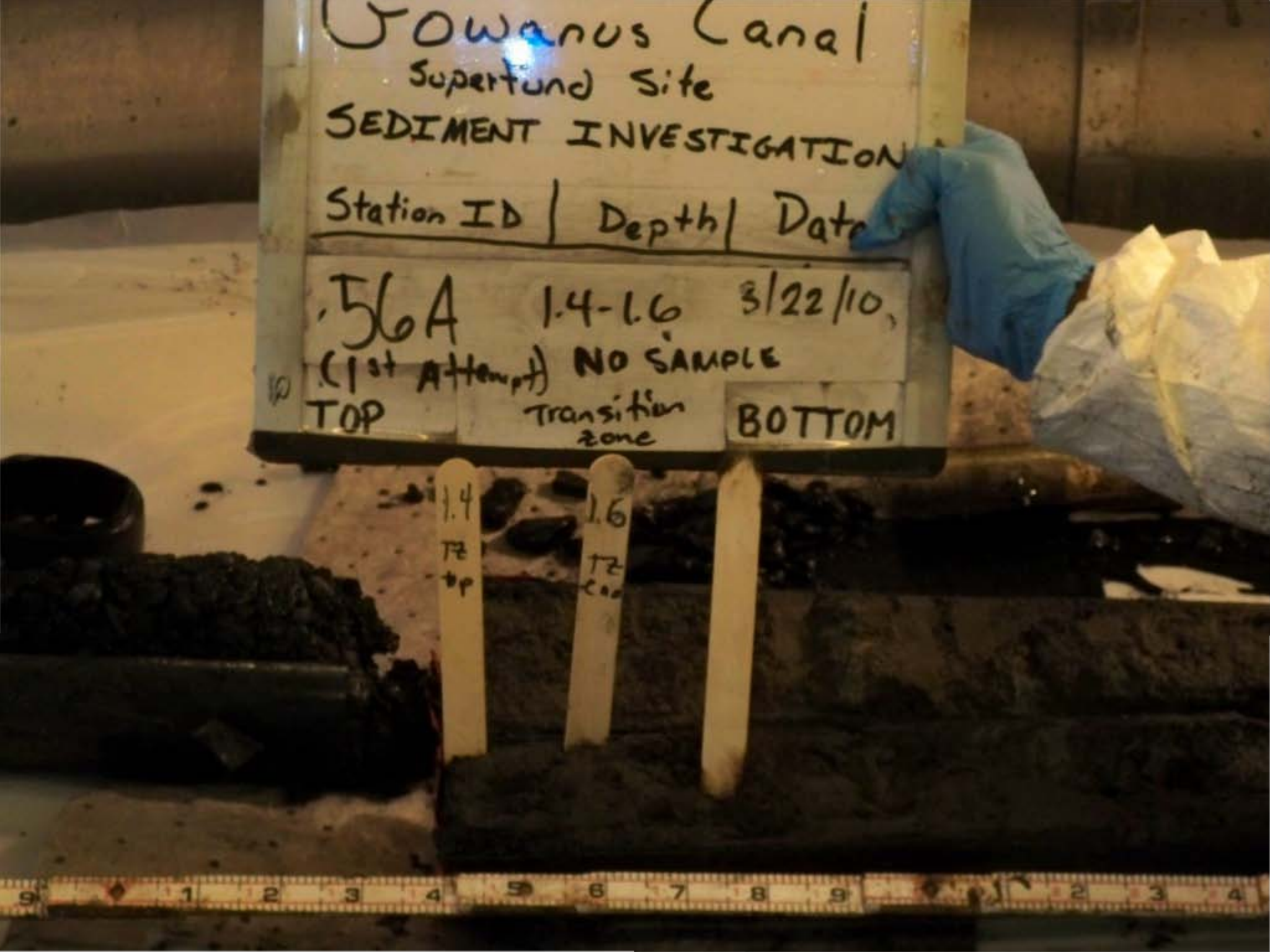

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
55A 2.6-4.0 3/22/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

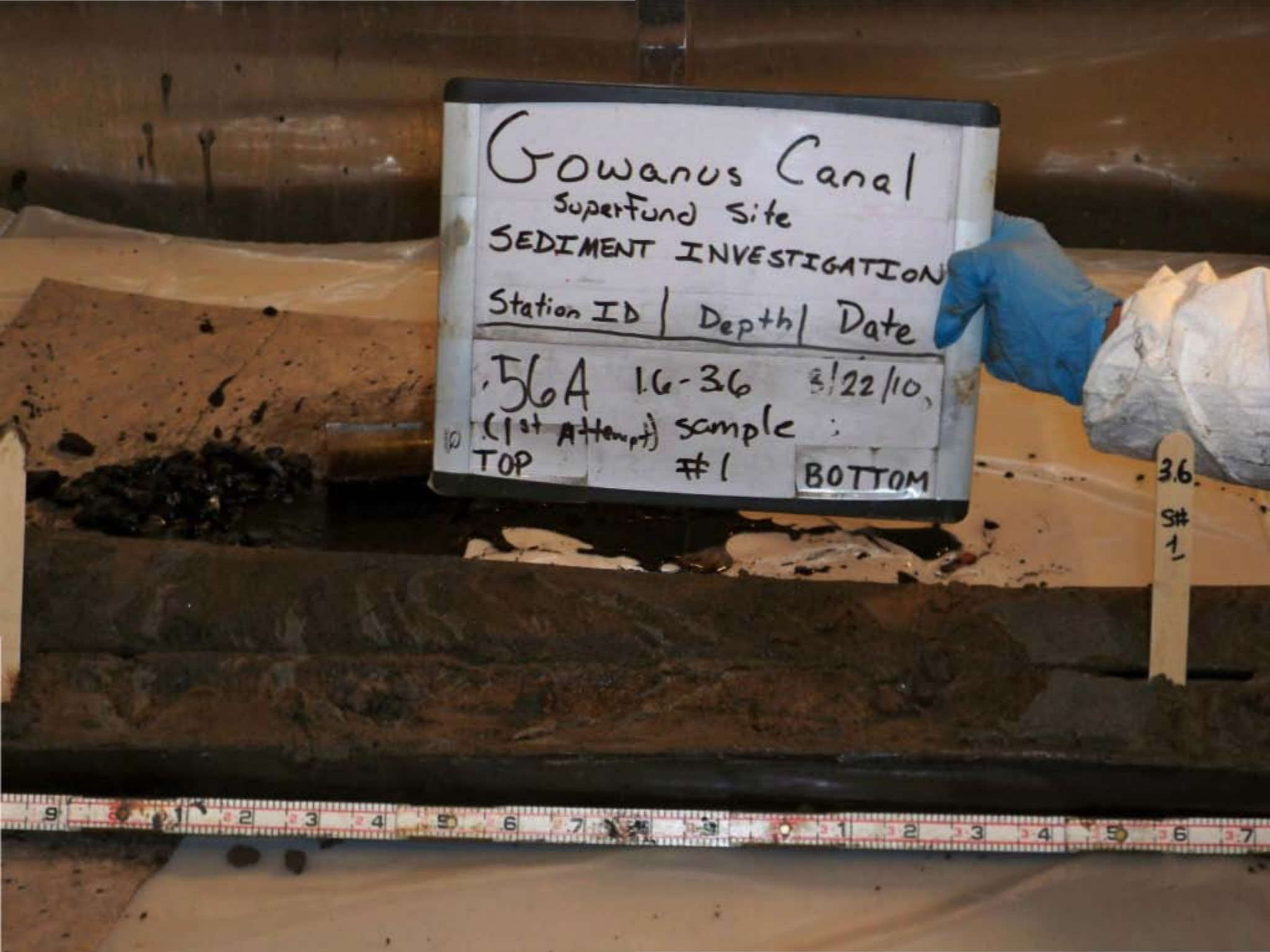

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
55A 4.0-6.0 3/22/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
749

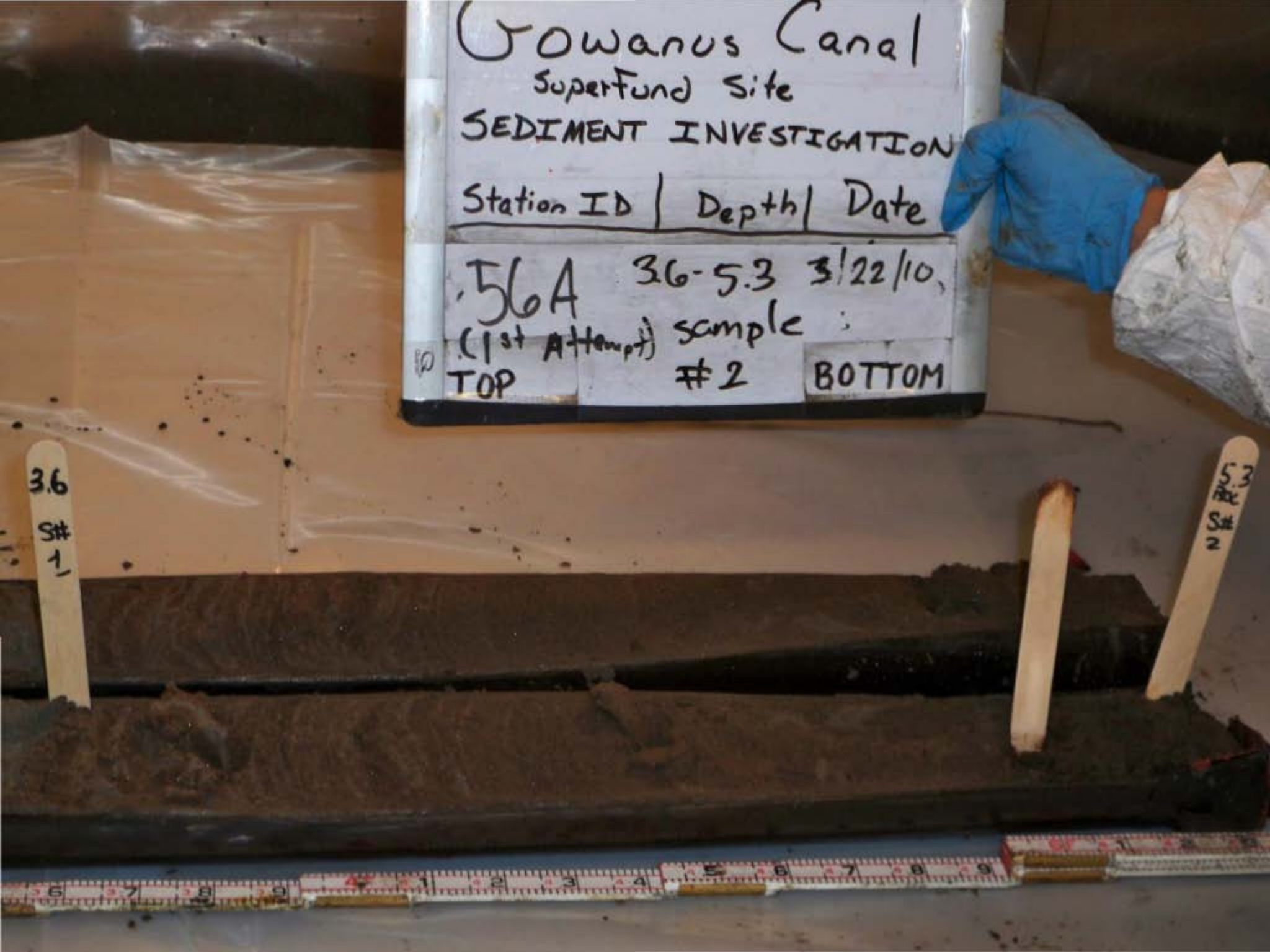

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
55A Full 3/22/10
(2nd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
FULL RECOVERY
3/22/10
(1st Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
56A 0-1.4 3/22/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
1.4
1.6

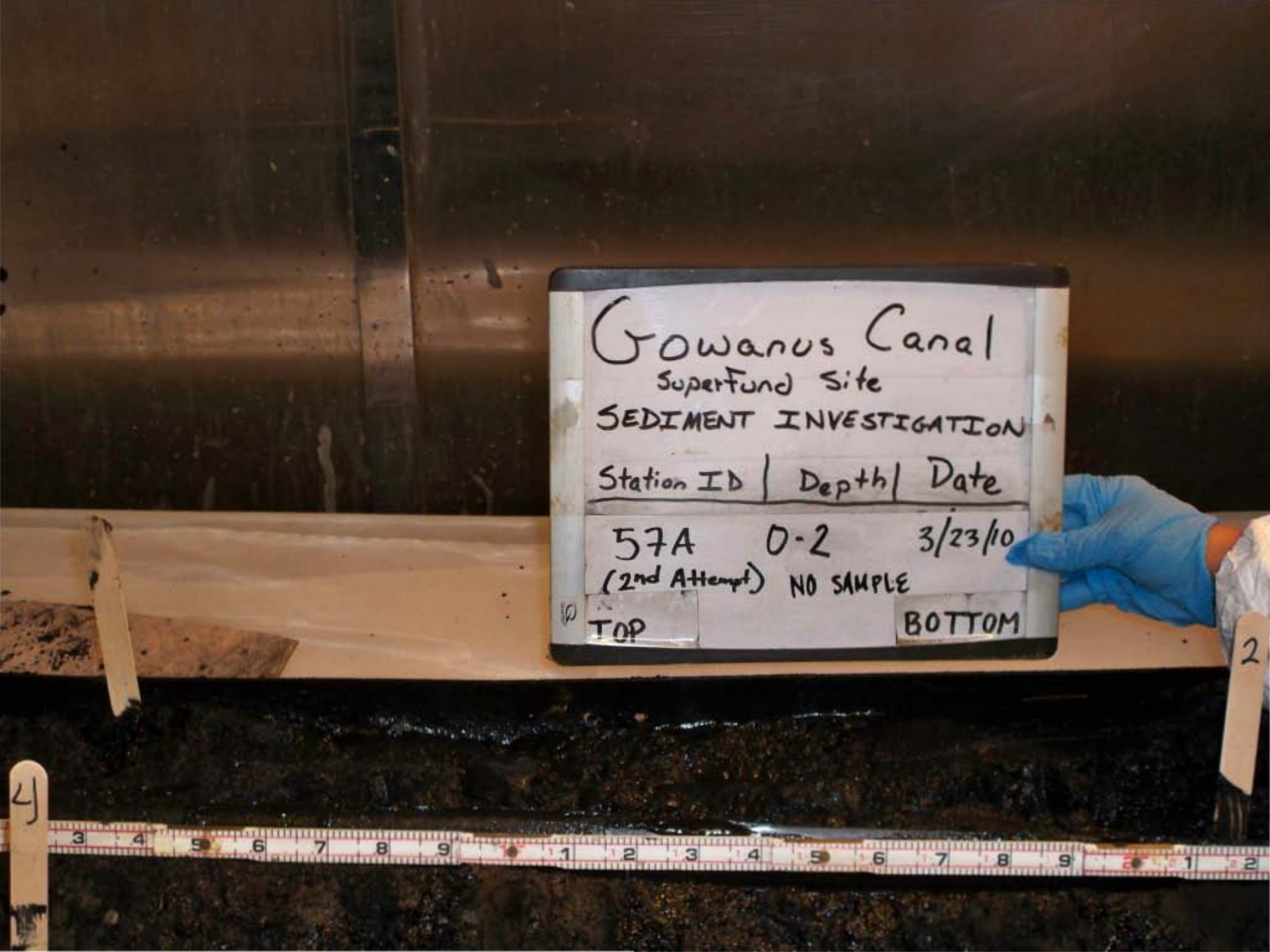

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
56A 1.4-1.6 3/22/10
(1st Attempt) NO SAMPLE
TOP
Transition zone
BOTTOM
1.4
1.6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SD6A 1.6-3.6 3/22/10
(1st Attempt) sample #1
TOP
BOTTOM
3.6
S#
1

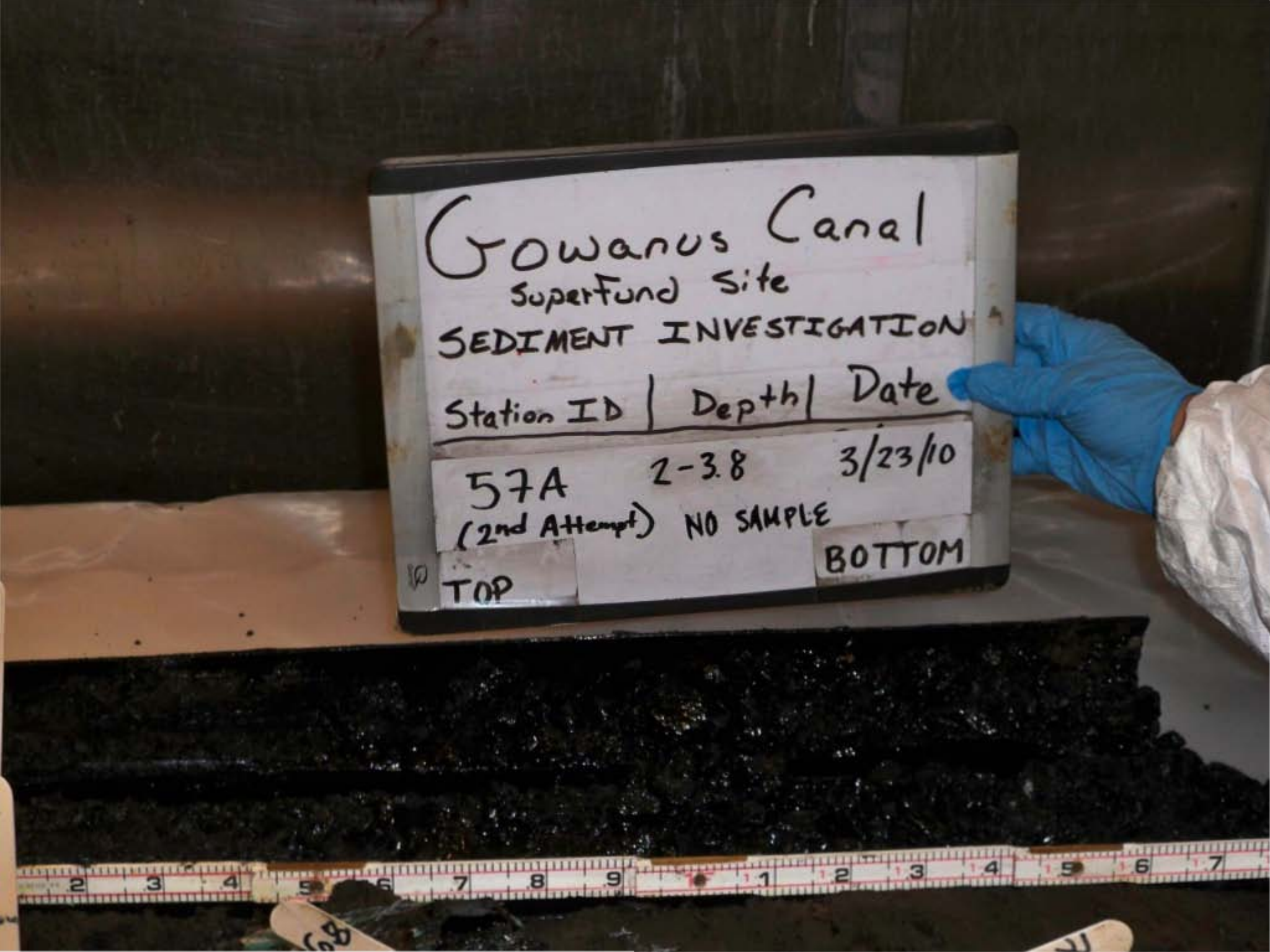

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
56A 36-5.3 3/22/10
(1st Attempt) sample
TOP #2 BOTTOM
3.6
S#
1
5.3
S#
2

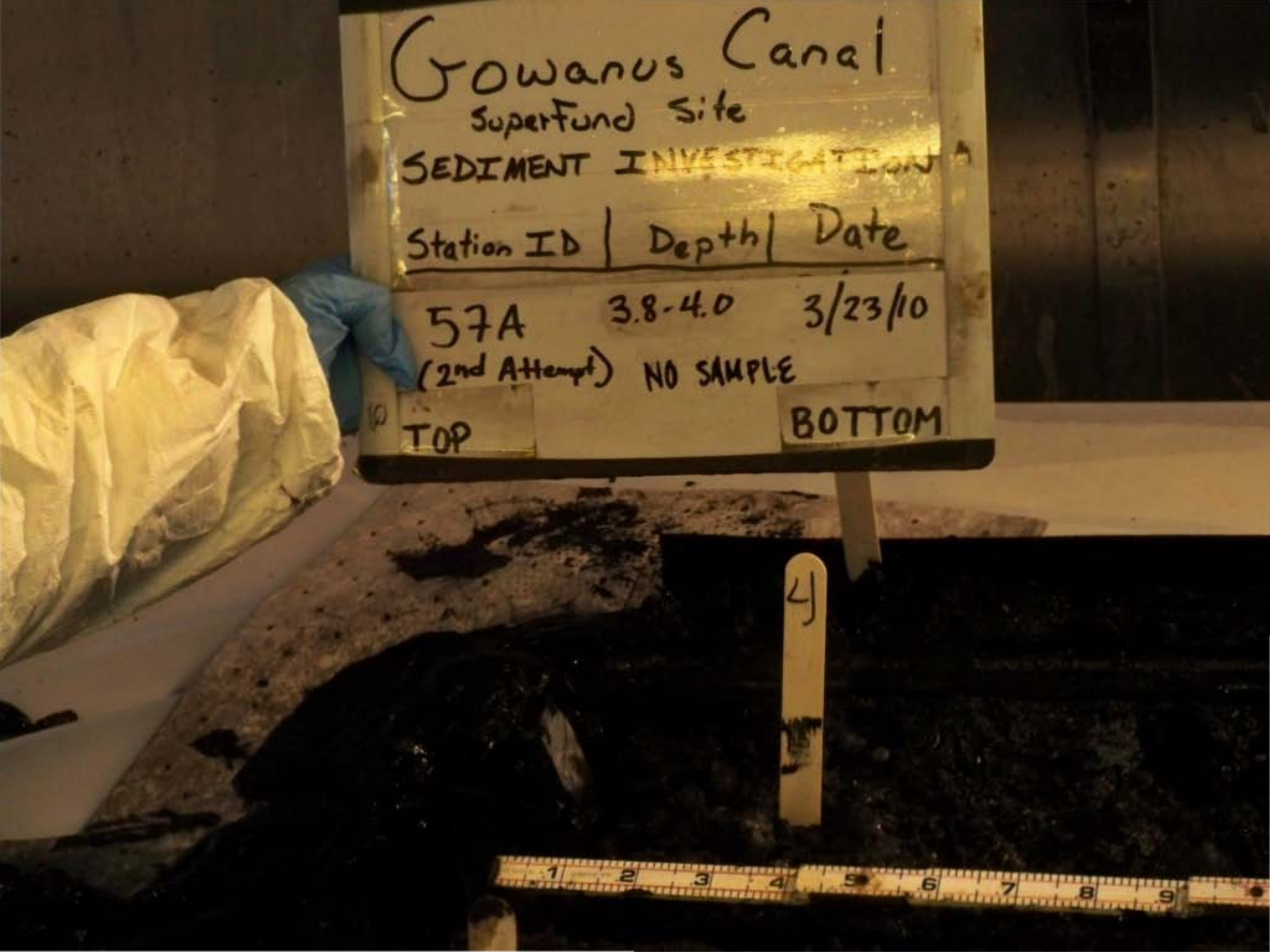

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
FULL RECOVERY
TOP
BOTTOM

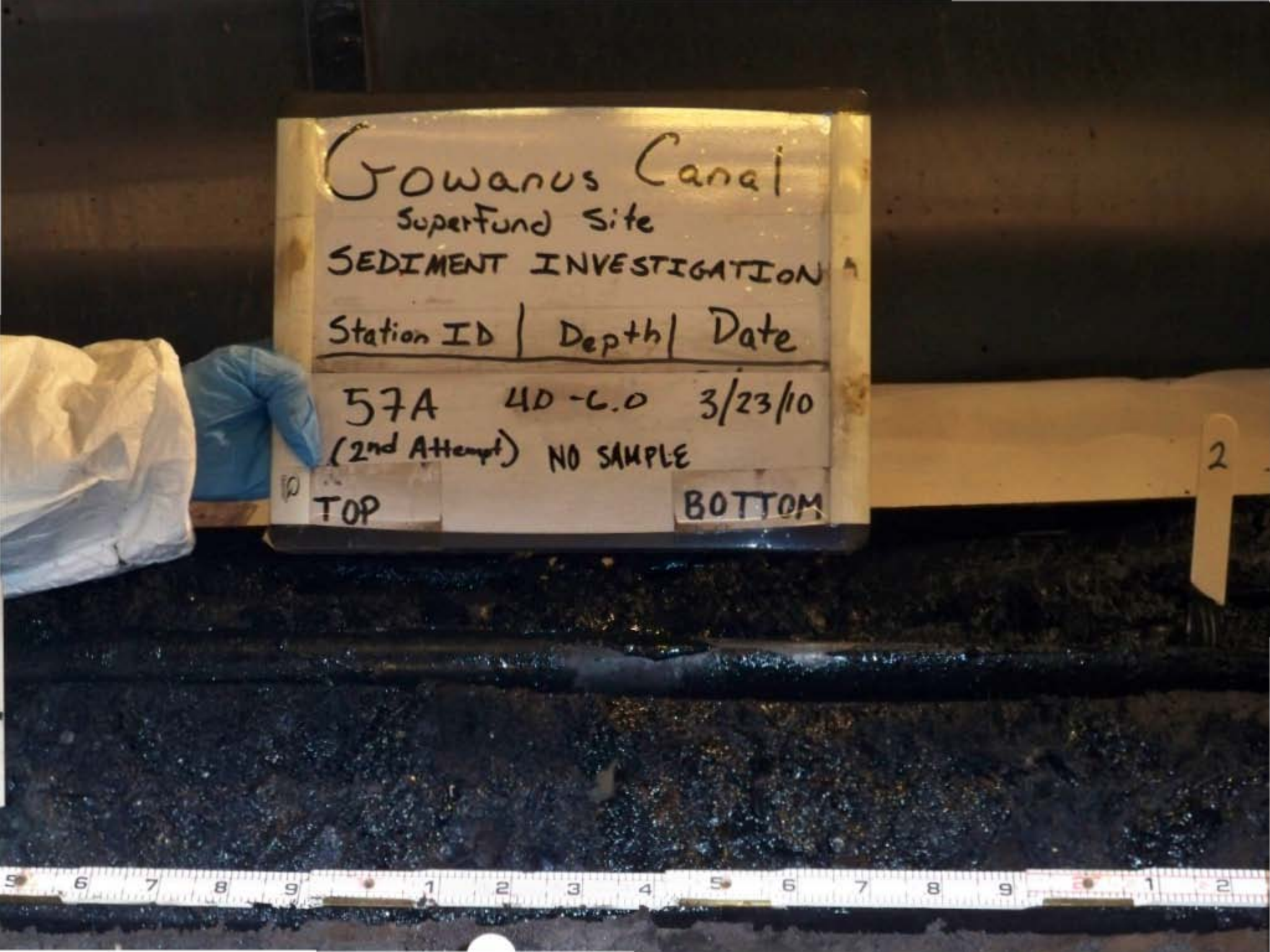

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A (2nd Attempt) FULL Recovery 3/23/10
TOP
BOTTOM

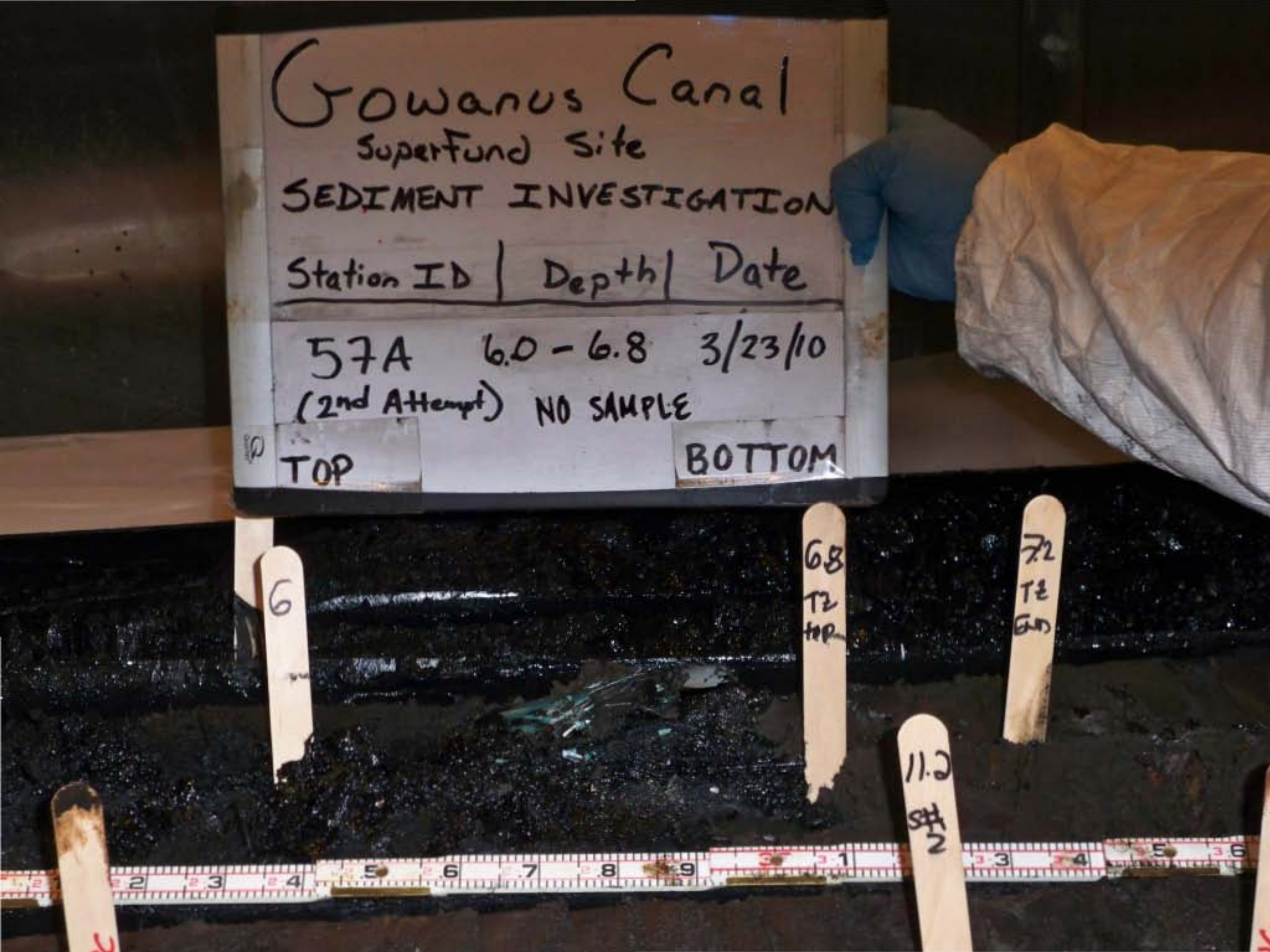

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 0-2 3/23/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

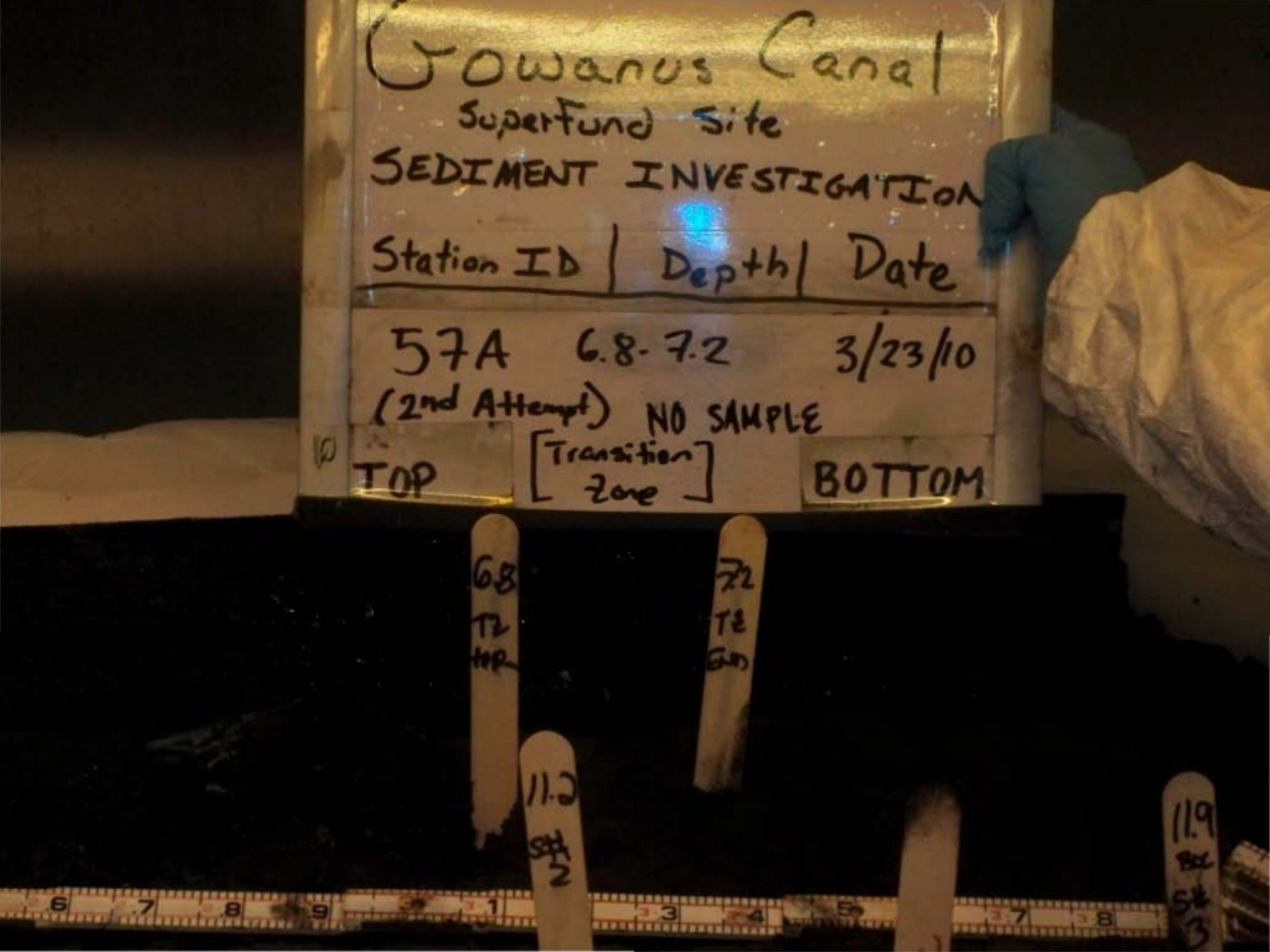

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 11.2-11.9 3/23/10
(2nd Attempt) SAMPLE #3
TOP
BOTTOM
11.2
11.9
VOC

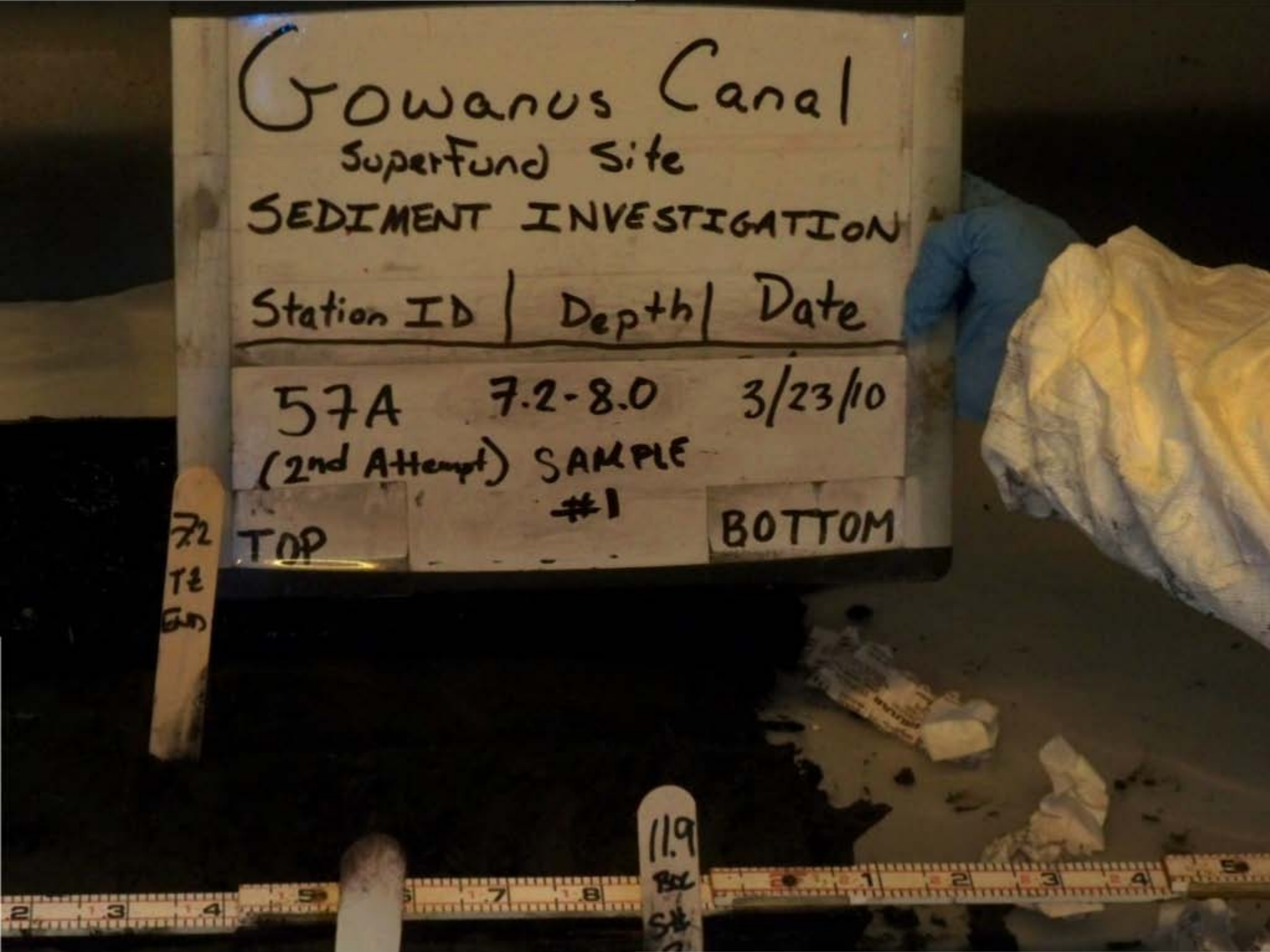

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 2-3.8 3/23/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

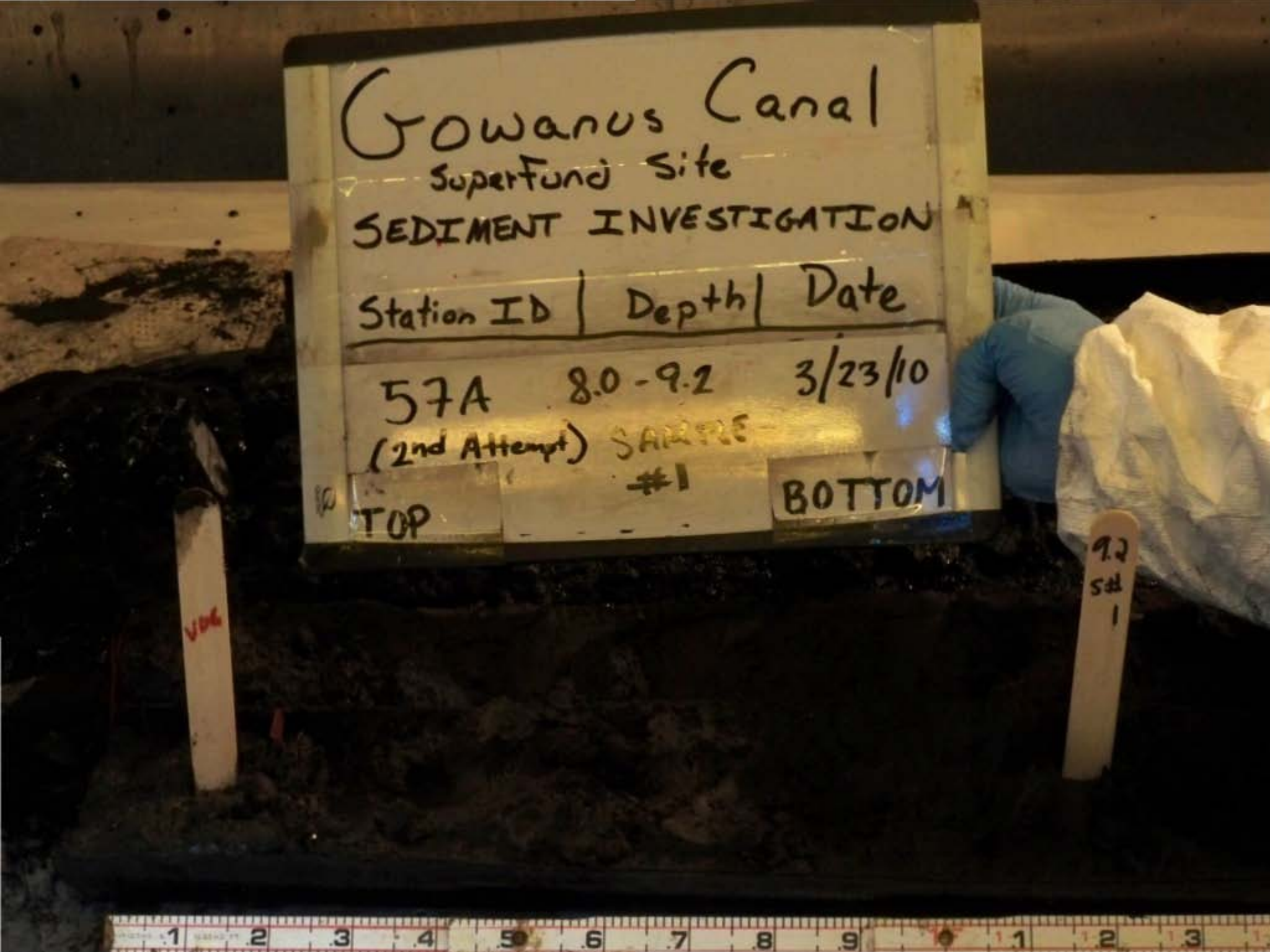

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 3.8-4.0 3/23/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
4

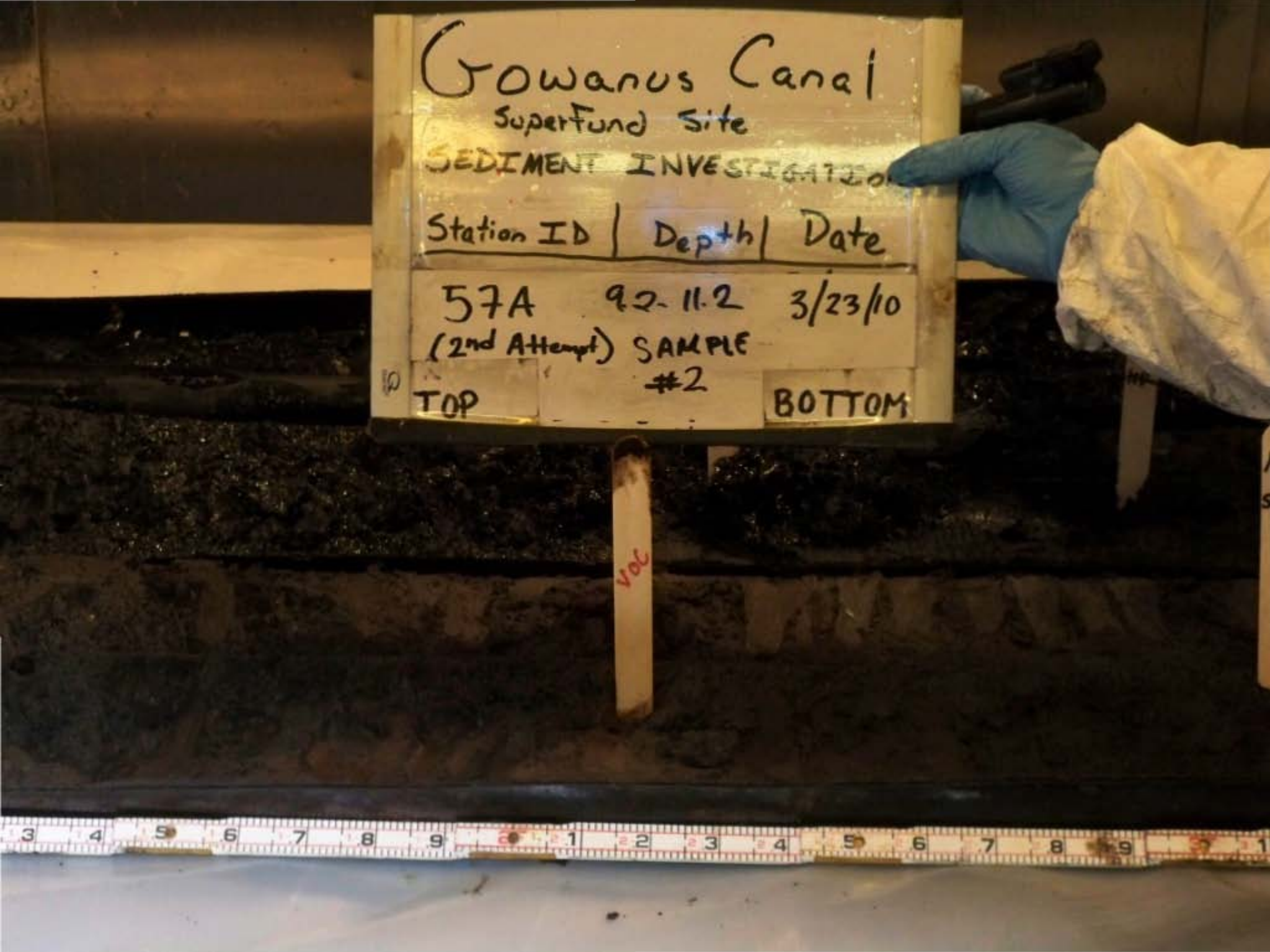

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 40-C.0 3/23/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 6.0 - 6.8 3/23/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
6
6.8
T2
TOP
7.2
T2
END
11.2
SH
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 6.8-7.2 3/23/10
(2nd Attempt) NO SAMPLE
TOP
[Transition Zone]
BOTTOM
6.8 T2 top
7.2 T2 Bot
11.2 Bot 2
11.9 Bot 3

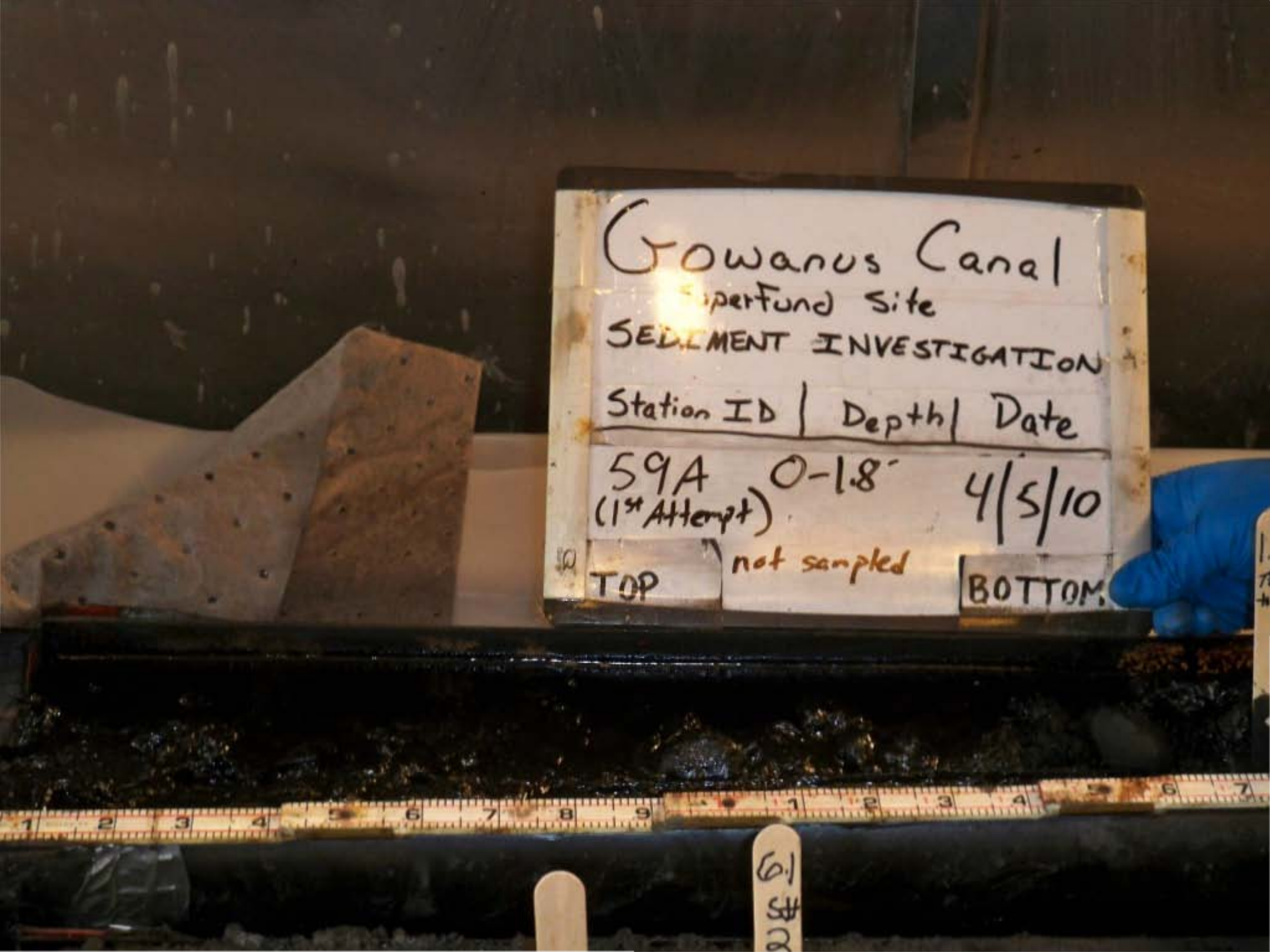

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 7.2-8.0 3/23/10
(2nd Attempt) SAMPLE #1
TOP
BOTTOM
11.9

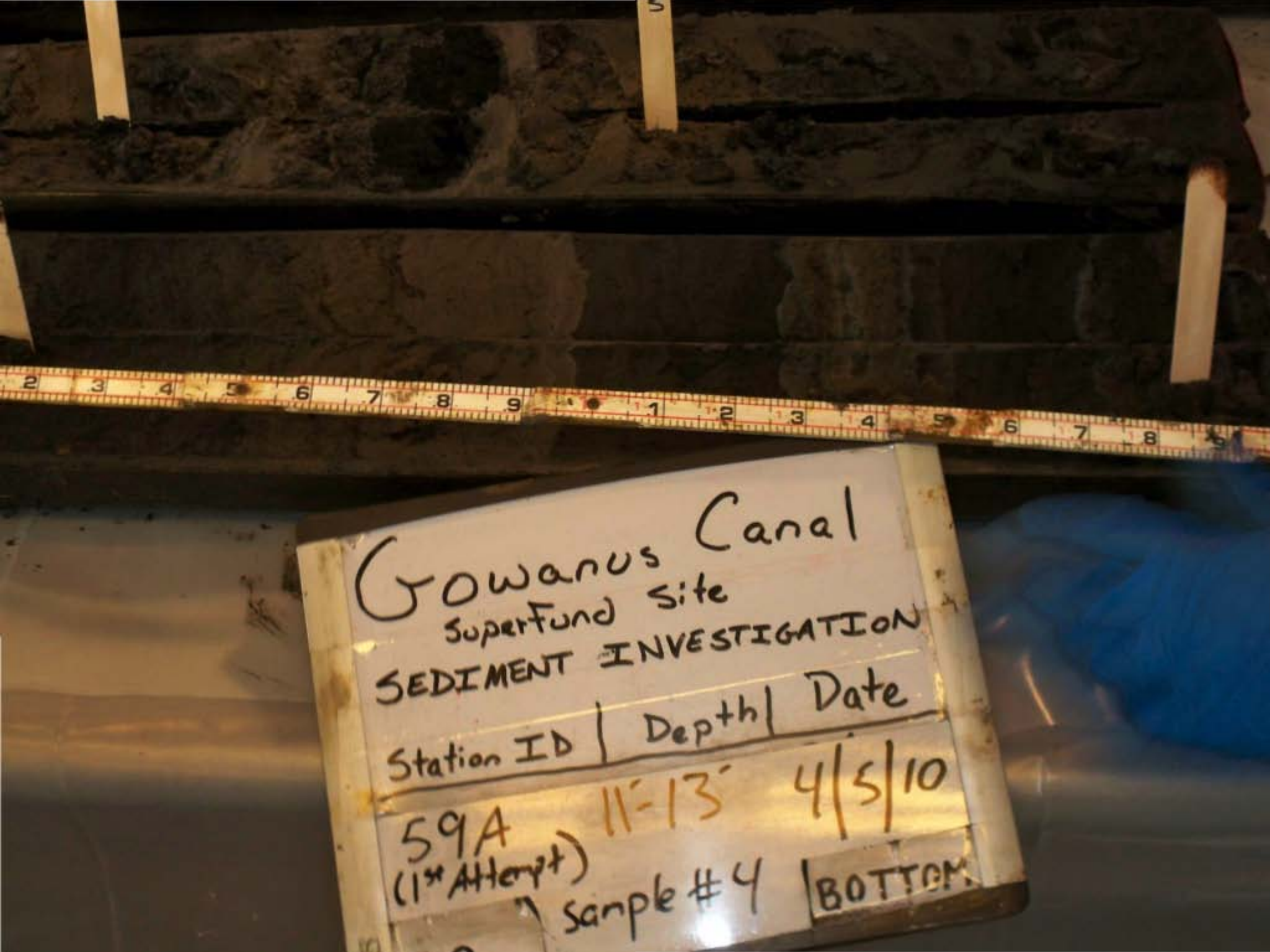

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 8.0 - 9.2 3/23/10
(2nd Attempt) SAMPLE #1
TOP
BOTTOM
9.2
Stk
1

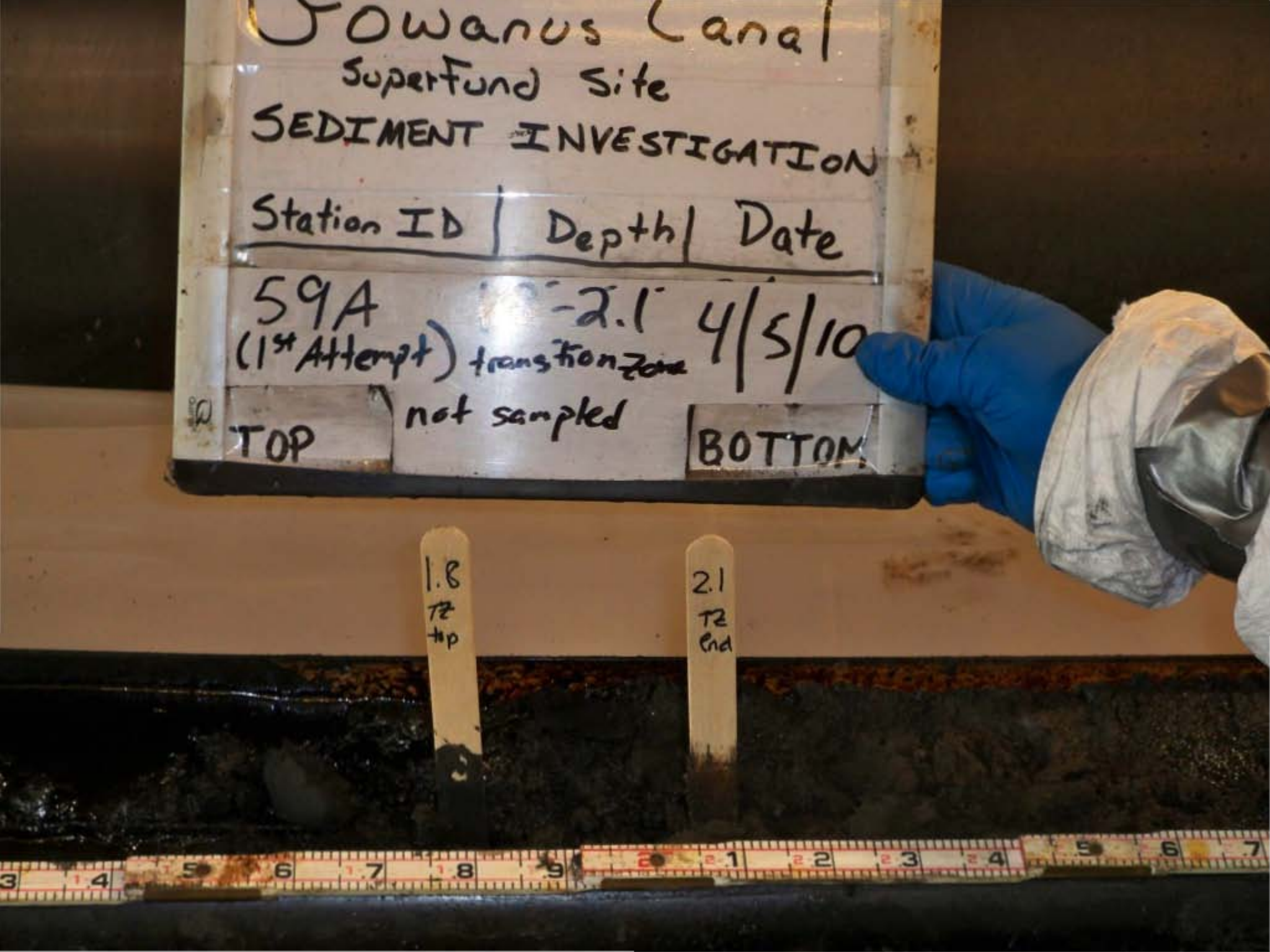

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A 92-11.2 3/23/10
(2nd Attempt) SAMPLE #2
TOP
BOTTOM
VOC

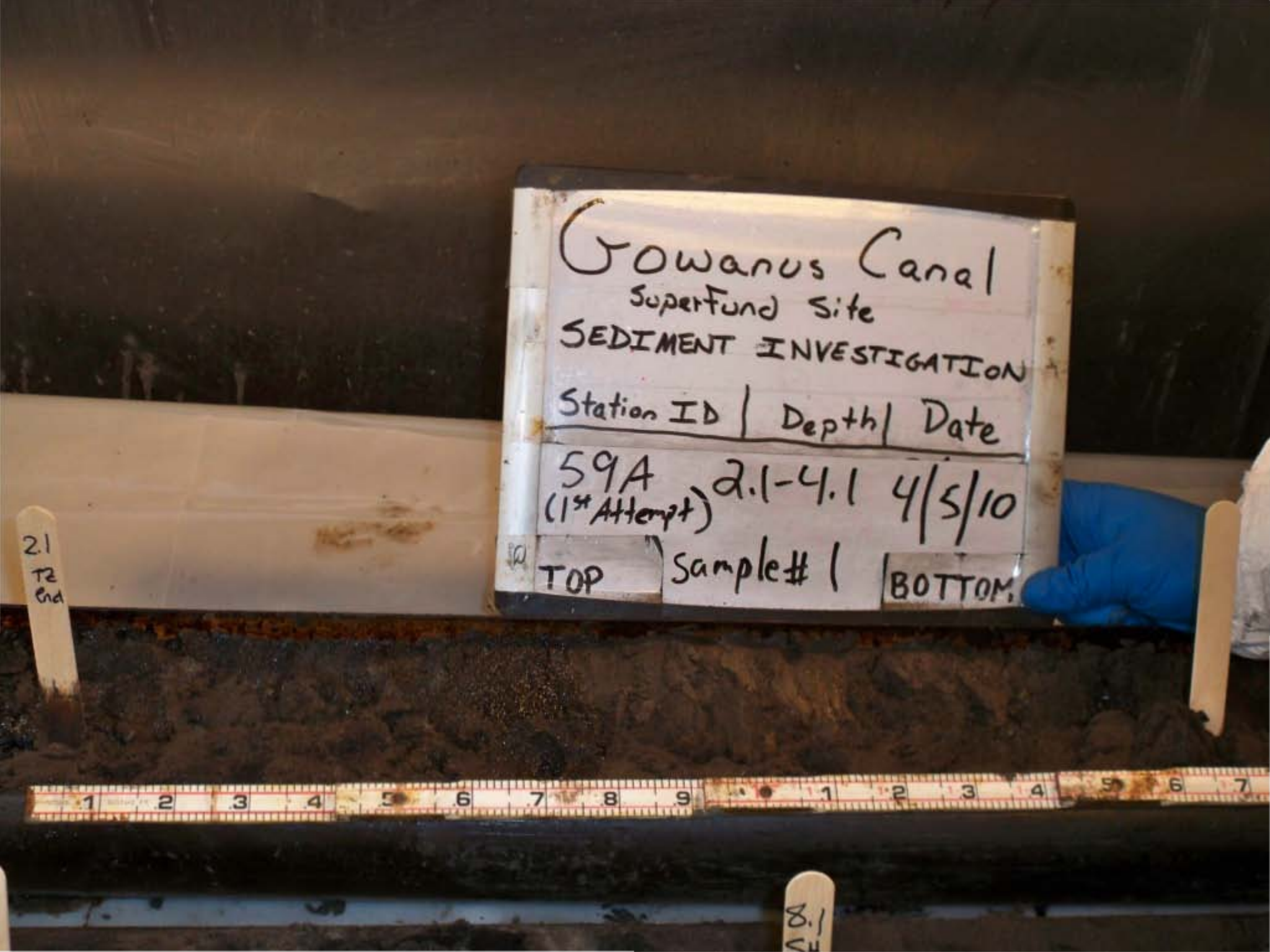

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A
(2nd Attempt)
FULL
RECOVERY
3/23/10
TOP
BOTTOM

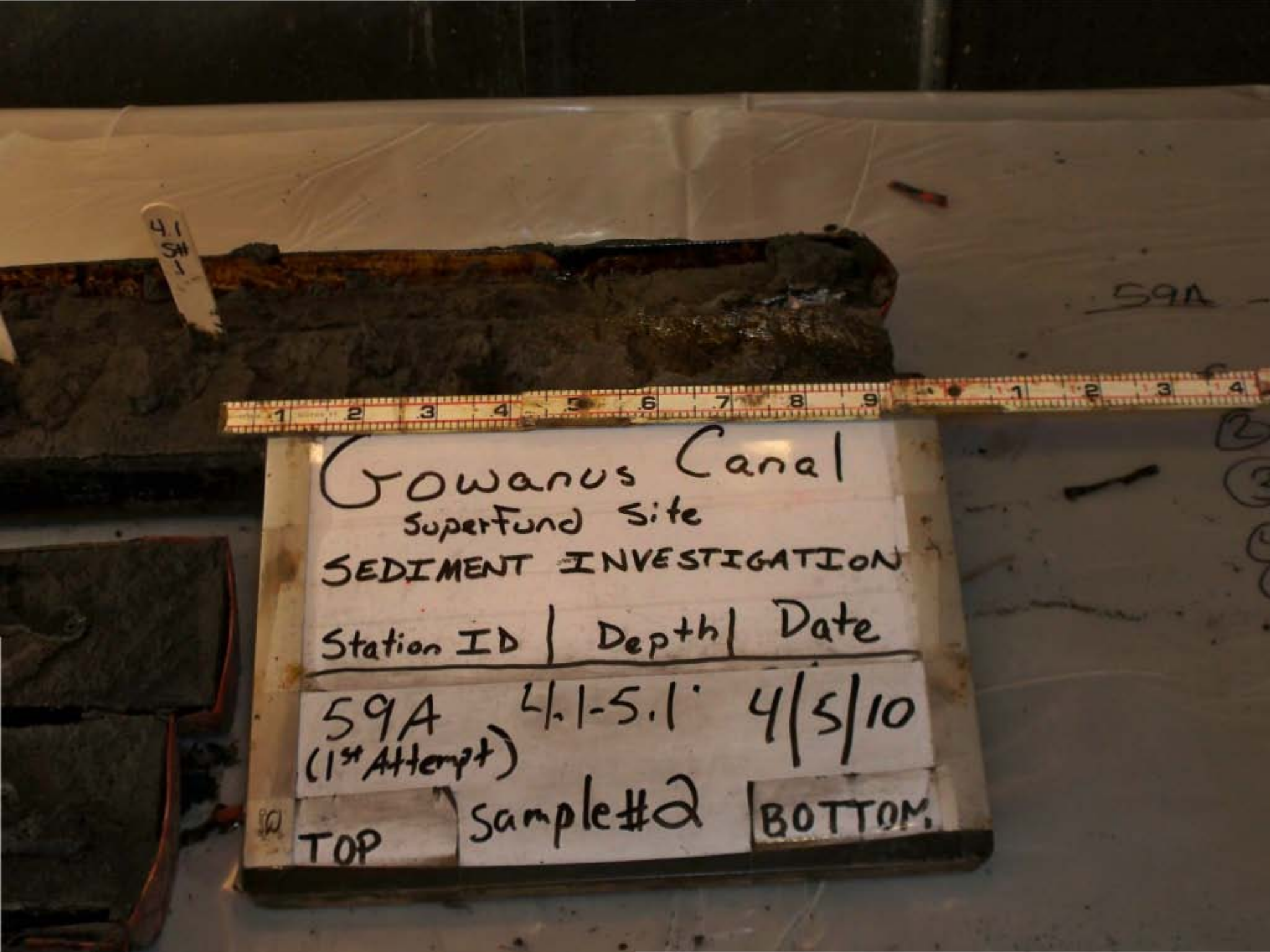

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) Full Recovery 4/5/10
TOP
BOTTOM

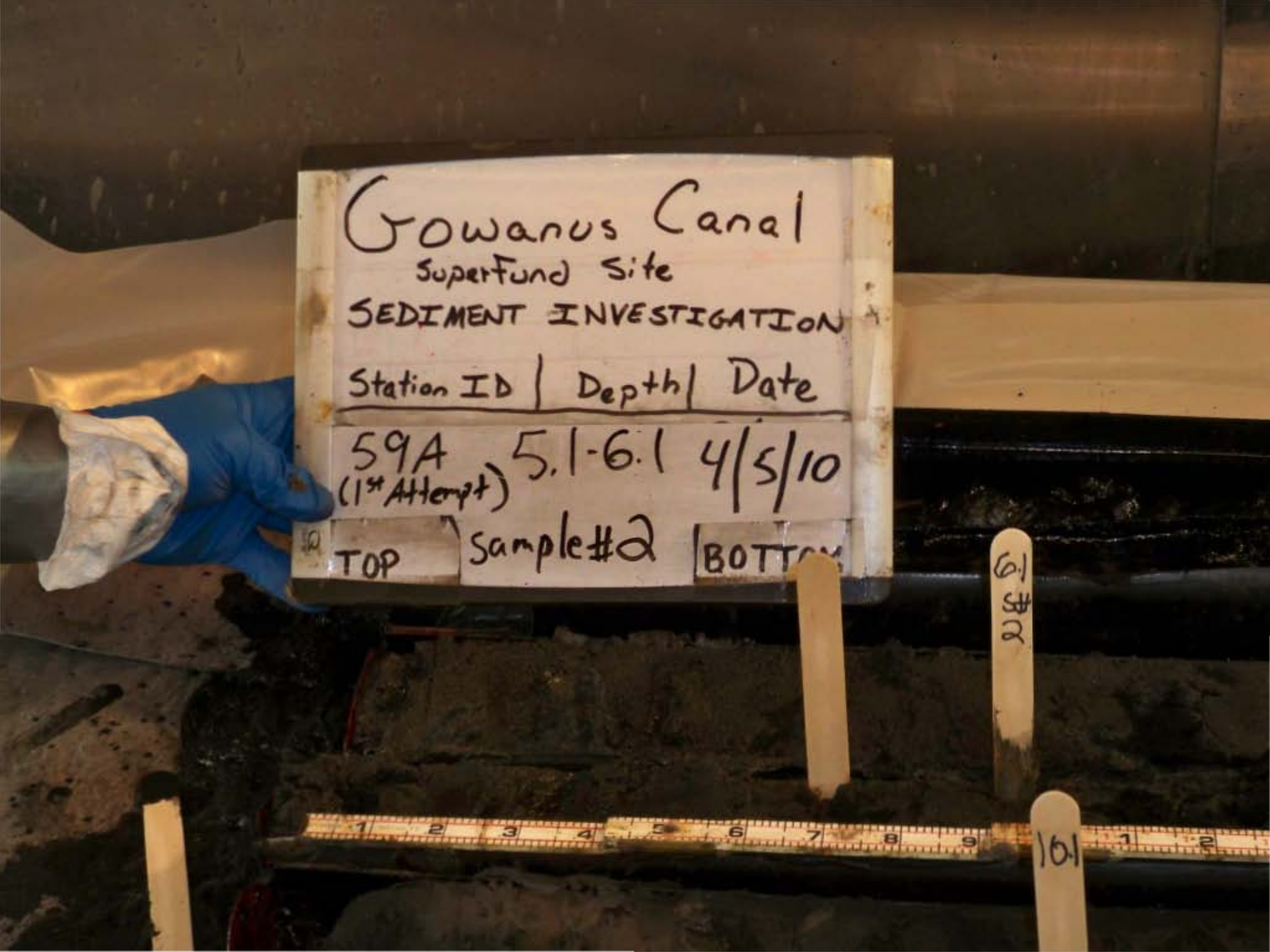

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) 0-1.8' 4/5/10
TOP
not sampled
BOTTOM
6.1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A 11'-13' 4/5/10
(1st Attempt)
Sample #4 BOTTOM

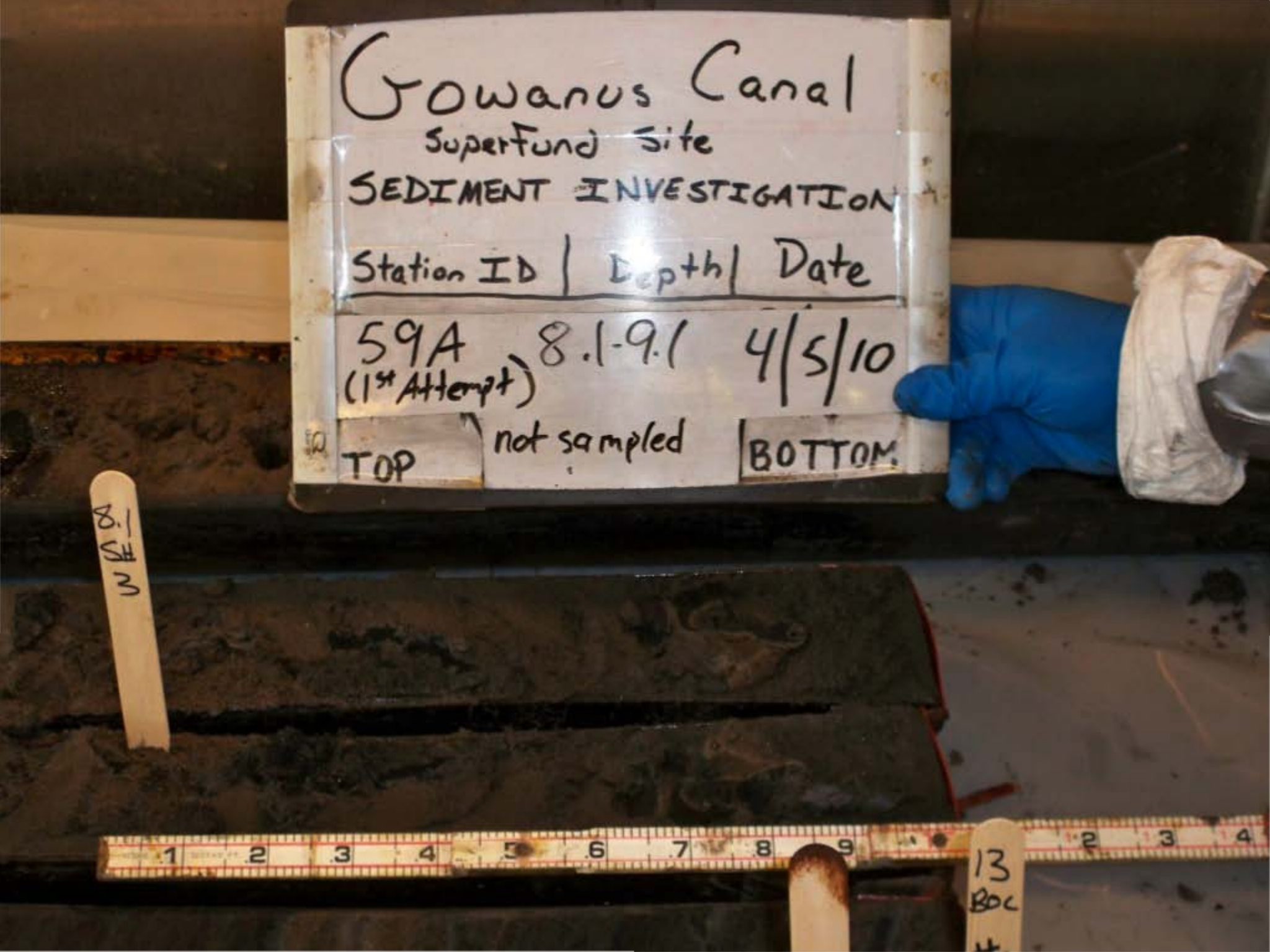

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A -2.1 4/5/10
(1st Attempt) transition zone
not sampled
TOP
BOTTOM
1.8
TZ
top
2.1
TZ
End


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) 2.1-4.1 4/5/10
TOP
Sample# 1
BOTTOM
2.1
TR
End
8.1


4.1 S#1
59A
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) 4.1-5.1 4/5/10
TOP
sample#2
BOTTOM

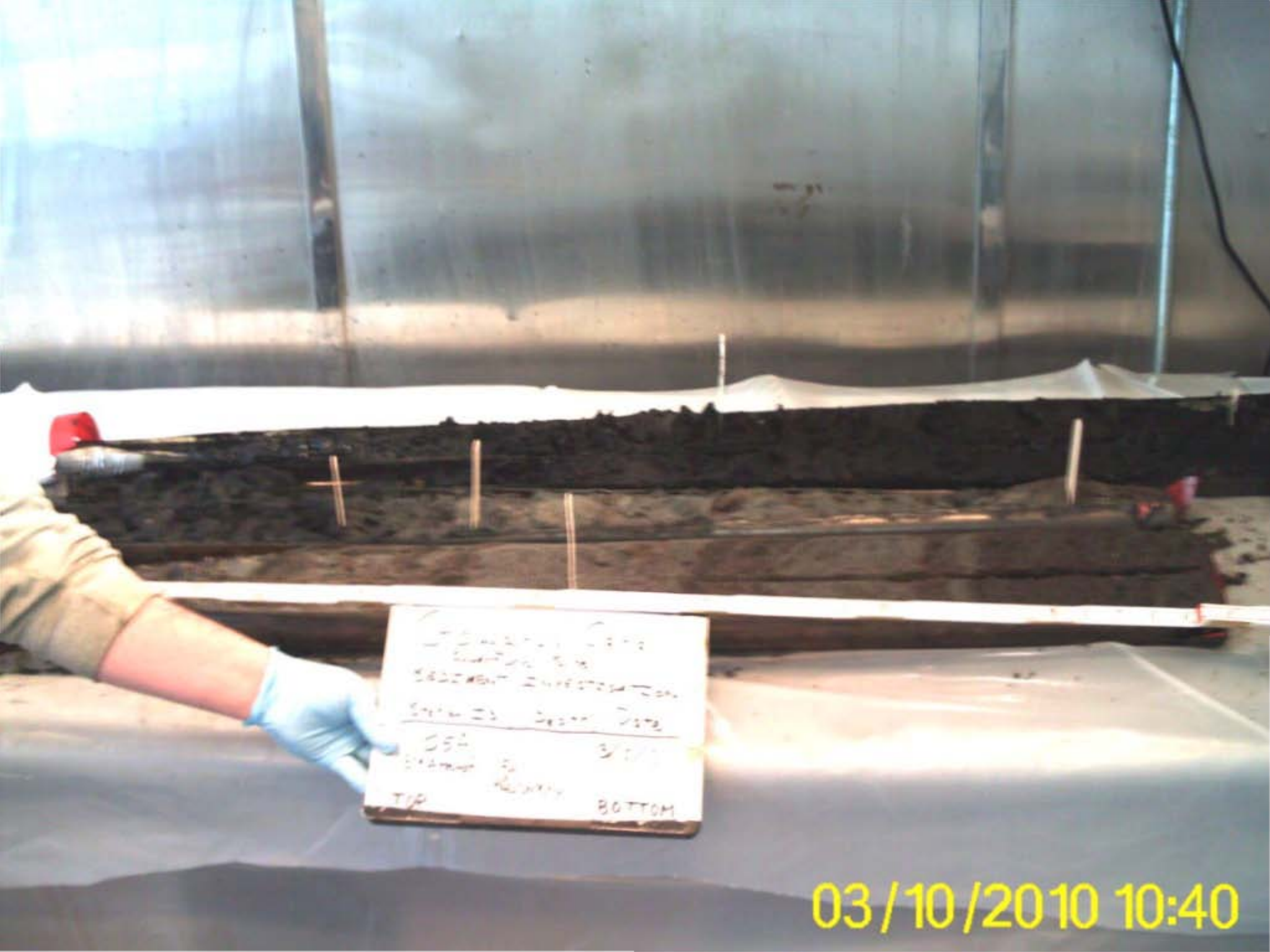

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) 5.1-6.1 4/5/10
TOP
Sample #2
BOTTOM
6.1 #2
6.1


Gowanus Canal
Sup. Fund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) 61-8.1 4/5/10
TOP
Sample#3
BOTTOM

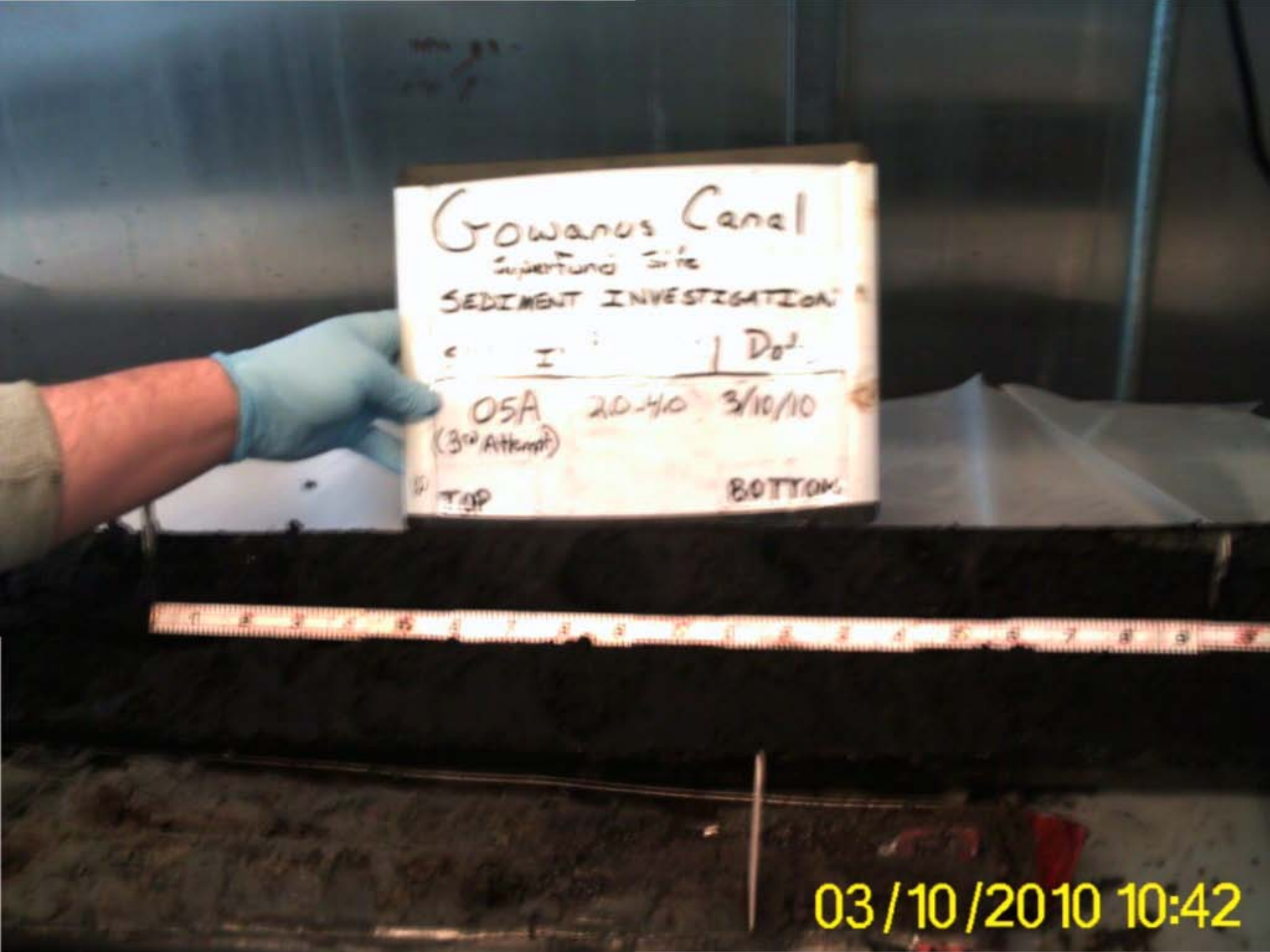

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) 8.1-9.1 4/5/10
TOP
not sampled
BOTTOM
8.1 SH 3
13 BOC

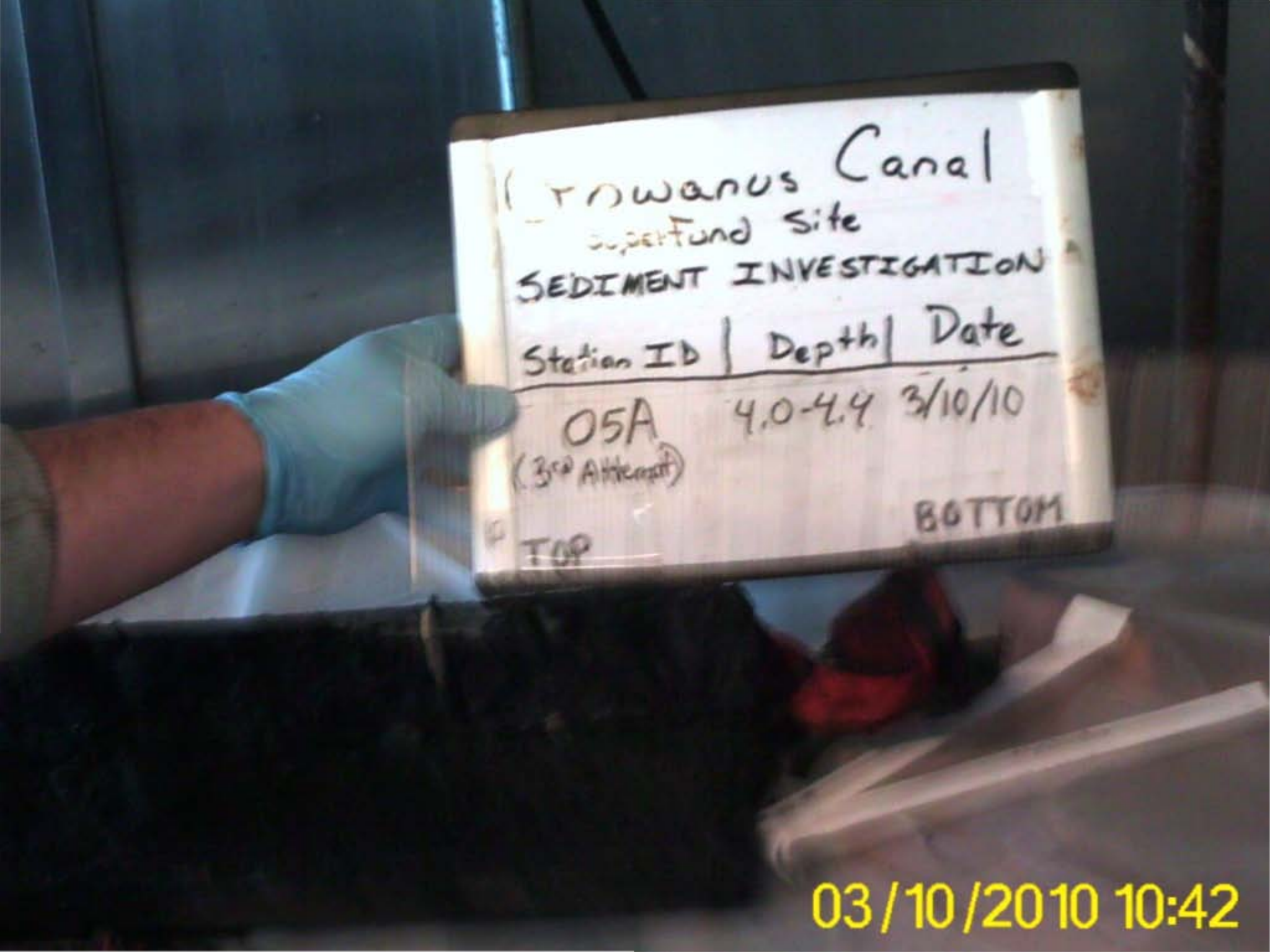

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) 9.1-11.0 4/5/10
TOP
not sampled
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) Full Recovery 4/5/10
TOP
BOTTOM

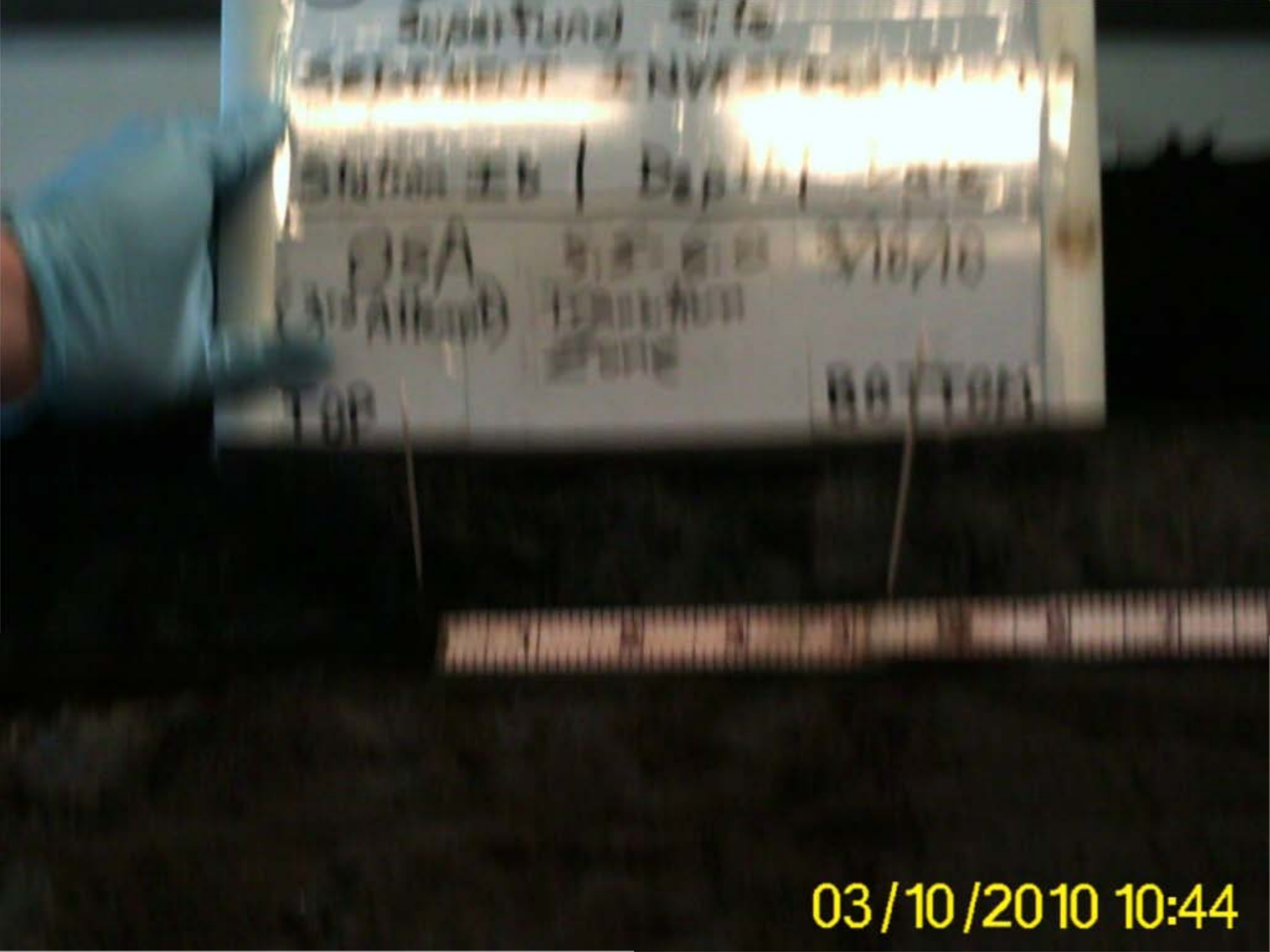

TOP
BOTTOM
03/10/2010 10:40

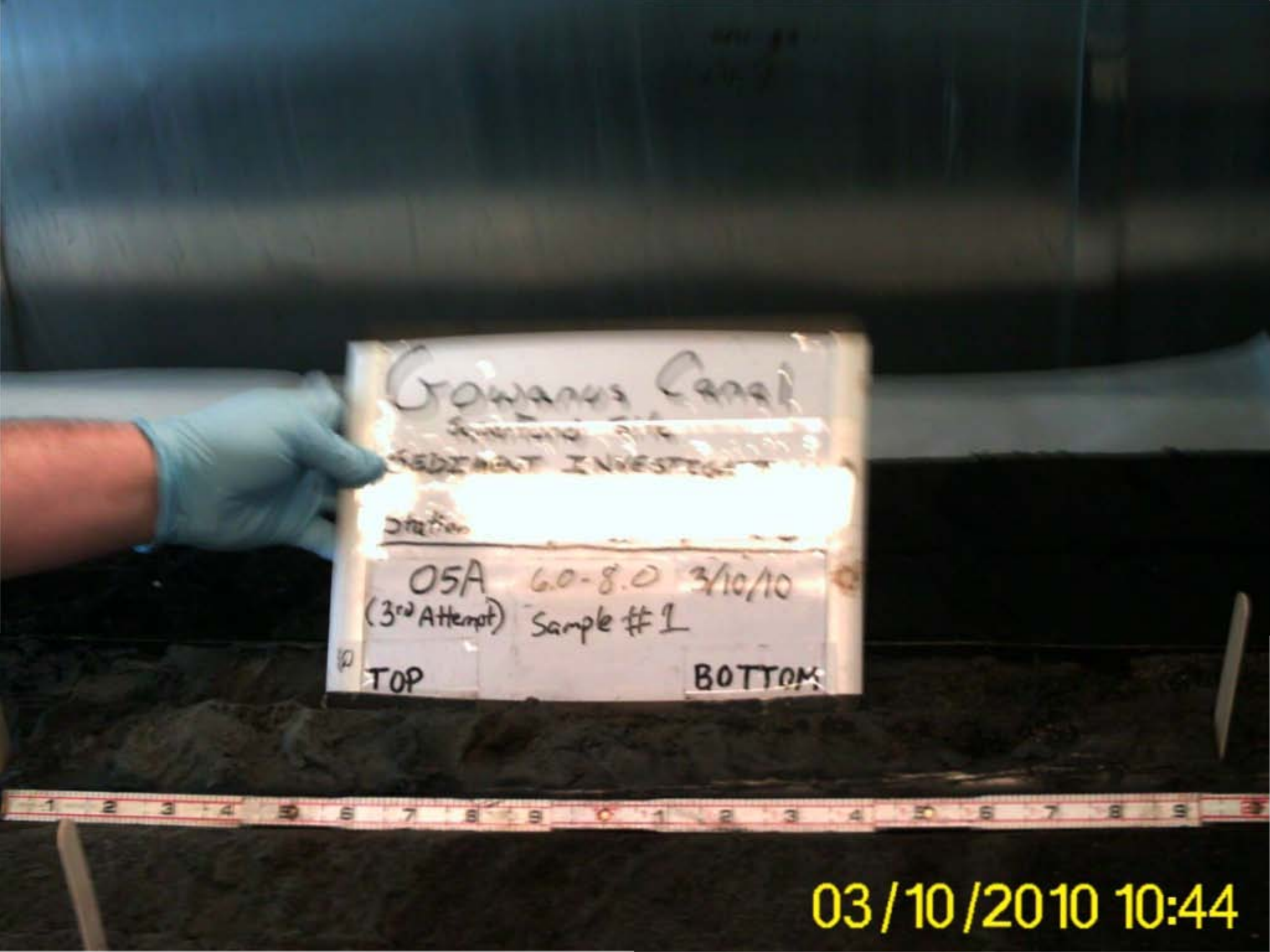

Canal
Date
05A
0.0-2.0
3/10/10
(3rd Attempt)
TOP
BOTTOM
03/10/2010 10:41

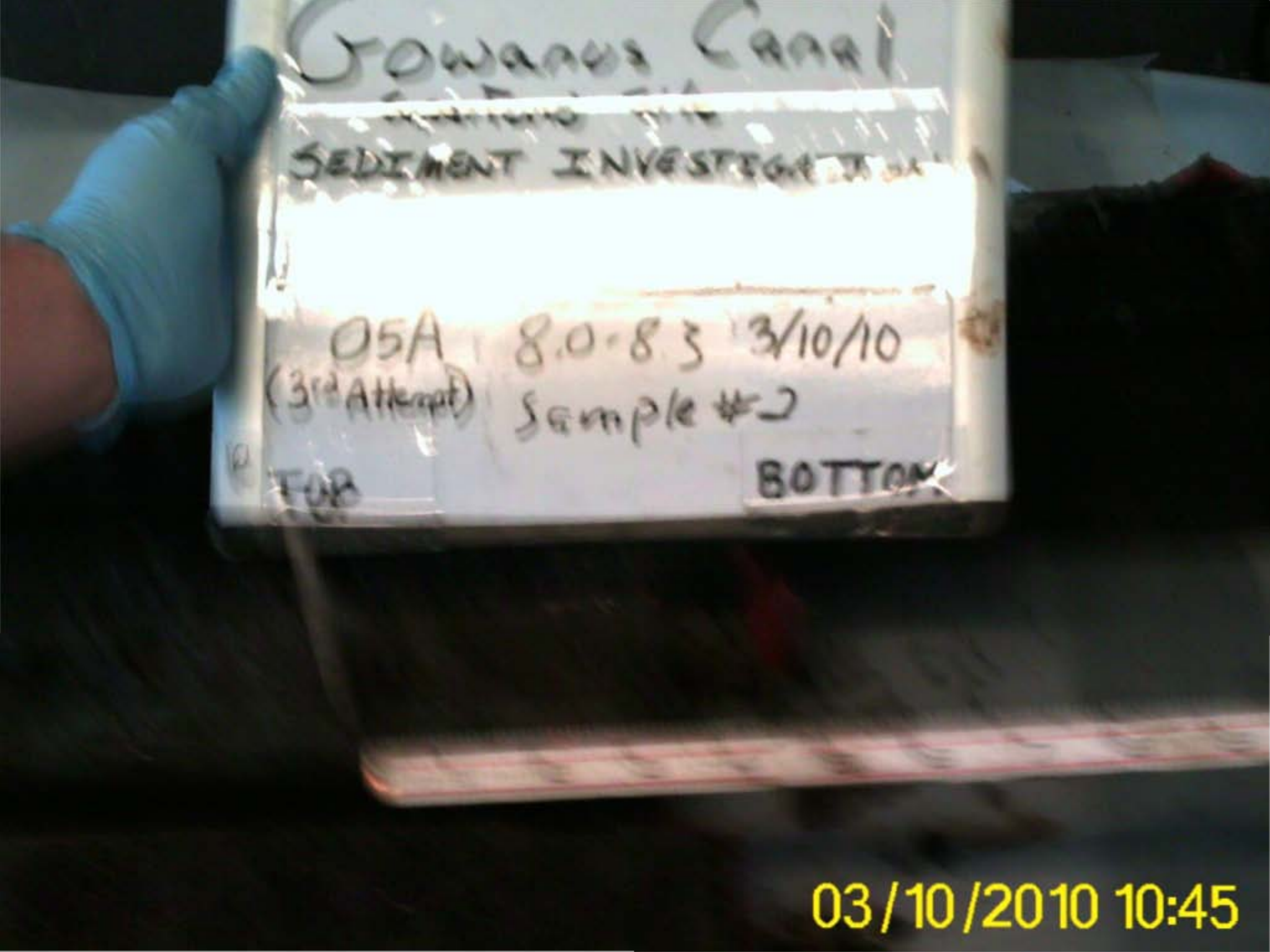

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
I
Do
05A
(3rd Attempt)
20-40
3/10/10
TOP
BOTTOM
03/10/2010 10:42


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
05A 4.0-4.4 3/10/10
(3rd Attempt)
TOP
BOTTOM
03/10/2010 10:42


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
05A (3rd Attempt) 4.4-5.5 3/10/10
TOP
BOTTOM
03/10/2010 10:43


03/10/2010 10:44

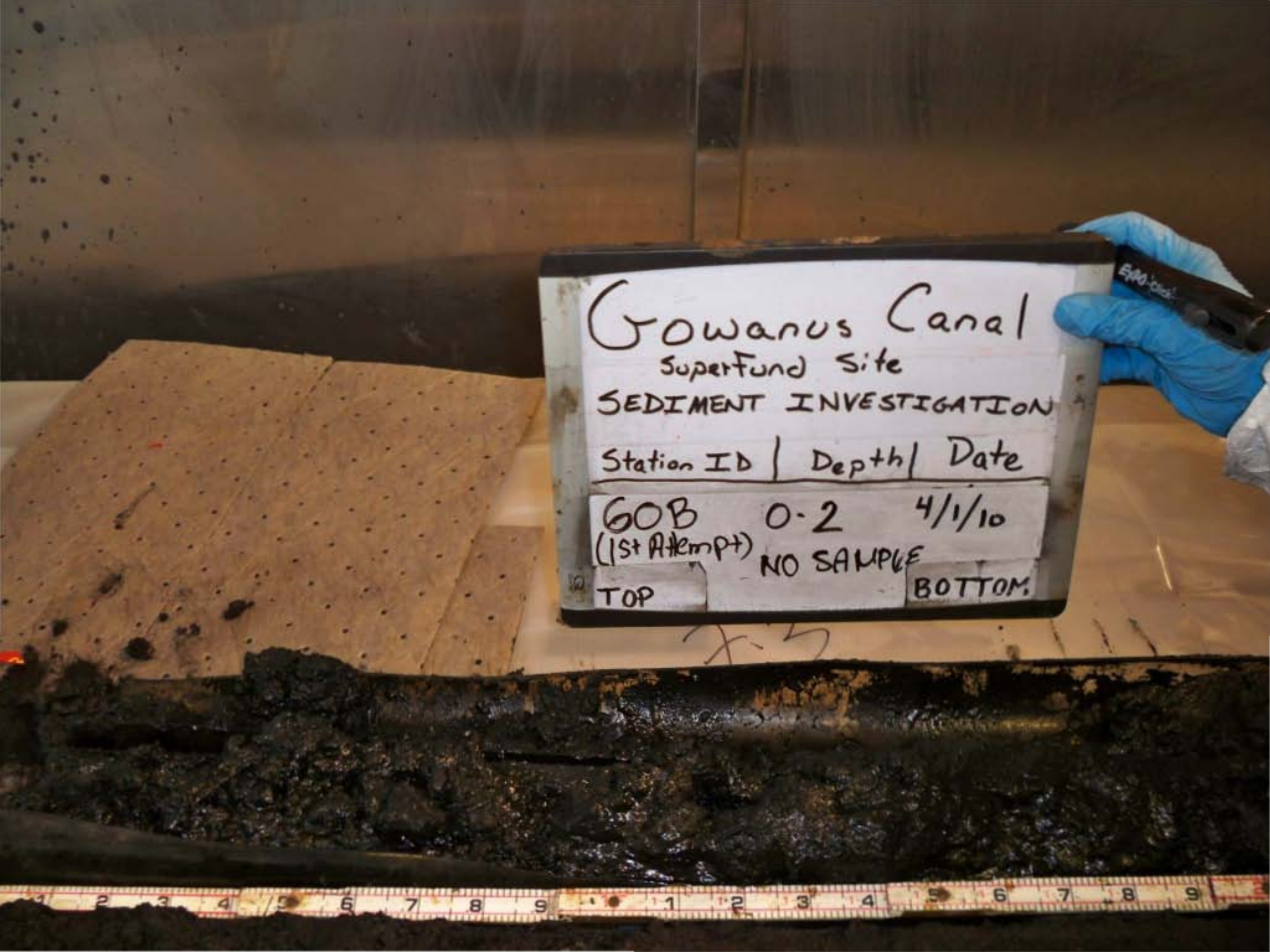

Gowanus Canal
05A 6.0-8.0 3/10/10
(3rd Attempt) Sample #1
TOP
BOTTOM
03/10/2010 10:44

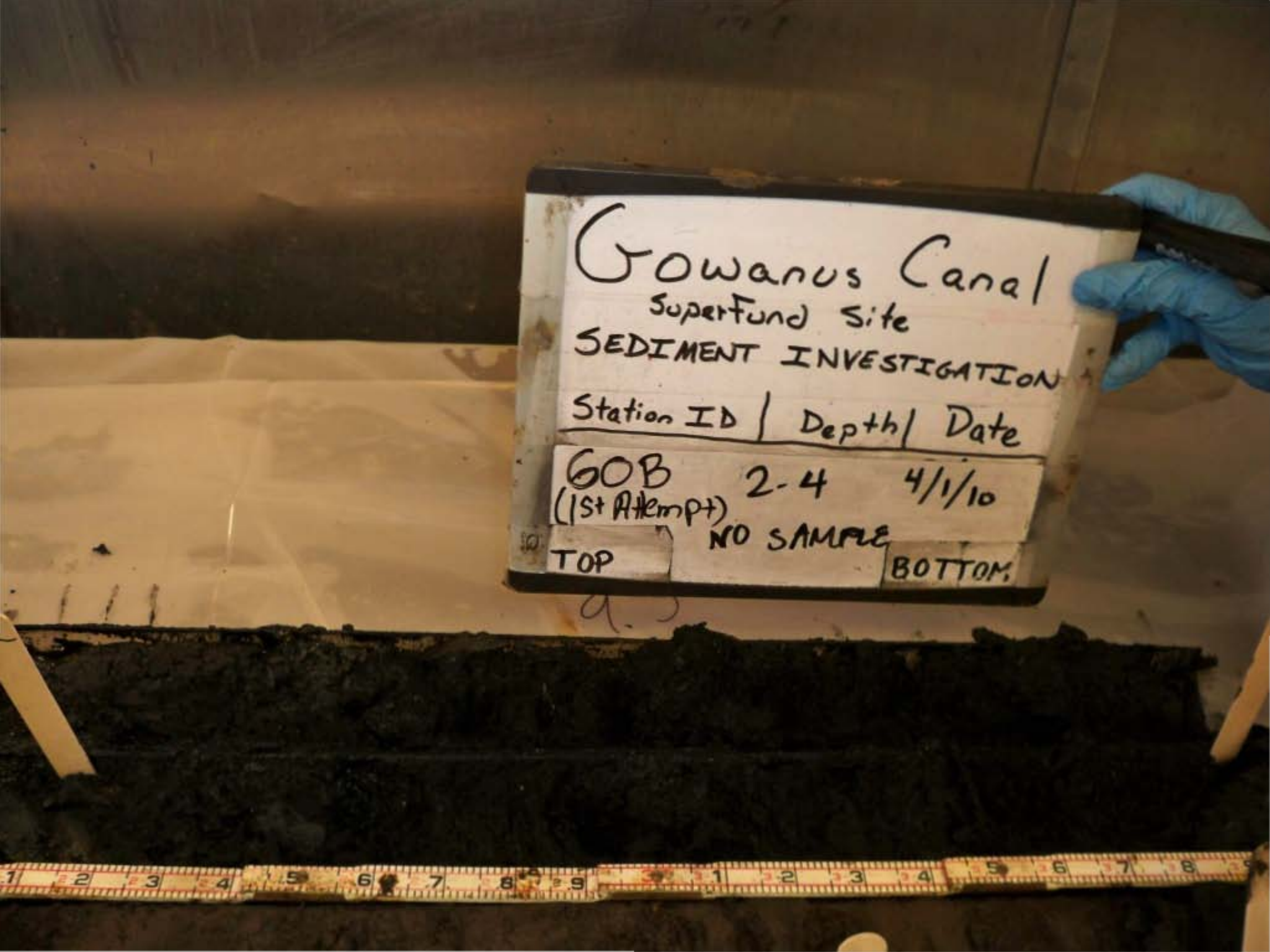

Gowanus Canal
SEDIMENT INVESTIGATION
05A 8.0-8.5 3/10/10
(3rd Attempt) Sample #2
TOP
BOTTOM
03/10/2010 10:45


SEDIMENT INVESTIGATION
Station ID
Depth
Date
3/10/10
TOP
BOTTOM
03/10/2010 10:40


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
05A
3/10/10
Full
TOP
BOTTOM
03/10/2010 10:41


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GOB (1st Attempt) FULL Recovery 4/1/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
60B (1st Attempt) 0-2 4/1/10
NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
60B 2-4 4/1/10
(1st Attempt)
NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GOB 4-5 4/1/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
5.0
TZ
TOP


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
60B 5.0-5.2 4/1/10
(1st Attempt) Transition Zone
TOP No Sample BOTTOM
5.0 Tz TOP
5.2 Tz END
97.1
104

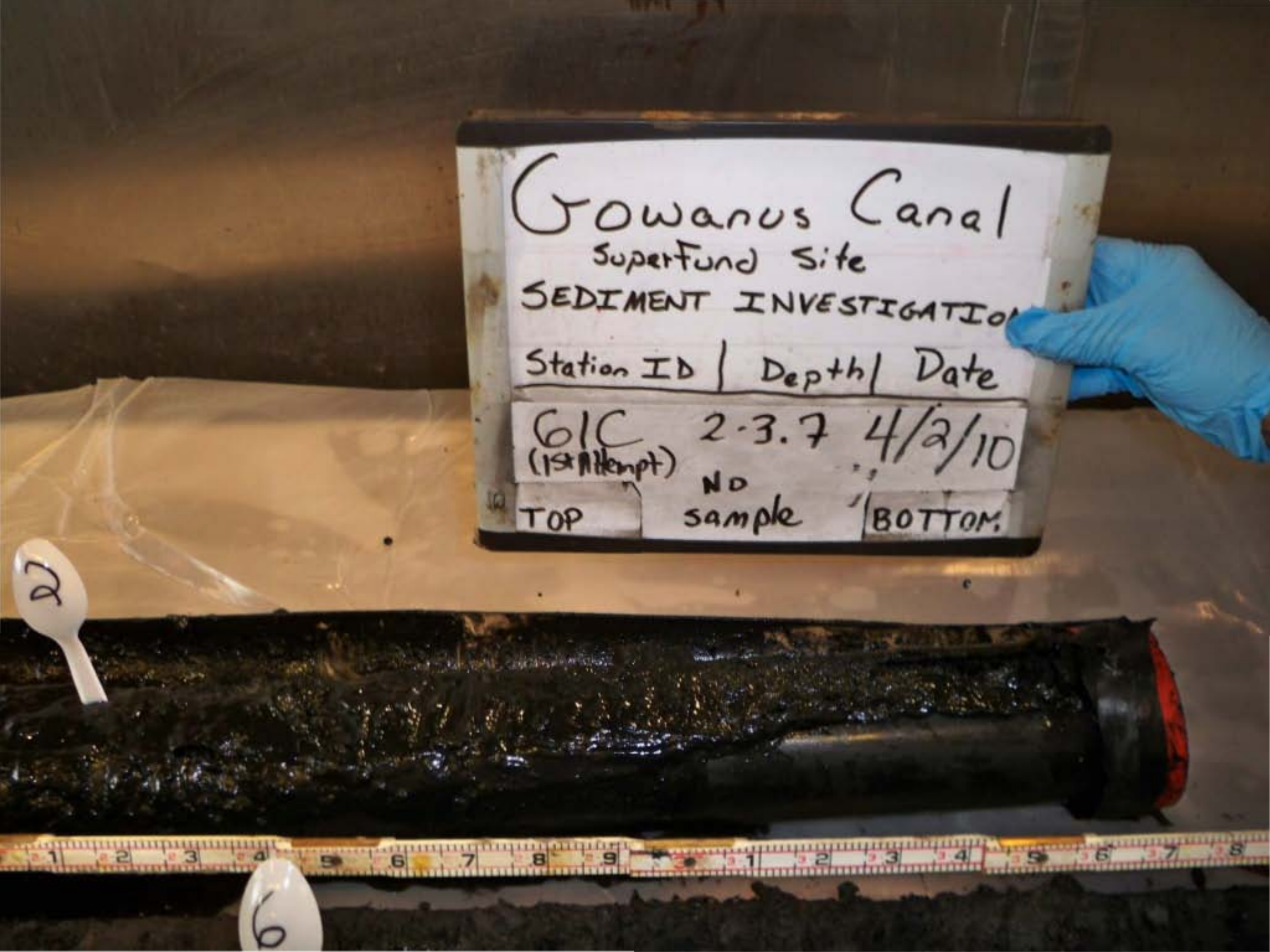

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
60B 5.2-7.2 4/1/10
(1st Attempt) Sam
#1
TOP
BOTTOM
5.2
7.2

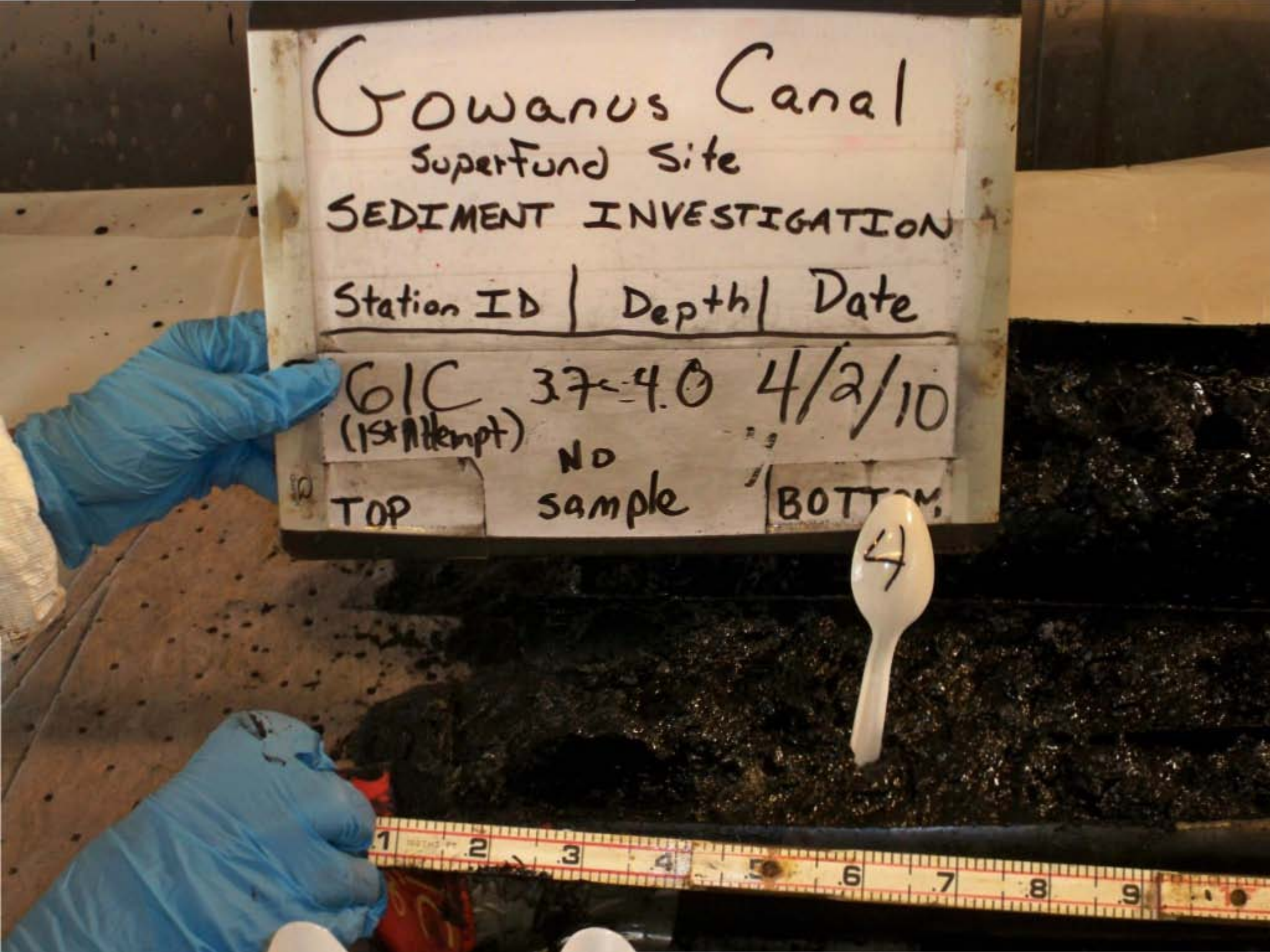

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
60B 7.2-8.0 4/1/10
(1st Attempt) Sample
#2
TOP
7.2 S # 1
S # 2 BOT

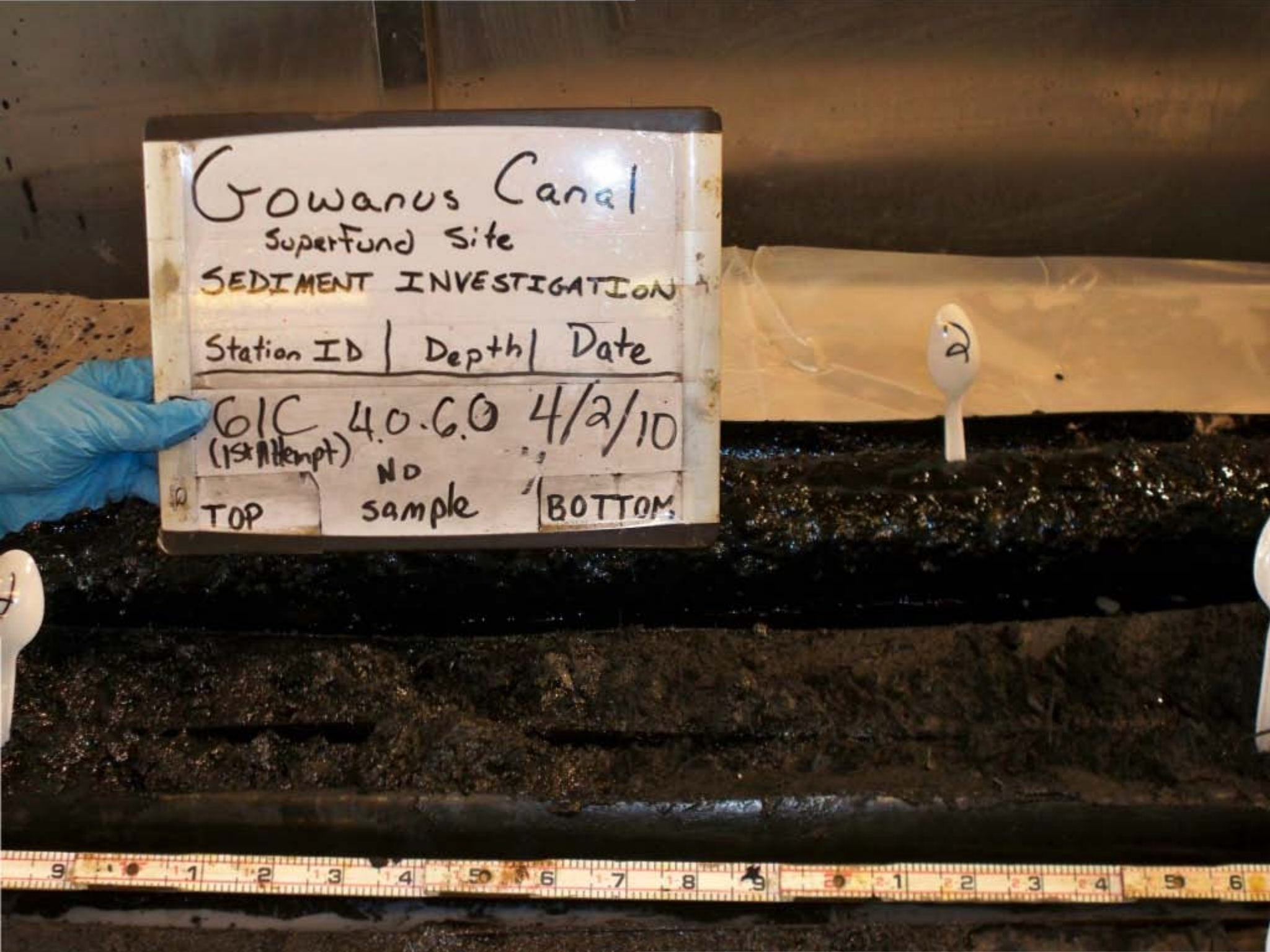

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GOB (1st Attempt) Full Recovery 4/1/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C FULL 4/2/10
(1st Attempt) RECOVERY
TOP
BOTTOM

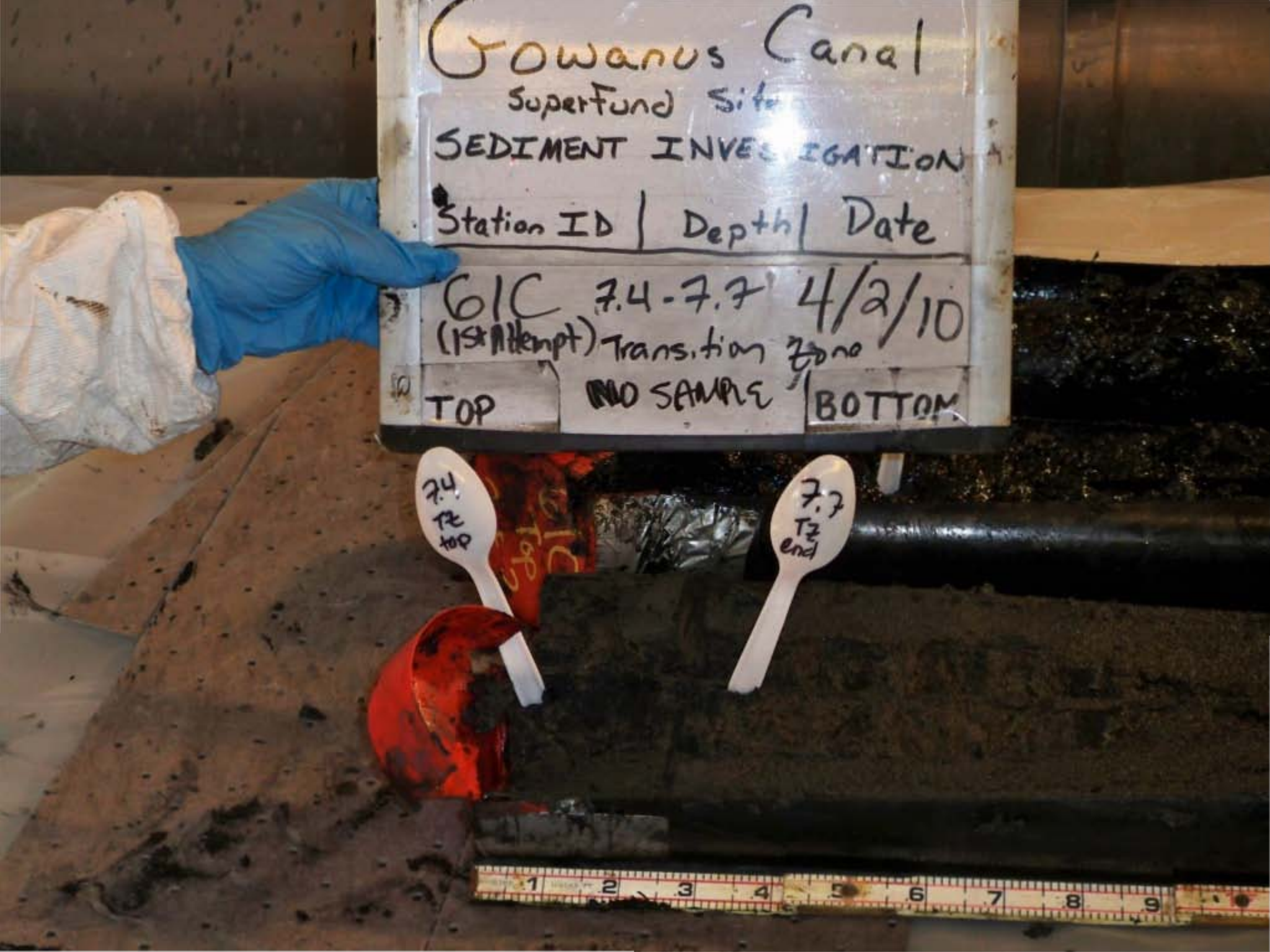

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C (1st Attempt) 0-2' 4/2/10
ND sample
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
61C (1st Attempt) 2-3.7 4/2/10
NO sample
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C (1st attempt) 37-40 4/2/10
NO sample
TOP
4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C (1st Attempt) 4.0-6.0 4/2/10
NO sample
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C (1st Attempt) 6.0-7.4 4/2/10
NO sample
TOP
BOTTOM
6
10.3

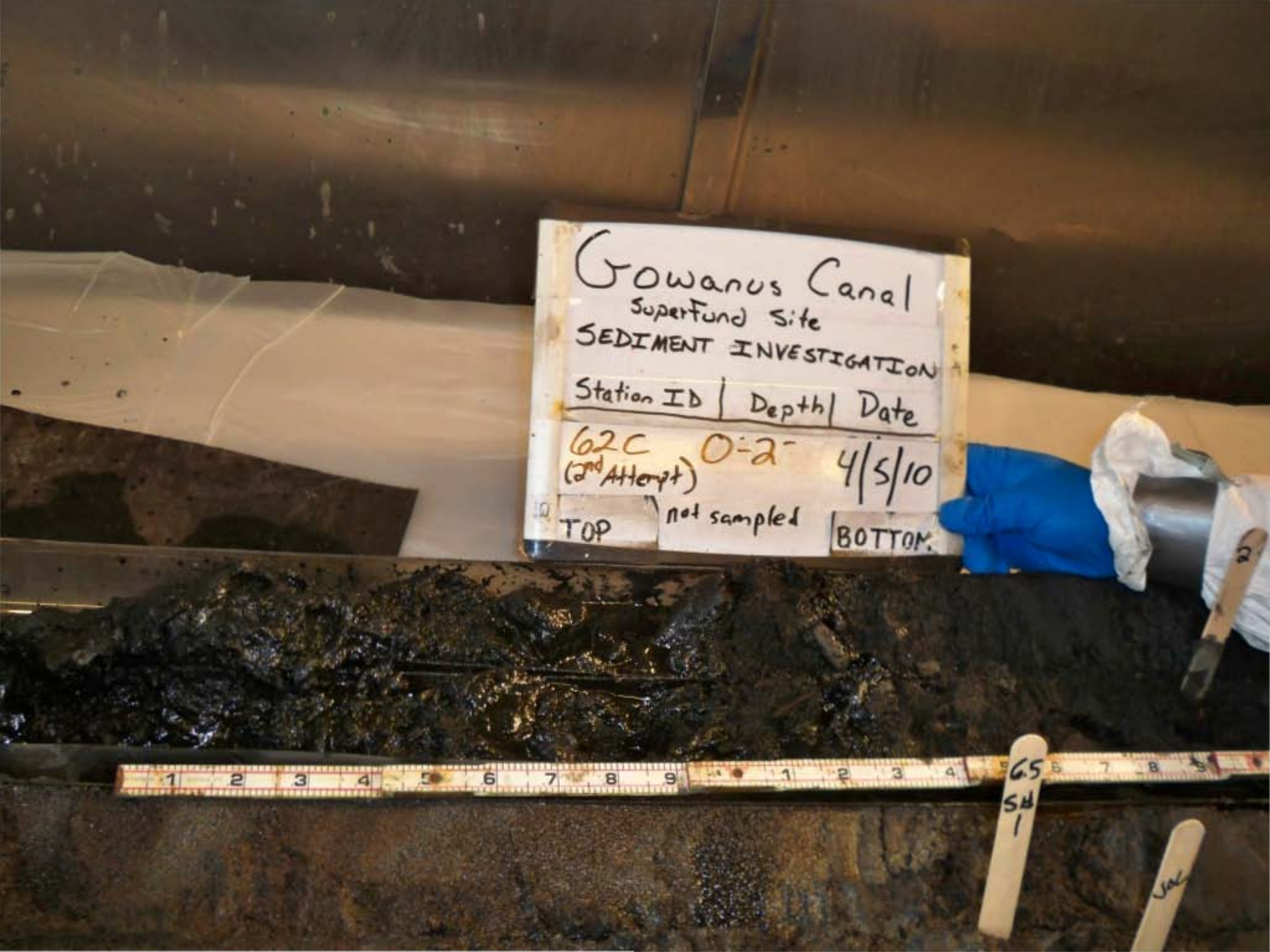

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C 7.4-7.7' 4/2/10
(1st Attempt) Transition Zone
TOP NO SAMPLE BOTTOM
7.4 TZ top
7.7 TZ end

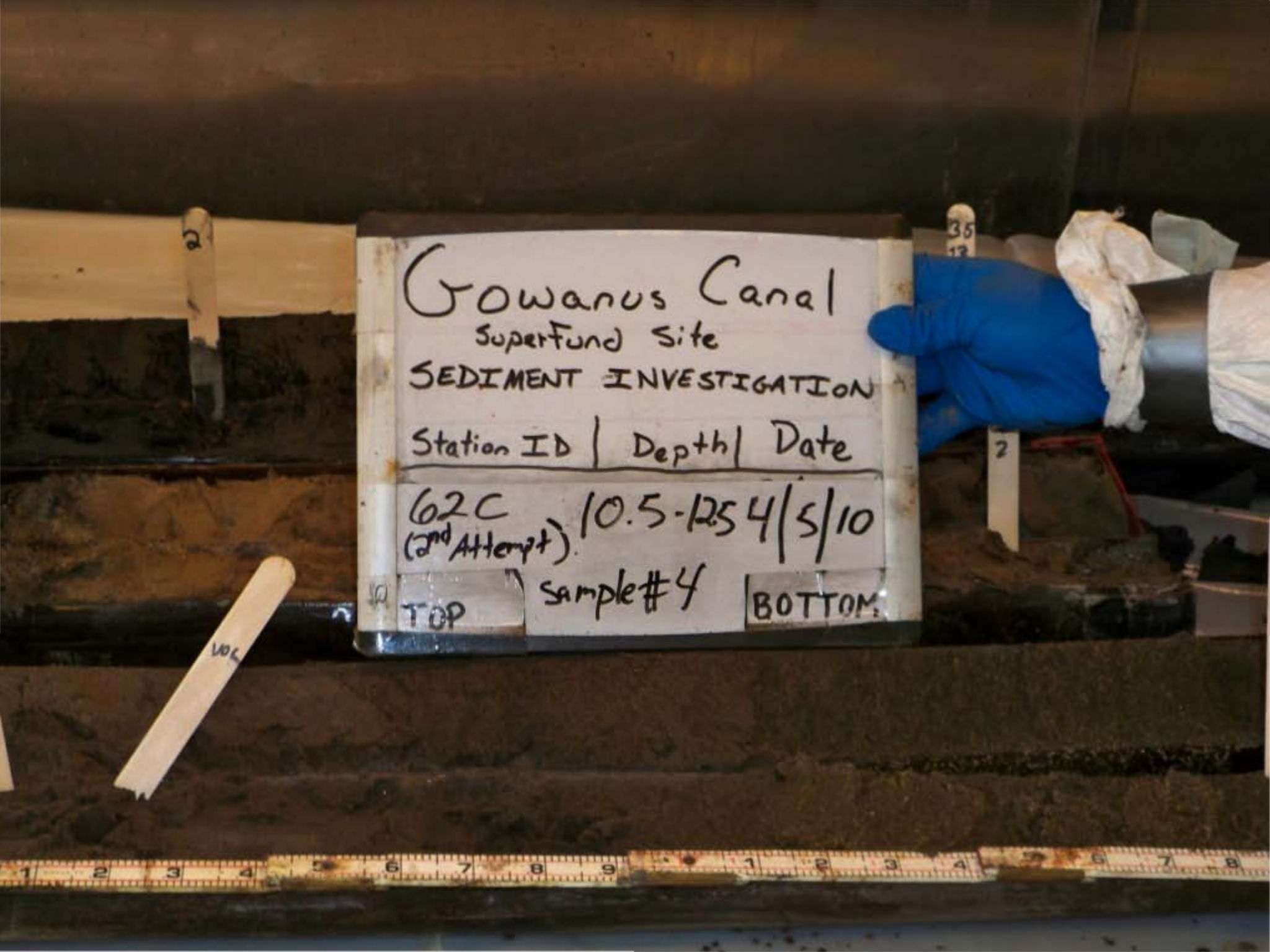

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C 7.7-9.7 4/2/10
(1st Attempt) SAMPLE
TOP #1 BOTTOM

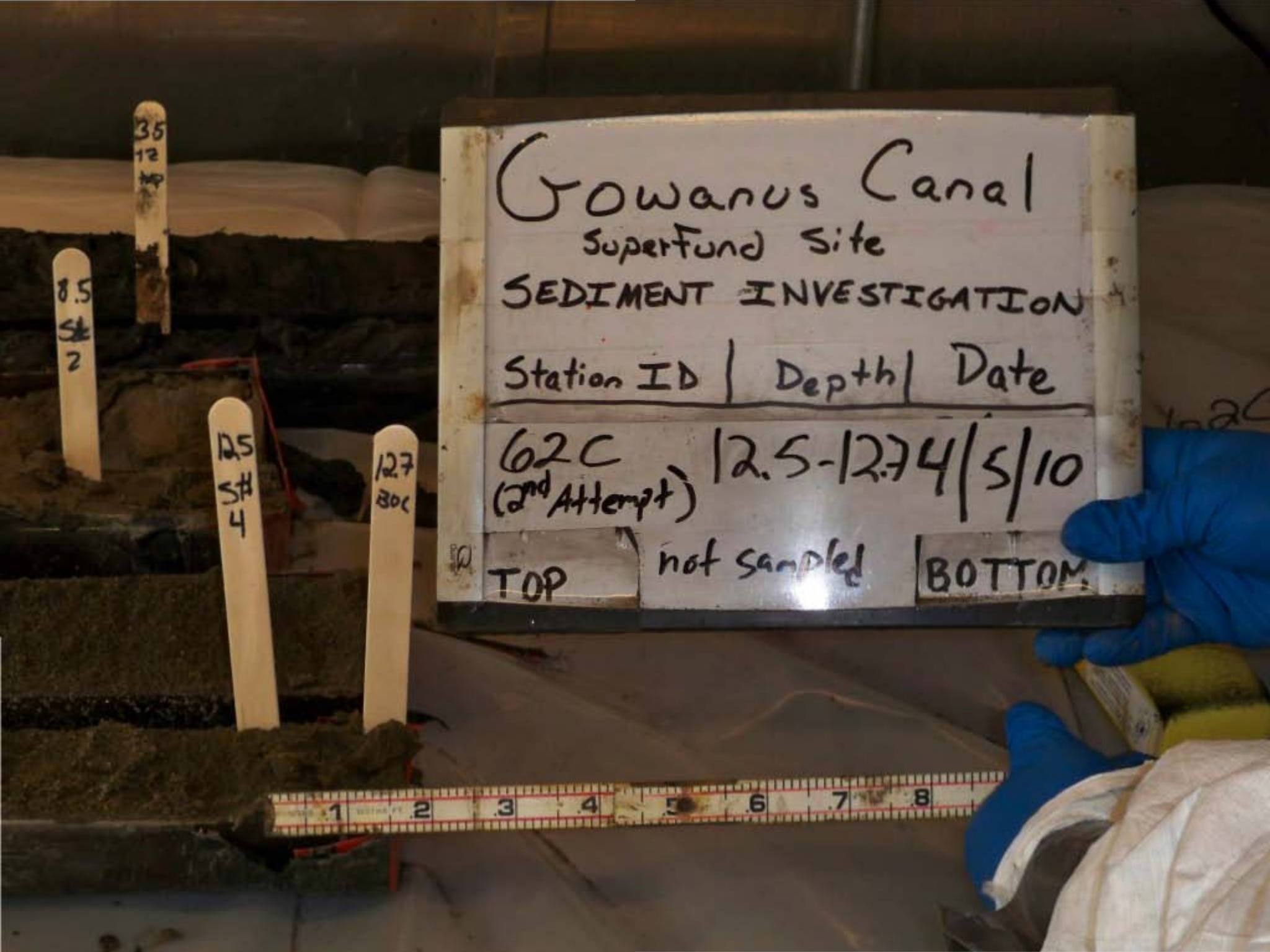

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C 9.7-11.3 4/2/10
(1st Attempt) SAMPLE #2
TOP BOTTOM
9.7
14.3

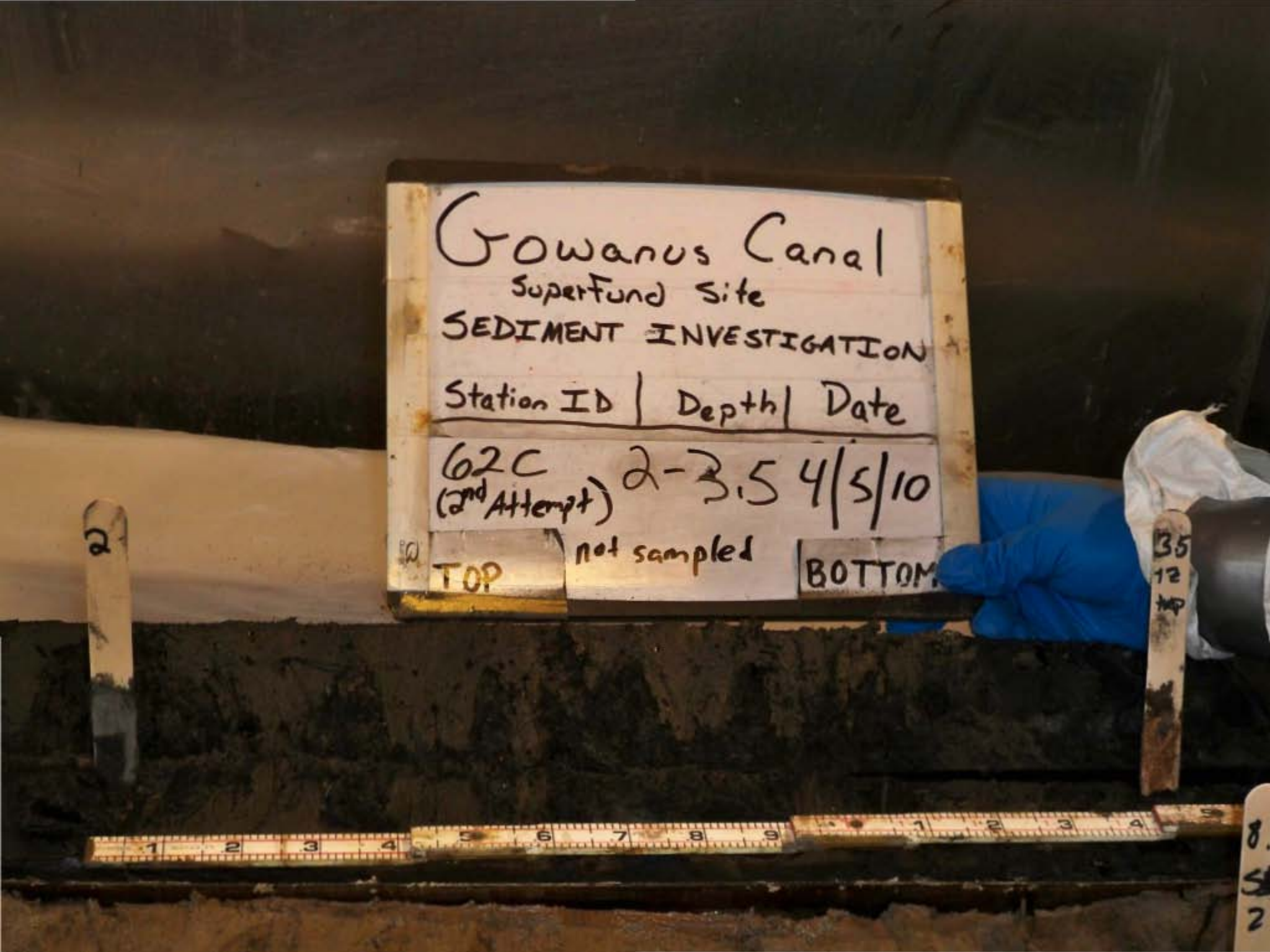

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6IC FULL 4/2/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) FULL RECOVERY 4/5/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 0-2" 4/5/10
TOP not sampled BOTTOM
GS SH 1

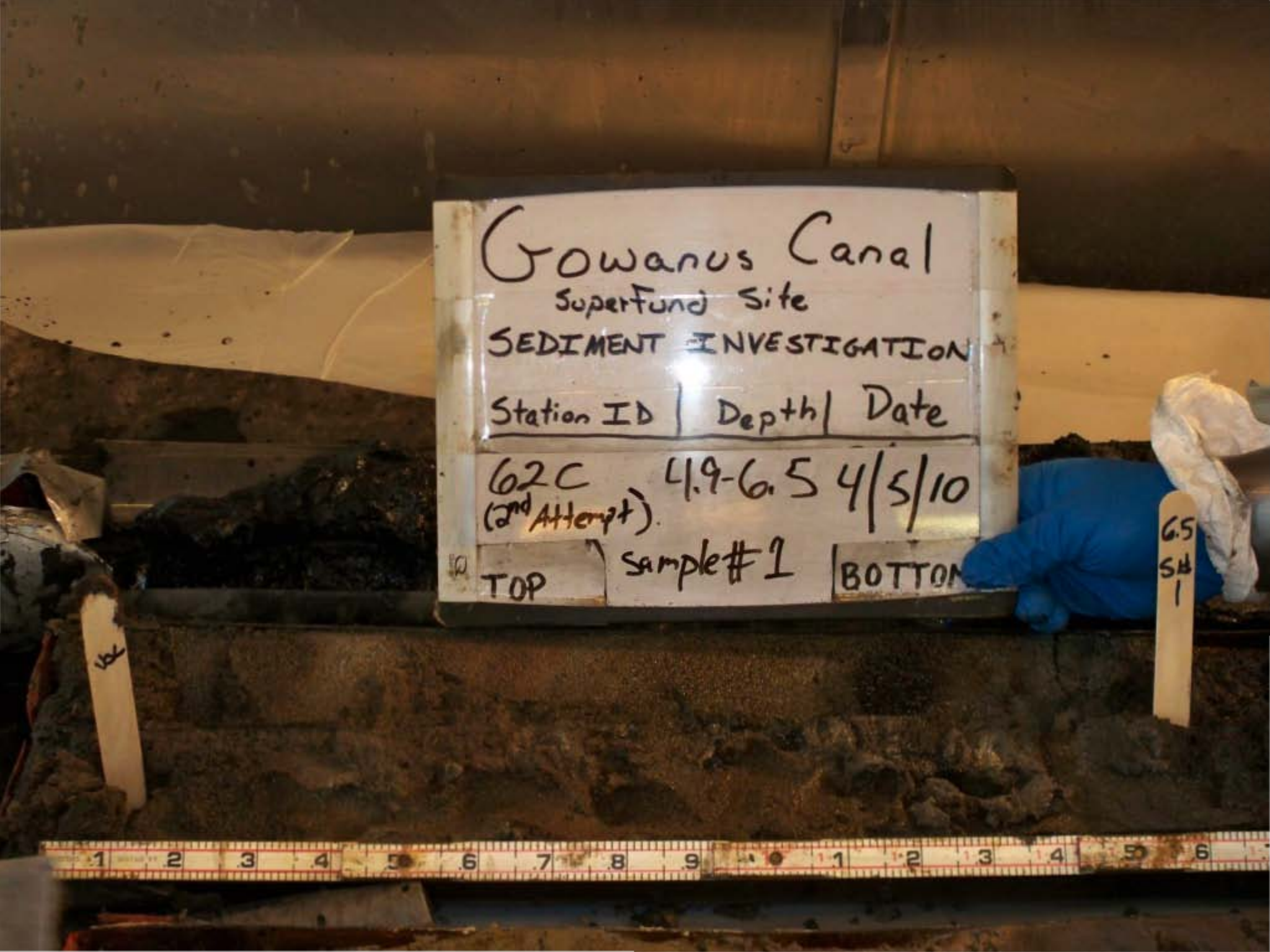

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 10.5-12.5 4/5/10
TOP
sample #4
BOTTOM

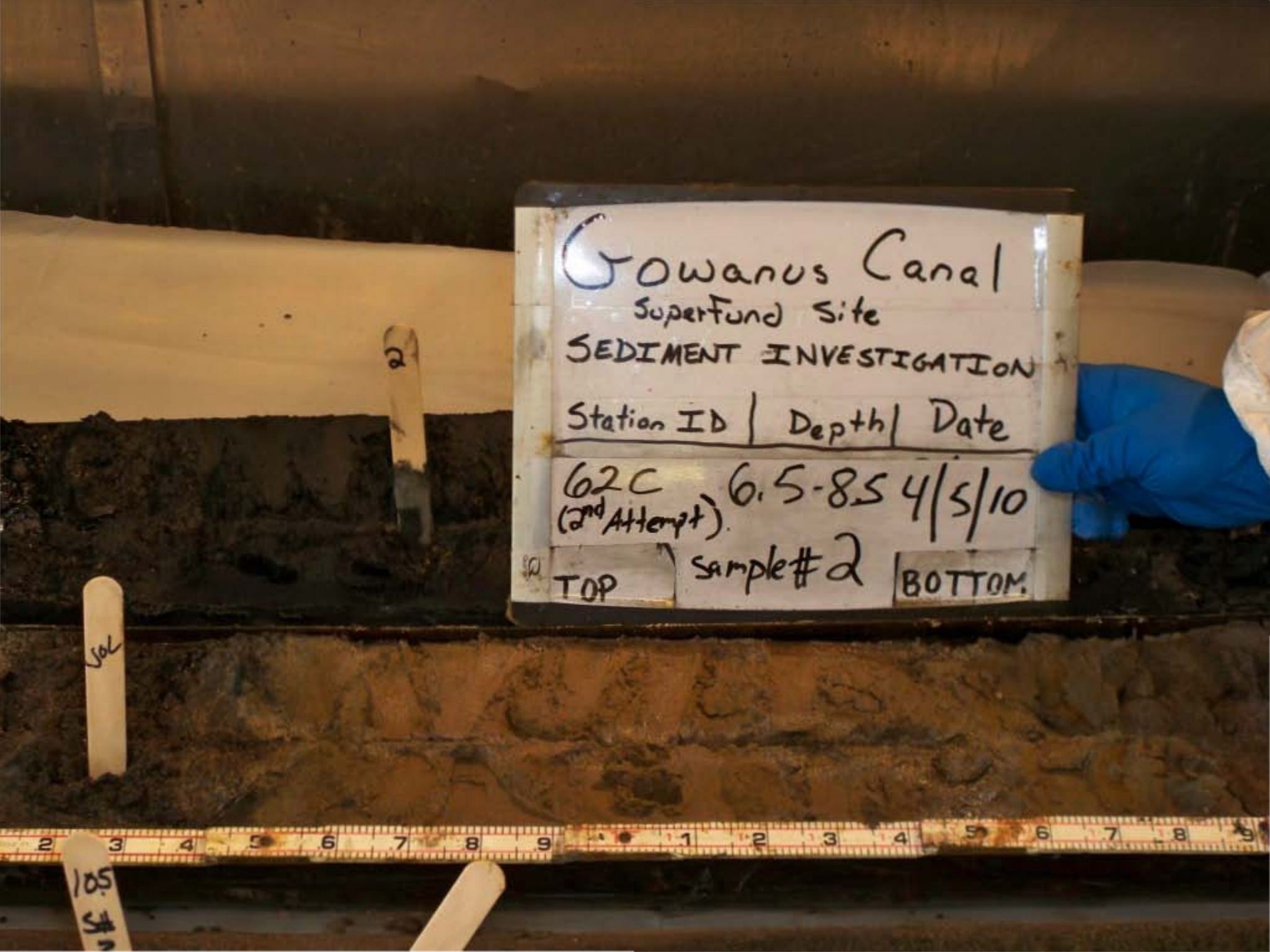

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 12.5-12.7 4/5/10
TOP
not sampled
BOTTOM
8.5 S# 2
12.5 S# 4
12.7 BOC

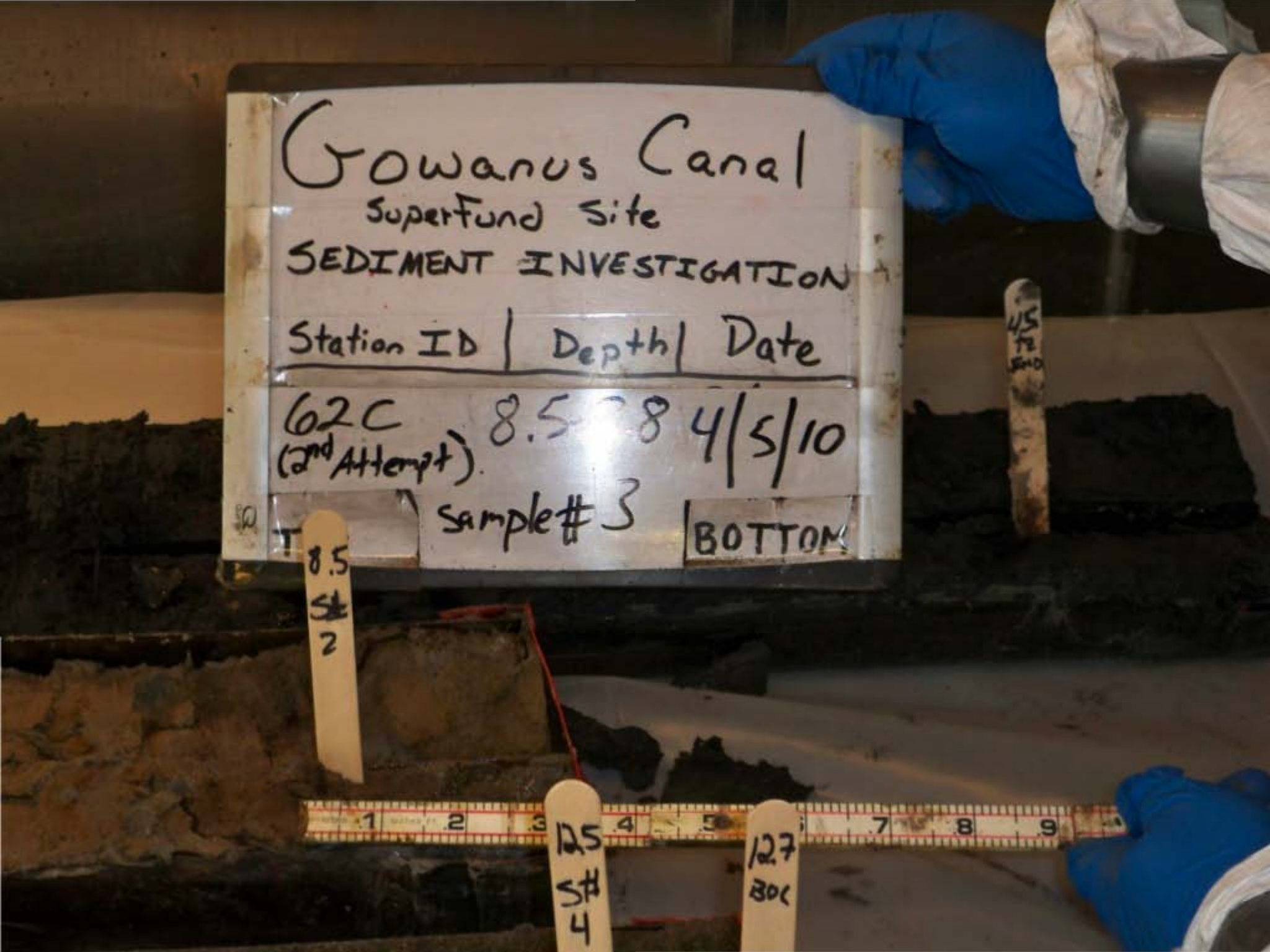

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 2-3.5 4/5/10
not sampled
TOP
BOTTOM

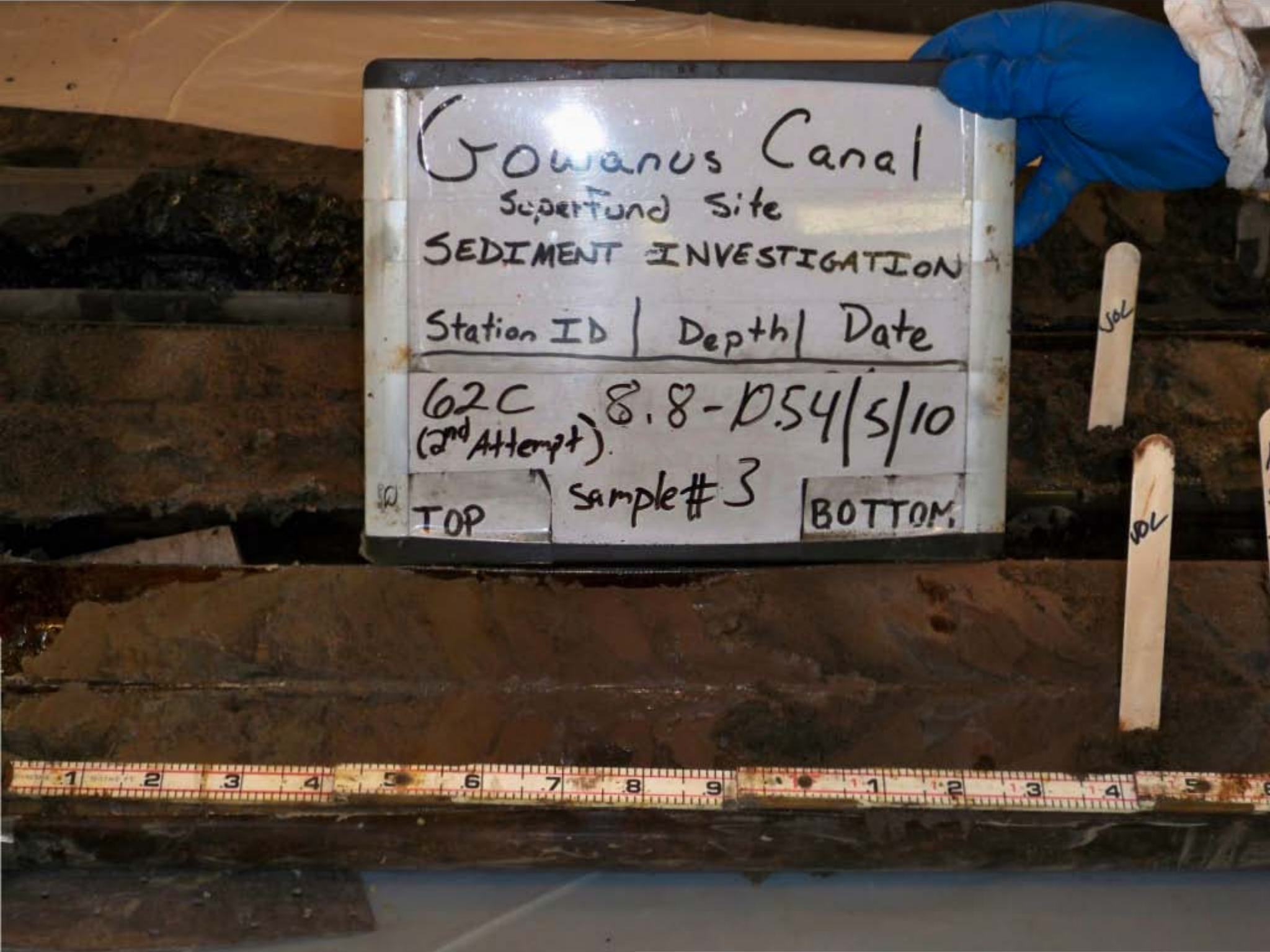

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C 3.5-4.5 4/5/10
(2nd Attempt) transition zone
not sampled
TOP
BOTTOM
3.5 ft TOP
4.5 ft BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) .5-4.9 4/5/10
TOP
sample #1
BOTTOM
45 ft END


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 4.9-6.5 4/5/10
TOP
sample #1
BOTTOM
6.5
SH
1

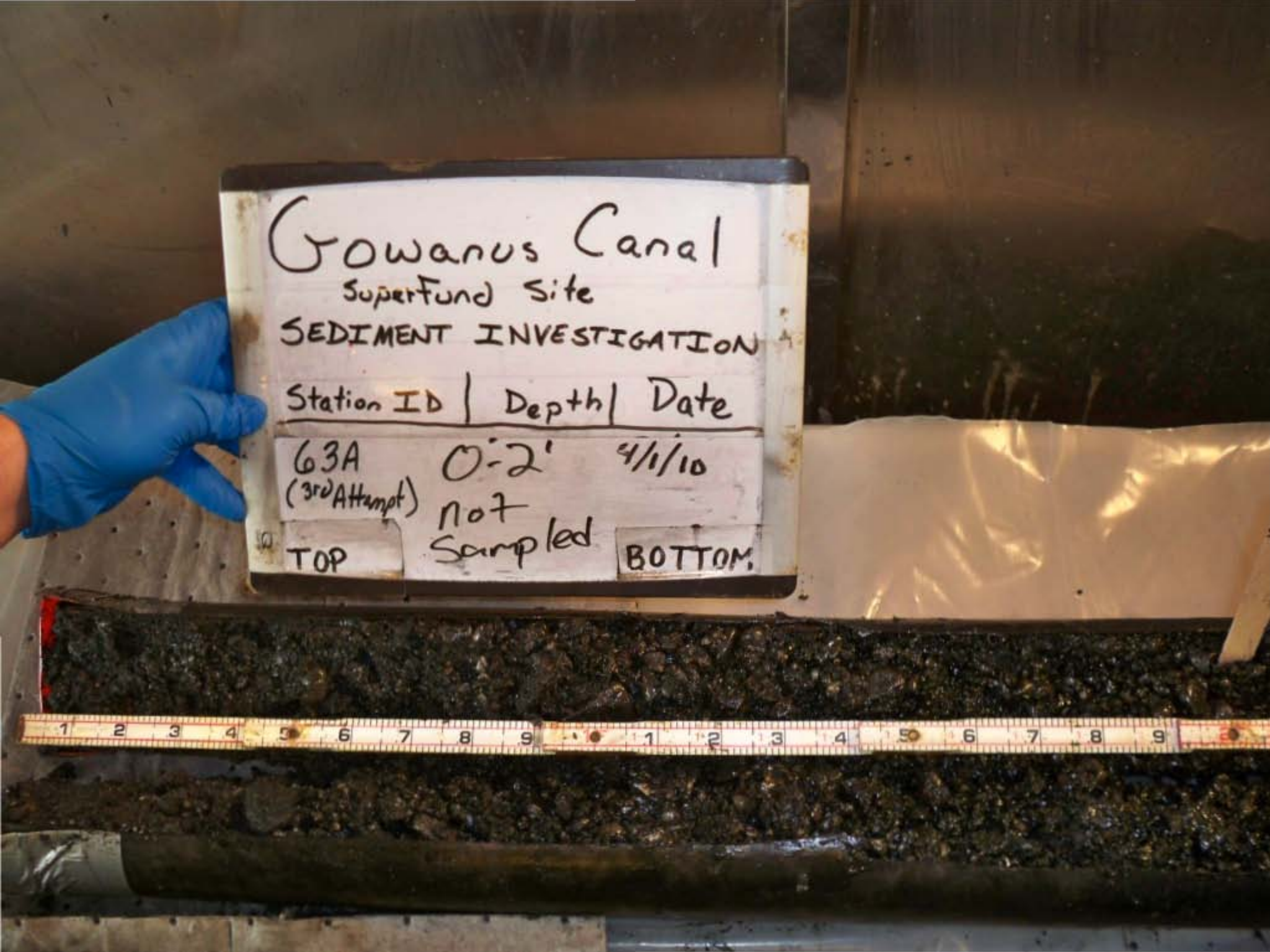

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 6.5-8.5 4/5/10
TOP
sample #2
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 8.5 ft 4/5/10
Sample # 3
BOTTOM
8.5 St 2
125 St 4
127 BOC

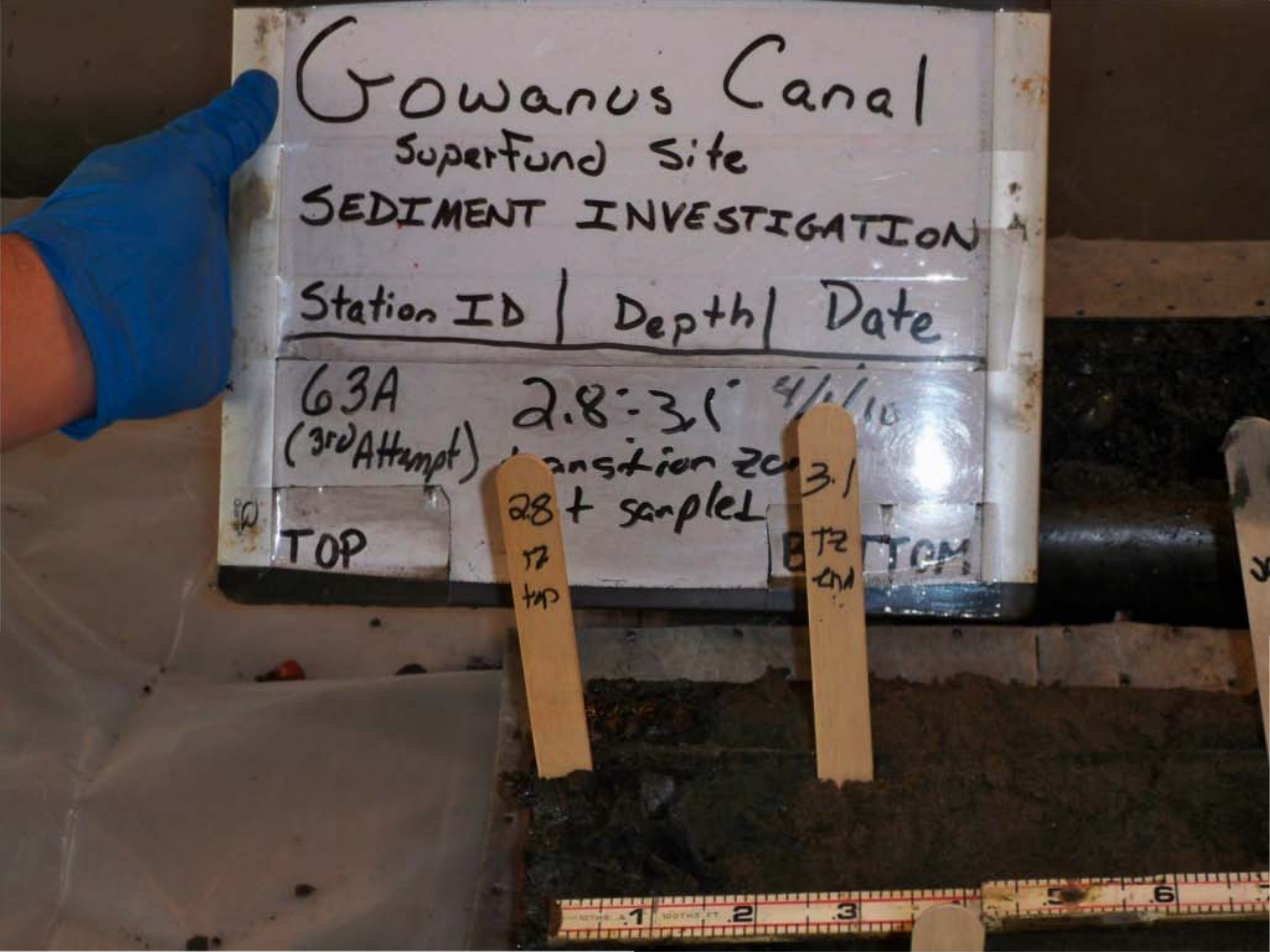

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) 8.8-10.5 | 4/5/10
TOP
Sample #3
BOTTOM
VOL
VOL


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) FULL RECOVERY 4/5/10
TOP
BOTTOM

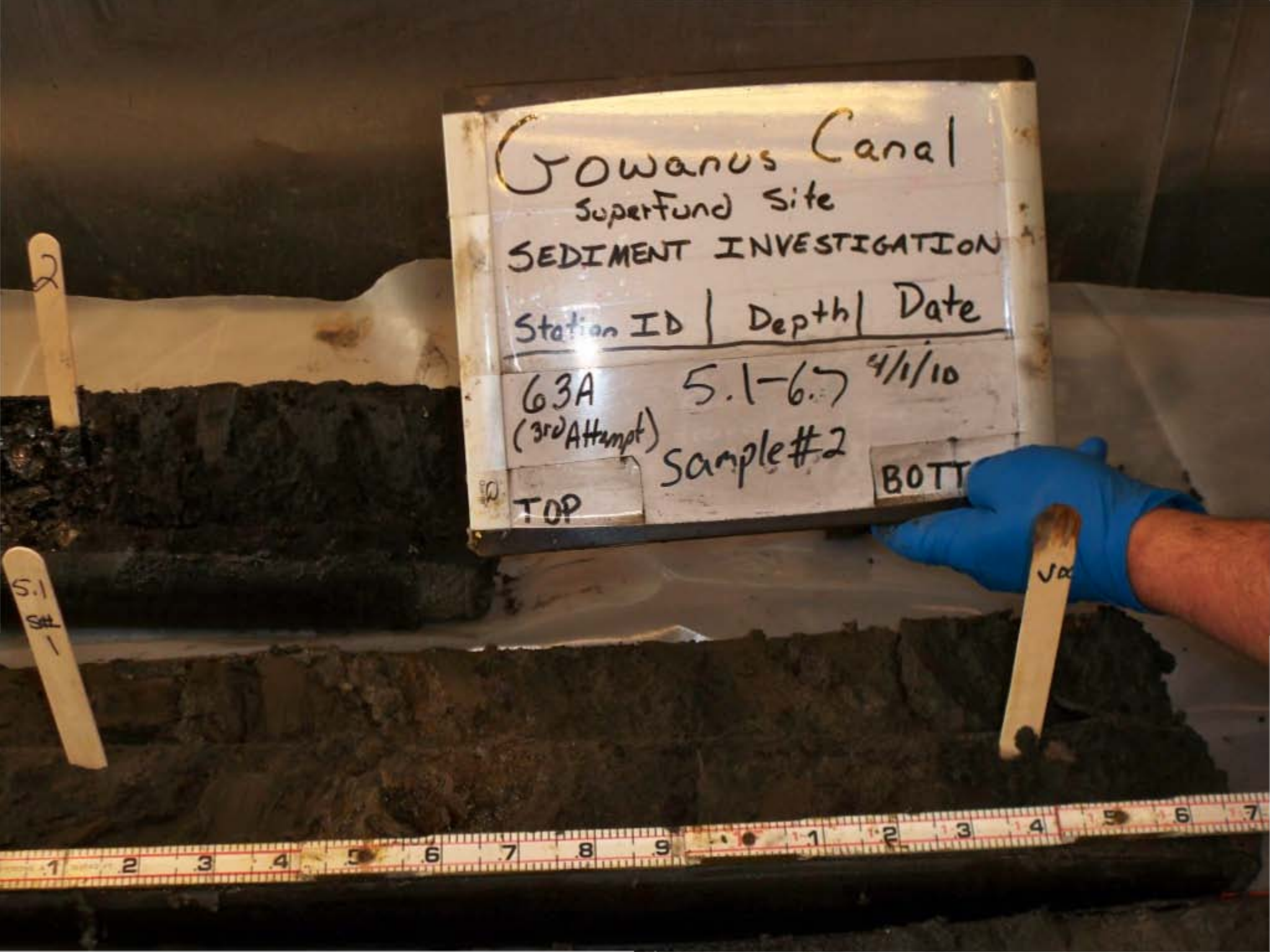

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A
(3rd Attempt)
Full
Recovery
4/1/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A (3rd Attempt) 0-2' 4/1/10
not Sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A (3rd Attempt) 2'-2.8' 4/1/10
not sampled
TOP
BOTTOM
2

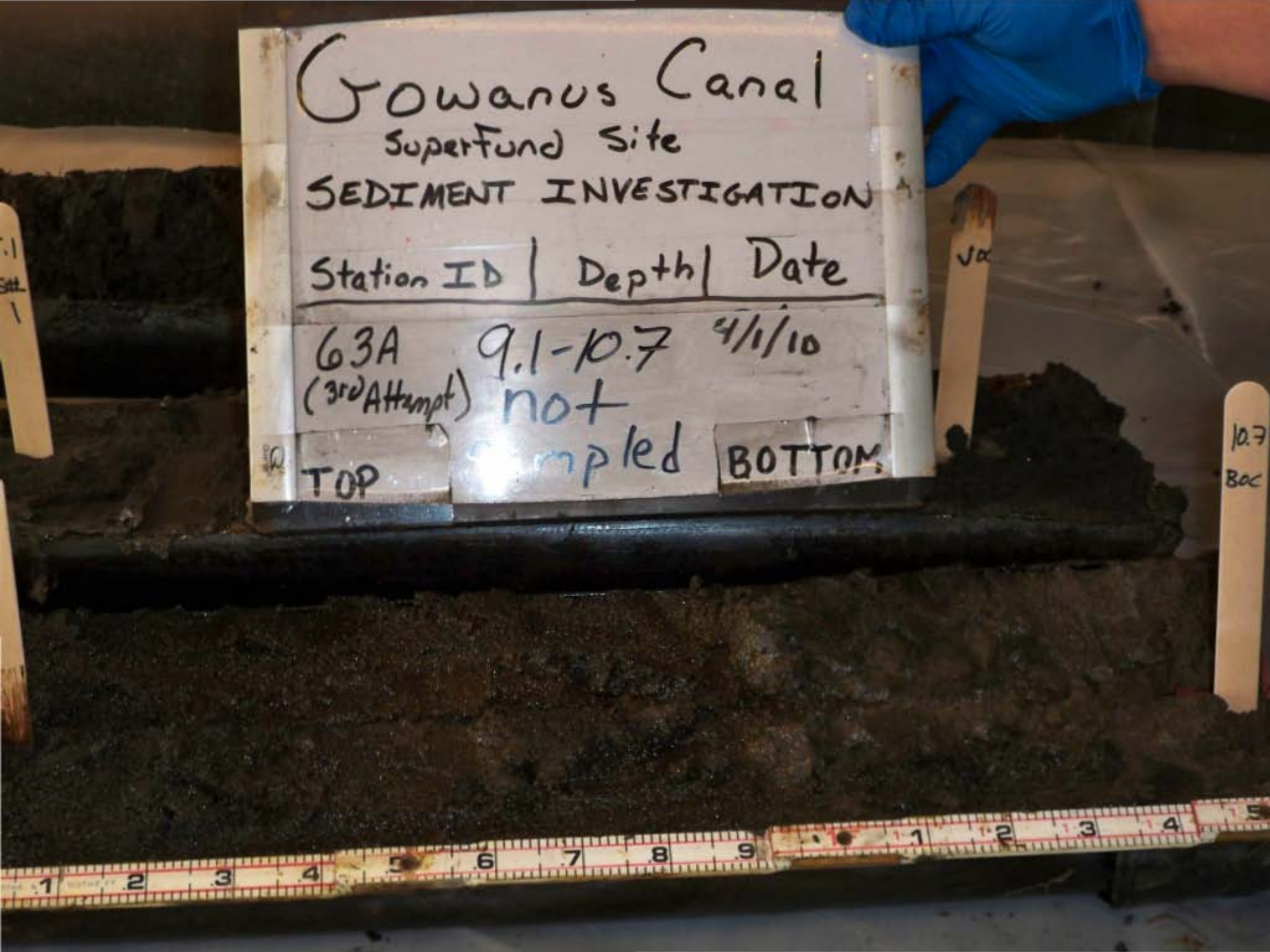

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A
(3rd Attempt)
2.8-3.1
4/1/10
TOP
2.8
TZ
top
3.1
TZ
end
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A (3rd Attempt) 3.1'-5.1' 4/1/10
Sample #1
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A (3rd Attempt) 5.1-6.7 4/1/10
Sample #2
TOP
BOTT

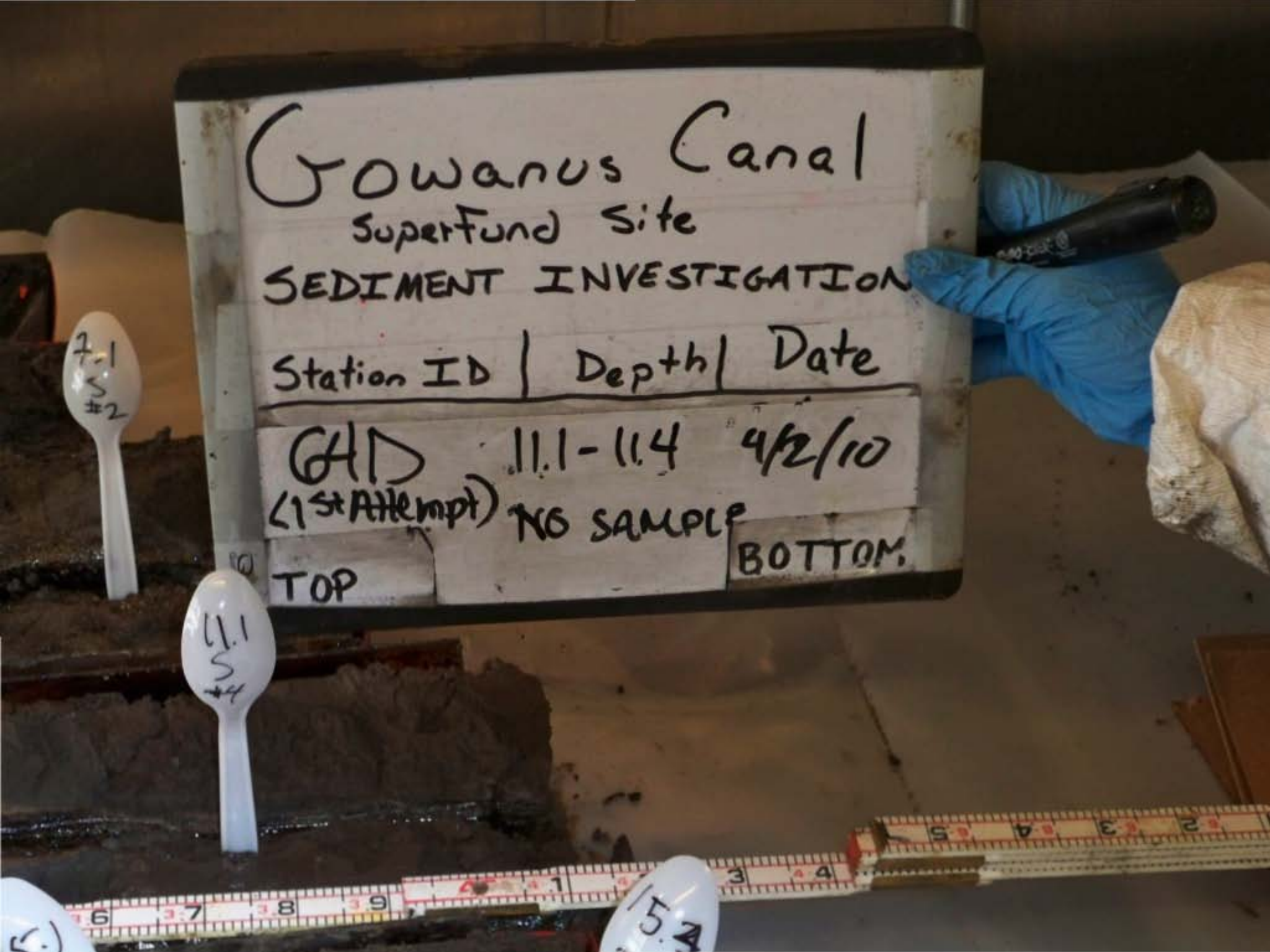

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A (3rd Attempt) 6.7'-7.1' 4/1/10
Sample #2
TOP
VOC
7.1 #2
VOC

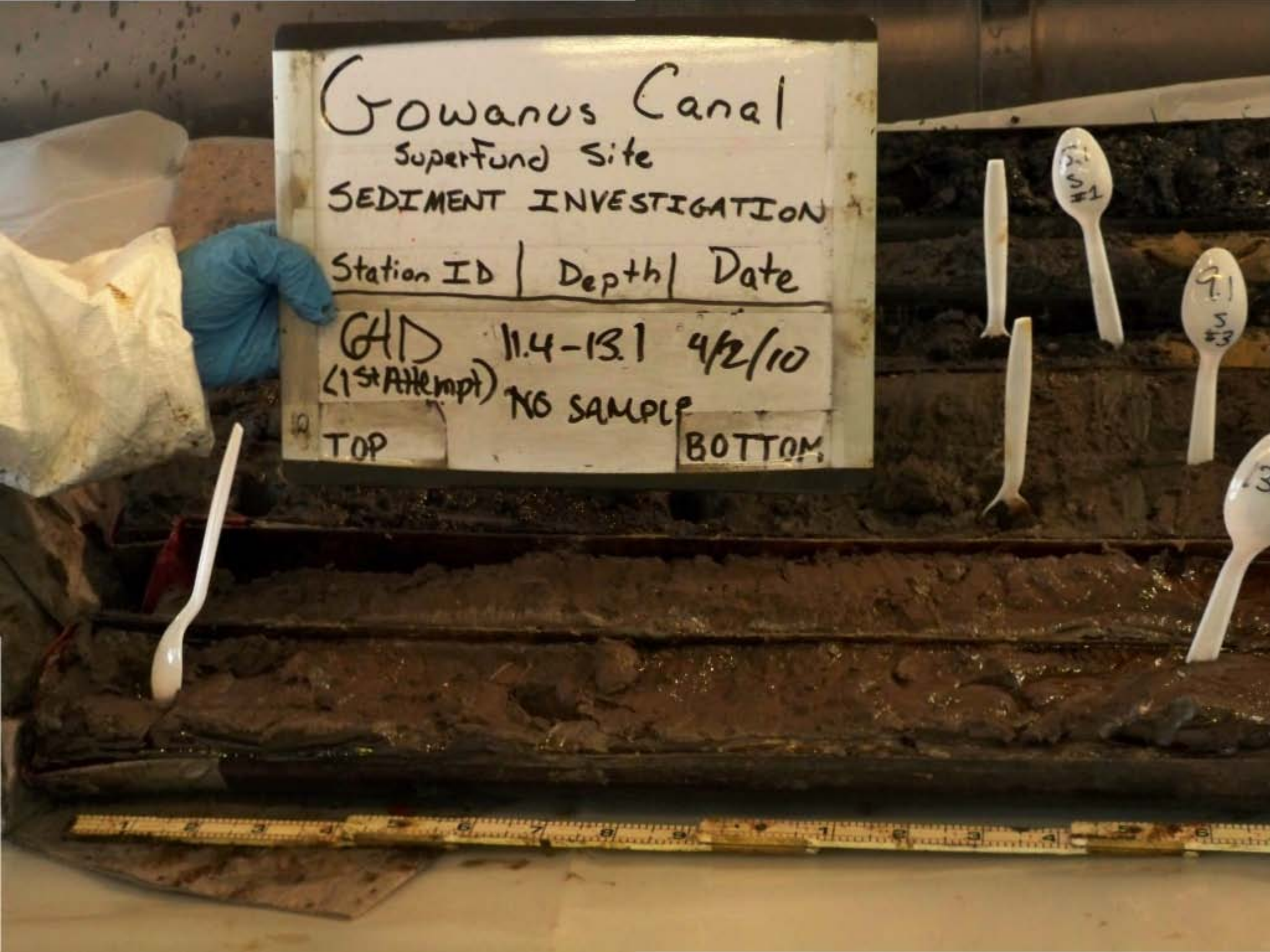

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A (3rd Attempt) 7.1'-9.1' 4/1/10
sample #3
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A (3rd Attempt) 9.1-10.7 4/1/10
not sampled
TOP
BOTTOM

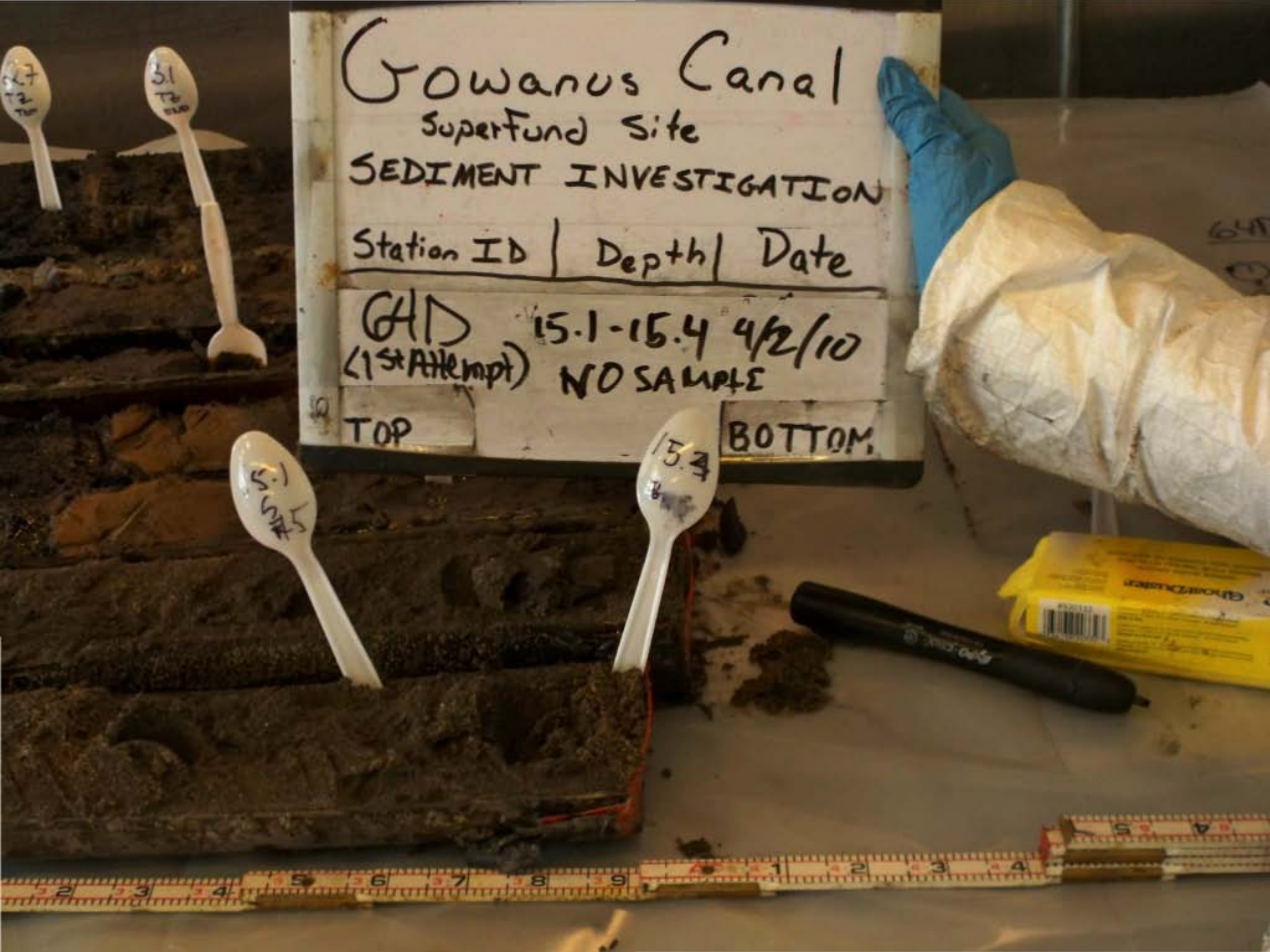

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A
(3rd Attempt)
Full
Recovery
4/1/10
TOP
BOTTOM

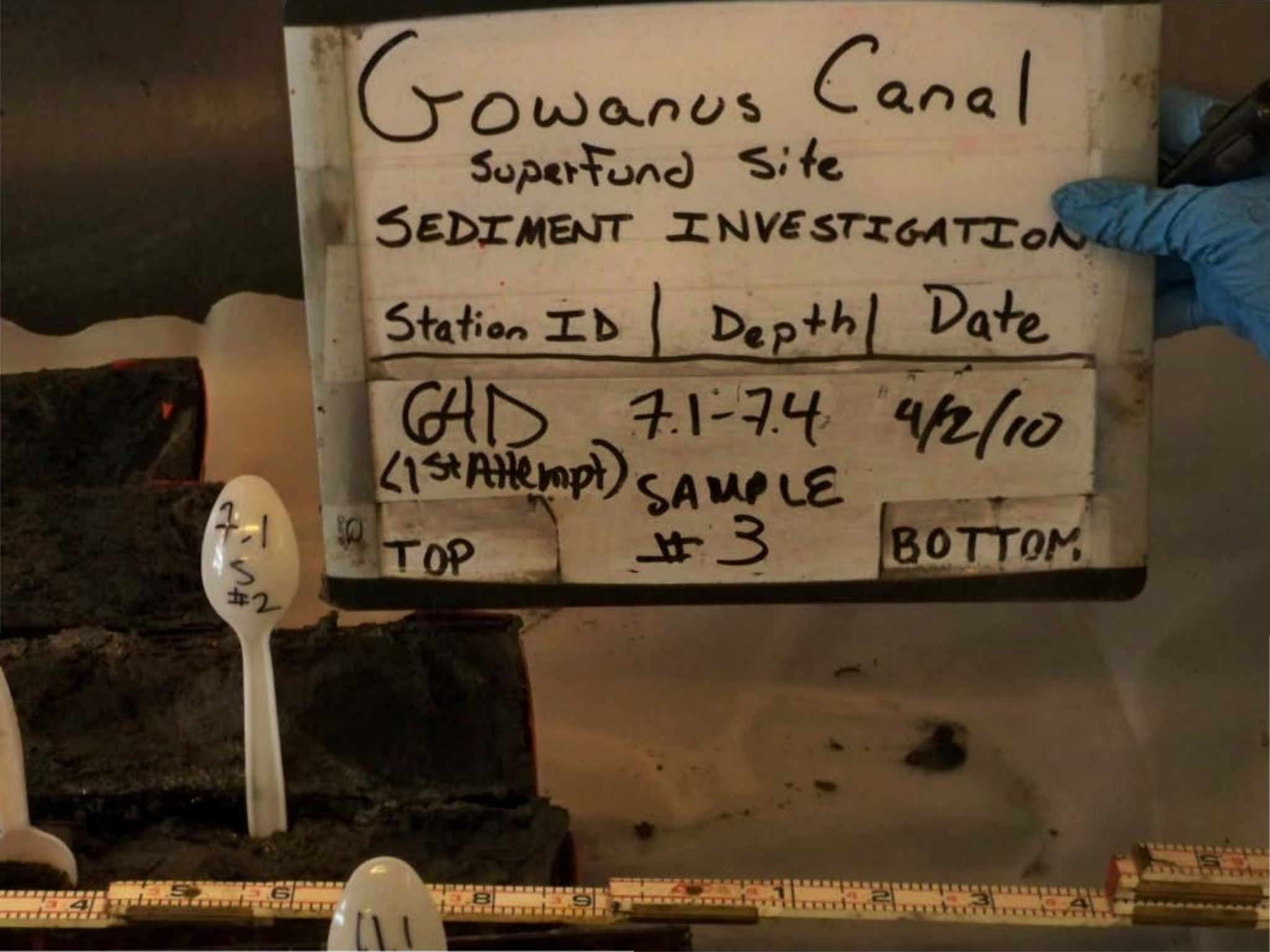

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD
(1st Attempt)
FULL
RECOVERY
4/2/10
TOP
BOTTOM

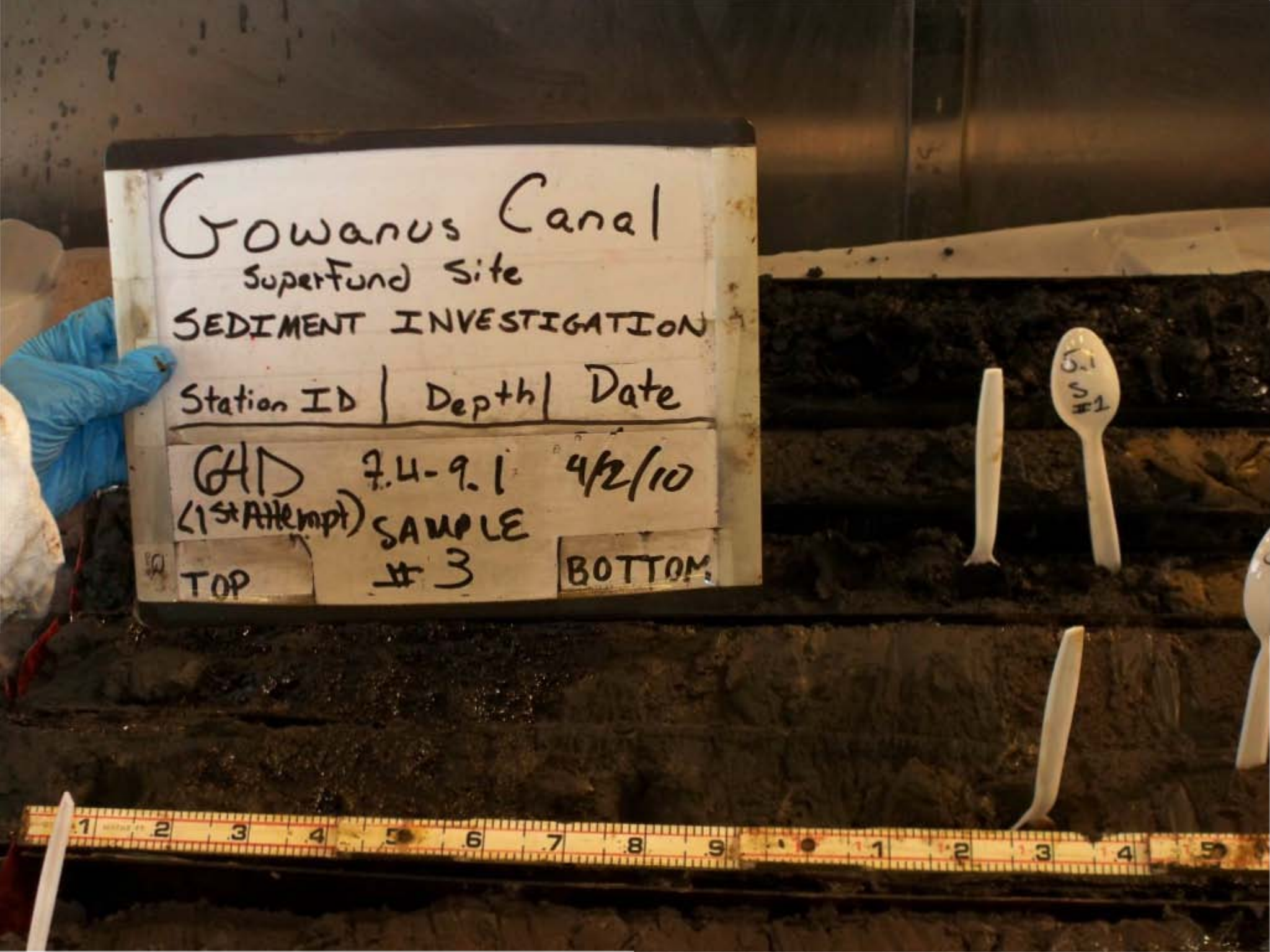

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD 11.1-11.4 4/12/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
7.1 S #2
11.1 S #4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD 11.4-13.1 4/2/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD (1st Attempt) 131-15 | 4/2/10
SAMPLE #5
TOP
BOTTOM

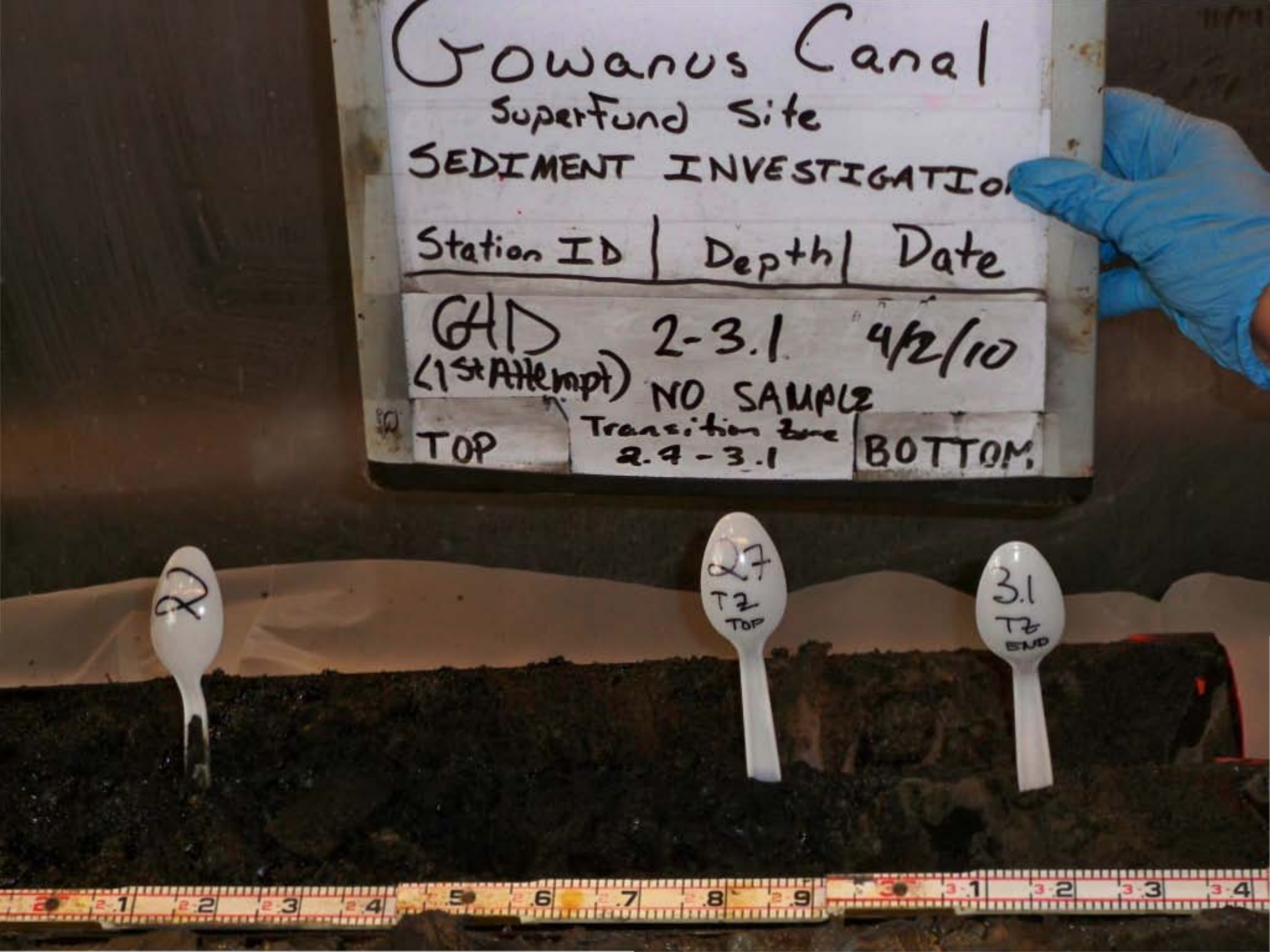

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD 15.1-15.4 4/2/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM

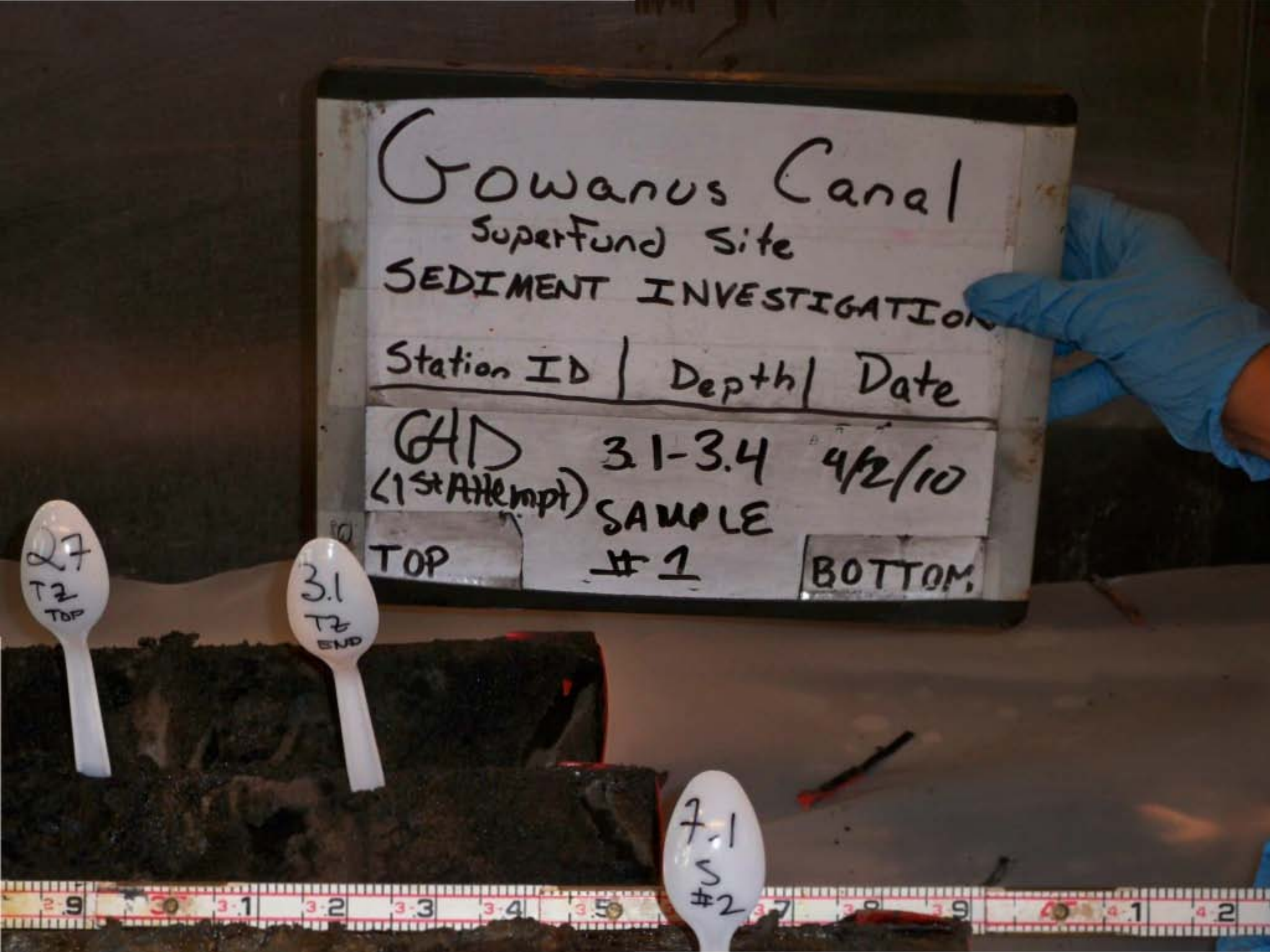

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD (1st Attempt) 7.1-7.4 4/2/10
SAMPLE #3
TOP
BOTTOM
7-1 S #2

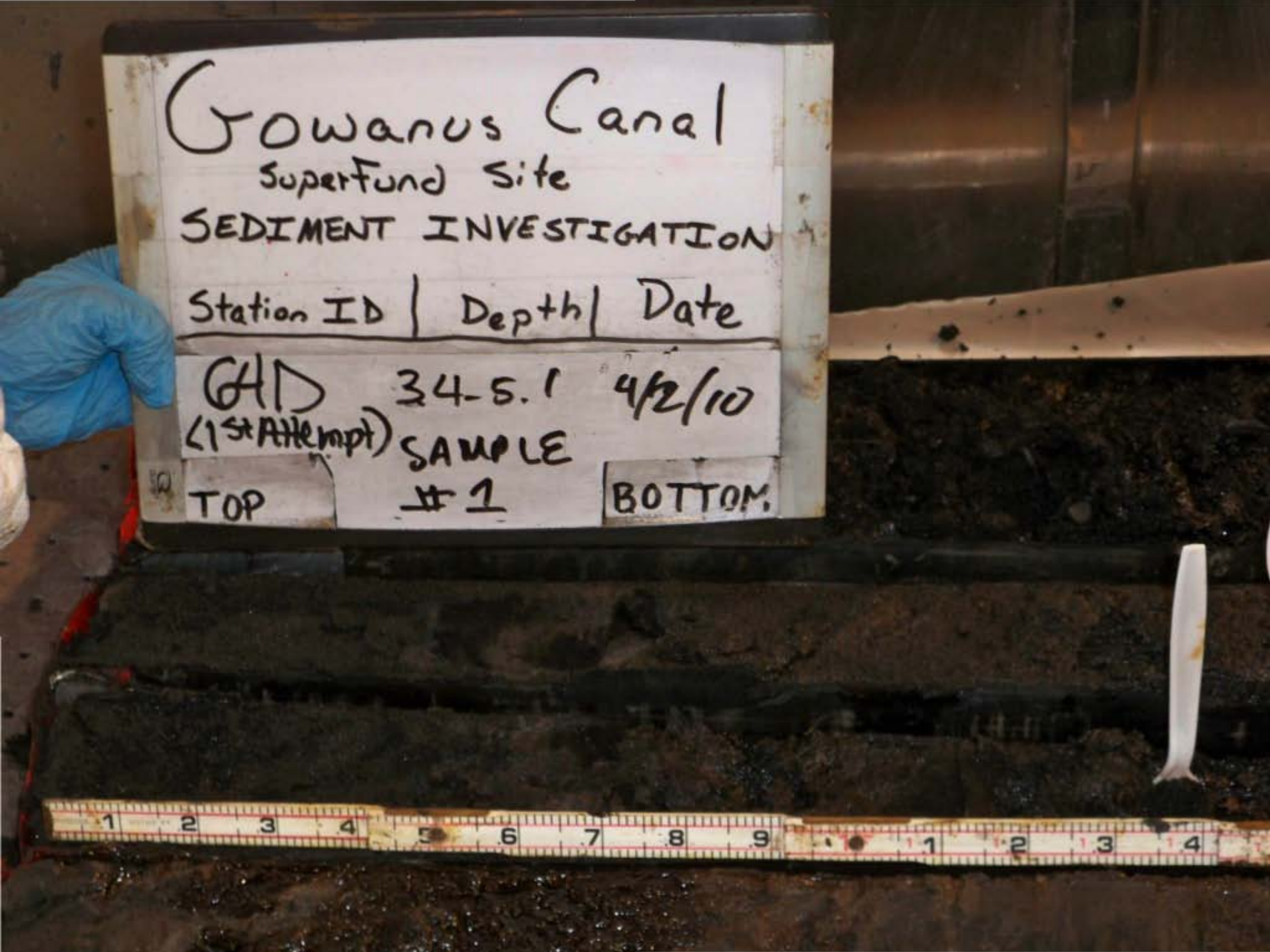

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD (1st Attempt) 7.4-9.1 4/2/10
SAMPLE #3
TOP
BOTTOM
5.1 S #1

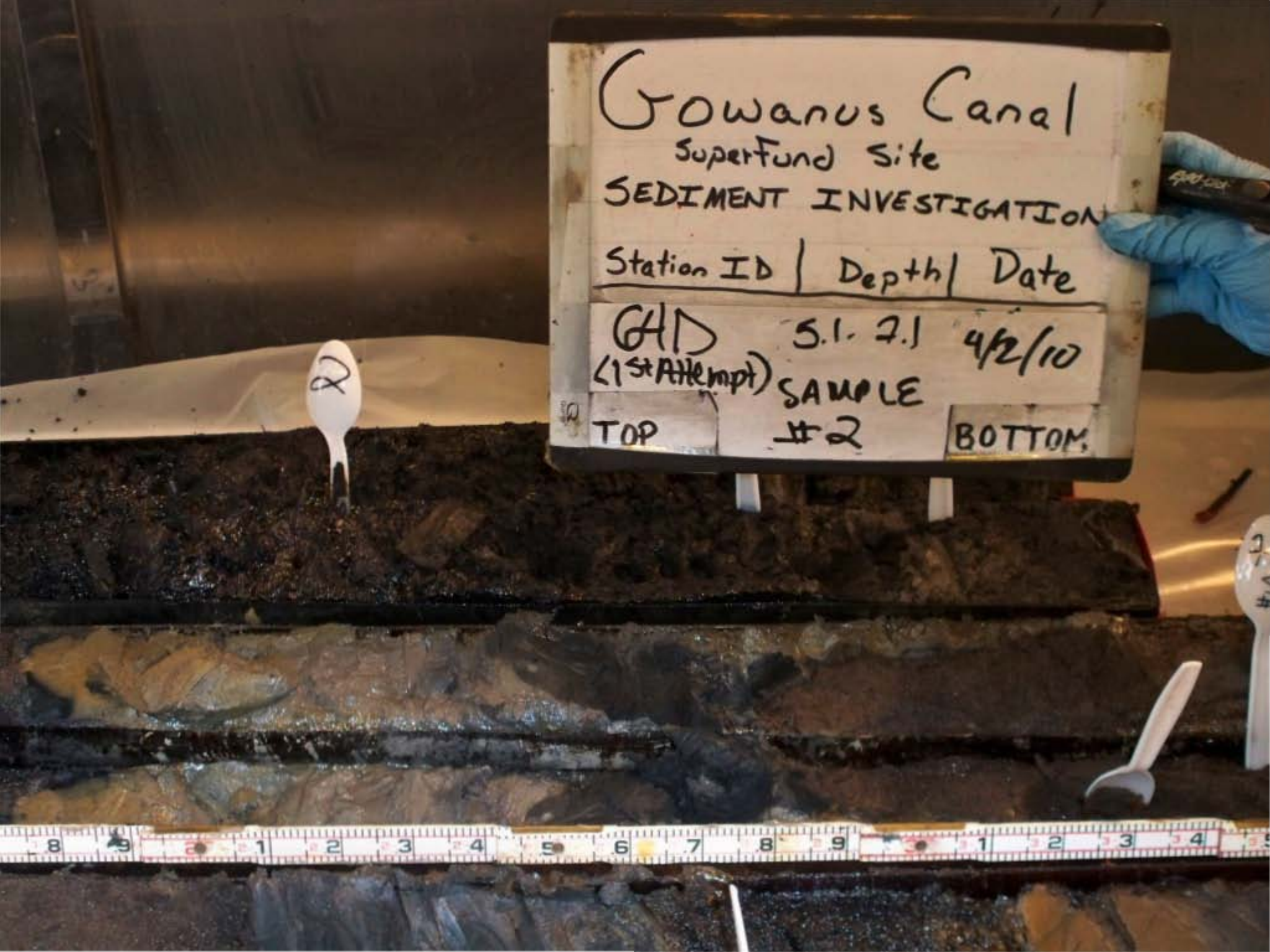

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD (1st Attempt) 9.1-11.1 4/2/10
SAMPLE #4
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD 0-2 4/2/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM
S-1
S
#1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
GHD 2-3.1 4/2/10
(1st Attempt) NO SAMPLE
TOP
Transition Zone
2.4 - 3.1
BOTTOM
2
2.7
T2
TOP
3.1
T2
END

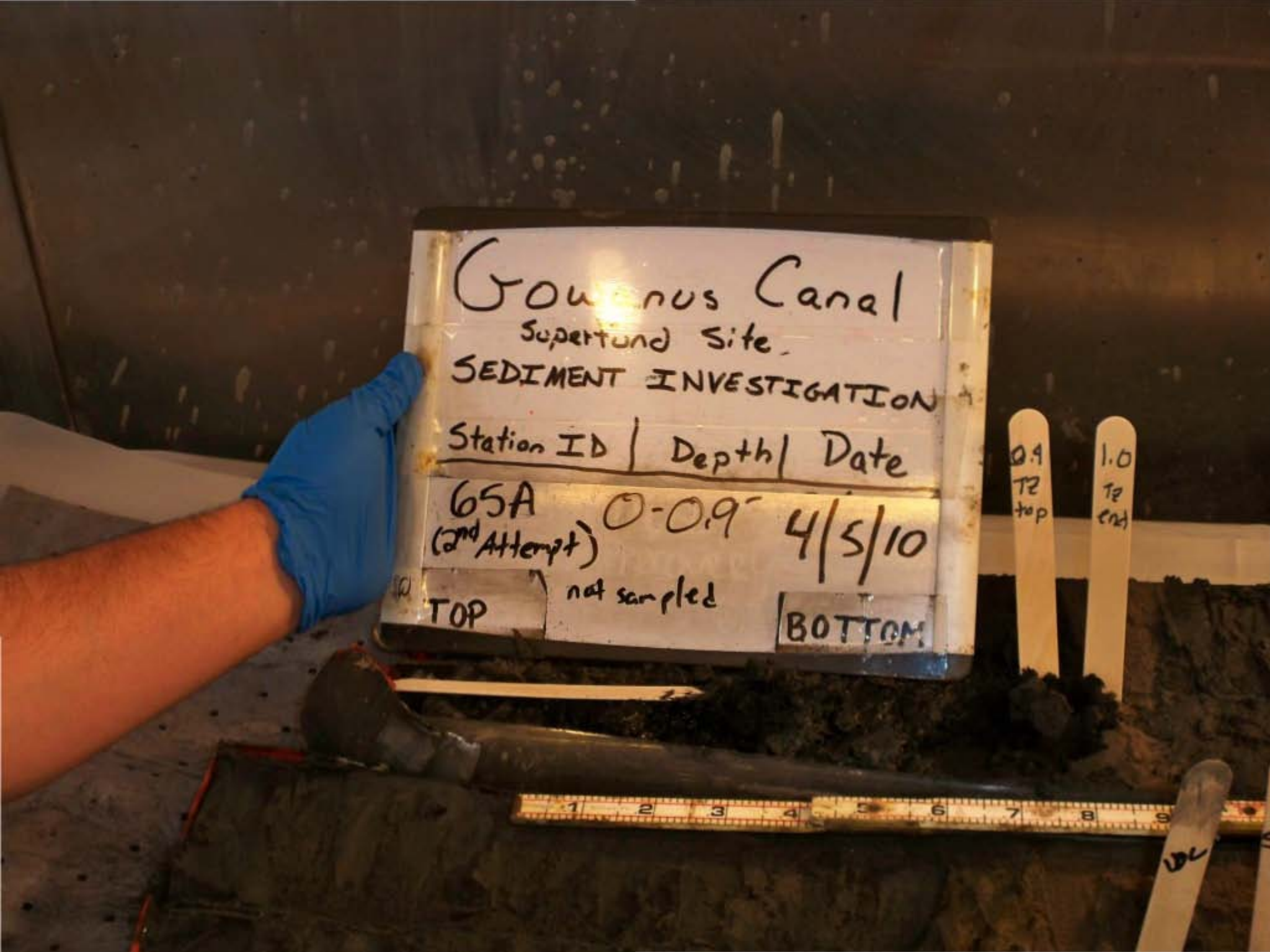

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD (1st Attempt) 3.1-3.4 4/2/10
SAMPLE #1
TOP
BOTTOM
2.7 T2 TOP
3.1 T2 END
7.1 S #2

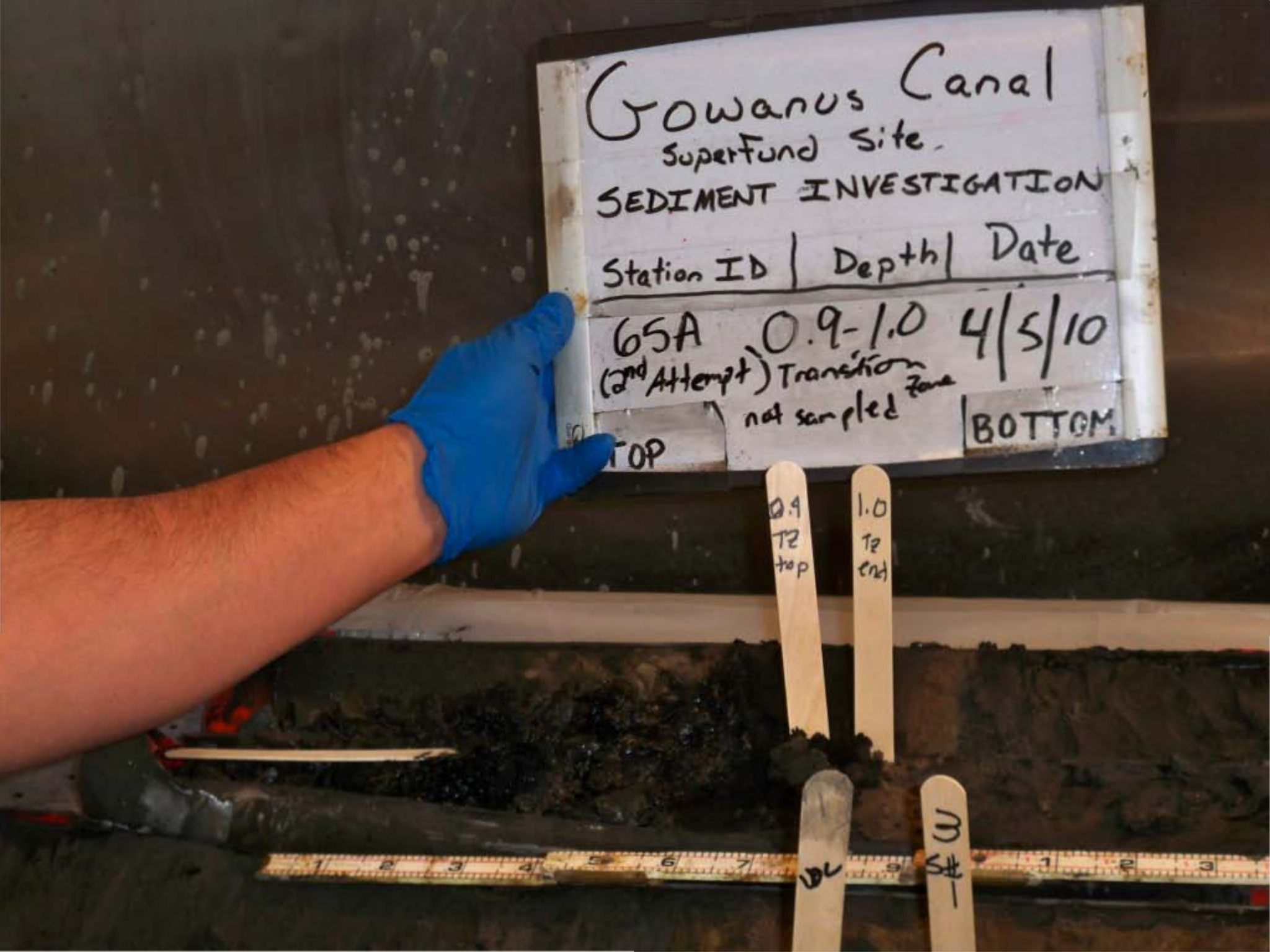

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD (1st Attempt) 34-5.1 4/2/10
SAMPLE #1
TOP
BOTTOM

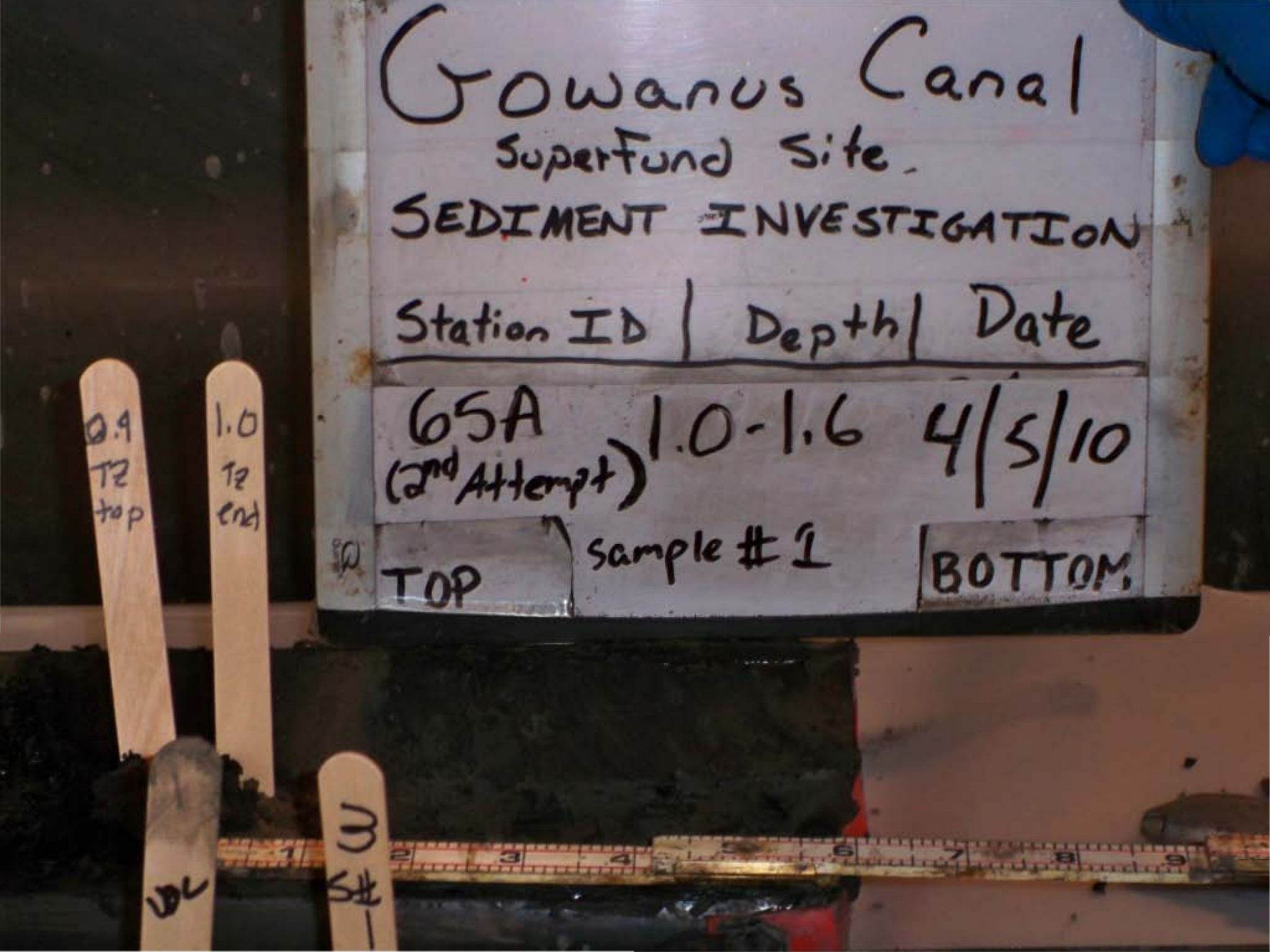

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD 5.1.7.1 4/2/10
(1st Attempt) SAMPLE
TOP #2 BOTTOM
2

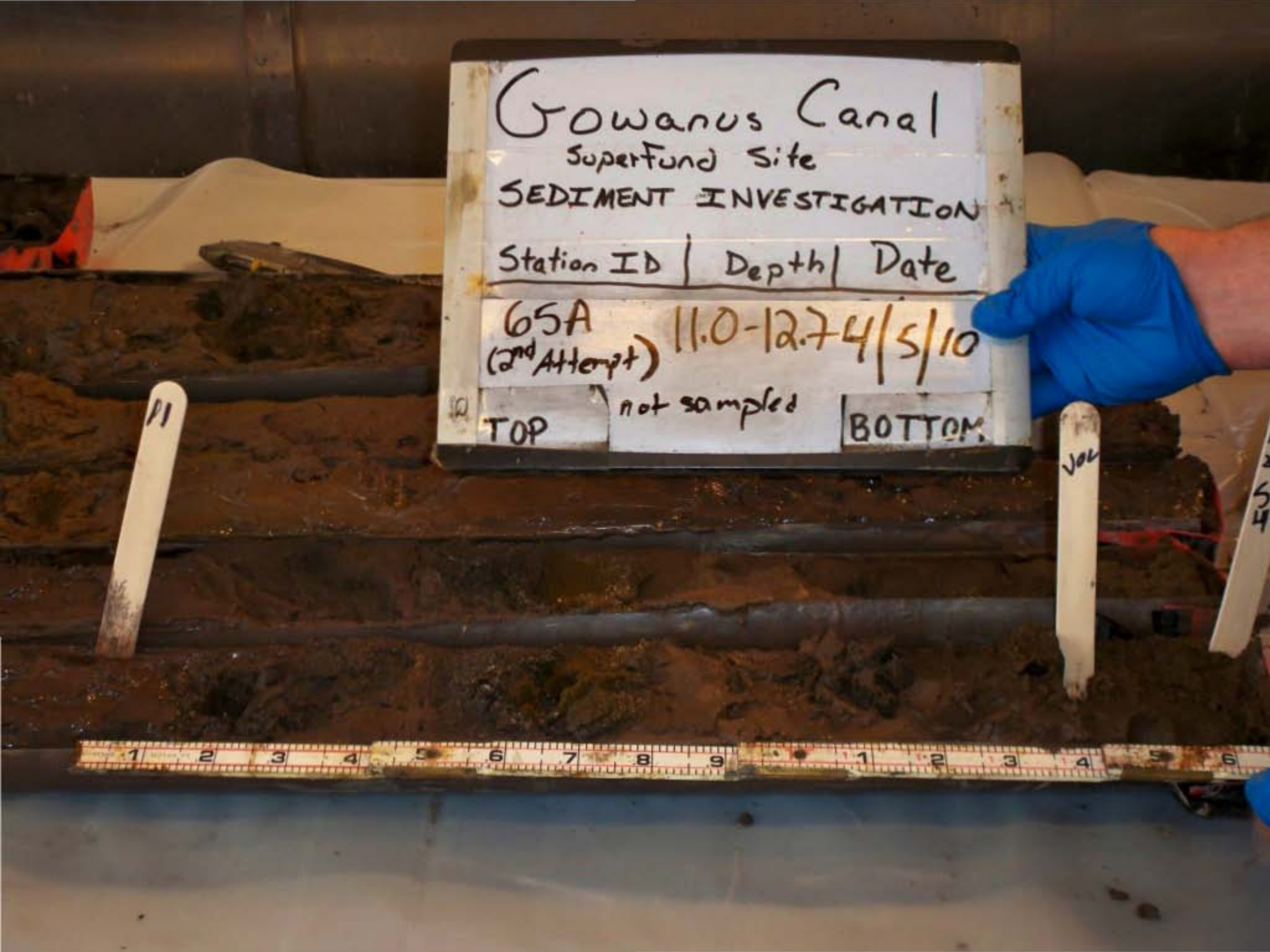

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD
(1st Attempt)
FULL
RECOVERY
4/12/10
TOP
BOTTOM

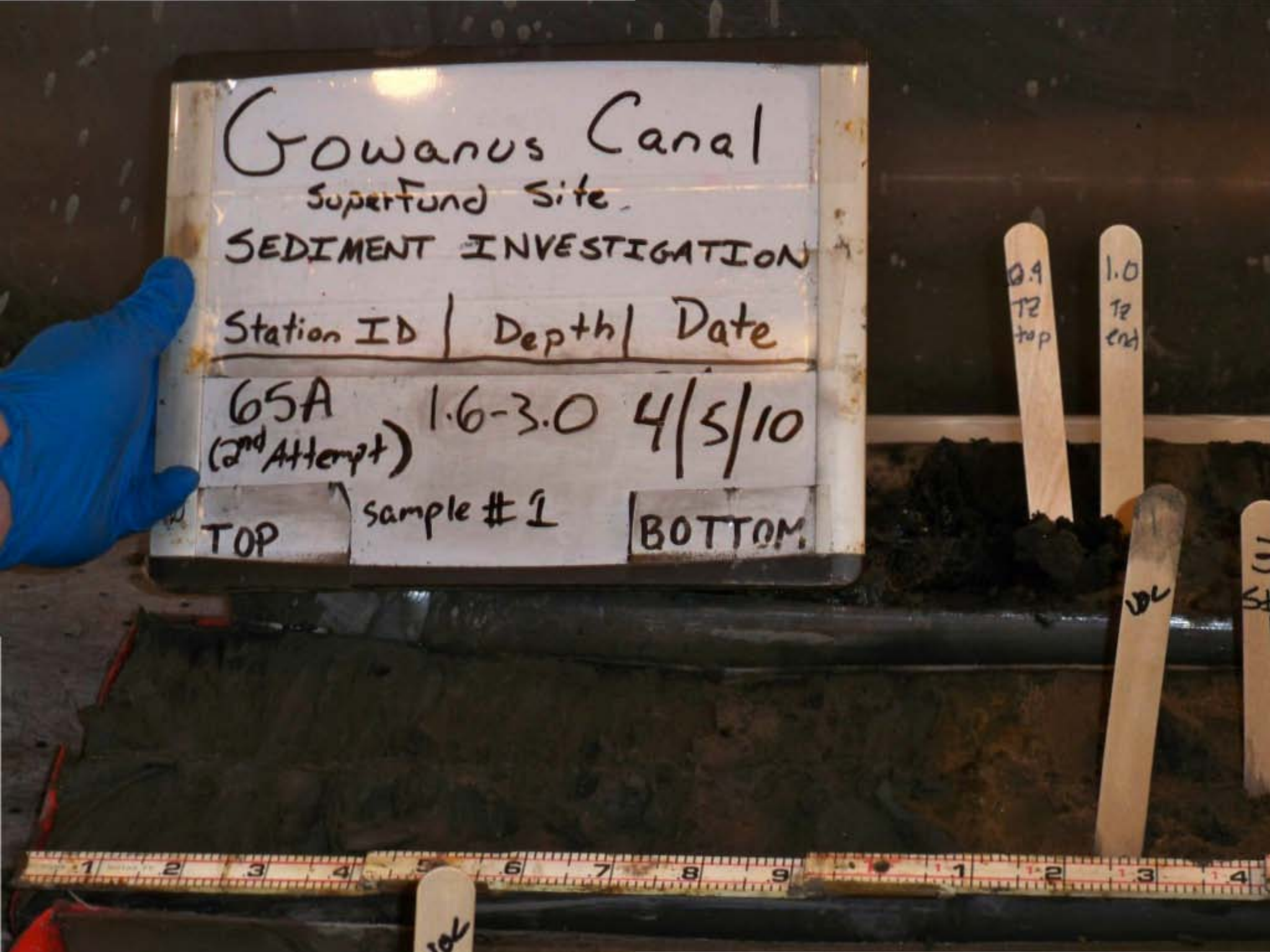

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) FULL RECOVERY 4/5/10
TOP
BOTTOM

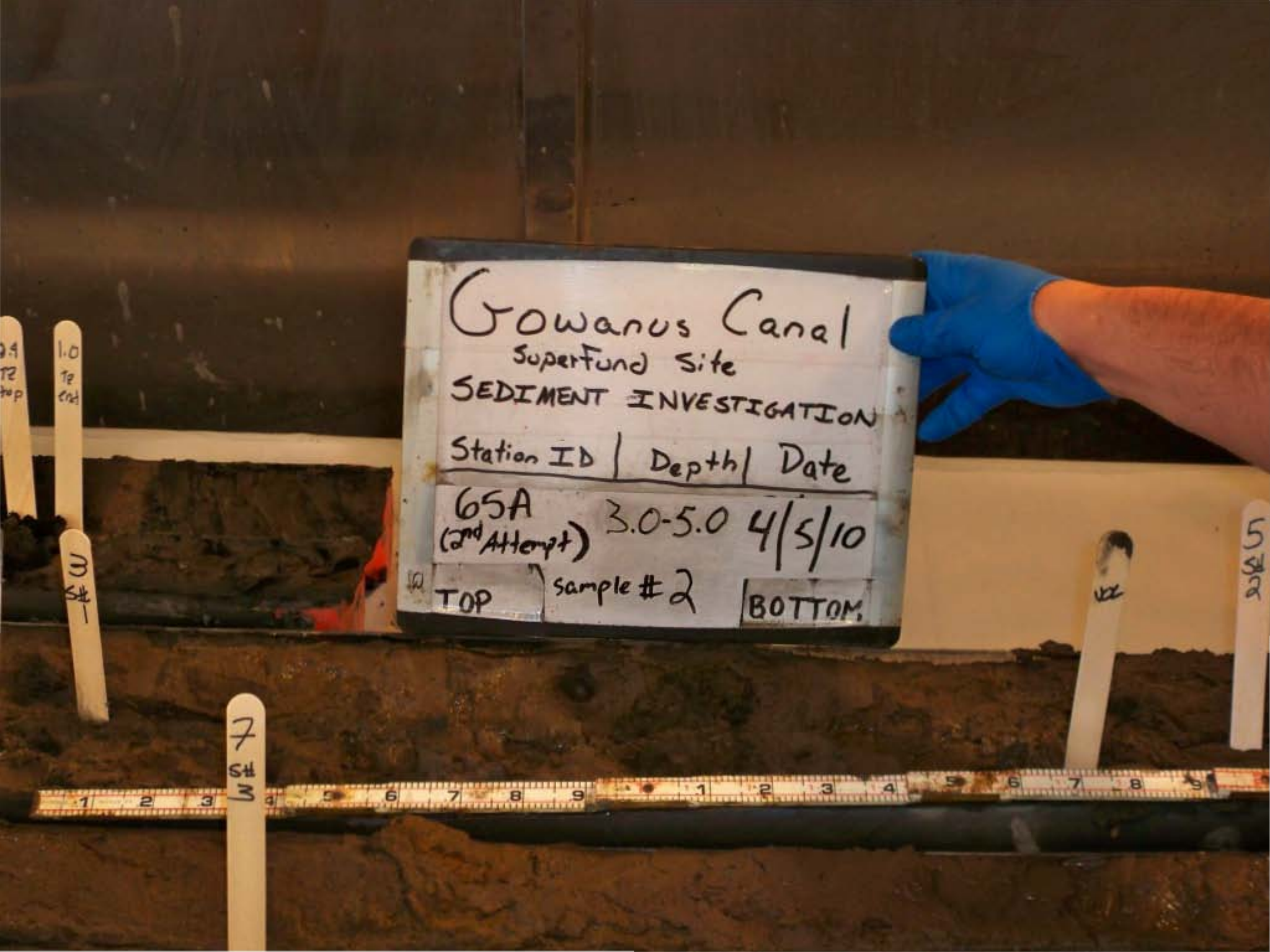

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 0-0.9' 4/5/10
TOP
not sampled
BOTTOM
0.9 TR top
1.0 TR end

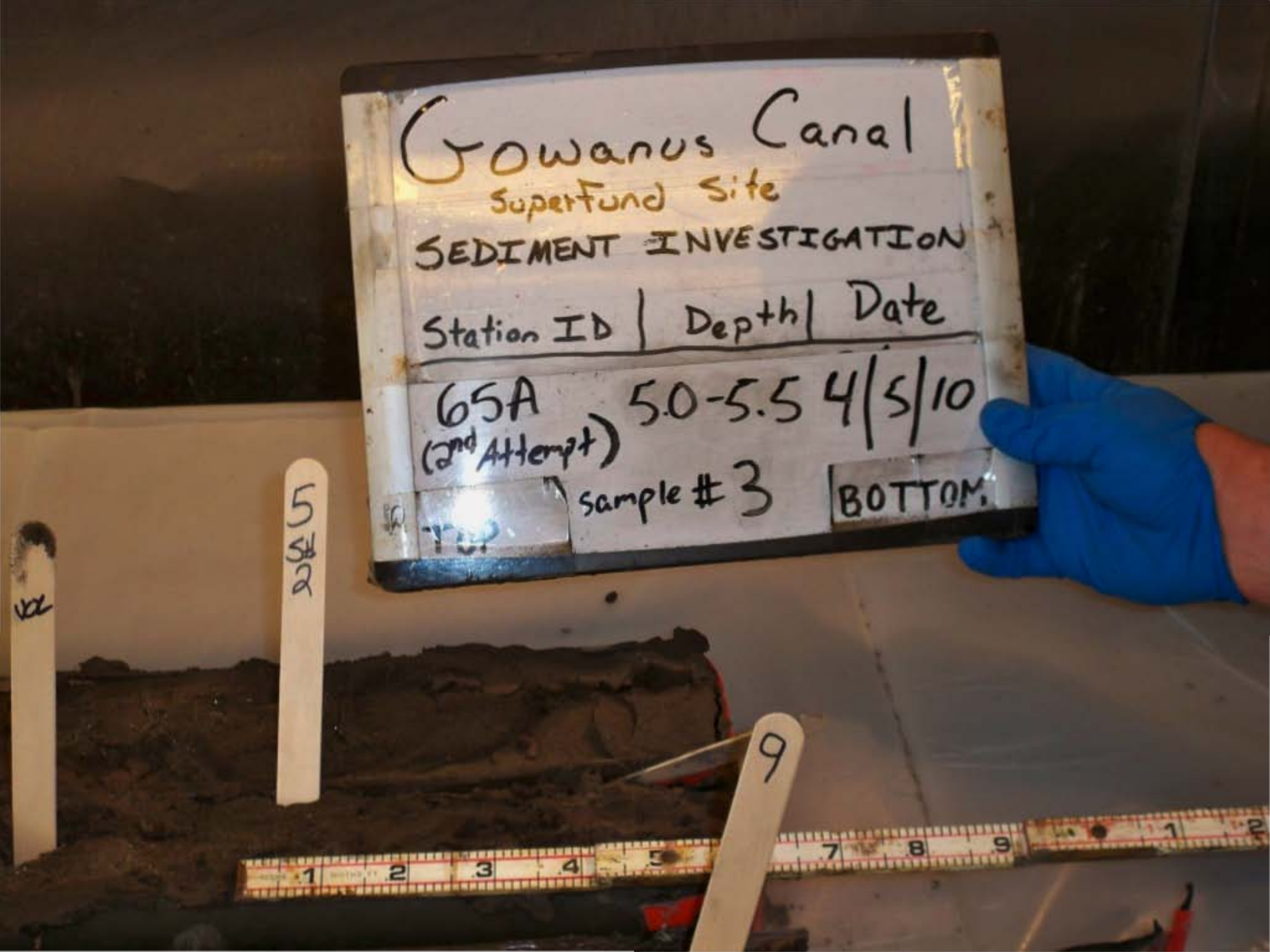

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A 0.9-1.0 4/5/10
(2nd Attempt) Transition Zone not sampled
TOP
BOTTOM
0.9 TZ top
1.0 TZ end
VC
3 S# 1

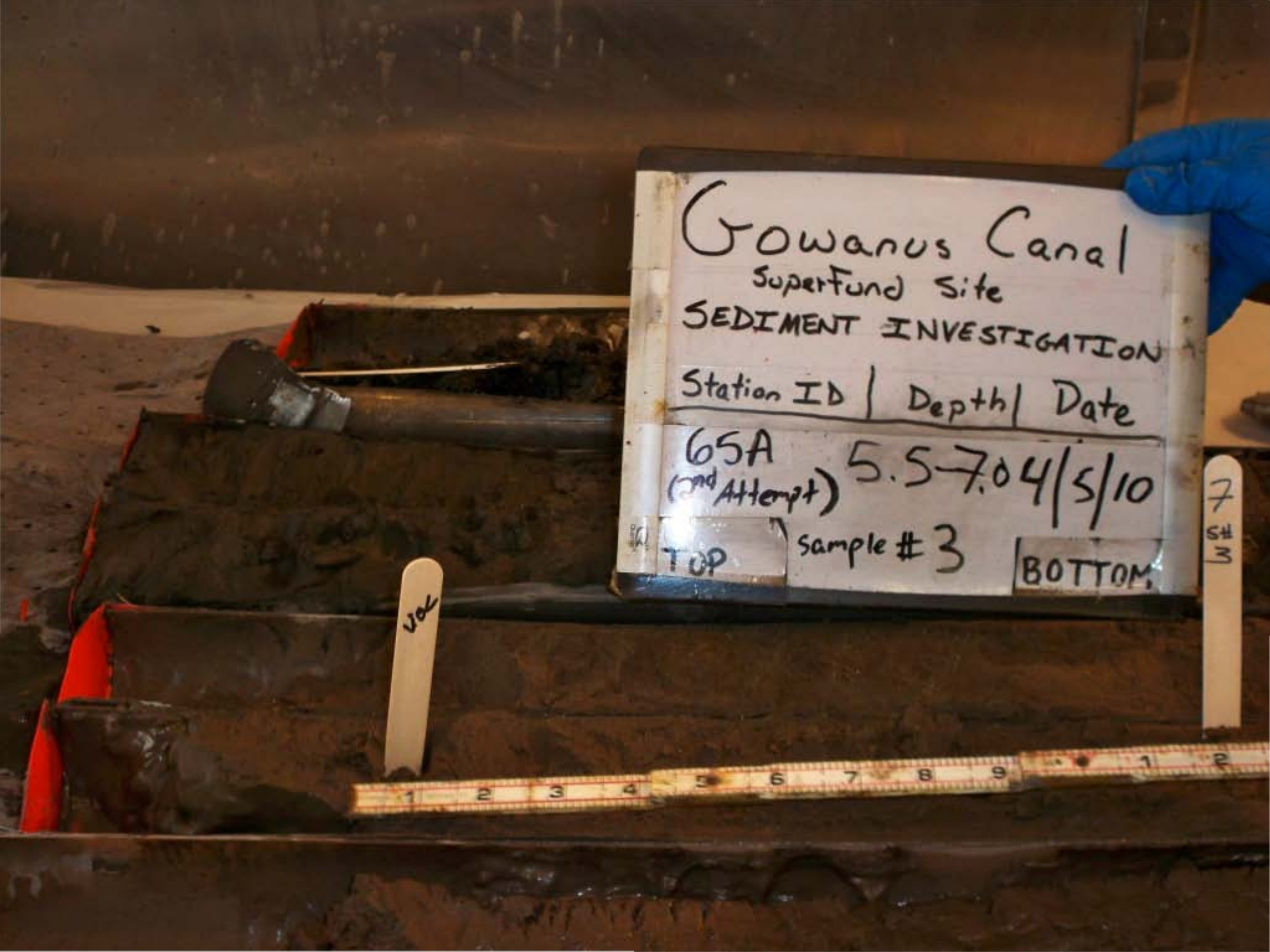

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 1.0-1.6 4/5/10
TOP
sample #1
BOTTOM
0.9 TZ top
1.0 TZ end
3 S#1

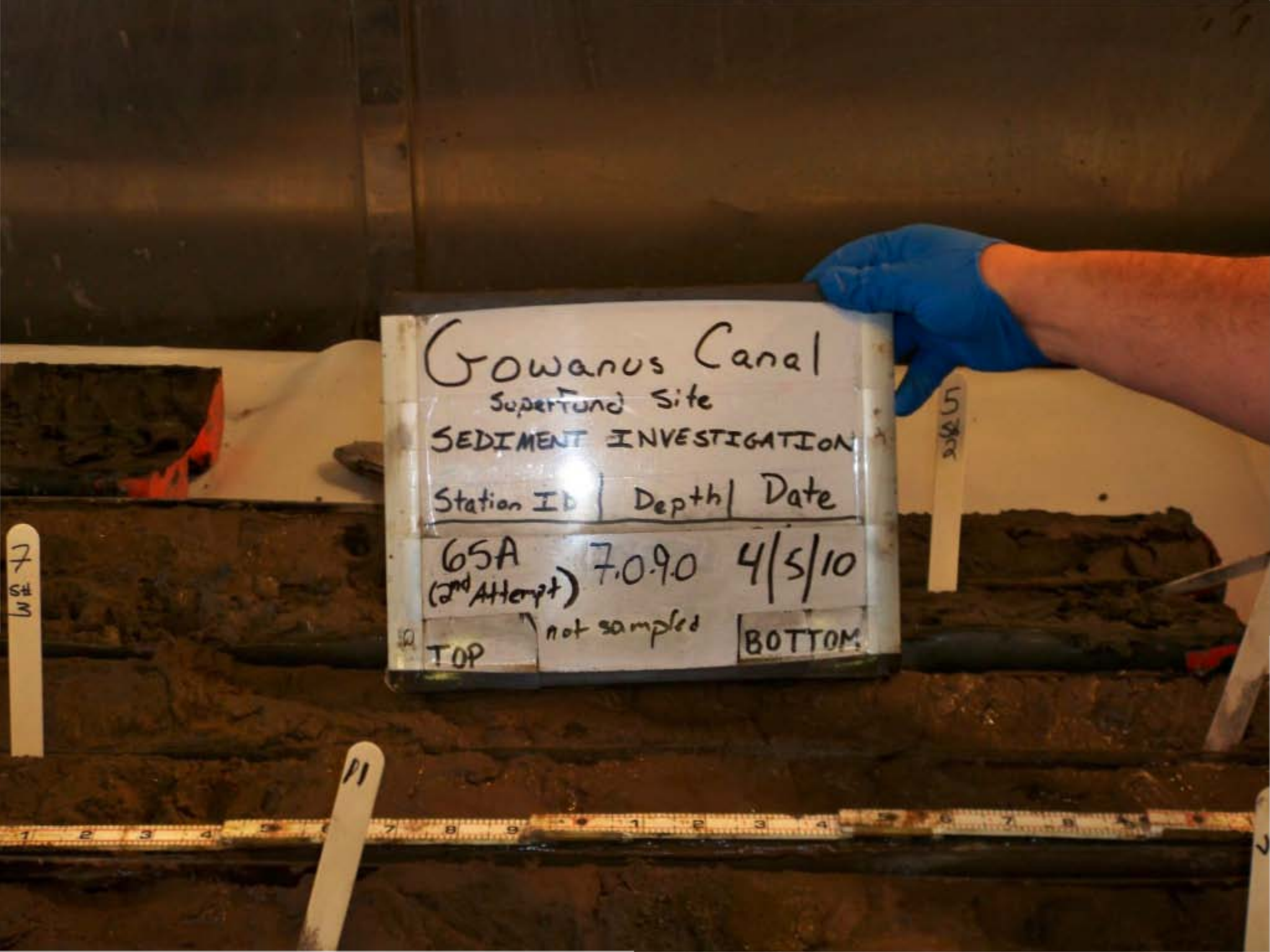

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 11.0-12.7 4/5/10
not sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 1.6-3.0 4/5/10
TOP
sample #1
BOTTOM
0.9 TZ top
1.0 TZ end
VDL

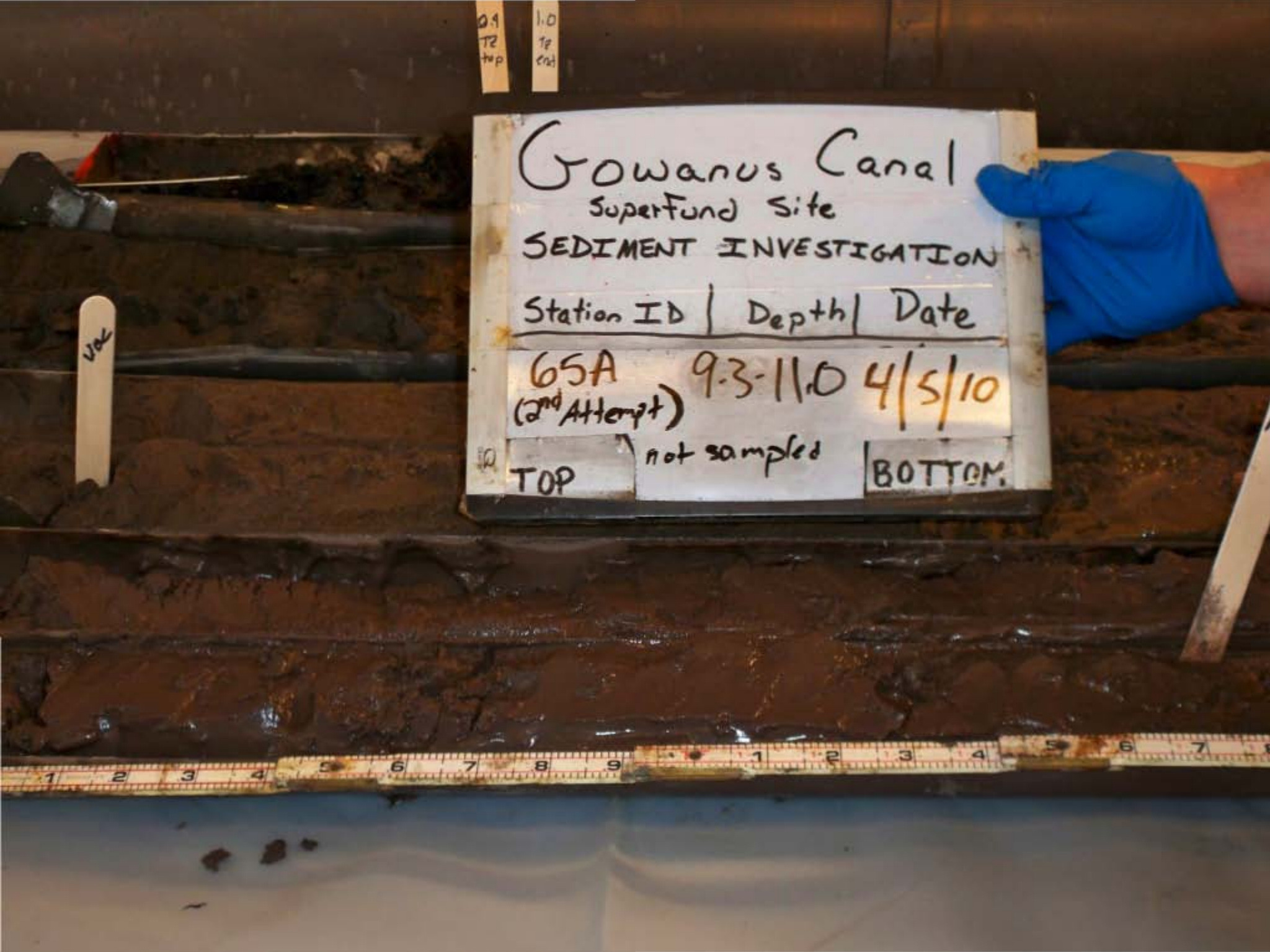

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 3.0-5.0 4/5/10
TOP
sample #2
BOTTOM

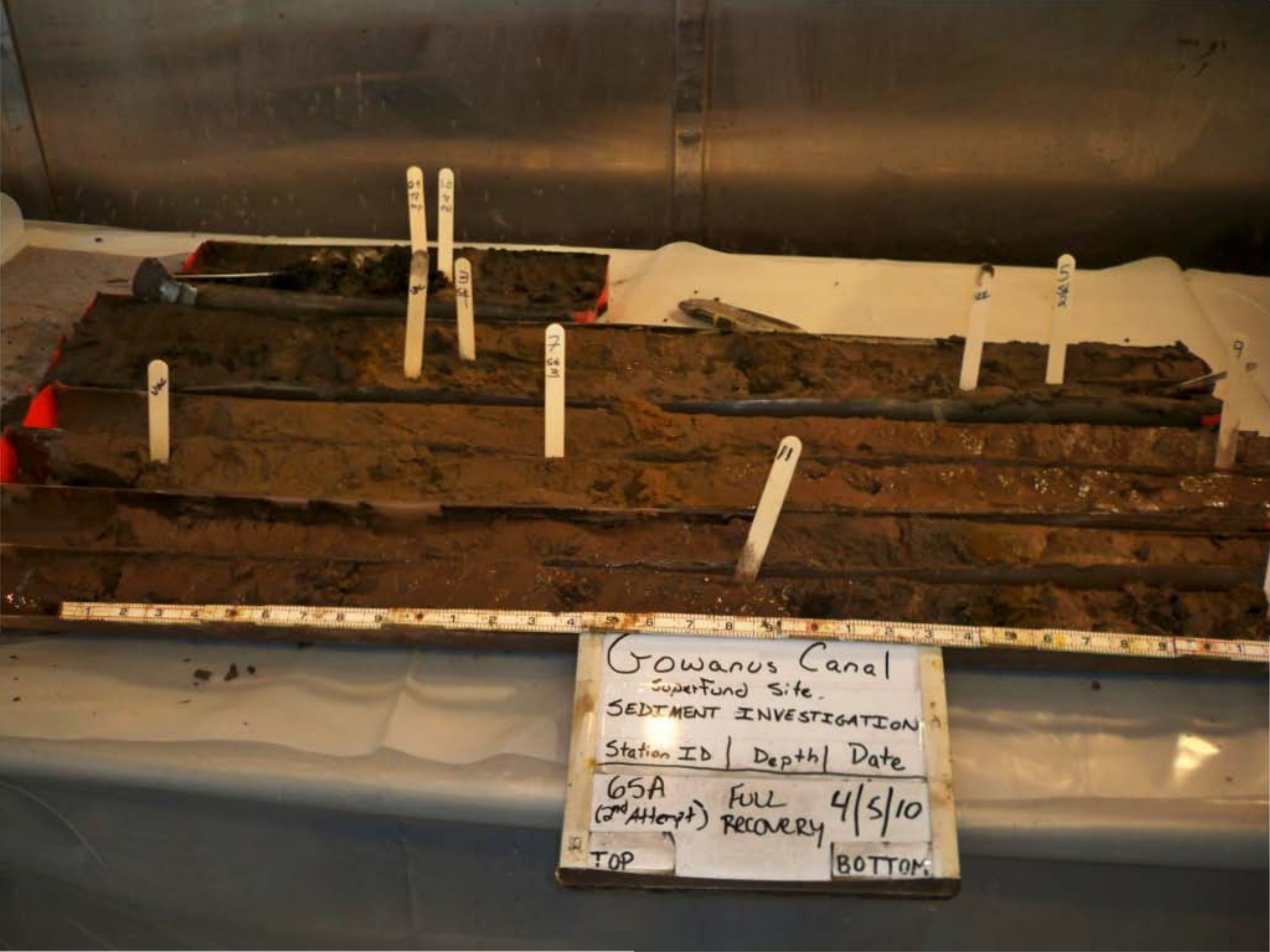

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 5.0-5.5 4/5/10
sample # 3
BOTTOM
9


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 5.5-7.0 4/5/10
TOP
sample #3
BOTTOM
VOC
7 SH 3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID
Depth
Date
65A
(2nd Attempt)
7.0-9.0
4/5/10
not sampled
TOP
BOTTOM

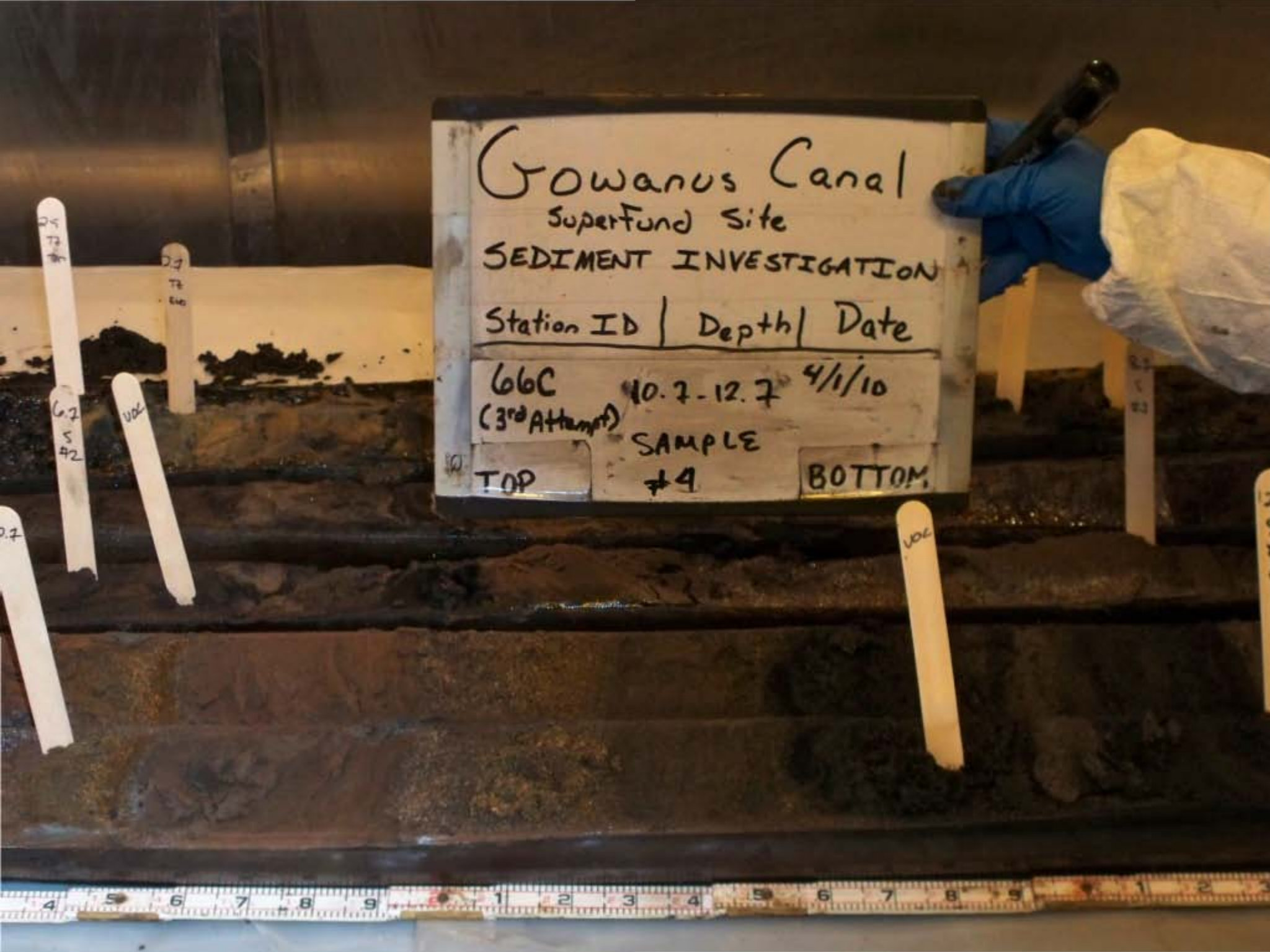

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 9.0-9.3 4/5/10
not sampled
TOP
BOTTOM
5
SH 2
9
VOL
12.7
DOC
SH

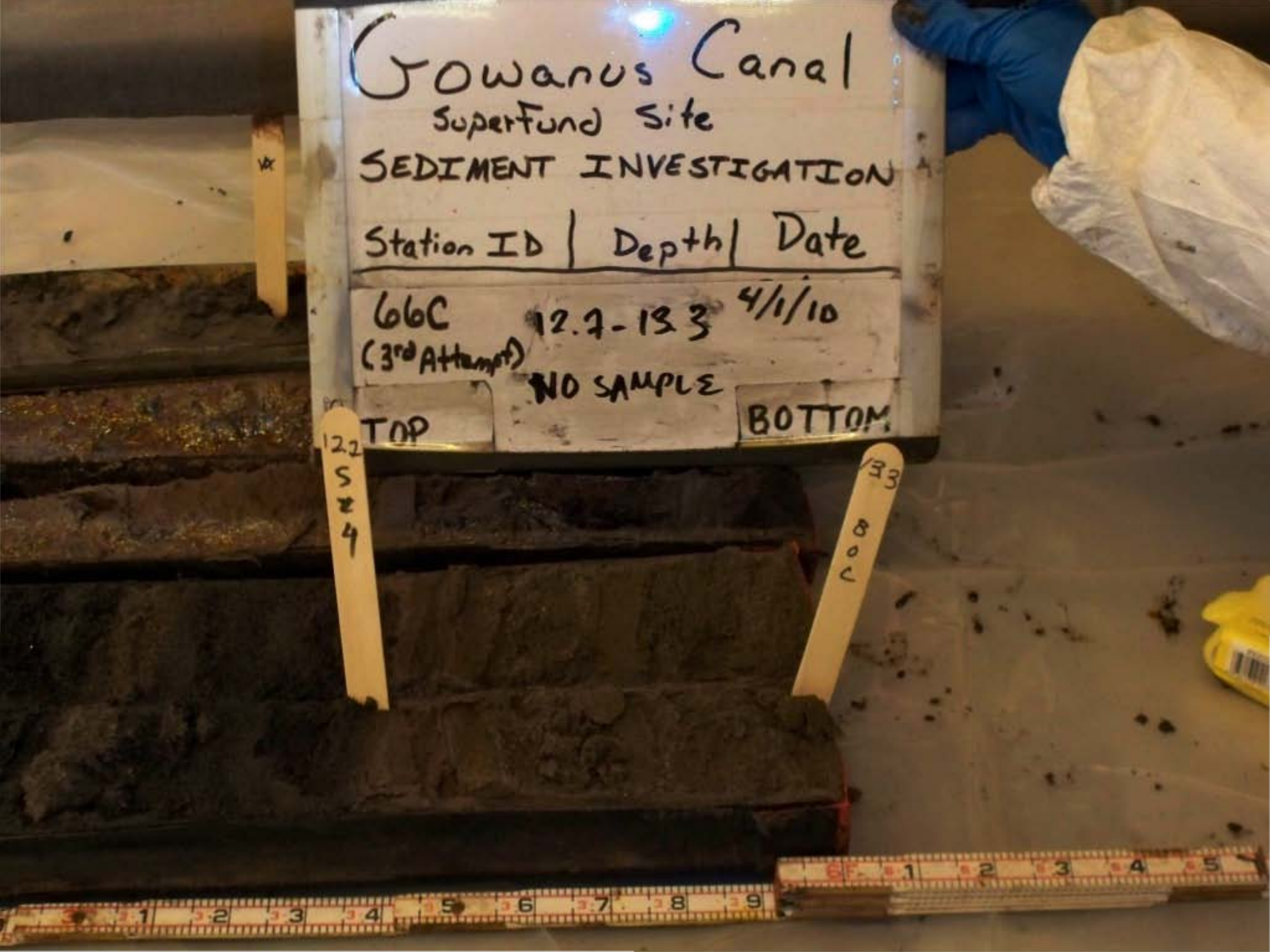

0.1
TR
top
1.0
TR
end
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) 9-3-11.0 4/5/10
not sampled
TOP
BOTTOM
VOC

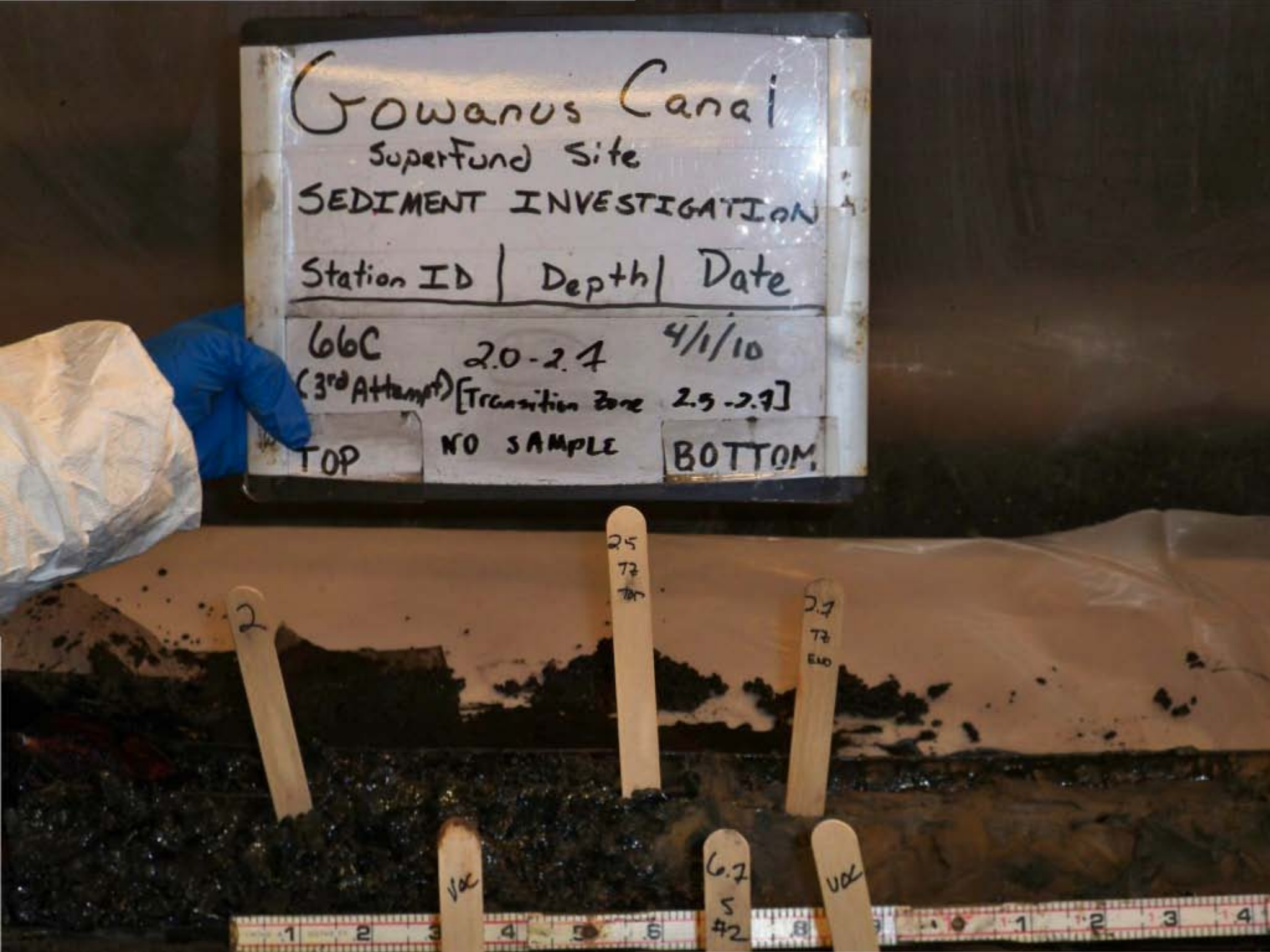

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) FULL RECOVERY 4/5/10
TOP
BOTTOM

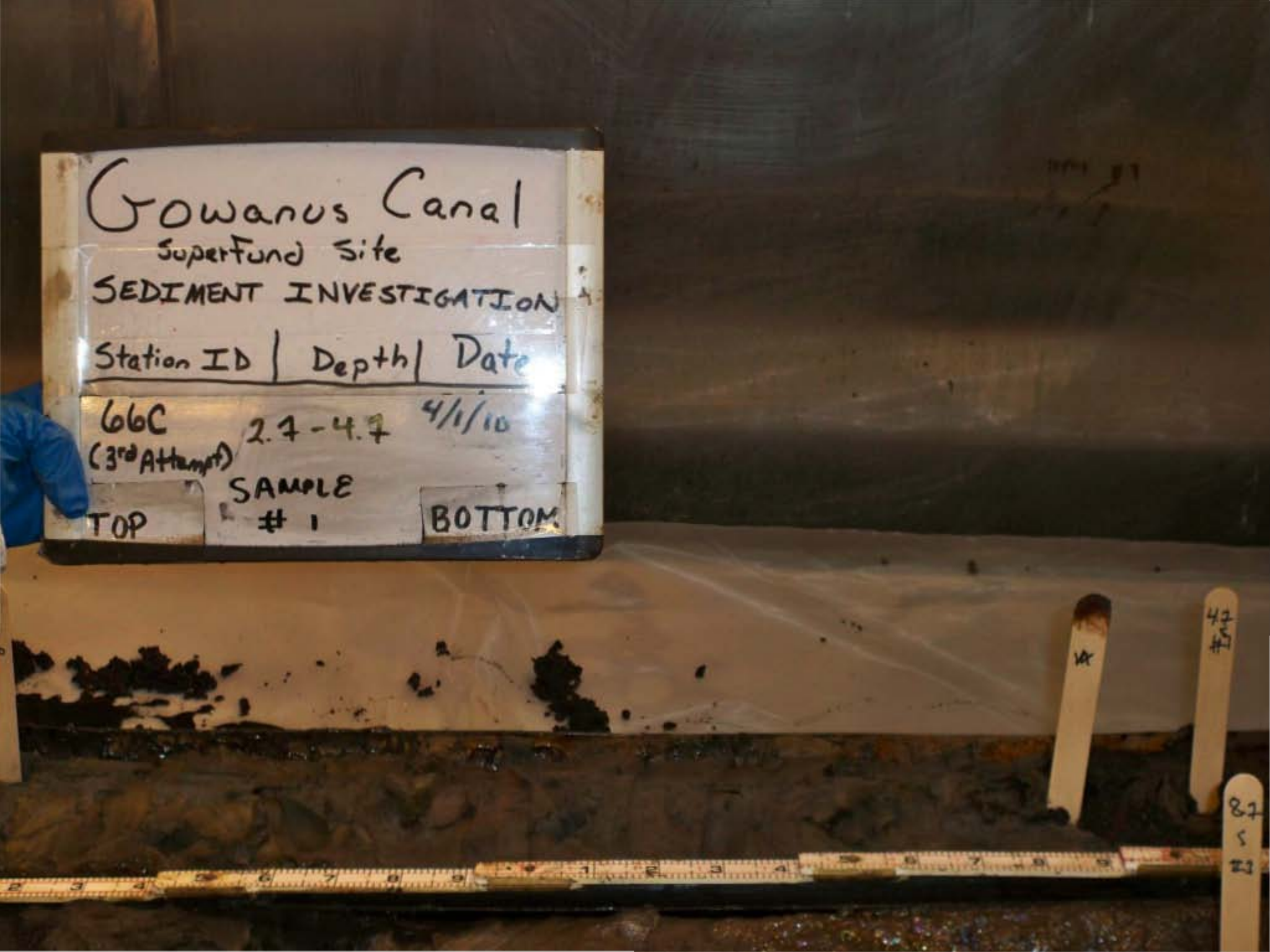

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C
(3rd Attempt)
4/1/10
Full
Recovery
TOP
BOTTOM

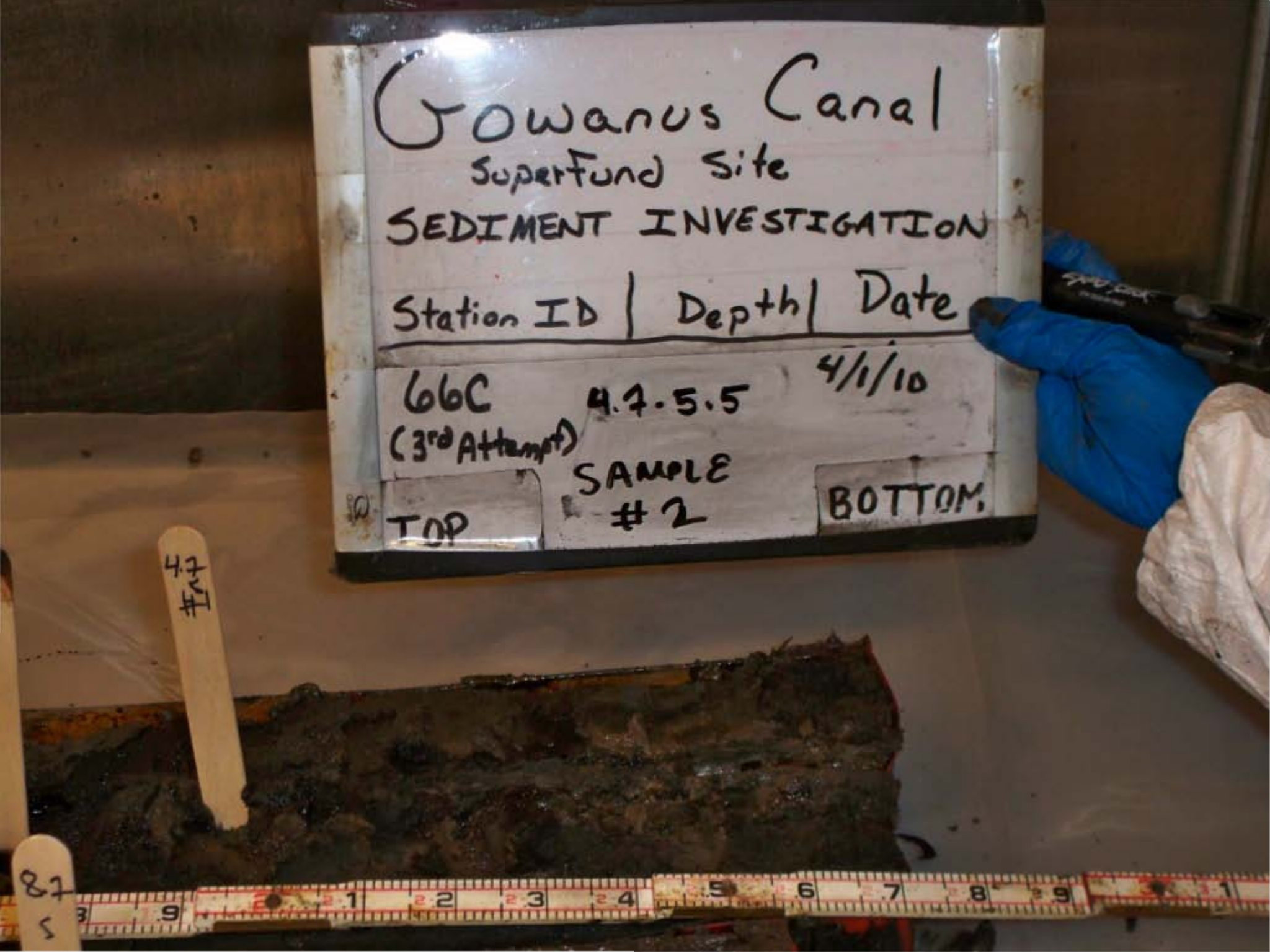

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C 0-2 4/1/10
(3rd Attempt)
NO SAMPLE
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C (3rd Attempt)
10.7-12.7
4/1/10
SAMPLE #9
TOP
BOTTOM

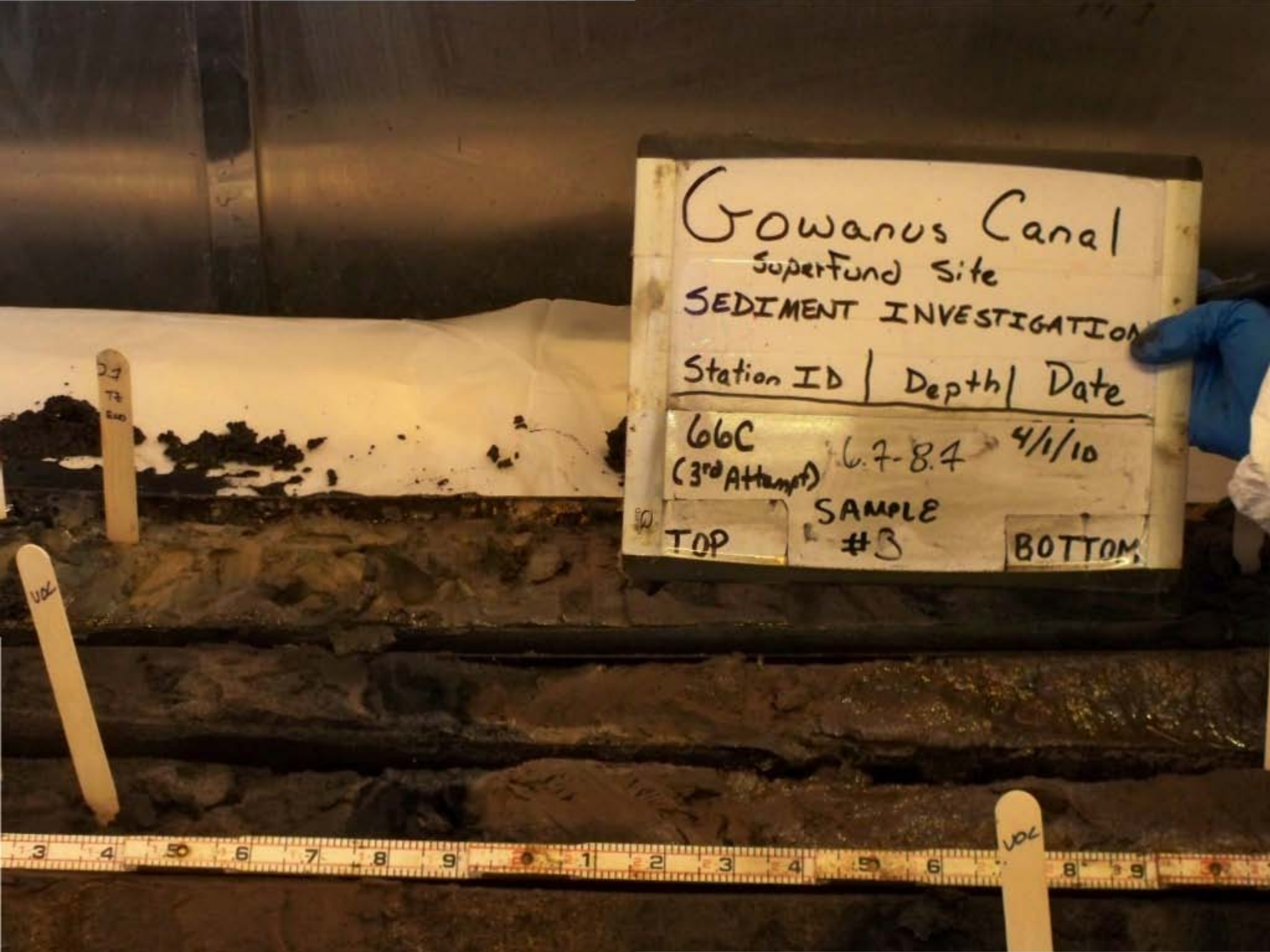

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C 12.7-13.3 4/1/10
(3rd Attempt)
NO SAMPLE
TOP
BOTTOM
122
S
4
133
B
C


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C 2.0-2.7 4/1/10
(3rd Attempt) [Transition Zone 2.5-2.7]
TOP
NO SAMPLE
BOTTOM
2
2.5
TZ
TOP
2.7
TZ
END
VOC
6.7
S
#2
VOC

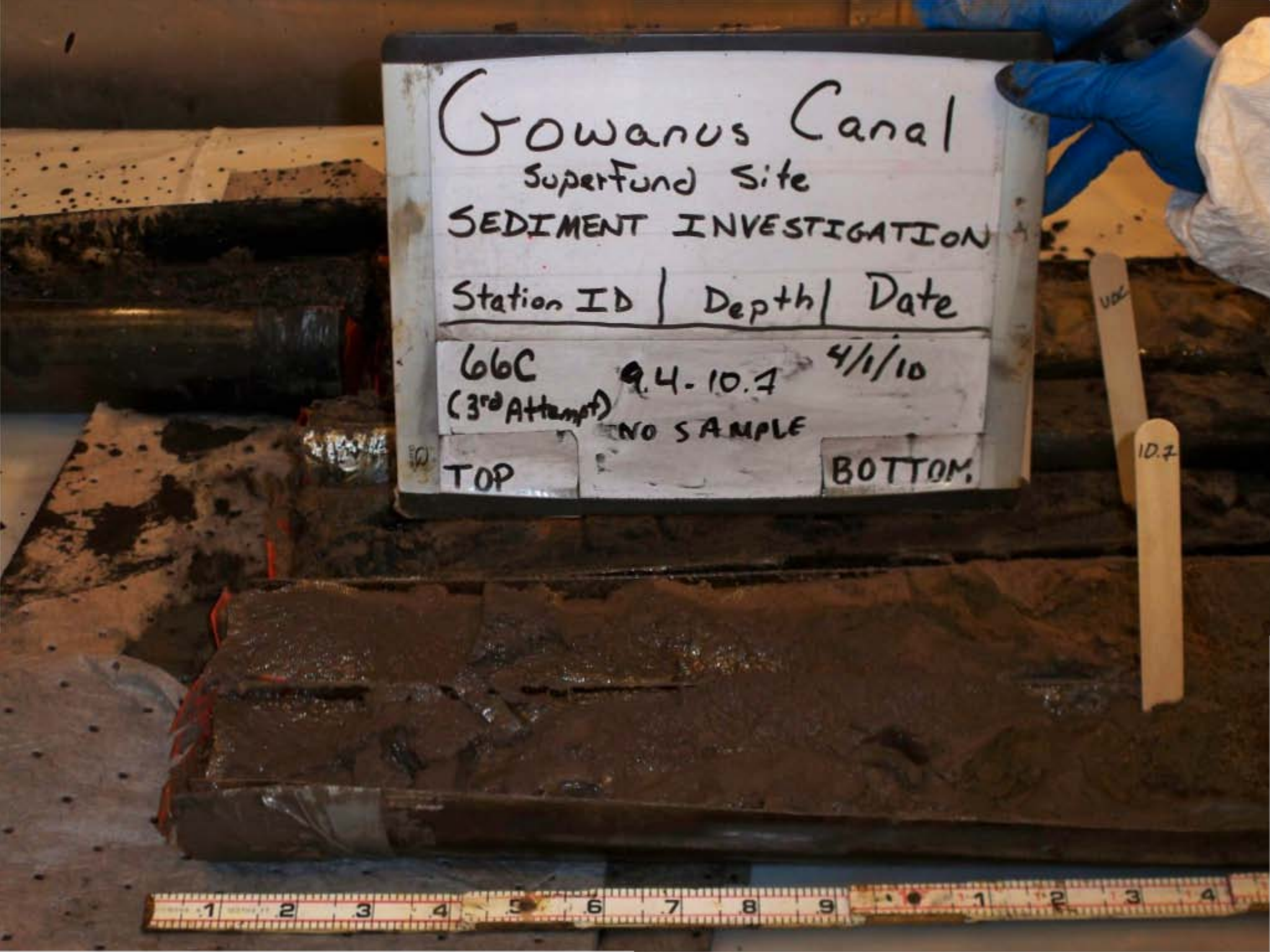

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C (3rd Attempt) 2.7-4.7 4/1/10
SAMPLE #1
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C (3rd Attempt)
4.7-5.5
4/1/10
SAMPLE #2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C (3rd Attempt) 5.5-6.7 4/1/10
SAMPLE #2
TOP
BOTTOM
VOC
6.7
S
#2
VOC

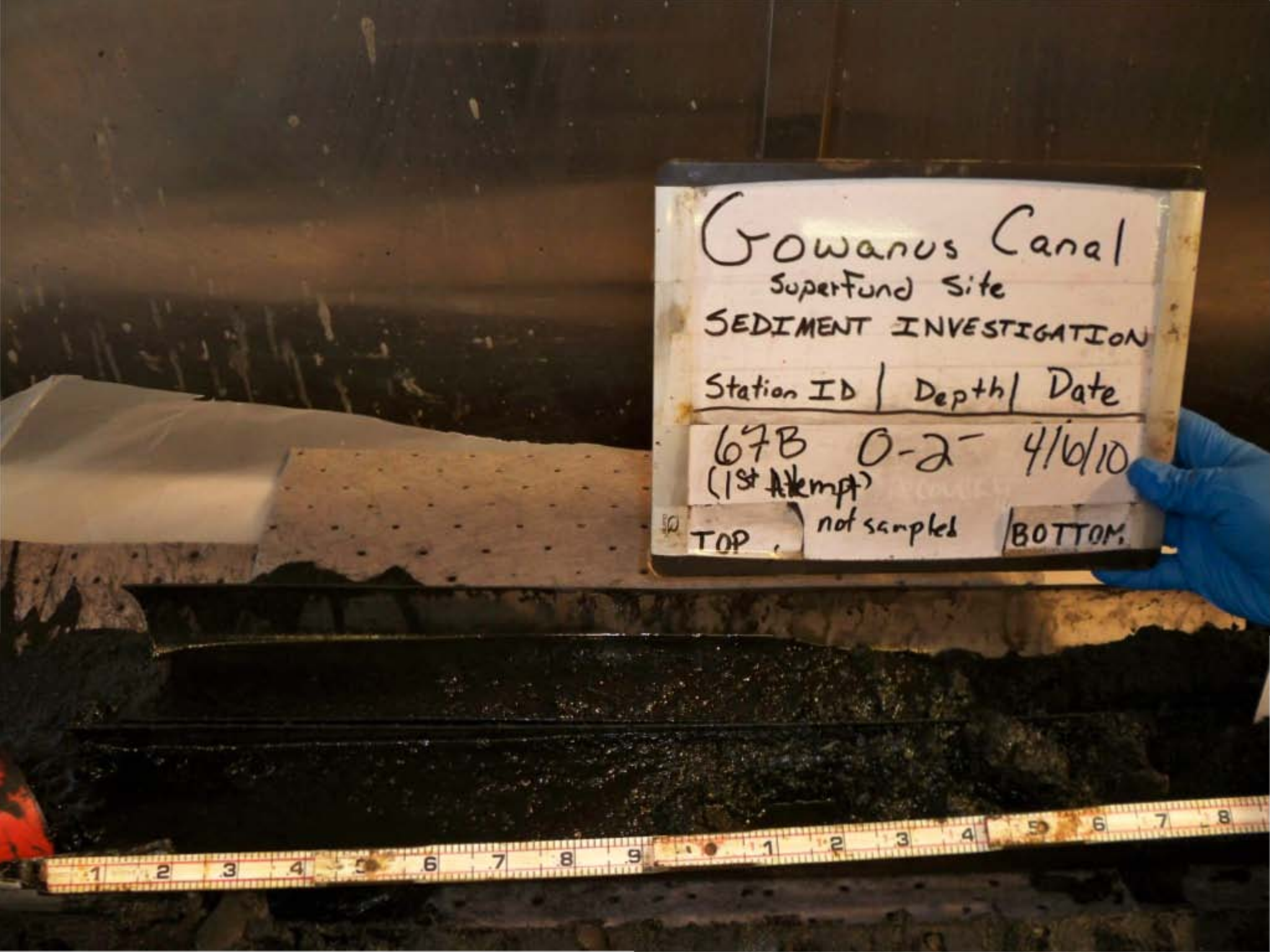

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C (3rd Attempt) 6.7-8.7 4/1/10
SAMPLE #3
TOP
BOTTOM

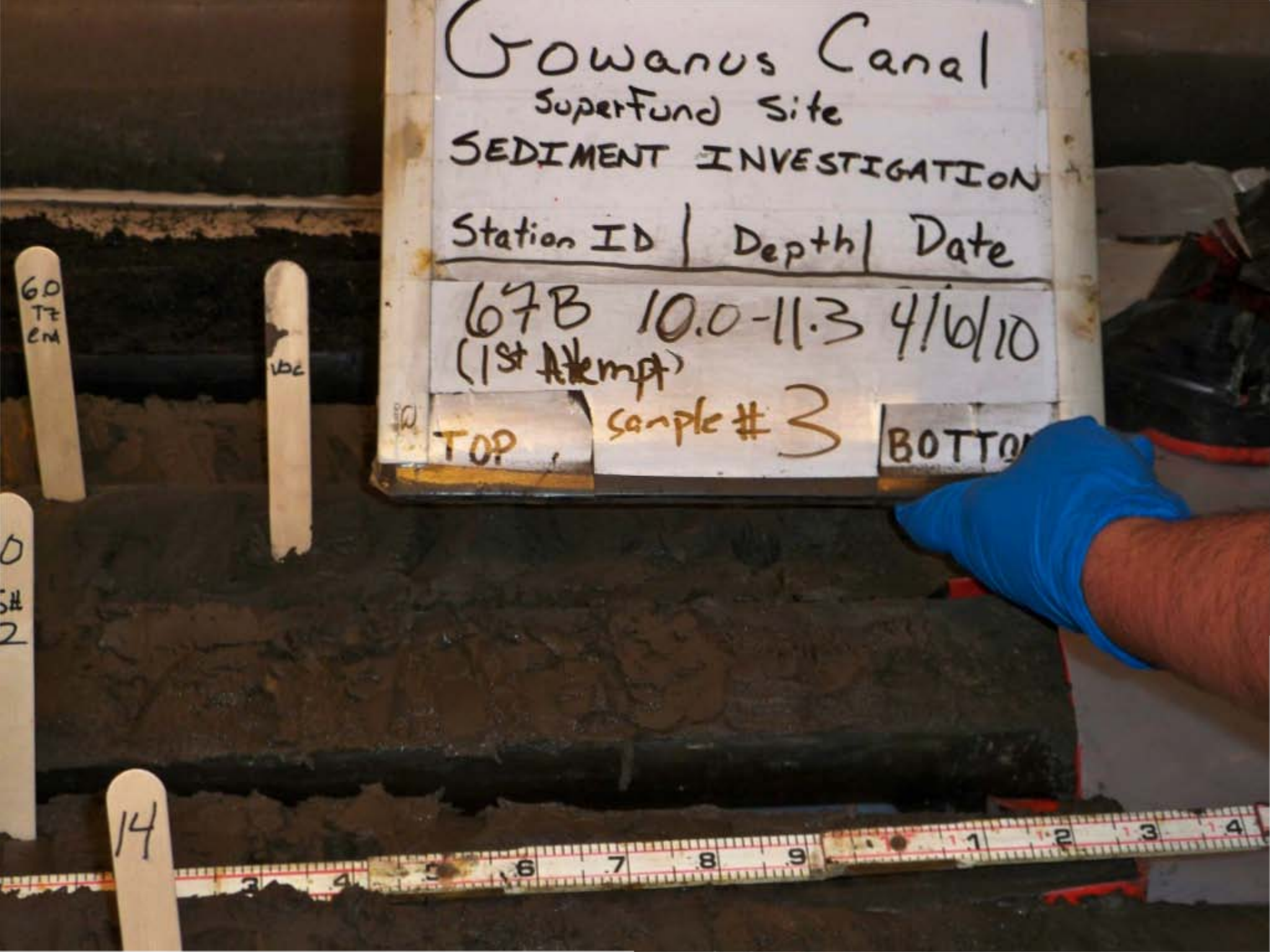

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C
(3rd Attempt)
8.7-9.4
4/1/10
NO SAMPLE
TOP
BOTTOM

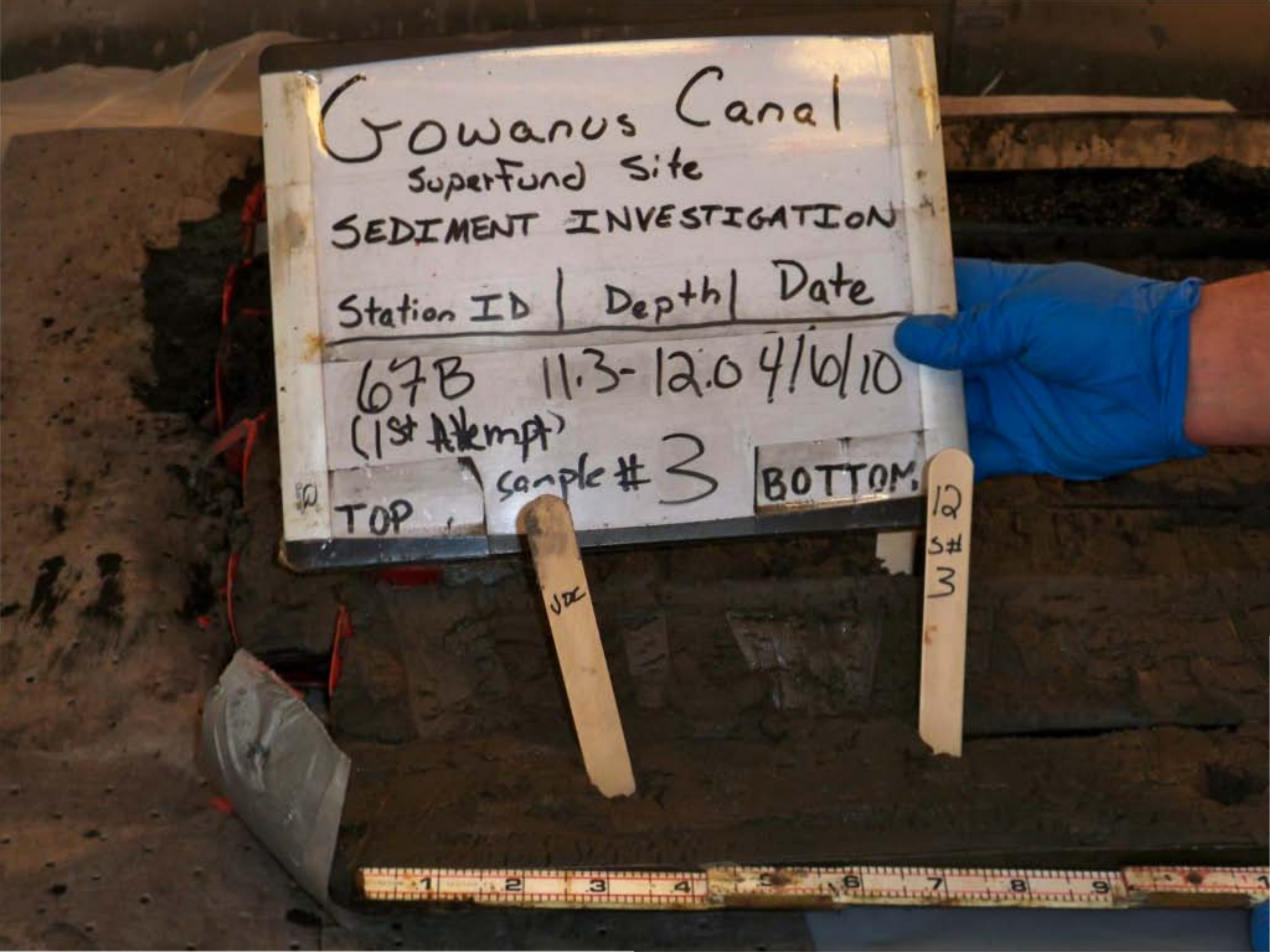

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C
(3rd Attempt)
9.4-10.7
4/1/10
NO SAMPLE
TOP
BOTTOM
10.7

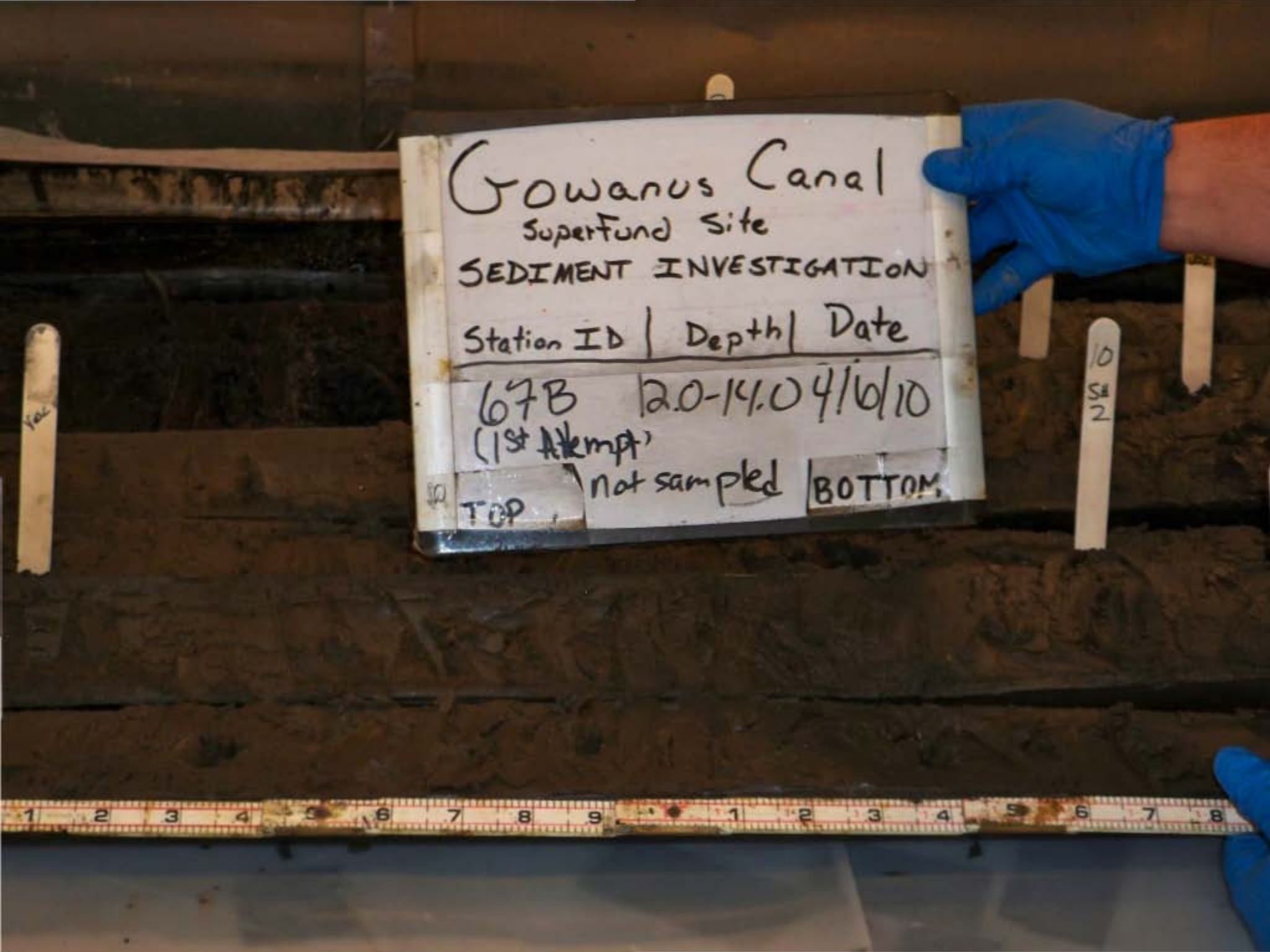

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C
(3rd Attempt)
4/1/10
Full
Recovery
TOP
BOTTOM

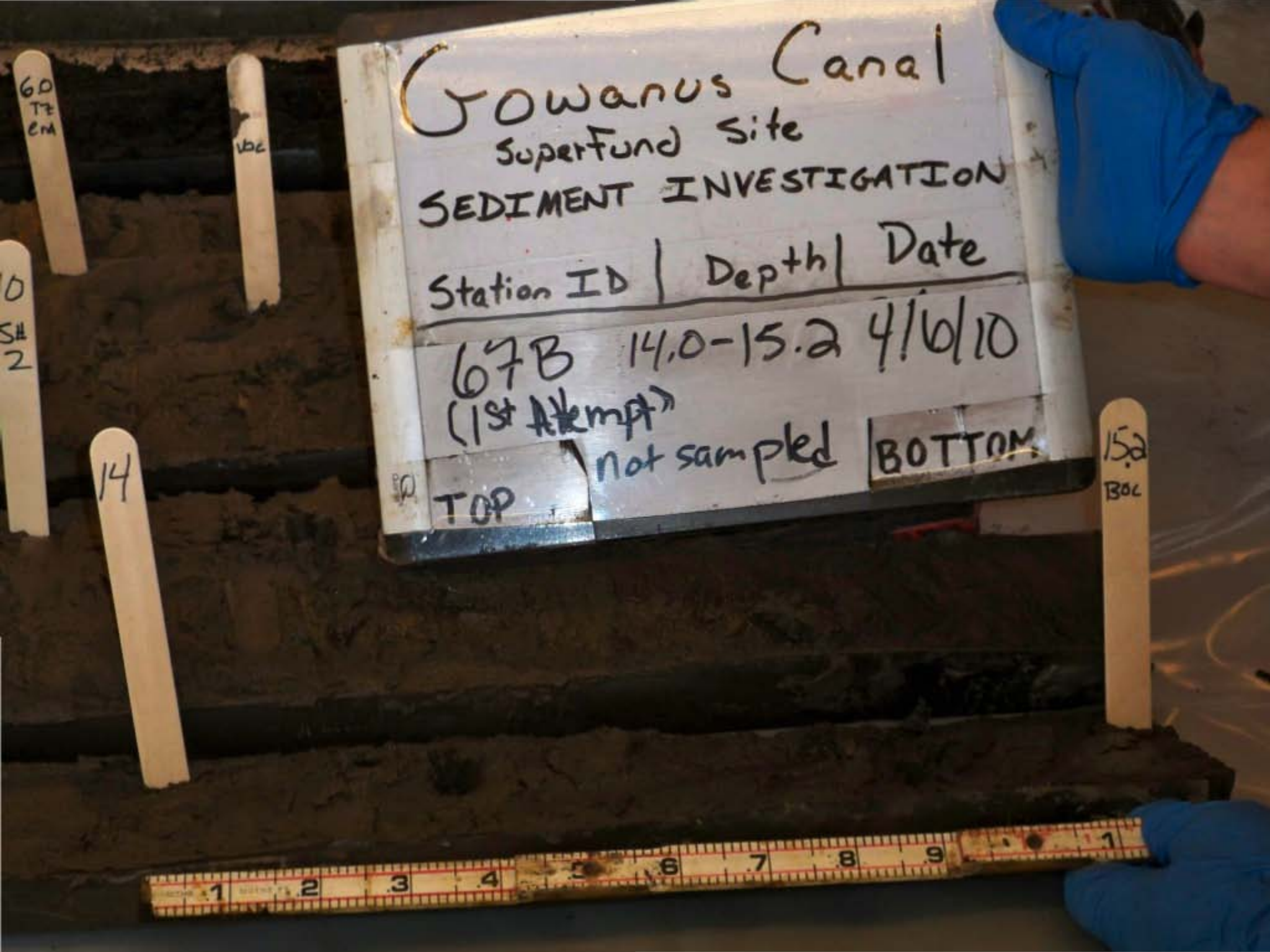

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B Full 4/6/10
(1st Attempt) Recovery
TOP
BOTTOM

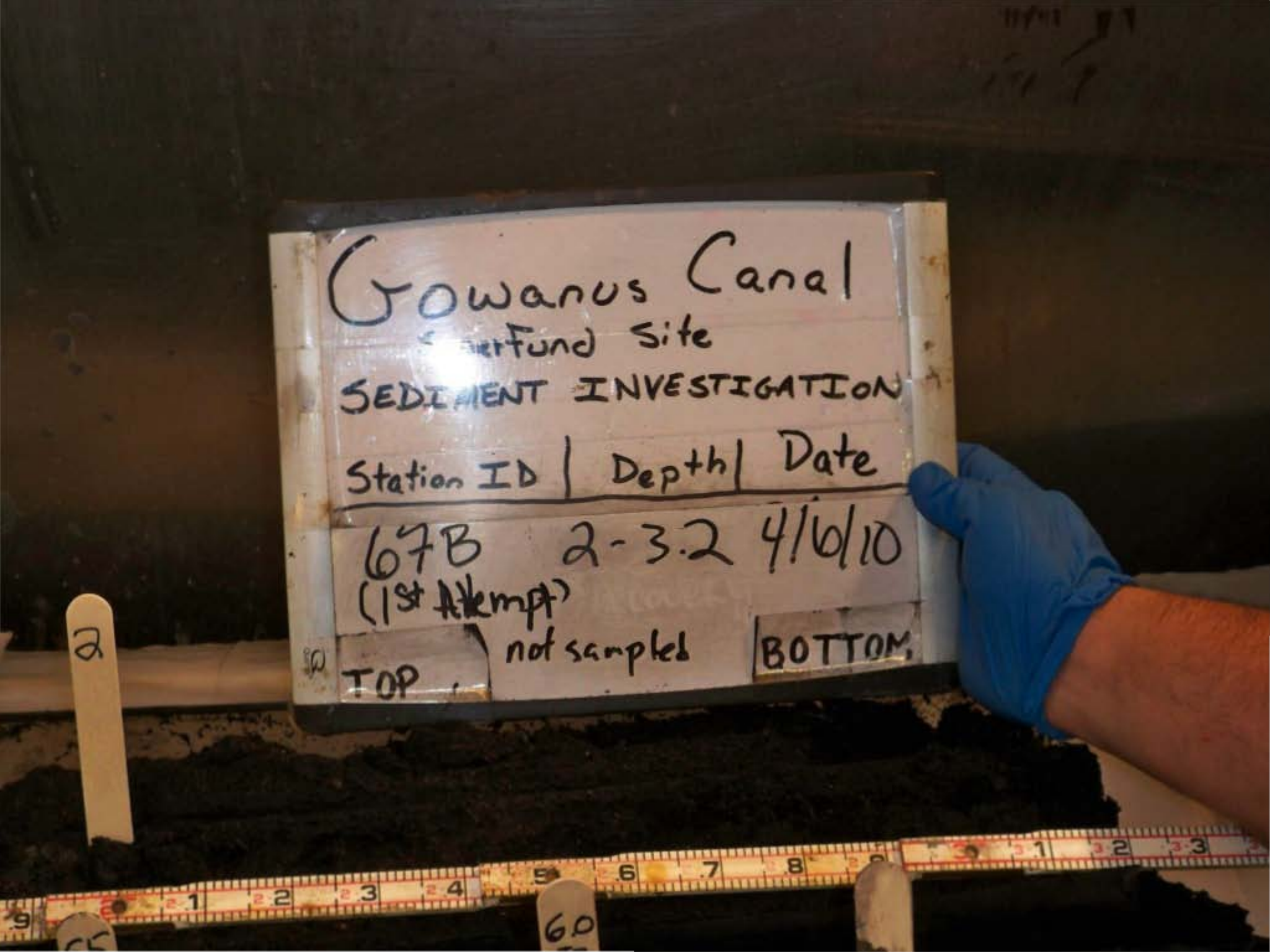

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 0-2' 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM

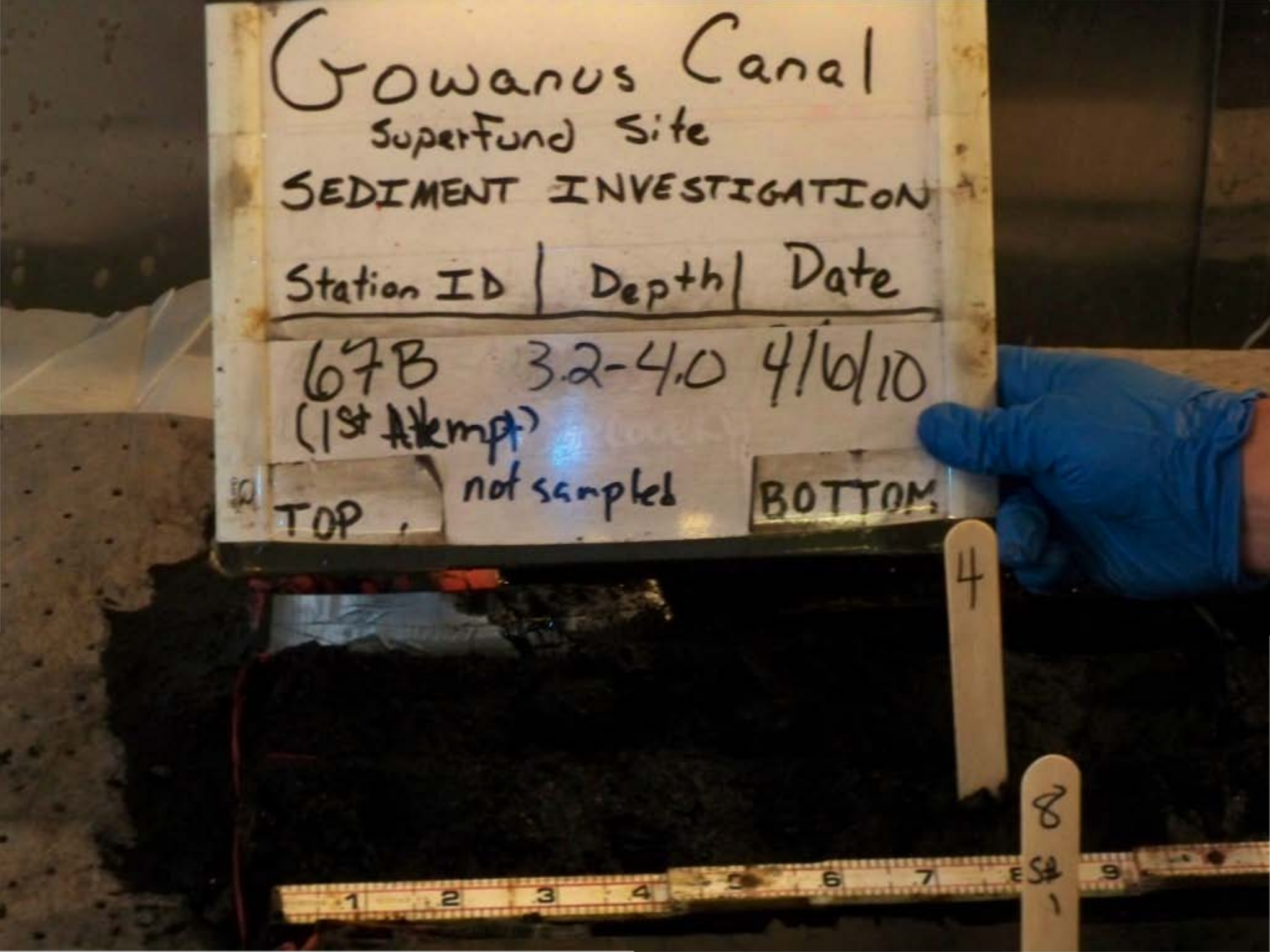

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 10.0-11.3 4/6/10
(1st Attempt)
TOP
sample #3
BOTTO
14

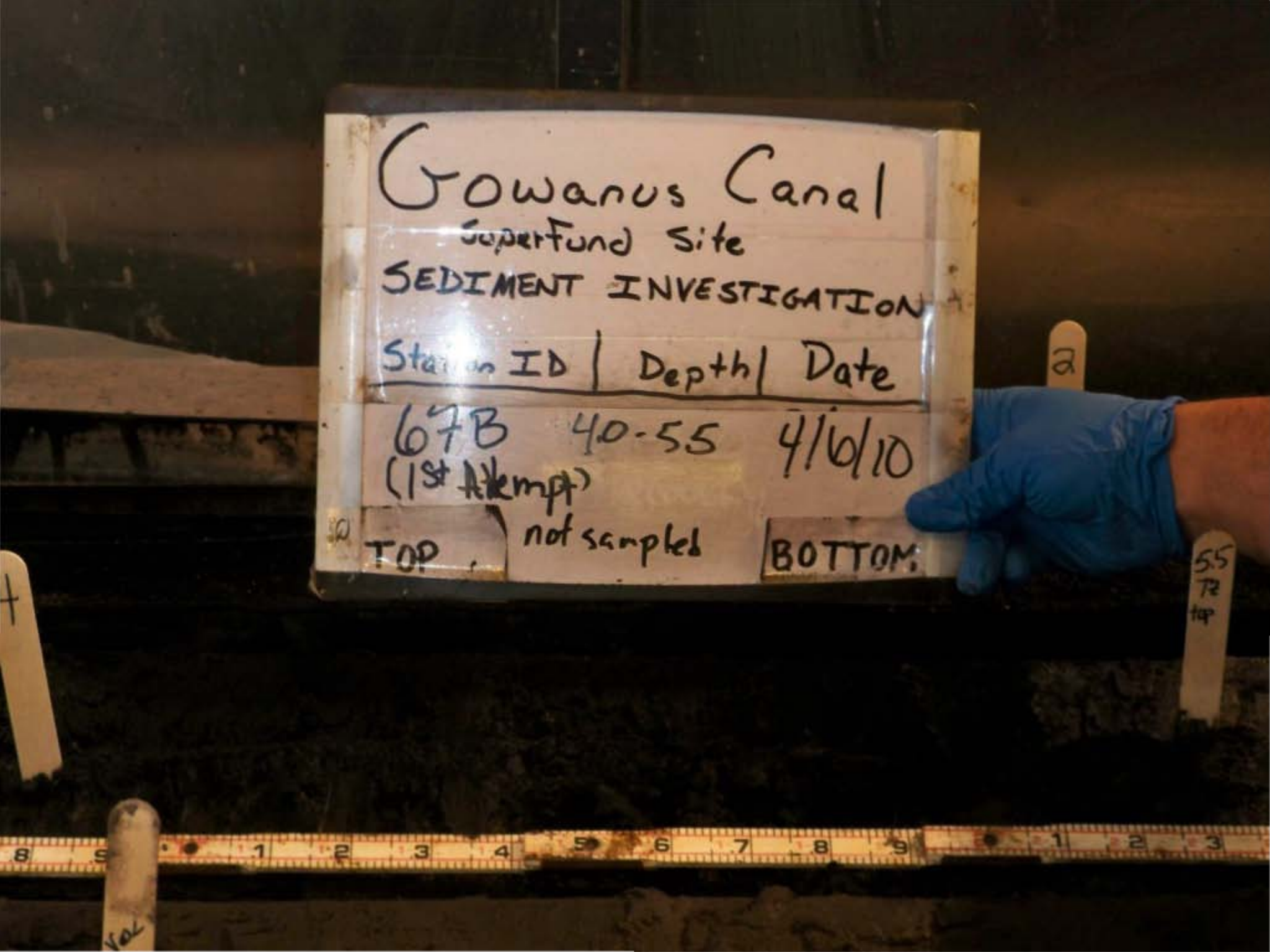

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 11.3-12.0 4/6/10
(1st Attempt)
sample # 3
TOP
BOTTOM
12
S#
3

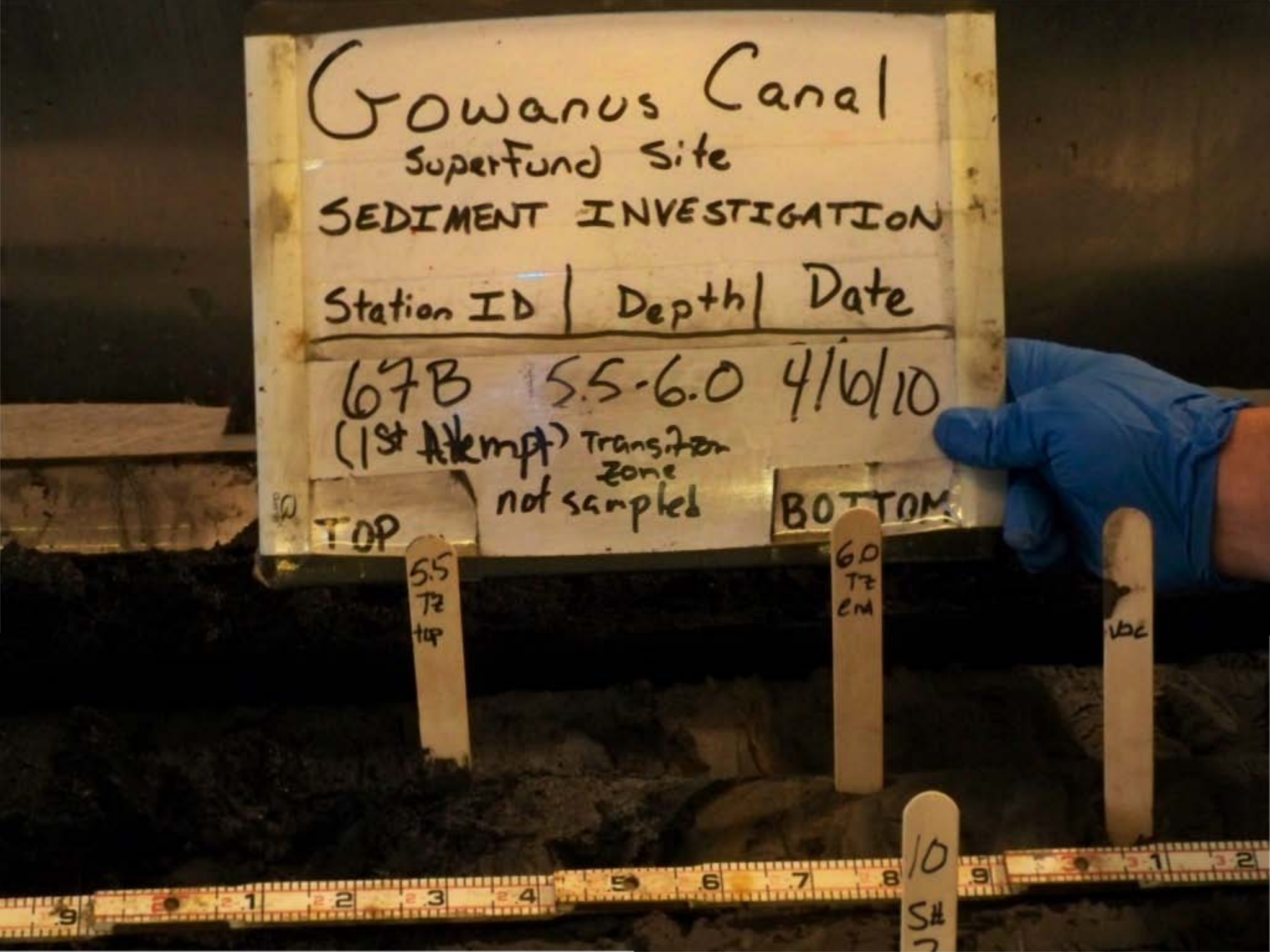

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 12.0-14.0 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM

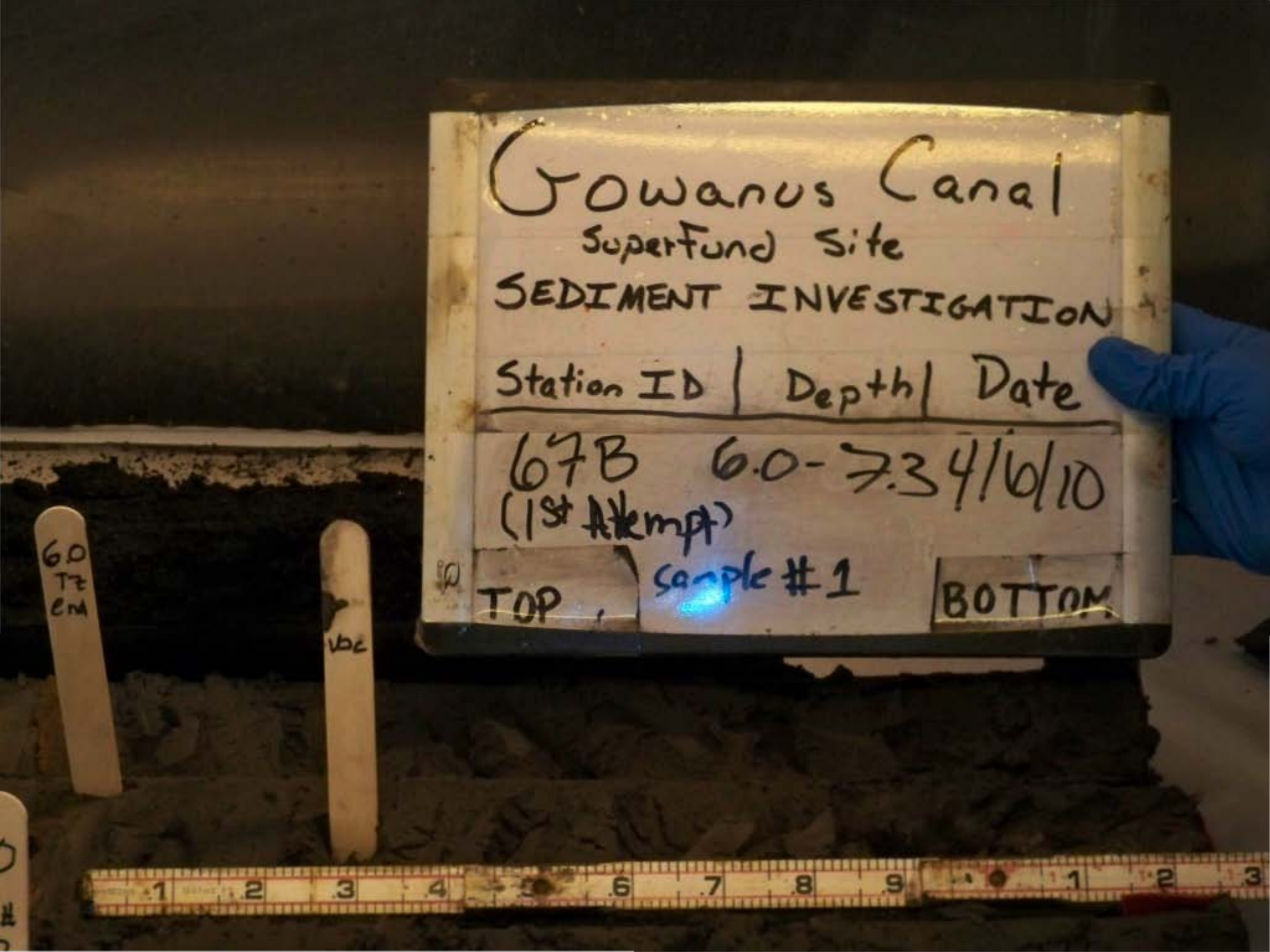

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 14.0-15.2 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM
14
15a
BOC

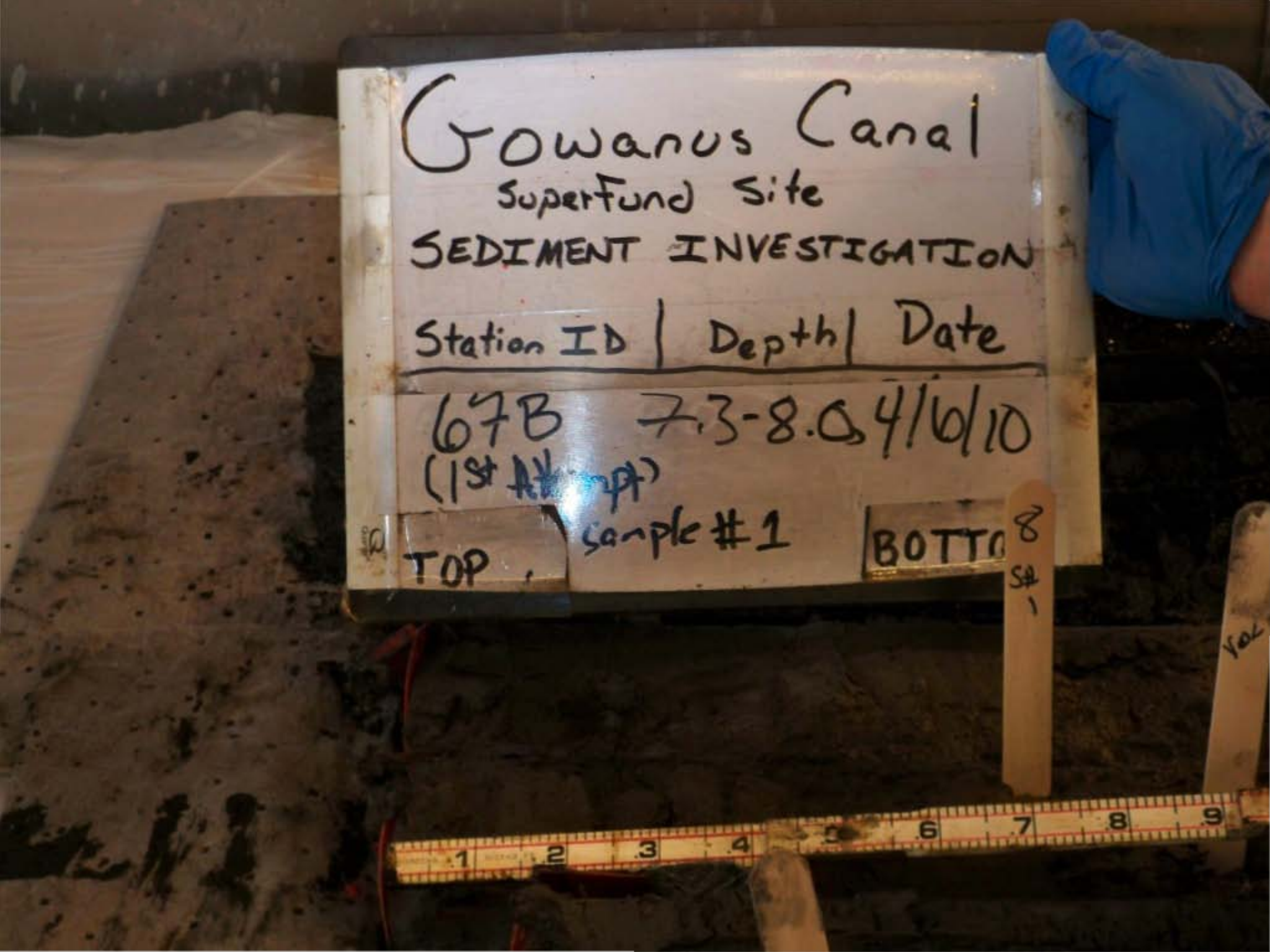

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 2-3.2 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM

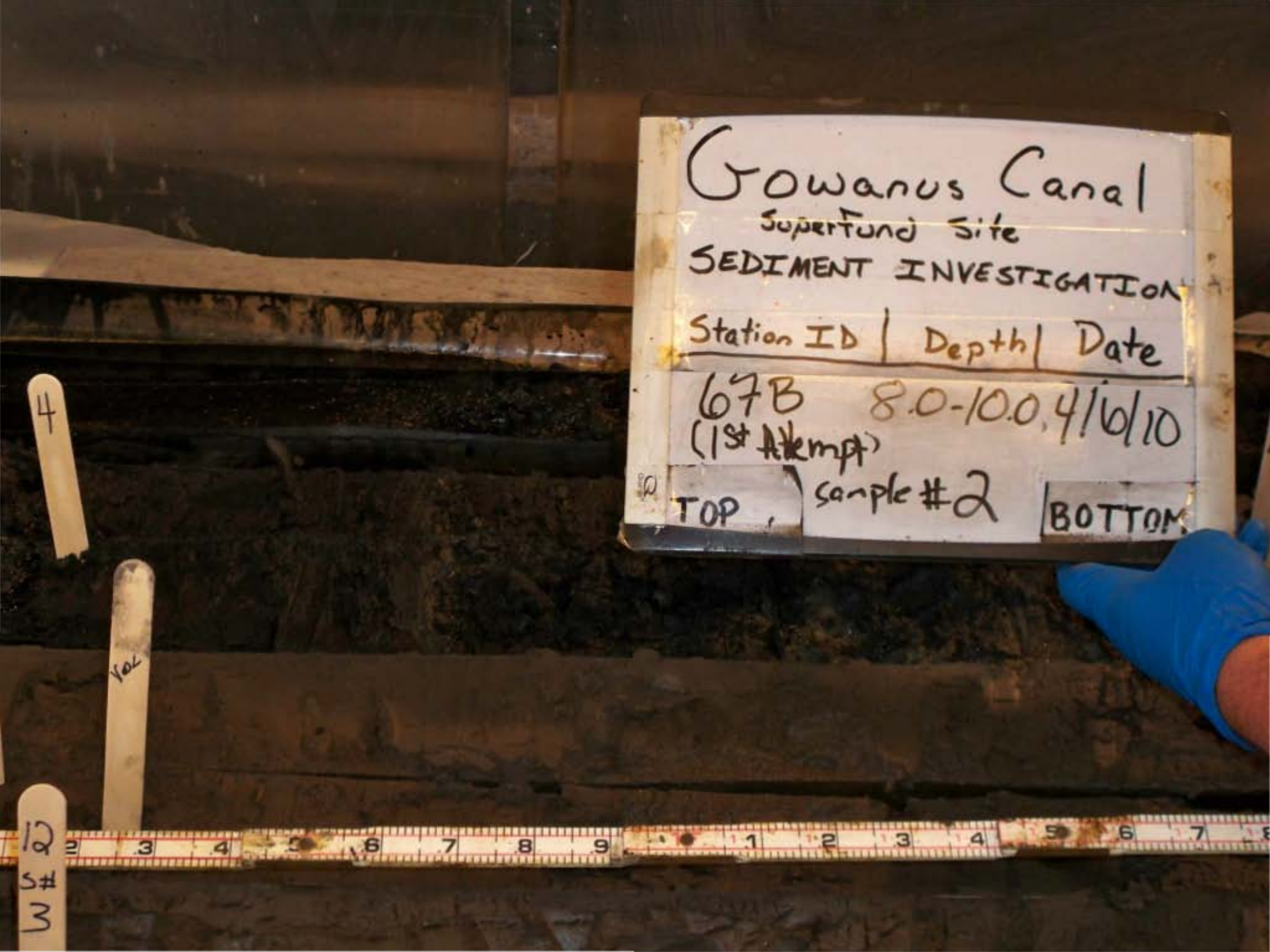

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 3.2-4.0 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM
4
8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 4.0-5.5 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM
a
55
TR
top


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 5.5-6.0 4/6/10
(1st Attempt) Transition zone not sampled
TOP
BOTTOM
5.5 Tz top
6.0 Tz cm
VBC
10
S#


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 6.0-7.3 4/6/10
(1st Attempt)
TOP
sample #1
BOTTOM
6.0
Tz
cm
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 7.3-8.0 4/6/10
(1st Attempt)
sample #1
TOP
BOTTO
8
S#
1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B 8.0-10.0, 4/6/10
(1st Attempt)
TOP
sample #2
BOTTOM
4
Vol
12
S#
3

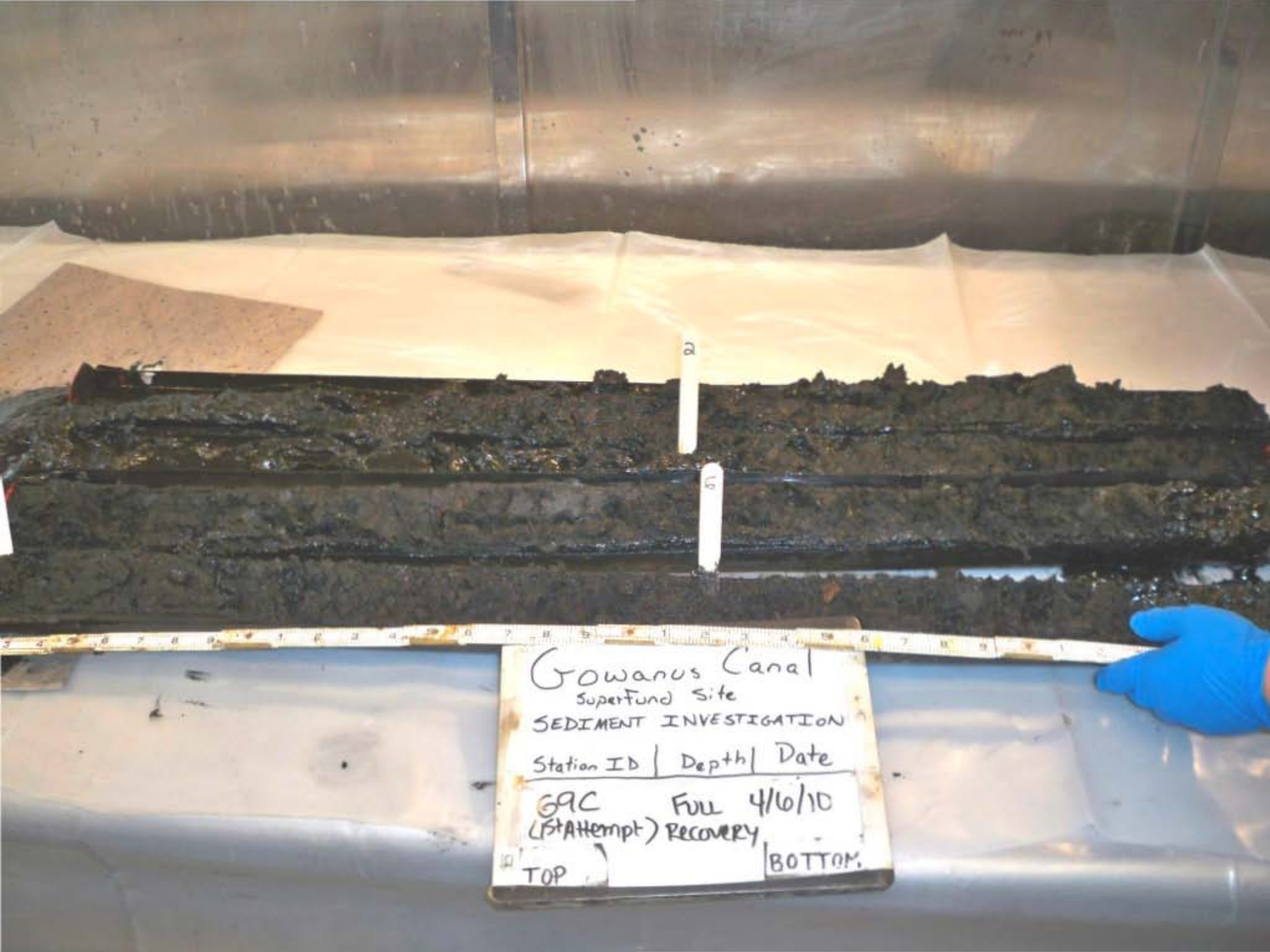

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B Full 4/6/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
68A (2nd Attempt) FULL Recovery 4/5/10
TOP
BOTTOM

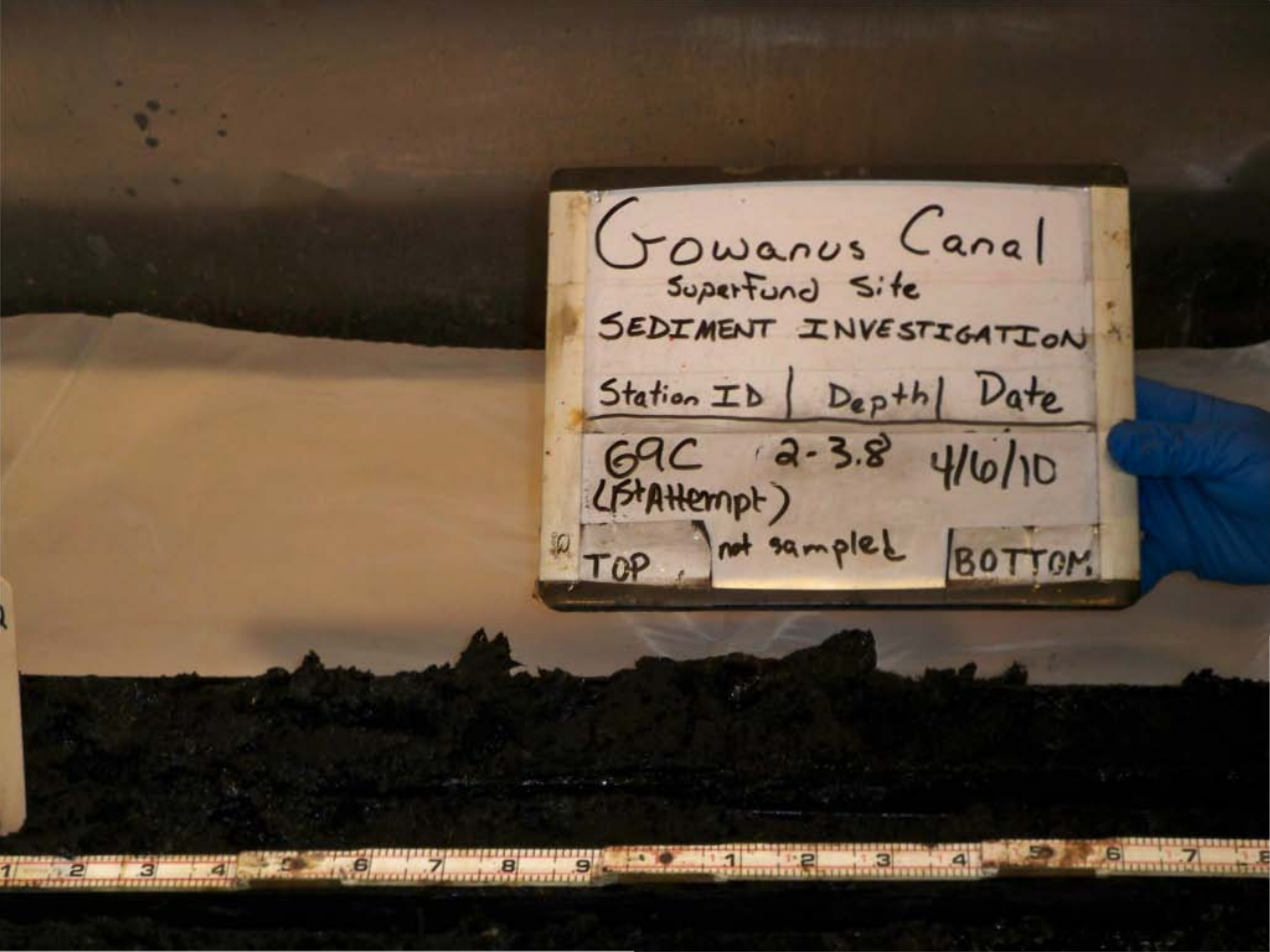

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
68A (2nd Attempt) 0-2' 4/5/10
Not Sampled
TOP
BOTTOM

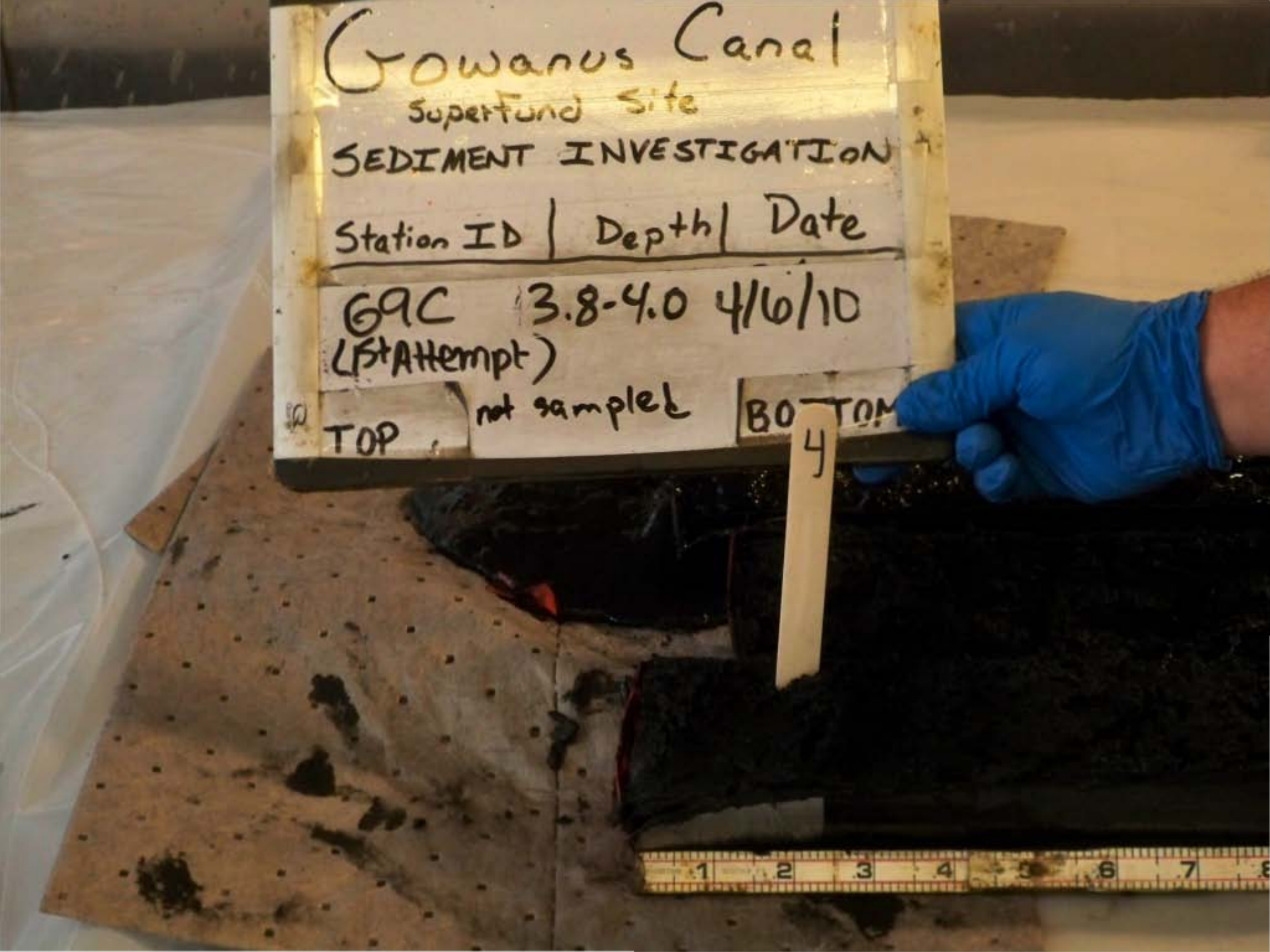

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
68A (2nd Attempt) 2-3.9 4/5/10
Not Sampled
TOP
BOTTOM

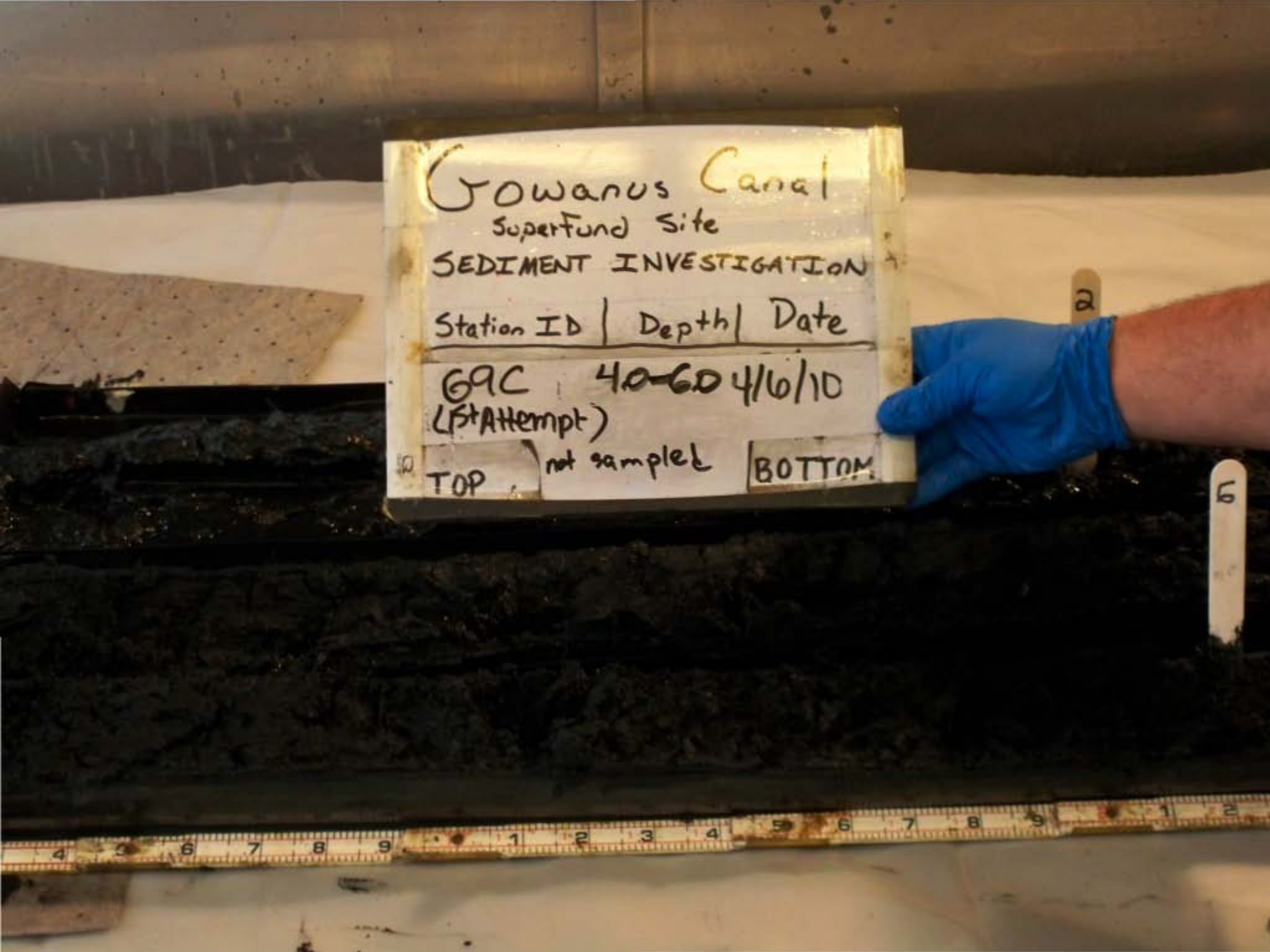

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
68A (3rd Attempt) FULL Recovery 4/5/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GAC (1st Attempt) FULL RECOVERY 4/16/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GAC 0-2' 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
69C 2-3.8 4/6/10
(1st Attempt)
TOP not sampled BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
69C 3.8-4.0 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM
4

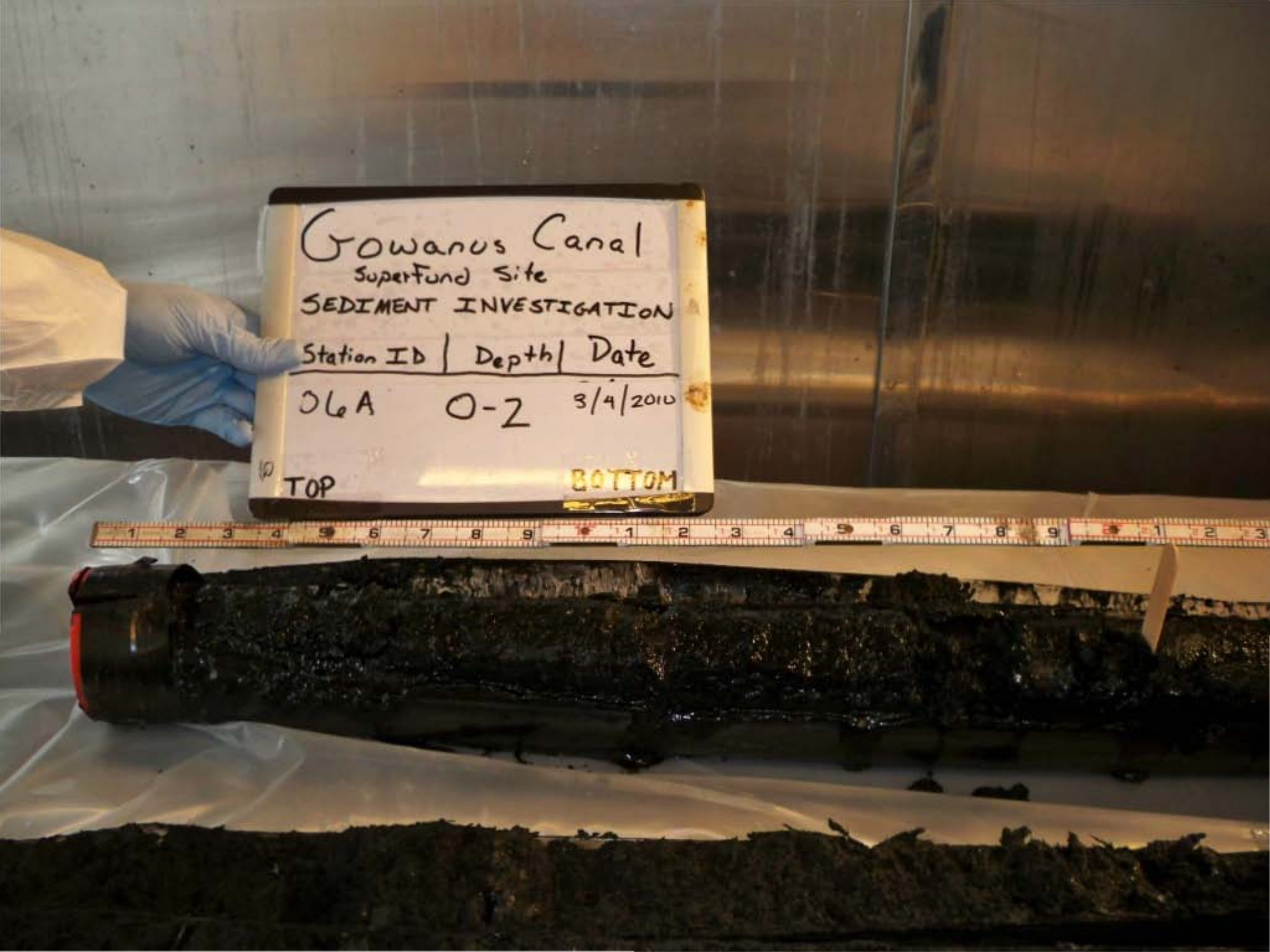

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
69C 4.0-6.0 4/6/10
(1st Attempt)
TOP
not sampled
BOTTOM

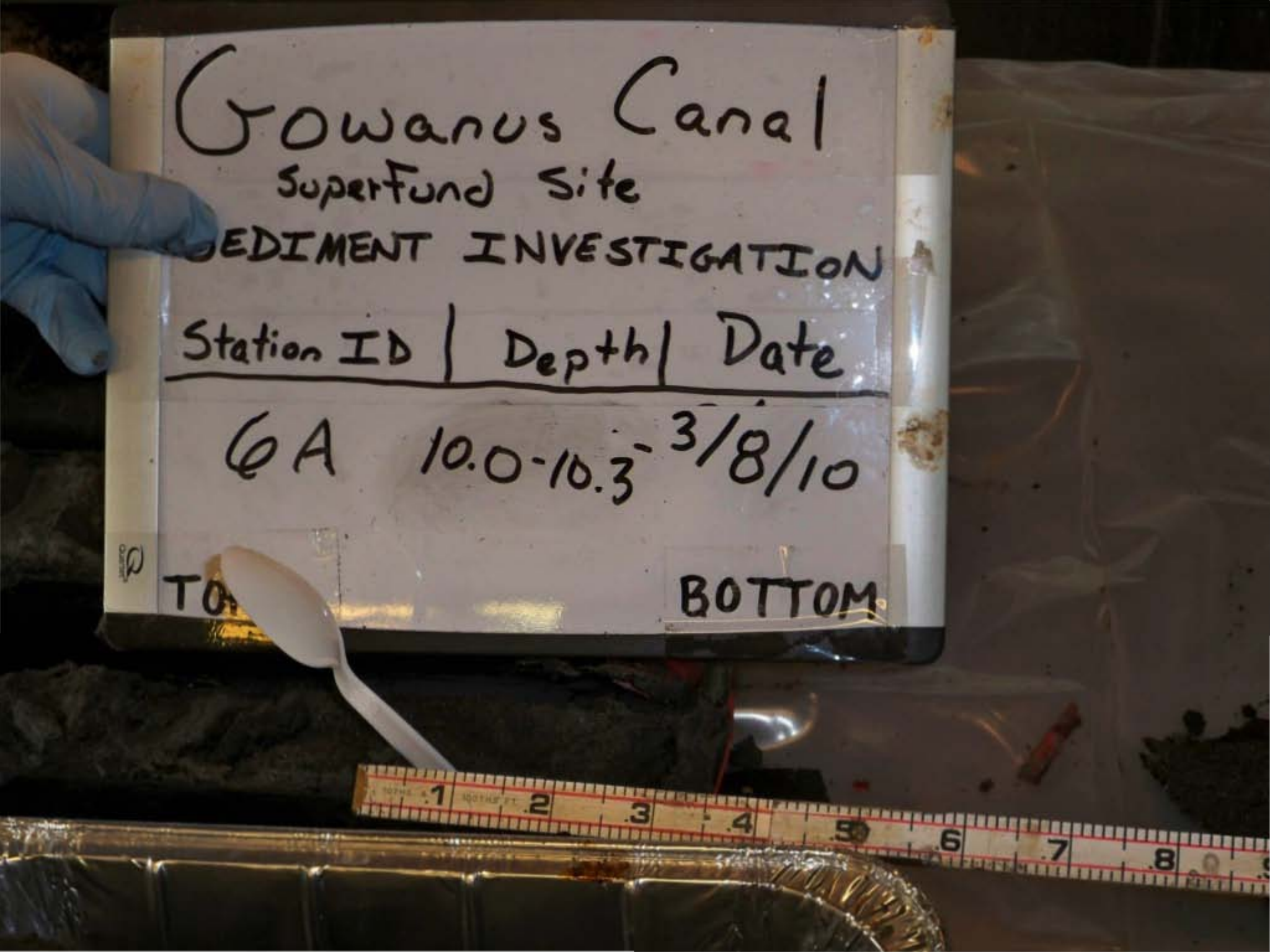

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
69C | 60-77 | 4/6/10
(1st Attempt)
not sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
G9C Full 4/16/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A Entire 3/8/10
Recovery
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 0.0-2.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
06A 0-2 3/4/2010
TOP
BOTTOM

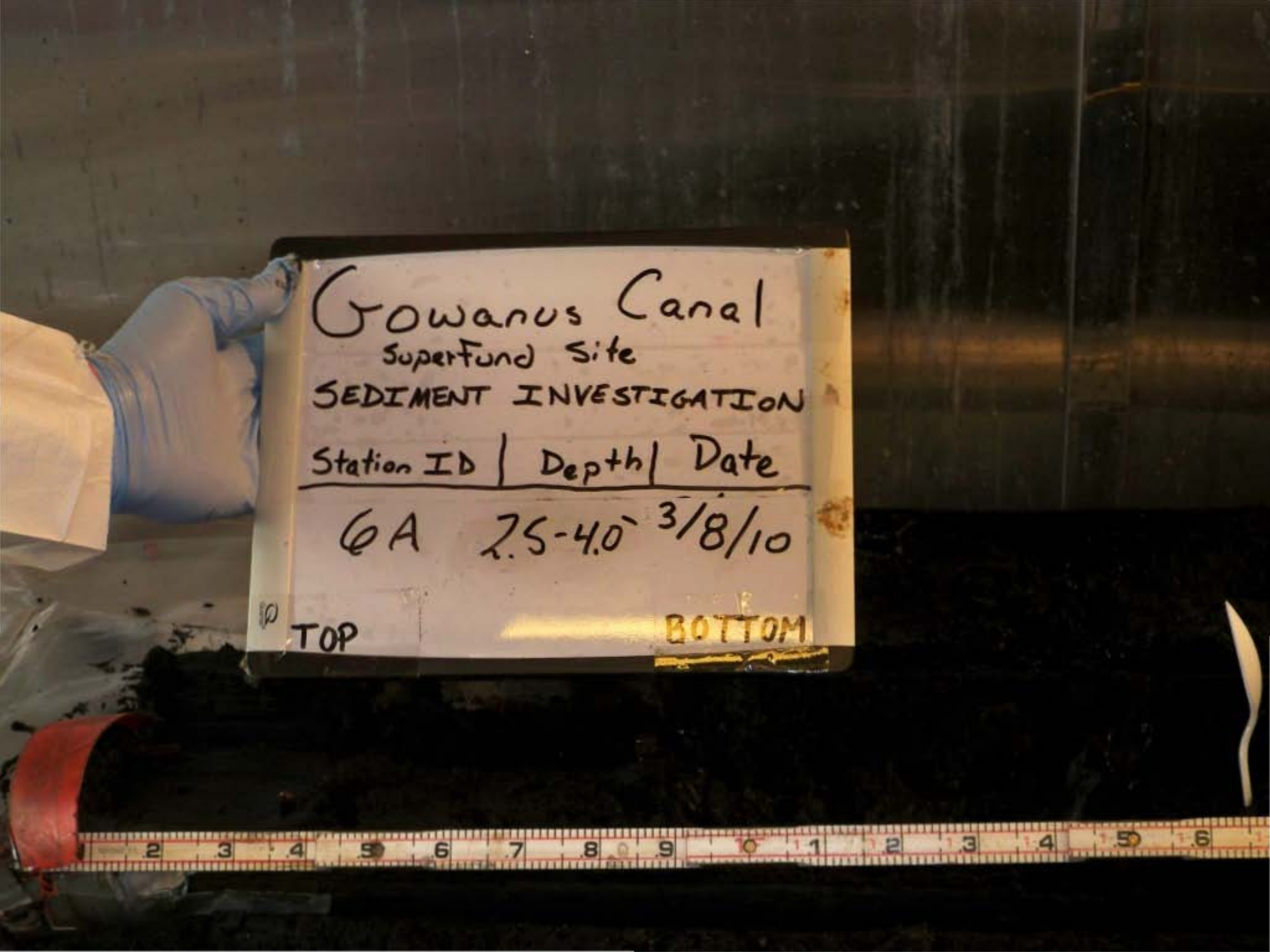

Gowanus Canal
Superfund Site
EDIMENT INVESTIGATION
Station ID | Depth | Date
6A 10.0-10.3 3/8/10
TO
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 10.3-12.0' 3/8/10
TOP
BOTTOM

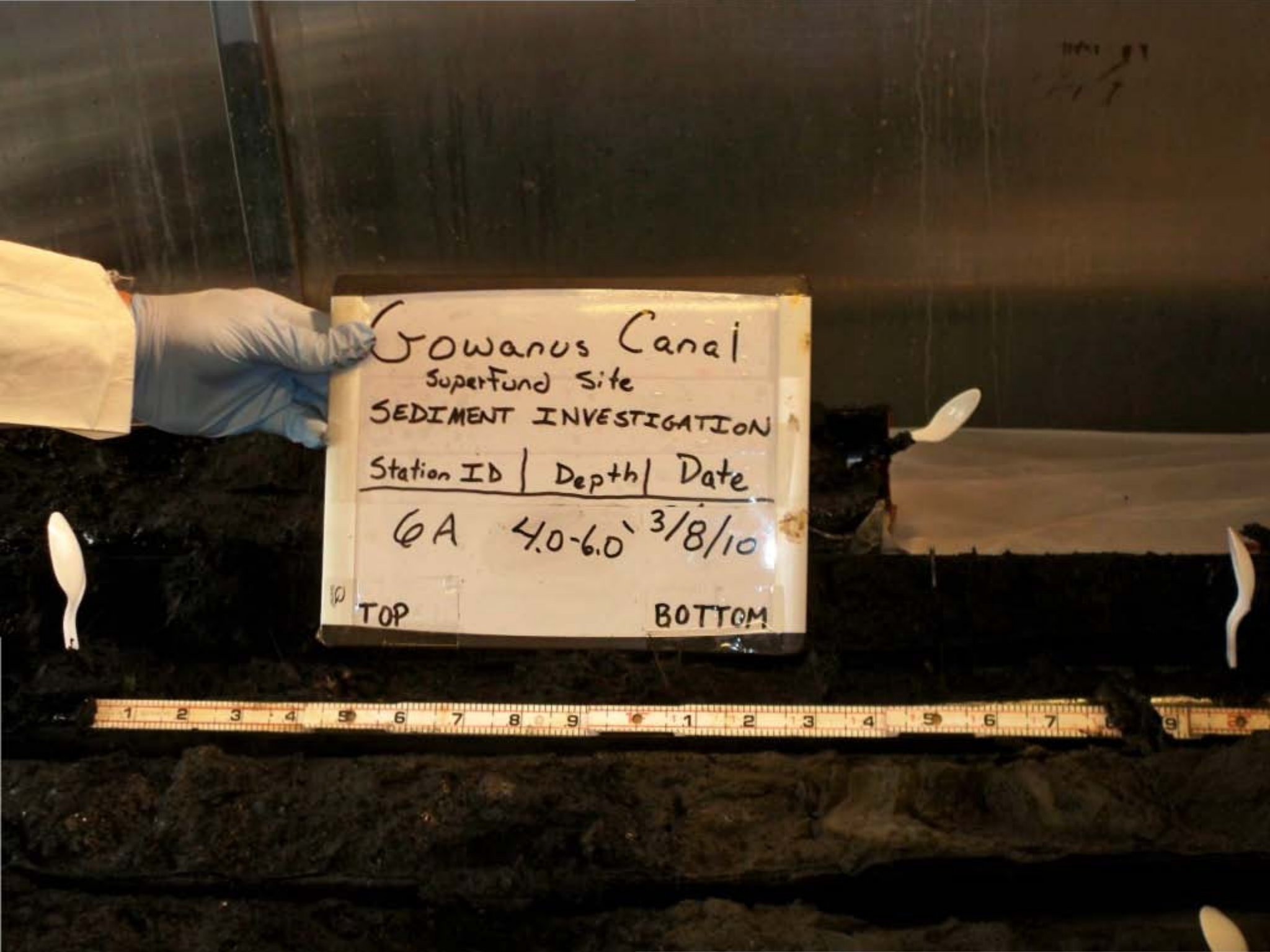

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 12.0-14.0 (approx) 3/8/10
Core broken
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 2.0-2.5' 3/8/10
TOP
BOTTOM

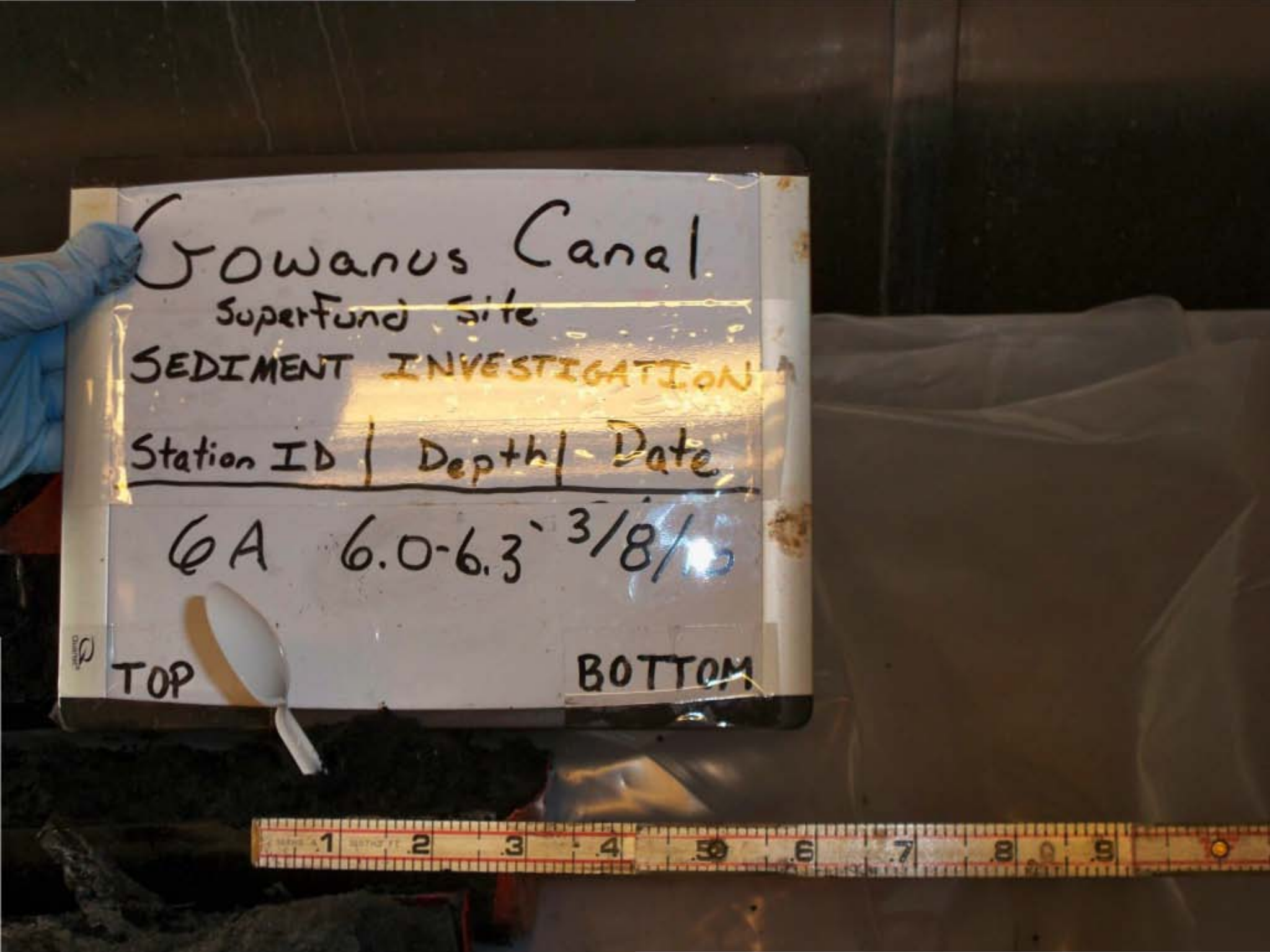

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
06A 2-4 3/4/2010
TOP
BOTTOM

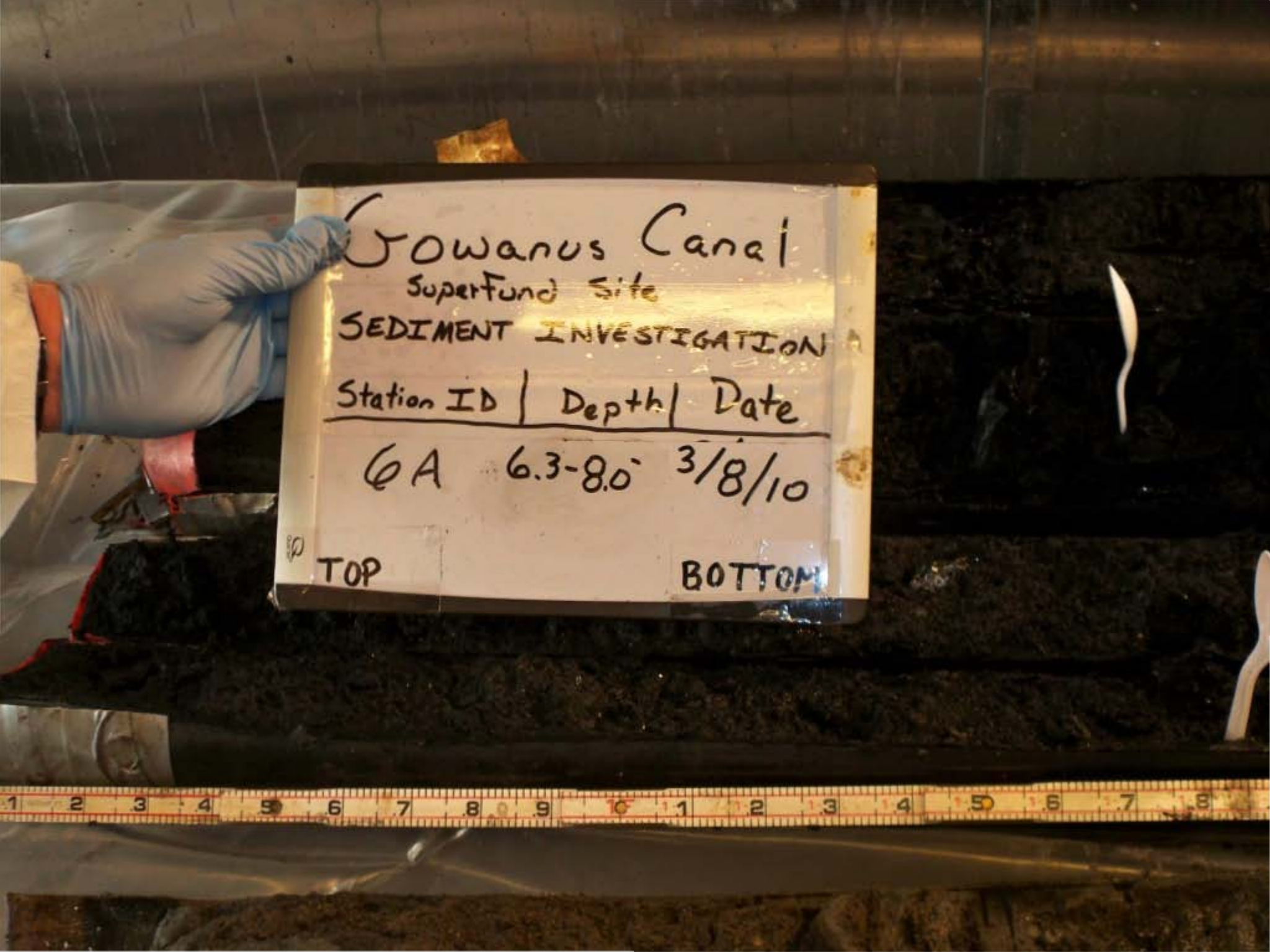

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GA 2.5-4.0' 3/8/10
TOP
BOTTOM

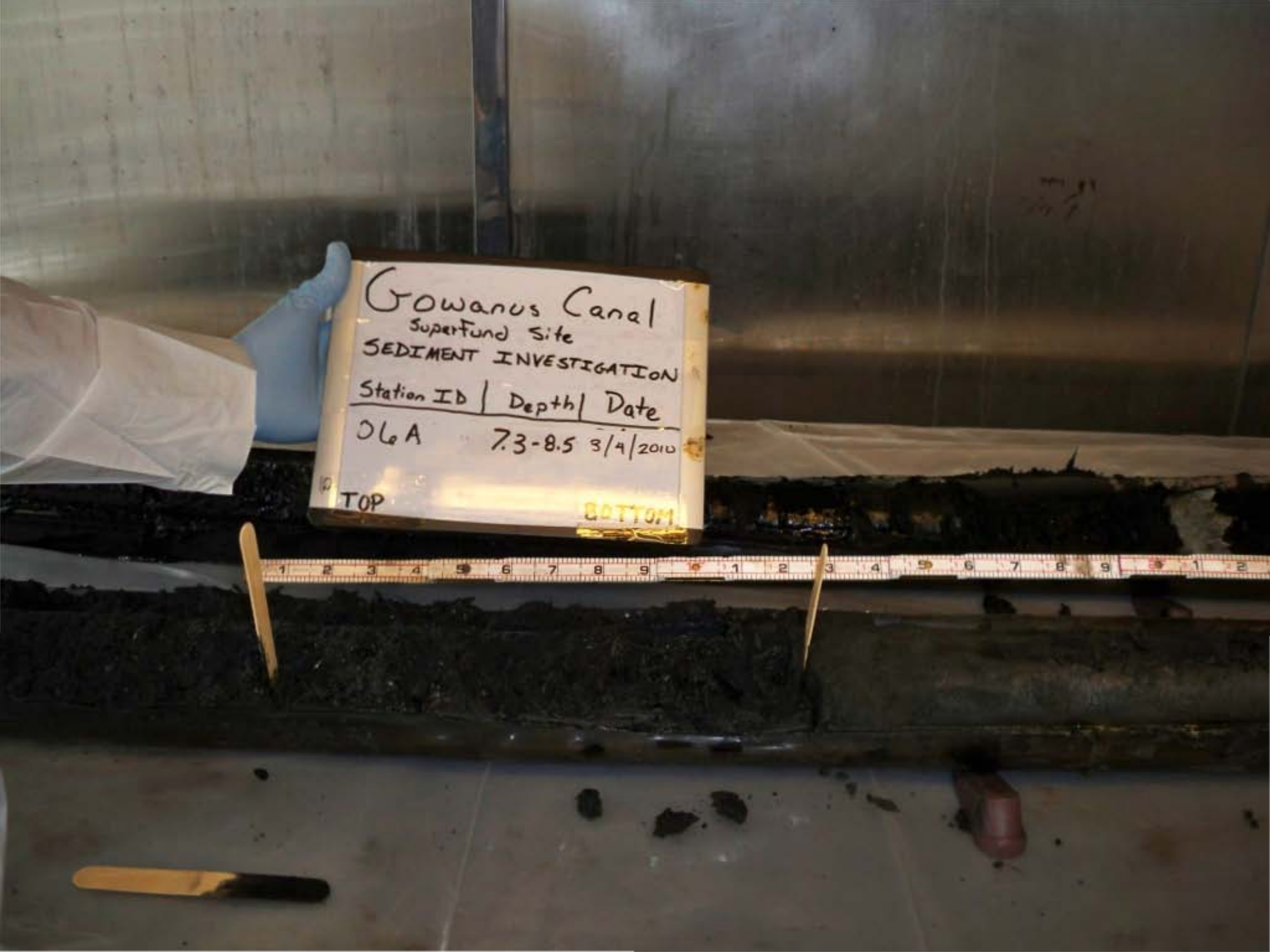

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
06A 4-5.3 3/4/2010
TOP
BOTTOM

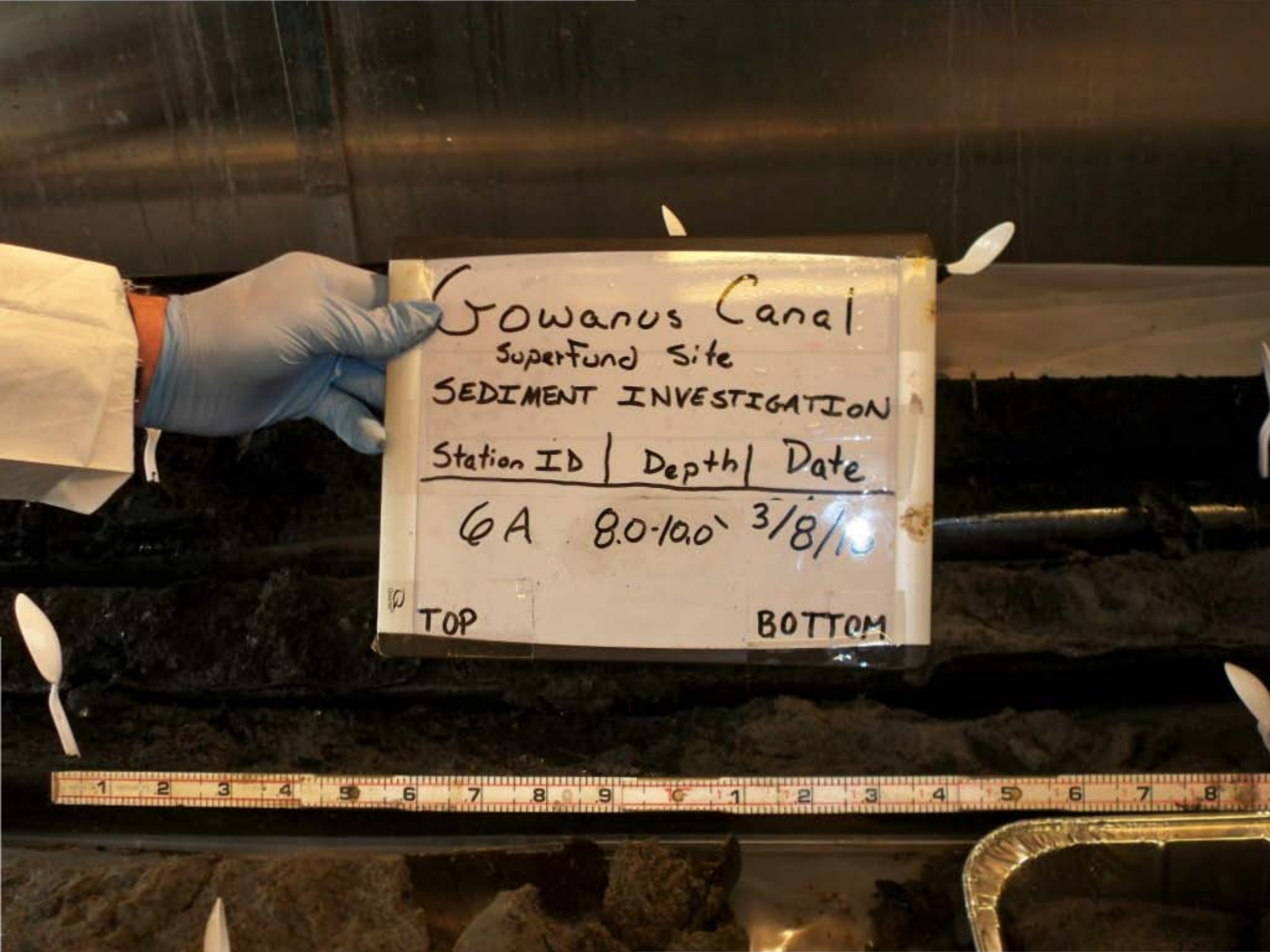

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 4.0-6.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
OL A 5.3-7.3 9/9/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 6.0-6.3' 3/8/
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 6.3-8.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
06A 7.3-8.5 3/4/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A 8.0-10.0' 3/8/1
TOP
BOTTOM

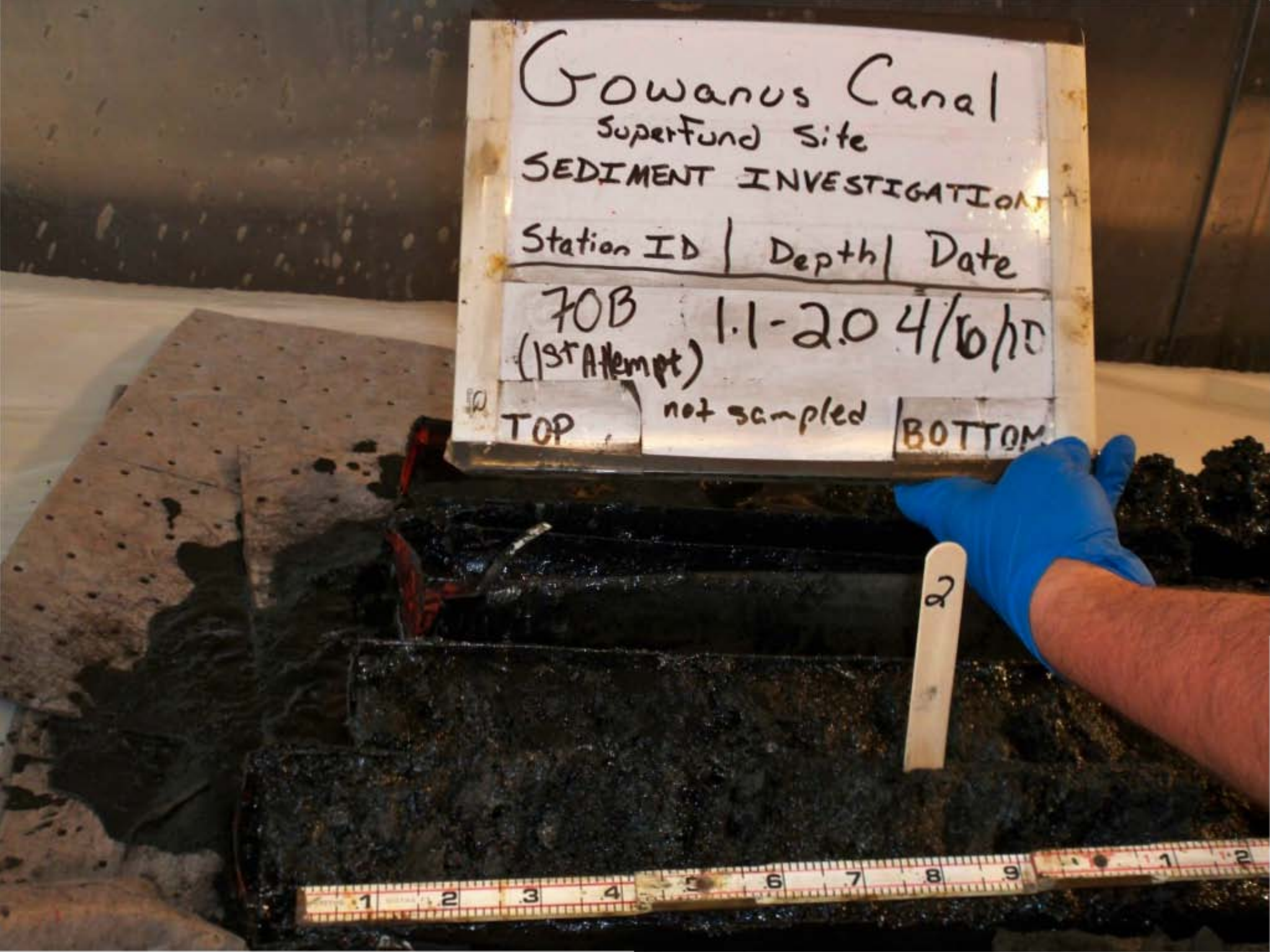

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
06A 8.5-10' 3/9/2010
Native Material
TOP
BOTTOM

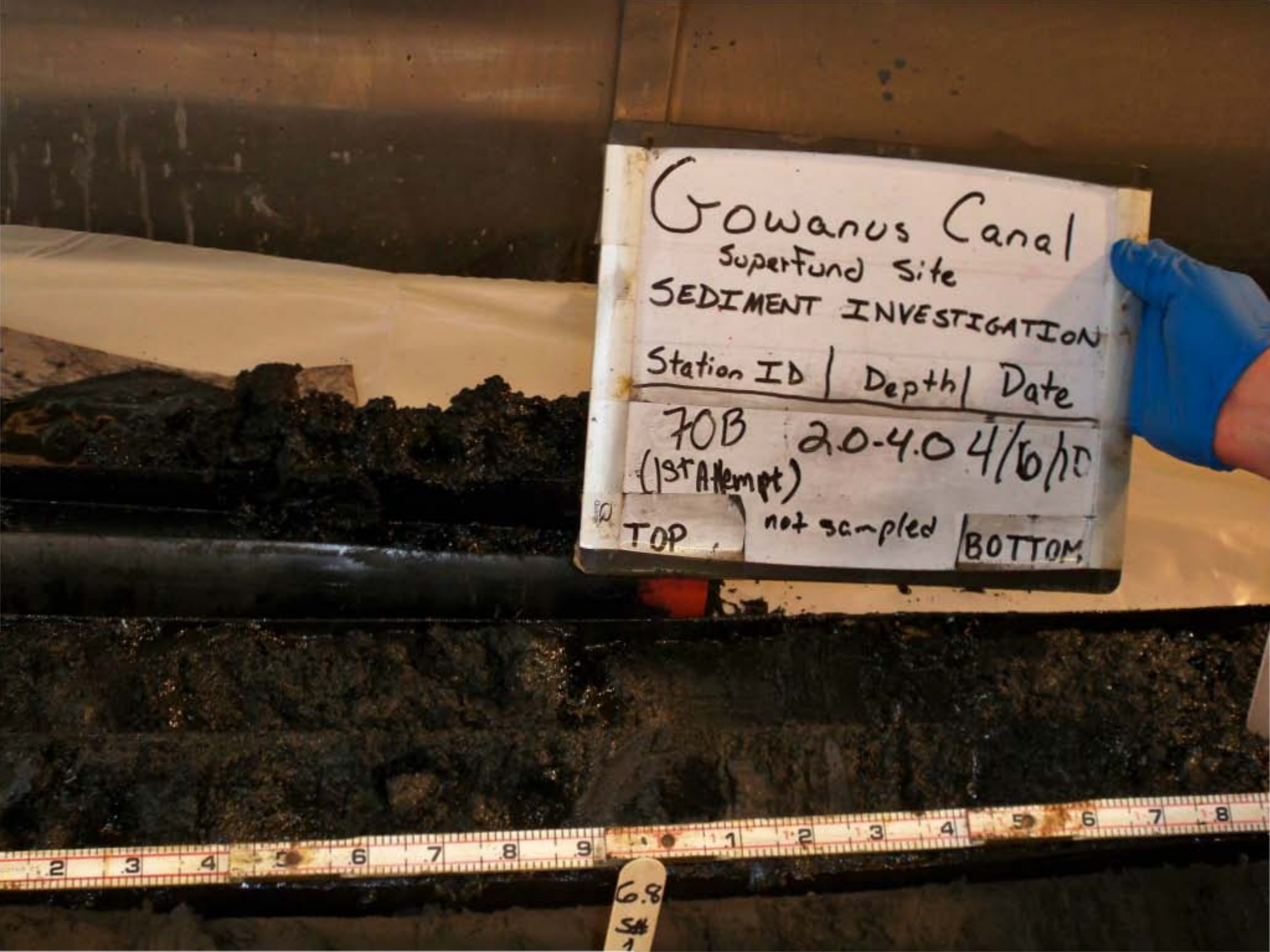

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A
broken
core
12-0-14.0
3/8/10
TOP
BOTTOM

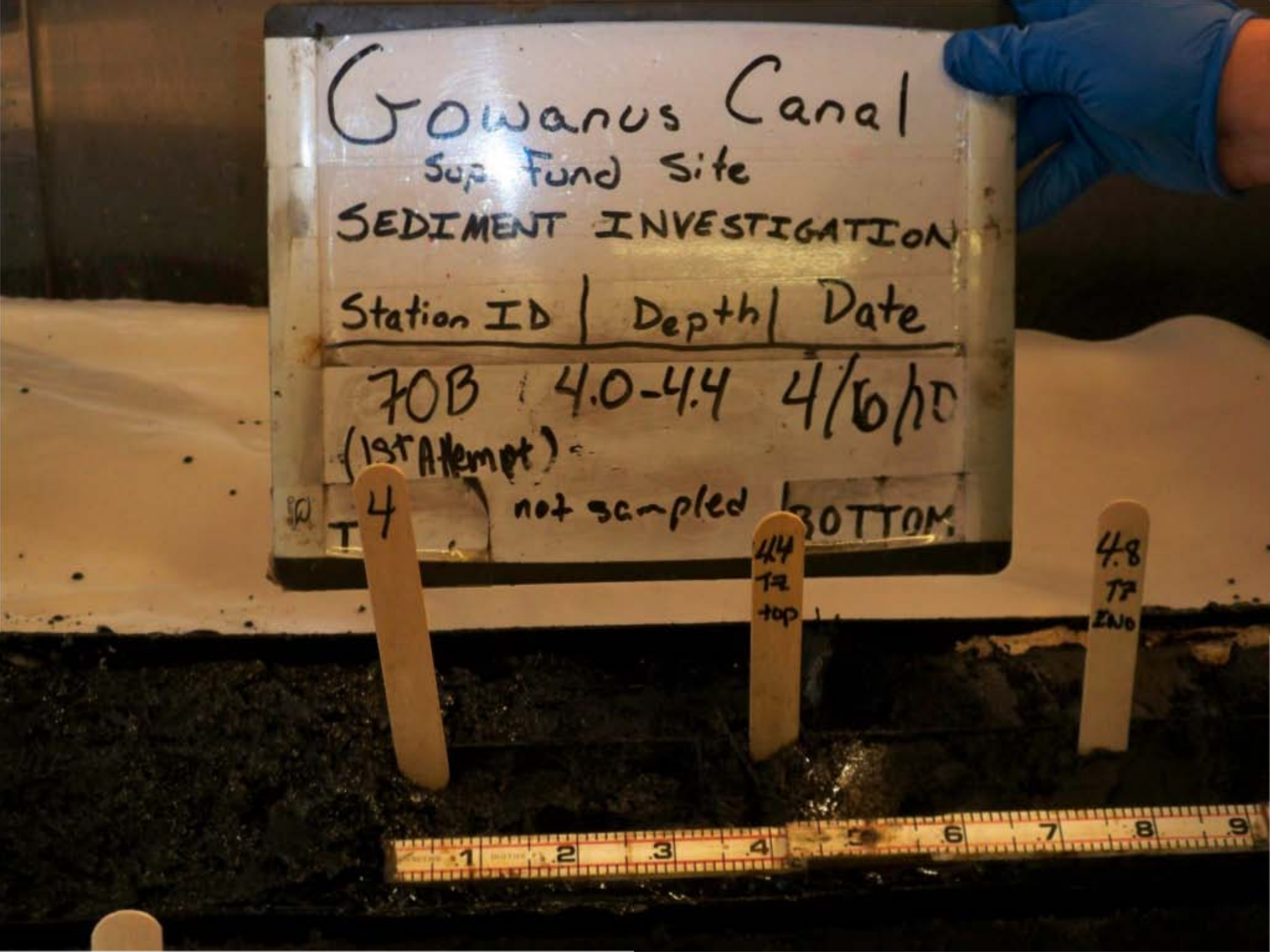

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GA Entire 3/8/10
Recovery
BOTTOM

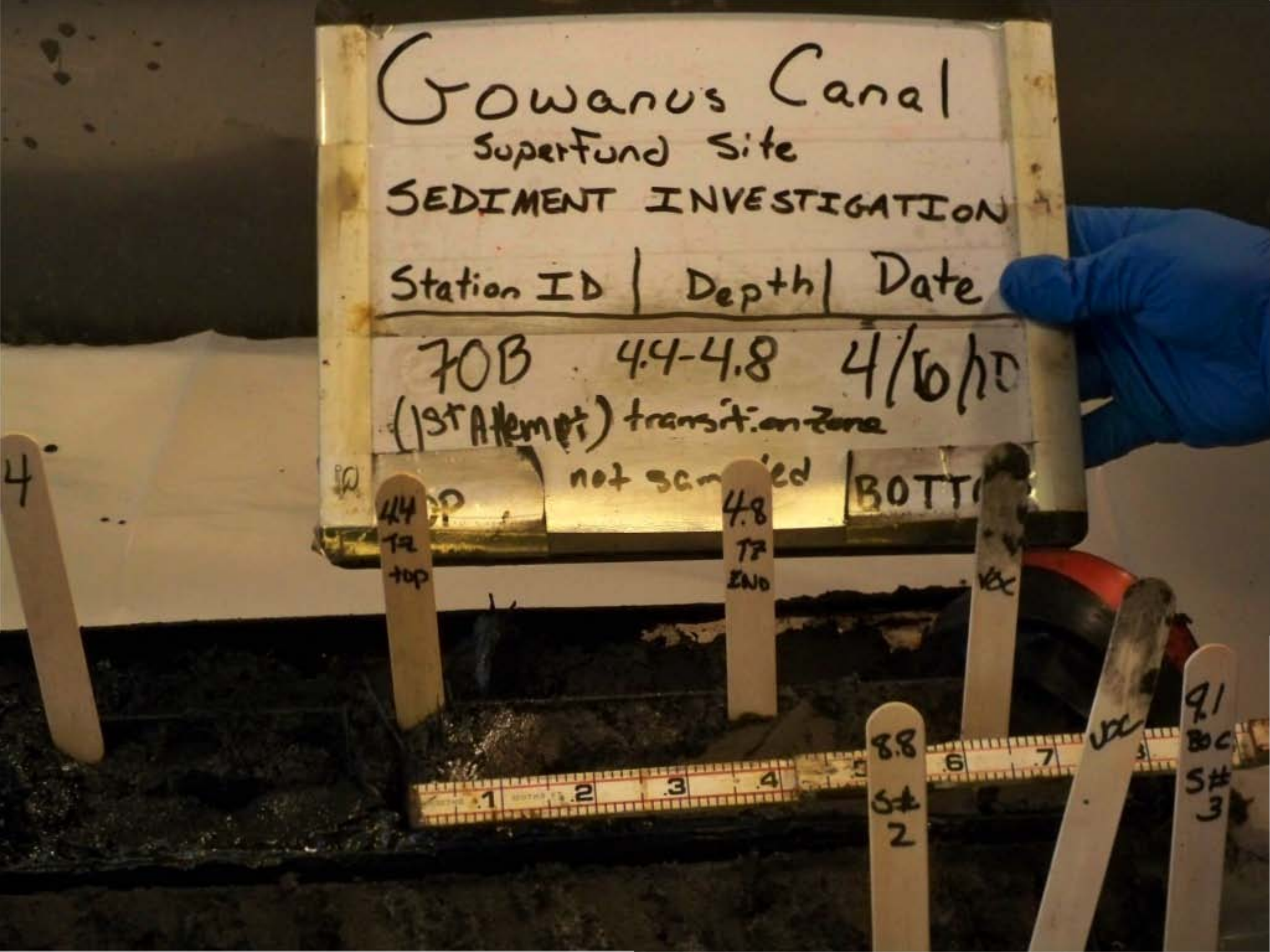

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B FULL 4/6/11
(1ST Attempt) RECOVERY
TOP
BOTTOM

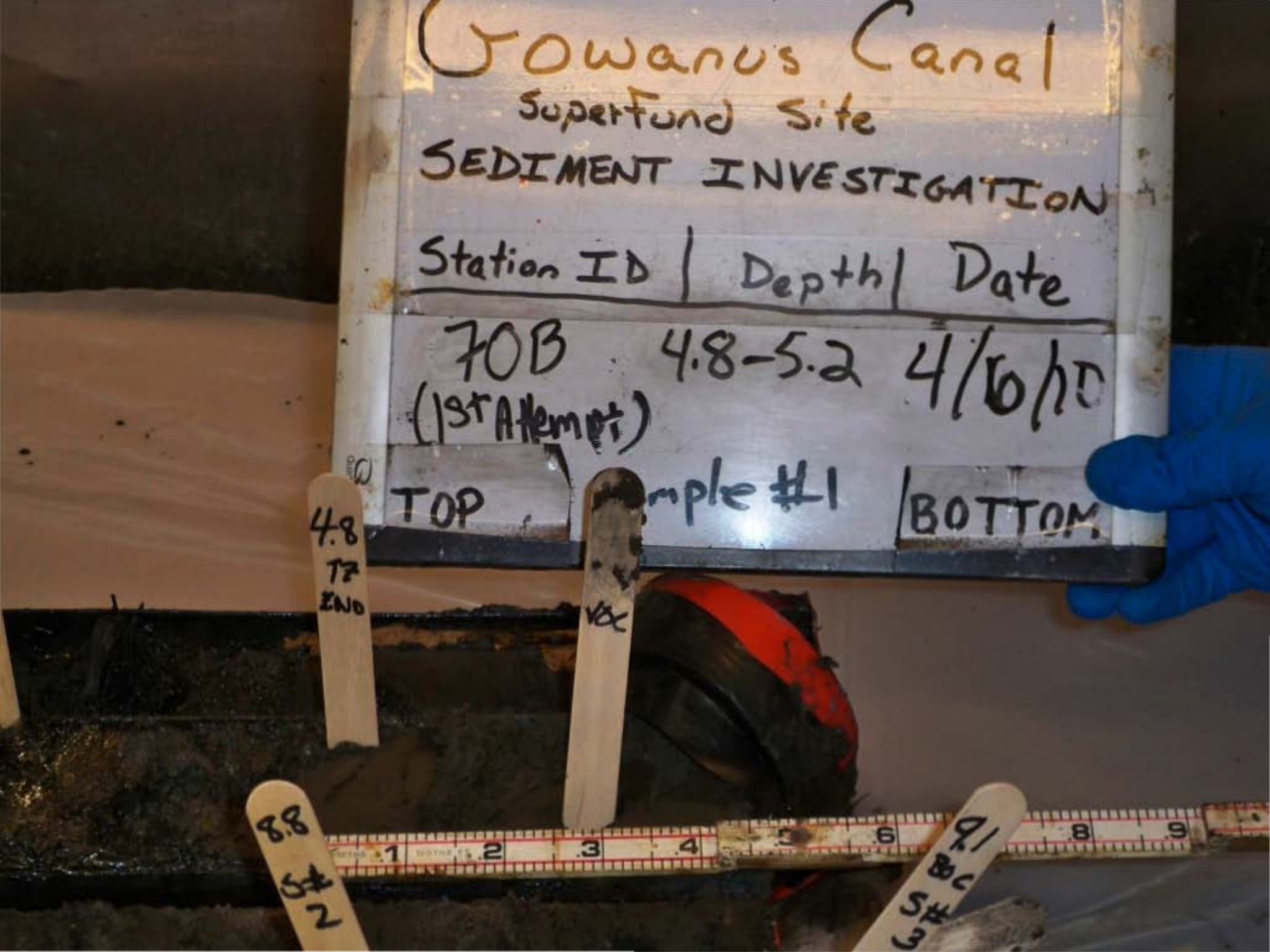

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B 0-1.1 4/6/10
(1st Attempt)
TOP
not sampled
BOTTOM

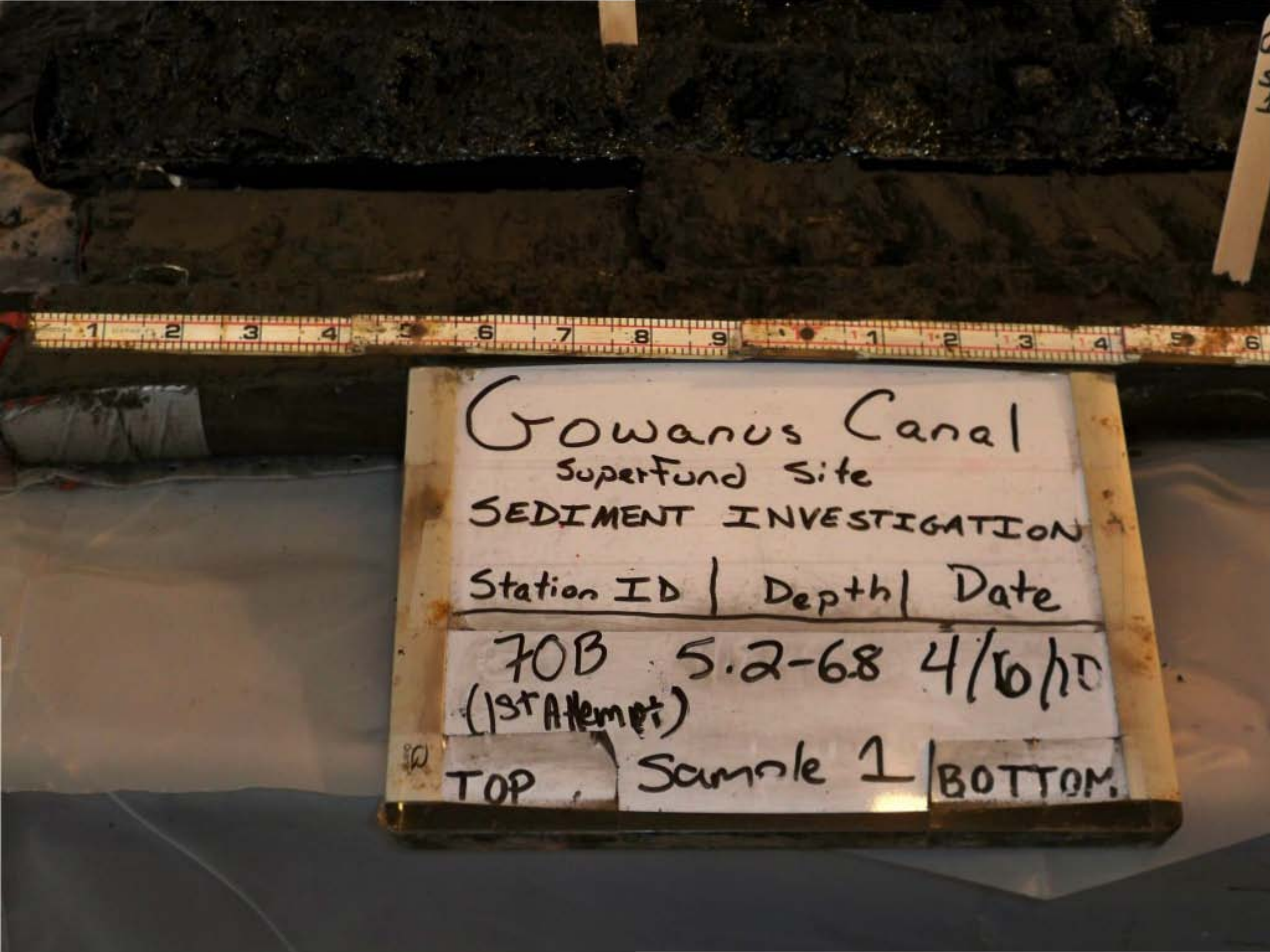

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B (1st Attempt) 1.1-2.0 4/6/10
TOP
not sampled
BOTTOM
2

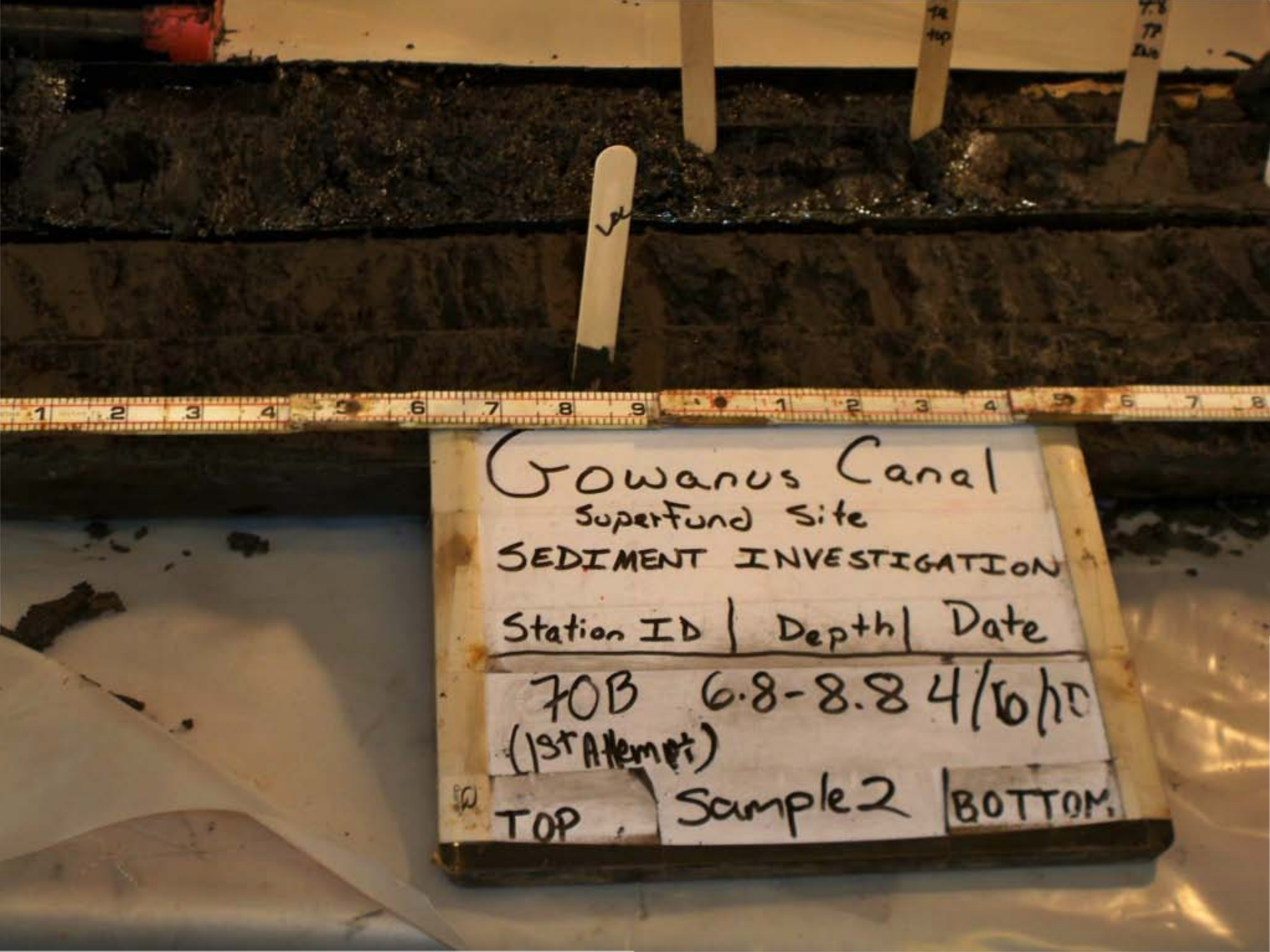

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B 2.0-4.0 4/6/10
(1st Attempt)
TOP not sampled BOTTOM
6.8

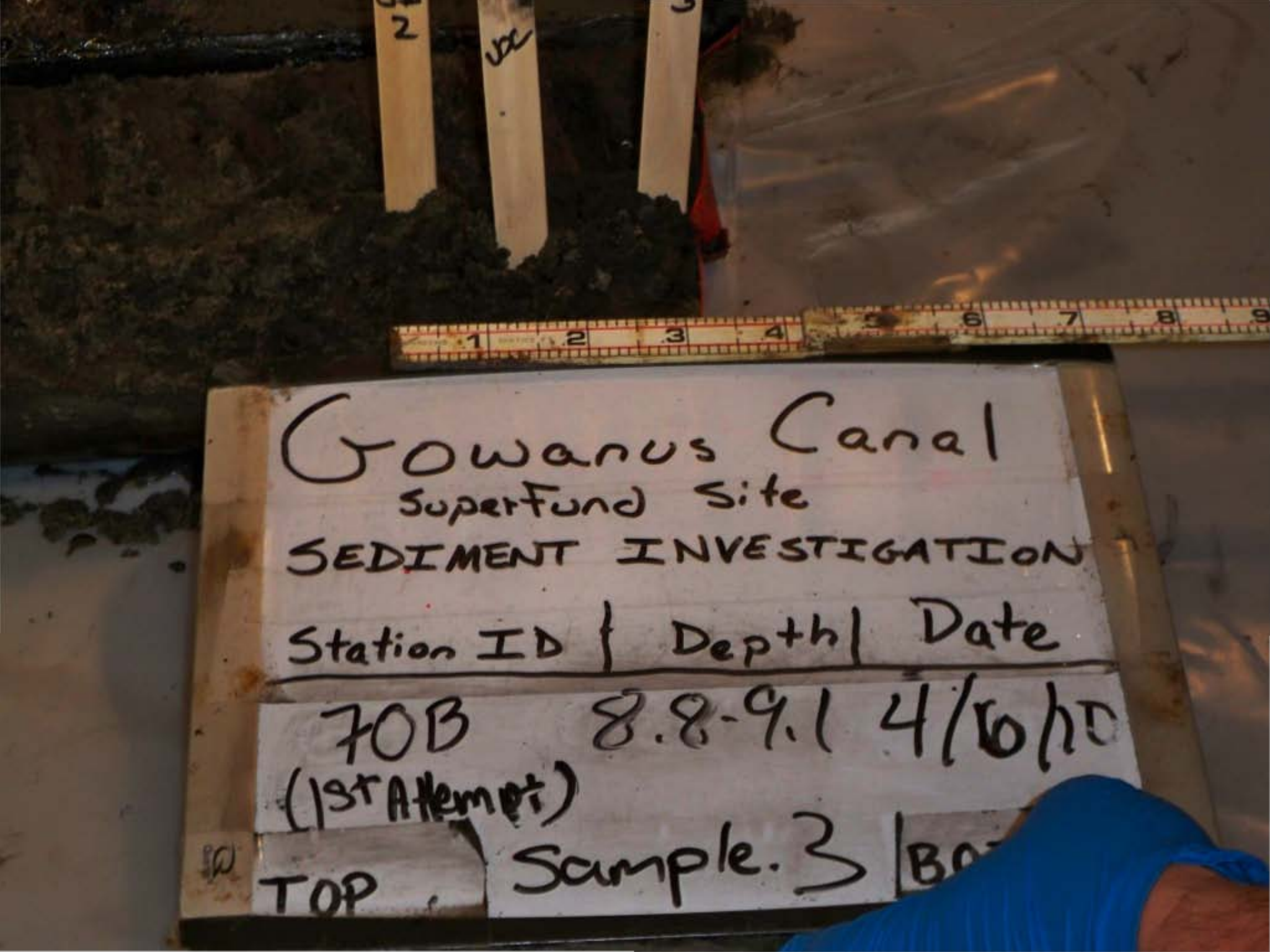

Gowanus Canal
Sup Fund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B | 4.0-4.4 | 4/6/10
(1st Attempt)
not sampled
BOTTOM
4
4.4
TR
top
4.8
TR
END

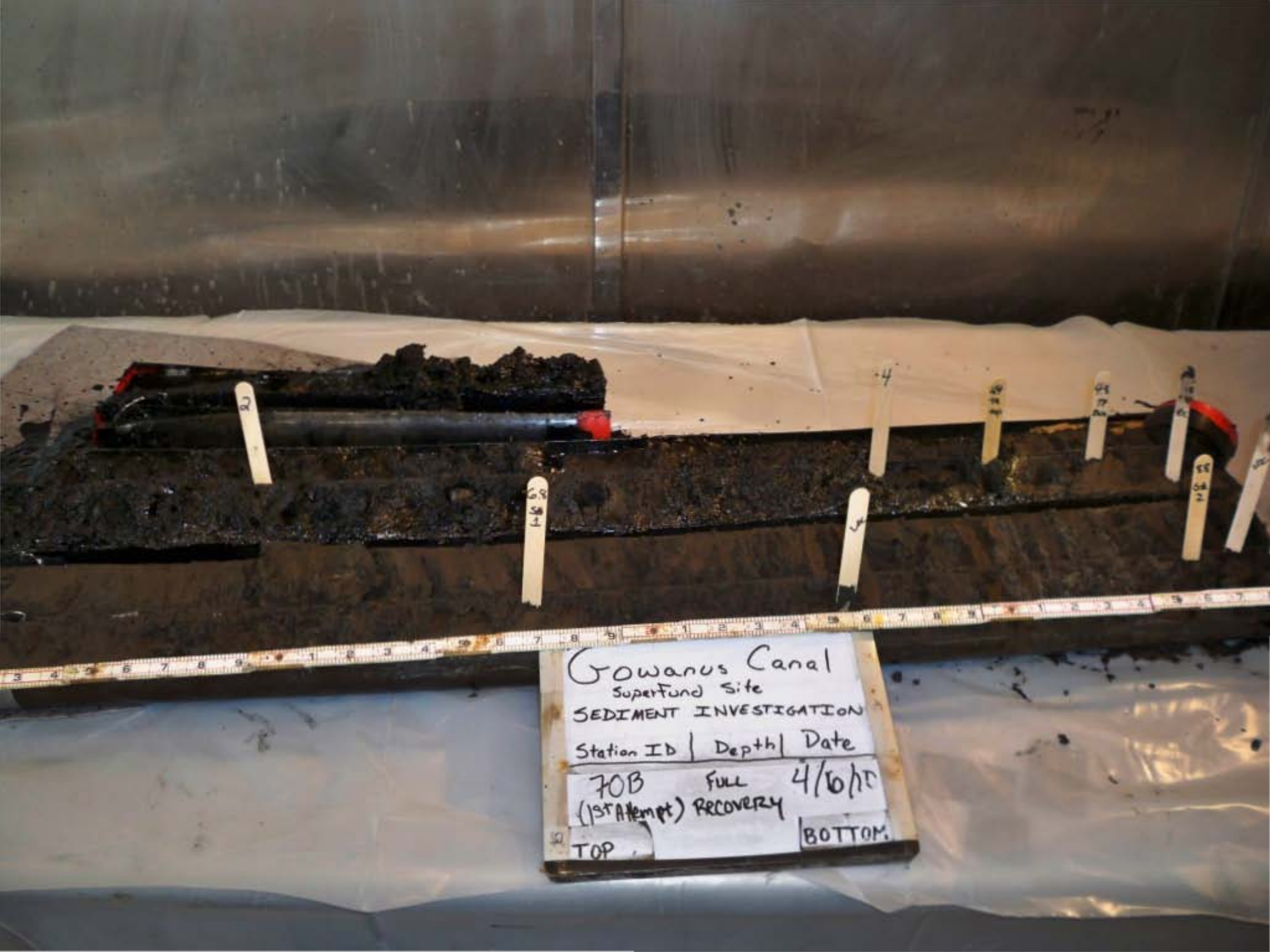

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B 4.4-4.8 4/6/10
(1st Attempt) transition zone
not sampled
4.4 TZ top
4.8 TZ END
8.8 S# 2
91 BC S# 3
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B 4.8-5.2 4/6/10
(1st Attempt)
TOP
mple #1
BOTTOM
4.8
TZ
ZNO
VOC
8.8
S#
2
9.1
BOC
S#
3

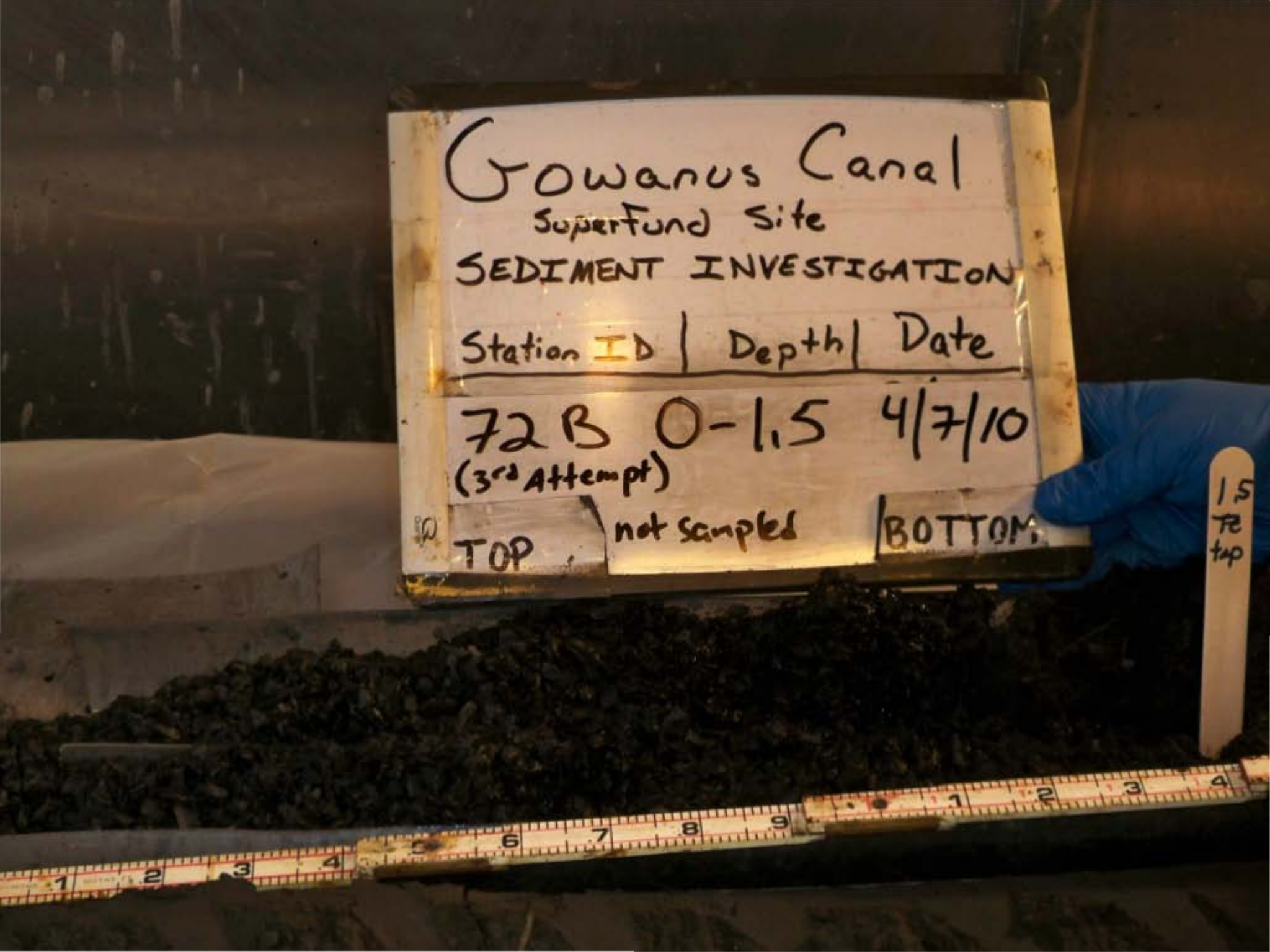

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B 5.2-68 4/6/10
(1st Attempt)
TOP Sample 1 BOTTOM

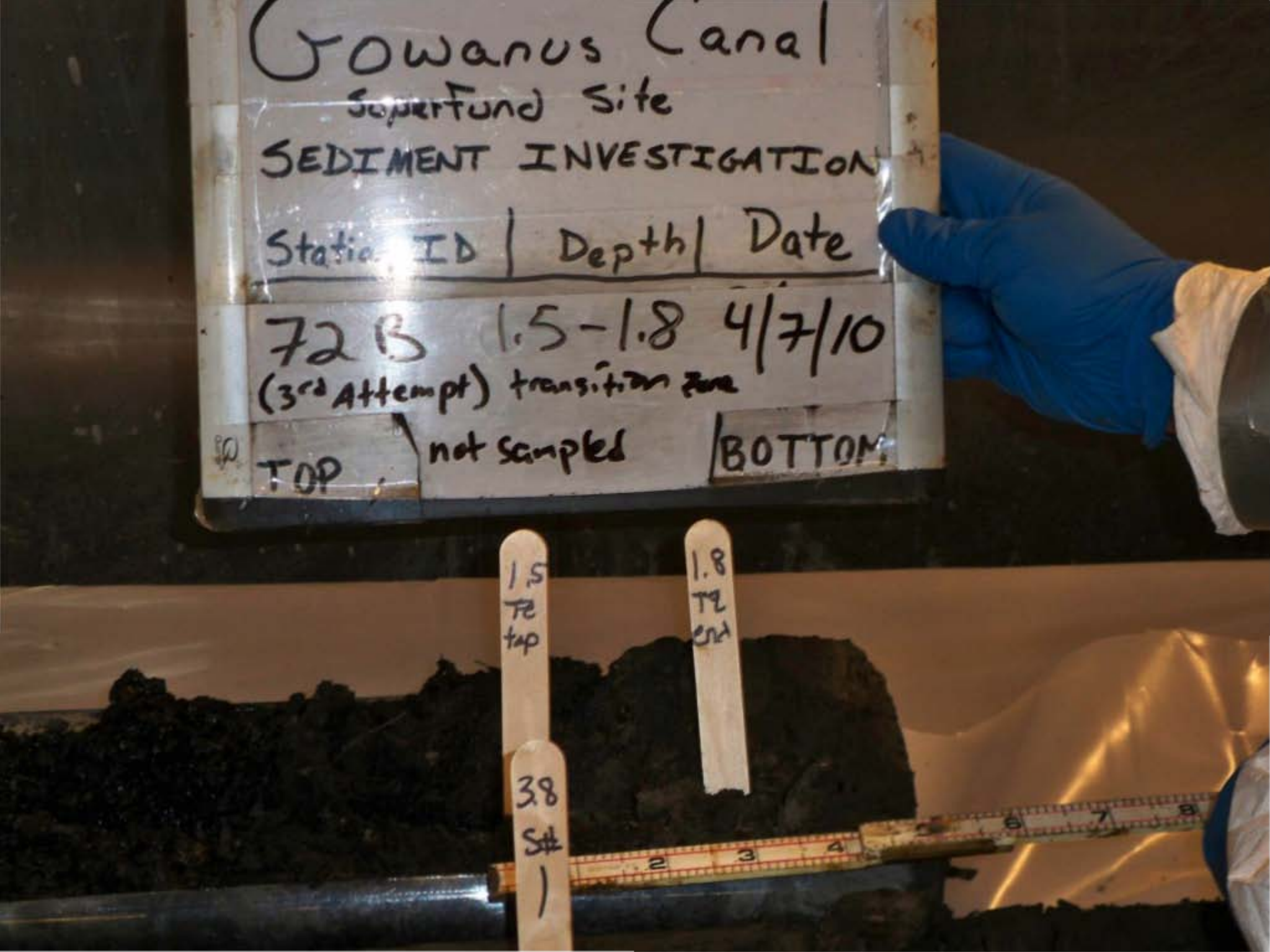

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B 6.8-8.8 4/6/10
(1st Attempt)
TOP Sample 2 BOTTOM

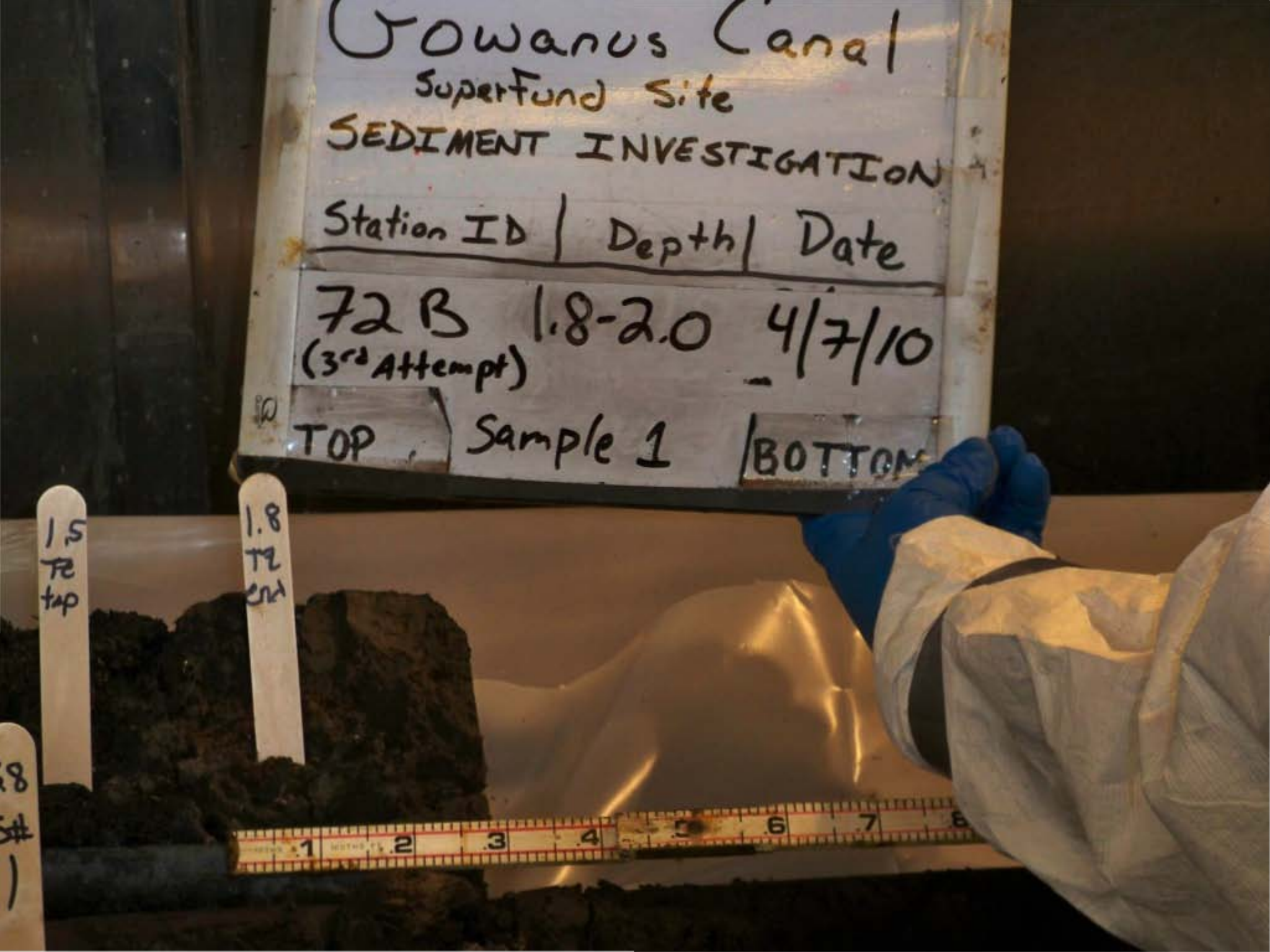

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B 8.8-9.1 4/16/10
(1st Attempt)
TOP Sample. 3

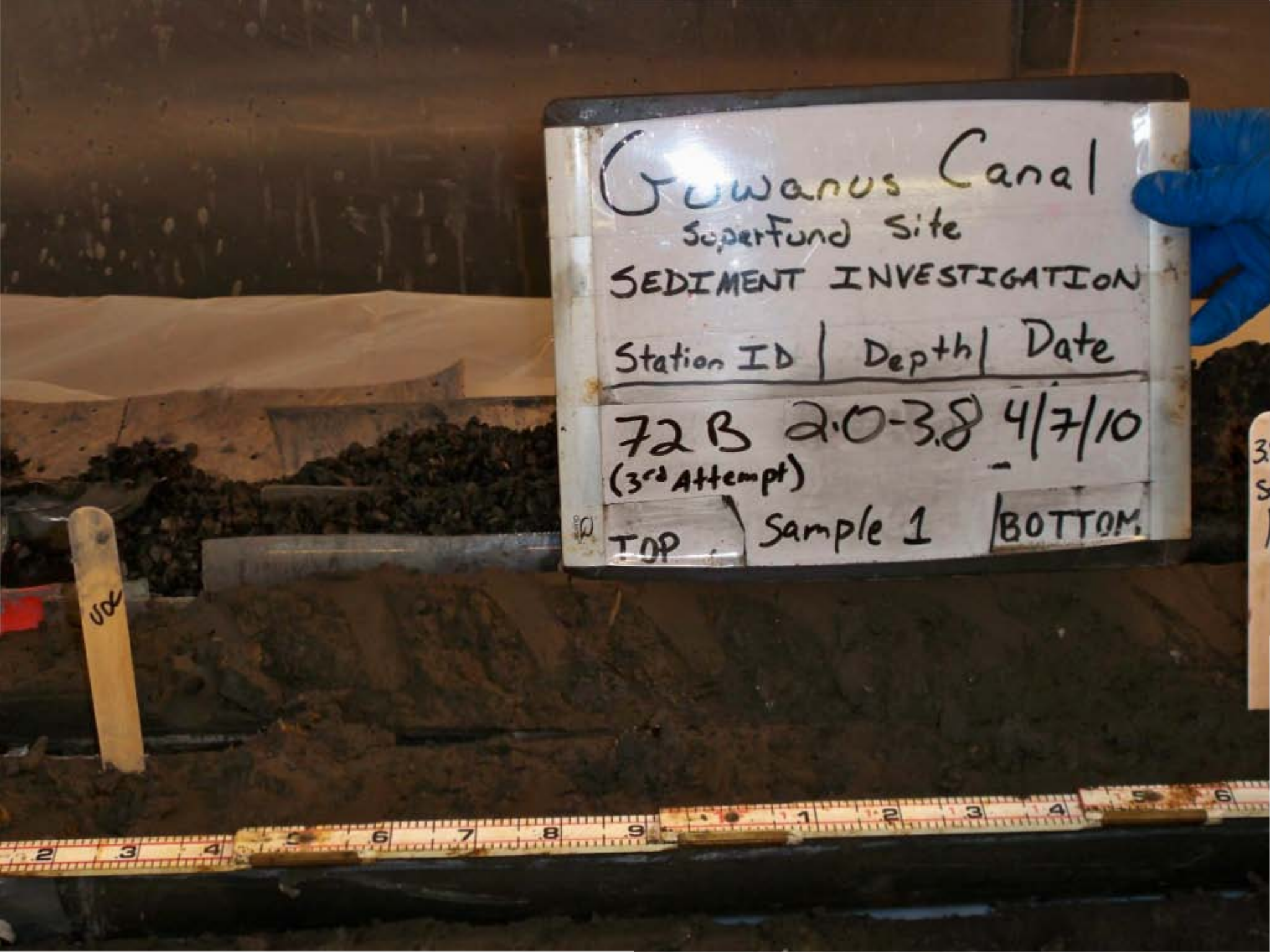

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B (1st Attempt) FULL RECOVERY 4/6/11
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72 B
(3rd Attempt) FULL
4/7/10
TOP
RECOVERY
BOTTOM

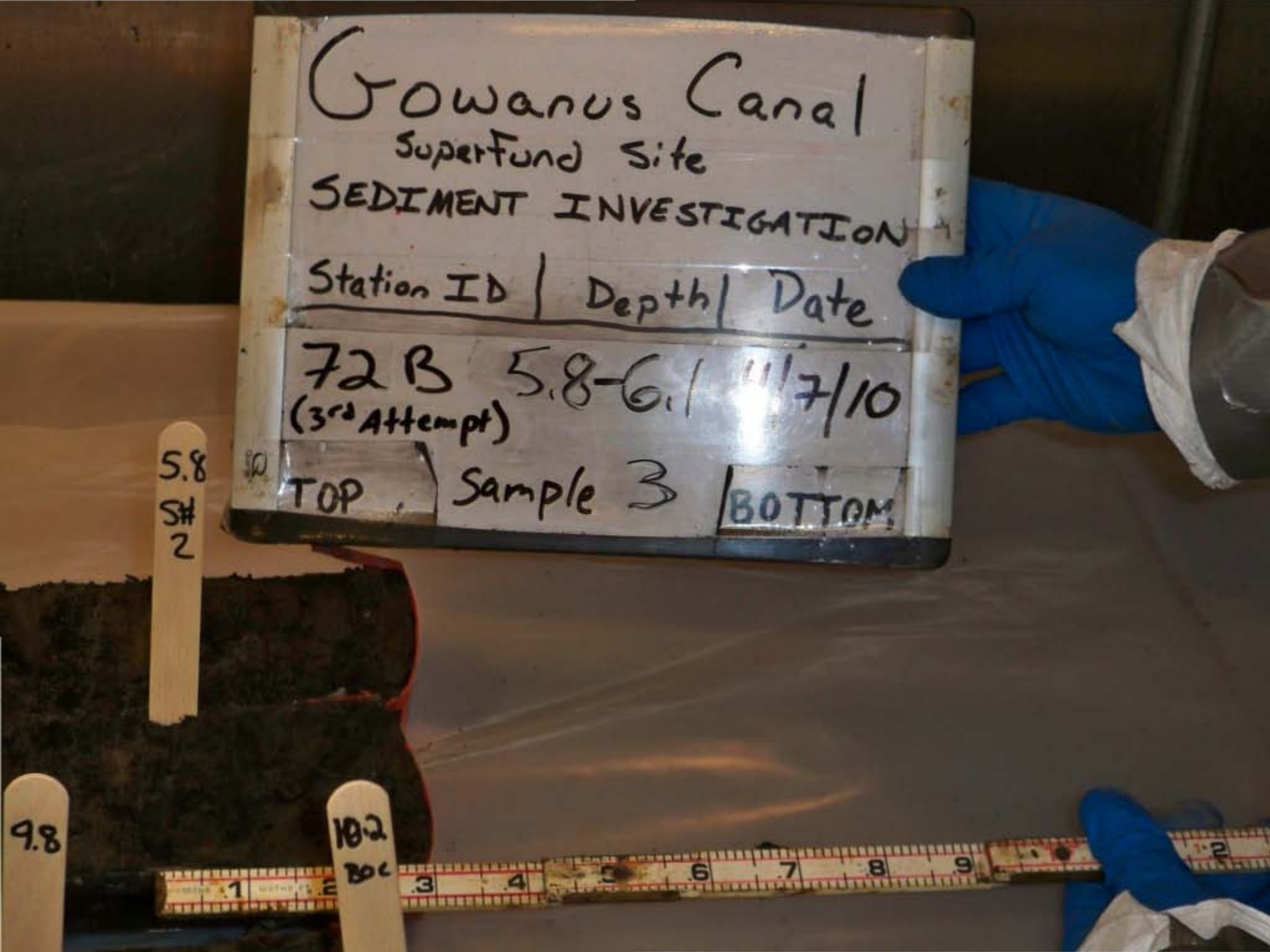

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72B 0-1.5 4/7/10
(3rd Attempt)
TOP
not sampled
BOTTOM
1.5 Ft tap

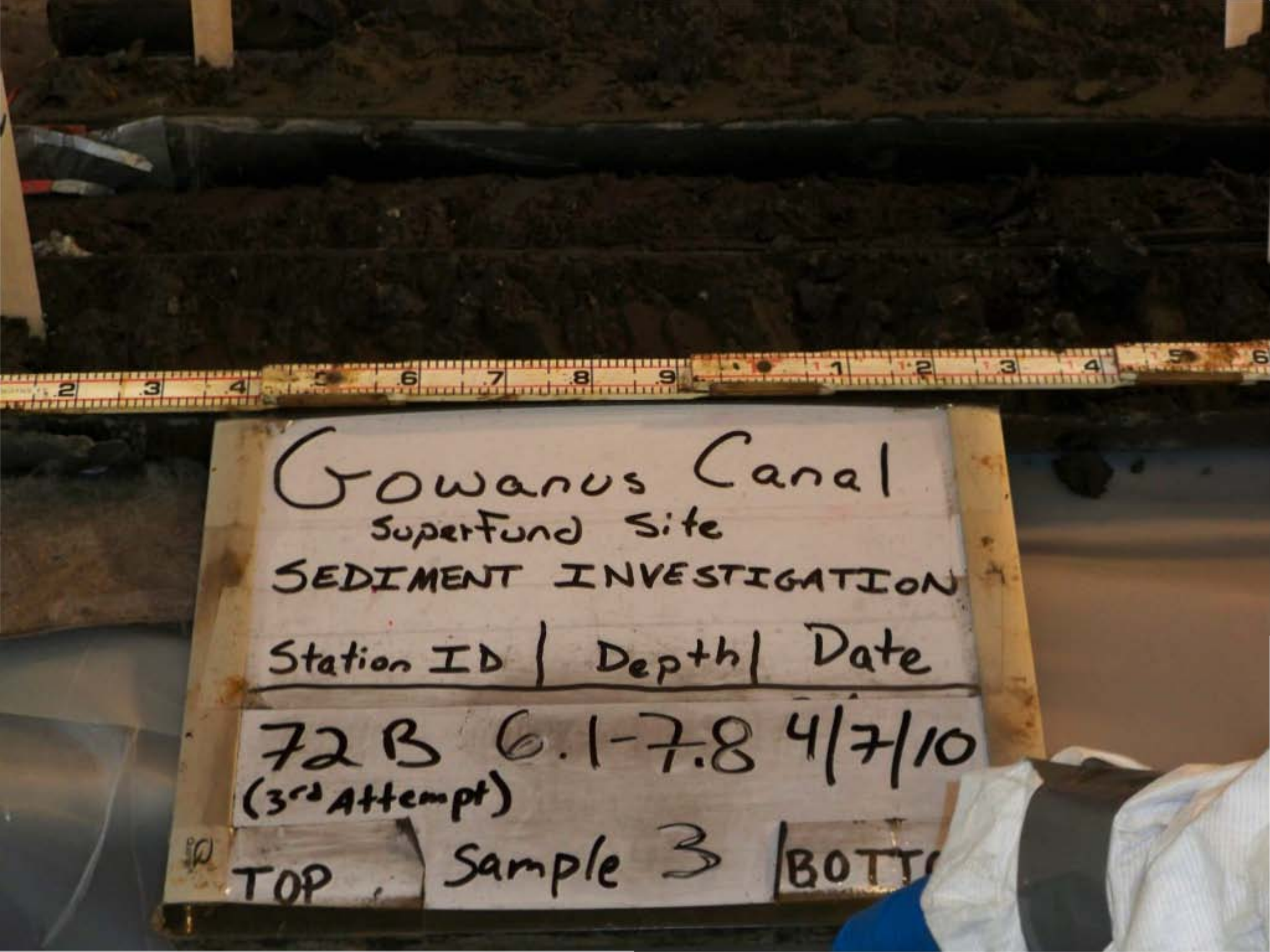

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Static ID | Depth | Date
72B 1.5-1.8 4/7/10
(3rd Attempt) transition zone
TOP
not sampled
BOTTOM
1.5 TZ top
1.8 TZ end
38 St# 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72B 1.8-2.0 4/7/10
(3rd Attempt)
TOP Sample 1 BOTTOM
1.5 TP top
1.8 TP end

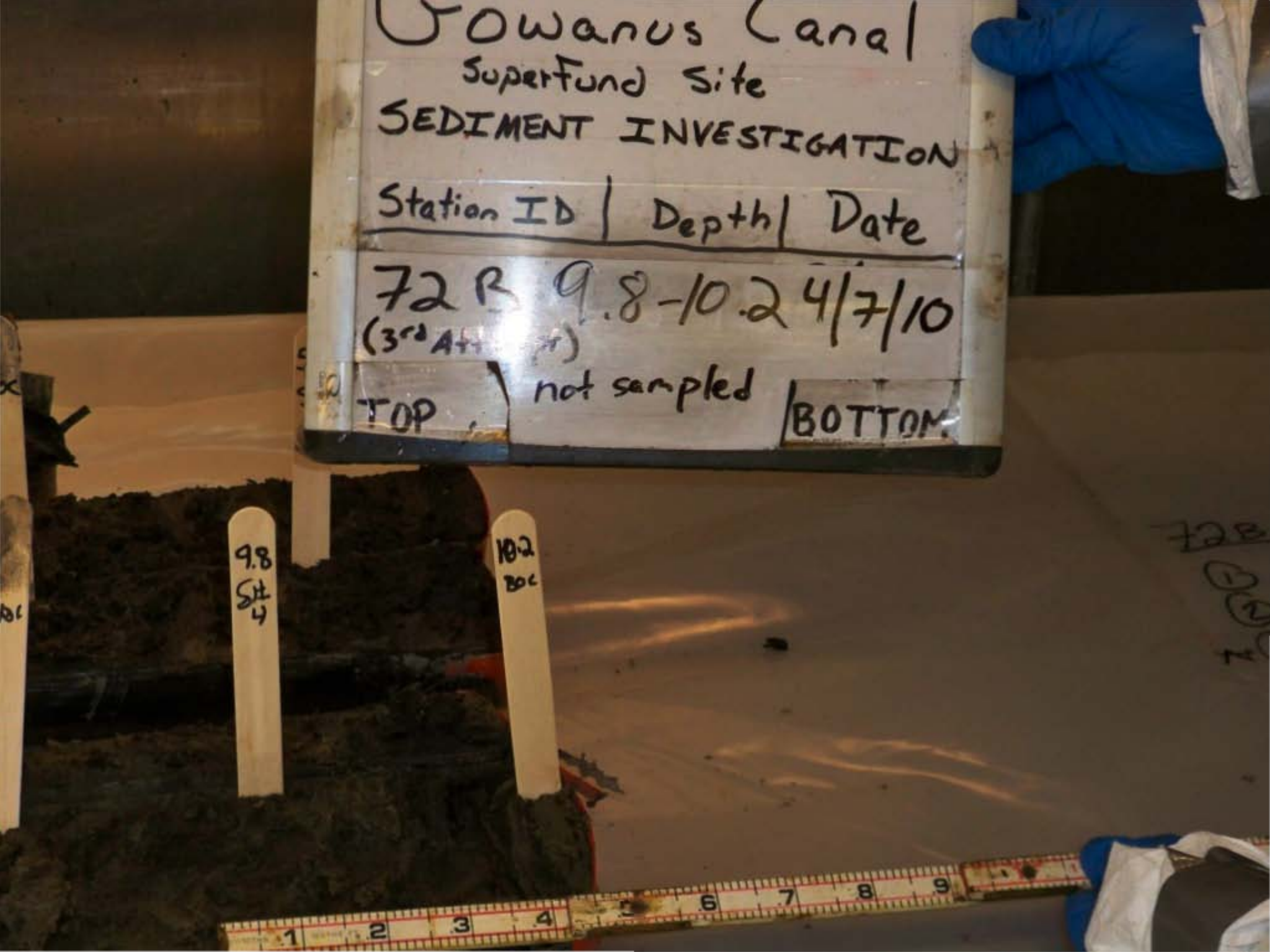

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72B 2.0-3.8 4/7/10
(3rd Attempt)
TOP Sample 1 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72B 3.85.8 4/7/10
(3rd Attempt)
TOP Sample 2 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72B 5.8-6.1 11/7/10
(3rd Attempt)
TOP Sample 3 BOTTOM
5.8
SH
2
9.8
10.2
BOC

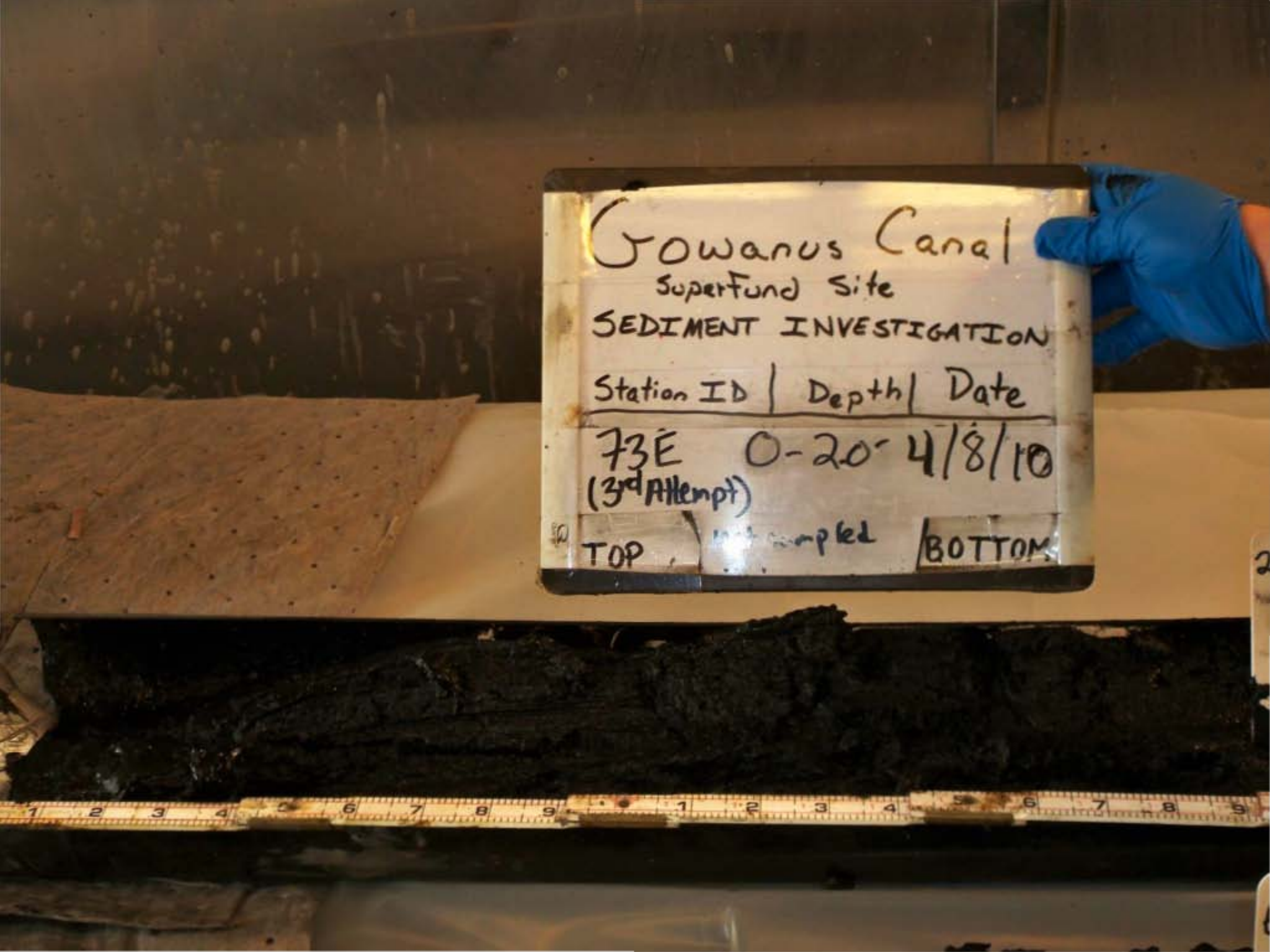

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72B 6.1-7.8 4/7/10
(3rd Attempt)
TOP Sample 3 | BOTT


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72B 7.8-9.8 4/7/10
(3rd Attempt)
TOP Sample 4 BOTTOM

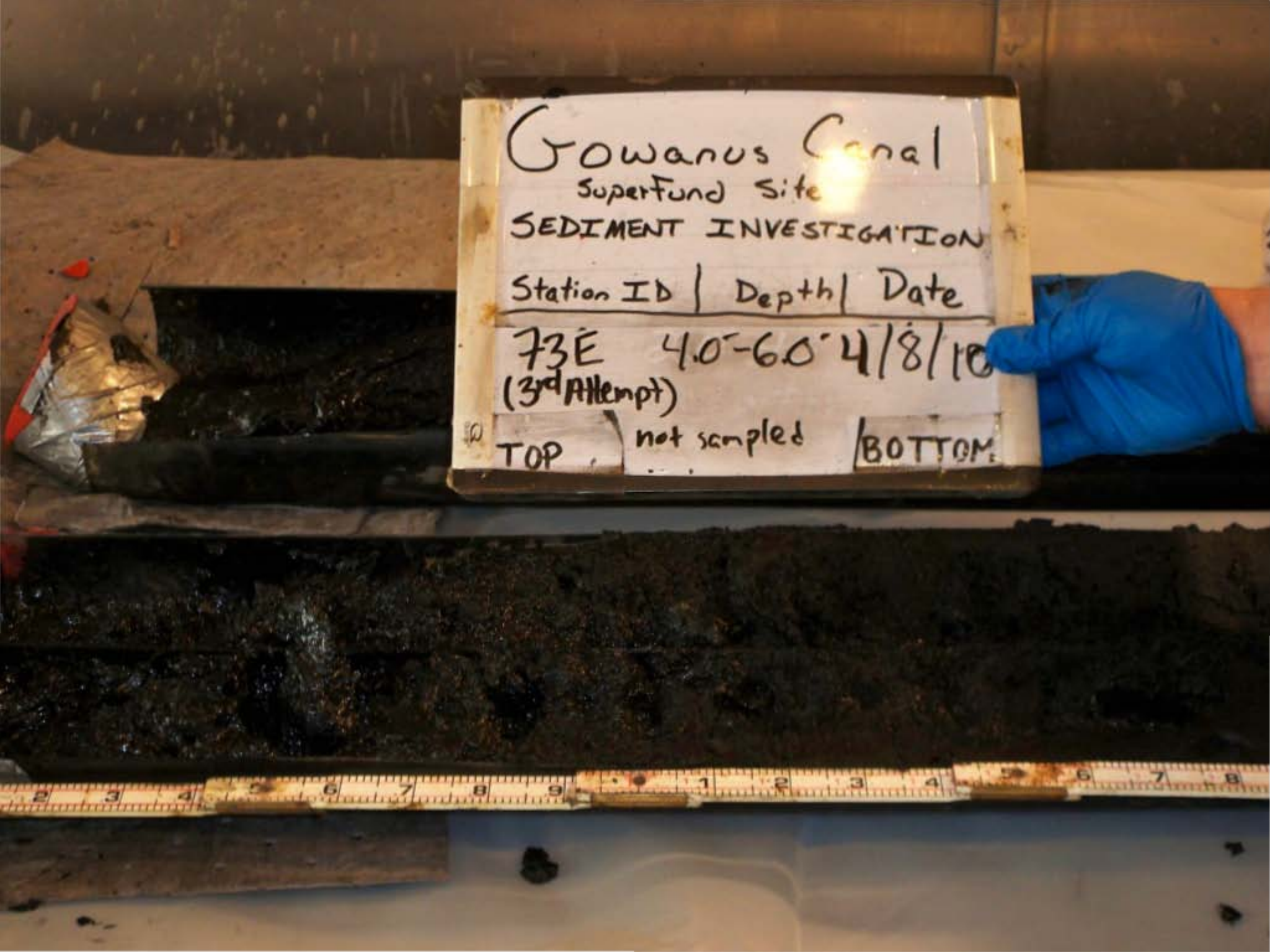

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72 B 9.8-10.2 4/7/10
(3rd Att
not sampled
TOP
BOTTOM
9.8
10.2
BOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72 B
(3rd Attempt) FULL
4/7/10
TOP
RECOVERY
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
73E FULL 4/8/10
(3rd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
73E 0-2.0' 4/8/10
(3rd Attempt)
TOP
BOTTOM

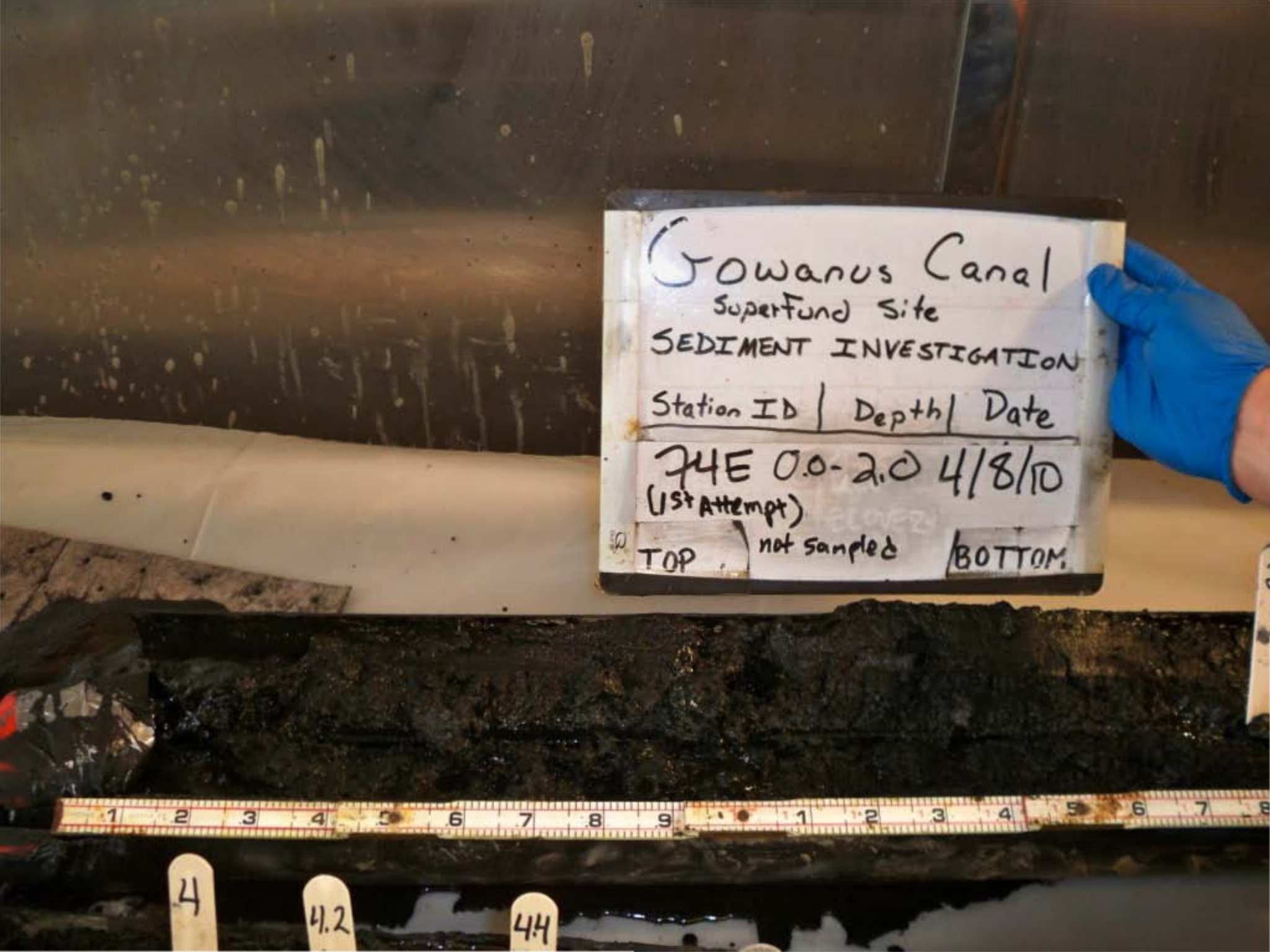

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
73E 2.0'-4.0' 4/8/10
(3rd Attempt)
TOP
not sampled
BOTTOM

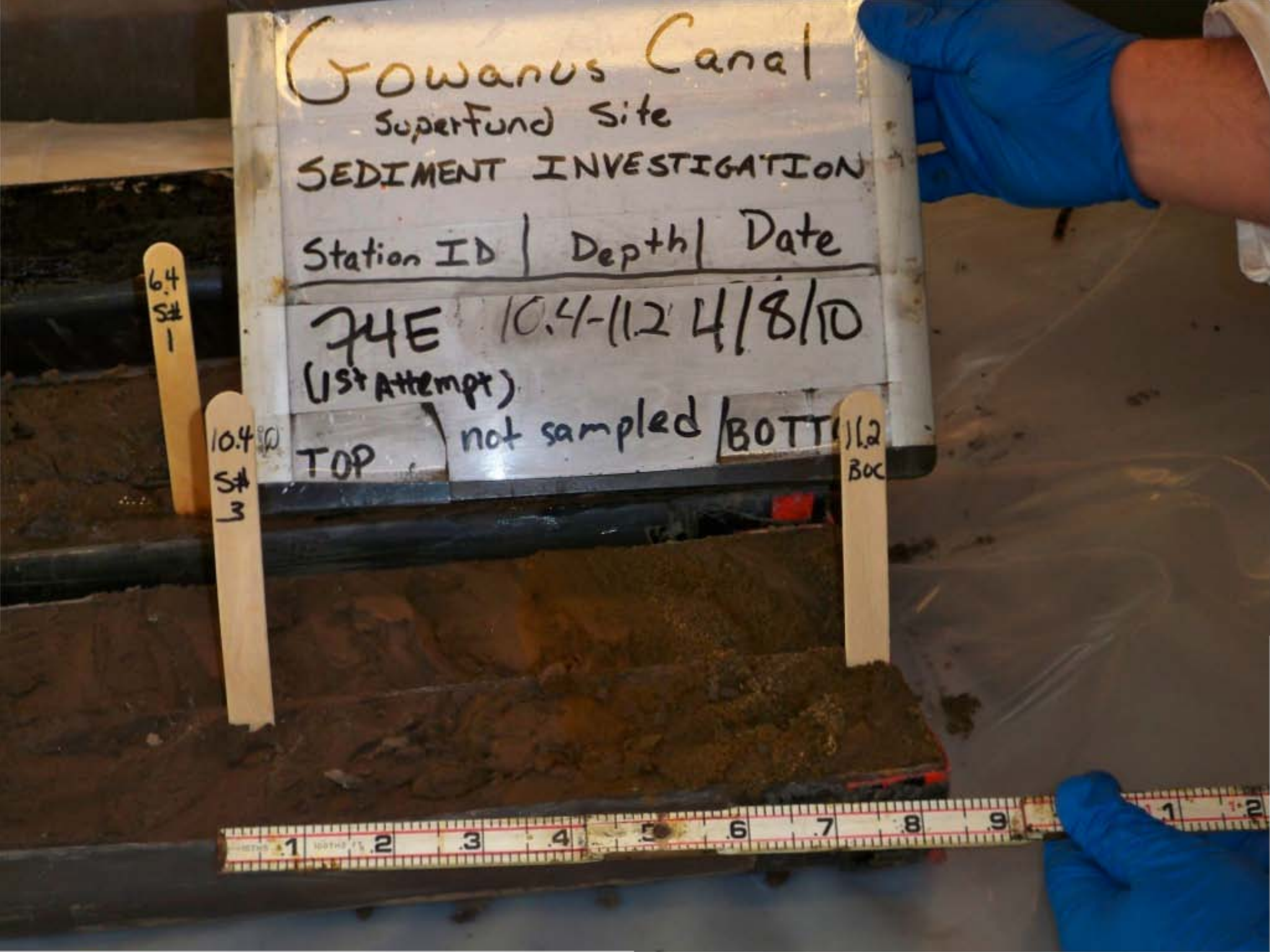

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
73E 4.0'-6.0' 4/8/10
(3rd Attempt)
TOP not sampled BOTTOM

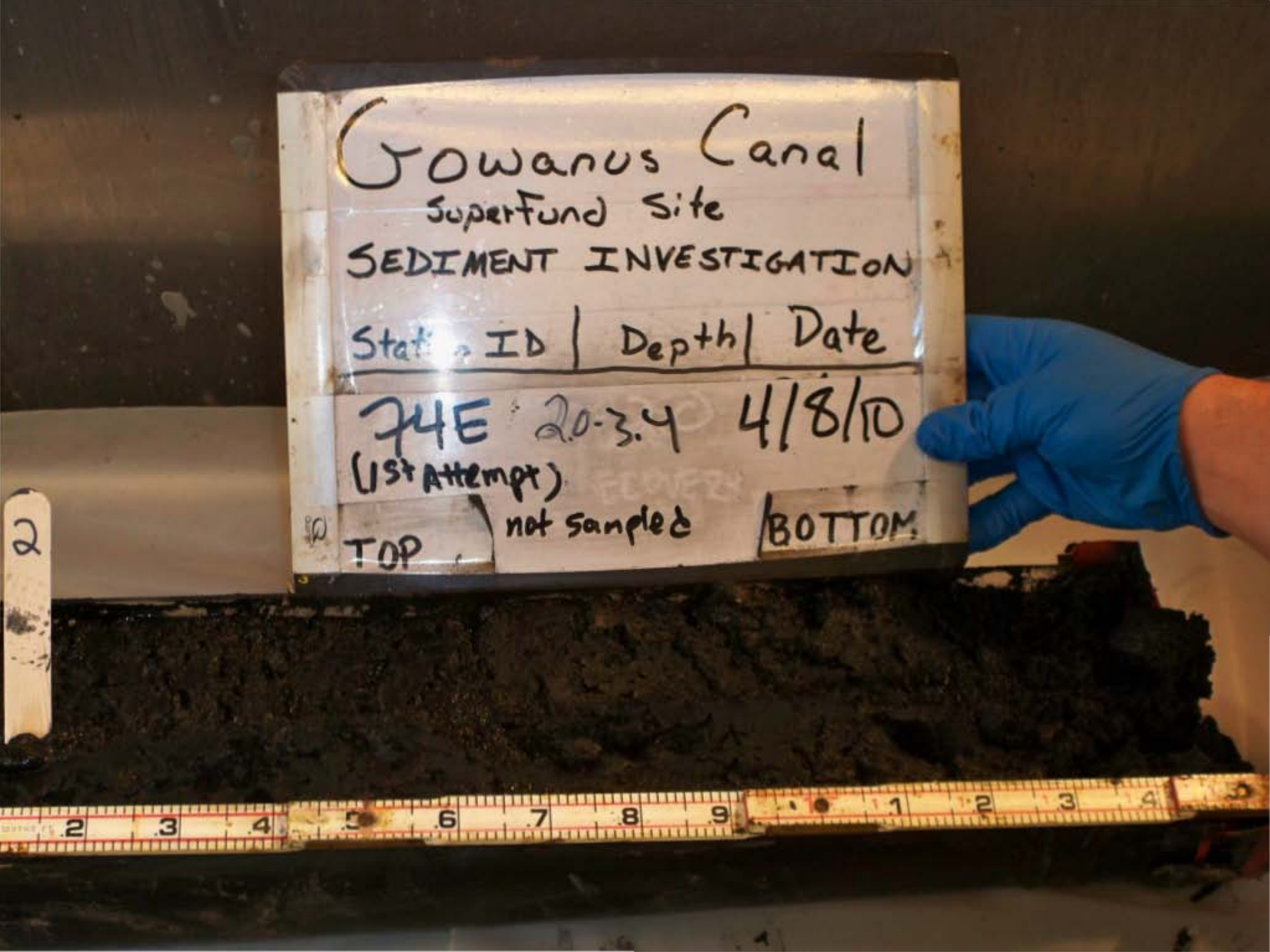

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
73E 6.0-8.0 4/8/10
(3rd Attempt)
TOP not sampled BOTTOM

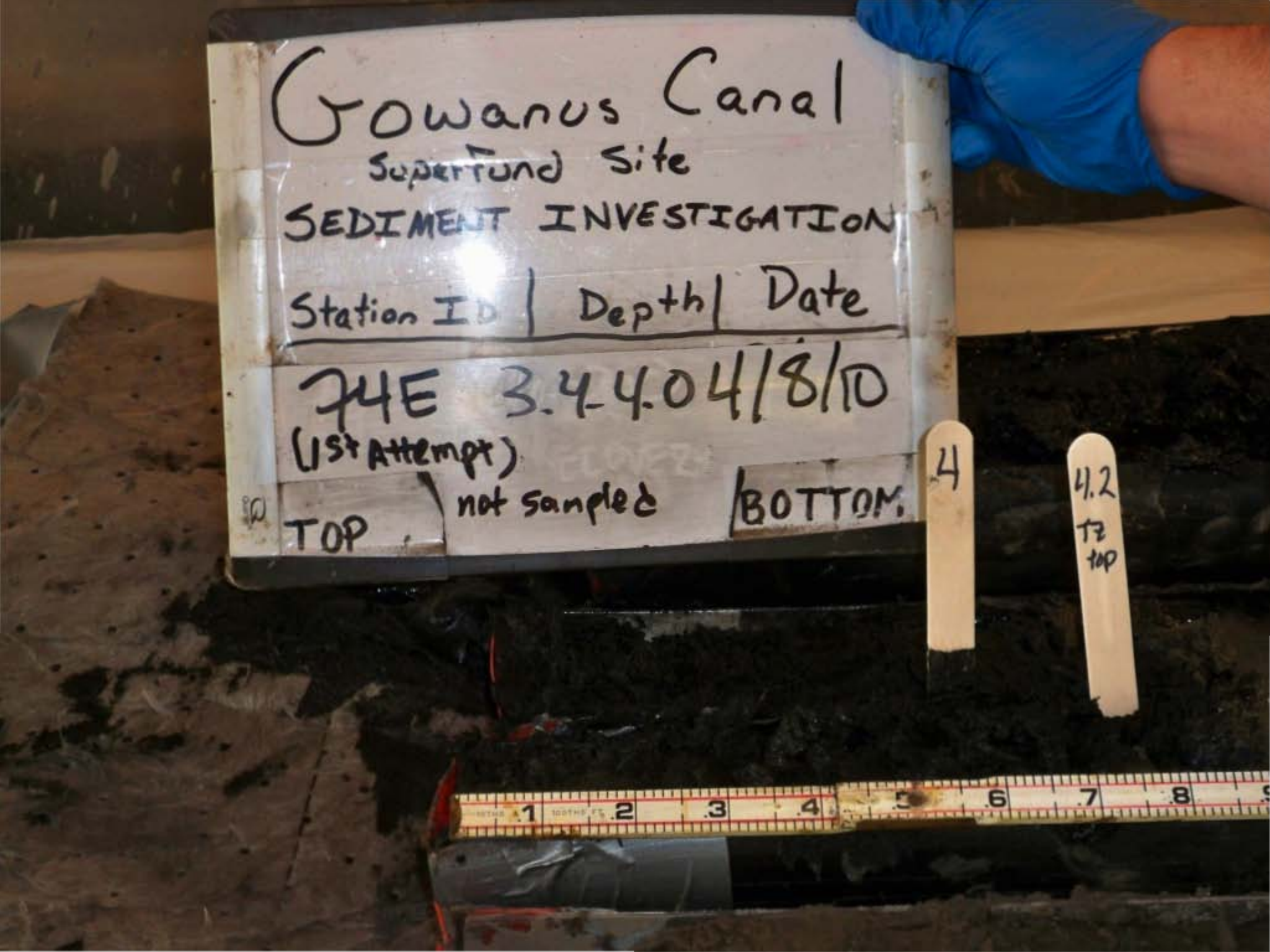

2
6
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
73E FULL 4/8/10
(3rd Attempt) RECOVERY
TOP
BOTTOM

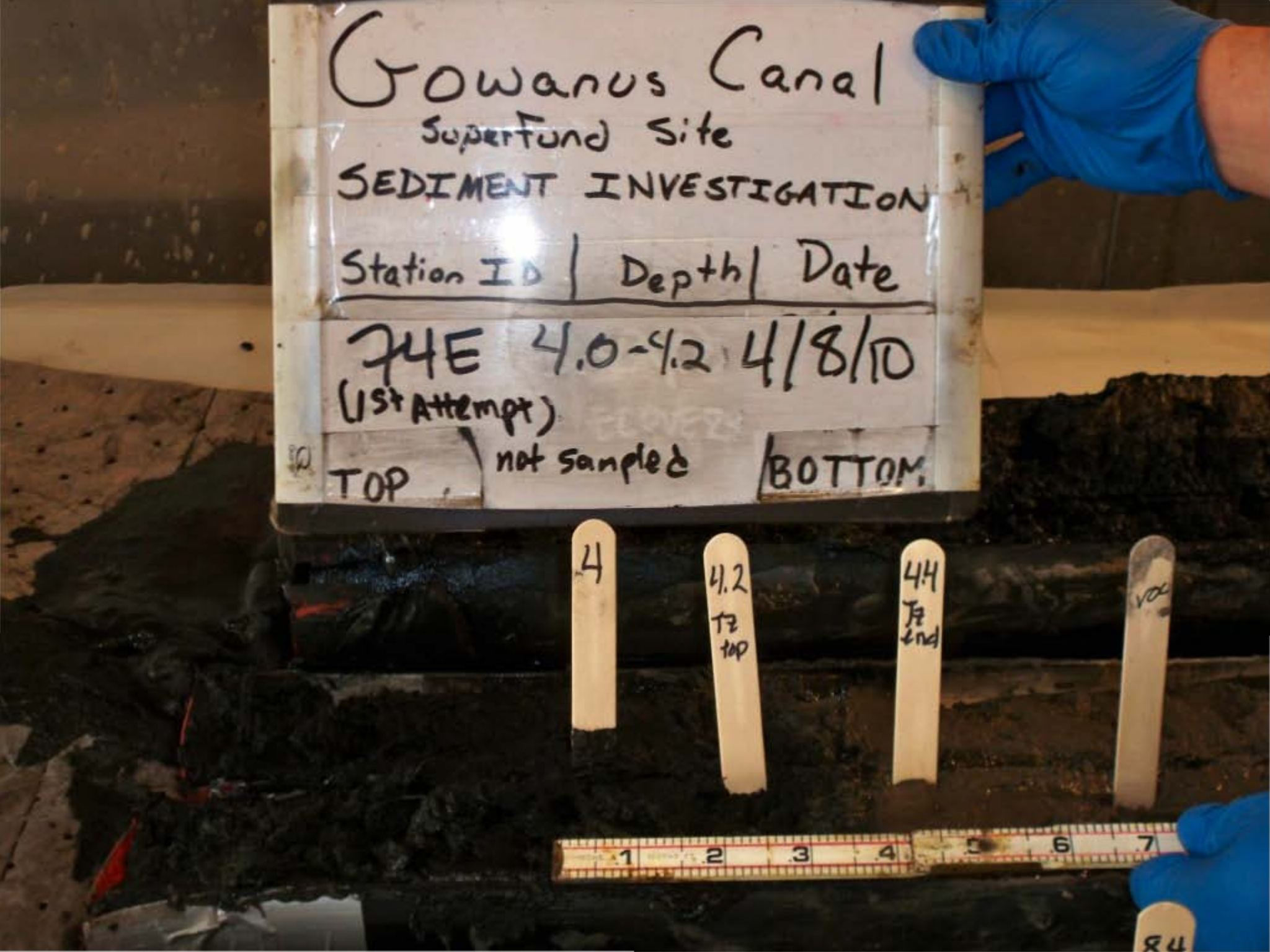

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E
FULL
4/8/10
RECOVERY
TOP
BOTTOM

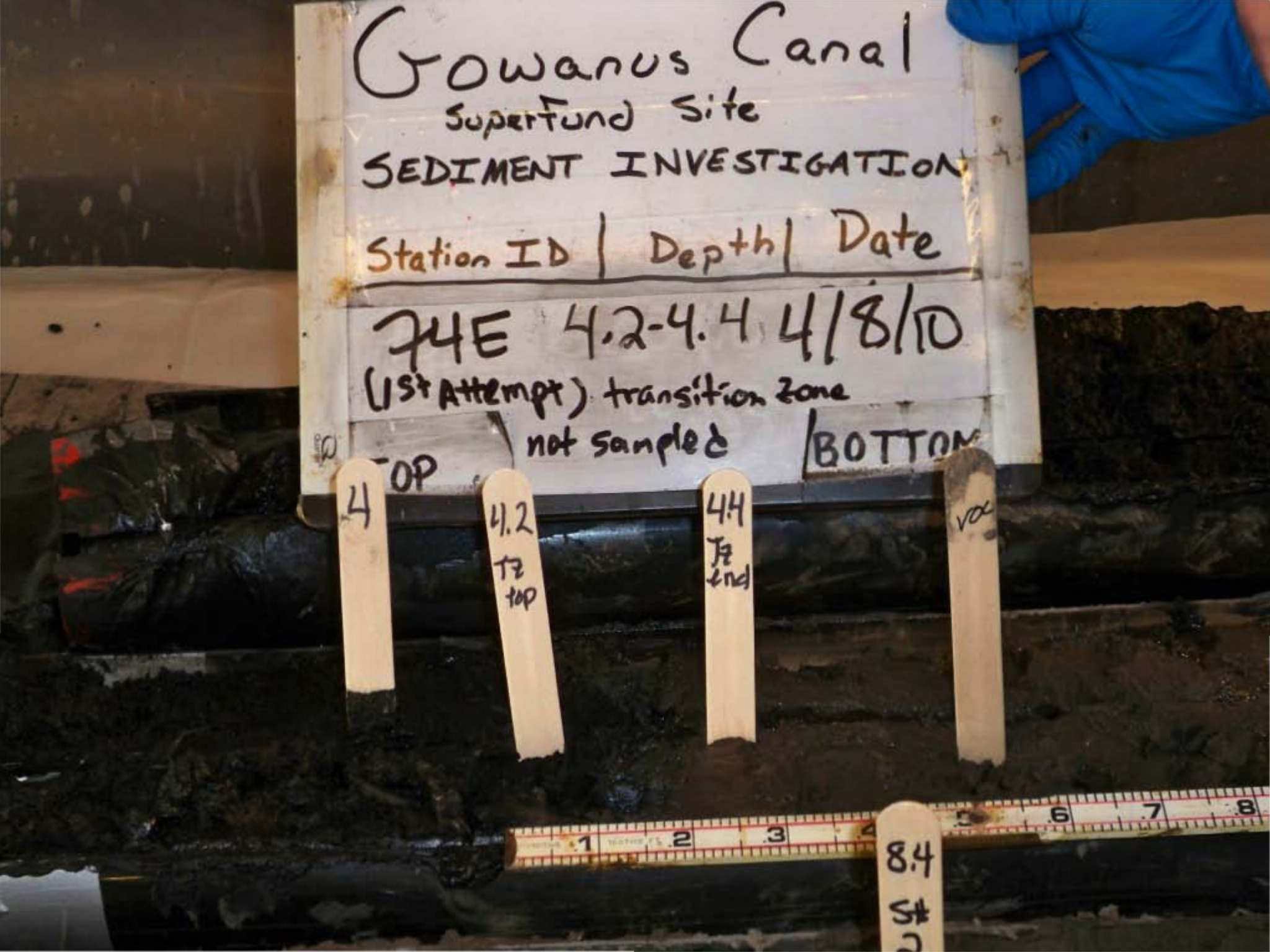

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 0.0-2.0 4/8/10
(1st Attempt)
TOP
not sampled
BOTTOM
4
4.2
4.4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 10.4-11.2 4/8/10
(1st Attempt)
TOP not sampled BOTT
6.4
S#
1
10.4
S#
3
11.2
BOC

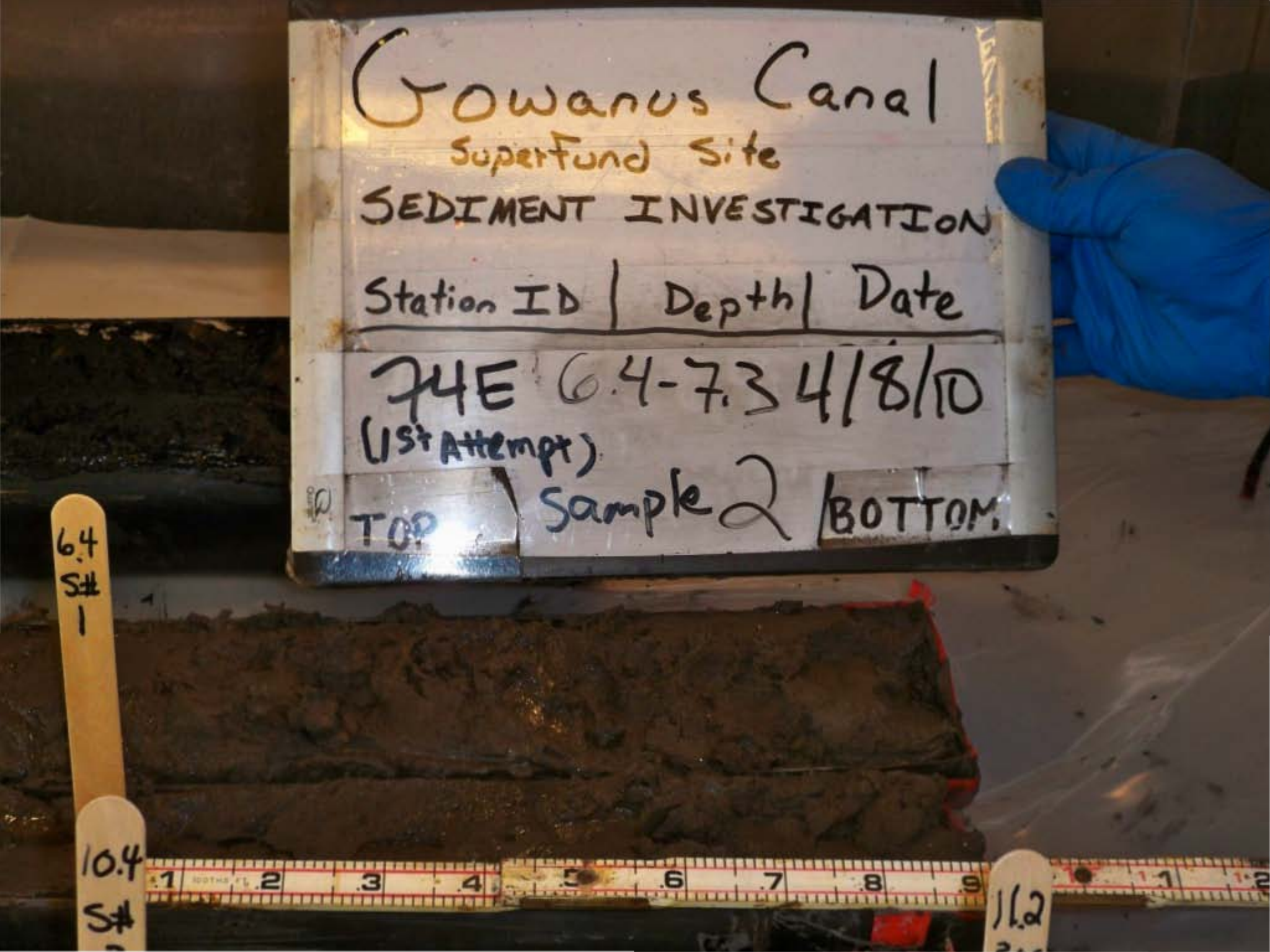

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 2.0-3.4 4/8/10
(1st Attempt)
TOP
not sampled
BOTTOM
2

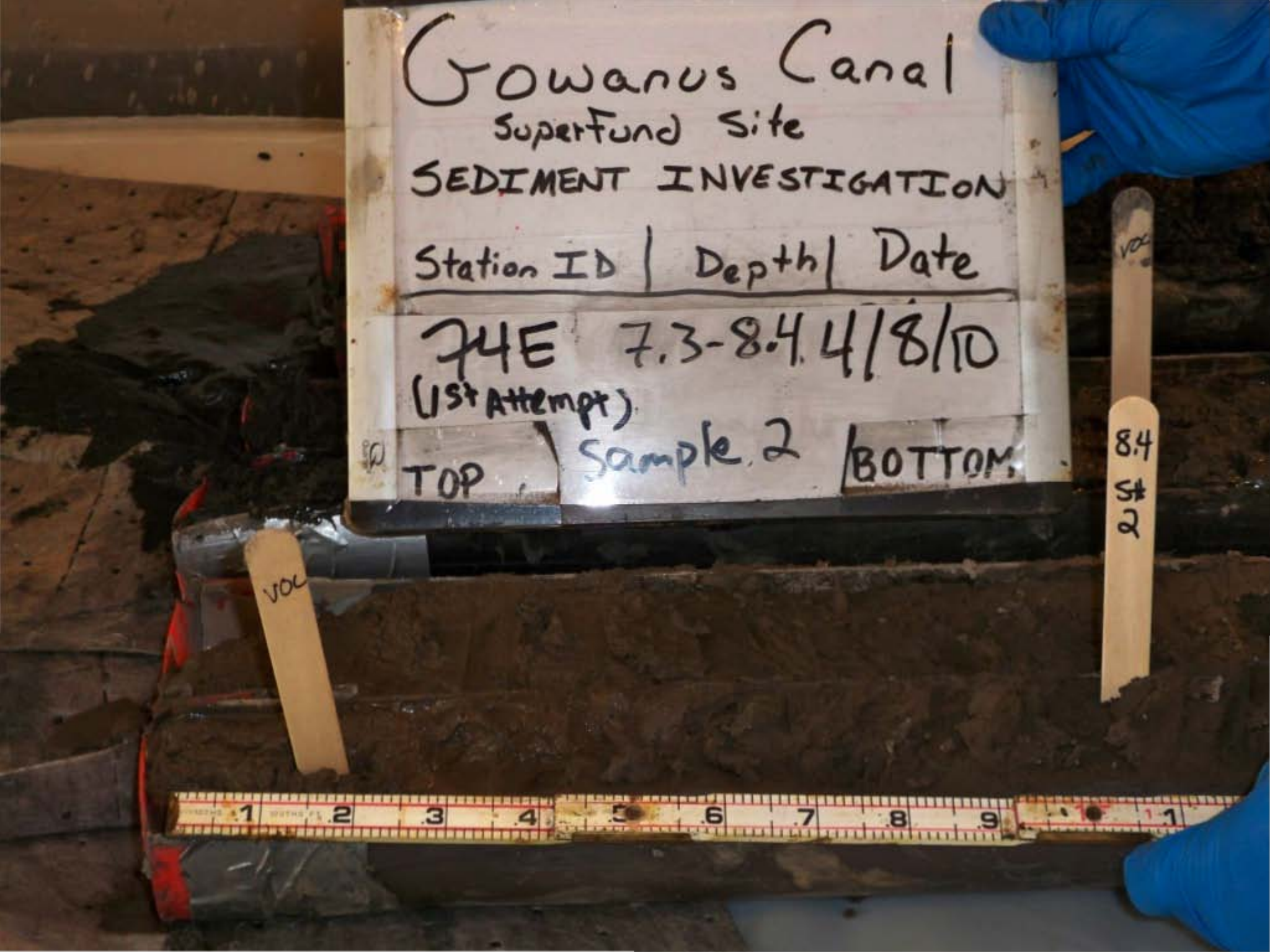

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 3.4-4.0 4/8/10
(1st Attempt)
TOP not sampled BOTTOM
4
4.2
TZ top


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 4.0-4.2 4/8/10
(1st Attempt)
TOP
not sampled
BOTTOM
4
4.2
TZ top
4.4
TZ end
VOC
1
2
3
4
5
6
7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 4.2-4.4 4/8/10
(1st Attempt) transition zone
not sampled
BOTTOM
4
4.2
Tz
top
4.4
Tz
end
VOC
8.4
St
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 4.4-6.4 4/8/10
(1st Attempt)
TOP | Sample 1 | BOTTOM
VOC
VOC

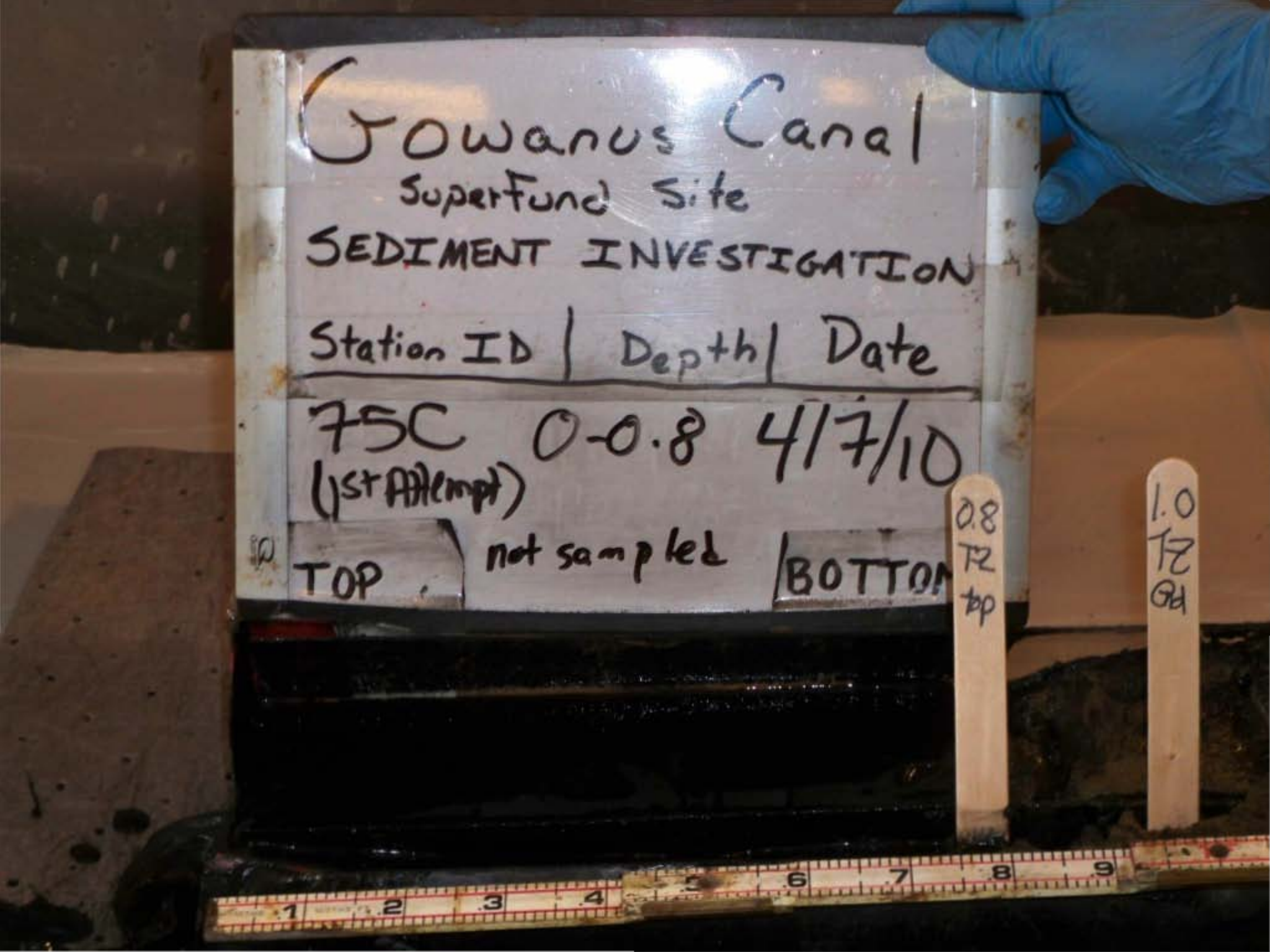

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 6.4-7.3 4/8/10
(1st Attempt)
TOP Sample 2 BOTTOM
6.4
Stk
1
10.4
Stk
11.2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 7.3-8.4 4/8/10
(1st Attempt)
TOP
Sample 2
BOTTOM
VOC
VOC
8.4
St
2

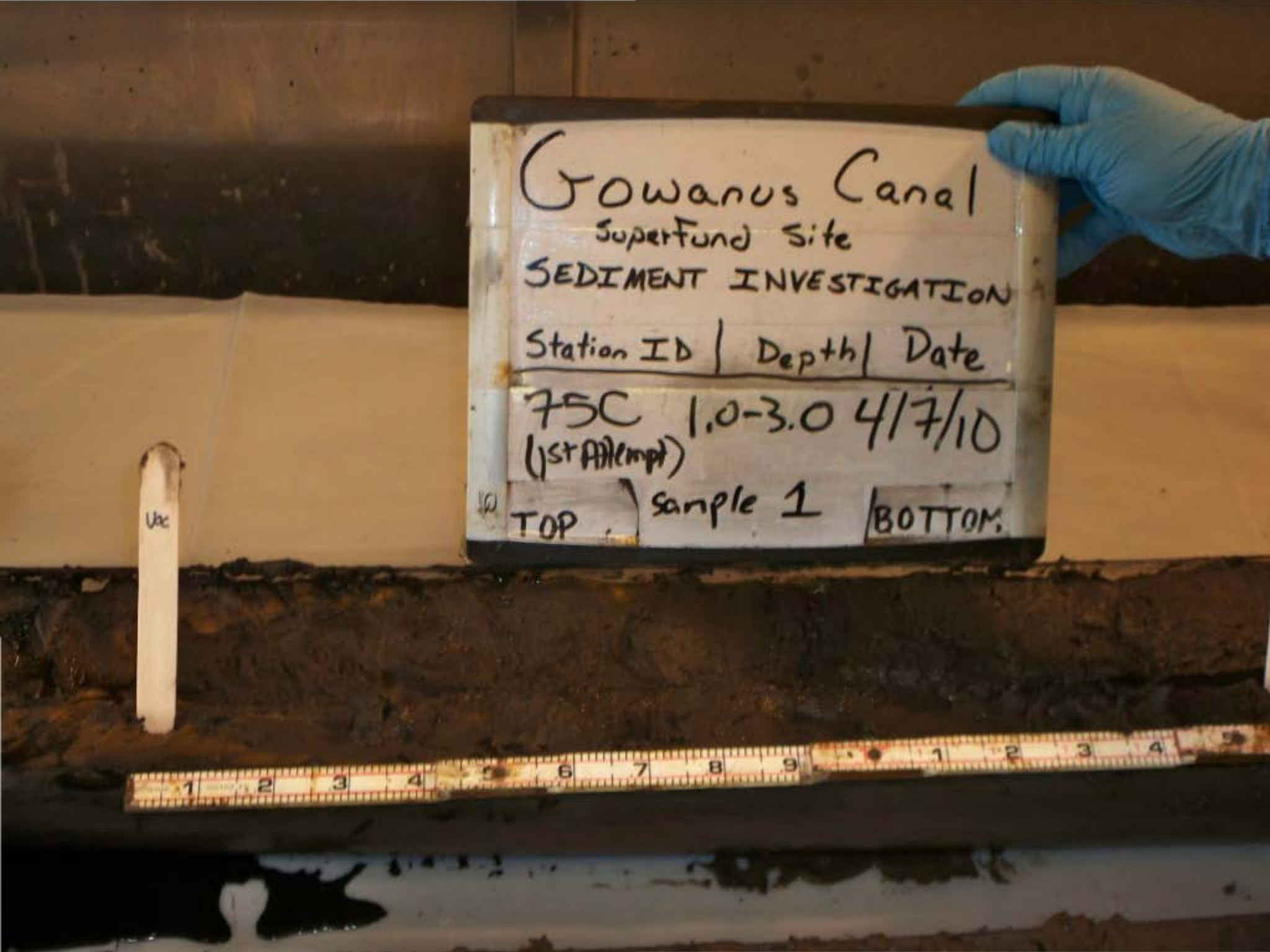

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E 8.4-10.4 4/8/10
(1st Attempt)
TOP
Sample 3
BOTTOM
VOC
VOC
6.4
S#
1

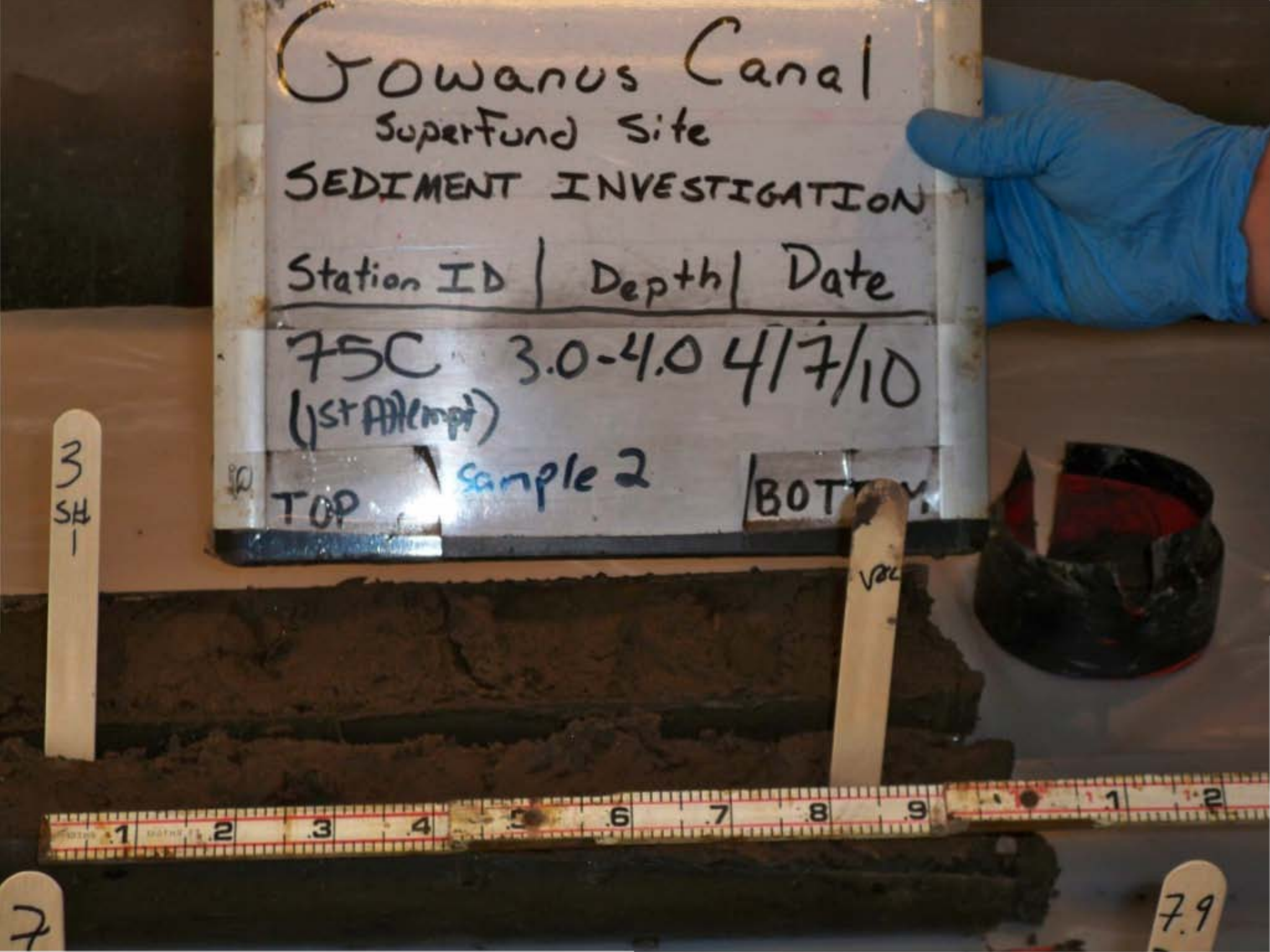

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E FULL 4/8/10
RECOVERY
TOP
BOTTOM

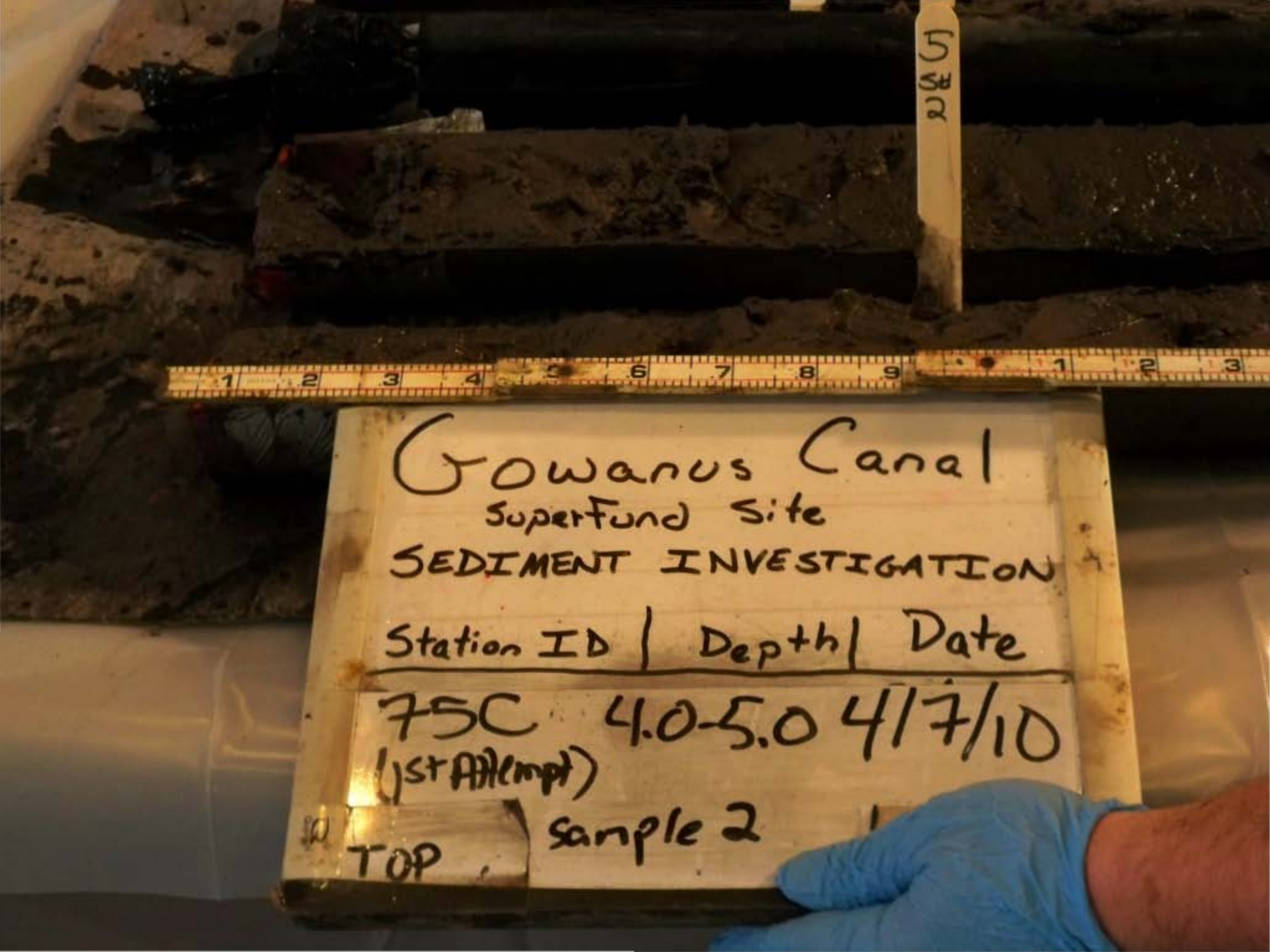

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C Full 4/7/10
(1st Attempt) Recovery
TOP
BOTTOM

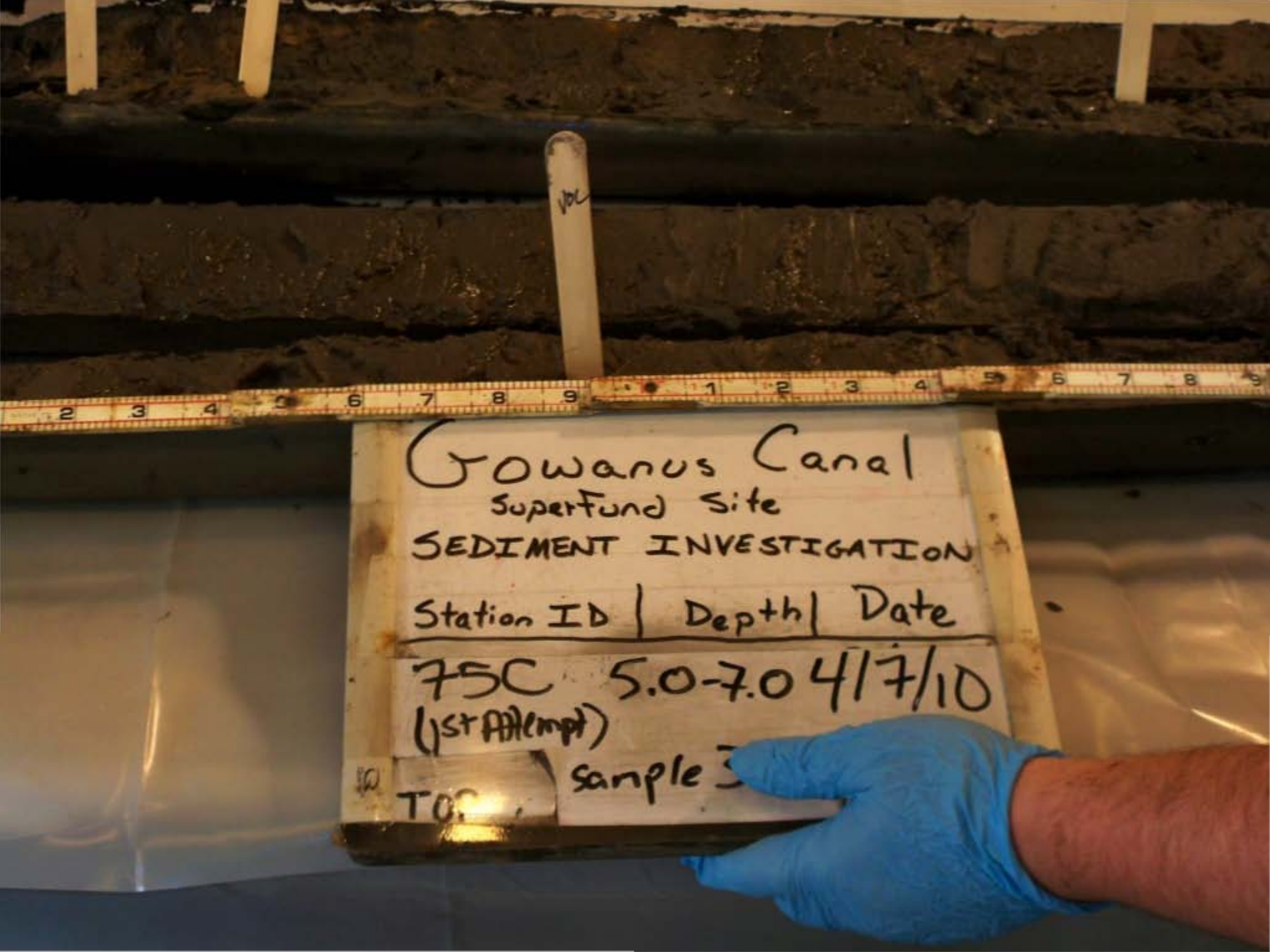

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C 0-0.8 4/7/10
(1st Attempt)
not sampled
TOP
BOTTOM
0.8
TZ
top
1.0
TZ
GH

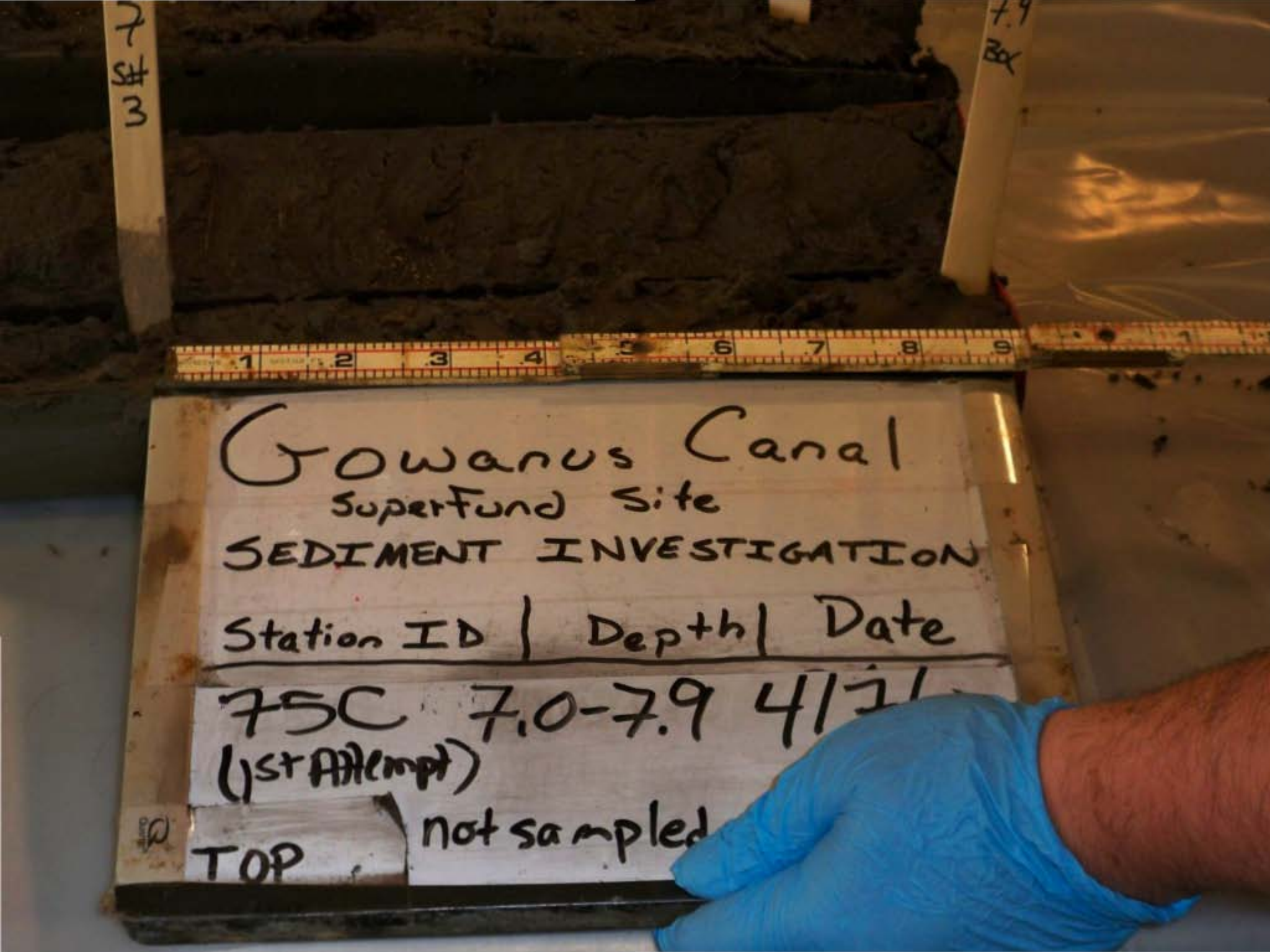

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C 0.8-1.0 4/7/10
(1st Attempt) transition zone
not sampled
TOP
BOTTOM
0.8 TZ top
1.0 TZ Gd
Vac


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C (1st Attempt) 1.0-3.0 4/7/10
TOP
sample 1
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C 3.0-4.0 4/7/10
(1st Attempt)
TOP
Sample 2
3
SH
1
7
7.9

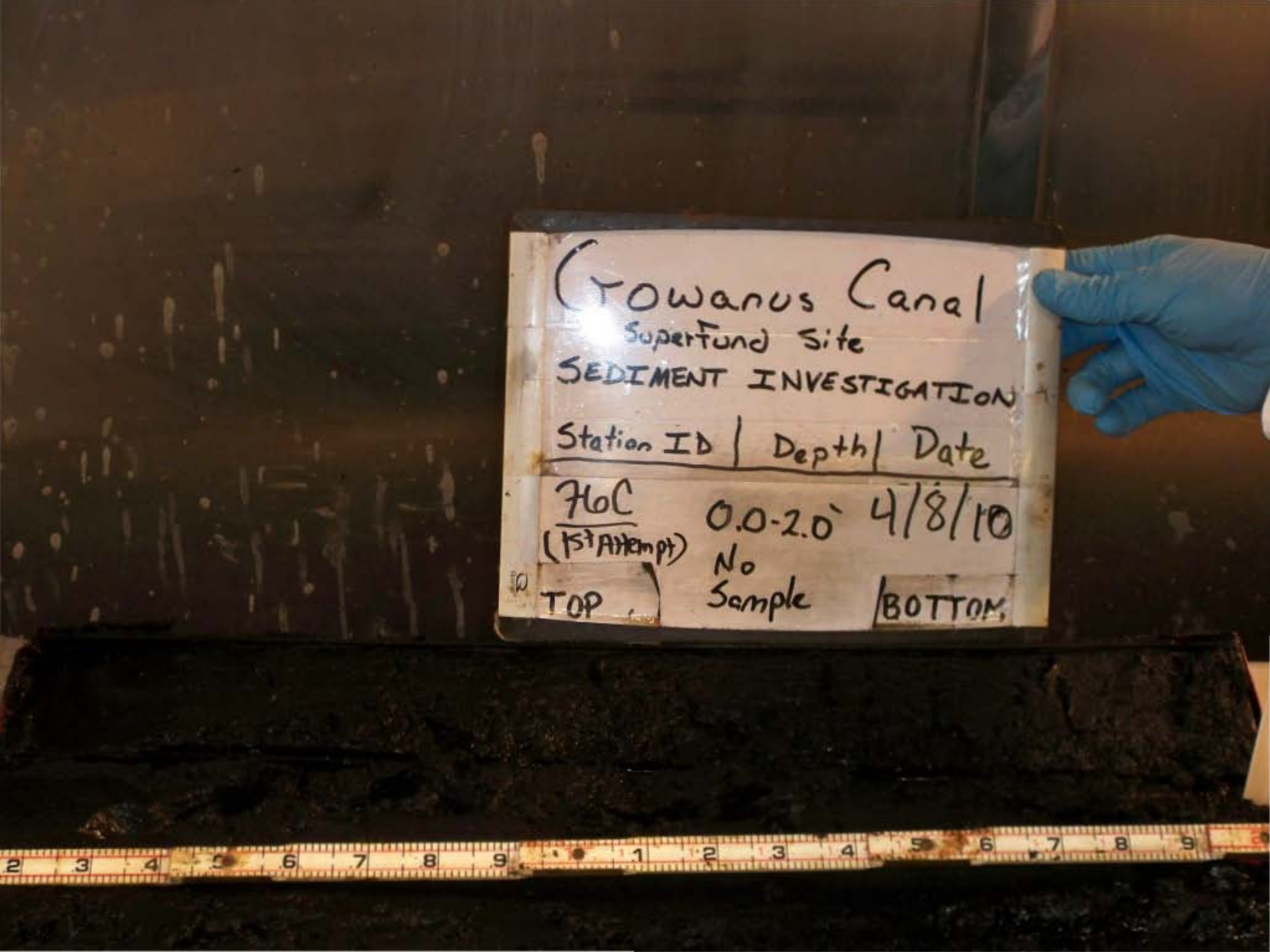

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C 4.0-5.0 4/7/10
(1st Attempt)
TOP
sample 2

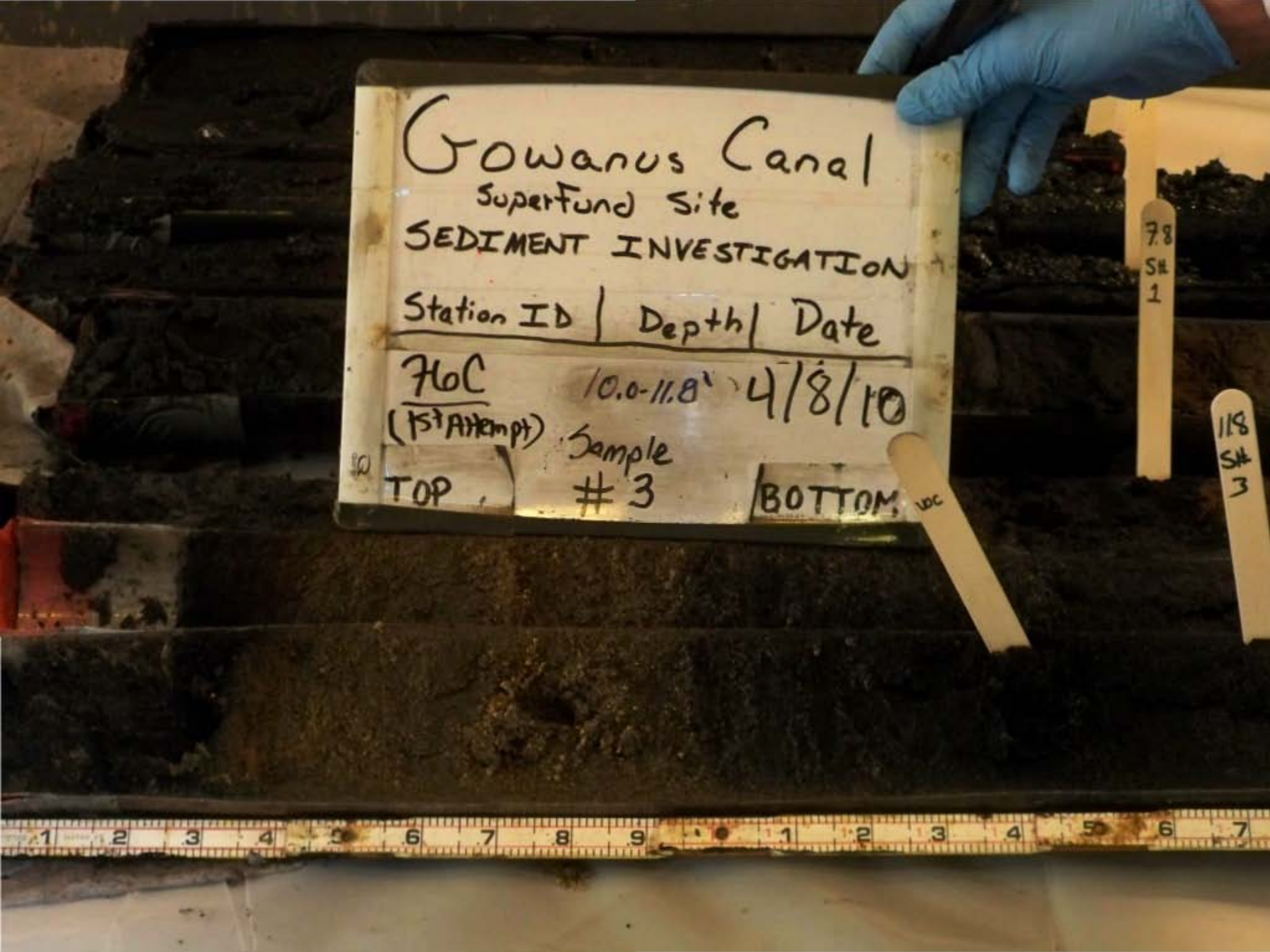

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C 5.0-7.0 4/7/10
(1st Attempt)
sample
TOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C 7.0-7.9 4/21
(1st Attempt)
not sampled
TOP

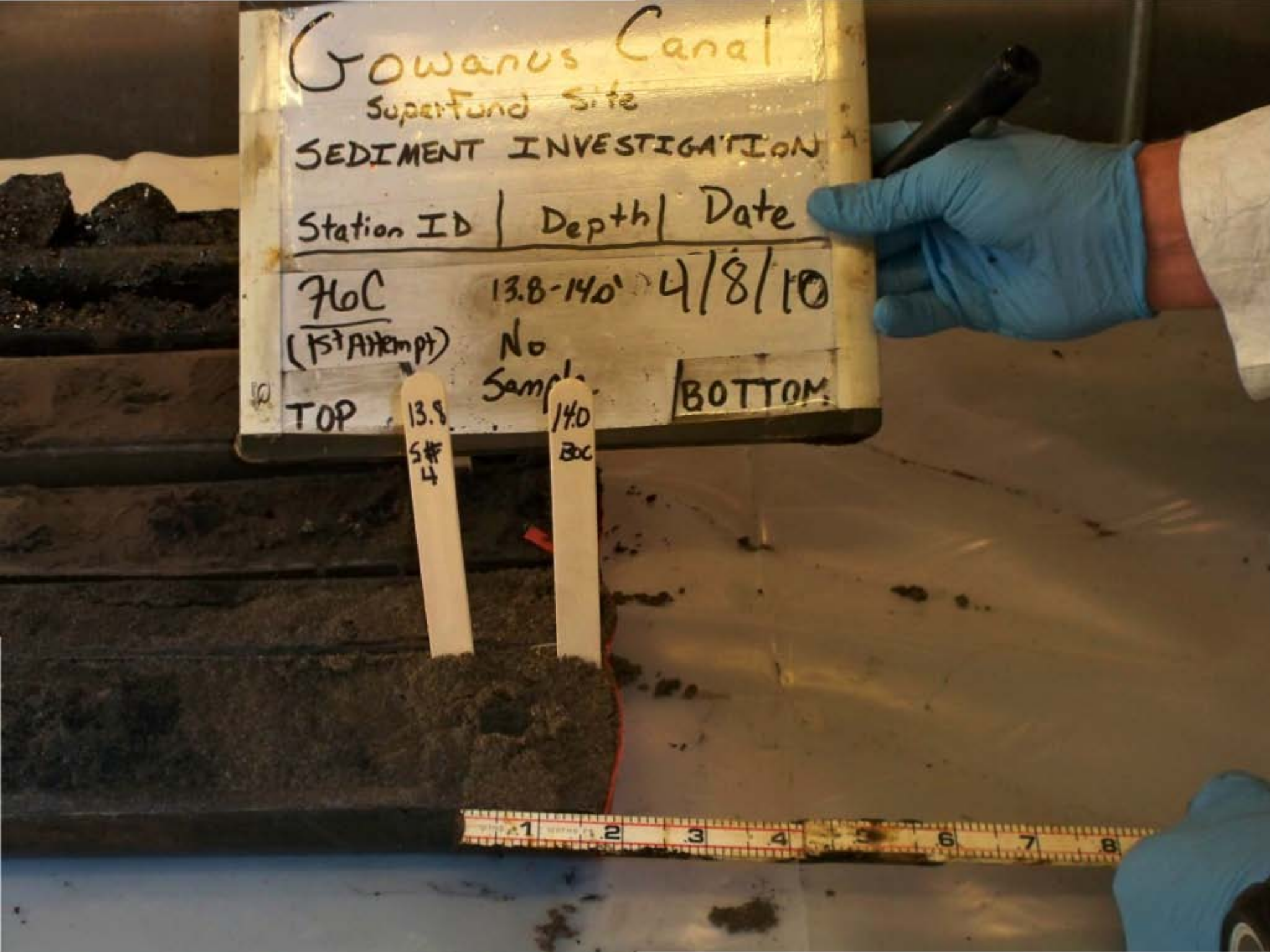

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C Full 4/7/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC FULL 4/8/10
(1st Attempt) RECOVERY
TOP
BOTTOM

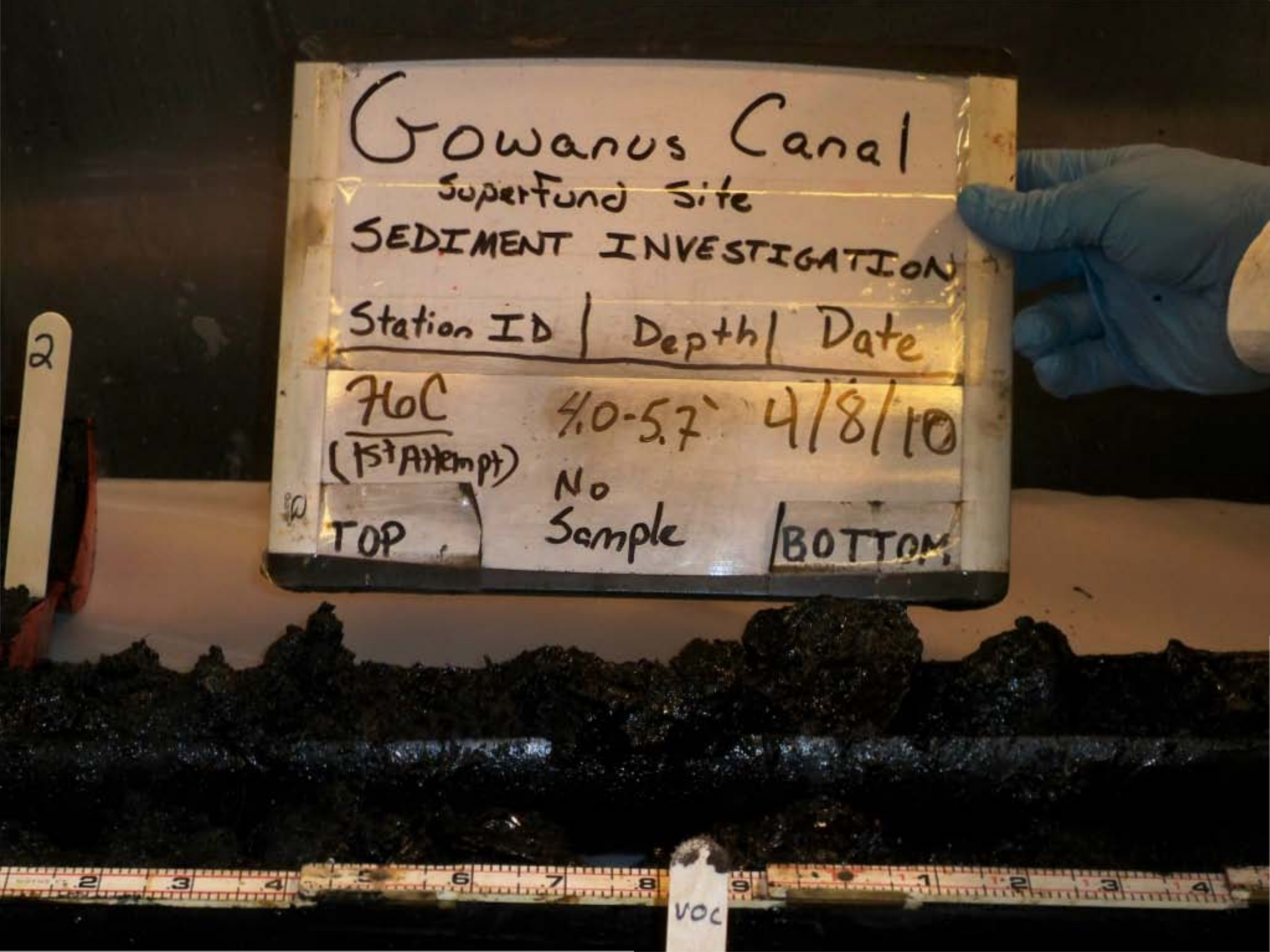

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
76C (1st Attempt) 0.0-2.0' 4/8/10
No Sample
TOP
BOTTOM

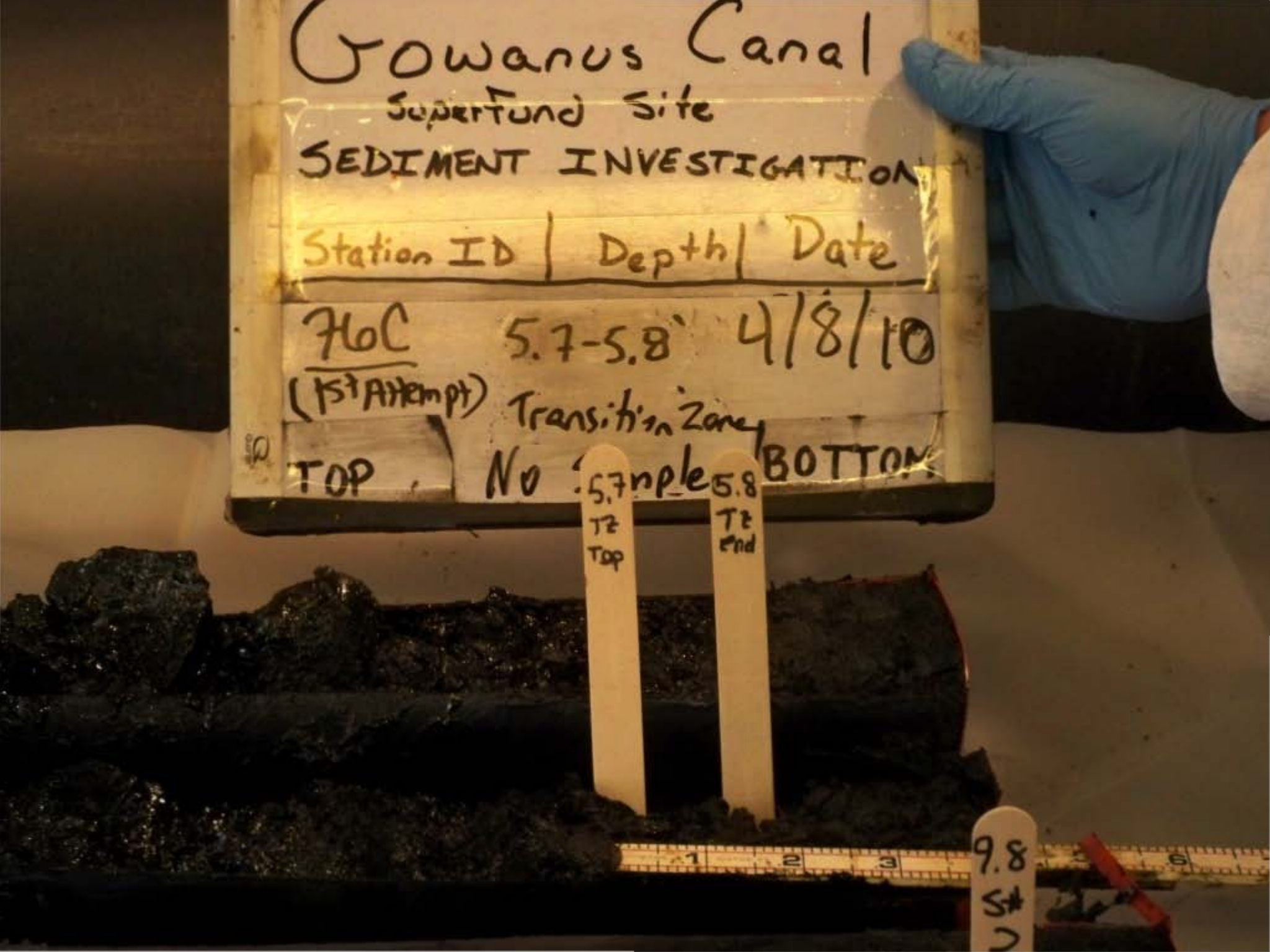

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
76C
(1st Attempt)
10.0-11.8'
4/8/10
Sample
#3
TOP
BOTTOM
7.8
S#
1
11.8
S#
3

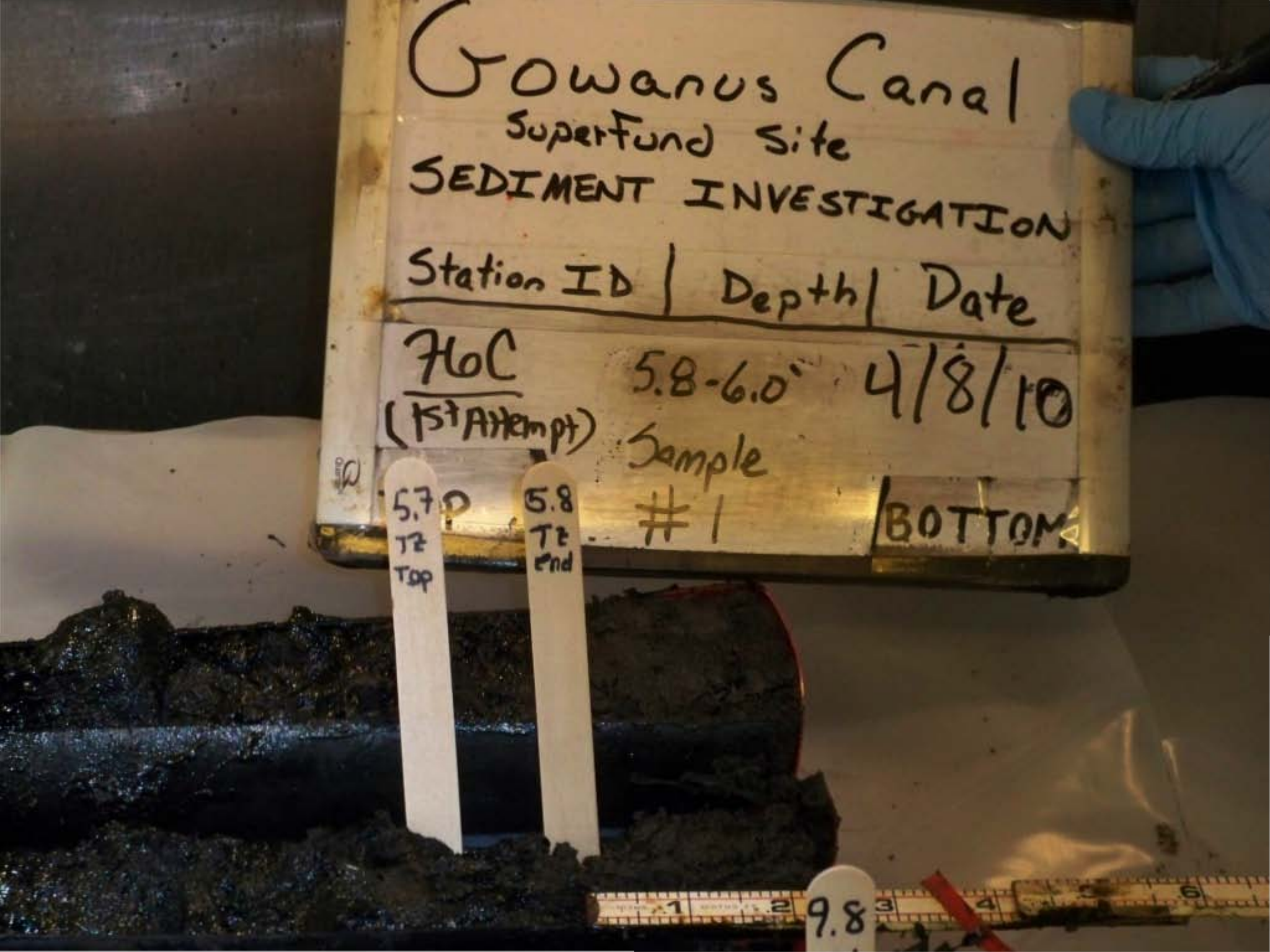

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC
(1st Attempt)
11.8-13.8'
4/8/10
Sample
#4
TOP
BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
76C 13.8-14.0' 4/8/10
(1st Attempt) No Sample
TOP 13.8 S# 4
14.0 BOC
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
76C (1st Attempt) 2.0-4.0' 4/8/10
No Sample
TOP
BOTTOM
VOC

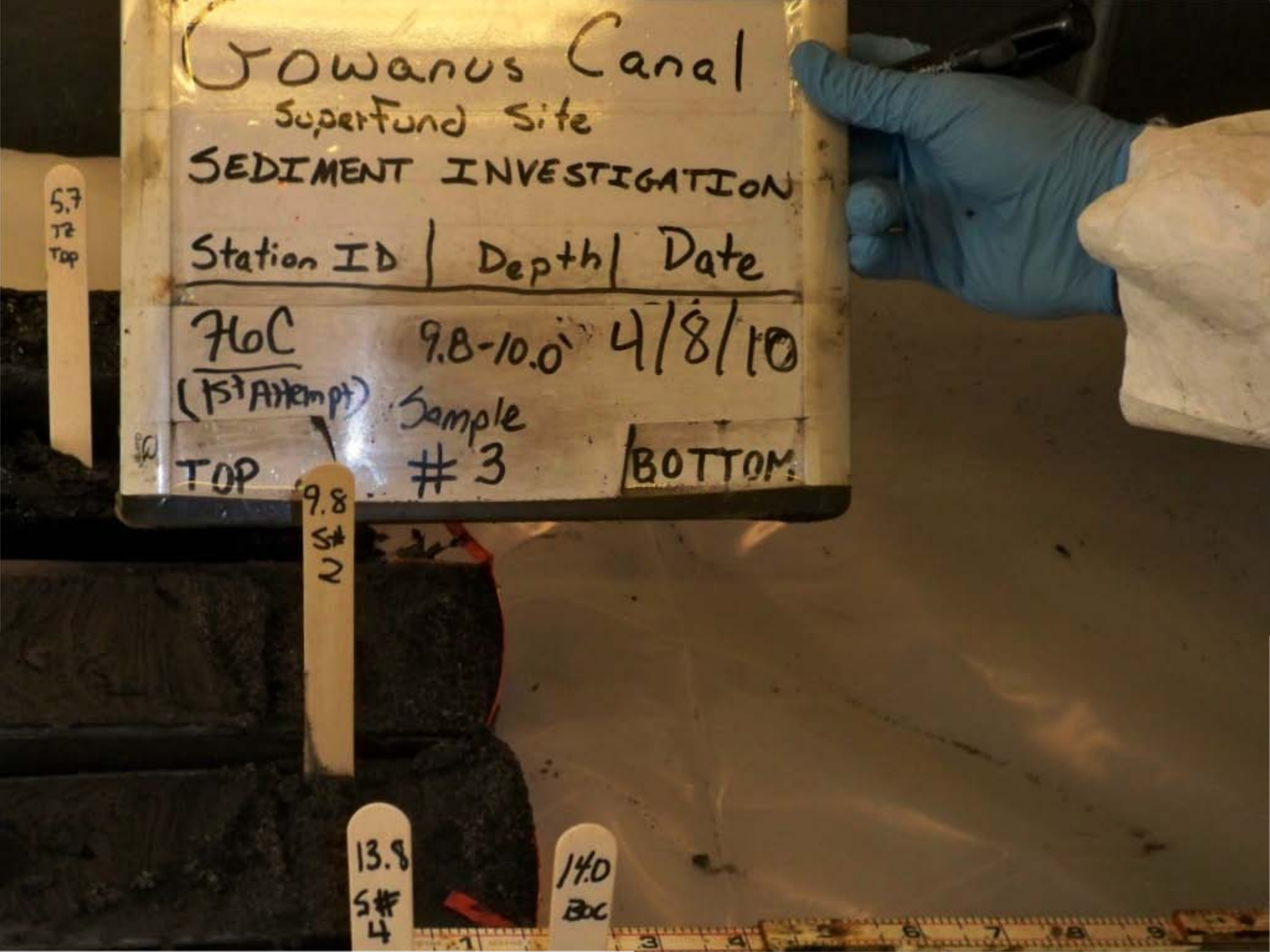

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC (1st Attempt) 4.0-5.7' 4/8/10
No Sample
TOP
BOTTOM
2
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC 5.7-5.8' 4/8/10
(1st Attempt) Transition Zone
TOP No Sample BOTTOM
5.7 Tz Top
5.8 Tz End
9.8 St


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC (1st Attempt) 5.8-6.0' 4/8/10
Sample #1 | BOTTOM
5.7 Tz Top
5.8 Tz End
9.8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC 6.0-7.8' 4/8/10
(1st Attempt) Sample
TOP #1 BOTTOM
VOC
VOC
7.8
SH
1
2
4

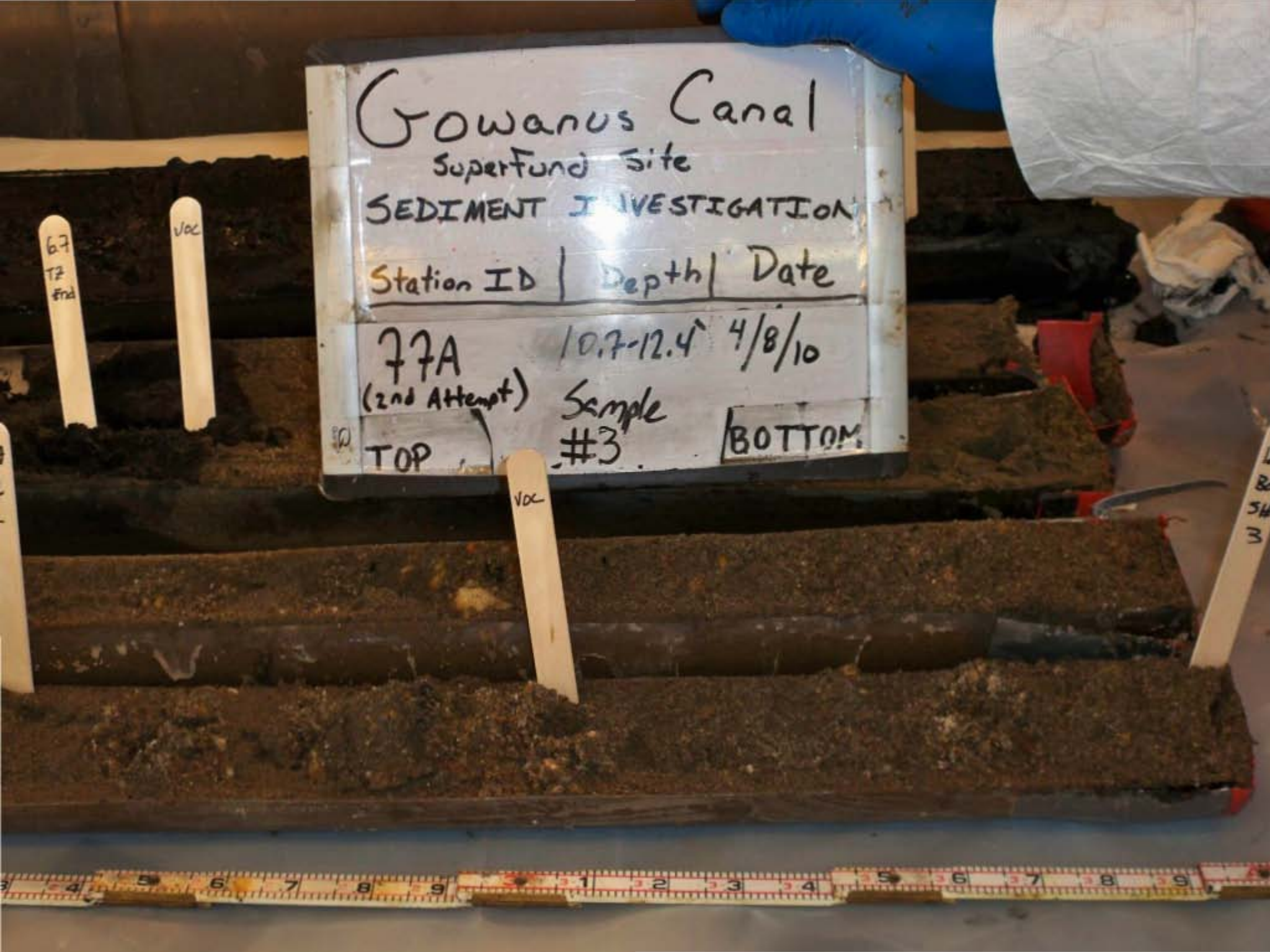

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
76C 7.8-9.8' 4/8/10
(1st Attempt)
TOP #2 BOTTOM
VOC
VOC
2
4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
76C 9.8-10.0' 4/8/10
(1st Attempt) Sample
TOP #3 BOTTOM
5.7 TZ Top
9.8 S# 2
13.8 S# 4
14.0 Boc

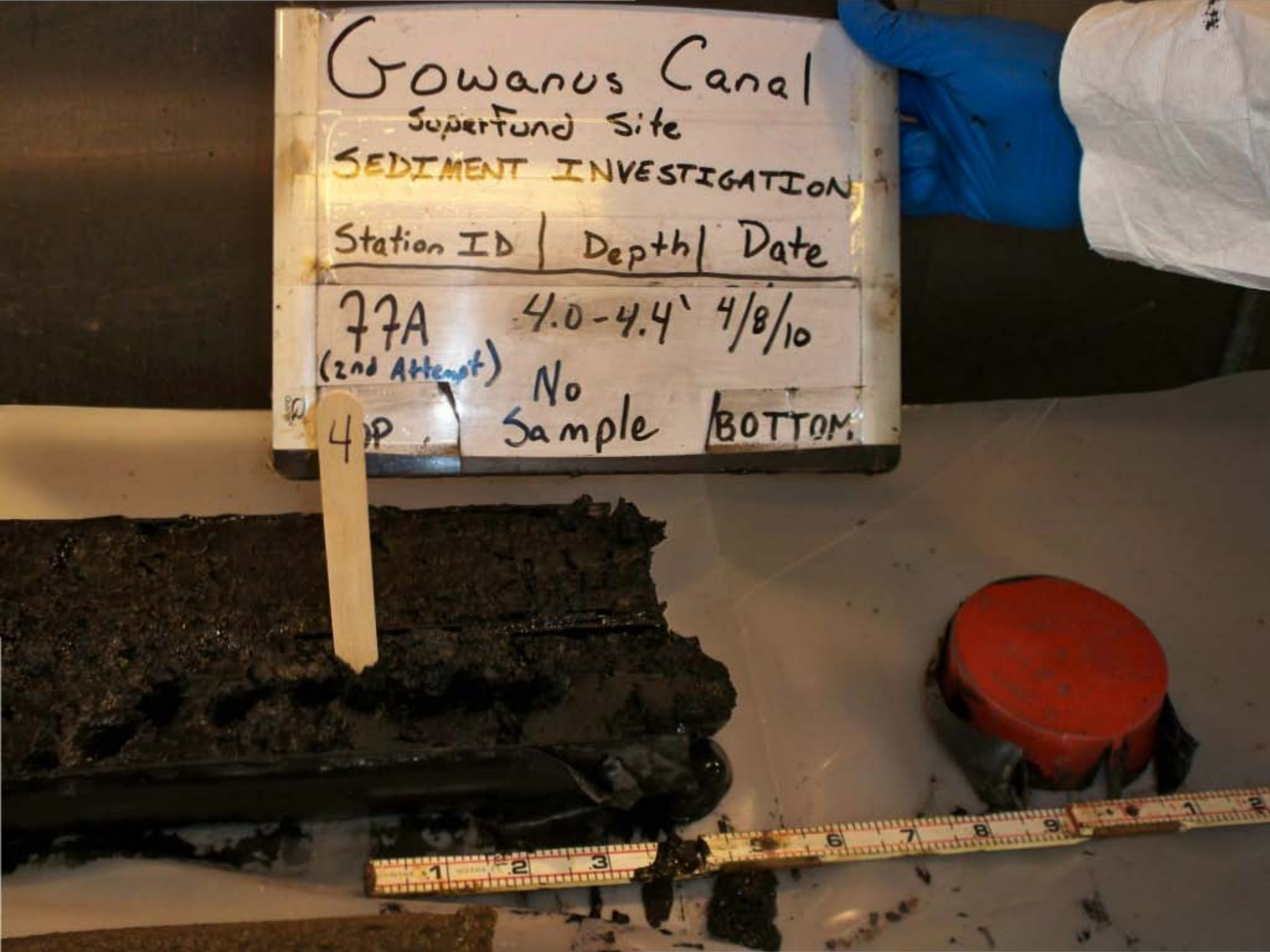

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC FULL 4/8/10
(1st Attempt) RECOVERY
TOP
BOTTOM

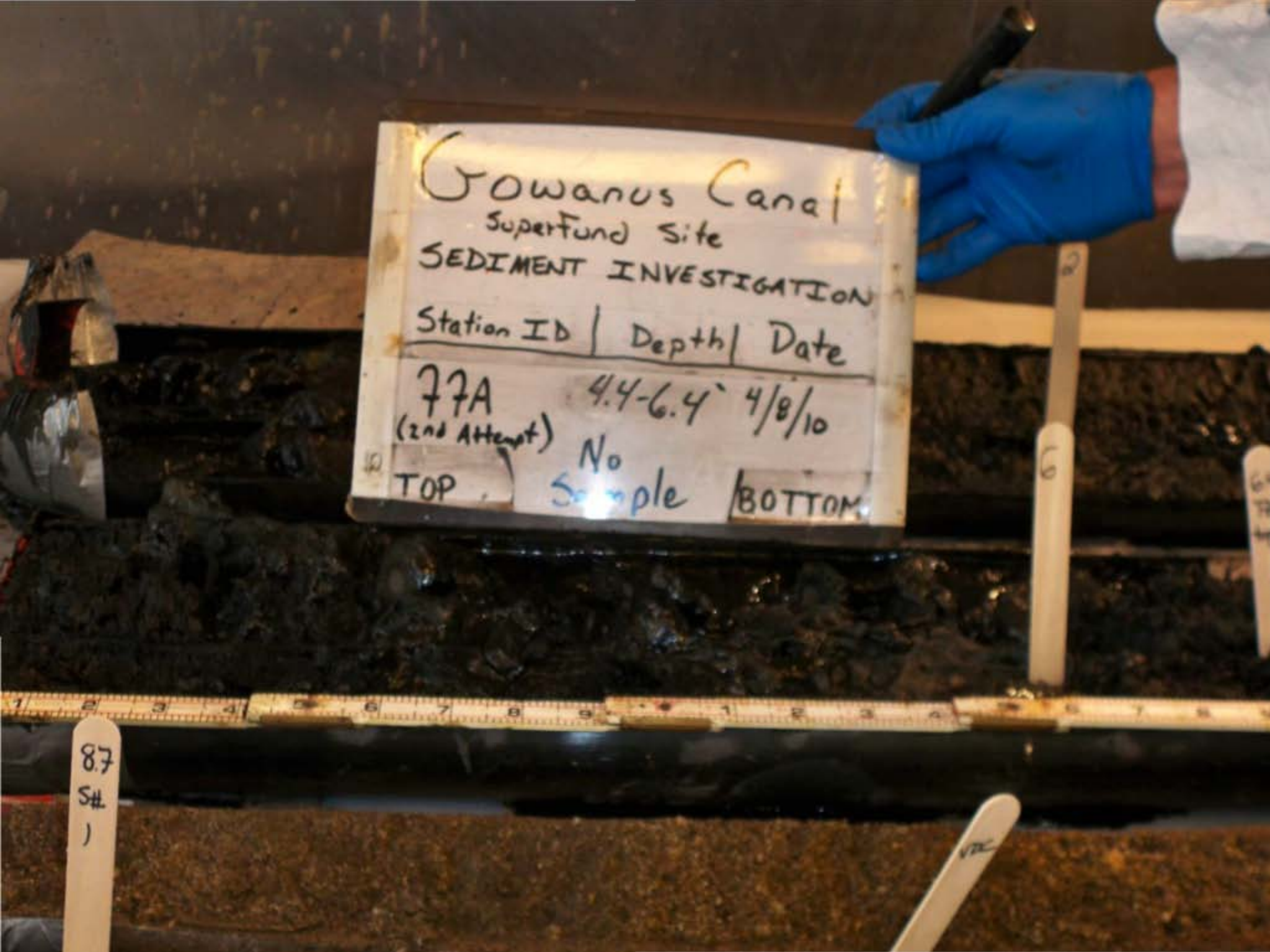

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) | Full Recovery | 4/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7T (2nd Attempt) 0-2' 4/8/10
No Sample
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) | 10.7-12.4' | 4/8/10
Sample #3
TOP
BOTTOM
VOC
VOC

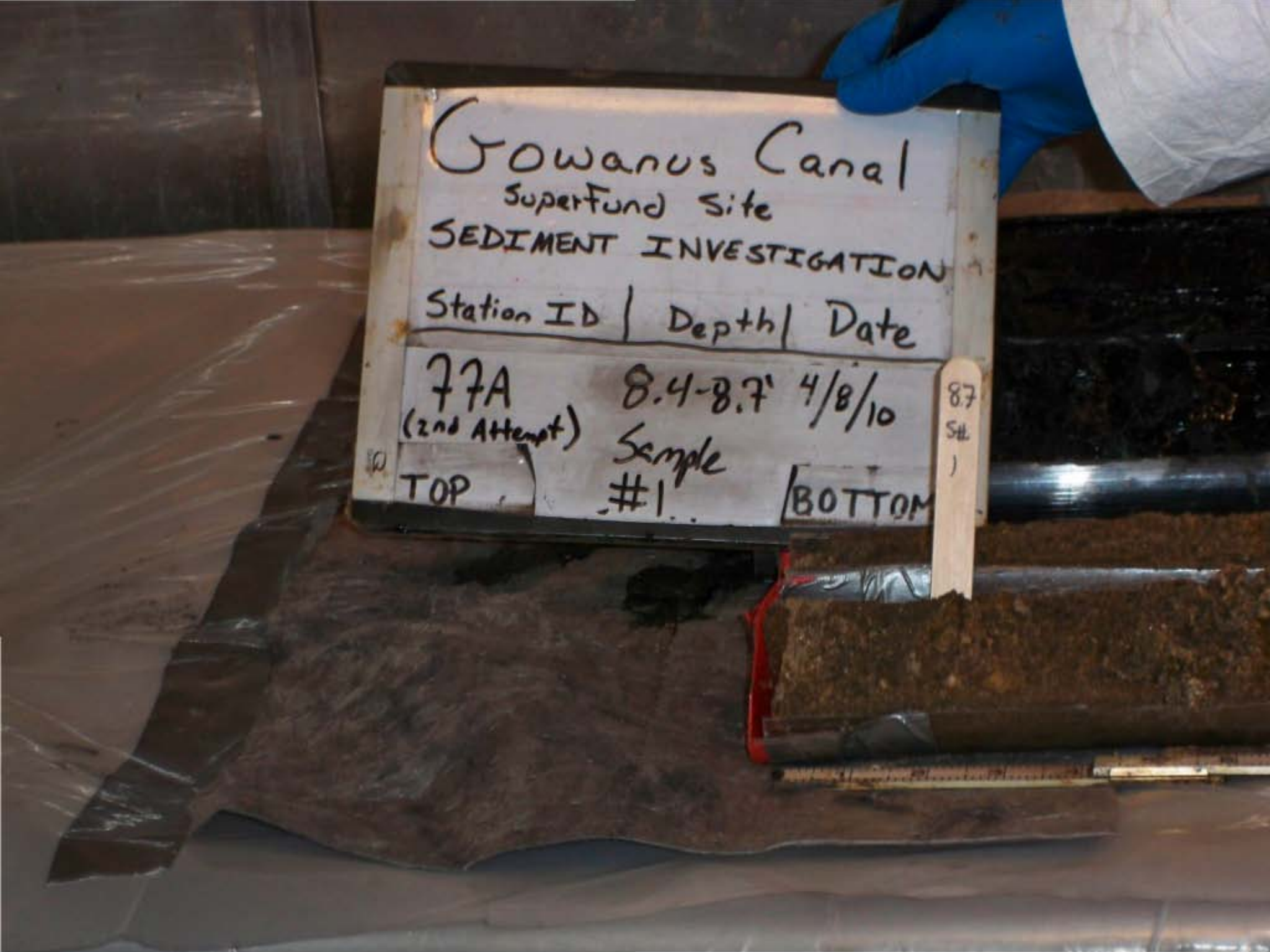

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) 2-4' 4/8/10
No Sample
TOP
BOTTOM
2
67
TZ
VOC

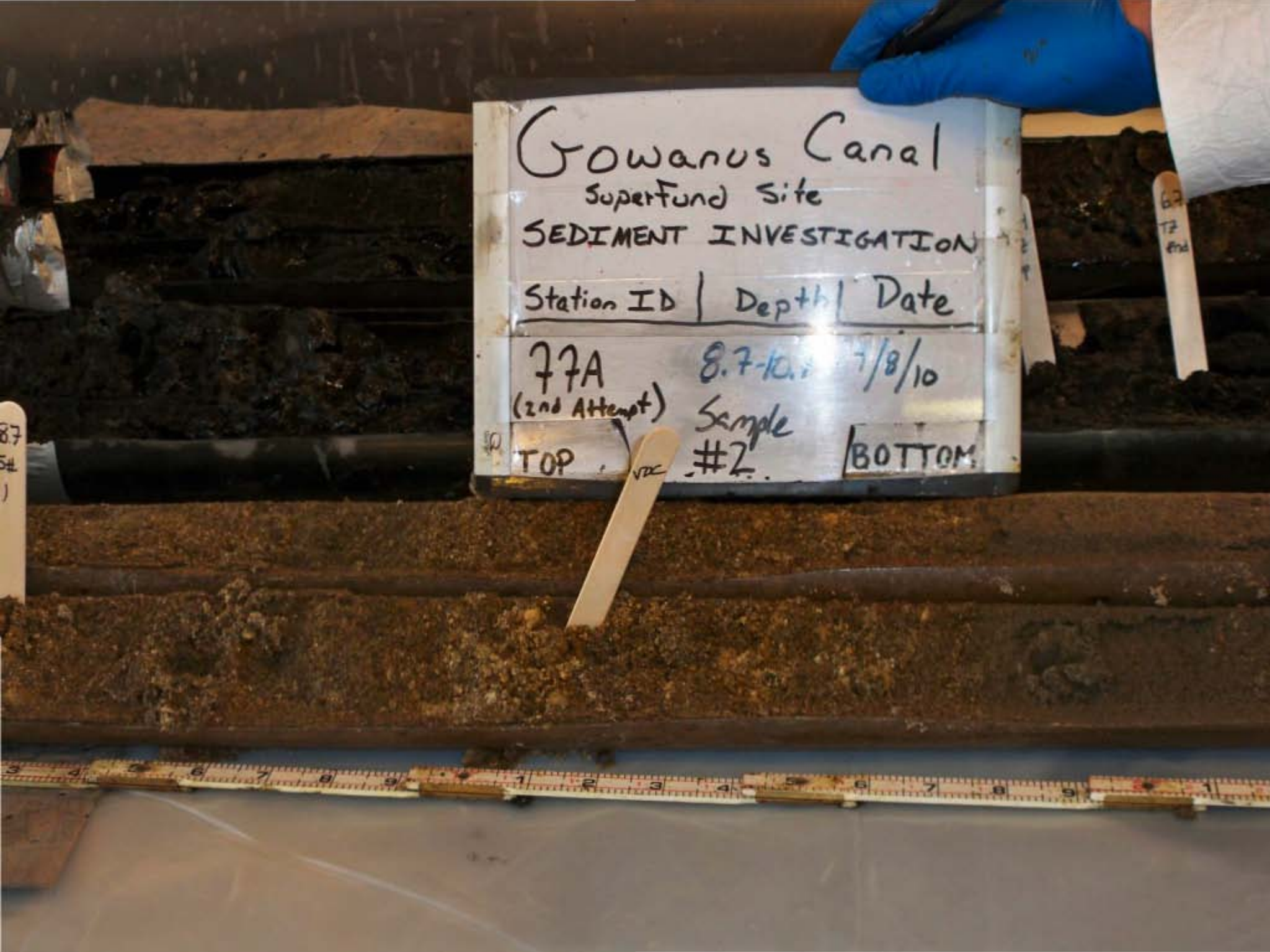

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) 4.0-4.4' 4/8/10
No Sample
BOTTOM
4

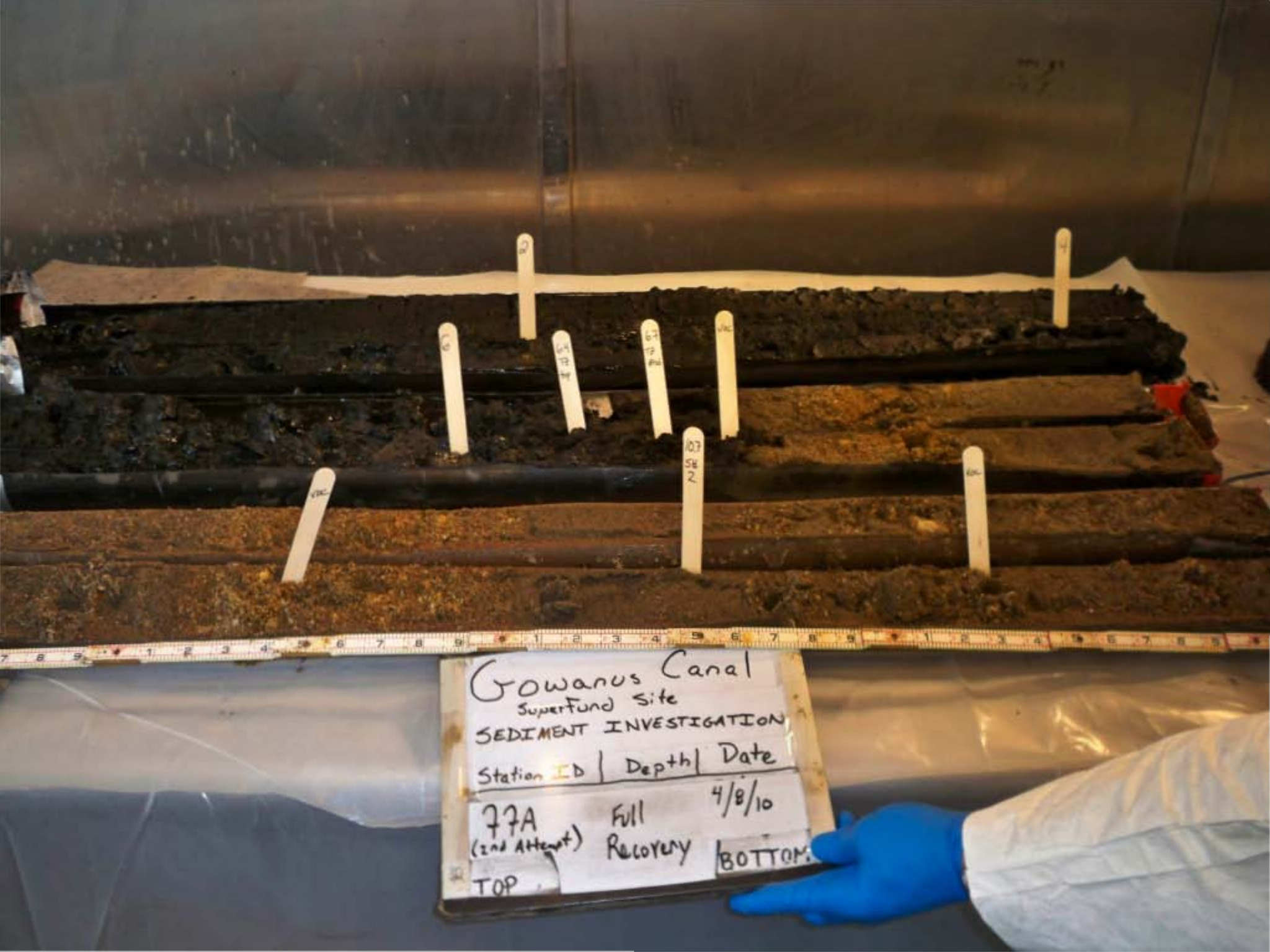

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) 4.4-6.4' 4/8/10
No Sample
TOP
BOTTOM
87
S#
1


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A 6.4-6.7' 4/8/10
(2nd Attempt) Transition Zone
TOP No Sample BOTTOM
6
6.4 TZ top
6.7 TZ End
Vac

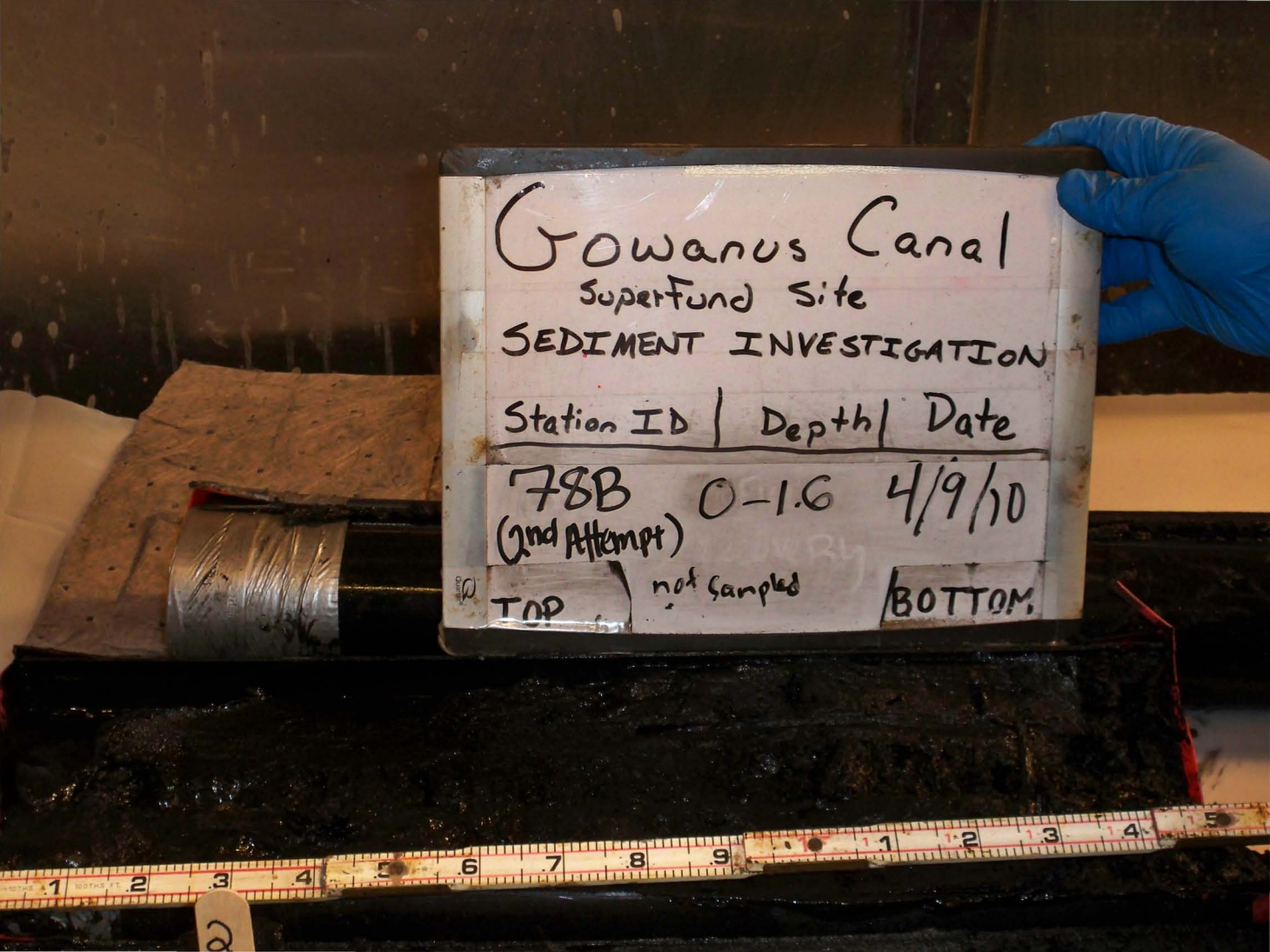

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGA
Station ID | Depth | Date
77A (2nd Attempt) 6.7-8.4' 4/8/10
TOP Sample #1 BOTTOM

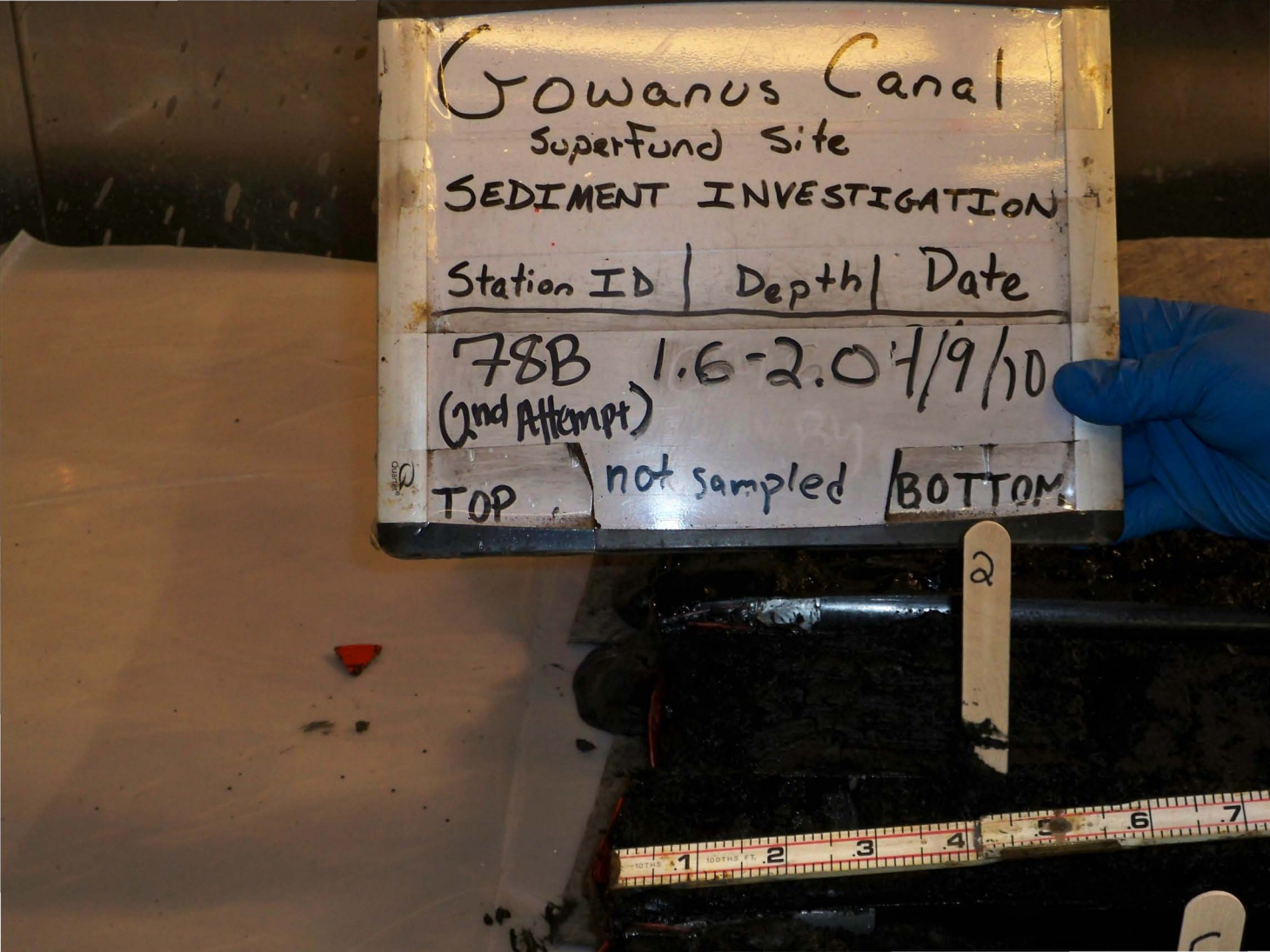

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) 8.4-8.7' 4/8/10
Sample #1
TOP
BOTTOM
87 Stl

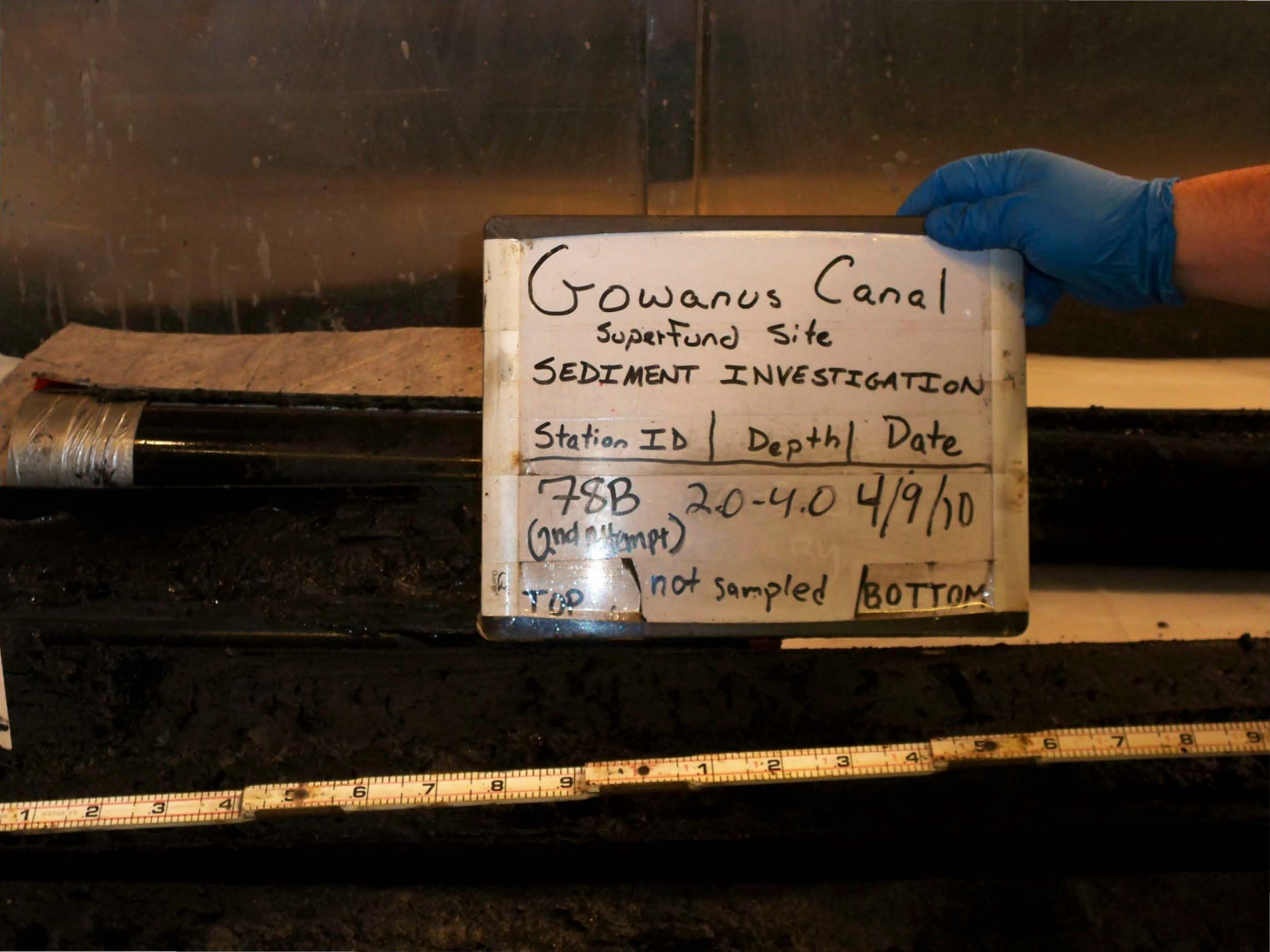

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A
(2nd Attempt)
8.7-10.
7/8/10
Sample
#2
TOP
BOTTOM

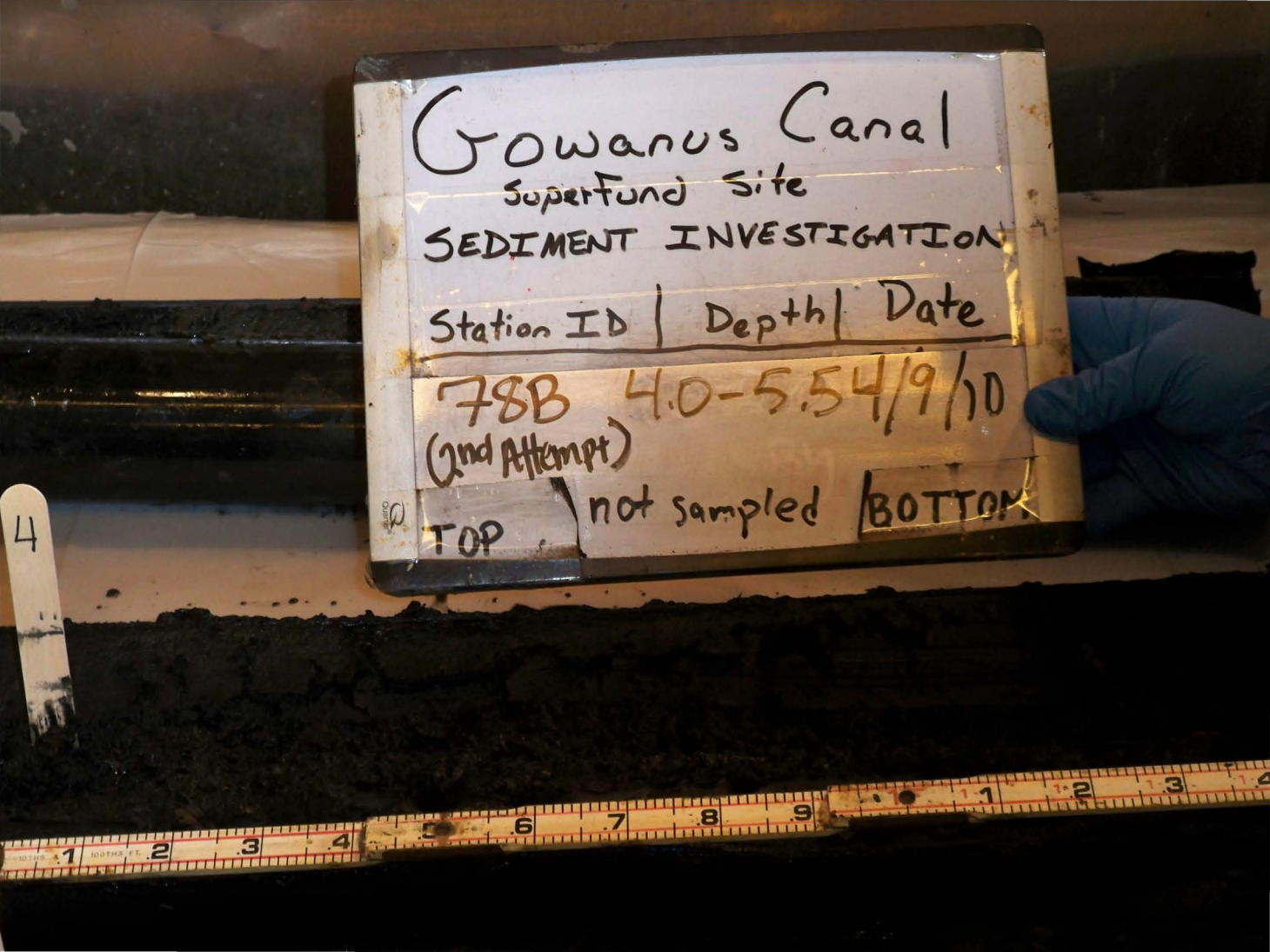

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) | Full Recovery | 4/8/10
TOP | BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B (2nd Attempt) FULL Recovery 4/9/10
TOP
BOTTOM

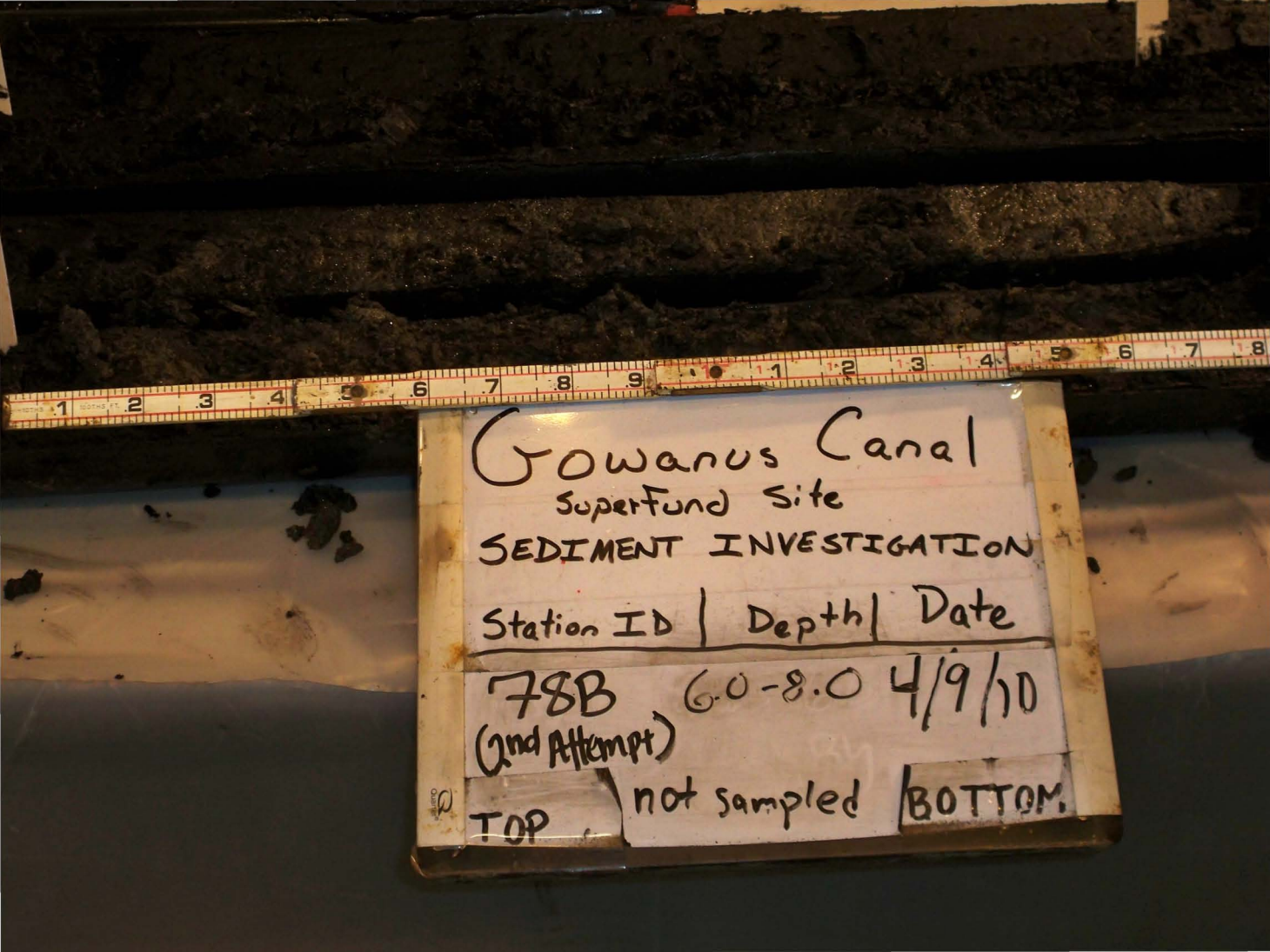

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B (2nd Attempt) 0-1.6 4/9/10
TOP not Sampled BOTTOM

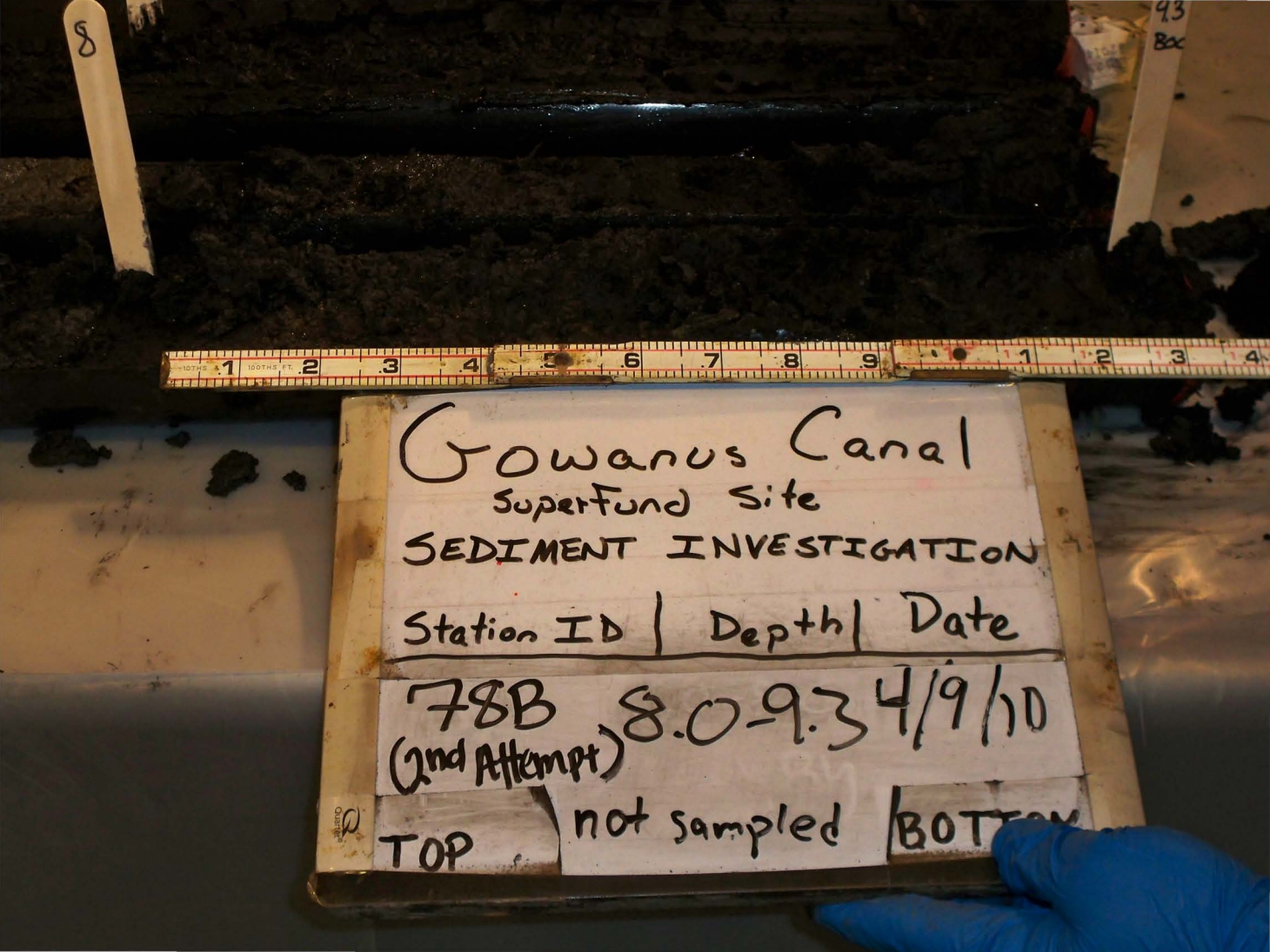

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B (2nd Attempt) 1.6-2.0 7/9/10
TOP not sampled BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B 2.0-4.0 4/9/10
(2nd attempt)
TOP not sampled BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B 4.0-5.5 4/9/10
(2nd Attempt)
TOP
not sampled
BOTTOM

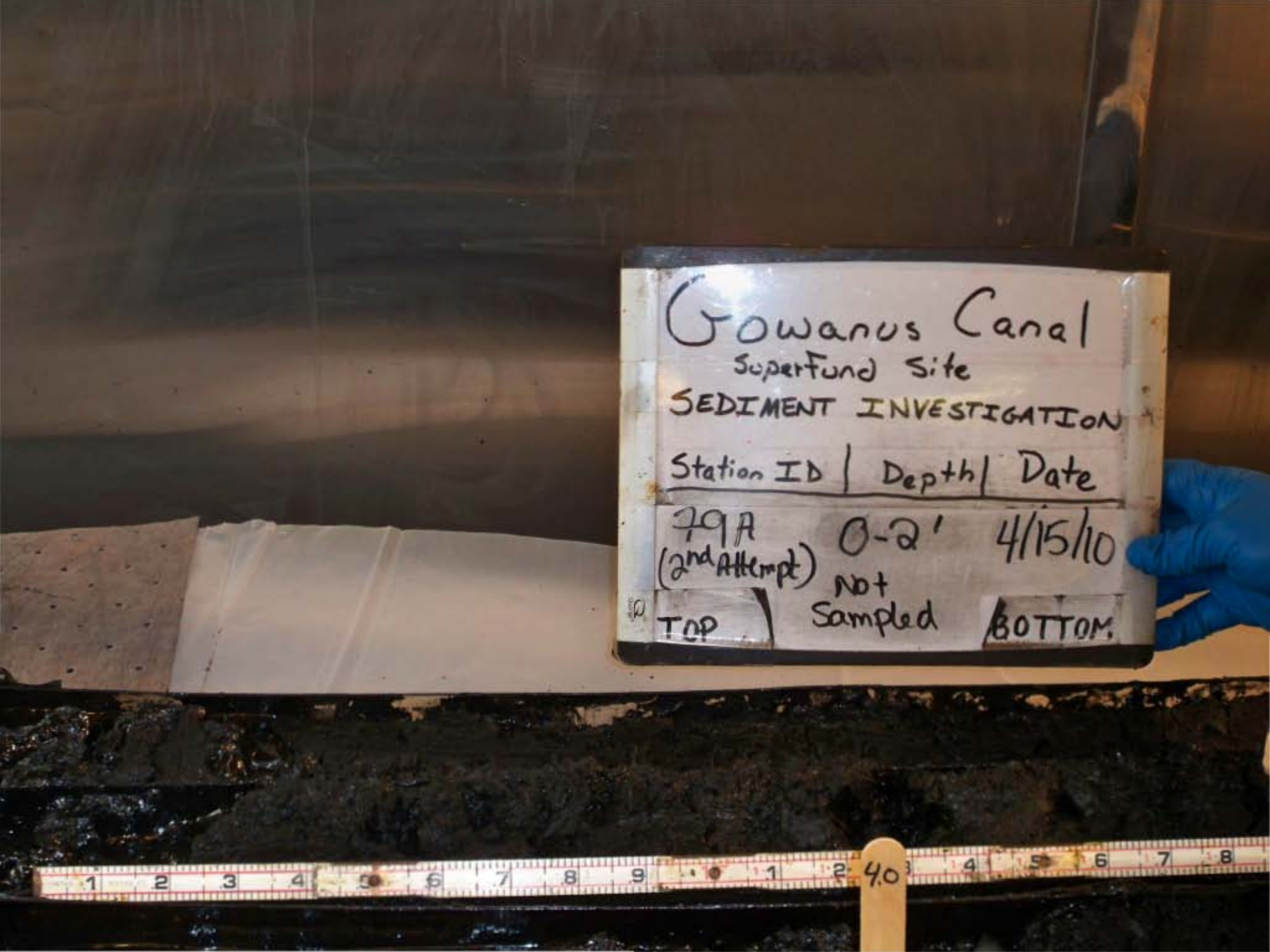

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B 5.5-6.0 4/9/10
(2nd Attempt)
TOP not sampled BOTTOM
6

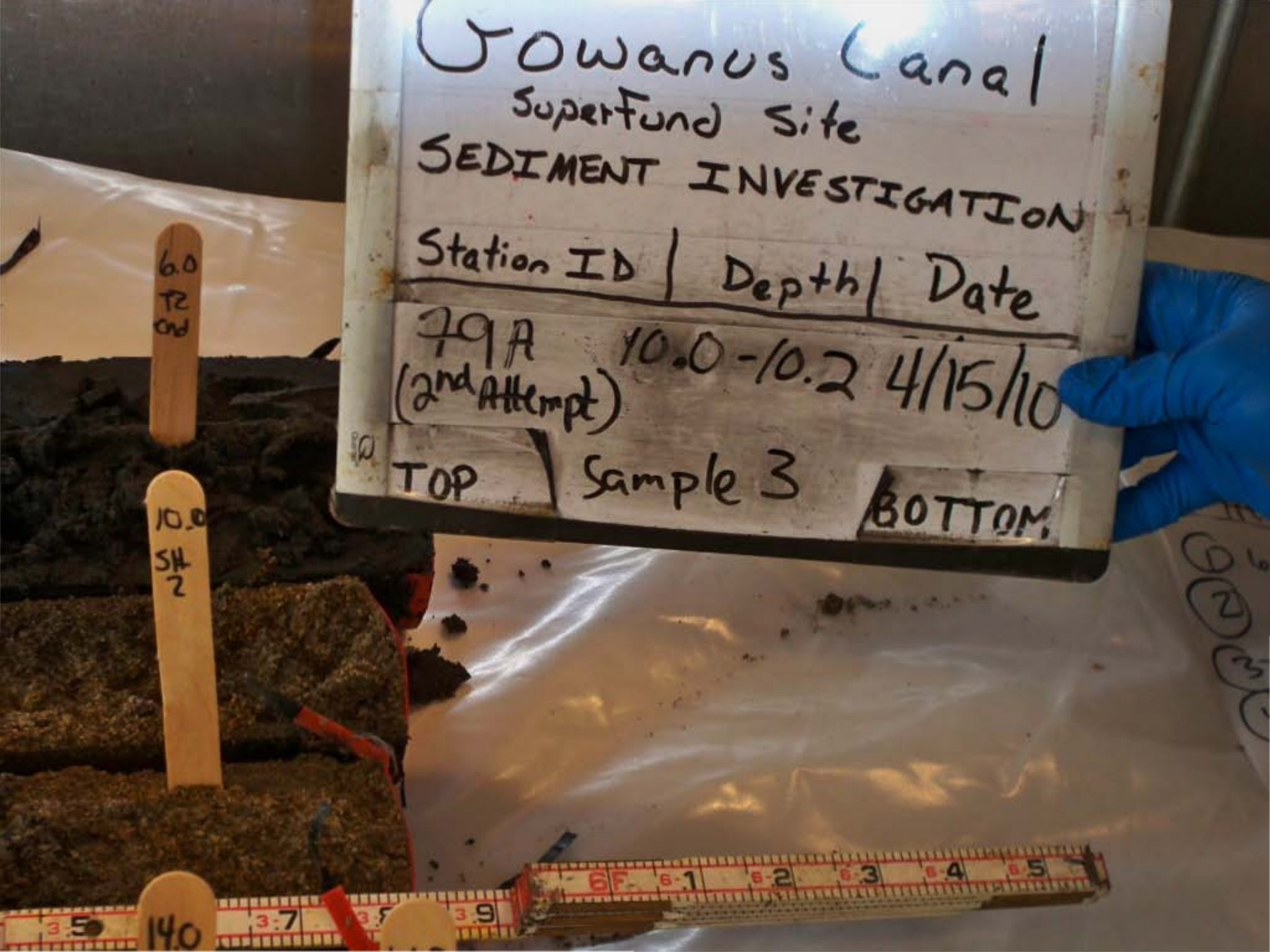

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B (2nd Attempt) 6.0-8.0 4/9/10
TOP not sampled BOTTOM


8
93
Box
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B (2nd Attempt) 8.0-9.3 4/9/10
TOP
not sampled
BOTTOM

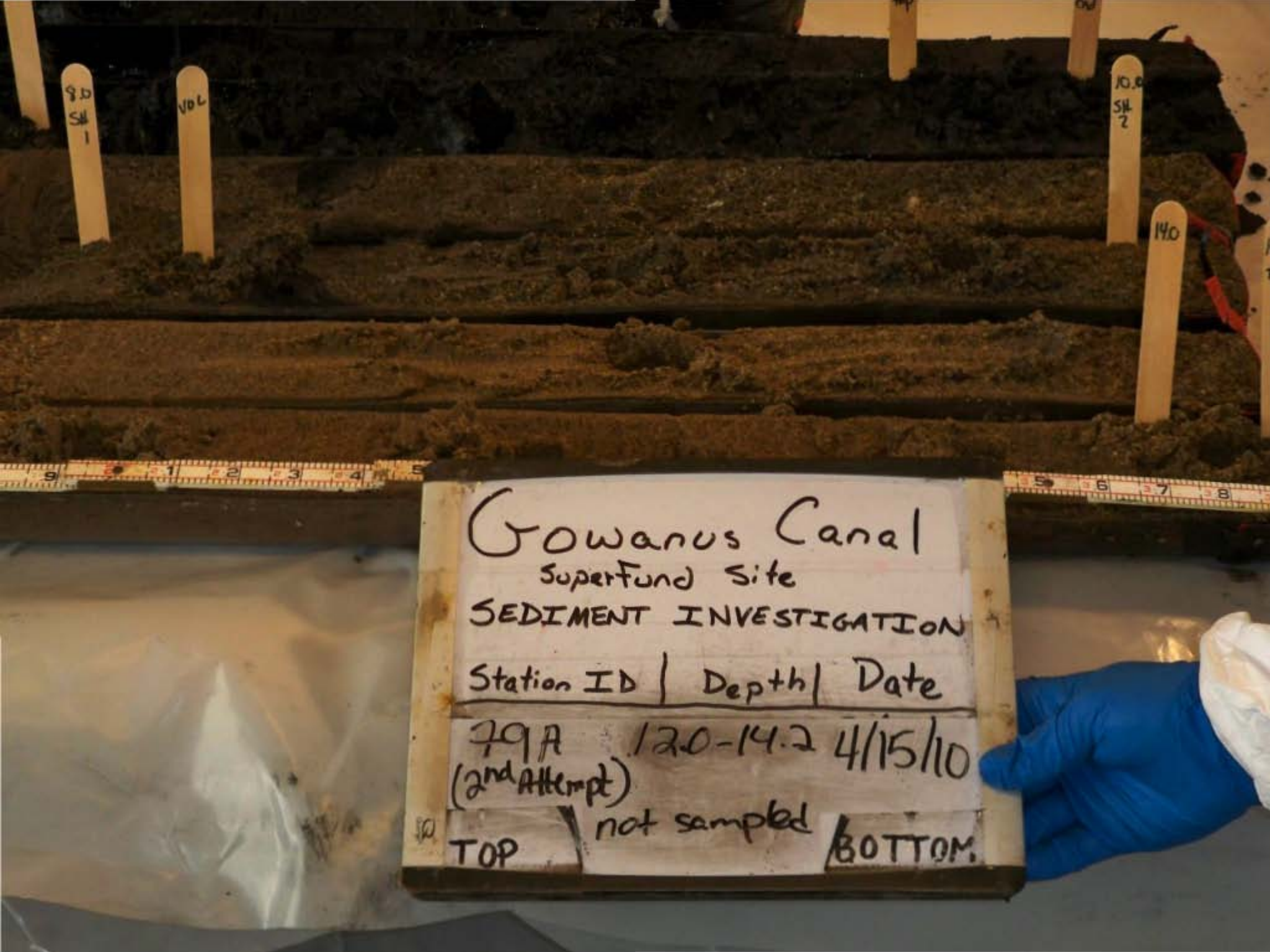

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B Full 4/9/10
(2nd Attempt) Recovery
TOP
BOTTOM

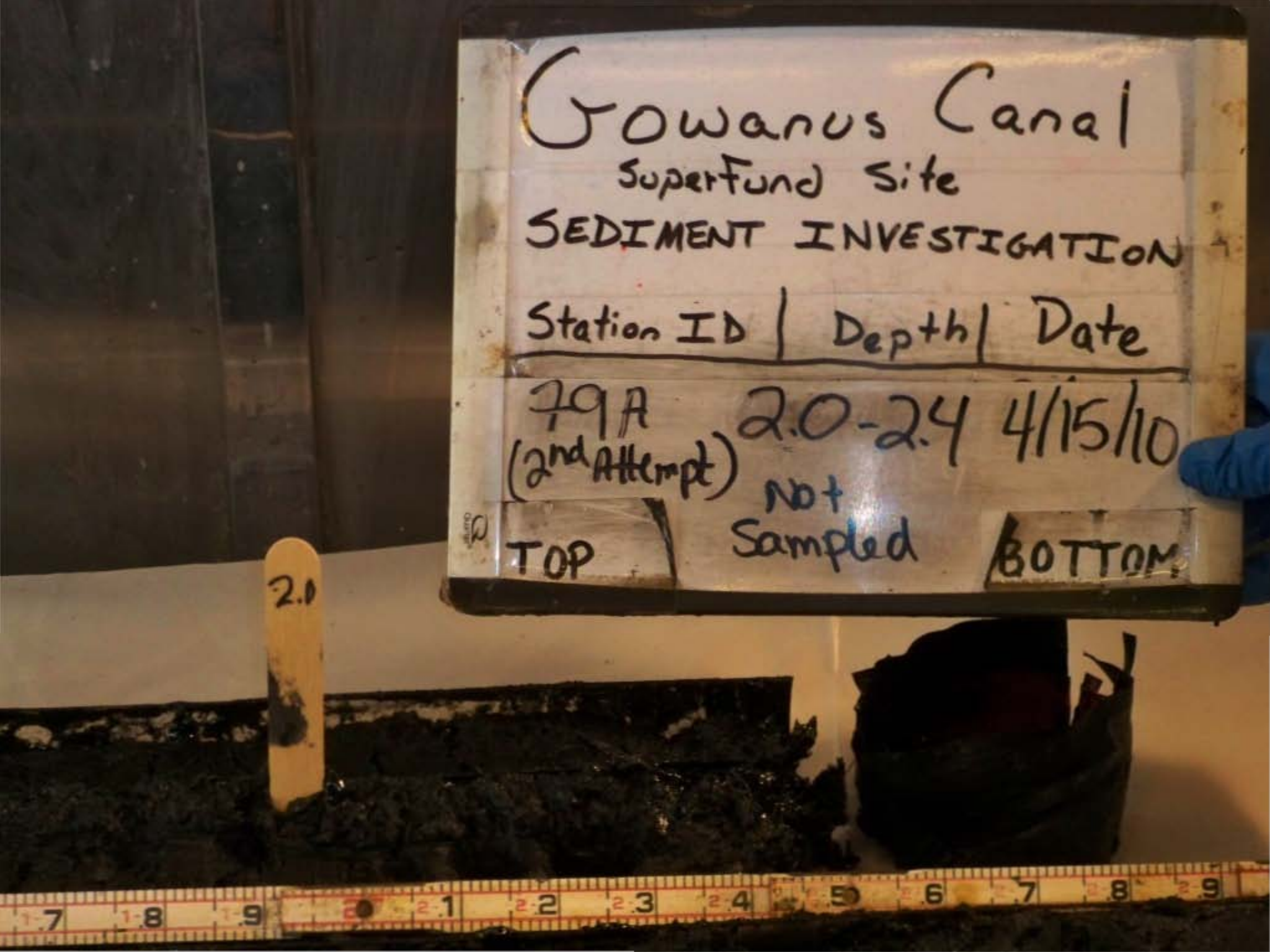

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) FULL RECOVERY 4/15/10
TOP
BOTTOM

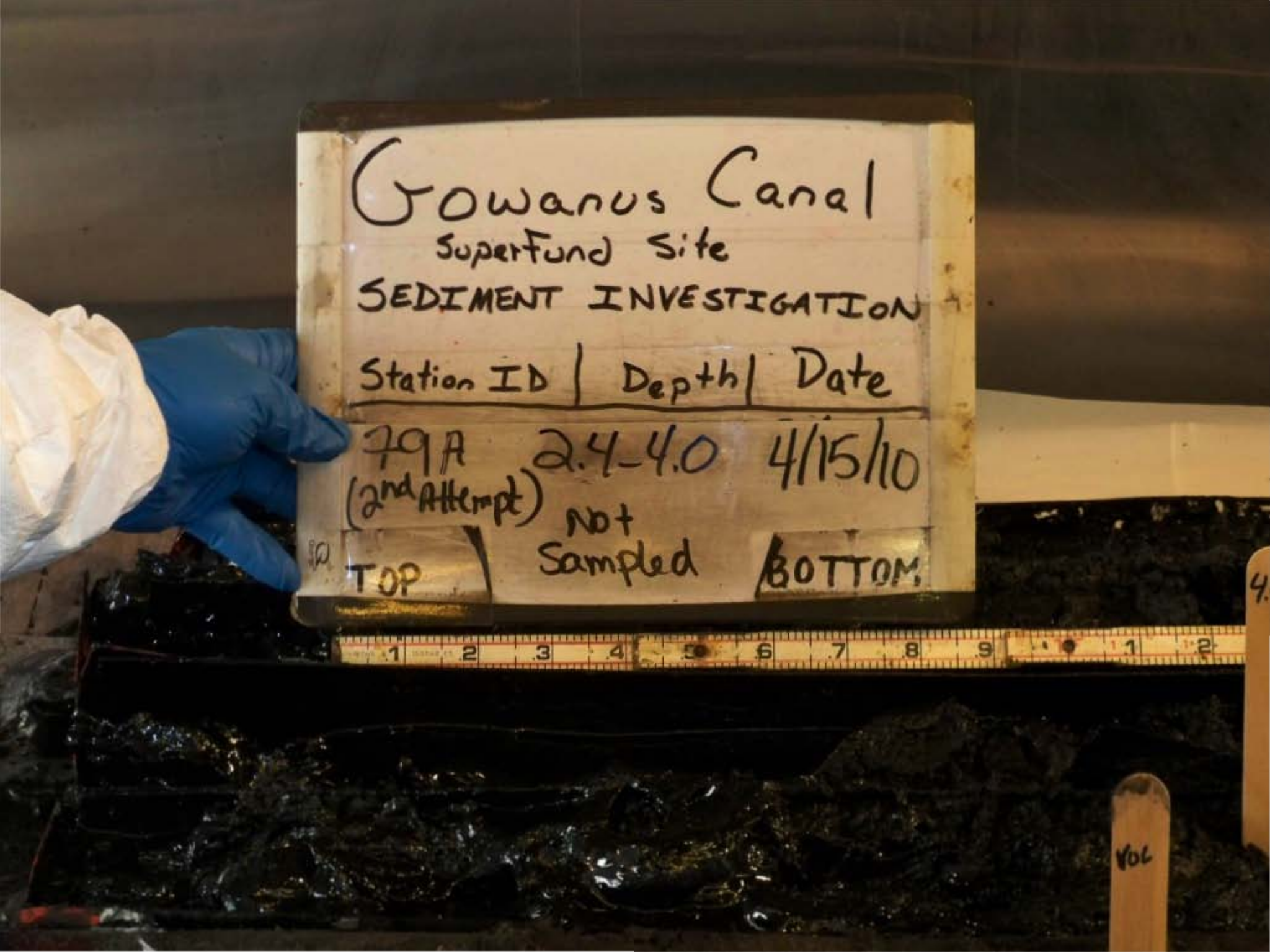

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 0-2' 4/15/10
Not Sampled
TOP
BOTTOM
4.0


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 10.0-10.2 4/15/10
TOP
Sample 3
BOTTOM
6.0 TR CND
10.0 SH 2
140

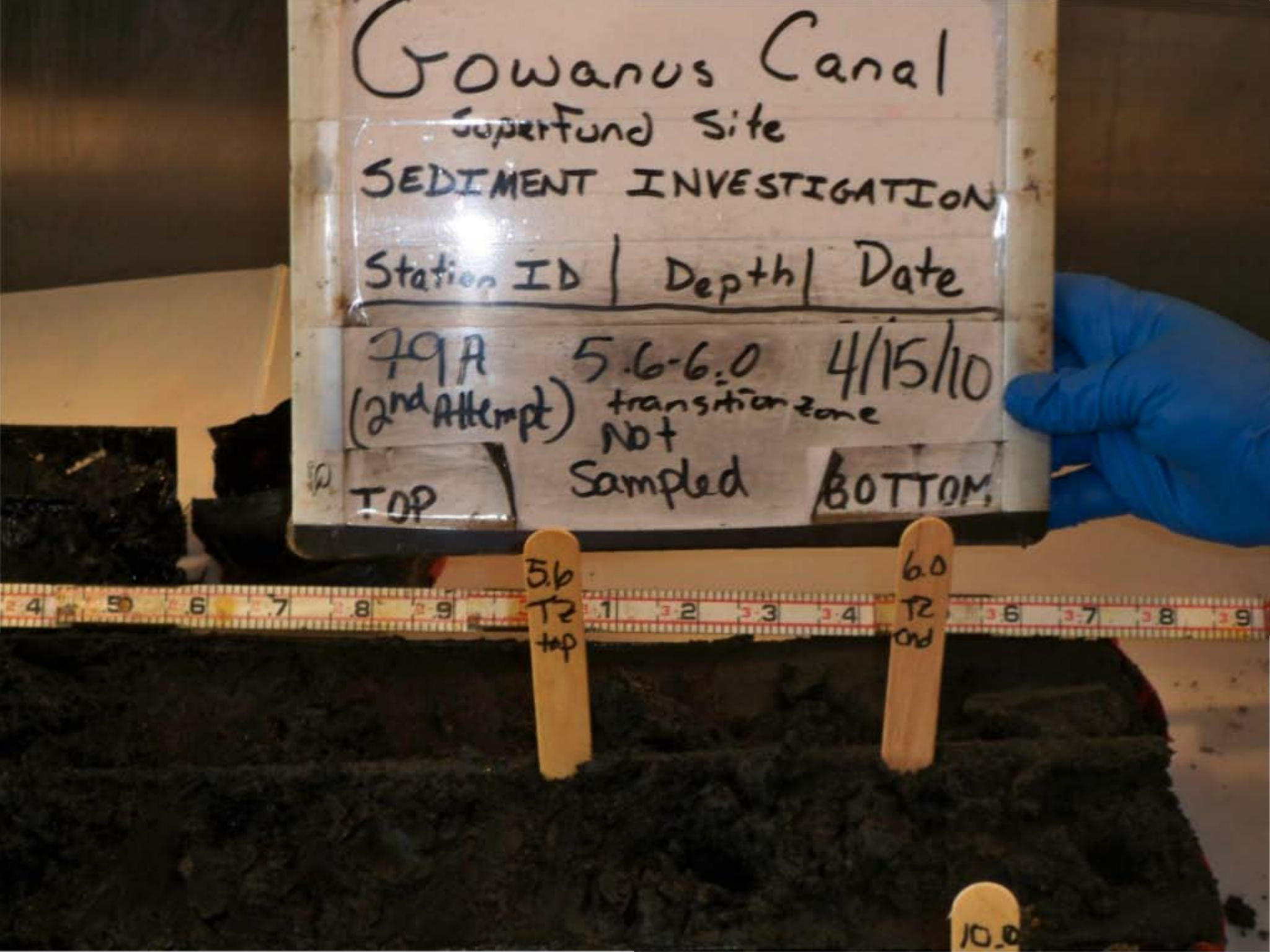

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 10.2-12.0 4/15/10
TOP
Sample 3
BOTTOM

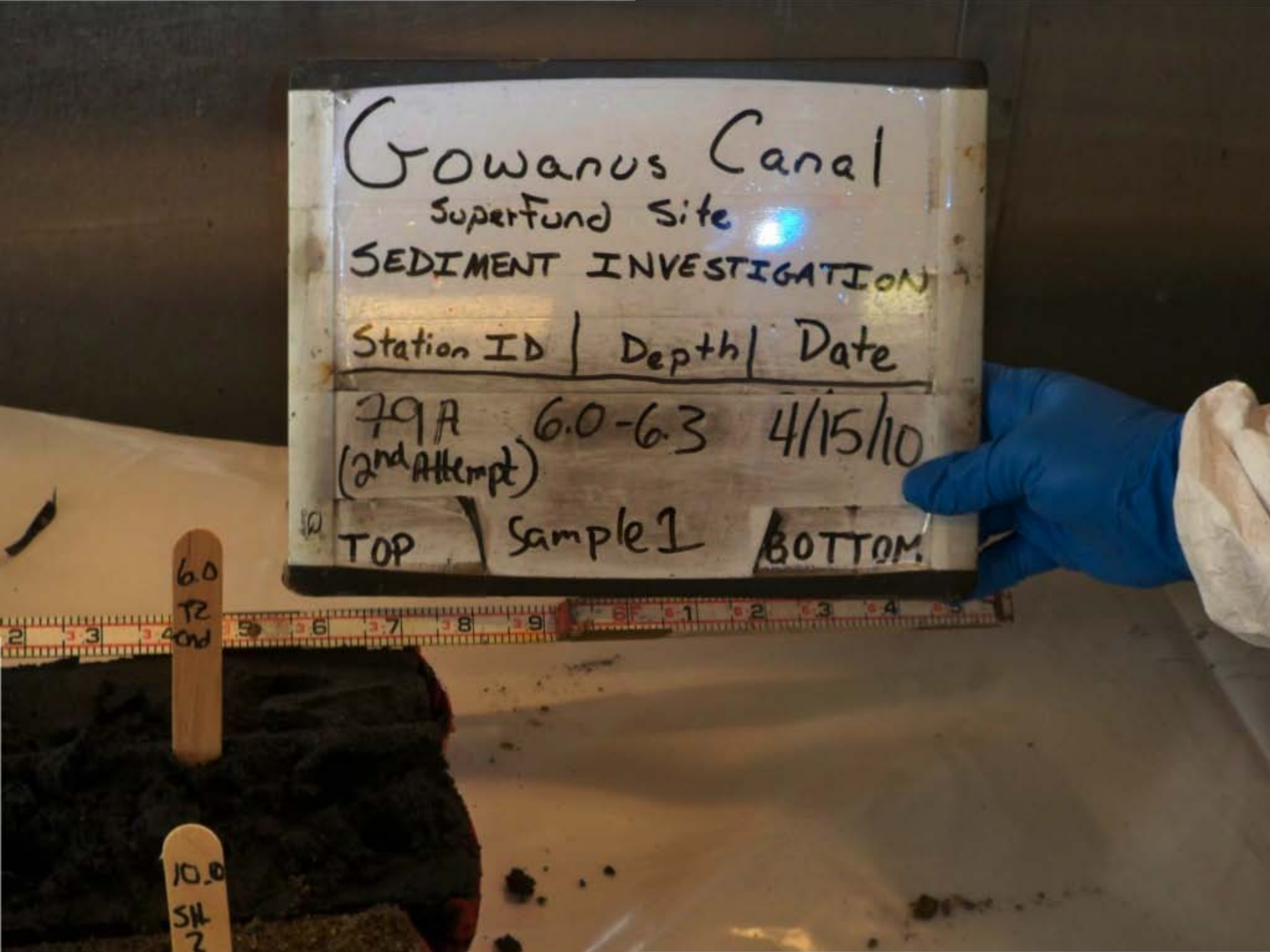

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 12.0-14.2 4/15/10
not sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 2.0-2.4 4/15/10
Not Sampled
TOP
BOTTOM
2.0

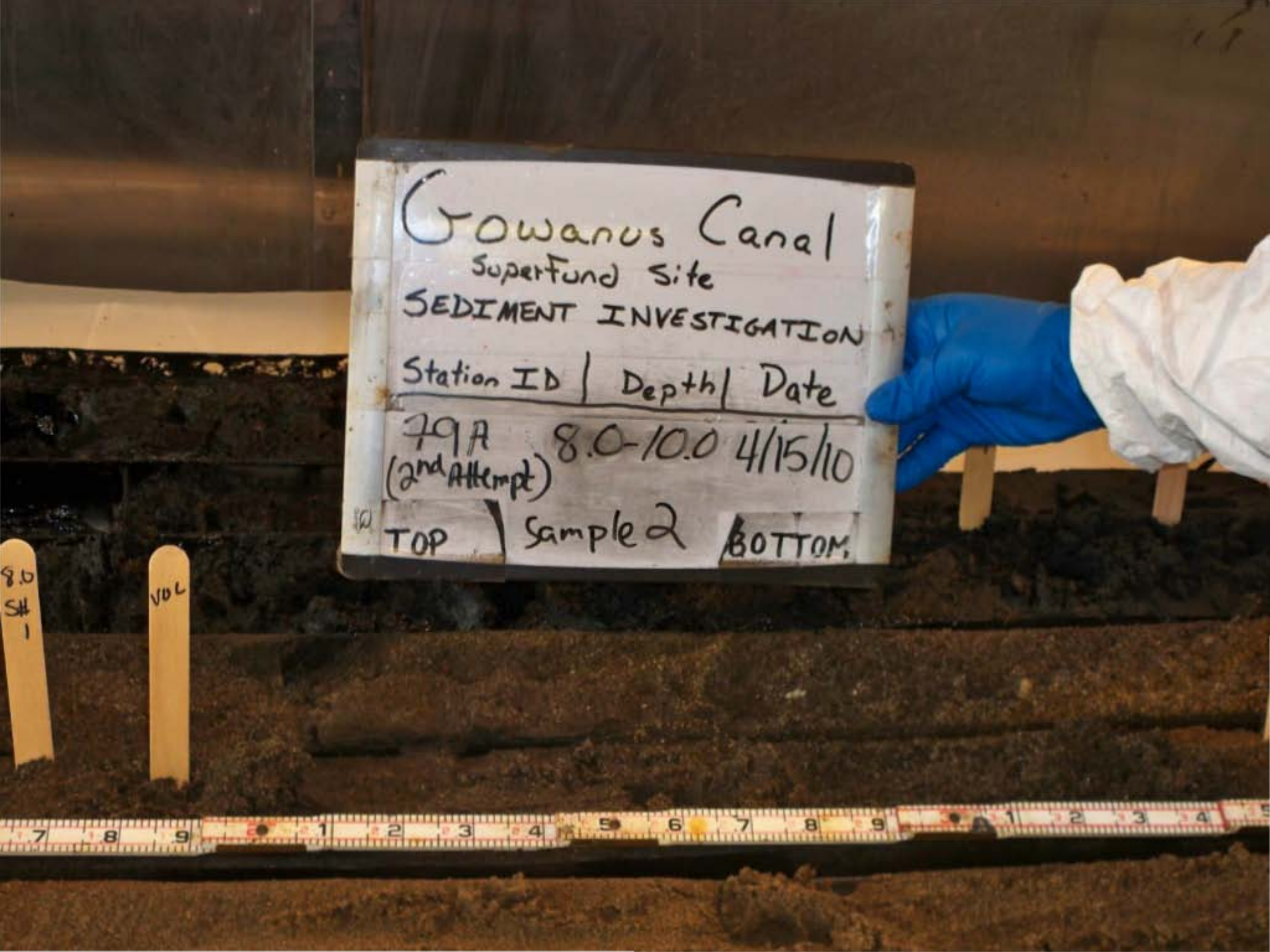

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 2.4-4.0 4/15/10
Not Sampled
TOP
BOTTOM
VOL

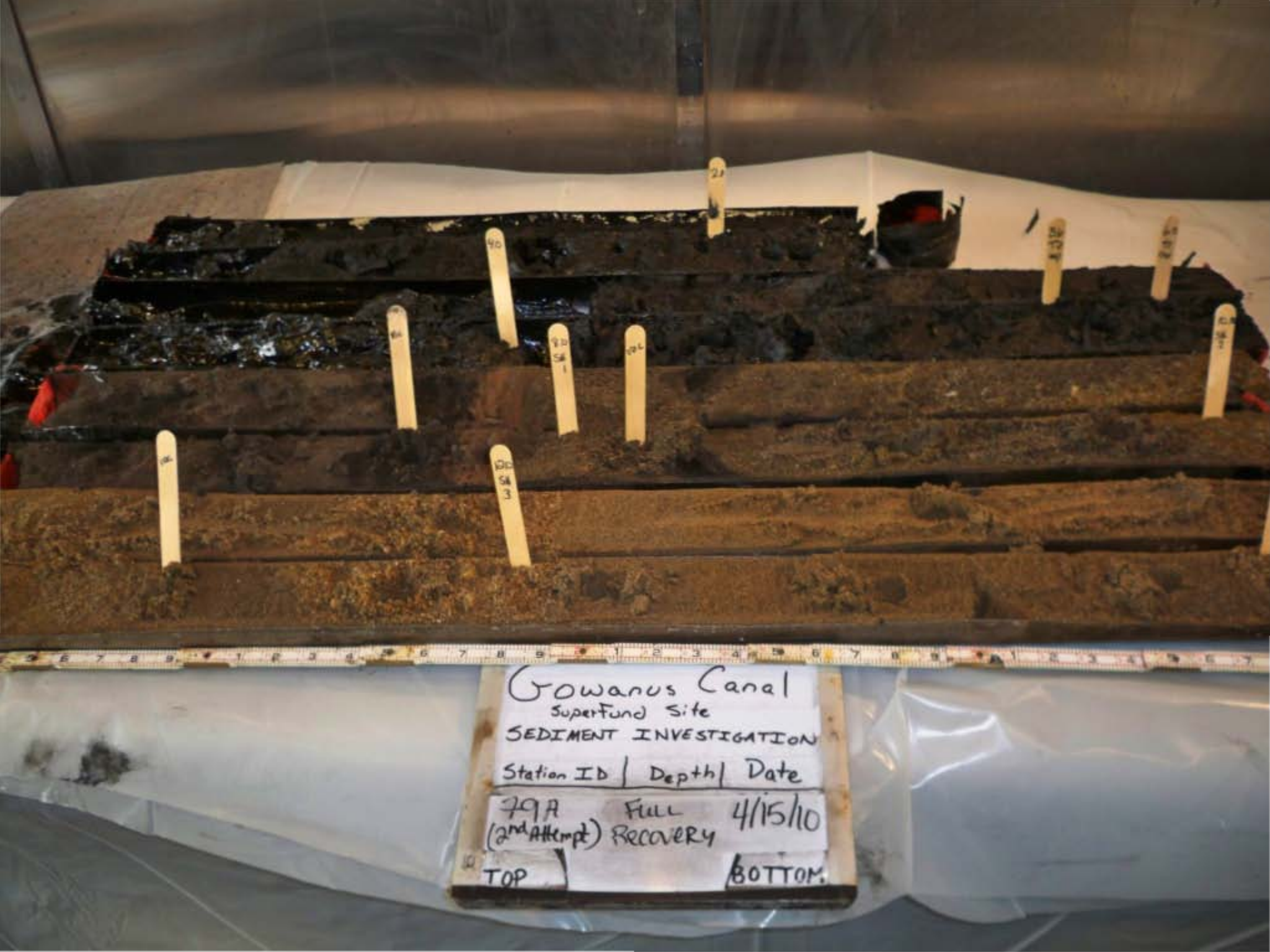

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 4.0-5.6 4/15/10
Not Sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 5.6-6.0 transition zone NOT Sampled 4/15/10
TOP
BOTTOM
5.6 TZ top
6.0 TZ bot
10.0

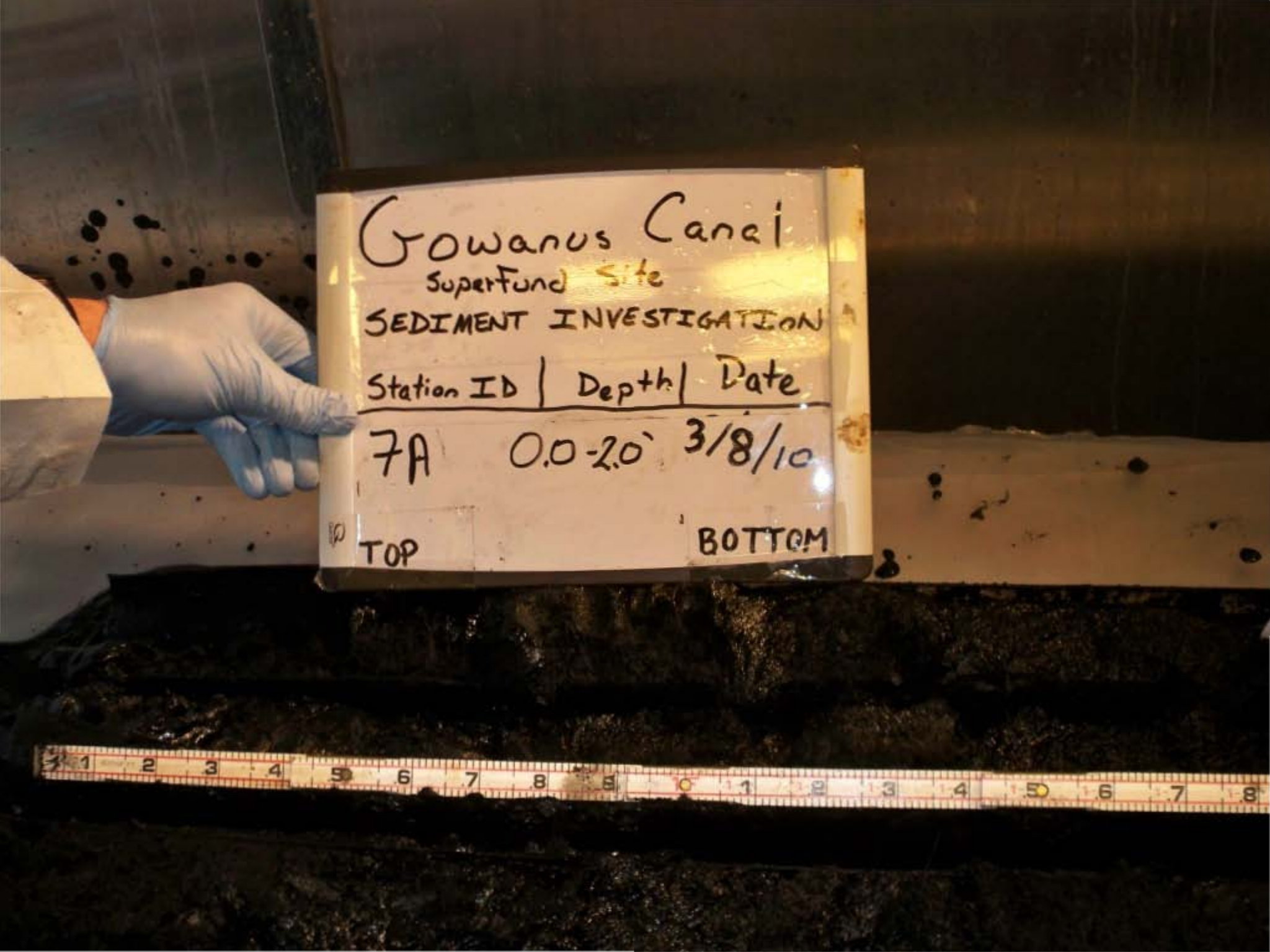

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 6.0-6.3 4/15/10
TOP | Sample 1 | BOTTOM
6.0
TR
10.0
SH
2

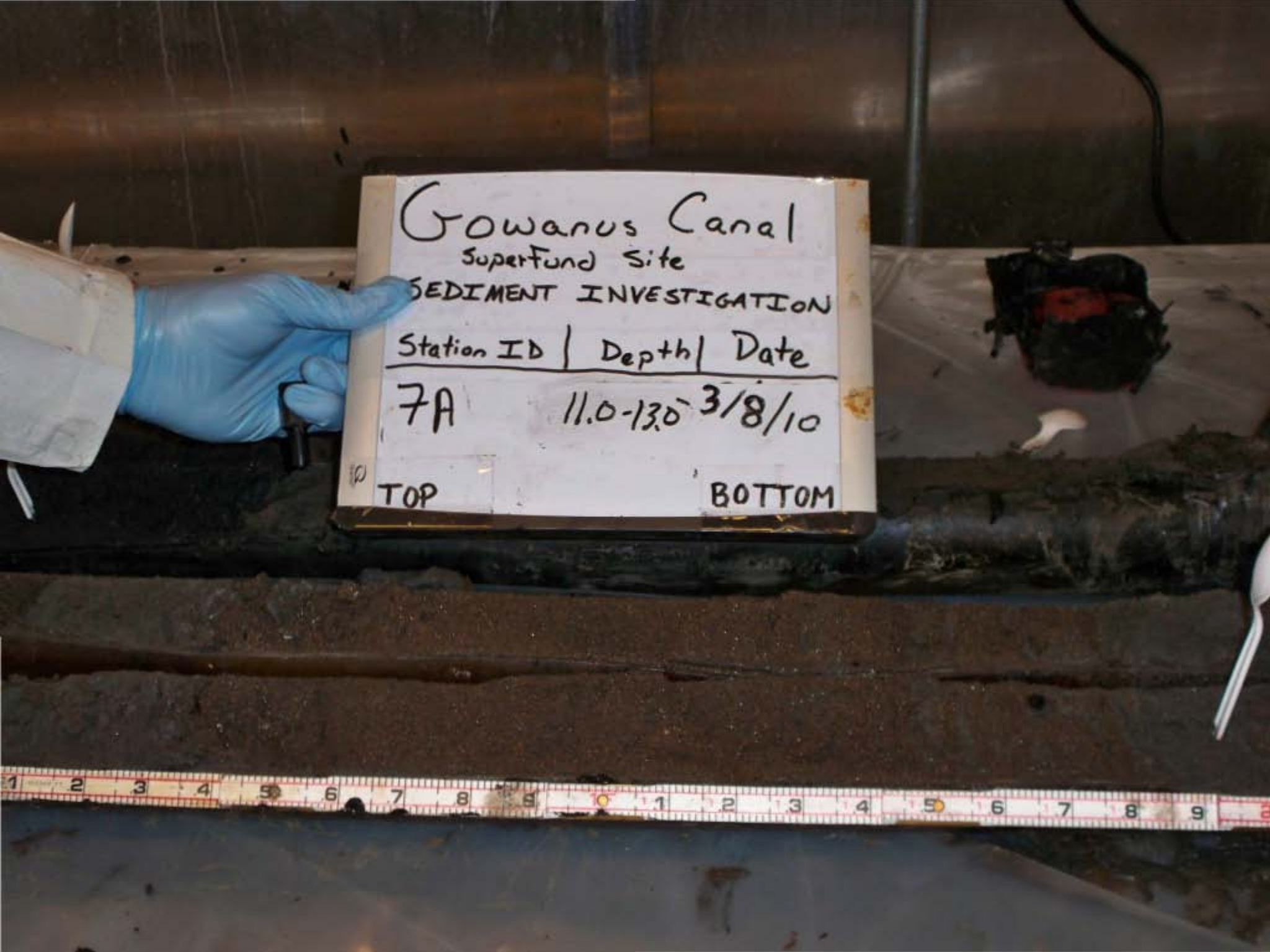

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID Depth Date
79A (2nd Attempt) 6.3-8.0 4/15/10
TOP Sample 1 BOTTOM
VOC
4.0
VOC

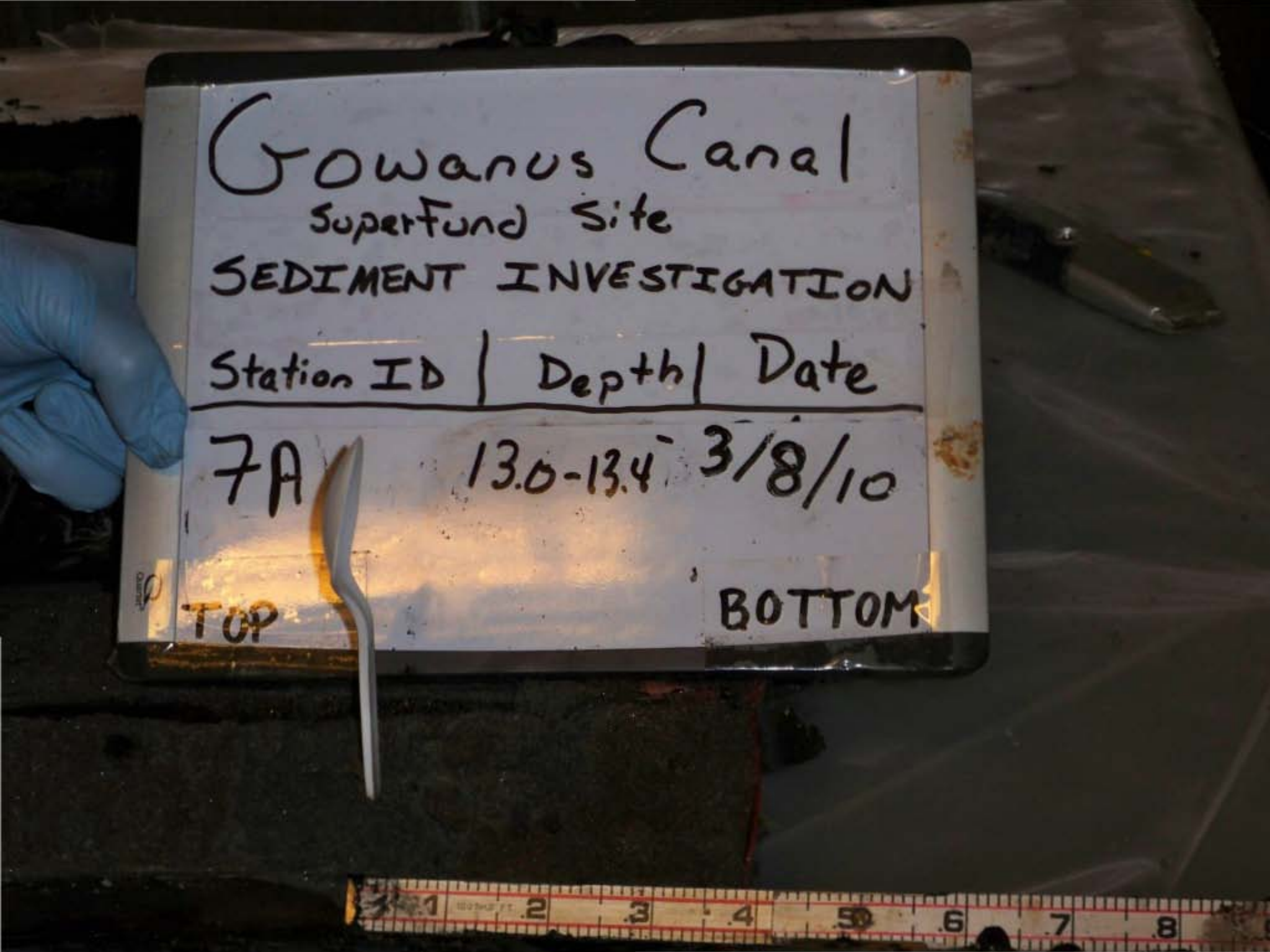

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) 8.0-10.0 4/15/10
TOP | Sample 2 | BOTTOM
8.0 SH 1
VOL

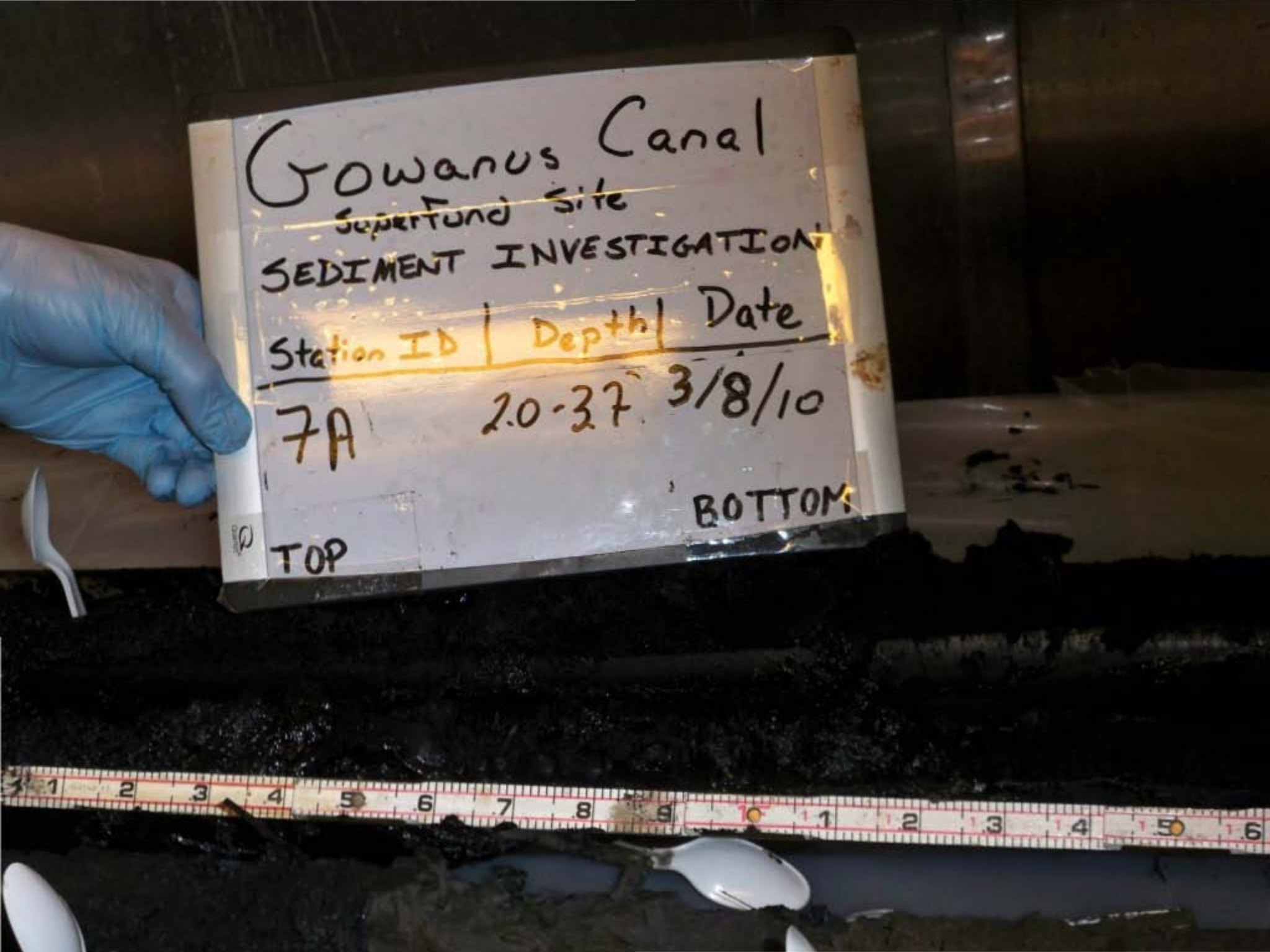

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) FULL RECOVERY 4/15/10
TOP
BOTTOM

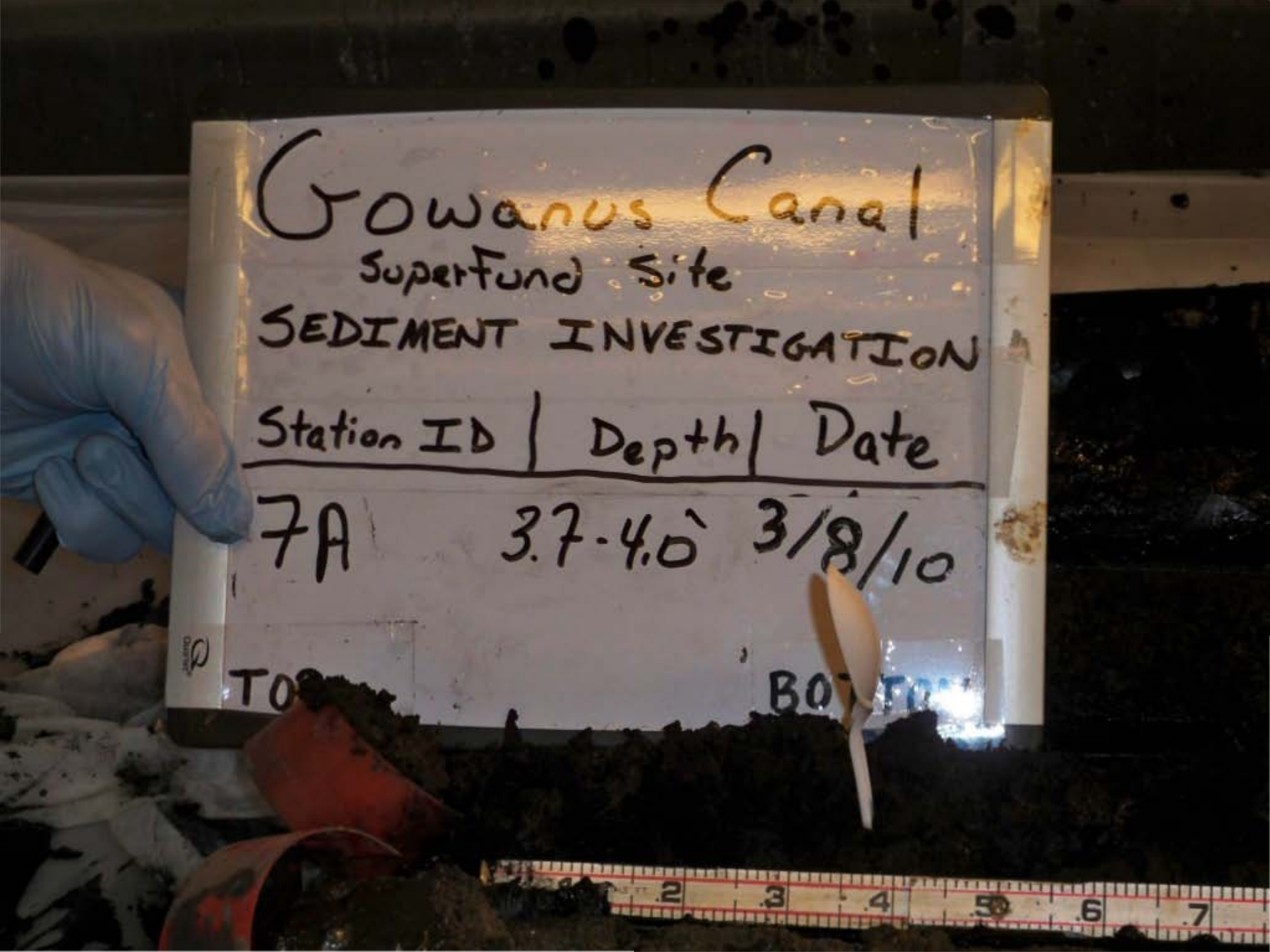

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A Entire Recovery 3/8/10
TOP
BOTTOM

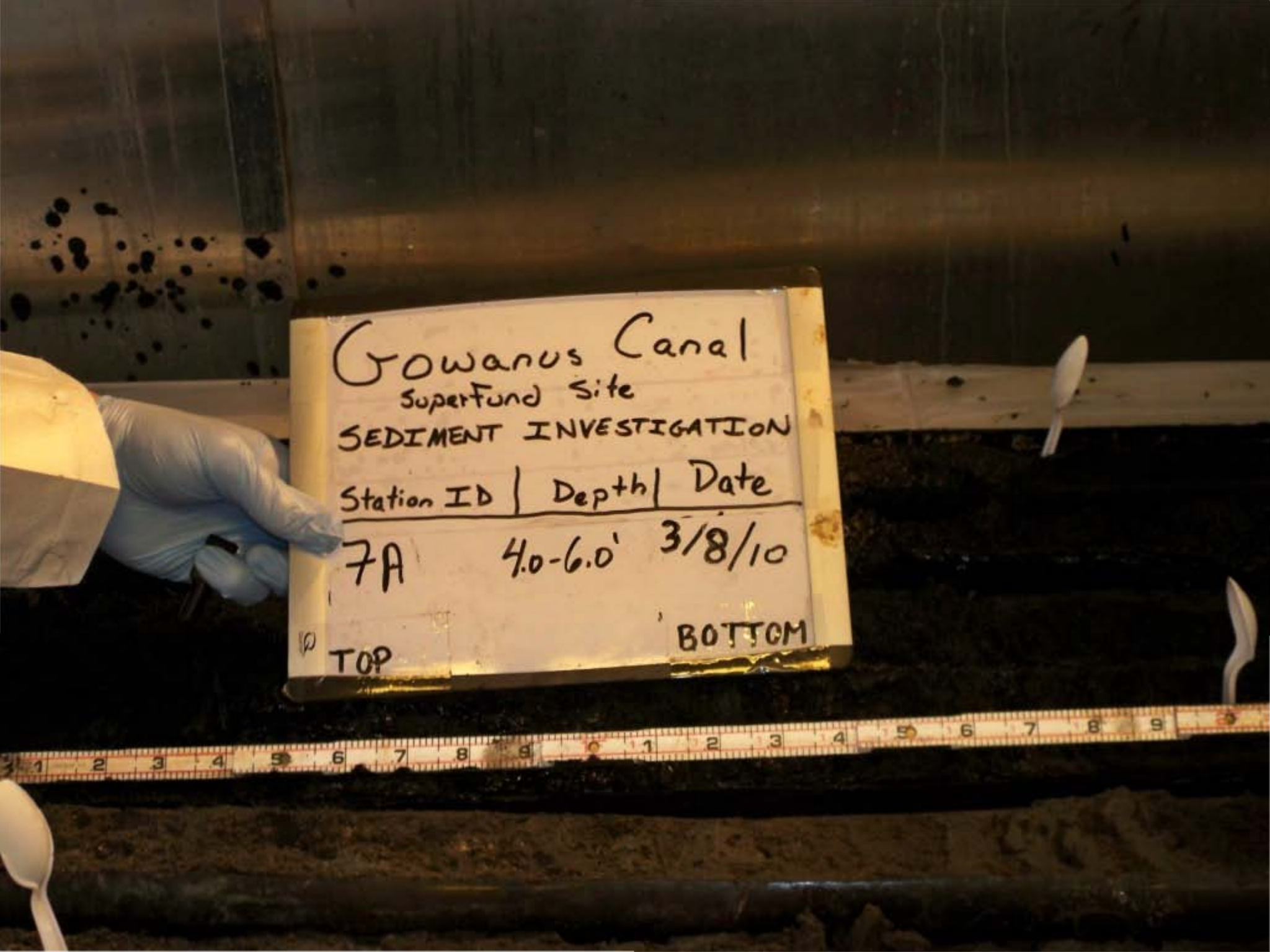

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 0.0-2.0' 3/8/10
TOP
BOTTOM

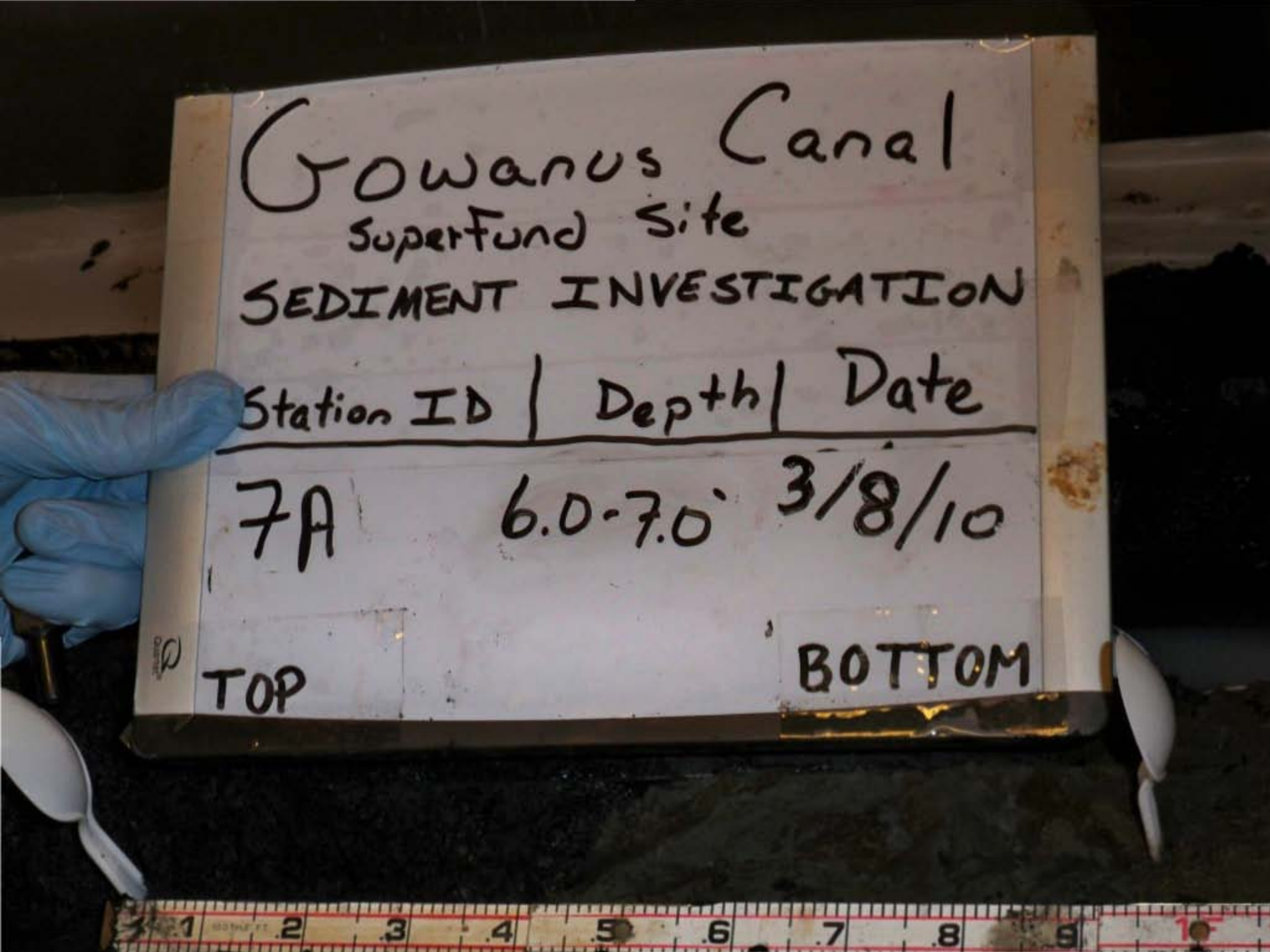

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 11.0-13.0 3/8/10
TOP
BOTTOM

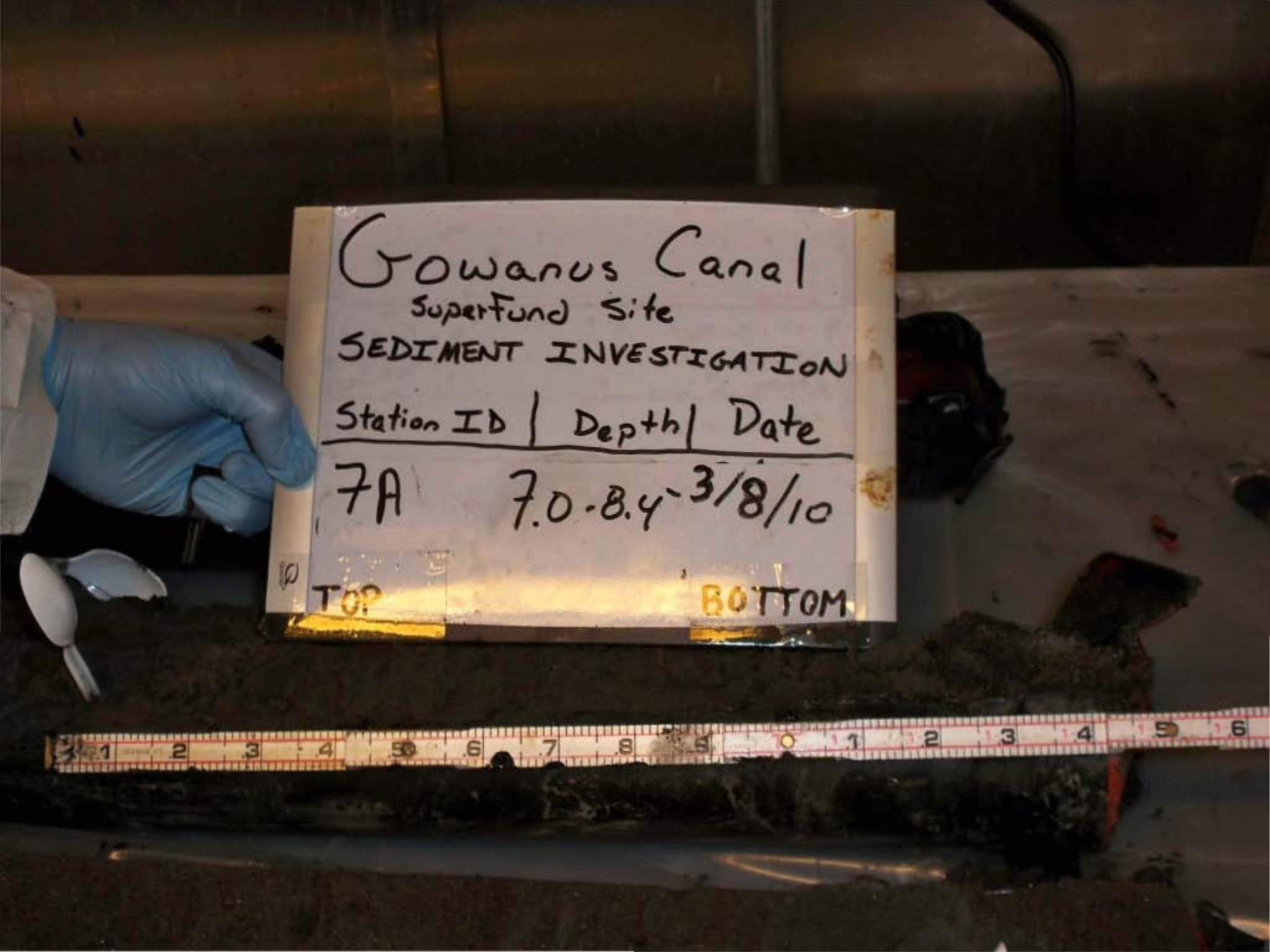

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 13.0-13.4' 3/8/10
TOP
BOTTOM

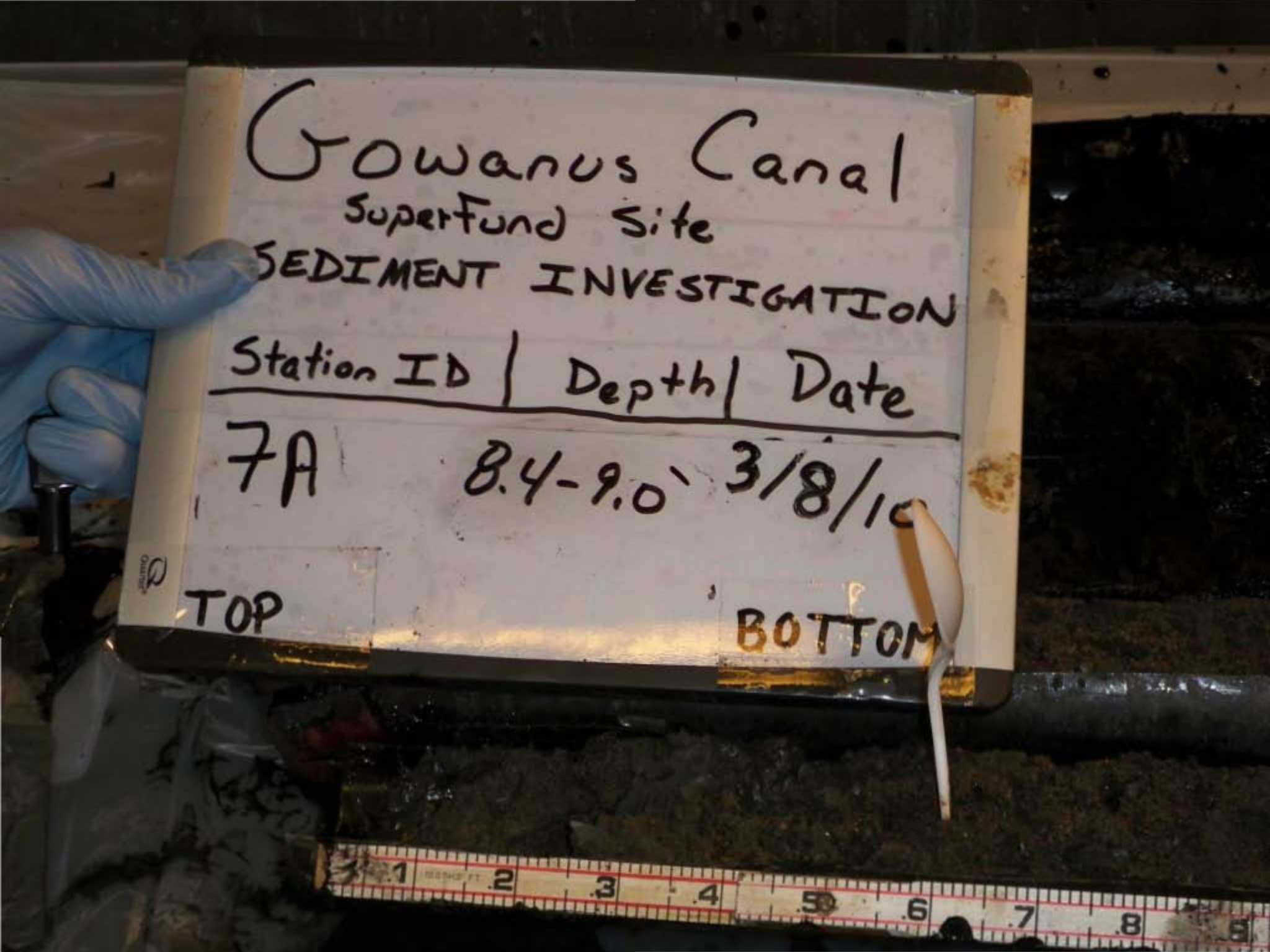

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 2.0-3.7 3/8/10
TOP
BOTTOM

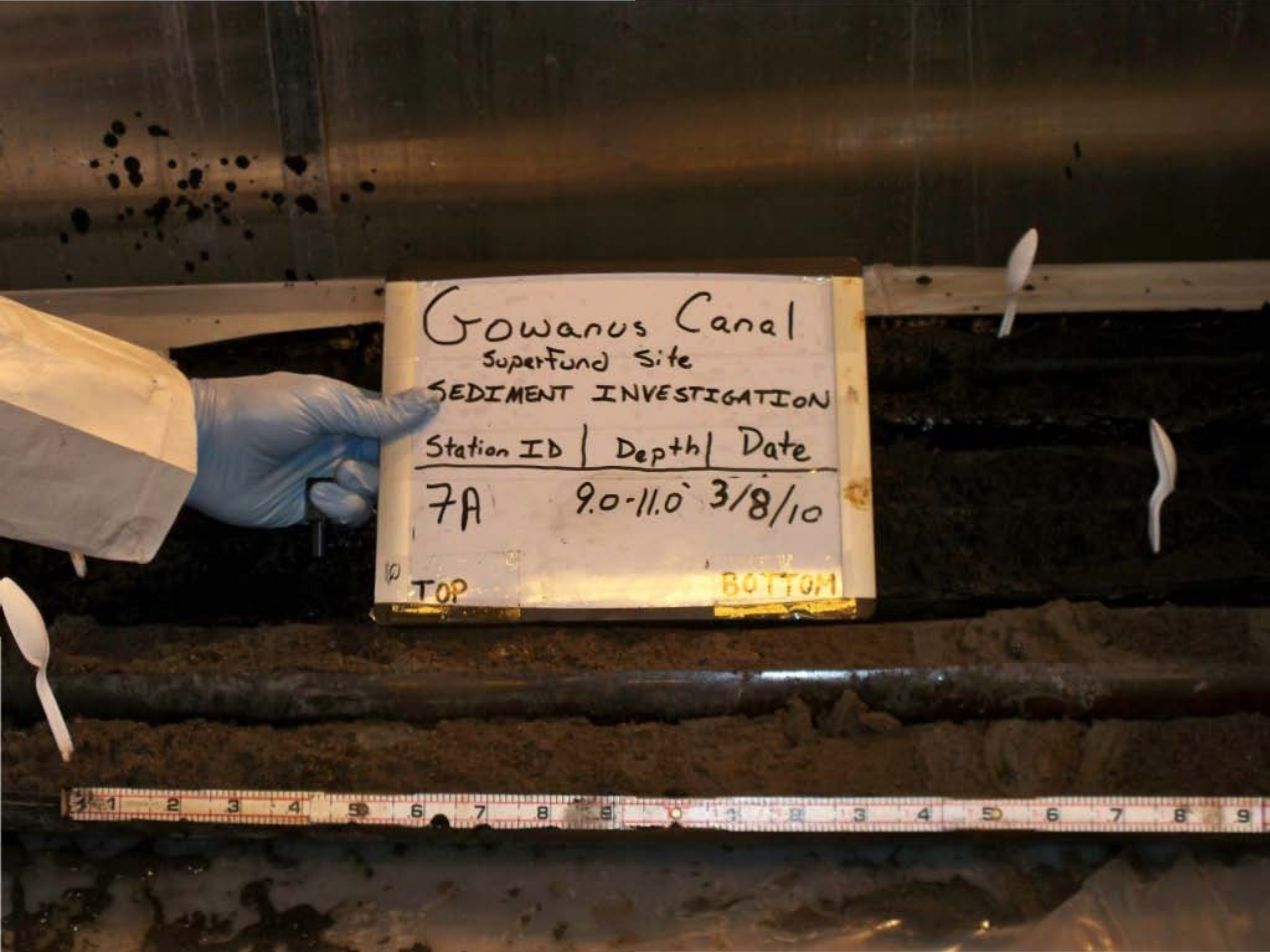

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 3.7-4.0' 3/8/10
TO
BO
2
3
4
5
6
7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 4.0-6.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 6.0-7.0' 3/8/10
TOP
BOTTOM

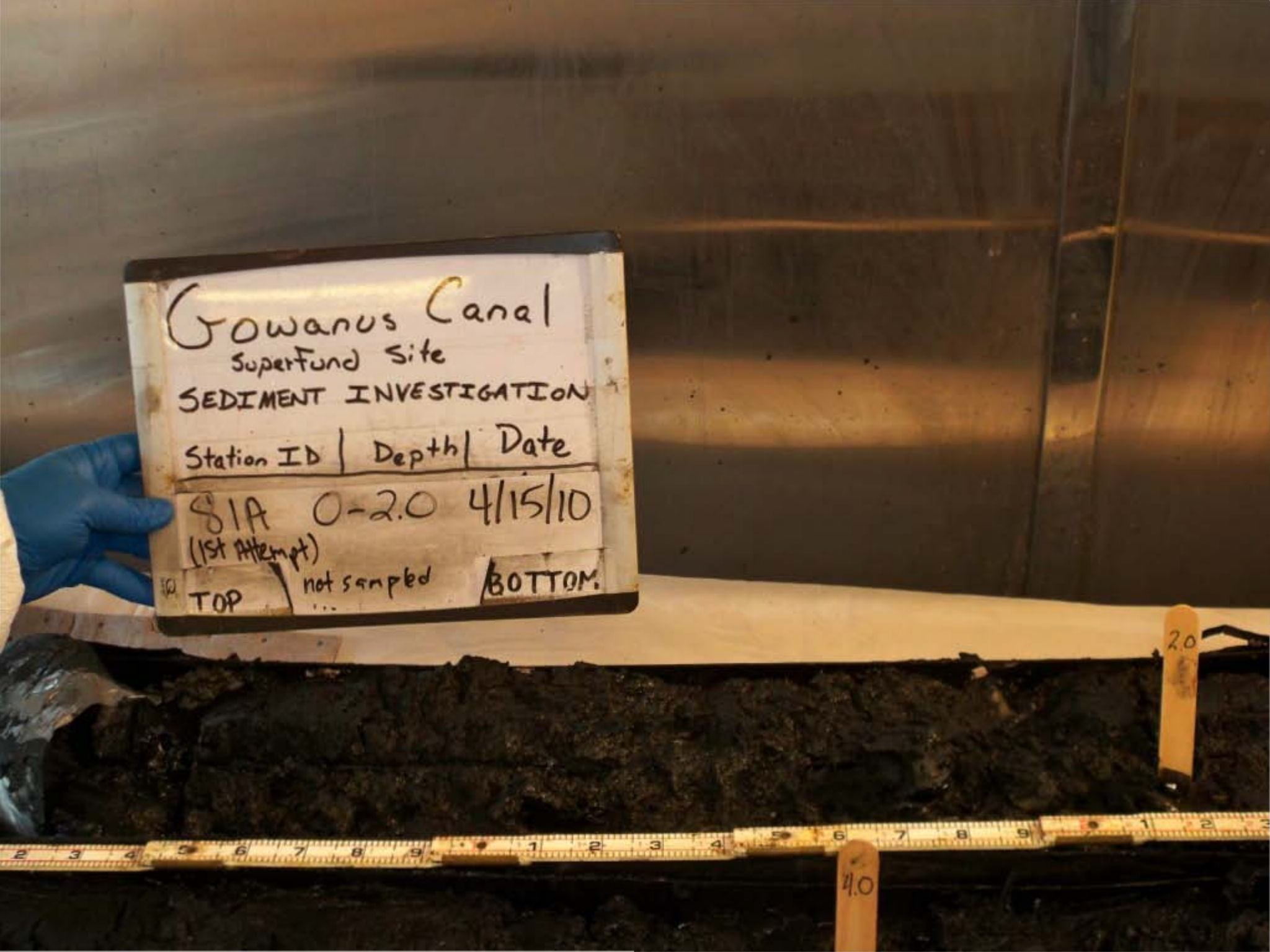

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 7.0-8.4' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 8.4-9.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A 9.0-11.0' 3/8/10
TOP
BOTTOM

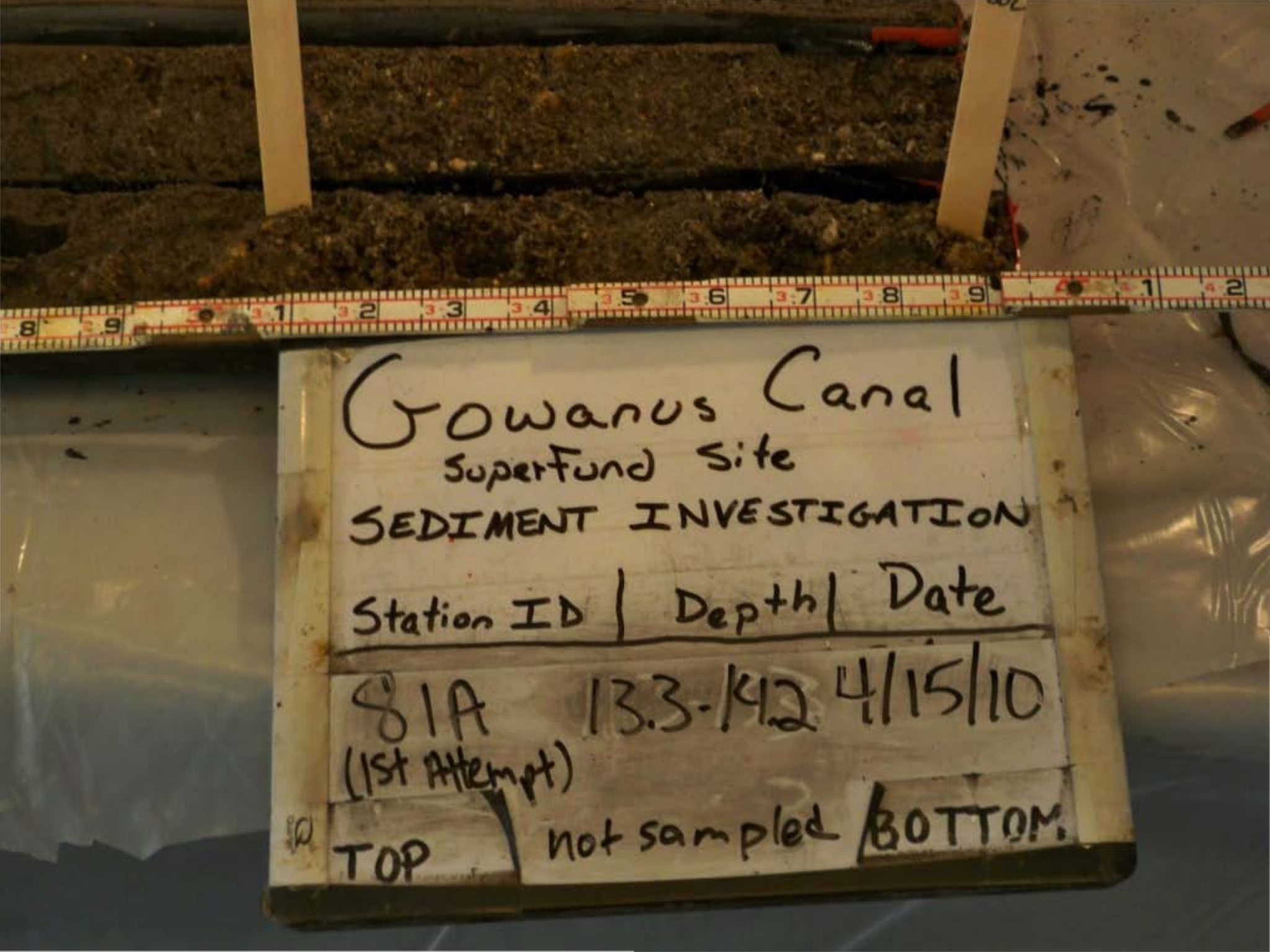

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A Entire Recovery 3/8/10
TOP
BOTTOM

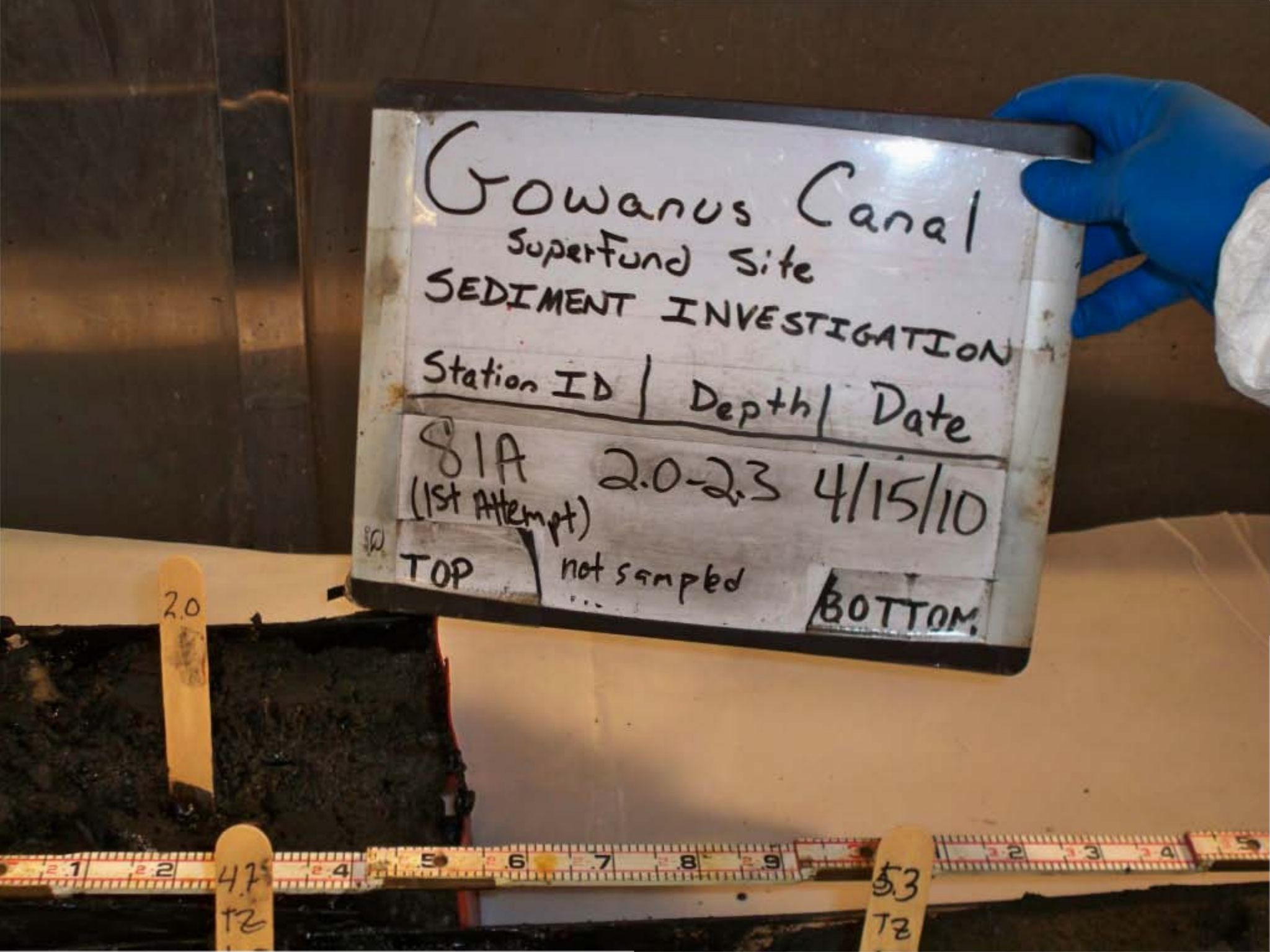

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A (1st Attempt) FULL RECOVERY 4/15/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A 0-2.0 4/15/10
(1st Attempt)
TOP
not sampled
BOTTOM
2.0
4.0

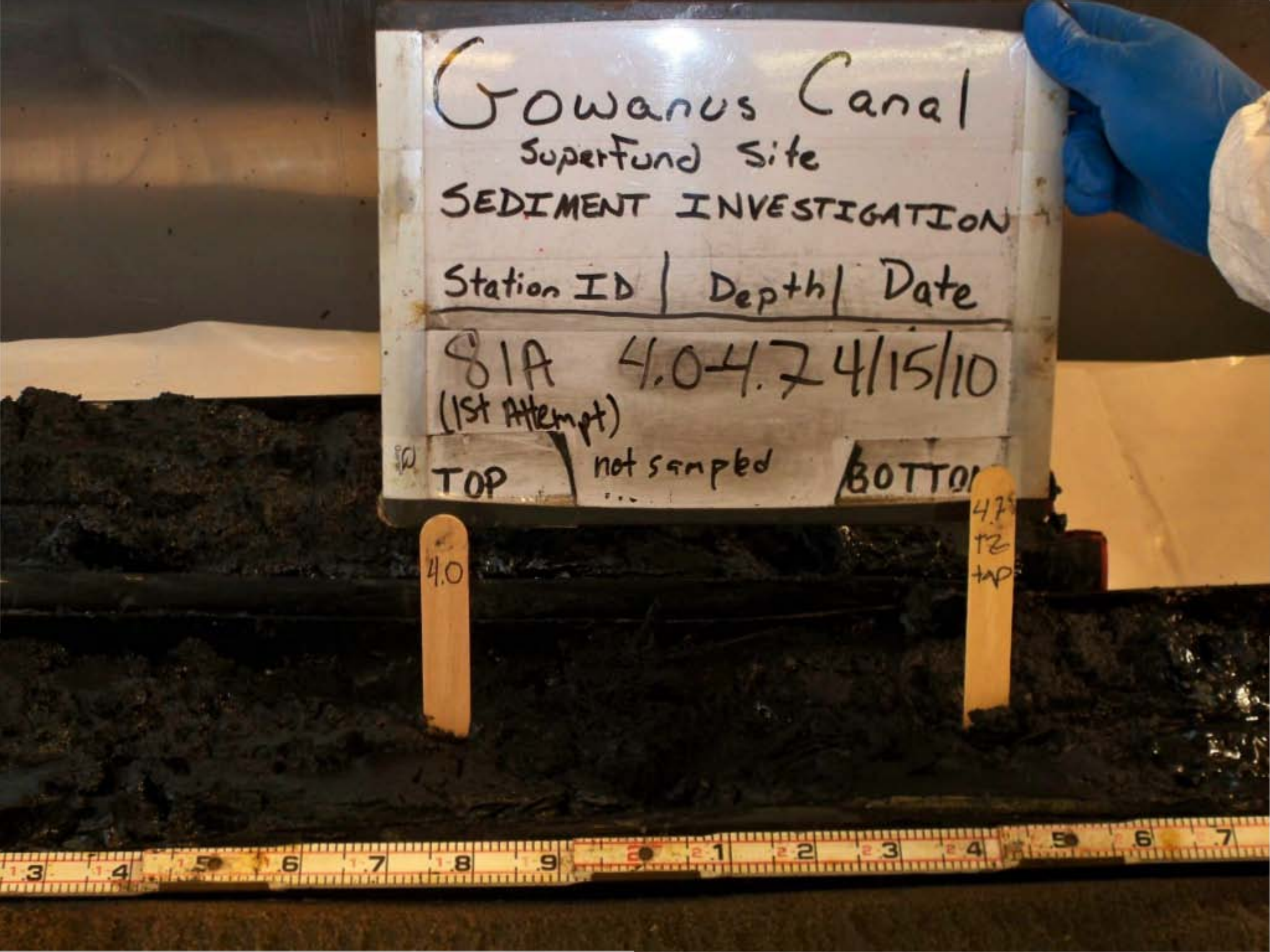

VOC
11.3
S#
3
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SD
SIA
(1st Attempt)
10.2-11.3
4/15/10
TOP
Sample 3
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
81A 11.3-13.3 4/15/10
(1st Attempt)
TOP not sampled BOTTOM

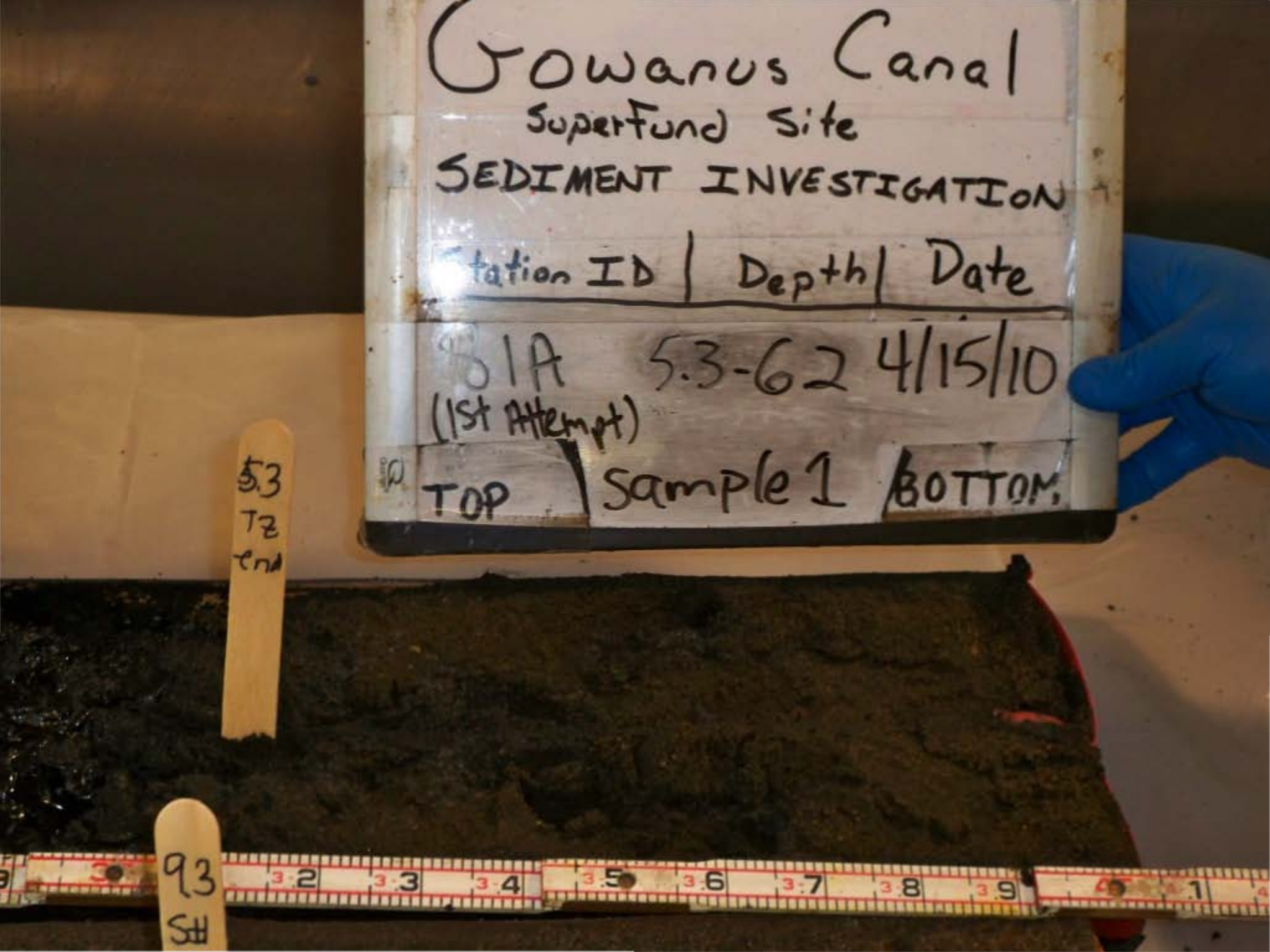

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A 13.3-14.2 4/15/10
(1st Attempt)
TOP not sampled BOTTOM

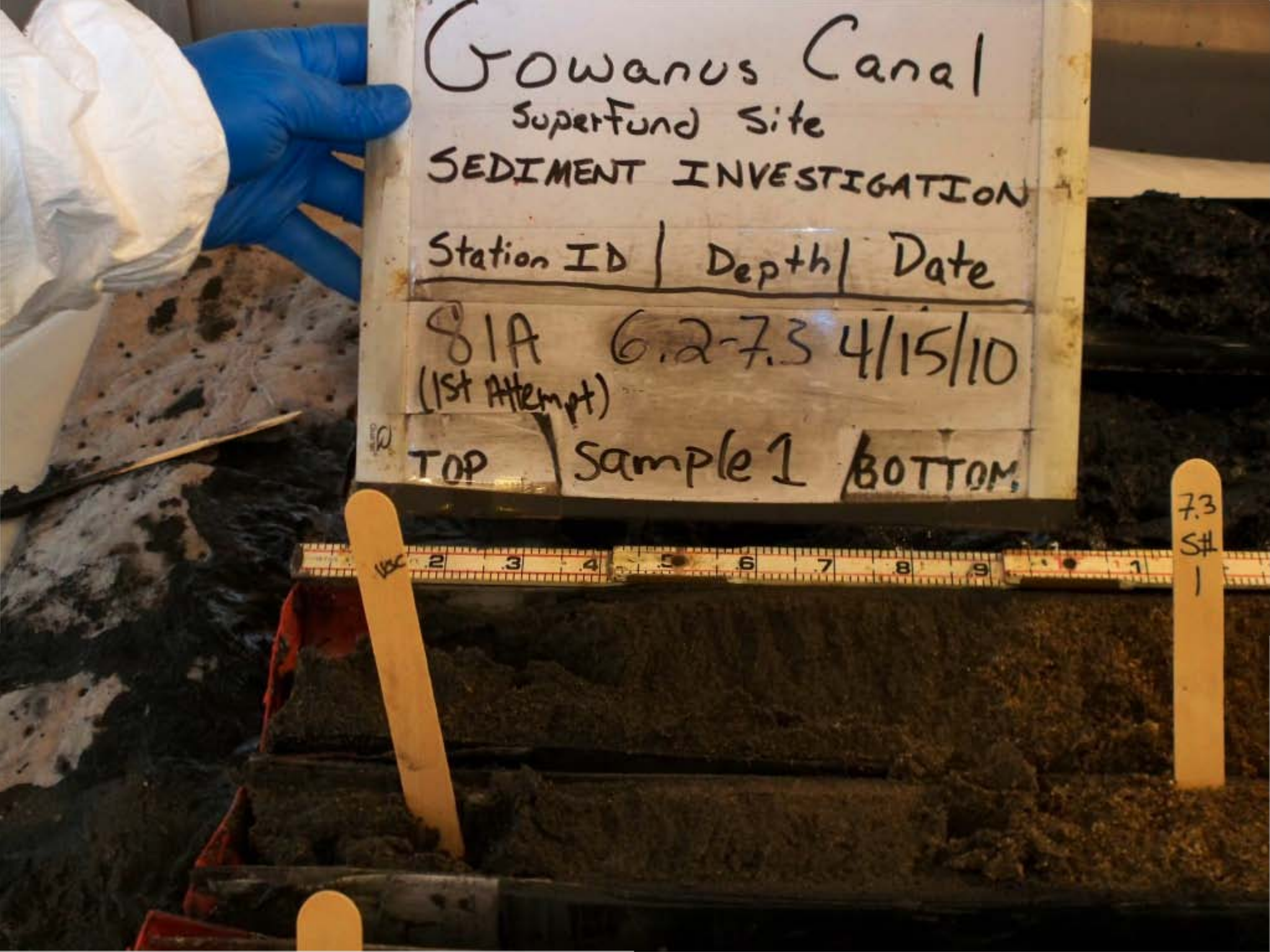

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SIA 2.0-2.3 4/15/10
(1st Attempt)
TOP
not sampled
BOTTOM
2.0
4.7
TZ
5.3
TZ

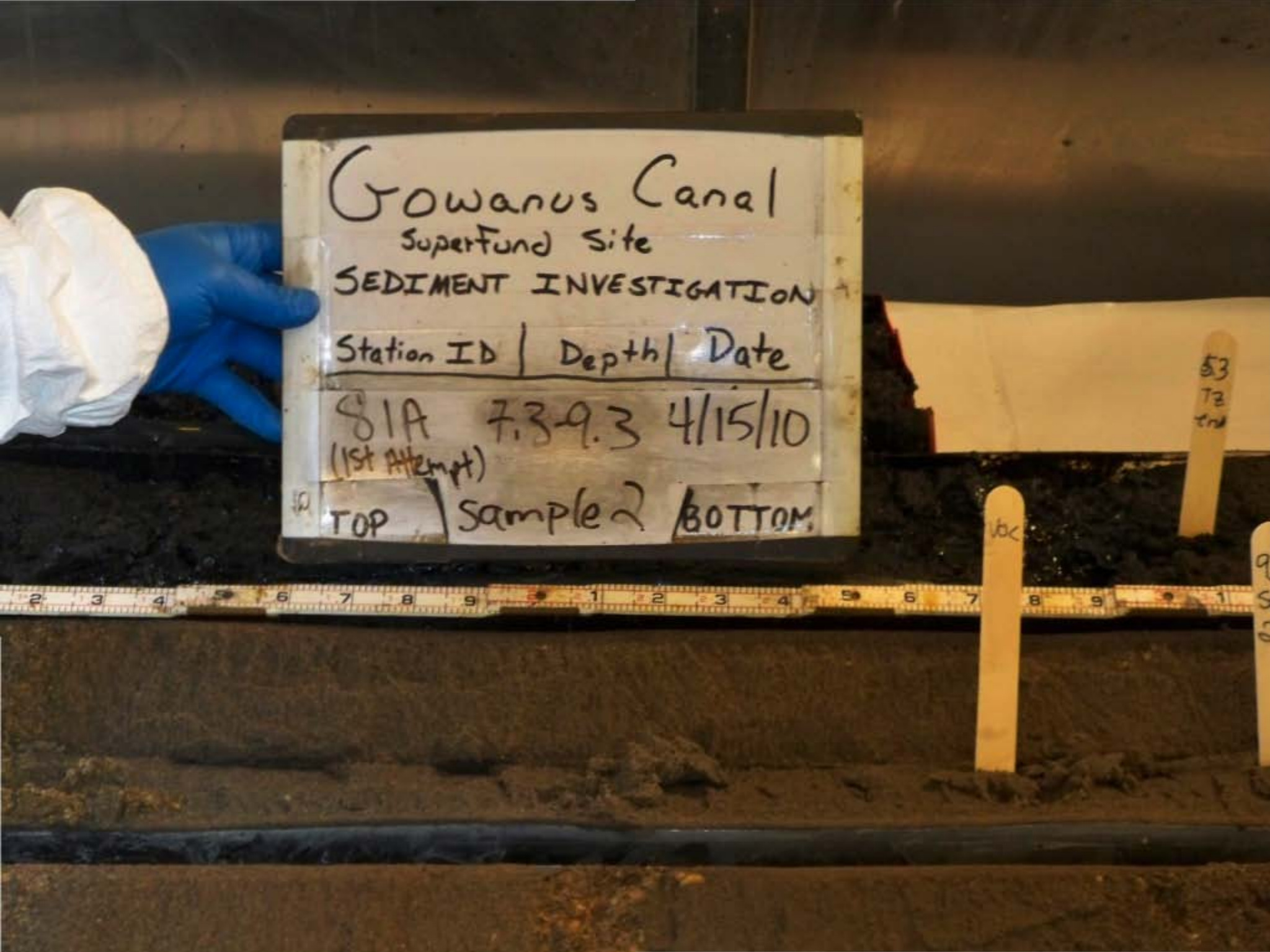

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A 2.3-4.0 4/15/10
(1st Attempt)
TOP
not sampled
BOTTOM
7.3
S#
1

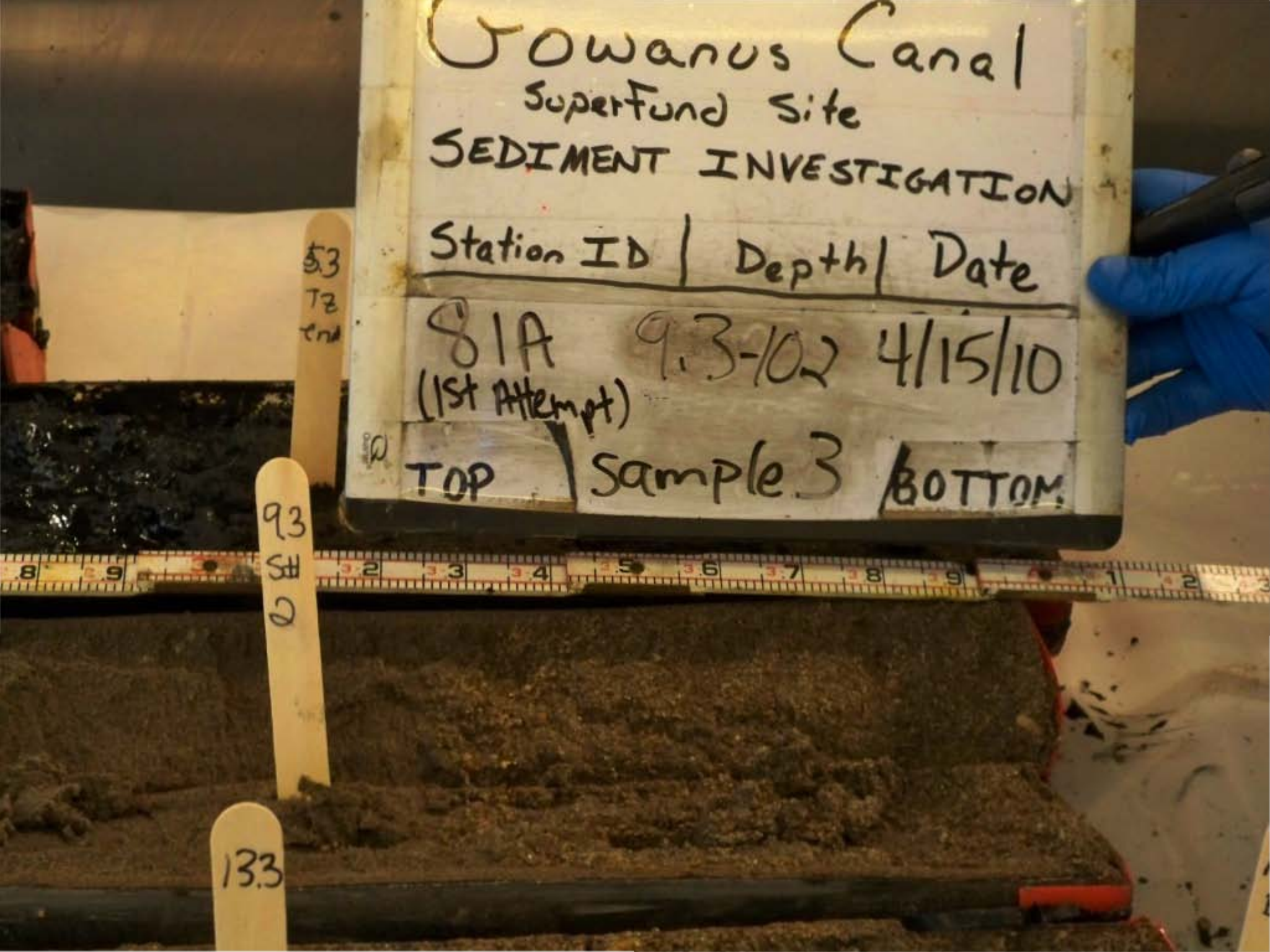

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SIA 4.0-4.7 4/15/10
(1st Attempt)
TOP
not sampled
BOTTO
4.0
4.7
TP


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
81A 4.7-5.3 4/15/10
(1st Attempt) transition zone
not sampled
TOP
BOTTOM
4.7 TZ top
5.3 TZ end
VOC
93 SH


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SB1A 5.3-6.2 4/15/10
(1st Attempt)
TOP | Sample 1 | BOTTOM
5.3
Tz
cm
93
SH

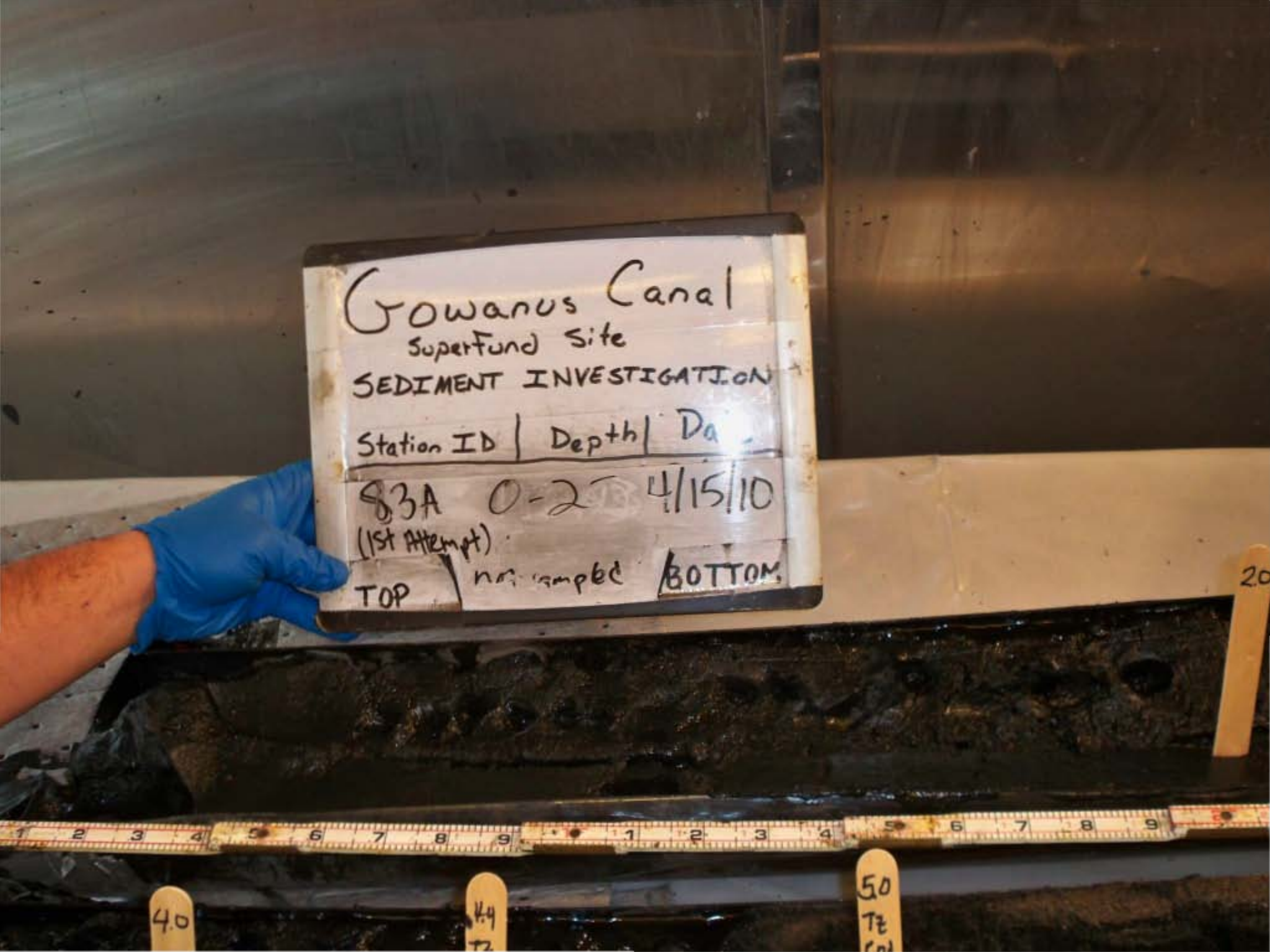

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A 6.2-7.3 4/15/10
(1st Attempt)
TOP | Sample 1 | BOTTOM
7.3
S#
1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A 7.3-9.3 4/15/10
(1st Attempt)
TOP | Sample 2 | BOTTOM

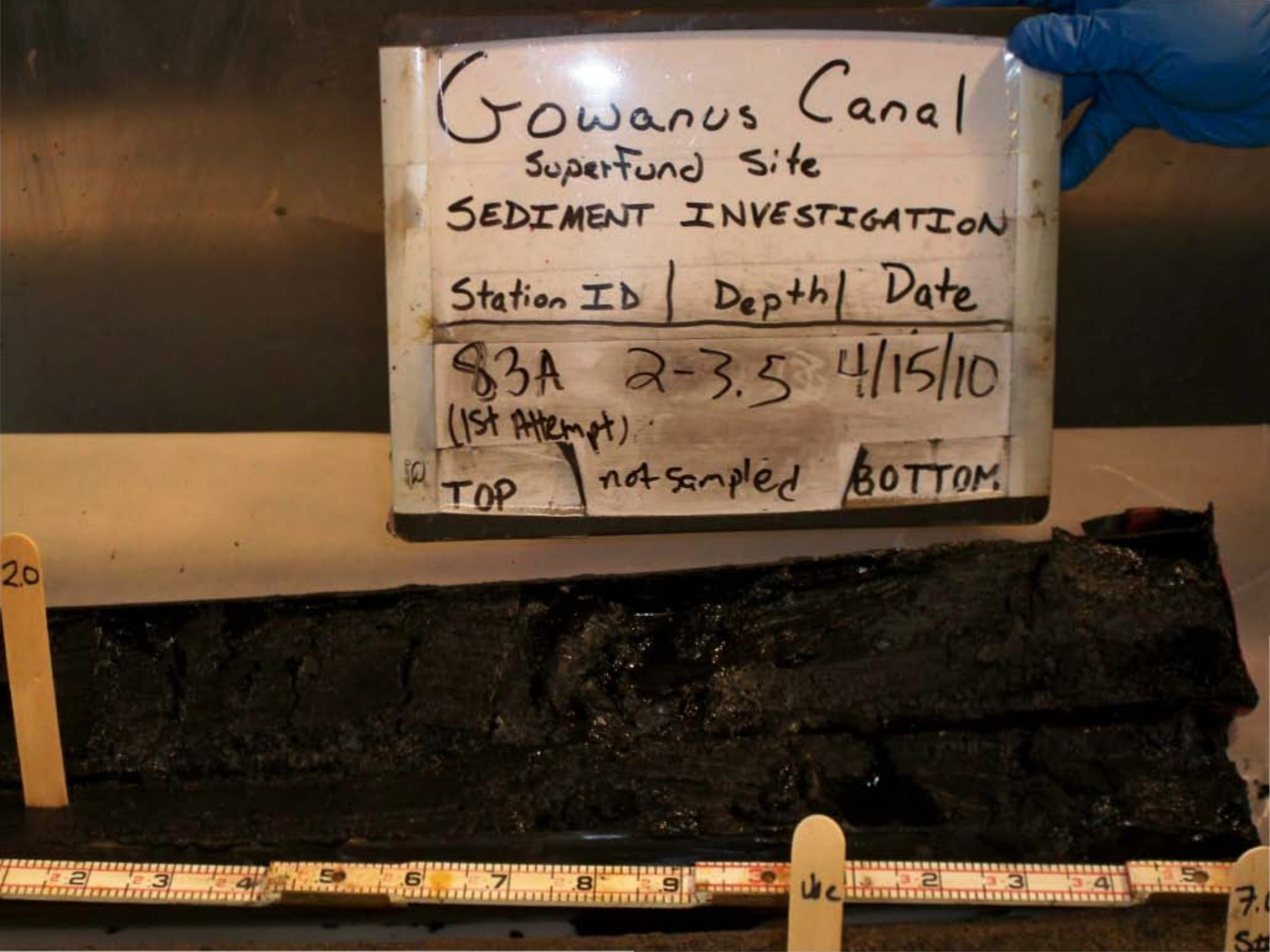

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A 9.3-10.2 4/15/10
(1st Attempt)
TOP | Sample 3 | BOTTOM
93
SH
2
133

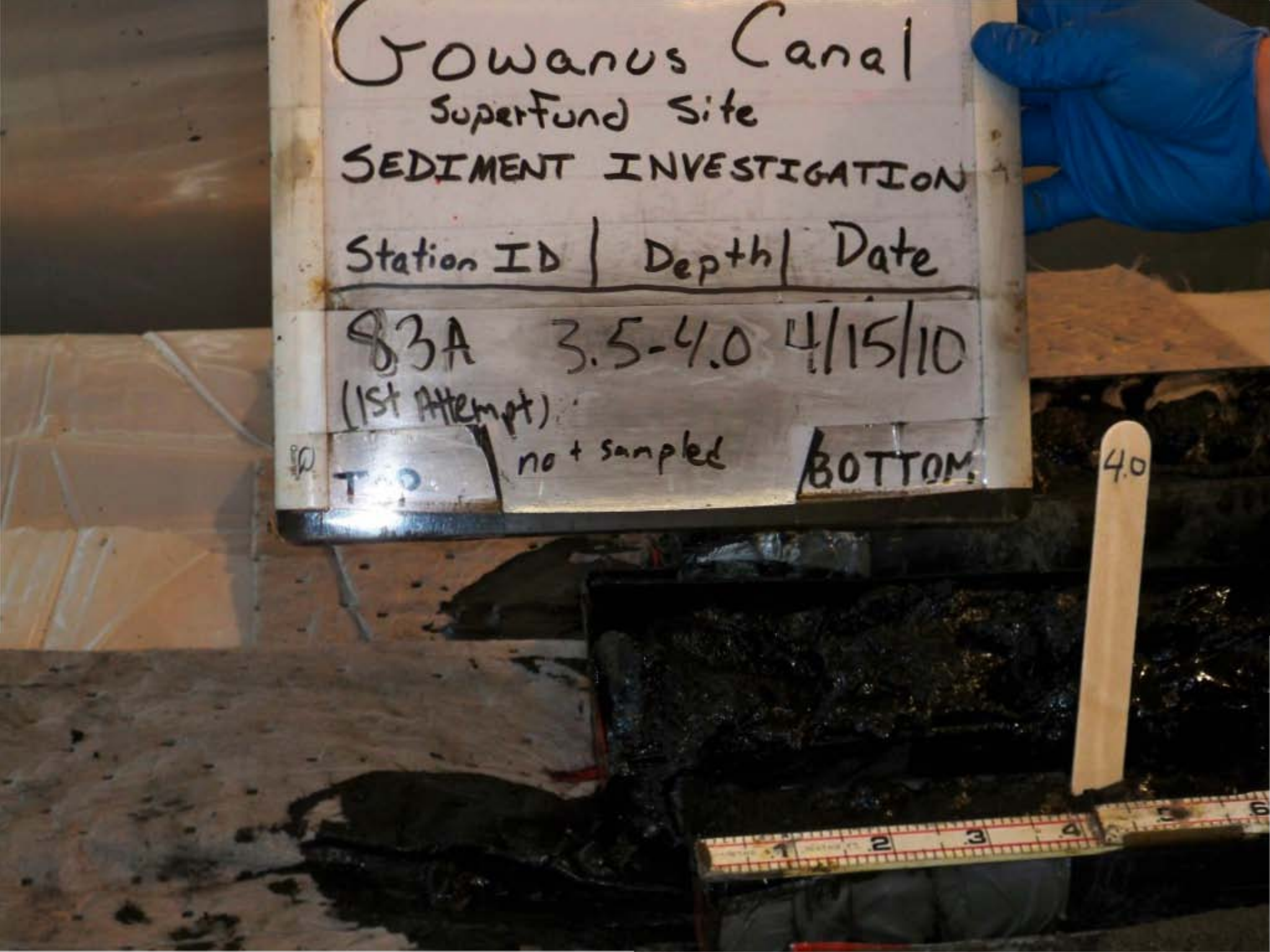

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A
(1st Attempt)
Full Recovery
4/15/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SB3A FULL 11/15/10
Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Da
83A 0-2 4/15/10
(1st Attempt)
TOP
BOTTOM
4.0
5.0


Gowanus Canal
Superfund Site
SEDIMENT INVEST TION
Station ID | Depth | Date
83A 11.0-11.3 4/15/10
(1st Attempt)
TOP (not sampled) BOTTOM
7.0 St# 1
VOL
11.0 St 3
11.3 BOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
83A 2-3.5 4/15/10
(1st Attempt)
TOP not sampled BOTTOM
2.0

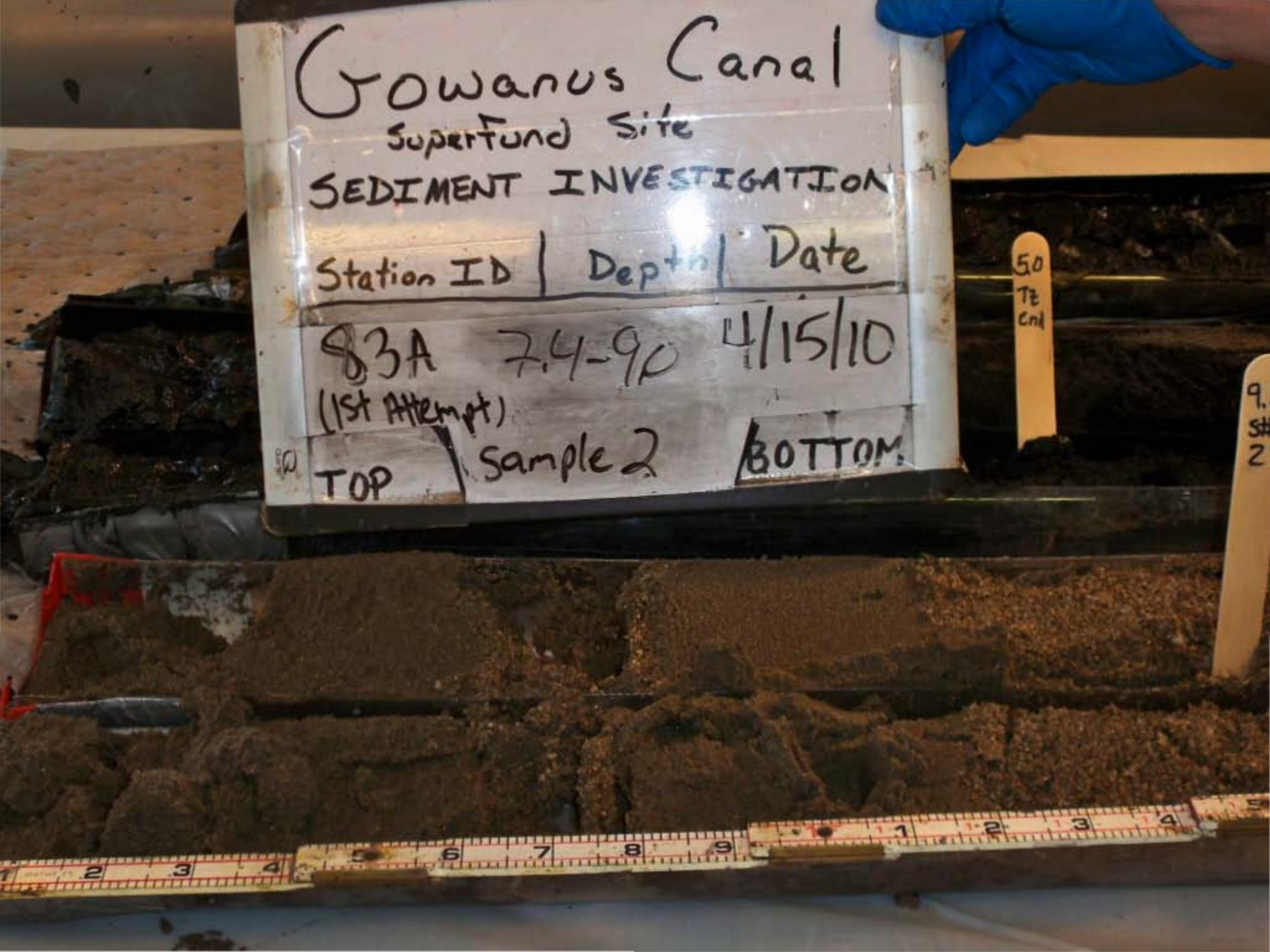

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
83A 3.5-4.0 4/15/10
(1st Attempt)
no + sampled
BOTTOM
4.0


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
83A 4.0-4.4 4/15/10
(1st Attempt)
TOP
not sampled
BOTTOM
4.0
4.4
T2
top


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
83+ 4.4-5.0 4/15/10
(1st Attempt) transition Zone
not sampled
TOP
BOTTOM
4.0
4.4
TZ
top
5.0
Tz
Cnd

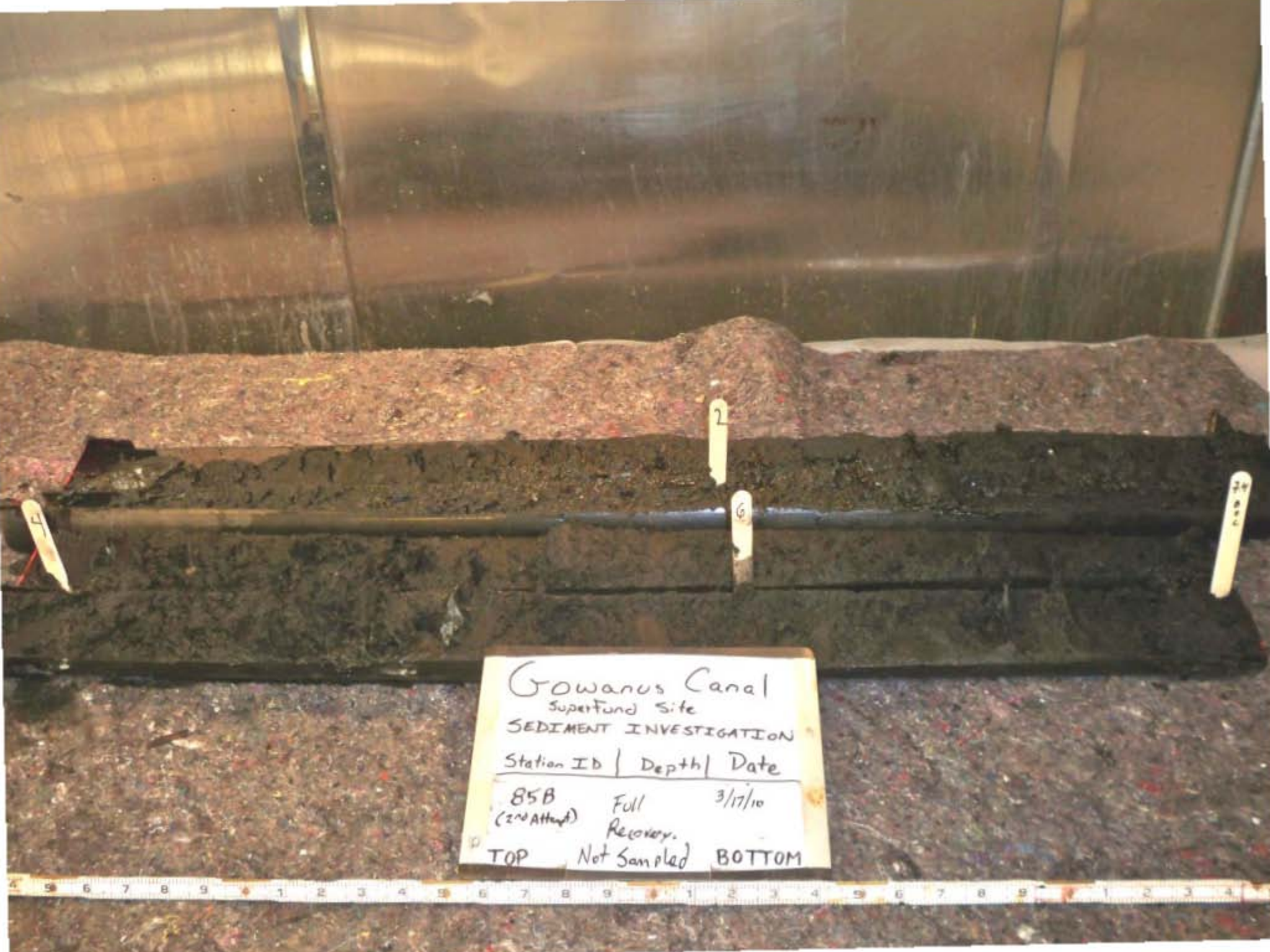

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S3A 5.0-7.0 4/15/10
(1st Attempt)
TOP
Sample 1
BOTTOM

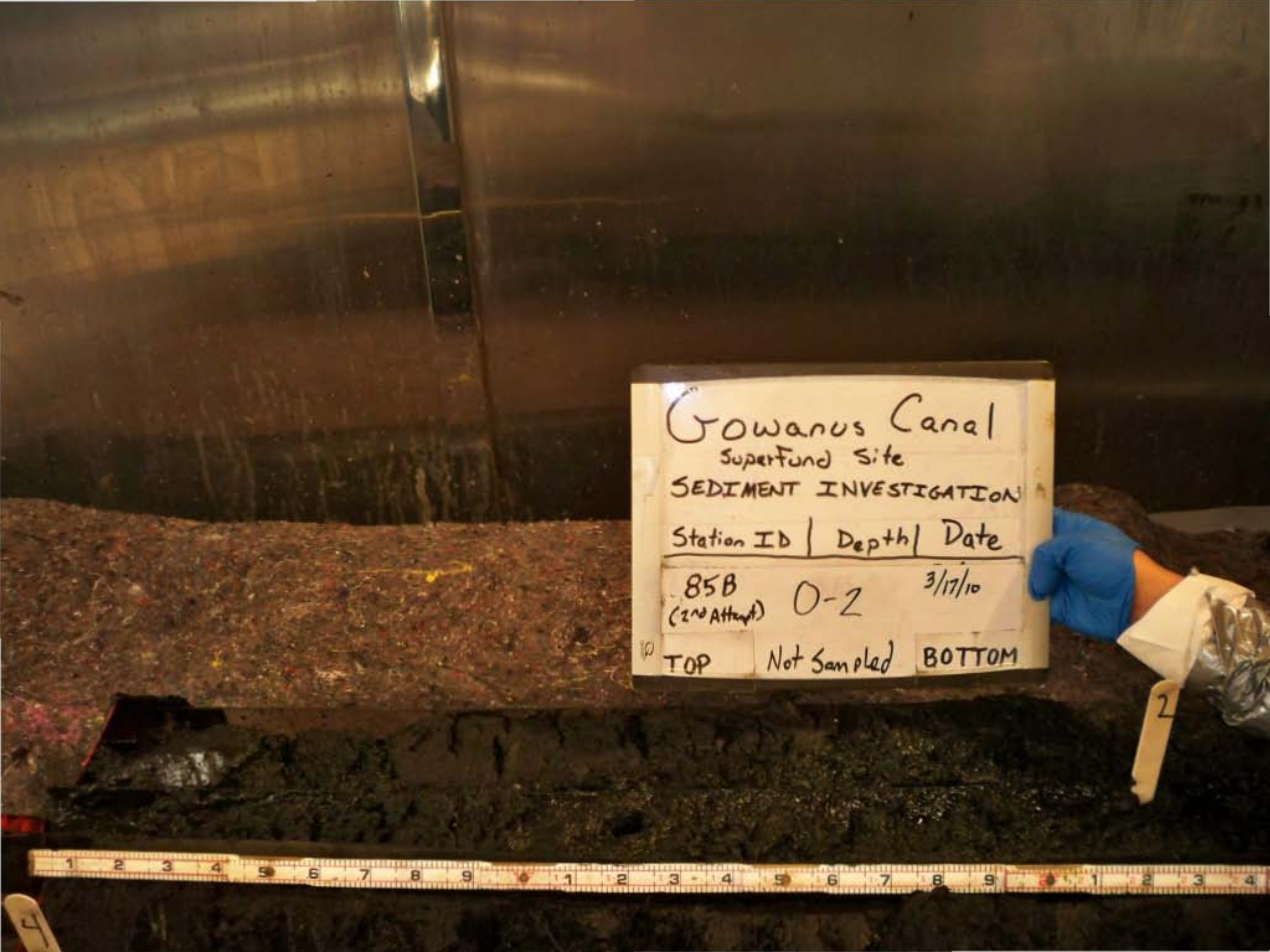

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station I | Depth | Date
83A 7.0-7.4 4/15/10
(1st Attempt)
Sample 2
BOTTOM
7.0
Sft
1
Voz
11.0

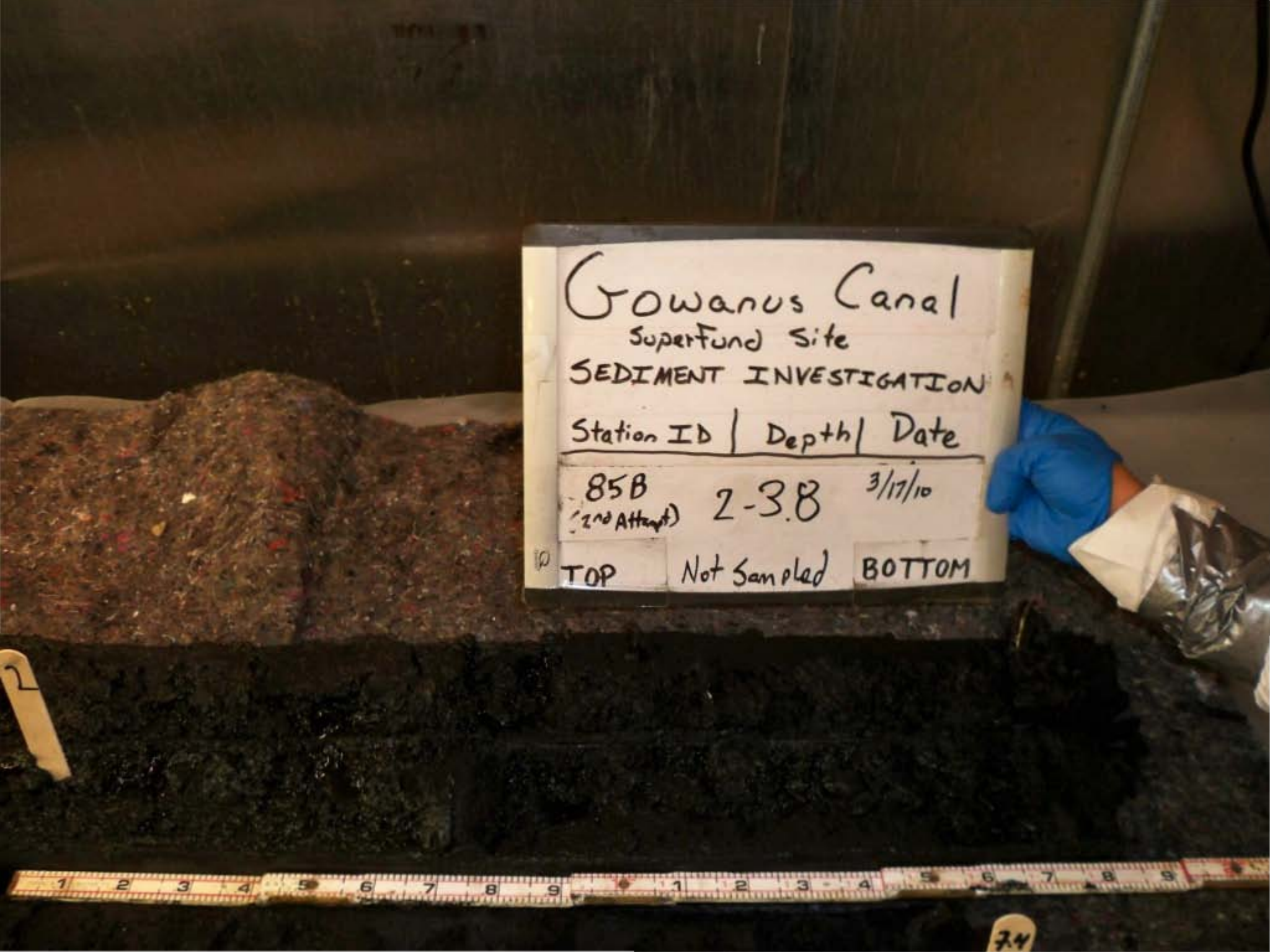

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
83A 7.4-9.0 4/15/10
(1st Attempt)
TOP
Sample 2
BOTTOM
5.0
Tz
Cnd


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
83A 9.0-11.0 4/15/10
(1st Attempt)
TOP | Sample 3 | BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S3A FULL 4/15/10
Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) Full Recovery. 3/17/10
TOP Not Sampled BOTTOM

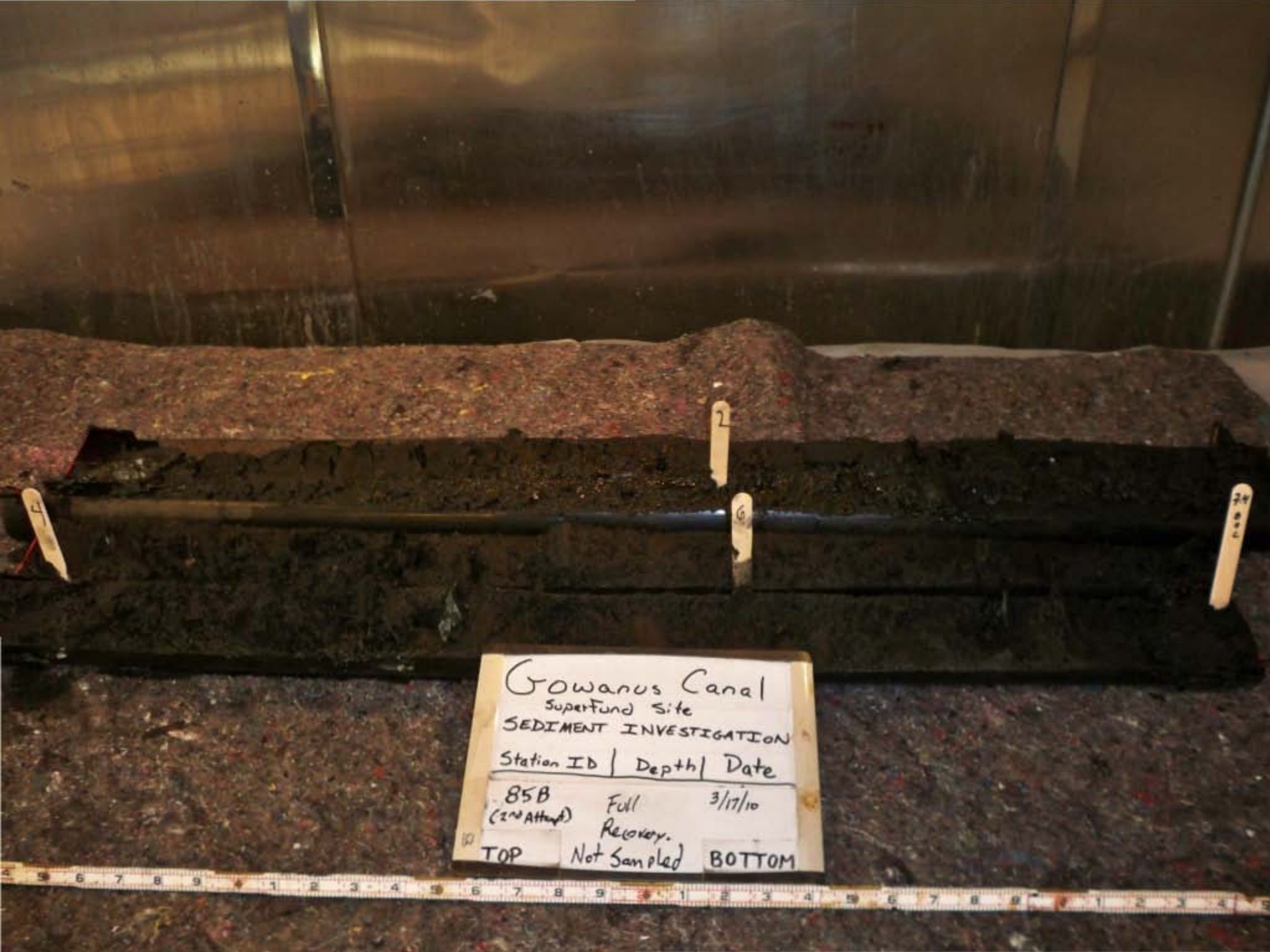

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) 0-2 3/17/10
TOP Not Sampled BOTTOM

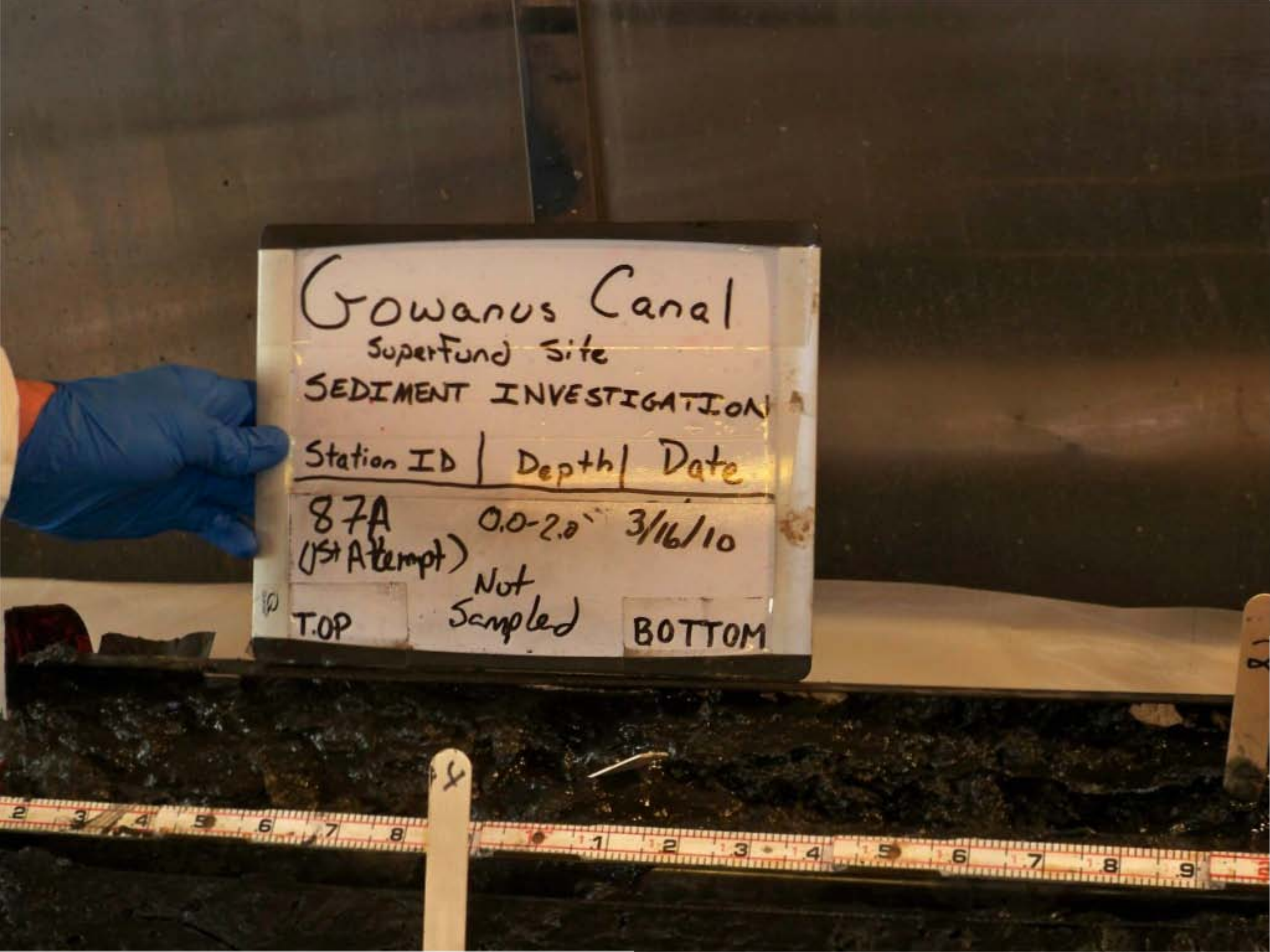

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) 2-3.8 3/17/10
TOP Not Sampled BOTTOM

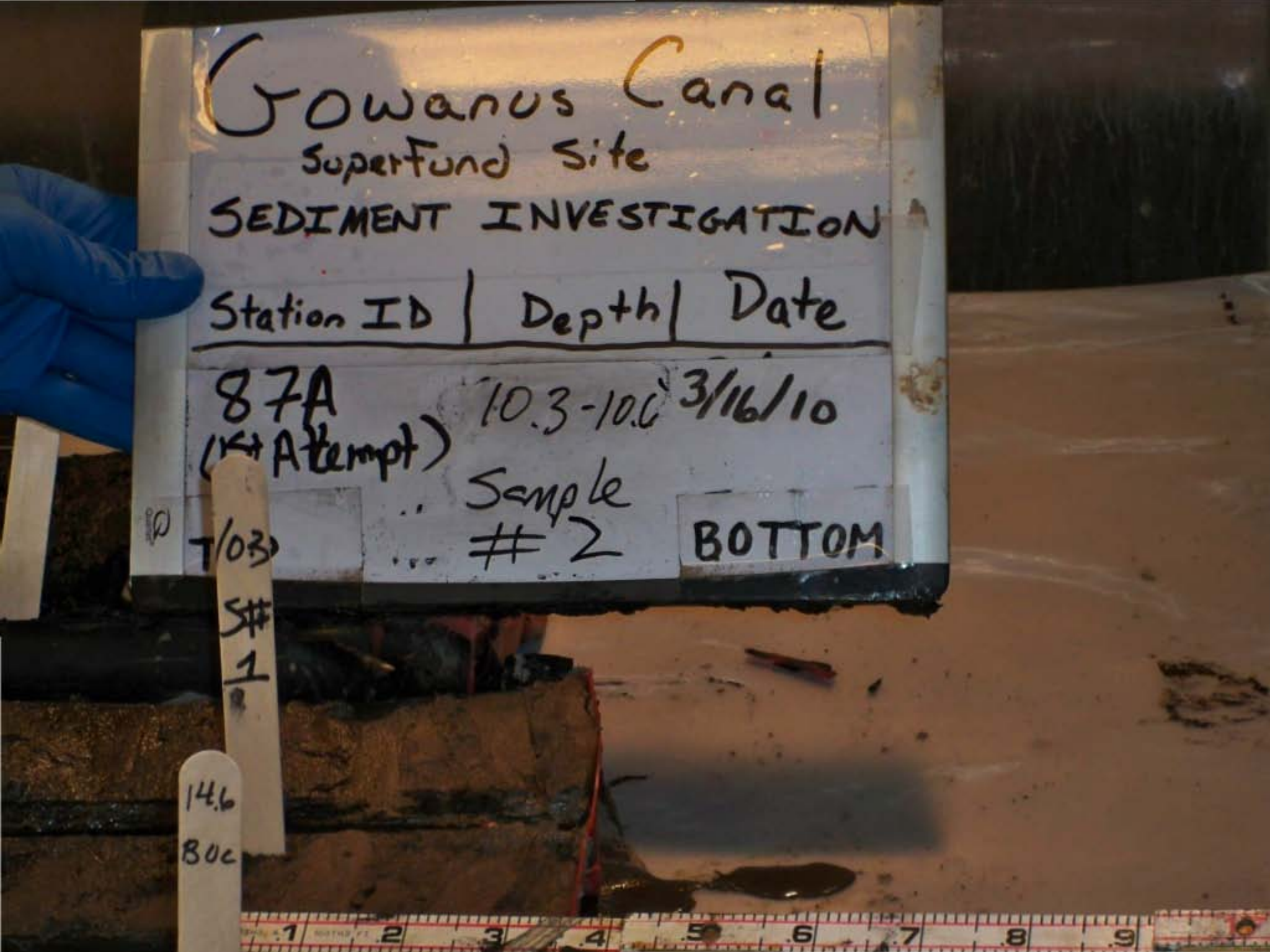

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) 3.8-4 3/17/10
TOP Not Sampled BOTTOM
4

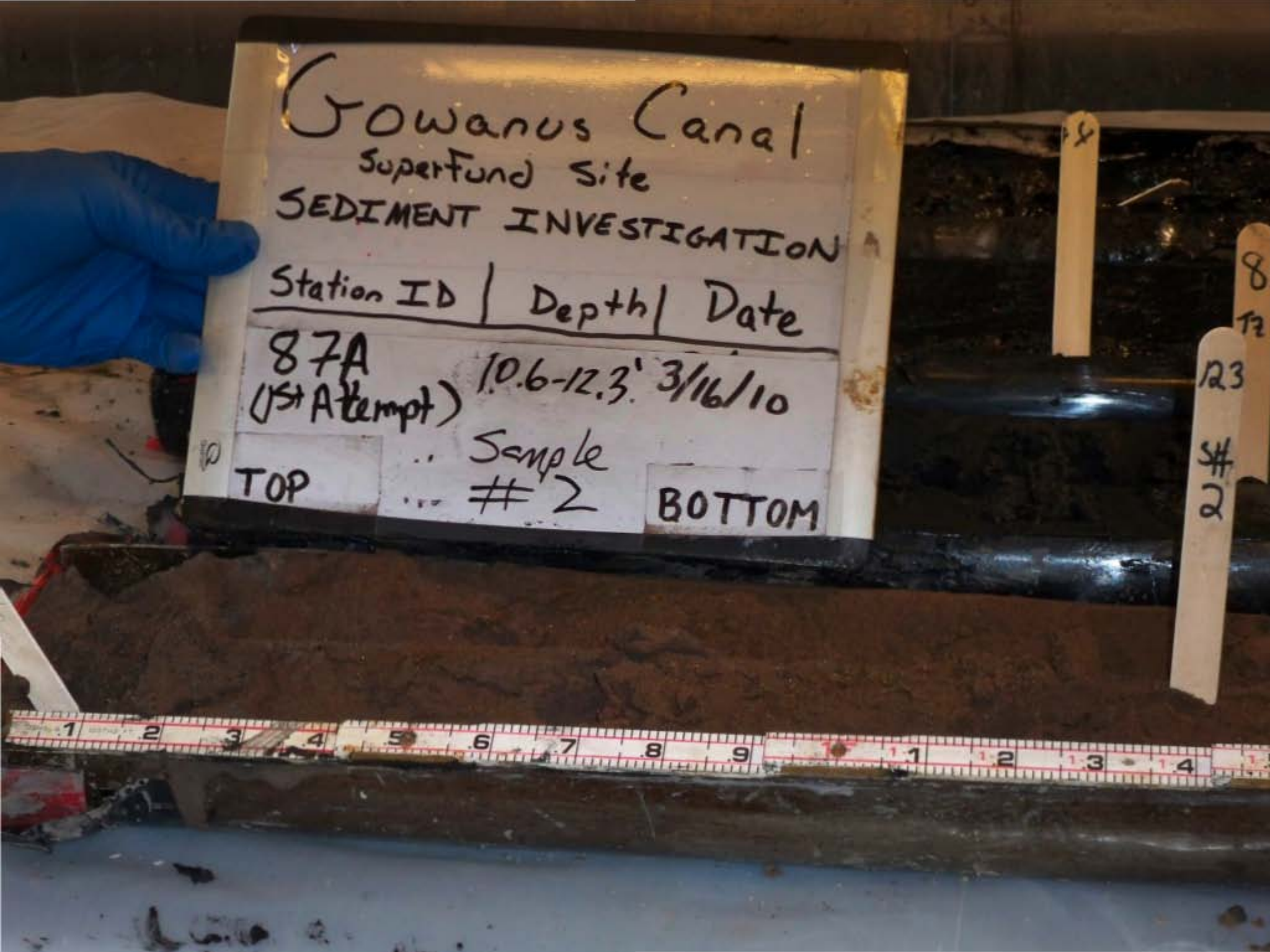

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) 4-6 3/17/10
TOP Not Sampled BOTTOM
4
6

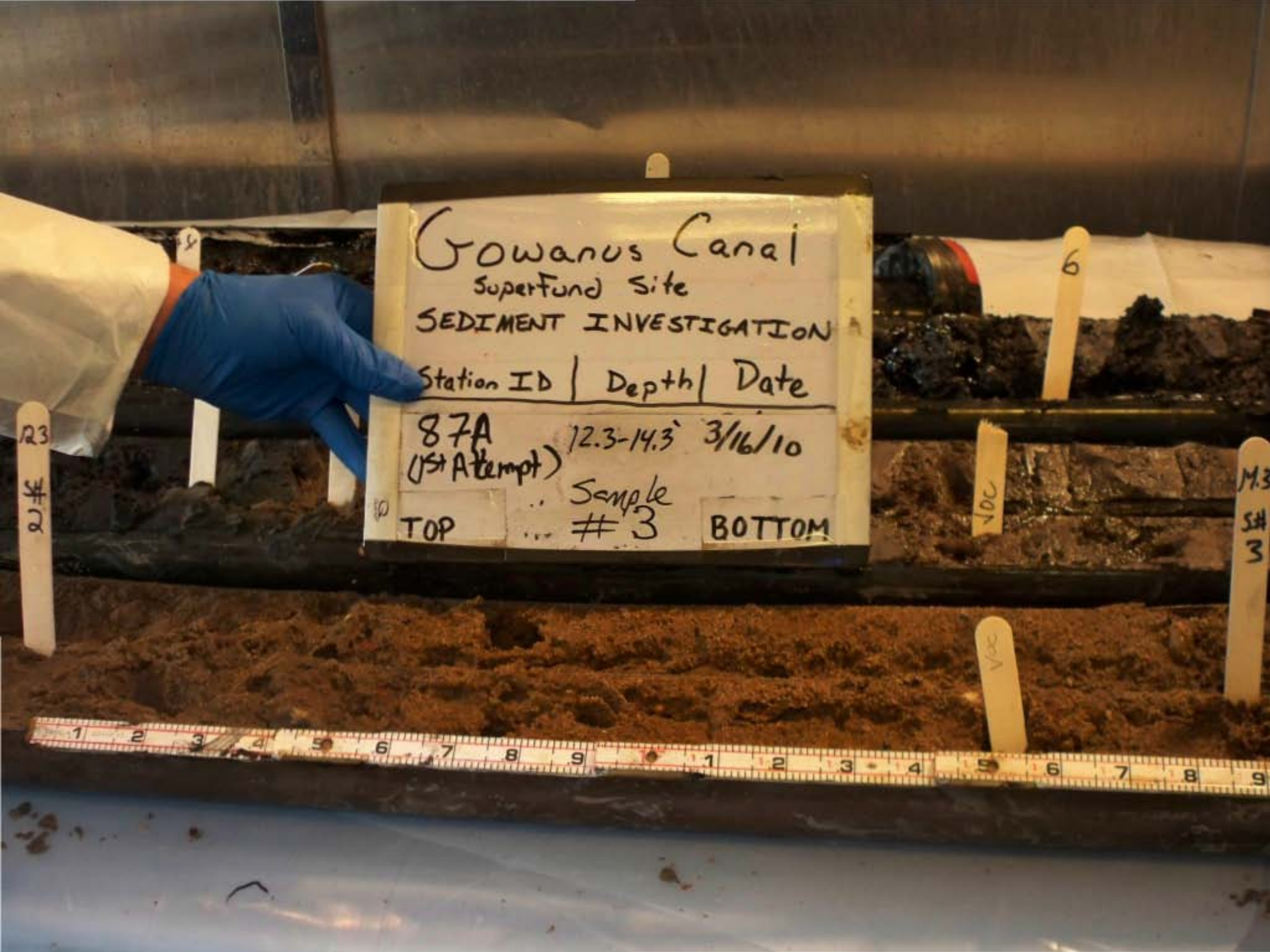

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) 6 - 7.4 (BOC) 3/17/10
TOP Not Sampled BOTTOM
2
6
7.4 BOC

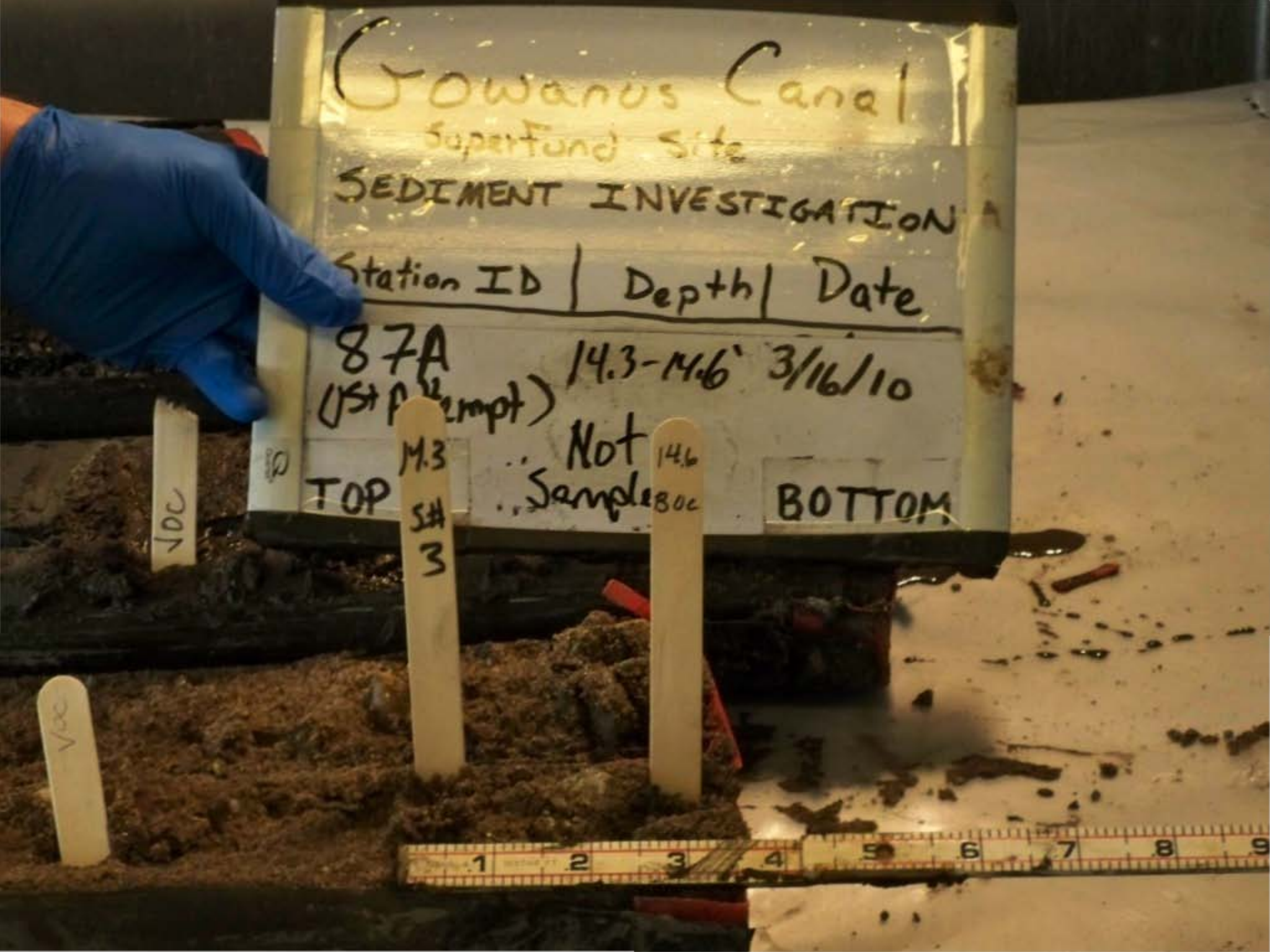

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) Full Recovery. 3/17/10
TOP Not Sampled BOTTOM

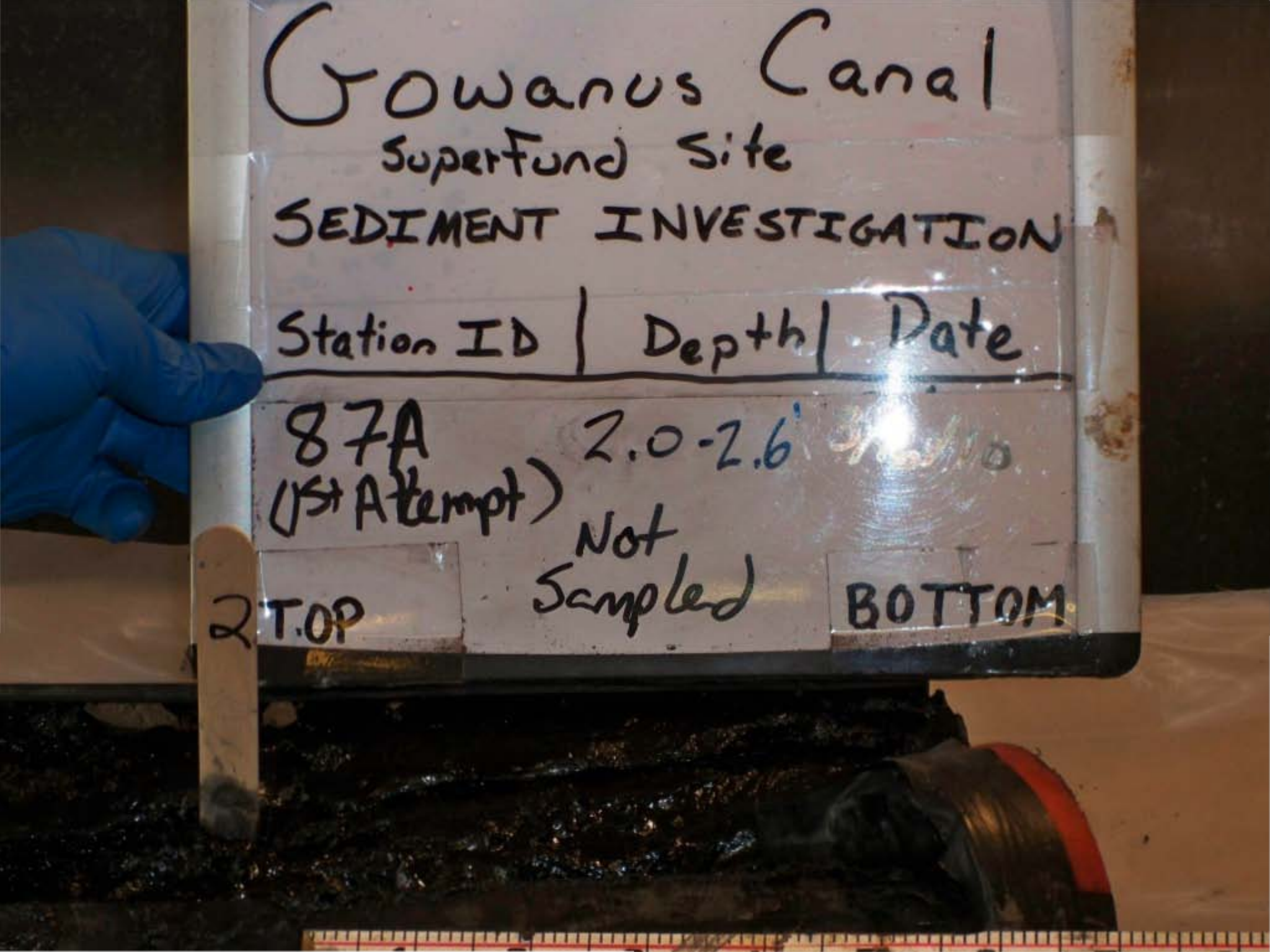

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt) 0.0-2.0' 3/16/10
Not Sampled
TOP
BOTTOM

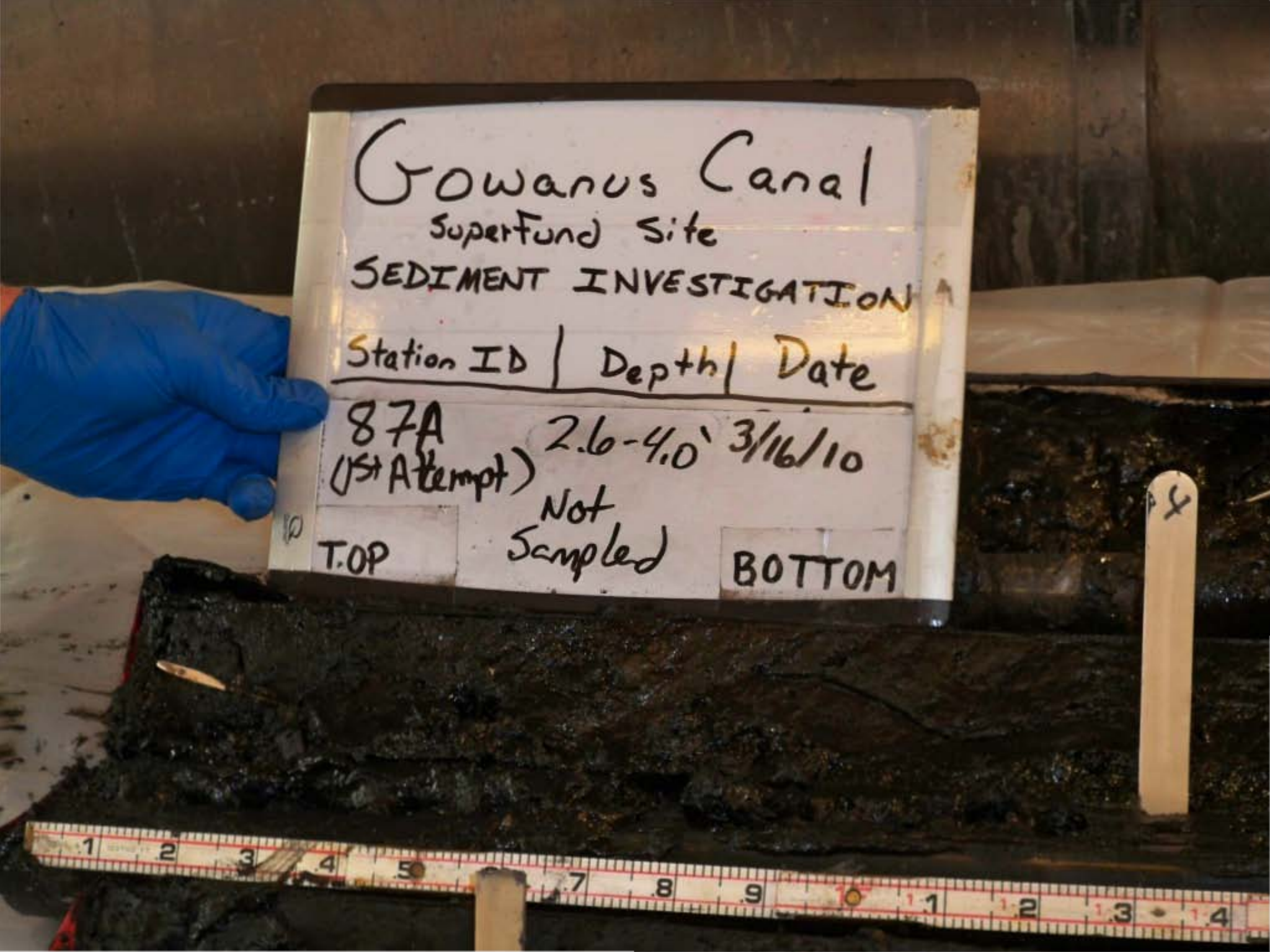

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A
(1st Attempt)
10.3-10.6
3/16/10
Sample
#2
BOTTOM
T/03
S#
1
14.6
BOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt) 10.6-12.3' 3/16/10
TOP
Sample #2
BOTTOM
123
#2

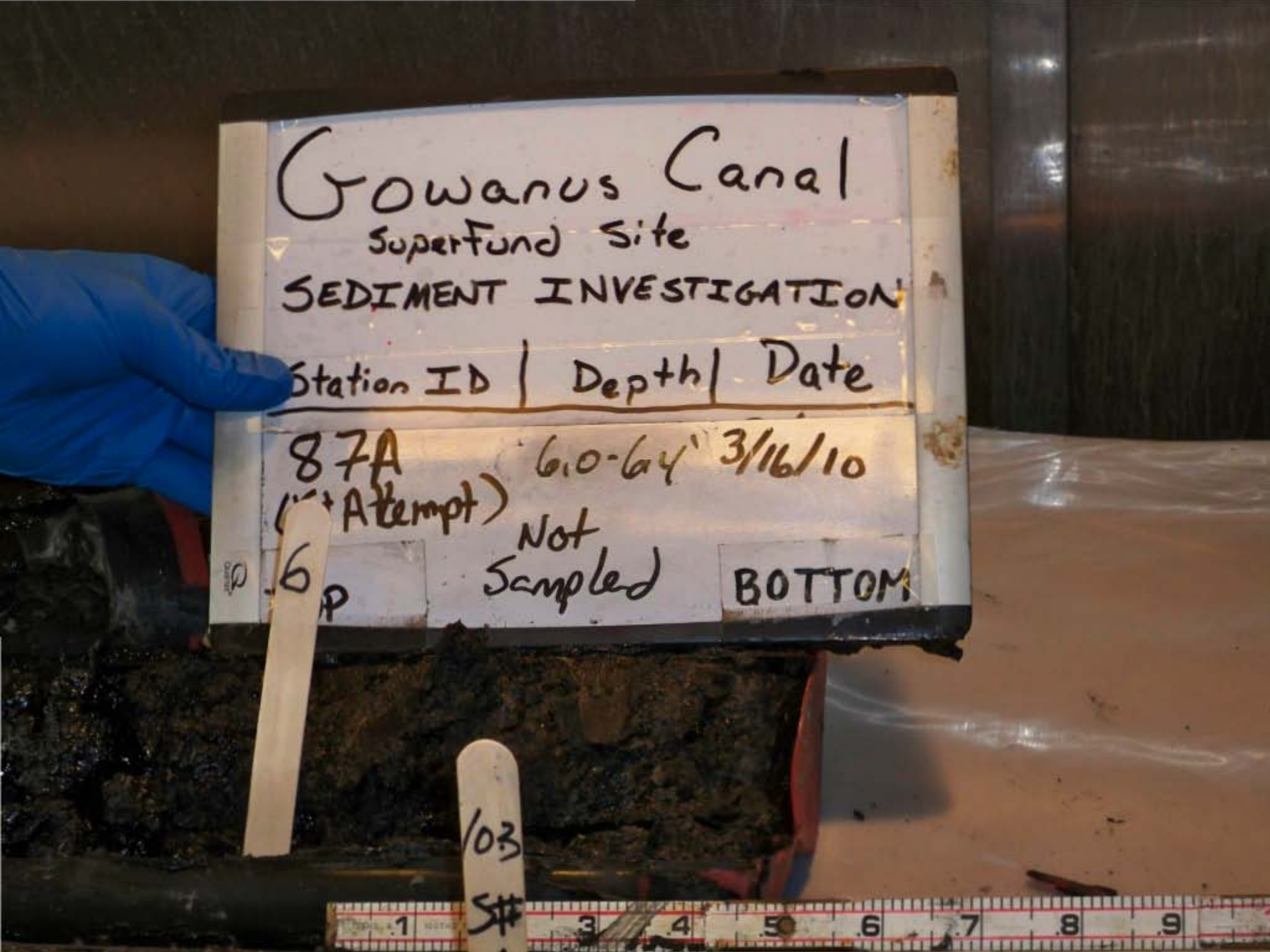

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt) 12.3-14.3' 3/16/10
TOP ... Sample #3 ... BOTTOM
VOC
VOC

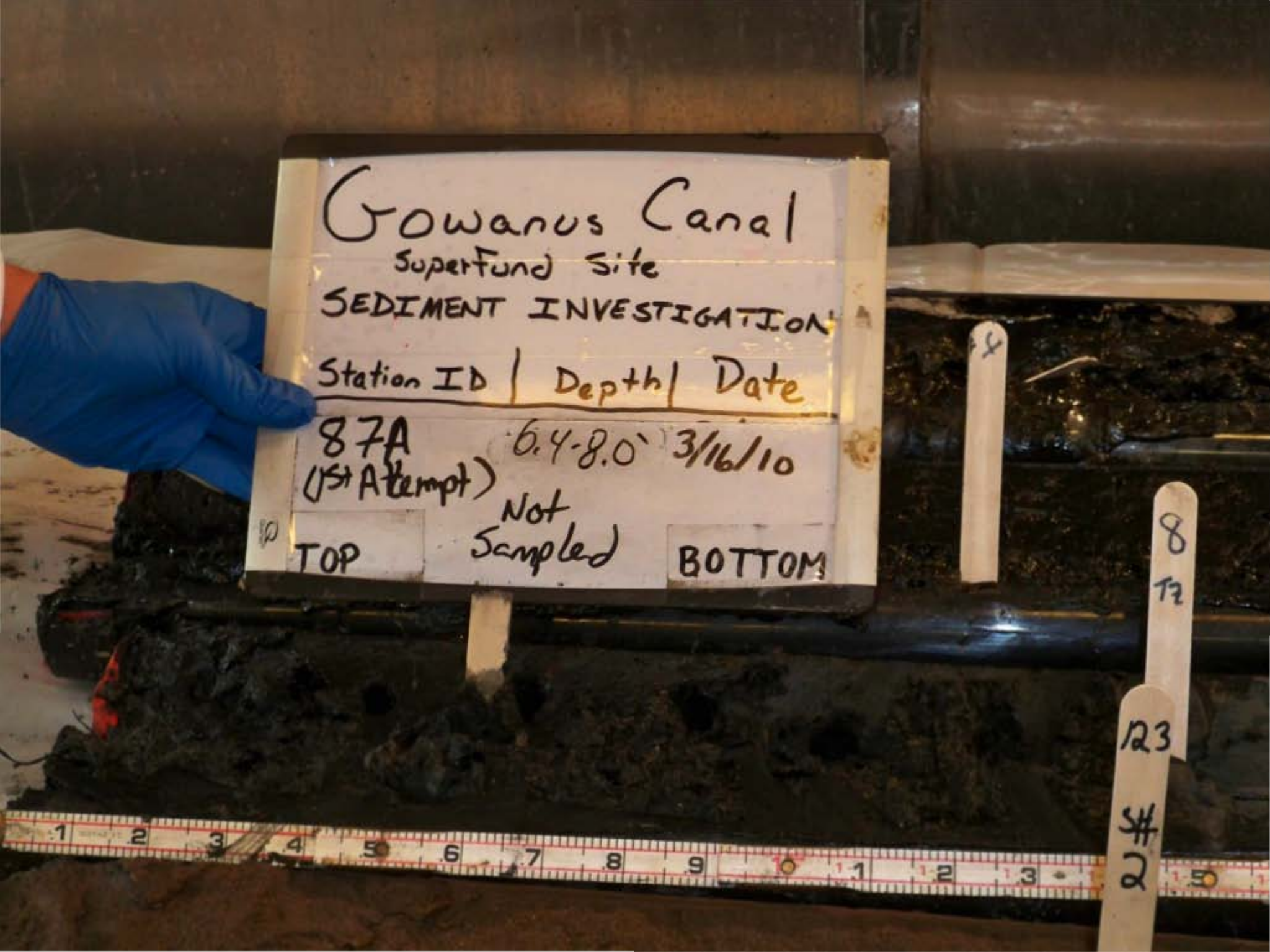

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A
(1st Attempt)
14.3-14.6'
3/16/10
Not Sample
TOP
BOTTOM
14.3
S#
3
14.6
BOC
VOC
VOC

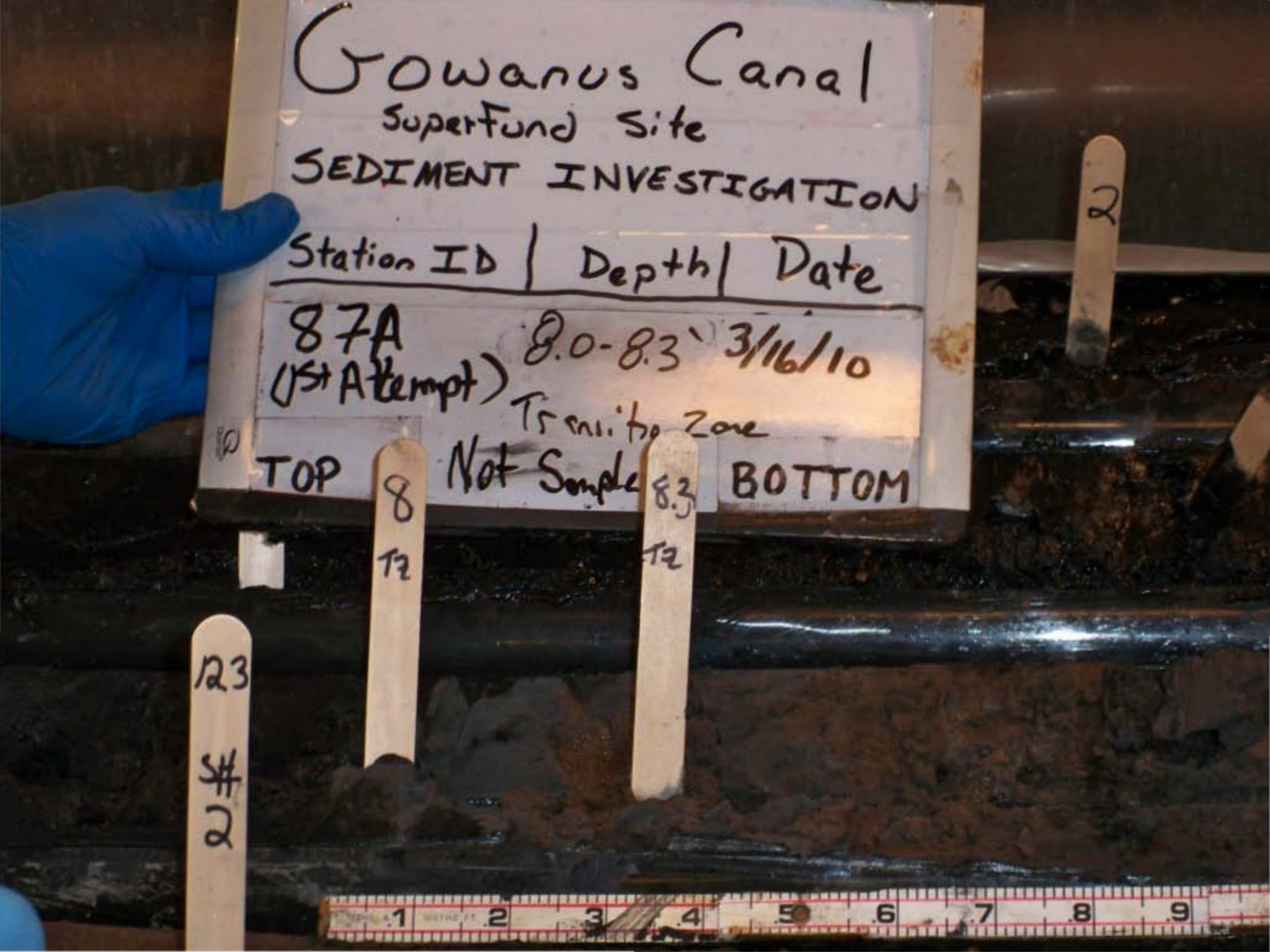

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt)
2.0-2.6'
Not Sampled
2 TOP
BOTTOM

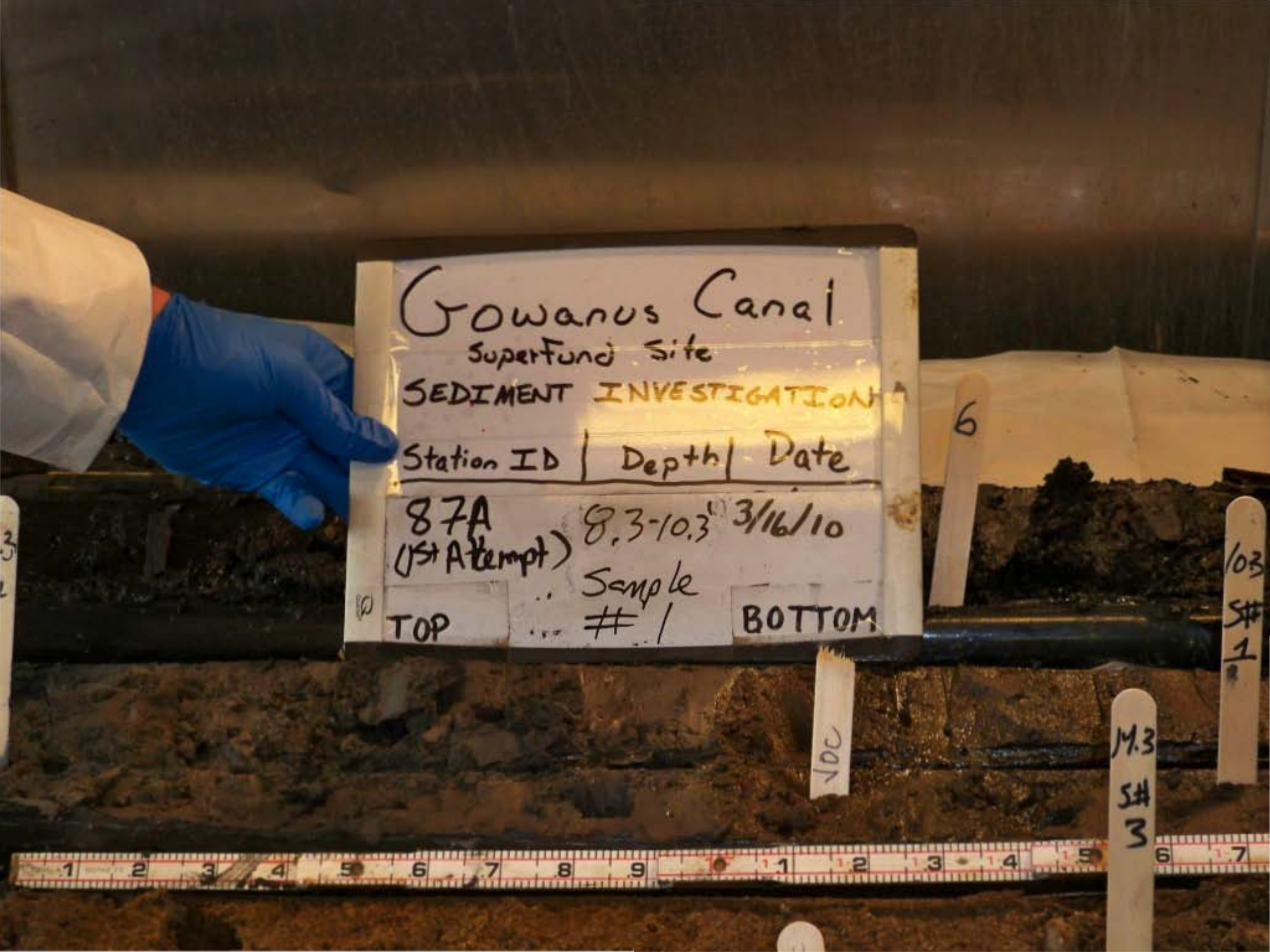

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt) 2.6-4.0' 3/16/10
Not Sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt) 4.0-6.0' 3/16/10
Not Sampled
TOP
BOTTOM
8
8.3
6

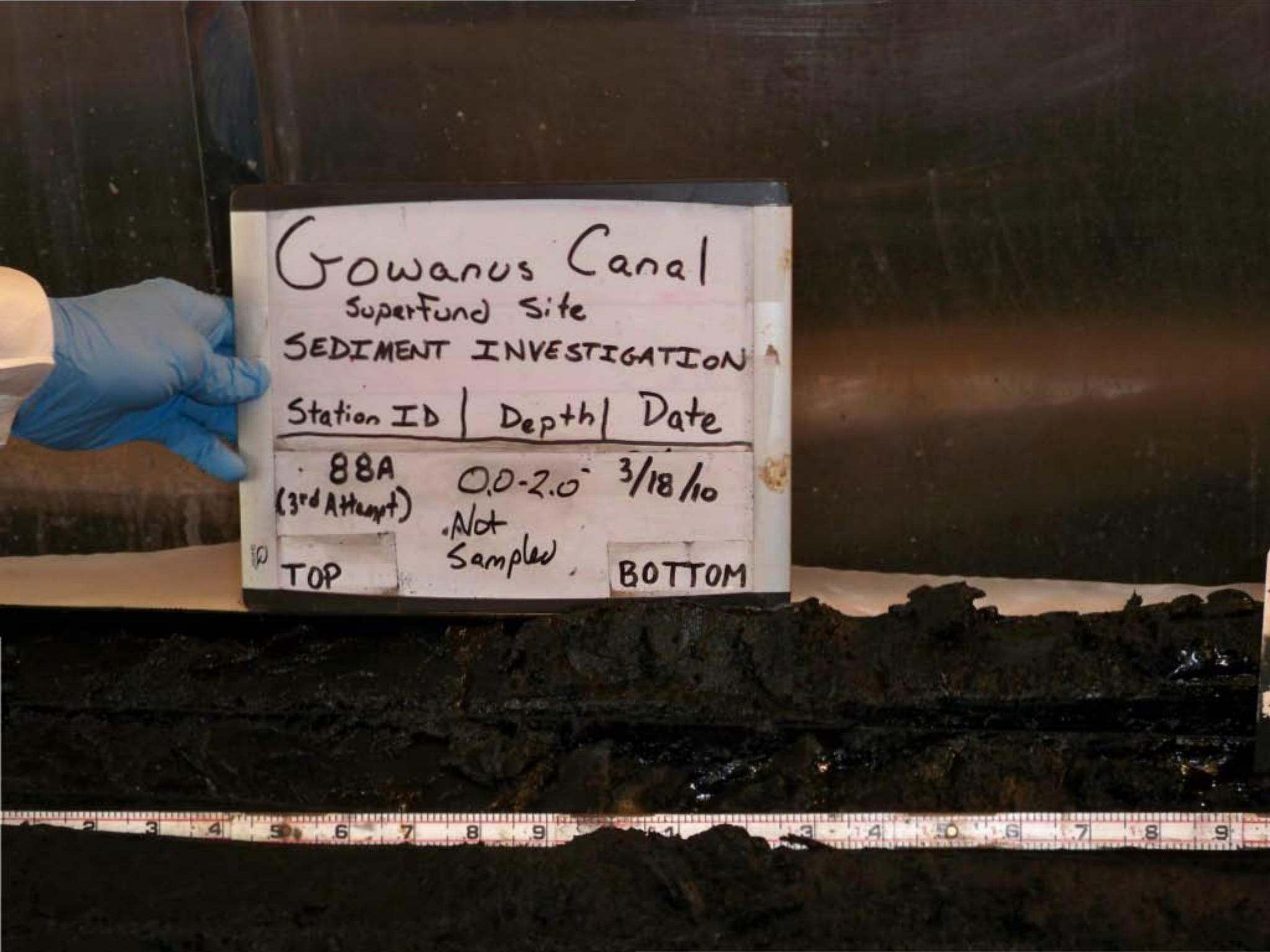

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A 6.0-6.4' 3/16/10
(1st Attempt)
Not Sampled
BOTTOM
103

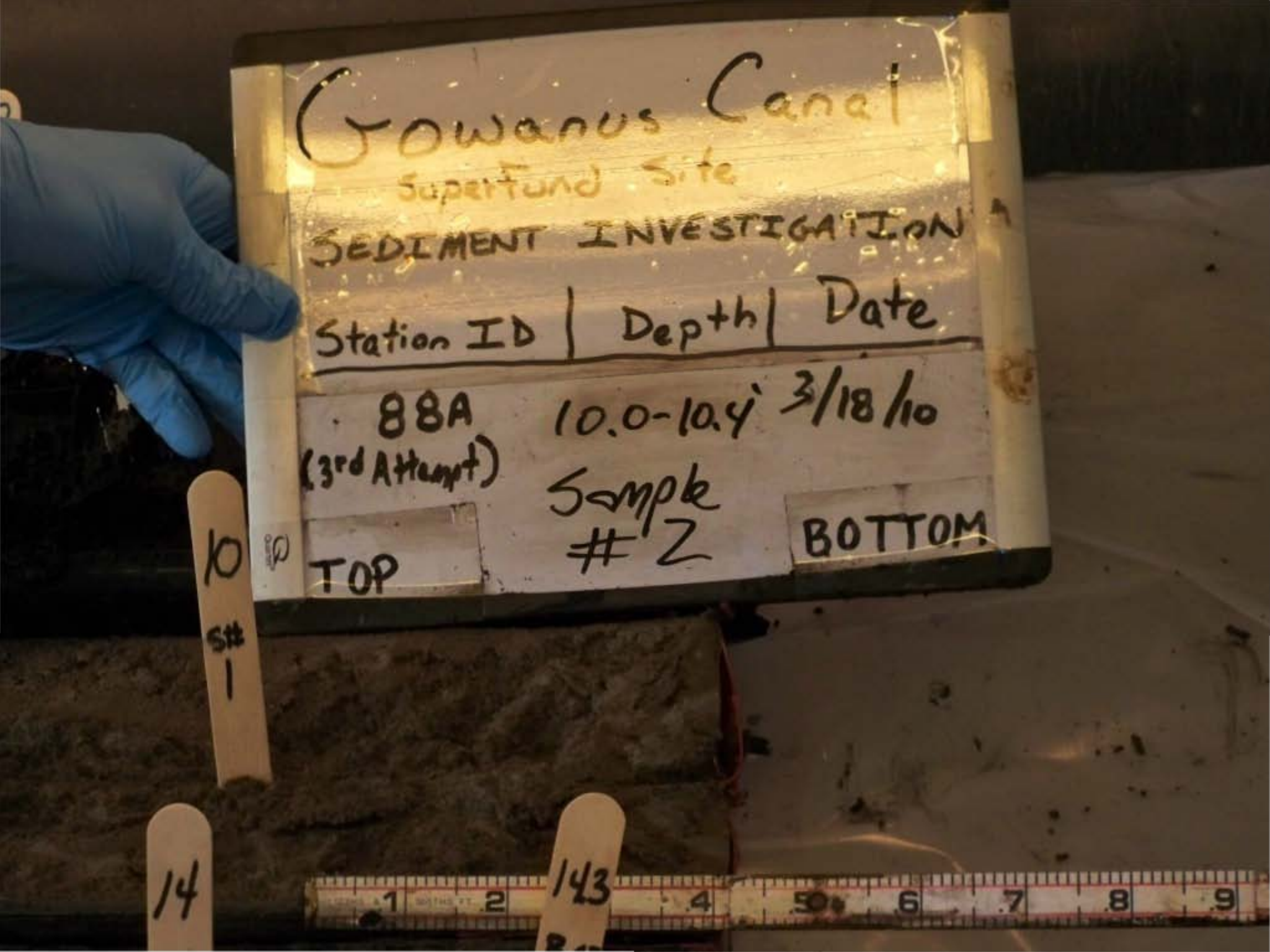

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A 6.4-8.0' 3/16/10
(1st Attempt)
Not Sampled
TOP
BOTTOM
8
T2
123
SH
2

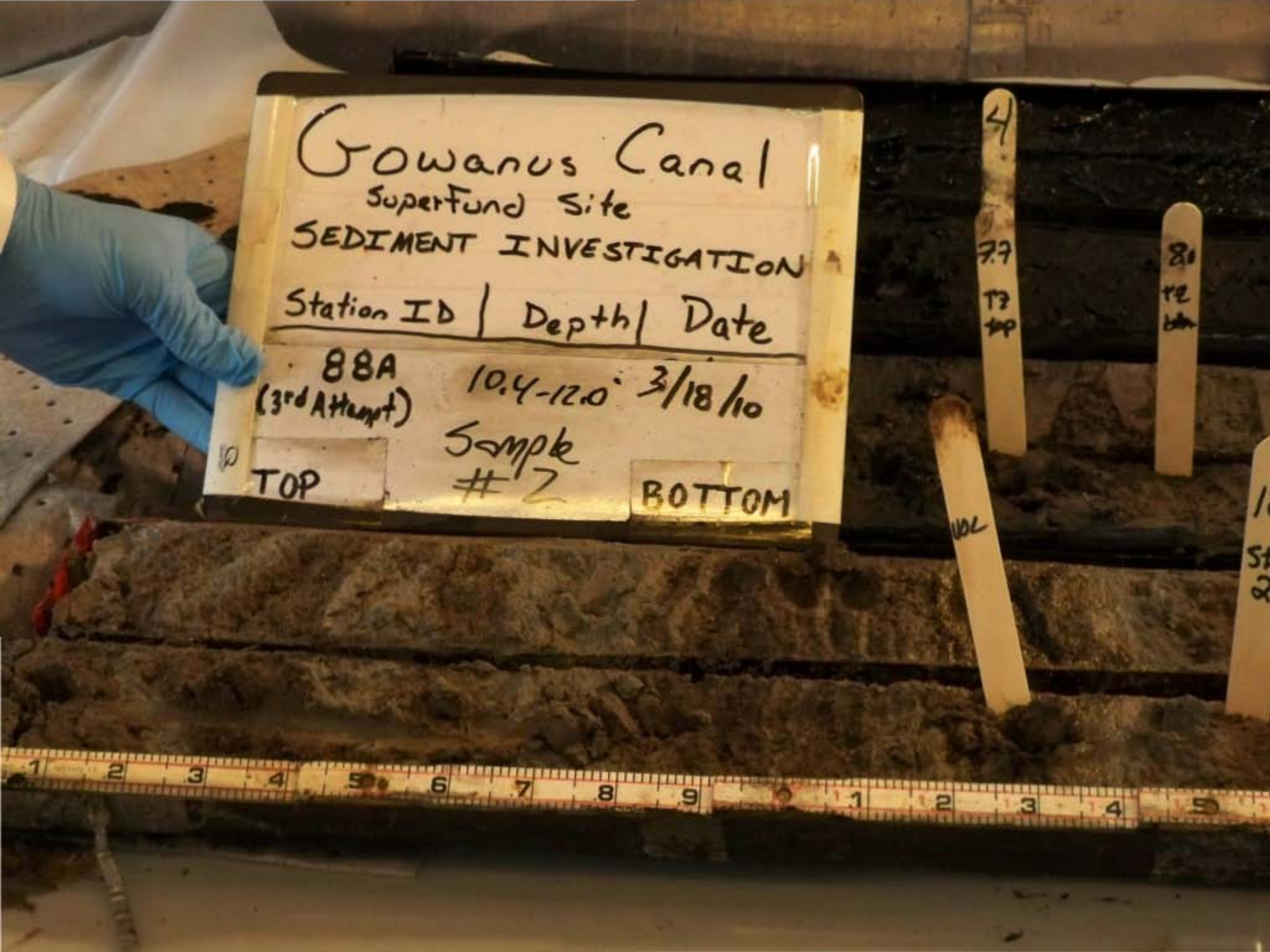

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt) 8.0-8.3' 3/16/10
Transition Zone
TOP Not Sampled BOTTOM
8 TZ
8.3 TZ
123 SH 2
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A (1st Attempt) 8.3-10.3' 3/16/10
Sample #1
TOP
BOTTOM
6
VOC
M.3 SH 3
103 SH 1

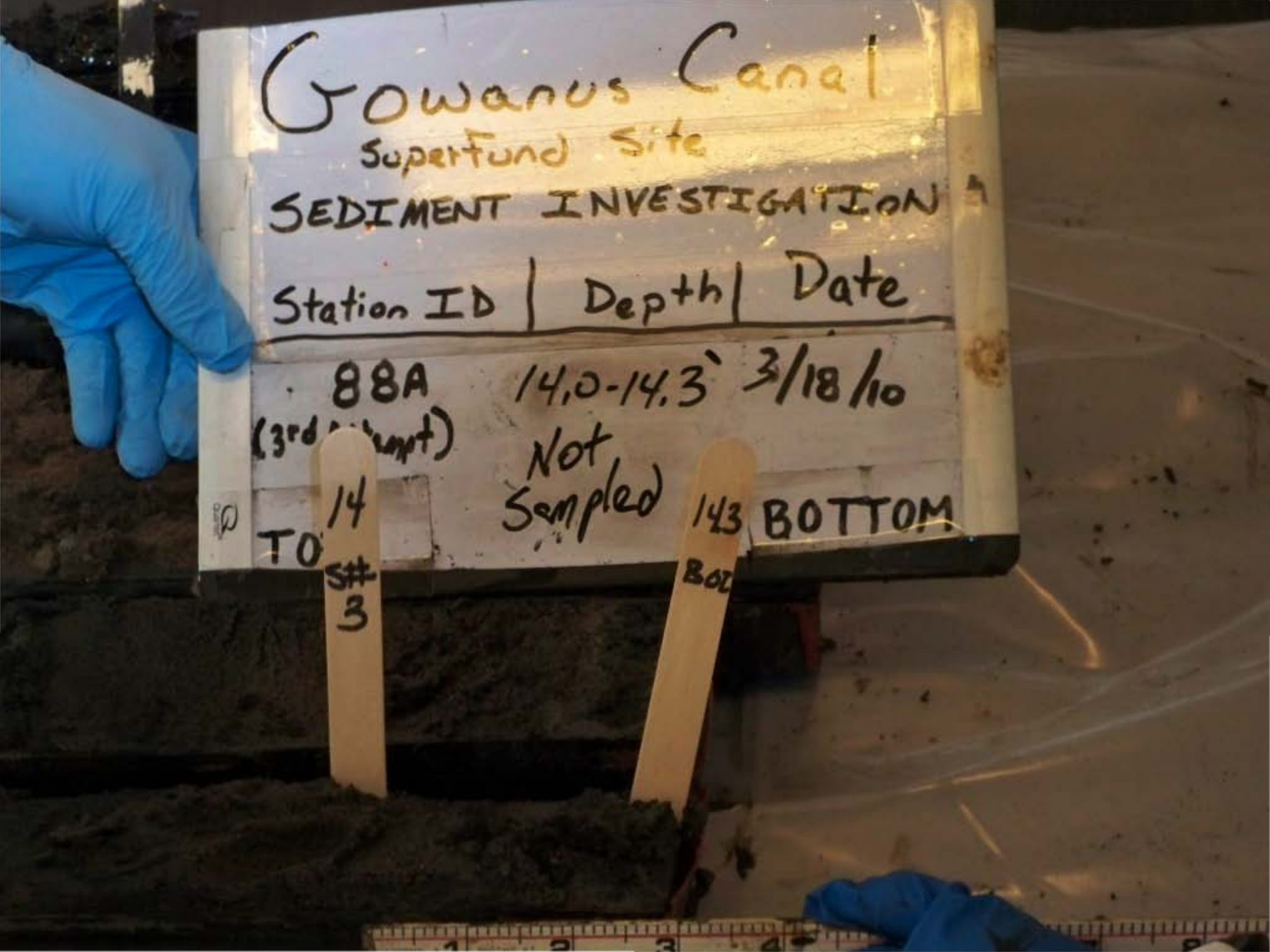

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
EBA (3rd Attempt) Full Recovery 3/18/10
TOP
BOTTOM

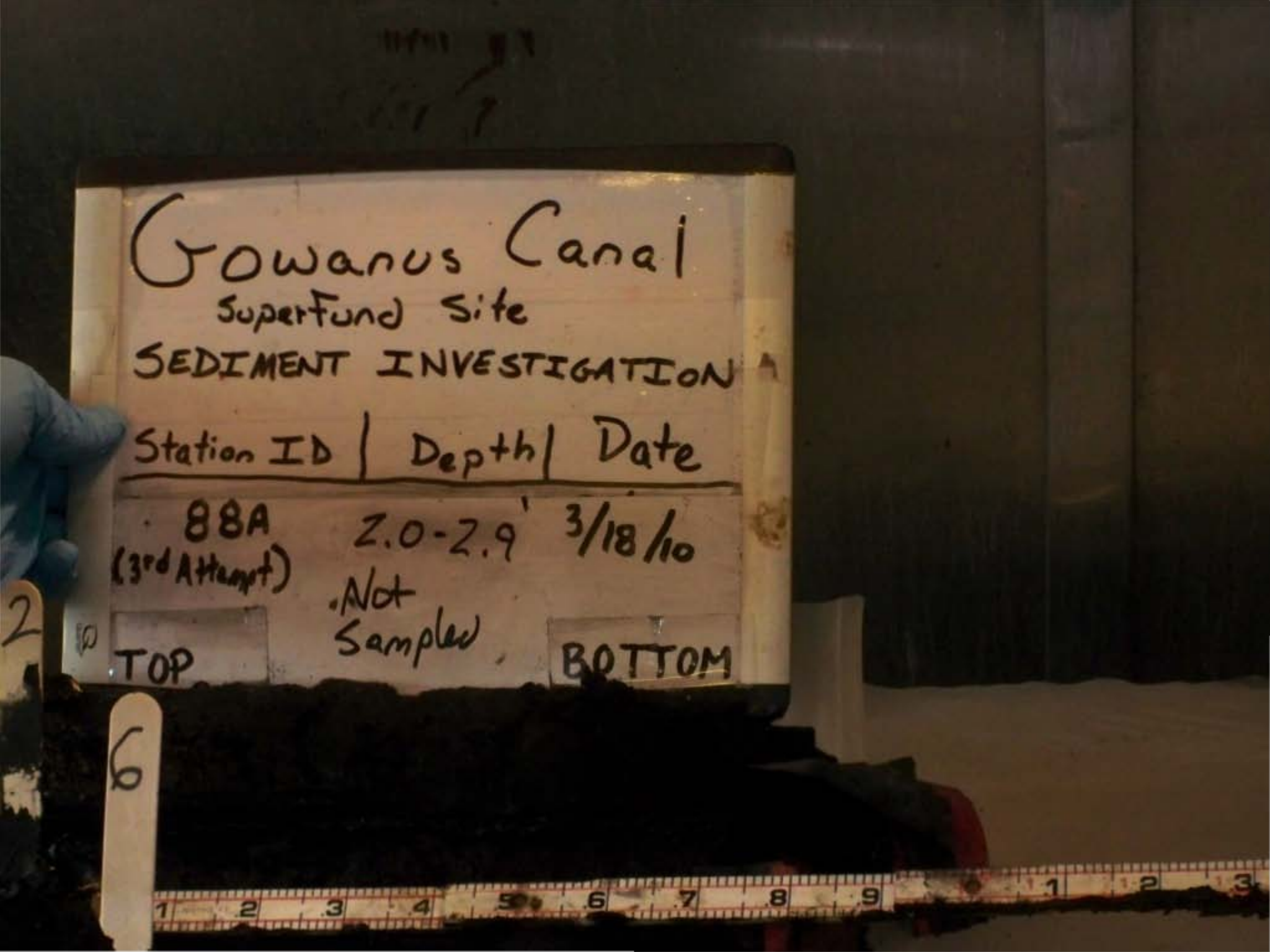

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt) 0.0-2.0' 3/18/10
Not Sampled
TOP
BOTTOM

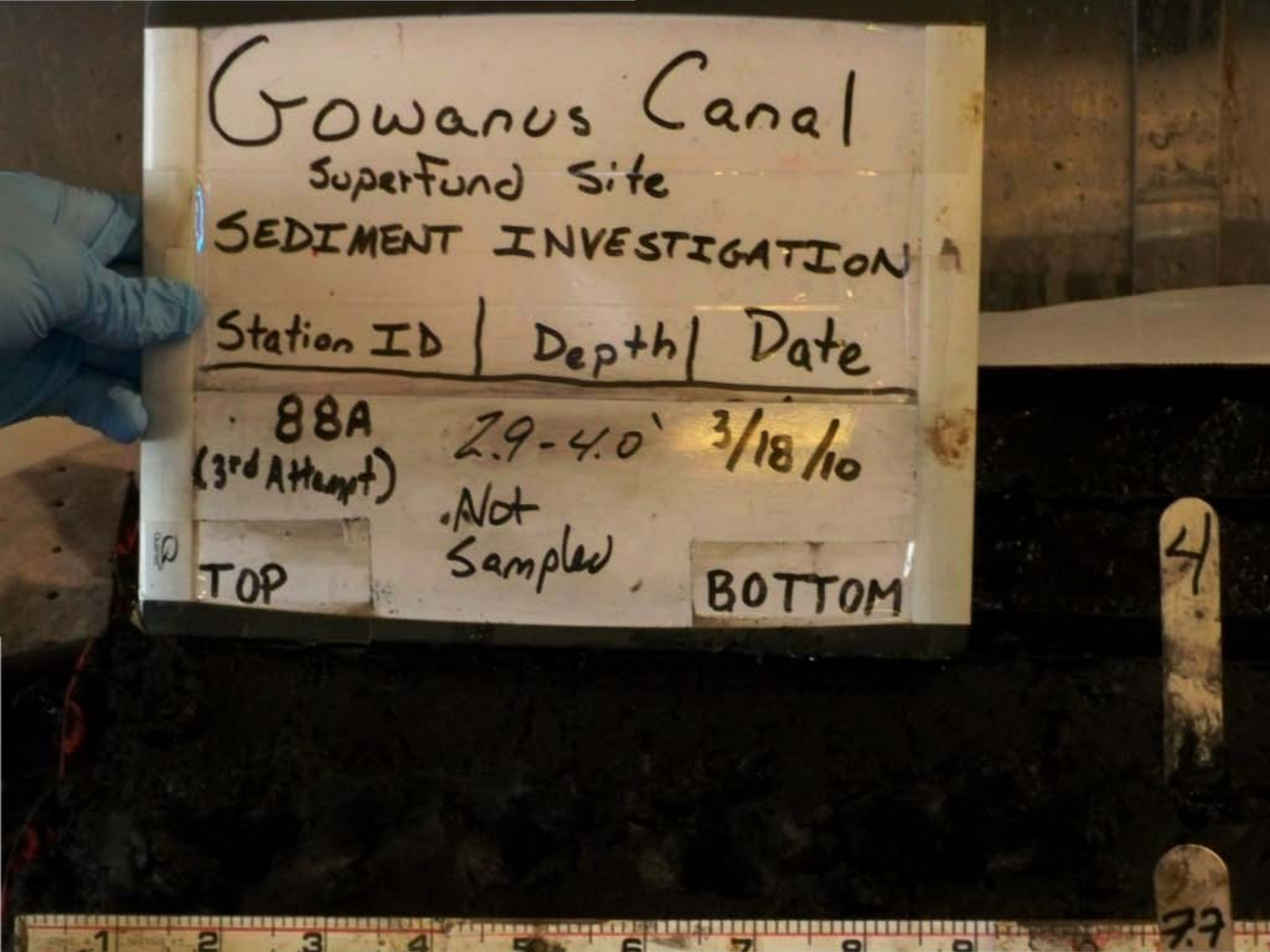

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A
(3rd Attempt)
10.0-10.4'
3/18/10
Sample
#2
TOP
BOTTOM
10
Stt
1
14
143


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt) 10.4-12.0' 3/18/10
Sample #2
TOP
BOTTOM

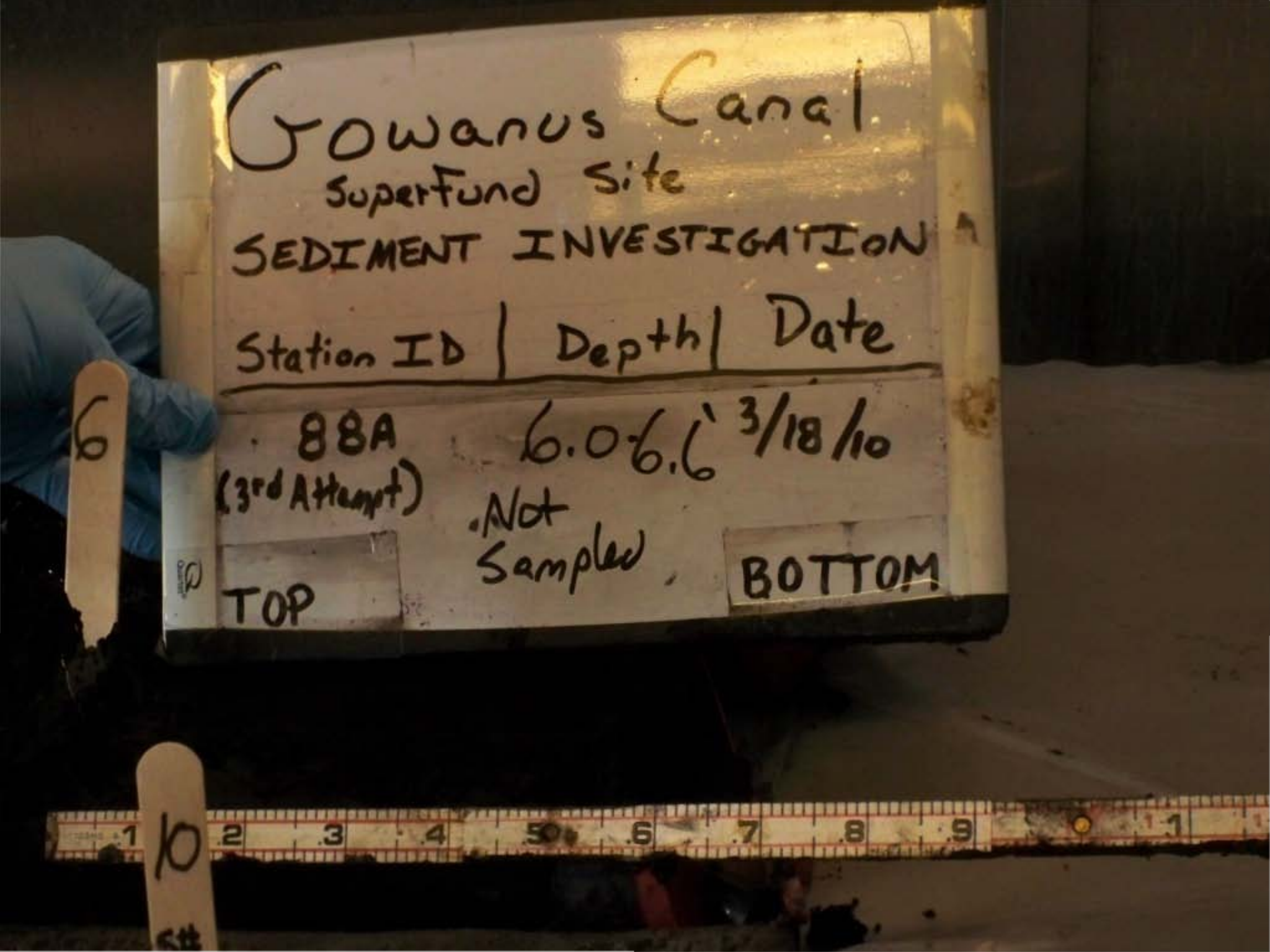

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A
(3rd Attempt)
3/18/10
Sample
#3
TOP
BOTTOM
12
S# 2
10
S# 1
14
S# 3

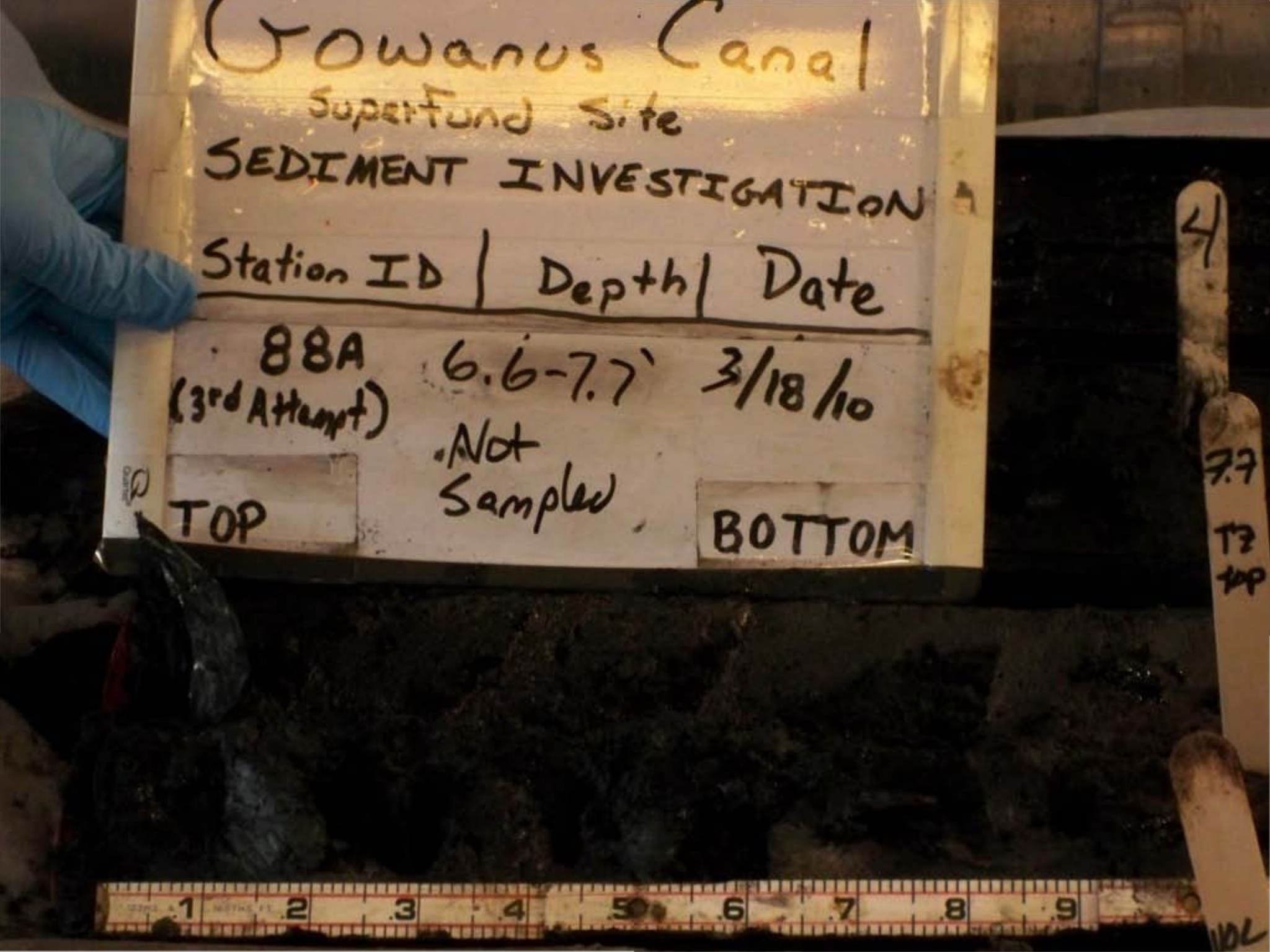

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A
(3rd Attempt)
14.0-14.3'
3/18/10
Not Sampled
14
S#
3
143
BOTTOM

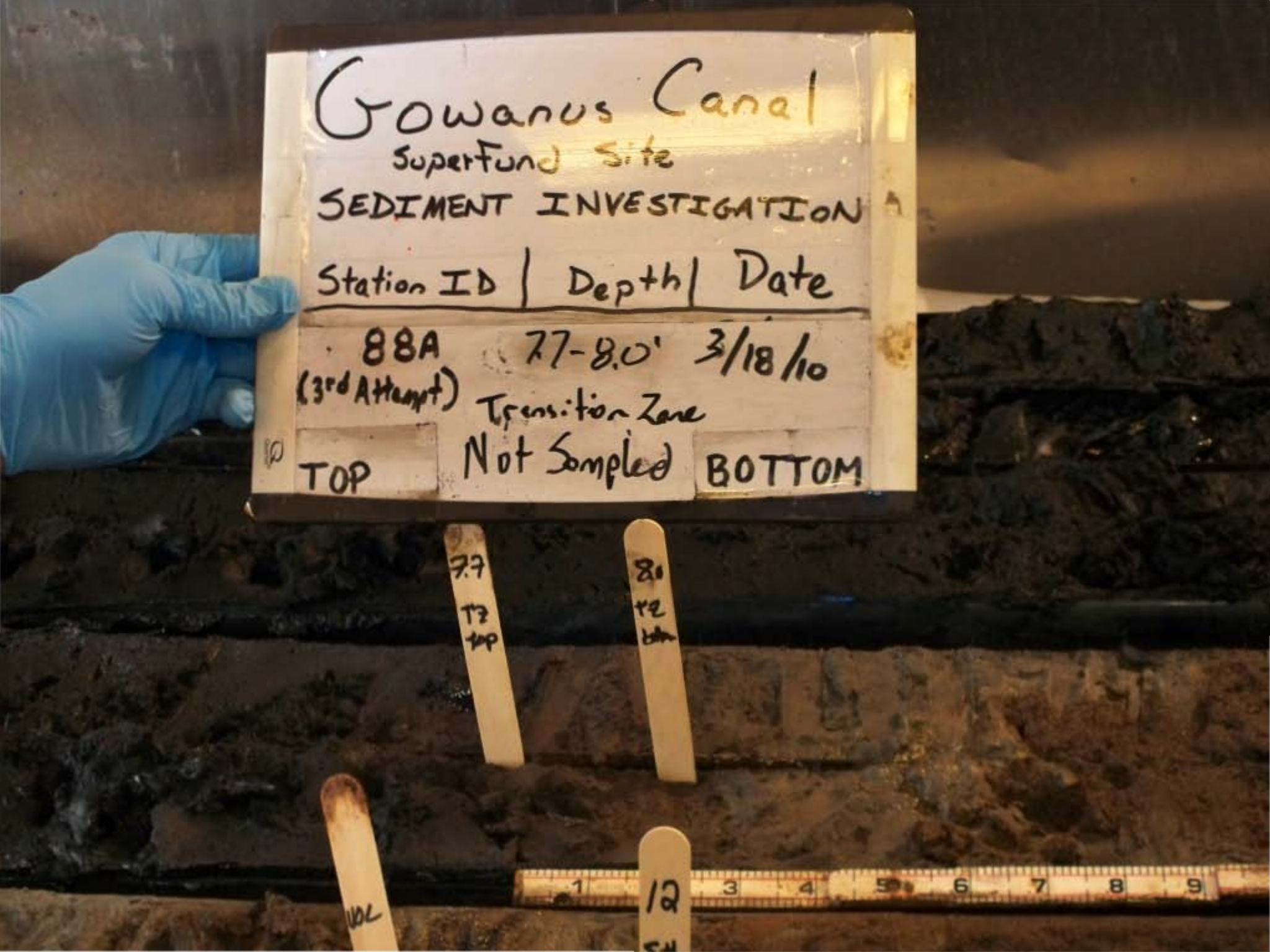

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt) 2.0-2.9' 3/18/10
Not Sampled
TOP
BOTTOM
2
6

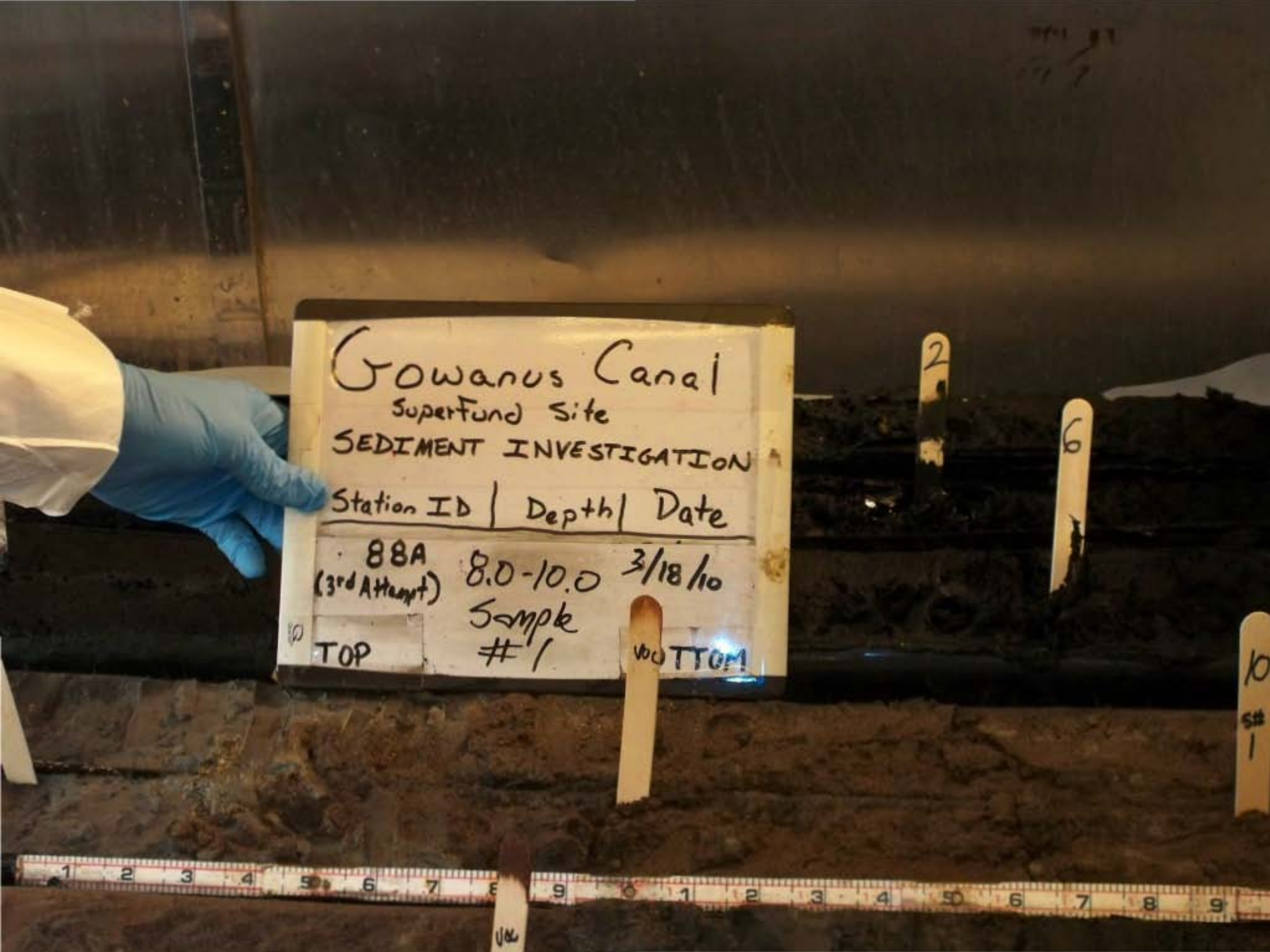

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt) 2.9-4.0' 3/18/10
Not Sampled
TOP
BOTTOM
4
7.7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt)
4.0-6.0'
3/18/10
Not Sampled
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt)
6.0-6.6'
3/18/10
Not Sampled
TOP
BOTTOM
6
10


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt) 6.6-7.7' 3/18/10
Not Sampled
TOP
BOTTOM
4
7.7
T3 top


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt) 7.7-8.0' 3/18/10
Transition Zone
TOP
Not Sampled
BOTTOM
7.7 TZ top
8.0 TZ bottom
12

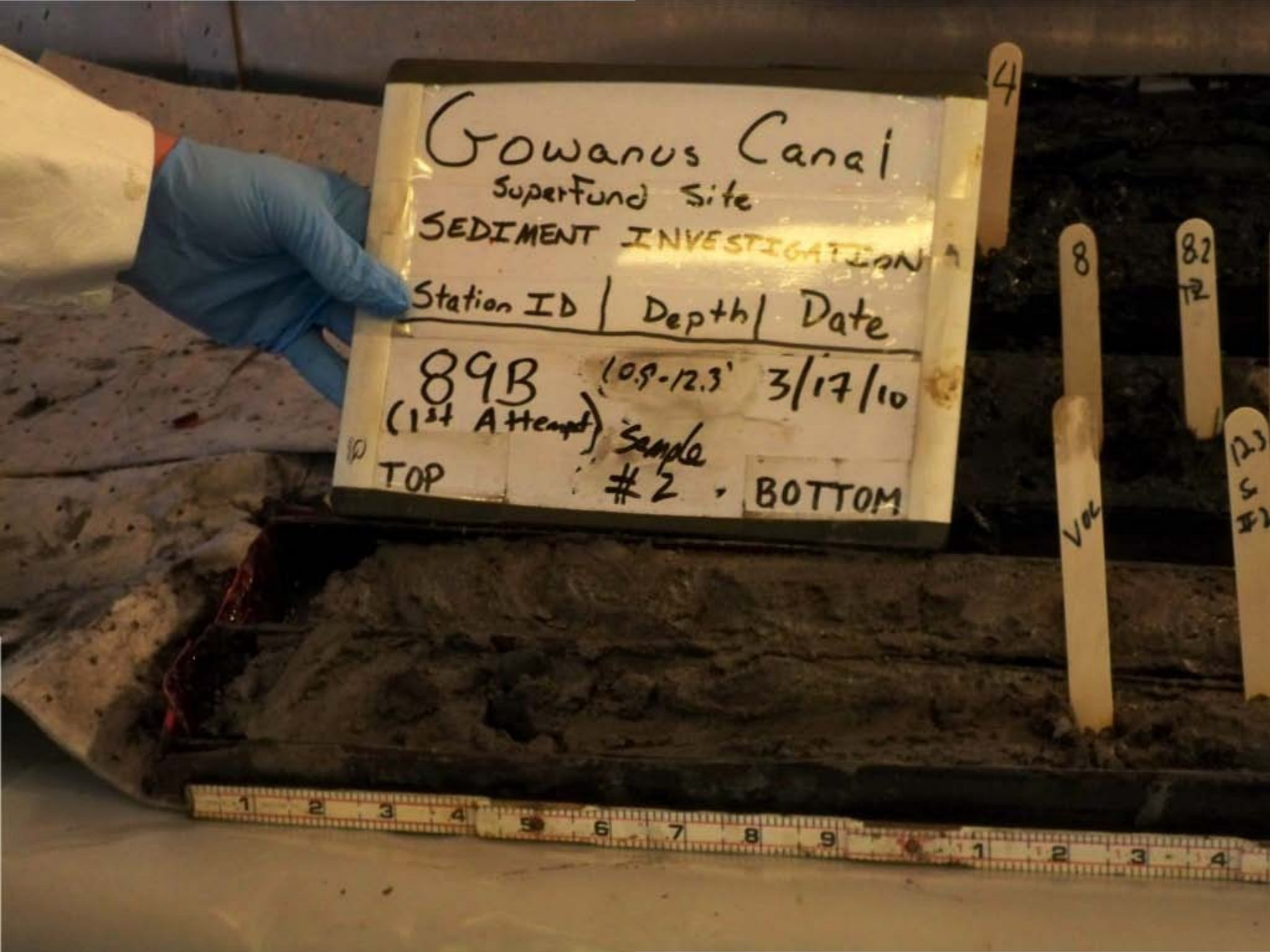

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
88A (3rd Attempt) 8.0-10.0 3/18/10
Sample #1
TOP
BOTTOM

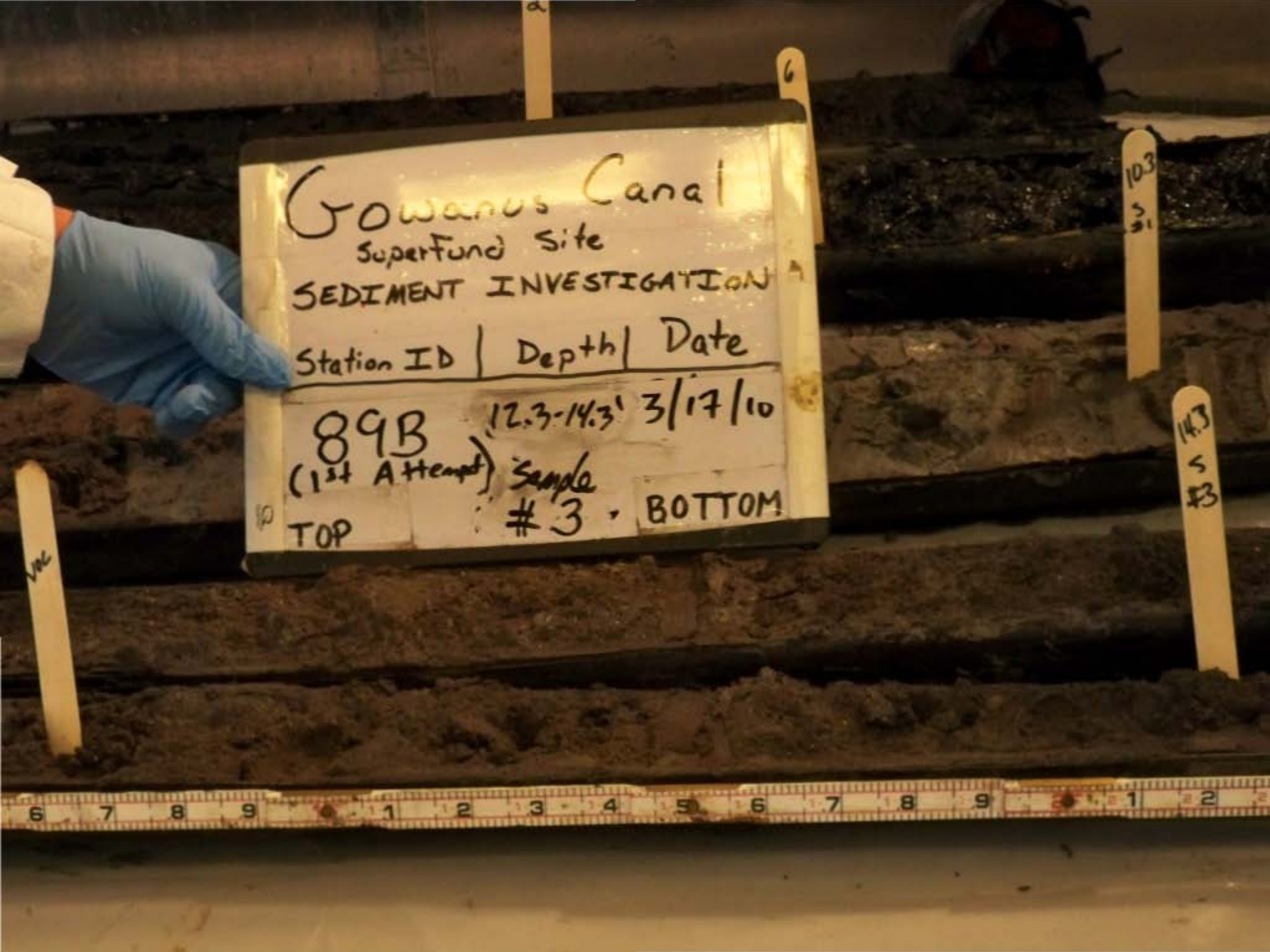

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SBA (3rd Attempt) Full Recovery 3/18/10
TOP
BOTTOM

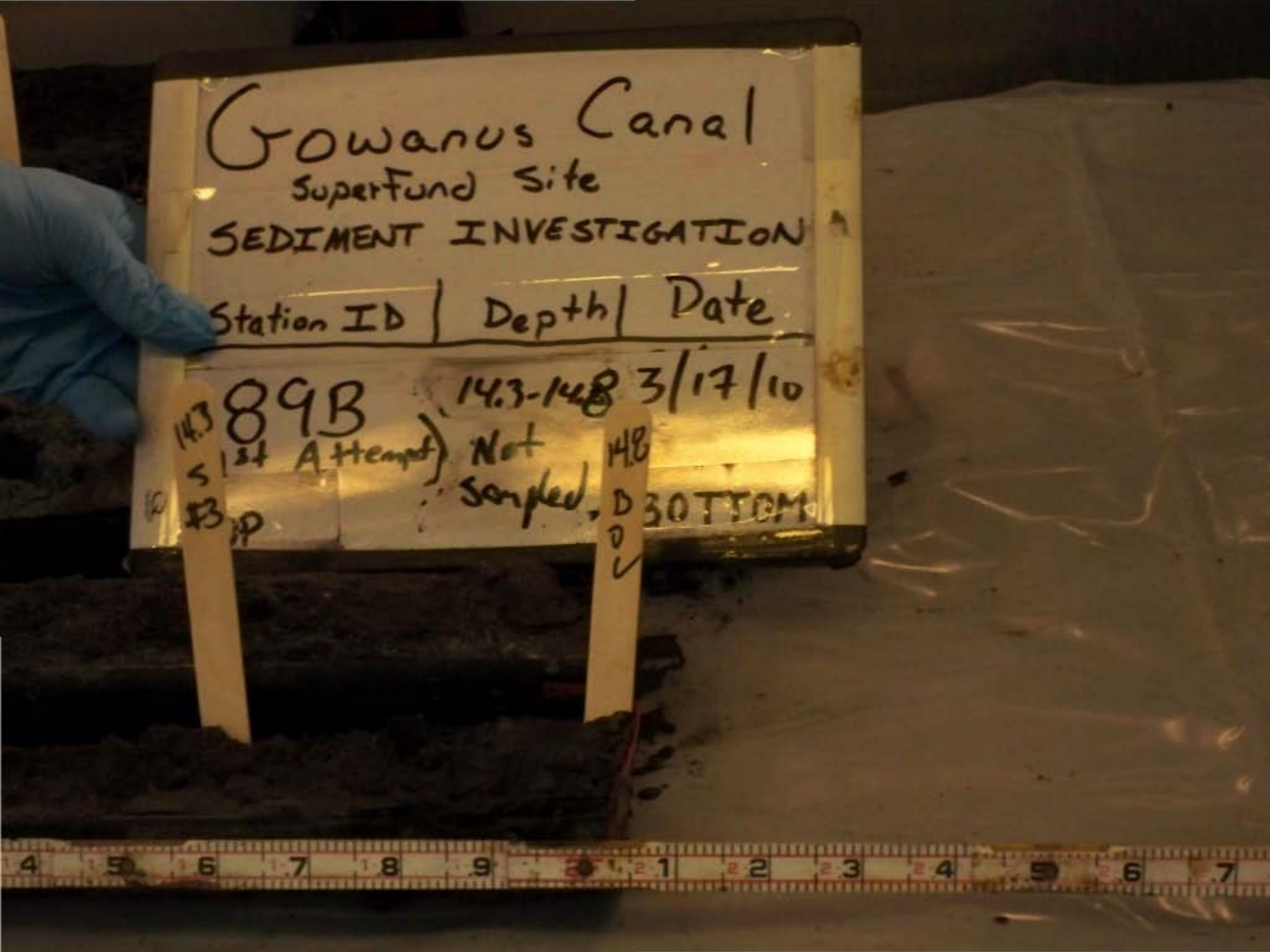

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B FULL 3/17/10
(1st Attempt) RECOVERY
BOTTOM

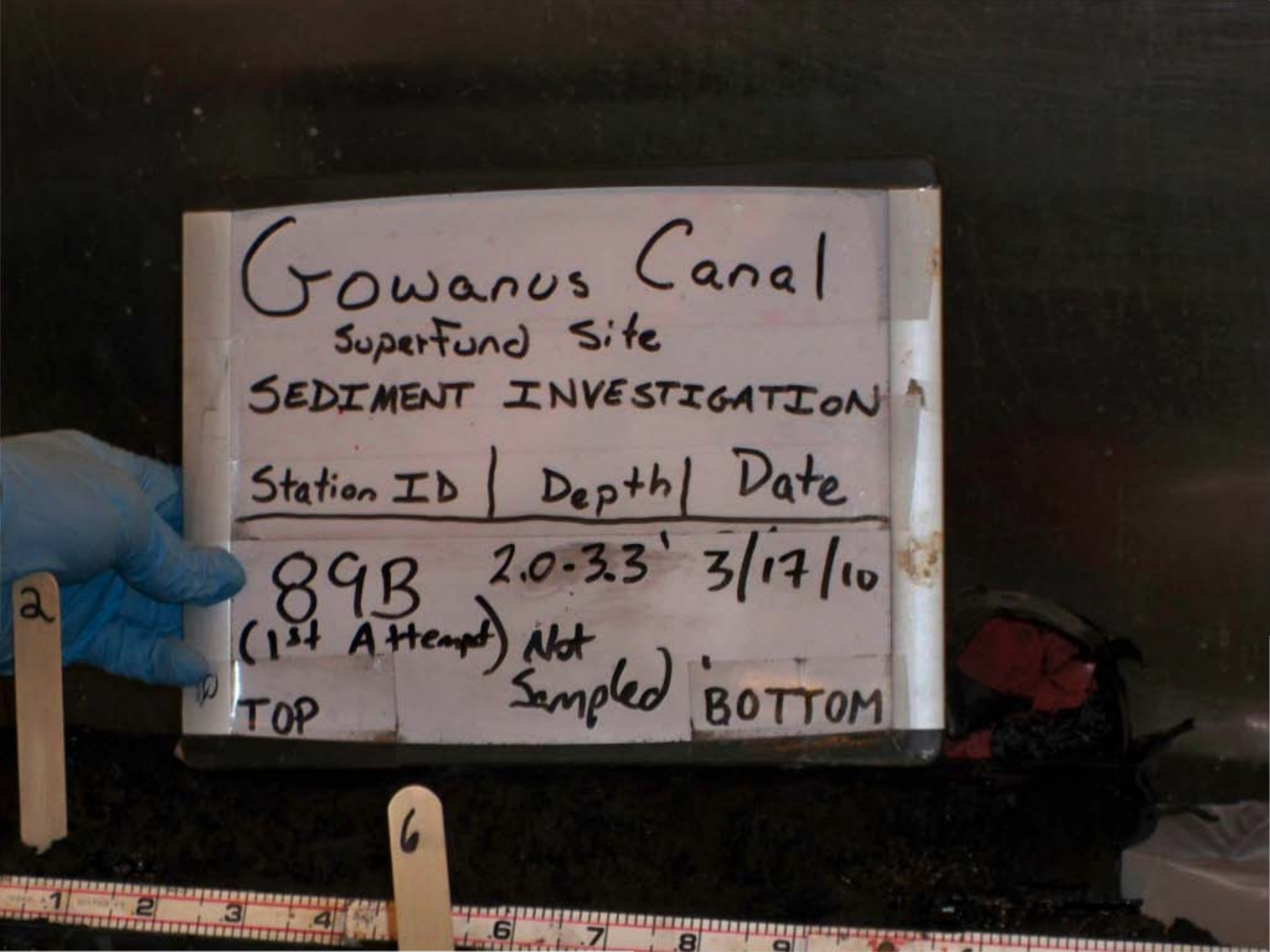

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 0.0-2.0' 3/17/10
(1st Attempt) Not Sampled
TOP
BOTTOM

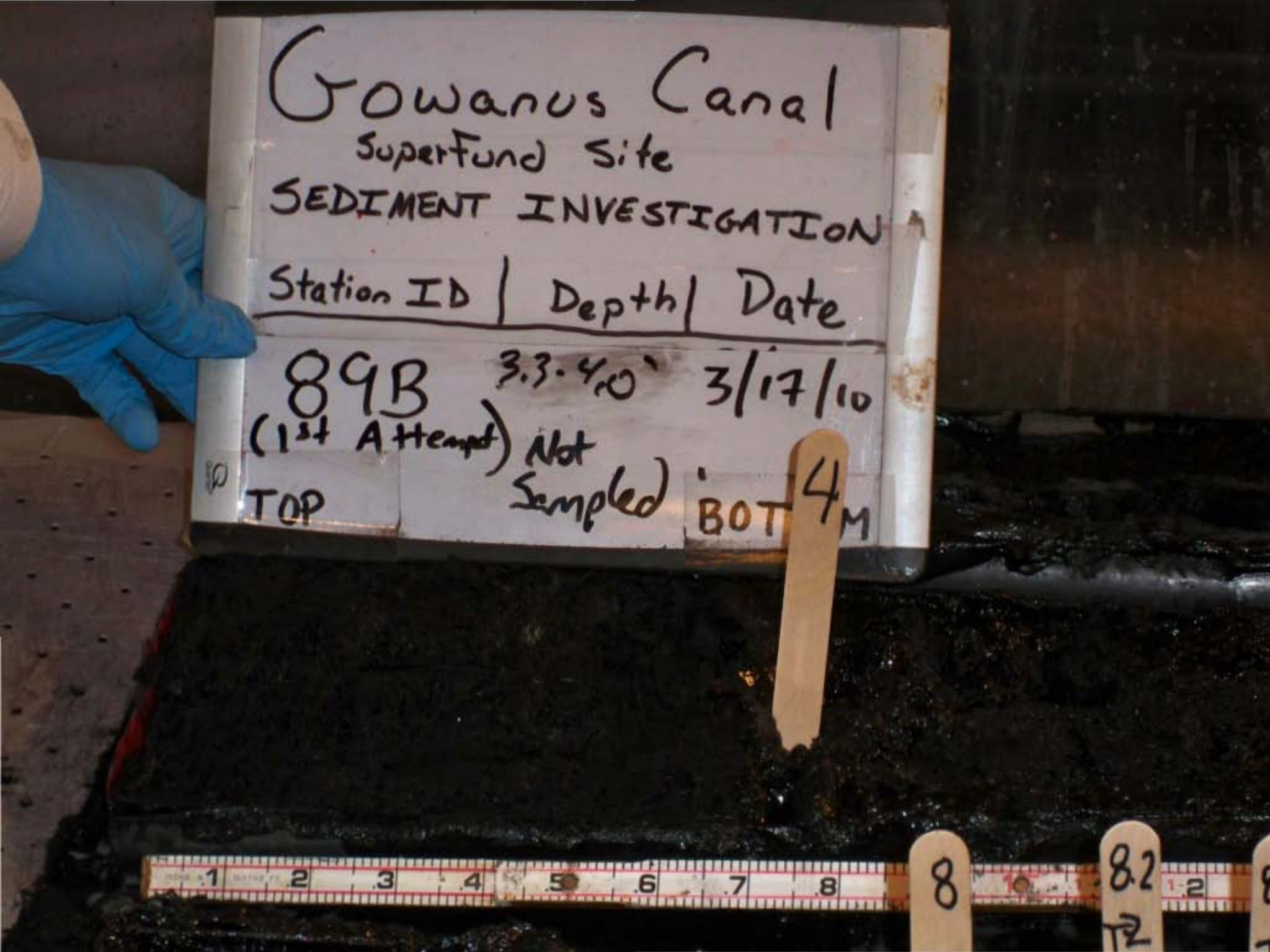

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 10.3-10.9 3/17/10
(1st Attempt) Sample #2
TOP BOTTOM
10.3
14.8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B (1st Attempt) 10.5-12.3' 3/17/10
TOP Sample #2 BOTTOM
4
8
82
VOL

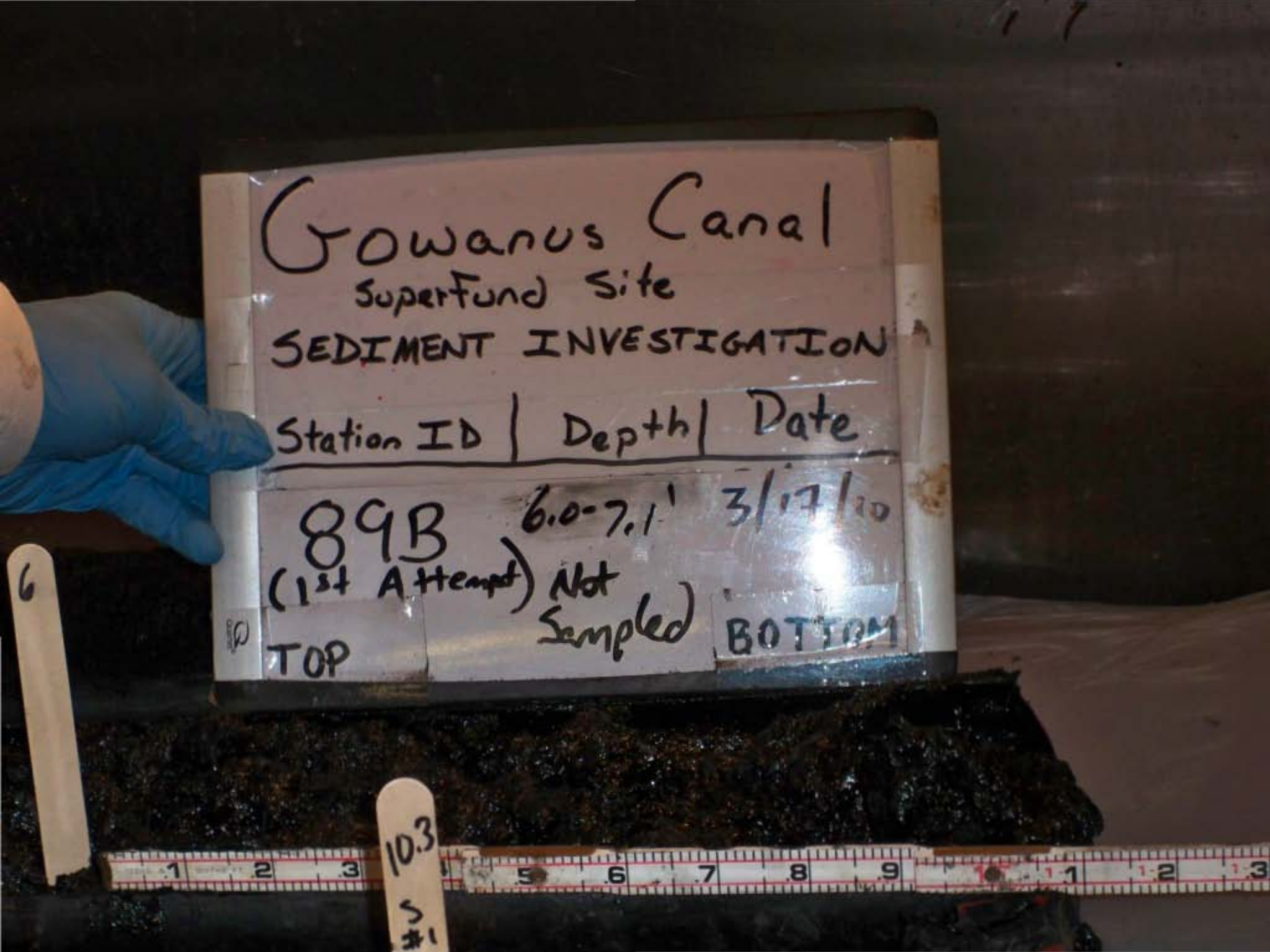

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 12.3-14.3' 3/17/10
(1st Attempt) Sample #3 - BOTTOM
TOP

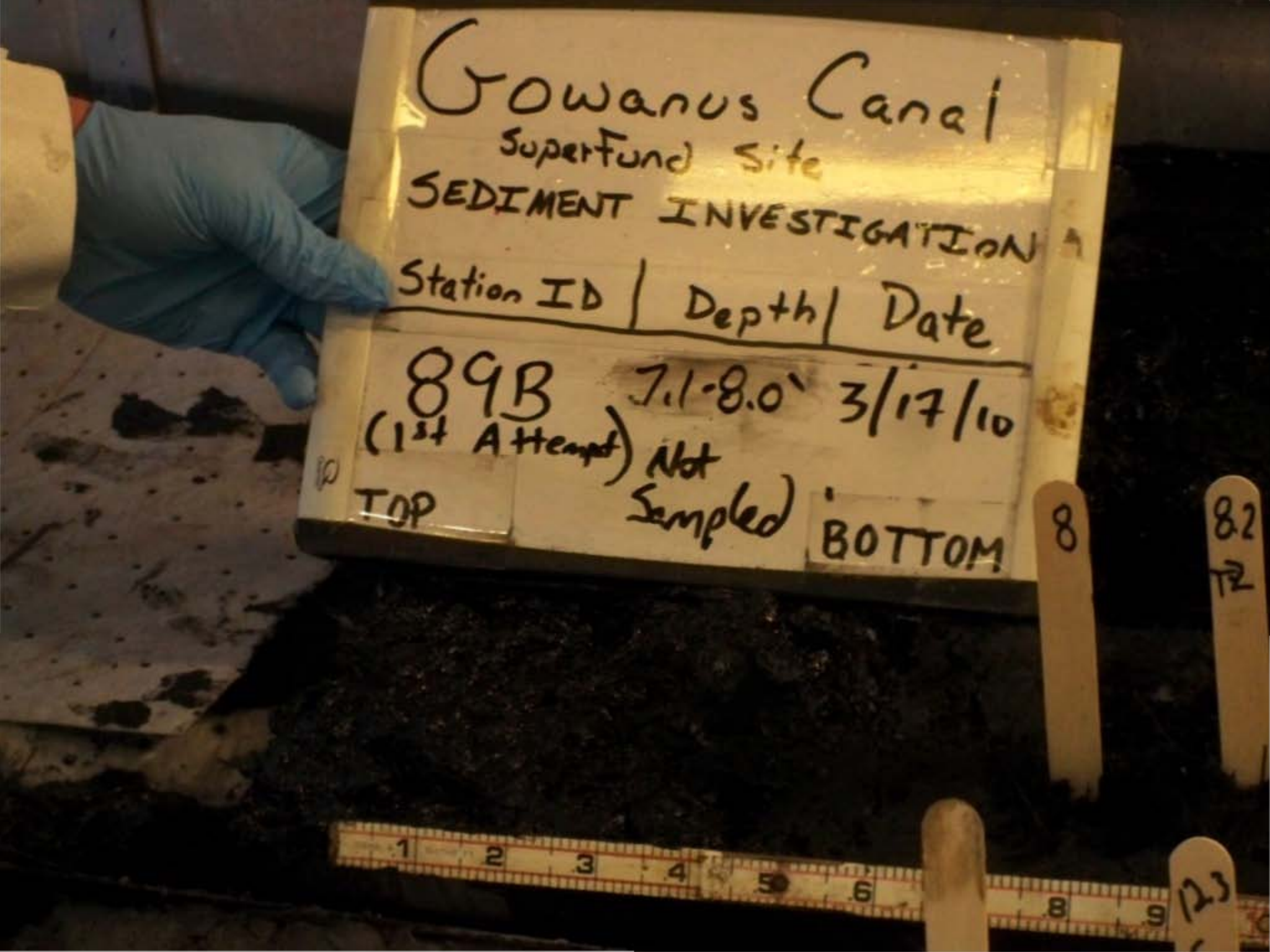

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID
Depth
Date
89B
14.3-14.8
3/17/10
1st Attempt
Not Sampled
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 2.0-3.3' 3/17/10
(1st Attempt) Not Sampled
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 3.3-4.0' 3/17/10
(1st Attempt) Not Sampled
TOP
BOT
4
M
8
8.2

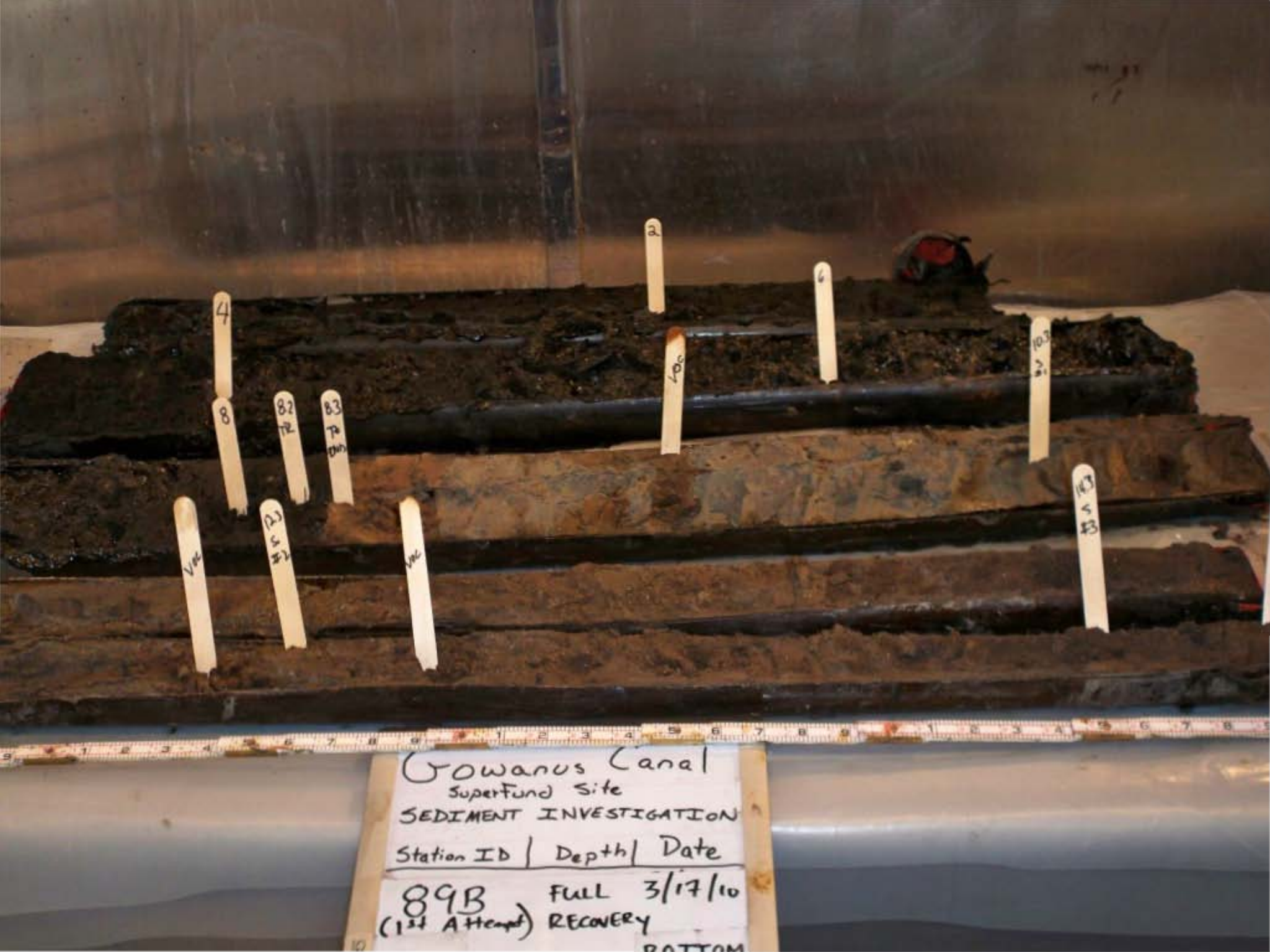

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 4.0-6.0' 3/17/10
(1st Attempt) Not Sampled
TOP
BOTTOM
2
6
VOC
8.2
TZ
8.3
TZ
END


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 6.0-7.1' 3/17/10
(1st Attempt) Not Sampled
TOP
BOTTOM
6
10.3
S #1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 7.1-8.0' 3/17/10
(1st Attempt) Not Sampled
TOP
BOTTOM
8
82

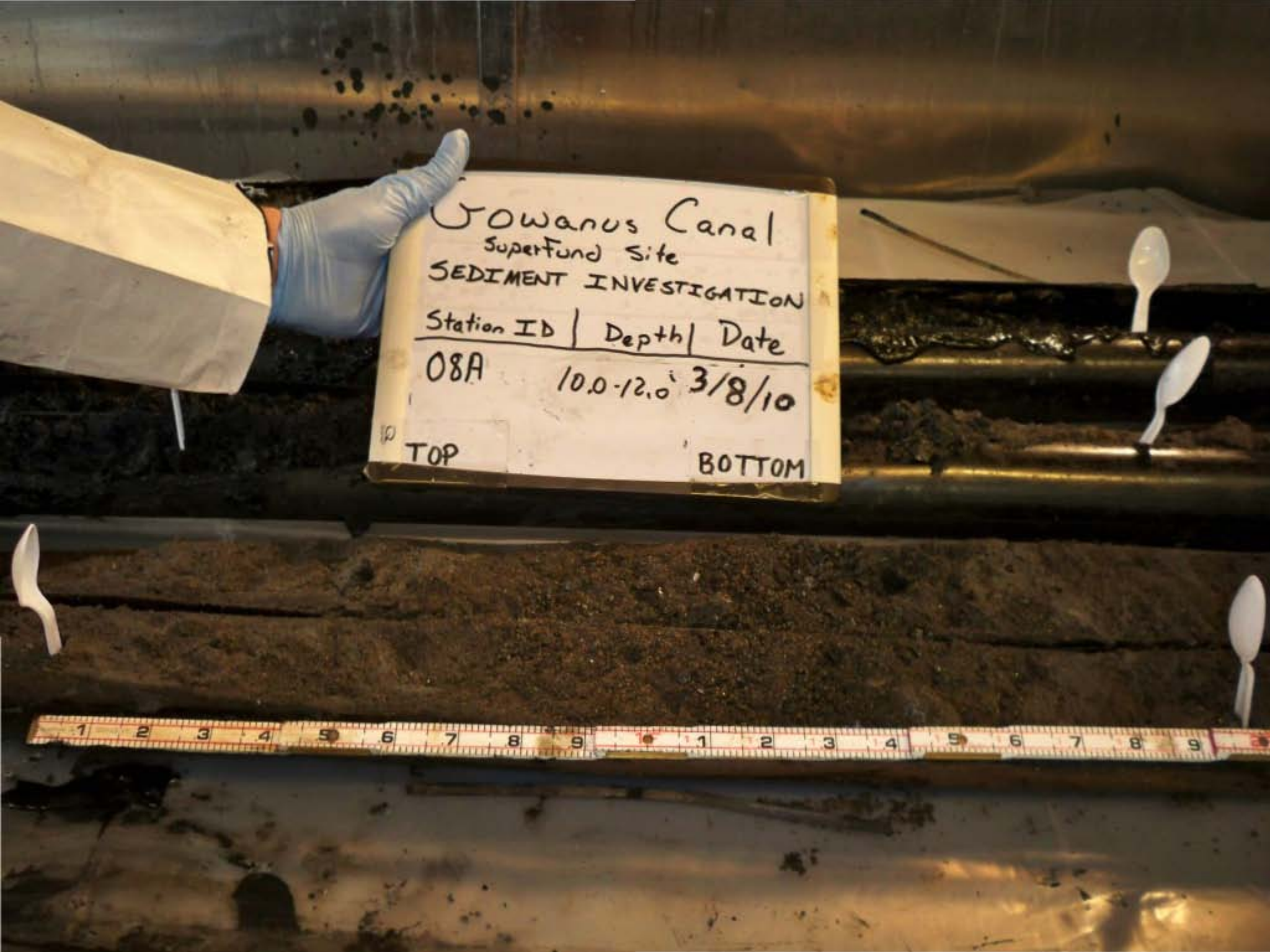

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 8.0-8.3' 3/17/10
(1st Attempt) T2- 8.2'-8.3'
TOP Not Sampled BOTTOM
8
8.2 T2
8.3 T2 END
VOC
123 & 12
VOC

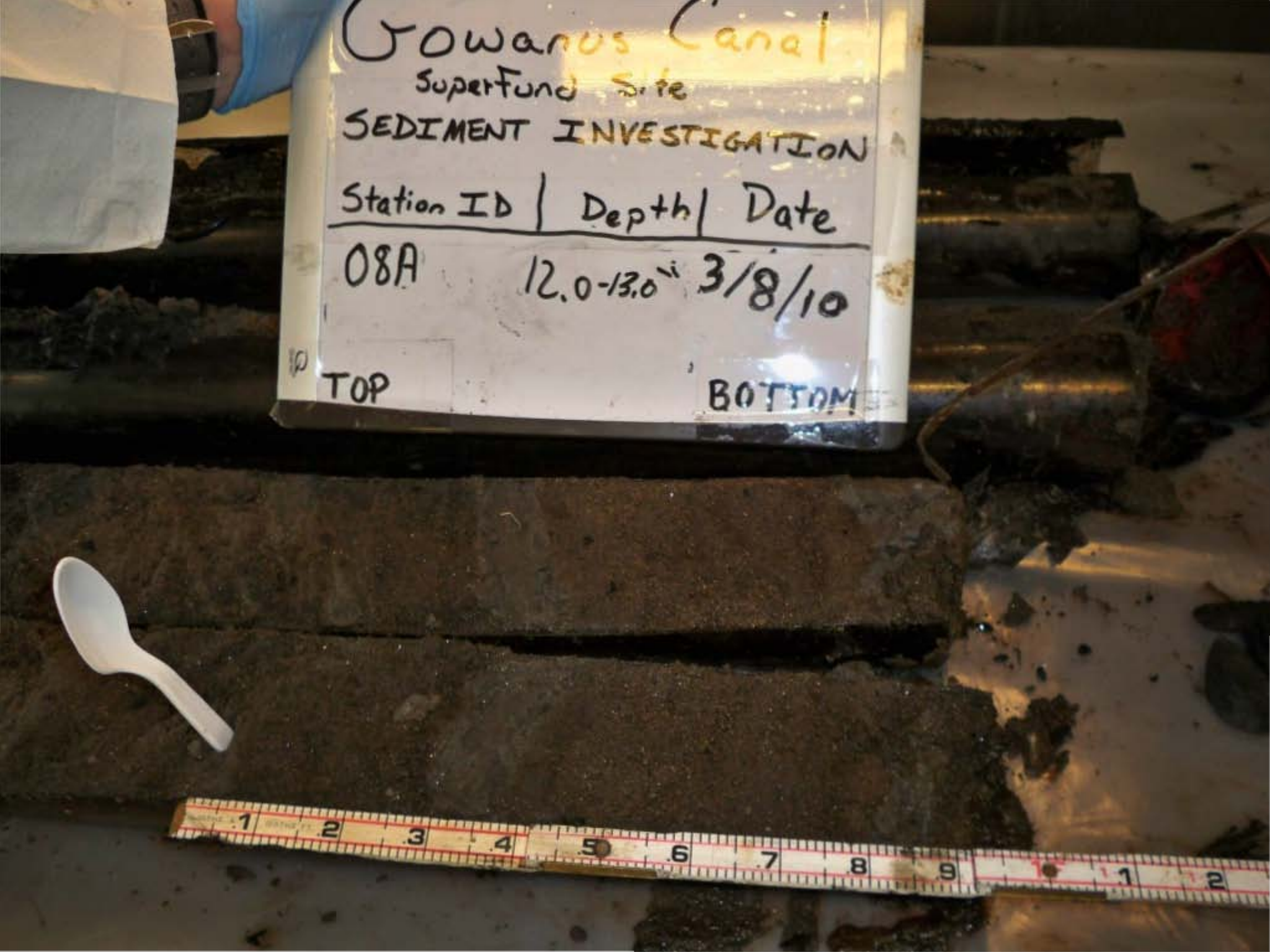

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B 8.3-10.3' 3/17/10
(1st Attempt) Sample
TOP #1 BOTTOM
VOC
10.3
S
#1
VOC

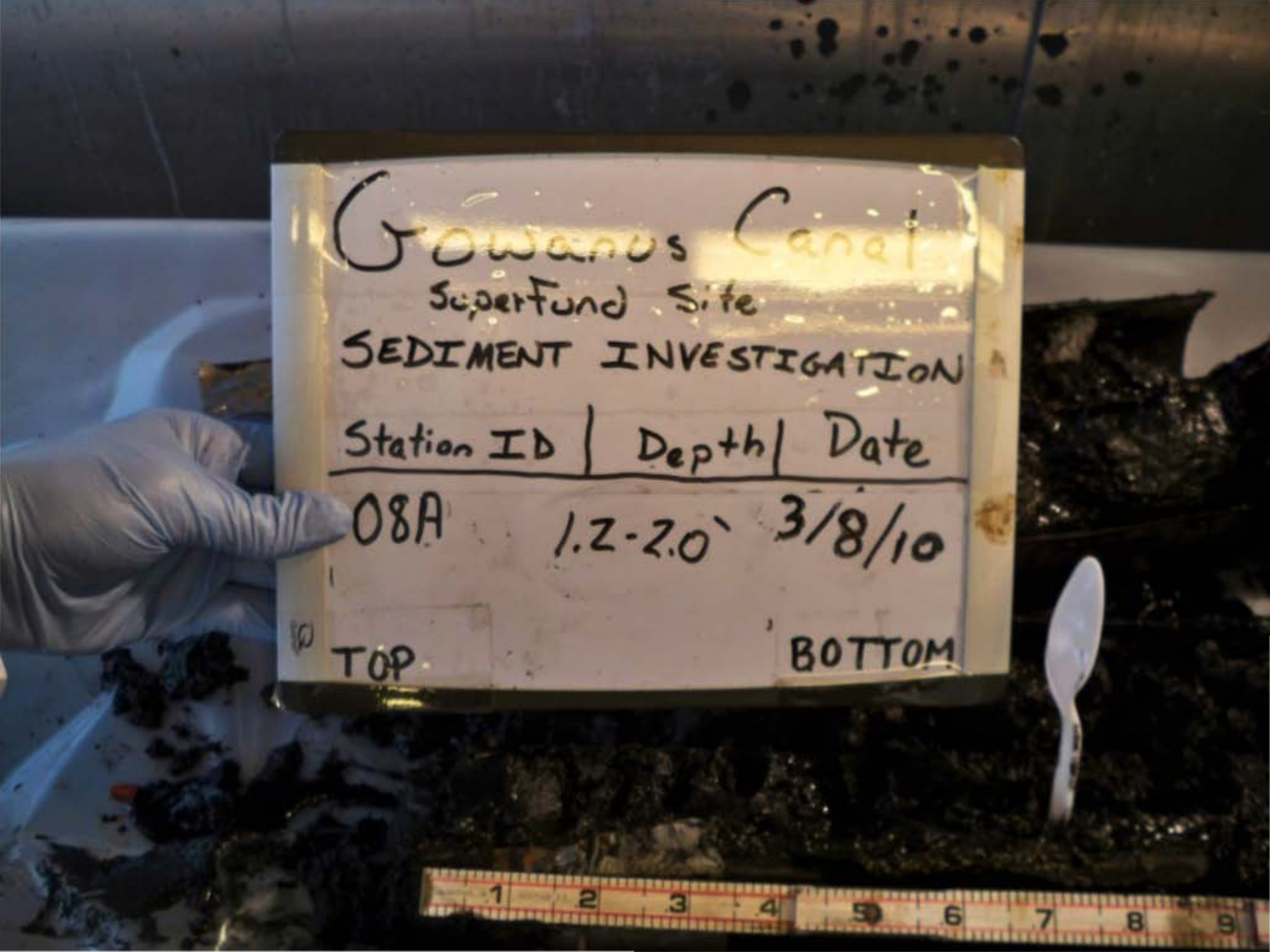

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B FULL 3/17/10
(1st Attempt) RECOVERY
BOTTOM

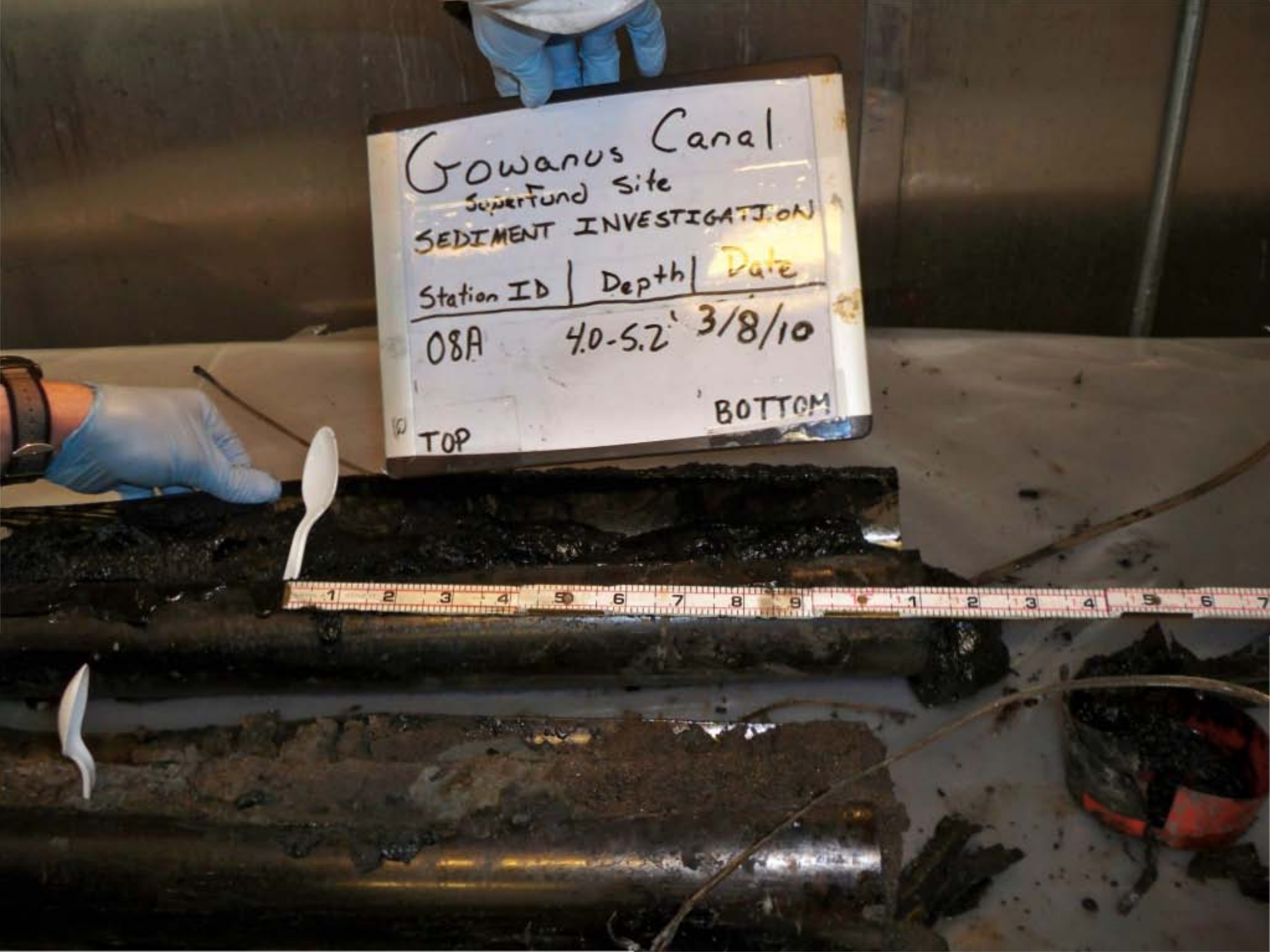

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A FULL RECOVERY 3/8/10
TOP
BOTTOM

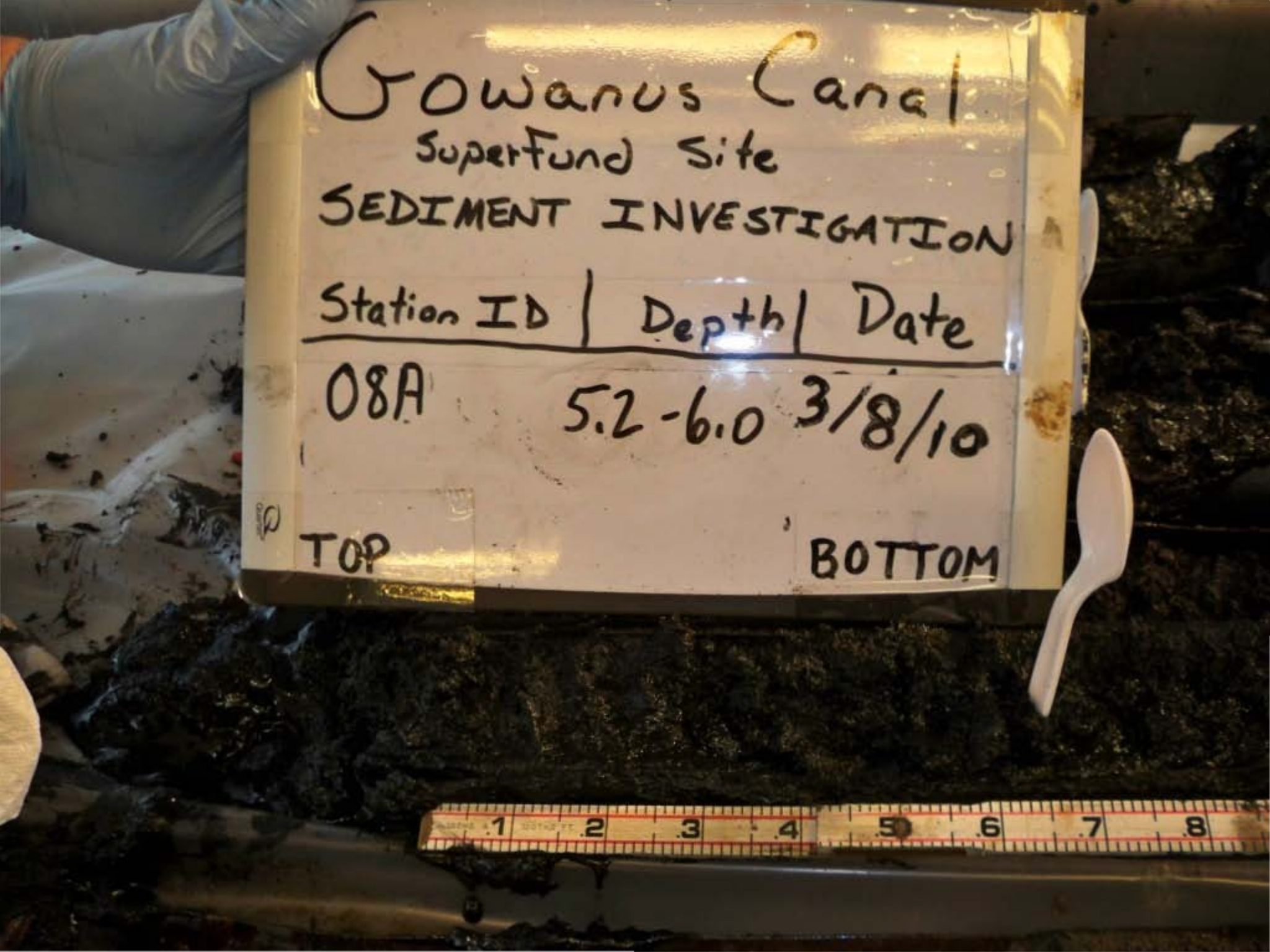

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 0.0-1.2' 3/8/10
TOP
BOTTOM

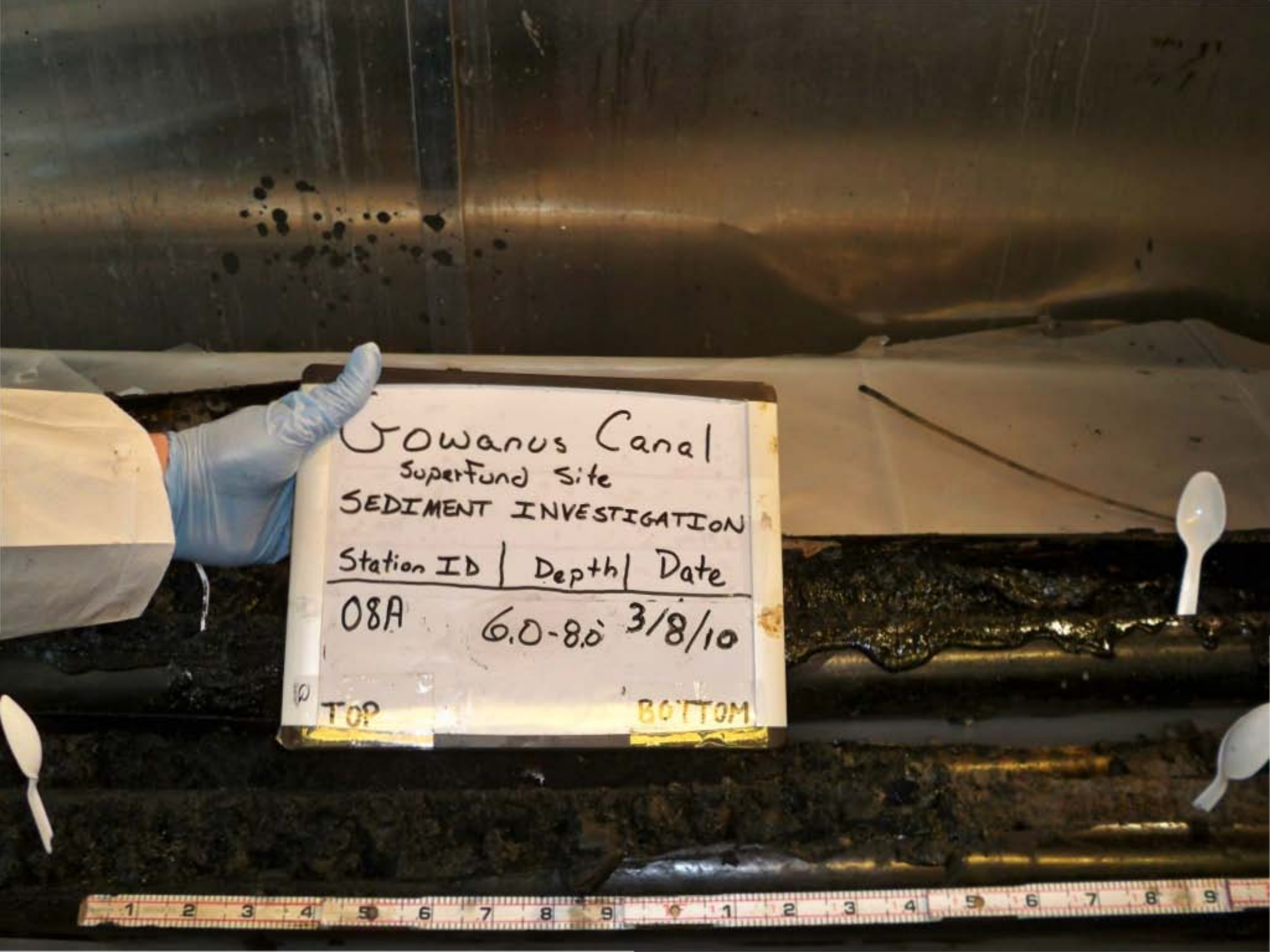

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 10.0-12.0' 3/8/10
TOP
BOTTOM

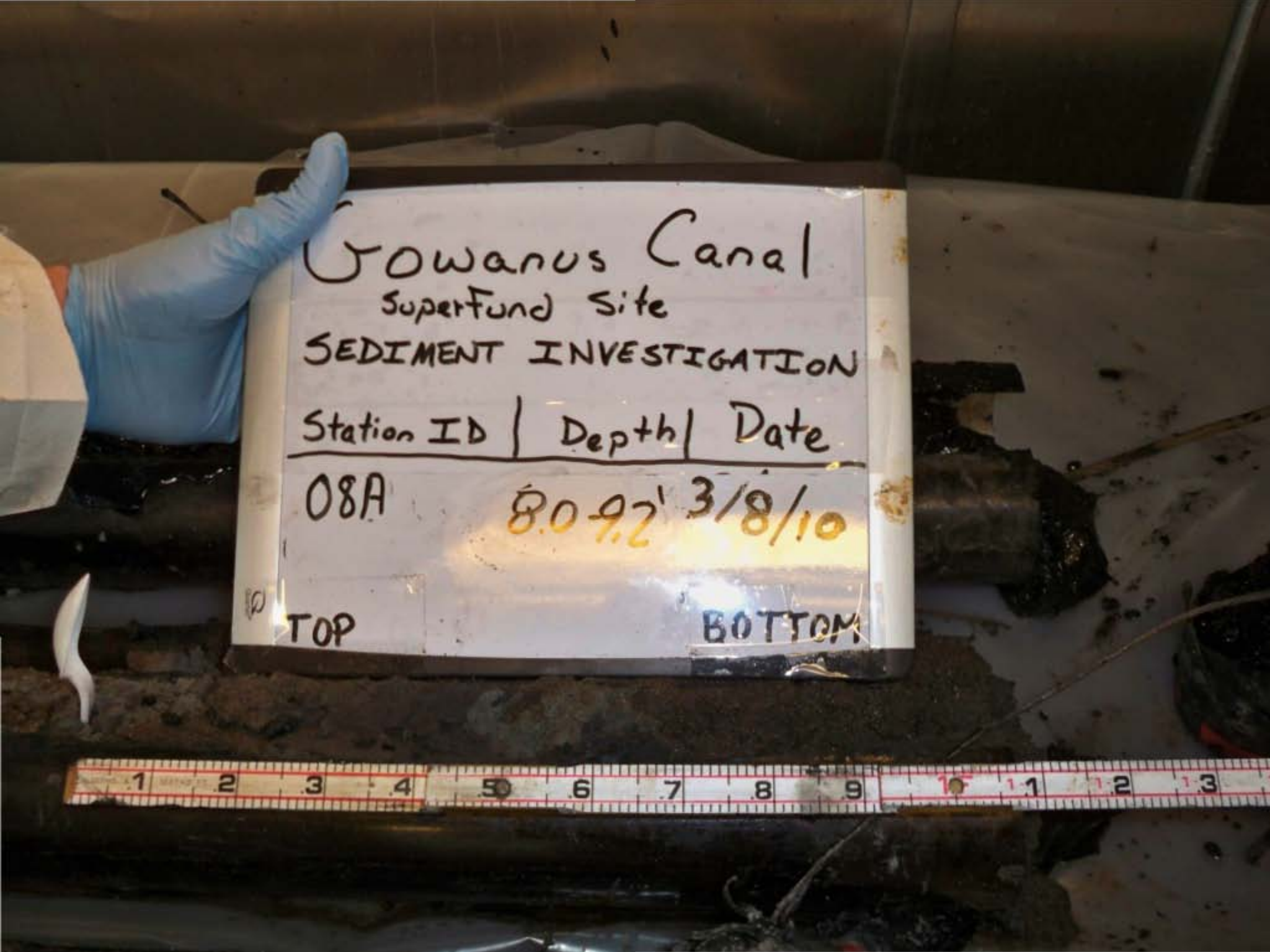

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 12.0-13.0' 3/8/10
TOP
BOTTOM

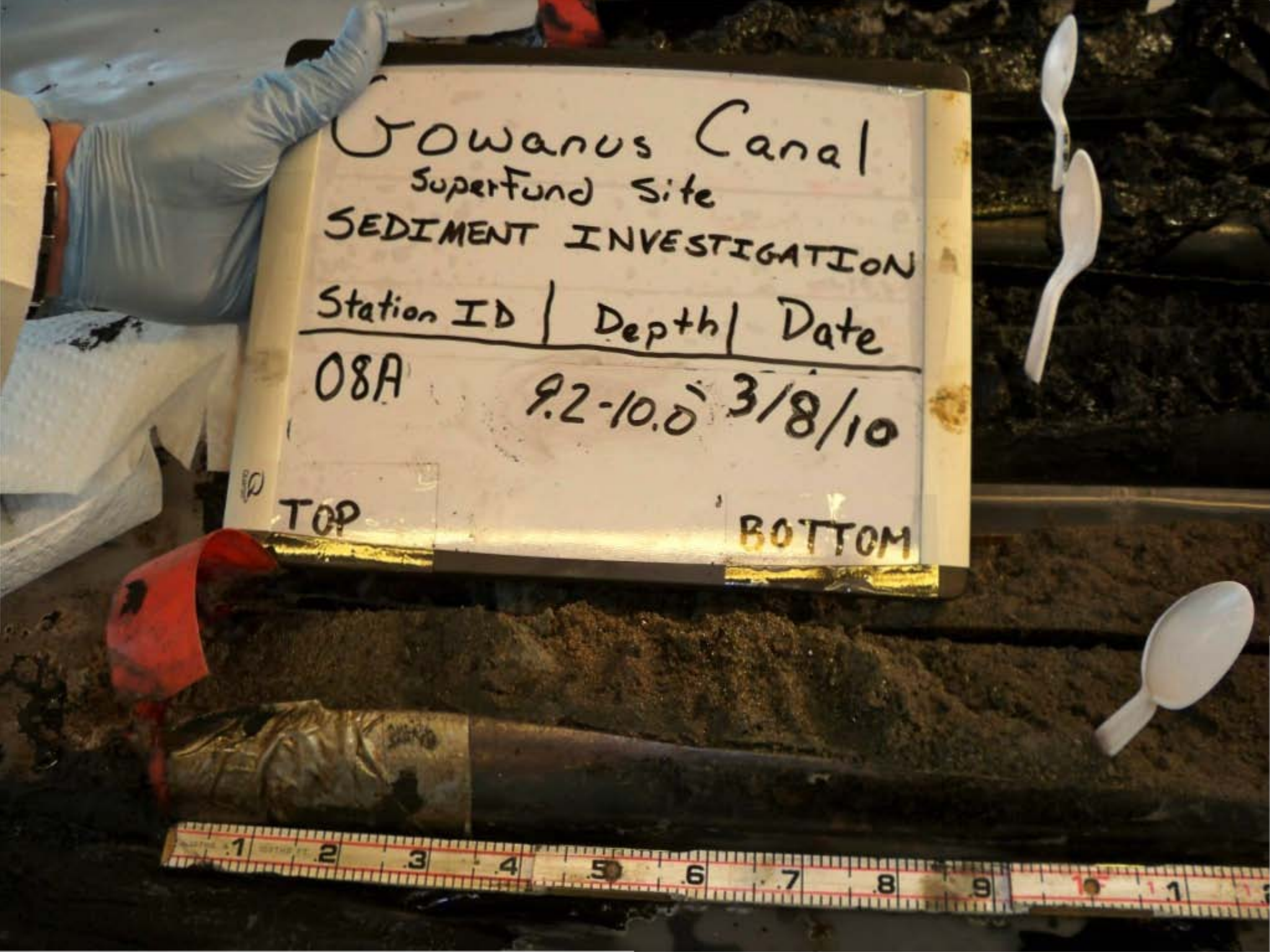

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 1.2-2.0' 3/8/10
TOP
BOTTOM

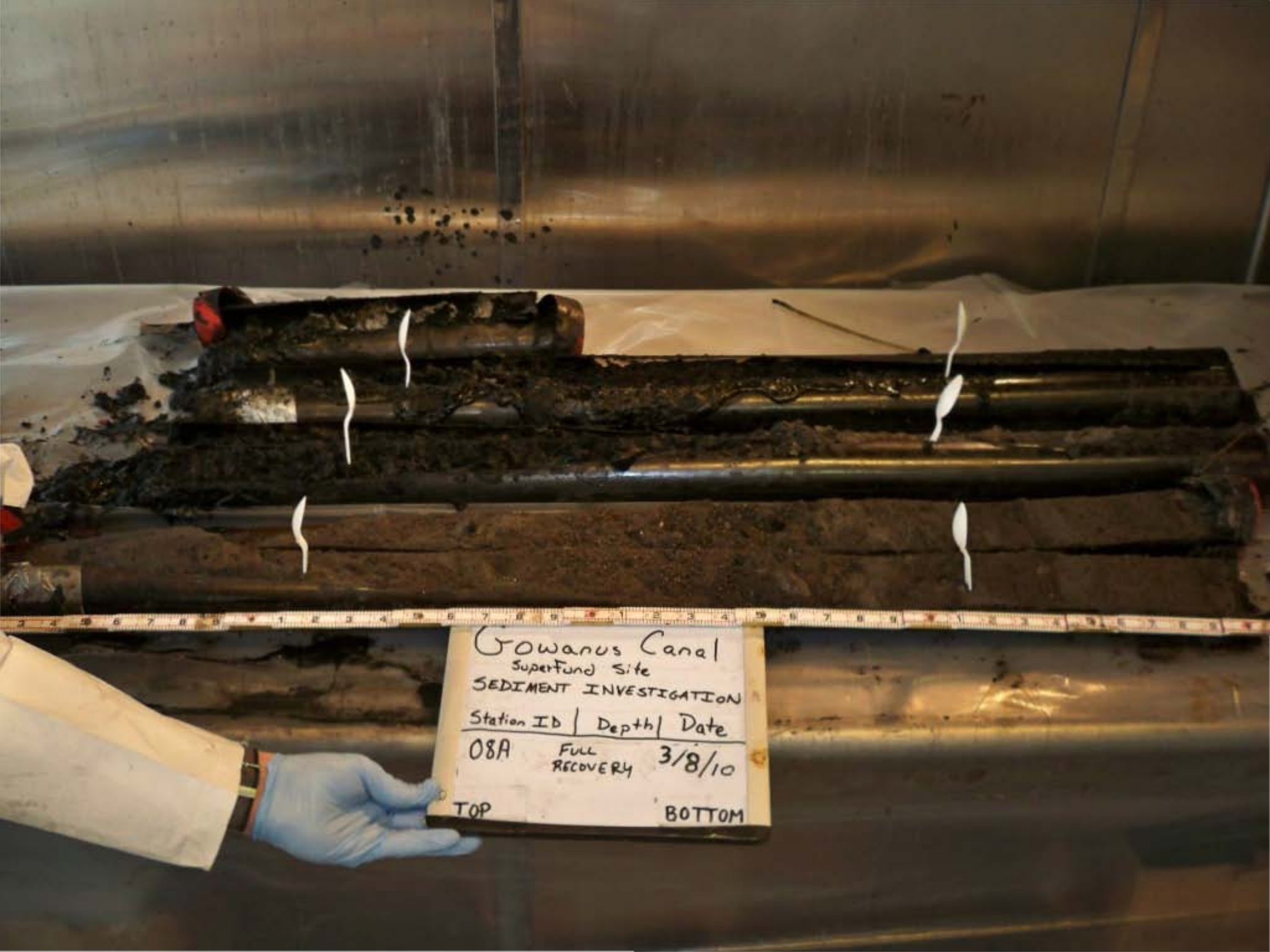

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 4.0-5.2' 3/8/10
TOP
BOTTOM

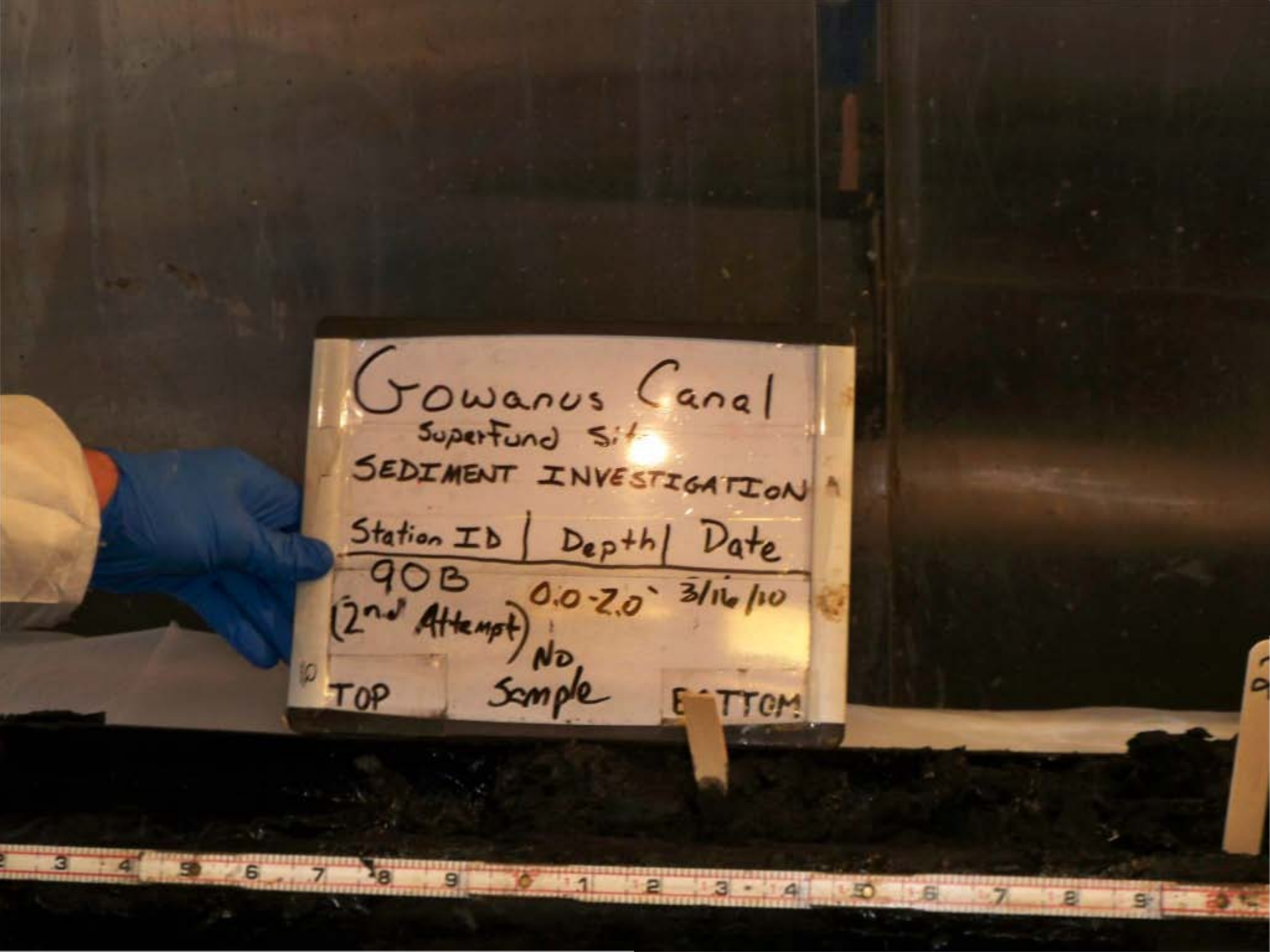

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 5.2-6.0 3/8/10
TOP
BOTTOM

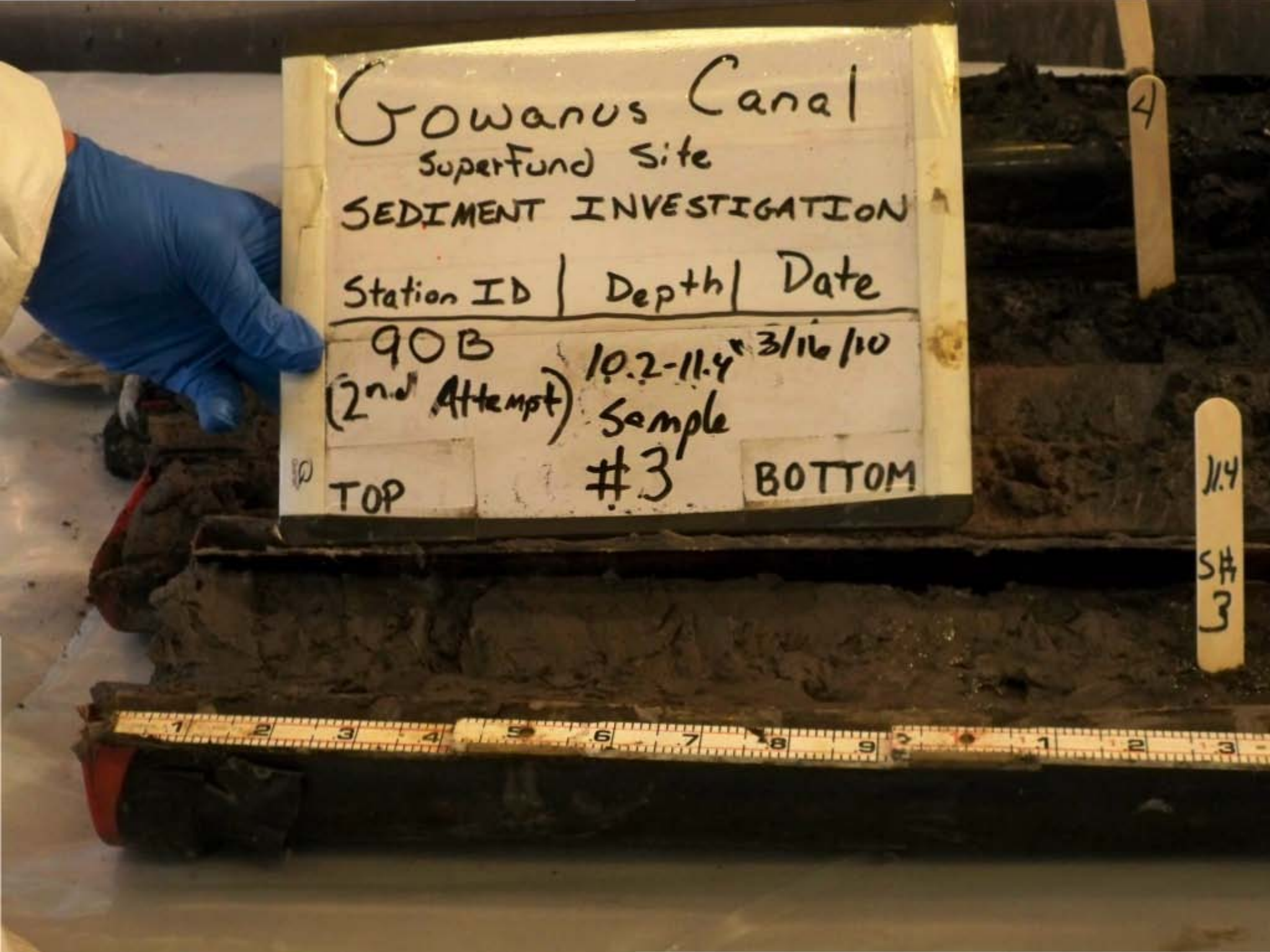

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 6.0-8.0 3/8/10
TOP
BOTTOM

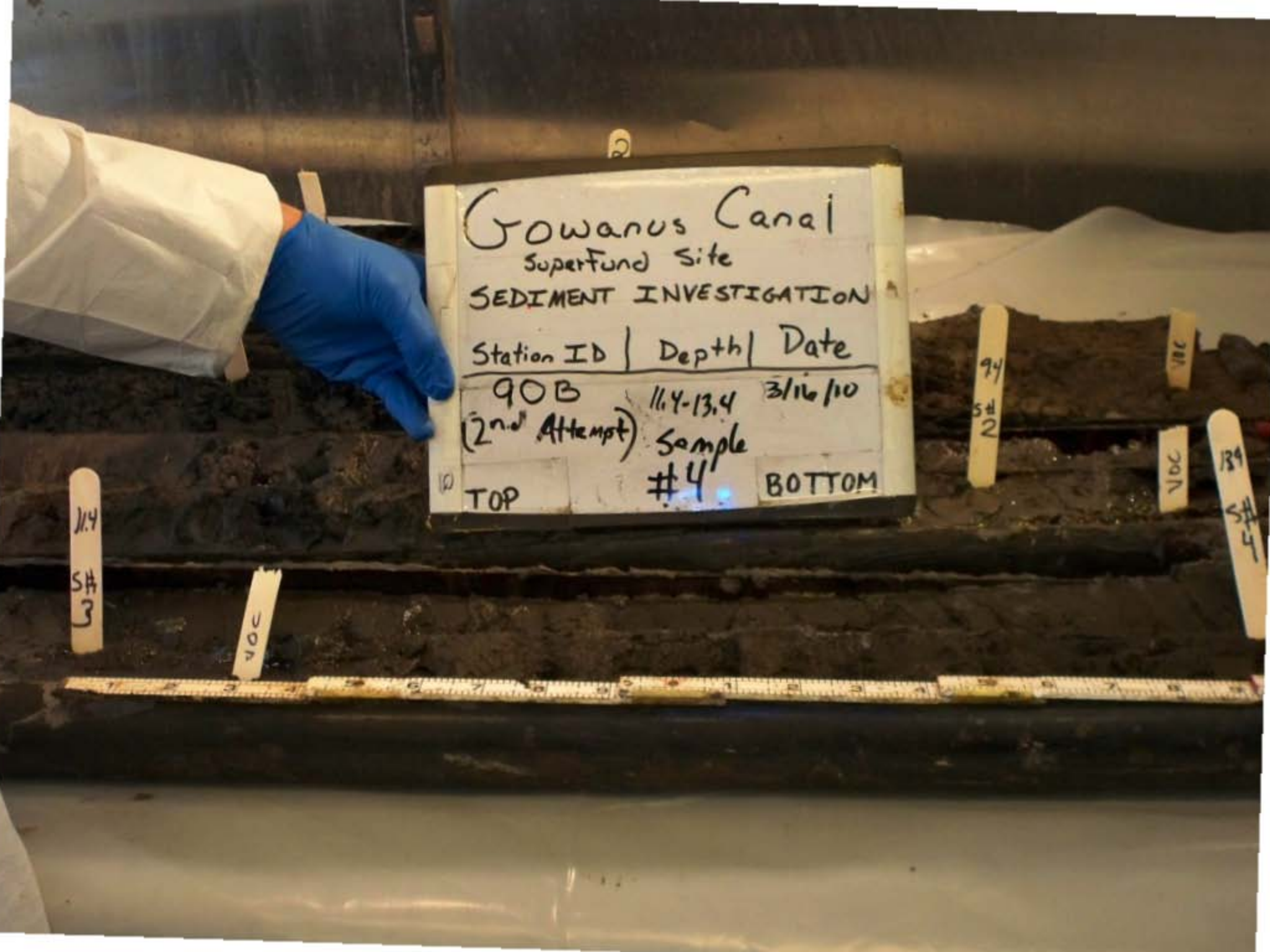

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 8.0-9.2' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 9.2-10.0' 3/8/10
TOP
BOTTOM

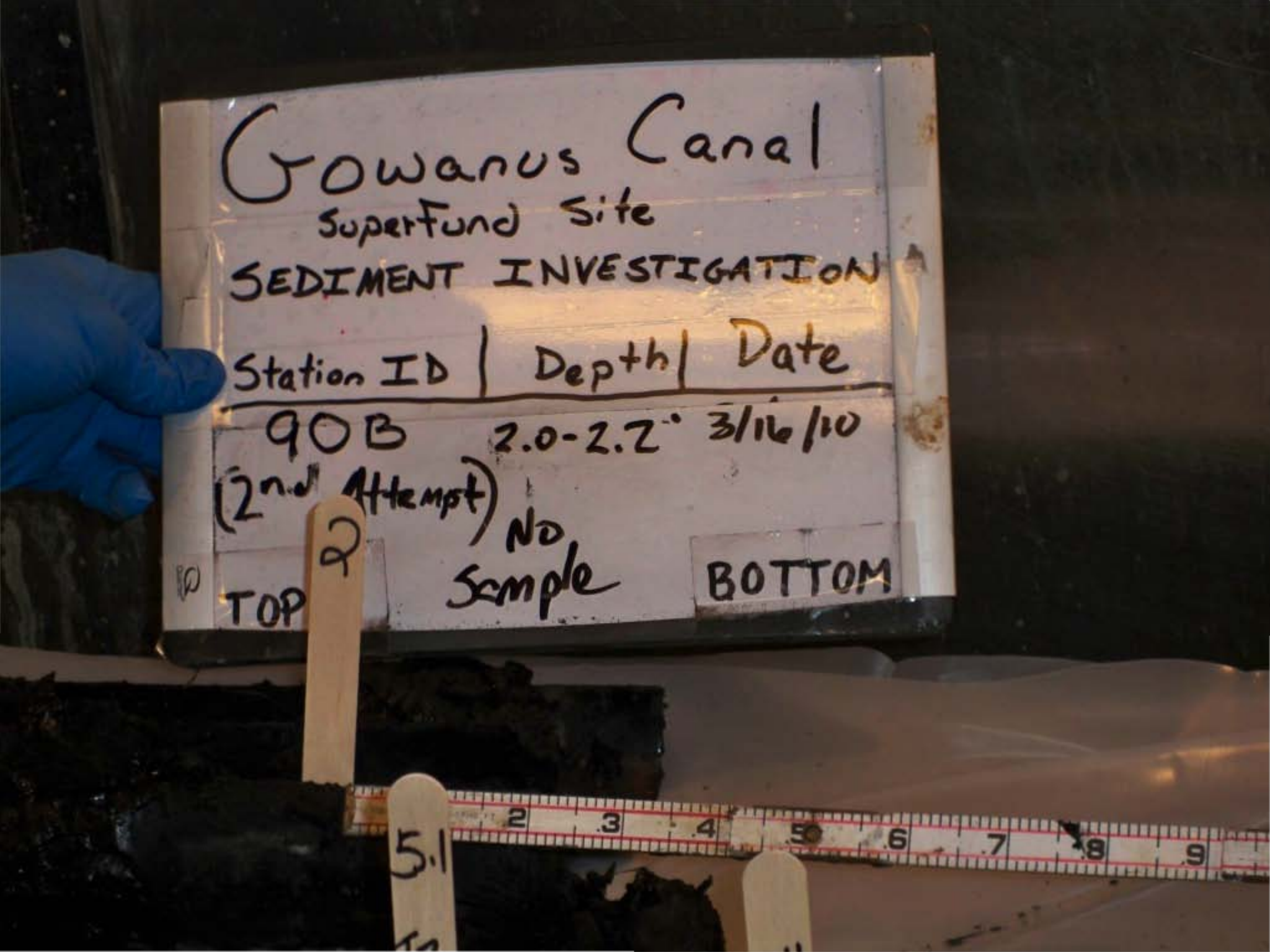

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A FULL RECOVERY 3/8/10
TOP
BOTTOM

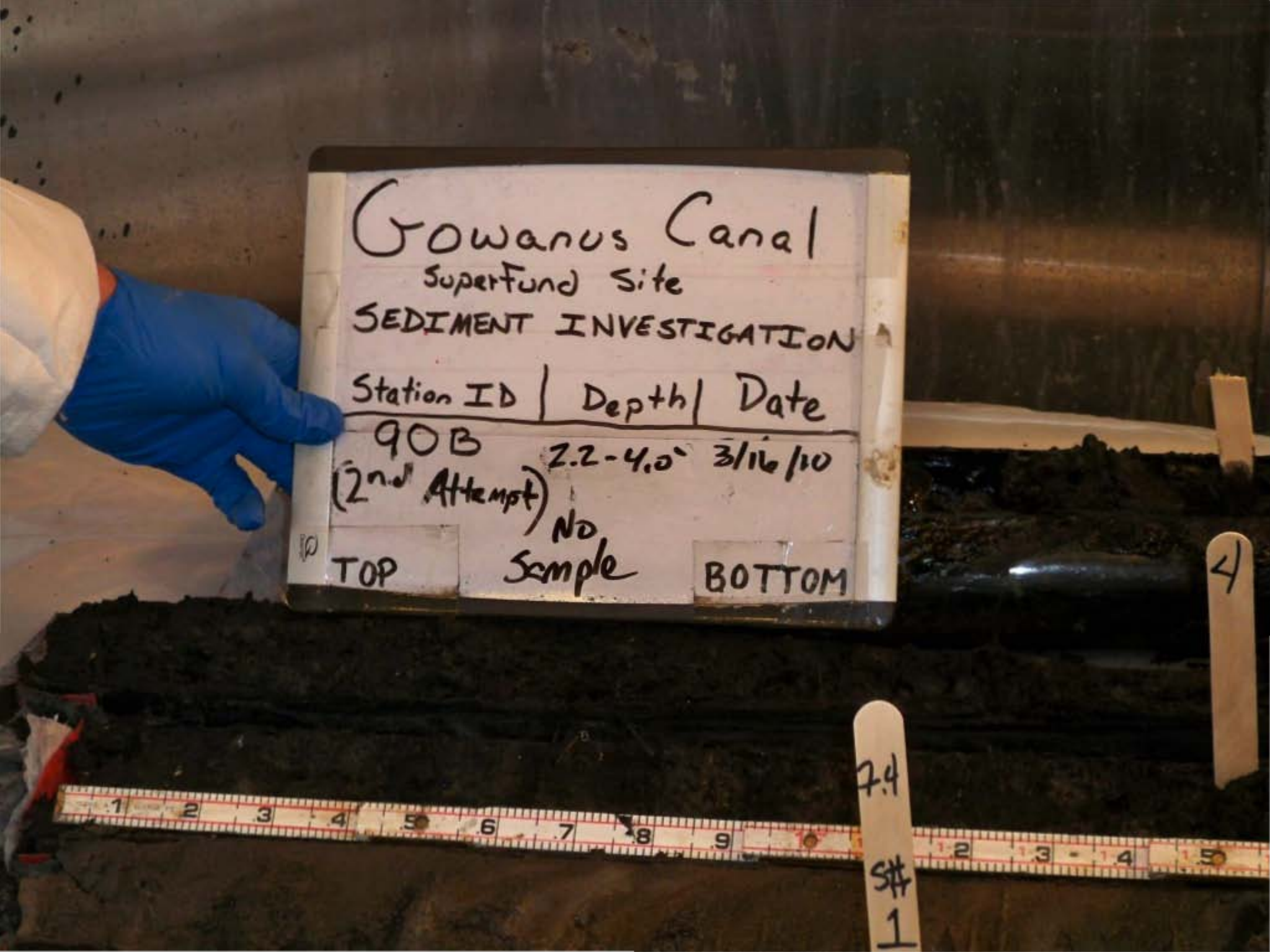

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B 0.0-2.0' 3/16/10
(2nd Attempt) No Sample
TOP
BOTTOM

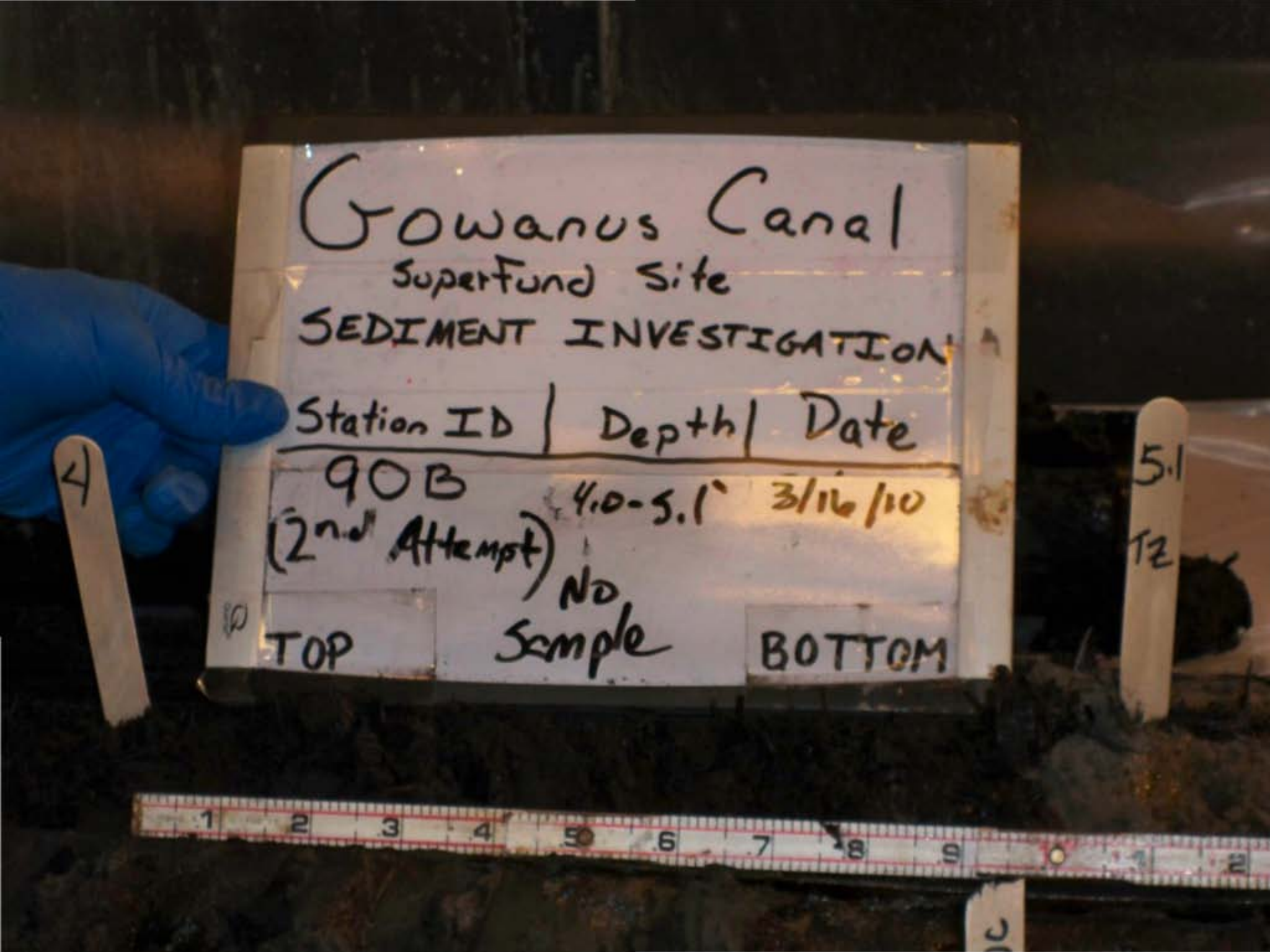

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B (2nd Attempt) 10.2-11.4' 3/16/10
Sample #3
TOP
BOTTOM
4
11.4
SA 3

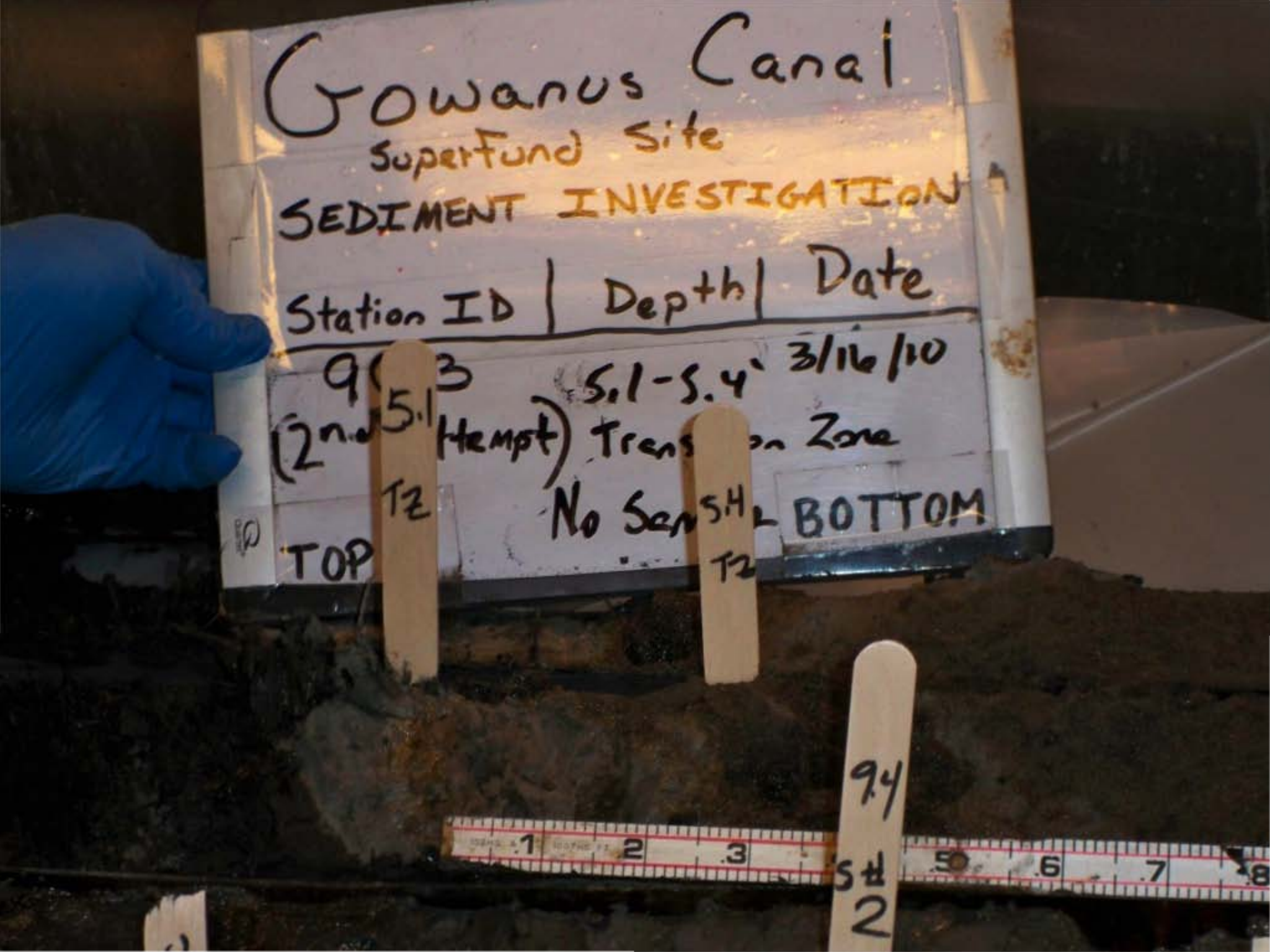

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B (2nd Attempt) 11.4-13.4 3/16/10
Sample #4
TOP
BOTTOM
11.4 SA 3
VOC
9.4 SA 2
VOC
13.4 SA 4

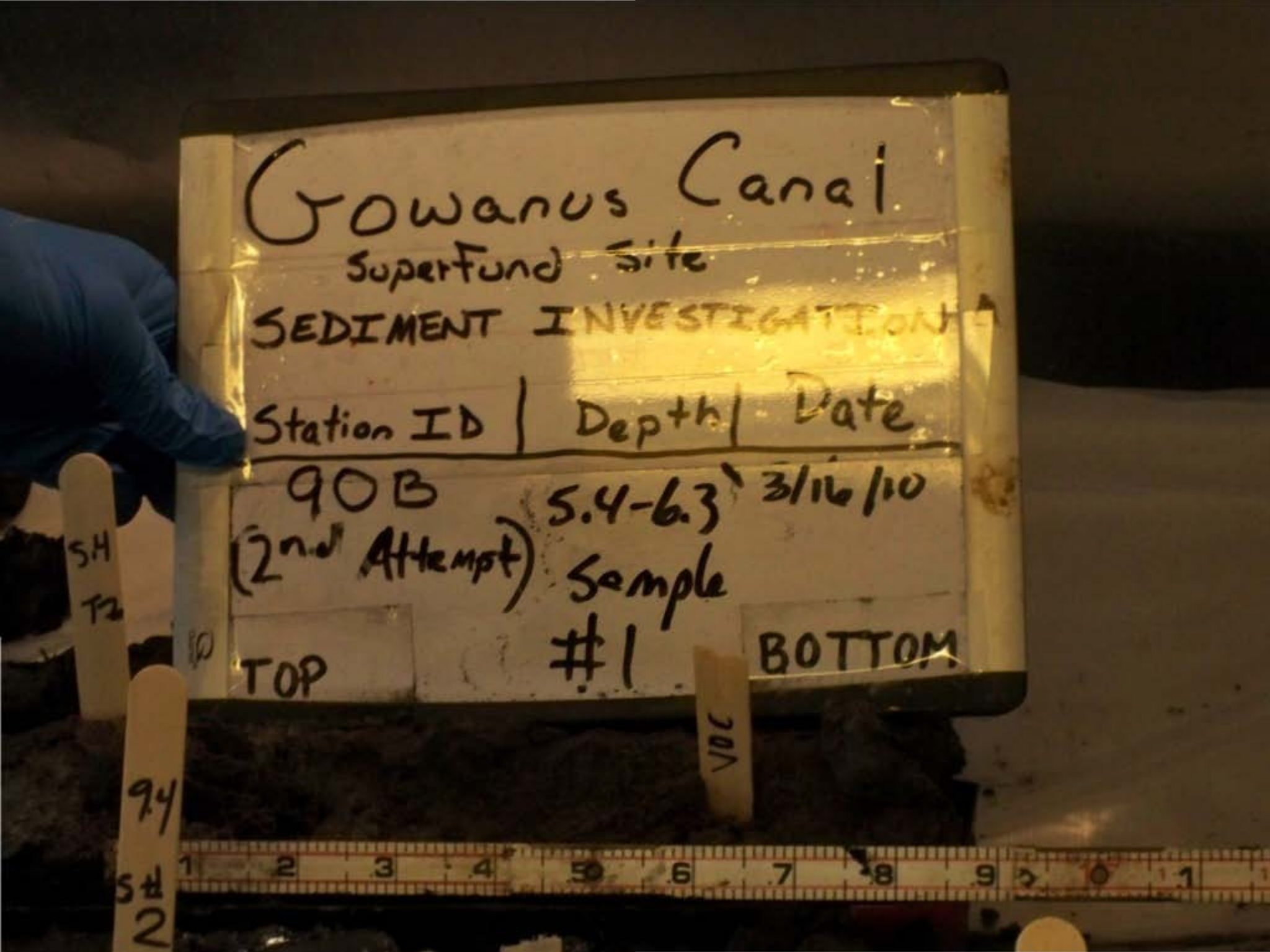

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B 13.4-14.0 3/16/10
(2nd Attempt) No Sample
BOTTOM

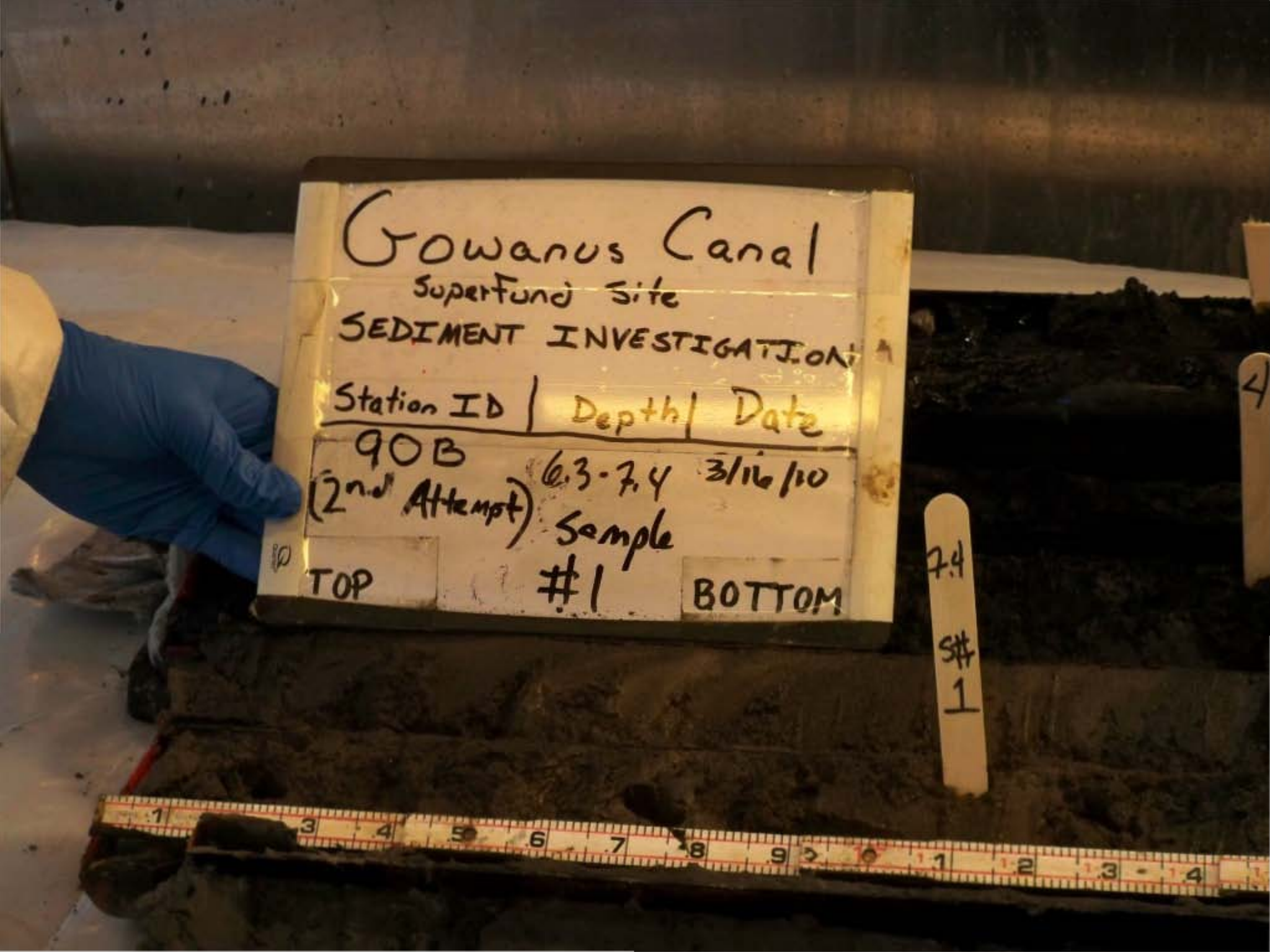

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B 2.0-2.2' 3/16/10
(2nd Attempt) NO Sample
TOP
BOTTOM
2
5.1

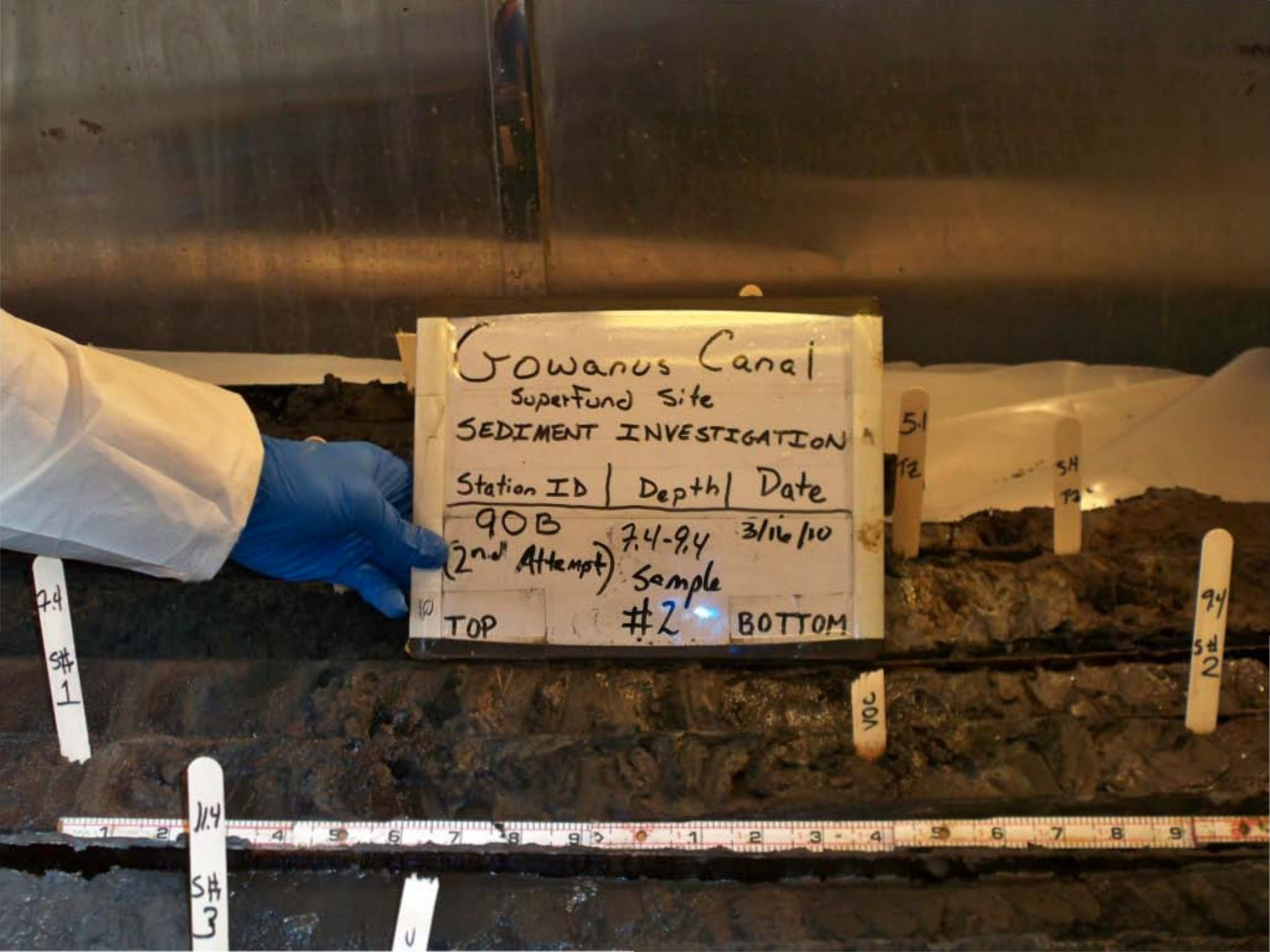

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B 2.2-4.0' 3/16/10
(2nd Attempt) No Sample
TOP
BOTTOM
7.4
St# 1
4

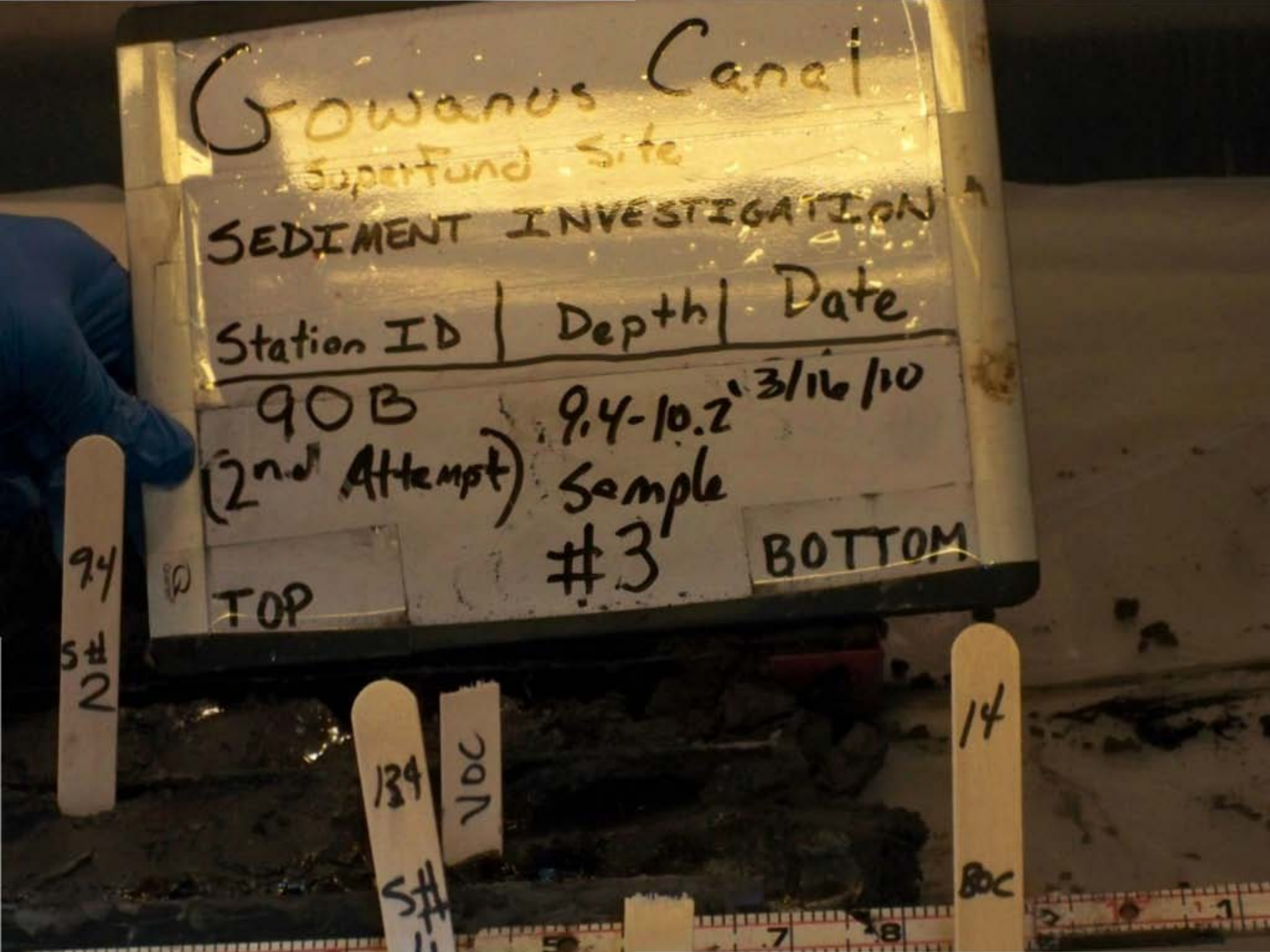

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B
(2nd Attempt)
4.0-5.1'
3/16/10
NO
Sample
TOP
BOTTOM
4
5.1
TZ

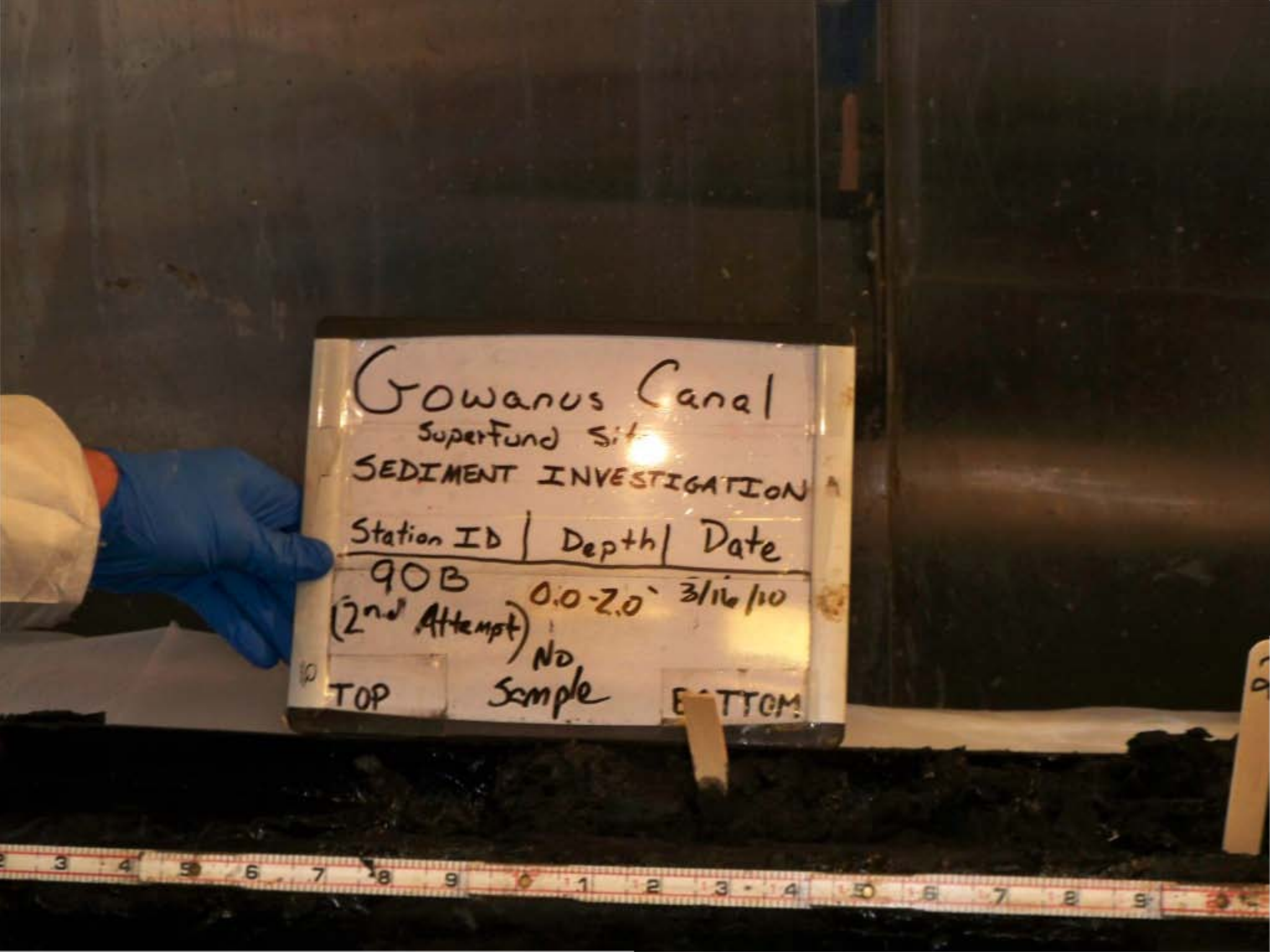

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
9(3
5.1-5.4'
3/16/10
(2nd Hempt)
Trans on Zone
No Sen
BOTTOM
TOP
5.1
TZ
5.4
TZ
9.4
S#
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B (2nd Attempt) 5.4-6.3' 3/16/10
Sample #1
TOP
BOTTOM

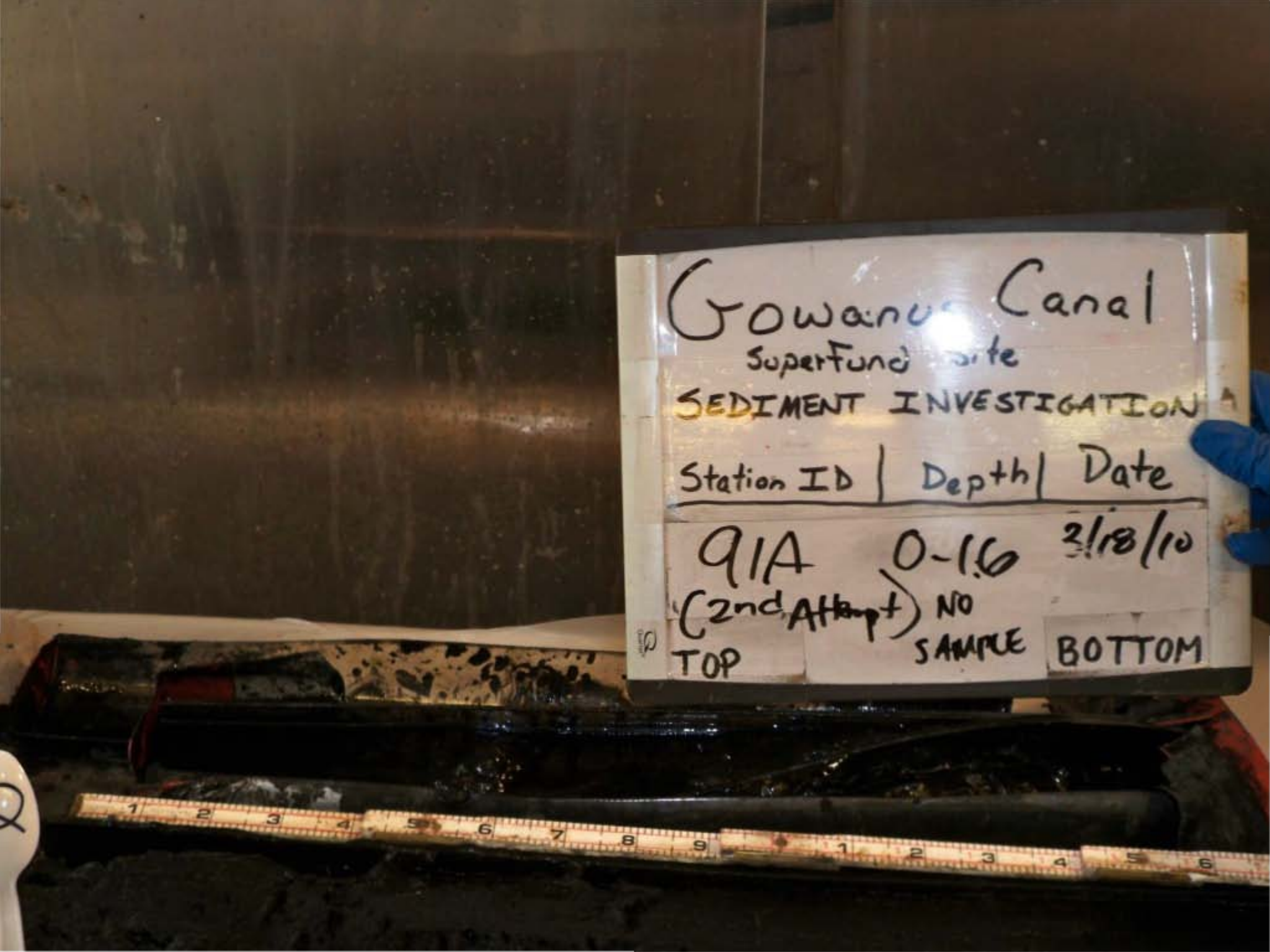

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B (2nd Attempt) 6.3-7.4 3/16/10
Sample #1
TOP
BOTTOM
7.4
S# 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B
(2nd Attempt)
7.4-9.4
Sample
#2
3/16/10
TOP
BOTTOM
7.4
S# 1
11.4
S# 3
9.4
S# 2
VOC

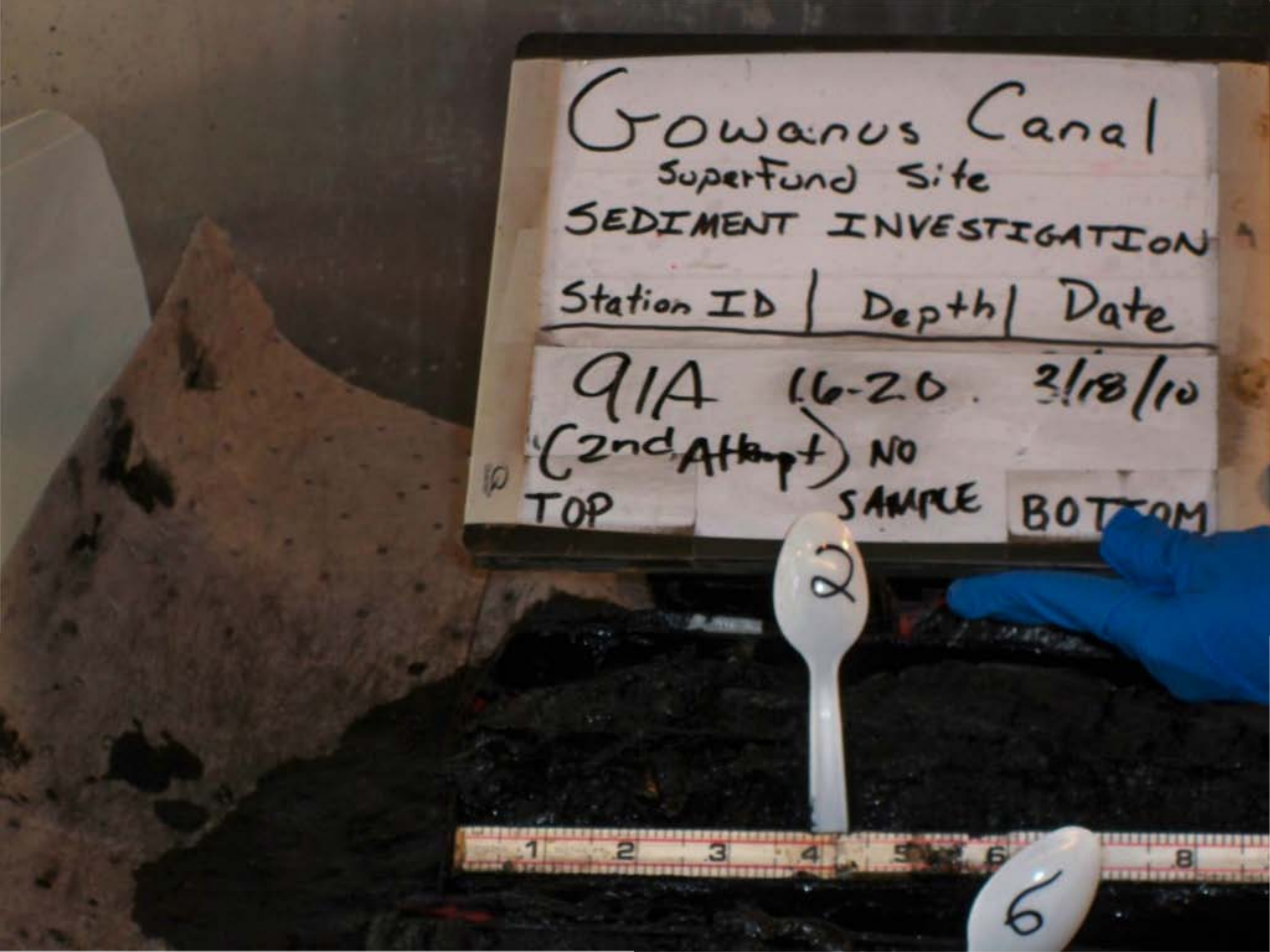

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B (2nd Attempt) 9.4-10.2' 3/16/10
Sample #3
TOP
BOTTOM
94
S#2
139
VOC
S#
14
BOC

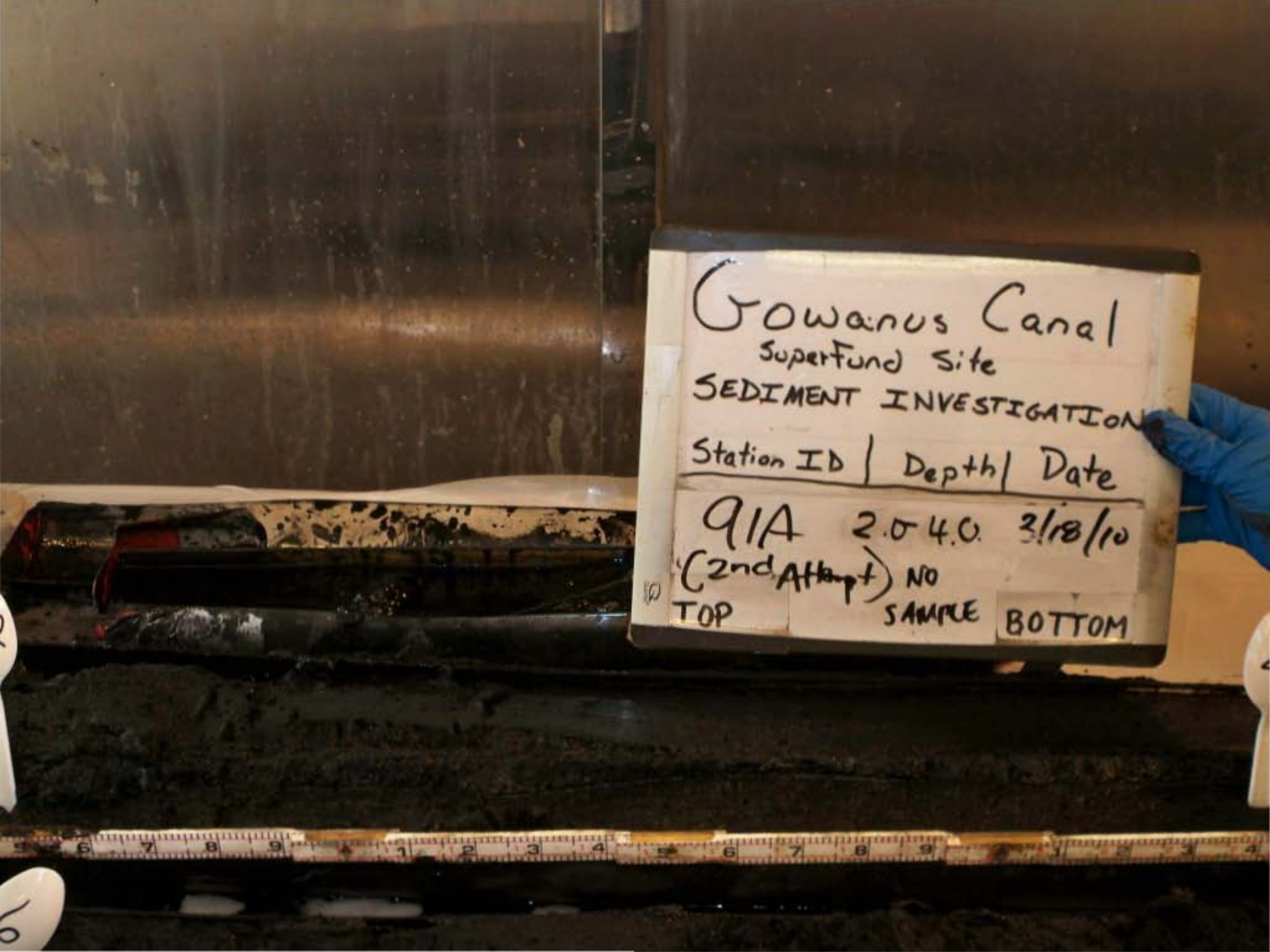

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
90B 0.0-2.0' 3/16/10
(2nd Attempt) No Sample
TOP
BOTTOM

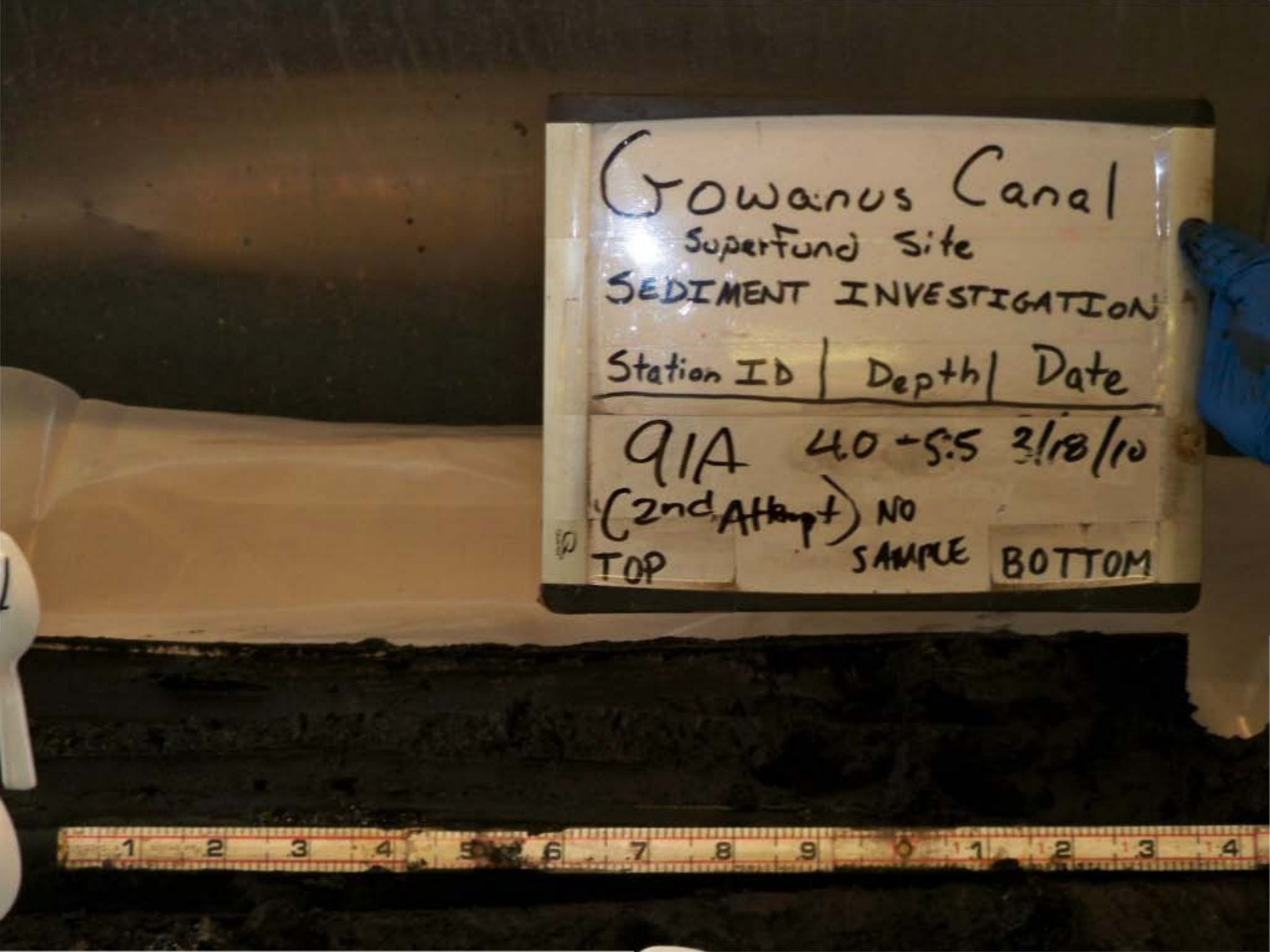

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A FULL 3/18/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

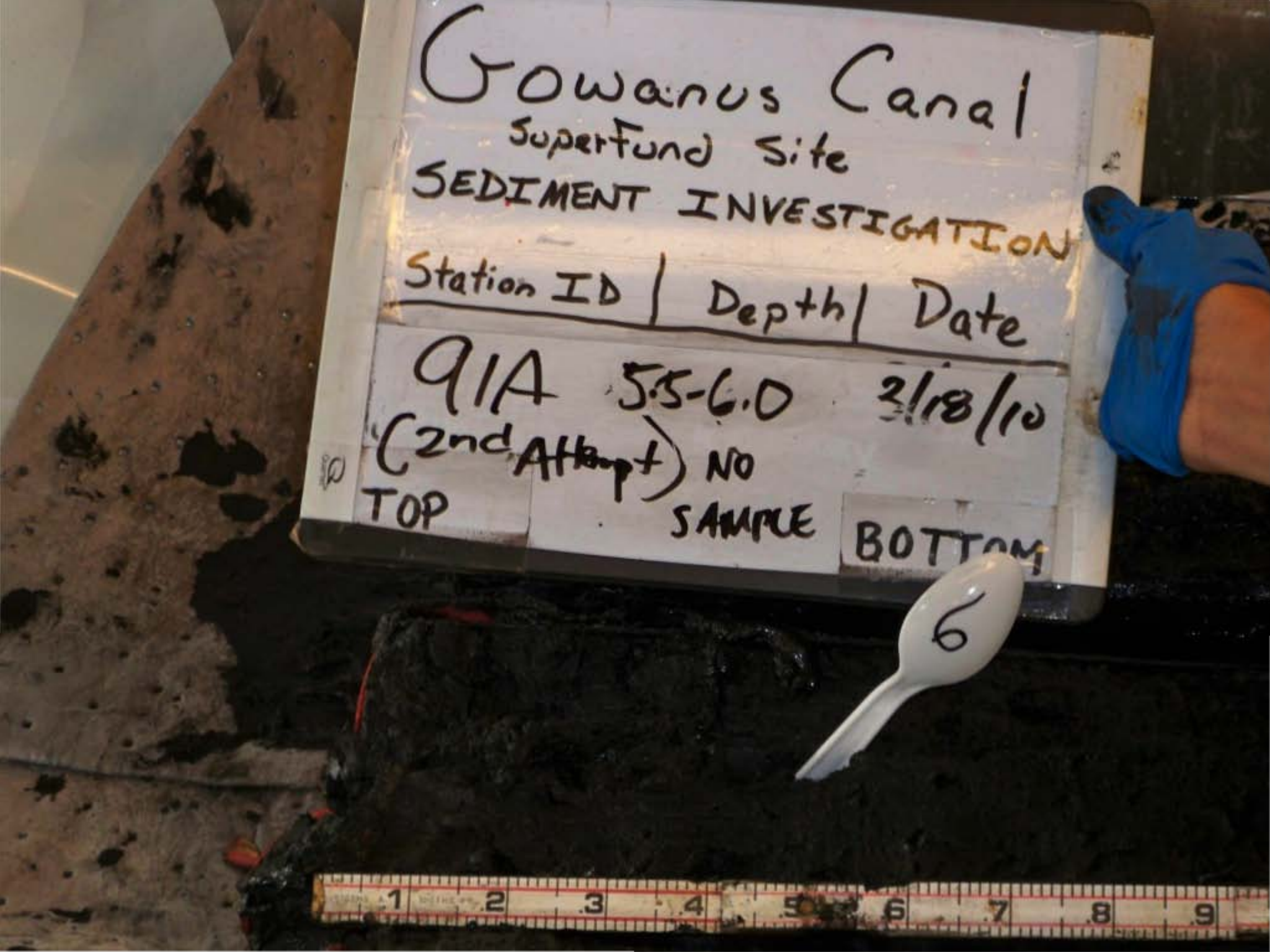

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 0-1.6 3/18/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

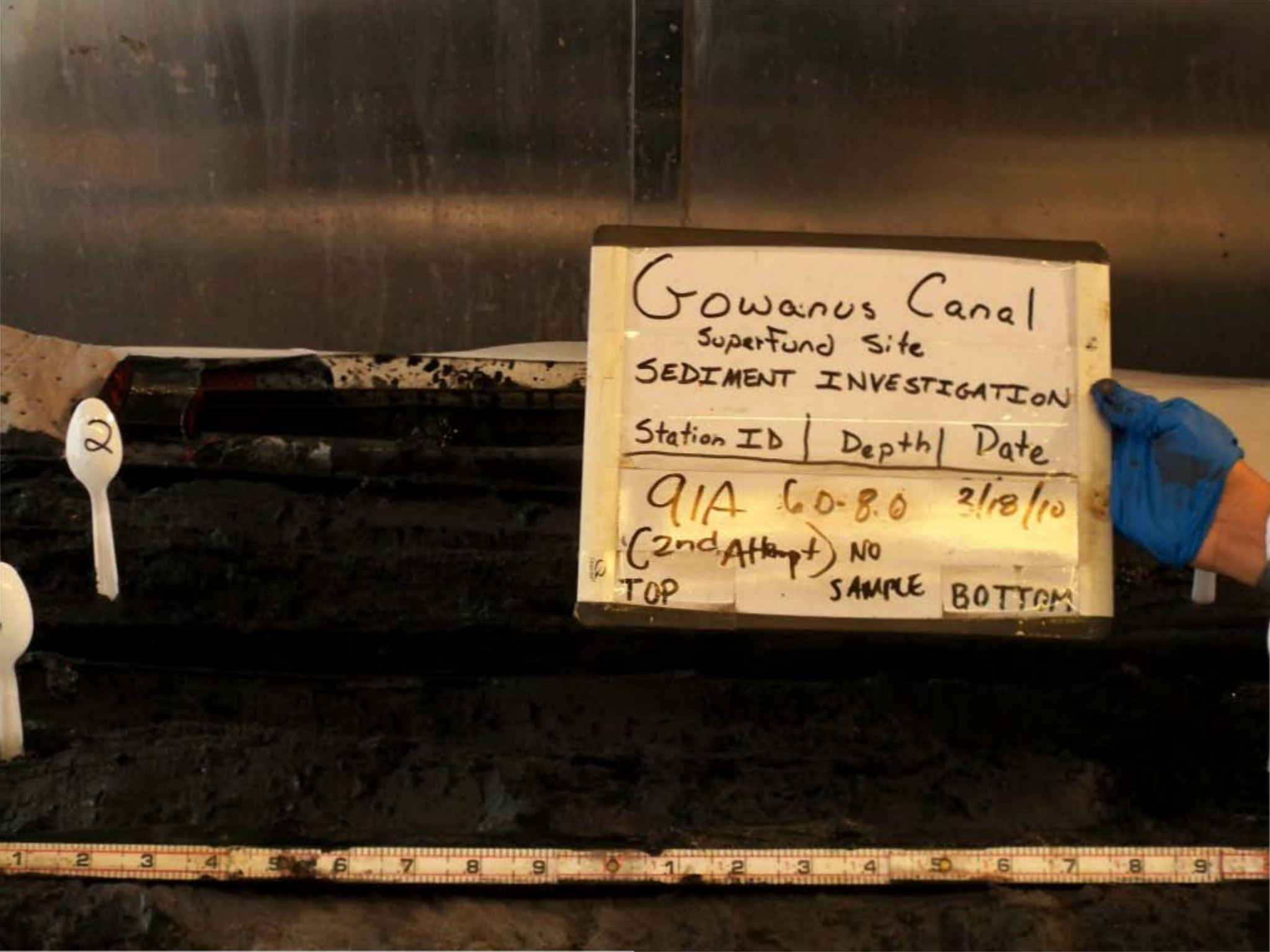

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 11.2-13.2 3/18/10
(2nd Attempt) SAMPLE #2
TOP BOTTOM
4
8
11.2
sample
314.5
250.7
348.2

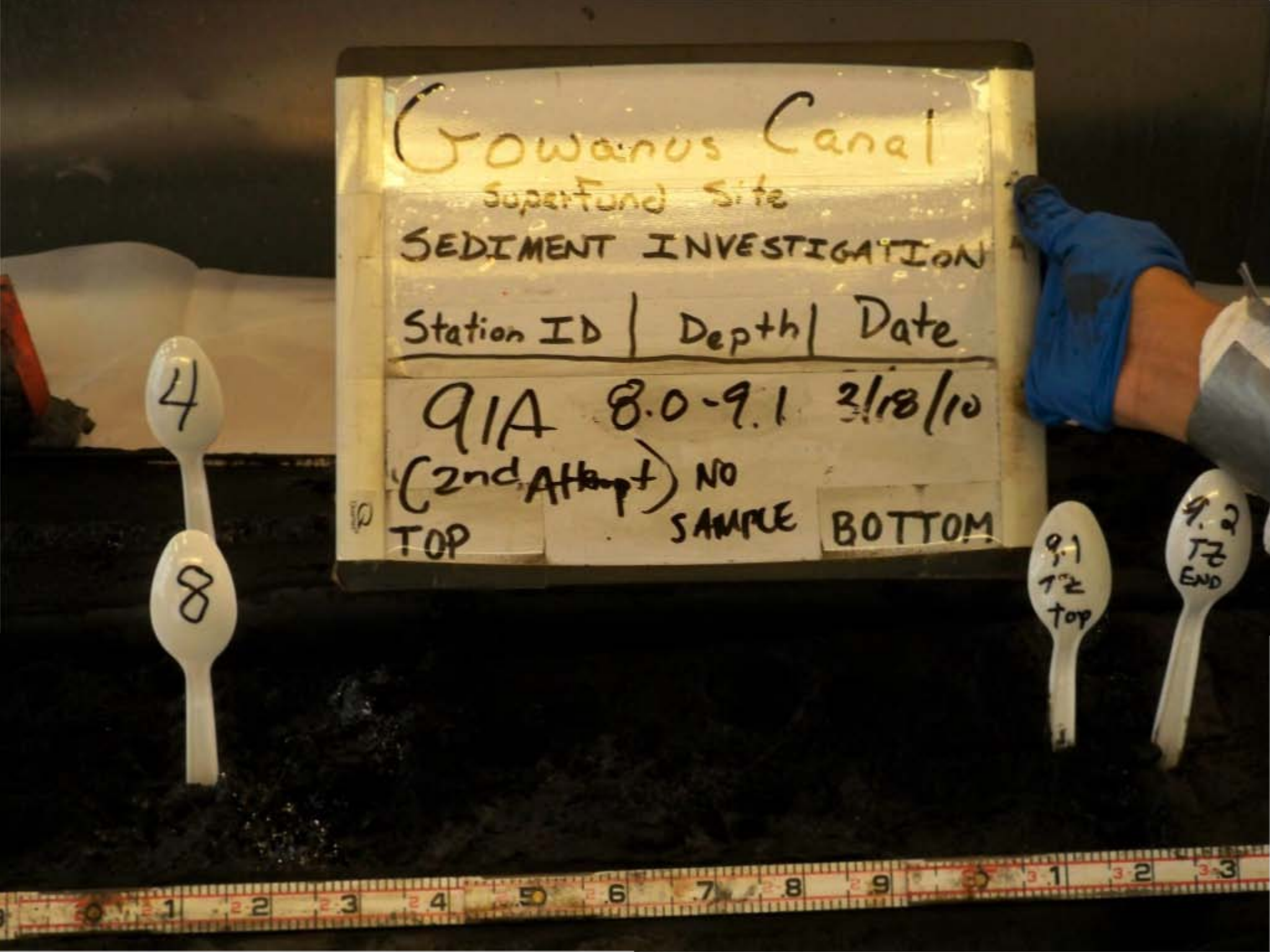

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 16-20 3/18/10
(2nd Attempt) NO
TOP SAMPLE BOTTOM
2
6

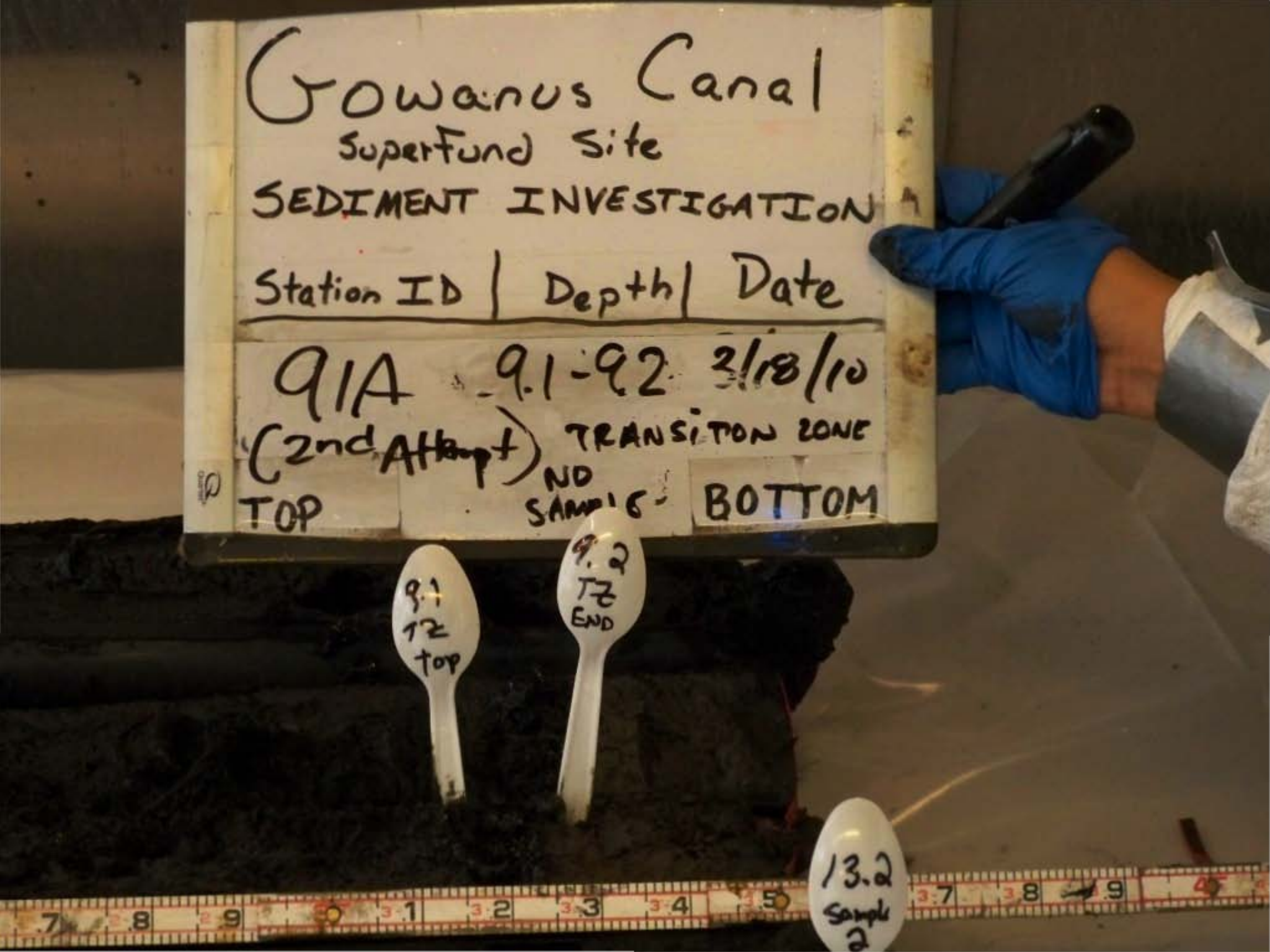

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 2.0 4.0 3/18/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

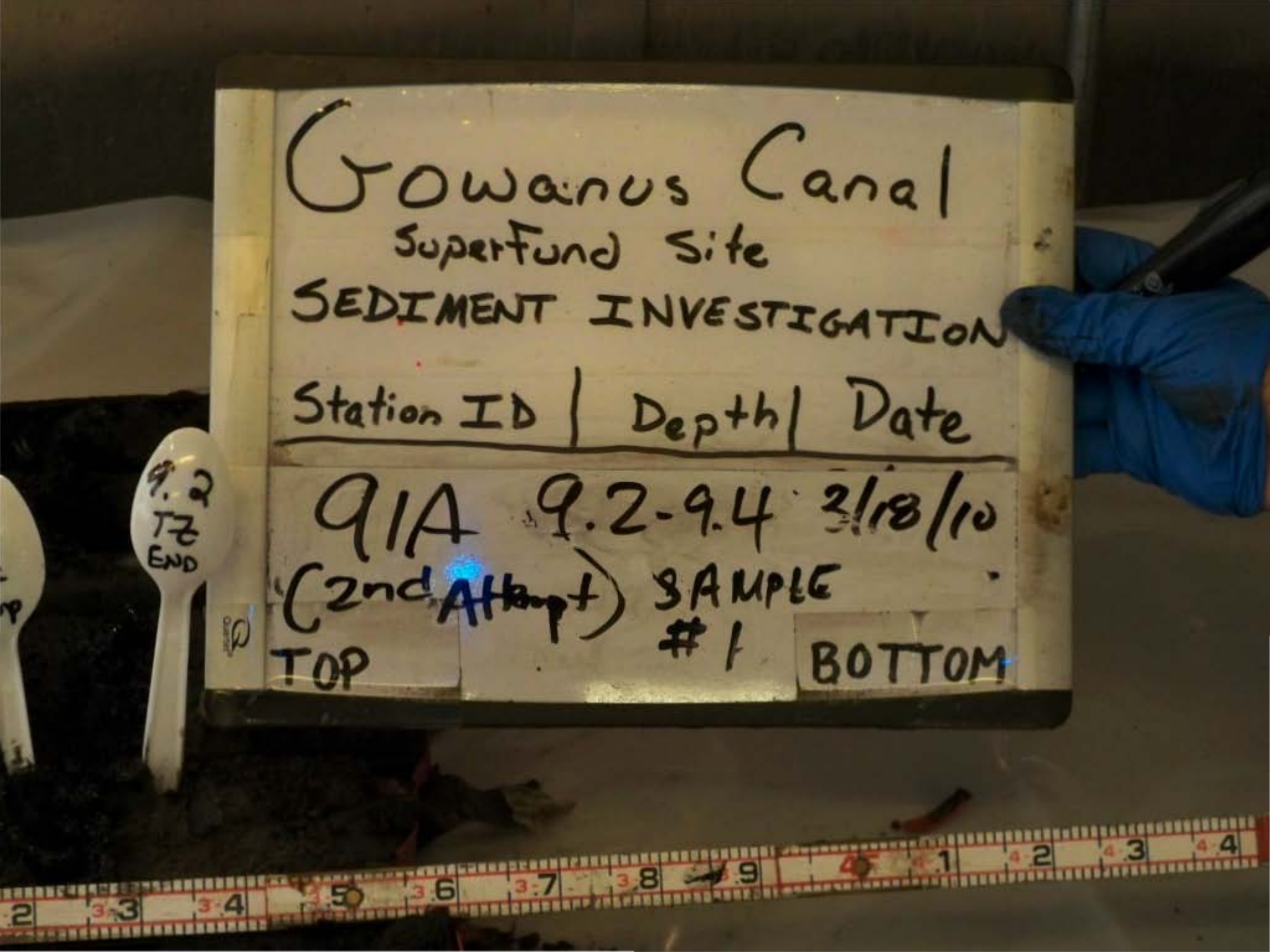

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 4.0 - 5.5 3/18/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM

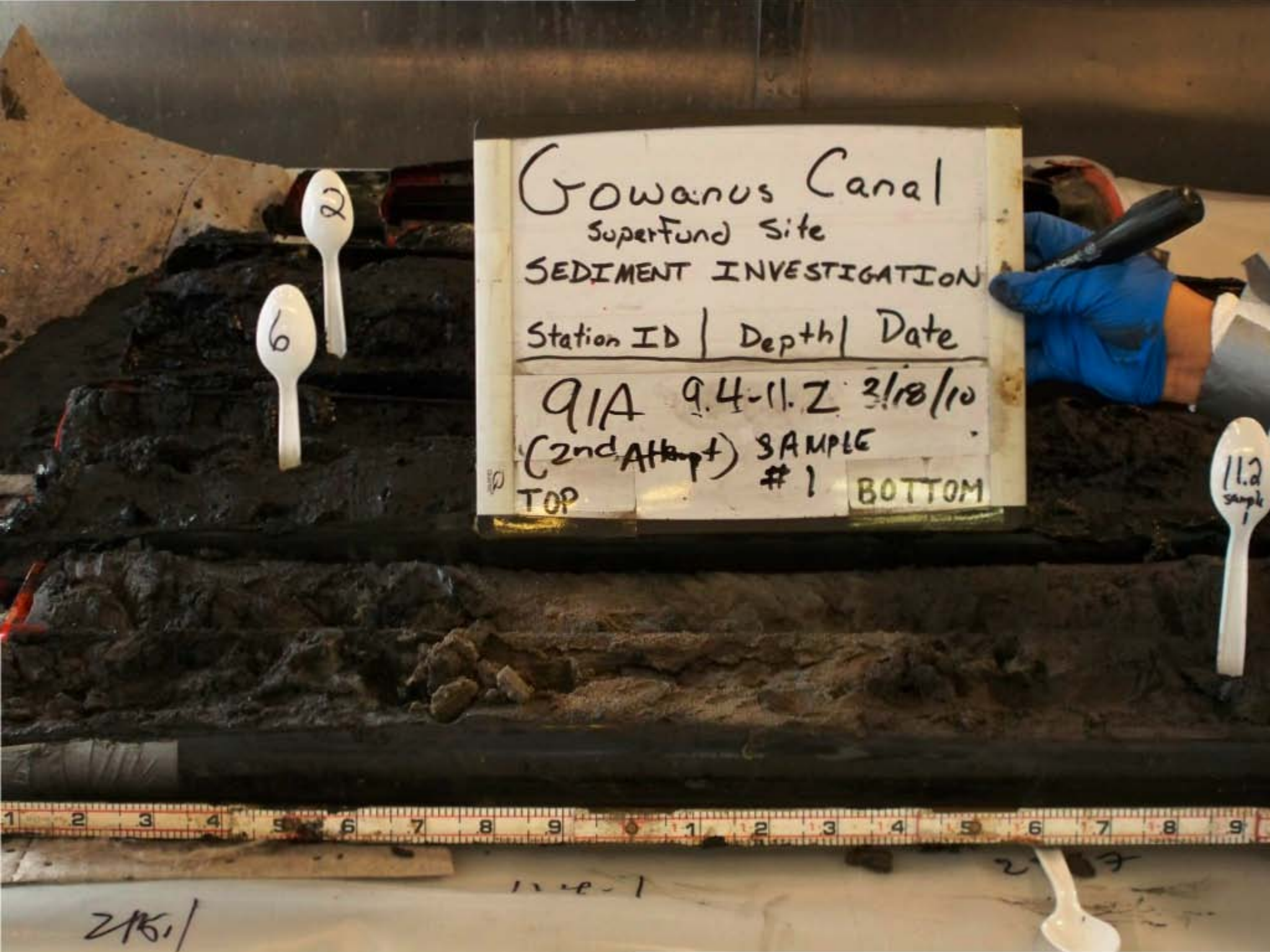

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 5.5-6.0 3/18/10
(2nd Attempt) NO
TOP SAMPLE BOTTOM
6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 6.0-8.0 3/18/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 8.0-9.1 3/18/10
(2nd Attempt) NO SAMPLE
TOP
BOTTOM
4
8
9.1 TZ top
9.2 TZ END

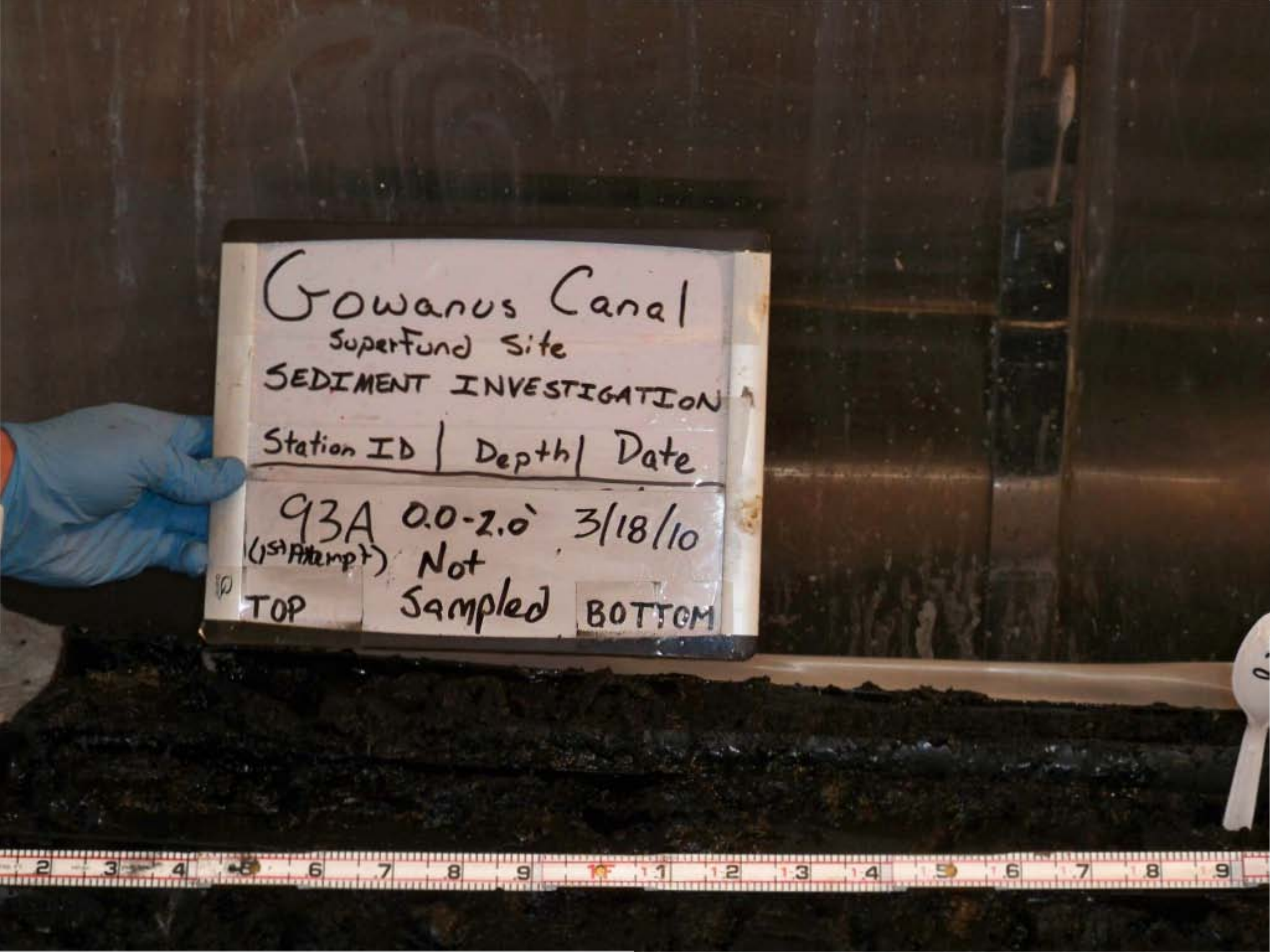

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 9.1-92 3/18/10
(2nd Attempt) TRANSITON ZONE
TOP NO SAMPLE BOTTOM
9.1 TZ top
9.2 TZ END
13.2 Sample 2

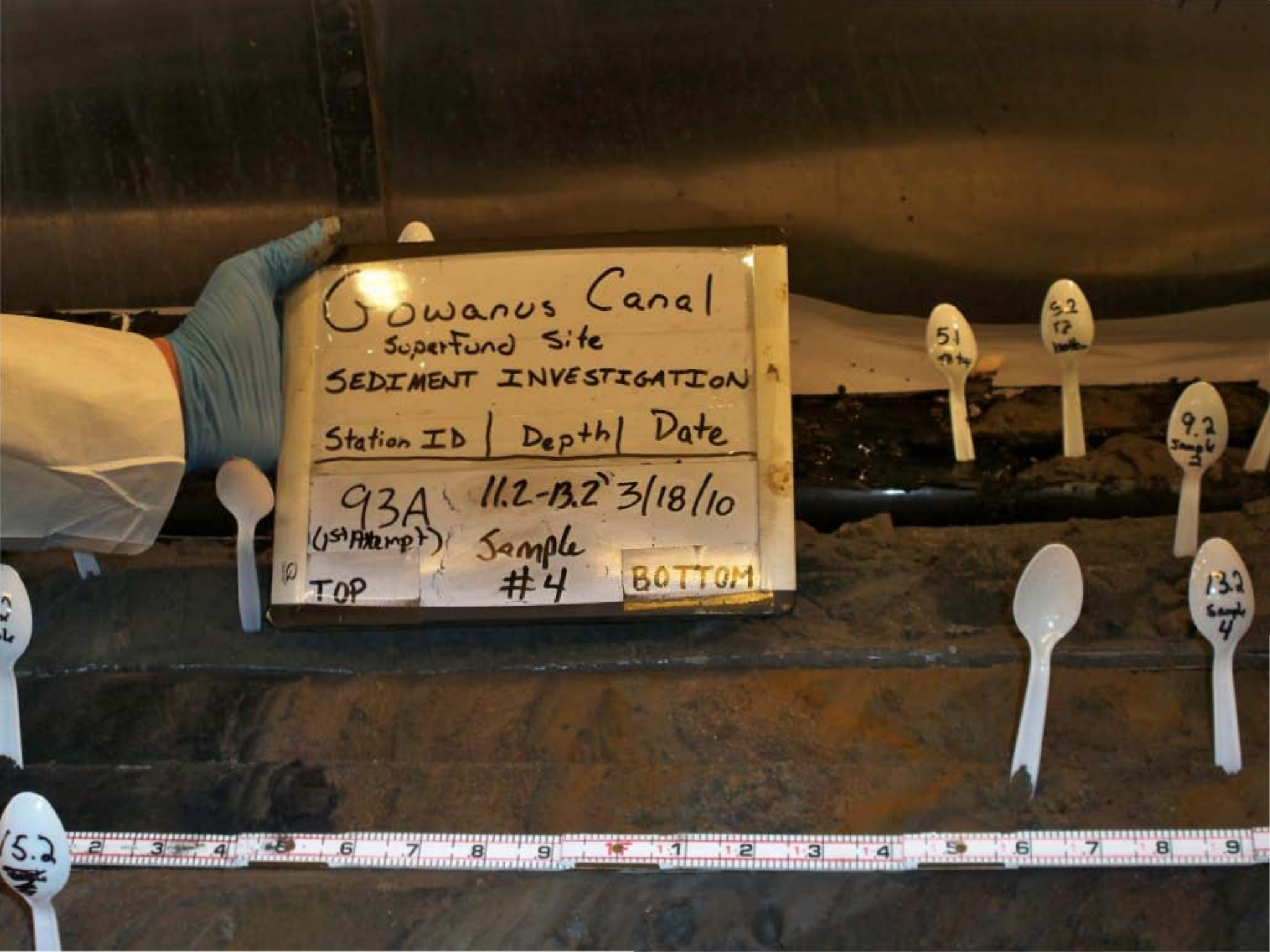

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 9.2-9.4 3/18/10
(2nd Attempt) SAMPLE #1
TOP
BOTTOM
9.2 TZ END

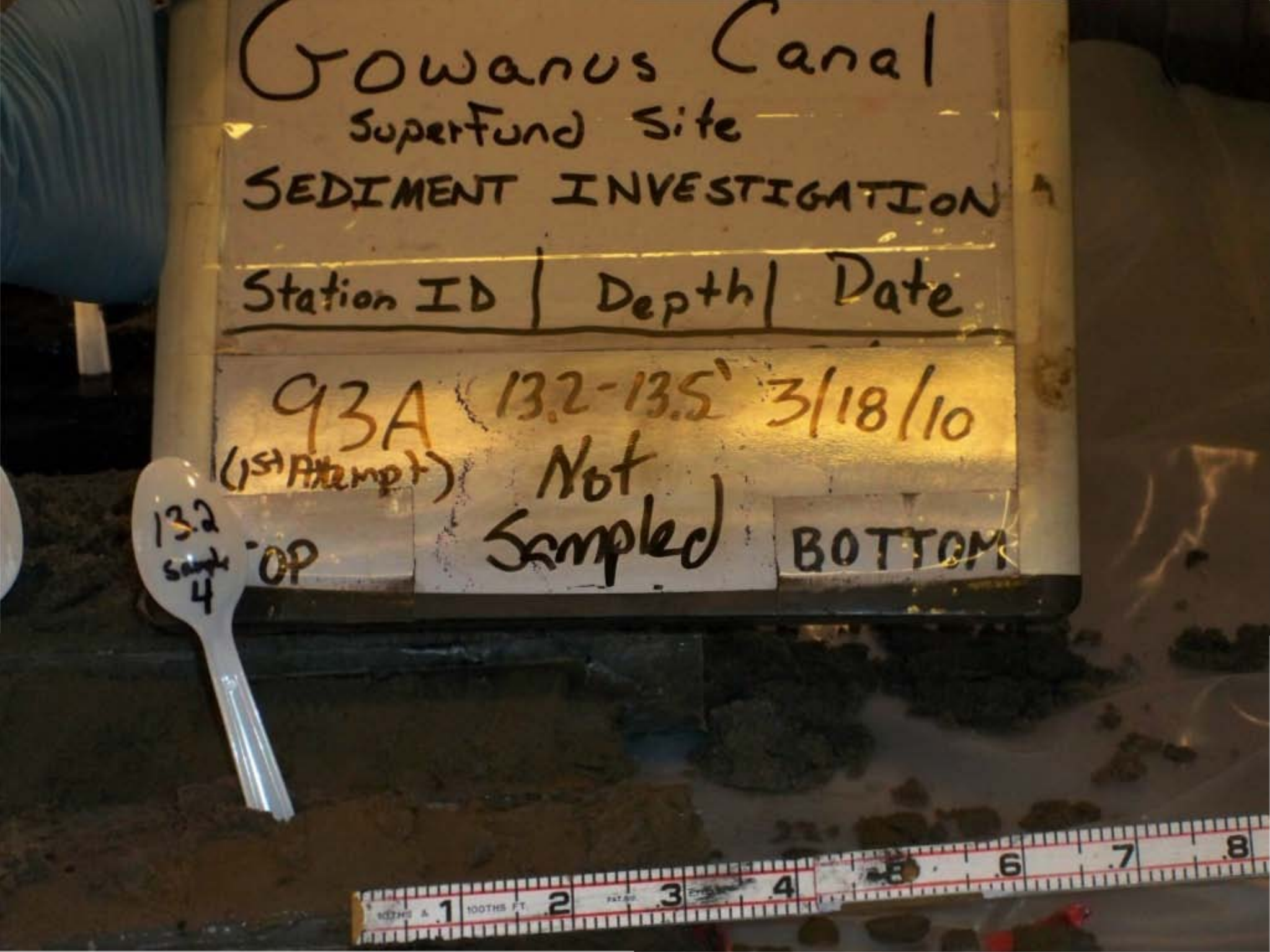

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A 9.4-11.2 3/18/10
(2nd Attempt) SAMPLE #1
TOP
BOTTOM
2
6
11.2
sample
215.1

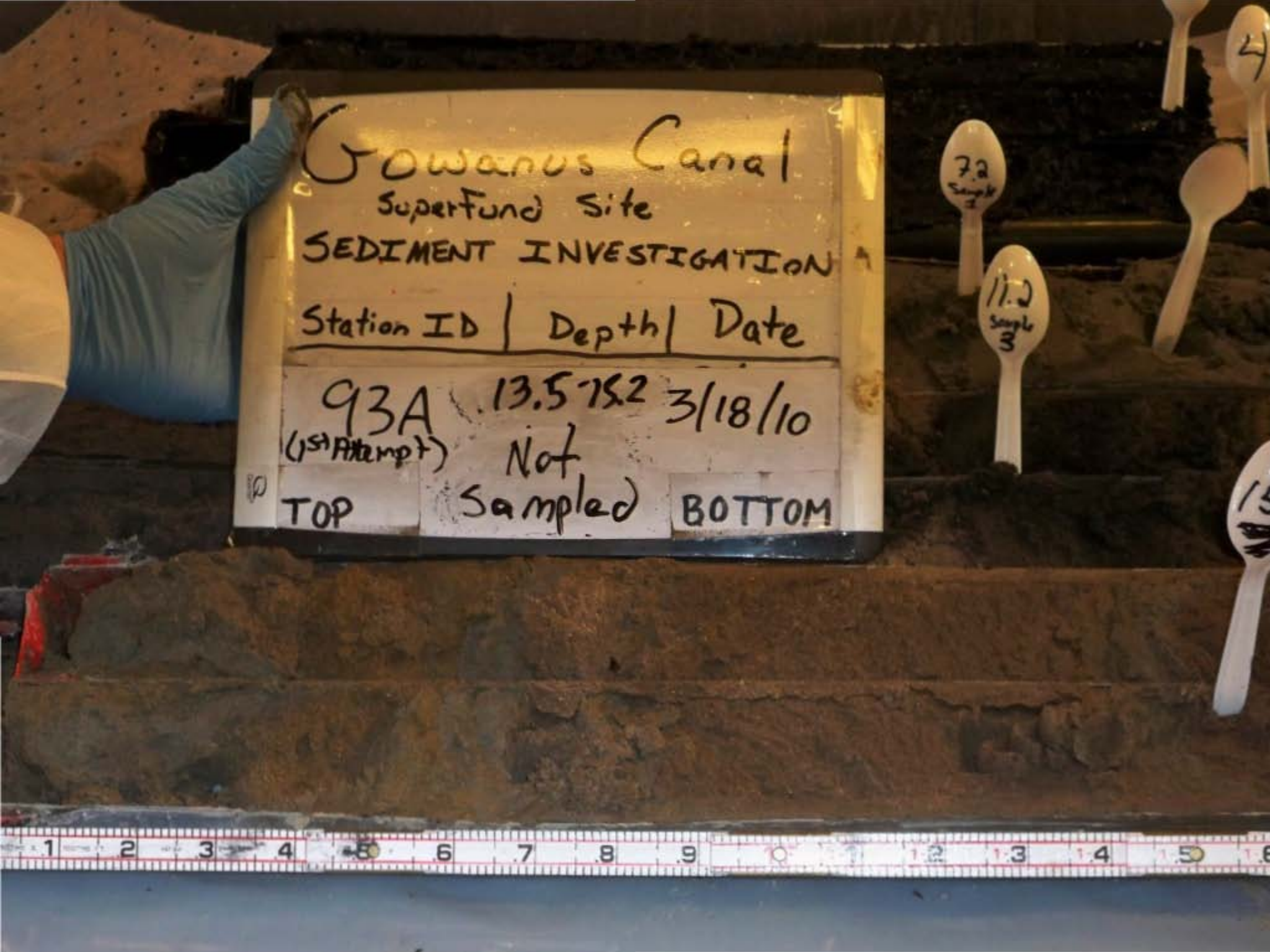

2
6
4
8
11.2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A FULL 3/18/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

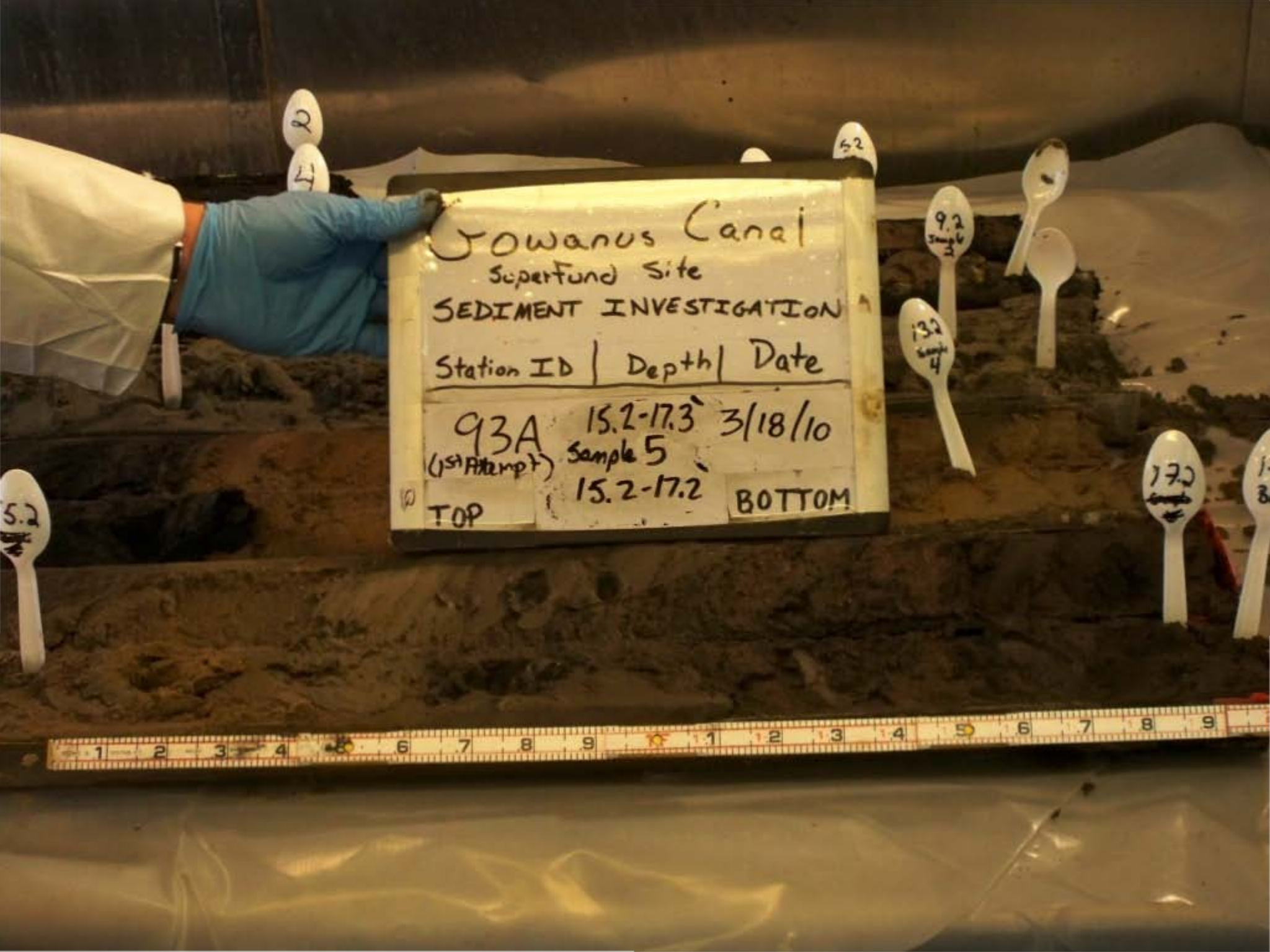

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A FULL 3/18/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 0.0-2.0' 3/18/10
Not Sampled
TOP
BOTTOM

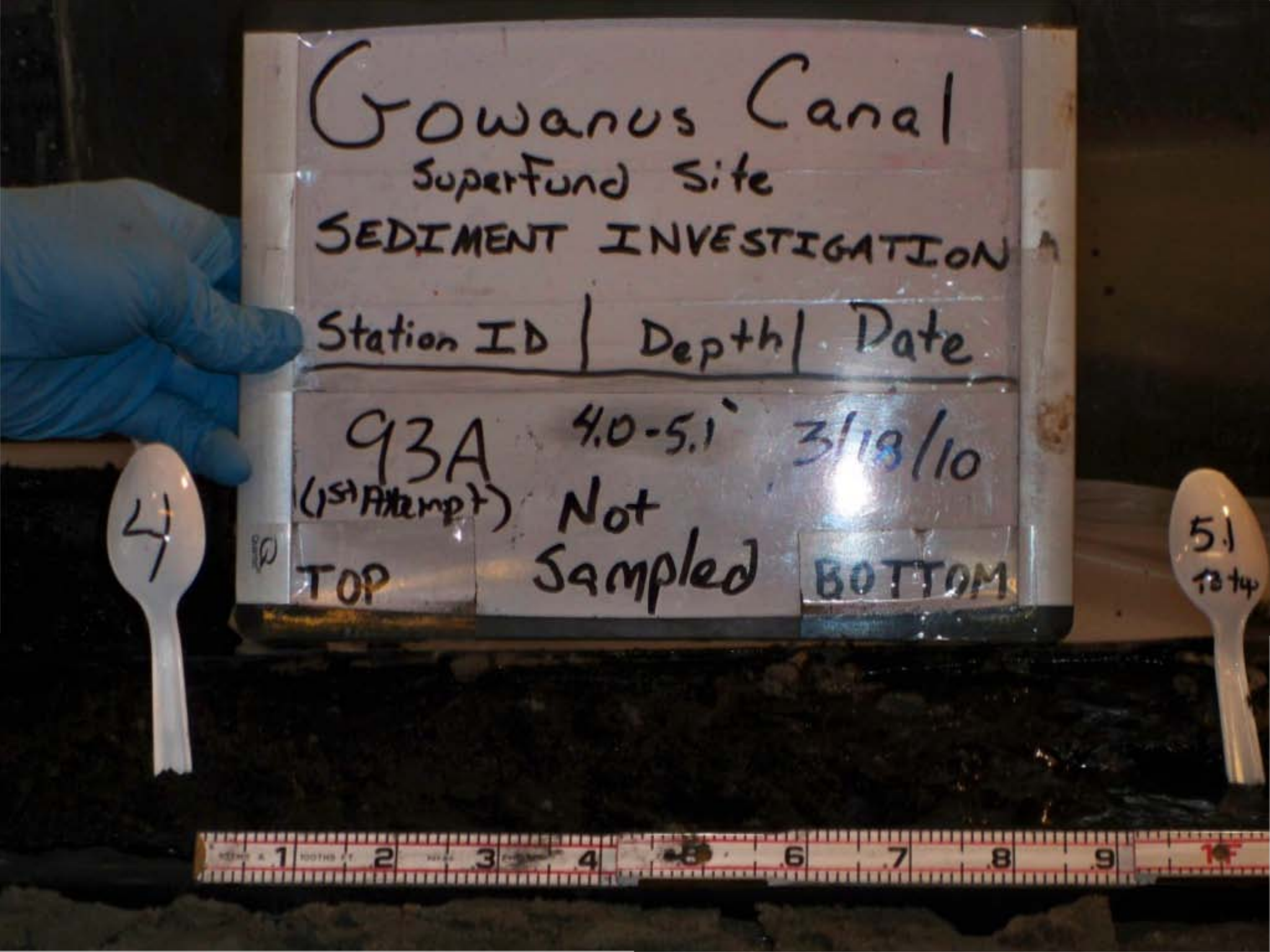

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 11.2-13.2' 3/18/10
TOP
Sample #4
BOTTOM
5.1
5.2
9.2
13.2
5.2

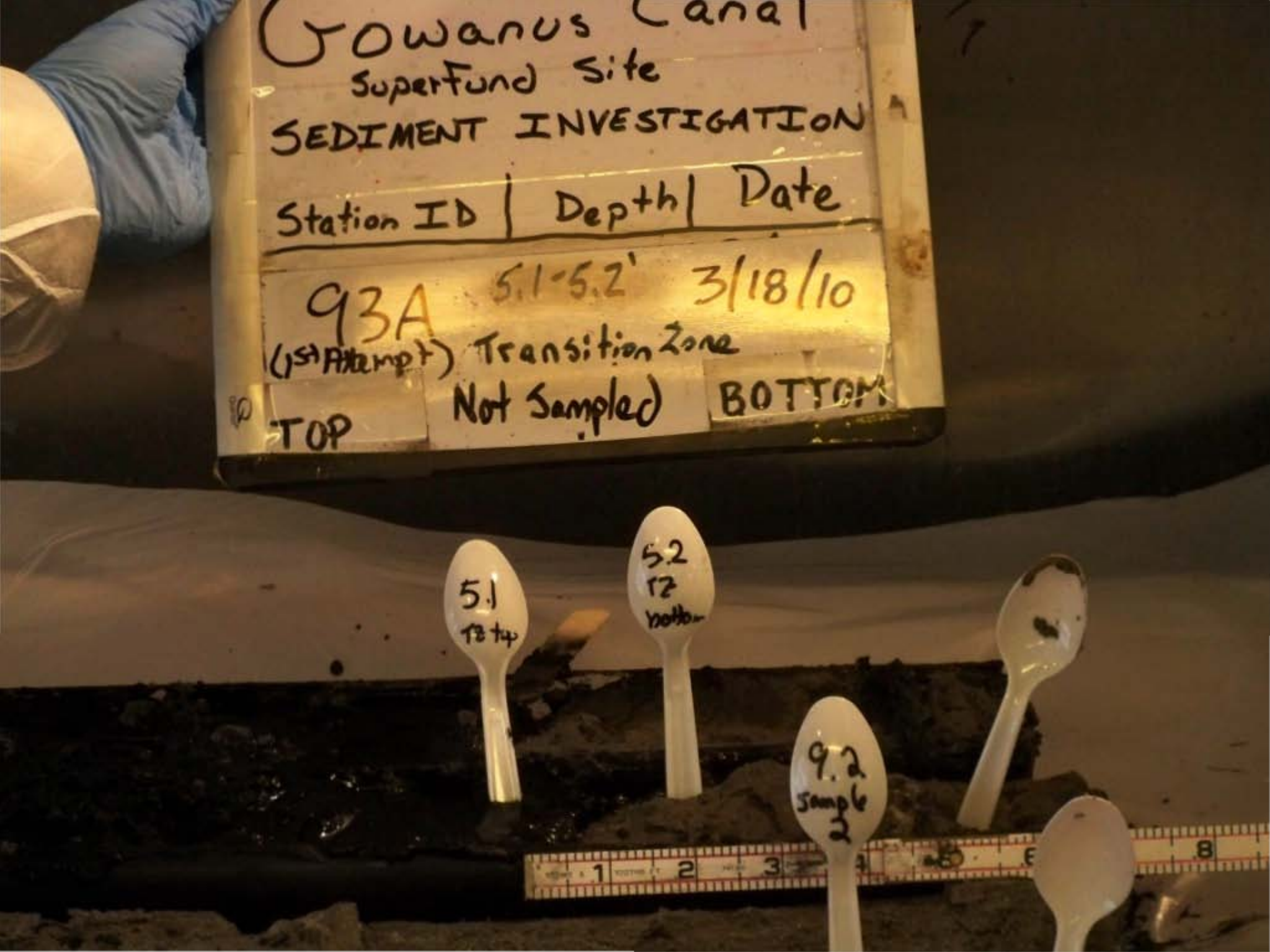

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 13.2-13.5' 3/18/10
Not Sampled
TOP
BOTTOM
13.2 Sample 4

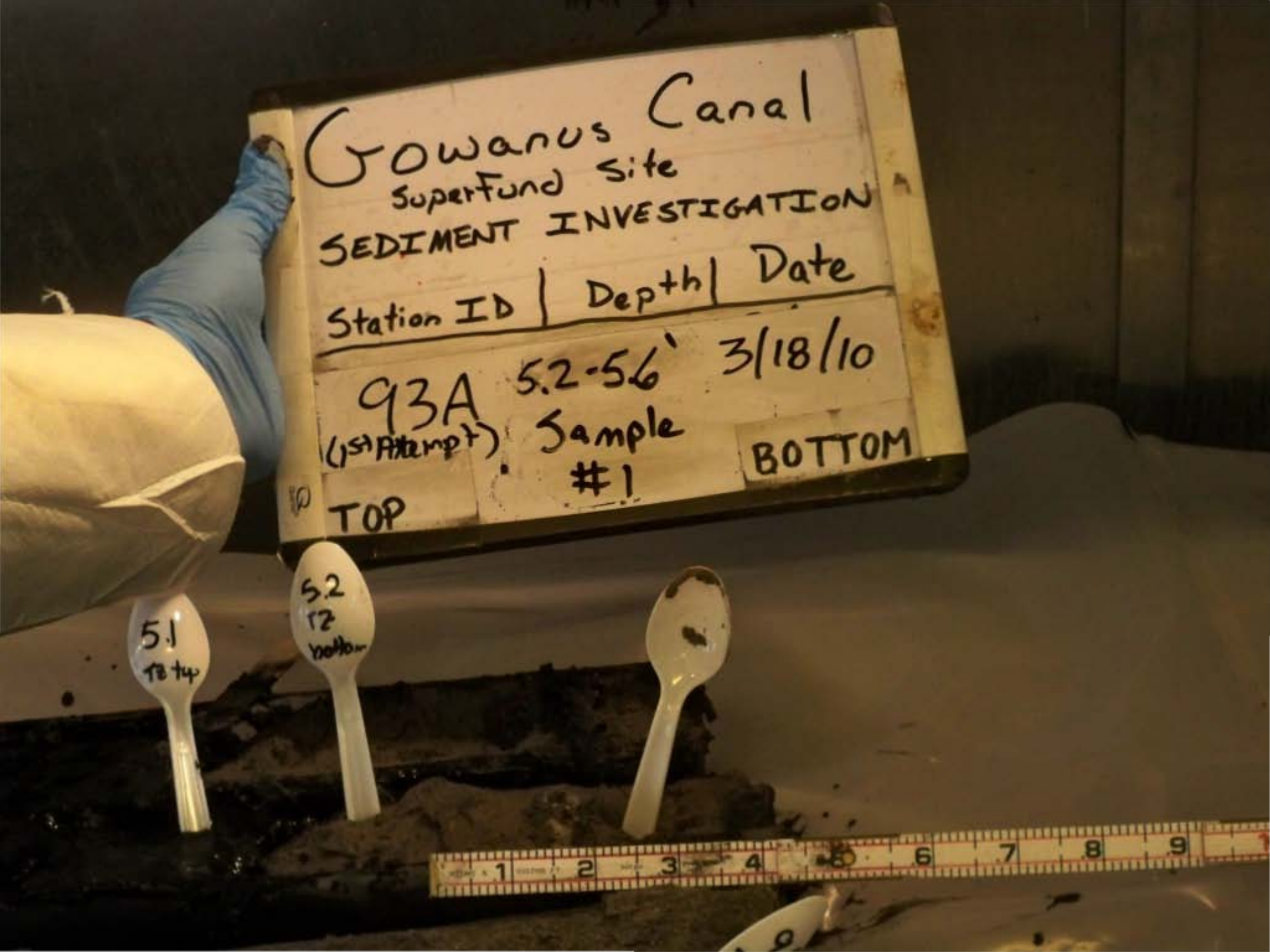

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A 13.5-15.2 3/18/10
(1st Attempt) Not
TOP Sampled BOTTOM

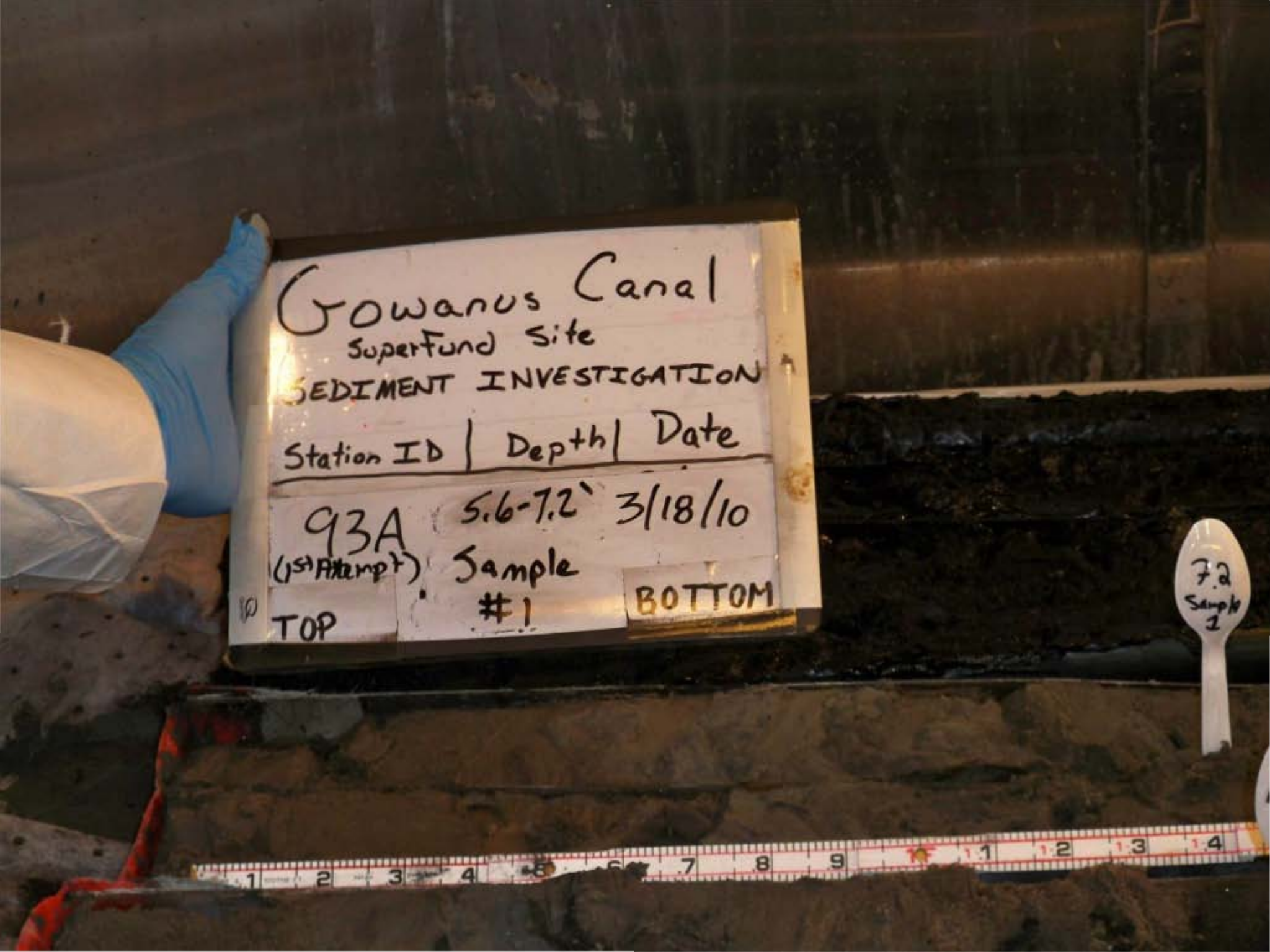

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 15.2-17.3' 3/18/10
Sample 5
15.2-17.2'
TOP
BOTTOM

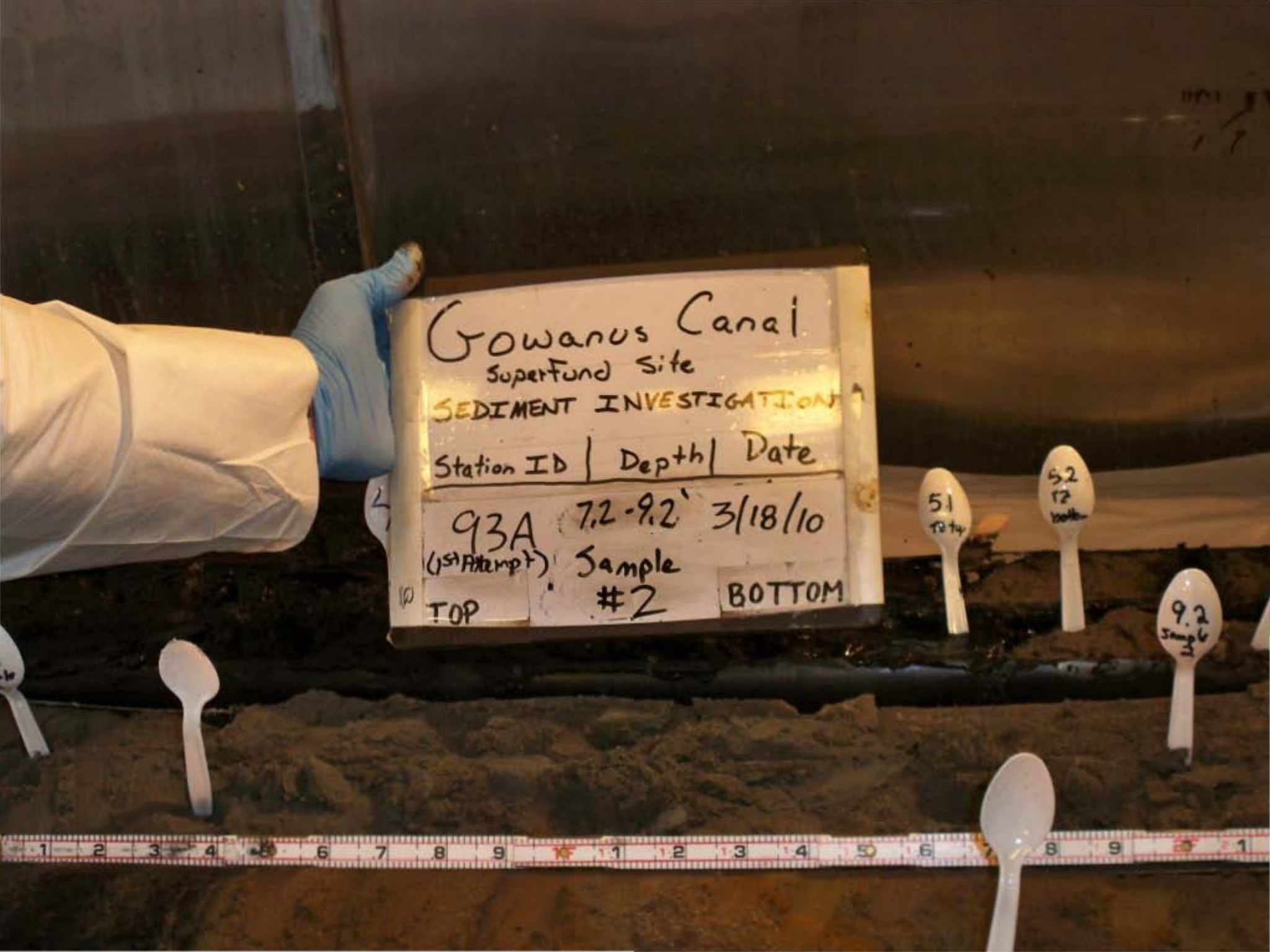

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 2.0-4.0' 3/18/10
Not Sampled
TOP
BOTTOM
2
4
7.2
Sample 1

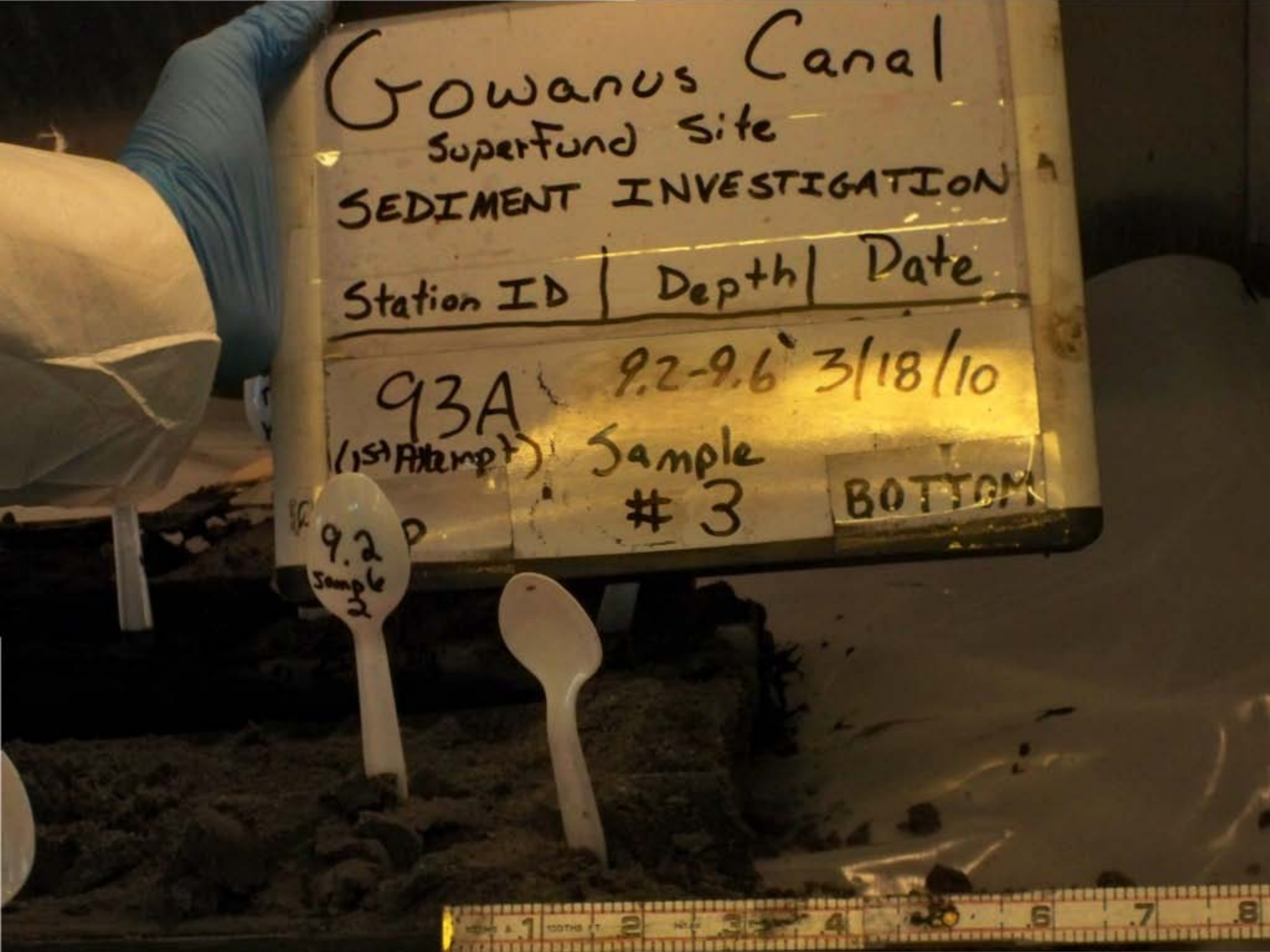

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt)
4.0-5.1'
3/18/10
Not Sampled
TOP
BOTTOM
4
5.1 to 4

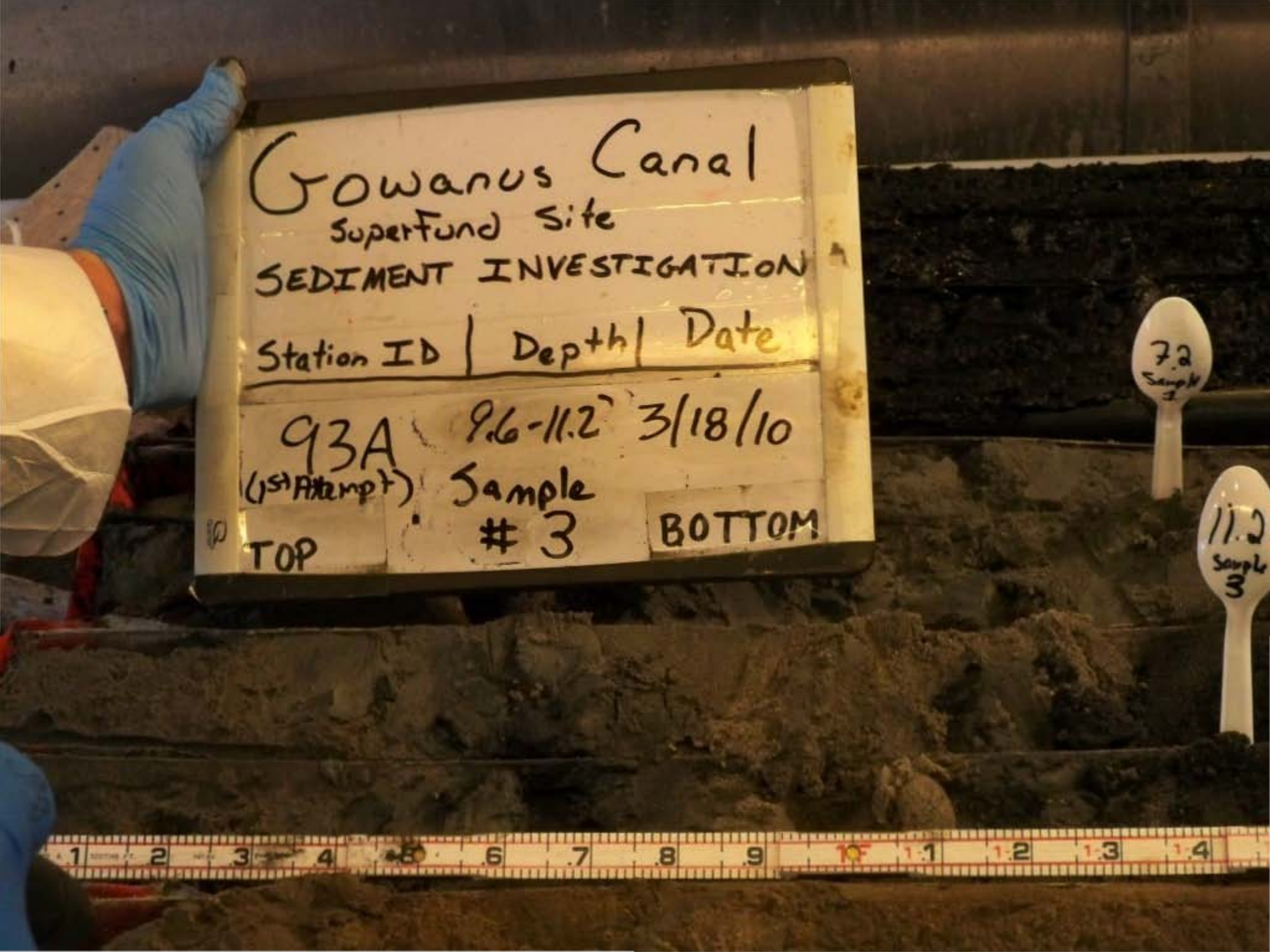

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A 5.1-5.2' 3/18/10
(1st Attempt) Transition Zone
TOP Not Sampled BOTTOM
5.1 TZ top
5.2 TZ bottom
9.2 Sample 2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 5.2-5.6' 3/18/10
Sample #1
TOP
BOTTOM
5.1 TB top
5.2 TB bottom


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 5.6-7.2' 3/18/10
Sample #1
TOP
BOTTOM
7.2 Sample 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 7.2-9.2' 3/18/10
Sample #2
TOP
BOTTOM
5.1
5.2
9.2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A (1st Attempt) 9.2-9.6' 3/18/10
Sample #3
BOTTOM
9.2 Sample 2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A 9.6-11.2' 3/18/10
(1st Attempt) Sample #3
TOP
BOTTOM
7.2 Sample 3
11.2 Sample 3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A FULL 3/18/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
104A (4th Attempt) FULL Recovery 4/5/10
TOP
BOTTOM

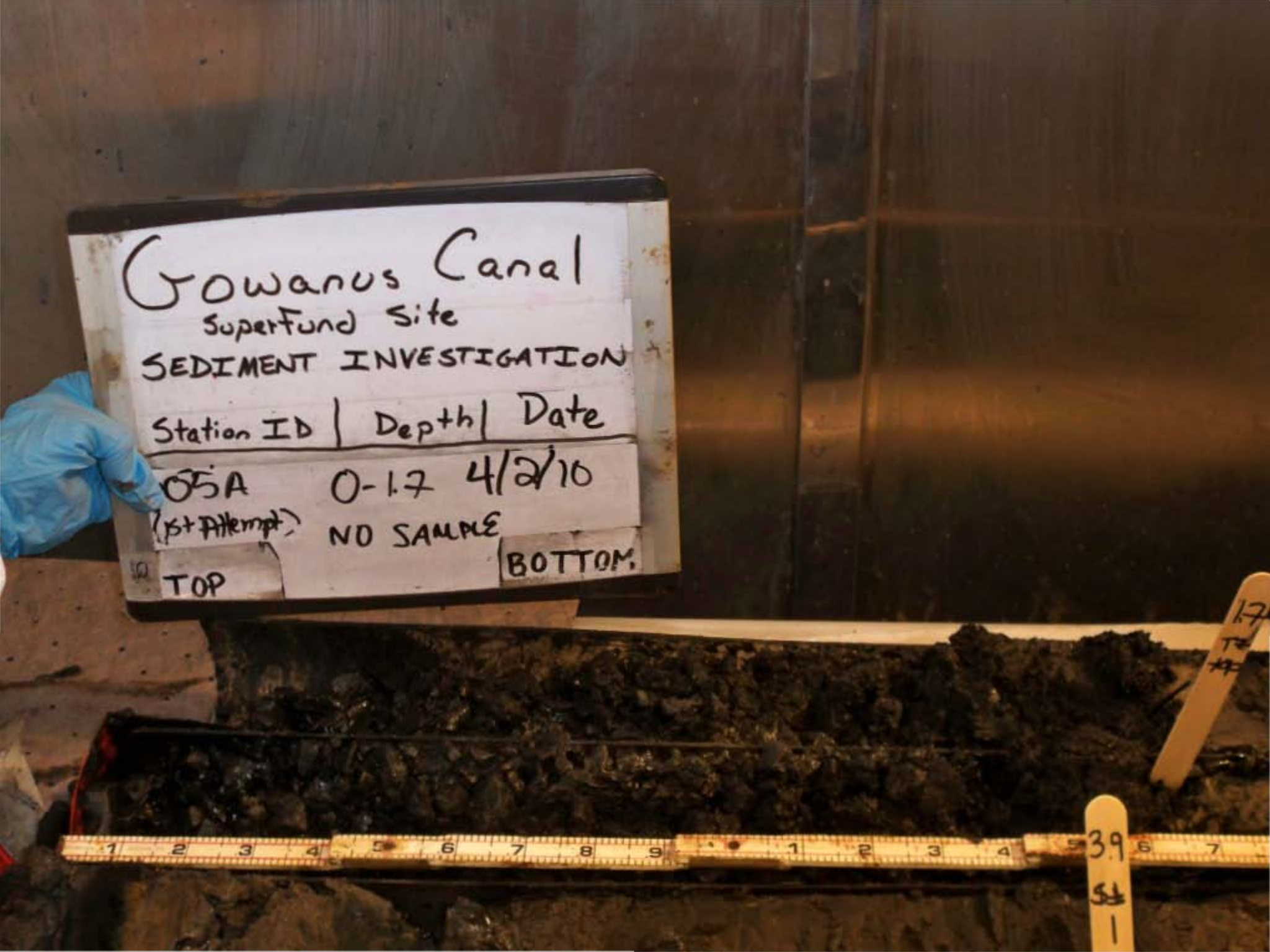

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
104A 0-2' 4/5/10
(1st Attempt)
TOP
Not sampled


2
4
Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
104A 2'-4' 4/5/10
(1st Attempt)
TOP
not sampled
BOTTOM

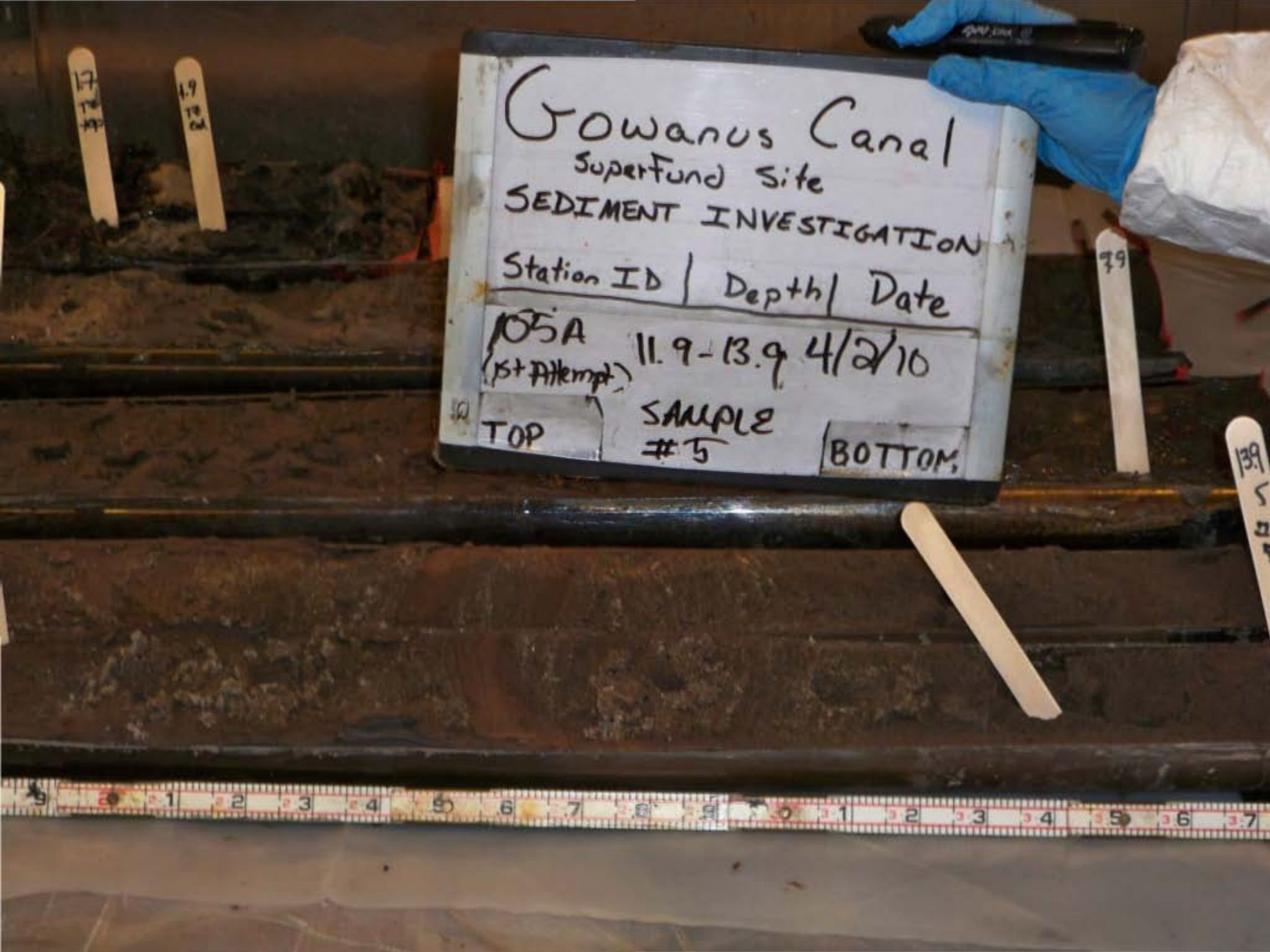

104A
4
4.3
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
104A (1st Attempt) 4-4.3' 4/5/10
Not sampled
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
104A (4th Attempt) FULL Recovery 4/5/10
TOP
BOTTOM

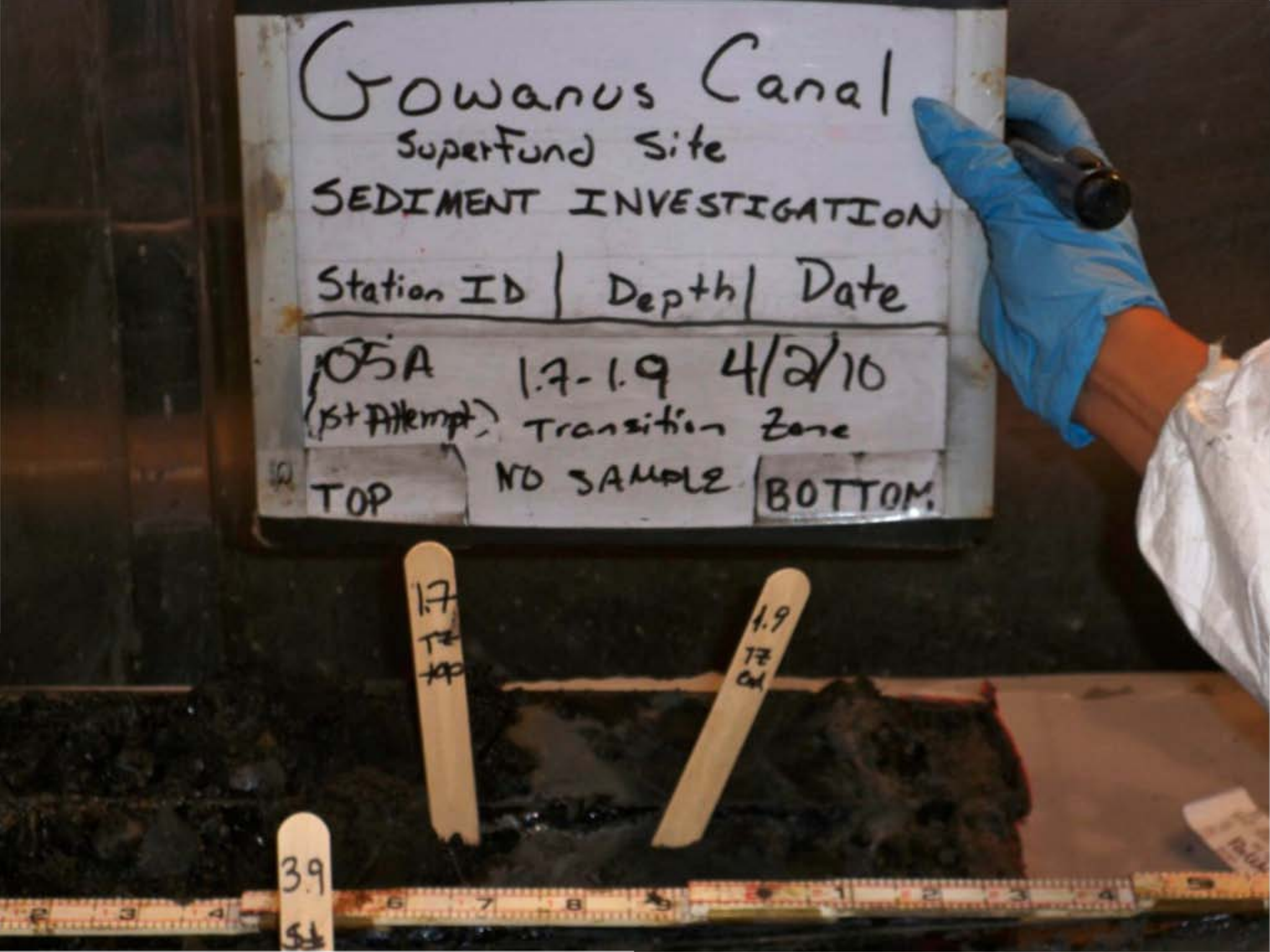

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A Full 4/2/10
(1st Attempt) Recovery
TOP
BOTTOM

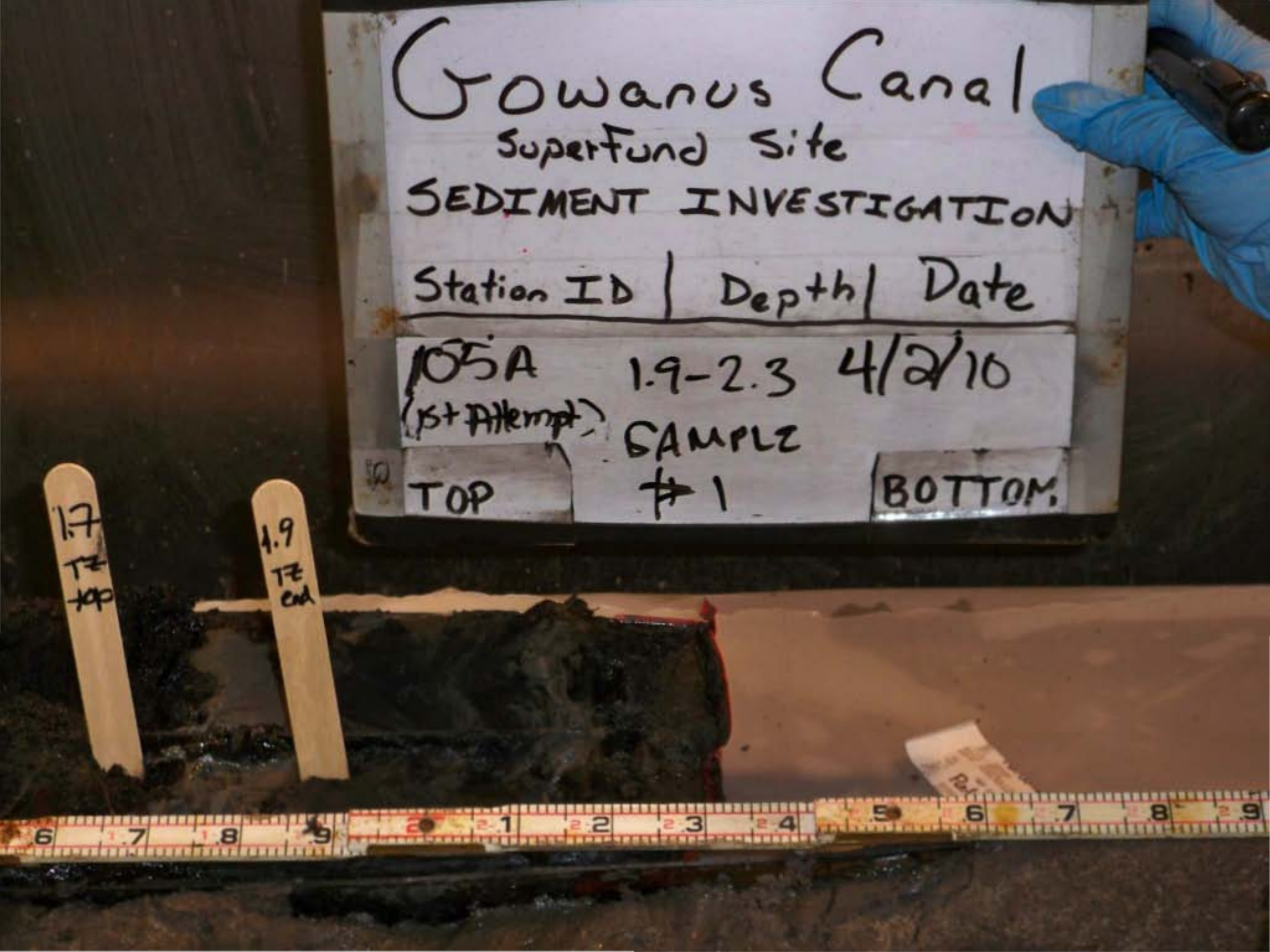

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SSA 0-1.7 4/2/10
(1st Attempt) NO SAMPLE
TOP
BOTTOM

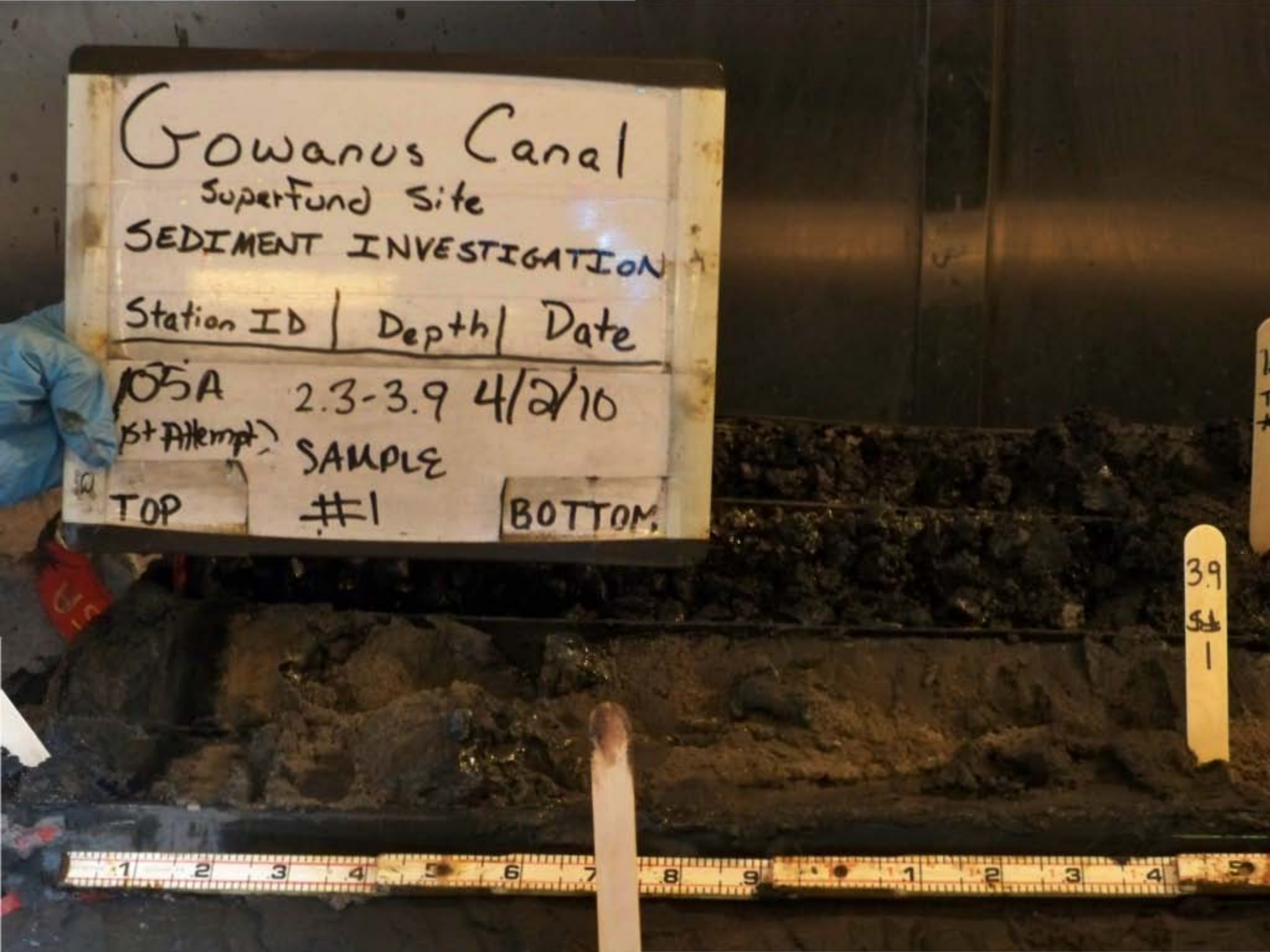

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A (1st Attempt) 10.2-11.9 4/2/10
SAMPLE #4
TOP
BOTTOM
1.7 TZ top
1.9 TZ cal
3.9 S# 1
7.9 S# 3
11.9 S # 4

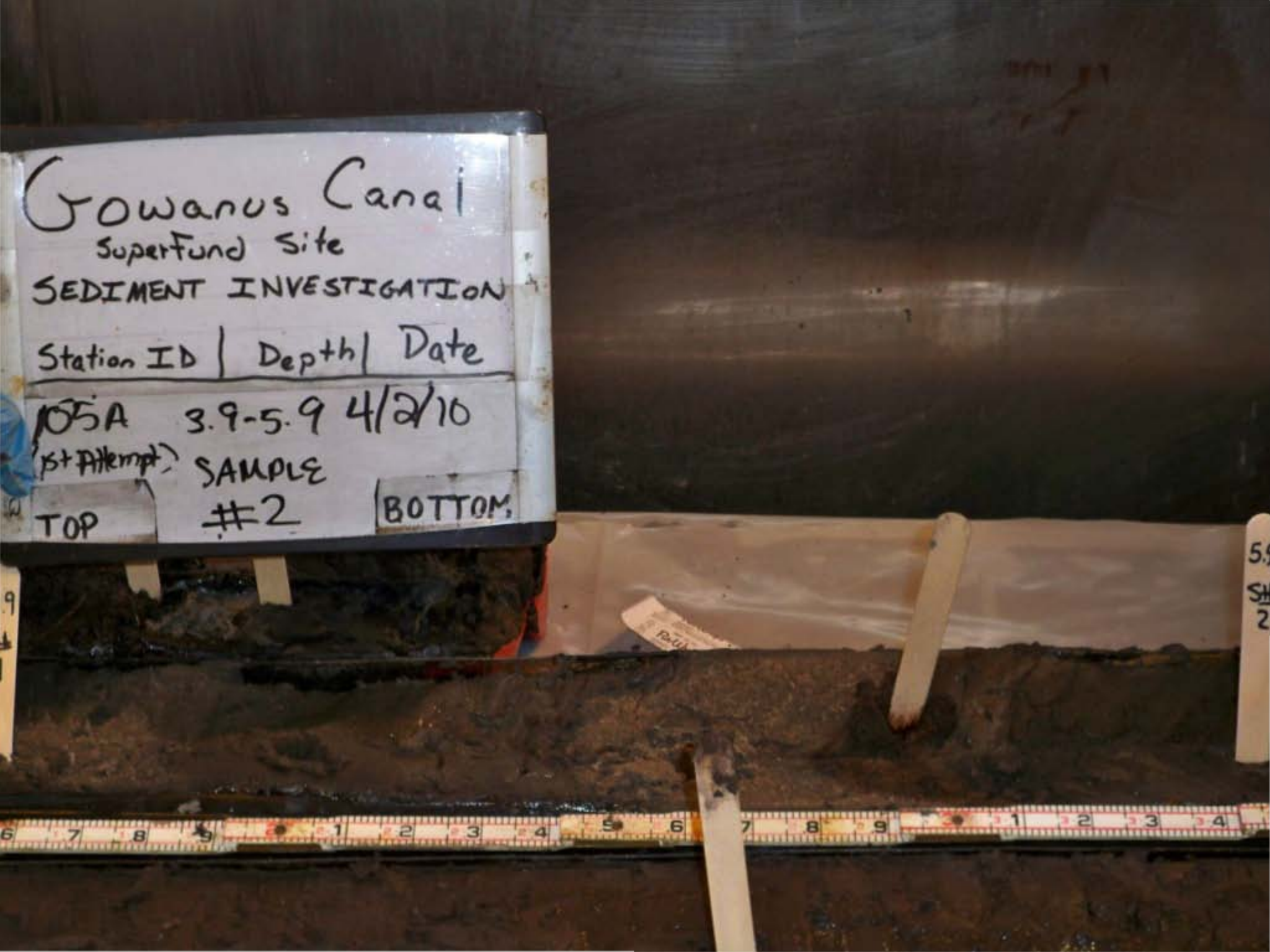

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A (1st Attempt) 11.9-13.9 4/2/10
TOP
SAMPLE #5
BOTTOM

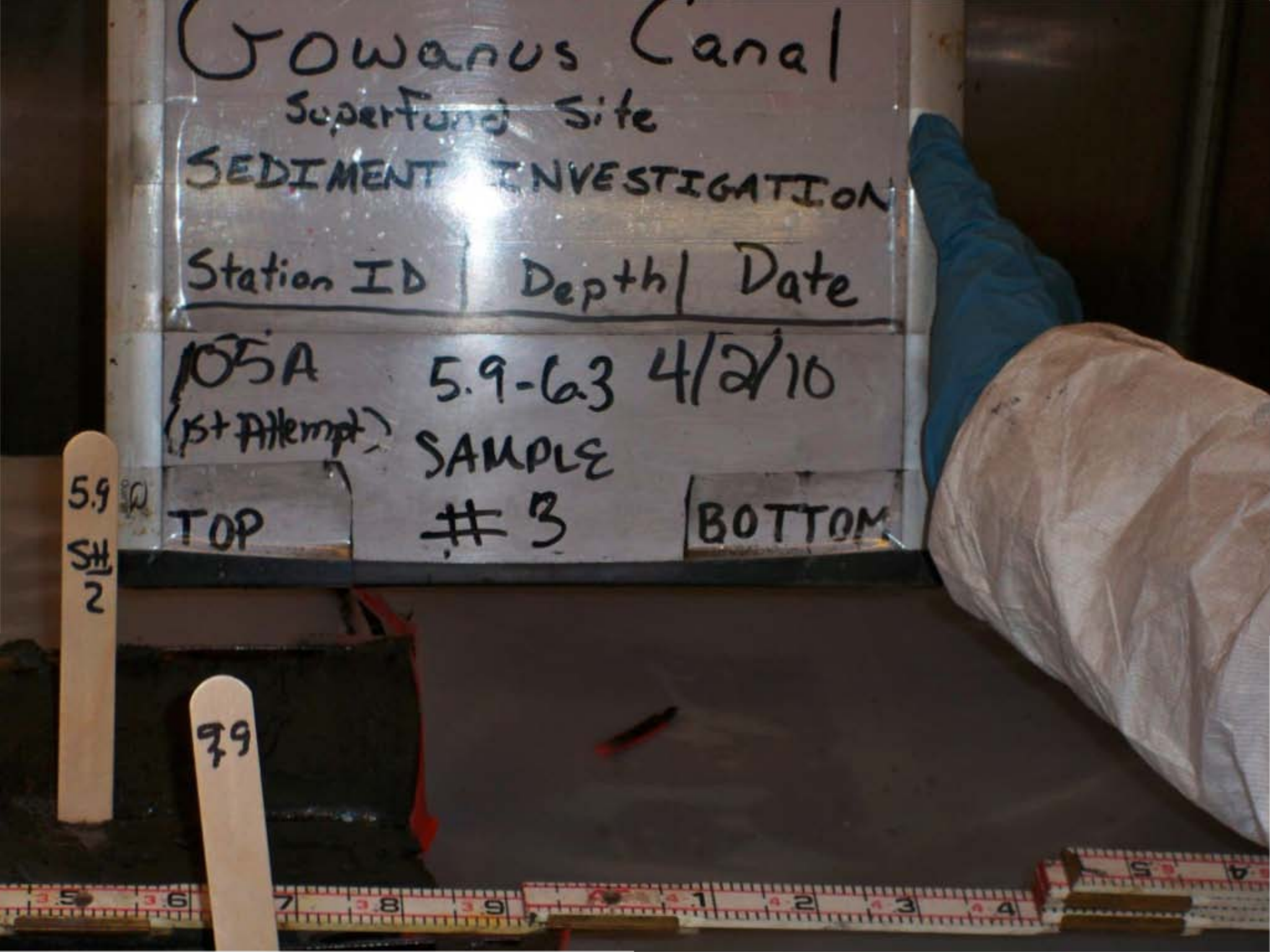

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A 13.9-14.1 4/2/10
(1st Attempt)
NO SAMPLE
TOP
BOTTOM
13.9 TOP
14.1 BOT


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A (1st Attempt) 1.7-1.9 4/2/10
Transition Zone
NO SAMPLE
TOP
BOTTOM
1.7 Tz top
1.9 Tz bot
3.9 SH

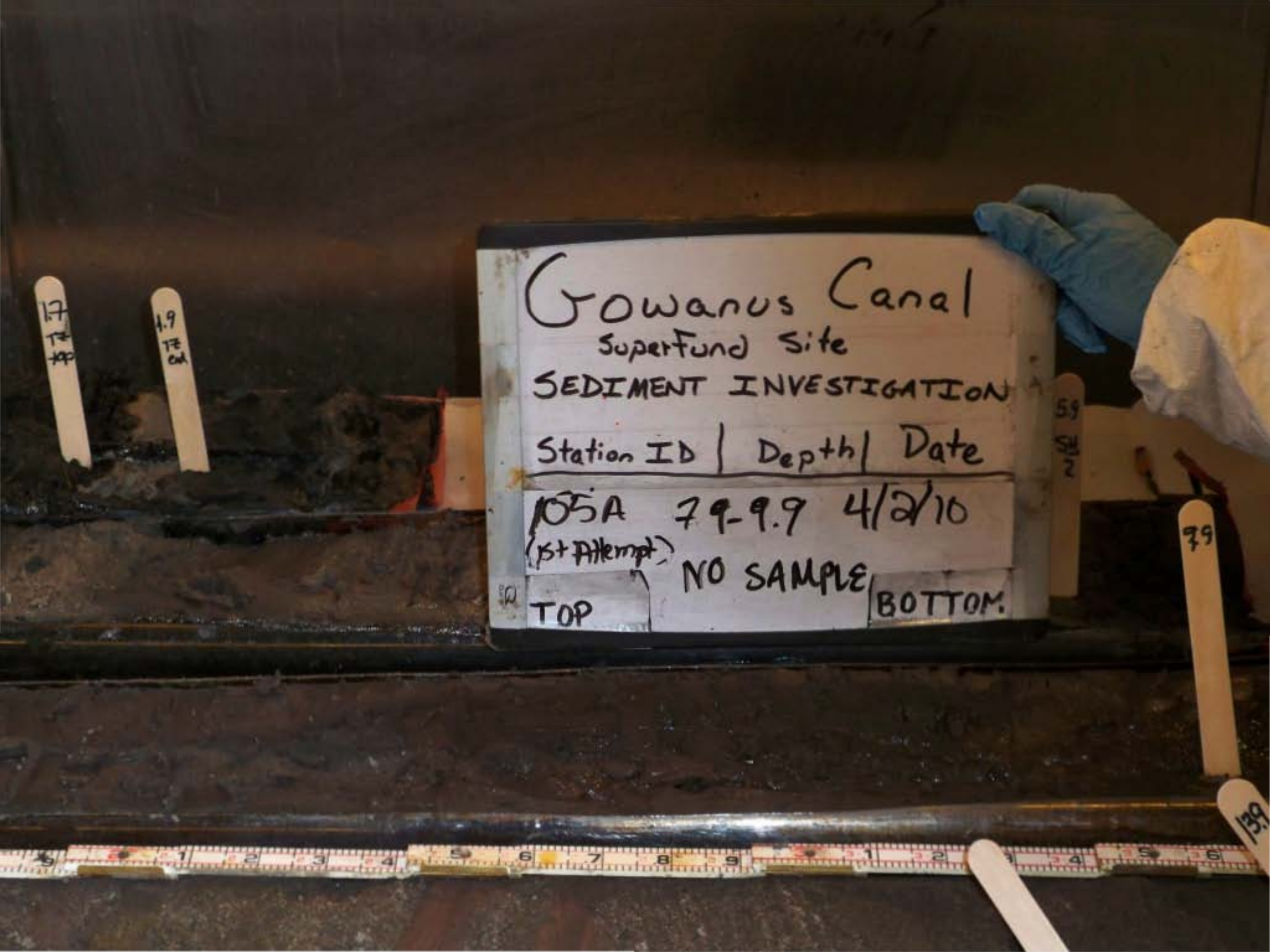

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A (1st Attempt) 1.9-2.3 4/2/10
SAMPLE #1
TOP
BOTTOM
1.7 TE top
1.9 TE end

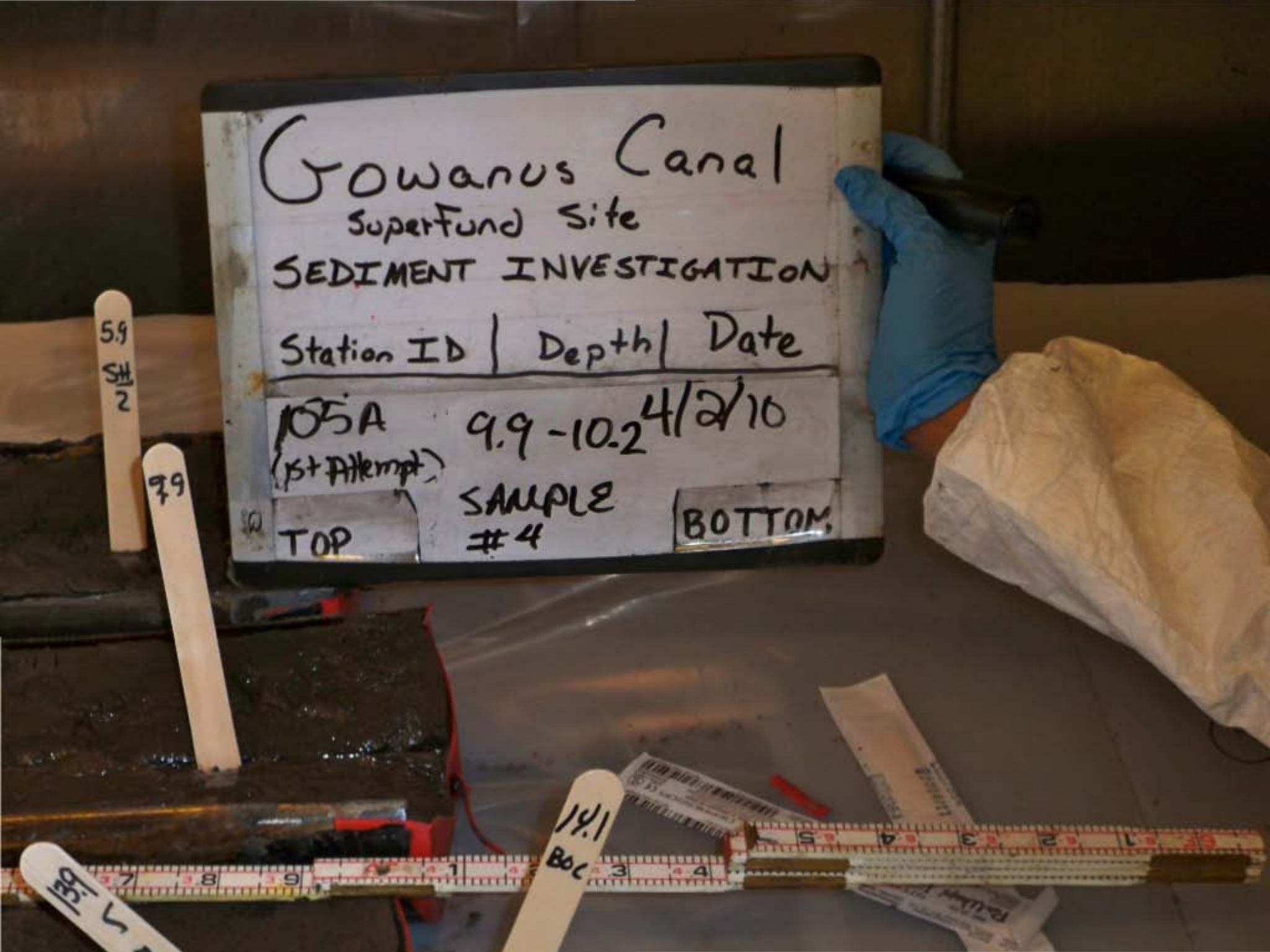

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A 2.3-3.9 4/2/10
(1st Attempt) SAMPLE
TOP #1 BOTTOM
3.9
1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A 3.9-5.9 4/2/10
(1st Attempt)
SAMPLE
#2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A (1st Attempt) 5.9-6.3 4/2/10
SAMPLE #3
TOP
BOTTOM
5.9
SH 2
79


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID
Depth
Date
105A
(1st Attempt)
6.3-7.9
4/2/10
SAMPLE
TOP
#3
BOTTOM
3.9
1
7.9
3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A 7.9-9.9 4/2/10
(1st Attempt)
NO SAMPLE
TOP
BOTTOM
7.9


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A (1st Attempt) 9.9-10.2 4/2/10
TOP
SAMPLE #4
BOTTOM
5.9
7.9
14.1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A FULL 4/2/10
(1st Attempt) Recovery
TOP
BOTTOM

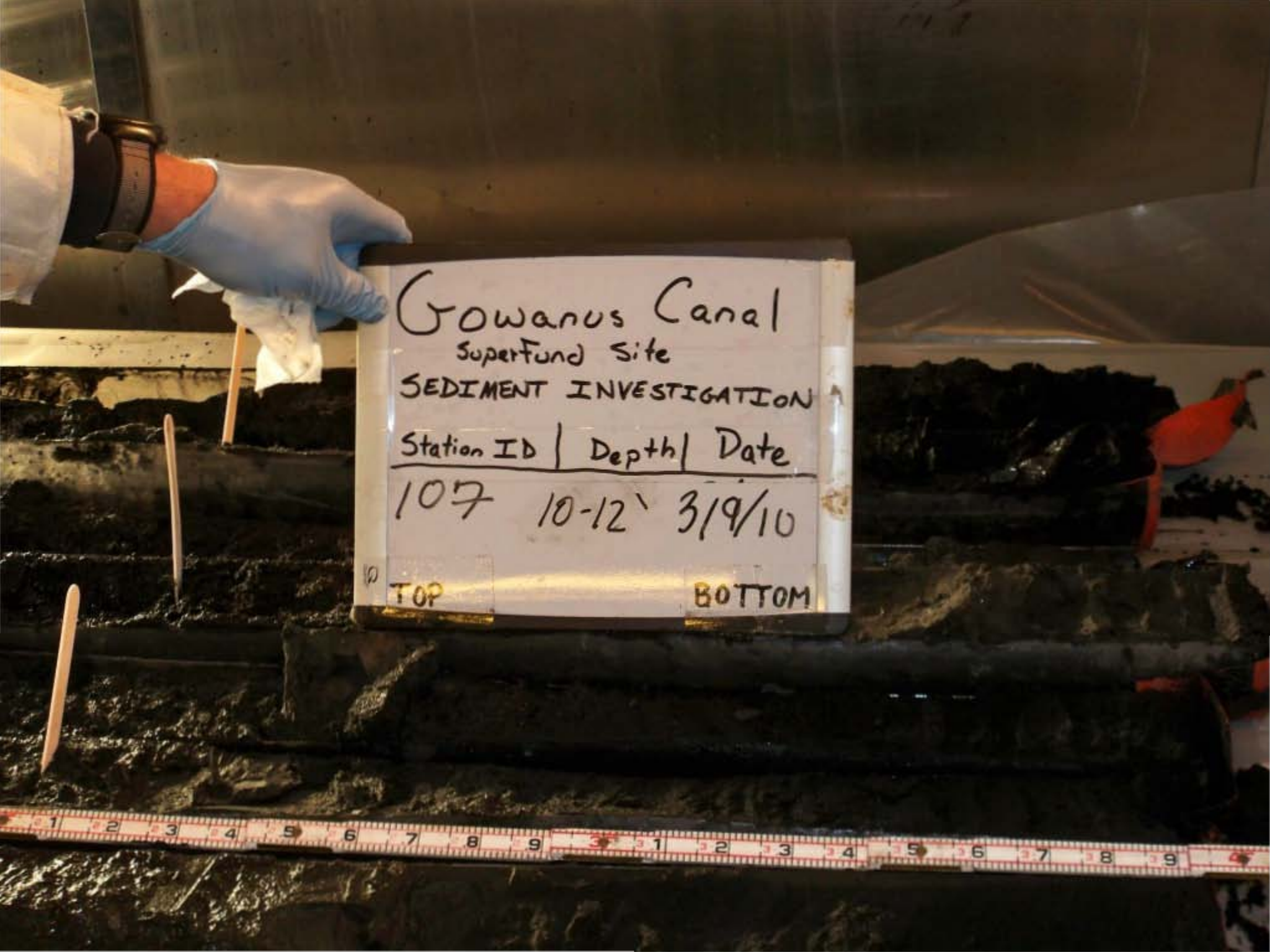

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
106D FULL 4/5/10
(1st Attempt) Recovery
TOP
BOTTOM

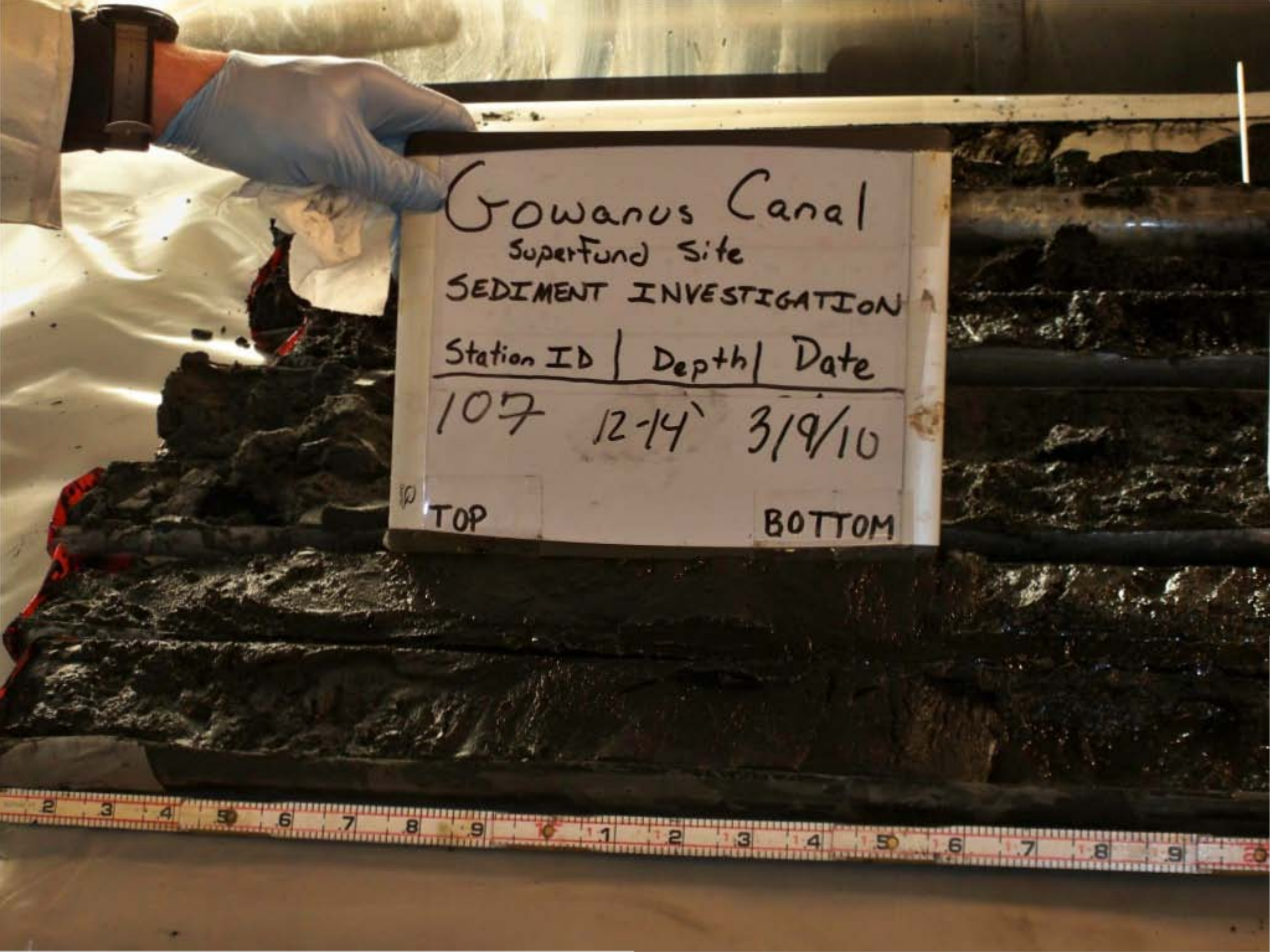

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
106D 0-2' 4/5/10
(1st Attempt)
not sampled
TOP
BOTTOM
2


2
23
Boc
1 2 3 4 5 6 7 8 9
Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
106D 0-2' 4/5/10
(1st Attempt)
not sampled
TOP
BOTTOM

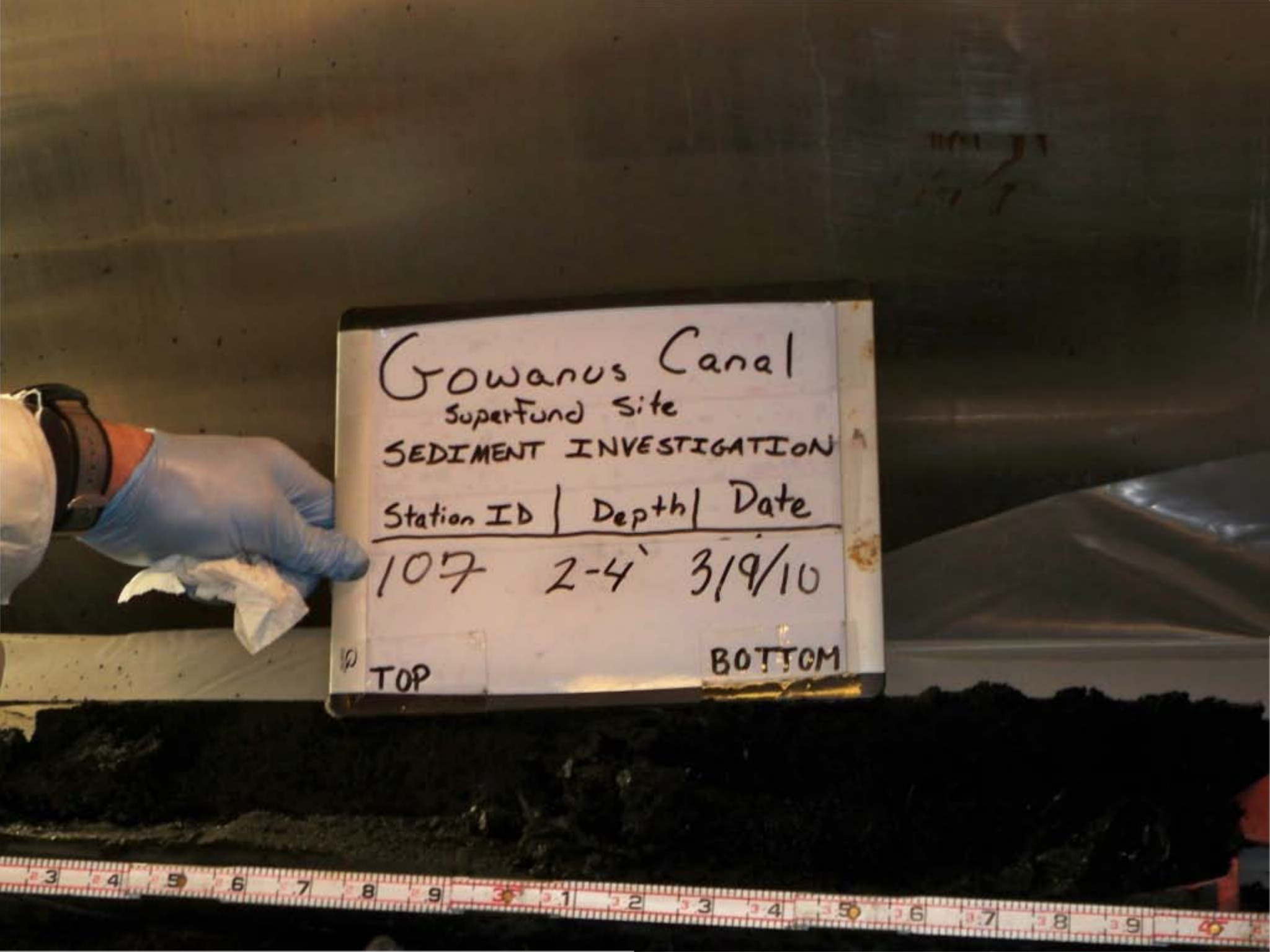

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
106D Full 4/5/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 0-2' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 10-12' 3/9/10
TOP
BOTTOM

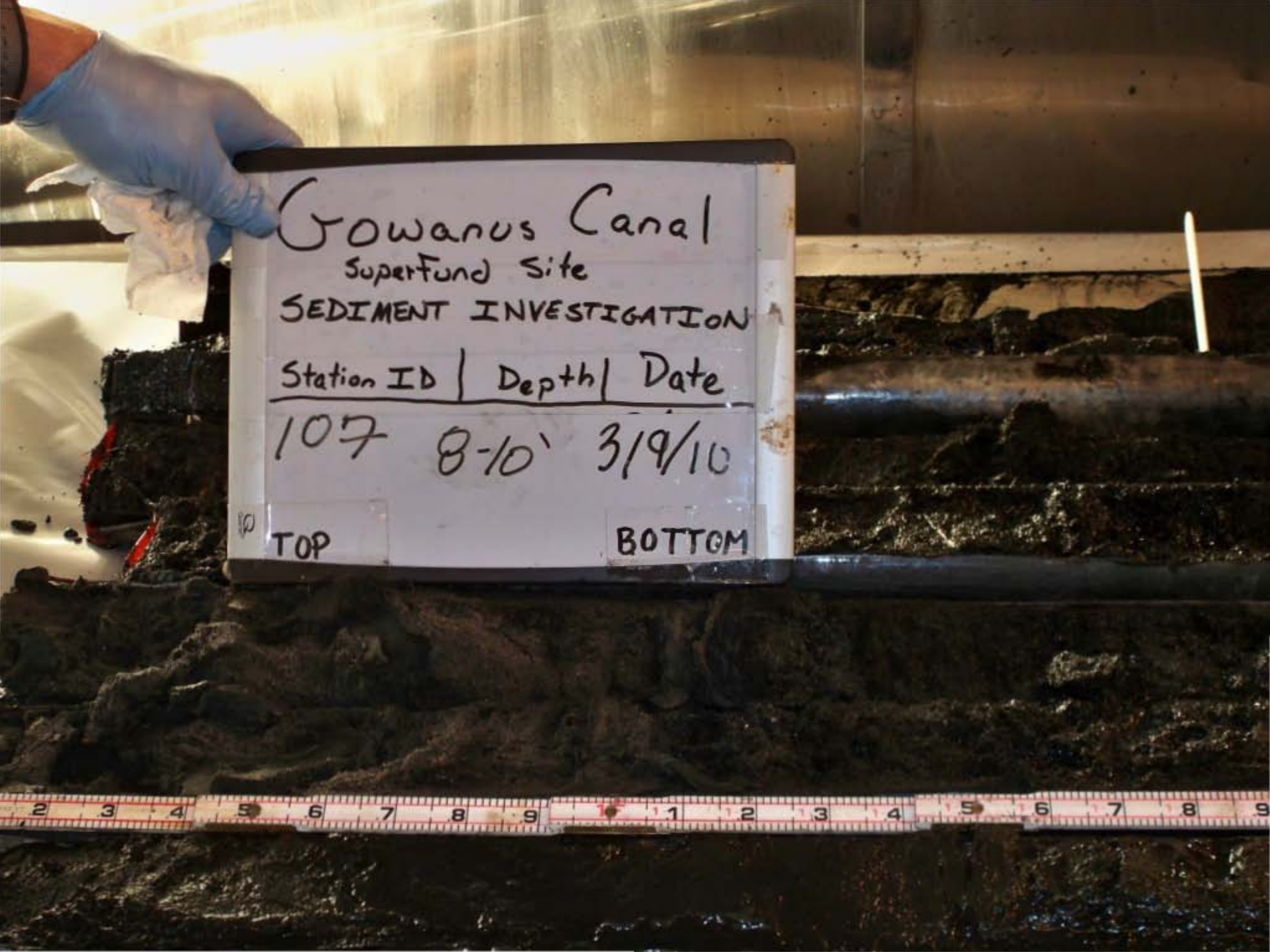

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 12-14` 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 14-16' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 2-4` 3/9/10
TOP
BOTTOM

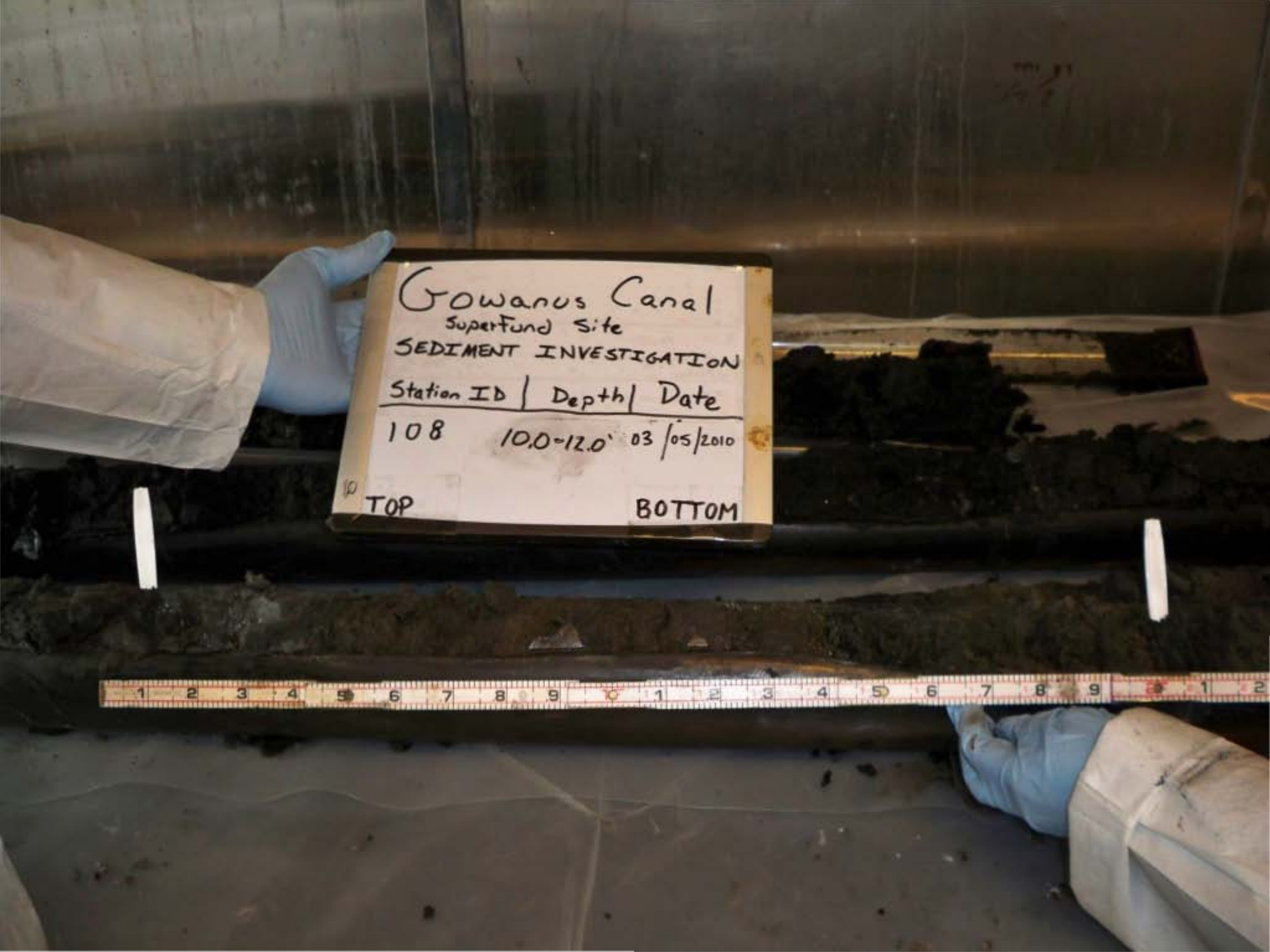

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 4-6' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 6-8' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 8-10' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
107 FULL RECOVERY 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 0.0-2.0' 03/05/2010
TOP
BOTT

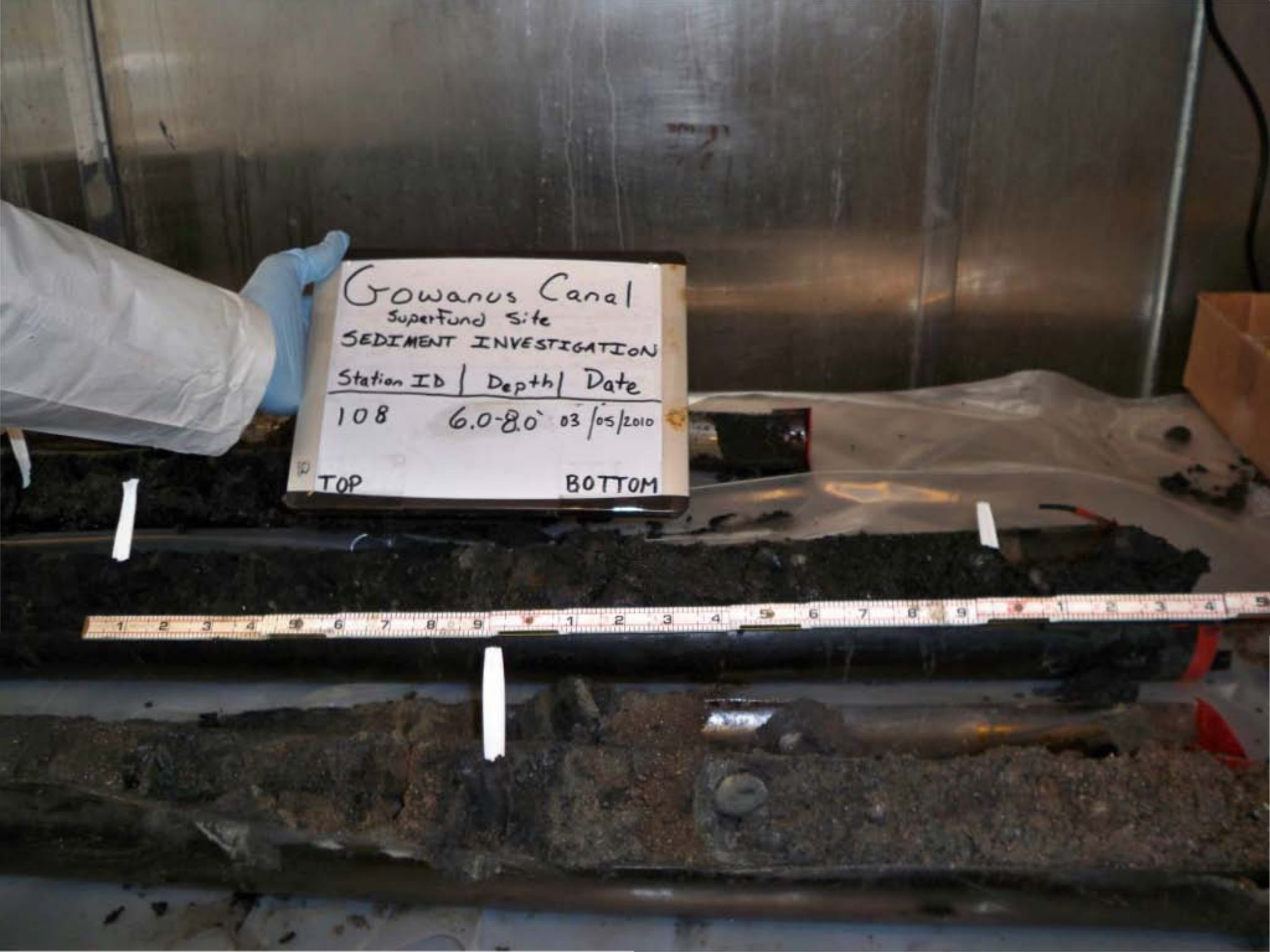

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 10.0-12.0' 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 12.0-12.5' 03/05/2010
TOP
BOTTOM
10-12


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 2.0-3.4' 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 3.4-4.0' 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 4.0-6.0' 03/05/2010
TOP
BOTTOM

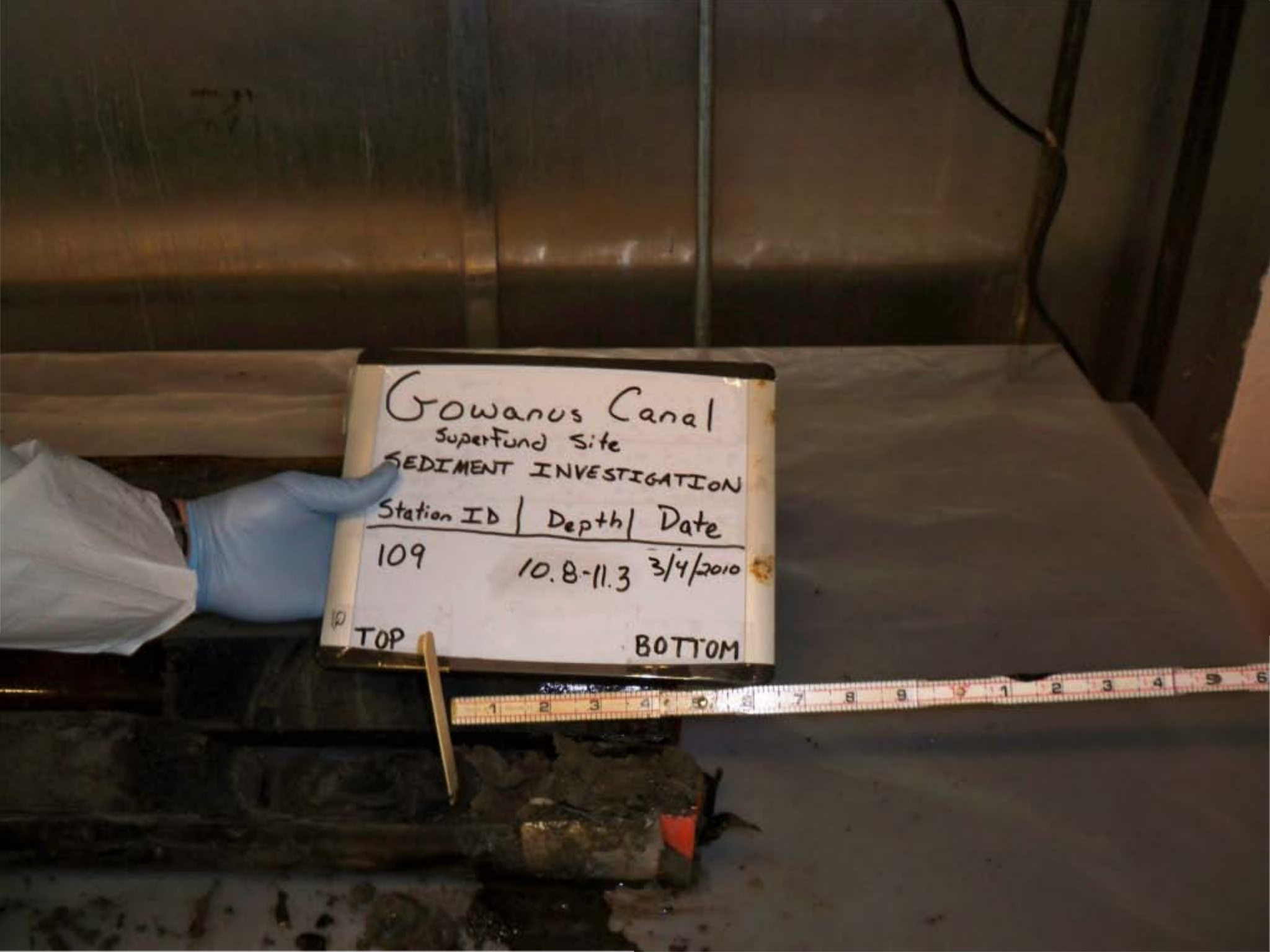

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 6.0-8.0' 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 8.0-8.5' 03/05/2010
TOP
BOTTOM

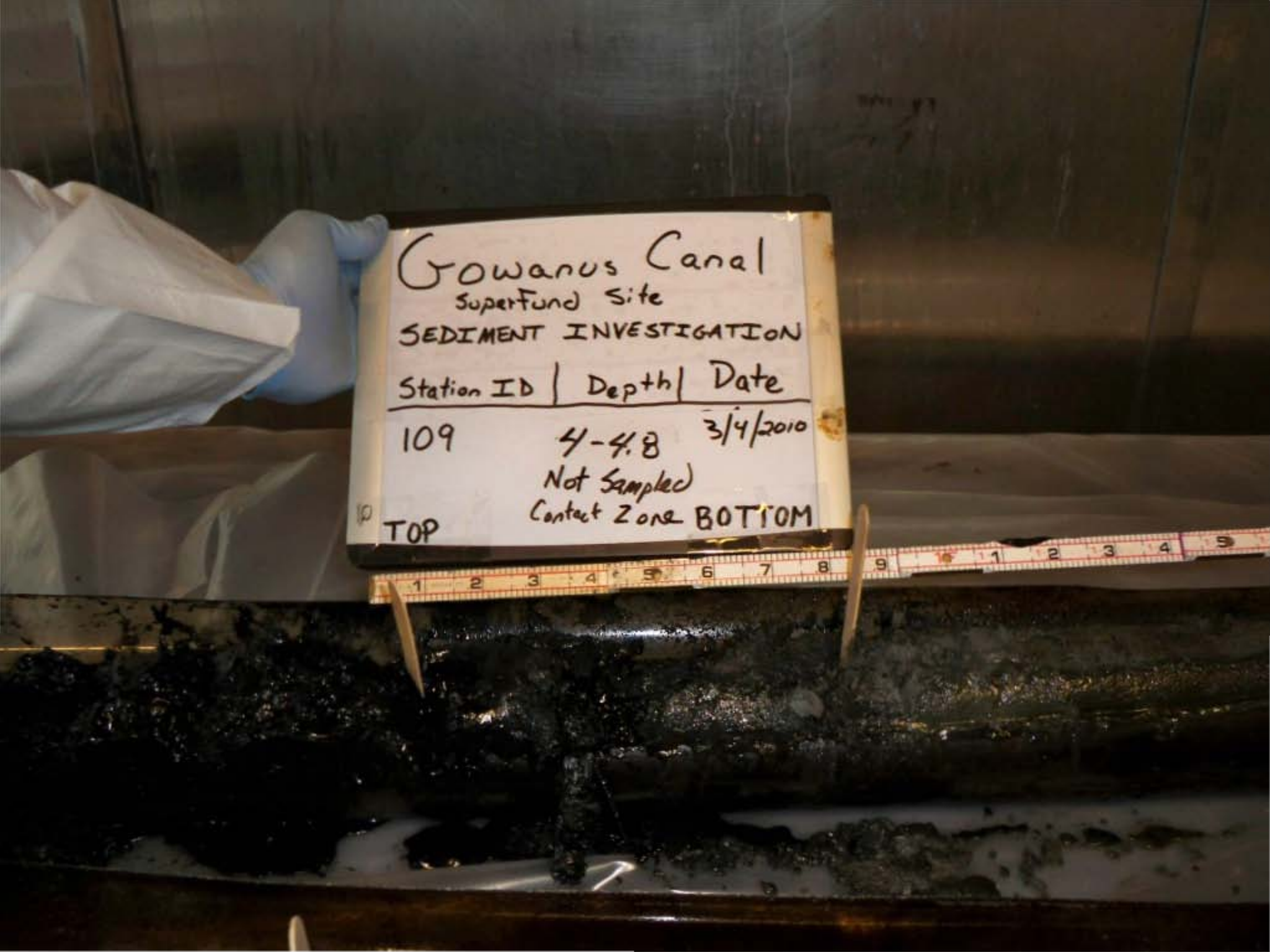

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 8.5-10.0' 03/05/2010
TOP
BOTTOM

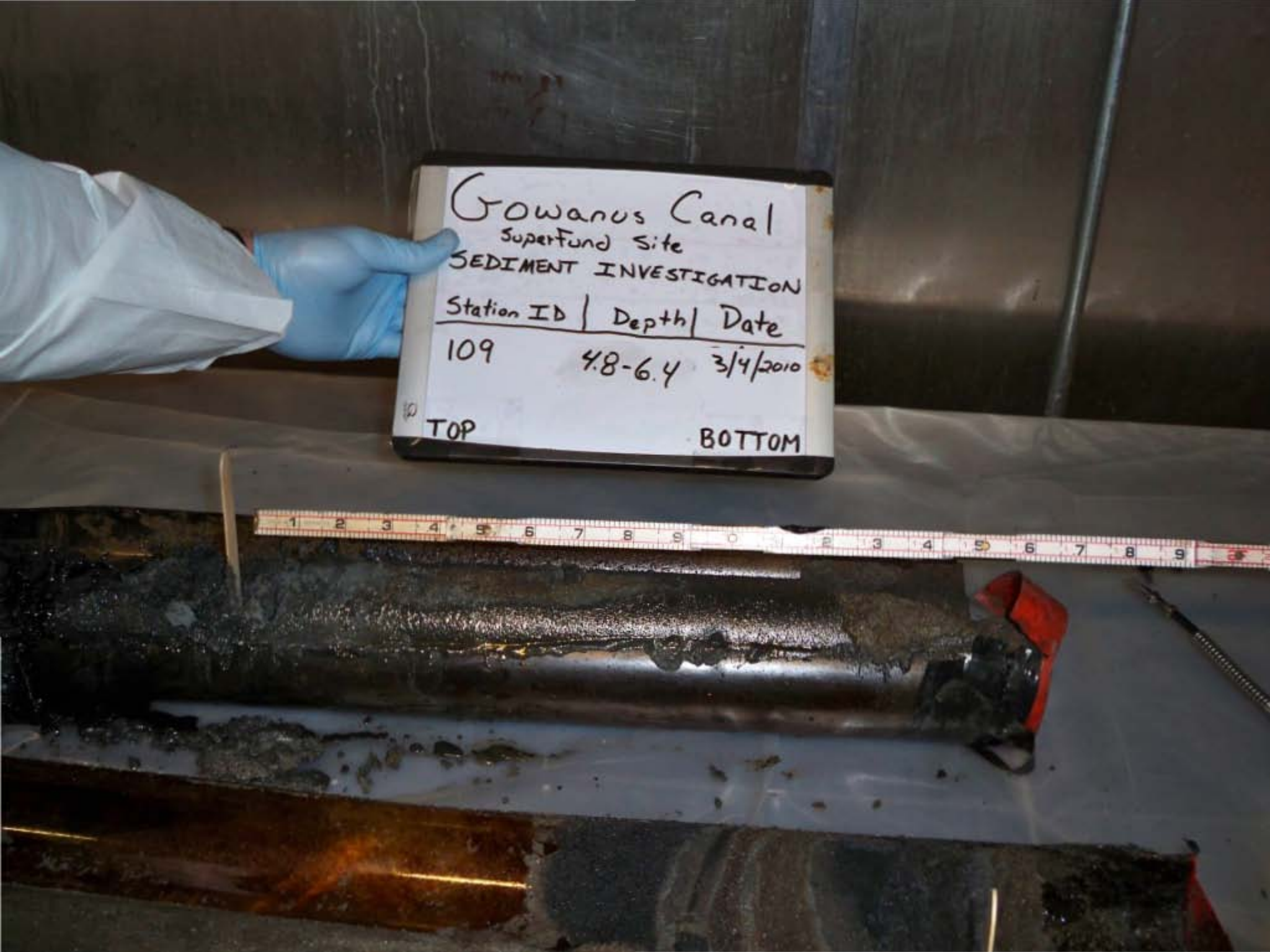

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
108 FULL RECOVERY 03/05/2010
TOP
BOTTOM
10-12

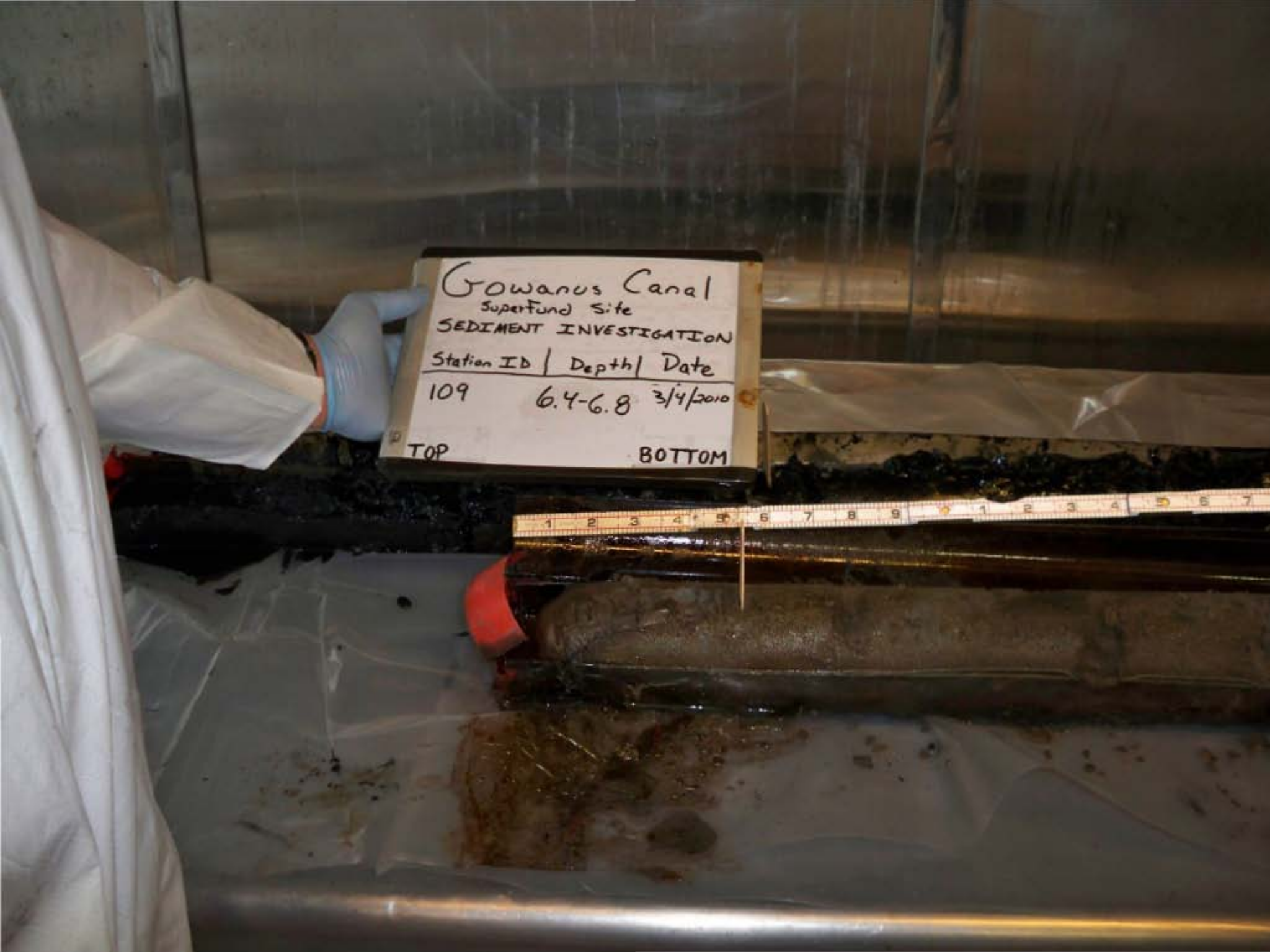

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
109 0-2` 3/4/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
109 10.8-11.3 3/4/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
109 2-4 3/4/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
109 4-4.8 3/4/2010
Not Sampled
Contact Zone
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
109 4.8-6.4 3/4/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
109 6.4-6.8 3/4/2010
TOP
BOTTOM

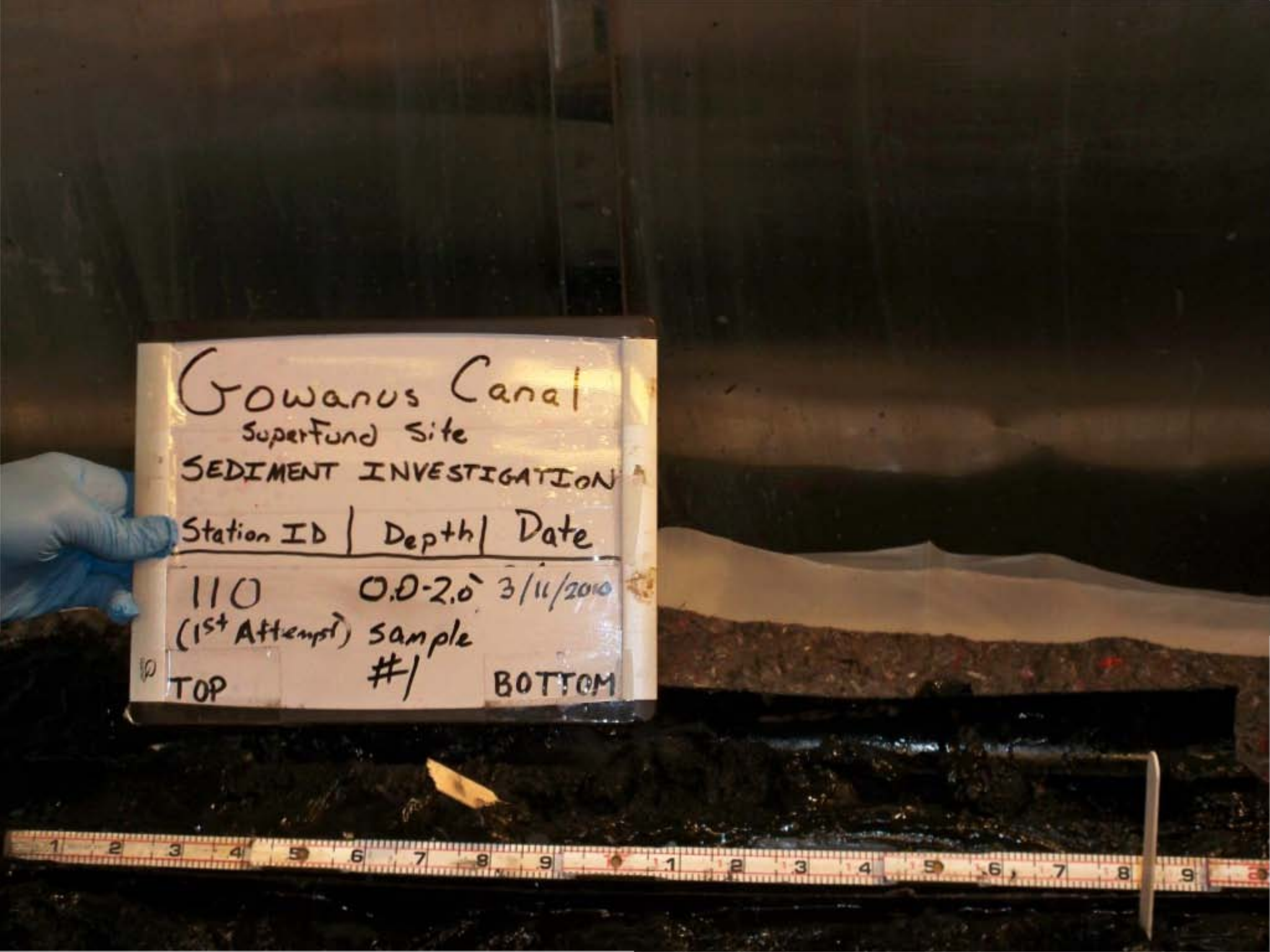
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION

Station ID	Depth	Date
109	6.8-8.8	3/4/2010

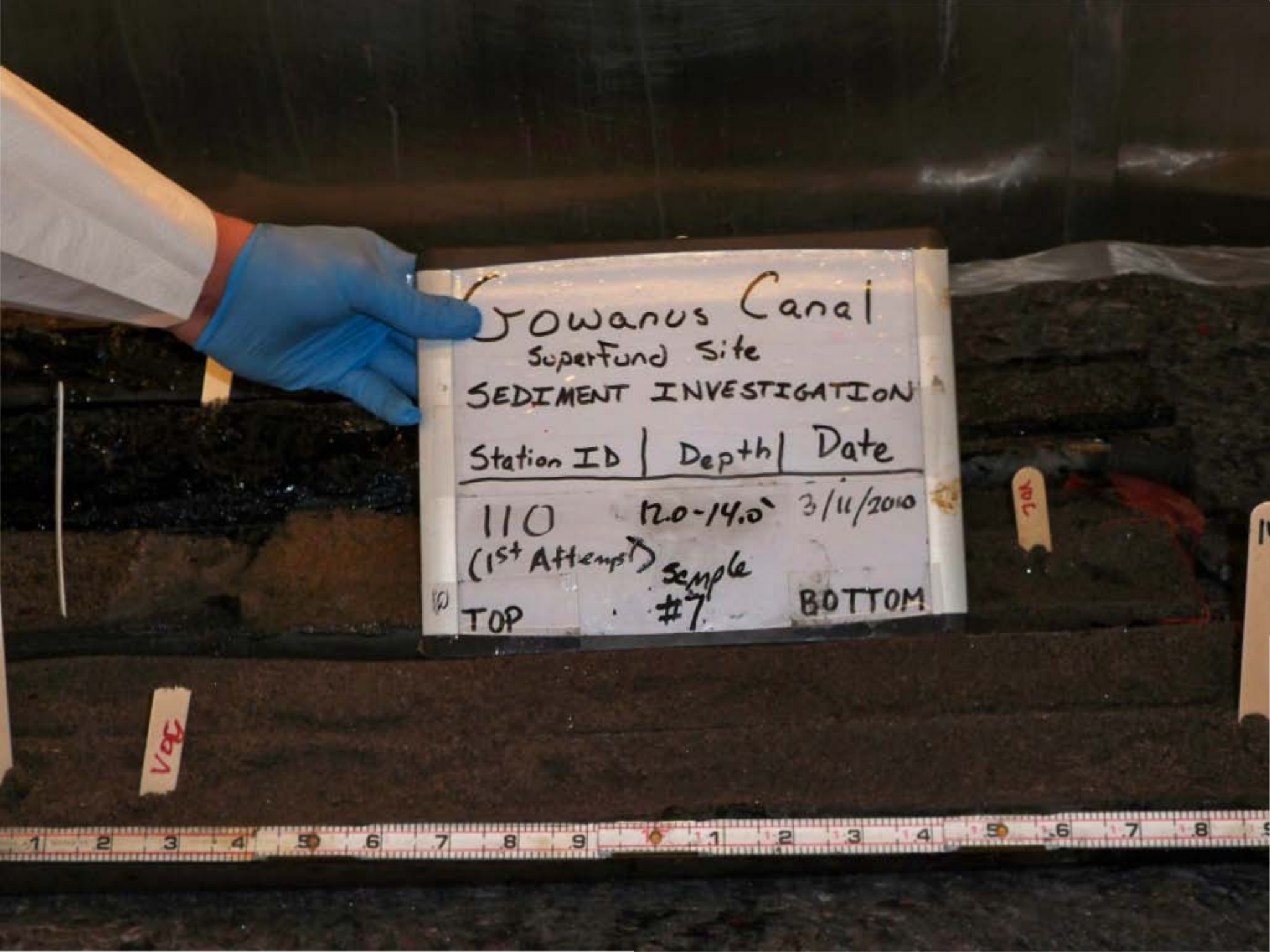
TOP BOTTOM

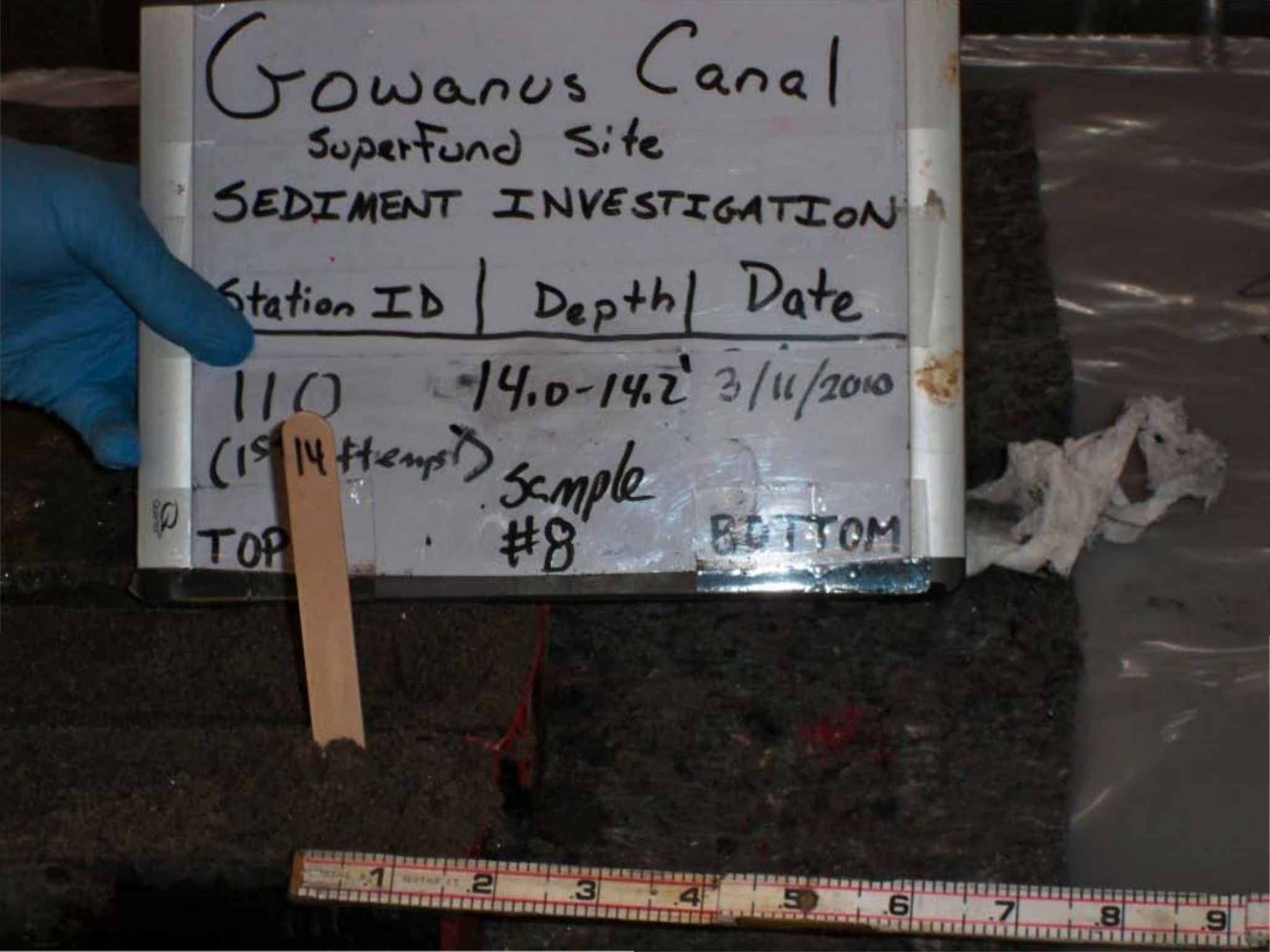

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
109 8.8-10.8 3/4/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) FULL RECOVERY 3/11/2010
TOP
BOTTOM

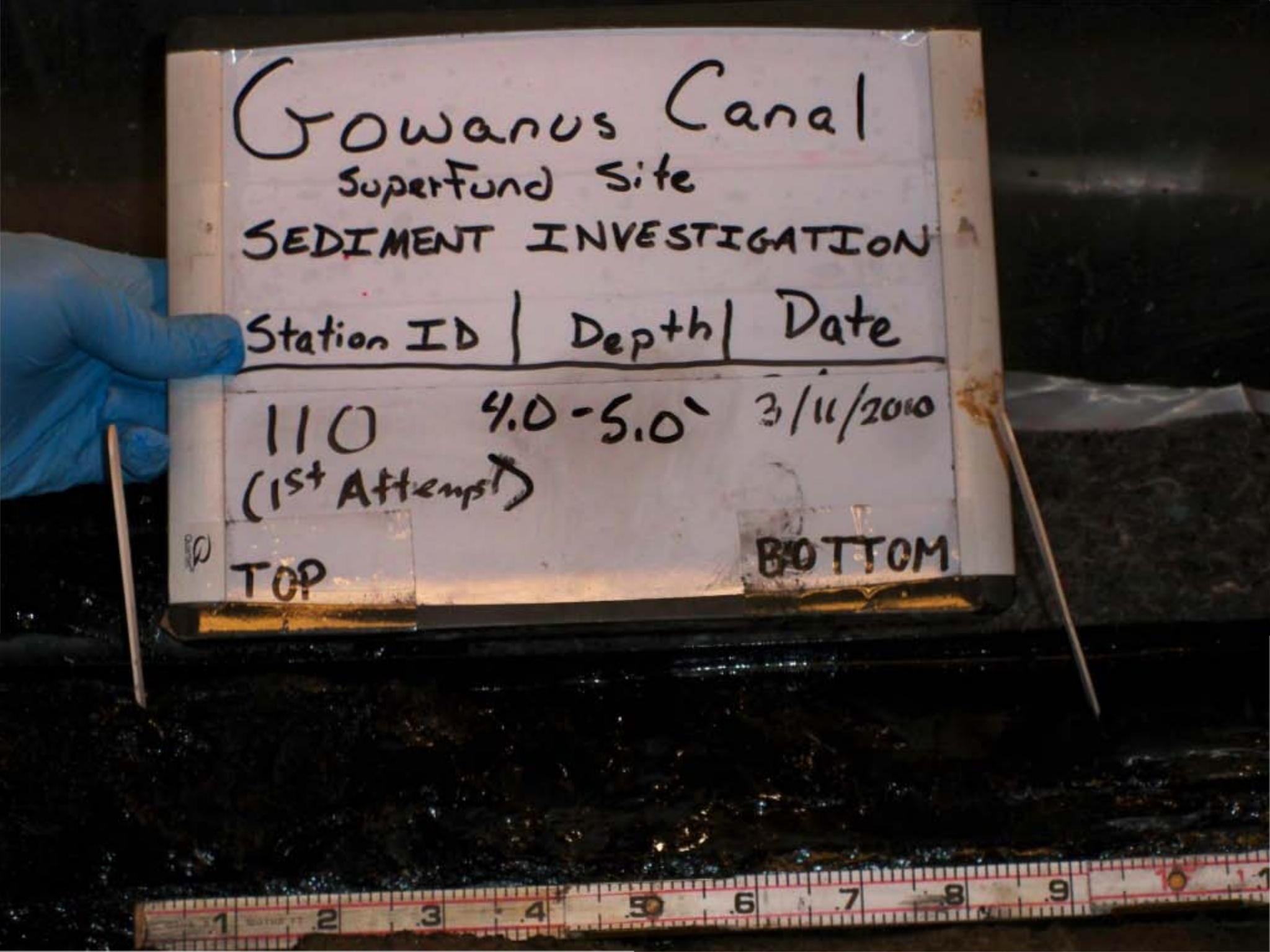

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 0.0-2.0' 3/11/2010
(1st Attempt) sample #1
TOP
BOTTOM

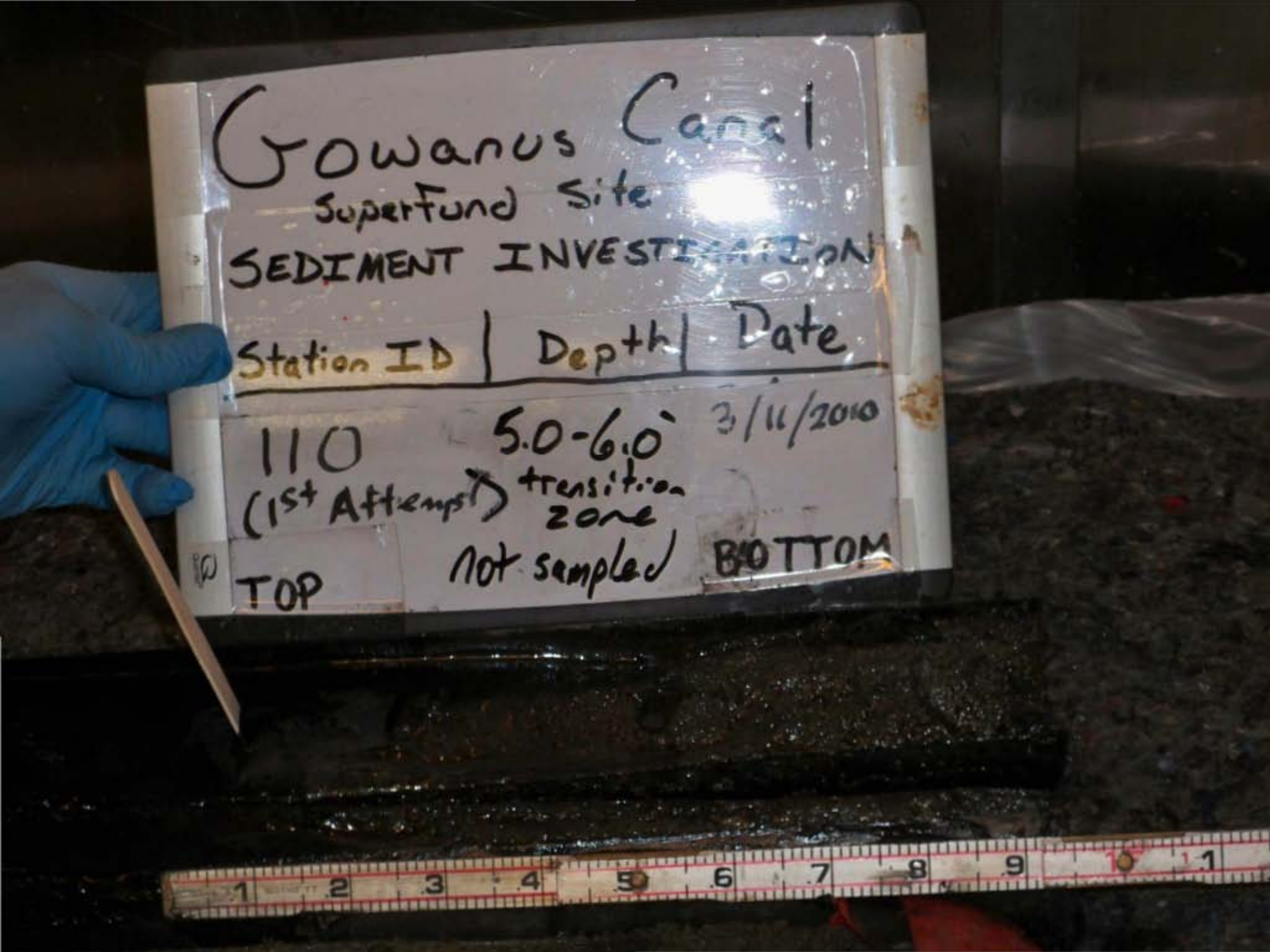

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 10.0-12.0' 3/11/2010
(1st Attempt) Sample
TOP #6 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 12.0-14.0' 3/11/2010
(1st Attempt) Sample #7
TOP BOTTOM
VOC

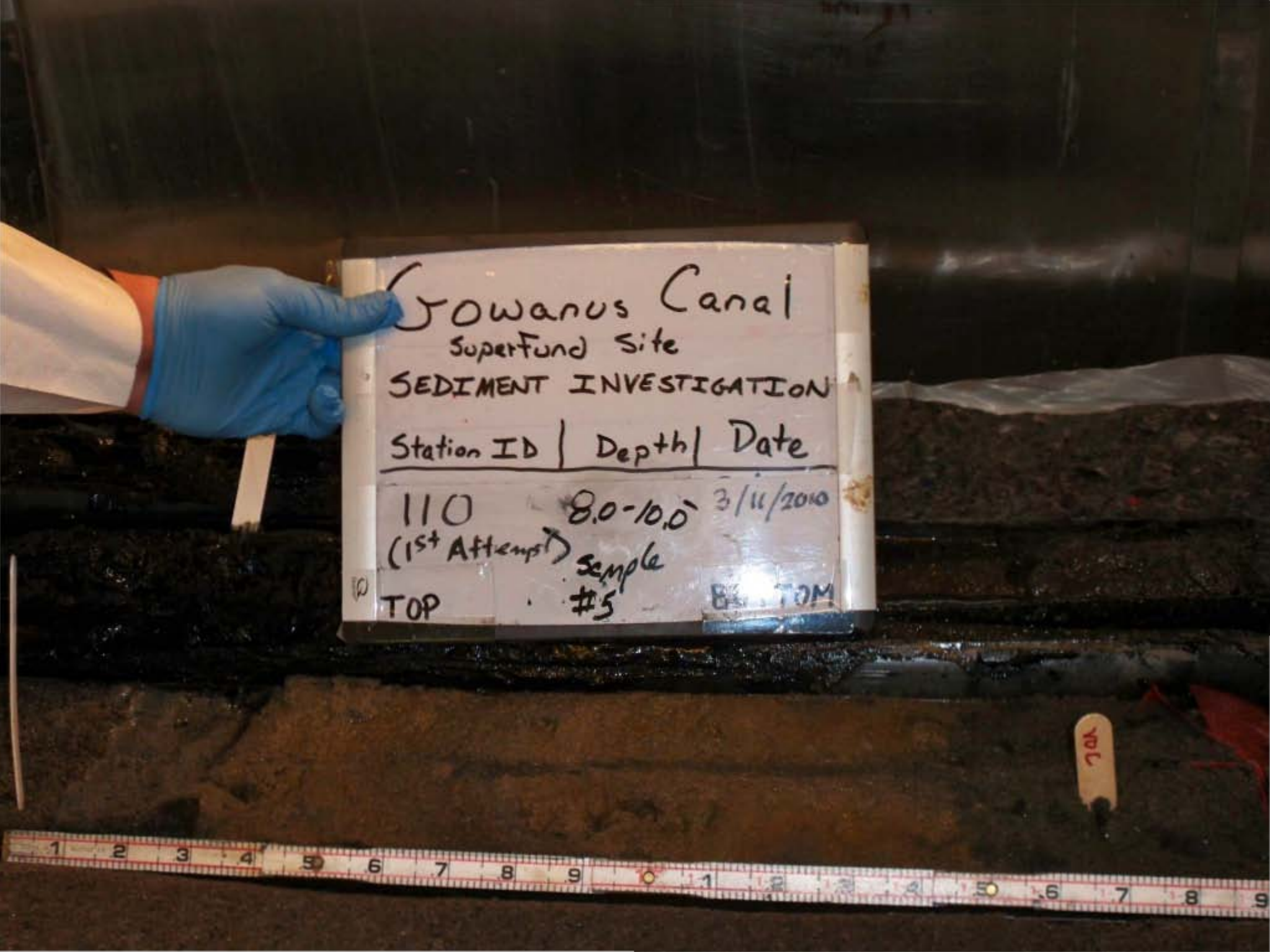

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 | 14.0-14.2' | 3/11/2010
(19 14 attempts)
Sample #8
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 2.0-4.0' 3/11/2010
(1st Attempt) Sample
#2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 4.0-5.0' 3/11/2010
(1st Attempt)
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 5.0-6.0' 3/11/2010
(1st Attempt) transition zone
TOP not sampled BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110
6.0-8.0
(1st Attempt)
Sample
#4
TOP
BOTTOM

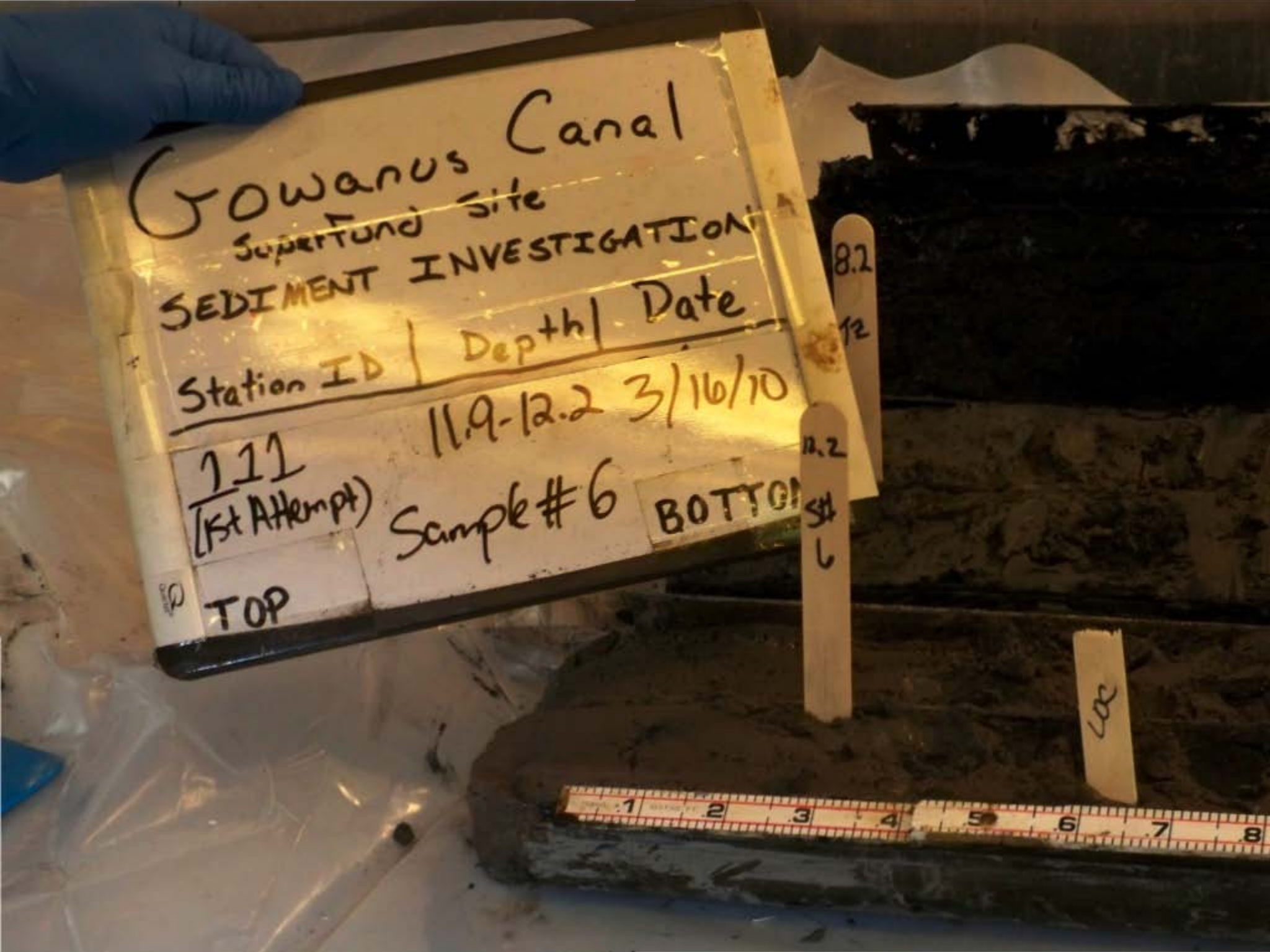

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 8.0-10.0' 3/11/2010
(1st Attempt) Sample
TOP #5
BOTTOM

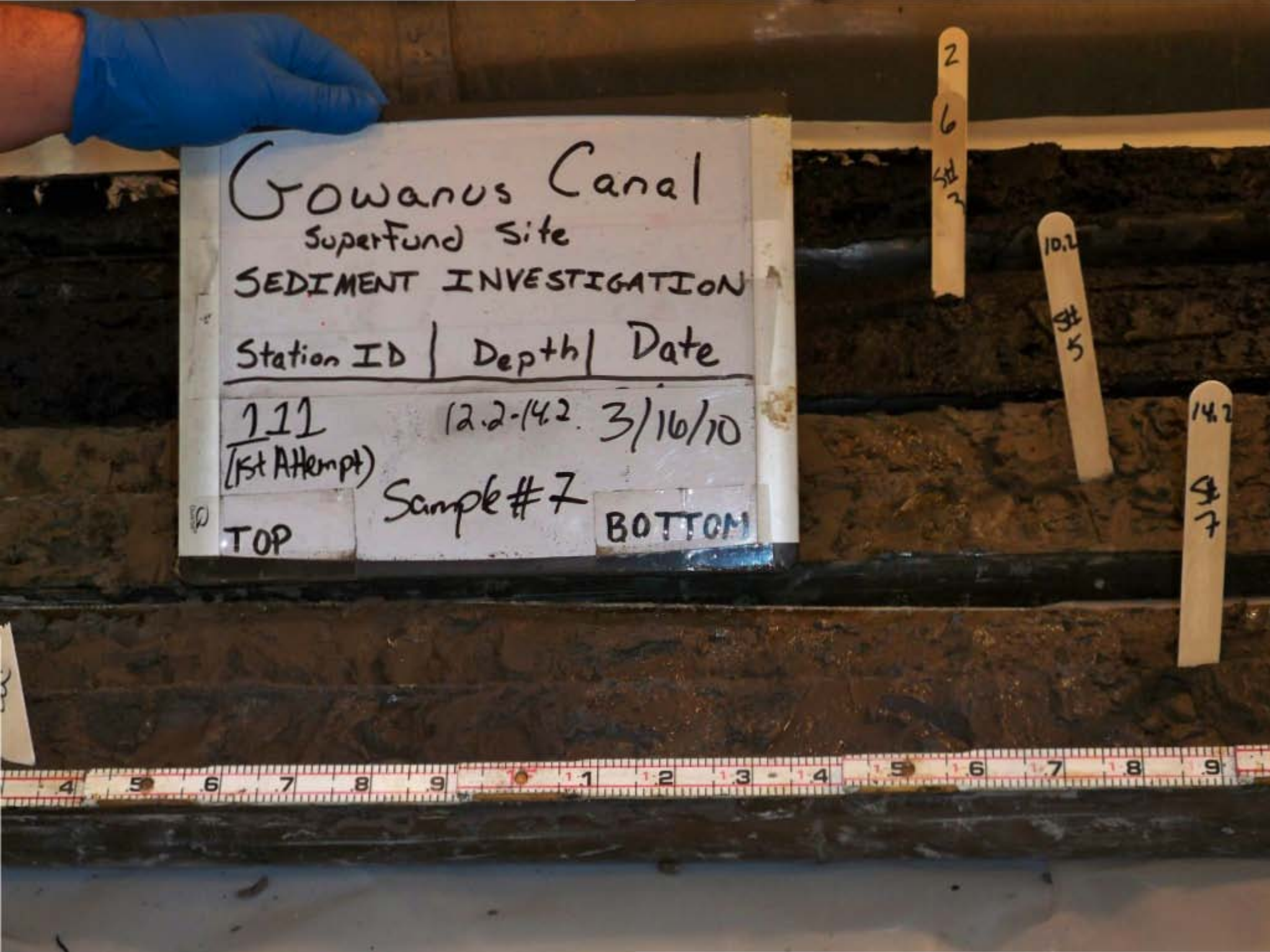

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
110 FULL 3/11/2010
(1st Attempt) RECOVERY
TOP
BOTTOM

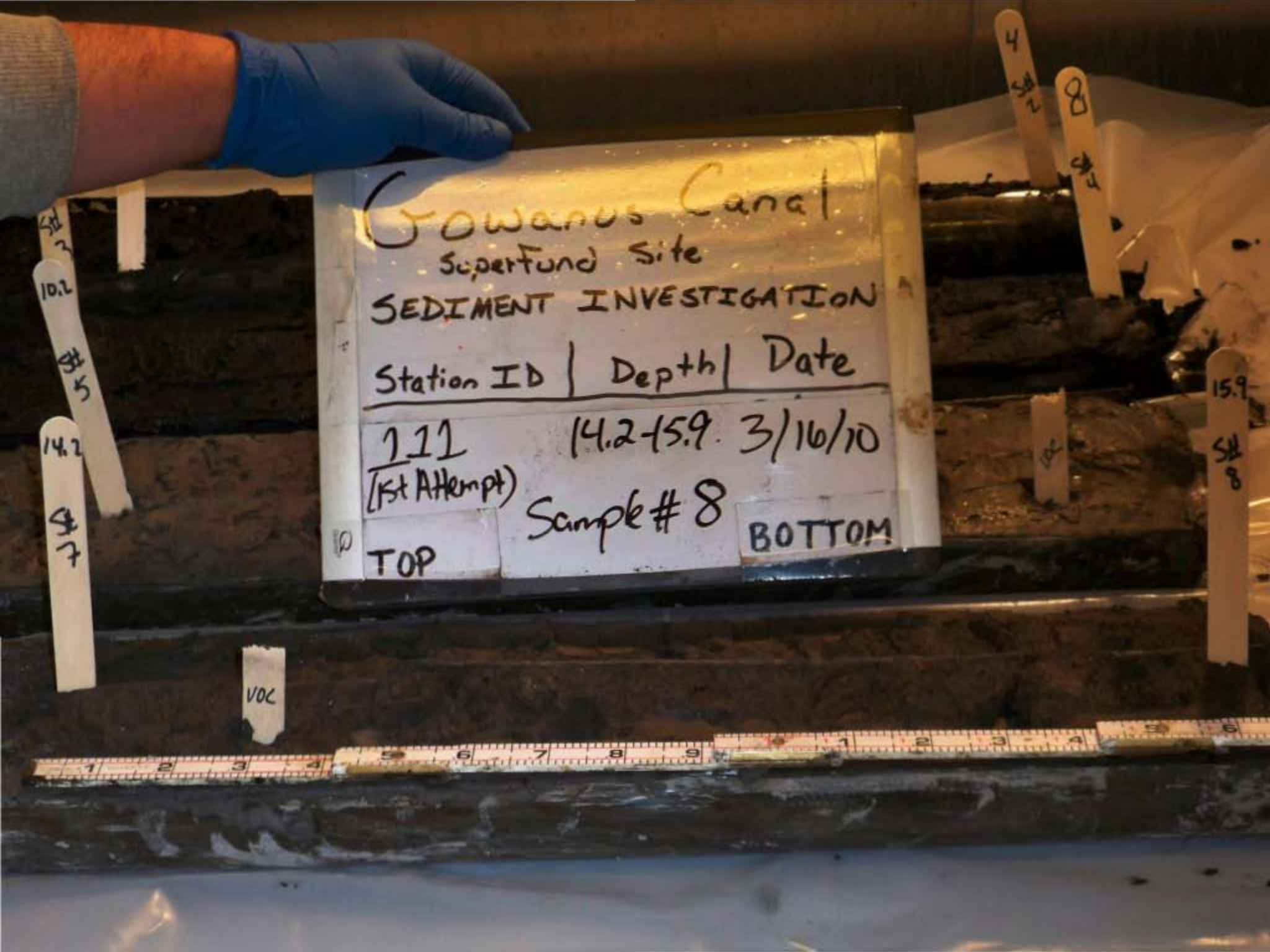

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station | Depth | Date
111 FULL 3/16/10
(1st Attempt) RECOVERY
TOP
BOTTOM

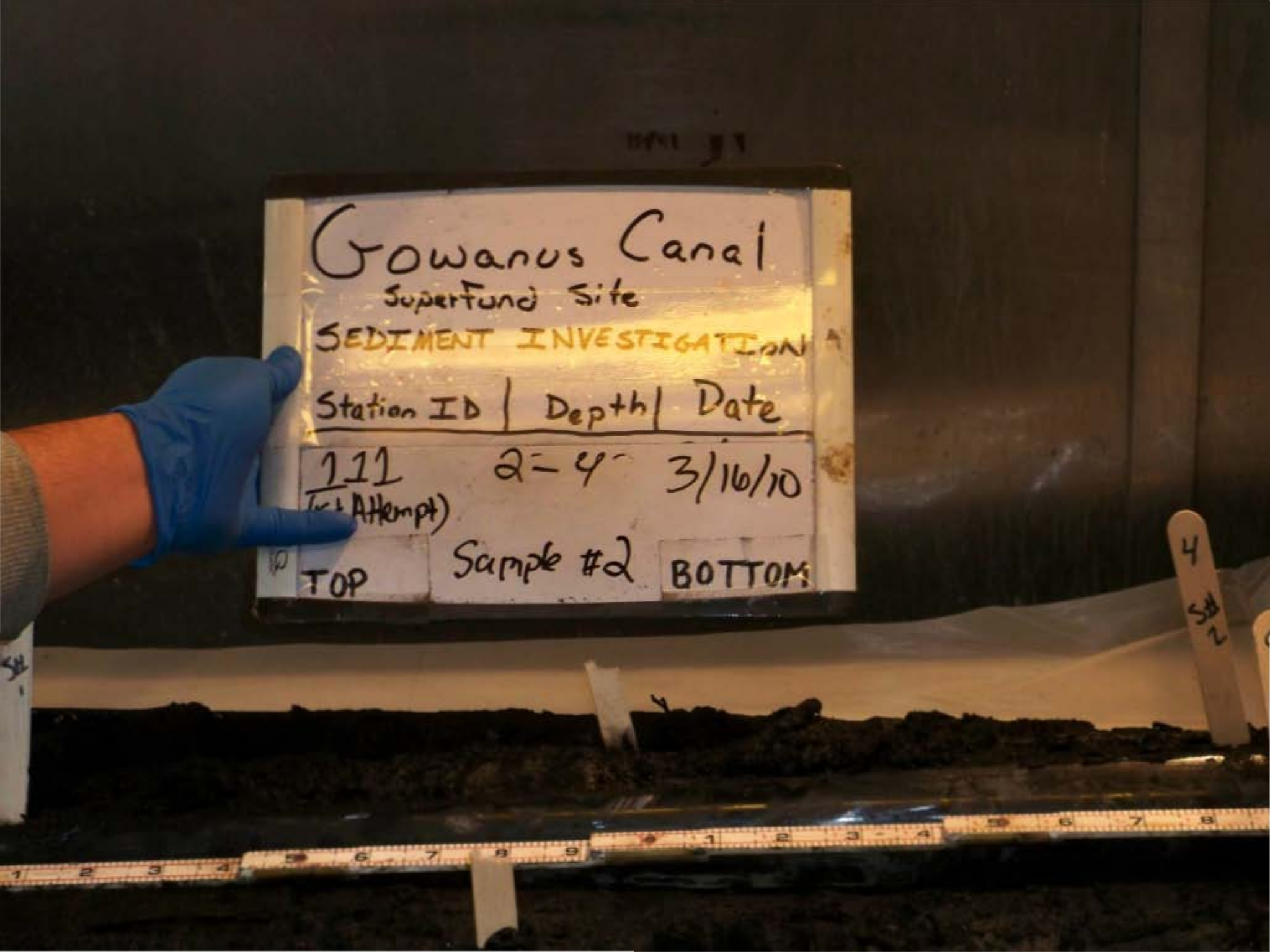

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) 0'-2' 3/16/10
TOP
Sample #1
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) 10.2-11.9 3/16/10
Sample #
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111
(1st Attempt)
11.9-12.2 3/16/10
Sample #6
BOTTO
TOP
8.2
12
12.2
S#
6
LOC

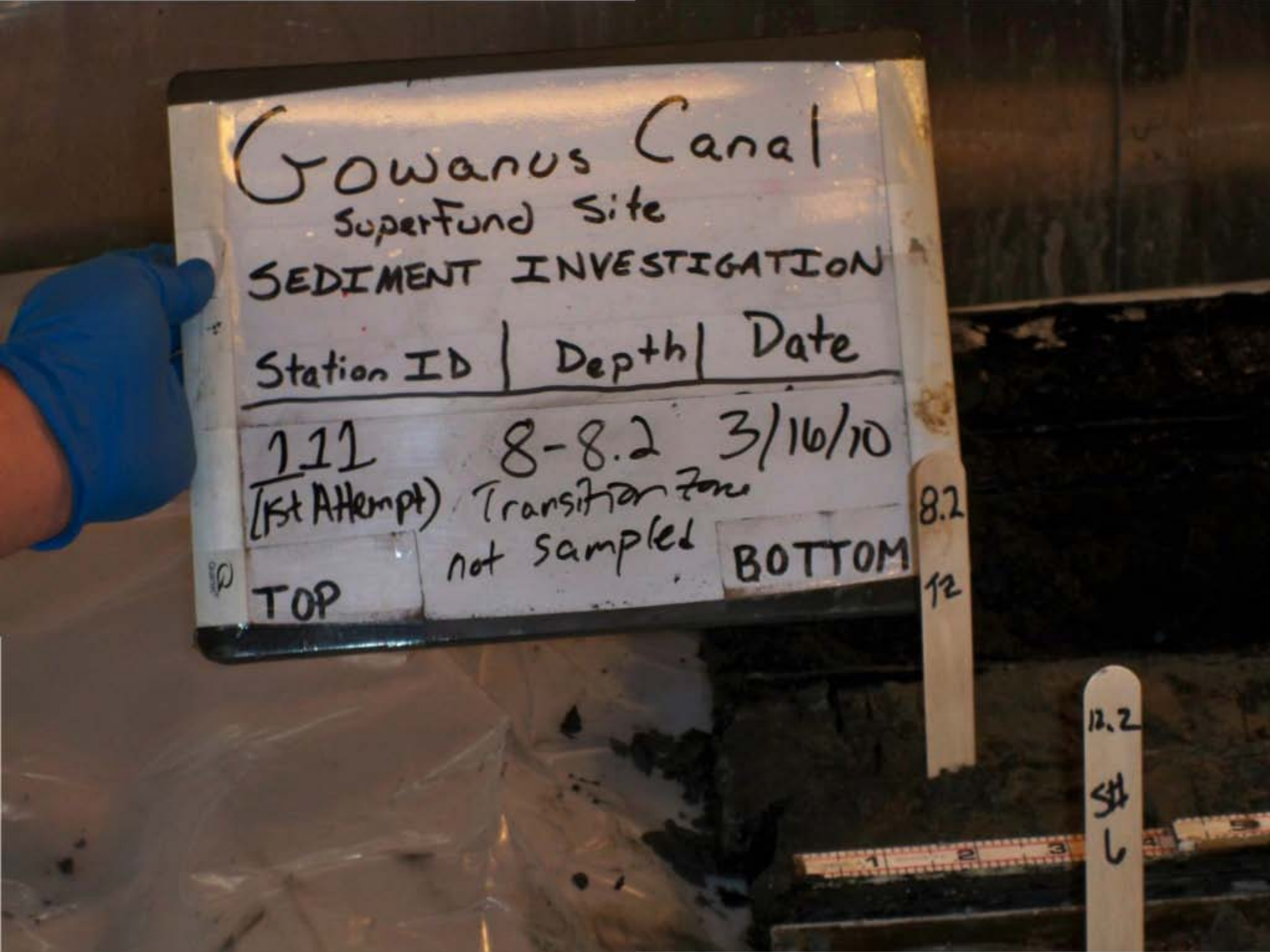

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) 12.2-14.2 3/16/10
Sample #7
TOP
BOTTOM
2
6
10.2
5
14.2
7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) 14.2-15.9 3/16/10
Sample # 8
TOP
BOTTOM
VOC


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) 2-4' 3/16/10
TOP Sample #2 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Dat
111
(1st Attempt)
4'-6"
3/16/10
TOP
Sample #3
BOTTOM

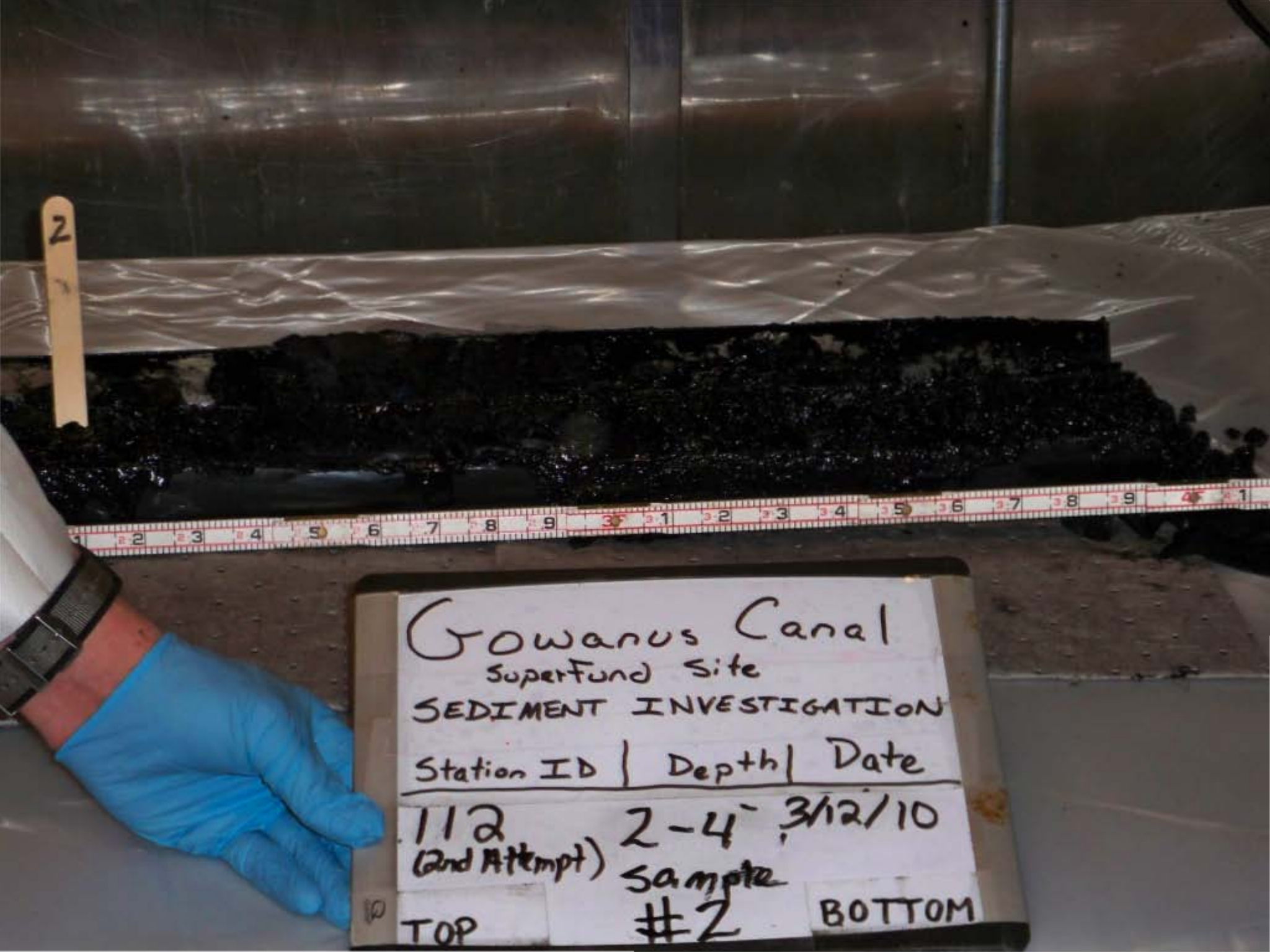

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) 6'-8' 3/16/10
TOP Sample #4 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 8-8.2 3/16/10
(1st Attempt) Transition zone
not sampled
TOP
BOTTOM
8.2
12
12.2
SH
L

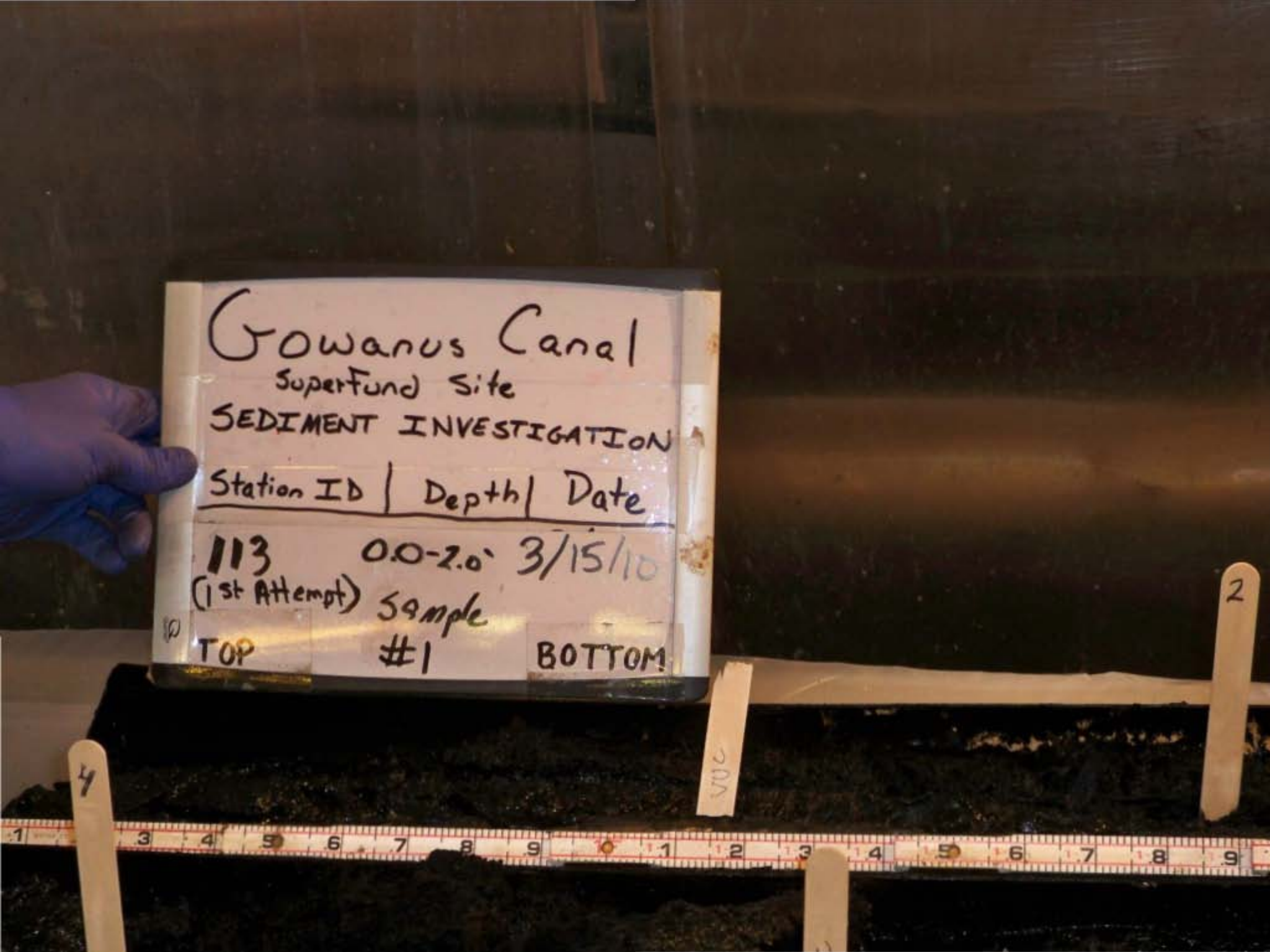

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111
(1st Attempt)
8.2-10.2
3/16/10
Sample #5
TOP
BOTTOM
VOC
VOC

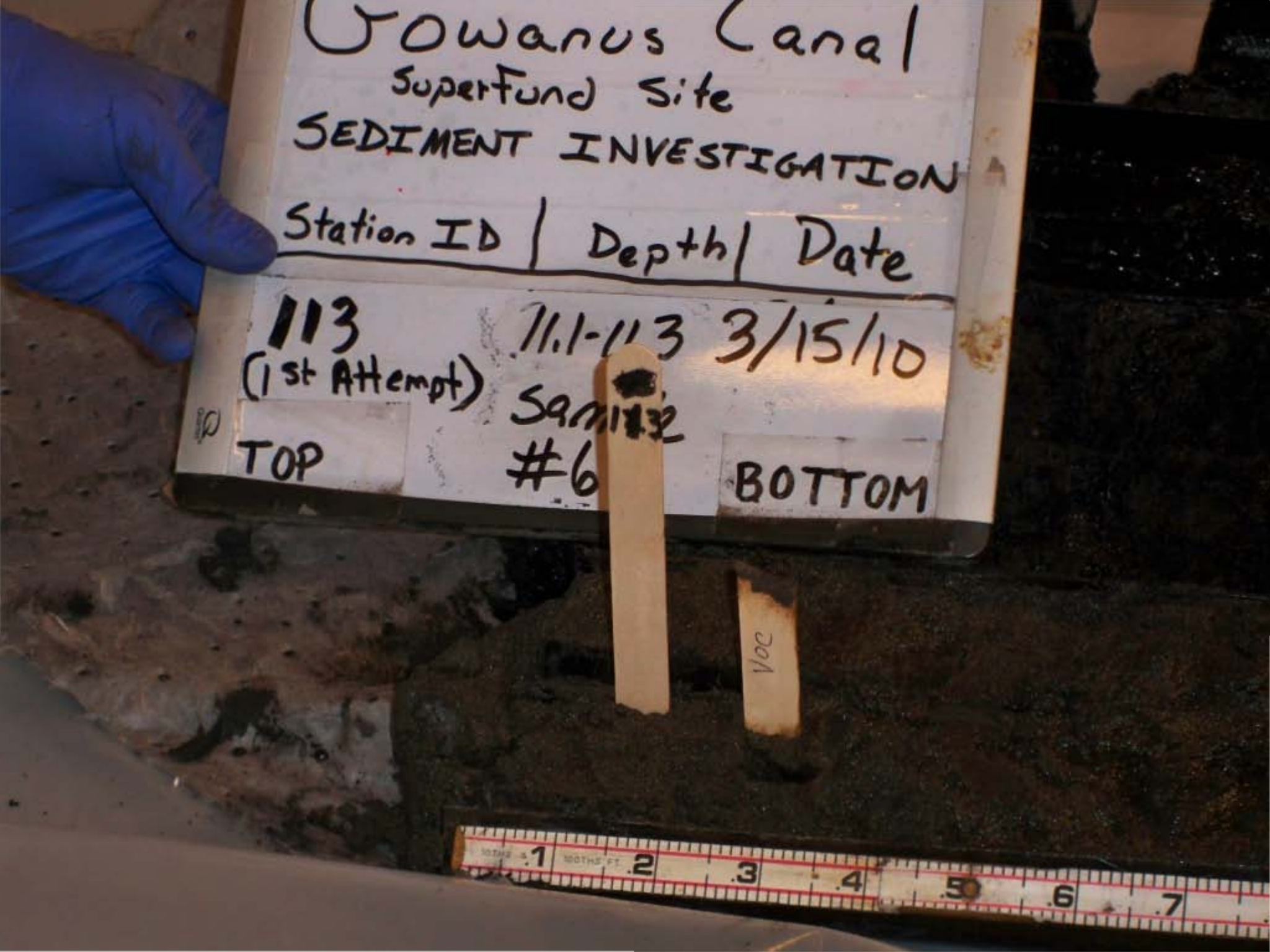

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) FULL RECOVERY 3/16/10
TOP
BOTTOM

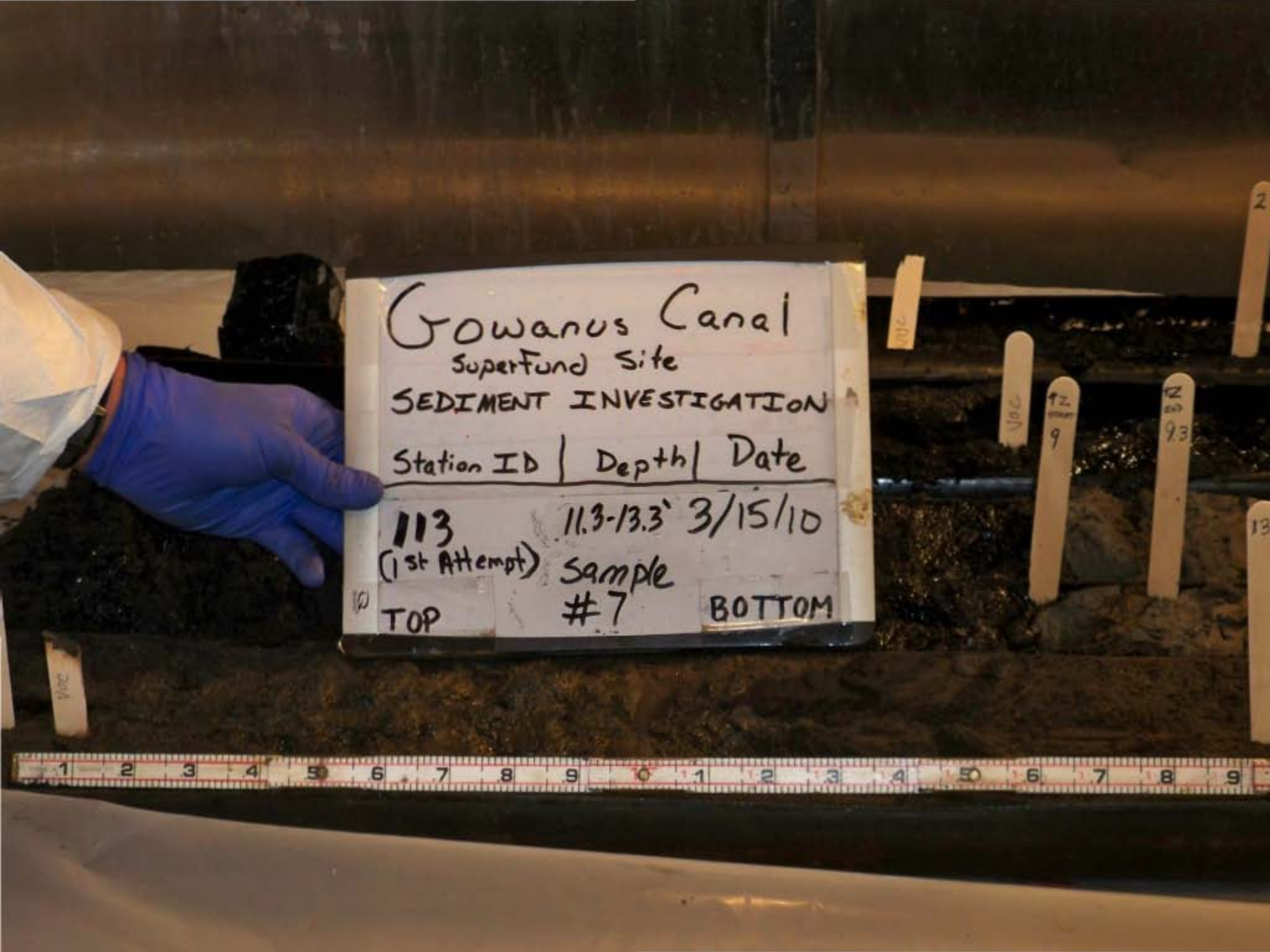

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
112 (2nd Attempt) 0-2` 3/12/10
sample #1
TOP
BOTTOM

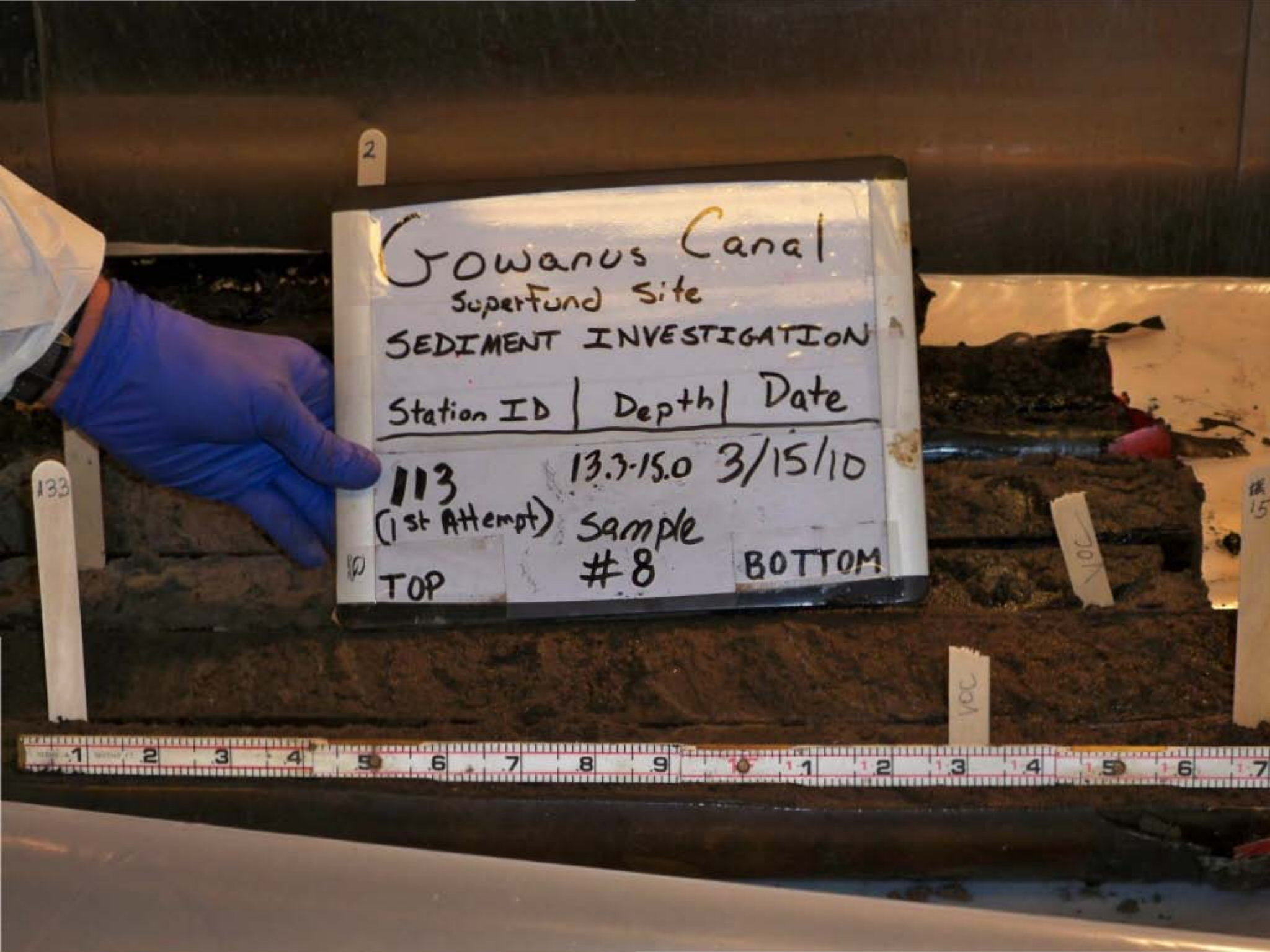

2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
112 (2nd Attempt) 2-4" 3/12/10
sample #2
TOP
BOTTOM

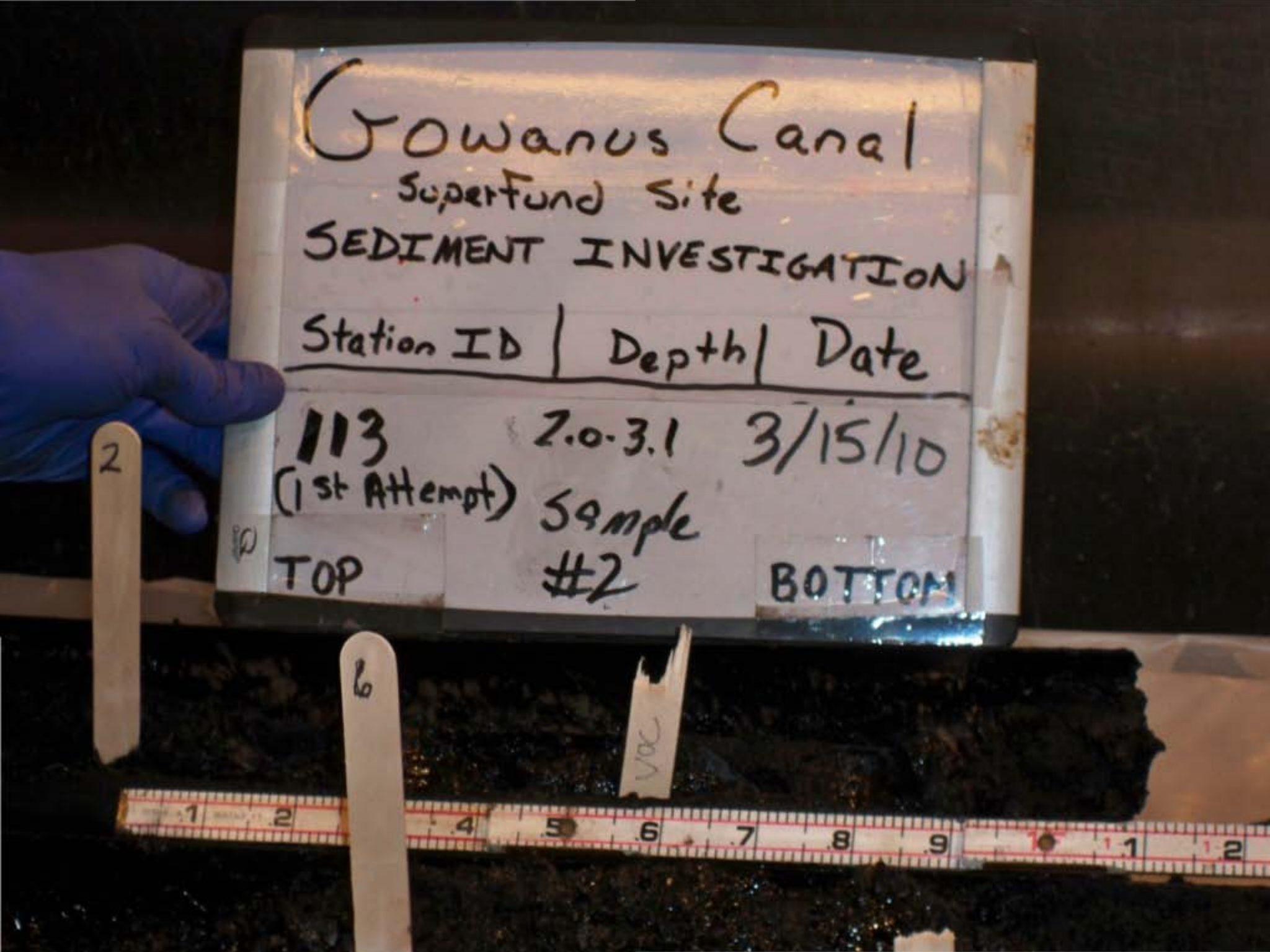

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
112 (2nd Attempt) FULL RECOVERY 3/12/10
TOP
BOTTOM
2

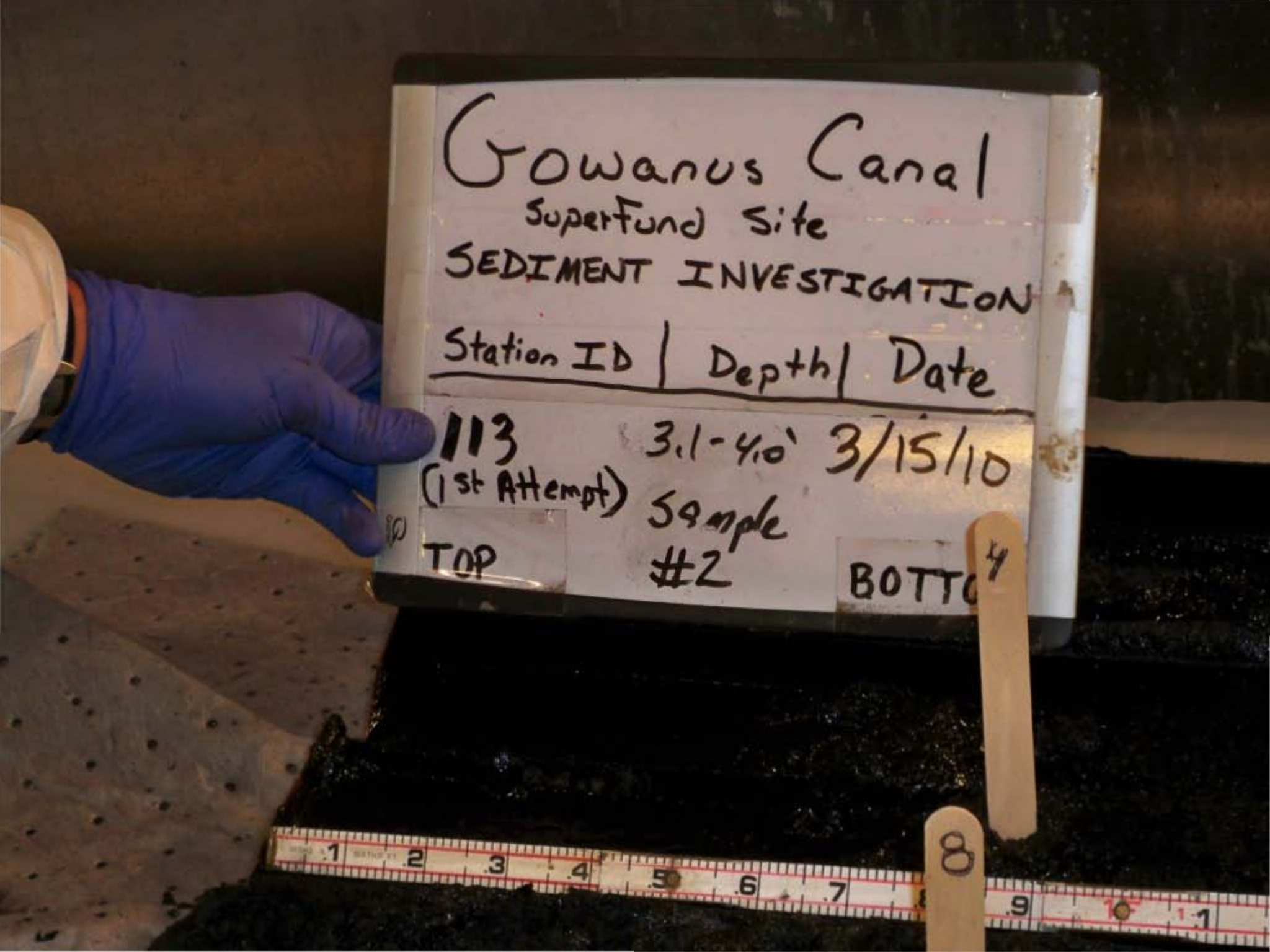

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 0.0-2.0' 3/15/10
(1st Attempt) Sample
TOP #1 BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113
(1st Attempt)
11.1-113
3/15/10
Sam
#6
TOP
BOTTOM
VOC

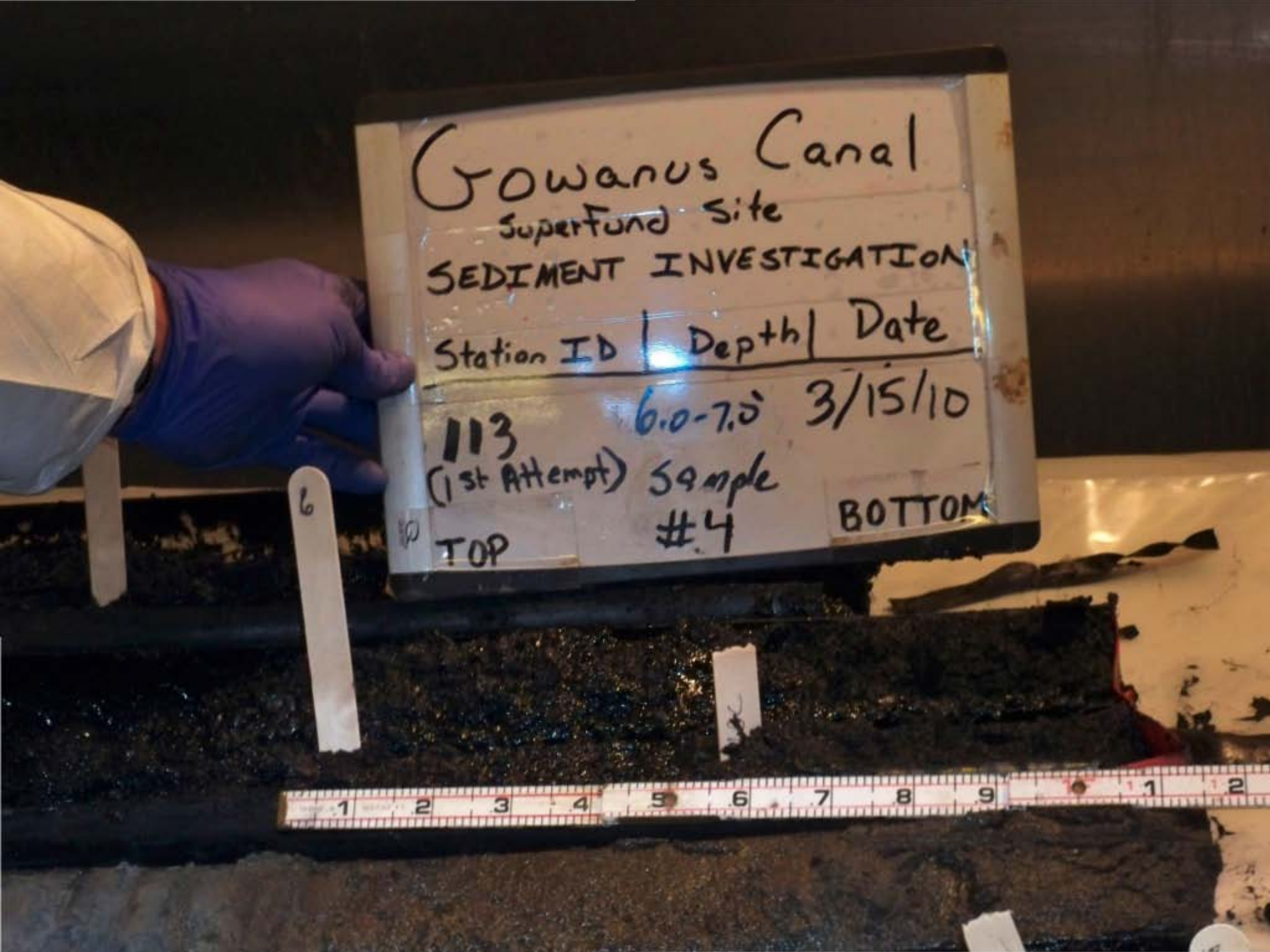

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 (1st Attempt) 11.3-13.3' 3/15/10
Sample #7
TOP
BOTTOM

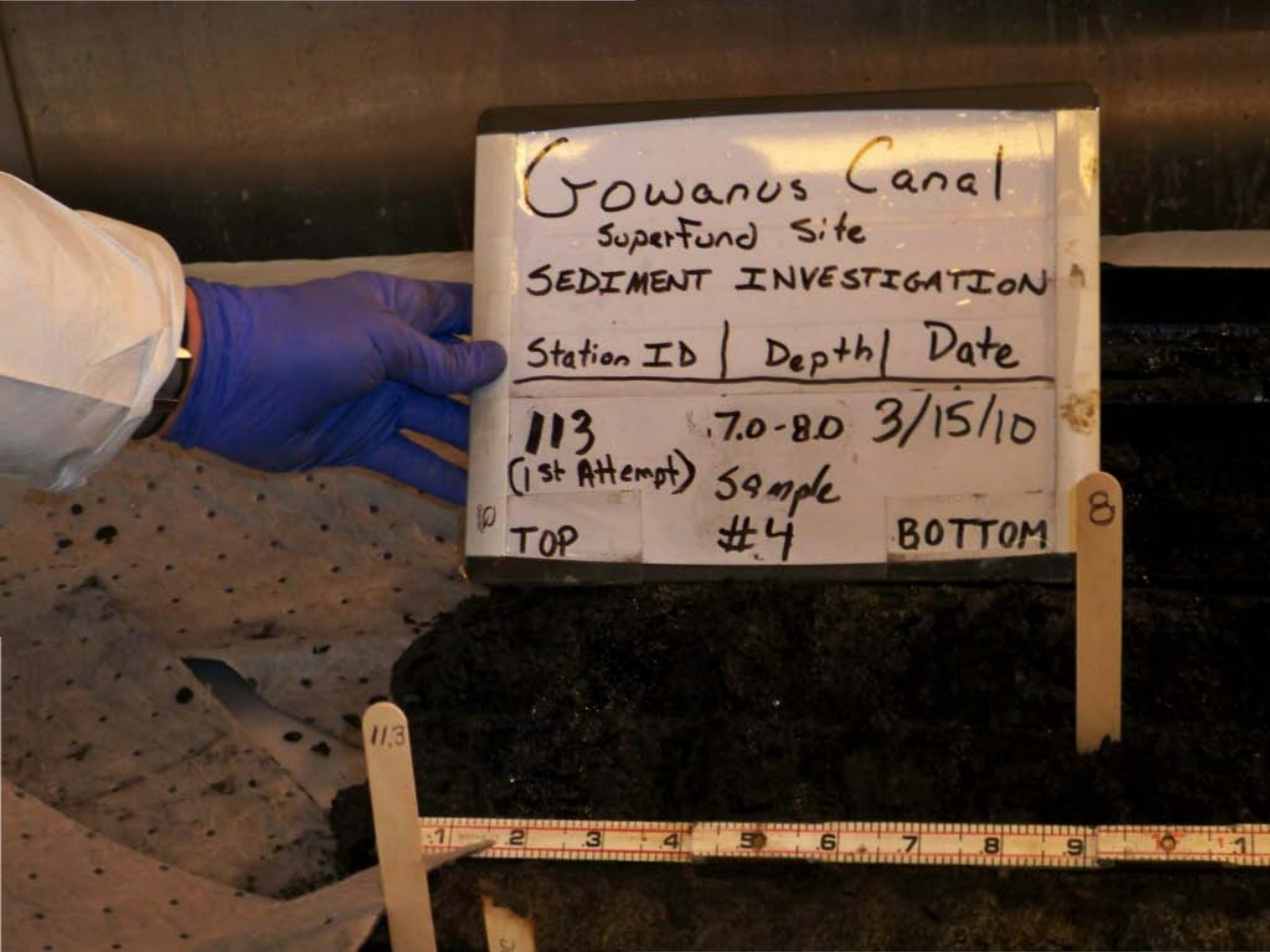

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 13.3-15.0 3/15/10
(1st Attempt) Sample
#8
TOP
BOTTOM
VOC
VOC

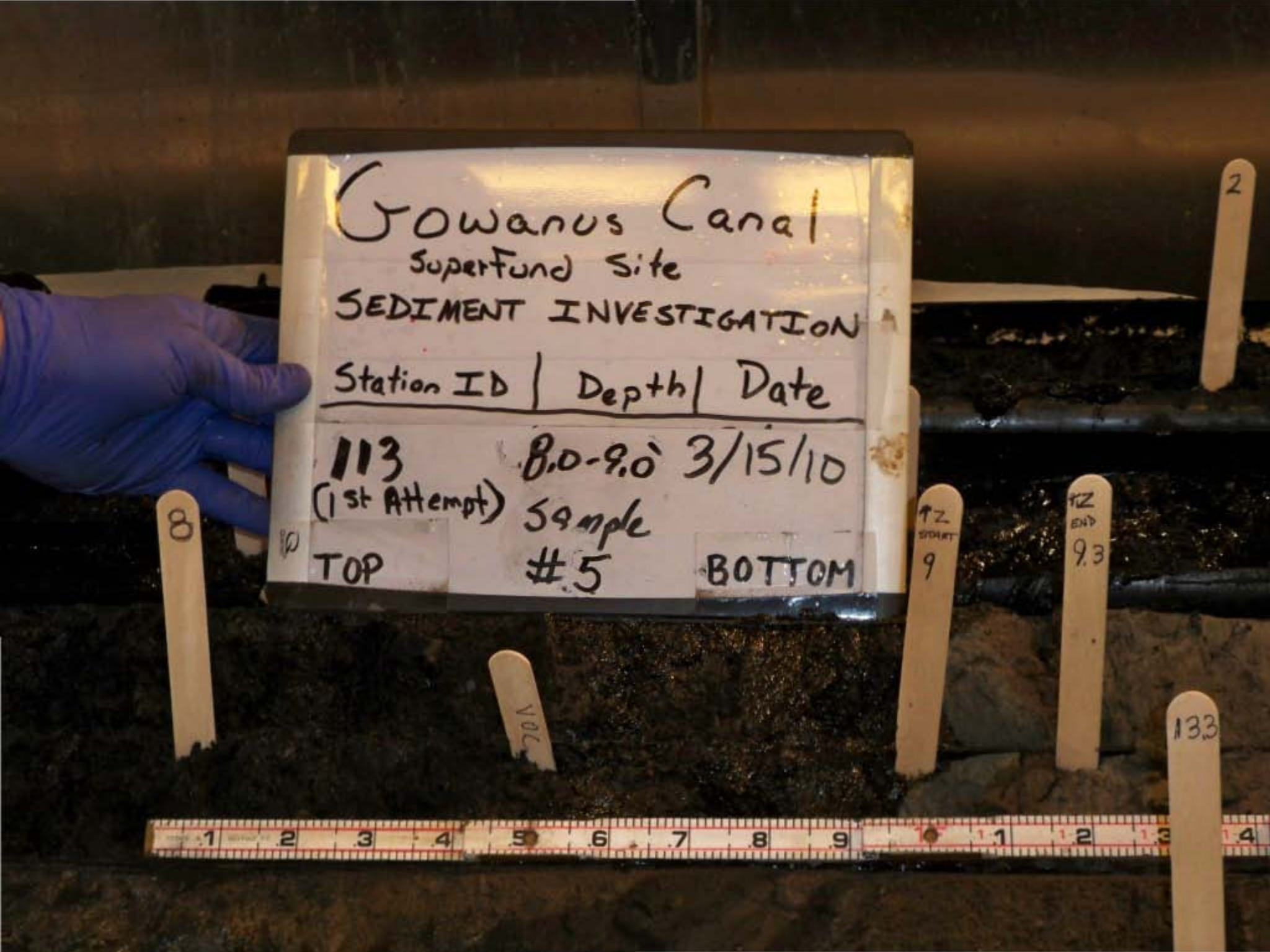

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 2.0-3.1 3/15/10
(1st Attempt) Sample
TOP #2 BOTTOM
2
6
VOC

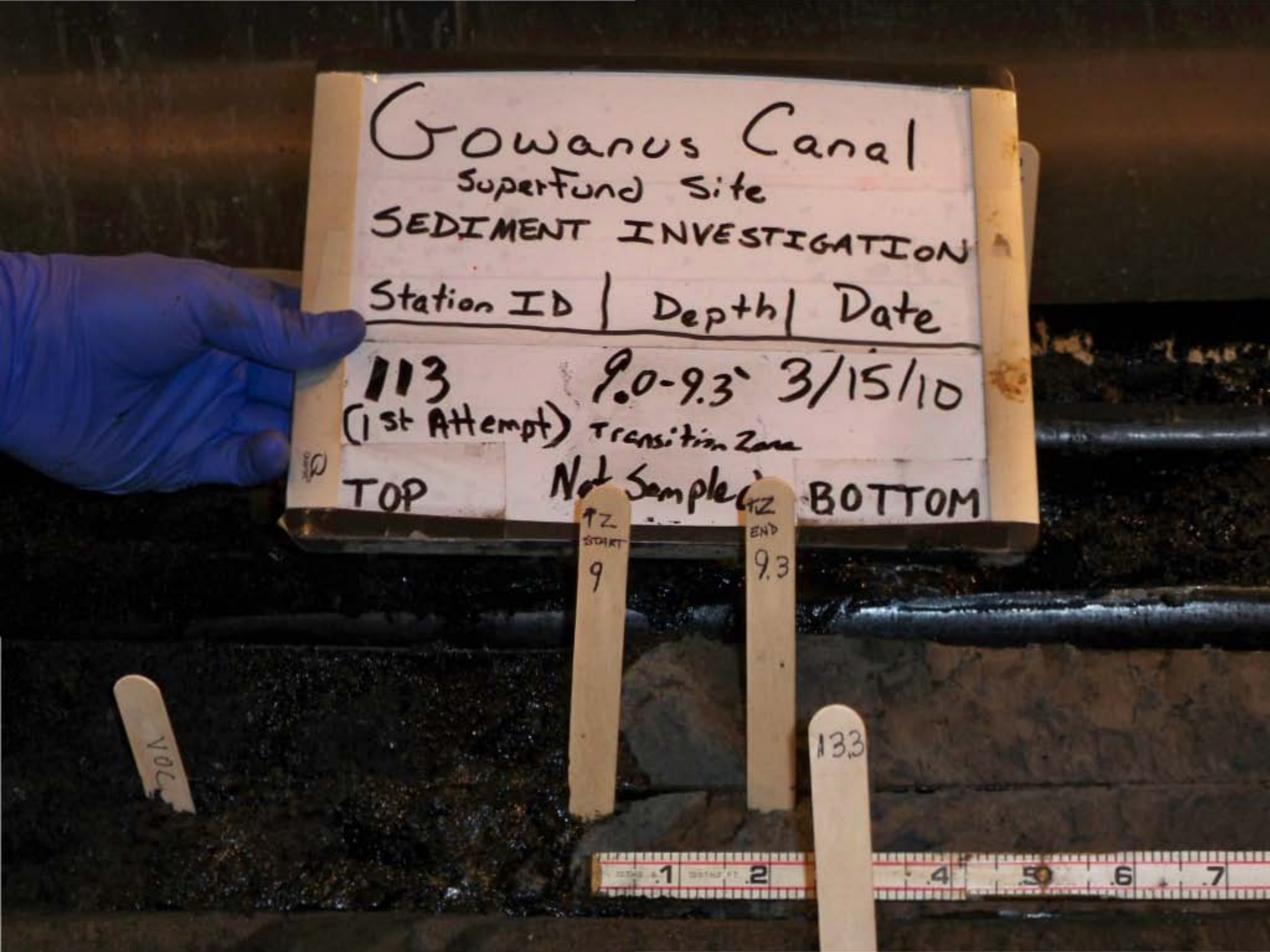

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113
3.1-4.0'
3/15/10
(1st Attempt)
Sample
#2
TOP
BOTTOM
8

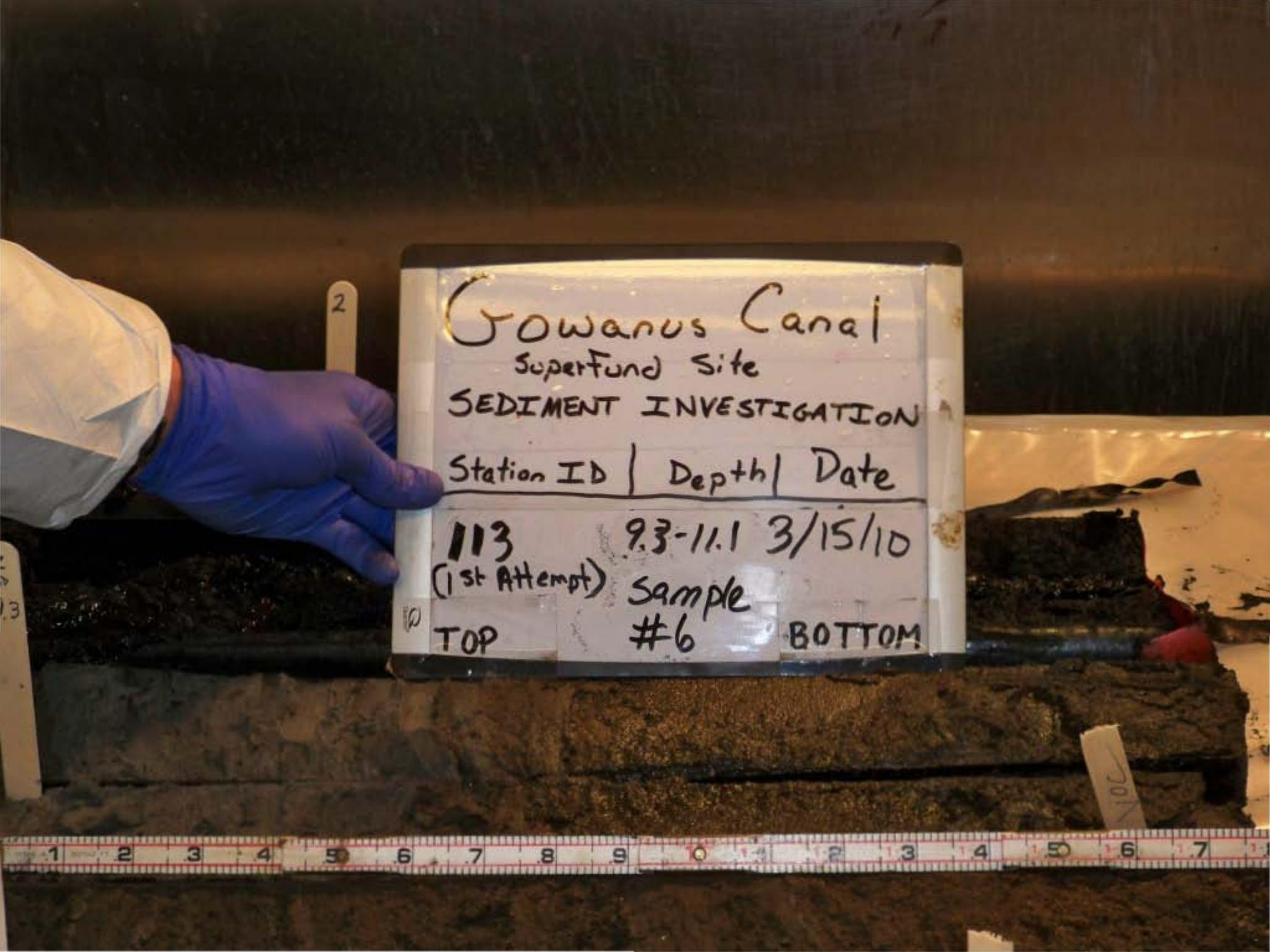

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 4.0-6.0' 3/15/10
(1st Attempt) Sample
TOP #3 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 6.0-7.0' 3/15/10
(1st Attempt) Sample
#4
TOP
BOTTOM
6

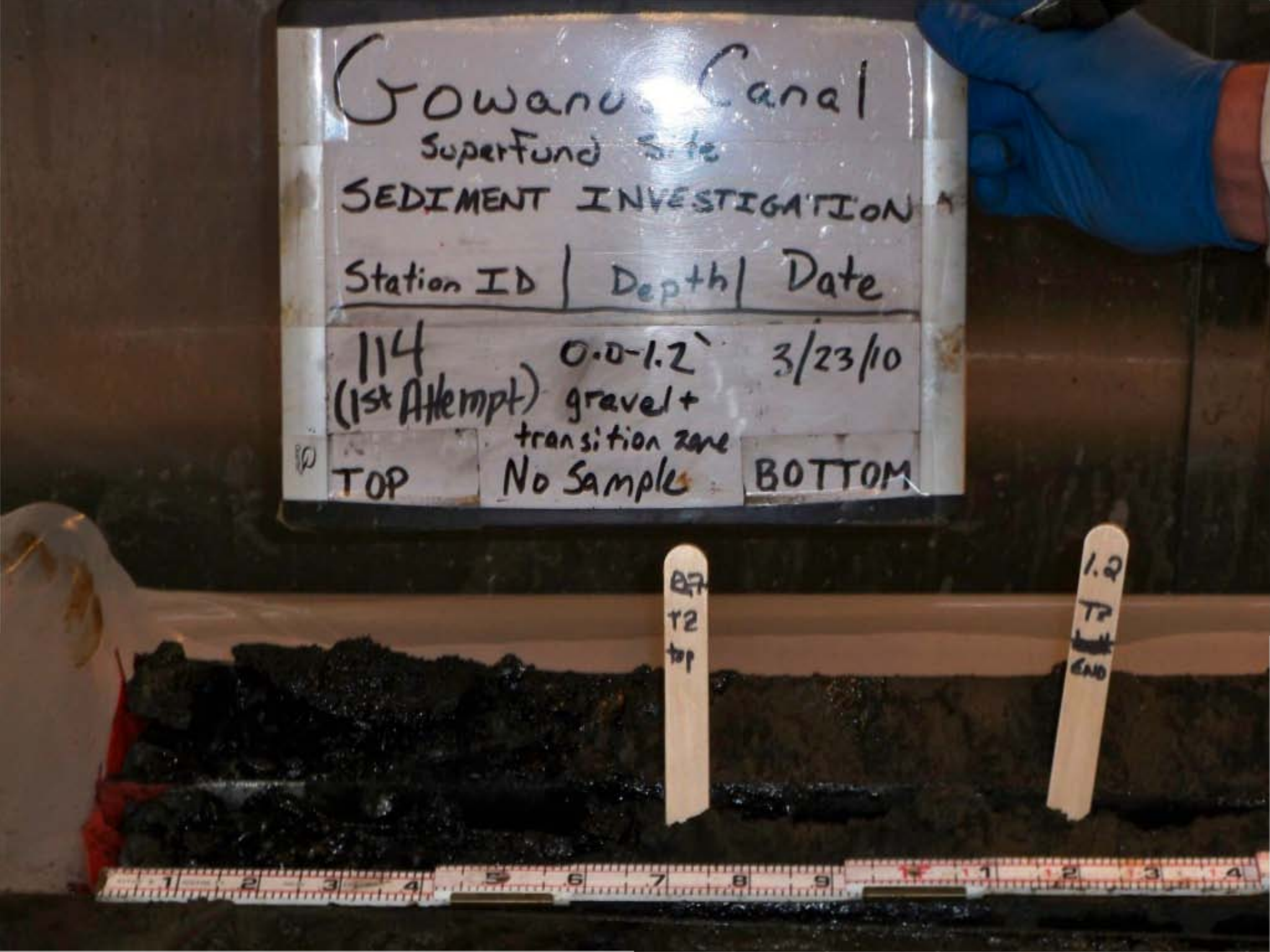

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 7.0-8.0 3/15/10
(1st Attempt) Sample
TOP #4 BOTTOM
10
8
11.3

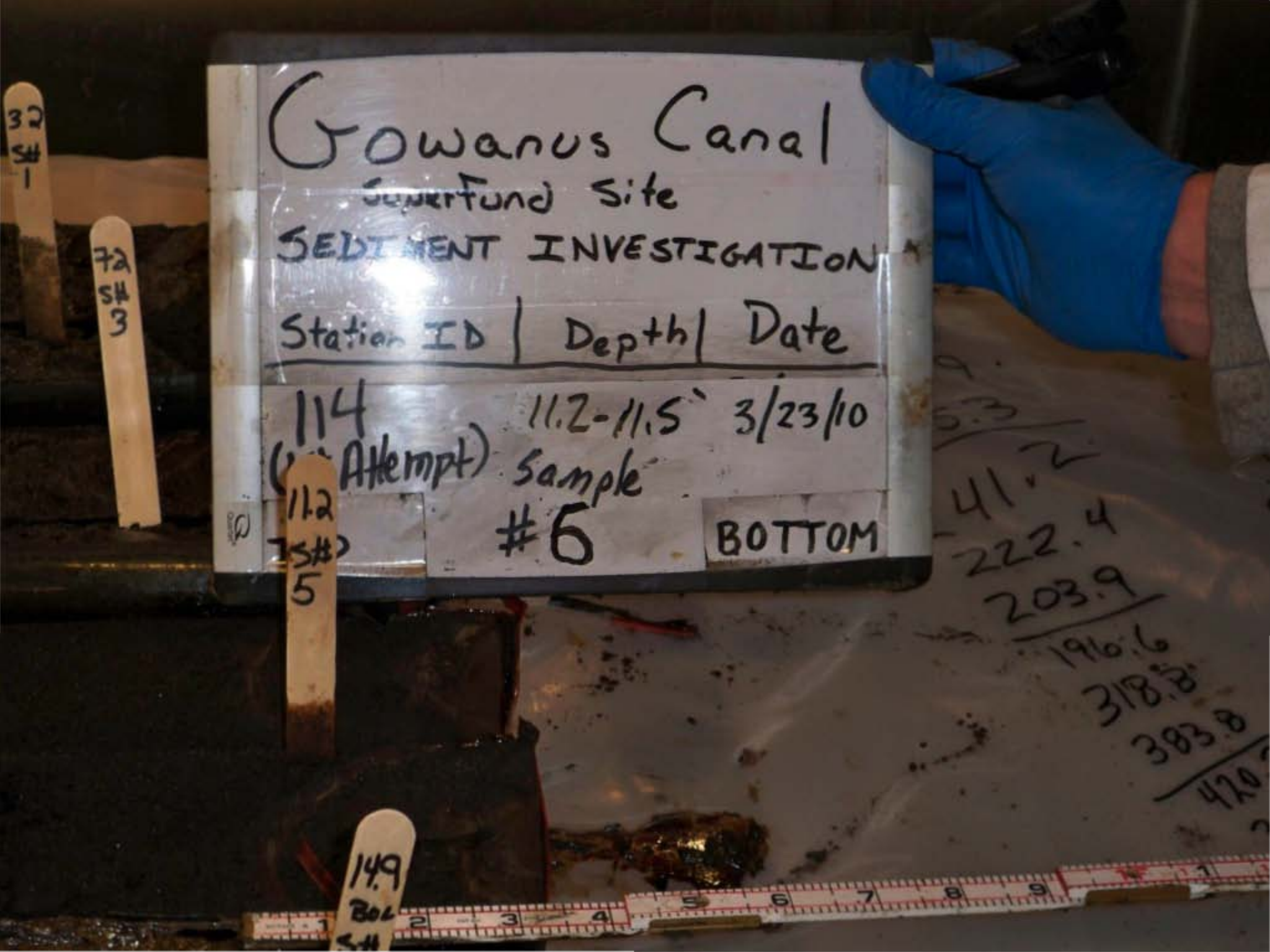

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 (1st Attempt) 8.0-9.0 3/15/10
Sample #5
TOP
BOTTOM
8
9
9.3
133

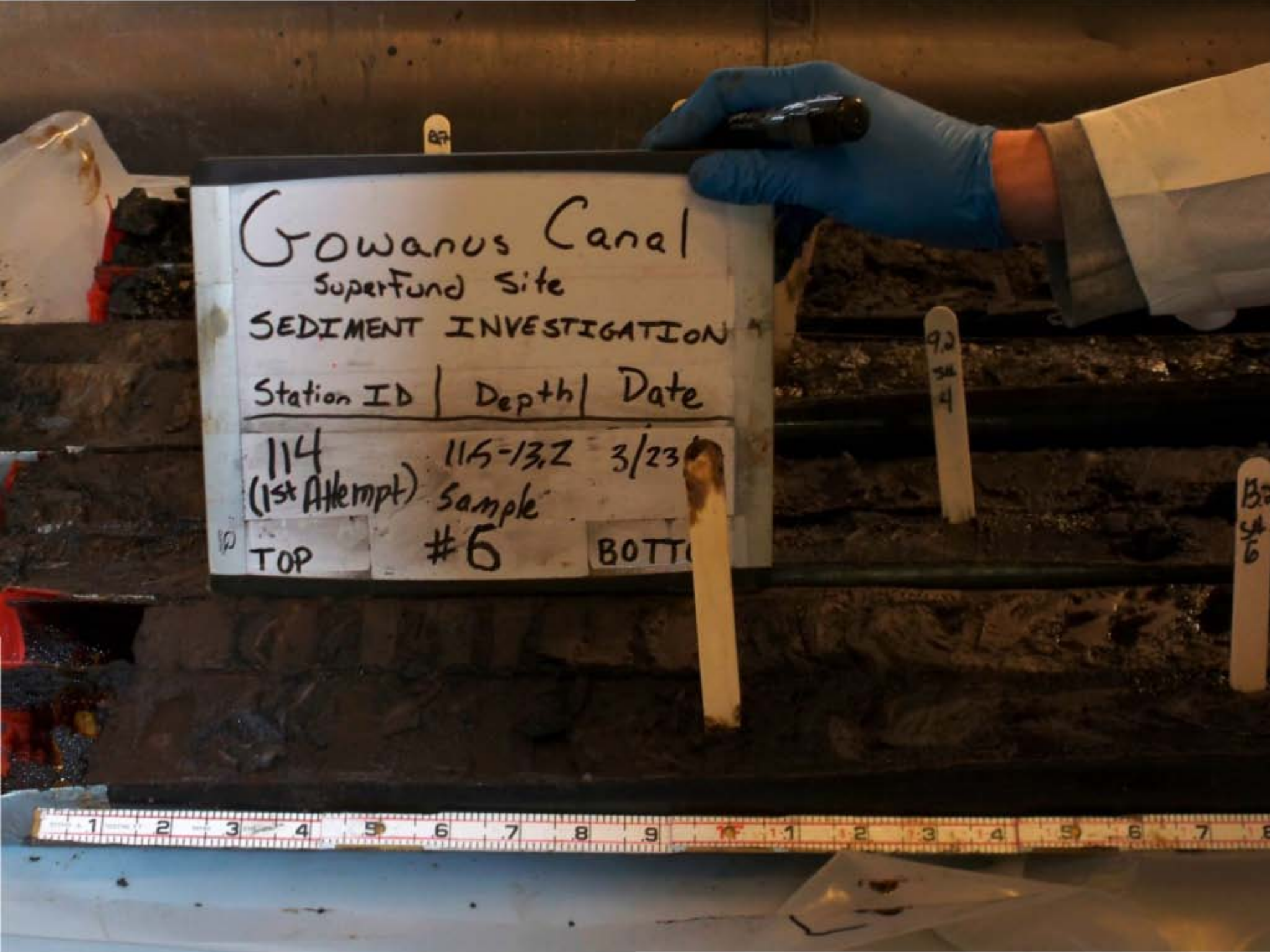

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 9.0-9.3' 3/15/10
(1st Attempt) Transition Zone
TOP Not Sampled BOTTOM
TZ START 9
TZ END 9.3
13.3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113 9.3-11.1 3/15/10
(1st Attempt) Sample
TOP #6 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
113
(1st Attempt) FULL RECOVERY 3/15/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) | 0.0-1.2' gravel + transition zone | 3/23/10
TOP | No Sample | BOTTOM
0.7 T2 top
1.2 T2 END

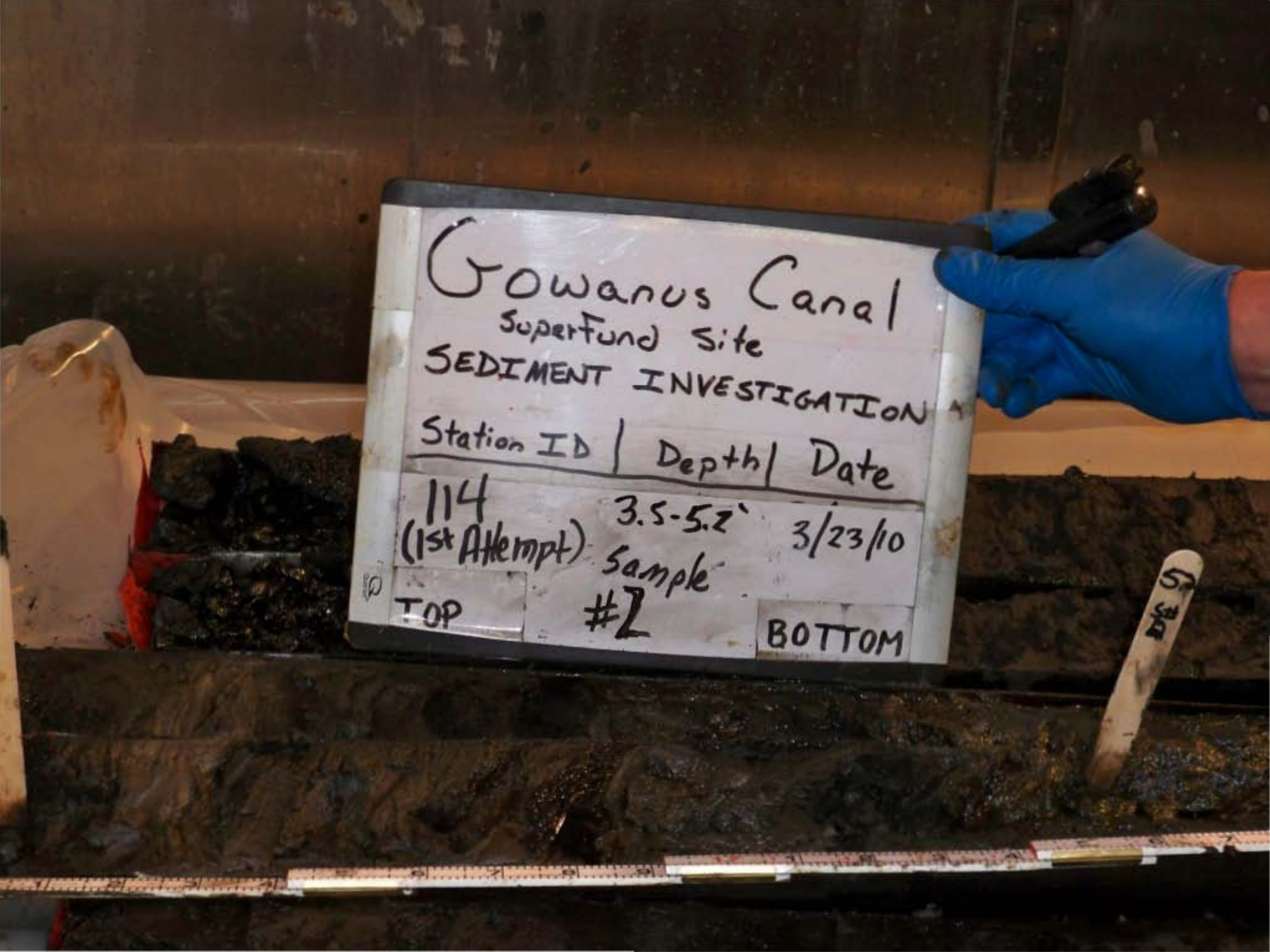

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) 11.2-11.5' 3/23/10
Sample #6
BOTTOM
32 SH 1
72 SH 3
112 SH 5
149 BOL SH
41.2
222.4
203.9
196.6
318.8
383.8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114
(1st Attempt)
11.5-13.2
Sample
#6
3/23
TOP
BOTT

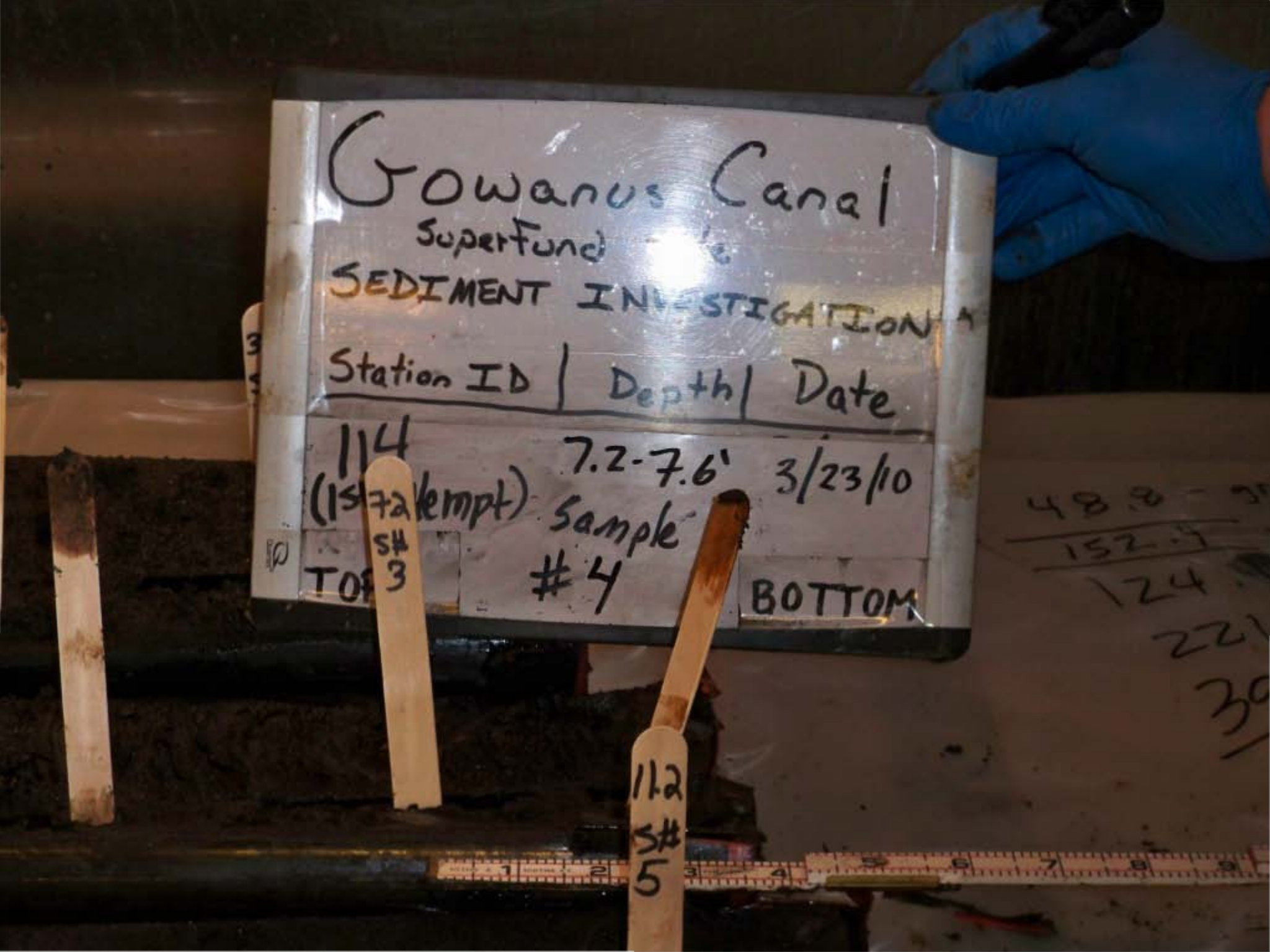

Gowanus Canal
Superfund
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) 13.2-14.9 3/23/10
Sample #7
TOP
BOTTOM

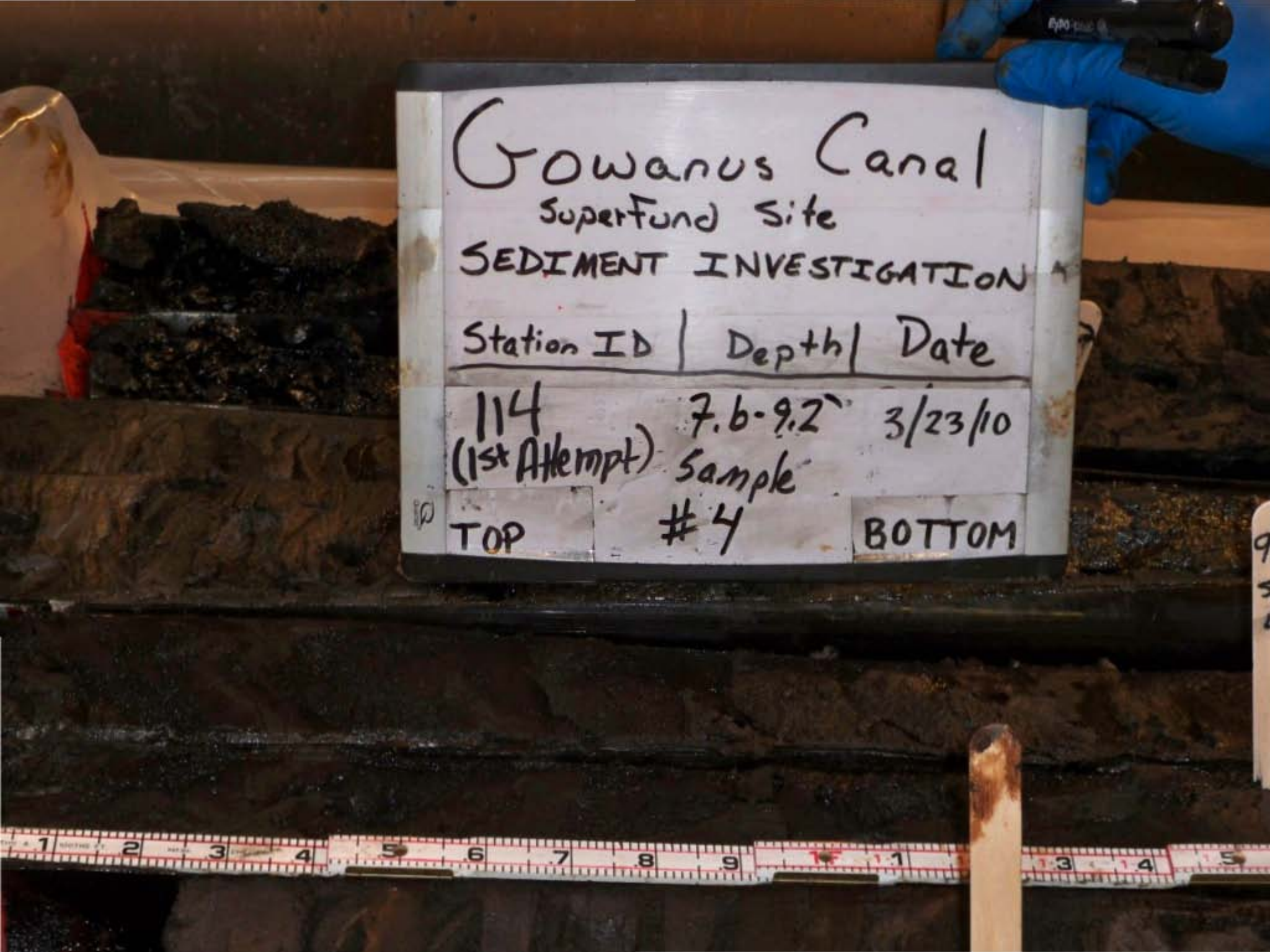

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) | 1.2-3.2' Sample #1 | 3/23/10
TOP
BOTTOM

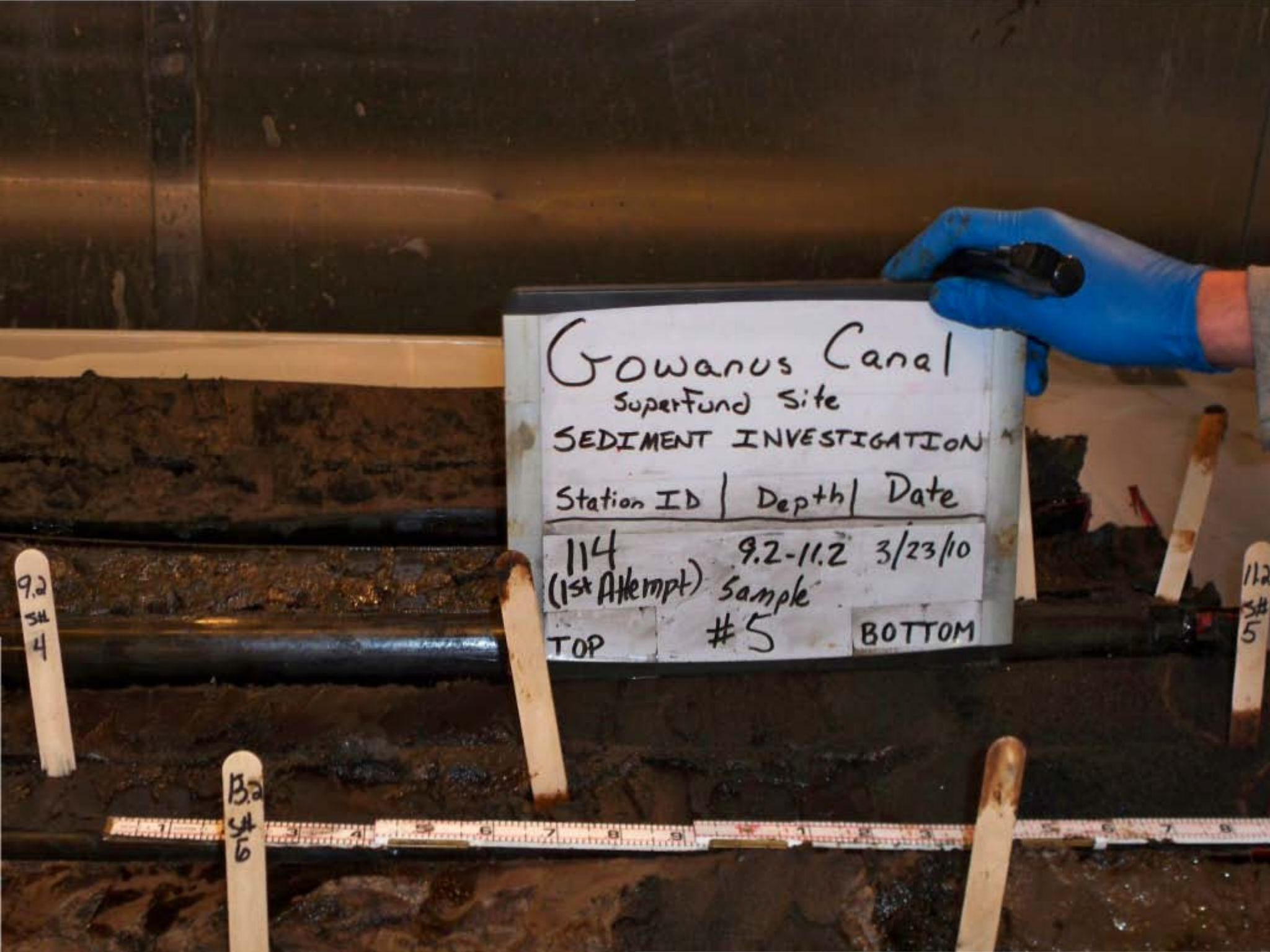

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) 3.2-3.5 3/23/10
Sample #2
BOTTOM
32 S# 1
72 S# 3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114
(1st Attempt)
3.5-5.2'
3/23/10
Sample
#2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) 5.2-7.2' 3/23/10
Sample #3
TOP
BOTTOM
9.2 SH 4
7.2 SH 3
SH 1


Gowanus Canal
SuperFund
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114
(1st attempt)
7.2-7.6'
3/23/10
Sample
#4
TOP
BOTTOM
S# 3
112
S# 5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) 7.6-9.2' 3/23/10
Sample #4
TOP
BOTTOM

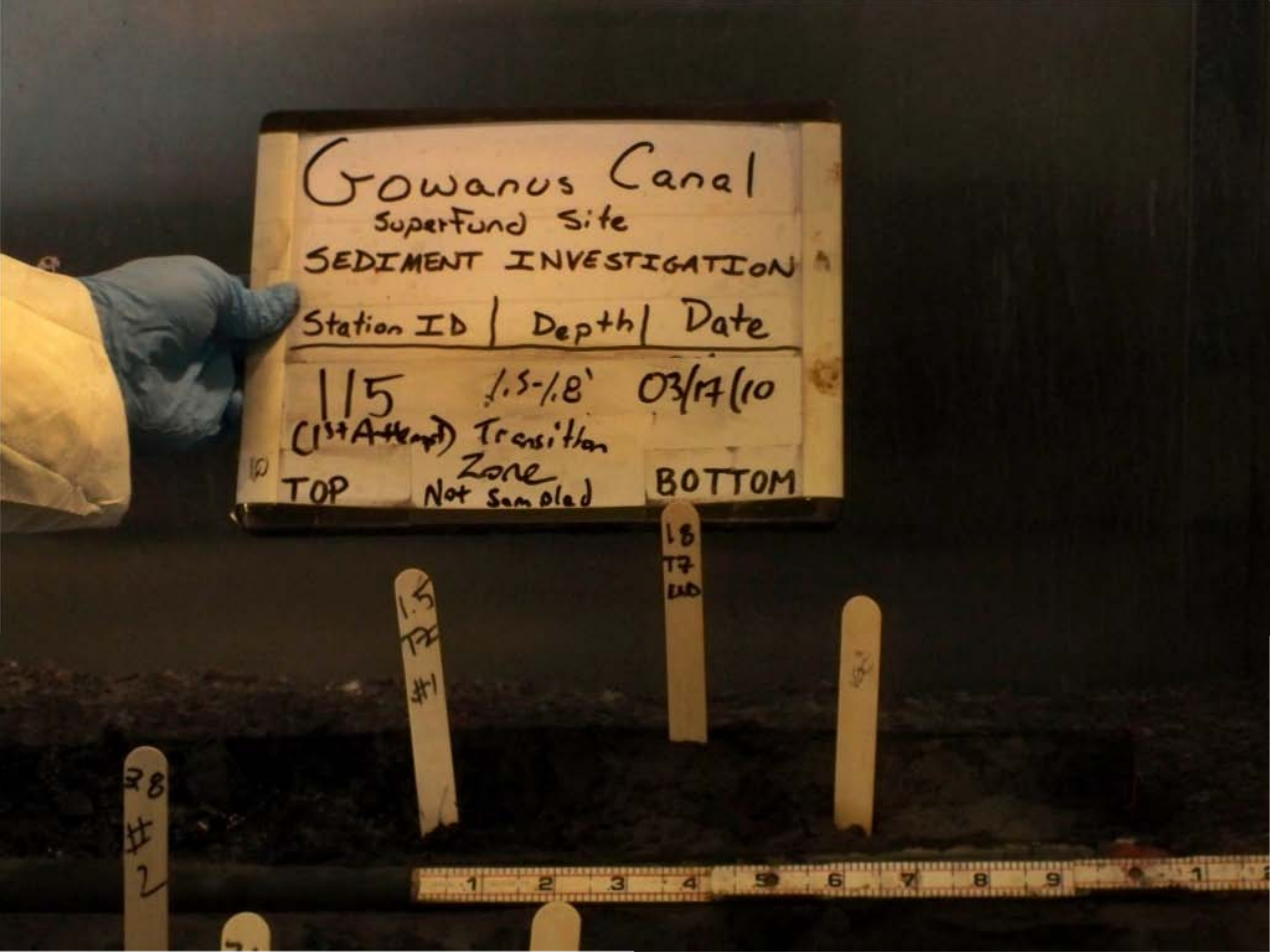

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114 (1st Attempt) 9.2-11.2 3/23/10
Sample #5
TOP
BOTTOM
9.2 SH 4
B.2 SH 6
11.2 SH 5

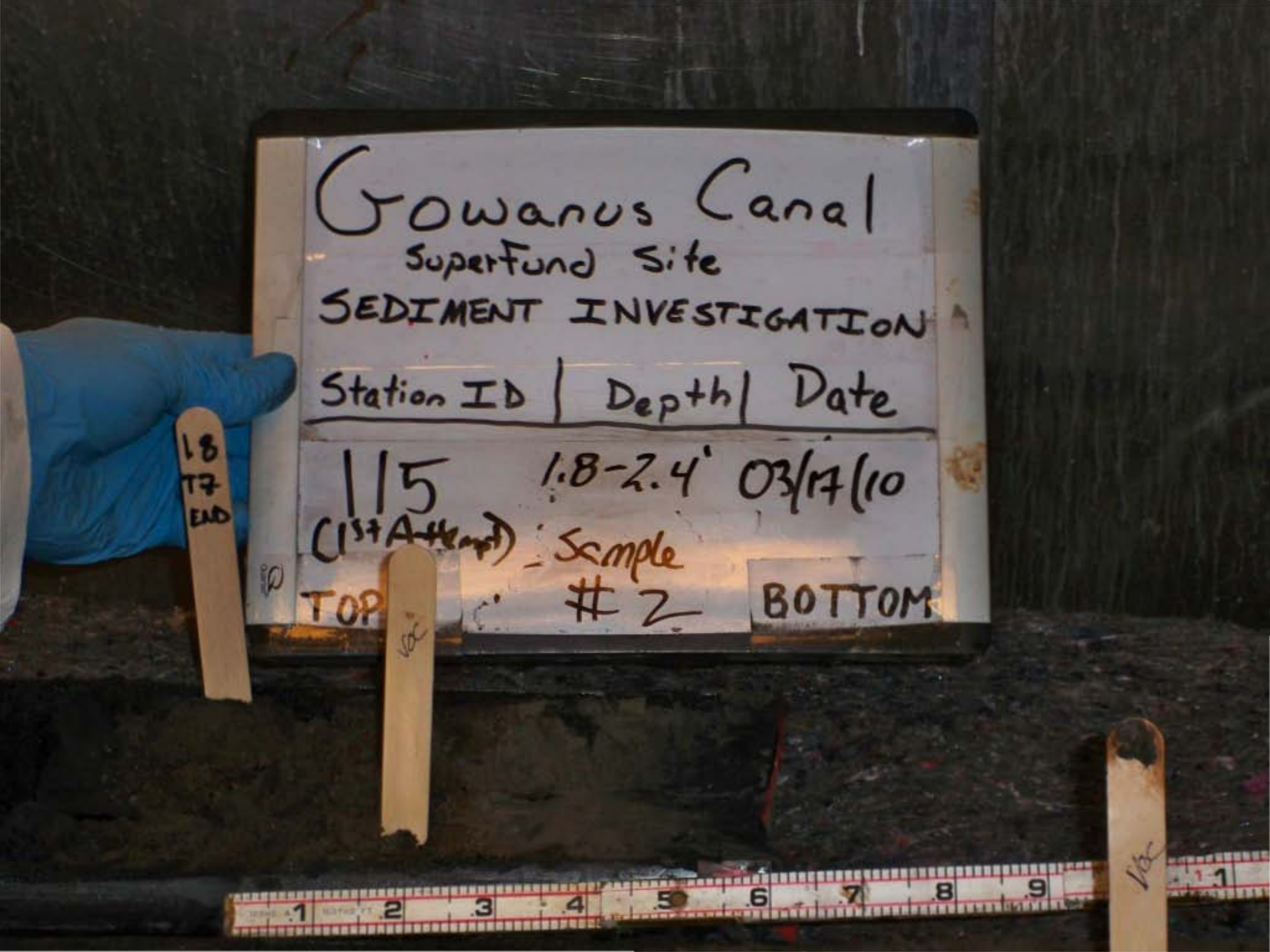

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
114
(1st Attempt)
FULL
RECOVERY
3/23/10
TOP
BOTTOM

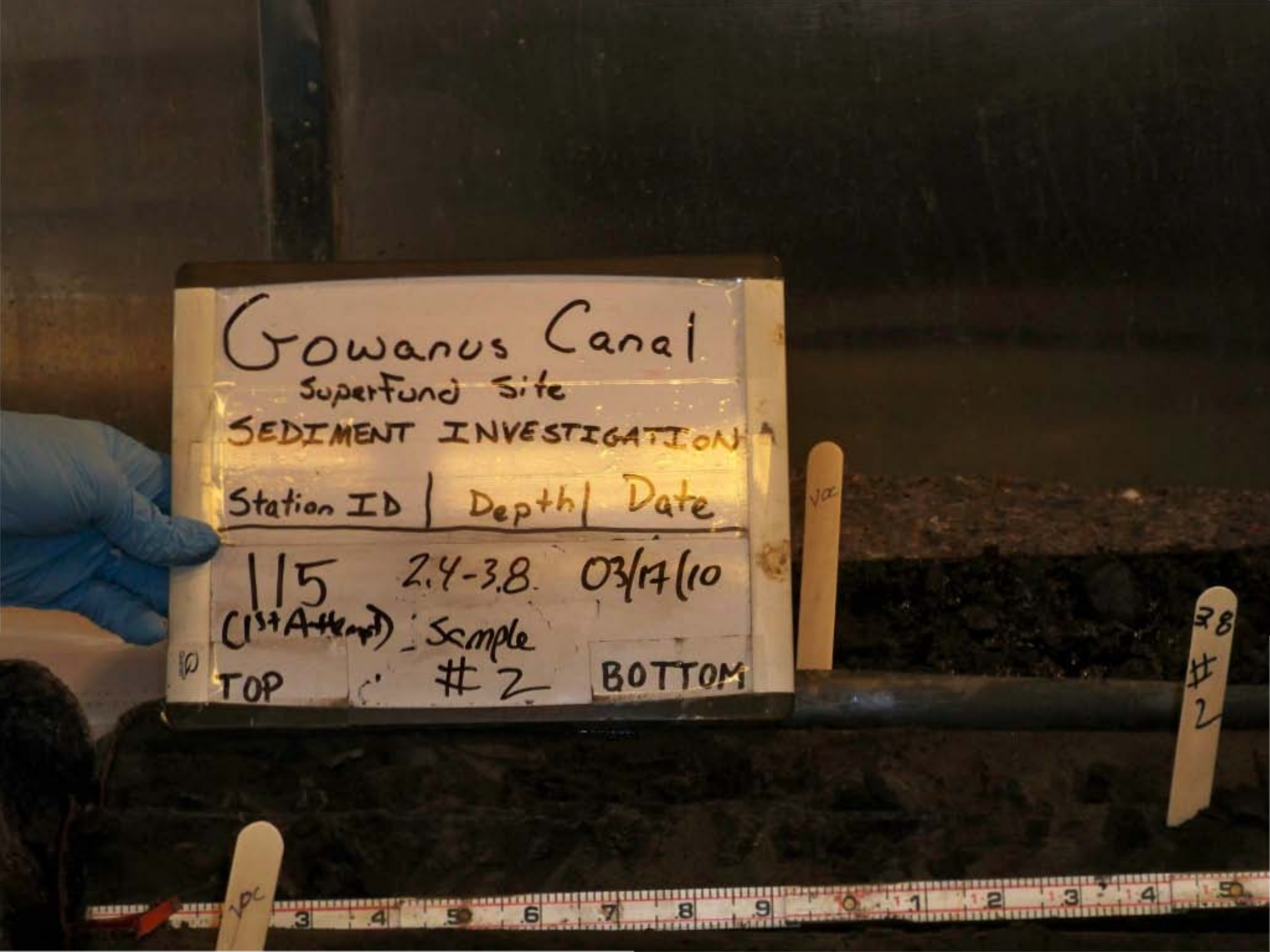

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 (1st Attempt) 0-1.5' Sample #1 02/17/10
TOP
BOTTOM
1.5
#1
#2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 10.1-11.8' 03/17/10
Sample
TOP # 6 BOTTOM

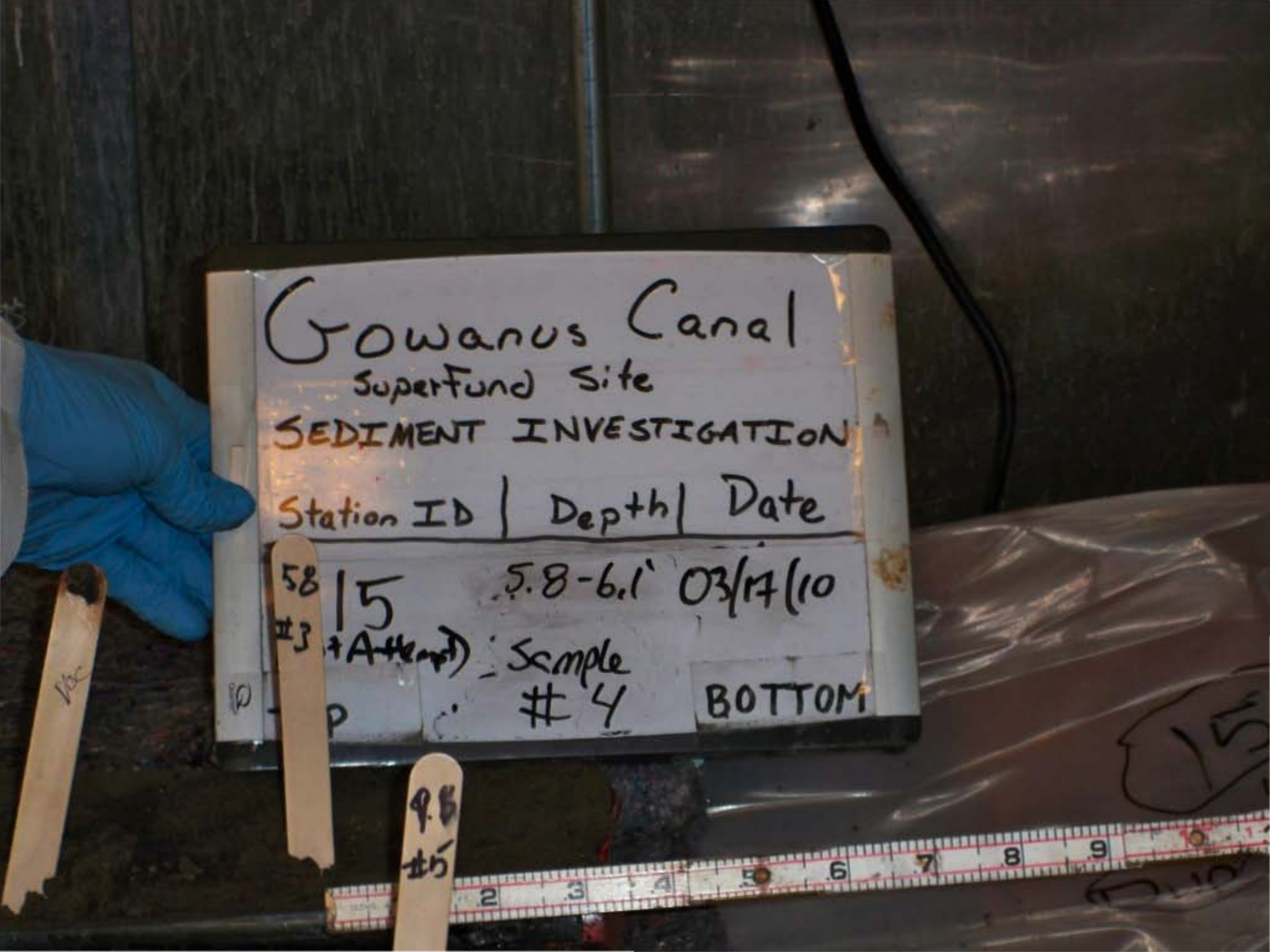

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 11.8-13.8' 03/17/10
(1st Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 1.5-1.8' 03/17/10
(1st Attempt) Transition Zone
TOP Not Sampled BOTTOM
1.8 T7 LID
1.5 T2 #1
R8 #2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 1.8-2.4' 03/17/10
(1st Attempt) Sample
TOP #2 BOTTOM
18
T7
END
VOC
VOC

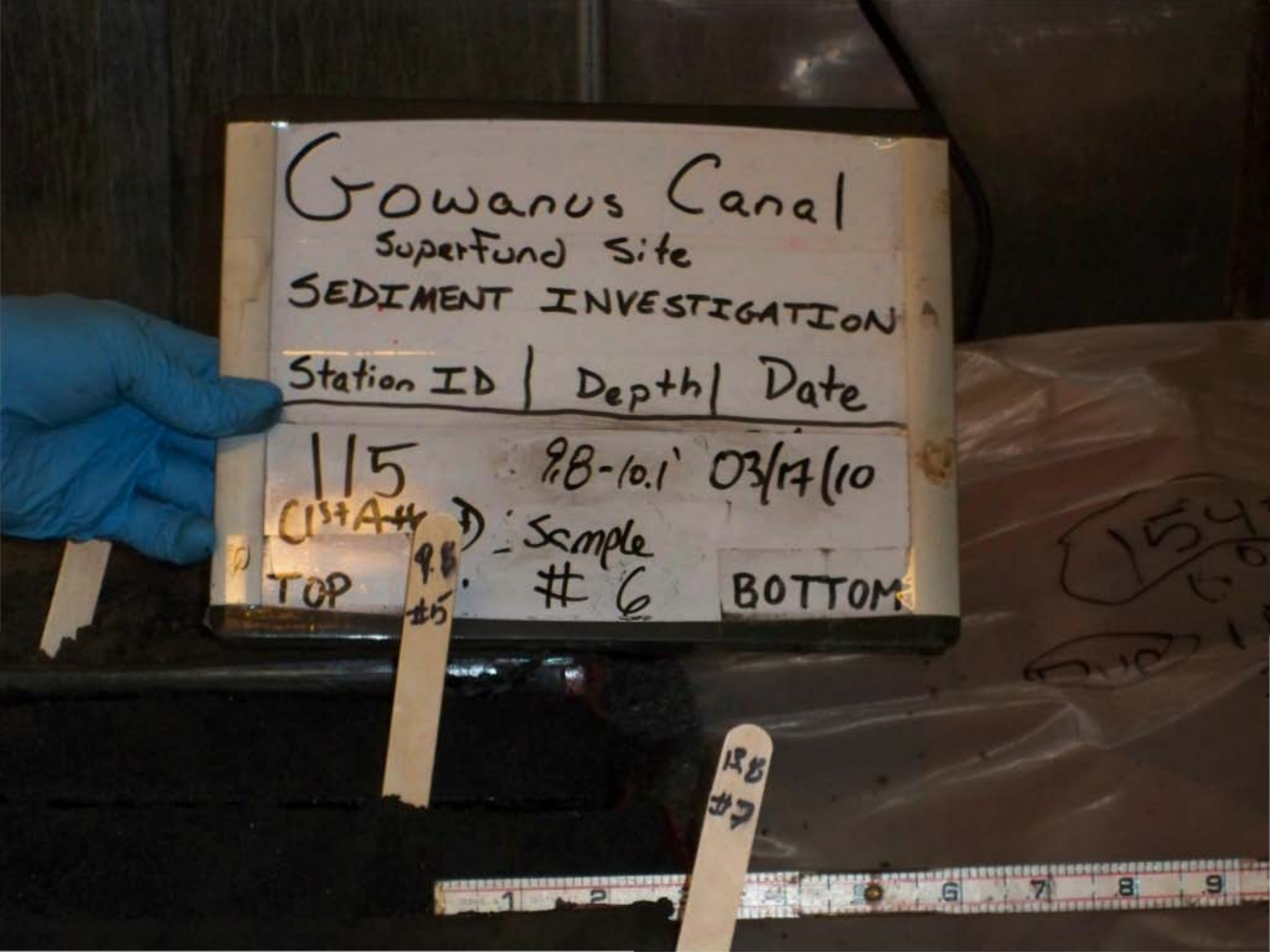

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 2.4-3.8 03/17/10
(1st Attempt) Sample
TOP #2 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 3.8-5.8' 03/17/10
(1st Attempt) Sample
TOP #3 BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
58 | 15 | 5.8-6.1' | 03/17/10
#3 (+Attempt) Sample
#4
BOTTOM
9.5
#15

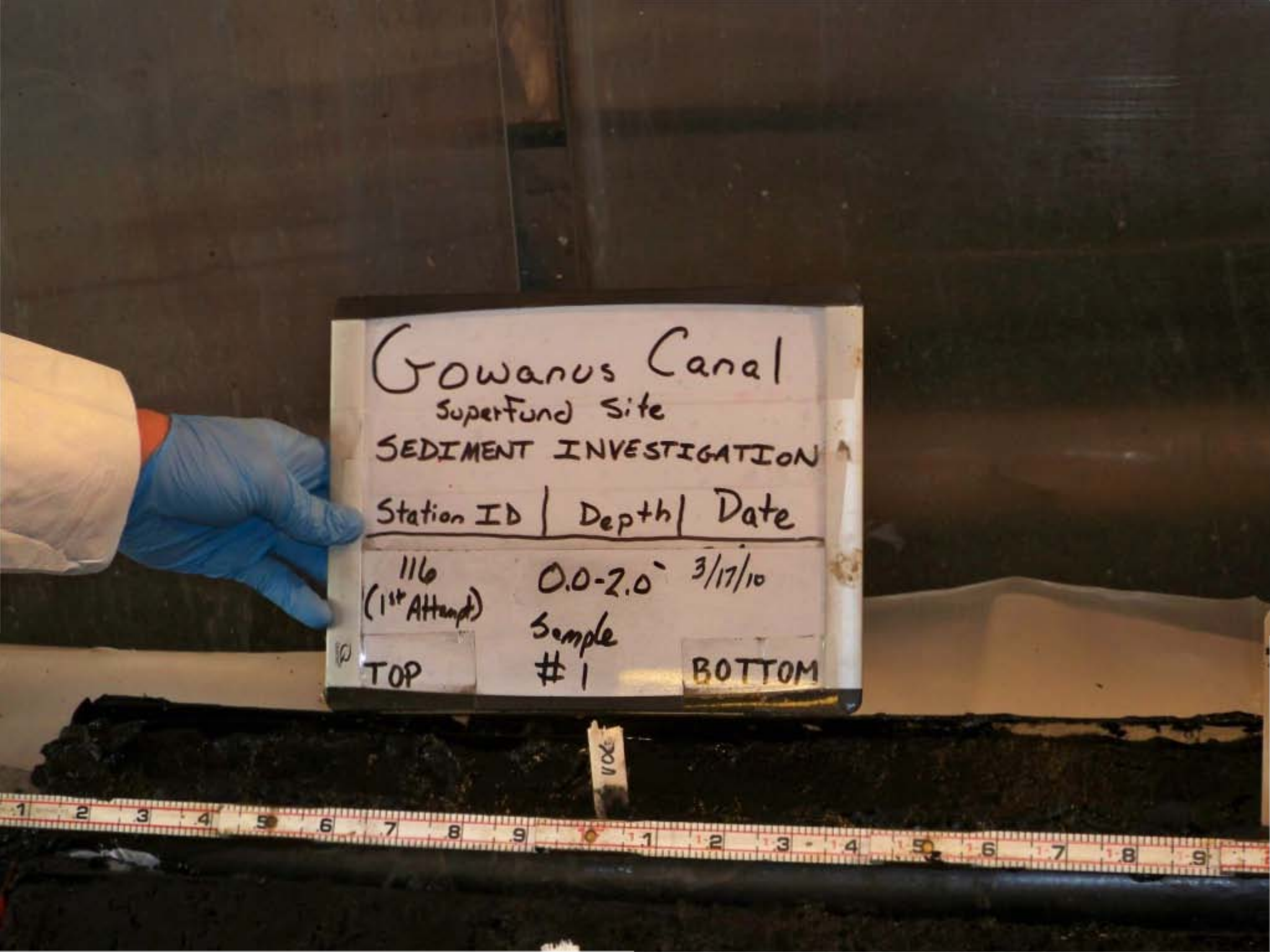

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 6.1-7.8" 03/17/10
(1st Attempt) Sample #4
TOP BOTTOM

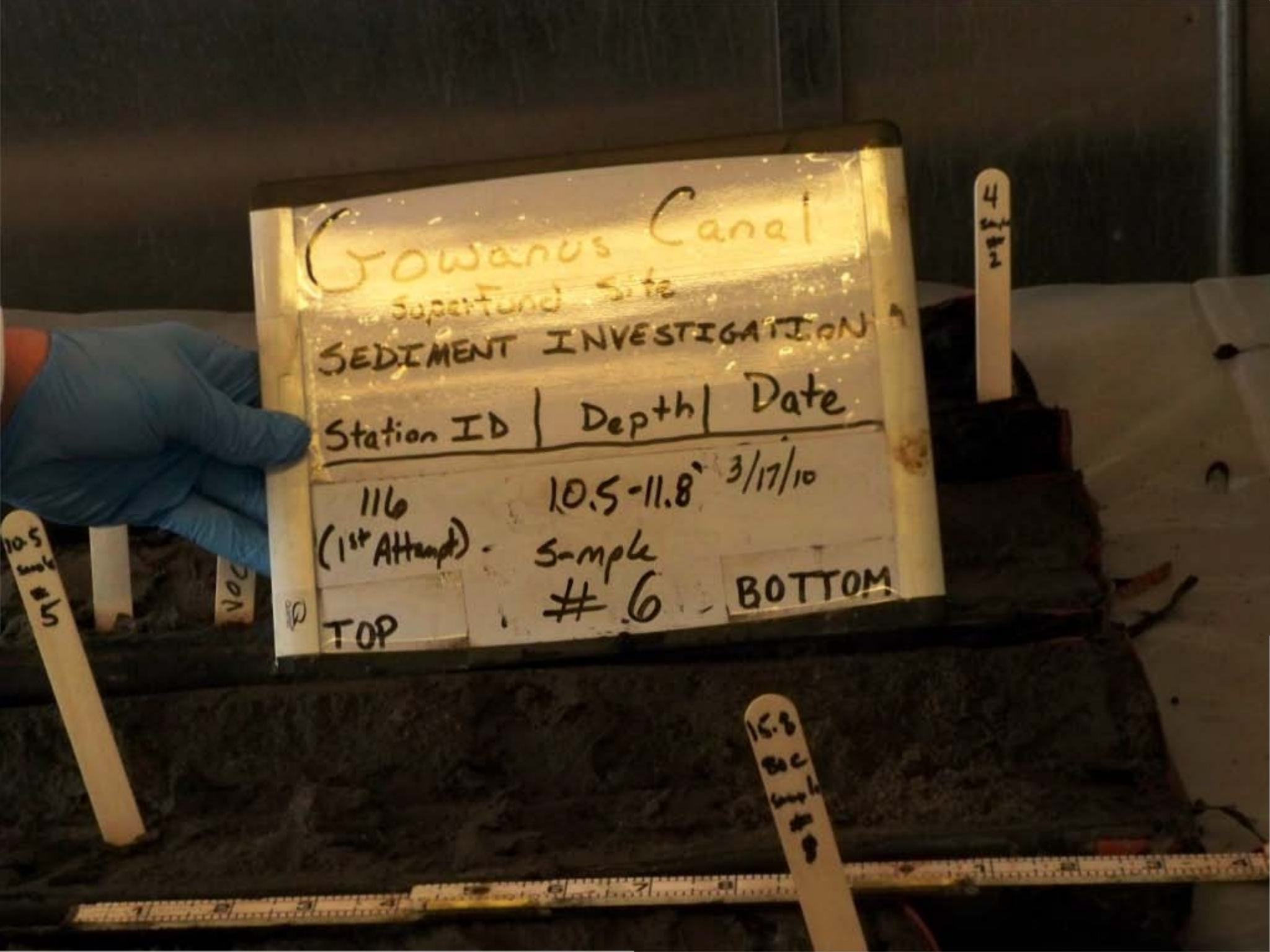

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 7.8-9.8' 03/17/10
(1st Attempt) Sample
TOP # 5 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 | 9.8-10.1' | 03/17/10
TOP
Sample #6
BOTTOM
#5
#7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
115 (1st Attempt) FULL RECOVERY 03/17/10
TOP
BOTTOM

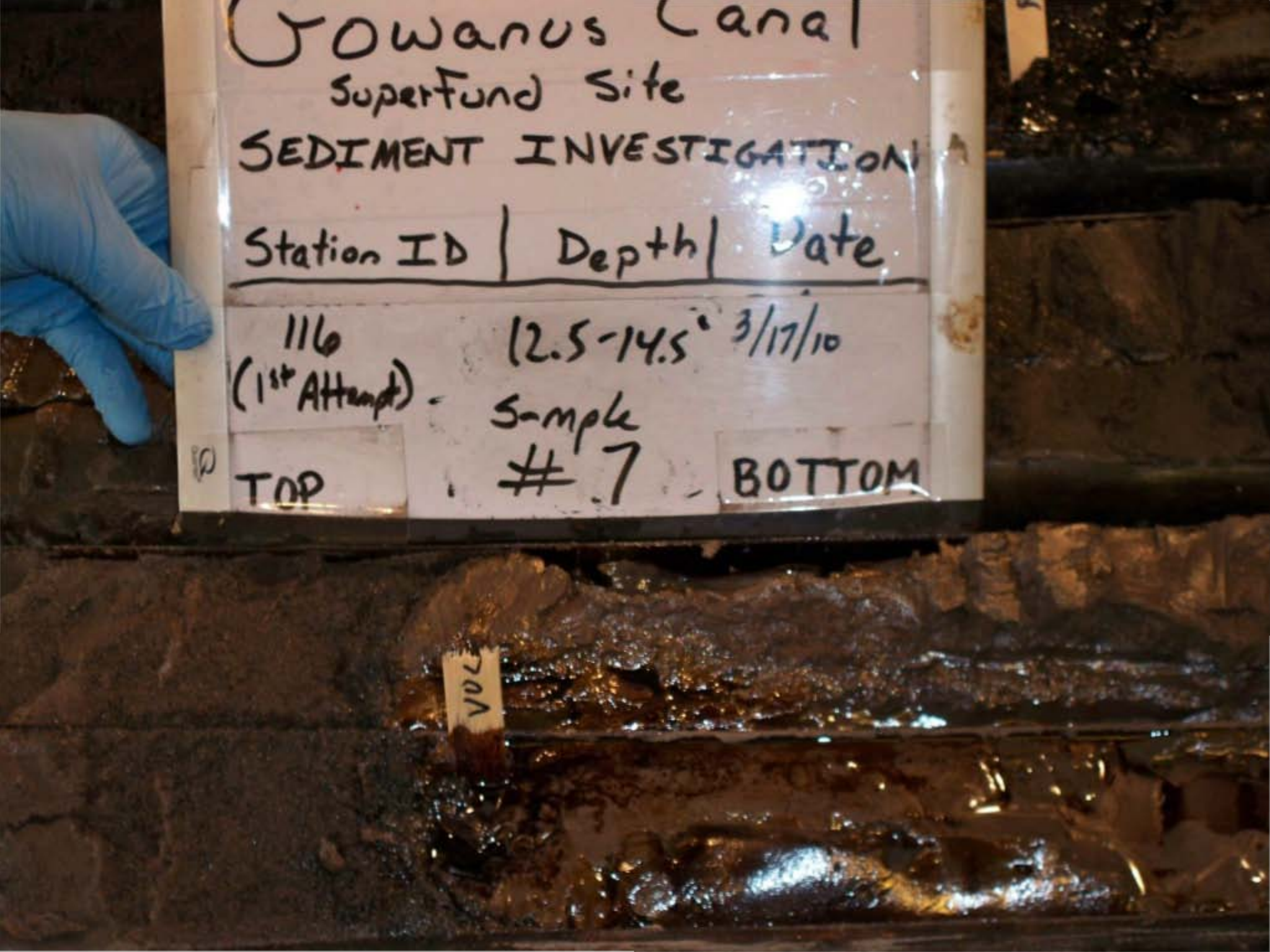

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) Full Recovery 3/17/10
TOP
BOTTOM

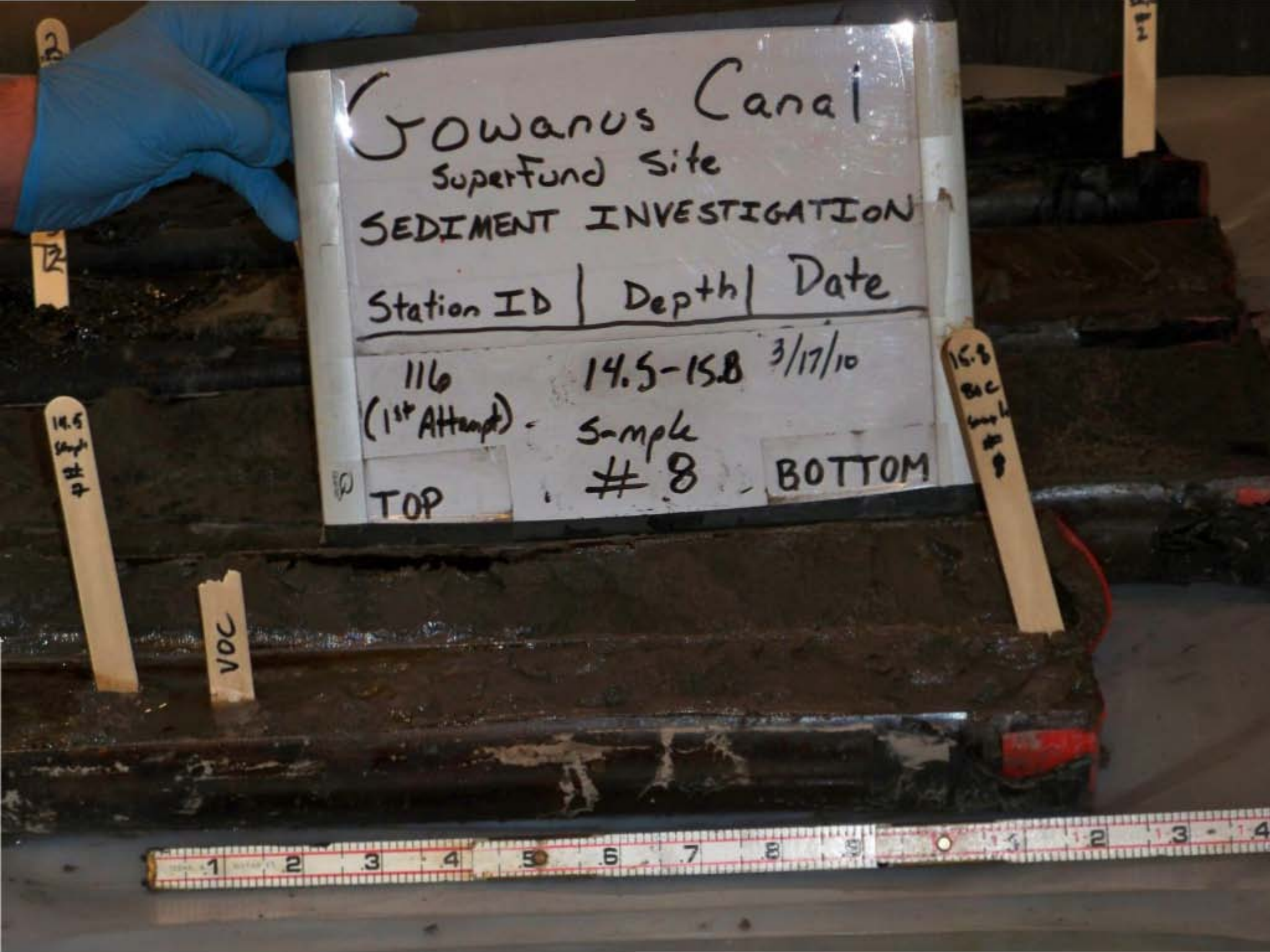

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116
(1st Attempt)
0.0-2.0'
3/17/10
Sample
#1
TOP
BOTTOM
VOC

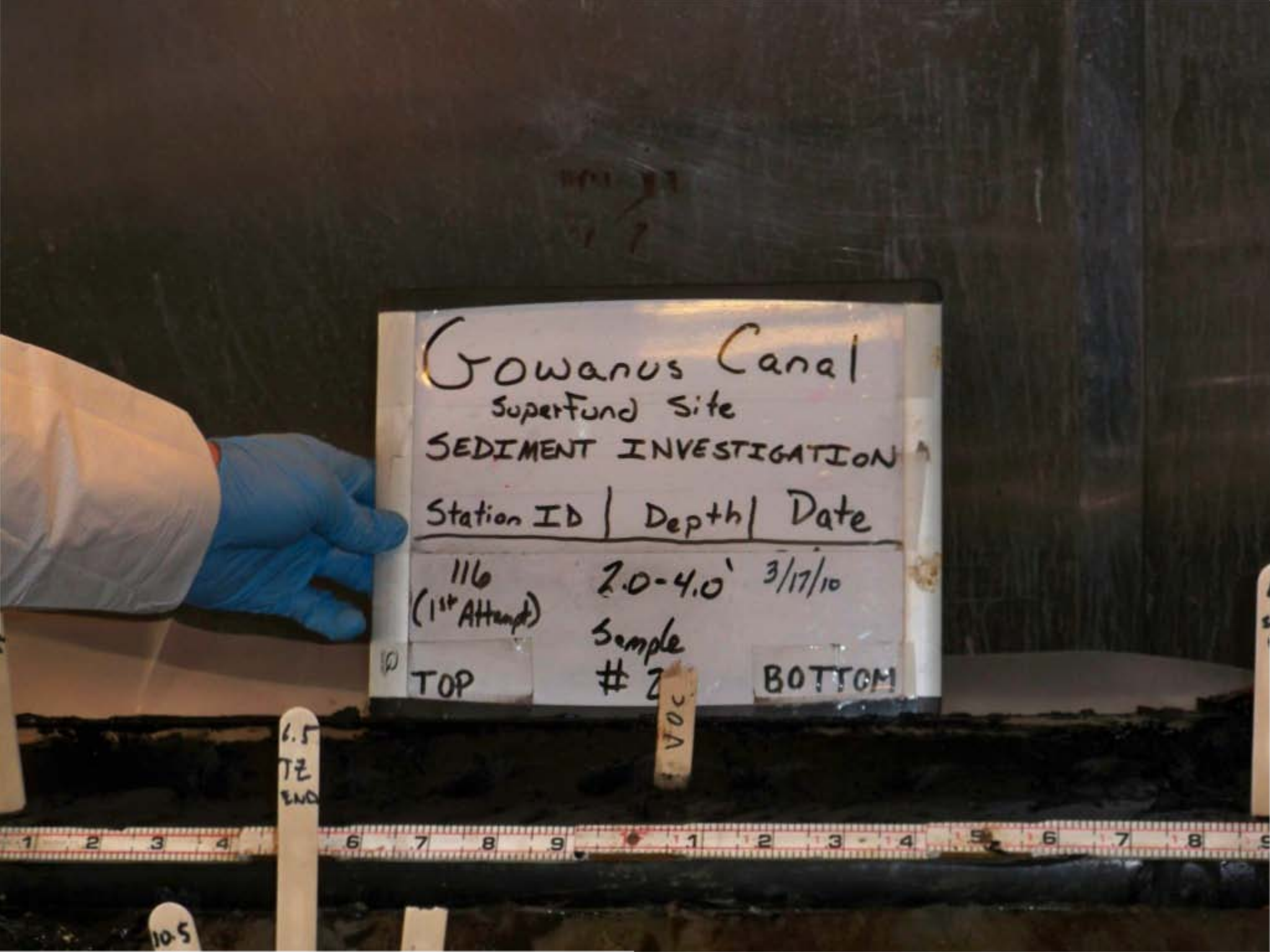

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) - 10.5-11.8' 3/17/10
Sample #6
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116
(1st Attempt)
11.8-12.5'
Sample
#6
TOP
BOTTOM
8.5
sample
#4
12.5
sample
#6
JOJ

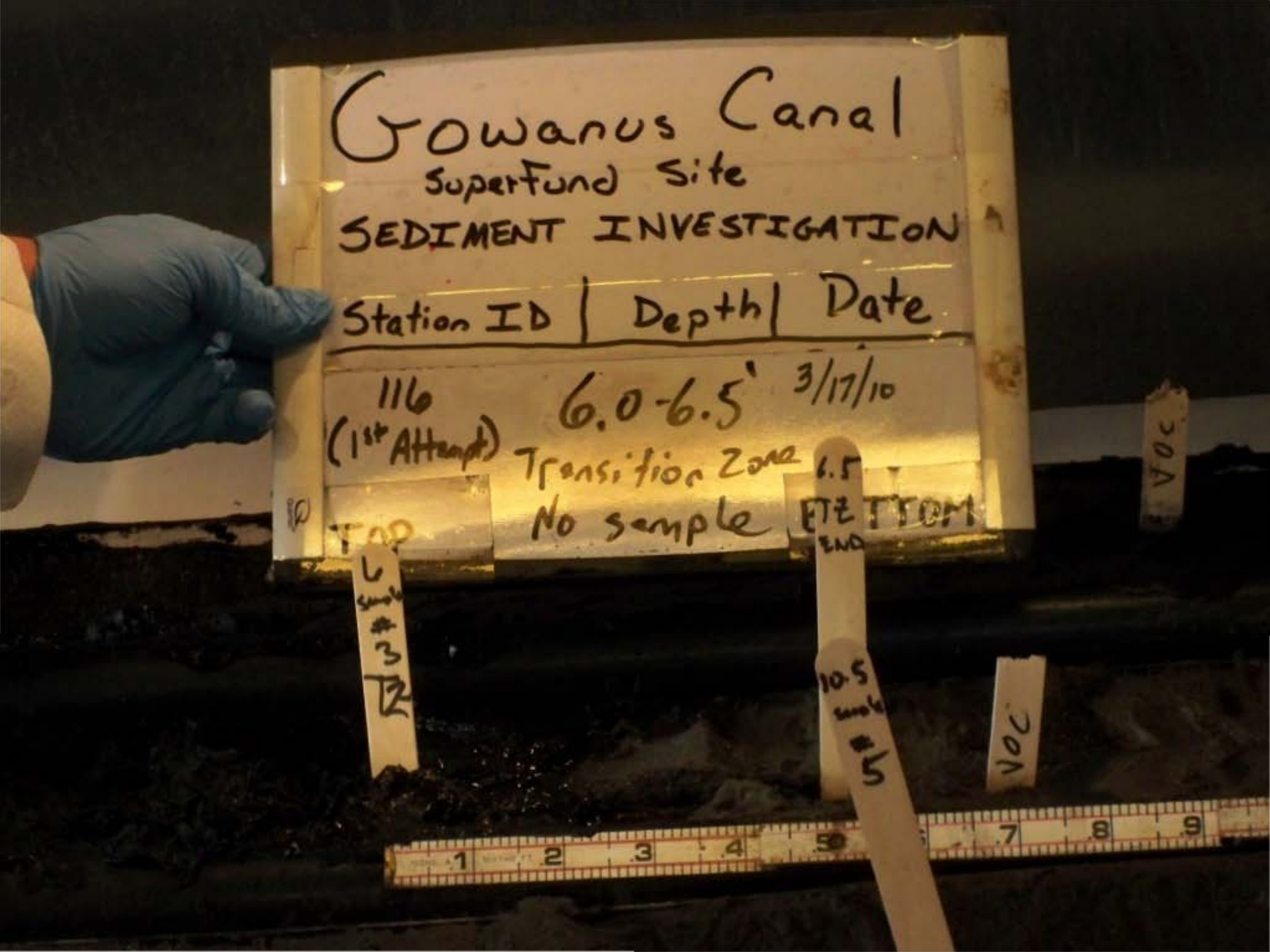

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) 12.5-14.5' 3/17/10
Sample #7
TOP
BOTTOM

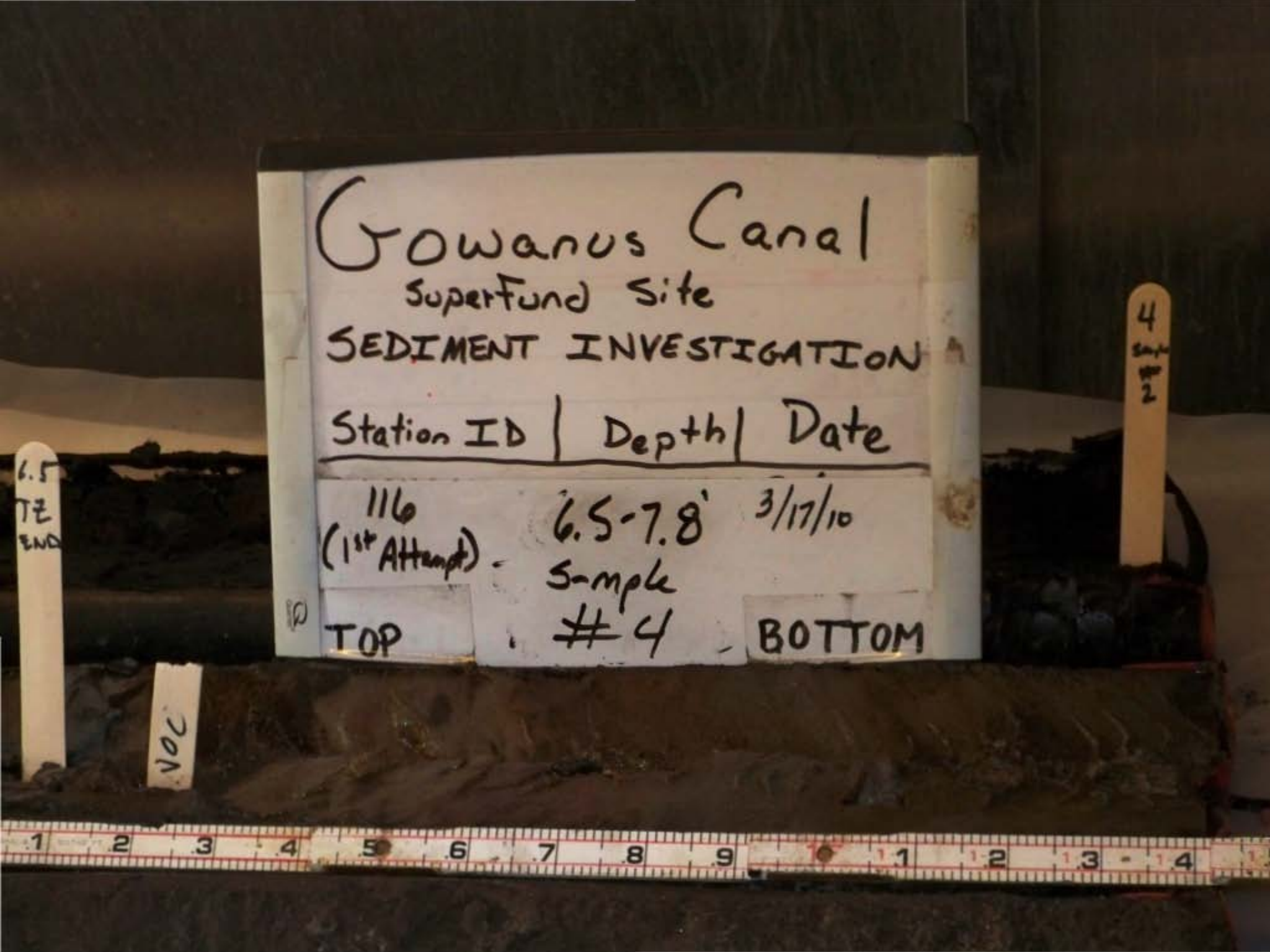

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) - 12.5-14.5' 3/17/10
Sample #7
TOP
BOTTOM

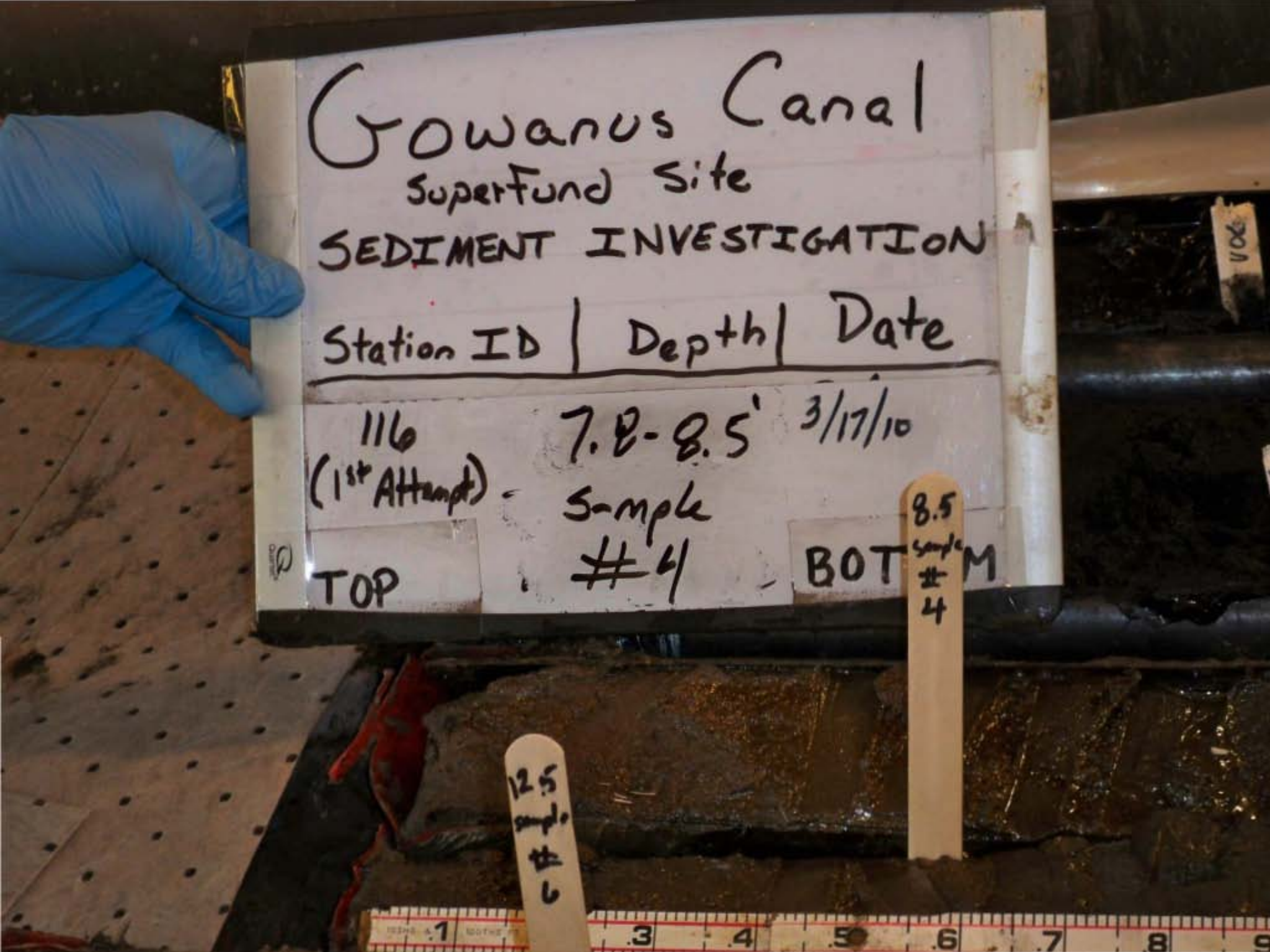

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) - 14.5-15.8 3/17/10
Sample #8
TOP - BOTTOM
VOC

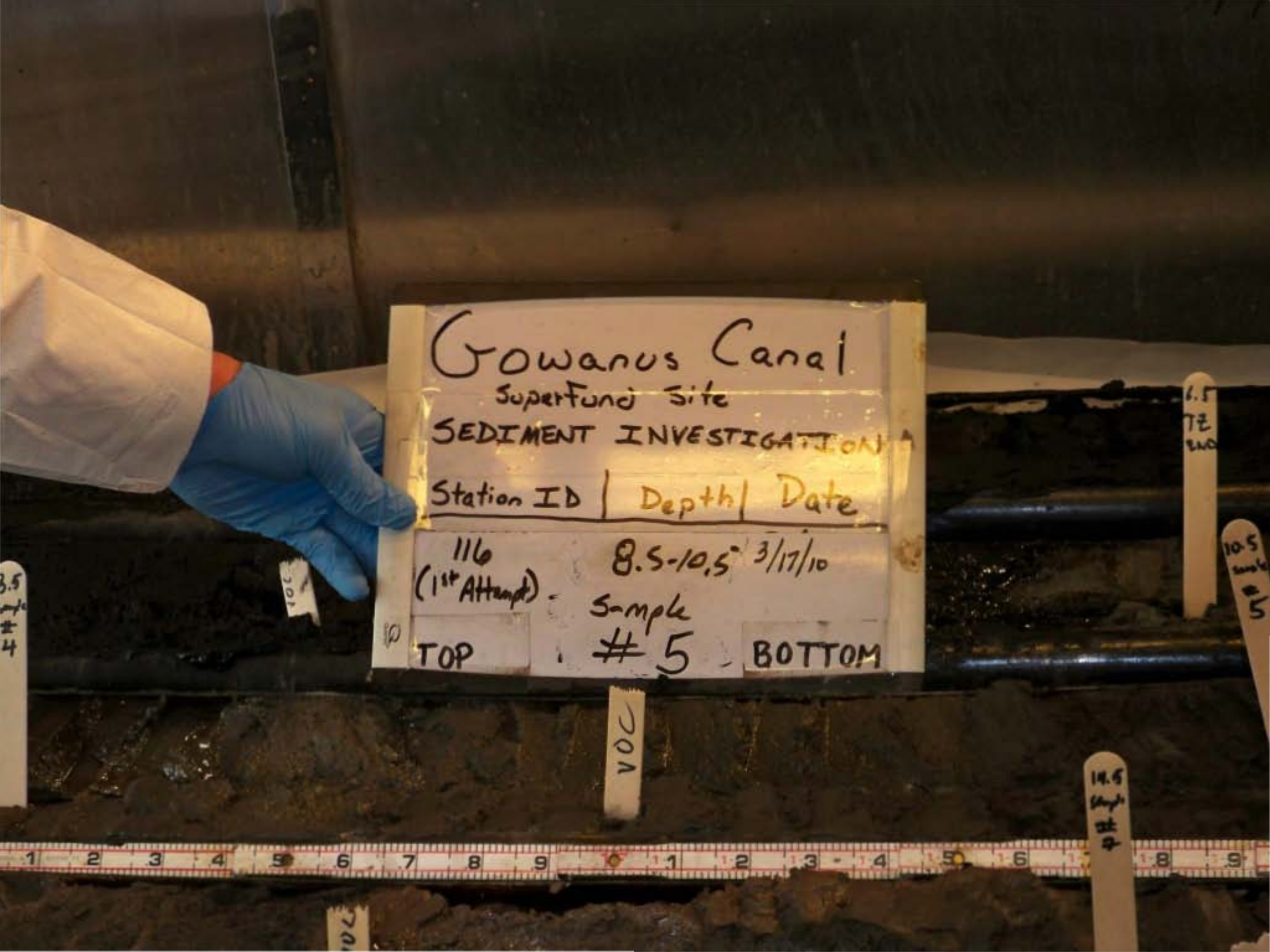

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116
(1st Attempt)
2.0-4.0'
3/17/10
Sample
2
TOP
BOTTOM
VOC
6.5
TZ
END
10.5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116
(1st Attempt)
4.0-6.0'
3/17/10
Sample
#3
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116
(1st Attempt)
6.0-6.5'
3/17/10
Transition Zone
No sample
TOP
6 sample #3
6.5
ETZ
END
TTOM
10.5 sample #5
VOC
VOC

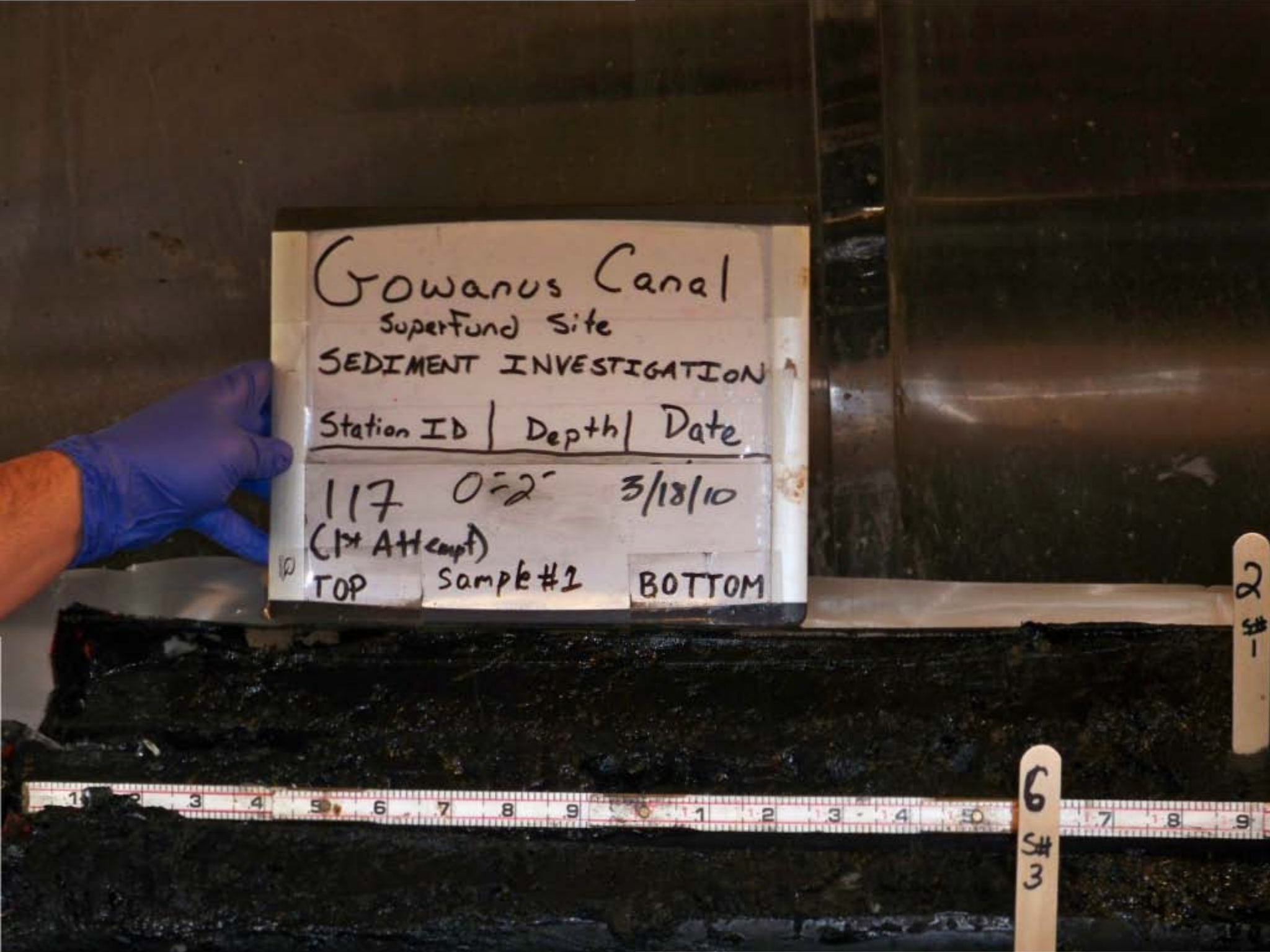

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) - 6.5-7.8' - 3/17/10
Sample #4
TOP - BOTTOM
6.5 TZ END
VOC
4

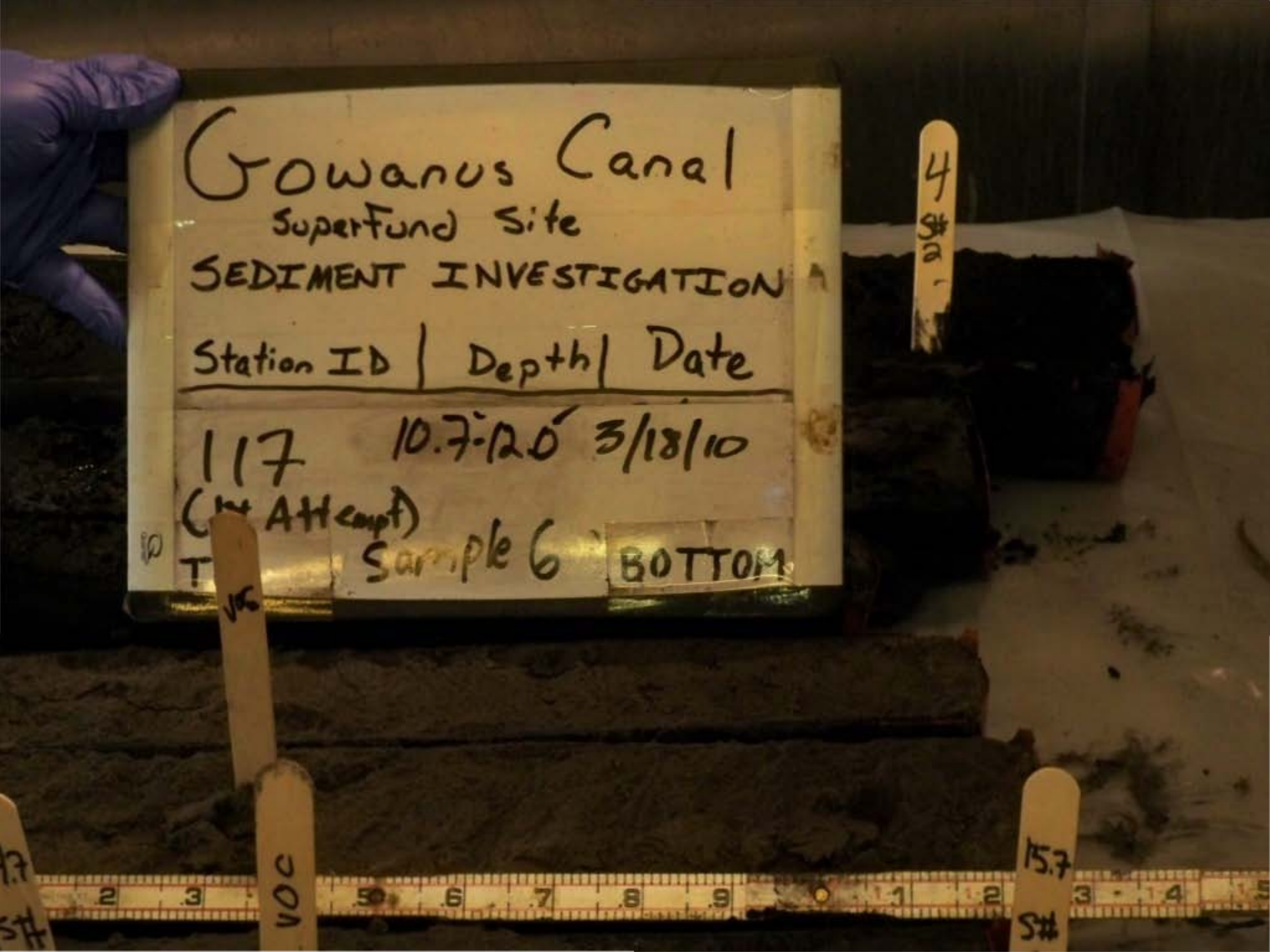

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) - 7.8-8.5' 3/17/10
Sample #4
TOP
BOTTOM
8.5 sample #4
12.5 sample #6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) 8.5-10.5' 3/17/10
Sample #5
TOP
BOTTOM
VOC

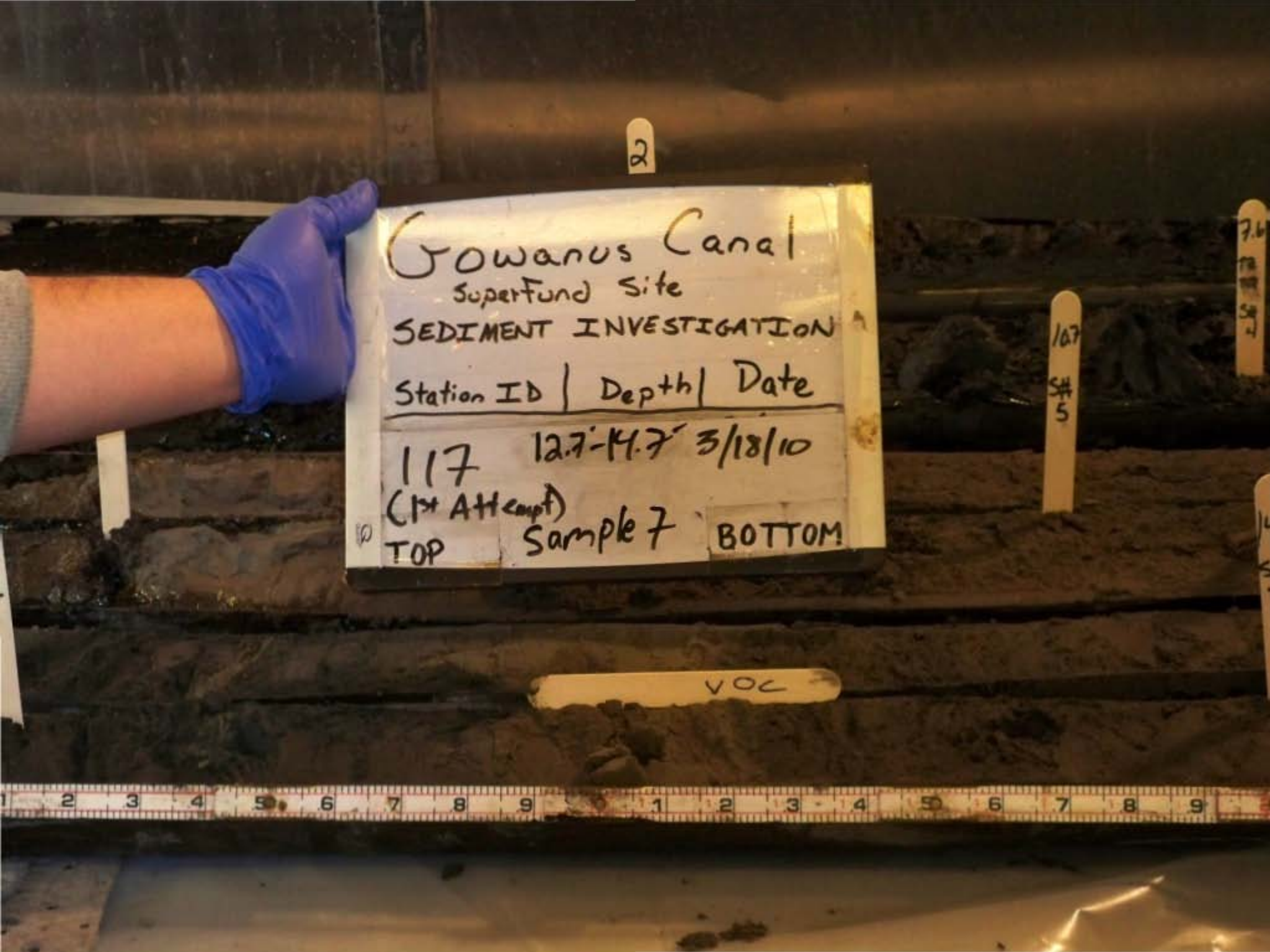

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) Full Recovery 3/17/10
TOP
BOTTOM

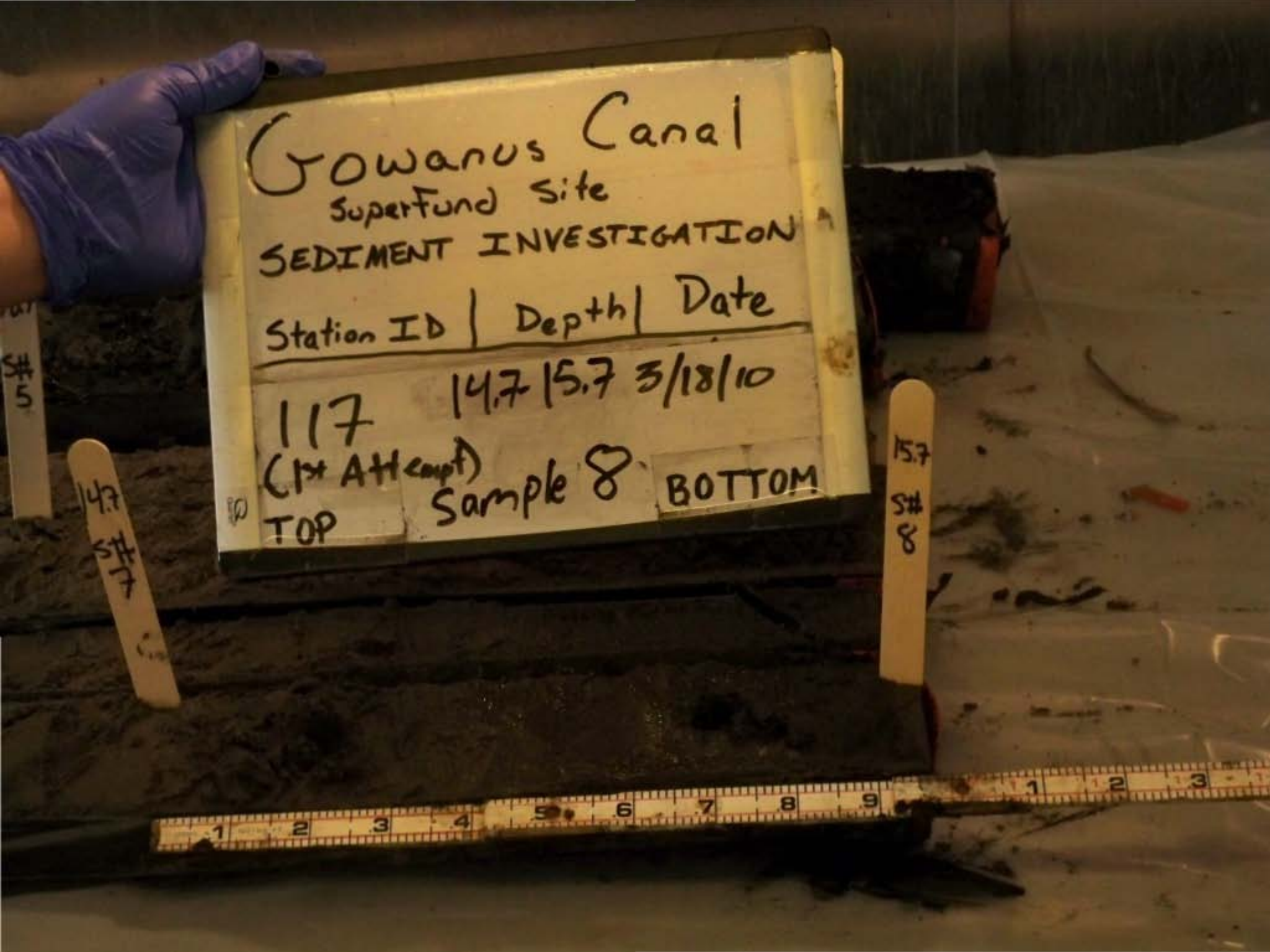

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 FULL 3/18/10
(1st Attempt) RECOVERY
VOC
VOC

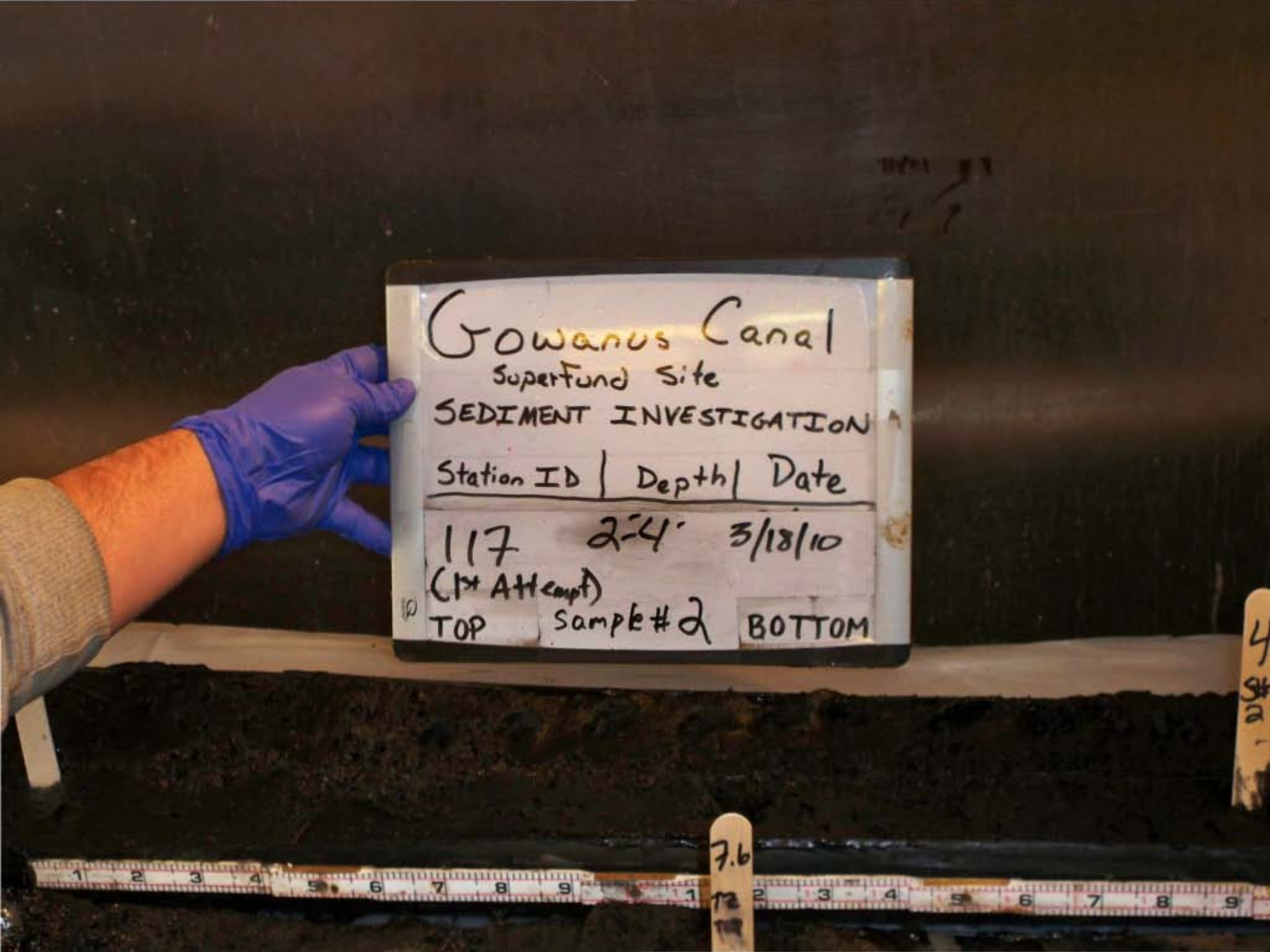

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 0-2' 3/18/10
(1st Attempt)
TOP Sample #2 BOTTOM
2 S#1
6 S#3

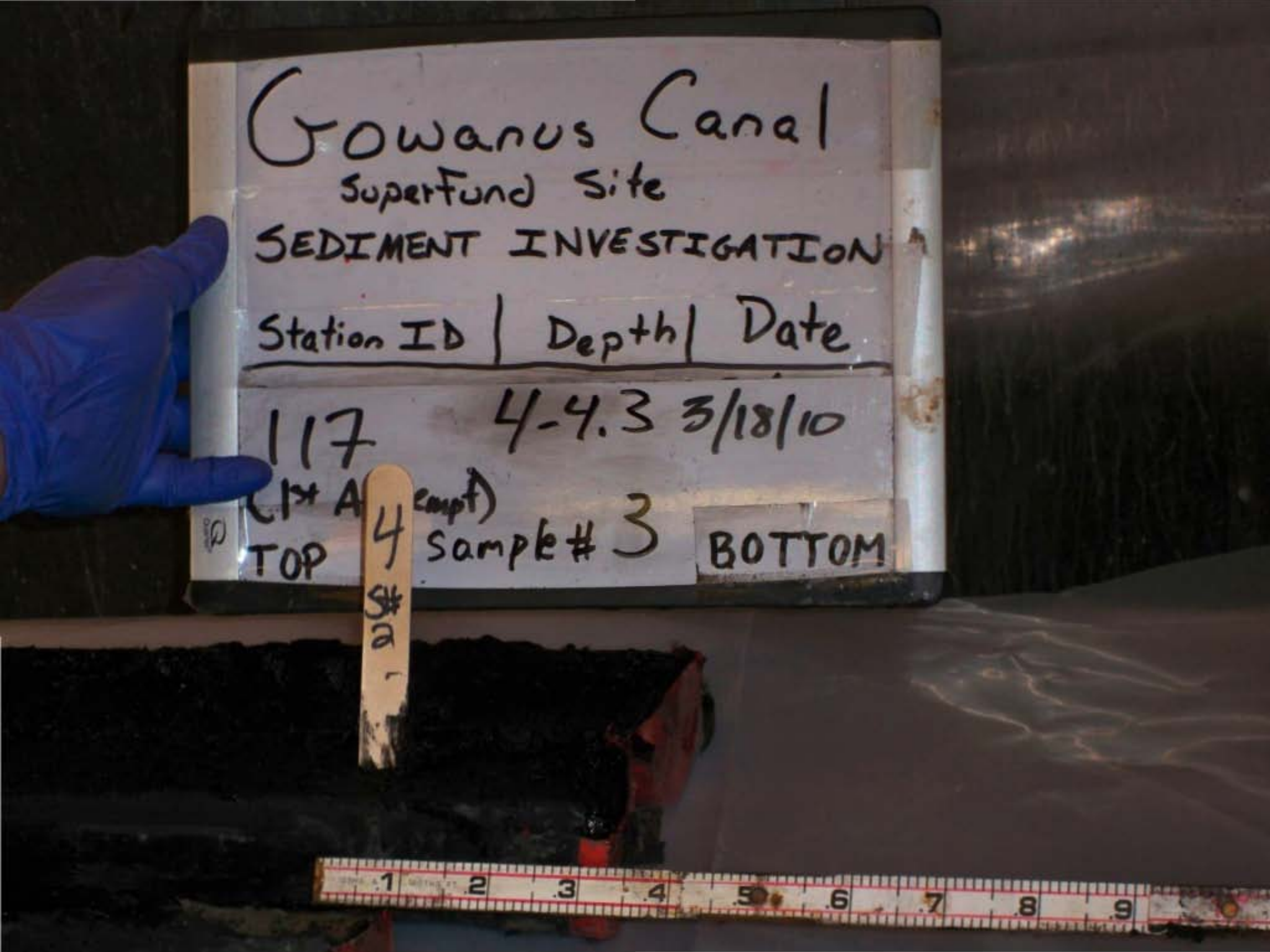

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 10.7'-12.0' 3/18/10
(1st Attempt)
Sample 6
BOTTOM
4
S#
2
VOC
15.7
S#

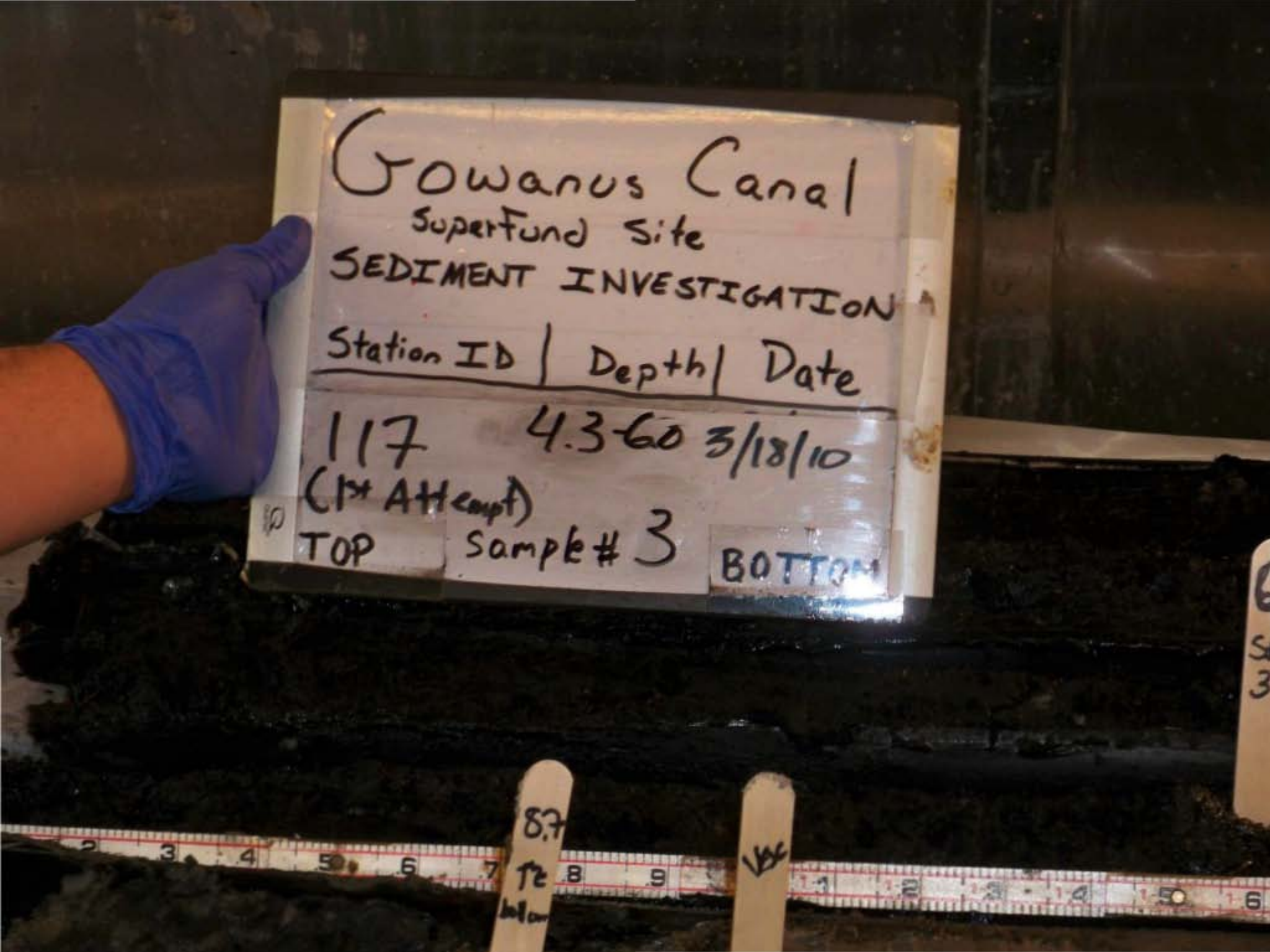

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 120-127 3/18/10
(1st Attempt)
TOP Sample 6 BOTTOM
127
SH
6

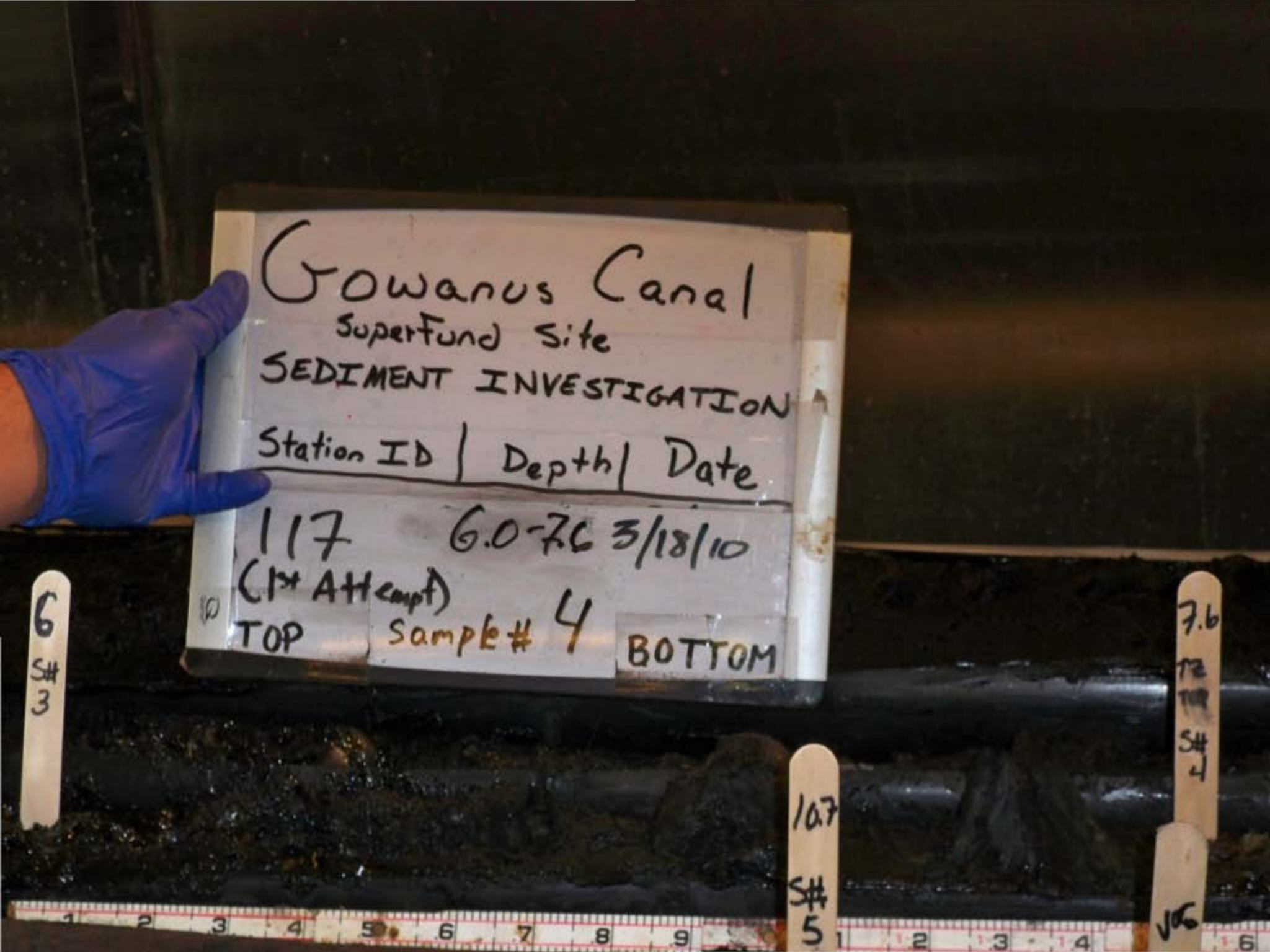

2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 12.7'-14.7' 3/18/10
(1st Attempt)
TOP Sample 7 BOTTOM
VOC
117
S#5

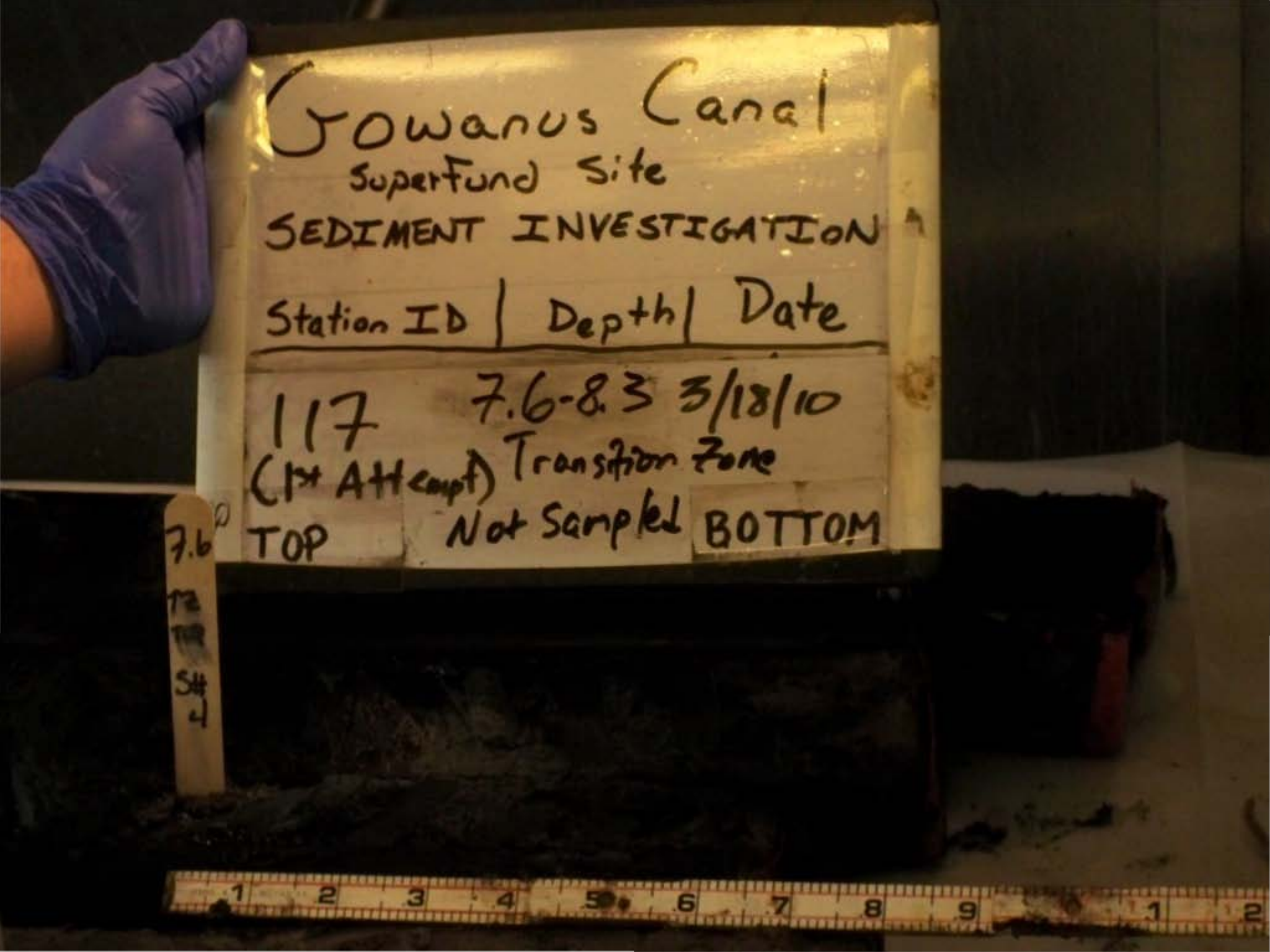

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 14.7 15.7 3/18/10
(1st Attempt)
TOP Sample 8 BOTTOM
14.7 St#117
15.7 St# 8

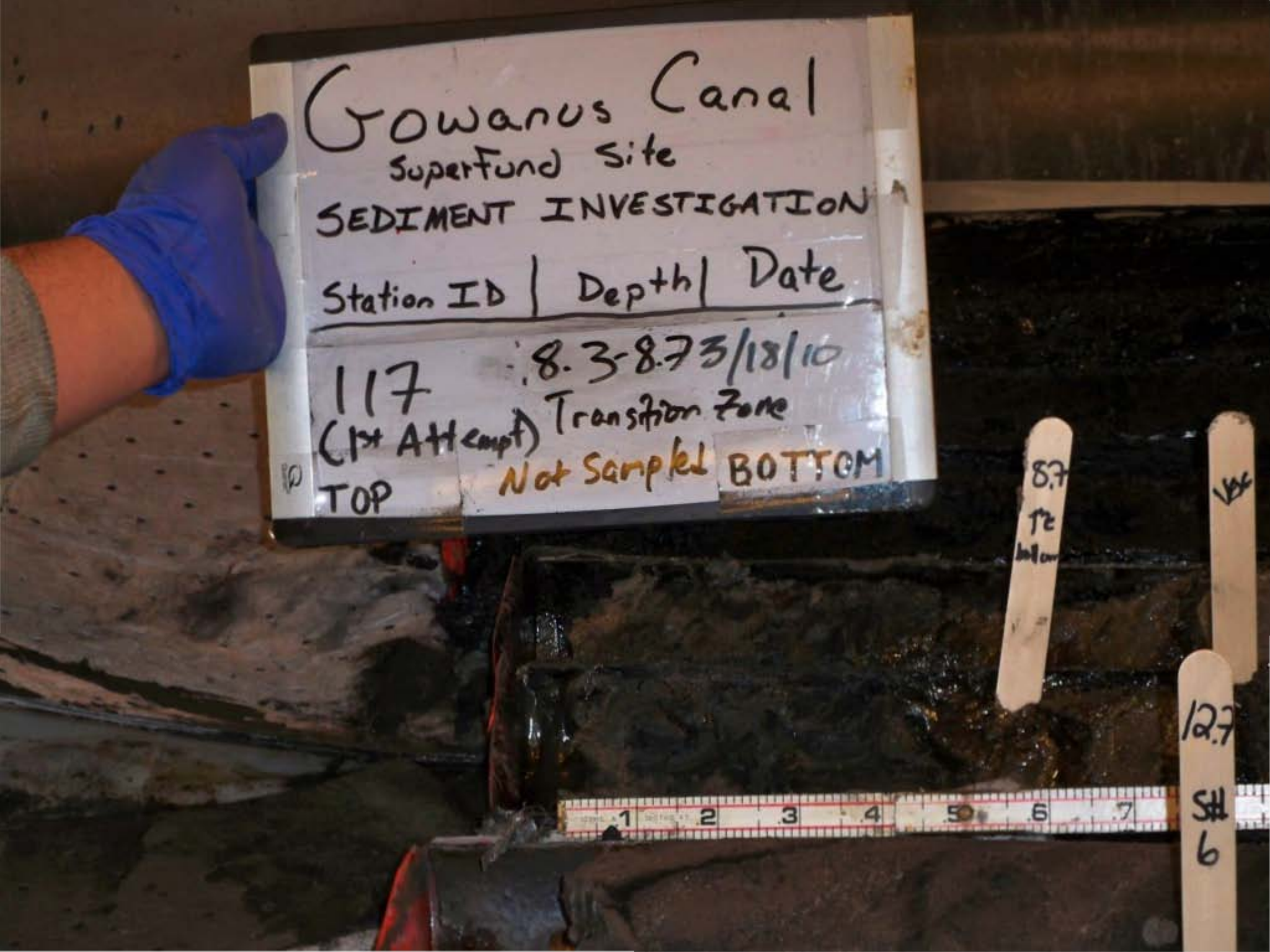

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 2-4' 3/18/10
(1st Attempt)
TOP Sample #2 BOTTOM
7.6

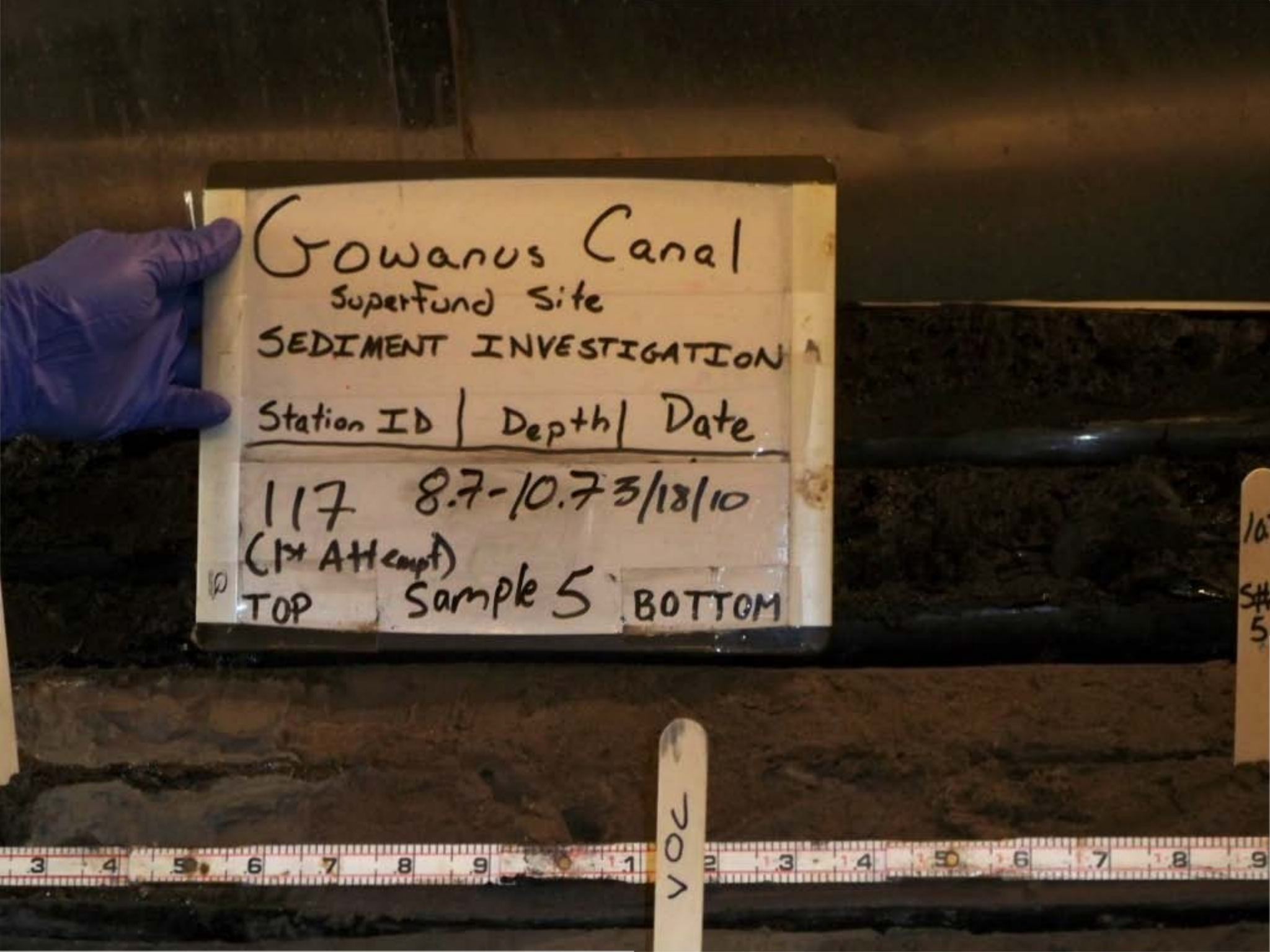

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 4-4.3 3/18/10
(1st Attempt)
TOP 4 Sample # 3 BOTTOM
St# 2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 4.3-6.0 3/18/10
(1st Attempt)
TOP Sample # 3 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 6.0-7.6 3/18/10
(1st Attempt)
TOP Sample # 4 BOTTOM
6
S# 3
107
S# 5
7.6
S# 4

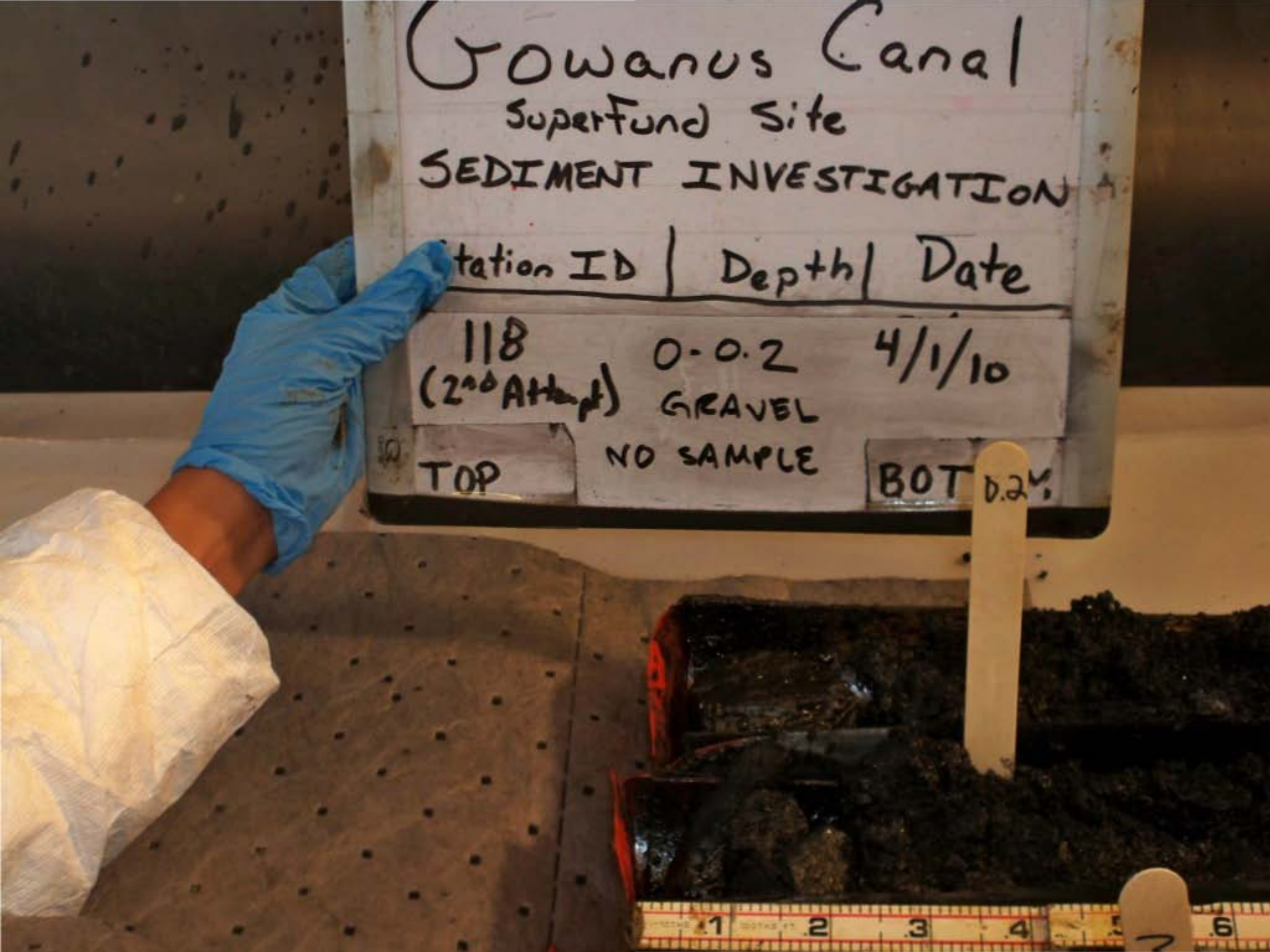

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 7.6-8.3 3/18/10
(1st Attempt) Transition Zone
TOP Not Sampled BOTTOM
7.6
1 2 3 4 5 6 7 8 9 1 2

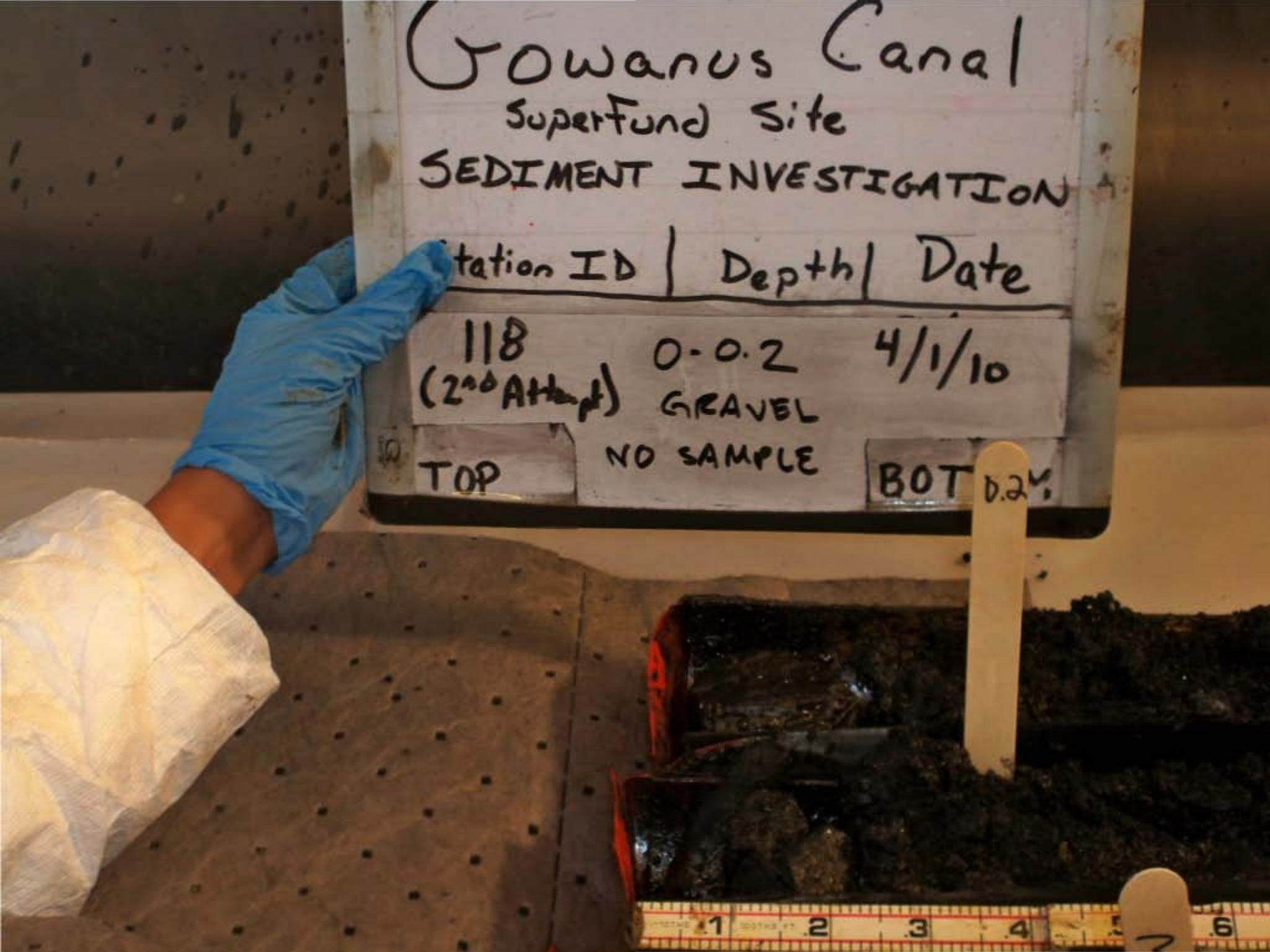

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117
8.3-8.7 3/18/10
(1st Attempt) Transition Zone
TOP
Not Sampled
BOTTOM
8.7
12.7
SH
6

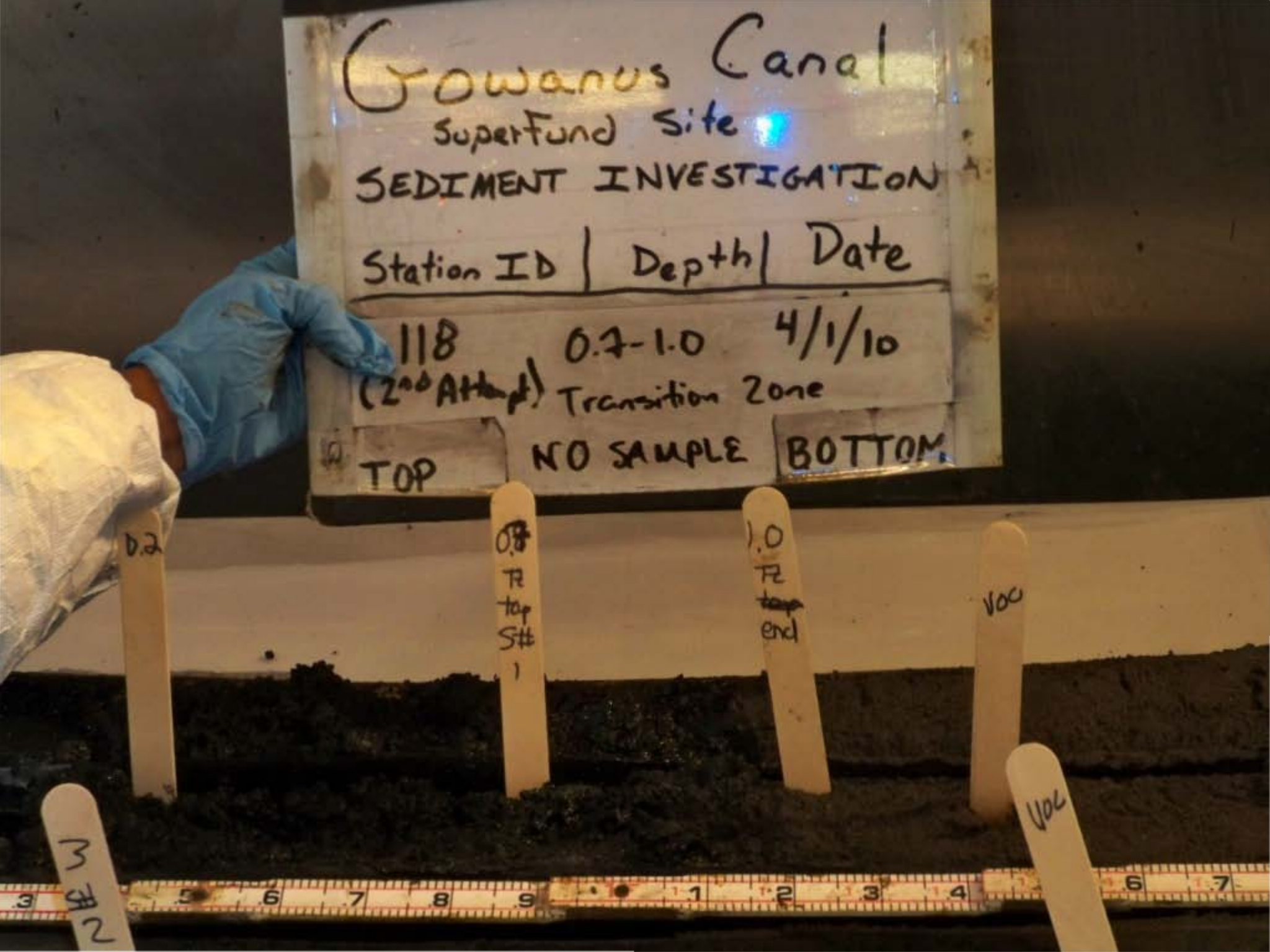

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 8.7-10.7 3/18/10
(1st Attempt)
TOP Sample 5 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 FULL 3/18/10
(1st Attempt) RECOVERY
VOC
VOC
VOC

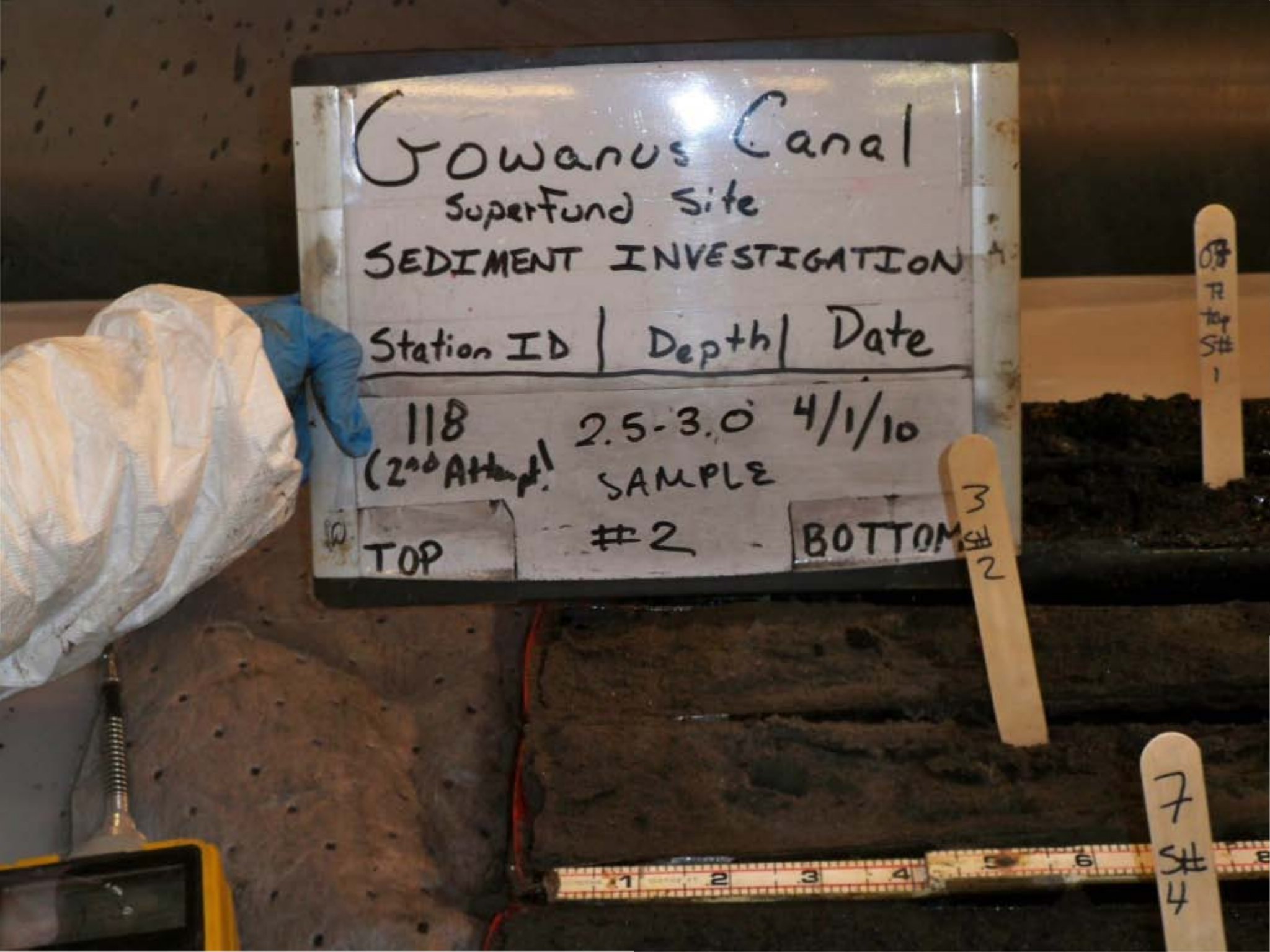

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118
(2nd Attempt)
Full
Recovery
4/1/10
TOP
BOTTOM

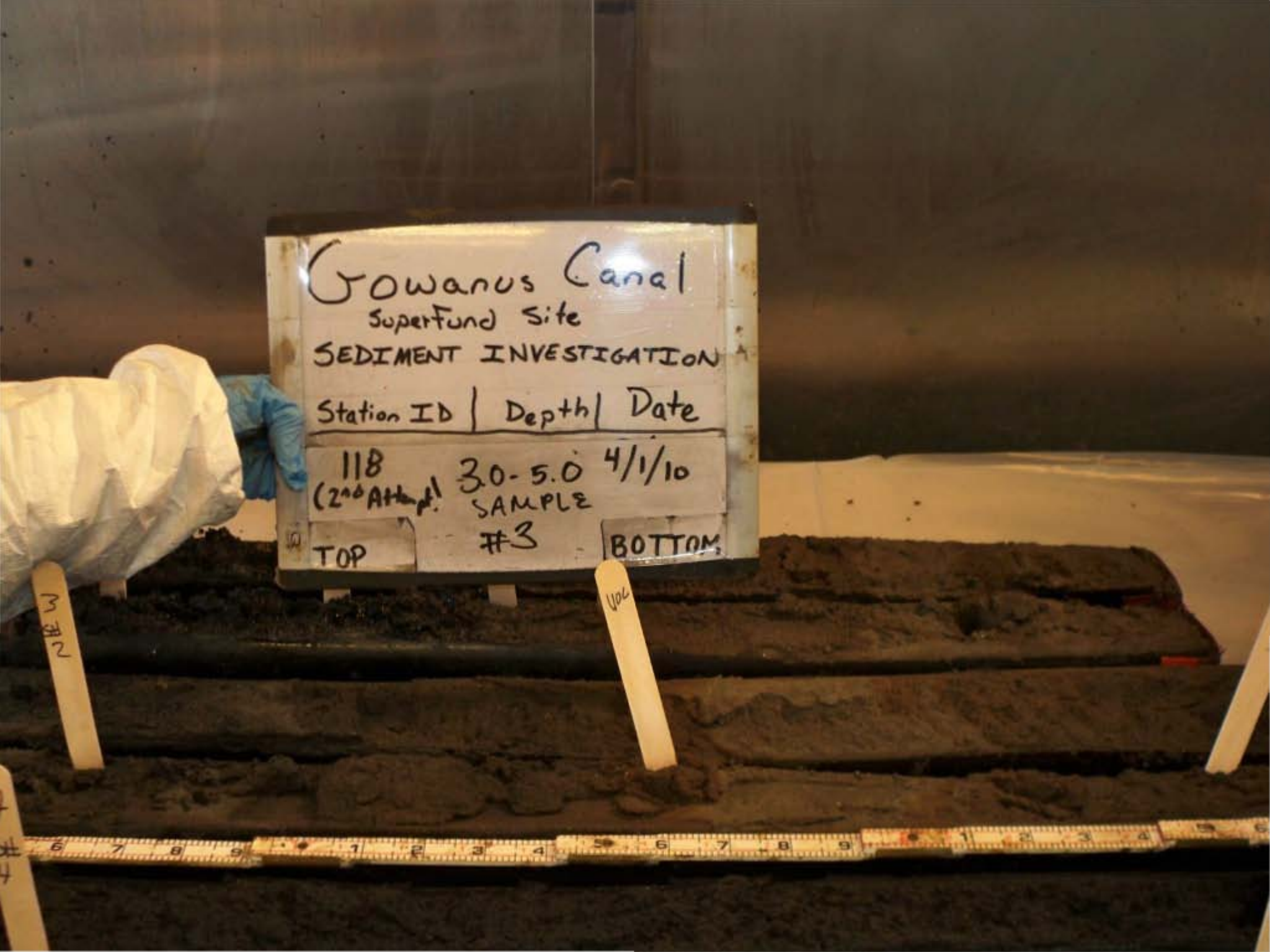

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
tation ID | Depth | Date
118 (2nd Attempt) 0-0.2 4/1/10
GRAVEL
NO SAMPLE
TOP
BOT 0.2'

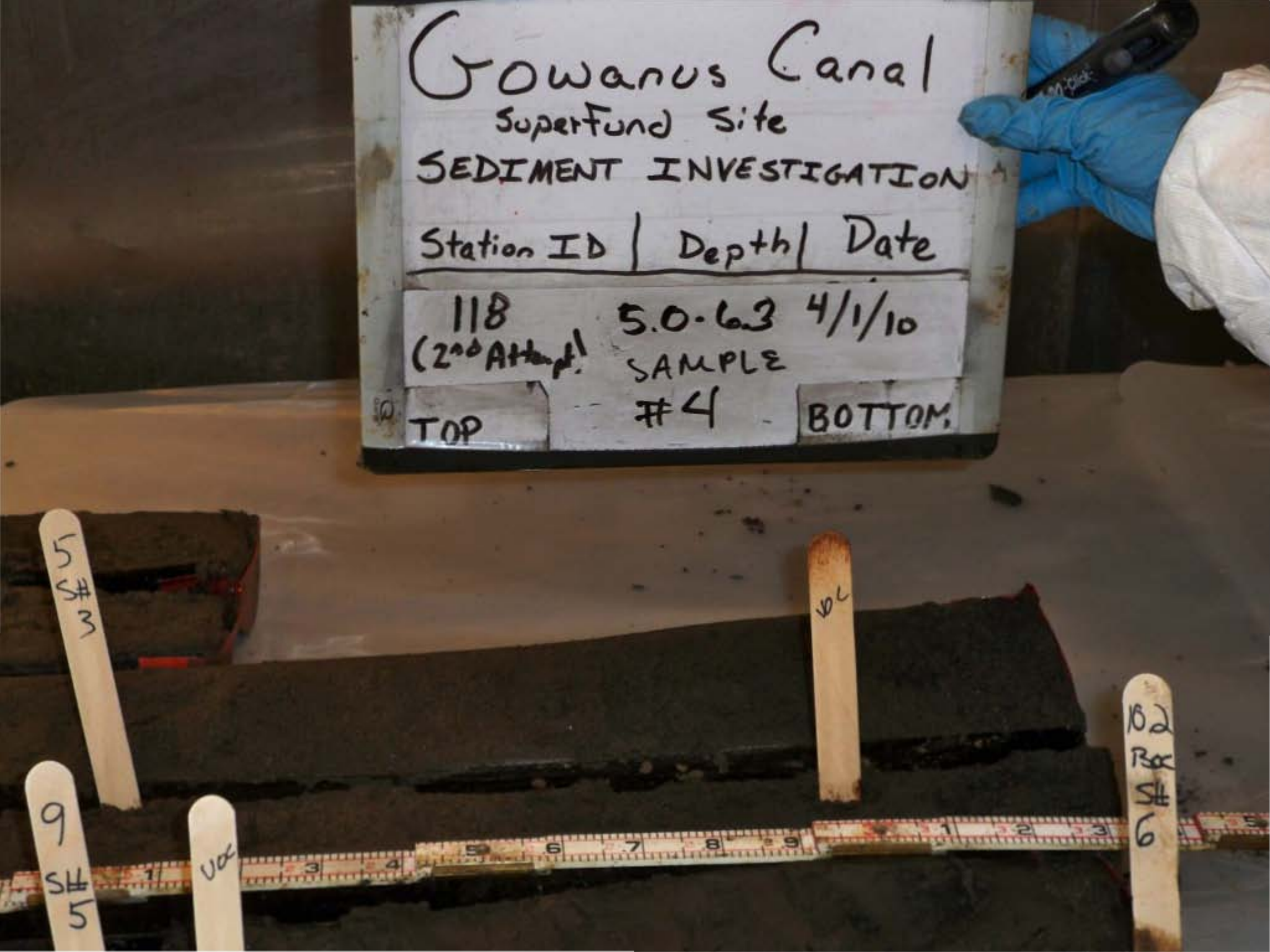

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
tation ID | Depth | Date
118 (2nd Attempt) 0-0.2 4/1/10
GRAVEL
NO SAMPLE
TOP
BOT 0.2'


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118 (2nd Attempt) 0.7-1.0 4/1/10
Transition Zone
TOP NO SAMPLE BOTTOM
0.2
0.8 Ft top Stt 1
1.0 Ft end
VOC
VOC
3 #2

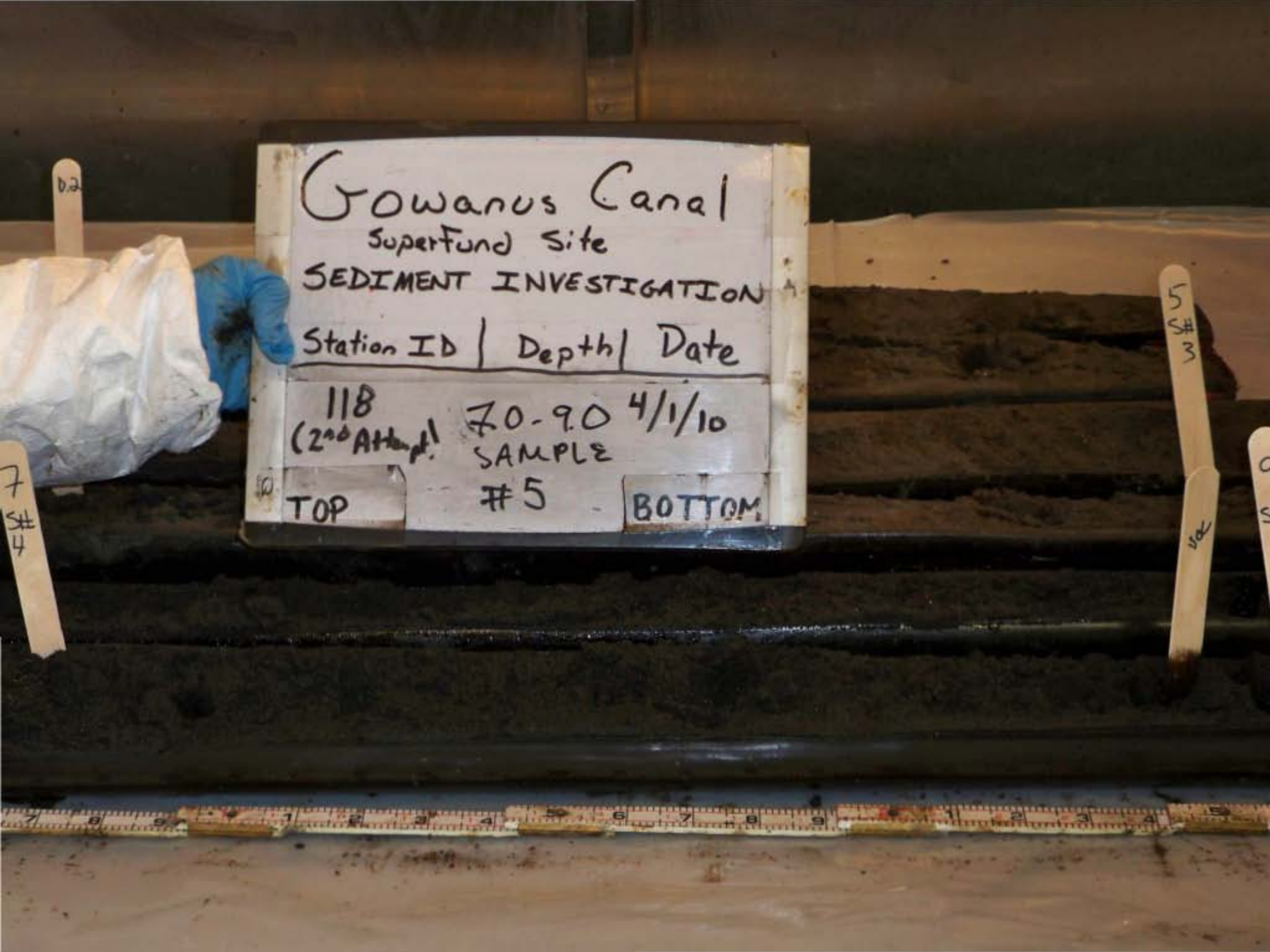

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118 (2nd Attempt!) 1.0-2.5 4/1/10
SAMPLE #2
TOP
BOTTOM
VOC
VOC

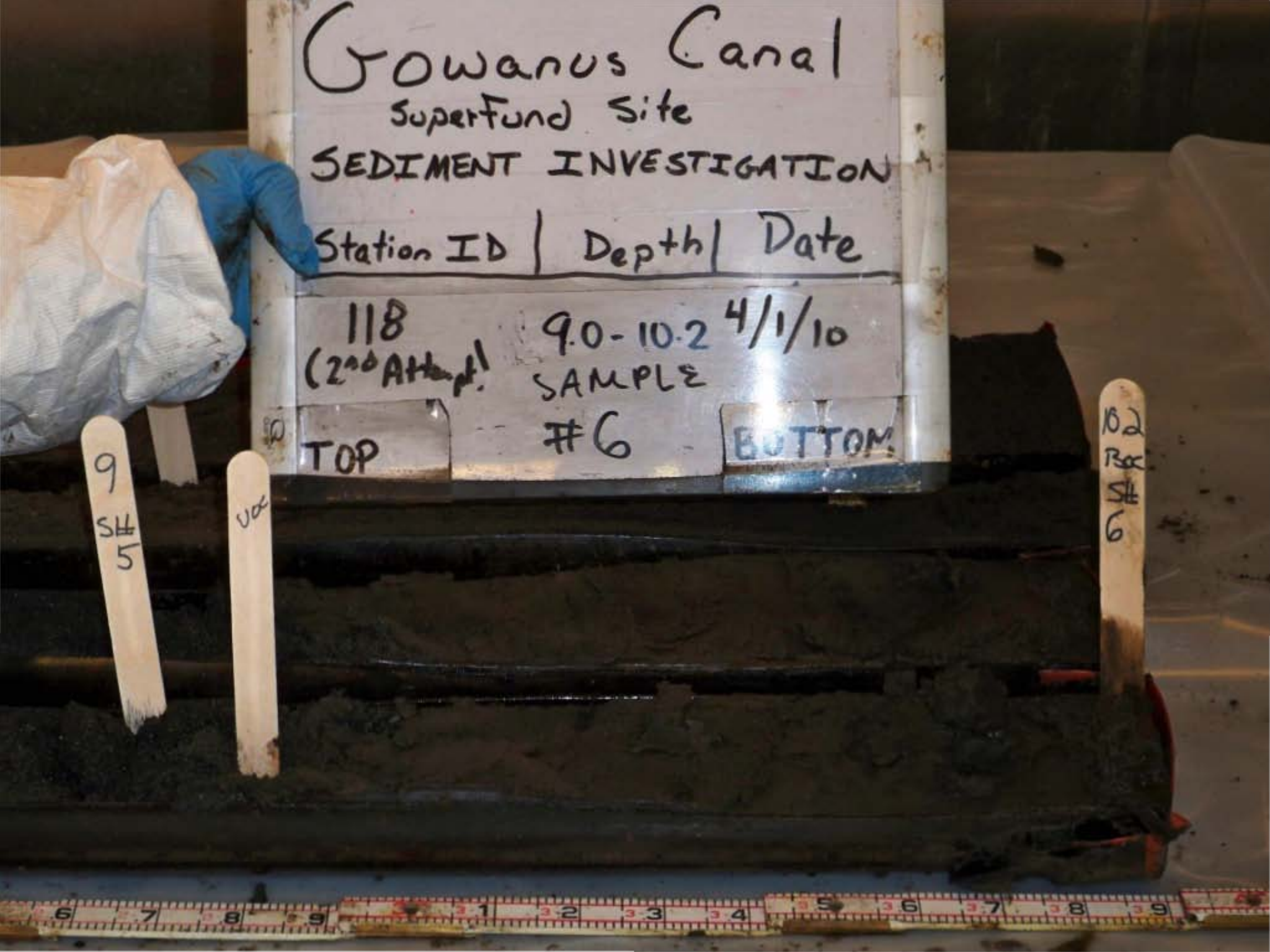

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118 (2nd Attempt!) 2.5-3.0 4/1/10
SAMPLE #2
TOP
BOTTOM
3 St #2
7 St #4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118 (2nd Attempt) 3.0-5.0 4/1/10
SAMPLE #3
TOP
BOTTOM
NEW
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118
(2nd Attempt!
5.0-6.3
4/1/10
SAMPLE
#4
TOP
BOTTOM
5
S#
3
VOC
9
S#
5
VOC
102
Boc
S#
6

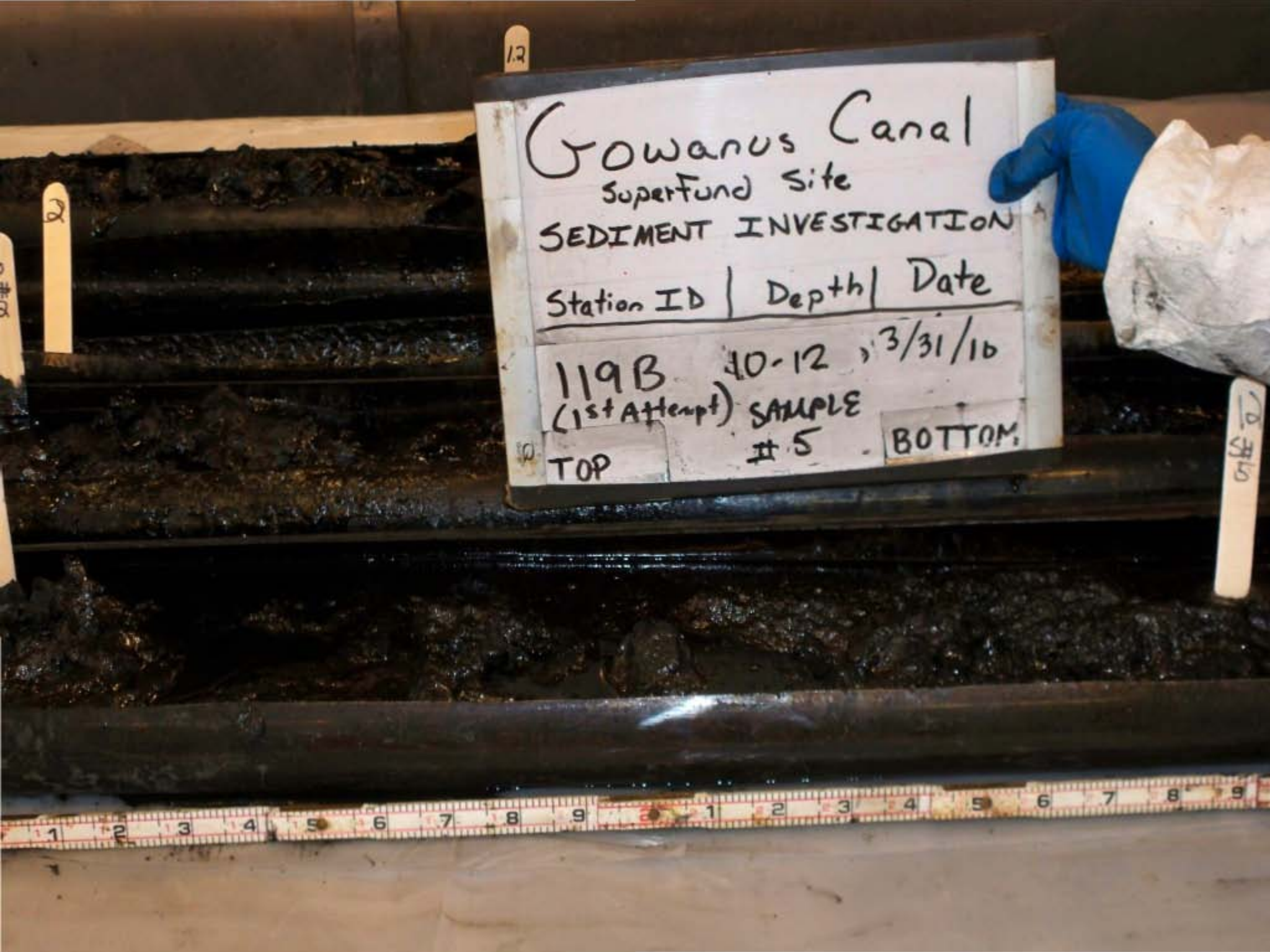

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118
(2nd Attempt!
6.3-7.0
SAMPLE
#4
4/1/10
TOP
BOTTOM
MiniRAE3000
RAE


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118
(2nd Attempt)
7.0-9.0
SAMPLE
#5
4/1/10
TOP
BOTTOM

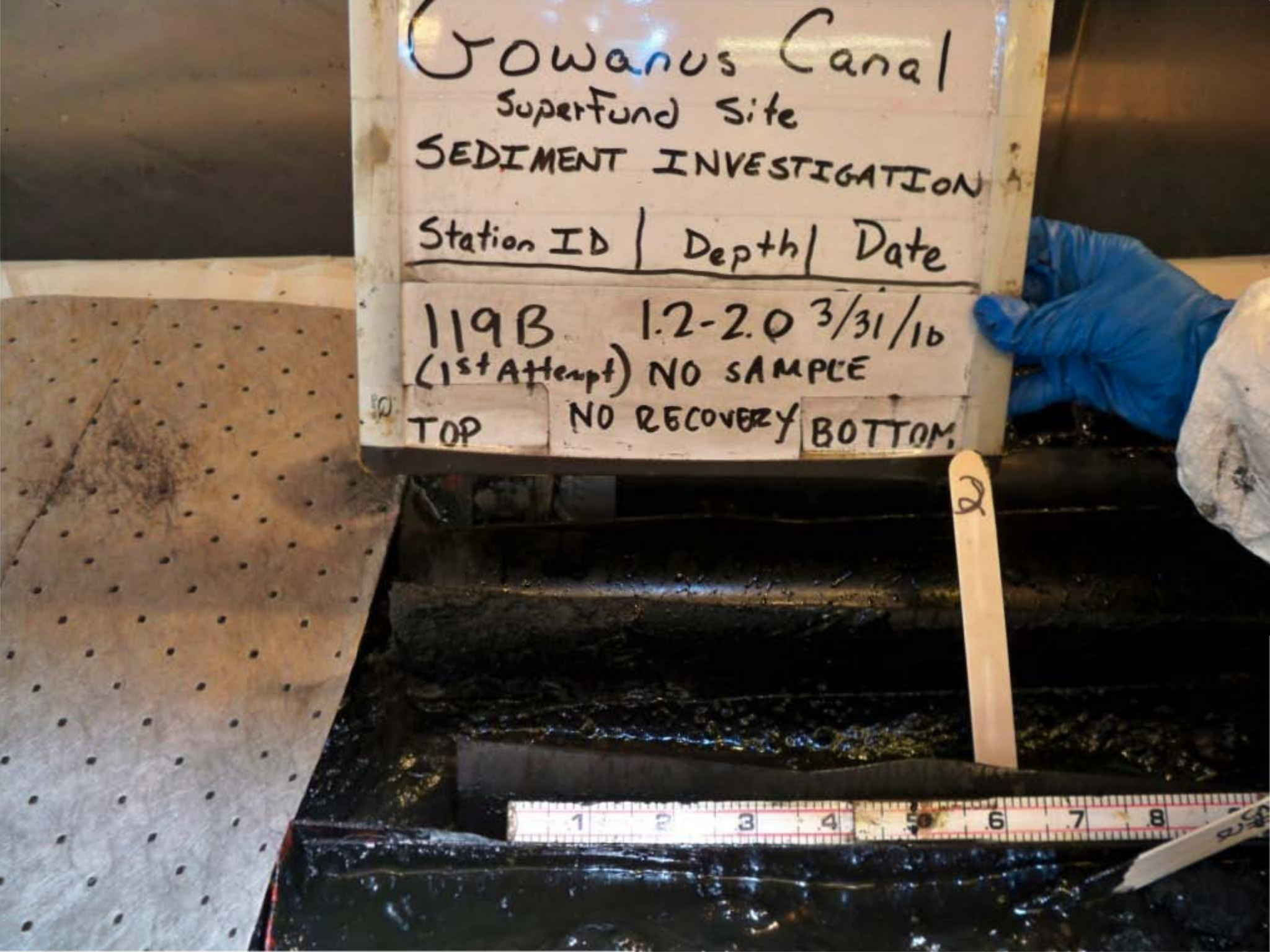

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118
(2nd Attempt!
9.0-10.2
SAMPLE
#6
4/1/10
TOP
BOTTOM
9
SH
5
VOC
10.2
BK
SH
6


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118
(2nd Attempt)
Full Recovery
4/1/10
TOP
BOTTOM

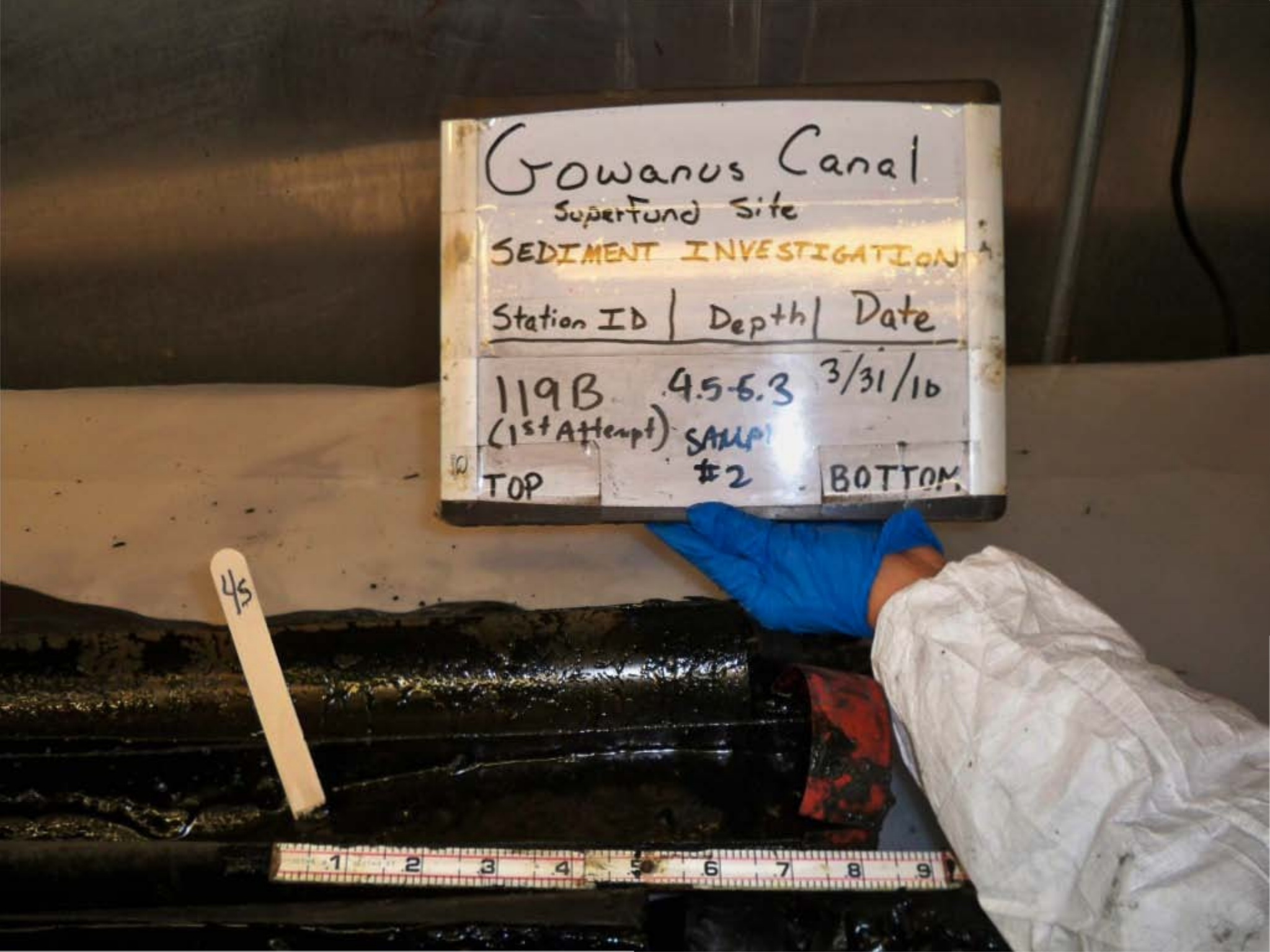

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B 0-1.2 3/31/16
(1st Attempt) SAMPLE
#1
TOP
BOTTOM
1.2
SH
1
2

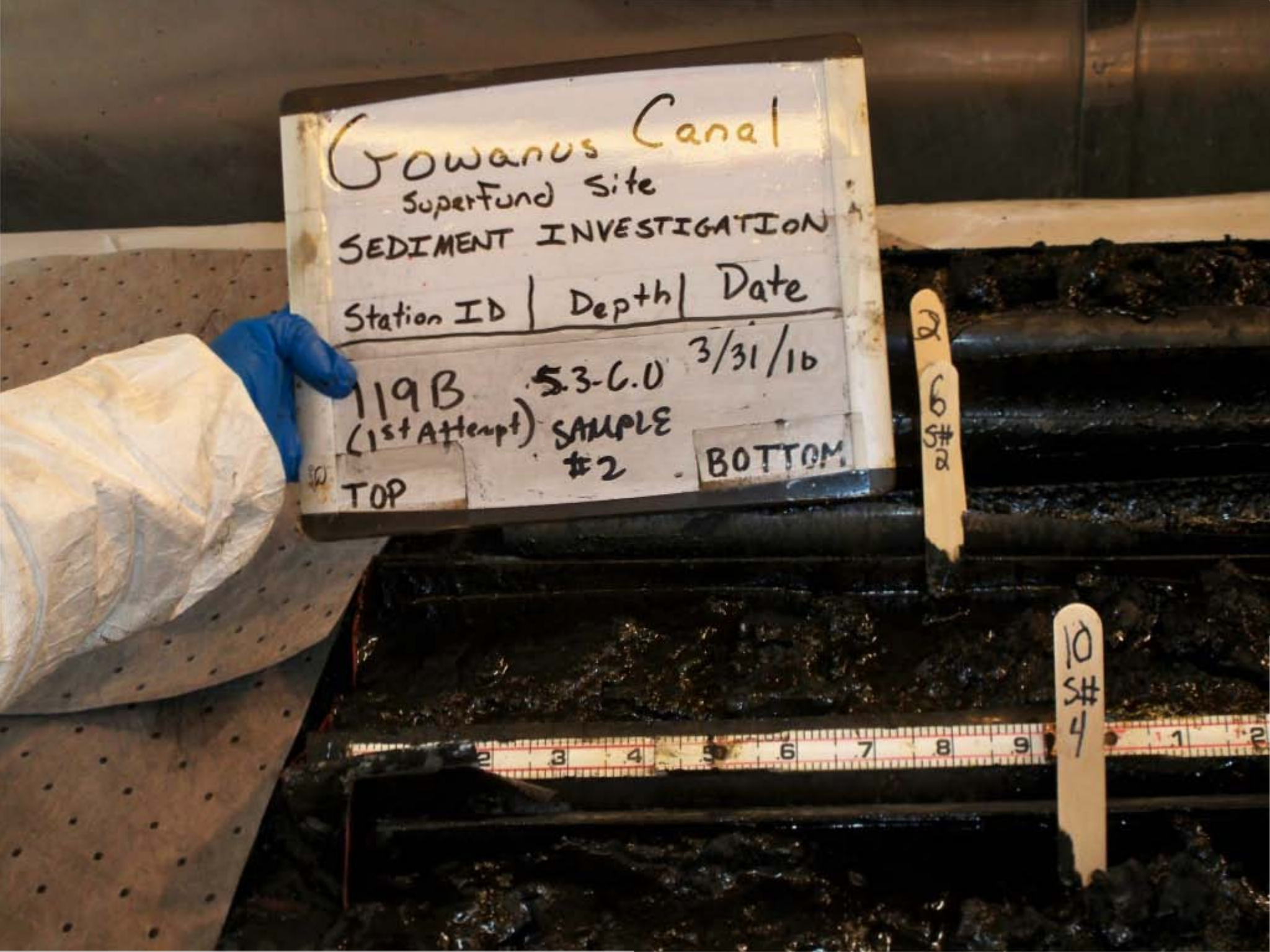

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B (1st Attempt) 10-12 | 3/31/10
SAMPLE #5
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
119B 12-13 3/31/16
(1st Attempt) SAMPLE
TOP #6 BOTTOM
8 SH 3
12 SH 5
13 SH 6

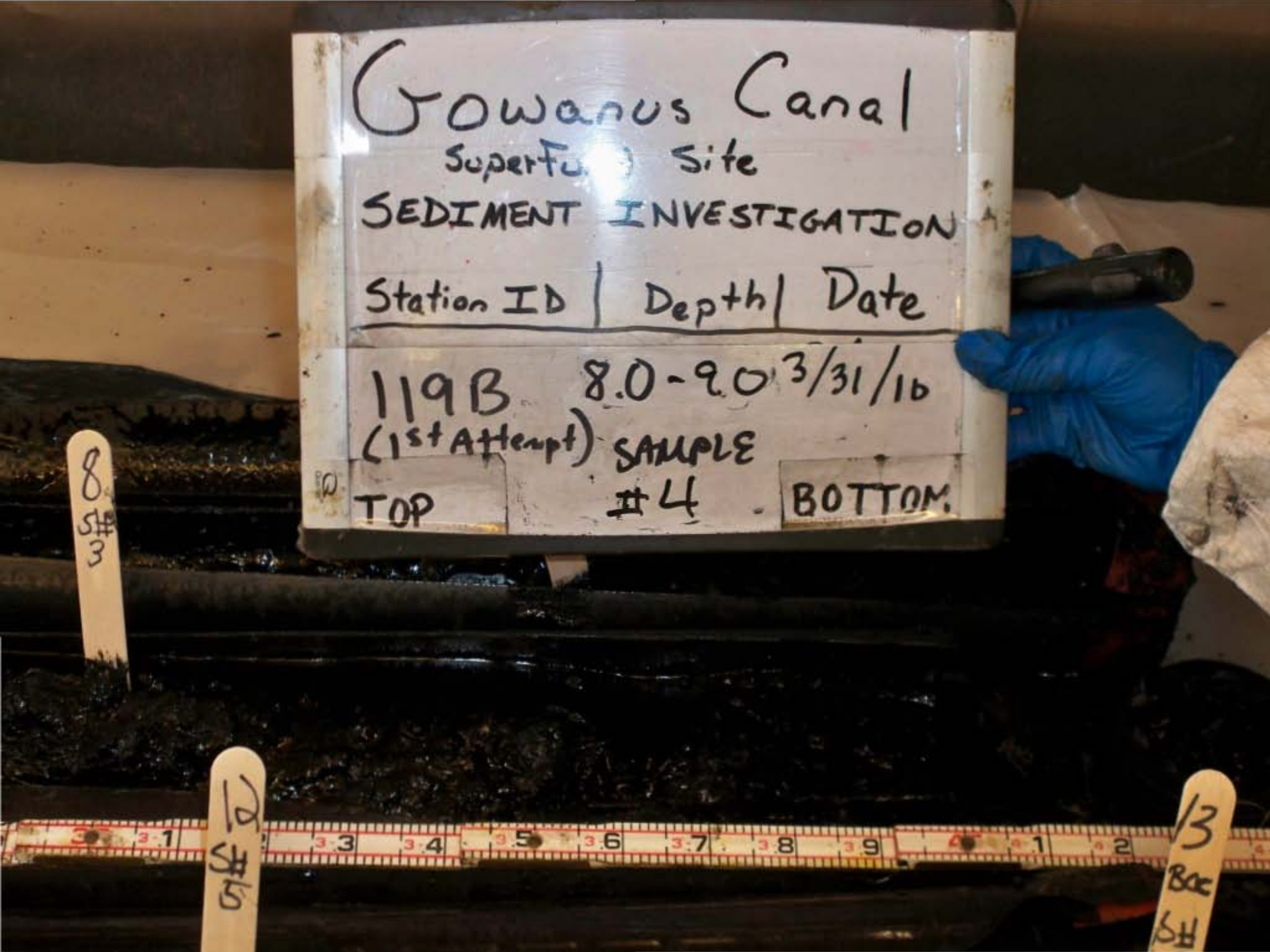

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B 1.2-2.0 3/31/10
(1st Attempt) NO SAMPLE
TOP
NO RECOVERY
BOTTOM
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B 2.0-4.5 3/31/10
(1st Attempt) NO SAMPLE
TOP NO RECOVERY BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B (1st Attempt) 4.5-6.3 3/31/16
SAMPLE #2
TOP
BOTTOM
4S

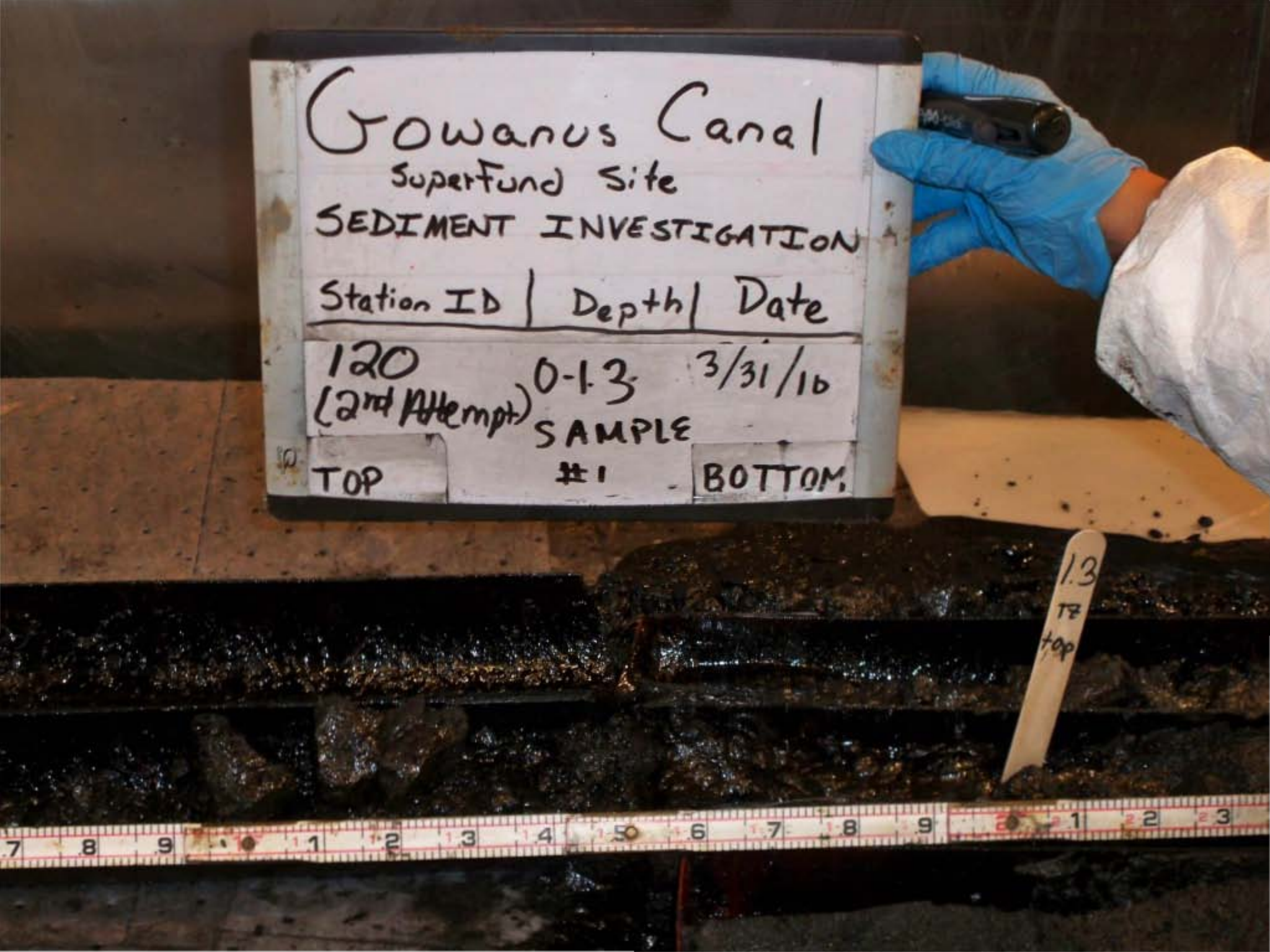

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B (1st Attempt) 53-60 3/31/10
SAMPLE #2
TOP
BOTTOM
2
6
S#2
10
S#4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
119B 6.0-8.0 3/31/10
(1st Attempt) SAMPLE
TOP #3 BOTTOM
6 S#2
10 S#4

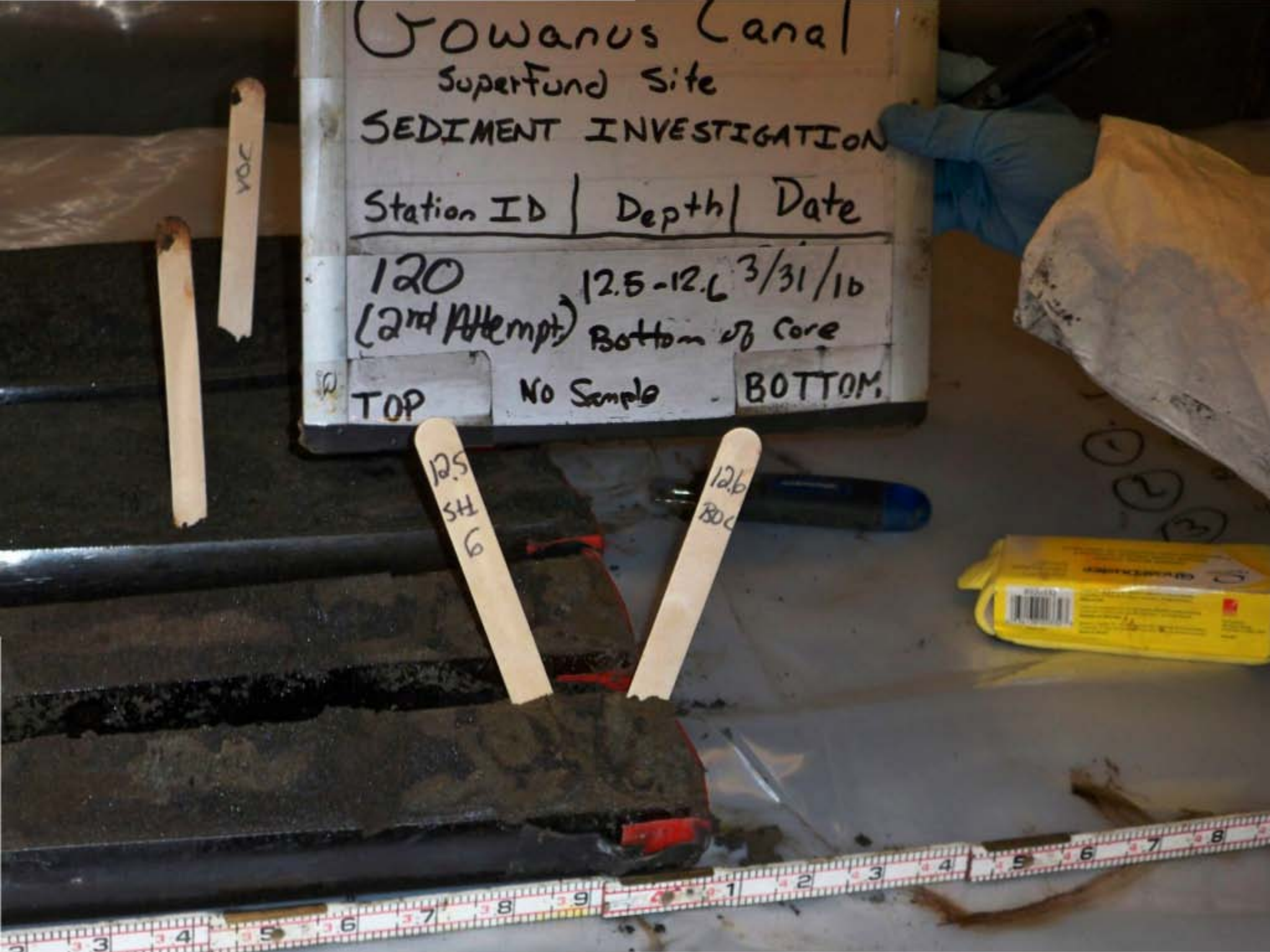

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B 8.0-9.0 3/31/10
(1st Attempt) SAMPLE #4
TOP
BOTTOM
8 SH 3
12 SH 5
13 Back SH

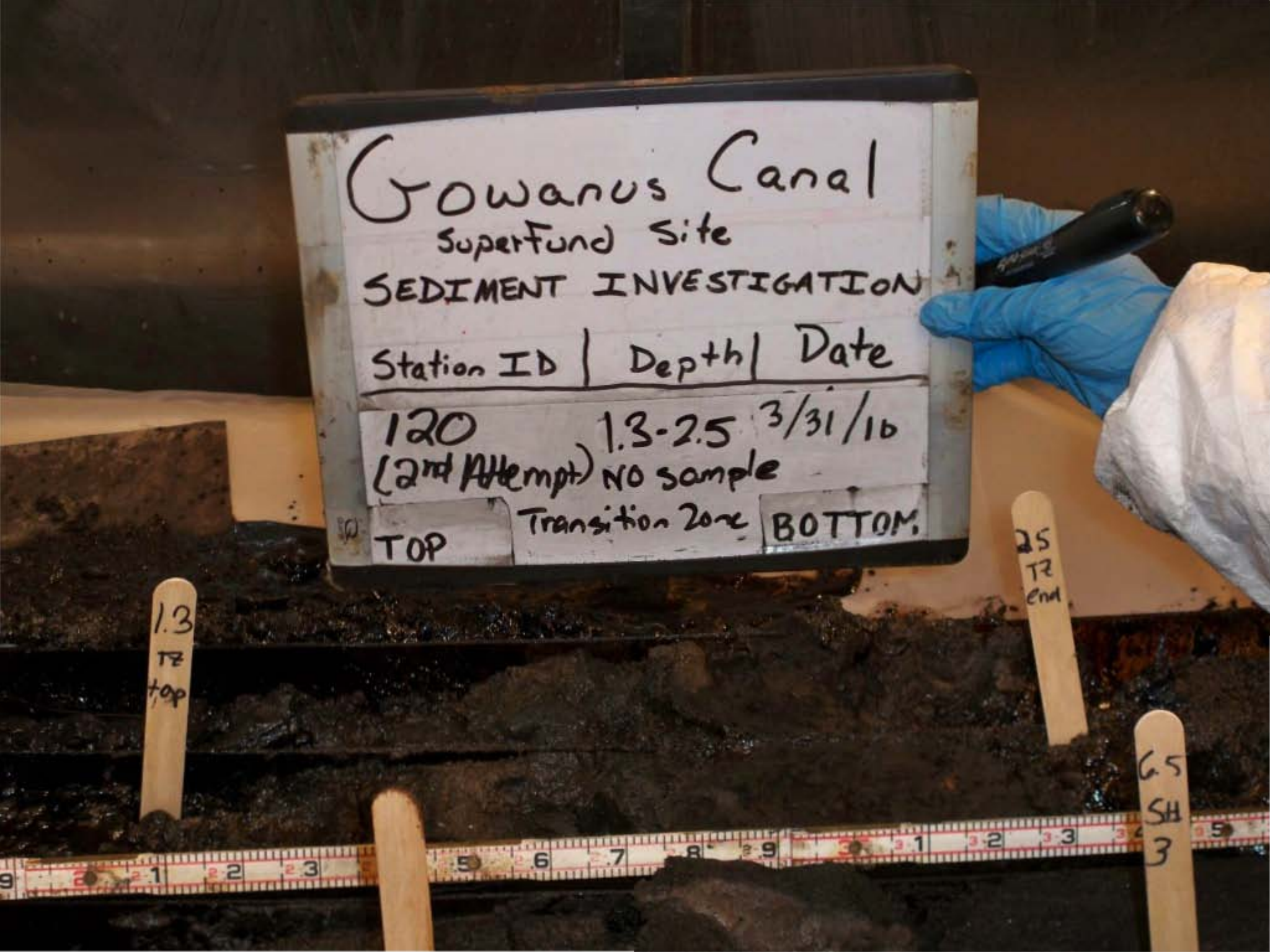

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B 9.0-10.0 3/31/10
(1st Attempt) SAMPLE
TOP #4 BOTTOM
10
S#
4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
119B (1st Attempt) FULL RECOVERY 3/31/10
TOP
BOTTOM

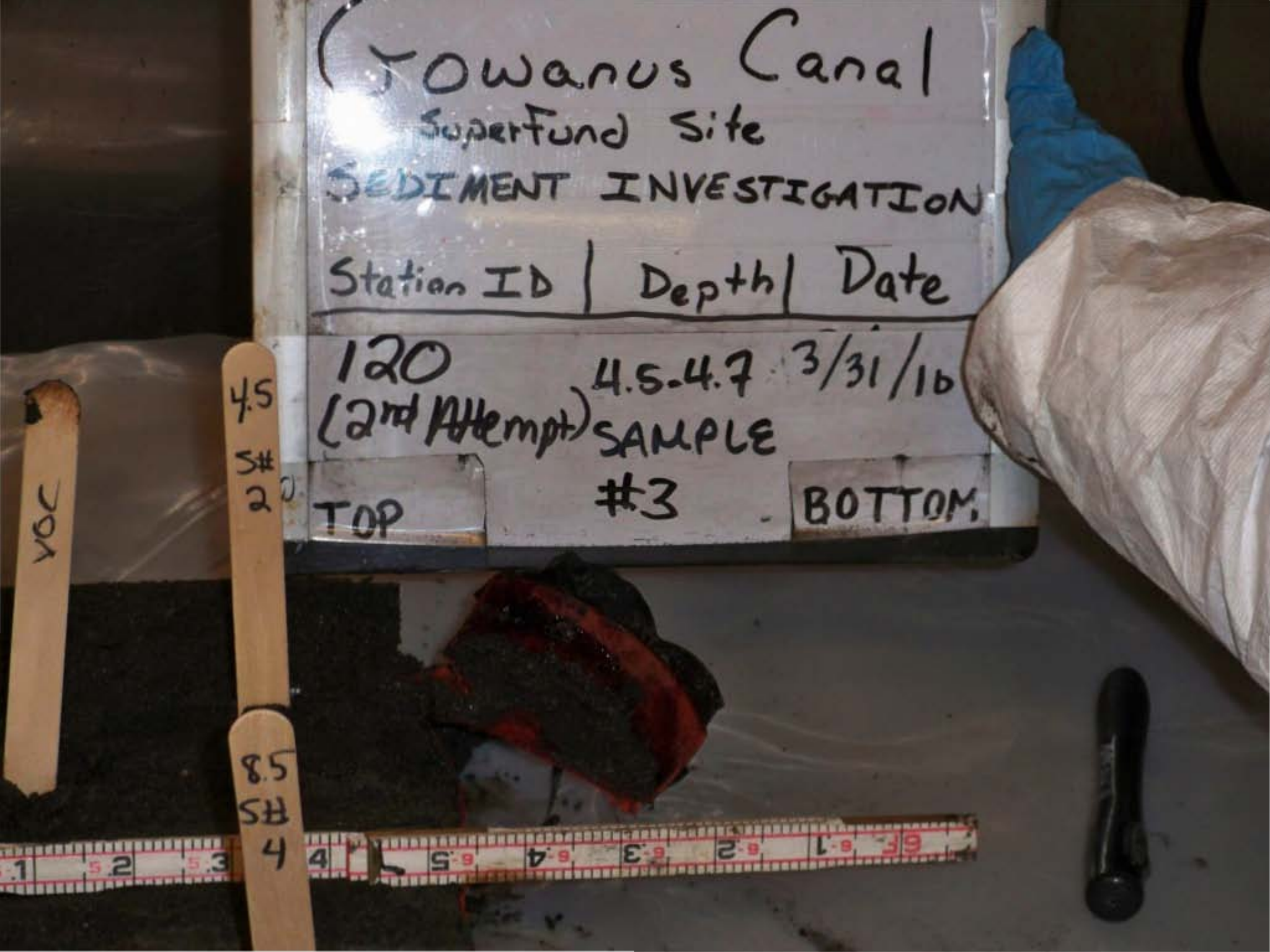

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 (2nd Attempt) 0-1.3 3/31/16
SAMPLE #1
TOP
BOTTOM
1.3 TZ top

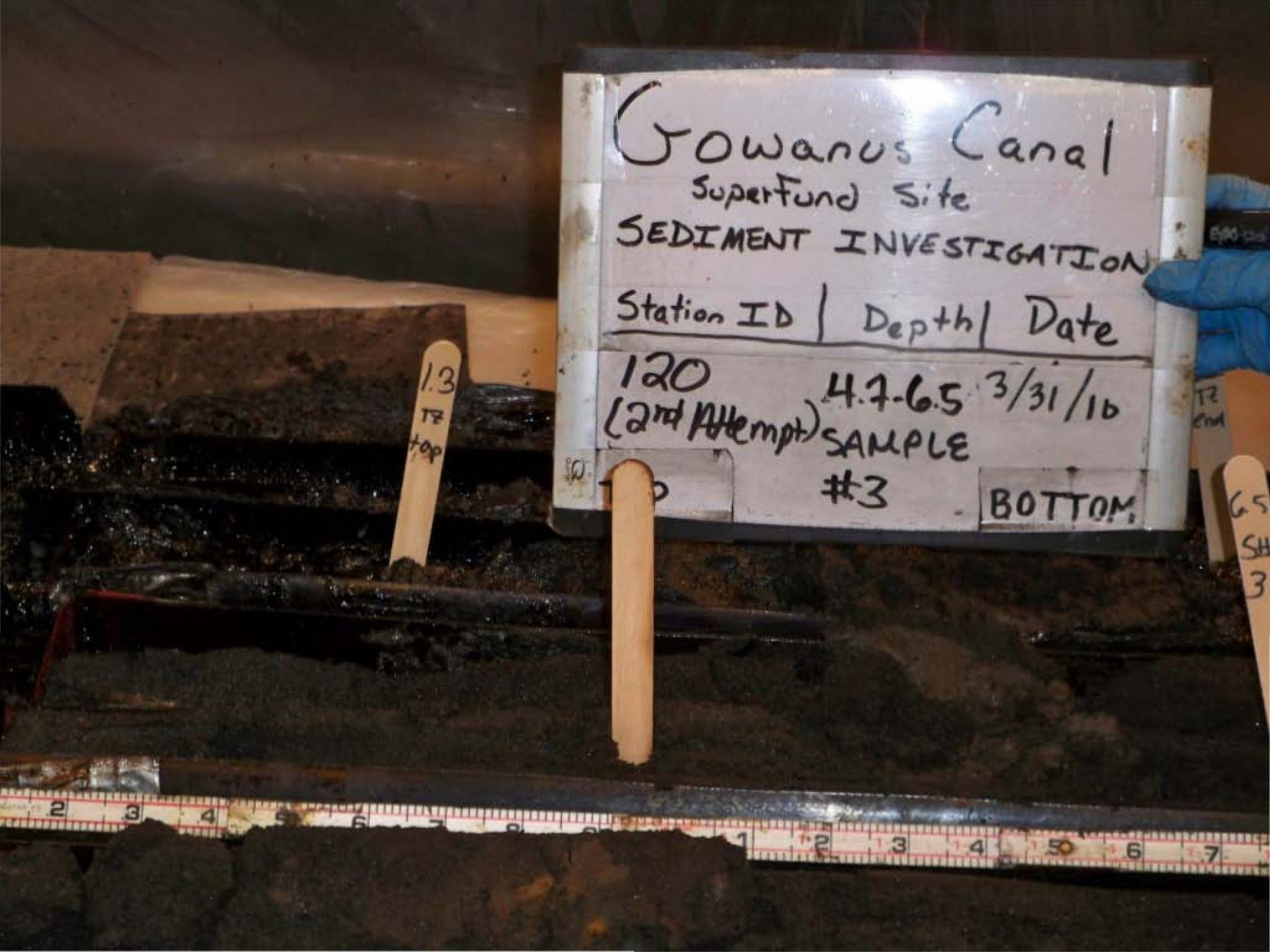

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 10.5-12.5 3/31/10
(2nd Attempt) SAMPLE
TOP #6 BOTTOM

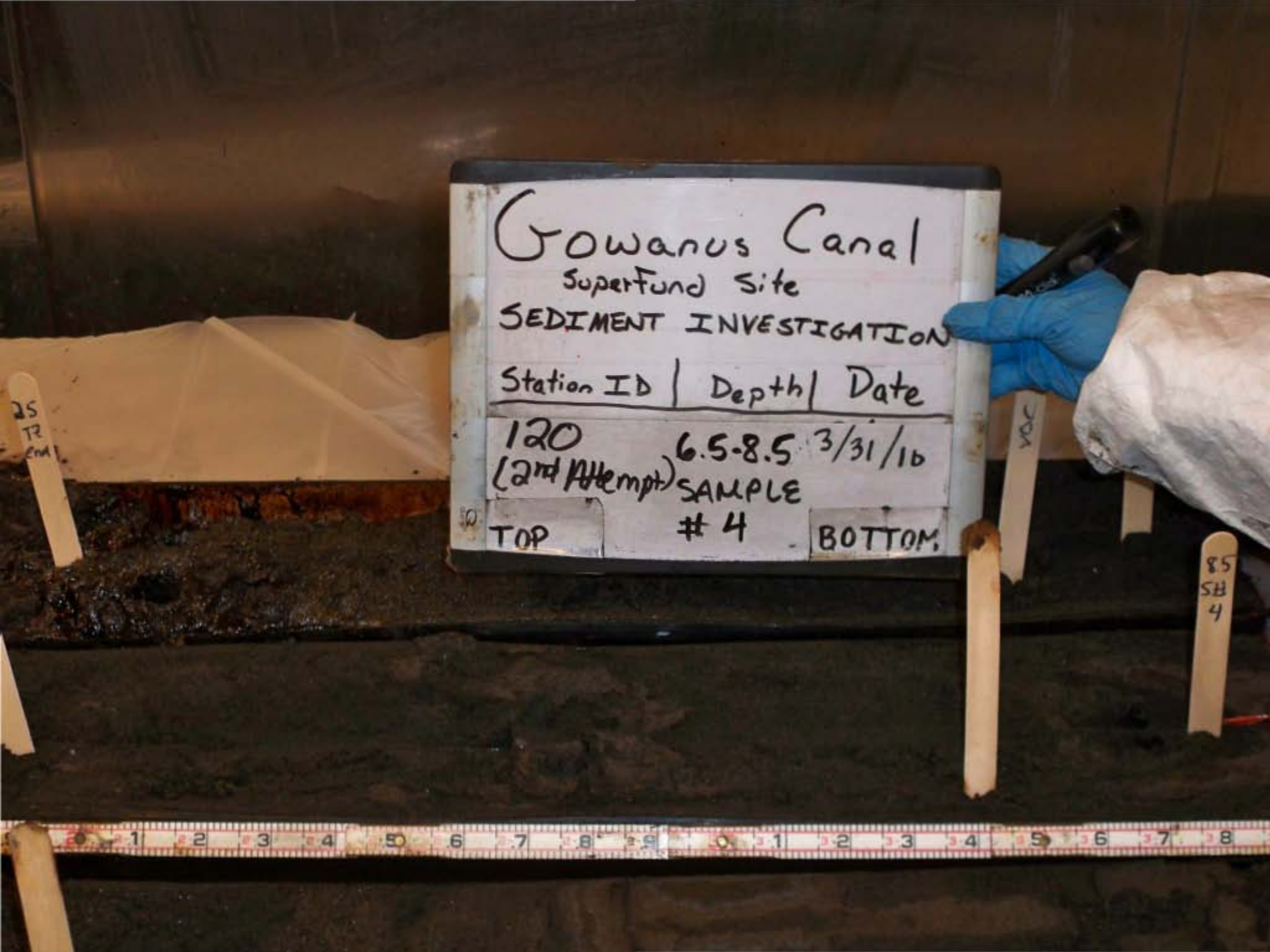

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 (2nd Attempt) 12.5-12.6 3/31/16
Bottom of Core
TOP
No Sample
BOTTOM
VOC
12.5 SH 6
12.6 BOC

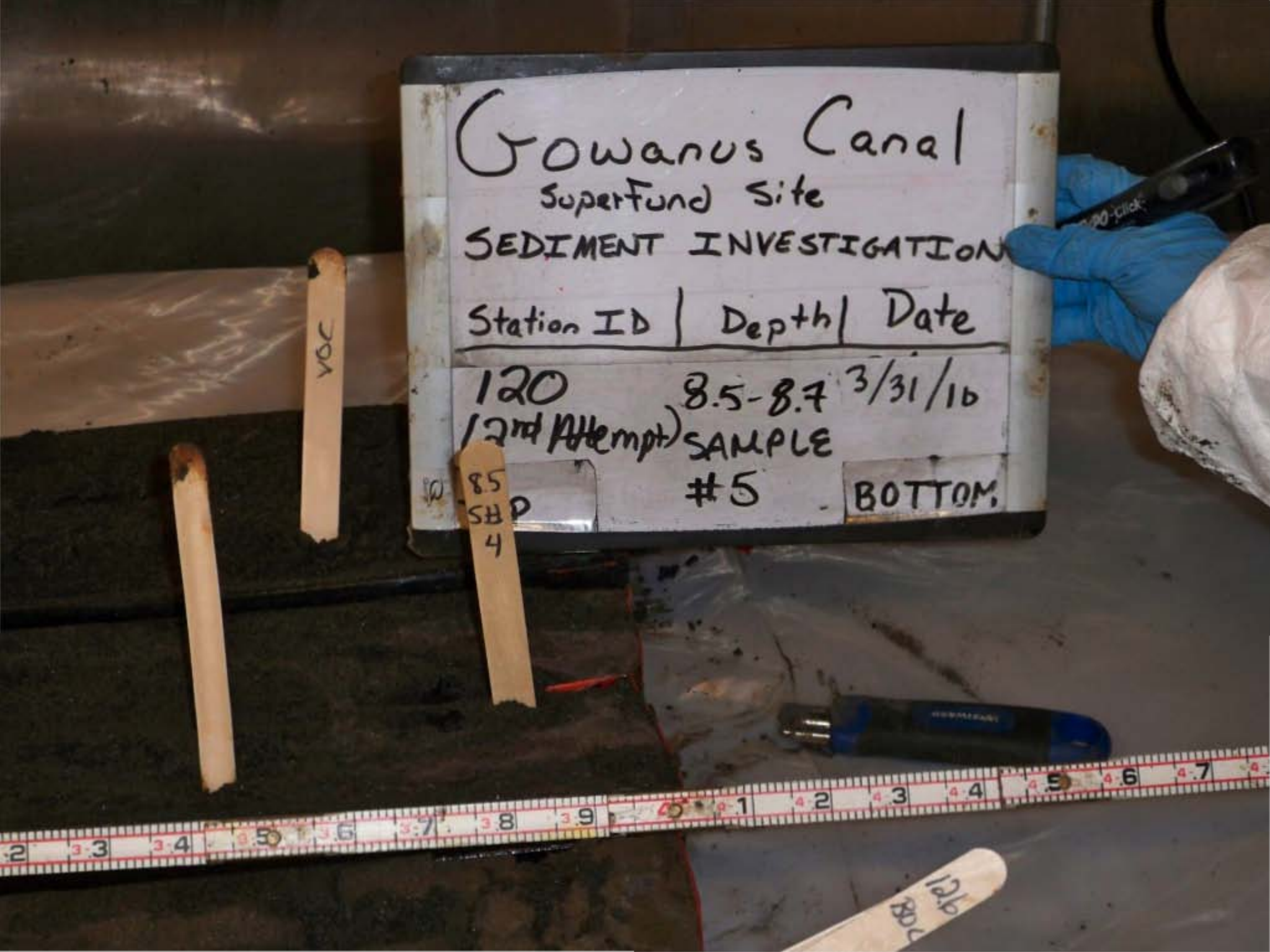

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 1.3-2.5 3/31/10
(2nd Attempt) NO sample
TOP
Transition Zone
BOTTOM
1.3 TZ top
2.5 TZ end
G.S SH 3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 (2nd Attempt) 2.5-4.5 3/31/10
SAMPLE #2
TOP
BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 (2nd Attempt) 4.5-4.7 3/31/16
SAMPLE #3
TOP
BOTTOM
VOC
4.5
S#
2
8.5
S#
4

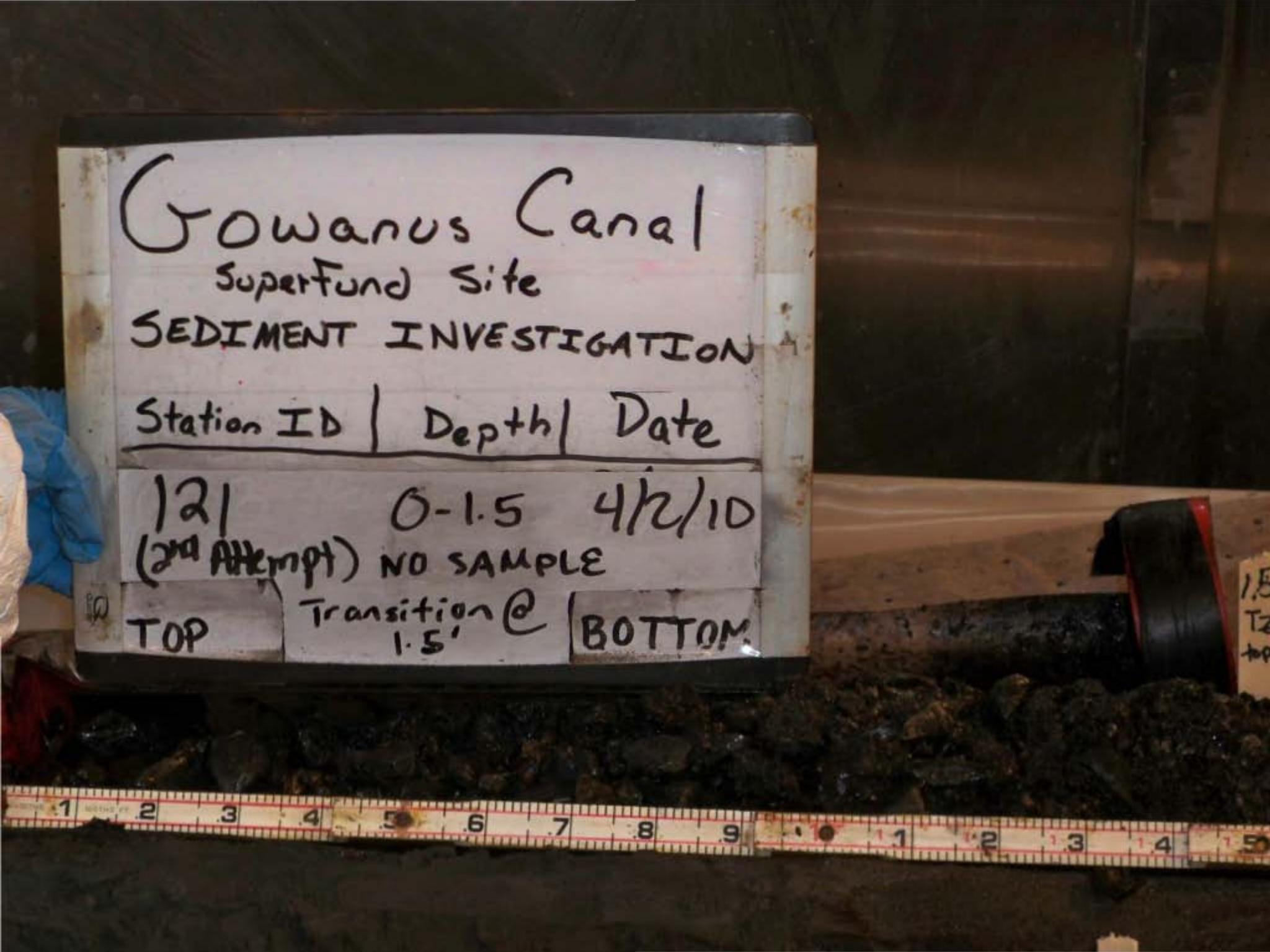

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 4.7-6.5 3/31/16
(2nd Attempt) SAMPLE
#3 BOTTOM
1.3
TR
top

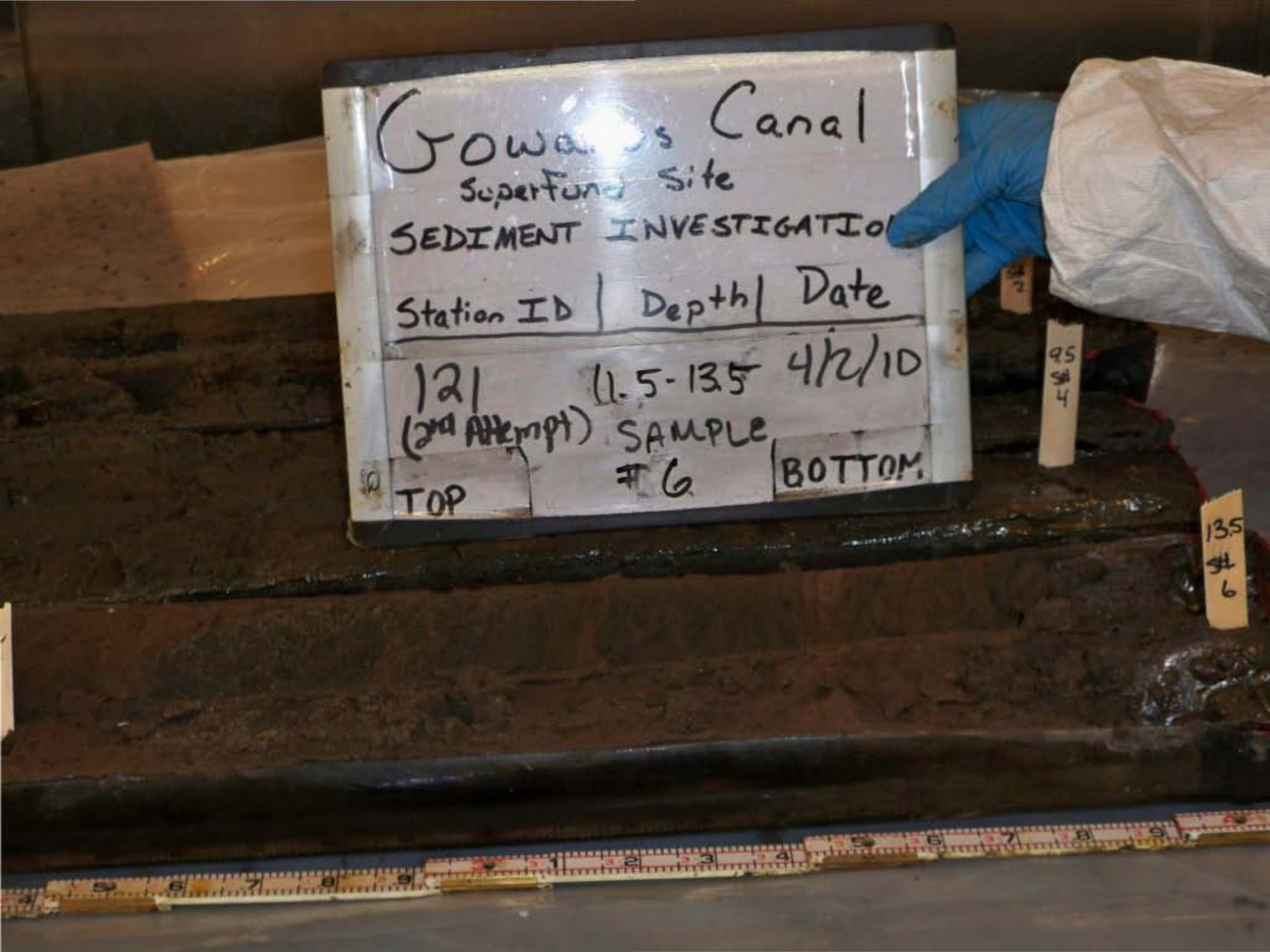

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 (2nd Attempt) 6.5-8.5 3/31/16
SAMPLE # 4
TOP
BOTTOM
VOC
85 SH 4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 (2nd Attempt) 8.5-8.7 3/31/16
SAMPLE #5
BOTTOM
VOC
8.5 SHP 4

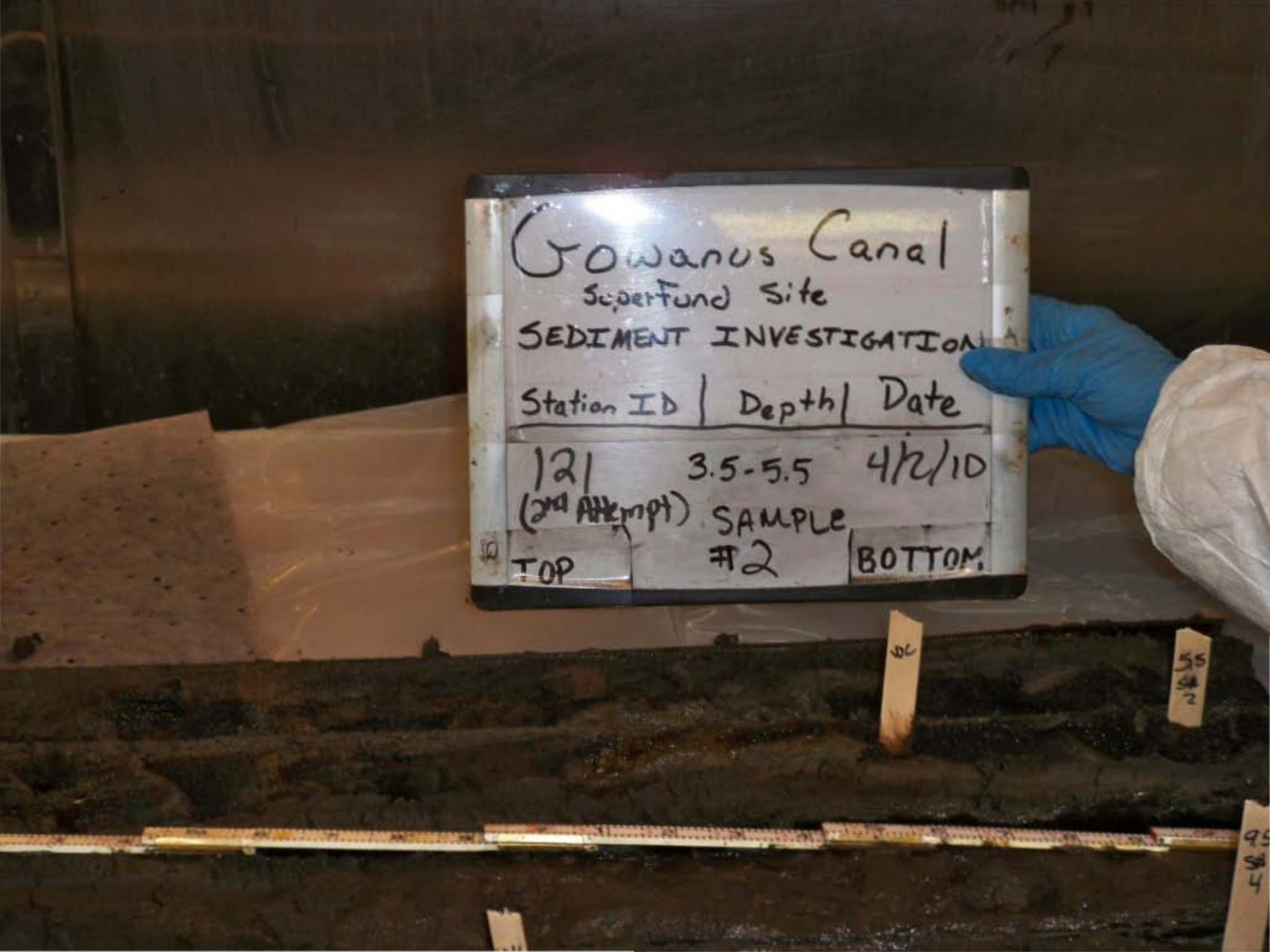

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 8.7-10.5 3/31/10
(2nd Attempt) SAMPLE
#5
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
120 FULL 3/31/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

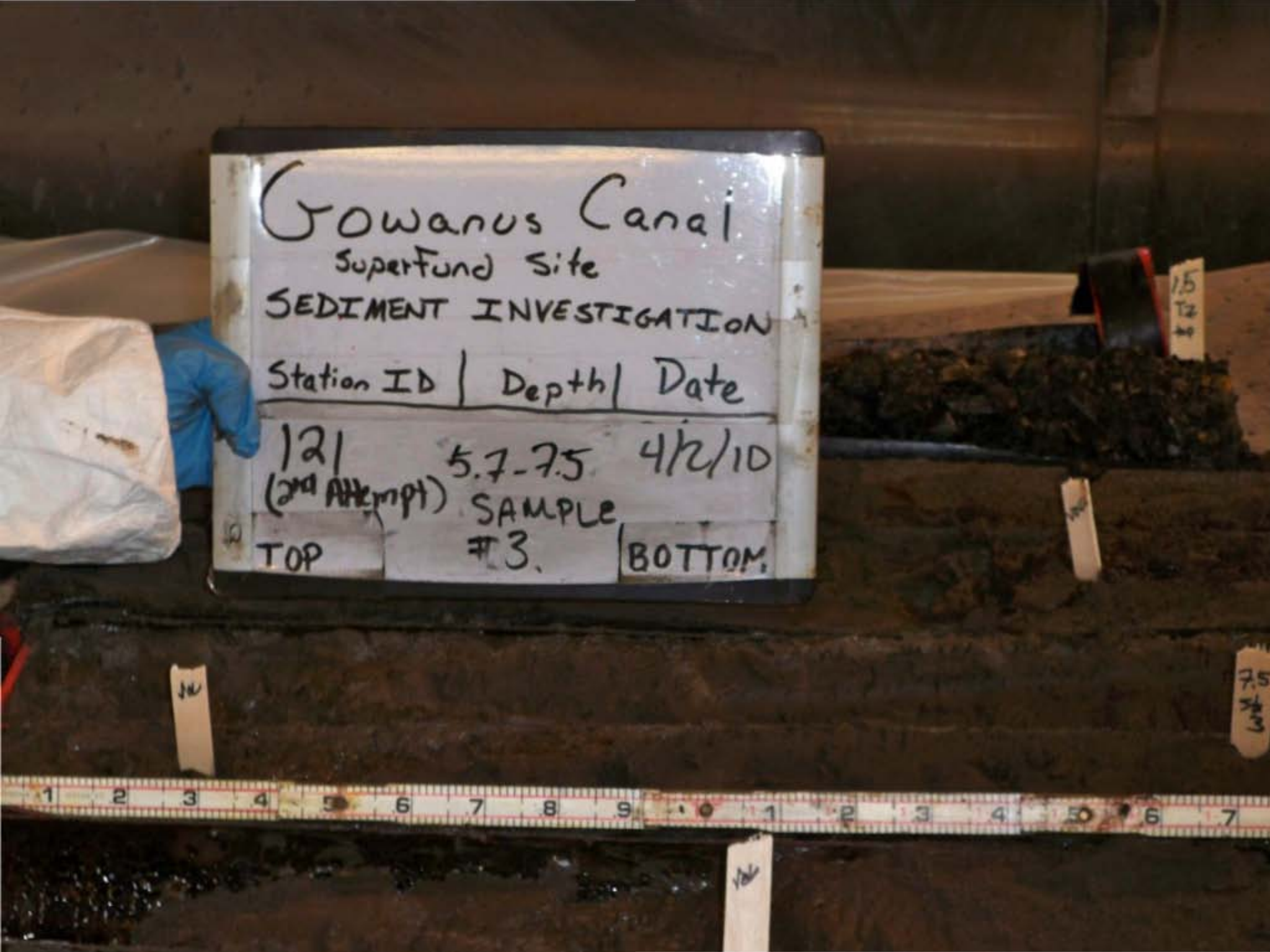

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 0-1.5 4/2/10
(2nd Attempt) NO SAMPLE
TOP
Transition @ 1.5'
BOTTOM

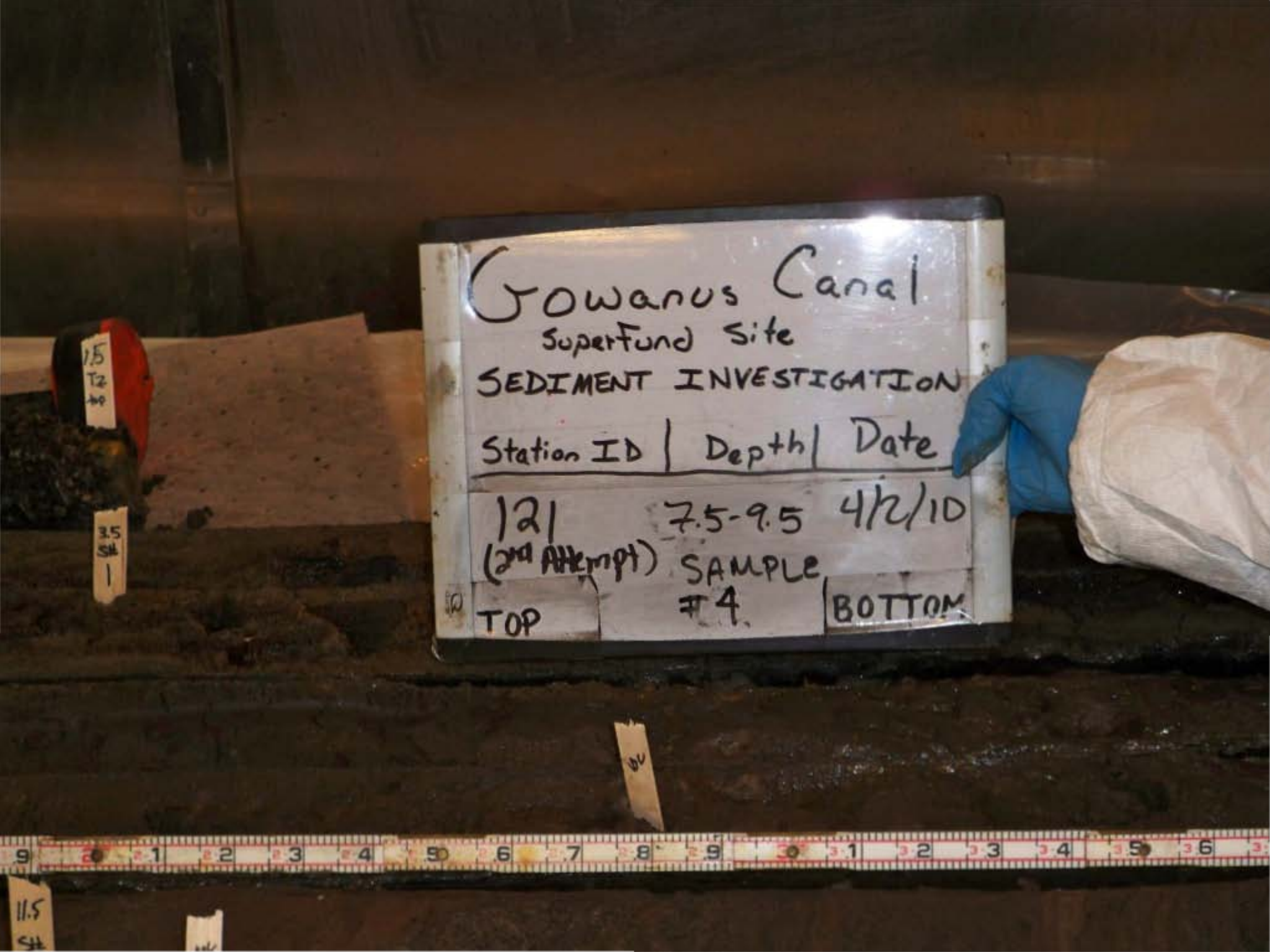

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATIO
Station ID | Depth | Date
121 (2nd Attempt) | 11.5-13.5 | 4/2/10
SAMPLE #6
TOP
BOTTOM
95 St 4
135 St 6

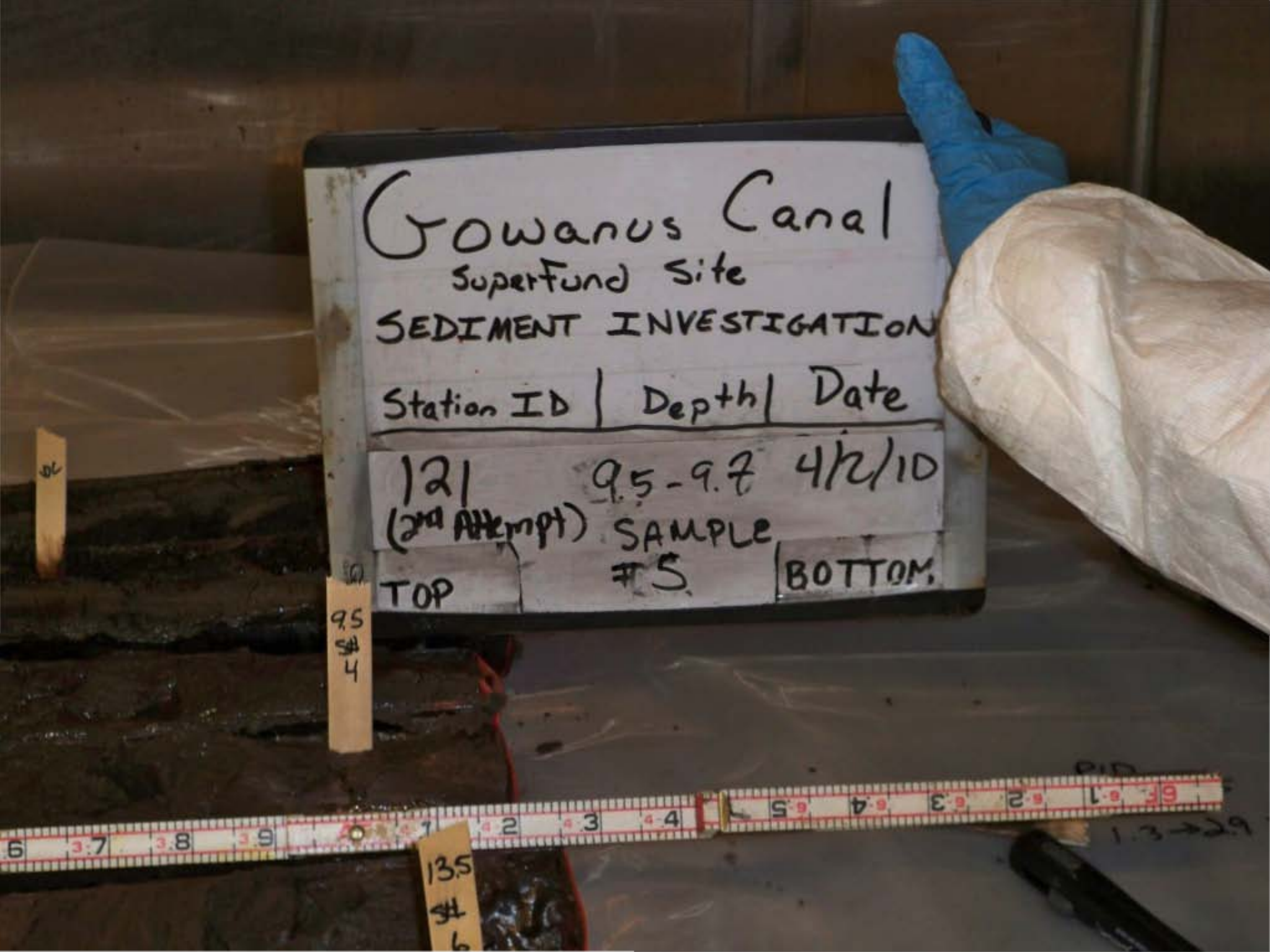

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 (2nd Attempt) 1.5-3.5 4/2/10
SAMPLE #1
TOP
BOTTOM
1.5 ft end

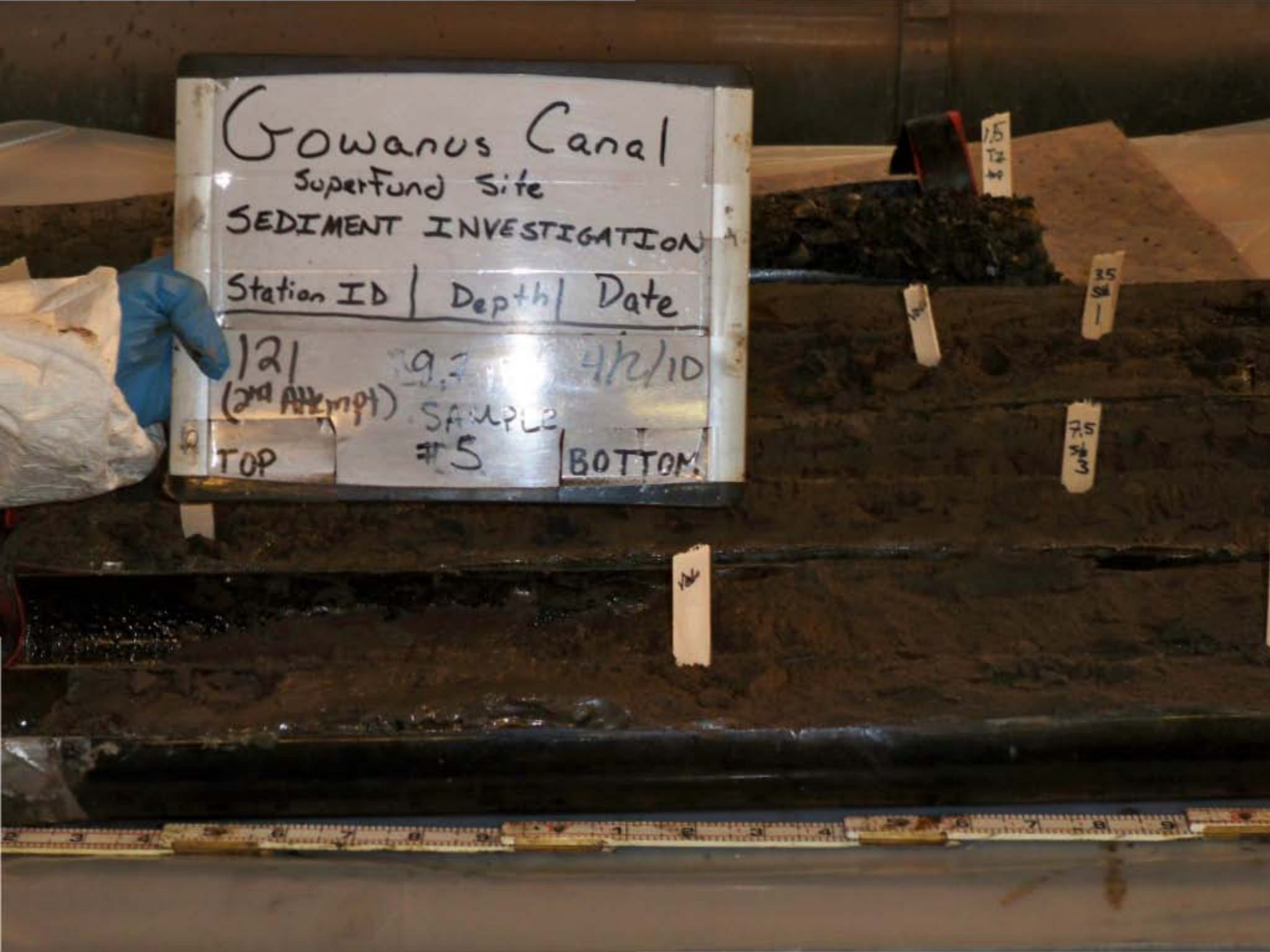

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 (2nd Attempt) 3.5-5.5 4/2/10
SAMPLE #2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 (3rd Attempt) 5.5-5.7 4/12/10
SAMPLE #3.
TOP
BOTTOM
5.5 SA 2
9.5


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 (2nd Attempt) 5.7-7.5 4/2/10
SAMPLE #3.
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 (2nd Attempt) 7.5-9.5 4/2/10
SAMPLE #4
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 (2nd Attempt) 9.5-9.7 4/2/10
SAMPLE #5
TOP
BOTTOM
9.5 SH 4
13.5 SH 6

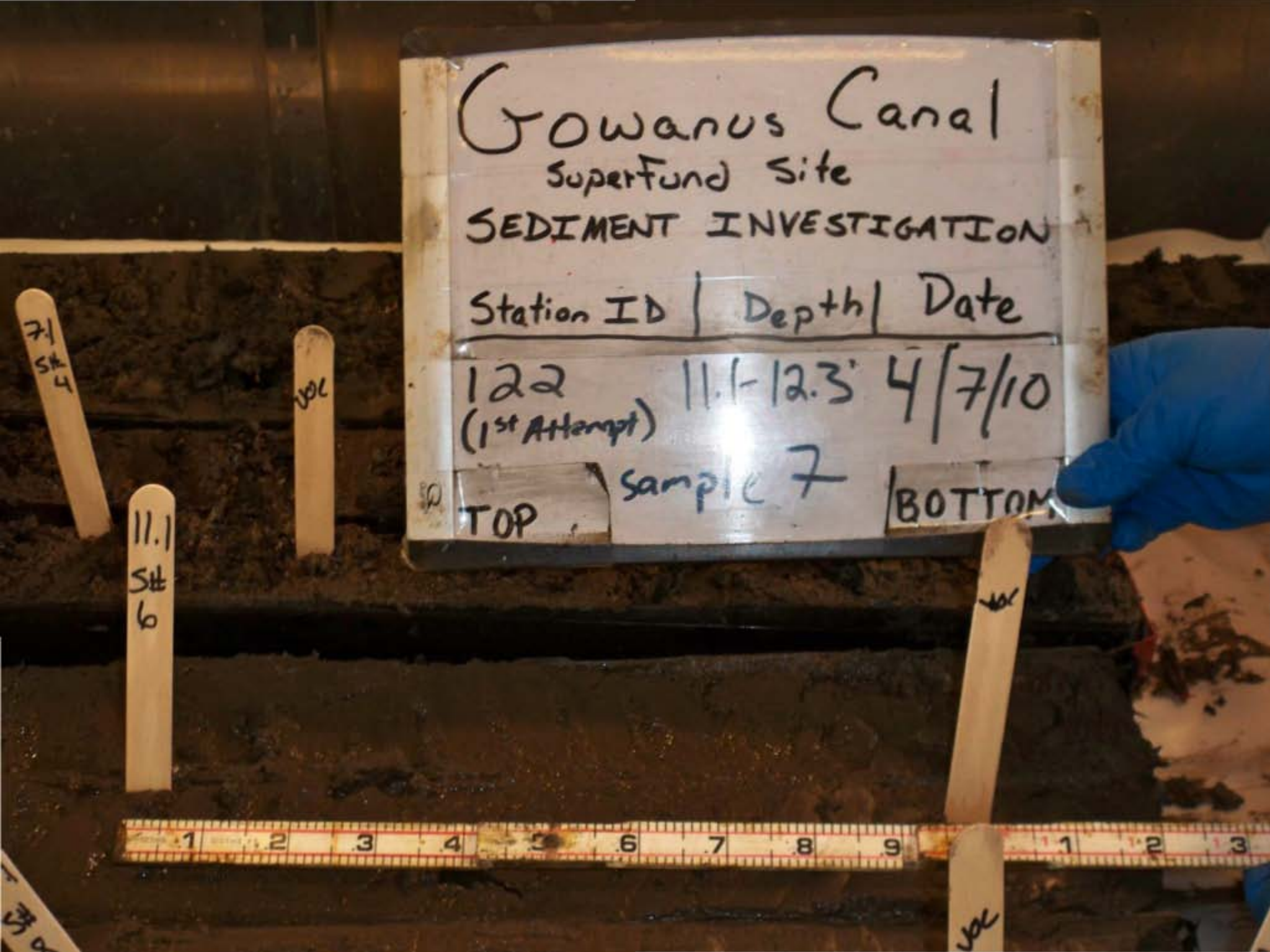

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121
(2nd Attempt)
9.7
4/2/10
SAMPLE
#5
TOP
BOTTOM

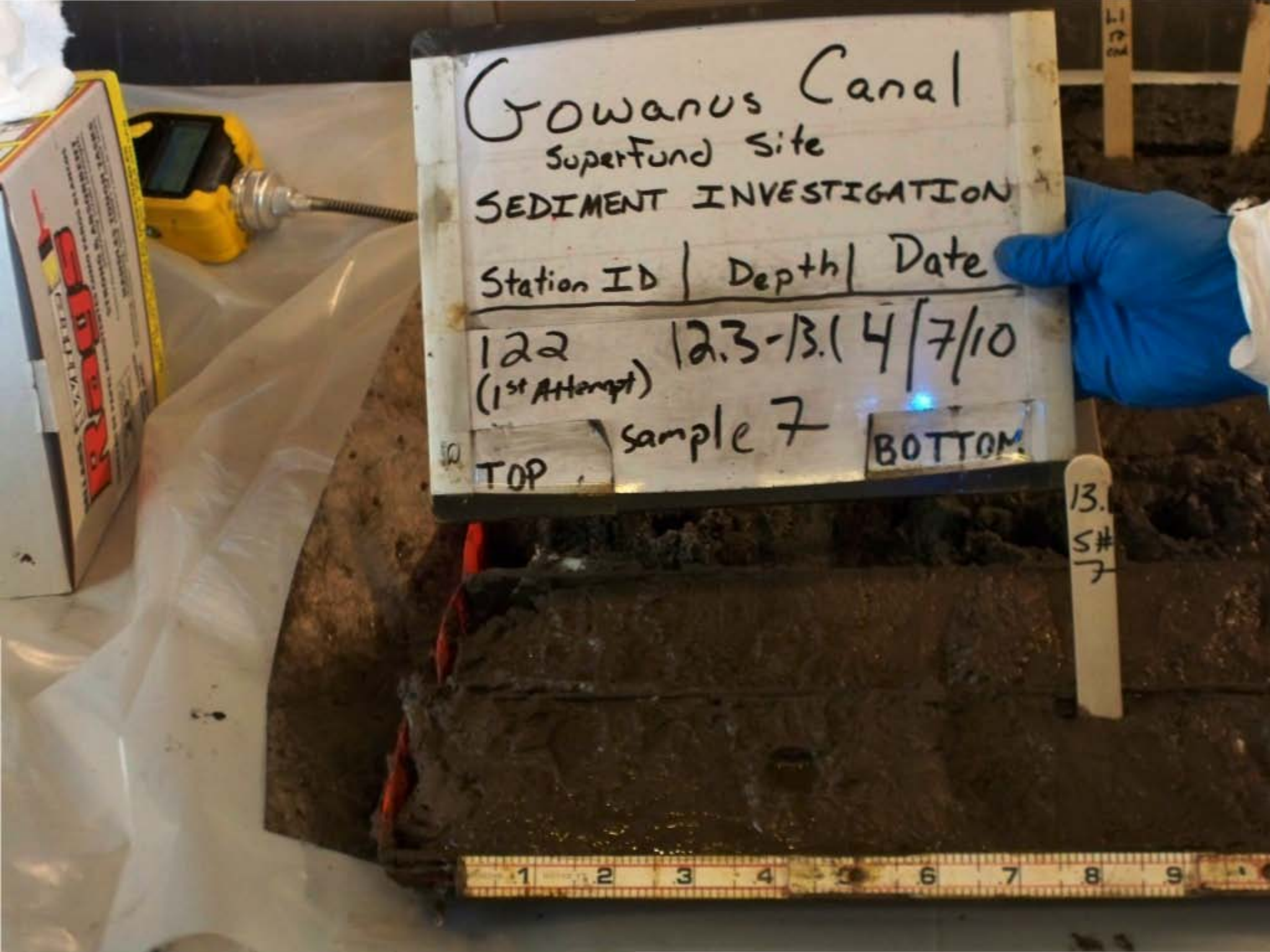

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
121 FULL 4/2/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

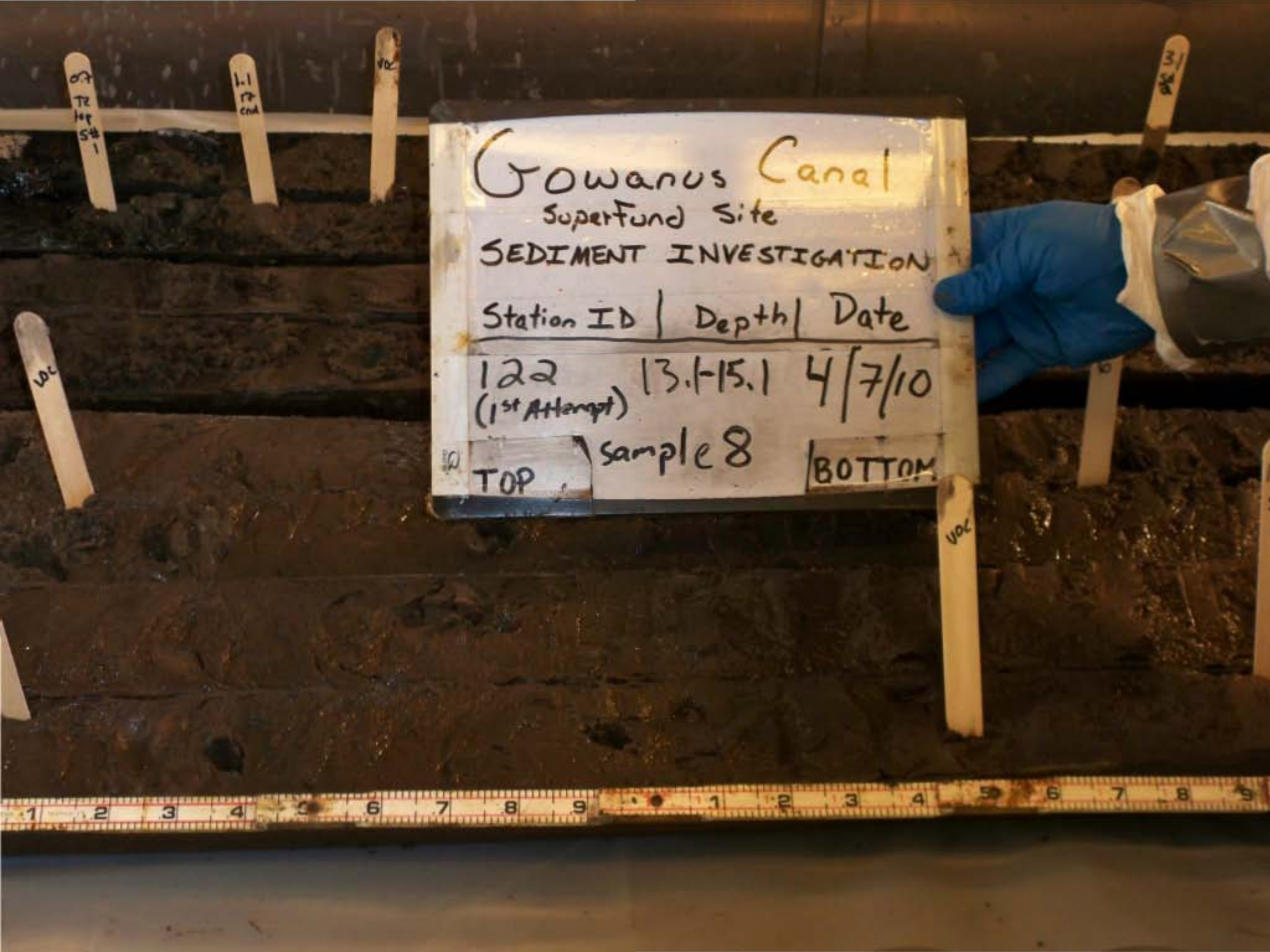

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) Full Recovery 4/7/10
TOP
BOTTOM

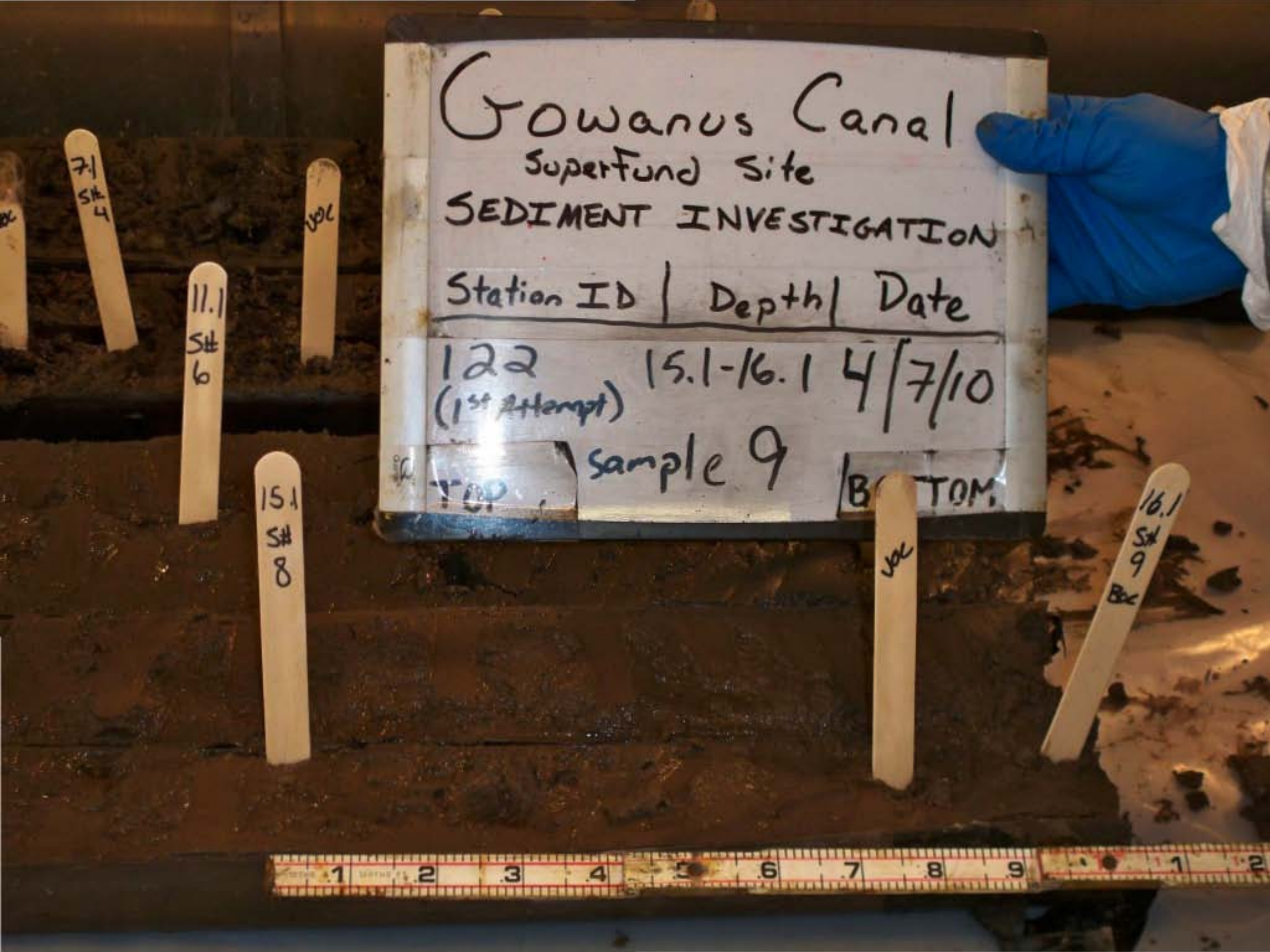

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 0.0-0.7 4/7/10
TOP
sample # 1
BOTTOM
0.7 Top S#1
5.1 S#


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 0.7-1.1 4/7/12
Transition zone not sampled
TOP
BOTTOM
0.7 TZ top S# 1
1.1 TZ end
VOC
5.1 S# 3

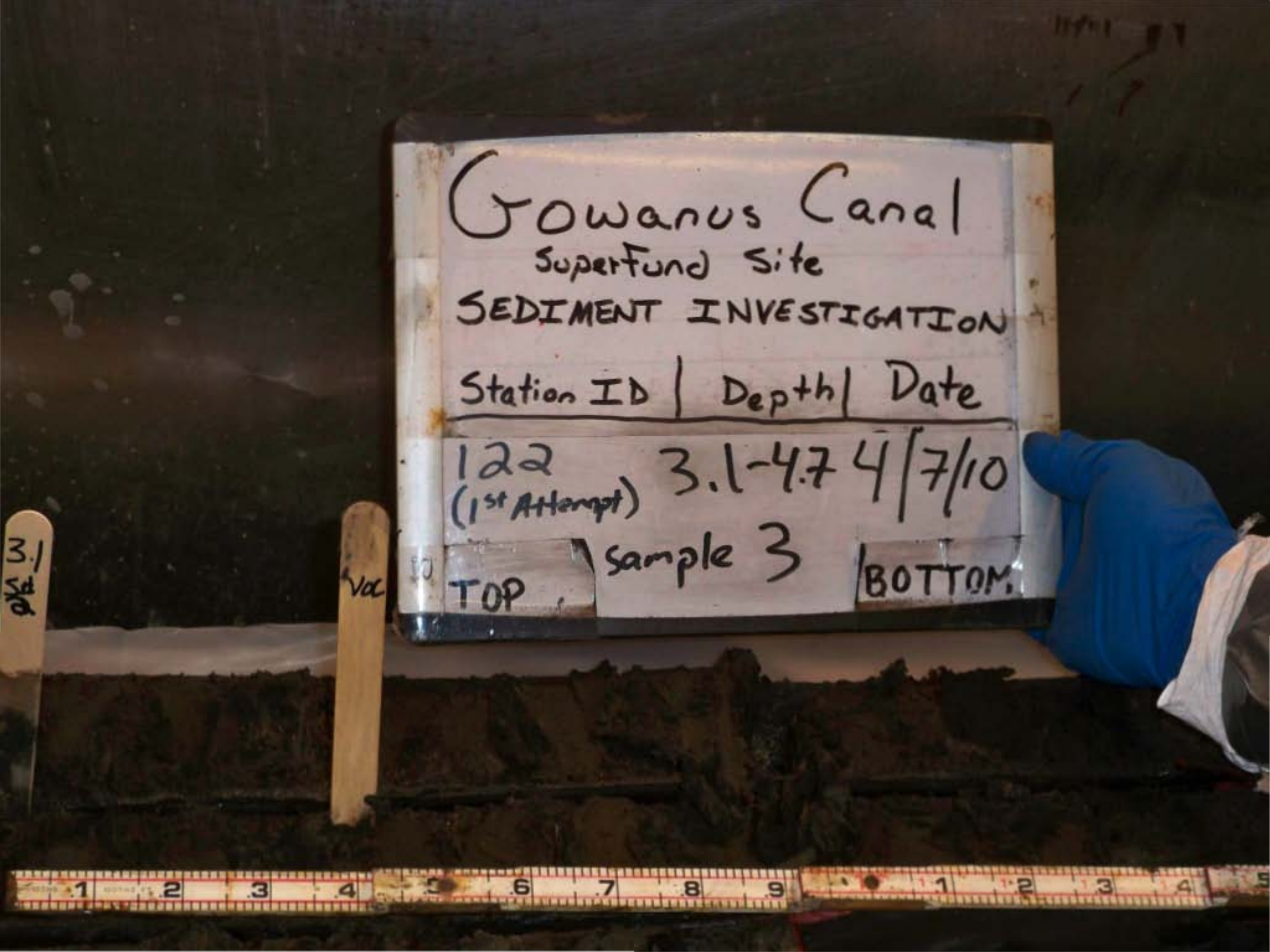

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 11.1-12.3' 4/7/10
TOP
sample 7
BOTTOM
11.1 St# 6

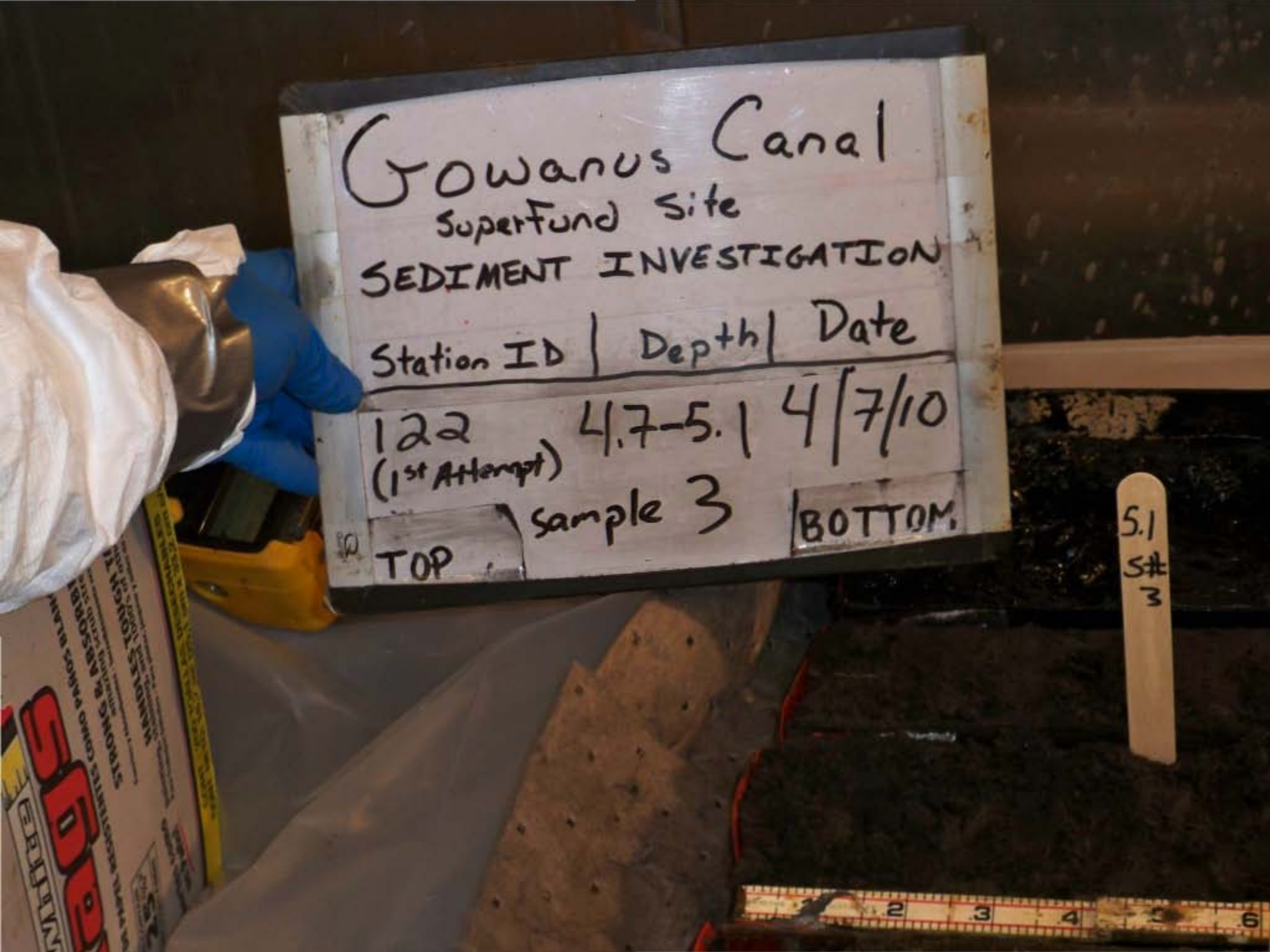

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 12.3-13.(4/7/10
sample 7
TOP
BOTTOM
13.
S#
7

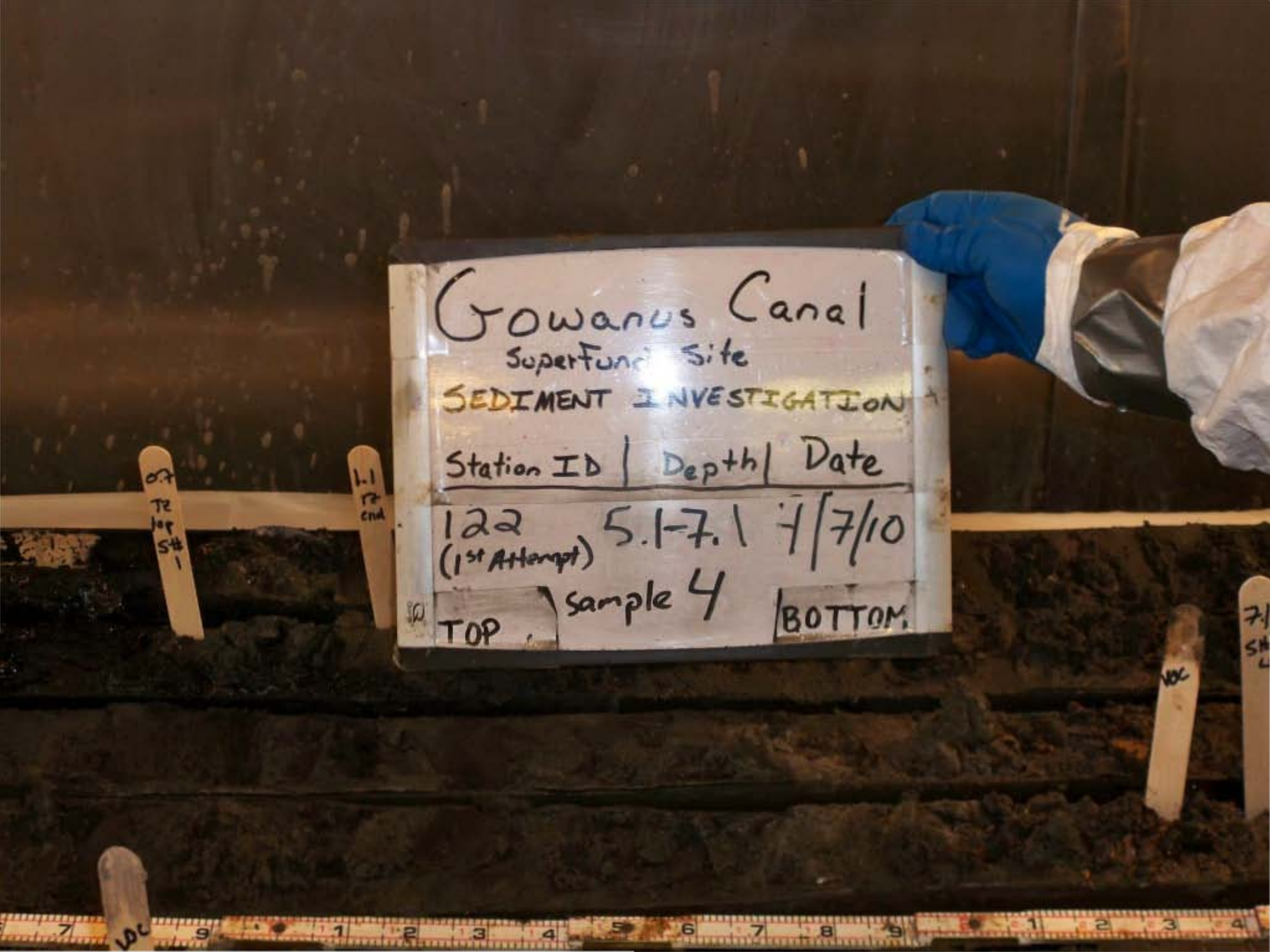

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 13.1-15.1 4/7/10
Sample 8
TOP
BOTTOM
VOC
VOC
VOC

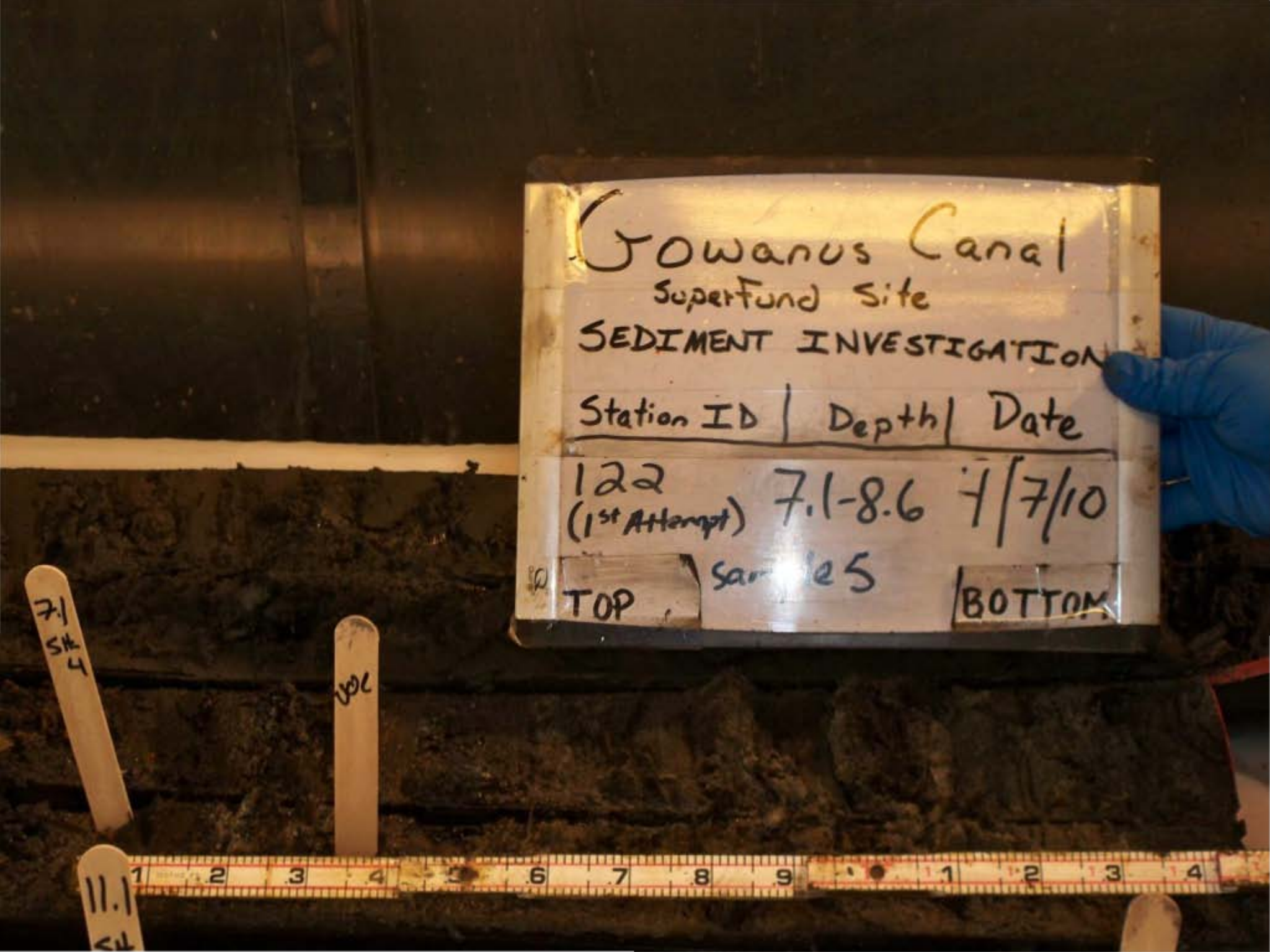

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 15.1-16.1 4/7/10
sample 9
TOP
BOTTOM
7.1 S# 4
11.1 S# 6
15.1 S# 8
VOC
VOC
16.1 S# 9 Bac

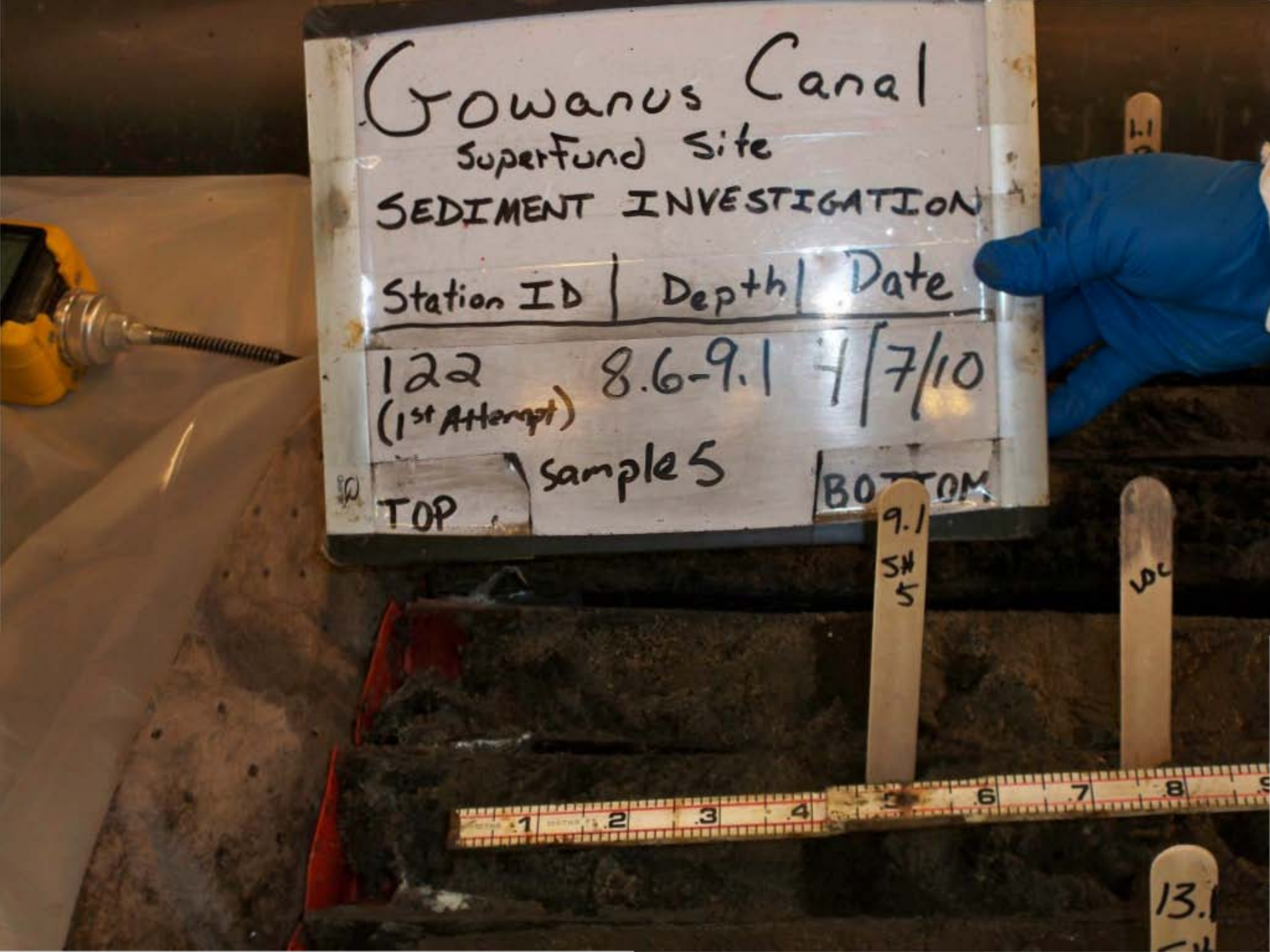

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) | 1.1-3.1 | 4/7/10
TOP
sample 2
BOTTOM

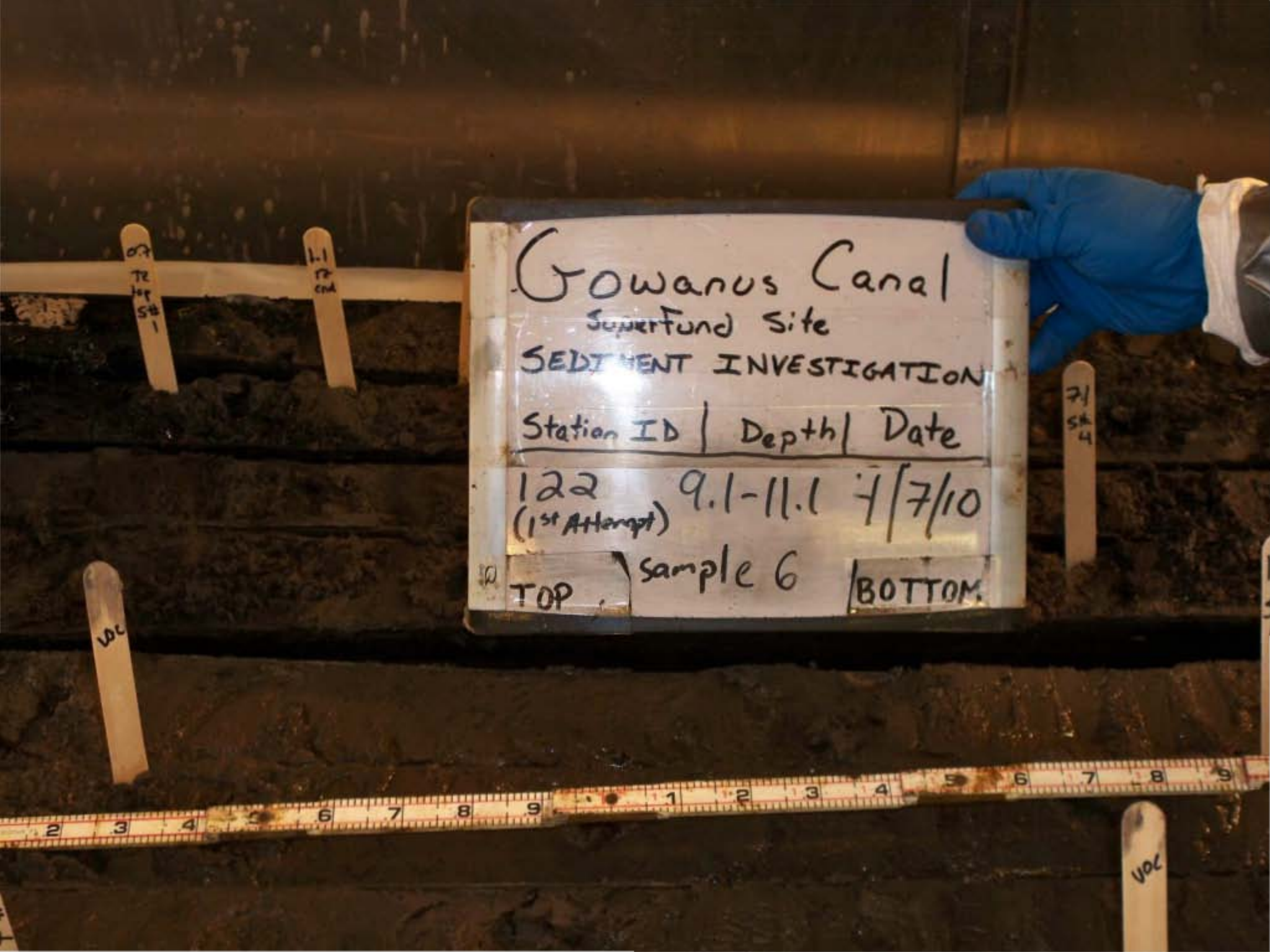

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 3.1-4.7 4/7/10
TOP sample 3 BOTTOM
3.1
VAC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 4.7-5.1 4/7/10
sample 3
TOP
BOTTOM
5.1
S#
3

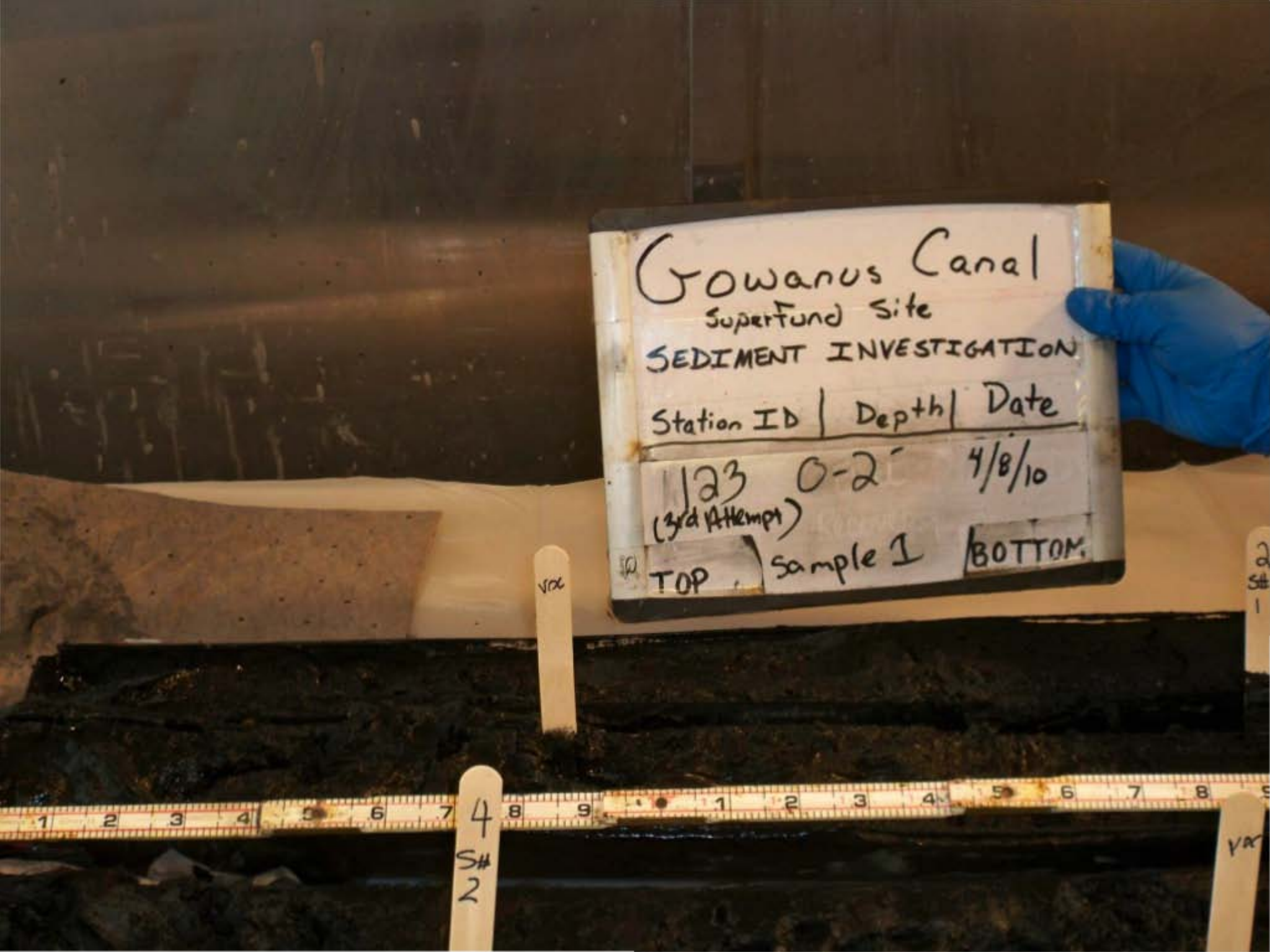

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 5.1-7.1 7/7/10
Sample 4
TOP
BOTTOM

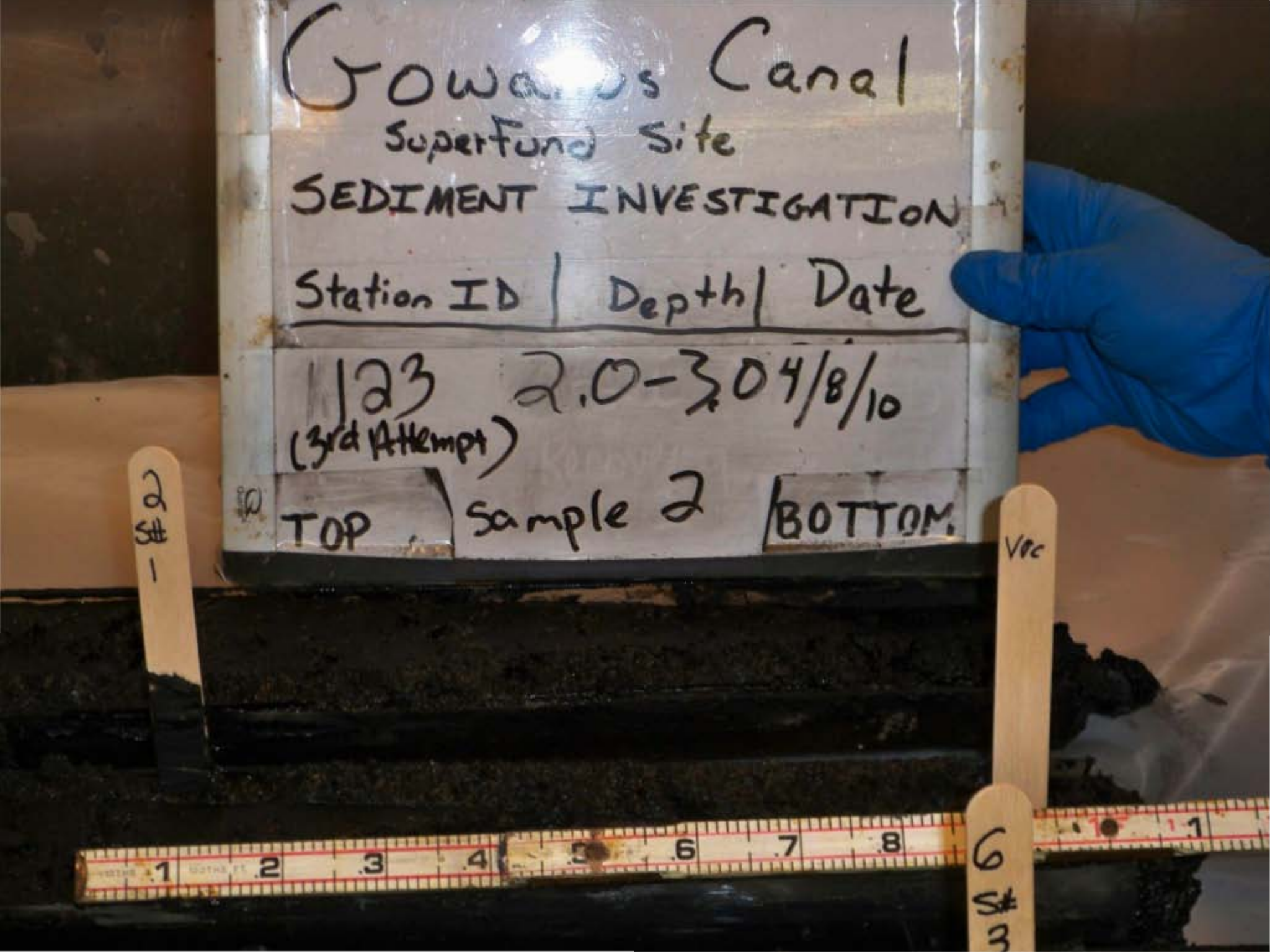

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 7.1-8.6 7/7/10
TOP
BOTTOM
7.1 SH 4
11.1

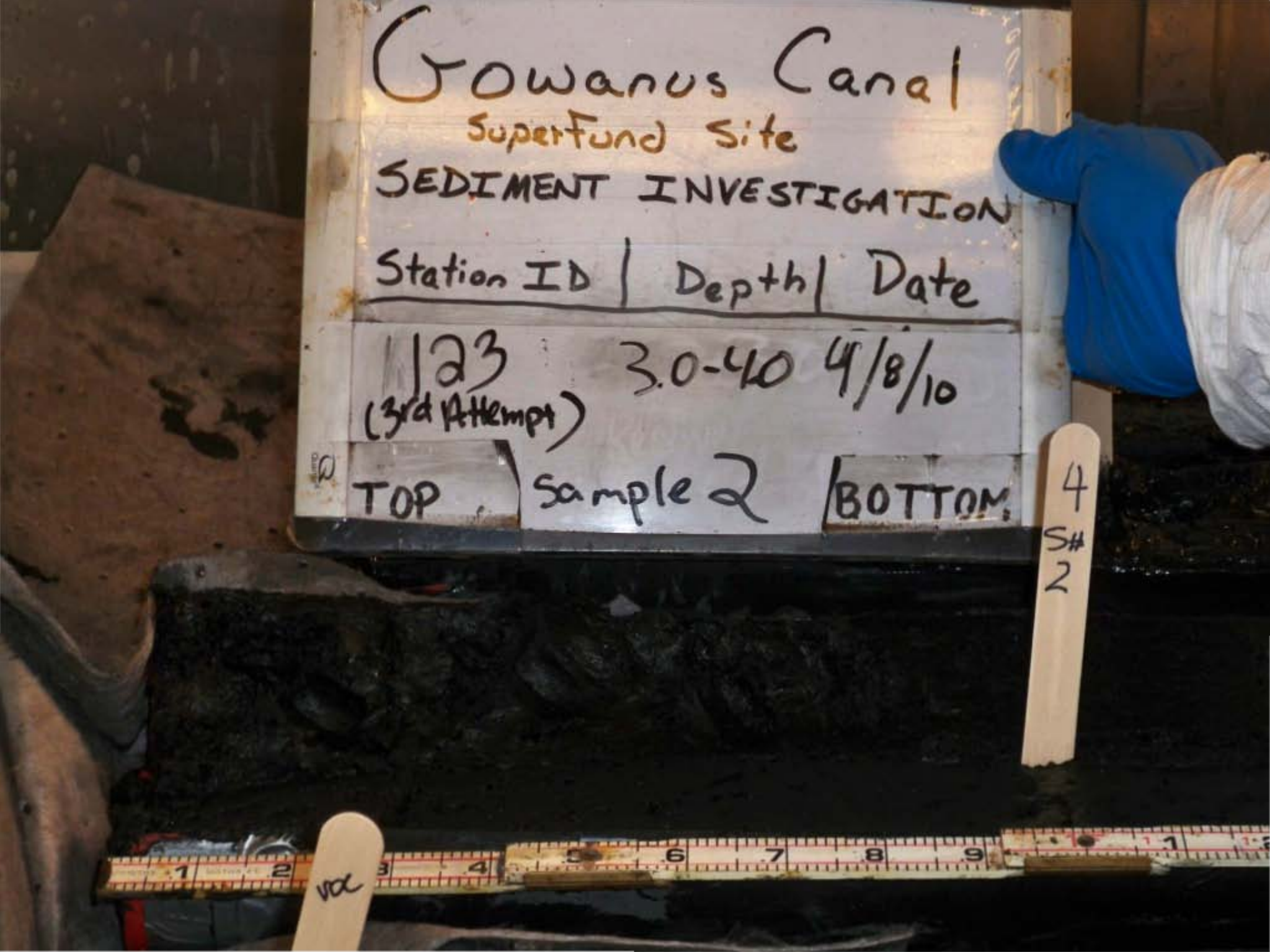

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 8.6-9.1 4/7/10
TOP samples BOTTOM
9.1
SW 5
VOC
13.1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) 9.1-11.1 7/7/10
TOP
sample 6
BOTTOM
VOC
VOC

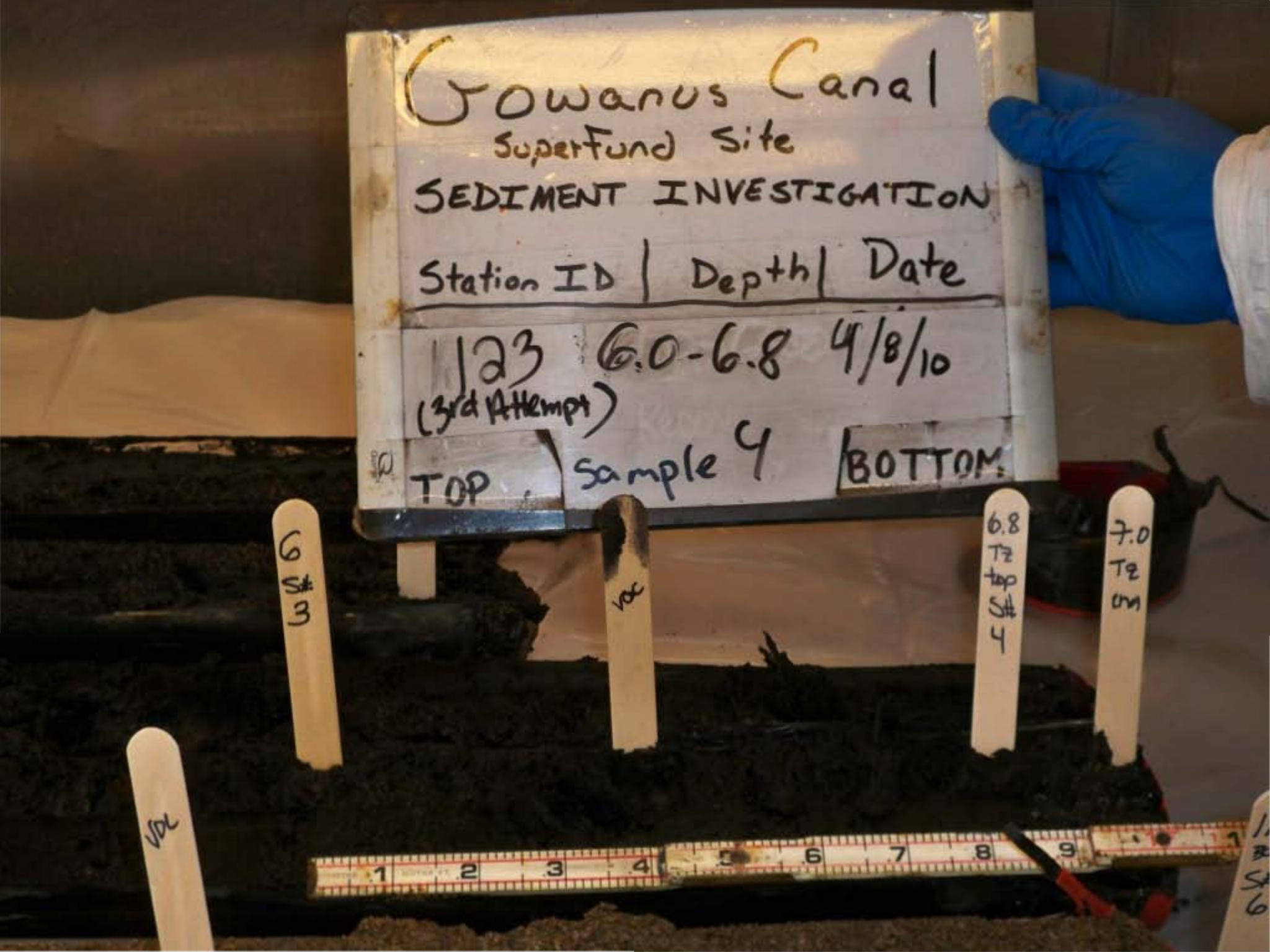

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) Full Recovery 4/7/10
TOP
BOTTOM

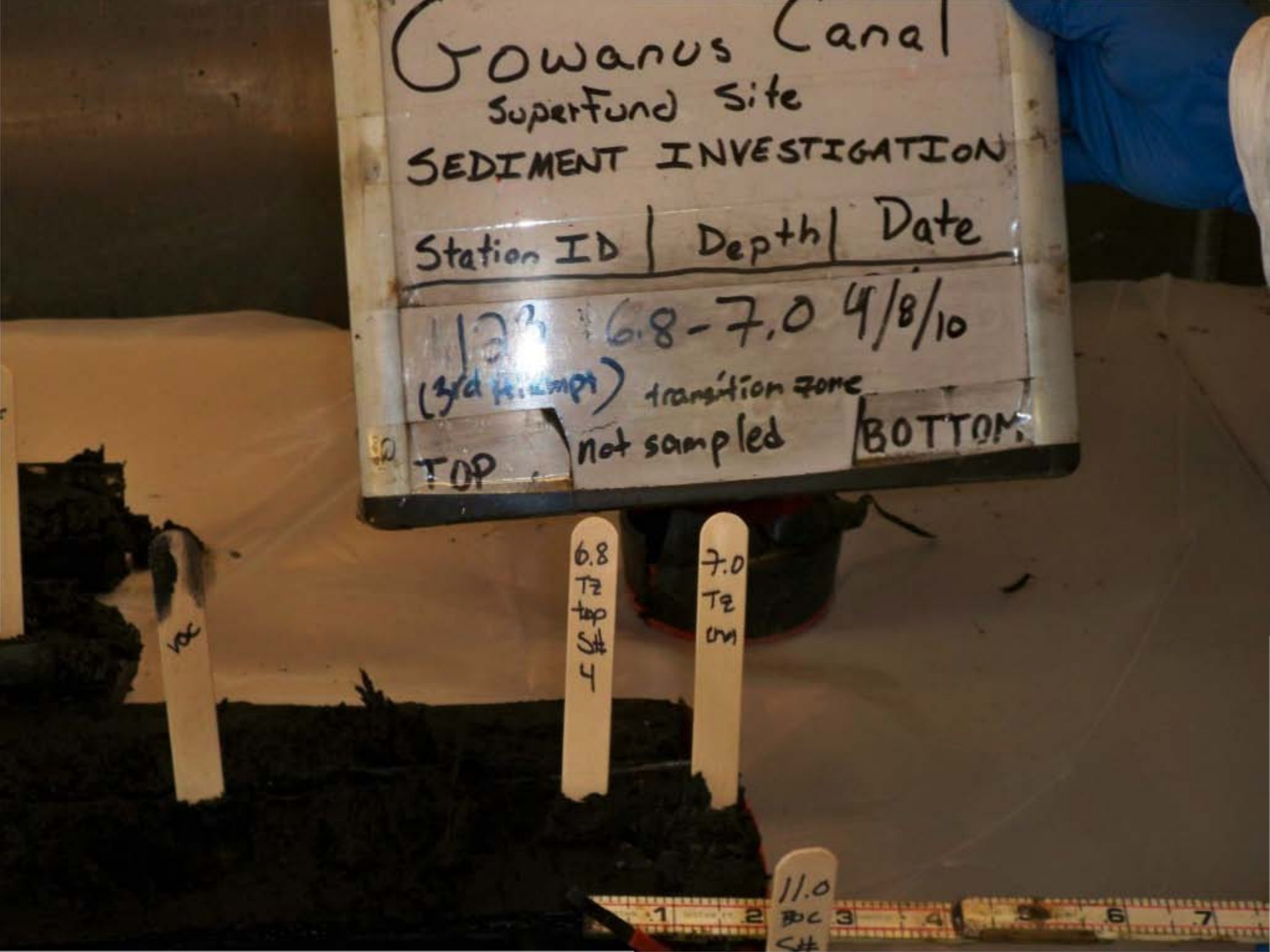

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 (3rd Attempt) 0-2' 4/8/10
TOP Sample 1 BOTTOM
4
S#
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 2.0-3.0 4/8/10
(3rd Attempt)
TOP
Sample 2
BOTTOM
2
S#
1
Vrc
6
S#
3

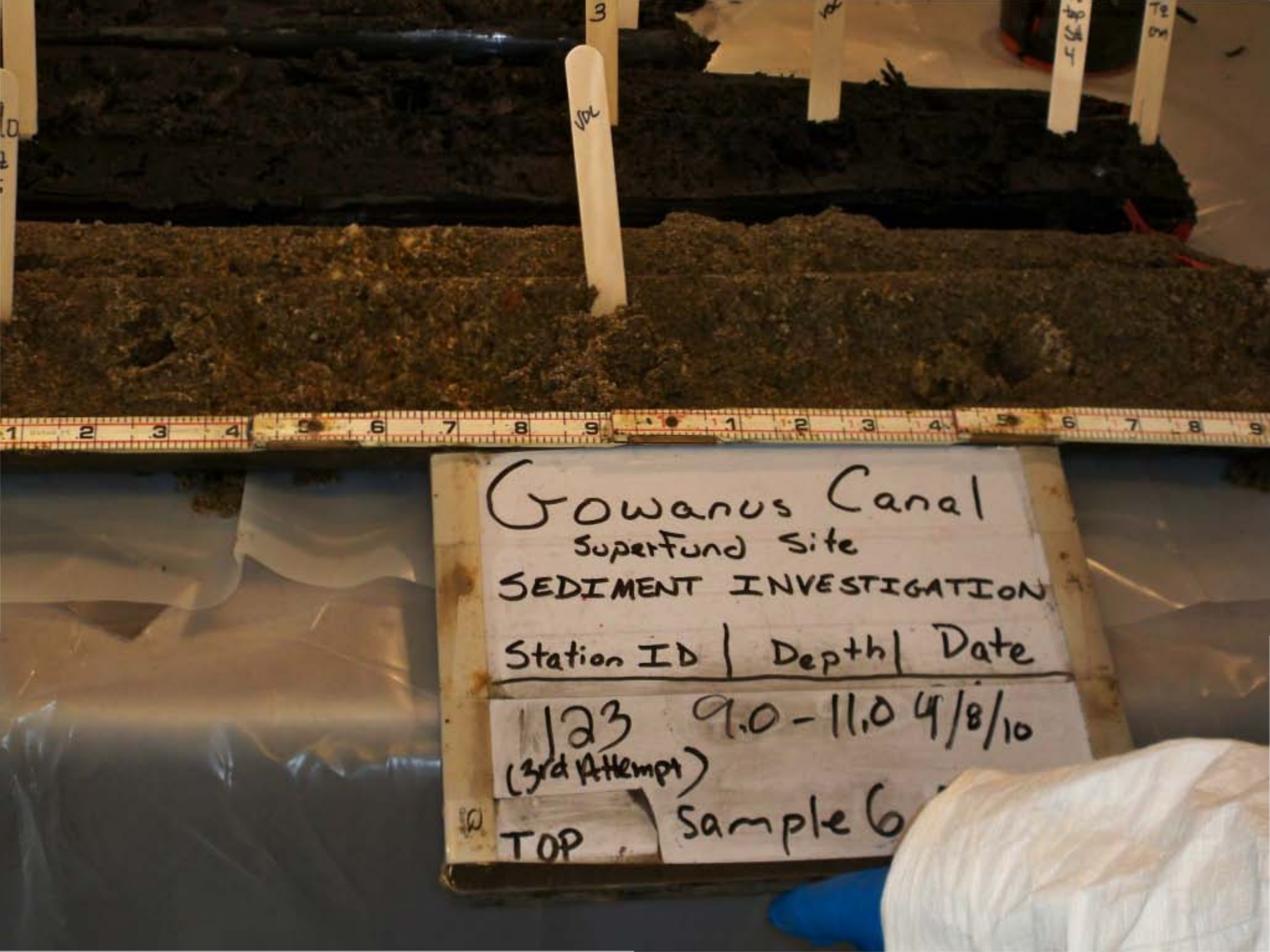

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 (3rd Attempt) 3.0-4.0 4/8/10
TOP Sample 2 BOTTOM
4
S#
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 4.0-6.0 4/8/10
(3rd Attempt)
TOP Sample 3 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 6.0-6.8 4/8/10
(3rd Attempt)
TOP Sample 4 BOTTOM
6 S#3
VOC
6.8 Tz top S# 4
7.0 Tz bm

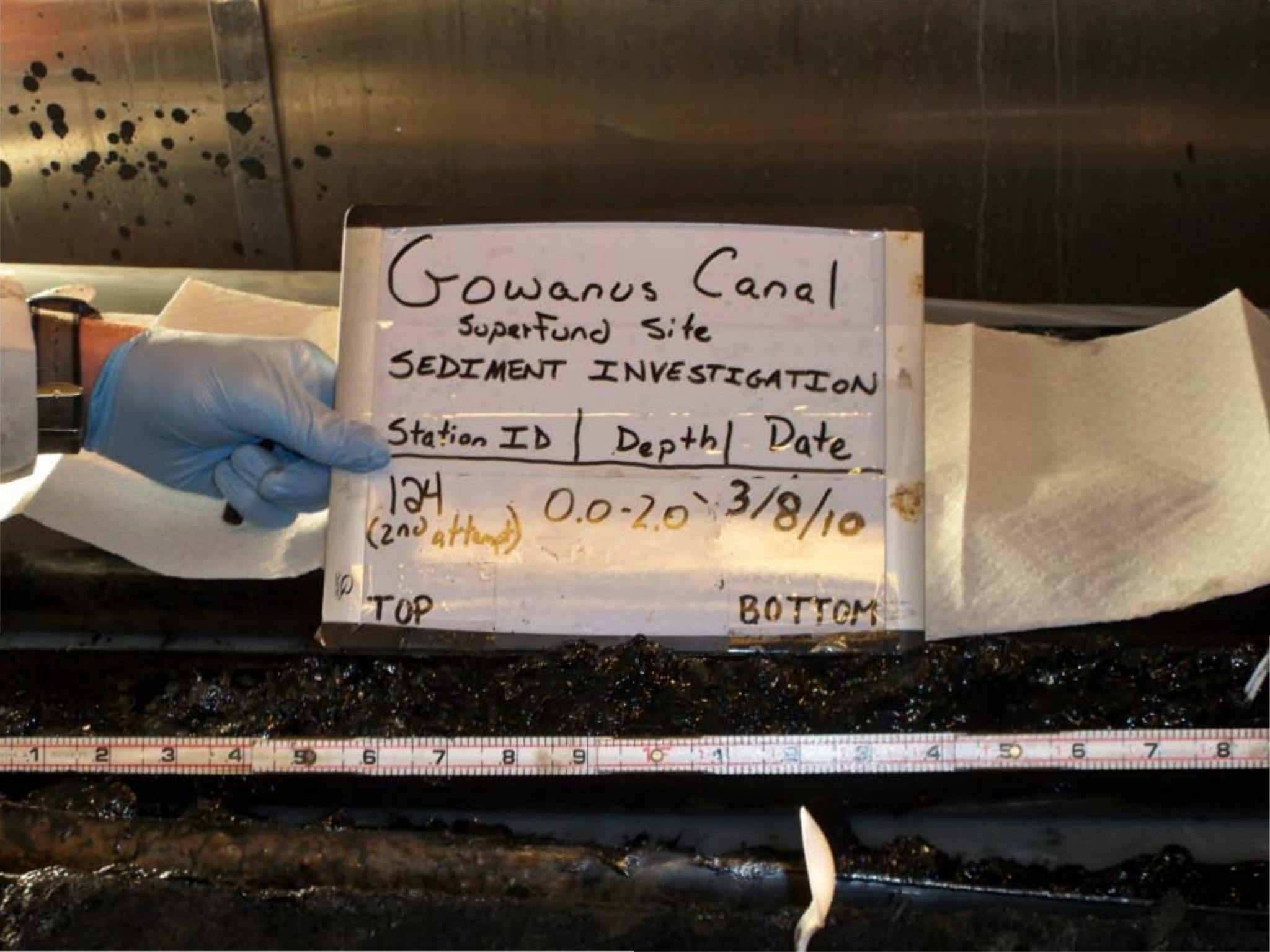

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6.8-7.0 4/8/10
(3rd attempt) transition zone
TOP
not sampled
BOTTOM
6.8 Tz top S# 4
7.0 Tz
11.0 BOC S#

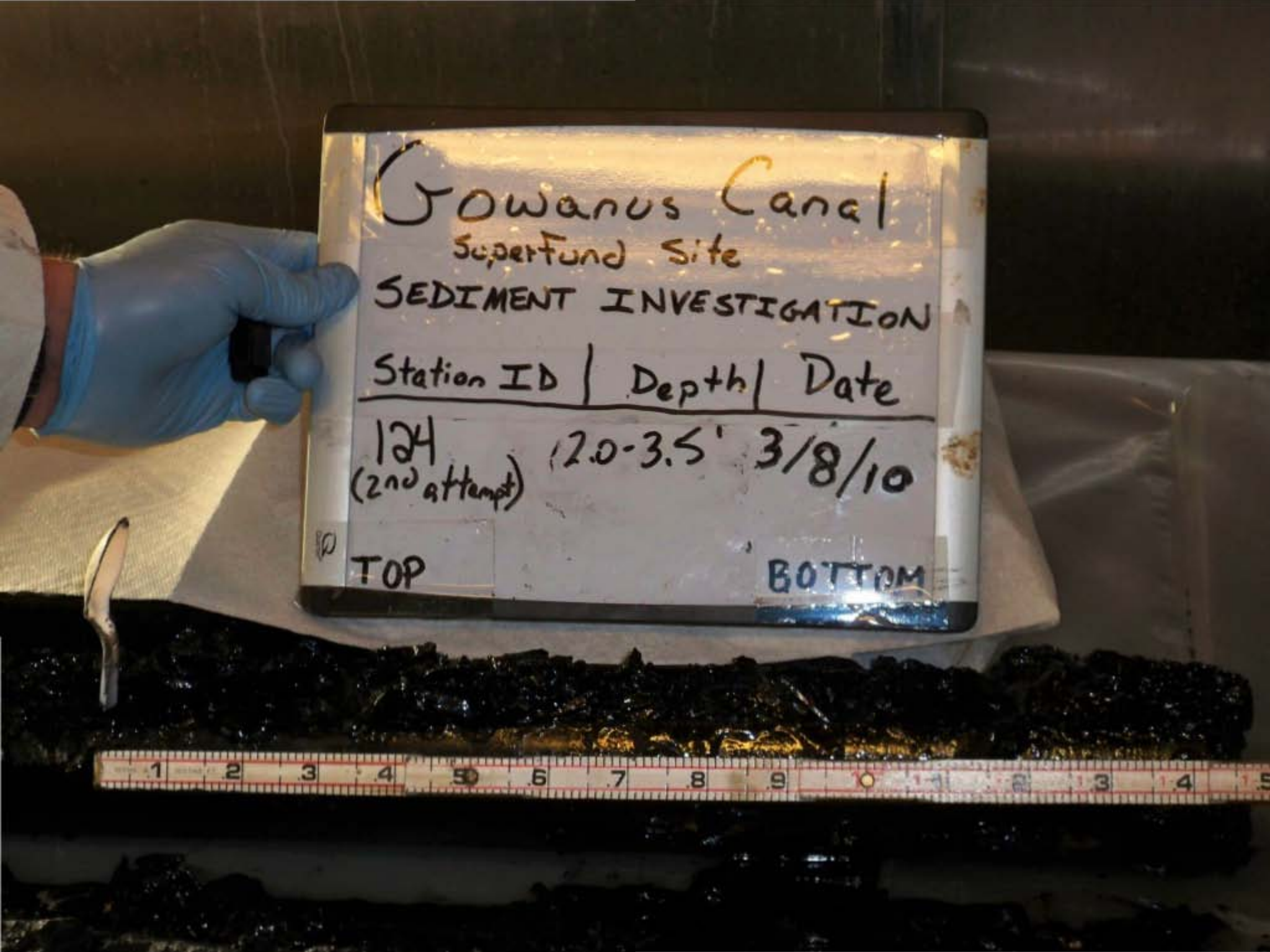

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 7.0-9.0 4/8/10
(3rd Attempt)
TOP Sample 5 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 9.0 - 11.0 4/8/10
(3rd Attempt)
TOP Sample 6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
123 (3rd Attempt) FULL Recovery 4/8/10
TOP
BOTTOM

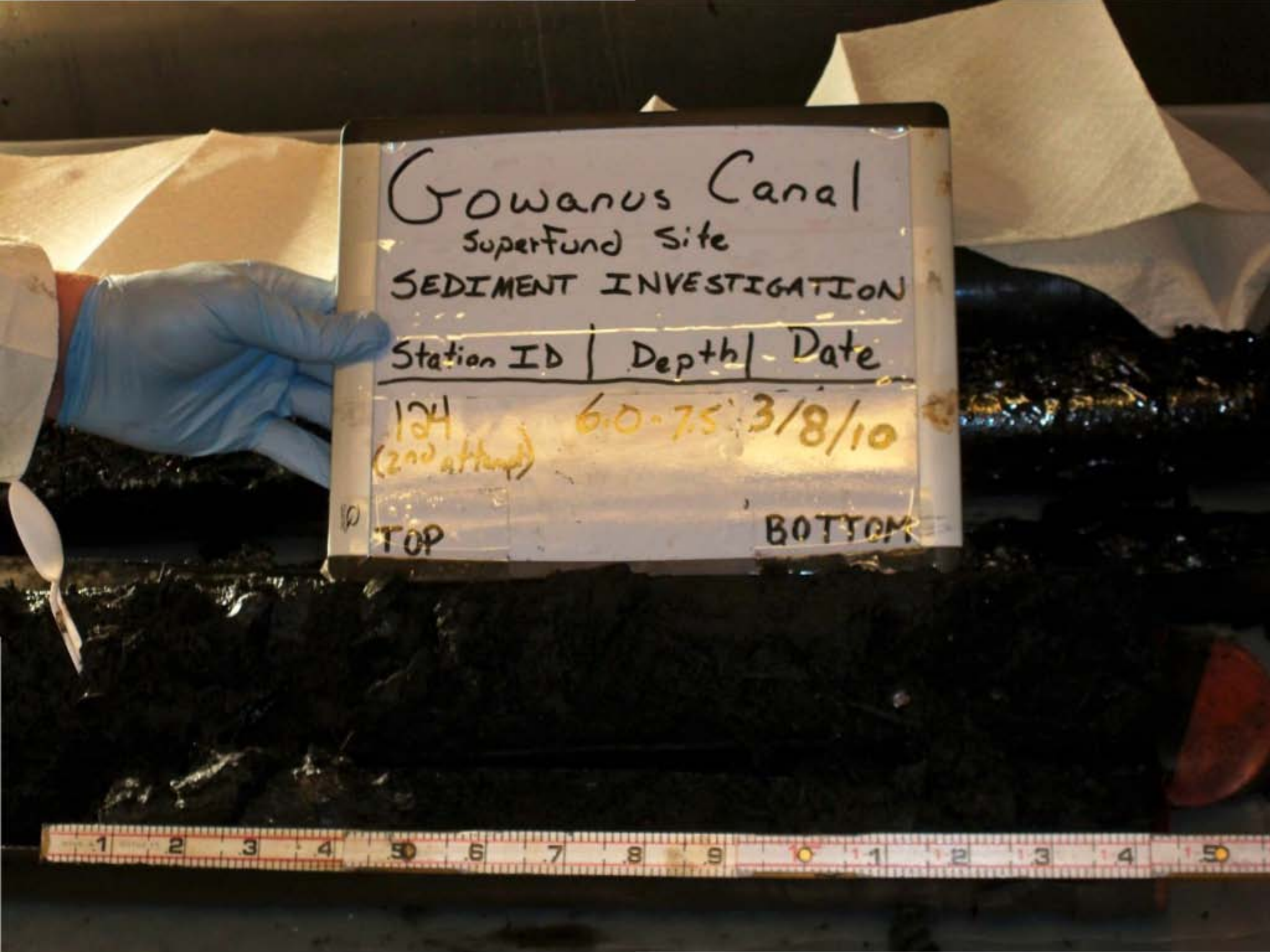

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
124 (2nd attempt) FULL RECOVERY 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
124 (2nd attempt) 0.0-2.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
124 (2nd attempt) 12.0-3.5' 3/8/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
124 (2nd attempt) 3.5-4.0' 3/8/10
TOP
BOTTOM

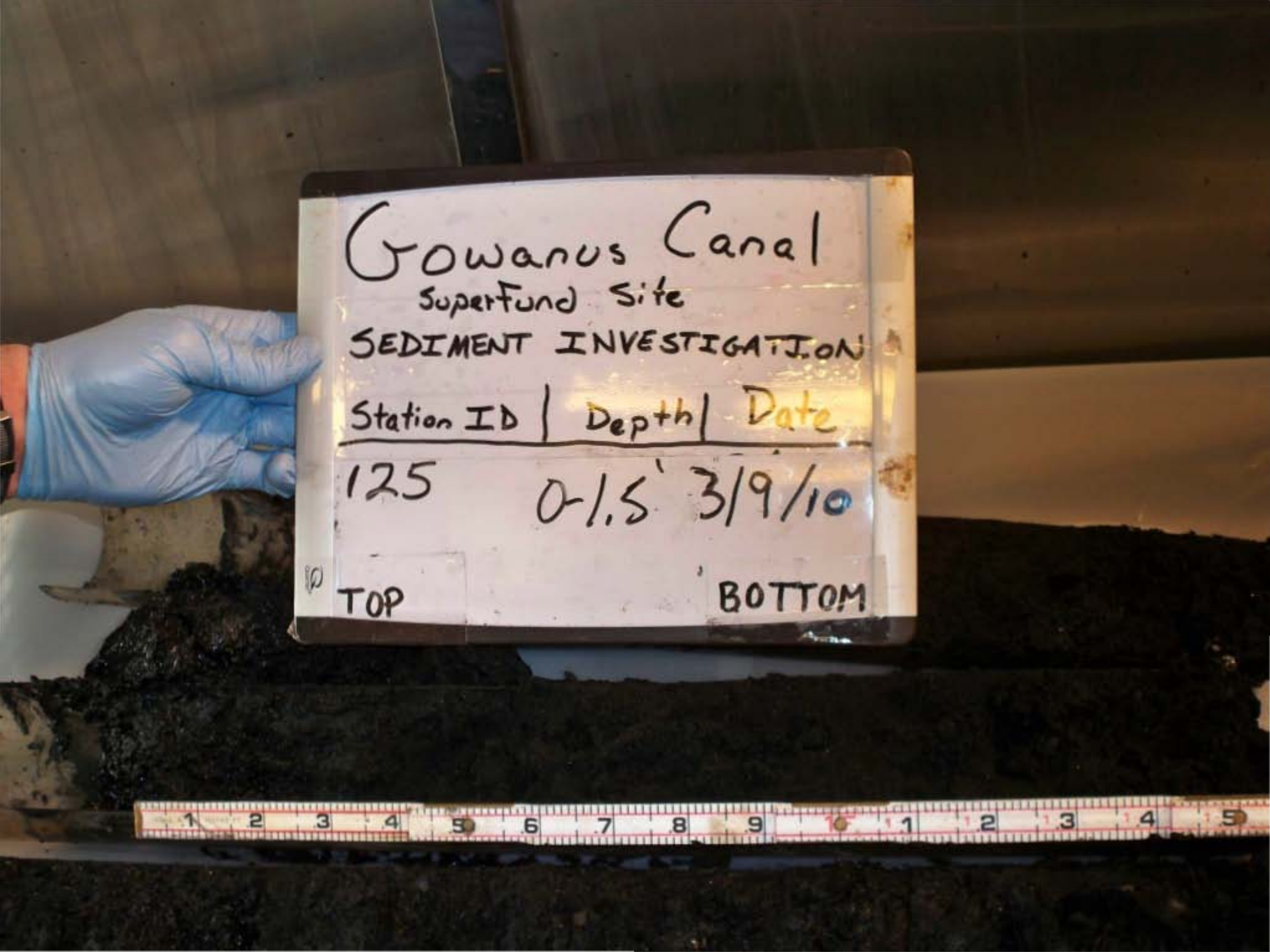

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
124 (2nd attempt) 4.0-6.0' 3/8/10
TOP
BOTTOM

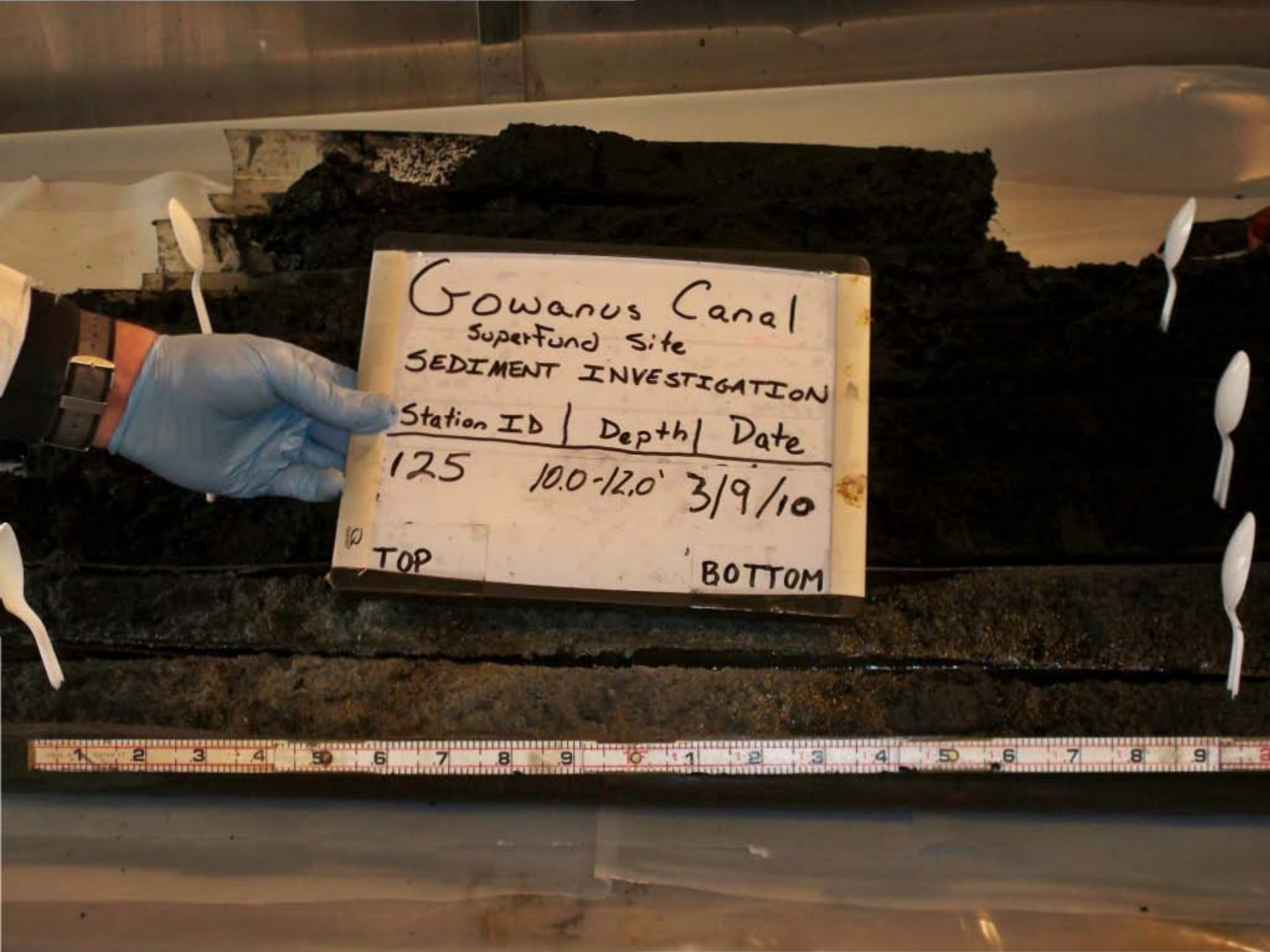

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
124 (2nd attempt) 6.0-7.5 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
124 (2nd attempt) FULL RECOVERY 3/8/10
TOP
BOTTOM

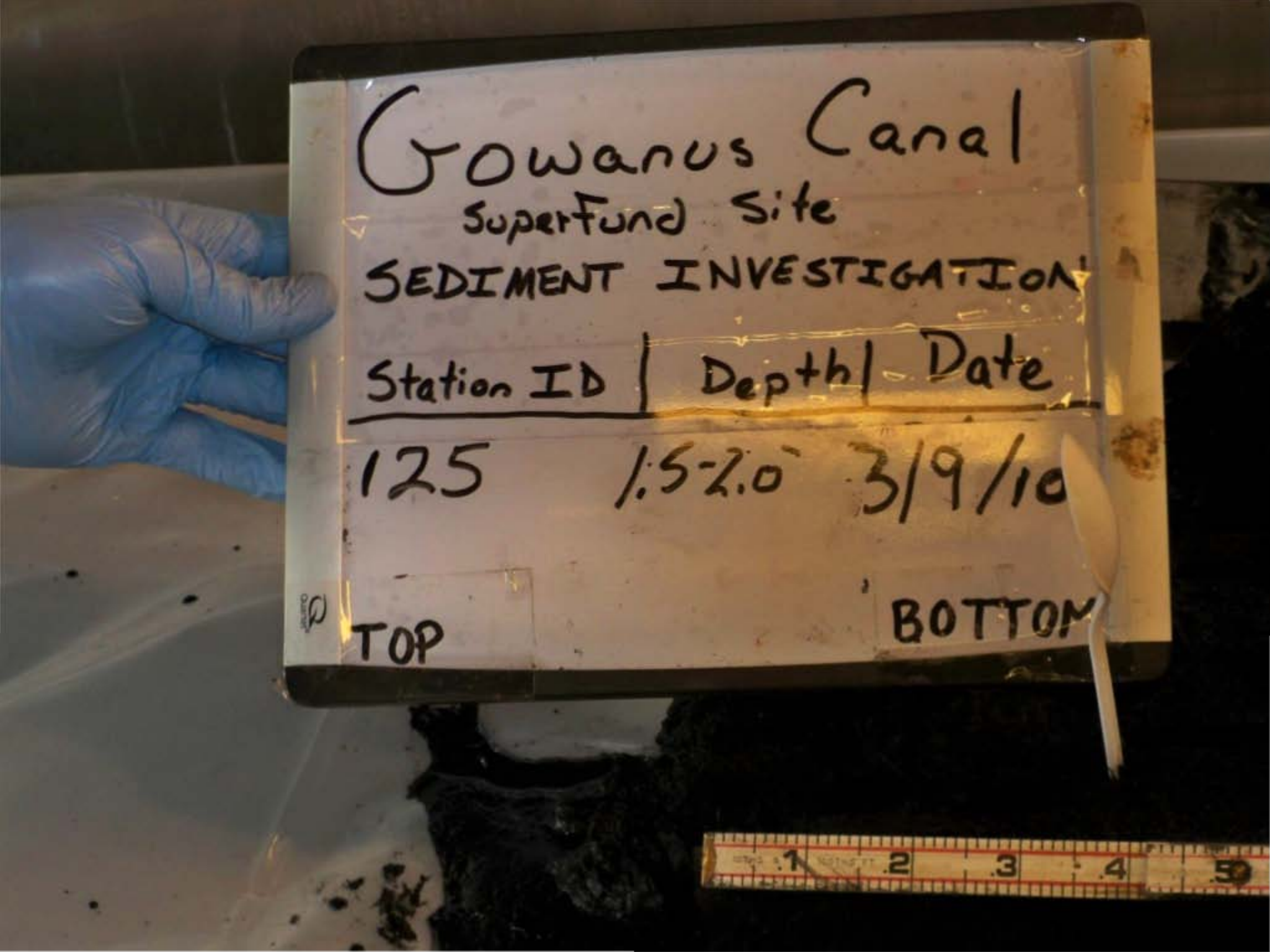

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
124 (2nd attempt) FULL RECOVERY 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125
FULL RECOVERY
3/9/10
TOP
BOTTOM

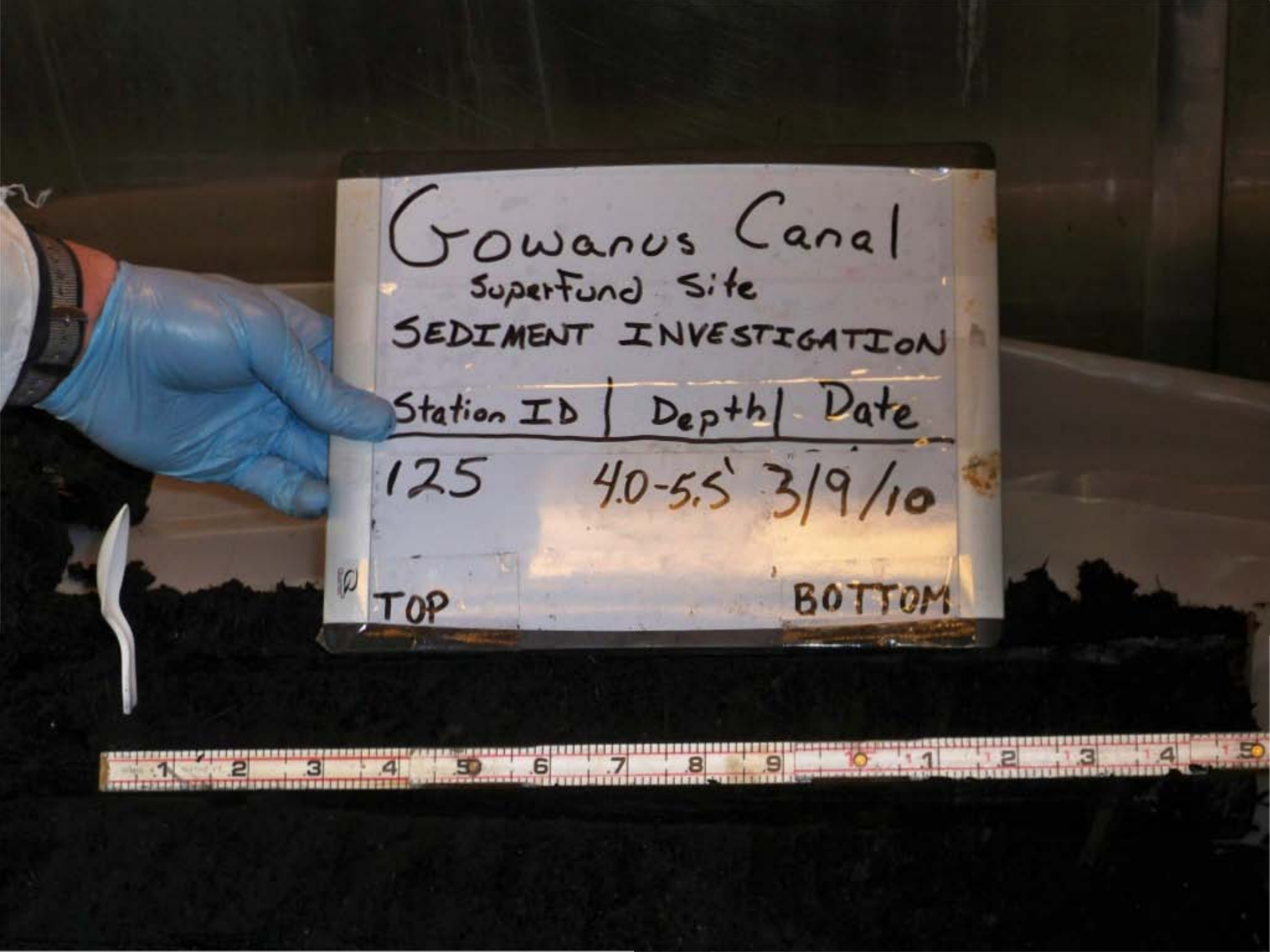

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 0-1.5' 3/9/10
TOP
BOTTOM

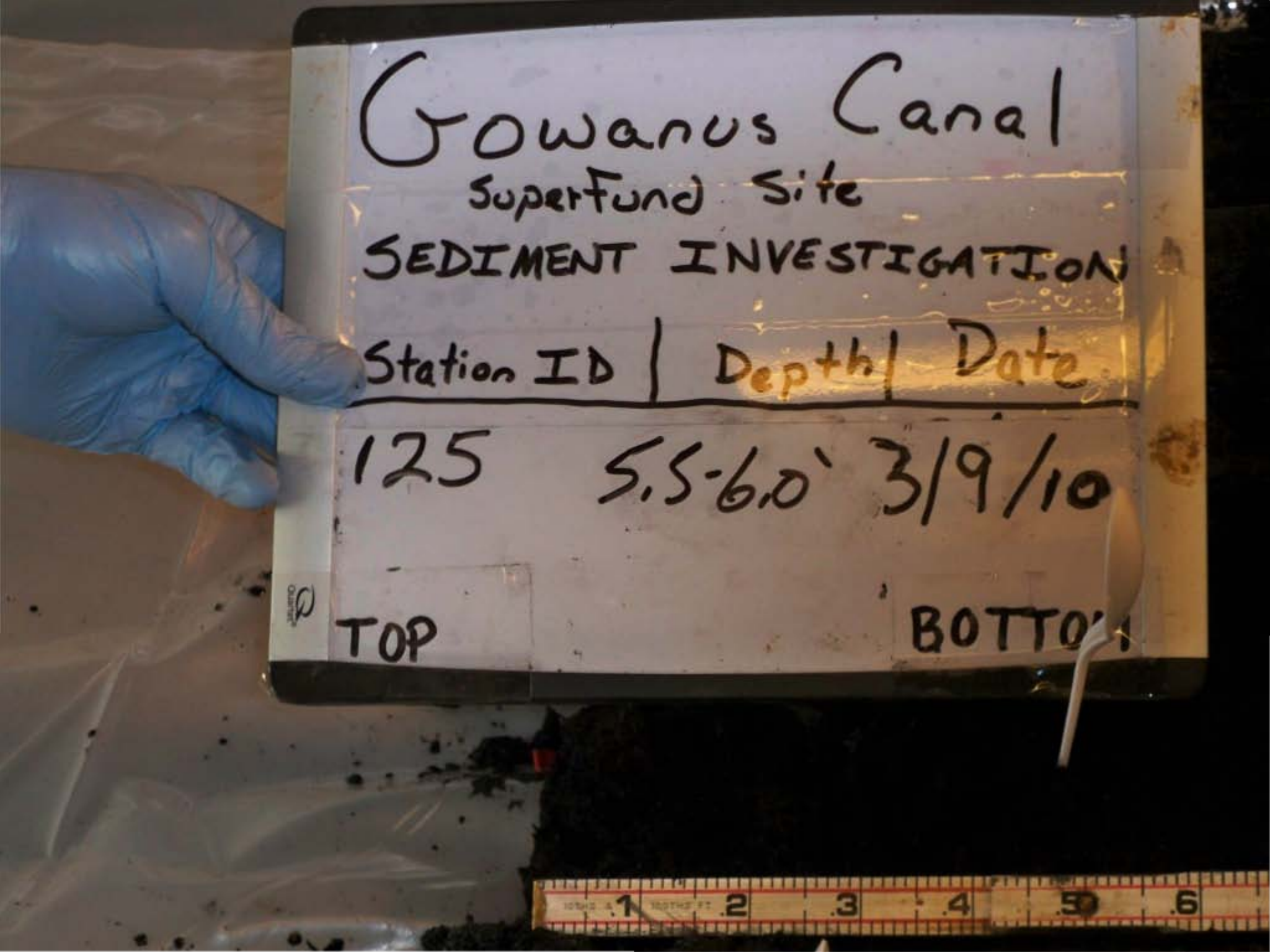

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 10.0-12.0' 3/9/10
TOP
BOTTOM

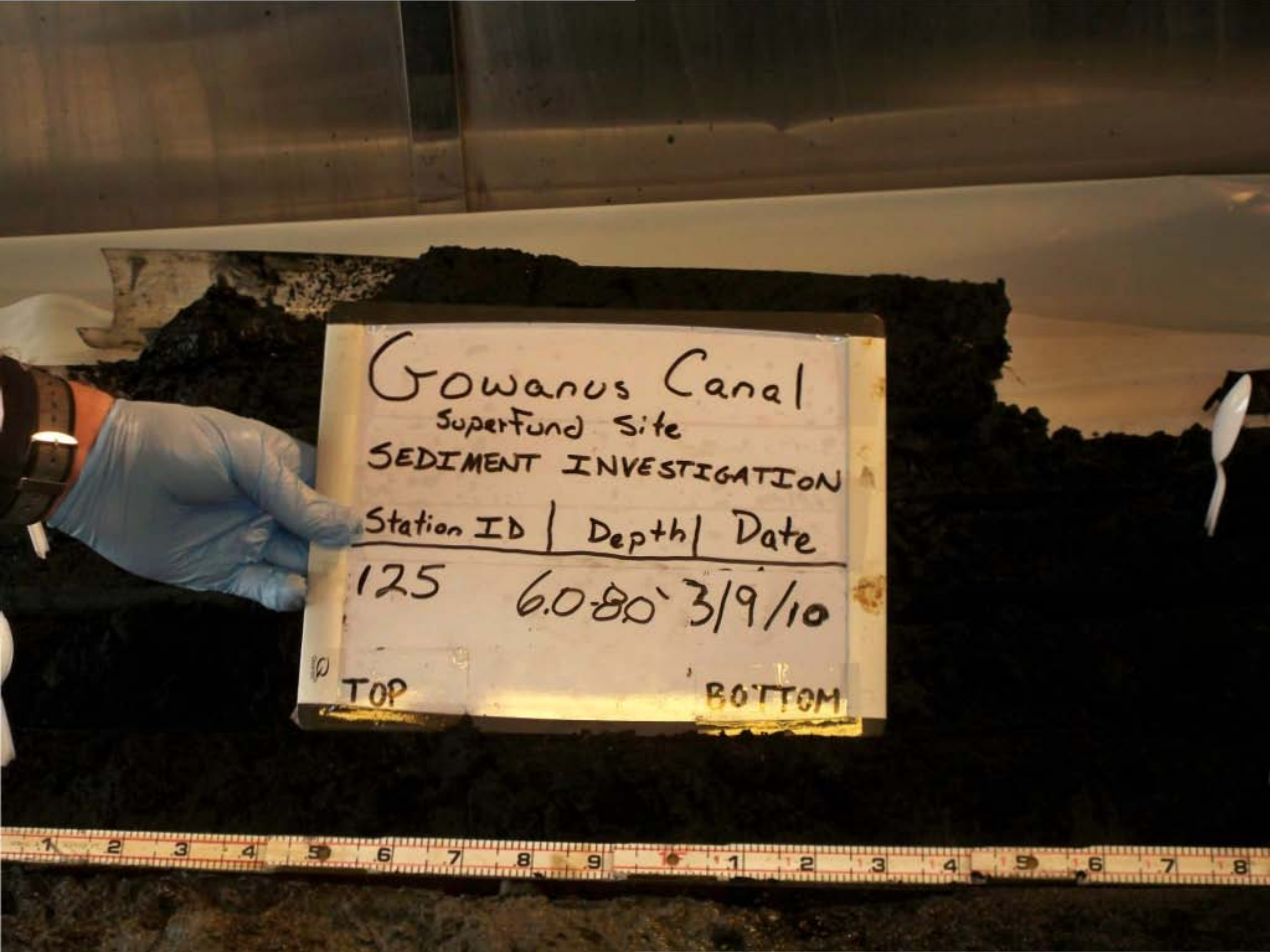

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 120-136' 3/9/10
TOP
BOTTOM

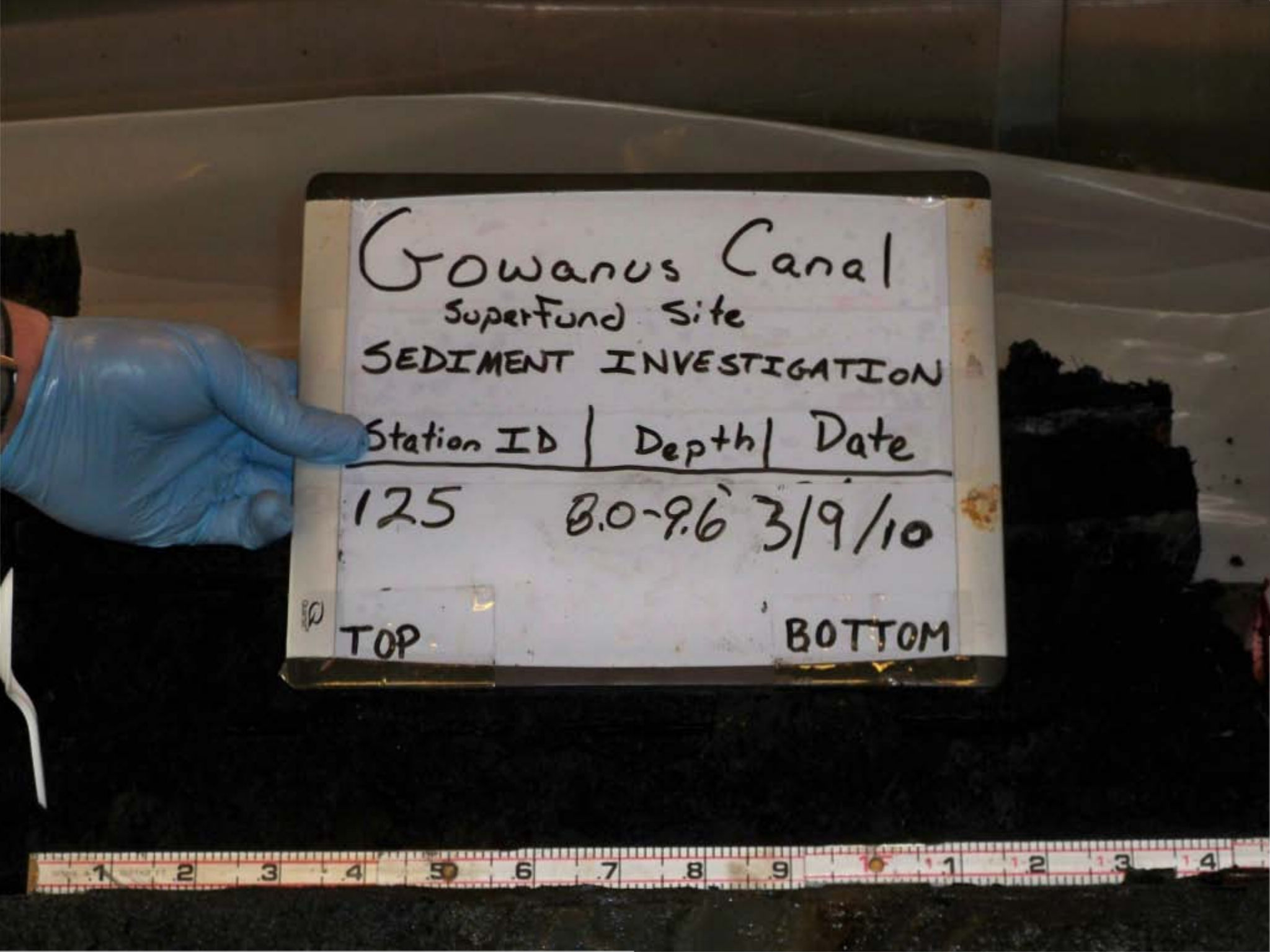

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 1.5-2.0' 3/9/10
TOP
BOTTOM

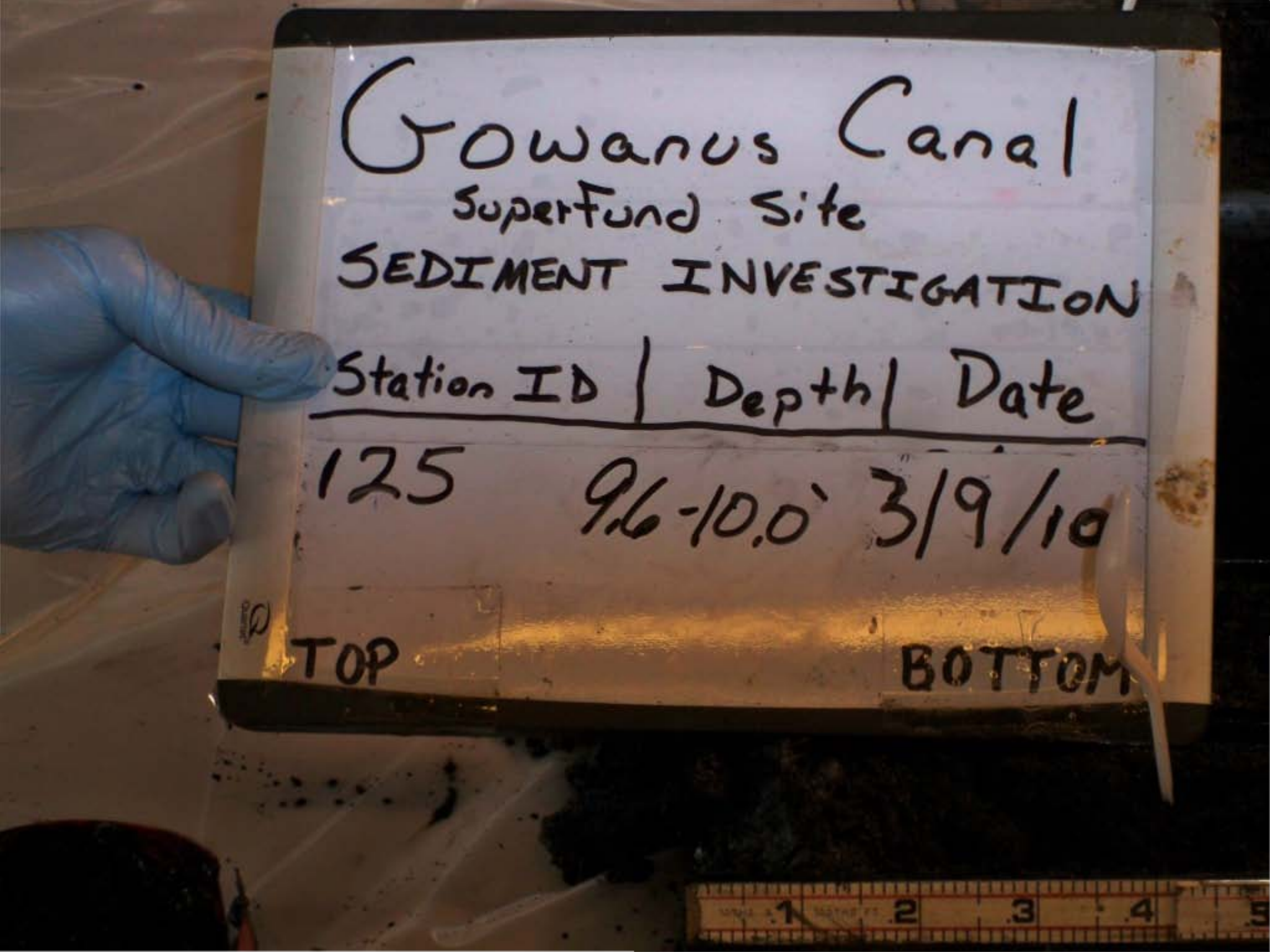

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 2.0-4.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 4.0-5.5' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 5.5-6.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 6.0-8.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 8.0-8.6 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125 9.6-10.0' 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125
FULL RECOVERY
3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
126 0-1.7 3/9/2010
TOP
BOTTOM

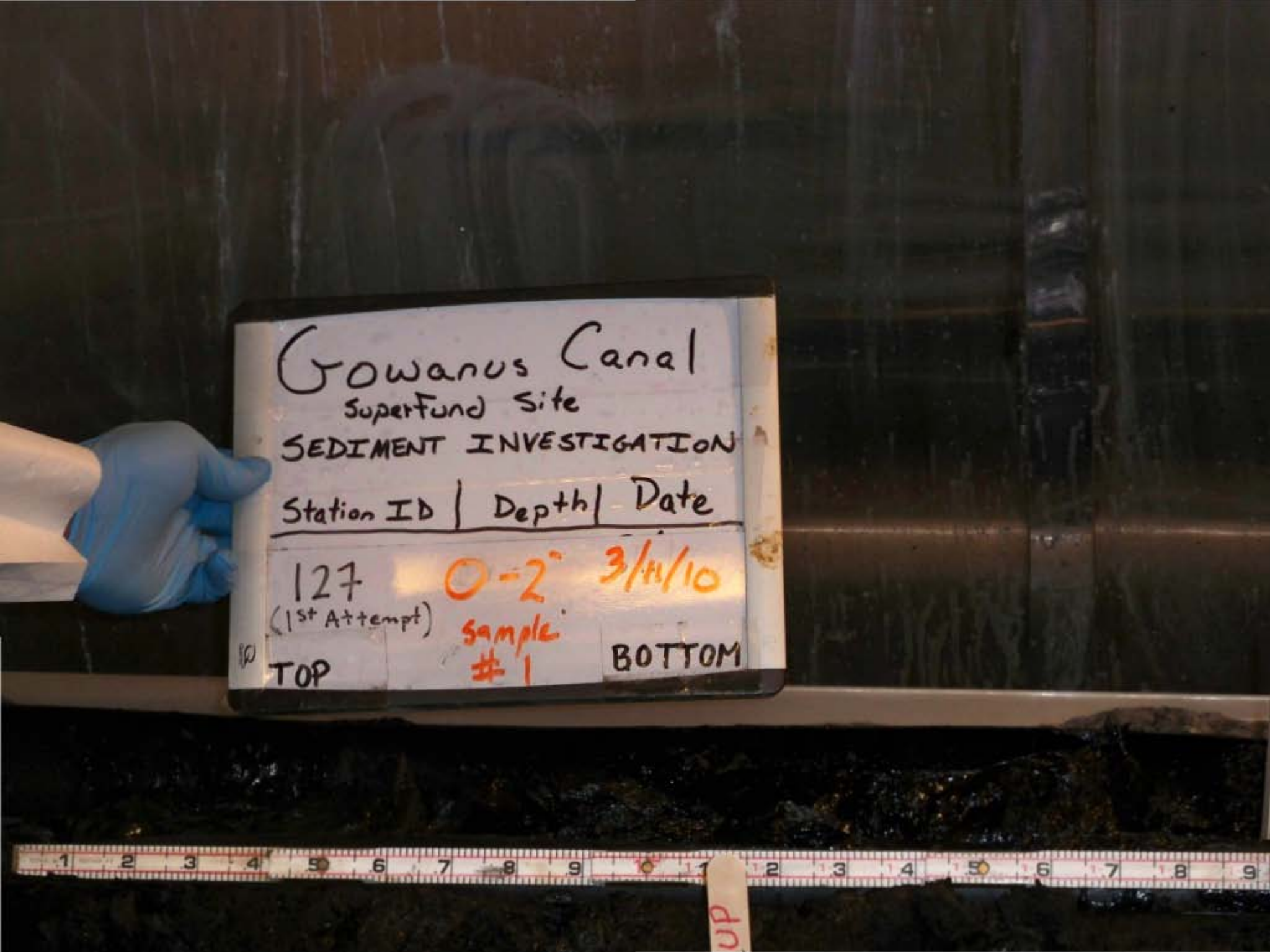

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
126 1.7-2.0 3/4/2010
TOP
BOTTOM

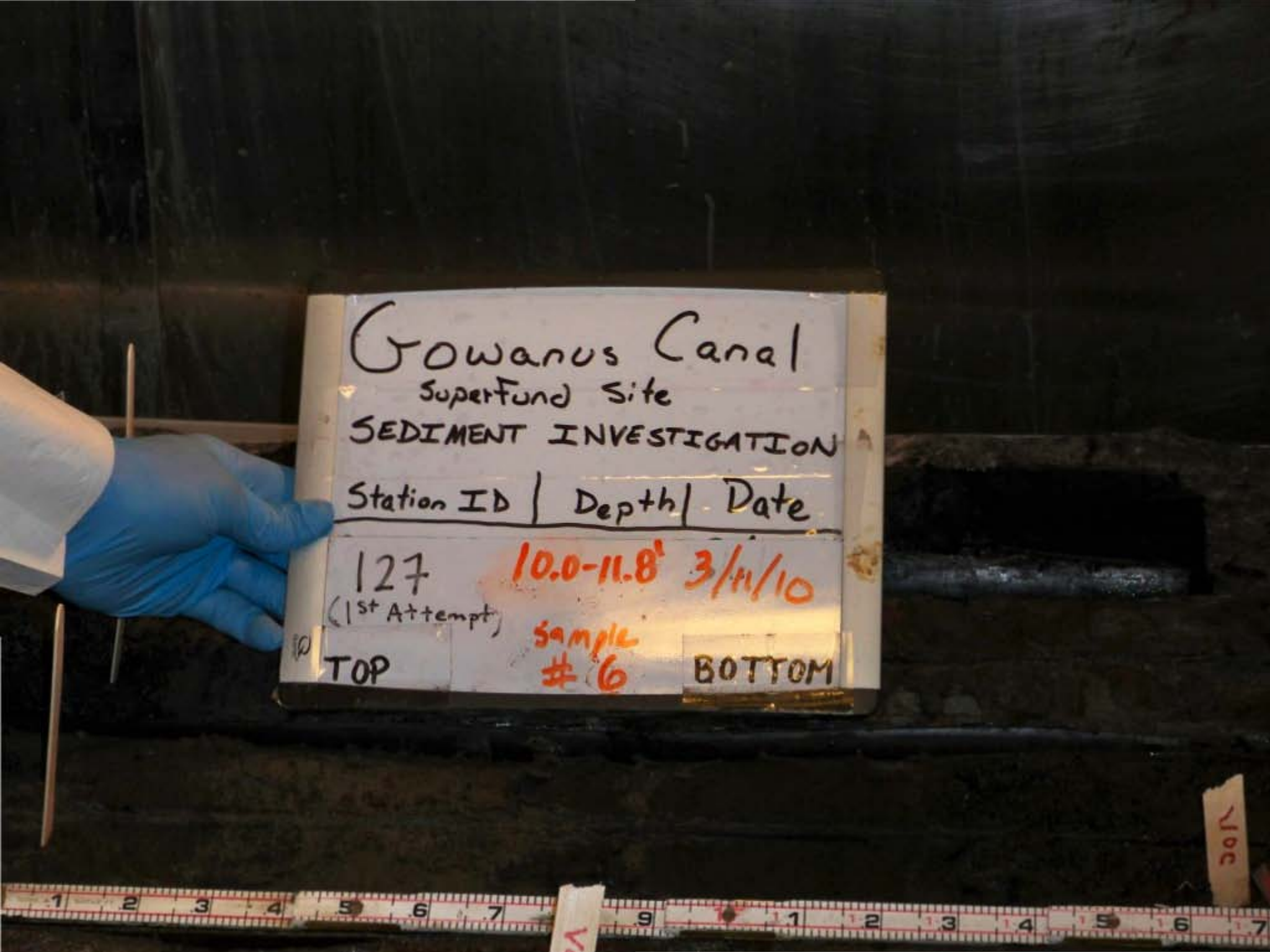

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
126 2.0-4.0 3/9/2010
TOP
BOTTOM

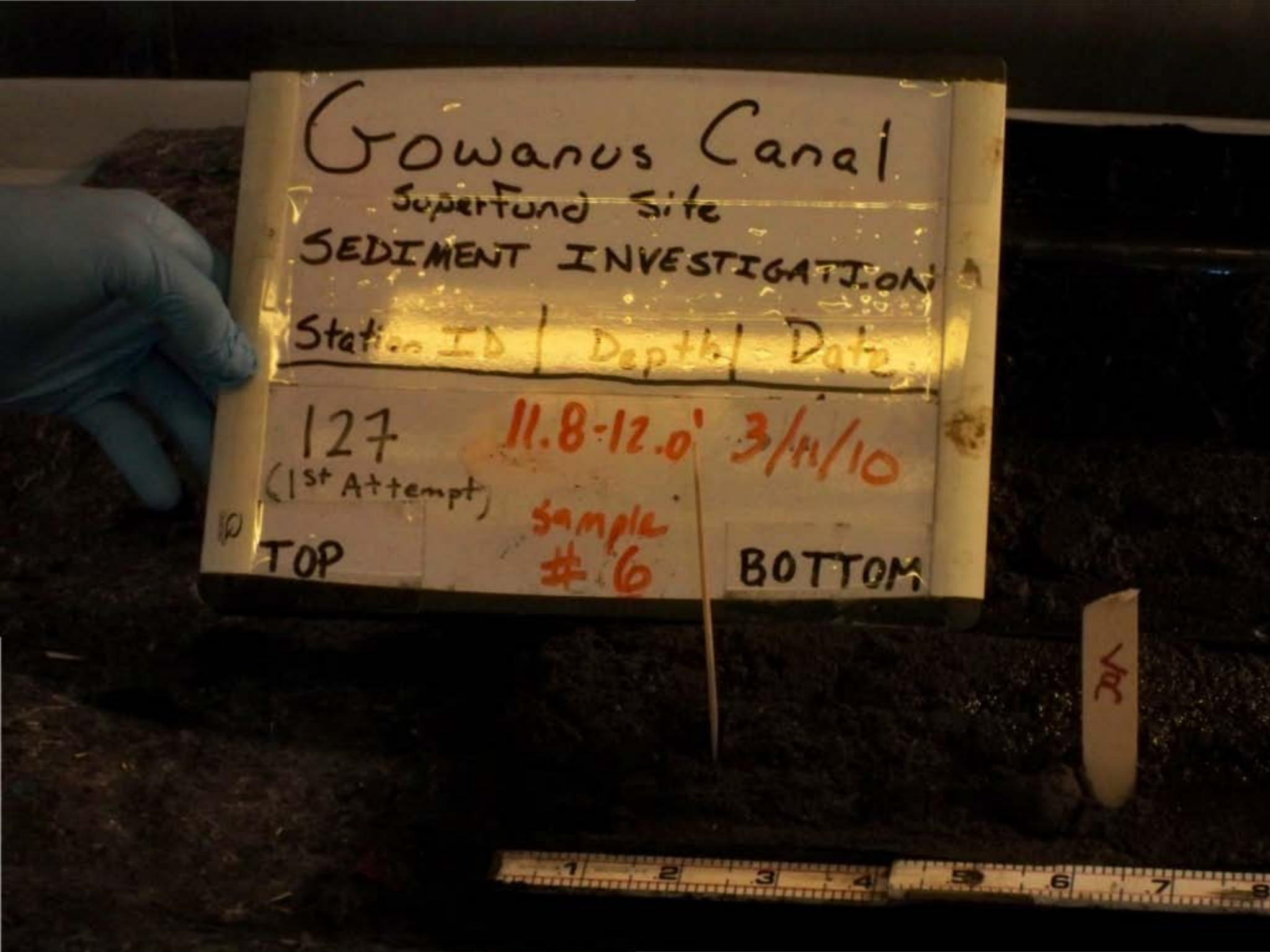

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
126 4.0-6.0 3/9/2010
TOP
BOTTOM

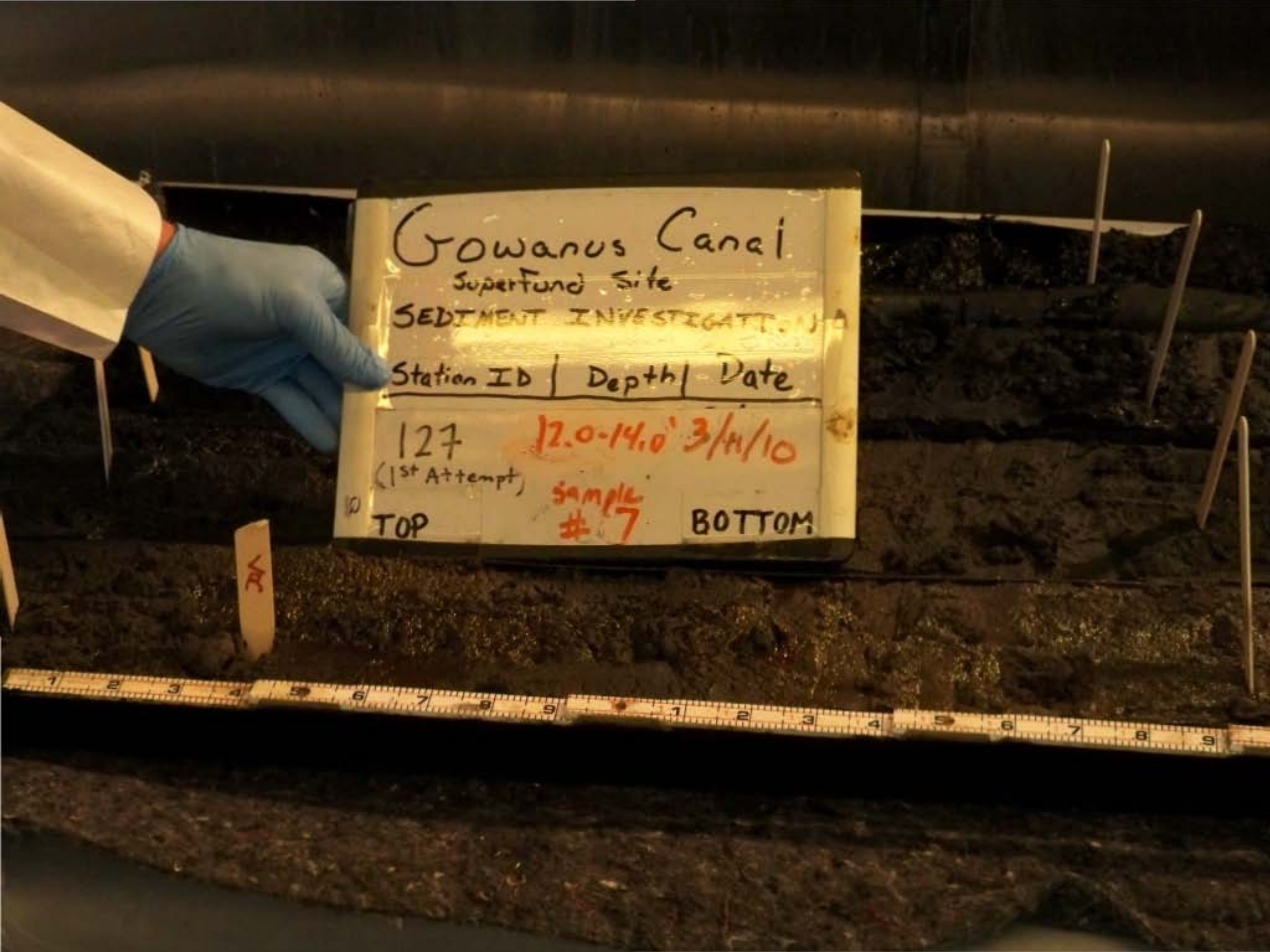

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
126 6.0-6.6 3/4/2010
TOP
BOTTOM

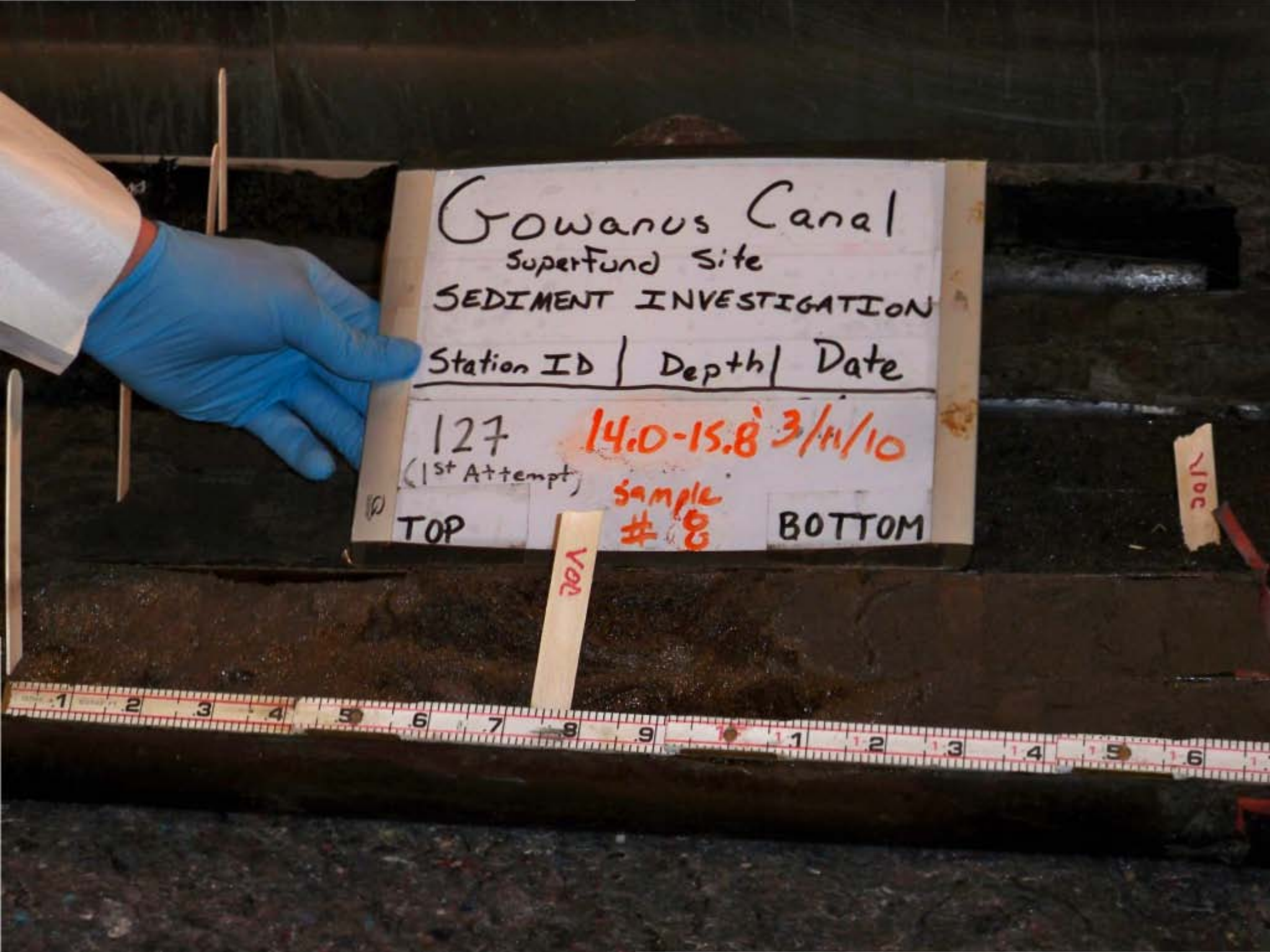

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(3rd Attempt)
FULL
RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(1st Attempt)
0-2"
3/11/10
sample #1
TOP
BOTTOM
UP

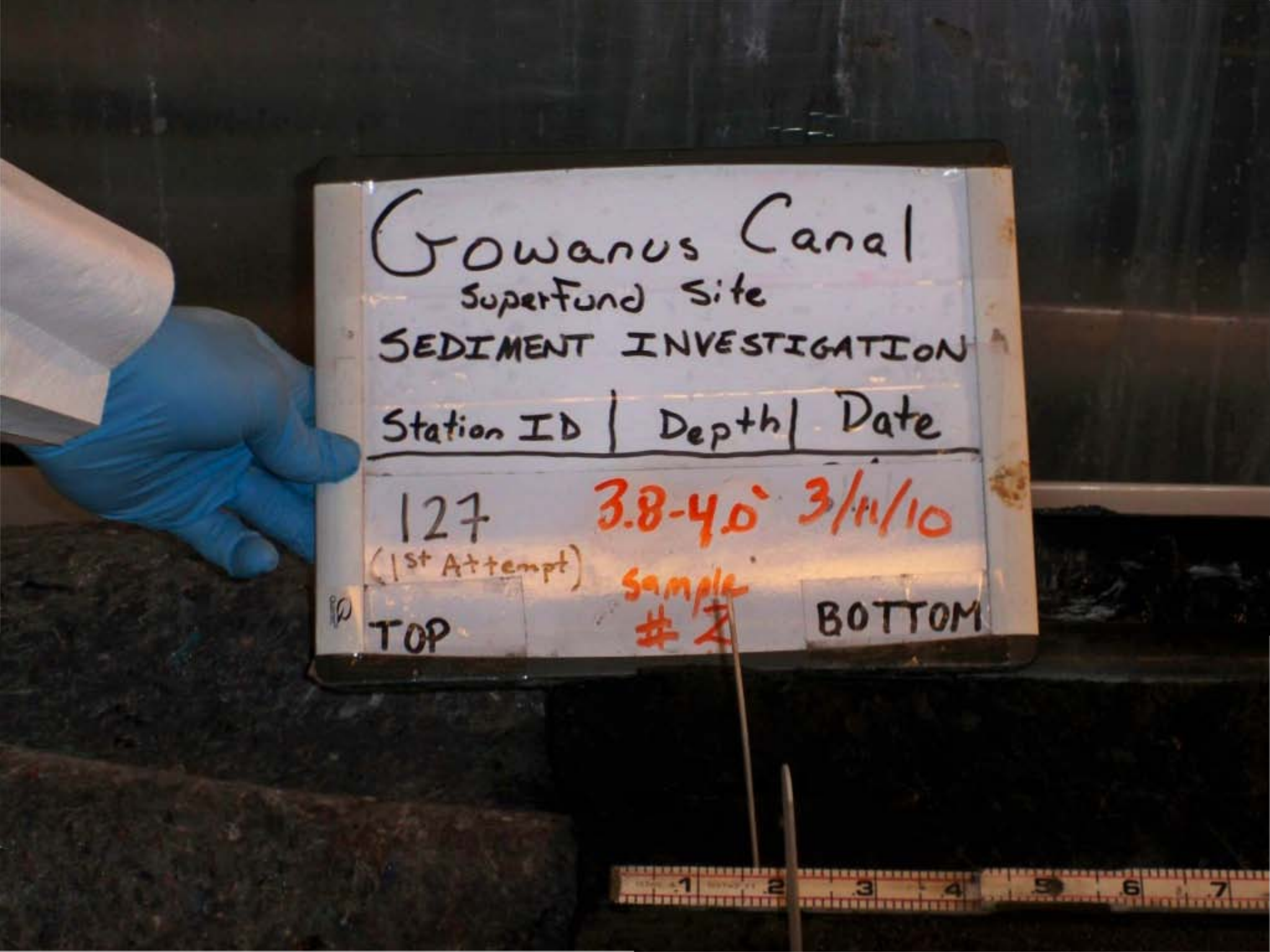

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
10.0-11.8'
3/11/10
(1st Attempt)
sample
#6
TOP
BOTTOM

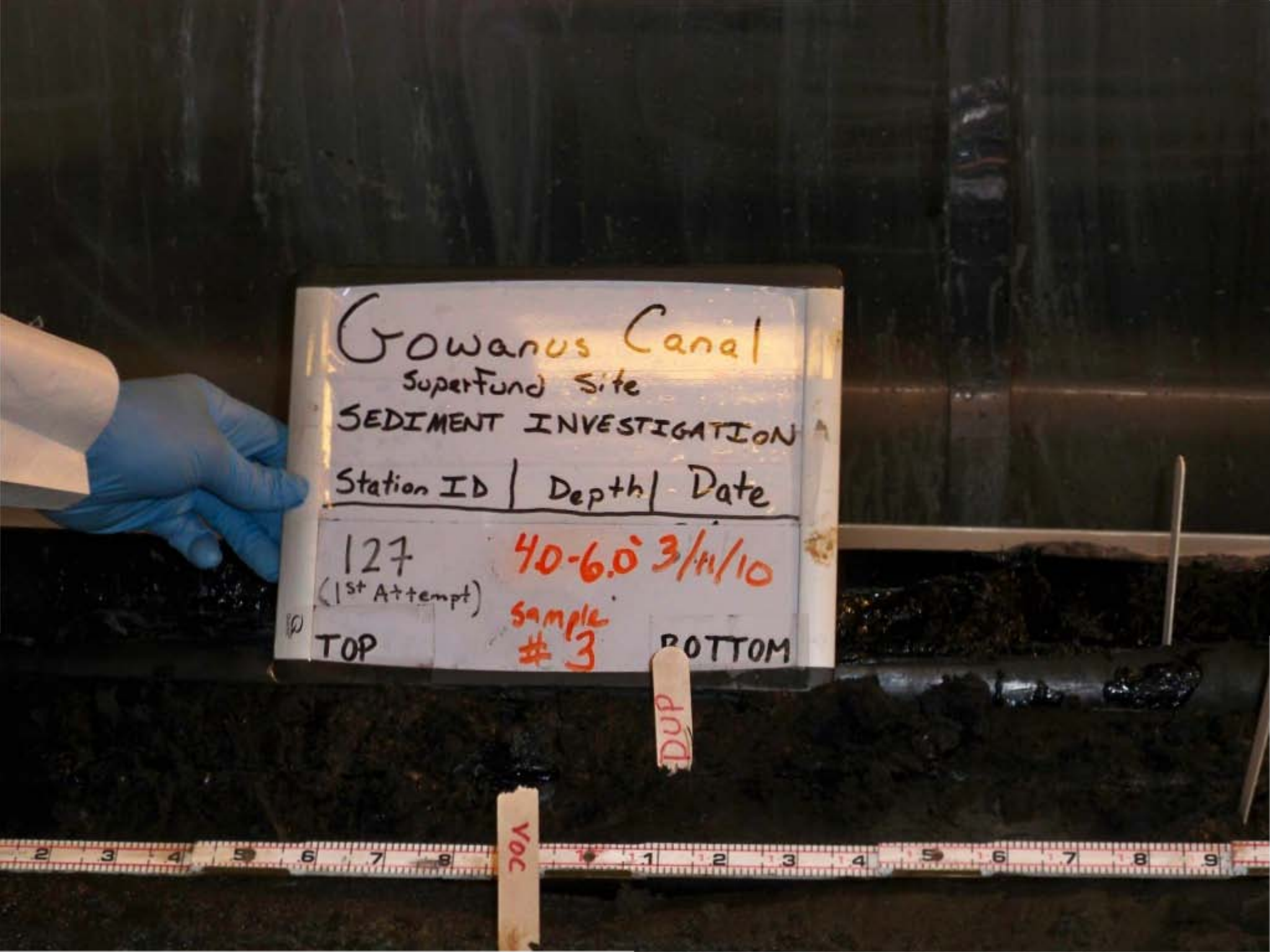

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127 (1st Attempt) 11.8-12.0' 3/11/10
TOP
sample #6
BOTTOM
VBC

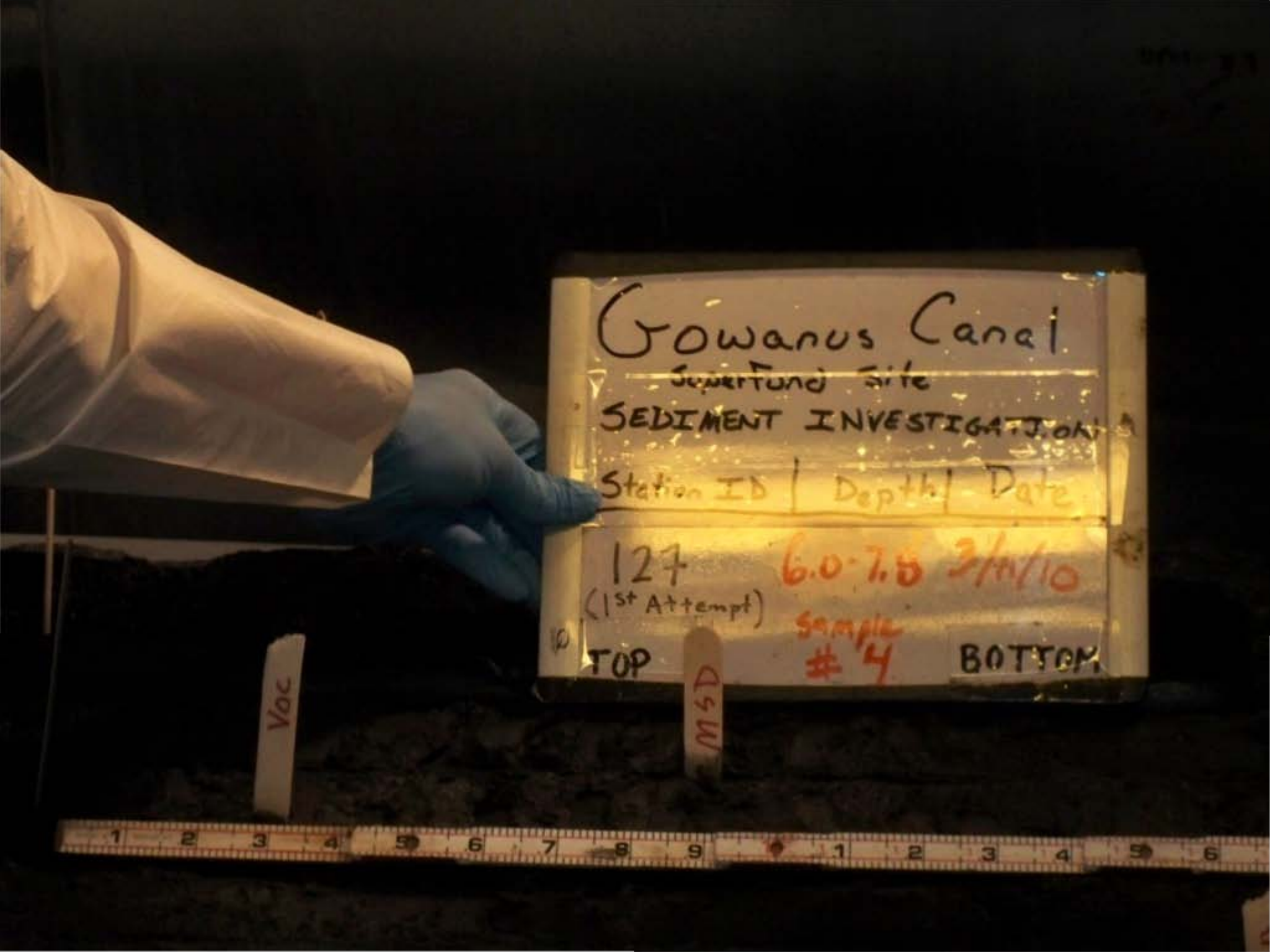

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATT.
Station ID | Depth | Date
127
(1st Attempt)
12.0-14.0'
3/11/10
TOP
sample #7
BOTTOM

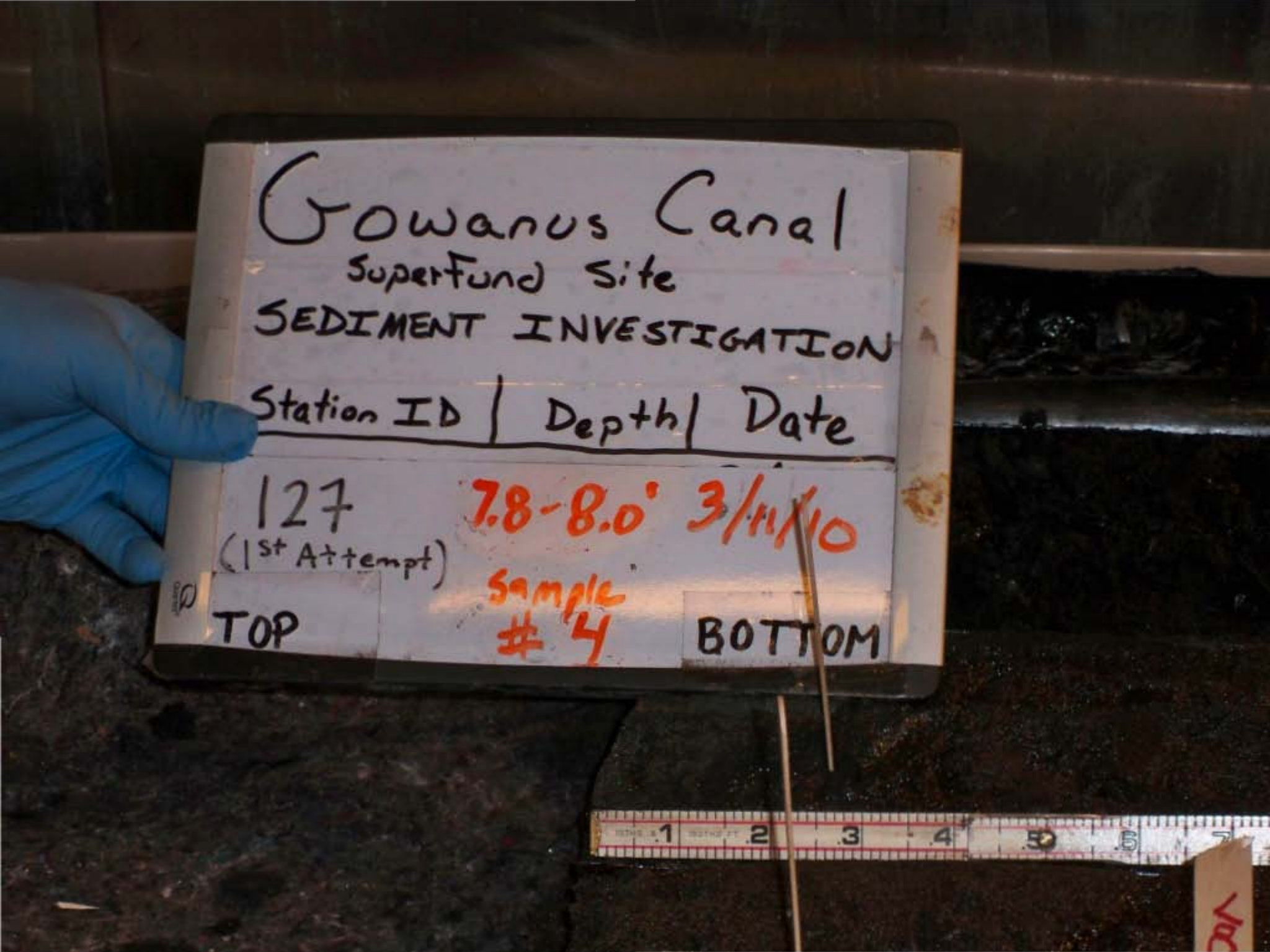

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127 (1st Attempt)
14.0-15.8' 3/11/10
sample #
TOP
BOTTOM
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(1st Attempt)
2.0-3.8'
3/11/10
sample
#2
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(1st Attempt)
3.8-4.0'
3/11/10
sample
#2
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(1st Attempt)
4.0-6.0 3/11/10
sample
#3
TOP
BOTTOM
DUP
VOC

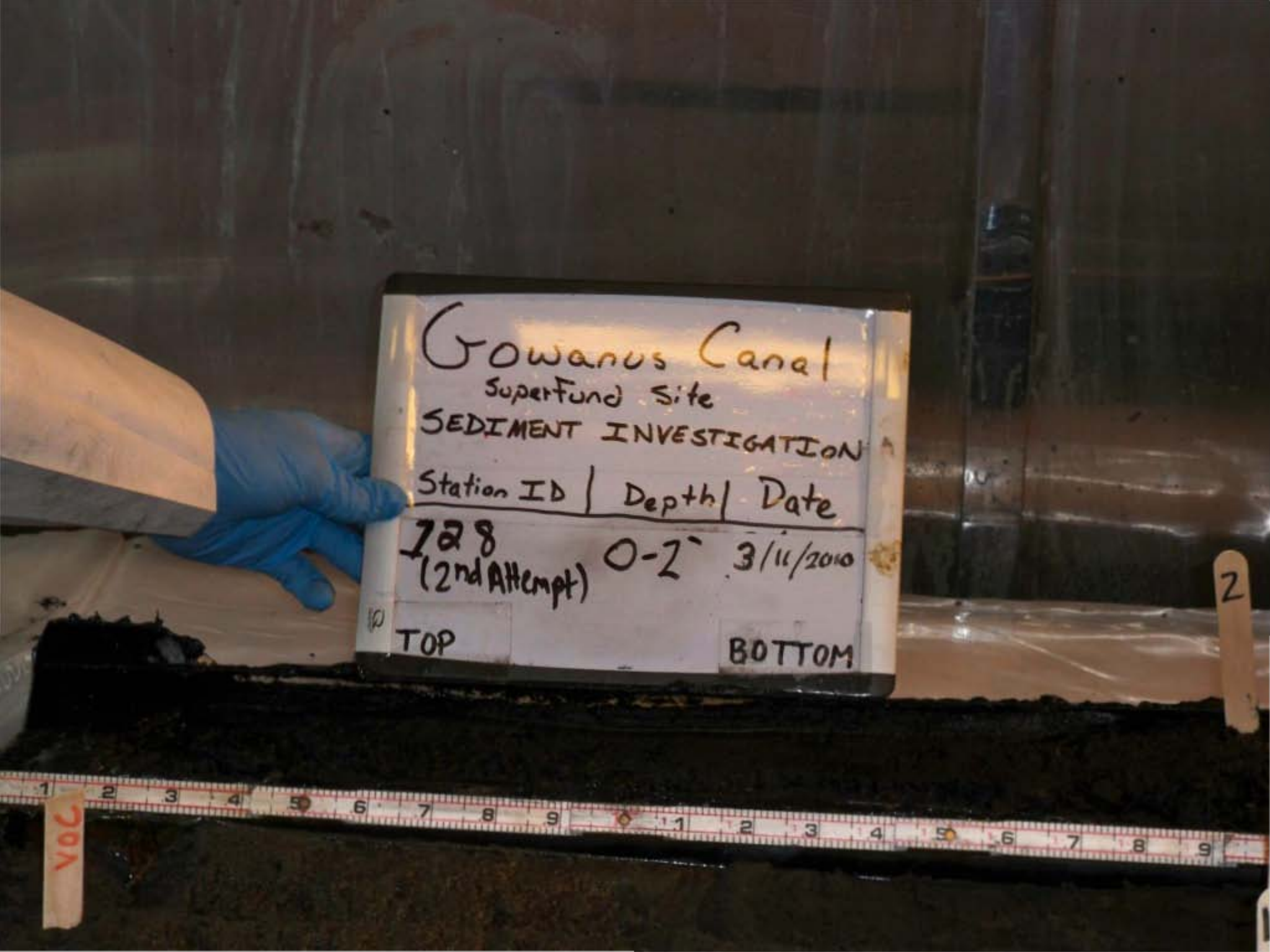

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(1st Attempt)
6.0-7.0 3/11/10
sample #4
TOP
BOTTOM
Voc
MSD

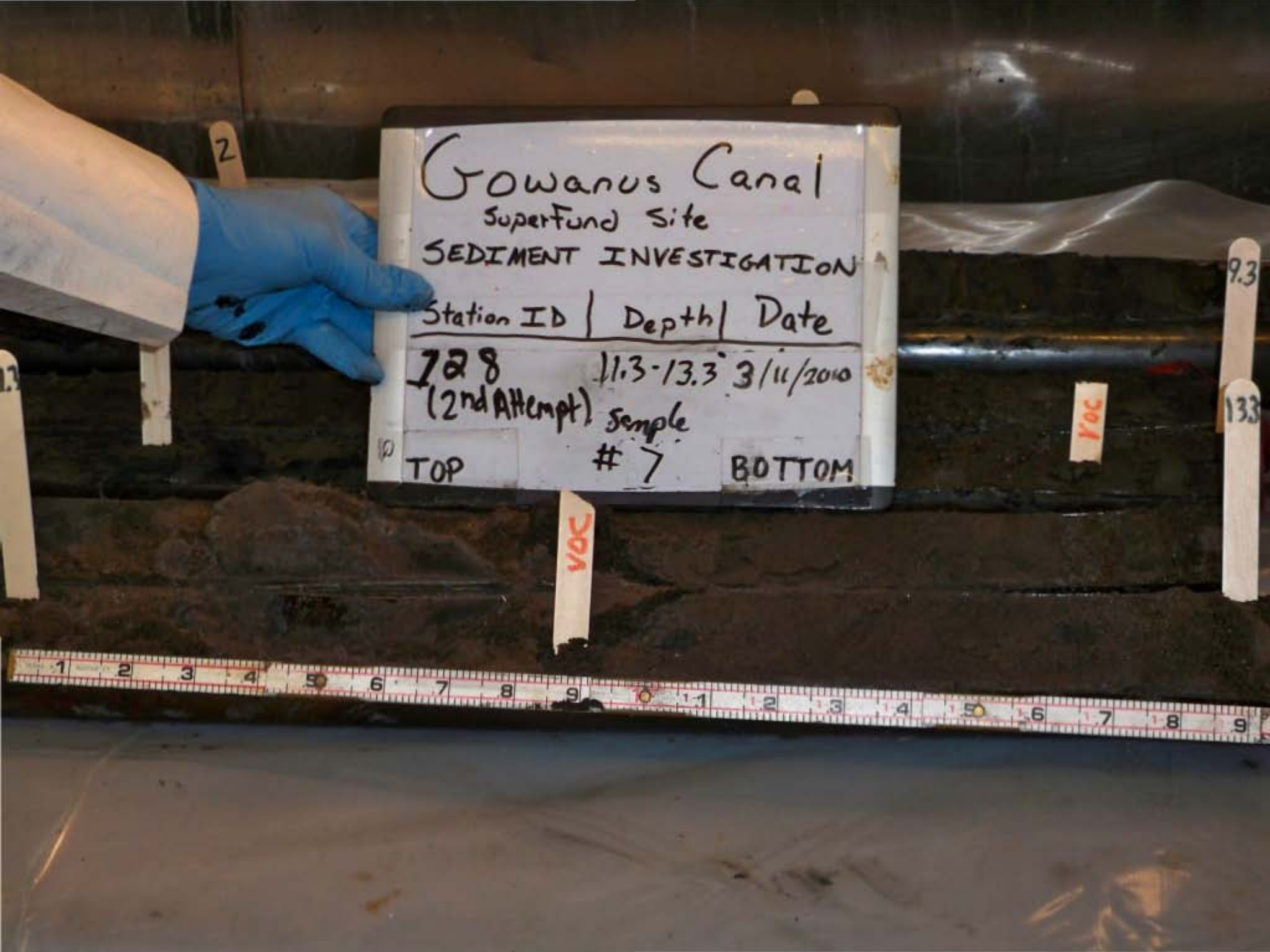

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(1st Attempt)
7.8-8.0'
3/11/10
Sample #4
TOP
BOTTOM

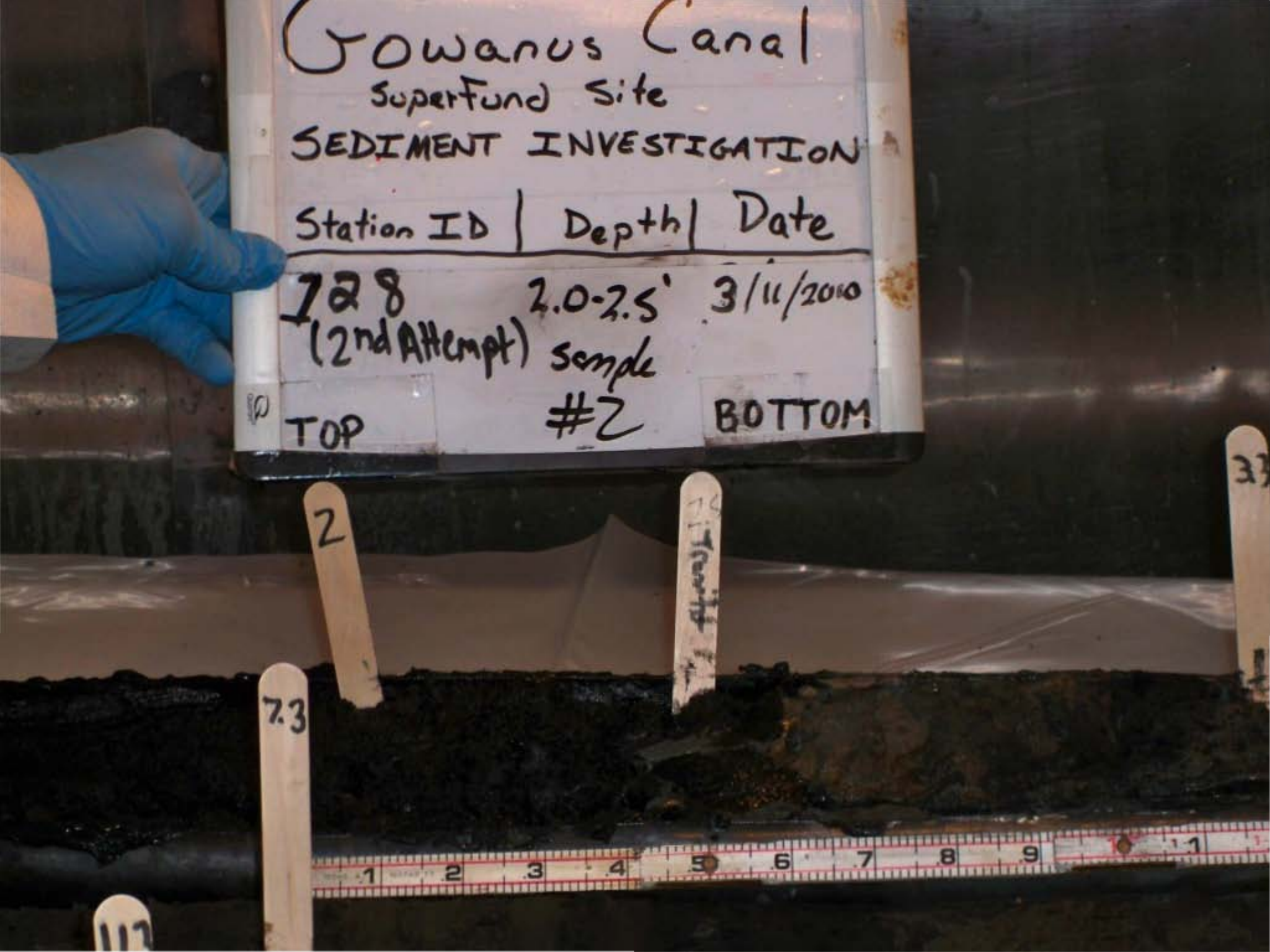

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(1st Attempt)
8.0-10.0' 3/11/10
sample #5
TOP
BOTTOM
VOC

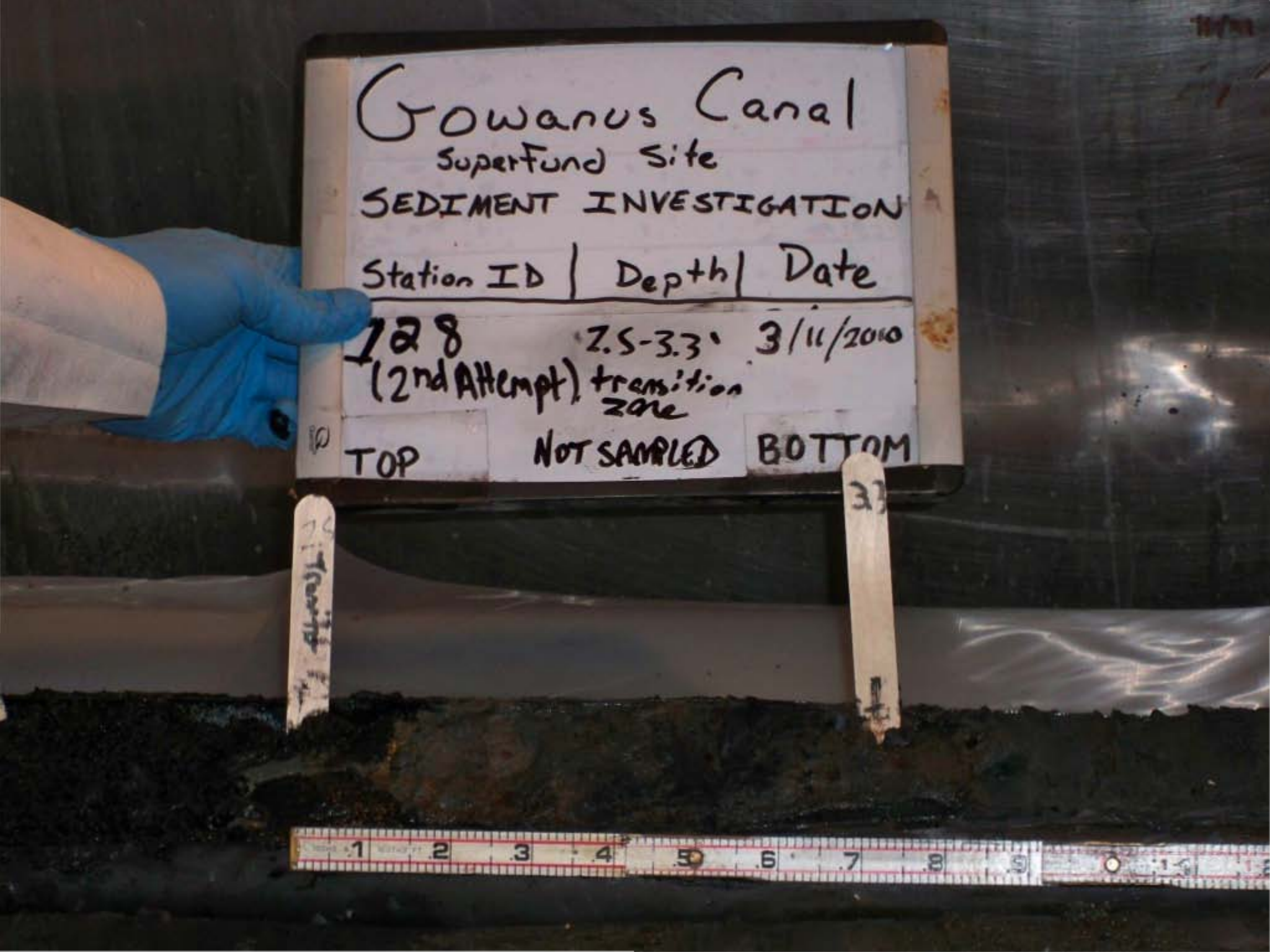

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127 (1st Attempt) FULL RECOVERY 3/11/2010
TOP
BOTTOM

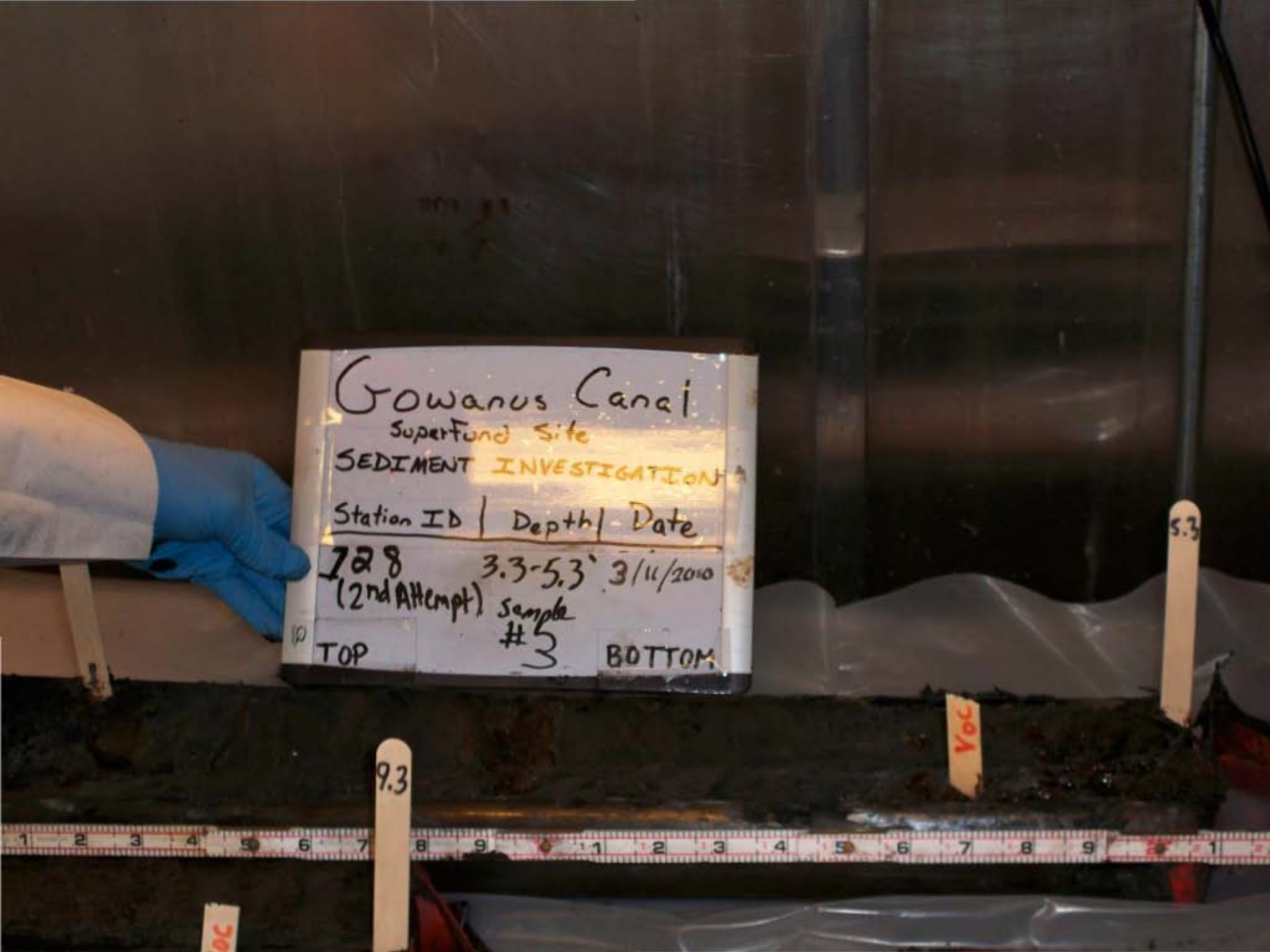

Gowanus Canal
Superfund site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 FULL RECOVERY 3/11/2010
(2nd Attempt)
TOP
BOTTOM

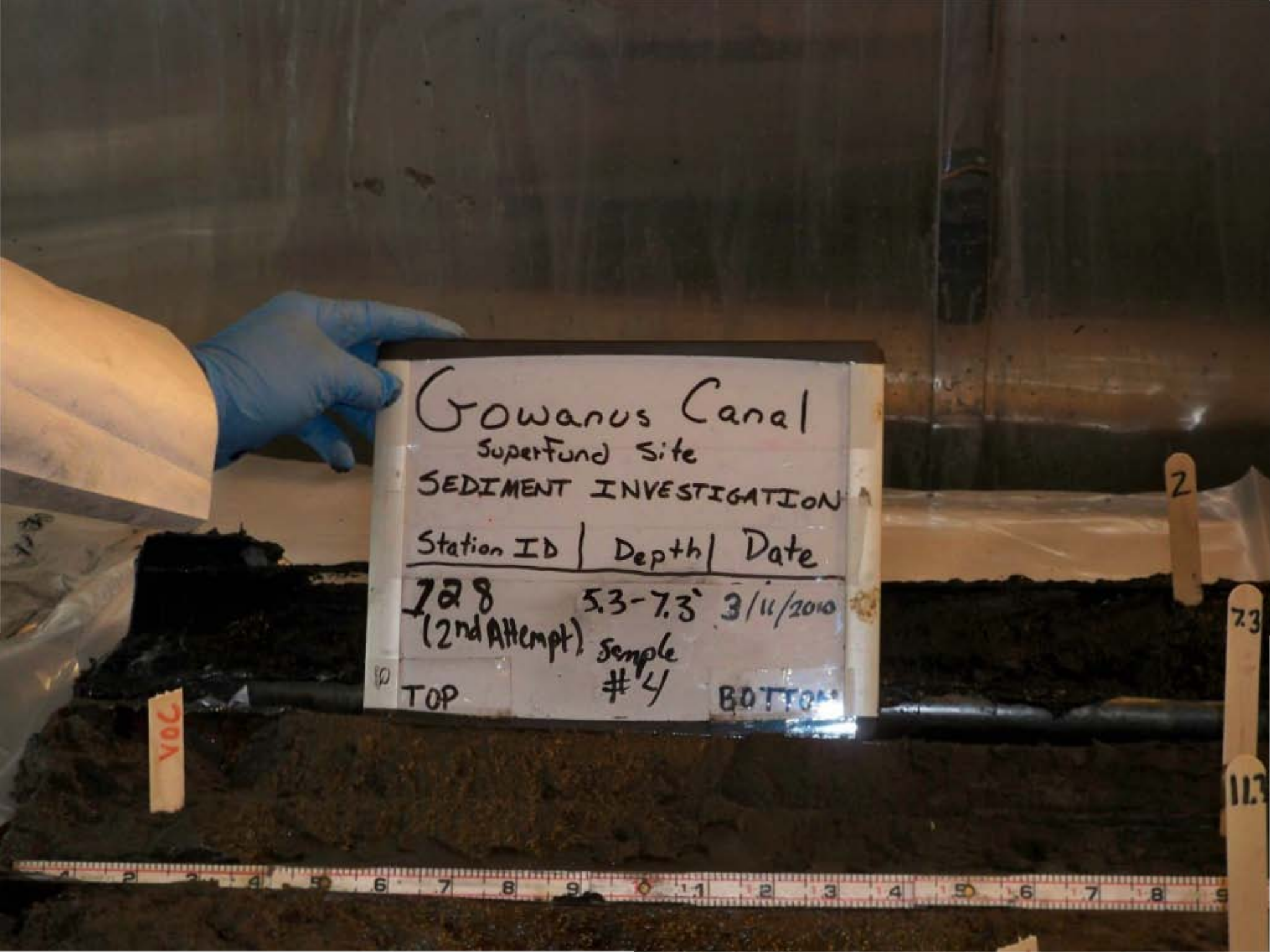

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) 0-2' 3/11/2010
TOP
BOTTOM
VOC
2

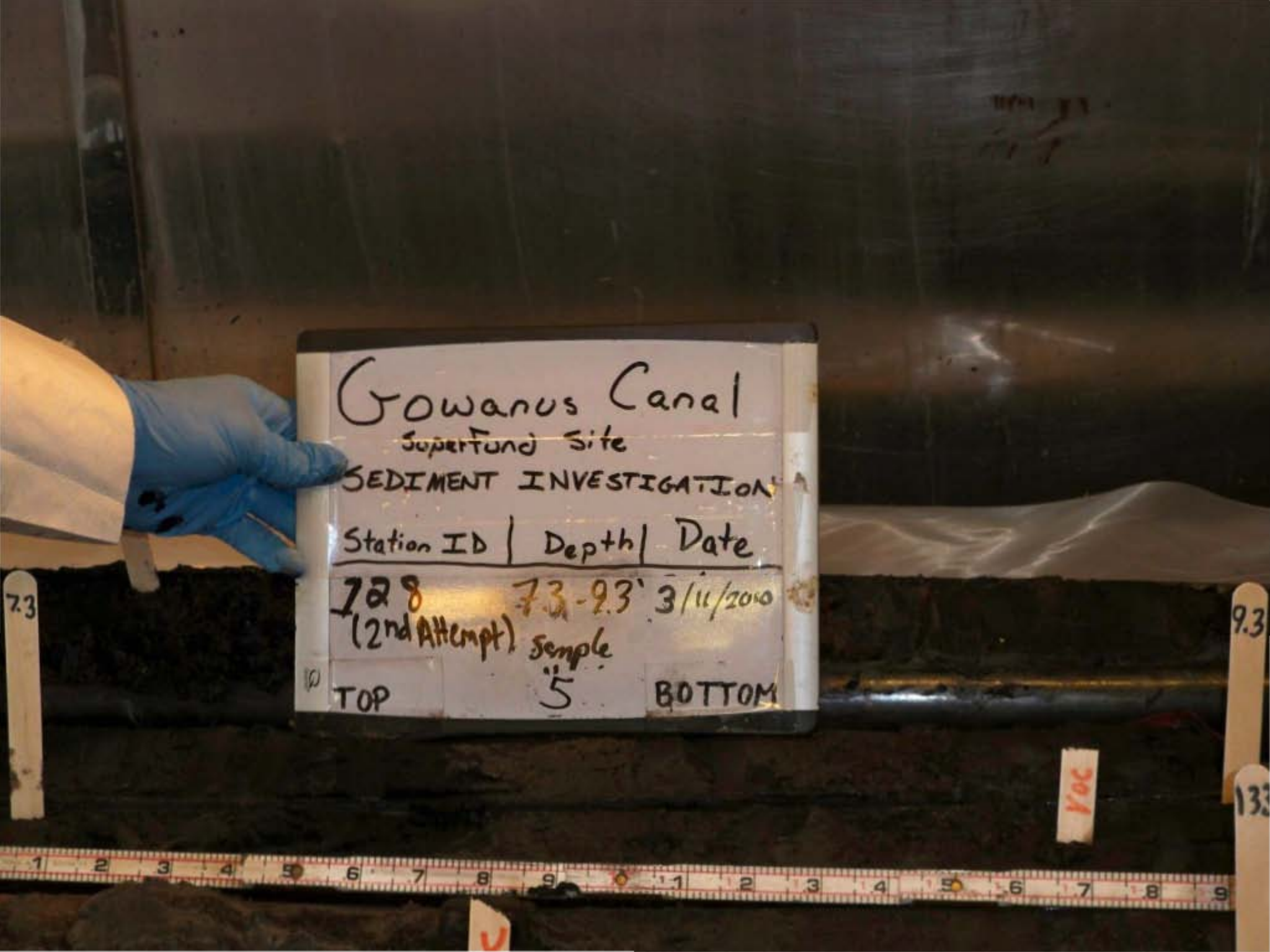

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 11.3-13.3 3/11/2010
(2nd Attempt) Sample
TOP #7 BOTTOM
VOC
VOC
9.3
13.3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) 2.0-2.5' sample #2 3/11/2010
TOP
BOTTOM
2
7.3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) 2.5-3.3' transition zone 3/11/2010
TOP
NOT SAMPLED
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) 3.3-5.3' 3/11/2010
Sample #3
TOP
BOTTOM
9.3
VOC
5.3

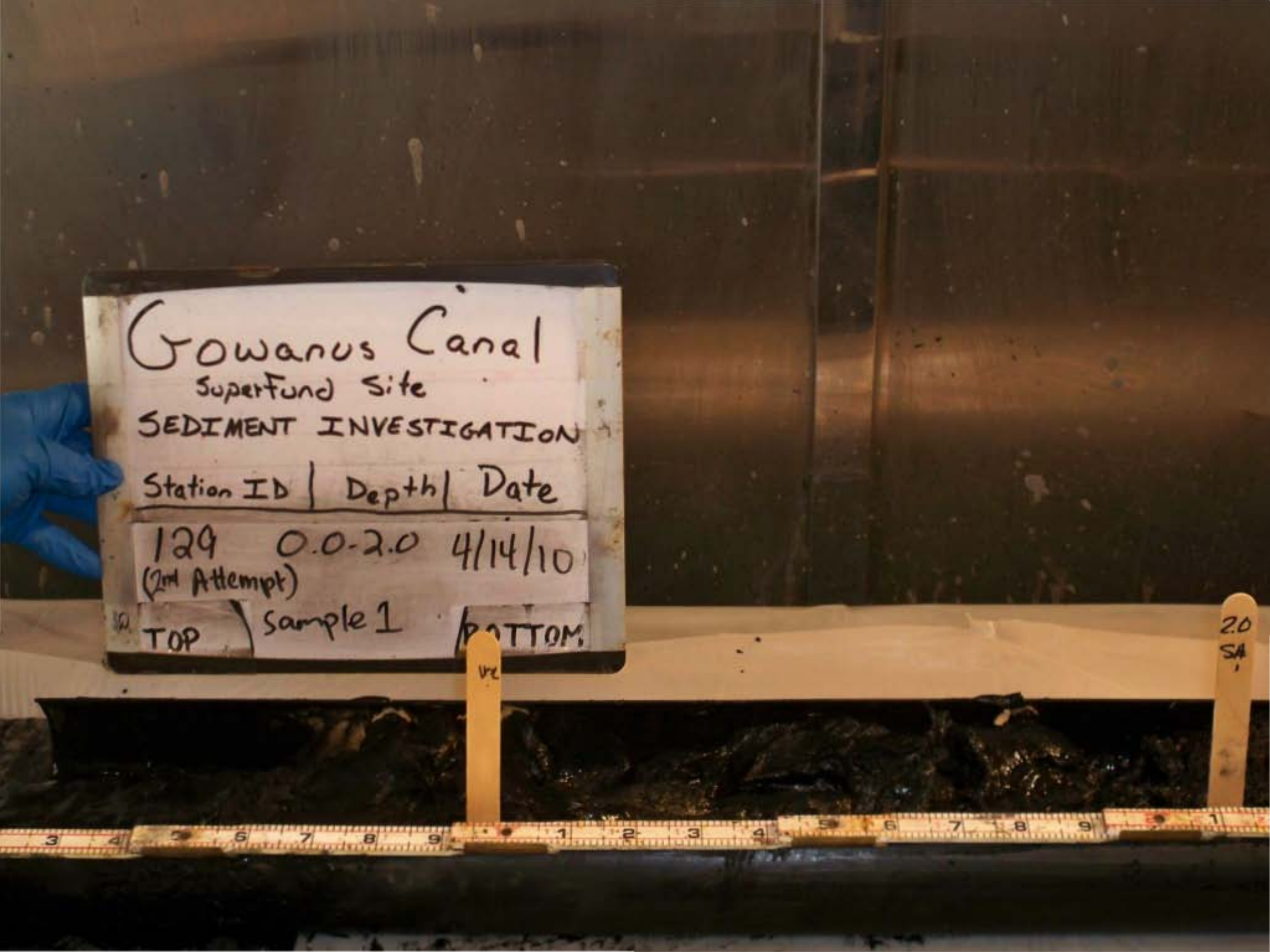

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) 5.3-7.3' 3/11/2010
Sample #4
TOP
BOTTOM
VOC
2
7.3
11.3

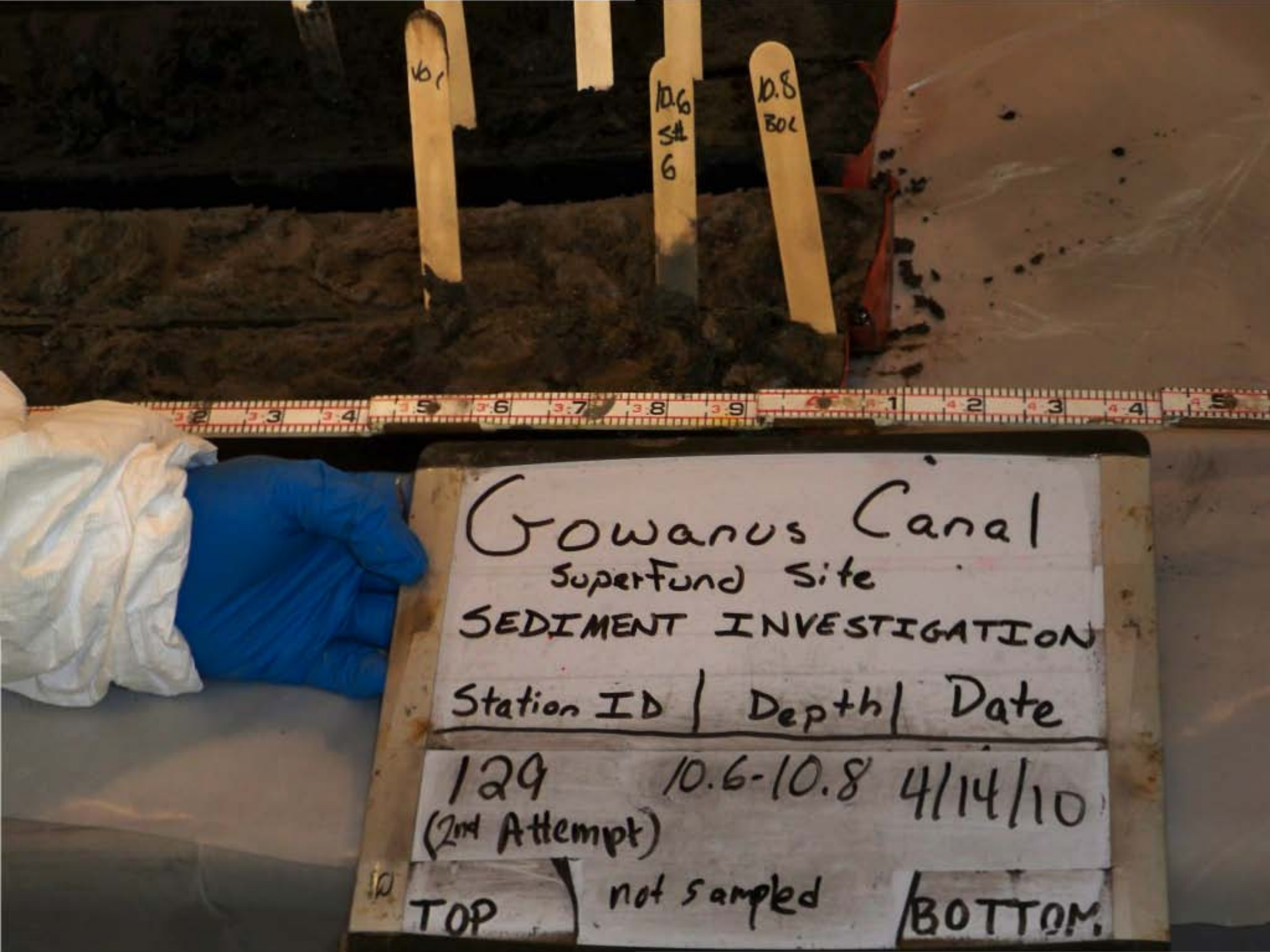

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) 7.3-9.3' 3/11/2010
Sample
TOP 5 BOTTOM
7.3
9.3
VOC

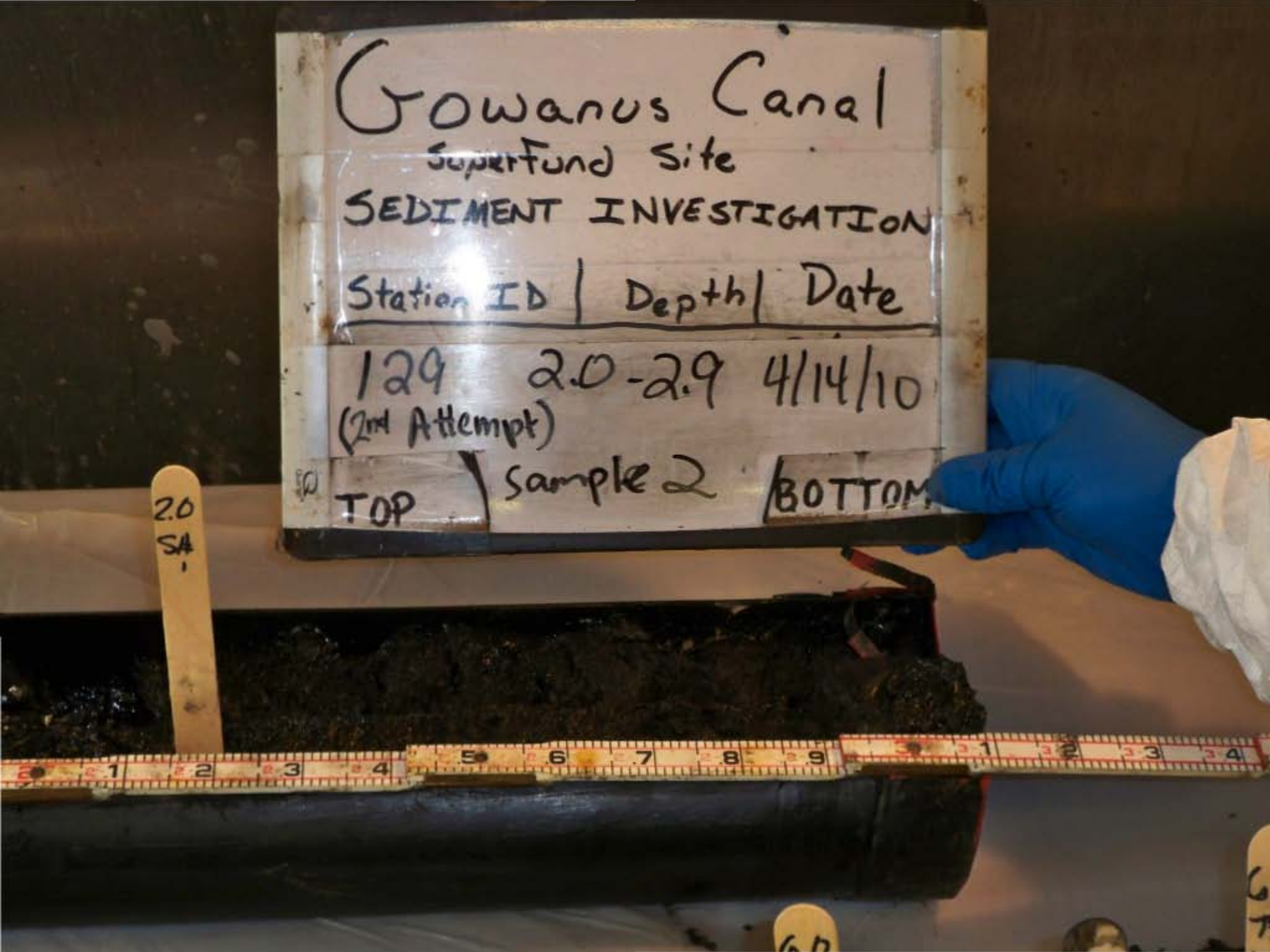

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) 9.3-11.3' 3/11/2010
Sample #6
TOP
BOTTOM
VOC
VOC
2
7.3
11.3

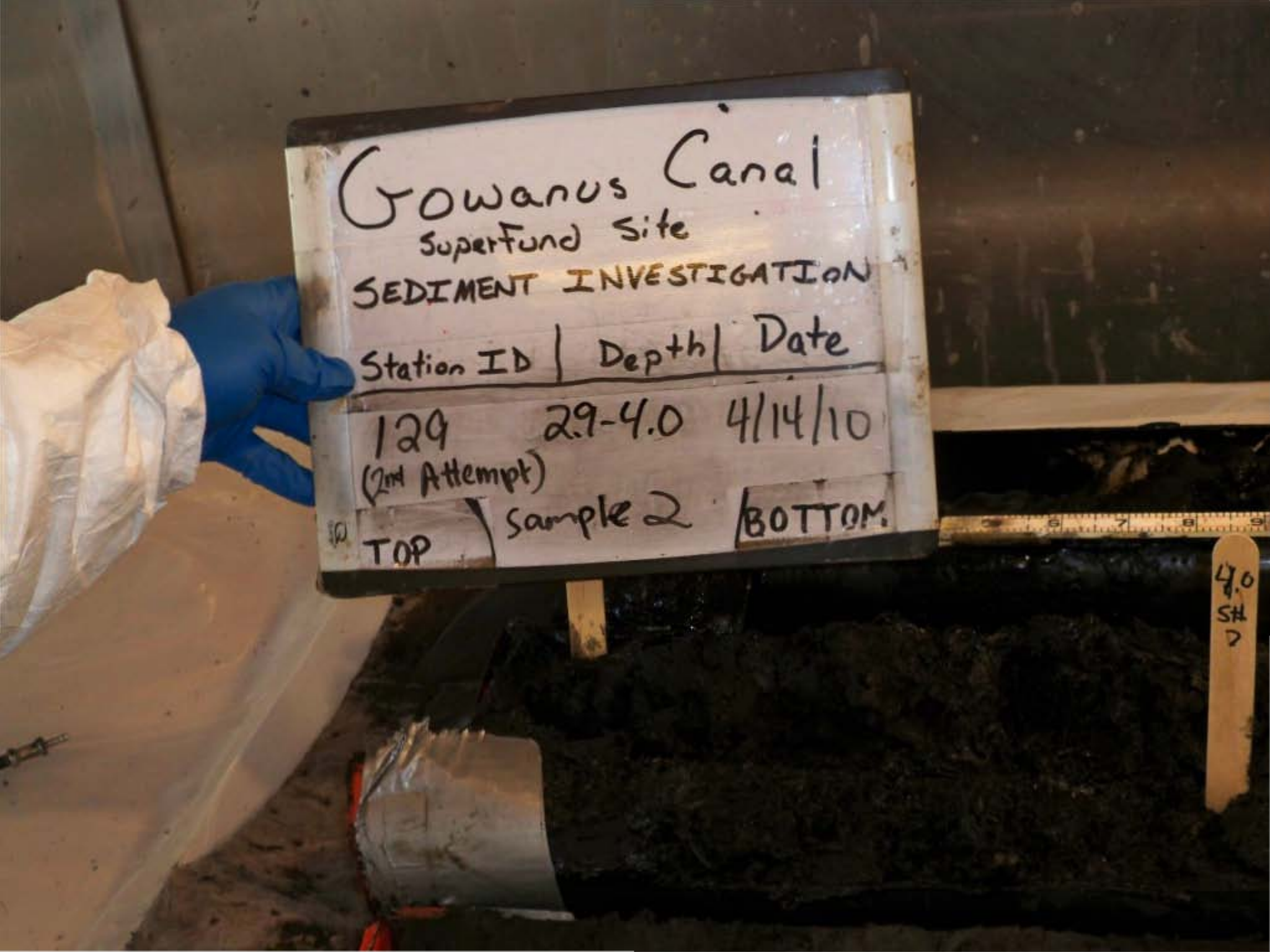

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 (2nd Attempt) FULL RECOVERY 3/11/2010
BOTTOM
TOP


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 FULL 4/14/10
(2nd Att) RECOVERY
TOP
BOTTOM

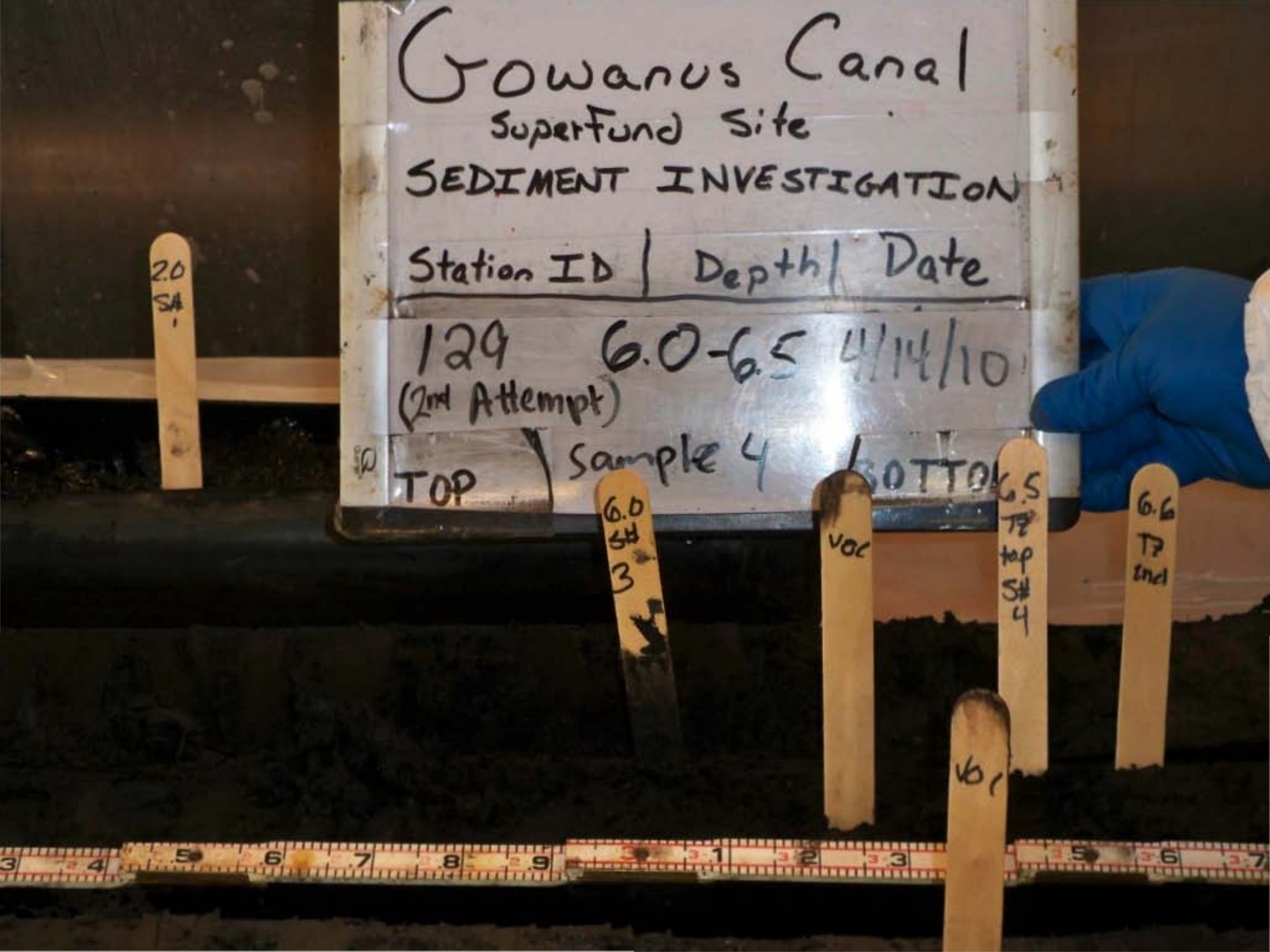

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 0.0-2.0 4/14/10
(2nd Attempt)
TOP | Sample 1 | BOTTOM
2.0
SA


10.6
St
6
10.8
Bot
Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 10.6-10.8 4/14/10
(2nd Attempt)
TOP
not sampled
BOTTOM

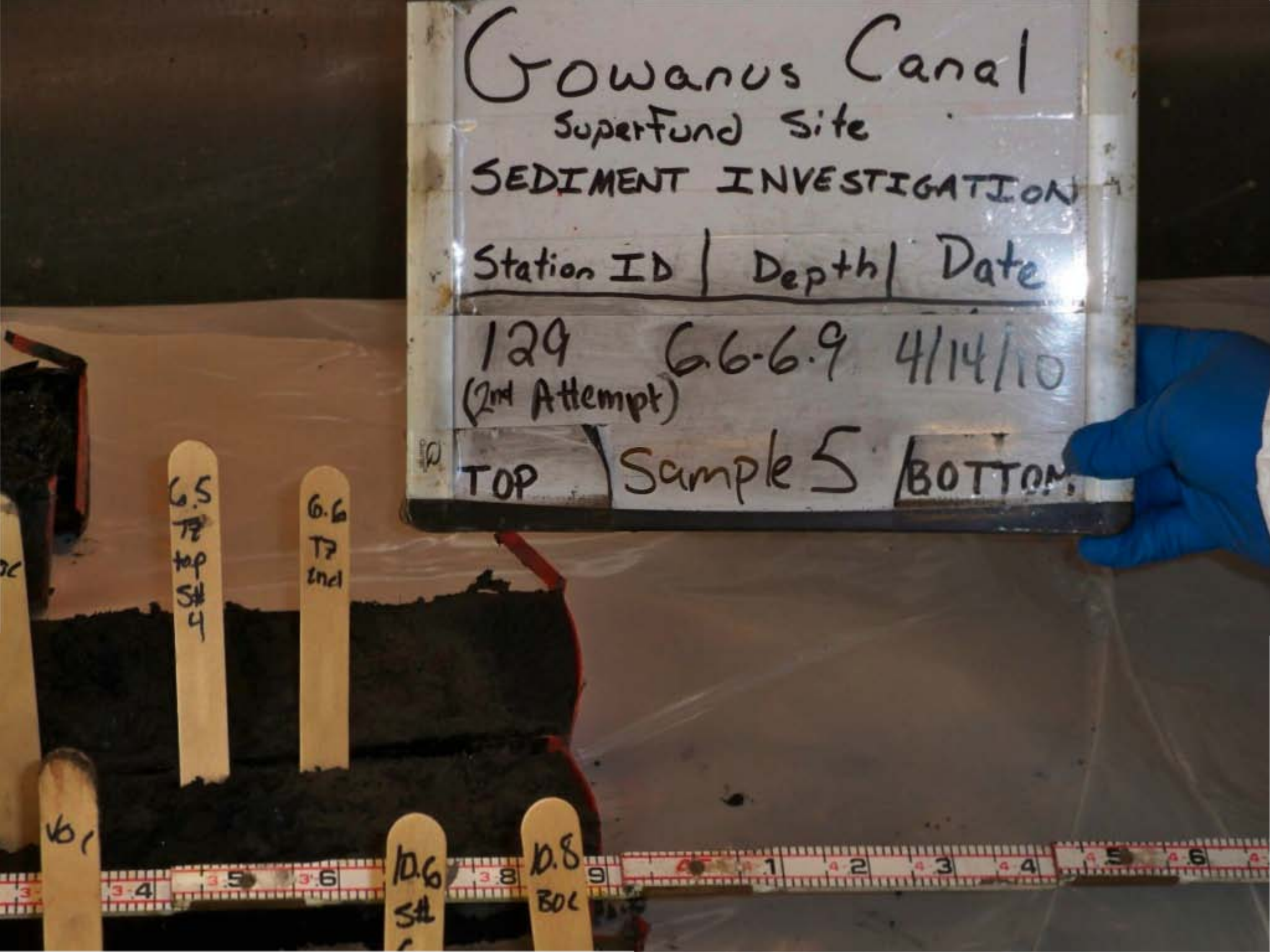

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 2.0-2.9 4/14/10
(2nd Attempt)
TOP | Sample 2 | BOTTOM
2.0
SA


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 29-4.0 4/14/10
(2nd Attempt)
TOP Sample 2 BOTTOM
4.0
SH
D


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 4.0-6.0 4/14/10
(2nd Attempt)
TOP | Sample 3 | BOTTOM
8.6
SH
5
6.0
SH
3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 6.0-6.5 4/14/10
(2nd Attempt)
TOP | Sample 4 | BOTTOM
2.0 SA
6.0 SH 3
VOC
6.5 TP top SH 4
6.6 TP 2nd
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 6.5-6.6 4/14/10
(2nd Attempt) transition
BOTTOM
6.0 SH 3
VOC
6.5 TZ top SH 4
6.6 TZ 2nd
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 (2nd Attempt) 6.6-6.9 4/14/10
TOP | Sample 5 | BOTTOM
6.5 T7 top S#4
6.6 T7 end
10.6 S#
10.8 BOC

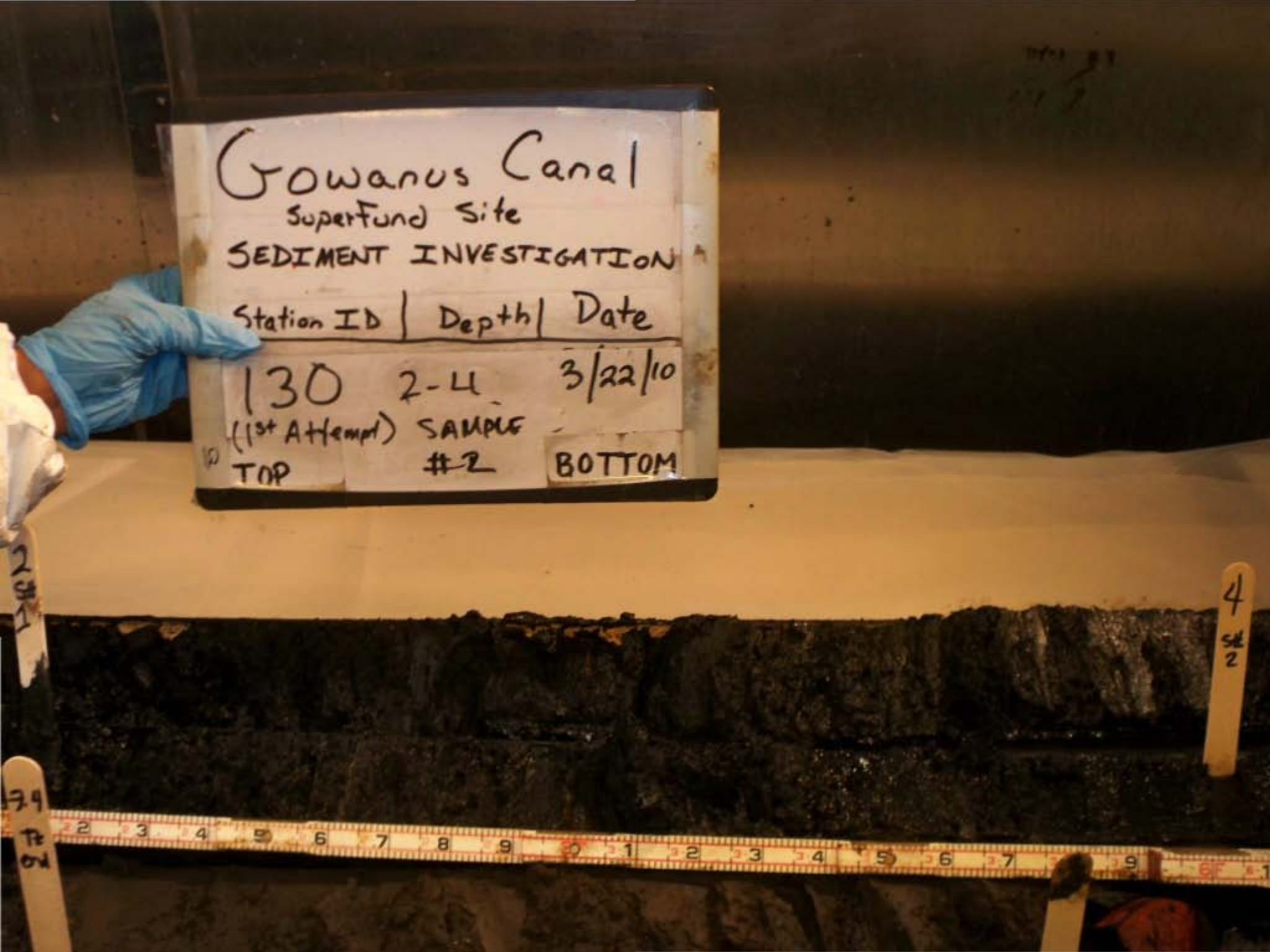

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 (2nd Attempt) 6.9-8.6 4/14/10
TOP | Sample 5 | BOTTOM

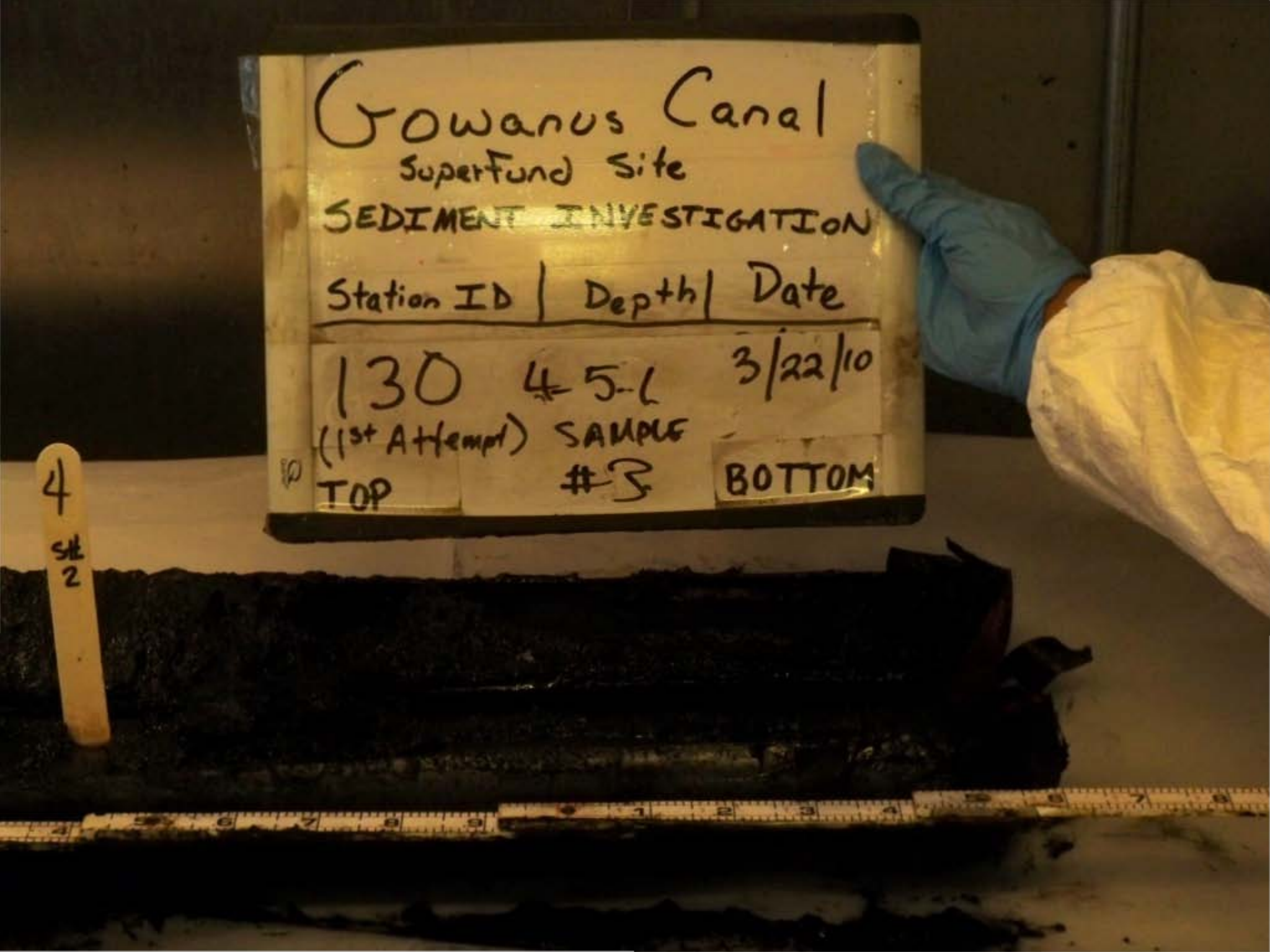

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 8.6-10.6 4/14/10
(2nd Attempt)
TOP | Sample 6 | BOTTOM

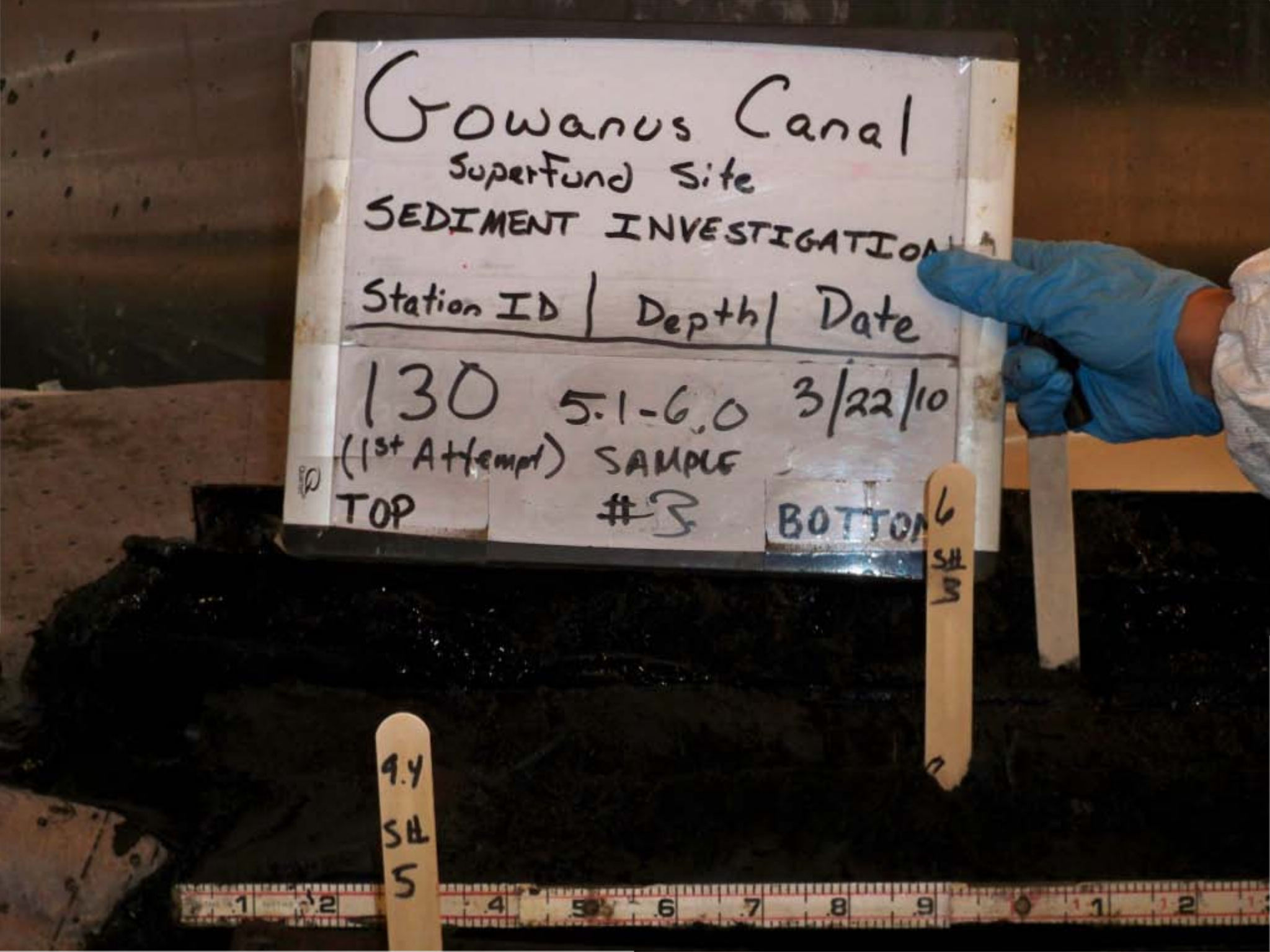

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 (2nd Attempt) FULL Recovery 4/14/10
TOP
BOTTOM

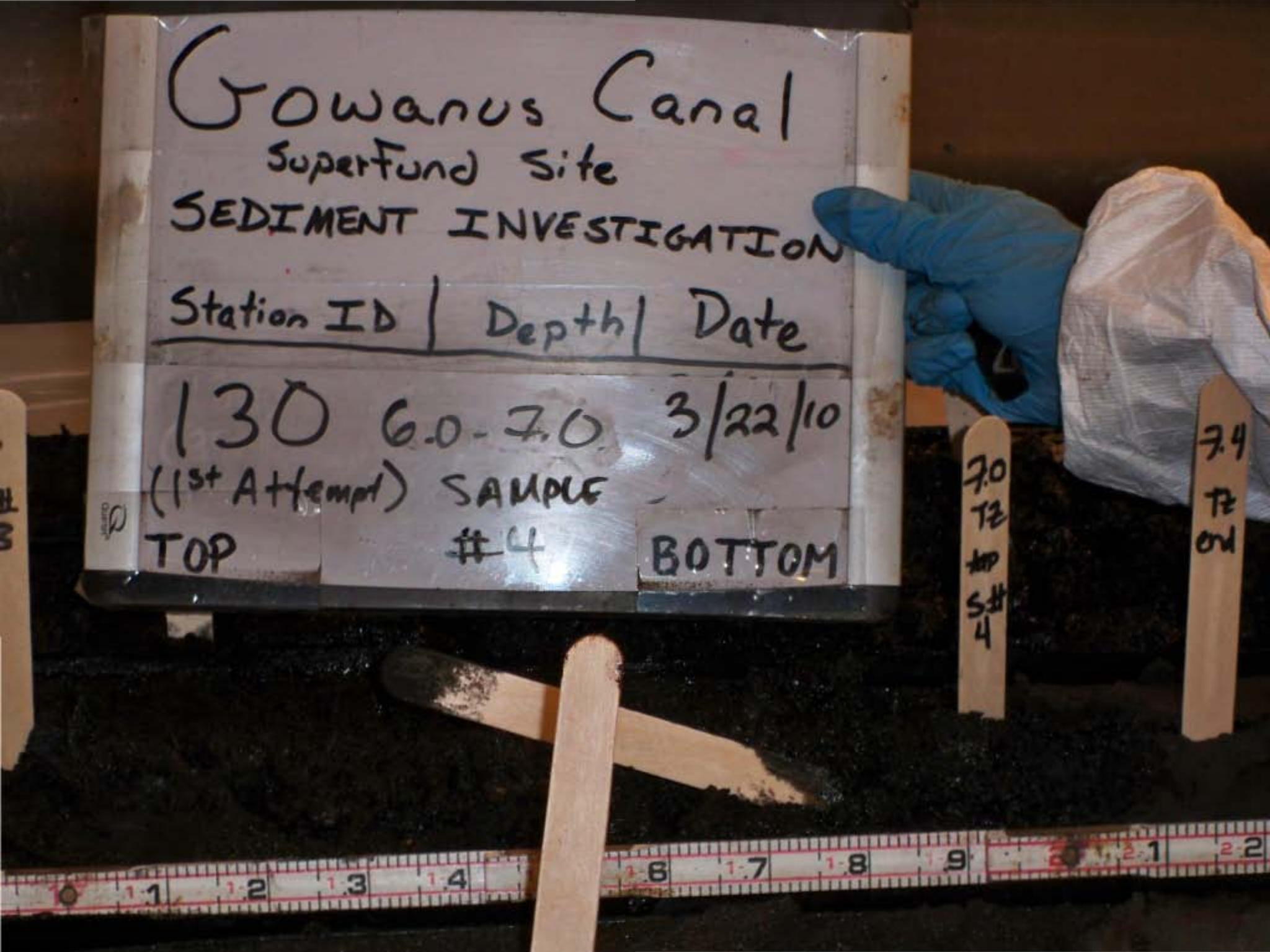

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 0-2 3/22/10
(1st Attempt) SAMPLE
TOP #1 BOTTOM

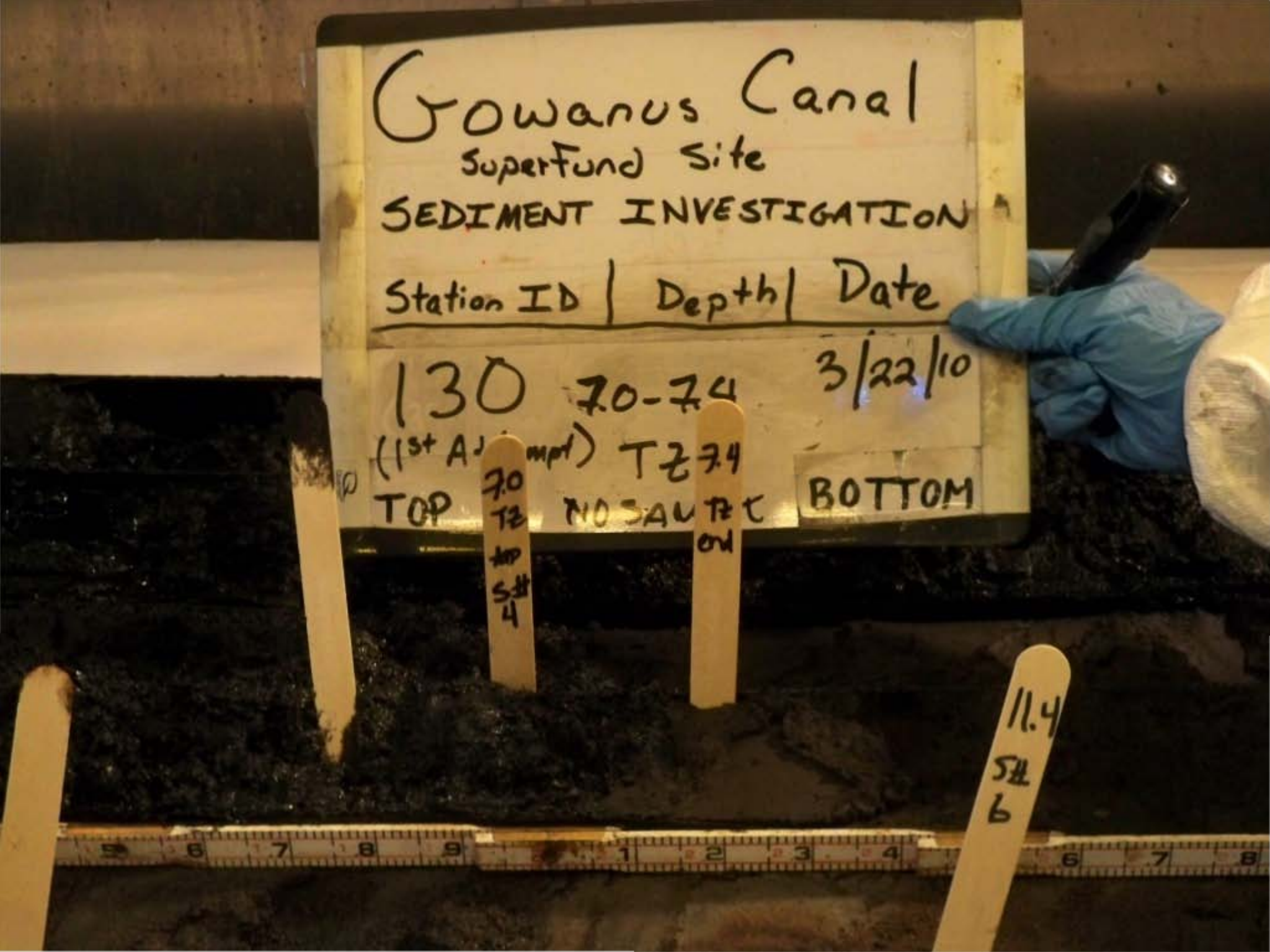

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 11.6-12.8 3/22/10
(1st Attempt) SAMPLE
TOP #7 BOTTOM
7.4
11.4
4
12.8

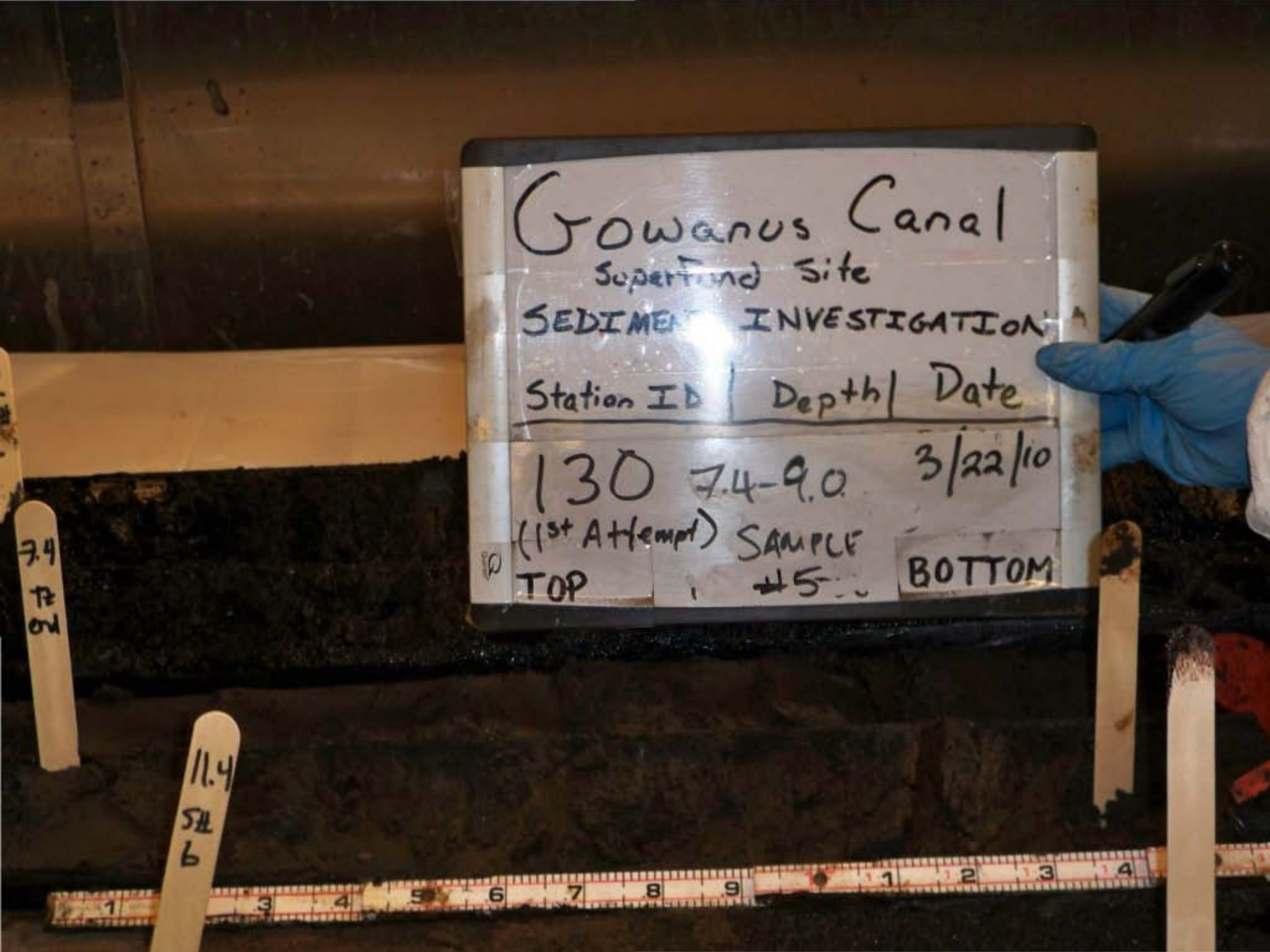

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 2-4 3/22/10
(1st Attempt) SAMPLE
TOP #2 BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 4 5-L 3/22/10
(1st Attempt) SAMPLE
#3
TOP
BOTTOM
4
SHL
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 5.1-6.0 3/22/10
(1st Attempt) SAMPLE
TOP #3 BOTTOM
9.4
SH
5
6
SH
3


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 6.0-7.0 3/22/10
(1st Attempt) SAMPLE #4
TOP
BOTTOM
7.0 TZ top S# 4
7.4 TZ bot

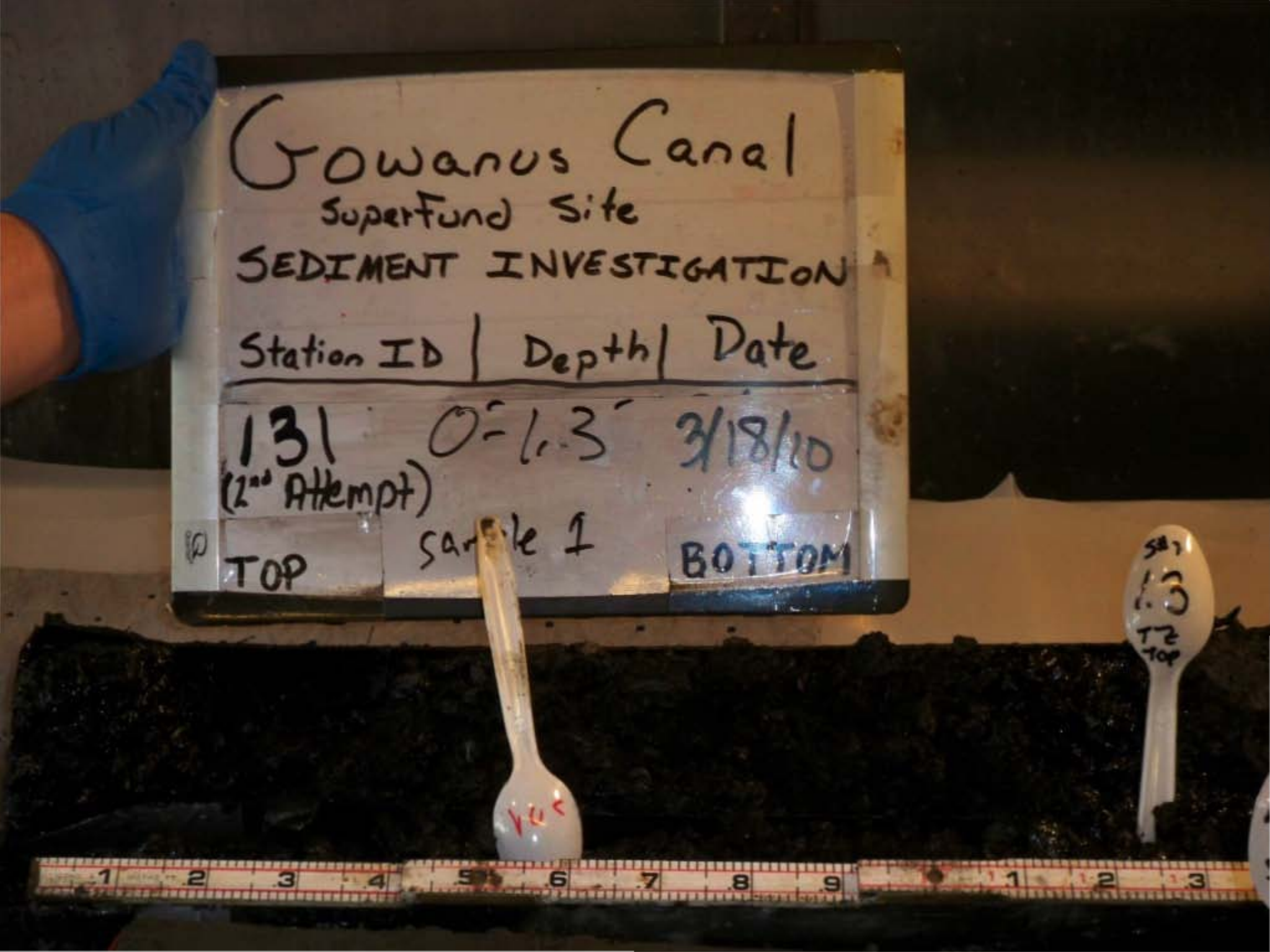

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 7.0-7.4 3/22/10
(1st Ad mpt) TZ 7.4
TOP NO SAU TZ t BOTTOM
7.0 TZ top S# 4
11.4 S# 6

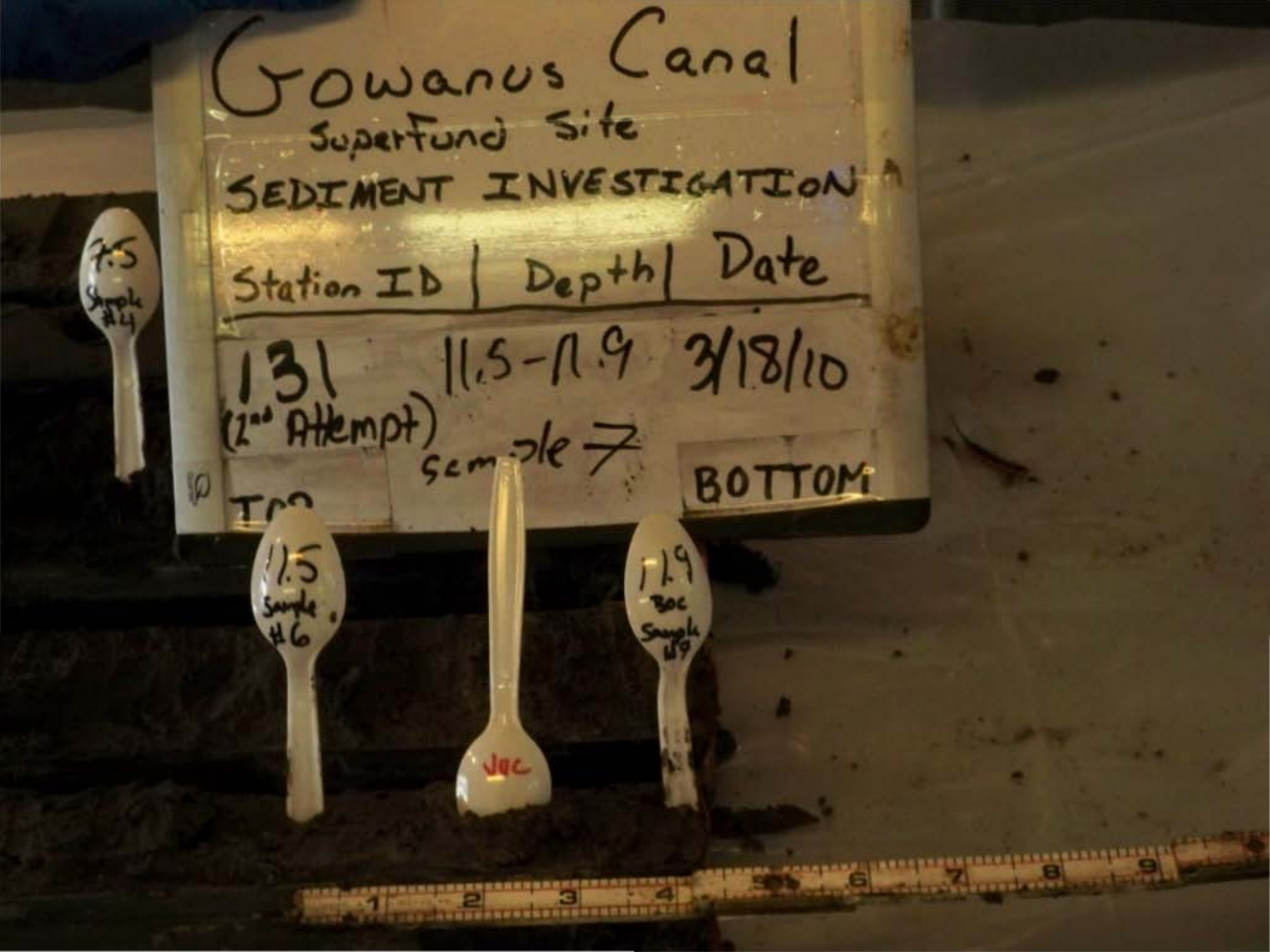

Gowanus Canal
Superfund Site
SEDIMEN INVESTIGATION
Station ID
Depth
Date
130
7.4-9.0
3/22/10
(1st Attempt)
SAMPLE
TOP
#5
BOTTOM
7.4
11.4

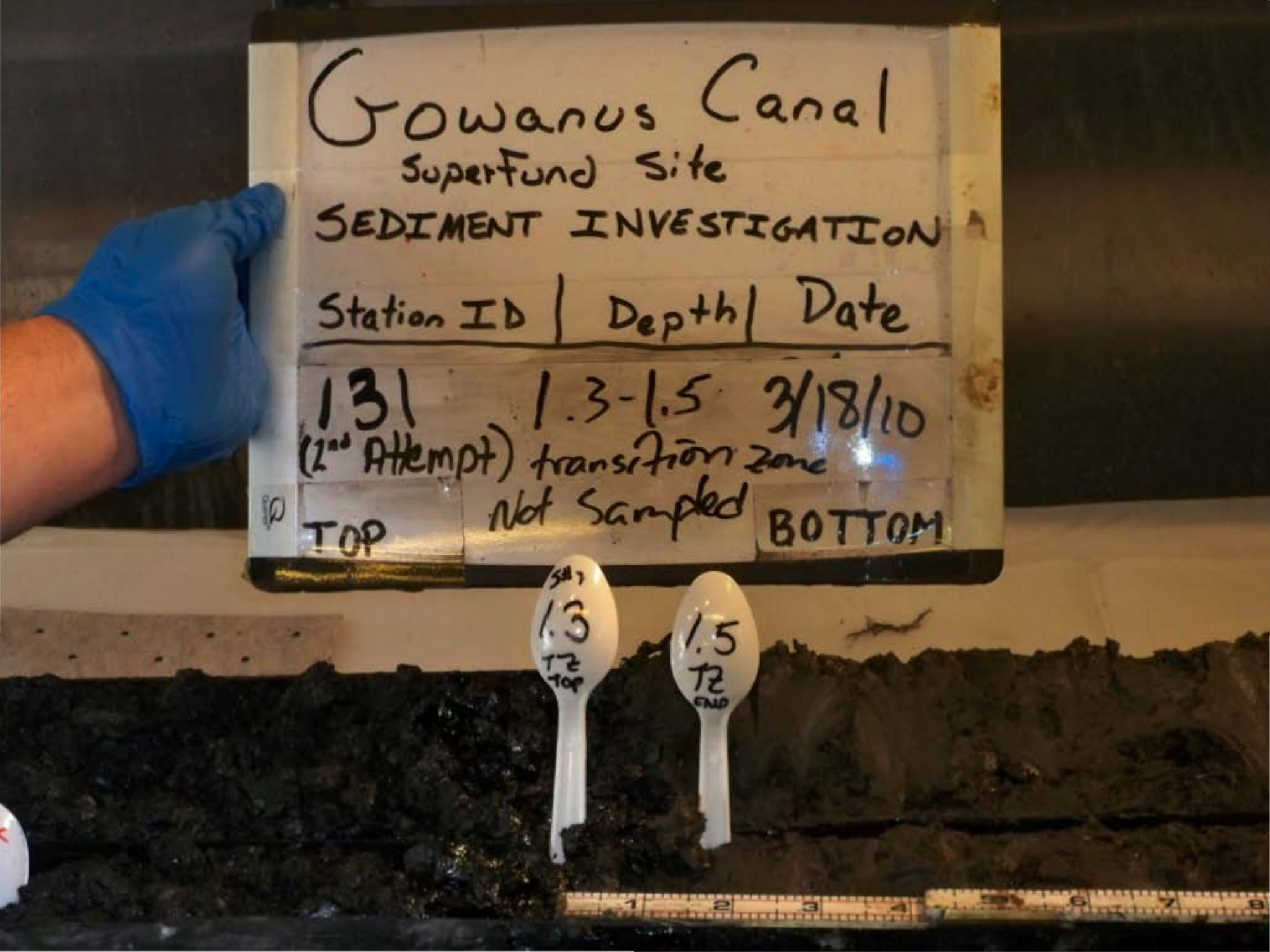

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
tation ID | Dep' | Date
130 9.0-9.4 3/22/10
(1st Attempt)
TOP
SAMPLE #5
BOTTOM
9.4
SH
5
6
SH
5

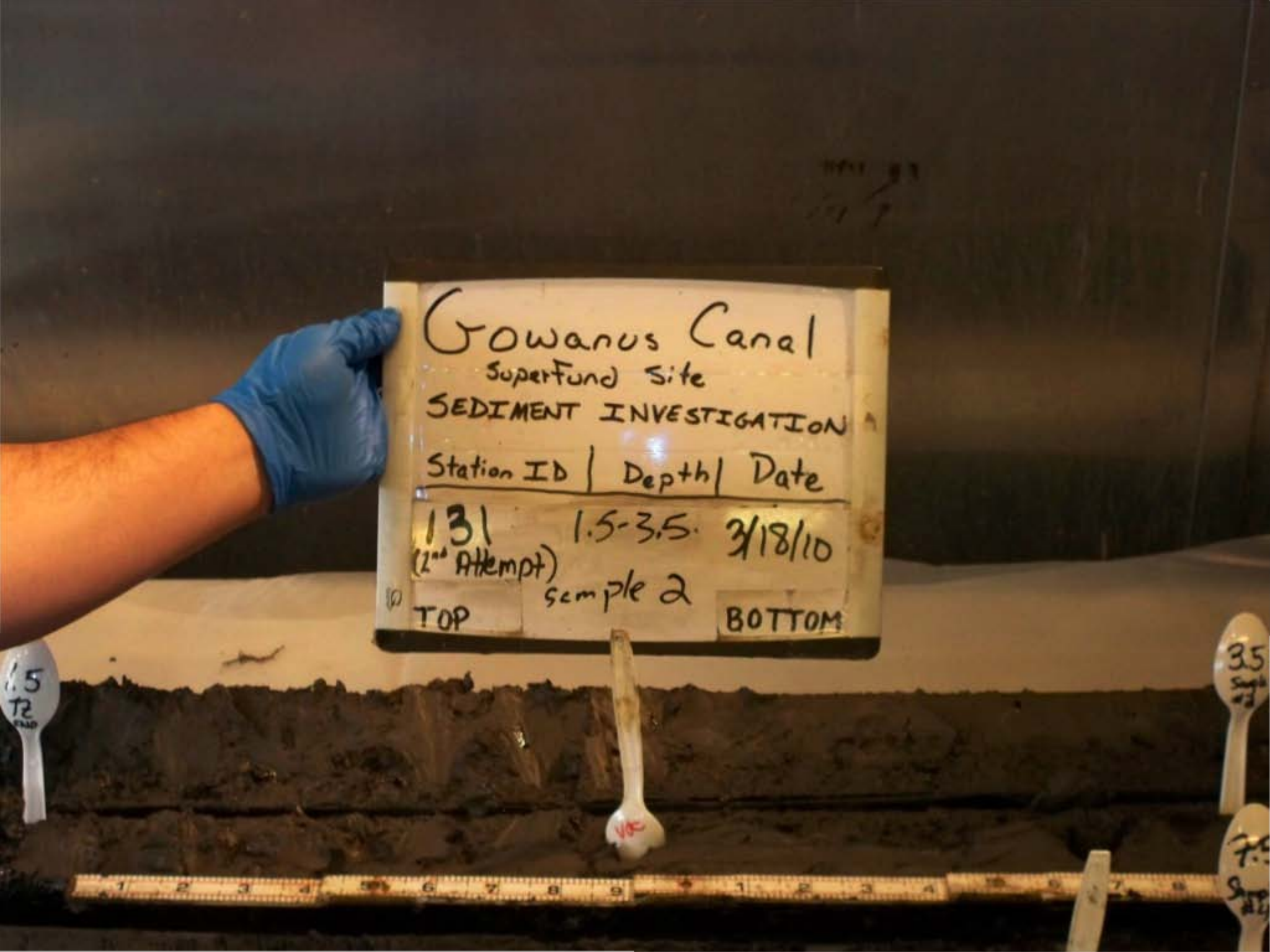

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 9.4-11.6 3/22/10
(1st Attempt) SAMPLE
TOP #6 BOTTOM
2 S# 1
7.0 Tz top S# 4
7.4 Tz end

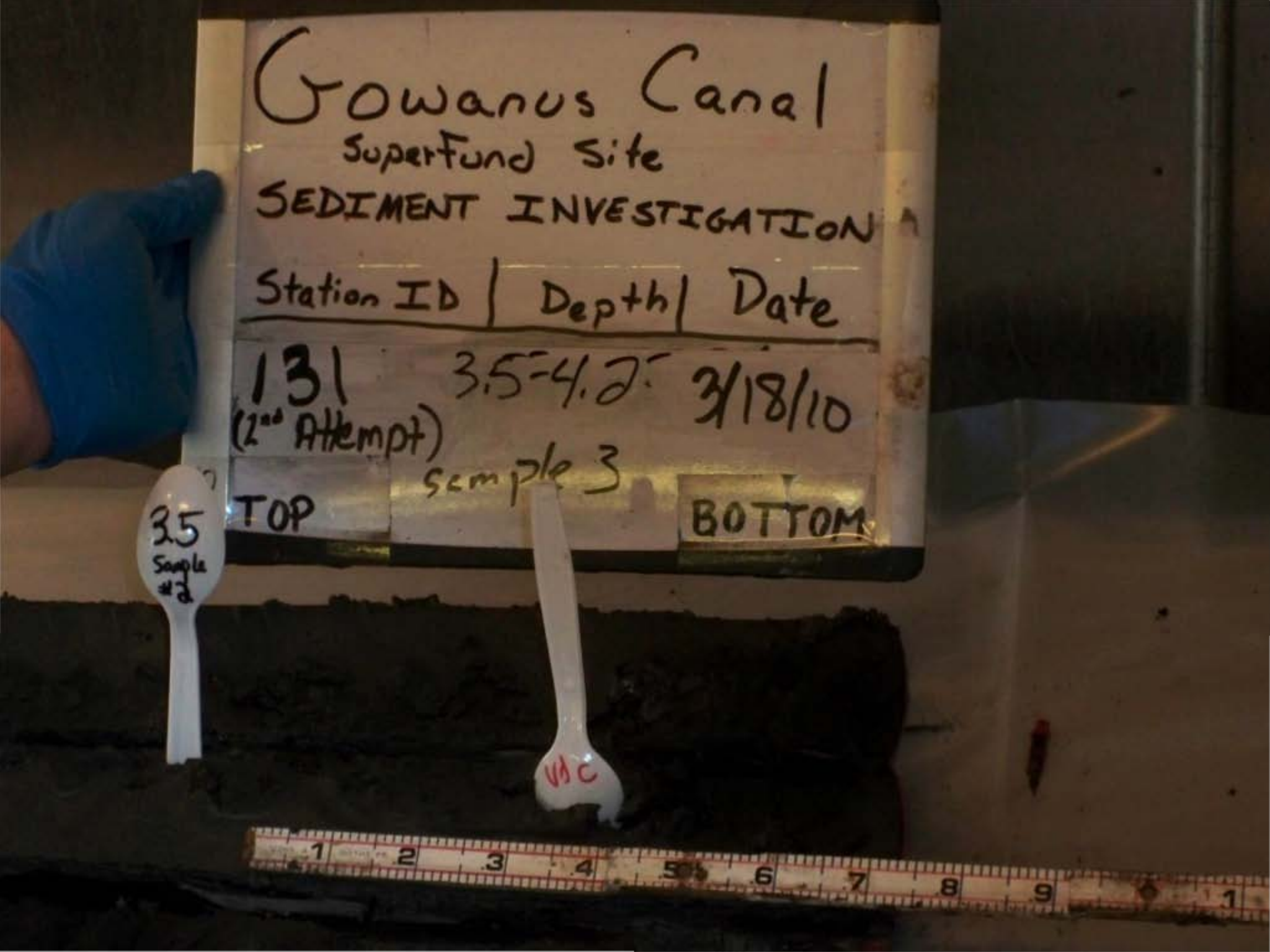

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
130 FULL 3/22/10
(1st Attempt) RECOVERY
TOP
BOTTOM

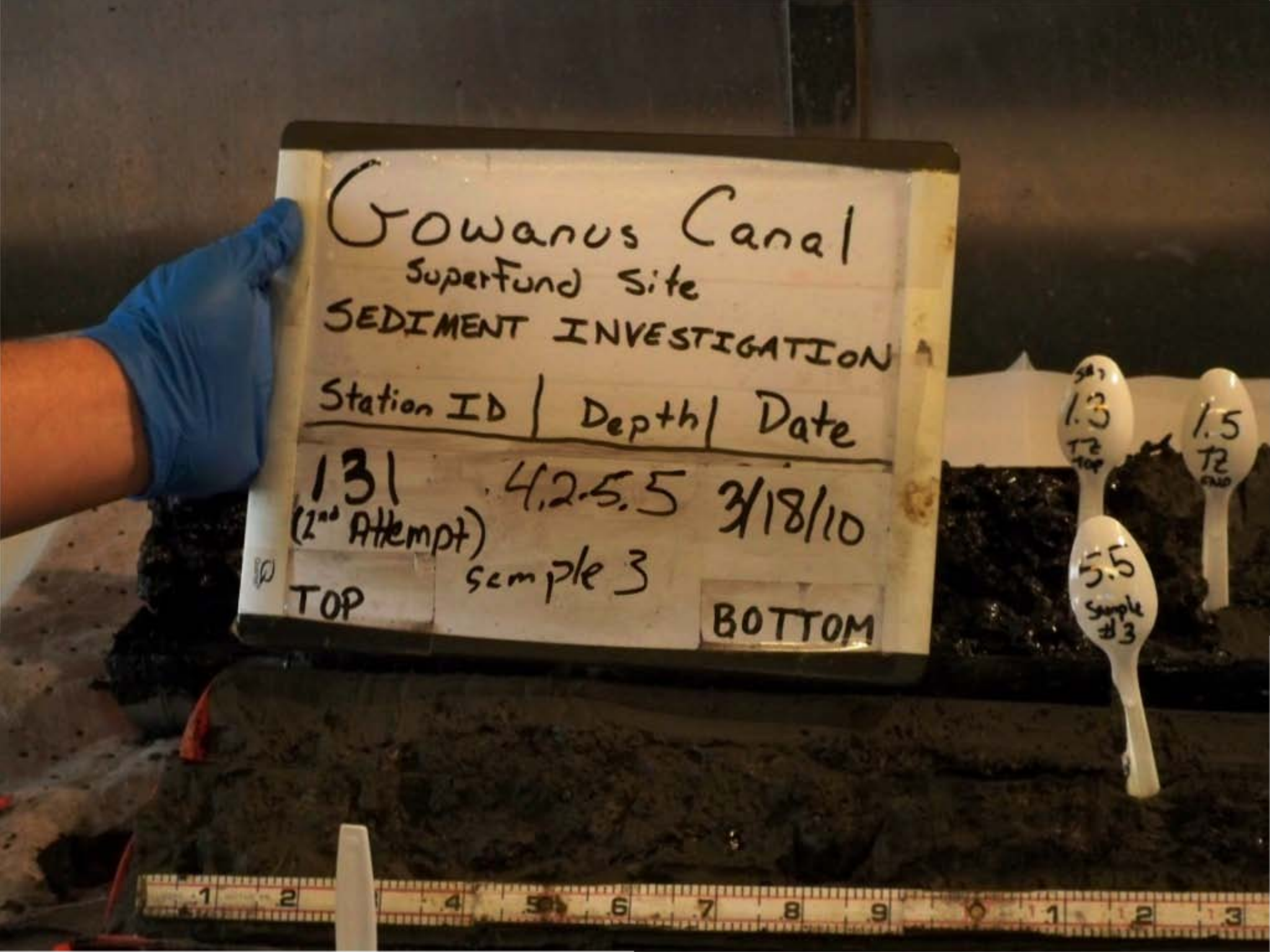

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 (2nd Attempt) 0-1.3' 3/18/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 (2nd Attempt)
11.5-11.9
3/18/10
sample 7
BOTTOM
7.5 Sample #4
11.5 Sample #6
11.9 BOC Sample #9
VOC

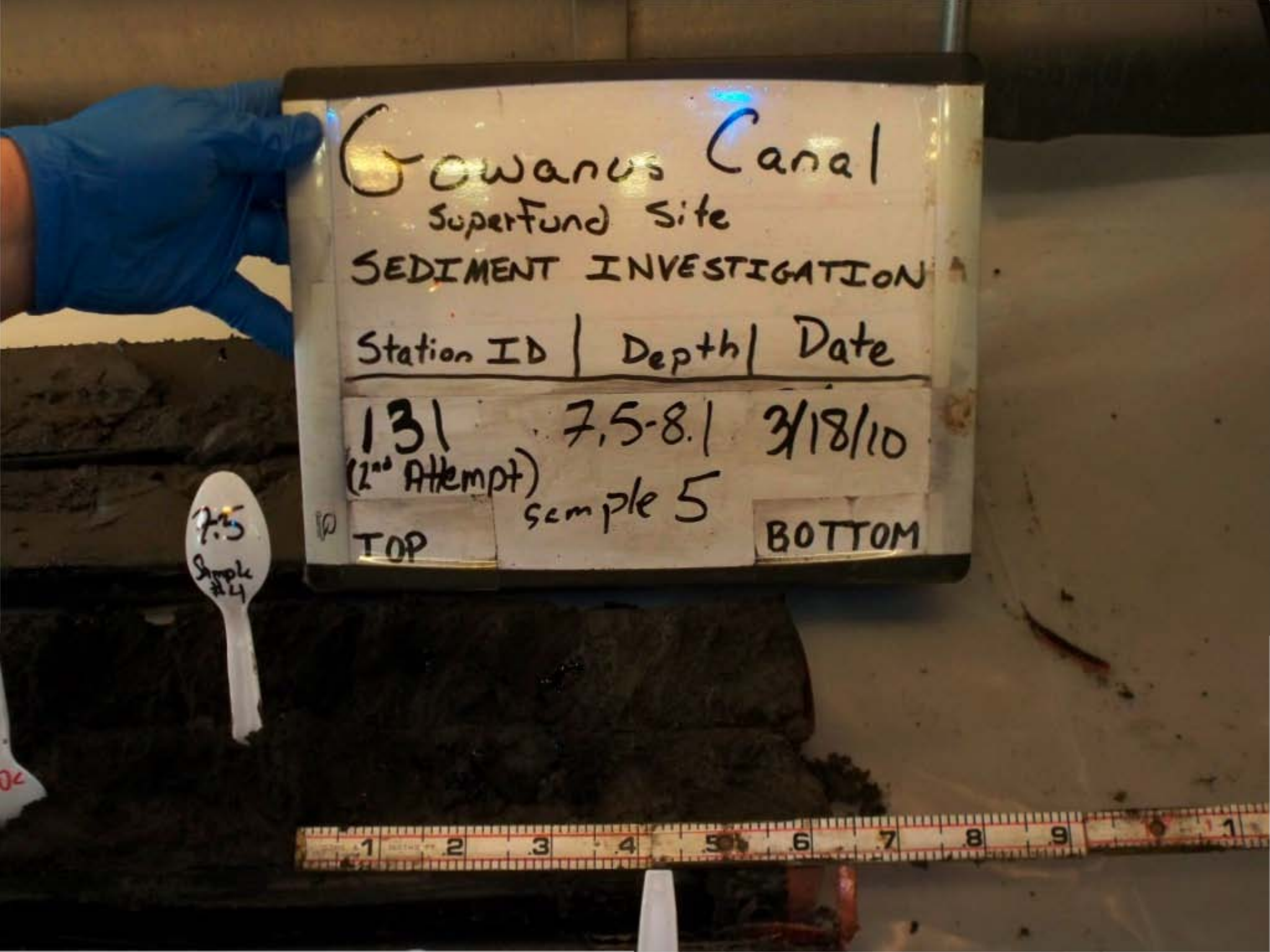

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 | 1.3-1.5 | 3/18/10
(2nd Attempt) transition zone
TOP
Not Sampled
BOTTOM
1.3
TZ
TOP
1.5
TZ
END


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 1.5-3.5 3/18/10
(2nd Attempt) sample 2
TOP
BOTTOM

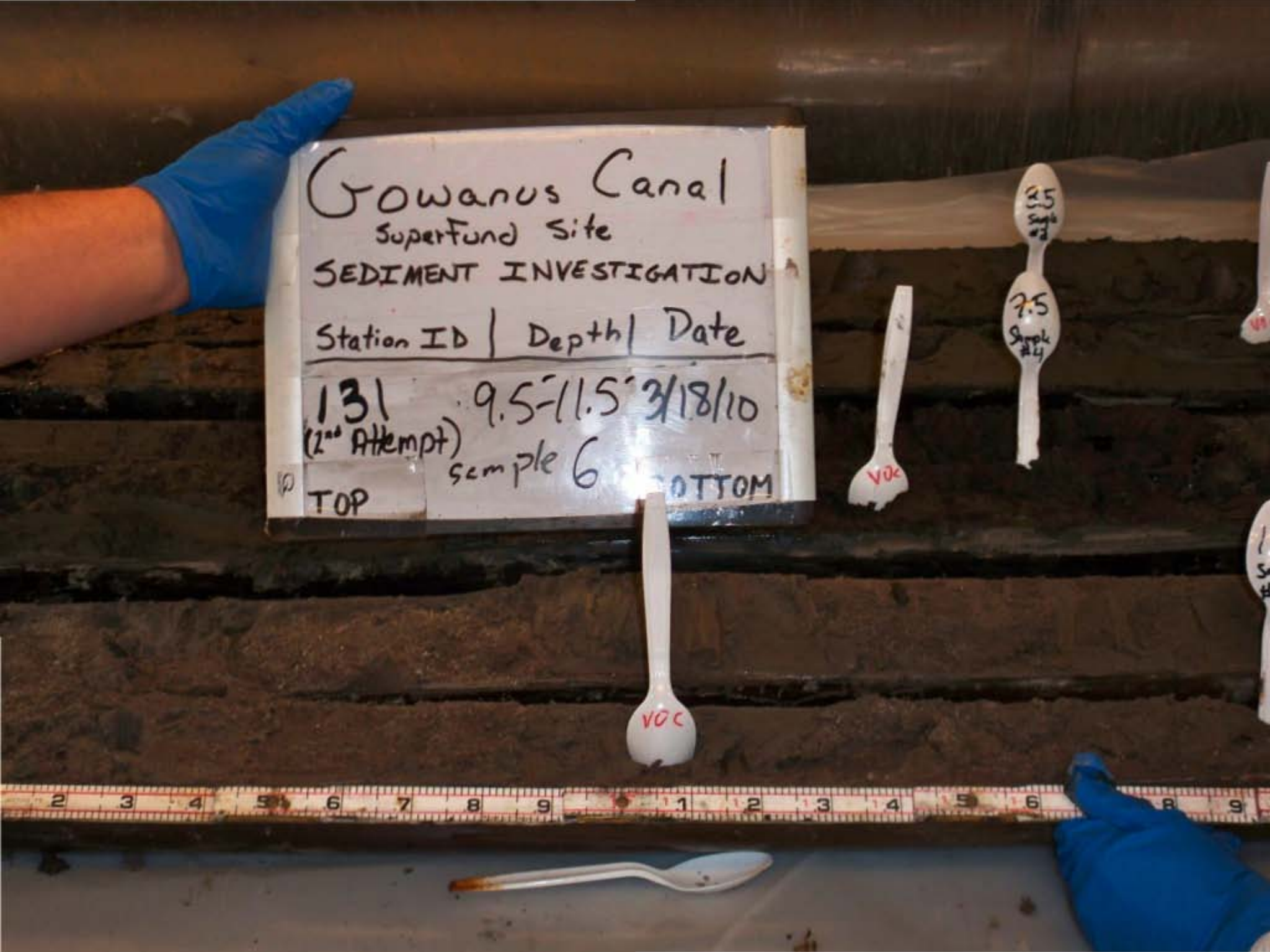

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 3.5-4.2' 3/18/10
(2nd Attempt)
Sample 3
TOP
BOTTOM
3.5
Sample #2
VI C


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 (2nd Attempt) 4.2-5.5 3/18/10
Sample 3
TOP
BOTTOM
1.5 T2 Top
1.5 T2 Bot
5.5 Sample #3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 (2nd Attempt)
5.5-7.5
3/18/10
sample 4
TOP
BOTTOM
5.5 Sample #3
3.5
7.5 Sample #4
9.5 Sample #5
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 (2nd Attempt) 7.5-8.1 3/18/10
sample 5
TOP
BOTTOM
7.5 Smpl #4

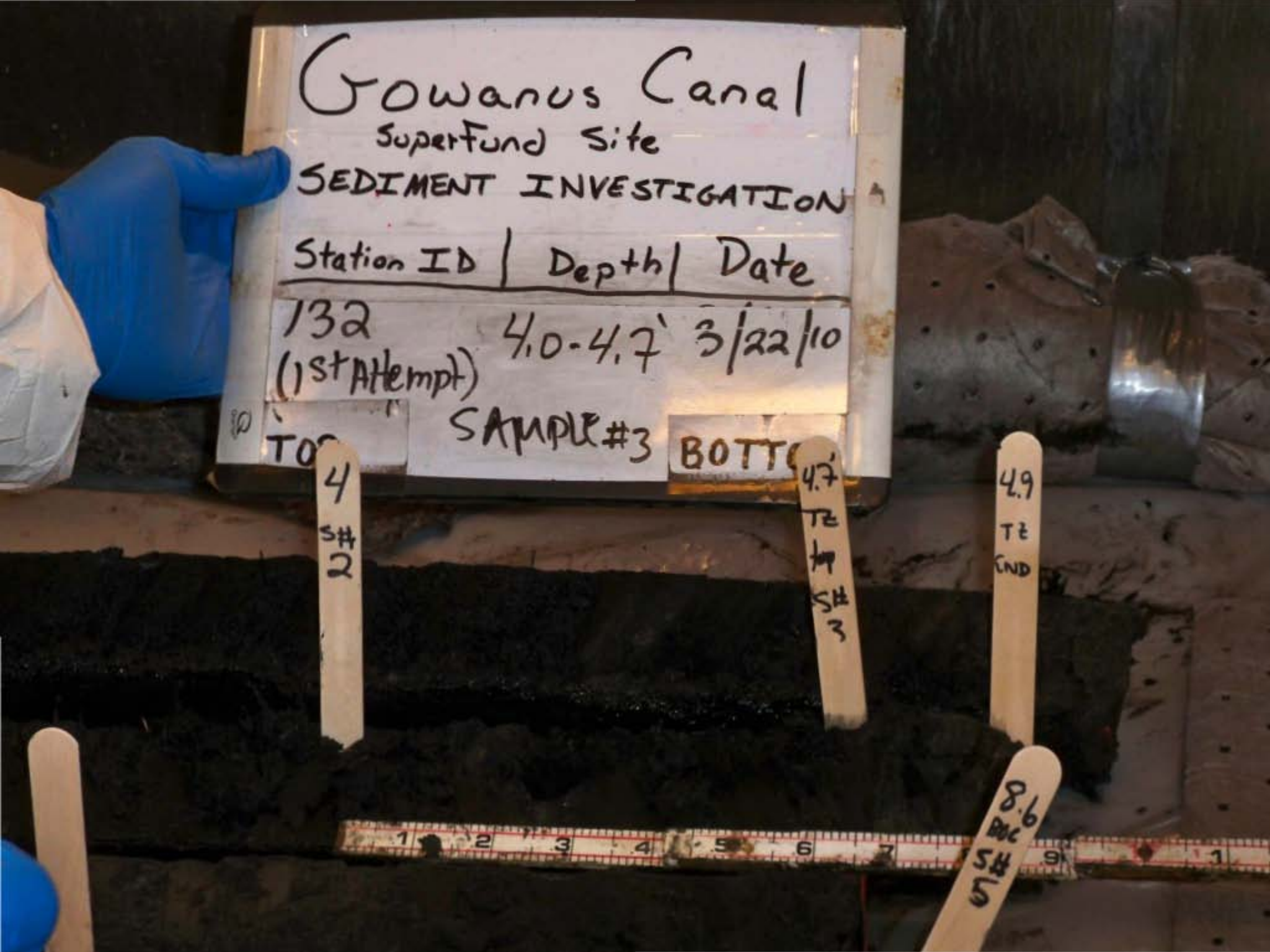

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 (2nd Attempt) 8.1-9.5' 3/18/10
sample 5
TO
BOTTOM
VOC
1.3 T2 top
1.5 T2 end
5.5 Smpl #3
9.5 Smpl #5

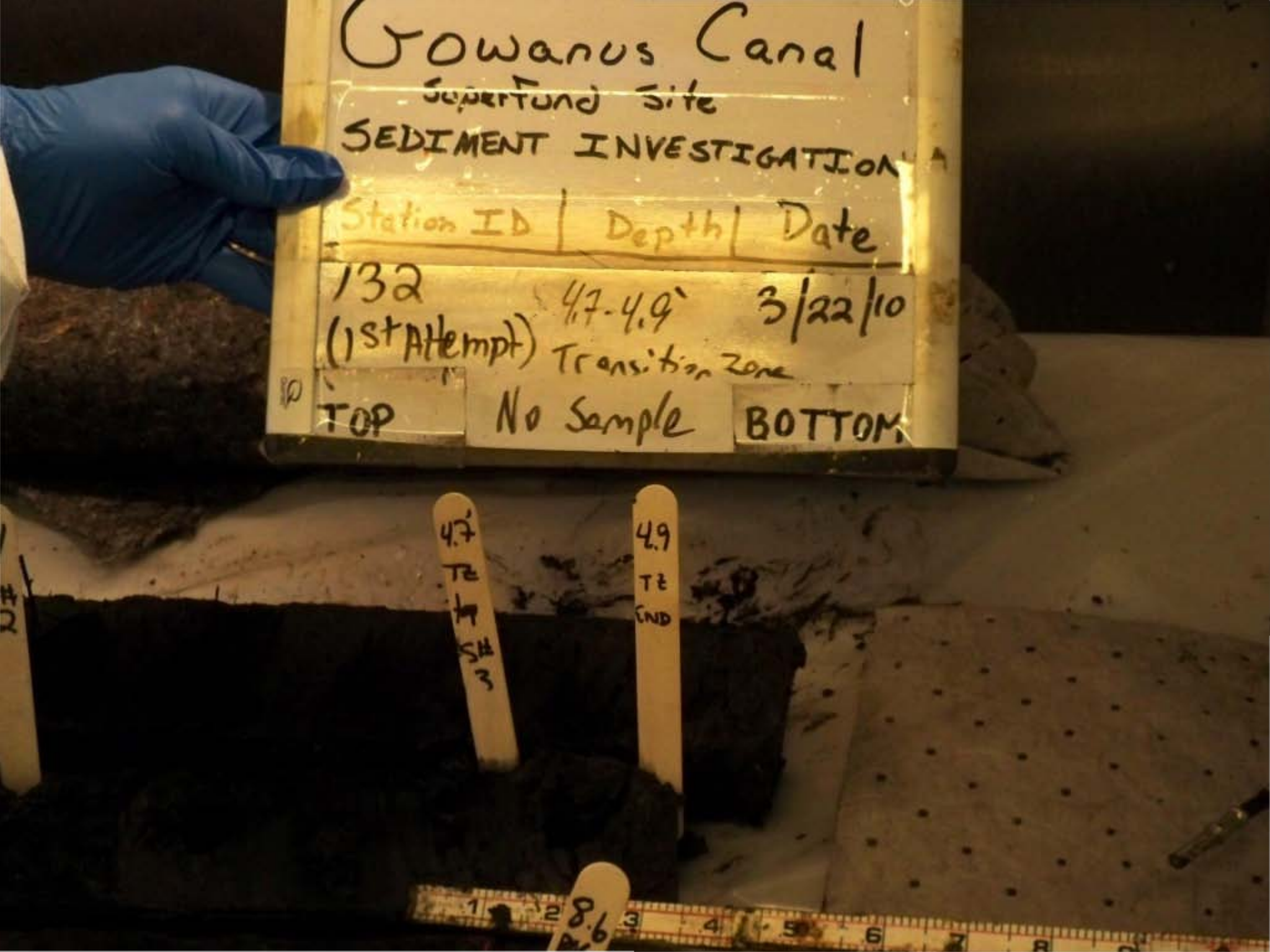

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
131 (2nd Attempt) 9.5-11.5' 3/18/10
Sample 6
TOP
BOTTOM
VOC
VOC
7.5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13 | FULL | 3/18/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

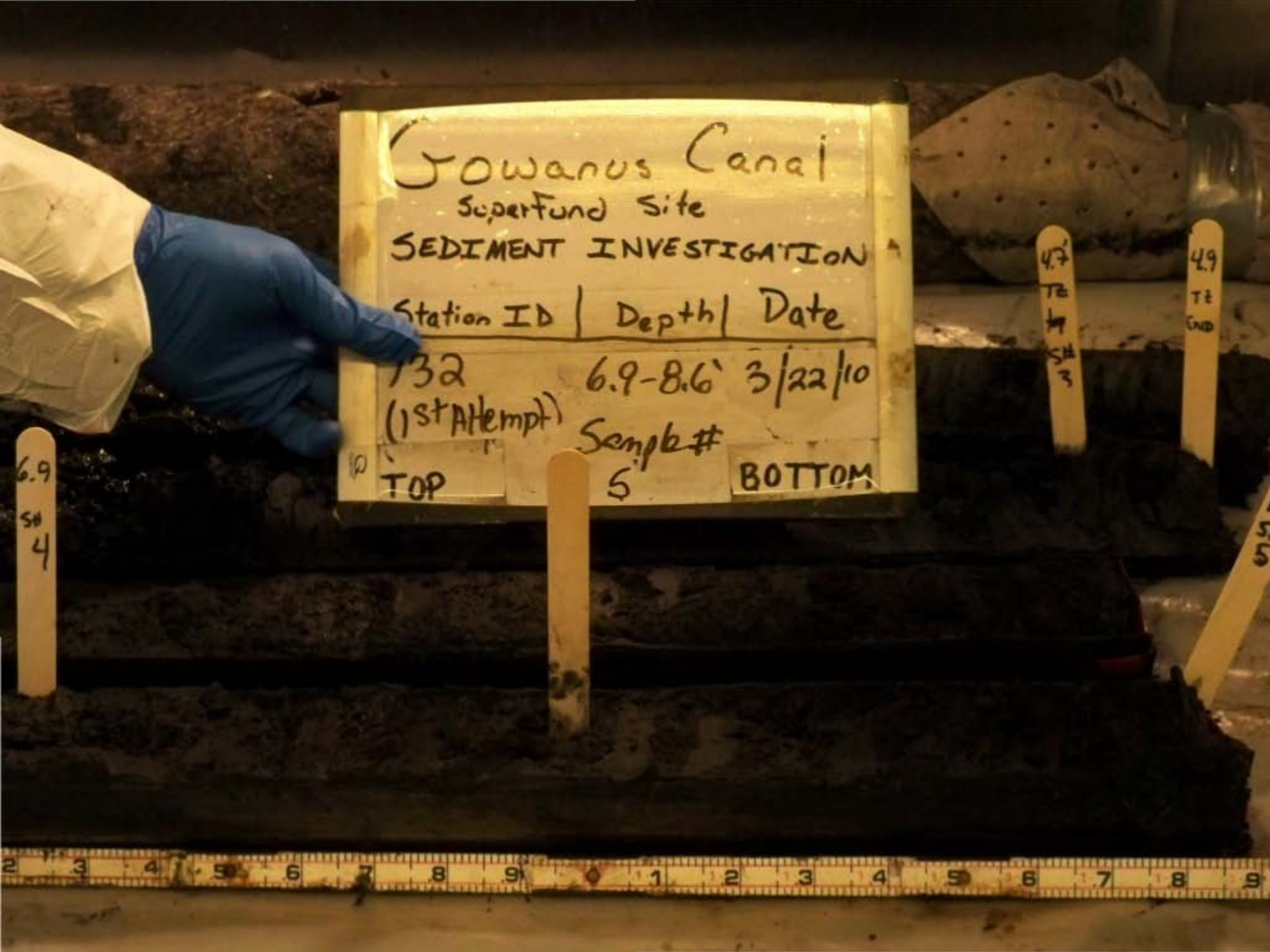

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
132 (1st Attempt) 0-2 3/22/10
TOP
SAMPLE #
BOTTOM
2 #1


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
132 (1st Attempt) 2-4 3/22/10
TOP
SAMPLE #2
BOTTOM
2 SH 1
4 SH 2
6.9 SH 4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
132 4.0-4.7' 3/22/10
(1st Attempt)
SAMPLE #3
4
SH 2
4.7
TE
SH 3
4.9
TE
END
8.6
REC
SH 5

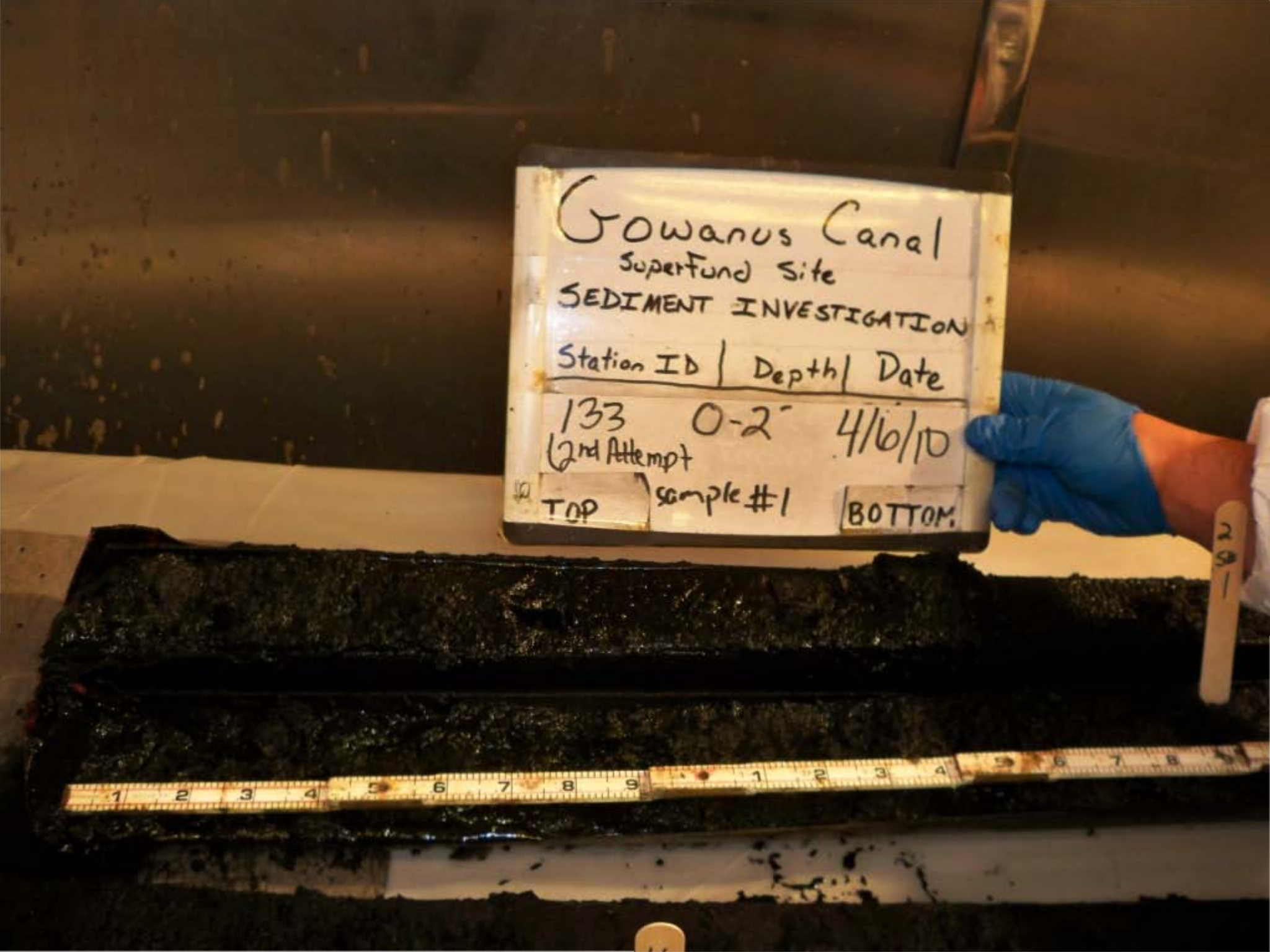

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
132 4.7-4.9' 3/22/10
(1st Attempt) Transition Zone
TOP No Sample BOTTOM
4.7' Tz Top SH 3
4.9 Tz End


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
132 (1st Attempt) 4.9-6.9' 3/22/10
Sample # 4
TOP
BOTTOM
6.9
S# 4

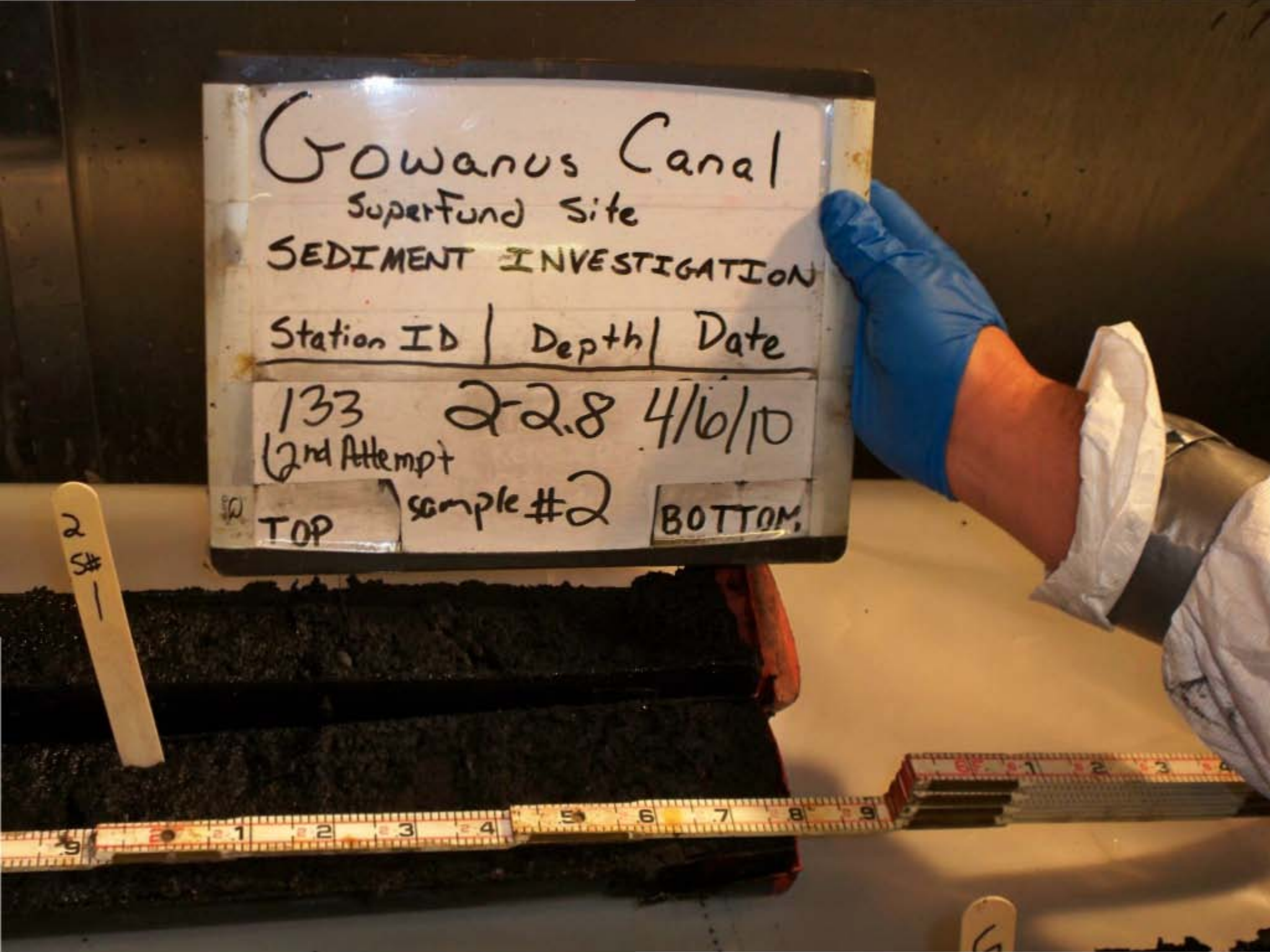

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
132 (1st Attempt) 6.9-8.6' 3/22/10
Samp # 5
TOP
BOTTOM
6.9 SH 4
4.7 TE SH 3
4.9 TE GND

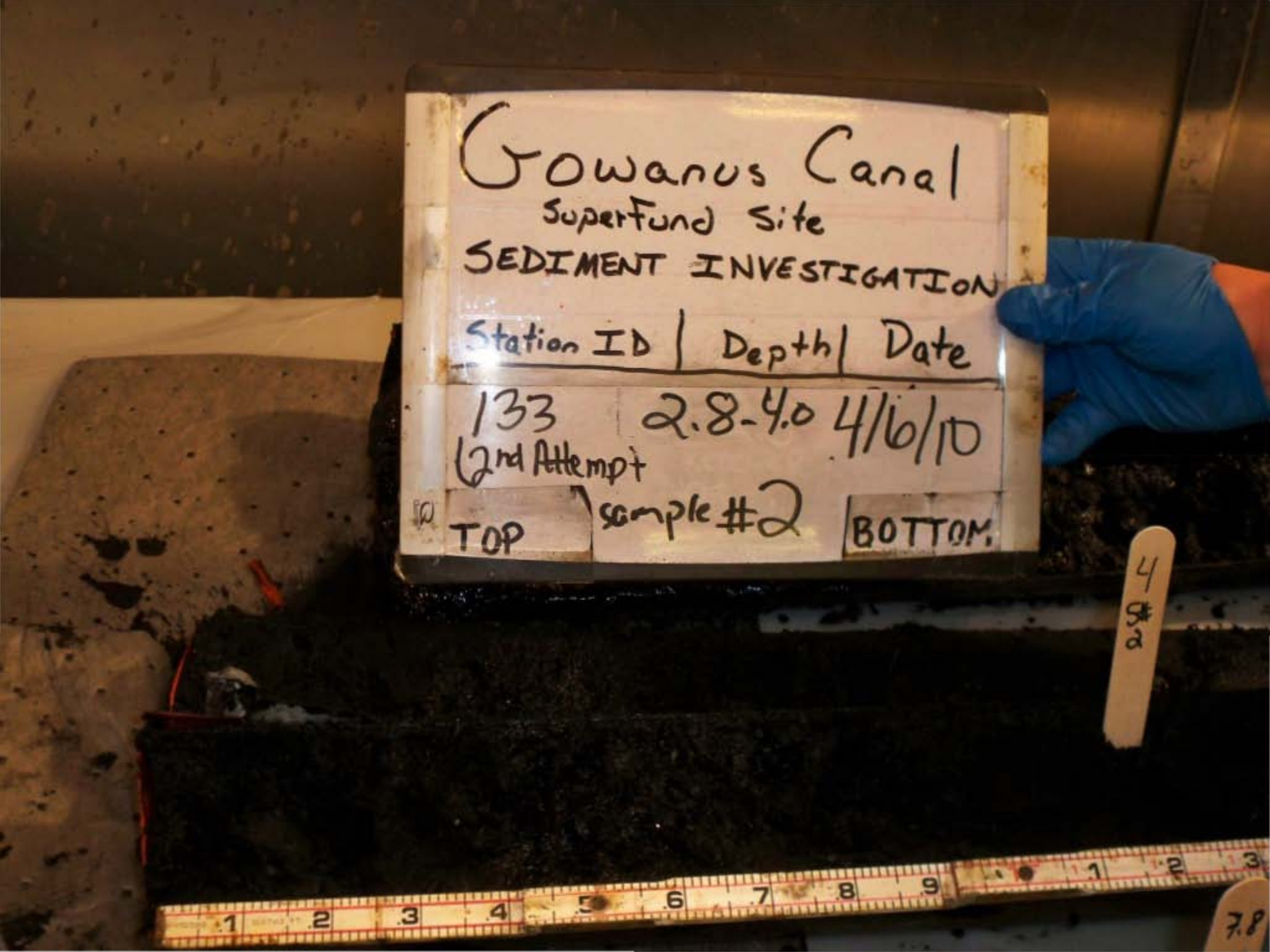

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
132 FULL 3/22/10
(1st Attempt) RECOVERY
TOP
BOTTOM


wanus Canal
perfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 (2nd Attempt) FULL Recovery 4/6/10
TOP
BOTTOM

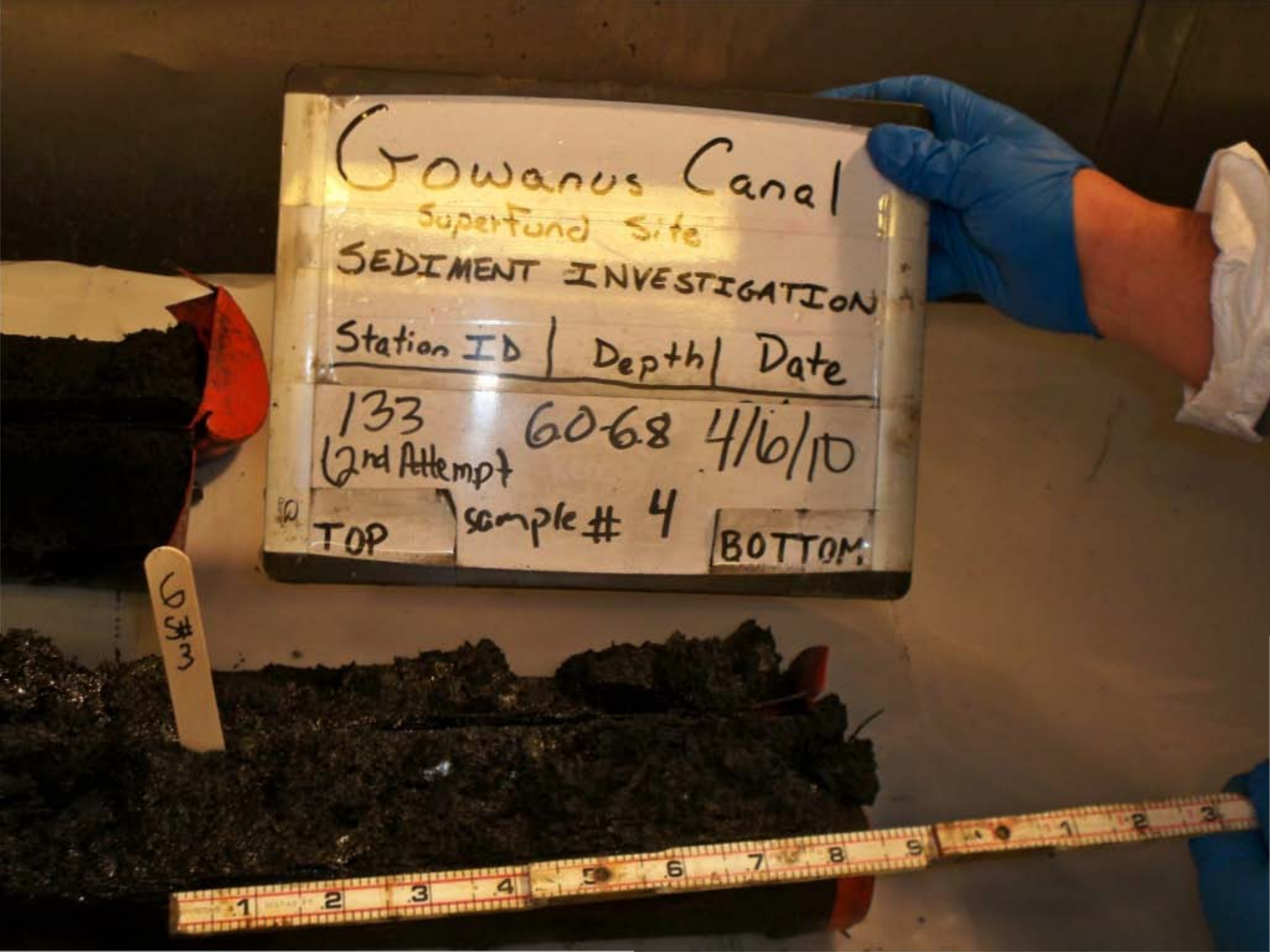

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 0-2' 4/6/10
(2nd Attempt
TOP
sample #1
BOTTOM
291


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 (2nd Attempt) 10.2-10.7 4/6/10
TOP
sample 6
BOTTOM
10.2 Sta 5
10.7 END Sta 6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 22.8 4/6/10
(2nd Attempt
TOP
sample #2
BOTTOM
2 S# 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 | 2.8-4.0 | 4/6/10
(2nd Attempt
TOP
sample #2
BOTTOM
4 SA
7.8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 4.0-6.0 4/6/10
(2nd Attempt
TOP
sample #3
BOTTOM
6 S#3
VOC

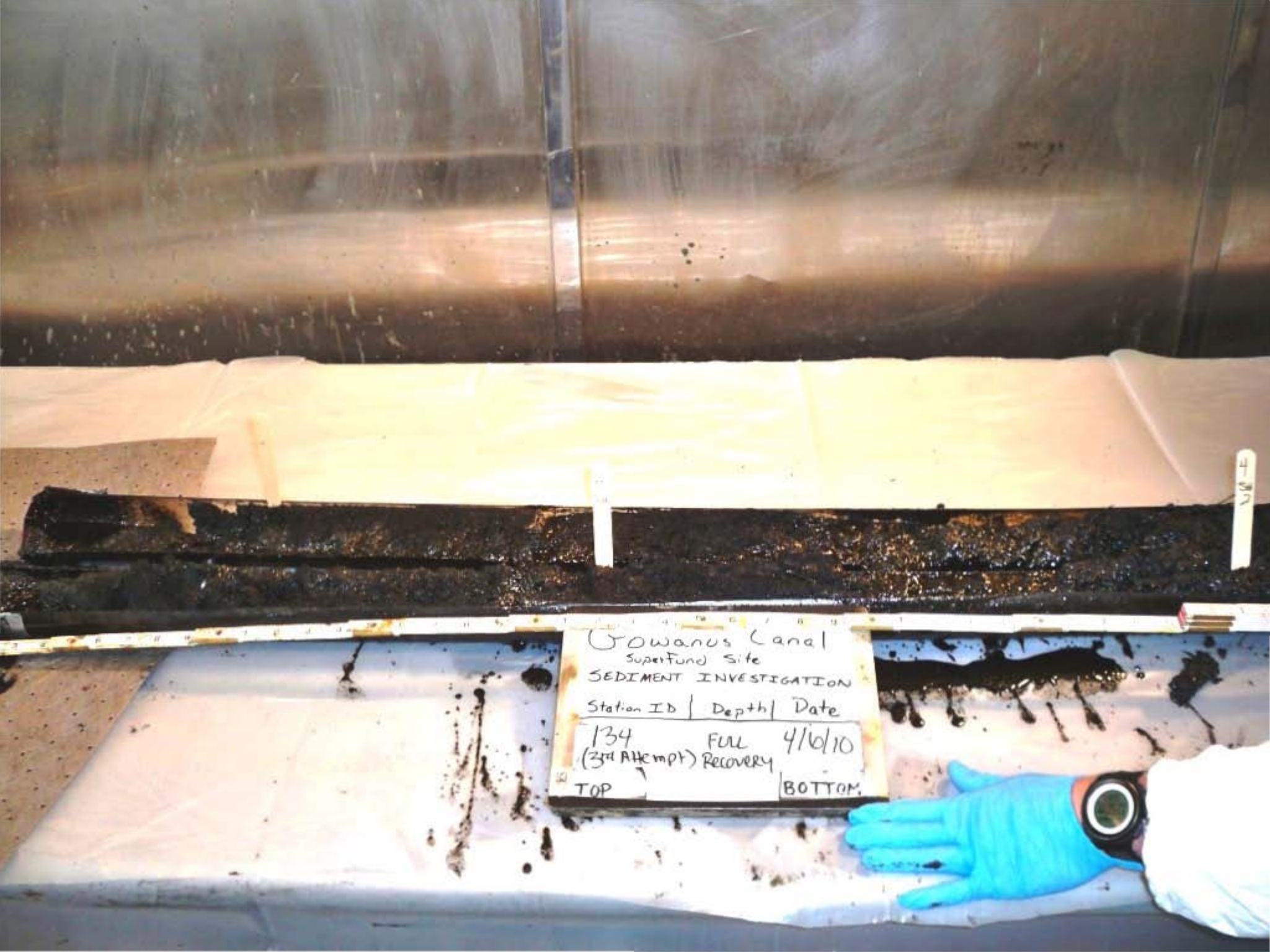

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 60-68 4/6/10
(2nd Attempt
TOP
sample # 4
BOTTOM
GS#3

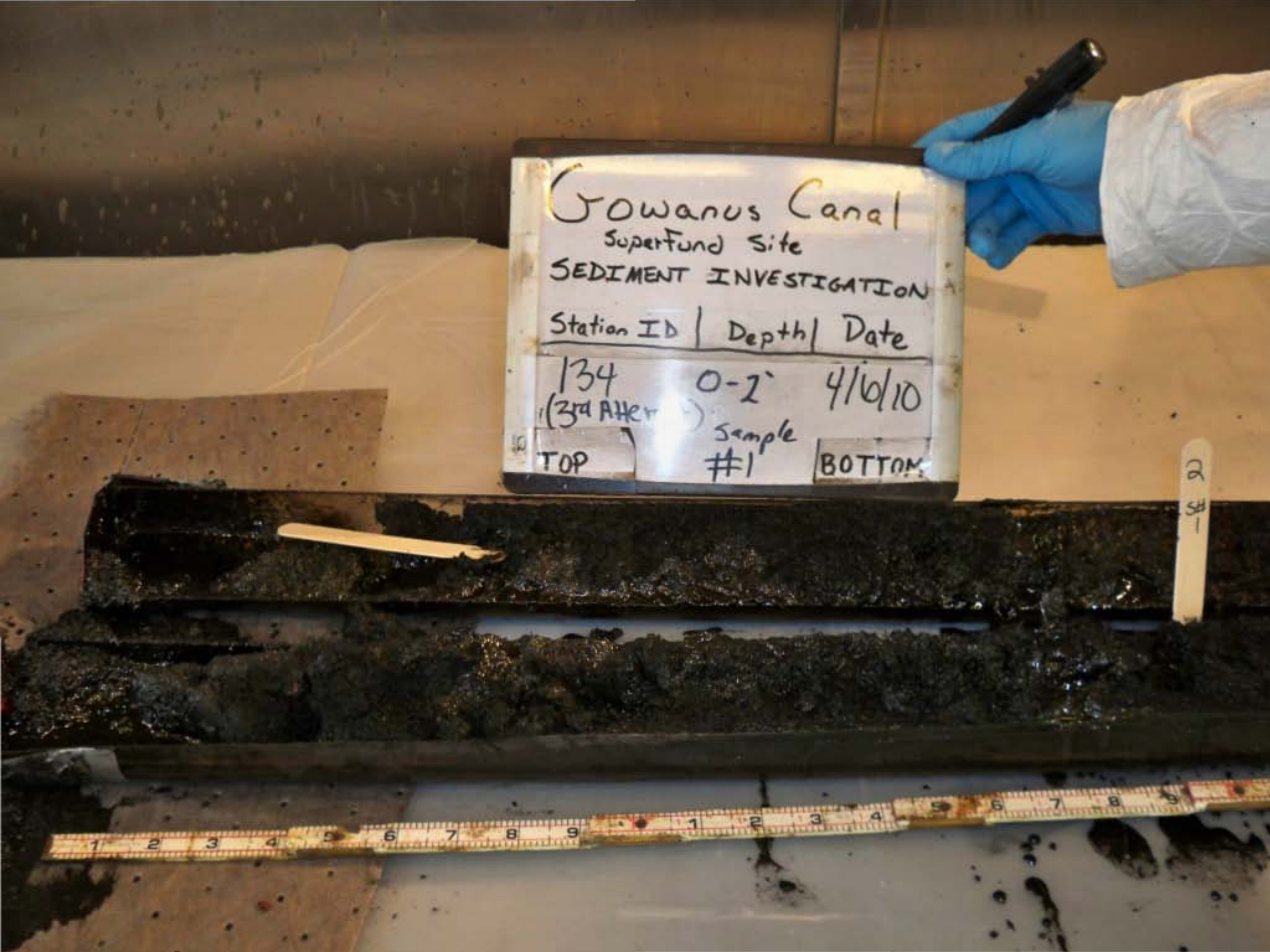

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 6.8-7.8 4/16/10
(2nd Attempt
TOP
sample # 1
BOTTOM
4
7.8
TOP

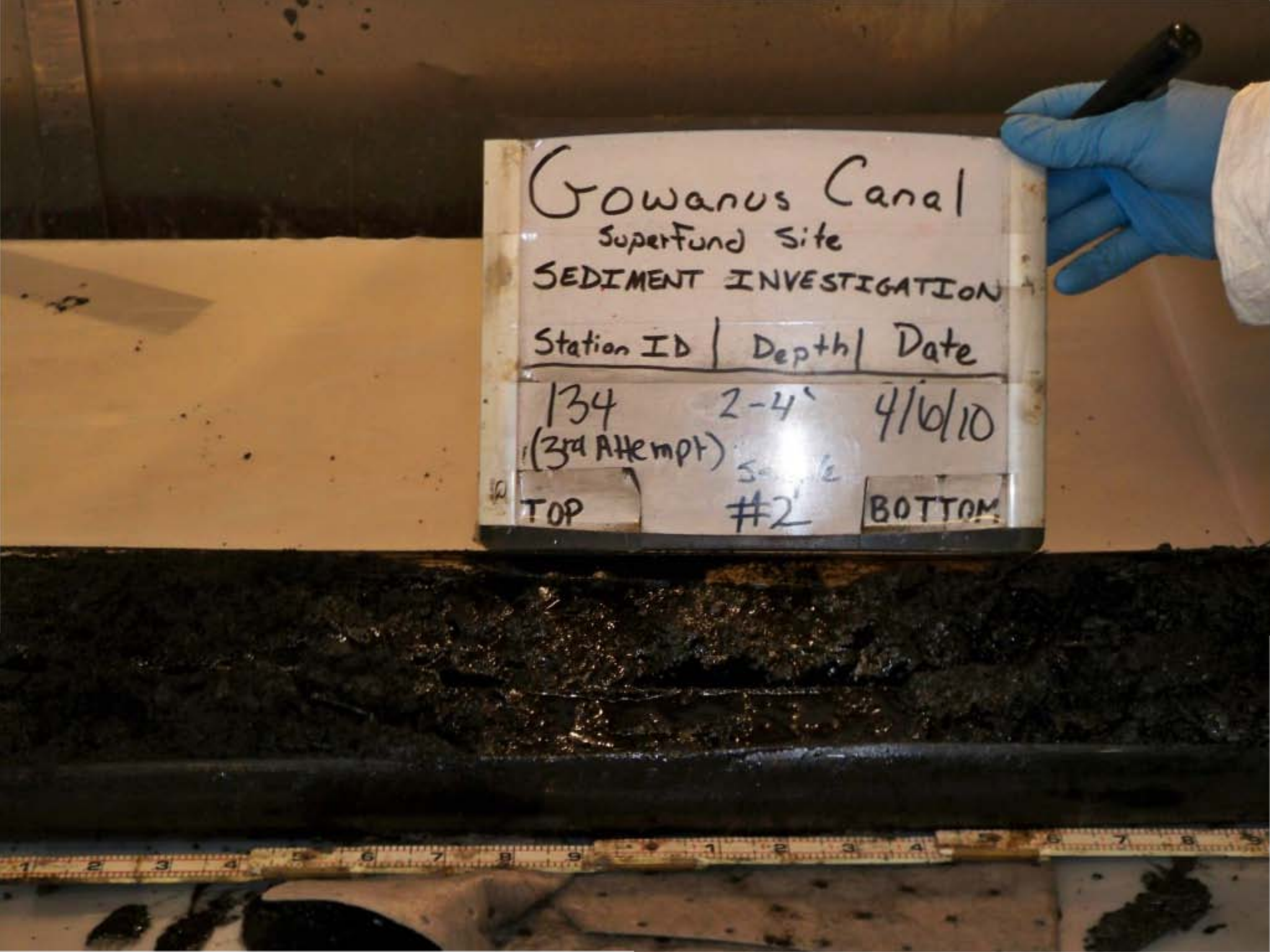

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 7.8-8.2 4/6/10
(2nd Attempt) Transition Zone
TOP not sampled BOTTOM
7.8 TZ top Sed
8.2 TZ bot

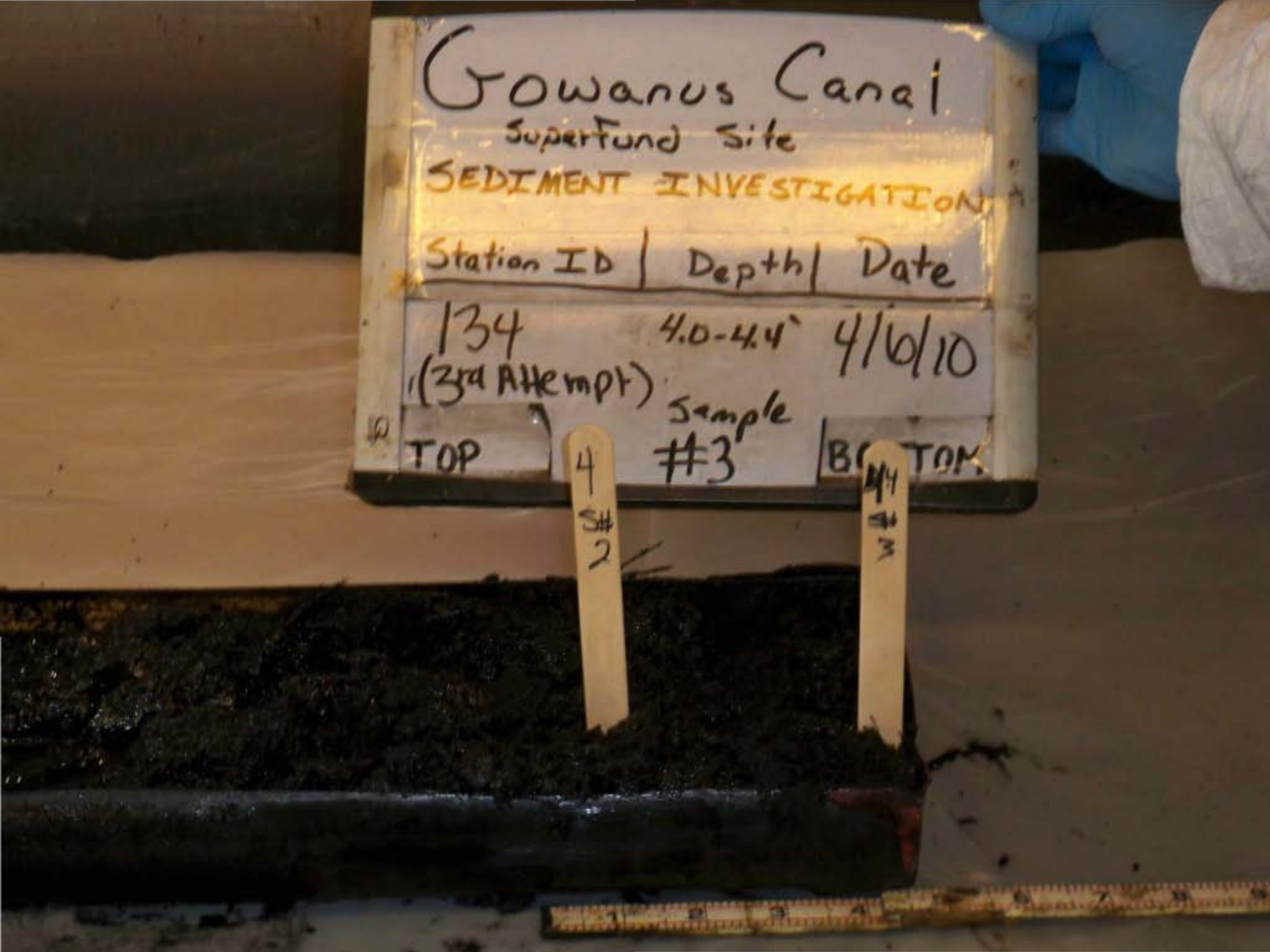

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 (2nd Attempt) 8.2-10.2 4/6/10
TOP
sample 5
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 (2nd Attempt | Full Recovery | 4/6/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
134 (3rd Attempt) FULL Recovery 4/6/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
134 (3rd After) | 0-2' | 4/6/10
TOP | Sample #1 | BOTTOM
2 SH 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
134 (3rd Attempt) 2-4' 4/6/10
TOP
#2
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
134 4.0-4.4' 4/6/10
(3rd Attempt)
Sample #3
TOP
BOTTOM
4 S# 2
4.4 S# 3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
134 FULL 4/6/10
(3rd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13S (3rd Attempt) FULL RECOVERY 4/6/10
TOP BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
135 (3rd Attempt) 0-2' 4/6/10
TOP
Sample #1
BOTTOM

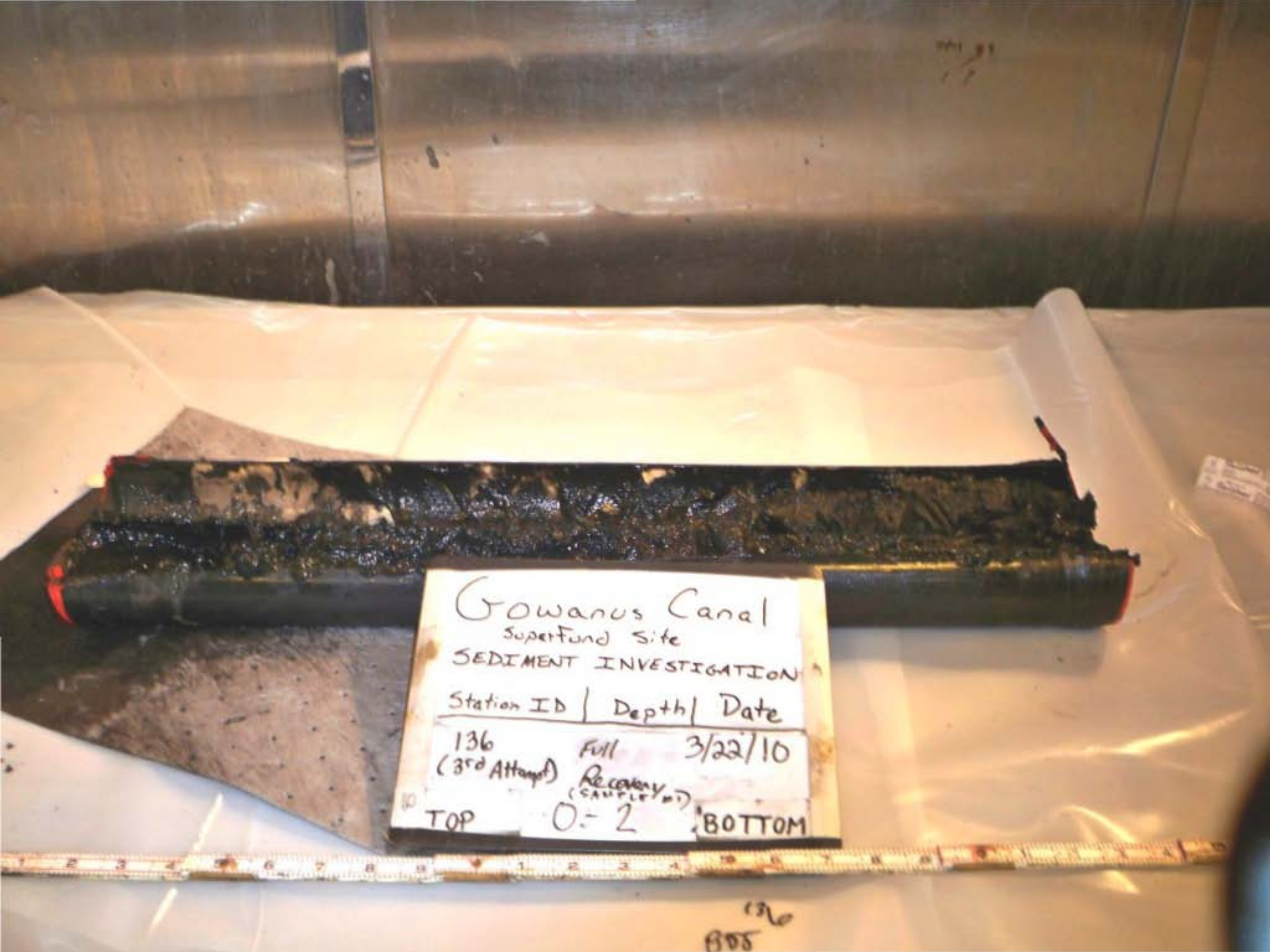

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
135 (3rd Attempt) 2-4' 4/6/10
TOP
Sample #2
BOTTOM

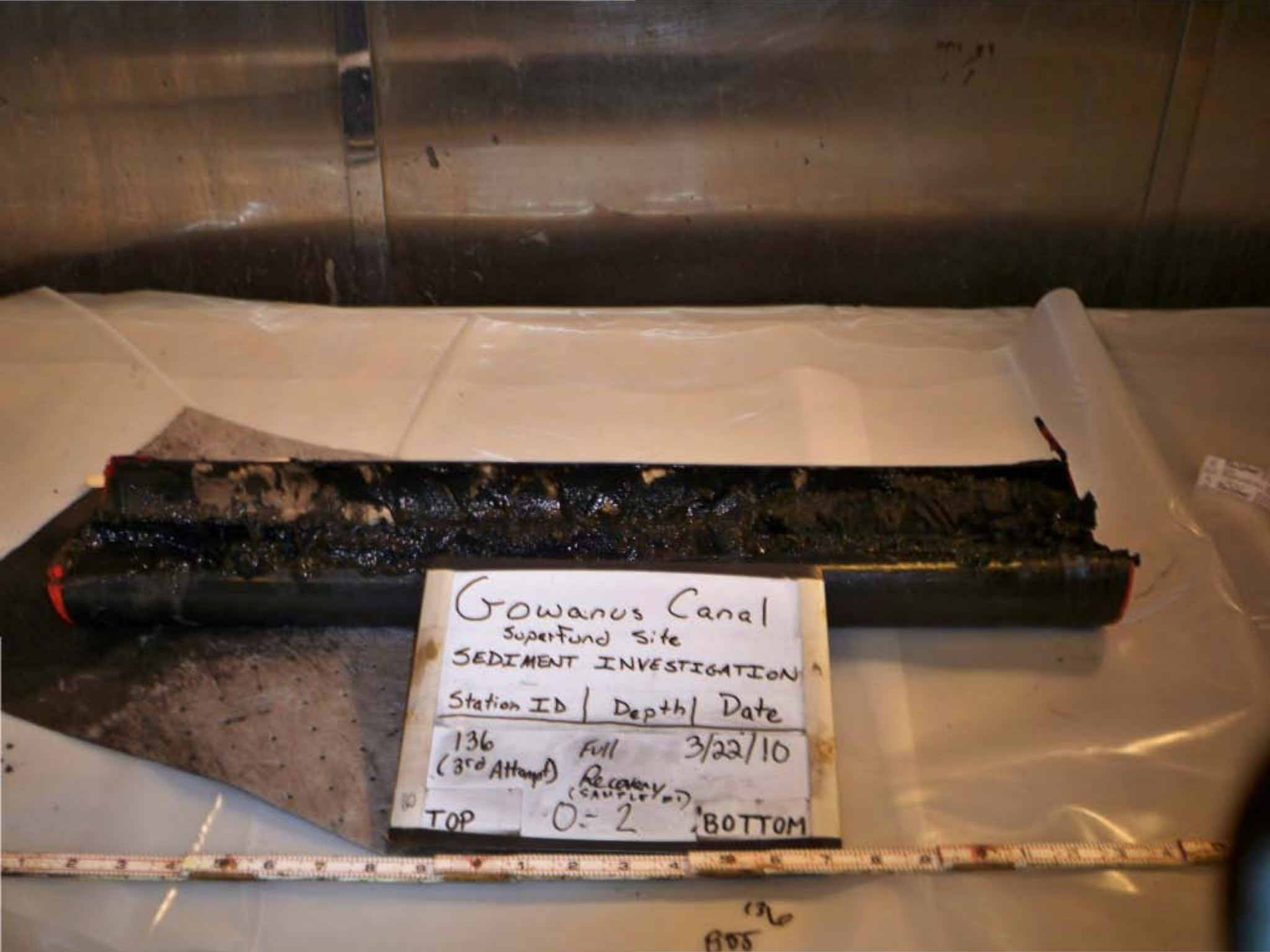

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
155 (3rd Attempt) 4-6' 4/16/10
TOP Sample #3 BOTTOM
2 S#1
4 S#2
6 S#3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
135 (3rd Attempt) 6-8 4/6/10
TOP Sample #4 BOTTOM

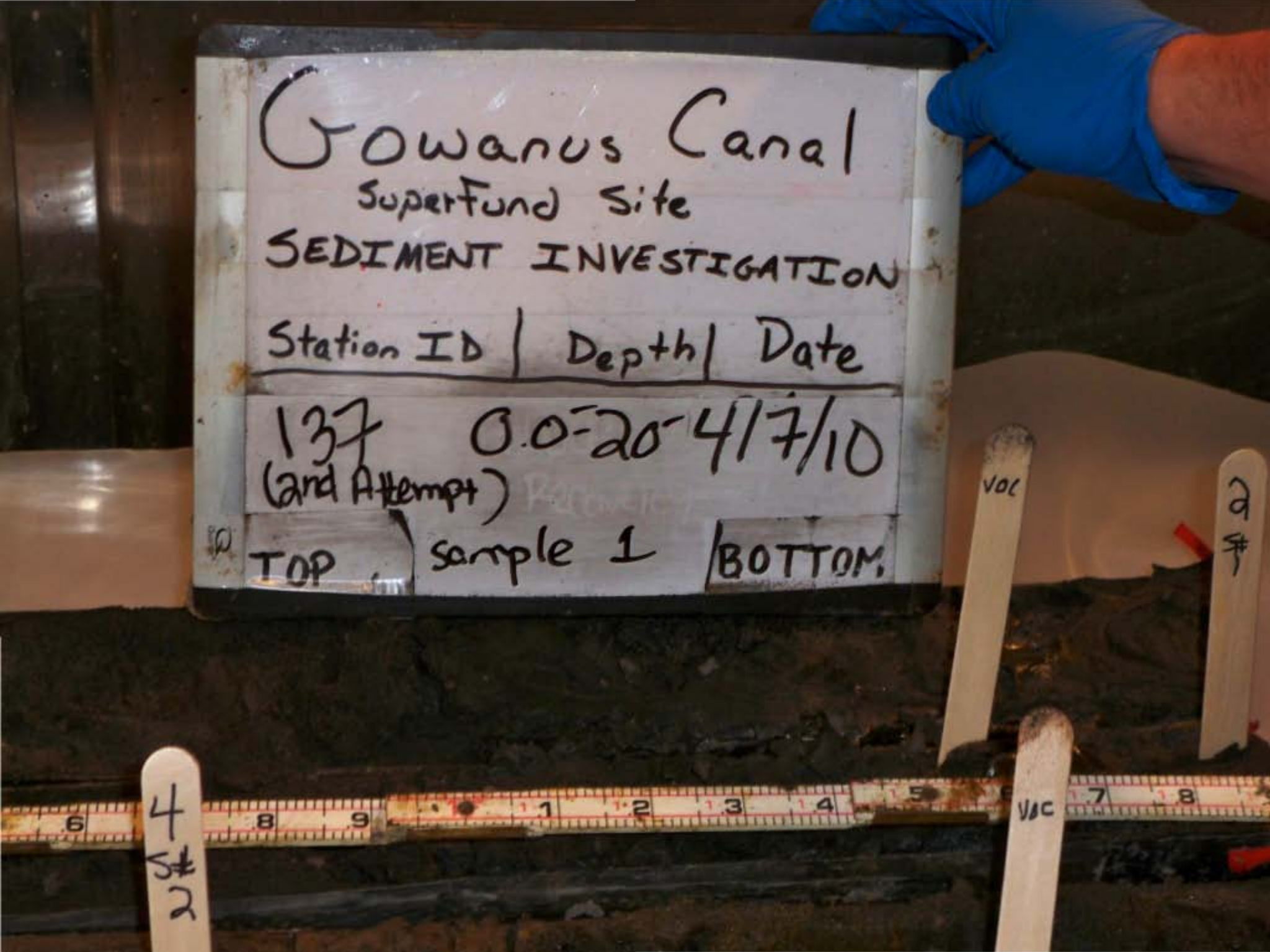

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
135 (3rd Attempt) 8-10 4/16/10
TOP
Sample #5
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
135 (3rd Attempt) FULL RECOVERY 4/6/10
TOP
BOTTOM

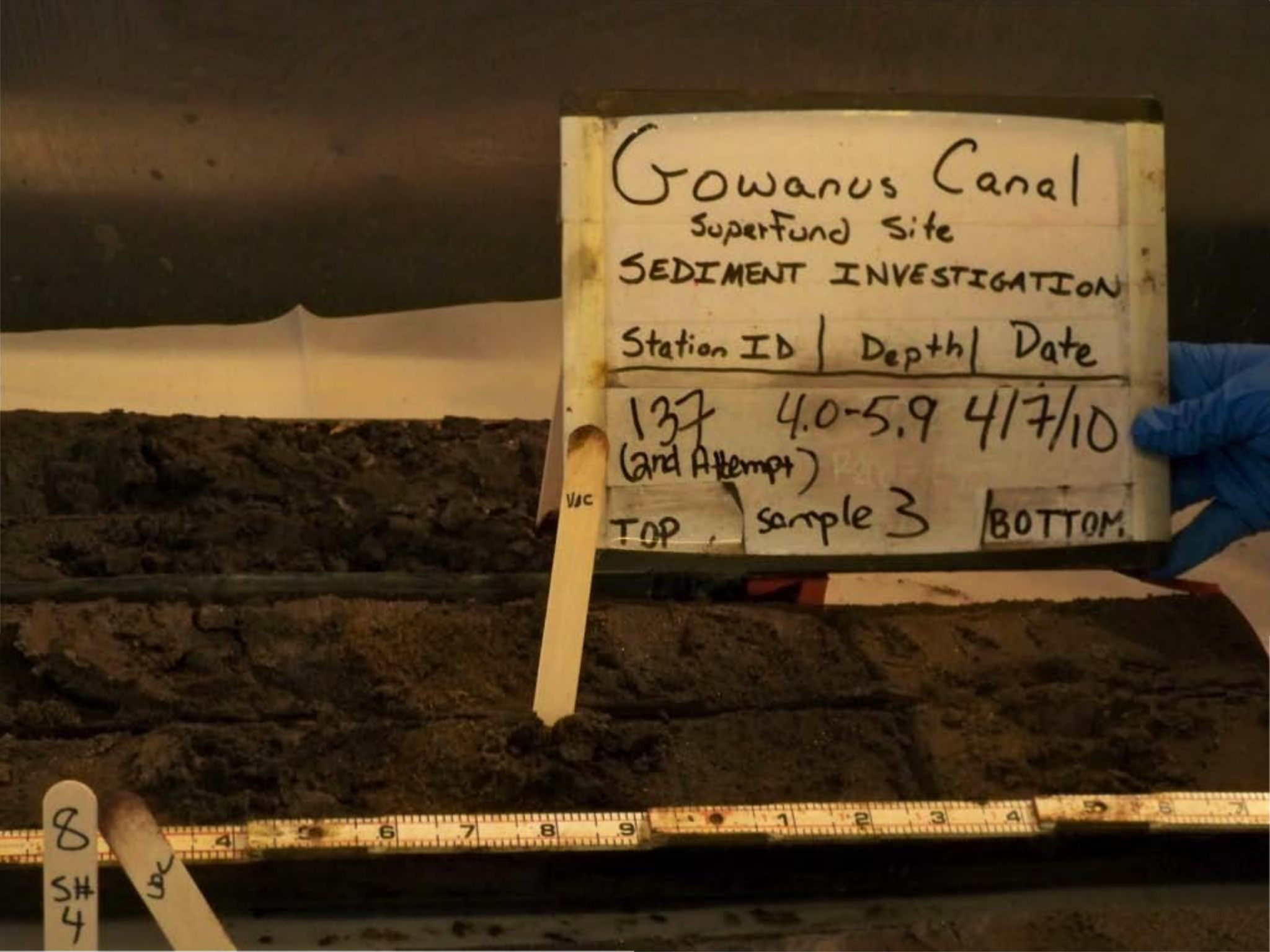

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
136 (3rd Attempt) Full Recovery (CAMPLE #1) 3/22/10
TOP 0-2 BOTTOM
136
BOTTOM

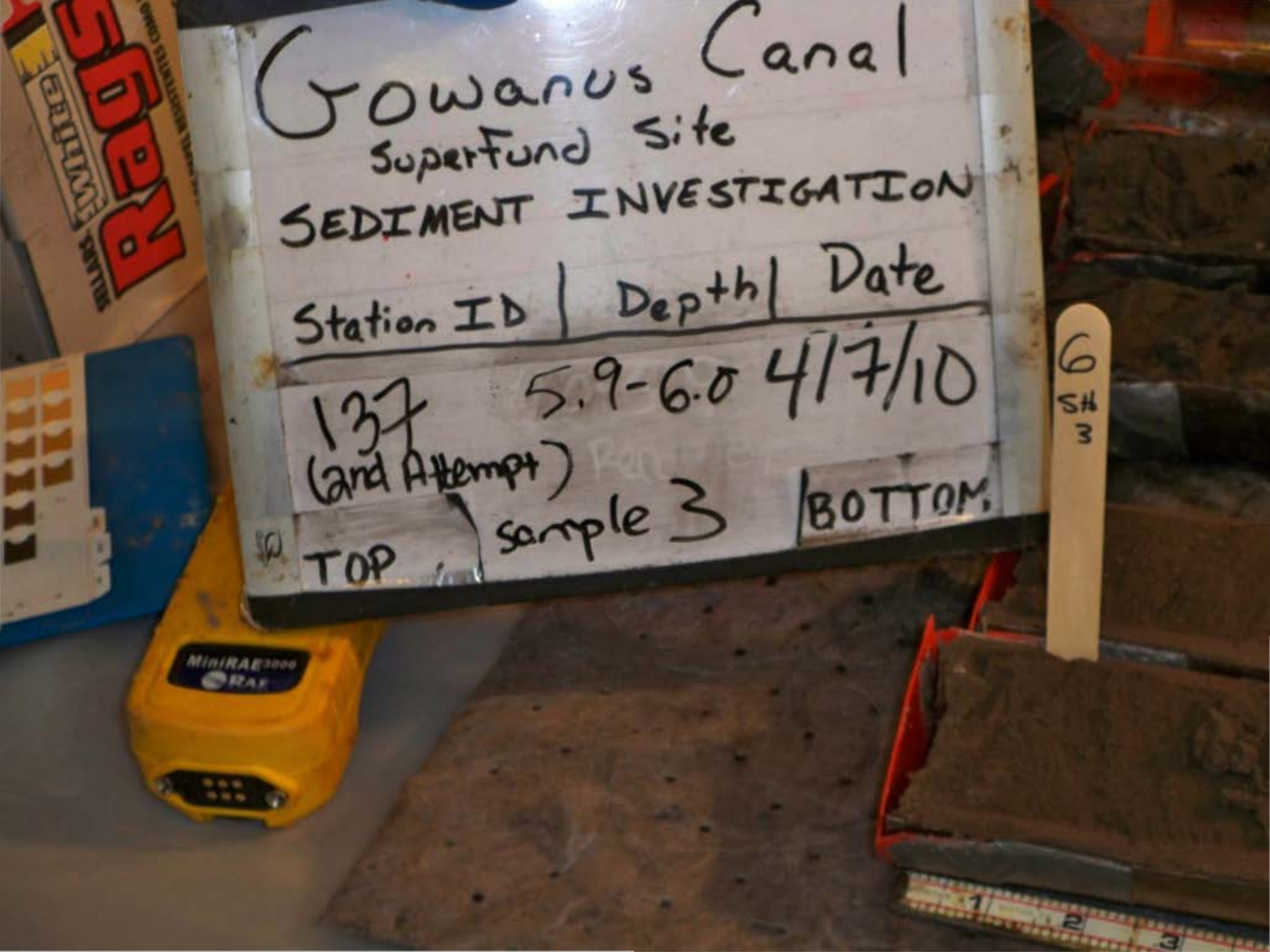

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
136 (3rd Attempt) Full Recovery (CAMPLEX #1) 3/22/10
TOP 0-2 BOTTOM
136
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 FULL 4/7/10
(2nd Attempt) RECOVERY
TOP
BOTTOM

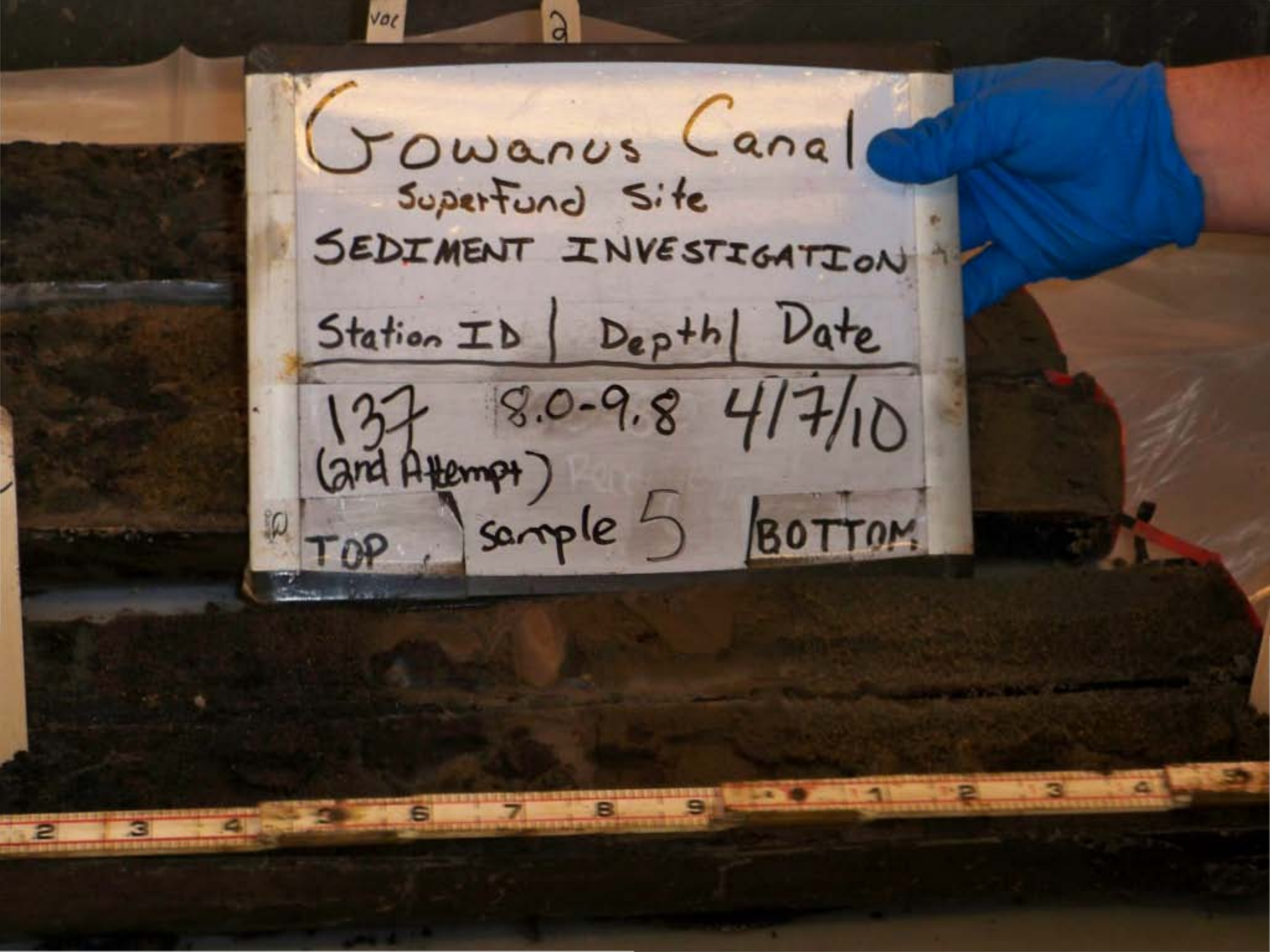

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 0.0-2.0 4/7/10
(2nd Attempt)
TOP sample 1 BOTTOM
VOC
VOC
4
St
2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 2.0-4.0 4/7/10
(2nd Attempt)
TOP | sample 2 | BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 4.0-5.9 4/7/10
(2nd Attempt)
TOP sample 3 BOTTOM
VAC
8
SH
4
VAC

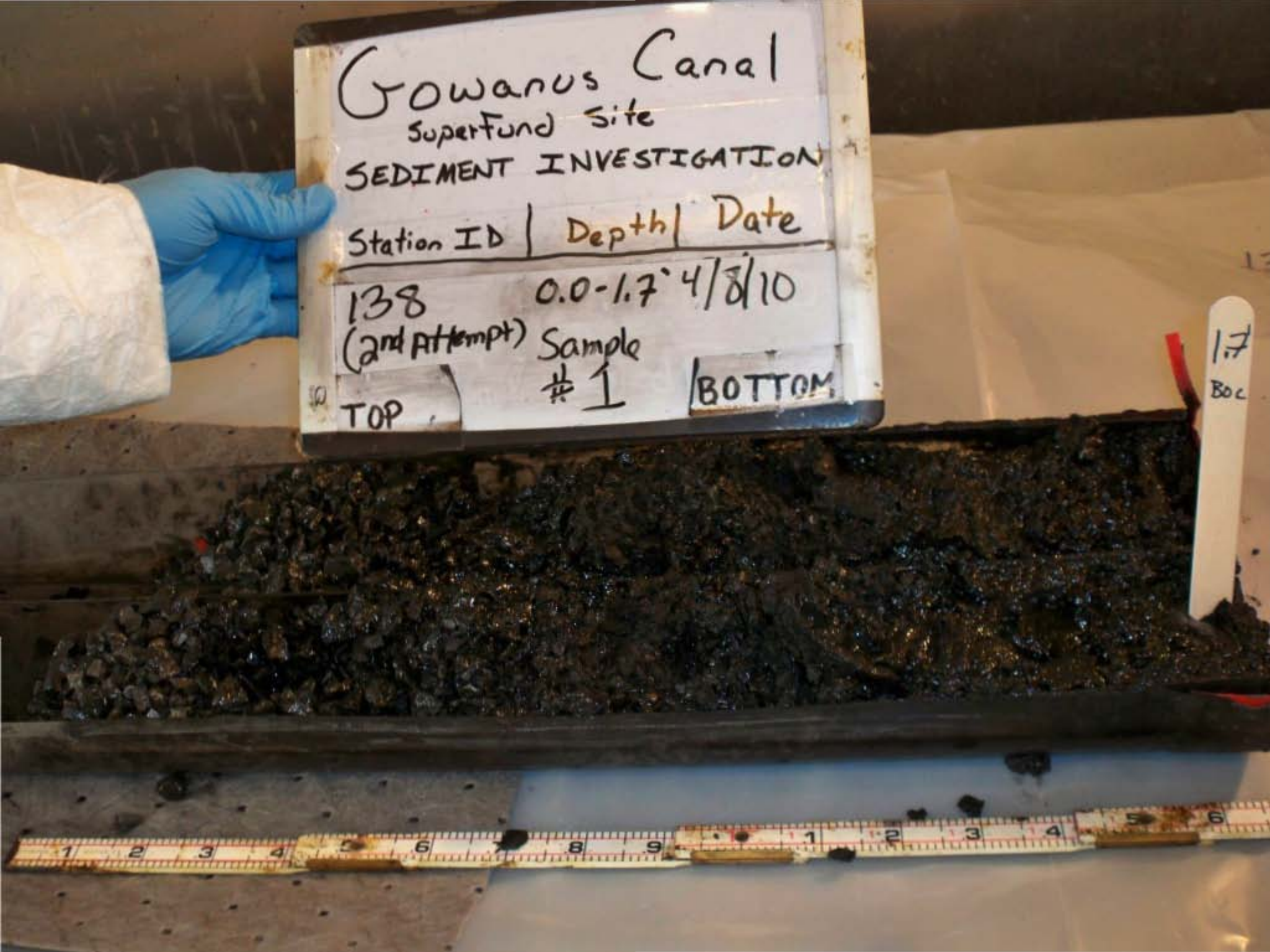

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 (2nd Attempt) 5.9-6.0 4/7/10
TOP | sample 3 | BOTTOM
6
SH
3
MiniRAE 3000
RAE

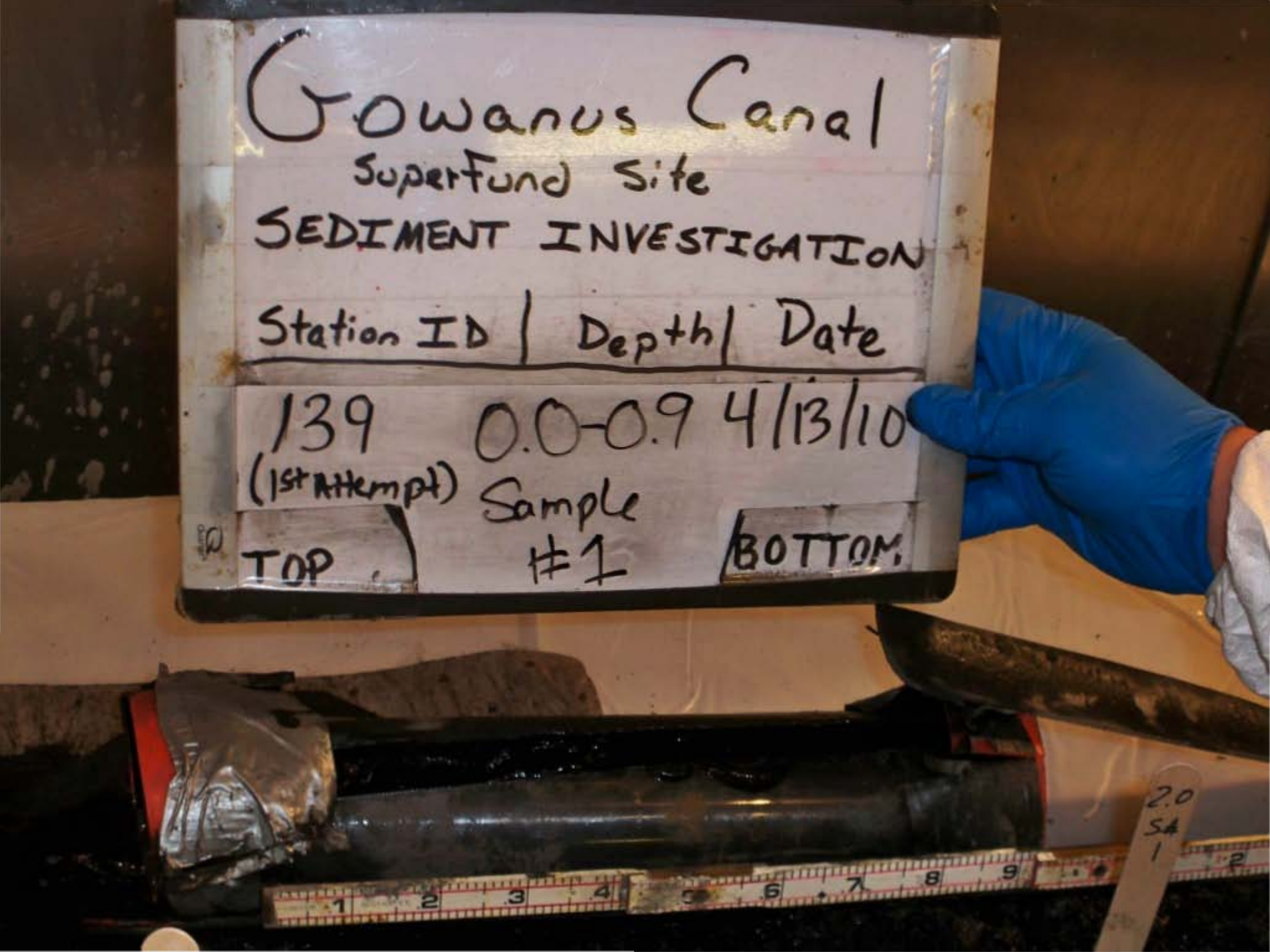

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 6.0-8.0 4/7/10
(3rd Attempt)
TOP | sample 4 | BOTTOM
VOC

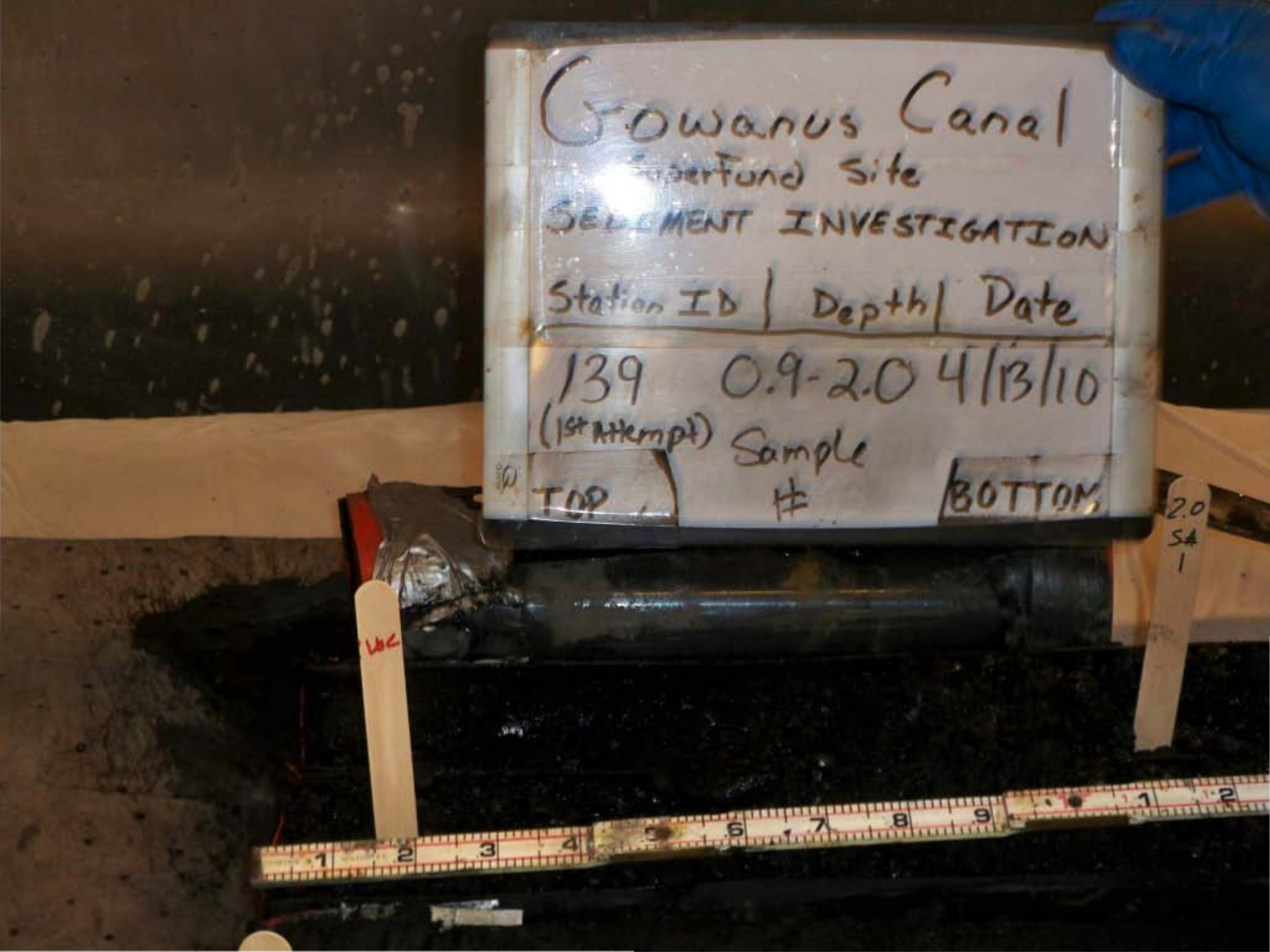

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 (2nd Attempt) 8.0-9.8 4/7/10
TOP sample 5 BOTTOM

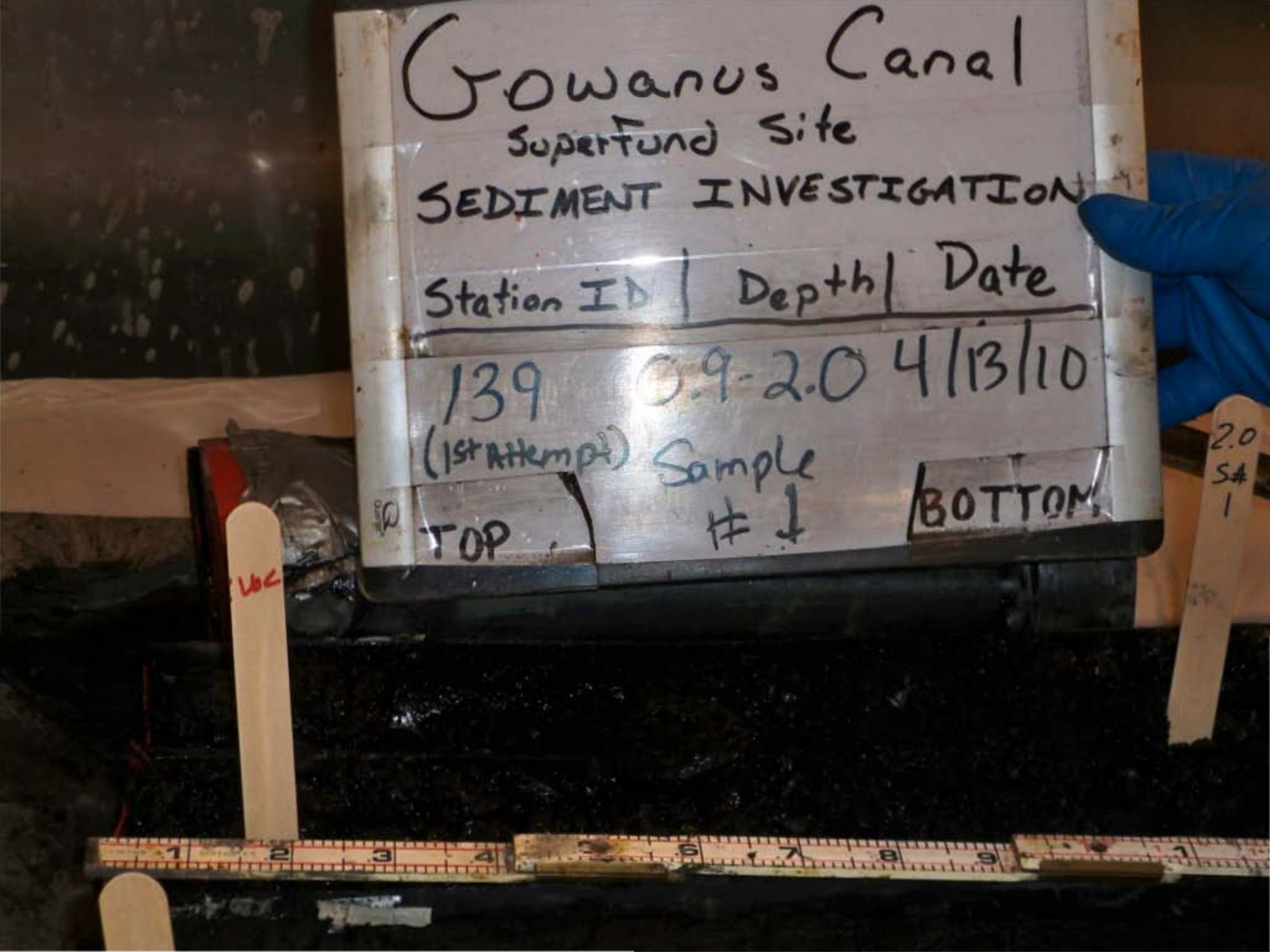

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 (2nd Attempt) FULL RECOVERY 4/7/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
138 FULL 4/8/10
(2nd Attempt) RECOVERY
TOP
BOTTOM
138
1.7
Boc

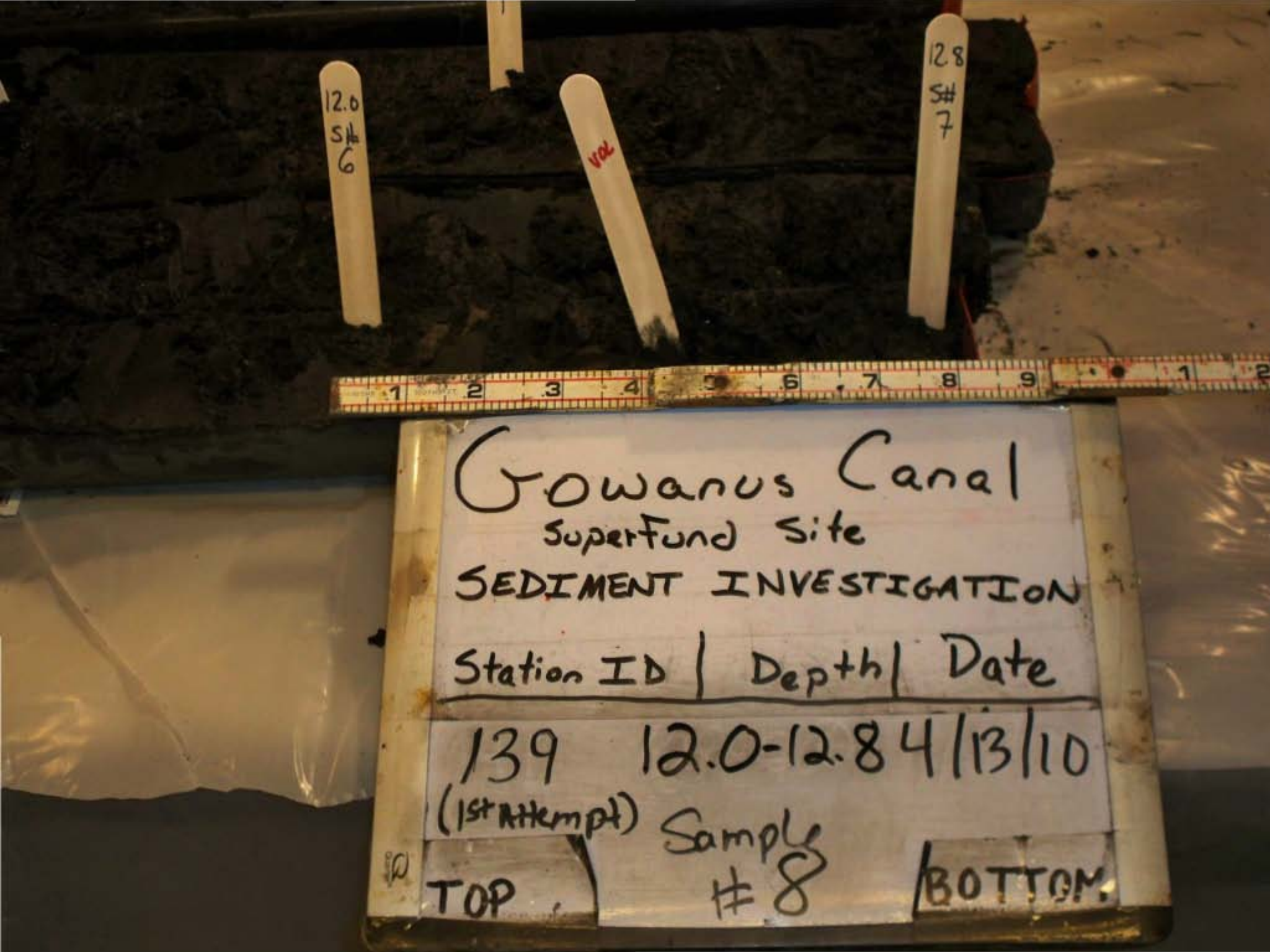

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
138 (2nd Attempt) 0.0-1.7' 4/8/10
Sample #1
TOP
BOTTOM
1.7
Boc

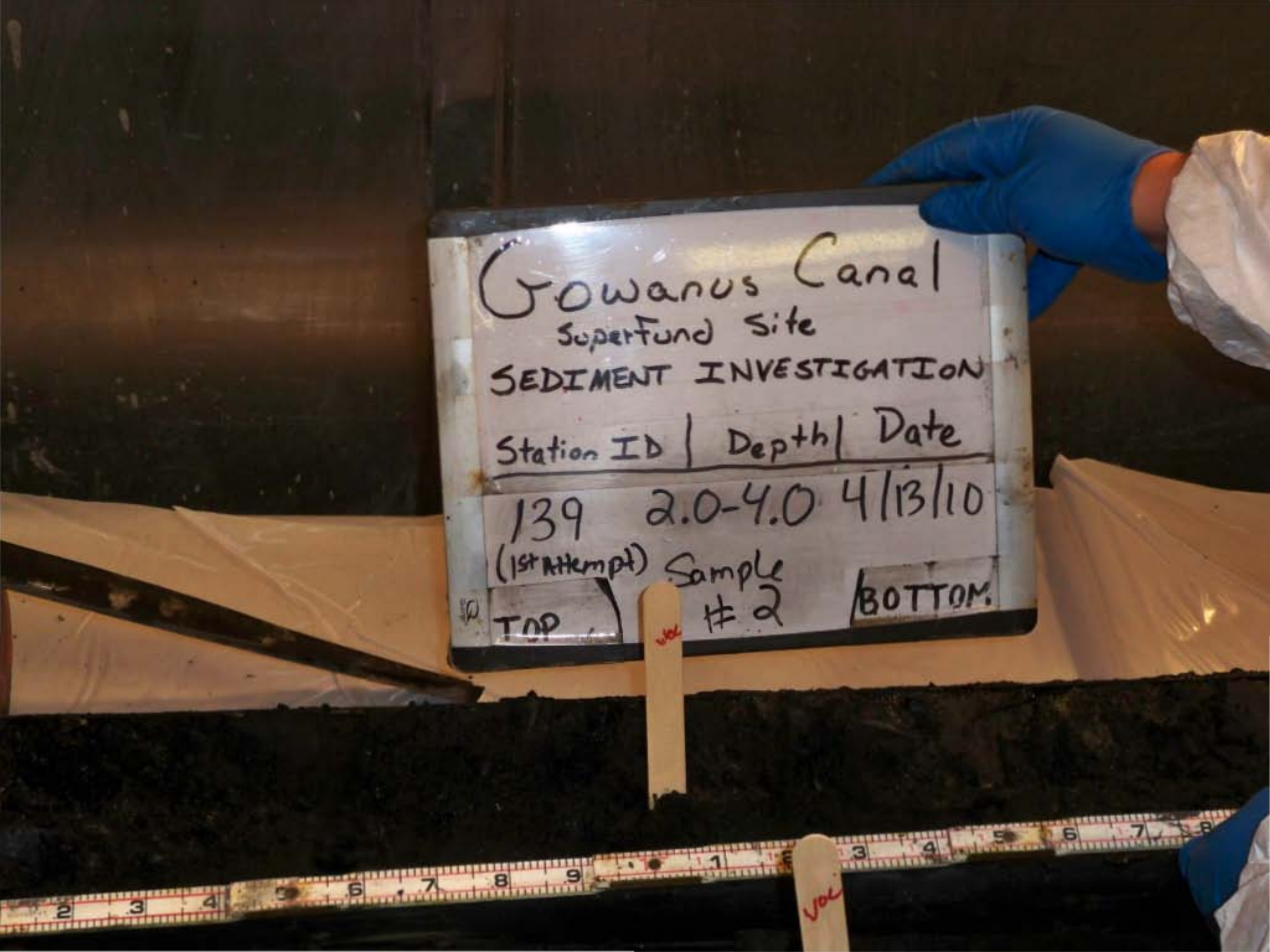

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 (1st Attempt) 0.0-0.9 4/13/10
Sample #1
TOP
BOTTOM
2.0
SA
1

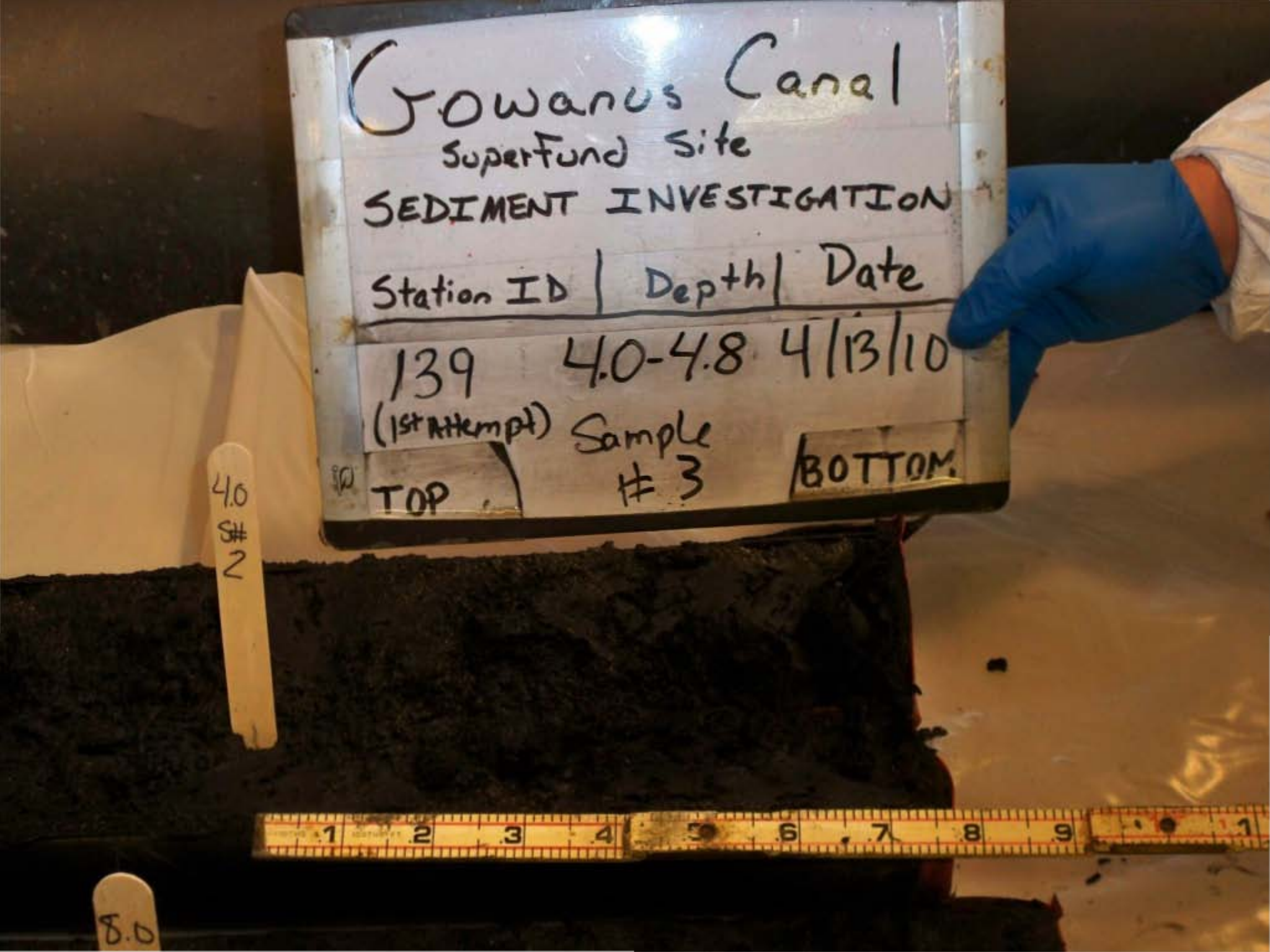

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 0.9-2.0 4/13/10
(1st Attempt) Sample
TOP #
BOTTOM
2.0
SA
1

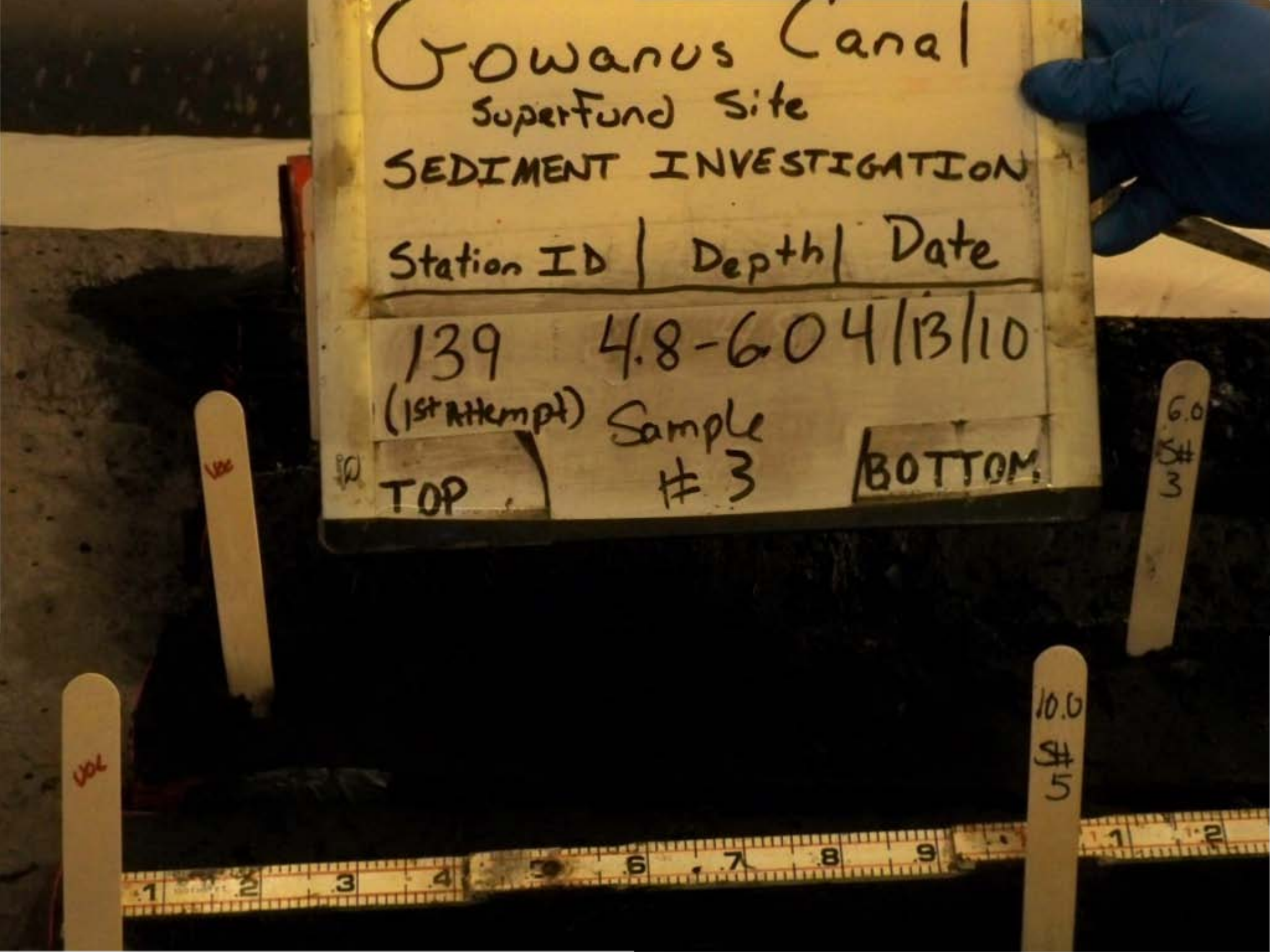

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 0.9-2.0 4/13/10
(1st Attempt) Sample #1
TOP
BOTTOM
2.0 S# 1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 10.0-12.0 4/13/10
(1st Attempt) Sample #6
TOP
BOT

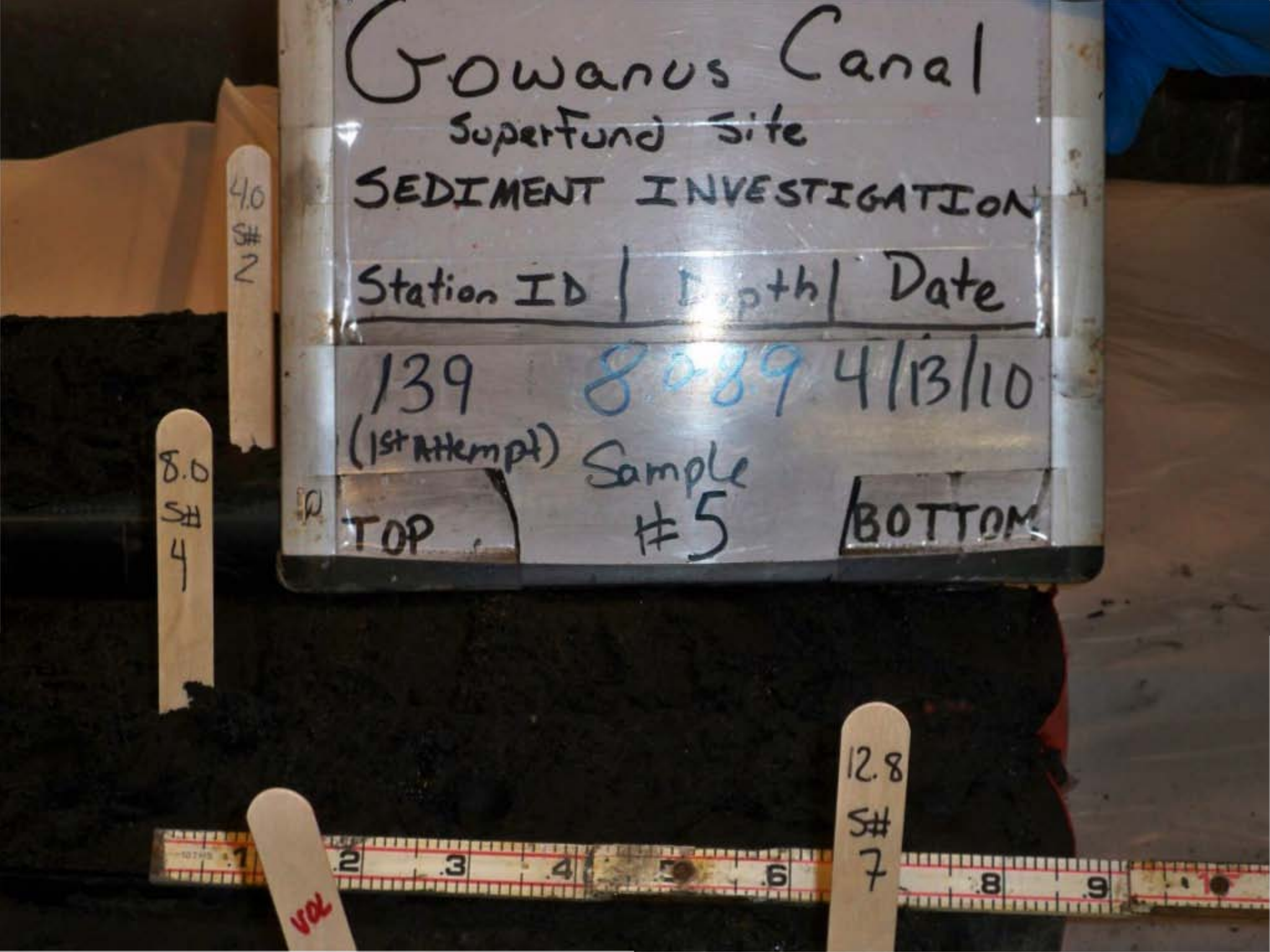

12.0
S#
6
VOL
12.8
S#
7
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 12.0-12.8 4/13/10
(1st Attempt)
Sample
#8
TOP
BOTTOM

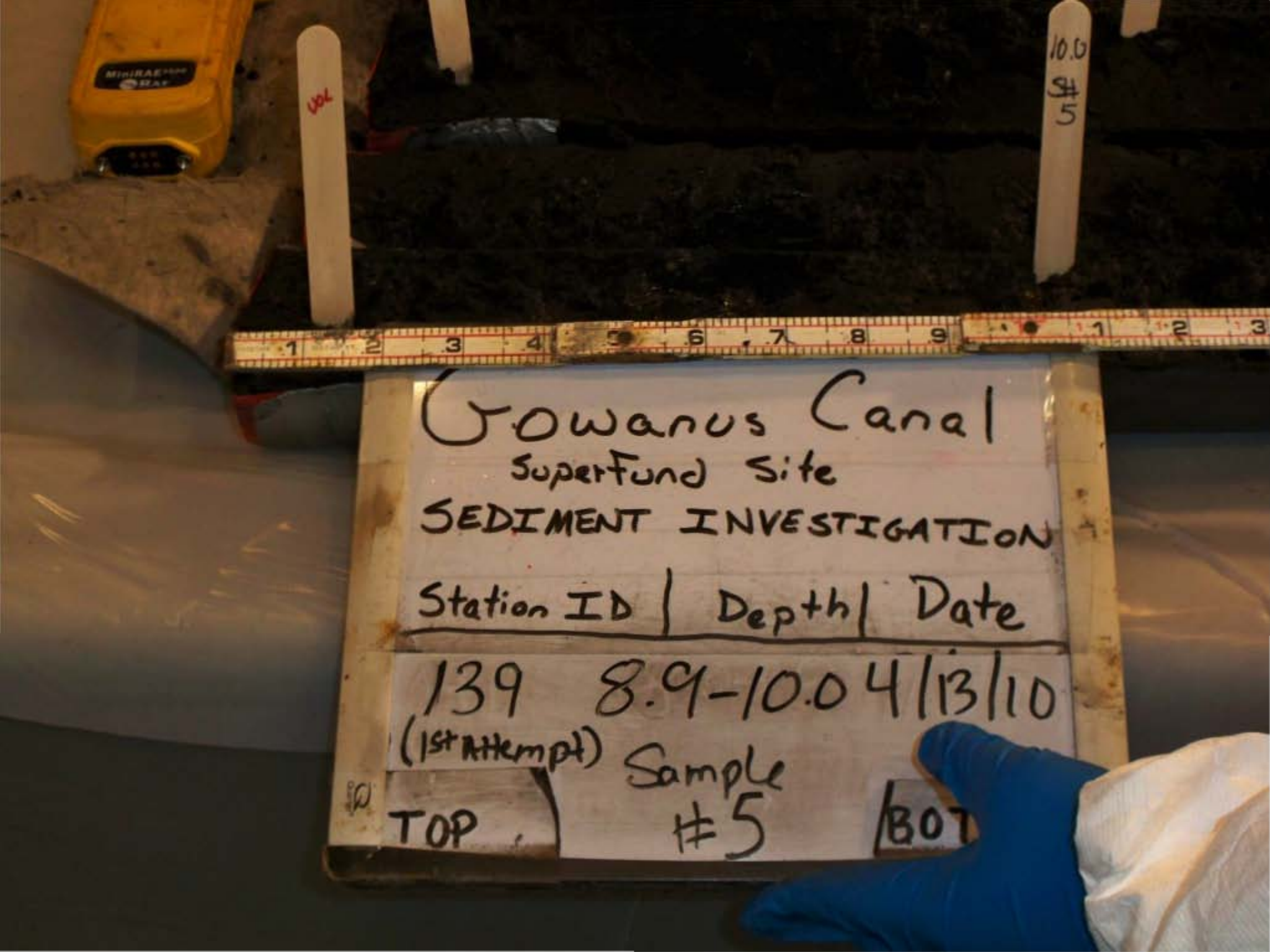

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 2.0-4.0 4/13/10
(1st Attempt) Sample #2
TOP
BOTTOM

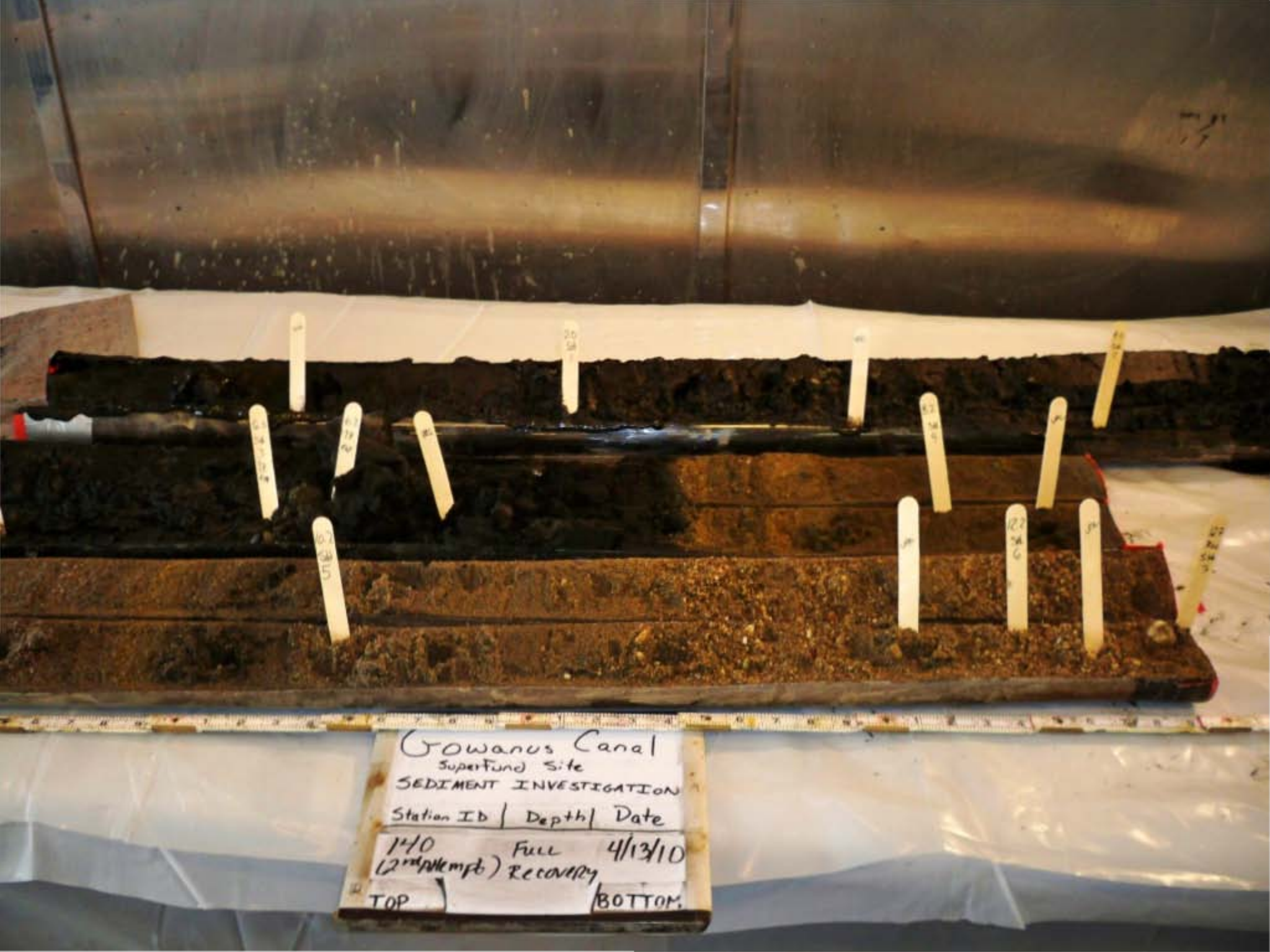

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 4.0-4.8 4/13/10
(1st Attempt) Sample
TOP # 3 BOTTOM
4.0
S#
2
8.0

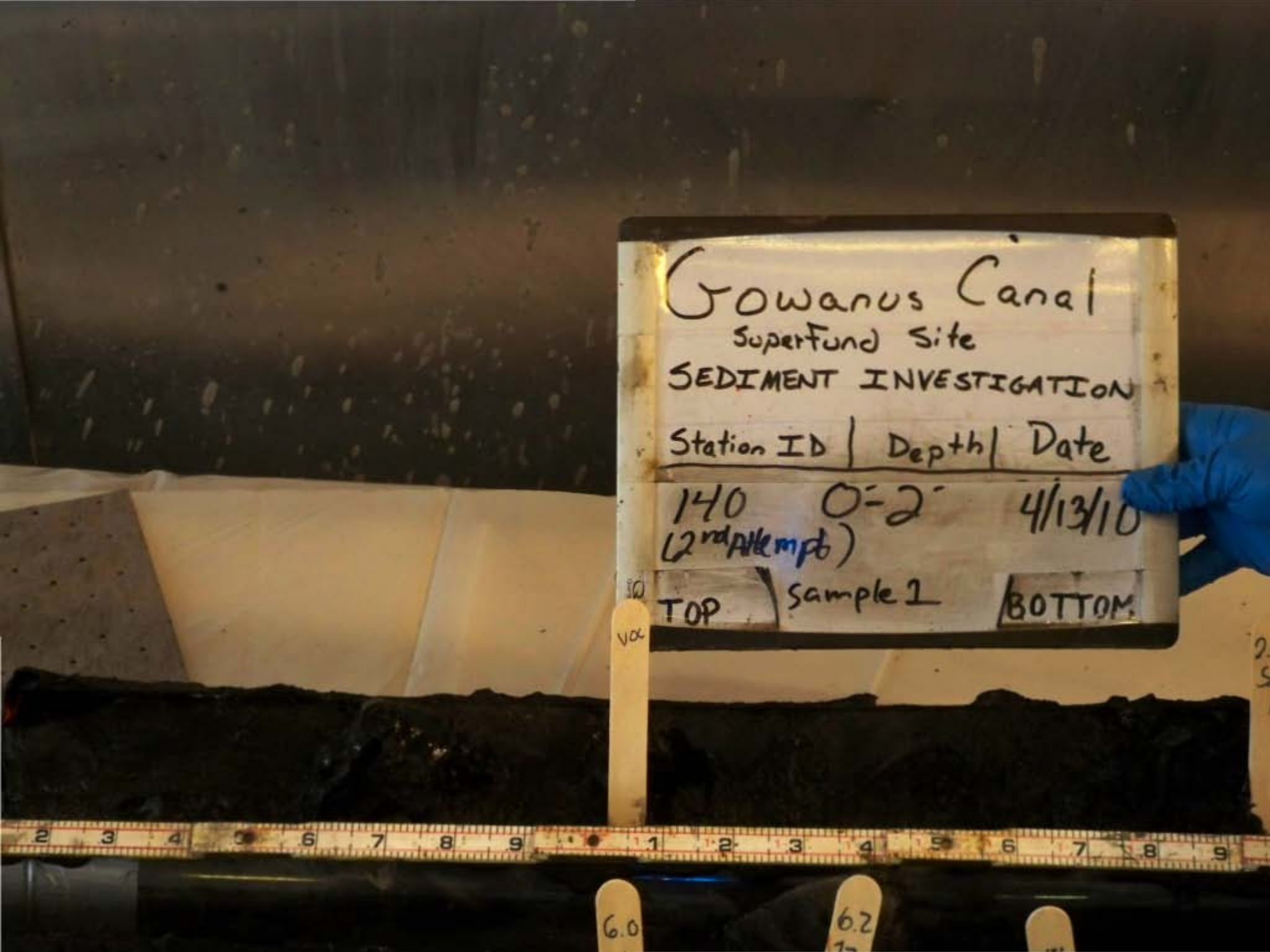

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 4.8-6 04/13/10
(1st Attempt) Sample #3
TOP
BOTTOM
6.0 S# 3
10.0 S# 5

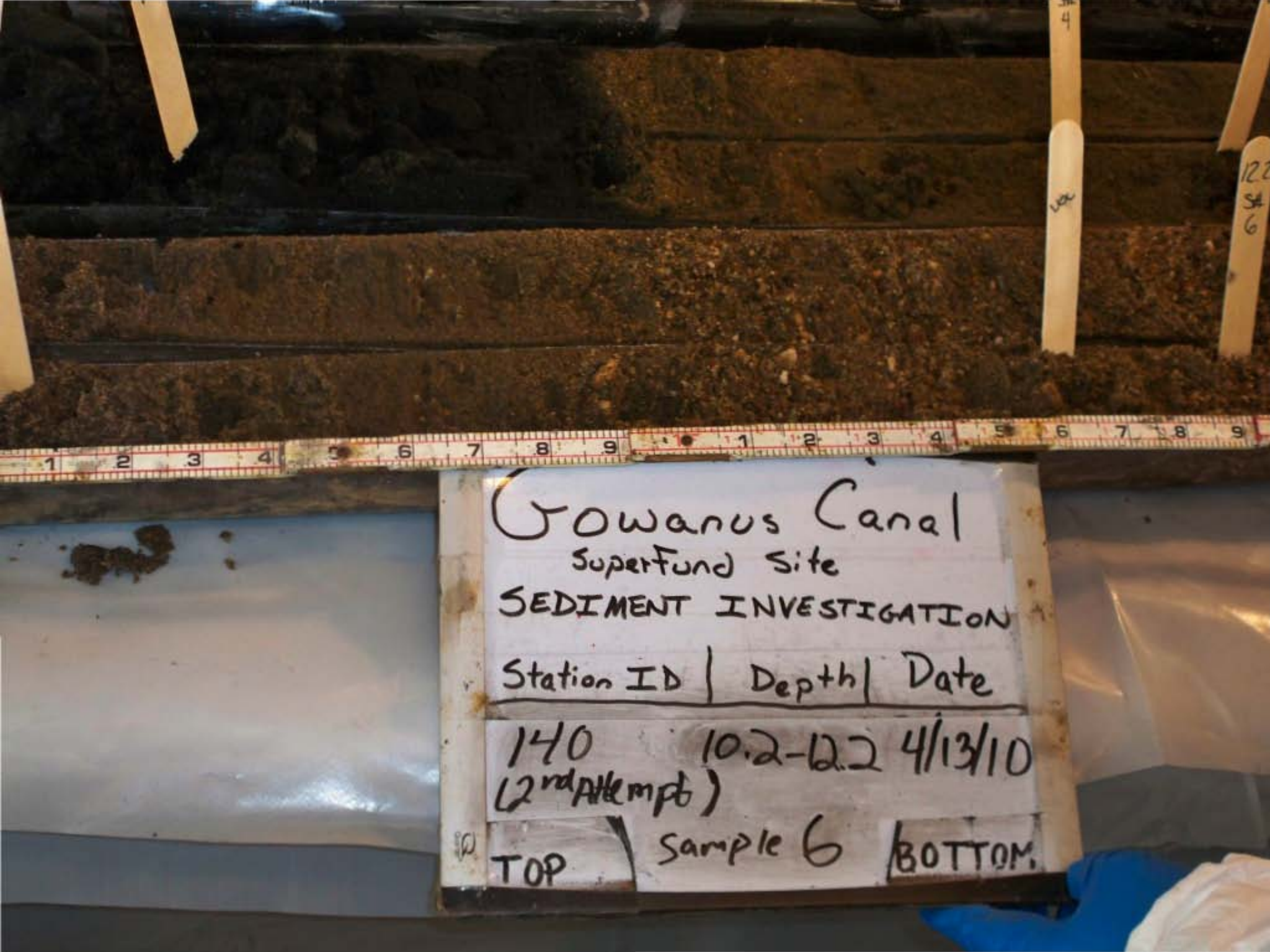

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 6.0-8.0 4/13/10
(1st Attempt) Sample #4
TOP
BOT

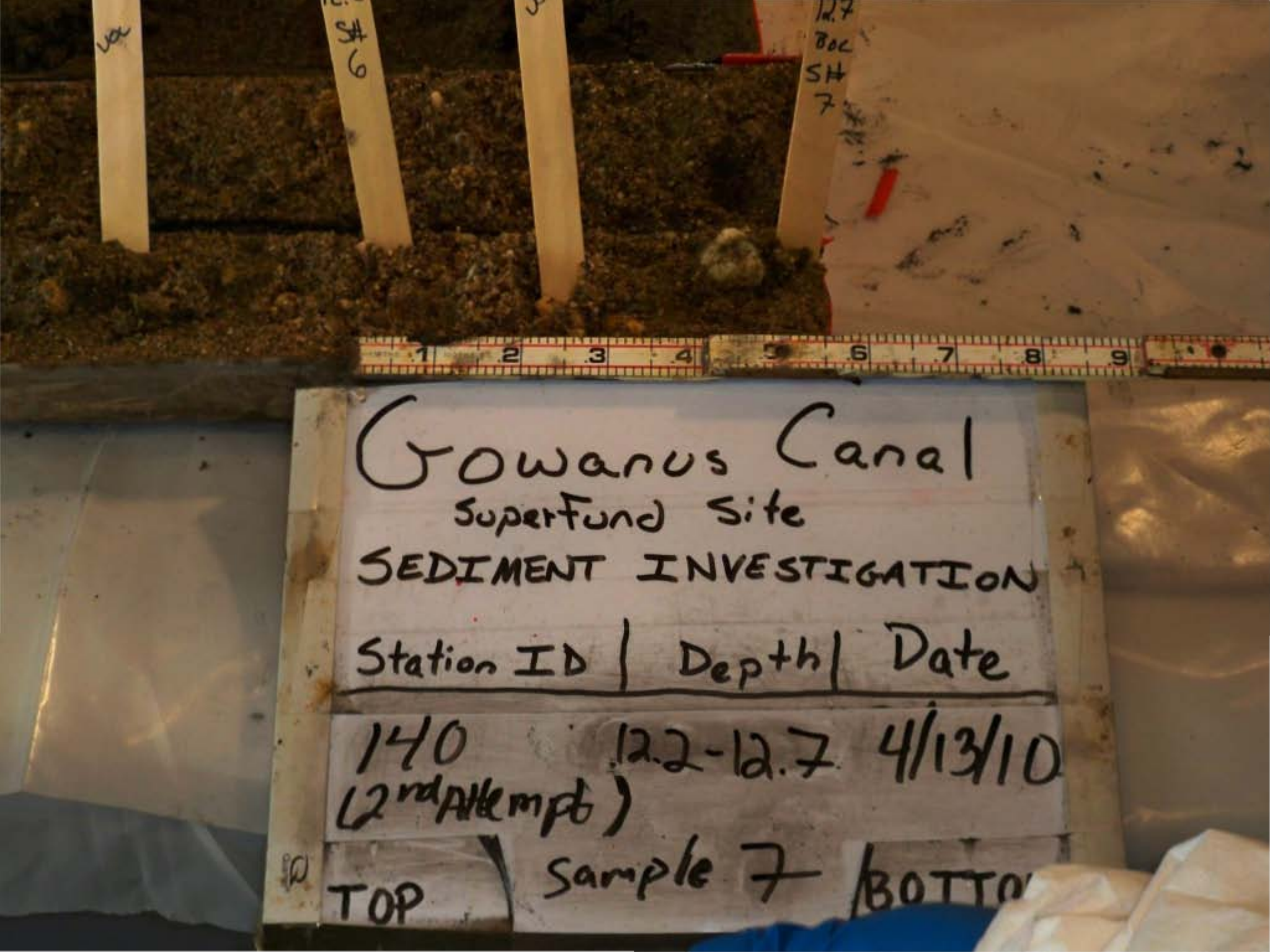

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 8.0-8.9 4/13/10
(1st Attempt) Sample
TOP #5 BOTTOM
4.0
S#
2
8.0
S#
4
12.8
S#
7
VOL


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
139 8.9-10.0 4/13/10
(1st Attempt) Sample
TOP #5 BOT
10.0
#5

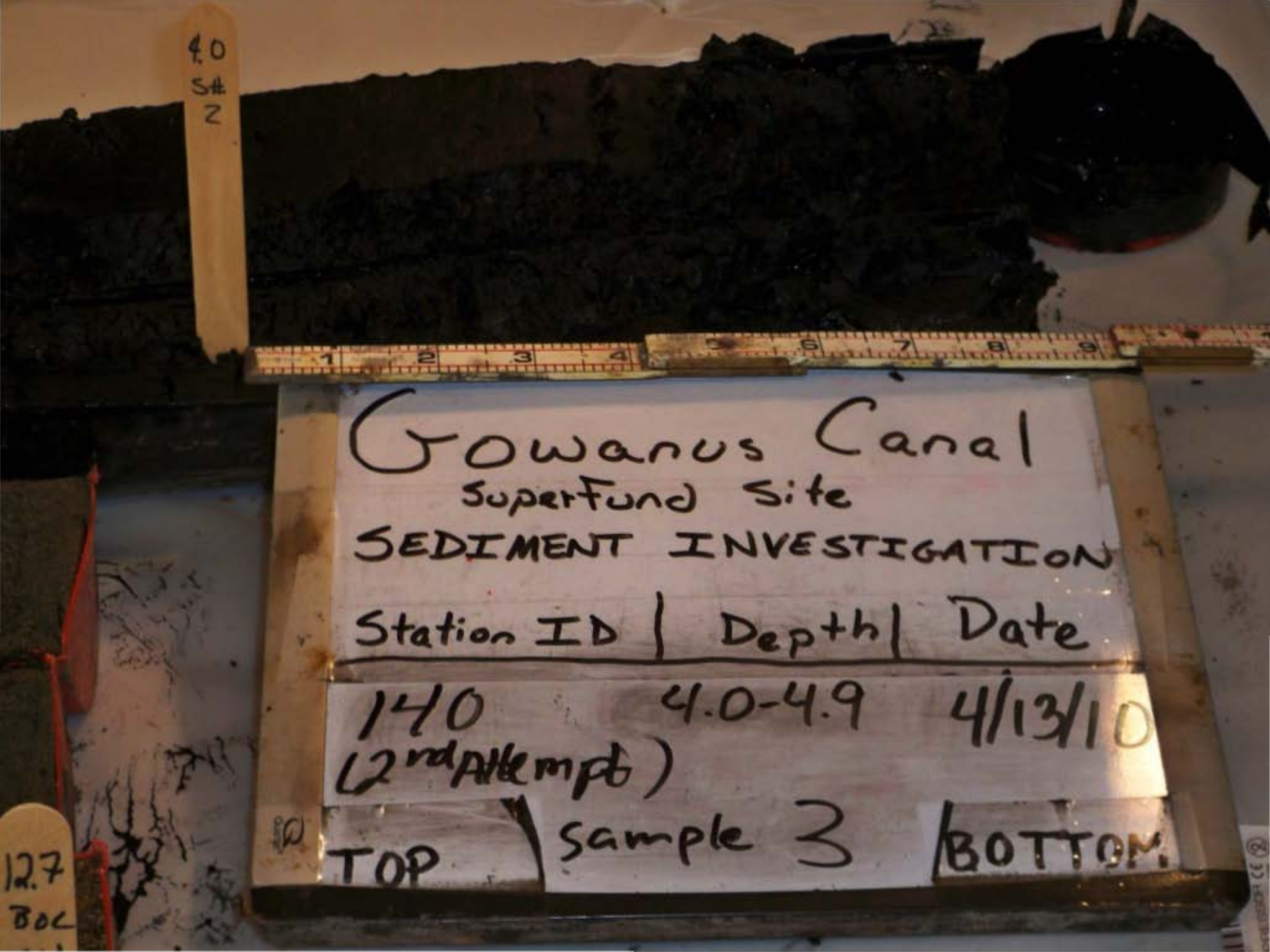

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1+0 (2nd Attempt) Full Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 (2nd Attempt) 0-2' 4/13/10
TOP
Sample 1
BOTTOM
6.0
6.2

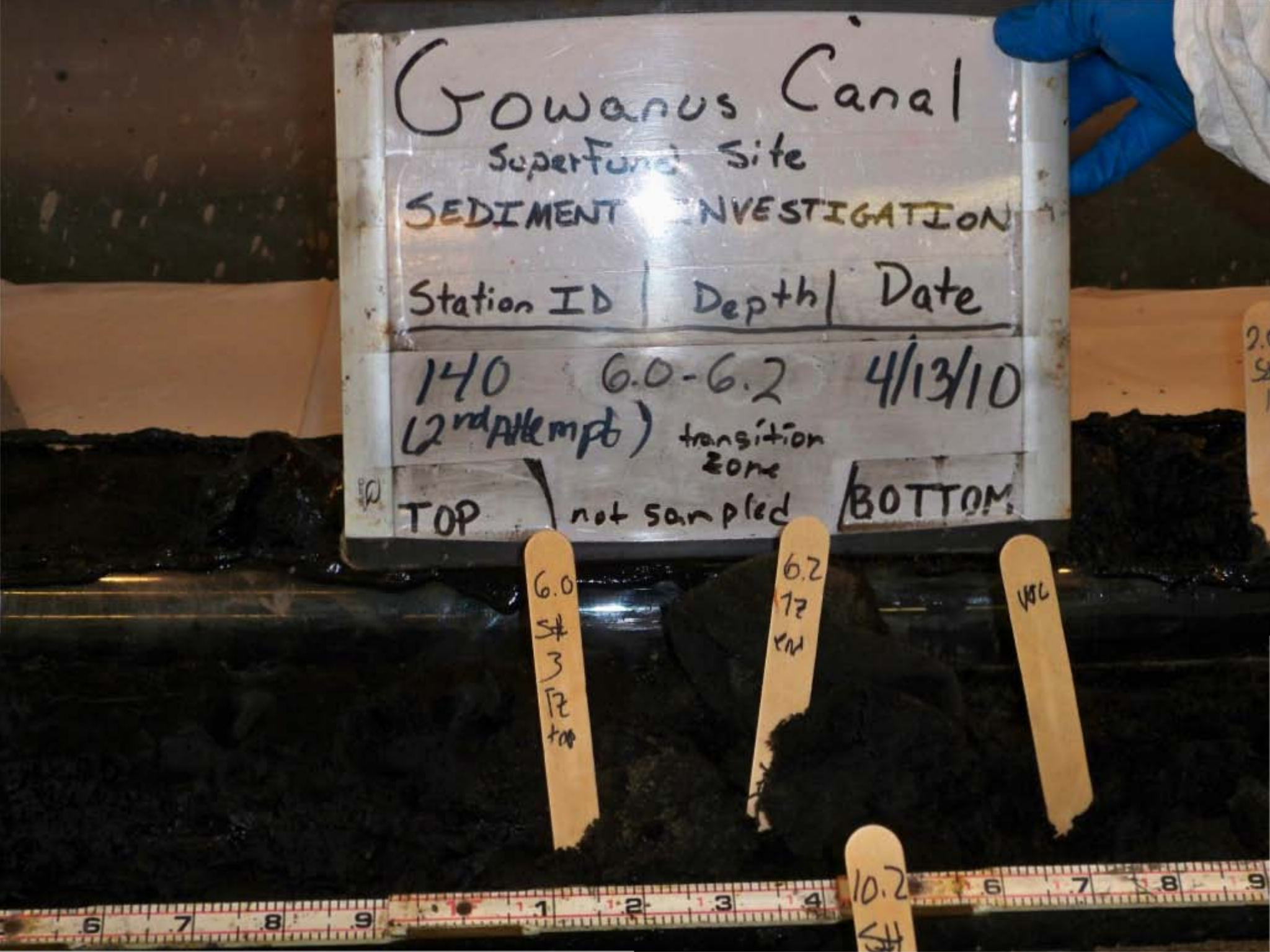

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 10.2-12.2 4/13/10
(2nd Attempt)
TOP
Sample 6
BOTTOM

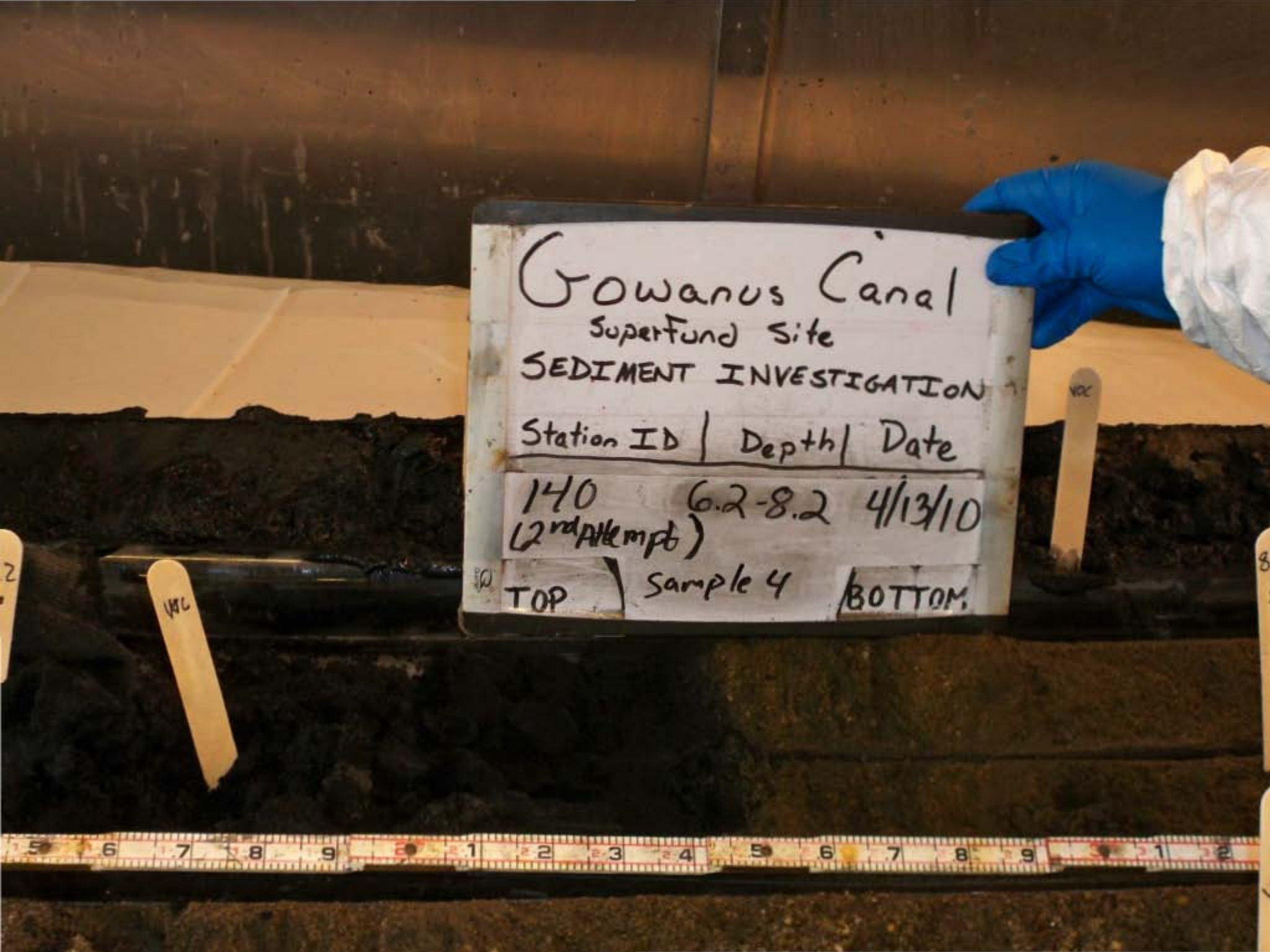

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 12.2-12.7 4/13/10
(2nd Attempt)
TOP Sample 7 BOTTO

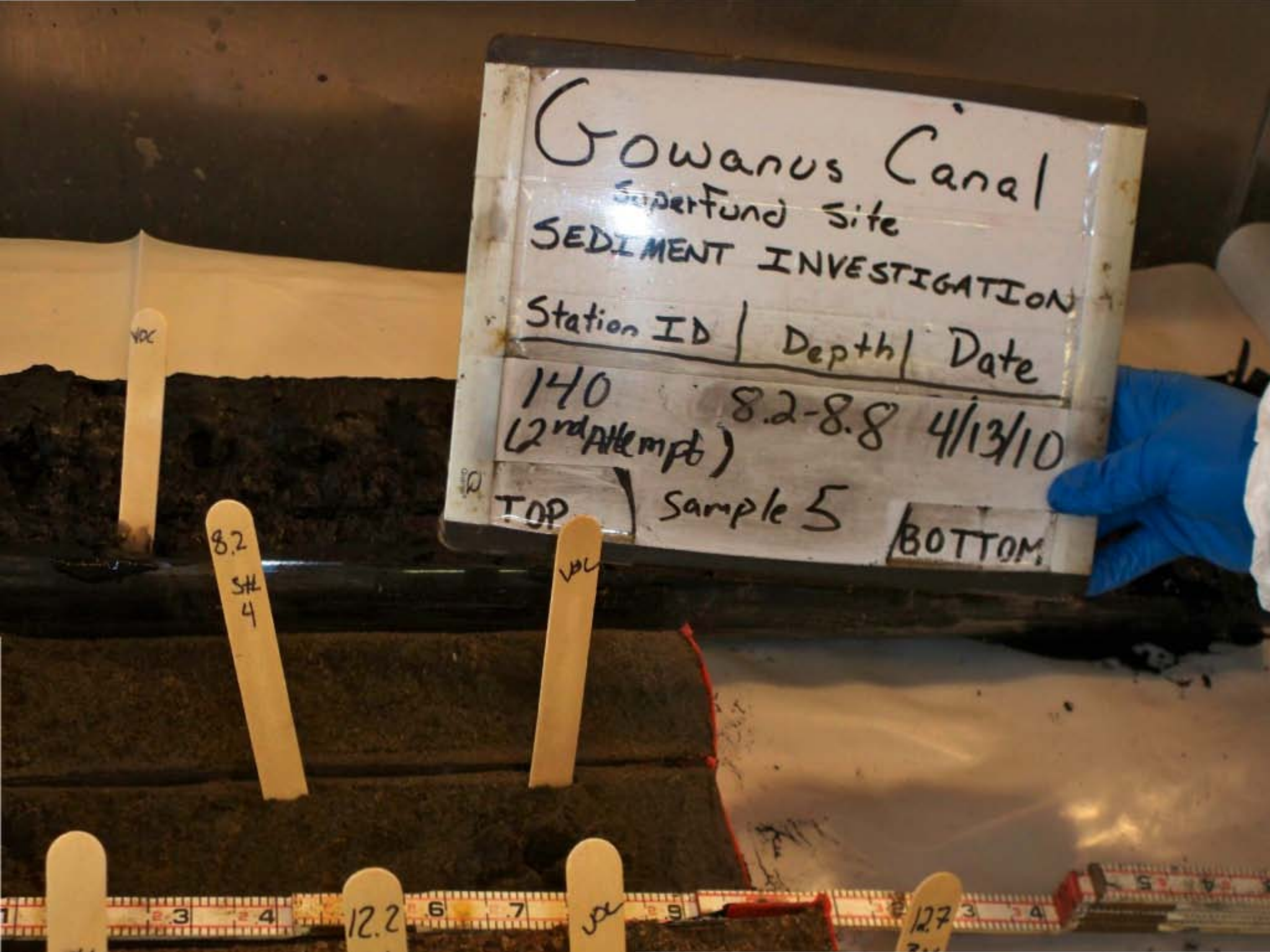

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1.0 (2nd Attempt) 2-4 4/13/10
TOP Sample 2 BOTTOM
2.0 Stt 1
VOC
8.2 Stt 4
VOC

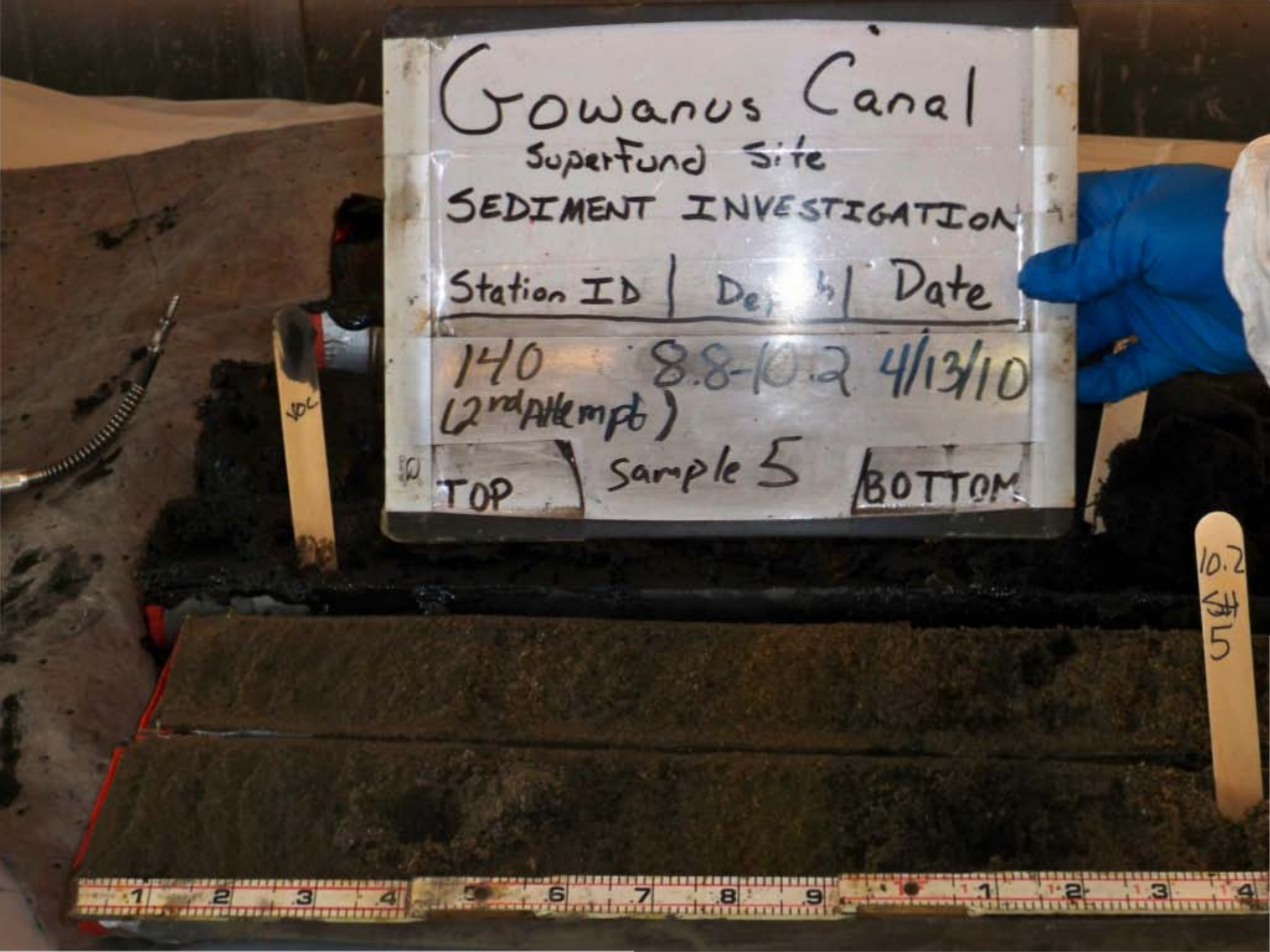

4.0
St
2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 4.0-4.9 4/13/10
(2nd Attempt)
TOP sample 3 BOTTOM
12.7
BOC

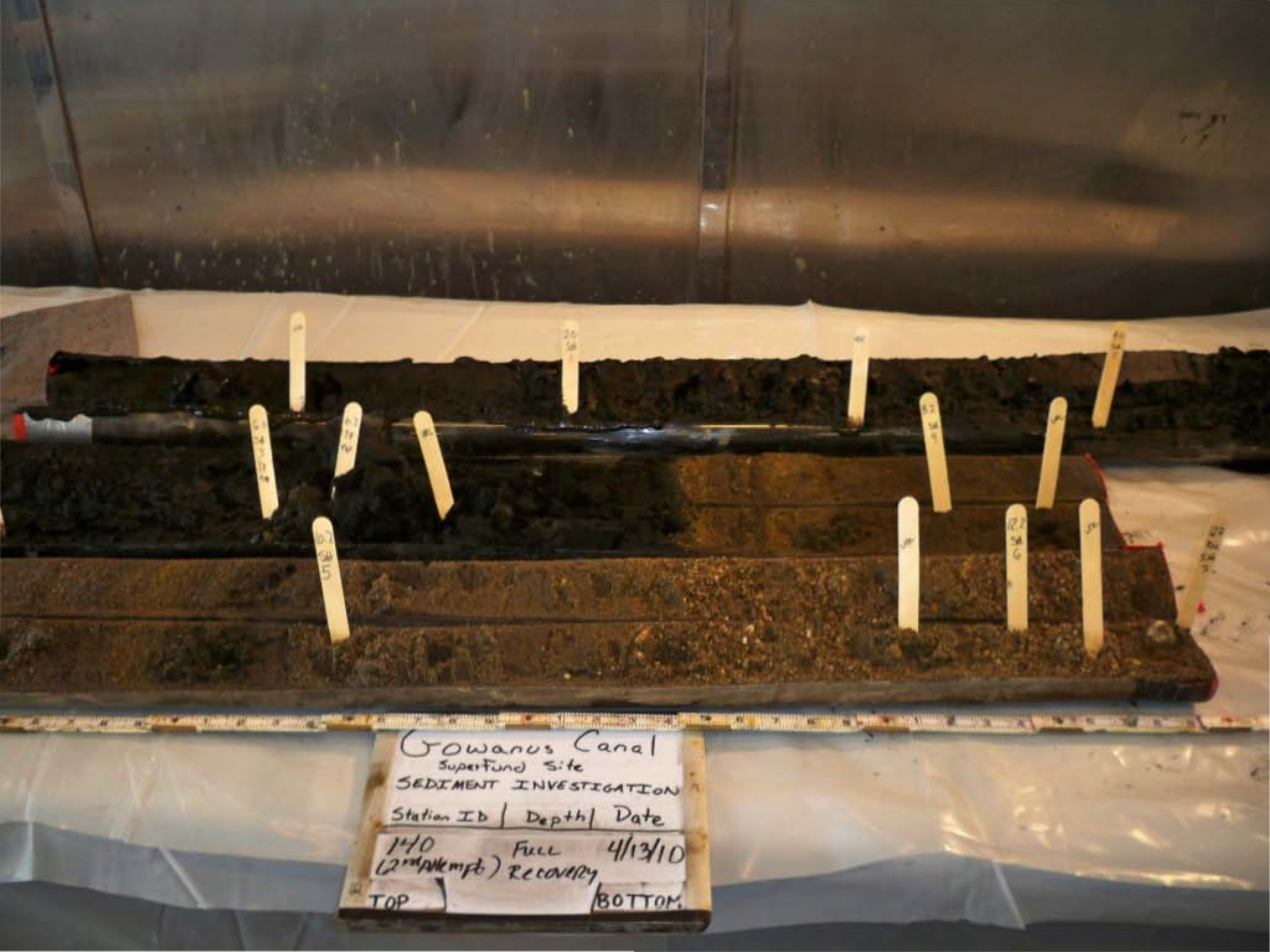

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 4.9-6.0 4/13/10
(2nd Attempt)
TOP sample BOTTOM
VOC
6.0 ft


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 (2nd Attempt) 6.0-6.2 4/13/10
transition zone
TOP | not sampled | BOTTOM
6.0 ft
6.2 ft
VOC
10.2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 (2nd Attempt) 6.2-8.2 4/13/10
TOP Sample 4 BOTTOM

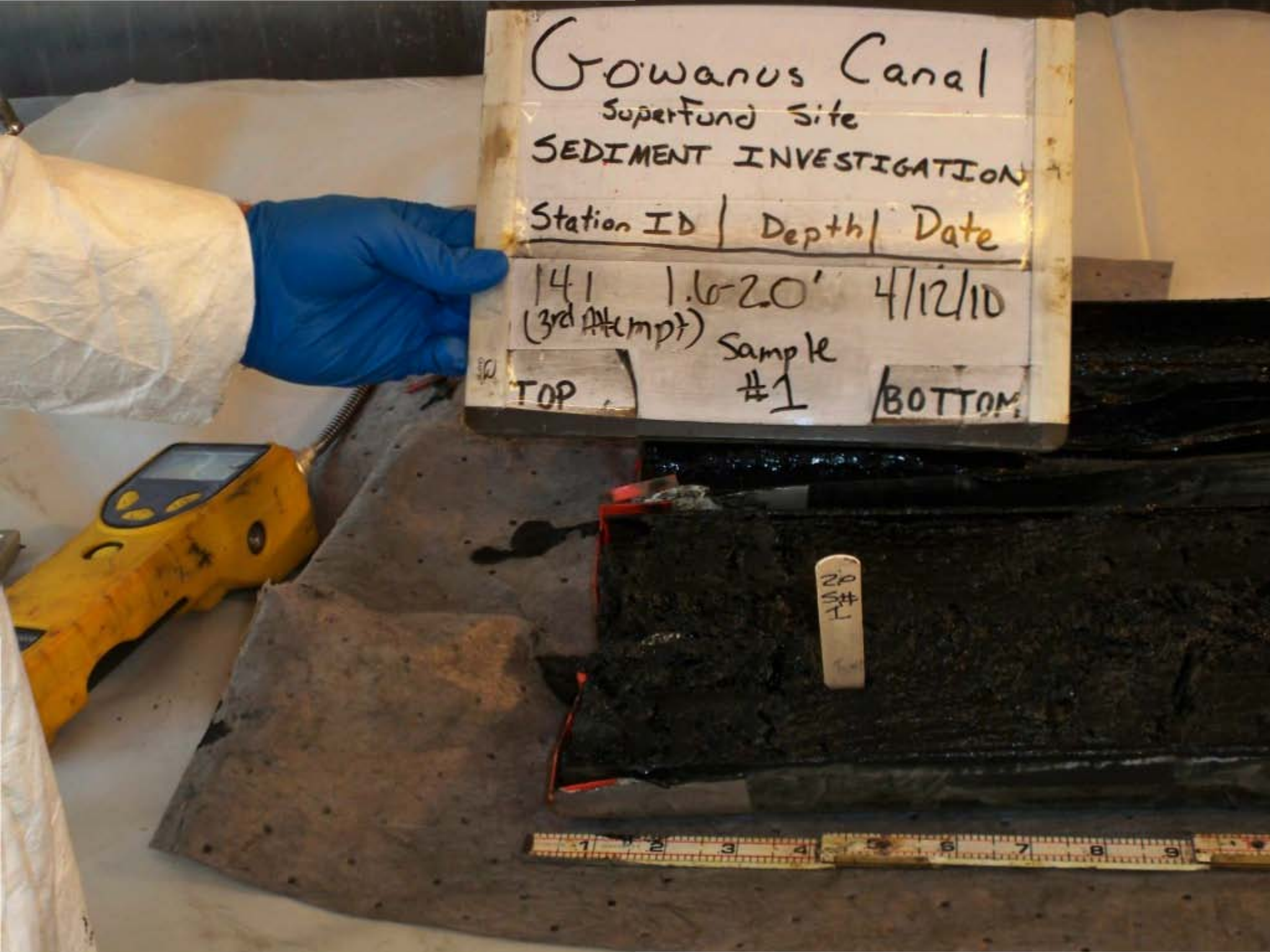

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 8.2-8.8 4/13/10
(2nd Attempt)
TOP | Sample 5 | BOTTOM
8.2
12.2
12.7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
140 (2nd Attempt) 8.8-10.2 4/13/10
TOP
Sample 5
BOTTOM
10.2
#5

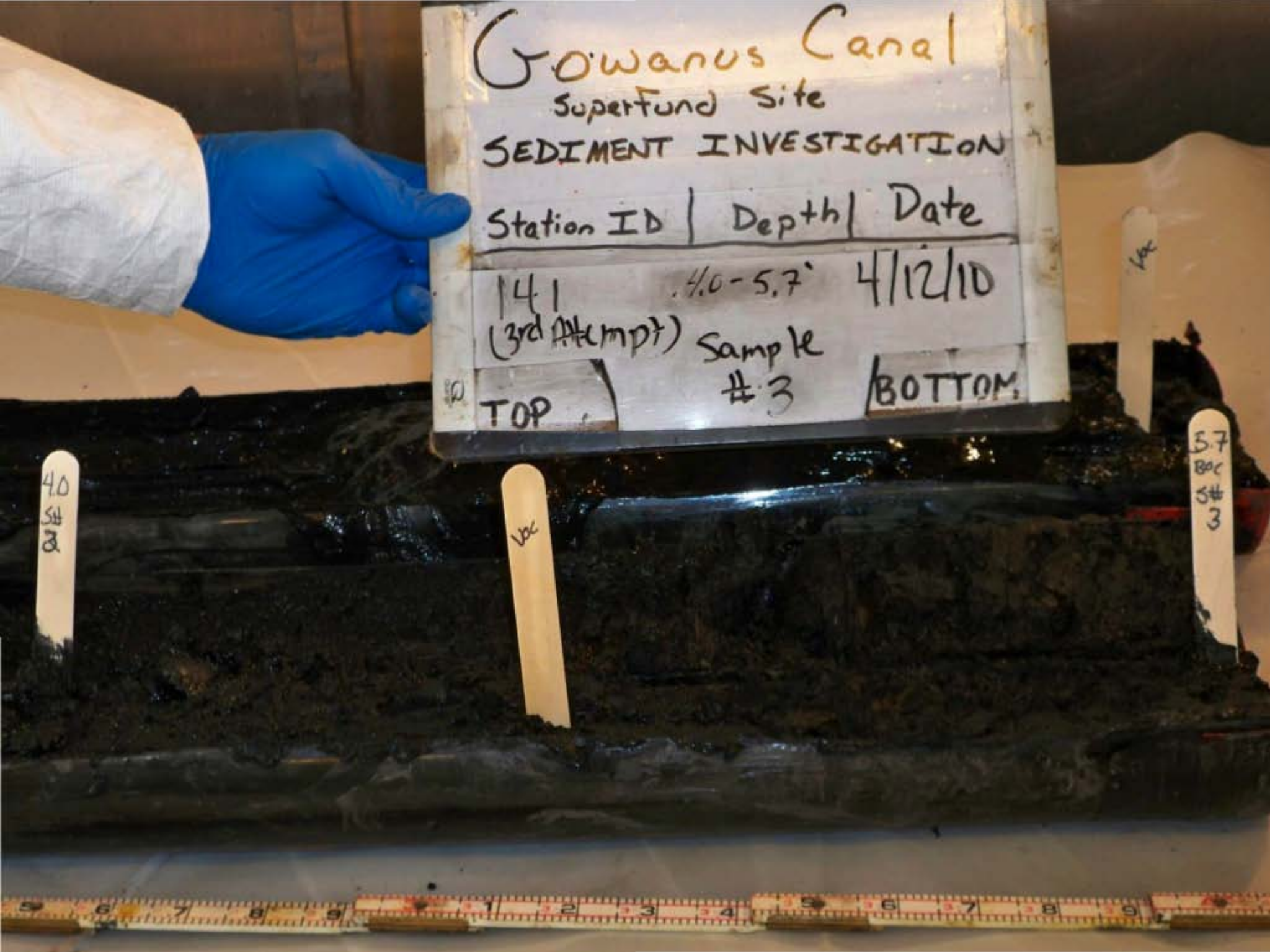

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1+0 (2nd Attempt) Full Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
141 (3rd Attempt) FULL RECOVERY 4/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
141 (3rd Attempt) 0.0-1.6' 4/12/10
Sample #1
TOP
BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
141 1.6-2.0' 4/12/10
(3rd Attempt)
Sample #1
TOP
BOTTOM
2p S# 1

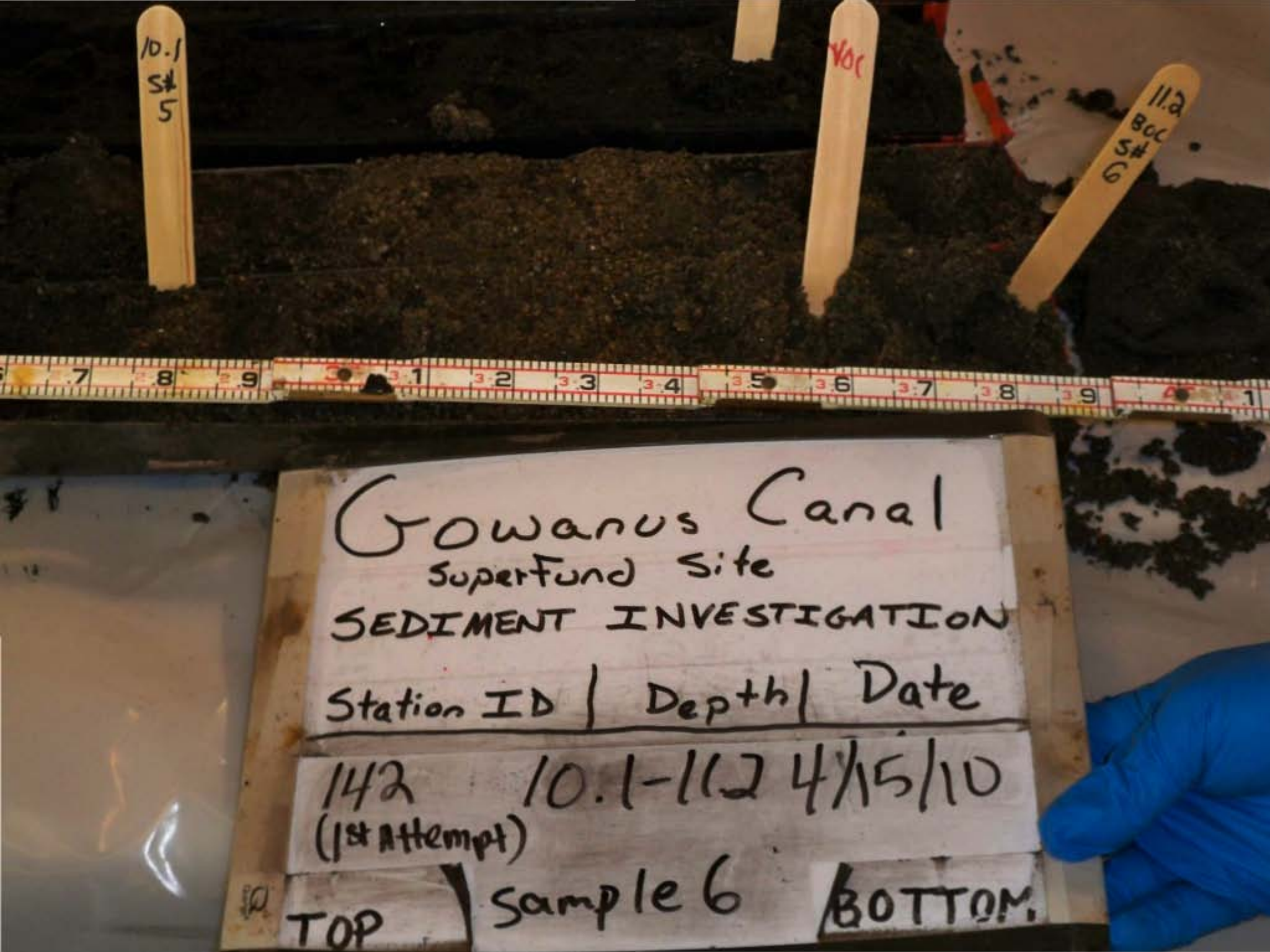

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGAT
Station ID | Depth | Date
141 2.0-4.0 4/12/10
(3rd attempt) Sample #2
TOP
BOTTOM
20 S# 1
40 S# 2

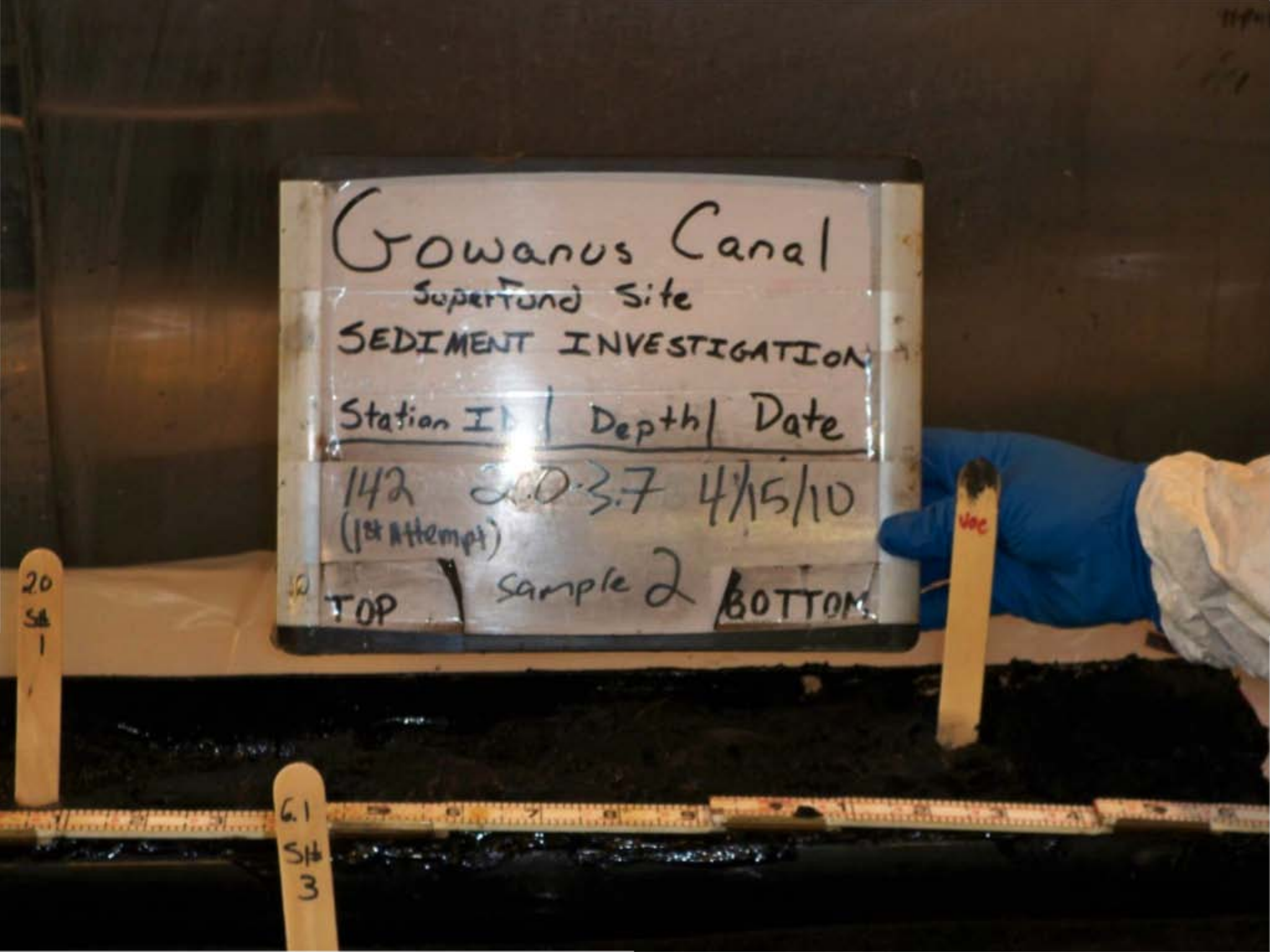

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
141 (3rd Attempt)
4.0-5.7'
4/12/10
Sample #3
TOP
BOTTOM
4.0 S# 2
Voc
5.7 Boc S# 3
Voc

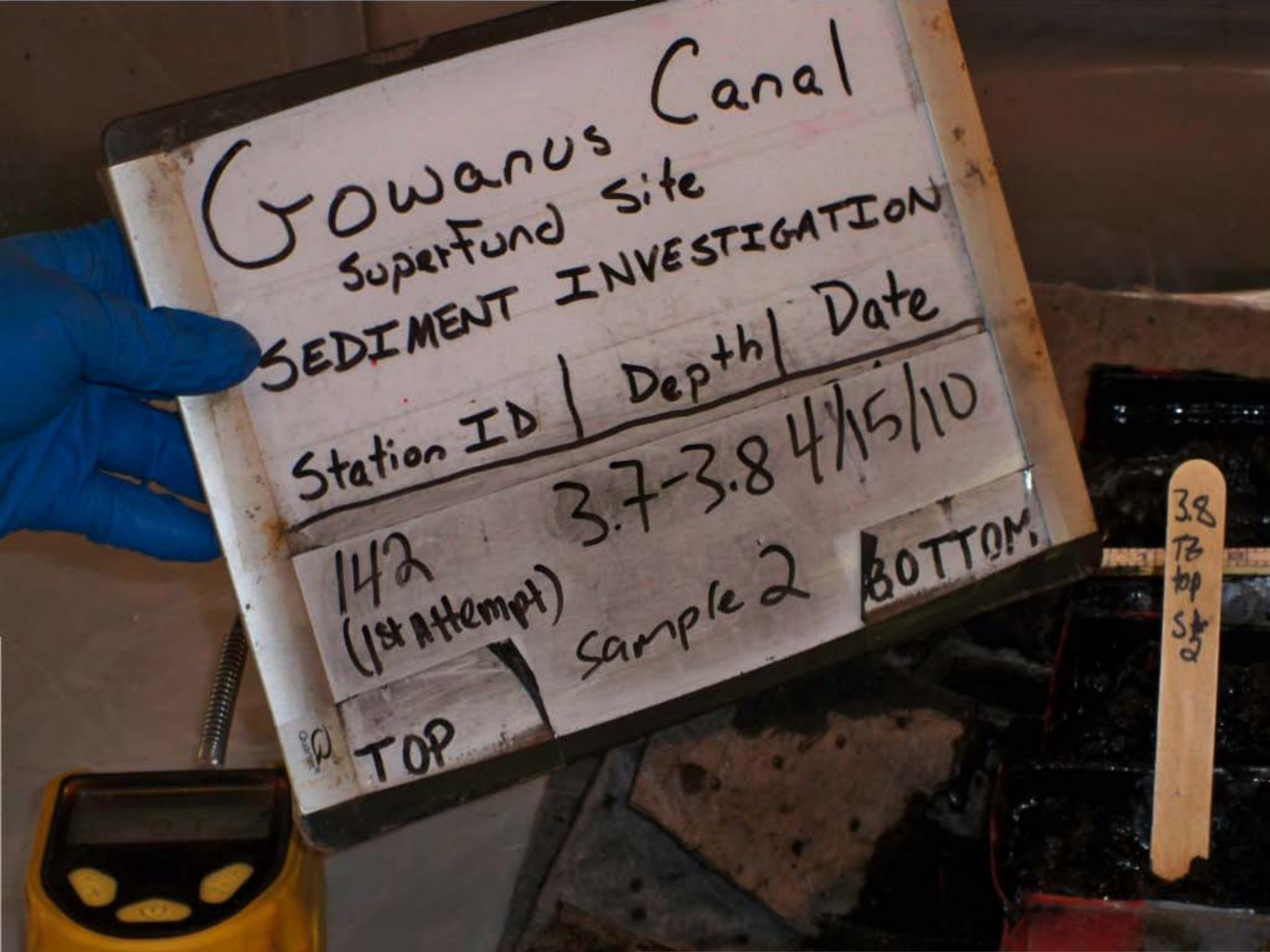

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
141 (3rd Attempt) FULL RECOVERY 4/12/10
TOP
BOTTOM

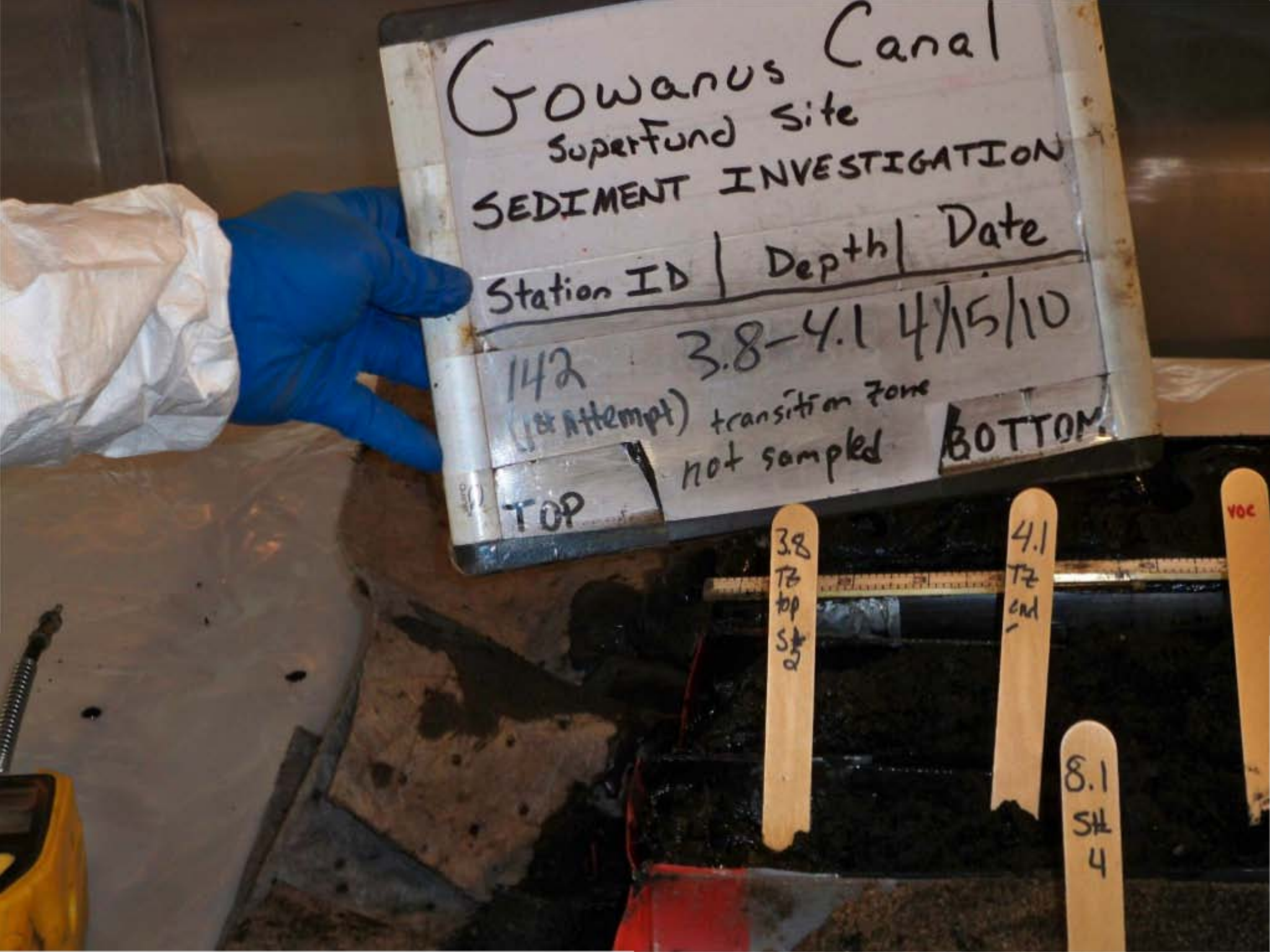

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st attempt) Full Recovery 4/15/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st Attempt) 0.0-2.0 4/15/10
TOP
Sample 1
BOTTOM
VOC
VOC
20
Sa
1
4.1

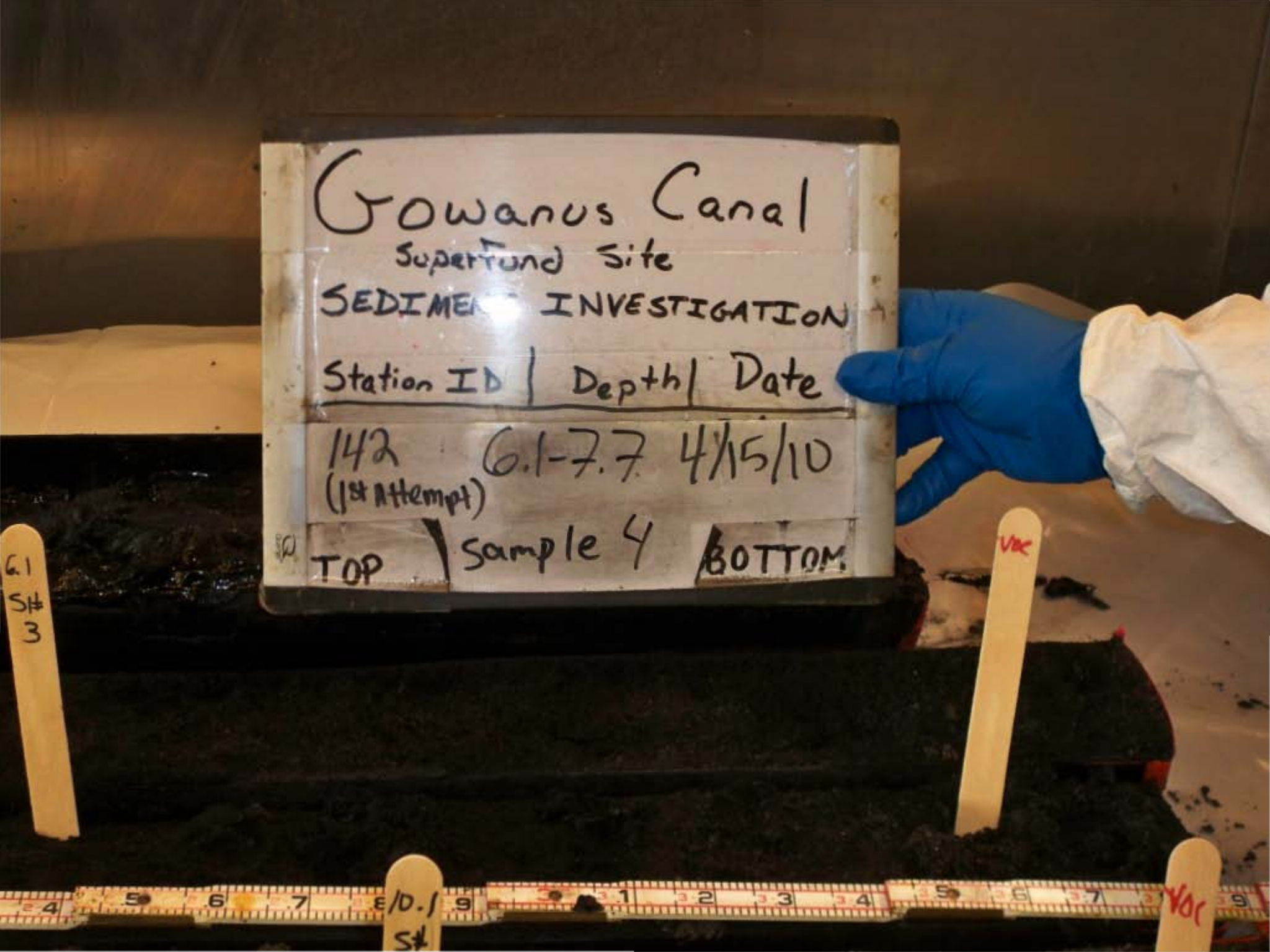

10.1
St#
5
VOC
11.2
BOC
St#
6
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 10.1-11.2 4/15/10
(1st Attempt)
TOP
Sample 6
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 2.0-3.7 4/15/10
(1st Attempt)
TOP
Sample 2
BOTTOM
20
Sh
1
6.1
Sh
3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st Attempt) 3.7-3.8 4/15/10
TOP Sample 2 BOTTOM
3.8 TB top S#2


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 3.8-4.1 4/15/10
(1st Attempt) transition zone
not sampled
TOP
BOTTOM
3.8 TZ top S2
4.1 TZ end
8.1 SHL 4
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st Attempt) 4.1-6.1 4/15/10
TOP | Sample 3 | BOTTOM
VOC
VOC
VOC
4.1
TZ
End
6.1
SH
3

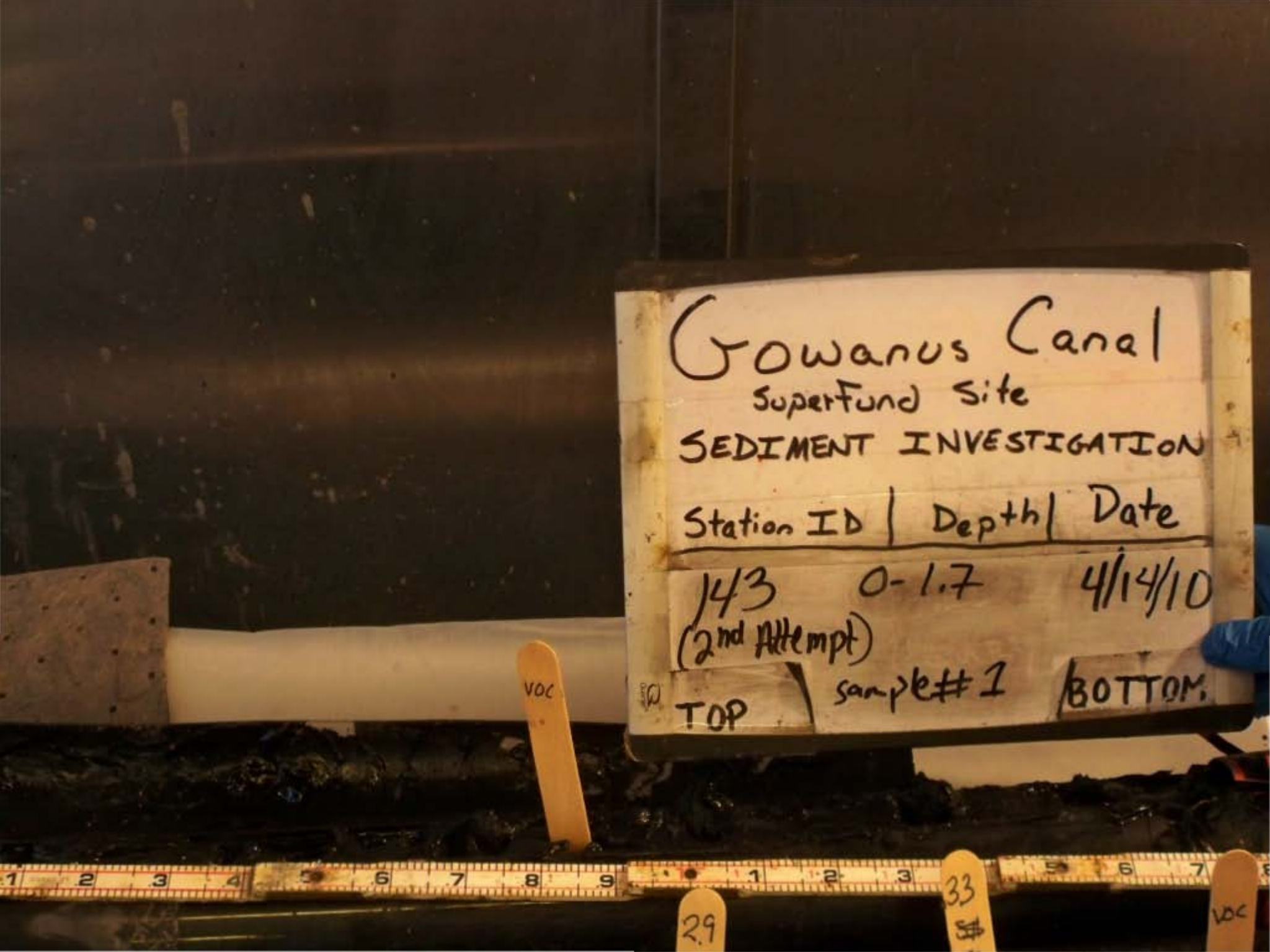

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st Attempt) 6.1-7.7 4/15/10
TOP | Sample 4 | BOTTOM
6.1 S# 3
VOC
VOC
6.1 S#

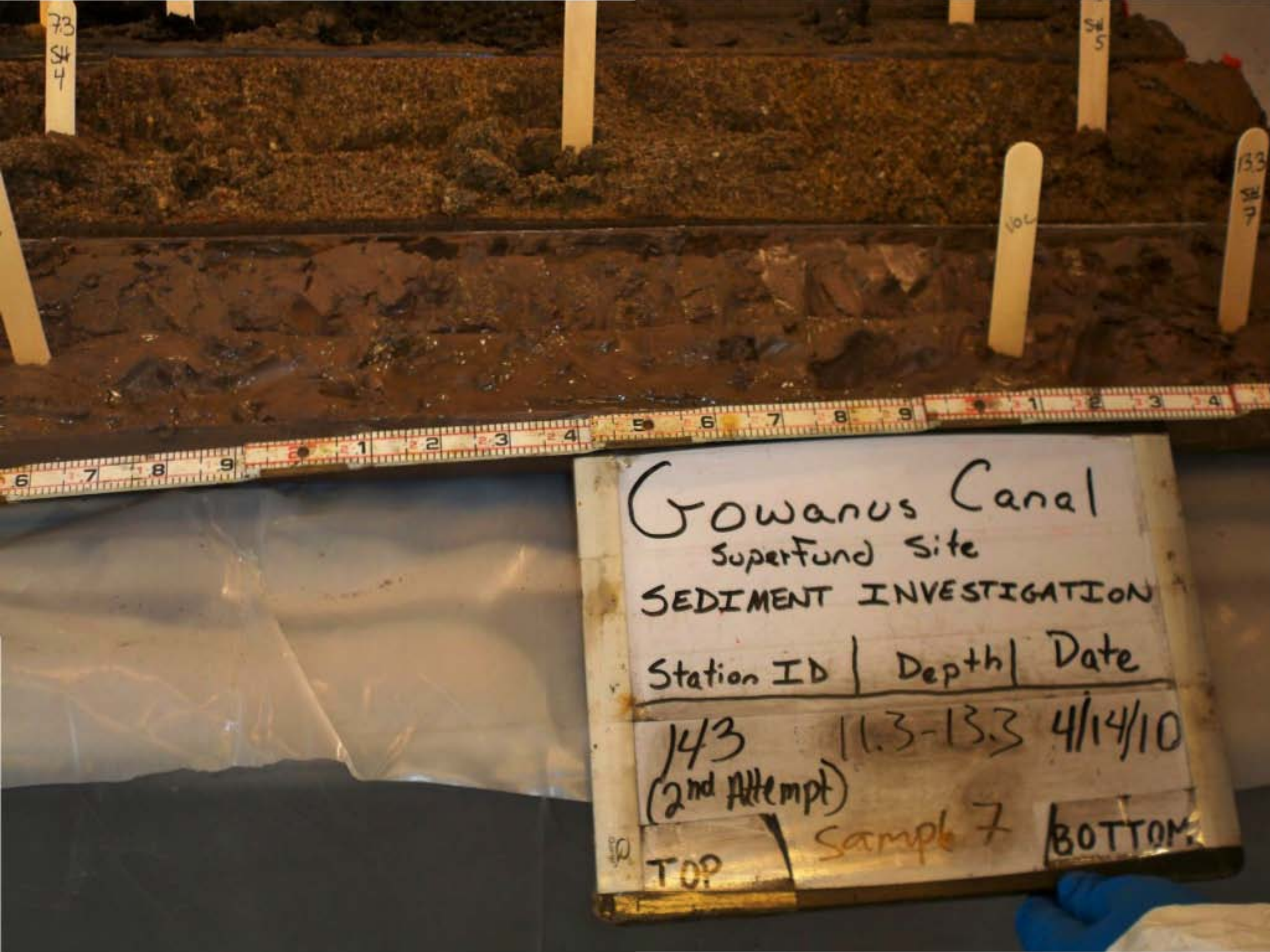

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 7.7-8.1 4/15/10
(1st Attempt)
TOP
Sample 4
BOTTOM
4.1
TZ
8.1
SH
4

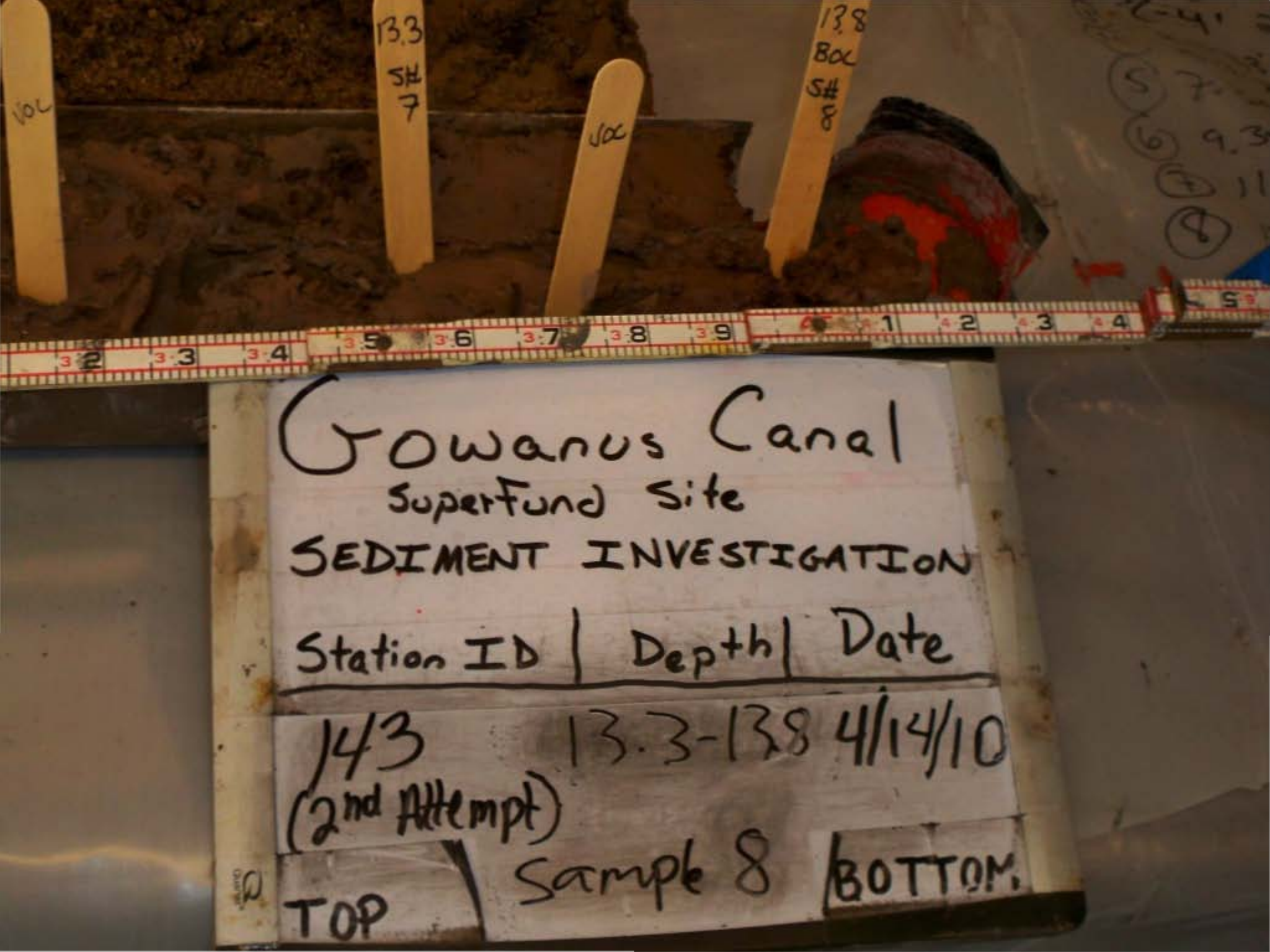

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st Attempt) 8.1-10.1 4/15/10
TOP
BOTTOM

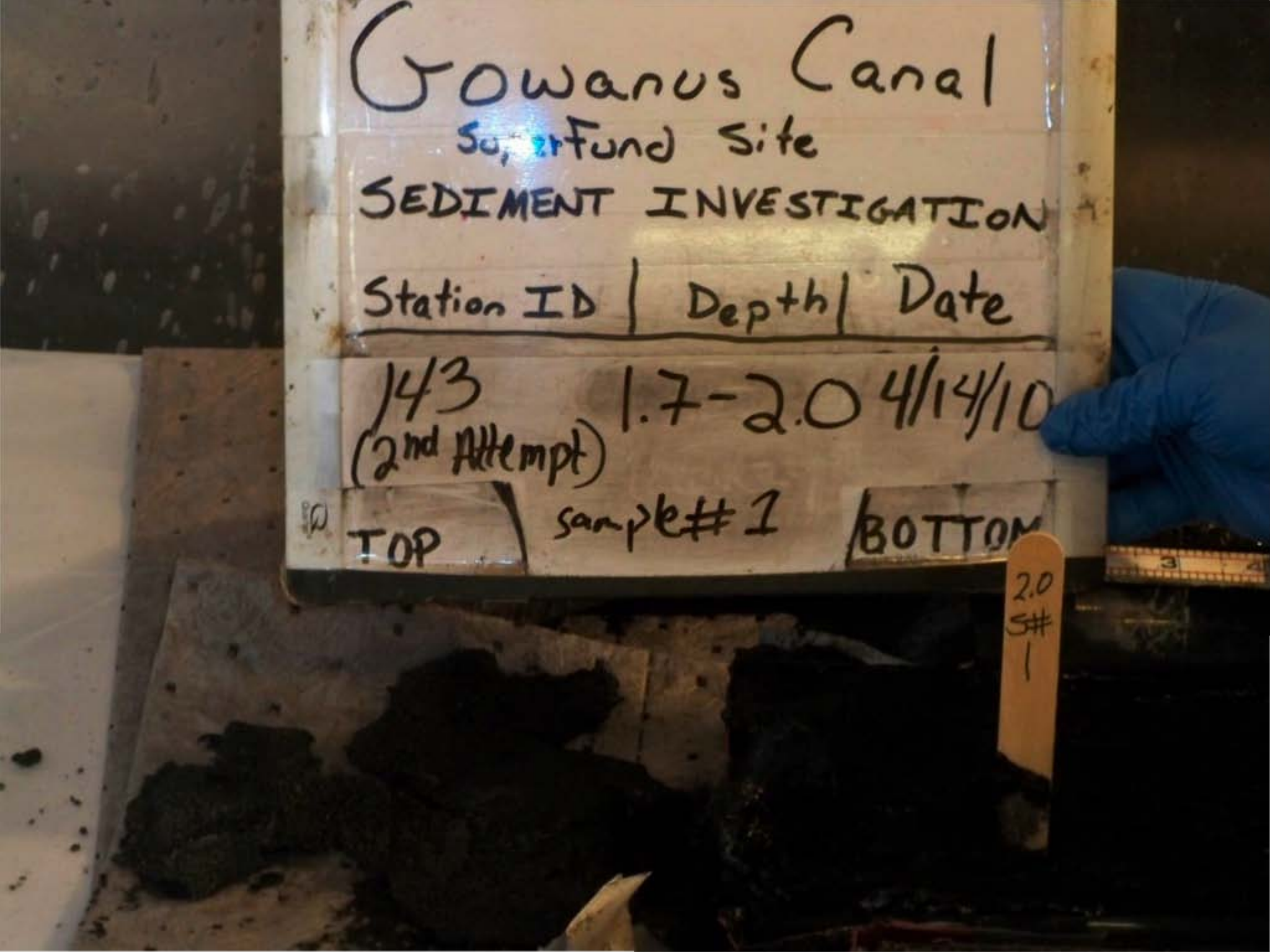

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st Attempt) FULL RECOVERY 4/15/10
TOP
BOTTOM

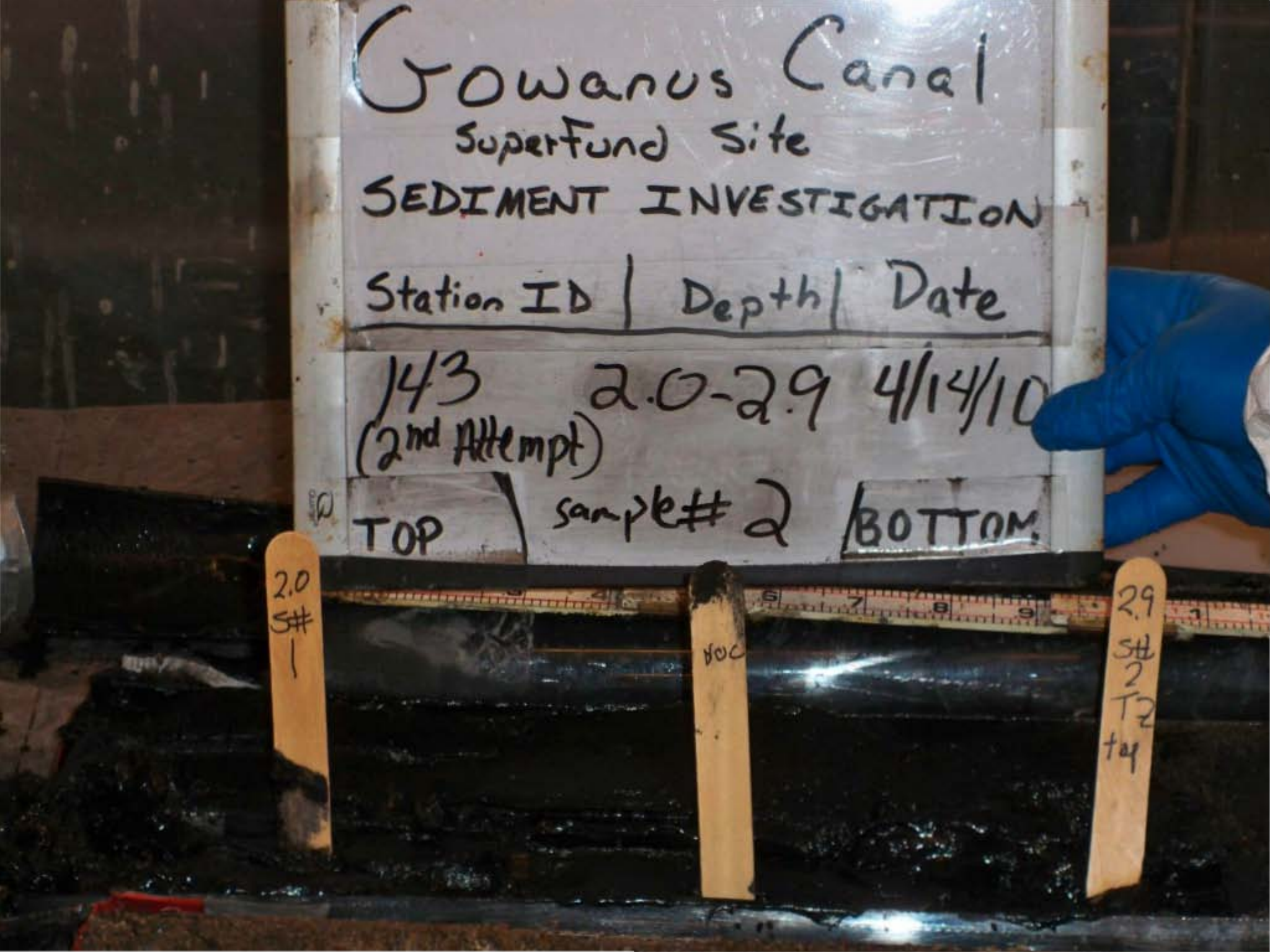

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14/3 (2nd Attempt) FULL Recovery 4/14/10
TOP
BOTTOM

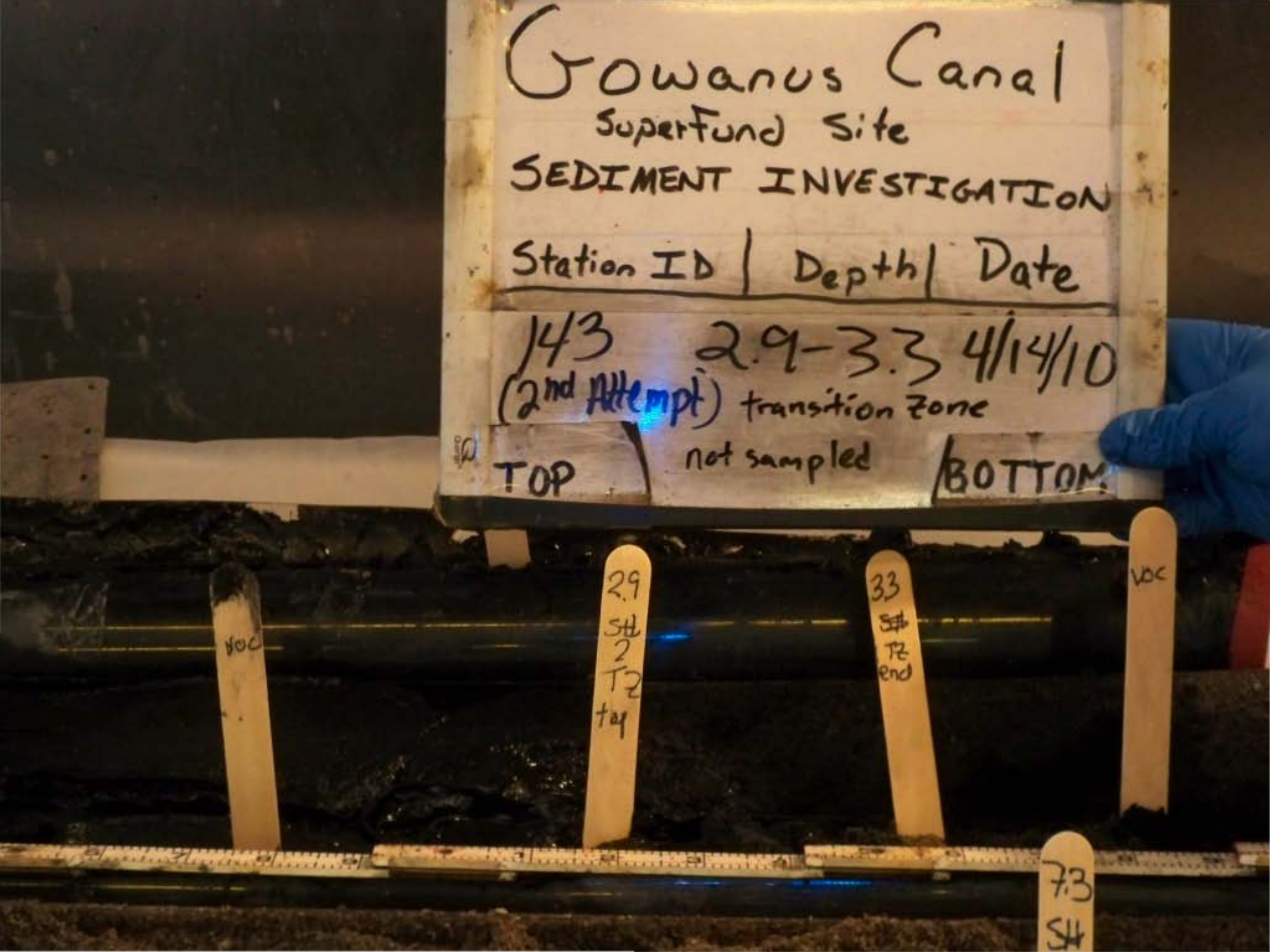

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 (2nd Attempt) 0-1.7 4/14/10
TOP sample#1 BOTTOM
VOC
29
33
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 (2nd Attempt) 11.3-13.3 4/14/10
Sample 7
TOP
BOTTOM

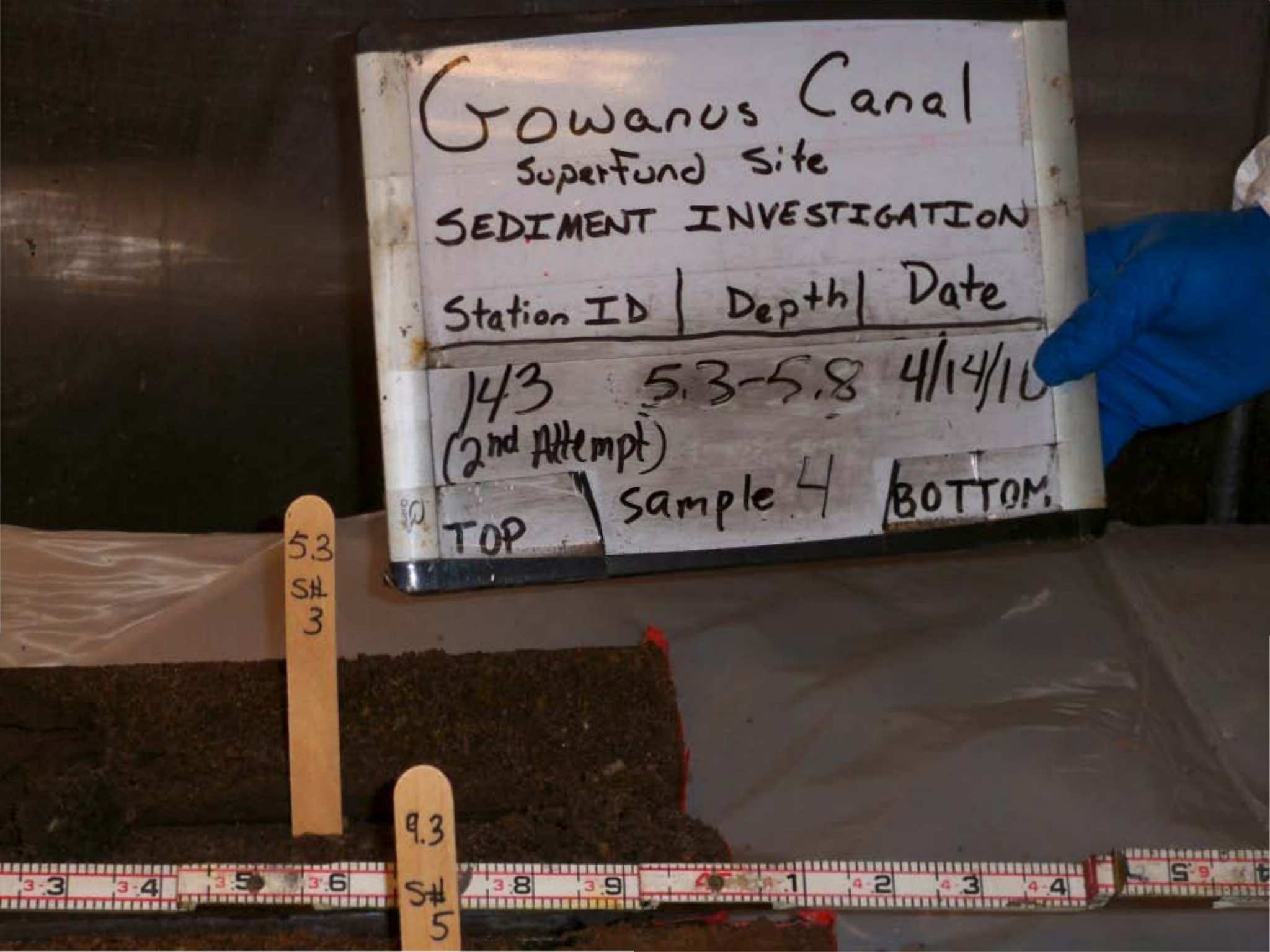

13.3
SH
7
VOC
VOC
13.8
Boc
S#
8
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 13.3-13.8 4/14/10
(2nd Attempt)
TOP Sample 8 BOTTOM

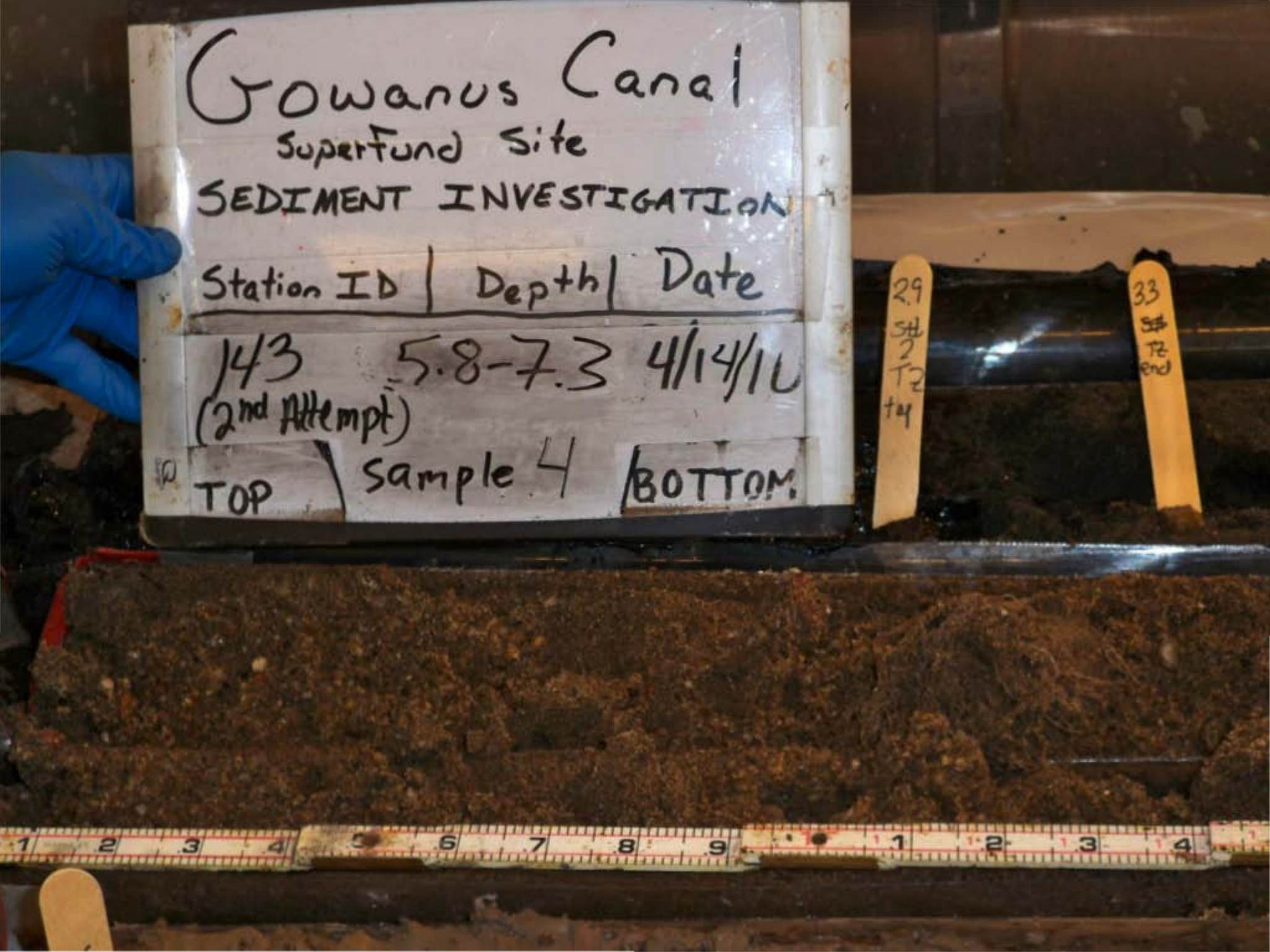

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 (2nd Attempt) 1.7-2.0 4/14/10
TOP
sample#1
BOTTOM
2.0
S#
1


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 2.0-2.9 4/14/10
(2nd Attempt)
TOP sample# 2 BOTTOM
2.0 S# 1
VOC
2.9 S# 2 T2 tq


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 2.9-3.3 4/14/10
(2nd Attempt) transition zone
not sampled
TOP
BOTTOM
VOC
2.9
SH
2
TZ
top
33
SH
TZ
end
VOC
7.3
SH

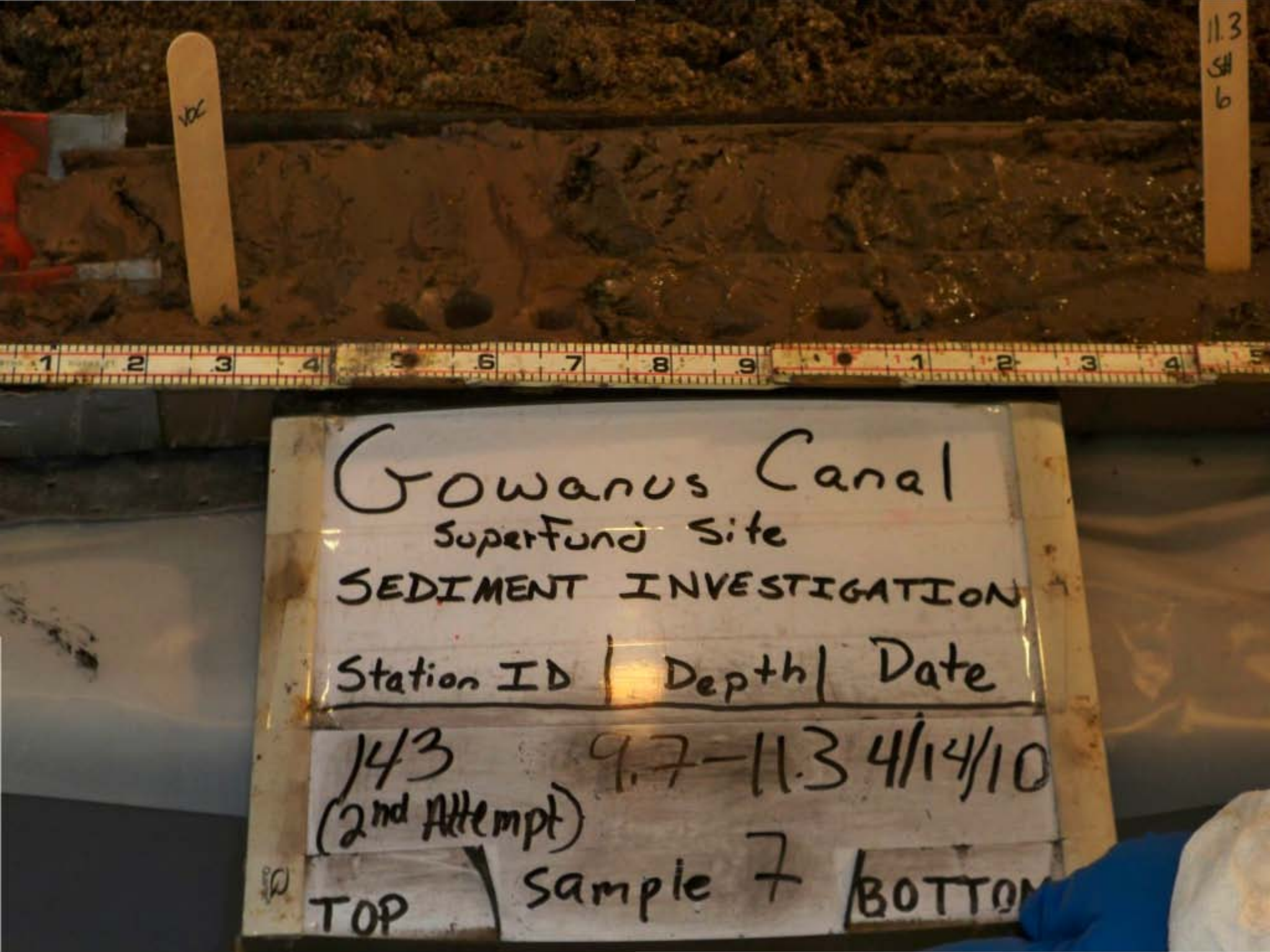

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 3.3-5.3 4/14/10
(2nd Attempt)
TOP | Sample 3 | BOTTOM

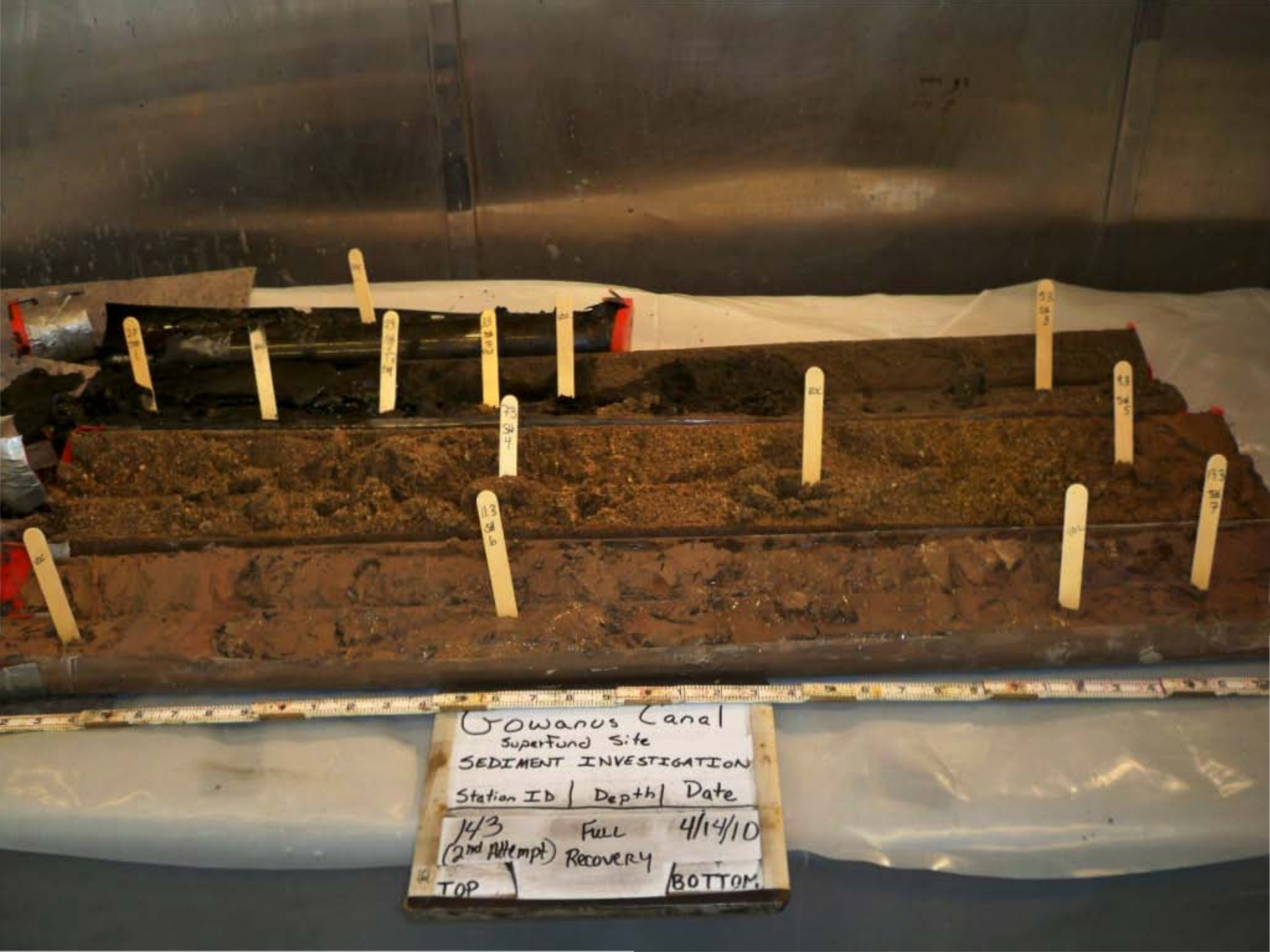

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 5.3-5.8 4/14/10
(2nd Attempt)
TOP | Sample 4 | BOTTOM
5.3
St
3
9.3
St
5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 5.8-7.3 4/14/10
(2nd Attempt)
TOP | Sample 4 | BOTTOM
29
33

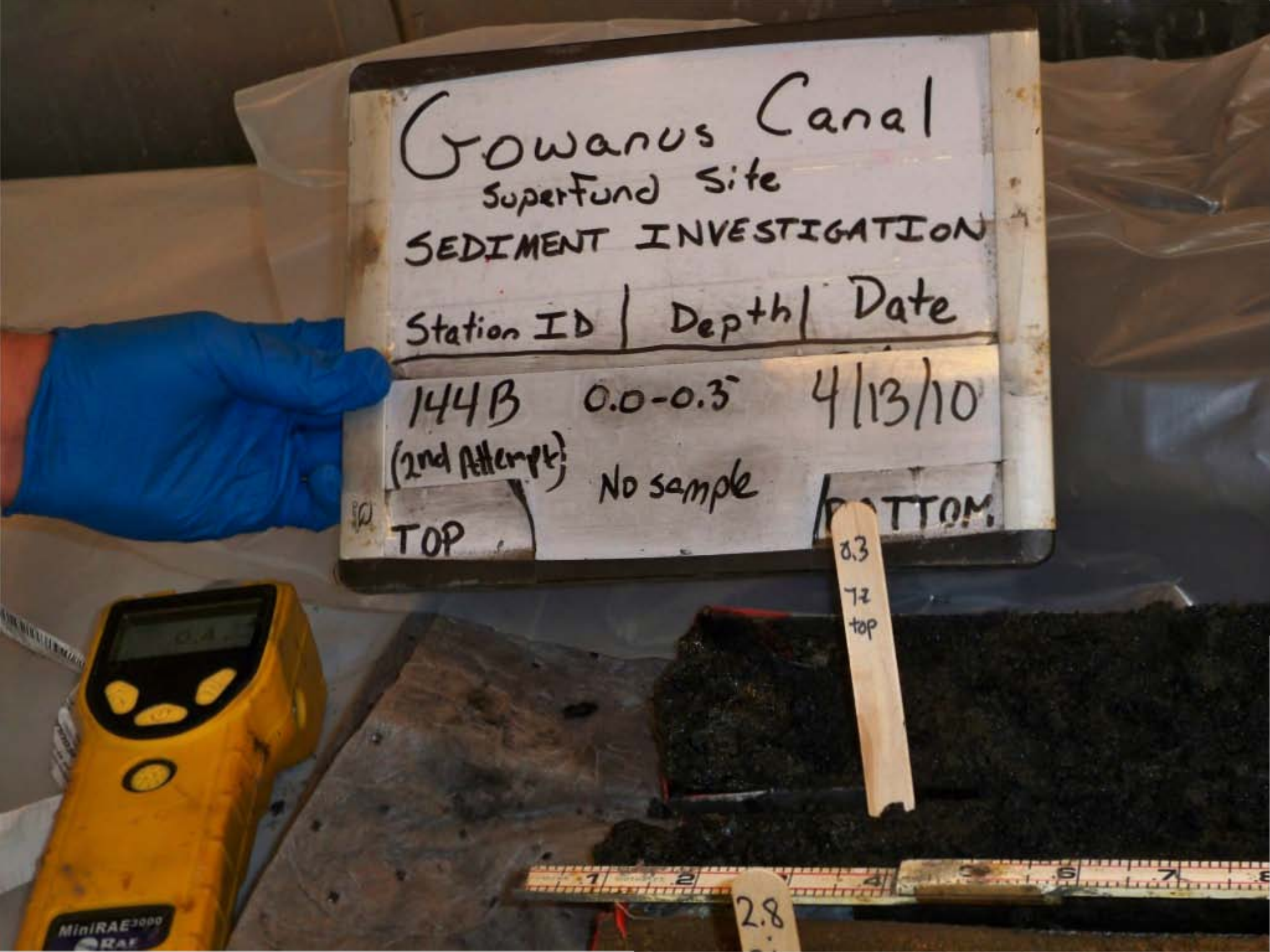

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 7.3-9.3 4/14/10
(2nd Attempt)
TOP Sample 5 BOTTOM
VOC
VOC
VOC
9.3
S#
5

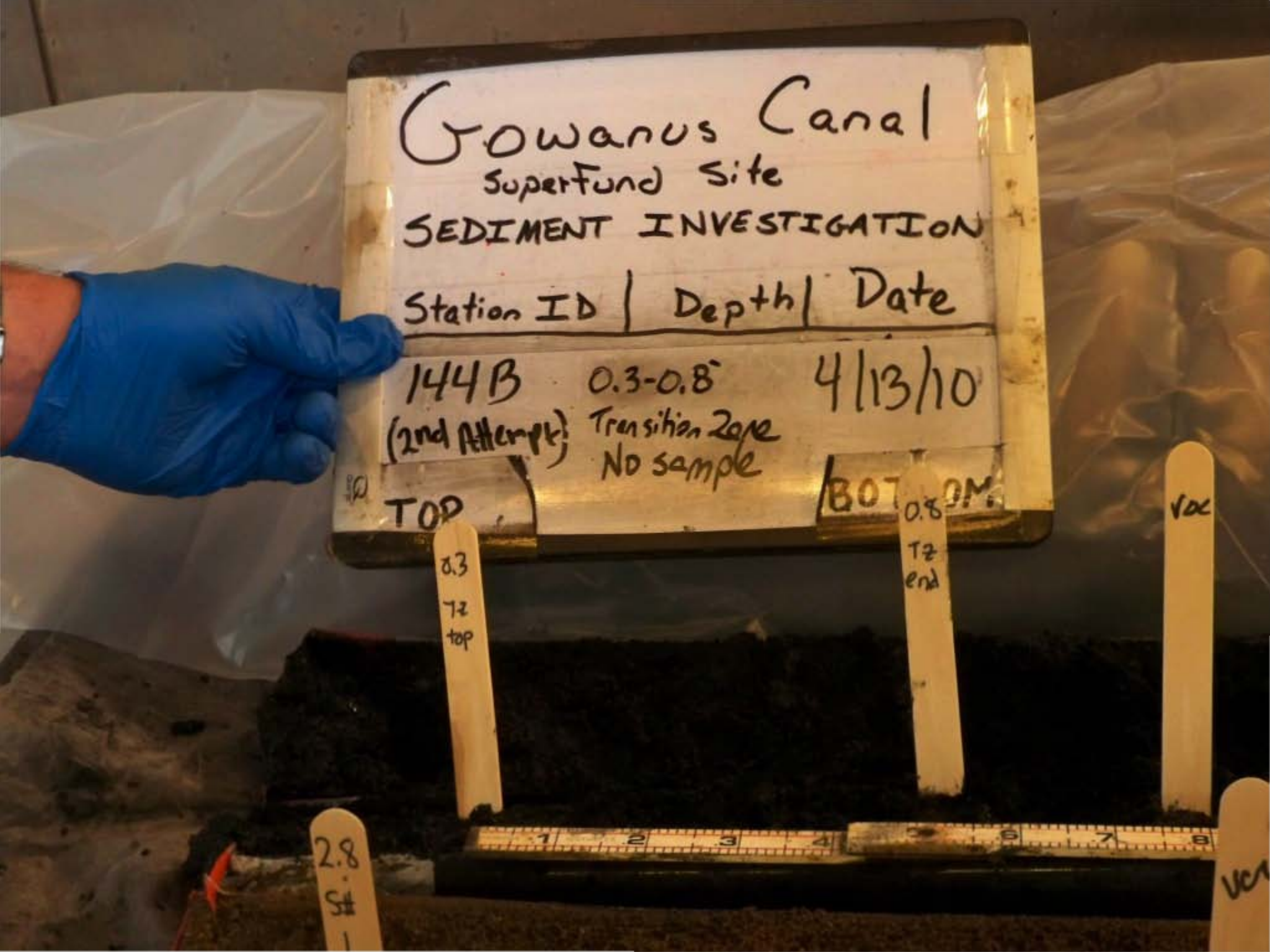

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 (2nd Attempt) 9.3-9.7 4/14/10
TOP | Sample 6 | BOTTOM
5.3 S# 3
9.3 S# 5
13.8 BOC S# 8


11.3
SH
6
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
143 9.7-11.3 4/14/10
(2nd Attempt)
TOP Sample 7 BOTTO


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1/3 (2nd Attempt) FULL RECOVERY 4/14/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B (2nd Attempt) FULL RECOVERY 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B 0.0-0.3' 4/13/10
(2nd Attempt)
No sample
TOP
BOTTOM
0.3
TZ
top
2.8
MiniRAE3000

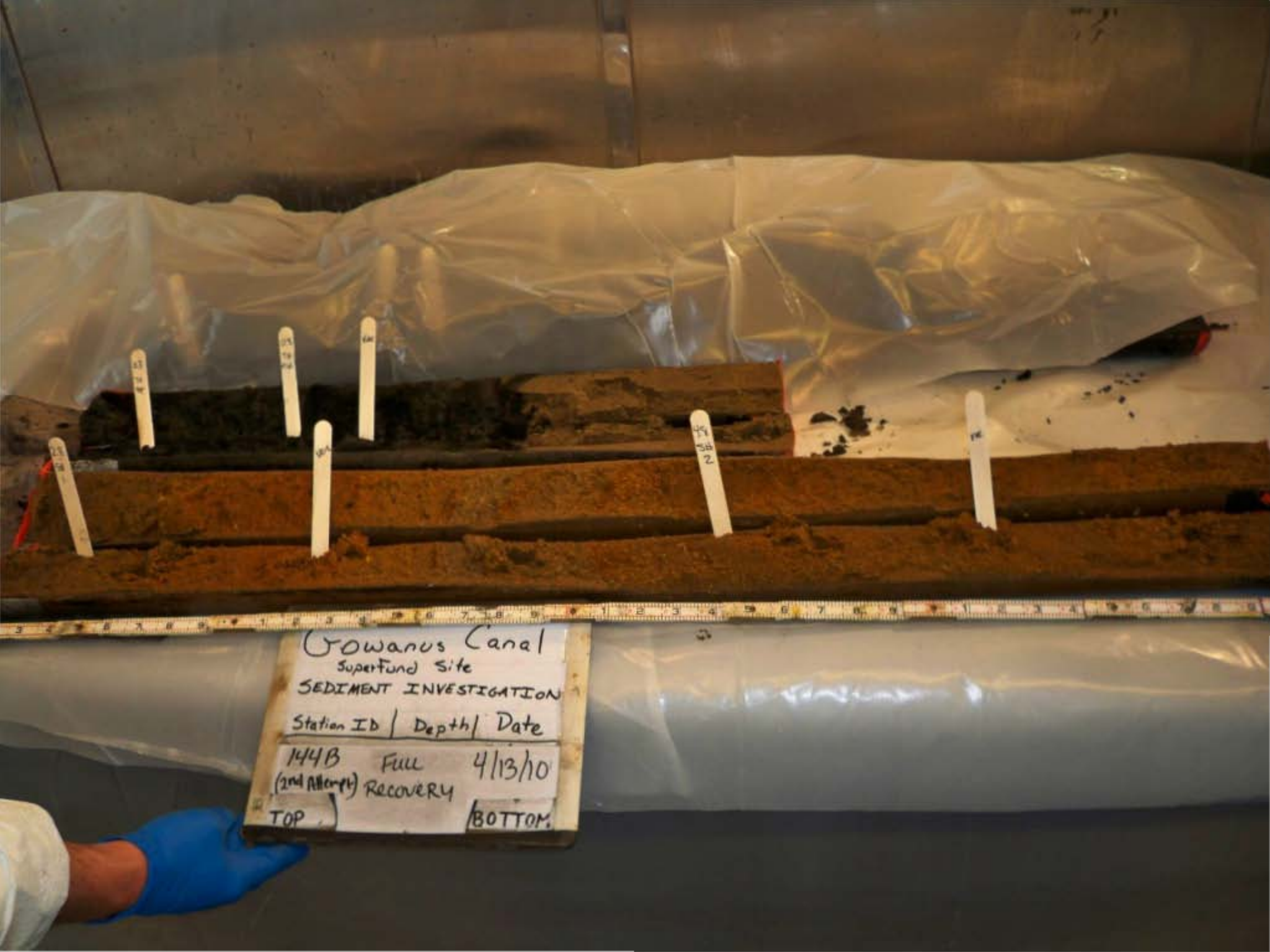

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B
(2nd Attempt)
0.3-0.8
Transition Zone
No sample
4/13/10
TOP
BOTTOM
0.3
Tz
top
0.8
Tz
end
VOC
2.8
S#


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B 0.8-2.5' 4/13/10
(2nd Attempt) Sample
#1
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B (2nd Attempt) 2.5-2.8' 4/13/10
TOP
Sample #1
BOTTOM
2.8 S# 1
0.8 TZ end
GhostDuster

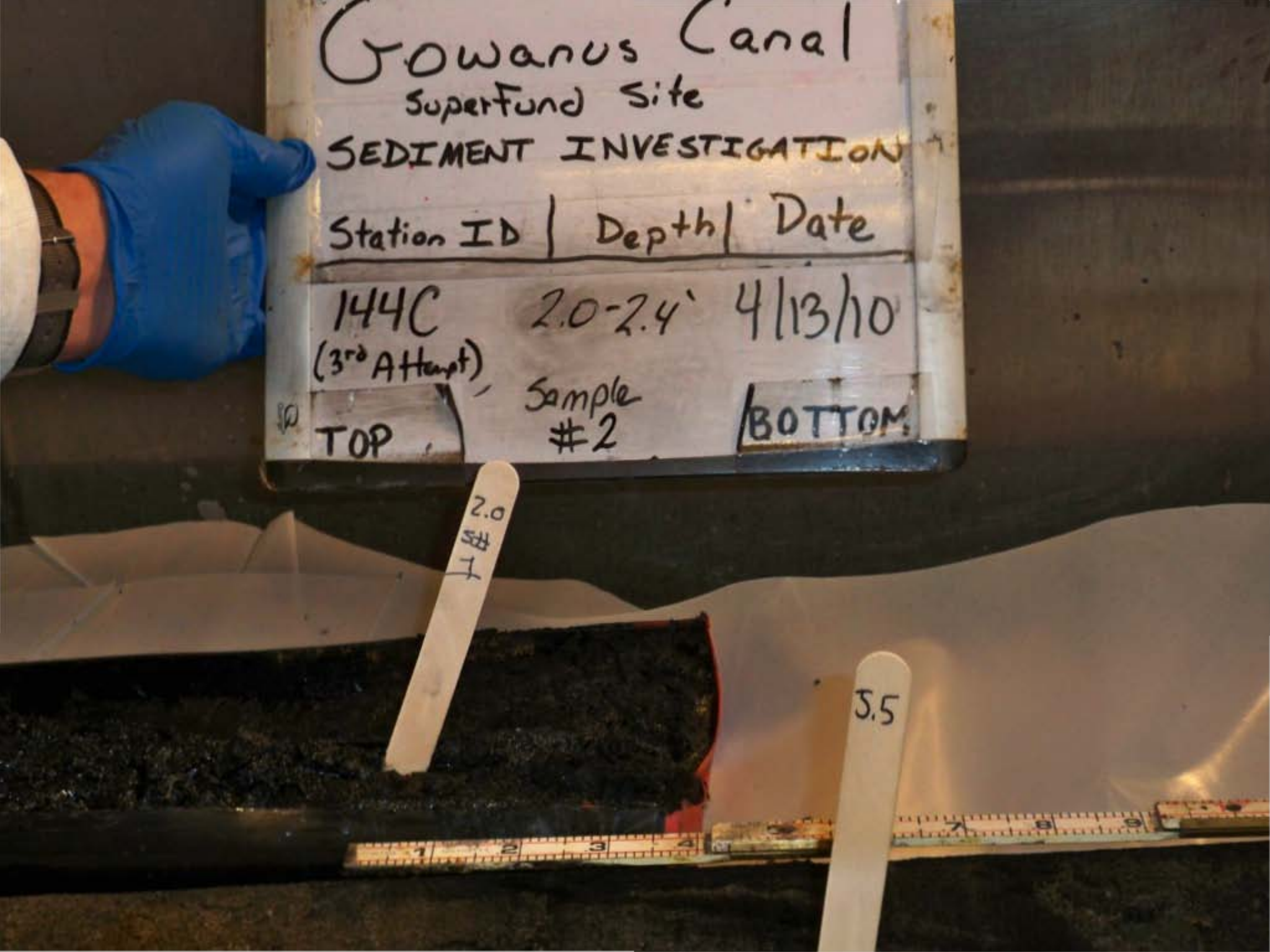

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B (2nd Attempt) | 2.8-4.8 | 4/13/10
Sample #2
TOP
BOTTOM

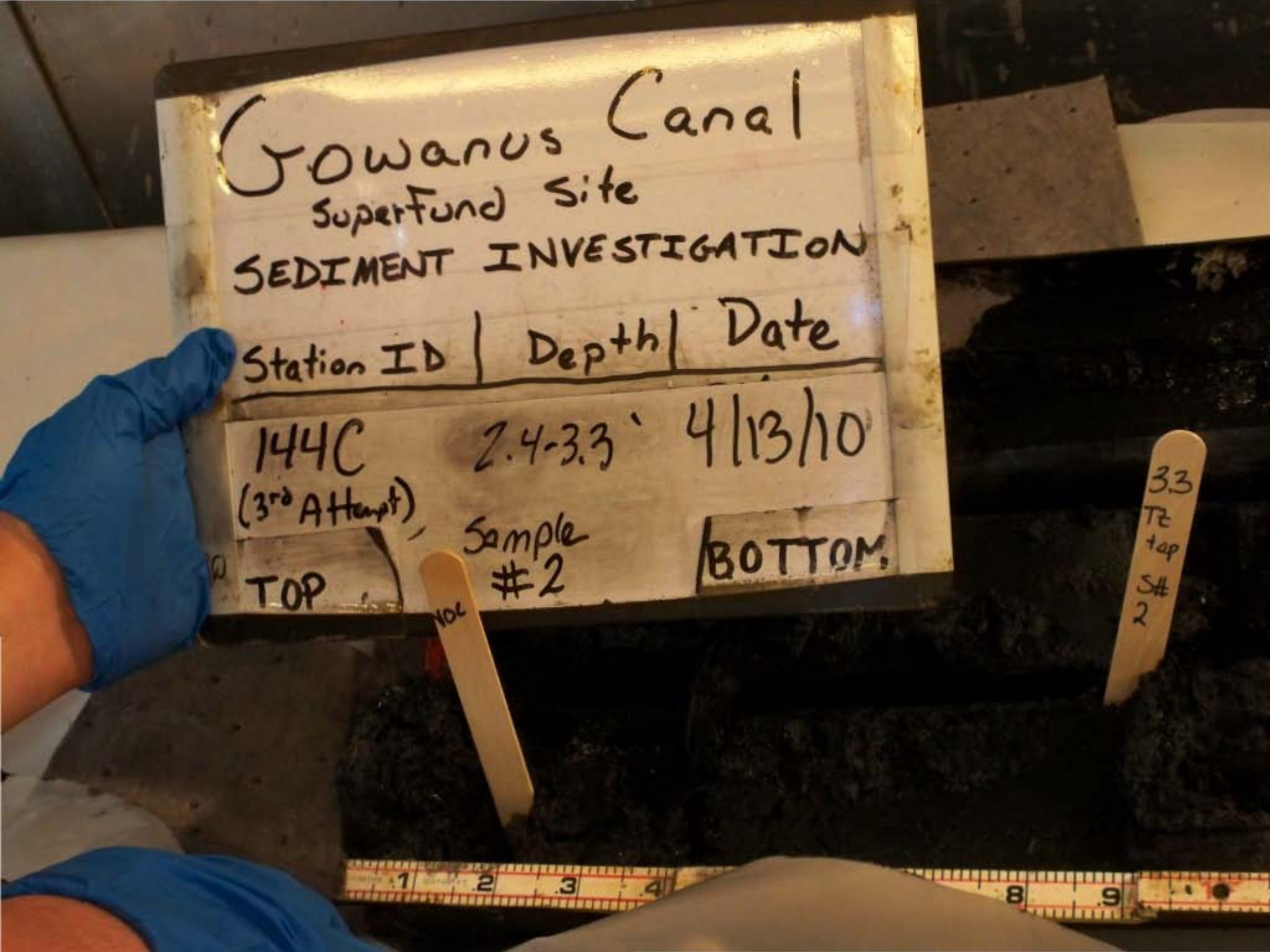

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B (2nd Attempt) 4.8-6.5 4/13/10
Sample #3
TOP
BOTTOM

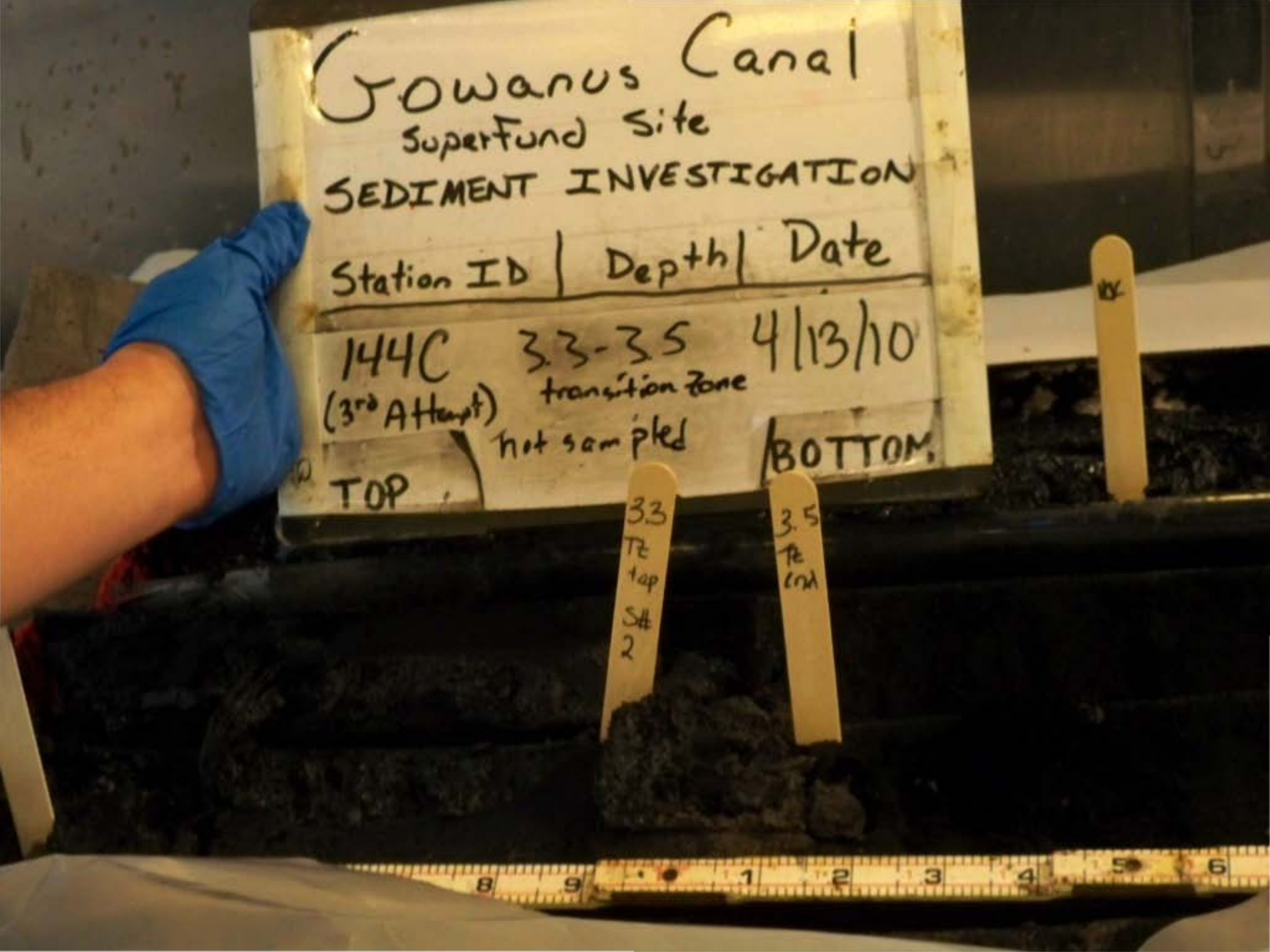

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B (2nd Attempt) Full Recovery 4/13/10
TOP
BOTTOM

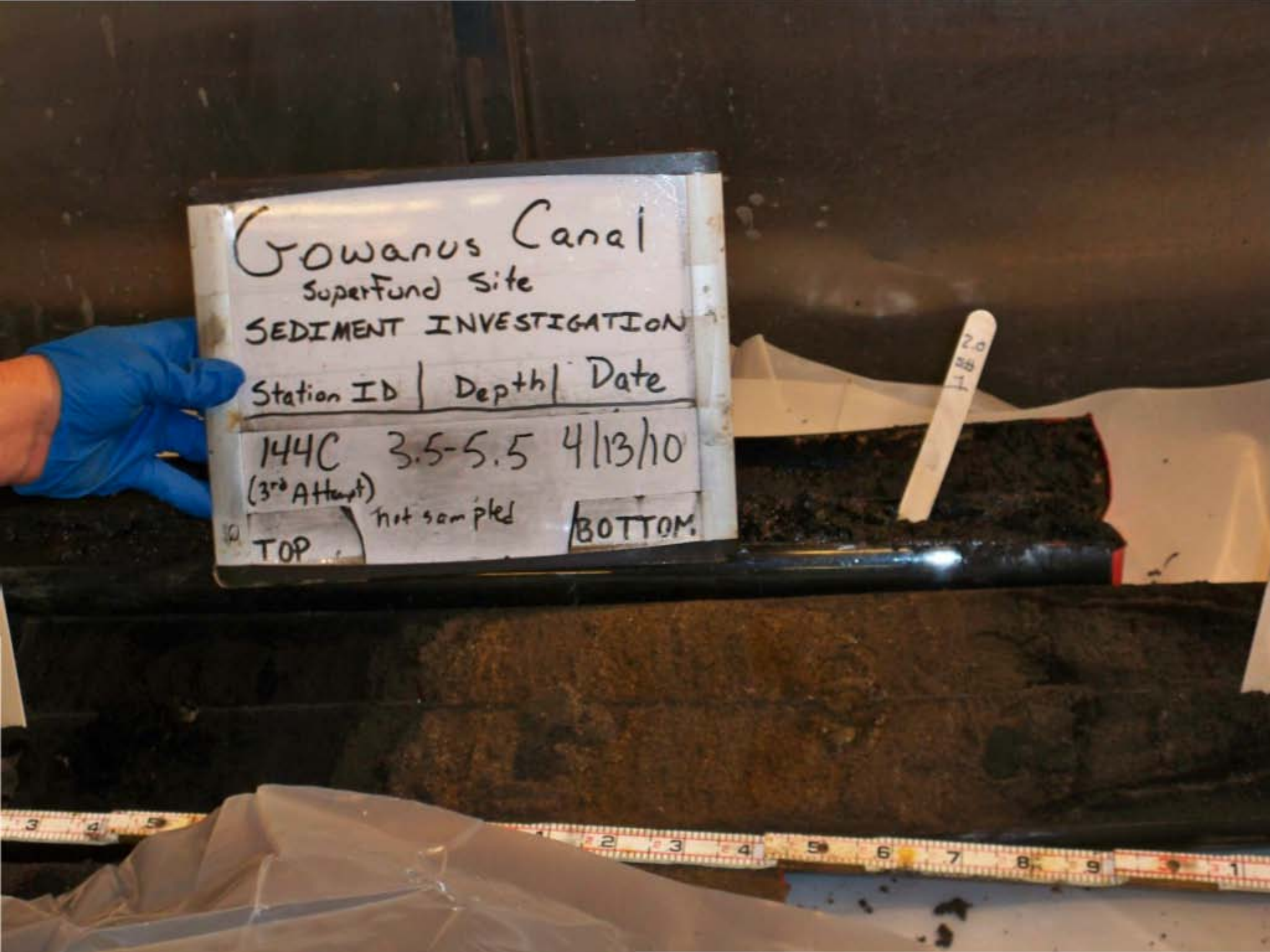

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C (3rd Attempt) Full Recovery 4/13/10
TOP
BOTTOM

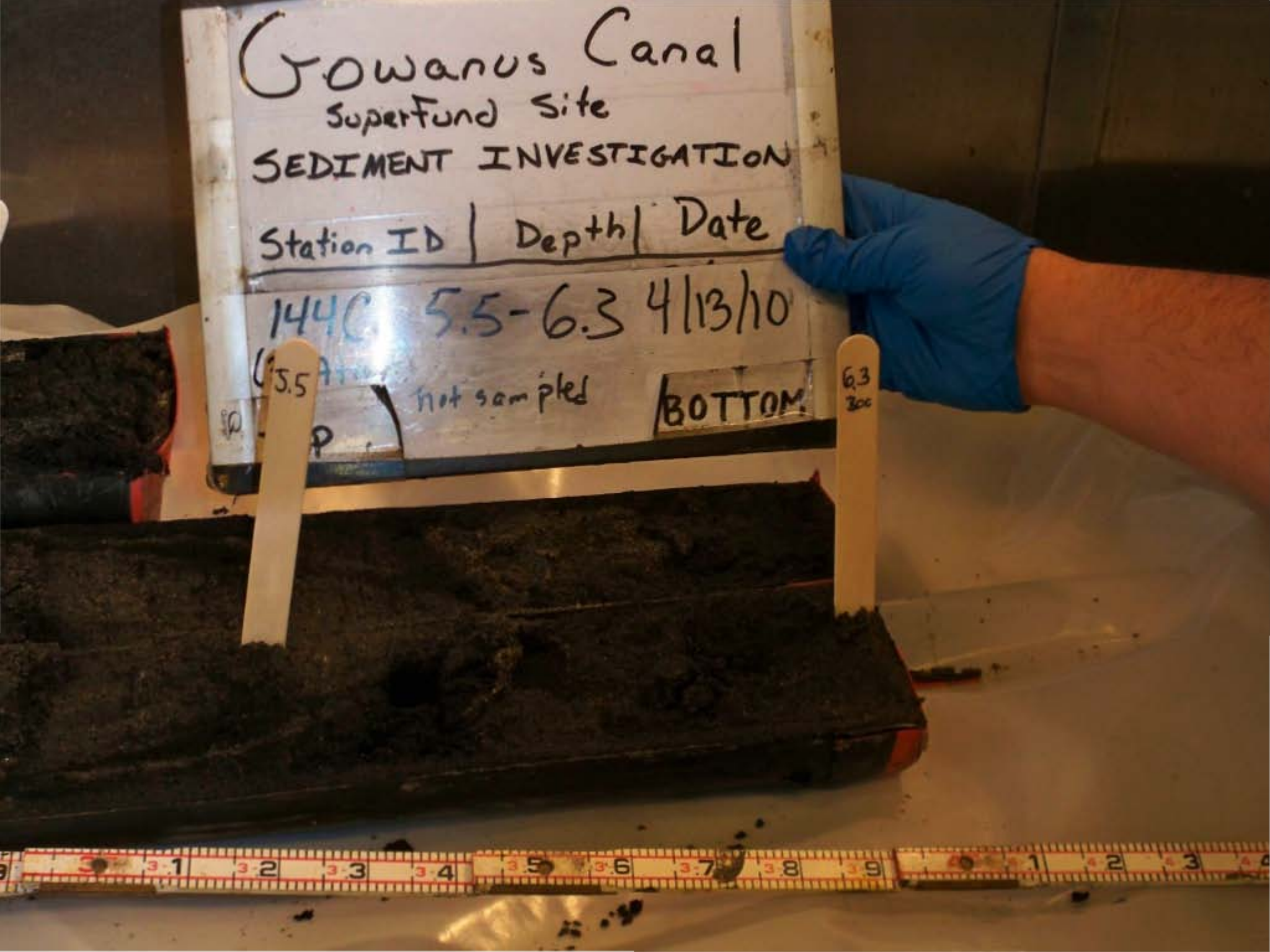

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C (3rd Attempt) 0.0-2.0' 4/13/10
Sample #1
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C 2.0-2.4' 4/13/10
(3rd Attempt)
TOP
Sample #2
BOTTOM
2.0 SH 1
3.5

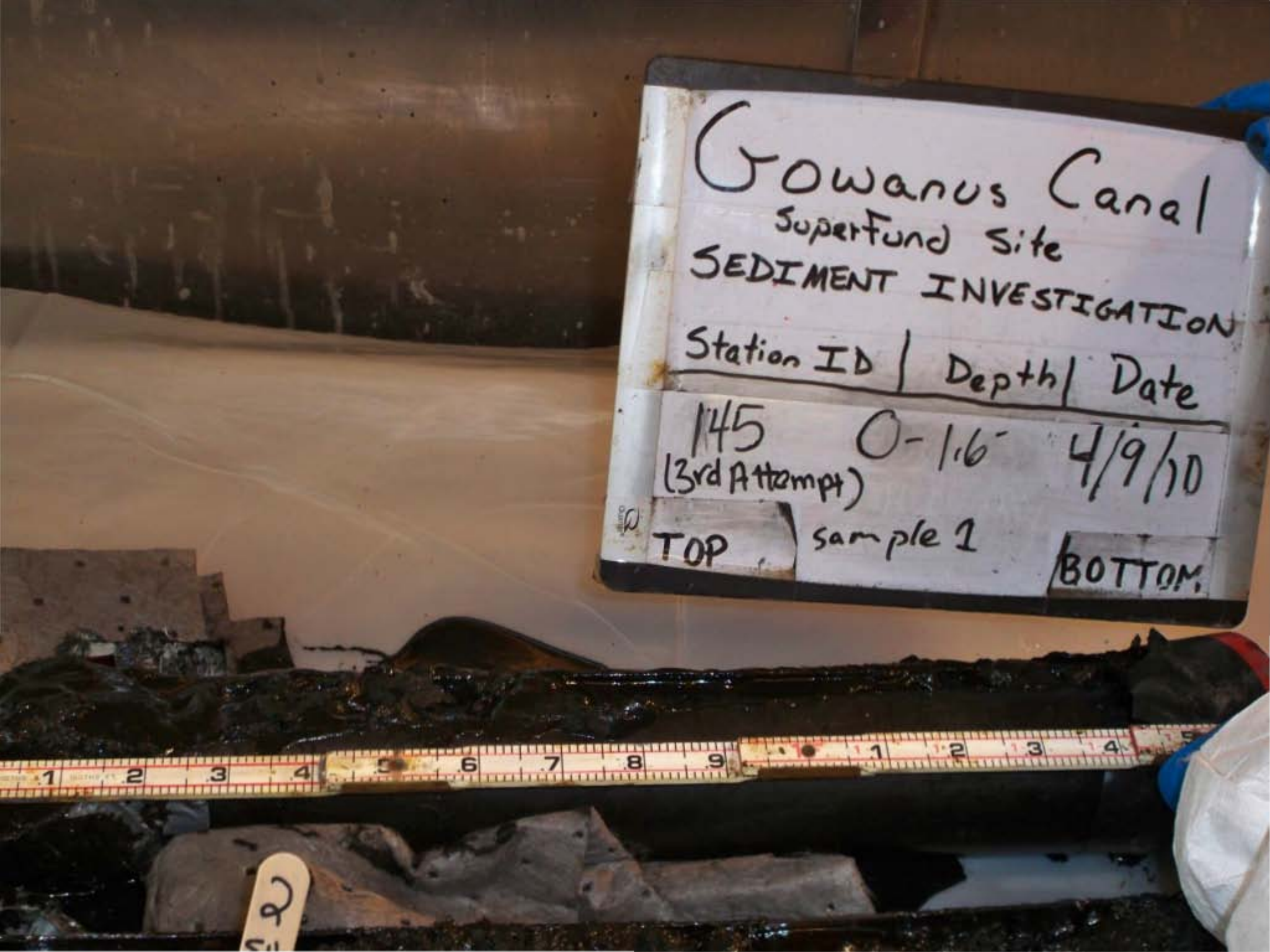

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C (3rd Attempt) 2.4-3.3' 4/13/10
TOP
Sample #2
BOTTOM
3.3 Tt top S# 2

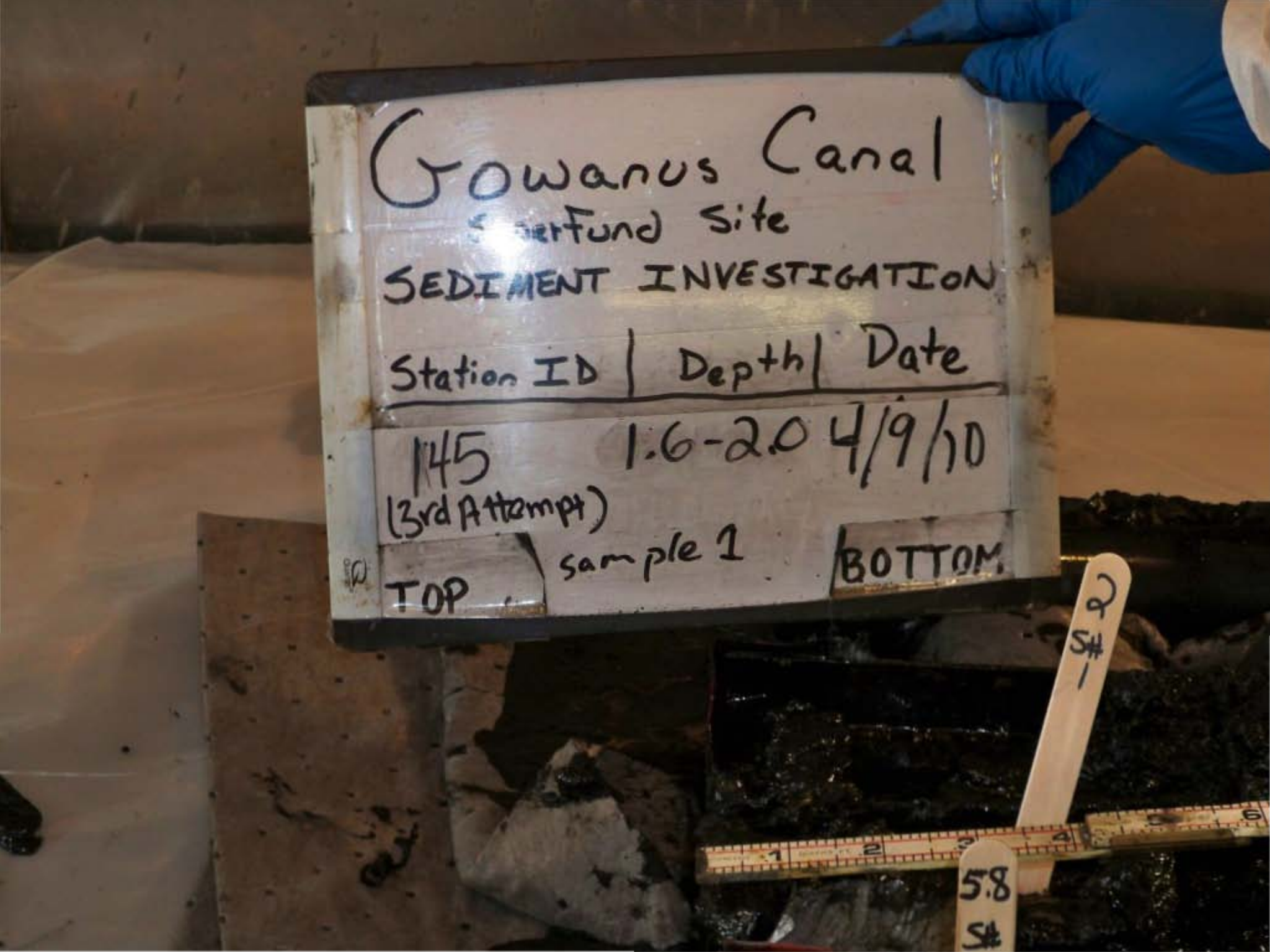

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C 3.3-3.5 4/13/10
(3rd Attempt) transition zone
not sampled
TOP
BOTTOM
3.3 Ft top Sft 2
3.5 Ft Core

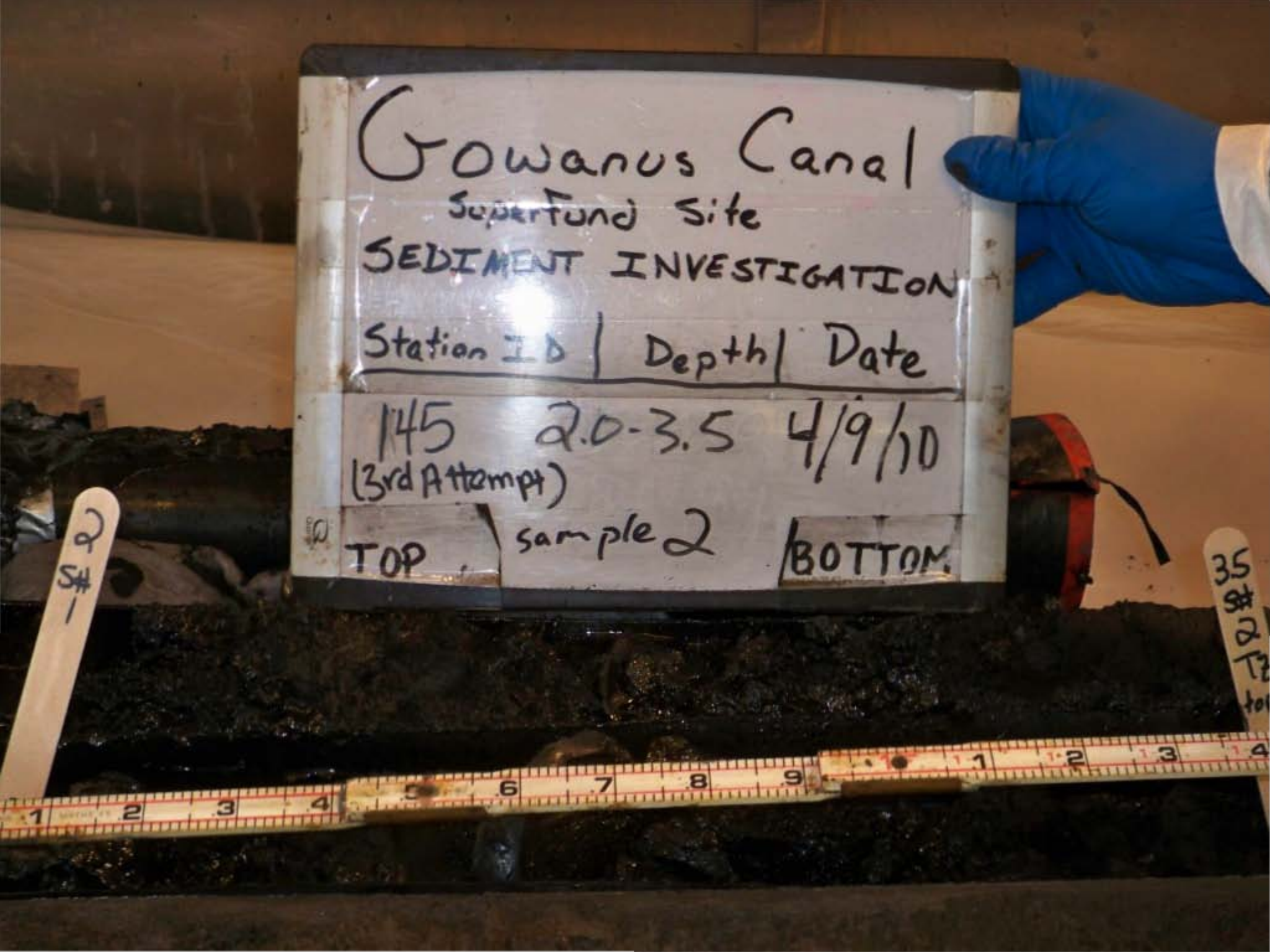

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C 3.5-5.5 4/13/10
(3rd Attempt)
not sampled
TOP
BOTTOM

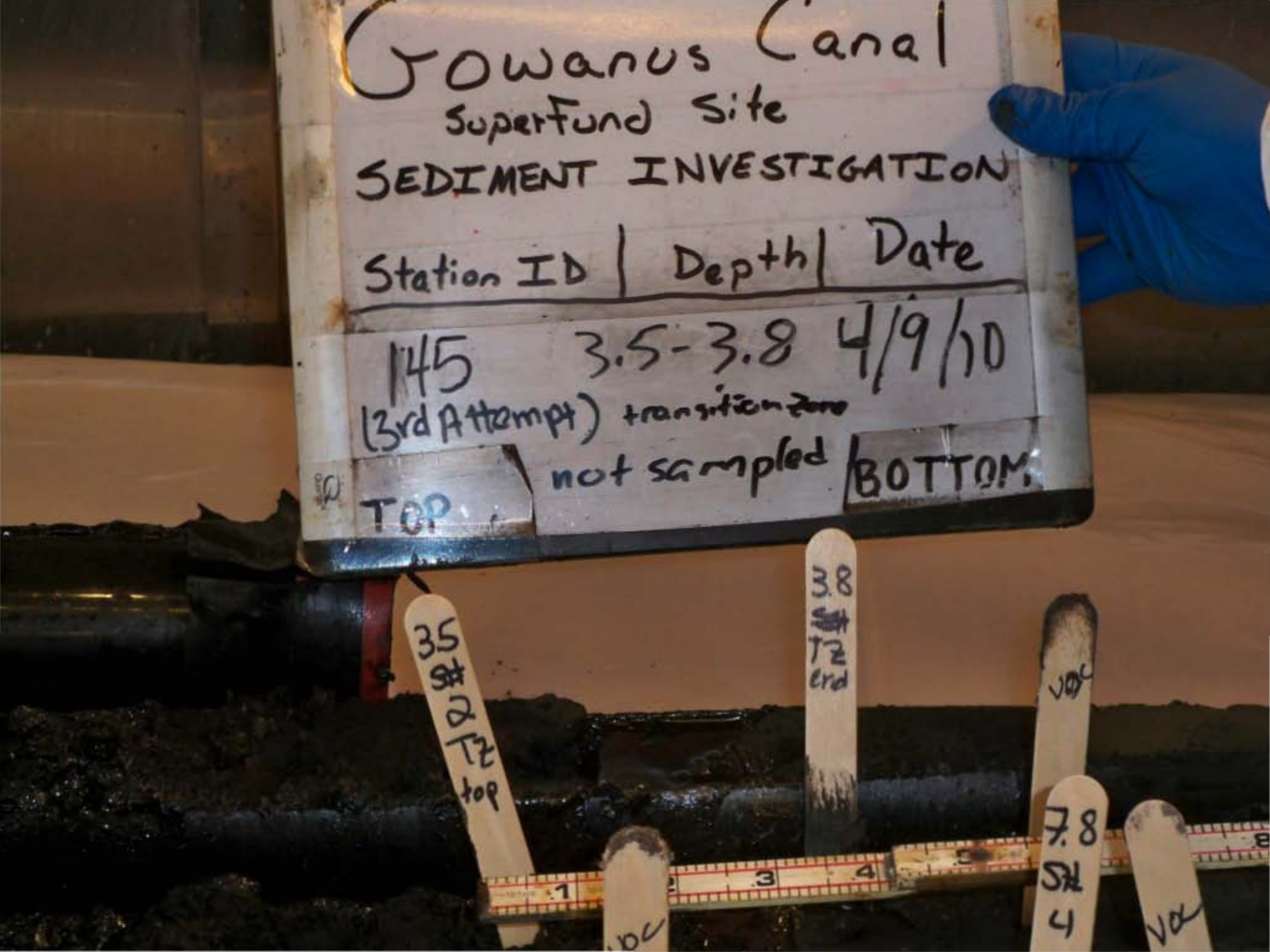

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C 5.5-6.3 4/13/10
not sampled
BOTTOM
5.5
6.3

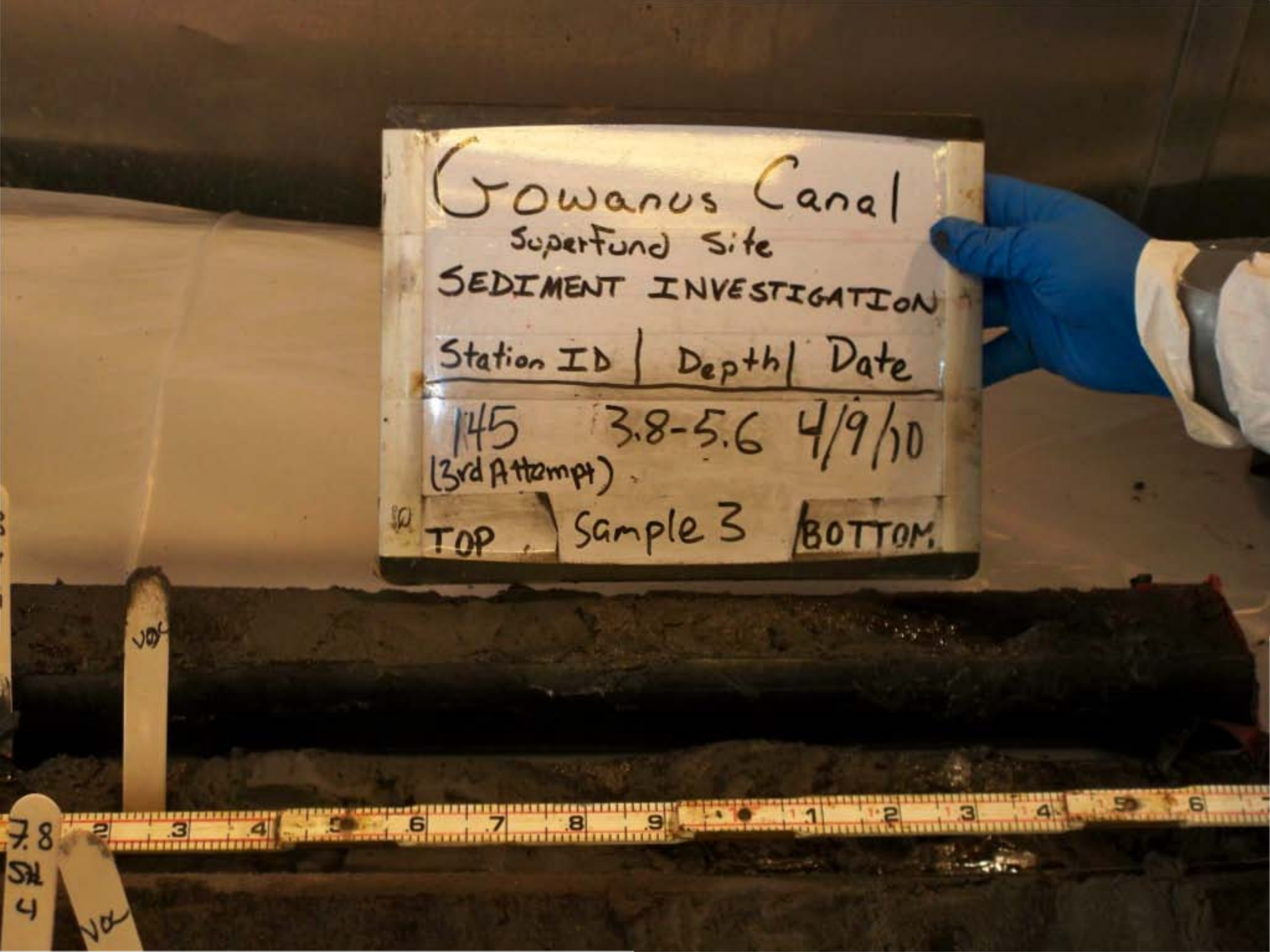

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C
(3rd Attempt)
Full
Recovery
4/13/10
TOP
BOTTOM

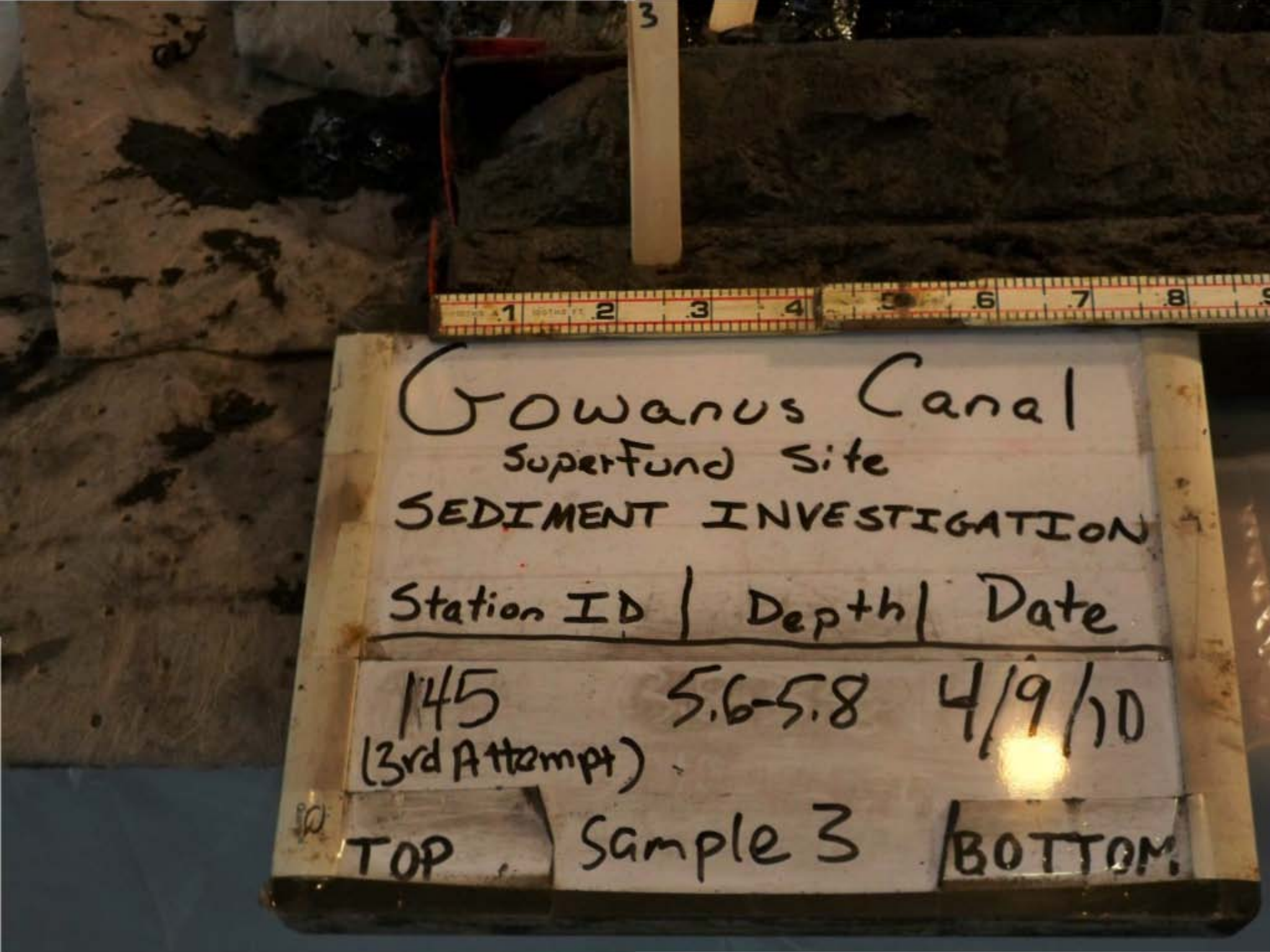

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 (3rd Attempt) 0-1.6' 4/9/10
TOP
sample 1
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 1.6-2.0 4/9/10
(3rd Attempt)
TOP
sample 1
BOTTOM
2
5.8

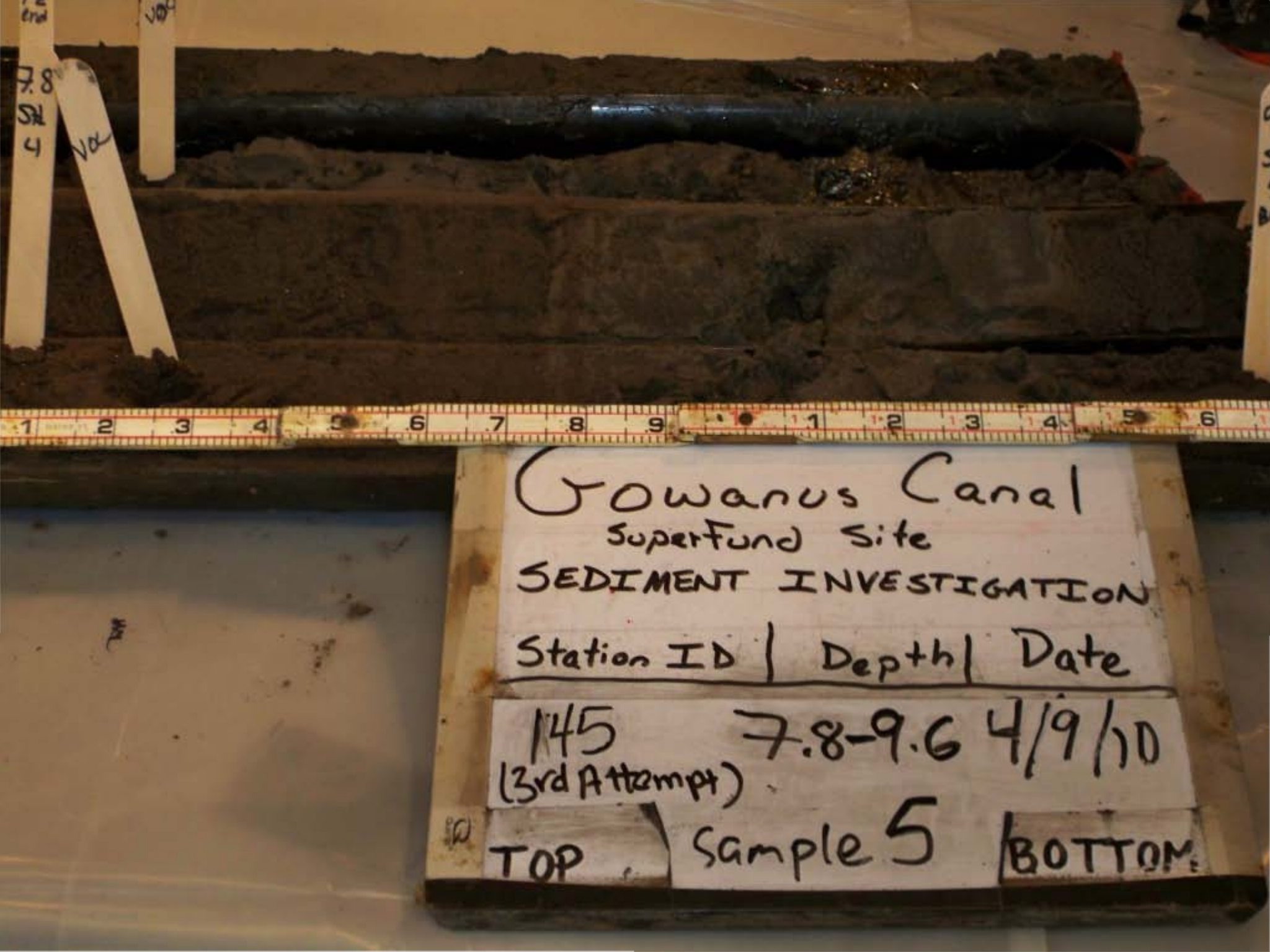

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 2.0-3.5 4/9/10
(3rd Attempt)
TOP sample 2 BOTTOM

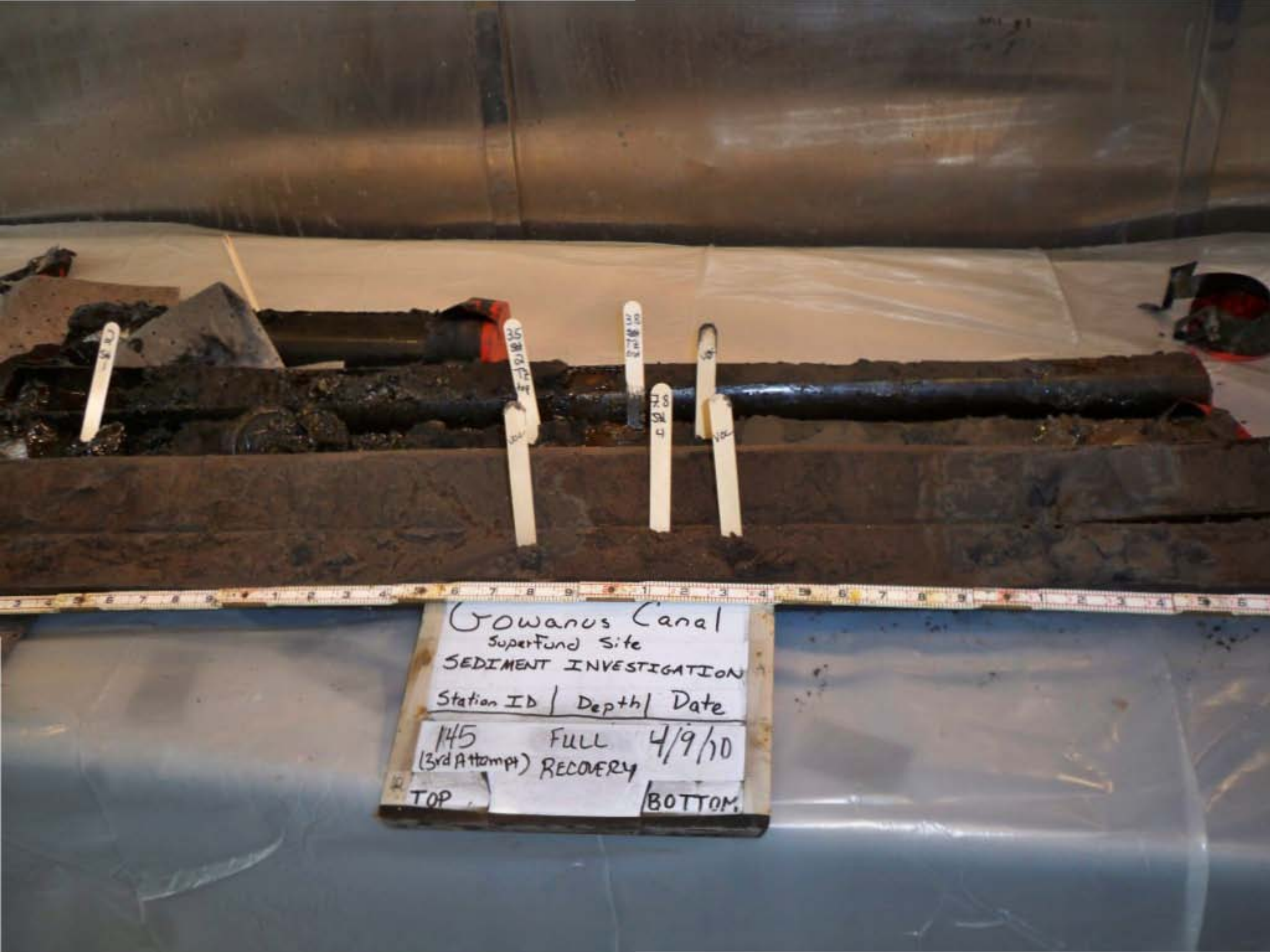

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 3.5-3.8 4/9/10
(3rd Attempt) transition zone
not sampled
TOP
BOTTOM
3.5 Sh TZ top
3.8 Sh TZ end
VOC
7.8 Sh 4
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 3.8-5.6 4/9/10
(3rd Attempt)
TOP Sample 3 BOTTOM

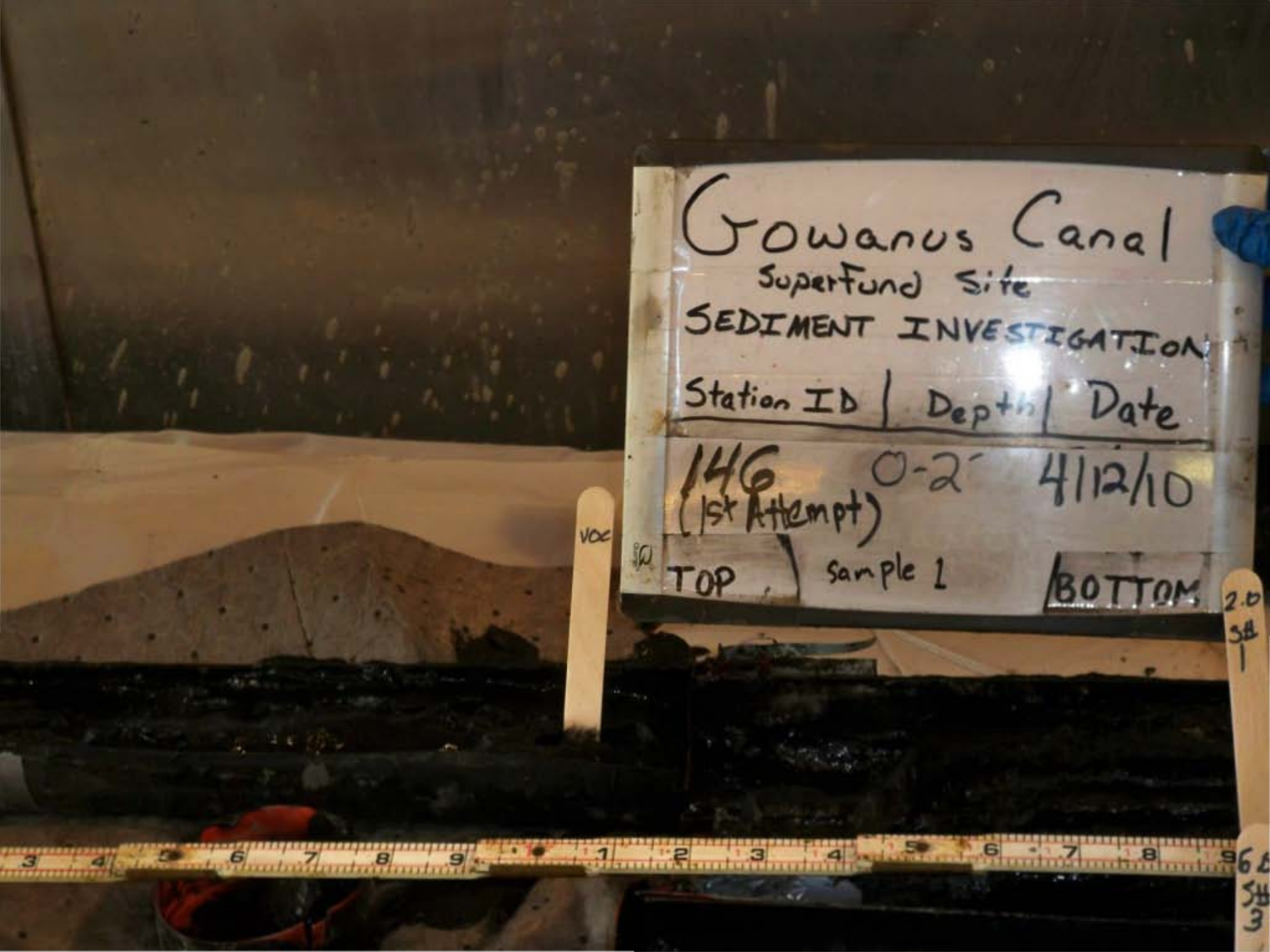

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 (3rd Attempt) 5.6-5.8 4/9/10
TOP Sample 3 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 5.8-7.8 4/9/10
(3rd Attempt)
TOP Sample 4 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 (3rd Attempt) 7.8-9.6 4/9/10
TOP Sample 5 BOTTOM

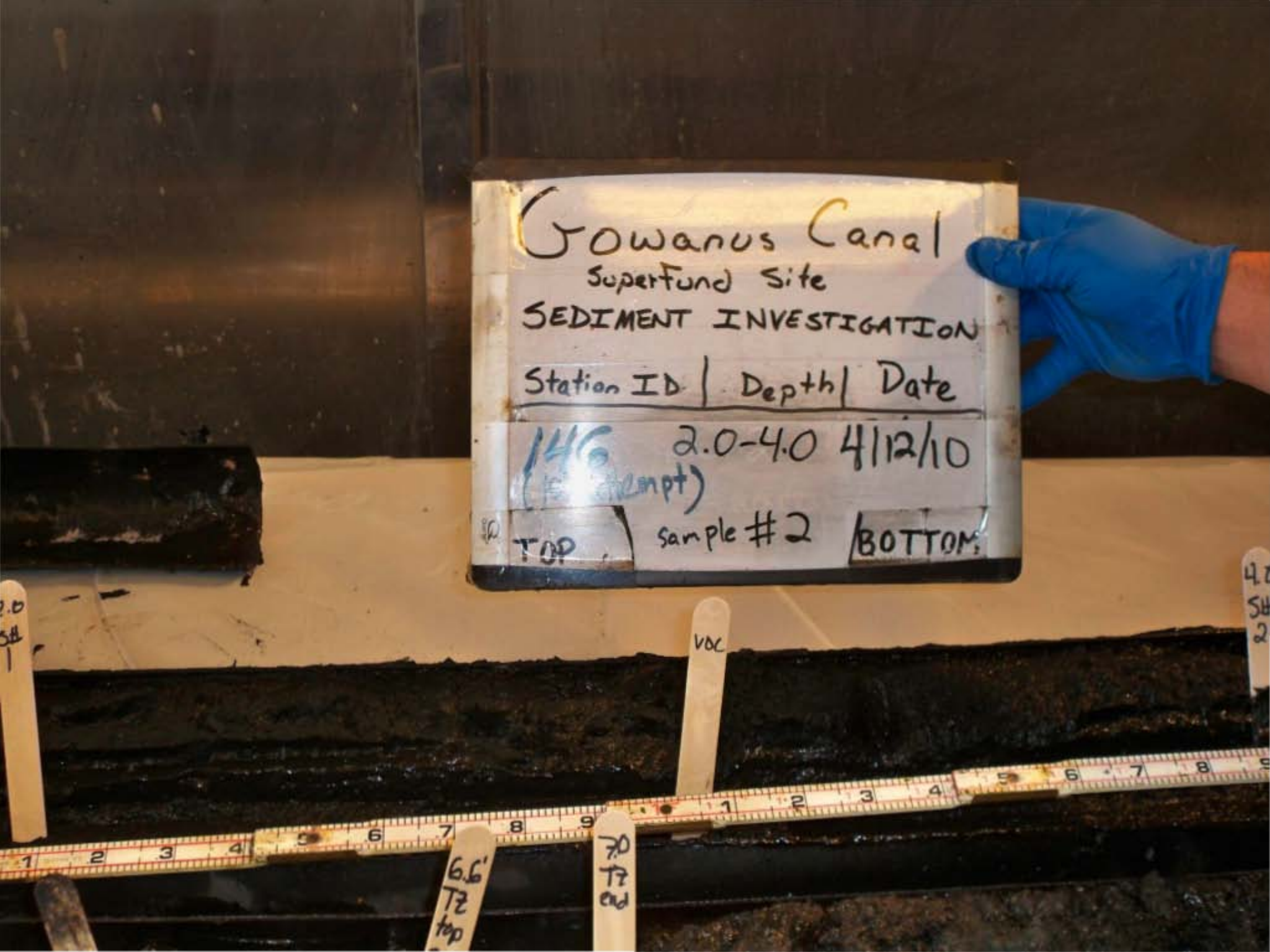

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
145 FULL 4/9/10
(3rd Attempt) RECOVERY
TOP
BOTTOM

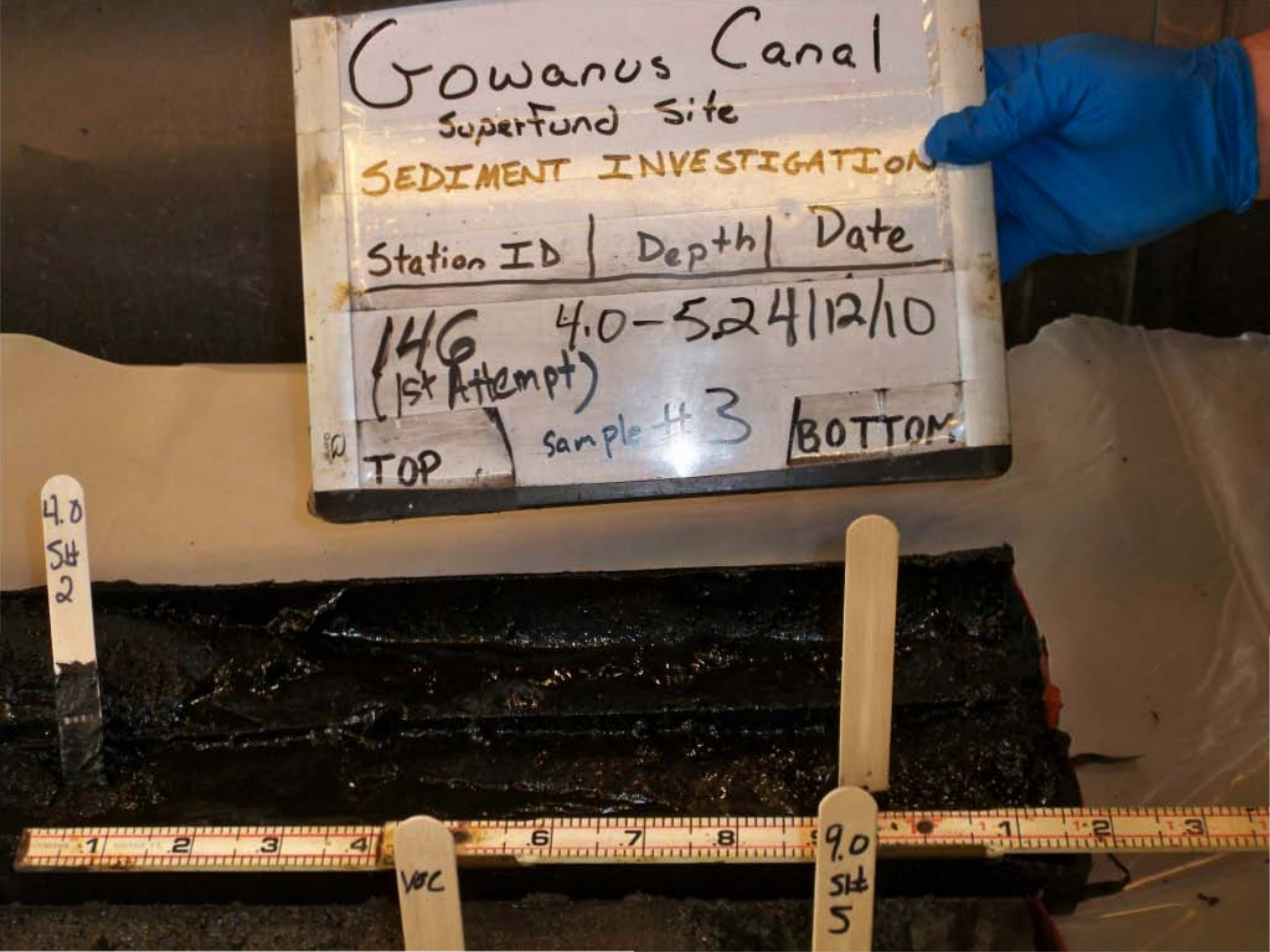

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 (1st Attempt) FULL RECOVERY 4/12/10
TOP
BOTTOM

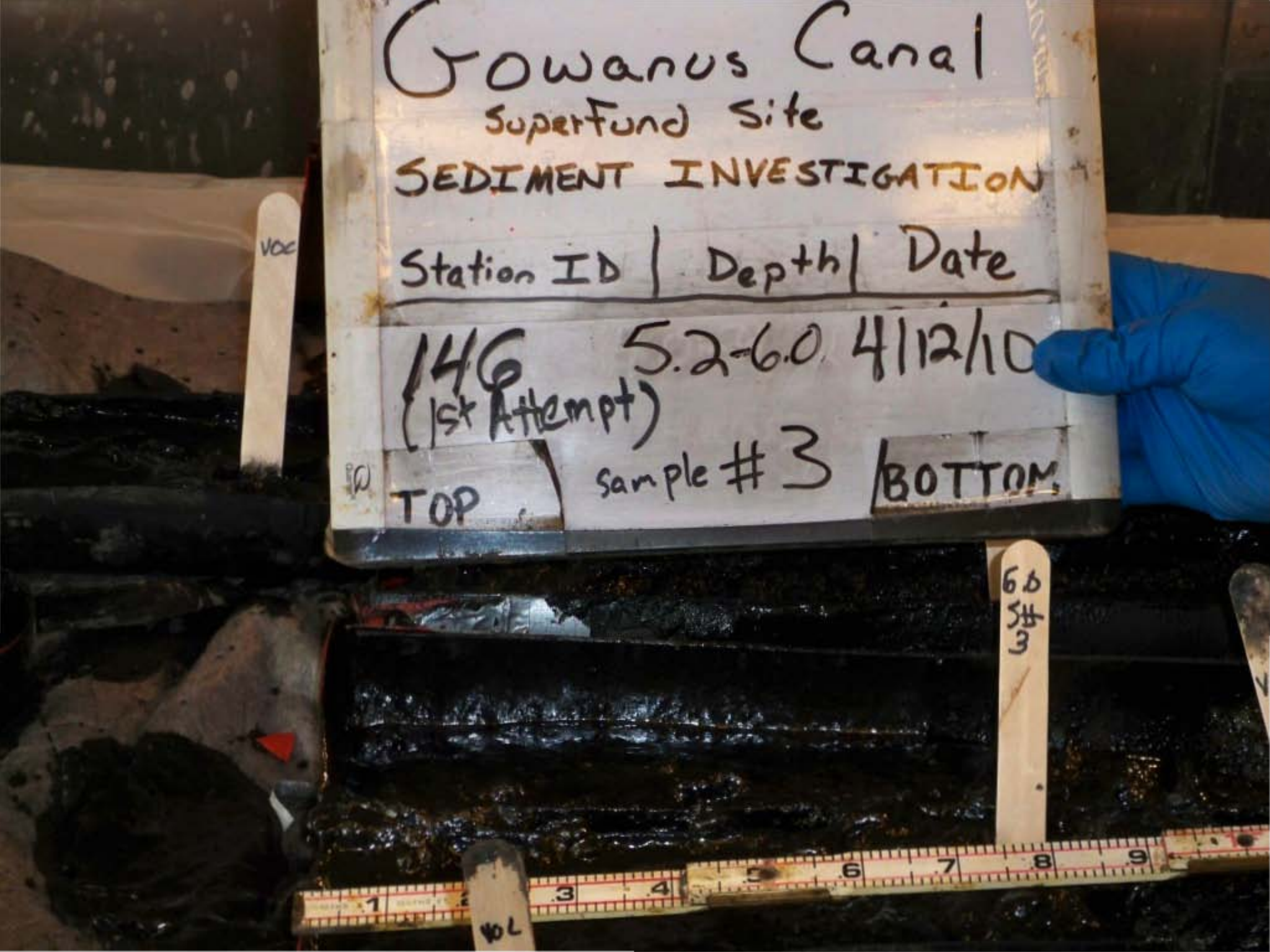

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 (1st Attempt) 0-2' 4/12/10
TOP
sample 1
BOTTOM
VOC
2.0 S# 1
6.0 S# 3

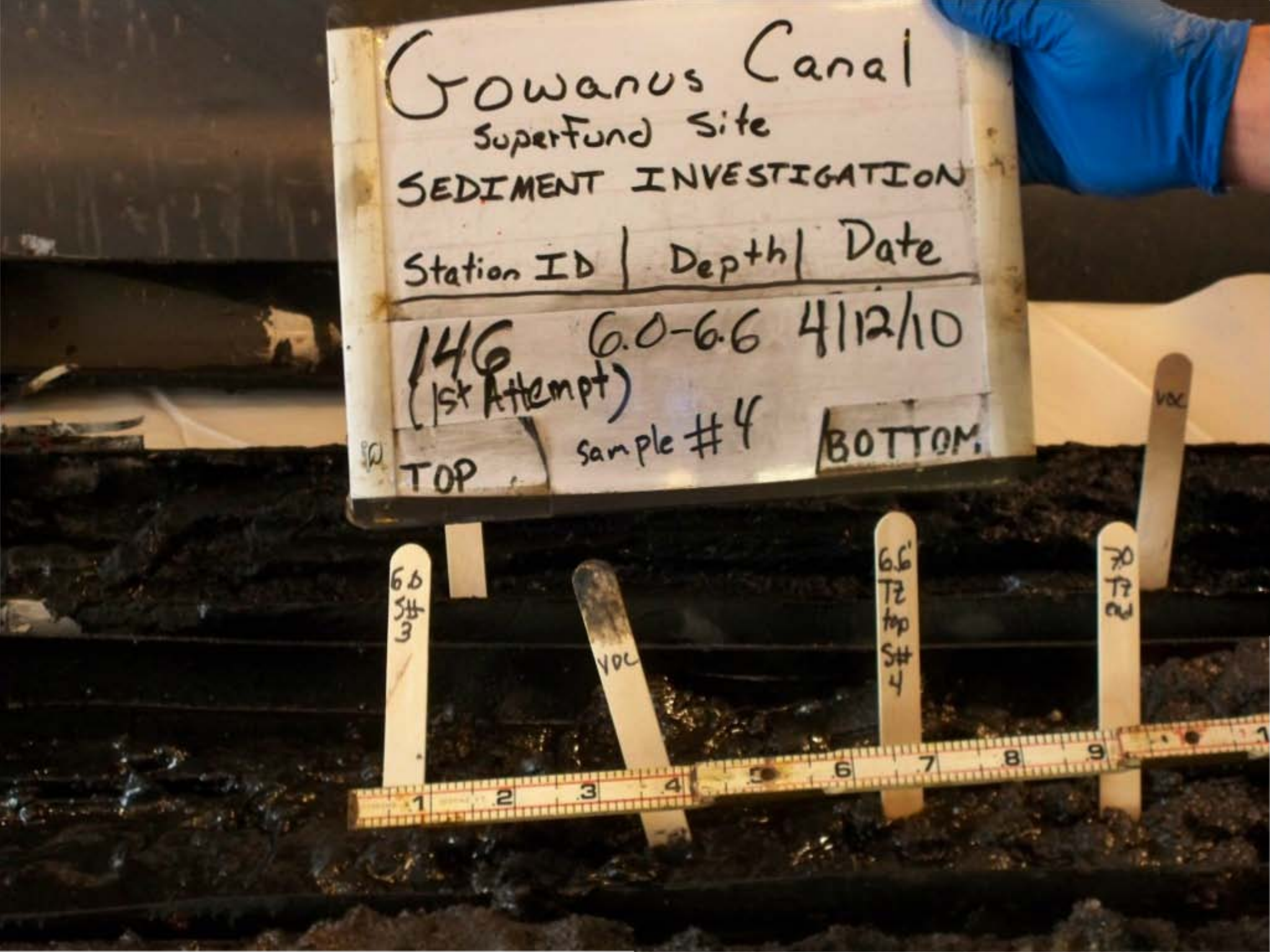

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 (1st Attempt) 11.0-13.0 4/12/10
TOP
Sample # 7

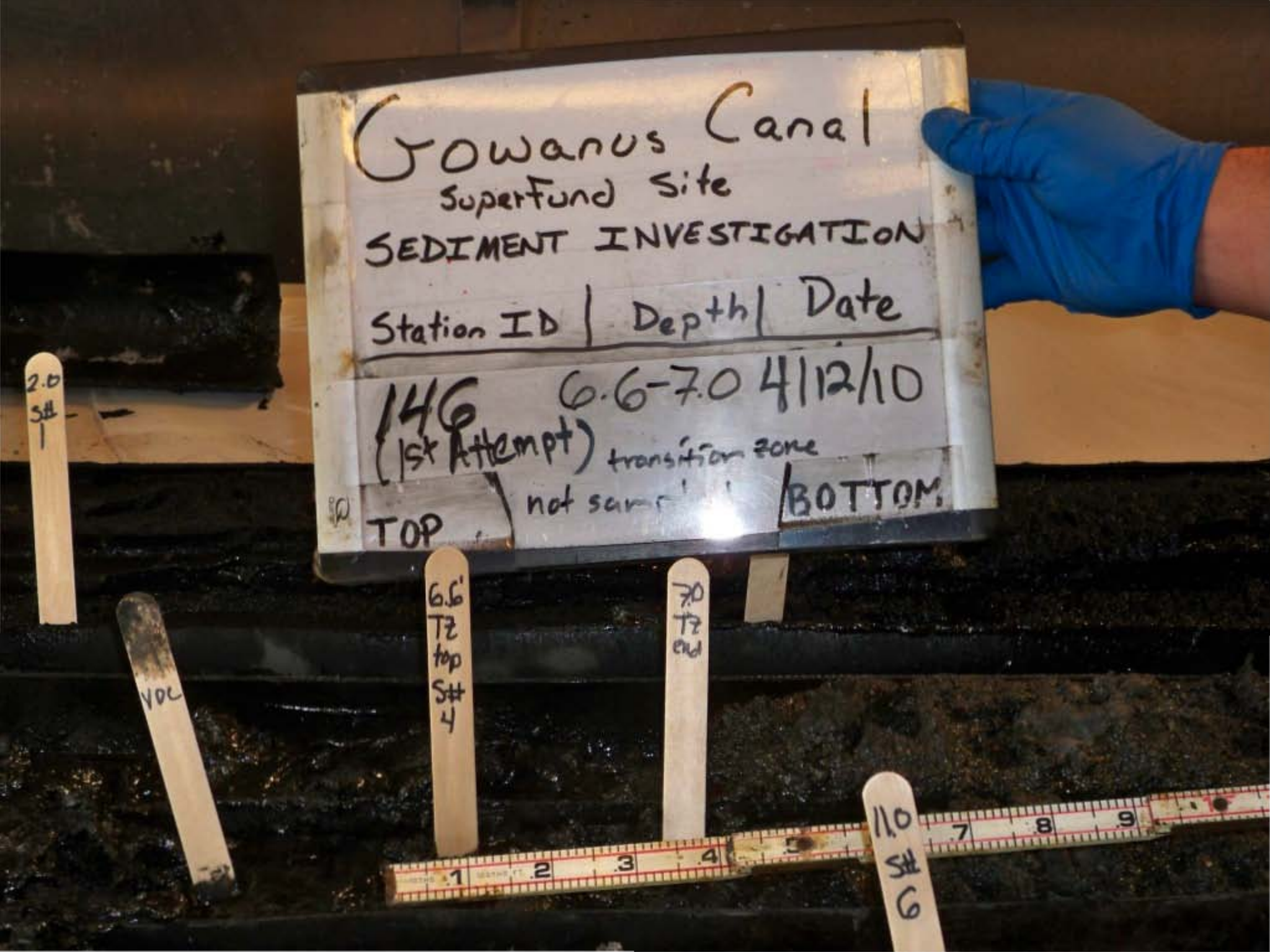

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 (1st Attempt) 13.0-13.2 4/12/10
not sampled
TOP
BOTTOM
9.0 St 5
13.0 St 7
13.2 Boc
7-9
9-11
11-13.0'-dup

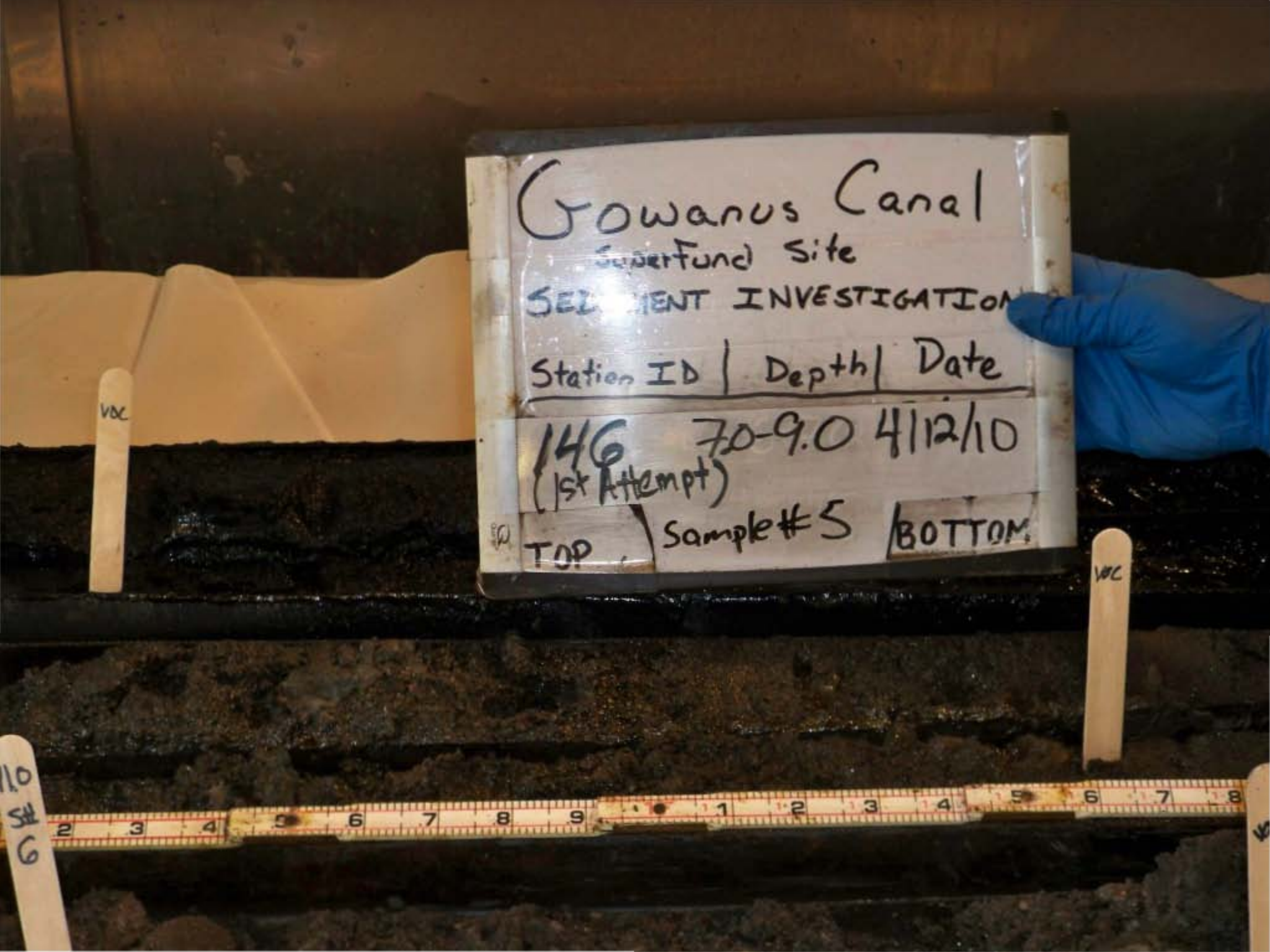

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 2.0-4.0 4/12/10
(1st attempt)
TOP
sample #2
BOTTOM
VOC
6.6'
TZ
top
7.0
TZ
end

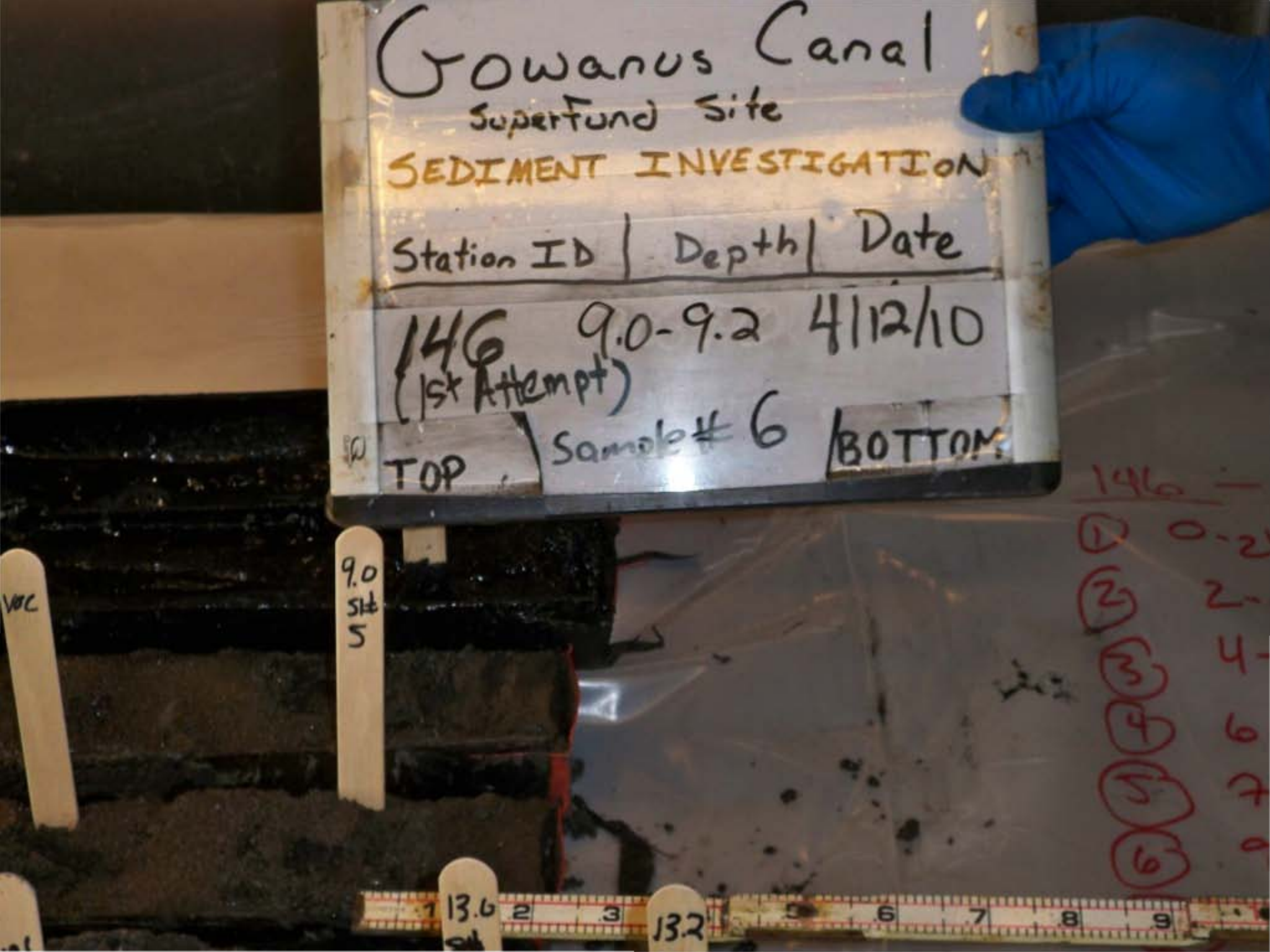

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 4.0-5 2/4/12/10
(1st Attempt)
TOP
sample #3
BOTTOM
4.0 Sh 2
VOC
9.0 Sh 5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 5.2-6.0 4/12/10
(1st Attempt)
TOP
sample #3
BOTTOM
VOC
6.0
SH
3
VOL


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 6.0-6.6 4/12/10
(1st Attempt)
TOP
sample #4
BOTTOM
6.0 S# 3
VOC
6.6' T2 top S# 4
VOC
1 2 3 4 5 6 7 8 9


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 6.6-7.0 4/12/10
(1st Attempt) transition zone
not sam
TOP
BOTTOM
2.0 S# 1
VOC
6.6' Tz top S# 4
7.0 Tz end
11.0 S# 6

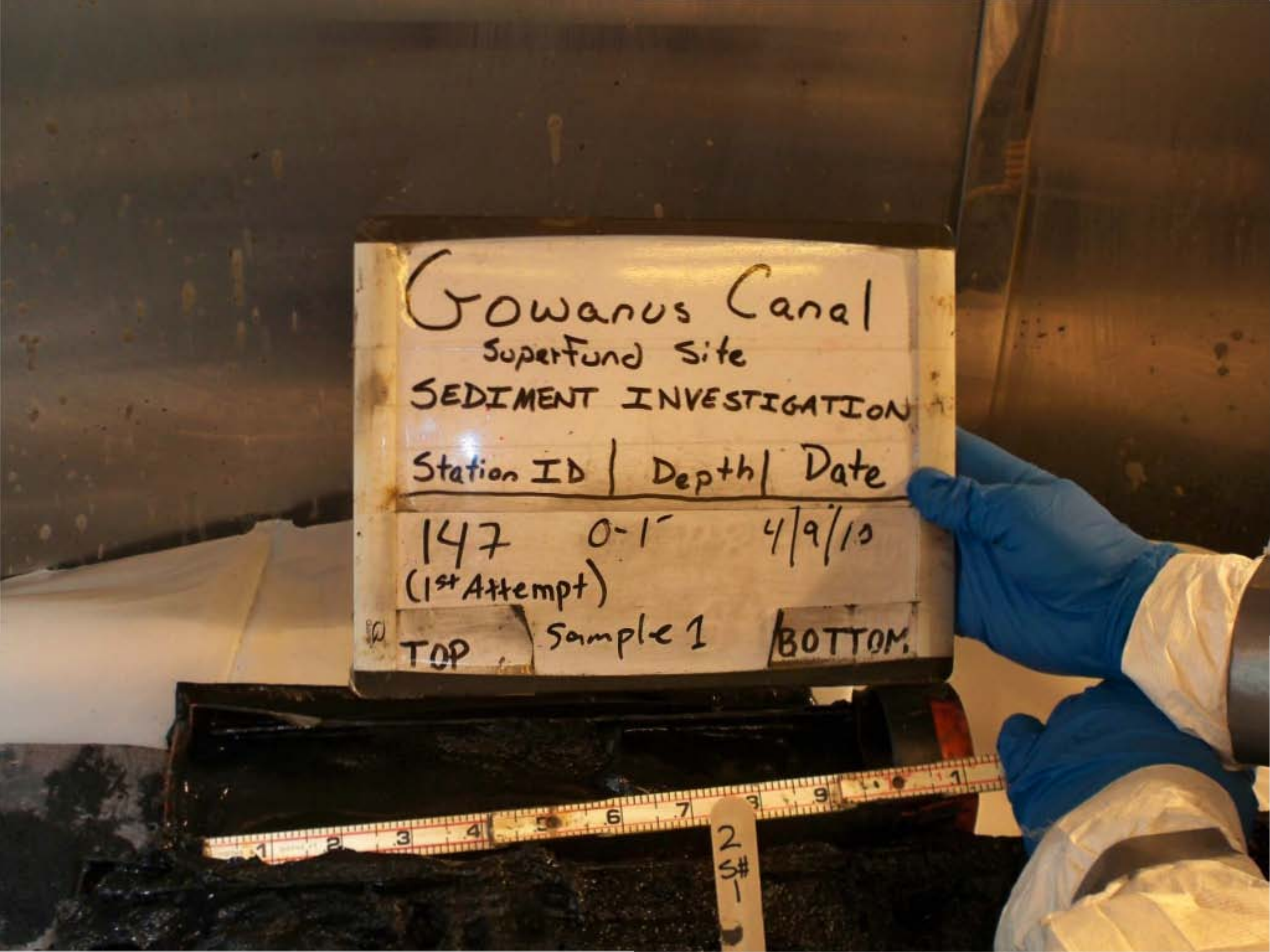

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 7.0-9.0 4/12/10
(1st Attempt)
TOP Sample #5 BOTTOM
VOC
VOC

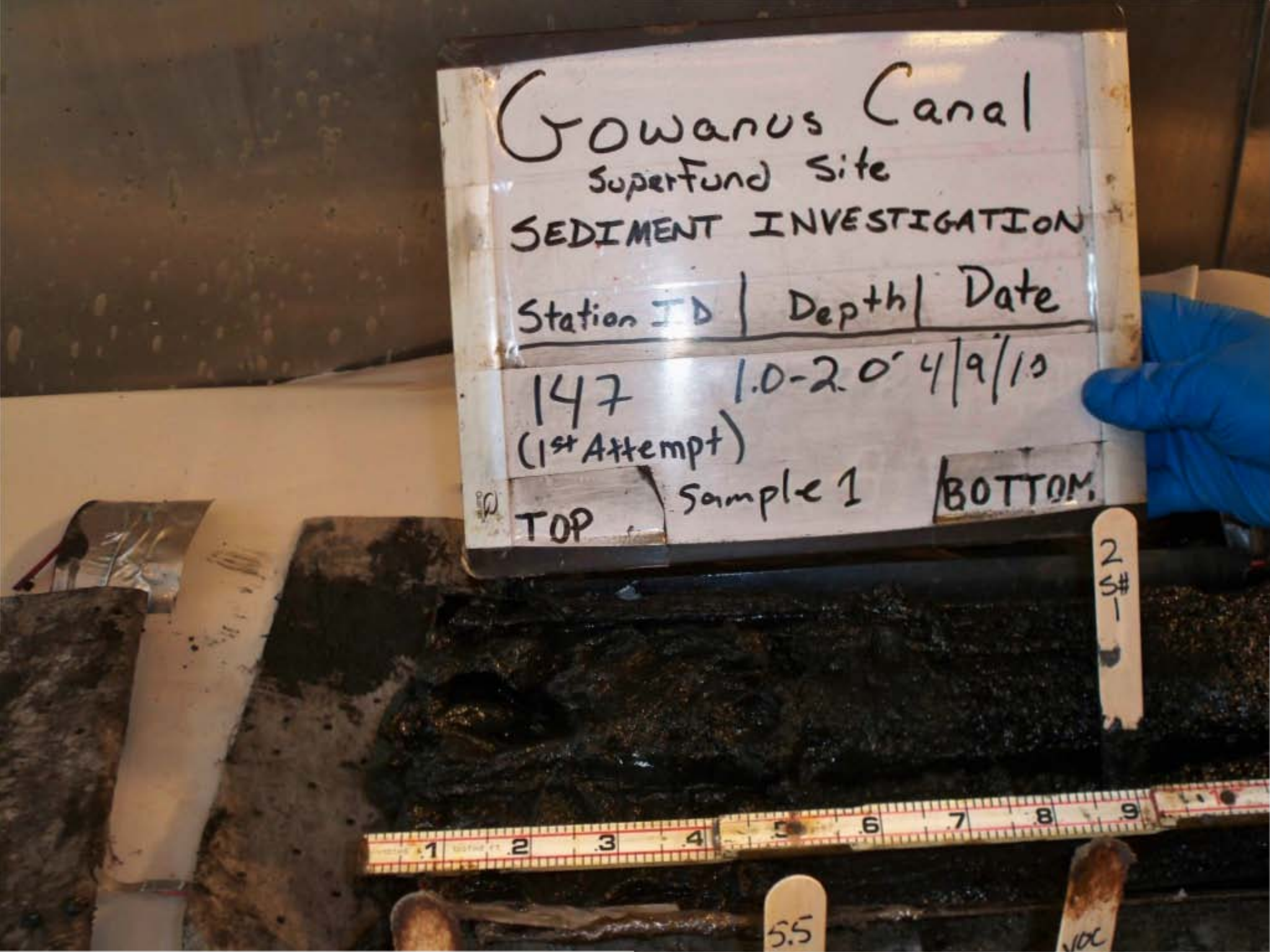

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 (1st Attempt) 9.0-9.2 4/12/10
TOP Sample # 6 BOTTOM
VOC
9.0 Sht 5
13.6
13.2
1 2 3 5 6 7 8 9
146
1 0-2
2 2-
3 4-
4 6
5 7
6 9


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 9.2-11.0 4/12/10
(1st Attempt)
TOP
Sample # 6


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 (1st Attempt) Full Recovery 4/12/10
TOP
BOTTOM

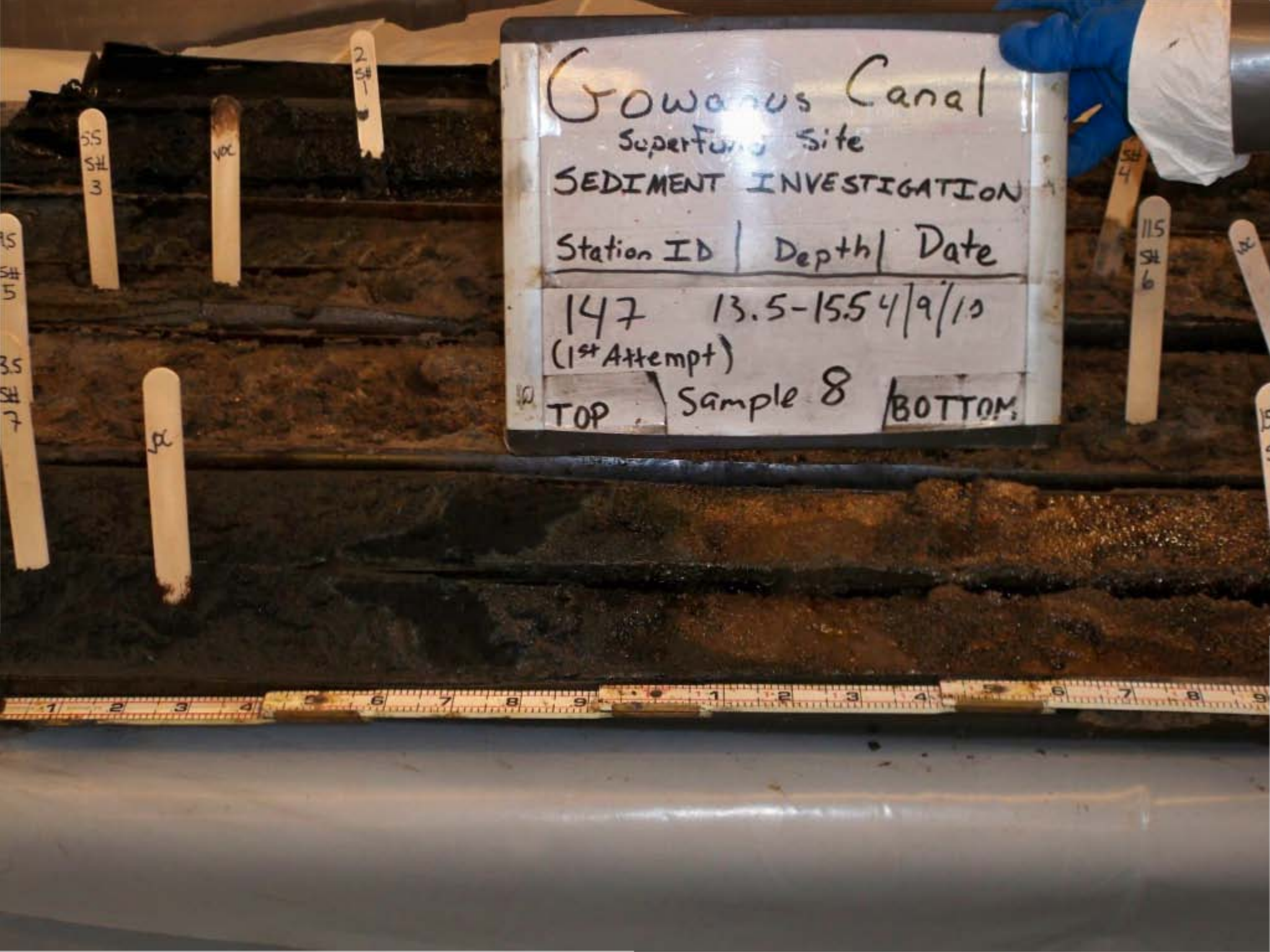

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 (1st Attempt) Full Recovery 4/9/10
TOP
BOTTOM

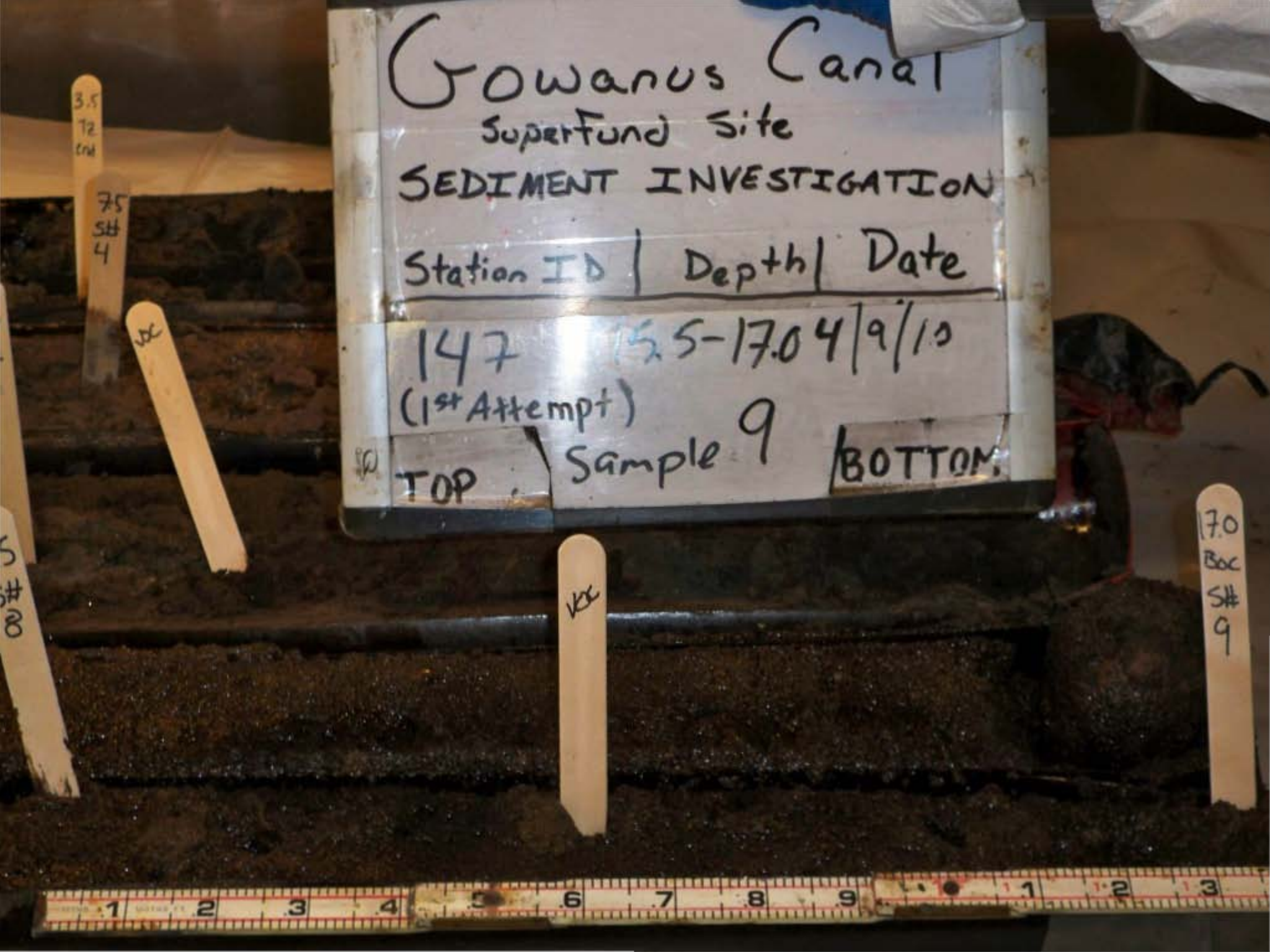

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 0-1' 4/9/10
(1st Attempt)
TOP Sample 1 BOTTOM
2
S#
1

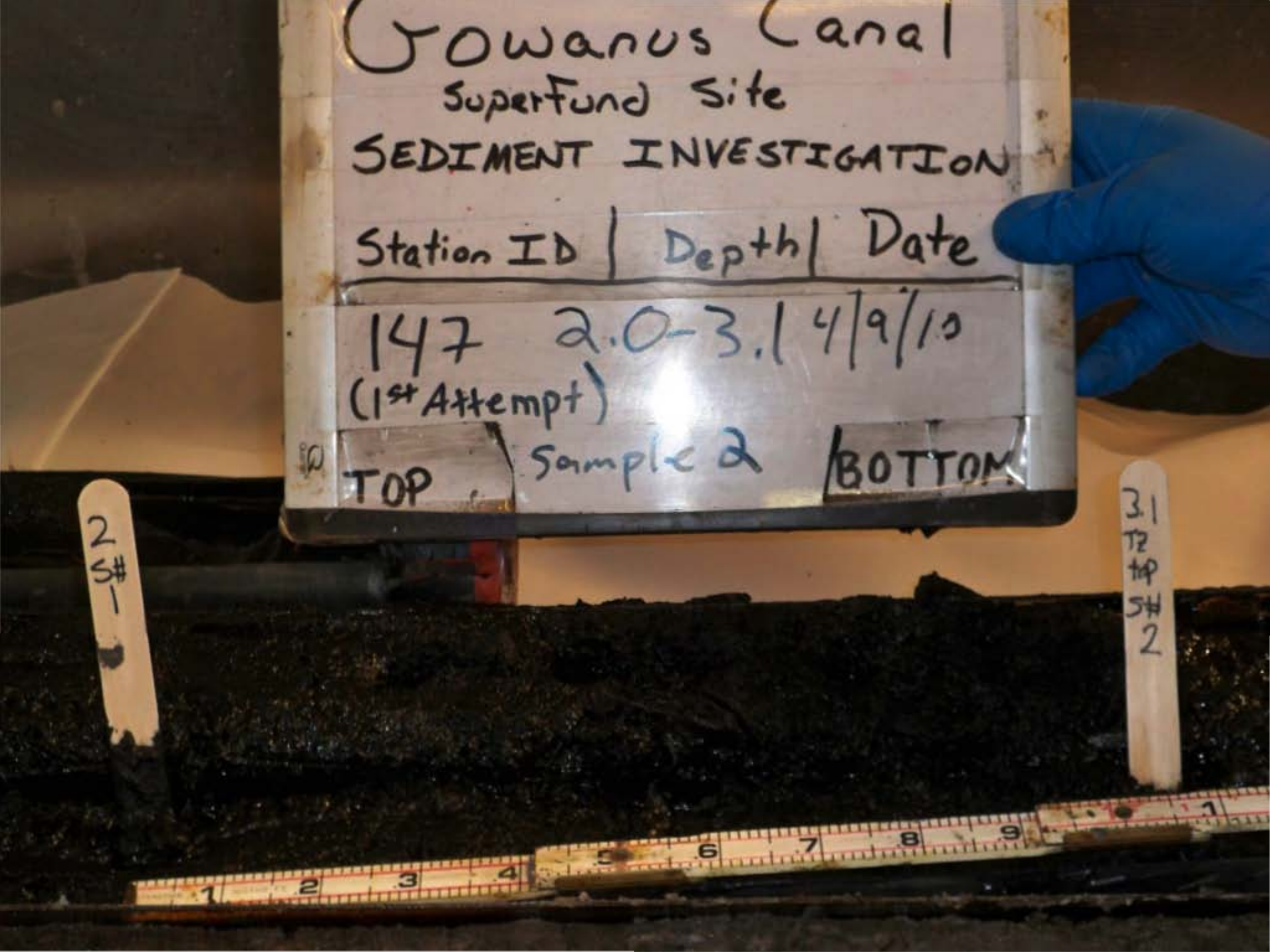

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 1.0-2.0' 4/9/10
(1st Attempt)
TOP Sample 1 BOTTOM
2 S#1
5.5
VOC

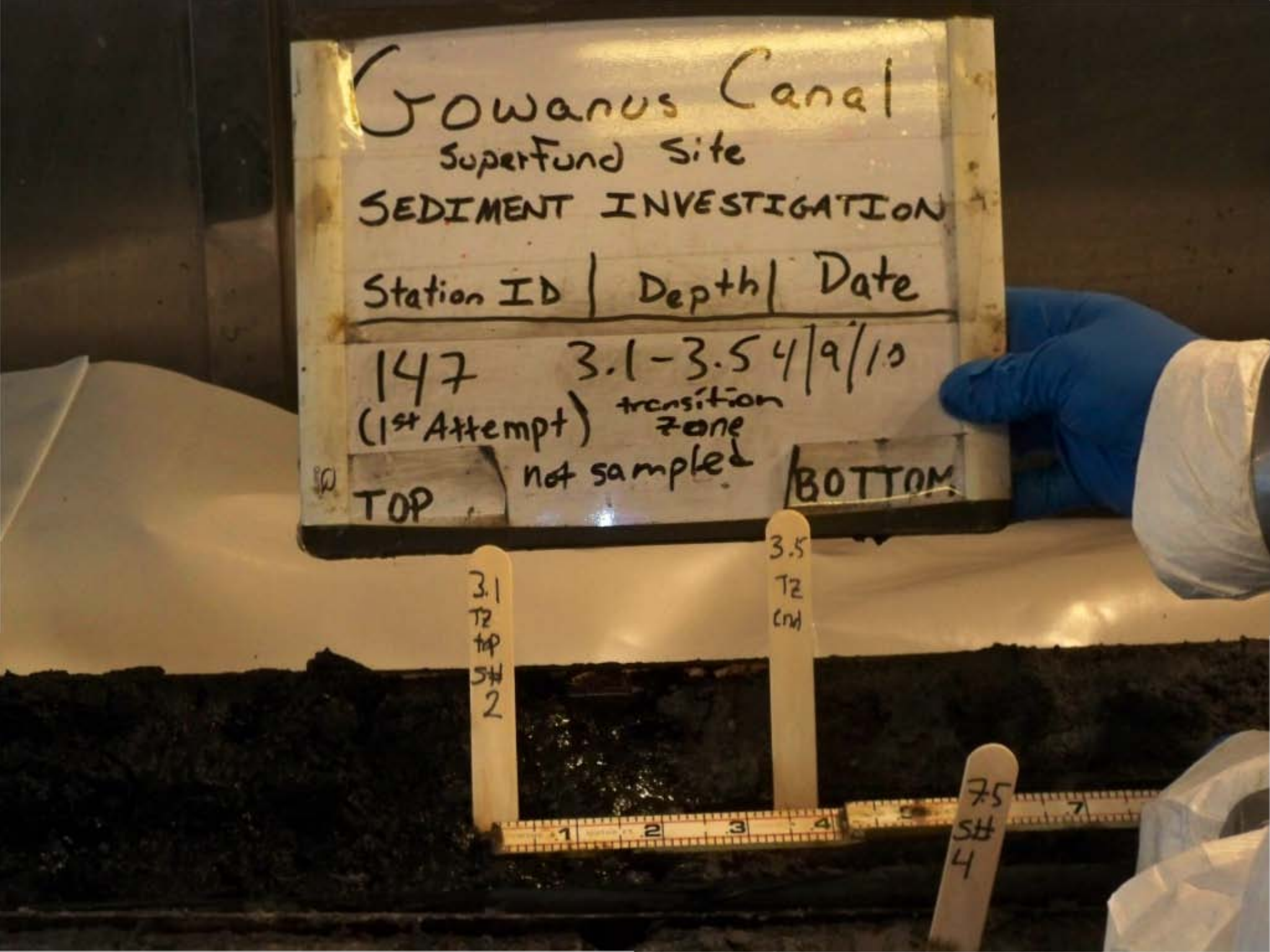

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 11.5-13.1 | 4/9/10
(1st Attempt)
TOP
BOTTOM
3.5 TZ CM
7.5 SH 4
VOC
VOC

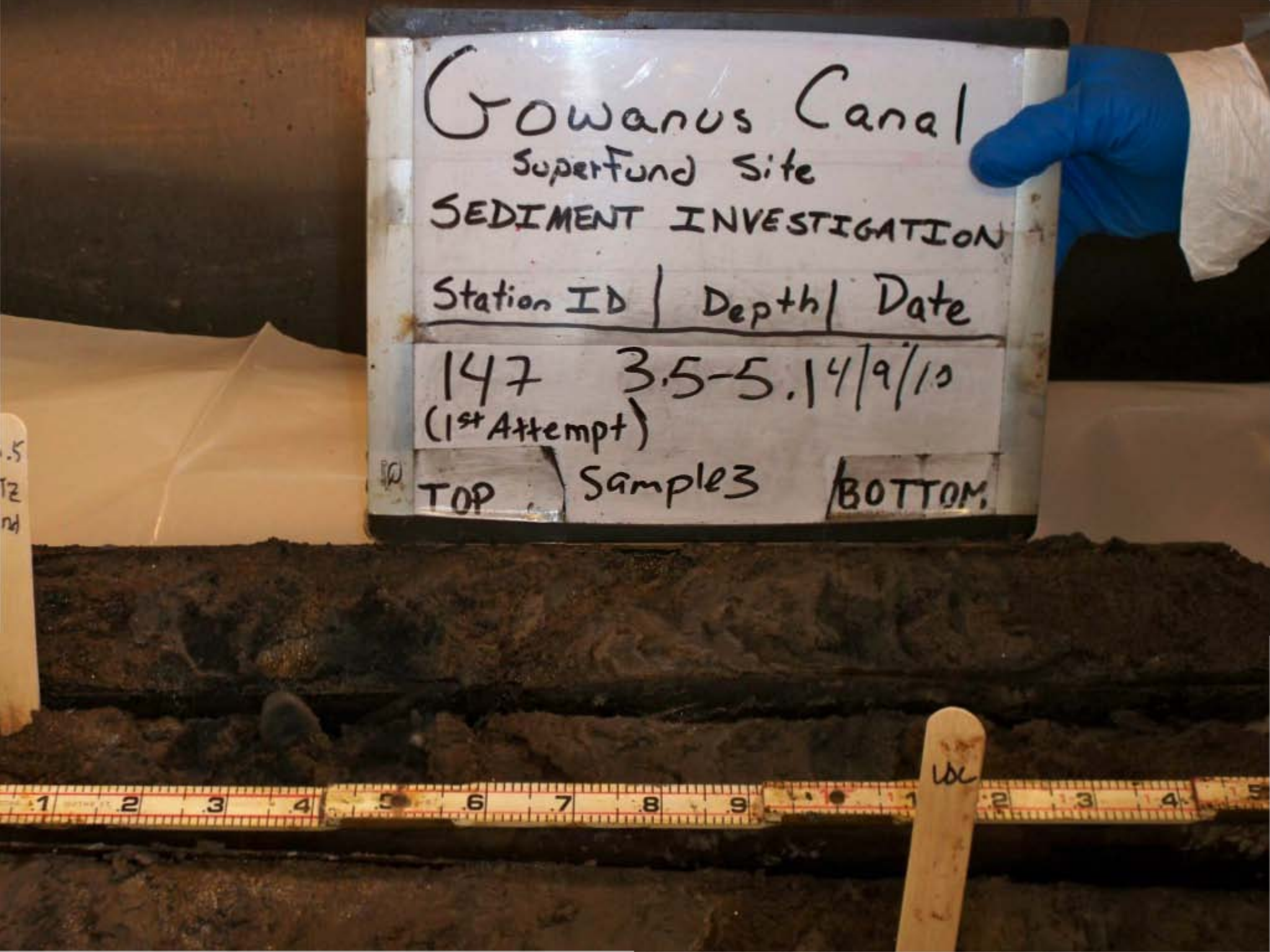

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 13.1-13.5 4/9/10
(1st Attempt)
TOP Sample # BOTTOM
13.5
SH
7
1 2 3 4 5 6 7 8


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 13.5-15.5 4/9/10
(1st Attempt)
TOP Sample 8 BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 15.5-17.0 4/9/10
(1st Attempt)
Sample 9
TOP
BOTTOM
3.5 T2 cnt
7.5 S# 4
VOC
VOC
17.0 Boc S# 9

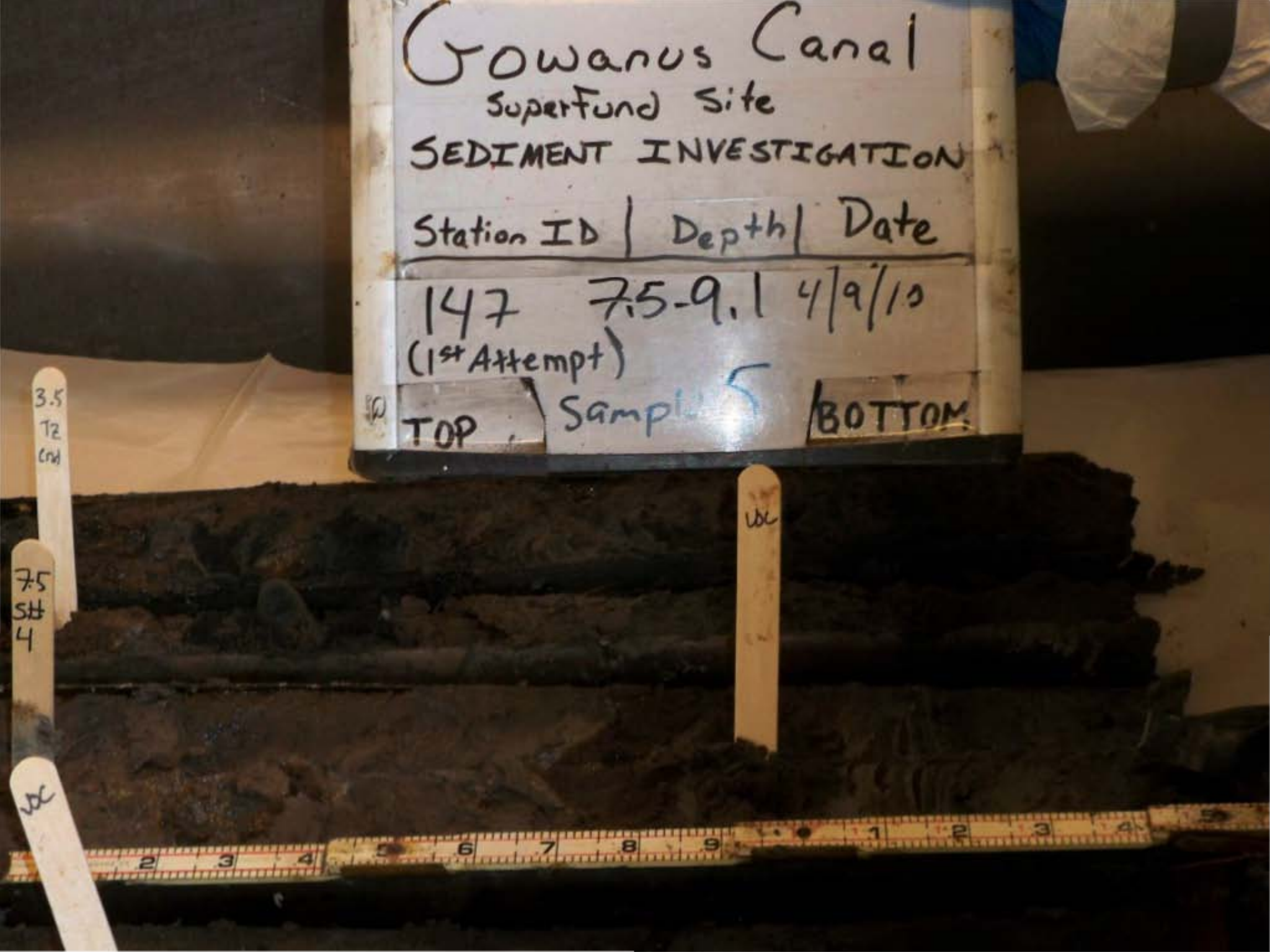

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 2.0-3.1 4/9/10
(1st Attempt)
TOP
Sample 2
BOTTOM
2 S#-
3.1 T2 tip SH 2

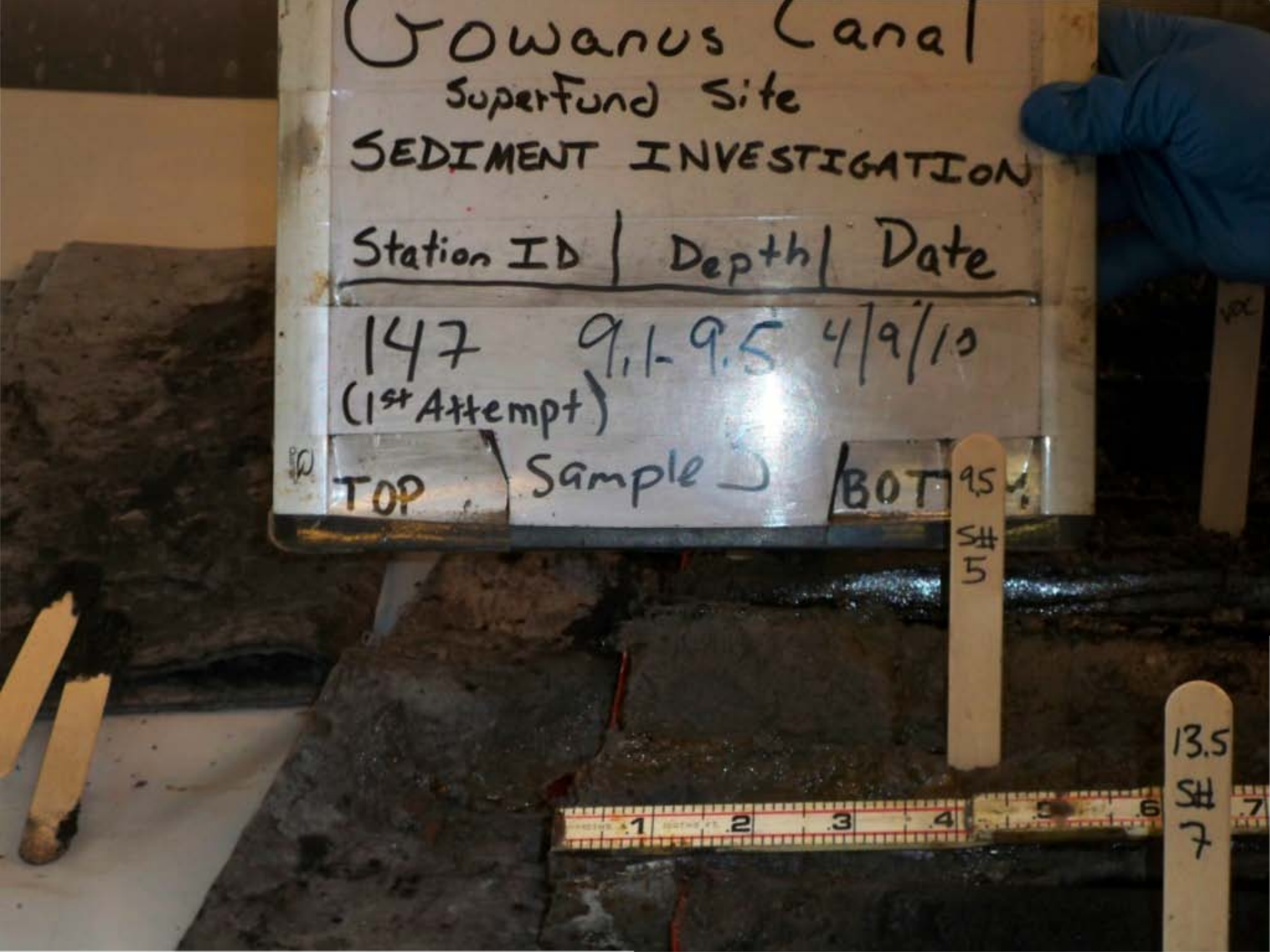

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 3.1-3.5 4/9/10
(1st Attempt) transition zone
not sampled
TOP
BOTTOM
3.1 TZ top SH 2
3.5 TZ CnH
7.5 SH 4


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 3.5-5. 4/9/10
(1st Attempt)
TOP
Sample3
BOTTOM

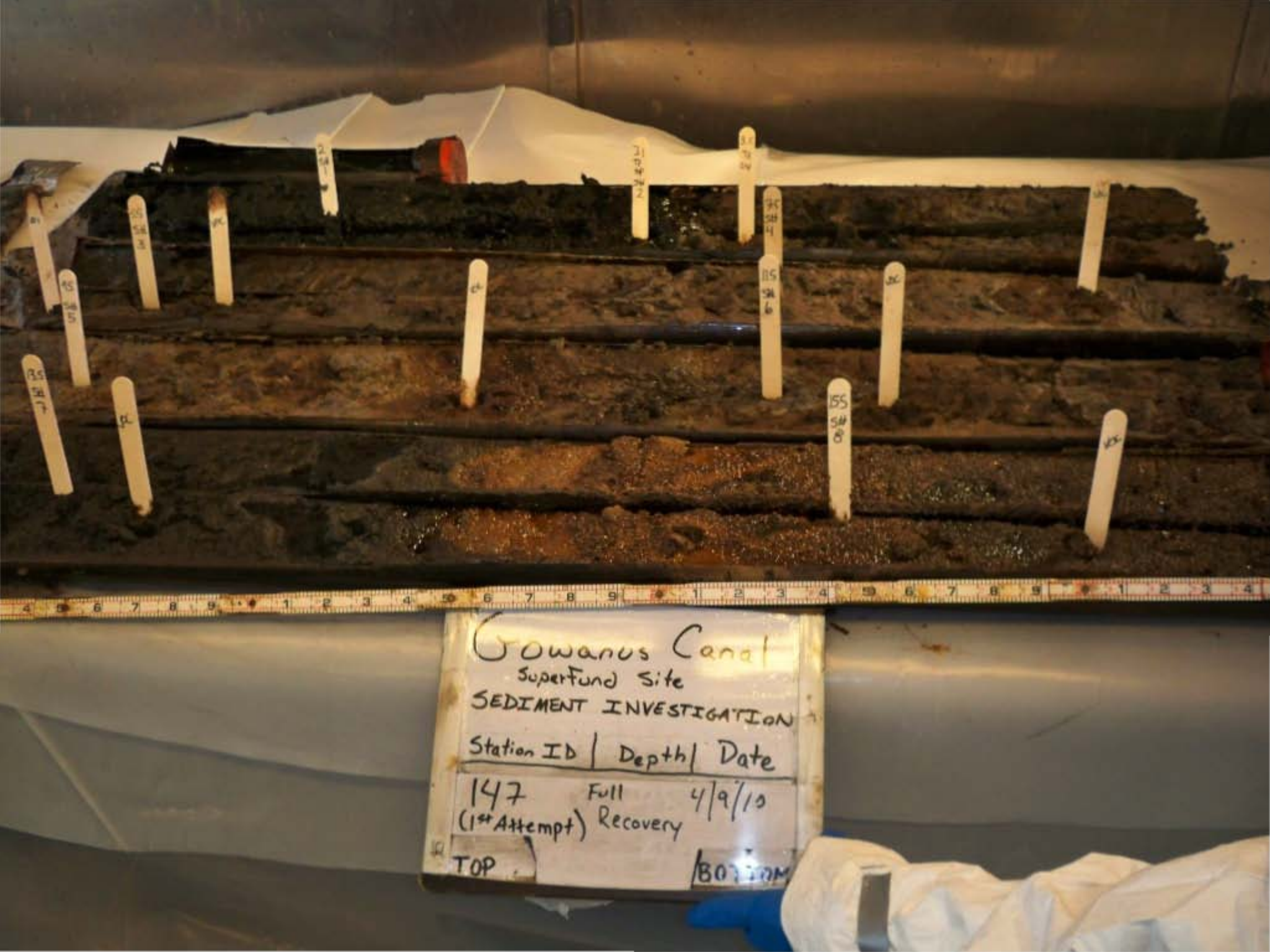

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 5.1-5.5 4/9/10
(1st Attempt)
TOP Sample BOTTOM
VOC
5.5
SH
3
VOC
95
SH


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 5.5-7.5 4/9/10
(1st Attempt)
TOP Sample 4 BOTTOM
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 7.5-9.1 4/9/10
(1st Attempt)
TOP Sample 5 BOTTOM
3.5 TZ Crd
7.5 St# 4
VOC
VOC

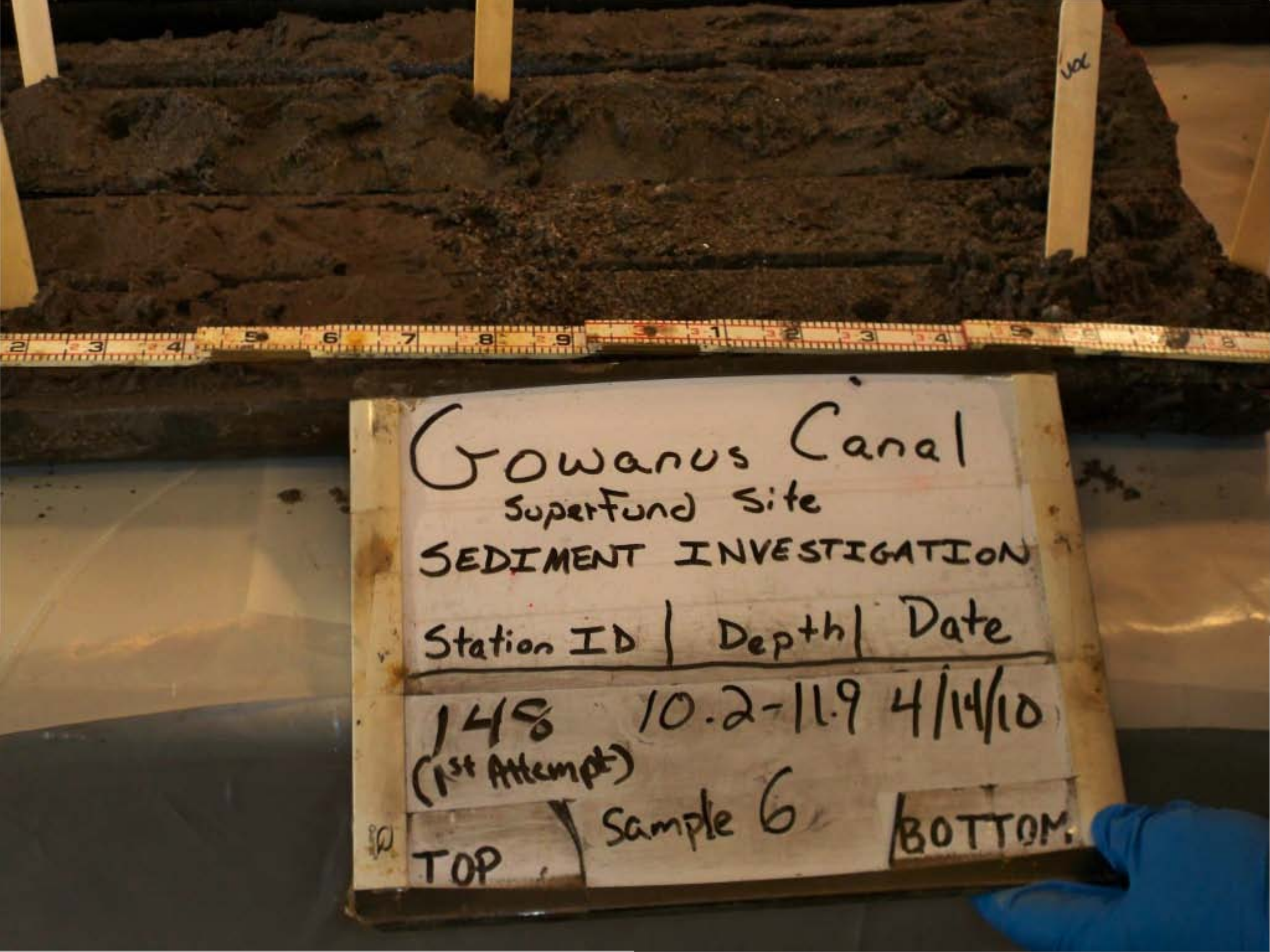

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 9.1-9.5 4/9/10
(1st Attempt)
TOP Sample BOT
9.5
SH
5
13.5
SH
7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 9.5-11.5 4/9/10
(1st Attempt)
TOP
Sample 6
BOTTOM
2 S# 1
5.5 S# 3
VOC
VOC
VOC
7 S# 4

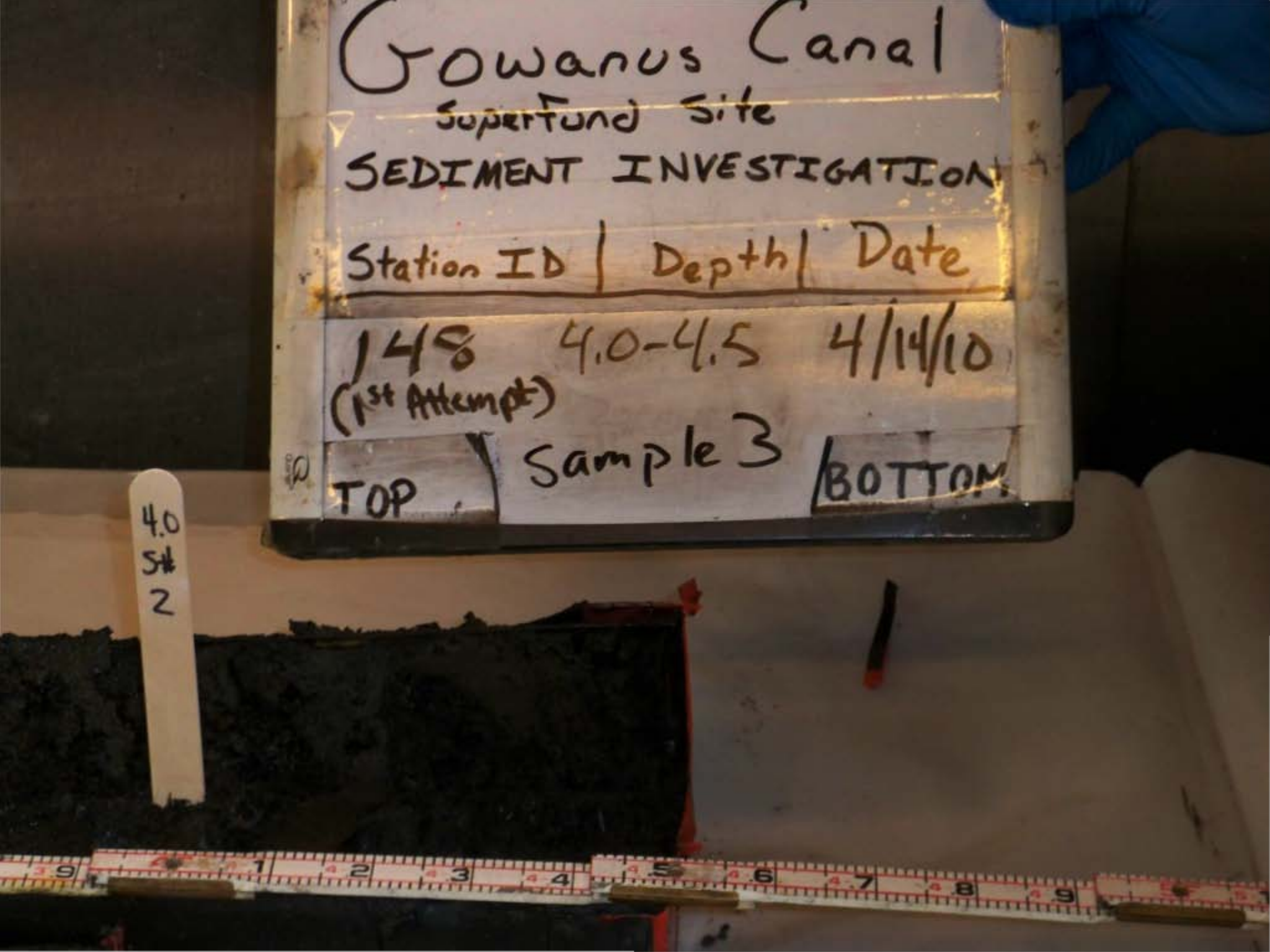

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 (1st Attempt) Full Recovery 4/9/10
TOP
BOTTOM

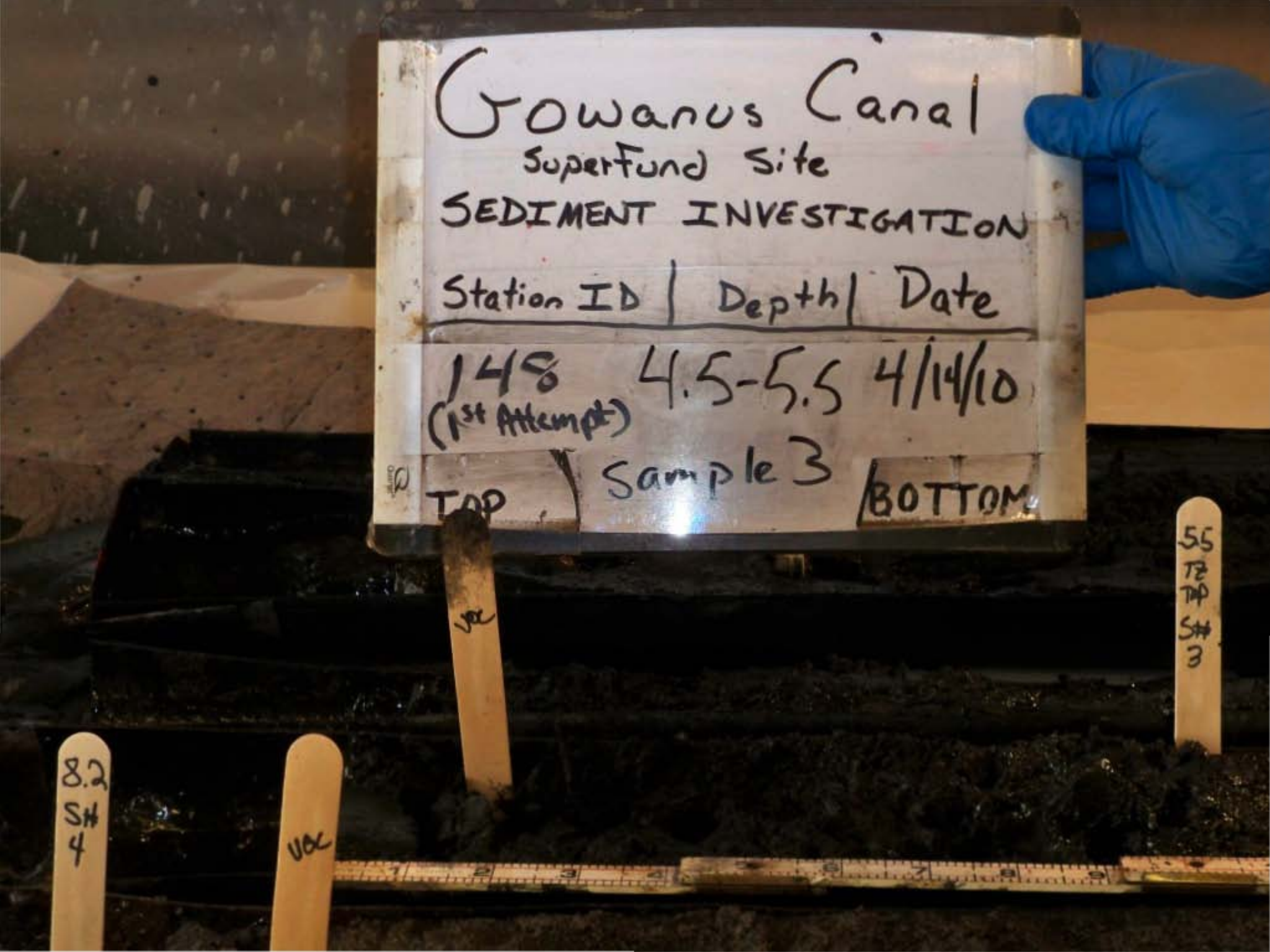

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) FULL RECOVERY 4/14/10
TOP
BOTTOM

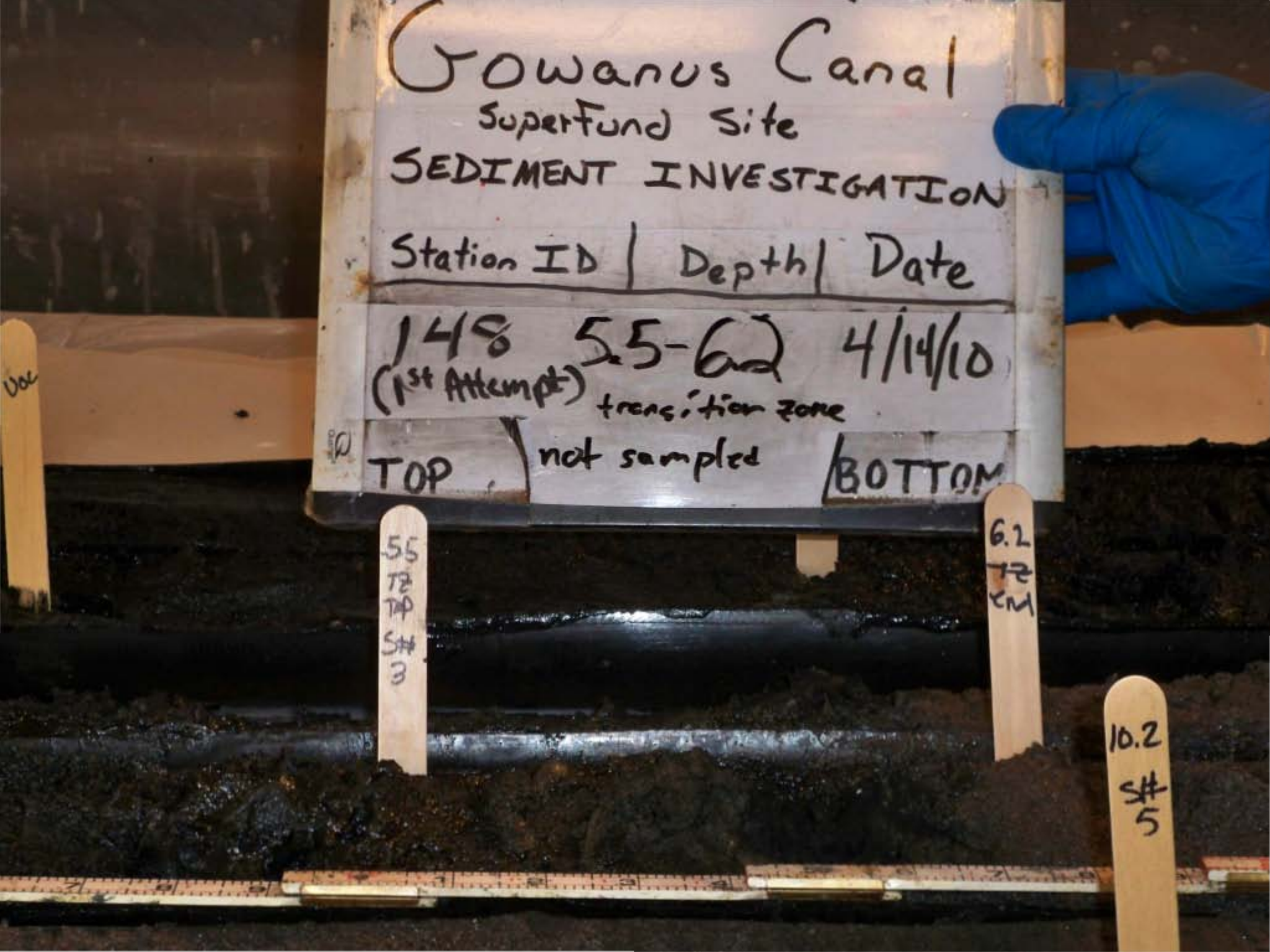

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) 0-2' 4/14/10
TOP
BOTTOM
VOC
55

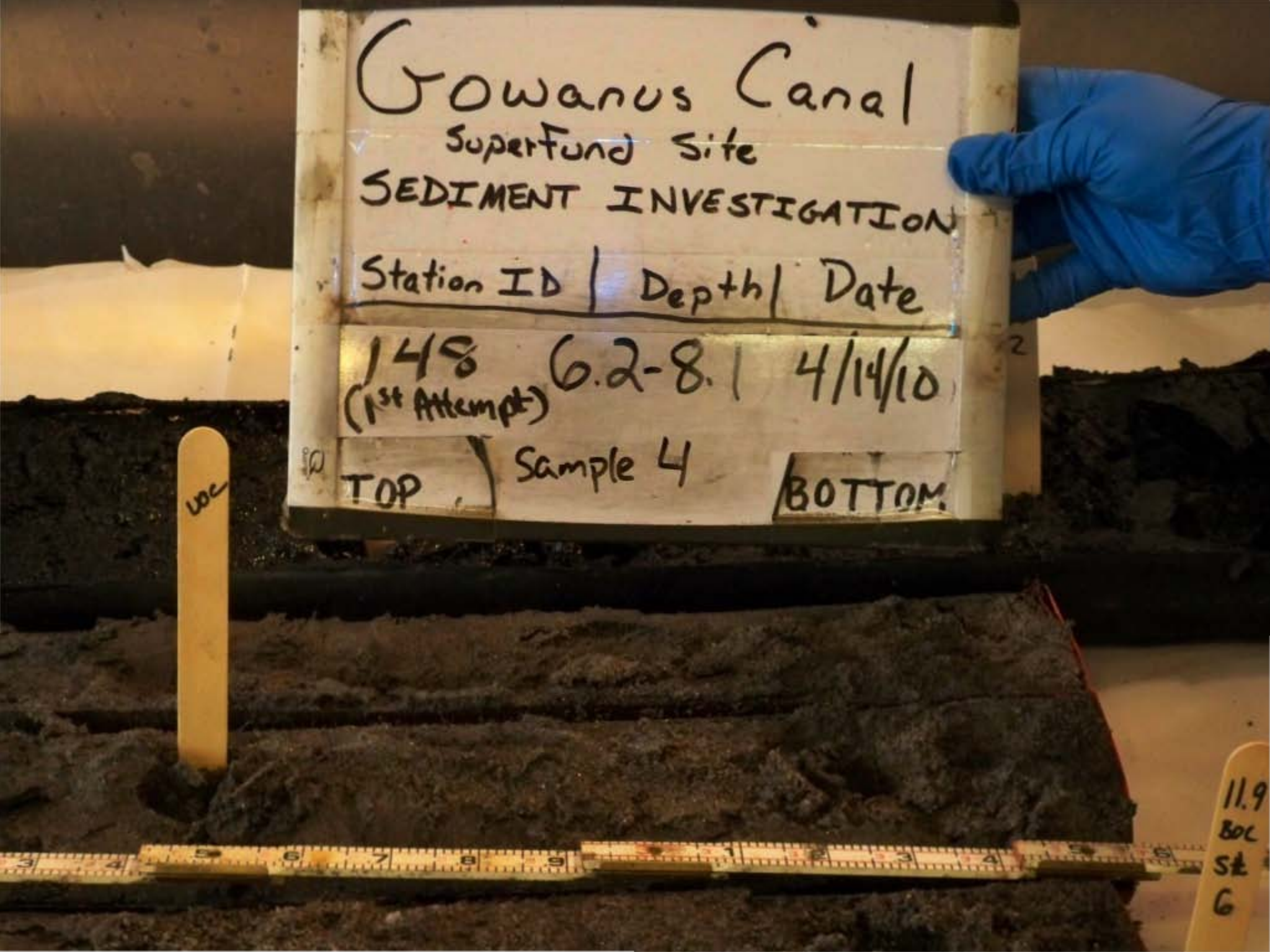

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) 10.2-11.9 4/14/10
TOP
Sample 6
BOTTOM

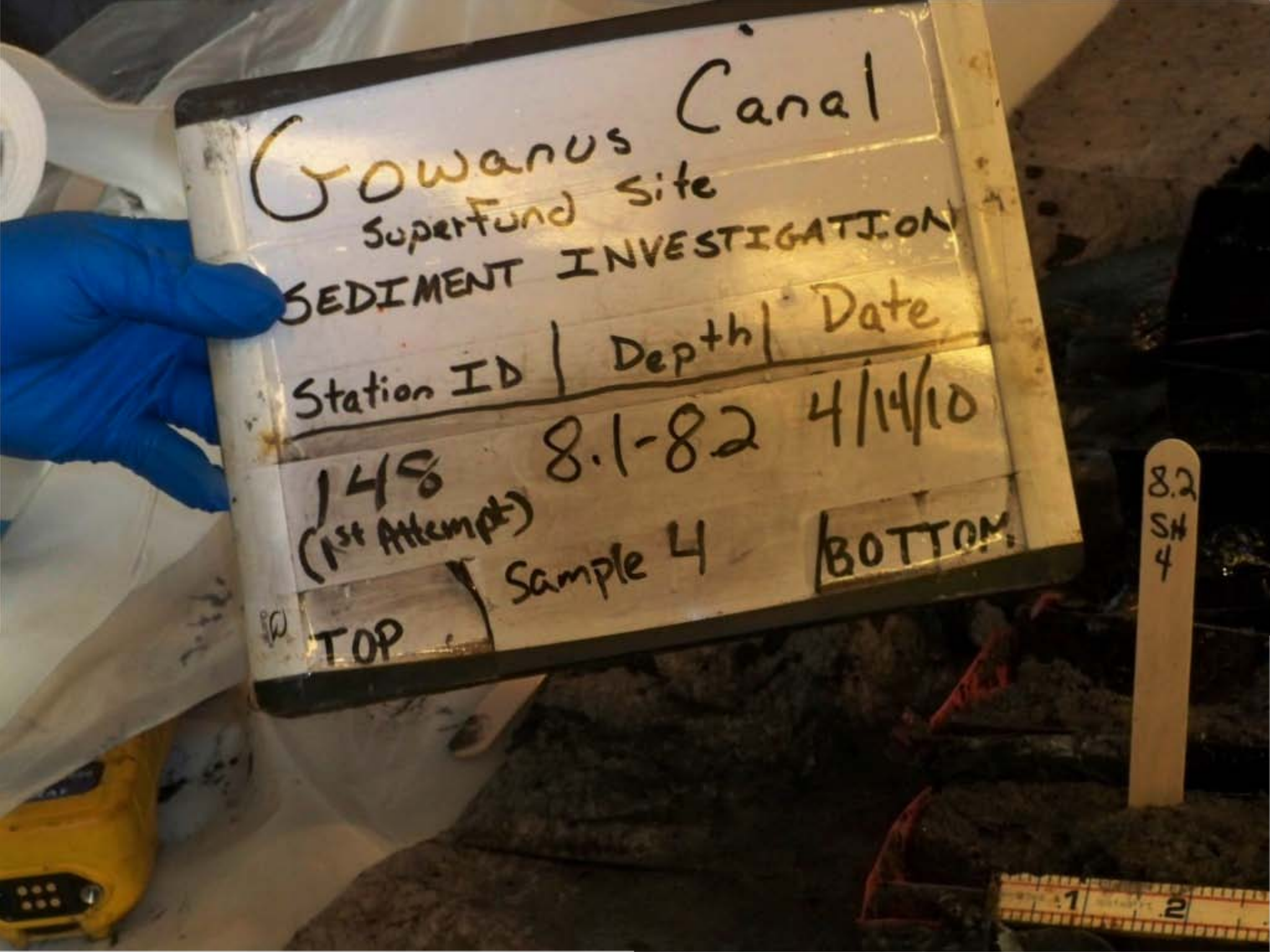

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) 2-4 4/14/10
TOP | Sample 2 | BOTTOM

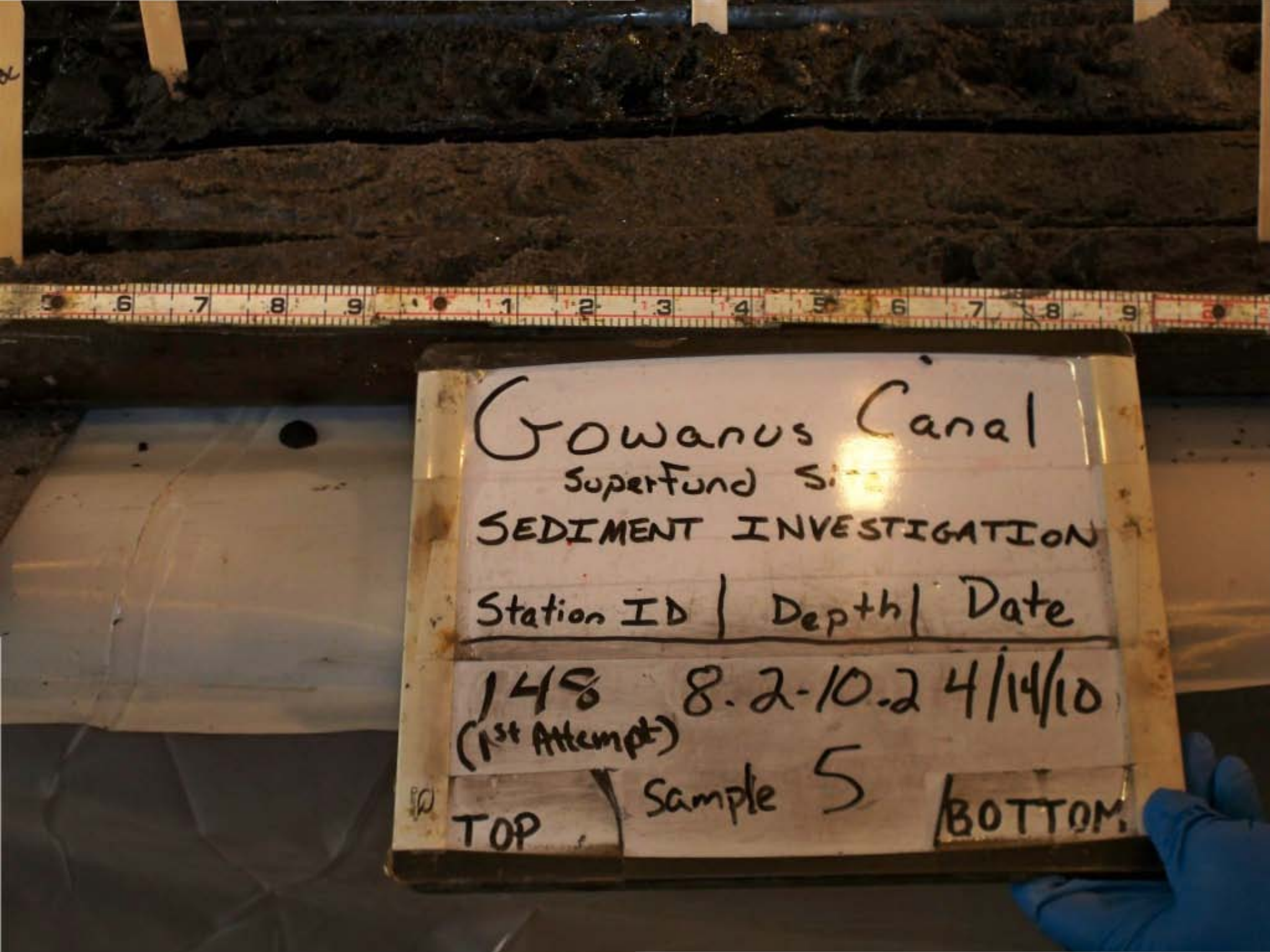

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 4.0-4.5 4/14/10
(1st Attempt)
TOP | Sample 3 | BOTTOM
4.0
St#
2

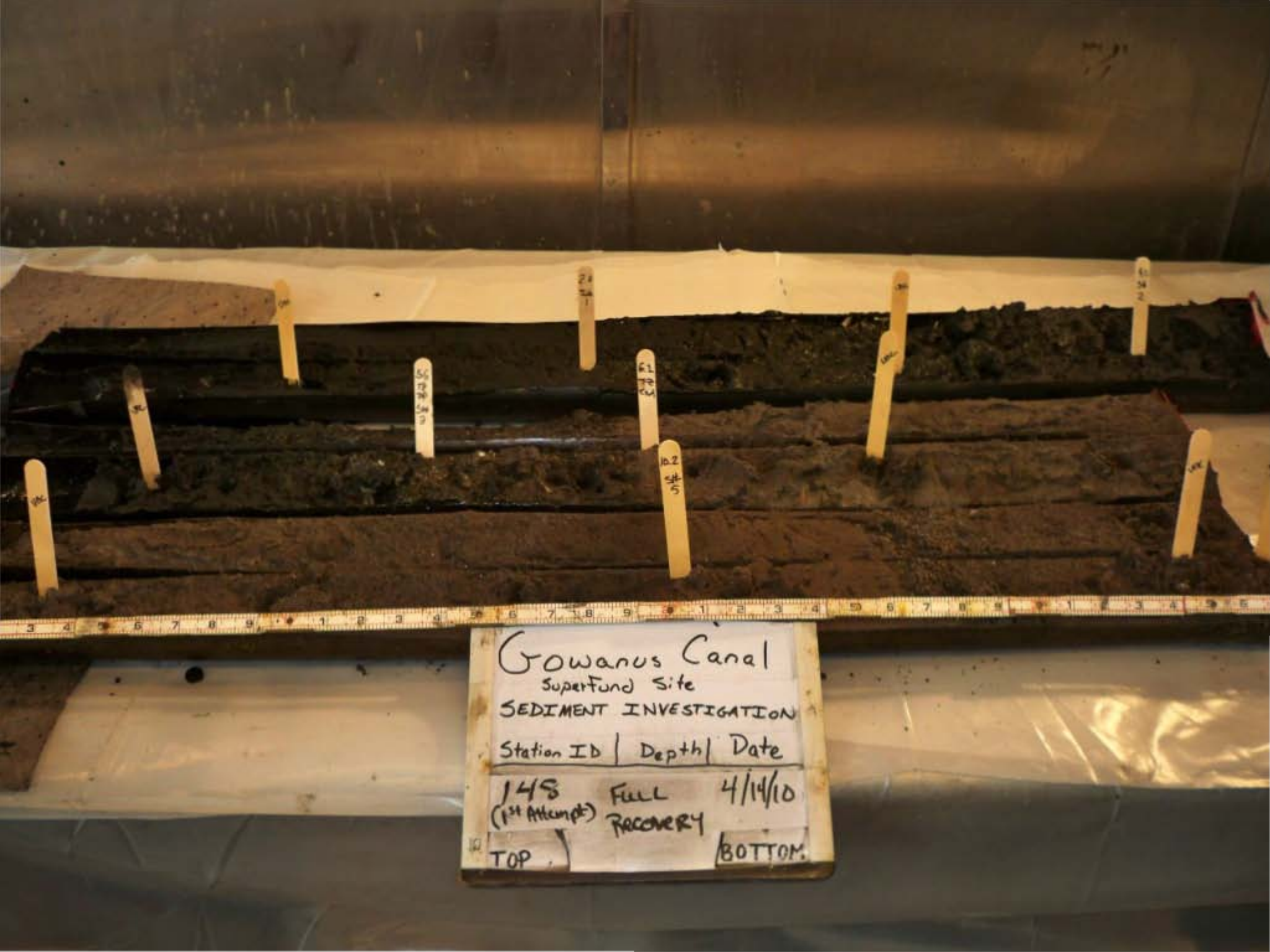

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) 4.5-5.5 4/14/10
TOP | Sample 3 | BOTTOM
VOC
55 TZ TOP SH 3
8.2 SH 4
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 5.5-6.2 4/14/10
(1st Attempt) transition zone
TOP not sampled BOTTOM
5.5 TZ TOP SH 3
6.2 TZ BOT SH
10.2 SH 5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) 6.2-8.1 4/14/10
TOP
Sample 4
BOTTOM
VOC
11.9
BOC
St
G

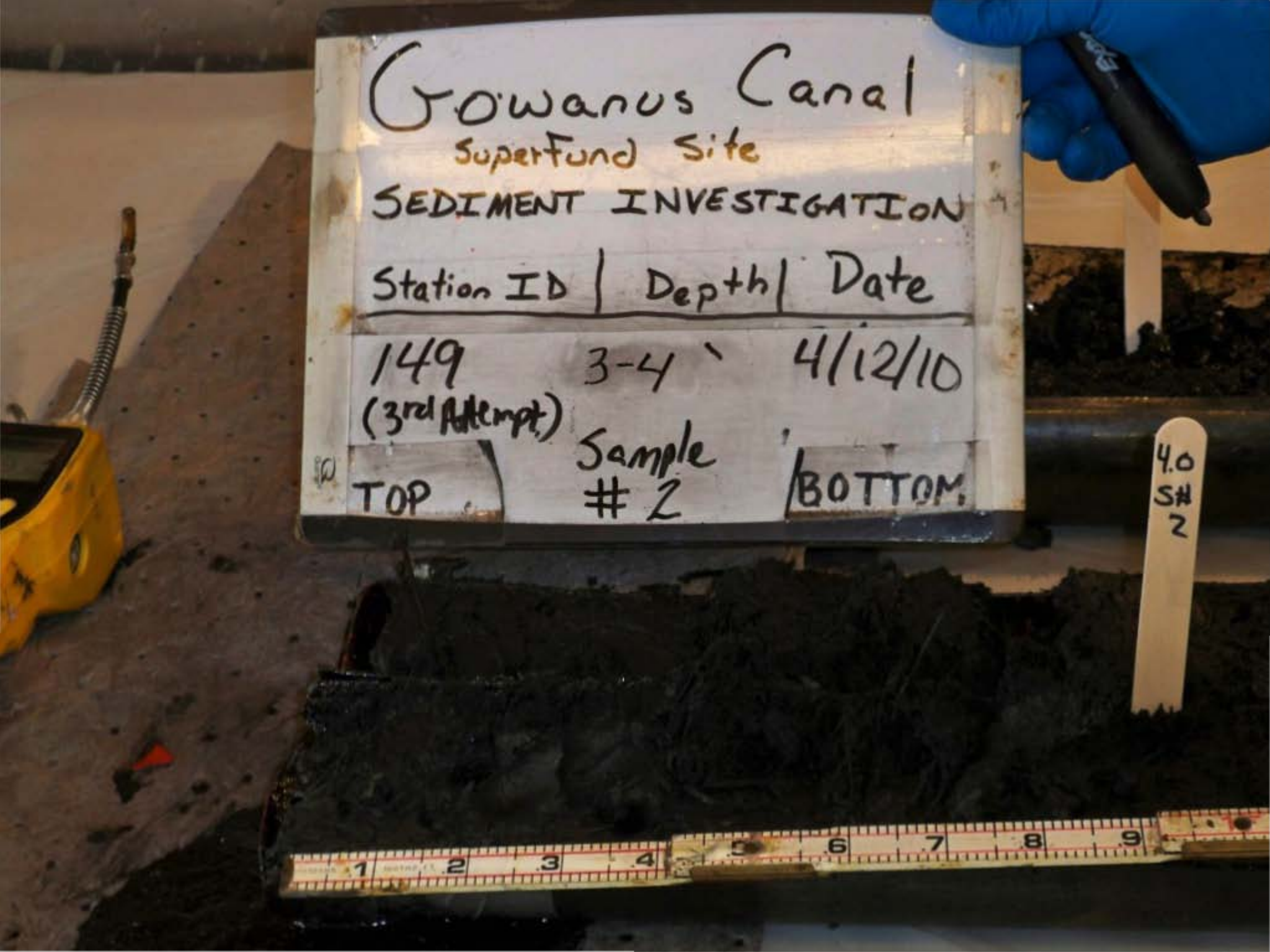

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 8.1-82 4/14/10
(1st Attempt)
TOP | Sample 4 | BOTTOM
8.2
SH
4

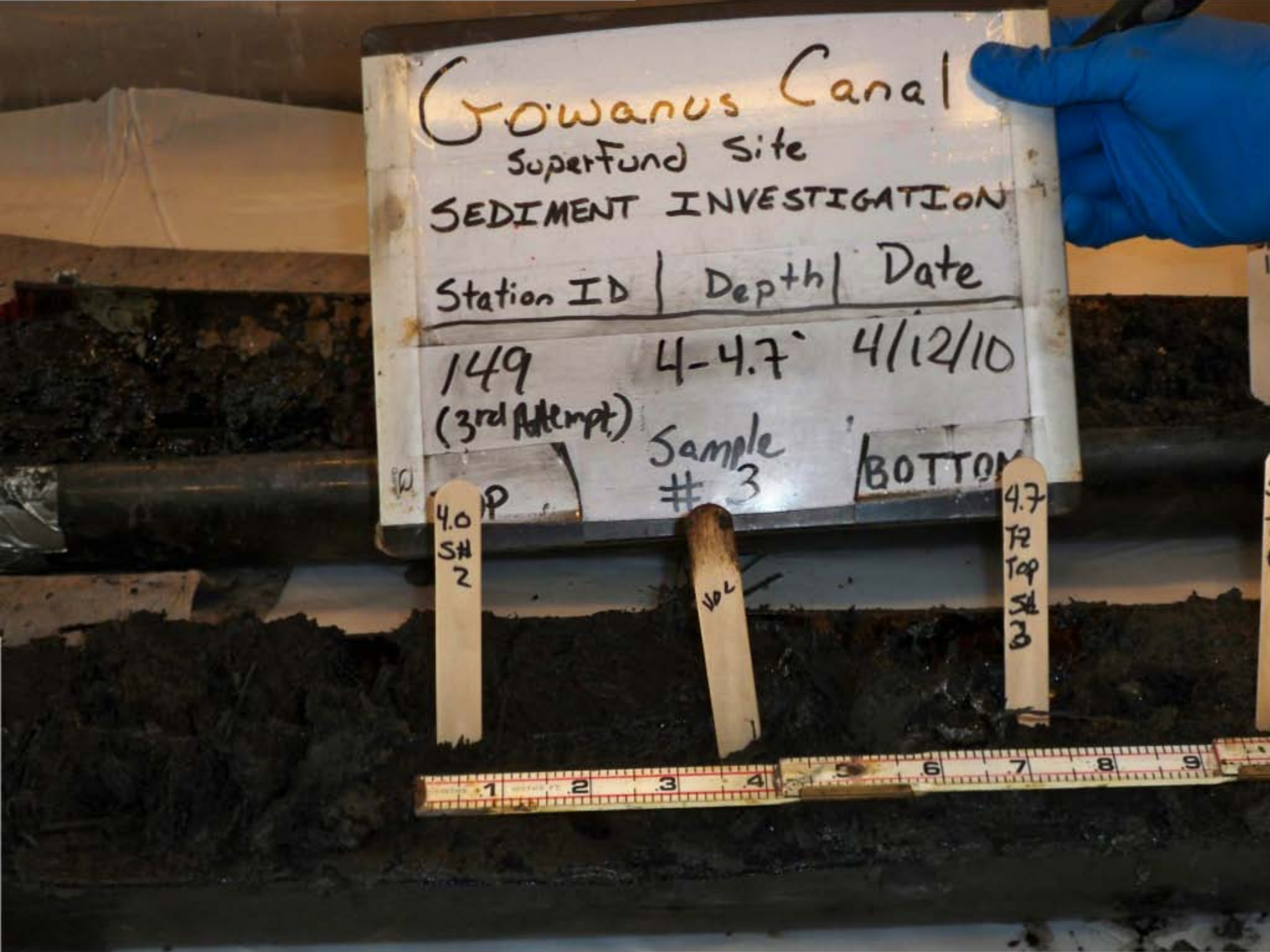

Gowanus Canal
Superfund S
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) 8.2-10.2 4/14/10
TOP | Sample 5 | BOTTOM

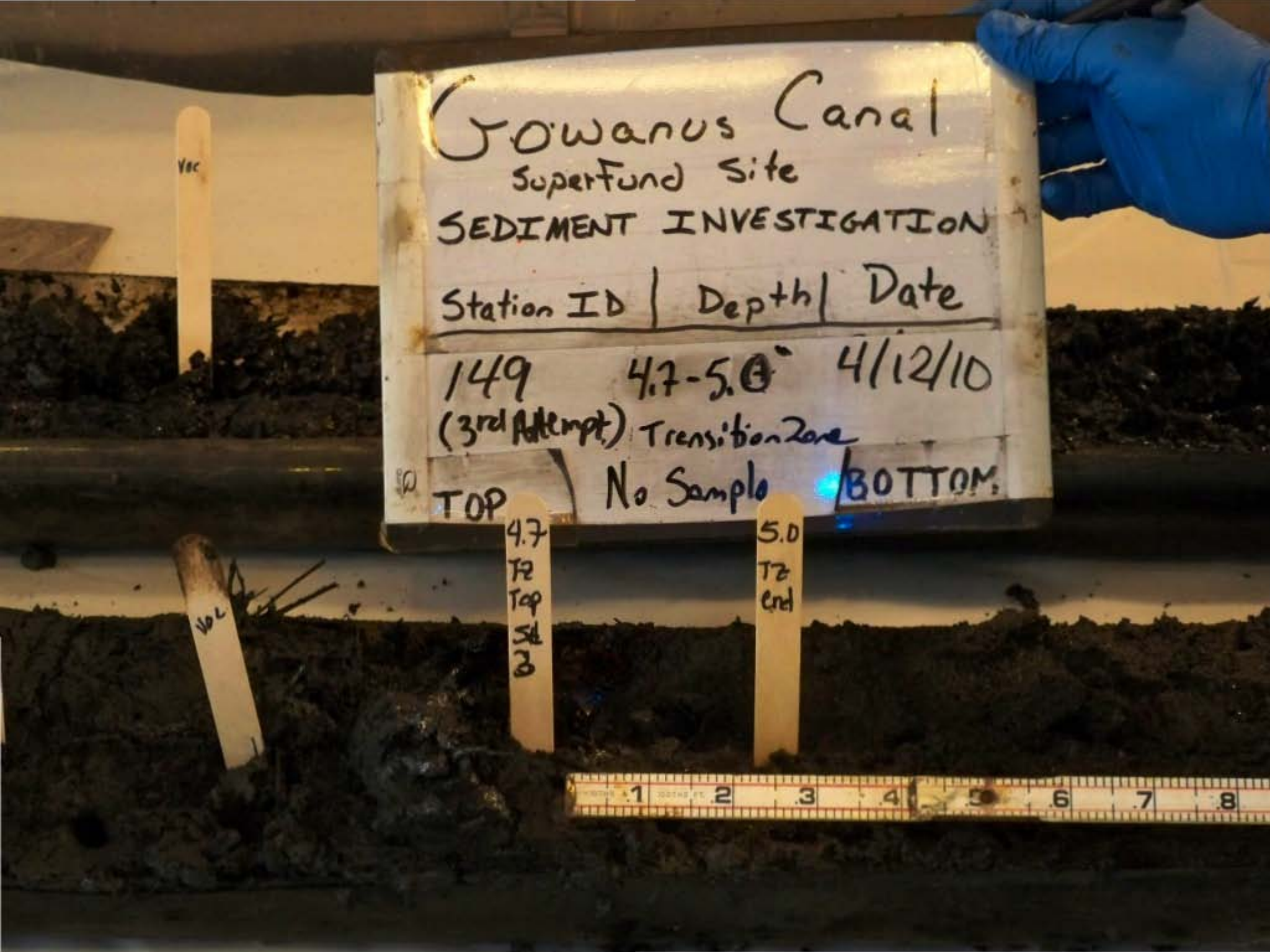

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) FULL RECOVERY 4/14/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
149 (3rd Attempt) | 0-2` | 4/12/10
Sample # 1
BOTTOM
VOC

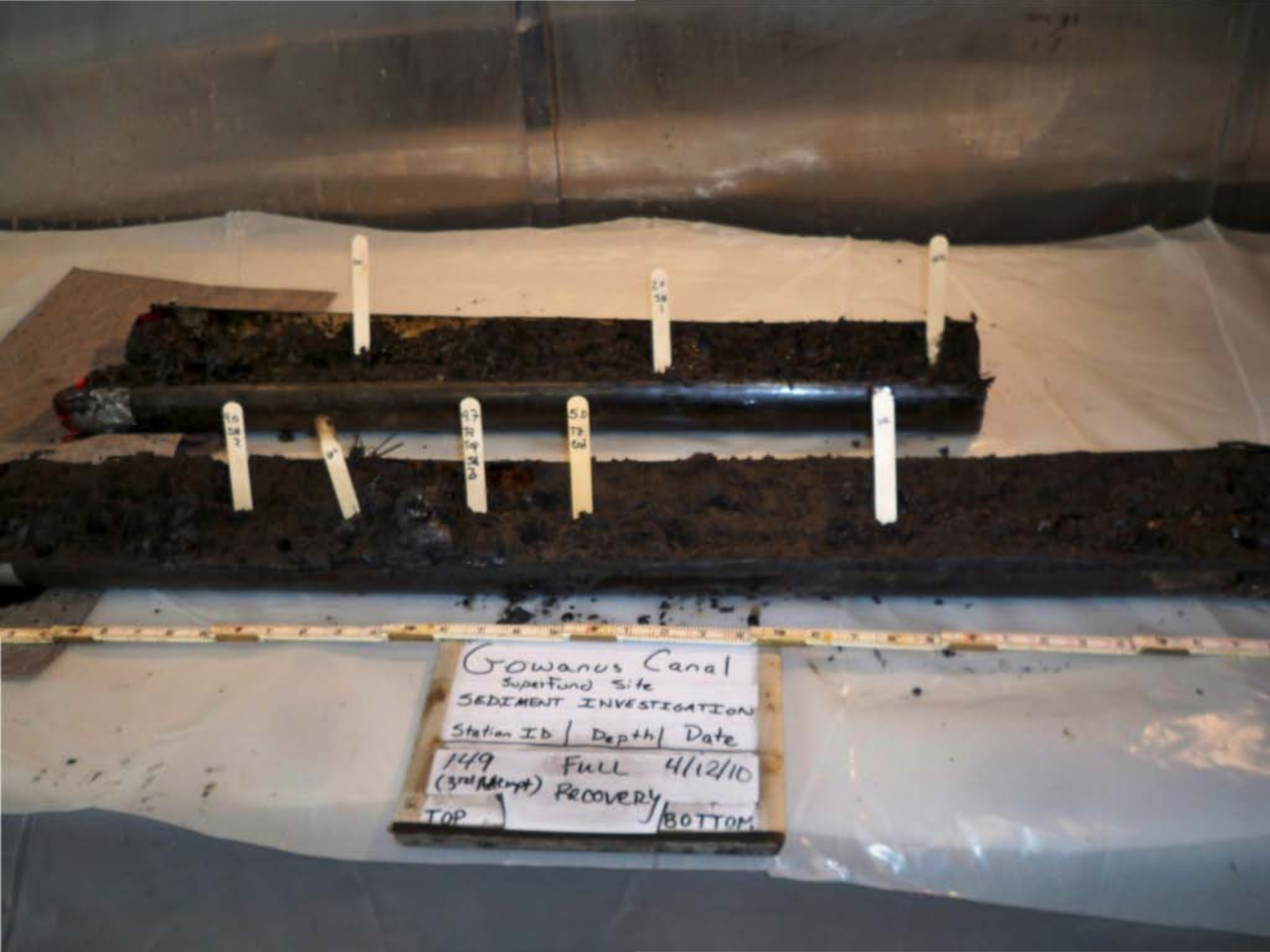

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
149 (3rd Attempt)
2-3'
4/12/10
Sample #2
TOP
BOTTOM
2.0 SH 1
VOL
VOL


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
149 (3rd Attempt) 3-4' 4/12/10
TOP Sample #2 BOTTOM
4.0 S# 2

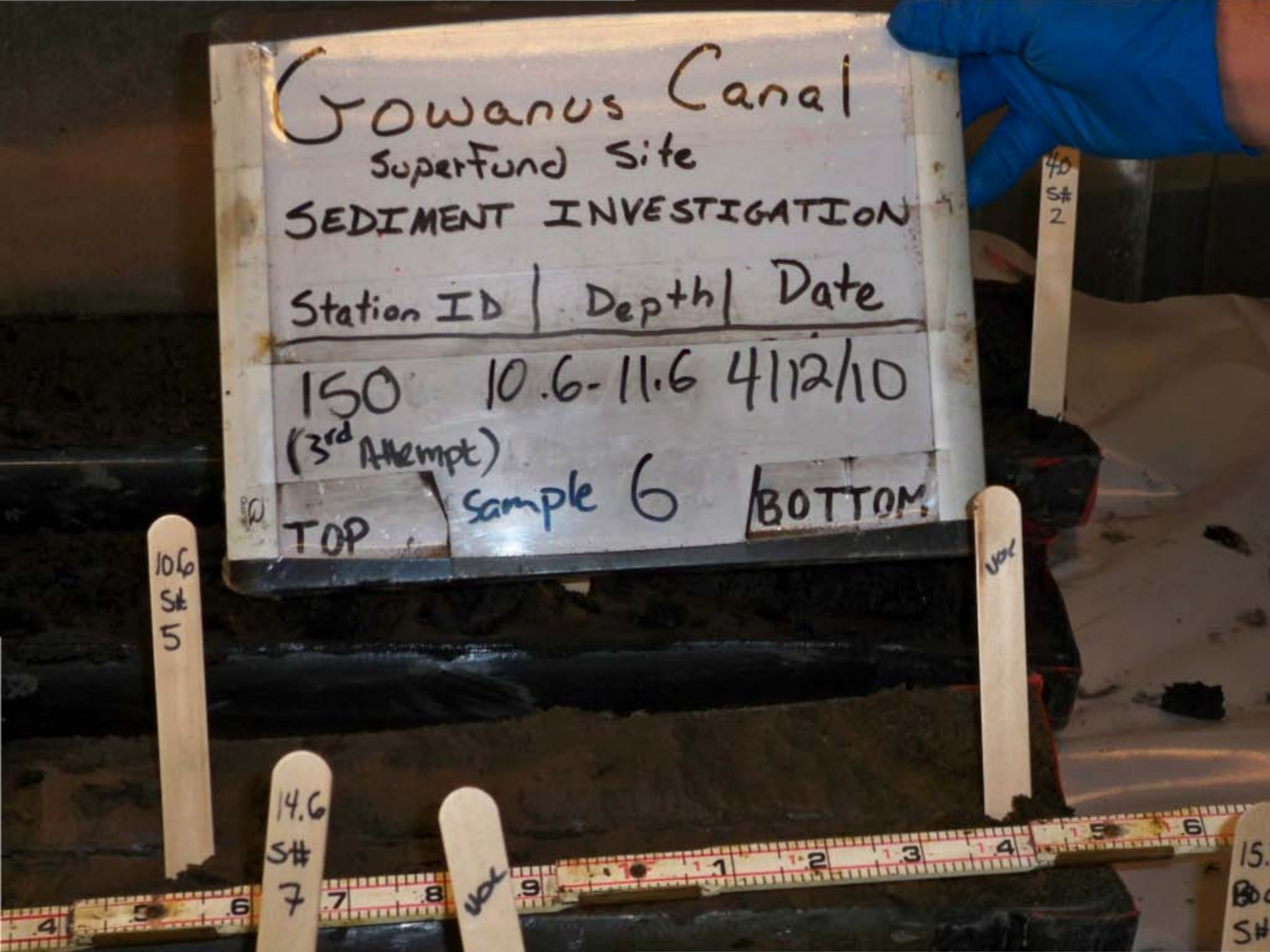

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
149 (3rd Attempt) 4-4.7' 4/12/10
Sample # 3
BOTTOM
4.0 SH 2
VOL
4.7 TR Top SH 2


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
149 4.7-5.0' 4/12/10
(3rd Attempt) Transition Zone
TOP No Sample BOTTOM
4.7 TZ Top Sed
5.0 TZ End
VOC
VOL


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
149 (3rd Attempt) 5.0-7.0 4/12/10
Sample #4
TOP
BOTTOM

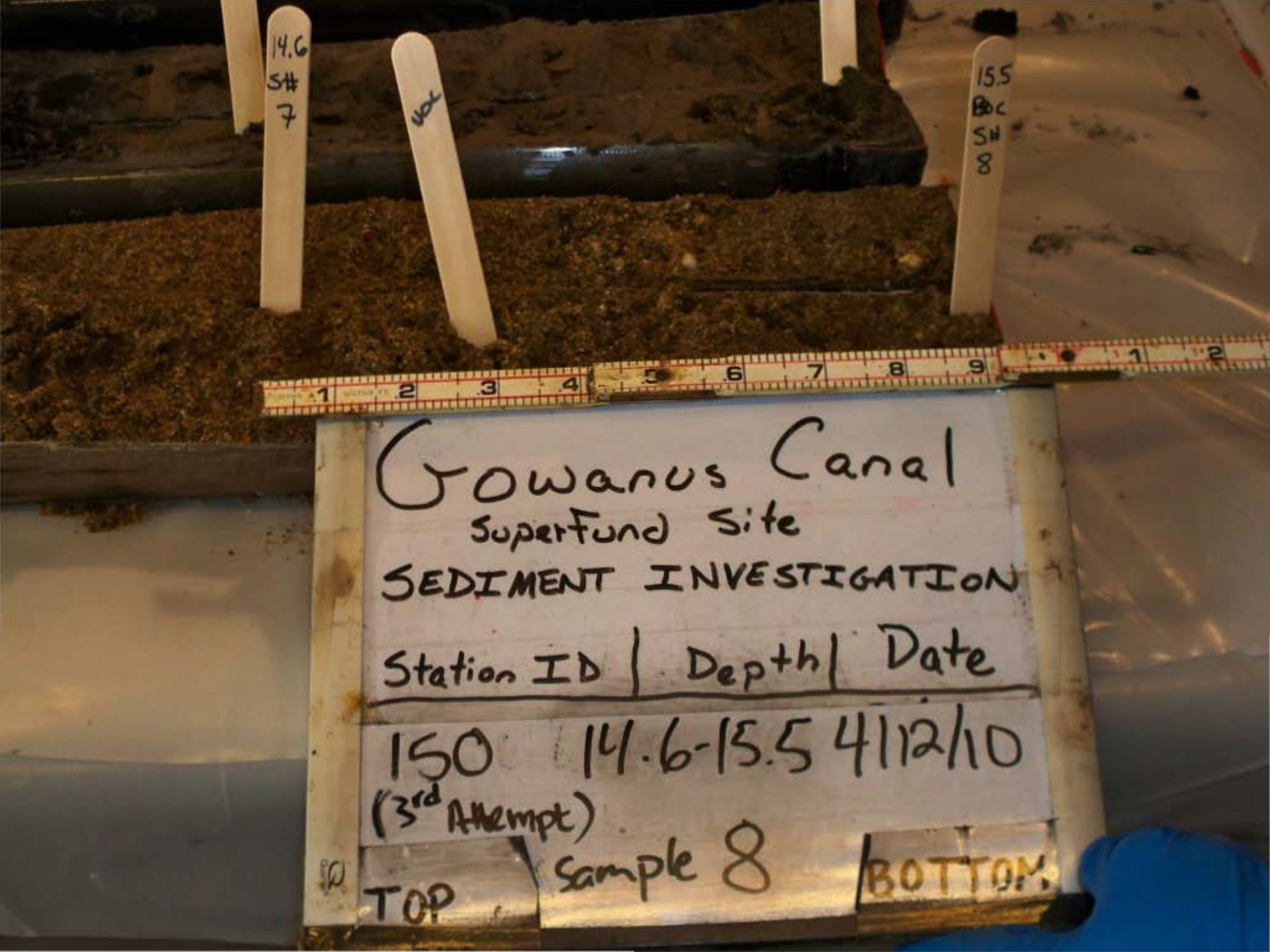

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
149 (3rd Attempt) FULL RECOVERY 4/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 0-2' 4/12/10
(3rd Attempt)
TOP Sample #1 BOTTOM
VOC
VOC


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 10.6-11.6 4/12/10
(3rd Attempt)
TOP
Sample 6
BOTTOM
40
S#
2
10.6
S#
5
14.6
S#
7


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 11.6-12.6 4/12/10
(3rd Attempt)
TOP sample 6 BOTTOM
12.6
SH
6

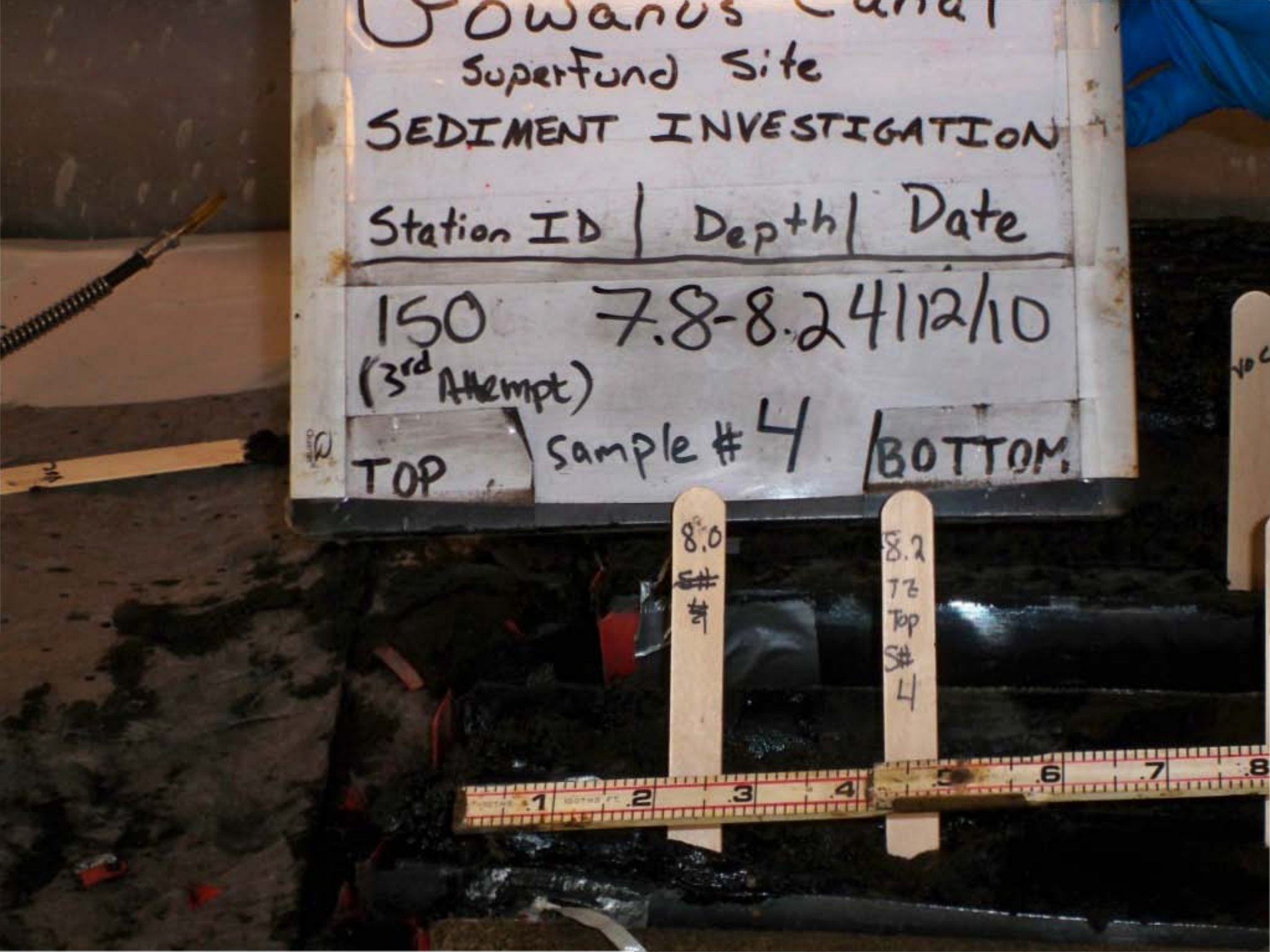

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
12.6-14.6 4/12/10
(1st attempt)
Sample 7
TOP
BOTTOM

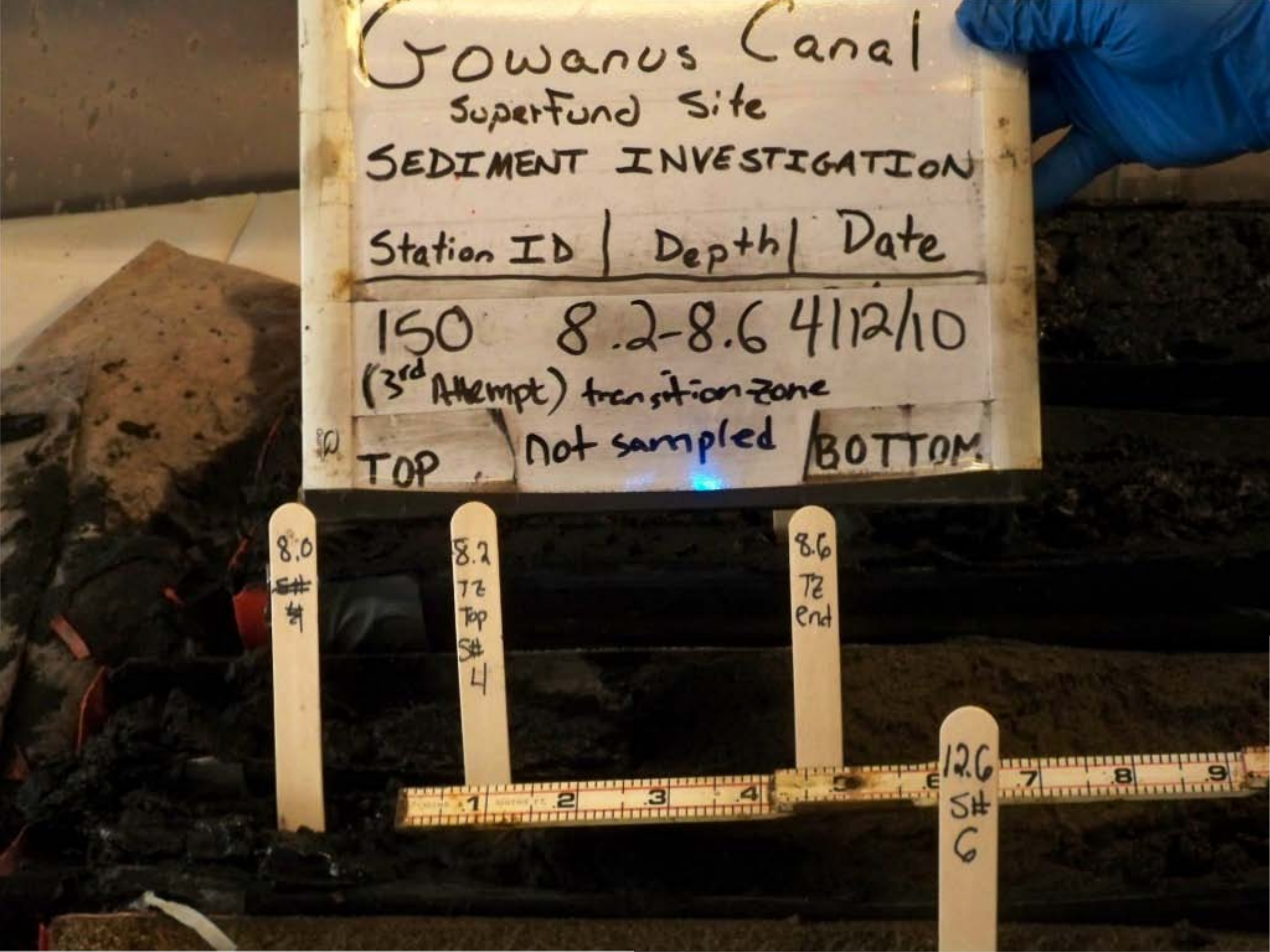

14.6
S#
7
15.5
S#
8
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 14.6-15.5 4/12/10
(3rd Attempt)
TOP
Sample 8
BOTTOM

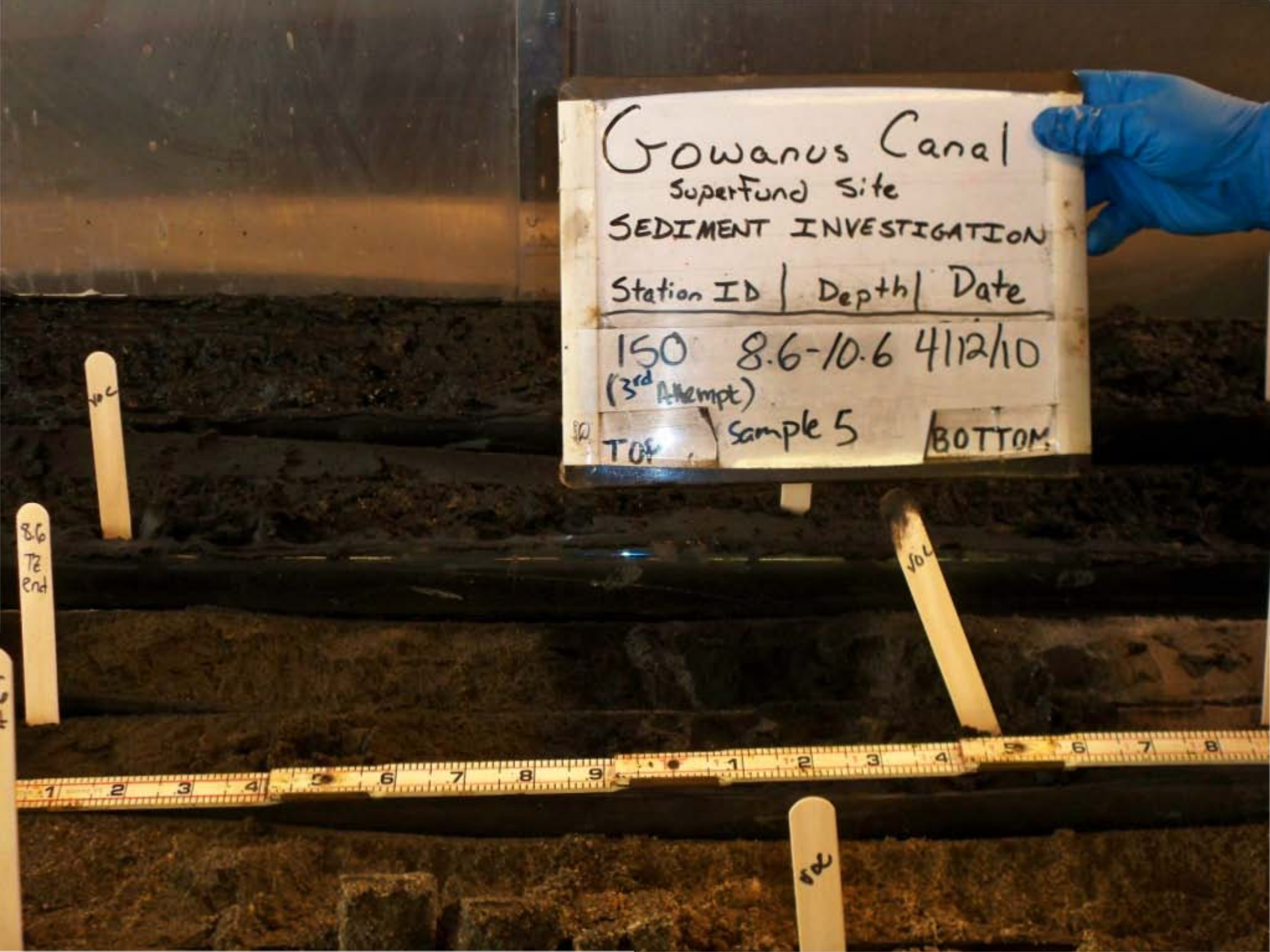

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 2-4' 4/12/10
(3rd Attempt)
TOP | sample #2 | BOTTOM
2.0
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 4'-6' 4/12/10
(3rd Attempt)
TOP Sample #3 BOTTOM
VOC
8.2
TZ
Top
8.6
TZ
End

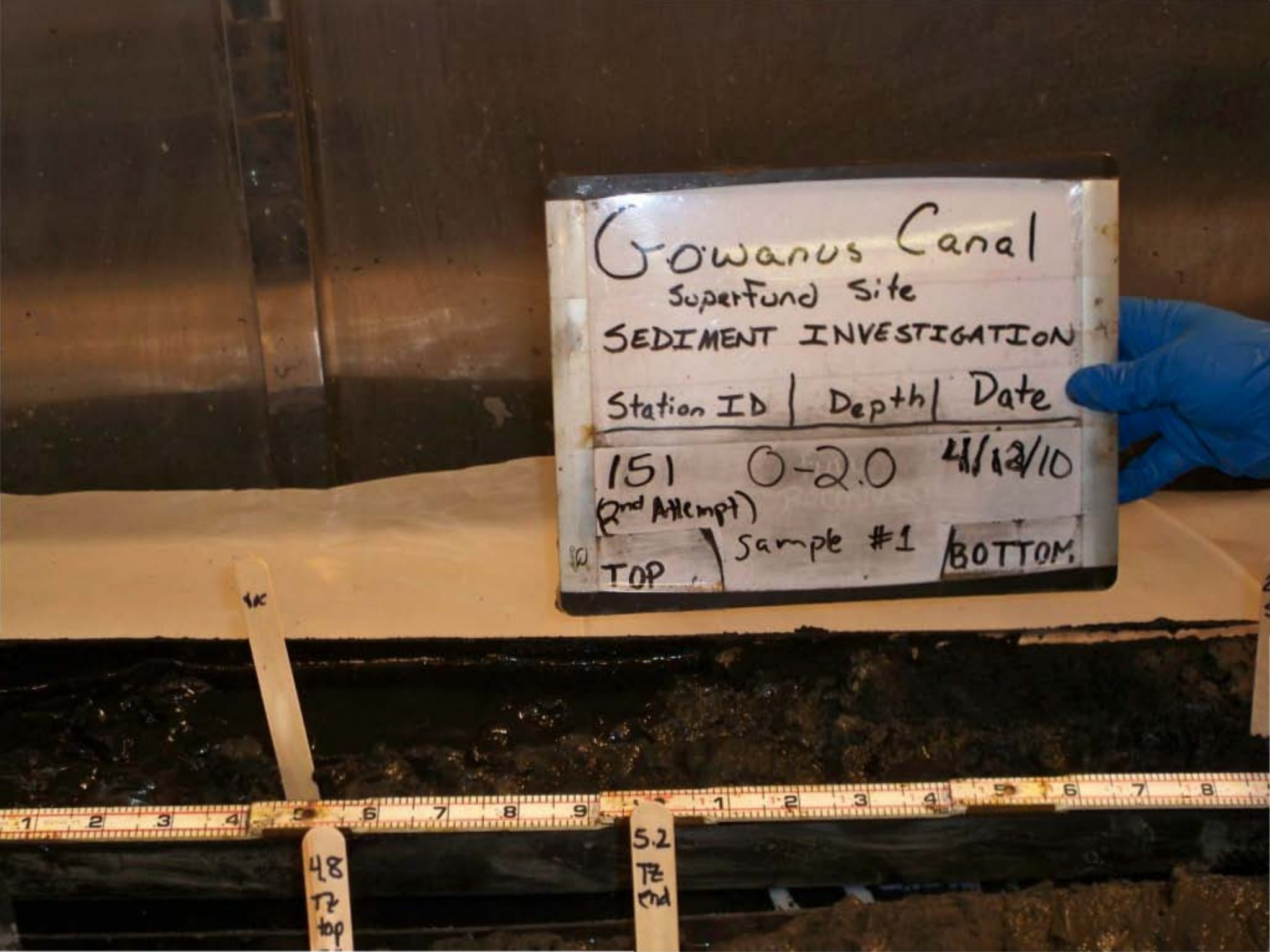

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 6-7.8- 4/12/10
(3rd Attempt)
TOP
sample # 4
BOTTOM
2.0 S#
6.0 S# 3
10.6 S# 5

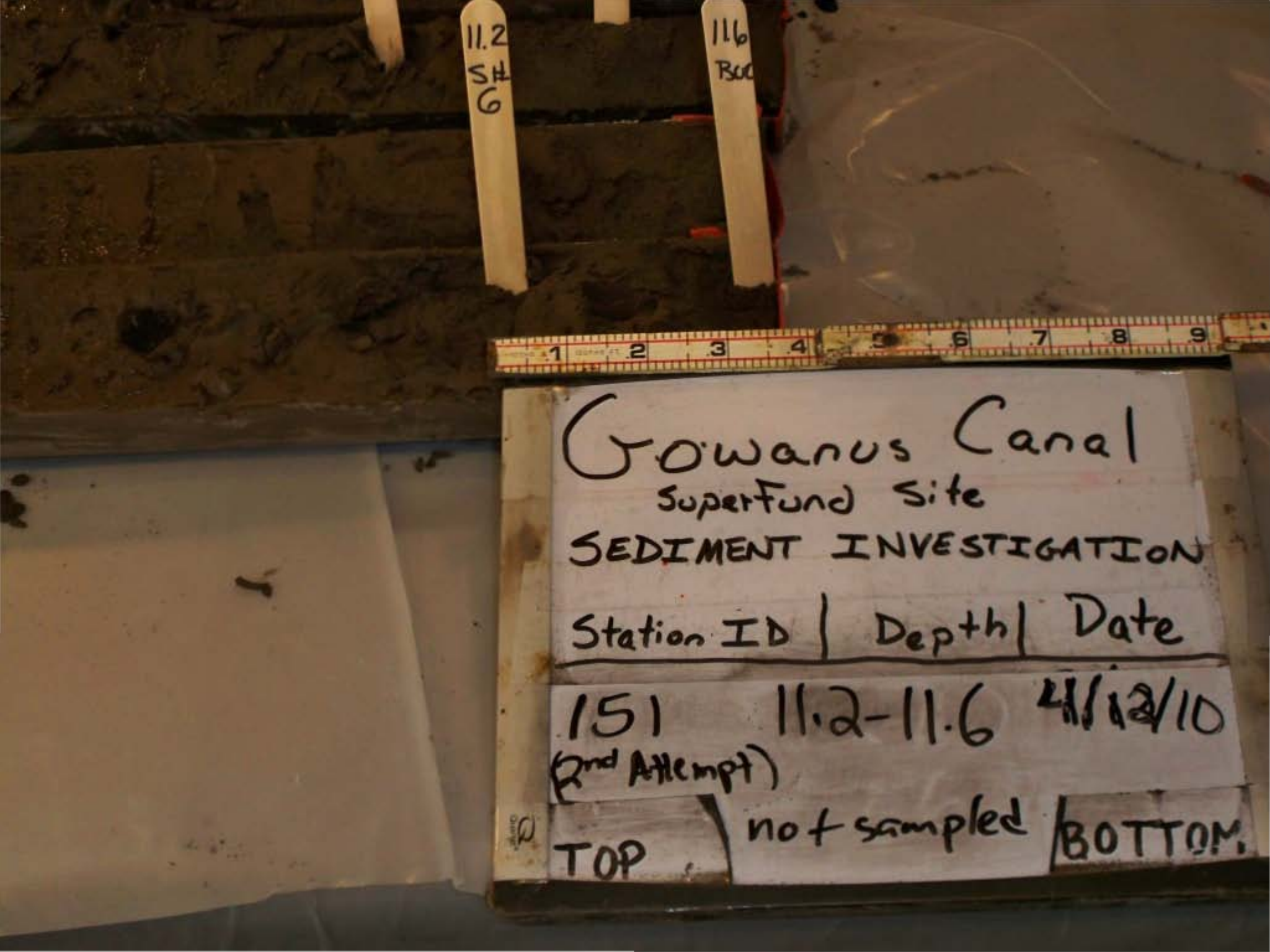

Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 7.8-8.2 4/12/10
(3rd Attempt)
TOP sample # 4 BOTTOM
8.0
S#
#4
8.2
TE
Top
S#
4

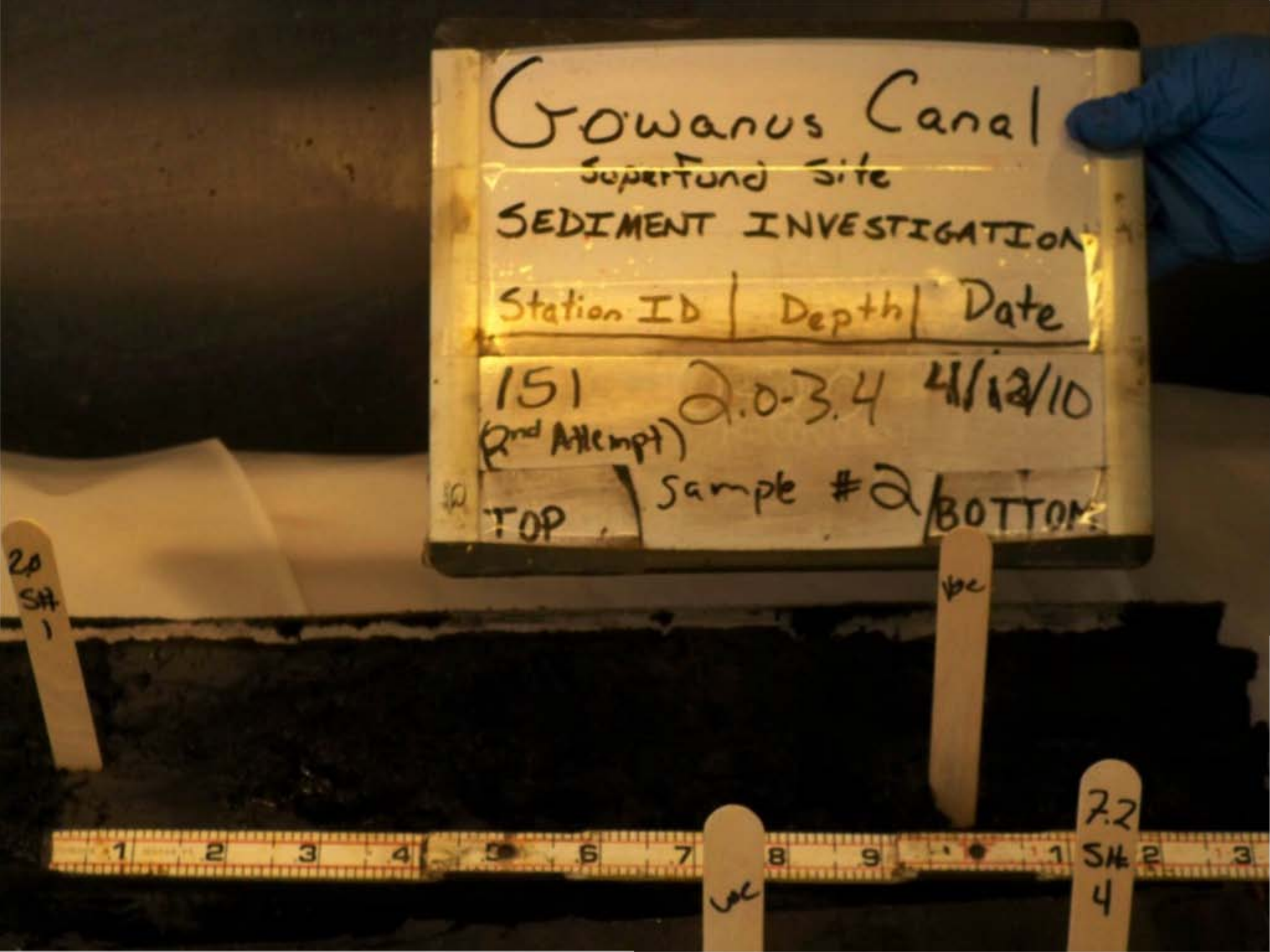

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 8.2-8.6 4/12/10
(3rd Attempt) transition zone
TOP Not sampled BOTTOM
8.0
8.2 TZ Top S# 4
8.6 TZ end
12.6 S# 6

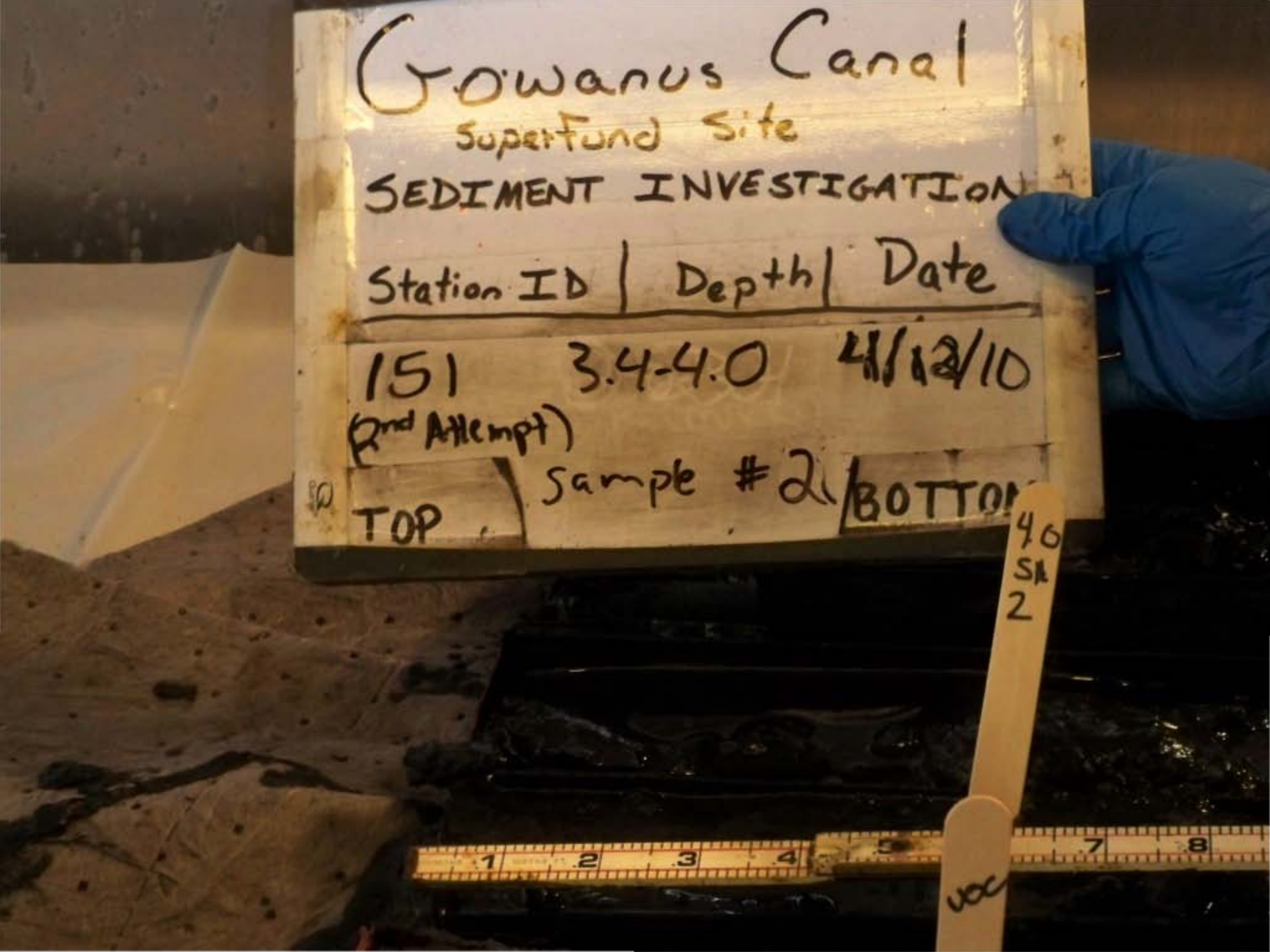

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 8.6-10.6 4/12/10
(3rd Attempt)
Sample 5
TOP
BOTTOM
8.6 Top End

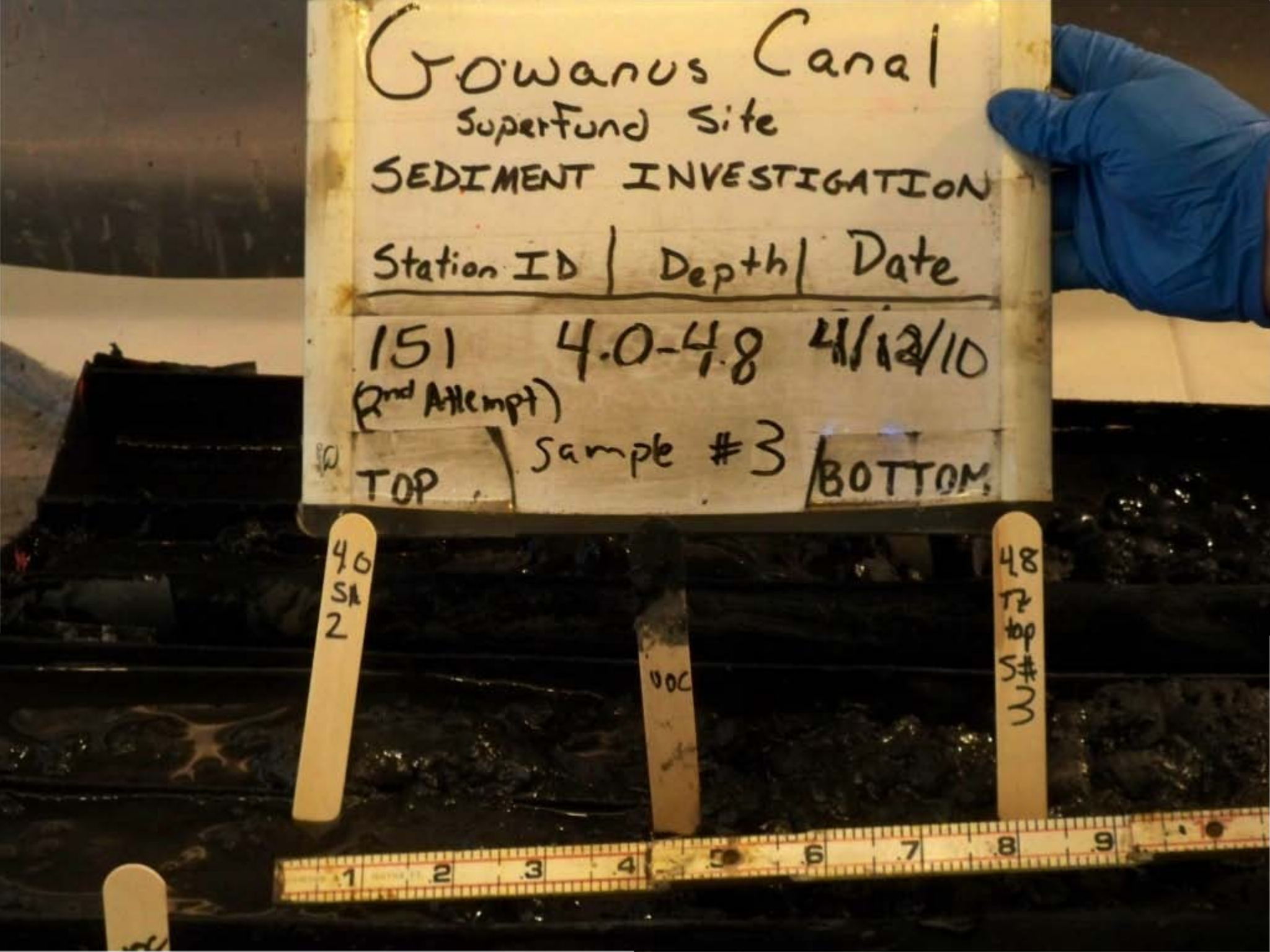

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
150 (3rd Attempt) Full Recovery 4/12/10
TOP

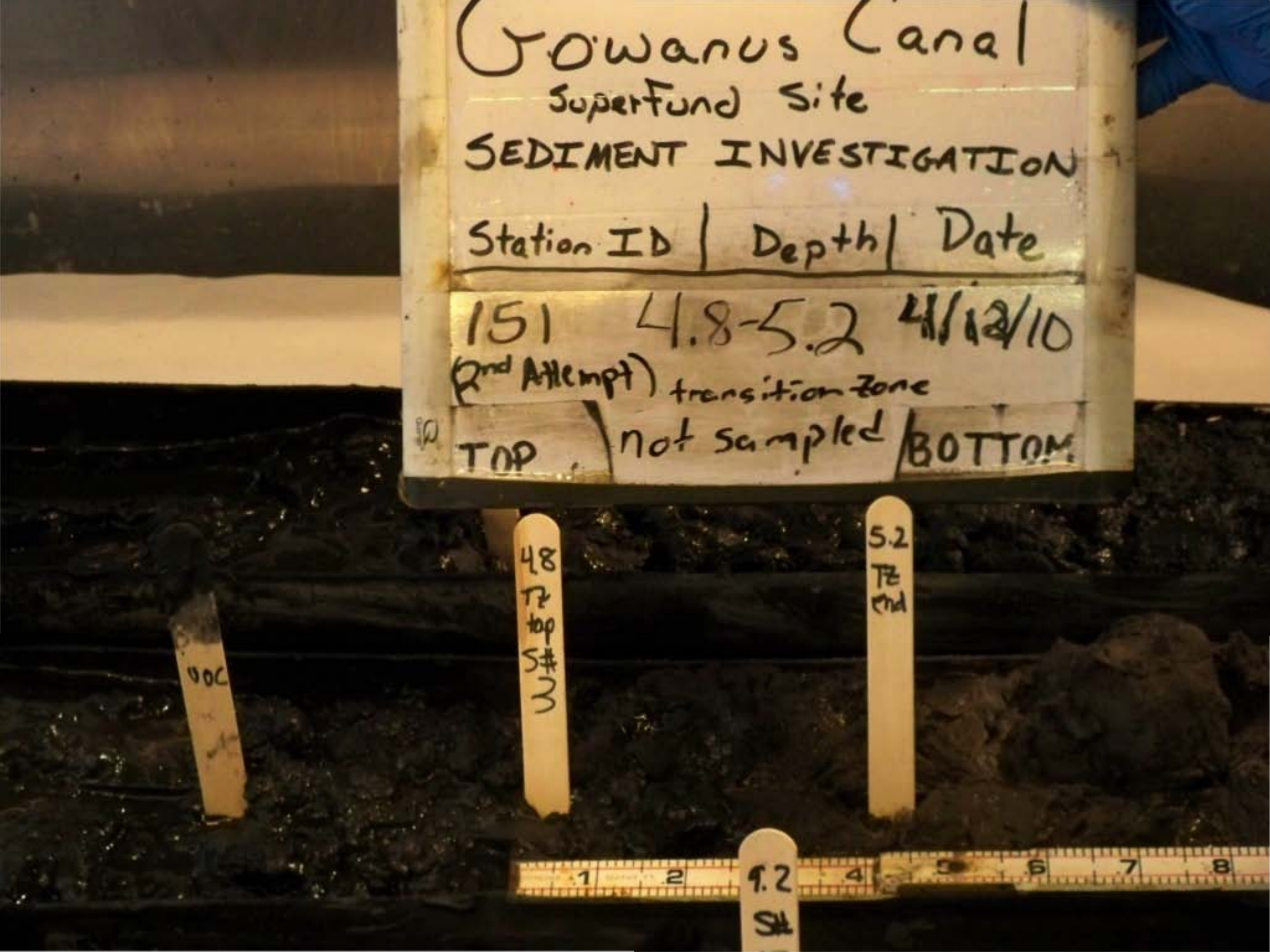

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 0-2.0 4/12/10
(2nd Attempt)
TOP Sample #1 BOTTOM
48 TZ top
5.2 TZ end

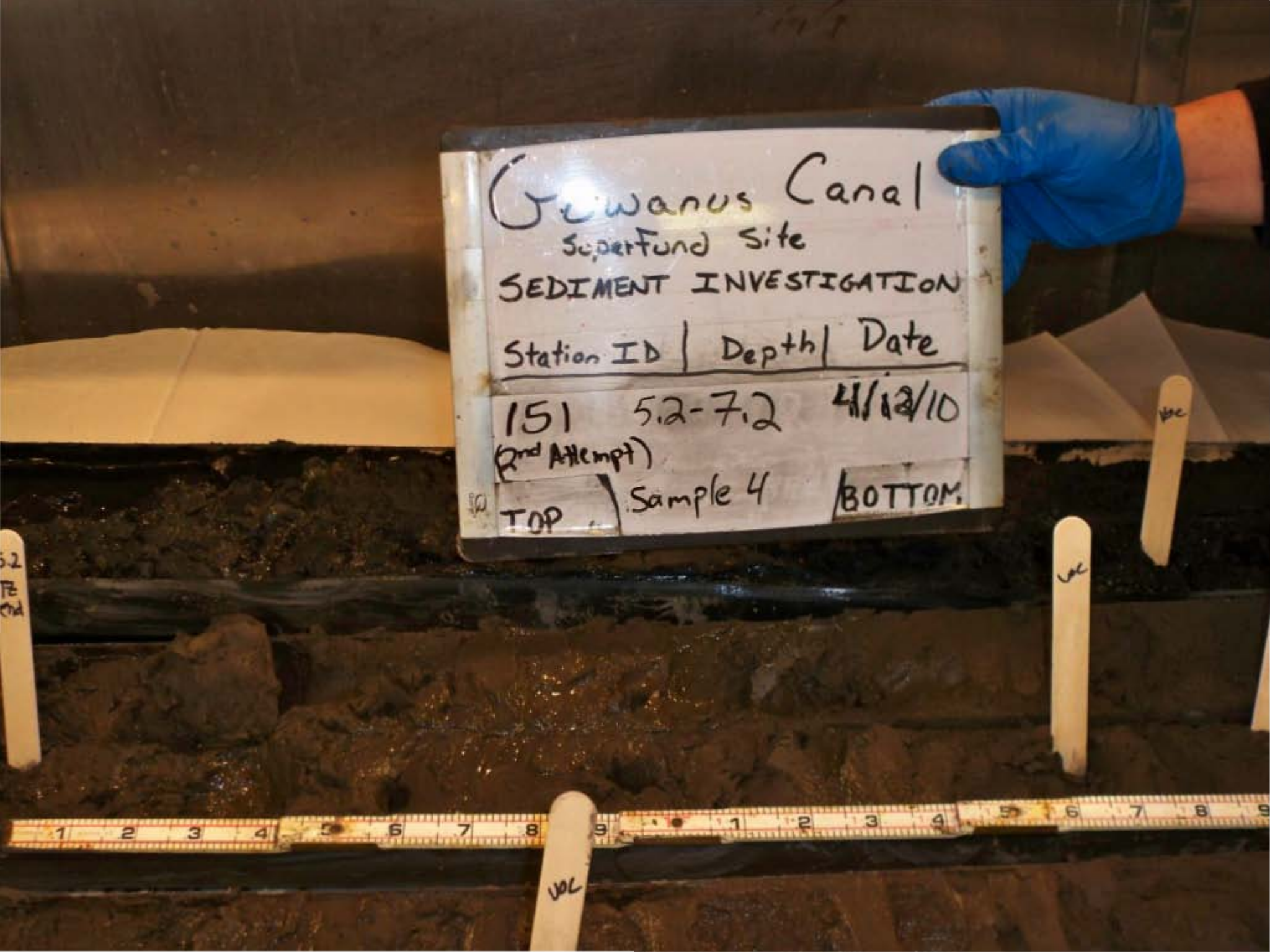

11.2
SH
G
11.6
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 11.2-11.6 4/12/10
(2nd Attempt)
TOP
not sampled
BOTTOM

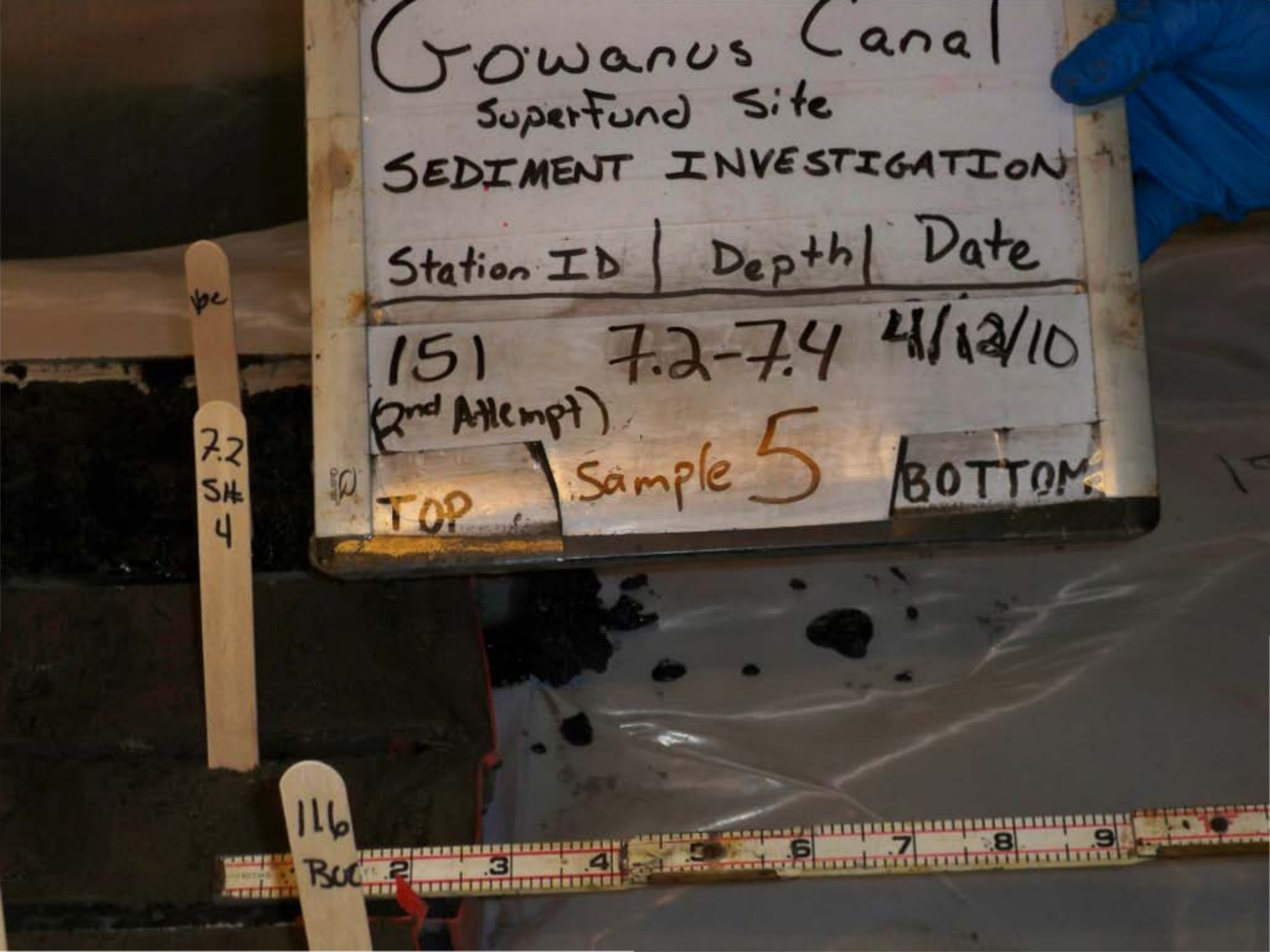

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 2.0-3.4 4/12/10
(2nd Attempt)
TOP Sample #2 BOTTOM
2.0 SH 1
VBC
VBC
7.2 SH 4

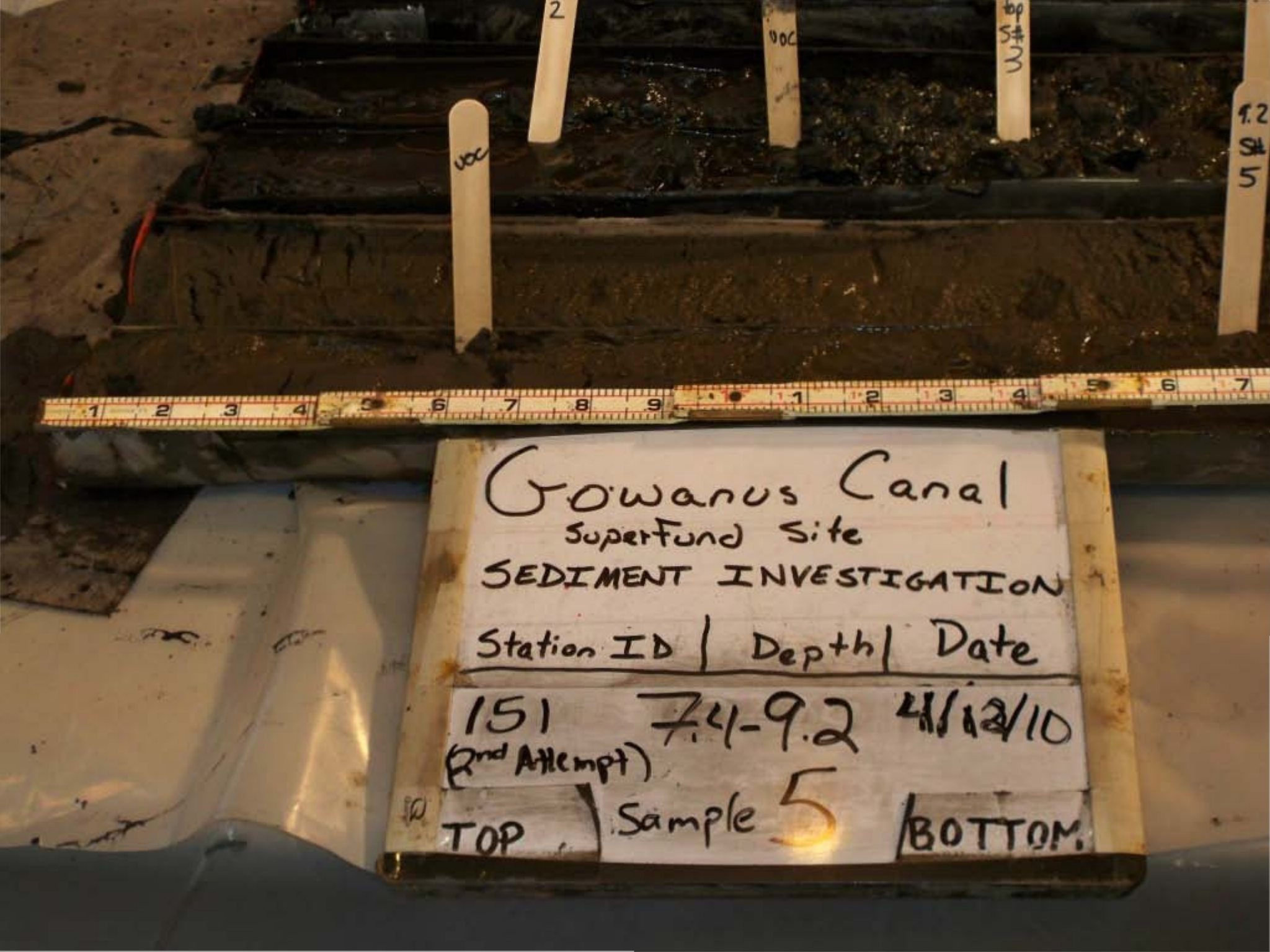

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 3.4-4.0 4/12/10
(2nd Attempt)
TOP
Sample #2
BOTTOM
40
SA
2
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 4.0-4.8 4/12/10
(2nd Attempt)
Sample #3
TOP
BOTTOM
4.0 SA 2
VOC
4.8 TZ top S# 3


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 4.8-5.2 4/12/10
(2nd Attempt) transition zone
TOP
not sampled
BOTTOM
4.8
TZ
top
S#
3
5.2
TZ
end
VOC
9.2
S#


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 5.2-7.2 4/12/10
(2nd Attempt)
TOP Sample 4 BOTTOM
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 7.2-7.4 4/12/10
(2nd Attempt)
Sample 5
TOP
BOTTOM
7.2
SH
4
116
BOC


VOC
2
VOC
top
S#
3
9.2
S#
5
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 7.4-9.2 4/12/10
(2nd Attempt)
TOP Sample 5 BOTTOM

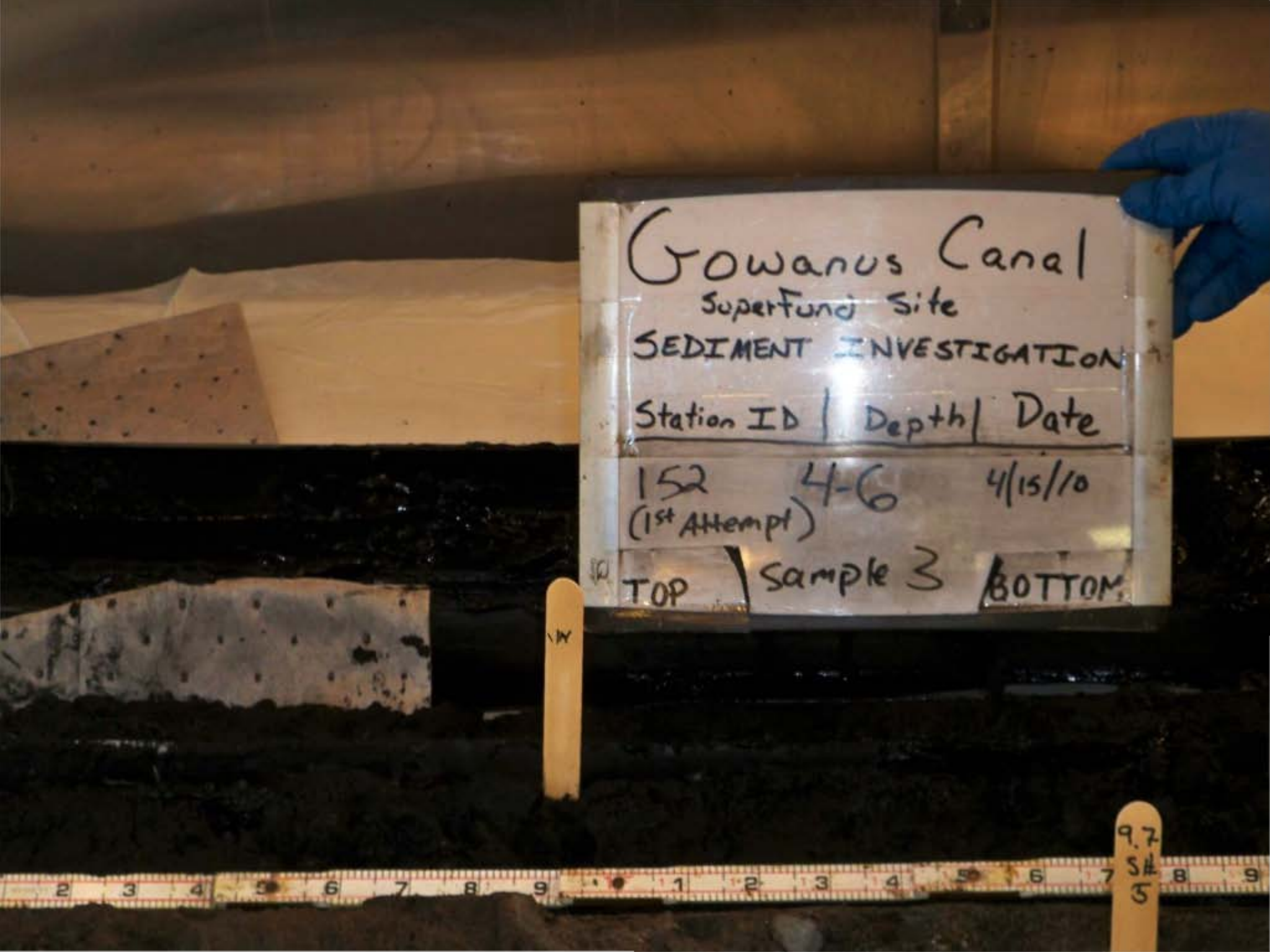

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 (2nd Attempt) 9.2-11.2 4/12/10
Sample 6
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
151 (2nd Attempt) Full Recovery 4/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 (1st Attempt) 0-2 4/15/10
TOP | Sample 1 | BOTTOM

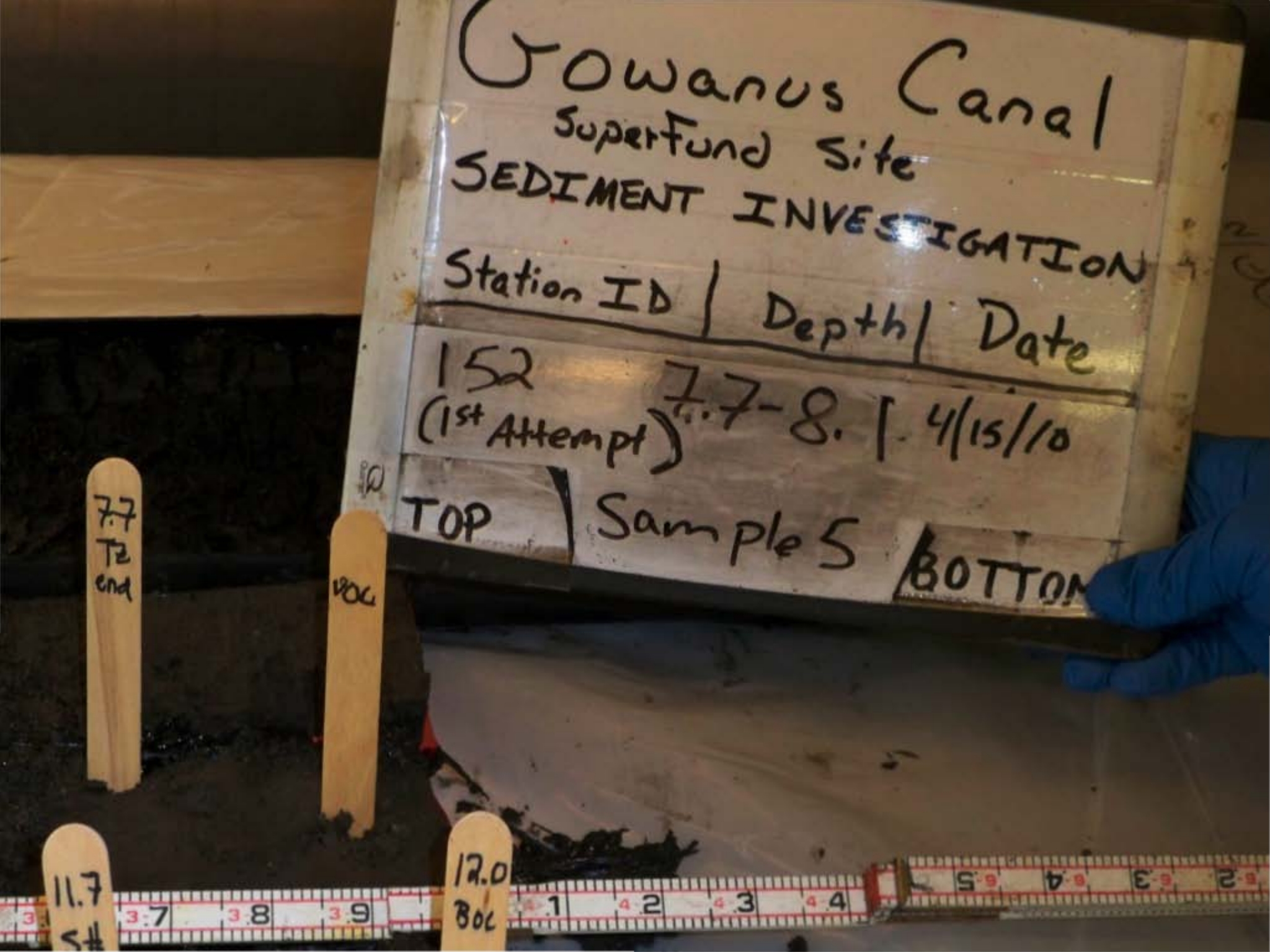

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 11.7-12.0 4/15/10
(1st Attempt)
not sampled
BOTTOM
11.7 S# 6
12.0 Bot
7.7 Te em

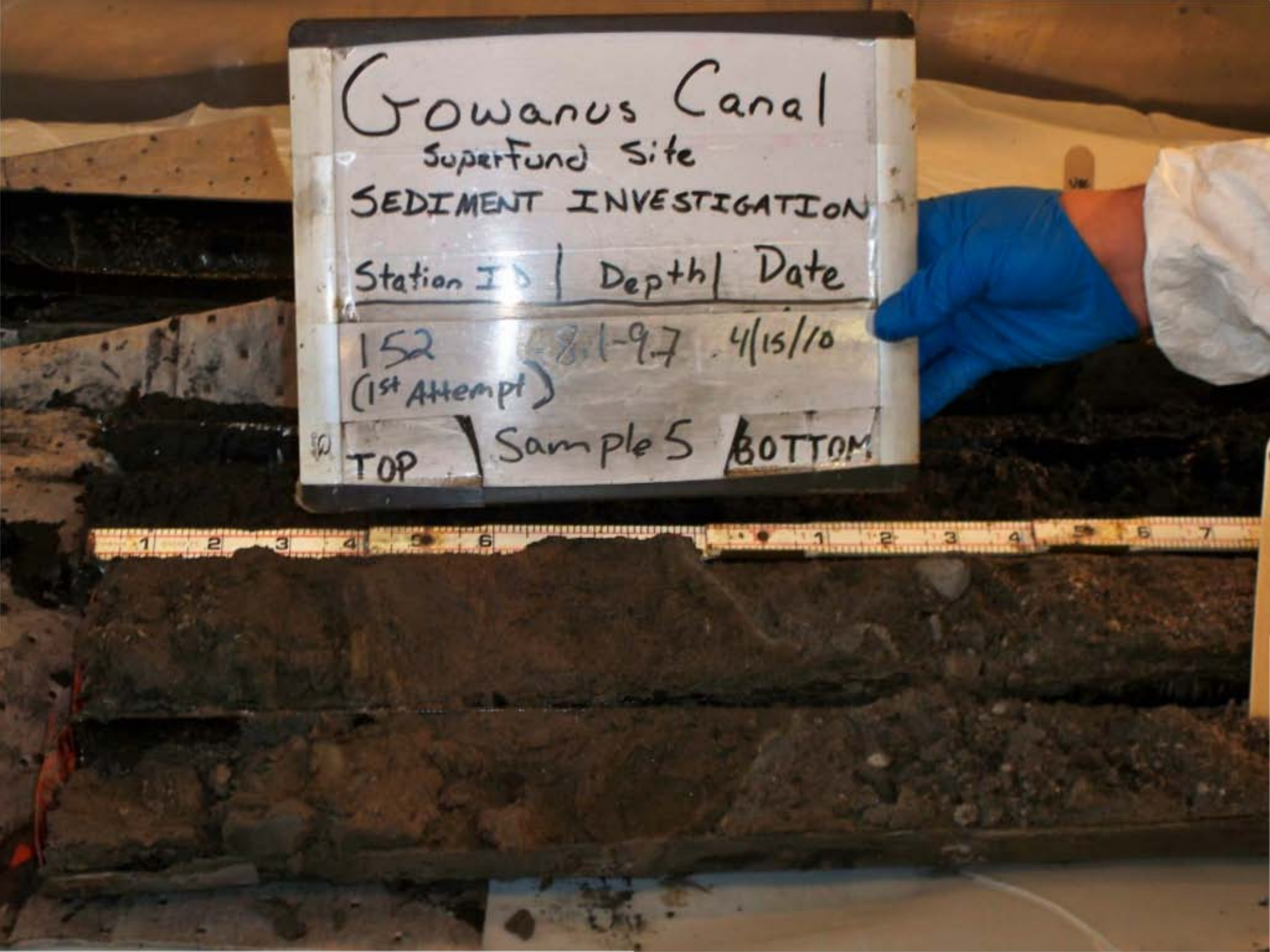

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 2-4 4/15/10
(1st Attempt)
TOP
sample 2
BOTTOM
4.0
SH
2
7.3
Tz
top
7.7
Tz
end


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 (1st Attempt) 4-6 4/15/10
TOP | Sample 3 | BOTTOM
9.7
S#
5


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Dep | Date
152 (1st Attempt) 6-7.5 9/15/10
TOP Sample 4 BOTTOM
VOC
6.0 S# 3
VOC
7.5 Tz mp S# 4
VOC

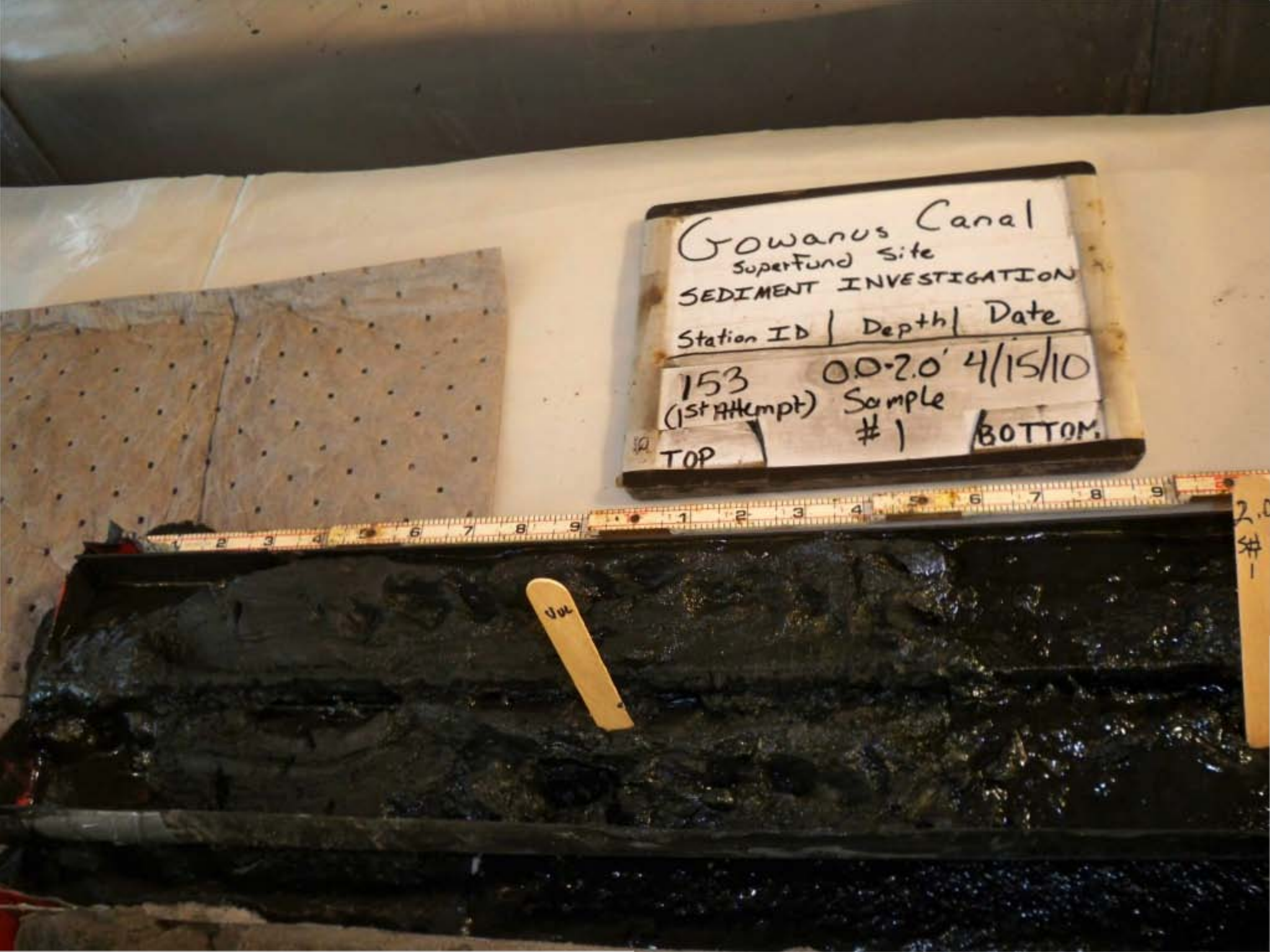

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 7.3-7.7 4/15/10
(1st Attempt) transition zone
not sampled
TOP
BOTTOM
7.3 Tz top SA 4
7.7 Tz end
11.7 SA 6

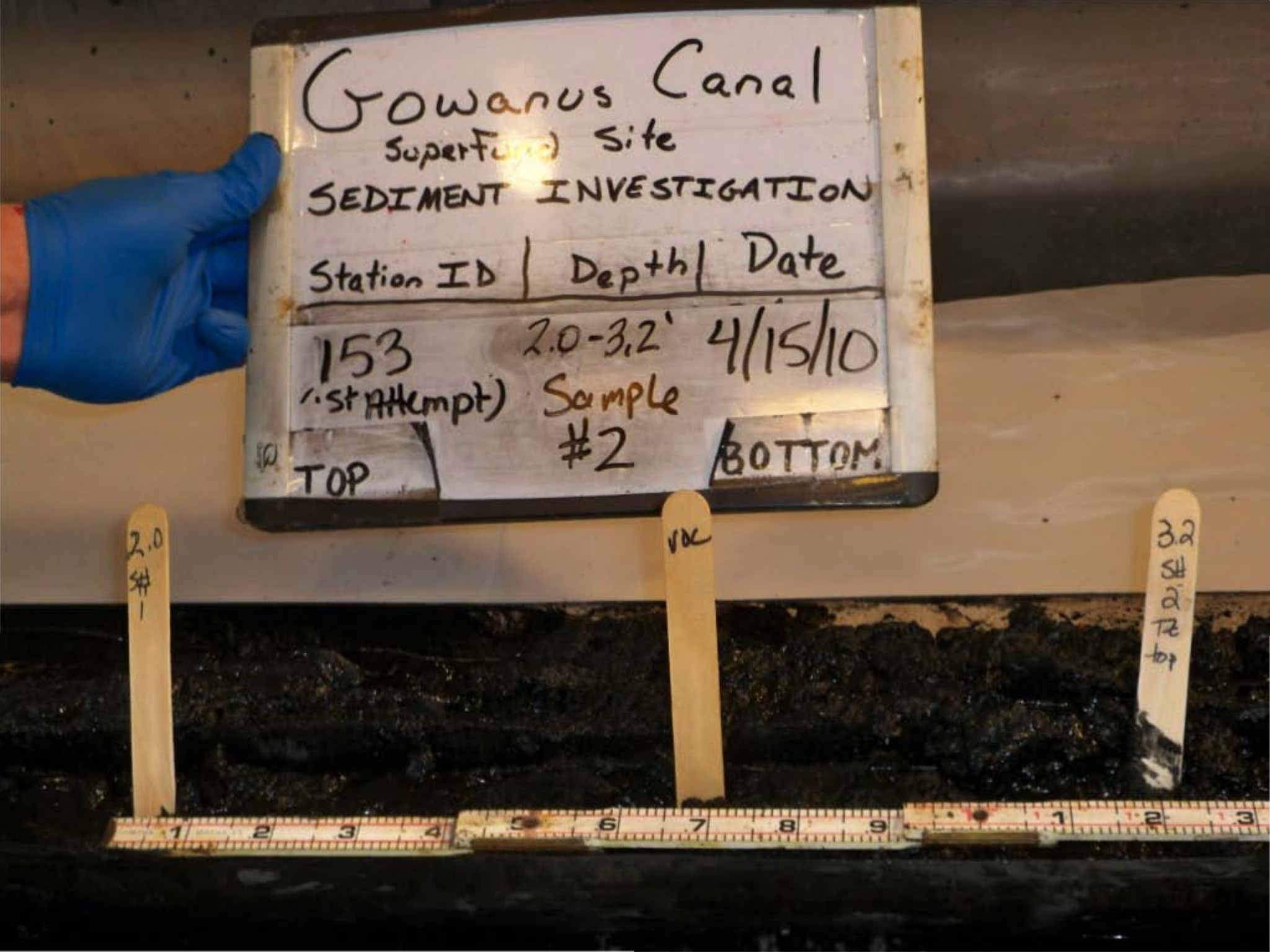

Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 (1st Attempt) | 7.7-8. | 4/15/10
TOP | Sample 5 | BOTTOM
7.7 T2 end
BOC
11.7
12.0 BOC

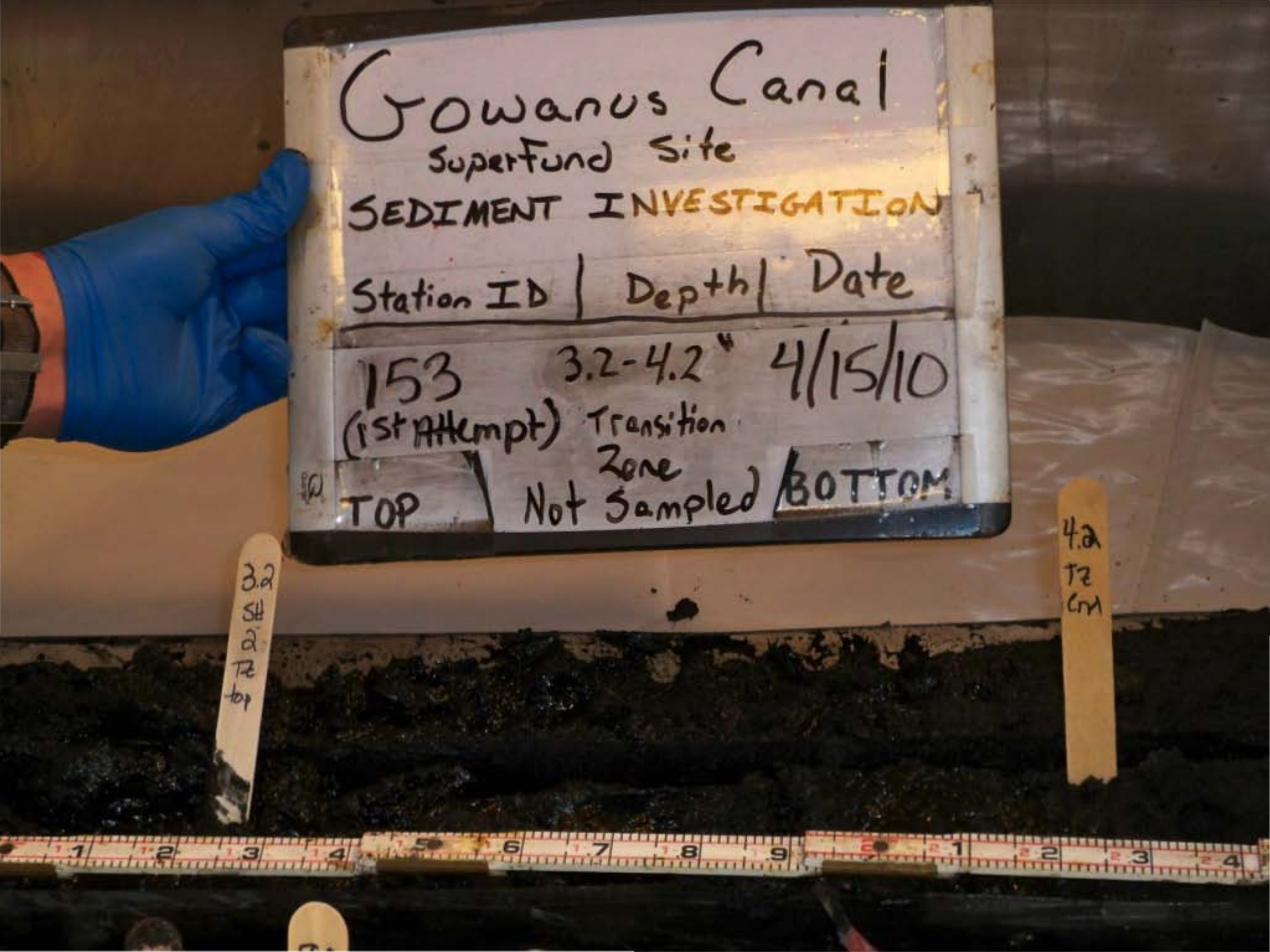

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 (1st Attempt) 8.1-9.7 4/15/10
TOP | Sample 5 | BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATI
Station ID | Depth | Date
152 9.7-11.7 4/15/10
(1st Attempt)
TOP | Sample 6 | BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
152 (1st Attempt) Full Recovery 4/15/10
TOP
BOTTOM

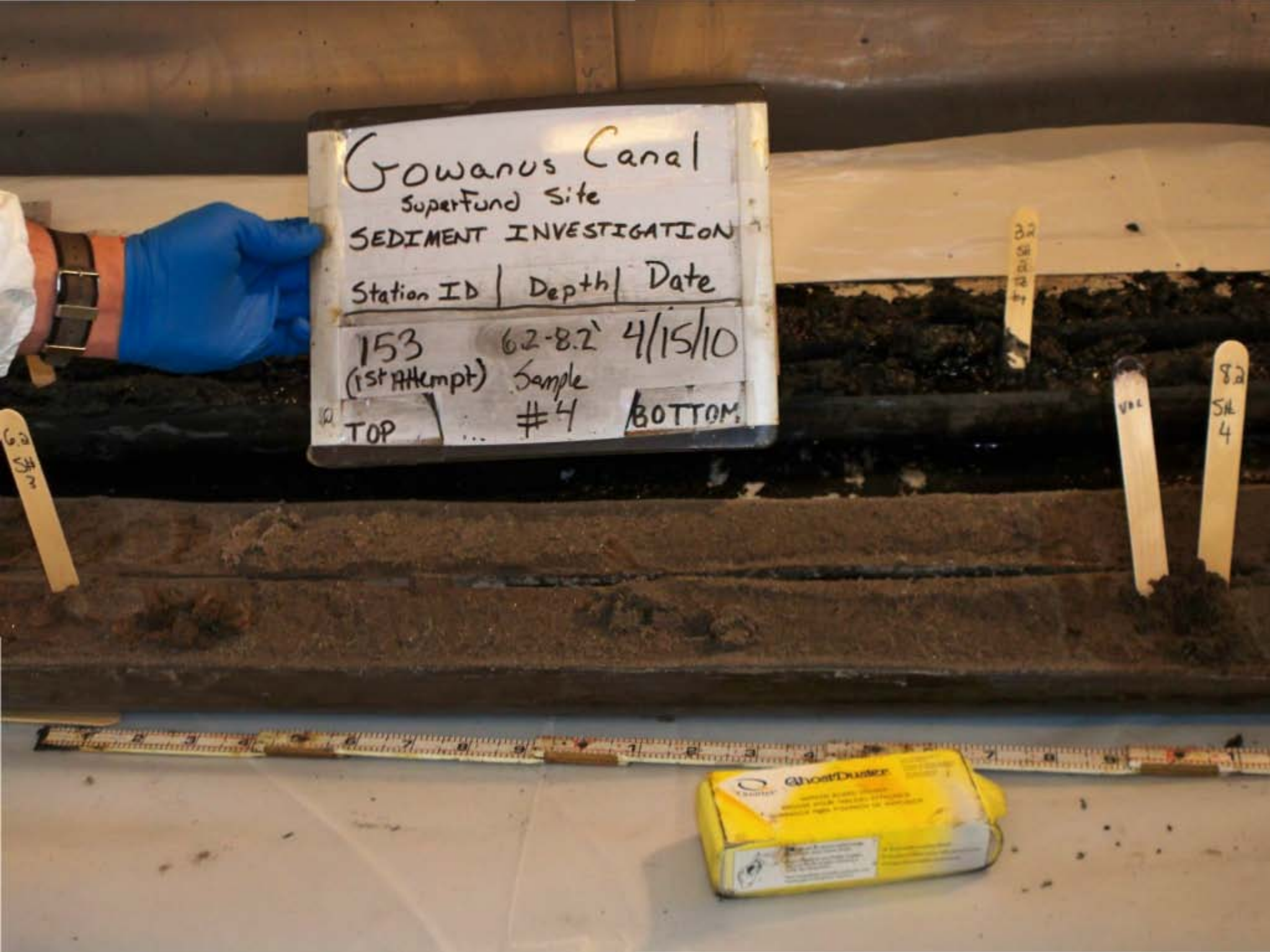

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
153 0.0-2.0' 4/15/10
(1st Attempt) Sample #1
TOP
BOTTOM

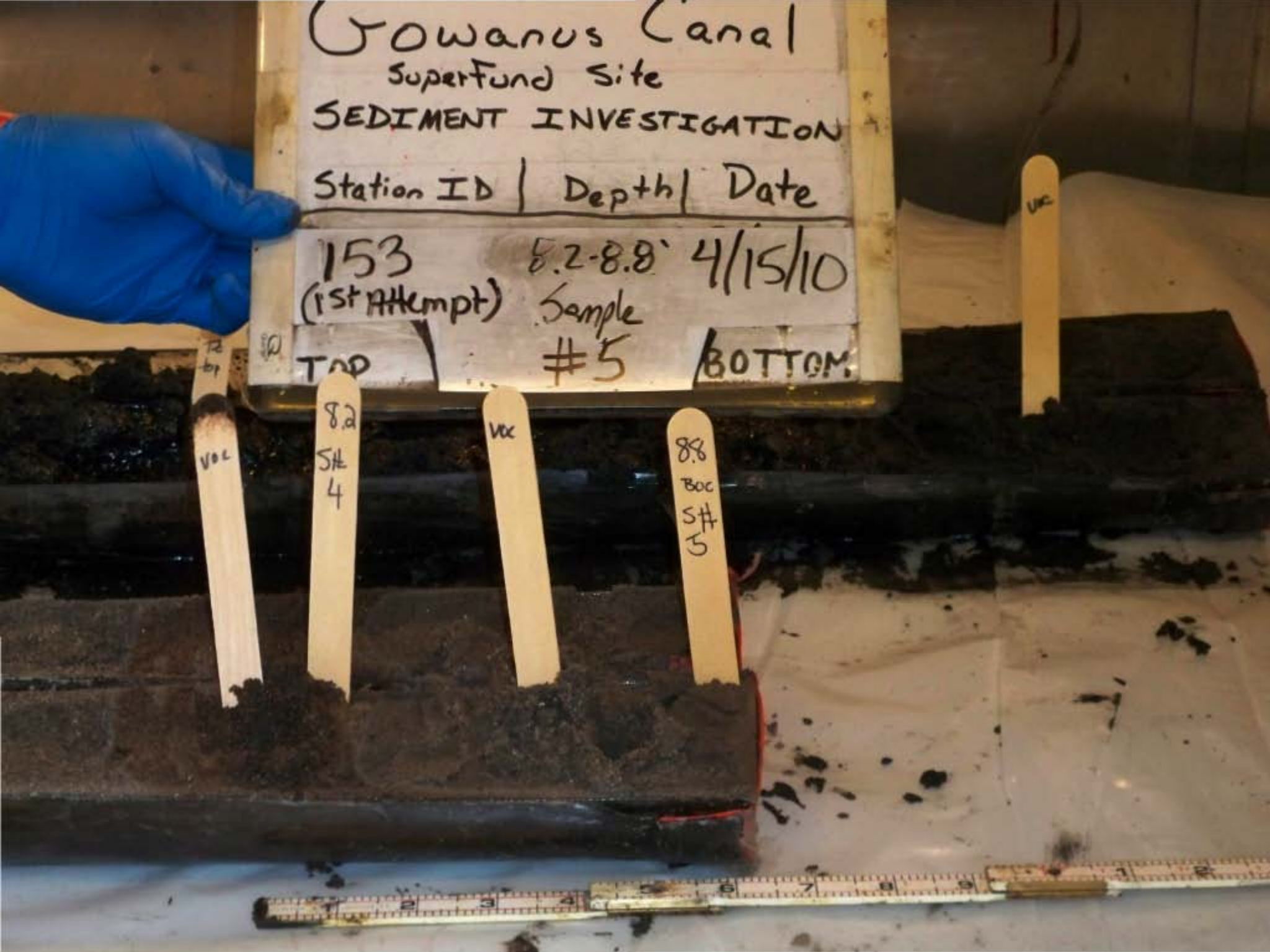

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
153 (1st Attempt) 2.0-3.2' Sample #2 4/15/10
TOP
BOTTOM
2.0 SH 1
VAC
3.2 SH 2 TR bot


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
153 3.2-4.2" 4/15/10
(1st Attempt) Transition Zone
TOP | Not Sampled | BOTTOM
3.2 SH 2 TZ top
4.2 TZ CM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID
Depth
Date
153
(1st Attempt)
4.2-4.8
4/15/10
Sample
#3
TOP
BOTTOM
4.2
TZ
Cnt
UC


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
153 (1st Attempt) 4.8-6.2' 4/15/10
Sample #3
TOP
6.2 S# 3

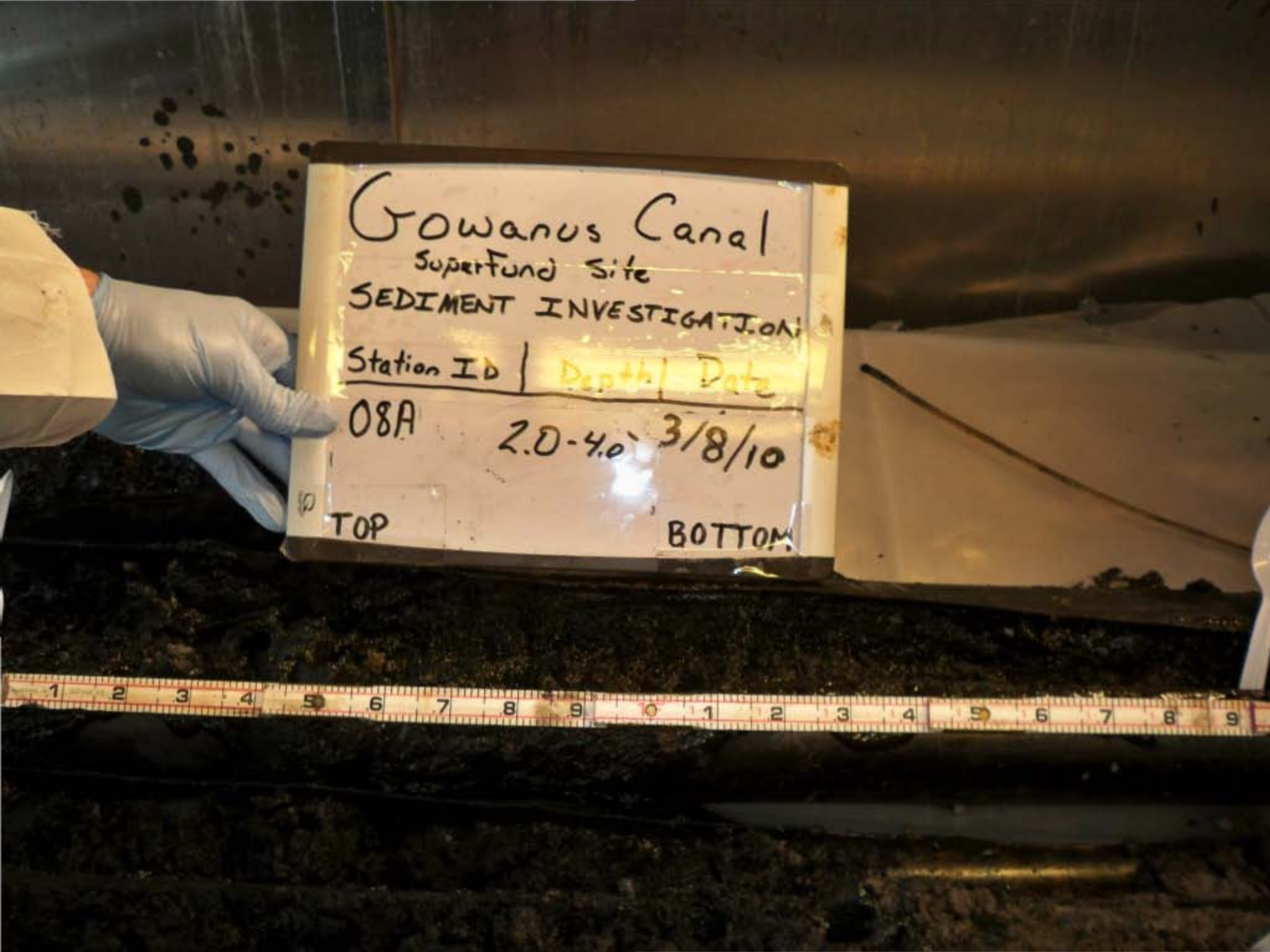

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
153 (1st Attempt)
6.2-8.2'
4/15/10
Sample
TOP
#4
BOTTOM
6.2 SH 3
8.2 SH 4
VOC
Ghost Duster


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
153 (1st Attempt) 8.2-8.8' 4/15/10
Sample #5
TOP
BOTTOM
VOC
8.2 Stk 4
VOC
8.8 BOC S# 5
VOC

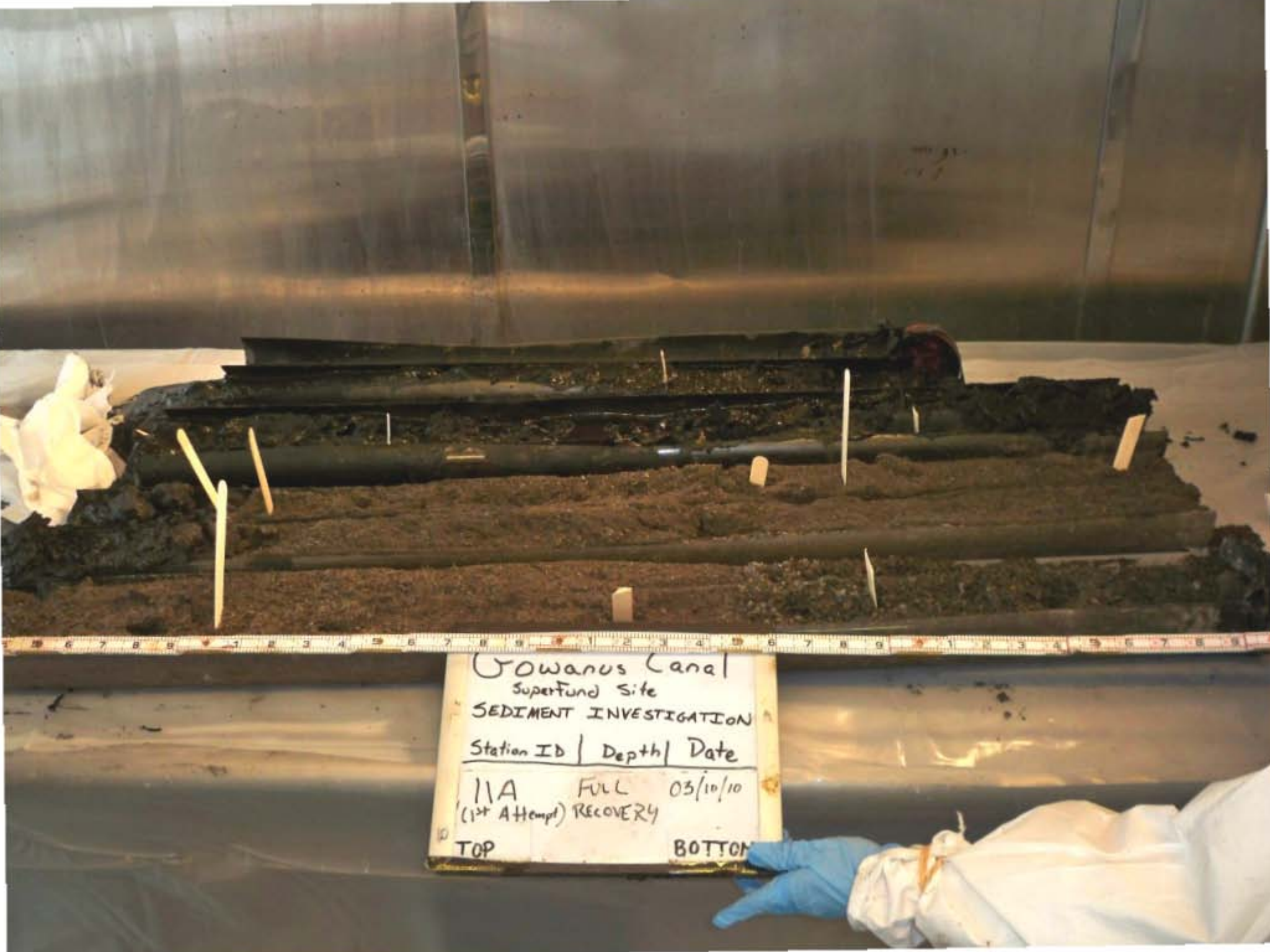

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
153 Full 4/15/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A
(1st Attempt)
FULL RECOVERY
3/16/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A
(1st Attempt)
FULL
Recovery
3/16/10
TOP
BOTTOM

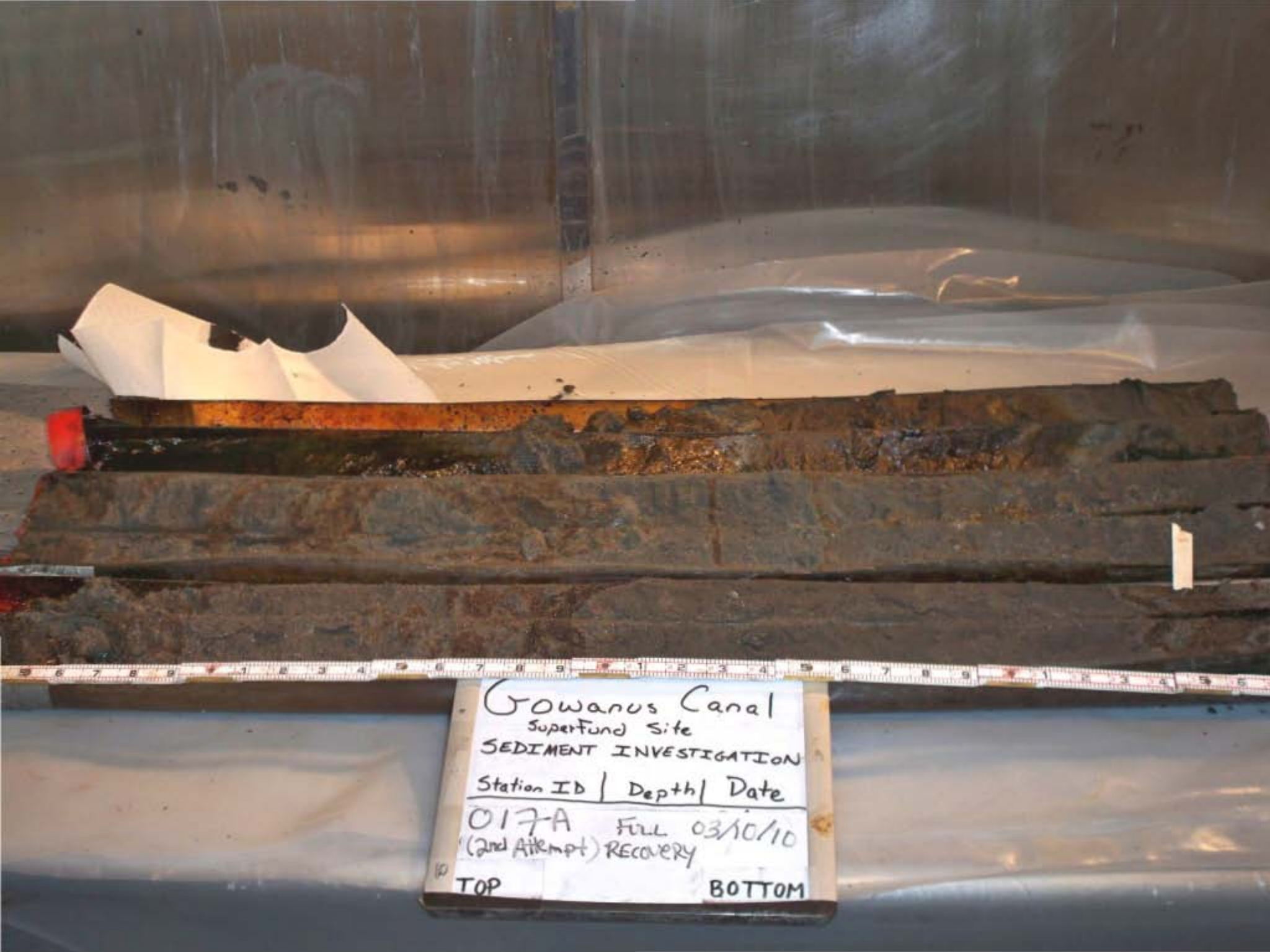

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A 2.0-4.0' 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
01A
(3rd Attempt)
Full
RECOVERY
3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
11A FULL 03/10/10
(1st Attempt) RECOVERY
TOP
BOTTOM

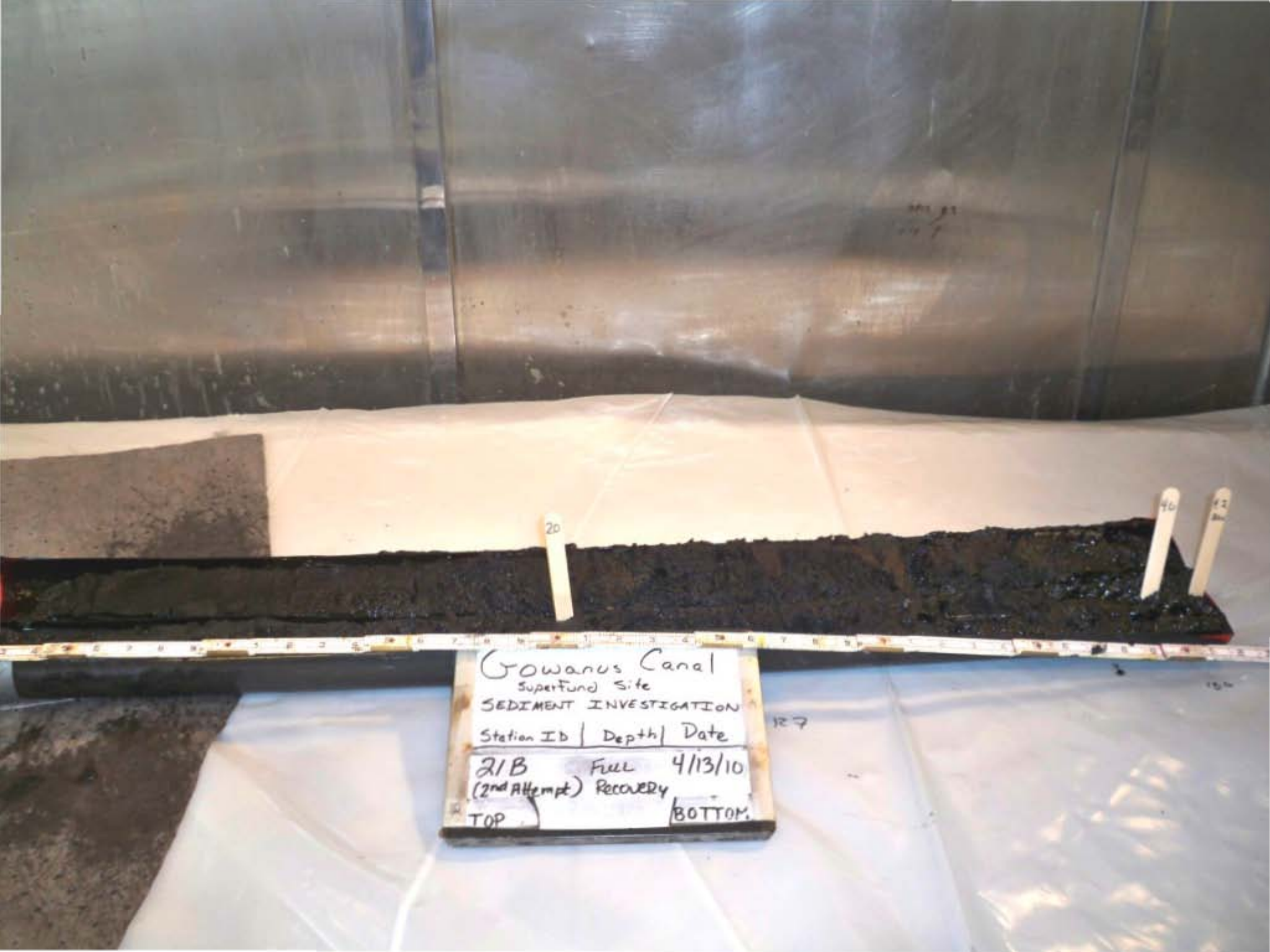

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13B FULL RECOVERY 3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
16A (2nd attempt) FULL RECOVERY 03/10/10
TOP
BOTTOM

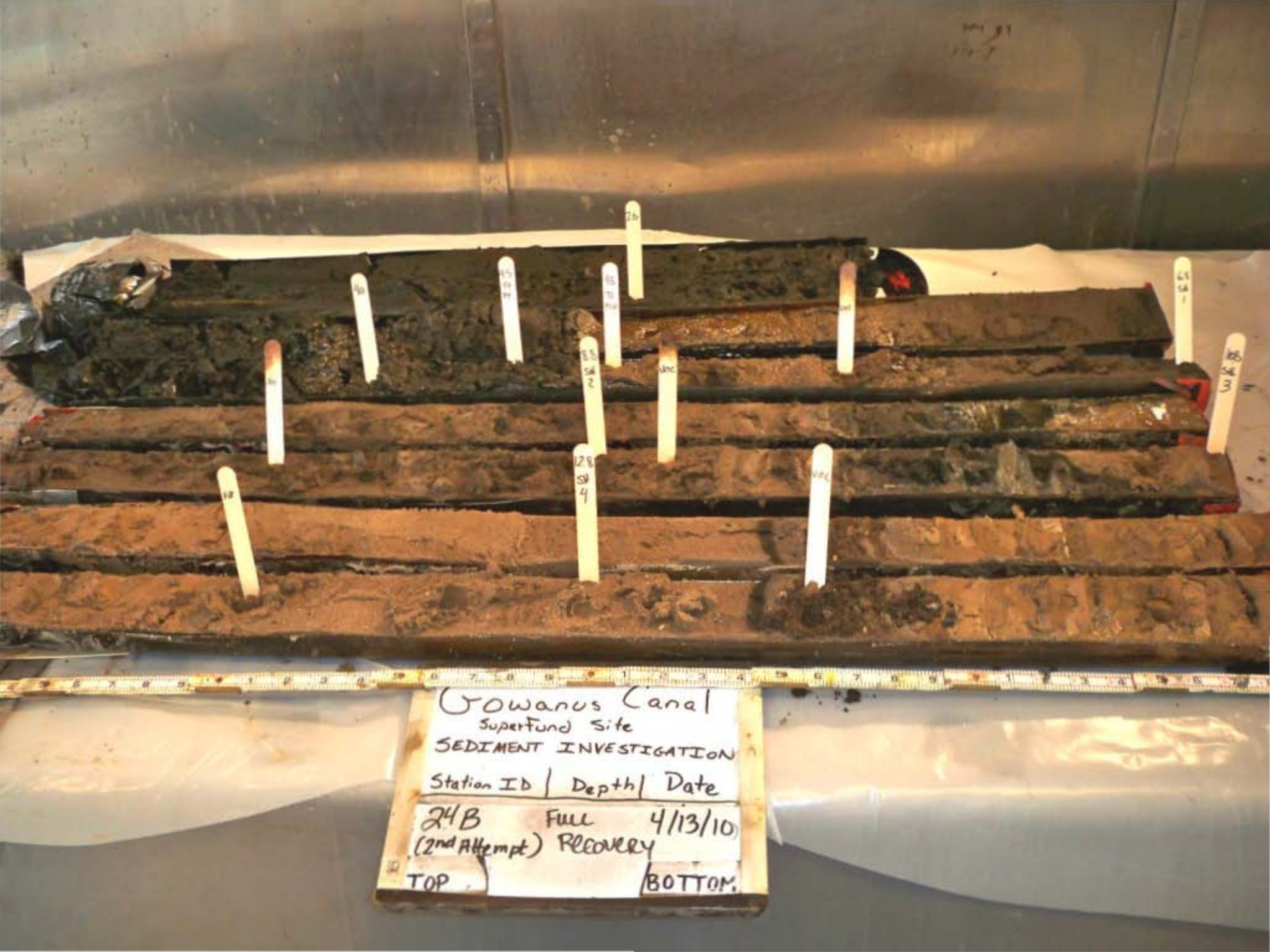

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
017A FULL 03/10/10
(2nd Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
19C Full Recovery 3/12/10
TOP
BOTTOM


2
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
20A (3rd Attempt) Full Recovery 3/11/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
21B (2nd Attempt) FULL Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID / Depth / Date
22B FULL 3/11/2010
(2nd Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
24B FULL 4/13/10
(2nd Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
25B FULL 3/12/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
26A (1st Attempt) FULL RECOVERY 3/19/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
27A (2nd Attempt) Full Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
28A (1st Attempt) FULL RECOVERY 3/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
29A (3rd Attempt) FULL RECOVERY 3/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
02A FULL RECOVERY 3/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
30A FULL 3/19/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
31A
(1st Attempt)
Full
Recovery
3/16/10
TOP
BOTTOM
VOC
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
32A FULL 3/15/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
33A FULL 3/15/10
(1st Attempt) RECOVERY
TOP
BOTTOM
VOC
VOC
VOC


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
348 Full 3/16/10
(1st Attmpt) Recovery


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
ation ID | Depth | Date
35A Full 3/19/10
(1st Attempt) Recovery
TOP BOTTOM
03/19/2010 13:08


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
37B
(3rd Attempt)
FULL RECOVERY
4/13/10
TOP
BOTTOM

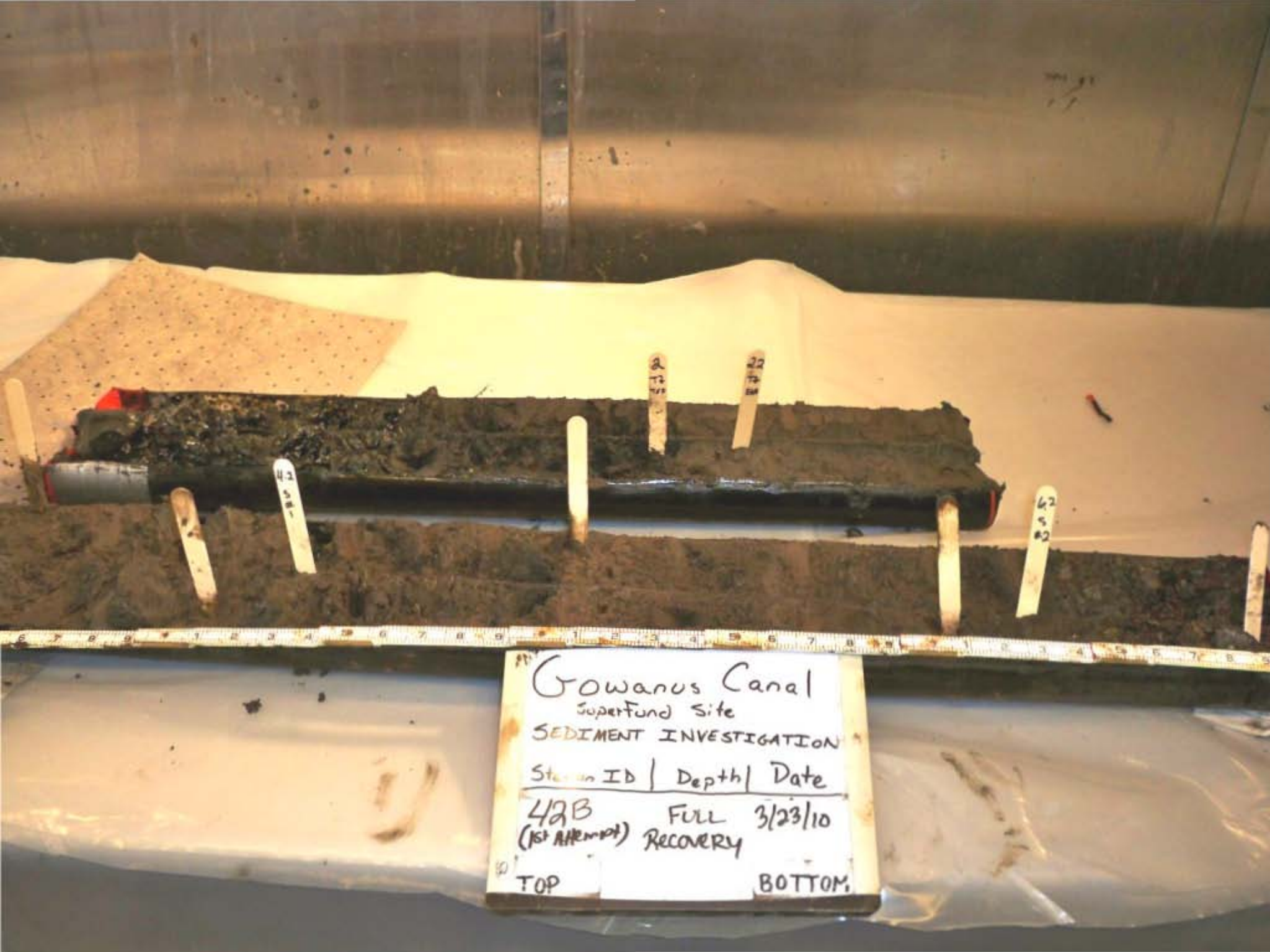

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
38B FULL 4/13/11
(2ND ATTEMPT) RECOVERY
TOP
BOTTOM

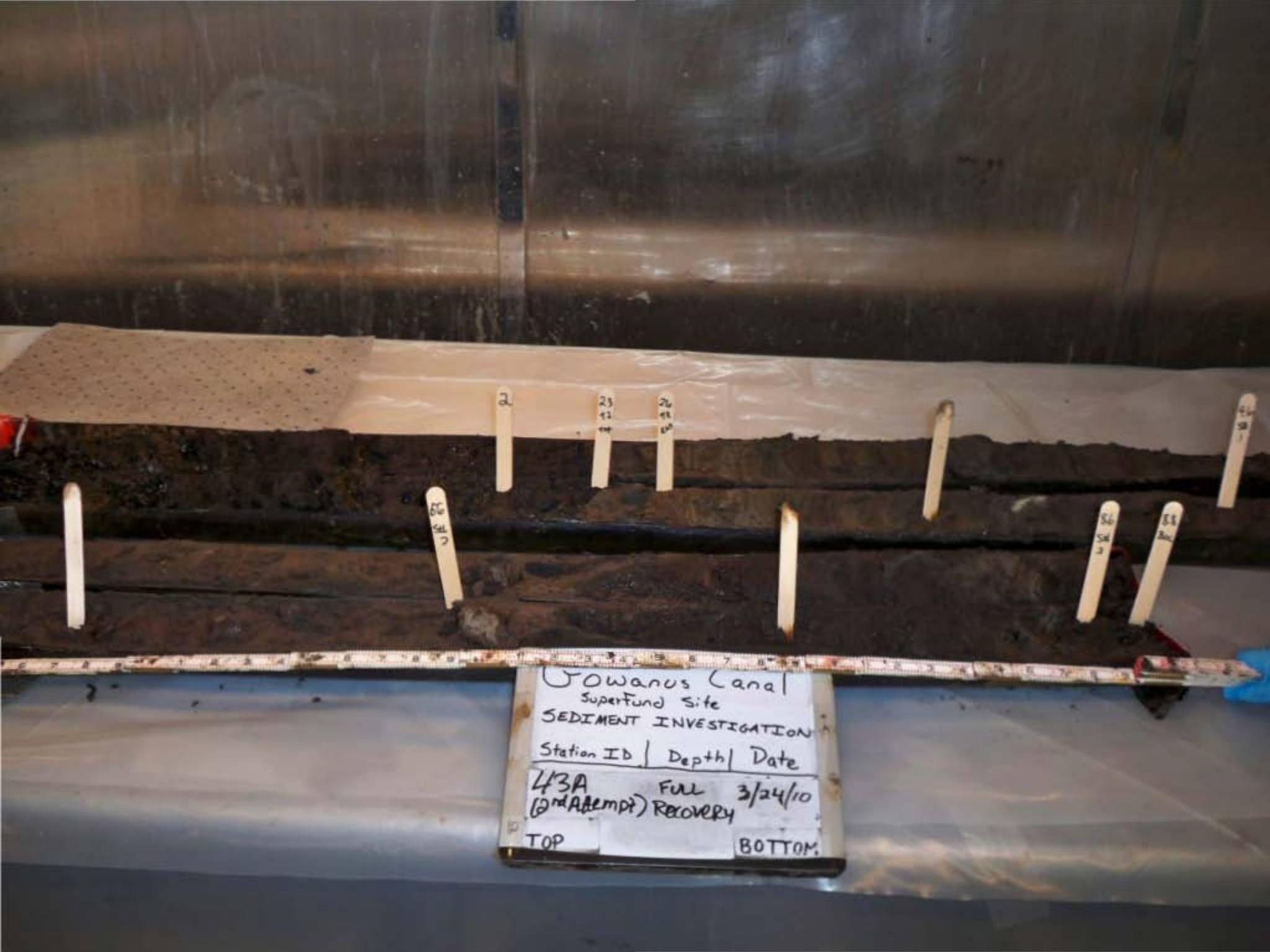

2
4
6
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
39A FULL 3/18/10
(1st Attempt) RECOVERY
TOP
BOTTOM

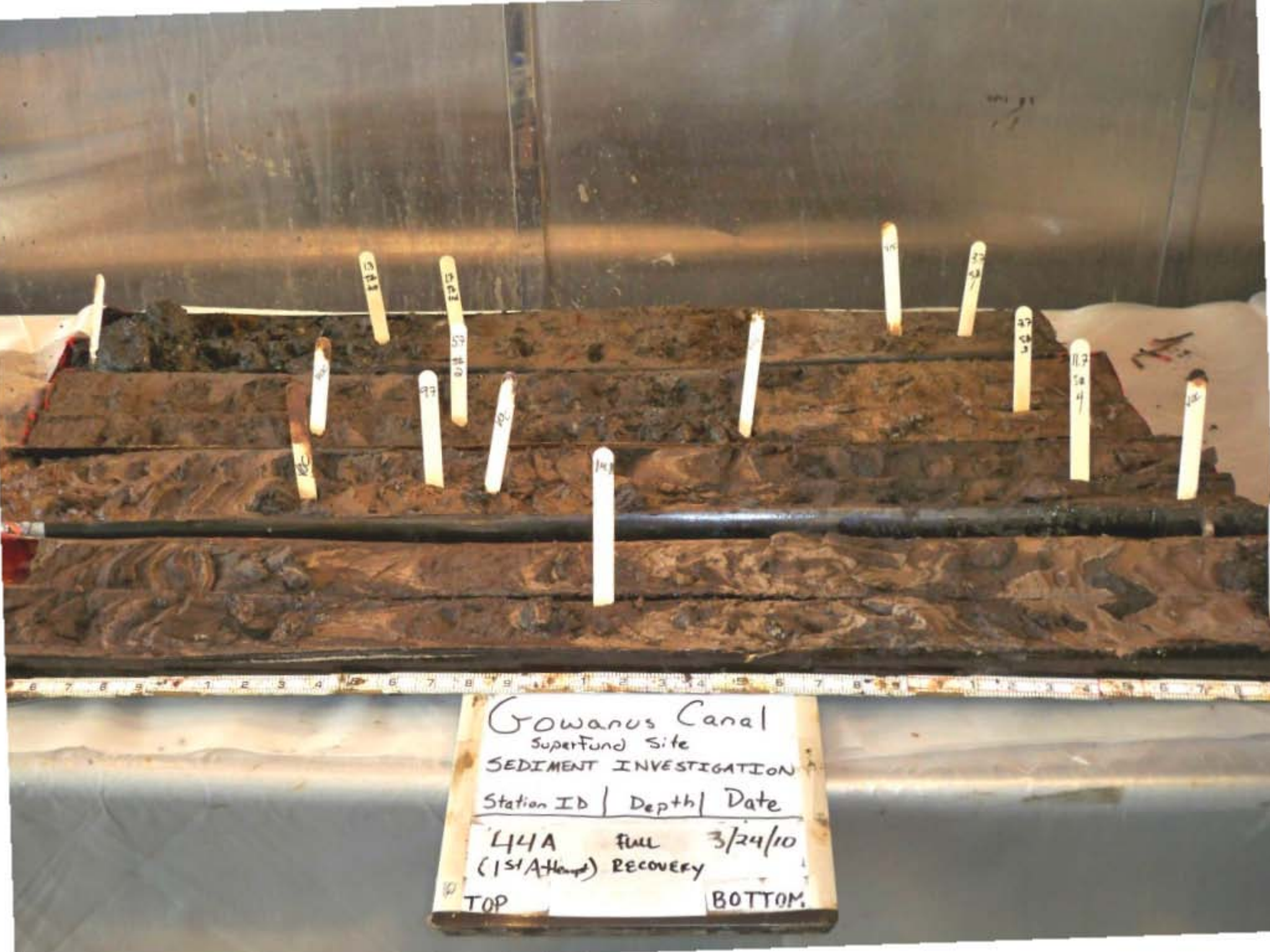

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
03B Full Recovery 03/05/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
40A (1st Attempt) FULL RECOVERY 3/23/10
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
41A (1st Attempt) FULL Recovery 3/23/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
42B FULL 3/23/10
(1st ATTEMPT) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
43A (2nd Attempt) FULL RECOVERY 3/24/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
L44A FULL 3/24/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C FULL 3/24/10
(2nd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
45C FULL 3/24/10
(2nd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
3/24/2010
46C
(1st Attempt)
Full
Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
47A
(1st Attempt)
FULL RECOVERY
3/25/10
TOP
BOTTOM


Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
48A
(2nd Attempt)
FULL RECOVERY
3/29/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
49A
(3rd Attempt)
FULL RECOVERY
3/24/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
04A FULL RECOVERY 3/10/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
50B (2nd Attempt) FULL RECOVERY 3/25/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
51A (2nd Attempt) FULL RECOVERY 3/31/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
52A (2nd Attempt) FULL Recovery 3/25/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
53A
(1st Attempt)
4/2/10
Full
Recovery
TOP
BOTTOM

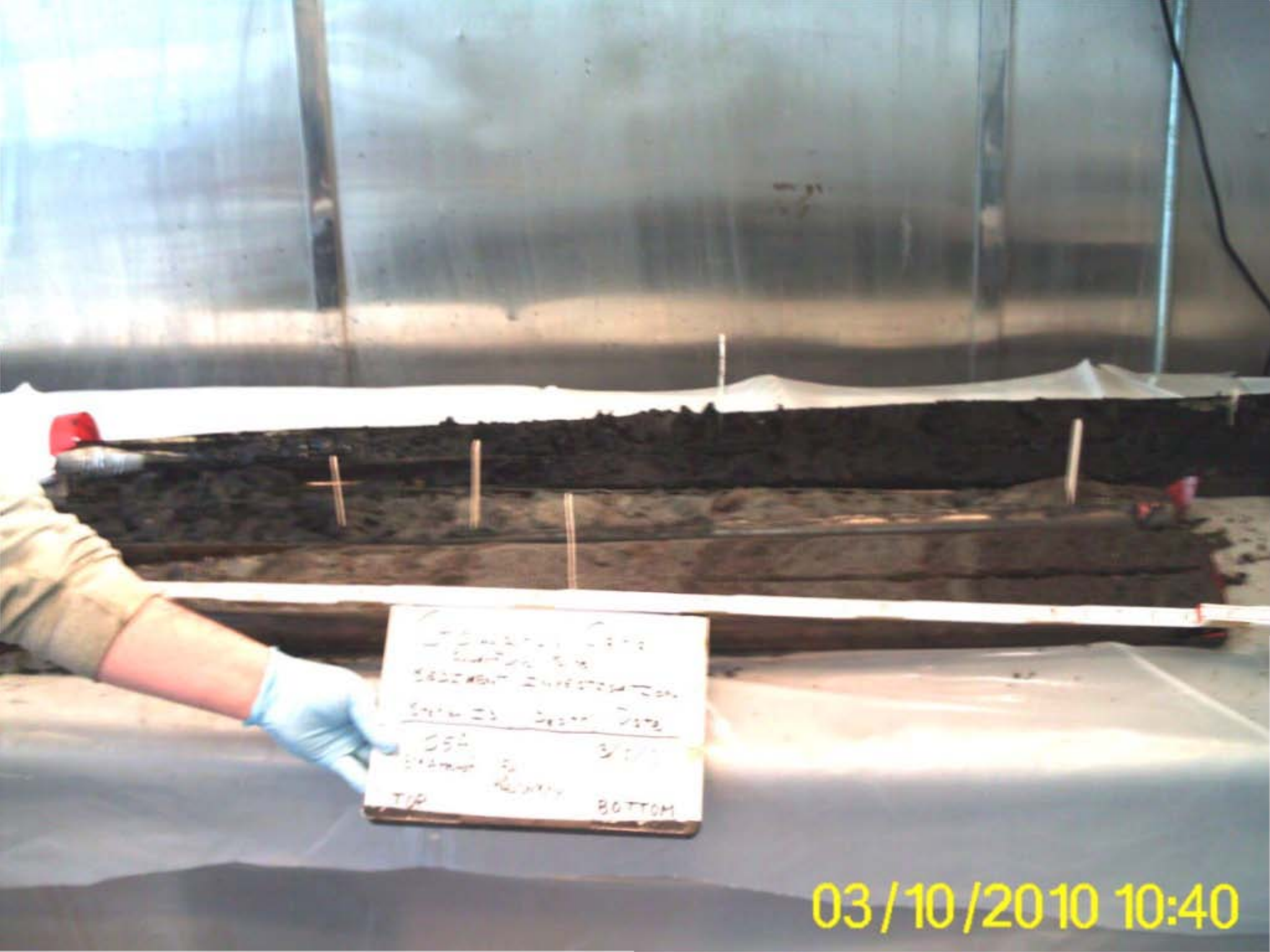

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
54B (1st Attempt) FULL RECOVERY 3/29/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
55A (2nd Attempt) Full Recovery 3/22/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
FULL RECOVERY
3/22/10
(1st Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
57A (2nd Attempt) FULL Recovery 3/23/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
59A (1st Attempt) Full Recovery 4/5/10
TOP
BOTTOM


TOP
BOTTOM
03/10/2010 10:40


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GOB (1st Attempt) FULL Recovery 4/1/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
61C FULL 4/2/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
62C (2nd Attempt) FULL RECOVERY 4/5/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
63A
(3rd Attempt)
Full
Recovery
4/1/10
TOP
BOTTOM

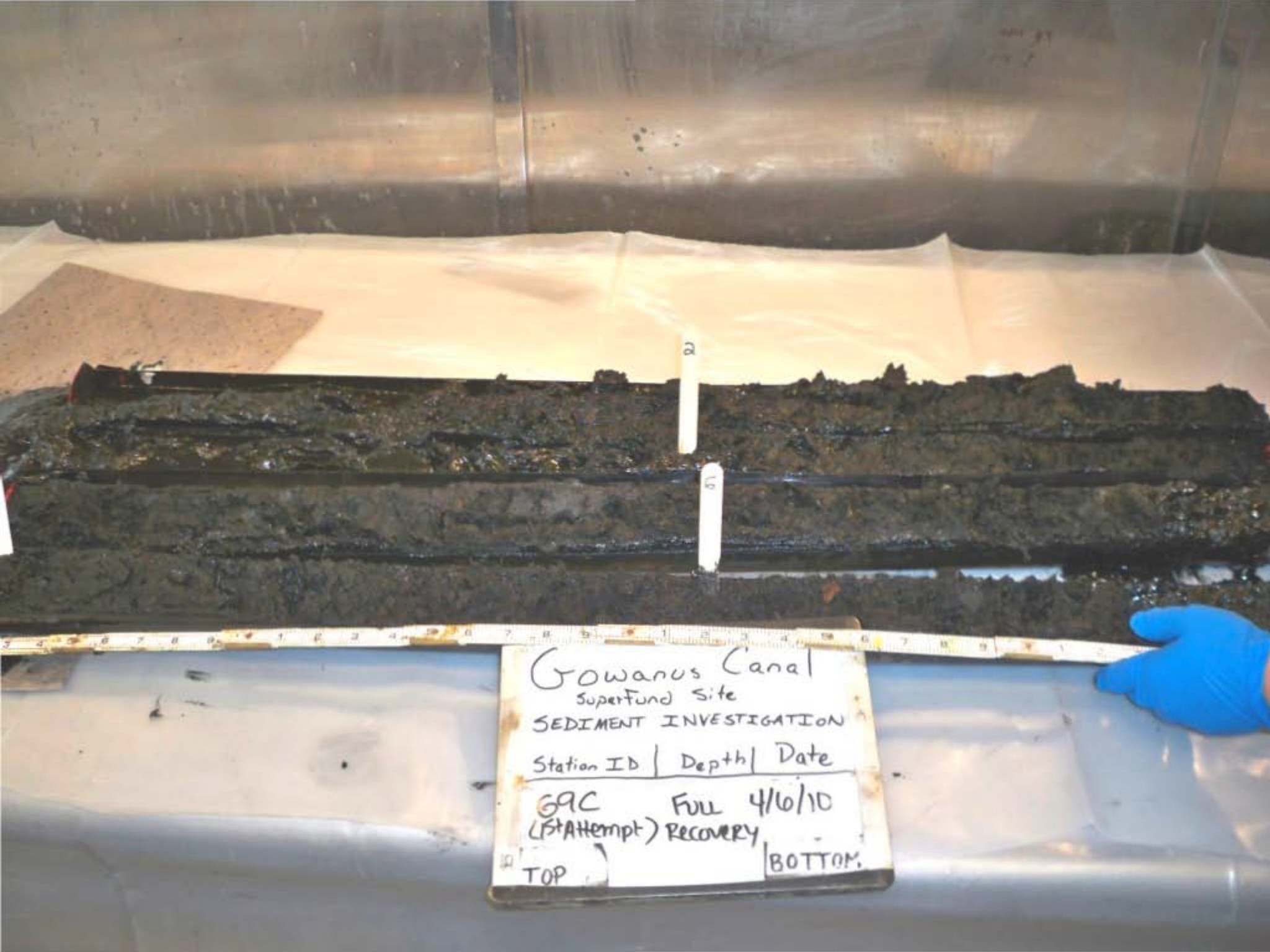

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GHD
(1st Attempt)
FULL
RECOVERY
4/2/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
65A (2nd Attempt) FULL RECOVERY 4/5/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
66C
(3rd Attempt)
4/1/10
Full
Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
67B Full 4/6/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
68A (2nd Attempt) FULL Recovery 4/5/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
GAC (1st Attempt) FULL RECOVERY 4/16/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
6A Entire 3/8/10
Recovery
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
70B FULL 4/6/11
(1ST Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
72 B
(3rd Attempt) FULL
4/7/10
TOP
RECOVERY
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
73E FULL 4/8/10
(3rd Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
74E
FULL
4/8/10
RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
75C Full 4/7/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
HoC FULL 4/8/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
77A (2nd Attempt) | Full Recovery | 4/8/10
TOP
BOTTOM

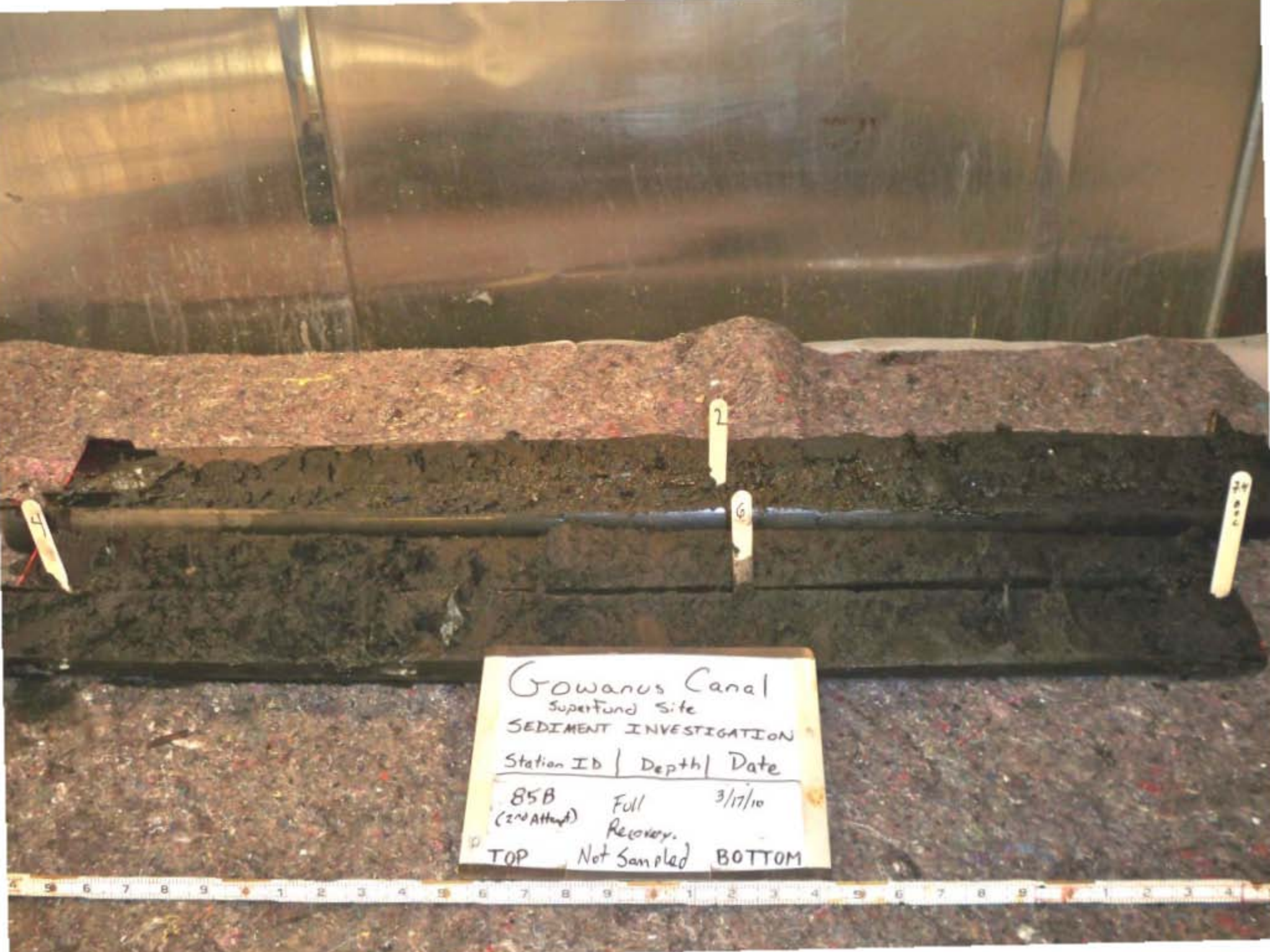

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
78B (2nd Attempt) FULL Recovery 4/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
79A (2nd Attempt) FULL RECOVERY 4/15/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
7A Entire Recovery 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
S1A (1st Attempt) FULL RECOVERY 4/15/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
SB3A FULL 11/15/10
Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
85B (2nd Attempt) Full Recovery. 3/17/10
TOP Not Sampled BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
EBA (3rd Attempt) Full Recovery 3/18/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
89B FULL 3/17/10
(1st Attempt) RECOVERY
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
08A FULL RECOVERY 3/8/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
91A FULL 3/18/10
(2nd Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
93A FULL 3/18/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
104A (4th Attempt) FULL Recovery 4/5/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
105A Full 4/2/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
106D FULL 4/5/10
(1st Attempt) Recovery
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
111 (1st Attempt) FULL RECOVERY 3/11/2010
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station | Depth | Date
111 FULL 3/16/10
(1st Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
116 (1st Attempt) Full Recovery 3/17/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
117 FULL 3/18/10
(1st Attempt) RECOVERY
VOC
VOC


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
118
(2nd Attempt)
Full
Recovery
4/1/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
122 (1st Attempt) Full Recovery 4/7/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station Id | Depth | Date
124 (2nd attempt) FULL RECOVERY 3/8/10
TOP
BOTTOM

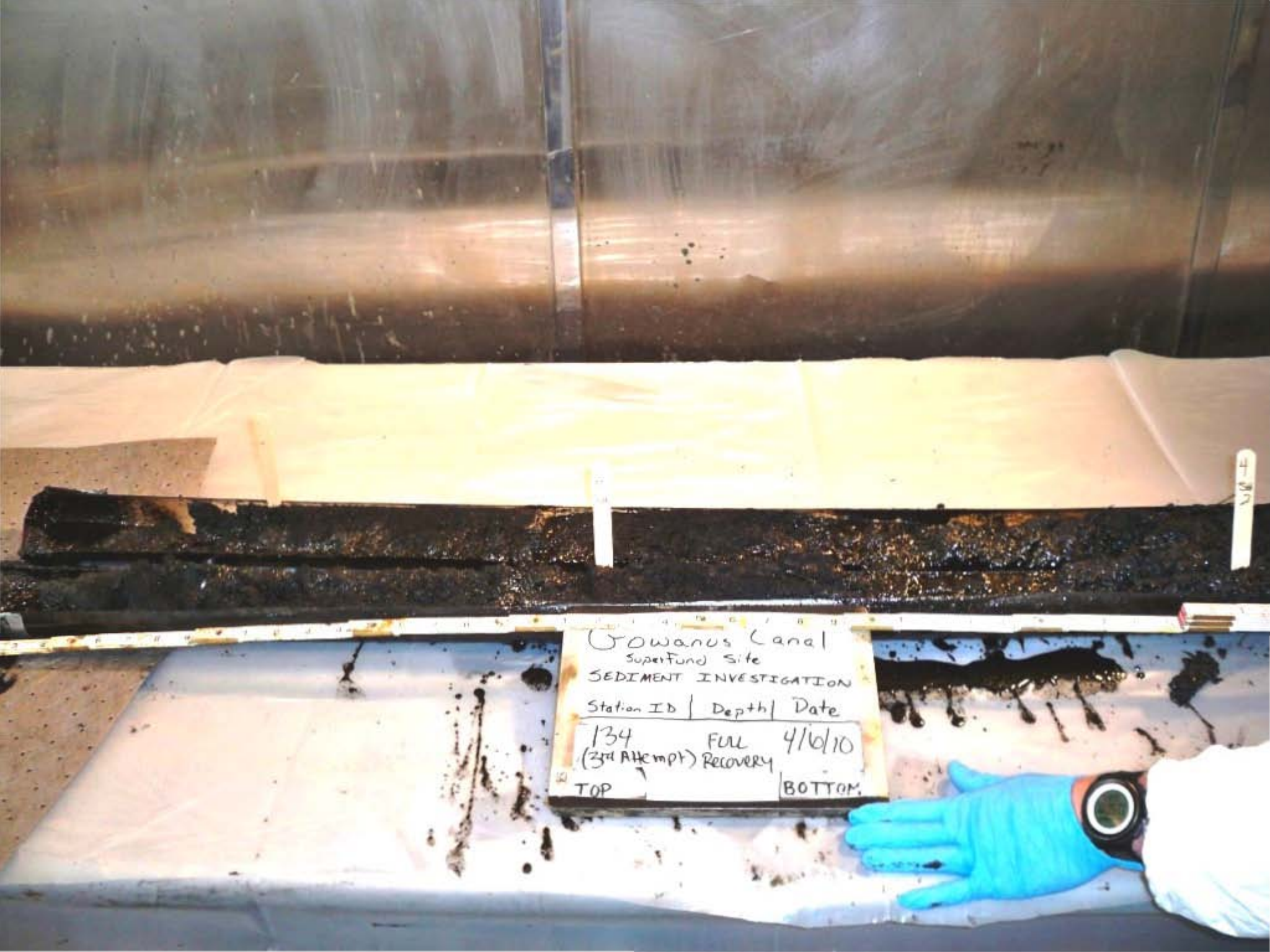

Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
125
FULL RECOVERY
3/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
127
(3rd Attempt)
FULL
RECOVERY
TOP
BOTTOM

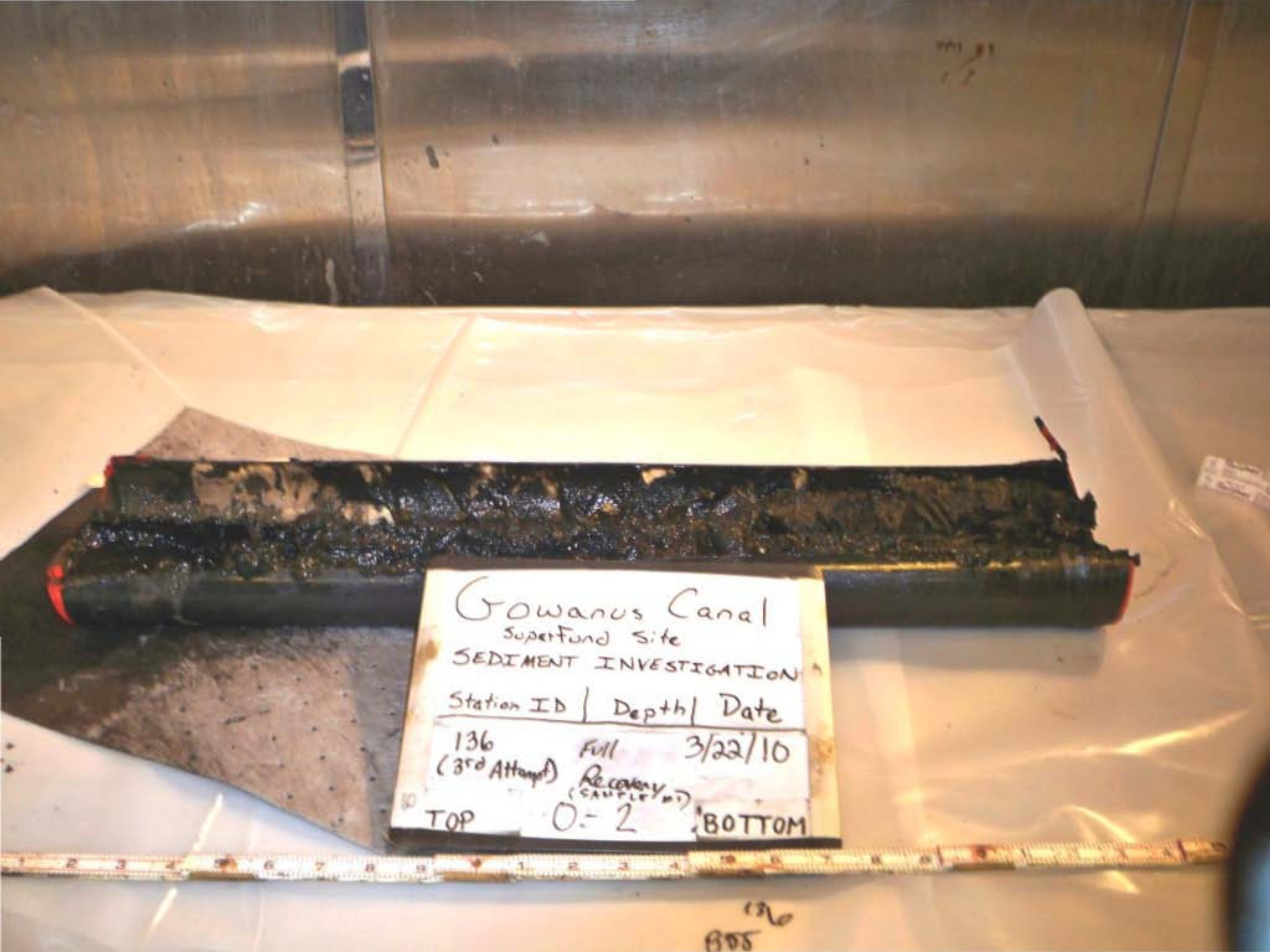

Gowanus Canal
Superfund site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
128 FULL RECOVERY 3/11/2010
(2nd Attempt)
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
129 FULL 4/14/10
(2nd Att) RECOVERY
TOP
BOTTOM


wanus Canal
perfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
133 (2nd Attempt) FULL Recovery 4/6/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
134 (3rd Attempt) FULL Recovery 4/6/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
13S (3rd Attempt) FULL RECOVERY 4/6/10
TOP BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
136 (3rd Attempt) Full Recovery (CAMPLE #1) 3/22/10
TOP 0-2 BOTTOM
136
BOTTOM


Gowanus Canal
SuperFund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
137 FULL 4/7/10
(2nd Attempt) RECOVERY
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
138 FULL 4/8/10
(2nd Attempt) RECOVERY
TOP
BOTTOM
138
1.7
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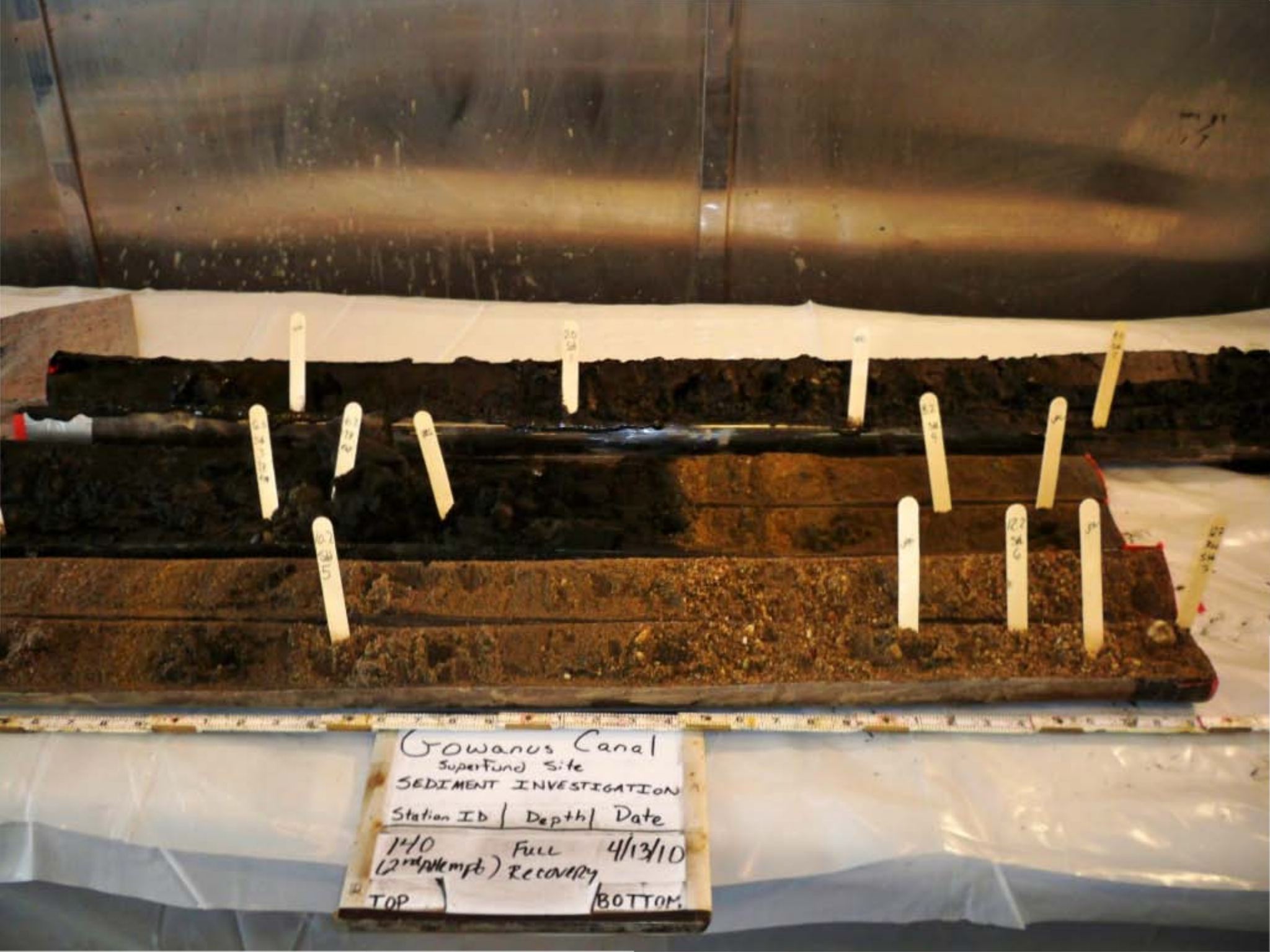
Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
1+0 (2nd Attempt) Full Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
141 (3rd Attempt) FULL RECOVERY 4/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
142 (1st attempt) Full Recovery 4/15/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
14/3 (2nd Attempt) FULL Recovery 4/14/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144B (2nd Attempt) FULL RECOVERY 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
144C (3rd Attempt) Full Recovery 4/13/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
146 (1st Attempt) FULL RECOVERY 4/12/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
147 (1st Attempt) Full Recovery 4/9/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
148 (1st Attempt) FULL RECOVERY 4/14/10
TOP
BOTTOM


Gowanus Canal
Superfund Site
SEDIMENT INVESTIGATION
Station ID | Depth | Date
87A
(1st Attempt)
FULL RECOVERY
3/16/10
TOP
BOTTOM

Appendix E
Evaluation of Results of Tidal Survey

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Tidal Effects in Monitoring Wells

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Appendix E
Evaluation of Results of Tidal Survey

Introduction

This technical memorandum describes the evaluation of a tidal survey conducted at the Gowanus Canal Superfund Site, in Brooklyn, New York between 1300 hours on August 2 and 1400 hours August 6, 2010 (97 hours total). The tidal survey was conducted to characterize the relationship between tidal fluctuations recorded in the Gowanus Canal, potentiometric water levels in shallow and intermediate-depth monitoring wells, and vertical hydraulic gradients in the subsurface adjacent to the canal. This survey evaluated the hydraulic connection with, and the contribution of local groundwater flow to the Gowanus Canal.

Groundwater (potentiometric) levels often exhibit wave-like (sinusoidal) patterns similar to tidal fluctuations in adjacent water bodies. In series, these patterns form oscillations similar to sound, seismic, and electrical cycles that travel in a wave-like forms. In a confined, homogeneous aquifer, sinusoidal oscillations can propagate into the aquifer as a function of tidal fluctuations at aquifer/surface water interface, and the diffusivity (transmissivity / storage coefficient) of the aquifer (Ferris, 1951). Fluctuations attributable to tidal fluctuations attenuate with distance from the surface water body as an exponential function (Erskine, 1991). Also, potentiometric levels respond to loading/unloading of tidal waters on the aquifer skeleton in a confined aquifer. Under these conditions, the compressibility of the aquifer controls the magnitude of the tidal response. Unconfined aquifers display a larger storage coefficient than confined units, dampening tidal fluctuations, and poorly transmitting the pressure signal from the surface water body into the aquifer.

The survey comprised recording tidal measurements at six stations distributed along the 8,000 foot length of the Gowanus Canal northeast from Gowanus Bay, a small tributary within Upper New York Bay. The distances between stations ranged from roughly 700 to 2,000 feet (Figure E-1). All tidal stations were situated adjacent to nested monitoring wells, containing shallow and intermediate wells, and located within 50 feet of the edge of the canal. Six additional nested monitoring wells lay between 150 to 270 feet inland of the canal.

InSitu Micro-Diver data logging systems recorded tidal and potentiometric measurements at 15 minute frequencies over the duration of the survey. Barometric pressure measurements were recorded at an identical frequency. Precipitation data was obtained from a United States National Weather Service Station located in the adjacent Park Slope neighborhood.

Tidal Effects in Canal

Surface water levels in the Gowanus Canal were recorded at six stations. Two tidal cycles (high and low tide) were apparent each day, with each cycle averaging 730 minutes (0.52 days; Table E-1) across the six stations. The maximum fluctuation defined by the difference in elevation between high and low tide defined the tidal range. A hydrograph of elevations in the canal (Figure E-2) featured asymmetric tidal ranges, with values ranging between 3.0 and 4.3 feet.

TABLE E-1
Summary of Amplitude at Tidal Stations in Gowanus Canal during Tidal Survey
1300hrs 08/02/10 to 1400hrs 08/06/2010
Gowanus Canal Remedial Investigation
Brooklyn, New York

Tidal Station	Maximum Tidal Range (feet)	Minimum Tidal Range (feet)
TSMW-3	4.3	3.1
TSMW-13	4.2	2.9
TSMW-15	4.3	2.9
TSMW-20	4.3	2.9
TSMW-25	4.3	3.1
TSMW-33	4.3	3.1

Tidal station data exhibited equivalent ranges along the total length of the canal, showing no attenuation with increasing distance from the Gowanus Bay (Figure E-2).

Tidal Effects in Monitoring Wells

Tidal effects on potentiometric levels were monitored in 24 wells, arrayed in 12 clusters, each containing wells screened across the water table (shallow), and up to 30 feet below the water table (intermediate). The upper screen elevation in the intermediate wells was positioned 5-feet below the bottom of the canal. The shallow wells exhibited maximum water level fluctuations ranging from 0.08 to 3.87 feet with an average fluctuation of 0.85 feet (Figure E-3). The intermediate wells exhibited fluctuations ranging from 0.27 to 2.96 feet, with an average of 1.10 feet.

All intermediate wells exhibited a sinusoidal, oscillatory pattern even when the pattern was not evident in the overlying shallow well (Figure E-4). Given the distance of half of the wells from the canal exceeded 100 feet, the response to tidal fluctuations appeared correspondent to loading of the tidal wedge on the overlying aquiclude, suggestive of confined or leaky confined conditions.

The nested monitoring well design allowed accurate estimation of vertical gradients adjacent to the canal, and vertical gradient hydrographs (Figure E-5). Six clusters displayed upward gradients, (Figure E-6, Table E-2), while five exhibited a downward gradient. One well exhibited a median vertical gradient around zero.

With one exception (MW-26), monitoring wells located greater than 150 feet away from the Gowanus Canal exhibited a mean downward gradient, indicative of vertical gradients in a recharge area. Vertical gradients at these locations ranged from 0.005 to 0.015 foot per foot (ft/ft). By comparison, clusters closer to the canal displayed upward gradients typical of discharge areas (Figure E- 7), with vertical gradients ranging from 0.005 to 0.06 ft/ft.

TABLE E-2
Summary of Vertical Gradients Calculated from Transducer Data
Gowanus Canal Remedial Investigation
Brooklyn, New York

Well Cluster	Minimum Vertical Gradient (ft/ft)	Maximum Vertical Gradient (ft/ft)	General Direction	Median Vertical Gradient (ft/ft)	Median Direction	Distance from Canal (ft)
MW-3S/I	0	0.12	Up	0.06	Up	14
MW-4S/I	-0.028	-0.01	Down	-0.009	Down	270
MW-13S/I	-0.018	0.018	Both	0	None	32
MW-14S/I	-0.033	0	Down	-0.0165	Down	139
MW-15S/I	-0.03	0.04	Both	0.005	Up	32
MW-16S/I	-0.04	0.005	Both	-0.0175	Down	254
MW-20S/I	0.035	0.065	Up	0.015	Up	48
MW-21S/I	-0.032	-0.002	Down	-0.015	Down	149
MW-25S/I	0.03	0.07	Up	0.02	Up	60
MW-26S/I	0.005	0.018	Up	0.0065	Up	210
MW-27S/I	0.08	0.28	Up	0.1	Up	150
MW-33S/I	-0.045	-0.035	Down	-0.005	Down	236

In several locations, canal elevations exceeded groundwater potentiometric elevations in the shallow monitoring wells consistently at high tide. Further, canal elevations exceeded potentiometric elevations in the intermediate wells at tide, but less frequently than in the shallow wells.

Tidal Efficiency

The tidal efficiency was evaluated for each monitor well to ascertain the magnitude of tidal range in potentiometric hydrograph data compared to the range in Gowanus Canal and Gowanus Bay. The peak ratio method was applied in determining values of tidal efficiency (Erskine, 2003). This method compares the amount of fluctuation between low and high

tide at comparable points between the station located within the canal and peak to trough fluctuations in potentiometric hydrographs at associated monitor wells.

Tidal efficiency values ranged from 1 percent to 89.6 percent, with high numbers indicating a very strong hydraulic, or loading response while low numbers suggesting negligible connection (Table E-3). Tidal efficiency in the shallow wells averaged 19.4 percent while intermediate wells averaged 28.2 percent. The average tidal efficiency in the shallow wells was positively skewed by a strong efficiency at MW-3S (89 percent). MW-3S located 13 feet from the edge of Gowanus Canal, represented the closest cluster to the canal.

TABLE E-3
Summary of Tidal Efficiency
Gowanus Canal Remedial Investigation
Brooklyn, New York

Well	Tidal Efficiency %
MW-3S	89.6
MW-3I	20.1
MW-13S	9.1
MW-13I	40.8
MW-15S	6.5
MW-15I	66.5
MW-20S	9.4
MW-20I	20.4
MW-25S	1
MW-25I	17.3
MW-33S	1
MW-33I	3.9

Extraneous influences on tidal survey data

As described previously, no measureable precipitation was recorded at the local National Weather Service Station in Park Slope. Thus, limited recharge entered the subsurface over the duration of the four day, tidal survey. Barometric pressure data collected at the location of MW-25, declined 0.6 feet of water (ft/H_2O) (Figure E-8) from 34.1 to 33.5 (ft H_2O) over the duration of the survey. The graphs of barometric pressure plotted in ft H_2O of water show a correlative reciprocal signature with potentiometric measurements at four shallow well locations including MW-14S (Figure E-9), MW-15S, MW-16S and MW-33S. Despite manipulation of the hydrograph data at other monitoring wells using statistical techniques developed by the United States Geological Survey, (Halford, 2006) designed to separate tidal fluctuations from hydrograph data, oscillatory potentiometric still obscured barometric influences.

A closer examination of barometric and potentiometric data series using Clark's (1967) linear regression method, indicates that the magnitude of potentiometric fluctuations ranges

lower than barometric fluctuations. Clark's method involves separating barometric and potentiometric fluctuations into line segments of equivalent time. By comparing the magnitude in fluctuations along the two line segments, a coefficient of barometric efficiency was established using the following equation:

$$\mathbf{BE = \Delta s / \Delta bp \times 100}$$

Where:

BE = barometric efficiency
Δs = magnitude of potentiometric fluctuation along line segment
Δ bp = magnitude of barometric pressure along line segment

Barometric efficiency values ranged only from 16 to 27 percent (Table E-4), relatively low values characteristic of unconfined or leaky confined conditions. Although weak, the data indicate potentiometric elevations still responded to changes in barometric pressure.

TABLE E-4
Summary of Barometric Efficiency
Gowanus Canal Remedial Investigation
Brooklyn, New York

Well	Barometric Efficiency %
MW-14S	27
MW-15S	18
MW-16S	17
MW-33S	18

Estimating Transmissivity from Tidal Data

Evaluation of tidal data in comparison to potentiometric shows that potentiometric oscillations remain sinusoidal with a time lag and an exponential decrease in tidal range with distance from the surface water body. Time lag appears as displacement in the position of a peak or trough between tidal and potentiometric oscillations plotted on an identical time scale. The time lag occurs as a function of the aquifer diffusivity; a coefficient defined by transmissivity divided by the storage coefficient. This relationship was further defined by Ferris (1963):

$$T/S = (x^2 * t_0)/(4\pi t_L^2) \text{ where:}$$

Where:

T = transmissivity (FT^2/DAY)
S = storativity (dimensionless)
x = distance from tidal boundary (FT)
t_0 = tidal period (DAYS)
t_L = time lag of given peak/trough after it occurs in the tidal body of water (DAYS)

Analysts can calculate transmissivity by multiplying the solution of the diffusivity equation by the expected storage coefficient of the aquifer. As this solution proves sensitive to estimates of storativity, calculating a range of transmissivity values by applying multiple storativity values in a single analysis provides a more conservative solution.

Examination of hydrograph data from the survey comparing tidal and potentiometric oscillations revealed ten shallow and six intermediate wells showing distinctive time lag relationships. The remaining shallow monitoring wells (2) exhibited no evidence of tidal fluctuations. By comparison, all intermediate monitoring wells showed oscillating potentiometric fluctuations. However, in the remaining six wells, no time lag appeared between the tidal and potentiometric oscillations.

Estimates of transmissivity ranged from 7 to 29,000 feet squared per day (ft^2/d) in the shallow monitoring wells, and from 27 to 47,000 ft^2/d in the intermediate wells (Table E-5). As an informal check, transmissivity estimates were compared against lithology across the screen interval of each well. Elevated transmissivity values correlated to coarser, well sorted sand and gravel, while lower values corresponded with wells screened against silty sands and clay. However, the method yielded less correlative results in finer sands, or sand mixtures.

TABLE E-4
Results of Ferris Method for Estimating Transmissivity
Gowanus Canal Remedial Investigation
Brooklyn, New York

Well	Transmissivity (ft^2/d)	Zone	Lithology in screen
MW-4S	560 to 5600	Shallow	Sandy FILL, (SW)
MW-4I	9300 to 47000	Intermediate	SAND with gravel, (SW)
MW-13S	400 to 1900	Shallow	SAND, (SP)
MW-14S	10 to 100	Shallow	sIlty SAND, (SM)
MW-14I	500 to 5000	Intermediate	SAND, (SP)
MW-15S	200 to 1100	Shallow	SAND with gravel, (SW)
MW-20S	5700 to 29000	Shallow	sIlty SAND, (SM)
MW-21S	1280 to 13000	Shallow	GRAVEL with sand (GW) over silty CLAY (CL)
MW-21I	1800 to 18100	Intermediate	silty Clay (CL) over SAND (SP)
MW-25S	10 to 90	Shallow	clayey SAND (SC)
MW-26S	70 to 700	Shallow	Cobbly fill (GW) over clayey SAND (SC)
MW-26I	100 to 1000	Intermediate	clayey SAND (SC)
MW-27S	200 to 2000	Shallow	cobbly fill (GW) over silty CLAY (CL)
MW-27I	50 to 500	Intermediate	silty SAND, (SM)
MW-33S	7 to 70	Shallow	silty CLAY (CL) , PEAT (PT), silty CLAY (CL)
MW-33I	27 to 300	Intermediate	SAND (SW), silty CLAY (CL), silty SAND (SM)

Despite the heterogeneity of materials underlying this urban area, most of the subsurface appears fairly transmissive. Of the 16 wells selected for time lag analysis, only three were screened across silt or clay beds. Consistent with the transmissivity of the study area only six of the minima values ranged less than 100 ft^2/d.

Estimates of Inland Tidal Oscillations

An important aspect of evaluating the tidal survey involved predicting the distances where potentiometric oscillations attenuate to less than measureable levels. These observations support evaluating potentiometric information in upland areas around Gowanus Canal. In general, oscillations in the shallow monitoring wells exhibited less tidal range than the intermediate wells, reflecting greater storage coefficients (orders of magnitude), inherent with unconfined conditions.

One exception appeared at MW-27S, where a tidal range of 3.75 feet occurred at a distance over 235 feet east of the canal. MW-27S screens construction debris including timbers, bricks, and cobble-size clasts of concrete. These materials exhibited an elevated coefficient of transmissivity (2,000 ft^2/d), but not the maximum values estimated from the survey data. The heterogeneity of the fill materials could induce locally confined conditions in thin, but highly permeable units of fill.

Fluctuations in the shallow monitoring wells were predicted to attenuate to less than 0.1 feet within 300 feet from the Gowanus Canal (Figure E-10). Furthermore, with the exception of MW-27S, fluctuations in the shallow monitoring wells ranged between 0 and 0.5 feet beyond 50 feet from the canal.

The pervasive nature of potentiometric oscillations in the intermediate wells suggests groundwater flow occurs under confined, or leaky conditions. Under confined conditions, potentiometric oscillations reflect the response of the aquifer skeleton and confined water to the weight of the tidal wedge loading onto an overlying aquiclude. Boring logs exhibit clay/silty beds over lying sand zones screened by the intermediate wells. Relative compressibilities of the skeletal mass and the confined water determine the ratio of stress, and the net response of the potentiometric surface to the surface force (Ferris, 1963).

Considering potential confined conditions, distances to both the Gowanus Canal, and to Gowanus Bay influenced potentiometric responses to tidal fluctuations in the intermediate wells. As defined from intermediate wells situated on either side of Gowanus Canal (Figure E- 11) predicted fluctuations attenuated to less than 0.1 feet approximately 500 east/west of the canal.

Gowanus Bay and surrounding Upper New York Bay envelopes the study area, posing a potential loading source to confined sediments. Plotting maximum fluctuations for intermediate monitoring wells situated along the length of the canal predicts that fluctuations attenuate to less than 0.1 feet 9,000 feet northeast of Gowanus Bay (Figure E-12).

Conclusions

The following conclusions were drawn from evaluation of the tidal survey:

- The maximum tidal range in Gowanus Canal ranged between 4.2 and 4.3 feet along its full length extending from Gowanus Bay 8,000 feet inland. Tidal fluctuations in Gowanus Canal exhibited no evidence of attenuation with distance from the bay.
- Potentiometric fluctuations attributable to tidal oscillations ranged up to 3.75 feet at MW-3S, located within 13 feet of the canal. However, hydrographs from several shallow monitoring wells, particularly at distances greater than 150 feet, displayed no tidal influence.
- Typical of unconfined conditions, sinusoidal potentiometric oscillations attenuated to less than 0.1 feet at distances greater than 300 feet from Gowanus Canal in the shallow monitoring wells.
- All of the intermediate monitoring wells exhibited sinusoidal oscillations typifying tidal influences. Potentiometric fluctuations ranged to greater than 3.0 feet in wells located adjacent to Gowanus Canal.
- Distance from Gowanus Bay also appeared to influence the magnitude of potentiometric fluctuations in the intermediate wells suggesting that loading/unloading of the tidal wedge affected potentiometric response.
- In the intermediate wells, sinusoidal potentiometric oscillations attenuated to less than 0.1 feet at distances greater than 500 feet from Gowanus Canal.
- The direction of vertical gradients displayed in monitoring well clusters located adjacent to Gowanus Canal appeared invariably upward, the expected direction of flow in a location where groundwater discharges to a surface water body.
- With only one exception, the direction of vertical gradients in monitoring well clusters located 150 feet from the canal were downward, typical of the direction of groundwater flow in an upland, recharge area.
- The strong sinusoidal, oscillating, potentiometric fluctuations in the shallow and intermediate monitoring wells indicate that the shallow water bearing zone maintains a strong hydraulic connection with the Gowanus Canal.
- The distribution of upward and downward vertical gradients in relation of Gowanus Canal indicates that local groundwater flows toward, and discharges to the canal.
- At high tide, canal elevations exceeded potentiometric elevations in adjacent shallow and intermediate monitoring wells indicating, water from the canal may intermittently flow into underlying sediments.

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Halford, K.J., *Documentation of a Spreadsheet for Time-Series Analysis and Drawdown Estimation.* United States Geological Survey Scientific Investigations Report 2006-5024, Carson City, Nevada, 2006.

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FIGURE E-1
Canal and Monitoring Well Stations
in Tidal Study 1300, 08-02-2010 to 1400, 08-06-2010
Gowanus Canal Remedial Investigation
Brooklyn, New York

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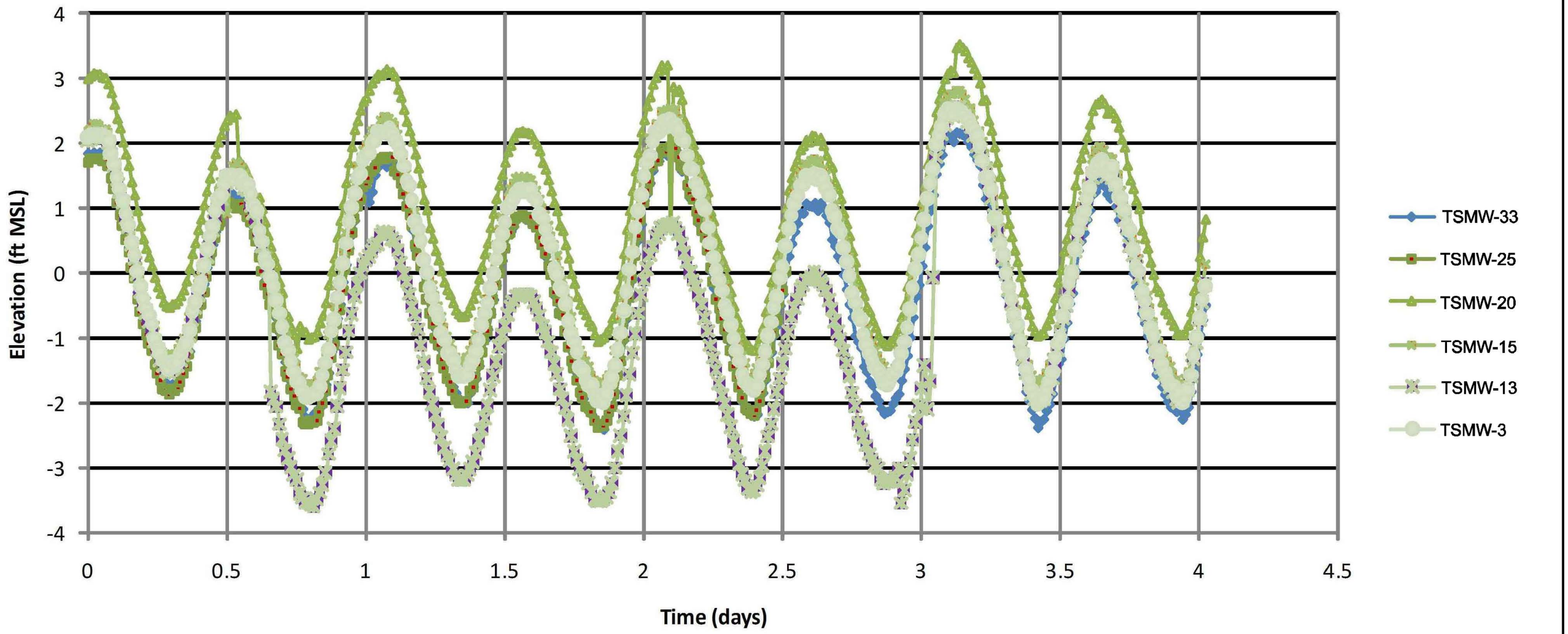

FIGURE E-2
Hydrographs from Canal stations:
1300 08/02/2010 to 1400 08/06/2010
Gowanus Canal Remedial Investigation
Brooklyn, New York

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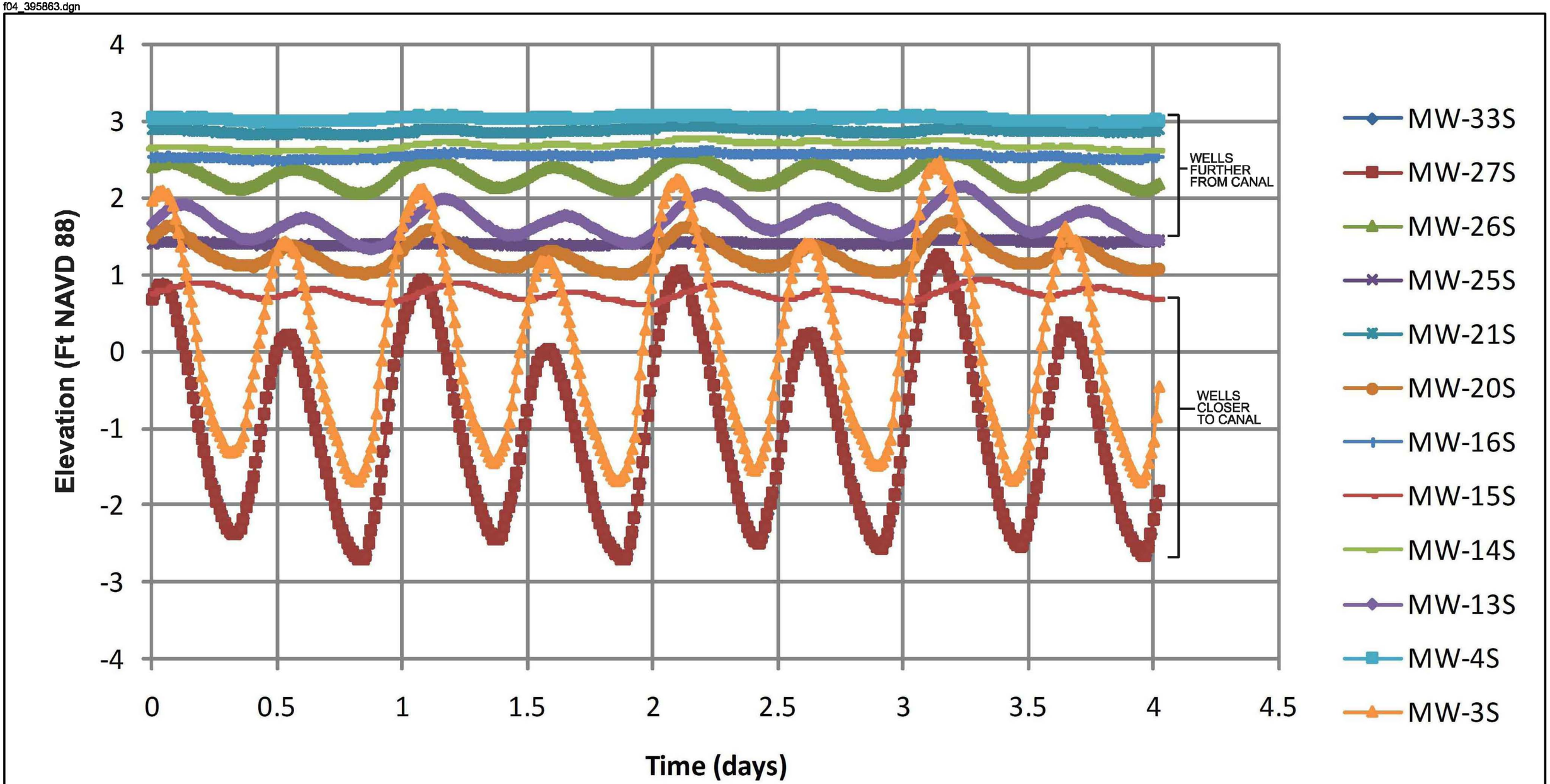

FIGURE E-3
Hydrograph of Shallow Monitoring Wells:
1300 08/02/2010 to 1400 08/06/2010
Gowanus Canal Remedial Investigation
Brooklyn, New York

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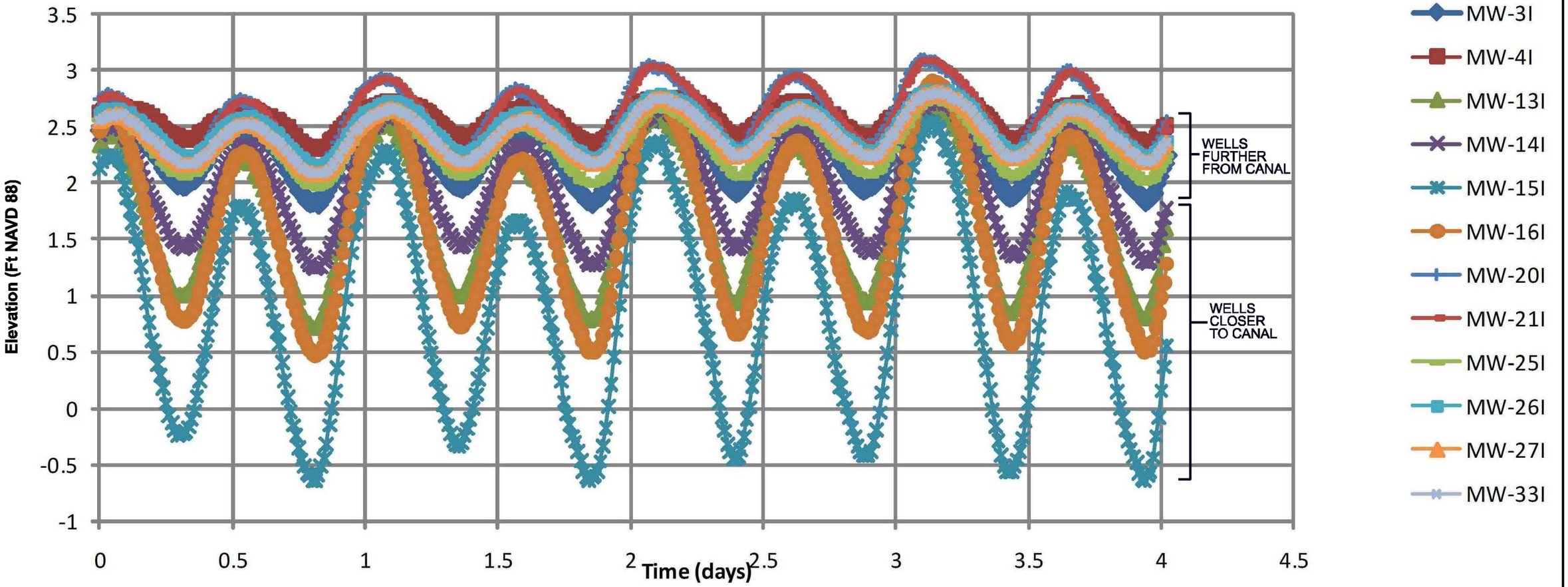

FIGURE E-4
Hydrogaraphs of Intermediate Monitoring Wells
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Gowanus Canal Remedial Investigation
Brooklyn, New York

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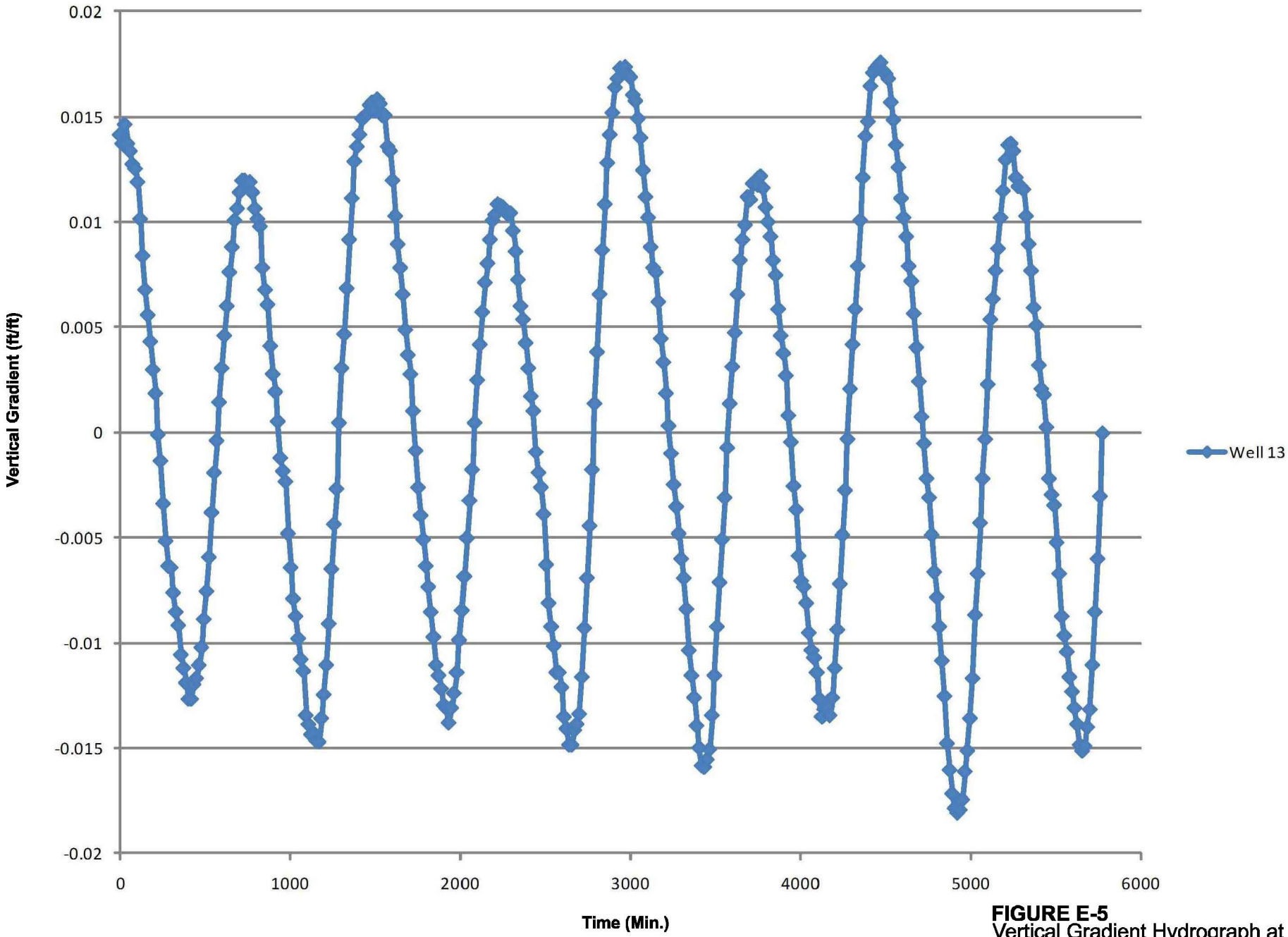

FIGURE E-5
Vertical Gradient Hydrograph at
Moniitoring Well Cluster MW-13S/I
Gowanus Canal Remedial Investigation
Brooklyn, New York

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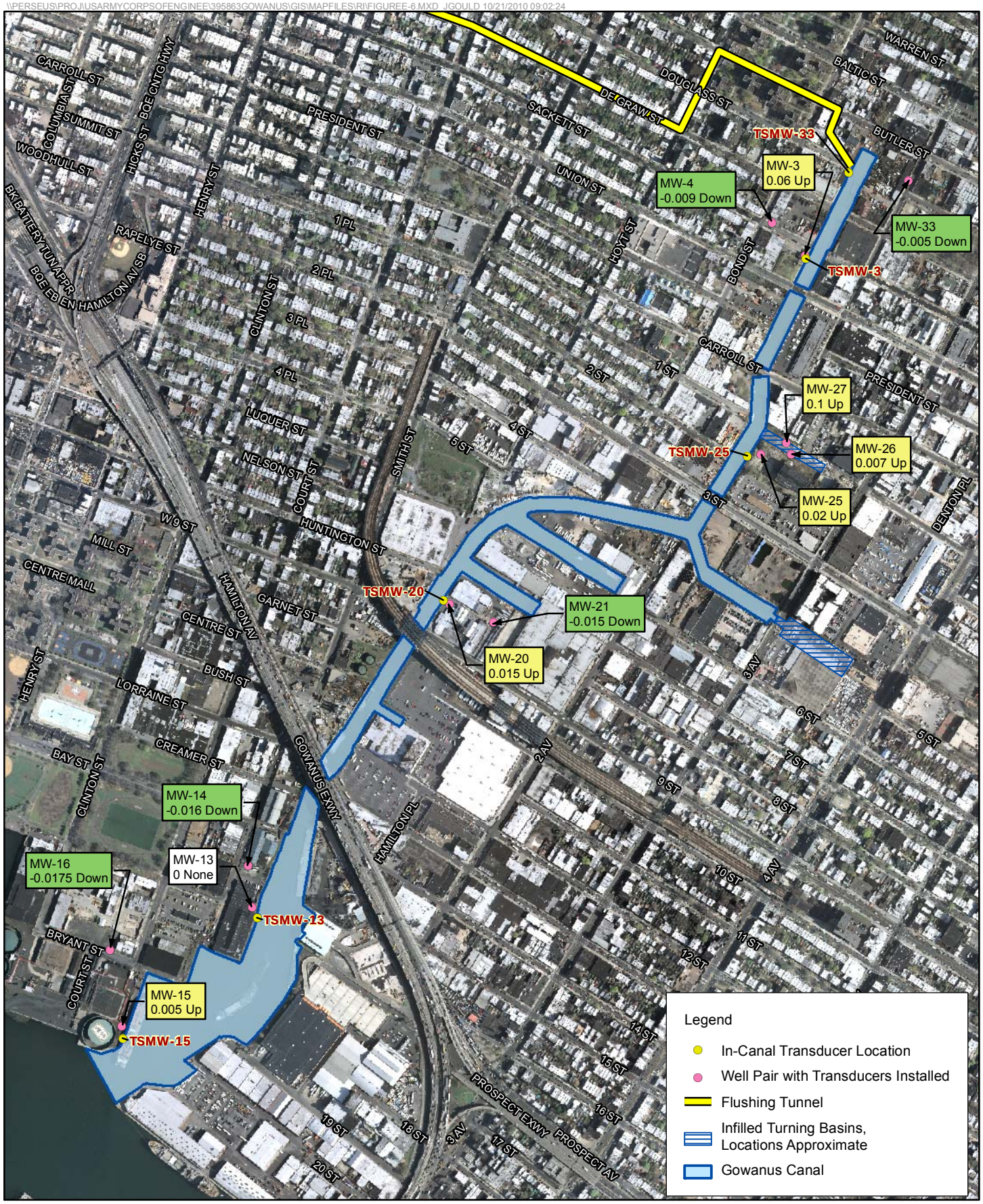

FIGURE E-6
Median Vertical Gradient at
Monitoring Well Clusters
Gowanus Canal Remedial Investigation
Brooklyn, New York

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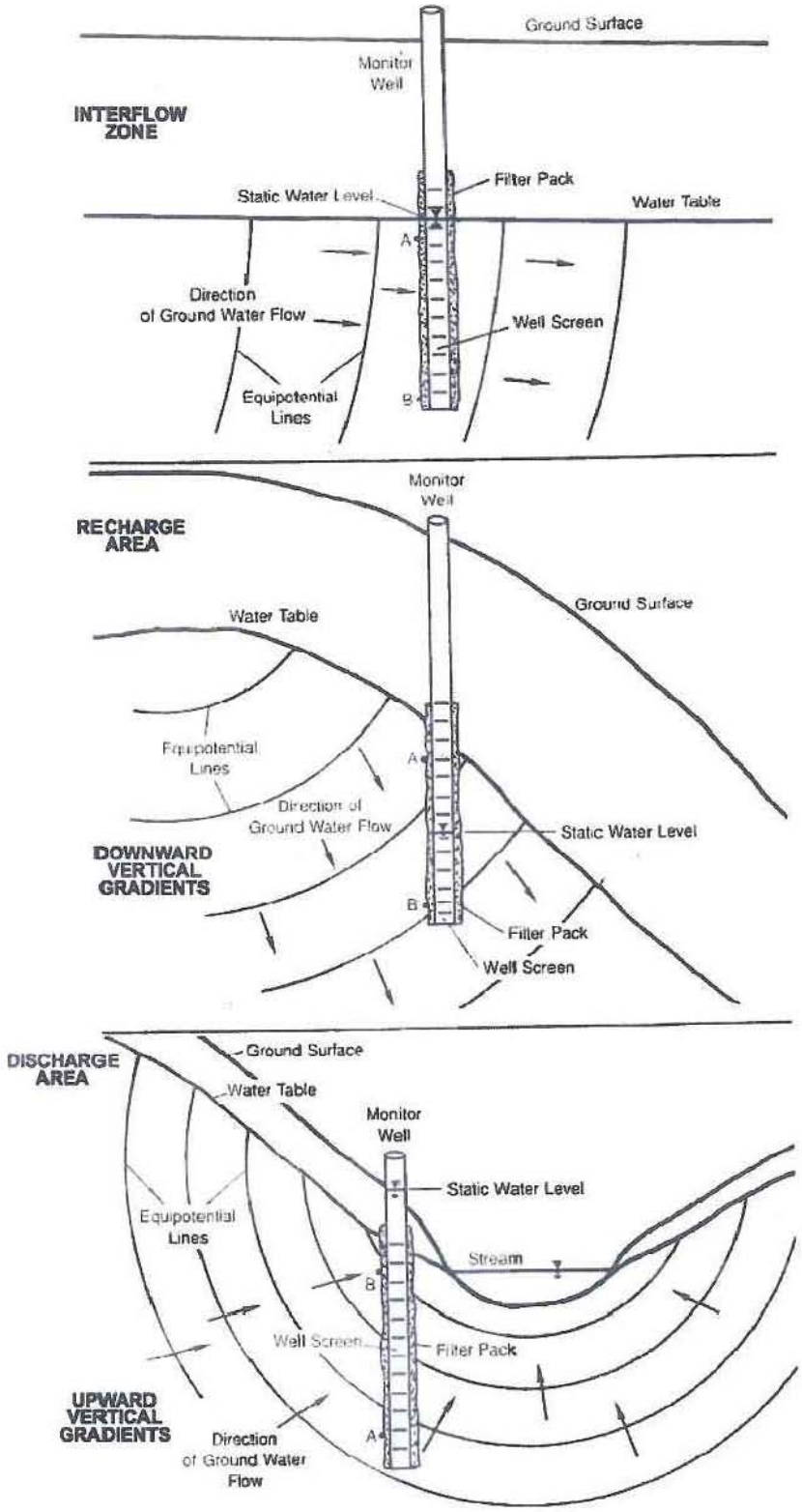

FIGURE E-7
Conceptual Diagram Depicting Vertical Gradients in Various Zones of Flow
Gowanus Canal Remedial Investigation
Brooklyn, New York

Source: (Erskine, 1991)

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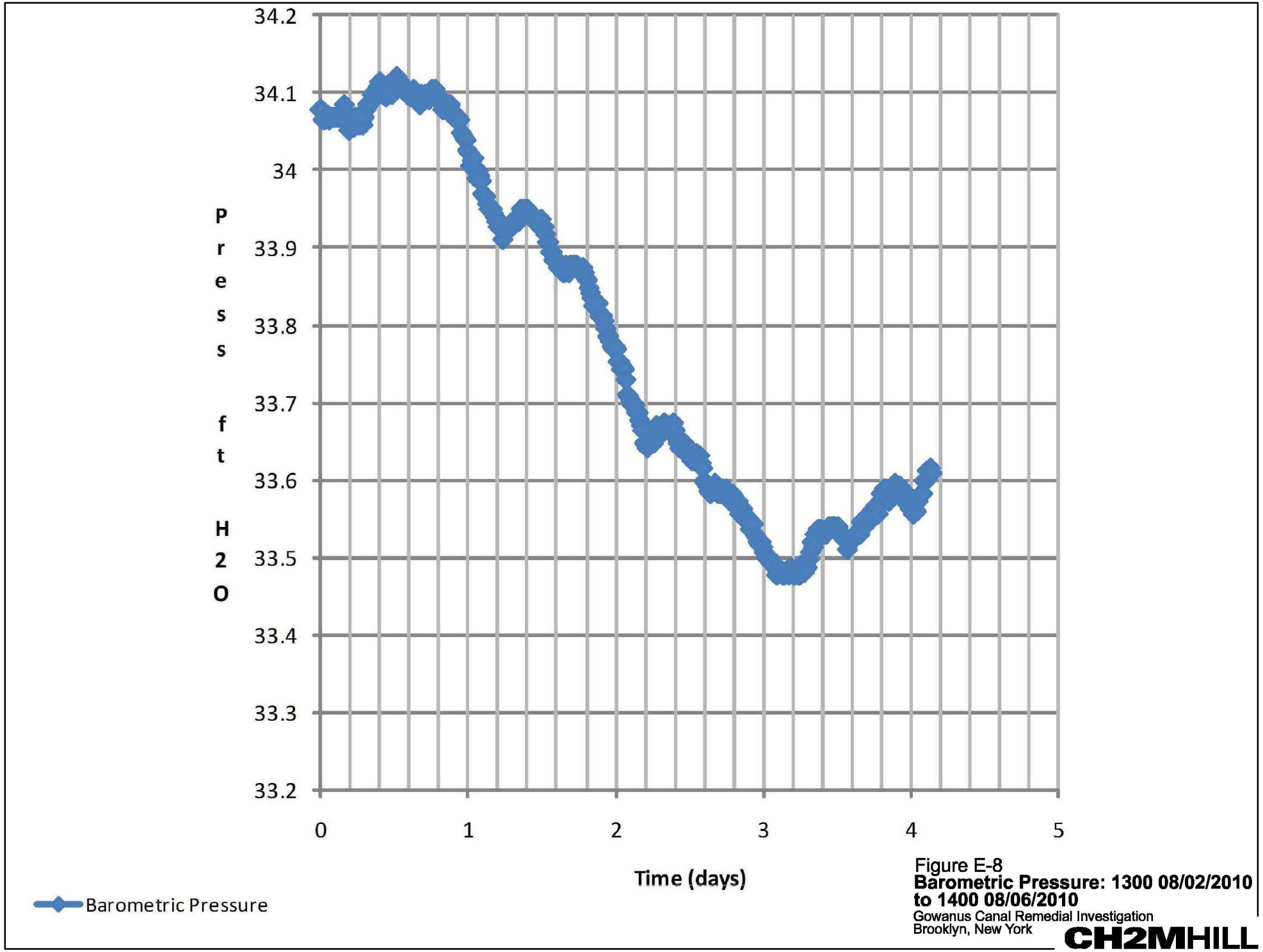

Figure E-8
Barometric Pressure: 1300 08/02/2010 to 1400 08/06/2010
Gowanus Canal Remedial Investigation
Brooklyn, New York

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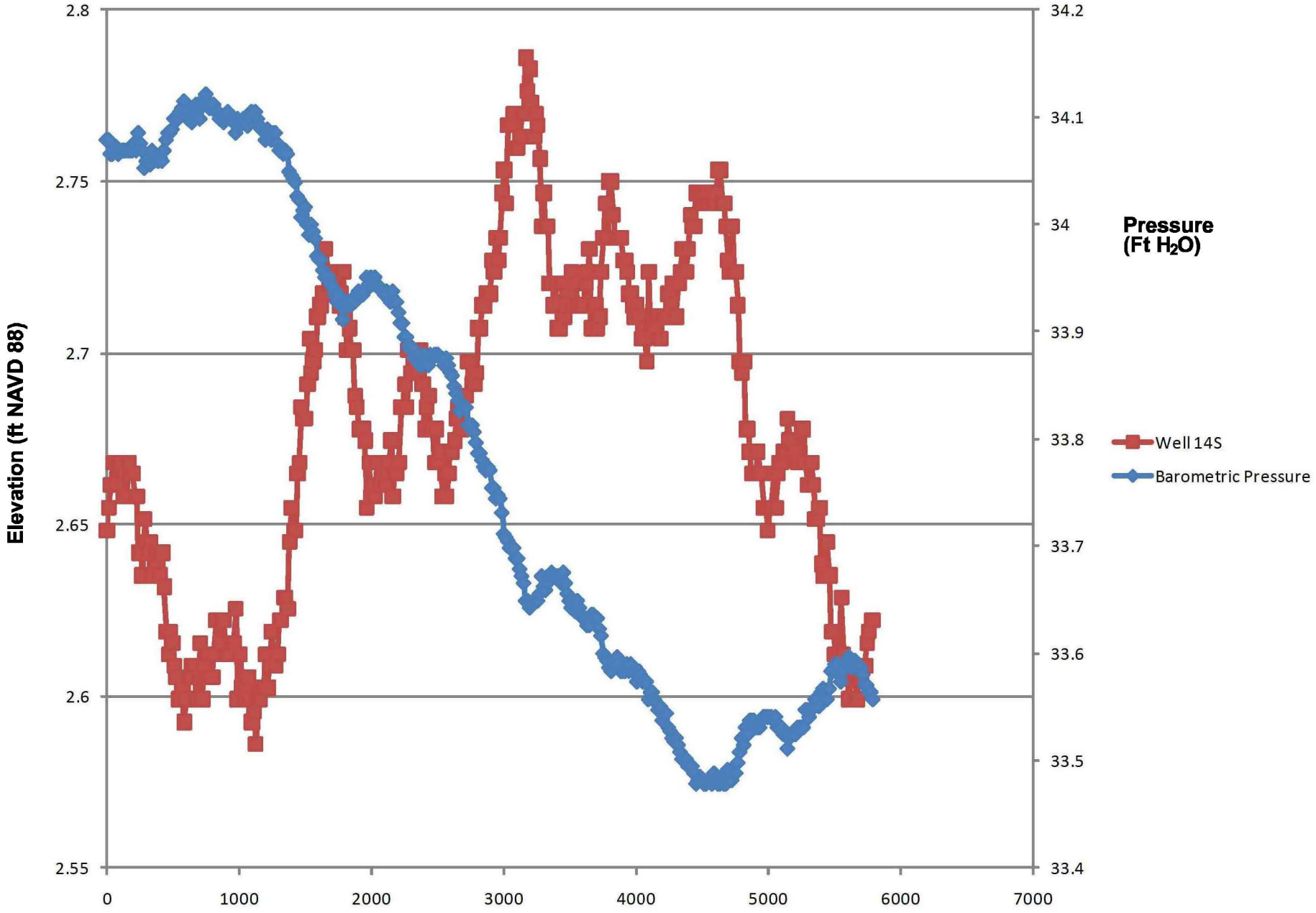

Figure E-9
Hydrograph of MW-14S and Barometric Pressure 1300 08-02-2010 to 1400 08-06-2010
Gowanus Canal Remedial Investigation
Brooklyn, New York

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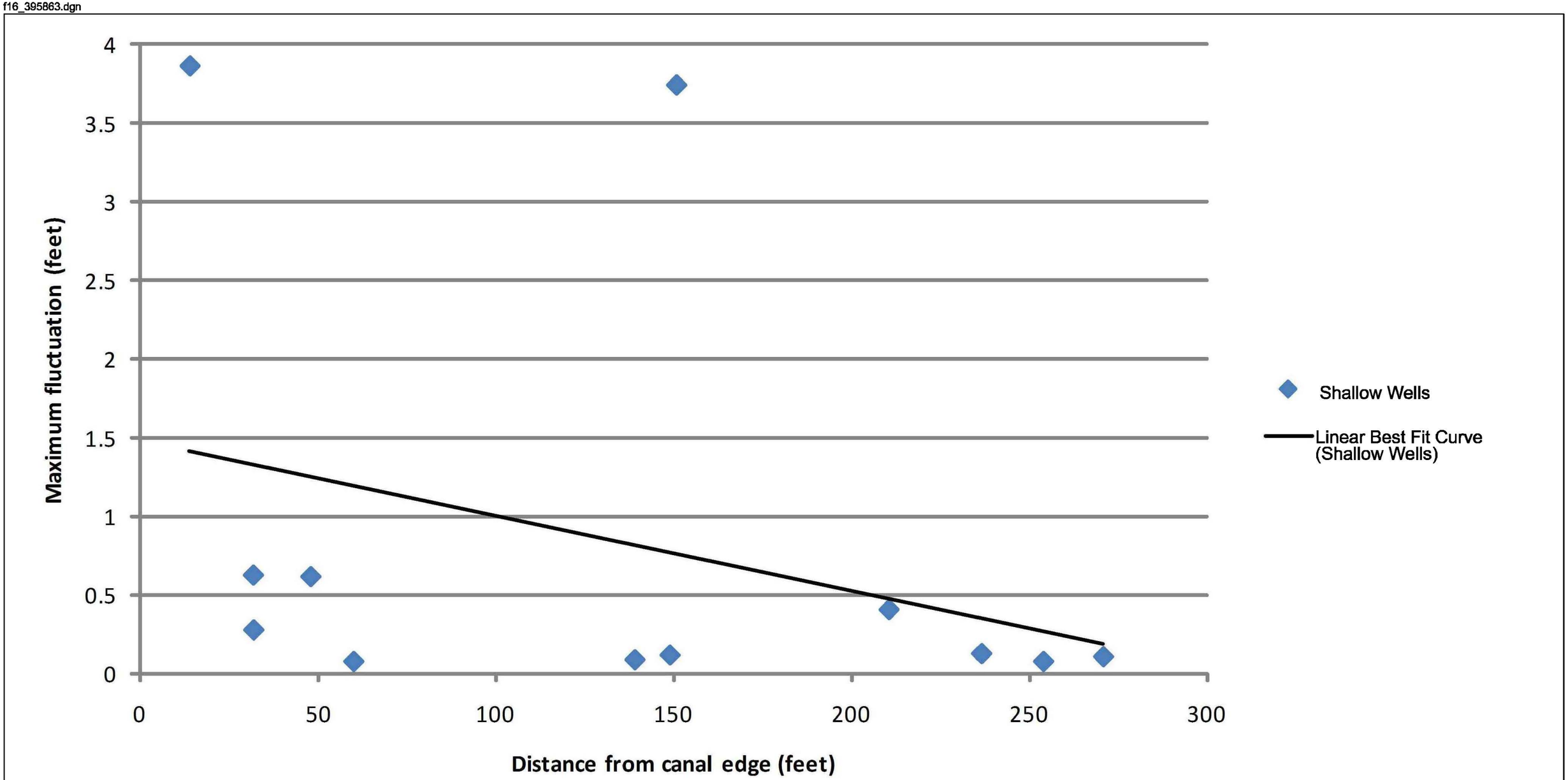

Figure E-10
Maximum Fluctuation as a Function of Distance in Shallow Monitoring Wells
Gowanus Canal Remedial Investigation
Brooklyn, New York

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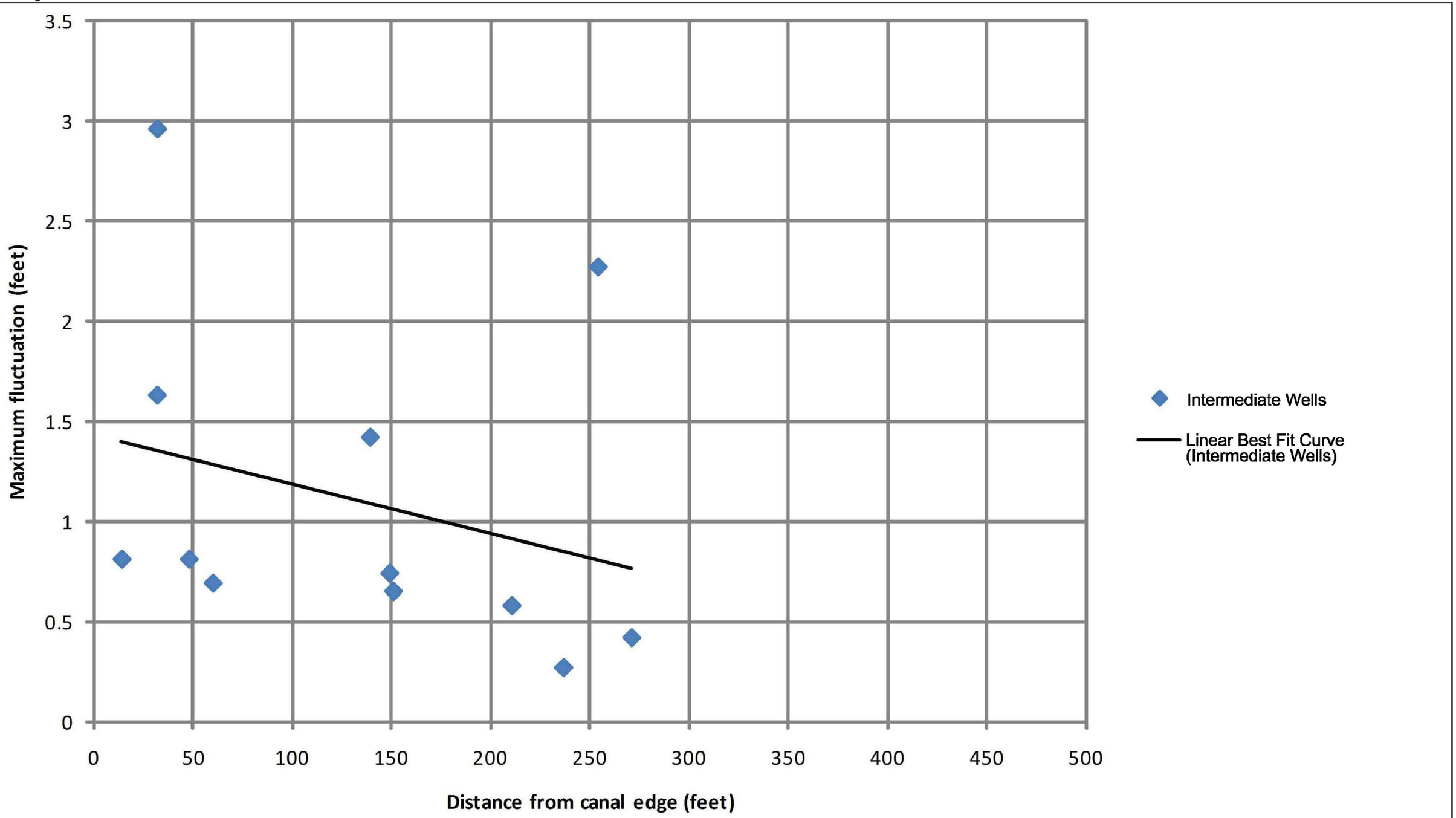

Figure E-11
Maximum Fluctuation as a Function of Distance in Intermediate Monitoring Wells
Gowanus Canal Remedial Investigation
Brooklyn, New York

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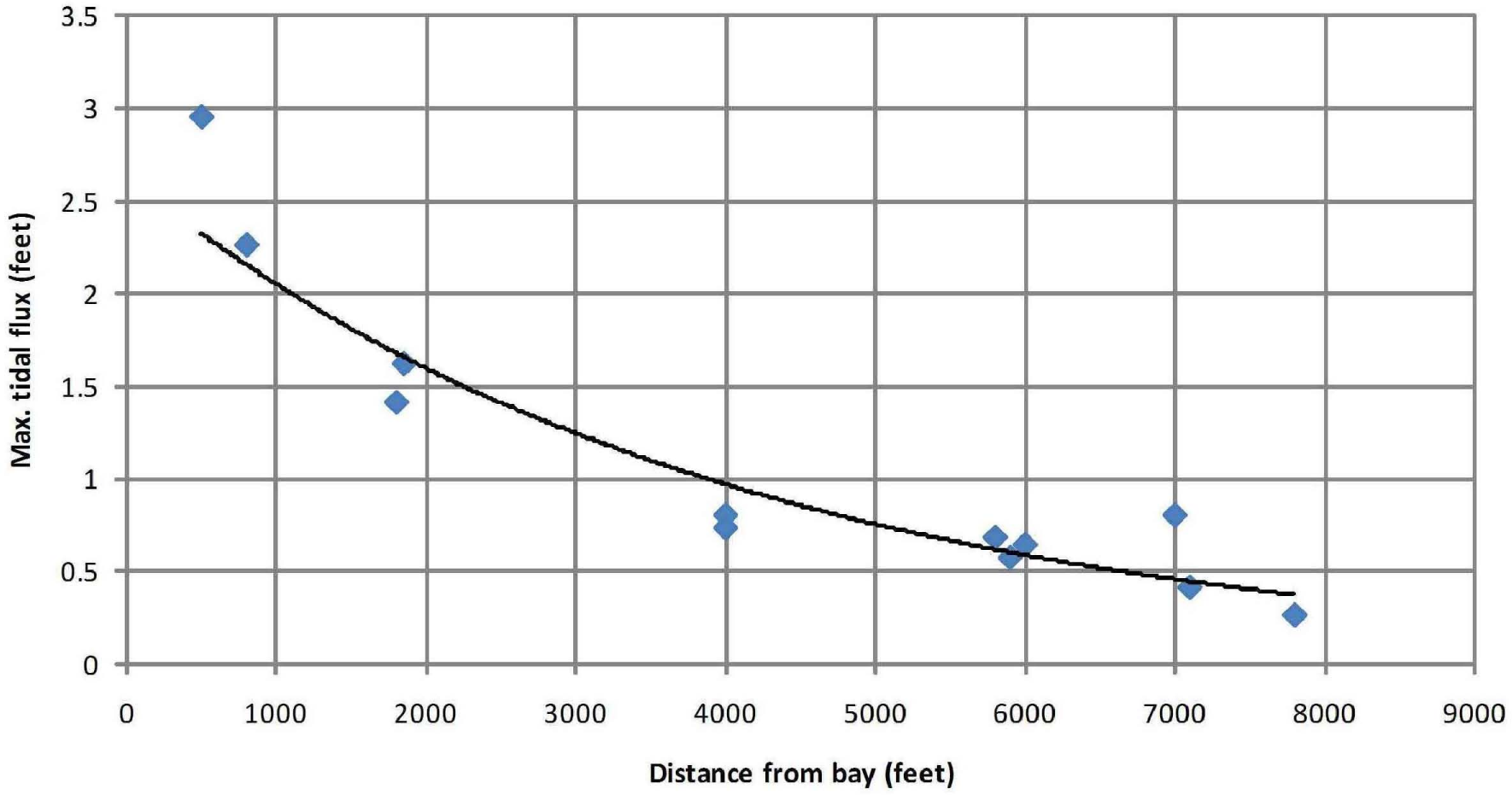

Intermediate Wells

Exponential Best Fit Curve (Intermediate Wells)

Figure E-12
Maximum Fluctuation with Distance from Bay at Intermediate Monitoring Wells
Gowanus Canal Remedial Investigation
Brooklyn, New York

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Appendix F
Evaluation of Groundwater/Surface Water Interaction

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Appendix F
Evaluation of Groundwater/Surface Water Interaction

Introduction

Appendix F characterizes the interaction of surface water and groundwater adjacent to Gowanus Canal by examining water quality data collected from shallow monitoring wells, intermediate monitoring wells, and stations in Gowanus Canal. Comparison of geochemical signatures and specific constituents supports characterizing the contribution of groundwater to a surface water body. In addition to groundwater/ surface water interaction, these chemistry data characterize the aquifer and surface water environments in regard to enhancing or degrading migration of specific classes of contaminants.

Personnel from National Grid, New York City (NYC), and the United States Environmental Protection Agency (USEPA) collected groundwater samples from fourteen shallow and intermediate monitoring wells, along with surface water from eight adjacent stations in Gowanus Canal over the period from June 25 to July 26, 2010 (Figure F- 1, Table F- 1). Important field chemistry parameters (temperature, pH, Eh, specific conductivity, dissolved oxygen, turbidity, salinity and ferrous iron) were measured at the time of sample collection. Laboratories employed by National Grid, NYC and USEPA analyzed samples for a full list of metals and general water quality parameters, although several sample sets omitted specific constituents (Table F-2).

Water Chemistry

Surface Water

The pH of canal water ranged from mildly acidic (6.2) at SW-2 and SW-31 to mildly alkaline (7.9) at SW-18 (Figure F-2) while most samples exhibited a circumneutral pH. Acidic values suggest a location of groundwater contribution, or geochemical reactions in sediments lining the canal. Seawater exhibits relatively alkaline values from 7.9 to 8.2 (Hem, 1985). Thus, more alkaline pH values may reflect areas less influenced by inflow to the canal. Water temperatures in the canal ranged from 19.2 to 28.8 ^{o}C over the sampling period, several degrees higher than measured in adjacent shallow, or intermediate monitoring wells.

Dissolved oxygen (DO) concentrations in the canal fell in the oxic range (DO>2.0 mg/L; Stuyfzand, 1994), with most measurements ranging between 2 to 5 mg/L, relatively low concentrations for surface water. Only SW-37 and SW- 31 exhibited values closer to expected concentrations at 7.8 and 11.1 mg/L, respectively. Elevated concentrations of total organic carbon in sediments forming the canal bottom may consume oxygen in the canal water.

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With the exception of SW-2, located at its northeastern end, concentrations of total dissolved solids (TDS) in Gowanus Canal ranged from 17,900 mg/L to 25,800 mg/L (Figure F-3) falling in the highly saline classification (Hem, 1985). These concentrations ranged around 10,000 mg/L less than sea water (at 3.5 percent salinity), implying some dilution with fresher water, consistent with eustarine conditions.

Trilinear diagrams helped characterize the bulk chemistry of water samples. By converting concentrations of calcium, sodium, potassium, magnesium, sulfate, chloride, and bicarbonate to equivalent weights, the basic components of water can be plotted on triangular diagrams to identify the most dominant cation and anionic components of a water sample. Water from the canal plotted as a sodium chloride type (Figure F-4), exhibiting almost no variability in major cations and anions between individual samples. Canal water composition closely matched representative samples of sea water.

Outside the relatively constrained range of TDS, SW-2 exhibited concentrations of 50,900 mg/L, roughly two times the concentrations in other samples, and exceeding the minimum threshold (50,000 mg/L) for brine.

Although collected over a period spanning one month, TDS concentrations in Gowanus Canal exhibited no systemic decline with distance from Gowanus Bay. The absence of a declining trend proceeding upgradient implies a minimal contribution of groundwater to the canal as baseflow.

Groundwater

Examination of boring logs and cross sections indicates that shallow monitoring wells selected for the water quality study screened saturated materials in the Fill and/or Alluvial/Marsh Deposits. Most intermediate wells screened the Glacial Deposits, although screens from several, including MW-9I and MW-21I spanned both the Alluvial and Glacial Deposits.

Water chemistry relationships discussed in the following two sections refer to specific, or groups of shallow and intermediate monitoring wells. However, this focus shifts in later sections to stratigraphic units and Gowanus Canal/ Bay when examining the interaction between these hydrologic units.

Shallow Monitoring Wells

With the exception of MW-31S, which exhibited a pH of 3.06, the pH of water from the shallow monitoring wells ranged nearly two units from 6.5 to 8.3, and averaged 6.7. The acidic pH at MW-31S fell outside the range of most natural waters, yet was not correlative with elevated contaminant concentrations. Furthermore, a sample from the canal at this location exhibited a mildly acidic pH.

TDS concentrations fell in the brackish (500 to 3,000 mg/L) and saline (3,000 to 50,000 mg/L) categories ranging from 506 mg/L to 23,400 mg/L (Figure F-5). Four of the seven wells situated adjacent to the canal exhibited TDS concentrations exceeding 3,000 mg/L, while two of the remaining three exceeded 1,000 mg/L. None of the samples exhibited TDS concentrations in the fresh water range (TDS< 500 mg/L).

In well pairs adjacent to the canal and in the uplands (MW- 15 and MW-16; MW-20 and MW-21; MW-37 and MW-39; MW-3 and MW-4) TDS concentrations consistently declined with distance from the canal. Although other factors like road de-icing and misting from the surrounding bays on the Brooklyn peninsula can increase shallow water salinity, the distribution of TDS concentrations suggests the Gowanus Canal controls water quality in the shallow monitoring wells.

Results of an evaluation of major cations and anions using the Piper method (Piper, 1944) displays several different water types in the shallow water bearing zone including sodium-chloride, sodium bicarbonate, and calcium bicarbonate types (Figure F-6). Sodium chloride water can originate from Gowanus Canal, or de-icing activities. Calcium and sodium bicarbonate waters suggest some mixing with fresh recharge. Samples displaying bicarbonate water types originated from wells situated in upland areas suggesting some contribution of recharge water from precipitation. This observation must be tempered against the brackish TDS concentrations.

DO concentrations averaged 1.0 mg/L, falling in the anoxic range (DO < 1.1 mg/L; Stuyfzand, 1993). A single oxic value (8.15 mg/L) was measured at MW-23S, but most wells exhibited concentrations below 1.0 mg/L. Anoxic conditions in the shallow groundwater coincide with reduced recharge through impervious cover, typical of an urban environment.

Average oxidation-reduction (Eh) potential values at 120 millivolts (m.v.) fell into the transitional range consistent with the absence of oxygen-laden recharge. The most reduced values were measured at MW-1S (-26 m.v.) and MW-3S (-56 m.v.) trending consistent with the relative absence of DO and nitrate-reducing conditions.

TOC concentrations at individual wells appeared consistent with dissolved organic carbon (DOC) indicating equilibrium with materials in the subsurface rather than interference from colloidal matter in samples. TOC concentrations ranged from less than laboratory method detection limits (MDL; 1.0 mg/L) to 18.6 mg/L. Elevated TOC concentrations coincided with elevated amounts of volatile organic compounds (VOC) and semi-volatile organic compounds at MW-9S, MW-16S, and MW-18S. Natural materials like plant debris, wood, and peat could also influence TOC concentrations in the shallow monitoring wells.

Occurrences of elevated TOC concentrations (5.6 to 60 mg/L) in shallow monitoring wells at MW-2, MW-3, MW-9, MW-18, MW-23, and MW-31 match closely with moderate concentrations of TOC (TOC< 5.1 mg/L) in Gowanus Canal. Conversely, at locations where TOC falls below MDL's (MW-15 and MW-37), no TOC appears in samples from the canal.

Total iron from the shallow monitoring wells approached concentrations exceeding 21 mg/L. However, 9 of the 14 samples exhibited a significant discrepancy between total and dissolved concentrations, suggesting interference by colloidal matter in the samples. With the exception of MW-3S at 3.6 mg/L, nitrate concentrations were less than MDL's. Nitrate concentrations also appeared in samples from the canal at the MW/SW-3 location.

Intermediate Monitoring Wells

In regard to most constituents, the intermediate monitoring wells as a group, exhibited more uniform water chemistry than the shallow wells. The pH of water sampled at the intermediate monitoring wells ranged from 6.3 to 8.0, and averaged 7.1. With the exception of MW-15I and MW-16I situated adjacent to Gowanus Bay, and MW-39I, all exhibiting saline concentrations, TDS concentrations at most wells fell in the brackish classification. TDS concentrations at MW-39I approached 12,000 mg/L (Figure F-7). Older land use maps suggest the adjoining tributary of the Gowanus Canal extended southeast through the location of MW-39I. Dissolution of materials in the anthropogenic fill used to reclaim the canal tributary may have influenced TDS concentrations in the groundwater sample collected at MW-39I.

With the exceptions MW-39I and MW-9I, TDS concentrations progressively declined with distance from Gowanus Bay. Similar to the shallow water bearing wells, TDS concentrations also decreased with distance from Gowanus Canal.

With the exception of two wells, all water samples displayed a sodium-chloride water type (Figure F-8). MW-2I and MW-31I, located at the northeastern end of the canal exhibited mixed cation –bicarbonate water types, along with lower TDS concentrations suggesting mixing with a freshened recharge source.

DO concentrations ranged up to 6.8 mg/L in MW-23I, but generally fell below 1.0 mg/L in the remaining wells. Average DO concentrations measured in the intermediate wells appeared equivalent to the shallow wells. Eh values in the intermediate wells exhibited less variability in values than the shallow wells. Although average Eh values ranged markedly lower in the intermediate wells, both zones fell into the transitional zone consistent with consumption of DO and nitrate-reducing conditions.

With the exception of MW-23I (14.5 mg/L), and MW-31I (59.8 mg/L), TOC concentrations in the intermediate wells were less than 3.0 mg/L. Conversely, elevated concentrations of VOC and SVOC constituents appeared more common in the intermediate than shallow monitoring wells. MW-31I displayed elevated concentrations of these constituents, but not MW-23I. In addition, total VOC/SVOC concentrations ranged significantly less than TOC, suggesting TOC were more influenced by naturally occurring conditions.

Interactions Between Zones Screened by Shallow and Intermediate Wells

With only one exception (MW-39I), TDS concentrations ranged significantly lower in the intermediate monitoring wells (Glacial Deposits) than in the shallow wells (Fill/Alluvium; Table F-3). Considering this relationship, along with the decline in TDS concentrations with distance from the canal, Gowanus Canal influences water quality in the Fill/Alluvium to a greater degree than the Glacial Deposits. Differences in water temperatures and TDS concentrations indicates the Fill/Alluvium and Glacial Deposits represent separate hydrologic systems at most locations.

Closer to Gowanus Bay (Figure F-9), TDS concentrations appear greater in the Glacial Deposits than the shallower Fill and Alluvium, consistent with a saltwater wedge propagating inland from the coast (Figure F-10). Within the study area, the shoreline of Gowanus Bay marks this conceptual hydrologic boundary.

Consistent with the elevated TDS, sodium-chloride water predominates in both the Alluvium and Glacial Deposits adjacent to the canal. Proceeding away from the canal, groundwater chemistry in the Alluvium beneath the uplands exhibits a calcium-bicarbonate chemistry, more typical of water mixing with freshened recharge. Although several distinct geochemical facies occur in the area, an interpretation involving freshened recharge must be tempered by the pervasive, brackish TDS and anoxic DO concentrations.

At the northeastern end of the canal, geochemical facies exhibit a differing pattern (Figure F-11) than proximal to Gowanus Bay. Again groundwater exhibits a sodium chloride type water in the Alluvium/Fill at wells adjacent to the canal. By comparison, groundwater in the Glacial Deposits consists of a mixed cation-bicarbonate type suggesting that a fresher, recharge water chemistry predominates with greater distance from Gowanus Bay.

Groundwater-Surface Water Interaction

Potentiometric levels measured during monthly synoptic water level surveys and the tidal study conducted in August 2010 showed that groundwater in the saturated Fill and Alluvium flows toward the Gowanus Canal. Vertical gradients between the Fill/Alluvium and Glacial Deposits adjacent to the canal generally trended upward suggesting flow toward the canal as a hydrologic discharge zone. Conversely, vertical gradients in uplands areas trended downward typical of recharge area.

Monitoring well/canal stations employed for both the tidal and water quality study included MW/SW-3, MW/SW-15, and MW/SW-20. In all three locations, canal elevations exceeded potentiometric elevations in the Fill/Alluvium at high tide (Figure F-12). Canal elevations exceeded potentiometric elevations in the Glacial Deposits intermittently during high tide at MW/SW-15, and MW/SW-20, but not at MW/SW-3.

TDS concentrations in the Fill/Alluvium appear anomalously elevated at all three locations. Water samples from the Fill/Alluvium at these three stations exhibit a sodium-chloride water chemistry. A similar relationship emerges in the Glacial Deposits, TDS concentrations appear elevated at MW/SW-15, and MW/SW-20M with samples exhibiting sodium-chloride water types. By comparison, TDS concentrations in the Glacial Deposits at the SW/MW-3 location appear similar to concentrations exhibited at local wells.

The uniformity of water chemistry along Gowanus Canal in regard to TDS and cation/anion type shows little evidence of dilution by significant inflow of groundwater.

In summary, the unique estuarine water quality in Gowanus Canal imposes a strong imprint on the water chemistry of the Fill/Alluvium, and at specific proximal locations in the Glacial Deposits.

Summary of Tidal Evaluation and Groundwater-Surface Water Interaction

Combined results of the synoptic, tidal and groundwater-surface water chemistry studies provide multiple lines of evidence to characterize the hydraulic relationships between local groundwater and the Gowanus Canal . Potentiometric surfaces developed from the synoptic events described in Section 3 suggest that, at the water table, groundwater flows toward Gowanus Canal. Potentiometric data from intermediate wells depicted a more complex pattern with groundwater generally flowing upward toward the canal typical of a discharge area.

Data from the 5-day tidal evaluation portrays a more temporally-controlled flow pattern than the synoptic study. At specific locations, canal elevations consistently exceeded groundwater elevations in the fill/ alluvium at high tide creating hydraulic conditions for surface water to flow into shallow aquifer sediments several times per day. These conditions appeared more intermittent over the tidal study period in wells screened in the glacial deposits.

Gowanus Canal exhibits a uniform chemical signature (TDS, temperature, cation/anions, etc.) along its entire length suggesting minimal influence by groundwater flow contribution. Furthermore, water chemistry in monitoring wells proximal to the canal exhibit chemical signatures similar to the canal, suggesting infiltration of surface water into the fill/alluvium.

Given its saline nature, the ionic strength of surface water from the Gowanus Canal ranges several orders of magnitude greater than most groundwater in the fill/alluvium and glacial deposits. Thus, a large contribution of groundwater is necessary to significantly influence the chemistry of water in the canal. Conversely, given its saline nature, even short periods of reversed flow from the canal into fill/alluvium and glacial deposits alters groundwater signatures.

Although evaluation of data from the synoptic and tidal studies produced lateral and vertical gradients supporting the flow of groundwater to the canal, temporal exceptions to this flow pattern emerged. Hydraulic data from these studies generally support the similarity in canal and groundwater chemistries proximal to Gowanus Canal. The three studies suggest that local groundwater from the fill/alluvium and glacial deposits, generally flow toward the Gowanus Canal, although the flow pattern appears to reverse locally, with daily regularity. Groundwater flow volumes into Gowanus Canal appear insufficient to alter its basic chemical signature. Conversely, because of its saline nature, infiltration of canal water even for brief periods influences groundwater chemistry in the fill/alluvium.

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Hem, J.D., Study and interpretation of the characteristics of natural water, U.S. Geological Survey Water Supply Paper 2254, Denver, 1985.

Piper, A.M., A graphic procedure in the geochemical interpretation of water analyses. Transactions, American Geophysical Union, Washington, D.C., 1944.

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Table F-1

Summary of Locations With Water Quality Data

Gowanus Canal Remedial Investigation

Brooklyn, New York

Well/Surface Water Location ID	Sampling Entity	Sampling Depth	Water Bearing Zone
MW-1S	NYC	Shallow	Fill/Alluvial/Marsh
MW-1I	NYC	Intermediate	Glacial
MW-2S	NYC	Shallow	Fill/Alluvial/Marsh
MW-2I	NYC	Intermediate	Glacial
SWMW-02	NYC	Canal	Canal
MW-3S	EPA	Shallow	Fill/Alluvial/Marsh
MW-3I	EPA	Intermediate	Glacial
SWMW-03	EPA	Canal	Canal
MW-4S	EPA	Shallow	Fill
MW-4I	EPA	Intermediate	Glacial
MW-9S	NYC	Shallow	Fill/Alluvial/Marsh
MW-9I	NYC	Intermediate	Alluvial/Marsh/Glacial
SWMW-09	NYC	Canal	Canal
MW-15S	EPA	Shallow	Fill
MW-15I	EPA	Intermediate	Glacial
SWMW-15	EPA	Canal	Canal
MW-16S	EPA	Shallow	Fill/Alluvial/Marsh
MW-16I	EPA	Intermediate	Glacial
MW-18S	NYC	Shallow	Fill/Alluvial/Marsh
MW-18I	NYC	Intermediate	Glacial
SWMW-18	NYC	Canal	Canal
MW-20S	EPA	Shallow	Fill
MW-20I	EPA	Intermediate	Glacial
SWMW-20	EPA	Canal	Canal
MW-21S	EPA	Shallow	Fill/Alluvial/Marsh
MW-21I	EPA	Intermediate	Alluvial/Marsh/Glacial
MW-23S	National Grid	Shallow	Fill/Alluvial/Marsh
MW-23I	National Grid	Intermediate	Alluvial/Marsh/Glacial
SWMW-23	National Grid	Canal	Canal
MW-31S (Existing Well FW-MW-10)	National Grid	Shallow	Fill/Alluvial/Marsh
MW-31I	National Grid	Intermediate	Glacial
SWMW-31	National Grid	Canal	Canal
MW-37S	EPA	Shallow	Alluvial/Marsh
MW-37I	EPA	Intermediate	Glacial
SWMW-37	EPA	Canal	Canal
MW-39S	EPA	Shallow	Fill
MW-39I	EPA	Intermediate	Alluvial/Marsh

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TABLE F-2

Geochemistry Results in Groundwater and Surface Water

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	MW-1	MW-1	MW-2	MW-2	SWMW-2	MW-3	MW-3	SWMW-3	MW-4	MW-4
Sample Number:	MW01S	MW01I	MW02S	MW02I	SW-01	GC-MW03S	GC-MW03I	GC-SWMW3	GC-MW04S	GC-MW04I
Sampling Entity:	NYC	NYC	NYC	NYC	NYC	EPA	EPA	EPA	EPA	EPA
Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Surface Water	Shallow	Intermediate	Surface Water	Shallow	Intermediate
Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010
Parameter										
pH	7	7.43	6.46	7.04	6.5	7.49	7.34	7.93	6.95	7.98
Temperature (degC)	17.01	16.46	22.23	17.47	23.1	26.13	19.67	24.51	28.16	19.03
Specific Conductance (mS/cm)	5.39	1.38	1.15	0.916	1.01	33.9	1.64	36.1	1.99	1.38
Oxidation Reduction Potential [ORP] (mV)	-226	-167	-113	-140	-132	-256	-158	18	-61	-179
Dissolved Oxygen [DO] (mg/l)	0	0	0	0	4.3	0	2.2	2.03	0.7	0
Field Turbidity (NTU)	60.1	> 999	15.6	110	> 999	3.16	1.8	2	8.9	3.85
Field Salinity (%)	NA	NA	NA	NA	NA	2.04	0.8	2.18	NA	0.04
Field Ferrous [+II] Iron (mg/l)	1.3	1.9	3.25	0.9	4	0.03	0.69	0	2.16	0.35
Alkalinity	NA	NA	310	227	95.9	134	272	97.5	1110	2 U
Ammonia (as nitrogen)	NA	NA	NA	NA	NA	0.72	0.15	0.66	18.9	0.51
Chloride	NA	NA	121	132	13300	13500	341	14700	321	458
Organic Carbon - Dissolved	NA	NA	4.9	1.1	2.4	1 UJ	1 UJ	1 UJ	10.8 J	1 UJ
Total Hardness (as Calcium Carbonate)	NA	NA	217	294	4480	4230	394	4580	691	294
Nitrogen, Nitrate	NA	NA	0.11	0.009 U	0.35	3.6	0.084 J	3.2	0.14	0.1 U
Nitrogen, Nitrate + Nitrite	NA	NA	0.12	0.008 U	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrite	NA	NA	0.011	0.001 U	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen	NA	NA	2.4	1.1	1.8	0.35	0.2 U	0.6	19.1	0.33
Total Orthophosphate Phosphorus (As PO4)	NA	NA	0.32	0.65	0.46	1 U	0.1 U	1 U	0.1 U	0.1 U
Silica (SiO_2)	NA	NA	21.4	20.3	1 U	5.4	20	1.8	47.2	20.4
Sulfate	NA	NA	33.2	54.3	1980	1810	107	1970	4.8	73.2
Total Dissolved Solids	NA	NA	506	506	50900	23400	1020	24600	1440	774
Organic Carbon - Total	NA	NA	5.5	1.1	2.8	1 UJ	1 UJ	1 UJ	9.2 J	1 UJ
Total Suspended Solids	NA	NA	16	77	11	54	6	50	125	11
Aluminum	1190	9610	7.8 U	1820	7.8 U	3000 U	3000 U	NA	1660 J	3000 U
Calcium	182000	88800	56700	43300	275000	310000	72300 J	NA	135000	46100 J
Iron - Total	3950	19900	5480	4540	385	1500 U	930 J	NA	20900	664 R
Magnesium	116000	55500	11600	42400	NA	770000	50900 J	NA	92200	41500 J
Manganese - Total	727	495	366	515	56.5	34.6 R	2070	NA	1230	823
Potassium	39900	14900	22900	23900	NA	254000	75000 U	NA	42200 J	75000 U
Sodium	629000	89100	116000	55400	NA	5700000 J	196000	NA	309000	177000
Iron - Dissolved	NA	NA	454	18 U	18 U	1500 UJ	817 J	NA	13800 J	2170 R
Manganese - Dissolved	NA	NA	381	523	43.2	21600 R	4.2	NA	1140	843
Iron - Ferrous	1.3	1.9	3.25	0.9	4	0.03	0.69	0	2.16	0.35

All units in ug/l

NA - Not Analyzed

TABLE F-2

Geochemistry Results in Groundwater and Surfac

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	MW-9		MW-9		SWMW-9		MW-15		MW-15		SWMW-15		MW-16		MW-16		MW-18		MW-18	
Sample Number:	**MW09S**		**MW09I**		**SW-02**		**GC-MW15S**		**GC-MW15I**		**GC-SWMW15**		**GC-MW16S**		**GC-MW16I**		**MW18S**		**MW18I**	
Sampling Entity:	**NYC**		**NYC**		**NYC**		**EPA**		**EPA**		**EPA**		**EPA**		**EPA**		**NYC**		**NYC**	
Sample Depth:	**Shallow**		**Intermediate**		**Surface Water**		**Shallow**		**Intermediate**		**Surface Water**		**Shallow**		**Intermediate**		**Shallow**		**Intermediate**	
Sample Date:	**6/24/2010**		**6/24/2010**		**6/29/2010**		**7/27/2010**		**7/27/2010**		**7/27/2010**		**7/27/2010**		**7/27/2010**		**6/28/2010**		**6/28/2010**	
Parameter																	**Geochemistry Parameters**			
pH	8.34		7.53		7.61		7.1		7.22		7.2		6.62		7.85		7.96		7.68	
Temperature (degC)	14.78		17.3		19.83		26.12		18.32		26.65		27		21		18.11		17.1	
Specific Conductance (mS/cm)	5.12		3.39		3.32		13.6		16.6		39		2.49		7.85		4.93		2.71	
Oxidation Reduction Potential [ORP] (mV)	-273		-178		-151		-7		-177		120		-147		-202		-140		-70	
Dissolved Oxygen [DO] (mg/l)	0		0		3.7		0.7		0.42		4.72		0		0.99		0.81		0.21	
Field Turbidity (NTU)	> 999		> 999		> 75		12		0.7		0.2		6.8		4.74		56.3		450	
Field Salinity (%)	NA		NA		NA		0.78		0.97		2.47		0.13		0.38		NA		NA	
Field Ferrous [+II] Iron (mg/l)	1.9		3.8		2		0.22		0.09		0		3.3		0.04		0.4		0.6	
Alkalinity	256		687		101		532	J	622	J	101	J	736	J	588	J	499		482	
Ammonia (as nitrogen)	NA		NA		NA		2.8		0.89		0.37		0.79		1.4		NA		NA	
Chloride	1230		707		13600		3790		2690		15200		408		2180		1150		414	
Organic Carbon - Dissolved	9.7		3.7		3.6		1	U	1	U	1	U	21.6		1	U	16.4		2.6	
Total Hardness (as Calcium Carbonate)	1430		463		4430		1020		1370		5090		662		636		463		353	
Nitrogen, Nitrate	0.009	U	0.009	U	0.28		0.1	U	1	U	1	U	0.1	U	0.1	U	0.009	U	4.9	
Nitrogen, Nitrate + Nitrite	0.008	U	0.008	U	NA		NA		NA		NA		NA		NA		0.008	U	4.9	
Nitrogen, Nitrite	0.001	U	0.001	U	NA		NA		NA		NA		NA		NA		0.001	U	0.001	U
Total Kjeldahl Nitrogen	9		9.2		0.53		2		6.9		0.2	U	7.5		1.7		4.7		2.1	
Total Orthophosphate Phosphorus (As PO4)	1.6		1.4		0.14		1	U	1	U	1	U	0.1	U	0.1	U	0.61		0.48	
Silica (SiO_2)	14		18.6		1	U	20000	J	16300	J	1350	J	41600	J	15600	J	19.1		18.6	
Sulfate	1060		15.5		2190		249		420		1990		11.1		107		122		92.3	
Total Dissolved Solids	3640		1820		17400		6630		8830		23200		1360		3750		2450		1270	
Organic Carbon - Total	14.7		4.7		2.6		1	U	1	U	1	U	17.4		1	U	18.6		2.7	
Total Suspended Solids	227		406		4	U	100		38		88		108		14		25		371	
Aluminum	10400		4350		7.8	U	1510		200	U	NA		200	U	200	U	786		9480	
Calcium	381000		73800		258000		77700		96700		NA		166000		46300		113000		59000	
Iron - Total	18500		13700		233		3010		1410		NA		26700		1390		2650		22900	
Magnesium	58100		67400		859000		182000		251000		NA		42800		100000		25100		37800	
Manganese - Total	744		831		48.2		642		761		NA		2870		606		356		1630	
Potassium	72000		37800		NA		111000		136000		NA		31100		60100		27100		17700	
Sodium	413000		502000		7590000		2150000	J	2380000	J	NA		332000		1220000		634000		314000	
Iron - Dissolved	18	U	18	U	18	U	296		1200		NA		25700		1430		102		18	U
Manganese - Dissolved	614		796		42.8		570		810		NA		2790		616		376		1570	
Iron - Ferrous	1.9		3.8		2		0.22		0.09		0		3.3		0.04		0.4		0.6	

All units in ug/l

NA - Not Analyzed

TABLE F-2

Geochemistry Results in Groundwater and Surfac

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	SWMW-18		MW-20		MW-20		SWMW-20		MW-21		MW-21		MW-23		MW-23		SWMW-23		MW-31	
Sample Number:	SW-03		GC-MW20S		GC-MW20I		GC-SWMW20		GC-MW21S		GC-MW21I		GC-MW23S		GC-MW-23I(33.75-38.75)		GC-SWMW23		GC-MW31S(6.75-National Grid	
Sampling Entity:	NYC		EPA		EPA		EPA		EPA		EPA		National Grid		National Grid		National Grid		National Grid	
Sample Depth:	Surface Water		Shallow		Intermediate		Surface Water		Shallow		Intermediate		Shallow		Intermediate		Surface Water		Shallow	
Sample Date:	6/28/2010		7/23/2010		7/23/2010		7/23/2010		7/23/2010		7/23/2010		7/21/2010		7/20/2010		7/21/2010		7/21/2010	
Parameter																				
pH	7.91		6.45		6.31		7.16		7.03		7.26		6.76		6.8		7.01		3.06	
Temperature (degC)	19.19		23.42		20		26.38		25.59		20.26		17		15.32		29.77		19.42	
Specific Conductance (mS/cm)	5.03		18.5		6.84		36.2		2		2.24		1.718		11.29		43.31		18.05	
Oxidation Reduction Potential [ORP] (mV)	-127		-16		-131		88		-139		-156		-197.9		-153.6		368.5		484	
Dissolved Oxygen [DO] (mg/l)	4.2		1.69		0.63		4.36		0		0.65		8.15		6.76		5.03		0.49	
Field Turbidity (NTU)	> 853		1.1		37.1		2.5		0.67		3.52		57.5		38.8		5.3		0.7	
Field Salinity (%)	NA		31.1		0.37		22.8		0.06		0.11		NA		NA		NA		NA	
Field Ferrous [+II] Iron (mg/l)	2		NA		NA		NA		NA		NA		0.086		1.1		0.056		NA	
Alkalinity	98.1		182		914		111		418		383		530	J	700	J	110	J	320	J
Ammonia (as nitrogen)	NA		2.1		8.6		0.72		4.8		1.5		8.2		5.4		0.78		1.8	
Chloride	14100		5570		1870		13800		288		460		328		5450		16600		9590	
Organic Carbon - Dissolved	2.9		1	U	1	U	1	U	5.3		1		13.8		9.7	J	4.6		5	J
Total Hardness (as Calcium Carbonate)	4530		2050		971		4420		404		184		545		1090		4550		3190	
Nitrogen, Nitrate	0.28		1	U	0.18		1.8	J	0.1	U	0.1	U	NA		NA		NA		NA	
Nitrogen, Nitrate + Nitrite	NA		NA		NA		NA		NA		NA		0.1	U	0.1	U	NA		0.1	U
Nitrogen, Nitrite	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
Total Kjeldahl Nitrogen	0.57		1.3		9.9		0.52		1.8		1.2		12.1		6.7		0.61		1.5	
Total Orthophosphate Phosphorus (As PO4)	0.17		1	U	0.1	U	5	U	0.1	U	0.1	U	0.14		0.45		0.34		0.31	
Silica (SiO_2)	1	U	20		25.5		2.2		29.3		20.8		36.2		17.6		2.2		19.7	
Sulfate	2040		950		30.3		1720		48.5		156		4		79.8		2050		1080	
Total Dissolved Solids	25800		9620		3200		24000		1020		1400		NA		NA		NA		NA	
Organic Carbon - Total	3.2		1	U	1	U	1	U	1.3		1	U	14.6	J	14.5		5.1	J	5.6	
Total Suspended Solids	4		71		65		89		27		3	J	NA		NA		NA		NA	
Aluminum	7.8	U	200	U	200	U	NA		200	U	200	U	438		364		208		243	
Calcium	255000		176000		25200		NA		95400		25200		183000		96100		289000		292000	
Iron - Total	225		24000		1120		NA		3360		1120		8320	J	5160	J	361	J	632	J
Magnesium	859000		412000		23100		NA		27400		23100		21300		207000		928000		599000	
Manganese - Total	41.8		138		211		NA		594		211		945		182		58.3		1200	
Potassium			186000		31300		NA		36000		31300		27300		78300		305000		198000	
Sodium	6970000		2410000		416000		NA		203000		416000		177000		2520000		7780000		4900000	
Iron - Dissolved	2670		5330		1010		NA		3390		1010		4770	J	1860	J	71.7	J	508	J
Manganese - Dissolved	41.9		142		205		NA		601		205		972		148		54.5		1000	
Iron - Ferrous	2		NA		NA		NA		NA		NA		0.086	J	1.1		0.056	J	0.4	

All units in ug/l

NA - Not Analyzed

TABLE F-2

Geochemistry Results in Groundwater and Surfac

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	MW-31		SWMW-31		MW-37		MW-37		SWMW-37		MW-39		MW-39	
Sample Number:	GC-MW31I(30-35)		GC-SWMW31		GC-MW37S		GC-MW37I		GC-SWMW37		GC-MW39S		GC-MW39I	
Sampling Entity:	National Grid		National Grid		EPA		EPA		EPA		EPA		EPA	
Sample Depth:	Intermediate		Surface Water		Shallow		Intermediate		Surface Water		Shallow		Intermediate	
Sample Date:	7/22/2010		7/21/2010		7/26/2010		7/26/2010		7/26/2010		7/26/2010		7/26/2010	
Parameter														
pH	6.8		6.2		6.73		6.85		6.4		7.32		6.32	
Temperature (degC)	15.77		25.9		27.56		21.23		28.81		29.21		31.49	
Specific Conductance (mS/cm)			0.3425		3.76		1.97		38		0.86		19.6	
Oxidation Reduction Potential [ORP] (mV)	-215		5		-108		-149		173		-129		-128	
Dissolved Oxygen [DO] (mg/l)	0.54		11.09		0.65		0.87		7.75		0.95		1.05	
Field Turbidity (NTU)	28.7		24.9		9.86		6.78		67		52.7		60	
Field Salinity (%)	NA		NA		0.2		0.1		2.41		0.04		1.15	
Field Ferrous [+II] Iron (mg/l)	NA		NA		NA		NA		NA		NA		NA	
Alkalinity	270	J	130	J	711	J	334	J	116	J	365	J	2210	J
Ammonia (as nitrogen)	2.3		1.3		7.6		10.4		0.26		3.1		88.2	
Chloride	135		18100		670		455		13700		78.9		7210	
Organic Carbon - Dissolved	58.1	J	5.4	J	4.6		0.63	J	1	U	8.4		3.3	
Total Hardness (as Calcium Carbonate)	399		4370		567		342		4140		317		2690	
Nitrogen, Nitrate	NA		NA		0.1	U	0.1	U	1	U	0.044	J	1	U
Nitrogen, Nitrate + Nitrite	0.1	U	NA		NA		NA		NA		NA		NA	
Nitrogen, Nitrite	NA		NA		NA		NA		NA		NA		NA	
Total Kjeldahl Nitrogen	2.4		0.86		5.5		5.5		0.2	U	1.8		70.3	
Total Orthophosphate Phosphorus (As PO4)	0.81		0.32		0.1	U	0.1	U	1	U	1	U	1	U
Silica (SiO_2)	38.7		5.7		29300	J	20100	J	2760	J	17000	J	24800	J
Sulfate	148		2120		14.5		89.6		1810		53.1		14.7	
Total Dissolved Solids	NA		NA		1630		1100		22600		601		12000	
Organic Carbon - Total	59.8	J	5.6	J	1	U	1	U	1	U	5.2		4.9	
Total Suspended Solids	NA		NA		31		9		110		48		74	
Aluminum	104	J	500		200	U	200	U	NA		2570		200	U
Calcium	119000		283000		111000		31900		NA		75900		162000	
Iron - Total	2740	J	1810	J	7880		1470		NA		6140		10200	
Magnesium	24700		889000		48300		53000		NA		12000		490000	
Manganese - Total	401		132		856		369		NA		754		1710	
Potassium	31700		290000		44700		29700		NA		10700		197000	
Sodium	120000		7380000		466000		300000		NA		108000		3760000	
Iron - Dissolved	2480	J	141	J	7720		1510		NA		1110		9880	
Manganese - Dissolved	409		121		935		414		NA		704		1710	
Iron - Ferrous	2		NA		NA		NA		NA		NA		NA	

All units in ug/l

NA - Not Analyzed

Table F-3

Water Quality Field Measurements: Average Values by Well Depth

Gowanus Canal Remedial Investigation

Brooklyn, New York

Monitoring Well Location ID	pH (Std. Units)	Temperature (^{o}C)	Specific Conductance (mS/cm)	ORP adjusted for SHE (mv)	Dissolved Oxygen [DO] (mg/l)	Ferrous [+II] Iron (mg/l)	Total Iron (mg/L)	Alkalinity (mg/L)	Ammonia (mg/L)	Chlorides (mg/L)	TDS (mg/L)	TOC (mg/L)	Total Manganese (mg/L)
Shallow	6.81	22.98	8.10	105.08	1.01	1.3	9.5	469	0.0051	2850	475	7.39	0.82
Intermediate	7.17	19.32	5.99	42.60	1.02	1.15	6.2	592	0.012	1730	324	7.28	0.77
Canal	7.10	24.90	22.48	240.28	5.24	1.34	0.6	107	0.00067	14790	2693	2.59	0.067

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Table F-4
Water Quality Field Measurements: Differential Values by Nested Well Pair
Gowanus Canal Remedial Investigation
Brooklyn, NY

Monitoring Well Location ID	pH (Std. Units)	Temperature (°C)	Specific Conductance (mS/cm)	ORP adjusted for SHE (mv)	Dissolved Oxygen [DO] (mg/l)	Ferrous [+II] Iron (mg/l)	Total Iron (mg/L)	Alkalinity (mg/L)	Ammonia (mg/L)	Chlorides (mg/L)	TDS (mg/L)	TOC (mg/L)	Total Manganese (mg/L)
MW-1	-0.43	0.55	4.01	-59.00	0.00	-0.60	-15.95	NA	NA	NA	NA	NA	0.23
MW-2	-0.58	4.76	0.23	27.00	0.00	2.35	0.94	83.00	NA	-11.00	0.00	4.40	-0.15
MW-3	0.15	6.46	32.23	-98.00	-2.20	-0.66	0.57	-138.00	0.57	13159.00	22380.00	0.00	-2.04
MW-4	-1.03	9.13	0.61	118.00	0.70	1.81	20.20	1108.00	18.39	-137.00	666.00	8.20	0.41
MW-9	0.81	-2.52	1.73	-95.00	0.00	-1.90	4.80	-431.00	NA	523.00	1820.00	10.00	-0.09
MW-15	-0.12	7.80	-3.00	170.00	0.28	0.13	1.60	-90.00	1.91	1100.00	-2200.00	0.00	-0.12
MW-16	-1.23	6.00	-5.36	55.00	-0.99	3.26	25.30	148.00	-0.61	-1772.00	-2390.00	16.40	2.26
MW-18	0.28	1.01	2.22	-70.00	0.60	-0.20	-20.30	17.00	NA	736.00	1180.00	15.90	-1.27
MW-20	0.14	3.42	11.66	115.00	1.06	NA	22.90	-732.00	-6.50	3700.00	6420.00	0.00	-0.07
MW-21	-0.23	5.33	-0.24	17.00	-0.65	NA	2.24	35.00	3.30	-172.00	-380.00	0.30	0.38
MW-23	-0.04	1.68	-9.57	-44.30	1.39	-1.01	3.16	-170.00	2.80	-5122.00	NA	0.10	0.76
MW-31	-3.74	3.65	NA	699.00	-0.05	NA	-2.11	50.00	-0.50	9455.00	NA	-54.20	0.80
MW-37	-0.12	6.33	1.79	41.00	-0.22	NA	6.41	377.00	-2.80	215.00	530.00	0.00	0.49
MW-39	1.00	-2.28	-18.74	-1.00	-0.10	NA	-4.06	-1845.00	-85.10	-7131.00	-11399.00	0.30	-0.96

Values are calculated based on "Shallow - Intermediate"

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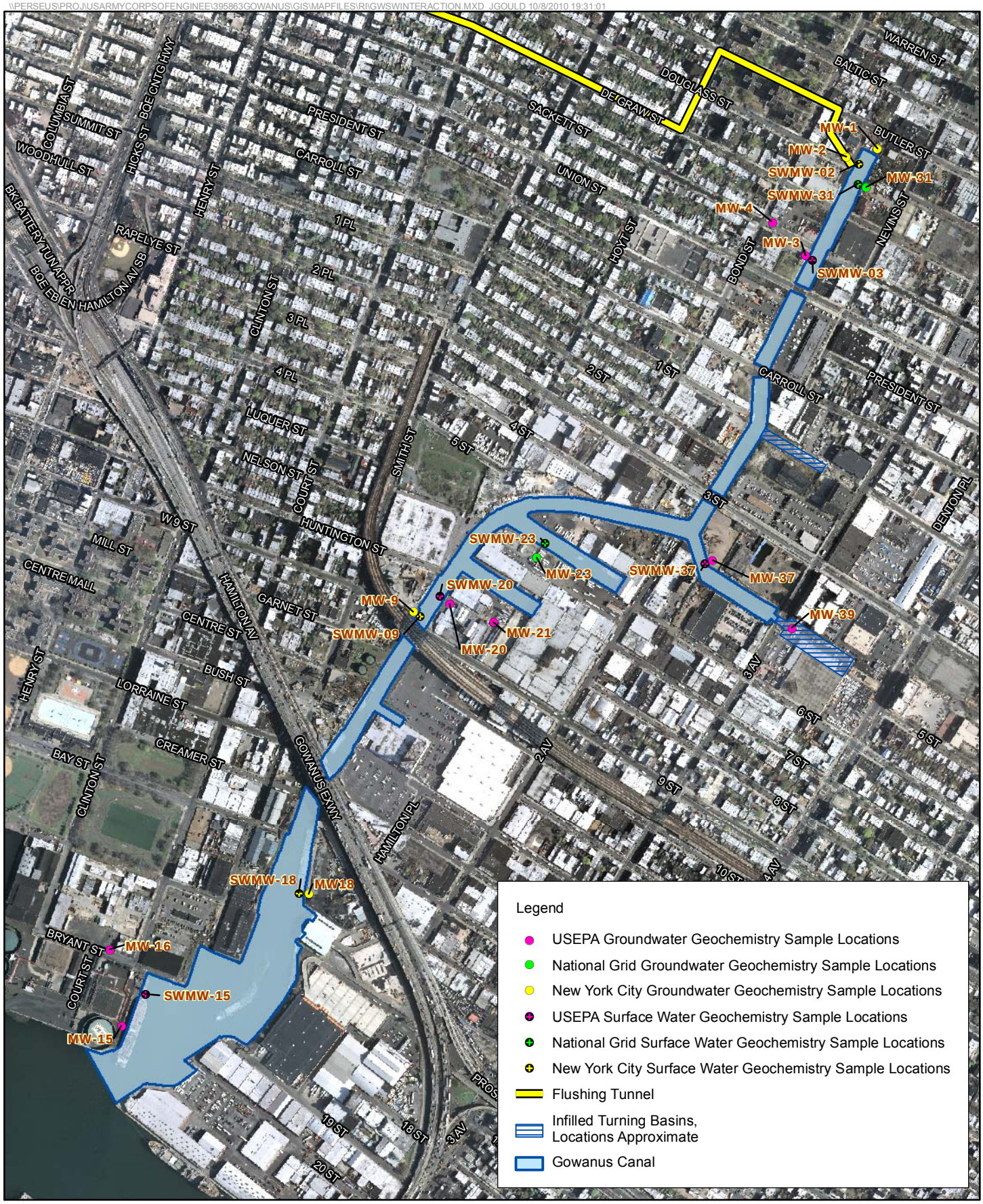

N

0 500 1,000

Feet

FIGURE F-1
Groundwater – Surface Water Interaction Sampling Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

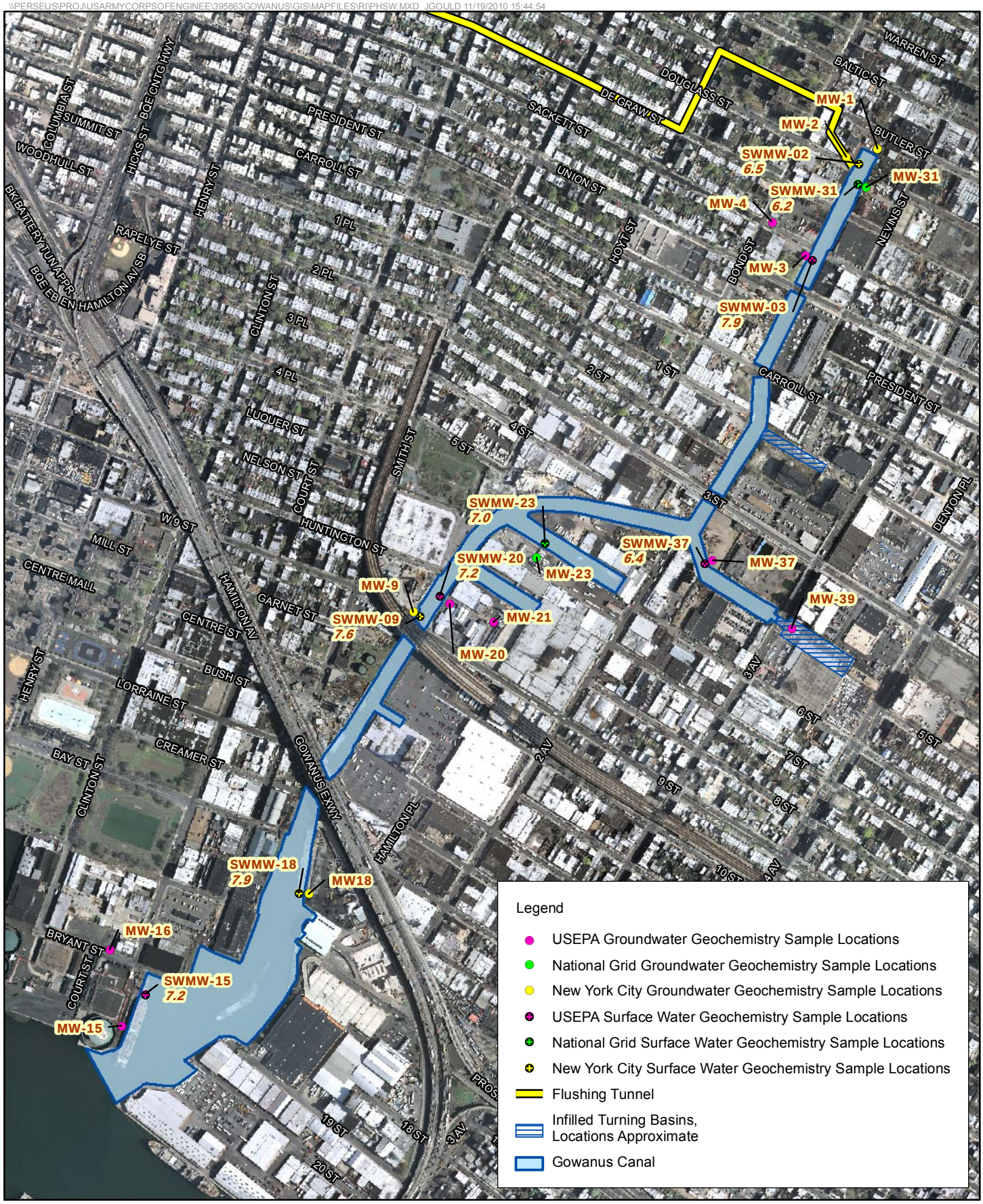

FIGURE F-2
pH of Surface Water in Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

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N

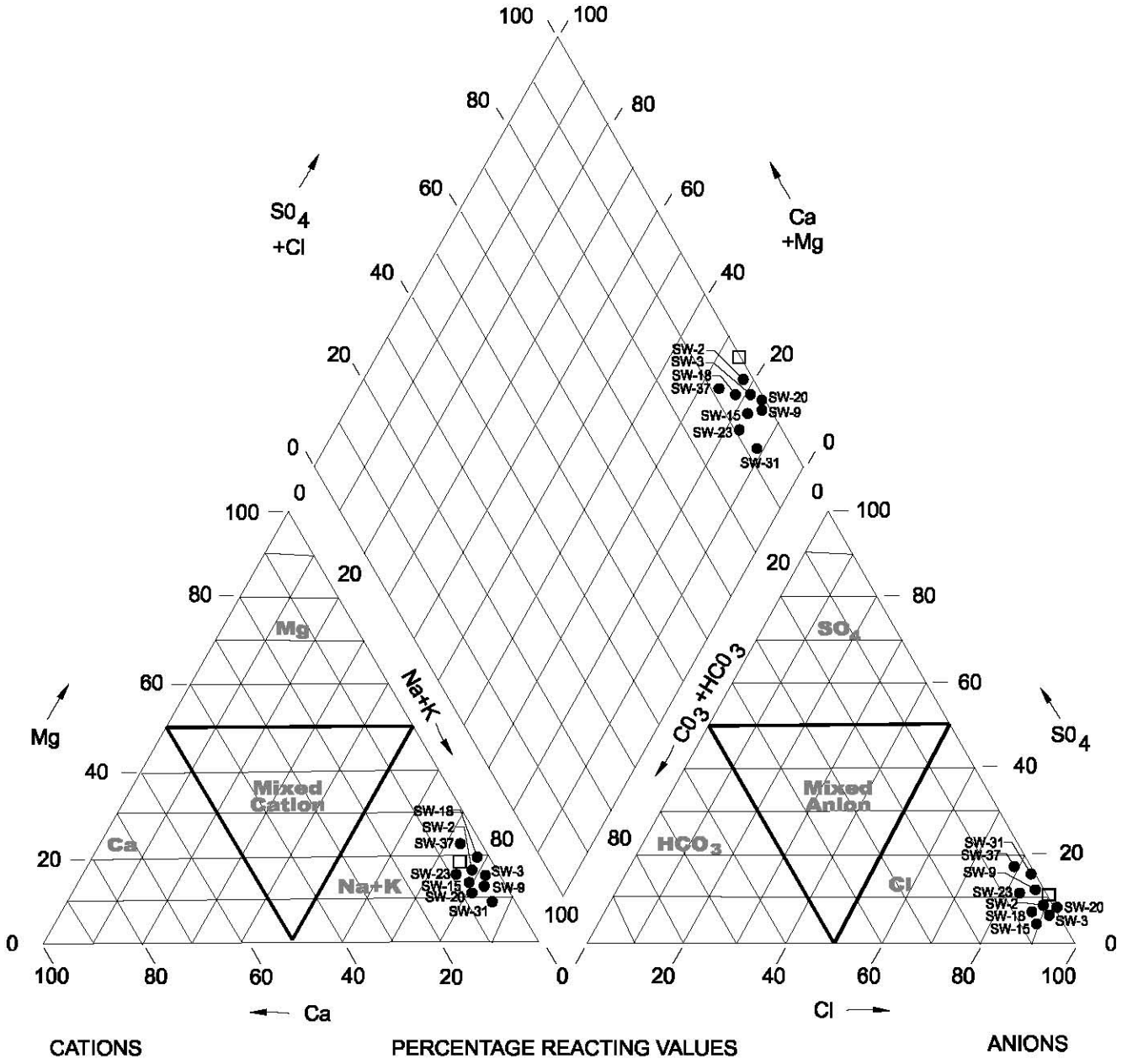
0 500 1,000

Feet

FIGURE F-3
TDS Concentrations in Gowanus Canal - mg/L
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

f27_395863.dgn



LEGEND

- ● Canal Stations
- □ Seawater @ 35% Salinity

FIGURE F-4
Diagram of Surface Water Samples from Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

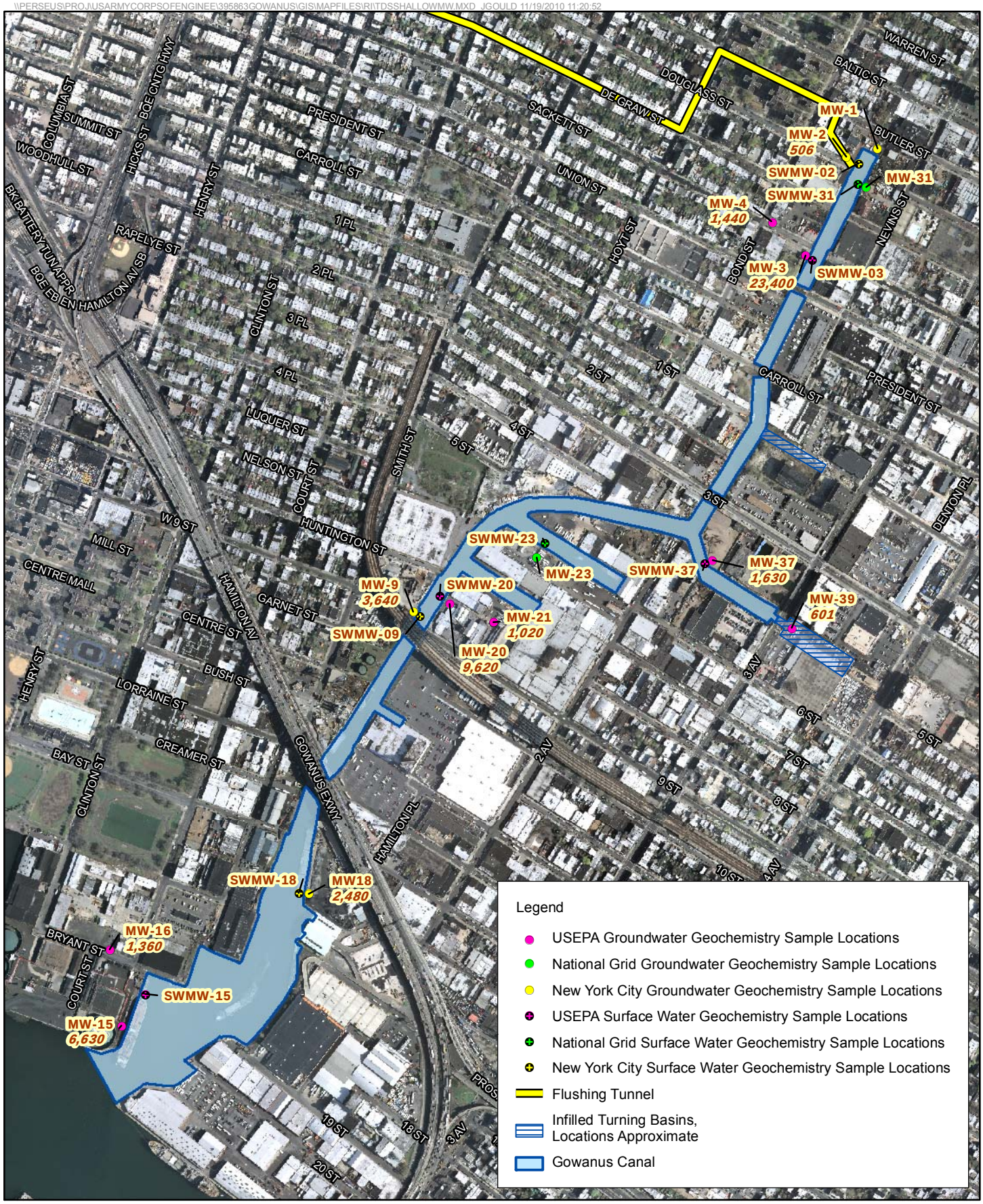
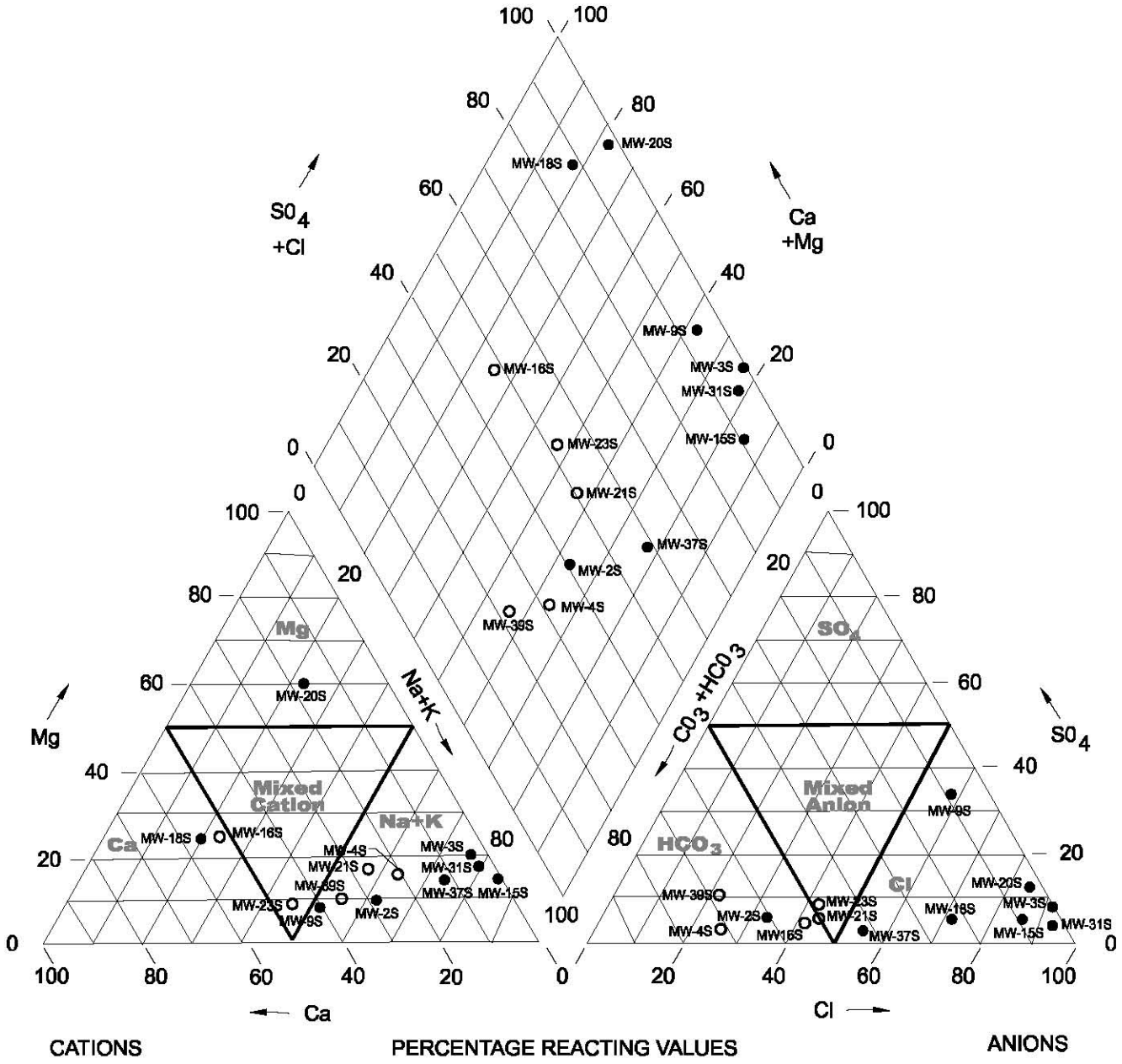


FIGURE F-5
TDS Concentrations in Shallow Monitoring Wells - mg/L
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

f28_395863.dgn



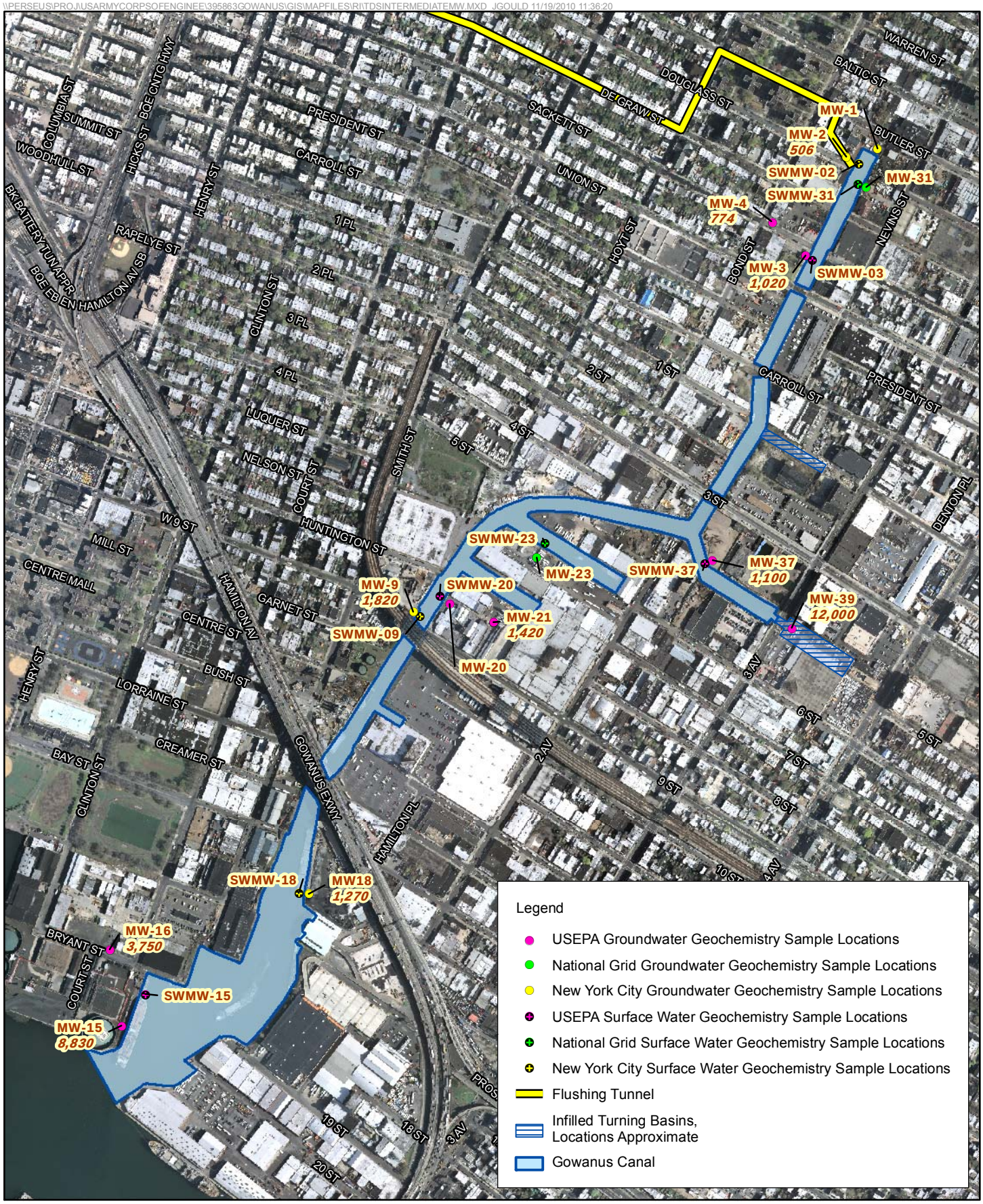
LEGEND

- ● Proximal To Canal
- ○ Uplands

FIGURE F-6
Trilinear Diagram of Samples
from Shallow Monitoring Wells
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\TDSINTERMEDIATEMW.MXD JGOULD 11/19/2010 11:36:20



N

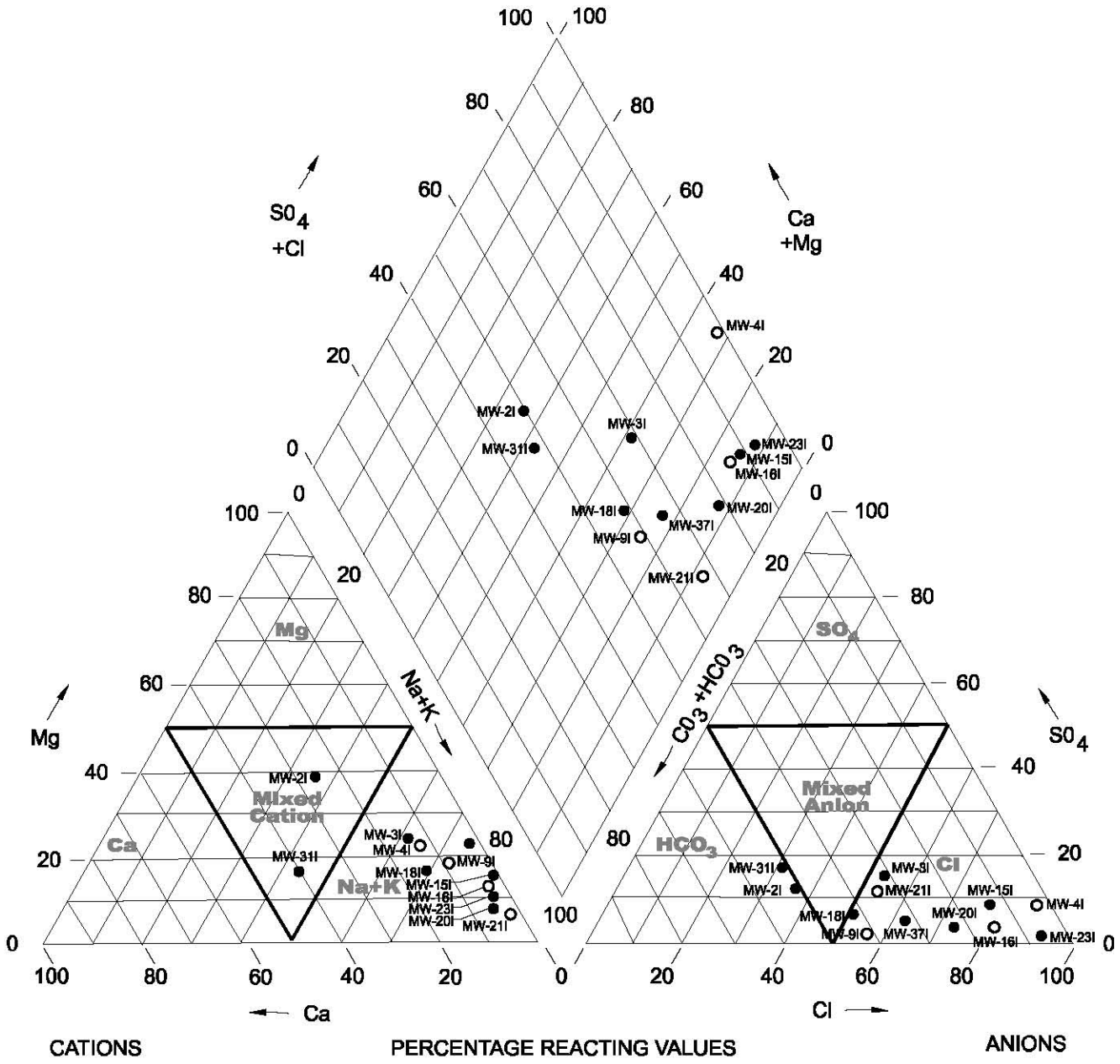
0 500 1,000

Feet

FIGURE F-7
TDS Concentrations in Intermediate Monitoring Wells - mg/L
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

f26_395863.dgn



LEGEND

- ● Proximal To Canal
- ○ Uplands

FIGURE F-8
Trilinear Diagram of Samples
from Intermediate Monitoring Wells
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

f29_395863.dgn

E

E'

MW-16S, $CaHCO_3$, 1360, O

MW-15S, NaCl, 6630, 0.8

MW-18S, NaCl, 2480, 0.8

MW-16I, NaCl, 3750, 0.99

MW-15I, NaCl, 8830, 0.42

MW-8I, NaCl, 1270, 0.21

CG-MW-16I
CG-MW-16SI
CG-MW-40I
CG-MW-40SI
CG-MW-13I
CG-MW-13SI
MW-18I
MW-18SI
MW-19I
MW-19SI
CG-SD-150
CG-SD-74E

FILL

ALLUVIAL/MARSH DEPOSITS

GLACIAL DEPOSITS

GOWANUS CANAL

GOWANUS CANAL
NaCl, 25,800, 4.2

(VERTICAL ELEVATION FT NAVD88)

20
10
0
-10
-20
-30
-40
-50
-60

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

HORIZONTAL DISTANCE (FT)

LEGEND

- Bottom of Boring/Well
- Monitoring Well Screened Interval
- Geologic Unconformity
- Water Table - Shallow Wells - High Tide
- Water Table - Intermediate Wells - Low Tide
- Ca or Na HCO_3 Water Type
- NaCl Water Type

MW-15I, NaCl, 8830, 0.42

Well No.
Cation/Anion Chemistry
DO (mg/L)
TDS Conc. (mg/L)

10 FT
0
100 FT
VERTICAL EXAGGERATION = 10X

FIGURE F-9
Geochemical Facies Near Gowanus Bay Along Geologic Cross-Section (E-E')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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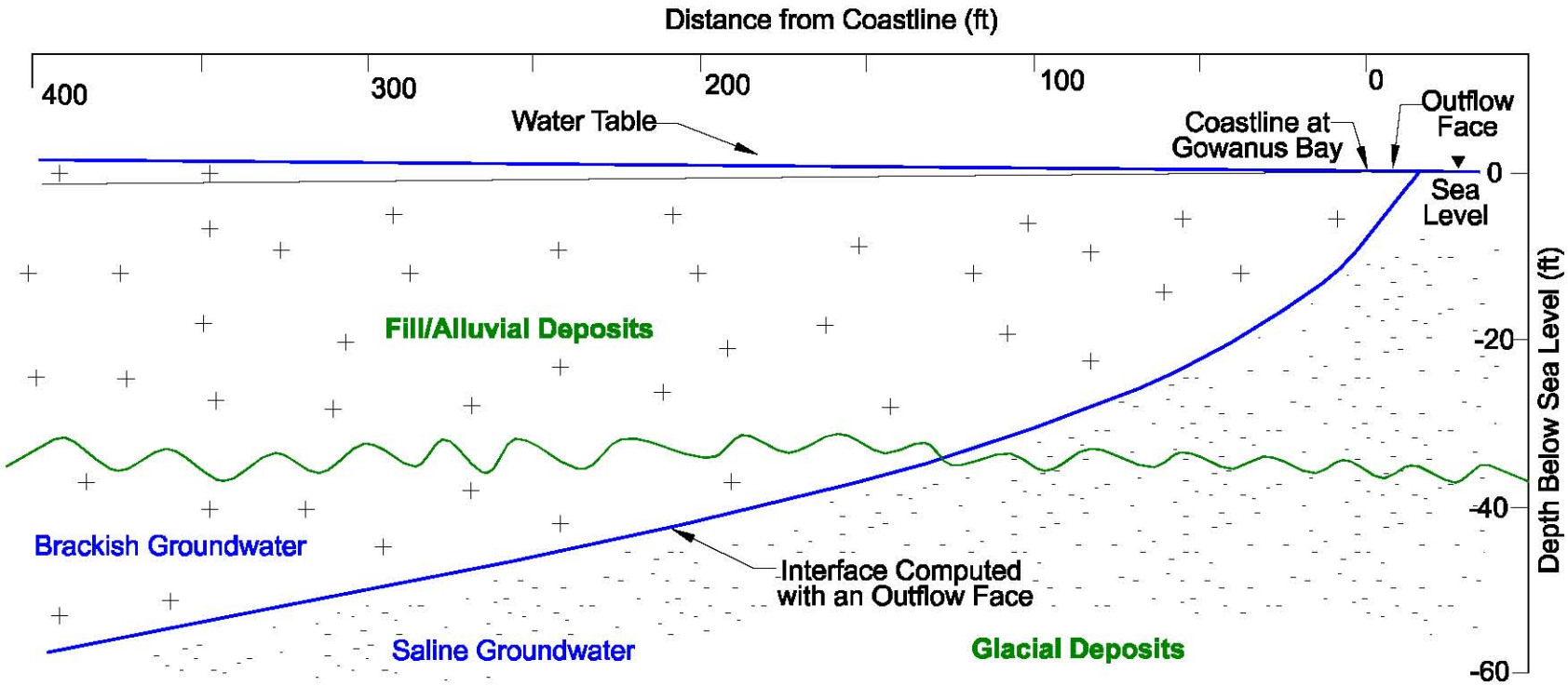

Legend

Unconformable Geologic Contact Between Alluvium/Glacial Deposits

Saline Groundwater

Brackish Groundwater

Source: Fetter, 1972.

FIGURE F-10
Conceptual Position of the Salt Water Interface in Subsurface Proximal to Gowanus Bay
Gowanus Canal Remedial Investigation
Brooklyn, New York

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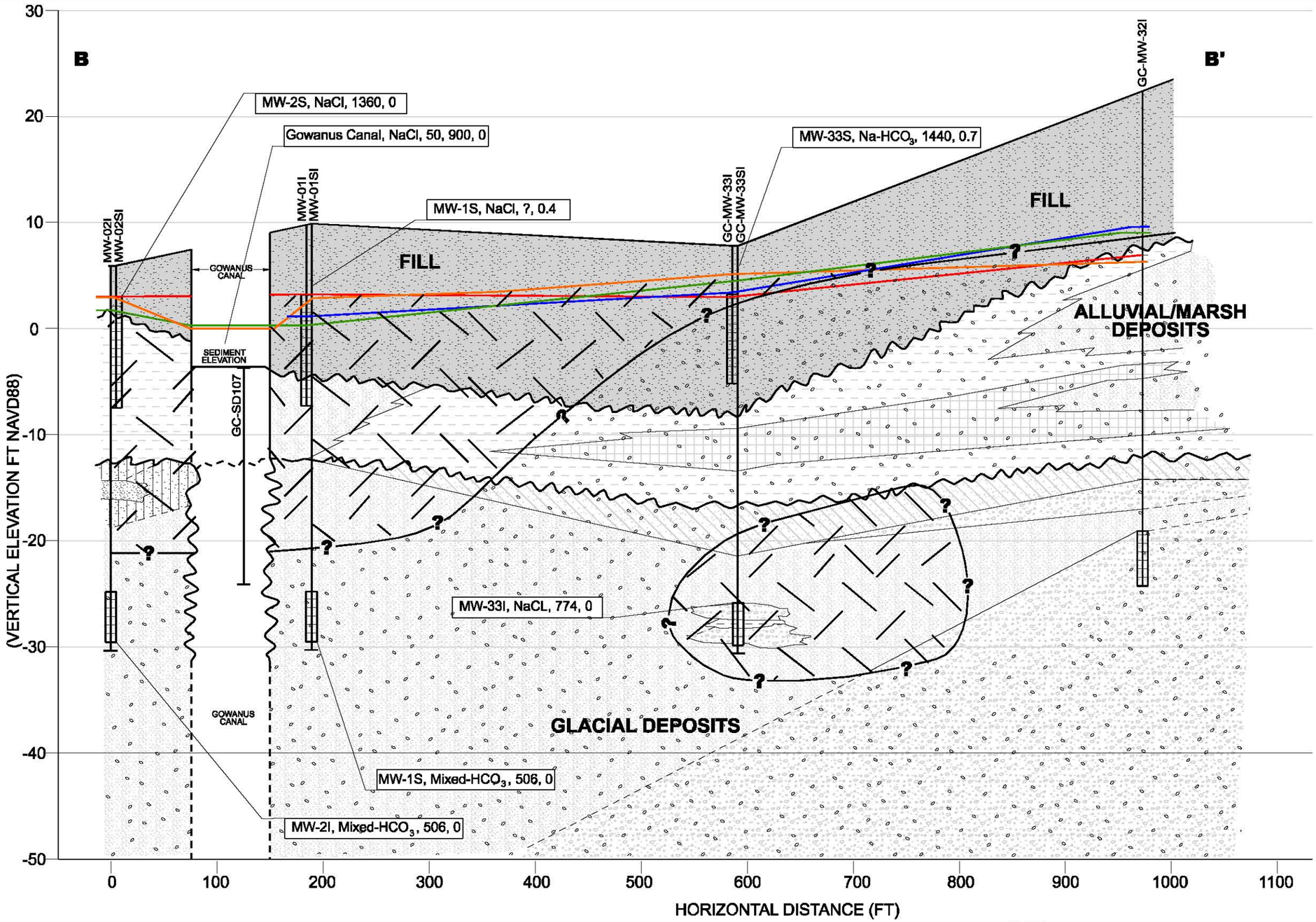

LEGEND

- Bottom of Boring/Well
- Monitoring Well Screened Interval
- Geologic Unconformity
- Water Table - Shallow Wells - High Tide
- Water Table - Shallow Wells - Low Tide
- Water Table - Intermediate Wells - High Tide
- Water Table - Intermediate Wells - Low Tide
- Ca or Na HCO_3 Water Type
- NaCl Water Type

MW-15I, NaCl, 8830, 0.42

Well No.
Cation/Anion Chemistry
DO (mg/L)
TDS Conc. (mg/L)

10 FT
0
100 FT
VERTICAL EXAGGERATION = 10X

FIGURE F-11
Geochemical Facies at Head of Canal Along Geologic Cross-Section (B-B')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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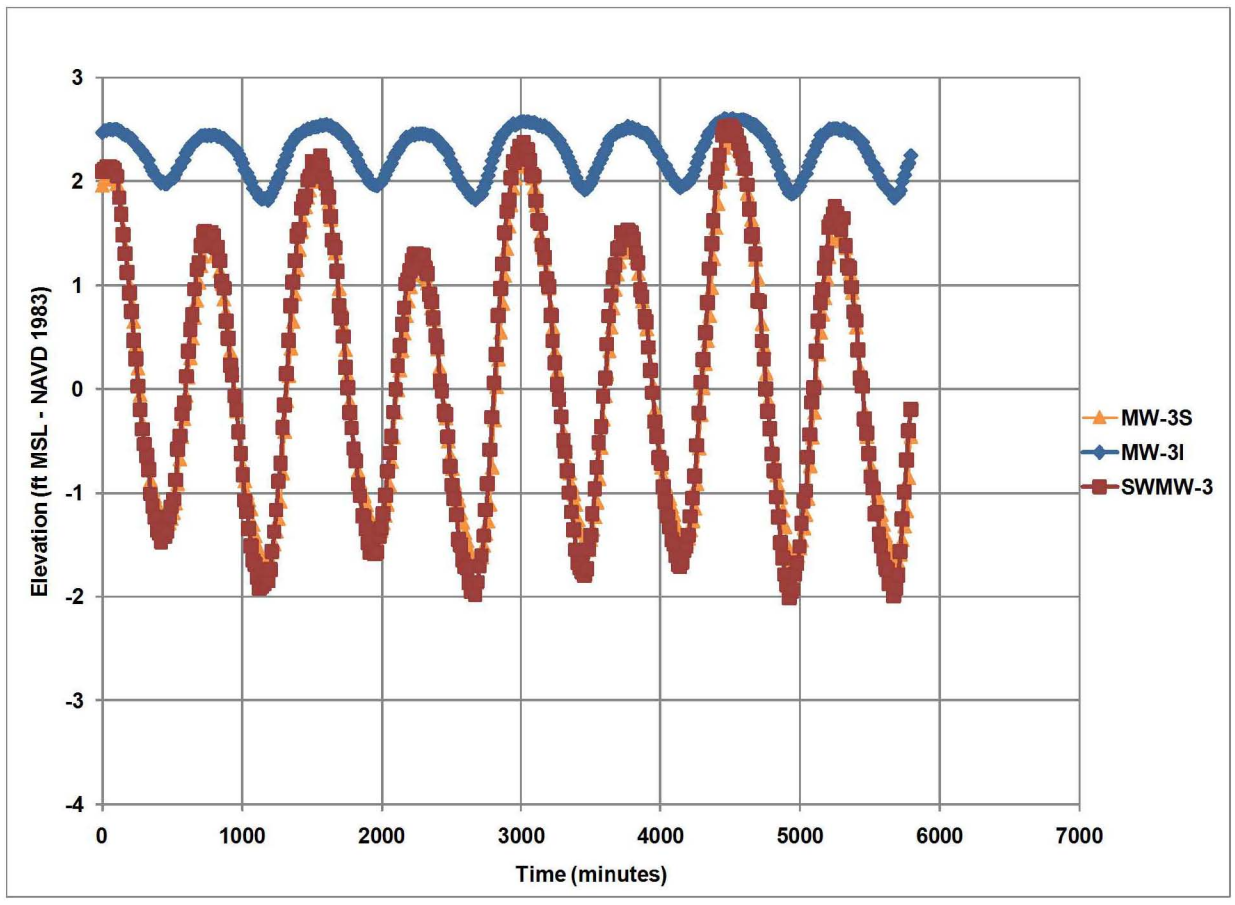

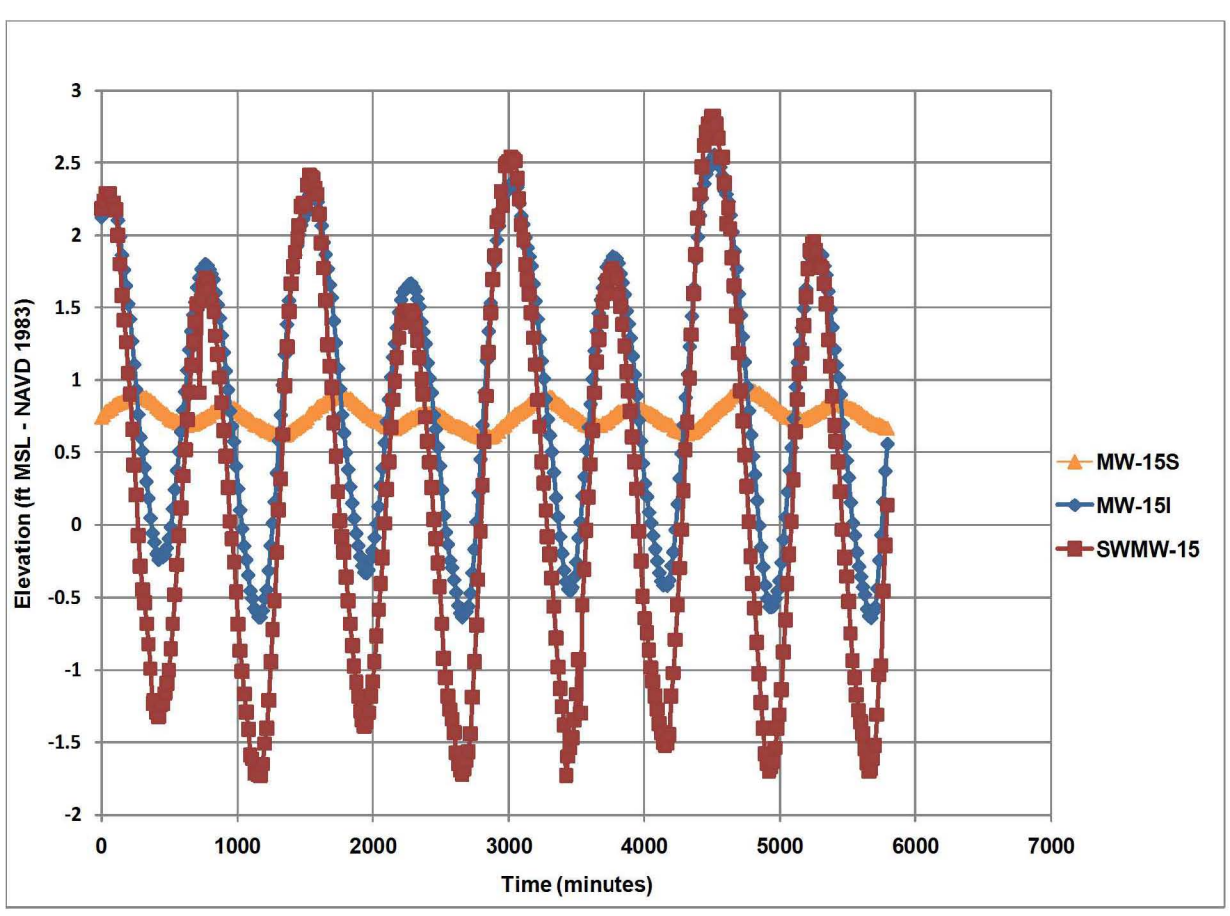

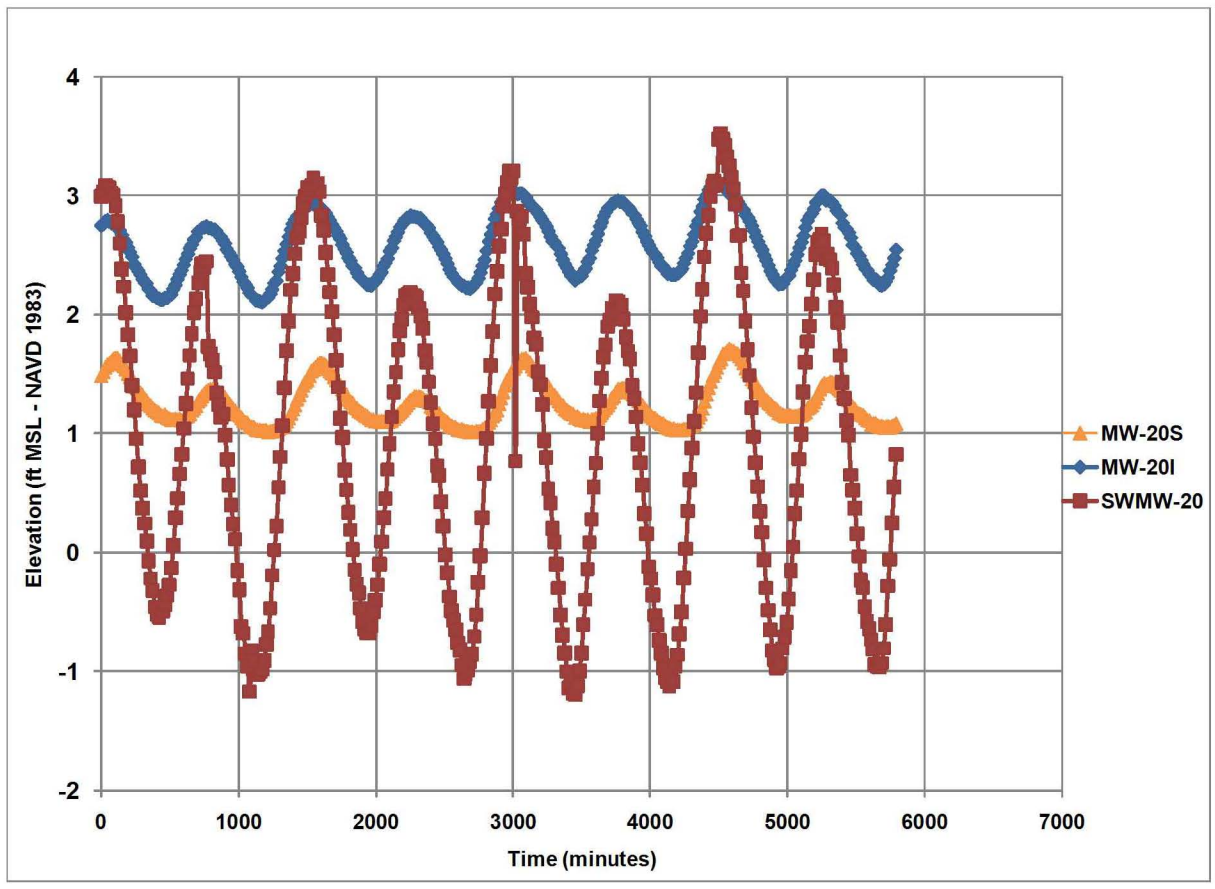

FIGURE F-12
Potentiometric/Stage Level Relationships During Tidal Study
Gowanus Canal Remedial Investigation
Brooklyn, New York

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Appendix G
Survey of Outfall Features to the Gowanus Canal

Contents

Summary of Phase 1 and Phase 2 Feature Survey Results and Identified Active Permitted Discharges to Gowanus Canal

Table G-1 List of Features Observed Along the Gowanus Canal

Phase 2 Pipe Investigation Daily Summary Report

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Summary of Phase 1 and Phase 2 Feature Survey Results and Identified Active Permitted Discharges to Gowanus Canal

Table G-1 lists the features identified during Phase 1 and Phase 2 survey phases. A summary of the findings is presented below.

Phase 1

Number of features identified - 220

Number of features observed discharging – 25

Number of features identified as not being pipes - 5

Number of features where flow appears to be tidal drainage - 11 (no samples collected)

Number of features with flow that could not be clearly attributed to tidal drainage - 5 (5 samples collected)

Number of features with active flow not attributed to tidal drainage - 9 (7 features sampled)

The following 12 features were sampled:

GC-CF-E-027	GC-CF-W-001	GC-CF-W-048
GC-CF-E-029	GC-CF-W-037	GC-CF-W-077
GC-CF-E-033	GC-CF-W-044	GC-CF-T1-003
GC-CF-E-035	GC-CF-W-046	

GC-CF-E-063- possibly NYC storm drain OH-602 or unknown/other outfall OH-538

The following 2 features with active flow not attributed to tidal drainage were not sampled for the reasons below:

GC-CF-W-040 – This flow was obvious condensate from aeration system. Flow was only a drip and not enough to collect sample.

GC-CF-T2-003 – Flow was too slow to sample.

Observations on discharging pipes were made during dry weather.

Phase 2

Number of features investigated - 231

Newly identified features - 27

Capped or sealed with concrete features - 8

Features requiring further investigation - 71-87

Features observed discharging when no rain during inspection – 9

GC-CF-E-009A
GC-CF-E-033
GC-CF-T3-012A
GC-CF-T3-015
GC-CF-E-072 (CSO OH-006)
GC-CF-W-012A
GC-CF-W-044
GC-CF-W-048
GC-CF-W-051

Three of the discharging pipes (bolded and italicized above) were not found during Phase 1 (pipes newly identified during Phase 2).
E-033 and W-048 were discharging during both phases (samples collected during Phase 1).
T3-015 and W-044 were discharging during Phase 2 but not during Phase 1 (therefore not sampled).
W-051 was discharging during both phases but salinity was similar to the canal during Phase 1 and therefore, feature was not sampled.
The locations of newly identified features are approximate on Figures 3-8a-h.

Observations on discharging pipes were made during dry weather.

The presence of oil was noted at the following outfall features:

GC-CF-W-042	GC-CF-W-044	GC-CF-T3-013
GC-CF-W-002	GC-CF-W-045	GC-CF-E-007
GC-CF-W-002A	GC-CF-W-018	GC-CF-T3-012
GC-CF-W-015A	GC-CF-W-098	GC-CF-W-043

Permitted Discharges to Gowanus Canal as of December 2010

1. Bayside Fuel Depot – no active flow noted during Phase 1 and therefore, no sample collected
2. Hess Corp. – It is likely that this outfall was sampled during Phase 1 (sample GC-CF-W-077).
3. NYCDOT Asphalt Plant – outfall difficult to identify because of the number of features at location, based on observations made, it is believed that there was either no flow at this location or the outfall was submerged during Phase 1 and therefore, no sample was collected.
4. Red Hook Concrete Loading Corp. - no active flow noted during Phase 1 and therefore, no sample collected
5. FedEx FBTA Facility – no active flow noted during Phase 1 and therefore, no sample collected

APPENDIX G
TABLE G-1
List of Pipe Outfalls Observed Along the Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Corresponding Feature #		Bulkhead Information								Feature Information					Pipe / Seep Discharge Description											
EPA Feature ID	GEI Survey ID	NYC Shoreline Survey ID	Type of Feature	Date	Time (24 hr)	General Location on Canal	Map No.	Feature Location in Canal	Bulkhead Construction Material	Bulkhead Condition	Relative Elevation	Horiz. Distance from Bulkhead	Offset Distance	Feature Construction Material	Feature Size	Fluid Actively Discharging?	Relative Discharge Rate	Discharge Color:	Discharge Salinity (%)	PID Reading (ppm)	Height of Feature Above Canal Water Level	Were Nearby Features Discharging?	Based on Observations, Appears that Discharge is:	Was Discharge Sample Collected?	Was Sediment Observed in the Feature?	Photo Taken?	Comments:
North Bulkhead																											
GC-CF-N-001	NA	NA	Pipe	9/8/2010	10:00	NW corner of canal, close to Butler & Douglass Streets.	1	North End	Concrete	Good	Tidal Transition Zone	Flush	NA	Steel/Metal	~14"	No	NA	NA	NA	NA	At water level	No	NA	No	Yes	Yes	Steel pipe right at upper edge of tidal zone. Loose sediment in pipe. Pipe located on west wall right at NE corner of the canal. Flush with canal corner. No GPS coordinates collected due to overhead interference.
GC-CF-N-002 through 005	GC-OF-141 through 144	RH-034	Structure	9/8/2010	10:06	NW corner of canal	1	North End of Canal	Timber	Fair	Tidal Transition Zone	Flush	NA	Wood	~10' x ~10' at each opening	No	NA	NA	NA	NA	Tidal zone	No	NA	No	Yes	Yes	This is the CSO opening at the north end of the canal (OH-034). There are four openings here which lead into the NYC pump station.
East Bulkhead																											
GC-CF-E-001	GC-OF-134	RH-458	Pipe	9/1/2010	9:15	End of DeGraw St. (East)	1	East Bank	Concrete	Fair	Tidal Transition Zone	Flush	NA	Concrete	37"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	RH-038. All pipes (6) are at tidal zone. Water form canal inside pipes. Active during rain events.
GC-CF-E-002	GC-OF-133	RH-599	Pipe	9/1/2010	9:15	End of DeGraw St. (East)	1	East Bank	Concrete	Fair	Tidal Transition Zone	Flush	NA	Concrete	38" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	RH-038
GC-CF-E-003	GC-OF-135	RH-834	Pipe	9/1/2010	9:15	End of DeGraw St. (East)	1	East Bank	Concrete	NA	Tidal Transition Zone	Flush	NA	Concrete	38" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	RH-038
GC-CF-E-004	GC-OF-136	RH-459	Pipe	9/1/2010	9:17	End of DeGraw St. (East)	1	East Bank	Concrete	NA	Tidal Transition Zone	Flush	NA	Concrete	38" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	RH-038
GC-CF-E-005	GC-OF-138	NA	Pipe	9/1/2010	9:19	End of DeGraw St. (East)	1	East Bank	Concrete	NA	Tidal Transition Zone	Flush	NA	Concrete	38" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	RH-038
GC-CF-E-006	GC-OF-137	NA	Pipe	9/1/2010	9:21	End of DeGraw St. (East)	1	East Bank	Concrete	NA	Tidal Transition Zone	Flush	NA	Concrete	38" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	RH-038
GC-CF-E-007	NA	NA	Pipe	9/1/2010	10:00	End of DeGraw St. close to South building	1	East Bank	Timber	Poor	Always Above Water	Flush	NA	Steel/Metal	4" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Wet with algae growth in tidal zone. Could be active ?
GC-CF-E-008	NA	NA	Pipe	9/1/2010	10:00	End of DeGraw St. close to South building	1	East Bank	Timber	Poor	Always Above Water	Inset	NA	Steel	9"	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	Old deteriorated pipe, probably not in use. Half full of rust and sediment. Horiz. Distance from Bulkhead: Inset 9".
GC-CF-E-009	GC-OF-130	RH-835 or RH-037	Pipe	9/1/2010	10:12	Near Sackett	1	East Bank	Timber	Good	Tidal Transition Zone	Flush	NA	PVC/Plastic	12" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Old weathered PVC pipe, cracked, in tidal zone.
GC-CF-E-010	NA	~RH-512	Pipe	9/1/2010	NA	Between Sackett & Union Streets, closer to Union St.	1	East Bank	Timber	Poor	Tidal Transition Zone	Protruding	NA	Terra Cotta	10" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Some sediment and algae growth. Horiz. Distance from Bulkhead: Protruding ~4".
GC-CF-E-011	NA	OH-191	Pipe	9/1/2010	10:55	NYC DEP Asphalt Plant	7	East Bank	Concrete	Good	Tidal Transition Zone	Flush	NA	Steel	12" - 14" OD pipe submerged and looking from ~10' away	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Barge in the way, GPS coordinates collected ~10' north of pipe. Construction Material: Concrete w/steel supports and timber beams on top. Relative Elevation: Tidal Transition Zone, currently under water.
GC-CF-E-012	NA	OH-901	Pipe	9/1/2010	11:00	North end of NYC DEP Asphalt Plant	7	East Bank	Concrete	NA	Tidal Transition Zone	Flush	NA	Steel	~14" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe submerged. Construction Material: Concrete w/steel supports and timber beams on top.
GC-CF-E-013	NA	OH-105	Pipe	9/1/2010	11:12	Middle of NYCDEP Asphalt Bulkhead	7	NA	Timber	NA	Tidal Transition Zone	Flush	NA	Steel	~14" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe submerged. Construction Material: Timber w/steel supports and timber beams on top. Horiz. Distance from Bulkhead: Flush assumed.
GC-CF-E-014	NA	OH-104	Pipe	9/1/2010	11:15	Middle of NYCDEP Asphalt Plant	7	East Bank	Timber	NA	Tidal Transition Zone	Protruding	NA	Steel	~14" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Submerged Construction Material: Timber w/steel supports and timber beams on top. Horiz. Distance from Bulkhead: Protruding ~6".
GC-CF-E-015	NA	RH-460	Pipe	9/1/2010	12:08	North end of Union St. Bridge	1	East Bank	Concrete	Good	Always Above Water	Flush	NA	Terra Cotta	14" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	Spider webs and old evidence of scouring present. Possible flows but more recently. Crack in pipe.
GC-CF-E-016	NA	OH-005	Pipe	9/1/2010	12:19	South side of Union St. Bridge, CSO-OH-005	1	East Bank	Concrete	Good	Tidal Transition Zone	Flush	NA	Brick	~42"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	CSO OH-005, South of Union St. Bridge. Construction Material: Concrete, stone.
GC-CF-E-017	NA	NA	Pipe	9/1/2010	12:30	NA	NA	East Bank	No Bulkhead	Poor	Always Above Water	Flush	NA	Terra Cotta	7.5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Sediment and spider webs present. Does not look active.
GC-CF-E-018	NA	NA	Pipe	9/1/2010	12:37	NA	2	East Bank	No Bulkhead	NA	Always Above Water	Flush	NA	Concrete	5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	No	Yes	Does not appear active, contains sediment, may not extend far inland. Construction Material: Concrete? Could be Clay?
GC-CF-E-019	NA	NA	Pipe/Structure	9/1/2010	12:50	Near Africa Israel Property	2	East Bank	RipRap	Poor	Always Above Water	Offset on Land	~3'	Steel	12.5" OD and 20" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	No	Yes	Two pipes going vertical into ground filled with concrete with paint (survey paint) and number 27.
GC-CF-E-020	GC-OF-90	NA	Pipe/Structure	9/1/2010	13:05	Near Africa Israel Property	2	East Bank	RipRap	Poor	Always Above Water	Flush	NA	Concrete	12" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	Small amount of sediment and algae, moist (tidal)?
GC-CF-E-021	GC-OF-89	NA	Pipe	9/1/2010	13:05	Near Africa Israel Property	2	East Bank	RipRap	Poor	Always Above Water	Flush	NA	Steel	12" OD -16" including flange	No	NA	NA	NA	NA	NA	NA	NA	NA	No	Yes	Pipe moist inside possibly due to standing water (tidal)?, 1/4 full of sediment.
GC-CF-E-022	GC-OF-087	OH-509	Pipe	9/1/2010	13:15	North side of 3rd St. Bridge	3	East Bank	Concrete	Fair	Always Above Water	Flush	NA	Unknown	~22" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Very slight drip on 9/8 at 11:13. Tidal from receiving high tide moist inside with little sediment and algae growth. Relative Elevation: Always Above Water and Tidal Transition Zone - very bottom observed to be in water at high tide. Construction Material: Unknown, Fiberglass like material.
GC-CF-E-023	NA	OH-509	Pipe	9/1/2010	13:34	North side of 3rd St. Bridge	3	East Bank	Concrete	NA	Always Above Water	Flush	NA	Steel	4" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	Accuracy of GPS point poor due to overhead bridge structure. Bottom covered in rust, old pipe. Does not appear to be active.
GC-CF-E-024	NA	OH-126	Pipe	9/1/2010	13:29	North side of 3rd St.	3	East Bank	Concrete	NA	Always Above Water	Flush	NA	Concrete	2"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Appears to be a 2" hole in concrete bulkhead. Cannot see how far it runs. Some debris inside.
GC-CF-E-025	NA	OH-510	Pipe	9/1/2010	13:24	North side of 3rd St.	3	East Bank	Concrete	NA	Tidal Transition Zone	Flush	NA	Terra Cotta	10"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe is under a portion of the bridge structure, GPS coordinates collected ~3 to the north of pipe. Minor amount of algae.
GC-CF-E-026	NA	NA	Pipe	9/1/2010	13:45	NA	3	East Bank	Concrete	Good	Tidal Transition Zone	Flush	NA	Terra Cotta	~10" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Wet from tides (no flow). Some algae growth. Located 3'5" North of South edge of bridge (3rd St.).

APPENDIX G
TABLE G-1
List of Pipe Outfalls Observed Along the Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Corresponding Feature #		Bulkhead Information								Feature Information					Pipe / Seep Discharge Description										
GC-CF-E-027	NA	NA	Pipe	9/1/2010	13:49	NA	3	East Bank	Concrete	Good	Tidal Transition Zone	NA	NA	Unknown	~14"	Yes/No	Flowing	Clear	0.2	0	1.5'	Yes	Active	Yes	Inconclusive	Yes	Submerged. * On 9/2 at 10:50 returned to GC-CF-E-027 and saw an active discharge. Collected sample. No odor or color. Debris and algae present, some garbage in pipe. Located 8'8" South of South edge of 3rd St. Bridge. Construction material: Unknown, possible Concrete. Is fluid actively discharging from feature?: Yes 9/2/10; No 9/1/10 Was sediment observed in feature? Inconclusive, debris and refuse present in pipe.
GC-CF-E-028	NA	OH-512?	Pipe	9/1/2010	13:53	South of 3rd St. Bridge	3	East Bank	Concrete	Good	Always Above Water	Protruding	NA	Steel	4.5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Steel pipe ~8' above high water mark. Possibly part of bridge control room. Located 16'13" South of 3rd St. Bridge Southern edge.
GC-CF-E-029	NA	OH-513?	Pipe	9/1/2010	13:57	NA	3	East Bank	Concrete	Good	Always Above Water	Protruding	NA	PVC	4.5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Some algae and standing water in pipe. End of PVC pipe cracked and broken. Located 19'7" South of the 3rd St. Bridge Southern edge. Horiz. Distance from Bulkhead: Protruding ~ 8".
GC-CF-E-029	NA	OH-513?	Pipe	9/1/2010	13:57	NA	3	East Bank	Concrete	Good	Always Above Water	Protruding	NA	PVC	4.5" OD	Yes	Trickle	Clear	NA	0	~4'	Yes	Active	GC-CF-E-29-1	No	Yes	On 9/2/10 at 10:50, returned to this pipe and saw a trickle. ~2.5 hours from low tide and ~4 above water, believe this is an active discharge. Sample collected, trickle nearly stopped while sampling, only collected VOC and one amber jar.
GC-CF-E-030	NA	RH-512	Pipe	9/2/2010	8:07	North side of Union St. Bridge	1	East Bank	Concrete	Good	Always Above Water	Protruding	NA	Steel/Metal	6" OD, 4" ID	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	No signs of recent flows. Pipe is 7'4" South of the North end of the concrete bridge foundation. No GPS available since we are under the bridge structure. Pipe has 90° elbow at end of pipe, flow would go straight into canal.
GC-CF-E-031	NA	RH-460	Pipe	9/2/2010	8:11	North side of Union St. Bridge	1	East Bank	Concrete	Good	Always Above Water	Flush	NA	Unknown	12"	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	Pipe is ~16' South of the North end of the concrete bridge foundation. No GPS available since we are under the bridge structure. Algae growth of sediment present (tidal zone). Construction Material: Unknown, too much organic growth on pipe to tell type.
GC-CF-E-032	NA	NA	Pipe	9/2/2010	8:15	North side of Carroll St. Bridge	2	East Bank	Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	Series of 10+ 5" OD steel pipes. Approx. 4 of these pipes have old electrical cables inside them. Some (or all) of the pipes appear to have been sealed behind bricks which have later eroded away. Do not appear to have active discharges. Type of Feature: Pipe, Other, series of pipes, likely to be old utility conduits. Construction Material: Concrete and Stone
GC-CF-E-033	GC-OF-89	NA	Pipe	9/2/2010	8:50	Africa Israel Property directly East of Canoe Launch	2	East Bank	Timber/RipRap	Poor	Tidal Transition Zone	Inset	NA	Unknown	~18" OD	Yes	Flowing	Clear	0.28%	0	~4'	NA	Active	Yes	No	Yes	Pipe is heavily corroded, set behind a break in the wooden bulkhead timbers. Pipe is discharging, sample collected, no odor. Salinity (%): 0.28%, Salinity in canal = ~2.0%. Sample ID: GC-CF-E-033-1
GC-CF-E-034	NA	NA	Other	9/2/2010	8:55	Within Africa Israel Bulkhead	2	East Bank	Concrete	Good	Tidal Transition Zone	Flush	NA	Concrete	1.5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Possible weep, 1.5" hole in concrete. Type of Feature: Other, small hole in bulkhead (weep?).
GC-CF-E-035	GC-OF-08D	OH-509?	Pipe	9/2/2010	9:05	Africa Israel Bulkhead	2	East Bank	Timber/Concrete	Good	Tidal Transition Zone	Flush	NA	Steel/Metal	9"	Yes	Flowing	Yellowish/Brown	0.37	0.2	~2'	No	Active	Yes	No	Yes	Organic like odor (sulfurish), color is slightly yellowish brown, gray, and green organic material on bottom of pipe. Sample ID: GC-CF-E-035-1
GC-CF-E-036	NA	NA	Pipe	9/2/2010	14:45	Just North of the 3rd Turning Basin	5	East Bank	Timber	Good	Always Above Water	NA	NA	Terra Cotta	10" heavily weathered	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	No sign of recent discharges.
GC-CF-E-037	NA	OH-529?	Pipe	9/2/2010	14:55	Just South of Turning Basin #3	5	East Bank	Concrete	Good	Always Above Water	NA	NA	Steel/Metal	4.5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Appears to be a roof or parking lot drain.
GC-CF-E-038	NA	OH-0036668-001	Pipe	9/2/2010	15:00	North of 9th St.	5	East Bank	Concrete	Good	Always Above Water	Flush	NA	Steel/Metal	4.5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Appears to be a roof or parking lot drain.
GC-CF-E-039	NA	OH-523?	Pipe	9/2/2010	15:04	North of 9th St.	5	East Bank	Concrete	Good	Always Below Water	Flush	NA	Steel/Metal	9"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	
GC-CF-E-040	NA	NA	Pipe	9/2/2010	15:10	North of 9th St.	5	East Bank	Concrete	Good	Always Below Water	Flush	NA	Steel/Metal	4.5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Appears to be a roof or parking lot drain.
GC-CF-E-041	NA	NA	Pipe	9/2/2010	15:08	North of 9th St. Bridge	5	East Bank	Concrete	Good	Always Above Water	NA	NA	Steel/Metal	4.5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Appears to be a roof or parking lot drain.
GC-CF-E-042	NA	OH-607?	Pipe	9/2/2010	15:11	North of 9th St. Bridge	5	East Bank	Concrete	Good	Always Above Water	NA	NA	Steel/Metal	4.5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Appears to be a roof or parking lot drain.
GC-CF-E-043	GC-OF-43	OH-607	Pipe	9/7/2010	9:25	North of 9th St. Bridge	5	East Bank	Timber/Concrete	Good	Tidal Transition Zone	Protruding	NA	Steel/Metal	7" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Located ~6' North of 9th St. Bridge. Could be active?
GC-CF-E-044		OH-522	Pipe	9/7/2010	9:32	South of 9th St.	5	East Bank	Timber/Concrete	Good	Tidal Transition Zone	Protruding	NA	Steel/Metal	7"OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Active flow possible. Located ~5' South of 9th St. Bridge.
GC-CF-E-045	NA	OH-111?	Pipe	9/7/2010	10:40	Behind Pathmark/South of Lowe's Turn Around Basin	6	East Bank	Timber/Concrete/RipRap	Poor	Tidal Transition Zone	Flush	NA	Steel/Metal	8" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Unlikely to discharge. Pipe is full of sediment and deteriorated. Pipe is caved in.
GC-CF-E-046	NA	OH-110	Pipe	9/7/2010	10:45	Behind Pathmark/South of Lowe's Turn Around Basin	6	East Bank	Timber/RipRap	Poor	Always Below Water	Protruding	NA	Steel/Metal	5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe is full of sediment and deteriorating. Does not discharge.
GC-CF-E-047	NA	OH-109?	Pipe	9/7/2010	10:52	Behind Pathmark	6	East Bank	Timber/RipRap	Poor	Tidal Transition Zone	Flush	NA	Steel/Metal	7" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe could possibly discharge. No sediment observed.
GC-CF-E-048	NA	NA	Pipe	9/7/2010	10:56	Behind Pathmark	6	East Bank	Timber/RipRap	Poor	Tidal Transition Zone	Flush	NA	Steel/Metal	5"OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe is right below GC-CF-E-4D. Pipe is heavily deteriorated and recent discharges are unlikely.
GC-CF-E-049	NA	OH-189?	Pipe	9/7/2010	11:15	Behind Pathmark	6	East Bank	Timber/RipRap	Fair	Always Above Water	Flush	NA	Steel/Metal	5" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Heavily deteriorated, recent discharge unlikely.
GC-CF-E-050	NA	OH-189?	Pipe	9/7/2010	11:20	Behind Pathmark	6	East Bank	Timber/RipRap	Fair	Always Above Water	Flush	NA	Steel/Metal	5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	This pipe is directly above GC-CF-E-049. Pipe is deteriorated and plugged. Does not discharge.
GC-CF-E-051	NA	OH-108	Pipe	9/7/2010	11:32	Behind Pathmark	6	East Bank	Timber/Concrete/RipRap	Fair	Always Above Water	Inset	NA	Steel/Metal	5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Highly deteriorated. No recent flows.
GC-CF-E-052	NA	OH-902?	Pipe	9/7/2010	11:28	Behind Pathmark	6	East Bank	Timber/Concrete/RipRap	Fair	Always Above Water	Inset	NA	Steel/Metal	5.5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	50 and 51 are right next to each other, 52 is to the South. Highly deteriorated. No recent flows.
GC-CF-E-053	NA	OH-508	Pipe	9/7/2010	11:35	Behind Pathmark Parking Lot	6	East Bank	Timber/Concrete/RipRap	Poor	Always Above Water	Inset	NA	Steel/Metal	5"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe is inland ~15' and sticking upwards. Could be a piece of broken pipe. Sediment inside pipe. Very unlikely to discharge.
GC-CF-E-054	GC-OF-170?	OH-508	Pipe	9/7/2010	12:00	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Steel/Metal	18" OD	Yes	Flowing	Clear	2.08	NA	~3'	Yes	Tide drainage	No	No	Yes	Relative Discharge Rate: Flowing, ~200 ml/min. Canal salinity = 2.05%. PID Reading (ppm): NA, PID drifting.
GC-CF-E-055	NA	NA	Pipe	9/7/2010	12:05	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Steel/Metal	18" OD	Yes	Flowing	Clear	2.03	NA	~1.5'	Yes	Tide drainage	No	No	Yes	Right below pipe GC-CF-E-054. Relative Discharge Rate: Flowing, ~200 ml/min. Canal salinity = 2.05%.
GC-CF-E-056	GC-OF-169A	OH-106?	Pipe	9/7/2010	12:06	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Concrete	30" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Discharges could be possible.
GC-CF-E-057	NA	NA	Pipe	9/7/2010	12:09	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Steel/Metal	18" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	

APPENDIX G
TABLE G-1
List of Pipe Outfalls Observed Along the Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Corresponding Feature #		Bulkhead Information								Feature Information					Pipe / Seep Discharge Description										
GC-CF-E-058	NA	OH-106	Pipe	9/7/2010	12:20	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	NA	Tidal Transition Zone	Flush	NA	Concrete	18" OD	Yes	NA	Clear	1.87	0	~3.5'	Yes	Tide drainage	No	Yes	Yes	Pipe full of sediment and water. Relative Discharge Rate: NA, ~1 ml/min. Canal salinity = 2.05%.
GC-CF-E-059	GC-OF-166	OH-106	Pipe	9/7/2010	12:31	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Terra Cotta	7.5" OD	Yes	Trickle	Clear	1.96	NA	5'	Yes	Tide drainage	No	Inconclusive	Yes	Relative Discharge Rate: Trickle, ~50 ml/min. Canal salinity = 2.05%. PID Reading (ppm): NA, drifting inaccurate.
GC-CF-E-060	NA	NA	Pipe	9/7/2010	12:36	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Terra Cotta	12" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe is half buried by rubble and filled with sediment. Recent discharges are unlikely.
GC-CF-E-061	GC-CF-165	NA	Pipe	9/7/2010	12:42	Pathmark Parking Lot	6	East Bank	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Concrete	20"	Yes	Trickle	Clear	Unknown	0	~3.5'	Yes	Tide drainage/ Unsure	No	Yes	Yes	Flow too low to collect salinity reading. Hard to fill up sensor due to debris near pipe. Flow is a minor drip. Relative discharge rate: Trickle, <50 ml/min.
GC-CF-E-062	NA	NA	Pipe	9/7/2010	13:30	Just South of Hamilton Avenue Bridge	6	East Bank	Timber/Steel	Fair	Tidal Transition Zone	Inset	NA	Terra Cotta/Unknown	~10-12"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Set of 24 pipes with a few electrical cables running out of them. Appear to be conduits. Old manhole cover above conduits. Construction material: Terra Cotta/Unknown, appears to be clay from a distance.
GC-CF-E-063	GC-OF-154	OH-538 / OH-602	Pipe	9/7/2010	13:42	Just South of Hamilton Avenue Bridge	6	East Bank	Timber/Steel	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	18"	Yes	Flowing	Clear	0.45	0.0	~15'	No	Unsure	Yes	No	Yes	Relatively moderate flow. Relative discharge rate: ~2 L/min. Sample ID: GC-CF-E-63
GC-CF-E-064	NA	NA	Pipe	9/7/2010	14:15	Right at Intersection of Turn Around Basin #1	3	East Bank	Steel	Good	Tidal Transition Zone	Offset in Canal	~7	Other	~18' long, 5' wide	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Small recreational outboard motor boat. Construction material: Other, Boat, Fiberglass
GC-CF-E-065	GC-CF-007A-G	OH-007	Pipe	9/7/2010	14:30	End of 2nd Avenue	3	East Bank	RipRap/ No Bulkhead	Poor	Always Below Water	Protruding	NA	Unknown	Unknown	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Features GC-CF-E-065 through 067 are all part of the OH-007 outfall. Pipes deteriorating and under murky water, could be more pipes here. Slightly east of outfall sign.
GC-CF-E-066	GC-CF-007A-G	OH-007	Pipe	9/7/2010	14:32	End of 2nd Avenue	3	East Bank	RipRap/ No Bulkhead	Poor	Always Below Water	Protruding	NA	Unknown	Unknown	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	See feature GC-CF-E-E-065.
GC-CF-E-067	GC-CF-007A-G	OH-007	Pipe	9/7/2010	14:34	End of 2nd Avenue	3	East Bank	RipRap/ No Bulkhead	Poor	Always Below Water	Protruding	NA	Unknown	Unknown	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	No	See feature GC-CF-E-E-065.
GC-CF-E-068	NA	NA	Pipe	9/7/2010	15:00	North of 9th Street Bridge	5	East Bank	Timber	Good	Tidal Transition Zone	Flush	NA	Terra Cotta/Unknown	~7	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe heavily deteriorated and does not appear to have recent flows. Full of sediment.
GC-CF-E-069	NA	NA	Pipe	9/7/2010	15:00	North of 9th Street Bridge	5	East Bank	Timber	Good	Always Below Water	NA	NA	Terra Cotta/Unknown	~6" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Does not appear to discharge, pipe heavily deteriorated.
GC-CF-E-070	NA	NA	Pipe	9/7/2010	15:08	North of 9th Street Bridge	5	East Bank	Timber/Concrete	Good	Tidal Transition Zone	Flush	NA	Concrete/Other	10" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Wood structure inside bulkhead (wood pipe, conduit?) slanted towards the canal, concrete on outside of wood.
GC-CF-E-071	NA	NA	Pipe	9/7/2010	15:15	South of 9th Street Bridge	5	East Bank	Timber/Concrete	Poor	Tidal Transition Zone	Inset	NA	Steel/Metal	~12 - 14" elongated	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Heavily deteriorated. May have possible flows.
GC-CF-E-072	GC-CF-151	NA	Pipe	9/8/2010	NA	End of 19th Street	8	East Bank	Concrete/RipRap	Poor	Tidal Transition Zone	Protruding	NA	Concrete	47"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Looks like recent active flow is possible. City sewer outfall.
GC-CF-E-073	NA	NA	Pipe	9/8/2010	11:03	Near Africa Israel Property	2	East Bank	RipRap/ No Bulkhead	Poor	Always Above Water	Offset	2-3' inland	NA	NA	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	One pipe going vertically into ground filled with concrete. Painted "18" with spray painting. Not active. Horiz. Distance from Bulkhead: Offset, 2-3' inland.
GC-CF-E-074	NA	NA	Pipe	9/8/2010	12:05	Directly North of Hamilton Street Bridge	6	East Bank	Timber/Concrete	Fair	Always Above Water	Flush	NA	Concrete	11" OD hole running through a concrete part of the Bulkhead	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	NA	No sediment located above wooden bulkhead North of Hamilton Bridge. Very minor amount of the sediment in "pipe". No GPS here, located 20' North of bridge.
GC-CF-E-075	NA	OH-525	Pipe	9/8/2010	12:20	Near the end of 20th Street	8	East Bank	Steel	Good	Always Above Water	Protruding	NA	PVC/Plastic	9"	No	NA	NA	NA	NA	~5'	NA	NA	NA	NA	Yes	Some standing water present and algae, possibly due to poor pitch, pipe angled in land.
GC-CF-E-076	NA	NA	Pipe	9/8/2010	12:22	Near the end of 20th Street	8	East Bank	Steel	Good	Always Above Water	NA	NA	PVC/Plastic	2"	No	NA	NA	NA	NA	~5'	NA	NA	NA	NA	Yes	PVC pipe at a T, upper end plugged, runs into bulkhead.
GC-CF-E-077	NA	NA	Pipe	9/8/2010	12:36	Across form Hess Tanks	8	East Bank	RipRap/ No Bulkhead	Fair	Transition Zone	Flush	NA	PVC/Plastic	14"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Broken PVC pipe covered in rocks from bank.

West Bulkhead

GC-CF-W-001	RH-331 (NYC) GC-OF-187 (GEI)	NA	Pipe	9/1/2010	8:45	Douglass St.	1	West Bank	Concrete	Good	Tidal Transition zone	Protruding	NA	Steel/Metal	12"	Yes	Streaming	Clear	2.2	0.5	~ 2.5-3'	No	Active	Yes	No	Yes	Nearby feature: NA; Sample ID: GC - CF - W-001-1C 0915; Description: Pipe noted previously as a discharge for rerouted canal water since closing of Flushing tunnel by NYC DEP; appears to flow often - green algae all over pipe and bulkhead; Reference salinity - 16.0 ppt canal.
GC-CF-W-002	GC-08-145	NA	Pipe	9/1/2010	9:16	Douglass St.	NA	West Bank	Concrete	Good	Tidal Transition zone	Flush	NA	Concrete	~2'	No	NA	NA	NA	0	0	Yes	NA	No	Inconclusive	Yes	Are other features discharging: (GC-CF-W-001); Sample ID: NA; NYC Outfall - permitted outfall
GC-CF-W-003	GC-OF-146	NA	Pipe	9/1/2010	9:30	Douglass/Degraw	1	West Bank	Concrete	Good	Tidal Transition zone	Flush	NA	Steel/Metal	0.5'	No	NA	NA	NA	3.6	~ 2'	No	Unsure	No	Yes	Yes	Slight drip/wet; Was sediment observed in the feature: 0.02'; Description: Markings - none noted; appears wet - trace drip - pipe is wet - green algae growing in/around pipe - think layer of sediment/algae growth noted on floor of pipe.
GC-CF-W-004	NA	NA	Pipe	9/1/2010	9:43	Degraw st	1	West Bank	Timber	NA	Tidal Transition zone	Protruding	NA	Steel/Metal	0.5'	No	NA	NA	NA	0	3'	No	NA	No	No	Yes	Relative Elevation: very close to top of transition zone; Sample ID: NA; Description: None - pipe sticks out approximately 6" from bulkhead. Dry - no algae growth around/near pipe.
GC-CF-W-005	None	NA	Pipe	9/1/2010	9:50	Degraw St	NA	West Bank	Timber	Good	Always above water	Protruding	NA	Steel/Metal	6" - rusty & crected	No	NA	NA	NA	0.6	3.5'	No	NA	No	Inconclusive	Yes	Relative Elevation: Close to transition zone; Sample ID: NA; Description: No markings - appears dry - cracked and broken. No algae growth - protrudes from bulkhead approximately 6".
GC-CF-W-006	GC-OF-139	NA	Pipe	9/1/2010	9:55	Between Sackett and Degraw	NA	West Bank	Timber	Fair	Tidal Transition zone	Flush	NA	Steel/Metal	12"	No	NA	NA	NA	4.5	1'	No	Unsure	No	Inconclusive	Yes	Relative Discharge Rate: Dripping wet; Sample ID: NA; Description: Inside of pipe is wet. Algae growth and rusty and standing water - trace drip. Lumps of sediment (?) inside pipe approximately 1 - 2' in - noted on bottom and sides of pipe.
GC-CF-W-007	NA	NA	Pipe	9/1/2010	10:05	Sackett St	1	West Bank	Steel	Good	Tidal Transition zone	Flush	NA	Steel/Metal	6"	No	NA	NA	NA	0.3	0.5'	No	Unsure	No	Yes	Yes	Horz. Distance from Bulkhead: Approximate 0.1' from edge of bulkhead; Relative discharge rate: trace dripping/wet; Sample ID: NA; Description: 6" pipe - no markings - edge of Sackett St. Trace drip - inside of pipe is wet. Sandy sediment in pipe - rusty - slight algae growth. End of pipe is cracked - not noted by GEI in pipe survey.
GC-CF-W-008	NA	NA	Pipe	9/1/2010	10:18	Sackett St	1	West Bank	Timber	Good	Tidal Transition zone	Protruding	NA	Steel/Metal	0.5'	No	NA	NA	NA	0.5	~2.5'	No	NA	No	No	Yes	Relative Elevation: At top of transition zone, protruding approximately 0.1'; Sample ID: NA; Description: Dry - no markings - no algae growth - no rust coloration.
GC-CF-W-009	NA	NA	Pipe	9/1/2010	10:30	Union St	1	West Bank	Concrete	Good	Ground Level	Flush	NA	PVC/Plastic	4"	No	NA	NA	NA	NA	~9'	No	NA	No	Inconclusive	Yes	Relative Elevation: Always Above Water; PID Reading: No reading; Sample ID: NA; Description: PVC pipe - appears dry - no wetness/staining on side of bulkhead - no algae growth /plant growing inside. Grouped with 010 & 011 in photo.
GC-CF-W-010	NA	NA	Pipe	9/1/2010	10:35	Union St	1	West Bank	Concrete	Good	Ground Level	Flush	NA	PVC/Plastic	4"	No	NA	NA	NA	NA	~9'	No	NA	No	Inconclusive	NA	Relative Elevation: Always Above Water; PID Reading: No reading; Sample ID: NA; Description: PVC pipe appears dry - no wetness/staining on side of bulkhead - no algae growth noted. Grouped with 009 + 010 in photo.
GC-CF-W-011	NA	NA	Pipe	9/1/2010	10:45	Union St	1	West Bank	Concrete	Good	Ground Level	Flush	NA	PVC/Plastic	4"	No	NA	NA	NA	NA	~9'	No	NA	No	Inconclusive	Yes	Relative Elevation: Always Above Water; PID Reading: No reading; Sample ID: NA; Description: PVC pipe appears dry - no wetness/staining on side of bulkhead - no algae growth noted - Grouped with 009 + 010 in photo
GC-CF-W-012	NA	NA	Pipe	9/1/2010	10:53	Carroll St	2	West Bank	Timber	Fair	Ground Level	Inset	NA	Steel/Metal	4"	No	NA	NA	NA	0.1	4'	No	NA	No	No	Yes	Relative Elevation: Always Above Water. Description: No markings - no algae growth - no rust - no sediment observed. Grouped with/identical to 012, 013, 014, 015

APPENDIX G
TABLE G-1
List of Pipe Outfalls Observed Along the Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Corresponding Feature #		Bulkhead Information								Feature Information					Pipe / Seep Discharge Description										
CG-CF-W-013	NA	NA	NA	9/1/2010	10:57	Carroll St	2	West Bank	Timber	Fair	Ground Level	Inset	NA	Steel/Metal	~4"	No	NA	NA	NA	0	~4'	No	NA	No	No	Yes	Relative Elevation: Always Above Water; Sample ID: NA; Description: No markings - no algae growth - no rust - no sediment observed. Grouped with/identical to 012, 013, 014, 015
CG-CF-W-014	NA	NA	Pipe	9/1/2010	11:02	Carroll St	2	West Bank	Timber	Fair	Ground Level	Inset	NA	Concrete	~3"	No	NA	NA	NA	0	~4'	No	NA	No	Yes	Yes	Relative Elevation: Always Above Water; Sample ID: NA; Description: No markings - no algae growth - no rust - no sediment. Identical to/grouped with 012, 013, 014, 015
GC-CF-W-015	NA	NA	Pipe	9/1/2010	11:06	Carroll St	2	West Bank	Timber/ Concrete	Fair	Ground Level	Inset	NA	Concrete	~3"	No	NA	NA	NA	1.2	~4'	No	NA	No	No	Yes	Relative Elevation/Always Above Water; Sample ID: NA; No markings - no algae growth - no rust - no sediment. Identical to /grouped with 012, 013, 014, 015
GC-CF-W-016	NA	NA	Pipe	9/1/2010	11:00	Carroll St	2	West Bank	Timber/ Concrete	Good	Always above water	Inset	NA	Steel/Metal	12"	No	NA	NA	NA	0	~2.5'	No	NA	No	Inconclusive	Yes	Relative Elevation: Just above transition zone; Sample ID: NA; Description: No flow/dry - no rust coloration - no algae growth - very thin layer of sediment (dusting) on floor of pipe - partially scoured out by water.
GC-CF-W-017	NA	NA	Pipe	9/1/2010	11:15	Carroll St	2	West Bank	Concrete	Good	Always above water	Flush	NA	Concrete	1.1"	No	NA	NA	NA	0	~5'	No	NA	No	No	Yes	Sample ID: NA; Description: No flow/dry - no rust coloration - no algae growth - no sediment.
GC-CF-W-018	NA	NA	Pipe	9/1/2010	11:24	Carroll St	2	West Bank	Timber	Fair	Tidal Transition zone	Flush	NA	Steel/Metal	~8"	No	NA	NA	NA	0.7	0	No	Tide drainage	No	Inconclusive	Yes	Based on Observations, appears that Discharge is: Rising tide; Sample ID: NA; At the tidal level during survey - bottom of pipe being submerged by rising tide - rust coloration.
GC-CF-W-019	NA	NA	Pipe	9/1/2010	11:30	Carroll St	2	West Bank	Timber	Fair	Tidal Transition zone	Protruding	NA	Steel/Metal	~4"	No	NA	NA	NA	0	~1.5'	No	NA	NA	Yes	Yes	Relative Elevation: Just above normal transition zone; Horz. Distance from Bulkhead: 0.1'; Sample ID: NA; Description: Dry - pipe is filled with sediment, pebbles and other debris in pipe;. No algae growth.
GC-CF-W-020	NA	NA	Pipe	9/1/2010	11:43	2nd St	2	West Bank	RipRap/No Bulkhead	Poor	Ground Level	Protruding	NA	PVC/Plastic	4"	No	NA	NA	NA	0	1.0'	No	NA	No	No	Yes	Construction Material: No Bulkhead; Relative Elevation: Always Above Water, Tidal Transition Zone, Long pipe that is pitched downward toward water - Protruding approximately 5 - 6'; Description: Long 4" PVC pipe - no algae/wetness noted;
GC-CF-W-021	NA	NA	Pipe	9/1/2010	11:55	2nd St	2	West Bank	Timber	Good	Always above water	Flush	NA	Steel/Metal	8"	No	NA	NA	NA	0.3	3'	No	NA	No	No	Yes	Sample ID: NA; Description: Black steel pipe - no algae - no rust - no sediment noted.
GC-CF-W-022	NA	NA	Pipe	9/1/2010	12:00	3rd St	2	West Bank	Concrete	Good	Tidal Transition zone	Flush	NA	Steel/Metal	6"	No	NA	NA	NA	0.5	0	No	Tide drainage	No	No	Yes	Sample ID: NA; Description: Steel pipe - thin layer of sediment and algae growth at tidal interface during survey. Rising tide entering pipe.
GC-CF-W-023	NA	NA	Pipe	9/1/2010	12:08	3rd St	2	West Bank	Concrete	Good	Tidal Transition zone	Flush	NA	Steel/Metal	6"	No	NA	NA	NA	0	0	No	Tide drainage	NA	Inconclusive	Yes	Relative Elevation: At tidal level during survey; Description: Steel pipe - thin layer of sediment and algae growth at tidal interface during survey. Rising tide entering pipe.
GC-CF-W-024	NA	NA	Pipe	9/1/2010	12:17	3rd St	2	West Bank	Timber/Concrete	Good	Always above water	Flush	NA	Steel/Metal	8"	No	NA	Clear	NA	0	2.5'	No	Unsure	No	Yes	Yes	Relative discharge rate: Trace/dripping; Based on Observations, Appears that Discharge is: NA; Sample ID: NA; Discharge color: NA; Description: Steel pipe - wet/trace dripping - sandy sediment noted - very thin layer (~1/4) of sediment noted - green algae growth in pipe and down bulkhead.
GC-CF-W-025	NA	NA	Pipe	9/1/2010	12:25	Bond St	4	West Bank	Steel	Fair	Always above water	Flush/Inset	NA	Steel/Metal	8"	No	NA	NA	NA	0	~2'	No	NA	No	Yes	Yes	Description: Steel pipe - filled with soil and rock - pipe appears to be dry - no flow.
GC-CF-W-026	NA	NA	Pipe	9/1/2010	12:35	Bond St	4	West Bank	Timber/Concrete	Fair	Always above water	Inset/Protruding	NA	Steel/Metal	4"	No	NA	NA	NA	0	1.5	No	NA	No	No	Yes	Relative Elevation: Tidal Transition zone, very close to transitional zone; Horiz. Distance from Bulkhead: approximately 1.0'; Sample ID: NA; Description: Steel pipe - dry - rusty - no algae growth - no sediment noted.
GC-CF-W-027	NA	NA	Pipe	9/1/2010	12:45	Bond St	4	West Bank	Timber/Concrete	Good	Ground Level	Inset/Protruding	NA	Steel/Metal	~4"	No	NA	NA	NA	0	~6'	No	NA	No	No	Yes	Relative Elevation: Building Gutter; Horiz. Distance form Bulkhead: off the canal; Sample ID: NA; Description: Rain/Runoff from roof. Set with 27, 28, 29, 30.
GC-CF-W-028	NA	NA	Pipe	9/1/2010	12:47	Bond St	4	West Bank	Timber/Concrete	Good	Ground Level	Inset/Protruding	NA	Steel/Metal	~4"	No	NA	NA	NA	0	~6'	No	NA	No	No	Yes	Relative Elevation: Building gutter; Horiz. Distance form Bulkhead: off the canal; Sample ID: NA; Description: Building gutter - rain/runoff from roof. Set with 27, 28,29,30.
GC-CF-W-029	NA	NA	Pipe	9/1/2010	12:50	Bond St	4	West Bank	Timber/Concrete	Good	Ground Level	Inset/Protruding	NA	Steel/Metal	~4"	No	NA	NA	NA	0	~6'	No	NA	No	No	Yes	Horiz. Distance from Bulkhead: off canal; Sample ID: NA; Description: Building gutter - rain/runoff from roof set with 27,28,29 39.
GC-CF-W-030	NA	NA	Pipe	9/1/2010	13:00	Bond St	4	West Bank	Timber/Concrete	Good	Ground Level	Inset/Protruding	NA	Steel/Metal	~4"	No	NA	NA	NA	0	~6'	No	NA	No	No	Yes	Horiz. Distance from Bulkhead: off canal; Description: building gutter - rain runoff from roof - may not be attached @ roof level - set with 27,28,29,30.
GC-CF-W-031	NA	NA	Pipe	9/1/2010	13:03	Bond St	4	West Bank	Concrete	Fair	Always above water	Flush/Inset	NA	Steel/Metal	~4"	No	NA	NA	NA	NA	1.5'	No	NA	No	Inconclusive	Yes	Horz. Distance from Bulkhead: Approximate 1'; Description: Steel pipe - dry - no algae growth - no sediment - no rust coloration.
GC-CF-W-032	NA	NA	Pipe	9/1/2010	13:07	Bond St	4	West Bank	Concrete	Good	Always above water	Flush	NA	Steel/Metal	10"	No	NA	NA	NA	0	~2'	No	NA	No	No	Yes	Sample ID: NA; Description: Steel pipe - dry - rusty -no sediment observed - no algae growth. In same hole is 033.
GC-CF-W-033	NA	NA	Pipe	9/1/2010	13:09	Bond St	4	West Bank	Concrete	Good	Always above water	Inset	NA	Steel/Metal	0.7'	No	NA	NA	NA	0	~2'	No	NA	No	No	Yes	Feature Size: ~8"; Sample ID: NA; Description: Steel pipe - dry - rusty - no sediment - no algae noted. In same hole as 032.
GC-CF-W-034	NA	NA	Pipe	9/1/2010	13:14	Bond St	4	West Bank	Concrete	Good	Always above water	Flush	NA	Steel/Metal	~4"	No	NA	NA	NA	0	2.0'	No	NA	No	No	Yes	Steel pipe - dry - rusty - no sediment - no algae noted.
GC-CF-W-035	NA	NA	Pipe	9/1/2010	14:00	Bond St	4	West Bank	Concrete	Good	Tidal Transition zone	Protruding	NA	Steel/Metal	4"	No	NA	NA	NA	0	0	Yes	NA	No	No	Yes	Nearby Features Discharging: 037; Sample ID: NA; Description: Steel pipe - at transition zone - tidal water entering bottom of pipe.
GC-CF-W-036	NA	NA	Pipe	9/1/2010	14:35	Bond St	4	West Bank	Concrete	Good	Tidal Transition zone	Flush	NA	Steel/Metal	8"	No	NA	NA	NA	0	~0.5'	Yes	NA	No	No	Yes	Steal Pipe - Rusty - Dry - no algae growth
GC-CF-W-037	NA	NA	Pipe	9/1/2010	14:15	Bond St	4	West Bank	Concrete	Good	Always above water	Protruding	NA	PVC/Plastic	4"	Yes	Trickle/Flowing	Clear	0.8	0	1.5'	No	Active	Yes	Inconclusive	Yes	Horz. Distance from bulkhead: 0.3; Relative Discharge Rate: intermittent - observed flow ; Sample ID: GC-CF-W-037-1; Description: Reference salinity - 20.0 ppt, no odor/color to discharge. Intermittent discharge - collected VOC immediately after surge - sheen observed on sample surface - remaining sample volume collected via drip/trickle.
GC-CF-W-038	NA	NA	Pipe	9/1/2010	14:53	Bond st (Concrete Plant)	4	West Bank	Timber/Concrete	Good	Tidal Transition zone	Protruding	NA	Steel/Metal	6"	No	NA	NA	NA	0	-0.3'	No	NA	No	Yes	Yes	Height of Feature Above Canal Water Level: -0.3; Sample ID: NA; Description: steel pipe - cracked when entering canal. Canal water entering pipe. Pipe appears to be covered in approximately 3' in.
GC-CF-W-039	NA	NA	Pipe	9/1/2010	15:00	Bond st (Concrete Plant)	4/5	West Bank	Timber	Fair	Always above water	Flush	NA	Steel/Metal	6"	No	NA	NA	NA	0	~1.5'	No	NA	No	No	Yes	Sample ID: NA; Steel pipe - dry - no sediment/algae growth noted.
GC-CF-W-040	NA	NA	Pipe	9/2/2010	7:50	Douglass	1	West Bank	Concrete	Good	Ground Level	Protruding	NA	PVC/Plastic	~1"	Yes	Trickle	Clear	NA	0	7'	Yes	Active	No	Inconclusive	Yes	Is Fluid Actively discharging from feature: Dripping condensate from aeration pipe system; Are Other Nearby Features also Discharging: W-001; Salinity: No reading; PID Reading; No reading; Sample ID: NA; Description: 0.75" - 1" PVC - dripping condensate from aeration system.
CG-CF-W-041	NA	NA	Pipe	9/2/2010	8:01	Carroll St	2	West Bank	Timber	Good	Tidal Transition zone	Protruding	NA	Unknown	NA	No	NA	NA	NA	NA	0	No	NA	No	No	Yes	Sample ID: NA; Description: Protruding cable - possibly for raising Carroll St. bridge.
GF-CF-W-402	NA	NA	Pipe	9/2/2010	8:12	Carroll St	2	West Bank	Timber	NA	Tidal Transition zone	Protruding	NA	Terra Cotta	~4"	No	NA	NA	NA	0.1	1.5'	No	NA	No	No	Yes	Horz. Distance from Bulkhead: approximately 0.5'; Feature Size: ID; Sample ID: NA: Terra Cotta pipe - wet - covered as tide goes up (currently above tide) - trace/little algae growth.
GF-CF-W-403	NA	NA	Pipe	9/2/2010	8:19	Carroll St	2	West Bank	Timber	Fair	Tidal Transition zone	Flush	NA	Steel/Metal	~4"	No	NA	NA	NA	0.4	~2.5'	No	NA	No	Yes	Yes	Sample ID: NA; Description: Steel pipe - wet - lots of rust - top of tidal interface - pipe is full/completed with mud/debris - noted - approximately 2" pipe coupling (union) approximately 1" in.
GF-CF-W-404	NA	NA	Pipe	9/2/2010	8:30	2nd St	2	West Bank	Timber	Fair	Tidal Transition zone	Inset	NA	Steel/Metal	~6"	Yes	Flowing	clear		123	0.3'	No	Unsure	Yes	Inconclusive	Yes	Sample ID: GC-CF-W-044-1-VOCs only - 4 vials; Description: Tide is rising. Water appears to be flowing out of pipe. Salinity appears to be lower than surrounding water - water discharge appears to have an odor. Pipe is immediately above the low water mark. collect sample by inserting bailer into pipe and pouring discharge H2O into clear poly bottleware. transfer water to VOC vials. Salinity: Attempt 1 - 1.5% & 1.55%, attempt 2 - 0.47%
GC-CF-W-045	NA	NA	Pipe	9/2/2010	9:02	2nd Street	2	West Bank	Timber	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	~4"	No	NA	NA	NA	0.0	~2'	NA	NA	NA	Yes	Yes	Steel/cast iron pipe - old/brittle, rusty, near top of Tidal Transition Zone, algae growth and rusty. Are other nearby features also discharging? No, N/A, Unknown, 044?
GC-CF-W-046	NA	NA	Pipe	9/2/2010	9:10	2nd Street	2	West Bank	Timber/ RipRap	Fair	Tidal Transition Zone	Inset	NA	Steel/Metal	~8"	Yes	Trickle/ Flowing	Clear	0.30%, 1.94% reference	0.0	~0.75'	No	Unsure	Yes	No	Yes	Sample collected: water clear, occasional solid floats into sample from pipe, sample collected using bailer inserted into pipe and collect flow from bailer. Sample ID: GC-CF-W-046. Tide is rising.

APPENDIX G
TABLE G-1
List of Pipe Outfalls Observed Along the Gowanus Canal
Gowanus Canal Remedial Investigation
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	Corresponding Feature #		Bulkhead Information								Feature Information					Pipe / Seep Discharge Description										
GC-CF-W-047	GC-OF-107	NA	Pipe	9/2/2010	9:40	3rd Street	2	West Bank	Timber	Good	Tidal Transition Zone	Inset	NA	Terra Cotta/ Unknown	~6"	No	NA	NA	NA	0.0	0.5'	NA	NA	NA	Inconclusive	Yes	Cast Iron/Terra Cotta - algae growth, obstruction/elbow at ~3' in - unable to see up pipe way for mucky/rusty sediment.
GC-CF-W-048	NA	NA	Pipe	9/2/2010	9:53	Bond Street	4	West Bank	Timber/ Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	12"	Yes	Trickle	Clear	0.26%, 1.98% reference	0.0	~1.5'	No/NA	Unsure	Yes	Inconclusive	Yes	Metal pipe - algae growth - low flow exiting pipe trickle of water from pipe - pipe is rusty. Sample ID: GC-CF-W-048-1 (sampled at 1040)
GC-CF-W-049	NA	NA	Pipe	9/2/2010	11:15	Bond Street	4	West Bank	Timber	Good	Tidal Transition Zone	Inset	NA	PVC/Plastic	~6"	No	NA	NA	NA	0.0	NA	NA	NA	NA	Yes	Yes	Broken PVC pipe - smashed and filled with gravel.
GC-CF-W-050	NA	NA	Pipe	9/2/2010	11:20	Bond Street	4	West Bank	Steel/ Concrete	Good	Tidal Transition Zone	Flush	NA	Steel/Metal	~10"	No	NA	NA	NA	0.0	0.75'	NA	NA	NA	Inconclusive	Yes	Steel pipe - rusty, few rocks, grouped with 50, 51, 52. A little algae growth appears to turn to the North/upstream. Are other nearby features also discharging? Yes, 051 trickle.
GC-CF-W-051	NA	NA	Pipe	9/2/2010	11:25	Bond Street	4	West Bank	Steel/ Concrete	Good	Tidal Transition Zone	Flush	NA	Steel/Metal	~10"	No/NA	Trickle	Clear	2.02, 2.01 reference	0.0	0.75'	NA	Unsure	No	Yes	Yes	Steel pipe - rusty, few rocks. Cavernous inside pipe - Appears to be a chamber of sorts. Grouped with 50, 51, 52. A little algae growth present. Water has some salinity as canal water - no sample. Relative discharge rate: Trickle, NA - slight dripping/trickle.
GC-CF-W-052	NA	NA	Pipe	9/2/2010	11:28	Bond Street	4	West Bank	Steel/ Concrete	Good	Tidal Transition Zone	Protruding ~6"	NA	Steel/Metal	~10"	No	NA	NA	NA	0.0	0.75	Yes	NA	NA	Yes/ Inconclusive	Yes	Steel pipe - rusty - few rocks grouped with 50, 51, 52, a little algae growth. Has been filled with sediment, ~2' in or turns very sharply. Unable to see in past 2'. Are other nearby features also discharging? Yes, 051 trickle.
GC-CF-W-053	NA	NA	Pipe	9/2/2010	11:45	No name (figure)	5	West Bank	Timber/ Concrete	Fair	Ground Level/ Always Above Water	Flush	NA	Concrete/Terra Cotta/Other	~4"-6"	No	NA	NA	NA	0.0	~7'	NA	NA	NA	NA	Yes	Appears to be a dual wall pipe - Terra Cotta interior/concrete exterior. Can see light on other end of pipe. See a storm grate on other end of pipe. Construction material: Concrete, Terra Cotta, Other: Dual.
GC-CF-W-054	NA	NA	Pipe	9/2/2010	11:54	Unknown (figure) 6th Street	5	West Bank	Timber/ Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	~12"	No	NA	NA	NA	0.0	~1.5	NA	NA	NA	NA	Yes	Large steel pipe, rusty, no algae growth noted in same hole in Bulkhead as 055, cracked at end of pipe. Picture #128.
GC-CF-W-055	NA	NA	Pipe	9/2/2010	11:57	Unknown (figure) 6th Street	6	West Bank	Timber/ Concrete	Fair	Tidal Transition Zone	NA	NA	Steel/Metal	~10"	No	NA	NA	NA	0.0	~1.5	NA	NA	NA	NA	Yes	Steel pipe, rust, no algae growth noted in same hole as Bulkhead is 054. Very damaged and cracked.
GC-CF-W-056	NA	NA	Pipe	9/2/2010	12:04	Unknown (figure) 6th Street	5	West Bank	Steel	Good	Always Above Water	Protruding 0.75	NA	Steel/Metal	~8"	No	NA	NA	NA	0.0	~4'	NA	NA	NA	NA	Yes	Steel pipe, not to rusty/fresh pipe. See light at other end of pipe - grate noted at other end; same as 057.
GC-CF-W-057	NA	NA	Pipe	9/2/2010	12:12	Unknown (figure)	5	West Bank	Steel	Good	Always Above Water	Protruding	NA	Steel/Metal	~8"	No	NA	NA	NA	0.0	~4'	NA	NA	NA	NA	Yes	Steel pipe, not to rusty/fresh pipe. See light at other end of pipe - grate noted at other end; same as 056.
GC-CF-W-058	NA	NA	Pipe	9/2/2010	12:27	9th Street	5	West Bank	Concrete/ RipRap/No Bulkhead	Poor	Tidal Transition Zone	Protruding	NA	Steel/Metal	~6"	No	NA	NA	NA	0.0	NA	NA	NA	NA	Yes/ Inconclusive	Yes	Historic pipe - filled with concrete. Was sediment observed in feature? Yes, Inconclusive, concrete.
GC-CF-W-059	NA	NA	Pipe	9/2/2010	12:40	~12th Street	6	West Bank	Concrete	Good	Ground Level/ Always Above Water	Protruding	NA	PVC/Plastic	4"	No	NA	NA	NA	0.0	~8'	NA	NA	NA	NA	Yes	Gray PVC pipe exiting building on NYC concrete facility.
GC-CF-W-060	NA	NA	Pipe	9/2/2010	12:50	Hamilton Avenue	6	West Bank	Steel/ Concrete	Good	Always Above Water	Protruding ~6"	NA	PVC/Plastic	~3"	No	NA	NA	NA	0.0	~6.5'	NA	NA	NA	No/Inconclusive	Yes	PVC pipe under Hamilton Avenue bridge.
GC-CF-W-061	NA	NA	Pipe	9/2/2010	13:01	Bay Street	7	West Bank	No Bulkhead	Poor	Ground Level/ Always Above Water	Protruding ~5'	NA	PVC/Plastic	4"	No	NA	NA	NA	0.0	~2'	NA	NA	NA	NA	Yes	4" PVC pipe protruding from shore paired with 062.
GC-CF-W-062	NA	NA	Pipe	9/2/2010	13:04	Bay Street	7	West Bank	No Bulkhead	Poor	Ground Level/ Always Above Water	Protruding	NA	PVC/Plastic	4"	No	NA	NA	NA	0.0	~2'	NA	NA	NA	NA	Yes	4" PVC pipe protruding from shore paired with 061.
GC-CF-W-063	NA	NA	Pipe	9/2/2010	13:10	Bay Street	7	West Bank	No Bulkhead	Poor	Ground Level/ Always Above Water/ Tidal Transition Zone	Protruding ~8'	NA	PVC/Plastic	4"	No	NA	NA	NA	NA	0.0	NA	NA	NA	NA	Yes	4" PVC pipe protrudes out ~ 8' from shore. Lines up with roof gutter from building on shore, paired with 064. Relative elevation: Ground Level/Always Above Water/Tidal Transition Zone - pitched from surface into water.
GC-CF-W-064	NA	NA	Pipe	9/2/2010	13:15	Bay Street	7	West Bank	No Bulkhead	Poor	Ground Level/ Always Above Water	Protruding ~2'	NA	PVC/Plastic	4" broken	No	NA	NA	NA	0.0	~2'	NA	NA	NA	NA	Yes	4" PVC pipe protrudes ~2' from shore before it is broken, paired with 063.
GC-CF-W-065	NA	NA	Debris	9/2/2010	13:22	Bay Street	7	West Bank/ Within Canal	No Bulkhead	Poor	Always Above Water/ Always Below Water	Offset in Canal	NA	Steel/Metal/ Concrete	~5' x 5'	No	NA	NA	NA	0.0	in canal	NA	NA	NA	NA	Yes	Large concrete block within canal; ~5' x 5', has a steel boat tie-off point jutting out of it, currently does not hinder boat traffic. Relative elevation: Always Above Water/Always Below Water, sticks out.
GC-CF-W-066	NA	NA	Pipe	9/2/2010	13:30	Bay Street, Holleck Street	7	West Bank	Concrete/ RipRap/No Bulkhead	Poor	Always Above Water	Protruding ~2.5'	NA	PVC/Plastic	~6"	No	NA	NA	NA	0.0	~3'	NA	NA	NA	NA	Yes	6" PVC pipe (white) - no discoloration or algae growth. Seems to align together with rain gutter system of building onshore.
GC-CF-W-067, 068, 069, 070	NA	NA	Pipe	9/7/2010	12:09	Bond Street	3	West Bank	Timber/ Concrete	Fair	Tidal Transition Zone	Inset	NA	Concrete	~2'	No	NA	NA	NA	0.0	NA	NA	NA	NA	Yes/No	Yes	CSO location, RH-035, dry/not discharging. Was sediment observed in the feature? Yes/No, 4 pipes - no sediment in top 2 pipes; sediment noted in bottom 2 pipes.
GC-CF-W-071	NA	NA	Pipe	9/7/2010	12:29	9th Street	6	West Bank	Timber	Good	Tidal Transition Zone	Flush	NA	Steel/Metal	~8"	No	NA	NA	NA	0.0	~3.5	NA	NA	NA	NA	Yes	Garbage and refuge noted inside pipe from tidal activity.
GC-CF-W-072	NA	NA	CSO/Pipe	9/7/2010	12:41	Hamilton Avenue	6	West Bank	Timber	Fair	Tidal Transition Zone	Flush	NA	Concrete	~7' x 4' wide tunnel	No	NA	NA	NA	0.0	0.0	NA	NA	NA	Yes	Yes	Location CSO - RH-031, large tunnel, brick, true sediment noted at bottom of tunnel.
GC-CF-W-073	NA	NA	Pipe	9/7/2010	12:53	Bay Street	7	West Bank	Concrete/ RipRap/No Bulkhead	Poor	Tidal Transition Zone	Protruding ~2'	NA	Steel/Metal	~4"	No	NA	NA	NA	0.0	~2'	NA	NA	NA	No/Inconclusive	Yes	Metal pipe, very old and corroded, iron rust staining on areas freshly broken.
GC-CF-W-074	NA	NA	Pipe/Structure	9/7/2010	13:01	Bay Street	7	West Bank	Timber/ RipRap/No Bulkhead	Poor	Tidal Transition Zone	Protruding ~2'	NA	Other: Wood	1.5' x 1.5', 4" thick wood	No	NA	NA	NA	0.0	0.0	NA	NA	NA	NA	Yes	Wooden pipe/tunnel, unable to see up pipe more that ~10'.
GC-CF-W-075	NA	NA	Pipe	9/7/2010	14:32	Bay Street	7	West Bank	RipRap/No Bulkhead	Poor	Tidal Transition Zone	Protruding ~1'	NA	Steel/Metal	~4"	No	NA	NA	NA	0.0	~5'	NA	NA	NA	Inconclusive	Yes	Very old metal pipe, brittle and rusty, algae growth around and near pipe. Algae is growing over entire area, not specific to pipe.
GC-CF-W-076	NA	NA	Pipe	9/7/2010	14:52	Holleck Street	8	West Bank	Steel/Concrete/RipRap /No Bulkhead	Fair	Tidal Transition Zone	Protruding ~6'	NA	Steel/Metal	~6"	No	NA	NA	NA	0.0	~4'	NA	NA	NA	NA	Yes	Steel pipe.
GC-CF-W-077	NA	NA	Pipe	9/7/2010	15:15	Holleck Street	8	West Bank	Steel	Good	Always Above Water	Flush	NA	Steel/Metal	~12"	Yes	Flowing	Clear	0.04%, 2.10% background	0.0	~6'	No	Unsure	Yes	Inconclusive	Yes	Steel pipe, located directly prior to floating barge, discharge ~200-300 ml/min. . Sample ID: GC-CF-W-077-1.
GC-CF-W-078	NA	NA	Pipe	9/7/2010	15:25	2nd Street	2	West Bank	Timber/ Concrete/ RipRap	Fair	Ground Level/Tidal Transition Zone	Inset	NA	Other: Wood	~2.5'	No	NA	NA	NA	0.0	~1.5'	NA	NA	NA	Yes	Yes	Adjust to 2nd Street boat launch, wooden planks, able to see up ~ 10-15', lots of garbage and debris noted. Rocks and debris and garbage

APPENDIX G
TABLE G-1
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	Corresponding Feature #		Bulkhead Information								Feature Information					Pipe / Seep Discharge Description										
GC-CF-W-079-088	NA	NA	Pipe	9/8/2010	10:55	9th Street under 9th Bridge	5	West Bank	Timber/Steel/Concrete	Good	Ground Level/ Always Above Water	Protruding ~1'	NA	PVC/Plastic	~4"	No	NA	NA	NA	0.0	~7'	NA	NA	NA	NA	Yes	Set of 10 drainage pipes for bridge. Unable to access 81-84, 87, 88. No close up pictures, pipes are ~ 2.0' long. Open end on other end, sunlight shining through. All pipes are evenly spaced, ~4'-6' apart. All South of bridge. GPS coordinated for 79 and 80.
GC-CF-W-089	NA	NA	Pipe	9/8/2010	11:02	9th Street	5	West Bank	Concrete	Good	Tidal Transition Zone	Protruding ~12"	NA	Steel/Metal	~6"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe bending downward (elbow), no algae growth noted. Unable to reach via boat. No GPS coordinating, directly under Southern edge of bridge on West bank. Two Pictures. No GPS.
GC-CF-W-090	NA	NA	Pipe	9/8/2010	11:08	9th Street	5	West Bank	Concrete	Good	Tidal Transition Zone	Protruding ~12"	NA	Steel/Metal	~6"	No	NA	NA	NA	0.0	1'	NA	NA	NA	NA	NA	No algae growth noted. No GPS coordinated ~15' North of bridge - West Bank. Two pictures. Is fluid actively discharging from feature?: No, possible.
GC-CF-W-091	NA	NA	Pipe	9/8/2010	11:27	Bond Street	3	West Bank	Steel/Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	~0.5"	No	NA	NA	NA	0.0	1.5	NA	NA	NA	Inconclusive	Yes	Hole in piece of steel, staining on steel from liquid discharge (occasional).
GC-CF-W-092	NA	NA	Pipe	9/9/2010	10:15	12 Street	6	West Bank	Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	~8"	No	NA	NA	NA	1.0	~0.5	NA	NA	NA	Yes	Yes	Very rusty and corroded pipe. End of pipe is badly damaged. Pipe is disfigured inside. Pipe takes on an oblong shape as if crushed. Pipe appears to be filled with gravel.
GC-CF-W-093	NA	NA	Pipe	9/9/2010	10:20	NA	6	West Bank	Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	~8"	No	NA	NA	NA	0.0	NA	NA	NA	NA	NA	Yes	Steel pipe, a little rusty inside on invert inside of pipe. Looks clear up pipe. No algae growth noted in/on/around pipe. Bottom of pipe in water.
GC-CF-W-094	NA	NA	Pipe	9/9/2010	10:34	6th Street	4	West Bank	Timber/Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	~4"	No	NA	NA	NA	0.0	NA	NA	NA	NA	NA	Yes	Steel pipe very rusty and corroded, broken at the end of pipe, inside of pipe has buildup of material on inside perimeter.
GC-CF-W-095	NA	NA	Pipe	9/9/2010	10:44	6th Street	4	West Bank	Timber/Concrete	Fair	Tidal Transition Zone	Flush	NA	Steel/Metal	~12"	No	NA	NA	NA	0.0	NA	NA	NA	NA	Inconclusive	Yes	Steel pipe at Tidal Transition Zone. No sediment observed, no algae observed, end of pipe is cracked.
GC-CF-W-096	NA	NA	Pipe	9/9/2010	10:52	7th Street	5	West Bank	Timber/Concrete	Fair	Always Above Water/Tidal Transition Zone	Flush	NA	Steel/Metal	~1.5'	No	NA	NA	NA	0.0	NA	NA	NA	NA	Yes	Yes	Very old steel pipe, rusty and corroded, pipe is fracturing and falling apart. Pipe invert became gradually more and more filled with debris that it is completely filed at ~ 10". Appears like cement has dried in pipe. No algae in pipe. Pipe is rusty from corrosion.
Turnaround Basin #1																										
GC-CF-T1-001	NA	NA	Pipe	9/1/2010	15:00	Turn Around Basin #1	3	Turn Around Basin #1	Timber/Concrete/RipRap	Poor	Tidal Transition Zone	Inset	NA	Steel/Metal	6" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Some possible discharge. Pipe is wet with algae but no present flow. Pipe has possible potential to discharge. Construction Material: Steel/Metal?
GC-CF-T1-002	GC-OF-079	NA	Pipe	9/1/2010	15:10	Turn Around Basin #1	3	Turn Around Basin #1	Steel	Good	Always Above Water	Flush	NA	Steel	6.5" OD	No	NA	NA	NA	NA	NA	NA	NA	Inconclusive	Yes	None, reddish brown pipe with rust.
GC-CF-T1-003	GC-OF-076	NA	Pipe	9/1/2010	15:20	Turn Around Basin #1, Southern Bank	3	Turn Around Basin #1	Timber	Poor	Always Above Water	Protruding	NA	Steel/Metal	10.75" OD	Yes	Trickle	Clear	0.0	0.0	20"	No	Active	NA	NA	Yes	Water discharging from pipe on 9/1/10 at 15:20. Very slow trickle. Sample collected on 9/2/10 at 14:00.
GC-CF-T1-004	GC-OF-075	NA	Pipe	9/1/2010	15:23	Turn Around Basin #1, Southern Bank	3	Turn Around Basin #1	Timber	Fair	Always Above Water	Inset	NA	Terra Cotta	7: OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	No sediment, pipe cracked and worn. Construction Material: Terra Cotta, highly eroded with bacteria growth.
GC-CF-T1-005	NA	NA	Pipe	9/1/2010	11:20	Turn Around Basin #1	3	Turn Around Basin #1	Timber	Fair	NA	Flush	NA	Steel/Metal	~9" pipe deterioration	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	
GC-CF-T1-006	NA	NA	Pipe	9/3/2010	11:30	Turn Around Basin #1	3	Turn Around Basin #1	Timber	Fair	Tidal Transition Zone	NA	NA	Steel/Metal	7"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe moist inside, but no flow, likely from tidal drainage.
Turnaround Basin #2																										
GC-CF-T2-001	GC-OF-C3	OH-516	Pipe	9/2/2010	11:55	Turning Basin #2, South Wall	4	NA	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Steel/Metal	~7" OD, heavily weathered	No	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Yes	Heavily weathered, sediment present in pipe.
GC-CF-T2-002	GC-OF-C4?	NA	Pipe	NA	NA	Turning Basin #2, South Side	NA	NA	RipRap/ No Bulkhead	Poor	Tidal Transition Zone	Flush	NA	Concrete	12"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	12" hole in concrete, old and eroded and could be a piece of concrete RipRap in the bulkhead. No recent flow.
GC-CF-T2-003	GC-OF-64	OH-515	Pipe	9/2/2010	14:20	Turning Basin #2 South Side	4	NA	RipRap/ No Bulkhead	Poor	Always Above Water	Flush	NA	Steel/Metal	6" OD	Yes	Trickle	Clear	NA	0	1.5'	No	Active	No	No	Yes	Sample not collected. Trickle is <50 ml per minute. Flow to slow to sample.
GC-CF-T2-004	GC-OF-60	NA	Pipe	9/2/2010	14:26	Turning Basin #2 South Side	4	NA	RipRap/ No Bulkhead	NA	Always Above Water	Flush	NA	Terra Cotta	7" - 8"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	
GC-CF-T2-005	NA	NA	Pipe	9/2/2010	14:30	Turning Basin #2 North Side	4	NA	Timber	Good	Always Above Water	Protruding	NA	Other	~10"	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	This feature is for 3 roof drains that drain into the canal. Construction material: Other, Aluminum roof drains.
GC-CF-T2-006	NA	NA	Pipe	9/7/2010	13:42	2nd Turning Basin	4	South Bank	Timber	Fair	Tidal Transition Zone	Flush	NA	Terra Cotta	~12"	No	NA	NA	NA	0.0	~1.5'	NA	NA	NA	Inconclusive	Yes	~12" Terra Cotta pipe - rock and debris noted, trace algae growth - mussel growth around pipe.
GC-CF-T2-007	NA	NA	Pipe	9/7/2010	13:54	2nd Turning Basin	4	South Bank	No Bulkhead	NA	Tidal Transition Zone	Protruding	NA	Concrete/Terra Cotta/Unknown	~4" black Terra Cotta/Concrete	No	NA	NA	NA	0.0	~4' - 5'	NA	NA	NA	Yes	Yes	Sediment noted in pipe.
GC-CF-T2-008	NA	NA	Sunken Barge	9/7/2010	NA	2nd Turning Basin	4	Within Canal	No Bulkhead	Poor	Always Above Water/Tidal Transition Zone	NA	~40' from North ~55' From South	Steel/Metal Other	40' x 80'	No	NA	NA	NA	0.0	NA	NA	NA	NA	NA	Yes	Sunken barge in canal. Construction material: Other, wood.
GC-CF-T2-009	NA	NA	Sunken Barge	9/7/2010	14:10	2nd Turning Basin	4	Within Canal	No Bulkhead	Poor	Tidal Transition Zone	Offset in Canal	~2'	Steel/Metal	40' x 100'	No	NA	NA	NA	0.0	NA	NA	NA	NA	NA	Yes	Sunken barge in canal.
GC-CF-T2-010	NA	NA	Pipe	9/8/2010	10:07	2nd Turning Basin	5	East Bank	Timber	Good	Always Above Water	Flush	NA	Terra Cotta	~4"	No	NA	NA	NA	0.0	~3'	NA	NA	NA	Inconclusive	Yes	~ 13' broken/smashed inside, spider webs, dust under building, no GPS. ~10 from Southern shoreline on Eastern wall
GC-CF-T2-011	NA	NA	Pipe	9/8/2010	10:25	2nd Turning Basin	4	North Bank	Timber	Fair	Always Above Water	Inset	NA	Unknown	~4"	No	NA	NA	NA	0.0	~2.5'	NA	NA	NA	Inconclusive	Yes	Pipe is above barge - inaccessible by foot - barge is in way. Pictures taken form far away.
Turnaround Basin #3																										
GC-CF-T3-001	NA	NA	Pipe	9/2/2010	14:20	6th Street	5	Turning Basin North Wall	Timber	Good	Tidal Transition Zone	Inset	NA	Steel/Metal	10"	No	NA	NA	NA	0.0	~1.0'	NA	NA	NA	NA	Yes	Steel pipe - has a cool "breeze" exiting from pipe.
GC-CF-T3-002	NA	NA	Pipe	9/2/2010	14:28	3rd Turning Basin	NA	Turning Basin East Wall	Steel	Good	Tidal Transition Zone	Protruding	NA	Steel/Metal	10"	No	NA	NA	NA	0.0	~1.5'	NA	NA	NA	NA	Yes	10" steel pipe - no rust observed - fresh steel, no algae growth.
GC-CF-T3-003	NA	NA	Pipe	9/2/2010	14:34	3rd Turning Basin	5	Turning Basin #3 South Wall	Concrete	Good	Always Above Water	Flush	NA	PVC/Plastic	~2.5'	No	NA	NA	NA	0.0	~3'	NA	NA	NA	NA	Yes	PVC pipe - filled with debris - brick fragments.
GC-CF-T3-004	NA	NA	Pipe	9/2/2010	14:38	3rd Turning Basin	5	Turning Basin South Wall	Concrete	Good	Tidal Transition Zone	Flush	NA	PVC/Plastic	4"	No	NA	NA	NA	0.0	~3'	NA	NA	NA	NA	Yes	Short 4" PVC pipe. See light from storm drain. Relative Elevation: Tidal Transition Zone, top of transition zone.
GC-CF-T3-005	NA	NA	Pipe	9/2/2010	14:47	3rd Turning Basin	5	3rd Turning Basin South Wall	Concrete	Good	Tidal Transition Zone	Flush	NA	PVC/Plastic	4"	No	NA	NA	NA	0.0	0.75'	NA	NA	NA	NA	Yes	PVC pipe 4" - see light in pipe from storm drain above.
GC-CF-T3-006	NA	NA	Pipe	9/2/2010	14:54	3rd Turning Basin	5	Turning Basin South Wall	Concrete	Good	Tidal Transition Zone	Flush	NA	PVC/Plastic	4"	No	NA	NA	NA	0.0	~0.75'	NA	NA	NA	NA	Yes	4" PVC pipe - directly below storm drain in parking lot.

APPENDIX G
TABLE G-1
List of Pipe Outfalls Observed Along the Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Corresponding Feature #		Bulkhead Information								Feature Information					Pipe / Seep Discharge Description										
GC-CF-T3-007	NA	NA	Pipe	9/2/2010	14:58	3rd Turning Basin	5	3rd Turning Basin South Wall	Concrete	Good	Tidal Transition Zone	Flush	NA	PVC/Plastic	4"	No	NA	NA	NA	0.0	0.5'	NA	NA	NA	Yes	Yes	4" PVC pipe - filled with sand and capped with cement. Cement cap is falling off.
GC-CF-T3-008	NA	NA	Pipe	9/7/2010	10:22	NA	5	Turning Basin North Bank	Timber	Good	Tidal Transition Zone	Inset	NA	Terra Cotta	~6"	No	NA	NA	NA	0.0	0.0	NA	NA	NA	Yes	Yes	~6" terra Cotta pipe - badly damaged and broken - bottom of pipe has a little sand, shells, and pebbles inside pipe. Mussel growth around pipe. Is fluid actively discharging from feature?: No, in Tidal Transition Zone, water is in bottom of pipe at canal level.
GC-CF-T3-009	NA	NA	Pipe	9/7/2010	10:32	NA	5	3rd Turning Basin	Timber	Good	Tidal Transition Zone	Inset	NA	Terra Cotta	~6"	Yes	Trickle	Clear	2.1%, 2.2% background	0.0	~1.0'	No	Tide Drainage	No	Inconclusive	Yes	~6" Terra Cotta pipe - damaged and broken.
GC-CF-T3-010	NA	NA	Pipe	9/7/2010	10:43	3rd Turning Basin	5	3rd Turning Basin	Timber	Good	Tidal Transition Zone	Inset	NA	Terra Cotta	~12"	Yes	Trickle	Clear	1.6%, 2.2% background	0.0	~1.5'	Yes	Tide Drainage	No	No	Yes	~12" Terra Cotta pipe - end is badly broken.
GC-CF-T3-011	NA	NA	Pipe	9/7/2010	10:50	3rd Turning Basin	5	3rd Turning Basin North Wall	Timber	Good	Tidal Transition Zone	Flush	NA	Terra Cotta	~6	Yes	Drip	Clear	NA	0.0	~1.5'	Yes	Tide Drainage	No	Yes	Yes	~6" Terra Cotta pipe - lots of algae South and sedimentation on I.D. of pipe. Pipe is dripping H_2O, assumed tidal drainage based on nearby pipes also draining - tide has just gone down.
GC-CF-T3-012	NA	NA	Pipe	9/7/2010	10:56	3rd Turning Basin	5	3rd Turning Basin East Wall	Timber	Good	Tidal Transition Zone	Protruding	NA	Steel/Metal	~12"	Yes	Drip	Clear	NA	0.0	~1.0'	Yes	Tide Drainage	No	No	Yes	Tidal drainage - other pipes nearby also draining. Trace rust noted on bottom of pipe. Horiz. Distance from bulkhead: Protruding ~1'.
GC-CF-T3-013	NA	NA	Pipe	9/7/2010	11:00	3rd Turning Basin	5	3rd Turning Basin East Wall	Steel	Good	Tidal Transition Zone	Protruding	NA	Steel/Metal	~8"	Yes	Drip	Clear	NA	0.0	~2'	Yes	Tide Drainage	No	NA	Yes	Horiz. Distance from bulkhead: Protruding ~2'.
GC-CF-T3-014	NA	NA	Pipe	9/7/2010	11:08	3rd Turning Basin	5	South Bank	Timber/ Steel	Good	Always Above Water	Flush	NA	Terra Cotta	~4"	No	NA	NA	NA	0.0	~4.5'	Yes	NA	NA	NA	Yes	~4" Terra Cotta pipe - no algae growth or discoloration noted, collect on 9/9/10. Are other nearby features also discharging?: Yes, Tidal.
GC-CF-T3-015	NA	NA	Pipe	9/7/2010	11:19	3rd Turning Basin	NA	3rd Turning Basin South Wall	Timber/ RipRap	Fair	Tidal Transition Zone	Inset	NA	Terra Cotta	~6"	No	NA	NA	NA	0.0	NA	Yes	NA	NA	Yes	Yes	~6" Terra Cotta pipe - pipe is heavily sediment (1/2), 2 pictures. Are other nearby features also discharging?: Yes, Tidal.
GC-CF-T3-016	NA	NA	Pipe	9/7/2010	11:29	3rd Turning Basin	5	3rd Turning Basin	Timber/ RipRap	Fair/Poor	Tidal Transition Zone	Inset	NA	Steel/Metal	~8" with tide gate	Yes	Trickle	Clear	2.05%, 2.20%	0.0	~1.5'	Yes	Tide Drainage	No	Inconclusive	Yes	8" pipe with tide gate - leaking water (dripping) - red rusty spot under drip - appears that this dripping occurs often.
GC-CF-T3-017	NA	NA	Pipe	9/7/2010	11:35	3rd Turning Basin	5	East Wall	Steel	Good	Tidal Transition Zone	NA	NA	Terra Cotta	~12"	No	NA	Clear	2.0%, 2.21 % background	0.8	0.0"	Yes	Unsure	No	Inconclusive	Yes	Located directly under GC-CF-T3-013. Are other nearby features also discharging?: Yes, drainage.
GC-CF-T3-018	NA	NA	Pipe	9/7/2010	11:50	3rd Turning Basin	5	South Wall	Concrete	Good	Tidal Transition Zone	Flush	NA	PVC/Plastic	~4"	No	NA	NA	NA	0.0	~3.5'	No	NA	NA	NA	Yes	Along side GC-T3-004.
GC-CF-T3-019	NA	NA	Pipe	9/7/2010	11:57	3rd Turning Basin	5	South Wall	Concrete	Good	Tidal Transition Zone	Protruding	NA	Steel/Metal	~4"	No	NA	NA	NA	0.0	~3'	NA	NA	NA	NA	Yes	~4" metal pipe - appears to be plugged ~5" up pipe. Horiz. Distance from Bulkhead: Protruding ~4".
GC-CF-T3-020	NA	NA	Pipe	9/8/2010	12:36	3rd Turning Basin	4	West Bank	Timber/ Concrete/ RipRap/ No Bulkhead	Poor	Ground Level/ Tidal Transition Zone	Flush/Inset	NA	Terra Cotta	~4"	No	NA	NA	NA	0.0	~3'	NA	NA	NA	Inconclusive	Yes	~4" pipe - pipe is broken ~1.5', can see where pipe continues after break. Pipe is full of debris and ground; Horiz. Distance from Bulkhead: Flush, Inset broken.
Turnaround Basin #4																											
GC-CF-T4-01	NA	OH-887	Pipe	9/7/2010	10:10	Lowe's Turn Around Basin SE Corner	6	NA	Timber/ RipRap	Fair	Tidal Transition Zone	Flush	NA	Steel/ Metal	13" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe could be active, coordinates for T4-01 through 05 collected together. These points and all <10 from each other at the very SE corner of the basin.
GC-CF-T4-02	NA	OH-889	Pipe	9/7/2010	10:12	Lowe's Turn Around Basin SE Corner	6	NA	Timber/ RipRap	Fair	Tidal Transition Zone	Flush	NA	Steel/ Metal	16" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe could be active. Located below pipe GC-CF-T4-01.
GC-CF-T4-03	NA	OH-187	Pipe	9/7/2010	10:14	Lowe's Turn Around Basin SE Corner	6	NA	Timber/ RipRap	Fair	Always Above Water	Protruding	NA	NA	7"OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Located South shore, above Timber Bulkhead. Does not appear to be active.
GC-CF-T4-04	NA	NA	Pipe	9/7/2010	10:16	Lowe's Turn Around Basin SE	6	NA	Timber/ RipRap	Fair	Tidal Transition Zone	Protruding	NA	NA	7" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Pipe in line with GC-CF-T4-03 in tidal zone. Could be active
GC-CF-T4-05	NA	NA	Pipe	9/7/2010	10:20	NA	6	NA	Timber/ RipRap	Fair	Always Above Water	Protruding	NA	Steel/ Metal	11" OD	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	Does not appear to be active. Located on South shore above Timber Bulkhead; contains sediment.

Notes:
NA - Not Applicable
Feature "Relative Elevation" = vertical location of feature along wall of bulkhead

Feature Horizontal Distance From Bulkhead:
Flush = Feature is even with the bulkhead wall
Inset = Feature is recessed behind bulkhead wall
Protruding = Feature extends out beyond bulkhead wall into canal
Offset = Feature is located separate from the bulkhead wall (see Offset Distance column)

OD = Outer Diameter
ID = Inner Diameter

Pipes highlighted in green correspond to pipes identified as being owned by New York City, not referred for further investigation
Pipes highlighted in grey correspond to pipes identified as POTENTIALLY being owned by New York City, referred for further investigation
Pipes with no highligting correspond with pipes of unidentified ownership, referred for further investigation

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CITY SEWER SPECIALISTS Corp.

Gowanus Canal
Pipe Investigation Daily Summary Report

Attached with this report are video DVDs of the inspections.

Client:
Lockheed Martin Information & Technology Service
2339 Route 70 West Cherry Hill, NJ 08002-3315

Project description:
Pipe investigations at Gowanus Creek site, Brooklyn, NY.
In the REP Solicitation for SERAS program project #0-59 pipe investigation at Gowanus canal.

Dates:
October 19, 2010 to November 19, 2010

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The following is a list of pipes with a diameter of 6" or greater, that require high pressure water jet cleaning prior to new/repeat camera inspection in order to determine the route of the pipe.

W003 : 6" Clay pipe
W007 : 6" CIP
W016 : 8" CIP
E025 : 8" CIP
W022 : 8" CIP
E020 : 10" Compound pipe
E021 : 10" CIP
W047 : 8" CIP
E017 : 6" CIP
E35 : 8" CIP
W046 : 9" Clay pipe
W45 : 6" CIP
W044 : 6" Clay pipe
W033 : 8" CIP
W034 : 6" CIP
W043 : 6" CIP
W098 : 6" CIP
E08 : 10" CIP
E015 : 12" Clay Pipe
E016 : 42" Diameter
W036 : 8" CIP Pipe
W035 : 6" CIP Pipe
T3-013 :10" CIP Pipe
T3-001 :12" CIP Pipe
E61A : 6" Clay Pipe
E57 :15" CIP Pipe
E056 : 25" Concrete Pipe
E48 : 6" CIP Pipe
W093 : 8" CIP Pipe
T4-001 :12" CIP Pipe
T4-002 : 15" CIP Pipe
T4-003 : 6" CIP Pipe
E27 : 12" Diameter Pipe
E26 : 8" Cement Pipe
W100 : 24" Clay Pipe
W38 : 8" CIP Pipe
W52 : 10" CIP Pipe
W51 :10" CIP Pipe

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W55 : 10" CIP Pipe
W54 : 12" CIP Pipe
T3-12A : 12" CIP Pipe
T3-12 : 12" CIP Pipe
T3-17 : 10" Clay Pipe
T3-014 : 6" Clay Pipe
T3-009 : 6" Clay Pipe
T3-021 : 6" Clay Pipe
T3-011 : 6" Clay Pipe
T3-008 : 6" Clay Pipe
T3-016 : 8" CIP Pipe
W48 : 12" Clay Pipe
T1-007 : 8" CIP Pipe
T1-05 : 6" CIP Pipe
W39 : 6" CIP Pipe
T2-04 : 6" Clay Pipe
T1-006 : 6" CIP Pipe
E36 : 10" Clay Pipe
W75A : 8" Clay Pipe
E 71 : 12" CIP Pipe
E12 : 12" CIP Pipe
E11 : 12" CIP Pipe
E13 : 12" CIP Pipe
E006 : 36" CIP Pipe
E05 : 36" CIP Pipe
N1A : 8" Concrete Pipe
N1 : 12" Clay Pipe
E31 : 9" Concrete Pipe
W006 : 12" CIP Pipe
W42 : 8" Clay
W18 : 8"CIP pipe
W43 : 5" CIP
W089 : 6" CIP
W044 : 6" CIP
W065 : 6" Box

Total pipe inspections:	213
Total pipes need to be Water Jetted:	72

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October 19, 2010

Pipe label: **W-001**
12"Ø Cast-Iron pipe.
Findings:
13' Catch-basin box. The push camera couldn't pass the first catch basin.
We can see another pipe connection at 3 o'clock.
Stop inspection.
We located the first catch basin from the ground, and saw a second one 11' away.
26' Second Catch basin.
Recommends:
Using the tractor camera in order to get 360° view of the pipe and the catch-basin box to search for other service connections in the system and evaluate there condition.

Pipe label: **W-005**
6"Ø Cast-Iron pipe.
46" above water level; 10:22 AM.
Findings:
Soap remains near the pipe.
60' Left 45°
89' can't push the camera any further. Stop inspection.

Pipe label: **W-004**
6"Ø Cast-Iron pipe.
43" above water level; 10:49 AM
Findings:
26'; 4" Y service connection at 3 o'clock.
50'; 4" Y service connection at 3 o'clock.
120' can't push the camera any further. Stop inspection.

Pipe label: **W-003**
6"Ø Clay pipe.
23" above water level; 11:19 AM
Findings:
7' Connection broken, pipe is full of mud.
Can't push the camera any further. Stop inspection.

Pipe label: **W-007**
6"Ø Cast iron pipe.
25" above water level; 1:14 PM
Findings:
5' pipe is full of mud.
Can't push the camera any further. Stop inspection.

Pipe label: **W-008**
6"Ø Cast iron pipe.
48" above water level; 1:26 PM
Findings:
8' Left 45°
22'; 4" service connection at 12 o' clock.
26' **building main trap.**

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Pipe Label: **W-015**
3"Ø Asbestos pipe.
69" above water level; 2:00 PM
Findings:
4' Pipe is full of dirt, leaves and plant roots.
Can't push the camera further. Stop inspection.

Pipe label: **W-014A**
4"Ø Clay Pipe
49" above water level; 2:13 PM
Findings:
2' pipe is broken or blocked
Can't push the camera any further. Stop inspection.

Pipe label: **W-016**
8"Ø Cast iron pipe
47" above water level; 2:19 PM
Findings:
15' pipe is full of debris.
Can't push the camera any further. Stop inspection.

Pipe label: **W-017**
12"Ø Cement pipe
69" above water level; 2:27 PM
Findings:
28' sewer is broken.
Can't push the camera any further. Stop inspection.

October 20, 2010

Pipe label: **W-021**
8"Ø Cast-Iron pipe.
36" above water level; 9:18 AM
N 40° 40.601'
W 073° 59.406'
Findings:
63' Up 45°
65' Down 45° (to level the pipe). Camera can't pass second 45°.
Working sewer and in good condition.
No signs of oil in pipe.
Can't push the camera any further. Stop inspection.

Pipe label: **E-023**
4"Ø Cast-Iron pipe.
50" above water level; 9:56 AM
N 40° 40.574'
W 073° 59.402'
Recommends:
2' Pipe is full of construction debris.
Can't push the camera any further. Stop inspection.

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Pipe label: **E-025**
8"Ø Cast-Iron pipe.
24" above water level; 10:04 AM
Findings:
24'; 8" service connection at 9 o'clock.
25' pipe is full of debris.
Can't push the camera any further. Stop inspection.

Pipe label: **E-024**
1.5"Ø Hole in wall.
47" above water level; 10:31 AM
Findings:
1' Pipe is full with debris probably was drilled for installation purposes.
Can't push the camera any further. Stop inspection.

Pipe label: **W-022**
8"Ø Cast-Iron pipe.
22" above water level; 11:00 AM
N 40° 40.574'
W 073° 59.406'
Findings:
12' Pipe is full of construction debris, leaves looks like catch basin waste line.
Can't push the camera any further. Stop inspection.

Pipe label: **E-020**
10"Ø Asbestos pipe.
45" above water level; 11:28 AM
N 40° 40.602'
W 073° 59.373'
Findings:
16' small bricks inside the line.
19' Cracked and broken connection on top.
20' Pipe collapsed.
Can't push the camera any further. Stop inspection.

Pipe Label: **E-021**
10"Ø Cast-iron pipe
47" above water level; 11:28 AM
N 40° 40.602'
W 073° 59.373'
Findings:
1'-19' line is _ full with debris,
19' Pipe is full debris.
Can't push the camera any further. Stop inspection.

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Pipe label: **E-033**
No size specify (no pipe) looks like natural water stream.
At water level; 11:46 AM
Behind the wood bar.
N 40° 40.602'
W 073° 59.373'
Findings:
Brown "stuff" looks like mud.
12' water runs at steady flow.
14' camera can't pass.
Can't push the camera any further. Stop inspection.

Pipe label: **W-047**
8"Ø Cast-Iron pipe.
12" above water level; 1:27 PM
N 40° 40.582'
W 073° 59.415'
Findings:
3' Pipe collapsed or end of pipe. Pipe is full of mud.
Can't push the camera any further. Stop inspection.

Pipe label: **W-097 **NEW**
8"Ø Cast-Iron pipe.
43" above water level; 4:45 PM
N 40° 40.592'
W 073° 59.380'
Findings:
Pipe is in good condition, Working sewer.
53'; 3" service connection at 12 o'clock.
94' Reducer to 4", camera cannot pass the step of the reducer.
Can't push the camera any further. Stop inspection.
Recommendations:
Redo the inspection using our CCTV tractor unit.

October 21, 2010

Pipe label: **E-017**
6"Ø Cast-Iron pipe.
12" above water level; 9:23 AM
N 40° 40.677'
W 073° 59.341'
Findings:
5' Bad connection.
6' Pipe is full debris.
Can't push the camera any further. Stop inspection.

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Pipe label: **E-018**
4"Ø Cast-Iron pipe.
12" above water level; 9:47 AM
N 40° 40.677'
W 073° 59.341'
Findings:
22' Pipe is full debris.
Can't push the camera any further. Stop inspection.
Pipe label: **E-019**
12"Ø Cast-Iron pipe.
102" above water level; 10:33 AM
N 40° 40.622'
W 073° 59.352'
Findings:
None operational pipe.
Pipe is full with concrete.

Pipe label: **E-073**
8"Ø Cast-Iron pipe.
103" above water level; 10:41 AM
N 40° 40.618'
W 073° 59.366'
Findings:
None operational pipe.
Pipe is full with concrete.

Pipe label: **E-034**
1.5"Ø Hole.
24" above water level; 11:01 AM
N 40° 40.596'
W 073° 59.379'
Findings:
Cannot fit the camera inside the hole. Looks like a drilled hole.
We insert a measuring tape 2' inside the hole.
Stop inspection.

Pipe label: **E-035**
8"Ø Cast iron pipe.
0" at water level; 11:17 AM
N 40° 40.588'
W 073° 59.386'
Findings:
Working sewer-full with grease.
White residue inside and outside the line.
Small fishes inside the pipe.
5' camera can't pass- full with grease.
Recommendations:
Jet the line and redo the inspection using our CCTV tractor unit.

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Pipe Label: **W-020**
4"Ø PVC pipe.
24" above water level; 11:44 AM
N 40° 40.601'
W 073° 59.399'
Pipe is sticking out of the ground about 6' in to the canal.
Looks like a working sewer line.
Findings:
10' Right 45°, the push camera can't pass.
Can't push the camera any further. Stop inspection.

Pipe label: **W-078**
Hole under the dock.
Findings:
No pipes to report.

Pipe label: **W-046**
9"Ø Clay pipe.
15" above water level; 1:45 PM
N 40° 40.621'
W 073° 59.389'
Findings:
14' Steady flow of water.
15' Bad connection at 12 o'clock
38' Crack in pipe at 10 o'clock.
42' Chunks of grease in pipe.
45' Cavity in pipe at 12 o'clock.
48' "Black stuff" remains on the side of the pipe.
63'; 4" Service connection at 12 o'clock.
69' Grease in pipe.
70' Crack in pipe at 12 o'clock.
74' Large object blocking the pipe, we can see "Black stuff" inside the object.
Recommendations:
Jet the line and redo the inspection.

Pipe label: **W-046A**
9"Ø Clay pipe
38" above water level; 1:45 PM
Findings:
Nothing to report.

Pipe label: **W-045**
6"Ø Cast iron pipe.
33" above water level; 2:42 PM
N 40° 40.662'
W 073° 59.389'
Findings:
2' Pipe is full with "Black stuff"
Can't push the camera any more. Stop inspection.
Recommendations:
Jet the line and redo the inspection.

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Pipe label: **W-044**
6"Ø Clay pipe.
8" above water level; 2:56 PM
N 40° 40.631'
W 073° 59.380'
Findings:
9' to 18' Continues crack in pipe at 12 o'clock.
18' to 45' Camera under water.
109' Pipe is full with "Black stuff" camera can't pass.
Can't push the camera any more. Stop inspection.
Recommendations:
Jet the line and redo the inspection.

October 22, 2010

Pipe label: **W-024**
8"Ø Cast-Iron pipe.
20" above water level; 8:45 AM
N 40° 40.558'
W 073° 59.433'
Findings:
Pipe is clean and in good condition.
5' to 15' Clay pipe. (That section was replaced)
10' Bad dislocated connection.
41'; Y Service connection at 3 o'clock. We couldn't make that turn.
43' Up 45°
45' we can see light at the end of the pipe. Looks like a roof drain.
Can't push the camera any further. Stop inspection.

Pipe label: **E-029**
4"Ø PVC pipe.
12" above water level; 9:23 AM
N 40° 40.562'
W 073° 59.419'
Findings:
26'; Y service connection at 9 o'clock. We couldn't make that turn.
27' Up 45°
31' Pipe is full debris. (Roots, leaves, stones, plastic bags)
Can't push the camera any further. Stop inspection.

Pipe label: **E-028**
4"Ø Cast-Iron pipe.
93" above water level; 9:38 AM
N 40° 40.562'
W 073° 59.419'
Findings:
3' End of pipe. (The pipe is open and we can see a flat panel in front)
We can see another pipe below.
Looks like a vent shaft.
Can't push the camera any further. Stop inspection.

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Pipe label: **W-026**
5"Ø Cast-Iron pipe.
17" above water level; 9:56 AM
N 40° 40.562'
W 073° 59.526'
Findings:
The pipe is in poor condition with heavy corrosion.
Doesn't look operational
14' Bad connection.
31' pipe has a hole on top due to heavy corrosion.
39' First Y connection (main line split to left (1) and right (2)
Going on (1) turn: 40' another Y connection (split to (3) and (4))
Going on (4) turn: 43' pipe is full corrosion, Can't pass.
Going on (2) turn: 46' pipe is full corrosion, dirt and small stones, Can't pass.
Going on (1) and Left Y: 47' Left 45°
Going on (1) and Left Y: 53' House trap.
Can't push the camera any further. Stop inspection.

Pipe label: **W-025**
8"Ø Cast-Iron pipe.
33" above water level; 10:33 AM
N 40° 40.558'
W 073° 59.511'
Findings:
No grease, No oil marks.
13' Up 45°
14' Down 45° (The pipe is now level) Camera Can't pass second 45°.
Can't push the camera any further. Stop inspection.

Pipe label: **W-031**
4"Ø Cast-Iron pipe.
41" above water level; 11:10 AM
N 40° 40.565'
W 073° 59.530'
Findings:
Pipe suffers from heavy corrosion.
9' Bad connection, Camera can't pass due to pieces of the pipe (corrosion and dirt).
Can't push the camera any further. Stop inspection.

Pipe label: **W-033**
8"Ø Cast-Iron pipe.
49" above water level; 11:15AM
N 40° 40.565'
W 073° 59.530'
Findings:
10' Bad connection, Camera can't pass due to pieces of the pipe (corrosion and dirt).
Can't push the camera any further. Stop inspection.

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Pipe label: **W-032**
10"Ø Cast-Iron pipe.
48" above water level; 11:22AM
N 40° 40.565'
W 073° 59.530'
Findings:
We can't see parsley view using this small camera.
Recommendation:
Redo the inspection using our CCTV tractor unit.

Pipe label: **W-034**
6"Ø Cast-Iron pipe.
58" above water level; 11:33AM
N 40° 40.562'
W 073° 59.532'
Findings:
No grease, No oil marks.
Heavy corrosion, dirt and mud.
8' Bad connection.
18' Up 45°, Camera can't pass the 45.
Can't push the camera any further. Stop inspection.

Pipe label: **W-043**
6"Ø Cast-Iron pipe.
43" above water level; 1:30 PM
N 40° 40.662'
W 073° 59.362'
Findings:
A lot of "Black stuff".
58' Blockage ahead, looks like "Black stuff" and debris.
The camera came back covered with the "Black stuff".
Recommends:
Please see digital pictures.
Jet the line and redo the inspection using our CCTV tractor unit.

Pipe label: **W-098 **NEW (bet W-019 and W-043)**
6"Ø Cast-Iron pipe.
48" above water level; 2:22 PM
N 40° 40.674'
W 073° 59.345'
Findings:
21' Camera Can't pass, "Black stuff" covers the camera.
Can't push the camera any further. Stop inspection.
Recommends:
Please see digital pictures.
Jet the line and redo the inspection.
The address on the front of the building shows a Fire department and ambulance garage.

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October 25, 2010

Pipe label: **E-008**
10"Ø Cast-Iron pipe.
18" above water level; 9:28 AM.

N 40° 40.840'
W 073° 59.244'
Findings:
19' Big stones at 9 o'clock.
34' Plastic bags
35' can't pass the plastic bags and debris in the line.
Stop inspection.
Using the camera locator we were able to locate the clogged point from ground level.
Its goes along side of the plantation area, between the building and the sidewalk.
Near by address: 270 Nevins St. Brooklyn, NY.
Working sewer.
Recommends:
Jet and camera to locate the source of the line.

Pipe label: **E-030**
4"Ø Cast-Iron pipe.
8" above water level; 10:07 AM.
N 40° 40.839'
W 073° 59.243'
Findings:
5' Left 45° turn.
12' Heavy corrosion and debris.
17' can't push the camera any further.
Stop inspection.

Pipe label: **E-015**
12"Ø Clay pipe.
14" above water level; 11:04 AM.
N 40° 40.689'
W 073° 59.341'
Findings:
48' Catch basin. End of pipe.
Stop inspection.

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Pipe label: **E-016**
42"Ø Brick pipe.
17" above water level; 11:49 AM.
N 40° 40.682'
W 073° 59.342'
Findings:
30.6' Service connection at 1 o'clock.
46.5' First Manhole.
4" Service connection at 5 o'clock.
165.2' service connection at 5 o'clock.
208' Second Manhole at 12 o'clock.
218.8' Blue Barrel inside of the sewer line.
Can't push the camera any further. Stop inspection.
Recommends:
Jet and camera to locate the source of the line.

Pipe label: **E-032**
20"Ø Asbestos pipe.
50" above water level; 1:53 PM.
N 40° 40.575'
W 073° 59.399'
Findings:
37' Manhole box for the catch basin above, Verizon parking lot.
Left service connection for other floor drains.
Straight service connection for other floor drains.
Stop Inspection.

October 26, 2010

Pipe label: **W-036**
8"Ø Cast-Iron pipe.
4" above water level; 9:05 AM.
N 40° 40.566'
W 073° 59.538'
Findings:
Heavy corrosion.
Pipe is full with debris and plastic bags.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-035**
6"Ø Cast-Iron pipe.
1" below water level; 9:14 AM.
N 40° 40.566'
W 073° 59.538'
Findings:
12' Line is full of debris and plastic bags.
Can't push the camera any further. Stop inspection.
The pipe is in good condition.
Recommends:
Jet the line and redo the inspection.

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Pipe label: **W-037**
4" PVC pipe.
10" above water level; 9:26 AM.
N 40° 40.565'
W 073° 59.546'
Findings:
10' Check valve.
27' Holding tank.
Can't push the camera any further. Stop inspection.

Pipe label: **E-042**
4" Cast-Iron pipe.
16" above water level; 10:00 AM.
N 40° 40.462'
W 073° 59.773'
Findings:
2'; Up 90° elbow.
Floor drain for the parking lot above.
Stop inspection.

Pipe label: **E-041**
4" Cast-Iron pipe.
12" above water level; 10:17 AM.
N 40° 40.483'
W 073° 59.753'
Findings:
2' Up 90° elbow.
Floor drain for the parking lot above.
Stop inspection.

Pipe label: **E-040**
4" Cast-Iron pipe.
14" above water level; 10:22 AM.
N 40° 40.483'
W 073° 59.753'
Findings:
2' Up 90° elbow.
Floor drain for the parking lot above.
Stop inspection.

Pipe Label: **E-039**
8" Cast-iron pipe.
0" above water level; 10:32 AM.
N 40° 40.477'
W 073° 59.756'
Findings:
52' First floor drain with a continues pipe straight.
92' can't push the camera any further. Stop inspection.
We located the first floor drain and measure another 110' for the second one.

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Pipe label: **E-038**
4"Ø Cast-Iron pipe.
19" At water level; 10:56 AM.
N 40° 40.485'
W 073° 59.745'
Findings:
2' Up 90° elbow.
Floor drain for the parking lot above.
Stop inspection.

Pipe label: **E-037**
4"Ø Galvanize pipe.
18" above water level; 11:02 AM.
N 40° 40.494'
W 073° 59.738'
Findings:
2' Up 90° elbow.
Floor drain for the parking lot above.
Stop inspection.

Pipe label: **T3-003**
4"Ø Galvanize pipe.
18" above water level; 11:30 AM.
N 40° 40.466'
W 073° 59.665'
Findings:
Pipe is full of debris and stones.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T3-004**
4"Ø PVC pipe.
45" above water level; 1:00 PM.
N 40° 40.473'
W 073° 59.675'
Findings:
2' Up 90° elbow.
Floor drain for the parking lot above.
Stop inspection.

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Pipe label: **T3-018**
4"Ø PVC pipe.
12" above water level; 1:14 PM.
N 40° 40.472'
W 073° 59.670'
Findings:
1' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
No catch basins, floor drains, or manhole covers were found in the parking lot above.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T3-004A **NEW**
4"Ø Cast- Iron pipe.
18" above water level; 1:23 PM.
N 40° 40.466'
W 073° 59.665'
Findings:
1' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T3-002**
10'' Cast- Iron pipe.
51" above water level; 2:07 PM.
N 40° 40.460'
W 073° 59.646'
Findings:
27.1' 10" Service connection at 3 o' clock.
27.9' Reducer to 6", camera cannot pass the step shoulder of the reducer.
Can't push the camera any further. Stop inspection.

Pipe label: **T3-013**
10'' Cast- Iron pipe.
19" above water level; 2:29 PM.
N 40° 40.465'
W 073° 59.655'
Findings:
56.5' Camera stuck due to corrosion in the pipe.
Pipe shows discharge of "Black Stuff".
Can't push the camera any further. Stop inspection.
Recommendations:
Redo the inspection using our CCTV tractor unit.

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October 27, 2010

Pipe label: **W-057**
12" Cast-Iron pipe.
34"above water level; 9:37 AM.
N 40° 40.500'
W 073° 59.756'
Findings:
23' T Connection at 3 o'clock.
Floor drain box.
Can't push the camera any further. Stop inspection.

Pipe label: **W-056**
12"Cast-Iron pipe.
30" above water level; 9:54 AM.
N 40° 40.505'
W 073° 59.749'
Findings:
22.6' Catch basin box, service connection at 9 o'clock.
No oil marks in the line.
Stop inspection.

Pipe label: **T3-005**
4" PVC pipe.
6" above water level; 10:30 AM.
N 40° 40.485'
W 073° 59.697'
Findings:
2' Up 90° elbow.
Floor drain for the parking lot above.
Stop inspection.

Pipe label: **T3-006**
4" Ø Cast-Iron pipe.
5" above water level; 10:46 AM.
N 40° 40.492'
W 073° 59.715'
Findings:
2' Catch-basin box.
Stop inspection.

Pipe label: **T3-007**
4" Cast-Iron pipe.
2" below water level; 10:56 AM.
N 40° 40.494'
W 073° 59.714'
Findings:
1' Pipe is full of mud.
Can't push the camera any further. Stop inspection.
Recommends:

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Jet the line and redo the inspection

Pipe label: **T3-001**
12" Cast-Iron pipe.
0" above water level; 11:40 AM.
N 40° 40.469'
W 073° 59.645'
Findings:
49.7' Roots in the pipe.
60.9' Leaves and roots.
Can't push the camera any further. Stop inspection.
Recommends:
Please see video.
Jet the line and redo the inspection.

Pipe Label: **E-061**
15" Ø Concrete pipe.
2" above water level; 2:22 PM.
N 40° 40.314'
W 073° 59.875'
Findings:
31.8' Catch basin system for the parking lot above (Path mark).
Stop inspection.

Pipe label: **E-061A **NEW**
6" Clay pipe.
12" At water level; 2:49 PM.
N 40° 40.327'
W 073° 59.910'
Findings:
2' Pipe is full of debris, stones and mud.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **E-060**
10"Ø Clay pipe.
22" above water level; 2:50 PM.
N 40° 40.494'
W 073° 59.738'
Findings:
Nothing to report.

October 28, 2010

Pipe label: **E-057**
15"Ø Cast-Iron pipe.
16" below water level; 9:50 AM,
N 40° 40.221'
W 073° 59.875'
Findings:
7.4' Pipe is broken.
Can't push the camera any further. Stop inspection.

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Pipe label: **E-056**
25"Ø Concrete pipe.
32" below water level.
N 40° 40.222'
W 073° 59.867'
Findings:
88.1' Large stones in the pipe.
The camera can't go any further. Stop inspection.
Recommends:
Need to come back and re-inspect the line, when tide is low.

Pipe label: **E-051**
4"Ø Cast-Iron pipe.
8" above water level; 10:57 AM.
N 40° 40.346'
W 073° 59.856'
Findings:
3' Pipe is full of corrosion and debris.
Can't push the camera any further. Stop inspection.
Recommends:
Please see video.
Jet the line and redo the inspection.

Pipe label: **E-052**
4"Ø Cast-Iron pipe.
8" above water level; 10:57 AM.
N 40° 40.346'
W 073° 59.856'
Findings:
4' Pipe is full of corrosion and debris.
Can't push the camera any further. Stop inspection.
Recommends:
Please see video.
Jet the line and redo the inspection.

Pipe label: **E-049**
4"Ø Cast-Iron pipe.
4" below water level; 11:17 AM.
N 40° 40.354'
W 073° 59.858'
Findings:
0' Pipe is full of mud and debris.
Stop inspection.

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Pipe label: **E-050**
4"Ø Cast-Iron pipe.
2" above water level; 11:17 AM.
N 40° 40.354'
W 073° 59.858'
Findings:
2' Pipe is broken.
Can't push the camera any further. Stop inspection.

Pipe Label: **E-047**
4" Cast-Iron pipe.
0" above water level; 11:46 AM.
N 40° 40.347'
W 073° 59.883'
Findings:
2' Pipe is full of corrosion and debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **E-048**
6"Ø Cast-Iron pipe.
6" At water level; 11:50 AM.
N 40° 40.347'
W 073° 59.883'
Findings:
23' Pipe is full of corrosion and debris.
Can't push the camera any further. Stop inspection.
Pipe is in Good condition.
Recommends:
Jet the line if possible and redo inspection.

Pipe label: **E-046**
4"Ø Cast-Iron pipe.
13" above water level; 11:58 AM.
N 40° 40.346'
W 073° 59.876'
Findings:
1' Pipe is broken.
Full of mud, debris and corrosion.
Can't push the camera any further. Stop inspection.

Recommends:
Jet the line if possible and redo inspection.

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Pipe label: **E-045**
6"Ø Cast-Iron pipe.
6" below water level; 11:58 AM
N 40° 40.346'
W 073° 59.876'
Findings:
Small pieces of pipe.
Nothing to report.
Stop inspection.

October 29, 2010

Pipe label: **W-093**
8" Cast-Iron pipe.
36" above water level; 9:52AM.
N 40° 40.344'
W 073° 59.889'
Findings:
3' Line is clog.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-092**
8" Cast-Iron pipe.
40" above water level; 10:05 AM.
N 40° 40.344'
W 073° 59.888'
Findings:
4' Pipe collapsed.
Stop inspection.
No oil marks in the line.

Pipe label: **T4-001**
12" Cast-Iron pipe.
5" above water level; 11:25 AM.
N 40° 40.354'
W 073° 59.816'
Findings:
6.7' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

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Pipe label: **T4-002**
15" Cast-Iron pipe.
24" below water level; 11:25 AM.
N 40° 40.354'
W 073° 59.816'
Findings:
2' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T4-003**
6" Cast-Iron pipe.
40" above water level; 11:25 AM.
N 40° 40.354'
W 073° 59.816'
Findings:
2' Left 45°.
4' Line is full of debris and corrosion.
Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T4-004**
6" Cast-Iron pipe.
10" below water level; 11:25 AM.
N 40° 40.354'
W 073° 59.816'
Findings:
0' can't go further.
We can't see what is blocking the camera. Stop inspection.
Recommends:
Need to come back when tide is low.

November 1, 2010

Pipe label: **W-067**
20"Ø Clay pipe.
12" above water level; 9:43 AM.
N 40° 40.559'
W 073° 59.552'
Findings:
19.3' Right 45°.
85.6' Manhole box.
Stop Inspection.
Nearby Address: 4th St & Bond St.

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Pipe label: **W-068**
20" Clay pipe.
12" above water level; 9:43 AM.
N 40° 40.559'
W 073° 59.552'
Findings:
52' Bad connection.
82' Manhole box.
Stop Inspection.
Nearby Address: 4th St & Bond St.

Pipe label: **W-069**
18"Ø Clay pipe.
10" below water level; 9:50 AM.
N 40° 40.559'
W 073° 59.552'
Findings:
0'-37. 5' Camera is under water.
51' Bad connection.
80' Manhole box.
Stop Inspection.
Nearby Address: 4th St & Bond St.

Pipe label: **W-070**
18"Ø Clay pipe.
10" below water level; 9:50 AM.
N 40° 40.559'
W 073° 59.552'
Findings:
0'-42' Camera is under water.
52' Bad connection.
Can't push the camera any further. Stop inspection.

Pipe label: **W-099 **New**
8" Cast-Iron pipe.
10" above water level; 11:48 AM.
N 40° 40.564'
W 073° 59.553'
Findings:
5' Pipe is full of debris and grease remains.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label:
Manhole on 4th St. & Bond St.; toward Bond St. manhole is full of water, need to come back.

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Pipe label: **E-027**
12"Ø Cast-Iron pipe.
6" below water level; 2:36 PM.
N 40° 40.566'
W 073° 59.419'
Findings:
0' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe Label: **E-026**
8" Concrete pipe.
9" above water level; 2:52 PM.
N 40° 40.372'
W 073° 59.818'
Findings:
10' Pipe is full of debris, plastic bags, stones, mud and concrete.
Stop inspection.
Recommends:
Jet the line and redo the inspection.

November 2, 2010

Pipe label: **W-049**
6" PVC pipe.
59" above water level; 8:56 AM.
N 40° 40.566'
W 073° 59.631'
Findings:
0' Pipe is full of gravel and mud.
Stop Inspection.
Recommends:
Jet the line and redo the inspection.
***No video.**

Pipe label: **W-100 **NEW**
24"Ø Clay pipe.
36" above water level; 9:17 AM.
80" inside the wall, Below the concrete factory.
N 40° 40.543'
W 073° 59.710'
Findings:
5' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system .

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Pipe label: **W-038**
8"Ø Cast-Iron pipe.
48" below water level; 9:50 AM.
N 40° 40.560'
W 073° 59.645'
Findings:
Oil: Yes
Grease: Yes
Sewage: Yes
6' Line is full of debris and mud.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-052**
10"Ø Cast-Iron pipe.
38" above water level; 10:08 AM.
N 40° 40.558'
W 073° 59.670'
Findings:
3' Pipe is full of mud and debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe label: **W-051**
10" Cast-Iron pipe.
40" above water level; 10:16 AM.
N 40° 40.558'
W 073° 59.670'
Findings:
1' Pipe collapsed.
*Water running.
Stop inspection.

Pipe label: **W-050**
10" Cast-Iron pipe.
40" above water level; 10:16 AM.
N 40° 40.566'
W 073° 59.419'
Findings:
1' Right 45°.
2' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

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Pipe Label: **W-055**
10" Cast-Iron pipe.
64" above water level; 10:42 AM.
N 40° 40.525'
W 073° 59.728'
Findings:
Oil: Yes
18' Bad connection.
38' Pipe is full of debris and corrosion.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe Label: **W-054**
12" Cast-Iron pipe.
62" above water level; 10:42 AM.
N 40° 40.525'
W 073° 59.728'
Findings:
12' Grease marks.
26' Insects inside of the line.
26' Big stones and metal objects in the line.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system .

Pipe Label: **T3-012A **NEW**
12"Ø Cast-Iron pipe.
0" above water level; 12:45 PM.
N 40° 40.525'
W 073° 59.728'
Findings:
Capped pipe-water running out of it.
Can't go inside of the pipe. Stop inspection.

Pipe Label: **T3-012**
12"Ø Cast-Iron pipe.
28" above water level; 12:47 PM.
N 40° 40.525'
W 073° 59.728'
Findings:
41' grease in pipe.
65' Can't push the camera any further. Stop inspection.
Recommends:
Redo the inspection using our CCTV system.

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Pipe Label: **T3-017**
10"Ø Clay pipe.
9" below water level; 1:25 PM.
N 40° 40.525'
W 073° 59.728'
Findings:
Pipe is half full with stones and debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe Label: **T3-012** **Second time using CCTV.**
12"Ø Cast-Iron pipe.
28" above water level; 12:47 PM.
N 40° 40.525'
W 073° 59.728'
Findings:
74.5'; 4" Service connection at 12 o' clock.
89.9'; 12" Service connection at 9 o' clock.
89.9' Large concentrate of grease.
Can't drive the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe Label: **T3-014**
6"Ø Clay pipe.
40" above water level; 2:21 PM.
N 40° 40.469'
W 073° 59.644'
Findings:
4' Up 90°.
5' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe Label: **T3-020**
4" Clay pipe.
30" above water level; 2:35 PM.
N 40° 40.469'
W 073° 59.640'
Findings:
4' Crack in the line.
5' Pipe is full of debris.
Can't push the camera any further. Stop inspection.

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Pipe Label: **T3-010**
12" Clay pipe.
2" above water level; 3:11PM.
N 40° 40.486'
W 073° 59.664'
Findings:
0'-12' **"Yellow stuff"** on the bottom of pipe.
50' Pipe is crack at 6 o' clock.
Can't push the camera any further. Stop inspection.
60' (about) Pipe is broken.
Pipe is working condition.
Recommends:
Jet the line and redo the inspection using our CCTV system.

November 3, 2010

Pipe label: **T3-009**
6"Ø Clay pipe.
8" above water level; 9:05 AM.
N 40° 40.489'
W 073° 59.672'
Findings:
3' Pipe is full of debris.
Can't push the camera any further. Stop Inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T3-021 *NEW***
6"Ø Clay pipe.
10" above water level; 9:21 AM.
N 40° 40.487'
W 073° 59.672'
Findings:
2' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T3-011**
6"Ø Clay pipe.
20" below water level; 9:34 AM.
N 40° 40.483'
W 073° 59.672'
Findings:
3' Pipe is full of debris and corrosion.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

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Pipe label: **T3-008**
6"Ø Clay pipe.
15" above water level; 9:45 AM.
N 40° 40.499'
W 073° 59.682'
Findings:
11' Bad connection.
17' Live clams inside of the pipe.
18' Bad connection, pipe is full of stones.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

Pipe label: **T3-019**
3"Ø Cast-Iron pipe.
29" above water level; 10:26 AM.
N 40° 40.487'
W 073° 59.703'
Findings:
1' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
*No need to jet.

Pipe label: **T3-016**
8" Cast-Iron pipe + Check valve (open/close cover.)
30" above water level; 10:50 AM.
N 40° 40.467'
W 073° 59.650'
Findings:
64' Can't see with the camera mud is blocking the vision.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe Label: **T3-015**
6"Ø Clay pipe.
19" above water level; 11:14 AM.
N 40° 40.487'
W 073° 59.703'
Findings:
9' Opening in the pipe at 12 o'clock (about 5"X2" hole).
17' Roots in the pipe.
17" Pipe is full of debris.
Steady flow in the pipe and **"white stuff"** on the bottom of the pipe.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

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Pipe Label: **T3-022**
8"Ø Cast-Iron pipe.
102" above water level; 11:31 AM.
Start: N 40° 40.456'
W 073° 59.644'
End: N 40° 40.453'
W 073° 59.655'
Findings:
29' Catch basin for a parking lot.

Pipe Label: **W-091**
No pipe.
Findings:
White stuff that comes out of that hole is cement that was used to construct the new porch.
Strong smell of sewage next door about 10 to 15' down stream.
A lot of garbage, can't locate the pipe.

Pipe Label: **W-048**
12" Clay pipe.
14" above water level; 2:33 PM.
Findings:
Grease: Yes
8' Cavity in the pipe, about 2" in length.
26' Large stones inside of the pipe.
Pipe is discharging water.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

November 4, 2010 (Rainy Day).

Pipe label:
W-012, W-013, W-014, W-015
All are floor drains from the RV Buses parking lot.

E-034 Hole in the wall.
***No video**

Pipe label: **W-066**
6"Ø PVC pipe.
50" above water level; 10:45 AM.
N 40° 40.210'
W 073° 59.977'
Findings:
8' Leaves and branch's inside of the line, looks like there is a 45° or 90° or the pipe ends.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

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Pipe label: **W-073**
4" Cast-Iron pipe.
3" above water level; 11:13 AM.
N 40° 40.210'
W 073° 59.977'
Findings:
9' Line is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-064**
4" PVC pipe.
44" above water level; 11:40 AM.
N 40° 40.231'
W 073° 59.987'
Findings:
7' Line has roots and stones.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet the line.

Pipe label: **W-063**
4" PVC pipe.
44" above water level; 11:40 AM.
N 40° 40.231'
W 073° 59.987'
Findings:
19' Roots and stones inside of the line.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet the line.

Pipe label: **W-071** (Push camera)
8" Cast-Iron pipe.
33" above water level; 1:57 PM.
N 40° 40.230'
W 073° 59.985'
Findings:
92' Can't push the camera any further. Stop inspection.
Recommends:
Redo inspection with CCTV system.

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Pipe label: **W-071** (CCTV)
8" Cast-Iron pipe.
33" above water level; 1:57 PM.
N 40° 40.230'
W 073° 59.985'
Findings:
162.9' Holding tank.
Stop inspection.
Another pipe connects to the tank at the same height level at 2 o'clock.

November 5, 2010

Pipe label: **T1-002**
6"Ø Cast-Iron pipe.
0" above water level; 9:28 AM.
N 40° 40.443'
W 073° 59.306'
Findings:
18' Pipe is broken.
Line has roots, stones and mud.
Can't push the camera any further. Stop Inspection.
Recommends:
No need to jet the line.

Pipe label: **T1-003**
10"Ø Cast-Iron pipe.
9" above water level; 9:58 AM.
N 40° 40.472'
W 073° 59.398'
Findings:
Oil: No
Grease: No
Mud/Stones: No
0-1' Crack inside of the pipe at 6 o'clock.
21' Up 90° elbow.
24' can't pass the elbow. Stop inspection.
Pipe is clean and in good condition.
Recommends:
Dye test from the toilet/main trap inside the building.
No need to jet the line.

Pipe label: **T1-004**
6" Cast-Iron pipe.
5" below water level; 10:18 AM.
N 40° 40.492'
W 073° 59.434'
Findings:
4' Cement inside the pipe (100%).
Can't push the camera any further. Stop inspection.
We can see a floor drain above the cement.
Recommends:
No need to jet the line.

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Pipe label: **T1-001**
4" Cast-Iron pipe.
22" above water level; 11:09 AM.
N 40° 40.447'
W 073° 59.347'
Findings:
20' Up 45°.
22' Right 45° going upwards.
24' House trap.
Can't push the camera any further. Stop inspection.
Recommends:
Dye test from the toilet/main trap inside the building.

Pipe label: **T1-007**
8" Cast-Iron pipe (9" pipe to pipe with T1-001 down stream).
25" above water level; 11:23 AM.
N 40° 40.447'
W 073° 59.347'
Findings:
4' -7' crack in the line at 3 o'clock.
12' Pipe is full of debris (about 95% full).
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe label: **T1-005**
6" Cast-Iron pipe.
12" above water level; 11:45 AM.
N 40° 40.471'
W 073° 59.392'
Findings:
0'-1' Line has plastic bags.
1' Bad connection.
17' Sewer collapse / bad connection.
We can see that the pipe continue further in.
Water running on a steady paste, looks like working sewer.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe Label: **T1-008 **NEW**
8" Clay pipe (below T1-001)
0" above water level; 12:08 PM.
N 40° 40.447'
W 073° 59.347'
Findings:
31' Can't push the camera any further. Stop inspection.
Recommends:
Redo the inspection using our CCTV system.

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Pipe Label: **W-023**
8" Cast pipe.
60" above water level; 1:55 PM.
N 40° 40.447'
W 073° 59.347'
Findings:
7'-9' Stones inside the line.
14' Pipe is full of debris (about 95% full).
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet the line, part of the bridge system on 3rd Street.

November 8, 2010

Pipe label: **W-039**
6" Cast-Iron pipe.
5" above water level; 9:03AM.
N 40° 40.537'
W 073° 59.727'
Findings:
Debris: Yes
Grease: Yes
Oil: No
Corrosion: Yes
5' Debris and roots.
12' Left 45°.
39' Pipe is full of debris and corrosion.
Can't push the camera any further. Stop Inspection.
*Concrete factory above.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-053**
10" Clay pipe.
42" above water level; 9:28 AM.
N 40° 40.533'
W 073° 59.725'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
20'-24' Pipe is broken.
31' Floor drain box. We can see day light in the box.
Can't push the camera any further. Stop Inspection.
*Debris and **"white stuff"** on the bottom of the box.
Recommends:
No jet needed.

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Pipe label: **E-074**
10"Ø Cement pipe.
13" above water level; 10:25 AM.
N 40° 40.311'
W 073° 59.894'
Findings:
8' Concrete, plastic and debris inside the line.
Can't push the camera any further. Stop Inspection.
Recommends:
No jet needed.

Pipe label: **W-059**
3" Rubber pipe.
121" above water level; 10:40 AM.
N 40° 40.350'
W 073° 59.861'
Findings:
7' The camera entered the lower part of a storage room.
Stop inspection.

Pipe label: **E-054**
15"Ø Cast-Iron pipe.
37" above water level; 1:00 PM.
N 40° 40.334'
W 073° 59.869'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: Yes
4'-21' Camera is under water.
21' Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe Label: **E-054A **NEW**
15" Cast-Iron pipe (right under E54).
20" above water level; 1:14 PM.
N 40° 40.334'
W 073° 59.869'
Findings:
24' Camera under water and covered in mud.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

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Pipe Label: **E-058**
15"Ø Concrete pipe.
36" above water level; 3:10 PM.
N 40° 40.326'
W 073° 59.882'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
43.6' Floor drain box in path mark parking lot.
Pipe is in good condition.
Stop inspection.
Recommends:
No need to jet.

November 9, 2010

Pipe label: **T2-004**
6"Ø Clay pipe.
6" above water level; 8:47 AM.
N 40° 40.512'
W 073° 59.600'
Findings:
2' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Need to jet the line and redo the inspection.

Pipe label: **T2-003**
5" Cast-Iron pipe.
17" above water level; 9:19 AM.
N 40° 40.495'
W 073° 59.575'
Findings:
8'-10'-12' Toilet paper in the line.
13' Plastic bags and mud.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **T2-002**
7"Ø Concrete pipe.
8" above water level; 9:38 AM.
N 40° 40.492'
W 073° 59.568'
Findings:
No pipe to report, its just a hole in the concrete.
Stop Inspection.

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Pipe label: **T2-010**
4" Clay pipe.
32" above water level; 9:58 AM.
N 40° 40.479'
W 073° 59.537'
Findings:
2' Bad connection.
5' Pieces of wood and debris inside the line.
9' Pipe is full of debris.
Can't push the camera any further. Stop Inspection.
Recommends:
No need to jet the line.

Pipe label: **T1-006**
6"Ø Cast-Iron pipe.
1" above water level; 12:58 PM.
N 40° 40.510'
W 073° 59.435'
Findings:
Debris: Yes
Grease: Yes
Oil: No
Corrosion: No
5'-7' Grease inside of the line.
27' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **E-070**
10"Ø pipe.
19" above water level; 1:30 PM.
N 40° 40.510'
W 073° 59.436'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
0'-24' No pipe present.
24' beginning of the pipe, can't jump the camera up into the pipe.
Stop inspection.
Recommends:
No need to jet this line, a different setup is needed to inspect this pipe.

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Pipe label: **E-043**
6"Ø Cast-Iron pipe.
34" above water level; 2:15 PM.
N 40° 40.510'
W 073° 59.436'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
2' Service connection at 12 o'clock.
11' Up 45°.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet this line.

Pipe Label: **W-090**
6" Cast-Iron pipe.
34" above water level; 2:46 PM.
N 40° 40.460'
W 073° 59.777'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
0'-1' Up 45°.
11' Pipe is half full with oily sand.
Plastic bottle inside the pipe.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet this line.

Pipe Label: **E-068**
6"Ø Diameter pipe.
1" below water level; 3:05 PM.
N 40° 40.443'
W 073° 59.743'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
Other: **"Black stuff"**.
3' Dirt covers the camera eye.
19' Maximum the camera can be pushed.
Recommends:
No need to jet this line.

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Pipe label: **E-036**
10" Clay pipe.
26" above water level; 1:30 PM.
N 40° 40.526'
W 073° 59.720'
Findings:
5'-20' Spider webs inside of the pipe.
21' Pipe is broken at 1o'clock to 3 o'clock.
21' Camera cannot pass the broken section of the pipe.
Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-058**
5"Ø Cast-Iron pipe.
3" above water level; 2:05 PM.
N 40° 40.458'
W 073° 59.769'
Findings:
0' Capped pipe (about 8" of concrete inside the pipe).
Can't push the camera any further. Stop inspection.
Recommends:
Above is the concrete factory.
This pipe may have been cupped recently, due to the activity on the canal.
It is strongly recommend to brake the concentrate and inspect this pipe.

Pipe label: **W-058A **NEW**
About 20' Upstream from W-058.
5" Clay pipe.
13" above water level; 2:22 PM.
N 40° 40.472'
W 073° 59.784'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Pipe is full of debris and oil.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

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Pipe label: **W-094**
4"Ø Cast-Iron pipe.
53" above water level; 5:23 PM.
N 40° 40.568'
W 073° 59.618'
Findings:
1' Stones in the pipe.
Can't push the camera any further. Stop inspection.
Above is the concrete factory.
Recommends:
No need to jet this line.

Pipe label: **W-058B ** NEW****
Across the canal from E-037 and E-038.
6" Clay pipe.
15" above water level; 2:42 PM.
N 40° 40.472'
W 073° 59.784'
Findings:
3' Up 45°.
33'-40' Sand in the pipe about 1/8.
46' Bad connection, plastic bags.
51' Roots and plastic bags.
54' Roots.
60' Roots.
70' Can't push the camera any further. Stop inspection.
Recommends:
No need to jet this line.
Storm use only.

Pipe label: **W-096**
18"Ø Cast-Iron pipe.
53" above water level; 4:44 PM.
N 40° 40.568'
W 073° 59.618'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
4' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

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Pipe Label: **W-095**
12"Ø Cast-Iron pipe.
42" above water level; 4:54 PM.
N 40° 40.568'
W 073° 59.618'
Findings:
70' Camera is under the water.
74.3' Stones on the bottom of the pipe.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

November 11, 2010

Pipe label: **T4-003**
10" Cast-Iron pipe.
56" above water level; 3:30 PM.
N 40° 40.801'
W 073° 59.290'
Findings:
62.5' Y service connection at 3 o'clock (plastic bag in the pipe).
64' Left 45°. Camera can't pass, Stop inspection.
Recommends:
No need to jet this line

Pipe label: **W-079 to W-088**
4" PVC pipes, 29" in length.
60" above water level; 2:26 PM.
N 40° 40.801'
W 073° 59.290'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
Stop inspection.
Recommends:
No need to jet.

Pipe label: **W-060**
3" PVC pipe.
80" above water level; 3:37 PM.
N 40° 40.801'
W 073° 59.290'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
19' Single trap.
Can't push the camera any further. Stop inspection.
Recommends:

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No need to jet.

Pipe label: **W-075**
4" Cast-Iron pipe.
1" below water level; 4:00 PM.
N 40° 40.253'
W 073° 59.963'
Findings:
4' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet this line.

Pipe label: **W-075A**
10' Upstream from W-075.
8"Ø Clay pipe.
12" above water level; 4:07 PM.
N 40° 40.568'
W 073° 59.618'
Findings:
0' Pipe is full of mud and plastic bags.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

Pipe label: **W-061**
4"Ø PVC pipe.
35" above water level; 4:19 PM.
N 40° 40.227'
W 073° 59.930'
Findings:
9' Pipe is full of debris and plastic bags.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet the line.

Pipe Label: **W-062**
4" PVC pipe.
35" above water level; 4:19 PM.
N 40° 40.227'
W 073° 59.930'
Findings:
9' Pipe is full of debris, roots, mud and leaves.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet the line.

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Pipe Label: **E-075**
8"Ø PVC pipe.
27" above water level; 4:53 PM.
N 40° 40.043'
W 073° 59.062'
Findings:
1' Left 45°.
32' Up 45° + Up 45°.
38' We can see the sky.
Can't push the camera any further. Stop inspection.
Recommends:
Roof drain
No need to jet the line.

Pipe Label: **E-076**
2"Ø PVC pipe.
41" above water level; 5:10 PM.
N 40° 40.043'
W 073° 59.062'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
3' Up 45°.
4' Down 45°.
6' Can't push the camera any further. Stop inspection.
Recommends:
No need to jet the line.

November 12, 2010

Pipe label: **T2-007**
5"Ø Cast-Iron pipe.
6" below water level; 8:25 AM.
N 40° 40.564'
W 073° 59.589'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
0' Pipe is full of debris.
Stop inspection.
Recommends:
No need to jet.

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Pipe label: **T2-008**
5"Ø Cast-Iron pipe.
30" above water level; 8:47 AM.
N 40° 40.528'
W 073° 59.564'
Findings:
3' pipe in length. Pipe is not connected to anything.
Can't push the camera any further. Stop inspection.

Pipe label: **T2-005 005A 005B (three pipes)**
8"Ø Diameter pipe.
13" above water level; 9.00 AM.
N 40° 40.510'
W 073° 59.566'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
Three pipes, 2' below the roof of the building, looks like a roof drains.
Can't push the camera in to the pipes, Stop inspection.
Recommends:
We need to ask permission from the landlord.

Pipe label: **T2-001**
6"Ø Cast- Iron pipe.
2" below water level; 9:25 AM.
N 40° 40.490'
W 073° 59.562'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
12'-18' Camera is under the water,
18' Can't push the camera any further. Stop inspection.
No visual image.
Recommends:
No need to jet this line.

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November 15, 2010

Pipe label: **E-071**
12"Ø Cast-Iron pipe.
10" above water level; 8:25 AM.
N 40° 40.416'
W 073° 59.807'
Findings:
Debris: Yes
Grease: Yes
Oil: No
Corrosion: Yes
22' Pipe is full of debris, mud and stones.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using the CCTV system.

Pipe label: **E-071A **New**
39" Down Stream from E-071.
6"Ø Cast-Iron pipe.
30" above water level; 8:42 AM.
N 40° 40.416'
W 073° 59.807'
Findings:
2' Pipe collapsed.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet this line.

Pipe label: **E-062**
6"Ø Cast-Iron pipe.
40" above water level; 9:10 AM.
N 40° 40.260'
W 073° 59.913'
Findings:
Cluster of phone line pipes, going in or out of the water.
Recommends:
N.A.

Pipe label: **E-012**
12"Ø Cast- Iron pipe.
6" above water level; 9:25 AM.
N 40° 40.250'
W 073° 59.913'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
19' Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using the CCTV system.

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Pipe label: **E-012A **New**
About 14' upstream from E-012.
12"Ø Cast- Iron pipe.
6" above water level; 9:25 AM.
N 40° 40.250'
W 073° 59.913'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
6' Capped pipe-concrete inside the pipe.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

Pipe label: **E-011**
12"Ø Cast- Iron pipe.
2" above water level; 10:00 AM.
N 40° 40.243'
W 073° 59.920'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
12' Stones on the bottom of the pipe.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using the CCTV system.

Pipe label: **E-013**
12"Ø Cast- Iron pipe.
1" above water level; 10:25 AM.
N 40° 40.250'
W 073° 59.925'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
13' Pipe is full of debris.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using the CCTV system.

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Pipe label: **E-011A **New**
About 30' Upstream from E-013.
12"Ø Cast- Iron pipe.
3" above water level; 10:39 AM.
N 40° 40.231'
W 073° 59.925'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: Yes
16' Pipe is full of debris, electric wires, roots stones and corrosion.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using the CCTV system.

Pipe label: **W-076**
13"Ø Cast- Iron pipe.
10" above water level; 11:30 AM.
N 40° 40.114'
W 073° 59.135'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
6' Left 90°.
37' Camera can't jump up and pass the connection. Stop inspection.
Recommends:
No need to jet. Need to come back with the CCTV system.

Pipe label: **W-077**
10"Ø Cast- Iron pipe.
29" above water level; 11:50 AM.
N 40° 40.100'
W 073° 59.138'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
42.2' Manhole box.
44' Service connection at 3 o'clock.
Camera cannot pass the manhole box. Stop inspection.
Recommends:
Get access to the MH cover in order to move the camera in to the service connection.

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Pipe label:**W-076 CCTV System.**
13"Ø Cast- Iron pipe.
10" above water level; 11:30 AM.
N 40° 40.119'
W 074° 00.144'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
6' Left 90°.
63.3' Service connection at 9 o'clock.
67.8' Catch basin. Stop inspection.

November 16, 2010

Pipe label: **E-009**
12" PVC pipe.
18" above water level; 8:25 AM.
N 40° 40.825'
W 073° 59.266'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
30.7' Service connection at 2 o'clock.
Manhole box is inside privet property.
Stop inspection.
Recommends:
No need to jet.

Pipe label: **E-006**
36" Cast-Iron pipe.
15" below water level; 9:10 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
Poor vision inside the line, the water is muddy and with "powdery" particles.
Can't drive the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **E-005**
36" Cast-Iron pipe.
15" below water level; 9:10 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
4.4' Camera sits on mud.
10.4' Camera digs in to the mud.
Can't drive the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

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Pipe label: **E-004**
36" Cast-Iron pipe.
15" below water level; 9:10 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
17.6' Camera digs in to the mud.
Can't drive the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **N-001B **New**
10"Ø Cast- Iron pipe.
16" above water level; 11:55 PM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
7' Right 45°.
25' Left 45°.
70' Manhole box.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

Pipe label: **N-001A **New**
8" Concrete pipe.
15" above water level; 12:28 PM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
5' Pipe is full of debris, stones and plastic bags.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using the CCTV system.

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Pipe label: **N-001**
12" Clay pipe.
30" above water level; 12:32 PM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
4' Pipe is full of debris, and stones.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using the CCTV system.

Pipe label: **W-001 (with check valve)**
12" Cast Iron pipe.
3" above water level; 1:22 PM.
N 40° 40.231'
W 073° 59.925'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: Yes
Other: White stuff
13' Catch basin box.
25' second box with "white stuff", plastic bottle.
25' Service connection at 9 o'clock.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

Pipe label: **E-007**
4" Cast- Iron pipe.
6" above water level; 3:08 PM.
N 40° 40.840'
W 073° 59.254'
Findings:
Debris: No
Grease: No
Oil: Yes
Corrosion: Yes
7' Round object inside the pipe. The pipe runs farther in.
Remains of "Black Stuff" along the pipe.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

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November 17, 2010

Pipe label: **E-006**
36" Cast-Iron pipe.
17" below water level; 10:05 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
20' Large city storm-sewer (the with of the road above). Stop inspection.
Recommends:
No need to jet.

Pipe label: **E-005**
36" Cast-Iron pipe.
12" below water level; 10:24 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Other: **"Black stuff"**
14.2' Can't drive the camera any further. Stop inspection.
15' Large object blocks the pipe.
A lot of Oil/Black stuff in pipe.
Recommends:
No need to jet.

Pipe label: **E-004**
36" Cast-Iron pipe.
11" below water level; 10:53 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
18' Car tire inside the pipe. Stop inspection.
20' Same city storm-sewer.
Recommends:
No need to jet.

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Pipe label: **E-003**
36" Cast-Iron pipe.
9" below water level; 11:05 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: Yes
Oil: Yes
Corrosion: No
20' Same city storm-sewer
Recommends:
No need to jet.

Pipe label: **E-002**
36" Cast-Iron pipe.
7" below water level; 11:44 AM.
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
20' Same city storm-sewer
Stop inspection.
Recommends:
No need to jet.

Pipe label: **E-001**
36" Cast-Iron pipe.
5" below water level; 12:18 PM
N 40° 40.837'
W 073° 59.246'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
20' Same city storm sewer.
The city storm-sewer has a lot of oil, grease and debris.
Recommends:
No need to jet.

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Pipe label: **E-010**
8" Clay pipe.
2" above water level; 2:10 PM.
N 40° 40.792'
W 073° 59.299'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
2'-9' Camera is under water.
12' Hole in the pipe at 1 o'clock.
19' Pipe collapsed. Miss alignment between 2 sections of the pipe about 6" in height.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

Pipe label: **E-031**
9" Concrete pipe.
10" above water level; 2:30 PM.
N 40° 40.792'
W 073° 59.303'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
Other: Stones & Leaves
17' Pipe is full of debris, leaves, stones and sand.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

Pipe label: **W-006**
12"Ø Cast- Iron pipe.
2" below water level; 3:05 PM.
N 40° 40.853'
W 073° 59.258'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
2' Cavity in pipe at 12 o'clock.
3.9' Mud and debris (pipe continues).
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

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November 18, 2010

Pipe label: **W-042**
8"Ø Clay pipe.
18" above water level; 9:00 AM.
N 40° 40.688'
W 073° 59.346'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Other: Black Stuff
5' Pipe is full of stones, leaves and **"Black stuff"** covers the camera.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-018**
8"Ø Cast-Iron pipe.
35" above water level; 9:20 AM.
N 40° 40.685'
W 073° 59.346'
Findings:
Debris: Yes
Grease: Yes
Oil: Yes
Corrosion: No
Other: Black stuff
5' "Black stuff" and debris in the pipe.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection.

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Pipe label: **W-012A **New (About 15' upstream from W-012)**
8"Ø Cast-Iron pipe.
21" above water level;10:20 AM.
N 40° 40.692'
W 073° 59.323'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: Yes
Other: "White Stuff"
3' Right service connection / hole in the pipe.
18'-21' Camera under water.
39' 2" Service connection at 12 o'clock.
43' 2" Service connection at 12 o'clock.
64' 4" Service connection at 12 o'clock.
64' Pipe is in working condition and is discharging water. "White Stuff" coating on the pipe
69' 2" Service connection at 12 o'clock.
80' Can't push the camera any further. Stop inspection.
Recommends:
Redo the inspection using the CCTV system.

Pipe label: **W-015A **New (6' Downstream from W-015)**
4"Ø Unknown pipe.
34" above water level; 10:55 AM.
N 40° 40.704'
W 073° 59.355'
Findings:
Debris: No
Grease: No
Oil: No
Others: "Black Stuff"
Corrosion: No
2' Pipe is full of **"Black Stuff"**.
Stop inspection.
Recommends:
Jet the line and redo the inspection.

Pipe label: **W-041**
Findings:
Electric cable that goes under the canal to the other side.
Recommends:
No need to jet.

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Pipe label: **E-009A **New**
10"Ø Cast-Iron pipe.
4" below water level; 12:36 PM.
N 40° 40.704'
W 073° 59.355'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
0'-6' Camera is under water.
21' Pipe collapsed. Pipe continues farther in and discharging water.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

November 19 2010

Pipe label: **T2-011**
6"Ø Clay pipe.
56" above water level; 9:00 AM.
N 40° 40.497'
W 073° 59.562'
Findings:
Debris: No
Grease: No
Oil: Yes
Corrosion: No
13' Pipe is cupped with concrete.
Can't push the camera any further. Stop inspection.
Recommends:
No need to jet.

Pipe label: **T2-009**
Barge in the canal
Findings:
We couldn't find any pipes connected above the water.

Pipe label: **T2-006**
6"Ø Clay.
6" above water level; 11:10 AM.
N 40° 40.520'
W 073° 59.594'
Findings:
Debris: No
Grease: No
Oil: No
Corrosion: No
2' Pipe is cupped with cement.
Can't push the camera any further. Stop inspection.
Recommends:
Locate the catch basin in side the private property above.

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Pipe label: **W-043 (Was jetted)**
6"Ø Cast-Iron pipe.
25" above water level; 9:50 AM.
N 40° 40.662'
W 073° 59.362'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Other: "Black stuff"
60' Catch basin, "Black stuff" and debris in it.
Can't push the camera any further. Stop inspection.
Recommends:
Locate the catch basin in side the privet property.

Pipe label: **W-089**
6"Ø Cast-Iron pipe.
47" above water level; 11:46 AM.
N 40° 40.442'
W 073° 59.786'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
6' mud covers the camera – prevent us to view beyond that point. Stop inspection.
Recommends:
Use by the 6th street bridge.
If needed we will jet and re-inspect the line.

Pipe label: **W-044**
6"Ø Cast-Iron pipe.
58" above water level; 12:09 PM.
N 40° 40.437'
W 073° 59.800'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
10' pipe is full debris, send, mud and plastics.
Can't push the camera any further. Stop inspection.
Recommends:
Use by the 6th street bridge.
If needed we will jet and re-inspect the line.

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Pipe label: **W-065**
5'x5' concrete box.
Findings:
Used to be part of the dock.
Recommends:
No pipes to report.
Pipe label: **W-074**
24"x24" Wooden box.
3" under water level; 9:50 AM.
N 40° 40.205'
W 073° 59.973'
Findings:
Debris: Yes
Grease: TBD
Oil: TBD
Corrosion: TBD
12' mud covers the camera – prevent us to view beyond that point. Stop inspection.
Can't push the camera any further. Stop inspection.
Recommends:
Jet the line and redo the inspection using our CCTV system.

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CITY SEWER SPECIALISTS Corp.

Gowanus Canal
Pipe investigation for contaminated pipes
Daily Summary Report

Attached with this report are video DVDs of the inspections.

Client:
Lockheed Martin Information & Technology Service
2339 Route 70 West Cherry Hill, NJ 08002-3315

Project description:
Pipe investigations at Gowanus Creek site, Brooklyn, NY.
In the REP Solicitation for SERAS program project #0-59 pipe investigation at Gowanus canal.

Dates:
December 6th to December 9th 2010

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List of remaining pipes that need to be jetted, take oil samples, redo inspection:

E-007 4” Cast-Iron pipe.
T3-012 12” Cast-Iron pipe.
T3-013 10” Cast-Iron pipe.
W-015A 4” Cast-Iron pipe. (6' Downstream from W-015)
W-018 8” Cast-Iron pipe.
W-042 8” Clay pipe.
W-044 6” Clay pipe.
W-046 9' Clay pipe.
W-098 6” Cast-Iron pipe.

Please note:
This report indicates all the pipes that we found oil in them.
Oil samples were taken from these pipes during the water jetting.

- E-001 to E-006 36” Cast-Iron pipes: all six pipes connect to a large storm sewer under Douglass street.

Based on our observation, the first 30 feet, East of the canal into Douglass street, are a dumping ground for the local people to dispose of their liquid wastes.

- W-042, W-018, W-098, W-043. Those pipes come from 400 Carroll street lot.

All the pipes above were filled with oil. In all of them, when we took the camera out, it was covered with oil.
When we were in the process of jetting the pipes, the “owner” approached us, prevented us from docking our boat and didn't let us complete our job.

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Pipe label: **W-042**
8”Ø Clay pipe.
18” above water level; 9:00 AM
N 40º 40.688'
W 073º 59.346'
Findings:
Debris: Yes
Grease: No
Oil:Yes
Corrosion: No
Other: No
5' Big stone is blocking the pipe.
The pipe collapsed.
Camera cannot pass. Stop Inspection.
Oil remains inside the pipe.

Pipe label: **W-002 (wasn't jetted, No oil sample)**
36”Ø Concrete pipe.
2” below water level; 2:00 PM.
N 40º 40.575'
W 073º 59.399'
Findings:
Debris: Yes
Grease: No
Oil:Yes
Corrosion: No
1' The transporter sank in oil and sand, couldn’t move forward.
Stop Inspection.
Recommends:
Need to jet the line and redo the inspection using the CCTV system.

Pipe label: **W-002A 6” Upstream from W-002 (wasn't jetted, No oil sample)**
12”Ø Concrete pipe.
4” below water level; 2:00 PM.
N 40º 40.689'
W 073º 59.341'
Findings:
Debris: Yes
Grease: No
Oil:Yes
Corrosion: No
1' The transporter sank in oil and sand, couldn’t move forward.
Few attempts were made to inspect the line.
Stop Inspection.
Recommends:
Need to jet the line and redo the inspection using the CCTV system.

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w w w . S e w e r S p . c o m

December 7, 2010
Second shift.

Pipe label: **W-015A**
8”Ø Clay pipe.
18” above water level; 9:00 AM
N 40º 40.688'
W 073º 59.346'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Other: No
18'-22' Camera is under water.
50'-52' Camera is under water.
64' Working house trap.
Recommends:
No need to jet the line.

Pipe label: **W-044**
6”Ø Cast-Iron pipe.
58” above water level; 12:09 PM.
N 40º 40.631'
W 073º 59.380'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Other: White stuff.
8'-16' Pipe is cracked.
18'-40' Camera is under water.
73' Pipe is cracked.
112' Reducer cup from 6” to 4”.
White stuff pours out of the pipe.
Camera cannot move any further. Stop Inspection.
Recommends:
No need to jet this line.
The camera stopped under the truck parking lot. N 40º 40.645' W 073º 59.395'

Pipe label: **W-045**
6”Ø Cast-Iron pipe.
33” above water level; 2:42 PM.
N 40º 40.662'
W 073º 59.389'
Findings:
Debris: Yes
Grease: No
Oil:Yes
Corrosion: No
Other: No
No video was taken.
6' Pipe has oil and garbage inside.
Stop Inspection.
Recommends:
The pipe needs to be jetted again, and redo the inspection.

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December 8, 2010
Second shift.

Pipe label:**W-018**
8”Ø Cast-Iron pipe.
35” above water level; 9:20 AM
N 40º 40.685'
W 073º 59.346'
Findings:
Debris: Yes
Grease: No
Oil:No
Corrosion: No
Other: No
8'-15' Camera is under water. Stones block the camera from passing.
The jet and camera was inserted together.
There is a small structure above ground looks like a shack about 15' away from the canal.
Recommends:
No need to jet the line again, a quick look inside the shack is necessary, to look for a sink/floor drain.

Pipe label:**W-098**
6”Ø Cast-Iron pipe.
48” above water level; 2:22 PM
N 40º 40.674'
W 073º 59.345'
Findings:
Debris: Yes
Grease: No
Oil:Yes
Corrosion: No
Other: No
18'-28' Camera is under water and oil. Low visibility.
Neighbors won't allow us to tie our boat to his barge to jet and redo the inspection.
Stop Inspection.
Recommends:
Need to jet the line and redo the inspection.

Pipe label:**T3-013**
10”Ø Cast-Iron pipe.
19” above water level; 2:29 PM
N 40º 40.465'
W 073º 59.655'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Other: No
110.2' Service connection at 3 o'clock.
156.3' Right 90º.
Camera cannot make the turn. Stop Inspection.
Recommends:
No need to jet the line.

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December 9, 2010
Second Shift.

Pipe label: **E-007**
4”Ø Cast-Iron pipe.
6” above water level; 3:08 PM
N 40º 40.840'
W 073º 59.254'
Findings:
Debris: Yes
Grease: No
Oil: No
Corrosion: No
Other: No
50' Right 90º.
59' **Capped pipe** with concrete.
Camera cannot go any further. Stop Inspection.
Recommends:
No need to jet the line.

Pipe label: **T3-12**
12”Ø Cast-Iron pipe.
28” above water level; 12:47 PM
N 40º 40.525'
W 073º 59.728'
Findings:
Debris: Yes
Grease: No
Oil: Yes
Corrosion: No
Other: No
80.7' Service connection at 12 o'clock.
96.3' Service connection at 9 o'clock.
135.2 Cannot pass the blockage on the side of the pipe. Stop Inspection.
137' Plastic bottles in the line
Recommends:
Need to jet the line and redo the inspection.

End of report.

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Appendix H
Data Quality Evaluation

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Appendix H Data Quality Evaluation

1 Introduction: Data Quality Assessment

This data quality evaluation (DQE) assesses the effect of the overall analytical process on the "availability" of the analytical data. "Availability" in this context refers to whether results can be used by the project team based on their analytical soundness. If a result is analytically sound, it is available for use for evaluating the potential releases, nature and extent of contamination, and estimating potentially associated human health and ecological risks. However, a particular result or group of results may not be "usable" for these purposes if other conditions apply. For example, if there were a hypothetical site where a trichloroethylene (TCE) spill had occurred and the TCE data for many or all of the samples were rejected, the data may not be usable for making site-specific determinations even if all the non-TCE data were analytically sound and available for use by the project team. In order to avoid confusion of terms, this data quality evaluation differentiates the "availability" of results from "usability" of results. "Available" results are analytically sound and available for use by the project team to make decisions, even if they are not usable for a particular purpose.

The three major categories of data evaluation are laboratory performance, field collection performance (i.e. blank contamination), and matrix interferences. Evaluation of laboratory performance is a check for compliance with the method requirements; in other words, a check of whether the laboratory analyzed the samples within the limits of the analytical method. Depending on the type of data, an independent USEPA data validator may have also conducted a review of the laboratory data to assess whether the analytical methods were within required control limits at the time of analysis. An internal (i.e. non-USEPA) data validator may also perform this task. Evaluation of potential matrix interferences involves the review of several areas of results, including but not limited to surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Evaluation of field collection performance, such as blank contamination and field duplicates, involves the review of field quality control (QC) and the determination of their effect on the sample results.

The data evaluation and validation is a multi-tiered approach. The process begins with an internal laboratory review, continues with an independent review by an USEPA or internal data validator (if applicable), and ends with an overall review by the contractor project chemistry team. While only the data validator (USEPA or internal) is allowed to apply qualifiers to the data, the process allows for data quality to be thoroughly evaluated.

1.1 Laboratory Internal Quality Control Review

Prior to releasing the analytical data, the laboratory reviews both the sample and QC data to verify sample identity, instrument calibration, quantitation limits, dilution factors, numerical computations, accuracy of transcriptions, and chemical interpretations. In addition, the QC data are tabulated and the results reviewed to ascertain whether they were within the contract-required limits for accuracy and precision. Any non-conforming data

are discussed in the data package cover letter and case narrative. The case narrative is then reviewed by the data validator. If necessary, qualifiers are applied based on this information.

1.2 Levels of Data Validation

All data collected under UFP-QAPP, the project-specific quality assurance project plan, were verified and validated according to the procedures outlined in Worksheets 34, 35, and 36. In general, definitive data, which are typically "Full TCL/TAL" and generated through the CLP laboratory, are Level IV validated through the CLP program. Definitive data not generated through the CLP laboratory, such as air data, are Level III validated by an internal validator. Screening data, such as wet chemistry parameters associated with definitive data, are Level III validated by an internal validator. Screening data, such as GRAINSIZE and AVSSEM, are Level II validated by an internal validator. Investigation-derived waste (IDW) data, which are used only for determining disposal options, undergo a very low-level validation, which is typically a check for completeness and usability. Secondary data, which are that generated by another entity are validated by that entity according to that entity's QAPP. Therefore, the vast majority of data were subject to data validation by an independent USEPA data validator.

When applicable, an independent USEPA data validator reviewed all data packages using the validation criteria defined by USEPA Contract Laboratory Program (CLP) and specific to Region II. This guidance was applied to the data to help the validator create a thorough and systematic approach to the validation process. As stated above, the data validation process was independent and separate from the laboratory's internal review. The process was specifically focused on the effects of the laboratory's performance and sample matrix on the analytical results. Areas of review consisted of holding time compliance, surrogate recovery accuracy, matrix spiked sample precision and accuracy, blank contamination, initial and continuing calibration accuracy and precision, laboratory control sample accuracy, internal standard response and retention time accuracy, instrument tune criteria accuracy, and duplicate sample precision (laboratory and field duplicates). Additionally, the analytical spectrum and raw data output were reviewed and laboratory results selected by the validator were recalculated from the raw data to verify final laboratory quantitation.

1.3 Selection of Results

When multiple analyses are performed, it is usually due to dilution and reanalysis. It is sometimes due to multiple concentration ranges or repeating analytes across analysis groups. This often results in greater than one result per analyte per sample. More-specifically, there should be only one numerical result per CAS number per preparation (total, filtered, SEM, TCLP, SPLP, etc.) per sample ID. If duplicates occur, they must be systematically excluded. The data validator typically does this when it is due to analytical requirements such as dilution and reanalysis. This may leave duplicates due to concentration ranges such as when an analyte appears in both "Trace VOC" and "Trace VOC by SIM" or in both "Low SVOC" and "Low SVOC by SIM". It may also leave duplicates due to analysis groups such as when an analyte appears in both VOC and SVOC (not typical for CLP analysis) or when an analyte appears in both SVOC and Explosives (note that Explosives were not analyzed as part of this project). It is acceptable for these duplicates to occur because the results may be analytically sound and usable.

However, it is difficult to interpret results when there is more than one result per constituent per sample. Therefore, the "best result" is selected in order to prevent redundancy. Whether the data validator, an internal data validator, or a database manager is selecting a best result, a similar procedure is always used:

1. The non-rejected result is selected. If there are two or more results per analyte per sample, and one is rejected, then the rejected result is eliminated first in favor of non-rejected results. This is especially useful when the laboratory experiences a serious QA/QC deficiency and reanalyzes; the data user is forced to consider the result from the better analysis.

2. The result from the proper dilution factor is selected. If there are two or more results per analyte per sample due to multiple dilutions, then the result from the best dilution factor is selected. This is typically the lowest dilution factor (preferably 1X dilution). However, if a particular result exceeds the calibration range, then it is less accurate than a result from a greater dilution that is within the calibration range. Note that this may result in a lesser result being selected in favor of a greater result (when both results are analytically sound) when the lesser result is more accurate. Only a data validator does this. Sometimes a result does not fall into a proper dilution range (for example, over calibration range at 1X, less than CRQL or QL at 5X). In this case, the greater of detects is selected, but either result would be J-qualified to indicate the exceedance.

3. The detect is selected. If there are two or more results per analyte per sample and one or more is detected, then detected results are selected in favor of nondetected results. This results in a conservative data use.

4. The greater of detects is selected. If there are two or more results, all detected, and all are analytically sound (and not covered by one of the conditions above), then the greater of detects is selected. This results in a conservative data use.

5. The lesser of nondetects is selected. If there are two or more results, all nondetects, and all are analytically sound (and not covered by one of the conditions above), then the lesser of nondetects is selected. This prevents the data user from considering nondetect results (CRQLs or QLs) which are elevated due to various reasons when there are perfectly acceptable low CRQLs or QLs.

Selected results (those not excluded due to redundancy) should be used for reporting purposes. These may include rejected results. When rejected results are selected for reporting, they must be accompanied by the R-flag to indicate that they are not available for use or inclusion in statistics. The reporting of R-flagged results does not suggest the use of R-flagged results. They are reported in order to show that the constituent was collected and analyzed but the result is not acceptable (as opposed to not collected or not analyzed).

The exclusion of results because a "better" result exists does not affect completeness or count against data availability. That is because completeness is considered on the distinct set of results (one result per analyte per sample as described above). Completeness is negatively affected when a rejected result is included because a "better" result does not exist.

1.4 Qualification of Data

Qualification of data is not an unusual occurrence. To define a laboratory QC exceedance and when a laboratory QC exceedance occurs, the laboratory refers to its in-house Standard Operating Procedures (SOPs). The SOPs are based on program requirements, the requested USEPA CLP analytical method, and accumulated laboratory experience. When a laboratory QC exceedance occurs, the situation may be acceptable or it may require further action by the laboratory, such as application of a laboratory qualifier or reanalysis of the sample. The data validator uses a separate set of QC criteria, based on guidance from the USEPA region that applies to the samples. A laboratory QC exceedance may not constitute a data validation exceedance and a data validation exceedance may not constitute a laboratory QC exceedance. Data validation criteria exceedances may result in the qualification of or rejection of data, as deemed appropriate by the third-party data validator.

The data validator examines each data point and determines any effects that QC exceedances have had. Most often, these effects dictate that the result or quantitation limit should be considered estimated, but is still available for use. The J-qualification, UJ-qualification, NJ-qualification, and U-qualification of results are common occurrences and have no adverse effect on the availability of that result to the project team for making decisions. J-qualified and NJ-qualified results are available, at the reported result, for use as detects as long as they are considered "estimated" by the project team. Human health risk assessment guidance suggests that these qualifiers "indicate uncertainty in the reported concentration of the chemical, but not in its assigned identity. Therefore, these data can be used just as positive data with no qualifiers or codes." In addition, one should use "J-qualified concentrations the same way as positive data that do not have this qualifier" (Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual. (Part A) EPA/540/1-89/002. Office of Emergency and Remedial Response, U.S. Environmental Protection Agency, Washington, D.C. 1989). U-qualified and UJ-qualified results are available, at the reported quantitation limit, for use as non-detects as long as they are considered "non-detect," "attributable to blank contamination," or "non-detect, estimated quantitation limit," as appropriate.

Electronic data for this project are accompanied by data qualifiers (U, J, etc.) but not reason codes (BL: due to blank contamination; BRL: below reporting limit; etc.). The reason for data qualification can be found in the data validation reports which accompany the laboratory data. Because the reason codes are not available electronically, they were not considered (for purposes of generating statistics and patterns) as part of this data quality evaluation. This is because, as above, most qualification results in data that are usable in the same way as unqualified data. Because rejection indicates a severe exceedance, the reason for rejection was investigated (in the data validation reports) when rejection occurred.

In extreme cases, a result is rejected and deemed to be unusable. "Unusable" in this instance is defined as a result that is not analytically sound and is not generally considered available for use by the project team. In some cases, the project team may still decide to use a rejected result. An example of such occurrence would be if a result is rejected because it is biased extremely high, yet it is still below the project action limits. A conservative decision may be made to consider this result a non-exceedance, even if its concentration was rejected. For that reason, it is important to examine why a result was rejected. For the most part,

however, rejected results are not usable, and the R-qualifier is the only qualifier that has an adverse effect on the availability of data.

In large data sets, rejected results are often inconsequential because there are sufficient non-rejected data available to the project team. If there are enough non-rejected data or the project team is able to infer results from adjacent sampling locations or there is other site-specific information that can provide additional lines of evidence, it may not be necessary to know the concentrations of some rejected constituents. It may also not be necessary to prove a constituent's absence if there are sufficient additional lines of evidence.

The following data validation qualifiers were applied to one or more analytical results:

- **U** - Not detected. The sample was analyzed for this parameter, but it was not detected at greater than the reported quantitation limit. The data validator may also apply this qualifier to indicate that a concentration is attributed to blank contamination. In this instance, the qualifier may indicate "not detected at significantly greater than that in an associated blank". The U-qualifier does not necessarily indicate a quality control problem.
- **UJ** – Not detected, quantitation limit is estimated. Sample was analyzed for this parameter, but it was not detected above the reported quantitation limit. The quantitation limit for this parameter is estimated due to a quality control issue.
- **J** - Concentration estimated. The parameter was positively identified and the associated numerical value is the approximate concentration of the parameter in the sample.
- **NJ** – Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.
- **R** - Rejected. The result was rejected due to a quality control issue. The presence or absence of the parameter cannot be verified and the result generally is not usable as detected or not detected.
- **[null] -** Detected. Qualification was not warranted.

In some cases, the data validation qualifier is the same as the laboratory qualifier ([null], J, and U). When this occurs, the data are said to be acceptable as reported because the data validator did not need to apply additional qualification.

2 Impact of Data Quality on Project Data Quality Objectives and Data Usability

The laboratory or laboratories analyzed the samples in accordance with USEPA CLP methods, EPA methods, ASTM methods, Standard Methods, and SW-846 methods. The data packages were reviewed by an independent USEPA data validator or an internal validator using USEPA guidance.

The laboratory utilized various qualifiers to represent "below reporting limit," "non-detect," and "detected" among others that indicate a laboratory quality assurance / quality control (QA/QC) exceedance. The data validator utilized J-qualifiers, NJ-qualifiers, UJ-qualifiers, U-qualifiers, and R-qualifiers to represent "estimated," "presumptively present at approximate quantity," "non-detect, estimated quantitation limit," "non-detect" or "attributable to blank contamination," and "rejected," respectively.

The J- and UJ-qualifiers indicate that some results are estimated. These qualifiers indicate that data are available for use as detects and non-detects, respectively. These qualifiers do not necessarily indicate a problem that adversely affects the availability of data. For example, J-qualifiers are often applied simply because results are below the quantitation limit.

Region II data validation guidance mandates the use of J- and UJ-qualifiers when QA/QC exceedances dictate their necessity. If the direction of bias is known, it is not implied by the J- or UJ-qualifier. If a result is attributable to blank contamination, it is U-qualified and is no longer distinguishable from results that are simply non-detect. This supports the practice that J-qualified results, while estimated, are available for use as detects at their qualified concentration and U- and UJ-qualifiers are available for use as non-detects at their qualified quantitation limit. In general, J-, UJ-, and U-qualified results are available for use as qualified for evaluating potential releases, the nature and extent of contamination, and estimating potentially associated human health and ecological risks.

It is a common occurrence for achieved quantitation limits to be greater than project action limits or for quantitation limits to be elevated to greater than what was expected or requested at the time of planning activities. In many cases, project action limits (PAL) are simply very low or the laboratory was forced by the analytical method to raise the quantitation limit (QL) to a Contract Required QL (CRQL). These instances of QL v. PAL exceedance are acknowledged and detailed by Worksheet 15 of the project-specific Quality Assurance Project Plan (UFP-QAPP). In other cases, the laboratory is forced to modify the analytical method or select another analytical method in order to accommodate a difficult matrix or a free product. In these instances, the analytical data are often used to identify the matrix as opposed to determining whether or not a groundwater, soil, or sediment criterion is exceeded.

In the instance where non-detect quantitation limits are greater than project action limits, the results are available for use as non-detects, but their use adds uncertainty to the conclusions drawn. There are a variety of potentially unavoidable reasons why the quantitation limits of non-detect results may exceed project action limits:

- If a criterion (project action limit) is very low, current instrumentation technology may not be able to achieve a QL less than the project action limit.
- The quantitation limit may have been established at a time when the criterion (project action limit) was higher (less stringent), but the reporting is being done against new (more stringent) criteria. This can also occur when unanticipated project action limits emerge after the project-planning stage.
  - This is often the case when using older (perhaps historic) and secondary data.
- If the laboratory utilizes an analytical method with contract-required quantitation limits (CRQLs) or contract-required detection limits (CRDLs), the analytical method requirements may force the laboratory to report the quantitation limit at a level higher than the project action limit.
- If a target compound or analyte is present at an elevated level, the laboratory will dilute the entire sample in order to report that concentration within the instrument's linear calibration range. It may not be possible to analyze the sample at a lesser dilution if the target compound's high concentration is likely to damage the instrument or saturate the

detector. The high concentration of a non-target compound or analyte may also necessitate initial dilution for the same reason.
  - This is often the case for heavily-contaminated sites compared to risk-based screening levels. Although there are often multiple detected exceedances, there are often also multiple nondetected exceedances.
- If matrix effects mask low concentrations, the laboratory may be forced to elevate their quantitation limits to demonstrate the fact that low concentrations cannot be detected.
  - This is often the case for sites with difficult matrices such as NAPL and with mixed-matrices that contain NAPL.
- If matrix effects are particularly strong, the laboratory may be forced to analyze the sample at an initial dilution in an attempt to dilute the matrix effects.
  - This is often the case for sites with difficult matrices that include NAPL.
- If historical concentrations warrant, the laboratory detects an odor, or the field team designates a sample as "expected high concentration," the laboratory may pre-screen the sample and initially dilute it. Such dilutions raise the quantitation limit of nondetect compounds and may raise the quantitation limit to greater than the project action limit.
  - This is often the case for investigations that include both a contaminated area (or site) and also a surrounding area that is not expected to be contaminated.
- If the sample appearance indicates possible high concentrations, the laboratory may be forced to analyze the sample at a concentration range different from what is requested. For example, if a sample is designated as "groundwater," but is actually an emulsion or sludge, the laboratory may be forced to perform a waste dilution and analyze the sample using the "medium soil" instead of the "trace water" concentration range. Note that this may also result in units other than expected (solid-based units for liquid samples).
  - This occurs quite often. For planning purposes and simplicity, it is useful to compare CRQLs to action levels assuming that the laboratory can analyze all samples using the lowest concentration ranges. In this way, it can be shown that achievable concentration ranges are appropriate for nondetect results to support decision based on screening levels. In reality, however, contaminated samples would damage the instrumentation if analyzed at such low concentration ranges. Therefore, the lowest concentration ranges are requested and the appropriate (somewhat higher) concentration ranges are used. Although this increases the uncertainty surrounding nondetect results, it is appropriate given the actual levels of contamination that are observed in the samples compared to screening levels.
- If the field team cannot provide the full sample volume, the laboratory may be forced to dilute the sample by adding water until the minimum volume is achieved.
  - This does not occur very often. Most often, this occurs due to error or breakage. Sampling is usually designed to ensure full sample volume can be provided.
- If a sample is characterized by high percent moisture, the reporting limits will be raised such that the concentrations and quantitation limits are reported on a dry-weight basis.
  - This occurs quite often for sediment samples which are saturated with water.

Individual instances of quantitation limit v. screening level exceedances for this project may be the result of any or all of these factors. Please refer to Table 3. One row is provided for each combination of tracking table, matrix, analysis group, and analyte where at least one QL (U-value) exceeds its corresponding screening level. The applicable screening levels are provided. A summary of detects (count, minimum, and maximum), exceedances (count),

nondetects (count, minimum, and maximum), and U-Value exceedances (count) is provided. Detect information is useful to determine whether a particular constituent was detected in a given matrix during a given event, and whether none, some, or all detects exceeded a screening level. Nondetect information is useful to determine whether some or all nondetects exceeded a screening level. This helps demonstrate whether the requested concentration range was appropriate for the screening level or if the screening levels were too low given current instrumentation technology. The spread between the minimum and maximum nondetect helps demonstrate whether target or matrix effects caused elevated quantitation limits.

There is increased uncertainty in these instances (U-value exceeds screening level) because the laboratory may not be able to practically quantitate the concentration of a contaminant if it is present in the sample at or at greater than the screening level. Minimum detection limits (the level above which the laboratory is likely to detect and report the constituent, if present in the sample, are typically approximately 1/5 to 1/2 the quantitation limit, but must be less than the CRQL.

When a U-Value exceeds a screening level, it is useful to know if there other detected exceedances in the same sample and same analysis group. In that manner, the increased uncertainty (due to U-value exceedance of screening level) is not relevant because another constituent in the same class of analytes (for example, volatile organic compounds) suggests an exceedance. Instances where this does not occur (U-values that exceed screening levels but are not associated with a related detected exceedance defined as an exceedance in the same analysis group for the same sample) are shaded in yellow on Table 3. There is increased uncertainty in instances when the laboratory may not be able to practically quantitate the concentration of a contaminant if it is present in the sample at or at greater than the screening level and there are no sample results (for that analysis group) which suggest a screening level exceedance.

When this occurs, it is useful to know if there are other detected exceedances in the same matrix at the same station. This may take into account different samples (such as field duplicates and multiple depths) but would not consider different media (such as surface water collected from a sediment station). In this manner, the increased uncertainty (due to U-value exceedance of a screening level) is less relevant because the same or another sample result (in the same media at the same station) suggests an exceedance. This is because the data suggest some action (such as excavation) or understanding (such as calculation of risk) at a given location and it may no longer be necessary to demonstrate that all analytes are absent at less than their screening levels. Instances where this occurs (U-values that exceed screening levels but are not associated with a related detected exceedance defined as an exceedance in the same matrix at the same station) are shaded in pink on Table 3. The increased uncertainty in these instances is somewhat more severe than that shown via the yellow shading. It should be noted that this occurs only for VOCs (five results) in Phase I surface water (see section 4.1.4, below).

2.1 PARCC Considerations

2.1.1 Precision

Precision is defined as the agreement between duplicate results, and was assessed by comparing duplicate matrix spike recoveries, laboratory replicates, and field duplicate

sample results. When corresponding detects are sufficiently high, their relative percent difference (RPD) is calculated and compared to a goal or target RPD to demonstrate that precision is acceptable. For samples collected using a UFP-QAPP, the target RPD is provided in Worksheets 12 and 28. When both results are nondetect or when one result is detected and the other is nondetect, RPD is not calculated. However, the fact that one result is detected but not the other is discussed as it pertains to precision. Depending on the level of detect, this may or may not be an acceptable situation.

Precision is also considered as an additional indicator to ensure accuracy in split samples. Because split samples were not included in the UFP-QAPP for this project, "acceptable precision" was defined as 10% plus that which is acceptable for field duplicates (for similar matrix). This acknowledges that split samples are susceptible to RPD resulting from field compositing procedures and differences between laboratories.

2.1.2 Accuracy

Accuracy is a measure of the agreement between an experimental determination and the true value of the parameter being measured. For organic analyses, each sample was spiked with surrogate compounds; and for organic and inorganic analyses, an MS/MSD and LCS were spiked with a known parameter concentration before preparation. Surrogates and MS/MSD provide a measure of the matrix effects on the analytical accuracy. LCS demonstrates accuracy of the method and the laboratory's ability to meet the method criteria.

In some cases, split samples were collected and sent to a secondary laboratory in order to assess accuracy at the primary laboratory. Because it is unlikely that split samples will exhibit acceptable precision (refer to section 2.1.1, above) if one or both laboratories are inaccurate, precision between split samples was used to assess the accuracy of the primary laboratory.

2.1.3 Representativeness

Representativeness is a qualitative measure of the degree to which sample data accurately and precisely represent a characteristic environmental condition (in this case, nature and extent of contamination). Representativeness is a subjective parameter and is used to evaluate the efficacy of the sample planning design. In terms of data quality, representativeness was assured because the sampling team followed approved standard operating procedures for sample collection and handling, and the laboratory followed approved standard operating procedures for sample handling, preparation, and analysis.

In one instance, representativeness was affected for two samples due to equipment failure in the field during air sampling (refer to section 8.4.3, below).

2.1.4 Completeness

For purposes of this data quality evaluation, completeness will be defined as the percentage of measurements that are judged to be valid; validity being defined by the Data Quality Objectives (DQOs). Therefore, completeness will be calculated as the number of analytically-sound results that are available for use compared to the total number of measurements made. The following references designate all results except those R-qualified as "rejected" to be available for use as analytically-sound results:

- "USEPA Contract Laboratory Program Statement of Work for Organic Analysis of Low/Medium Concentration of Volatile Organic Compounds SOM01.2 Data Validation"; SOP HW-33/VOA; Rev. 1; August, 2007.
- "SOP NO. HW-35/SVOA Data Validation USEPA Contract Laboratory Program Statement of Work for Organic Analysis of Low/Medium Concentration of Semivolatile Organic Compounds SOM01.2"; SOP HW-35; Rev. 1; August, 2007.
- "SOP NO. HW-36/Pesticide Data Validation USEPA Contract Laboratory Program Statement of Work for Organic Analysis of Low/medium Concentration of Pesticide Organic Compounds SOM01.2"; SOP HW-36; Rev. 1; August, 2007.
- "SOP NO. HW-37/Aroclor Validation of Data USEPA Contract Laboratory Program Statement of Work for Organic Analysis of Low/medium Concentration of Aroclor Organic Compounds SOM01.2"; SOP HW-37; Rev. 1; August, 2007.
- "Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3 (SOP Revision 13)"; SOP # HW-2; Rev. 13; September, 2006.
- "Data Validation SOP of Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS"; SOP HW-46; Rev. 0; December, 2006.
- US Environmental Protection Agency (USEPA) National Functional Guidelines for Evaluating Inorganic Analyses (USEPA 2002).
- US Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review (USEPA 1999).

Therefore, the R-qualifier is the only qualifier that negatively affects a data point's availability. Completeness is provided for each analysis group for each matrix. The completeness goal is defined in Worksheet 12 of the project-specific UFP-QAPP. For analyses undergoing data validation, the completeness goal is ">90% of results not rejected by data validator". For analyses that do not undergo CLP or internal data validation, the completeness goal is "Laboratory must report 100% of results requested". This is applicable to samples collected and analyzed as part of the UFP-QAPP.

For secondary (historic) data, there is one more factor that can affect completeness. When accepting large quantities of electronic data, a certain small percentage of data may be deemed "invalid" for various reasons. For example, the result may be zero, a negative value, or missing. Results deemed "invalid" for these reasons cannot be used and show up as data holes. This is acceptable considering the large quantity of electronic data that is available to support decisions at the site and the time that would be required to investigate "invalid" results. These results are treated as "not analyzed" and do not contribute to the total number of measurements made. Therefore, the presence of data holes does not decrease the percent completeness of secondary (historic) data, but this phenomenon is considered when discussing completeness.

2.1.5 Comparability

Comparability is a qualitative measure designed to express the confidence with which one data set may be compared to another. Factors that affect comparability are sample collection and handling techniques, sample matrix, and analytical methods. In this case, because approved standard operating procedures were used for sample collection and handling, common sample matrices were evaluated (groundwater, surface water, subsurface soil, sediment, surface soil, tissue, and air), and USEPA CLP methods, EPA methods, ASTM methods, Standard Methods, and SW-846 methods were utilized, the data user may express

confidence in the fact that this data set is comparable to others of acceptable data quality. In addition, comparability is controlled by the other PARCC parameters because data sets can be compared with confidence only when precision and accuracy are known. Except in the case of rejected data, precision and accuracy were demonstrated to be acceptable, and the data user may be confident that this data set is comparable to others of high data quality.

3. Data Groupings and Included Data

All relevant data underwent data quality evaluation. Please refer to Table 1 for the groupings of data included within this data quality evaluation. Data are grouped primarily by the tracking table on which the sample ID appears. This is because the tracking table considers the sample collection event (for example "Phase II"), the sample collection company, and the status of the data set (primary, secondary, historic, etc.). The groupings are further separated by matrix (sediment, surface water, etc.). Table 1 also specifies which screening level sets are used to compare to the results. For purposes of this data quality evaluation, this information is used in the nondetect U-value v. screening level comparison. A small amount of data will be evaluated as an addendum to this appendix:

- PCB Congener Data: At the time of preparation of this data quality evaluation, results had been received but there was insufficient time to complete the data quality evaluation.
- Tissue Data: At the time of preparation of this data quality evaluation, Tissue (i.e. fish and crab) sample results had not been received.

Please refer to Table 2 for groupings by tracking table, matrix, and analysis method. It should be noted that EPA three-digit methods (such as E608 for Pesticides and PCBs via GC) are provided instead of EPA CLP methods (such as EPA CLP SOM01.2) in order to imply the analysis group and concentration range within the analytical method in the electronic data.

4. Phase I Pipe Survey Surface Water Samples (A-1 WS)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase I Pipe Survey Surface Water Sampling event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected September 1, 2010 through September 7, 2010.

4.1 Volatile Organic Compounds

Volatiles were analyzed by USEPA CLP SOM01.2 "Trace Water" and "Trace Water by SIM". Excluding field quality control samples, 612 distinct data points were generated. Because there are no rejected results, the volatiles data set is 100 percent complete (612 of 612 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-1	WS	VOC	U	502	82.03%	4.1.1
A-1	WS	VOC	UJ	84	13.73%	4.1.2
A-1	WS	VOC		14	2.29%	
A-1	WS	VOC	J	12	1.96%	4.1.3

4.1.1 U-qualification

A total of 502 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

4.1.2 UJ-qualification

A total of 84 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 4.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

4.1.3 J-qualification

A total of 12 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

4.1.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set S or Set T. Of 586 U- or UJ-qualified results, 60 CRQLs exceeded Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 60 CRQL v. SL exceedances, all 60 exceeded Set T and there were no detected SL exceedances for VOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no VOCs were detected at greater than a screening level, but at the same time, one or more VOC CRQL was greater than its corresponding screening level in the same sample. However, of the 60 CRQL v. SL exceedances, only 5 CRQLs exceeded Set T without an exceedance (any analysis group) in the same matrix at the same station. These correspond to 1,2-dibromo-3-chloropropane; 1,2-dibromoethane; 2-hexanone; cis-1,3-dichloropropene; and trans-1,3-dichloropropene in GC-CF-W-044-1 at station W-44. It should be noted that this sample was analyzed only for VOCs and thus could not have had exceedances for analysis groups other than VOC. These instances are shown as pink shading on Table 3. This station is of interest because the data suggest that no compounds were detected at greater than a screening level, but at the same time, one or more VOC CRQLs was greater than its corresponding screening level.

4.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Water" and "Low Water by SIM". Excluding field quality control samples, 748 distinct data points were generated. Because there are no rejected results, the semivolatiles data set is 100 percent complete (748 of 748 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the semivolatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-1	WS	SVOC	U	625	83.56%	4.2.1
A-1	WS	SVOC		54	7.22%	
A-1	WS	SVOC	UJ	40	5.35%	4.2.2
A-1	WS	SVOC	J	29	3.88%	4.2.3

4.2.1 U-qualification

A total of 625 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

4.2.2 UJ-qualification

A total of 40 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not

contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 4.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

4.2.3 J-qualification

A total of 12 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

4.2.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set S or Set T. Of 665 U- or UJ-qualified results, 278 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 278 CRQL v. SL exceedances, only 28 exceeded Set S or Set T and there were no detected SL exceedances for SVOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no SVOCs were detected at greater than a screening level, but at the same time, one or more SVOC CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 278 of the SVOC CRQL v. SL exceedances were associated with an exceedance (any analysis group) in the same matrix at the same station.

4.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by USEPA CLP SOM01.2 "Water". Excluding field quality control samples, 320 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 93.75 percent complete (300 of 320 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the pesticides fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-1	WS	PEST/PCB	U	262	81.88%	4.3.1
A-1	WS	PEST/PCB	UJ	28	8.75%	
A-1	WS	PEST/PCB	R	20	6.25%	4.3.2
A-1	WS	PEST/PCB		10	3.13%	4.3.3

4.3.1 U-qualification

A total of 262 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater

than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

4.3.2 UJ-qualification

A total of 28 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 4.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

4.3.3 R-qualification

A total of 20 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to 4,4'-DDT and Endosulfan I in 10 samples (GC-CF-E-027-1; GC-CF-E-033-1; GC-CF-E-035-1; GC-CF-E-063-1; GC-CF-T1-003-1; GC-CF-W-001-1; GC-CF-W-037-1; GC-CF-W-046-1; GC-CF-W-048-1; and GC-CF-W-077-1. Although these results are not usable for any purpose (and there are no usable 4,4'-DDT and Endosulfan I results for Phase I Surface Water samples), this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

4.3.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set S or Set T. Of 290 U- or UJ-qualified results, 250 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 200 CRQL v. SL exceedances, all 200 exceeded Set S or Set T and there were no detected SL exceedances for PEST/PCBs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no PEST/PCBs were detected at greater than a screening level, but at the same time, one or more PEST/PCB CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 200 of the PEST/PCB CRQL v. SL exceedances were associated with an exceedance (any analysis group) in the same matrix at the same station.

4.4 Filtered Metals

Filtered metals, including mercury, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, and CVAA. Excluding field quality control samples, 230 distinct data points were generated. When rejected results are considered, the filtered metals data set is 99.13 percent complete (228 of 230 filtered metals results are available for use). The validation process resulted in the following qualifiers for results in the filtered metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-1	WS	FMETAL		104	45.22%	
A-1	WS	FMETAL	U	99	43.04%	4.4.1
A-1	WS	FMETAL	J	25	10.87%	4.4.2
A-1	WS	FMETAL	R	2	0.87%	4.4.3

4.4.1 U-qualification

A total of 99 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

4.4.2 J-qualification

A total of 25 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

4.4.3 R-qualification

Two results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to filtered iron in GC-CF-E-033-1 and filtered sodium in GC-CF-T1-003-1. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other FMETAL information. There are filtered iron and sodium results for the remaining samples but it should be noted that corresponding total iron and sodium results in these samples are also rejected. Often, this is because of the filtered metals concentrations exceeding the total metals concentrations by some limit for relative percent difference.

Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

4.4.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set S or Set T. Of 99 U-qualified results, 26 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (FMETAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

4.5 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, CVAA, and spectrophotometer. Excluding field quality control samples, 240 distinct data points were generated. When rejected results are considered, the metals data set is 99.17 percent complete (238 of 240 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-1	WS	METAL		115	47.92%	
A-1	WS	METAL	U	92	38.33%	4.5.1
A-1	WS	METAL	J	31	12.92%	4.5.2
A-1	WS	METAL	R	2	0.83%	4.5.3

4.5.1 U-qualification

A total of 92 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

4.5.2 J-qualification

A total of 31 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user

understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

4.5.3 R-qualification

Two results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to iron in GC-CF-E-033-1 and sodium in GC-CF-T1-003-1. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other METAL information. There are iron and sodium results for the remaining samples but it should be noted that corresponding filtered iron and sodium results in these samples are also rejected. Often, this is because of the filtered metals concentrations exceeding the total metals concentrations by some limit for relative percent difference. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

4.5.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set S or Set T. Of 92 U-qualified results, 29 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (METAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

4.6 Phase I Surface Water PARCC

4.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

4.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe

enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

4.6.3 Representativeness

There were no issues affecting representativeness in this data set.

4.6.4 Completeness

There were 24 R-qualified results in this dataset; therefore, the data validation process demonstrated that 98.88 percent of the results are available for use as qualified. For this data set, completeness exceeded a typical project goal of 90 percent. It should also be noted that only PEST/PCB, FMETAL, and METAL fractions contained rejected data, and these fractions, individually, also met the 90 percent project goal for completeness.

4.6.5 Comparability

There were no issues affecting comparability in this data set.

4.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 73.49 percent (1580 of 2150 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 13.81 percent (297 of 2150 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the data validator UJ-qualified 7.07 percent (152 of 2150 results) of the data. These data are available as qualified. The data quality evaluation showed that the laboratory or data validator J-qualified 4.51 percent (97 of 2150 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator R-qualified 1.12 percent (24 of 2150 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used.

All results, with the exception of those R-qualified as "rejected" (24 of 2150 results, 1.12 percent of total results) are available for use as qualified.

5. Phase II Sediment Coring (A-2 SE)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase II Sediment Coring event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected March 3, 2010 through April 15, 2010.

5.1 Volatile Organic Compounds

Volatiles were analyzed by USEPA CLP SOM01.2 "Low Soil". Excluding field quality control samples, 29986 distinct data points were generated. When rejected data are considered, the volatiles data set is 97.91 percent complete (29358 of 29986 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-2	SE	VOC	U	24509	81.73%	5.1.1
A-2	SE	VOC		2249	7.50%	
A-2	SE	VOC	UJ	1748	5.83%	5.1.2
A-2	SE	VOC	J	852	2.84%	5.1.3
A-2	SE	VOC	R	628	2.09%	5.1.4

5.1.1 U-qualification

A total of 24509 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

5.1.2 UJ-qualification

A total of 1748 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 5.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

5.1.3 J-qualification

A total of 852 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user

understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

5.1.4 R-qualification

A total of 628 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These include 1,4-Dioxane in 569 samples. All nondetect 1,4-Dioxane results were rejected. Three 1,4-Dioxane detected results are available for use in GC-SD107-10.0-12.0, GC-SD153-08.2-08.8, and GC-SD081A-05.3-07.3. It should be noted that 1,4-Dioxane is not an analyte of interest for this project and it is often rejected due to its status as a poor purger. The remaining 59 rejected results consist of various volatile compounds (one or more of 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2-Trichloroethane; 1,2,3-Trichlorobenzene; 1,2,4-Trichlorobenzene; 1,2-Dibromo-3-chloropropane; 1,2-Dibromoethane; 1,2-Dichlorobenzene; 1,2-Dichloropropane; 1,3-Dichlorobenzene; 1,4-Dichlorobenzene; 2-Hexanone; 4-Methyl-2-pentanone; Bromodichloromethane; Bromoform; Carbon tetrachloride; cis-1,3-Dichloropropene; Cyclohexane; Dibromochloromethane; Ethylbenzene; Styrene; Tetrachloroethene; trans-1,3-Dichloropropene; and Trichloroethene) in various samples (one or more of GC-SD108-06.0-08.0; GC-SD109-00.0-02.0; GC-SD109-02.0-04.0; GC-SD126-04.0-06.0; GC-SD126-06.0-06.6; GC-SD128-00.0-02.0; GC-SD141-00.0-02.0; GC-SD141-02.0-04.0; and GC-SD150-02.0-04.0). Although these results are not usable for any purpose (and there are only three 1,4-Dioxane results for Phase II Sediment), this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other VOC information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

5.1.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 26257 U- or UJ-qualified results, 8218 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 8218 CRQL v. SL exceedances, only 281 exceeded Set A or Set R and there were no detected SL exceedance for VOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no VOCs were detected at greater than a screening level, but at the same time, one or more VOC CRQL was greater than its corresponding screening level in the same sample. However, of the 281 CRQL v. SL exceedances (without a "related detect"), no CRQLs exceeded Set A or Set R without an exceedance (any analysis group) in the same matrix at the same station.

5.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Soil" and "Low Soil by SIM". Excluding field quality control samples, 39160 distinct data points were generated. When rejected results are considered, the semivolatiles data set is 99.36 percent complete (38911 of 39160 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-2	SE	SVOC	U	28084	71.72%	5.2.1
A-2	SE	SVOC	J	5182	13.23%	5.2.2
A-2	SE	SVOC		4805	12.27%	
A-2	SE	SVOC	UJ	840	2.15%	5.2.3
A-2	SE	SVOC	R	249	0.64%	5.2.4

5.2.1 U-qualification

A total of 28084 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

5.2.2 J-qualification

A total of 5182 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

5.2.3 UJ-qualification

A total of 840 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 5.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

5.2.4 R-qualification

A total of 249 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These include to 1,2,4,5-Tetrachlorobenzene in 94 samples. 1,2,4,5-Tetrachlorobenzene results are available in 478 other samples. The remaining 155 rejected results consist of various semivolatile compounds (one or more of 2,2'-Oxybis(1-

chloropropane); 2,3,4,6-Tetrachlorophenol; 2,4,5-Trichlorophenol; 2,4,6-Trichlorophenol; 2,4-Dichlorophenol; 2,4-Dimethylphenol; 2,4-Dinitrophenol; 2,4-Dinitrotoluene; 2,6-Dinitrotoluene; 2-Chloronaphthalene; 2-Chlorophenol; 2-Methylphenol; 2-Nitroaniline; 2-Nitrophenol; 3,3'-Dichlorobenzidine; 3-Nitroaniline; 4,6-Dinitro-2-methylphenol; 4-Bromophenyl-phenylether; 4-Chloro-3-methylphenol; 4-Chloroaniline; 4-Chlorophenyl-phenylether; 4-Methylphenol; 4-Nitroaniline; 4-Nitrophenol; Acetophenone; Atrazine; Benzaldehyde; Benzo(b)fluoranthene; Benzo(g,h,i)perylene; bis(2-Chloroethoxy)methane; bis(2-Chloroethyl)ether; bis(2-Ethylhexyl)phthalate; Butylbenzylphthalate; Caprolactam; Carbazole; Dibenz(a,h)anthracene; Diethylphthalate; Dimethyl phthalate; Di-n-butylphthalate; Di-n-octylphthalate; Hexachlorobenzene; Hexachlorobutadiene; Hexachlorocyclopentadiene; Hexachloroethane; Indeno(1,2,3-cd)pyrene; Isophorone; Nitrobenzene; n-Nitroso-di-n-propylamine; n-Nitrosodiphenylamine; Pentachlorophenol; and Phenol) in various samples (one or more of GC-SD017A-02.0-04.0; GC-SD031A-11.3-13.3; GC-SD121-03.5-05.5; GC-SD127-10.0-12.0; GC-SD127-14.0-15.8; and GC-SD129-06.6-08.6). Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other SVOC information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

5.2.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 28924 U- or UJ-qualified results, 17457 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 17457 CRQL v. SL exceedances, only 883 exceeded Set A or Set R and there were no detected SL exceedances for SVOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no SVOCs were detected at greater than a screening level, but at the same time, one or more SVOC CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 883 of the SVOC CRQL v. SL exceedances were associated with an exceedance (any analysis group) in the same matrix at the same station.

5.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by USEPA CLP SOM01.2 “Soil”. Excluding field quality control samples, 18524 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 87.62 percent complete (16230 of 18524 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-2	SE	PEST/PCB	U	12261	66.19%	5.3.1
A-2	SE	PEST/PCB	R	2294	12.38%	5.3.2
A-2	SE	PEST/PCB	J	1563	8.44%	5.3.3
A-2	SE	PEST/PCB	UJ	1134	6.12%	5.3.4
A-2	SE	PEST/PCB	NJ	856	4.62%	5.3.5
A-2	SE	PEST/PCB		416	2.25%	

5.3.1 U-qualification

A total of 12261 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

5.3.2 R-qualification

A total of 2294 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to one or more PEST/PCB analytes in each of 502 samples. A spot-check was performed to determine the reason for rejection of these results. Results were rejected due to poor dual-column reproducibility. Region II SOPs for data validation require the rejection of detected results for which the percent difference (between results from both columns) is greater than 200%. Detected results are rejected when percent difference is greater than 100% if no peak interferences are noted. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information. As above, Phase II Sediment Coring PEST/PCB data are 87.62 percent complete. It should be noted that the Phase II Sediment PEST/PCB results did not meet the 90% completeness goal specified in the UFP-QAPP.

5.3.3 J-qualification

A total of 1563 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

5.3.4 UJ-qualification

A total of 1134 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 5.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

5.3.5 NJ-qualification

A total of 856 results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

5.3.6 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 13395 U- or UJ-qualified results, 8795 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 8795 CRQL v. SL exceedances, only 2961 exceeded Set A or Set R and there were no detected SL exceedances for PEST/PCBs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no PEST/PCBs were detected at greater than a screening level, but at the same time, one or more PEST/PCB CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 2961 of the PEST/PCB CRQL v. SL exceedances (without corresponding related detects) were associated with an exceedance (any analysis group) in the same matrix at the same station.

5.4 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, CVAA, and spectrophotometer. Excluding field quality control samples, 13688 distinct data points were generated. When rejected results are considered, the metals data set is 99.88 percent complete (13671 of 13688 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-2	SE	METAL		6334	46.27%	
A-2	SE	METAL	J	3495	25.53%	5.4.1
A-2	SE	METAL	U	3102	22.66%	5.4.2
A-2	SE	METAL	UJ	740	5.41%	5.4.3
A-2	SE	METAL	R	17	0.12%	5.4.4

5.4.1 J-qualification

A total of 3495 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

5.4.2 U-qualification

A total of 3102 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

5.4.3 UJ-qualification

A total of 740 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 5.4.2, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

5.4.4 R-qualification

Seventeen results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to Lead in D-03162010-01; GC-SD031A-09.3-11.3; GC-SD031A-11.3-13.3; GC-SD031A-13.3-13.9; GC-SD087A-08.3-10.3; GC-SD087A-10.3-12.3; GC-SD087A-12.3-14.3; GC-SD090B-05.4-07.4; GC-SD090B-07.4-09.4; GC-SD090B-09.4-11.4; GC-SD090B-

11.4-13.4; GC-SD111-08.3-10.3; GC-SD111-10.3-12.3; and GC-SD111-12.3-14.3, Mercury in D-04082010-02, Antimony in GC-SD125-04.0-06.0, and Zinc in GC-SD146-11.0-13.0. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other METAL information. There are Lead, Mercury, Antimony, and Selenium results for all of the remaining samples. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

5.4.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 3842 U- or UJ-qualified results, 975 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (METAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

5.5 Wet Chemistry

Wet Chemistry, including Sulfide, pH (or corrosivity), percent solids, and Total Organic Carbon (TOC) were analyzed by SW-846 9034, 9045C, ASTM D2216, and Lloyd Kahn, respectively. Excluding field quality control samples, 101 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (101 of 101 WCHEM results are available for use). The validation process resulted in the following qualifiers for results in the WCHEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-2	SE	WCHEM		71	70.30%	
A-2	SE	WCHEM	U	25	24.75%	5.5.1
A-2	SE	WCHEM	J	5	4.95%	5.5.2

5.5.1 U-qualification

Twenty-five results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

5.5.2 J-qualification

Five results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

5.6 Grain Size

Grain Size was analyzed by ASTM D4464. Excluding field quality control samples, 57 distinct data points were generated. Because there were no rejected results, the GRAINSIZE data set is 100 percent complete (57 of 57 GRAINSIZE results are available for use). It was not necessary to apply any qualifiers to the GRAINSIZE fraction.

5.7 Ignitability

Flash Point was analyzed by Pensky Martens. Excluding field quality control samples, 21 distinct data points were generated. Because there were no rejected results, the IGN data set is 100 percent complete (21 of 21 IGN results are available for use). It was not necessary to apply any qualifiers to the IGN fraction.

5.8 Reactivity

Reactive Cyanide was analyzed by SW-846 9014. Excluding field quality control samples, 21 distinct data points were generated. Because there were no rejected results, the REACT data set is 100 percent complete (21 of 21 REACT results are available for use). The REACT data set was 100 percent U-qualified to indicate that all data were nondetect.

5.9 Phase II Sediment Coring PARCC

5.9.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

Because a significant portion of the PEST/PCB results were rejected due to poor dual-column reproducibility (preventing the PEST/PCB fraction from meeting the completeness goal), the sample matrix or analytical process had a significant impact on precision in this instance.

5.9.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

5.9.3 Representativeness

There were no issues affecting representativeness in this data set.

5.9.4 Completeness

There were 3188 R-qualified results in this dataset; therefore, the data validation process demonstrated that 96.86 percent of the results are available for use as qualified. For this data set, completeness exceeded the Phase II UFP-QAPP completeness goal of 90%. It should also be noted that VOC, SVOC, PEST/PCB, and METAL fractions contained rejected data. VOC, SVOC, and METAL, considered individually, also met the 90 percent completeness goal. However, PEST/PCB, considered individually, did not meet the 90 percent completeness goal because it is only 87.62 percent complete (see section 5.3.2, above).

5.9.5 Comparability

There were no issues affecting comparability in this data set.

5.10 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 66.96 percent (68002 of 101558 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 13.74 percent (13953 of 101558 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 10.93 percent (11097 of 101558 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator UJ-qualified 4.39 percent (4462 of 101558 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator R-qualified 3.14 percent (3188 of 101558 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used. The data quality evaluation showed that the data

validator NJ-qualified 0.84 percent (856 of 101558 results) of the data. These data are available as qualified.

All results, with the exception of those R-qualified as "rejected" (3188 of 101558 results, 3.14 percent of total results) are available for use as qualified.

6. Phase II Sediment Coring (ERT) (A-3 SE)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase II Sediment Coring event conducted by ERT at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected by ERT January 27, 2010 through January 29, 2010.

6.1 Volatile Organic Compounds

Volatiles were analyzed by GC/MS. Excluding field quality control samples, 5460 distinct data points were generated. When rejected data are considered, the volatiles data set is 96.01 percent complete (5242 of 5460 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-3	SE	VOC	U	3215	58.88%	6.1.1
A-3	SE	VOC	UJ	885	16.21%	6.1.2
A-3	SE	VOC	J	699	12.80%	6.1.3
A-3	SE	VOC		443	8.11%	
A-3	SE	VOC	R	218	3.99%	6.1.4

6.1.1 U-qualification

A total of 3215 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

6.1.2 UJ-qualification

A total of 885 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 6.1.1, above). These results are usable as nondetects as

long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

6.1.3 J-qualification

A total of 699 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

6.1.4 R-qualification

A total of 218 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

6.1.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 4100 U- or UJ-qualified results, 386 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 386 CRQL v. SL exceedances, only 56 exceeded Set A or Set R and there were no detected SL exceedance for VOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no VOCs were detected at greater than a screening level, but at the same time, one or more VOC CRQL was greater than its corresponding screening level in the same sample. However, of the 56 CRQL v. SL exceedances (without a "related detect"), no CRQLs exceeded Set A or Set R without an exceedance (any analysis group) in the same matrix at the same station.

6.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by GC/MS. Excluding field quality control samples, 7208 distinct data points were generated. When rejected results are considered, the semivolatiles data set is 98.72 percent complete (7116 of 7208 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-3	SE	SVOC	UJ	2877	39.91%	6.2.1
A-3	SE	SVOC	U	2071	28.73%	6.2.2
A-3	SE	SVOC	J	1469	20.38%	6.2.3
A-3	SE	SVOC		699	9.70%	
A-3	SE	SVOC	R	92	1.28%	6.2.4

6.2.1 UJ-qualification

A total of 2877 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 6.2.2, below). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

6.2.2 U-qualification

A total of 2071 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

6.2.3 J-qualification

A total of 1469 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

6.2.4 R-qualification

A total of 92 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

6.2.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 4948 U- or UJ-qualified results, 2409 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 2409 CRQL v. SL exceedances, none exceeded Set A or Set R without a related detected SL exceedances for SVOCs in the same sample.

6.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by GC. Excluding field quality control samples, 3392 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 87.38 percent complete (2964 of 3392 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-3	SE	PEST/PCB	U	1718	50.65%	6.3.1
A-3	SE	PEST/PCB	J	487	14.36%	6.3.2
A-3	SE	PEST/PCB	R	428	12.62%	6.3.3
A-3	SE	PEST/PCB	UJ	300	8.84%	6.3.4
A-3	SE	PEST/PCB		255	7.52%	
A-3	SE	PEST/PCB	NJ	204	6.01%	6.3.5

6.3.1 U-qualification

A total of 1718 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

6.3.2 J-qualification

A total of 487 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

6.3.3 R-qualification

A total of 428 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. As above, the Phase II Sediment Coring (ERT) data set is 87.38 percent complete. It should be noted that the Phase II Sediment (ERT) PEST/PCB results did not meet a typical project completeness goal of 90%. Please refer to section 5.3.2, above, for additional insight on this issue.

6.3.4 UJ-qualification

A total of 300 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 6.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

6.3.5 NJ-qualification

A total of 204 results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

6.3.6 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 2018 U- or UJ-qualified results, 1464 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 1464 CRQL v. SL exceedances, only 41 exceeded Set A or Set R and there were no detected SL exceedances for PEST/PCBs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no PEST/PCBs were detected at greater than a screening level, but at the same time, one or more PEST/PCB CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 41 of the PEST/PCB CRQL v. SL exceedances (without corresponding related detects) were associated with an exceedance (any analysis group) in the same matrix at the same station.

6.4 Metals

Metals, including mercury and cyanide, were analyzed by ICP-AES, CVAA, and spectrophotometer. Excluding field quality control samples, 2544 distinct data points were generated. Because there were no rejected results, the metals data set is 100 percent

complete (2544 of 2544 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-3	SE	METAL	J	1241	48.78%	6.4.1
A-3	SE	METAL		817	32.11%	
A-3	SE	METAL	U	277	10.89%	6.4.2
A-3	SE	METAL	UJ	209	8.22%	6.4.3

6.4.1 J-qualification

A total of 1241 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

6.4.2 U-qualification

A total of 277 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

6.4.3 UJ-qualification

A total of 209 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 6.4.2, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

6.4.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set A or Set R. Of 486 U-qualified results, 112 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v.

PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (METAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

6.5 Wet Chemistry

Wet Chemistry, including sulfide, was analyzed by SW-846 9030. Excluding field quality control samples, 105 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (105 of 105 WCHEM results are available for use). The validation process resulted in the following qualifiers for results in the WCHEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-3	SE	WCHEM		90	85.71%	
A-3	SE	WCHEM	U	12	11.43%	6.5.1
A-3	SE	WCHEM	J	3	2.86%	6.5.2

6.5.1 U-qualification

Twelve results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

6.5.2 J-qualification

Three results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

6.6 Phase II Sediment Coring (ERT) PARCC

6.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility,

and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

Because the pattern of rejection for Phase II Sediment (ERT) and PEST/PCB is similar to that above for Phase II Sediment above and PEST/PCB, it is assumed that the reason for rejection is similar or identical. It is likely that R-qualified PEST/PCB results in this dataset were rejected due to poor dual-column reproducibility (> 100% difference between detected results from both columns when no peak interference is noted).

6.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

6.6.3 Representativeness

There were no issues affecting representativeness in this data set.

6.6.4 Completeness

There were 738 R-qualified results in this dataset; therefore, the data validation process demonstrated that 96.06 percent of the results are available for use as qualified. For this data set, completeness exceeded a typical project completeness goal of 90%. It should also be noted that VOC, SVOC, and PEST/PCB fractions contained rejected data. VOC and SVOC, considered individually, also met the 90 percent completeness goal. However, PEST/PCB, considered individually, did not meet the 90 percent completeness goal because it is only 87.38 percent complete (see section 5.3.2, above). This pattern is similar to PEST/PCB in Phase II Sediment Coring above. Refer to section 5.9.4, above, for further detail.

6.6.5 Comparability

There were no issues affecting comparability in this data set.

6.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 38.98 percent (7293 of 18709 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation showed that the data validator UJ-qualified 22.83 percent (4271 of 18709 results) of the data. These data are available as qualified. The data quality evaluation showed that the laboratory or data validator J-qualified 20.84 percent (3899 of 18709 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation demonstrated that 12.31 percent (2304 of 18709 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the data validator R-qualified 3.94 percent (738 of 18709 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used. The data quality evaluation showed that the data validator NJ-qualified 1.09 percent (204 of 18709 results) of the data. These data are available as qualified.

All results, with the exception of those R-qualified as "rejected" (738 of 18709 results, 3.94 percent of total results) are available for use as qualified.

7. 2005 Soft Sediment (NG) (A-4 SE)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the 2005 Soft Sediment Sampling event conducted by National Grid at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected by National Grid December 14, 2005 through January 30, 2006.

7.1 Volatile Organic Compounds

Volatiles were analyzed by GC/MS. Excluding field quality control samples, 5328 distinct data points were generated. When rejected data are considered, the volatiles data set is 99.70 percent complete (5312 of 5328 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-4	SE	VOC	U	4367	81.96%	7.1.1
A-4	SE	VOC	UJ	418	7.85%	7.1.2
A-4	SE	VOC	J	324	6.08%	7.1.3
A-4	SE	VOC		203	3.81%	
A-4	SE	VOC	R	16	0.30%	7.1.4

7.1.1 U-qualification

A total of 4367 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC

problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

7.1.2 UJ-qualification

A total of 418 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 7.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

7.1.3 J-qualification

A total of 324 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

7.1.4 R-qualification

Sixteen results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

7.1.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 4367 U- or UJ-qualified results, 1213 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 1213 CRQL v. SL exceedances, only two exceeded Set A or Set R and there were no detected SL exceedance for VOCs in the same sample (affects vinyl chloride only). These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no VOCs were detected at greater than a screening level, but at the same time, one or more VOC CRQL was greater than its corresponding screening level in

the same sample. However, of the two CRQL v. SL exceedances (without a "related detect"), no CRQLs exceeded Set A or Set R without an exceedance (any analysis group) in the same matrix at the same station.

7.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by GC/MS. Excluding field quality control samples, 9216 distinct data points were generated. When rejected results are considered, the semivolatiles data set is 99.82 percent complete (9199 of 9216 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the semivolatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-4	SE	SVOC	U	6210	67.38%	7.2.1
A-4	SE	SVOC		1543	16.74%	
A-4	SE	SVOC	J	1192	12.93%	7.2.2
A-4	SE	SVOC	UJ	254	2.76%	7.2.3
A-4	SE	SVOC	R	17	0.18%	7.2.4

7.2.1 U-qualification

A total of 6210 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

7.2.2 J-qualification

A total of 1192 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

7.2.3 UJ-qualification

A total of 254 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not

contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 7.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

7.2.4 R-qualification

Seventeen results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

7.2.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 6464 U- or UJ-qualified results, 4543 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 4543 CRQL v. SL exceedances, only 25 exceeded Set A or Set R and there were no detected SL exceedance for SVOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no SVOCs were detected at greater than a screening level, but at the same time, one or more SVOC CRQL was greater than its corresponding screening level in the same sample. However, of the 25 CRQL v. SL exceedances (without a "related detect"), no CRQLs exceeded Set A or Set R without an exceedance (any analysis group) in the same matrix at the same station.

7.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by GC. Excluding field quality control samples, 4320 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 97.57 percent complete (4215 of 4320 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-4	SE	PEST/PCB	U	2476	57.31%	7.3.1
A-4	SE	PEST/PCB	J	561	12.99%	7.3.2
A-4	SE	PEST/PCB		489	11.32%	
A-4	SE	PEST/PCB	UJ	461	10.67%	7.3.3
A-4	SE	PEST/PCB	NJ	228	5.28%	7.3.4
A-4	SE	PEST/PCB	R	105	2.43%	7.3.5

7.3.1 U-qualification

A total of 2476 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation

elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

7.3.2 J-qualification

A total of 561 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

7.3.3 UJ-qualification

A total of 461 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 7.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

7.3.4 NJ-qualification

A total of 228 results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

7.3.5 R-qualification

A total of 105 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset.

7.3.6 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 2937 U- or UJ-qualified results, 2149 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 2149 CRQL v. SL exceedances, only 102 exceeded Set A or Set R and there were no detected SL exceedances for PEST/PCBs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no PEST/PCBs were detected at greater than a screening level, but at the same time, one or more PEST/PCB CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 102 of the PEST/PCB CRQL v. SL exceedances (without corresponding related detects) were associated with an exceedance (any analysis group) in the same matrix at the same station.

7.4 Metals

Metals, including mercury and cyanide, were analyzed by ICP-AES, CVAA, and spectrophotometer. Excluding field quality control samples, 3456 distinct data points were generated. When rejected results are considered, the metals data set is 99.62 percent complete (3443 of 3456 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-4	SE	METAL	J	1493	43.20%	7.4.1
A-4	SE	METAL		1232	35.65%	
A-4	SE	METAL	U	374	10.82%	7.4.2
A-4	SE	METAL	UJ	344	9.95%	7.4.3
A-4	SE	METAL	R	13	0.38%	7.4.4

7.4.1 J-qualification

A total of 14*6 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

7.4.2 U-qualification

A total of 374 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

7.4.3 UJ-qualification

A total of 344 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 7.4.2, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

7.4.4 R-qualification

Thirteen results, consisting of cyanide in 13 samples, were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. There are 131 other cyanide results available for use in this data set.

7.4.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set A or Set R. Of 718 U-qualified results, 235 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (METAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

7.5 Wet Chemistry

Wet Chemistry, including nitrate, nitrite, and sulfate, was analyzed by EPA 300.0. Excluding field quality control samples, 432 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (105 of 105 WCHEM results are available for use). The validation process resulted in the following qualifiers for results in the WCHEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-4	SE	WCHEM	U	278	64.35%	7.5.1
A-4	SE	WCHEM		91	21.06%	
A-4	SE	WCHEM	J	57	13.19%	7.5.2
A-4	SE	WCHEM	UJ	6	1.39%	7.5.3

7.5.1 U-qualification

A total of 278 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation

elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

7.5.2 J-qualification

A total of 57 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

7.5.3 UJ-qualification

Six results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 7.5.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

7.6 2005 Soft Sediment (NG) PARCC

7.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

7.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a

negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

7.6.3 Representativeness

There were no issues affecting representativeness in this data set.

7.6.4 Completeness

There were 151 R-qualified results in this dataset; therefore, the data validation process demonstrated that 99.34 percent of the results are available for use as qualified. For this data set, completeness exceeded a typical project completeness goal of 90%. It should also be noted that VOC, SVOC, PEST/PCB, and METAL fractions contained rejected data. These fractions, considered individually, also met the 90 percent completeness goal.

7.6.5 Comparability

There were no issues affecting comparability in this data set.

7.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 60.24 percent (13705 of 22752 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation showed that the laboratory or data validator J-qualified 15.94 percent (3627 of 22752 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation demonstrated that 15.64 percent (3558 of 22752 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the data validator UJ-qualified 6.52 percent (1483 of 22752 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator NJ-qualified 1.00 percent (228 of 22752 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator R-qualified 0.66 percent (151 of 22752 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used.

All results, with the exception of those R-qualified as "rejected" (151 of 22752 results, 0.66 percent of total results) are available for use as qualified.

8. Phase III Ambient Air Samples (A-5 AA)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III

Ambient Air Sampling Event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected on July 8, 2010 and July 29, 2010.

8.1 Volatile Organic Compounds

Volatiles were analyzed by EPA TO-15 (low-level and SIM concentration ranges). Excluding field quality control samples, 799 distinct data points were generated. Because there are no rejected results, the volatiles data set is 100 percent complete (799 of 799 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	AA	VOC		392	49.06%	
A-5	AA	VOC	U	390	48.81%	8.1.1
A-5	AA	VOC	J	17	2.13%	8.1.2

8.1.1 U-qualification

A total of 390 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator (Toluene was U-qualified by the data validator in GC-AS501-S-2; GC-AS503-S-2; GC-AS508-S-2; and GC-AS509-S-2), this indicates "not detected at significantly greater than that in an associated blank". In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

8.1.2 J-qualification

Seventeen results were J-qualified as "estimated" by the data validator. These consist of methylene chloride in D-07082010-02-VOC; D-07292010-01; D-07292010-02-VOC; GC-AS501-C-1; GC-AS501-S-1; GC-AS502-C-1; GC-AS502-S-1; GC-AS503-S-1; GC-AS506-C-2; GC-AS506-S-2; GC-AS507-C-1; GC-AS507-S-1; GC-AS508-C-1; GC-AS509-C-1; GC-AS509-S-1; GC-AS512-S-1; and GC-AS513-S-1. This does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results were qualified as such due to initial calibration exceedances. They are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

8.1.3 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the Set P. Of 390 U-qualified results, 78 CRQLs exceeded Set P. These instances are shown as rows on Table 3.

It should be noted that benzene was detected in each sample at greater than the screening level.

Every sample was nondetect for bromodichloromethane and the quantitation limit exceeded the screening level in each case. This was expected as evidenced by shading in Worksheet

15-22 in the Phase III UFP-QAPP. Set P for bromodichloromethane is 0.0658ug/m^3. By far the most quantitation limits were 0.067ug/m^3 (29 samples). This is slightly greater than the screening level. It should be noted that all of these 29 samples contained a detected exceedance for benzene and chloroform and six also exceeded for ethylbenzene. Some quantitation limits were 0.13ug/m^3 (five samples). These samples all contained a detected exceedance for benzene and most (four) also exceeded for chloroform. Of those five, two also contained a detected exceedance for ethylbenzene. One quantitation limit (for bromodichloromethane) was 0.2ug/m^3. This sample contained a detected exceedance for benzene and chloroform. Some quantitation limits for bromodichloromethane were 0.22ug/m^3 (five samples). These samples all contained detected exceedances for benzene and one also exceeded for chlorine and methylene chloride. One of those five samples exceeded for ethylbenzene. The remaining seven quantitation limits were 0.34ug/m^3. These samples all contained a detected exceedance for benzene and one also exceeded for chloroform and ethylbenzene and another exceeded for ethylbenzene only. Elevated quantitation limits are due to dilution factor needed for low sample volume or high concentrations of other (target and/or non-target) analytes. It is important to note that the laboratory is not reporting results detected at less than the QL. This was not an option and is due to the extremely low-level concentration range; the laboratory would not be able to assure canister certification for results at less than the QL. Therefore, there is a very narrow range (between 0.0658ug/m^3 and 0.067ug/m^3) where the laboratory cannot detect and quantitate bromodichloromethane at greater than the screening level. This has no effect on the usability of the data since all samples contained a detected exceedance for benzene and many contained detected exceedances for other compounds.

Chloroform was detected in most samples. Any chloroform detections exceeded Set P. Most (but not all) nondetects quantitation limits were greater than the screening level and this is due to dilutions necessitated by low sample volume or high concentrations of other (target and/or non-target) analytes. The laboratory has demonstrated that it is capable of reporting nondetects at less than the screening level as evidenced by GC-AS510-C-2.

For dibromochloromethane, quantitation limit v. screening level exceedances were expected as evidenced shading in Worksheet 15-22 of the Phase III UFP-QAPP. However, for the majority (29) of samples, the laboratory was able to achieve quantitation limits less than expected and less than the screening level. For the remaining samples where the QL is greater than the screening level, the elevated quantitation limits are due to dilutions necessitated by low sample volume or high concentrations of other (target and/or non-target) analytes. These samples also all exceeded for benzene and nine of them exceeded for one or more of chloroform, ethylbenzene, and methylene chloride.

Methylene chloride was detected in one sample and exceeded the screening level in that one sample. This compound was nondetect in three samples at greater than the screening level. These three instances were among those where the data validator applied a U-qualifier. Therefore, the data user must acknowledge that methylene chloride was detected in GC-AS507-S-2; GCAS509-C-2; and GC-AS509-S-2 at greater than the screening level. Then, the data validator subsequently marked the points "not detected at significantly greater than that in an associated blank". This is not an uncommon situation. The data user can treat these as nondetects as long as they acknowledge that they were detected and subsequently U-qualified due to blank contamination.

Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

8.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by EPA TO-13A using a SIM concentration range. Excluding field quality control samples, 799 distinct data points were generated. Because there are no rejected results, the semivolatiles data set is 100 percent complete (799 of 799 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the semivolatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	AA	SVOC	U	313	39.17%	8.2.1
A-5	AA	SVOC	J	229	28.66%	8.2.2
A-5	AA	SVOC		196	24.53%	
A-5	AA	SVOC	UJ	61	7.63%	8.2.3

8.2.1 U-qualification

A total of 313 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

8.2.2 J-qualification

A total of 229 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

8.2.3 UJ-qualification

A total of 61 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 8.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher.

This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

8.2.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to Set P. Of 374 U- or UJ-qualified results, 266 QLs exceeded Set P. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

It should be noted that all of these QL v. PAL exceedances are associated with a detected exceedance for the same analysis group (SVOC) in the same sample. Although uncertainty is increased when a QL exceeds a screening level, the increased uncertainty is less relevant because the QL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

8.3 Pesticides/PCBs

PCBs (Aroclors) were analyzed by EPA TO-4A. Excluding field quality control samples, 16 distinct data points were generated. Because there were no rejected results, the PEST/PCB data set is 100 percent complete (16 of 16 PEST/PCB results are available for use). All 16 results were U-qualified by the laboratory to indicate "nondetect" and this does not affect the availability of results. It does not indicate a QA/QC problem. For all (U-qualified) results, the quantitation limit was less than the screening level.

8.4 Phase III Ambient Air PARCC

8.4.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, and laboratory replicate reproducibility. Because no results were rejected due to precision issues, the sample matrix and analytical process did not have any serious negative effects on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

8.4.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, or laboratory control sample (or laboratory control sample duplicate) recovery. Because no results were rejected due to accuracy issues, the sample matrix and analytical process did not have any serious negative effects on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data

point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

8.4.3 Representativeness

For VOCs and PEST/PCBs, there were no issues affecting representativeness in this data set. For SVOCs, there was one significant issue affecting representativeness. Samples GC-AS504-C-2 and GC-AS507-C-2 were characterized by equipment failure and it is not known how much sample air passed through the cartridge. Therefore, results for these samples are reported on a "per cartridge basis" as opposed to a "per air volume basis". These results are analytically sound and usable at their reported amounts. However, the sample results cannot be expressed as concentrations and thus cannot be compared to screening levels. Furthermore, it should be noted that:

- Nondetects for these two samples are suspect. It cannot be verified that sufficient air passed through the cartridge.
- Nondetect quantitation limits for these two samples are of unknown concentration.
- Detects for these two samples can be used to demonstrate that the contaminant is present at the sample location.
- Detects for these two samples are of unknown concentration because it is not known what volume of air the sample represents.

Therefore, these sample results are usable as reported (numerical value and units) and so this does not affect the dataset completeness. The ambient air SVOC dataset is of sufficient size that decisions can be made without concentrations at these two locations during this sample event.

8.4.4 Completeness

There were no R-qualified results in this dataset; therefore, the data validation process demonstrated that 100 percent of the results are available for use as qualified. For this data set, completeness exceeded the project goal of 90 percent from the Phase III UFP-QAPP.

8.4.5 Comparability

There were no issues affecting comparability in this data set.

8.5 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 44.55 percent (719 of 1614 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 36.43 percent (588 of 1614 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 15.24 percent (246 of 1614 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator UJ-qualified 3.78 percent (61 of 1614 results) of the data. These data are available as qualified.

All results are available for use as qualified.

9. Phase III Groundwater (A-5 WG)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Groundwater event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected June 24, 2010, July 8, 2010, and July 12, 2010 through July 26, 2010.

9.1 Volatile Organic Compounds

Volatiles were analyzed by USEPA CLP SOM01.2 "Trace Water" and "Trace Water by SIM". This data set also contains volatiles analyzed via SW-846 8260B following TCLP extraction via SW-846 1311 (waste characterization). Excluding field quality control samples, 3776 distinct data points were generated. When rejected data are considered, the volatiles data set is 99.10 percent complete (3742 of 3776 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WG	VOC	U	2875	76.14%	9.1.1
A-5	WG	VOC	UJ	385	10.20%	9.1.2
A-5	WG	VOC		279	7.39%	
A-5	WG	VOC	J	203	5.38%	9.1.3
A-5	WG	VOC	R	34	0.90%	9.1.4

9.1.1 U-qualification

A total of 2875 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

9.1.2 UJ-qualification

A total of 385 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 9.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

9.1.3 J-qualification

A total of 203 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

9.1.4 R-qualification

A total of 34 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These include Bromomethane in 32 samples and 1,4-Dioxane and methyl acetate in GC-MWXX. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other VOC information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

9.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Water" and "Low Water by SIM". This data set also contains semivolatiles analyzed via SW-846 8270C following TCLP extraction via SW-846 1311 (waste characterization). Excluding field quality control samples, 5028 distinct data points were generated. Because there were no rejected results, the semivolatiles data set is 100 percent complete (5028 of 5028 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WG	SVOC	U	3908	77.72%	9.2.1
A-5	WG	SVOC		489	9.73%	
A-5	WG	SVOC	J	441	8.77%	9.2.2
A-5	WG	SVOC	UJ	190	3.78%	9.2.3

9.2.1 U-qualification

A total of 3908 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

9.2.2 J-qualification

A total of 441 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

9.2.3 UJ-qualification

A total of 190 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 9.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

9.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by USEPA CLP SOM01.2 "Water". This data set also contains pesticides analyzed via SW-846 8081A following TCLP extraction via SW-846 1311 (waste characterization). Excluding field quality control samples, 2368 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 96.49 percent complete (2285 of 2368 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WG	PEST/PCB	U	1944	82.09%	9.3.1
A-5	WG	PEST/PCB	UJ	341	14.40%	9.3.2
A-5	WG	PEST/PCB	R	83	3.51%	9.3.3

9.3.1 U-qualification

A total of 1944 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

9.3.2 UJ-qualification

A total of 341 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 9.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

9.3.3 R-qualification

A total of 83 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to 4,4'-DDD and Endosulfan I nondetects in various samples. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information.

9.4 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, CVAA, and spectrophotometer. This data set also contains metals and mercury analyzed via SW-846 6010B/7470A following TCLP extraction via SW-846 1311 (waste characterization). Excluding field quality control samples, 1775 distinct data points were generated. When rejected results are considered, the metals data set is 96.51 percent complete (1713 of 1775 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WG	METAL		580	32.68%	
A-5	WG	METAL	U	560	31.55%	9.4.1
A-5	WG	METAL	J	499	28.11%	9.4.2
A-5	WG	METAL	UJ	74	4.17%	9.4.3
A-5	WG	METAL	R	62	3.49%	9.4.4

9.4.1 U-qualification

A total of 560 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the

availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

9.4.2 J-qualification

A total of 499 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

9.4.3 UJ-qualification

A total of 74 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 9.4.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

9.4.4 R-qualification

A total of 62 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Rejected results correspond to various detects and nondetects in various samples. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other METAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

9.5 Filtered Metals

Filtered metals, including mercury were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, and CVAA. Excluding field quality control samples, 1681 distinct data points were generated. When rejected results are considered, the filtered metals data set is 96.97 percent complete (1630 of 1681filtered metals results are available for use). The validation process resulted in the following qualifiers for results in the filtered metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WG	FMETAL	U	671	39.92%	9.5.1
A-5	WG	FMETAL		548	32.60%	
A-5	WG	FMETAL	J	346	20.58%	9.5.2
A-5	WG	FMETAL	UJ	65	3.87%	9.5.3
A-5	WG	FMETAL	R	51	3.03%	9.5.4

9.5.1 U-qualification

A total of 671 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

9.5.2 J-qualification

A total of 346 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

9.5.3 UJ-qualification

A total of 65 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 9.5.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

9.5.4 R-qualification

A total of 51 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Rejected results correspond to various detects and nondetects in various samples. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data

using the other FMETAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

9.6 Wet Chemistry

Wet Chemistry including Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) via SW-846 9060 or SM5310B, Chloride, Nitrate, Nitrite, Sulfate, and/or Phosphate via EPA 300.0, Alkalinity and Hardness via EPA 310.1, SM2320B, and/or SM2320C, Total Kjeldahl Nitrogen (TKN) via EPA 351.2 or SM4500C-NOrg, Nitrate/Nitrite via EPA 353.2, Total Dissolved Solids (TDS) via SM2540C, Total Suspended Solids (TSS) via SM2540D, Silica via SM4500, and/or Ammonia via SM4500C-NH3 was analyzed on one or more groundwater sample. Excluding field quality control samples, 233 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (233 of 233 WCHEM results are available for use). The validation process resulted in the following qualifiers for results in the WCHEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WG	WCHEM		155	66.52%	
A-5	WG	WCHEM	U	49	21.03%	9.6.1
A-5	WG	WCHEM	J	23	9.87%	9.6.2
A-5	WG	WCHEM	UJ	6	2.58%	9.6.3

9.6.1 U-qualification

Forty nine results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

9.6.2 J-qualification

Twenty three results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

9.6.3 UJ-qualification

Six results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status,

but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 9.6.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

9.7 Phase III Groundwater PARCC

9.7.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

9.7.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

9.7.3 Representativeness

There were no issues affecting representativeness in this data set.

9.7.4 Completeness

There were 230 R-qualified results in this dataset; therefore, the data validation process demonstrated that 98.45 percent of the results are available for use as qualified. For this data set, completeness exceeded the Phase III UFP-QAPP completeness goal of 90%. It should also be noted that VOC, PEST/PCB, METAL, and FMETAL fractions contained rejected data. Each of these fractions, considered individually, also met the 90 percent completeness goal.

9.7.5 Comparability

There were no issues affecting comparability in this data set.

9.8 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 67.34 percent (10007 of 14861 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 13.80 percent (2051 of 14861 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 10.17 percent (1512 of 14861 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator UJ-qualified 7.14 percent (1061 of 14861 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator R-qualified 1.55 percent (230 of 14861 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used.

All results, with the exception of those R-qualified as "rejected" (230 of 14861 results, 1.55 percent of total results) are available for use as qualified.

10. Phase III Sediment Sampling (A-5 SE)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Sediment Sampling event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected June 17, 2010 through July 1, 2010.

10.1 Volatile Organic Compounds

Volatiles were analyzed by USEPA CLP SOM01.2 "Low Soil". Excluding field quality control samples, 2548 distinct data points were generated. When rejected data are considered, the volatiles data set is 97.17 percent complete (2476 of 2548 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	SE	VOC	U	1759	69.03%	10.1.1
A-5	SE	VOC	UJ	593	23.27%	10.1.2
A-5	SE	VOC	J	87	3.41%	10.1.3
A-5	SE	VOC	R	72	2.83%	10.1.4
A-5	SE	VOC		37	1.45%	

10.1.1 U-qualification

A total of 1759 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

10.1.2 UJ-qualification

A total of 593 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 10.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

10.1.3 J-qualification

A total of 87 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

10.1.4 R-qualification

A total of 72 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These include all VOC results for D-062310-01, which is a field duplicate (there are available results for the parent sample), seven VOCs for GC-SD306-0.0-0.5, six VOCs for GC-SD314-0.0-0.5, and seven VOCs for GC-SDRH037-DW-1. Although these

results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other VOC information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

10.1.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 1176 U- or UJ-qualified results, only 51 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 51 CRQL v. SL exceedances, only 40 exceeded Set A or Set R and there were no detected SL exceedance for VOCs in the same sample. These instances are shown as yellow shading on Table 3 and consist mostly of 1,2-dibromo-3-chloropane results. The laboratory did demonstrate the capability to report nondetect 1,2-dibromo-3-chloropropane results at less than Set A. Elevated CRQLs are likely due to high percent moisture content in sediment samples. These instances are of interest because the data suggest that no VOCs were detected at greater than a screening level, but at the same time, one or more VOC CRQL was greater than its corresponding screening level in the same sample. However, of the 40 CRQL v. SL exceedances (without a "related detect"), no CRQLs exceeded Set A or Set R without an exceedance (any analysis group) in the same matrix at the same station.

10.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Soil" and "Low Soil by SIM". Excluding field quality control samples, 3332 distinct data points were generated. Because there were no rejected results, the semivolatiles data set is 100 percent complete (3332 of 3332 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	SE	SVOC	U	2251	67.56%	10.2.1
A-5	SE	SVOC		367	11.01%	
A-5	SE	SVOC	J	361	10.83%	10.2.2
A-5	SE	SVOC	UJ	353	10.59%	10.2.3

10.2.1 U-qualification

A total of 2251 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

10.2.2 J-qualification

A total of 361 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

10.2.3 UJ-qualification

A total of 353 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 10.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

10.2.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 2604 U- or UJ-qualified results, 1585 CRQLs exceeded Set A or Set R. This is not surprising considering the heavy dilutions that were necessary to quantify the high PAH detects. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (SVOC) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

10.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by USEPA CLP SOM01.2 "Soil". Excluding field quality control samples, 1568 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 94.13 percent complete (1476 of 1568 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	SE	PEST/PCB	U	979	62.44%	10.3.1
A-5	SE	PEST/PCB	UJ	437	27.87%	10.3.2
A-5	SE	PEST/PCB	R	92	5.87%	10.3.3
A-5	SE	PEST/PCB		30	1.91%	
A-5	SE	PEST/PCB	J	20	1.28%	10.3.4
A-5	SE	PEST/PCB	NJ	10	0.64%	10.3.5

10.3.1 U-qualification

A total of 979 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

10.3.2 UJ-qualification

A total of 437 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 10.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

10.3.3 R-qualification

A total of 92 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to 4,4'-DDD in 43 samples, 4,4'-DDE in one sample, Dieldrin in 1 sample, and Endosulfan I in four samples. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information.

10.3.4 J-qualification

A total of 20 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this

does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

10.3.5 NJ-qualification

Ten results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

10.3.6 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 1416 U- or UJ-qualified results, 987 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 987 CRQL v. SL exceedances, only 610 exceeded Set A or Set R and there were no detected SL exceedances for PEST/PCBs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no PEST/PCBs were detected at greater than a screening level, but at the same time, one or more PEST/PCB CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 610 of the PEST/PCB CRQL v. SL exceedances (without corresponding related detects) were associated with an exceedance (any analysis group) in the same matrix at the same station.

10.4 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, CVAA, and spectrophotometer. Excluding field quality control samples, 1176 distinct data points were generated. When rejected results are considered, the metals data set is 97.79 percent complete (1150 of 1173 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	SE	METAL	J	716	60.88%	10.4.1
A-5	SE	METAL		224	19.05%	
A-5	SE	METAL	UJ	140	11.90%	10.4.2
A-5	SE	METAL	U	70	5.95%	10.4.3
A-5	SE	METAL	R	26	2.21%	10.4.4

10.4.1 J-qualification

A total of 716 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this

does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

10.4.2 UJ-qualification

A total of 140 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 10.4.3, below). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

10.4.3 U-qualification

A total of 70 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

10.4.4 R-qualification

A total of 26 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to Zinc in 16 samples and arsenic and iron in five samples. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other METAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

10.4.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set A or Set R. Of 210 U- or UJ-qualified results, 81 CRQLs exceeded Set A or Set R. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (METAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample.

10.5 AVS/SEM

Acid Volatile Sulfide/Simultaneously Extractable Metals (AVS/SEM) was analyzed via EPA 821_R-91-100. Excluding field quality control samples, 259 distinct data points were generated. When rejected results are considered, the AVSSEM analysis group is 98.46 percent complete (255 of 259 AVSSEM results are available for use). The validation process resulted in the following qualifiers for results in the AVSSEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	SE	AVSSEM	J	102	39.38%	10.5.1
A-5	SE	AVSSEM		73	28.19%	
A-5	SE	AVSSEM	U	66	25.48%	10.5.2
A-5	SE	AVSSEM	UJ	14	5.41%	10.5.3
A-5	SE	AVSSEM	R	4	1.54%	10.5.4

10.5.1 J-qualification

A total of 102 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

10.5.2 U-qualification

A total of 66 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

10.5.3 UJ-qualification

A total of 14 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 10.5.2, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher.

This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

10.5.4 R-qualification

Four results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to SEM mercury and SEM silver in GC-SD315-0.0-0.5 and GC-SD324-0.0-0.5 . Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other AVSSEM information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

10.6 Phase III Sediment Sampling PARCC

10.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

10.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

10.6.3 Representativeness

There were no issues affecting representativeness in this data set.

10.6.4 Completeness

There were 194 R-qualified results in this dataset; therefore, the data validation process demonstrated that 97.82 percent of the results are available for use as qualified. For this data set, completeness exceeded the Phase III UFP-QAPP completeness goal of 90%. It should

also be noted that VOC, PEST/PCB, METAL and AVSSEM fractions contained rejected data. Each fraction, considered individually, also met the 90 percent completeness goal.

10.6.5 Comparability

There were no issues affecting comparability in this data set.

10.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 57.69 percent (5125 of 8883 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation showed that the data validator UJ-qualified 17.30 percent (1537 of 8883 results) of the data. These data are available as qualified. The data quality evaluation showed that the laboratory or data validator J-qualified 14.48 percent (1286 of 8883 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation demonstrated that 8.23 percent (730 of 8883 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the data validator R-qualified 2.18 percent (194 of 8883 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used. The data quality evaluation showed that the data validator NJ-qualified 0.11 percent (10 of 8883 results) of the data. These data are available as qualified.

All results, with the exception of those R-qualified as "rejected" (194 of 8883 results, 2.18 percent of total results) are available for use as qualified.

11. Phase III Surface Water Samples (A-5 WS)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Surface Water Sampling Event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected June 19, 2010 through July 1, 2010; July 12, 2010 through July 27, 2010, September 28, 2010, and October 1, 2010.

11.1 Volatile Organic Compounds

Volatiles were analyzed by USEPA CLP SOM01.2 "Trace Water" and "Trace Water by SIM". Excluding field quality control samples, 5865 distinct data points were generated. When rejected results are considered, the volatiles data set is 99.13 percent complete (5814 of 5865 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WS	VOC	U	4775	81.42%	11.1.1
A-5	WS	VOC		388	6.62%	
A-5	WS	VOC	J	333	5.68%	11.1.2
A-5	WS	VOC	UJ	318	5.42%	11.1.3
A-5	WS	VOC	R	51	0.87%	11.1.4

11.1.1 U-qualification

A total of 4775 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

11.1.2 J-qualification

A total of 333 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

11.1.3 UJ-qualification

A total of 318 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 11.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

11.1.4 R-qualification

A total of 51 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to 50 results in D-06192010-04, a field duplicate, and Bromomethane in GC-SWMW3-2. Although these results are not usable for any purpose (and there are usable results for the parent of D-06192010-04) this does not affect the other

non-rejected results in the same dataset. Conclusions can still be made from the data using the other VOC information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

11.1.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set S or Set T. Of 5093 U- or UJ-qualified results, 558 CRQLs exceeded Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 558 CRQL v. SL exceedances, only 339 exceeded Set T and there were no detected SL exceedances for VOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no VOCs were detected at greater than a screening level, but at the same time, one or more VOC CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 339 of the VOC CRQL v. SL exceedances (without corresponding related detects) were associated with an exceedance (any analysis group) in the same matrix at the same station.

11.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Water" and "Low Water by SIM". Excluding field quality control samples, 7888 distinct data points were generated. Because there are no rejected results, the semivolatiles data set is 100 percent complete (788 of 788 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the semivolatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WS	SVOC	U	6741	85.46%	11.2.1
A-5	WS	SVOC		619	7.85%	
A-5	WS	SVOC	J	274	3.47%	11.2.2
A-5	WS	SVOC	UJ	254	3.22%	11.2.3

11.2.1 U-qualification

A total of 6741 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

11.2.3 J-qualification

A total of 274 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

11.2.3 UJ-qualification

A total of 254 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 11.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

11.2.4 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set S or Set T. Of 6995 U- or UJ-qualified results, 3116 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 3116 CRQL v. SL exceedances, only 701 exceeded Set S or Set T and there were no detected SL exceedances for SVOCs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no SVOCs were detected at greater than a screening level, but at the same time, one or more SVOC CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 701 of the SVOC CRQL v. SL exceedances (without corresponding related detects) were associated with an exceedance (any analysis group) in the same matrix at the same station.

11.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by USEPA CLP SOM01.2 "Water". Excluding field quality control samples, 3680 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 93.45 percent complete (3439 of 3680 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WS	PEST/PCB	U	3416	92.83%	11.3.1
A-5	WS	PEST/PCB	R	241	6.55%	11.3.2
A-5	WS	PEST/PCB	UJ	20	0.54%	11.3.3
A-5	WS	PEST/PCB	J	2	0.05%	11.3.4
A-5	WS	PEST/PCB		1	0.03%	

11.3.1 U-qualification

A total of 3416 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

11.3.2 R-qualification

A total of 241 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to 4,4'-DDD in 96 samples and Endosulfan I in 52 samples. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

11.3.3 UJ-qualification

A total of 20 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 11.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

11.3.4 J-qualification

Two results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user

understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

11.3.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U- or UJ-values were compared to the lesser of Set S or Set T. Of 3436 U- or UJ-qualified results, 2956 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above.

Of the 2956 CRQL v. SL exceedances, most of them (2906) exceeded Set S or Set T and there were no detected SL exceedances for PEST/PCBs in the same sample. These instances are shown as yellow shading on Table 3. These instances are of interest because the data suggest that no PEST/PCBs were detected at greater than a screening level, but at the same time, one or more PEST/PCB CRQL was greater than its corresponding screening level in the same sample. However, it should be noted that all 2906 of the PEST/PCB CRQL v. SL exceedances (without corresponding related detects) were associated with an exceedance (any analysis group) in the same matrix at the same station.

11.4 Filtered Metals

Filtered metals, including mercury, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, and CVAA. Excluding field quality control samples, 2352 distinct data points were generated. When rejected results are considered, the filtered metals data set is 95.96 percent complete (2257 of 2352 filtered metals results are available for use). The validation process resulted in the following qualifiers for results in the filtered metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WS	FMETAL	U	1049	44.60%	11.4.1
A-5	WS	FMETAL	J	551	23.43%	11.4.2
A-5	WS	FMETAL		499	21.22%	
A-5	WS	FMETAL	UJ	158	6.72%	11.4.3
A-5	WS	FMETAL	R	95	4.04%	11.4.4

11.4.1 U-qualification

A total of 1049 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

11.4.2 J-qualification

A total of 551 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

11.4.3 UJ-qualification

A total of 158 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 11.4.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

11.4.4 R-qualification

A total of 95 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to various filtered metals in various samples (no apparent pattern). Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other FMETAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

11.4.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set S or Set T. Of 1207 U- or UJ-qualified results, 793 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (FMETAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample. Refer to section 11.5.6, below, for additional considerations with respect to copper.

11.5 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, CVAA, and spectrophotometer. Excluding field quality control samples, 2455 distinct data points were generated. When rejected results are considered, the metals data set is 97.35 percent complete (2390 of 2455 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WS	METAL	U	1117	45.50%	11.5.1
A-5	WS	METAL		662	26.97%	
A-5	WS	METAL	J	576	23.46%	11.5.2
A-5	WS	METAL	R	65	2.65%	11.5.3
A-5	WS	METAL	UJ	35	1.43%	11.5.4

11.5.1 U-qualification

A total of 1117 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

11.5.2 J-qualification

A total of 576 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

11.5.3 R-qualification

A total of 65 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to various metals in various samples (no apparent pattern). Conclusions can still be made from the data using the other METAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

11.5.4 UJ-qualification

A total of 35 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 11.5.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher.

This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

11.5.5 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set S or Set T. Of 1152 U- or UJ-qualified results, 764 CRQLs exceeded Set S or Set T. These instances are shown as rows on Table 3. Typical reasons for elevated quantitation limits and reasons for QL v. PAL exceedances are discussed in Section 2, above. It should be noted that all of these CRQL v. PAL exceedances are associated with a detected exceedance for the same analysis group (METAL) in the same sample. Although uncertainty is increased when a CRQL exceeds a screening level, the increased uncertainty is less relevant because the CRQL v. SL exceedances are associated with other data that suggest detected SL exceedance in the same analysis group for the same sample. Refer to section 11.5.6, below, for additional considerations with respect to copper.

11.5.6 Copper

Because of an interesting data trend between the wet and dry surface water sampling events for the ecological risk assessment, copper was examined with further detail. Copper was detected in several samples in the dry event but was not detected during the wet event. The Set S (ecological screening level) for copper is 3.1ug/L and the undiluted ICP-MS CRQL via EPA CLP ILM05.4 is 2ug/L. The undiluted ICP-AES CRQL via EPA CLP ILM05.4 is 25ug/L.

For the sake of simplicity, the following data grouping was considered: Phase III surface water, METAL and FMETAL, copper only, wet and dry event only, no field duplicates.

Analysis of copper via ICP-MS was requested. During the first event (dry event), the laboratory noted analytical issues with copper and other metals. At a 1X dilution, exceedances were noted for internal standards. In addition, when compared to ICP-AES results, false detects were noted for copper via ICP-MS. The laboratory was forced to analyze some samples for copper via ICP-AES to reduce or eliminate these issues.

During the dry (first) event, samples were analyzed for copper via ICP-MS and ICP-AES. Some samples (analyzed via ICP-MS) had detects for copper. Detections ranged between 122ug/L and 282ug/L. The remainder of the samples (analyzed via ICP-AES) were nondetect for copper. Nondetect ICP-AES CRQLs were 25 U ug/L (30 analyses) and 375 U ug/L (16 analyses).

During the wet (second) event, samples were analyzed for copper via ICP-AES only. All samples were nondetect for copper. CRQLs were 375 U ug/L (71 analyses) and 1880 U ug/L (three analyses).

Analysis and diluted analysis via ICP-AES was necessary to reduce interference from high metals concentrations (other target analytes). This has no effect on the availability of results for use. All results are usable at their reported concentration (for detected results) or quantitation limit (for nondetect results). All detected copper results during the dry event are less than the nondetect copper CRQLs during the wet event. As described in section 11.4.5 and 11.5.5, above, all instances of nondetect copper or filtered copper CRQLs exceeding screening limits are associated with a METAL or FMETAL detected exceedance in the same sample and same analysis group.

11.6 Wet Chemistry

Wet Chemistry including Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) via SW-846 9060, Chloride, Nitrate, Nitrate, Sulfate, and/or Phosphate via EPA 300.0, Total Kjeldahl Nitrogen (TKN) via EPA 351.2, Nitrate/Nitrite via EPA 353.2, Alkalinity or Hardness via SM2320, SM2320B, and/or SM2320C, Total Dissolved Solids (TDS) via SM2540C, Total Suspended Solids (TSS) via SM2540D, and/or Silica via SM4500 was analyzed in one or more surface water sample. Excluding field quality control samples, 244 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (244 of 244 WCHEM results are available for use). The validation process resulted in the following qualifiers for results in the WCHEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	WS	WCHEM		209	85.66%	
A-5	WS	WCHEM	U	23	9.43%	11.6.1
A-5	WS	WCHEM	J	10	4.10%	11.6.2
A-5	WS	WCHEM	UJ	2	0.82%	11.6.3

11.6.1 U-qualification

Twenty three results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

11.6.2 J-qualification

Ten results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

11.6.3 UJ-qualification

Two results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank

contamination (see section 11.6.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

11.7 Phase III Surface Water PARCC

11.7.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

11.7.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

11.7.3 Representativeness

There were no issues affecting representativeness in this data set.

11.7.4 Completeness

There were 452 R-qualified results in this dataset; therefore, the data validation process demonstrated that 97.99 percent of the results are available for use as qualified. For this data set, completeness exceeded the project goal of 90 percent from the Phase III UFP-QAPP. It should also be noted that only VOC, PEST/PCB, FMETAL, and METAL fractions contained rejected data, and these fractions, individually, also met the 90 percent project goal for completeness.

11.7.5 Comparability

There were no issues affecting comparability in this data set.

11.8 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 76.15 percent (17121 of 22484 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 10.58 percent (2378 of 22484 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 7.77 percent (1746 of 22484 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator UJ-qualified 3.50 percent (787 of 22484 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator R-qualified 2.01 percent (452 of 22484 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used.

All results, with the exception of those R-qualified as "rejected" (452 of 22484 results, 2.01 percent of total results) are available for use as qualified.

12. Phase III Upland Soil (ERT) (A-8 SO)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Upland Soil Sampling event conducted by ERT at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected by ERT May 17, 2010 through June 29, 2010.

12.1 Volatile Organic Compounds

Volatiles were analyzed by GC/MS. Excluding field quality control samples, 13186 distinct data points were generated. When rejected data are considered, the volatiles data set is 94.96 percent complete (12521 of 13186 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-8	SO	VOC	U	10399	78.86%	12.1.1
A-8	SO	VOC	UJ	906	6.87%	12.1.2
A-8	SO	VOC	J	837	6.35%	12.1.3
A-8	SO	VOC	R	665	5.04%	12.1.4
A-8	SO	VOC		379	2.87%	

12.1.1 U-qualification

A total of 10399 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater

than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

12.1.2 UJ-qualification

A total of 906 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 12.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

12.1.3 J-qualification

A total of 837 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

12.1.4 R-qualification

A total of 665 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

12.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by GC/MS. Excluding field quality control samples, 17260 distinct data points were generated. Because there were no rejected results, the semivolatiles data set is 100 percent complete (17260 of 17260 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-8	SO	SVOC	U	13264	76.85%	12.2.1
A-8	SO	SVOC	J	2611	15.13%	12.2.2
A-8	SO	SVOC		1035	6.00%	
A-8	SO	SVOC	UJ	344	1.99%	12.2.3
A-8	SO	SVOC	NJ	6	0.03%	12.2.4

12.2.1 U-qualification

A total of 13264 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

12.2.2 J-qualification

A total of 2611 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

12.2.3 UJ-qualification

A total of 2877 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 12.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

12.2.4 NJ-qualification

Six results consisting of 4-methyl-2-pentanone in 059-2188, 059-2193, 059-2194, 059-2195, 059-2196, and 059-2200 were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. The NJ-qualification of data by the data validator does not affect the availability of

data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

12.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by GC. Excluding field quality control samples, 8127 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 97.45 percent complete (7920 of 8127 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-8	SO	PEST/PCB	U	6189	76.15%	12.3.1
A-8	SO	PEST/PCB	UJ	1347	16.57%	12.3.2
A-8	SO	PEST/PCB	J	229	2.82%	12.3.3
A-8	SO	PEST/PCB	R	207	2.55%	12.3.4
A-8	SO	PEST/PCB		104	1.28%	
A-8	SO	PEST/PCB	NJ	51	0.63%	12.3.5

12.3.1 U-qualification

A total of 6189 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

12.3.2 UJ-qualification

A total of 1347 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 12.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

12.3.3 J-qualification

A total of 229 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this

does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

12.3.4 R-qualification

A total of 207 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset.

12.3.5 NJ-qualification

A total of 51 results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

12.4 Metals

Metals, including mercury and cyanide, were analyzed by ICP-AES, CVAA, and spectrophotometer. Excluding field quality control samples, 6096 distinct data points were generated. When rejected results are considered, the metals data set is 99.98 percent complete (6095 of 6096 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-8	SO	METAL		2852	46.78%	
A-8	SO	METAL	U	1692	27.76%	12.4.1
A-8	SO	METAL	J	1362	22.34%	12.4.2
A-8	SO	METAL	UJ	189	3.10%	12.4.3
A-8	SO	METAL	R	1	0.02%	12.4.4

12.4.1 U-qualification

A total of 1692 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

12.4.2 J-qualification

A total of 1362 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

12.4.3 UJ-qualification

A total of 189 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 12.4.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

12.4.4 R-qualification

One result (nickel in 059-2105) was R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset.

12.5 Wet Chemistry

Wet Chemistry (percent moisture) data was generated for these samples. Excluding field quality control samples, nine distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (nine of nine WCHEM results are available for use). No qualifiers were applied to the WCHEM data.

12.6 Phase III Upland Soil (ERT) PARCC

12.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

12.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

12.6.3 Representativeness

There were no issues affecting representativeness in this data set.

12.6.4 Completeness

There were 873 R-qualified results in this dataset; therefore, the data validation process demonstrated that 98.05 percent of the results are available for use as qualified. For this data set, completeness exceeded a typical project completeness goal of 90%. It should also be noted that VOC, PEST/PCB, and METAL fractions contained rejected data. These fractions, when considered individually, also met the 90 percent completeness goal.

12.6.5 Comparability

There were no issues affecting comparability in this data set.

12.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 70.60 percent (31544 of 44678 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation showed that the laboratory or data validator J-qualified 11.28 percent (5039 of 44678 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation demonstrated that 9.80 percent (4379 of 44678 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the data validator UJ-qualified 6.24 percent (2786 of 44678 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator R-qualified 1.95 percent (873 of 44678 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used. The data quality evaluation showed that the data validator NJ-qualified 0.13 percent (57 of 44678 results) of the data. These data are available as qualified.

All results, with the exception of those R-qualified as "rejected" (873 of 44678 results, 1.95 percent of total results) are available for use as qualified.

13. Phase III Groundwater (NYC/NG) (A-9 WG)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Groundwater (New York City/National Grid) event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected by New York City/National Grid June 24, 2010 through July 22, 2010.

13.1 Volatile Organic Compounds

Volatiles were analyzed by GC/MS. 1,2-Dibromoethane and 1,2-dibromo-3-chloropropane included a micro-extraction technique. Excluding field quality control samples, 1296 distinct data points were generated. When rejected data are considered, the volatiles data set is 96.99 percent complete (1257 of 1296 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WG	VOC	U	1118	86.27%	13.1.1
A-9	WG	VOC		87	6.71%	
A-9	WG	VOC	J	43	3.32%	13.1.2
A-9	WG	VOC	R	39	3.01%	13.1.3
A-9	WG	VOC	UJ	9	0.69%	13.1.4

13.1.1 U-qualification

A total of 1118 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

13.1.2 J-qualification

A total of 43 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user

understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

13.1.3 R-qualification

A total of 39 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other VOC information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

13.1.4 UJ-qualification

Nine results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 13.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

13.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by GC/MS and selective ion monitoring. Excluding field quality control samples, 1650 distinct data points were generated. Because there were no rejected results, the semivolatiles data set is 100 percent complete (1650 of 1650 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WG	SVOC	U	1380	83.64%	13.2.1
A-9	WG	SVOC		175	10.61%	
A-9	WG	SVOC	J	82	4.97%	13.2.2
A-9	WG	SVOC	UJ	13	0.79%	13.2.3

13.2.1 U-qualification

A total of 1380 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

13.2.2 J-qualification

A total of 82 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

13.2.3 UJ-qualification

A total of 13 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 13.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

13.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by GC. Excluding field quality control samples, 800 distinct data points were generated. Because there were no rejected results, the PEST/PCB data set is 100 percent complete (800 of 800 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WG	PEST/PCB	U	634	79.25%	13.3.1
A-9	WG	PEST/PCB	UJ	163	20.38%	13.3.2
A-9	WG	PEST/PCB	J	2	0.25%	13.3.3
A-9	WG	PEST/PCB		1	0.13%	

13.3.1 U-qualification

A total of 634 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

13.3.2 UJ-qualification

A total of 163 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 13.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

13.3.3 J-qualification

Two results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

13.4 Filtered Metals

Filtered metals, including mercury were analyzed by ICP-AES, ICP-MS, and CVAA. Excluding field quality control samples, 265 distinct data points were generated. Because there were no rejected results, the filtered metals data set is 100 percent complete (265 of 265 filtered metals results are available for use). The validation process resulted in the following qualifiers for results in the filtered metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WG	FMETAL	UJ	133	50.19%	13.4.1
A-9	WG	FMETAL		72	27.17%	
A-9	WG	FMETAL	U	32	12.08%	13.4.2
A-9	WG	FMETAL	J	28	10.57%	13.4.3

13.4.1 UJ-qualification

A total of 133 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 13.4.2, below). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

13.4.2 U-qualification

A total of 32 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

13.4.3 J-qualification

A total of 28 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

13.5 Metals

Metals, including mercury and cyanide, were analyzed by ICP-AES, ICP-MS, CVAA, and spectrophotometer. Excluding field quality control samples, 600 distinct data points were generated. Because there were no rejected results, the metals data set is 100 percent complete (600 of 600 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WG	METAL		237	39.50%	
A-9	WG	METAL	U	207	34.50%	13.5.1
A-9	WG	METAL	UJ	115	19.17%	13.5.2
A-9	WG	METAL	J	41	6.83%	13.5.3

13.5.1 U-qualification

A total of 207 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the

availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

13.5.2 UJ-qualification

A total of 115 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 13.5.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

13.5.3 J-qualification

A total of 41 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

13.6 Wet Chemistry

Wet Chemistry including Chloride and Sulfate via EPA 300.0, Nitrate and Nitrate/Nitrite via EPA 353.2 and SM4500, Phosphorous via EPA 365.3, Alkalinity via EPA 310.1 and SM2320B, Hardness via SM2340B and SM2340C, Total Kjeldahl Nitrogen (TKN) via EPA 351.2 and SM4500C-NOrg, TDS via SM2540C, TSS via SM2540D, Silica via SM4500, Ammonia via SM4500C-NH3, and Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) via SM5310B were analyzed on one or more groundwater sample. Excluding field quality control samples, 128 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (128 of 128 WCHEM results are available for use). The validation process resulted in the following qualifiers for results in the WCHEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WG	WCHEM		105	82.03%	
A-9	WG	WCHEM	U	17	13.28%	13.6.1
A-9	WG	WCHEM	J	6	4.69%	13.6.2

13.6.1 U-qualification

Seventeen results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status

from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

13.6.2 J-qualification

Six results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

13.7 Phase III Groundwater (NYC/NG) PARCC

13.7.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

13.7.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

13.7.3 Representativeness

There were no issues affecting representativeness in this data set.

13.7.4 Completeness

There were 39 R-qualified results in this dataset; therefore, the data validation process demonstrated that 99.18 percent of the results are available for use as qualified. For this data set, completeness exceeded a typical project completeness goal of 90%. It should also be noted that only the VOC fraction contained rejected data. This fraction, considered individually, also met the 90 percent completeness goal.

13.7.5 Comparability

There were no issues affecting comparability in this data set.

13.8 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 71.49 percent (3388 of 4739 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 14.29 percent (677 of 4739 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the data validator UJ-qualified 9.14 percent (433 of 4739 results) of the data. These data are available as qualified. The data quality evaluation showed that the laboratory or data validator J-qualified 4.26 percent (202 of 4739 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator R-qualified 0.82 percent (39 of 4739 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used.

All results, with the exception of those R-qualified as "rejected" (39 of 4730 results, 0.28 percent of total results) are available for use as qualified.

14. Phase III Soil (NYC/NG) (A-9 SO)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Soil Sampling event conducted by New York City/National Grid at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected by New York City/National Grid June 2, 2010 through June 30, 1010.

14.1 Volatile Organic Compounds

Volatiles were analyzed by GC/MS. Excluding field quality control samples, 6342 distinct data points were generated. When rejected data are considered, the volatiles data set is 97.52 percent complete (6185 of 6342 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	SO	VOC	U	5282	83.29%	14.1.1
A-9	SO	VOC	UJ	425	6.70%	14.1.2
A-9	SO	VOC	J	279	4.40%	14.1.3
A-9	SO	VOC		199	3.14%	
A-9	SO	VOC	R	157	2.48%	14.1.4

14.1.1 U-qualification

A total of 5282 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

14.1.2 UJ-qualification

A total of 425 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 14.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

14.1.3 J-qualification

A total of 279 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

14.1.4 R-qualification

A total of 157 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

14.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by GC/MS. Excluding field quality control samples, 8052 distinct data points were generated. When rejected results are considered, the semivolatiles data set is 99.99 percent complete (8051 of 8052 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	SO	SVOC	U	6065	75.32%	14.2.1
A-9	SO	SVOC		949	11.79%	
A-9	SO	SVOC	J	740	9.19%	14.2.2
A-9	SO	SVOC	UJ	297	3.69%	14.2.3
A-9	SO	SVOC	R	1	0.01%	14.2.4

14.2.1 U-qualification

A total of 6065 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

14.2.2 J-qualification

A total of 740 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

14.2.3 UJ-qualification

A total of 297 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 14.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher.

This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

14.2.4 R-qualification

One result (2,4-Dinitrophenol in GC-MW23I(30-35)) was R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

14.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by GC. Excluding field quality control samples, 3904 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 99.49 percent complete (73884 of 3904 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	SO	PEST/PCB	U	3618	92.67%	14.3.1
A-9	SO	PEST/PCB	UJ	137	3.51%	14.3.2
A-9	SO	PEST/PCB	J	57	1.46%	14.3.3
A-9	SO	PEST/PCB		49	1.26%	
A-9	SO	PEST/PCB	NJ	23	0.59%	14.3.4
A-9	SO	PEST/PCB	R	20	0.51%	14.3.5

14.3.1 U-qualification

A total of 3618 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

14.3.2 UJ-qualification

A total of 137 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 14.3.1, above). These results are usable as nondetects as

long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

14.3.3 J-qualification

A total of 57 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

14.3.4 NJ-qualification

A total of 23 results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

14.3.5 R-qualification

Twenty results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset.

14.4 Metals

Metals, including mercury and cyanide, were analyzed by ICP-AES, CVAA, and spectrophotometer. Excluding field quality control samples, 2928 distinct data points were generated. Because there were no rejected results, the metals data set is 100 percent complete (2928 of 2928 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	SO	METAL		1567	53.52%	
A-9	SO	METAL	U	839	28.65%	14.4.1
A-9	SO	METAL	J	345	11.78%	14.4.2
A-9	SO	METAL	UJ	177	6.05%	14.4.3

14.4.1 U-qualification

A total of 839 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed

the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

14.4.2 J-qualification

A total of 345 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

14.4.3 UJ-qualification

A total of 177 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 14.4.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

14.5 Wet Chemistry

Wet Chemistry (percent moisture) data was generated for these samples. Excluding field quality control samples, 121 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (121 of 121 WCHEM results are available for use). No qualifiers were applied to the WCHEM data.

14.6 Phase III Soil (NYC/NG) PARCC

14.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

14.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

14.6.3 Representativeness

There were no issues affecting representativeness in this data set.

14.6.4 Completeness

There were 178 R-qualified results in this dataset; therefore, the data validation process demonstrated that 99.17 percent of the results are available for use as qualified. For this data set, completeness exceeded a typical project completeness goal of 90%. It should also be noted that VOC, SVOC, and PEST/PCB fractions contained rejected data. These fractions, when considered individually, also met the 90 percent completeness goal.

14.6.5 Comparability

There were no issues affecting comparability in this data set.

14.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 74.03 percent (15804 of 21347 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 13.51 percent (2885 of 21347 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 6.66 percent (1421 of 21347 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator UJ-qualified 4.85 percent (1306 of 21347 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator R-qualified 0.83 percent (178 of 21347 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used. The data quality evaluation showed that the data validator NJ-qualified 0.11 percent (23 of 21347 results) of the data. These data are available as qualified.

All results, with the exception of those R-qualified as "rejected" (178 of 21347 results, 0.83 percent of total results) are available for use as qualified.

15. Phase III Surface Water (NYC/NG) (A-9 WS)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Surface Water Sampling Event (New York City/National Grid) at Gowanus Canal as well as to provide an assessment of data usability. Two surface water samples were collected by New York City/National Grid on July 21, 2010.

15.1 Filtered Metals

Select filtered metals were analyzed by ICP-AES and ICP-MS. Excluding field quality control samples, 14 distinct data points were generated. Because there were no rejected results, the filtered metals data set is 100 percent complete (14 of 14 filtered metals results are available for use). The validation process resulted in the following qualifiers for results in the filtered metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WS	FMETAL		11	78.57%	
A-9	WS	FMETAL	J	2	14.29%	15.1.1
A-9	WS	FMETAL	UJ	1	7.14%	15.1.2

15.1.1 J-qualification

Two results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

15.1.2 UJ-qualification

One result was UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination. These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

15.1.3 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set S or Set T. There were no instances of nondetect U-values exceeding screening levels.

15.2 Metals

Select metals were analyzed using ICP-AES. Excluding field quality control samples, 14 distinct data points were generated. Because there were no rejected results, the metals data set is 100 percent complete (14 of 14 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WS	METAL		12	85.71%	
A-9	WS	METAL	J	2	14.29%	15.2.1

15.2.1 J-qualification

Two results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

15.2.2 CRQL v. SL Exceedances

Please refer to Table 3. Nondetect U-values were compared to the lesser of Set S or Set T. All data were detect.

15.3 Wet Chemistry

Wet Chemistry including Chloride and Sulfate via EPA 300.0, Phosphorous via EPA 365.3, Alkalinity via EPA 310.1, Hardness via SM2340B, Nitrate/Nitrate via EPA 353.2, Ammonia via SM4500C-NH3, Total Kjeldahl Nitrogen (TKN) via SM4500C-NOrg, Ferrous Iron via SM3500D-Fe, Silica via SM4500, and Total Organic Carbon (TOC) and Dissolved Organic Carbon (DOC) via SM5310B were analyzed in one or more surface water sample. Excluding field quality control samples, 23 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (23 of 23 WCHEM results are available for use). The validation process resulted in the following qualifiers for results in the WCHEM fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-9	WS	WCHEM		18	78.26%	
A-9	WS	WCHEM	J	5	21.74%	15.3.1

15.3.1 J-qualification

Five results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These

results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

15.4 Phase III Surface Water (NYC/NG) PARCC

15.4.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness).

15.4.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as laboratory control sample (or laboratory control sample duplicate) recovery or matrix spike (or matrix spike duplicate) recovery. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy.

15.4.3 Representativeness

There were no issues affecting representativeness in this data set.

15.4.4 Completeness

There were no R-qualified results in this dataset; therefore, the data validation process demonstrated that 100 percent of the results are available for use as qualified. For this data set, completeness exceeded a typical project goal of 90 percent.

15.4.5 Comparability

There were no issues affecting comparability in this data set.

15.5 “Available as Reported” v. “Available as Qualified” v. Rejected

The data quality evaluation demonstrated that 80.39 percent (41 of 51 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 17.65 percent (9 of 51results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator UJ-qualified 1.96 percent (one of 51 results) of the data. These data are available as qualified.

All results are available for use as qualified.

16. Phase III PRP Split Groundwater (A-10 WG)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III PRP

Split Groundwater event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected June 24, 2010, July 8, 2010 through July 22, 2010.

16.1 Volatile Organic Compounds

Volatiles were analyzed by USEPA CLP SOM01.2 "Trace Water" and "Trace Water by SIM". Excluding field quality control samples, 1173 distinct data points were generated. Because there were no rejected data, the volatiles data set is 100 percent complete (1173 of 1173 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	WG	VOC	U	1012	86.27%	16.1.1
A-10	WG	VOC	J	95	8.10%	16.1.2
A-10	WG	VOC		66	5.63%	

16.1.1 U-qualification

A total of 1012 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

16.1.2 J-qualification

A total of 95 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

16.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Water" and "Low Water by SIM". Excluding field quality control samples, 1496 distinct data points were generated. When rejected results are considered, the semivolatiles data set is 99.47 percent complete (1488 of 1496 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the semivolatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	WG	SVOC	U	1192	79.68%	16.2.1
A-10	WG	SVOC	J	176	11.76%	16.2.2
A-10	WG	SVOC		105	7.02%	
A-10	WG	SVOC	UJ	15	1.00%	16.2.3
A-10	WG	SVOC	R	8	0.53%	16.2.4

16.2.1 U-qualification

A total of 1192 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

16.2.2 J-qualification

A total of 176 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

16.2.3 UJ-qualification

A total of 115 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 16.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

16.3.3 R-qualification

Eight results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to Pentachlorophenol in GC-MW23I-S-NG; GC-MW23S-S-NG; GC-MW30S-S-NG; GC-MW31I-S-NG; GC-MW31S-S-NG; GC-MW32S-S-NG; GC-MW41I-S-NG; and GC-MW41S-S-NG. Although these results are not usable for any purpose, this

does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other SVOC information.

16.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by USEPA CLP SOM01.2 "Water". Excluding field quality control samples, 704 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 99.86 percent complete (703 of 704 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	WG	PEST/PCB	U	427	60.65%	16.3.1
A-10	WG	PEST/PCB	UJ	273	38.78%	16.3.2
A-10	WG	PEST/PCB	J	3	0.43%	16.3.3
A-10	WG	PEST/PCB	R	1	0.14%	16.3.4

16.3.1 U-qualification

A total of 427 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

16.3.2 UJ-qualification

A total of 273 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 16.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

16.3.3 J-qualification

Three results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user

understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

16.3.4 R-qualification

One result was R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. This corresponds to beta-BHC in GC-MW09I-S-NYC. Although this result is not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information.

16.4 Filtered Metals

Filtered metals, including mercury were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, and CVAA. Excluding field quality control samples, 506 distinct data points were generated. When rejected results are considered, the filtered metals data set is 96.44 percent complete (488 of 506filtered metals results are available for use). The validation process resulted in the following qualifiers for results in the filtered metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	WG	FMETAL		204	40.32%	
A-10	WG	FMETAL	U	201	39.72%	16.4.1
A-10	WG	FMETAL	J	60	11.86%	16.4.2
A-10	WG	FMETAL	UJ	23	4.55%	16.4.3
A-10	WG	FMETAL	R	18	3.56%	16.4.4

16.4.1 U-qualification

A total of 201 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

16.4.2 J-qualification

A total of 60 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user

understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

16.4.3 UJ-qualification

A total of 23 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 16.4.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

16.4.4 R-qualification

A total of 18 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Rejected results correspond to various detects and nondetects in various samples (no discernable pattern). Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other FMETAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

16.5 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, CVAA, and spectrophotometer. Excluding field quality control samples, 528 distinct data points were generated. When rejected results are considered, the metals data set is 94.51 percent complete (499 of 528 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	WG	METAL		267	50.57%	
A-10	WG	METAL	U	158	29.92%	16.5.1
A-10	WG	METAL	J	65	12.31%	16.5.2
A-10	WG	METAL	R	29	5.49%	16.5.3
A-10	WG	METAL	UJ	9	1.70%	16.5.4

16.5.1 U-qualification

A total of 158 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as

the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

16.5.2 J-qualification

A total of 65 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

16.5.3 R-qualification

A total of 29 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. Rejected results correspond to various detects and nondetects in various samples (no discernable pattern). Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other METAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

16.5.4 UJ-qualification

Nine results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 16.5.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

16.6 Phase III PRP Split Groundwater PARCC

16.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

16.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

16.6.3 Representativeness

There were no issues affecting representativeness in this data set.

16.6.4 Completeness

There were 56 R-qualified results in this dataset; therefore, the data validation process demonstrated that 98.73 percent of the results are available for use as qualified. For this data set, completeness exceeded the Phase III UFP-QAPP completeness goal of 90%. It should also be noted that SVOC, PEST/PCB, METAL, and FMETAL fractions contained rejected data. Each of these fractions, considered individually, also met the 90 percent completeness goal.

16.6.5 Comparability

There were no issues affecting comparability in this data set.

16.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 67.85 percent (2990 of 4407 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 14.57 percent (642 of 4407 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 9.05 percent (399 of 4407 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator UJ-qualified 7.26 percent (320 of 4407 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator R-qualified 1.27 percent (56 of 4407 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used.

All results, with the exception of those R-qualified as "rejected" (56 of 4407 results, 1.27 percent of total results) are available for use as qualified.

17. Phase III PRP Split Soil Sampling (A-10 SO)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III PRP Split Soil Sampling event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected June 2, 2010 through June 30, 2010.

17.1 Volatile Organic Compounds

Volatiles were analyzed by USEPA CLP SOM01.2 "Low Soil". Excluding field quality control samples, 1508 distinct data points were generated. When rejected data are considered, the volatiles data set is 93.44 percent complete (1409 of 1508 volatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	SO	VOC	U	1254	83.16%	17.1.1
A-10	SO	VOC	R	99	6.56%	17.1.2
A-10	SO	VOC	J	62	4.11%	17.1.3
A-10	SO	VOC		55	3.65%	
A-10	SO	VOC	UJ	38	2.52%	17.1.4

17.1.1 U-qualification

A total of 1254 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

17.1.2 R-qualification

A total of 99 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These include 1,4-Dioxane in 29 samples (1,4-Dioxane is not an analyte of interest for this project) and various VOCs in SB02C-S-NYC, SB17I-S-NYC, SB19C-S-NYC, SB23IC-S-NG, SB31IB-S-NG, and SB32ID-S-NG. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other VOC information. Because R-

qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

17.1.3 J-qualification

A total of 62 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

17.1.4 UJ-qualification

A total of 38 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 17.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

17.2 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Soil" and "Low Soil by SIM". Excluding field quality control samples, 1972 distinct data points were generated. Because there were no rejected results, the semivolatiles data set is 100 percent complete (1972 of 1972 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	SO	SVOC	U	1371	69.52%	17.2.1
A-10	SO	SVOC	J	290	14.71%	17.2.2
A-10	SO	SVOC		283	14.35%	
A-10	SO	SVOC	UJ	28	1.42%	17.2.3

17.2.1 U-qualification

A total of 1371 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the

availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

17.2.2 J-qualification

A total of 290 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

17.2.3 UJ-qualification

A total of 28 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 17.2.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

17.3 Pesticides/PCBs

Pesticides and PCBs were analyzed by USEPA CLP SOM01.2 "Soil". Excluding field quality control samples, 928 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 93.53 percent complete (868 of 928 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	SO	PEST/PCB	U	757	81.57%	17.3.1
A-10	SO	PEST/PCB	R	60	6.47%	17.3.2
A-10	SO	PEST/PCB	UJ	52	5.60%	17.3.3
A-10	SO	PEST/PCB	J	22	2.37%	17.3.4
A-10	SO	PEST/PCB		20	2.16%	
A-10	SO	PEST/PCB	NJ	17	1.83%	17.3.5

17.3.1 U-qualification

A total of 757 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one

severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

17.3.2 R-qualification

A total of 60 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to all aroclors in SB40IB-S-NG and various pesticides in SB01D-S-NYC (three compounds), SB23IC-S-NG (beta-BHC), SB23IH-S-NG (six compounds), SB31IG-S-NG (eight compounds), SB32ID-S-NG (11 compounds), SB32II-S-NG-R (three compounds), SB40IB-S-NG (seven compounds), and SB41IB-S-NG (five compounds). For the rejected pesticide results, all laboratory qualifier contained "P" and thus this is likely a precision issue between dual-columns. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information.

17.3.3 UJ-qualification

A total of 52 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 17.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

17.3.4 J-qualification

A total of 22 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

17.3.5 NJ-qualification

Seventeen results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

17.4 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, ICP-MS, CVAA, and spectrophotometer. Excluding field quality control samples, 672 distinct data points were generated. When rejected results are considered, the metals data set is 97.77 percent complete (657 of 672 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-10	SO	METAL		331	49.26%	
A-10	SO	METAL	U	189	28.13%	17.4.1
A-10	SO	METAL	J	114	16.96%	17.4.2
A-10	SO	METAL	UJ	23	3.42%	17.4.3
A-10	SO	METAL	R	15	2.23%	17.4.4

17.4.1 U-qualification

A total of 189 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

17.4.2 J-qualification

A total of 114 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

17.4.3 UJ-qualification

A total of 23 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 17.4.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher.

This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

17.4.4 R-qualification

A total of 15 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to copper in D-06072010-S-NYC; D-06082010-S-NYC; SB01D-S-NYC; SB01H-S-NYC; SB02G-S-NYC; SB09C-S-NYC; SB09H-S-NYC; SB10C-S-NYC; SB10I-S-NYC; SB17C-S-NYC; SB17I-S-NYC; SB18D-S-NYC; SB18K-S-NYC; SB19C-S-NYC; and SB19L-S-NYC. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other METAL information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

17.5 Phase III PRP Split Soil Sampling PARCC

17.5.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

17.5.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

17.5.3 Representativeness

There were no issues affecting representativeness in this data set.

17.5.4 Completeness

There were 174 R-qualified results in this dataset; therefore, the data validation process demonstrated that 96.57 percent of the results are available for use as qualified. For this data set, completeness exceeded the Phase III UFP-QAPP completeness goal of 90%. It should also be noted that VOC, PEST/PCB, and METAL fractions contained rejected data. Each fraction, considered individually, also met the 90 percent completeness goal.

17.5.5 Comparability

There were no issues affecting comparability in this data set.

17.6 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation showed that the laboratory or data validator U-qualified 70.30 percent (3571 of 5080 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation demonstrated that 13.56 percent (689 of 5080 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator J-qualified 9.61 percent (488 of 5080 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator R-qualified 3.43 percent (174 of 5080 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used. The data quality evaluation showed that the data validator UJ-qualified 2.78 percent (141 of 5080 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator NJ-qualified 0.33 percent (17 of 5080 results) of the data. These data are available as qualified.

All results, with the exception of those R-qualified as "rejected" (174 of 5080 results, 3.43 percent of total results) are available for use as qualified.

18. References

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TABLE 1

Data Groupings

Gowanus Cana Remedial Investigation

Description	Sampling Entity	Matrix	Tracking Table	Matrix code	# of Sample IDs	Related SLs for U-Value v. SL Comparison	Section
Phase I Pipe Survey Surface Water Samples	USEPA	Surface Water	A-1	WS	12	Lesser of S or T	4
Phase II Sediment Coring	USEPA	Sediment	A-2	SE	598	Lesser of A or R	5
Phase II Sediment Coring	USEPA ERT	Sediment	A-3	SE	106	Lesser of A or R	6
2005 Soft Sediment (NG)	National Grid	Sediment	A-4	SE	144	Lesser of A or R	7
Phase III Ambient Air	USEPA	Ambient Air	A-5	AA	51	P	8
Phase III Groundwater	USEPA	Groundwater	A-5	WG	78	Comparison not Performed (no HHRA or Eco done)	9
Phase III Sediment	USEPA	Sediment	A-5	SE	51	Lesser of A or R	10
Phase III Surface Water	USEPA	Surface Water	A-5	WS	126	Lesser of S or T	11
Phase III Upland Soil	USEPA ERT	Soil	A-8	SO	259	Comparison not Performed (no HHRA or Eco done)	12
Phase III Groundwater	NYC/National Grid	Groundwater	A-9	WG	25	Comparison not Performed (no HHRA or Eco done)	13
Phase III Soil	NYC/National Grid	Soil	A-9	SO	177	Comparison not Performed (no HHRA or Eco done)	14
Phase III Surface Water	NYC/National Grid	Surface Water	A-9	WS	2	Lesser of S or T	15
Phase III PRP Split Groundwater Samples	USEPA	Groundwater	A-10	WG	23	Comparison not Performed (no HHRA or Eco done)	16
Phase III PRP Split Soil Samples	USEPA	Soil	A-10	SO	29	Comparison not Performed (no HHRA or Eco done)	17

TABLE 2

Analyses and Methods

Gowanus Cana Remedial Investigation

Tracking Table	Matrix code	Analysis Group	Analytic Method	# of Analyses	Description	Section
A-1	WS	VOC	E524.2	12	Surface water analyzed for volatiles via GC/MS	4.1
A-1	WS	SVOC	E625	11	Surface water analyzed for semivolatiles via GC/MS	4.2
A-1	WS	PEST/PCB	CPEST	10	Surface water analyzed for pesticides via GC (unspecified CLP method)	4.3
A-1	WS	PEST/PCB	E608	10	Surface water analyzed for Pesticides and PCBs via GC	4.3
A-1	WS	FMETAL	E200.8_diss	10	Surface water analyzed for filtered metals via ICP-MS	4.4
A-1	WS	FMETAL	E245.2_diss	10	Surface water analyzed for filtered mercury via CVAA	4.4
A-1	WS	METAL	E200.8	10	Surface water analyzed for metals via ICP-MS	4.5
A-1	WS	METAL	E245.2	10	Surface water analyzed for mercury via CVAA	4.5
A-1	WS	METAL	E335.2	10	Surface water analyzed for cyanide via spectrophotometer	4.5
A-2	SE	VOC	E624	594	Sediment analyzed for volatiles via GC/MS	5.1
A-2	SE	SVOC	E625	594	Sediment analyzed for semivolatiles via GC/MS	5.2
A-2	SE	PEST/PCB	CPEST	594	Sediment analyzed for pesticides via GC (unspecified CLP method)	5.3
A-2	SE	PEST/PCB	E608	572	Sediment analyzed for Pesticides and PCBs via GC	5.3
A-2	SE	METAL	E200.7	585	Sediment analyzed for metals via ICP-AES	5.4
A-2	SE	METAL	E245.1	22	Sediment analyzed for mercury via CVAA	5.4
A-2	SE	METAL	E245.5	563	Sediment analyzed for mercury via CVAA	5.4
A-2	SE	METAL	E335.2	563	Sediment analyzed for cyanide via spectrophotometer	5.4
A-2	SE	WCHEM	9034	41	Sediment analyzed for sulfide via titration	5.5
A-2	SE	WCHEM	9045C	21	Sediment analyzed for pH	5.5
A-2	SE	WCHEM	D2216	20	Sediment analyzed for % Solids	5.5
A-2	SE	WCHEM	LLOYDKAH	19	Sediment analyzed for TOC	5.5
A-2	SE	GRAINSIZE	D4464	19	Sediment analyzed for grain size	5.6
A-2	SE	IGN	1010	21	Sediment analyzed for Flash Point	5.7
A-2	SE	REACT	9014	21	Sediment analyzed for reactive cyanide via spectrophotometer	5.8
A-3	SE	VOC	E624	105	Sediment analyzed for volatiles via GC/MS	6.1
A-3	SE	SVOC	E625	106	Sediment analyzed for semivolatiles via GC/MS	6.2
A-3	SE	PEST/PCB	CPEST	106	Sediment analyzed for pesticides via GC (unspecified CLP method)	6.3
A-3	SE	PEST/PCB	E608	106	Sediment analyzed for Pesticides and PCBs via GC	6.3
A-3	SE	METAL	E200.7	106	Sediment analyzed for metals via ICP-AES	6.4
A-3	SE	METAL	E245.5	106	Sediment analyzed for mercury via CVAA	6.4
A-3	SE	METAL	E335.2	106	Sediment analyzed for cyanide via spectrophotometer	6.4
A-3	SE	WCHEM	9030	105	Sediment analyzed for sulfide via distillation	6.5
A-4	SE	VOC	8260B	144	Sediment analyzed for volatiles via GC/MS	7.1
A-4	SE	SVOC	8270C	144	Sediment analyzed for semivolatiles via GC/MS	7.2
A-4	SE	PEST/PCB	8081A	144	Sediment analyzed for pesticides via GC	7.3
A-4	SE	PEST/PCB	8082	144	Sediment analyzed for PCBs via GC	7.3
A-4	SE	METAL	6010B	144	Sediment analyzed for metals via ICP-AES	7.4
A-4	SE	METAL	7471A	144	Sediment analyzed for mercury via CVAA	7.4
A-4	SE	METAL	9012B	144	Sediment analyzed for cyanide via spectrophotometer	7.4
A-4	SE	WCHEM	E300	144	Sediment analyzed for ions via IC	7.5
A-5	AA	VOC	TO-15	47	Air analyzed for volatiles via GC/MS	8.1

Tracking Table	Matrix code	Analysis Group	Analytic Method	# of Analyses	Description	Section
A-5	AA	SVOC	TO-13A	47	Air analyzed for semivolatiles via GC/MS	8.2
A-5	AA	PEST/PCB	TO-4A	2	Air analyzed for PCBs via GC	8.3
A-5	WG	VOC	8260B	2	Groundwater analyzed for volatiles via GC/MS	9.1
A-5	WG	VOC	E504	1	Groundwater analyzed for 1,2-dibromoethane and 1,2-dibromo-3-chloropropane via microextraction	9.1
A-5	WG	VOC	E524.2	72	Groundwater analyzed for volatiles via GC/MS	9.1
A-5	WG	SVOC	8270C	2	Groundwater analyzed for semivolatiles via GC/MS	9.2
A-5	WG	SVOC	BNASIM	1	Groundwater analyzed for semivolatiles via GC/MS (unspecified SIM method)	9.2
A-5	WG	SVOC	E625	72	Groundwater analyzed for semivolatiles via GC/MS	9.2
A-5	WG	PEST/PCB	8081A	2	Groundwater analyzed for pesticides via GC	9.3
A-5	WG	PEST/PCB	8082	2	Groundwater analyzed for PCBs via GC	9.3
A-5	WG	PEST/PCB	CPEST	72	Groundwater analyzed for pesticides via GC (unspecified CLP method)	9.3
A-5	WG	PEST/PCB	E608	72	Groundwater analyzed for Pesticides and PCBs via GC	9.3
A-5	WG	METAL	6010B	2	Groundwater analyzed for metals via ICP-AES	9.4
A-5	WG	METAL	6020	1	Groundwater analyzed for metals via ICP-MS	9.4
A-5	WG	METAL	7470A	2	Groundwater analyzed for mercury via CVAA	9.4
A-5	WG	METAL	9012B	1	Groundwater analyzed for cyanide via spectrophotometer	9.4
A-5	WG	METAL	E200.7	72	Groundwater analyzed for metals via ICP-AES	9.4
A-5	WG	METAL	E200.8	72	Groundwater analyzed for metals via ICP-MS	9.4
A-5	WG	METAL	E245.1	72	Groundwater analyzed for mercury via CVAA	9.4
A-5	WG	METAL	E335.2	71	Groundwater analyzed for cyanide via spectrophotometer	9.4
A-5	WG	METAL	E335.4	1	Groundwater analyzed for cyanide via spectrophotometer	9.4
A-5	WG	FMETAL	6010B_diss	2	Groundwater analyzed for filtered metals via ICP-AES	9.5
A-5	WG	FMETAL	6020_diss	1	Groundwater analyzed for filtered metals via ICP-MS	9.5
A-5	WG	FMETAL	7470A_diss	1	Groundwater analyzed for filtered mercury via CVAA	9.5
A-5	WG	FMETAL	E200.7_diss	72	Groundwater analyzed for filtered metals via ICP-AES	9.5
A-5	WG	FMETAL	E200.8_diss	72	Groundwater analyzed for filtered metals via ICP-MS	9.5
A-5	WG	FMETAL	E245.1_diss	72	Groundwater analyzed for filtered mercury via CVAA	9.5
A-5	WG	WCHEM	9060	16	Groundwater analyzed for TOC	9.6
A-5	WG	WCHEM	9060_DOC	16	Groundwater analyzed for DOC	9.6
A-5	WG	WCHEM	E300	18	Groundwater analyzed for ions via IC	9.6
A-5	WG	WCHEM	E310.1	1	Groundwater analyzed for alkalinity	9.6
A-5	WG	WCHEM	E351.2	1	Groundwater analyzed for TKN	9.6
A-5	WG	WCHEM	E353.2	2	Groundwater analyzed for nitrate or nitrate/nitrite	9.6
A-5	WG	WCHEM	E365.3	2	Groundwater analyzed for phosphorous	9.6
A-5	WG	WCHEM	SM2320	16	Groundwater analyzed for alkalinity	9.6
A-5	WG	WCHEM	SM2320B	1	Groundwater analyzed for alkalinity	9.6
A-5	WG	WCHEM	SM2340B	17	Groundwater analyzed for hardness	9.6
A-5	WG	WCHEM	SM2340C	1	Groundwater analyzed for hardness	9.6
A-5	WG	WCHEM	SM2540C	17	Groundwater analyzed for TDS	9.6
A-5	WG	WCHEM	SM2540D	17	Groundwater analyzed for TSS	9.6
A-5	WG	WCHEM	SM4500	18	Groundwater analyzed for silica or nitrite	9.6
A-5	WG	WCHEM	SM4500C-	17	Groundwater analyzed for ammonia	9.6
A-5	WG	WCHEM	SM4500C-	17	Groundwater analyzed for TKN	9.6
A-5	WG	WCHEM	SM5310B	2	Groundwater analyzed for TOC	9.6
A-5	WG	WCHEM	SM5310B_DO	2	Groundwater analyzed for DOC	9.6

Tracking Table	Matrix code	Analysis Group	Analytic Method	# of Analyses	Description	Section
A-5	SE	VOC	E624	49	Sediment analyzed for volatiles via GC/MS	10.1
A-5	SE	SVOC	E625	49	Sediment analyzed for semivolatiles via GC/MS	10.2
A-5	SE	PEST/PCB	CPEST	49	Sediment analyzed for pesticides via GC (unspecified CLP method)	10.3
A-5	SE	PEST/PCB	E608	49	Sediment analyzed for Pesticides and PCBs via GC	10.3
A-5	SE	METAL	E200.7	49	Sediment analyzed for metals via ICP-AES	10.4
A-5	SE	METAL	E245.5	49	Sediment analyzed for mercury via CVAA	10.4
A-5	SE	METAL	E335.2	49	Sediment analyzed for cyanide via spectrophotometer	10.4
A-5	SE	AVSSEM	AVSSEM	37	Sediment analyzed for AVS/SEM	10.5
A-5	WS	VOC	E524.2	115	Surface water analyzed for volatiles via GC/MS	11.1
A-5	WS	SVOC	E625	116	Surface water analyzed for semivolatiles via GC/MS	11.2
A-5	WS	PEST/PCB	CPEST	115	Surface water analyzed for pesticides via GC (unspecified CLP method)	11.3
A-5	WS	PEST/PCB	E608	115	Surface water analyzed for Pesticides and PCBs via GC	11.3
A-5	WS	FMETAL	E200.7_diss	102	Surface water analyzed for filtered metals via ICP-AES	11.4
A-5	WS	FMETAL	E200.8_diss	102	Surface water analyzed for filtered metals via ICP-MS	11.4
A-5	WS	FMETAL	E245.1_diss	102	Surface water analyzed for filtered mercury via CVAA	11.4
A-5	WS	METAL	6010B	3	Surface water analyzed for metals via ICP-AES	11.5
A-5	WS	FMETAL	6010B_diss	3	Surface water analyzed for filtered metals via ICP-AES	11.5
A-5	WS	METAL	E200.7	102	Surface water analyzed for metals via ICP-AES	11.5
A-5	WS	METAL	E200.8	102	Surface water analyzed for metals via ICP-MS	11.5
A-5	WS	METAL	E245.1	102	Surface water analyzed for mercury via CVAA	11.5
A-5	WS	METAL	E335.2	93	Surface water analyzed for cyanide via spectrophotometer	11.5
A-5	WS	WCHEM	9060	8	Surface water analyzed for TOC	11.6
A-5	WS	WCHEM	9060_DOC	8	Surface water analyzed for DOC	11.6
A-5	WS	WCHEM	E300	11	Surface water analyzed for ions via IC	11.6
A-5	WS	WCHEM	E351.2	3	Surface water analyzed for TKN	11.6
A-5	WS	WCHEM	E353.2	3	Surface water analyzed for nitrate or nitrate/nitrite	11.6
A-5	WS	WCHEM	E365.3	3	Surface water analyzed for phosphorous	11.6
A-5	WS	WCHEM	SM2320	8	Surface water analyzed for alkalinity	11.6
A-5	WS	WCHEM	SM2320B	3	Surface water analyzed for alkalinity	11.6
A-5	WS	WCHEM	SM2340B	8	Surface water analyzed for hardness	11.6
A-5	WS	WCHEM	SM2340C	3	Surface water analyzed for hardness	11.6
A-5	WS	WCHEM	SM2540C	11	Surface water analyzed for TDS	11.6
A-5	WS	WCHEM	SM2540D	111	Surface water analyzed for TSS	11.6
A-5	WS	WCHEM	SM4500	9	Surface water analyzed for silica or nitrite	11.6
A-5	WS	WCHEM	SM4500C-	8	Surface water analyzed for ammonia	11.6
A-5	WS	WCHEM	SM4500C-	8	Surface water analyzed for TKN	11.6
A-5	WS	WCHEM	SM5310B	3	Surface water analyzed for TOC	11.6
A-5	WS	WCHEM	SM5310B_DO	3	Surface water analyzed for DOC	11.6
A-8	SO	VOC	8260B	9	Soil analyzed for volatiles via GC/MS	12.1
A-8	SO	VOC	E624	245	Soil analyzed for volatiles via GC/MS	12.1
A-8	SO	SVOC	8270C	9	Soil analyzed for semivolatiles via GC/MS	12.2
A-8	SO	SVOC	E625	245	Soil analyzed for semivolatiles via GC/MS	12.2
A-8	SO	PEST/PCB	8081A	9	Soil analyzed for pesticides via GC	12.3
A-8	SO	PEST/PCB	8082	9	Soil analyzed for PCBs via GC	12.3
A-8	SO	PEST/PCB	CPEST	245	Soil analyzed for pesticides via GC (unspecified CLP method)	12.3

Tracking Table	Matrix code	Analysis Group	Analytic Method	# of Analyses	Description	Section
A-8	SO	PEST/PCB	E608	245	Soil analyzed for Pesticides and PCBs via GC	12.3
A-8	SO	METAL	6010B	9	Soil analyzed for metals via ICP-AES	12.4
A-8	SO	METAL	7471A	9	Soil analyzed for mercury via CVAA	12.4
A-8	SO	METAL	9012B	9	Soil analyzed for cyanide via spectrophotometer	12.4
A-8	SO	METAL	E200.7	245	Soil analyzed for metals via ICP-AES	12.4
A-8	SO	METAL	E245.5	245	Soil analyzed for mercury via CVAA	12.4
A-8	SO	METAL	E335.2	245	Soil analyzed for cyanide via spectrophotometer	12.4
A-8	SO	WCHEM	D2216	5	Soil analyzed for % Solids	12.5
A-8	SO	WCHEM	SM2540G	4	Soil analyzed for % Solids	12.5
A-9	WG	VOC	8260B	25	Groundwater analyzed for volatiles via GC/MS	13.1
A-9	WG	VOC	E504	8	Groundwater analyzed for 1,2-dibromoethane and 1,2-dibromo-3-chloropropane via microextraction	13.1
A-9	WG	SVOC	8270C	25	Groundwater analyzed for semivolatiles via GC/MS	13.2
A-9	WG	SVOC	BNASIM	11	Groundwater analyzed for semivolatiles via GC/MS (unspecified SIM method)	13.2
A-9	WG	PEST/PCB	8081A	25	Groundwater analyzed for pesticides via GC	13.3
A-9	WG	PEST/PCB	8082	25	Groundwater analyzed for PCBs via GC	13.3
A-9	WG	FMETAL	6010B_diss	17	Groundwater analyzed for filtered metals via ICP-AES	13.4
A-9	WG	FMETAL	6020_diss	11	Groundwater analyzed for filtered metals via ICP-MS	13.4
A-9	WG	FMETAL	7470A_diss	11	Groundwater analyzed for filtered mercury via CVAA	13.4
A-9	WG	METAL	6010B	25	Groundwater analyzed for metals via ICP-AES	13.5
A-9	WG	METAL	6020	11	Groundwater analyzed for metals via ICP-MS	13.5
A-9	WG	METAL	7470A	25	Groundwater analyzed for mercury via CVAA	13.5
A-9	WG	METAL	9012B	11	Groundwater analyzed for cyanide via spectrophotometer	13.5
A-9	WG	METAL	E335.4	14	Groundwater analyzed for cyanide via spectrophotometer	13.5
A-9	WG	WCHEM	E300	10	Groundwater analyzed for ions via IC	13.6
A-9	WG	WCHEM	E310.1	4	Groundwater analyzed for alkalinity	13.6
A-9	WG	WCHEM	E351.2	6	Groundwater analyzed for TKN	13.6
A-9	WG	WCHEM	E353.2	10	Groundwater analyzed for nitrate or nitrate/nitrite	13.6
A-9	WG	WCHEM	E365.3	10	Groundwater analyzed for phosphorous	13.6
A-9	WG	WCHEM	SM2320B	6	Groundwater analyzed for alkalinity	13.6
A-9	WG	WCHEM	SM2340B	4	Groundwater analyzed for hardness	13.6
A-9	WG	WCHEM	SM2340C	6	Groundwater analyzed for hardness	13.6
A-9	WG	WCHEM	SM2540C	6	Groundwater analyzed for TDS	13.6
A-9	WG	WCHEM	SM2540D	6	Groundwater analyzed for TSS	13.6
A-9	WG	WCHEM	SM4500	10	Groundwater analyzed for silica or nitrite	13.6
A-9	WG	WCHEM	SM4500C-	4	Groundwater analyzed for ammonia	13.6
A-9	WG	WCHEM	SM4500C-	4	Groundwater analyzed for TKN	13.6
A-9	WG	WCHEM	SM5310B	10	Groundwater analyzed for TOC	13.6
A-9	WG	WCHEM	SM5310B_DO	10	Groundwater analyzed for DOC	13.6
A-9	SO	VOC	8260B	122	Soil analyzed for volatiles via GC/MS	14.1
A-9	SO	SVOC	8270C	122	Soil analyzed for semivolatiles via GC/MS	14.2
A-9	SO	PEST/PCB	8081A	122	Soil analyzed for pesticides via GC	14.3
A-9	SO	PEST/PCB	8082	122	Soil analyzed for PCBs via GC	14.3
A-9	SO	METAL	6010B	122	Soil analyzed for metals via ICP-AES	14.4
A-9	SO	METAL	7471A	122	Soil analyzed for mercury via CVAA	14.4
A-9	SO	METAL	9012B	122	Soil analyzed for cyanide via spectrophotometer	14.4
A-9	SO	WCHEM	D2216	55	Soil analyzed for % Solids	14.5

Tracking Table	Matrix code	Analysis Group	Analytic Method	# of Analyses	Description	Section
A-9	SO	WCHEM	SM2540G	66	Soil analyzed for % Solids	14.5
A-9	WS	FMETAL	6010B_diss	2	Surface water analyzed for filtered metals via ICP-AES	15.1
A-9	WS	FMETAL	6020_diss	2	Surface water analyzed for filtered metals via ICP-MS	15.1
A-9	WS	METAL	6010B	2	Surface water analyzed for metals via ICP-AES	15.2
A-9	WS	WCHEM	E300	2	Surface water analyzed for ions via IC	15.3
A-9	WS	WCHEM	E310.1	2	Surface water analyzed for alkalinity	15.3
A-9	WS	WCHEM	E353.2	2	Surface water analyzed for nitrate or nitrate/nitrite	15.3
A-9	WS	WCHEM	E365.3	2	Surface water analyzed for phosphorous	15.3
A-9	WS	WCHEM	SM2340B	2	Surface water analyzed for hardness	15.3
A-9	WS	WCHEM	SM3500D-Fe	1	Surface water analyzed for ferrous iron	15.3
A-9	WS	WCHEM	SM4500	2	Surface water analyzed for silica or nitrite	15.3
A-9	WS	WCHEM	SM4500C-	2	Surface water analyzed for ammonia	15.3
A-9	WS	WCHEM	SM4500C-	2	Surface water analyzed for TKN	15.3
A-9	WS	WCHEM	SM5310B	2	Surface water analyzed for TOC	15.3
A-10	WG	VOC	E524.2	23	Groundwater analyzed for volatiles via GC/MS	16.1
A-10	WG	SVOC	E625	22	Groundwater analyzed for semivolatiles via GC/MS	16.2
A-10	WG	PEST/PCB	CPEST	22	Groundwater analyzed for pesticides via GC (unspecified CLP method)	16.3
A-10	WG	PEST/PCB	E608	22	Groundwater analyzed for Pesticides and PCBs via GC	16.3
A-10	WG	FMETAL	E200.7_diss	22	Groundwater analyzed for filtered metals via ICP-AES	16.4
A-10	WG	FMETAL	E200.8_diss	22	Groundwater analyzed for filtered metals via ICP-MS	16.4
A-10	WG	FMETAL	E245.1_diss	22	Groundwater analyzed for filtered mercury via CVAA	16.4
A-10	WG	METAL	E200.7	22	Groundwater analyzed for metals via ICP-AES	16.5
A-10	WG	METAL	E200.8	22	Groundwater analyzed for metals via ICP-MS	16.5
A-10	WG	METAL	E245.1	22	Groundwater analyzed for mercury via CVAA	16.5
A-10	WG	METAL	E335.2	22	Groundwater analyzed for cyanide via spectrophotometer	16.5
A-10	SO	VOC	E624	29	Soil analyzed for volatiles via GC/MS	17.1
A-10	SO	SVOC	E625	29	Soil analyzed for semivolatiles via GC/MS	17.2
A-10	SO	PEST/PCB	CPEST	29	Soil analyzed for pesticides via GC (unspecified CLP method)	17.3
A-10	SO	PEST/PCB	E608	29	Soil analyzed for Pesticides and PCBs via GC	17.3
A-10	SO	METAL	E200.7	28	Soil analyzed for metals via ICP-AES	17.4
A-10	SO	METAL	E245.5	28	Soil analyzed for mercury via CVAA	17.4
A-10	SO	METAL	E335.2	28	Soil analyzed for cyanide via spectrophotometer	17.4

TABLE 3

Screening Level Comparison to Nondetects

Gowanus Canal Remedial Investigation

Brooklyn, New York

Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-1	WS	FMETAL	Chromium	7440-47-3				0.043		ug/l	8	0.7	1.8	8	2	2	2	2		
A-1	WS	FMETAL	Iron	7439-89-6			50	2600		ug/l	5	88.5	696	5	4	200	200	4		
A-1	WS	FMETAL	Mercury	7439-97-6			0.94	0.0007		ug/l					10	0.2	0.2	10		
A-1	WS	FMETAL	Thallium	7440-28-0			17	0.47		ug/l					10	1	1	10		
A-1	WS	METAL	Chromium	7440-47-3				0.043		ug/l	8	0.66	1.5	8	2	2	2	2		
A-1	WS	METAL	Cyanide	57-12-5			1	140		ug/l	3	4.4	20.4	3	7	10	10	7		
A-1	WS	METAL	Mercury	7439-97-6			0.94	0.0007		ug/l					10	0.2	0.2	10		
A-1	WS	METAL	Thallium	7440-28-0			17	0.47		ug/l					10	1	1	10		
A-1	WS	PEST/PCB	4,4'-DDE	72-55-9			1.4	0.00022		ug/l					10	0.1	0.1	10	10	
A-1	WS	PEST/PCB	4,4'-DDT	50-29-3			0.001	0.00022		ug/l					10	0.1	0.1	10	10	
A-1	WS	PEST/PCB	Aldrin	309-00-2				0.00005		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	alpha-BHC	319-84-6				0.002		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	alpha-Chlordane	5103-71-9			0.004	0.19		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	Aroclor-1016	12674-11-2			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1221	11104-28-2			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1232	11141-16-5			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1242	53469-21-9			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1248	12672-29-6			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1254	11097-69-1			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1260	11096-82-5			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1262	37384-23-5			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	Aroclor-1268	11100-14-4			0.03	0.000001		ug/l					10	1	1	10	10	
A-1	WS	PEST/PCB	beta-BHC	319-85-7				0.007		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	delta-BHC	319-86-8				0.008		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	Dieldrin	60-57-1			0.0019	0.0000006		ug/l					10	0.1	0.1	10	10	
A-1	WS	PEST/PCB	Endosulfan II	33213-65-9			0.0087	89		ug/l					10	0.1	0.1	10	10	
A-1	WS	PEST/PCB	Endrin	72-20-8			0.0023	0.002		ug/l					10	0.1	0.1	10	10	
A-1	WS	PEST/PCB	gamma-BHC (Lindane)	58-89-9				0.008		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	gamma-Chlordane	5103-74-2			0.004	0.19		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	Heptachlor	76-44-8			0.0036	0.000079		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	Heptachlor epoxide	1024-57-3			0.0036	0.000039		ug/l					10	0.05	0.05	10	10	
A-1	WS	PEST/PCB	Methoxychlor	72-43-5			0.03	18		ug/l					10	0.5	0.5	10	10	
A-1	WS	PEST/PCB	Toxaphene	8001-35-2			0.0002	0.000006		ug/l					10	5	5	10	10	
A-1	WS	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3			129	1.1		ug/l					11	5	5	11	1	
A-1	WS	SVOC	2,4,6-Trichlorophenol	88-06-2				2.4		ug/l					11	5	5	11	1	
A-1	WS	SVOC	2,4-Dinitrotoluene	121-14-2			370	3.4		ug/l					11	5	5	11	1	
A-1	WS	SVOC	2,6-Dinitrotoluene	606-20-2				3.7		ug/l					11	5	5	11	1	
A-1	WS	SVOC	3,3'-Dichlorobenzidine	91-94-1				0.028		ug/l					11	5	5	11	1	
A-1	WS	SVOC	4-Chloroaniline	106-47-8			129	0.34		ug/l					11	5	5	11	1	
A-1	WS	SVOC	4-Nitroaniline	100-01-6				3.4		ug/l					11	10	10	11	1	
A-1	WS	SVOC	4-Nitrophenol	100-02-7				0.12		ug/l					11	10	10	11	1	
A-1	WS	SVOC	Atrazine	1912-24-9			10	0.29		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Benzo(a)anthracene	56-55-3				0.018		ug/l	1	0.23	0.23	1	10	0.1	0.1	10	1	
A-1	WS	SVOC	Benzo(a)pyrene	50-32-8				0.018		ug/l	2	0.2	0.72	2	9	0.1	0.1	9	1	
A-1	WS	SVOC	Benzo(b)fluoranthene	205-99-2				0.018		ug/l	3	0.16	0.54	3	8	0.1	0.1	8	1	
A-1	WS	SVOC	Benzo(k)fluoranthene	207-08-9				0.018		ug/l	3	0.069	0.14	3	8	0.1	0.1	8	1	
A-1	WS	SVOC	bis(2-Chloroethyl)ether	111-44-4				0.53		ug/l					11	5	5	11	1	
A-1	WS	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7			360	2.2		ug/l	5	0.99	7	3	6	5	5	6	1	
A-1	WS	SVOC	Butylbenzylphthalate	85-68-7			3.4	1900		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Chrysene	218-01-9				0.018		ug/l	1	0.41	0.41	1	10	0.1	0.1	10	1	
A-1	WS	SVOC	Dibenz(a,h)anthracene	53-70-3				0.018		ug/l	3	0.14	0.25	3	8	0.1	0.1	8	1	
A-1	WS	SVOC	Dibenzofuran	132-64-9				3.7		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Diethylphthalate	84-66-2			3.4	44000		ug/l	1	6.3	6.3	1	10	5	5	10	1	
A-1	WS	SVOC	Dimethyl phthalate	131-11-3			3.4	1100000		ug/l	10	1.3	2.5		1	5	5	1		

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Gowanus Canal Remedial Investigation

Brooklyn, New York

Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-1	WS	SVOC	Di-n-butylphthalate	84-74-2			3.4	4500		ug/l	2	0.3	5.4	1	9	5	5	9	1	
A-1	WS	SVOC	Di-n-octylphthalate	117-84-0			3.4	4.8		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Hexachlorobenzene	118-74-1			129	0.00003		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Hexachlorobutadiene	87-68-3			3.2	0.01		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Hexachlorocyclopentadiene	77-47-4			0.7	1100		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Hexachloroethane	67-72-1			94	0.6		ug/l					11	5	5	11	1	
A-1	WS	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5				0.018		ug/l	10	0.11	0.54	10	1	0.1	0.1	1	1	
A-1	WS	SVOC	n-Nitroso-di-n-propylamine	621-64-7				0.51		ug/l					11	5	5	11	1	
A-1	WS	VOC	1,2-Dibromo-3-chloropropane	96-12-8				0.00032		ug/l					12	0.05	0.05	12	12	1
A-1	WS	VOC	1,2-Dibromoethane	106-93-4				0.0065		ug/l					12	0.05	0.05	12	12	1
A-1	WS	VOC	2-Hexanone	591-78-6				4.7		ug/l					12	5	5	12	12	1
A-1	WS	VOC	cis-1,3-Dichloropropene	10061-01-5				0.43		ug/l					12	0.5	0.5	12	12	1
A-1	WS	VOC	trans-1,3-Dichloropropene	10061-02-6				0.43		ug/l					12	0.5	0.5	12	12	1
A-2	SE	METAL	Antimony	7440-36-0	3.1	2				mg/kg	115	0.32	239	46	447	6	766	447		
A-2	SE	METAL	Arsenic	7440-38-2	0.39	8.2				mg/kg	574	0.32	105	551	11	1.1	1.2	11		
A-2	SE	METAL	Cadmium	7440-43-9	7	1.2				mg/kg	276	0.017	65.4	139	309	0.5	5	2		
A-2	SE	METAL	Cobalt	7440-48-4	2.3					mg/kg	463	1.3	16	426	100	5.3	16	100		
A-2	SE	METAL	Mercury	7439-97-6	2.3	0.15				mg/kg	170	0	9.4	151	414	0.05	0.27	20		
A-2	SE	METAL	Silver	7440-22-4	39	1				mg/kg	163	0.055	35.9	135	422	0.06	1277	395		
A-2	SE	PEST/PCB	4,4'-DDD	72-54-8	2000	1.22				ug/kg	245	2.2	1300	245	198	3.6	240	198	140	
A-2	SE	PEST/PCB	4,4'-DDE	72-55-9	1400	2.2				ug/kg	177	2.3	470	177	188	3	240	188	77	
A-2	SE	PEST/PCB	4,4'-DDT	50-29-3	1700	1.58				ug/kg	262	2.8	1500	262	222	2.3	240	222	144	
A-2	SE	PEST/PCB	Aldrin	309-00-2	29					ug/kg	56	1.5	110	6	461	1.8	120	1		
A-2	SE	PEST/PCB	alpha-BHC	319-84-6	77					ug/kg	61	1.1	110	1	493	1.8	120	1		
A-2	SE	PEST/PCB	alpha-Chlordane	5103-71-9	1600	0.04				ug/kg	141	0.19	1200	140	387	0.05	120	368	147	
A-2	SE	PEST/PCB	Aroclor-1016	12674-11-2	390	22.7				ug/kg					571	36	2400	571	155	
A-2	SE	PEST/PCB	Aroclor-1221	11104-28-2	140	22.7				ug/kg					571	36	2400	571	155	
A-2	SE	PEST/PCB	Aroclor-1232	11141-16-5	140	22.7				ug/kg					571	36	2400	571	155	
A-2	SE	PEST/PCB	Aroclor-1242	53469-21-9	220	22.7				ug/kg	107	38	33000	107	462	36	2400	462	155	
A-2	SE	PEST/PCB	Aroclor-1248	12672-29-6	220	22.7				ug/kg	20	110	16000	20	550	36	420	550	155	
A-2	SE	PEST/PCB	Aroclor-1254	11097-69-1	110	22.7				ug/kg	73	70	8800	73	477	36	2400	477	154	
A-2	SE	PEST/PCB	Aroclor-1260	11096-82-5	220	22.7				ug/kg	106	41	11000	106	464	36	2400	464	155	
A-2	SE	PEST/PCB	Aroclor-1262	37384-23-5		22.7				ug/kg					571	36	2400	571	155	
A-2	SE	PEST/PCB	Aroclor-1268	11100-14-4		22.7				ug/kg					571	36	2400	571	155	
A-2	SE	PEST/PCB	Dieldrin	60-57-1	30	340				ug/kg	90	2.5	450	41	442	3.6	240	1		
A-2	SE	PEST/PCB	Endosulfan I	959-98-8	37000	0.08				ug/kg	41	1	100	41	479	1.8	120	479	155	
A-2	SE	PEST/PCB	Endosulfan II	33213-65-9	37000	0.08				ug/kg	98	3.3	230	98	408	3.6	240	408	151	
A-2	SE	PEST/PCB	Endrin	72-20-8	1800	14.6				ug/kg	39	0.058	140	11	511	0.1	240	10		
A-2	SE	PEST/PCB	gamma-BHC (Lindane)	58-89-9	520	0.32				ug/kg	32	0.048	32	24	544	0.05	120	531	155	
A-2	SE	PEST/PCB	gamma-Chlordane	5103-74-2	1600	0.04				ug/kg	132	0.13	920	131	264	0.05	120	257	145	
A-2	SE	PEST/PCB	Heptachlor	76-44-8	110	1.8				ug/kg	86	0.045	130	75	458	0.05	120	443	151	
A-2	SE	PEST/PCB	Heptachlor epoxide	1024-57-3	53	1.8				ug/kg	151	0.094	190	134	325	0.05	13	309	147	
A-2	SE	PEST/PCB	Toxaphene	8001-35-2	440	0.2				ug/kg					593	5	12000	571	155	
A-2	SE	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	1800					ug/kg					478	160	2400000	406	9	
A-2	SE	SVOC	2,2'-Oxybis(1-chloropropane)	108-60-1	4600					ug/kg					569	160	2400000	484	9	
A-2	SE	SVOC	2,3,4,6-Tetrachlorophenol	58-90-2	180000					ug/kg					569	160	2400000	49		
A-2	SE	SVOC	2,4,5-Trichlorophenol	95-95-4	610000					ug/kg					591	5	2400000	5		
A-2	SE	SVOC	2,4,6-Trichlorophenol	88-06-2	6100					ug/kg					591	5	2400000	421	1	
A-2	SE	SVOC	2,4-Dichlorophenol	120-83-2	18000					ug/kg					569	160	2400000	271		
A-2	SE	SVOC	2,4-Dimethylphenol	105-67-9	120000	29				ug/kg	1	400	400	1	568	160	2400000	568	40	
A-2	SE	SVOC	2,4-Dinitrophenol	51-28-5	12000					ug/kg	1	3700	3700		568	320	4700000	417	1	
A-2	SE	SVOC	2,4-Dinitrotoluene	121-14-2	1600					ug/kg	4	940	44000	3	587	5	2400000	489	9	
A-2	SE	SVOC	2,6-Dinitrotoluene	606-20-2	6100					ug/kg					569	160	2400000	421	1	
A-2	SE	SVOC	2-Chloronaphthalene	91-58-7	180000					ug/kg	2	1800	6100		567	160	2400000	49		

TABLE 3

Screening Level Comparison to Nondetects

Gowanus Canal Remedial Investigation

Brooklyn, New York

Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-2	SE	SVOC	2-Chlorophenol	95-57-8	39000					ug/kg					569	160	2400000	201		
A-2	SE	SVOC	2-Methylnaphthalene	91-57-6	31000	70				ug/kg	492	16	6300000	481	80	190	28000	80	40	
A-2	SE	SVOC	2-Methylphenol	95-48-7	310000	63				ug/kg	6	0.78	15		585	5	2400000	569	40	
A-2	SE	SVOC	2-Nitroaniline	88-74-4	61000					ug/kg					569	320	4700000	212		
A-2	SE	SVOC	2-Nitrophenol	88-75-5	39000					ug/kg					569	160	2400000	201		
A-2	SE	SVOC	3,3'-Dichlorobenzidine	91-94-1	1100					ug/kg					569	160	2400000	495	9	
A-2	SE	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	490					ug/kg					568	320	4700000	513	9	
A-2	SE	SVOC	4-Chloro-3-methylphenol	59-50-7	610000					ug/kg					569	160	2400000	5		
A-2	SE	SVOC	4-Chloroaniline	106-47-8	2400					ug/kg	1	2700	2700	1	568	160	2400000	488	9	
A-2	SE	SVOC	4-Chlorophenyl-phenylether	7005-72-3	31000					ug/kg	1	110	110		568	160	2400000	211		
A-2	SE	SVOC	4-Methylphenol	106-44-5	31000	670				ug/kg	23	13	1800	6	546	160	2400000	486	9	
A-2	SE	SVOC	4-Nitroaniline	100-01-6	24000					ug/kg					569	320	4700000	310		
A-2	SE	SVOC	4-Nitrophenol	100-02-7	4800					ug/kg	1	8.3	8.3		568	320	4700000	489	9	
A-2	SE	SVOC	Acenaphthene	83-32-9	340000	16				ug/kg	516	6.9	2800000	511	56	190	10000	56	36	
A-2	SE	SVOC	Acenaphthylene	208-96-8	340000	44				ug/kg	484	6.9	4100000	475	88	190	150000	88	38	
A-2	SE	SVOC	Acetophenone	98-86-2	780000					ug/kg	79	16	9200		490	190	2400000	5		
A-2	SE	SVOC	Anthracene	120-12-7	1700000	85.3				ug/kg	515	6.2	2200000	495	57	190	9300	57	34	
A-2	SE	SVOC	Atrazine	1912-24-9	2100					ug/kg					568	160	2400000	488	9	
A-2	SE	SVOC	Benzaldehyde	100-52-7	780000					ug/kg	30	20	5600		539	190	2400000	5		
A-2	SE	SVOC	Benzo(a)anthracene	56-55-3	150	261				ug/kg	512	6.5	1200000	483	60	190	13000	31	8	
A-2	SE	SVOC	Benzo(a)pyrene	50-32-8	15	430				ug/kg	453	9.5	830000	452	119	190	320000	119	40	
A-2	SE	SVOC	Benzo(b)fluoranthene	205-99-2	150	4600				ug/kg	431	9.1	650000	422	140	190	390000	140	40	
A-2	SE	SVOC	Benzo(g,h,i)perylene	191-24-2	170000	620				ug/kg	409	24	450000	387	162	160	2400000	113	9	
A-2	SE	SVOC	Benzo(k)fluoranthene	207-08-9	1500	4600				ug/kg	414	7.6	290000	374	158	160	390000	104	9	
A-2	SE	SVOC	bis(2-Chloroethoxy)methane	111-91-1	18000					ug/kg	1	58	58		568	160	2400000	271		
A-2	SE	SVOC	bis(2-Chloroethyl)ether	111-44-4	210					ug/kg	1	11	11		568	160	2400000	529	17	
A-2	SE	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	35000	182				ug/kg	118	31	270000	103	452	190	2400000	452	35	
A-2	SE	SVOC	Butylbenzylphthalate	85-68-7	260000	4900				ug/kg	17	6.7	22000	2	552	160	2400000	468	9	
A-2	SE	SVOC	Chrysene	218-01-9	15000	384				ug/kg	509	5.9	980000	475	63	190	13000	32	8	
A-2	SE	SVOC	Dibenz(a,h)anthracene	53-70-3	15	63.4				ug/kg	254	8.1	180000	253	316	160	2400000	316	40	
A-2	SE	SVOC	Dibenzofuran	132-64-9	7800	300				ug/kg	420	13	430000	401	152	180	480000	104	9	
A-2	SE	SVOC	Diethylphthalate	84-66-2	4900000	61000				ug/kg					569	160	2400000	160		
A-2	SE	SVOC	Dimethyl phthalate	131-11-3		53000				ug/kg	1	9200	9200		568	160	2400000	181		
A-2	SE	SVOC	Di-n-butylphthalate	84-74-2	610000	4400				ug/kg	5	5	40		563	190	2400000	484	9	
A-2	SE	SVOC	Di-n-octylphthalate	117-84-0	35000	1160				ug/kg	35	130	38000	32	532	160	2400000	459	9	
A-2	SE	SVOC	Fluoranthene	206-44-0	230000	600				ug/kg	524	7.4	1700000	479	48	190	11000	29	9	
A-2	SE	SVOC	Fluorene	86-73-7	230000	19				ug/kg	494	11	2900000	491	78	190	120000	78	40	
A-2	SE	SVOC	Hexachlorobenzene	118-74-1	300	380				ug/kg					590	5	2400000	512	9	
A-2	SE	SVOC	Hexachlorobutadiene	87-68-3	6100	32				ug/kg					591	5	2400000	569	40	
A-2	SE	SVOC	Hexachlorocyclopentadiene	77-47-4	37000	14				ug/kg					569	160	2400000	569	40	
A-2	SE	SVOC	Hexachloroethane	67-72-1	6100					ug/kg					591	5	2400000	421	1	
A-2	SE	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	150	680				ug/kg	414	19	420000	401	157	160	2400000	157	39	
A-2	SE	SVOC	Isophorone	78-59-1	510000					ug/kg					569	160	2400000	11		
A-2	SE	SVOC	Naphthalene	91-20-3	3600	160				ug/kg	456	7	21000000	451	116	180	29000	116	40	
A-2	SE	SVOC	Nitrobenzene	98-95-3	4800					ug/kg					591	5	2400000	484	9	
A-2	SE	SVOC	n-Nitroso-di-n-propylamine	621-64-7	69					ug/kg					569	160	2400000	569	40	
A-2	SE	SVOC	n-Nitrosodiphenylamine	86-30-6	99000	11000				ug/kg	5	3600	35000	2	563	160	2400000	331		
A-2	SE	SVOC	Pentachlorophenol	87-86-5	3000	360				ug/kg					590	10	4700000	563	37	
A-2	SE	SVOC	Phenanthrene	85-01-8	1700000	240				ug/kg	528	6.3	6800000	494	44	190	28000	26	8	
A-2	SE	SVOC	Phenol	108-95-2	1800000	420				ug/kg	20	6.5	1000	4	549	190	2400000	497	9	
A-2	SE	SVOC	Pyrene	129-00-0	170000	665				ug/kg	527	8.4	3200000	483	45	190	11000	23	8	
A-2	SE	VOC	1,1,2,2-Tetrachloroethane	79-34-5	560					ug/kg					571	4.4	31000	353	6	
A-2	SE	VOC	1,1,2-Trichloroethane	79-00-5	1100					ug/kg					571	4.4	31000	275	1	
A-2	SE	VOC	1,1-Dichloroethane	75-34-3	3300					ug/kg					572	4.4	31000	187		

TABLE 3

Screening Level Comparison to Nondetects

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Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-2	SE	VOC	1,1-Dichloroethene	75-35-4	24000					ug/kg					594	4.4	31000	11		
A-2	SE	VOC	1,2,3-Trichlorobenzene	87-61-6	4900	1820				ug/kg	1	3.1	3.1		564	4.4	31000	240		
A-2	SE	VOC	1,2,4-Trichlorobenzene	120-82-1	6200	1820				ug/kg					564	4.4	31000	240		
A-2	SE	VOC	1,2-Dibromo-3-chloropropane	96-12-8	5.4					ug/kg	1	4500	4500	1	563	4.4	31000	496	93	
A-2	SE	VOC	1,2-Dibromoethane	106-93-4	34					ug/kg					571	4.4	31000	416	17	
A-2	SE	VOC	1,2-Dichlorobenzene	95-50-1	190000	240				ug/kg	16	0.47	340	4	550	4.4	31000	408	15	
A-2	SE	VOC	1,2-Dichloroethane	107-06-2	430					ug/kg	3	0.45	0.67		591	4.4	31000	360	6	
A-2	SE	VOC	1,2-Dichloropropane	78-87-5	890					ug/kg	3	3.3	22		568	4.4	31000	305	4	
A-2	SE	VOC	1,3-Dichlorobenzene	541-73-1		240				ug/kg	17	0.6	80		551	4.4	31000	411	15	
A-2	SE	VOC	1,4-Dichlorobenzene	106-46-7	2400	240				ug/kg	79	1.4	52000	36	514	4.4	31000	372	15	
A-2	SE	VOC	2-Hexanone	591-78-6	21000					ug/kg					571	8.8	63000	64		
A-2	SE	VOC	Benzene	71-43-2	1100	520				ug/kg	370	0.62	340000	260	224	4.5	12000	91	5	
A-2	SE	VOC	Bromodichloromethane	75-27-4	270					ug/kg					571	4.4	31000	406	12	
A-2	SE	VOC	Bromomethane	74-83-9	730					ug/kg	1	450	450		571	4.4	31000	325	4	
A-2	SE	VOC	Carbon tetrachloride	56-23-5	610					ug/kg					593	4.4	31000	345	6	
A-2	SE	VOC	Chlorobenzene	108-90-7	29000	70				ug/kg	33	0.54	6800	11	561	4.4	31000	405	16	
A-2	SE	VOC	Chloroform	67-66-3	290					ug/kg					594	4.4	31000	393	8	
A-2	SE	VOC	Chloromethane	74-87-3	12000					ug/kg	2	430	810		570	4.4	31000	43		
A-2	SE	VOC	cis-1,3-Dichloropropene	10061-01-5	1700					ug/kg	4	2.9	4500	1	567	4.4	31000	242		
A-2	SE	VOC	Dibromochloromethane	124-48-1	680					ug/kg					571	4.4	31000	336	6	
A-2	SE	VOC	Dichlorodifluoromethane (Freon-12)	75-71-8	18000					ug/kg	3	0.39	0.72		569	4.5	31000	19		
A-2	SE	VOC	Ethylbenzene	100-41-4	5400	128				ug/kg	473	0.42	610000	396	98	4.5	1200	26	16	
A-2	SE	VOC	m- and p-Xylene	m&pXYLENE	340000	540				ug/kg	457	0.3	790000	359	115	4.5	2600	19	5	
A-2	SE	VOC	Methylene chloride	75-09-2	11000					ug/kg	4	0.81	850		568	4.4	31000	60		
A-2	SE	VOC	o-Xylene	95-47-6	380000	540				ug/kg	476	0.48	340000	356	96	4.5	1200	9	5	
A-2	SE	VOC	Tetrachloroethene	127-18-4	550					ug/kg					593	4.4	31000	355	6	
A-2	SE	VOC	Toluene	108-88-3	500000	900				ug/kg	230	0.61	720000	191	342	4.5	20000	120	4	
A-2	SE	VOC	trans-1,2-Dichloroethene	156-60-5	15000					ug/kg					572	4.4	31000	29		
A-2	SE	VOC	trans-1,3-Dichloropropene	10061-02-6	1700					ug/kg	3	1.5	1.9		568	4.4	31000	243		
A-2	SE	VOC	Trichloroethene	79-01-6	2800					ug/kg	5	0.6	2.4		588	4.4	31000	203		
A-2	SE	VOC	Vinyl chloride	75-01-4	60					ug/kg					594	4.4	31000	411	16	
A-3	SE	METAL	Antimony	7440-36-0	3.1	2				mg/kg	92	0.32	34.6	72	14	4.9	16.8	14		
A-3	SE	METAL	Arsenic	7440-38-2	0.39	8.2				mg/kg	104	0.37	22.3	103	2	0.81	1	2		
A-3	SE	METAL	Cadmium	7440-43-9	7	1.2				mg/kg	85	0.65	26.9	83	21	0.11	1.4	1		
A-3	SE	METAL	Cobalt	7440-48-4	2.3					mg/kg	20	6.2	12	20	86	2.9	15.2	86		
A-3	SE	METAL	Mercury	7439-97-6	2.3	0.15				mg/kg	95	0.063	61.6	87	11	0.1	0.19	1		
A-3	SE	METAL	Silver	7440-22-4	39	1				mg/kg	84	0.37	42.1	78	22	0.79	2.8	8		
A-3	SE	PEST/PCB	4,4'-DDD	72-54-8	2000	1.22				ug/kg	96	2	910	96	8	3.9	100	8	2	
A-3	SE	PEST/PCB	4,4'-DDE	72-55-9	1400	2.2				ug/kg	65	8.4	460	65	25	3.8	1200	25	2	
A-3	SE	PEST/PCB	4,4'-DDT	50-29-3	1700	1.58				ug/kg	43	2.9	1300	43	43	3.9	110	43	2	
A-3	SE	PEST/PCB	Aldrin	309-00-2	29					ug/kg	9	14	70	3	86	2	59	39		
A-3	SE	PEST/PCB	alpha-Chlordane	5103-71-9	1600	0.04				ug/kg	59	3.2	600	59	34	2	59	34	2	
A-3	SE	PEST/PCB	Aroclor-1016	12674-11-2	390	22.7				ug/kg	64	84	3700	64	42	190	570	42	2	
A-3	SE	PEST/PCB	Aroclor-1221	11104-28-2	140	22.7				ug/kg					106	190	570	106	2	
A-3	SE	PEST/PCB	Aroclor-1232	11141-16-5	140	22.7				ug/kg					106	190	570	106	2	
A-3	SE	PEST/PCB	Aroclor-1242	53469-21-9	220	22.7				ug/kg					106	190	570	106	2	
A-3	SE	PEST/PCB	Aroclor-1248	12672-29-6	220	22.7				ug/kg					106	190	570	106	2	
A-3	SE	PEST/PCB	Aroclor-1254	11097-69-1	110	22.7				ug/kg	61	110	3000	61	35	190	500	35	2	
A-3	SE	PEST/PCB	Aroclor-1260	11096-82-5	220	22.7				ug/kg	76	48	6900	76	28	190	500	28	2	
A-3	SE	PEST/PCB	Aroclor-1262	37384-23-5		22.7				ug/kg					106	190	570	106	2	
A-3	SE	PEST/PCB	Aroclor-1268	11100-14-4		22.7				ug/kg					106	190	570	106	2	
A-3	SE	PEST/PCB	Dieldrin	60-57-1	30	340				ug/kg	66	1.3	300	50	29	3.8	110	22	1	
A-3	SE	PEST/PCB	Endosulfan I	959-98-8	37000	0.08				ug/kg	14	4.5	340	14	80	2	59	80	2	
A-3	SE	PEST/PCB	Endosulfan II	33213-65-9	37000	0.08				ug/kg	10	22	90	10	80	3.8	110	80	2	

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Gowanus Canal Remedial Investigation

Brooklyn, New York

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A-3	SE	PEST/PCB	Endrin	72-20-8	1800	14.6				ug/kg	18	1.2	380	14	76	3.8	110	59	1	
A-3	SE	PEST/PCB	gamma-BHC (Lindane)	58-89-9	520	0.32				ug/kg	3	0.57	110	3	93	2	59	93	2	
A-3	SE	PEST/PCB	gamma-Chlordane	5103-74-2	1600	0.04				ug/kg	32	11	520	32	17	2	47	17	2	
A-3	SE	PEST/PCB	Heptachlor	76-44-8	110	1.8				ug/kg	7	0.93	24	6	92	2	59	92	2	
A-3	SE	PEST/PCB	Heptachlor epoxide	1024-57-3	53	1.8				ug/kg	46	2.5	380	46	34	2	59	34	1	
A-3	SE	PEST/PCB	Toxaphene	8001-35-2	440	0.2				ug/kg					97	200	5900	97	2	
A-3	SE	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	1800					ug/kg					104	200	480000	86		
A-3	SE	SVOC	2,2'-Oxybis(1-chloropropane)	108-60-1	4600					ug/kg					104	200	480000	61		
A-3	SE	SVOC	2,3,4,6-Tetrachlorophenol	58-90-2	180000					ug/kg					104	200	480000	1		
A-3	SE	SVOC	2,4,6-Trichlorophenol	88-06-2	6100					ug/kg					104	200	480000	54		
A-3	SE	SVOC	2,4-Dichlorophenol	120-83-2	18000					ug/kg					104	200	480000	21		
A-3	SE	SVOC	2,4-Dimethylphenol	105-67-9	120000	29				ug/kg					104	200	480000	104		
A-3	SE	SVOC	2,4-Dinitrophenol	51-28-5	12000					ug/kg					104	390	960000	54		
A-3	SE	SVOC	2,4-Dinitrotoluene	121-14-2	1600					ug/kg					104	200	480000	86		
A-3	SE	SVOC	2,6-Dinitrotoluene	606-20-2	6100					ug/kg	1	2300	2300		103	200	480000	54		
A-3	SE	SVOC	2-Chloronaphthalene	91-58-7	180000					ug/kg					104	200	480000	1		
A-3	SE	SVOC	2-Chlorophenol	95-57-8	39000					ug/kg					104	200	480000	4		
A-3	SE	SVOC	2-Methylnaphthalene	91-57-6	31000	70				ug/kg	101	120	2800000	101	4	200	4900	4		
A-3	SE	SVOC	2-Methylphenol	95-48-7	310000	63				ug/kg					104	200	480000	104		
A-3	SE	SVOC	2-Nitroaniline	88-74-4	61000					ug/kg					104	390	960000	4		
A-3	SE	SVOC	2-Nitrophenol	88-75-5	39000					ug/kg					104	200	480000	4		
A-3	SE	SVOC	3,3'-Dichlorobenzidine	91-94-1	1100					ug/kg					106	200	480000	90		
A-3	SE	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	490					ug/kg					104	390	960000	100		
A-3	SE	SVOC	4-Chloroaniline	106-47-8	2400					ug/kg	5	1300	5700	2	99	200	480000	76		
A-3	SE	SVOC	4-Chlorophenyl-phenylether	7005-72-3	31000					ug/kg					104	200	480000	4		
A-3	SE	SVOC	4-Methylphenol	106-44-5	31000	670				ug/kg					104	200	480000	96		
A-3	SE	SVOC	4-Nitroaniline	100-01-6	24000					ug/kg					104	390	960000	35		
A-3	SE	SVOC	4-Nitrophenol	100-02-7	4800					ug/kg					104	390	960000	81		
A-3	SE	SVOC	Acenaphthylene	208-96-8	340000	44				ug/kg	95	97	180000	95	11	200	120000	11		
A-3	SE	SVOC	Atrazine	1912-24-9	2100					ug/kg					104	200	480000	84		
A-3	SE	SVOC	Benzo(a)pyrene	50-32-8	15	430				ug/kg	105	41	280000	105	1	200	200	1		
A-3	SE	SVOC	Benzo(b)fluoranthene	205-99-2	150	4600				ug/kg	104	430	210000	104	2	200	200	2		
A-3	SE	SVOC	bis(2-Chloroethoxy)methane	111-91-1	18000					ug/kg					104	200	480000	21		
A-3	SE	SVOC	bis(2-Chloroethyl)ether	111-44-4	210					ug/kg					104	200	480000	100		
A-3	SE	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	35000	182				ug/kg	65	150	240000	64	41	200	480000	41		
A-3	SE	SVOC	Butylbenzylphthalate	85-68-7	260000	4900				ug/kg	31	160	3100		75	200	480000	51		
A-3	SE	SVOC	Dibenz(a,h)anthracene	53-70-3	15	63.4				ug/kg	87	74	35000	87	19	200	480000	19		
A-3	SE	SVOC	Dibenzofuran	132-64-9	7800	300				ug/kg	44	420	79000	44	60	200	120000	57		
A-3	SE	SVOC	Diethylphthalate	84-66-2	4900000	61000				ug/kg					104	200	480000	4		
A-3	SE	SVOC	Dimethyl phthalate	131-11-3		53000				ug/kg					104	200	480000	4		
A-3	SE	SVOC	Di-n-butylphthalate	84-74-2	610000	4400				ug/kg	1	1700	1700		103	200	480000	66		
A-3	SE	SVOC	Di-n-octylphthalate	117-84-0	35000	1160				ug/kg	53	53	130000	45	53	200	120000	44		
A-3	SE	SVOC	Fluorene	86-73-7	230000	19				ug/kg	102	87	750000	102	4	200	3000	4		
A-3	SE	SVOC	Hexachlorobenzene	118-74-1	300	380				ug/kg					104	200	480000	100		
A-3	SE	SVOC	Hexachlorobutadiene	87-68-3	6100	32				ug/kg					104	200	480000	104		
A-3	SE	SVOC	Hexachlorocyclopentadiene	77-47-4	37000	14				ug/kg					104	200	480000	104		
A-3	SE	SVOC	Hexachloroethane	67-72-1	6100					ug/kg					104	200	480000	54		
A-3	SE	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	150	680				ug/kg	104	280	120000	104	2	200	200	2		
A-3	SE	SVOC	Naphthalene	91-20-3	3600	160				ug/kg	102	140	6900000	101	4	200	8300	4		
A-3	SE	SVOC	Nitrobenzene	98-95-3	4800					ug/kg					104	200	480000	59		
A-3	SE	SVOC	n-Nitroso-di-n-propylamine	621-64-7	69					ug/kg					104	200	480000	104		
A-3	SE	SVOC	n-Nitrosodiphenylamine	86-30-6	99000	11000				ug/kg	2	3700	7900		102	200	480000	41		
A-3	SE	SVOC	Pentachlorophenol	87-86-5	3000	360				ug/kg					104	390	960000	104		
A-3	SE	SVOC	Phenol	108-95-2	1800000	420				ug/kg					104	200	480000	100		

TABLE 3

Screening Level Comparison to Nondetects

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Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-3	SE	VOC	1,1,2,2-Tetrachloroethane	79-34-5	560					ug/kg					104	3.8	3600	21	2	
A-3	SE	VOC	1,1,2-Trichloroethane	79-00-5	1100					ug/kg					104	3.8	3600	5		
A-3	SE	VOC	1,1-Dichloroethane	75-34-3	3300					ug/kg					104	3.8	3600	1		
A-3	SE	VOC	1,2,3-Trichlorobenzene	87-61-6	4900	1820				ug/kg	1	4.7	4.7		91	4	3600	3		
A-3	SE	VOC	1,2,4-Trichlorobenzene	120-82-1	6200	1820				ug/kg					92	3.8	3600	3		
A-3	SE	VOC	1,2-Dibromo-3-chloropropane	96-12-8	5.4					ug/kg					92	3.8	3600	80	22	
A-3	SE	VOC	1,2-Dibromoethane	106-93-4	34					ug/kg					104	3.8	3600	25	3	
A-3	SE	VOC	1,2-Dichlorobenzene	95-50-1	190000	240				ug/kg	17	3.9	290	1	78	4	3600	40	8	
A-3	SE	VOC	1,2-Dichloroethane	107-06-2	430					ug/kg					104	3.8	3600	14	2	
A-3	SE	VOC	1,2-Dichloropropane	78-87-5	890					ug/kg					104	3.8	3600	11	1	
A-3	SE	VOC	1,3-Dichlorobenzene	541-73-1		240				ug/kg	22	0.31	340	1	75	3.8	2800	41	4	
A-3	SE	VOC	1,4-Dichlorobenzene	106-46-7	2400	240				ug/kg	77	1.8	2100	29	24	3.8	2800	6		
A-3	SE	VOC	Benzene	71-43-2	1100	520				ug/kg	86	2.1	16000	30	19	4.4	710	2		
A-3	SE	VOC	Bromodichloromethane	75-27-4	270					ug/kg					104	3.8	3600	26	3	
A-3	SE	VOC	Bromomethane	74-83-9	730					ug/kg					104	3.8	3600	8		
A-3	SE	VOC	Carbon tetrachloride	56-23-5	610					ug/kg					104	3.8	3600	20	2	
A-3	SE	VOC	Chlorobenzene	108-90-7	29000	70				ug/kg	63	0.47	6400	30	41	3.8	1600	10	2	
A-3	SE	VOC	Chloroform	67-66-3	290					ug/kg					104	3.8	3600	15	2	
A-3	SE	VOC	cis-1,3-Dichloropropene	10061-01-5	1700					ug/kg					104	3.8	3600	1		
A-3	SE	VOC	Dibromochloromethane	124-48-1	680					ug/kg					104	3.8	3600	18	1	
A-3	SE	VOC	m- and p-Xylene	m&pXYLENE	340000	540				ug/kg	91	0.45	80000	30	14	4.4	2800	1		
A-3	SE	VOC	Tetrachloroethene	127-18-4	550					ug/kg	8	1.4	290		96	3.8	3600	20	2	
A-3	SE	VOC	trans-1,3-Dichloropropene	10061-02-6	1700					ug/kg					104	3.8	3600	1		
A-3	SE	VOC	Trichloroethene	79-01-6	2800					ug/kg	2	14	60		102	3.8	3600	1		
A-3	SE	VOC	Vinyl chloride	75-01-4	60					ug/kg	1	2.9	2.9		102	3.8	3600	13	2	
A-4	SE	METAL	Antimony	7440-36-0	3.1	2				mg/kg	27	1.9	20200	25	117	10.1	46.7	117		
A-4	SE	METAL	Arsenic	7440-38-2	0.39	8.2				mg/kg	142	1.2	67	142	2	8.1	10.9	2		
A-4	SE	METAL	Cadmium	7440-43-9	7	1.2				mg/kg	110	1	97.6	109	34	2.6	10.7	34		
A-4	SE	METAL	Cobalt	7440-48-4	2.3					mg/kg	142	1.6	23.9	140	2	2	2.8	1		
A-4	SE	METAL	Selenium	7782-49-2	39					mg/kg	13	2.6	6.4		131	13.8	63.8	46		
A-4	SE	METAL	Silver	7440-22-4	39	1				mg/kg	109	0.67	33.1	107	35	2.6	10.7	35		
A-4	SE	PEST/PCB	4,4'-DDD	72-54-8	2000	1.22				ug/kg	86	1.8	1900	86	58	3.5	2900	58	5	
A-4	SE	PEST/PCB	4,4'-DDE	72-55-9	1400	2.2				ug/kg	88	1.1	1700	87	56	3.5	2900	56	5	
A-4	SE	PEST/PCB	4,4'-DDT	50-29-3	1700	1.58				ug/kg	60	10	2400	60	56	3.5	2800	56	5	
A-4	SE	PEST/PCB	Aldrin	309-00-2	29					ug/kg	35	1.3	640	25	108	2	1800	75	3	
A-4	SE	PEST/PCB	alpha-BHC	319-84-6	77					ug/kg	34	1.4	1800	13	109	1.8	1500	40	3	
A-4	SE	PEST/PCB	alpha-Chlordane	5103-71-9	1600	0.04				ug/kg	54	4.4	450	54	89	1.7	6300	89	5	
A-4	SE	PEST/PCB	Aroclor-1016	12674-11-2	390	22.7				ug/kg					143	10	5000	139	5	
A-4	SE	PEST/PCB	Aroclor-1221	11104-28-2	140	22.7				ug/kg					143	30	9700	143	5	
A-4	SE	PEST/PCB	Aroclor-1232	11141-16-5	140	22.7				ug/kg					143	10	5000	139	5	
A-4	SE	PEST/PCB	Aroclor-1242	53469-21-9	220	22.7				ug/kg	71	10	14000	69	73	20	5000	71	5	
A-4	SE	PEST/PCB	Aroclor-1248	12672-29-6	220	22.7				ug/kg	38	30	6500	38	105	10	3300	103	5	
A-4	SE	PEST/PCB	Aroclor-1254	11097-69-1	110	22.7				ug/kg	107	5.9	9200	105	37	10	1200	36	5	
A-4	SE	PEST/PCB	Aroclor-1260	11096-82-5	220	22.7				ug/kg	126	10	28000	124	18	70	1200	18	5	
A-4	SE	PEST/PCB	beta-BHC	319-85-7	270					ug/kg	27	6.5	650	1	116	1.7	1500	18	1	
A-4	SE	PEST/PCB	delta-BHC	319-86-8	270					ug/kg	40	5.5	2900	3	54	1.8	1500	11	1	
A-4	SE	PEST/PCB	Dieldrin	60-57-1	30	340				ug/kg	35	9.9	830	28	108	3.3	2900	84	3	
A-4	SE	PEST/PCB	Endosulfan I	959-98-8	37000	0.08				ug/kg	2	230	440	2	141	1.7	1500	141	5	
A-4	SE	PEST/PCB	Endosulfan II	33213-65-9	37000	0.08				ug/kg	17	6.4	950	17	126	3.3	2900	126	5	
A-4	SE	PEST/PCB	Endrin	72-20-8	1800	14.6				ug/kg	10	40	570	10	133	5	4500	128	3	
A-4	SE	PEST/PCB	Endrin aldehyde	7421-93-4	1800					ug/kg	19	6.5	710		124	3.5	2900	6	1	
A-4	SE	PEST/PCB	Endrin ketone	53494-70-5	1800					ug/kg	27	4.9	990		116	3.3	2900	5	1	
A-4	SE	PEST/PCB	gamma-BHC (Lindane)	58-89-9	520	0.32				ug/kg	2	6.2	190	2	141	1.7	1500	141	5	
A-4	SE	PEST/PCB	gamma-Chlordane	5103-74-2	1600	0.04				ug/kg	63	5.1	750	63	81	1.7	6300	81	5	

TABLE 3

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Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-4	SE	PEST/PCB	Heptachlor	76-44-8	110	1.8				ug/kg	10	3.4	980	10	124	1.7	1500	122	2	
A-4	SE	PEST/PCB	Heptachlor epoxide	1024-57-3	53	1.8				ug/kg	22	3.6	420	22	122	1.7	1500	120	4	
A-4	SE	PEST/PCB	Toxaphene	8001-35-2	440	0.2				ug/kg					143	60	60000	143	5	
A-4	SE	SVOC	1,2,4-Trichlorobenzene	120-82-1	6200	1820				ug/kg					144	330	1300000	133		
A-4	SE	SVOC	1,2-Dichlorobenzene	95-50-1	190000	240				ug/kg					141	330	1300000	141	1	
A-4	SE	SVOC	1,3-Dichlorobenzene	541-73-1		240				ug/kg					141	330	1300000	141	1	
A-4	SE	SVOC	1,4-Dichlorobenzene	106-46-7	2400	240				ug/kg	10	210	8200	9	131	330	1300000	131	1	
A-4	SE	SVOC	2,4,5-Trichlorophenol	95-95-4	610000					ug/kg					144	1600	6300000	40		
A-4	SE	SVOC	2,4,6-Trichlorophenol	88-06-2	6100					ug/kg					144	330	1300000	106		
A-4	SE	SVOC	2,4-Dichlorophenol	120-83-2	18000					ug/kg					144	330	1300000	70		
A-4	SE	SVOC	2,4-Dimethylphenol	105-67-9	120000	29				ug/kg					144	330	1300000	144	1	
A-4	SE	SVOC	2,4-Dinitrophenol	51-28-5	12000					ug/kg					144	1600	6300000	132		
A-4	SE	SVOC	2,4-Dinitrotoluene	121-14-2	1600					ug/kg					144	330	1300000	136		
A-4	SE	SVOC	2,6-Dinitrotoluene	606-20-2	6100					ug/kg					144	330	1300000	106		
A-4	SE	SVOC	2-Chloronaphthalene	91-58-7	180000					ug/kg					144	330	1300000	37		
A-4	SE	SVOC	2-Chlorophenol	95-57-8	39000					ug/kg					144	330	1300000	54		
A-4	SE	SVOC	2-Methylnaphthalene	91-57-6	31000	70				ug/kg	125	70	9100000	124	19	360	460000	19	1	
A-4	SE	SVOC	2-Methylphenol	95-48-7	310000	63				ug/kg					144	330	1300000	144	1	
A-4	SE	SVOC	2-Nitroaniline	88-74-4	61000					ug/kg					144	1600	6300000	84		
A-4	SE	SVOC	2-Nitrophenol	88-75-5	39000					ug/kg					144	330	1300000	54		
A-4	SE	SVOC	3,3'-Dichlorobenzidine	91-94-1	1100					ug/kg					144	660	2600000	139		
A-4	SE	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	490					ug/kg					144	1600	6300000	144	1	
A-4	SE	SVOC	4-Chloro-3-methylphenol	59-50-7	610000					ug/kg					144	330	1300000	10		
A-4	SE	SVOC	4-Chloroaniline	106-47-8	2400					ug/kg	10	600	9100	7	134	330	1300000	123		
A-4	SE	SVOC	4-Chlorophenyl-phenylether	7005-72-3	31000					ug/kg					144	330	1300000	59		
A-4	SE	SVOC	4-Methylphenol	106-44-5	31000	670				ug/kg	1	1500	1500	1	143	330	1300000	138		
A-4	SE	SVOC	4-Nitroaniline	100-01-6	24000					ug/kg					144	660	2600000	84		
A-4	SE	SVOC	4-Nitrophenol	100-02-7	4800					ug/kg					143	1600	6300000	138		
A-4	SE	SVOC	Acenaphthene	83-32-9	340000	16				ug/kg	138	70	3900000	138	6	360	460000	6	1	
A-4	SE	SVOC	Acenaphthylene	208-96-8	340000	44				ug/kg	140	130	1200000	140	4	370	540000	4	1	
A-4	SE	SVOC	Anthracene	120-12-7	1700000	85.3				ug/kg	142	70	2000000	141	2	370	460000	2	1	
A-4	SE	SVOC	Benzo(a)anthracene	56-55-3	150	261				ug/kg	143	280	880000	143	1	370	370	1	1	
A-4	SE	SVOC	Benzo(a)pyrene	50-32-8	15	430				ug/kg	142	330	630000	142	2	370	460000	2	1	
A-4	SE	SVOC	Benzo(b)fluoranthene	205-99-2	150	4600				ug/kg	128	290	320000	128	16	370	1300000	16	1	
A-4	SE	SVOC	Benzo(g,h,i)perylene	191-24-2	170000	620				ug/kg	133	140	340000	129	11	370	1300000	10		
A-4	SE	SVOC	Benzo(k)fluoranthene	207-08-9	1500	4600				ug/kg	123	100	380000	114	21	370	1300000	20		
A-4	SE	SVOC	bis(2-Chloroethoxy)methane	111-91-1	18000					ug/kg					144	330	1300000	70		
A-4	SE	SVOC	bis(2-Chloroethyl)ether	111-44-4	210					ug/kg					144	330	1300000	144	1	
A-4	SE	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	35000	182				ug/kg	97	110	2800000	95	47	370	1300000	47	1	
A-4	SE	SVOC	Butylbenzylphthalate	85-68-7	260000	4900				ug/kg	35	170	120000	4	109	330	1300000	91		
A-4	SE	SVOC	Dibenz(a,h)anthracene	53-70-3	15	63.4				ug/kg	92	70	110000	92	52	350	1300000	52	1	
A-4	SE	SVOC	Dibenzofuran	132-64-9	7800	300				ug/kg	75	310	300000	75	69	330	1300000	69	1	
A-4	SE	SVOC	Diethylphthalate	84-66-2	4900000	61000				ug/kg	2	9600	170000	1	142	330	1300000	48		
A-4	SE	SVOC	Dimethyl phthalate	131-11-3		53000				ug/kg					144	330	1300000	50		
A-4	SE	SVOC	Di-n-butylphthalate	84-74-2	610000	4400				ug/kg	3	260	780		141	330	1300000	113		
A-4	SE	SVOC	Di-n-octylphthalate	117-84-0	35000	1160				ug/kg	49	110	19000	34	95	330	1300000	91		
A-4	SE	SVOC	Fluorene	86-73-7	230000	19				ug/kg	131	50	2000000	131	13	360	460000	13	1	
A-4	SE	SVOC	Hexachlorobenzene	118-74-1	300	380				ug/kg					144	330	1300000	144	1	
A-4	SE	SVOC	Hexachlorobutadiene	87-68-3	6100	32				ug/kg					141	330	1300000	141	1	
A-4	SE	SVOC	Hexachlorocyclopentadiene	77-47-4	37000	14				ug/kg					144	330	1300000	144	1	
A-4	SE	SVOC	Hexachloroethane	67-72-1	6100					ug/kg					141	330	1300000	103		
A-4	SE	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	150	680				ug/kg	135	120	280000	134	9	370	1300000	9	1	
A-4	SE	SVOC	Isophorone	78-59-1	510000					ug/kg					144	330	1300000	16		
A-4	SE	SVOC	Naphthalene	91-20-3	3600	160				ug/kg	139	80	16000000	137	5	370	460000	5	1	

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A-4	SE	SVOC	Nitrobenzene	98-95-3	4800					ug/kg					144	330	1300000	112		
A-4	SE	SVOC	n-Nitroso-di-n-propylamine	621-64-7	69					ug/kg					144	330	1300000	144	1	
A-4	SE	SVOC	n-Nitrosodiphenylamine	86-30-6	99000	11000				ug/kg	4	1200	16000	1	140	330	1300000	86		
A-4	SE	SVOC	Pentachlorophenol	87-86-5	3000	360				ug/kg					143	1600	6300000	143	1	
A-4	SE	SVOC	Phenol	108-95-2	1800000	420				ug/kg					144	330	1300000	140		
A-4	SE	VOC	1,1,2,2-Tetrachloroethane	79-34-5	560					ug/kg					133	5.1	44000	80		
A-4	SE	VOC	1,1,2-Trichloroethane	79-00-5	1100					ug/kg					144	5.1	44000	59		
A-4	SE	VOC	1,1-Dichloroethane	75-34-3	3300					ug/kg					144	5.1	44000	39		
A-4	SE	VOC	1,1-Dichloroethene	75-35-4	24000					ug/kg					144	5.1	44000	12		
A-4	SE	VOC	1,2-Dichloroethane	107-06-2	430					ug/kg					143	5.1	44000	80		
A-4	SE	VOC	1,2-Dichloropropane	78-87-5	890					ug/kg					144	5.1	44000	69		
A-4	SE	VOC	2-Hexanone	591-78-6	21000					ug/kg					144	10	44000	13		
A-4	SE	VOC	Benzene	71-43-2	1100	520				ug/kg	121	1.7	410000	64	23	5.1	1500	5		
A-4	SE	VOC	Bromodichloromethane	75-27-4	270					ug/kg					144	5.1	44000	81		
A-4	SE	VOC	Bromomethane	74-83-9	730					ug/kg					143	5.1	44000	71		
A-4	SE	VOC	Carbon tetrachloride	56-23-5	610					ug/kg					144	5.1	44000	79		
A-4	SE	VOC	Chlorobenzene	108-90-7	29000	70				ug/kg	15	3.5	21000	8	129	5.1	44000	78		
A-4	SE	VOC	Chloroform	67-66-3	290					ug/kg					144	5.1	44000	81		
A-4	SE	VOC	Chloromethane	74-87-3	12000					ug/kg	4	80	170		140	5.1	44000	23		
A-4	SE	VOC	cis-1,3-Dichloropropene	10061-01-5	1700					ug/kg					143	5.1	44000	44		
A-4	SE	VOC	Dibromochloromethane	124-48-1	680					ug/kg					144	5.1	44000	77		
A-4	SE	VOC	Dichlorodifluoromethane (Freon-12)	75-71-8	18000					ug/kg					144	5.1	44000	16		
A-4	SE	VOC	Ethylbenzene	100-41-4	5400	128				ug/kg	128	1.3	1200000	101	16	5.1	1400	2		
A-4	SE	VOC	Methylene chloride	75-09-2	11000					ug/kg	3	8.3	1500		141	20	44000	25		
A-4	SE	VOC	Methyl-tert-butyl ether (MTBE)	1634-04-4	43000					ug/kg					144	5.1	44000	1		
A-4	SE	VOC	Tetrachloroethene	127-18-4	550					ug/kg					144	5.1	44000	80		
A-4	SE	VOC	Toluene	108-88-3	500000	900				ug/kg	120	1.9	1000000	51	24	5.1	1400	2		
A-4	SE	VOC	trans-1,2-Dichloroethene	156-60-5	15000					ug/kg					144	5.1	44000	21		
A-4	SE	VOC	trans-1,3-Dichloropropene	10061-02-6	1700					ug/kg					143	5.1	44000	44		
A-4	SE	VOC	Trichloroethene	79-01-6	2800					ug/kg	1	360	360		143	5.1	44000	40		
A-4	SE	VOC	Vinyl chloride	75-01-4	60					ug/kg					144	5.1	44000	91	2	
A-5	AA	SVOC	Benzo(a)anthracene	56-55-3					0.0087	ug/m3	5	0.002	0.0033		42	0.066	0.5	40		
A-5	AA	SVOC	Benzo(a)pyrene	50-32-8					0.00087	ug/m3					47	0.066	0.5	45		
A-5	AA	SVOC	Benzo(b)fluoranthene	205-99-2					0.0087	ug/m3	1	0.0025	0.0025		46	0.066	0.5	44		
A-5	AA	SVOC	Benzo(k)fluoranthene	207-08-9					0.0087	ug/m3					47	0.066	0.5	45		
A-5	AA	SVOC	Chrysene	218-01-9					0.087	ug/m3	2	0.0043	0.0088		45	0.066	0.5	2		
A-5	AA	SVOC	Dibenz(a,h)anthracene	53-70-3					0.0008	ug/m3					47	0.066	0.5	45		
A-5	AA	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5					0.0087	ug/m3					47	0.066	0.5	45		
A-5	AA	VOC	Bromodichloromethane	75-27-4					0.066	ug/m3					47	0.067	0.34	47		
A-5	AA	VOC	Chloroform	67-66-3					0.11	ug/m3	36	0.11	0.45	35	11	0.098	0.24	10		
A-5	AA	VOC	Dibromochloromethane	124-48-1					0.09	ug/m3					47	0.085	0.43	18		
A-5	AA	VOC	Methylene chloride	75-09-2					5.2	ug/m3	17	1.7	5.4	1	30	1.7	8.7	3		
A-5	SE	METAL	Antimony	7440-36-0	3.1	2				mg/kg					49	7	20.5	49		
A-5	SE	METAL	Cadmium	7440-43-9	7	1.2				mg/kg	48	0.21	20.2	37	1	1.5	1.5	1		
A-5	SE	METAL	Cobalt	7440-48-4	2.3					mg/kg	33	3	14.8	33	16	7.3	17.1	16		
A-5	SE	METAL	Silver	7440-22-4	39	1				mg/kg	34	0.92	9.5	33	15	1.2	3.2	15		
A-5	SE	PEST/PCB	4,4'-DDE	72-55-9	1400	2.2				ug/kg	1	16	16	1	47	4.1	1000	47	31	
A-5	SE	PEST/PCB	4,4'-DDT	50-29-3	1700	1.58				ug/kg	1	210	210	1	48	4.1	1000	48	31	
A-5	SE	PEST/PCB	Aldrin	309-00-2	29					ug/kg					49	2.1	530	14	3	
A-5	SE	PEST/PCB	alpha-BHC	319-84-6	77					ug/kg					49	2.1	530	14	3	
A-5	SE	PEST/PCB	alpha-Chlordane	5103-71-9	1600	0.04				ug/kg	2	6.7	14	2	47	2.1	530	47	31	
A-5	SE	PEST/PCB	Aroclor-1016	12674-11-2	390	22.7				ug/kg	4	140	290	4	45	40	120	45	31	
A-5	SE	PEST/PCB	Aroclor-1221	11104-28-2	140	22.7				ug/kg					49	40	120	49	31	
A-5	SE	PEST/PCB	Aroclor-1232	11141-16-5	140	22.7				ug/kg					49	40	120	49	31	

TABLE 3

Screening Level Comparison to Nondetects

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Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-5	SE	PEST/PCB	Aroclor-1242	53469-21-9	220	22.7				ug/kg					49	40	120	49	31	
A-5	SE	PEST/PCB	Aroclor-1248	12672-29-6	220	22.7				ug/kg	2	230	2200	2	47	40	120	47	31	
A-5	SE	PEST/PCB	Aroclor-1254	11097-69-1	110	22.7				ug/kg	2	510	590	2	47	40	120	47	31	
A-5	SE	PEST/PCB	Aroclor-1260	11096-82-5	220	22.7				ug/kg	11	150	3400	11	38	40	120	38	31	
A-5	SE	PEST/PCB	Aroclor-1262	37384-23-5		22.7				ug/kg					49	40	120	49	31	
A-5	SE	PEST/PCB	Aroclor-1268	11100-14-4		22.7				ug/kg					49	40	120	49	31	
A-5	SE	PEST/PCB	beta-BHC	319-85-7	270					ug/kg					49	2.1	530	11	2	
A-5	SE	PEST/PCB	delta-BHC	319-86-8	270					ug/kg					49	2.1	530	11	2	
A-5	SE	PEST/PCB	Dieldrin	60-57-1	30	340				ug/kg	1	85	85	1	47	4.1	1000	19	7	
A-5	SE	PEST/PCB	Endosulfan I	959-98-8	37000	0.08				ug/kg					45	2.1	530	45	28	
A-5	SE	PEST/PCB	Endosulfan II	33213-65-9	37000	0.08				ug/kg	1	13	13	1	48	4.1	1000	48	31	
A-5	SE	PEST/PCB	Endrin	72-20-8	1800	14.6				ug/kg					49	4.1	1000	20	7	
A-5	SE	PEST/PCB	gamma-BHC (Lindane)	58-89-9	520	0.32				ug/kg					49	2.1	530	49	31	
A-5	SE	PEST/PCB	gamma-Chlordane	5103-74-2	1600	0.04				ug/kg	4	5.9	48	4	45	2.1	530	45	31	
A-5	SE	PEST/PCB	Heptachlor	76-44-8	110	1.8				ug/kg					49	2.1	530	49	31	
A-5	SE	PEST/PCB	Heptachlor epoxide	1024-57-3	53	1.8				ug/kg					49	2.1	530	49	31	
A-5	SE	PEST/PCB	Toxaphene	8001-35-2	440	0.2				ug/kg					49	210	53000	49	31	
A-5	SE	SVOC	1,1-Biphenyl	92-52-4	210000					ug/kg	3	650	71000		46	5500	260000	2		
A-5	SE	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	1800					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	2,2'-Oxybis(1-chloropropane)	108-60-1	4600					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	2,3,4,6-Tetrachlorophenol	58-90-2	180000					ug/kg					49	5500	260000	2		
A-5	SE	SVOC	2,4,6-Trichlorophenol	88-06-2	6100					ug/kg					49	5500	260000	43		
A-5	SE	SVOC	2,4-Dichlorophenol	120-83-2	18000					ug/kg					49	5500	260000	10		
A-5	SE	SVOC	2,4-Dimethylphenol	105-67-9	120000	29				ug/kg					49	5500	260000	49		
A-5	SE	SVOC	2,4-Dinitrophenol	51-28-5	12000					ug/kg					49	11000	510000	41		
A-5	SE	SVOC	2,4-Dinitrotoluene	121-14-2	1600					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	2,6-Dinitrotoluene	606-20-2	6100					ug/kg					49	5500	260000	43		
A-5	SE	SVOC	2-Chloronaphthalene	91-58-7	180000					ug/kg					49	5500	260000	2		
A-5	SE	SVOC	2-Chlorophenol	95-57-8	39000					ug/kg					49	5500	260000	7		
A-5	SE	SVOC	2-Methylnaphthalene	91-57-6	31000	70				ug/kg	23	190	870000	23	26	110	4500	26		
A-5	SE	SVOC	2-Methylphenol	95-48-7	310000	63				ug/kg					49	5500	260000	49		
A-5	SE	SVOC	2-Nitroaniline	88-74-4	61000					ug/kg					49	11000	510000	10		
A-5	SE	SVOC	2-Nitrophenol	88-75-5	39000					ug/kg					49	5500	260000	7		
A-5	SE	SVOC	3,3'-Dichlorobenzidine	91-94-1	1100					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	4,6-Dinitro-2-methylphenol	534-52-1	490					ug/kg					49	11000	510000	49		
A-5	SE	SVOC	4-Chloroaniline	106-47-8	2400					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	4-Chlorophenyl-phenylether	7005-72-3	31000					ug/kg					49	5500	260000	8		
A-5	SE	SVOC	4-Methylphenol	106-44-5	31000	670				ug/kg	1	3200	3200	1	48	5500	260000	48		
A-5	SE	SVOC	4-Nitroaniline	100-01-6	24000					ug/kg					49	11000	510000	25		
A-5	SE	SVOC	4-Nitrophenol	100-02-7	4800					ug/kg					49	11000	510000	49		
A-5	SE	SVOC	Acenaphthene	83-32-9	340000	16				ug/kg	28	160	580000	28	21	110	3100	21		
A-5	SE	SVOC	Acenaphthylene	208-96-8	340000	44				ug/kg	17	180	150000	17	32	110	3100	32		
A-5	SE	SVOC	Anthracene	120-12-7	1700000	85.3				ug/kg	36	140	610000	36	13	110	3100	13		
A-5	SE	SVOC	Atrazine	1912-24-9	2100					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	Benzo(a)pyrene	50-32-8	15	430				ug/kg	42	140	200000	42	7	110	310	7		
A-5	SE	SVOC	Benzo(b)fluoranthene	205-99-2	150	4600				ug/kg	48	130	210000	46	1	250	250	1		
A-5	SE	SVOC	bis(2-Chloroethoxy)methane	111-91-1	18000					ug/kg					49	5500	260000	10		
A-5	SE	SVOC	bis(2-Chloroethyl)ether	111-44-4	210					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	35000	182				ug/kg	27	1200	57000	27	22	5500	260000	22		
A-5	SE	SVOC	Butylbenzylphthalate	85-68-7	260000	4900				ug/kg					49	5500	260000	49		
A-5	SE	SVOC	Dibenz(a,h)anthracene	53-70-3	15	63.4				ug/kg	33	110	14000	33	16	110	3100	16		
A-5	SE	SVOC	Dibenzofuran	132-64-9	7800	300				ug/kg	1	1100	1100	1	48	5500	260000	48		
A-5	SE	SVOC	Diethylphthalate	84-66-2	4900000	61000				ug/kg					49	5500	260000	7		
A-5	SE	SVOC	Dimethyl phthalate	131-11-3		53000				ug/kg					49	5500	260000	7		

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Screening Level Comparison to Nondetects

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A-5	SE	SVOC	Di-n-butylphthalate	84-74-2	610000	4400				ug/kg	2	510	550		47	5500	260000	47		
A-5	SE	SVOC	Di-n-octylphthalate	117-84-0	35000	1160				ug/kg	1	9300	9300	1	48	5500	260000	48		
A-5	SE	SVOC	Fluorene	86-73-7	230000	19				ug/kg	25	130	540000	25	24	110	3100	24		
A-5	SE	SVOC	Hexachlorobenzene	118-74-1	300	380				ug/kg					49	5500	260000	49		
A-5	SE	SVOC	Hexachlorobutadiene	87-68-3	6100	32				ug/kg					49	5500	260000	49		
A-5	SE	SVOC	Hexachlorocyclopentadiene	77-47-4	37000	14				ug/kg					49	5500	260000	49		
A-5	SE	SVOC	Hexachloroethane	67-72-1	6100					ug/kg					49	5500	260000	43		
A-5	SE	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	150	680				ug/kg	47	160	120000	47	2	270	290	2		
A-5	SE	SVOC	Naphthalene	91-20-3	3600	160				ug/kg	30	110	1600000	27	19	110	3100	13		
A-5	SE	SVOC	Nitrobenzene	98-95-3	4800					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	n-Nitroso-di-n-propylamine	621-64-7	69					ug/kg					49	5500	260000	49		
A-5	SE	SVOC	n-Nitrosodiphenylamine	86-30-6	99000	11000				ug/kg					49	5500	260000	29		
A-5	SE	SVOC	Pentachlorophenol	87-86-5	3000	360				ug/kg					49	220	25000	37		
A-5	SE	SVOC	Phenanthrene	85-01-8	1700000	240				ug/kg	44	250	1100000	44	5	110	3100	2		
A-5	SE	SVOC	Phenol	108-95-2	1800000	420				ug/kg					49	5500	260000	49		
A-5	SE	VOC	1,2-Dibromo-3-chloropropane	96-12-8	5.4					ug/kg					46	5	490	45	40	
A-5	SE	VOC	1,2-Dibromoethane	106-93-4	34					ug/kg					48	5	490	1		
A-5	SE	VOC	1,2-Dichlorobenzene	95-50-1	190000	240				ug/kg					45	5	490	1		
A-5	SE	VOC	1,2-Dichloroethane	107-06-2	430					ug/kg	6	3.9	45		42	5	490	1		
A-5	SE	VOC	1,3-Dichlorobenzene	541-73-1		240				ug/kg					45	5	490	1		
A-5	SE	VOC	Bromodichloromethane	75-27-4	270					ug/kg					48	5	490	1		
A-5	SE	VOC	Chlorobenzene	108-90-7	29000	70				ug/kg	1	53	53		46	5	490	1		
A-5	WS	FMETAL	Aluminum	7429-90-5				3700		ug/l	2	127	1480		100	200	15000	3		
A-5	WS	FMETAL	Arsenic	7440-38-2			36	0.14		ug/l	99	0.57	23.5	99	1	10	10	1		
A-5	WS	FMETAL	Beryllium	7440-41-7			100	7.3		ug/l					102	1	10	85		
A-5	WS	FMETAL	Cadmium	7440-43-9			8.8	1.8		ug/l	1	0.57	0.57		101	1	10	85		
A-5	WS	FMETAL	Chromium	7440-47-3				0.043		ug/l	67	0.36	10.5	67	35	2	20	35		
A-5	WS	FMETAL	Cobalt	7440-48-4			1	1.1		ug/l	18	0.28	2.8	5	84	1	10	83		
A-5	WS	FMETAL	Copper	7440-50-8			3.1	150		ug/l	28	9.9	282	28	74	25	1880	74		
A-5	WS	FMETAL	Iron	7439-89-6			50	2600		ug/l	12	201	2670	12	61	18	7500	59		
A-5	WS	FMETAL	Lead	7439-92-1			8.1	15		ug/l	22	0.24	17.7	1	79	1	10	76		
A-5	WS	FMETAL	Mercury	7439-97-6			0.94	0.0007		ug/l	17	0.047	0.092	17	85	0.2	0.2	85		
A-5	WS	FMETAL	Nickel	7440-02-0			8.2	4600		ug/l	78	1.3	13.4	3	21	10	10	21		
A-5	WS	FMETAL	Thallium	7440-28-0			17	0.47		ug/l	1	0.36	0.36		101	1	10	101		
A-5	WS	FMETAL	Vanadium	7440-62-2			50	18		ug/l	6	1.1	1.9		96	5	50	85		
A-5	WS	METAL	Beryllium	7440-41-7			100	7.3		ug/l					102	1	10	85		
A-5	WS	METAL	Cadmium	7440-43-9			8.8	1.8		ug/l	11	0.2	3	2	91	1	10	84		
A-5	WS	METAL	Chromium	7440-47-3				0.043		ug/l	93	0.95	99.7	93	9	2	20	9		
A-5	WS	METAL	Cobalt	7440-48-4			1	1.1		ug/l	19	0.4	3.9	9	83	10	10	83		
A-5	WS	METAL	Copper	7440-50-8			3.1	150		ug/l	34	19.5	232	34	68	25	375	68		
A-5	WS	METAL	Cyanide	57-12-5			1	140		ug/l	5	4.2	9.8	5	88	10	10	88		
A-5	WS	METAL	Iron	7439-89-6			50	2600		ug/l	18	225	14200	18	55	100	1500	55		
A-5	WS	METAL	Lead	7439-92-1			8.1	15		ug/l	62	1.9	420	40	37	10	10	37		
A-5	WS	METAL	Mercury	7439-97-6			0.94	0.0007		ug/l	43	0.047	0.16	43	59	0.2	0.2	59		
A-5	WS	METAL	Nickel	7440-02-0			8.2	4600		ug/l	89	2	52.3	16	10	10	10	10		
A-5	WS	METAL	Thallium	7440-28-0			17	0.47		ug/l	1	2.1	2.1	1	101	1	10	101		
A-5	WS	METAL	Vanadium	7440-62-2			50	18		ug/l	10	1.4	19.3	1	92	5	50	85		
A-5	WS	PEST/PCB	4,4'-DDD	72-54-8			0.36	0.00031		ug/l					19	0.1	0.1	19	19	
A-5	WS	PEST/PCB	4,4'-DDE	72-55-9			1.4	0.00022		ug/l					115	0.1	1	115	113	
A-5	WS	PEST/PCB	4,4'-DDT	50-29-3			0.001	0.00022		ug/l					115	0.1	1	115	113	
A-5	WS	PEST/PCB	Aldrin	309-00-2				0.00005		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	alpha-BHC	319-84-6				0.002		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	alpha-Chlordane	5103-71-9			0.004	0.19		ug/l	1	0.069	0.069	1	114	0.05	0.5	114	113	
A-5	WS	PEST/PCB	Aroclor-1016	12674-11-2			0.03	0.000001		ug/l					115	1	1	115	113	

TABLE 3

Screening Level Comparison to Nondetects

Gowanus Canal Remedial Investigation

Brooklyn, New York

Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-5	WS	PEST/PCB	Aroclor-1221	11104-28-2			0.03	0.000001		ug/l					115	1	1	115	113	
A-5	WS	PEST/PCB	Aroclor-1232	11141-16-5			0.03	0.000001		ug/l					115	1	1	115	113	
A-5	WS	PEST/PCB	Aroclor-1242	53469-21-9			0.03	0.000001		ug/l					115	1	1	115	113	
A-5	WS	PEST/PCB	Aroclor-1248	12672-29-6			0.03	0.000001		ug/l					115	1	1	115	113	
A-5	WS	PEST/PCB	Aroclor-1254	11097-69-1			0.03	0.000001		ug/l					115	1	1	115	113	
A-5	WS	PEST/PCB	Aroclor-1260	11096-82-5			0.03	0.000001		ug/l	1	0.57	0.57	1	114	1	1	114	113	
A-5	WS	PEST/PCB	Aroclor-1262	37384-23-5			0.03	0.000001		ug/l					115	1	1	115	113	
A-5	WS	PEST/PCB	Aroclor-1268	11100-14-4			0.03	0.000001		ug/l					115	1	1	115	113	
A-5	WS	PEST/PCB	beta-BHC	319-85-7				0.007		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	delta-BHC	319-86-8				0.008		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	Dieldrin	60-57-1			0.0019	0.0000006		ug/l					115	0.1	1	115	113	
A-5	WS	PEST/PCB	Endosulfan I	959-98-8			0.0087	89		ug/l					63	0.05	0.5	63	61	
A-5	WS	PEST/PCB	Endosulfan II	33213-65-9			0.0087	89		ug/l					115	0.1	1	115	113	
A-5	WS	PEST/PCB	Endrin	72-20-8			0.0023	0.002		ug/l					115	0.1	1	115	113	
A-5	WS	PEST/PCB	Endrin aldehyde	7421-93-4				0.3		ug/l					115	0.1	1	1	1	
A-5	WS	PEST/PCB	gamma-BHC (Lindane)	58-89-9				0.008		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	gamma-Chlordane	5103-74-2			0.004	0.19		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	Heptachlor	76-44-8			0.0036	0.000079		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	Heptachlor epoxide	1024-57-3			0.0036	0.000039		ug/l					115	0.05	0.5	115	113	
A-5	WS	PEST/PCB	Methoxychlor	72-43-5			0.03	18		ug/l					115	0.5	5	115	113	
A-5	WS	PEST/PCB	Toxaphene	8001-35-2			0.0002	0.000006		ug/l					115	5	50	115	113	
A-5	WS	SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3			129	1.1		ug/l					116	5	50	116	23	
A-5	WS	SVOC	2,3,4,6-Tetrachlorophenol	58-90-2			44	110		ug/l					116	5	50	11	4	
A-5	WS	SVOC	2,4,5-Trichlorophenol	95-95-4			11	3600		ug/l					116	5	50	11	4	
A-5	WS	SVOC	2,4,6-Trichlorophenol	88-06-2				2.4		ug/l					116	5	50	116	23	
A-5	WS	SVOC	2,4-Dinitrotoluene	121-14-2			370	3.4		ug/l					116	5	50	116	23	
A-5	WS	SVOC	2,6-Dinitrotoluene	606-20-2				3.7		ug/l					116	5	50	116	23	
A-5	WS	SVOC	2-Nitroaniline	88-74-4				37		ug/l					116	10	100	11	4	
A-5	WS	SVOC	2-Nitrophenol	88-75-5				18		ug/l					116	5	50	11	4	
A-5	WS	SVOC	3,3'-Dichlorobenzidine	91-94-1				0.028		ug/l					116	5	50	116	23	
A-5	WS	SVOC	4-Chloroaniline	106-47-8			129	0.34		ug/l					116	5	50	116	23	
A-5	WS	SVOC	4-Chlorophenyl-phenylether	7005-72-3				18		ug/l					116	5	50	11	4	
A-5	WS	SVOC	4-Methylphenol	106-44-5				18		ug/l	15	1.7	78	8	101	5	50	6	3	
A-5	WS	SVOC	4-Nitroaniline	100-01-6				3.4		ug/l	1	5.6	5.6	1	115	10	100	115	23	
A-5	WS	SVOC	4-Nitrophenol	100-02-7				0.12		ug/l					116	10	100	116	23	
A-5	WS	SVOC	Atrazine	1912-24-9			10	0.29		ug/l					116	5	50	116	23	
A-5	WS	SVOC	Benzo(a)anthracene	56-55-3				0.018		ug/l	26	0.074	0.94	26	90	0.1	1	90	23	
A-5	WS	SVOC	Benzo(a)pyrene	50-32-8				0.018		ug/l	21	0.14	1.4	21	95	0.1	1	95	23	
A-5	WS	SVOC	Benzo(b)fluoranthene	205-99-2				0.018		ug/l	70	0.11	1.3	70	46	0.1	1	46	23	
A-5	WS	SVOC	Benzo(k)fluoranthene	207-08-9				0.018		ug/l	35	0.037	1.4	35	81	0.1	1	81	23	
A-5	WS	SVOC	bis(2-Chloroethoxy)methane	111-91-1			6400	11		ug/l					116	5	50	11	4	
A-5	WS	SVOC	bis(2-Chloroethyl)ether	111-44-4				0.53		ug/l					116	5	50	116	23	
A-5	WS	SVOC	bis(2-Ethylhexyl)phthalate	117-81-7			360	2.2		ug/l	26	0.71	76	15	90	5	50	90	22	
A-5	WS	SVOC	Butylbenzylphthalate	85-68-7			3.4	1900		ug/l	5	0.73	3.4		111	5	50	111	23	
A-5	WS	SVOC	Chrysene	218-01-9				0.018		ug/l	36	0.057	1.1	36	80	0.1	1	80	23	
A-5	WS	SVOC	Dibenz(a,h)anthracene	53-70-3				0.018		ug/l	19	0.071	0.45	19	97	0.1	1	97	23	
A-5	WS	SVOC	Dibenzofuran	132-64-9				3.7		ug/l					116	5	50	116	23	
A-5	WS	SVOC	Diethylphthalate	84-66-2			3.4	44000		ug/l	6	1.3	5.7	3	110	5	50	110	23	
A-5	WS	SVOC	Dimethyl phthalate	131-11-3			3.4	1100000		ug/l	17	1.5	5.4	3	99	5	50	99	22	
A-5	WS	SVOC	Di-n-butylphthalate	84-74-2			3.4	4500		ug/l	20	0.22	1.6		96	5	50	96	21	
A-5	WS	SVOC	Di-n-octylphthalate	117-84-0			3.4	4.8		ug/l	4	0.23	0.28		112	5	50	112	22	
A-5	WS	SVOC	Hexachlorobenzene	118-74-1			129	0.00003		ug/l					116	5	50	116	23	
A-5	WS	SVOC	Hexachlorobutadiene	87-68-3			3.2	0.01		ug/l					116	5	50	116	23	
A-5	WS	SVOC	Hexachlorocyclopentadiene	77-47-4			0.7	1100		ug/l					116	5	50	116	23	

TABLE 3

Screening Level Comparison to Nondetects

Gowanus Canal Remedial Investigation

Brooklyn, New York

Tracking Table	Matrix	Analysis Group	Analyte	CAS	Set A	Set R	Set S	Set T	Set P	Units	# Detects	min Detect	max Detect	# Exceeds	# NDs	min ND	max ND	# U-Value Exceeds	# U-Values Exceed when no related Exceedance (same sample, same analysis group)	# U-Values Exceed when no related Exceedance (same station, same matrix, any analysis group)
A-5	WS	SVOC	Hexachloroethane	67-72-1			94	0.6		ug/l					116	5	50	116	23	
A-5	WS	SVOC	Indeno(1,2,3-cd)pyrene	193-39-5				0.018		ug/l	60	0.097	1.3	60	56	0.1	1	56	23	
A-5	WS	SVOC	Naphthalene	91-20-3			1.4	0.14		ug/l	30	0.098	63	24	86	0.1	1	5	4	
A-5	WS	SVOC	n-Nitroso-di-n-propylamine	621-64-7				0.51		ug/l					116	5	50	116	23	
A-5	WS	SVOC	n-Nitrosodiphenylamine	86-30-6				6		ug/l					116	5	50	11	4	
A-5	WS	SVOC	Pentachlorophenol	87-86-5			7.9	3		ug/l	13	0.12	0.84		103	0.2	100	10	4	
A-5	WS	VOC	1,2-Dibromo-3-chloropropane	96-12-8				0.00032		ug/l	6	0.19	2	6	108	0.05	0.5	108	68	
A-5	WS	VOC	1,2-Dibromoethane	106-93-4				0.0065		ug/l					114	0.05	0.5	114	68	
A-5	WS	VOC	2-Hexanone	591-78-6				4.7		ug/l	5	0.75	6.7	3	109	5	5	109	67	
A-5	WS	VOC	cis-1,3-Dichloropropene	10061-01-5				0.43		ug/l					114	0.5	0.5	114	68	
A-5	WS	VOC	trans-1,3-Dichloropropene	10061-02-6				0.43		ug/l	1	0.16	0.16		113	0.5	0.5	113	68	

One row is provided for each combination of tracking table, matrix, analysis group, and CAS number for which at least one U-Value v. SL exceedance exists.

A row is shaded if at least one U-Value v. SL exceedance exists where there is no detected exceedance in the same sample and analysis group.

A row is shaded if at least one U-Value v. SL exceedance exists where there is no detected exceedance in the same station and matrix (any analysis group).

A-1 Phase I Pipe Survey Surface Water Samples (CH2M HILL)
A-2 Phase II Sediment Coring (CH2M HILL)
A-3 Phase II Sediment Coring (ERT)
A-4 2005 Soft Sediment (NG)
A-5 Phase III (CH2M HILL)

P/PCBs Pesticides and PCBs
AA Air
SE Sediment
WS Surface Water

FMETAL Filtered Metals
METAL Metals
PEST/PCB Pesticides/Polychlorinated Biphenyls
SVOC Semivolatile Organic Compounds
VOC Volatile Organic Compounds

mg/kg milligrams per kilogram
ug/kg micrograms per kilogram
ug/l micrograms per liter
ug/m3 micrograms per cubic meter

Supplement 1 to Appendix H (Data Quality Evaluation)

19 Introduction

This supplement provides the data quality evaluation (DQE) for data that became available after the main section of Appendix H was completed. The data included in this Supplement 1 are the Polychlorinated Biphenyl Congeners results for surface sediments and the results for the analyses performed on the tissue samples. The statements made in Appendix H apply to the data included in Supplement 1 unless a contrary statement is made and unless additional statistics are provided. When additional statistics are provided, they apply to data included in Supplement 1 and not to data included in Appendix H. Table 4 is similar to (a continuation of) Table 1 in Appendix H. Table 5 is similar to (a continuation of) Table 2 in Appendix H.

20. Phase III Sediment (A-5 SE)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III Sediment sampling event at Gowanus Canal as well as to provide an assessment of data usability. Samples were collected June 17, 2010 through June 24, 2010.

20.1 Polychlorinated Biphenyl Congeners

Polychlorinated Biphenyl (PCB) Congeners were analyzed by USEPA CLP CBC01.2 . Excluding field quality control samples, 4394 distinct data points were generated. When rejected results are considered, the PCB congeners data set is 99.50 percent complete (4372 of 4394 PCB congeners results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the PCB congeners fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-5	SE	PCBCONG		3868	88.03%	
A-5	SE	PCBCONG	U	469	10.67%	20.1.1
A-5	SE	PCBCONG	J	35	0.80%	20.1.2
A-5	SE	PCBCONG	R	22	0.50%	20.1.3

20.1.1 U-qualification

A total of 469 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed

the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

20.1.2 J-qualification

A total of 35 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

20.1.3 R-qualification

A total of 22 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to various individual congeners and coelutions within D-062310-01; GC-SD308A-0.0-0.5; GC-SD309-0.0-0.5; GC-SD313-0.0-0.5; GC-SD315-0.0-0.5; GC-SD318-0.0-0.5; and GC-SD325-0.0-0.5. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PCBCONG information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

20.1.4 CRQL v. SL Exceedances

Individual congener detections were not compared to SLs. For total PCBs (calculation), there were no nondetect results and thus comparison to SLs is not relevant. Therefore, there was no effect on data quality resulting from the proximity of contract required quantitation limits (CRQLs) to SLs.

20.2 Phase III Sediment PARCC

20.2.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

20.2.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

20.2.3 Representativeness

There were no issues affecting representativeness in this data set.

20.2.4 Completeness

There were 22 R-qualified results in this dataset; therefore, the data validation process demonstrated that 99.50 percent of the results are available for use as qualified. For this data set, completeness exceeded the UFP-QAPP goal of 90 percent.

20.2.5 Comparability

There were no issues affecting comparability in this data set.

20.3 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation demonstrated that 88.03 percent (3868 of 4394 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator U-qualified 10.67 percent (469 of 4394 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation showed that the laboratory or data validator J-qualified 0.80 percent (35 of 4394 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator R-qualified 0.50 percent (22 of 4394 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used.

All results, with the exception of those R-qualified as "rejected" (22 of 4394 results, 0.80 percent of total results) are available for use as qualified.

21. Phase III Tissue (A-7 TA)

The purpose of this data quality evaluation is to summarize the findings of the data validation and any effects it may have on the availability of the data from the Phase III

tissue sampling event at Gowanus Canal as well as to provide an assessment of data usability.

21.1 Metals

Metals, including mercury and cyanide, were analyzed by USEPA CLP ILM05.4 using ICP-AES, CVAA, and spectrophotometer. Excluding field quality control samples, 2568 distinct data points were generated. Because there were no rejected results, the metals data set is 100 percent complete (2568 of 2568 metals results are available for use). The validation process resulted in the following qualifiers for results in the metals fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-7	TA	METAL	U	1467	57.13%	21.1.1
A-7	TA	METAL		836	32.55%	
A-7	TA	METAL	J	255	9.93%	21.1.2
A-7	TA	METAL	UJ	10	0.39%	21.1.3

21.1.1 U-qualification

A total of 1467 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

21.1.2 J-qualification

A total of 255 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

21.1.3 UJ-qualification

Ten results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank

contamination (see section 21.1.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

21.2 Polychlorinated Biphenyl Congeners

Polychlorinated Biphenyl (PCB) Congeners were analyzed by USEPA CLP CBC01.2 . Excluding field quality control samples, 18059 distinct data points were generated. When rejected results are considered, the PCB congeners data set is 99.00 percent complete (17879 of 18059 PCB congeners results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the PCB congeners fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-7	TA	PCBCONG		15064	83.42%	
A-7	TA	PCBCONG	U	2650	14.67%	21.2.1
A-7	TA	PCBCONG	R	180	1.00%	21.2.2
A-7	TA	PCBCONG	J	165	0.91%	21.2.3

21.2.1 U-qualification

A total of 2650 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

21.2.2 R-qualification

A total of 180 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to various individual congeners and coelutions within various samples (a pattern is not evident). Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PCBCONG information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

21.2.3 J-qualification

A total of 165 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is

not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

21.3 Pesticides/PCBs

Pesticides (no Aroclors; PCBs were assessed via PCBCONG) were analyzed by USEPA CLP SOM01.2 "Soil". Excluding field quality control samples, 2226 distinct data points were generated. When rejected results are considered, the PEST/PCB data set is 93.94 percent complete (2091 of 2226 PEST/PCB results are available for use). The validation process resulted in the following qualifiers for results in the PEST/PCB fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-7	TA	PEST/PCB	U	1729	77.67%	21.3.1
A-7	TA	PEST/PCB	UJ	198	8.89%	21.3.2
A-7	TA	PEST/PCB	R	135	6.06%	21.3.3
A-7	TA	PEST/PCB		76	3.41%	
A-7	TA	PEST/PCB	NJ	48	2.16%	21.3.4
A-7	TA	PEST/PCB	J	40	1.80%	21.3.5

21.3.1 U-qualification

A total of 1729 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

21.3.2 UJ-qualification

A total of 198 results were UJ-qualified as "nondetect, estimated quantitation limit" by the validator. If the laboratory qualifier contained "U", the data validator did not change the detect status, but the UJ-qualifier may be indicative of a QA/QC problem. The QA/QC issue was not severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination (see section 21.3.1, above). These results are usable as nondetects as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.

21.3.3 R-qualification

A total of 135 results were R-qualified as "rejected" by the data validator. This is indicative of a serious QA/QC exceedance and these results are not usable as detects or nondetects for any purpose. These correspond to DDD, DDE, and/or DDT (and thus "total DDTs") in 47 samples and alpha-Chlordane, gamma-Chlordane, Endrin, and/or Dieldrin in 15 samples. Although these results are not usable for any purpose, this does not affect the other non-rejected results in the same dataset. Conclusions can still be made from the data using the other PEST/PCB information. Because R-qualified results are not available for use as detects or nondetects, this reduces the percent completeness of the data set.

21.3.4 NJ-qualification

A total of 48 results were NJ-qualified as "presumptively present at approximate quantity" by the validator. The QA/QC issue was not severe enough to warrant rejection of data. This issue likely originates from precision exceedances (between results from dual-columns). The NJ-qualification of data by the data validator does not affect the availability of data because these results are available for use as detects at the reported concentration. The data user must consider the results "presumptively present at approximate quantity".

21.3.5 J-qualification

A total of 40 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

21.4 Semivolatile Organic Compounds

Semivolatiles were analyzed by USEPA CLP SOM01.2 "Low Soil by SIM". Only "Low Soil by SIM" compounds were reported. Excluding field quality control samples, 688 distinct data points were generated. Because there were no rejected results, the semivolatiles data set is 100 percent complete (688 of 688 semivolatiles results are available for use, qualified as applicable). The validation process resulted in the following qualifiers for results in the volatiles fraction:

Tracking Table	Matrix	Analysis Group	Final Qualifier	Count	Percentage	Section
A-7	TA	SVOC		453	65.84%	
A-7	TA	SVOC	U	212	30.81%	21.4.1
A-7	TA	SVOC	J	23	3.34%	21.4.2

21.4.1 U-qualification

A total of 212 results were U-qualified. If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater than that in an associated blank". If detected at less than the CRQL, the data validation

elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results but the data user should take caution when a U-qualified result is greater than a screening level.

21.4.2 J-qualification

A total of 23 results were J-qualified as "estimated" by the laboratory (to indicate "below reporting limit") or by the validator (to indicate "estimated"). If the laboratory qualifier was also "J" then the laboratory qualifier was simply carried over to the final qualifier and this is not indicative of a QA/QC problem. If the laboratory qualifier did not contain "J" then this does indicate a QA/QC problem, but not one severe enough to warrant rejection. These results are usable as detects at the reported concentration as long as the data user understands that the result is estimated. This does not change the detect status and does not affect the usability of results.

21.5 Wet Chemistry

Wet Chemistry, including percent lipids, was analyzed by laboratory SOP. Excluding field quality control samples, 107 distinct data points were generated. Because there were no rejected results, the WCHEM data set is 100 percent complete (107 of 107 WCHEM results are available for use). The validation process resulted in no qualification.

21.6 Phase III Tissue PARCC

21.6.1 Precision

Results may have been qualified due to precision-related QA/QC issues such as dual-column reproducibility, field duplicate reproducibility, laboratory replicate reproducibility, and MS/MSD precision. In some extreme cases, results may have been rejected due to precision issues. In the case of results rejected due to precision issues, the sample matrix or analytical process had a negative effect on precision. In the case of results qualified (but not rejected) due to precision issues, the sample matrix or analytical process had an effect on precision, but not severe enough to affect data usability (and hence completeness). In the case of unqualified (or U-qualified) results, which represent the majority of the data, there was no effect on precision.

21.6.2 Accuracy

Results may have been qualified due to accuracy-related QA/QC issues such as spiked surrogate recovery, internal standard recovery, laboratory control sample (or laboratory control sample duplicate) recovery, or matrix spike (or matrix spike duplicate) recovery. In some extreme cases, results may have been rejected due to accuracy issues. In the case of results rejected due to accuracy issues, the sample matrix or analytical process had a negative effect on accuracy. In the case of results qualified (but not rejected) due to accuracy issues, the sample matrix or analytical process had an effect on accuracy, but not severe enough to affect data usability (and hence completeness). In the case of unqualified results, there was no effect on accuracy. In the case of U-qualified results (where the U-qualifier indicates "nondetect"), there was no effect on accuracy. In the case of U-qualified results

(where the U-qualifier indicates "not detected at significantly greater than that in an associated blank"), there is no serious effect on accuracy (blank contamination affects the accuracy of a data point but not significantly unless the point is rejected) and the points are usable as U-qualified results.

21.6.3 Representativeness

There were no issues affecting representativeness in this data set.

21.6.4 Completeness

There were 315 R-qualified results in this dataset; therefore, the data validation process demonstrated that 98.67 percent of the results are available for use as qualified. For this data set, completeness exceeded the Phase III UFP-QAPP completeness goal of 90%. It should also be noted that PCBCONG and PEST/PCB fractions contained rejected data. These fractions, considered individually, also met the 90 percent completeness goal.

21.6.5 Comparability

There were no issues affecting comparability in this data set.

21.7 "Available as Reported" v. "Available as Qualified" v. Rejected

The data quality evaluation demonstrated that 69.93 percent (16536 of 23648 results) of the data are acceptable without qualification. These results are available as reported. The data quality evaluation showed that the laboratory or data validator U-qualified 25.62 percent (6058 of 23648 results) of the data. These data may be available as reported (if U-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a U-qualifier). The data quality evaluation showed that the laboratory or data validator J-qualified 2.04 percent (483 of 23648 results) of the data. These data may be available as reported (if J-qualified by the laboratory and the data validator did not further qualify the data) or available as qualified (if the data validator applied a J-qualifier). The data quality evaluation showed that the data validator R-qualified 1.33 percent (315 of 23648 results) of the data and these data are not available for use. The results may be reported (as analyzed but rejected) as long as they are accompanied by the R-qualifier and are not used. The data quality evaluation showed that the data validator UJ-qualified 0.88 percent (208 of 23648 results) of the data. These data are available as qualified. The data quality evaluation showed that the data validator NJ-qualified 0.20 percent (408 of 23648 results) of the data. These data are available as qualified.

All results, with the exception of those R-qualified as "rejected" (315 of 23648 results, 1.33 percent of total results) are available for use as qualified.

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TABLE 4

Data Groupings

Gowanus Canal Remedial Investigation

Description	Sampling Entity	Matrix	Tracking Table	Matrix code	# of Sample IDs	Section
Phase III Sediment	CH2M HILL	Sediment	A-5	SE	26	20
Phase III Tissue	CH2M HILL	Tissue	A-7	TA	107	21

TABLE 5

Analyses and Methods

Gowanus Canal Remedial Investigation

Tracking Table	Matrix code	Analysis Group	Analytic Method	# of Analyses	Description	Section
A-5	SE	PCBCONG	CBC01.2	26	Sediment analyzed for PCB Congeners via EPA CLP CBC01.2	20.1
A-7	TA	METAL	E200.7	107	Tissue analyzed for metals via ICP-AES	21.1
A-7	TA	METAL	E245.5	107	Tissue analyzed for mercury via CVAA	21.1
A-7	TA	METAL	E335.2	107	Tissue analyzed for cyanide via spectrophotometer	21.1
A-7	TA	PCBCONG	CBC01.2	107	Tissue analyzed for PCB Congeners via EPA CLP CBC01.2	21.2
A-7	TA	PEST/PCB	CPEST	107	Tissue analyzed for pesticides via GC (unspecified CLP method)	21.3
A-7	TA	SVOC	E625	43	Tissue analyzed for semivolatiles via GC/MS	21.4
A-7	TA	WCHEM	Lab SOP	107	Tissue analyzed for percent solids via laboratory SOP	21.5

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Notes on Appendix I Tables

Note that the letters designating the screening values that are exceeded are marked in parenthesis after the results. The list of screening values and the prioritization scheme can be found in Tables 4-2 and 4-3, respectively. Appendix C contains the detailed list of values.

The letters designating the screening values for each media are also presented below for ease of reference:

Medium	Evaluation Criteria		
	Human Health Risk	Ecological Risk	General
Sediment - surface in canal	A	R	
Sediment – CSOs	A	R	
Sediment – subsurface soft	A	R	
Sediment – subsurface native	A	R	
Surface water in canal - dry and wet events	T	S	
Surface water – CSOs	T	S	
Surface water - pipe outfalls	T	S	
Tissue	M	U, V, W, X, Y, Z	
Groundwater			N1, O1,O2
Soil			Q
Air	P		

1. For surface sediment, surface water, soft and native sediment, and air, the samples are listed based on their distance from the head of the canal. For the remaining media, the samples are listed in chronological order based on their number.
2. The list of analytes is based on the target list identified in the QAPPs developed for the project.
3. Two sets of tables are provided – first set includes all results. Second set only lists detected concentrations and highlights the concentrations that exceed standards / criteria.
4. Exceedance of one standard / criteria is bolded. Exceedance of two standards / criteria is enclosed in a rectangle. The criteria that are exceeded are noted in parenthesis after the result.
5. Blank means that the compound was not detected.
6. "- -" in the results means that a result was not available.
7. "- -" in the total concentrations means that a total value was not calculated. Total concentrations were not calculated for locations where one of the results that needed to be included in the total is rejected.
8. "*" Asterisk denotes that compound does not have a screening value.
9. For soil sampling locations where multiple samples were collected at the same interval, the VOC sample depth is shown to differentiate between the two samples.
10. The following results were not available at the time of preparation of this draft RI report:
    a. Surface water dry weather sampling – the cyanide results for eight locations, seven of which are reference locations (322, 326, 327, 328, 329, 330, 333, and 336).
11. The following abbreviations appear in the Appendix I data tables:
    a. N-Normal sample
    b. FD-Field duplicate
    c. S-Split
    d. ND – not detected, generally used to populate fields for summed values where constituent compounds were all below detection limit
    e. mg/kg – milligrams/kilogram

f. µg/kg – micrograms/kilogram
g. mg/l – milligrams/liter
h. µg/l – micrograms/liter
i. µg/m3 – micrograms/cubic meter

12. Data qualifiers used include:
    a. J – Concentration estimated.
    b. NJ - Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.
    c. R – Rejected.
    d. U – detected. May also indicate "not detected at significantly greater than that in an associated blank".
    e. UJ - Not detected, quantitation limit is estimated.
    f. [null] – Detected.

TABLE I-1A
VOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
Sample Number:		GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06242010-01	GC-SD313-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	6.2 UJ	22 UJ	17 UJ	22 UJ	21 U	22 UJ	18 UJ	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
1,1,2,2-tetrachloroethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	6.2 UJ	22 UJ	17 UJ	22 UJ	21 U	22 UJ	18 UJ	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
1,1,2-trichloroethane	ug/kg	6.2 UJ	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 U	18 UJ	11 UJ
1,1-dichloroethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 UJ	13 U	11 U	23 U	18 U	11 U
1,1-dichloroethene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
1,2,3-trichlorobenzene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UR	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 UR	18 U	11 U
1,2,4-trichlorobenzene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UR	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 UR	18 U	11 U
1,2-dibromo-3-chloropropane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UR	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
1,2-dibromoethane	ug/kg	6.2 UJ	22 UJ	17 UJ	22 UJ	21 U	22 UJ	18 UJ	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
1,2-dichlorobenzene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UR	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 UR	18 U	11 U
1,2-dichloroethane	ug/kg	**3.9 J**	22 UJ	17 UJ	22 UJ	21 U	22 UJ	18 UJ	**8.5 J**	5 U	6.6 UR	**7.4 J**	**5.8 J**	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
1,2-dichloropropane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
1,3-dichlorobenzene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UR	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 UR	18 U	11 U
1,4-dichlorobenzene	ug/kg	**240 J**	22 UJ	17 U	**16 J**	21 U	22 UR	18 U	**7.6 J**	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 UR	18 U	11 U
1,4-dioxane (p-dioxane)	ug/kg	120 U	450 UJ	340 U	440 UJ	420 U	430 UJ	350 U	270 U	99 U	130 UR	240 U	260 U	400 U	260 U	220 U	460 U	370 U	220 U
2-hexanone	ug/kg	12 U	45 UJ	34 U	44 UJ	42 U	43 UJ	35 U	27 U	9.9 U	13 UR	24 U	26 U	40 U	26 U	22 U	46 U	37 U	22 U
Acetone	ug/kg	12 U	**45 J**	**39**	**46 J**	**55**	**38 J**	**42**	**21 J**	9.9 U	13 UR	24 U	**21 J**	40 U	**30**	22 U	**90**	37 U	**29**
Benzene	ug/kg	6.2 U	22 UJ	17 U	**110 J**	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**46 J**	18 U	**6.8 J**
Bromochloromethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 UJ	13 U	11 U	23 U	18 U	11 U
Bromodichloromethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
Bromoform	ug/kg	6.2 UJ	22 UJ	17 U	22 UJ	21 U	22 UR	18 U	13 UJ	5 UJ	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 U	11 UJ
Bromomethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
Carbon disulfide	ug/kg	6.2 U	22 UJ	**4.7 J**	**8.2 J**	**6.6 J**	**8.1 J**	**5.2 J**	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**89**	18 U	**6.7 J**
Carbon tetrachloride	ug/kg	6.2 UJ	22 UJ	17 UJ	22 UJ	21 U	22 UJ	18 UJ	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
Chlorobenzene	ug/kg	**53**	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 UR	18 U	11 U
Chloroethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
Chloroform	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 UJ	13 U	11 U	23 U	18 U	11 U
Chloromethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
cis-1,2-dichloroethylene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
cis-1,3-dichloropropene	ug/kg	6.2 UJ	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 U	18 UJ	11 UJ
Cyclohexane	ug/kg	6.2 U	22 UJ	17 U	**14 J**	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	**8 J**
Dibromochloromethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 UJ	13 U	11 U	23 U	18 U	11 U
Dichlorodifluoromethane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
Ethylbenzene	ug/kg	6.2 U	22 UJ	17 U	**270 J**	**6.6 J**	**5.3 J**	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**1,100 J**	18 U	**1,100 J**
Isopropylbenzene (cumene)	ug/kg	6.2 U	22 UJ	17 U	**330 J**	**4.6 J**	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**640 J**	18 U	**200**
m, p xylenes	ug/kg	6.2 U	22 UJ	17 U	**93 J**	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**120 J**	18 U	**310**

TABLE I-1A
VOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
Sample Number:		GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06242010-01	GC-SD313-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	6.2 UJ	22 UJ	17 UJ	22 UJ	21 U	22 UJ	18 UJ	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	12 U	45 UJ	34 U	44 UJ	42 U	43 UJ	35 U	27 U	9.9 U	13 UR	24 U	26 U	40 U	26 U	22 U	46 U	37 U	22 U
Methyl isobutyl ketone	ug/kg	12 U	45 UJ	34 U	44 UJ	42 U	43 UJ	35 U	27 U	9.9 U	13 UR	24 U	26 U	40 U	26 U	22 U	46 U	37 U	22 U
Methylcyclohexane	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**170 J**	18 U	11 U
Methylene chloride	ug/kg	6.2 UJ	22 UJ	17 UJ	22 UJ	21 U	**7.7 J**	**4.7 J**	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	**2.2 J**	23 UJ	18 UJ	**3.9 J**
o-xylene (1,2-dimethylbenzene)	ug/kg	6.2 U	22 UJ	17 U	**140 J**	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**290 J**	18 U	**420**
Styrene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
Tert-butyl methyl ether	ug/kg	6.2 UJ	22 UJ	17 UJ	**34 J**	21 U	22 UJ	18 UJ	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
Tetrachloroethylene(PCE)	ug/kg	6.2 U	**11 J**	**5.8 J**	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
Toluene	ug/kg	6.2 U	22 UJ	17 U	**5.8 J**	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	**36 J**	18 U	**7.8 J**
trans-1,2-dichloroethene	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
trans-1,3-dichloropropene	ug/kg	6.2 UJ	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 UJ	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 U	18 UJ	11 UJ
Trichloroethylene (TCE)	ug/kg	**4.2 J**	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U
Trichlorofluoromethane	ug/kg	6.2 UJ	**8.9 J**	**5.4 J**	22 UJ	21 U	22 UJ	18 UJ	**4.6 J**	5 U	6.6 UR	12 UJ	13 UJ	20 UJ	13 UJ	11 UJ	23 UJ	18 UJ	11 UJ
Vinyl chloride	ug/kg	6.2 U	22 UJ	17 U	22 UJ	21 U	22 UJ	18 U	13 U	5 U	6.6 UR	12 U	13 U	20 U	13 U	11 U	23 U	18 U	11 U

TABLE I-1A
VOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330	330
Sample Number:		GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5	D-06242010-02
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/21/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
1,1,2,2-tetrachloroethane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
1,1,2-trichloroethane	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
1,1-dichloroethane	ug/kg	15 U	13 U	14 U	23 U	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 UJ	11 UJ	13 U
1,1-dichloroethene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,2,3-trichlorobenzene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,2,4-trichlorobenzene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,2-dibromo-3-chloropropane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,2-dibromoethane	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
1,2-dichlorobenzene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,2-dichloroethane	ug/kg	**6.2 J**	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	**45 J**	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
1,2-dichloropropane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,3-dichlorobenzene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,4-dichlorobenzene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
1,4-dioxane (p-dioxane)	ug/kg	290 U	250 U	290 U	460 U	280 U	200 U	270 U	440 UJ	360 U	290 U	260 UJ	280 U	320 U	400 U	170 U	200 U	220 U	260 U
2-hexanone	ug/kg	29 U	25 U	29 U	46 U	28 U	20 U	27 U	44 UJ	36 U	29 U	26 UJ	28 U	32 U	40 U	17 U	20 U	22 U	26 U
Acetone	ug/kg	29 U	25 U	29 U	46 U	28 U	20 U	27 U	44 UJ	36 U	29 U	26 UJ	28 U	**32 J**	**41**	17 U	20 U	22 U	26 U
Benzene	ug/kg	15 U	**34 J**	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Bromochloromethane	ug/kg	15 U	13 U	14 U	23 U	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 UJ	11 UJ	13 U
Bromodichloromethane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Bromoform	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 UJ	10 UJ	11 UJ	13 UJ
Bromomethane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Carbon disulfide	ug/kg	15 U	**8.5 J**	14 U	23 U	14 U	10 U	13 U	22 UJ	**11 J**	15 U	13 UJ	14 U	16 U	20 U	**3.2 J**	10 U	11 U	13 U
Carbon tetrachloride	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
Chlorobenzene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Chloroethane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Chloroform	ug/kg	15 U	13 U	14 U	23 U	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 UJ	11 UJ	13 U
Chloromethane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
cis-1,2-dichloroethylene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
cis-1,3-dichloropropene	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
Cyclohexane	ug/kg	15 U	**8 J**	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Dibromochloromethane	ug/kg	15 U	13 U	14 U	23 U	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 UJ	11 UJ	13 U
Dichlorodifluoromethane	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Ethylbenzene	ug/kg	15 U	**3,600 J**	**6.3 J**	23 U	**61**	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Isopropylbenzene (cumene)	ug/kg	15 U	**760 J**	**38**	23 U	**65**	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
m, p xylenes	ug/kg	15 U	**810 J**	14 U	23 U	**5.4 J**	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U

TABLE I-1A
VOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330	330
Sample Number:		GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5	D-06242010-02
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/21/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	29 U	25 U	29 U	46 U	28 U	20 U	27 U	44 UJ	36 U	29 U	26 UJ	28 U	32 U	40 U	17 U	20 U	22 U	26 U
Methyl isobutyl ketone	ug/kg	29 U	25 U	29 U	46 U	28 U	20 U	27 U	44 UJ	36 U	29 U	26 UJ	28 U	32 U	40 U	17 U	20 U	22 U	26 U
Methylcyclohexane	ug/kg	15 U	**15**	14 U	23 U	**27**	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Methylene chloride	ug/kg	15 U	**4.7 J**	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	**4.3 J**	13 UJ	14 U	16 U	**11 J**	8.7 UJ	10 UJ	11 UJ	13 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	15 U	**1,200 J**	14 U	23 U	**19**	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Styrene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Tert-butyl methyl ether	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
Tetrachloroethylene(PCE)	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Toluene	ug/kg	15 U	**25**	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
trans-1,2-dichloroethene	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
trans-1,3-dichloropropene	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
Trichloroethylene (TCE)	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U
Trichlorofluoromethane	ug/kg	15 U	13 UJ	14 UJ	23 UJ	14 UJ	10 UJ	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 UJ	8.7 UJ	10 UJ	11 UJ	13 UJ
Vinyl chloride	ug/kg	15 U	13 U	14 U	23 U	14 U	10 U	13 U	22 UJ	18 U	15 U	13 UJ	14 U	16 U	20 U	8.7 U	10 U	11 U	13 U

TABLE I-1A
VOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	333	334	335
Sample Number:		GC-SD331-0.0-0.5	GC-SD332-0.0-0.5	GC-SD333-0.0-0.5	GC-SD334-0.0-0.5	GC-SD335-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/17/2010
Sample Type:		N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**				
1,1,1-trichloroethane	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
1,1,2,2-tetrachloroethane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
1,1,2-trichloroethane	ug/kg	14 UJ	12 UJ	5.9 U	19 U	15 U
1,1-dichloroethane	ug/kg	14 UJ	12 U	5.9 U	19 U	15 U
1,1-dichloroethene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,2,3-trichlorobenzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,2,4-trichlorobenzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,2-dibromo-3-chloropropane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,2-dibromoethane	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
1,2-dichlorobenzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,2-dichloroethane	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
1,2-dichloropropane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,3-dichlorobenzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,4-dichlorobenzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
1,4-dioxane (p-dioxane)	ug/kg	280 U	240 U	120 U	380 U	300 U
2-hexanone	ug/kg	28 U	24 U	12 U	38 U	30 U
Acetone	ug/kg	28 U	24 U	**9.6 J**	38 U	**26 J**
Benzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Bromochloromethane	ug/kg	14 UJ	12 U	5.9 U	19 U	15 U
Bromodichloromethane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Bromoform	ug/kg	14 UJ	12 UJ	5.9 U	19 U	15 U
Bromomethane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Carbon disulfide	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Carbon tetrachloride	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
Chlorobenzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Chloroethane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Chloroform	ug/kg	14 UJ	12 U	5.9 U	19 U	15 U
Chloromethane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
cis-1,2-dichloroethylene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
cis-1,3-dichloropropene	ug/kg	14 UJ	12 UJ	5.9 U	19 U	15 U
Cyclohexane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Dibromochloromethane	ug/kg	14 UJ	12 U	5.9 U	19 U	15 U
Dichlorodifluoromethane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Ethylbenzene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Isopropylbenzene (cumene)	ug/kg	14 U	12 U	5.9 U	19 U	15 U
m, p xylenes	ug/kg	14 U	12 U	5.9 U	19 U	15 U

TABLE I-1A
VOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	333	334	335
Sample Number:		GC-SD331-0.0-0.5	GC-SD332-0.0-0.5	GC-SD333-0.0-0.5	GC-SD334-0.0-0.5	GC-SD335-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/17/2010
Sample Type:		N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**				
Methyl acetate	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
Methyl ethyl ketone (2-butanone)	ug/kg	28 U	24 U	12 U	38 U	30 U
Methyl isobutyl ketone	ug/kg	28 U	24 U	12 U	38 U	30 U
Methylcyclohexane	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Methylene chloride	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
o-xylene (1,2-dimethylbenzene)	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Styrene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Tert-butyl methyl ether	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
Tetrachloroethylene(PCE)	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Toluene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
trans-1,2-dichloroethene	ug/kg	14 U	12 U	5.9 U	19 U	15 U
trans-1,3-dichloropropene	ug/kg	14 UJ	12 UJ	5.9 U	19 U	15 U
Trichloroethylene (TCE)	ug/kg	14 U	12 U	5.9 U	19 U	15 U
Trichlorofluoromethane	ug/kg	14 UJ	12 UJ	5.9 UJ	19 UJ	15 U
Vinyl chloride	ug/kg	14 U	12 U	5.9 U	19 U	15 U

TABLE I-1B
VOC Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	302	303	304	305	306	307A	307B	308B	309	311	312	314	313	316	315	317	319
Sample Number:		GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	GC-SD313-0.0-0.5	GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	GC-SD317-0.0-0.5	GC-SD319-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/24/2010	6/18/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/21/2010	6/18/2010	6/22/2010	6/22/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dichloroethane	ug/kg	3.9 J							8.5 J	7.4 J	5.8 J					6.2 J			
1,4-dichlorobenzene	ug/kg	240 J			16 J				7.6 J										
Acetone	ug/kg		45 J	39	46 J	55	38 J	42	21 J		21 J	30		90	29				
Benzene	ug/kg				110 J									46 J	6.8 J		34 J		
Carbon disulfide	ug/kg			4.7 J	8.2 J	6.6 J	8.1 J	5.2 J						89	6.7 J		8.5 J		
Chlorobenzene	ug/kg	53																	
Cyclohexane	ug/kg				14 J										8 J		8 J		
Ethylbenzene	ug/kg				**270 J (R)**	6.6 J	5.3 J							**1,100 J (R)**	**1,100 J (R)**		**3,600 J (R)**	6.3 J	61
Isopropylbenzene (cumene)	ug/kg				330 J	4.6 J								640 J	200		760 J	38	65
m, p xylenes	ug/kg				93 J									120 J	310		**810 J (R)**		5.4 J
*Methylcyclohexane	ug/kg													170 J			15		27
Methylene chloride	ug/kg						7.7 J	4.7 J					2.2 J		3.9 J		4.7 J		
o-xylene (1,2-dimethylbenzene)	ug/kg				140 J									290 J	420		**1,200 J (R)**		19
Tert-butyl methyl ether	ug/kg				34 J														
Tetrachloroethylene(PCE)	ug/kg		11 J	5.8 J															
Toluene	ug/kg				5.8 J									36 J	7.8 J		25		
Trichloroethylene (TCE)	ug/kg	4.2 J																	
Trichlorofluoromethane	ug/kg		8.9 J	5.4 J					4.6 J										

TABLE I-1B
VOC Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	324	324	323	326	327	328	333	335
Sample Number:	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD333-0.0-0.5	GC-SD335-0.0-0.5
Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:	6/21/2010	6/21/2010	6/22/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/17/2010
Sample Type:	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**						
1,2-dichloroethane	ug/kg			45 J				
1,4-dichlorobenzene	ug/kg							
Acetone	ug/kg				32 J	41		9.6 J	26 J
Benzene	ug/kg							
Carbon disulfide	ug/kg	11 J					3.2 J		
Chlorobenzene	ug/kg							
Cyclohexane	ug/kg							
Ethylbenzene	ug/kg							
Isopropylbenzene (cumene)	ug/kg							
m, p xylenes	ug/kg							
*Methylcyclohexane	ug/kg							
Methylene chloride	ug/kg		4.3 J			11 J		
o-xylene (1,2-dimethylbenzene)	ug/kg							
Tert-butyl methyl ether	ug/kg							
Tetrachloroethylene(PCE)	ug/kg							
Toluene	ug/kg							
Trichloroethylene (TCE)	ug/kg							
Trichlorofluoromethane	ug/kg							

TABLE I-2A
SVOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
Sample Number:		GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2,3,4,6-tetrachlorophenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2,4,5-trichlorophenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2,4,6-trichlorophenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2,4-dichlorophenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2,4-dimethylphenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2,4-dinitrophenol	ug/kg	12,000 U	26,000 U	27,000 U	35,000 UJ	27,000 U	37,000 UJ	23,000 U	27,000 U	63,000 U	62,000 UJ	25,000 U	25,000 U	170,000 UJ	21,000 U	21,000 U	460,000 U	510,000 U	16,000 U
2,4-dinitrotoluene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2,6-dinitrotoluene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2-chloronaphthalene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2-chlorophenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2-methylnaphthalene	ug/kg	120 U	**500**	**370**	350 UJ	**3,300 J**	360 UJ	**270**	270 U	**680 J**	610 UJ	250 U	250 U	1,700 UJ	210 U	**350**	4,500 U	**15,000**	160 U
2-methylphenol (o-cresol)	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
2-nitroaniline	ug/kg	12,000 U	26,000 U	27,000 U	35,000 UJ	27,000 U	37,000 UJ	23,000 U	27,000 U	63,000 U	62,000 UJ	25,000 U	25,000 U	170,000 UJ	21,000 U	21,000 U	460,000 U	510,000 U	16,000 U
2-nitrophenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
3,3'-dichlorobenzidine	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
3-nitroaniline	ug/kg	12,000 U	26,000 U	27,000 U	35,000 UJ	27,000 U	37,000 UJ	23,000 U	27,000 U	63,000 U	62,000 UJ	25,000 U	25,000 U	170,000 UJ	21,000 U	21,000 U	460,000 U	510,000 U	16,000 U
4,6-dinitro-2-methylphenol	ug/kg	12,000 U	26,000 U	27,000 U	35,000 UJ	27,000 U	37,000 UJ	23,000 U	27,000 U	63,000 U	62,000 U	25,000 U	25,000 U	170,000 UJ	21,000 U	21,000 U	460,000 U	510,000 U	16,000 U
4-bromophenyl phenyl ether	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 UJ	230,000 U	260,000 U	8,100 U
4-chloro-3-methylphenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
4-chloroaniline	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
4-chlorophenyl phenyl ether	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 UJ	230,000 U	260,000 U	8,100 U
4-methylphenol (p-cresol)	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
4-nitroaniline	ug/kg	12,000 U	26,000 U	27,000 U	35,000 UJ	27,000 U	37,000 UJ	23,000 U	27,000 U	63,000 U	62,000 UJ	25,000 U	25,000 U	170,000 UJ	21,000 U	21,000 U	460,000 U	510,000 U	16,000 U
4-nitrophenol	ug/kg	12,000 U	26,000 U	27,000 U	35,000 UJ	27,000 U	37,000 UJ	23,000 U	27,000 U	63,000 U	62,000 UJ	25,000 U	25,000 U	170,000 UJ	21,000 U	21,000 U	460,000 U	510,000 U	16,000 U
Acenaphthene	ug/kg	**160**	**3,100 J**	**1,300**	**6,400 J**	**3,200 J**	**2,100 J**	**1,100**	**1,200**	**1,600 J**	610 UJ	250 U	250 U	1,700 UJ	**300**	**390**	**460,000 J**	**330,000 J**	160 U
Acenaphthylene	ug/kg	**270 J**	**2,100 J**	270 U	**4,200 J**	**2,700**	360 UJ	230 U	270 U	620 UJ	**760 J**	**720**	250 U	1,700 UJ	210 U	**1,100**	**150,000 J**	**100,000 J**	160 U
Acetophenone	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Anthracene	ug/kg	**330**	**3,000 J**	**1,800 J**	**7,300 J**	**3,300 J**	**3,900 J**	**1,000**	**1,500**	**2,400 J**	**660 J**	250 U	**610**	1,700 UJ	**550**	**810**	**350,000 J**	**230,000 J**	**730**
Atrazine	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Benzaldehyde	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Benzo(a)anthracene	ug/kg	**1,100**	**4,200 J**	**3,400 J**	**11,000 J**	**6,500 J**	**5,100 J**	**1,900 J**	**2,200 J**	**12,000 J**	**2,500**	**1,600**	**1,700**	**4,800 J**	**1,600**	**2,400 J**	**320,000 J**	**230,000 J**	**1,300**
Benzo(a)pyrene	ug/kg	**1,200**	**5,200 J**	**3,600 J**	**8,400 J**	**5,400 J**	**4,800 J**	**2,800 J**	**2,400 J**	**8,100 J**	**2,900**	**1,700**	250 U	**8,700 J**	**1,900**	**2,300 J**	**200,000 J**	**140,000 J**	**1,300**
Benzo(b)fluoranthene	ug/kg	**1,000**	**3,500 J**	**3,400 J**	**8,900 J**	**6,000 J**	**7,100 J**	**3,100 J**	**2,900 J**	**11,000 J**	**2,200 J**	**1,200**	250 U	**11,000 J**	**1,800**	**1,900 J**	**210,000 J**	**110,000 J**	**1,900**
Benzo(g,h,i)perylene	ug/kg	**610**	**2,200 J**	**2,200**	**4,800 J**	260 U	**3,900 J**	**1,600**	**2,300**	**7,400 J**	**2,400**	**1,000**	**1,300**	**4,100 J**	**1,100**	**1,900**	**74,000 J**	**50,000**	**1,300**
Benzo(k)fluoranthene	ug/kg	**870**	**2,800 J**	**2,800 J**	**6,900 J**	**4,600 J**	**4,100 J**	**1,900**	**2,600**	**8,300 J**	**2,500 J**	**820**	250 U	**5,400 J**	**1,400**	**1,400**	**120,000 J**	**94,000 J**	**860**
Benzyl butyl phthalate	ug/kg	6,200 U	13,000 UJ	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 UJ	13,000 UJ	13,000 U	87,000 UJ	11,000 UJ	11,000 UJ	230,000 U	260,000 U	8,100 U

TABLE I-2A
SVOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
Sample Number:		GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Bis(2-chloroethoxy) methane	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Bis(2-chloroethyl) ether	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Bis(2-chloroisopropyl) ether	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Bis(2-ethylhexyl) phthalate	ug/kg	**40,000**	**6,100 J**	**3,400 J**	**10,000 J**	**5,600 J**	**8,600 J**	**6,400 J**	**4,500 J**	31,000 U	31,000 UJ	**4,200 J**	**2,600 J**	**16,000 J**	**9,200 J**	**7,200 J**	**57,000 J**	260,000 U	8,100 U
Caprolactam	ug/kg	6,200 U	13,000 UJ	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 UJ	13,000 UJ	13,000 U	87,000 UJ	11,000 UJ	11,000 UJ	230,000 U	260,000 U	8,100 U
Carbazole	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	**1,400 J**	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 UJ	230,000 U	260,000 U	8,100 U
Chrysene	ug/kg	**790 J**	**4,200 J**	**2,900 J**	**11,000 J**	**6,300 J**	**5,500 J**	**2,300 J**	**1,900 J**	**12,000 J**	**2,000 J**	**1,300 J**	**1,200 J**	**4,400 J**	**1,400 J**	**2,300 J**	**320,000 J**	**190,000 J**	**730 J**
Dibenz(a,h)anthracene	ug/kg	**200**	**920**	**520**	**1,400 J**	**700**	**1,500 J**	**460**	**990**	**2,500 J**	**910**	**420**	**340**	1,700 UJ	**400**	**800**	**14,000**	**14,000**	**210**
Dibenzofuran	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 UJ	230,000 U	260,000 U	8,100 U
Diethyl phthalate	ug/kg	6,200 U	13,000 UJ	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 UJ	13,000 UJ	13,000 U	87,000 UJ	11,000 UJ	11,000 UJ	230,000 U	260,000 U	8,100 U
Dimethyl phthalate	ug/kg	6,200 U	13,000 UJ	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 UJ	13,000 UJ	13,000 U	87,000 UJ	11,000 UJ	11,000 UJ	230,000 U	260,000 U	8,100 U
Di-n-butyl phthalate	ug/kg	6,200 U	13,000 UJ	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 UJ	**510 J**	13,000 U	87,000 UJ	11,000 UJ	11,000 UJ	230,000 U	260,000 U	8,100 U
Di-n-octylphthalate	ug/kg	6,200 U	13,000 UJ	13,000 U	17,000 UJ	13,000 U	18,000 UJ	**9,300 J**	14,000 U	31,000 U	31,000 UJ	13,000 UJ	13,000 U	87,000 UJ	11,000 UJ	11,000 UJ	230,000 U	260,000 U	8,100 U
Fluoranthene	ug/kg	**1,200 J**	**6,600 J**	**4,200 J**	**12,000 J**	**9,300 J**	**6,900 J**	**3,600 J**	**3,400 J**	**24,000 J**	**3,800**	**1,800**	**2,200**	**8,200 J**	**2,700 J**	**4,700 J**	**630,000 J**	**400,000 J**	**2,200 J**
Fluorene	ug/kg	**130**	**1,400**	270 U	**4,100 J**	260 U	360 UJ	**360**	270 U	**1,800 J**	610 UJ	250 U	250 U	1,700 UJ	**260**	**500**	**130,000 J**	**99,000 J**	160 U
Hexachlorobenzene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Hexachlorobutadiene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Hexachlorocyclopentadiene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Hexachloroethane	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**1,000**	**3,000 J**	**2,400**	**9,000 J**	**3,900 J**	**5,300 J**	**2,100**	**1,500 J**	**7,100 J**	**1,900**	**1,200**	**2,500**	**5,300 J**	**1,800**	**1,200 J**	**120,000 J**	**67,000 J**	**1,700 J**
Isophorone	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Naphthalene	ug/kg	**120 J**	**660**	**280**	**7,600 J**	**7,200 J**	360 UJ	230 U	270 U	**1,000 J**	610 UJ	250 U	250 U	1,700 UJ	**370**	**390**	**5,600**	**5,500**	160 U
Nitrobenzene	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
N-nitrosodi-n-propylamine	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
N-nitrosodiphenylamine	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
PCB 0	ug/kg	6,200 U	13,000 UJ	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 UJ	13,000 UJ	13,000 U	87,000 UJ	11,000 UJ	11,000 UJ	230,000 U	260,000 U	8,100 U
Pentachlorophenol	ug/kg	250 U	530 U	540 U	700 UJ	540 U	740 UJ	470 U	550 U	1,300 UJ	1,200 UJ	25,000 U	510 U	3,500 UJ	420 U	21,000 U	9,200 U	10,000 U	320 U
Phenanthrene	ug/kg	**510**	**5,500 J**	**4,300 J**	**19,000 J**	**8,900 J**	**8,000 J**	**1,600**	**1,400**	**21,000 J**	**4,300 J**	**520 J**	**1,300**	**2,000 J**	**1,700 J**	**2,600 J**	**470,000 J**	**350,000 J**	**1,700 J**
Phenol	ug/kg	6,200 U	13,000 U	13,000 U	17,000 UJ	13,000 U	18,000 UJ	12,000 U	14,000 U	31,000 U	31,000 U	13,000 U	13,000 U	87,000 UJ	11,000 U	11,000 U	230,000 U	260,000 U	8,100 U
Pyrene	ug/kg	**1,400 J**	**9,500 J**	**5,900 J**	**18,000 J**	**13,000 J**	**9,600 J**	**5,000 J**	**4,400 J**	**22,000 J**	**3,900**	**2,200 J**	**2,600 J**	**13,000 J**	**2,100 J**	**4,900 J**	**670,000 J**	**450,000 J**	**1,900 J**
Total PAHs	ug/kg	**10,890**	**58,380**	**39,370**	**140,000**	**84,300**	**67,800**	**29,090**	**28,690**	**142,880**	**30,730**	**14,480**	**13,750**	**66,900**	**19,380**	**29,940**	**4,243,600**	**2,874,500**	**15,830**

TABLE I-2A
SVOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	315	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330
Sample Number:		GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2,3,4,6-tetrachlorophenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2,4,5-trichlorophenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2,4,6-trichlorophenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2,4-dichlorophenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2,4-dimethylphenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2,4-dinitrophenol	ug/kg	310,000 U	330,000 U	320,000 U	230,000 U	24,000 U	19,000 U	69,000 UJ	26,000 U	33,000 U	31,000 U	23,000 U	21,000 U	24,000 U	28,000 U	29,000 U	20,000 U	21,000 U	28,000 U
2,4-dinitrotoluene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2,6-dinitrotoluene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2-chloronaphthalene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2-chlorophenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2-methylnaphthalene	ug/kg	3,100 U	**870,000 J**	**700,000 J**	2,200 U	**2,600 J**	**5,500 J**	**720 J**	**380**	**500**	**190 J**	230 U	**400**	**3,900 J**	280 U	290 U	**900**	210 U	280 U
2-methylphenol (o-cresol)	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
2-nitroaniline	ug/kg	310,000 U	330,000 U	320,000 U	230,000 U	24,000 U	19,000 U	69,000 UJ	26,000 U	33,000 U	31,000 U	23,000 U	21,000 U	24,000 U	28,000 U	29,000 U	20,000 U	21,000 U	28,000 U
2-nitrophenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
3,3'-dichlorobenzidine	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
3-nitroaniline	ug/kg	310,000 U	330,000 U	320,000 U	230,000 U	24,000 U	19,000 U	69,000 UJ	26,000 U	33,000 U	31,000 U	23,000 U	21,000 U	24,000 U	28,000 U	29,000 U	20,000 U	21,000 U	28,000 U
4,6-dinitro-2-methylphenol	ug/kg	310,000 U	330,000 U	320,000 U	230,000 U	24,000 U	19,000 U	69,000 U	26,000 U	33,000 U	31,000 U	23,000 U	21,000 U	24,000 U	28,000 U	29,000 U	20,000 U	21,000 U	28,000 U
4-bromophenyl phenyl ether	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
4-chloro-3-methylphenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
4-chloroaniline	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
4-chlorophenyl phenyl ether	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
4-methylphenol (p-cresol)	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
4-nitroaniline	ug/kg	310,000 U	330,000 U	320,000 U	230,000 U	24,000 U	19,000 U	69,000 UJ	26,000 U	33,000 U	31,000 U	23,000 U	21,000 U	24,000 U	28,000 U	29,000 U	20,000 U	21,000 U	28,000 U
4-nitrophenol	ug/kg	310,000 U	330,000 U	320,000 U	230,000 U	24,000 U	19,000 U	69,000 UJ	26,000 U	33,000 U	31,000 U	23,000 U	21,000 U	24,000 U	28,000 U	29,000 U	20,000 U	21,000 U	28,000 U
Acenaphthene	ug/kg	3,100 U	**580,000 J**	**460,000 J**	**19,000**	**6,100 J**	**20,000 J**	**1,700 J**	**370**	**620**	310 U	230 U	**240**	**950**	280 U	290 U	**420**	210 U	280 U
Acenaphthylene	ug/kg	3,100 U	**130,000 J**	**110,000 J**	**12,000**	**13,000 J**	**10,000 J**	**3,600 J**	260 U	320 U	310 U	230 U	**480 J**	240 U	280 U	290 U	190 U	210 U	280 U
Acetophenone	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Anthracene	ug/kg	3,100 U	**610,000 J**	**360,000 J**	**16,000**	**9,700 J**	**21,000**	**3,200 J**	**1,100**	**1,500**	**330**	**450**	**830**	**2,800 J**	280 U	290 U	**500**	**140 J**	280 U
Atrazine	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Benzaldehyde	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Benzo(a)anthracene	ug/kg	**4,800**	**490,000 J**	**260,000 J**	**38,000 J**	**25,000 J**	**21,000 J**	**9,000 J**	**3,000 J**	**3,300 J**	**1,500**	**940**	**1,900 J**	**6,300 J**	**350**	**440**	**530**	**380**	**380**
Benzo(a)pyrene	ug/kg	**7,100**	**140,000 J**	**110,000 J**	**48,000 J**	**15,000**	**14,000 J**	**6,500 J**	**4,100 J**	**3,100 J**	310 U	**1,800**	**2,200 J**	**5,200 J**	280 U	**650**	190 U	**430**	**600**
Benzo(b)fluoranthene	ug/kg	**11,000**	**98,000 J**	**170,000 J**	**17,000**	**17,000 J**	**13,000 J**	**5,000 J**	**3,400 J**	**2,000**	**5,300 J**	**1,900**	**1,600 J**	**3,400 J**	**420**	**520**	**920**	**490**	**660**
Benzo(g,h,i)perylene	ug/kg	**3,700**	**53,000 J**	**41,000 J**	**10,000**	**9,000 J**	**7,400 J**	**3,200 J**	**2,400**	**1,500 J**	**1,500**	**1,100**	**1,700**	**2,600 J**	280 U	**440**	**260**	**300**	**300**
Benzo(k)fluoranthene	ug/kg	**4,900**	**67,000 J**	**45,000 J**	**15,000**	**11,000 J**	**8,800 J**	**3,800 J**	**2,400**	**2,500 J**	**1,100**	**520**	**1,700**	**3,500 J**	280 U	**380**	**240**	**330**	**310**
Benzyl butyl phthalate	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 UJ	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U

TABLE I-2A
SVOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	315	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330
Sample Number:		GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Bis(2-chloroethoxy) methane	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Bis(2-chloroethyl) ether	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Bis(2-chloroisopropyl) ether	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	160,000 U	160,000 U	160,000 U	**13,000 J**	**14,000**	**7,700 J**	**3,000 J**	**4,000 J**	**4,400 J**	16,000 U	12,000 U	**3,400 J**	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Caprolactam	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 UJ	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Carbazole	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Chrysene	ug/kg	**6,700 J**	**490,000 J**	**250,000 J**	**19,000 J**	**24,000 J**	**22,000 J**	**7,200 J**	**2,800 J**	**3,100 J**	**1,100 J**	**740 J**	**1,800 J**	**6,500 J**	**390 J**	**500 J**	**380 J**	**460 J**	**400 J**
Dibenz(a,h)anthracene	ug/kg	3,100 U	**10,000**	**8,200**	2,200 U	**3,100 J**	**2,500 J**	**1,100 J**	**650**	320 U	**600**	**440**	**390**	**740**	280 U	290 U	190 U	210 U	280 U
Dibenzofuran	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	**1,100 J**	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Diethyl phthalate	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 UJ	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Dimethyl phthalate	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 UJ	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Di-n-butyl phthalate	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	**550 J**	9,600 UJ	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Di-n-octylphthalate	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 UJ	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Fluoranthene	ug/kg	**8,200**	**530,000 J**	**290,000 J**	**27,000 J**	**31,000 J**	**29,000 J**	**14,000 J**	**3,500 J**	**4,200 J**	**2,000**	230 U	**2,500 J**	**7,400 J**	**410**	**590**	**640**	**410**	**510**
Fluorene	ug/kg	3,100 U	**540,000 J**	**420,000 J**	**13,000**	**3,200 J**	**11,000 J**	**1,100 J**	**430**	**460**	310 U	230 U	**330**	**1,400**	280 U	290 U	**320**	210 U	280 U
Hexachlorobenzene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Hexachlorobutadiene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Hexachlorocyclopentadiene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Hexachloroethane	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**5,600**	**63,000 J**	**54,000 J**	**13,000**	**11,000 J**	**11,000 J**	**4,200 J**	**2,100 J**	**1,400**	**1,800**	**1,200**	**1,900**	**1,700 J**	**320**	290 U	**270**	**240**	**320**
Isophorone	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Naphthalene	ug/kg	3,100 U	**1,600,000 J**	**800,000 J**	**17,000**	**2,000**	**9,100 J**	**1,100 J**	**460**	**840**	**310 J**	**280**	**690**	**5,100 J**	280 U	290 U	**1,600**	210 U	**340**
Nitrobenzene	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
N-nitrosodi-n-propylamine	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
N-nitrosodiphenylamine	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
PCB 0	ug/kg	160,000 U	**71,000 J**	**53,000 J**	110,000 U	12,000 U	**650 J**	35,000 UJ	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 UJ	15,000 U	9,800 U	11,000 U	14,000 U
Pentachlorophenol	ug/kg	6,300 U	6,600 U	6,500 U	4,500 U	24,000 U	19,000 U	1,400 UJ	520 U	660 U	620 U	470 U	420 U	480 U	560 U	580 U	390 U	430 U	570 U
Phenanthrene	ug/kg	3,100 U	**1,100,000 J**	**840,000 J**	**42,000 J**	**8,800 J**	**37,000 J**	**2,800 J**	**1,300**	**1,400**	**620**	**470**	**1,300**	**3,400 J**	280 U	**400**	**860**	**250**	**390**
Phenol	ug/kg	160,000 U	160,000 U	160,000 U	110,000 U	12,000 U	9,600 U	35,000 U	13,000 U	16,000 U	16,000 U	12,000 U	11,000 U	12,000 U	14,000 U	15,000 U	9,800 U	11,000 U	14,000 U
Pyrene	ug/kg	**15,000**	**630,000 J**	**420,000 J**	**62,000 J**	**44,000 J**	**47,000 J**	**15,000 J**	**5,500 J**	**5,500 J**	310 U	230 U	**3,900 J**	**11,000 J**	280 U	290 U	190 U	210 U	280 U
Total PAHs	ug/kg	**67,000**	**8,001,000**	**5,338,200**	**368,000**	**235,500**	**289,300**	**83,220**	**33,890**	**31,920**	**16,350**	**9,840**	**23,860**	**65,890**	**1,890**	**3,920**	**7,840**	**3,430**	**4,210**

TABLE I-2A
SVOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**331**	**332**	**333**	**334**	**335**
Sample Number:		**GC-SD331-0.0-0.5**	**GC-SD332-0.0-0.5**	**GC-SD333-0.0-0.5**	**GC-SD334-0.0-0.5**	**GC-SD335-0.0-0.5**
Sample Depth:		**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**
Sample Date:		**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/17/2010**
Sample Type:		**N**	**N**	**N**	**N**	**N**
Parameter	**Units**	**Semi-Volatile Organic Compounds**				
1,2,4,5-tetrachlorobenzene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2,3,4,6-tetrachlorophenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2,4,5-trichlorophenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2,4,6-trichlorophenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2,4-dichlorophenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2,4-dimethylphenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2,4-dinitrophenol	ug/kg	22,000 U	16,000 U	22,000 U	11,000 U	27,000 U
2,4-dinitrotoluene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2,6-dinitrotoluene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2-chloronaphthalene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2-chlorophenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2-methylnaphthalene	ug/kg	220 U	160 U	220 U	110 U	**1,100**
2-methylphenol (o-cresol)	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
2-nitroaniline	ug/kg	22,000 U	16,000 U	22,000 U	11,000 U	27,000 U
2-nitrophenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
3,3'-dichlorobenzidine	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
3-nitroaniline	ug/kg	22,000 U	16,000 U	22,000 U	11,000 U	27,000 U
4,6-dinitro-2-methylphenol	ug/kg	22,000 U	16,000 U	22,000 U	11,000 U	27,000 U
4-bromophenyl phenyl ether	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
4-chloro-3-methylphenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
4-chloroaniline	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
4-chlorophenyl phenyl ether	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
4-methylphenol (p-cresol)	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
4-nitroaniline	ug/kg	22,000 U	16,000 U	22,000 U	11,000 U	27,000 U
4-nitrophenol	ug/kg	22,000 U	16,000 U	22,000 U	11,000 U	27,000 U
Acenaphthene	ug/kg	220 U	160 U	220 U	110 U	**870**
Acenaphthylene	ug/kg	220 U	**180**	220 U	110 U	270 U
Acetophenone	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Anthracene	ug/kg	**200 J**	**640**	**270**	110 U	**1,200 J**
Atrazine	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Benzaldehyde	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Benzo(a)anthracene	ug/kg	**460**	**1,200**	**410**	110 U	**900**
Benzo(a)pyrene	ug/kg	**240**	**920**	**760**	**210**	**530**
Benzo(b)fluoranthene	ug/kg	**630**	**520**	**620**	**150**	**1,400**
Benzo(g,h,i)perylene	ug/kg	**520**	**640**	**300**	**130**	**660**
Benzo(k)fluoranthene	ug/kg	**420**	**750**	**340**	**120**	**550**
Benzyl butyl phthalate	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U

TABLE I-2A
SVOC Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	333	334	335
Sample Number:		GC-SD331-0.0-0.5	GC-SD332-0.0-0.5	GC-SD333-0.0-0.5	GC-SD334-0.0-0.5	GC-SD335-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/17/2010
Sample Type:		N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**				
Bis(2-chloroethoxy) methane	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Bis(2-chloroethyl) ether	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Bis(2-chloroisopropyl) ether	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	11,000 U	8,000 U	11,000 UJ	**1,700 J**	13,000 U
Caprolactam	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Carbazole	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Chrysene	ug/kg	**470 J**	**800 J**	**360 J**	**130 J**	**630 J**
Dibenz(a,h)anthracene	ug/kg	220 U	160 U	220 U	110 U	270 U
Dibenzofuran	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Diethyl phthalate	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Dimethyl phthalate	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Di-n-butyl phthalate	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Di-n-octylphthalate	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Fluoranthene	ug/kg	**530**	**2,400 J**	**540**	**130**	**390**
Fluorene	ug/kg	220 U	160 U	220 U	110 U	**780**
Hexachlorobenzene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Hexachlorobutadiene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Hexachlorocyclopentadiene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Hexachloroethane	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**520**	**960**	**350**	**160**	270 U
Isophorone	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Naphthalene	ug/kg	220 U	160 U	220 U	110 U	**1,200**
Nitrobenzene	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
N-nitrosodi-n-propylamine	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
N-nitrosodiphenylamine	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
PCB 0	ug/kg	11,000 U	8,000 U	11,000 UJ	5,700 U	13,000 U
Pentachlorophenol	ug/kg	440 U	320 U	450 U	230 U	540 U
Phenanthrene	ug/kg	**270**	**810**	**460**	110 U	**2,700 J**
Phenol	ug/kg	11,000 U	8,000 U	11,000 U	5,700 U	13,000 U
Pyrene	ug/kg	**640**	**2,000 J**	220 U	110 U	**1,500**
Total PAHs	ug/kg	**4,900**	**11,820**	**4,410**	**1,030**	**14,410**

TABLE I-2B
SVOC Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location:	301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
		Sample Number:	GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5
		Sample Depth:	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date:	6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
		Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
			Semi-Volatile Organic Compounds																	
2-methylnaphthalene	ug/kg			500 (R)	370 (R)		3,300 J (R)		270 (R)		680 J (R)						350 (R)		15,000 (R)	
Acenaphthene	ug/kg		160 (R)	3,100 J (R)	1,300 (R)	6,400 J (R)	3,200 J (R)	2,100 J (R)	1,100 (R)	1,200 (R)	1,600 J (R)					300 (R)	390 (R)	460,000 J (A,R)	330,000 J (R)	
Acenaphthylene	ug/kg		270 J (R)	2,100 J (R)		4,200 J (R)	2,700 (R)					760 J (R)	720 (R)				1,100 (R)	150,000 J (R)	100,000 J (R)	
Anthracene	ug/kg		330 (R)	3,000 J (R)	1,800 J (R)	7,300 J (R)	3,300 J (R)	3,900 J (R)	1,000 (R)	1,500 (R)	2,400 J (R)	660 J (R)		610 (R)		550 (R)	810 (R)	350,000 J (R)	230,000 J (R)	730 (R)
Benzo(a)anthracene	ug/kg		1,100 (A,R)	4,200 J (A,R)	3,400 J (A,R)	11,000 J (A,R)	6,500 J (A,R)	5,100 J (A,R)	1,900 J (A,R)	2,200 J (A,R)	12,000 J (A,R)	2,500 (A,R)	1,600 (A,R)	1,700 (A,R)	4,800 J (A,R)	1,600 (A,R)	2,400 J (A,R)	320,000 J (A,R)	230,000 J (A,R)	1,300 (A,R)
Benzo(a)pyrene	ug/kg		1,200 (A,R)	5,200 J (A,R)	3,600 J (A,R)	8,400 J (A,R)	5,400 J (A,R)	4,800 J (A,R)	2,800 J (A,R)	2,400 J (A,R)	8,100 J (A,R)	2,900 (A,R)	1,700 (A,R)		8,700 J (A,R)	1,900 (A,R)	2,300 J (A,R)	200,000 J (A,R)	140,000 J (A,R)	1,300 (A,R)
Benzo(b)fluoranthene	ug/kg		1,000 (A)	3,500 J (A)	3,400 J (A)	8,900 J (A,R)	6,000 J (A,R)	7,100 J (A,R)	3,100 J (A)	2,900 J (A)	11,000 J (A,R)	2,200 J (A)	1,200 (A)		11,000 J (A,R)	1,800 (A)	1,900 J (A)	210,000 J (A,R)	110,000 J (A,R)	1,900 (A)
Benzo(g,h,i)perylene	ug/kg		610	2,200 J (R)	2,200 (R)	4,800 J (R)		3,900 J (R)	1,600 (R)	2,300 (R)	7,400 J (R)	2,400 (R)	1,000 (R)	1,300 (R)	4,100 J (R)	1,100 (R)	1,900 (R)	74,000 J (R)	50,000 (R)	1,300 (R)
Benzo(k)fluoranthene	ug/kg		870	2,800 J (A)	2,800 J (A)	6,900 J (A,R)	4,600 J (A)	4,100 J (A)	1,900 (A)	2,600 (A)	8,300 J (A,R)	2,500 J (A)	820		5,400 J (A,R)	1,400	1,400	120,000 J (A,R)	94,000 J (A,R)	860
Biphenyl (diphenyl)	ug/kg																			
Bis(2-ethylhexyl) phthalate	ug/kg		40,000 (A,R)	6,100 J (R)	3,400 J (R)	10,000 J (R)	5,600 J (R)	8,600 J (R)	6,400 J (R)	4,500 J (R)			4,200 J (R)	2,600 J (R)	16,000 J (R)	9,200 J (R)	7,200 J (R)	57,000 J (A,R)		
*Carbazole	ug/kg										1,400 J									
Chrysene	ug/kg		790 J (R)	4,200 J (R)	2,900 J (R)	11,000 J (R)	6,300 J (R)	5,500 J (R)	2,300 J (R)	1,900 J (R)	12,000 J (R)	2,000 J (R)	1,300 J (R)	1,200 J (R)	4,400 J (R)	1,400 J (R)	2,300 J (R)	320,000 J (A,R)	190,000 J (A,R)	730 J (R)
Dibenz(a,h)anthracene	ug/kg		200 (A,R)	920 (A,R)	520 (A,R)	1,400 J (A,R)	700 (A,R)	1,500 J (A,R)	460 (A,R)	990 (A,R)	2,500 J (A,R)	910 (A,R)	420 (A,R)	340 (A,R)		400 (A,R)	800 (A,R)	14,000 (A,R)	14,000 (A,R)	210 (A,R)
Dibenzofuran	ug/kg																			
Di-n-butyl phthalate	ug/kg												510 J							
Di-n-octylphthalate	ug/kg								9,300 J (R)											
Fluoranthene	ug/kg		1,200 J (R)	6,600 J (R)	4,200 J (R)	12,000 J (R)	9,300 J (R)	6,900 J (R)	3,600 J (R)	3,400 J (R)	24,000 J (R)	3,800 (R)	1,800 (R)	2,200 (R)	8,200 J (R)	2,700 J (R)	4,700 J (R)	630,000 J (A,R)	400,000 J (A,R)	2,200 J (R)
Fluorene	ug/kg		130 (R)	1,400 (R)		4,100 J (R)			360 (R)		1,800 J (R)					260 (R)	500 (R)	130,000 J (R)	99,000 J (R)	
Indeno(1,2,3-c,d)pyrene	ug/kg		1,000 (A,R)	3,000 J (A,R)	2,400 (A,R)	9,000 J (A,R)	3,900 J (A,R)	5,300 J (A,R)	2,100 (A,R)	1,500 J (A,R)	7,100 J (A,R)	1,900 (A,R)	1,200 (A,R)	2,500 (A,R)	5,300 J (A,R)	1,800 (A,R)	1,200 J (A,R)	120,000 J (A,R)	67,000 J (A,R)	1,700 J (A,R)
Naphthalene	ug/kg		120 J	660 (R)	280 (R)	7,600 J (A,R)	7,200 J (A,R)				1,000 J (R)					370 (R)	390 (R)	5,600 (A,R)	5,500 (A,R)	
Phenanthrene	ug/kg		510 (R)	5,500 J (R)	4,300 J (R)	19,000 J (R)	8,900 J (R)	8,000 J (R)	1,600 (R)	1,400 (R)	21,000 J (R)	4,300 J (R)	520 J (R)	1,300 (R)	2,000 J (R)	1,700 J (R)	2,600 J (R)	470,000 J (R)	350,000 J (R)	1,700 J (R)
Pyrene	ug/kg		1,400 J (R)	9,500 J (R)	5,900 J (R)	18,000 J (R)	13,000 J (R)	9,600 J (R)	5,000 J (R)	4,400 J (R)	22,000 J (R)	3,900 (R)	2,200 J (R)	2,600 J (R)	13,000 J (R)	2,100 J (R)	4,900 J (R)	670,000 J (A,R)	450,000 J (A,R)	1,900 J (R)
Total PAHs	ug/kg		10,890 (R)	58,380 (R)	39,370 (R)	140,000 (R)	84,300 (R)	67,800 (R)	29,090 (R)	28,690 (R)	142,880 (R)	30,730 (R)	14,480 (R)	13,750 (R)	66,900 (R)	19,380 (R)	29,940 (R)	4,243,600 (R)	2,874,500 (R)	15,830 (R)

TABLE I-2B
SVOC Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	315	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330
Sample Number:		GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5
Sample Depth:		0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Sample Date:		6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2-methylnaphthalene	ug/kg		870,000 J (A,R)	700,000 J (A,R)		2,600 J (R)	5,500 J (R)	720 J (R)	380 (R)	500 (R)	190 J (R)		400 (R)	3,900 J (R)			900 (R)		
Acenaphthene	ug/kg		580,000 J (A,R)	460,000 J (A,R)	19,000 (R)	6,100 J (R)	20,000 J (R)	1,700 J (R)	370 (R)	620 (R)			240 (R)	950 (R)			420 (R)		
Acenaphthylene	ug/kg		130,000 J (R)	110,000 J (R)	12,000 (R)	13,000 J (R)	10,000 J (R)	3,600 J (R)					480 J (R)						
Anthracene	ug/kg		610,000 J (R)	360,000 J (R)	16,000 (R)	9,700 J (R)	21,000 (R)	3,200 J (R)	1,100 (R)	1,500 (R)	330 (R)	450 (R)	830 (R)	2,800 J (R)			500 (R)	140 J (R)	
Benzo(a)anthracene	ug/kg	4,800 (A,R)	490,000 J (A,R)	260,000 J (A,R)	38,000 J (A,R)	25,000 J (A,R)	21,000 J (A,R)	9,000 J (A,R)	3,000 J (A,R)	3,300 J (A,R)	1,500 (A,R)	940 (A,R)	1,900 J (A,R)	6,300 J (A,R)	350 (A,R)	440 (A,R)	530 (A,R)	380 (A,R)	380 (A,R)
Benzo(a)pyrene	ug/kg	7,100 (A,R)	140,000 J (A,R)	110,000 J (A,R)	48,000 J (A,R)	15,000 (A,R)	14,000 J (A,R)	6,500 J (A,R)	4,100 J (A,R)	3,100 J (A,R)		1,800 (A,R)	2,200 J (A,R)	5,200 J (A,R)		650 (A,R)		430 (A)	600 (A,R)
Benzo(b)fluoranthene	ug/kg	11,000 (A,R)	98,000 J (A,R)	170,000 J (A,R)	17,000 (A,R)	17,000 J (A,R)	13,000 J (A,R)	5,000 J (A,R)	3,400 J (A)	2,000 (A)	5,300 J (A,R)	1,900 (A)	1,600 J (A)	3,400 J (A)	420 (A)	520 (A)	920 (A)	490 (A)	660 (A)
Benzo(g,h,i)perylene	ug/kg	3,700 (R)	53,000 J (R)	41,000 J (R)	10,000 (R)	9,000 J (R)	7,400 J (R)	3,200 J (R)	2,400 (R)	1,500 J (R)	1,500 (R)	1,100 (R)	1,700 (R)	2,600 J (R)		440	260	300	300
Benzo(k)fluoranthene	ug/kg	4,900 (A,R)	67,000 J (A,R)	45,000 J (A,R)	15,000 (A,R)	11,000 J (A,R)	8,800 J (A,R)	3,800 J (A)	2,400 (A)	2,500 J (A)	1,100	520	1,700 (A)	3,500 J (A)		380	240	330	310
Biphenyl (diphenyl)	ug/kg		71,000 J	53,000 J			650 J												
Bis(2-ethylhexyl) phthalate	ug/kg				13,000 J (R)	14,000 (R)	7,700 J (R)	3,000 J (R)	4,000 J (R)	4,400 J (R)			3,400 J (R)						
*Carbazole	ug/kg																		
Chrysene	ug/kg	6,700 J (R)	490,000 J (A,R)	250,000 J (A,R)	19,000 J (A,R)	24,000 J (A,R)	22,000 J (A,R)	7,200 J (R)	2,800 J (R)	3,100 J (R)	1,100 J (R)	740 J (R)	1,800 J (R)	6,500 J (R)	390 J (R)	500 J (R)	380 J	460 J (R)	400 J (R)
Dibenz(a,h)anthracene	ug/kg		10,000 (A,R)	8,200 (A,R)		3,100 J (A,R)	2,500 J (A,R)	1,100 J (A,R)	650 (A,R)		600 (A,R)	440 (A,R)	390 (A,R)	740 (A,R)					
Dibenzofuran	ug/kg						1,100 J (R)												
Di-n-butyl phthalate	ug/kg					550 J													
Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	8,200 (R)	530,000 J (A,R)	290,000 J (A,R)	27,000 J (R)	31,000 J (R)	29,000 J (R)	14,000 J (R)	3,500 J (R)	4,200 J (R)	2,000 (R)		2,500 J (R)	7,400 J (R)	410	590	640 (R)	410	510
Fluorene	ug/kg		540,000 J (A,R)	420,000 J (A,R)	13,000 (R)	3,200 J (R)	11,000 J (R)	1,100 J (R)	430 (R)	460 (R)			330 (R)	1,400 (R)			320 (R)		
Indeno(1,2,3-c,d)pyrene	ug/kg	5,600 (A,R)	63,000 J (A,R)	54,000 J (A,R)	13,000 (A,R)	11,000 J (A,R)	11,000 J (A,R)	4,200 J (A,R)	2,100 J (A,R)	1,400 (A,R)	1,800 (A,R)	1,200 (A,R)	1,900 (A,R)	1,700 J (A,R)	320 (A)		270 (A)	240 (A)	320 (A)
Naphthalene	ug/kg		,600,000 J (A,R	800,000 J (A,R)	17,000 (A,R)	2,000 (R)	9,100 J (A,R)	1,100 J (R)	460 (R)	840 (R)	310 J (R)	280 (R)	690 (R)	5,100 J (A,R)			1,600 (R)		340 (R)
Phenanthrene	ug/kg		1,100,000 J (R)	840,000 J (R)	42,000 J (R)	8,800 J (R)	37,000 J (R)	2,800 J (R)	1,300 (R)	1,400 (R)	620 (R)	470 (R)	1,300 (R)	3,400 J (R)		400 (R)	860 (R)	250 (R)	390 (R)
Pyrene	ug/kg	15,000 (R)	630,000 J (A,R)	420,000 J (A,R)	62,000 J (R)	44,000 J (R)	47,000 J (R)	15,000 J (R)	5,500 J (R)	5,500 J (R)			3,900 J (R)	11,000 J (R)					
Total PAHs	ug/kg	67,000 (R)	8,001,000 (R)	5,338,200 (R)	368,000 (R)	235,500 (R)	289,300 (R)	83,220 (R)	33,890 (R)	31,920 (R)	16,350 (R)	9,840 (R)	23,860 (R)	65,890 (R)	1,890	3,920	7,840 (R)	3,430	4,210 (R)

TABLE I-2B
SVOC Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**331**	**332**	**333**	**334**	**335**
Sample Number:		**GC-SD331-0.0-0.5**	**GC-SD332-0.0-0.5**	**GC-SD333-0.0-0.5**	**GC-SD334-0.0-0.5**	**GC-SD335-0.0-0.5**
Sample Depth:		**0 - 0.5**	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**
Sample Date:		**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/17/2010**
Sample Type:		**N**	**N**	**N**	**N**	**N**
Parameter	**Units**	**Semi-Volatile Organic Compounds**				
2-methylnaphthalene	ug/kg					**1,100 (R)**
Acenaphthene	ug/kg					**870 (R)**
Acenaphthylene	ug/kg		**180 (R)**			
Anthracene	ug/kg	**200 J (R)**	**640 (R)**	**270 (R)**		**1,200 J (R)**
Benzo(a)anthracene	ug/kg	**460 (A,R)**	**1,200 (A,R)**	**410 (A,R)**		**900 (A,R)**
Benzo(a)pyrene	ug/kg	**240 (A)**	**920 (A,R)**	**760 (A,R)**	**210 (A)**	**530 (A,R)**
Benzo(b)fluoranthene	ug/kg	**630 (A)**	**520 (A)**	**620 (A)**	150	**1,400 (A)**
Benzo(g,h,i)perylene	ug/kg	520	**640 (R)**	300	130	**660 (R)**
Benzo(k)fluoranthene	ug/kg	420	750	340	120	550
Biphenyl (diphenyl)	ug/kg					
Bis(2-ethylhexyl) phthalate	ug/kg				**1,700 J (R)**	
Carbazole	ug/kg					
Chrysene	ug/kg	**470 J (R)**	**800 J (R)**	360 J	130 J	**630 J (R)**
Dibenz(a,h)anthracene	ug/kg					
Dibenzofuran	ug/kg					
Di-n-butyl phthalate	ug/kg					
Di-n-octylphthalate	ug/kg					
Fluoranthene	ug/kg	530	**2,400 J (R)**	540	130	390
Fluorene	ug/kg					**780 (R)**
Indeno(1,2,3-c,d)pyrene	ug/kg	**520 (A)**	**960 (A,R)**	**350 (A)**	**160 (A)**	
Naphthalene	ug/kg					**1,200 (R)**
Phenanthrene	ug/kg	**270 (R)**	**810 (R)**	**460 (R)**		**2,700 J (R)**
Pyrene	ug/kg	640	**2,000 J (R)**			**1,500 (R)**
Total PAHs	ug/kg	**4,900 (R)**	**11,820 (R)**	**4,410 (R)**	1,030	**14,410 (R)**

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TABLE I-3A
Pesticide Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
Sample Number:		GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	250 UJ	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 UJ	2.1 UJ	430 UJ	4.2 U	5.9 UJ	390 UJ	440 UJ	430 U	430 U	2.7 U
Alpha BHC	ug/kg	250 U	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 U	2.1 U	430 U	4.2 U	5.9 UJ	390 U	440 U	430 U	430 U	2.7 U
Alpha endosulfan	ug/kg	250 U	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 U	2.1 U	430 U	4.2 U	5.9 UJ	390 U	440 U	430 U	430 U	2.7 U
Alpha-chlordane	ug/kg	250 UJ	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 UJ	**14 J**	430 UJ	4.2 U	**6.7 J**	390 UJ	440 UJ	430 U	430 U	2.7 U
Beta BHC	ug/kg	250 UJ	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 UJ	2.1 UJ	430 UJ	4.2 U	5.9 UJ	390 UJ	440 UJ	430 U	430 U	2.7 U
Beta endosulfan	ug/kg	480 UJ	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 U	410 UJ	**13 J**	840 UJ	8.2 U	11 UJ	760 UJ	850 UJ	830 U	840 U	5.3 U
Delta BHC	ug/kg	250 UJ	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 UJ	2.1 UJ	430 UJ	4.2 U	5.9 UJ	390 UJ	440 UJ	430 U	430 U	2.7 U
Dieldrin	ug/kg	480 U	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 U	410 U	23 R	840 U	8.2 U	11 UJ	760 U	850 U	830 U	840 U	5.3 U
Endosulfan sulfate	ug/kg	480 UJ	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 U	410 UJ	**21 J**	840 UJ	8.2 U	11 UJ	760 UJ	850 UJ	830 U	840 U	5.3 U
Endrin	ug/kg	480 U	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 U	410 U	4.1 U	840 U	8.2 U	11 UJ	760 U	850 U	830 U	840 U	5.3 U
Endrin aldehyde	ug/kg	480 UJ	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 U	410 UJ	4.1 UJ	840 UJ	8.2 U	11 UJ	760 UJ	850 UJ	830 U	840 U	5.3 U
Endrin ketone	ug/kg	480 UJ	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 U	410 UJ	4.1 UJ	840 UJ	8.2 U	11 UJ	760 UJ	850 UJ	830 U	840 U	5.3 U
Gamma BHC	ug/kg	250 U	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 U	2.1 U	430 U	4.2 UJ	5.9 UJ	390 U	440 U	430 U	430 U	2.7 U
Gamma-chlordane	ug/kg	250 UJ	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	**5.9 NJ**	210 UJ	**29 J**	430 UJ	4.2 U	**11 J**	390 UJ	440 UJ	430 U	430 U	2.7 U
Heptachlor	ug/kg	250 U	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 U	2.1 U	430 U	4.2 U	5.9 UJ	390 U	440 U	430 U	430 U	2.7 U
Heptachlor epoxide	ug/kg	250 UJ	4.5 UJ	4.6 UJ	5.9 UJ	5 UJ	6.2 UJ	4.3 UJ	4.6 U	210 UJ	2.1 UJ	430 UJ	4.2 U	5.9 UJ	390 UJ	440 UJ	430 U	430 U	2.7 U
Methoxychlor	ug/kg	2,500 U	45 UJ	46 UJ	59 UJ	50 UJ	62 UJ	43 UJ	46 U	2,100 U	**33 J**	4,300 U	42 U	59 UJ	3,900 U	4,400 U	4,300 U	4,300 U	27 U
P,P'-DDD	ug/kg	480 UR	**21 NJ**	8.8 UR	11 UR	9.7 UR	12 UR	8.4 UR	**7.9 NJ**	410 UR	**16 NJ**	840 UR	8.2 UR	**13 NJ**	760 UR	850 UR	830 UR	840 UR	5.3 UR
P,P'-DDE	ug/kg	480 UJ	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 UJ	410 UJ	**16 NJ**	840 UJ	8.2 U	11 UJ	760 UJ	850 UJ	830 U	840 U	5.3 U
P,P'-DDT	ug/kg	480 U	8.7 UJ	8.8 UJ	11 UJ	9.7 UJ	12 UJ	8.4 UJ	8.9 U	410 U	4.1 U	840 U	8.2 U	11 UJ	760 U	850 U	830 U	840 U	5.3 U
Toxaphene	ug/kg	25,000 U	450 UJ	460 UJ	590 UJ	500 UJ	620 UJ	430 UJ	460 U	21,000 U	210 U	43,000 U	420 U	590 UJ	39,000 U	44,000 U	43,000 U	43,000 U	270 U
Total DDTs	ug/kg	---	**21**	---	---	---	---	---	**7.9**	---	**32**	---	---	**13**	---	---	---	---	---

TABLE I-3A
Pesticide Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	315	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330
Sample Number:		GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	530 U	300 U	270 U	380 UJ	480 UJ	320 UJ	280 UJ	4.9 U	5.5 UJ	5.2 U	3.9 U	3.6 UJ	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Alpha BHC	ug/kg	530 U	300 U	270 U	380 U	480 U	320 U	280 U	4.9 U	5.5 U	5.2 U	3.9 U	3.6 U	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Alpha endosulfan	ug/kg	530 U	300 U	270 U	380 U	480 U	320 U	280 U	4.9 U	5.5 U	5.2 U	3.9 U	3.6 U	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Alpha-chlordane	ug/kg	530 U	300 U	270 U	380 UJ	480 UJ	320 UJ	280 UJ	4.9 U	5.5 UJ	5.2 U	3.9 U	3.6 UJ	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Beta BHC	ug/kg	530 U	300 U	270 U	380 UJ	480 UJ	320 UJ	280 UJ	4.9 U	5.5 UJ	5.2 U	3.9 U	3.6 UJ	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Beta endosulfan	ug/kg	1,000 U	590 U	530 U	740 UJ	940 UJ	630 UJ	550 UJ	9.4 U	11 UJ	10 U	7.7 U	6.9 UJ	7.8 U	9.2 UJ	10 UJ	6.5 U	7 U	10 U
Delta BHC	ug/kg	530 U	300 U	270 U	380 UJ	480 UJ	320 UJ	280 UJ	4.9 U	5.5 UJ	5.2 U	3.9 U	3.6 UJ	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Dieldrin	ug/kg	1,000 U	590 U	530 U	740 U	940 U	630 U	550 U	9.4 U	11 U	10 U	7.7 U	6.9 U	7.8 U	9.2 UJ	10 UJ	6.5 U	7 U	10 U
Endosulfan sulfate	ug/kg	1,000 U	590 U	530 U	740 UJ	940 UJ	630 UJ	550 UJ	9.4 U	11 UJ	10 U	7.7 U	6.9 UJ	7.8 U	9.2 UJ	10 UJ	6.5 U	7 U	10 U
Endrin	ug/kg	1,000 U	590 U	530 U	740 U	940 U	630 U	550 U	9.4 U	11 U	10 U	7.7 U	6.9 U	7.8 U	9.2 UJ	10 UJ	6.5 U	7 U	10 U
Endrin aldehyde	ug/kg	1,000 U	590 U	530 U	740 UJ	940 UJ	630 UJ	550 UJ	9.4 U	11 UJ	10 U	7.7 U	6.9 UJ	7.8 U	9.2 UJ	10 UJ	6.5 U	7 U	10 U
Endrin ketone	ug/kg	1,000 U	590 U	530 U	740 UJ	940 UJ	630 UJ	550 UJ	9.4 U	11 UJ	10 U	7.7 U	6.9 UJ	7.8 U	9.2 UJ	10 UJ	6.5 U	7 U	10 U
Gamma BHC	ug/kg	530 U	300 U	270 U	380 U	480 U	320 U	280 U	4.9 U	5.5 U	5.2 U	3.9 U	3.6 U	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Gamma-chlordane	ug/kg	530 U	300 U	270 U	380 UJ	480 UJ	320 UJ	280 UJ	4.9 U	5.5 UJ	5.2 U	3.9 U	3.6 UJ	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Heptachlor	ug/kg	530 U	300 U	270 U	380 U	480 U	320 U	280 U	4.9 U	5.5 U	5.2 U	3.9 U	3.6 U	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Heptachlor epoxide	ug/kg	530 U	300 U	270 U	380 UJ	480 UJ	320 UJ	280 UJ	4.9 U	5.5 UJ	5.2 U	3.9 U	3.6 UJ	4 U	4.7 UJ	5.4 UJ	3.3 U	3.6 U	5.3 U
Methoxychlor	ug/kg	5,300 U	3,000 U	2,700 U	3,800 U	4,800 U	3,200 U	2,800 U	49 U	55 U	52 U	39 U	36 U	40 U	47 UJ	54 UJ	33 U	36 U	53 U
P,P'-DDD	ug/kg	1,000 UR	**1,100 NJ**	**1,000 NJ**	740 UR	940 UR	630 UR	550 UR	9.4 UR	11 UR	10 UR	7.7 UR	6.9 UR	7.8 UR	9.2 UR	10 UR	6.5 UR	7 UR	10 UR
P,P'-DDE	ug/kg	1,000 U	590 U	530 U	740 UJ	940 UJ	630 UJ	550 UJ	9.4 U	11 UJ	10 U	7.7 U	6.9 UJ	13 R	9.2 UJ	10 UJ	6.5 U	7 U	10 U
P,P'-DDT	ug/kg	1,000 U	590 U	530 U	740 U	940 U	630 U	550 U	9.4 U	11 U	10 U	7.7 U	6.9 U	7.8 U	9.2 UJ	10 UJ	6.5 U	7 U	10 U
Toxaphene	ug/kg	53,000 U	30,000 U	27,000 U	38,000 U	48,000 U	32,000 U	28,000 U	490 U	550 U	520 U	390 U	360 U	400 U	470 UJ	540 UJ	330 U	360 U	530 U
Total DDTs	ug/kg	---	**1,100**	**1,000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE I-3A
Pesticide Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	331	332	333	334	335
Sample Number:	GC-SD331-0.0-0.5	GC-SD332-0.0-0.5	GC-SD333-0.0-0.5	GC-SD334-0.0-0.5	GC-SD335-0.0-0.5
Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/17/2010
Sample Type:	N	N	N	N	N
Parameter	**Units**	**Pesticides**				
Aldrin	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Alpha BHC	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Alpha endosulfan	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Alpha-chlordane	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Beta BHC	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Beta endosulfan	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
Delta BHC	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Dieldrin	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
Endosulfan sulfate	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
Endrin	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
Endrin aldehyde	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
Endrin ketone	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
Gamma BHC	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Gamma-chlordane	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Heptachlor	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Heptachlor epoxide	ug/kg	3.7 U	2.7 U	4.2 U	2.1 U	4.5 UJ
Methoxychlor	ug/kg	37 U	27 U	42 U	21 U	45 UJ
P,P'-DDD	ug/kg	7.2 UR	5.2 UR	8.1 UR	4.1 UR	8.8 UR
P,P'-DDE	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
P,P'-DDT	ug/kg	7.2 U	5.2 U	8.1 U	4.1 U	8.8 UJ
Toxaphene	ug/kg	370 U	270 U	420 U	210 U	450 UJ
Total DDTs	ug/kg	---	---	---	---	---

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TABLE I-3B
Pesticide Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**302**	**307B**	**308A**	**310**	**315**	**315**
	Sample Number:	**GC-SD302-0.0-0.5**	**GC-SD307B-0.0-0.5**	**D-062310-01**	**GC-SD310-0.0-0.5**	**GC-SD315-0.0-0.5**	**D-06182010-02**
	Sample Depth:	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**
	Sample Date:	**6/17/2010**	**6/18/2010**	**6/23/2010**	**6/24/2010**	**6/18/2010**	**6/18/2010**
	Sample Type:	**N**	**N**	**FD**	**N**	**N**	**FD**
Parameter	**Units**	**Pesticides**					
Alpha-chlordane	ug/kg			**14 J (R)**	**6.7 J (R)**		
Beta endosulfan	ug/kg			**13 J (R)**			
Endosulfan sulfate	ug/kg			21 J			
Gamma-chlordane	ug/kg		**5.9 NJ (R)**	**29 J (R)**	**11 J (R)**		
Methoxychlor	ug/kg			33 J			
P,P'-DDD	ug/kg	**21 NJ (R)**	**7.9 NJ (R)**	**16 NJ (R)**	**13 NJ (R)**	**1,100 NJ (R)**	**1,000 NJ (R)**
P,P'-DDE	ug/kg			**16 NJ (R)**			
Total DDTs	ug/kg	**21 (R)**	**7.9 (R)**	**32 (R)**	**13 (R)**	**1,100 (R)**	**1,000 (R)**

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TABLE I-4A
PCB Aroclor Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
Sample Number:	GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5
Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:	6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Aroclor 1221	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Aroclor 1232	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Aroclor 1242	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Aroclor 1248	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Aroclor 1254	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	**590 J**	**510 J**	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Aroclor 1260	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	**310**	**3,400 J**	**2,800 J**	53 U
Aroclor 1262	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Aroclor 1268	ug/kg	48 U	87 UJ	88 UJ	110 UJ	97 UJ	120 UJ	84 UJ	90 U	41 U	41 U	84 U	82 U	110 UJ	76 U	85 U	83 U	85 U	53 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	**590**	**510**	ND	ND	ND	ND	**310**	**3,400**	**2,800**	ND

TABLE I-4A
PCB Aroclor Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	316	315	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330
	Sample Number:	GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5
	Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	Sample Date:	6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	100 U	59 U	53 U	**240 J**	**290**	**220 J**	**140**	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1221	ug/kg	100 U	59 U	53 U	74 U	94 U	63 U	55 U	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1232	ug/kg	100 U	59 U	53 U	74 U	94 U	63 U	55 U	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1242	ug/kg	100 U	59 U	53 U	74 U	94 U	63 U	55 U	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1248	ug/kg	**2,200 J**	59 U	53 U	74 U	94 U	63 U	55 U	94 U	110 U	100 U	77 U	69 U	**230**	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1254	ug/kg	100 U	59 U	53 U	74 U	94 U	63 U	55 U	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1260	ug/kg	100 U	**2,400 J**	**1,200 J**	**610 J**	**440**	**440**	**150 J**	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1262	ug/kg	100 U	59 U	53 U	74 U	94 U	63 U	55 U	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Aroclor 1268	ug/kg	100 U	59 U	53 U	74 U	94 U	63 U	55 U	94 U	110 U	100 U	77 U	69 U	78 U	92 UJ	100 UJ	65 U	70 U	100 U
Total PCBs	ug/kg	**2,200**	**2,400**	**1,200**	**850**	**730**	**660**	**290**	ND	ND	ND	ND	ND	**230**	ND	ND	ND	ND	ND

TABLE I-4A
PCB Aroclor Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	331	332	333	334	335
	Sample Number:	GC-SD331-0.0-0.5	GC-SD332-0.0-0.5	GC-SD333-0.0-0.5	GC-SD334-0.0-0.5	GC-SD335-0.0-0.5
	Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	Sample Date:	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/17/2010
	Sample Type:	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**				
Aroclor 1016	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1221	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1232	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1242	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1248	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1254	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1260	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1262	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Aroclor 1268	ug/kg	72 U	52 U	81 U	41 U	88 UJ
Total PCBs	ug/kg	ND	ND	ND	ND	ND

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TABLE I-4B
PCB Aroclor Concentrations in Surface Sediments, Exceedances of Standards and Criteria Gowan
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	308A	308A	312	314	314	316	315	315	317	318	319	320	325
	Sample Number:	GC-SD308A-0.0-0.5	D-062310-01	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD325-0.0-0.5
	Sample Depth:	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
	Sample Date:	6/23/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010
	Sample Type:	N	FD	N	N	FD	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**												
Aroclor 1016	ug/kg									240 J (R)	290 (R)	220 J (R)	140 (R)	
Aroclor 1248	ug/kg						2,200 J (A,R)							230 (A,R)
Aroclor 1254	ug/kg	590 J (A,R)	510 J (A,R)											
Aroclor 1260	ug/kg			310 (A,R)	3,400 J (A,R)	2,800 J (A,R)		2,400 J (A,R)	1,200 J (A,R)	610 J (A,R)	440 (A,R)	440 (A,R)	150 J (R)	
Total PCBs	ug/kg	590 (A,R)	510 (A,R)	310 (A,R)	3,400 (A,R)	2,800 (A,R)	2,200 (A,R)	2,400 (A,R)	1,200 (A,R)	850 (A,R)	730 (A,R)	660 (A,R)	290 (A,R)	230 (A,R)

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TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	303	305	307A	307B	308A	308A	308B	309	310	312	314	314	313	315	315	318	319
Sample Number:		GC-SD301-0.0-0.5	GC-SD303-0.0-0.5	GC-SD305-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	FD	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**																	
PCB 1	ng/kg	285	4,860 J	4,530 J	3,840 J	3,300	161	184	1,280	2,440	1,480	1,030	7,540 J	7,950 J	9,480	10,800 J	10,600 J	1,880	1,860
PCB 2	ng/kg	41.4	783	787	550	585	75.4	94	168	286	278	184	668	790	1,560	2,250	2,210	299	196
PCB 3	ng/kg	153	2,350 J	2,310	2,140	1,920	330	402	668	1,360	1,010	649	5,770	5,880 J	5,680	8,240 J	7,670	1,450	1,130
PCB 4	ng/kg	895	15,000 J	9,390 J	7,400 J	6,710	311 U	384 U	3,690	6,410	6,800	4,250	53,200 J	55,700 J	63,300	74,700 J	68,100 J	16,500	12,500
PCB 5	ng/kg	ND	140	78.5	79.8	44.2	ND	ND	ND	88.6	147	81.5	2,330	1,760	2,200	2,400	2,030	764	400
PCB 6	ng/kg	343	5,690	3,900	3,400	3,420	217	252	1,630	3,320	4,920	2,370	24,800	25,700	42,700	32,800	30,400	11,600	6,060
PCB 7	ng/kg	37.7	522	281	269	218	ND	38.4	97.1	264	371	202	4,380	4,400	4,840	5,760	5,210	1,690	914
PCB 8	ng/kg	930	15,700	10,900	9,360	9,110	764	936	4,380	9,240	12,600	6,760	111,000	116,000	104,000	140,000	124,000	41,800	26,900
PCB 9	ng/kg	34.6	716	402	374	320	39.7	46.5	151	379	533	303	7,050	6,930	7,500	8,820	8,220	2,580	1,350
PCB 10	ng/kg	49.4	673	527	399	402	ND	ND	262	529	375	267	1,890	1,430	2,350	1,810	1,550	645	454
PCB 11	ng/kg	433	3,890	3,940	3,150	3,360	414 U	446 U	1,930	2,830	3,670	2,350	9,980	10,100	5,280	7,570	7,010	5,430	2,130
PCB 12/13	ng/kg	438	6,080	5,240	4,430	4,850	345	419	2,050	3,760	5,700	2,510	10,600	11,400	14,700	12,600	12,000	8,890	3,440
PCB 14	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	38.8	45.9	ND	43.9	40.5	12.1	6.07
PCB 15	ng/kg	2,490	29,900	26,700	22,800	27,800	2,490	2,900	12,900	23,800	22,700	13,200	65,200	68,000	58,200	69,200	67,000	41,900	20,800
PCB 16	ng/kg	368	5,220	3,120	2,790	2,570	583	640	1,370	3,420	8,900	4,240	80,300	63,300	55,200	78,100	63,700	36,400	22,300
PCB 17	ng/kg	1,010	13,700	8,540	7,190	7,370	1,080	1,160	3,640	7,460	17,000	8,650	86,400	82,000	69,500	94,600	85,400	44,800	27,200
PCB 18/30	ng/kg	931	14,700	9,710	8,500	8,090	1,430	1,610	4,290	9,890	23,300	11,000	175,000	158,000	135,000	193,000	151,000	80,600	49,700
PCB 19	ng/kg	344	4,150 J	2,040	1,660	1,340	623	671	740	1,920	2,900	1,390	21,500	21,500 J	24,000	27,300 J	24,300 J	8,460	5,860
PCB 20/28	ng/kg	5,190	61,900	45,700	39,800	44,700	11,100	12,900	20,700	41,600	76,200	35,400	226,000	258,000	208,000	338,000	264,000	222,000	102,000
PCB 21/33	ng/kg	769	11,300	6,650	6,090	5,560	1,570	1,870	2,750	6,950	16,600	7,880	143,000	119,000	92,400	165,000	128,000	90,500	44,300
PCB 22	ng/kg	840	12,300	7,930	7,200	7,000	1,630	1,870	3,550	7,960	19,200	8,540	101,000	94,300	70,000	104,000	83,000	73,700	32,900
PCB 23	ng/kg	ND	45.7	22.7	18.7	ND	ND	ND	ND	ND	42.7	ND	379	368	ND	416	346	291	73.6
PCB 24	ng/kg	ND	217	128	117	104	ND	ND	52.2	148	271	159	2,720	2,090	1,900	2,260	1,910	849	422
PCB 25	ng/kg	748	7,110	6,310	5,200	5,560	2,920	2,970	2,770	5,190	10,400	3,890	25,400	25,500	24,600	26,700	22,900	15,900	8,490
PCB 26/29	ng/kg	1,040	12,400	10,900	8,850	9,720	2,310	2,470	4,690	9,360	14,100	7,120	55,700	54,500	45,700	58,700	49,100	33,400	16,700
PCB 27	ng/kg	261	2,600	1,910	1,590	1,700	895	930	959	1,720	3,450	1,690	13,700	12,100	11,500	13,900	12,700	6,170	3,670
PCB 31	ng/kg	3,450	44,400	35,200	29,900	31,600	4,640	5,420	15,100	30,100	59,600	27,000	199,000	221,000	176,000	294,000	227,000	209,000	84,700
PCB 32	ng/kg	664	8,560	5,510	4,950	5,010	3,730	4,320	2,560	4,710 R	10,600	4,910	58,700	54,000	36,300	61,600	51,800	31,700	19,700
PCB 34	ng/kg	31.7	437	312	245	278	ND	ND	127	254	374	182	1,200	1,230	1,010	1,270	1,060	1,110	304
PCB 35	ng/kg	115	1,310	1,070	891	1,000	110	136	537	951	1,460	788	4,120	4,020	2,660	4,100	3,330	5,700	1,130
PCB 36	ng/kg	ND	80	92	65	74.9	ND	ND	ND	57.8	ND	ND	275	179	ND	36.4 R	31.1	ND	ND
PCB 37	ng/kg	1,520	15,800	13,600	12,000	14,800	2,200	2,550	7,270	14,500	18,800	10,200	72,700	67,900	50,000	69,500	60,000	51,200	21,200
PCB 38	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	147	194	ND	180	109	127	45.2
PCB 39	ng/kg	27.8	333	256	221	240	57.7 R	76.4	128	226	457	214	1,260	1,330	934	1,350	1,160	1,630	518
PCB 40/41/71	ng/kg	1,260	14,500	10,200	8,570	8,810	30,400	31,800	5,960	10,500	24,300	10,400	126,000	96,900	70,200	97,200	87,800	74,400	31,700
PCB 42	ng/kg	601	6,960	5,090	4,180	4,280	14,200	15,000	2,890	5,220	11,800	5,350	60,300	50,400	35,300	51,100	44,400	36,800	20,900
PCB 43	ng/kg	96.7	1,190	710	558	602	579	695	386	683	1,780	758	9,470	8,860	5,940	9,310	8,100	5,990	2,640

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	303	305	307A	307B	308A	308A	308B	309	310	312	314	314	313	315	315	318	319
Sample Number:		GC-SD301-0.0-0.5	GC-SD303-0.0-0.5	GC-SD305-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	FD	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**																	
PCB 44/47/65	ng/kg	2,670	25,700	18,800	18,800	16,600	68,800	76,000	11,100	19,300	48,300	20,300	219,000	128,000	138,000	175,000	146,000	125,000	58,100
PCB 45/51	ng/kg	351	3,890	2,460	3,550	2,100	9,860	10,300	1,460	2,810	8,270	3,710	45,700	33,600	33,100	35,300	33,700	24,600	14,500
PCB 46	ng/kg	88.8	1,090	702	617	555	4,570	4,360	444	845	2,220	942	15,100	10,300	10,700	11,600	10,000	7,770	4,040
PCB 48	ng/kg	311	5,000	2,760	2,300	2,250	1,300	1,550	1,290	2,830	8,710	3,530	50,400	44,900	28,200	47,000	40,700	33,100	16,200
PCB 49/69	ng/kg	1,960	20,400	15,900	14,100	14,400	57,300	64,600	9,710	15,000	39,400	16,900	136,000	87,800	92,700	126,000	105,000	94,400	39,400
PCB 50/53	ng/kg	296	3,090	2,090	2,190	1,730	15,500	16,500	1,530	2,350	6,650	2,880	32,600	27,100	23,600	30,100	26,500	17,300	11,500
PCB 52	ng/kg	2,630	22,900	17,200	15,200	14,700	109,000	129,000	11,100	17,900	50,200	21,000	248,000	155,000	143,000	208,000	172,000	128,000	61,200
PCB 54	ng/kg	25.2	137	80.8	205	65.5	271	309	ND	72.8	186	108	619	625	1,070	699	748	347	244
PCB 55	ng/kg	35.2	480	335	297	291	ND	ND	165	279	811	221	3,550	3,330	1,870	3,380	2,720	2,080	990
PCB 56	ng/kg	1,190	12,300	8,390	7,600	8,190	8,110	8,730	4,910	9,460	19,500	9,870	78,500	69,600	42,400	69,000	59,200	70,100	26,400
PCB 57	ng/kg	26.5	299	226	180	194	95.3	97.3	103	209	290	134	1,130	1,150	661	1,130	867	1,000 R	334
PCB 58	ng/kg	ND	150	112	94.1	93.8	145	241	66.5	107	133	75	457	624	ND	441	406	331	112
PCB 59/62/75	ng/kg	219	2,540	1,800	1,500	1,540	2,560	2,960	997	1,940	3,950	1,760	20,100	17,500	12,700	17,800	16,200	12,000	6,070
PCB 60	ng/kg	542	4,730	3,400	3,200	3,480	2,100	2,380	2,060	4,080	9,700	4,860	47,300	45,300	24,800	45,600	38,200	43,200	17,100
PCB 61/70/74/76	ng/kg	4,770	45,800	32,300	27,600	30,900	64,700	71,500	18,800	32,900	82,900	36,200	301,000	214,000	170,000	277,000	218,000	266,000	101,000
PCB 63	ng/kg	158	1,610	1,160	942	1,080	813	827	637	1,130	2,290	1,100	7,760	7,700	4,800	7,060	6,420	7,370	2,780
PCB 64	ng/kg	913	9,990	7,120	6,040	6,180	12,700	14,000	3,960	7,320	20,600	8,710	91,700	76,800	50,500	77,300	71,200	63,600	24,400
PCB 66	ng/kg	2,810	28,100	20,000	17,100	19,500	44,000	48,200	12,800	21,400	43,200	21,000	150,000	110,000	90,100	138,000	109,000	139,000	55,100
PCB 67	ng/kg	93.9	1,240	833	699	750	577	624	421	836	2,210	811	6,420	6,610	4,390	6,120	5,830	5,790	1,950
PCB 68	ng/kg	43.7	445	383	341	358	889	999	244	354	530	293	654	787	662	633	584	862	343
PCB 72	ng/kg	51.6	587	497	379	427	715	771	273	441	621	321	1,120	1,240	908	1,050	1,070	1,290	468
PCB 73	ng/kg	ND	104	81.2	104	75.3	ND	ND	ND	ND	ND	ND	370	436	ND	366	328	ND	ND
PCB 77	ng/kg	464	4,190	3,550	3,010	3,810	1,550	1,750	2,120	4,200	5,960	3,220	16,200	14,800	9,260	13,900	11,700	13,300	5,370
PCB 78	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 79	ng/kg	41.5	235	185	177	202	1,800	1,720	185	255	630	270	2,120	1,980	964	1,250	1,420	1,210	675
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	ND	93	83.7	81.3	85.3	49.8 R	50 R	50.7	94.9	156	92.1	757	756	ND	691	532	572	218
PCB 82	ng/kg	370	1,980	1,830	1,930	1,550	15,700	14,400	1,390	2,000	4,700	2,600	24,000	17,200	11,100	14,700	11,100	11,200	5,400
PCB 83/99	ng/kg	2,020	12,400	10,400	12,100	10,200	95,000	115,000	9,820	13,100	41,900	29,600	209,000	152,000	188,000	134,000	156,000	87,700	59,300
PCB 84	ng/kg	706	4,020	3,340	3,350	2,610	58,300	54,500	3,350	4,110	9,510	5,270	59,400	39,400	29,800	33,300	28,600	22,000	12,700
PCB 85/116/117	ng/kg	596	3,170	3,100	3,160	2,670	26,000	24,400	2,450	3,450	7,860	4,120	33,200	28,700	17,900	24,300	20,600	16,200	8,780
PCB 86/87/97/109/119/125	ng/kg	2,190	11,000	10,700	11,500	9,250	102,000	111,000	8,760	12,000	34,100	17,700	170,000	91,900	89,700	85,100	78,900	65,400	37,800
PCB 88/91	ng/kg	474	3,300	2,810	3,260	2,440	37,100	38,400	2,840	3,350	11,700	8,110	68,200	56,000	59,400	44,900	58,000	24,800	16,700
PCB 89	ng/kg	27.8	239	152	157	129	1,170	1,140	110	177	455	250	2,640	2,100	1,520	1,920	1,510	1,270	646
PCB 90/101/113	ng/kg	3,310	18,900	16,200	19,700	16,100	155,000	163,000	14,500	19,900	76,300	41,400	585,000	321,000	273,000	229,000	232,000	139,000	87,500
PCB 92	ng/kg	582	3,460	2,850	3,310	2,680	35,200	36,000	2,780	3,400	9,050	4,960	60,400	54,100	31,400	33,500	31,900	18,200	11,200
PCB 93/95/98/100/102	ng/kg	2,270	12,700	11,100	12,800	8,740	178,000	177,000	12,200	14,200	46,500	25,400	388,000	217,000	210,000	169,000	178,000	86,700	65,700

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	301	303	305	307A	307B	308A	308A	308B	309	310	312	314	314	313	315	315	318	319
Sample Number:	GC-SD301-0.0-0.5	GC-SD303-0.0-0.5	GC-SD305-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5
Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:	6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010
Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	FD	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**																
PCB 94	ng/kg	**27.5**	**207**	**154**	**283**	**133**	**1,690**	**1,640**	**130**	**179**	**459**	**271**	**1,170**	**1,080**	1,190 R	**964**	**897**	**650**	**422**
PCB 96	ng/kg	**19.5**	**146**	**107**	**160**	**92.5**	**1,540**	**1,430**	**100**	**136**	**395**	**232**	**2,130**	**1,540**	**1,770**	**1,600**	**1,760**	**747**	**541**
PCB 103	ng/kg	**35.9**	**292**	**268**	**459**	**248**	**1,840**	**1,870**	**252**	**372**	**1,480**	**1,310**	**9,270**	**9,610**	**11,600**	**7,190**	**11,200**	**2,040**	**2,160**
PCB 104	ng/kg	ND	**21.9**	ND	**78.1**	ND	**64.6**	**67.6**	ND	ND	**63.5**	**40.7**	**59.4**	**64.2**	ND	**77.5**	**233**	**52.2**	**54.5**
PCB 105	ng/kg	**1,560**	**6,680**	**6,430**	**7,050**	**6,120**	**35,200**	**34,100**	**5,020**	**8,060**	**15,800**	**8,430**	**72,200**	**65,200**	**41,700**	**51,400**	**47,500**	**36,700**	**17,700**
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	**277**	**1,360**	**1,280**	**1,280**	**1,160**	**8,080**	**7,840**	**1,110**	**1,380**	**3,310**	**1,910**	**11,600**	**10,900**	**5,880**	**7,700**	**5,960**	**5,930**	**2,840**
PCB 108/124	ng/kg	**137**	**579**	**550**	**614**	**538**	**4,710**	**4,640**	**459**	**649**	**1,760**	**927**	**7,540**	**7,140**	**3,940**	**5,200**	**4,420**	**3,350**	**1,550**
PCB 110/115	ng/kg	**3,860**	**18,600**	**19,200**	**20,500**	**17,200**	**223,000**	**228,000**	**18,100**	**21,900**	**66,000**	**32,800**	**329,000**	**177,000**	**164,000**	**141,000**	**139,000**	**113,000**	**70,800**
PCB 111	ng/kg	ND	**20.1**	**21.6**	**22**	**19.9**	ND	ND	ND	ND	ND	ND	**38.4**	**33.7**	ND	**32**	**34.9**	17.7 R	**14.5**
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 114	ng/kg	**83.3**	**409**	**369**	**392**	**347**	**1,580**	**1,500**	**249**	**454**	**939**	**492**	**4,940**	**4,460**	**2,890**	**3,610**	**3,220**	**2,360**	**1,160**
PCB 118	ng/kg	**3,990**	**18,000**	**17,000**	**18,500**	**16,500**	**106,000**	**106,000**	**14,200**	**22,100**	**42,300**	**23,300**	**200,000**	**119,000**	**125,000**	**104,000**	**95,600**	**84,000**	**50,800**
PCB 120	ng/kg	ND	**99**	**104**	**95.6**	**103**	**150**	**143**	**56.4**	**121**	**234**	**214**	**850**	**1,010**	**1,200**	**759**	**1,150**	**262**	**260**
PCB 121	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**88.8**	ND	ND
PCB 122	ng/kg	**44.6**	**222**	**208**	**218**	**187**	**1,380**	**1,460**	**170**	**214**	**573**	**289**	**2,260**	**2,010**	**1,340**	**1,670**	**1,330**	**1,220**	**482**
PCB 123	ng/kg	**67.6**	**317**	**288**	**343**	**304**	**1,930**	**1,810**	**252**	**408**	**720**	**342**	**3,400**	**3,100**	**2,740**	**2,620**	**2,530**	**1,480**	**758**
PCB 126	ng/kg	ND	**94.4**	**100**	**111**	**101**	123 R	85.3 R	**60.8**	**115**	**151**	**69.2**	**971**	**965**	ND	**539**	**442**	**261**	**113**
PCB 127	ng/kg	ND	**20**	**24.9**	**33.1**	ND	**236**	**224**	ND	ND	ND	ND	**314**	**410**	ND	**216**	**280**	ND	ND
PCB 128/166	ng/kg	**775**	**2,870**	**3,060**	**3,760**	**2,950**	**35,700**	**32,400**	**3,370**	**3,930**	**10,500**	**5,940**	**78,200**	**63,400**	**39,100**	**36,200**	**35,200**	**17,800**	**11,000**
PCB 129/138/160/163	ng/kg	**4,760**	**18,100**	**19,800**	**26,000**	**19,900**	**199,000**	**236,000**	**23,500**	**25,000**	**128,000**	**60,700**	**889,000**	**605,000**	**441,000**	**413,000**	**417,000**	**164,000**	**143,000**
PCB 130	ng/kg	**284**	**1,110**	**1,180**	**1,420**	**1,220**	**12,700**	**11,800**	**1,290**	**1,450**	**4,940**	**2,430**	**28,000**	**25,000**	**13,400**	**13,800**	**13,600**	**6,890**	**3,970**
PCB 131	ng/kg	**57.9**	**204**	**215**	**258**	**223**	**2,960**	**2,650**	**259**	**256**	**920**	**513**	**7,510**	**6,330**	**3,890**	**3,570**	**3,980**	1,530 R	**890**
PCB 132	ng/kg	**1,540**	**5,170**	**5,420**	**7,540**	**6,100**	**87,500**	**82,300**	**7,040**	**7,450**	**34,400**	**16,000**	**285,000**	**153,000**	**119,000**	**109,000**	**111,000**	**41,200**	**36,100**
PCB 133	ng/kg	**67**	**332**	**340**	**430**	**398**	**2,530**	**2,430**	**366**	**408**	**1,430**	**814**	**9,870**	**9,500**	**5,590**	**5,260**	**5,960**	1,870 R	**1,180**
PCB 134/143	ng/kg	**217**	**843**	**872**	**1,140**	**912**	**13,400**	**12,000**	**1,110**	**1,160**	**4,650**	**2,470**	**42,800**	**35,100**	**21,500**	**19,600**	**20,800**	6,680 R	**5,040**
PCB 135/151/154	ng/kg	**1,110**	**5,060**	**5,970**	**8,660**	**6,660**	**65,100**	**62,400**	**6,860**	**8,010**	**45,600**	**26,300**	**538,000**	**298,000**	**230,000**	**224,000**	**249,000**	**57,500**	**63,500**
PCB 136	ng/kg	**388**	**1,800**	**1,660**	**2,680**	**1,870**	**29,800**	**27,400**	**2,280**	**2,600**	**14,100**	**8,010**	**201,000**	**120,000**	**66,500**	**62,800**	**71,000**	14,400 R	**16,600**
PCB 137	ng/kg	**245**	**867**	**786**	**953**	**833**	**12,000**	**12,000**	**992**	**876**	**2,580**	**1,680**	**15,200**	**15,900**	**9,010**	**8,970**	**10,700**	**5,100**	**2,730**
PCB 139/140	ng/kg	**74.1**	**311**	**319**	**389**	**328**	**3,820**	**3,660**	**369**	**373**	**1,400**	**913**	**9,100**	**11,000**	**7,150**	**6,450**	**7,850**	2,160 R	**1,450**
PCB 141	ng/kg	**781**	**2,610**	**2,970**	**4,680**	**3,180**	**34,300**	**32,500**	**3,670**	**3,980**	**26,900**	**11,600**	**241,000**	**155,000**	**109,000**	**104,000**	**114,000**	**33,100**	**32,000**
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 144	ng/kg	**159**	**654**	**803**	**1,140**	**913**	**8,930**	**8,220**	**947**	**1,060**	**5,820**	**2,820**	**71,000**	**60,900**	**25,500**	**29,100**	**26,900**	**6,910**	**6,040**
PCB 145	ng/kg	ND	ND	ND	ND	ND	**93.5**	**93.2**	ND	ND	ND	ND	**56.8**	**56.7**	ND	**47.3**	**39.1**	27 R	**12.3**
PCB 146	ng/kg	**651**	**2,780**	**2,930**	**3,860**	**3,380**	**26,500**	**26,600**	**3,250**	**3,600**	**19,000**	**10,300**	**128,000**	**129,000**	**72,800**	**68,500**	**85,800**	**22,000**	**21,700**
PCB 147/149	ng/kg	**3,470**	**12,800**	**15,100**	**22,300**	**16,900**	**190,000**	**183,000**	**19,000**	**19,900**	**132,000**	**69,800**	**1,120,000**	**681,000**	**551,000**	**491,000**	**554,000**	**153,000**	**157,000**
PCB 148	ng/kg	ND	**60.3**	**66**	**97.5**	**71.8**	**242**	**247**	**50.1**	**69.1**	**321**	**355**	**2,220**	**2,510**	**2,470**	**1,870**	**2,820**	434 R	**402**

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	303	305	307A	307B	308A	308A	308B	309	310	312	314	314	313	315	315	318	319
Sample Number:		GC-SD301-0.0-0.5	GC-SD303-0.0-0.5	GC-SD305-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	FD	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**																	
PCB 150	ng/kg	ND	70.5	71.4	159	99.1	518	497	76.2	131	964	1,060	8,760	8,690	7,960	5,810	10,300	1,070	1,400
PCB 152	ng/kg	ND	26.6	21.4	65.7	31.1	320	331	ND	ND	132	82.6	177	224	ND	217	266	73.1	90.3
PCB 153/168	ng/kg	3,790	16,000	17,700	24,300	19,000	155,000	159,000	20,500	23,400	148,000	82,000	1,060,000	841,000	631,000	599,000	690,000	188,000	187,000
PCB 155	ng/kg	ND	19.6	21	30.8	20.7	ND	ND	ND	ND	89.5	104	516	519	868	459	766	112	141
PCB 156/157	ng/kg	564	2,190	2,290	2,700	2,190	15,900	15,100	2,200	3,170	8,220	4,380	70,800	61,000	37,500	33,600	36,500	14,400	9,290
PCB 158	ng/kg	441	1,660	1,760	2,490	1,690	20,700	19,500	2,090	2,330	9,740	5,160	85,000	77,700	43,000	39,400	43,300	15,900	11,900
PCB 159	ng/kg	36.1	121	142	280	166	1,400	1,370	174	270	1,820	682	14,500	10,100	6,940	5,450	5,820	2,300	2,110
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	ND	62.2	69.5	76.8	71.3	488 R	408	75.4	72.8	167	103	1,160	1,180	654	602	610	269 R	139
PCB 164	ng/kg	274	1,050	1,160	1,680	1,260	14,300	13,100	1,470	1,690	7,720	4,010	66,000	62,100	38,400	33,300	35,000	11,700	8,680
PCB 165	ng/kg	ND	19.3	ND	22.2	20.8	ND	ND	ND	ND	ND	ND	39	53.2	ND	31	65.3	25.3	ND
PCB 167	ng/kg	193	749	806	1,010	823	6,550	6,500	867	1,190	3,500	2,070	28,000	26,100	18,800	13,900	16,000	5,480	3,960
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	902	3,380	4,210	6,940	5,160	28,600	25,900	5,200	7,710	32,000	16,000	434,000	189,000	188,000	116,000	129,000	55,500	44,400
PCB 171/173	ng/kg	308	1,200	1,520	2,320	1,880	10,200	8,880	1,800	2,470	10,900	5,330	135,000	61,400	56,800	51,600	49,100	15,900	17,800
PCB 172	ng/kg	176	679	820	1,320	992	4,990	4,810	1,000	1,340	5,740	3,020	80,100	58,800	32,600	29,500	27,800	9,760	9,770
PCB 174	ng/kg	941	3,210	4,090	7,340	5,420	34,300	30,100	5,110	6,710	40,500	17,900	450,000	202,000	183,000	109,000	133,000	58,900	45,300
PCB 175	ng/kg	46.6	179	235	370	320	1,350	1,270	265	377	1,490	789	19,100	16,500	8,260	8,180	8,120	2,390	2,000
PCB 176	ng/kg	123	500	624	953	846	4,540	4,070	735	979	5,100	2,450	66,000	47,700	23,600	24,100	23,200	6,910	6,510
PCB 177	ng/kg	627	2,390	2,960	4,350	3,800	15,900	15,000	3,490	4,810	17,800	8,870	254,000	107,000	99,800	92,000	80,800	26,700	22,000
PCB 178	ng/kg	219	987	1,220	1,790	1,560	6,390	5,850	1,330	1,870	7,710	4,570	90,300	74,100	42,900	39,400	39,200	11,700	11,500
PCB 179	ng/kg	386	1,670	2,070	3,020	2,590	14,100	13,100	2,380	3,220	17,600	9,220	224,000	89,500	87,700	84,600	66,000	24,100	23,100
PCB 180/193	ng/kg	2,170	8,240	10,300	17,500	13,300	66,200 R	62,900	12,600	16,700	93,400	43,100	978,000	492,000	446,000	299,000	340,000	153,000	122,000
PCB 181	ng/kg	ND	40.6	43	64.7	61.1	403	376	55	65.9	237	162	2,390	2,680	1,520	1,520	1,650	412	430
PCB 182	ng/kg	ND	38.1	40.4	ND	46.8	163	175	42.4	ND	98.9	ND	783	857	ND	458	385	129	91.1
PCB 183/185	ng/kg	755	2,860	3,670	5,560	4,700	24,400	22,100	4,460	5,850	28,800	14,500	344,000	169,000	147,000	101,000	115,000	44,200	35,200
PCB 184	ng/kg	ND	ND	19.1	ND	30.1	ND	ND	ND	ND	40.9	ND	115	139	ND	101	105	40.9	24.7
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	1,400	5,920	7,510	10,700	9,800	42,300	40,500	8,460	11,800	60,500	34,500	563,000	284,000	266,000	178,000	222,000	89,900	75,500
PCB 188	ng/kg	ND	26.1	32.8	51.6	32.1	103	95.2	ND	54.7	240	309	1,860	1,930	2,510	1,490	2,230	329	398
PCB 189	ng/kg	44.2	171	192	339	225	1,160	1,110	248	306	1,300	704	14,700	14,100	8,180	7,270	7,490	2,050	1,570
PCB 190	ng/kg	194	803	989	1,600	1,160	5,150	4,990	1,130	1,610	6,120	3,450	90,200	69,200	40,900	37,900	39,100	12,300	13,300
PCB 191	ng/kg	42.1	155	192	330	255	1,220	1,120	234	328	1,530	797	19,200	14,900	8,780	8,110	7,870	2,430	2,450
PCB 192	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 194	ng/kg	551	2,140	2,560	4,240	2,510	12,400	12,700	3,240	3,800	16,700	10,700	160,000	101,000	93,600	75,900	78,300	31,800	21,500
PCB 195	ng/kg	214	771	835	1,670	908	4,710	4,830	1,220	1,410	6,510	3,760	74,900	58,200	35,200	28,600	33,500	13,800	9,260
PCB 196	ng/kg	313	1,140	1,490	2,530	1,970	7,560	7,390	1,650	2,170	8,970	5,320	112,000	67,300	45,600	39,400	41,900	17,400	11,700

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	303	305	307A	307B	308A	308A	308B	309	310	312	314	314	313	315	315	318	319
Sample Number:		GC-SD301-0.0-0.5	GC-SD303-0.0-0.5	GC-SD305-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	FD	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**																	
PCB 197/200	ng/kg	**97.9**	**403**	**448**	**779**	**659**	**2,920**	**2,720**	**542**	**751**	**3,280**	**1,800**	**37,900**	**25,100**	**13,900**	**13,400**	**13,300**	**5,620**	**3,150**
PCB 198/199	ng/kg	**650**	**3,100**	**3,920**	**5,970**	**5,080**	**18,800**	**19,000**	**4,230**	**5,190**	**20,100**	**12,800**	**215,000**	**130,000**	**79,200**	**73,100**	**77,000**	**40,800**	**22,500**
PCB 201	ng/kg	**89.4**	**384**	**499**	**671**	**720**	**2,530**	**2,450**	**548**	**754**	**2,810**	**1,700**	**25,000**	**18,100**	**10,100**	**9,920**	**10,300**	**4,630**	**2,160**
PCB 202	ng/kg	**187**	**852**	**1,070**	**1,230**	**1,090**	**3,990**	**3,840**	**1,140**	**1,540**	**4,020**	**3,120**	**26,200**	**23,400**	**17,000**	**12,700**	**14,500**	**7,940**	**3,850**
PCB 203	ng/kg	**467**	**1,810**	**2,250**	**3,740**	**3,290**	**11,800**	**12,800**	**2,740**	**3,460**	**12,700**	**8,820**	**136,000**	**91,400**	**57,800**	**56,700**	**57,300**	**25,600**	**15,600**
PCB 204	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**38.9**	**34.1**	ND	**29.1**	**26.6**	**10.3**	**4.98**
PCB 205	ng/kg	**30.1**	**110**	**135**	**228**	**153**	**673**	**687**	**152**	**218**	**857**	**561**	**9,560**	**8,350**	**5,530**	**4,520**	**5,120**	**1,480**	**1,000**
PCB 206	ng/kg	**397**	**2,120**	**2,360**	**3,190**	**2,600**	**11,300**	**11,700**	**2,970**	**3,220**	**8,040**	**6,810**	**34,900**	**30,200**	**20,600**	**19,400**	**20,800**	**15,300**	**6,390**
PCB 207	ng/kg	**51**	**252**	**299**	**389**	**309**	**1,430**	**1,520**	**385**	**357**	**1,090**	**835**	**5,060**	**4,910**	**2,760**	**1,690**	**2,890**	**2,210**	**742**
PCB 208	ng/kg	**153**	**857**	**1,090**	**1,200**	**1,160**	**3,430**	**3,510**	**1,090**	**1,220**	**2,900**	**2,050**	**7,260**	**6,360**	**4,620**	**2,840**	**4,650**	**5,070**	**1,810**
PCB 209	ng/kg	**303**	**1,780**	**2,290**	**2,000**	**2,450**	**8,290**	**8,230**	**2,570**	**2,630**	**4,560**	**2,440**	**5,360**	**4,880**	**4,910**	**5,520**	**4,720**	**5,100**	**2,910**
Dichlorobiphenyl	ng/kg	**5,650**	**78,300**	ND	ND	ND	ND	ND	**27,100**	**50,600**	**57,800**	**32,300**	**290,000**	**301,000**	**305,000**	ND	**202,000**	**83,700**	**47,700**
Heptachlorobiphenyl	ng/kg	**8,330**	**32,400**	ND	**64,500**	ND	ND	ND	**48,500**	**66,200**	**331,000**	**166,000**	**2,790,000**	**1,590,000**	**1,640,000**	**803,000**	**287,000**	**48,500**	**65,800**
Hexachlorobiphenyl	ng/kg	**19,900**	**77,500**	**83,900**	ND	ND	**740,000**	ND	**102,000**	**112,000**	**613,000**	**320,000**	**4,970,000**	**2,730,000**	**2,500,000**	**826,000**	**836,000**	**81,000**	**587,000**
Monochlorobiphenyl	ng/kg	**479**	**7,990**	ND	ND	ND	ND	ND	**2,120**	**4,090**	**2,770**	**1,860**	**14,000**	**14,600**	**16,700**	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	**601**	**3,230**	**2,360**	**3,190**	**2,600**	ND	ND	**4,450**	**4,800**	**12,000**	**9,700**	**47,200**	**41,500**	**28,000**	**4,530**	ND	**7,280**	ND
Octachlorobiphenyl	ng/kg	**2,600**	**10,700**	**448**	**19,400**	ND	ND	ND	**15,500**	**19,300**	**75,900**	**48,600**	**797,000**	**422,000**	**358,000**	ND	**78,300**	**33,500**	**59,600**
Pentachlorobiphenyl	ng/kg	**22,600**	**118,000**	**98,200**	ND	ND	**859,000**	**674,000**	**98,400**	**132,000**	**376,000**	**210,000**	**1,650,000**	**1,080,000**	**1,270,000**	**862,000**	**880,000**	**694,000**	**49,100**
Tetrachlorobiphenyl	ng/kg	**21,600**	**218,000**	ND	ND	ND	ND	ND	**93,700**	**163,000**	**395,000**	**175,000**	**1,650,000**	**695,000**	**996,000**	**798,000**	**750,000**	**31,500**	**397,000**
Trichlorobiphenyl	ng/kg	**17,300**	**217,000**	ND	ND	ND	ND	ND	**71,200**	**142,000**	**284,000**	**133,000**	**1,130,000**	**643,000**	**1,000,000**	**797,000**	**853,000**	**889,000**	**404,000**
Total PCB (Lab)	ng/kg	**99,500**	**765,000**	**625,000**	**67,800**	**616,000**	**1,750,000**	**2,290,000**	**465,000**	**696,000**	**2,150,000**	**1,100,000**	**4,030,000**	**6,800,000**	**8,130,000**	**4,770,000**	**5,420,000**	**4,070,000**	**473,000**

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		320	321	324	324	325	326	330	333
Sample Number:		GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD330-0.0-0.5	GC-SD333-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/22/2010	6/21/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**							
PCB 1	ng/kg	**798**	**1,320**	**4,560 J**	**1,140**	**1,040**	**6,650 J**	**4,620 J**	**4,520 J**
PCB 2	ng/kg	**111**	**193**	**713**	**200**	**166**	**2,510**	**839**	**761**
PCB 3	ng/kg	**619**	**729**	**2,410**	**623**	**540**	**4,870 J**	**2,380 J**	**2,180 J**
PCB 4	ng/kg	**7,640**	**4,900**	**10,200 J**	**4,130**	**3,620**	**21,100 J**	**8,380 J**	**8,370 J**
PCB 5	ng/kg	**348**	**74.2**	**77.9**	**50**	**36.5**	**200**	**32.9**	**38.1**
PCB 6	ng/kg	**4,500**	**2,380**	**4,700**	**1,920**	**1,690**	**7,210**	**3,570**	**3,560**
PCB 7	ng/kg	**776**	**196**	**326**	**158**	**137**	**718**	**188**	**197**
PCB 8	ng/kg	**20,700**	**8,010**	**13,200**	**6,250**	**5,550**	**22,400**	**9,390**	**9,490**
PCB 9	ng/kg	**1,140**	**304**	**488**	**226**	**202**	**894**	**296**	**318**
PCB 10	ng/kg	**327**	**311**	**592**	**273**	**235**	**660**	**441**	**447**
PCB 11	ng/kg	**1,270**	**2,150**	**4,350**	**2,150**	**1,680**	**22,100**	**3,900**	**3,320**
PCB 12/13	ng/kg	**2,550**	**2,770**	**6,020**	**2,400**	**2,100**	**15,900**	**5,290**	**5,080**
PCB 14	ng/kg	ND	ND	ND	**5.08**	ND	**28.8**	ND	ND
PCB 15	ng/kg	**14,200**	**15,900**	**35,800**	**12,800**	**11,800**	**62,000**	**26,200**	**27,200**
PCB 16	ng/kg	**19,400**	**4,930**	**5,510**	**3,490**	**2,830**	**11,300**	**1,840**	**2,080**
PCB 17	ng/kg	**24,200**	**9,630**	**12,600**	**6,960**	**6,610**	**25,600**	**6,290**	**6,470**
PCB 18/30	ng/kg	**37,600**	**13,700**	**16,300**	**10,200**	**9,260**	**32,000**	**6,690**	**6,990**
PCB 19	ng/kg	**4,040**	**1,820**	**2,520**	**1,500**	**1,260**	**5,940 J**	**1,760 J**	**1,530**
PCB 20/28	ng/kg	**68,700**	**52,800**	**69,300**	**36,500**	**36,800**	**113,000**	**41,800**	**41,800**
PCB 21/33	ng/kg	**36,600**	**10,900**	**11,400**	**7,480**	**6,390**	**19,700**	**4,730**	**4,680**
PCB 22	ng/kg	**26,800**	**10,300**	**12,100**	**7,880**	**6,320**	**24,400**	**6,040**	**6,270**
PCB 23	ng/kg	**78.6**	**19.9**	**30.3**	**15.2**	**10.4**	**43.3**	ND	ND
PCB 24	ng/kg	**573**	**127**	**206**	**104**	**78.3**	**436**	**74.1**	**86.5**
PCB 25	ng/kg	**6,030**	**4,890**	**8,000**	**4,380**	**4,230**	**14,900**	**5,500**	**5,340**
PCB 26/29	ng/kg	**13,300**	**9,320**	**14,600**	**8,210**	**7,790**	**25,800**	**10,000**	**9,800**
PCB 27	ng/kg	**3,340**	**1,880**	**2,810**	**1,450**	**1,280**	**5,160**	**1,560**	**1,620**
PCB 31	ng/kg	**62,500**	**40,300**	**48,400**	**26,400**	**26,300**	**76,800**	**29,400**	**29,000**
PCB 32	ng/kg	**14,300**	**6,530**	**8,690**	**6,030**	**5,200**	**16,800**	**4,710**	**4,750**
PCB 34	ng/kg	**270**	**208**	**389**	**191**	**154**	**912**	**305**	**273**
PCB 35	ng/kg	**891**	**878**	**1,320**	**792**	**604**	**3,400**	**1,230**	**981**
PCB 36	ng/kg	ND	ND	**89**	ND	**23**	**206**	**92.7**	**82.2**
PCB 37	ng/kg	**17,500**	**12,500**	**21,000**	**8,600**	**8,650**	**33,100**	**12,500**	**13,200**
PCB 38	ng/kg	**42.3**	**21.9**	**26.4**	**18.4**	**14.1**	**60.5**	ND	ND
PCB 39	ng/kg	**525**	**294**	**372**	**230**	**201**	**816**	**258**	**232**
PCB 40/41/71	ng/kg	**34,300**	**19,600**	**18,500**	**13,000**	**12,000**	**35,000**	**9,270**	**9,030**
PCB 42	ng/kg	**16,200**	**9,360**	**9,020**	**6,340**	**5,910**	**20,700**	**4,180**	**4,230**
PCB 43	ng/kg	**2,460**	**1,140**	**1,410**	**819**	**691**	**2,700**	**605**	**572**

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	320	321	324	324	325	326	330	333
Sample Number:	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD330-0.0-0.5	GC-SD333-0.0-0.5
Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:	6/22/2010	6/21/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/18/2010	6/18/2010
Sample Type:	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**						
PCB 44/47/65	ng/kg	**53,700**	**28,500**	**33,900**	**20,700**	**18,500**	**68,000**	**16,200**	**15,800**
PCB 45/51	ng/kg	**12,700**	**5,000**	**5,330**	**3,560**	**3,050**	**9,960**	**1,820**	**1,810**
PCB 46	ng/kg	**3,990**	**1,360**	**1,490**	**1,080**	**790**	**2,780**	**543**	**544**
PCB 48	ng/kg	**14,300**	**6,000**	**5,650**	**3,980**	**3,540**	**11,600**	**2,030**	**1,950**
PCB 49/69	ng/kg	**40,000**	**22,100**	**26,300**	**15,600**	**20,900**	**52,500**	**14,200**	**13,500**
PCB 50/53	ng/kg	**9,470**	**4,130**	**4,350**	**3,070**	**2,880**	**8,080**	**1,710**	**1,640**
PCB 52	ng/kg	**53,700**	**28,900**	**34,600**	**22,400**	**20,400**	**65,400**	**14,700**	**14,000**
PCB 54	ng/kg	**190**	**100**	**139**	**67.2**	**58.5**	**191**	**60.2 J**	**43.4**
PCB 55	ng/kg	**718**	**438**	**499**	**217**	**188**	**594**	**244**	**233**
PCB 56	ng/kg	**25,900**	**17,300**	**15,000**	**11,100**	**11,200**	**28,500**	**6,900**	**6,920**
PCB 57	ng/kg	**264**	**230**	**322**	**171**	**203**	**590**	**235**	**220**
PCB 58	ng/kg	**94.1**	**104**	**144**	**76.3**	**72.5**	**508**	**117**	**121**
PCB 59/62/75	ng/kg	**5,220**	**2,720**	**3,270**	**2,040**	**1,730**	**7,330**	**1,610**	**1,600**
PCB 60	ng/kg	**14,600**	**7,320**	**7,110**	**4,350**	**4,280**	**6,660**	**2,660**	**2,630**
PCB 61/70/74/76	ng/kg	**89,400**	**57,000**	**55,500**	**36,800**	**38,700**	**86,100**	**26,300**	**25,400**
PCB 63	ng/kg	**2,650**	**1,760**	**1,810**	**1,050**	**1,010**	**3,450**	**1,040**	**1,000**
PCB 64	ng/kg	**27,700**	**15,000**	**13,400**	**9,360**	**9,600**	**27,300**	**5,540**	**5,560**
PCB 66	ng/kg	**53,200**	**34,000**	**34,600**	**23,300**	**25,000**	**60,900**	**17,900**	**17,800**
PCB 67	ng/kg	**2,610**	**1,090**	**1,250**	**810**	**834**	**2,170**	**701**	**669**
PCB 68	ng/kg	**248**	**301**	**447**	**256**	**233**	**1,120**	**390**	**348**
PCB 72	ng/kg	**323**	**414**	**634**	**327**	**334**	**1,830**	**497**	**468**
PCB 73	ng/kg	ND	ND	**107**	ND	ND	**210**	**89.5**	**78.3**
PCB 77	ng/kg	**4,770**	**3,940**	**5,450**	**3,080**	**2,790**	**9,340**	**3,750**	**3,050**
PCB 78	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 79	ng/kg	**483**	**403**	**316**	**253**	**311**	**668**	**137**	**135**
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	**205**	**112**	**146**	**74.2**	**70**	**150**	**74.3**	**74.4**
PCB 82	ng/kg	**5,340**	**3,040**	**2,860**	**2,020**	**1,780**	**4,450**	**889**	**1,000**
PCB 83/99	ng/kg	**35,400**	**23,500**	**20,200**	**12,800**	**19,100**	**34,400**	**6,920**	**7,160**
PCB 84	ng/kg	**10,700**	**6,190**	**5,990**	**4,230**	**4,650**	**11,300**	**2,090**	**2,270**
PCB 85/116/117	ng/kg	**7,220**	**4,610**	**4,830**	**3,040**	**3,150**	**7,980**	**1,740**	**1,880**
PCB 86/87/97/109/119/125	ng/kg	**28,300**	**18,200**	**16,800**	**11,100**	**13,200**	**26,300**	**5,280**	**5,610**
PCB 88/91	ng/kg	**11,500**	**7,250**	**5,700**	**3,800**	**5,630**	**8,660**	**1,890**	**2,010**
PCB 89	ng/kg	**760**	**334**	**361**	**221**	**164**	**672**	**97.1**	**106**
PCB 90/101/113	ng/kg	**44,700**	**33,000**	**29,200**	**18,500**	**23,900**	**45,600**	**8,990**	**9,570**
PCB 92	ng/kg	**6,620**	**4,730**	**5,300**	**3,140**	**4,220**	**10,200**	**2,030**	**2,100**
PCB 93/95/98/100/102	ng/kg	**40,100**	**22,300**	**21,000**	**15,600**	**16,800**	**36,000**	**6,630**	**7,020**

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		320	321	324	324	325	326	330	333
Sample Number:		GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD330-0.0-0.5	GC-SD333-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/22/2010	6/21/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**							
PCB 94	ng/kg	**411**	**218**	**255**	**146**	**119**	**442**	**126**	**123**
PCB 96	ng/kg	**534**	**229**	**262**	**157**	**130**	**421**	**86.4**	**84.1**
PCB 103	ng/kg	**1,450**	**648**	**682**	**379**	**389**	**962**	**187**	**190**
PCB 104	ng/kg	**32.5**	**31.8**	**36.2**	**19.2**	**18**	**19.6**	ND	ND
PCB 105	ng/kg	**13,800**	**9,170**	**11,000**	**5,780**	**6,470**	**12,200**	**3,520**	**3,780**
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	**2,190**	**1,630**	**1,880**	**1,080**	**1,270**	**3,380**	**854**	**892**
PCB 108/124	ng/kg	**1,230**	**754**	**913**	**511**	**606**	**939**	**292**	**304**
PCB 110/115	ng/kg	**40,400**	**33,900**	**29,000**	**20,600**	**25,400**	**48,000**	**9,930**	**10,700**
PCB 111	ng/kg	ND	**17.5**	**29.5**	**12.8**	13 R	**82**	**19.4**	ND
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 114	ng/kg	**976**	**572**	**611**	**352**	**416**	**623**	**188**	**208**
PCB 118	ng/kg	**31,000**	**25,200**	**28,000**	**15,200**	**20,700**	**38,300**	**9,900**	**10,300**
PCB 120	ng/kg	**137**	**144**	**171**	**87.3**	**108**	**445**	**85.3**	**83.2**
PCB 121	ng/kg	ND	**8.53**	ND	**6.97**	ND	**20.4**	ND	ND
PCB 122	ng/kg	**493**	**275**	**326**	**200**	**189**	**364**	**103**	**122**
PCB 123	ng/kg	**709**	**439**	**505**	**276**	**392**	**512**	**190**	**192**
PCB 126	ng/kg	**110**	**81.6**	**148**	**50**	**46**	**182**	**69.3**	**68.2**
PCB 127	ng/kg	ND	ND	**32.5**	ND	ND	ND	ND	ND
PCB 128/166	ng/kg	**6,130**	**4,720**	**4,620**	**2,550**	**2,580**	**5,910**	**1,370**	**1,540**
PCB 129/138/160/163	ng/kg	**68,300**	**45,300**	**35,600**	**19,800**	**27,000**	**39,800**	**8,360**	**9,120**
PCB 130	ng/kg	**2,470**	**1,670**	**1,860**	**1,070**	**949**	**2,830**	**579**	**636**
PCB 131	ng/kg	**558**	**314**	**391**	**185**	**186**	**447**	**81.3**	**91**
PCB 132	ng/kg	**19,500**	**12,900**	**10,500**	**6,530**	**6,130**	**13,100**	**2,480**	**2,760**
PCB 133	ng/kg	**713**	**493**	**595**	**277**	**290**	**904**	**206**	**218**
PCB 134/143	ng/kg	**3,000**	**1,620**	**1,700**	**1,010**	**992**	**2,080**	**455**	**489**
PCB 135/151/154	ng/kg	**27,800**	**17,300**	**15,500**	**7,780**	**9,370**	**17,100**	**3,280**	**3,580**
PCB 136	ng/kg	**8,950**	**4,780**	**4,270**	**2,340**	**2,690**	**5,530**	**1,020**	**1,110**
PCB 137	ng/kg	**1,800**	**1,230**	**1,270**	**699**	**740**	**1,400**	**338**	**357**
PCB 139/140	ng/kg	**892**	**484**	**620**	**276**	**293**	**821**	**158**	**169**
PCB 141	ng/kg	**13,300**	**8,020**	**6,430**	**3,530**	**3,150**	**5,110**	**1,060**	**1,160**
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 144	ng/kg	**3,150**	**1,690**	**1,760**	**822**	**724**	**1,880**	**339**	**381**
PCB 145	ng/kg	ND	**7.15**	ND	**4.79**	4.09 R	**19.1**	ND	ND
PCB 146	ng/kg	**9,880**	**7,090**	**6,290**	**3,200**	**4,820**	**8,050**	**1,630**	**1,760**
PCB 147/149	ng/kg	**74,600**	**41,700**	**33,500**	**19,900**	**24,700**	**35,300**	**6,880**	**7,630**
PCB 148	ng/kg	**242**	**145**	**163**	**69.5**	**73.2**	**160**	**45.8**	**46.7**

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		320	321	324	324	325	326	330	333
Sample Number:		GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD330-0.0-0.5	GC-SD333-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/22/2010	6/21/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**							
PCB 150	ng/kg	**771**	**339**	**390**	**153**	**175**	**180**	**49.5**	**52**
PCB 152	ng/kg	**75.1**	**42.3**	**50.2**	**20.9**	**26.9**	**47.4**	ND	ND
PCB 153/168	ng/kg	**81,000**	**50,900**	**39,100**	**19,100**	**23,900**	**41,000**	**8,250**	**9,070**
PCB 155	ng/kg	**66.9**	**51.5**	**55.3**	**27.2**	**28.6**	**96.2**	ND	ND
PCB 156/157	ng/kg	**4,770**	**3,610**	**3,710**	**1,900**	**2,230**	**4,050**	**1,050**	**1,080**
PCB 158	ng/kg	**5,530**	**3,680**	**3,120**	**1,650**	**1,840**	**3,380**	**661**	**730**
PCB 159	ng/kg	**860**	**560**	**355**	**228**	**189**	**362**	**68.5**	**72**
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	**73.4**	**84.3**	**98.7**	**53.8**	**58.2**	**122**	**30.9**	**36.8**
PCB 164	ng/kg	**4,300**	**2,660**	**2,400**	**1,310**	**1,330**	**2,580**	**514**	**547**
PCB 165	ng/kg	ND	ND	**25.4**	**12.2**	ND	**33.7**	ND	ND
PCB 167	ng/kg	**1,890**	**1,430**	**1,420**	**700**	**927**	**1,350**	**361**	**408**
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	**17,700**	**15,800**	**9,650**	**5,180**	**5,550**	**9,670**	**1,840**	**2,170**
PCB 171/173	ng/kg	**5,760**	**4,410**	**3,620**	**1,670**	**1,600**	**3,710**	**660**	**756**
PCB 172	ng/kg	**2,910**	**2,460**	**1,900**	**872**	**930**	**2,010**	**349**	**428**
PCB 174	ng/kg	**21,000**	**16,200**	**10,800**	**5,490**	**5,200**	**10,400**	**1,740**	**2,050**
PCB 175	ng/kg	**766**	**520**	**599**	**234**	**198**	**592**	**115**	**131**
PCB 176	ng/kg	**2,600**	**1,630**	**1,630**	**697**	**589**	**1,800**	**297**	**365**
PCB 177	ng/kg	**9,470**	**8,740**	**6,820**	**3,320**	**3,840**	**7,650**	**1,440**	**1,740**
PCB 178	ng/kg	**4,190**	**3,080**	**2,780**	**1,210**	**1,210**	**3,270**	**649**	**794**
PCB 179	ng/kg	**9,490**	**6,210**	**5,750**	**2,600**	**2,470**	**6,370**	**1,130**	**1,350**
PCB 180/193	ng/kg	**45,200**	**30,700**	**25,500**	**12,100**	**14,600**	**24,100**	**4,560**	**5,710**
PCB 181	ng/kg	**145**	**115**	**107**	**42.6**	**50.1**	**88.5**	**23.1**	**23.8**
PCB 182	ng/kg	**51.5**	**51.6**	**74.1**	**30.7**	**31.7**	**143**	**24.3**	**26**
PCB 183/185	ng/kg	**14,800**	**11,400**	**9,260**	**4,130**	**4,210**	**9,400**	**1,660**	**2,080**
PCB 184	ng/kg	ND	**17.5**	**30.6**	**9.68**	**10**	**42.7**	ND	ND
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	**30,900**	**20,900**	**18,600**	**9,220**	**12,600**	**19,700**	**3,920**	**4,850**
PCB 188	ng/kg	**165**	**111**	**107**	**45.2**	**51.6**	**52.2**	**23.5**	**21**
PCB 189	ng/kg	**661**	**454**	**416**	**180**	**184**	**421**	**89.7**	**98.8**
PCB 190	ng/kg	**3,570**	**2,900**	**2,120**	**1,010**	**1,080**	**2,180**	**408**	**479**
PCB 191	ng/kg	**771**	**582**	**522**	**201**	**209**	**457**	**83.7**	**92.6**
PCB 192	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 194	ng/kg	**8,510**	**6,860**	**4,880**	**2,430**	**2,520**	**6,190**	**1,240**	**1,760**
PCB 195	ng/kg	**3,350**	**2,440**	**1,530**	**849**	**840**	**1,380**	**380**	**515**
PCB 196	ng/kg	**4,410**	**3,270**	**3,150**	**1,570**	**1,340**	**3,970**	**741**	**1,070**

TABLE I-5A
PCB Congener Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		320	321	324	324	325	326	330	333
Sample Number:		GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD330-0.0-0.5	GC-SD333-0.0-0.5
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/22/2010	6/21/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/18/2010	6/18/2010
Sample Type:		N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**							
PCB 197/200	ng/kg	**1,350**	**991**	**1,050**	**434**	**497**	**1,190**	**247**	**298**
PCB 198/199	ng/kg	**9,460**	**7,730**	**8,210**	**3,530**	**3,620**	**12,800**	**2,160**	**2,960**
PCB 201	ng/kg	**1,220**	**813**	**1,140**	**428**	**397**	**1,530**	**332**	**392**
PCB 202	ng/kg	**1,870**	**1,650**	**1,760**	**969**	**987**	**3,580**	**665**	**801**
PCB 203	ng/kg	**6,030**	**4,870**	**5,190**	**2,300**	**2,300**	**6,550**	**1,300**	**1,790**
PCB 204	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
PCB 205	ng/kg	**441**	**300**	**309**	**119**	**126**	**349**	**71.5**	**102**
PCB 206	ng/kg	**3,370**	**3,300**	**3,560**	**2,270**	**2,790**	**7,600**	**2,020**	**1,880**
PCB 207	ng/kg	**441**	**372**	**433**	**228**	**289**	**524**	**290**	**269**
PCB 208	ng/kg	**987**	**1,220**	**1,550**	**935**	**997**	**2,550**	**802**	**901**
PCB 209	ng/kg	**1,510**	**2,430**	**3,080**	**2,170**	**1,950**	**8,740**	**1,840**	**1,910**
Dichlorobiphenyl	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlorobiphenyl	ng/kg	ND	**74,700**	ND	**36,100**	ND	ND	ND	ND
Hexachlorobiphenyl	ng/kg	ND	**74,900**	ND	**56,300**	**91,500**	ND	ND	ND
Monochlorobiphenyl	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	ND	ND	**3,560**	ND	ND	**7,600**	ND	**901**
Octachlorobiphenyl	ng/kg	ND	ND	ND	ND	ND	**36,200**	**6,890**	**9,390**
Pentachlorobiphenyl	ng/kg	**85,100**	**40,400**	ND	**93,800**	**42,900**	ND	ND	ND
Tetrachlorobiphenyl	ng/kg	**273,000**	**97,800**	ND	**65,100**	**82,700**	**367,000**	ND	ND
Trichlorobiphenyl	ng/kg	**169,000**	**74,200**	ND	**81,700**	**63,100**	**221,000**	ND	ND
Total PCB (Lab)	ng/kg	**1,250,000**	**623,000**	**1,100,000**	**345,000**	**380,000**	**341,000**	**466,000**	**476,000**

TABLE I-6A
Metal and Cyanide Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	301	302	303	304	305	306	307A	307B	308A	308A	308B	308B	309	310	311	312	314	314
	Sample Number:	GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01
	Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	Sample Date:	6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**5,710**	**13,600 J**	**16,200 J**	**16,100 J**	**16,300 J**	**16,700 J**	**15,900 J**	**18,200 J**	**4,760**	**4,870**	**13,500 J**	**13,500 J**	**17,200 J**	**18,900 J**	**10,300 J**	**14,600 J**	**10,100 J**	**10,300 J**
Antimony	mg/kg	8.7 U	15.6 UJ	15.9 UJ	20.5 UJ	18.3 UJ	20 UJ	15 UJ	16.2 UJ	7.5 U	7.2 U	16.2 UJ	16.2 UJ	16 UJ	19.9 UJ	14.5 UJ	15.3 UJ	14.7 UJ	15.3 UJ
Arsenic	mg/kg	**3.4**	**6.9 J**	**8.2 J**	**7.7 J**	**7.5 J**	**7.1 J**	**7.7 J**	**9.9 J**	**21.8**	**44.7**	**11.1 J**	**11.1 J**	**9.1 J**	**13.2 J**	**6.2 J**	**13.2 J**	**10.8 J**	**12.2 J**
Barium	mg/kg	**95**	**86.5 J**	**94.8 J**	**116 J**	**98.9 J**	**100 J**	**134 J**	**103 J**	**152**	**162**	**132 J**	**132 J**	**98.2 J**	**248 J**	**88 J**	**170 J**	**304 J**	**301 J**
Beryllium	mg/kg	0.73 U	**0.29 J**	**0.43 J**	**0.33 J**	**0.41 J**	**0.41 J**	**0.4 J**	**0.44 J**	0.62 U	0.6 U	1.4 UJ	1.4 UJ	**0.46 J**	**0.33 J**	1.2 UJ	1.3 UJ	**0.26 J**	**0.24 J**
Cadmium	mg/kg	**2.7**	**2 J**	**1.6 J**	**2 J**	**2.1 J**	**1.9 J**	**2.2 J**	**1.5 J**	**14 J**	**20.2 J**	**6.8 J**	**6.8 J**	**2.1 J**	**5.6 J**	**5.6 J**	**8.7 J**	**8.1 J**	**7.6 J**
Calcium	mg/kg	**6,350**	**7,410 J**	**7,850 J**	**9,220 J**	**7,660 J**	**8,460 J**	**8,310 J**	**7,050 J**	**6,090**	**2,980**	**5,510 J**	**5,510 J**	**5,360 J**	**5,690 J**	**6,580 J**	**6,180 J**	**4,950 J**	**10,900 J**
Chromium	mg/kg	**22.7**	**57.6 J**	**62 J**	**64.6 J**	**69.1 J**	**69.6 J**	**65.6 J**	**69.8 J**	**55.4**	**63.9**	**66.7 J**	**66.7 J**	**69.1 J**	**96.8 J**	**49 J**	**92.1 J**	**139 J**	**133 J**
Cobalt	mg/kg	7.3 U	13 UJ	13.3 UJ	17.1 UJ	15.3 UJ	16.7 UJ	12.5 UJ	**12.5 J**	**8.3**	**11.3**	13.5 UJ	13.5 UJ	**12.5 J**	**14.2 J**	12.1 UJ	12.8 UJ	**10 J**	**9.6 J**
Copper	mg/kg	**85.8**	**167 J**	**168 J**	**177 J**	**211 J**	**186 J**	**192 J**	**191 J**	**605**	**790**	**157 J**	**157 J**	**149 J**	**314 J**	**192 J**	**243 J**	**349 J**	**323 J**
Iron	mg/kg	**12,400**	**25,600 J**	**29,600 J**	**29,500 J**	**28,000 J**	**29,300 J**	**27,700 J**	**28,800 J**	**53,200**	**87,000**	**27,100 J**	**27,100 J**	**29,500 J**	**32,600 J**	**21,800 J**	**31,100 J**	**26,400 J**	**25,200 J**
Lead	mg/kg	**201**	**239 J**	**201 J**	**247 J**	**230 J**	**238 J**	**776 J**	**216 J**	**4,220**	**2,710**	**312 J**	**312 J**	**184 J**	**600 J**	**356 J**	**401 J**	**488 J**	**531 J**
Magnesium	mg/kg	**4,530**	**8,580 J**	**9,790 J**	**9,740 J**	**9,720 J**	**10,500 J**	**9,800 J**	**10,200 J**	**4,210**	**2,820**	**8,930 J**	**8,930 J**	**9,320 J**	**9,730 J**	**7,620 J**	**9,720 J**	**6,370 J**	**9,640 J**
Manganese	mg/kg	**89.1**	**233 J**	**287 J**	**294 J**	**304 J**	**290 J**	**283 J**	**314 J**	**364**	**480**	**255 J**	**255 J**	**305 J**	**303 J**	**197 J**	**279 J**	**173 J**	**166 J**
Mercury	mg/kg	**0.61**	**1.4 J**	**1.2 J**	**1.8 J**	**1.2 J**	**1.3 J**	**1.4 J**	**1.2 J**	**0.95**	**0.63**	**1.4 J**	**1.4 J**	**1.2 J**	**1.6 J**	**0.91 J**	**1.5 J**	**0.95 J**	**1.6 J**
Nickel	mg/kg	**18.1**	**33.3 J**	**36.1 J**	**38.8 J**	**37.5 J**	**38 J**	**37.1 J**	**40.8 J**	**40.6**	**51.6**	**36.6 J**	**36.6 J**	**38.9 J**	**56.3 J**	**30.7 J**	**49.1 J**	**84.5 J**	**79.8 J**
Potassium	mg/kg	**1,110**	**3,400 J**	**4,060 J**	**3,750 J**	**4,090 J**	**4,280 J**	**3,750 J**	**4,140 J**	**730**	**702**	**3,450 J**	**3,450 J**	**4,180 J**	**4,410 J**	**2,660 J**	**3,560 J**	**2,540 J**	**2,520 J**
Selenium	mg/kg	**0.74 J**	9.1 UJ	9.3 UJ	12 UJ	10.7 UJ	11.7 UJ	8.8 UJ	9.5 UJ	4.4 U	4.2 U	**1.7 J**	**1.7 J**	9.3 UJ	**4.9 J**	**1.9 J**	**2 J**	8.6 UJ	8.9 UJ
Silver	mg/kg	**3.4**	**2.9 J**	**2.7 J**	**4.4 J**	**4.8 J**	**3.8 J**	**3.4 J**	**1.9 J**	1.2 U	1.2 U	2.7 UJ	2.7 UJ	**3.2 J**	**6.8 J**	**3.5 J**	**4.9 J**	**6.1 J**	**4.5 J**
Sodium	mg/kg	**4,040**	**12,700 J**	**13,900 J**	**10,200 J**	**15,300 J**	**17,200 J**	**10,100 J**	**12,000 J**	**2,520**	**2,610**	**13,700 J**	**13,700 J**	**13,500 J**	**8,410 J**	**11,500 J**	**13,400 J**	**11,000 J**	**11,500 J**
Thallium	mg/kg	3.6 U	6.5 UJ	6.6 UJ	8.6 UJ	7.6 UJ	8.3 UJ	6.3 UJ	6.8 UJ	3.1 U	3 U	6.8 UJ	6.8 UJ	6.7 UJ	8.3 UJ	6.1 UJ	6.4 UJ	6.1 UJ	6.4 UJ
Vanadium	mg/kg	**19.4**	**44.5 J**	**45.1 J**	**47.2 J**	**48.3 J**	**46.6 J**	**42.6 J**	**50.4 J**	**29.3**	**37.3**	**43.5 J**	**43.5 J**	**42.2 J**	**60.1 J**	**34.5 J**	**53.4 J**	**47.7 J**	**47.7 J**
Zinc	mg/kg	**240**	478 R	376 R	492 R	450 R	470 R	452 R	442 R	**1,520**	**903 J**	**501 J**	**501 J**	736 R	**773 J**	**508 J**	**691 J**	654 R	639 R
Cyanide, Total	mg/kg	3.6 U	**18 J**	6.6 UJ	**2 J**	7.6 UJ	**2.9 J**	6.3 UJ	6.8 UJ	3.1 U	**0.63 J**	6.8 UJ	6.8 UJ	6.7 UJ	8.3 UJ	**17.1 J**	**0.93 J**	**1.2 J**	**1 J**

TABLE I-6A
Metal and Cyanide Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	313	316	315	315	317	318	319	320	321	322	322	324	324	323	325	326	327	328
	Sample Number:	GC-SD313-0.0-0.5	GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5
	Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	Sample Date:	6/18/2010	6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/23/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010
	Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**10,200 J**	**16,200 J**	**5,550**	**5,560**	**11,900 J**	**15,800 J**	**10,000 J**	**6,460**	**13,000 J**	**16,600 J**	**16,600 J**	**17,600 J**	**16,900 J**	**11,600 J**	**13,400 J**	**17,900 J**	**19,400 J**	**9,890**
Antimony	mg/kg	13.5 UJ	17.3 UJ	10.6 U	10.2 U	13.4 UJ	16.7 UJ	12.7 UJ	9.6 U	14 UJ	19.2 UJ	19.2 UJ	18.4 UJ	17.1 UJ	12.5 UJ	14.1 UJ	15.8 UJ	18.6 UJ	11.9 U
Arsenic	mg/kg	**8.8 J**	**14.3 J**	**13.6**	**11.4**	**13.3 J**	**23.2 J**	**11.9 J**	**8.6**	**12.8 J**	**13.9 J**	**13.9 J**	**15.1 J**	**13.6 J**	**9 J**	**12.9 J**	**19 J**	**12.9 J**	**9.3**
Barium	mg/kg	**166 J**	**397 J**	**232**	**134**	**631 J**	**308 J**	**163 J**	**251**	**90.8 J**	**132 J**	**132 J**	**127 J**	**141 J**	**83.1 J**	**90.3 J**	**133 J**	**77.5 J**	**45.8**
Beryllium	mg/kg	**0.2 J**	1.4 UJ	**0.11 J**	**0.11 J**	1.1 UJ	1.4 UJ	1.1 UJ	0.8 U	1.2 UJ	1.6 UJ	1.6 UJ	1.5 UJ	1.4 UJ	1 UJ	1.2 UJ	**0.4 J**	**0.46 J**	**0.26 J**
Cadmium	mg/kg	**5.1 J**	**10.7 J**	**2.3**	**2.4**	**10.5 J**	**13.6 J**	**7.6 J**	**7.7 J**	**7 J**	**8.9 J**	**8.9 J**	**9.7 J**	**9.5 J**	**6.4 J**	**7.5 J**	**5.7 J**	1.5 UJ	**0.38 J**
Calcium	mg/kg	**11,300 J**	**7,700 J**	**10,800**	**8,710**	**10,500 J**	**8,500 J**	**7,240 J**	**8,000**	**5,820 J**	**8,870 J**	**8,870 J**	**7,710 J**	**8,220 J**	**4,890 J**	**5,820 J**	**8,130 J**	**10,900 J**	**51,400**
Chromium	mg/kg	**95 J**	**129 J**	**48.8**	**50.9**	**111 J**	**117 J**	**73.7 J**	**67.2**	**64.2 J**	**80.2 J**	**80.2 J**	**84.7 J**	**83.4 J**	**56.8 J**	**65.1 J**	**181 J**	**66.4 J**	**41**
Cobalt	mg/kg	**8.6 J**	14.4 UJ	**5.9 J**	**6.5 J**	**10.5 J**	**14.8 J**	10.6 UJ	**9.6**	**11.7 J**	16 UJ	16 UJ	**13.4 J**	14.3 UJ	**10.5 J**	**13.1 J**	13.2 UJ	15.5 UJ	**7.6 J**
Copper	mg/kg	**246 J**	**395 J**	**151**	**181**	**307 J**	**349 J**	**178 J**	**186**	**110 J**	**159 J**	**159 J**	**167 J**	**176 J**	**117 J**	**136 J**	**242 J**	**75 J**	**80.2**
Iron	mg/kg	**24,200 J**	**27,600 J**	**21,900**	**21,700**	**24,600 J**	**33,400 J**	**24,200 J**	**17,600**	**27,600 J**	**32,900 J**	**32,900 J**	**34,500 J**	**33,700 J**	**24,200 J**	**29,300 J**	**34,400 J**	**35,500 J**	**18,200**
Lead	mg/kg	**355 J**	**478 J**	**1,600**	**387**	**615 J**	**669 J**	**376 J**	**360**	**146 J**	**213 J**	**213 J**	**216 J**	**239 J**	**211 J**	**164 J**	**244 J**	**95.5 J**	**61.7**
Magnesium	mg/kg	**9,250 J**	**10,100 J**	**6,510**	**6,040**	**9,720 J**	**11,400 J**	**7,660 J**	**6,530**	**7,030 J**	**10,700 J**	**10,700 J**	**10,900 J**	**10,900 J**	**7,030 J**	**7,040 J**	**9,210 J**	**10,200 J**	**5,800**
Manganese	mg/kg	**199 J**	**287 J**	**140**	**145**	**235 J**	**301 J**	**203 J**	**130**	**392 J**	**411 J**	**411 J**	**399 J**	**361 J**	**267 J**	**407 J**	**554 J**	**702 J**	**323**
Mercury	mg/kg	**2.3 J**	**1.4 J**	**1**	**0.77**	**1.4 J**	**1.8 J**	**0.92 J**	**0.59**	**0.9 J**	**1.3 J**	**1.3 J**	**1.4 J**	**1.3 J**	**0.8 J**	**1.1 J**	**3.7 J**	**0.83 J**	**0.85**
Nickel	mg/kg	**55.7 J**	**55.9 J**	**32.7**	**36.5**	**57.9 J**	**60.1 J**	**42.4 J**	**46.7**	**36 J**	**40.6 J**	**40.6 J**	**43 J**	**42.2 J**	**33.2 J**	**46.7 J**	**45.2 J**	**35.5 J**	**23.8**
Potassium	mg/kg	**2,470 J**	**3,930 J**	**1,350**	**1,460**	**2,910 J**	**3,840 J**	**2,550 J**	**1,490**	**3,110 J**	**4,280 J**	**4,280 J**	**4,390 J**	**4,170 J**	**2,830 J**	**3,070 J**	**4,600 J**	**5,020 J**	**2,570**
Selenium	mg/kg	7.9 UJ	**2.2 J**	6.2 U	5.9 U	**2.3 J**	**2.3 J**	**1.3 J**	**1.7 J**	**0.99 J**	**2.1 J**	**2.1 J**	**2.2 J**	**1.7 J**	**1.1 J**	**1.1 J**	9.2 UJ	10.8 UJ	6.9 U
Silver	mg/kg	**4.5 J**	**6.1 J**	**1.3 J**	**1.8**	**6.6 J**	**4.1 J**	**2.8 J**	**2.4**	2.3 UJ	3.2 UJ	3.2 UJ	3.1 UJ	**3.7 J**	**2.2 J**	2.3 UJ	**9.5 J**	**2.2 J**	2 U
Sodium	mg/kg	**9,830 J**	**9,920 J**	**5,610**	**5,740**	**10,500 J**	**14,800 J**	**9,160 J**	**5,450**	**9,320 J**	**18,700 J**	**18,700 J**	**16,700 J**	**16,000 J**	**9,810 J**	**8,940 J**	**15,100 J**	**18,100 J**	**8,690**
Thallium	mg/kg	5.6 UJ	7.2 UJ	4.4 U	4.2 U	5.6 UJ	7 UJ	5.3 UJ	4 U	5.8 UJ	8 UJ	8 UJ	7.7 UJ	7.1 UJ	5.2 UJ	5.9 UJ	6.6 UJ	7.7 UJ	4.9 U
Vanadium	mg/kg	**42 J**	**61.2 J**	**24**	**25.2**	**47.3 J**	**54.5 J**	**32.6 J**	**26.6**	**35.7 J**	**45.1 J**	**45.1 J**	**46.9 J**	**47.9 J**	**33.3 J**	**37 J**	**53.6 J**	**47.9 J**	**25.6**
Zinc	mg/kg	527 R	**885 J**	**1,510**	**378**	**750 J**	**1,460 J**	**914 J**	**761**	**318 J**	**452 J**	**452 J**	**432 J**	**535 J**	**343 J**	**480 J**	378 R	197 R	**160**
Cyanide, Total	mg/kg	**1 J**	7.2 UJ	**1.5 J**	**1.2 J**	5.6 UJ	7 UJ	**0.54 J**	4 U	**1.1 J**	**0.68 J**	**0.68 J**	7.7 UJ	**1.1 J**	**8.7 J**	5.9 UJ	6.6 UJ	7.7 UJ	4.9 U

TABLE I-6A
Metal and Cyanide Concentrations in Surface Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**329**	**330**	**331**	**332**	**333**	**334**	**335**
Sample Number:		**GC-SD329-0.0-0.5**	**GC-SD330-0.0-0.5**	**GC-SD331-0.0-0.5**	**GC-SD332-0.0-0.5**	**GC-SD333-0.0-0.5**	**GC-SD334-0.0-0.5**	**GC-SD335-0.0-0.5**
Sample Depth:		**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**
Sample Date:		**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/17/2010**
Sample Type:		**N**	**N**	**N**	**N**	**N**	**N**	**N**
Parameter	**Units**	**Metals**						
Aluminum	mg/kg	**15,500 J**	**18,000 J**	**12,800 J**	**8,330**	**16,800 J**	**4,750**	**15,300 J**
Antimony	mg/kg	15.4 UJ	18.5 UJ	14 UJ	10.2 U	14.3 UJ	7.7 U	14.5 UJ
Arsenic	mg/kg	**13.3 J**	**15.7 J**	**12.6 J**	**7**	**11.9 J**	**5.4**	**9.8 J**
Barium	mg/kg	**67.2 J**	**69 J**	**73.6 J**	**46.6**	**76.1 J**	25.7 U	**69.7 J**
Beryllium	mg/kg	1.3 UJ	**0.44 J**	1.2 UJ	**0.23 J**	**0.46 J**	0.64 U	**0.44 J**
Cadmium	mg/kg	**6.3 J**	**0.4 J**	**5.8 J**	**0.24 J**	**0.32 J**	**2.1**	**1.1 J**
Calcium	mg/kg	**10,700 J**	**10,700 J**	**49,900 J**	**40,700**	**11,100 J**	**15,400**	**18,600 J**
Chromium	mg/kg	**60.1 J**	**58 J**	**53.6 J**	**31.3**	**55.6 J**	**16.9**	**55.5 J**
Cobalt	mg/kg	**12.7 J**	**12.8 J**	**11.5 J**	**7 J**	**11.9 J**	**4.7 J**	**11.3 J**
Copper	mg/kg	**65.2 J**	**70.7 J**	**68.4 J**	**40.9**	**76.9 J**	**15.1**	**72.1 J**
Iron	mg/kg	**31,600 J**	**33,300 J**	**26,600 J**	**15,400**	**29,900 J**	**10,700**	**26,800 J**
Lead	mg/kg	**90 J**	**93.5 J**	**93.1 J**	**53.4**	**87.5 J**	**25.5**	**86.3 J**
Magnesium	mg/kg	**9,090 J**	**9,760 J**	**8,780 J**	**5,090**	**8,870 J**	**3,040**	**7,800 J**
Manganese	mg/kg	**559 J**	**866 J**	**651 J**	**233**	**503 J**	**172**	**529 J**
Mercury	mg/kg	**1.2 J**	**0.91 J**	**0.84 J**	**0.57**	**1 J**	**0.16**	**1.1 J**
Nickel	mg/kg	**34.9 J**	**34.6 J**	**50 J**	**22.2**	**34.2 J**	**13**	**29.7 J**
Potassium	mg/kg	**3,970 J**	**4,460 J**	**3,340 J**	**1,980**	**3,890 J**	**1,130**	**3,780 J**
Selenium	mg/kg	**2 J**	10.8 UJ	**1.6 J**	6 U	8.3 UJ	**0.53 J**	8.4 UJ
Silver	mg/kg	2.6 UJ	3.1 U	2.3 UJ	1.7 U	2.4 UJ	1.3 U	**2.1 J**
Sodium	mg/kg	**13,900 J**	**16,800 J**	**11,300 J**	**6,100**	**11,600 J**	**2,780**	**12,100 J**
Thallium	mg/kg	6.4 UJ	7.7 UJ	5.8 UJ	4.3 U	5.9 UJ	3.2 U	6 UJ
Vanadium	mg/kg	**42.8 J**	**45.6 J**	**35.4 J**	**19.7**	**38.1 J**	**11.4**	**36.2 J**
Zinc	mg/kg	**200 J**	193 R	**254 J**	**102**	185 R	**63.1**	178 R
Cyanide, Total	mg/kg	6.4 UJ	7.7 UJ	5.8 UJ	4.3 U	5.9 UJ	3.2 U	6 UJ

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TABLE I-6B
Metal and Cyanide Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location: 301	302	303	304	305	306	307A	307B	308A	308A	308B	309	310	311	312	314	314	313
		Sample Number: GC-SD301-0.0-0.5	GC-SD302-0.0-0.5	GC-SD303-0.0-0.5	GC-SD304-0.0-0.5	GC-SD305-0.0-0.5	GC-SD306-0.0-0.5	GC-SD307A-0.0-0.5	GC-SD307B-0.0-0.5	GC-SD308A-0.0-0.5	D-062310-01	GC-SD308B-0.0-0.5	GC-SD309-0.0-0.5	GC-SD310-0.0-0.5	GC-SD311-0.0-0.5	GC-SD312-0.0-0.5	GC-SD314-0.0-0.5	D-06182010-01	GC-SD313-0.0-0.5
		Sample Depth: 0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date: 6/23/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/18/2010	6/23/2010	6/23/2010	6/24/2010	6/18/2010	6/24/2010	6/23/2010	6/23/2010	6/18/2010	6/18/2010	6/18/2010
		Sample Type: N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD	N
Metals																			
Aluminum	mg/kg	5,710	**13,600 J (A)**	**16,200 J (A)**	**16,100 J (A)**	**16,300 J (A)**	**16,700 J (A)**	**15,900 J (A)**	**18,200 J (A)**	4,760	4,870	**13,500 J (A)**	**17,200 J (A)**	**18,900 J (A)**	10,300 J (A)	**14,600 J (A)**	**10,100 J (A)**	**10,300 J (A)**	**10,200 J (A)**
Arsenic	mg/kg	**3.4 (A)**	**6.9 J (A)**	**8.2 J (A)**	**7.7 J (A)**	**7.5 J (A)**	**7.1 J (A)**	**7.7 J (A)**	**9.9 J (A,R)**	**21.8 (A,R)**	**44.7 (A,R)**	**11.1 J (A,R)**	**9.1 J (A,R)**	**13.2 J (A,R)**	**6.2 J (A)**	**13.2 J (A,R)**	**10.8 J (A,R)**	**12.2 J (A,R)**	**8.8 J (A,R)**
Barium	mg/kg	95	86.5 J	94.8 J	116 J	98.9 J	100 J	**134 J (R)**	103 J	**152 (R)**	**162 (R)**	**132 J (R)**	98.2 J	**248 J (R)**	88 J	**170 J (R)**	**304 J (R)**	**301 J (R)**	**166 J (R)**
Beryllium	mg/kg		0.29 J	0.43 J	0.33 J	0.41 J	0.41 J	0.4 J	0.44 J				0.46 J	0.33 J			0.26 J	0.24 J	0.2 J
Cadmium	mg/kg	**2.7 (R)**	**2 J (R)**	**1.6 J (R)**	**2 J (R)**	**2.1 J (R)**	**1.9 J (R)**	**2.2 J (R)**	**1.5 J (R)**	**14 J (A,R)**	**20.2 J (A,R)**	**6.8 J (R)**	**2.1 J (R)**	**5.6 J (R)**	**5.6 J (R)**	**8.7 J (A,R)**	**8.1 J (A,R)**	**7.6 J (A,R)**	**5.1 J (R)**
*Cadmium	UMOLES/G		0.0068 J	0.0063 J	0.0062 J	0.0073 J	0.006 J	0.0042 J	0.0012 J			0.0023 J		0.013 J		0.0057 J	0.0063 J		0.018 J
*Calcium	mg/kg	6,350	7,410 J	7,850 J	9,220 J	7,660 J	8,460 J	8,310 J	7,050 J	6,090	2,980	5,510 J	5,360 J	5,690 J	6,580 J	6,180 J	4,950 J	10,900 J	11,300 J
Chromium	mg/kg	**22.7 (A)**	**57.6 J (A)**	**62 J (A)**	**64.6 J (A)**	**69.1 J (A)**	**69.6 J (A)**	**65.6 J (A)**	**69.8 J (A)**	**55.4 (A)**	**63.9 (A)**	**66.7 J (A)**	**69.1 J (A)**	**96.8 J (A,R)**	**49 J (A)**	**92.1 J (A,R)**	**139 J (A,R)**	**133 J (A,R)**	**95 J (A,R)**
Cobalt	mg/kg								**12.5 J (A)**	**8.3 (A)**	**11.3 (A)**		**12.5 J (A)**	**14.2 J (A)**			**10 J (A)**	**9.6 J (A)**	**8.6 J (A)**
Copper	mg/kg	**85.8 (R)**	**167 J (R)**	**168 J (R)**	**177 J (R)**	**211 J (R)**	**186 J (R)**	**192 J (R)**	**191 J (R)**	**605 (A,R)**	**790 (A,R)**	**157 J (R)**	**149 J (R)**	**314 J (A,R)**	**192 J (R)**	**243 J (R)**	**349 J (A,R)**	**323 J (A,R)**	**246 J (R)**
*Copper	UMOLES/G		0.019 J	0.049 J	0.024 J	0.02 J	0.017 J	0.024 J	0.025 J	5.5			0.025 J	0.015 J		0.039 J	0.017 J		0.02 J
Iron	mg/kg	**12,400 (A)**	**25,600 J (A)**	**29,600 J (A)**	**29,500 J (A)**	**28,000 J (A)**	**29,300 J (A)**	**27,700 J (A)**	**28,800 J (A)**	**53,200 (A)**	**87,000 (A)**	**27,100 J (A)**	**29,500 J (A)**	**32,600 J (A)**	**21,800 J (A)**	**31,100 J (A)**	**26,400 J (A)**	**25,200 J (A)**	**24,200 J (A)**
*Lead	UMOLES/G	0.12	0.49	0.62	0.52	0.49	0.59	0.36	0.3	1.9		0.19	0.066	0.82	0.17	0.54	0.27		0.91
Lead	mg/kg	**201 (R)**	**239 J (R)**	**201 J (R)**	**247 J (R)**	**230 J (R)**	**238 J (R)**	**776 J (A,R)**	**216 J (R)**	**4,220 (A,R)**	**2,710 (A,R)**	**312 J (R)**	**184 J (R)**	**600 J (A,R)**	**356 J (R)**	**401 J (A,R)**	**488 J (A,R)**	**531 J (A,R)**	**355 J (R)**
*Magnesium	mg/kg	4,530	8,580 J	9,790 J	9,740 J	9,720 J	10,500 J	9,800 J	10,200 J	4,210	2,820	8,930 J	9,320 J	9,730 J	7,620 J	9,720 J	6,370 J	9,640 J	9,250 J
Manganese	mg/kg	89.1	**233 J (A)**	**287 J (A)**	**294 J (A)**	**304 J (A)**	**290 J (A)**	**283 J (A)**	**314 J (A)**	**364 (A)**	**480 (A,R)**	**255 J (A)**	**305 J (A)**	**303 J (A)**	**197 J (A)**	**279 J (A)**	173 J	166 J	**199 J (A)**
Mercury	mg/kg	**0.61 (R)**	**1.4 J (R)**	**1.2 J (R)**	**1.8 J (R)**	**1.2 J (R)**	**1.3 J (R)**	**1.4 J (R)**	**1.2 J (R)**	**0.95 (R)**	**0.63 (R)**	**1.4 J (R)**	**1.2 J (R)**	**1.6 J (R)**	**0.91 J (R)**	**1.5 J (R)**	**0.95 J (R)**	**1.6 J (R)**	**2.3 J (R)**
*Mercury	UMOLES/G																		
Nickel	mg/kg	18.1	**33.3 J (R)**	**36.1 J (R)**	**38.8 J (R)**	**37.5 J (R)**	**38 J (R)**	**37.1 J (R)**	**40.8 J (R)**	**40.6 (R)**	**51.6 (R)**	**36.6 J (R)**	**38.9 J (R)**	**56.3 J (R)**	**30.7 J (R)**	**49.1 J (R)**	**84.5 J (R)**	**79.8 J (R)**	**55.7 J (R)**
*Nickel	UMOLES/G	0.065 J	0.085 J	0.089 J	0.07 J	0.089 J	0.099 J	0.063 J	0.058 J	0.066 J		0.046 J	0.016 J	0.072 J	0.049 J	0.08 J	0.046 J		0.21 J
*Potassium	mg/kg	1,110	3,400 J	4,060 J	3,750 J	4,090 J	4,280 J	3,750 J	4,140 J	730	702	3,450 J	4,180 J	4,410 J	2,660 J	3,560 J	2,540 J	2,520 J	2,470 J
Selenium	mg/kg	0.74 J										1.7 J		4.9 J	1.9 J	2 J			
Silver	mg/kg	**3.4 (R)**	**2.9 J (R)**	**2.7 J (R)**	**4.4 J (R)**	**4.8 J (R)**	**3.8 J (R)**	**3.4 J (R)**	**1.9 J (R)**				**3.2 J (R)**	**6.8 J (R)**	**3.5 J (R)**	**4.9 J (R)**	**6.1 J (R)**	**4.5 J (R)**	**4.5 J (R)**
*Silver	UMOLES/G				0.0035 J				0.0029 J										
*Sodium	mg/kg	4,040	12,700 J	13,900 J	10,200 J	15,300 J	17,200 J	10,100 J	12,000 J	2,520	2,610	13,700 J	13,500 J	8,410 J	11,500 J	13,400 J	11,000 J	11,500 J	9,830 J
Vanadium	mg/kg	19.4	**44.5 J (A)**	**45.1 J (A)**	**47.2 J (A)**	**48.3 J (A)**	**46.6 J (A)**	**42.6 J (A)**	**50.4 J (A)**	29.3	37.3	**43.5 J (A)**	**42.2 J (A)**	**60.1 J (A)**	34.5 J	**53.4 J (A)**	**47.7 J (A)**	**47.7 J (A)**	**42 J (A)**
*Zinc	UMOLES/G	1.7	3.3	3.5	3.2	3.2	3.7	2.2	1.8	3.1		1.3	0.54	4.1	1.7	3.2	1.6		4.9
Zinc	mg/kg	**240 (R)**								**1,520 (R)**	**903 J (R)**	**501 J (R)**		**773 J (R)**	**508 J (R)**	**691 J (R)**			
Cyanide, Total	mg/kg		18 J		2 J		2.9 J				0.63 J				17.1 J	0.93 J	1.2 J	1 J	1 J

TABLE I-6B
Metal and Cyanide Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location:	316	315	315	317	318	319	320	321	322	324	324	323	325	326	327	328	329	330
		Sample Number:	GC-SD316-0.0-0.5	GC-SD315-0.0-0.5	D-06182010-02	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD324-0.0-0.5	D-06212010-01	GC-SD323-0.0-0.5	GC-SD325-0.0-0.5	GC-SD326-0.0-0.5	GC-SD327-0.0-0.5	GC-SD328-0.0-0.5	GC-SD329-0.0-0.5	GC-SD330-0.0-0.5
		Sample Depth:	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date:	6/21/2010	6/18/2010	6/18/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/21/2010	6/22/2010	6/21/2010	6/21/2010	6/22/2010	6/21/2010	6/17/2010	6/17/2010	6/18/2010	6/18/2010	6/18/2010
		Sample Type:	N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
			Metals																	
Aluminum	mg/kg		16,200 J (A)	5,550	5,560	11,900 J (A)	15,800 J (A)	10,000 J (A)	6,460	13,000 J (A)	16,600 J (A)	17,600 J (A)	16,900 J (A)	11,600 J (A)	13,400 J (A)	17,900 J (A)	19,400 J (A)	9,890 (A)	15,500 J (A)	18,000 J (A)
Arsenic	mg/kg		14.3 J (A,R)	13.6 (A,R)	11.4 (A,R)	13.3 J (A,R)	23.2 J (A,R)	11.9 J (A,R)	8.6 (A,R)	12.8 J (A,R)	13.9 J (A,R)	15.1 J (A,R)	13.6 J (A,R)	9 J (A,R)	12.9 J (A,R)	19 J (A,R)	12.9 J (A,R)	9.3 (A,R)	13.3 J (A,R)	15.7 J (A,R)
Barium	mg/kg		397 J (R)	232 (R)	134 (R)	631 J (R)	308 J (R)	163 J (R)	251 (R)	90.8 J	132 J (R)	127 J	141 J (R)	83.1 J	90.3 J	133 J (R)	77.5 J	45.8	67.2 J	69 J
Beryllium	mg/kg			0.11 J	0.11 J											0.4 J	0.46 J	0.26 J		0.44 J
Cadmium	mg/kg		10.7 J (A,R)	2.3 (R)	2.4 (R)	10.5 J (A,R)	13.6 J (A,R)	7.6 J (A,R)	7.7 J (A,R)	7 J (R)	8.9 J (A,R)	9.7 J (A,R)	9.5 J (A,R)	6.4 J (R)	7.5 J (A,R)	5.7 J (R)		0.38 J	6.3 J (R)	0.4 J
*Cadmium	UMOLES/G		0.014 J	0.0089 J		0.019 J	0.02 J	0.0056 J	0.013 J	0.036	0.012 J	0.0088 J		0.0063 J	0.0037 J	0.014 J	0.0028 J	0.0017 J	0.0026 J	0.0021 J
*Calcium	mg/kg		7,700 J	10,800	8,710	10,500 J	8,500 J	7,240 J	8,000	5,820 J	8,870 J	7,710 J	8,220 J	4,890 J	5,820 J	8,130 J	10,900 J	51,400	10,700 J	10,700 J
Chromium	mg/kg		129 J (A,R)	48.8 (A)	50.9 (A)	111 J (A,R)	117 J (A,R)	73.7 J (A)	67.2 (A)	64.2 J (A)	80.2 J (A)	84.7 J (A,R)	83.4 J (A,R)	56.8 J (A)	65.1 J (A)	181 J (A,R)	66.4 J (A)	41 (A)	60.1 J (A)	58 J (A)
Cobalt	mg/kg			5.9 J (A)	6.5 J (A)	10.5 J (A)	14.8 J (A)		9.6 (A)	11.7 J (A)		13.4 J (A)		10.5 J (A)	13.1 J (A)			7.6 J (A)	12.7 J (A)	12.8 J (A)
Copper	mg/kg		395 J (A,R)	151 (R)	181 (R)	307 J (R)	349 J (A,R)	178 J (R)	186 (R)	110 J (R)	159 J (R)	167 J (R)	176 J (R)	117 J (R)	136 J (R)	242 J (R)	75 J (R)	80.2 (R)	65.2 J (R)	70.7 J (R)
*Copper	UMOLES/G		0.039 J							0.082 J	0.15 J	0.042 J		0.017 J	0.039 J	0.15 J	0.25 J	0.16 J	0.28 J	0.049 J
Iron	mg/kg		27,600 J (A)	21,900 (A)	21,700 (A)	24,600 J (A)	33,400 J (A)	24,200 J (A)	17,600 (A)	27,600 J (A)	32,900 J (A)	34,500 J (A)	33,700 J (A)	24,200 J (A)	29,300 J (A)	34,400 J (A)	35,500 J (A)	18,200 (A)	31,600 J (A)	33,300 J (A)
*Lead	UMOLES/G		0.69	0.39 J		0.88	1	0.27	0.35	0.58	0.52	0.37		0.31	0.15	0.49	0.27	0.16	0.2	0.081
Lead	mg/kg		478 J (A,R)	1,600 (A,R)	387 (R)	615 J (A,R)	669 J (A,R)	376 J (R)	360 (R)	146 J (R)	213 J (R)	216 J (R)	239 J (R)	211 J (R)	164 J (R)	244 J (R)	95.5 J (R)	61.7 (R)	90 J (R)	93.5 J (R)
*Magnesium	mg/kg		10,100 J	6,510	6,040	9,720 J	11,400 J	7,660 J	6,530	7,030 J	10,700 J	10,900 J	10,900 J	7,030 J	7,040 J	9,210 J	10,200 J	5,800	9,090 J	9,760 J
Manganese	mg/kg		287 J (A)	140	145	235 J (A)	301 J (A)	203 J (A)	130	392 J (A)	411 J (A)	399 J (A)	361 J (A)	267 J (A)	407 J (A)	554 J (A,R)	702 J (A,R)	323 (A)	559 J (A,R)	866 J (A,R)
Mercury	mg/kg		1.4 J (R)	1 (R)	0.77 (R)	1.4 J (R)	1.8 J (R)	0.92 J (R)	0.59 (R)	0.9 J (R)	1.3 J (R)	1.4 J (R)	1.3 J (R)	0.8 J (R)	1.1 J (R)	3.7 J (A,R)	0.83 J (R)	0.85 (R)	1.2 J (R)	0.91 J (R)
*Mercury	UMOLES/G																			
Nickel	mg/kg		55.9 J (R)	32.7 (R)	36.5 (R)	57.9 J (R)	60.1 J (R)	42.4 J (R)	46.7 (R)	36 J (R)	40.6 J (R)	43 J (R)	42.2 J (R)	33.2 J (R)	46.7 J (R)	45.2 J (R)	35.5 J (R)	23.8 (R)	34.9 J (R)	34.6 J (R)
*Nickel	UMOLES/G		0.061 J	0.1 J		0.16 J	0.13 J	0.072 J	0.1 J		0.085 J	0.053 J		0.043 J	0.049 J	0.058 J	0.048 J	0.032 J	0.041 J	0.032 J
*Potassium	mg/kg		3,930 J	1,350	1,460	2,910 J	3,840 J	2,550 J	1,490	3,110 J	4,280 J	4,390 J	4,170 J	2,830 J	3,070 J	4,600 J	5,020 J	2,570	3,970 J	4,460 J
Selenium	mg/kg		2.2 J			2.3 J	2.3 J	1.3 J	1.7 J	0.99 J	2.1 J	2.2 J	1.7 J	1.1 J	1.1 J				2 J	
Silver	mg/kg		6.1 J (R)	1.3 J (R)	1.8 (R)	6.6 J (R)	4.1 J (R)	2.8 J (R)	2.4 (R)				3.7 J (R)	2.2 J (R)		9.5 J (R)	2.2 J (R)			
*Silver	UMOLES/G									0.0083 J						0.0058 J	0.0032 J			
*Sodium	mg/kg		9,920 J	5,610	5,740	10,500 J	14,800 J	9,160 J	5,450	9,320 J	18,700 J	16,700 J	16,000 J	9,810 J	8,940 J	15,100 J	18,100 J	8,690	13,900 J	16,800 J
Vanadium	mg/kg		61.2 J (A)	24	25.2	47.3 J (A)	54.5 J (A)	32.6 J	26.6	35.7 J	45.1 J (A)	46.9 J (A)	47.9 J (A)	33.3 J	37 J	53.6 J (A)	47.9 J (A)	25.6	42.8 J (A)	45.6 J (A)
*Zinc	UMOLES/G		3.7	2.4 J			8.9	2.1		3.4	2.9	2.2		1.9	2.1	2	1.2	0.75	1	0.48
Zinc	mg/kg		885 J (R)	1,510 (R)	378 (R)	750 J (R)	1,460 J (R)	914 J (R)	761 (R)	318 J (R)	452 J (R)	432 J (R)	535 J (R)	343 J (R)	480 J (R)			160 (R)	200 J (R)	
Cyanide, Total	mg/kg			1.5 J	1.2 J			0.54 J		1.1 J	0.68 J		1.1 J	8.7 J						

TABLE I-6B
Metal and Cyanide Concentrations in Surface Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**331**	**332**	**333**	**334**	**335**
Sample Number:		**GC-SD331-0.0-0.5**	**GC-SD332-0.0-0.5**	**GC-SD333-0.0-0.5**	**GC-SD334-0.0-0.5**	**GC-SD335-0.0-0.5**
Sample Depth:		**0 - 0.5**	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**	**0 - 0.5**
Sample Date:		**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/18/2010**	**6/17/2010**
Sample Type:		**N**	**N**	**N**	**N**	**N**
Parameter	**Units**	**Metals**				
Aluminum	mg/kg	**12,800 J (A)**	**8,330 (A)**	**16,800 J (A)**	4,750	**15,300 J (A)**
Arsenic	mg/kg	**12.6 J (A,R)**	**7 (A)**	**11.9 J (A,R)**	**5.4 (A)**	**9.8 J (A,R)**
Barium	mg/kg	73.6 J	46.6	76.1 J		69.7 J
Beryllium	mg/kg		0.23 J	0.46 J		0.44 J
Cadmium	mg/kg	**5.8 J (R)**	0.24 J	0.32 J	**2.1 (R)**	1.1 J
Cadmium	UMOLES/G	0.0025 J	0.00089 J	0.0024 J	0.00046 J	0.0013 J
Calcium	mg/kg	49,900 J	40,700	11,100 J	15,400	18,600 J
Chromium	mg/kg	**53.6 J (A)**	**31.3 (A)**	**55.6 J (A)**	**16.9 (A)**	**55.5 J (A)**
Cobalt	mg/kg	**11.5 J (A)**	**7 J (A)**	**11.9 J (A)**	**4.7 J (A)**	**11.3 J (A)**
Copper	mg/kg	**68.4 J (R)**	**40.9 (R)**	**76.9 J (R)**	15.1	**72.1 J (R)**
Copper	UMOLES/G	0.14 J	0.058 J	0.3	0.068 J	0.08 J
Iron	mg/kg	**26,600 J (A)**	**15,400 (A)**	**29,900 J (A)**	**10,700 (A)**	**26,800 J (A)**
Lead	UMOLES/G	0.2	0.056	0.21	0.073	0.14
Lead	mg/kg	**93.1 J (R)**	**53.4 (R)**	**87.5 J (R)**	25.5	**86.3 J (R)**
Magnesium	mg/kg	8,780 J	5,090	8,870 J	3,040	7,800 J
Manganese	mg/kg	**651 J (A,R)**	**233 (A)**	**503 J (A,R)**	172	**529 J (A,R)**
Mercury	mg/kg	**0.84 J (R)**	**0.57 (R)**	**1 J (R)**	**0.16 (R)**	**1.1 J (R)**
Mercury	UMOLES/G					
Nickel	mg/kg	**50 J (R)**	**22.2 (R)**	**34.2 J (R)**	13	**29.7 J (R)**
Nickel	UMOLES/G	0.07 J	0.014 J	0.032 J	0.016 J	0.029 J
Potassium	mg/kg	3,340 J	1,980	3,890 J	1,130	3,780 J
Selenium	mg/kg	1.6 J			0.53 J	
Silver	mg/kg					**2.1 J (R)**
Silver	UMOLES/G					
Sodium	mg/kg	11,300 J	6,100	11,600 J	2,780	12,100 J
Vanadium	mg/kg	35.4 J	19.7	38.1 J	11.4	36.2 J
Zinc	UMOLES/G	1.3	0.35	0.91	0.36	0.69
Zinc	mg/kg	**254 J (R)**	102		63.1	
Cyanide, Total	mg/kg					

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TABLE I-7
Physical Characteristics - Surface Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
301	GC-SD301-0.0-0.5	0.0	0.5	25100	46.5	1960	41.53	35.24	6.29	58.47	USEPA, 2010
302	GC-SD302-0.0-0.5	0.0	0.5	83800	31.9	5940	41.91	34.96	6.95	58.08	USEPA, 2010
303	GC-SD303-0.0-0.5	0.0	0.5	73100	28.7	6210	51.94	43.52	8.42	48.05	USEPA, 2010
304	GC-SD304-0.0-0.5	0.0	0.5	68800	30.0	4880	51.37	42.49	8.88	48.63	USEPA, 2010
305	GC-SD305-0.0-0.5	0.0	0.5	64800	27.8	5450	51.19	43.76	7.43	48.81	USEPA, 2010
306	GC-SD306-0.0-0.5	0.0	0.5	71200	30.5	4010	48.02	42.23	5.79	51.98	USEPA, 2010
307A	GC-SD307A-0.0-0.5	0.0	0.5	43000	32.0	3730	56.62	49.13	7.49	43.38	USEPA, 2010
307B	GC-SD307B-0.0-0.5	0.0	0.5	54400	30.9	2800	57.46	50.03	7.43	42.54	USEPA, 2010
308A	GC-SD308A-0.0-0.5	0.0	0.5	37700	77.9	50.6	81.36	66.76	14.60	18.64	USEPA, 2010
308B	GC-SD308B-0.0-0.5	0.0	0.5	52000	34.0	1140	62.78	53.54	9.24	37.23	USEPA, 2010
309	GC-SD309-0.0-0.5	0.0	0.5	45000	37.3	842	73.35	60.13	13.22	26.65	USEPA, 2010
310	GC-SD310-0.0-0.5	0.0	0.5	94600	31.3	2460	61.60	54.44	7.16	38.40	USEPA, 2010
311	GC-SD311-0.0-0.5	0.0	0.5	60800	33.9	1790	56.10	48.70	7.40	43.89	USEPA, 2010
312	GC-SD312-0.0-0.5	0.0	0.5	60700	32.2	2180	63.40	53.84	9.56	36.60	USEPA, 2010
313	GC-SD313-0.0-0.5	0.0	0.5	137000	31.5	8790	66.07	58.11	7.96	33.93	USEPA, 2010
314	GC-SD314-0.0-0.5	0.0	0.5	109000	28.2	1750	65.71	59.24	6.47	34.29	USEPA, 2010
315	GC-SD315-0.0-0.5	0.0	0.5	81800	49.3	4730	66.50	57.33	9.17	33.49	USEPA, 2010
316	GC-SD316-0.0-0.5	0.0	0.5	122000	30.5	2120	50.99	46.05	4.94	49.00	USEPA, 2010
317	GC-SD317-0.0-0.5	0.0	0.5	64400	37.4	4370	66.02	56.53	9.49	33.98	USEPA, 2010
318	GC-SD318-0.0-0.5	0.0	0.5	94900	25.7	4190	49.95	45.03	4.92	50.05	USEPA, 2010
319	GC-SD319-0.0-0.5	0.0	0.5	49300	37.4	2240	60.69	52.84	7.85	39.30	USEPA, 2010
320	GC-SD320-0.0-0.5	0.0	0.5	46900	43.0	2800	58.47	51.15	7.32	41.53	USEPA, 2010
321	GC-SD321-0.0-0.5	0.0	0.5	51100	32.6	5150	72.60	60.38	12.22	27.40	USEPA, 2010
322	GC-SD322-0.0-0.5	0.0	0.5	43100	29.1	5250	79.49	66.61	12.88	20.50	USEPA, 2010
323	GC-SD323-0.0-0.5	0.0	0.5	42400	37.5	3090	54.50	44.64	9.86	45.50	USEPA, 2010
324	GC-SD324-0.0-0.5	0.0	0.5	35000	30.1	3280	89.85	74.45	15.40	10.15	USEPA, 2010
325	GC-SD325-0.0-0.5	0.0	0.5	26500	40.1	1900	66.40	54.31	12.09	33.60	USEPA, 2010
326	GC-SD326-0.0-0.5	0.0	0.5	43400	36.4	2160	87.57	66.88	20.69	12.47	USEPA, 2010
327	GC-SD327-0.0-0.5	0.0	0.5	41000	27.3	2090	90.27	71.67	18.60	9.72	USEPA, 2010
328	GC-SD328-0.0-0.5	0.0	0.5	22500	47.3	1210	74.53	58.50	16.03	25.47	USEPA, 2010
329	GC-SD329-0.0-0.5	0.0	0.5	29500	31.8	1030	73.58	59.78	13.80	26.42	USEPA, 2010
330	GC-SD330-0.0-0.5	0.0	0.5	34500	30.4	749	76.08	59.24	16.84	23.92	USEPA, 2010
331	GC-SD331-0.0-0.5	0.0	0.5	39200	39.0	1220	59.77	47.30	12.47	40.23	USEPA, 2010
332	GC-SD332-0.0-0.5	0.0	0.5	14700	55.5	515	62.73	50.13	12.60	37.27	USEPA, 2010
333	GC-SD333-0.0-0.5	0.0	0.5	26400	36.4	655	65.57	52.06	13.51	34.43	USEPA, 2010
334	GC-SD334-0.0-0.5	0.0	0.5	2980	69.5	383	56.44	44.37	12.07	43.56	USEPA, 2010
335	GC-SD335-0.0-0.5	0.0	0.5	29400	35.7	1660	72.91	57.83	15.08	27.09	USEPA, 2010

Notes:
ft - feet
mg/kg - milligram/kilogram
% - percent

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TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	D-03042010-01	GC-SD126-04.0-06.0
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4	2-4	4-6
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	300 UJ	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 UJ	12,000 U	9.3 UJ	1,100 U	1,000 U	7.6 UJ
1,1,2,2-tetrachloroethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	300 UJ	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 UJ	12,000 U	9.3 UJ	1,100 U	13 U	7.6 UJ
1,1,2-trichloroethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
1,1-dichloroethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 UJ	1,100 U	13 U	7.6 U
1,1-dichloroethene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 U	12,000 U	9.3 UJ	1,100 U	13 U	7.6 UJ
1,2,3-trichlorobenzene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 R
1,2,4-trichlorobenzene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 R
1,2-dibromo-3-chloropropane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 R
1,2-dibromoethane	ug/kg	300 UJ	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 UJ	12,000 U	9.3 UJ	1,100 U	1,000 U	7.6 UJ
1,2-dichlorobenzene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	**16 J**	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 R
1,2-dichloroethane	ug/kg	300 UJ	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 UJ	12,000 U	9.3 UJ	1,100 U	1,000 U	7.6 UJ
1,2-dichloropropane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
1,3-dichlorobenzene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	**1.7 J**	3,400 U	12,000 U	9.3 U	**36 J**	1,000 U	**8.9 J**
1,4-dichlorobenzene	ug/kg	300 U	**260 J**	**2,700**	6.4 U	920 U	1,200 U	8,800 U	8,900 U	**340 J**	**650 J**	**2,300**	**66 J**	**2,000 J**	12,000 U	**22**	**290 J**	**400 J**	**23 J**
1,4-dioxane (p-dioxane)	ug/kg	6,000 UR	7,800 UR	15,000 UR	130 UR	18,000 UR	23,000 UR	180,000 UR	180,000 UR	8,000 UR	13,000 UR	15,000 UR	16,000 UR	68,000 UR	230,000 UR	190 R	21,000 R	20,000 UR	150 R
2-hexanone	ug/kg	600 U	780 U	1,500 U	13 U	1,800 U	2,300 U	18,000 U	18,000 U	800 U	1,300 U	1,500 U	1,600 U	6,800 U	23,000 U	19 U	2,100 U	2,000 U	15 U
Acetone	ug/kg	600 U	780 U	1,500 U	21 U	1,800 U	2,300 U	18,000 U	18,000 U	800 U	1,300 U	2,100 U	**1,900 J**	6,800 U	23,000 U	**170**	2,100 U	**420**	**130**
Benzene	ug/kg	300 U	390 U	**370 J**	**2.8 J**	**450 J**	**530 J**	**38,000**	**25,000**	**190 J**	670 U	760 U	**32 J**	**1,900 J**	12,000 U	9.3 U	**71 J**	1,000 U	**4.5 J**
Bromochloromethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 UJ	1,100 U	13 U	7.6 U
Bromodichloromethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
Bromoform	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	**480**	670 U	760 U	10 U	3,400 U	12,000 U	9.3 UJ	1,100 U	1,000 U	7.6 R
Bromomethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 U	1,100 UJ	13 U	7.6 U
Carbon disulfide	ug/kg	300 U	390 U	760 U	**4 J**	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	**22**	3,400 U	12,000 U	**13**	1,100 U	**30**	**3.8 J**
Carbon tetrachloride	ug/kg	300 UJ	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 UJ	12,000 U	9.3 UJ	1,100 U	1,000 U	7.6 UJ
Chlorobenzene	ug/kg	**580**	**700**	**6,800**	6.4 U	920 U	1,200 U	8,800 U	8,900 U	**1,100**	**2,400**	**2,100**	**16 J**	3,400 U	12,000 U	**12**	**330 J**	1,000 U	**27**
Chloroethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 U	1,100 U	13 U	7.6 U
Chloroform	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 UJ	1,100 U	13 U	7.6 U
Chloromethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 U	1,100 U	13 U	7.6 U
cis-1,2-dichloroethylene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 U	12,000 U	9.3 U	1,100 U	13 U	7.6 U
cis-1,3-dichloropropene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
Cyclohexane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	**21**
Dibromochloromethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 UJ	1,100 U	1,000 U	7.6 U
Dichlorodifluoromethane	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 U	3,400 U	12,000 U	9.3 U	1,100 U	13 U	7.6 U
Ethylbenzene	ug/kg	300 U	**160 J**	760 U	6.4 U	**7,000**	**8,700**	**260,000**	**230,000**	400 U	**650 J**	760 U	**6.6 J**	**43,000**	**73,000**	**1.7 J**	**170 J**	1,000 U	**3.7 J**
Isopropylbenzene (cumene)	ug/kg	300 U	390 U	**240 J**	**0.94 J**	**3,100**	**1,500**	**26,000**	**24,000**	**150 J**	**260 J**	**290 J**	**49 J**	**11,000**	**19,000**	**1 J**	**63 J**	1,000 U	**94**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	D-03042010-01	GC-SD126-04.0-06.0
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4	2-4	4-6
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	300 U	390 U	**500 J**	6.4 U	**900 J**	**1,700**	**190,000**	**160,000**	400 U	670 U	**950**	**160 J**	**6,800**	**11,000 J**	9.3 U	**41 J**	1,000 U	7.6 U
Methyl acetate	ug/kg	300 UJ	**140 J**	**280 J**	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	**540 J**	10 UJ	3,400 UJ	12,000 U	9.3 UJ	**1,600**	13 U	7.6 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	**150 J**	780 U	1,500 U	13 U	1,800 U	2,300 U	**6,400 J**	**5,900 J**	**660 J**	**570 J**	**1,400 J**	**870 J**	6,800 U	23,000 U	**50**	**150**	**150 J**	**48**
Methyl isobutyl ketone	ug/kg	600 U	780 U	1,500 U	13 U	1,800 U	2,300 U	18,000 U	18,000 U	800 U	1,300 U	1,500 U	1,600 U	6,800 U	23,000 U	19 U	2,100 U	2,000 U	15 U
Methylcyclohexane	ug/kg	300 U	390 U	**300 J**	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	**540 J**	**91 J**	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	**75**
Methylene chloride	ug/kg	300 UJ	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 UJ	12,000 U	9.3 UJ	1,100 U	13 U	7.6 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	300 U	**120 J**	**370 J**	6.4 U	**3,700**	**3,000**	**94,000**	**83,000**	**280 J**	**490 J**	**800**	**32 J**	**16,000**	**29,000**	**0.91 J**	**98 J**	1,000 U	**14**
Styrene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
Tert-butyl methyl ether	ug/kg	300 UJ	390 U	760 U	**0.85 J**	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 UJ	12,000 U	9.3 UJ	1,100 U	**0.86 J**	**8.7 J**
Tetrachloroethylene(PCE)	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
Toluene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	**110,000**	**61,000**	400 U	670 U	760 U	**10 J**	3,400 U	12,000 U	9.3 U	**14 J**	1,000 U	7.6 U
trans-1,2-dichloroethene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 U	12,000 U	9.3 U	1,100 U	13 U	7.6 U
trans-1,3-dichloropropene	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
Trichloroethylene (TCE)	ug/kg	300 U	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	810 U	3,400 U	12,000 U	9.3 U	1,100 U	1,000 U	7.6 U
Trichlorofluoromethane	ug/kg	300 UJ	390 U	760 U	6.4 U	920 U	1,200 U	8,800 U	8,900 U	400 U	670 U	760 U	10 UJ	3,400 UJ	12,000 U	9.3 UJ	1,100 U	13 U	7.6 UJ
Vinyl chloride	ug/kg	300 UJ	390 UJ	760 UJ	6.4 U	920 U	1,200 U	8,800 UJ	8,900 UJ	400 UJ	670 UJ	760 UJ	10 UJ	3,400 UJ	12,000 U	9.3 UJ	1,100 U	13 U	7.6 UJ

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146
Sample Number:		GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0
Sample Depth:		6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4
Sample Date:		3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	8.1 R	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 UJ	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
1,1,2,2-tetrachloroethane	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	8.1 UJ	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 UJ	21 UJ	18 UJ	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
1,1,2-trichloroethane	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
1,1-dichloroethane	ug/kg	8.1 U	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 UJ
1,1-dichloroethene	ug/kg	8.1 UJ	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 UJ	17 UJ	9.9 U	12 U	3,200 U	16 U	16 U
1,2,3-trichlorobenzene	ug/kg	8.1 UJ	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 UR	**3.1 J**	18 R	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
1,2,4-trichlorobenzene	ug/kg	8.1 UJ	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 UR	21 R	18 R	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
1,2-dibromo-3-chloropropane	ug/kg	8.1 U	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 UR	21 R	18 R	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 U
1,2-dibromoethane	ug/kg	8.1 R	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 UJ	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
1,2-dichlorobenzene	ug/kg	8.1 UJ	**8.7 J**	**19 J**	810 U	850 U	17 U	730 U	800 U	810 U	7.5 UR	21 R	**3.5 J**	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
1,2-dichloroethane	ug/kg	8.1 U	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 UJ	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
1,2-dichloropropane	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 U
1,3-dichlorobenzene	ug/kg	**6.6 J**	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 UR	21 R	**2.7 J**	17 UJ	**2.2 J**	12 U	3,200 U	16 UJ	**7 J**
1,4-dichlorobenzene	ug/kg	8.1 UJ	**55 J**	**27 J**	**560 J**	850 U	**21**	**230 J**	800 U	**770 J**	7.5 UR	**14 J**	**21 J**	**2.6 J**	**14 J**	**13**	3,200 U	16 UJ	**12 J**
1,4-dioxane (p-dioxane)	ug/kg	160 R	410 UR	330 UR	16,000 UR	17,000 UR	330 UR	15,000 UR	16,000 UR	16,000 UR	150 UR	430 R	370 R	350 UR	200 UR	240 UR	64,000 UR	320 UR	310 UR
2-hexanone	ug/kg	16 R	41 U	33 U	1,600 U	1,700 U	33 U	1,500 U	1,600 U	1,600 U	15 U	43 UJ	37 U	35 U	20 U	24 U	6,400 U	32 U	31 U
Acetone	ug/kg	**290**	**1,200**	**1,500 J**	1,600 U	1,700 U	**400**	1,500 U	1,600 U	1,600 U	**76**	**510 J**	**390**	**430**	**150**	**36**	6,400 U	**450**	**640**
Benzene	ug/kg	**25 J**	**17 J**	**16 J**	**1,000**	**7,700**	**59**	**710 J**	**1,600**	**1,600**	**11 J**	**10 J**	**33**	17 UJ	**23 J**	12 U	3,200 U	16 U	16 UJ
Bromochloromethane	ug/kg	8.1 U	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 UJ
Bromodichloromethane	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 U
Bromoform	ug/kg	8.1 U	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 UR	21 R	18 R	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 UJ
Bromomethane	ug/kg	8.1 U	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 U	12 U	3,200 U	16 U	16 U
Carbon disulfide	ug/kg	**5 J**	**34 J**	**13 J**	810 UJ	850 UJ	**11 J**	730 U	800 U	810 U	**4.2 J**	**37 J**	**20**	**23 J**	**14**	**1.7 J**	3,200 U	**14 J**	**14 J**
Carbon tetrachloride	ug/kg	8.1 R	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 UJ	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
Chlorobenzene	ug/kg	**140 J**	**8.5 J**	**6.1 J**	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	**2.7 J**	**5.7 J**	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	**3.1 J**
Chloroethane	ug/kg	8.1 U	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 U	12 U	3,200 U	16 U	16 U
Chloroform	ug/kg	8.1 U	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 UJ
Chloromethane	ug/kg	8.1 U	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 U	12 U	3,200 U	16 U	16 U
cis-1,2-dichloroethylene	ug/kg	**1.2 J**	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	**1.7 J**	**2.9 J**	17 UJ	9.9 U	12 U	3,200 U	16 U	16 U
cis-1,3-dichloropropene	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
Cyclohexane	ug/kg	8.1 R	**59 J**	**46 J**	810 U	850 U	17 U	730 U	800 U	810 U	**13**	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 U
Dibromochloromethane	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 UJ
Dichlorodifluoromethane	ug/kg	8.1 U	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 U	12 U	3,200 U	16 U	16 U
Ethylbenzene	ug/kg	8.1 R	20 UJ	17 UJ	810 U	**6,300**	**520**	**3,500**	**18,000**	**20,000**	7.5 U	**41 J**	**75**	17 UJ	**54 J**	**56**	**55,000**	16 UJ	16 UJ
Isopropylbenzene (cumene)	ug/kg	**100 J**	**100 J**	**29 J**	**3,900**	**6,000**	**94**	**680 J**	**3,800**	**4,500**	**62 J**	**16 J**	**98**	**9.4 J**	**170 J**	**27**	**15,000**	16 UJ	**5.9 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146
Sample Number:		GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0
Sample Depth:		6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4
Sample Date:		3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**65 J**	**24 J**	**14 J**	**550 J**	**660 J**	**82**	**660 J**	**8,000**	**9,200**	7.5 U	21 UJ	**93**	17 UJ	**20 J**	**31**	**27,000**	16 UJ	**4.2 J**
Methyl acetate	ug/kg	8.1 U	20 UJ	17 UJ	**290 J**	**320 J**	17 U	730 U	**280 J**	**490 J**	7.5 UJ	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
Methyl ethyl ketone (2-butanone)	ug/kg	**110**	41 U	**560**	**910 J**	1,700 U	**110**	**1,100 J**	**1,400 J**	1,600 U	**25**	**140 J**	**120**	**130**	**36**	24 U	6,400 U	**76**	**180**
Methyl isobutyl ketone	ug/kg	16 R	41 U	33 U	1,600 U	1,700 U	33 U	1,500 U	1,600 U	1,600 U	15 U	43 UJ	37 U	35 U	20 U	24 U	6,400 U	32 U	31 U
Methylcyclohexane	ug/kg	**190 J**	**120 J**	**47 J**	810 U	**1,200**	17 U	730 U	**1,900**	**1,500**	**110**	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 U
Methylene chloride	ug/kg	8.1 U	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 UJ	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**120 J**	**81 J**	**21 J**	**960**	**3,200**	**130**	**990**	**5,700**	**6,600**	**20 J**	**14 J**	**120**	17 UJ	**34 J**	**36**	**24,000**	16 UJ	**3.5 J**
Styrene	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
Tert-butyl methyl ether	ug/kg	**6.8 J**	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	**2.7 J**	21 UJ	18 U	**1.4 J**	9.9 UJ	12 U	3,200 U	16 UJ	16 U
Tetrachloroethylene(PCE)	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
Toluene	ug/kg	**16 J**	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	**680 J**	7.5 U	**37 J**	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
trans-1,2-dichloroethene	ug/kg	8.1 U	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 U	12 U	3,200 U	16 U	16 U
trans-1,3-dichloropropene	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	7.5 U	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
Trichloroethylene (TCE)	ug/kg	8.1 R	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 U	**1.7 J**	21 UJ	**1.7 J**	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 UJ
Trichlorofluoromethane	ug/kg	8.1 U	20 UJ	17 UJ	810 UJ	850 UJ	17 U	730 U	800 U	810 U	7.5 UJ	21 UJ	18 U	17 UJ	9.9 UJ	12 U	3,200 U	16 UJ	16 U
Vinyl chloride	ug/kg	8.1 UJ	20 UJ	17 UJ	810 U	850 U	17 U	730 U	800 U	810 UJ	7.5 U	21 UJ	18 UJ	17 UJ	9.9 UJ	12 U	3,200 U	16 U	16 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129
Sample Number:		GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0
Sample Depth:		4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	4-6	0-2	2-2.5	0-2	2-4
Sample Date:		4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
1,1,2,2-tetrachloroethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
1,1,2-trichloroethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
1,1-dichloroethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U
1,1-dichloroethene	ug/kg	14 U	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
1,2,3-trichlorobenzene	ug/kg	14 UJ	590 U	15 UJ	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 UR	930 U	15 UJ	1,100 U
1,2,4-trichlorobenzene	ug/kg	14 UJ	590 U	15 UJ	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 UR	930 U	15 UJ	1,100 U
1,2-dibromo-3-chloropropane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 UR	930 U	15 U	1,100 U
1,2-dibromoethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
1,2-dichlorobenzene	ug/kg	14 UJ	590 U	15 UJ	**21**	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 UR	930 U	15 UJ	1,100 U
1,2-dichloroethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
1,2-dichloropropane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
1,3-dichlorobenzene	ug/kg	14 UJ	590 U	15 UJ	**80**	17 U	**14**	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 UJ	930 U	15 UJ	1,100 U
1,4-dichlorobenzene	ug/kg	**11 J**	590 U	15 UJ	**89**	17 U	**13**	3,700 U	1,200 U	960 U	700 U	1,100 U	**240 J**	9,400 U	4,300 U	13 UJ	930 U	15 UJ	**370 J**
1,4-dioxane (p-dioxane)	ug/kg	290 UR	12,000 UR	300 UR	270 UR	350 UR	210 UR	73,000 UR	23,000 UR	19,000 UR	14,000 UR	22,000 UR	21,000 UR	190,000 UR	86,000 UR	260 UR	19,000 UR	300 UR	23,000 UR
2-hexanone	ug/kg	29 U	1,200 U	30 U	27 U	35 U	21 U	7,300 U	2,300 U	1,900 U	1,400 U	2,200 U	2,100 U	19,000 U	8,600 U	26 U	1,900 U	30 U	2,300 U
Acetone	ug/kg	**250**	1,200 U	**240**	**440**	**290**	**120**	7,300 U	2,300 U	1,900 U	1,400 U	2,200 U	2,100 U	19,000 U	8,600 U	**430**	1,900 U	**130**	2,300 U
Benzene	ug/kg	14 UJ	590 U	15 U	**14 J**	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	**6,200 J**	**5,400**	**55 J**	**900 J**	15 U	**630 J**
Bromochloromethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U
Bromodichloromethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
Bromoform	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 UR	930 U	15 UJ	1,100 U
Bromomethane	ug/kg	14 U	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 UJ
Carbon disulfide	ug/kg	**45**	590 U	**9.6 J**	**18**	**10 J**	**7.9 J**	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	**12 J**	930 U	**17**	1,100 UJ
Carbon tetrachloride	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
Chlorobenzene	ug/kg	14 UJ	590 U	15 UJ	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	**3 J**	930 U	15 UJ	1,100 U
Chloroethane	ug/kg	14 U	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 UJ
Chloroform	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U
Chloromethane	ug/kg	14 U	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 UJ
cis-1,2-dichloroethylene	ug/kg	**3.7 J**	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
cis-1,3-dichloropropene	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
Cyclohexane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
Dibromochloromethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U
Dichlorodifluoromethane	ug/kg	14 U	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 UJ
Ethylbenzene	ug/kg	**73 J**	**3,000**	**1.7 J**	**6.9 J**	17 UJ	10 U	**51,000**	1,200 U	960 U	700 U	1,100 U	**610 J**	**150,000**	**120,000**	**6 J**	**390 J**	15 UJ	**2,800**
Isopropylbenzene (cumene)	ug/kg	**79 J**	**2,000**	15 U	**110**	17 UJ	**65**	**29,000**	**1,800**	**4,000**	**2,200**	1,100 U	1,000 U	**34,000**	**27,000**	**16 J**	**1,700**	15 UJ	**1,100 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129
Sample Number:		GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0
Sample Depth:		4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	4-6	0-2	2-2.5	0-2	2-4
Sample Date:		4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**57 J**	**1,300**	**1.2 J**	**89**	17 UJ	**2.9 J**	**5,600**	1,200 U	960 U	700 U	1,100 U	**700 J**	**150,000**	**120,000**	**12 J**	930 U	15 UJ	**2,800**
Methyl acetate	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	**470 J**	**780 J**	700 U	**450 J**	**630 J**	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	**57**	1,200 U	**72**	**160**	**32 J**	**8.2 J**	7,300 U	2,300 U	1,900 U	1,400 U	2,200 U	2,100 U	19,000 U	8,600 U	**150**	**870 J**	30 U	2,300 U
Methyl isobutyl ketone	ug/kg	29 U	1,200 U	30 U	27 U	35 U	21 U	7,300 U	2,300 U	1,900 U	1,400 U	2,200 U	2,100 U	19,000 U	8,600 U	26 U	1,900 U	30 U	2,300 U
Methylcyclohexane	ug/kg	14 UJ	**300 J**	15 U	**70 J**	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	**500 J**
Methylene chloride	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	**37 J**	**1,300**	15 U	**72**	17 UJ	**4.1 J**	**27,000**	1,200 U	960 U	700 U	1,100 U	**430 J**	**76,000**	**63,000**	**19 J**	**4,100**	15 UJ	**2,200**
Styrene	ug/kg	14 UJ	590 U	15 U	14 U	17 UJ	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U
Tert-butyl methyl ether	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
Tetrachloroethylene(PCE)	ug/kg	14 UJ	590 U	15 U	14 U	17 UJ	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U
Toluene	ug/kg	**100 J**	590 U	15 U	14 U	17 UJ	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	**50,000**	**42,000**	13 UJ	930 U	15 UJ	1,100 U
trans-1,2-dichloroethene	ug/kg	14 U	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
trans-1,3-dichloropropene	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 U	1,100 U
Trichloroethylene (TCE)	ug/kg	14 UJ	590 U	15 U	14 U	17 UJ	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U
Trichlorofluoromethane	ug/kg	14 UJ	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 UJ
Vinyl chloride	ug/kg	14 U	590 U	15 U	14 U	17 U	10 U	3,700 U	1,200 U	960 U	700 U	1,100 U	1,000 U	9,400 U	4,300 U	13 U	930 U	15 UJ	1,100 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD129	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B
Sample Number:		GC-SD129-04.0-06.0	GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9
Sample Depth:		4-6	6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	1.4-1.9
Sample Date:		4/14/2010	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
1,1,2,2-tetrachloroethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
1,1,2-trichloroethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
1,1-dichloroethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,1-dichloroethene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,2,3-trichlorobenzene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,2,4-trichlorobenzene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,2-dibromo-3-chloropropane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,2-dibromoethane	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
1,2-dichlorobenzene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	**76 J**	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,2-dichloroethane	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	980 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
1,2-dichloropropane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,3-dichlorobenzene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	**45 J**	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
1,4-dichlorobenzene	ug/kg	6,500 U	2,400 U	**260 J**	**490 J**	**230 J**	**570 J**	650 U	**1,400**	**2,700**	**6,200**	**400 J**	2,900 U	**310 J**	**320 J**	**52,000**	11,000 U	12 U	11 U
1,4-dioxane (p-dioxane)	ug/kg	130,000 UR	47,000 UR	21,000 UR	24,000 UR	20,000 UR	23,000 UR	13,000 UR	7,100 UR	11,000 UR	18,000 UR	20,000 UR	59,000 UR	21,000 UR	21,000 UR	260,000 UR	220,000 UR	240 UR	210 UR
2-hexanone	ug/kg	13,000 U	4,700 U	2,100 U	2,400 U	2,000 U	2,300 U	1,300 U	710 U	1,100 U	1,800 U	2,000 U	5,900 U	2,100 U	2,100 U	26,000 U	22,000 U	24 U	21 U
Acetone	ug/kg	13,000 U	4,700 U	2,100 U	2,400 U	**750 J**	**990**	1,400 U	710 U	1,100 U	1,800 U	**220**	5,900 U	2,100 U	2,100 U	26,000 U	22,000 U	24 U	**180**
Benzene	ug/kg	**11,000**	**3,900**	1,100 U	1,200 U	**120 J**	**120 J**	**270 J**	350 U	540 U	890 U	990 U	2,900 U	**950 J**	**770 J**	**30,000**	**6,000 J**	12 U	11 U
Bromochloromethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Bromodichloromethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Bromoform	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Bromomethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Carbon disulfide	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	**42**	**50 J**	650 U	350 U	540 U	890 U	**30**	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	**22**
Carbon tetrachloride	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
Chlorobenzene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Chloroethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Chloroform	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Chloromethane	ug/kg	6,500 U	2,400 U	1,100 U	**430 J**	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
cis-1,2-dichloroethylene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	**2.3 J**	**3.1 J**	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
cis-1,3-dichloropropene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
Cyclohexane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Dibromochloromethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Dichlorodifluoromethane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Ethylbenzene	ug/kg	**120,000**	**62,000**	**460 J**	**760 J**	**480 J**	**970 J**	**1,300**	350 U	**280 J**	890 U	**450 J**	**20,000**	**8,100**	**15,000**	**290,000**	**140,000**	**5.6 J**	**15**
Isopropylbenzene (cumene)	ug/kg	**23,000**	**12,000**	1,100 U	1,200 U	**110 J**	**360 J**	**1,100**	350 U	**180 J**	890 U	990 U	2,900 U	**320 J**	**330 J**	**55,000**	**19,000**	**7.9 J**	**5.7 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD129	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B
Sample Number:		GC-SD129-04.0-06.0	GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9
Sample Depth:		4-6	6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	1.4-1.9
Sample Date:		4/14/2010	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**97,000**	**55,000**	1,100 U	1,200 U	**440 J**	**1,000 J**	**2,000**	350 U	540 U	890 U	990 U	**53,000**	**15,000**	**36,000**	**210,000**	**120,000**	**4.7 J**	**2.4 J**
Methyl acetate	ug/kg	6,500 UJ	2,400 U	**1,300**	**980 J**	13 U	**15**	**440 J**	**170 J**	**240 J**	**370 J**	11 U	2,900 U	**660 J**	**430 J**	13,000 U	11,000 U	12 UJ	11 U
Methyl ethyl ketone (2-butanone)	ug/kg	13,000 U	4,700 U	2,100 U	2,400 U	**310 J**	**450 J**	1,300 U	710 U	1,100 U	1,800 U	**85 J**	5,900 U	2,100 U	2,100 U	26,000 U	22,000 U	24 U	**53**
Methyl isobutyl ketone	ug/kg	13,000 U	4,700 U	2,100 U	2,400 U	2,000 U	2,300 U	1,300 U	710 U	1,100 U	1,800 U	2,000 U	5,900 U	2,100 U	2,100 U	26,000 U	22,000 U	24 U	21 U
Methylcyclohexane	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	**450 J**	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Methylene chloride	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**53,000**	**29,000**	1,100 U	**460 J**	**240 J**	**650 J**	**1,800**	350 U	540 U	890 U	990 U	**14,000**	**4,000**	**9,500**	**140,000**	**55,000**	**2.2 J**	**3 J**
Styrene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Tert-butyl methyl ether	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
Tetrachloroethylene(PCE)	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Toluene	ug/kg	6,500 U	**2,800**	1,100 U	1,200 U	**22 J**	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	**1,300**	13,000 U	11,000 U	12 U	11 U
trans-1,2-dichloroethene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
trans-1,3-dichloropropene	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
Trichloroethylene (TCE)	ug/kg	6,500 U	2,400 U	1,100 U	1,200 U	980 U	1,200 U	650 U	350 U	540 U	890 U	990 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 U	11 U
Trichlorofluoromethane	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U
Vinyl chloride	ug/kg	6,500 UJ	2,400 U	1,100 U	1,200 U	13 U	15 U	650 U	350 U	540 U	890 U	11 U	2,900 U	1,000 U	1,000 U	13,000 U	11,000 U	12 UJ	11 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131
Sample Number:		GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3
Sample Depth:		2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3
Sample Date:		4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,1,2,2-tetrachloroethane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,1,2-trichloroethane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,1-dichloroethane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,1-dichloroethene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,2,3-trichlorobenzene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,2,4-trichlorobenzene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,2-dibromo-3-chloropropane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,2-dibromoethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,2-dichlorobenzene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,2-dichloroethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,2-dichloropropane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,3-dichlorobenzene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,4-dichlorobenzene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	**330 J**	**1,600**	1,800 U	**670 J**	**440 J**	**560 J**	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
1,4-dioxane (p-dioxane)	ug/kg	23,000 UR	86,000 UR	100,000 UR	38,000 UR	24,000 UR	28,000 UR	36,000 UR	45,000 UR	18,000 UR	23,000 UR	180,000 UR	33,000 UR	21,000 UR	21,000 UR	29,000 UR	260,000 UR	170,000 UR	6,700 UR
2-hexanone	ug/kg	2,300 U	8,600 U	10,000 U	3,800 UJ	2,400 U	2,800 U	3,600 U	4,500 U	1,800 U	2,300 U	18,000 U	3,300 U	2,100 U	2,100 U	2,900 U	26,000 U	17,000 U	670 U
Acetone	ug/kg	2,300 U	8,600 U	10,000 U	3,800 UJ	2,400 U	2,800 U	3,600 U	4,500 U	1,800 U	**860 J**	18,000 U	3,300 U	2,100 U	2,100 U	2,900 U	26,000 U	17,000 U	670 U
Benzene	ug/kg	**7,400**	**8,400**	**26,000**	1,900 UJ	**840 J**	**6,100**	1,800 U	**1,200 J**	**11,000**	**8,600**	**39,000**	**1,800**	1,100 U	**1,300**	**2,400**	**41,000**	**24,000**	330 U
Bromochloromethane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Bromodichloromethane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Bromoform	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Bromomethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Carbon disulfide	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Carbon tetrachloride	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Chlorobenzene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Chloroethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Chloroform	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Chloromethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	**810 J**	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
cis-1,2-dichloroethylene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
cis-1,3-dichloropropene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Cyclohexane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Dibromochloromethane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Dichlorodifluoromethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Ethylbenzene	ug/kg	**28,000**	**99,000**	**110,000**	**2,900 J**	**2,900**	**18,000**	**4,200**	**6,900**	**13,000**	**3,200**	**150,000**	**28,000**	**12,000**	**11,000**	**17,000**	**210,000**	**160,000**	**1,000**
Isopropylbenzene (cumene)	ug/kg	**3,400**	**17,000**	**20,000**	**1,100 J**	**570 J**	**2,800**	**1,000 J**	**2,500**	**1,300**	**800 J**	**22,000**	**5,800**	**1,400**	**2,600**	**3,700**	**24,000**	**24,000**	**290 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131
Sample Number:		GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3
Sample Depth:		2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3
Sample Date:		4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**25,000**	**64,000**	**95,000**	1,900 UJ	**1,700**	**13,000**	**1,200 J**	**6,100**	**8,500**	**2,300**	**120,000**	**13,000**	**7,100**	**10,000**	**18,000**	**210,000**	**130,000**	**240 J**
Methyl acetate	ug/kg	**600 J**	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	**1,400 J**	**2,300**	**570 J**	**1,100**	9,000 U	1,700 U	**530 J**	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Methyl ethyl ketone (2-butanone)	ug/kg	2,300 U	8,600 U	10,000 U	3,800 UJ	**2,100 J**	**1,400 J**	3,600 U	4,500 U	1,800 U	**910 J**	18,000 U	3,300 U	**1,100 J**	**1,300 J**	2,900 U	26,000 U	17,000 U	670 U
Methyl isobutyl ketone	ug/kg	2,300 U	8,600 U	10,000 U	3,800 UJ	2,400 U	2,800 U	3,600 U	4,500 U	1,800 U	2,300 U	18,000 U	3,300 U	2,100 U	2,100 U	2,900 U	26,000 U	17,000 U	670 U
Methylcyclohexane	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	**620 J**	13,000 U	8,600 U	330 U
Methylene chloride	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**13,000**	**40,000**	**50,000**	**700 J**	**1,200**	**8,200**	**1,500 J**	**3,000**	**5,500**	**1,300**	**61,000**	**10,000**	**4,400**	**5,900**	**9,900**	**100,000**	**65,000**	**360**
Styrene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	**38,000**	8,600 U	330 U
Tert-butyl methyl ether	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Tetrachloroethylene(PCE)	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Toluene	ug/kg	1,100 U	**4,700**	**7,400**	1,900 UJ	1,200 U	**1,800**	1,800 U	2,300 U	**1,100**	**720 J**	9,000 U	1,700 U	1,100 U	**3,200**	**6,800**	**150,000**	**91,000**	330 U
trans-1,2-dichloroethene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
trans-1,3-dichloropropene	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Trichloroethylene (TCE)	ug/kg	1,100 U	4,300 U	5,100 U	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Trichlorofluoromethane	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U
Vinyl chloride	ug/kg	1,100 UJ	4,300 U	5,100 UJ	1,900 UJ	1,200 U	1,400 U	1,800 U	2,300 U	890 U	1,100 U	9,000 U	1,700 U	1,100 U	1,000 U	1,500 U	13,000 U	8,600 U	330 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133
Sample Number:		GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0
Sample Depth:		0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6
Sample Date:		3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,1,2,2-tetrachloroethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,1,2-trichloroethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,1-dichloroethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,1-dichloroethene	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,2,3-trichlorobenzene	ug/kg	12 UJ	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 UJ	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,2,4-trichlorobenzene	ug/kg	12 UJ	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 UJ	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,2-dibromo-3-chloropropane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,2-dibromoethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,2-dichlorobenzene	ug/kg	12 UJ	12,000 U	6,100 U	11,000 U	**340 J**	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	**27 J**	17,000 U	9,900 U	3,500 U	450 U	1,100 U	**330 J**
1,2-dichloroethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,2-dichloropropane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,3-dichlorobenzene	ug/kg	**1.3 J**	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	**15 J**	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
1,4-dichlorobenzene	ug/kg	**2.3 J**	12,000 U	6,100 U	11,000 U	**340 J**	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	**28 J**	17,000 U	9,900 U	3,500 U	**800**	**2,000**	**360 J**
1,4-dioxane (p-dioxane)	ug/kg	240 UR	240,000 UR	120,000 UR	210,000 UR	19,000 UR	11,000 UR	63,000 UR	31,000 UR	180,000 UR	48,000 UR	16,000 UR	150 UR	340,000 UR	200,000 UR	69,000 UR	8,900 UR	22,000 UR	14,000 UR
2-hexanone	ug/kg	24 U	24,000 U	12,000 U	21,000 U	1,900 U	1,100 U	6,300 U	3,100 U	18,000 U	4,800 U	1,600 U	15 U	34,000 U	20,000 U	6,900 U	890 U	2,200 U	1,400 U
Acetone	ug/kg	**230**	24,000 U	12,000 U	21,000 U	1,100 U	1,100 U	6,300 U	3,100 U	18,000 U	4,800 U	1,600 U	**130**	34,000 U	20,000 U	6,900 U	890 U	4,200 U	1,400 U
Benzene	ug/kg	**34**	**30,000**	**13,000**	**11,000**	940 U	**470 J**	**3,300**	**1,800**	**10,000**	**2,600**	**560 J**	**8.8 J**	**64,000**	**19,000**	**9,300**	450 U	1,100 U	710 U
Bromochloromethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Bromodichloromethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Bromoform	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	**1,500 J**	8,800 U	2,400 U	**2,000**	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Bromomethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	**450 J**	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Carbon disulfide	ug/kg	**13**	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	**17**	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Carbon tetrachloride	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Chlorobenzene	ug/kg	12 UJ	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 UJ	17,000 U	9,900 U	3,500 U	**200 J**	**400 J**	710 U
Chloroethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Chloroform	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Chloromethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
cis-1,2-dichloroethylene	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
cis-1,3-dichloropropene	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Cyclohexane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	**300 J**	3,200 U	1,500 U	8,800 U	2,400 U	810 U	**230 J**	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Dibromochloromethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Dichlorodifluoromethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Ethylbenzene	ug/kg	**80**	**210,000**	**96,000**	**91,000**	**3,700**	**6,200**	**39,000**	**30,000**	**100,000**	**30,000**	**11,000**	**36**	**430,000**	**200,000**	**63,000**	450 U	**390 J**	**2,600**
Isopropylbenzene (cumene)	ug/kg	**11 J**	**14,000**	**7,700**	**13,000**	**930 J**	**1,500**	**5,800**	**5,100**	**11,000**	**4,000**	**1,700**	**240**	**49,000**	**25,000**	**12,000**	**220 J**	**880 J**	**910**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133
Sample Number:		GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0
Sample Depth:		0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6
Sample Date:		3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**14**	**110,000**	**59,000**	**18,000**	**3,800**	**6,700**	**34,000**	**26,000**	**74,000**	**22,000**	**8,400**	**13**	**320,000**	**160,000**	**61,000**	**640**	**2,000**	**2,500**
Methyl acetate	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	**480**	**1,500**	**690 J**
Methyl ethyl ketone (2-butanone)	ug/kg	**69**	24,000 U	12,000 U	21,000 U	**620 J**	**340 J**	6,300 U	3,100 U	18,000 U	4,800 U	1,600 U	**46**	34,000 U	20,000 U	6,900 U	**340 J**	**1,700 J**	**680 J**
Methyl isobutyl ketone	ug/kg	24 U	24,000 U	12,000 U	21,000 U	1,900 U	1,100 U	6,300 U	3,100 U	18,000 U	4,800 U	1,600 U	15 U	34,000 U	20,000 U	6,900 U	890 U	2,200 U	1,400 U
Methylcyclohexane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	**990**	3,200 U	**1,100 J**	8,800 U	2,400 U	810 U	**140 J**	17,000 U	9,900 U	3,500 U	450 U	**440 J**	710 U
Methylene chloride	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**17**	**52,000**	**27,000**	**42,000**	**2,200**	**3,700**	**18,000**	**13,000**	**37,000**	**12,000**	**4,400**	**5.8 J**	**160,000**	**75,000**	**32,000**	**620**	**2,100**	**2,300**
Styrene	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Tert-butyl methyl ether	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Tetrachloroethylene(PCE)	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Toluene	ug/kg	12 U	**110,000**	**39,000**	11,000 U	940 U	**1,400**	**12,000**	**9,100**	**47,000**	**1,700 J**	**850**	7.7 U	**190,000**	9,900 U	**2,600 J**	450 U	1,100 U	710 U
trans-1,2-dichloroethene	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
trans-1,3-dichloropropene	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Trichloroethylene (TCE)	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Trichlorofluoromethane	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U
Vinyl chloride	ug/kg	12 U	12,000 U	6,100 U	11,000 U	940 U	560 U	3,200 U	1,500 U	8,800 U	2,400 U	810 U	7.7 U	17,000 U	9,900 U	3,500 U	450 U	1,100 U	710 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD133	GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
Sample Number:		GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0
Sample Depth:		6-7.8	0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
1,1,2,2-tetrachloroethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
1,1,2-trichloroethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
1,1-dichloroethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
1,1-dichloroethene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
1,2,3-trichlorobenzene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 UR	15 U	890 U	5.2 U
1,2,4-trichlorobenzene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 UR	15 U	890 U	5.2 U
1,2-dibromo-3-chloropropane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 UR	15 U	890 U	5.2 U
1,2-dibromoethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
1,2-dichlorobenzene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	**310 J**	800 U	930 U	5.2 U	18 U	**8.8 J**	**19**	890 U	5.2 U
1,2-dichloroethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
1,2-dichloropropane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
1,3-dichlorobenzene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	**3.2 J**	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 UR	15 U	890 U	5.2 U
1,4-dichlorobenzene	ug/kg	**220 J**	**4.1 J**	4,700 U	6,400 U	9.2 U	**20**	520 U	**79**	**670**	**650**	800 U	930 U	5.2 U	18 U	**20 J**	**46**	890 U	5.2 U
1,4-dioxane (p-dioxane)	ug/kg	15,000 UR	120 UR	95,000 UR	130,000 UR	180 UR	160 UR	10,000 UR	150 UR	11,000 UR	11,000 UR	16,000 UR	19,000 UR	100 UR	360 UR	210 UR	300 UR	18,000 UR	100 UR
2-hexanone	ug/kg	1,500 U	12 U	9,500 U	13,000 U	18 U	16 U	1,000 U	15 U	1,100 U	1,100 U	1,600 U	1,900 U	10 U	36 U	21 U	30 U	1,800 U	10 U
Acetone	ug/kg	1,500 U	12 U	9,500 U	13,000 U	**58**	**200**	1,000 U	**360**	1,100 U	1,500 U	1,600 U	1,900 U	**31**	**460**	**320**	**870**	1,800 U	**24**
Benzene	ug/kg	740 U	5.8 U	**11,000**	**12,000**	9.2 U	**84**	520 U	**100**	570 U	**230 J**	**1,700**	930 U	5.2 U	**9.4 J**	10 U	**540**	**490 J**	5.2 U
Bromochloromethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Bromodichloromethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Bromoform	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 UR	15 U	890 U	5.2 U
Bromomethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 UJ	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Carbon disulfide	ug/kg	740 U	**2.7 J**	4,700 U	6,400 U	**4.7 J**	**20**	520 UJ	**15**	570 U	570 U	800 U	930 U	**5.3**	**13 J**	**8.4 J**	**22**	890 U	**12**
Carbon tetrachloride	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
Chlorobenzene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	**6.9 J**	520 U	**34**	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	**8.4 J**	890 U	5.2 U
Chloroethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 UJ	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Chloroform	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Chloromethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 UJ	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
cis-1,2-dichloroethylene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
cis-1,3-dichloropropene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
Cyclohexane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	**17 J**	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Dibromochloromethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Dichlorodifluoromethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 UJ	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Ethylbenzene	ug/kg	**3,000**	**13**	**96,000**	**120,000**	**3.8 J**	**13**	520 U	**6.8 J**	**1,100**	**800**	**8,800**	930 U	5.2 U	**7.9 J**	**2.3 J**	**10 J**	**7,100**	5.2 U
Isopropylbenzene (cumene)	ug/kg	**1,600**	**2.6 J**	**16,000**	**18,000**	**1 J**	**68**	520 U	**34**	**220 J**	**240 J**	**1,000**	**970**	**11**	**5.7 J**	**67**	**120**	**2,200**	5.2 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD133	GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
Sample Number:		GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0
Sample Depth:		6-7.8	0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**1,800**	**8.6**	**39,000**	**91,000**	**1.6 J**	**35**	520 U	**150**	**3,300**	**970**	**6,100**	930 U	**2.6 J**	**3.6 J**	**47**	**240**	**4,100**	5.2 U
Methyl acetate	ug/kg	**510 J**	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	**830**	**1,100**	**750 J**	**550 J**	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	1,500 U	12 U	9,500 U	13,000 U	18 U	**55**	1,000 U	**120**	1,100 U	**580 J**	**340 J**	**1,100 J**	10 U	**140**	**99**	**320**	**830 J**	10 U
Methyl isobutyl ketone	ug/kg	1,500 U	12 U	9,500 U	13,000 U	18 U	16 U	1,000 U	15 U	1,100 U	1,100 U	1,600 U	1,900 U	10 U	36 U	21 U	30 U	1,800 U	10 U
Methylcyclohexane	ug/kg	**540 J**	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	**130 J**	570 U	570 U	800 U	930 U	5.2 U	18 U	**29 J**	**180**	890 U	5.2 U
Methylene chloride	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	**2,500**	**5.6 J**	**39,000**	**47,000**	**1.2 J**	**20**	520 U	**110**	**900**	**490 J**	**3,700**	930 U	**1.6 J**	**2.5 J**	**53**	**200**	**4,100**	5.2 U
Styrene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Tert-butyl methyl ether	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
Tetrachloroethylene(PCE)	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Toluene	ug/kg	740 U	5.8 U	**5,300**	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	**8.2**	18 U	10 U	15 U	890 U	5.2 U
trans-1,2-dichloroethene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
trans-1,3-dichloropropene	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
Trichloroethylene (TCE)	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U
Trichlorofluoromethane	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 UJ
Vinyl chloride	ug/kg	740 U	5.8 U	4,700 U	6,400 U	9.2 U	8.2 U	520 U	7.5 U	570 U	570 U	800 U	930 U	5.2 U	18 U	10 U	15 U	890 U	5.2 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141
Sample Number:		GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0
Sample Depth:		2-4	4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2
Sample Date:		4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
1,1,2,2-tetrachloroethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 U	17 U	15 UJ	14 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
1,1,2-trichloroethane	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
1,1-dichloroethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
1,1-dichloroethene	ug/kg	5.5 U	5.4 U	14 U	20 UJ	15 UJ	11 UJ	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 U	17 UJ	15 UJ	14 U
1,2,3-trichlorobenzene	ug/kg	5.5 UJ	5.4 U	14 U	20 UJ	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 UR
1,2,4-trichlorobenzene	ug/kg	5.5 UJ	5.4 U	14 U	20 UJ	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 UR
1,2-dibromo-3-chloropropane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 U	17 U	15 UJ	14 UR
1,2-dibromoethane	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
1,2-dichlorobenzene	ug/kg	5.5 UJ	5.4 U	14 U	20 UJ	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 UR
1,2-dichloroethane	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
1,2-dichloropropane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
1,3-dichlorobenzene	ug/kg	5.5 UJ	5.4 U	14 U	20 UJ	**3.3 J**	**2.4 J**	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 UR
1,4-dichlorobenzene	ug/kg	5.5 UJ	5.4 U	14 U	20 UJ	**8.4 J**	**6.2 J**	5 U	1,100 U	**290 J**	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	**5 J**	**26 J**
1,4-dioxane (p-dioxane)	ug/kg	110 UR	110 UR	280 UR	400 UR	300 UR	210 UR	100 UR	21,000 UR	13,000 UR	12,000 UR	150,000 UR	160,000 UR	160,000 UR	380,000 UR	180 UR	330 UR	310 UR	290 UR
2-hexanone	ug/kg	11 U	11 U	28 U	40 U	30 U	21 U	10 U	2,100 U	1,300 U	1,200 U	15,000 U	16,000 U	16,000 U	38,000 U	18 U	33 U	31 U	29 U
Acetone	ug/kg	**44**	**50**	**500**	**410**	**360**	**200**	**46**	2,100 U	1,300 U	1,200 U	15,000 U	16,000 U	16,000 U	38,000 U	**120**	**460**	**450**	**560**
Benzene	ug/kg	**0.68 J**	**1.1 J**	14 U	**14 J**	**21**	**17**	5 U	**510 J**	640 U	**450 J**	**24,000**	**58,000**	**54,000**	**95,000**	9.1 UJ	17 UJ	**14 J**	**20 J**
Bromochloromethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Bromodichloromethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Bromoform	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 UR
Bromomethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
Carbon disulfide	ug/kg	**5.3 J**	**7.7**	**19**	**20 J**	**12 J**	**9.8 J**	**7.2**	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	**16 J**	**29 J**	**16 J**	**49**
Carbon tetrachloride	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
Chlorobenzene	ug/kg	5.5 UJ	5.4 U	14 U	20 UJ	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	**12 J**
Chloroethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
Chloroform	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Chloromethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
cis-1,2-dichloroethylene	ug/kg	5.5 U	5.4 U	14 U	20 UJ	15 UJ	11 UJ	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 U	17 UJ	15 UJ	14 U
cis-1,3-dichloropropene	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Cyclohexane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Dibromochloromethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Dichlorodifluoromethane	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
Ethylbenzene	ug/kg	**2.3 J**	**10**	14 U	**23**	**74**	**18**	5 U	**25,000**	**2,400**	**4,800**	**180,000**	**200,000**	**240,000**	**500,000**	9.1 UJ	**19 J**	**43 J**	**52**
Isopropylbenzene (cumene)	ug/kg	**1.5 J**	**4.8 J**	14 U	20 U	**20**	**16**	5 U	**5,500**	**450 J**	**960**	**43,000**	**40,000**	**36,000**	**100,000**	9.1 UJ	**6.3 J**	**9 J**	**21**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141
Sample Number:		GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0
Sample Depth:		2-4	4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2
Sample Date:		4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**1.3 J**	**4.8 J**	14 U	**46**	**83**	**61**	5 U	**7,100**	**2,200**	**4,200**	**170,000**	**180,000**	**180,000**	**440,000**	9.1 UJ	**31 J**	**50 J**	**73**
Methyl acetate	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	**780**	**320 J**	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
Methyl ethyl ketone (2-butanone)	ug/kg	**13**	**11**	**120**	**220**	**200**	**110**	**13**	2,100 U	1,300 U	1,200 U	15,000 U	16,000 U	16,000 U	38,000 U	**27**	**120**	**120**	**180**
Methyl isobutyl ketone	ug/kg	11 U	11 U	28 U	40 U	30 U	21 U	10 U	2,100 U	1,300 U	1,200 U	15,000 U	16,000 U	16,000 U	38,000 U	18 U	33 U	31 U	29 U
Methylcyclohexane	ug/kg	5.5 U	**4 J**	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	**83 J**	15 UJ	**140 J**
Methylene chloride	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**1.9 J**	**7**	14 U	**13 J**	**49**	**39**	5 U	**11,000**	**1,300**	**2,400**	**87,000**	**94,000**	**91,000**	**250,000**	9.1 UJ	**21 J**	**30 J**	**53**
Styrene	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Tert-butyl methyl ether	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
Tetrachloroethylene(PCE)	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Toluene	ug/kg	**67**	**23**	14 U	20 U	15 U	11 U	5 U	2,100 U	640 U	580 U	**120,000**	**170,000**	**190,000**	**350,000**	9.1 UJ	17 UJ	15 UJ	14 U
trans-1,2-dichloroethene	ug/kg	5.5 U	5.4 U	14 U	20 UJ	15 UJ	11 UJ	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 U	17 UJ	15 UJ	14 U
trans-1,3-dichloropropene	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	14 U
Trichloroethylene (TCE)	ug/kg	5.5 U	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 U	7,500 U	8,200 U	8,000 U	19,000 U	9.1 UJ	17 UJ	15 UJ	**2.4 J**
Trichlorofluoromethane	ug/kg	5.5 UJ	5.4 U	14 U	20 U	15 U	11 U	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U
Vinyl chloride	ug/kg	5.5 U	5.4 U	14 UJ	20 UJ	15 UJ	11 UJ	5 U	1,100 U	640 U	580 UJ	7,500 UJ	8,200 UJ	8,000 U	19,000 UJ	9.1 UJ	17 UJ	15 UJ	14 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:		GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E
Sample Depth:		2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	980 U	15 U	9.7 UJ	6.6 UJ	5.2 U	7.6 U	9 U
1,1,2,2-tetrachloroethane	ug/kg	16 U	630 U	12 U	7.1 U	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	980 U	15 U	9.7 U	430 U	5.2 U	7.6 U	9 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	13 U	15 U	9.7 UJ	6.6 UJ	5.2 U	7.6 U	9 U
1,1,2-trichloroethane	ug/kg	16 UJ	630 U	12 UJ	7.1 UJ	18 UJ	15 UJ	2,800 U	9,600 U	11 U	13 U	14 UJ	980 U	15 UJ	9.7 UJ	430 U	5.2 U	7.6 UJ	9 UJ
1,1-dichloroethane	ug/kg	16 U	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	13 U	15 U	9.7 UJ	430 U	5.2 U	7.6 U	9 U
1,1-dichloroethene	ug/kg	16 U	630 U	12 U	7.1 U	18 U	15 U	2,800 U	9,600 U	11 U	13 U	14 U	13 U	15 U	9.7 U	430 U	5.2 U	7.6 U	9 U
1,2,3-trichlorobenzene	ug/kg	16 UR	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 UJ	1,000 U	14 UJ	980 U	1,100 U	720 U	430 U	5.2 UJ	7.6 UJ	9 UJ
1,2,4-trichlorobenzene	ug/kg	16 UR	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 UJ	1,000 U	14 UJ	980 U	1,100 U	720 U	430 U	5.2 UJ	7.6 UJ	9 UJ
1,2-dibromo-3-chloropropane	ug/kg	16 UR	630 U	12 U	7.1 U	18 UJ	15 U	2,800 U	9,600 U	11 U	1,000 U	14 U	980 U	1,100 U	720 U	430 U	5.2 U	7.6 U	9 U
1,2-dibromoethane	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	980 U	15 U	9.7 UJ	6.6 UJ	5.2 U	7.6 U	9 U
1,2-dichlorobenzene	ug/kg	16 UR	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	1,000 U	**62 J**	**83 J**	**120 J**	**10 J**	430 U	5.2 U	7.6 UJ	9 UJ
1,2-dichloroethane	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	13 U	15 U	9.7 UJ	6.6 UJ	5.2 U	7.6 U	9 U
1,2-dichloropropane	ug/kg	16 U	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	980 U	15 U	9.7 U	430 U	5.2 U	7.6 U	9 U
1,3-dichlorobenzene	ug/kg	**15 J**	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	**0.83 J**	**14 J**	14 UJ	980 U	1,100 U	720 U	430 U	**0.7 J**	7.6 UJ	9 UJ
1,4-dichlorobenzene	ug/kg	**18 J**	**450 J**	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	**28**	**410 J**	**270 J**	**800 J**	**640 J**	**470 J**	**220 J**	**64**	**36 J**	**17 J**
1,4-dioxane (p-dioxane)	ug/kg	330 UR	13,000 UR	240 UR	140 UR	360 UR	300 UR	55,000 UR	190,000 UR	220 R	270 R	270 R	250 R	300 R	190 R	130 R	100 R	150 R	180 R
2-hexanone	ug/kg	33 U	1,300 U	24 U	14 U	36 U	30 U	5,500 U	19,000 U	22 U	27 U	27 U	980 U	30 U	19 U	13 U	10 U	15 U	18 U
Acetone	ug/kg	**620**	1,300 U	**270**	**67**	**210**	**260**	5,500 U	19,000 U	**210**	**840**	**840**	**870 J**	**1,200 J**	**350**	**130**	**110**	**200**	**370**
Benzene	ug/kg	**58**	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	**15,000**	**25**	**240 J**	**350**	**430 J**	**450 J**	**13**	**77 J**	**3.3 J**	**29**	**62**
Bromochloromethane	ug/kg	16 U	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	13 U	15 U	9.7 UJ	430 U	5.2 U	7.6 U	9 U
Bromodichloromethane	ug/kg	16 U	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	980 U	15 U	9.7 U	430 U	5.2 U	7.6 U	9 U
Bromoform	ug/kg	16 UR	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	1,000 U	14 U	980 U	1,100 U	720 U	430 U	5.2 U	7.6 U	9 U
Bromomethane	ug/kg	16 U	630 U	12 U	7.1 UJ	18 U	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 U	13 U	15 U	9.7 U	6.6 UJ	5.2 U	7.6 U	9 U
Carbon disulfide	ug/kg	**44**	630 U	**20**	**8**	**38**	**35**	2,800 UJ	9,600 UJ	**12**	**32**	**32**	**53**	**40**	**27**	**13 J**	**15**	**38**	**41**
Carbon tetrachloride	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	980 U	15 U	9.7 UJ	6.6 UJ	5.2 U	7.6 U	9 U
Chlorobenzene	ug/kg	**8.3 J**	630 U	12 UJ	7.1 UJ	18 UJ	**2.3 J**	2,800 U	9,600 U	**9.3 J**	**88**	**180 J**	**400 J**	**350**	**860 J**	**1,500 J**	**130 J**	**860 J**	**6,200 J**
Chloroethane	ug/kg	16 U	630 U	12 U	7.1 U	18 U	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 U	13 U	15 U	9.7 U	6.6 UJ	5.2 U	7.6 U	9 U
Chloroform	ug/kg	16 U	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	13 U	15 U	9.7 UJ	430 U	5.2 U	7.6 U	9 U
Chloromethane	ug/kg	16 U	630 U	12 U	7.1 U	18 U	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 U	13 U	15 U	9.7 U	6.6 UJ	5.2 U	7.6 U	9 U
cis-1,2-dichloroethylene	ug/kg	16 U	630 U	12 U	7.1 U	18 U	15 U	2,800 U	9,600 U	11 U	13 U	14 U	13 U	15 U	**11**	430 U	5.2 U	7.6 U	9 U
cis-1,3-dichloropropene	ug/kg	16 UJ	630 U	12 UJ	7.1 UJ	18 UJ	15 UJ	2,800 U	9,600 U	11 U	13 U	14 UJ	980 U	15 UJ	9.7 UJ	430 U	5.2 U	7.6 UJ	9 UJ
Cyclohexane	ug/kg	16 U	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	980 U	15 U	**19**	**22 J**	**2.2 J**	**5.8 J**	**3.4 J**
Dibromochloromethane	ug/kg	16 U	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	980 U	15 U	9.7 UJ	430 U	5.2 U	7.6 U	9 U
Dichlorodifluoromethane	ug/kg	16 U	630 U	12 U	7.1 U	18 U	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 U	13 U	15 U	9.7 U	6.6 UJ	5.2 U	7.6 U	9 U
Ethylbenzene	ug/kg	**3.7 J**	**5,700**	**5 J**	7.1 UJ	18 UJ	**7.1 J**	**40,000**	**190,000**	**890 J**	**3,100 J**	**220**	**130 J**	**60**	**49 J**	**130 J**	**7.6**	**17 J**	**5.2 J**
Isopropylbenzene (cumene)	ug/kg	**41**	**1,800**	**1.5 J**	7.1 UJ	18 UJ	**3.9 J**	**13,000**	**44,000**	**93**	**660 J**	**140**	**190 J**	**160**	9.7 UJ	**33 J**	**1.7 J**	**7 J**	**7.1 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:		GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E
Sample Depth:		2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**100**	**2,300**	**4.2 J**	7.1 UJ	18 UJ	**8.2 J**	**14,000**	**170,000**	**410**	**810 J**	**110**	**170 J**	**180**	**17 J**	**46 J**	**2.4 J**	**9.3 J**	**11**
Methyl acetate	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	13 U	15 U	**9.2 J**	6.6 UJ	5.2 U	7.6 U	9 U
Methyl ethyl ketone (2-butanone)	ug/kg	**220**	1,300 U	**50**	**14 J**	**33 J**	**95**	5,500 U	19,000 U	**52**	**230**	**270**	**610**	**720**	**100**	**37**	**26**	**52**	**84**
Methyl isobutyl ketone	ug/kg	33 U	1,300 U	24 U	14 U	36 U	30 U	5,500 U	19,000 U	22 U	27 U	27 U	980 U	30 U	19 U	13 U	10 U	15 U	18 U
Methylcyclohexane	ug/kg	**480**	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	**2.4 J**	**17**	14 U	**120 J**	**200 J**	**50**	**72 J**	5.2 U	**14**	**9.5**
Methylene chloride	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	13 U	15 U	9.7 UJ	6.6 UJ	5.2 U	7.6 U	9 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**91**	**2,900**	**1.9 J**	7.1 UJ	18 UJ	**3 J**	**19,000**	**92,000**	**320**	**1,200 J**	**340**	**370 J**	**220**	**9.8 J**	**50 J**	**2.3 J**	**13 J**	**16**
Styrene	ug/kg	16 U	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	980 U	15 U	9.7 UJ	430 U	5.2 U	7.6 UJ	9 U
Tert-butyl methyl ether	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	**1.8 J**	**14**	**23 J**	**34**	**28**	9.7 UJ	6.6 UJ	5.2 U	7.6 U	9 U
Tetrachloroethylene(PCE)	ug/kg	16 U	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	**1.4 J**	13 U	14 U	980 U	15 U	**290 J**	**11 J**	**16**	**2.8 J**	9 U
Toluene	ug/kg	16 U	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	**63,000**	**20**	**160**	**27**	**36 J**	**25**	**860 J**	**43 J**	**16**	**9.4 J**	**4.1 J**
trans-1,2-dichloroethene	ug/kg	16 U	630 U	12 U	7.1 U	18 U	15 U	2,800 U	9,600 U	11 U	13 U	14 U	13 U	15 U	9.7 U	430 U	5.2 U	7.6 U	9 U
trans-1,3-dichloropropene	ug/kg	16 UJ	630 U	12 UJ	7.1 UJ	18 UJ	15 UJ	2,800 U	9,600 U	11 U	13 U	14 UJ	980 U	15 UJ	9.7 UJ	430 U	5.2 U	7.6 UJ	9 UJ
Trichloroethylene (TCE)	ug/kg	16 U	630 U	12 UJ	7.1 UJ	18 UJ	15 U	2,800 U	9,600 U	11 U	13 U	14 U	980 U	15 U	**60 J**	430 U	5.2 U	7.6 UJ	9 U
Trichlorofluoromethane	ug/kg	16 UJ	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 UJ	13 U	15 U	**10**	6.6 UJ	5.2 U	7.6 U	9 U
Vinyl chloride	ug/kg	16 U	630 U	12 U	7.1 UJ	18 UJ	15 U	2,800 UJ	9,600 UJ	11 U	13 U	14 U	13 U	15 U	9.7 U	6.6 UJ	5.2 U	7.6 U	9 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F
Sample Depth:		4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 UJ	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
1,1,2,2-tetrachloroethane	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 U	16 U	9.7 U	18 U	17 UJ	15 UJ	1,300 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 UJ	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
1,1,2-trichloroethane	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 UJ	16 UJ	9.7 UJ	18 U	17 U	15 UJ	1,300 U
1,1-dichloroethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 UJ	16 U	9.7 U	18 UJ	17 UJ	15 UJ	1,300 U
1,1-dichloroethene	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
1,2,3-trichlorobenzene	ug/kg	710 U	470 U	450 U	16 U	1,500 U	1,600 UJ	1,200 U	1,200 U	1,300 U	1,100 U	860 U	4.9 U	16 UJ	9.7 UJ	18 U	17 R	15 R	1,300 U
1,2,4-trichlorobenzene	ug/kg	710 U	470 U	450 U	16 U	1,500 U	1,600 UJ	1,200 U	1,200 U	1,300 U	1,100 U	860 U	4.9 U	16 UJ	9.7 UJ	18 U	17 R	15 R	1,300 U
1,2-dibromo-3-chloropropane	ug/kg	710 U	470 U	450 U	16 U	1,500 U	1,600 UJ	1,200 U	1,200 U	1,300 U	1,100 U	860 U	4.9 U	16 U	9.7 U	18 U	17 R	15 R	1,300 U
1,2-dibromoethane	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 UJ	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
1,2-dichlorobenzene	ug/kg	**55 J**	470 U	**15 J**	16 U	1,500 U	1,600 UJ	1,200 U	1,200 U	1,300 U	**37 J**	**77 J**	4.9 U	16 UJ	9.7 UJ	18 U	17 R	15 R	1,300 U
1,2-dichloroethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 UJ	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
1,2-dichloropropane	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 U	16 U	9.7 U	18 U	17 U	15 U	1,300 U
1,3-dichlorobenzene	ug/kg	710 U	470 U	450 U	16 U	1,500 U	1,600 UJ	1,200 U	1,200 U	1,300 U	1,100 U	860 U	4.9 U	16 UJ	9.7 UJ	18 U	17 R	15 R	1,300 U
1,4-dichlorobenzene	ug/kg	**910 J**	**220 J**	**190 J**	**45**	**370 J**	**470 J**	**290 J**	**1,700 J**	**1,300 J**	**470 J**	**380 J**	**3.2 J**	16 UJ	9.7 UJ	**87**	**560 J**	**71 J**	**1,500**
1,4-dioxane (p-dioxane)	ug/kg	180 R	150 R	130 R	330 R	290 R	440 R	310 R	290 R	330 R	280 R	240 R	97 R	330 R	190 R	360 R	340 R	300 R	26,000 R
2-hexanone	ug/kg	1,400 U	15 U	13 U	33 U	29 U	44 UJ	31 U	2,300 U	2,600 U	28 U	1,700 U	9.7 U	33 U	19 U	36 U	34 U	30 U	2,600 U
Acetone	ug/kg	**1,000 J**	**1,400 J**	**540 J**	**350**	**550**	**1,200 J**	**830**	**1,700 J**	**1,700 J**	**1,800 J**	**2,600 J**	**34**	**260**	**490**	**340**	**1,100**	**280**	**1,500 J**
Benzene	ug/kg	**320 J**	**110**	**200**	**30**	**100 J**	**220 J**	**140 J**	**430 J**	**290 J**	**550 J**	**1,300 J**	4.9 U	16 U	**110**	**270**	**1,000 J**	**200 J**	**1,700**
Bromochloromethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 UJ	16 U	9.7 U	18 UJ	17 UJ	15 UJ	1,300 U
Bromodichloromethane	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 U	16 U	9.7 U	18 U	17 U	15 U	1,300 U
Bromoform	ug/kg	710 U	470 U	450 U	16 U	1,500 U	1,600 UJ	1,200 U	1,200 U	1,300 U	1,100 U	860 U	4.9 UJ	16 U	9.7 U	18 UJ	17 R	15 R	1,300 U
Bromomethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
Carbon disulfide	ug/kg	**24**	**15**	**8.6**	**8.5 J**	**25**	**45 J**	**28**	**44**	**46**	**36**	**30**	**1 J**	**4.2 J**	**22**	**7.6 J**	**16 J**	**6.6 J**	46 U
Carbon tetrachloride	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 UJ	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
Chlorobenzene	ug/kg	**2,700 J**	**530 J**	**200 J**	**50**	**480**	**750 J**	**1,700 J**	**1,700 J**	**300 J**	**210**	**190 J**	**0.75 J**	16 UJ	**5.1 J**	18 U	**41**	**43 J**	**6,400**
Chloroethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
Chloroform	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 UJ	16 U	9.7 U	18 UJ	17 UJ	15 UJ	1,300 U
Chloromethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
cis-1,2-dichloroethylene	ug/kg	**1.7 J**	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
cis-1,3-dichloropropene	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 UJ	16 UJ	9.7 UJ	18 U	17 U	15 UJ	1,300 U
Cyclohexane	ug/kg	**120 J**	**17**	**15**	16 U	14 U	22 UJ	16 U	**120 J**	**54 J**	**80 J**	**90 J**	4.9 U	16 U	9.7 U	18 U	17 U	15 U	1,300 U
Dibromochloromethane	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 UJ	16 U	9.7 U	18 UJ	17 UJ	15 UJ	1,300 U
Dichlorodifluoromethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
Ethylbenzene	ug/kg	**53 J**	**3.3 J**	**8.7**	**10 J**	**140 J**	**78 J**	**75**	**2,000 J**	**540 J**	**96 J**	**26 J**	**0.4 J**	**71**	**5,800 J**	**4,700 J**	**13,000 J**	**32,000 J**	**6,200**
Isopropylbenzene (cumene)	ug/kg	**110 J**	**32**	**50**	**12 J**	**66 J**	**79 J**	**53**	**330 J**	**80 J**	**91 J**	**160 J**	**3.6 J**	**68**	**360**	**620**	**2,400 J**	**6,300 J**	**4,300**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F
Sample Depth:		4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**450 J**	**5.5 J**	**17**	**11 J**	**110 J**	**130 J**	**150**	**1,500 J**	**1,500 J**	**400 J**	**250 J**	**0.45 J**	**3 J**	**1,600 J**	**1,000 J**	**5,600 J**	**19,000 J**	**1,500**
Methyl acetate	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 UJ	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	**430**	**500**	**230**	**120**	**210**	**450 J**	**310**	**670 J**	**680**	**680**	**1,100 J**	**10**	**75**	**110**	**120**	**390**	**95**	670 U
Methyl isobutyl ketone	ug/kg	1,400 U	15 U	13 U	33 U	29 U	44 UJ	31 U	2,300 U	2,600 U	28 U	1,700 U	9.7 U	33 U	19 U	36 U	34 U	30 U	2,600 U
Methylcyclohexane	ug/kg	**380 J**	**130**	**38**	16 U	14 U	22 UJ	**46 J**	**410 J**	**120 J**	**200 J**	**250 J**	4.9 U	16 U	**11**	18 U	17 U	15 U	1,300 U
Methylene chloride	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	**0.63 J**	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	**290 J**	**11**	**15**	**24**	**150 J**	**240 J**	**180**	**3,600 J**	**380 J**	**240 J**	**790 J**	**0.94 J**	**5.6 J**	**2,200 J**	**1,700 J**	**4,900 J**	**13,000 J**	**4,100**
Styrene	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
Tert-butyl methyl ether	ug/kg	9.2 U	**6.1 J**	**6 J**	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	**78**	**0.68 J**	16 UJ	9.7 U	**2.6 J**	**3.8 J**	**1.6 J**	14 UJ
Tetrachloroethylene(PCE)	ug/kg	710 U	7.6 U	6.6 U	16 U	**100 J**	**22 J**	16 U	1,200 U	**26 J**	14 U	860 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
Toluene	ug/kg	**120 J**	**3.4 J**	**3.2 J**	**6.3 J**	**140 J**	**62 J**	**32**	**200 J**	**72 J**	**43 J**	**40 J**	**0.69 J**	**1.6 J**	**25**	**31**	**240**	**55 J**	37 UJ
trans-1,2-dichloroethene	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
trans-1,3-dichloropropene	ug/kg	710 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 UJ	16 UJ	9.7 UJ	18 U	17 U	15 UJ	1,300 U
Trichloroethylene (TCE)	ug/kg	710 U	7.6 U	6.6 U	16 U	**14 J**	22 UJ	16 U	1,200 U	1,300 U	14 U	860 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U
Trichlorofluoromethane	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 UJ	16 UJ	9.7 U	18 UJ	17 UJ	15 UJ	1,300 UJ
Vinyl chloride	ug/kg	9.2 U	7.6 U	6.6 U	16 U	14 U	22 UJ	16 U	15 U	16 U	14 U	12 U	4.9 U	16 U	9.7 U	18 U	17 U	15 UJ	1,300 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3
Sample Number:		FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D	ERT2-3-E
Sample Depth:		4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
1,1,2,2-tetrachloroethane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 U	14 UJ	15 U	14 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
1,1,2-trichloroethane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	1,100 U	15 UJ	14 UJ
1,1-dichloroethane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
1,1-dichloroethene	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 U	14 UJ	15 U	14 U
1,2,3-trichlorobenzene	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 R	10 R	3,600 U	810 U	7.9 R	550 U	11 UJ	12 UJ	14 UJ	15 UJ	960 U
1,2,4-trichlorobenzene	ug/kg	1,100 UJ	820 U	920 U	13 U	15 U	14 U	14 U	9.5 R	10 R	3,600 UJ	810 U	7.9 R	550 U	11 UJ	12 UJ	14 UJ	15 UJ	960 U
1,2-dibromo-3-chloropropane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 R	10 R	3,600 U	810 U	7.9 R	550 U	11 UJ	12 U	14 UJ	15 U	960 U
1,2-dibromoethane	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
1,2-dichlorobenzene	ug/kg	1,100 U	45 UJ	**290 J**	13 U	15 U	14 U	14 U	**37 J**	**52 J**	3,600 U	810 U	**29 J**	550 U	11 UJ	12 UJ	14 UJ	15 UJ	960 U
1,2-dichloroethane	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
1,2-dichloropropane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 U	15 U	14 U
1,3-dichlorobenzene	ug/kg	**38 J**	15 UJ	**340 J**	13 U	**1.5 J**	**3.2 J**	**6.4 J**	**12 J**	**14 J**	28 UJ	**28 J**	**13 J**	550 U	11 UJ	12 UJ	14 UJ	15 UJ	960 U
1,4-dichlorobenzene	ug/kg	**2,100**	**330 J**	**250 J**	**25**	**33**	**88**	**160**	**270 J**	**260 J**	**680 J**	**720 J**	**290 J**	550 U	**29 J**	**8 J**	**18 J**	**32 J**	**200 J**
1,4-dioxane (p-dioxane)	ug/kg	22,000 R	16,000 R	18,000 R	270 R	310 R	280 R	290 R	190 R	210 R	71,000 R	16,000 R	160 R	11,000 R	220 R	240 R	280 R	290 R	280 R
2-hexanone	ug/kg	2,200 U	1,600 U	1,800 U	27 U	31 U	28 U	29 U	19 U	21 U	7,100 U	1,600 U	16 U	1,100 U	22 U	24 U	28 U	29 U	28 U
Acetone	ug/kg	**970 J**	**1,100 J**	**870 J**	**560**	**380**	**630**	**560**	**390**	**880 J**	1,600 UJ	**1,300 J**	**1,200 J**	57 U	**490**	**890**	**700**	**1,200 J**	**1,100**
Benzene	ug/kg	**2,200**	490 UJ	530 UJ	**29**	**47**	**140 J**	**350 J**	**2,200 J**	**2,900 J**	**14,000**	**1,700**	**1,900 J**	**3,500**	11 U	**14**	**49 J**	**190**	**780 J**
Bromochloromethane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
Bromodichloromethane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 U	15 U	14 U
Bromoform	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 R	10 R	3,600 U	810 U	7.9 R	550 U	11 UJ	12 UJ	14 UJ	15 UJ	960 U
Bromomethane	ug/kg	1,100 UJ	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 U	15 U	14 U
Carbon disulfide	ug/kg	**34**	31 UJ	31 U	**7.8 J**	**9.3 J**	**10 J**	**7.4 J**	**9.3 J**	**14**	16 U	**31**	**8**	5 U	**12**	**39**	**30**	**28**	**36**
Carbon tetrachloride	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
Chlorobenzene	ug/kg	**4,300**	87 UJ	110 UJ	**9.5 J**	**15**	**44**	**97**	**68**	**49**	530 UJ	**350 J**	**240**	9.9 UJ	**11 J**	**99 J**	**36 J**	**93 J**	**200**
Chloroethane	ug/kg	1,100 UJ	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 U	15 U	14 U
Chloroform	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
Chloromethane	ug/kg	1,100 UJ	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 U	15 U	14 U
cis-1,2-dichloroethylene	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 U	14 UJ	15 U	14 U
cis-1,3-dichloropropene	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	1,100 U	15 UJ	14 UJ
Cyclohexane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 U	**6 J**	**23 J**
Dibromochloromethane	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
Dichlorodifluoromethane	ug/kg	1,100 UJ	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 U	15 U	14 U
Ethylbenzene	ug/kg	**12,000**	**420 J**	**2,300**	**130**	**260**	**4,800 J**	**6,600 J**	**4,700 J**	**96**	**130,000**	**11,000**	**9,300 J**	**15,000**	**10 J**	**15**	**8.3 J**	**5.9 J**	**74 J**
Isopropylbenzene (cumene)	ug/kg	**5,300**	**2,100**	**3,000**	**60**	**92**	**230**	**430**	**4,300 J**	**2,800 J**	**16,000**	**18,000**	**1,400 J**	**20,000**	**6.8 J**	**6.9 J**	**4.8 J**	**20**	**96 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3
Sample Number:		FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D	ERT2-3-E
Sample Depth:		4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**2,700**	220 UJ	**1,300**	**43**	**110**	**3,100 J**	**2,600 J**	**1,200 J**	**97**	**80,000**	**1,800**	**170**	**2,600**	**4.1 J**	**17**	**10 J**	**16**	**96 J**
Methyl acetate	ug/kg	**1,100**	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	**4.7 J**	**5.9 J**	**3.9 J**	**5.2 J**	14 U
Methyl ethyl ketone (2-butanone)	ug/kg	2,200 U	**790 J**	380 U	**140**	**110**	**200**	**170**	**140**	**340**	570 UJ	**480**	**480**	18 U	**90**	**270**	**220**	**390**	**390**
Methyl isobutyl ketone	ug/kg	2,200 U	1,600 U	1,800 U	27 U	31 U	28 U	29 U	19 U	21 U	7,100 U	1,600 U	16 U	1,100 U	22 U	24 U	28 U	29 U	28 U
Methylcyclohexane	ug/kg	**120 J**	120 UJ	220 UJ	13 U	15 U	14 U	**10 J**	**110 J**	10 U	130 UJ	**6,100**	7.9 U	**5,100**	11 U	12 U	14 U	15 U	**62 J**
Methylene chloride	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**5,700**	**330 J**	**1,200**	**34**	**91**	**400**	**2,400 J**	**3,600 J**	**3,000 J**	**52,000**	**1,900**	**1,400 J**	**3,200**	**3.6 J**	**9.7 J**	**8.6 J**	**38**	**1,100 J**
Styrene	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 UJ	7.9 U	550 UJ	11 UJ	12 U	14 UJ	15 U	14 U
Tert-butyl methyl ether	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	**0.91 J**	**1.2 J**	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
Tetrachloroethylene(PCE)	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 U	14 UJ	15 U	14 U
Toluene	ug/kg	**43 J**	22 UJ	32 UJ	**3 J**	**7.9 J**	**61**	**74**	**50 J**	**39**	**930 J**	**1,200 J**	**27**	450 UJ	**2.4 J**	**2.8 J**	**6.6 J**	**5.3 J**	**23 J**
trans-1,2-dichloroethene	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 U	14 UJ	15 U	14 U
trans-1,3-dichloropropene	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	1,100 U	15 UJ	14 UJ
Trichloroethylene (TCE)	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 U	14 UJ	15 U	14 U
Trichlorofluoromethane	ug/kg	1,100 U	820 U	920 UJ	13 U	15 U	14 U	14 UJ	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 UJ	12 UJ	14 UJ	15 UJ	14 U
Vinyl chloride	ug/kg	1,100 U	820 U	920 U	13 U	15 U	14 U	14 U	9.5 U	10 U	3,600 U	810 U	7.9 U	550 U	11 U	12 U	14 UJ	15 U	14 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2
Sample Number:		ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F
Sample Depth:		4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	12 UJ	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,1,2,2-tetrachloroethane	ug/kg	12 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	12 UJ	12 UJ	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,1,2-trichloroethane	ug/kg	1,000 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 UJ	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,1-dichloroethane	ug/kg	12 U	12 U	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,1-dichloroethene	ug/kg	12 U	12 U	13 UJ	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,2,3-trichlorobenzene	ug/kg	1,000 U	830 U	1,000 U	810 U	8.9 U	630 U	500 U	310 U	4.4 UJ	450 U	510 U	630 U	12 U	13 UJ	15 U	7.2 R	370 U	590 U
1,2,4-trichlorobenzene	ug/kg	1,000 U	830 U	1,000 U	810 U	8.9 U	630 U	500 U	310 U	4.4 UJ	450 U	510 U	630 U	12 U	13 UJ	15 U	7.2 R	370 U	590 U
1,2-dibromo-3-chloropropane	ug/kg	1,000 U	830 U	1,000 U	810 U	8.9 U	630 U	500 U	310 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	370 U	590 U
1,2-dibromoethane	ug/kg	12 UJ	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,2-dichlorobenzene	ug/kg	**32 J**	**170 J**	**110 J**	810 U	8.9 U	**21 J**	500 U	310 U	4.4 UJ	450 U	510 U	630 U	12 U	13 UJ	15 U	7.2 R	370 U	590 U
1,2-dichloroethane	ug/kg	12 UJ	12 UJ	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,2-dichloropropane	ug/kg	12 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
1,3-dichlorobenzene	ug/kg	1,000 U	830 U	1,000 U	810 U	8.9 U	630 U	**6.1 J**	**5.4 J**	4.4 UJ	450 U	510 U	630 U	12 U	13 UJ	**3 J**	7.2 R	370 U	590 U
1,4-dichlorobenzene	ug/kg	**390 J**	**970 J**	**340 J**	**67 J**	8.9 U	**87 J**	**46 J**	**36 J**	4.4 UJ	450 U	11 UJ	10 UJ	12 U	13 UJ	**17**	7.2 R	**65 J**	**160 J**
1,4-dioxane (p-dioxane)	ug/kg	250 R	240 R	21,000 R	170 R	180 R	220 R	89 R	96 R	88 R	9,000 R	10,000 R	13,000 R	250 R	260 R	300 R	140 R	120 R	170 R
2-hexanone	ug/kg	25 U	1,700 U	2,100 U	17 U	18 U	22 U	8.9 U	9.6 U	8.8 U	900 U	1,000 U	1,300 U	25 U	26 U	30 U	14 R	12 U	1,200 U
Acetone	ug/kg	**1,100 J**	**1,800 J**	**1,100 J**	**910 J**	**130**	**140**	**73**	**67**	**26**	**500 J**	900 UJ	810 UJ	**290**	**190**	**780**	14 R	**450**	**1,300 J**
Benzene	ug/kg	**300**	**2,400 J**	**3,300**	**2,900 J**	8.9 U	**26 J**	**140 J**	**100 J**	**22**	450 U	26 UJ	18 UJ	12 U	13 U	**290**	**210 J**	**400 J**	**1,300 J**
Bromochloromethane	ug/kg	12 U	12 U	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Bromodichloromethane	ug/kg	12 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Bromoform	ug/kg	1,000 U	830 U	1,000 U	810 U	8.9 U	630 U	500 U	310 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	370 U	590 U
Bromomethane	ug/kg	12 U	12 U	13 UJ	8.4 UJ	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Carbon disulfide	ug/kg	**41**	**24**	12 UJ	**5.5 J**	**4.4 J**	**17**	**13**	**15**	**6.6**	450 U	9.8 UJ	8.2 UJ	**1.1 J**	**1.9 J**	**17**	7.2 R	**19**	**30 J**
Carbon tetrachloride	ug/kg	12 UJ	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Chlorobenzene	ug/kg	**150 J**	**250 J**	**210 J**	8.4 U	8.9 U	11 U	4.5 U	**3 J**	**0.47 J**	450 U	510 U	630 U	12 U	**1.1 J**	15 U	7.2 R	**6.5**	**25 J**
Chloroethane	ug/kg	12 U	12 U	13 UJ	8.4 UJ	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Chloroform	ug/kg	12 U	12 U	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Chloromethane	ug/kg	12 U	12 U	13 UJ	8.4 UJ	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
cis-1,2-dichloroethylene	ug/kg	12 U	12 U	13 UJ	**1.9 J**	8.9 U	**1.4 J**	**0.78 J**	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	**0.54 J**	**3 J**
cis-1,3-dichloropropene	ug/kg	1,000 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 UJ	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Cyclohexane	ug/kg	**13**	**22 J**	1,000 U	**27 J**	8.9 U	**27 J**	4.5 U	**14 J**	**2.5 J**	450 U	41 UJ	30 UJ	**0.98 J**	13 U	15 U	7.2 R	**39 J**	**140 J**
Dibromochloromethane	ug/kg	12 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Dichlorodifluoromethane	ug/kg	12 U	12 U	13 UJ	8.4 UJ	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Ethylbenzene	ug/kg	**9.8 J**	**35 J**	28 UJ	**180 J**	8.9 U	**130**	**12 J**	**7.4**	**1.4 J**	**640**	15 UJ	9.7 UJ	12 U	13 U	**2.4 J**	**17 J**	**11**	**180 J**
Isopropylbenzene (cumene)	ug/kg	**130**	180 U	**78 J**	**2,900 J**	8.9 U	**120**	**73 J**	**46**	**8.5 J**	**480**	**170 J**	**190 J**	**2.4 J**	**10 J**	**83**	**130 J**	**780 J**	**2,200 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2
Sample Number:		ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F
Sample Depth:		4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**54**	**830 J**	**180 J**	**42 J**	8.9 U	**15**	**5.4 J**	**4.3 J**	**0.89 J**	450 U	82 UJ	58 UJ	12 U	13 U	**9.7 J**	**46 J**	**29**	**1,100 J**
Methyl acetate	ug/kg	12 UJ	**5.8 J**	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	**4.1 J**	7.2 R	5.8 U	590 U
Methyl ethyl ketone (2-butanone)	ug/kg	**430**	**740**	460 U	**390**	**31**	**55**	**23**	**20**	8.8 U	900 U	280 UJ	230 UJ	**68**	**33**	**170**	14 R	**150**	**470 J**
Methyl isobutyl ketone	ug/kg	25 U	1,700 U	2,100 U	17 U	18 U	22 U	8.9 U	9.6 U	8.8 U	900 U	1,000 U	1,300 U	25 U	26 U	30 U	14 R	12 U	1,200 U
Methylcyclohexane	ug/kg	**44**	830 U	47 UJ	**160 J**	8.9 U	**40 J**	**25 J**	4.8 U	**2.5 J**	450 U	**360 J**	**390 J**	12 U	13 U	15 U	7.2 R	**69 J**	590 U
Methylene chloride	ug/kg	12 UJ	12 UJ	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**960 J**	**420 J**	**230 J**	**100 J**	8.9 U	**26**	**3 J**	**3.2 J**	**1.3 J**	450 U	120 UJ	110 UJ	12 U	13 U	**8.5 J**	**110 J**	**78**	**2,600 J**
Styrene	ug/kg	12 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 UJ	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Tert-butyl methyl ether	ug/kg	12 UJ	12 UJ	13 U	8.4 U	**5 J**	**20**	**24**	**23**	**7.7**	450 U	0.85 UJ	630 U	**11 J**	**38**	**80**	**30 J**	**58**	**41 J**
Tetrachloroethylene(PCE)	ug/kg	12 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 UJ	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Toluene	ug/kg	**13**	**64 J**	22 UJ	**18 J**	8.9 U	**4.4 J**	**4.4 J**	**4.1 J**	**1.1 J**	450 U	510 U	6.5 UJ	12 U	13 U	**7.8 J**	7.2 R	**10**	**160 J**
trans-1,2-dichloroethene	ug/kg	12 U	12 U	13 UJ	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
trans-1,3-dichloropropene	ug/kg	1,000 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 UJ	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Trichloroethylene (TCE)	ug/kg	12 U	830 U	1,000 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 UJ	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Trichlorofluoromethane	ug/kg	12 UJ	12 UJ	13 U	8.4 U	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	590 U
Vinyl chloride	ug/kg	12 U	12 U	13 UJ	8.4 UJ	8.9 U	11 U	4.5 U	4.8 U	4.4 U	450 U	510 U	630 U	12 U	13 U	15 U	7.2 R	5.8 U	**2.9 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E
Sample Depth:		5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	13 UJ	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	800 U
1,1,2,2-tetrachloroethane	ug/kg	8.3 U	3.8 U	17 U	13 U	13 U	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 UJ	21 U	16 U	13 U	12 U	800 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	11 UJ
1,1,2-trichloroethane	ug/kg	710 U	3.8 UJ	17 U	13 UJ	13 UJ	24 UJ	980 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 U	16 U	13 U	12 U	800 U
1,1-dichloroethane	ug/kg	8.3 U	3.8 UJ	17 U	13 U	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	11 U
1,1-dichloroethene	ug/kg	8.3 U	3.8 U	17 U	13 U	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ
1,2,3-trichlorobenzene	ug/kg	710 U	**4.7 J**	17 U	13 U	1,100 U	1,300 U	980 U	950 U	14 R	650 U	9.2 R	8.7 R	7.1 R	21 U	16 U	13 U	1,000 U	800 U
1,2,4-trichlorobenzene	ug/kg	710 U	3.8 UJ	17 U	13 U	1,100 U	1,300 U	980 U	950 UJ	14 R	650 U	9.2 R	8.7 R	7.1 R	21 U	16 U	13 U	1,000 U	800 U
1,2-dibromo-3-chloropropane	ug/kg	710 U	3.8 U	17 U	13 U	1,100 U	1,300 U	980 U	950 U	14 R	650 U	9.2 R	8.7 R	7.1 R	21 U	16 U	13 U	1,000 U	800 U
1,2-dibromoethane	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	13 UJ	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	800 U
1,2-dichlorobenzene	ug/kg	710 U	**3.9 J**	17 U	13 U	1,100 U	1,300 U	980 U	950 U	14 R	650 U	9.2 R	8.7 R	7.1 R	21 U	16 U	13 U	1,000 U	800 U
1,2-dichloroethane	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	11 UJ
1,2-dichloropropane	ug/kg	8.3 U	3.8 U	17 U	13 U	13 U	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	800 U
1,3-dichlorobenzene	ug/kg	710 U	3.8 UJ	17 U	13 U	**12 J**	**39 J**	980 U	950 U	**51 J**	650 U	**13 J**	8.7 R	7.1 R	21 U	16 U	13 U	1,000 U	800 U
1,4-dichlorobenzene	ug/kg	**110 J**	3.8 UJ	**4.1 J**	13 U	**84 J**	**260 J**	**180 J**	**260 J**	**270 J**	140 UJ	**93 J**	**15 J**	7.1 R	21 U	**2.4 J**	13 U	**100 J**	**200 J**
1,4-dioxane (p-dioxane)	ug/kg	170 R	76 R	340 R	270 R	260 R	490 R	20,000 R	19,000 R	280 R	13,000 R	180 R	170 R	140 R	410 R	320 R	250 R	250 R	16,000 R
2-hexanone	ug/kg	17 U	7.6 U	34 U	27 U	26 U	49 U	2,000 U	1,900 U	28 U	1,300 U	18 U	17 U	14 U	41 U	32 U	25 U	25 U	1,600 U
Acetone	ug/kg	**850 J**	**20**	**330**	**270**	**340**	**1,200**	**1,000 J**	**1,500 J**	**630**	**410 J**	**340**	**730 J**	**270**	**330**	**370**	**100**	**470**	440 U
Benzene	ug/kg	**990 J**	**140 J**	17 U	13 U	**90**	**160 J**	18 UJ	**26 J**	**440 J**	**1,100**	**800 J**	**800 J**	**16,000 J**	**150 J**	16 U	13 U	**72 J**	130 UJ
Bromochloromethane	ug/kg	8.3 U	3.8 UJ	17 U	13 U	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	11 U
Bromodichloromethane	ug/kg	8.3 U	3.8 U	17 U	13 U	13 U	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	800 U
Bromoform	ug/kg	710 U	3.8 UJ	17 U	13 U	1,100 U	1,300 U	980 U	950 U	14 R	650 U	9.2 R	8.7 R	7.1 R	21 U	16 U	13 U	1,000 U	800 U
Bromomethane	ug/kg	8.3 U	3.8 U	17 U	13 U	13 UJ	24 UJ	12 UJ	950 UJ	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ
Carbon disulfide	ug/kg	**19**	**4.3**	**16 J**	**24**	**12 J**	**44 J**	25 UJ	**41**	**25**	14 U	**11**	**8.9**	**9.1**	**6.1 J**	**23**	**19**	**22 J**	17 UJ
Carbon tetrachloride	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	13 UJ	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	800 U
Chlorobenzene	ug/kg	**26**	3.8 UJ	17 U	13 U	**18**	**26**	47 UJ	**54 J**	**23 J**	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	**15**	20 UJ
Chloroethane	ug/kg	8.3 U	3.8 U	17 U	13 U	13 UJ	24 UJ	12 UJ	950 UJ	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ
Chloroform	ug/kg	8.3 U	3.8 UJ	17 U	13 U	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	11 U
Chloromethane	ug/kg	8.3 U	3.8 U	17 U	13 U	13 UJ	24 UJ	12 UJ	950 UJ	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ
cis-1,2-dichloroethylene	ug/kg	**1.5 J**	3.8 U	17 U	13 U	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ
cis-1,3-dichloropropene	ug/kg	710 U	3.8 UJ	17 U	13 UJ	13 UJ	24 UJ	980 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 U	16 U	13 U	12 U	800 U
Cyclohexane	ug/kg	8.3 U	3.8 U	17 U	**7 J**	**25**	**55 J**	51 UJ	950 U	**310 J**	**730**	**980 J**	**340 J**	**220 J**	21 U	16 U	13 U	12 U	800 U
Dibromochloromethane	ug/kg	8.3 U	3.8 UJ	17 U	13 U	13 UJ	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	800 U
Dichlorodifluoromethane	ug/kg	8.3 U	3.8 U	17 U	13 U	13 UJ	24 UJ	12 UJ	950 UJ	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ
Ethylbenzene	ug/kg	**46**	**380 J**	**2.8 J**	**1.6 J**	**10 J**	**16 J**	7.8 UJ	**16 J**	**43 J**	**89 J**	**270 J**	**61**	**13,000 J**	**170**	16 U	13 U	**230 J**	**1,900**
Isopropylbenzene (cumene)	ug/kg	**850 J**	**280 J**	**4.5 J**	**1.9 J**	**130**	**300 J**	**330 J**	**980**	**6,500 J**	**8,800**	**12,000 J**	**8,000 J**	**16,000 J**	**11 J**	16 U	**1.7 J**	**49 J**	**550 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E
Sample Depth:		5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**140**	**800 J**	**1.6 J**	**1.2 J**	**32**	**90 J**	42 UJ	**80 J**	**360 J**	**230 J**	**290 J**	**87**	**1,900 J**	**19 J**	16 U	13 U	**90 J**	**1,500**
Methyl acetate	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	**1.9 J**	**5.3 J**	12 U	**1,600**	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	11 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	**15 J**	7.6 U	**91**	**70**	**140**	**390**	360 U	**540**	**270**	140 U	**120**	**290**	**100**	**110**	**92**	**26**	**190**	160 U
Methyl isobutyl ketone	ug/kg	17 U	7.6 U	34 U	27 U	26 U	49 U	2,000 U	1,900 U	28 U	1,300 U	18 U	17 U	14 U	41 U	32 U	25 U	25 U	1,600 U
Methylcyclohexane	ug/kg	8.3 U	**11**	17 U	13 U	13 U	24 U	74 UJ	**78 J**	14 U	650 U	**470 J**	**390 J**	**320 J**	21 U	16 U	13 U	12 U	21 UJ
Methylene chloride	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	11 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	**1,100 J**	**620 J**	**1.7 J**	**1.2 J**	**33**	**120 J**	71 UJ	**48 J**	**85 J**	65 UJ	**71 J**	8.7 U	**2,300 J**	**35**	16 U	13 U	**70 J**	**830**
Styrene	ug/kg	8.3 U	3.8 UJ	17 U	13 U	13 U	24 U	980 UJ	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	800 U
Tert-butyl methyl ether	ug/kg	**32 J**	3.8 UJ	17 UJ	13 UJ	**2.5 J**	**8.6 J**	24 U	**39**	**190**	170 U	**73**	**68 J**	**74 J**	21 UJ	16 UJ	13 UJ	**1.3 J**	1.8 UJ
Tetrachloroethylene(PCE)	ug/kg	8.3 U	3.8 UJ	17 U	13 U	13 U	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	800 U
Toluene	ug/kg	**36**	**28 J**	**1.7 J**	**1.3 J**	**6.2 J**	**38 J**	29 UJ	**36 J**	**82 J**	62 UJ	**44 J**	**34**	**41**	21 U	**2.3 J**	**1.3 J**	**5.8 J**	41 UJ
trans-1,2-dichloroethene	ug/kg	8.3 U	3.8 U	17 U	13 U	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ
trans-1,3-dichloropropene	ug/kg	710 U	3.8 UJ	17 U	13 UJ	13 UJ	24 UJ	980 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 U	16 U	13 U	12 U	800 U
Trichloroethylene (TCE)	ug/kg	8.3 U	3.8 UJ	17 U	13 U	13 U	24 U	980 U	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 U	16 U	13 U	12 U	800 U
Trichlorofluoromethane	ug/kg	8.3 UJ	3.8 UJ	17 UJ	13 UJ	13 UJ	24 U	12 U	950 U	14 U	650 U	9.2 U	8.7 UJ	7.1 UJ	21 UJ	16 UJ	13 UJ	12 UJ	11 UJ
Vinyl chloride	ug/kg	8.3 U	3.8 U	17 U	13 U	13 R	24 UJ	12 UJ	950 U	14 U	650 U	9.2 U	8.7 U	7.1 U	21 UJ	16 U	13 U	12 UJ	11 UJ

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10	GC-SED-100
Sample Number:		ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)	GC-SED-100(5-6)
Sample Depth:		4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5	5-6
Sample Date:		1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005	1/28/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	10 UJ	7.3 UJ	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,1,2,2-tetrachloroethane	ug/kg	10 U	7.3 U	7.5 U	9.3 UJ	950 U	730 U	900 U	8 UJ	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	10 UJ	7.3 UJ	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,1,2-trichloroethane	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,1-dichloroethane	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,1-dichloroethene	ug/kg	10 U	7.3 U	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,2,3-trichlorobenzene	ug/kg	10 U	7.3 U	600 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2,4-trichlorobenzene	ug/kg	10 U	7.3 U	600 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U	170,000 U
1,2-dibromo-3-chloropropane	ug/kg	10 U	7.3 U	600 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-dibromoethane	ug/kg	10 UJ	7.3 UJ	7.5 UJ	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-dichlorobenzene	ug/kg	10 U	7.3 U	600 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U	170,000 U
1,2-dichloroethane	ug/kg	10 UJ	7.3 UJ	7.5 UJ	9.3 UJ	950 U	730 U	900 U	8 UJ	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,2-dichloropropane	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
1,3-dichlorobenzene	ug/kg	10 U	**5.6 J**	**17 J**	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U	170,000 U
1,4-dichlorobenzene	ug/kg	**11**	**17**	**30 J**	**360 J**	**8,200 J**	**2,900 J**	**2,300 J**	**210 J**	**4,500 J**	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U	170,000 U
1,4-dioxane (p-dioxane)	ug/kg	200 R	150 R	150 R	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-hexanone	ug/kg	20 U	15 U	15 U	10 U	950 U	730 U	900 U	10 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Acetone	ug/kg	**280**	**52**	**87**	**140**	**4,100**	1,800 U	**2,500 J**	30 U	**1,100 J**	3,600 U	2,200 U	3,600 U	3,100 U	1,700 U	3,500 U	14,000 U	3,800 U	13,000 U
Benzene	ug/kg	**39**	**30**	**390 J**	**3.1 J**	**2,900**	730 U	**1,200**	**1.7 J**	**100 J**	1,500 U	**970**	1,400 U	**630 J**	**1,000**	**790 J**	**5,000 J**	**170 J**	**15,000**
Bromochloromethane	ug/kg	10 U	7.3 U	7.5 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bromodichloromethane	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Bromoform	ug/kg	10 U	7.3 U	600 U	9.3 UJ	950 U	730 U	900 U	8 UJ	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Bromomethane	ug/kg	10 U	7.3 U	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Carbon disulfide	ug/kg	**10**	**15**	**11 J**	**10**	**190 J**	730 U	**170 J**	**7.5 J**	1,100 U	**280 J**	880 U	**330 J**	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Carbon tetrachloride	ug/kg	10 UJ	7.3 UJ	7.5 UJ	9.3 UJ	950 U	730 U	900 U	8 UJ	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 UJ	5,300 U
Chlorobenzene	ug/kg	**6 J**	**3.7 J**	**5.5 J**	**10**	**110 J**	**2,400**	**21,000**	**100 J**	**400 J**	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Chloroethane	ug/kg	10 U	7.3 U	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Chloroform	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Chloromethane	ug/kg	10 U	7.3 U	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
cis-1,2-dichloroethylene	ug/kg	10 U	**1.8 J**	**4.2 J**	9.3 U	**160 J**	730 U	900 U	8 U	1,100 U	1,500 U	**130 J**	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
cis-1,3-dichloropropene	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Cyclohexane	ug/kg	10 U	7.3 U	7.5 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibromochloromethane	ug/kg	10 U	7.3 U	7.5 U	9.3 UJ	950 U	730 U	900 U	8 UJ	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Dichlorodifluoromethane	ug/kg	10 U	7.3 U	7.5 UJ	9.3 U	950 U	730 U	900 U	8 UJ	1,100 U	1,500 UJ	880 UJ	1,400 UJ	1,200 U	690 U	1,400 UJ	5,600 UJ	1,500 UJ	5,300 U
Ethylbenzene	ug/kg	**7.1 J**	**29**	**18**	**8.9 J**	**480 J**	**310 J**	**770 J**	**1.3 J**	1,100 U	**1,500**	**13,000**	**840 J**	**4,300**	**210 J**	1,400 U	**150,000**	**1,000 J**	**150,000**
Isopropylbenzene (cumene)	ug/kg	**9 J**	**20**	**35**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10	GC-SED-100
Sample Number:		ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)	GC-SED-100(5-6)
Sample Depth:		4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5	5-6
Sample Date:		1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005	1/28/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**25**	**31**	**65**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methyl acetate	ug/kg	10 UJ	7.3 UJ	7.5 UJ	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methyl ethyl ketone (2-butanone)	ug/kg	**100**	15 U	**32**	**70**	1,500 U	730 U	**980**	**70 J**	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Methyl isobutyl ketone	ug/kg	20 U	15 U	15 U	10 U	950 U	730 U	900 U	10 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Methylcyclohexane	ug/kg	10 U	7.3 U	**24 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Methylene chloride	ug/kg	10 UJ	7.3 UJ	7.5 UJ	30 U	950 U	730 U	900 U	30 U	1,100 U	1,600 U	930 U	1,800 U	1,200 U	690 U	1,400 U	5,600 U	**1,500 J**	5,300 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**25**	**34**	**150**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Styrene	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Tert-butyl methyl ether	ug/kg	10 UJ	7.3 UJ	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Tetrachloroethylene(PCE)	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 UJ
Toluene	ug/kg	**2.8 J**	**2.7 J**	**8.8**	**60**	**140 J**	730 U	**140 J**	**10 J**	**100 J**	**110 J**	**560 J**	1,400 U	**140 J**	**150 J**	**90 J**	**3,500 J**	**120 J**	**53,000**
trans-1,2-dichloroethene	ug/kg	10 U	7.3 U	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
trans-1,3-dichloropropene	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Trichloroethylene (TCE)	ug/kg	10 U	7.3 U	7.5 U	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Trichlorofluoromethane	ug/kg	10 UJ	7.3 UJ	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Vinyl chloride	ug/kg	10 U	7.3 U	7.5 UJ	9.3 U	950 U	730 U	900 U	8 U	1,100 U	1,500 U	880 U	1,400 U	1,200 U	690 U	1,400 U	5,600 U	1,500 U	5,300 U
Xylene, total	ug/kg	---	---	---	**6 J**	**720 J**	730 U	**1,400**	8 U	**600 J**	**290 J**	**5,800**	**390 J**	**2,100**	**720**	**1,200 J**	**110,000**	**650 J**	**170,000**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C
Sample Number:		GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)
Sample Depth:		4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1	1.5-2
Sample Date:		1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
1,1,2,2-tetrachloroethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 UR	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 UJ	70 U	70 U	40 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
1,1,2-trichloroethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
1,1-dichloroethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
1,1-dichloroethene	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
1,2,4-trichlorobenzene	ug/kg	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U	6,200 U
1,2-dichlorobenzene	ug/kg	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U	6,200 U
1,2-dichloroethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 UJ	50 UJ	70 UJ	5,700 UR	70 UJ	60 UJ	42,000 U	60 UJ	70 UJ	70 UJ	70 UJ	40 UJ
1,2-dichloropropane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
1,3-dichlorobenzene	ug/kg	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U	6,200 U
1,4-dichlorobenzene	ug/kg	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U	6,200 U
2-hexanone	ug/kg	18,000 U	36,000 U	39,000 UJ	20 U	2,800 U	7,100 U	150 U	110 UJ	140 U	5,700 U	150 U	130 U	42,000 U	140 U	150 U	150 U	160 U	90 U
Acetone	ug/kg	44,000 U	89,000 U	97,000 U	**420 J**	6,900 U	18,000 U	290 U	230 U	280 U	14,000 U	300 U	260 U	100,000 U	270 U	**300**	310 U	310 U	190 U
Benzene	ug/kg	**120,000**	**330,000**	**290,000 J**	**20**	**8,200**	**9,800**	70 U	50 U	**40 J**	**480 J**	70 U	**30 J**	**28,000 J**	60 U	**100**	70 U	**10 J**	40 UJ
Bromodichloromethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Bromoform	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 UJ	50 UJ	70 UJ	5,700 U	70 UJ	60 UJ	42,000 U	60 UJ	70 UJ	70 UJ	70 UJ	40 UJ
Bromomethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Carbon disulfide	ug/kg	18,000 U	36,000 U	39,000 U	**30**	**1,600 J**	7,100 U	**50 J**	**50 J**	**10 J**	5,700 U	**30 J**	**40 J**	42,000 U	**30 J**	**30 J**	**30 J**	**20 J**	**30 J**
Carbon tetrachloride	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 UJ	50 UJ	70 U	5,700 U	70 UJ	60 UJ	42,000 U	60 UJ	70 UJ	70 UJ	70 UJ	40 U
Chlorobenzene	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 UJ	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Chloroethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Chloroform	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Chloromethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
cis-1,2-dichloroethylene	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
cis-1,3-dichloropropene	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Dibromochloromethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 UJ	50 UJ	70 UJ	5,700 U	70 UJ	60 UJ	42,000 U	60 UJ	70 UJ	70 UJ	70 UJ	40 UJ
Dichlorodifluoromethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Ethylbenzene	ug/kg	**430,000**	**870,000**	**790,000**	**80**	**62,000**	**130,000**	**1,100 J**	50 UJ	**820**	**17,000**	70 U	**660**	**410,000**	60 U	**10 J**	**1,100 J**	**140**	40 U
Methyl ethyl ketone (2-butanone)	ug/kg	18,000 U	36,000 U	39,000 UJ	**70 J**	2,800 U	7,100 U	150 U	110 U	140 U	5,700 U	150 U	130 U	42,000 U	140 U	150 U	150 U	160 U	90 U
Methyl isobutyl ketone	ug/kg	18,000 U	36,000 U	39,000 U	20 U	2,800 U	7,100 U	150 U	110 UJ	140 U	5,700 U	150 U	130 U	42,000 U	140 U	150 U	150 U	160 U	90 U
Methylene chloride	ug/kg	18,000 U	36,000 U	39,000 U	50 U	2,800 U	7,100 U	290 U	230 U	280 U	5,700 U	300 U	260 U	42,000 U	270 U	290 U	310 U	310 U	190 U
Styrene	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 UJ	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Tert-butyl methyl ether	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Tetrachloroethylene(PCE)	ug/kg	18,000 UJ	36,000 UJ	39,000 U	10 U	2,800 UJ	7,100 U	70 U	50 UJ	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Toluene	ug/kg	**150,000**	**770,000**	**620,000 J**	**10**	**2,100 J**	**13,000**	**40 J**	50 UJ	**240**	**720 J**	**10 J**	**50 J**	**45,000**	60 U	70 U	**140**	**20 J**	40 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C
Sample Number:		GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)
Sample Depth:		4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1	1.5-2
Sample Date:		1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
trans-1,2-dichloroethene	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
trans-1,3-dichloropropene	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Trichloroethylene (TCE)	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Trichlorofluoromethane	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Vinyl chloride	ug/kg	18,000 U	36,000 U	39,000 U	10 U	2,800 U	7,100 U	70 U	50 U	70 U	5,700 U	70 U	60 U	42,000 U	60 U	70 U	70 U	70 U	40 U
Xylene, total	ug/kg	**430,000**	**1,100,000**	**1,000,000 J**	**20**	**64,000**	**130,000**	**1,100 J**	50 UJ	**850**	**11,000**	70 U	**520**	**370,000**	60 U	**160**	**1,600 J**	**80**	40 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31
Sample Number:		GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)
Sample Depth:		5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-4.5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5
Sample Date:		1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
1,1,2,2-tetrachloroethane	ug/kg	40 UJ	10 UJ	10 UJ	60 UJ	30 UJ	60 U	60 UJ	10 UJ	50 UJ	10 UR	9.5 UR	10 UR	950 U	10 UR	20 U	10 UR	30 UJ	40 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
1,1,2-trichloroethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
1,1-dichloroethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
1,1-dichloroethene	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
1,2,4-trichlorobenzene	ug/kg	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U	12,000 U
1,2-dichlorobenzene	ug/kg	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U	12,000 U
1,2-dichloroethane	ug/kg	40 UJ	10 UJ	10 UJ	60 UJ	30 UJ	60 UJ	60 UJ	10 UJ	50 U	10 UJ	9.5 U	10 U	950 U	10 U	20 UJ	10 U	30 U	40 U
1,2-dichloropropane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
1,3-dichlorobenzene	ug/kg	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U	12,000 U
1,4-dichlorobenzene	ug/kg	27,000 U	1,700 U	4,500 UJ	18,000 U	**620 J**	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	**1,100 J**	**1,200 J**	12,000 U
2-hexanone	ug/kg	80 U	20 U	30 UJ	140 U	60 U	140 U	130 U	30 U	120 U	20 UJ	10 UJ	20 UJ	950 U	20 U	50 U	20 UJ	70 U	90 U
Acetone	ug/kg	170 U	**140 J**	60 UJ	270 U	140 U	270 U	**270 J**	**140 J**	230 U	**170 J**	**80 J**	**130 J**	2,400 U	**80 J**	100 U	**200 J**	160 U	**210 J**
Benzene	ug/kg	**140 J**	**4.9 J**	**110 J**	**20 J**	**30 J**	60 U	**140 J**	**5.5 J**	**30 J**	**4.8 J**	9.5 U	10 U	**1,300**	**3.9 J**	**7.6 J**	**20 J**	**20 J**	**50 J**
Bromodichloromethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 UJ	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Bromoform	ug/kg	40 UJ	10 UJ	10 UJ	60 UJ	30 UJ	60 UJ	60 UJ	10 UJ	50 UJ	10 UJ	9.5 UJ	10 UJ	950 U	10 UJ	20 UJ	10 UJ	30 UJ	40 UJ
Bromomethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 UJ	10 U	20 U	10 U	30 U	40 U
Carbon disulfide	ug/kg	**10 J**	**30 J**	**3.8 J**	**40 J**	**20 J**	**40 J**	**50 J**	**20 J**	50 U	**40 J**	**10 J**	**20**	**280 J**	**20 J**	**30 J**	**30 J**	**10 J**	**10 J**
Carbon tetrachloride	ug/kg	40 U	10 U	10 UJ	60 UJ	30 U	60 UJ	60 U	10 U	50 U	10 UJ	9.5 UJ	10 UJ	950 U	10 UJ	20 U	10 UJ	30 UJ	40 UJ
Chlorobenzene	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 UJ	9.5 UJ	10 UJ	950 U	**5.4 J**	20 U	**330 J**	**90 J**	**40 J**
Chloroethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 UJ	10 U	20 U	10 U	30 U	40 U
Chloroform	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Chloromethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	**120 J**	10 U	20 U	10 U	30 U	40 U
cis-1,2-dichloroethylene	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
cis-1,3-dichloropropene	ug/kg	40 U	10 U	10 UJ	60 UJ	30 U	60 U	60 U	10 U	50 U	10 UR	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Dibromochloromethane	ug/kg	40 UJ	10 UJ	10 UJ	60 UJ	30 UJ	60 UJ	60 UJ	10 UJ	50 UJ	10 UJ	9.5 UJ	10 UJ	950 U	10 UJ	20 UJ	10 UJ	30 UJ	40 UJ
Dichlorodifluoromethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Ethylbenzene	ug/kg	**10 J**	**10 J**	**8.8 J**	**190 J**	**560**	60 U	**2,300 J**	**10 J**	**70 J**	**9.7 J**	9.5 UJ	10 UJ	**36,000 J**	**10 J**	**310 J**	**30 J**	**200 J**	**500 J**
Methyl ethyl ketone (2-butanone)	ug/kg	80 U	20 U	30 UJ	140 U	60 U	140 U	130 U	30 U	120 U	40 U	10 U	20 U	950 U	20 U	50 U	20 U	70 U	90 U
Methyl isobutyl ketone	ug/kg	80 U	20 U	30 UJ	140 U	60 U	140 U	130 U	30 U	120 U	20 UJ	10 UJ	20 UJ	950 U	20 U	50 U	20 UJ	70 U	90 U
Methylene chloride	ug/kg	170 U	50 U	60 UJ	270 U	140 U	270 U	260 U	50 U	230 U	40 U	30 U	40 U	950 U	40 U	100 U	50 U	160 U	180 U
Styrene	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 UJ	9.5 UJ	10 UJ	950 U	10 U	20 U	10 UJ	30 U	40 U
Tert-butyl methyl ether	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Tetrachloroethylene(PCE)	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 UJ	9.5 UJ	10 UJ	950 U	10 U	20 U	10 UJ	30 U	40 U
Toluene	ug/kg	40 U	**60 J**	**10 J**	60 U	**90**	60 U	**100 J**	**50 J**	50 U	**3.3 J**	9.5 UJ	**10 J**	**1,600**	**30 J**	**10 J**	**10 J**	**10 J**	40 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31
Sample Number:		GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)
Sample Depth:		5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-4.5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5
Sample Date:		1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
trans-1,2-dichloroethene	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
trans-1,3-dichloropropene	ug/kg	40 U	10 U	10 UJ	60 UJ	30 U	60 U	60 U	10 U	50 U	10 UR	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Trichloroethylene (TCE)	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Trichlorofluoromethane	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 UR	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Vinyl chloride	ug/kg	40 U	10 U	10 UJ	60 U	30 U	60 U	60 U	10 U	50 U	10 U	9.5 U	10 U	950 U	10 U	20 U	10 U	30 U	40 U
Xylene, total	ug/kg	**400**	**20 J**	**10 J**	**110 J**	**260**	60 U	**2,700 J**	**10 J**	**60 J**	**7.1 J**	9.5 UJ	10 UJ	**49,000**	**10 J**	**360 J**	**10 J**	**360 J**	**390 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43	GC-SED-43
Sample Number:		GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)	GC-SED-43(7.3-8.3)
Sample Depth:		11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3	7.3-8.3
Sample Date:		1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006	1/23/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
1,1,2,2-tetrachloroethane	ug/kg	42,000 U	10 UR	1,200 U	50 UJ	50 UJ	1,200 U	1,500 U	730 U	60 UJ	36,000 U	8,500 U	750 U	30 UJ	29,000 U	530 U	5.1 U	12,000 U	17,000 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
1,1,2-trichloroethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
1,1-dichloroethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
1,1-dichloroethene	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
1,2,4-trichlorobenzene	ug/kg	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U	540,000 U
1,2-dichlorobenzene	ug/kg	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U	540,000 U
1,2-dichloroethane	ug/kg	42,000 U	10 UJ	1,200 U	50 UJ	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 UJ	29,000 UJ	530 U	5.1 UJ	12,000 U	17,000 U
1,2-dichloropropane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
1,3-dichlorobenzene	ug/kg	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U	540,000 U
1,4-dichlorobenzene	ug/kg	1,100,000 U	3,400 U	**6,800 J**	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U	540,000 U
2-hexanone	ug/kg	42,000 U	20 UJ	1,200 U	110 U	100 U	1,200 U	1,500 U	730 U	130 U	36,000 U	8,500 U	750 U	70 U	29,000 U	530 U	10 U	12,000 U	17,000 U
Acetone	ug/kg	110,000 U	**60 J**	2,900 U	**190 J**	210 U	3,000 U	3,700 U	1,800 U	260 U	89,000 U	21,000 U	1,900 U	150 U	73,000 U	1,300 U	20 U	30,000 U	43,000 U
Benzene	ug/kg	**24,000 J**	**6 J**	**2,100**	**40 J**	**40 J**	**1,600**	**3,200**	**7,800**	**640 J**	**53,000**	**14,000**	**4,100**	**7.8 J**	**93,000**	**40 J**	5.1 U	**26,000**	**79,000**
Bromodichloromethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Bromoform	ug/kg	42,000 U	10 UJ	1,200 U	50 UJ	50 UJ	1,200 U	1,500 U	730 U	60 UJ	36,000 U	8,500 U	750 U	30 UJ	29,000 U	530 U	5.1 UJ	12,000 U	17,000 U
Bromomethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 UJ	1,500 UR	730 UJ	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Carbon disulfide	ug/kg	42,000 U	**9.6 J**	**220 J**	**20 J**	**10 J**	1,200 U	1,500 U	730 U	**10 J**	36,000 U	8,500 U	**690 J**	**10 J**	29,000 U	530 U	**0.86 J**	12,000 U	17,000 U
Carbon tetrachloride	ug/kg	42,000 UJ	10 U	1,200 UJ	50 U	50 UJ	1,200 U	1,500 U	730 U	60 UJ	36,000 UJ	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Chlorobenzene	ug/kg	42,000 U	10 UJ	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	**20 J**	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Chloroethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Chloroform	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Chloromethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	**170 J**	**150 J**	**80 J**	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
cis-1,2-dichloroethylene	ug/kg	42,000 U	10 U	**140 J**	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
cis-1,3-dichloropropene	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Dibromochloromethane	ug/kg	42,000 U	10 UJ	1,200 U	50 UJ	50 UJ	1,200 U	1,500 U	730 U	60 UJ	36,000 U	8,500 U	750 U	30 UJ	29,000 U	530 U	5.1 UJ	12,000 U	17,000 U
Dichlorodifluoromethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 UJ	750 UJ	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Ethylbenzene	ug/kg	**510,000**	**9.6 J**	**8,900**	**230 J**	**880 J**	**3,200**	**8,700**	**28,000**	**1,100 J**	**420,000**	**190,000**	**16,000**	**40 J**	**510,000**	**1,100**	5.1 U	**240,000**	**390,000**
Methyl ethyl ketone (2-butanone)	ug/kg	42,000 U	20 U	1,200 U	110 U	100 U	1,200 U	1,500 U	730 U	130 U	36,000 U	8,500 U	750 U	70 U	29,000 U	530 U	10 U	12,000 U	17,000 U
Methyl isobutyl ketone	ug/kg	42,000 U	20 UJ	1,200 U	110 U	100 U	1,200 U	1,500 U	730 U	130 U	36,000 U	8,500 U	750 U	70 U	29,000 U	530 U	10 U	12,000 U	17,000 U
Methylene chloride	ug/kg	42,000 U	50 U	1,200 U	220 U	210 U	1,200 U	1,500 U	730 U	260 U	36,000 U	11,000 U	920 U	150 U	29,000 U	530 U	20 U	12,000 U	17,000 U
Styrene	ug/kg	42,000 U	10 UJ	1,200 U	50 U	50 U	1,200 U	1,500 U	**1,300**	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	**1,600 J**	17,000 U
Tert-butyl methyl ether	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Tetrachloroethylene(PCE)	ug/kg	42,000 U	10 UJ	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Toluene	ug/kg	**12,000 J**	**10 J**	**850 J**	50 U	**20 J**	**330 J**	**1,400 J**	**18,000**	**40 J**	**110,000**	**20,000**	**1,600**	30 U	**70,000**	**30 J**	5.1 U	**20,000**	**290,000**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43	GC-SED-43
	Sample Number:	GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)	GC-SED-43(7.3-8.3)
	Sample Depth:	11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3	7.3-8.3
	Sample Date:	1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006	1/23/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
trans-1,2-dichloroethene	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
trans-1,3-dichloropropene	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Trichloroethylene (TCE)	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Trichlorofluoromethane	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Vinyl chloride	ug/kg	42,000 U	10 U	1,200 U	50 U	50 U	1,200 U	1,500 U	730 U	60 U	36,000 U	8,500 U	750 U	30 U	29,000 U	530 U	5.1 U	12,000 U	17,000 U
Xylene, total	ug/kg	**630,000**	**8.5 J**	**13,000**	**190 J**	**330 J**	**3,900**	**11,000**	**37,000**	**890**	**580,000**	**240,000**	**16,000**	30 U	**610,000**	**710**	5.1 U	**250,000**	**430,000**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B	GC-SED-55
Sample Number:		GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)
Sample Depth:		0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7	1.5-2.5
Sample Date:		1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006	1/24/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,1,2,2-tetrachloroethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,1,2-trichloroethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,1-dichloroethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,1-dichloroethene	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,2,4-trichlorobenzene	ug/kg	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U	30,000 U
1,2-dichlorobenzene	ug/kg	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U	30,000 U
1,2-dichloroethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,2-dichloropropane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
1,3-dichlorobenzene	ug/kg	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U	30,000 U
1,4-dichlorobenzene	ug/kg	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U	30,000 U
2-hexanone	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 UJ	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	20 U	14,000 U	1,100 U
Acetone	ug/kg	3,000 U	58,000 U	48,000 U	4,500 U	110,000 U	100,000 U	9,200 U	94,000 U	53,000 U	87,000 U	47,000 U	2,600 U	90,000 U	18,000 U	8,900 U	**110**	35,000 U	2,900 U
Benzene	ug/kg	**3,900**	**150,000**	**180,000**	**29,000**	**370,000**	**340,000**	**16,000**	**250,000**	**180,000**	**270,000**	**160,000**	**1,900**	**410,000**	**42,000**	**29,000**	**130**	**59,000**	1,100 U
Bromodichloromethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Bromoform	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Bromomethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Carbon disulfide	ug/kg	**980 J**	23,000 U	19,000 U	**480 J**	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	**8,800**	3,600 U	**8.5 J**	14,000 U	1,100 U
Carbon tetrachloride	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Chlorobenzene	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Chloroethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Chloroform	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Chloromethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
cis-1,2-dichloroethylene	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
cis-1,3-dichloropropene	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Dibromochloromethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Dichlorodifluoromethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 UJ	38,000 U	21,000 U	35,000 UJ	19,000 UJ	1,100 UJ	36,000 UJ	7,200 U	3,600 U	10 U	14,000 U	1,100 UJ
Ethylbenzene	ug/kg	**34,000**	**620,000**	**620,000**	**36,000**	**1,100,000**	**1,100,000**	**88,000**	**770,000**	**590,000**	**890,000**	**580,000**	**29,000**	**1,200,000**	**170,000**	**110,000**	**180**	**400,000**	**510 J**
Methyl ethyl ketone (2-butanone)	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 UJ	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	20 U	14,000 U	1,100 U
Methyl isobutyl ketone	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	20 U	14,000 U	1,100 U
Methylene chloride	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	40 U	14,000 U	1,100 U
Styrene	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	**170 J**	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Tert-butyl methyl ether	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Tetrachloroethylene(PCE)	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Toluene	ug/kg	**3,900**	**520,000**	**540,000**	**4,300**	**39,000 J**	**720,000**	**5,400**	**650,000**	**440,000**	**51,000**	**470,000**	**1,600**	**1,000,000**	**93,000**	**62,000**	**8 J**	**8,900 J**	1,100 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B	GC-SED-55
Sample Number:		GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)
Sample Depth:		0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7	1.5-2.5
Sample Date:		1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006	1/24/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
trans-1,2-dichloroethene	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
trans-1,3-dichloropropene	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Trichloroethylene (TCE)	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Trichlorofluoromethane	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Vinyl chloride	ug/kg	1,200 U	23,000 U	19,000 U	1,800 U	44,000 U	42,000 U	3,700 U	38,000 U	21,000 U	35,000 U	19,000 U	1,100 U	36,000 U	7,200 U	3,600 U	10 U	14,000 U	1,100 U
Xylene, total	ug/kg	**29,000**	**660,000**	**700,000**	**37,000**	**1,100,000**	**1,200,000**	**94,000**	**820,000**	**660,000**	**930,000**	**630,000**	**20,000**	**1,200,000**	**350,000**	**140,000**	**50**	**440,000**	**420 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C
Sample Number:		GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)
Sample Depth:		10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5	2.5-4
Sample Date:		1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
1,1,2,2-tetrachloroethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
1,1,2-trichloroethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
1,1-dichloroethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
1,1-dichloroethene	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
1,2,4-trichlorobenzene	ug/kg	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U	79,000 U
1,2-dichlorobenzene	ug/kg	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UR	7,600 UR	20,000 U	79,000 U
1,2-dichloroethane	ug/kg	30 U	10 U	6,500 U	6,200 UJ	670 UJ	10 U	18,000 U	690 U	12,000 UJ	5,800 UJ	10 UJ	16,000 U	30 UJ	15,000 U	60 UJ	610 U	2,600 U	6,100 U
1,2-dichloropropane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
1,3-dichlorobenzene	ug/kg	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UR	7,600 UR	20,000 U	79,000 U
1,4-dichlorobenzene	ug/kg	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UR	7,600 UR	20,000 U	79,000 U
2-hexanone	ug/kg	70 U	20 U	6,500 U	6,200 U	670 UJ	20 U	18,000 U	690 U	12,000 U	5,800 U	20 U	16,000 U	70 U	15,000 U	140 U	610 U	2,600 U	6,100 U
Acetone	ug/kg	**610 J**	**110 J**	16,000 U	15,000 U	1,700 UJ	**160 J**	44,000 U	1,700 U	30,000 U	14,000 U	50 U	41,000 U	150 U	38,000 U	270 UJ	1,500 U	6,500 U	15,000 U
Benzene	ug/kg	**60**	**7.1 J**	**12,000**	**32,000**	**330 J**	**10**	**130,000**	**250 J**	**4,000 J**	**27,000**	10 U	**59,000**	**6.4 J**	**71,000**	**10 J**	**230 J**	**6,300**	**9,000**
Bromodichloromethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 UJ	15,000 U	60 U	610 U	2,600 U	6,100 U
Bromoform	ug/kg	30 U	10 U	6,500 U	6,200 U	670 UJ	10 U	18,000 U	690 U	12,000 U	5,800 U	10 UJ	16,000 U	30 UJ	15,000 U	60 UJ	610 U	2,600 U	6,100 U
Bromomethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Carbon disulfide	ug/kg	**20 J**	**5.9 J**	6,500 U	6,200 U	670 U	**10**	18,000 U	690 U	12,000 U	5,800 U	**4.7 J**	16,000 U	**10 J**	15,000 U	**20 J**	610 U	**910 J**	6,100 U
Carbon tetrachloride	ug/kg	30 U	10 U	6,500 U	6,200 UJ	670 UJ	10 U	18,000 U	690 U	12,000 UJ	5,800 UJ	10 UJ	16,000 U	30 UJ	15,000 U	60 UJ	610 U	2,600 U	6,100 U
Chlorobenzene	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Chloroethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Chloroform	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Chloromethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 UJ	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
cis-1,2-dichloroethylene	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
cis-1,3-dichloropropene	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Dibromochloromethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 UJ	16,000 U	30 UJ	15,000 U	60 UJ	610 U	2,600 U	6,100 U
Dichlorodifluoromethane	ug/kg	30 U	10 U	6,500 UJ	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 UJ	30 U	15,000 UJ	60 U	610 UJ	2,600 U	6,100 U
Ethylbenzene	ug/kg	**670**	**130**	**200,000**	**89,000**	**9,600**	**40**	**630,000**	**5,500**	**190,000**	**180,000**	10 U	**400,000**	**30**	**340,000**	**80**	**3,400**	**51,000**	**120,000**
Methyl ethyl ketone (2-butanone)	ug/kg	70 U	20 U	6,500 U	6,200 U	670 UJ	20 U	18,000 U	690 U	12,000 U	5,800 U	**50 J**	16,000 U	70 U	15,000 U	140 U	610 U	2,600 U	6,100 U
Methyl isobutyl ketone	ug/kg	70 U	20 U	6,500 U	6,200 U	670 UJ	20 U	18,000 U	690 U	12,000 U	5,800 U	20 U	16,000 U	70 U	15,000 U	140 U	610 U	2,600 U	6,100 U
Methylene chloride	ug/kg	150 U	40 U	6,500 U	6,200 U	670 U	50 U	18,000 U	690 U	13,000 U	5,800 U	50 U	16,000 U	150 U	15,000 U	270 UJ	610 U	2,600 U	6,100 U
Styrene	ug/kg	30 U	10 U	6,500 U	**3,300 J**	670 U	10 U	18,000 U	690 U	12,000 U	**23,000**	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Tert-butyl methyl ether	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Tetrachloroethylene(PCE)	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 UJ	6,100 UJ
Toluene	ug/kg	**80 J**	**4 J**	**3,600 J**	**6,300**	**770**	**3.2 J**	**200,000**	**540 J**	**3,200 J**	**110,000**	**170**	**280,000**	**60**	**250,000**	**10 J**	**220 J**	**6,500**	**15,000 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C
Sample Number:		GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)
Sample Depth:		10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5	2.5-4
Sample Date:		1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
trans-1,2-dichloroethene	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
trans-1,3-dichloropropene	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 UJ	16,000 U	30 UJ	15,000 U	60 UJ	610 U	2,600 U	6,100 U
Trichloroethylene (TCE)	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Trichlorofluoromethane	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Vinyl chloride	ug/kg	30 U	10 U	6,500 U	6,200 U	670 U	10 U	18,000 U	690 U	12,000 U	5,800 U	10 U	16,000 U	30 U	15,000 U	60 U	610 U	2,600 U	6,100 U
Xylene, total	ug/kg	**520**	**60**	**240,000**	**89,000**	**5,600**	**30**	**730,000**	**6,100**	**190,000**	**250,000**	10 U	**470,000**	**60**	**390,000**	**50 J**	**3,500**	**44,000**	**150,000**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83
Sample Number:		GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)
Sample Depth:		0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8	0-2
Sample Date:		12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006	1/30/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
1,1,2,2-tetrachloroethane	ug/kg	5.4 U	900 U	10 UJ	1,300 U	10 U	5.6 U	10 U	10 UJ	670 U	10 U	10 U	710 U	70 UJ	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
1,1,2-trichloroethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
1,1-dichloroethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
1,1-dichloroethene	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
1,2,4-trichlorobenzene	ug/kg	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U	6,600 U
1,2-dichlorobenzene	ug/kg	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UR	370 UJ	56,000 U	41,000 U	6,600 U
1,2-dichloroethane	ug/kg	5.4 UJ	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 UJ	1,500 U	5.9 UJ	1,800 U	3,100 U	1,100 U
1,2-dichloropropane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
1,3-dichlorobenzene	ug/kg	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UR	370 UJ	56,000 U	41,000 U	6,600 U
1,4-dichlorobenzene	ug/kg	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UR	370 UJ	56,000 U	41,000 U	6,600 U
2-hexanone	ug/kg	10 U	900 U	20 U	1,300 UJ	20 U	10 U	20 U	20 U	670 U	20 U	20 U	710 U	140 U	1,500 U	10 U	1,800 U	3,100 U	1,100 U
Acetone	ug/kg	20 U	2,200 U	140 U	3,200 U	50 U	20 U	**210 J**	**250 J**	1,700 U	**250**	**190**	1,800 U	290 U	3,700 U	20 U	4,500 U	7,900 U	2,600 U
Benzene	ug/kg	5.4 U	**250 J**	**2.8 J**	**260 J**	10 U	5.6 U	**10 J**	**7 J**	**60 J**	10 U	**2.7 J**	**210 J**	**20 J**	**720 J**	5.9 U	**530 J**	**1,400 J**	1,100 U
Bromodichloromethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Bromoform	ug/kg	5.4 UJ	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 UJ	1,500 U	5.9 UJ	1,800 U	3,100 U	1,100 U
Bromomethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Carbon disulfide	ug/kg	**1.7 J**	**540 J**	**6 J**	1,300 U	**2.3 J**	**0.85 J**	**40 J**	**10 J**	**220 J**	**20**	**9 J**	710 U	**40 J**	**450 J**	**1.5 J**	**1,000 J**	3,100 U	**310 J**
Carbon tetrachloride	ug/kg	5.4 UJ	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 UJ	1,500 U	5.9 UJ	1,800 U	3,100 U	1,100 U
Chlorobenzene	ug/kg	5.4 U	900 UJ	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Chloroethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Chloroform	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Chloromethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
cis-1,2-dichloroethylene	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
cis-1,3-dichloropropene	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Dibromochloromethane	ug/kg	5.4 UJ	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 UJ	1,500 U	5.9 UJ	1,800 U	3,100 U	1,100 U
Dichlorodifluoromethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 UJ	70 U	1,500 UJ	5.9 U	1,800 U	3,100 U	1,100 U
Ethylbenzene	ug/kg	5.4 U	**440 J**	**7.6 J**	**2,400**	10 U	5.6 U	**20 J**	**5.3 J**	**3,200**	10 U	**8.1 J**	**2,500**	**350 J**	**29,000**	5.9 U	**44,000**	**98,000**	**300 J**
Methyl ethyl ketone (2-butanone)	ug/kg	10 U	900 U	20 U	1,300 UJ	20 U	10 U	20 U	20 U	670 U	20 U	20 U	710 U	140 U	1,500 U	**90**	1,800 U	3,100 U	1,100 U
Methyl isobutyl ketone	ug/kg	10 U	900 U	20 U	1,300 U	20 U	10 U	20 U	20 U	670 U	20 U	20 U	710 U	140 U	1,500 U	10 U	1,800 U	3,100 U	1,100 U
Methylene chloride	ug/kg	20 U	900 U	50 U	1,300 U	50 U	20 U	**8.3 J**	50 U	670 U	50 U	**9.9 J**	710 U	290 U	1,500 U	20 U	1,800 U	3,100 U	1,100 U
Styrene	ug/kg	5.4 U	900 UJ	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Tert-butyl methyl ether	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Tetrachloroethylene(PCE)	ug/kg	5.4 U	900 UJ	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 UJ	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 UJ	3,100 UJ	1,100 UJ
Toluene	ug/kg	5.4 U	**260 J**	**4.4 J**	**310 J**	10 U	5.6 U	10 U	10 U	**130 J**	**420**	10 U	**250 J**	**20 J**	**1,400 J**	5.9 U	**1,100 J**	**22,000**	**22,000**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83
	Sample Number:	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)
	Sample Depth:	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8	0-2
	Sample Date:	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006	1/30/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
trans-1,2-dichloroethene	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
trans-1,3-dichloropropene	ug/kg	5.4 UJ	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 UJ	1,500 U	5.9 UJ	1,800 U	3,100 U	1,100 U
Trichloroethylene (TCE)	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Trichlorofluoromethane	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Vinyl chloride	ug/kg	5.4 U	900 U	10 U	1,300 U	10 U	5.6 U	10 U	10 U	670 U	10 U	10 U	710 U	70 U	1,500 U	5.9 U	1,800 U	3,100 U	1,100 U
Xylene, total	ug/kg	5.4 U	**580 J**	10 U	**4,200**	10 U	5.6 U	**20 J**	**60**	**3,600**	10 U	**8.7 J**	**3,200**	**370 J**	**47,000**	5.9 U	**28,000**	**130,000**	**440 J**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98
Sample Number:		GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)
Sample Depth:		11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9	1-2
Sample Date:		1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
1,1,2,2-tetrachloroethane	ug/kg	10 UJ	50 U	30 UJ	1,000 U	1,000 U	1,500 U	70 UJ	1,300 U	1,300 U	1,400 U	90 UJ	80 UR	40 UR	800 U	9.9 UR	10 UR	9,900 U	20 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
1,1,2-trichloroethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
1,1-dichloroethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
1,1-dichloroethene	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
1,2,4-trichlorobenzene	ug/kg	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U	7,500 U
1,2-dichlorobenzene	ug/kg	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U	7,500 U
1,2-dichloroethane	ug/kg	10 U	50 UJ	30 UJ	1,000 U	1,000 U	1,500 U	70 UJ	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 UJ	800 U	9.9 UJ	10 U	9,900 U	20 U
1,2-dichloropropane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
1,3-dichlorobenzene	ug/kg	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U	7,500 U
1,4-dichlorobenzene	ug/kg	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U	7,500 U
2-hexanone	ug/kg	20 U	100 U	70 U	1,000 U	1,000 U	1,500 U	160 U	1,300 U	1,300 U	1,400 U	180 UJ	180 UJ	80 U	800 U	20 UJ	20 UJ	9,900 U	40 U
Acetone	ug/kg	**300 J**	**210 J**	150 U	2,500 U	2,600 U	3,800 U	**280 J**	3,300 U	3,200 U	3,600 U	**420 J**	**560 J**	170 U	2,000 U	**130 J**	**180 J**	25,000 U	**110 J**
Benzene	ug/kg	**10 J**	**50**	**20 J**	**390 J**	**190 J**	**640 J**	**30 J**	**340 J**	**690 J**	**8,700**	**700 J**	**150 J**	**10 J**	**1,000**	9.9 U	**2.3 J**	**20,000**	20 U
Bromodichloromethane	ug/kg	10 U	50 UJ	30 U	1,000 U	1,000 U	1,500 U	70 UJ	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 UJ	10 U	9,900 U	20 U
Bromoform	ug/kg	10 U	50 UJ	30 UJ	1,000 U	1,000 U	1,500 U	70 UJ	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 UJ	800 U	9.9 UJ	10 UJ	9,900 U	20 U
Bromomethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Carbon disulfide	ug/kg	**10 J**	**10 J**	**40 J**	**250 J**	**200 J**	1,500 U	**30 J**	1,300 U	**930 J**	1,400 U	**60 J**	**40 J**	**10 J**	**180 J**	**8.1 J**	**10 J**	**2,000 J**	**7.7 J**
Carbon tetrachloride	ug/kg	10 U	50 UJ	30 UJ	1,000 U	1,000 U	1,500 U	70 UJ	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 UJ	10 U	9,900 U	20 U
Chlorobenzene	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	**10 J**	1,300 U	1,300 UJ	1,400 U	90 UJ	80 UJ	**20 J**	**2,300**	9.9 UJ	**3.5 J**	9,900 U	20 U
Chloroethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 UJ	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Chloroform	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Chloromethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
cis-1,2-dichloroethylene	ug/kg	10 U	50 U	30 U	**200 J**	1,000 U	**400 J**	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
cis-1,3-dichloropropene	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Dibromochloromethane	ug/kg	10 U	50 UJ	30 UJ	1,000 UJ	1,000 U	1,500 U	70 UJ	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 UJ	800 U	9.9 UJ	10 UJ	9,900 U	20 U
Dichlorodifluoromethane	ug/kg	10 U	50 U	30 U	1,000 UJ	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Ethylbenzene	ug/kg	**190 J**	**600 J**	**20 J**	**2,000**	**850 J**	**520 J**	**2,000 J**	**3,600**	**3,300 J**	**3,400**	**40 J**	**790 J**	**110 J**	**1,200**	**6.4 J**	**5.4 J**	**190,000**	**6.7 J**
Methyl ethyl ketone (2-butanone)	ug/kg	20 U	100 U	70 U	1,000 U	1,000 U	1,500 U	160 UJ	1,300 U	1,300 U	1,400 U	180 UJ	180 UJ	80 U	800 U	**50 J**	20 U	9,900 U	40 U
Methyl isobutyl ketone	ug/kg	20 U	100 U	70 U	1,000 U	1,000 U	1,500 U	160 U	1,300 U	1,300 U	1,400 U	180 UJ	180 UJ	80 U	800 U	20 UJ	20 UJ	9,900 U	40 U
Methylene chloride	ug/kg	40 U	210 U	150 U	1,000 U	1,000 U	1,500 U	310 U	1,300 U	1,300 U	1,400 U	370 UJ	350 UJ	170 U	800 U	40 U	40 U	9,900 U	90 U
Styrene	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 UJ	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 UJ	10 UJ	9,900 U	20 U
Tert-butyl methyl ether	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Tetrachloroethylene(PCE)	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 UJ	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 UJ	10 UJ	9,900 UJ	20 U
Toluene	ug/kg	**10 J**	**10 J**	**20 J**	**580 J**	**210 J**	**630 J**	**40 J**	**260 J**	**670 J**	**150 J**	**30 J**	**30 J**	**10 J**	**210 J**	9.9 UJ	**1.9 J**	**17,000**	**360**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98
Sample Number:		GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)
Sample Depth:		11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9	1-2
Sample Date:		1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
trans-1,2-dichloroethene	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
trans-1,3-dichloropropene	ug/kg	10 U	50 UJ	30 UJ	1,000 U	1,000 U	1,500 U	70 UJ	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 UJ	10 U	9,900 U	20 U
Trichloroethylene (TCE)	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	**360 J**	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Trichlorofluoromethane	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Vinyl chloride	ug/kg	10 U	50 U	30 U	1,000 U	1,000 U	1,500 U	70 U	1,300 U	1,300 U	1,400 U	90 UJ	80 UJ	40 U	800 U	9.9 U	10 U	9,900 U	20 U
Xylene, total	ug/kg	**230 J**	**380 J**	**60 J**	**4,200**	**970 J**	**1,300 J**	**650 J**	**3,200**	**4,900 J**	**1,800**	**170 J**	**730 J**	**40**	**2,200**	**7.9 J**	**4.6 J**	**240,000**	20 U

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-98	GC-SED-99B	GC-SED-99B
Sample Number:		GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
Sample Depth:		8.5-9.5	3.5-4.5	7.2-8.7
Sample Date:		1/27/2006	12/22/2005	12/22/2005
Sample Type:		N	N	N
Parameter	**Units**	**Volatile Organic Compounds**		
1,1,1-trichloroethane	ug/kg	25,000 U	3,400 U	17,000 U
1,1,2,2-tetrachloroethane	ug/kg	25,000 U	3,400 U	17,000 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	25,000 U	3,400 U	17,000 U
1,1,2-trichloroethane	ug/kg	25,000 U	3,400 U	17,000 U
1,1-dichloroethane	ug/kg	25,000 U	3,400 U	17,000 U
1,1-dichloroethene	ug/kg	25,000 U	3,400 U	17,000 U
1,2,4-trichlorobenzene	ug/kg	1,300,000 U	110,000 U	860,000 U
1,2-dichlorobenzene	ug/kg	1,300,000 U	110,000 U	860,000 U
1,2-dichloroethane	ug/kg	25,000 U	3,400 U	17,000 U
1,2-dichloropropane	ug/kg	25,000 U	3,400 U	17,000 U
1,3-dichlorobenzene	ug/kg	1,300,000 U	110,000 U	860,000 U
1,4-dichlorobenzene	ug/kg	1,300,000 U	110,000 U	860,000 U
2-hexanone	ug/kg	25,000 U	3,400 U	17,000 U
Acetone	ug/kg	62,000 U	8,600 U	42,000 U
Benzene	ug/kg	**85,000**	**6,500**	**120,000**
Bromodichloromethane	ug/kg	25,000 U	3,400 U	17,000 U
Bromoform	ug/kg	25,000 U	3,400 U	17,000 U
Bromomethane	ug/kg	25,000 U	3,400 U	17,000 U
Carbon disulfide	ug/kg	25,000 U	**910 J**	17,000 U
Carbon tetrachloride	ug/kg	25,000 U	3,400 UJ	17,000 UJ
Chlorobenzene	ug/kg	25,000 U	3,400 U	17,000 U
Chloroethane	ug/kg	25,000 U	3,400 U	17,000 U
Chloroform	ug/kg	25,000 U	3,400 U	17,000 U
Chloromethane	ug/kg	25,000 U	3,400 U	17,000 U
cis-1,2-dichloroethylene	ug/kg	25,000 U	3,400 U	17,000 U
cis-1,3-dichloropropene	ug/kg	25,000 U	3,400 U	17,000 U
Dibromochloromethane	ug/kg	25,000 U	3,400 U	17,000 U
Dichlorodifluoromethane	ug/kg	25,000 U	3,400 U	17,000 U
Ethylbenzene	ug/kg	**770,000**	**75,000**	**570,000**
Methyl ethyl ketone (2-butanone)	ug/kg	25,000 U	3,400 U	17,000 U
Methyl isobutyl ketone	ug/kg	25,000 U	3,400 U	17,000 U
Methylene chloride	ug/kg	25,000 U	3,900 U	17,000 U
Styrene	ug/kg	25,000 U	3,400 U	17,000 U
Tert-butyl methyl ether	ug/kg	25,000 U	3,400 U	17,000 U
Tetrachloroethylene(PCE)	ug/kg	25,000 UJ	3,400 UJ	17,000 UJ
Toluene	ug/kg	**330,000**	**13,000**	**440,000**

TABLE I-8A
VOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-98	GC-SED-99B	GC-SED-99B
Sample Number:		GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
Sample Depth:		8.5-9.5	3.5-4.5	7.2-8.7
Sample Date:		1/27/2006	12/22/2005	12/22/2005
Sample Type:		N	N	N
Parameter	**Units**	**Volatile Organic Compounds**		
trans-1,2-dichloroethene	ug/kg	25,000 U	3,400 U	17,000 U
trans-1,3-dichloropropene	ug/kg	25,000 U	3,400 U	17,000 U
Trichloroethylene (TCE)	ug/kg	25,000 U	3,400 U	17,000 U
Trichlorofluoromethane	ug/kg	25,000 U	3,400 U	17,000 U
Vinyl chloride	ug/kg	25,000 U	3,400 U	17,000 U
Xylene, total	ug/kg	**880,000**	**95,000**	**650,000**

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126
Sample Number:	GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0
Sample Depth:	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4
Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**														
1,2,3-trichlorobenzene	ug/kg															
1,2-dichlorobenzene	ug/kg											16 J				
1,3-dichlorobenzene	ug/kg											1.7 J				36 J
1,4-dichlorobenzene	ug/kg		**260 J (R)**	**2,700 (A,R)**					**340 J (R)**	**650 J (R)**	**2,300 (R)**	66 J	**2,000 J (R)**		22	**290 J (R)**
Acetone	ug/kg											1,900 J			170	
Benzene	ug/kg			370 J	2.8 J	450 J	**530 J (R)**	**38,000 (A,R)**	**25,000 (A,R)**	190 J		32 J	**1,900 J (A,R)**			71 J
Bromoform	ug/kg									480						
Bromomethane	ug/kg															
Carbon disulfide	ug/kg				4 J							22			13	
Chlorobenzene	ug/kg	**580 (R)**	**700 (R)**	**6,800 (R)**						**1,100 (R)**	**2,400 (R)**	**2,100 (R)**	16 J		12	**330 J (R)**
Chloromethane	ug/kg															
cis-1,2-dichloroethylene	ug/kg															
Cyclohexane	ug/kg															
Ethylbenzene	ug/kg		**160 J (R)**			**7,000 (A,R)**	**8,700 (A,R)**	**260,000 (A,R)**	**230,000 (A,R)**		**650 J (R)**		6.6 J	**43,000 (A,R)**	**73,000 (A,R)**	1.7 J	**170 J (R)**
Isopropylbenzene (cumene)	ug/kg			240 J	0.94 J	3,100	1,500	26,000	24,000	150 J	260 J	290 J	49 J	11,000	19,000	1 J	63 J
m, p xylenes	ug/kg			500 J		**900 J (R)**	**1,700 (R)**	**190,000 (R)**	**160,000 (R)**			**950 (R)**	160 J	**6,800 (R)**	**11,000 J (R)**		41 J
Methyl acetate	ug/kg		140 J	280 J								540 J					1,600
Methyl ethyl ketone (2-butanone)	ug/kg	150 J						6,400 J	5,900 J	660 J	570 J	1,400 J	870 J			50	150
*Methylcyclohexane	ug/kg			300 J								540 J	91 J				
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg		120 J	370 J		**3,700 (R)**	**3,000 (R)**	**94,000 (R)**	**83,000 (R)**	280 J	490 J	**800 (R)**	32 J	**16,000 (R)**	**29,000 (R)**	0.91 J	98 J
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg				0.85 J												
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg							**110,000 (R)**	**61,000 (R)**				10 J				14 J
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD126	GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153
Sample Number:		D-03042010-01	GC-SD126-04.0-06.0	GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2
Sample Depth:		2-4	4-6	6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8	0-2	2-4	0-2	2-3.2
Sample Date:		3/4/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg													3.1 J			
1,2-dichlorobenzene	ug/kg				8.7 J	19 J									3.5 J		
1,3-dichlorobenzene	ug/kg		8.9 J	6.6 J											2.7 J		2.2 J
1,4-dichlorobenzene	ug/kg	**400 J (R)**	23 J		55 J	27 J	**560 J (R)**		21	230 J		**770 J (R)**		14 J	21 J	2.6 J	14 J
Acetone	ug/kg	420	130	290	1,200	1,500 J			400				76	510 J	390	430	150
Benzene	ug/kg		4.5 J	25 J	17 J	16 J	**1,000 (R)**	**7,700 (A,R)**	59	**710 J (R)**	**1,600 (A,R)**	**1,600 (A,R)**	11 J	10 J	33		23 J
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	30	3.8 J	5 J	34 J	13 J			11 J				4.2 J	37 J	20	23 J	14
Chlorobenzene	ug/kg		27	**140 J (R)**	8.5 J	6.1 J								2.7 J	5.7 J		
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg			1.2 J										1.7 J	2.9 J		
Cyclohexane	ug/kg		21		59 J	46 J							13				
Ethylbenzene	ug/kg		3.7 J					**6,300 (A,R)**	**520 (R)**	**3,500 (R)**	**18,000 (A,R)**	**20,000 (A,R)**		41 J	75		54 J
Isopropylbenzene (cumene)	ug/kg		94	100 J	100 J	29 J	3,900	6,000	94	680 J	3,800	4,500	62 J	16 J	98	9.4 J	170 J
m, p xylenes	ug/kg			65 J	24 J	14 J	**550 J (R)**	**660 J (R)**	82	**660 J (R)**	**8,000 (R)**	**9,200 (R)**			93		20 J
Methyl acetate	ug/kg						290 J	320 J			280 J	490 J					
Methyl ethyl ketone (2-butanone)	ug/kg	150 J	48	110		560	910 J		110	1,100 J	1,400 J		25	140 J	120	130	36
*Methylcyclohexane	ug/kg		75	190 J	120 J	47 J		1,200			1,900	1,500	110				
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg		14	120 J	81 J	21 J	**960 (R)**	**3,200 (R)**	130	**990 (R)**	**5,700 (R)**	**6,600 (R)**	20 J	14 J	120		34 J
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg	0.86 J	8.7 J	6.8 J									2.7 J			1.4 J	
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg			16 J								680 J		37 J			
Trichloroethylene (TCE)	ug/kg												1.7 J		1.7 J		
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD145	GC-SD145	GC-SD146	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127
Sample Number:		GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0	GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0
Sample Depth:		0-2	2-3.5	0-2	2-4	4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4
Sample Date:		4/9/2010	4/9/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg								21								
1,3-dichlorobenzene	ug/kg				7 J				80		14						
1,4-dichlorobenzene	ug/kg	13			12 J	11 J			89		13						240 J
Acetone	ug/kg	36		450	640	250		240	440	290	120						
Benzene	ug/kg								14 J								
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	1.7 J		14 J	14 J	45		9.6 J	18	10 J	7.9 J						
Chlorobenzene	ug/kg				3.1 J												
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg					3.7 J											
Cyclohexane	ug/kg																
Ethylbenzene	ug/kg	56	**55,000 (A,R)**			73 J	**3,000 (R)**	1.7 J	6.9 J			**51,000 (A,R)**					**610 J (R)**
Isopropylbenzene (cumene)	ug/kg	27	15,000		5.9 J	79 J	2,000		110		65	29,000	1,800	4,000	2,200		
m, p xylenes	ug/kg	31	**27,000 (R)**		4.2 J	57 J	**1,300 (R)**	1.2 J	89		2.9 J	**5,600 (R)**					**700 J (R)**
Methyl acetate	ug/kg												470 J	780 J		450 J	630 J
Methyl ethyl ketone (2-butanone)	ug/kg			76	180	57		72	160	32 J	8.2 J						
*Methylcyclohexane	ug/kg						300 J		70 J								
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	36	**24,000 (R)**		3.5 J	37 J	**1,300 (R)**		72		4.1 J	**27,000 (R)**					430 J
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg					100 J											
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112
Sample Number:		GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0	GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01
Sample Depth:		4-6	4-6	0-2	2-2.5	0-2	2-4	4-6	6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg											76 J					
1,3-dichlorobenzene	ug/kg											45 J					
1,4-dichlorobenzene	ug/kg						**370 J (R)**			**260 J (R)**	**490 J (R)**	230 J	**570 J (R)**		**1,400 (R)**	**2,700 (A,R)**	**6,200 (A,R)**
Acetone	ug/kg			430		130						750 J	990				
Benzene	ug/kg	**6,200 J (A,R)**	**5,400 (A,R)**	55 J	**900 J (R)**		**630 J (R)**	**11,000 (A,R)**	**3,900 (A,R)**			120 J	120 J	270 J			
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg			12 J		17						42	50 J				
Chlorobenzene	ug/kg			3 J													
Chloromethane	ug/kg										430 J						
cis-1,2-dichloroethylene	ug/kg											2.3 J	3.1 J				
Cyclohexane	ug/kg																
Ethylbenzene	ug/kg	**150,000 (A,R)**	**120,000 (A,R)**	6 J	**390 J (R)**		**2,800 (R)**	**120,000 (A,R)**	**62,000 (A,R)**	**460 J (R)**	**760 J (R)**	**480 J (R)**	**970 J (R)**	**1,300 (R)**		**280 J (R)**	
Isopropylbenzene (cumene)	ug/kg	34,000	27,000	16 J	1,700		1,100 J	23,000	12,000			110 J	360 J	1,100		180 J	
m, p xylenes	ug/kg	**150,000 (R)**	**120,000 (R)**	12 J			**2,800 (R)**	**97,000 (R)**	**55,000 (R)**			440 J	**1,000 J (R)**	**2,000 (R)**			
Methyl acetate	ug/kg									1,300	980 J		15	440 J	170 J	240 J	370 J
Methyl ethyl ketone (2-butanone)	ug/kg			150	870 J							310 J	450 J				
*Methylcyclohexane	ug/kg						500 J							450 J			
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	**76,000 (R)**	**63,000 (R)**	19 J	**4,100 (R)**		**2,200 (R)**	**53,000 (R)**	**29,000 (R)**		460 J	240 J	**650 J (R)**	**1,800 (R)**			
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	**50,000 (R)**	**42,000 (R)**						**2,800 (R)**			22 J					
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B	GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117
Sample Number:		GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9	GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0
Sample Depth:		0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	1.4-1.9	2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4
Sample Date:		3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg	**400 J (R)**		**310 J (R)**	**320 J (R)**	**52,000 (A,R)**								**330 J (R)**	**1,600 (R)**		**670 J (R)**
Acetone	ug/kg	220							180								
Benzene	ug/kg			**950 J (R)**	**770 J (R)**	**30,000 (A,R)**	**6,000 J (A,R)**			**7,400 (A,R)**	**8,400 (A,R)**	**26,000 (A,R)**		**840 J (R)**	**6,100 (A,R)**		**1,200 J (A,R)**
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	30							22								
Chlorobenzene	ug/kg																
Chloromethane	ug/kg																810 J
cis-1,2-dichloroethylene	ug/kg																
Cyclohexane	ug/kg																
Ethylbenzene	ug/kg	**450 J (R)**	**20,000 (A,R)**	**8,100 (A,R)**	**15,000 (A,R)**	**290,000 (A,R)**	**140,000 (A,R)**	5.6 J	15	**28,000 (A,R)**	**99,000 (A,R)**	**110,000 (A,R)**	**2,900 J (R)**	**2,900 (R)**	**18,000 (A,R)**	**4,200 (R)**	**6,900 (A,R)**
Isopropylbenzene (cumene)	ug/kg			320 J	330 J	55,000	19,000	7.9 J	5.7 J	3,400	17,000	20,000	1,100 J	570 J	2,800	1,000 J	2,500
m, p xylenes	ug/kg		**53,000 (R)**	**15,000 (R)**	**36,000 (R)**	**210,000 (R)**	**120,000 (R)**	4.7 J	2.4 J	**25,000 (R)**	**64,000 (R)**	**95,000 (R)**		**1,700 (R)**	**13,000 (R)**	**1,200 J (R)**	**6,100 (R)**
Methyl acetate	ug/kg			660 J	430 J					600 J						1,400 J	2,300
Methyl ethyl ketone (2-butanone)	ug/kg	85 J							53					2,100 J	1,400 J		
*Methylcyclohexane	ug/kg																
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg		**14,000 (R)**	**4,000 (R)**	**9,500 (R)**	**140,000 (R)**	**55,000 (R)**	2.2 J	3 J	**13,000 (R)**	**40,000 (R)**	**50,000 (R)**	**700 J (R)**	**1,200 (R)**	**8,200 (R)**	**1,500 J (R)**	**3,000 (R)**
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg				**1,300 (R)**						**4,700 (R)**	**7,400 (R)**			**1,800 (R)**		
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119
Sample Number:		GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0
Sample Depth:		4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3	0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6
Sample Date:		3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010
Sample Type:		N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg															**340 J (R)**	
1,3-dichlorobenzene	ug/kg											1.3 J					
1,4-dichlorobenzene	ug/kg	**440 J (R)**	**560 J (R)**									2.3 J				**340 J (R)**	
Acetone	ug/kg		860 J									230					
Benzene	ug/kg	**11,000 (A,R)**	**8,600 (A,R)**	**39,000 (A,R)**	**1,800 (A,R)**		**1,300 (A,R)**	**2,400 (A,R)**	**41,000 (A,R)**	**24,000 (A,R)**		34	**30,000 (A,R)**	**13,000 (A,R)**	**11,000 (A,R)**		470 J
Bromoform	ug/kg																
Bromomethane	ug/kg															450 J	
Carbon disulfide	ug/kg											13					
Chlorobenzene	ug/kg																
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Cyclohexane	ug/kg																300 J
Ethylbenzene	ug/kg	**13,000 (A,R)**	**3,200 (R)**	**150,000 (A,R)**	**28,000 (A,R)**	**12,000 (A,R)**	**11,000 (A,R)**	**17,000 (A,R)**	**210,000 (A,R)**	**160,000 (A,R)**	**1,000 (R)**	80	**210,000 (A,R)**	**96,000 (A,R)**	**91,000 (A,R)**	**3,700 (R)**	**6,200 (A,R)**
Isopropylbenzene (cumene)	ug/kg	1,300	800 J	22,000	5,800	1,400	2,600	3,700	24,000	24,000	290 J	11 J	14,000	7,700	13,000	930 J	1,500
m, p xylenes	ug/kg	**8,500 (R)**	**2,300 (R)**	**120,000 (R)**	**13,000 (R)**	**7,100 (R)**	**10,000 (R)**	**18,000 (R)**	**210,000 (R)**	**130,000 (R)**	240 J	14	**110,000 (R)**	**59,000 (R)**	**18,000 (R)**	**3,800 (R)**	**6,700 (R)**
Methyl acetate	ug/kg	570 J	1,100			530 J											
Methyl ethyl ketone (2-butanone)	ug/kg		910 J			1,100 J	1,300 J					69				620 J	340 J
*Methylcyclohexane	ug/kg							620 J									990
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	**5,500 (R)**	**1,300 (R)**	**61,000 (R)**	**10,000 (R)**	**4,400 (R)**	**5,900 (R)**	**9,900 (R)**	**100,000 (R)**	**65,000 (R)**	360	17	**52,000 (R)**	**27,000 (R)**	**42,000 (R)**	**2,200 (R)**	**3,700 (R)**
Styrene	ug/kg								38,000								
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	**1,100 (R)**	720 J				**3,200 (R)**	**6,800 (R)**	**150,000 (R)**	**91,000 (R)**			**110,000 (R)**	**39,000 (R)**			**1,400 (R)**
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133	GC-SD134	GC-SD134	GC-SD134
Sample Number:		GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4
Sample Depth:		6-8	6-8	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8	0-2	2-4	4-4.4
Sample Date:		3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg						27 J						**330 J (R)**				
1,3-dichlorobenzene	ug/kg						15 J										
1,4-dichlorobenzene	ug/kg						28 J				**800 (R)**	**2,000 (R)**	**360 J (R)**	220 J	4.1 J		
Acetone	ug/kg						130										
Benzene	ug/kg	**3,300 (A,R)**	**1,800 (A,R)**	**10,000 (A,R)**	**2,600 (A,R)**	**560 J (R)**	8.8 J	**64,000 (A,R)**	**19,000 (A,R)**	**9,300 (A,R)**						**11,000 (A,R)**	**12,000 (A,R)**
Bromoform	ug/kg		1,500 J			2,000											
Bromomethane	ug/kg																
Carbon disulfide	ug/kg						17								2.7 J		
Chlorobenzene	ug/kg										**200 J (R)**	**400 J (R)**					
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Cyclohexane	ug/kg						230 J										
Ethylbenzene	ug/kg	**39,000 (A,R)**	**30,000 (A,R)**	**100,000 (A,R)**	**30,000 (A,R)**	**11,000 (A,R)**	36	**430,000 (A,R)**	**200,000 (A,R)**	**63,000 (A,R)**		**390 J (R)**	**2,600 (R)**	**3,000 (R)**	13	**96,000 (A,R)**	**120,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	5,800	5,100	11,000	4,000	1,700	240	49,000	25,000	12,000	220 J	880 J	910	1,600	2.6 J	16,000	18,000
m, p xylenes	ug/kg	**34,000 (R)**	**26,000 (R)**	**74,000 (R)**	**22,000 (R)**	**8,400 (R)**	13	**320,000 (R)**	**160,000 (R)**	**61,000 (R)**	**640 (R)**	**2,000 (R)**	**2,500 (R)**	**1,800 (R)**	8.6	**39,000 (R)**	**91,000 (R)**
Methyl acetate	ug/kg										480	1,500	690 J	510 J			
Methyl ethyl ketone (2-butanone)	ug/kg						46				340 J	1,700 J	680 J				
*Methylcyclohexane	ug/kg		1,100 J				140 J					440 J		540 J			
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	**18,000 (R)**	**13,000 (R)**	**37,000 (R)**	**12,000 (R)**	**4,400 (R)**	5.8 J	**160,000 (R)**	**75,000 (R)**	**32,000 (R)**	**620 (R)**	**2,100 (R)**	**2,300 (R)**	**2,500 (R)**	5.6 J	**39,000 (R)**	**47,000 (R)**
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	**12,000 (R)**	**9,100 (R)**	**47,000 (R)**	**1,700 J (R)**	850		**190,000 (R)**		**2,600 J (R)**						**5,300 (R)**	
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151	GC-SD151	GC-SD123
Sample Number:		GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0	GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0
Sample Depth:		0-2	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2	2-4	4-4.8	0-2
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg					**310 J (R)**					8.8 J	19					
1,3-dichlorobenzene	ug/kg		3.2 J														
1,4-dichlorobenzene	ug/kg		20	79	**670 (R)**	**650 (R)**					20 J	46					
Acetone	ug/kg	58	200	360					31	460	320	870		24	44	50	500
Benzene	ug/kg		84	100		230 J	**1,700 (A,R)**			9.4 J		**540 (R)**	490 J		0.68 J	1.1 J	
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	4.7 J	20	15					5.3	13 J	8.4 J	22		12	5.3 J	7.7	19
Chlorobenzene	ug/kg		6.9 J	34								8.4 J					
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Cyclohexane	ug/kg			17 J													
Ethylbenzene	ug/kg	3.8 J	13	6.8 J	**1,100 (R)**	**800 (R)**	**8,800 (A,R)**			7.9 J	2.3 J	10 J	**7,100 (A,R)**		2.3 J	10	
Isopropylbenzene (cumene)	ug/kg	1 J	68	34	220 J	240 J	1,000	970	11	5.7 J	67	120	2,200		1.5 J	4.8 J	
m, p xylenes	ug/kg	1.6 J	35	150	**3,300 (R)**	**970 (R)**	**6,100 (R)**		2.6 J	3.6 J	47	240	**4,100 (R)**		1.3 J	4.8 J	
Methyl acetate	ug/kg				830	1,100	750 J	550 J									
Methyl ethyl ketone (2-butanone)	ug/kg		55	120		580 J	340 J	1,100 J		140	99	320	830 J		13	11	120
*Methylcyclohexane	ug/kg			130 J							29 J	180				4 J	
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	1.2 J	20	110	**900 (R)**	490 J	**3,700 (R)**		1.6 J	2.5 J	53	200	**4,100 (R)**		1.9 J	7	
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg								8.2						67	23	
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141
Sample Number:		GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0
Sample Depth:		2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2	2-4
Sample Date:		4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg		3.3 J	2.4 J													15 J
1,4-dichlorobenzene	ug/kg		8.4 J	6.2 J			**290 J (R)**								5 J	26 J	18 J
Acetone	ug/kg	410	360	200	46								120	460	450	560	620
Benzene	ug/kg	14 J	21	17		510 J		450 J	**24,000 (A,R)**	**58,000 (A,R)**	**54,000 (A,R)**	**95,000 (A,R)**			14 J	20 J	58
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	20 J	12 J	9.8 J	7.2								16 J	29 J	16 J	49	44
Chlorobenzene	ug/kg															12 J	8.3 J
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Cyclohexane	ug/kg																
Ethylbenzene	ug/kg	23	74	18		**25,000 (A,R)**	**2,400 (R)**	**4,800 (R)**	**180,000 (A,R)**	**200,000 (A,R)**	**240,000 (A,R)**	**500,000 (A,R)**		19 J	43 J	52	3.7 J
Isopropylbenzene (cumene)	ug/kg		20	16		5,500	450 J	960	43,000	40,000	36,000	100,000		6.3 J	9 J	21	41
m, p xylenes	ug/kg	46	83	61		**7,100 (R)**	**2,200 (R)**	**4,200 (R)**	**170,000 (R)**	**180,000 (R)**	**180,000 (R)**	**440,000 (A,R)**		31 J	50 J	73	100
Methyl acetate	ug/kg						780	320 J									
Methyl ethyl ketone (2-butanone)	ug/kg	220	200	110	13								27	120	120	180	220
*Methylcyclohexane	ug/kg													83 J		140 J	480
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	13 J	49	39		**11,000 (R)**	**1,300 (R)**	**2,400 (R)**	**87,000 (R)**	**94,000 (R)**	**91,000 (R)**	**250,000 (R)**		21 J	30 J	53	91
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg								**120,000 (R)**	**170,000 (R)**	**190,000 (R)**	**350,000 (R)**					
Trichloroethylene (TCE)	ug/kg															2.4 J	
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D
Sample Depth:	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	0-0.5	0.5-1	1-2	2-3
Sample Date:	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**														
1,2,3-trichlorobenzene	ug/kg															
1,2-dichlorobenzene	ug/kg									62 J	83 J	120 J	10 J			
1,3-dichlorobenzene	ug/kg							0.83 J	14 J						0.7 J	
1,4-dichlorobenzene	ug/kg	**450 J (R)**						28	**410 J (R)**	**270 J (R)**	**800 J (R)**	**640 J (R)**	**470 J (R)**	220 J	64	36 J
Acetone	ug/kg		270	67	210	260		210	840	840	870 J	1,200 J	350	130	110	200
Benzene	ug/kg						**15,000 (A,R)**	25	240 J	350	430 J	450 J	13	77 J	3.3 J	29
Bromoform	ug/kg															
Bromomethane	ug/kg															
Carbon disulfide	ug/kg		20	8	38	35		12	32	32	53	40	27	13 J	15	38
Chlorobenzene	ug/kg					2.3 J		9.3 J	**88 (R)**	**180 J (R)**	**400 J (R)**	**350 (R)**	**860 J (R)**	**1,500 J (R)**	**130 J (R)**	**860 J (R)**
Chloromethane	ug/kg															
cis-1,2-dichloroethylene	ug/kg												11			
Cyclohexane	ug/kg												19	22 J	2.2 J	5.8 J
Ethylbenzene	ug/kg	**5,700 (A,R)**	5 J			7.1 J	**40,000 (A,R)**	**190,000 (A,R)**	**890 J (R)**	**3,100 J (R)**	**220 (R)**	**130 J (R)**	60	49 J	**130 J (R)**	7.6	17 J
Isopropylbenzene (cumene)	ug/kg	1,800	1.5 J			3.9 J	13,000	44,000	93	660 J	140	190 J	160		33 J	1.7 J	7 J
m, p xylenes	ug/kg	**2,300 (R)**	4.2 J			8.2 J	**14,000 (R)**	**170,000 (R)**	410	**810 J (R)**	110	170 J	180	17 J	46 J	2.4 J	9.3 J
Methyl acetate	ug/kg													9.2 J			
Methyl ethyl ketone (2-butanone)	ug/kg		50	14 J	33 J	95			52	230	270	610	720	100	37	26	52
*Methylcyclohexane	ug/kg								2.4 J	17		120 J	200 J	50	72 J		14
Methylene chloride	ug/kg															
o-xylene (1,2-dimethylbenzene)	ug/kg	**2,900 (R)**	1.9 J			3 J	**19,000 (R)**	**92,000 (R)**	320	**1,200 J (R)**	340	370 J	220	9.8 J	50 J	2.3 J	13 J
Styrene	ug/kg															
Tert-butyl methyl ether	ug/kg								1.8 J	14	23 J	34	28			
Tetrachloroethylene(PCE)	ug/kg								1.4 J					290 J	11 J	16	2.8 J
Toluene	ug/kg							**63,000 (R)**	20	160	27	36 J	25	860 J	43 J	16	9.4 J
Trichloroethylene (TCE)	ug/kg													60 J			
Trichlorofluoromethane	ug/kg													10			
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C
Sample Depth:		3-4	4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg		55 J		15 J							37 J	77 J				
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg	17 J	**910 J (R)**	220 J	190 J	45	**370 J (R)**	**470 J (R)**	**290 J (R)**	**1,700 J (R)**	**1,300 J (R)**	**470 J (R)**	**380 J (R)**	3.2 J			87
Acetone	ug/kg	370	1,000 J	1,400 J	540 J	350	550	1,200 J	830	1,700 J	1,700 J	1,800 J	2,600 J	34	260	490	340
Benzene	ug/kg	62	320 J	110	200	30	100 J	220 J	140 J	430 J	290 J	**550 J (R)**	**1,300 J (A,R)**			110	270
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	41	24	15	8.6	8.5 J	25	45 J	28	44	46	36	30	1 J	4.2 J	22	7.6 J
Chlorobenzene	ug/kg	**6,200 J (R)**	**2,700 J (R)**	**530 J (R)**	**200 J (R)**	50	**480 (R)**	**750 J (R)**	**1,700 J (R)**	**1,700 J (R)**	**300 J (R)**	**210 (R)**	**190 J (R)**	0.75 J		5.1 J	
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg		1.7 J														
Cyclohexane	ug/kg	3.4 J	120 J	17	15					120 J	54 J	80 J	90 J				
Ethylbenzene	ug/kg	5.2 J	53 J	3.3 J	8.7	10 J	**140 J (R)**	78 J	75	**2,000 J (R)**	**540 J (R)**	96 J	26 J	0.4 J	71	**5,800 J (A,R)**	**4,700 J (R)**
Isopropylbenzene (cumene)	ug/kg	7.1 J	110 J	32	50	12 J	66 J	79 J	53	330 J	80 J	91 J	160 J	3.6 J	68	360	620
m, p xylenes	ug/kg	11	450 J	5.5 J	17	11 J	110 J	130 J	150	**1,500 J (R)**	**1,500 J (R)**	400 J	250 J	0.45 J	3 J	**1,600 J (R)**	**1,000 J (R)**
Methyl acetate	ug/kg																
Methyl ethyl ketone (2-butanone)	ug/kg	84	430	500	230	120	210	450 J	310	670 J	680	680	1,100 J	10	75	110	120
*Methylcyclohexane	ug/kg	9.5	380 J	130	38				46 J	410 J	120 J	200 J	250 J			11	
Methylene chloride	ug/kg													0.63 J			
o-xylene (1,2-dimethylbenzene)	ug/kg	16	290 J	11	15	24	150 J	240 J	180	**3,600 J (R)**	380 J	240 J	**790 J (R)**	0.94 J	5.6 J	**2,200 J (R)**	**1,700 J (R)**
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg			6.1 J	6 J								78	0.68 J			2.6 J
Tetrachloroethylene(PCE)	ug/kg						100 J	22 J			26 J						
Toluene	ug/kg	4.1 J	120 J	3.4 J	3.2 J	6.3 J	140 J	62 J	32	200 J	72 J	43 J	40 J	0.69 J	1.6 J	25	31
Trichloroethylene (TCE)	ug/kg						14 J										
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
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Station Location:		ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2
Sample Number:		ERT2-1-D	ERT2-1-E	ERT2-1-F	FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I
Sample Depth:		2-3	3-4	4-5	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg						**290 J (R)**					37 J	52 J			29 J	
1,3-dichlorobenzene	ug/kg				38 J		**340 J (R)**		1.5 J	3.2 J	6.4 J	12 J	14 J		28 J	13 J	
1,4-dichlorobenzene	ug/kg	**560 J (R)**	71 J	**1,500 (R)**	**2,100 (R)**	**330 J (R)**	**250 J (R)**	25	33	88	160	**270 J (R)**	**260 J (R)**	**680 J (R)**	**720 J (R)**	**290 J (R)**	
Acetone	ug/kg	1,100	280	1,500 J	970 J	1,100 J	870 J	560	380	630	560	390	880 J		1,300 J	1,200 J	
Benzene	ug/kg	**1,000 J (R)**	200 J	**1,700 (A,R)**	**2,200 (A,R)**			29	47	140 J	350 J	**2,200 J (A,R)**	**2,900 J (A,R)**	**14,000 (A,R)**	**1,700 (A,R)**	**1,900 J (A,R)**	**3,500 (A,R)**
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	16 J	6.6 J		34			7.8 J	9.3 J	10 J	7.4 J	9.3 J	14		31	8	
Chlorobenzene	ug/kg	41	43 J	**6,400 (R)**	**4,300 (R)**			9.5 J	15	44	**97 (R)**	68	49		**350 J (R)**	**240 (R)**	
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Cyclohexane	ug/kg																
Ethylbenzene	ug/kg	**13,000 J (A,R)**	**32,000 J (A,R)**	**6,200 (A,R)**	**12,000 (A,R)**	**420 J (R)**	**2,300 (R)**	**130 (R)**	**260 (R)**	**4,800 J (R)**	**6,600 J (A,R)**	**4,700 J (R)**	96	**130,000 (A,R)**	**11,000 (A,R)**	**9,300 J (A,R)**	**15,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	2,400 J	6,300 J	4,300	5,300	2,100	3,000	60	92	230	430	4,300 J	2,800 J	16,000	18,000	1,400 J	20,000
m, p xylenes	ug/kg	**5,600 J (R)**	**19,000 J (R)**	**1,500 (R)**	**2,700 (R)**		**1,300 (R)**	43	110	**3,100 J (R)**	**2,600 J (R)**	**1,200 J (R)**	97	**80,000 (R)**	**1,800 (R)**	170	**2,600 (R)**
Methyl acetate	ug/kg				1,100												
Methyl ethyl ketone (2-butanone)	ug/kg	390	95			790 J		140	110	200	170	140	340		480	480	
*Methylcyclohexane	ug/kg				120 J						10 J	110 J			6,100		5,100
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	**4,900 J (R)**	**13,000 J (R)**	**4,100 (R)**	**5,700 (R)**	330 J	**1,200 (R)**	34	91	400	**2,400 J (R)**	**3,600 J (R)**	**3,000 J (R)**	**52,000 (R)**	**1,900 (R)**	**1,400 J (R)**	**3,200 (R)**
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg	3.8 J	1.6 J							0.91 J	1.2 J						
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	240	55 J		43 J			3 J	7.9 J	61	74	50 J	39	**930 J (R)**	**1,200 J (R)**	27	
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
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Station Location:		ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1
Sample Number:		ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D	ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G
Sample Depth:		0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg						32 J	170 J	110 J			21 J					
1,3-dichlorobenzene	ug/kg												6.1 J	5.4 J			
1,4-dichlorobenzene	ug/kg	29 J	8 J	18 J	32 J	200 J	**390 J (R)**	**970 J (R)**	**340 J (R)**	67 J		87 J	46 J	36 J			
Acetone	ug/kg	490	890	700	1,200 J	1,100	1,100 J	1,800 J	1,100 J	910 J	130	140	73	67	26	500 J	
Benzene	ug/kg		14	49 J	190	**780 J (R)**	300	**2,400 J (A,R)**	**3,300 (A,R)**	**2,900 J (A,R)**		26 J	140 J	100 J	22		
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	12	39	30	28	36	41	24		5.5 J	4.4 J	17	13	15	6.6		
Chlorobenzene	ug/kg	11 J	**99 J (R)**	36 J	**93 J (R)**	**200 (R)**	**150 J (R)**	**250 J (R)**	**210 J (R)**					3 J	0.47 J		
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg									1.9 J		1.4 J	0.78 J				
Cyclohexane	ug/kg				6 J	23 J	13	22 J		27 J		27 J		14 J	2.5 J		
Ethylbenzene	ug/kg	10 J	15	8.3 J	5.9 J	74 J	9.8 J	35 J		**180 J (R)**		**130 (R)**	12 J	7.4	1.4 J	**640 (R)**	
Isopropylbenzene (cumene)	ug/kg	6.8 J	6.9 J	4.8 J	20	96 J	130		78 J	2,900 J		120	73 J	46	8.5 J	480	170 J
m, p xylenes	ug/kg	4.1 J	17	10 J	16	96 J	54	**830 J (R)**	180 J	42 J		15	5.4 J	4.3 J	0.89 J		
Methyl acetate	ug/kg	4.7 J	5.9 J	3.9 J	5.2 J			5.8 J									
Methyl ethyl ketone (2-butanone)	ug/kg	90	270	220	390	390	430	740		390	31	55	23	20			
*Methylcyclohexane	ug/kg					62 J	44			160 J		40 J	25 J		2.5 J		360 J
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg	3.6 J	9.7 J	8.6 J	38	**1,100 J (R)**	**960 J (R)**	420 J	230 J	100 J		26	3 J	3.2 J	1.3 J		
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg										5 J	20	24	23	7.7		
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	2.4 J	2.8 J	6.6 J	5.3 J	23 J	13	64 J		18 J		4.4 J	4.4 J	4.1 J	1.1 J		
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3
Sample Number:		ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F
Sample Depth:		6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5
Sample Date:		1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg									4.7 J							
1,2-dichlorobenzene	ug/kg									3.9 J							
1,3-dichlorobenzene	ug/kg				3 J								12 J	39 J			51 J
1,4-dichlorobenzene	ug/kg				17		65 J	160 J	110 J		4.1 J		84 J	**260 J (R)**	180 J	**260 J (R)**	**270 J (R)**
Acetone	ug/kg		290	190	780		450	1,300 J	850 J	20	330	270	340	1,200	1,000 J	1,500 J	630
Benzene	ug/kg				290	210 J	400 J	**1,300 J (A,R)**	**990 J (R)**	140 J			90	160 J		26 J	440 J
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg		1.1 J	1.9 J	17		19	30 J	19	4.3	16 J	24	12 J	44 J		41	25
Chlorobenzene	ug/kg			1.1 J			6.5	25 J	26				18	26		54 J	23 J
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg						0.54 J	3 J	1.5 J								
Cyclohexane	ug/kg		0.98 J				39 J	140 J				7 J	25	55 J			310 J
Ethylbenzene	ug/kg				2.4 J	17 J	11	**180 J (R)**	46	**380 J (R)**	2.8 J	1.6 J	10 J	16 J		16 J	43 J
Isopropylbenzene (cumene)	ug/kg	190 J	2.4 J	10 J	83	130 J	780 J	2,200 J	850 J	280 J	4.5 J	1.9 J	130	300 J	330 J	980	6,500 J
m, p xylenes	ug/kg				9.7 J	46 J	29	**1,100 J (R)**	140	**800 J (R)**	1.6 J	1.2 J	32	90 J		80 J	360 J
Methyl acetate	ug/kg				4.1 J								1.9 J	5.3 J		1,600	
Methyl ethyl ketone (2-butanone)	ug/kg		68	33	170		150	470 J	15 J		91	70	140	390		540	270
*Methylcyclohexane	ug/kg	390 J					69 J			11						78 J	
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg				8.5 J	110 J	78	**2,600 J (R)**	**1,100 J (R)**	**620 J (R)**	1.7 J	1.2 J	33	120 J		48 J	85 J
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg		11 J	38	80	30 J	58	41 J	32 J				2.5 J	8.6 J		39	190
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg				7.8 J		10	160 J	36	28 J	1.7 J	1.3 J	6.2 J	38 J		36 J	82 J
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg							2.9 J									

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02
Sample Number:		ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)
Sample Depth:		5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2,3-trichlorobenzene	ug/kg																
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg		13 J									5.6 J	17 J				
1,4-dichlorobenzene	ug/kg		93 J	15 J			2.4 J		100 J	200 J	11	17	30 J	**360 J (R)**	**8,200 J (A,R)**	**2,900 J (A,R)**	**2,300 J (R)**
Acetone	ug/kg	410 J	340	730 J	270	330	370	100	470		280	52	87	140	4,100		2,500 J
Benzene	ug/kg	**1,100 (R)**	**800 J (R)**	**800 J (R)**	**16,000 J (A,R)**	150 J			72 J		39	30	390 J	3.1 J	**2,900 (A,R)**		**1,200 (A,R)**
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg		11	8.9	9.1	6.1 J	23	19	22 J		10	15	11 J	10	190 J		170 J
Chlorobenzene	ug/kg								15		6 J	3.7 J	5.5 J	10	**110 J (R)**	**2,400 (R)**	**21,000 (R)**
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg											1.8 J	4.2 J		160 J		
Cyclohexane	ug/kg	730	980 J	340 J	220 J												
Ethylbenzene	ug/kg	89 J	**270 J (R)**	61	**13,000 J (A,R)**	**170 (R)**			**230 J (R)**	**1,900 (R)**	7.1 J	29	18	8.9 J	**480 J (R)**	**310 J (R)**	**770 J (R)**
Isopropylbenzene (cumene)	ug/kg	8,800	12,000 J	8,000 J	16,000 J	11 J		1.7 J	49 J	550 J	9 J	20	35				
m, p xylenes	ug/kg	230 J	290 J	87	**1,900 J (R)**	19 J			90 J	**1,500 (R)**	25	31	65				
Methyl acetate	ug/kg																
Methyl ethyl ketone (2-butanone)	ug/kg		120	290	100	110	92	26	190		100		32	70			980
*Methylcyclohexane	ug/kg		470 J	390 J	320 J								24 J				
Methylene chloride	ug/kg																
o-xylene (1,2-dimethylbenzene)	ug/kg		71 J		**2,300 J (R)**	35			70 J	**830 (R)**	25	34	150				
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg		73	68 J	74 J				1.3 J								
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg		44 J	34	41		2.3 J	1.3 J	5.8 J		2.8 J	2.7 J	8.8	60	140 J		140 J
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg													6 J	**720 J (R)**		**1,400 (R)**

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10	GC-SED-100	GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103
Sample Number:		GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)	GC-SED-100(5-6)	GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)
Sample Depth:		0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5	5-6	4-7	2-4	6.5-8.5	1-2	8.1-9.1
Sample Date:		12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg	210 J	**4,500 J (A,R)**														
Acetone	ug/kg		1,100 J													420 J	
Benzene	ug/kg	1.7 J	100 J		**970 (R)**		**630 J (R)**	**1,000 (R)**	**790 J (R)**	**5,000 J (A,R)**	170 J	**15,000 (A,R)**	**120,000 (A,R)**	**330,000 (A,R)**	**290,000 J (A,R)**	20	**8,200 (A,R)**
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	7.5 J		280 J		330 J										30	1,600 J
Chlorobenzene	ug/kg	**100 J (R)**	**400 J (R)**														
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg				130 J												
Ethylbenzene	ug/kg	1.3 J		**1,500 (R)**	**13,000 (A,R)**	**840 J (R)**	**4,300 (R)**	**210 J (R)**		**150,000 (A,R)**	**1,000 J (R)**	**150,000 (A,R)**	**430,000 (A,R)**	**870,000 (A,R)**	**790,000 (A,R)**	80	**62,000 (A,R)**
Methyl ethyl ketone (2-butanone)	ug/kg	70 J														70 J	
Methylene chloride	ug/kg										1,500 J						
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	10 J	100 J	110 J	560 J		140 J	150 J	90 J	**3,500 J (R)**	120 J	**53,000 (R)**	**150,000 (R)**	**770,000 (A,R)**	**620,000 J (A,R)**	10	**2,100 J (R)**
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg		**600 J (R)**	290 J	**5,800 (R)**	390 J	**2,100 (R)**	**720 (R)**	**1,200 J (R)**	**110,000 (A,R)**	**650 J (R)**	**170,000 (A,R)**	**430,000 (A,R)**	**1,100,000 (A,R)**	**1,000,000 J (A,R)**	20	**64,000 (A,R)**

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20
Sample Number:		GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)
Sample Depth:		2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1	1.5-2	5.8-6.8	0-1.5	4-5
Sample Date:		1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg																
Acetone	ug/kg										300					140 J	
Benzene	ug/kg	**9,800 (A,R)**			40 J	480 J		30 J	**28,000 J (A,R)**		100		10 J		140 J	4.9 J	110 J
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg		50 J	50 J	10 J		30 J	40 J		30 J	30 J	30 J	20 J	30 J	10 J	30 J	3.8 J
Chlorobenzene	ug/kg																
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Ethylbenzene	ug/kg	**130,000 (A,R)**	**1,100 J (R)**		**820 (R)**	**17,000 (A,R)**		**660 (R)**	**410,000 (A,R)**		10 J	**1,100 J (R)**	**140 (R)**		10 J	10 J	8.8 J
Methyl ethyl ketone (2-butanone)	ug/kg																
Methylene chloride	ug/kg																
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	**13,000 (R)**	40 J		240	720 J	10 J	50 J	**45,000 (R)**		140		20 J		60 J		10 J
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg	**130,000 (A,R)**	**1,100 J (R)**		**850 (R)**	**11,000 (R)**		520	**370,000 (A,R)**	160	**1,600 J (R)**		80		400	20 J	10 J

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31	GC-SED-31
Sample Number:		GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)	GC-SED-31(11.5-12.5)
Sample Depth:		1.5-3	7-8	0-1	7-8	0-2	3-4.5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5	11.5-12.5
Sample Date:		1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006	1/16/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg		**620 J (R)**											**1,100 J (R)**	**1,200 J (R)**		
Acetone	ug/kg				270 J	140 J		170 J	80 J	130 J		80 J		200 J		210 J	
Benzene	ug/kg	20 J	30 J		140 J	5.5 J	30 J	4.8 J			**1,300 (A,R)**	3.9 J	7.6 J	20 J	20 J	50 J	**24,000 J (A,R)**
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	40 J	20 J	40 J	50 J	20 J		40 J	10 J	20	280 J	20 J	30 J	30 J	10 J	10 J	
Chlorobenzene	ug/kg											5.4 J		**330 J (R)**	**90 J (R)**	40 J	
Chloromethane	ug/kg										120 J						
cis-1,2-dichloroethylene	ug/kg																
Ethylbenzene	ug/kg	**190 J (R)**	**560 (R)**		**2,300 J (R)**	10 J	70 J	9.7 J			**36,000 J (A,R)**	10 J	**310 J (R)**	30 J	**200 J (R)**	**500 J (R)**	**510,000 (A,R)**
Methyl ethyl ketone (2-butanone)	ug/kg																
Methylene chloride	ug/kg																
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg		90		100 J	50 J		3.3 J		10 J	**1,600 (R)**	30 J	10 J	10 J	10 J		**12,000 J (R)**
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg	110 J	260		**2,700 J (R)**	10 J	60 J	7.1 J			**49,000 (R)**	10 J	360 J	10 J	360 J	390 J	**630,000 (A,R)**

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43
Sample Number:	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)
Sample Depth:	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3
Sample Date:	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**														
1,2-dichlorobenzene	ug/kg															
1,3-dichlorobenzene	ug/kg															
1,4-dichlorobenzene	ug/kg		**6,800 J (A,R)**													
Acetone	ug/kg	60 J		190 J												
Benzene	ug/kg	6 J	**2,100 (A,R)**	40 J	40 J	**1,600 (A,R)**	**3,200 (A,R)**	**7,800 (A,R)**	**640 J (R)**	**53,000 (A,R)**	**14,000 (A,R)**	**4,100 (A,R)**	7.8 J	**93,000 (A,R)**	40 J		**26,000 (A,R)**
Bromoform	ug/kg															
Bromomethane	ug/kg															
Carbon disulfide	ug/kg	9.6 J	220 J	20 J	10 J				10 J			690 J	10 J			0.86 J	
Chlorobenzene	ug/kg								20 J							
Chloromethane	ug/kg					170 J	150 J	80 J								
cis-1,2-dichloroethylene	ug/kg		140 J													
Ethylbenzene	ug/kg	9.6 J	**8,900 (A,R)**	**230 J (R)**	**880 J (R)**	**3,200 (R)**	**8,700 (A,R)**	**28,000 (A,R)**	**1,100 J (R)**	**420,000 (A,R)**	**190,000 (A,R)**	**16,000 (A,R)**	40 J	**510,000 (A,R)**	**1,100 (R)**		**240,000 (A,R)**
Methyl ethyl ketone (2-butanone)	ug/kg															
Methylene chloride	ug/kg															
Styrene	ug/kg							1,300								1,600 J
Tert-butyl methyl ether	ug/kg															
Tetrachloroethylene(PCE)	ug/kg															
Toluene	ug/kg	10 J	850 J		20 J	330 J	**1,400 J (R)**	**18,000 (R)**	40 J	**110,000 (R)**	**20,000 (R)**	**1,600 (R)**		**70,000 (R)**	30 J		**20,000 (R)**
Trichloroethylene (TCE)	ug/kg															
Trichlorofluoromethane	ug/kg															
Vinyl chloride	ug/kg															
Xylene, total	ug/kg	8.5 J	**13,000 (R)**	190 J	330 J	**3,900 (R)**	**11,000 (R)**	**37,000 (R)**	**890 (R)**	**580,000 (A,R)**	**240,000 (A,R)**	**16,000 (R)**		**610,000 (A,R)**	**710 (R)**		**250,000 (A,R)**

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-43	GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53
Sample Number:		GC-SED-43(7.3-8.3)	GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)
Sample Depth:		7.3-8.3	0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5
Sample Date:		1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg																
Acetone	ug/kg																
Benzene	ug/kg	79,000 (A,R)	3,900 (A,R)	150,000 (A,R)	180,000 (A,R)	29,000 (A,R)	370,000 (A,R)	340,000 (A,R)	16,000 (A,R)	250,000 (A,R)	180,000 (A,R)	270,000 (A,R)	160,000 (A,R)	1,900 (A,R)	410,000 (A,R)	42,000 (A,R)	29,000 (A,R)
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg		980 J			480 J										8,800	
Chlorobenzene	ug/kg																
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Ethylbenzene	ug/kg	390,000 (A,R)	34,000 (A,R)	620,000 (A,R)	620,000 (A,R)	36,000 (A,R)	1,100,000 (A,R)	1,100,000 (A,R)	88,000 (A,R)	770,000 (A,R)	590,000 (A,R)	890,000 (A,R)	580,000 (A,R)	29,000 (A,R)	1,200,000 (A,R)	170,000 (A,R)	110,000 (A,R)
Methyl ethyl ketone (2-butanone)	ug/kg																
Methylene chloride	ug/kg																
Styrene	ug/kg													170 J			
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	290,000 (R)	3,900 (R)	520,000 (A,R)	540,000 (A,R)	4,300 (R)	39,000 J (R)	720,000 (A,R)	5,400 (R)	650,000 (A,R)	440,000 (R)	51,000 (R)	470,000 (R)	1,600 (R)	1,000,000 (A,R)	93,000 (R)	62,000 (R)
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg	430,000 (A,R)	29,000 (R)	660,000 (A,R)	700,000 (A,R)	37,000 (R)	1,100,000 (A,R)	1,200,000 (A,R)	94,000 (A,R)	820,000 (A,R)	660,000 (A,R)	930,000 (A,R)	630,000 (A,R)	20,000 (R)	1,200,000 (A,R)	350,000 (A,R)	140,000 (A,R)

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-54B	GC-SED-54B	GC-SED-55	GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68
Sample Number:		GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)	GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)
Sample Depth:		0-2	4.5-5.7	1.5-2.5	10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1
Sample Date:		1/20/2006	1/20/2006	1/24/2006	1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg																
Acetone	ug/kg	110			610 J	110 J				160 J							
Benzene	ug/kg	130	**59,000 (A,R)**		60	7.1 J	**12,000 (A,R)**	**32,000 (A,R)**	330 J	10	**130,000 (A,R)**	250 J	**4,000 J (A,R)**	**27,000 (A,R)**		**59,000 (A,R)**	6.4 J
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg	8.5 J			20 J	5.9 J				10					4.7 J		10 J
Chlorobenzene	ug/kg																
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Ethylbenzene	ug/kg	**180 (R)**	**400,000 (A,R)**	**510 J (R)**	**670 (R)**	**130 (R)**	**200,000 (A,R)**	**89,000 (A,R)**	**9,600 (A,R)**	40	**630,000 (A,R)**	**5,500 (A,R)**	**190,000 (A,R)**	**180,000 (A,R)**		**400,000 (A,R)**	30
Methyl ethyl ketone (2-butanone)	ug/kg														50 J		
Methylene chloride	ug/kg																
Styrene	ug/kg							3,300 J						23,000			
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	8 J	**8,900 J (R)**		80 J	4 J	**3,600 J (R)**	**6,300 (R)**	770	3.2 J	**200,000 (R)**	540 J	**3,200 J (R)**	**110,000 (R)**	170	**280,000 (R)**	60
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg	50	**440,000 (A,R)**	420 J	520	60	**240,000 (A,R)**	**89,000 (A,R)**	**5,600 (R)**	30	**730,000 (A,R)**	**6,100 (R)**	**190,000 (A,R)**	**250,000 (A,R)**		**470,000 (A,R)**	60

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B
Sample Number:		GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)
Sample Depth:		2.2-3.1	0-1	6-7	1.5-2.5	2.5-4	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5
Sample Date:		12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg																
Acetone	ug/kg												210 J	250 J		250	190
Benzene	ug/kg	**71,000 (A,R)**	10 J	230 J	**6,300 (A,R)**	**9,000 (A,R)**		250 J	2.8 J	260 J			10 J	7 J	60 J		2.7 J
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg		20 J		910 J		1.7 J	540 J	6 J		2.3 J	0.85 J	40 J	10 J	220 J	20	9 J
Chlorobenzene	ug/kg																
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg																
Ethylbenzene	ug/kg	**340,000 (A,R)**	80	**3,400 (R)**	**51,000 (A,R)**	**120,000 (A,R)**		**440 J (R)**	7.6 J	**2,400 (R)**			20 J	5.3 J	**3,200 (R)**		8.1 J
Methyl ethyl ketone (2-butanone)	ug/kg																
Methylene chloride	ug/kg												8.3 J				9.9 J
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	**250,000 (R)**	10 J	220 J	**6,500 (R)**	**15,000 J (R)**		260 J	4.4 J	310 J					130 J	420	
Trichloroethylene (TCE)	ug/kg																
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg	**390,000 (A,R)**	50 J	**3,500 (R)**	**44,000 (R)**	**150,000 (A,R)**		**580 J (R)**		**4,200 (R)**			20 J	60	**3,600 (R)**		8.7 J

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83	GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B
Sample Number:		GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)	GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)
Sample Depth:		2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8	0-2	11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1
Sample Date:		12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006	1/30/2006	1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**															
1,2-dichlorobenzene	ug/kg																
1,3-dichlorobenzene	ug/kg																
1,4-dichlorobenzene	ug/kg																
Acetone	ug/kg								300 J	210 J					280 J		
Benzene	ug/kg	210 J	20 J	**720 J (R)**		**530 J (R)**	**1,400 J (A,R)**		10 J	50	20 J	390 J	190 J	**640 J (R)**	30 J	340 J	**690 J (R)**
Bromoform	ug/kg																
Bromomethane	ug/kg																
Carbon disulfide	ug/kg		40 J	450 J	1.5 J	1,000 J		310 J	10 J	10 J	40 J	250 J	200 J		30 J		930 J
Chlorobenzene	ug/kg														10 J		
Chloromethane	ug/kg																
cis-1,2-dichloroethylene	ug/kg											200 J		400 J			
Ethylbenzene	ug/kg	**2,500 (R)**	**350 J (R)**	**29,000 (A,R)**		**44,000 (A,R)**	**98,000 (A,R)**	**300 J (R)**	**190 J (R)**	**600 J (R)**	20 J	**2,000 (R)**	**850 J (R)**	**520 J (R)**	**2,000 J (R)**	**3,600 (R)**	**3,300 J (R)**
Methyl ethyl ketone (2-butanone)	ug/kg				90												
Methylene chloride	ug/kg																
Styrene	ug/kg																
Tert-butyl methyl ether	ug/kg																
Tetrachloroethylene(PCE)	ug/kg																
Toluene	ug/kg	250 J	20 J	**1,400 J (R)**		**1,100 J (R)**	**22,000 (R)**	**22,000 (R)**	10 J	10 J	20 J	580 J	210 J	630 J	40 J	260 J	670 J
Trichloroethylene (TCE)	ug/kg													360 J			
Trichlorofluoromethane	ug/kg																
Vinyl chloride	ug/kg																
Xylene, total	ug/kg	**3,200 (R)**	370 J	**47,000 (R)**		**28,000 (R)**	**130,000 (A,R)**	440 J	230 J	380 J	60 J	**4,200 (R)**	**970 J (R)**	**1,300 J (R)**	**650 J (R)**	**3,200 (R)**	**4,900 J (R)**

TABLE I-8B
VOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98	GC-SED-98	GC-SED-99B	GC-SED-99B
Sample Number:		GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
Sample Depth:		4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9	1-2	8.5-9.5	3.5-4.5	7.2-8.7
Sample Date:		1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006	1/27/2006	12/22/2005	12/22/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**											
1,2-dichlorobenzene	ug/kg												
1,3-dichlorobenzene	ug/kg												
1,4-dichlorobenzene	ug/kg												
Acetone	ug/kg		420 J	560 J			130 J	180 J		110 J			
Benzene	ug/kg	**8,700 (A,R)**	**700 J (R)**	150 J	10 J	**1,000 (R)**		2.3 J	**20,000 (A,R)**		**85,000 (A,R)**	**6,500 (A,R)**	**120,000 (A,R)**
Bromoform	ug/kg												
Bromomethane	ug/kg												
Carbon disulfide	ug/kg		60 J	40 J	10 J	180 J	8.1 J	10 J	2,000 J	7.7 J		910 J	
Chlorobenzene	ug/kg				20 J	**2,300 (R)**		3.5 J					
Chloromethane	ug/kg												
cis-1,2-dichloroethylene	ug/kg												
Ethylbenzene	ug/kg	**3,400 (R)**	40 J	**790 J (R)**	110 J	**1,200 (R)**	6.4 J	5.4 J	**190,000 (A,R)**	6.7 J	**770,000 (A,R)**	**75,000 (A,R)**	**570,000 (A,R)**
Methyl ethyl ketone (2-butanone)	ug/kg						50 J						
Methylene chloride	ug/kg												
Styrene	ug/kg												
Tert-butyl methyl ether	ug/kg												
Tetrachloroethylene(PCE)	ug/kg												
Toluene	ug/kg	150 J	30 J	30 J	10 J	210 J		1.9 J	**17,000 (R)**	360	**330,000 (R)**	**13,000 (R)**	**440,000 (R)**
Trichloroethylene (TCE)	ug/kg												
Trichlorofluoromethane	ug/kg												
Vinyl chloride	ug/kg												
Xylene, total	ug/kg	**1,800 (R)**	170 J	**730 J (R)**	40	**2,200 (R)**	7.9 J	4.6 J	**240,000 (A,R)**		**880,000 (A,R)**	**95,000 (A,R)**	**650,000 (A,R)**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	D-03042010-01	GC-SD126-04.0-06.0
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4	2-4	4-6
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	6,500 UR	6,800 UR	9,200 UR	7,800 UR	60,000 UR	69,000 UR	19,000 UR	19,000 UR	7,100 UR	9,300 UR	9,800 UR	10,000 UR	35,000 UR	18,000 UR	10,000 R	12,000 R	13,000 UR	8,100 R
2,3,4,6-tetrachlorophenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2,4,5-trichlorophenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2,4,6-trichlorophenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2,4-dichlorophenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2,4-dimethylphenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2,4-dinitrophenol	ug/kg	13,000 U	14,000 U	18,000 U	16,000 U	120,000 U	140,000 U	38,000 U	37,000 U	14,000 U	19,000 U	20,000 U	21,000 U	70,000 U	36,000 U	20,000 U	23,000 U	25,000 U	16,000 U
2,4-dinitrotoluene	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2,6-dinitrotoluene	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2-chloronaphthalene	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2-chlorophenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2-methylnaphthalene	ug/kg	**7,100**	**3,100 J**	**13,000**	**6,100 J**	**48,000 J**	**1,500,000 J**	**2,100,000 J**	**1,700,000 J**	**4,500 J**	**15,000**	**13,000**	**13,000**	**66,000**	**66,000**	10,000 U	**22,000**	**26,000**	**48,000**
2-methylphenol (o-cresol)	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
2-nitroaniline	ug/kg	13,000 U	14,000 U	18,000 U	16,000 U	120,000 U	140,000 U	38,000 U	37,000 U	14,000 U	19,000 U	20,000 U	21,000 U	70,000 U	36,000 U	20,000 U	23,000 U	25,000 U	16,000 U
2-nitrophenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
3,3'-dichlorobenzidine	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
3-nitroaniline	ug/kg	13,000 U	14,000 U	18,000 U	16,000 U	120,000 U	140,000 U	38,000 U	37,000 U	14,000 U	19,000 U	20,000 U	21,000 U	70,000 U	36,000 U	20,000 U	23,000 U	25,000 U	16,000 U
4,6-dinitro-2-methylphenol	ug/kg	13,000 U	14,000 U	18,000 U	16,000 U	120,000 U	140,000 U	38,000 U	37,000 U	14,000 U	19,000 U	20,000 U	21,000 U	70,000 U	36,000 U	20,000 U	23,000 U	25,000 U	16,000 U
4-bromophenyl phenyl ether	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
4-chloro-3-methylphenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
4-chloroaniline	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
4-chlorophenyl phenyl ether	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
4-methylphenol (p-cresol)	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
4-nitroaniline	ug/kg	13,000 U	14,000 U	18,000 U	16,000 U	120,000 U	140,000 U	38,000 U	37,000 U	14,000 U	19,000 U	20,000 U	21,000 U	70,000 U	36,000 U	20,000 U	23,000 U	25,000 U	16,000 U
4-nitrophenol	ug/kg	13,000 U	14,000 U	18,000 U	16,000 U	120,000 U	140,000 U	38,000 U	37,000 U	14,000 U	19,000 U	20,000 U	21,000 U	70,000 U	36,000 U	20,000 U	23,000 U	25,000 U	16,000 U
Acenaphthene	ug/kg	**8,500**	**3,500 J**	**13,000**	**7,000 J**	**160,000**	**1,000,000**	**1,200,000 J**	**970,000 J**	**4,400 J**	**11,000**	**11,000**	**8,600 J**	**57,000**	**53,000**	10,000 U	**30,000**	**33,000**	**55,000**
Acenaphthylene	ug/kg	**2,300 J**	6,800 U	**2,200 J**	7,800 U	**18,000 J**	**120,000**	**140,000**	**73,000**	7,100 U	**1,700 J**	**1,900 J**	10,000 U	**8,400 J**	**4,000 J**	**3,000 J**	**4,700 J**	**5,200 J**	**4,900 J**
Acetophenone	ug/kg	6,500 U	**1,100 J**	**1,800 J**	**1,500 J**	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Anthracene	ug/kg	**8,500**	**2,200 J**	**14,000**	**6,000 J**	**110,000**	**580,000**	**620,000 J**	**670,000 J**	**2,700 J**	**9,400**	**11,000**	**11,000**	**94,000**	**42,000**	**2,500 J**	**22,000**	**24,000**	**30,000**
Atrazine	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Benzaldehyde	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Benzo(a)anthracene	ug/kg	**7,700**	**1,500 J**	**14,000**	**11,000**	**76,000**	**300,000**	**270,000**	**220,000**	**2,800 J**	**7,700 J**	**10,000**	**13,000**	**140,000**	**51,000**	**9,100 J**	**18,000**	**19,000**	**21,000 J**
Benzo(a)pyrene	ug/kg	**5,800 J**	6,800 U	**12,000**	**9,100**	**58,000 J**	**220,000**	**210,000**	**160,000**	**2,600 J**	**5,700 J**	**8,000 J**	**11,000**	**120,000**	**35,000**	**8,100 J**	**15,000**	**15,000**	**17,000**
Benzo(b)fluoranthene	ug/kg	**3,500 J**	6,800 U	**9,700**	**8,700**	**32,000 J**	**94,000**	**110,000**	**100,000**	**2,500 J**	**4,200 J**	**5,700 J**	**11,000**	**120,000**	**24,000**	**6,300 J**	**8,800 J**	**8,900 J**	**12,000**
Benzo(g,h,i)perylene	ug/kg	**2,400 J**	6,800 U	**6,500 J**	**5,200 J**	**21,000 J**	**73,000 J**	**60,000**	**47,000**	**1,500 J**	**2,800 J**	**3,800 J**	**5,600 J**	**68,000**	**19,000**	**3,700 J**	**6,500 J**	**6,700 J**	**7,400 J**
Benzo(k)fluoranthene	ug/kg	**3,800 J**	6,800 U	**11,000**	**8,900**	**44,000 J**	**150,000**	**120,000**	**90,000**	**2,200 J**	**4,300 J**	**7,100 J**	**9,400 J**	**95,000**	**27,000**	**6,000 J**	**11,000 J**	**11,000 J**	**11,000**
Benzyl butyl phthalate	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	D-03042010-01	GC-SD126-04.0-06.0
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4	2-4	4-6
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	6,500 U	6,800 U	9,200 U	**1,300 J**	**28,000 J**	**200,000**	**190,000**	**120,000**	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	**2,400 J**	**3,100 J**	8,100 U
Bis(2-chloroethoxy) methane	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Bis(2-chloroethyl) ether	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Bis(2-chloroisopropyl) ether	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Bis(2-ethylhexyl) phthalate	ug/kg	17,000 U	**10,000**	**52,000**	7,800 U	60,000 U	69,000 U	30,000 U	19,000 U	18,000 U	44,000 U	**270,000 J**	10,000 U	35,000 U	18,000 U	**7,700 J**	**46,000**	**42,000**	**16,000**
Caprolactam	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Carbazole	ug/kg	6,500 U	6,800 U	**2,200 J**	**2,900 J**	60,000 U	**20,000 J**	**21,000**	**13,000 J**	7,100 U	9,300 U	9,800 U	**2,500 J**	**41,000**	**7,500 J**	10,000 U	12,000 U	13,000 U	8,100 U
Chrysene	ug/kg	**7,600**	**1,600 J**	**16,000**	**11,000**	**77,000**	**280,000**	**250,000**	**210,000**	**3,200 J**	**8,300 J**	**11,000**	**15,000**	**130,000**	**57,000**	**10,000 J**	**19,000**	**20,000**	**21,000 J**
Dibenz(a,h)anthracene	ug/kg	6,500 U	6,800 U	**2,000 J**	**1,500 J**	60,000 U	**22,000 J**	**22,000**	**19,000 J**	7,100 U	9,300 U	9,800 U	10,000 U	**20,000 J**	**6,600 J**	10,000 U	**1,900 J**	13,000 U	**2,200 J**
Dibenzofuran	ug/kg	6,500 U	6,800 U	**3,000 J**	**2,800 J**	**12,000 J**	**140,000**	**59,000**	**46,000**	7,100 U	9,300 U	**1,600 J**	**3,100 J**	**26,000 J**	**9,700 J**	10,000 U	**2,200 J**	**2,100 J**	**2,900 J**
Diethyl phthalate	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Dimethyl phthalate	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Di-n-butyl phthalate	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Di-n-octylphthalate	ug/kg	**1,200 J**	**1,400 J**	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	**19,000**	**6,500 J**	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	**1,700 J**
Fluoranthene	ug/kg	**15,000**	**4,400 J**	**40,000**	**31,000**	**150,000**	**620,000**	**690,000 J**	**630,000 J**	**7,300**	**19,000**	**23,000**	**37,000**	**360,000**	**110,000**	**14,000**	**41,000**	**41,000**	**42,000 J**
Fluorene	ug/kg	**3,600 J**	**1,300 J**	**9,800**	**5,000 J**	**86,000**	**580,000**	**590,000 J**	**540,000 J**	**2,400 J**	**7,000 J**	**6,900 J**	**6,800 J**	**53,000**	**32,000**	10,000 U	**15,000**	**17,000**	**23,000**
Hexachlorobenzene	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Hexachlorobutadiene	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Hexachlorocyclopentadiene	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Hexachloroethane	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**2,300 J**	6,800 U	**7,700 J**	**6,600 J**	**26,000 J**	**84,000**	**68,000**	**56,000**	**1,700 J**	**2,700 J**	**3,900 J**	**6,500 J**	**83,000**	**22,000**	**4,000 J**	**6,900 J**	**7,100 J**	**8,200**
Isophorone	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Naphthalene	ug/kg	**7,700**	**3,700 J**	**12,000**	**11,000**	**88,000**	**3,400,000 J**	**4,500,000 J**	**2,400,000 J**	**5,400 J**	**10,000**	**3,000 J**	**7,600 J**	**51,000**	**29,000**	10,000 U	**26,000**	**31,000**	**71,000**
Nitrobenzene	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
N-nitrosodi-n-propylamine	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
N-nitrosodiphenylamine	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Pentachlorophenol	ug/kg	13,000 U	14,000 U	18,000 U	16,000 U	120,000 U	140,000 U	38,000 U	37,000 U	14,000 U	19,000 U	20,000 U	21,000 U	70,000 U	36,000 U	20,000 U	23,000 U	25,000 U	16,000 U
Phenanthrene	ug/kg	**21,000**	**6,100 J**	**48,000**	**26,000**	**370,000**	**2,000,000 J**	**2,100,000 J**	**1,900,000 J**	**11,000**	**35,000**	**36,000**	**46,000**	**380,000**	**170,000**	**5,500 J**	**73,000**	**76,000**	**89,000**
Phenol	ug/kg	6,500 U	6,800 U	9,200 U	7,800 U	60,000 U	69,000 U	19,000 U	19,000 U	7,100 U	9,300 U	9,800 U	10,000 U	35,000 U	18,000 U	10,000 U	12,000 U	13,000 U	8,100 U
Pyrene	ug/kg	**19,000**	**4,700 J**	**38,000**	**22,000**	**190,000**	**810,000**	**920,000 J**	**810,000 J**	**7,600**	**21,000**	**26,000**	**34,000**	**280,000**	**130,000**	**19,000**	**52,000**	**54,000**	**58,000 J**
Total PAHs	ug/kg	**125,800**	**32,100**	**268,900**	**176,100**	**1,554,000**	**11,833,000**	**13,970,000**	**10,595,000**	**61,800**	**164,800**	**181,300**	**235,500**	**2,125,400**	**877,600**	**91,200**	**372,800**	**394,900**	**520,700**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146
Sample Number:		GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0
Sample Depth:		6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4
Sample Date:		3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	8,300 R	13,000 U	9,900 U	29,000 U	320,000 U	13,000 UR	9,600 UR	31,000 UR	11,000 UR	8,500 UR	17,000 R	13,000 R	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2,3,4,6-tetrachlorophenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2,4,5-trichlorophenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2,4,6-trichlorophenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2,4-dichlorophenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2,4-dimethylphenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2,4-dinitrophenol	ug/kg	17,000 U	26,000 U	20,000 U	57,000 U	640,000 U	26,000 U	19,000 U	63,000 U	21,000 U	17,000 U	33,000 UJ	26,000 U	10,000 U	24,000 U	20,000 U	65,000 U	870 U	25,000 U
2,4-dinitrotoluene	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2,6-dinitrotoluene	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2-chloronaphthalene	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2-chlorophenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2-methylnaphthalene	ug/kg	**13,000**	**50,000**	**19,000**	**100,000**	**2,300,000**	**7,300 J**	**42,000**	**170,000**	**68,000**	**14,000**	**6,000 J**	**3,400 J**	**1,800 J**	**35,000**	**2,200 J**	**44,000**	**26 J**	**2,400 J**
2-methylphenol (o-cresol)	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
2-nitroaniline	ug/kg	17,000 U	26,000 U	20,000 U	57,000 U	640,000 U	26,000 U	19,000 U	63,000 U	21,000 U	17,000 U	33,000 UJ	26,000 U	10,000 U	24,000 U	20,000 U	65,000 U	870 U	25,000 U
2-nitrophenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
3,3'-dichlorobenzidine	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
3-nitroaniline	ug/kg	17,000 U	26,000 U	20,000 U	57,000 U	640,000 U	26,000 U	19,000 U	63,000 U	21,000 U	17,000 U	33,000 UJ	26,000 U	10,000 U	24,000 U	20,000 U	65,000 U	870 U	25,000 U
4,6-dinitro-2-methylphenol	ug/kg	17,000 U	26,000 U	20,000 U	57,000 U	640,000 U	26,000 U	19,000 U	63,000 U	21,000 U	17,000 U	33,000 UJ	26,000 U	10,000 U	24,000 U	20,000 U	65,000 U	870 U	25,000 U
4-bromophenyl phenyl ether	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
4-chloro-3-methylphenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
4-chloroaniline	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
4-chlorophenyl phenyl ether	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
4-methylphenol (p-cresol)	ug/kg	8,300 U	13,000 U	9,900 U	**1,200 J**	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	**1,800 J**	**47 J**	13,000 U
4-nitroaniline	ug/kg	17,000 U	26,000 U	20,000 U	57,000 U	640,000 U	26,000 U	19,000 U	63,000 U	21,000 U	17,000 U	33,000 UJ	26,000 U	10,000 U	24,000 U	20,000 U	65,000 U	870 U	25,000 U
4-nitrophenol	ug/kg	17,000 U	26,000 U	20,000 U	57,000 U	640,000 U	26,000 U	19,000 U	63,000 U	21,000 U	17,000 U	33,000 UJ	26,000 U	10,000 U	24,000 U	20,000 U	65,000 U	870 U	25,000 U
Acenaphthene	ug/kg	**16,000**	**43,000**	**19,000**	**91,000**	**1,300,000**	**19,000**	**71,000**	**140,000**	**80,000**	**27,000**	**7,900 J**	**13,000 J**	**11,000**	**37,000**	**7,600 J**	**330,000**	**180 J**	**14,000**
Acenaphthylene	ug/kg	**2,600 J**	**7,100 J**	**2,200 J**	**12,000 J**	**41,000 J**	**3,300 J**	**9,700**	**17,000 J**	**9,900 J**	**5,400 J**	**3,400 J**	**2,900 J**	**990 J**	**4,200 J**	**3,200 J**	**14,000 J**	**190 J**	**3,500 J**
Acetophenone	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	**2,500 J**	**2,100 J**	31,000 U	11,000 U	**1,500 J**	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Anthracene	ug/kg	**12,000**	**29,000**	**9,900 J**	**95,000**	**570,000**	**16,000**	**53,000**	**81,000**	**47,000 J**	**29,000**	**7,900 J**	**10,000 J**	**5,400**	**19,000**	**6,200 J**	**260,000**	**220 J**	**12,000 J**
Atrazine	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Benzaldehyde	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Benzo(a)anthracene	ug/kg	**10,000**	**21,000**	**11,000**	**71,000**	**290,000 J**	**11,000 J**	**37,000**	**57,000**	**36,000**	**24,000**	**10,000 J**	**9,900 J**	**4,700 J**	**16,000**	**12,000**	**81,000 J**	**630**	**14,000**
Benzo(a)pyrene	ug/kg	**8,400**	**18,000**	9,900 U	**52,000**	320,000 U	**8,900 J**	**30,000**	**47,000**	**28,000**	**18,000**	**8,200 J**	**7,700 J**	5,100 U	**12,000**	**11,000**	**45,000**	**690**	**15,000**
Benzo(b)fluoranthene	ug/kg	**5,700 J**	**14,000**	9,900 U	**48,000**	320,000 U	**3,900 J**	**17,000**	**25,000 J**	**17,000**	**11,000**	**4,500 J**	**5,100 J**	5,100 U	12,000 U	**4,500 J**	**22,000 J**	450 U	13,000 U
Benzo(g,h,i)perylene	ug/kg	**3,600 J**	**10,000 J**	**5,000 J**	**27,000 J**	**110,000 J**	**3,800 J**	**12,000 J**	**6,100 J**	**13,000 J**	**8,200 J**	**3,600 J**	**3,600 J**	**2,400 J**	**7,500 J**	**2,900 J**	**10,000 J**	**190 J**	**6,700 J**
Benzo(k)fluoranthene	ug/kg	**6,500 J**	13,000 U	9,900 U	29,000 U	320,000 U	**6,000 J**	**19,000**	**36,000**	**21,000**	**14,000**	**6,300 J**	**5,100 J**	5,100 U	12,000 U	**5,600 J**	**29,000 J**	450 U	13,000 U
Benzyl butyl phthalate	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146
Sample Number:		GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0
Sample Depth:		6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4
Sample Date:		3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	8,300 U	**2,800 J**	**660 J**	**2,200 J**	**230,000 J**	**2,300 J**	**9,500 J**	**24,000 J**	**13,000**	8,500 U	17,000 UJ	13,000 U	**810 J**	**2,000 J**	**580 J**	**12,000 J**	**16 J**	**600 J**
Bis(2-chloroethoxy) methane	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Bis(2-chloroethyl) ether	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Bis(2-chloroisopropyl) ether	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**72,000**	49,000 U	**53,000**	57,000 U	320,000 U	**22,000**	**56,000**	**93,000**	**110,000**	**24,000**	**23,000 J**	**25,000**	7,700 U	33,000 U	**15,000**	**2,200 J**	450 U	50,000 U
Caprolactam	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Carbazole	ug/kg	8,300 U	**970 J**	**760 J**	**5,200 J**	**22,000 J**	13,000 U	9,600 U	31,000 U	**2,600 J**	8,500 U	17,000 UJ	13,000 U	5,100 U	**960 J**	10,000 U	**2,300 J**	450 U	13,000 U
Chrysene	ug/kg	**12,000**	**22,000**	**9,500 J**	**67,000**	**270,000 J**	**11,000 J**	**35,000**	**57,000**	**36,000**	**25,000**	**10,000 J**	**11,000 J**	**4,800 J**	**15,000**	**15,000**	**84,000 J**	**770**	**23,000 J**
Dibenz(a,h)anthracene	ug/kg	8,300 U	**1,800 J**	**1,400 J**	**6,000 J**	320,000 U	13,000 U	**3,400 J**	**4,800 J**	**4,100 J**	**2,400 J**	17,000 UJ	13,000 U	5,100 U	**2,200 J**	**1,400 J**	**4,900 J**	**51 J**	**2,000 J**
Dibenzofuran	ug/kg	**2,100 J**	**2,900 J**	**1,500 J**	**9,600 J**	**62,000 J**	13,000 U	**4,600 J**	**9,400 J**	**6,000 J**	**2,300 J**	17,000 UJ	13,000 U	**620 J**	**2,500 J**	**460 J**	**6,700 J**	**31 J**	13,000 U
Diethyl phthalate	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Dimethyl phthalate	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Di-n-butyl phthalate	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Di-n-octylphthalate	ug/kg	**9,100**	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	**20,000 J**	**38,000**	**7,100 J**	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Fluoranthene	ug/kg	**23,000**	**37,000**	**18,000**	**120,000**	**540,000**	**25,000**	**77,000**	**150,000**	**69,000 J**	**47,000**	**18,000 J**	**20,000**	**9,400**	**30,000**	**20,000**	**220,000 J**	**820**	**41,000**
Fluorene	ug/kg	**8,000 J**	**19,000**	**8,100 J**	**58,000**	**530,000**	**6,800 J**	**29,000**	**61,000**	**31,000**	**16,000**	**3,700 J**	13,000 U	**3,400 J**	**15,000**	**2,100 J**	**57,000**	**72 J**	**3,200 J**
Hexachlorobenzene	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Hexachlorobutadiene	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Hexachlorocyclopentadiene	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Hexachloroethane	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**4,000 J**	**9,500 J**	**5,300 J**	**26,000 J**	**98,000 J**	**3,800 J**	**13,000 J**	**21,000 J**	**16,000 J**	**9,900 J**	**3,400 J**	**3,300 J**	**1,700 J**	**6,300 J**	**3,600 J**	**12,000 J**	**140 J**	**5,200 J**
Isophorone	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Naphthalene	ug/kg	**8,000 J**	**22,000**	9,900 U	29,000 U	**3,900,000**	**17,000**	**73,000**	**220,000**	**100,000**	**14,000**	**15,000 J**	**18,000**	5,100 U	**19,000**	**7,800 J**	**140,000**	450 U	13,000 U
Nitrobenzene	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
N-nitrosodi-n-propylamine	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
N-nitrosodiphenylamine	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Pentachlorophenol	ug/kg	17,000 U	26,000 U	20,000 U	57,000 U	640,000 U	26,000 U	19,000 U	63,000 U	21,000 U	17,000 U	33,000 UJ	26,000 U	10,000 U	24,000 U	20,000 U	65,000 U	870 U	25,000 U
Phenanthrene	ug/kg	**42,000**	**87,000**	**36,000**	**260,000**	**1,700,000**	**40,000**	**130,000**	**250,000**	**130,000 J**	**71,000**	**24,000 J**	**21,000**	**20,000**	**60,000**	**10,000**	**320,000**	**440 J**	**23,000**
Phenol	ug/kg	8,300 U	13,000 U	9,900 U	29,000 U	320,000 U	13,000 U	9,600 U	31,000 U	11,000 U	8,500 U	17,000 UJ	13,000 U	5,100 U	12,000 U	10,000 U	33,000 U	450 U	13,000 U
Pyrene	ug/kg	**29,000**	**62,000**	**25,000**	**180,000**	**970,000**	**29,000**	**97,000**	**150,000**	**93,000**	**61,000**	**24,000 J**	**27,000**	**16,000**	**37,000**	**34,000**	**260,000 J**	**1,200**	**61,000**
Total PAHs	ug/kg	**203,800**	**452,400**	**169,400**	**1,213,000**	**12,619,000**	**211,800**	**748,100**	**1,492,900**	**799,000**	**396,900**	**155,900**	**161,000**	**81,590**	**315,200**	**149,100**	**1,932,900**	**5,619**	**226,000**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129
Sample Number:		GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0
Sample Depth:		4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	4-6	0-2	2-2.5	0-2	2-4
Sample Date:		4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 UR	12,000 UR	50,000 UR	97,000 UR	13,000 U	23,000 U	12,000 U	30,000 U
2,3,4,6-tetrachlorophenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2,4,5-trichlorophenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2,4,6-trichlorophenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2,4-dichlorophenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2,4-dimethylphenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2,4-dinitrophenol	ug/kg	48,000 U	120,000 U	26,000 U	44,000 U	850 U	40,000 U	320,000 U	27,000 U	21,000 U	19,000 U	23,000 U	23,000 U	100,000 U	190,000 U	25,000 U	47,000 U	23,000 U	60,000 U
2,4-dinitrotoluene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2,6-dinitrotoluene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2-chloronaphthalene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2-chlorophenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2-methylnaphthalene	ug/kg	**48,000**	**81,000**	**1,100 J**	**23,000**	**16 J**	**41,000**	**590,000**	**4,200 J**	11,000 U	9,500 U	11,000 U	**26,000**	**4,200,000 J**	**5,000,000 J**	**3,900 J**	**110,000**	**2,800 J**	**210,000**
2-methylphenol (o-cresol)	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
2-nitroaniline	ug/kg	48,000 U	120,000 U	26,000 U	44,000 U	850 U	40,000 U	320,000 U	27,000 U	21,000 U	19,000 U	23,000 U	23,000 U	100,000 U	190,000 U	25,000 U	47,000 U	23,000 U	60,000 U
2-nitrophenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
3,3'-dichlorobenzidine	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
3-nitroaniline	ug/kg	48,000 U	120,000 U	26,000 U	44,000 U	850 U	40,000 U	320,000 U	27,000 U	21,000 U	19,000 U	23,000 U	23,000 U	100,000 U	190,000 U	25,000 U	47,000 U	23,000 U	60,000 U
4,6-dinitro-2-methylphenol	ug/kg	48,000 U	120,000 U	26,000 U	44,000 U	850 U	40,000 U	320,000 U	27,000 U	21,000 U	19,000 U	23,000 U	23,000 U	100,000 UJ	190,000 U	25,000 U	47,000 U	23,000 U	60,000 U
4-bromophenyl phenyl ether	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
4-chloro-3-methylphenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
4-chloroaniline	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
4-chlorophenyl phenyl ether	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
4-methylphenol (p-cresol)	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	**28 J**	**1,600 J**	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
4-nitroaniline	ug/kg	48,000 U	120,000 U	26,000 U	44,000 U	850 U	40,000 U	320,000 U	27,000 U	21,000 U	19,000 U	23,000 U	23,000 U	100,000 U	190,000 U	25,000 U	47,000 U	23,000 U	60,000 U
4-nitrophenol	ug/kg	48,000 U	120,000 U	26,000 U	44,000 U	850 U	40,000 U	320,000 U	27,000 U	21,000 U	19,000 U	23,000 U	23,000 U	100,000 U	190,000 U	25,000 U	47,000 U	23,000 U	60,000 U
Acenaphthene	ug/kg	**130,000**	**230,000**	**7,000 J**	**34,000**	**110 J**	**87,000**	**1,100,000**	**44,000**	**160,000**	**130,000**	**6,200 J**	**30,000**	**2,600,000 J**	**2,800,000 J**	**14,000**	**79,000**	**11,000 J**	**130,000**
Acenaphthylene	ug/kg	**10,000 J**	**19,000 J**	**1,400 J**	**6,500 J**	**120 J**	**8,500 J**	**50,000 J**	**2,500 J**	**12,000**	**10,000**	**3,600 J**	**8,000 J**	**120,000**	**130,000**	**6,700 J**	**43,000**	**2,700 J**	**12,000 J**
Acetophenone	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	**5,600 J**	12,000 U	30,000 U
Anthracene	ug/kg	**39,000**	**150,000**	**5,800 J**	**41,000**	**140 J**	**60,000**	**860,000**	**9,300 J**	**31,000**	**24,000**	**8,500 J**	**41,000**	**2,000,000 J**	**2,200,000 J**	**22,000**	**110,000**	**17,000**	**98,000**
Atrazine	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Benzaldehyde	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Benzo(a)anthracene	ug/kg	**37,000 J**	**59,000 J**	13,000 U	**38,000**	**300 J**	**48,000**	**330,000**	**13,000 J**	**44,000**	**45,000**	**14,000**	**36,000**	**630,000**	**640,000**	**25,000**	**280,000**	**25,000**	**72,000**
Benzo(a)pyrene	ug/kg	24,000 U	60,000 U	**4,300 J**	**31,000**	440 U	**35,000**	**230,000**	**11,000 J**	**34,000**	**33,000**	**12,000**	**28,000**	**410,000**	**420,000**	**20,000**	**240,000**	**17,000**	**48,000**
Benzo(b)fluoranthene	ug/kg	24,000 U	60,000 U	**1,700 J**	**15,000 J**	440 U	**30,000**	160,000 U	**7,700 J**	**18,000**	**18,000**	**7,500 J**	**20,000**	**250,000**	**200,000**	**11,000 J**	**220,000**	**19,000**	**44,000**
Benzo(g,h,i)perylene	ug/kg	**8,300 J**	**32,000 J**	**2,100 J**	**7,400 J**	**140 J**	**17,000 J**	**87,000 J**	**4,100 J**	**12,000**	**11,000**	**5,600 J**	**9,800 J**	**100,000**	**95,000 J**	**8,800 J**	**90,000**	**11,000 J**	**24,000 J**
Benzo(k)fluoranthene	ug/kg	24,000 U	60,000 U	**2,500 J**	**18,000 J**	440 U	20,000 U	160,000 U	**6,000 J**	**25,000**	**21,000**	**8,600 J**	**17,000**	**250,000**	**280,000**	**15,000**	**190,000**	12,000 U	30,000 U
Benzyl butyl phthalate	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	**2,000 J**	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	**2,000 J**	**4,100 J**	12,000 U	30,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129
Sample Number:		GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0
Sample Depth:		4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	4-6	0-2	2-2.5	0-2	2-4
Sample Date:		4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**10,000 J**	**28,000 J**	**400 J**	**800 J**	440 U	**2,700 J**	**58,000 J**	14,000 U	**3,800 J**	**6,600 J**	11,000 U	**4,000 J**	**380,000**	**380,000**	13,000 U	23,000 U	**760 J**	**21,000 J**
Bis(2-chloroethoxy) methane	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Bis(2-chloroethyl) ether	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Bis(2-chloroisopropyl) ether	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	36,000 U	60,000 U	**8,000 J**	**120,000**	1,400 U	82,000 U	160,000 U	**32,000**	**78,000**	**45,000**	**36,000**	**89,000**	50,000 U	97,000 U	**68,000**	**170,000**	**60,000**	74,000 U
Caprolactam	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Carbazole	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	**28,000 J**	**31,000 J**	13,000 U	23,000 U	**2,500 J**	**2,400 J**
Chrysene	ug/kg	**41,000 J**	**58,000 J**	13,000 U	**43,000**	**470**	**48,000**	**280,000**	**14,000 J**	**44,000**	**42,000**	**15,000**	**36,000**	**590,000**	**640,000**	**26,000**	**250,000**	**27,000**	**73,000**
Dibenz(a,h)anthracene	ug/kg	**2,200 J**	**11,000 J**	**650 J**	**1,900 J**	440 U	**4,300 J**	**25,000 J**	14,000 U	**4,400 J**	**3,200 J**	11,000 U	**2,900 J**	**50,000 J**	**36,000 J**	**2,500 J**	**37,000**	**2,200 J**	**6,700 J**
Dibenzofuran	ug/kg	**5,100 J**	**12,000 J**	**480 J**	**2,900 J**	440 U	**6,100 J**	**62,000 J**	14,000 U	**7,400 J**	**6,400 J**	11,000 U	**2,900 J**	**160,000**	**120,000**	13,000 U	**6,600 J**	**2,000 J**	**10,000 J**
Diethyl phthalate	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Dimethyl phthalate	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Di-n-butyl phthalate	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Di-n-octylphthalate	ug/kg	24,000 U	60,000 U	13,000 U	**7,300 J**	440 U	20,000 U	160,000 U	14,000 U	**2,800 J**	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	**4,900 J**	**18,000 J**	12,000 U	30,000 U
Fluoranthene	ug/kg	**66,000 J**	**140,000**	**8,100 J**	**100,000**	**530**	**84,000**	**620,000**	**23,000**	**92,000**	**100,000**	**25,000**	**63,000**	**1,300,000 J**	**1,200,000**	**42,000**	**260,000**	**50,000**	**120,000**
Fluorene	ug/kg	**24,000 J**	**77,000**	**2,800 J**	**12,000 J**	**38 J**	**37,000**	**590,000**	**2,600 J**	**9,800 J**	**10,000**	11,000 U	**18,000**	**1,400,000 J**	**1,400,000**	**6,400 J**	**43,000**	**5,700 J**	**75,000**
Hexachlorobenzene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Hexachlorobutadiene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Hexachlorocyclopentadiene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Hexachloroethane	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**6,700 J**	**25,000 J**	**1,500 J**	**5,900 J**	**110 J**	**18,000 J**	**85,000 J**	**4,900 J**	**15,000**	**13,000**	**5,900 J**	**11,000 J**	**140,000**	**130,000**	**9,800 J**	**140,000**	**10,000 J**	**23,000 J**
Isophorone	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Naphthalene	ug/kg	**80,000**	**130,000**	**4,100 J**	**18,000 J**	440 U	**31,000**	**640,000**	**5,500 J**	**2,400 J**	**2,500 J**	11,000 U	**22,000**	**4,200,000 J**	**5,300,000 J**	**3,100 J**	**190,000**	12,000 U	**200,000**
Nitrobenzene	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 UJ	12,000 U	50,000 UJ	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
N-nitrosodi-n-propylamine	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
N-nitrosodiphenylamine	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Pentachlorophenol	ug/kg	48,000 U	120,000 U	26,000 U	44,000 U	850 U	40,000 U	320,000 U	27,000 U	21,000 U	19,000 U	23,000 UJ	23,000 U	100,000 UJ	190,000 U	25,000 U	47,000 U	23,000 U	60,000 U
Phenanthrene	ug/kg	**160,000**	**540,000**	**16,000**	**150,000**	**230 J**	**160,000**	**2,000,000**	**18,000**	**18,000**	**7,200 J**	**5,900 J**	**98,000**	**4,300,000 J**	**4,800,000 J**	**48,000**	**220,000**	**45,000**	**290,000**
Phenol	ug/kg	24,000 U	60,000 U	13,000 U	22,000 U	440 U	20,000 U	160,000 U	14,000 U	11,000 U	9,500 U	11,000 U	12,000 U	50,000 U	97,000 U	13,000 U	23,000 U	12,000 U	30,000 U
Pyrene	ug/kg	**100,000 J**	**230,000**	**12,000 J**	**110,000**	**550**	**130,000**	**840,000**	**31,000**	**130,000**	**110,000**	**31,000**	**90,000**	**1,700,000 J**	**1,900,000 J**	**55,000**	**250,000**	**60,000**	**190,000**
Total PAHs	ug/kg	**752,200**	**1,782,000**	**71,050**	**654,700**	**2,754**	**838,800**	**8,327,000**	**200,800**	**651,600**	**579,900**	**148,800**	**556,700**	**24,240,000**	**27,171,000**	**319,200**	**2,752,000**	**305,400**	**1,615,700**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD129	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B
Sample Number:		GC-SD129-04.0-06.0	GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9
Sample Depth:		4-6	6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	1.4-1.9
Sample Date:		4/14/2010	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 UR	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2,3,4,6-tetrachlorophenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2,4,5-trichlorophenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2,4,6-trichlorophenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2,4-dichlorophenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2,4-dimethylphenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 UJ	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2,4-dinitrophenol	ug/kg	770,000 U	250,000 U	24,000 U	50,000 U	23,000 U	26,000 U	67,000 U	13,000 U	14,000 U	15,000 U	19,000 U	19,000 U	18,000 U	29,000 U	360,000 U	160,000 U	29,000 U	16,000 U
2,4-dinitrotoluene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2,6-dinitrotoluene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2-chloronaphthalene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2-chlorophenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2-methylnaphthalene	ug/kg	**3,800,000**	**920,000**	**18,000**	**22,000 J**	**26,000**	**45,000**	**170,000**	6,300 U	**2,000 J**	**3,000 J**	**7,500 J**	**29,000**	**38,000**	**84,000**	**2,000,000**	**3,400,000 J**	**2,000 J**	**4,800 J**
2-methylphenol (o-cresol)	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 UJ	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
2-nitroaniline	ug/kg	770,000 U	250,000 U	24,000 U	50,000 U	23,000 U	26,000 U	67,000 U	13,000 U	14,000 U	15,000 U	19,000 U	19,000 U	18,000 U	29,000 U	360,000 U	160,000 U	29,000 U	16,000 U
2-nitrophenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
3,3'-dichlorobenzidine	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
3-nitroaniline	ug/kg	770,000 U	250,000 U	24,000 U	50,000 U	23,000 U	26,000 U	67,000 U	13,000 U	14,000 U	15,000 U	19,000 U	19,000 U	18,000 U	29,000 U	360,000 U	160,000 U	29,000 U	16,000 U
4,6-dinitro-2-methylphenol	ug/kg	770,000 U	250,000 U	24,000 U	50,000 U	23,000 U	26,000 U	67,000 U	13,000 U	14,000 U	15,000 U	19,000 U	19,000 U	18,000 U	29,000 U	360,000 U	160,000 U	29,000 U	16,000 U
4-bromophenyl phenyl ether	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
4-chloro-3-methylphenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
4-chloroaniline	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	**2,700 J**	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
4-chlorophenyl phenyl ether	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
4-methylphenol (p-cresol)	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 UJ	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 UJ	7,800 U
4-nitroaniline	ug/kg	770,000 U	250,000 U	24,000 U	50,000 U	23,000 U	26,000 U	67,000 U	13,000 U	14,000 U	15,000 U	19,000 U	19,000 U	18,000 U	29,000 U	360,000 U	160,000 U	29,000 U	16,000 U
4-nitrophenol	ug/kg	770,000 U	250,000 U	24,000 U	50,000 U	23,000 U	26,000 U	67,000 U	13,000 U	14,000 U	15,000 U	19,000 U	19,000 U	18,000 U	29,000 U	360,000 U	160,000 U	29,000 U	16,000 U
Acenaphthene	ug/kg	**2,100,000**	**580,000**	**31,000**	**38,000**	**31,000**	**36,000**	**94,000**	6,300 U	**7,000 J**	**7,400 J**	**9,600 J**	**22,000**	**35,000**	**62,000**	**1,100,000**	**1,800,000 J**	**19,000**	**33,000**
Acenaphthylene	ug/kg	**98,000 J**	**32,000 J**	**33,000**	**17,000 J**	**12,000**	**16,000**	**19,000 J**	6,300 U	**3,200 J**	**2,800 J**	**4,400 J**	**10,000**	**8,700 J**	**8,400 J**	**61,000 J**	**77,000 J**	**6,300 J**	**7,500 J**
Acetophenone	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	**1,800 J**	9,600 U	**2,200 J**	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Anthracene	ug/kg	**1,100,000**	**320,000**	**66,000**	**63,000**	**51,000**	**62,000**	**99,000**	6,300 U	**13,000**	**15,000**	**15,000**	**33,000 J**	**34,000 J**	**40,000**	**720,000**	**710,000**	**26,000**	**37,000**
Atrazine	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Benzaldehyde	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Benzo(a)anthracene	ug/kg	**590,000**	**190,000**	**120,000**	**66,000**	**41,000**	**69,000**	**80,000**	**2,800 J**	**32,000**	**20,000**	**20,000**	**35,000**	**36,000**	**30,000**	**270,000**	**340,000**	**23,000**	**37,000**
Benzo(a)pyrene	ug/kg	**420,000**	130,000 U	**83,000**	**44,000**	**31,000**	**45,000**	**48,000**	**2,100 J**	**31,000**	**13,000**	**14,000**	**24,000**	**26,000**	**20,000**	**160,000 J**	**210,000**	**17,000**	**27,000**
Benzo(b)fluoranthene	ug/kg	390,000 U	130,000 U	**54,000**	**27,000**	**15,000**	**32,000**	**27,000 J**	**1,500 J**	**30,000**	**11,000**	**10,000**	**16,000**	**18,000**	**12,000 J**	**76,000 J**	**100,000**	14,000 U	**24,000**
Benzo(g,h,i)perylene	ug/kg	**190,000 J**	**50,000 J**	**40,000**	**21,000 J**	**14,000 J**	**23,000**	**21,000 J**	**1,100 J**	**17,000**	**6,700 J**	**6,300 J**	**12,000**	**14,000**	**7,300 J**	**59,000 J**	**61,000 J**	**8,300 J**	**15,000 J**
Benzo(k)fluoranthene	ug/kg	390,000 U	130,000 U	**53,000**	**30,000**	**23,000**	**29,000**	**31,000 J**	**1,700 J**	**30,000**	**9,600**	**10,000**	**16,000**	**16,000**	**13,000 J**	**110,000 J**	**140,000**	14,000 U	7,800 U
Benzyl butyl phthalate	ug/kg	390,000 U	130,000 U	**4,500 J**	25,000 U	**3,400 J**	**2,200 J**	33,000 U	6,300 U	**3,900 J**	7,400 U	**1,600 J**	**2,100 J**	**2,600 J**	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD129	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B
Sample Number:		GC-SD129-04.0-06.0	GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9
Sample Depth:		4-6	6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	1.4-1.9
Sample Date:		4/14/2010	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**360,000 J**	**120,000 J**	**3,100 J**	**4,800 J**	**4,500 J**	**5,700 J**	**18,000 J**	6,300 U	7,200 U	7,400 U	**1,400 J**	**3,500 J**	**5,800 J**	**11,000 J**	**170,000 J**	**260,000**	**1,500 J**	**1,200 J**
Bis(2-chloroethoxy) methane	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Bis(2-chloroethyl) ether	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 UJ	7,800 U
Bis(2-chloroisopropyl) ether	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Bis(2-ethylhexyl) phthalate	ug/kg	390,000 U	130,000 U	**140,000**	**250,000**	**110,000**	**120,000**	**8,300 J**	**13,000**	**11,000**	**16,000**	**57,000**	**84,000**	**71,000**	**40,000**	180,000 U	79,000 U	14,000 U	31,000 U
Caprolactam	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Carbazole	ug/kg	**25,000 J**	**8,100 J**	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	**1,300 J**	**1,600 J**	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	**26,000 J**	14,000 U	7,800 U
Chrysene	ug/kg	**610,000**	**180,000**	**110,000**	**66,000**	**41,000**	**67,000**	**83,000**	**2,800 J**	**33,000**	**18,000**	**21,000**	**36,000**	**37,000**	**33,000**	**270,000**	**300,000**	**23,000**	**32,000**
Dibenz(a,h)anthracene	ug/kg	**63,000 J**	**15,000 J**	**14,000**	**6,900 J**	**4,400 J**	**8,300 J**	**7,500 J**	6,300 U	**8,300**	**2,200 J**	**2,000 J**	**4,100 J**	**5,000 J**	**2,600 J**	180,000 U	**21,000 J**	**2,200 J**	**3,500 J**
Dibenzofuran	ug/kg	**100,000 J**	**37,000 J**	**2,800 J**	**4,100 J**	**3,200 J**	**4,500 J**	**7,100 J**	6,300 U	**1,400 J**	**1,900 J**	9,600 U	**2,100 J**	**3,000 J**	**5,400 J**	**68,000 J**	**86,000**	**1,600 J**	**1,600 J**
Diethyl phthalate	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Dimethyl phthalate	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Di-n-butyl phthalate	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Di-n-octylphthalate	ug/kg	390,000 U	130,000 U	**13,000**	25,000 U	**9,600 J**	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	**7,000 J**	**6,600 J**	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Fluoranthene	ug/kg	**960,000**	**320,000**	**130,000**	**110,000**	**74,000**	**100,000**	**140,000**	**5,800 J**	**39,000**	**36,000**	**37,000**	**56,000 J**	**54,000 J**	**56,000**	**690,000**	**720,000**	**32,000**	**48,000**
Fluorene	ug/kg	**1,000,000**	**330,000**	**22,000**	**29,000**	**22,000**	**34,000**	**73,000**	6,300 U	**2,300 J**	**3,900 J**	**6,500 J**	**18,000**	**25,000**	**36,000**	**500,000**	**870,000**	**9,500 J**	**8,400**
Hexachlorobenzene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 UJ
Hexachlorobutadiene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Hexachlorocyclopentadiene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Hexachloroethane	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**150,000 J**	**54,000 J**	**55,000**	**24,000 J**	**14,000 J**	**27,000**	**23,000 J**	**1,400 J**	**25,000**	**8,300**	**7,500 J**	**14,000**	**17,000**	**8,800 J**	**69,000 J**	**87,000**	**7,600 J**	**12,000**
Isophorone	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Naphthalene	ug/kg	**4,000,000**	**1,200,000**	**12,000 J**	**18,000 J**	**14,000**	**24,000**	**110,000**	6,300 U	**6,800 J**	**11,000**	**7,400 J**	**20,000**	**69,000**	**160,000**	**2,500,000**	**4,200,000 J**	14,000 U	7,800 U
Nitrobenzene	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
N-nitrosodi-n-propylamine	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
N-nitrosodiphenylamine	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Pentachlorophenol	ug/kg	770,000 U	250,000 U	24,000 U	50,000 U	23,000 U	26,000 U	67,000 U	13,000 U	14,000 U	15,000 U	19,000 U	19,000 U	18,000 U	29,000 U	360,000 U	160,000 U	29,000 U	16,000 U
Phenanthrene	ug/kg	**3,300,000**	**990,000**	**120,000**	**150,000**	**110,000**	**150,000**	**270,000**	**1,200 J**	**19,000**	**22,000**	**39,000**	**78,000 J**	**84,000 J**	**120,000**	**1,500,000**	**2,300,000 J**	**60,000**	**48,000**
Phenol	ug/kg	390,000 U	130,000 U	12,000 U	25,000 U	12,000 U	13,000 U	33,000 U	6,300 U	7,200 U	7,400 U	9,600 U	9,300 U	9,100 U	14,000 U	180,000 U	79,000 U	14,000 U	7,800 U
Pyrene	ug/kg	**1,800,000**	**470,000**	**170,000**	**140,000**	**93,000**	**130,000**	**160,000**	**7,000**	**46,000**	**42,000**	**44,000**	**66,000**	**63,000**	**76,000**	**670,000**	**830,000**	**48,000**	**70,000**
Total PAHs	ug/kg	**20,181,000**	**5,651,000**	**1,131,000**	**871,900**	**616,400**	**897,300**	**1,455,500**	**27,400**	**344,600**	**231,900**	**261,200**	**489,100**	**579,700**	**769,100**	**10,755,000**	**16,166,000**	**283,900**	**407,200**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131
Sample Number:		GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3
Sample Depth:		2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3
Sample Date:		4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2,3,4,6-tetrachlorophenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2,4,5-trichlorophenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2,4,6-trichlorophenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2,4-dichlorophenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2,4-dimethylphenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	**400 J**	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2,4-dinitrophenol	ug/kg	370,000 U	470,000 U	330,000 U	3,400 U	8,300 U	84,000 U	5,600 UJ	8,700 U	23,000 U	97,000 U	310,000 U	330,000 U	18,000 U	430,000 U	390,000 U	450,000 U	820,000 U	92,000 U
2,4-dinitrotoluene	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	**26,000 J**	46,000 U
2,6-dinitrotoluene	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2-chloronaphthalene	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2-chlorophenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2-methylnaphthalene	ug/kg	**1,700,000**	**2,200,000**	**2,000,000**	**1,900**	**25,000**	**160,000**	**7,400 J**	**14,000**	**140,000**	**190,000**	**1,600,000**	**540,000**	**20,000**	**1,400,000**	**1,400,000**	**2,500,000**	**2,000,000**	**360,000**
2-methylphenol (o-cresol)	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
2-nitroaniline	ug/kg	370,000 U	470,000 U	330,000 U	3,400 U	8,300 U	84,000 U	5,600 UJ	8,700 U	23,000 U	97,000 U	310,000 U	330,000 U	18,000 U	430,000 U	390,000 U	450,000 U	820,000 U	92,000 U
2-nitrophenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
3,3'-dichlorobenzidine	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
3-nitroaniline	ug/kg	370,000 U	470,000 U	330,000 U	3,400 U	8,300 U	84,000 U	5,600 UJ	8,700 U	23,000 U	97,000 U	310,000 U	330,000 U	18,000 U	430,000 U	390,000 U	450,000 U	820,000 U	92,000 U
4,6-dinitro-2-methylphenol	ug/kg	370,000 U	470,000 U	330,000 U	3,400 U	8,300 U	84,000 U	5,600 UJ	8,700 U	23,000 U	97,000 U	310,000 U	330,000 U	18,000 U	430,000 U	390,000 U	450,000 U	820,000 U	92,000 U
4-bromophenyl phenyl ether	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
4-chloro-3-methylphenol	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
4-chloroaniline	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
4-chlorophenyl phenyl ether	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	**110 J**	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
4-methylphenol (p-cresol)	ug/kg	180,000 U	230,000 U	170,000 U	**150 J**	**500 J**	42,000 U	**240 J**	**410 J**	**650 J**	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
4-nitroaniline	ug/kg	370,000 U	470,000 U	330,000 U	3,400 U	8,300 U	84,000 U	5,600 UJ	8,700 U	23,000 U	97,000 U	310,000 U	330,000 U	18,000 U	430,000 U	390,000 U	450,000 U	820,000 U	92,000 U
4-nitrophenol	ug/kg	370,000 U	470,000 U	330,000 U	3,400 U	8,300 U	84,000 U	5,600 UJ	8,700 U	23,000 U	97,000 U	310,000 U	330,000 U	18,000 U	430,000 U	390,000 U	450,000 U	820,000 U	92,000 U
Acenaphthene	ug/kg	**840,000**	**960,000**	**740,000**	**7,200**	**25,000**	**120,000**	**8,600 J**	**9,800**	**59,000**	**79,000**	**800,000**	**410,000**	**27,000**	**310,000**	**330,000**	**910,000**	**770,000**	**190,000**
Acenaphthylene	ug/kg	**48,000 J**	**150,000 J**	**130,000 J**	**1,600 J**	**3,300 J**	**23,000 J**	**2,400 J**	**2,500 J**	**12,000**	**18,000 J**	**82,000 J**	**110,000 J**	**6,100 J**	**340,000**	**340,000**	**340,000**	**160,000 J**	**33,000 J**
Acetophenone	ug/kg	180,000 U	230,000 U	170,000 U	**210 J**	**650 J**	**4,800 J**	**360 J**	**360 J**	12,000 U	49,000 U	160,000 U	**9,200 J**	**1,200 J**	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Anthracene	ug/kg	**390,000**	**530,000**	**360,000**	**8,500 J**	**24,000 J**	**110,000**	**11,000 J**	**11,000**	**52,000**	**83,000**	**540,000**	**420,000**	**24,000**	**360,000**	**370,000**	**630,000**	**500,000**	**130,000**
Atrazine	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Benzaldehyde	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	**480 J**	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Benzo(a)anthracene	ug/kg	**170,000 J**	**400,000**	**290,000**	**6,000**	**16,000**	**66,000**	**10,000 J**	**9,700**	**40,000**	**59,000**	**310,000**	**270,000**	**21,000**	**240,000**	**230,000**	**300,000**	**240,000 J**	**66,000**
Benzo(a)pyrene	ug/kg	180,000 U	**270,000**	**190,000**	**4,500**	**9,600**	**50,000**	**7,000 J**	**6,300**	**27,000**	**37,000 J**	**200,000**	**180,000**	**15,000**	**160,000 J**	**160,000 J**	**190,000 J**	**160,000 J**	**44,000 J**
Benzo(b)fluoranthene	ug/kg	180,000 U	230,000 U	**170,000**	**4,100**	**8,500**	**41,000 J**	**6,100 J**	**5,100**	**24,000**	**30,000 J**	**170,000**	**140,000 J**	**7,900 J**	**72,000 J**	**68,000 J**	**81,000 J**	**66,000 J**	**42,000 J**
Benzo(g,h,i)perylene	ug/kg	**52,000 J**	**130,000 J**	**89,000 J**	**2,200**	**5,100**	**19,000 J**	**4,000 J**	**3,700 J**	**12,000**	**20,000 J**	**110,000 J**	**76,000 J**	**4,500 J**	**68,000 J**	**66,000 J**	**79,000 J**	410,000 UJ	**17,000 J**
Benzo(k)fluoranthene	ug/kg	180,000 U	230,000 U	170,000 U	**1,300 J**	**3,200 J**	**12,000 J**	**2,000 J**	**2,100 J**	**5,600 J**	**13,000 J**	**53,000 J**	**52,000 J**	**9,800**	**110,000 J**	**110,000 J**	**140,000 J**	**100,000 J**	**6,900 J**
Benzyl butyl phthalate	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	**600 J**	**790 J**	**3,500 J**	**4,000 J**	**22,000 J**	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131
Sample Number:		GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3
Sample Depth:		2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3
Sample Date:		4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**130,000 J**	**200,000 J**	**170,000**	**370 J**	**2,800 J**	**17,000 J**	**990 J**	**1,500 J**	**9,500 J**	**12,000 J**	**110,000 J**	**62,000 J**	**2,000 J**	**96,000 J**	**94,000 J**	**160,000 J**	**120,000 J**	**24,000 J**
Bis(2-chloroethoxy) methane	ug/kg	180,000 U	230,000 U	170,000 U	**58 J**	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Bis(2-chloroethyl) ether	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Bis(2-chloroisopropyl) ether	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	180,000 U	230,000 U	170,000 U	**8,800**	**40,000**	**72,000**	**26,000 J**	**54,000**	**85,000**	**210,000**	160,000 U	160,000 U	**14,000**	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Caprolactam	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Carbazole	ug/kg	**16,000 J**	**23,000 J**	**16,000 J**	1,700 U	**360 J**	**3,800 J**	**230 J**	**320 J**	**1,500 J**	**5,400 J**	**18,000 J**	**9,000 J**	**550 J**	**12,000 J**	**15,000 J**	**22,000 J**	**18,000 J**	**3,500 J**
Chrysene	ug/kg	**170,000 J**	**450,000**	**300,000**	**6,600**	**17,000**	**72,000**	**11,000 J**	**11,000**	**42,000**	**68,000**	**320,000**	**270,000**	**24,000**	**270,000**	**250,000**	**330,000**	**260,000 J**	**73,000**
Dibenz(a,h)anthracene	ug/kg	**22,000 J**	230,000 U	**33,000 J**	**610 J**	**1,200 J**	**9,100 J**	**1,000 J**	**1,100 J**	**4,300 J**	**7,000 J**	**37,000 J**	**34,000 J**	**1,800 J**	210,000 U	**27,000 J**	230,000 U	410,000 U	46,000 U
Dibenzofuran	ug/kg	**59,000 J**	**72,000 J**	**64,000 J**	**570 J**	**2,200 J**	**11,000 J**	**1,000 J**	**1,100 J**	**6,200 J**	**8,800 J**	**54,000 J**	**39,000 J**	9,200 U	**51,000 J**	**54,000 J**	**74,000 J**	**54,000 J**	**12,000 J**
Diethyl phthalate	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Dimethyl phthalate	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Di-n-butyl phthalate	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Di-n-octylphthalate	ug/kg	180,000 U	230,000 U	170,000 U	**390 J**	**2,300 J**	42,000 U	**1,500 J**	**3,900 J**	**5,200 J**	**6,600 J**	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Fluoranthene	ug/kg	**330,000**	**570,000**	**400,000**	**10,000**	**29,000**	**130,000**	**14,000 J**	**15,000**	**65,000**	**100,000**	**500,000**	**400,000**	**33,000**	**350,000**	**350,000**	**490,000**	**360,000 J**	**110,000**
Fluorene	ug/kg	**460,000**	**680,000**	**560,000**	**2,600**	**17,000**	**91,000**	**5,300 J**	**8,000**	**46,000**	**57,000**	**470,000**	**250,000**	**7,800 J**	**370,000**	**360,000**	**610,000**	**460,000**	**120,000**
Hexachlorobenzene	ug/kg	180,000 UJ	230,000 UJ	170,000 UJ	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Hexachlorobutadiene	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Hexachlorocyclopentadiene	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Hexachloroethane	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**49,000 J**	**110,000 J**	**83,000 J**	**2,300**	**4,600**	**24,000 J**	**3,800 J**	**3,600 J**	**13,000**	**18,000 J**	**81,000 J**	**86,000 J**	**4,300 J**	**53,000 J**	**55,000 J**	**68,000 J**	410,000 U	**18,000 J**
Isophorone	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Naphthalene	ug/kg	**2,400,000**	**2,700,000**	**2,400,000**	**4,600**	**35,000**	**260,000**	**11,000 J**	**16,000**	**150,000**	**310,000**	**2,200,000**	**590,000**	**38,000**	**1,800,000**	**1,800,000**	**3,400,000**	**2,900,000**	**270,000**
Nitrobenzene	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
N-nitrosodi-n-propylamine	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
N-nitrosodiphenylamine	ug/kg	180,000 U	230,000 U	170,000 U	1,700 U	4,300 U	42,000 U	2,900 UJ	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Pentachlorophenol	ug/kg	370,000 U	470,000 U	330,000 U	3,400 U	8,300 U	84,000 U	5,600 UJ	8,700 U	23,000 U	97,000 U	310,000 U	330,000 U	18,000 U	430,000 U	390,000 U	450,000 U	820,000 U	92,000 U
Phenanthrene	ug/kg	**1,100,000**	**1,900,000**	**1,300,000**	**15,000**	**62,000**	**300,000**	**25,000 J**	**31,000**	**160,000**	**240,000**	**1,500,000**	**940,000**	**44,000**	**1,200,000**	**1,200,000**	**1,800,000**	**1,400,000**	**330,000**
Phenol	ug/kg	180,000 U	230,000 U	170,000 U	**82 J**	**170 J**	42,000 U	**99 J**	4,500 U	12,000 U	49,000 U	160,000 U	160,000 U	9,200 U	210,000 U	200,000 U	230,000 U	410,000 U	46,000 U
Pyrene	ug/kg	**480,000**	**960,000**	**590,000**	**15,000 J**	**44,000 J**	**180,000**	**25,000 J**	**24,000**	**93,000**	**150,000**	**750,000**	**610,000**	**55,000**	**660,000**	**630,000**	**880,000**	**650,000**	**180,000**
Total PAHs	ug/kg	**8,211,000**	**12,010,000**	**9,635,000**	**94,010**	**329,500**	**1,667,100**	**154,600**	**173,900**	**944,900**	**1,479,000**	**9,723,000**	**5,378,000**	**343,200**	**7,763,000**	**7,746,000**	**12,748,000**	**10,026,000**	**1,989,900**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133
Sample Number:		GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0
Sample Depth:		0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6
Sample Date:		3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2,3,4,6-tetrachlorophenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2,4,5-trichlorophenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2,4,6-trichlorophenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2,4-dichlorophenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2,4-dimethylphenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2,4-dinitrophenol	ug/kg	23,000 U	540,000 U	1,100,000 U	250,000 U	200,000 U	64,000 U	120,000 U	200,000 U	790,000 U	98,000 U	45,000 U	13,000 U	13,000 U	20,000 U	250,000 U	17,000 U	31,000 U	120,000 U
2,4-dinitrotoluene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2,6-dinitrotoluene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2-chloronaphthalene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2-chlorophenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2-methylnaphthalene	ug/kg	**32,000**	**1,200,000**	**1,500,000**	**880,000**	**390,000**	**180,000**	**460,000**	**810,000**	**3,800,000**	**370,000**	**140,000**	**39,000**	**1,000,000 J**	**1,000,000 J**	**1,100,000**	**14,000**	**2,300 J**	**330,000**
2-methylphenol (o-cresol)	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
2-nitroaniline	ug/kg	23,000 U	540,000 U	1,100,000 U	250,000 U	200,000 U	64,000 U	120,000 U	200,000 U	790,000 U	98,000 U	45,000 U	13,000 U	13,000 U	20,000 U	250,000 U	17,000 U	31,000 U	120,000 U
2-nitrophenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
3,3'-dichlorobenzidine	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
3-nitroaniline	ug/kg	23,000 U	540,000 U	1,100,000 U	250,000 U	200,000 U	64,000 U	120,000 U	200,000 U	790,000 U	98,000 U	45,000 U	13,000 U	13,000 U	20,000 U	250,000 U	17,000 U	31,000 U	120,000 U
4,6-dinitro-2-methylphenol	ug/kg	23,000 U	540,000 U	1,100,000 U	250,000 U	200,000 U	64,000 U	120,000 U	200,000 U	790,000 U	98,000 U	45,000 U	13,000 U	13,000 U	20,000 U	250,000 U	17,000 U	31,000 U	120,000 U
4-bromophenyl phenyl ether	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
4-chloro-3-methylphenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
4-chloroaniline	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
4-chlorophenyl phenyl ether	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
4-methylphenol (p-cresol)	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	**870 J**	16,000 U	61,000 U
4-nitroaniline	ug/kg	23,000 U	540,000 U	1,100,000 U	250,000 U	200,000 U	64,000 U	120,000 U	200,000 U	790,000 U	98,000 U	45,000 U	13,000 U	13,000 U	20,000 U	250,000 U	17,000 U	31,000 U	120,000 U
4-nitrophenol	ug/kg	23,000 U	540,000 U	1,100,000 U	250,000 U	200,000 U	64,000 U	120,000 U	200,000 U	790,000 U	98,000 U	45,000 U	13,000 U	13,000 U	20,000 U	250,000 U	17,000 U	31,000 U	120,000 U
Acenaphthene	ug/kg	**42,000**	**860,000**	**1,300,000**	**540,000**	**200,000**	**91,000**	**260,000**	**420,000**	**1,800,000**	**210,000**	**92,000**	**47,000**	**510,000 J**	**500,000 J**	**570,000**	**20,000**	**4,700 J**	**190,000**
Acenaphthylene	ug/kg	**14,000**	**65,000 J**	**50,000 J**	**60,000 J**	**77,000 J**	**18,000 J**	**35,000 J**	**55,000 J**	**250,000 J**	**15,000 J**	**7,200 J**	**13,000**	**47,000**	**36,000**	**51,000 J**	**2,300 J**	**2,200 J**	**18,000 J**
Acetophenone	ug/kg	**1,000 J**	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Anthracene	ug/kg	**39,000**	**590,000**	**760,000**	**350,000**	**200,000**	**66,000**	**190,000**	**310,000**	**980,000**	**91,000**	**44,000**	**57,000**	**210,000 J**	**360,000 J**	**270,000**	**12,000**	**6,100 J**	**83,000**
Atrazine	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Benzaldehyde	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Benzo(a)anthracene	ug/kg	**40,000**	**280,000**	**400,000 J**	**280,000**	**220,000**	**45,000**	**110,000**	**170,000**	**420,000**	**50,000**	**25,000**	**35,000**	**110,000**	**110,000**	**150,000**	**15,000**	**15,000 J**	**70,000**
Benzo(a)pyrene	ug/kg	**29,000**	**180,000 J**	**260,000 J**	**190,000**	**190,000**	**33,000**	**76,000**	**110,000**	**290,000 J**	**34,000 J**	**17,000 J**	**27,000**	**81,000**	**69,000**	**110,000 J**	**9,100**	**10,000 J**	**30,000 J**
Benzo(b)fluoranthene	ug/kg	**15,000**	**96,000 J**	**120,000 J**	**170,000**	**84,000 J**	**15,000 J**	**35,000 J**	**48,000 J**	**110,000 J**	**13,000 J**	**6,600 J**	**12,000**	**32,000**	**21,000**	**41,000 J**	**10,000**	**11,000 J**	**16,000 J**
Benzo(g,h,i)perylene	ug/kg	**9,900 J**	**65,000 J**	**86,000 J**	**92,000 J**	**93,000 J**	**15,000 J**	**23,000 J**	**43,000 J**	**100,000 J**	**13,000 J**	**7,000 J**	**9,800**	**21,000**	**20,000**	**42,000 J**	**4,700 J**	**3,400 J**	61,000 U
Benzo(k)fluoranthene	ug/kg	**19,000**	**110,000 J**	**150,000 J**	**54,000 J**	**120,000**	**21,000 J**	**54,000 J**	**69,000 J**	**220,000 J**	**24,000 J**	**12,000 J**	**14,000**	**46,000**	**41,000**	**68,000 J**	**2,000 J**	**3,300 J**	**27,000 J**
Benzyl butyl phthalate	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	**15,000 J**	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133
Sample Number:		GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0
Sample Depth:		0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6
Sample Date:		3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**3,400 J**	**100,000 J**	**130,000 J**	**85,000 J**	**44,000 J**	**17,000 J**	**38,000 J**	**63,000 J**	**240,000 J**	**23,000 J**	**9,600 J**	**5,300 J**	**150,000 J**	**130,000**	**69,000 J**	**2,600 J**	**550 J**	**42,000 J**
Bis(2-chloroethoxy) methane	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Bis(2-chloroethyl) ether	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Bis(2-chloroisopropyl) ether	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**30,000**	270,000 U	530,000 U	120,000 U	210,000 U	110,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	11,000 U	6,900 U	10,000 U	130,000 U	**45,000**	**29,000**	**16,000 J**
Caprolactam	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Carbazole	ug/kg	**1,000 J**	270,000 U	530,000 U	**12,000 J**	**7,500 J**	32,000 U	**3,900 J**	**5,900 J**	**29,000 J**	**3,000 J**	**1,200 J**	6,900 U	**6,100 J**	**7,000 J**	**9,600 J**	**2,000 J**	16,000 U	**9,200 J**
Chrysene	ug/kg	**44,000**	**320,000**	**360,000 J**	**270,000**	**250,000**	**47,000**	**110,000**	**170,000**	**410,000**	**49,000**	**24,000**	**41,000 J**	**100,000 J**	**97,000 J**	**160,000**	**14,000**	**15,000 J**	**82,000**
Dibenz(a,h)anthracene	ug/kg	**3,400 J**	270,000 U	530,000 U	**36,000 J**	**25,000 J**	**4,700 J**	**8,800 J**	**16,000 J**	**41,000 J**	**4,400 J**	**1,800 J**	**3,600 J**	**6,800 J**	**6,800 J**	**14,000 J**	**1,300 J**	**1,800 J**	61,000 U
Dibenzofuran	ug/kg	**4,300 J**	**43,000 J**	**60,000 J**	**56,000 J**	**40,000 J**	**10,000 J**	**19,000 J**	**33,000 J**	**99,000 J**	**11,000 J**	**5,200 J**	**2,400 J**	**34,000**	**29,000**	130,000 U	**11,000**	**900 J**	**51,000 J**
Diethyl phthalate	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Dimethyl phthalate	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Di-n-butyl phthalate	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Di-n-octylphthalate	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	**15,000 J**	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	**7,400 J**	**2,000 J**	61,000 U
Fluoranthene	ug/kg	**65,000**	**450,000**	**730,000**	**430,000**	**300,000**	**75,000**	**190,000**	**300,000**	**720,000**	**85,000**	**43,000**	**80,000**	**160,000 J**	**340,000 J**	**260,000**	**42,000**	**25,000**	**160,000**
Fluorene	ug/kg	**15,000**	**360,000**	**530,000 J**	**360,000**	**180,000**	**53,000**	**170,000**	**230,000**	**920,000**	**89,000**	**43,000**	**11,000**	**210,000 J**	**410,000 J**	**280,000**	**15,000**	**1,700 J**	**100,000**
Hexachlorobenzene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Hexachlorobutadiene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Hexachlorocyclopentadiene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Hexachloroethane	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**8,200 J**	**56,000 J**	**70,000 J**	**86,000 J**	**67,000 J**	**10,000 J**	**20,000 J**	**40,000 J**	**94,000 J**	**12,000 J**	**6,000 J**	**7,600**	**17,000**	**17,000**	**32,000 J**	**3,900 J**	**7,100 J**	**15,000 J**
Isophorone	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
Naphthalene	ug/kg	**64,000**	**2,200,000**	**3,700,000**	**1,400,000**	**420,000**	**170,000**	**440,000**	**840,000**	**5,300,000**	**410,000**	**80,000**	**70,000**	**1,800,000 J**	**1,800,000 J**	**1,500,000**	**18,000**	**5,400 J**	**440,000**
Nitrobenzene	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 UJ	32,000 UJ	62,000 UJ	100,000 UJ	400,000 UJ	49,000 UJ	23,000 UJ	6,900 U	6,900 U	10,000 U	130,000 UJ	8,300 U	16,000 U	61,000 U
N-nitrosodi-n-propylamine	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	8,300 U	16,000 U	61,000 U
N-nitrosodiphenylamine	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	**5,900 J**	16,000 U	61,000 U
Pentachlorophenol	ug/kg	23,000 U	540,000 U	1,100,000 U	250,000 U	200,000 UJ	64,000 UJ	120,000 UJ	200,000 UJ	790,000 UJ	98,000 UJ	45,000 UJ	13,000 U	13,000 U	20,000 U	250,000 UJ	17,000 U	31,000 U	120,000 U
Phenanthrene	ug/kg	**84,000**	**1,500,000**	**2,300,000**	**1,300,000**	**720,000**	**220,000**	**590,000**	**960,000**	**2,800,000**	**310,000**	**150,000**	**98,000 J**	**760,000 J**	**730,000 J**	**940,000**	**58,000 J**	**6,900 J**	**560,000**
Phenol	ug/kg	11,000 U	270,000 U	530,000 U	120,000 U	98,000 U	32,000 U	62,000 U	100,000 U	400,000 U	49,000 U	23,000 U	6,900 U	6,900 U	10,000 U	130,000 U	**620 J**	**1,000 J**	61,000 U
Pyrene	ug/kg	**100,000**	**820,000**	**1,300,000**	**620,000**	**580,000**	**140,000**	**330,000**	**500,000**	**1,400,000**	**160,000**	**77,000**	**100,000 J**	**270,000 J**	**350,000 J**	**470,000**	**40,000**	**30,000**	**200,000**
Total PAHs	ug/kg	**623,500**	**9,152,000**	**13,616,000**	**7,118,000**	**4,116,000**	**1,203,700**	**3,101,800**	**5,091,000**	**19,655,000**	**1,939,400**	**775,600**	**665,000**	**5,380,800**	**5,907,800**	**6,058,000**	**281,300**	**150,900**	**2,321,000**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD133	GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
Sample Number:		GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0
Sample Depth:		6-7.8	0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2,3,4,6-tetrachlorophenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2,4,5-trichlorophenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2,4,6-trichlorophenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2,4-dichlorophenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2,4-dimethylphenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2,4-dinitrophenol	ug/kg	420,000 U	14,000 U	290,000 U	450,000 U	18,000 U	36,000 U	18,000 U	18,000 U	30,000 U	48,000 U	36,000 U	18,000 U	11,000 U	850 U	3,100 U	4,000 U	58,000 U	490 U
2,4-dinitrotoluene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2,6-dinitrotoluene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2-chloronaphthalene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2-chlorophenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2-methylnaphthalene	ug/kg	**470,000**	**24,000**	**980,000**	**2,100,000**	**3,300 J**	**34,000**	**2,100 J**	**3,700 J**	**19,000**	**46,000**	**130,000**	**13,000**	**2,700 J**	**150 J**	**260 J**	**740 J**	**57,000**	**420**
2-methylphenol (o-cresol)	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
2-nitroaniline	ug/kg	420,000 U	14,000 U	290,000 U	450,000 U	18,000 U	36,000 U	18,000 U	18,000 U	30,000 U	48,000 U	36,000 U	18,000 U	11,000 U	850 U	3,100 U	4,000 U	58,000 U	490 U
2-nitrophenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
3,3'-dichlorobenzidine	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
3-nitroaniline	ug/kg	420,000 U	14,000 U	290,000 U	450,000 U	18,000 U	36,000 U	18,000 U	18,000 U	30,000 U	48,000 U	36,000 U	18,000 U	11,000 U	850 U	3,100 U	4,000 U	58,000 U	490 U
4,6-dinitro-2-methylphenol	ug/kg	420,000 U	14,000 U	290,000 U	450,000 U	18,000 U	36,000 U	18,000 U	18,000 U	30,000 U	48,000 U	36,000 U	18,000 U	11,000 U	850 U	3,100 U	4,000 U	58,000 U	490 U
4-bromophenyl phenyl ether	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
4-chloro-3-methylphenol	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
4-chloroaniline	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
4-chlorophenyl phenyl ether	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
4-methylphenol (p-cresol)	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	**1,300 J**	8,800 U	**380 J**	**530 J**	**770 J**	18,000 U	8,800 U	5,600 U	**30 J**	1,600 U	2,100 U	29,000 U	**18 J**
4-nitroaniline	ug/kg	420,000 U	14,000 U	290,000 U	450,000 U	18,000 U	36,000 U	18,000 U	18,000 U	30,000 U	48,000 U	36,000 U	18,000 U	11,000 U	850 U	3,100 U	4,000 U	58,000 U	490 U
4-nitrophenol	ug/kg	420,000 U	14,000 U	290,000 U	450,000 U	18,000 U	36,000 U	18,000 U	18,000 U	30,000 U	48,000 U	36,000 U	18,000 U	11,000 U	850 U	3,100 U	4,000 U	58,000 U	490 U
Acenaphthene	ug/kg	**680,000**	**17,000**	**470,000**	**1,100,000**	**11,000**	**36,000**	**4,900 J**	**4,500 J**	**11,000 J**	**27,000**	**53,000**	**8,400 J**	**7,500**	**390 J**	**1,300 J**	**1,900 J**	**89,000**	**430**
Acenaphthylene	ug/kg	**20,000 J**	**3,300 J**	**43,000 J**	**70,000 J**	**2,400 J**	**5,800 J**	**2,500 J**	**2,200 J**	**7,200 J**	**9,000 J**	**15,000 J**	**1,900 J**	**440 J**	**780**	**410 J**	**470 J**	**9,200 J**	**120 J**
Acetophenone	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	**2,200 J**	8,900 U	15,000 U	24,000 U	**4,100 J**	**990 J**	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Anthracene	ug/kg	**170,000 J**	**13,000 J**	**230,000**	**540,000**	**6,400 J**	**32,000**	**7,800 J**	**8,400 J**	**25,000**	**45,000**	**39,000**	**6,300 J**	**5,200 J**	**880 J**	**1,200 J**	**1,500 J**	**67,000**	**440**
Atrazine	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Benzaldehyde	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Benzo(a)anthracene	ug/kg	**160,000 J**	**11,000**	**130,000 J**	**190,000 J**	**8,400 J**	**23,000**	**17,000**	**7,500 J**	**28,000**	**37,000**	**44,000**	**7,800 J**	**2,000 J**	**2,700**	**1,400 J**	**1,300 J**	**52,000 J**	**540**
Benzo(a)pyrene	ug/kg	**53,000 J**	**12,000**	**110,000 J**	**170,000 J**	**8,100 J**	**19,000**	**13,000**	**9,300**	**23,000**	**37,000**	**22,000**	**5,500 J**	**1,800 J**	**2,700**	1,600 U	2,100 U	29,000 U	**620**
Benzo(b)fluoranthene	ug/kg	**80,000 J**	**5,600 J**	**45,000 J**	**69,000 J**	**3,500 J**	**10,000 J**	**7,000 J**	**3,800 J**	**12,000 J**	**19,000 J**	**24,000**	**4,000 J**	**940 J**	**1,300**	1,600 U	2,100 U	29,000 U	**360**
Benzo(g,h,i)perylene	ug/kg	210,000 U	**4,900 J**	**51,000 J**	**73,000 J**	**3,600 J**	**8,000 J**	**4,200 J**	**3,100 J**	**8,400 J**	**14,000 J**	**16,000 J**	**3,100 J**	**1,100 J**	**740 J**	**720 J**	**510 J**	29,000 UJ	**260**
Benzo(k)fluoranthene	ug/kg	**26,000 J**	**8,300**	**47,000 J**	**120,000 J**	**5,600 J**	**14,000 J**	**9,300**	**6,900 J**	**15,000 J**	**26,000**	**17,000 J**	**4,600 J**	**1,200 J**	**1,500**	1,600 U	2,100 U	29,000 U	**440**
Benzyl butyl phthalate	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD133	GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
Sample Number:		GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0
Sample Depth:		6-7.8	0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**120,000 J**	**3,100 J**	**100,000 J**	**210,000 J**	**2,000 J**	**6,000 J**	**380 J**	**820 J**	**3,200 J**	**7,200 J**	**12,000 J**	**860 J**	**950 J**	**35 J**	1,600 U	2,100 U	**13,000 J**	**64 J**
Bis(2-chloroethoxy) methane	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Bis(2-chloroethyl) ether	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Bis(2-chloroisopropyl) ether	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Bis(2-ethylhexyl) phthalate	ug/kg	**24,000 J**	**21,000**	**13,000 J**	220,000 U	**9,900**	**24,000**	**52,000**	**37,000**	**75,000**	**73,000**	**56,000**	**2,900 J**	**3,800 J**	440 U	1,600 U	**16,000**	29,000 U	480 U
Caprolactam	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Carbazole	ug/kg	**57,000 J**	**630 J**	**12,000 J**	**20,000 J**	**690 J**	**2,500 J**	8,800 U	8,900 U	**900 J**	24,000 U	**1,900 J**	**360 J**	**1,100 J**	**40 J**	1,600 U	2,100 U	**3,100 J**	**26 J**
Chrysene	ug/kg	**110,000 J**	**16,000**	**140,000 J**	**200,000 J**	**9,700**	**27,000**	**20,000**	**13,000**	**39,000**	**63,000**	**42,000**	**8,800**	**1,900 J**	**3,100**	**2,000 J**	**2,200 J**	**64,000 J**	**670 J**
Dibenz(a,h)anthracene	ug/kg	210,000 U	**1,500 J**	140,000 U	**22,000 J**	**1,200 J**	**2,000 J**	**980 J**	8,900 U	**2,500 J**	24,000 U	**14,000 J**	8,800 U	5,600 U	**340 J**	**220 J**	2,100 U	**4,000 J**	**75 J**
Dibenzofuran	ug/kg	**430,000**	**1,500 J**	**33,000 J**	**60,000 J**	**1,500 J**	**6,200 J**	8,800 U	**550 J**	15,000 U	**4,700 J**	**5,600 J**	**710 J**	**4,000 J**	**63 J**	**410 J**	**330 J**	**15,000 J**	**48 J**
Diethyl phthalate	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Dimethyl phthalate	ug/kg	210,000 U	**9,200**	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Di-n-butyl phthalate	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Di-n-octylphthalate	ug/kg	210,000 U	**3,600 J**	140,000 U	220,000 U	9,000 U	18,000 U	**7,200 J**	**4,600 J**	**13,000 J**	24,000 U	**8,600 J**	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Fluoranthene	ug/kg	**710,000**	**27,000**	**240,000**	**390,000**	**20,000**	**52,000**	**46,000**	**15,000**	**46,000**	**71,000**	**58,000**	**14,000**	**12,000**	**6,100**	**4,700 J**	**2,900 J**	**130,000 J**	**1,000**
Fluorene	ug/kg	**520,000**	**7,200 J**	**190,000**	**430,000**	**4,600 J**	**24,000**	**710 J**	**2,500 J**	**14,000 J**	**24,000**	**42,000**	**3,800 J**	**5,500 J**	**170 J**	**420 J**	**740 J**	**40,000**	**210 J**
Hexachlorobenzene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Hexachlorobutadiene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Hexachlorocyclopentadiene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Hexachloroethane	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**38,000 J**	**3,900 J**	**40,000 J**	**58,000 J**	**3,300 J**	**5,700 J**	**3,400 J**	**2,500 J**	**6,300 J**	**12,000 J**	**20,000**	**2,800 J**	**860 J**	**650**	**580 J**	**390 J**	**7,300 J**	**220 J**
Isophorone	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Naphthalene	ug/kg	**900,000**	**27,000**	**1,400,000**	**3,400,000**	**11,000**	**59,000**	8,800 U	**5,100 J**	**16,000**	**60,000**	**170,000**	**18,000**	5,600 U	440 U	1,600 U	2,100 U	**300,000**	**570**
Nitrobenzene	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
N-nitrosodi-n-propylamine	ug/kg	210,000 U	7,200 U	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	8,900 U	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
N-nitrosodiphenylamine	ug/kg	210,000 U	**3,600 J**	140,000 U	220,000 U	9,000 U	18,000 U	8,800 U	**14,000**	**35,000**	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	250 U
Pentachlorophenol	ug/kg	420,000 U	14,000 U	290,000 U	450,000 U	18,000 UJ	36,000 U	18,000 UJ	18,000 UJ	30,000 U	48,000 UJ	36,000 U	18,000 U	11,000 U	850 U	3,100 U	4,000 U	58,000 U	490 U
Phenanthrene	ug/kg	**1,400,000 J**	**37,000 J**	**990,000**	**1,900,000**	**16,000**	**160,000**	**5,700 J**	**17,000 J**	**98,000**	**210,000**	**120,000**	**13,000**	**19,000**	**1,500 J**	**2,600**	**4,800**	**320,000**	**1,200**
Phenol	ug/kg	210,000 U	**290 J**	140,000 U	220,000 U	**360 J**	18,000 U	**440 J**	**410 J**	15,000 U	24,000 U	18,000 U	8,800 U	5,600 U	440 U	1,600 U	2,100 U	29,000 U	**18 J**
Pyrene	ug/kg	**540,000**	**50,000**	**380,000**	**680,000**	**38,000 J**	**80,000**	**51,000 J**	**28,000 J**	**72,000**	**130,000 J**	**70,000 J**	**20,000**	**11,000**	**5,300**	**3,600 J**	**2,500 J**	**110,000 J**	**1,300 J**
Total PAHs	ug/kg	**5,877,000**	**268,700**	**5,486,000**	**11,512,000**	**156,100**	**591,500**	**195,590**	**132,500**	**442,400**	**830,000**	**896,000**	**135,000**	**73,140**	**28,300**	**19,410**	**19,950**	**1,249,500**	**8,875**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141
Sample Number:		GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0
Sample Depth:		2-4	4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2
Sample Date:		4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2,3,4,6-tetrachlorophenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2,4,5-trichlorophenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2,4,6-trichlorophenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2,4-dichlorophenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2,4-dimethylphenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2,4-dinitrophenol	ug/kg	480 U	1,300 U	26,000 U	30,000 U	26,000 U	20,000 U	450 U	32,000 U	32,000 U	250,000 U	450,000 U	350,000 U	510,000 U	250,000 U	19,000 U	830 U	24,000 U	730 U
2,4-dinitrotoluene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2,6-dinitrotoluene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2-chloronaphthalene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2-chlorophenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2-methylnaphthalene	ug/kg	**610**	**200 J**	**790 J**	**3,900 J**	**14,000**	**12,000**	230 U	**37,000**	**51,000**	**250,000**	**1,400,000**	**1,700,000**	**2,100,000**	**820,000**	**4,500 J**	**88 J**	**15,000**	**72 J**
2-methylphenol (o-cresol)	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
2-nitroaniline	ug/kg	480 U	1,300 U	26,000 U	30,000 U	26,000 U	20,000 U	450 U	32,000 U	32,000 U	250,000 U	450,000 U	350,000 U	510,000 U	250,000 U	19,000 U	830 U	24,000 U	730 U
2-nitrophenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
3,3'-dichlorobenzidine	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
3-nitroaniline	ug/kg	480 U	1,300 U	26,000 U	30,000 U	26,000 U	20,000 U	450 U	32,000 U	32,000 U	250,000 U	450,000 U	350,000 U	510,000 U	250,000 U	19,000 U	830 U	24,000 U	730 U
4,6-dinitro-2-methylphenol	ug/kg	480 U	1,300 U	26,000 U	30,000 U	26,000 U	20,000 U	450 U	32,000 U	32,000 U	250,000 U	450,000 U	350,000 U	510,000 U	250,000 U	19,000 U	830 U	24,000 U	730 U
4-bromophenyl phenyl ether	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
4-chloro-3-methylphenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
4-chloroaniline	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
4-chlorophenyl phenyl ether	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
4-methylphenol (p-cresol)	ug/kg	**13 J**	670 U	13,000 U	15,000 U	**400 J**	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	**27 J**
4-nitroaniline	ug/kg	480 U	1,300 U	26,000 U	30,000 U	26,000 U	20,000 U	450 U	32,000 U	32,000 U	250,000 U	450,000 U	350,000 U	510,000 U	250,000 U	19,000 U	830 U	24,000 U	730 U
4-nitrophenol	ug/kg	480 U	1,300 U	26,000 U	30,000 U	26,000 U	20,000 U	450 U	32,000 U	32,000 U	250,000 U	450,000 U	350,000 U	510,000 U	250,000 U	19,000 U	830 U	24,000 U	730 U
Acenaphthene	ug/kg	**590**	**790**	**1,200 J**	**8,400 J**	**8,800 J**	**9,500 J**	**6.9 J**	**38,000**	**32,000**	**100,000 J**	**600,000**	**490,000**	**420,000**	**340,000**	**7,000 J**	**130 J**	**7,600 J**	**120 J**
Acenaphthylene	ug/kg	**98 J**	**130 J**	**550 J**	**1,300 J**	**2,300 J**	**3,700 J**	**40 J**	**7,200 J**	**7,500 J**	**21,000 J**	**99,000 J**	**280,000**	**460,000**	**66,000 J**	**1,400 J**	**76 J**	**2,200 J**	**120 J**
Acetophenone	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Anthracene	ug/kg	**490**	**1,500**	**1,500 J**	**6,900 J**	**10,000 J**	**13,000**	**33 J**	**31,000**	**28,000**	**78,000 J**	**320,000**	**330,000**	**340,000**	**180,000**	**5,400 J**	**140 J**	**9,000 J**	**250 J**
Atrazine	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Benzaldehyde	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Benzo(a)anthracene	ug/kg	**510**	**2,100**	**2,200 J**	**5,900 J**	**9,000 J**	**15,000**	**170 J**	**32,000**	**27,000**	**65,000 J**	**220,000 J**	**260,000**	**240,000 J**	**130,000 J**	**7,800 J**	**190 J**	**11,000 J**	**610**
Benzo(a)pyrene	ug/kg	**590**	**1,800**	**2,400 J**	**5,700 J**	**5,600 J**	**13,000**	230 U	**23,000**	**21,000**	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	**580**
Benzo(b)fluoranthene	ug/kg	**290**	**1,600**	**1,400 J**	**2,300 J**	**2,700 J**	**6,400 J**	230 U	**23,000**	**17,000**	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Benzo(g,h,i)perylene	ug/kg	**250**	**670 J**	**1,700 J**	**2,900 J**	**2,000 J**	**4,700 J**	**97 J**	**12,000 J**	**13,000 J**	**32,000 J**	**83,000 J**	**97,000 J**	**88,000 J**	**62,000 J**	**3,000 J**	**190 J**	**3,900 J**	**160 J**
Benzo(k)fluoranthene	ug/kg	**360**	**1,200**	**1,300 J**	**3,100 J**	**3,500 J**	**7,400 J**	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Benzyl butyl phthalate	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141
Sample Number:		GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0
Sample Depth:		2-4	4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2
Sample Date:		4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**75 J**	**94 J**	13,000 U	**1,300 J**	**2,100 J**	**2,200 J**	230 U	**5,900 J**	**6,900 J**	**22,000 J**	**120,000 J**	**150,000 J**	**180,000 J**	**79,000 J**	**1,100 J**	**23 J**	**1,900 J**	**25 J**
Bis(2-chloroethoxy) methane	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Bis(2-chloroethyl) ether	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Bis(2-chloroisopropyl) ether	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Bis(2-ethylhexyl) phthalate	ug/kg	350 U	1,400 U	**4,100 J**	**28,000**	**46,000**	**22,000**	230 U	22,000 U	26,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	**2,200**	40,000 U	**3,800**
Caprolactam	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Carbazole	ug/kg	**38 J**	**240 J**	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	**9,400 J**	**22,000 J**	**22,000 J**	**11,000 J**	9,300 U	430 U	12,000 U	380 U
Chrysene	ug/kg	**670 J**	**2,100 J**	**2,700 J**	**7,300 J**	**12,000 J**	**21,000**	**160 J**	**37,000**	**31,000**	**76,000 J**	**230,000**	**280,000**	**320,000**	**130,000**	**6,800 J**	**330 J**	**9,900 J**	**700 J**
Dibenz(a,h)anthracene	ug/kg	**74 J**	**220 J**	13,000 U	**1,000 J**	13,000 U	**2,200 J**	230 U	**3,800 J**	**3,000 J**	130,000 U	**35,000 J**	180,000 U	250,000 U	130,000 U	**1,200 J**	**110 J**	**1,000 J**	**38 J**
Dibenzofuran	ug/kg	**100 J**	**330 J**	13,000 U	**820 J**	13,000 U	**1,700 J**	230 U	**4,200 J**	**5,100 J**	**12,000 J**	**58,000 J**	**54,000 J**	**64,000 J**	**48,000 J**	**1,000 J**	430 U	**1,400 J**	380 U
Diethyl phthalate	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Dimethyl phthalate	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Di-n-butyl phthalate	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Di-n-octylphthalate	ug/kg	250 U	670 U	13,000 U	15,000 U	**1,300 J**	**710 J**	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Fluoranthene	ug/kg	**1,500**	**9,700**	**4,900 J**	**13,000 J**	**16,000**	**29,000**	**390**	**50,000**	**38,000**	**91,000 J**	**330,000**	**370,000**	**380,000**	**210,000**	**11,000**	**330 J**	**16,000**	**1,300**
Fluorene	ug/kg	**280**	**520 J**	13,000 U	**3,700 J**	**6,000 J**	**7,700 J**	230 U	**19,000**	**24,000**	**88,000 J**	**440,000**	**460,000**	**520,000**	**230,000**	**4,200 J**	**55 J**	**7,400 J**	**56 J**
Hexachlorobenzene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 UJ	16,000 UJ	130,000 UJ	220,000 UJ	180,000 UJ	250,000 UJ	130,000 UJ	9,300 U	430 U	12,000 U	380 U
Hexachlorobutadiene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Hexachlorocyclopentadiene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Hexachloroethane	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**180 J**	**660 J**	**1,300 J**	**2,200 J**	**1,500 J**	**4,200 J**	**72 J**	**12,000 J**	**12,000 J**	**29,000 J**	**89,000 J**	**74,000 J**	**63,000 J**	**47,000 J**	**3,000 J**	**120 J**	**3,000 J**	**120 J**
Isophorone	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Naphthalene	ug/kg	**750**	**810**	13,000 U	15,000 U	**14,000**	**24,000**	230 U	**85,000**	**140,000**	**650,000**	**3,200,000**	**2,600,000**	**2,800,000**	**1,300,000**	**9,400**	430 U	**16,000**	380 U
Nitrobenzene	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
N-nitrosodi-n-propylamine	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
N-nitrosodiphenylamine	ug/kg	250 U	670 U	13,000 U	**6,500 J**	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Pentachlorophenol	ug/kg	480 U	1,300 U	26,000 U	30,000 U	26,000 U	20,000 U	450 U	32,000 U	32,000 U	250,000 U	450,000 U	350,000 U	510,000 U	250,000 U	19,000 U	830 U	24,000 U	730 U
Phenanthrene	ug/kg	**2,000**	**7,500**	**2,000 J**	**12,000 J**	**32,000**	**58,000**	**28 J**	**76,000**	**87,000**	**270,000**	**990,000**	**1,200,000**	**1,300,000**	**600,000**	**15,000**	**300 J**	**26,000**	**460 J**
Phenol	ug/kg	250 U	670 U	13,000 U	15,000 U	13,000 U	9,900 U	230 U	16,000 U	16,000 U	130,000 U	220,000 U	180,000 U	250,000 U	130,000 U	9,300 U	430 U	12,000 U	380 U
Pyrene	ug/kg	**1,900 J**	**6,200 J**	**6,100 J**	**17,000**	**28,000**	**43,000**	**640**	**73,000**	**62,000**	**160,000**	**530,000**	**570,000**	**630,000**	**340,000**	**18,000**	**370 J**	**25,000**	**1,300 J**
Total PAHs	ug/kg	**11,142**	**37,700**	**30,040**	**96,600**	**167,400**	**273,800**	**1,637**	**559,000**	**593,500**	**1,910,000**	**8,566,000**	**8,711,000**	**9,661,000**	**4,455,000**	**97,700**	**2,429**	**153,000**	**5,886**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:		GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D
Sample Depth:		2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3
Sample Date:		4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2,3,4,6-tetrachlorophenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2,4,5-trichlorophenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2,4,6-trichlorophenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2,4-dichlorophenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2,4-dimethylphenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2,4-dinitrophenol	ug/kg	660 U	17,000 U	1,500 U	1,100 U	820 U	820 U	81,000 U	150,000 U	6,600 U	50,000 UJ	53,000 UJ	8,000 U	8,700 U	5,700 U	6,200 U	2,400 U	2,100 U	5,700 U
2,4-dinitrotoluene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2,6-dinitrotoluene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2-chloronaphthalene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2-chlorophenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2-methylnaphthalene	ug/kg	**260 J**	**31,000**	**62 J**	**39 J**	**47 J**	**28 J**	**350,000**	**650,000**	**3,100 J**	**1,300,000 J**	**150,000 J**	**22,000**	**20,000**	**7,200**	**1,600 J**	**1,900**	**310 J**	**2,800 J**
2-methylphenol (o-cresol)	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
2-nitroaniline	ug/kg	660 U	17,000 U	1,500 U	1,100 U	820 U	820 U	81,000 U	150,000 U	6,600 U	50,000 UJ	53,000 UJ	8,000 U	8,700 U	5,700 U	6,200 U	2,400 U	2,100 U	5,700 U
2-nitrophenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
3,3'-dichlorobenzidine	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
3-nitroaniline	ug/kg	660 U	17,000 U	1,500 U	1,100 U	820 U	820 U	81,000 U	150,000 U	6,600 U	50,000 UJ	53,000 UJ	8,000 U	8,700 U	5,700 U	6,200 U	2,400 U	2,100 U	5,700 U
4,6-dinitro-2-methylphenol	ug/kg	660 U	17,000 U	1,500 U	1,100 U	820 U	820 U	81,000 U	150,000 U	6,600 U	50,000 UJ	53,000 UJ	8,000 U	8,700 U	5,700 U	6,200 U	2,400 U	2,100 U	5,700 U
4-bromophenyl phenyl ether	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
4-chloro-3-methylphenol	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
4-chloroaniline	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	**1,300 J**	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
4-chlorophenyl phenyl ether	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
4-methylphenol (p-cresol)	ug/kg	**39 J**	8,700 U	760 U	570 U	**25 J**	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
4-nitroaniline	ug/kg	660 U	17,000 U	1,500 U	1,100 U	820 U	820 U	81,000 U	150,000 U	6,600 U	50,000 UJ	53,000 UJ	8,000 U	8,700 U	5,700 U	6,200 U	2,400 U	2,100 U	5,700 U
4-nitrophenol	ug/kg	660 U	17,000 U	1,500 U	1,100 U	820 U	820 U	81,000 U	150,000 U	6,600 U	50,000 UJ	53,000 UJ	8,000 U	8,700 U	5,700 U	6,200 U	2,400 U	2,100 U	5,700 U
Acenaphthene	ug/kg	**740**	**19,000**	**270 J**	**200 J**	**130 J**	**88 J**	**170,000**	**270,000**	**8,800**	**1,100,000 J**	**150,000 J**	**23,000**	**17,000**	**12,000**	**12,000**	**4,800**	**1,100**	**3,400**
Acenaphthylene	ug/kg	**370**	**3,800 J**	**200 J**	**91 J**	**100 J**	**64 J**	**37,000 J**	**34,000 J**	**1,800 J**	**74,000 J**	**18,000 J**	**3,300 J**	**3,500 J**	**1,200 J**	**3,000 J**	**790 J**	**190 J**	**550 J**
Acetophenone	ug/kg	340 U	8,700 U	760 U	570 U	**59 J**	**74 J**	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Anthracene	ug/kg	**1,300**	**15,000**	**320 J**	**260 J**	**220 J**	**100 J**	**97,000**	**120,000**	**6,200**	**800,000 J**	**120,000 J**	**20,000**	**17,000**	**12,000**	**12,000**	**4,200**	**1,000 J**	**3,700**
Atrazine	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Benzaldehyde	ug/kg	340 U	8,700 U	760 U	570 U	**100 J**	**120 J**	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Benzo(a)anthracene	ug/kg	**1,800**	**12,000**	**730 J**	**650**	**550**	**250 J**	**75,000**	**100,000**	**6,500**	**390,000 J**	**79,000 J**	**16,000**	**17,000**	**14,000**	**15,000**	**4,800**	**1,600**	**7,900**
Benzo(a)pyrene	ug/kg	**1,600**	**10,000**	760 U	570 U	**560**	**250 J**	**46,000**	73,000 U	**5,800**	**280,000 J**	**64,000 J**	**12,000**	**13,000**	**12,000**	**12,000**	**3,700**	**1,200**	**6,400**
Benzo(b)fluoranthene	ug/kg	**820**	8,700 U	760 U	570 U	**280 J**	**180 J**	41,000 U	73,000 U	**3,800**	**170,000 J**	**30,000 J**	**8,800**	**9,200**	**10,000**	**8,000**	**3,000**	**1,100 J**	**7,400**
Benzo(g,h,i)perylene	ug/kg	**540**	**4,500 J**	**390 J**	**140 J**	**140 J**	**72 J**	**20,000 J**	**34,000 J**	**2,600 J**	**85,000 J**	**22,000 J**	**4,900**	**4,700**	**4,900**	**5,000**	**1,800**	**660 J**	**3,200**
Benzo(k)fluoranthene	ug/kg	**910**	8,700 U	760 U	570 U	**420 J**	**170 J**	41,000 U	73,000 U	**4,900**	**140,000 J**	**45,000 J**	**8,700**	**9,600**	**11,000 J**	**8,800**	**2,300**	**1,200**	**7,100**
Benzyl butyl phthalate	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	**3,100 J**	**1,100 J**	2,900 U	**1,000 J**	**820 J**	1,100 U	**680 J**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:		GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D
Sample Depth:		2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3
Sample Date:		4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**49 J**	**4,500 J**	760 U	570 U	**16 J**	420 U	**41,000**	**57,000 J**	3,400 U	**150,000 J**	26,000 UJ	4,100 U	4,500 U	**480 J**	3,200 U	1,200 U	1,100 U	2,900 U
Bis(2-chloroethoxy) methane	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Bis(2-chloroethyl) ether	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Bis(2-chloroisopropyl) ether	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Bis(2-ethylhexyl) phthalate	ug/kg	**4,400**	8,700 U	1,300 U	1,800 U	**2,500**	420 U	41,000 U	73,000 U	**16,000**	**120,000 J**	**120,000 J**	**66,000 J**	**92,000 J**	**11,000**	**37,000**	**26,000 J**	**9,700**	**24,000**
Caprolactam	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Carbazole	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	**3,400 J**	**5,400 J**	3,400 U	**8,900 J**	26,000 UJ	**1,400 J**	**1,200 J**	**2,800 J**	**1,200 J**	**350 J**	1,100 U	**1,800 J**
Chrysene	ug/kg	**2,400 J**	**12,000 J**	**1,000 J**	**720**	**750 J**	**320 J**	**87,000**	**110,000**	**7,100**	**360,000 J**	**89,000 J**	**17,000**	**17,000**	**16,000**	**14,000**	**4,800**	**1,700**	**9,500**
Dibenz(a,h)anthracene	ug/kg	**180 J**	**1,500 J**	**210 J**	**53 J**	**58 J**	420 U	**6,600 J**	**12,000 J**	**840 J**	**25,000 J**	**6,500 J**	**1,900 J**	**1,800 J**	**1,800 J**	**1,900 J**	**620 J**	1,100 UJ	**1,300 J**
Dibenzofuran	ug/kg	**100 J**	**2,100 J**	**36 J**	**35 J**	420 U	420 U	**17,000 J**	**24,000 J**	3,400 U	**51,000 J**	**12,000 J**	4,100 U	4,500 U	**3,200**	3,200 U	1,200 U	1,100 U	2,900 U
Diethyl phthalate	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Dimethyl phthalate	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Di-n-butyl phthalate	ug/kg	340 U	8,700 U	760 U	570 U	**40 J**	**21 J**	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	**1,700 J**	1,200 U	1,100 U	2,900 U
Di-n-octylphthalate	ug/kg	340 U	8,700 U	760 U	570 U	420 U	**130 J**	41,000 U	73,000 U	**1,100 J**	**6,700 J**	26,000 UJ	**35,000**	**23,000**	**1,400 J**	3,200 U	**6,300**	**2,500**	**2,200 J**
Fluoranthene	ug/kg	**3,300**	**20,000**	**2,900 J**	**1,900**	**860**	**380 J**	**120,000**	**140,000**	**13,000**	**650,000 J**	**160,000 J**	**29,000**	**31,000**	**36,000**	**23,000**	**7,600**	**3,600**	**19,000**
Fluorene	ug/kg	**160 J**	**11,000**	**84 J**	**110 J**	**47 J**	**34 J**	**130,000**	**160,000**	**4,300**	**530,000 J**	**86,000 J**	**15,000**	**13,000**	**8,800**	**4,200**	**2,400**	**420 J**	**2,300 J**
Hexachlorobenzene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 UJ	73,000 UJ	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Hexachlorobutadiene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Hexachlorocyclopentadiene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Hexachloroethane	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**440**	**3,600 J**	**330 J**	**100 J**	**120 J**	**61 J**	**23,000 J**	**29,000 J**	**3,100 J**	**85,000 J**	**23,000 J**	**5,900**	**6,000**	**6,100**	**6,300 J**	**2,000 J**	**820 J**	**4,500 J**
Isophorone	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Naphthalene	ug/kg	**540**	**54,000**	760 U	570 U	**76 J**	**56 J**	**510,000**	**810,000**	**26,000**	**1,800,000 J**	**27,000 J**	**7,900**	**2,800 J**	**2,500 J**	**3,300**	**3,400**	**610 J**	**4,700**
Nitrobenzene	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
N-nitrosodi-n-propylamine	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
N-nitrosodiphenylamine	ug/kg	340 U	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	**3,700 J**	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Pentachlorophenol	ug/kg	660 U	17,000 U	1,500 U	1,100 U	820 U	820 U	81,000 U	150,000 U	6,600 U	50,000 UJ	53,000 UJ	8,000 U	8,700 U	5,700 U	6,200 U	2,400 U	2,100 U	5,700 U
Phenanthrene	ug/kg	**1,100**	**68,000**	**950**	**550 J**	**190 J**	**140 J**	**360,000**	**450,000**	**18,000**	**2,500,000 J**	**570,000 J**	**55,000 J**	**58,000**	**46,000**	**31,000**	**13,000**	**3,400**	**25,000**
Phenol	ug/kg	**23 J**	8,700 U	760 U	570 U	420 U	420 U	41,000 U	73,000 U	3,400 U	25,000 UJ	26,000 UJ	4,100 U	4,500 U	2,900 U	3,200 U	1,200 U	1,100 U	2,900 U
Pyrene	ug/kg	**4,400 J**	**35,000 J**	**2,000 J**	**1,900**	**1,200 J**	**550 J**	**190,000**	**250,000**	**16,000**	**1,200,000 J**	**250,000 J**	**52,000**	**53,000**	**37,000**	**39,000 J**	**14,000**	**4,000**	**22,000 J**
Total PAHs	ug/kg	**20,860**	**300,400**	**9,446**	**6,713**	**5,748**	**2,743**	**2,221,600**	**3,169,000**	**131,840**	**11,489,000**	**1,889,500**	**302,400**	**293,600**	**238,500**	**200,100**	**75,110**	**22,910**	**130,750**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E
Sample Depth:		3-4	4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2,3,4,6-tetrachlorophenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2,4,5-trichlorophenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2,4,6-trichlorophenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2,4-dichlorophenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2,4-dimethylphenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2,4-dinitrophenol	ug/kg	5,900 U	36,000 UJ	33,000 UJ	29,000 UJ	10,000 UJ	10,000 UJ	11,000 UJ	8,700 UJ	54,000 UJ	19,000 UJ	17,000 UJ	14,000 UJ	8,800 UJ	54,000 UJ	57,000 UJ	54,000 UJ	61,000 UJ	53,000 UJ
2,4-dinitrotoluene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2,6-dinitrotoluene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2-chloronaphthalene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2-chlorophenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2-methylnaphthalene	ug/kg	**3,700**	**15,000 J**	**23,000 J**	**21,000 J**	**16,000 J**	**16,000 J**	**32,000 J**	**63,000 J**	**76,000 J**	**23,000 J**	**26,000 J**	**43,000 J**	**19,000 J**	**27,000 J**	**56,000 J**	**130,000 J**	**620,000 J**	**290,000 J**
2-methylphenol (o-cresol)	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
2-nitroaniline	ug/kg	5,900 U	36,000 UJ	33,000 UJ	29,000 UJ	10,000 UJ	10,000 UJ	11,000 UJ	8,700 UJ	54,000 UJ	19,000 UJ	17,000 UJ	14,000 UJ	8,800 UJ	54,000 UJ	57,000 UJ	54,000 UJ	61,000 UJ	53,000 UJ
2-nitrophenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
3,3'-dichlorobenzidine	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
3-nitroaniline	ug/kg	5,900 U	36,000 UJ	33,000 UJ	29,000 UJ	10,000 UJ	10,000 UJ	11,000 UJ	8,700 UJ	54,000 UJ	19,000 UJ	17,000 UJ	14,000 UJ	8,800 UJ	54,000 UJ	57,000 UJ	54,000 UJ	61,000 UJ	53,000 UJ
4,6-dinitro-2-methylphenol	ug/kg	5,900 U	36,000 UJ	33,000 UJ	29,000 UJ	10,000 UJ	10,000 UJ	11,000 UJ	8,700 UJ	54,000 UJ	19,000 UJ	17,000 UJ	14,000 UJ	8,800 UJ	54,000 UJ	57,000 UJ	54,000 UJ	61,000 UJ	53,000 UJ
4-bromophenyl phenyl ether	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
4-chloro-3-methylphenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
4-chloroaniline	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	**5,700 J**	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
4-chlorophenyl phenyl ether	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
4-methylphenol (p-cresol)	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
4-nitroaniline	ug/kg	5,900 U	36,000 UJ	33,000 UJ	29,000 UJ	10,000 UJ	10,000 UJ	11,000 UJ	8,700 UJ	54,000 UJ	19,000 UJ	17,000 UJ	14,000 UJ	8,800 UJ	54,000 UJ	57,000 UJ	54,000 UJ	61,000 UJ	53,000 UJ
4-nitrophenol	ug/kg	5,900 U	36,000 UJ	33,000 UJ	29,000 UJ	10,000 UJ	10,000 UJ	11,000 UJ	8,700 UJ	54,000 UJ	19,000 UJ	17,000 UJ	14,000 UJ	8,800 UJ	54,000 UJ	57,000 UJ	54,000 UJ	61,000 UJ	53,000 UJ
Acenaphthene	ug/kg	**3,200**	**18,000 J**	**67,000 J**	**34,000 J**	**20,000 J**	**16,000 J**	**33,000 J**	**49,000 J**	**84,000 J**	**23,000 J**	**24,000 J**	**35,000 J**	**20,000 J**	**220,000 J**	**110,000 J**	**110,000 J**	**350,000 J**	**170,000 J**
Acenaphthylene	ug/kg	**670 J**	18,000 UJ	16,000 UJ	14,000 UJ	**2,700 J**	**2,100 J**	**4,500 J**	**6,000 J**	**9,900 J**	**3,400 J**	**3,400 J**	**3,300 J**	**930 J**	**49,000 J**	**10,000 J**	**7,300 J**	**29,000 J**	**10,000 J**
Acetophenone	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Anthracene	ug/kg	**3,800**	**18,000 J**	**140,000 J**	**67,000 J**	**18,000 J**	**15,000 J**	**27,000 J**	**35,000 J**	**66,000 J**	**15,000 J**	**21,000 J**	**31,000 J**	**18,000 J**	**180,000 J**	**81,000 J**	**75,000 J**	**200,000 J**	**98,000 J**
Atrazine	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Benzaldehyde	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Benzo(a)anthracene	ug/kg	**6,800**	**15,000 J**	**220,000 J**	**89,000 J**	**17,000 J**	**15,000 J**	**27,000 J**	**45,000 J**	**51,000 J**	**17,000 J**	**20,000 J**	**42,000 J**	**24,000 J**	**86,000 J**	**36,000 J**	**41,000 J**	**110,000 J**	**62,000 J**
Benzo(a)pyrene	ug/kg	**6,200**	**11,000 J**	**210,000 J**	**87,000 J**	**11,000 J**	**10,000 J**	**18,000 J**	**27,000 J**	**41,000 J**	**11,000 J**	**14,000 J**	**29,000 J**	**21,000 J**	**71,000 J**	**28,000 J**	**33,000 J**	**86,000 J**	**48,000 J**
Benzo(b)fluoranthene	ug/kg	**6,100**	**9,200 J**	**210,000 J**	**81,000 J**	**7,900 J**	**8,100 J**	**12,000 J**	**23,000 J**	**19,000 J**	**8,600 J**	**9,200 J**	**23,000 J**	**18,000 J**	**31,000 J**	**13,000 J**	**14,000 J**	**47,000 J**	**25,000 J**
Benzo(g,h,i)perylene	ug/kg	**3,200**	**5,300 J**	**98,000 J**	**43,000 J**	**3,700 J**	**3,500 J**	**5,200 J**	**7,900 J**	**11,000 J**	**4,700 J**	**5,100 J**	**9,900 J**	**7,600 J**	**24,000 J**	**9,700 J**	**12,000 J**	**32,000 J**	**18,000 J**
Benzo(k)fluoranthene	ug/kg	**5,600**	**8,300 J**	**170,000 J**	**63,000 J**	**9,000 J**	**6,600 J**	**12,000 J**	**15,000 J**	**31,000 J**	**7,800 J**	**11,000 J**	**23,000 J**	**13,000 J**	**41,000 J**	**17,000 J**	**22,000 J**	**45,000 J**	**35,000 J**
Benzyl butyl phthalate	ug/kg	**960 J**	18,000 UJ	16,000 UJ	14,000 UJ	**1,300 J**	**1,400 J**	**1,900 J**	**1,600 J**	27,000 UJ	**1,800 J**	**2,500 J**	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E
Sample Depth:		3-4	4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	3,000 U	18,000 UJ	**4,800 J**	**2,200 J**	**870 J**	5,200 UJ	**2,300 J**	**3,700 J**	**14,000 J**	**4,000 J**	**2,200 J**	**1,700 J**	**820 J**	**30,000 J**	**21,000 J**	**19,000 J**	**65,000 J**	**25,000 J**
Bis(2-chloroethoxy) methane	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Bis(2-chloroethyl) ether	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Bis(2-chloroisopropyl) ether	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Bis(2-ethylhexyl) phthalate	ug/kg	**31,000**	**79,000 J**	16,000 UJ	14,000 UJ	**130,000 J**	**110,000 J**	**95,000 J**	**100,000 J**	**240,000 J**	**170,000 J**	**120,000 J**	**14,000 J**	**6,300 J**	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	73,000 UJ
Caprolactam	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Carbazole	ug/kg	**1,600 J**	18,000 UJ	**81,000 J**	**21,000 J**	5,200 UJ	5,200 UJ	5,900 UJ	**1,200 J**	27,000 UJ	9,700 UJ	8,700 UJ	**5,100 J**	**5,300 J**	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Chrysene	ug/kg	**7,800**	**16,000 J**	**240,000 J**	**93,000 J**	**16,000 J**	**15,000 J**	**22,000 J**	**34,000 J**	**52,000 J**	**16,000 J**	**19,000 J**	**36,000 J**	**24,000 J**	**82,000 J**	**37,000 J**	**41,000 J**	**110,000 J**	**60,000 J**
Dibenz(a,h)anthracene	ug/kg	**1,200 J**	18,000 UJ	**35,000 J**	**14,000 J**	5,200 UJ	5,200 UJ	**2,200 J**	**2,800 J**	27,000 UJ	9,700 UJ	**2,000 J**	**4,500 J**	**3,000 J**	**6,700 J**	29,000 UJ	**4,100 J**	**9,000 J**	**5,100 J**
Dibenzofuran	ug/kg	3,000 U	**3,900 J**	**60,000 J**	**16,000 J**	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	**5,500 J**	9,700 UJ	8,700 UJ	**7,600 J**	**5,500 J**	**12,000 J**	**5,600 J**	**7,300 J**	**21,000 J**	**12,000 J**
Diethyl phthalate	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Dimethyl phthalate	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Di-n-butyl phthalate	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Di-n-octylphthalate	ug/kg	3,000 U	**6,400 J**	16,000 UJ	14,000 UJ	5,200 UJ	**4,200 J**	5,900 UJ	**9,700 J**	**68,000 J**	**58,000 J**	**30,000 J**	**16,000 J**	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	**5,500 J**
Fluoranthene	ug/kg	**16,000**	**33,000 J**	**6,500,000 J**	**230,000 J**	**40,000 J**	**33,000 J**	**53,000 J**	**55,000 J**	**100,000 J**	**37,000 J**	**53,000 J**	**81,000 J**	**61,000 J**	**160,000 J**	**69,000 J**	**70,000 J**	**200,000 J**	**110,000 J**
Fluorene	ug/kg	**2,700 J**	**11,000 J**	**65,000 J**	**26,000 J**	**14,000 J**	**12,000 J**	**23,000 J**	**34,000 J**	**53,000 J**	**15,000 J**	**15,000 J**	**26,000 J**	**13,000 J**	**87,000 J**	**57,000 J**	**55,000 J**	**160,000 J**	**78,000 J**
Hexachlorobenzene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Hexachlorobutadiene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Hexachlorocyclopentadiene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Hexachloroethane	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Indeno(1,2,3-c,d)pyrene	ug/kg	**4,300 J**	**5,600 J**	**120,000 J**	**47,000 J**	**4,900 J**	**4,300 J**	**6,600 J**	**9,600 J**	**15,000 J**	**4,300 J**	**6,200 J**	**15,000 J**	**10,000 J**	**25,000 J**	**10,000 J**	**13,000 J**	**31,000 J**	**18,000 J**
Isophorone	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Naphthalene	ug/kg	**7,200**	**23,000 J**	**82,000 J**	**59,000 J**	**8,300 J**	**8,800 J**	**21,000 J**	**48,000 J**	**48,000 J**	**20,000 J**	**15,000 J**	**8,800 J**	**8,300 J**	**160,000 J**	**150,000 J**	**240,000 J**	**920,000 J**	**450,000 J**
Nitrobenzene	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
N-nitrosodi-n-propylamine	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
N-nitrosodiphenylamine	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Pentachlorophenol	ug/kg	5,900 U	36,000 UJ	33,000 UJ	29,000 UJ	10,000 UJ	10,000 UJ	11,000 UJ	8,700 UJ	54,000 UJ	19,000 UJ	17,000 UJ	14,000 UJ	8,800 UJ	54,000 UJ	57,000 UJ	54,000 UJ	61,000 UJ	53,000 UJ
Phenanthrene	ug/kg	**19,000**	**59,000 J**	**810,000 J**	**230,000 J**	**70,000 J**	**57,000 J**	**96,000 J**	**190,000 J**	**230,000 J**	**65,000 J**	**79,000 J**	**160,000 J**	**86,000 J**	**550,000 J**	**240,000 J**	**250,000 J**	**660,000 J**	**310,000 J**
Phenol	ug/kg	3,000 U	18,000 UJ	16,000 UJ	14,000 UJ	5,200 UJ	5,200 UJ	5,900 UJ	4,500 UJ	27,000 UJ	9,700 UJ	8,700 UJ	7,200 UJ	4,500 UJ	27,000 UJ	29,000 UJ	27,000 UJ	30,000 UJ	26,000 UJ
Pyrene	ug/kg	**18,000 J**	**42,000 J**	**560,000 J**	**220,000 J**	**42,000 J**	**42,000 J**	**67,000 J**	**110,000 J**	**140,000 J**	**46,000 J**	**52,000 J**	**95,000 J**	**55,000 J**	**260,000 J**	**110,000 J**	**140,000 J**	**350,000 J**	**190,000 J**
Total PAHs	ug/kg	**115,470**	**289,400**	**9,550,000**	**1,404,000**	**300,500**	**264,400**	**461,500**	**754,300**	**1,026,900**	**316,800**	**374,900**	**665,500**	**401,830**	**2,059,700**	**1,033,700**	**1,257,400**	**3,959,000**	**1,977,100**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3
Sample Number:		ERT2-1-F	FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D
Sample Depth:		4-5	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2,3,4,6-tetrachlorophenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2,4,5-trichlorophenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2,4,6-trichlorophenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2,4-dichlorophenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2,4-dimethylphenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2,4-dinitrophenol	ug/kg	48,000 UJ	45,000 UJ	21,000 U	45,000 UJ	9,200 U	8,900 U	26,000 U	26,000 U	38,000 UJ	13,000 U	43,000 UJ	960,000 UJ	33,000 UJ	24,000 UJ	1,600 UJ	2,900 UJ	4,200 UJ	5,400 UJ
2,4-dinitrotoluene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2,6-dinitrotoluene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2-chloronaphthalene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2-chlorophenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2-methylnaphthalene	ug/kg	**280,000 J**	**290,000 J**	**44,000**	**120,000 J**	**2,100 J**	**14,000**	**71,000**	**100,000**	**200,000 J**	**59,000**	**1,300,000 J**	**2,800,000 J**	**120,000 J**	**630,000 J**	**290 J**	**3,500 J**	**810 J**	**5,500 J**
2-methylphenol (o-cresol)	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
2-nitroaniline	ug/kg	48,000 UJ	45,000 UJ	21,000 U	45,000 UJ	9,200 U	8,900 U	26,000 U	26,000 U	38,000 UJ	13,000 U	43,000 UJ	960,000 UJ	33,000 UJ	24,000 UJ	1,600 UJ	2,900 UJ	4,200 UJ	5,400 UJ
2-nitrophenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
3,3'-dichlorobenzidine	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
3-nitroaniline	ug/kg	48,000 UJ	45,000 UJ	21,000 U	45,000 UJ	9,200 U	8,900 U	26,000 U	26,000 U	38,000 UJ	13,000 U	43,000 UJ	960,000 UJ	33,000 UJ	24,000 UJ	1,600 UJ	2,900 UJ	4,200 UJ	5,400 UJ
4,6-dinitro-2-methylphenol	ug/kg	48,000 UJ	45,000 UJ	21,000 U	45,000 UJ	9,200 U	8,900 U	26,000 U	26,000 U	38,000 UJ	13,000 U	43,000 UJ	960,000 UJ	33,000 UJ	24,000 UJ	1,600 UJ	2,900 UJ	4,200 UJ	5,400 UJ
4-bromophenyl phenyl ether	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
4-chloro-3-methylphenol	ug/kg	24,000 UJ	23,000 UJ	11,000 UJ	23,000 UJ	4,700 UJ	4,600 UJ	13,000 UJ	13,000 UJ	19,000 UJ	6,700 UJ	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
4-chloroaniline	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
4-chlorophenyl phenyl ether	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
4-methylphenol (p-cresol)	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
4-nitroaniline	ug/kg	48,000 UJ	45,000 UJ	21,000 U	45,000 UJ	9,200 U	8,900 U	26,000 U	26,000 U	38,000 UJ	13,000 U	43,000 UJ	960,000 UJ	33,000 UJ	24,000 UJ	1,600 UJ	2,900 UJ	4,200 UJ	5,400 UJ
4-nitrophenol	ug/kg	48,000 UJ	45,000 UJ	21,000 U	45,000 UJ	9,200 U	8,900 U	26,000 U	26,000 U	38,000 UJ	13,000 U	43,000 UJ	960,000 UJ	33,000 UJ	24,000 UJ	1,600 UJ	2,900 UJ	4,200 UJ	5,400 UJ
Acenaphthene	ug/kg	**200,000 J**	**230,000 J**	**32,000**	**91,000 J**	**14,000**	**17,000**	**57,000**	**85,000**	**110,000 J**	**36,000**	**780,000 J**	**1,700,000 J**	**79,000 J**	**440,000 J**	**3,100 J**	**3,900 J**	**1,800 J**	**6,400 J**
Acenaphthylene	ug/kg	**6,500 J**	**15,000 J**	11,000 U	**6,800 J**	**3,200 J**	**1,400 J**	**3,100 J**	**7,700 J**	**8,000 J**	**1,900 J**	**35,000 J**	**86,000 J**	**5,300 J**	**18,000 J**	**1,200 J**	**580 J**	**650 J**	**820 J**
Acetophenone	ug/kg	24,000 UJ	**4,100 J**	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	**3,500 J**	**3,000 J**	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Anthracene	ug/kg	**93,000 J**	**140,000 J**	**21,000**	**89,000 J**	**13,000**	**16,000**	**41,000**	**58,000**	**71,000 J**	**24,000**	**470,000 J**	**930,000 J**	**59,000 J**	**160,000 J**	**6,300 J**	**3,400 J**	**3,100 J**	**7,300 J**
Atrazine	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Benzaldehyde	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Benzo(a)anthracene	ug/kg	**61,000 J**	**75,000 J**	**17,000**	**60,000 J**	**8,800**	**11,000**	**26,000**	**40,000**	**35,000 J**	**16,000**	**160,000 J**	**370,000 J**	**32,000 J**	**67,000 J**	**7,700 J**	**4,700 J**	**4,000 J**	**5,700 J**
Benzo(a)pyrene	ug/kg	**47,000 J**	**52,000 J**	**12,000**	**47,000 J**	**7,000**	**9,000**	**20,000**	**31,000**	**31,000 J**	**13,000**	**120,000 J**	**270,000 J**	**27,000 J**	**58,000 J**	**5,600 J**	**3,200 J**	**3,500 J**	**4,500 J**
Benzo(b)fluoranthene	ug/kg	**24,000 J**	**31,000 J**	**8,300 J**	**30,000 J**	**3,400 J**	**4,100 J**	**9,400 J**	**15,000**	**19,000 J**	**7,100**	**60,000 J**	**93,000 J**	**14,000 J**	**27,000 J**	**4,200 J**	**2,500 J**	**2,700 J**	**3,600 J**
Benzo(g,h,i)perylene	ug/kg	**17,000 J**	**19,000 J**	**4,600 J**	**15,000 J**	**2,500 J**	**3,300 J**	**7,600 J**	**10,000 J**	**12,000 J**	**4,900 J**	**37,000 J**	**87,000 J**	**11,000 J**	**18,000 J**	**1,600 J**	**980 J**	**1,200 J**	**1,400 J**
Benzo(k)fluoranthene	ug/kg	**37,000 J**	**35,000 J**	**8,500 J**	**33,000 J**	**4,600 J**	**5,800**	**14,000**	**19,000**	**20,000 J**	**9,700**	**67,000 J**	**190,000 J**	**20,000 J**	**33,000 J**	**3,500 J**	**2,300 J**	**2,700 J**	**3,800 J**
Benzyl butyl phthalate	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	**350 J**	**1,300 J**	**650 J**	2,800 UJ

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3
Sample Number:		ERT2-1-F	FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D
Sample Depth:		4-5	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**16,000 J**	**18,000 J**	**1,900 J**	**3,200 J**	4,700 U	**2,800 J**	**11,000 J**	**14,000**	**5,200 J**	**2,500 J**	**110,000 J**	**280,000 J**	**7,900 J**	**59,000 J**	830 UJ	**520 J**	2,200 UJ	2,800 UJ
Bis(2-chloroethoxy) methane	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Bis(2-chloroethyl) ether	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Bis(2-chloroisopropyl) ether	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Bis(2-ethylhexyl) phthalate	ug/kg	**240,000 J**	**130,000 J**	48,000 U	23,000 UJ	7,400 U	4,600 U	16,000 U	29,000 U	48,000 UJ	**46,000**	**120,000 J**	480,000 UJ	42,000 UJ	12,000 UJ	**11,000 J**	**9,600 J**	**17,000 J**	**22,000 J**
Caprolactam	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Carbazole	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	**5,100 J**	6,700 U	**12,000 J**	480,000 UJ	**3,600 J**	**5,500 J**	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Chrysene	ug/kg	**61,000 J**	**76,000 J**	**17,000**	**59,000 J**	**8,600**	**11,000**	**25,000**	**38,000**	**39,000 J**	**17,000**	**150,000 J**	**370,000 J**	**33,000 J**	**63,000 J**	**6,000 J**	**4,800 J**	**3,800 J**	**6,200 J**
Dibenz(a,h)anthracene	ug/kg	**5,800 J**	**6,100 J**	11,000 U	**4,800 J**	4,700 U	**1,100 J**	13,000 U	**3,700 J**	**4,100 J**	**1,700 J**	**12,000 J**	480,000 UJ	**3,100 J**	**6,200 J**	**630 J**	**420 J**	**510 J**	2,800 UJ
Dibenzofuran	ug/kg	**12,000 J**	**14,000 J**	11,000 U	**6,400 J**	4,700 U	4,600 U	13,000 U	13,000 U	**6,200 J**	6,700 U	**38,000 J**	**79,000 J**	**5,000 J**	**16,000 J**	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Diethyl phthalate	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Dimethyl phthalate	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Di-n-butyl phthalate	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Di-n-octylphthalate	ug/kg	**12,000 J**	**11,000 J**	**3,200 J**	23,000 UJ	4,700 U	4,600 U	13,000 U	**3,300 J**	**3,100 J**	**6,000 J**	**27,000 J**	**130,000 J**	**6,100 J**	12,000 UJ	830 UJ	**650 J**	**700 J**	2,800 UJ
Fluoranthene	ug/kg	**110,000 J**	**130,000 J**	**30,000**	**87,000 J**	**17,000**	**18,000**	**43,000**	**61,000**	**74,000 J**	**26,000**	**310,000 J**	**750,000 J**	**72,000 J**	**150,000 J**	**13,000 J**	**6,800 J**	**8,500 J**	**15,000 J**
Fluorene	ug/kg	**77,000 J**	**120,000 J**	**17,000**	**48,000 J**	**3,900 J**	**10,000**	**34,000**	**47,000**	**51,000 J**	**18,000**	**320,000 J**	**750,000 J**	**37,000 J**	**170,000 J**	**1,200 J**	**3,000 J**	**1,700 J**	2,800 UJ
Hexachlorobenzene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Hexachlorobutadiene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Hexachlorocyclopentadiene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Hexachloroethane	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Indeno(1,2,3-c,d)pyrene	ug/kg	**17,000 J**	**21,000 J**	**5,200 J**	**17,000 J**	**2,800 J**	**3,800 J**	**8,300 J**	**11,000 J**	**13,000 J**	**5,600 J**	**39,000 J**	**80,000 J**	**12,000 J**	**20,000 J**	**2,100 J**	**1,400 J**	**1,600 J**	**1,800 J**
Isophorone	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Naphthalene	ug/kg	**320,000 J**	**260,000 J**	**23,000**	**45,000 J**	**5,700**	**16,000**	**77,000**	**140,000**	**240,000 J**	**53,000**	**2,900,000 J**	**6,900,000 J**	**300,000 J**	**1,400,000 J**	**310 J**	**3,200 J**	**990 J**	**3,000 J**
Nitrobenzene	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
N-nitrosodi-n-propylamine	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
N-nitrosodiphenylamine	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Pentachlorophenol	ug/kg	48,000 UJ	45,000 UJ	21,000 U	45,000 UJ	9,200 U	8,900 U	26,000 U	26,000 U	38,000 UJ	13,000 U	43,000 UJ	960,000 UJ	33,000 UJ	24,000 UJ	1,600 UJ	2,900 UJ	4,200 UJ	5,400 UJ
Phenanthrene	ug/kg	**320,000 J**	**500,000 J**	**68,000**	**230,000 J**	**29,000**	**43,000**	**120,000**	**170,000**	**170,000 J**	**67,000**	**1,200,000 J**	**2,600,000 J**	**180,000 J**	**610,000 J**	**10,000 J**	**14,000 J**	**9,800 J**	**25,000 J**
Phenol	ug/kg	24,000 UJ	23,000 UJ	11,000 U	23,000 UJ	4,700 U	4,600 U	13,000 U	13,000 U	19,000 UJ	6,700 U	21,000 UJ	480,000 UJ	17,000 UJ	12,000 UJ	830 UJ	1,500 UJ	2,200 UJ	2,800 UJ
Pyrene	ug/kg	**200,000 J**	**240,000 J**	**46,000**	**180,000 J**	**27,000**	**28,000**	**71,000**	**98,000**	**100,000 J**	**44,000**	**630,000 J**	**1,200,000 J**	**94,000 J**	**260,000 J**	**18,000 J**	**9,400 J**	**8,600 J**	**14,000 J**
Total PAHs	ug/kg	**1,876,300**	**2,240,100**	**353,600**	**1,162,600**	**152,600**	**212,500**	**627,400**	**934,400**	**1,197,100**	**403,900**	**8,590,000**	**19,176,000**	**1,098,400**	**4,130,200**	**84,730**	**68,080**	**55,960**	**104,020**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2
Sample Number:		ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E
Sample Depth:		3-4	4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2,3,4,6-tetrachlorophenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2,4,5-trichlorophenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2,4,6-trichlorophenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2,4-dichlorophenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2,4-dimethylphenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2,4-dinitrophenol	ug/kg	14,000 UJ	16,000 UJ	22,000 UJ	15,000 U	32,000 UJ	5,900 U	5,900 U	9,600 U	4,200 U	3,900 U	29,000 UJ	5,800 U	12,000 U	8,000 U	4,200 U	14,000 R	34,000 UJ	14,000 UJ
2,4-dinitrotoluene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2,6-dinitrotoluene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2-chloronaphthalene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2-chlorophenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2-methylnaphthalene	ug/kg	**11,000 J**	**30,000 J**	**28,000 J**	**27,000**	**160,000 J**	**960 J**	3,000 U	4,900 U	**480 J**	2,000 U	**22,000 J**	**18,000**	**23,000**	**710 J**	**600 J**	7,200 R	**12,000 J**	**6,600 J**
2-methylphenol (o-cresol)	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
2-nitroaniline	ug/kg	14,000 UJ	16,000 UJ	22,000 UJ	15,000 U	32,000 UJ	5,900 U	5,900 U	9,600 U	4,200 U	3,900 U	29,000 UJ	5,800 U	12,000 U	8,000 U	4,200 U	14,000 R	34,000 UJ	14,000 UJ
2-nitrophenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
3,3'-dichlorobenzidine	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 U	17,000 UJ	7,000 UJ
3-nitroaniline	ug/kg	14,000 UJ	16,000 UJ	22,000 UJ	15,000 U	32,000 UJ	5,900 U	5,900 U	9,600 U	4,200 U	3,900 U	29,000 UJ	5,800 U	12,000 U	8,000 U	4,200 U	14,000 R	34,000 UJ	14,000 UJ
4,6-dinitro-2-methylphenol	ug/kg	14,000 UJ	16,000 UJ	22,000 UJ	15,000 U	32,000 UJ	5,900 U	5,900 U	9,600 U	4,200 U	3,900 U	29,000 UJ	5,800 U	12,000 U	8,000 U	4,200 U	14,000 R	34,000 UJ	14,000 UJ
4-bromophenyl phenyl ether	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
4-chloro-3-methylphenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 UJ	2,200 U	7,200 R	17,000 UJ	7,000 UJ
4-chloroaniline	ug/kg	7,100 UJ	8,300 UJ	**4,200 J**	7,900 U	16,000 UJ	**1,400 J**	**1,500 J**	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
4-chlorophenyl phenyl ether	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
4-methylphenol (p-cresol)	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
4-nitroaniline	ug/kg	14,000 UJ	16,000 UJ	22,000 UJ	15,000 U	32,000 UJ	5,900 U	5,900 U	9,600 U	4,200 U	3,900 U	29,000 UJ	5,800 U	12,000 U	8,000 U	4,200 U	14,000 R	34,000 UJ	14,000 UJ
4-nitrophenol	ug/kg	14,000 UJ	16,000 UJ	22,000 UJ	15,000 U	32,000 UJ	5,900 U	5,900 U	9,600 U	4,200 U	3,900 U	29,000 UJ	5,800 U	12,000 U	8,000 U	4,200 U	14,000 R	34,000 UJ	14,000 UJ
Acenaphthene	ug/kg	**26,000 J**	**23,000 J**	**24,000 J**	**27,000**	**73,000 J**	**54,000 J**	**76,000 J**	**48,000**	**23,000**	**12,000**	**59,000 J**	**19,000**	**24,000**	**6,400**	**9,900**	**45,000 J**	**120,000 J**	**55,000 J**
Acenaphthylene	ug/kg	**3,000 J**	**2,800 J**	**3,500 J**	**3,000 J**	16,000 UJ	**8,800**	**5,800**	**5,500**	**4,400**	**1,400 J**	**6,300 J**	**7,400**	**6,400**	**2,600 J**	**3,000**	**5,900 J**	**15,000 J**	**4,100 J**
Acetophenone	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	**2,400 J**	**1,100 J**	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	**3,300 J**	7,000 UJ
Anthracene	ug/kg	**19,000 J**	**21,000 J**	**20,000 J**	**21,000**	**38,000 J**	**26,000**	**43,000**	**32,000**	**15,000**	**7,900**	**69,000 J**	**30,000**	**35,000**	**7,700**	**11,000**	**27,000 J**	**76,000 J**	**33,000 J**
Atrazine	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Benzaldehyde	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Benzo(a)anthracene	ug/kg	**19,000 J**	**18,000 J**	**19,000 J**	**16,000**	**24,000 J**	**26,000**	**22,000**	**21,000**	**12,000**	**6,300**	**57,000 J**	**25,000**	**29,000**	**13,000**	**11,000**	**22,000**	**57,000 J**	**25,000 J**
Benzo(a)pyrene	ug/kg	**16,000 J**	**14,000 J**	**14,000 J**	**12,000**	**18,000 J**	**22,000**	**16,000**	**19,000**	**9,500**	**5,700**	**9,500 J**	**20,000**	**23,000**	**11,000**	**4,900**	**19,000**	**52,000 J**	**22,000 J**
Benzo(b)fluoranthene	ug/kg	**12,000 J**	**11,000 J**	**8,600 J**	**15,000**	**14,000 J**	**21,000**	**9,100**	**12,000**	**6,200**	**2,700**	**55,000 J**	**13,000**	**27,000**	**6,200**	**4,600**	**12,000**	**48,000 J**	**23,000 J**
Benzo(g,h,i)perylene	ug/kg	**5,500 J**	**4,800 J**	**4,000 J**	**4,500 J**	**7,000 J**	**6,600**	**4,700**	**4,800 J**	**2,900**	**1,600 J**	**15,000 J**	**6,200**	**8,200**	**4,000 J**	**2,700**	**6,500 J**	**20,000 J**	**7,800 J**
Benzo(k)fluoranthene	ug/kg	**12,000 J**	**9,900 J**	**10,000 J**	**15,000**	**13,000 J**	**22,000**	**10,000**	**12,000**	**5,300**	**4,000**	**58,000 J**	**14,000**	**28,000**	**7,800**	**6,400**	**12,000**	**51,000 J**	**24,000 J**
Benzyl butyl phthalate	ug/kg	7,100 UJ	**1,500 J**	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	**3,100 J**	17,000 UJ	7,000 UJ

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2
Sample Number:		ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E
Sample Depth:		3-4	4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	**5,800 J**	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	**4,500 J**	**2,800 J**	**2,200 J**	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Bis(2-chloroethoxy) methane	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Bis(2-chloroethyl) ether	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Bis(2-chloroisopropyl) ether	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Bis(2-ethylhexyl) phthalate	ug/kg	**74,000 J**	**83,000 J**	**98,000 J**	**96,000**	16,000 UJ	**48,000 J**	**38,000**	**37,000**	**13,000**	**9,300**	**44,000 J**	**9,500**	**7,700**	15,000 U	**8,000**	**39,000**	**56,000 J**	**22,000 J**
Caprolactam	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Carbazole	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	**3,300 J**	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	**9,900 J**	**1,300 J**	**2,200 J**	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Chrysene	ug/kg	**18,000 J**	**18,000 J**	**19,000 J**	**18,000**	**27,000 J**	**24,000**	**21,000**	**21,000**	**11,000**	**6,500**	**54,000 J**	**25,000**	**34,000**	**13,000**	**11,000**	**22,000**	**57,000 J**	**25,000 J**
Dibenz(a,h)anthracene	ug/kg	**2,900 J**	8,300 UJ	**1,700 J**	**1,700 J**	**2,400 J**	**2,800 J**	**1,800 J**	**1,800 J**	**1,100 J**	**600 J**	**5,600 J**	**3,000**	**3,200 J**	**1,500 J**	**1,000 J**	**2,100 J**	**6,200 J**	**2,500 J**
Dibenzofuran	ug/kg	7,100 UJ	8,300 UJ	**2,200 J**	7,900 U	**4,600 J**	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	**12,000 J**	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	**5,700 J**	**3,200 J**
Diethyl phthalate	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Dimethyl phthalate	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Di-n-butyl phthalate	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Di-n-octylphthalate	ug/kg	7,100 UJ	**8,200 J**	**17,000 J**	**9,000**	16,000 UJ	**3,100**	**4,100**	4,900 U	2,200 U	2,000 U	**11,000 J**	3,000 U	6,000 U	4,100 U	2,200 U	**1,600 J**	**7,400 J**	**2,800 J**
Fluoranthene	ug/kg	**44,000 J**	**43,000 J**	**33,000 J**	**33,000**	**47,000 J**	**54,000 J**	**62,000 J**	**42,000**	**22,000**	**11,000**	**110,000 J**	**52,000 J**	**63,000**	**21,000**	**19,000**	**46,000 J**	**110,000 J**	**41,000 J**
Fluorene	ug/kg	**11,000 J**	**12,000 J**	**13,000 J**	**14,000**	**28,000 J**	3,000 U	3,000 U	**1,600 J**	**960 J**	**420 J**	**2,600 J**	**16,000**	**20,000**	**1,000 J**	**2,700**	**1,900 J**	**19,000 J**	**12,000 J**
Hexachlorobenzene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Hexachlorobutadiene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Hexachlorocyclopentadiene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Hexachloroethane	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Indeno(1,2,3-c,d)pyrene	ug/kg	**7,600 J**	**6,400 J**	**5,700 J**	**5,200 J**	**7,500 J**	**7,600**	**6,000**	**6,400**	**3,800**	**2,200**	**19,000 J**	**7,700**	**9,700**	**4,700**	**3,000**	**6,800 J**	**22,000 J**	**9,000 J**
Isophorone	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Naphthalene	ug/kg	**7,700 J**	**2,800 J**	**2,800 J**	**2,300 J**	**340,000 J**	**1,600 J**	**1,300 J**	**1,500 J**	**1,000 J**	**650 J**	**22,000 J**	**8,700**	**13,000**	4,100 U	**1,200 J**	**2,400 J**	**54,000 J**	**24,000 J**
Nitrobenzene	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 UJ	7,200 R	17,000 UJ	7,000 UJ
N-nitrosodi-n-propylamine	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
N-nitrosodiphenylamine	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	**7,900**	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Pentachlorophenol	ug/kg	14,000 UJ	16,000 UJ	22,000 UJ	15,000 U	32,000 UJ	5,900 U	5,900 U	9,600 U	4,200 U	3,900 U	29,000 UJ	5,800 U	12,000 U	8,000 U	4,200 U	14,000 R	34,000 UJ	14,000 UJ
Phenanthrene	ug/kg	**68,000 J**	**75,000 J**	**66,000 J**	**63,000**	**120,000 J**	**16,000**	**29,000**	**18,000**	**7,100**	**3,500**	**190,000 J**	**79,000 J**	**84,000**	**11,000**	**27,000**	**26,000 J**	**180,000 J**	**95,000 J**
Phenol	ug/kg	7,100 UJ	8,300 UJ	11,000 UJ	7,900 U	16,000 UJ	3,000 U	3,000 U	4,900 U	2,200 U	2,000 U	15,000 UJ	3,000 U	6,000 U	4,100 U	2,200 U	7,200 R	17,000 UJ	7,000 UJ
Pyrene	ug/kg	**46,000 J**	**41,000 J**	**41,000 J**	**48,000**	**78,000 J**	**83,000 J**	**82,000 J**	**65,000**	**28,000**	**18,000**	**140,000 J**	**79,000 J**	**74,000**	**30,000**	**29,000**	**62,000**	**170,000 J**	**78,000 J**
Total PAHs	ug/kg	**328,700**	**332,700**	**313,300**	**325,700**	**996,900**	**376,360**	**389,700**	**311,600**	**153,740**	**84,470**	**894,000**	**423,000**	**504,500**	**141,610**	**148,000**	**---**	**1,069,200**	**487,000**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D
Sample Depth:		4-5	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2,3,4,6-tetrachlorophenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2,4,5-trichlorophenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2,4,6-trichlorophenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2,4-dichlorophenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2,4-dimethylphenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2,4-dinitrophenol	ug/kg	34,000 UJ	5,700 R	25,000 UJ	830 U	830 U	1,700 U	8,900 U	7,700 U	9,200 U	16,000 U	37,000 UJ	38,000 UJ	35,000 UJ	27,000 UJ	920 U	870 U	1,700 U	1,600 U
2,4-dinitrotoluene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2,6-dinitrotoluene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2-chloronaphthalene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2-chlorophenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2-methylnaphthalene	ug/kg	**34,000 J**	**16,000 J**	**100,000 J**	**630**	**140 J**	**300 J**	**6,400**	**2,600 J**	**1,900 J**	**34,000**	**87,000 J**	**86,000 J**	**130,000 J**	**610,000 J**	**580**	**120 J**	**180 J**	**540 J**
2-methylphenol (o-cresol)	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
2-nitroaniline	ug/kg	34,000 UJ	5,700 R	25,000 UJ	830 U	830 U	1,700 U	8,900 U	7,700 U	9,200 U	16,000 U	37,000 UJ	38,000 UJ	35,000 UJ	27,000 UJ	920 U	870 U	1,700 U	1,600 U
2-nitrophenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
3,3'-dichlorobenzidine	ug/kg	17,000 UJ	2,900 U	12,000 UJ	430 UJ	430 UJ	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 UJ	450 UJ	850 U	830 U
3-nitroaniline	ug/kg	34,000 UJ	5,700 R	25,000 UJ	830 U	830 U	1,700 U	8,900 U	7,700 U	9,200 U	16,000 U	37,000 UJ	38,000 UJ	35,000 UJ	27,000 UJ	920 U	870 U	1,700 U	1,600 U
4,6-dinitro-2-methylphenol	ug/kg	34,000 UJ	5,700 R	25,000 UJ	830 U	830 U	1,700 U	8,900 U	7,700 U	9,200 U	16,000 U	37,000 UJ	38,000 UJ	35,000 UJ	27,000 UJ	920 U	870 U	1,700 U	1,600 U
4-bromophenyl phenyl ether	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
4-chloro-3-methylphenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 UJ	430 UJ	850 UJ	4,600 UJ	4,000 UJ	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
4-chloroaniline	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 UJ	430 UJ	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 UJ	450 UJ	850 U	830 U
4-chlorophenyl phenyl ether	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
4-methylphenol (p-cresol)	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
4-nitroaniline	ug/kg	34,000 UJ	5,700 R	25,000 UJ	830 U	830 U	1,700 U	8,900 U	7,700 U	9,200 U	16,000 U	37,000 UJ	38,000 UJ	35,000 UJ	27,000 UJ	920 U	870 U	1,700 U	1,600 U
4-nitrophenol	ug/kg	34,000 UJ	5,700 R	25,000 UJ	830 U	830 U	1,700 U	8,900 U	7,700 U	9,200 U	16,000 U	37,000 UJ	38,000 UJ	35,000 UJ	27,000 UJ	920 U	870 U	1,700 U	1,600 U
Acenaphthene	ug/kg	**89,000 J**	**5,000 J**	**72,000 J**	**960**	**860**	**3,100**	**36,000**	**30,000**	**25,000**	**61,000**	**120,000 J**	**140,000 J**	**180,000 J**	**410,000 J**	**840**	**600**	**4,400**	**11,000**
Acenaphthylene	ug/kg	**7,200 J**	**7,600 J**	**3,400 J**	**790**	**770**	**1,500**	**9,600**	**4,500**	**2,300 J**	**4,400 J**	**5,900 J**	**9,500 J**	**7,400 J**	**15,000 J**	**800**	**630**	**1,800**	**2,700**
Acetophenone	ug/kg	17,000 UJ	2,900 R	12,000 UJ	**140 J**	**180 J**	850 U	4,600 U	4,000 U	4,700 U	8,300 U	**3,400 J**	19,000 UJ	18,000 UJ	14,000 UJ	**170 J**	**120 J**	850 U	**330 J**
Anthracene	ug/kg	**61,000 J**	**37,000 J**	**46,000 J**	**1,800**	**960**	**2,900**	**34,000**	**23,000**	**17,000**	**31,000**	**56,000 J**	**65,000 J**	**69,000 J**	**260,000 J**	**1,300**	**870**	**5,300**	**12,000**
Atrazine	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Benzaldehyde	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Benzo(a)anthracene	ug/kg	**36,000 J**	**24,000**	**19,000 J**	**2,700**	**2,400**	**4,900**	**35,000**	**22,000**	**15,000**	**25,000**	**35,000 J**	**43,000 J**	**40,000 J**	**90,000 J**	**2,900**	**1,900**	**6,500**	**14,000 J**
Benzo(a)pyrene	ug/kg	**32,000 J**	**19,000**	**17,000 J**	**2,200**	**2,300**	**4,400**	**26,000**	**16,000**	**11,000**	**19,000**	**28,000 J**	**40,000 J**	**31,000 J**	**66,000 J**	**2,700**	**2,000**	**5,400**	**10,000**
Benzo(b)fluoranthene	ug/kg	**17,000 J**	**18,000**	**6,400 J**	**1,700**	**1,900**	**3,200**	**16,000**	**11,000**	**13,000**	**10,000**	**16,000 J**	**18,000 J**	**29,000 J**	**62,000 J**	**2,000 J**	**1,700**	**5,900**	**10,000**
Benzo(g,h,i)perylene	ug/kg	**11,000 J**	**6,300**	**6,200 J**	**1,000**	**1,100**	**1,800**	**11,000**	**7,400**	**3,700 J**	**6,500 J**	**8,400 J**	**14,000 J**	**9,500 J**	**17,000 J**	**1,700**	**680**	**1,700**	**2,700**
Benzo(k)fluoranthene	ug/kg	**23,000 J**	**19,000 J**	**14,000 J**	**1,600**	**1,600**	**2,700**	**17,000**	**10,000**	**13,000**	**15,000**	**19,000 J**	**27,000 J**	**32,000 J**	**65,000 J**	**2,100**	**1,400**	**6,200**	**11,000**
Benzyl butyl phthalate	ug/kg	17,000 UJ	2,900 U	12,000 UJ	**180 J**	**360 J**	**370 J**	**1,000 J**	**1,200 J**	**1,200 J**	**1,800 J**	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	**240 J**	**160 J**	**260 J**	**420 J**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D
Sample Depth:		4-5	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**3,600 J**	**660 J**	**11,000 J**	**85 J**	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	**2,300 J**	470 U	450 U	850 U	**180 J**
Bis(2-chloroethoxy) methane	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Bis(2-chloroethyl) ether	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Bis(2-chloroisopropyl) ether	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Bis(2-ethylhexyl) phthalate	ug/kg	**69,000 J**	**30,000**	12,000 UJ	**4,800 J**	**6,300 J**	**11,000**	**52,000**	**60,000**	**43,000**	**76,000**	73,000 UJ	51,000 UJ	22,000 UJ	14,000 UJ	**6,200**	**6,100**	**12,000**	**27,000 J**
Caprolactam	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Carbazole	ug/kg	17,000 UJ	**850 J**	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	**3,600 J**	470 U	450 U	850 U	**290 J**
Chrysene	ug/kg	**37,000 J**	**24,000**	**20,000 J**	**2,500**	**2,200**	**4,900**	**33,000**	**20,000**	**16,000**	**25,000**	**33,000 J**	**41,000 J**	**37,000 J**	**81,000 J**	**3,100**	**2,200**	**6,900**	**12,000**
Dibenz(a,h)anthracene	ug/kg	**3,500 J**	**2,500 J**	12,000 UJ	**370 J**	**460 J**	**670 J**	**3,800 J**	**2,400 J**	**1,400 J**	**2,200 J**	**2,900 J**	**4,200 J**	**3,000 J**	**6,400 J**	**340 J**	**250 J**	**600 J**	**1,000**
Dibenzofuran	ug/kg	**5,100 J**	2,900 R	**4,100 J**	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	**5,800 J**	**6,900 J**	**15,000 J**	**22,000 J**	470 U	450 U	850 U	**1,300**
Diethyl phthalate	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Dimethyl phthalate	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Di-n-butyl phthalate	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Di-n-octylphthalate	ug/kg	**9,100 J**	**3,700**	12,000 UJ	430 U	**150 J**	850 U	4,600 U	4,000 U	**2,200 J**	**4,700 J**	**3,700 J**	**5,400 J**	**3,900 J**	14,000 UJ	470 U	**230 J**	**620 J**	**1,500**
Fluoranthene	ug/kg	**75,000 J**	**55,000 J**	**37,000 J**	**3,800**	**2,800**	**7,300**	**54,000**	**34,000**	**29,000**	**45,000**	**62,000 J**	**69,000 J**	**110,000 J**	**160,000 J**	**4,600**	**3,000**	**12,000**	**28,000 J**
Fluorene	ug/kg	**27,000 J**	**18,000 J**	**27,000 J**	**330 J**	**170 J**	**470 J**	**16,000**	**10,000**	**8,400**	**16,000**	**32,000 J**	**41,000 J**	**63,000 J**	**190,000 J**	**400 J**	**87 J**	**330 J**	**2,800**
Hexachlorobenzene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Hexachlorobutadiene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Hexachlorocyclopentadiene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 UJ	430 UJ	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 UJ	450 UJ	850 U	830 U
Hexachloroethane	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**12,000 J**	**7,200**	**5,900 J**	**1,200**	**1,300**	**2,100**	**12,000**	**8,100**	**4,000 J**	**7,300 J**	**11,000 J**	**15,000 J**	**11,000 J**	**21,000 J**	**1,000**	**810**	**1,900**	**3,100**
Isophorone	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Naphthalene	ug/kg	**90,000 J**	**25,000 J**	**180,000 J**	**1,100**	**220 J**	**350 J**	**1,000 J**	**1,100 J**	4,700 U	8,300 U	**10,000 J**	**11,000 J**	**14,000 J**	**16,000 J**	**970**	**180 J**	**340 J**	**1,800**
Nitrobenzene	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 UJ	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 UJ	450 U	850 U	830 U
N-nitrosodi-n-propylamine	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
N-nitrosodiphenylamine	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Pentachlorophenol	ug/kg	34,000 UJ	5,700 R	25,000 UJ	830 U	830 U	1,700 U	8,900 U	7,700 U	9,200 U	16,000 U	37,000 UJ	38,000 UJ	35,000 UJ	27,000 UJ	920 U	870 U	1,700 U	1,600 U
Phenanthrene	ug/kg	**160,000 J**	**110,000 J**	**110,000 J**	**1,600**	**950**	**3,800**	**120,000 J**	**61,000**	**46,000**	**86,000**	**170,000 J**	**190,000 J**	**250,000 J**	**570,000 J**	**1,700**	**540**	**1,800**	**25,000 J**
Phenol	ug/kg	17,000 UJ	2,900 R	12,000 UJ	430 U	430 U	850 U	4,600 U	4,000 U	4,700 U	8,300 U	19,000 UJ	19,000 UJ	18,000 UJ	14,000 UJ	470 U	450 U	850 U	830 U
Pyrene	ug/kg	**120,000 J**	**73,000 J**	**68,000 J**	**6,400**	**6,600**	**12,000**	**120,000 J**	**58,000**	**48,000 J**	**80,000**	**120,000 J**	**110,000 J**	**130,000 J**	**330,000 J**	**6,800 J**	**4,900**	**21,000 J**	**40,000 J**
Total PAHs	ug/kg	**834,700**	**466,600**	**731,900**	**30,680**	**26,730**	**56,390**	**550,800**	**321,100**	**254,700**	**467,400**	**816,200**	**923,700**	**1,145,900**	**2,969,400**	**33,830**	**21,867**	**82,250**	**187,640**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT4-3	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10
Sample Number:		ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)
Sample Depth:		3-4	4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,4,6-tetrachlorophenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,4,5-trichlorophenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	5,700 U	120,000 U	18,000 U	57,000 U	2,500 U	35,000 U	46,000 U	560,000 U	45,000 U	150,000 U	85,000 U	180,000 U	2,800,000 U	24,000 U
2,4,6-trichlorophenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2,4-dichlorophenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2,4-dimethylphenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2,4-dinitrophenol	ug/kg	42,000 UJ	6,600 U	6,000 U	5,800 U	5,700 U	120,000 U	18,000 U	57,000 U	2,500 U	35,000 U	46,000 U	560,000 U	45,000 U	150,000 U	85,000 U	180,000 U	2,800,000 U	24,000 U
2,4-dinitrotoluene	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2,6-dinitrotoluene	ug/kg	21,000 UJ	3,400 U	**2,300 J**	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2-chloronaphthalene	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2-chlorophenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2-methylnaphthalene	ug/kg	**34,000 J**	**13,000**	**15,000**	**17,000**	1,200 U	**82,000**	3,700 U	**51,000**	**150 J**	**14,000**	**3,600 J**	**420,000**	**1,800 J**	**95,000**	**35,000**	**52,000**	**3,300,000**	**6,700**
2-methylphenol (o-cresol)	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
2-nitroaniline	ug/kg	42,000 UJ	6,600 U	6,000 U	5,800 U	5,700 U	120,000 U	18,000 U	57,000 U	2,500 U	35,000 U	46,000 U	560,000 U	45,000 U	150,000 U	85,000 U	180,000 U	2,800,000 U	24,000 U
2-nitrophenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
3,3'-dichlorobenzidine	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	2,400 U	48,000 U	7,500 U	24,000 U	1,000 U	14,000 U	19,000 U	230,000 U	18,000 U	63,000 U	35,000 U	73,000 U	1,200,000 U	9,800 U
3-nitroaniline	ug/kg	42,000 UJ	6,600 U	6,000 U	5,800 U	5,700 U	120,000 U	18,000 U	57,000 U	2,500 U	35,000 U	46,000 U	560,000 U	45,000 U	150,000 U	85,000 U	180,000 U	2,800,000 U	24,000 U
4,6-dinitro-2-methylphenol	ug/kg	42,000 UJ	6,600 U	6,000 U	5,800 U	5,700 U	120,000 U	18,000 U	57,000 U	2,500 U	35,000 U	46,000 U	560,000 U	45,000 U	150,000 U	85,000 U	180,000 U	2,800,000 U	24,000 U
4-bromophenyl phenyl ether	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
4-chloro-3-methylphenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 UJ	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
4-chloroaniline	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	**4,000 J**	520 U	**6,400 J**	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
4-chlorophenyl phenyl ether	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
4-methylphenol (p-cresol)	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
4-nitroaniline	ug/kg	42,000 UJ	6,600 U	6,000 U	5,800 U	2,400 U	48,000 U	7,500 U	24,000 U	1,000 U	14,000 U	19,000 U	230,000 U	18,000 U	63,000 U	35,000 U	73,000 U	1,200,000 U	9,800 U
4-nitrophenol	ug/kg	42,000 UJ	6,600 U	6,000 U	5,800 U	5,700 U	120,000 U	18,000 U	57,000 U	2,500 U	35,000 U	46,000 U	560,000 U	45,000 U	150,000 U	85,000 U	180,000 U	2,800,000 U	24,000 U
Acenaphthene	ug/kg	**62,000 J**	**35,000**	**31,000**	**35,000**	**710 J**	**51,000**	**4,800**	**46,000**	**430 J**	**9,300**	**44,000**	**310,000**	**29,000**	**150,000**	**36,000**	**97,000**	**1,600,000**	**59,000**
Acenaphthylene	ug/kg	**11,000 J**	**7,900**	**5,200**	**5,700**	**740 J**	**6,100 J**	3,700 U	**8,000 J**	**410 J**	**3,500 J**	**11,000**	**56,000 J**	**7,500 J**	**37,000**	**18,000**	**20,000 J**	**260,000 J**	**9,200**
Acetophenone	ug/kg	**3,900 J**	**970 J**	3,100 U	**750 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	ug/kg	**66,000 J**	**39,000**	**30,000**	**29,000**	**1,200**	**41,000**	**1,700 J**	**25,000**	**830**	**8,300**	**32,000**	**290,000**	**20,000**	**94,000**	**39,000**	**77,000**	**600,000**	**21,000**
Atrazine	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzaldehyde	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)anthracene	ug/kg	**53,000 J**	**30,000**	**26,000**	**36,000**	**1,900**	**47,000**	**2,400 J**	**24,000**	**1,400**	**8,300**	**20,000**	**150,000**	**14,000**	**81,000**	**35,000**	**51,000**	**390,000 J**	**18,000**
Benzo(a)pyrene	ug/kg	**40,000 J**	**25,000**	**22,000**	**27,000**	**1,500**	**39,000**	**1,700 J**	**14,000**	**1,100**	**7,100 J**	**17,000**	**110,000 J**	**11,000**	**74,000**	**24,000**	**45,000**	**360,000 J**	**12,000**
Benzo(b)fluoranthene	ug/kg	**41,000 J**	**15,000**	**13,000**	**21,000**	**1,700**	**41,000**	**2,100 J**	**14,000**	**1,100**	**7,500 J**	**7,000 J**	**42,000 J**	**4,800 J**	**51,000**	**23,000**	**20,000 J**	580,000 U	**9,800**
Benzo(g,h,i)perylene	ug/kg	**12,000 J**	**6,800**	**6,400**	**10,000**	**1,300 J**	**21,000 J**	**1,400 J**	**7,200 J**	**410 J**	**5,100 J**	**8,000 J**	**42,000 J**	**6,800 J**	**29,000 J**	**10,000 J**	**23,000 J**	**230,000 J**	**8,700**
Benzo(k)fluoranthene	ug/kg	**43,000 J**	**17,000**	**15,000**	**13,000**	**420 J**	**20,000 J**	**570 J**	**4,400 J**	**390 J**	**2,500 J**	**7,900 J**	**61,000 J**	**5,600 J**	**26,000 J**	**6,300 J**	**28,000 J**	580,000 U	**3,900 J**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT4-3	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10
Sample Number:		ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)
Sample Depth:		3-4	4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	21,000 UJ	**1,500 J**	**1,100 J**	**500 J**	**170 J**	24,000 U	**1,400 J**	**1,600 J**	**210 J**	**4,300 J**	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Biphenyl (diphenyl)	ug/kg	**3,400 J**	3,400 U	3,100 U	**1,200 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bis(2-chloroethoxy) methane	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Bis(2-chloroethyl) ether	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Bis(2-chloroisopropyl) ether	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bis(2-ethylhexyl) phthalate	ug/kg	**110,000 J**	**58,000 J**	**60,000 J**	**46,000**	**5,800**	24,000 U	**31,000**	**87,000**	**3,300**	**68,000**	**25,000**	120,000 U	**7,900 J**	**140,000**	18,000 U	**120,000**	**120,000 J**	**18,000**
Caprolactam	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbazole	ug/kg	**3,900 J**	**1,200 J**	**1,200 J**	3,000 U	**260 J**	**12,000 J**	3,700 U	**2,300 J**	520 U	**1,500 J**	9,400 U	120,000 U	9,200 U	31,000 U	**2,600 J**	36,000 U	580,000 U	4,900 U
Chrysene	ug/kg	**54,000 J**	**27,000**	**25,000**	**31,000**	**1,900**	**54,000**	**2,500 J**	**24,000**	**1,400**	**11,000**	**20,000**	**150,000**	**14,000**	**83,000**	**40,000**	**52,000**	**390,000 J**	**18,000**
Dibenz(a,h)anthracene	ug/kg	**4,100 J**	**2,600 J**	**2,100 J**	**3,700**	**380 J**	**6,200 J**	3,700 U	**2,200 J**	**120 J**	**1,700 J**	**2,500 J**	**17,000 J**	**1,900 J**	**7,900 J**	18,000 U	**5,800 J**	580,000 U	**2,300 J**
Dibenzofuran	ug/kg	**11,000 J**	3,400 U	3,100 U	3,000 U	1,200 U	**12,000 J**	3,700 U	**4,200 J**	520 U	**1,600 J**	**2,300 J**	**24,000 J**	9,200 U	**9,000 J**	**4,100 J**	**6,500 J**	580,000 U	**2,800 J**
Diethyl phthalate	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Dimethyl phthalate	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Di-n-butyl phthalate	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	**780 J**
Di-n-octylphthalate	ug/kg	**7,100 J**	**4,900**	**4,000**	**3,500**	**130 J**	24,000 U	**460 J**	**19,000**	**110 J**	**11,000 J**	9,400 U	120,000 U	9,200 U	**13,000 J**	18,000 U	**8,800 J**	580,000 U	4,900 U
Fluoranthene	ug/kg	**100,000 J**	**52,000**	**48,000**	**45,000**	**2,800**	**110,000**	**4,900**	**45,000**	**3,000**	**22,000**	**39,000**	**300,000**	**27,000**	**140,000**	**54,000**	**120,000**	**800,000**	**30,000**
Fluorene	ug/kg	**33,000 J**	**15,000**	**13,000**	**12,000**	**630 J**	**38,000**	**2,000 J**	**29,000**	**280 J**	**6,100 J**	**4,800 J**	**190,000**	**8,100 J**	**59,000**	**27,000**	**38,000**	**690,000**	**13,000**
Hexachlorobenzene	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Hexachlorobutadiene	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Hexachlorocyclopentadiene	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Hexachloroethane	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**14,000 J**	**8,000**	**7,100**	**12,000**	**1,100 J**	**18,000 J**	**1,300 J**	**6,100 J**	**430 J**	**4,600 J**	**6,500 J**	**39,000 J**	**5,300 J**	**23,000 J**	**8,800 J**	**17,000 J**	**180,000 J**	**6,600**
Isophorone	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Naphthalene	ug/kg	**26,000 J**	**15,000**	**16,000**	**24,000**	**470 J**	**310,000**	**1,400 J**	**40,000**	**1,100**	**9,900**	**6,600 J**	**430,000**	**13,000**	**100,000**	**39,000**	**8,400 J**	**6,300,000**	**14,000**
Nitrobenzene	ug/kg	21,000 UJ	3,400 UJ	3,100 UJ	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
N-nitrosodi-n-propylamine	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
N-nitrosodiphenylamine	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Pentachlorophenol	ug/kg	42,000 UJ	6,600 U	6,000 U	5,800 U	5,700 U	120,000 U	18,000 U	57,000 U	2,500 U	35,000 U	46,000 U	560,000 U	45,000 U	150,000 U	85,000 U	180,000 U	2,800,000 U	24,000 U
Phenanthrene	ug/kg	**170,000 J**	**91,000 J**	**82,000 J**	**67,000 J**	**3,100**	**170,000**	**2,800 J**	**100,000**	**2,800**	**34,000**	**92,000**	**800,000**	**62,000**	**280,000**	**100,000**	**220,000**	**2,200,000**	**62,000**
Phenol	ug/kg	21,000 UJ	3,400 U	3,100 U	3,000 U	1,200 U	24,000 U	3,700 U	12,000 U	520 U	7,100 U	9,400 U	120,000 U	9,200 U	31,000 U	18,000 U	36,000 U	580,000 U	4,900 U
Pyrene	ug/kg	**150,000 J**	**81,000 J**	**86,000 J**	**95,000 J**	**3,000**	**95,000**	**4,200**	**56,000**	**4,200**	**17,000**	**53,000**	**360,000**	**31,000**	**160,000**	**63,000**	**150,000**	**1,100,000**	**37,000**
Total PAHs	ug/kg	**913,100**	**480,300**	**442,800**	**483,400**	**22,850**	**1,149,300**	**33,770**	**495,900**	**19,550**	**171,900**	**374,900**	**3,767,000**	**262,800**	**1,489,900**	**558,100**	**1,024,200**	**18,400,000**	**331,200**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-100	GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18
Sample Number:		GC-SED-100(5-6)	GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)
Sample Depth:		5-6	4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1
Sample Date:		1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4,5-trichlorophenol	ug/kg	830,000 U	1,100,000 U	5,600,000 U	4,900,000 U	160,000 U	1,300,000 U	890,000 U	45,000 U	71,000 U	17,000 U	180,000 U	18,000 U	41,000 U	2,600,000 U	17,000 U	23,000 U	19,000 U	20,000 U
2,4,6-trichlorophenol	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2,4-dichlorophenol	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2,4-dimethylphenol	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2,4-dinitrophenol	ug/kg	830,000 U	1,100,000 U	5,600,000 U	4,900,000 U	160,000 U	1,300,000 U	890,000 U	45,000 U	71,000 U	17,000 U	180,000 U	18,000 U	41,000 U	2,600,000 U	17,000 U	23,000 U	19,000 U	20,000 U
2,4-dinitrotoluene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2,6-dinitrotoluene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2-chloronaphthalene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2-chlorophenol	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2-methylnaphthalene	ug/kg	**810,000**	**1,500,000**	**5,100,000**	**4,900,000**	32,000 U	**1,500,000**	**1,100,000**	**49,000**	15,000 U	**11,000**	**180,000**	3,800 U	**3,300 J**	**2,100,000**	3,600 U	**9,900**	**25,000 J**	**2,000 J**
2-methylphenol (o-cresol)	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
2-nitroaniline	ug/kg	830,000 U	1,100,000 U	5,600,000 U	4,900,000 U	160,000 U	1,300,000 U	890,000 U	45,000 U	71,000 U	17,000 U	180,000 U	18,000 U	41,000 U	2,600,000 U	17,000 U	23,000 U	19,000 U	20,000 U
2-nitrophenol	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
3,3'-dichlorobenzidine	ug/kg	340,000 U	440,000 U	2,300,000 U	2,000,000 U	65,000 U	550,000 U	370,000 U	19,000 U	29,000 U	7,200 U	74,000 U	7,600 U	17,000 U	1,100,000 U	7,200 U	9,500 U	8,000 U	8,100 U
3-nitroaniline	ug/kg	830,000 U	1,100,000 U	5,600,000 U	4,900,000 U	160,000 U	1,300,000 U	890,000 U	45,000 U	71,000 U	17,000 U	180,000 U	18,000 U	41,000 U	2,600,000 U	17,000 U	23,000 U	19,000 U	20,000 U
4,6-dinitro-2-methylphenol	ug/kg	830,000 U	1,100,000 U	5,600,000 U	4,900,000 U	160,000 U	1,300,000 U	890,000 U	45,000 U	71,000 U	17,000 U	180,000 U	18,000 U	41,000 U	2,600,000 U	17,000 U	23,000 U	19,000 U	20,000 U
4-bromophenyl phenyl ether	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
4-chloro-3-methylphenol	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
4-chloroaniline	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
4-chlorophenyl phenyl ether	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
4-methylphenol (p-cresol)	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
4-nitroaniline	ug/kg	340,000 U	440,000 U	2,300,000 U	2,000,000 U	65,000 U	550,000 U	370,000 U	19,000 U	29,000 U	7,200 U	74,000 U	7,600 U	17,000 U	1,100,000 U	7,200 U	9,500 U	8,000 U	8,100 U
4-nitrophenol	ug/kg	830,000 U	1,100,000 U	5,600,000 U	4,900,000 U	160,000 U	1,300,000 U	890,000 U	45,000 U	71,000 U	17,000 U	180,000 U	18,000 U	41,000 U	2,600,000 U	17,000 U	23,000 U	19,000 U	20,000 U
Acenaphthene	ug/kg	**330,000**	**530,000**	**1,800,000**	**1,700,000**	**54,000**	**580,000**	**670,000**	**51,000**	**3,900 J**	**17,000**	**130,000**	**1,100 J**	**19,000**	**1,900,000**	**1,800 J**	**10,000**	**15,000 J**	**9,500**
Acenaphthylene	ug/kg	**98,000 J**	**130,000 J**	**440,000 J**	**380,000 J**	**40,000**	**120,000 J**	**140,000 J**	**30,000**	**17,000**	**9,500**	**52,000**	**1,800 J**	**9,800**	540,000 U	**2,000 J**	**6,300**	**7,100 J**	**2,300 J**
Anthracene	ug/kg	**230,000**	**490,000**	**1,000,000 J**	**950,000 J**	**87,000**	**330,000**	**410,000**	**41,000**	**18,000**	**14,000**	**90,000**	**2,200 J**	**20,000**	**970,000**	**2,600 J**	**10,000**	**11,000 J**	**6,500**
Benzo(a)anthracene	ug/kg	**150,000 J**	**210,000 J**	**630,000 J**	**510,000 J**	**59,000**	**190,000 J**	**270,000**	**43,000**	**43,000**	**16,000**	**58,000**	**5,400**	**23,000**	**530,000 J**	**6,000**	**10,000**	**13,000 J**	**6,300**
Benzo(a)pyrene	ug/kg	**130,000 J**	**150,000 J**	**440,000 J**	**390,000 J**	**50,000**	**140,000 J**	**180,000 J**	**36,000**	**32,000 J**	**13,000**	**43,000**	**4,700**	**18,000**	**380,000 J**	**5,200**	**8,400**	**11,000 J**	**5,100**
Benzo(b)fluoranthene	ug/kg	**100,000 J**	**100,000 J**	1,200,000 U	1,000,000 U	**40,000**	**130,000 J**	**140,000 J**	**14,000**	**16,000 J**	**9,600**	**26,000 J**	**4,100**	**16,000**	**270,000 J**	**4,500**	**7,800**	**11,000 J**	**4,500**
Benzo(g,h,i)perylene	ug/kg	**30,000 J**	**71,000 J**	**340,000 J**	**270,000 J**	**10,000 J**	280,000 U	**77,000 J**	**13,000 J**	**9,900 J**	**10,000**	**26,000 J**	**2,000 J**	**5,000 J**	**110,000 J**	**2,400 J**	**3,200 J**	**4,200 J**	**2,200 J**
Benzo(k)fluoranthene	ug/kg	**33,000 J**	**36,000 J**	**260,000 J**	1,000,000 U	**19,000 J**	280,000 U	**56,000 J**	**20,000**	**21,000 J**	**4,900**	**14,000 J**	**1,900 J**	**4,600 J**	**97,000 J**	**2,100 J**	**2,200 J**	**2,700 J**	**1,600 J**
Benzyl butyl phthalate	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	**740 J**	4,000 U	4,100 U
Bis(2-chloroethoxy) methane	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Bis(2-chloroethyl) ether	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Bis(2-ethylhexyl) phthalate	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	**29,000**	**110,000**	**21,000**	37,000 U	**28,000**	**25,000**	540,000 U	**19,000**	**38,000**	**13,000 J**	**26,000**
Carbazole	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	**1,000 J**	4,100 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-100	GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18
Sample Number:		GC-SED-100(5-6)	GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)
Sample Depth:		5-6	4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1
Sample Date:		1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Chrysene	ug/kg	**180,000**	**250,000**	**710,000 J**	**590,000 J**	**54,000**	**190,000 J**	**280,000**	**45,000**	**43,000**	**15,000**	**62,000**	**5,600**	**22,000**	**520,000 J**	**6,300**	**10,000**	**12,000 J**	**6,600**
Dibenz(a,h)anthracene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	**5,000 J**	280,000 U	180,000 U	**4,300 J**	**3,100 J**	**2,400 J**	**5,500 J**	**470 J**	**1,200 J**	540,000 U	**410 J**	**770 J**	**1,200 J**	**510 J**
Dibenzofuran	ug/kg	**31,000 J**	**45,000 J**	**300,000 J**	**210,000 J**	32,000 U	280,000 U	**45,000 J**	**4,400 J**	15,000 U	**1,200 J**	**9,500 J**	3,800 U	8,500 U	540,000 U	3,600 U	**820 J**	**1,300 J**	4,100 U
Diethyl phthalate	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Dimethyl phthalate	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Di-n-butyl phthalate	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Di-n-octylphthalate	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	**2,300 J**	**540 J**	37,000 U	3,800 U	**1,000 J**	540,000 U	3,600 U	**680 J**	4,000 U	**850 J**
Fluoranthene	ug/kg	**220,000**	**290,000**	**1,100,000 J**	**920,000 J**	**110,000**	**350,000**	**450,000**	**91,000**	**230,000**	**24,000**	**100,000**	**7,900**	**43,000**	**960,000**	**9,300**	**21,000**	**19,000 J**	**14,000**
Fluorene	ug/kg	**230,000**	**360,000**	**1,300,000**	**1,200,000**	**31,000 J**	**350,000**	**390,000**	**19,000**	15,000 U	**6,500**	**74,000**	3,800 U	**4,200 J**	**620,000**	3,600 U	**6,600**	**8,700 J**	**3,100 J**
Hexachlorobenzene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Hexachlorobutadiene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Hexachlorocyclopentadiene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Hexachloroethane	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**31,000 J**	**56,000 J**	**240,000 J**	**220,000 J**	**9,200 J**	280,000 U	**71,000 J**	**11,000**	**8,900 J**	**7,000**	**18,000 J**	**1,900 J**	**4,800 J**	**96,000 J**	**2,500 J**	**3,300 J**	**3,600 J**	**2,100 J**
Isophorone	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Naphthalene	ug/kg	**1,100,000**	**2,700,000**	**12,000,000**	**11,000,000**	**17,000 J**	**2,000,000**	**2,000,000**	**71,000**	**3,200 J**	**22,000**	**310,000**	**660 J**	**13,000**	**8,500,000**	**1,200 J**	**44,000**	**47,000 J**	**6,600**
Nitrobenzene	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
N-nitrosodi-n-propylamine	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
N-nitrosodiphenylamine	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Pentachlorophenol	ug/kg	830,000 U	1,100,000 U	5,600,000 U	4,900,000 U	160,000 U	1,300,000 U	890,000 U	45,000 U	71,000 U	17,000 U	180,000 U	18,000 U	41,000 U	2,600,000 U	17,000 U	23,000 U	19,000 U	20,000 U
Phenanthrene	ug/kg	**640,000**	**850,000**	**3,600,000**	**3,200,000**	**150,000**	**910,000**	**1,400,000**	**100,000**	**5,800 J**	**27,000**	**250,000**	**2,700 J**	**46,000**	**3,200,000**	**2,600 J**	**33,000**	**38,000 J**	**24,000**
Phenol	ug/kg	170,000 U	220,000 U	1,200,000 U	1,000,000 U	32,000 U	280,000 U	180,000 U	9,300 U	15,000 U	3,600 U	37,000 U	3,800 U	8,500 U	540,000 U	3,600 U	4,800 U	4,000 U	4,100 U
Pyrene	ug/kg	**270,000**	**400,000**	**1,600,000**	**1,400,000**	**64,000**	**270,000 J**	**750,000**	**99,000**	**160,000**	**34,000**	**150,000**	**16,000**	**71,000**	**1,700,000**	**18,000**	**35,000 J**	**23,000 J**	**25,000**
Total PAHs	ug/kg	**4,582,000**	**8,123,000**	**30,560,000**	**27,630,000**	**799,200**	**7,060,000**	**8,384,000**	**737,300**	**614,800**	**242,900**	**1,588,500**	**58,430**	**323,900**	**21,953,000**	**66,910**	**221,470**	**252,500**	**121,910**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30
Sample Number:		GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)
Sample Depth:		1.5-2	5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5
Sample Date:		1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4,5-trichlorophenol	ug/kg	30,000 U	130,000 U	8,400 U	22,000 UJ	87,000 U	17,000 U	17,000 U	79,000 U	9,300 U	7,300 U	27,000 U	24,000 U	15,000 U	570,000 U	26,000 U	13,000 U	7,800 U	24,000 U
2,4,6-trichlorophenol	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2,4-dichlorophenol	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2,4-dimethylphenol	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2,4-dinitrophenol	ug/kg	30,000 U	130,000 U	8,400 U	22,000 UJ	87,000 U	17,000 U	17,000 U	79,000 U	9,300 U	7,300 U	27,000 U	24,000 U	15,000 U	570,000 U	26,000 U	13,000 U	7,800 U	24,000 U
2,4-dinitrotoluene	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2,6-dinitrotoluene	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2-chloronaphthalene	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2-chlorophenol	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2-methylnaphthalene	ug/kg	**1,700 J**	**9,400 J**	**380 J**	**9,500 J**	18,000 U	**1,800 J**	3,500 U	**94,000**	**570 J**	**1,300 J**	**1,400 J**	**3,200 J**	3,100 U	**550,000**	5,400 U	**17,000**	**2,300**	**5,400**
2-methylphenol (o-cresol)	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
2-nitroaniline	ug/kg	30,000 U	130,000 U	8,400 U	22,000 UJ	87,000 U	17,000 U	17,000 U	79,000 U	9,300 U	7,300 U	27,000 U	24,000 U	15,000 U	570,000 U	26,000 U	13,000 U	7,800 U	24,000 U
2-nitrophenol	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
3,3'-dichlorobenzidine	ug/kg	12,000 U	53,000 U	3,500 U	9,000 UJ	36,000 U	6,900 U	6,900 U	33,000 U	3,800 U	3,000 U	11,000 U	9,800 U	6,200 U	240,000 U	11,000 U	5,400 U	3,200 U	9,800 U
3-nitroaniline	ug/kg	30,000 U	130,000 U	8,400 U	22,000 UJ	87,000 U	17,000 U	17,000 U	79,000 U	9,300 U	7,300 U	27,000 U	24,000 U	15,000 U	570,000 U	26,000 U	13,000 U	7,800 U	24,000 U
4,6-dinitro-2-methylphenol	ug/kg	30,000 U	130,000 U	8,400 U	22,000 UJ	87,000 U	17,000 U	17,000 U	79,000 U	9,300 U	7,300 U	27,000 U	24,000 U	15,000 U	570,000 U	26,000 U	13,000 U	7,800 U	24,000 U
4-bromophenyl phenyl ether	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
4-chloro-3-methylphenol	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
4-chloroaniline	ug/kg	6,200 U	27,000 U	1,700 U	4,500 U	18,000 U	**1,300 J**	3,500 U	16,000 U	1,900 U	**600 J**	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
4-chlorophenyl phenyl ether	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
4-methylphenol (p-cresol)	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
4-nitroaniline	ug/kg	12,000 U	53,000 U	3,500 U	9,000 UJ	36,000 U	6,900 U	6,900 U	33,000 U	3,800 U	3,000 U	11,000 U	9,800 U	6,200 U	240,000 U	11,000 U	5,400 U	3,200 U	9,800 U
4-nitrophenol	ug/kg	30,000 U	130,000 U	8,400 U	22,000 UJ	87,000 U	17,000 U	17,000 U	79,000 U	9,300 U	7,300 U	27,000 U	24,000 U	15,000 U	570,000 U	26,000 U	13,000 U	7,800 U	24,000 U
Acenaphthene	ug/kg	**12,000 J**	**28,000**	**1,400 J**	**9,700 J**	**20,000**	**10,000**	**2,200 J**	**80,000**	**2,200**	**3,400**	**4,800 J**	**4,900 J**	**570 J**	120,000 U	**2,500 J**	**11,000**	**2,900**	**6,300**
Acenaphthylene	ug/kg	**8,700**	**17,000 J**	**1,800**	**9,500 J**	**15,000 J**	**3,700**	**3,000 J**	**18,000**	**2,600**	**3,700**	**4,500 J**	**5,200**	**1,200 J**	**29,000 J**	**3,500 J**	**3,500**	**2,400**	**5,000**
Anthracene	ug/kg	**15,000 J**	**48,000**	**2,200**	**13,000 J**	**26,000**	**12,000**	**3,600**	**65,000**	**3,100**	**5,100**	**7,400**	**6,400**	**1,100 J**	**200,000**	**4,900 J**	**8,900**	**3,600**	**9,100**
Benzo(a)anthracene	ug/kg	**22,000 J**	**55,000**	**5,100**	**21,000 J**	**43,000**	**15,000**	**7,200**	**50,000**	**5,300**	**7,600**	**13,000**	**14,000**	**3,300**	**100,000 J**	**9,400**	**8,900**	**6,000**	**12,000**
Benzo(a)pyrene	ug/kg	**18,000 J**	**42,000**	**4,400**	**19,000 J**	**35,000**	**12,000**	**6,200**	**40,000**	**4,600**	**7,100**	**11,000**	**12,000**	**2,900 J**	**67,000 J**	**8,400**	**6,800**	**5,600**	**11,000**
Benzo(b)fluoranthene	ug/kg	**16,000 J**	**39,000**	**5,500**	**16,000 J**	**32,000**	**11,000**	**6,100**	**30,000**	**5,200**	**7,300**	**5,500 J**	**11,000**	**3,400**	**61,000 J**	**5,000 J**	**3,100**	**3,400**	**5,300**
Benzo(g,h,i)perylene	ug/kg	**5,500 J**	**18,000 J**	**1,500 J**	**4,700 J**	**15,000 J**	**2,800 J**	**2,700 J**	**13,000 J**	**1,500 J**	**1,700**	**7,800**	**3,200 J**	**1,500 J**	120,000 U	**6,700 J**	**3,000**	**3,100 J**	**8,600 J**
Benzo(k)fluoranthene	ug/kg	**5,300 J**	**18,000 J**	**1,400 J**	**5,600 J**	**13,000 J**	**3,100 J**	**1,900 J**	**10,000 J**	**1,200 J**	**2,200**	**7,700**	**3,200 J**	**990 J**	**24,000 J**	**4,700 J**	**3,300**	**3,300**	**6,000**
Benzyl butyl phthalate	ug/kg	6,200 U	27,000 U	**270 J**	**1,200 J**	**3,600 J**	**1,000 J**	**840 J**	**2,800 J**	**320 J**	**590 J**	**3,600 J**	**1,300 J**	**780 J**	120,000 U	**730 J**	**380 J**	**3,100**	**1,100 J**
Bis(2-chloroethoxy) methane	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Bis(2-chloroethyl) ether	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Bis(2-ethylhexyl) phthalate	ug/kg	**62,000 J**	**120,000**	**9,800**	**61,000 J**	**120,000**	**42,000**	**32,000**	**140,000**	**22,000**	**22,000**	**32,000**	**43,000**	**15,000**	**90,000 J**	**47,000**	**12,000**	**22,000**	**48,000**
Carbazole	ug/kg	6,200 U	27,000 U	**560 J**	4,500 UJ	18,000 U	**770 J**	3,500 U	16,000 U	1,900 U	**340 J**	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	**400 J**	**400 J**	4,900 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30
Sample Number:		GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)
Sample Depth:		1.5-2	5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5
Sample Date:		1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Chrysene	ug/kg	**23,000 J**	**60,000**	**4,600**	**23,000 J**	**50,000**	**15,000**	**8,000**	**49,000**	**6,000**	**8,400**	**14,000**	**13,000**	**3,300**	**110,000 J**	**11,000**	**9,900**	**7,000**	**13,000**
Dibenz(a,h)anthracene	ug/kg	**1,400 J**	27,000 U	**540 J**	**1,100 J**	**2,800 J**	**920 J**	**640 J**	**3,400 J**	**570 J**	**640 J**	**2,100 J**	**880 J**	3,100 U	120,000 U	**2,100 J**	**1,300 J**	**1,100 J**	**2,700 J**
Dibenzofuran	ug/kg	6,200 U	27,000 U	**440 J**	**850 J**	18,000 U	3,500 U	3,500 U	16,000 U	**330 J**	**310 J**	**900 J**	4,900 U	3,100 U	120,000 U	5,400 U	**1,200 J**	**500 J**	**1,100 J**
Diethyl phthalate	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Dimethyl phthalate	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Di-n-butyl phthalate	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	**560 J**	3,500 U	16,000 U	1,900 U	**260 J**	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Di-n-octylphthalate	ug/kg	**2,200 J**	**6,500 J**	**330 J**	**1,400 J**	**5,500 J**	**3,200 J**	**710 J**	**6,500 J**	**500 J**	**850 J**	**950 J**	4,900 U	3,100 U	120,000 U	**1,300 J**	2,700 U	**800 J**	**1,400 J**
Fluoranthene	ug/kg	**47,000 J**	**110,000**	**8,200**	**35,000 J**	**87,000**	**26,000**	**12,000**	**100,000**	**8,000**	**12,000**	**22,000**	**27,000**	**5,100**	**190,000**	**17,000**	**15,000**	**11,000**	**22,000**
Fluorene	ug/kg	**3,000 J**	**15,000 J**	**770 J**	**4,300 J**	**4,500 J**	**3,900**	3,500 U	**31,000**	**960 J**	**1,400 J**	**2,000 J**	4,900 U	3,100 U	**120,000**	**900 J**	**5,800**	**1,100 J**	**3,500 J**
Hexachlorobenzene	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Hexachlorobutadiene	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Hexachlorocyclopentadiene	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Hexachloroethane	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**5,800 J**	**19,000 J**	**1,500 J**	**5,400 J**	**13,000 J**	**3,500**	**2,600 J**	**12,000 J**	**1,500 J**	**1,900 J**	**6,000**	**3,400 J**	**1,700 J**	120,000 U	**5,500**	**2,600 J**	**2,800**	**6,900**
Isophorone	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Naphthalene	ug/kg	**3,400 J**	**13,000 J**	**800 J**	**22,000 J**	**6,500 J**	**5,200**	**850 J**	**170,000**	**1,000 J**	**2,500**	**2,100 J**	**4,900 J**	3,100 U	**680,000**	**1,400 J**	**17,000**	**3,600**	**6,800**
Nitrobenzene	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
N-nitrosodi-n-propylamine	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
N-nitrosodiphenylamine	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	**3,300 J**	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Pentachlorophenol	ug/kg	30,000 U	130,000 U	8,400 U	22,000 UJ	87,000 U	17,000 U	17,000 U	79,000 U	9,300 U	7,300 U	27,000 UJ	24,000 U	15,000 U	570,000 U	26,000 U	13,000 U	7,800 U	24,000 U
Phenanthrene	ug/kg	**17,000 J**	**120,000**	**5,600**	**18,000 J**	**28,000**	**32,000**	**2,400 J**	**200,000**	**3,700**	**6,300**	**11,000**	**5,600**	**1,200 J**	**530,000**	**5,300 J**	**22,000**	**5,600**	**20,000**
Phenol	ug/kg	6,200 U	27,000 U	1,700 U	4,500 UJ	18,000 U	3,500 U	3,500 U	16,000 U	1,900 U	1,500 U	5,500 U	4,900 U	3,100 U	120,000 U	5,400 U	2,700 U	1,600 U	4,900 U
Pyrene	ug/kg	**55,000 J**	**160,000**	**6,500**	**60,000 J**	**130,000**	**48,000**	**18,000**	**170,000**	**8,300**	**10,000**	**27,000 J**	**35,000**	**8,100**	**330,000**	**20,000**	**19,000**	**11,000**	**25,000**
Total PAHs	ug/kg	**259,800**	**771,400**	**52,190**	**276,800**	**520,800**	**205,920**	**77,390**	**1,135,400**	**56,300**	**82,540**	**149,300**	**152,880**	**34,360**	**2,991,000**	**108,300**	**158,100**	**75,800**	**168,600**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-31	GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43
Sample Number:		GC-SED-31(2.5-4.5)	GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)
Sample Depth:		2.5-4.5	11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3
Sample Date:		1/16/2006	1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4,5-trichlorophenol	ug/kg	56,000 U	5,400,000 U	16,000 U	140,000 U	67,000 U	64,000 U	75,000 U	190,000 U	1,900,000 U	79,000 U	2,700,000 U	2,100,000 U	230,000 U	46,000 U	2,200,000 U	17,000 U	1,600 U	1,900,000 U
2,4,6-trichlorophenol	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2,4-dichlorophenol	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2,4-dimethylphenol	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2,4-dinitrophenol	ug/kg	56,000 U	5,400,000 U	16,000 U	140,000 U	67,000 U	64,000 U	75,000 U	190,000 U	1,900,000 U	79,000 U	2,700,000 U	2,100,000 U	230,000 U	46,000 U	2,200,000 U	17,000 U	1,600 U	1,900,000 U
2,4-dinitrotoluene	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2,6-dinitrotoluene	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2-chloronaphthalene	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2-chlorophenol	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2-methylnaphthalene	ug/kg	**14,000**	**7,500,000**	3,400 U	**150,000**	**6,000 J**	**16,000**	**71,000**	**200,000**	**2,000,000**	**16,000 J**	**7,100,000**	**4,000,000**	**230,000**	**2,000 J**	**3,200,000**	**13,000**	**260 J**	**2,200,000**
2-methylphenol (o-cresol)	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
2-nitroaniline	ug/kg	56,000 U	5,400,000 U	16,000 U	140,000 U	67,000 U	64,000 U	75,000 U	190,000 U	1,900,000 U	79,000 U	2,700,000 U	2,100,000 U	230,000 U	46,000 U	2,200,000 U	17,000 U	1,600 U	1,900,000 U
2-nitrophenol	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
3,3'-dichlorobenzidine	ug/kg	23,000 U	2,200,000 U	6,700 U	59,000 U	28,000 U	26,000 U	31,000 U	77,000 U	770,000 U	33,000 U	1,100,000 U	880,000 U	94,000 U	19,000 U	920,000 U	6,800 U	660 U	780,000 U
3-nitroaniline	ug/kg	56,000 U	5,400,000 U	16,000 U	140,000 U	67,000 U	64,000 U	75,000 U	190,000 U	1,900,000 U	79,000 U	2,700,000 U	2,100,000 U	230,000 U	46,000 U	2,200,000 U	17,000 U	1,600 U	1,900,000 U
4,6-dinitro-2-methylphenol	ug/kg	56,000 U	5,400,000 U	16,000 U	140,000 U	67,000 U	64,000 U	75,000 U	190,000 U	1,900,000 U	79,000 U	2,700,000 U	2,100,000 U	230,000 U	46,000 U	2,200,000 U	17,000 U	1,600 U	1,900,000 U
4-bromophenyl phenyl ether	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
4-chloro-3-methylphenol	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
4-chloroaniline	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	**8,700 J**	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
4-chlorophenyl phenyl ether	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
4-methylphenol (p-cresol)	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
4-nitroaniline	ug/kg	23,000 U	2,200,000 U	6,700 U	59,000 U	28,000 U	26,000 U	31,000 U	77,000 U	770,000 U	33,000 U	1,100,000 U	880,000 U	94,000 U	19,000 U	920,000 U	6,800 U	660 U	780,000 U
4-nitrophenol	ug/kg	56,000 U	5,400,000 U	16,000 U	140,000 U	67,000 U	64,000 U	75,000 U	190,000 U	1,900,000 U	79,000 UR	2,700,000 U	2,100,000 U	230,000 U	46,000 U	2,200,000 U	17,000 U	1,600 U	1,900,000 U
Acenaphthene	ug/kg	**14,000**	**3,900,000**	**1,200 J**	**97,000**	**8,400 J**	**31,000**	**50,000**	**81,000**	**620,000**	**19,000**	**3,300,000**	**1,800,000**	**140,000**	**27,000**	**1,400,000**	**13,000**	**180 J**	**1,000,000**
Acenaphthylene	ug/kg	**9,300 J**	**190,000 J**	**1,400 J**	**25,000 J**	**7,000 J**	**21,000**	**25,000**	**23,000 J**	**340,000 J**	**16,000 J**	**220,000 J**	**440,000 J**	**71,000**	**21,000**	**280,000 J**	**5,100**	**420**	**310,000 J**
Anthracene	ug/kg	**25,000**	**1,300,000**	**1,900 J**	**83,000**	**14,000**	**44,000**	**70,000**	**42,000**	**420,000**	**28,000**	**1,800,000**	**1,100,000**	**170,000**	**50,000**	**670,000**	**9,600**	**500**	**700,000**
Benzo(a)anthracene	ug/kg	**25,000**	**550,000 J**	**3,400**	**54,000**	**18,000**	**46,000**	**56,000**	**26,000 J**	**220,000 J**	**33,000**	**520,000 J**	**650,000**	**130,000**	**54,000**	**410,000 J**	**9,200**	**910**	**400,000**
Benzo(a)pyrene	ug/kg	**20,000**	**380,000 J**	**3,400**	**43,000**	**15,000**	**39,000**	**46,000**	**20,000 J**	**150,000 J**	**30,000**	**320,000 J**	**510,000**	**100,000**	**43,000**	**230,000 J**	**6,900**	**680**	**260,000 J**
Benzo(b)fluoranthene	ug/kg	**11,000 J**	1,100,000 U	**2,400 J**	**21,000 J**	**7,500 J**	**18,000**	**23,000**	38,000 U	390,000 U	**12,000 J**	560,000 U	**270,000 J**	**41,000 J**	**18,000**	**220,000 J**	**2,400 J**	**290 J**	390,000 U
Benzo(g,h,i)perylene	ug/kg	**13,000**	**160,000 J**	**2,600 J**	**24,000 J**	**12,000 J**	**24,000**	**27,000**	**10,000 J**	**80,000 J**	**19,000**	**120,000 J**	**300,000 J**	**63,000**	**32,000 J**	**79,000 J**	**3,900 J**	**260 J**	390,000 U
Benzo(k)fluoranthene	ug/kg	**11,000 J**	**260,000 J**	**2,100 J**	**21,000 J**	**11,000 J**	**21,000**	**22,000**	**11,000 J**	**79,000 J**	**21,000**	560,000 U	**270,000 J**	**50,000**	**25,000**	460,000 U	**4,400**	**330 J**	390,000 U
Benzyl butyl phthalate	ug/kg	**3,700 J**	1,100,000 U	**720 J**	30,000 U	**3,700 J**	**2,400 J**	**3,200 J**	**10,000 J**	390,000 U	16,000 U	560,000 U	440,000 U	**120,000**	**1,500 J**	460,000 U	3,400 U	330 U	390,000 U
Bis(2-chloroethoxy) methane	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Bis(2-chloroethyl) ether	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**96,000**	1,100,000 U	**20,000**	**180,000**	**110,000**	**120,000**	**170,000**	**22,000 J**	390,000 U	**99,000**	560,000 U	440,000 U	**49,000**	**40,000 J**	460,000 U	**1,700 J**	**110 J**	390,000 U
Carbazole	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	**93,000 J**	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-31	GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43
Sample Number:		GC-SED-31(2.5-4.5)	GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)
Sample Depth:		2.5-4.5	11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3
Sample Date:		1/16/2006	1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Chrysene	ug/kg	**28,000**	**570,000 J**	**4,300**	**62,000**	**21,000**	**53,000**	**65,000**	**30,000 J**	**250,000 J**	**38,000**	**520,000 J**	**670,000**	**140,000**	**59,000**	**500,000**	**10,000**	**1,000**	**410,000**
Dibenz(a,h)anthracene	ug/kg	**4,300 J**	1,100,000 U	**740 J**	**8,100 J**	**3,300 J**	**7,500 J**	**8,200 J**	38,000 U	390,000 U	**5,800 J**	560,000 U	**110,000 J**	**19,000 J**	**11,000**	460,000 U	**1,200 J**	**100 J**	390,000 U
Dibenzofuran	ug/kg	12,000 U	**200,000 J**	3,400 U	**8,200 J**	14,000 U	**2,800 J**	**5,700 J**	38,000 U	390,000 U	16,000 U	**190,000 J**	**280,000 J**	**13,000 J**	**2,500 J**	**80,000 J**	**930 J**	330 U	390,000 U
Diethyl phthalate	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Dimethyl phthalate	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Di-n-butyl phthalate	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Di-n-octylphthalate	ug/kg	**4,000 J**	1,100,000 U	3,400 U	**4,000 J**	**2,700 J**	**4,500 J**	**11,000 J**	38,000 U	390,000 U	**3,300 J**	560,000 U	440,000 U	47,000 U	**1,200 J**	460,000 U	3,400 U	330 U	390,000 U
Fluoranthene	ug/kg	**48,000**	**1,300,000**	**7,100**	**100,000**	**35,000**	**78,000**	**110,000**	**45,000**	**370,000 J**	**56,000**	**1,000,000**	**1,200,000**	**190,000**	**87,000**	**540,000**	**15,000**	**1,300**	**590,000**
Fluorene	ug/kg	**11,000 J**	**1,600,000**	**560 J**	**62,000**	**5,800 J**	**9,900 J**	**37,000**	**43,000**	**420,000**	**15,000 J**	**1,700,000**	**1,000,000**	**98,000**	9,400 U	**750,000**	**7,000**	**90 J**	**700,000**
Hexachlorobenzene	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Hexachlorobutadiene	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Hexachlorocyclopentadiene	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Hexachloroethane	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**9,900 J**	1,100,000 U	**2,100 J**	**20,000 J**	**8,700 J**	**17,000**	**20,000**	**8,400 J**	**64,000 J**	**14,000 J**	**100,000 J**	**280,000 J**	**47,000**	**25,000**	**84,000 J**	**3,000 J**	**230 J**	**100,000 J**
Isophorone	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Naphthalene	ug/kg	**11,000 J**	**12,000,000**	**790 J**	**150,000**	**5,900 J**	**17,000**	**53,000**	**340,000**	**3,500,000**	**18,000**	**9,000,000**	**7,000,000**	**230,000**	**4,000 J**	**5,100,000**	**26,000**	**510**	**3,400,000**
Nitrobenzene	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
N-nitrosodi-n-propylamine	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
N-nitrosodiphenylamine	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Pentachlorophenol	ug/kg	56,000 U	5,400,000 U	16,000 U	140,000 U	67,000 U	64,000 U	75,000 U	190,000 U	1,900,000 U	79,000 UR	2,700,000 U	2,100,000 U	230,000 U	46,000 U	2,200,000 U	17,000 U	1,600 U	1,900,000 U
Phenanthrene	ug/kg	**63,000**	**4,300,000**	**3,000 J**	**230,000**	**32,000**	**83,000**	**180,000**	**130,000**	**1,200,000**	**66,000**	**4,100,000**	**3,400,000**	**400,000**	**54,000**	**2,100,000**	**21,000**	**290 J**	**2,000,000**
Phenol	ug/kg	12,000 U	1,100,000 U	3,400 U	30,000 U	14,000 U	13,000 U	15,000 U	38,000 U	390,000 U	16,000 U	560,000 U	440,000 U	47,000 U	9,400 U	460,000 U	3,400 U	330 U	390,000 U
Pyrene	ug/kg	**58,000**	**1,700,000**	**7,300**	**120,000**	**41,000**	**97,000**	**140,000**	**63,000**	**490,000**	**71,000 J**	**1,400,000**	**1,500,000**	**270,000**	**110,000**	**820,000**	**23,000**	**1,900**	**1,000,000**
Total PAHs	ug/kg	**375,500**	**35,710,000**	**44,290**	**1,270,100**	**251,600**	**622,400**	**1,003,200**	**1,072,400**	**10,203,000**	**477,800**	**31,200,000**	**24,500,000**	**2,389,000**	**622,000**	**16,383,000**	**173,700**	**9,250**	**13,070,000**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-43	GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B
Sample Number:		GC-SED-43(7.3-8.3)	GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)
Sample Depth:		7.3-8.3	0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7
Sample Date:		1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4,5-trichlorophenol	ug/kg	2,600,000 U	1,500,000 U	2,800,000 U	4,800,000 U	560,000 U	4,500,000 U	1,100,000 U	920,000 U	3,000,000 U	2,200,000 U	1,100,000 U	4,800,000 U	640,000 U	5,500,000 U	2,200,000 U	440,000 U	74,000 U	4,400,000 U
2,4,6-trichlorophenol	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2,4-dichlorophenol	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2,4-dimethylphenol	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2,4-dinitrophenol	ug/kg	2,600,000 U	1,500,000 U	2,800,000 U	4,800,000 U	560,000 U	4,500,000 U	1,100,000 U	920,000 U	3,000,000 U	2,200,000 U	1,100,000 U	4,800,000 U	640,000 U	5,500,000 U	2,200,000 U	440,000 U	74,000 U	4,400,000 U
2,4-dinitrotoluene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2,6-dinitrotoluene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2-chloronaphthalene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2-chlorophenol	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2-methylnaphthalene	ug/kg	**4,400,000**	**1,600,000**	**4,100,000**	**6,700,000**	**500,000**	**5,600,000**	**1,600,000**	**660,000**	**4,100,000**	**4,000,000**	**1,500,000**	**6,500,000**	**500,000**	**9,100,000**	**3,500,000**	**680,000**	**5,400 J**	**5,500,000**
2-methylphenol (o-cresol)	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
2-nitroaniline	ug/kg	2,600,000 U	1,500,000 U	2,800,000 U	4,800,000 U	560,000 U	4,500,000 U	1,100,000 U	920,000 U	3,000,000 U	2,200,000 U	1,100,000 U	4,800,000 U	640,000 U	5,500,000 U	2,200,000 U	440,000 U	74,000 U	4,400,000 U
2-nitrophenol	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
3,3'-dichlorobenzidine	ug/kg	1,100,000 U	620,000 U	1,200,000 U	2,000,000 U	230,000 U	1,800,000 U	430,000 U	380,000 U	1,200,000 U	890,000 U	450,000 U	2,000,000 U	260,000 U	2,300,000 U	910,000 U	180,000 U	31,000 UJ	1,800,000 UJ
3-nitroaniline	ug/kg	2,600,000 U	1,500,000 U	2,800,000 U	4,800,000 U	560,000 U	4,500,000 U	1,100,000 U	920,000 U	3,000,000 U	2,200,000 U	1,100,000 U	4,800,000 U	640,000 U	5,500,000 U	2,200,000 U	440,000 U	74,000 U	4,400,000 U
4,6-dinitro-2-methylphenol	ug/kg	2,600,000 U	1,500,000 U	2,800,000 U	4,800,000 U	560,000 U	4,500,000 U	1,100,000 U	920,000 U	3,000,000 U	2,200,000 U	1,100,000 U	4,800,000 U	640,000 U	5,500,000 U	2,200,000 U	440,000 U	74,000 U	4,400,000 U
4-bromophenyl phenyl ether	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
4-chloro-3-methylphenol	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
4-chloroaniline	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
4-chlorophenyl phenyl ether	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
4-methylphenol (p-cresol)	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
4-nitroaniline	ug/kg	1,100,000 U	620,000 U	1,200,000 U	2,000,000 U	230,000 U	1,800,000 U	430,000 U	380,000 U	1,200,000 U	890,000 U	450,000 U	2,000,000 U	260,000 U	2,300,000 U	910,000 U	180,000 U	31,000 U	1,800,000 U
4-nitrophenol	ug/kg	2,600,000 U	1,500,000 U	2,800,000 U	4,800,000 U	560,000 U	4,500,000 U	1,100,000 U	920,000 U	3,000,000 U	2,200,000 U	1,100,000 U	4,800,000 U	640,000 U	5,500,000 U	2,200,000 U	440,000 U	74,000 U	4,400,000 U
Acenaphthene	ug/kg	**1,600,000**	**480,000**	**1,500,000**	**2,300,000**	**280,000**	**2,400,000**	**590,000**	**350,000**	**1,600,000**	**1,400,000**	**590,000**	**2,800,000**	**320,000**	**2,500,000**	**310,000 J**	**290,000**	**70,000**	**1,800,000**
Acenaphthylene	ug/kg	**520,000 J**	**380,000**	**340,000 J**	**1,100,000**	**96,000 J**	**370,000 J**	**150,000 J**	**110,000 J**	**190,000 J**	**410,000 J**	**130,000 J**	**540,000 J**	**94,000 J**	**1,200,000**	**220,000 J**	**93,000**	**23,000**	**480,000 J**
Anthracene	ug/kg	**840,000**	**370,000**	**730,000**	**2,000,000**	**230,000**	**1,100,000**	**370,000**	**280,000**	**1,100,000**	**930,000**	**350,000**	**1,400,000**	**270,000**	**1,800,000**	**680,000**	**230,000**	**62,000**	**970,000**
Benzo(a)anthracene	ug/kg	**470,000 J**	**220,000 J**	**460,000 J**	**690,000 J**	**210,000**	**590,000 J**	**170,000 J**	**230,000**	**410,000 J**	**670,000**	**140,000 J**	**630,000 J**	**190,000**	**880,000 J**	**480,000**	**160,000**	**52,000 J**	**560,000 J**
Benzo(a)pyrene	ug/kg	**370,000 J**	**130,000 J**	**320,000 J**	**460,000 J**	**130,000**	**400,000 J**	**110,000 J**	**140,000 J**	**250,000 J**	**370,000 J**	**110,000 J**	**480,000 J**	**130,000 J**	**630,000 J**	**320,000 J**	**110,000**	**38,000 J**	**390,000 J**
Benzo(b)fluoranthene	ug/kg	**260,000 J**	**100,000 J**	**220,000 J**	**320,000 J**	**100,000 J**	**310,000 J**	**78,000 J**	**120,000 J**	**270,000 J**	**270,000 J**	**85,000 J**	990,000 U	**120,000 J**	1,100,000 U	**240,000 J**	**94,000**	**31,000 J**	**280,000 J**
Benzo(g,h,i)perylene	ug/kg	**99,000 J**	**41,000 J**	**100,000 J**	980,000 U	**44,000 J**	920,000 U	**51,000 J**	**62,000 J**	**77,000 J**	**120,000 J**	**38,000 J**	**200,000 J**	**60,000 J**	**240,000 J**	**130,000 J**	**38,000 J**	**13,000 J**	**150,000 J**
Benzo(k)fluoranthene	ug/kg	**100,000 J**	**40,000 J**	**94,000 J**	**150,000 J**	**37,000 J**	920,000 U	**28,000 J**	**39,000 J**	610,000 U	**100,000 J**	**32,000 J**	**290,000 J**	**30,000 J**	**380,000 J**	**84,000 J**	**29,000 J**	**12,000 J**	910,000 U
Benzyl butyl phthalate	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 UJ	910,000 UJ
Bis(2-chloroethoxy) methane	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Bis(2-chloroethyl) ether	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	**540,000**	920,000 U	**31,000 J**	**79,000 J**	610,000 U	450,000 U	220,000 U	990,000 U	**81,000 J**	1,100,000 U	460,000 U	**28,000 J**	**57,000 J**	910,000 UJ
Carbazole	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-43	GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B
Sample Number:		GC-SED-43(7.3-8.3)	GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)
Sample Depth:		7.3-8.3	0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7
Sample Date:		1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Chrysene	ug/kg	**610,000**	**230,000 J**	**530,000 J**	**850,000 J**	**200,000**	**680,000 J**	**210,000 J**	**240,000**	**460,000 J**	**660,000**	**200,000 J**	**740,000 J**	**210,000**	**1,100,000 J**	**600,000**	**190,000**	**58,000 J**	**610,000 J**
Dibenz(a,h)anthracene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	**13,000 J**	920,000 U	220,000 U	190,000 U	610,000 U	**62,000 J**	220,000 U	990,000 U	**17,000 J**	1,100,000 U	460,000 U	**13,000 J**	**3,700 J**	910,000 U
Dibenzofuran	ug/kg	540,000 U	310,000 U	**95,000 J**	**180,000 J**	**30,000 J**	920,000 U	**44,000 J**	190,000 U	**110,000 J**	**100,000 J**	**42,000 J**	990,000 U	**24,000 J**	**260,000 J**	**99,000 J**	**19,000 J**	**3,300 J**	910,000 U
Diethyl phthalate	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Dimethyl phthalate	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Di-n-butyl phthalate	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Di-n-octylphthalate	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 UJ	910,000 U
Fluoranthene	ug/kg	**700,000**	**330,000**	**570,000 J**	**1,200,000**	**270,000**	**840,000 J**	**280,000**	**300,000**	**700,000**	**840,000**	**250,000**	**1,000,000**	**280,000**	**1,300,000**	**590,000**	**220,000**	**92,000**	**740,000 J**
Fluorene	ug/kg	**1,100,000**	**440,000**	**950,000**	**1,700,000**	**220,000**	**1,300,000**	**410,000**	**250,000**	**940,000**	**990,000**	**330,000**	**1,600,000**	**190,000**	**2,000,000**	**710,000**	**230,000**	**13,000 J**	**1,300,000**
Hexachlorobenzene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Hexachlorobutadiene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Hexachlorocyclopentadiene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Hexachloroethane	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**99,000 J**	**47,000 J**	**82,000 J**	**100,000 J**	**41,000 J**	**110,000 J**	**37,000 J**	**49,000 J**	610,000 U	**110,000 J**	**32,000 J**	**170,000 J**	**51,000 J**	**180,000 J**	**95,000 J**	**30,000 J**	**13,000 J**	**130,000 J**
Isophorone	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Naphthalene	ug/kg	**7,400,000**	**3,300,000**	**8,200,000**	**12,000,000**	**820,000**	**11,000,000**	**2,800,000**	**790,000**	**7,100,000**	**6,500,000**	**2,200,000**	**13,000,000**	**720,000**	**16,000,000**	**5,200,000**	**1,100,000**	**24,000**	**10,000,000**
Nitrobenzene	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
N-nitrosodi-n-propylamine	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
N-nitrosodiphenylamine	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Pentachlorophenol	ug/kg	2,600,000 U	1,500,000 U	2,800,000 U	4,800,000 U	560,000 U	4,500,000 U	1,100,000 U	920,000 U	3,000,000 U	2,200,000 U	1,100,000 U	4,800,000 U	640,000 U	5,500,000 U	2,200,000 U	440,000 U	74,000 U	4,400,000 U
Phenanthrene	ug/kg	**2,700,000**	**1,200,000**	**2,500,000**	**3,800,000**	**750,000**	**3,200,000**	**950,000**	**730,000**	**2,300,000**	**2,700,000**	**800,000**	**3,900,000**	**740,000**	**5,200,000**	**2,300,000**	**730,000**	**110,000**	**3,200,000**
Phenol	ug/kg	540,000 U	310,000 U	580,000 U	980,000 U	120,000 U	920,000 U	220,000 U	190,000 U	610,000 U	450,000 U	220,000 U	990,000 U	130,000 U	1,100,000 U	460,000 U	92,000 U	15,000 U	910,000 U
Pyrene	ug/kg	**1,200,000**	**570,000**	**1,300,000**	**1,100,000**	**580,000**	**1,600,000**	**320,000**	**440,000**	**1,200,000**	**1,300,000**	**340,000**	**1,900,000**	**490,000**	**2,500,000**	**1,200,000**	**430,000**	**150,000 J**	**1,400,000 J**
Total PAHs	ug/kg	**22,468,000**	**9,478,000**	**21,996,000**	**34,470,000**	**4,521,000**	**29,500,000**	**8,154,000**	**4,790,000**	**20,697,000**	**21,432,000**	**7,127,000**	**35,150,000**	**4,412,000**	**45,010,000**	**16,659,000**	**4,667,000**	**770,100**	**27,510,000**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-55	GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C
Sample Number:		GC-SED-55(1.5-2.5)	GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)
Sample Depth:		1.5-2.5	10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5
Sample Date:		1/24/2006	1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4,5-trichlorophenol	ug/kg	140,000 U	48,000 U	74,000 U	1,600,000 U	1,900,000 U	430,000 U	83,000 U	2,100,000 U	220,000 U	1,500,000 U	1,500,000 U	8,900 U	2,000,000 U	19,000 U	1,900,000 U	34,000 U	37,000 U	98,000 U
2,4,6-trichlorophenol	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
2,4-dichlorophenol	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
2,4-dimethylphenol	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
2,4-dinitrophenol	ug/kg	140,000 U	48,000 U	74,000 U	1,600,000 U	1,900,000 U	430,000 U	83,000 U	2,100,000 U	220,000 U	1,500,000 U	1,500,000 U	8,900 U	2,000,000 U	19,000 U	1,900,000 U	34,000 U	37,000 U	98,000 U
2,4-dinitrotoluene	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
2,6-dinitrotoluene	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
2-chloronaphthalene	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
2-chlorophenol	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
2-methylnaphthalene	ug/kg	**5,300 J**	**63,000**	**45,000**	**2,400,000**	**1,100,000**	**160,000**	**16,000 J**	**2,400,000**	**100,000**	**1,200,000**	**1,400,000**	**930 J**	**2,700,000**	**2,300 J**	**1,900,000**	**2,700 J**	**41,000 J**	**87,000**
2-methylphenol (o-cresol)	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
2-nitroaniline	ug/kg	140,000 U	48,000 U	74,000 U	1,600,000 U	1,900,000 U	430,000 U	83,000 U	2,100,000 U	220,000 U	1,500,000 U	1,500,000 U	8,900 U	2,000,000 U	19,000 U	1,900,000 U	34,000 U	37,000 U	98,000 U
2-nitrophenol	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
3,3'-dichlorobenzidine	ug/kg	60,000 U	20,000 U	31,000 U	650,000 U	800,000 U	180,000 U	34,000 UJ	880,000 U	90,000 U	630,000 U	600,000 U	3,700 U	830,000 U	7,700 U	790,000 U	14,000 U	15,000 U	41,000 U
3-nitroaniline	ug/kg	140,000 U	48,000 U	74,000 U	1,600,000 U	1,900,000 U	430,000 U	83,000 U	2,100,000 U	220,000 U	1,500,000 U	1,500,000 U	8,900 U	2,000,000 U	19,000 U	1,900,000 U	34,000 U	37,000 U	98,000 U
4,6-dinitro-2-methylphenol	ug/kg	140,000 U	48,000 U	74,000 U	1,600,000 U	1,900,000 U	430,000 U	83,000 U	2,100,000 U	220,000 U	1,500,000 U	1,500,000 U	8,900 U	2,000,000 U	19,000 U	1,900,000 U	34,000 U	37,000 U	98,000 U
4-bromophenyl phenyl ether	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
4-chloro-3-methylphenol	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
4-chloroaniline	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
4-chlorophenyl phenyl ether	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
4-methylphenol (p-cresol)	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	**1,500 J**	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
4-nitroaniline	ug/kg	60,000 U	20,000 U	31,000 U	650,000 U	800,000 U	180,000 U	34,000 U	880,000 U	90,000 U	630,000 U	600,000 U	3,700 U	830,000 U	7,700 U	790,000 U	14,000 U	15,000 U	41,000 U
4-nitrophenol	ug/kg	140,000 U	48,000 U	74,000 U	1,600,000 U	1,900,000 U	430,000 U	83,000 U	2,100,000 U	220,000 U	1,500,000 U	1,500,000 U	8,900 U	2,000,000 U	19,000 U	1,900,000 U	34,000 U	37,000 U	98,000 U
Acenaphthene	ug/kg	**53,000**	**45,000**	**70,000**	**1,000,000**	**740,000**	**170,000**	**38,000**	**1,200,000**	**71,000**	**780,000**	**120,000 J**	**2,200**	**1,000,000**	**5,300**	**670,000**	**7,600**	**32,000**	**39,000**
Acenaphthylene	ug/kg	**27,000 J**	**13,000**	**22,000**	**120,000 J**	**350,000 J**	**97,000**	**24,000**	**110,000 J**	**26,000 J**	**110,000 J**	**480,000**	**3,200**	**220,000 J**	**5,800**	**170,000 J**	**7,800**	**5,900 J**	**8,900 J**
Anthracene	ug/kg	**96,000**	**47,000**	**100,000**	**730,000**	**580,000**	**190,000**	**49,000**	**550,000**	**62,000**	**370,000**	**210,000 J**	**3,600**	**450,000**	**10,000**	**310,000 J**	**10,000**	**20,000**	**25,000**
Benzo(a)anthracene	ug/kg	**88,000**	**38,000**	**77,000**	**200,000 J**	**450,000**	**200,000**	**52,000 J**	**270,000 J**	**56,000**	**260,000 J**	**200,000 J**	**8,700**	**350,000 J**	**19,000**	**210,000 J**	**18,000**	**13,000**	**23,000**
Benzo(a)pyrene	ug/kg	**66,000**	**28,000**	**59,000**	**120,000 J**	**340,000 J**	**140,000**	**38,000 J**	**190,000 J**	**40,000 J**	**190,000 J**	**140,000 J**	**8,000**	**240,000 J**	**16,000**	**110,000 J**	**17,000**	**10,000**	**16,000 J**
Benzo(b)fluoranthene	ug/kg	**52,000**	**19,000**	**48,000**	**110,000 J**	400,000 U	**110,000**	**30,000 J**	**140,000 J**	**33,000 J**	**150,000 J**	**130,000 J**	**8,500**	**190,000 J**	**15,000**	400,000 U	**10,000**	**4,600 J**	**14,000 J**
Benzo(g,h,i)perylene	ug/kg	**39,000**	**15,000**	**25,000**	330,000 U	**110,000 J**	**53,000 J**	**14,000 J**	440,000 U	**14,000 J**	**67,000 J**	**58,000 J**	**3,800 J**	**80,000 J**	**6,100**	**68,000 J**	**12,000**	**5,700 J**	**6,300 J**
Benzo(k)fluoranthene	ug/kg	**18,000 J**	**8,900 J**	**16,000**	330,000 U	400,000 U	**44,000 J**	**11,000 J**	**71,000 J**	**10,000 J**	310,000 U	300,000 U	1,800 U	**62,000 J**	**4,600**	400,000 U	**8,900**	**5,100 J**	**4,000 J**
Benzyl butyl phthalate	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 UJ	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
Bis(2-chloroethoxy) methane	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
Bis(2-chloroethyl) ether	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**42,000**	**56,000**	**49,000**	330,000 U	400,000 U	**140,000**	**47,000 J**	440,000 U	**43,000 J**	310,000 U	300,000 U	**18,000**	410,000 U	**26,000**	400,000 U	**35,000**	7,600 U	**18,000 J**
Carbazole	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	**600 J**	410,000 U	**1,000 J**	400,000 U	**1,100 J**	7,600 U	20,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-55	GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C
Sample Number:		GC-SED-55(1.5-2.5)	GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)
Sample Depth:		1.5-2.5	10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5
Sample Date:		1/24/2006	1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Chrysene	ug/kg	**100,000**	**41,000**	**80,000**	**190,000 J**	**490,000**	**220,000**	**54,000 J**	**280,000 J**	**60,000**	**240,000 J**	**220,000 J**	**8,300**	**430,000**	**21,000**	**260,000 J**	**21,000**	**15,000**	**21,000**
Dibenz(a,h)anthracene	ug/kg	**15,000 J**	**5,800 J**	**6,300 J**	330,000 U	400,000 U	88,000 U	**4,000 J**	440,000 U	45,000 U	310,000 U	300,000 U	**1,300 J**	410,000 U	**1,900 J**	400,000 U	**3,600 J**	**2,100 J**	20,000 UJ
Dibenzofuran	ug/kg	30,000 U	**3,200 J**	**4,900 J**	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	**740 J**	410,000 U	**1,500 J**	400,000 U	**2,500 J**	**2,300 J**	**3,300 J**
Diethyl phthalate	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
Dimethyl phthalate	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
Di-n-butyl phthalate	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
Di-n-octylphthalate	ug/kg	30,000 U	**3,300 J**	**1,700 J**	330,000 U	400,000 U	88,000 U	17,000 UJ	440,000 U	45,000 U	310,000 U	300,000 U	**200 J**	410,000 U	**1,700 J**	400,000 U	**1,600 J**	7,600 U	20,000 U
Fluoranthene	ug/kg	**130,000**	**55,000**	**160,000**	**350,000**	**590,000**	**220,000**	**73,000**	**430,000 J**	**79,000**	**400,000**	**270,000 J**	**17,000**	**520,000**	**40,000**	**320,000 J**	**38,000**	**21,000**	**32,000**
Fluorene	ug/kg	**18,000 J**	**31,000**	**35,000**	**510,000**	**450,000**	**120,000**	**19,000**	**570,000**	**45,000 J**	**410,000**	**380,000**	**1,700 J**	**580,000**	**2,300 J**	**330,000 J**	**4,400 J**	**17,000**	**24,000**
Hexachlorobenzene	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
Hexachlorobutadiene	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UR	7,600 UR	20,000 U
Hexachlorocyclopentadiene	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 U	7,600 U	20,000 U
Hexachloroethane	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UR	7,600 UR	20,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**33,000**	**12,000**	**21,000**	**34,000 J**	**90,000 J**	**48,000 J**	**13,000 J**	440,000 U	**14,000 J**	**47,000 J**	**45,000 J**	**3,300**	**69,000 J**	**6,100**	**55,000 J**	**9,900**	**4,600 J**	**6,300 J**
Isophorone	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
Naphthalene	ug/kg	**11,000 J**	**71,000**	**52,000**	**3,900,000**	**2,500,000**	**170,000**	**32,000**	**5,100,000**	**150,000**	**3,100,000**	**2,100,000**	**1,900**	**4,100,000**	**4,900**	**3,200,000**	**5,700 J**	**50,000 J**	**150,000**
Nitrobenzene	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
N-nitrosodi-n-propylamine	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
N-nitrosodiphenylamine	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	**2,500 J**	400,000 U	7,100 U	7,600 U	20,000 U
Pentachlorophenol	ug/kg	140,000 U	48,000 U	74,000 U	1,600,000 U	1,900,000 U	430,000 U	83,000 U	2,100,000 U	220,000 U	1,500,000 U	1,500,000 U	8,900 U	2,000,000 U	19,000 U	1,900,000 U	34,000 U	37,000 U	98,000 U
Phenanthrene	ug/kg	**130,000**	**110,000**	**210,000**	**1,400,000**	**1,600,000**	**570,000**	**83,000**	**1,700,000**	**200,000**	**1,500,000**	**800,000**	**7,000**	**1,900,000**	**14,000**	**1,100,000**	**24,000**	**62,000**	**74,000**
Phenol	ug/kg	30,000 U	10,000 U	15,000 U	330,000 U	400,000 U	88,000 U	17,000 U	440,000 U	45,000 U	310,000 U	300,000 U	1,800 U	410,000 U	3,800 U	400,000 U	7,100 UJ	7,600 UJ	20,000 U
Pyrene	ug/kg	**180,000**	**83,000**	**220,000**	**620,000**	**1,000,000**	**490,000**	**120,000 J**	**770,000**	**140,000**	**720,000**	**410,000**	**17,000**	**1,000,000**	**50,000**	**630,000**	**41,000**	**31,000**	**37,000**
Total PAHs	ug/kg	**1,061,300**	**685,700**	**1,246,300**	**11,684,000**	**10,390,000**	**3,002,000**	**670,000**	**13,781,000**	**1,100,000**	**9,544,000**	**6,963,000**	**96,430**	**13,891,000**	**224,300**	**9,333,000**	**241,600**	**340,000**	**567,500**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-71C	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82
Sample Number:		GC-SED-71C(2.5-4.0)	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)
Sample Depth:		2.5-4	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8
Sample Date:		1/29/2006	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4,5-trichlorophenol	ug/kg	380,000 U	1,700 U	55,000 U	18,000 U	400,000 U	18,000 U	1,700 U	14,000 U	8,600 U	210,000 U	17,000 U	70,000 U	90,000 U	45,000 U	91,000 U	1,800 UJ	270,000 U	200,000 U
2,4,6-trichlorophenol	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
2,4-dichlorophenol	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
2,4-dimethylphenol	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
2,4-dinitrophenol	ug/kg	380,000 U	1,700 U	55,000 U	18,000 U	400,000 U	18,000 U	1,700 U	14,000 U	8,600 UJ	210,000 UJ	17,000 UJ	70,000 U	90,000 U	45,000 U	91,000 U	1,800 UJ	270,000 U	200,000 UJ
2,4-dinitrotoluene	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
2,6-dinitrotoluene	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
2-chloronaphthalene	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
2-chlorophenol	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
2-methylnaphthalene	ug/kg	**380,000 J**	**70 J**	**13,000**	3,800 U	82,000 U	3,800 U	360 U	**820 J**	**430 J**	**330,000**	3,500 U	**6,700 J**	**62,000**	**3,000 J**	**54,000 J**	370 UJ	**27,000 J**	**490,000**
2-methylphenol (o-cresol)	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
2-nitroaniline	ug/kg	380,000 U	1,700 U	55,000 U	18,000 U	400,000 U	18,000 U	1,700 U	14,000 U	8,600 U	210,000 U	17,000 U	70,000 U	90,000 U	45,000 U	91,000 U	1,800 UJ	270,000 U	200,000 U
2-nitrophenol	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
3,3'-dichlorobenzidine	ug/kg	160,000 U	700 U	23,000 U	7,600 U	160,000 U	7,600 U	720 U	5,800 U	3,600 U	87,000 U	7,000 U	29,000 U	37,000 U	18,000 U	38,000 U	740 UJ	110,000 U	82,000 U
3-nitroaniline	ug/kg	380,000 U	1,700 U	55,000 U	18,000 U	400,000 U	18,000 U	1,700 U	14,000 U	8,600 U	210,000 U	17,000 U	70,000 U	90,000 U	45,000 U	91,000 U	1,800 UJ	270,000 U	200,000 U
4,6-dinitro-2-methylphenol	ug/kg	380,000 U	1,700 U	55,000 U	18,000 U	400,000 U	18,000 U	1,700 U	14,000 U	8,600 U	210,000 U	17,000 U	70,000 U	90,000 U	45,000 U	91,000 U	1,800 UJ	270,000 U	200,000 U
4-bromophenyl phenyl ether	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
4-chloro-3-methylphenol	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
4-chloroaniline	ug/kg	79,000 U	350 U	**5,500 J**	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
4-chlorophenyl phenyl ether	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
4-methylphenol (p-cresol)	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
4-nitroaniline	ug/kg	160,000 U	700 U	23,000 U	7,600 U	160,000 U	7,600 U	720 U	5,800 U	3,600 U	87,000 U	7,000 U	29,000 U	37,000 U	18,000 U	38,000 U	740 UJ	110,000 U	82,000 U
4-nitrophenol	ug/kg	380,000 U	1,700 U	55,000 U	18,000 U	400,000 U	18,000 U	1,700 U	14,000 U	8,600 U	210,000 U	17,000 U	70,000 U	90,000 U	45,000 U	91,000 U	1,800 UJ	270,000 U	200,000 U
Acenaphthene	ug/kg	**160,000**	**70 J**	**13,000**	3,800 U	82,000 U	**830 J**	360 U	**2,000 J**	**640 J**	**230,000**	**1,400 J**	**24,000**	**38,000**	**4,600 J**	**46,000**	370 UJ	**160,000**	**210,000**
Acenaphthylene	ug/kg	**36,000 J**	**130 J**	**11,000 J**	**5,700**	**13,000 J**	**2,100 J**	**140 J**	**2,800 J**	**2,000**	**34,000 J**	**2,100 J**	**4,400 J**	**11,000 J**	**3,800 J**	**9,500 J**	370 UJ	**43,000 J**	**55,000**
Anthracene	ug/kg	**82,000**	**110 J**	**27,000**	**8,300**	**56,000 J**	**1,800 J**	**70 J**	**3,400**	**2,800**	**140,000**	**2,300 J**	**17,000**	**34,000**	**7,600 J**	**49,000**	370 UJ	**120,000**	**110,000**
Benzo(a)anthracene	ug/kg	**51,000 J**	**340 J**	**33,000 J**	**17,000**	**47,000 J**	**5,100**	**280 J**	**11,000**	**5,600**	**97,000**	**7,000**	**22,000**	**34,000**	**12,000**	**39,000**	370 UJ	**96,000**	**83,000**
Benzo(a)pyrene	ug/kg	**38,000 J**	**330 J**	**26,000 J**	**14,000**	**40,000 J**	**4,200**	**500**	**9,800**	**6,300**	**75,000**	**5,300**	**14,000 J**	**26,000**	**8,700 J**	**31,000**	370 UJ	**65,000**	**65,000**
Benzo(b)fluoranthene	ug/kg	79,000 U	**330 J**	**22,000**	**11,000**	**33,000 J**	**3,600 J**	**360 J**	**9,800**	**6,000**	**60,000**	**6,300**	**15,000**	**21,000**	**7,400 J**	**23,000**	370 UJ	**54,000 J**	**46,000**
Benzo(g,h,i)perylene	ug/kg	**27,000 J**	**140 J**	**10,000 J**	**6,500 J**	**19,000 J**	**2,800 J**	**220 J**	**5,700**	**3,300**	**37,000 J**	**3,000 J**	**6,600 J**	**10,000 J**	**4,000 J**	**12,000 J**	370 UJ	**43,000 J**	**33,000 J**
Benzo(k)fluoranthene	ug/kg	79,000 U	**100 J**	**8,300 J**	**3,600 J**	**11,000 J**	**1,900 J**	**150 J**	**3,400**	**1,900**	**19,000 J**	**2,400 J**	**5,200 J**	**6,300 J**	**3,300 J**	**7,700 J**	370 UJ	**19,000 J**	**16,000 J**
Benzyl butyl phthalate	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Bis(2-chloroethoxy) methane	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
Bis(2-chloroethyl) ether	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	79,000 U	**480**	**140,000**	**16,000**	**63,000 J**	**7,800**	**160 J**	**30,000**	**11,000**	43,000 U	**9,000**	**55,000**	**4,300 J**	**78,000**	19,000 U	370 UJ	56,000 U	41,000 U
Carbazole	ug/kg	79,000 U	350 U	11,000 U	**690 J**	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-71C	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82
Sample Number:		GC-SED-71C(2.5-4.0)	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)
Sample Depth:		2.5-4	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8
Sample Date:		1/29/2006	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Chrysene	ug/kg	**61,000 J**	**310 J**	**34,000 J**	**16,000**	**49,000 J**	**5,100**	**230 J**	**10,000**	**5,800**	**92,000**	**7,200**	**22,000**	**37,000**	**13,000**	**44,000**	370 UJ	**110,000**	**96,000**
Dibenz(a,h)anthracene	ug/kg	**9,200 J**	350 U	**2,500 J**	**1,900 J**	82,000 UJ	**770 J**	**70 J**	**1,300 J**	**850 J**	**8,600 J**	**700 J**	14,000 U	**3,200 J**	**1,100 J**	19,000 U	370 UJ	**11,000 J**	**8,300 J**
Dibenzofuran	ug/kg	79,000 U	350 U	11,000 U	**1,200 J**	82,000 U	3,800 U	360 U	2,900 U	1,800 U	**27,000 J**	3,500 U	**12,000 J**	**4,200 J**	9,200 U	**6,800 J**	370 UJ	**14,000 J**	**20,000 J**
Diethyl phthalate	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Dimethyl phthalate	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Di-n-butyl phthalate	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Di-n-octylphthalate	ug/kg	79,000 U	350 U	**14,000**	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Fluoranthene	ug/kg	**79,000**	**490**	**58,000 J**	**25,000**	**76,000 J**	**11,000**	**290 J**	**25,000**	**8,700**	**150,000**	**17,000**	**73,000**	**52,000**	**19,000**	**73,000**	370 UJ	**130,000**	**100,000**
Fluorene	ug/kg	**100,000**	**50 J**	**11,000 J**	**2,500 J**	**39,000 J**	**580 J**	360 U	**760 J**	**630 J**	**150,000**	**490 J**	**17,000**	**23,000**	**2,700 J**	**30,000**	370 UJ	**86,000**	**150,000**
Hexachlorobenzene	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Hexachlorobutadiene	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UR	370 UJ	56,000 U	41,000 U
Hexachlorocyclopentadiene	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Hexachloroethane	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UR	370 UJ	56,000 U	41,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**19,000 J**	**120 J**	**11,000 J**	**5,900**	**17,000 J**	**2,200 J**	**190 J**	**4,700**	**2,700**	**27,000 J**	**2,600 J**	**5,700 J**	**8,500 J**	**4,000 J**	**9,800 J**	370 UJ	**31,000 J**	**21,000 J**
Isophorone	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
Naphthalene	ug/kg	**600,000 J**	**90 J**	**19,000**	3,800 U	**650,000**	3,800 U	**80 J**	**2,200 J**	**720 J**	**360,000**	**700 J**	**7,400 J**	**140,000**	**6,500 J**	**130,000 J**	370 UJ	**68,000**	**610,000**
Nitrobenzene	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
N-nitrosodi-n-propylamine	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
N-nitrosodiphenylamine	ug/kg	79,000 U	350 U	**16,000**	3,800 U	82,000 U	3,800 U	360 U	**1,200 J**	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 U	370 UJ	56,000 U	41,000 U
Pentachlorophenol	ug/kg	380,000 U	1,700 U	55,000 U	18,000 U	400,000 U	18,000 U	1,700 U	14,000 U	8,600 U	210,000 U	17,000 U	70,000 U	90,000 U	45,000 U	91,000 U	1,800 UJ	270,000 U	200,000 U
Phenanthrene	ug/kg	**280,000 J**	**200 J**	**75,000 J**	**11,000**	**140,000**	**1,800 J**	**60 J**	**2,900 J**	**4,800**	**400,000**	**1,700 J**	**62,000**	**120,000**	**11,000**	**160,000**	**60 J**	**330,000**	**370,000**
Phenol	ug/kg	79,000 U	350 U	11,000 U	3,800 U	82,000 U	3,800 U	360 U	2,900 U	1,800 U	43,000 U	3,500 U	14,000 U	18,000 U	9,200 U	19,000 UJ	370 UJ	56,000 U	41,000 U
Pyrene	ug/kg	**130,000**	**1,100**	**84,000**	**27,000**	**110,000**	**11,000**	**1,100**	**28,000**	**12,000**	**210,000**	**16,000**	**64,000**	**100,000**	**28,000**	**120,000**	**60 J**	**240,000**	**180,000**
Total PAHs	ug/kg	**2,052,200**	**3,980**	**457,800**	**155,400**	**1,300,000**	**54,780**	**3,740**	**123,580**	**65,170**	**2,419,600**	**76,190**	**366,000**	**726,000**	**139,700**	**838,000**	**120**	**1,633,000**	**2,643,300**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-83	GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97
Sample Number:		GC-SED-83(0-2)	GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)
Sample Depth:		0-2	11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9
Sample Date:		1/30/2006	1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4,5-trichlorophenol	ug/kg	32,000 U	31,000 U	33,000 U	24,000 U	160,000 U	130,000 U	96,000 U	50,000 U	86,000 U	410,000 U	90,000 U	120,000 UJ	2,200,000 UJ	55,000 U	50,000 U	16,000 U	33,000 U	1,200,000 U
2,4,6-trichlorophenol	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2,4-dichlorophenol	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2,4-dimethylphenol	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2,4-dinitrophenol	ug/kg	32,000 U	31,000 U	33,000 U	24,000 U	160,000 U	130,000 U	96,000 U	50,000 U	86,000 U	410,000 U	90,000 U	120,000 UJ	2,200,000 UJ	55,000 U	50,000 U	16,000 U	33,000 U	1,200,000 U
2,4-dinitrotoluene	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2,6-dinitrotoluene	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2-chloronaphthalene	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2-chlorophenol	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2-methylnaphthalene	ug/kg	6,600 U	**9,500**	**1,700 J**	**1,500 J**	**140,000**	**15,000 J**	**10,000 J**	**4,400 J**	**81,000**	**53,000 J**	**27,000**	**4,400 J**	460,000 UJ	**8,100 J**	**96,000**	**610 J**	**3,500 J**	**970,000**
2-methylphenol (o-cresol)	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	88,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
2-nitroaniline	ug/kg	32,000 U	31,000 U	33,000 U	24,000 U	160,000 U	130,000 U	96,000 U	50,000 U	86,000 U	410,000 U	90,000 U	120,000 UJ	2,200,000 UJ	55,000 U	50,000 U	16,000 U	33,000 U	1,200,000 U
2-nitrophenol	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
3,3'-dichlorobenzidine	ug/kg	13,000 U	13,000 U	14,000 U	9,800 U	66,000 U	54,000 U	40,000 U	21,000 U	35,000 U	170,000 U	37,000 U	49,000 UJ	930,000 UJ	23,000 U	21,000 U	6,600 U	14,000 U	510,000 U
3-nitroaniline	ug/kg	32,000 U	31,000 U	33,000 U	24,000 U	160,000 U	130,000 U	96,000 U	50,000 U	86,000 U	410,000 U	90,000 U	120,000 UJ	2,200,000 UJ	55,000 U	50,000 U	16,000 U	33,000 U	1,200,000 U
4,6-dinitro-2-methylphenol	ug/kg	32,000 U	31,000 U	33,000 U	24,000 U	160,000 U	130,000 U	96,000 U	50,000 U	86,000 U	410,000 U	90,000 U	120,000 UJ	2,200,000 UJ	55,000 U	50,000 U	16,000 U	33,000 U	1,200,000 U
4-bromophenyl phenyl ether	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
4-chloro-3-methylphenol	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
4-chloroaniline	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	**8,800 J**	20,000 U	10,000 U	**9,100 J**	84,000 U	19,000 U	24,000 UJ	460,000 UJ	**4,800 J**	10,000 U	3,300 U	**2,400 J**	250,000 U
4-chlorophenyl phenyl ether	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
4-methylphenol (p-cresol)	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
4-nitroaniline	ug/kg	13,000 U	13,000 U	14,000 U	9,800 U	66,000 U	54,000 U	40,000 U	21,000 U	35,000 U	170,000 U	37,000 U	49,000 UJ	930,000 UJ	23,000 U	21,000 U	6,600 U	14,000 U	510,000 U
4-nitrophenol	ug/kg	32,000 U	31,000 U	33,000 U	24,000 U	160,000 U	130,000 U	96,000 U	50,000 U	86,000 U	410,000 U	90,000 U	120,000 UJ	2,200,000 UJ	55,000 U	50,000 U	16,000 U	33,000 U	1,200,000 U
Acenaphthene	ug/kg	**2,300 J**	**13,000**	**5,100 J**	**5,600 J**	**93,000**	**34,000**	**32,000**	**38,000**	**80,000**	**210,000**	**59,000**	**26,000 J**	460,000 UJ	**58,000**	**68,000**	**1,200 J**	**19,000**	**430,000**
Acenaphthylene	ug/kg	**2,400 J**	**4,100 J**	**4,100 J**	**4,300 J**	**34,000**	**32,000**	**23,000**	**18,000**	**36,000**	**78,000 J**	**17,000 J**	**18,000 J**	460,000 UJ	**46,000**	**12,000**	**1,500 J**	**15,000**	**89,000 J**
Anthracene	ug/kg	**4,400 J**	**12,000**	**9,000**	**9,500**	**120,000**	**63,000**	**51,000**	**46,000**	**66,000**	**250,000**	**49,000**	**34,000 J**	460,000 UJ	**74,000**	**36,000**	**2,500 J**	**30,000 J**	**230,000 J**
Benzo(a)anthracene	ug/kg	**9,800**	**14,000**	**15,000**	**15,000**	**100,000**	**61,000**	**67,000**	**50,000**	**54,000**	**170,000**	**47,000**	**46,000 J**	**68,000 J**	**88,000**	**26,000**	**5,500**	**36,000**	**200,000 J**
Benzo(a)pyrene	ug/kg	**7,900**	**9,700**	**13,000**	**12,000**	**71,000**	**53,000**	**40,000 J**	**34,000**	**40,000**	**140,000**	**29,000**	**32,000 J**	460,000 UJ	**55,000**	**18,000**	**4,500**	**29,000**	**110,000 J**
Benzo(b)fluoranthene	ug/kg	**6,800**	**7,900**	**13,000**	**10,000**	**63,000**	**40,000**	**33,000 J**	**26,000**	**31,000**	**100,000**	**29,000**	**29,000 J**	460,000 UJ	**42,000**	**11,000**	**4,800**	**22,000**	**130,000 J**
Benzo(g,h,i)perylene	ug/kg	**5,900 J**	**5,900 J**	**5,400 J**	**3,300 J**	**31,000 J**	**34,000 J**	**21,000 J**	**24,000 J**	**18,000**	**61,000 J**	**9,700 J**	**14,000 J**	460,000 UJ	**33,000**	**8,900 J**	**2,100 J**	**12,000**	250,000 U
Benzo(k)fluoranthene	ug/kg	**2,800 J**	**2,700 J**	**3,700 J**	**3,000 J**	**26,000 J**	**26,000 J**	**16,000 J**	**12,000**	**11,000 J**	**40,000 J**	**8,800 J**	**10,000 J**	460,000 UJ	**13,000**	**5,800 J**	**1,600 J**	**6,900**	250,000 U
Benzyl butyl phthalate	ug/kg	6,600 U	6,300 U	**1,800 J**	**2,500 J**	33,000 U	**7,800 J**	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	**4,300 J**	460,000 UJ	11,000 U	10,000 U	**11,000**	**3,000 J**	250,000 U
Bis(2-chloroethoxy) methane	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Bis(2-chloroethyl) ether	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**15,000**	**28,000**	**58,000**	**65,000**	**89,000**	**220,000**	**120,000**	**49,000**	**170,000**	**71,000 J**	**80,000**	**180,000 J**	**2,800,000 J**	**100,000**	**53,000**	**50,000**	**91,000**	250,000 U
Carbazole	ug/kg	6,600 U	6,300 U	6,900 U	**730 J**	**5,500 J**	27,000 U	**3,000 J**	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	**1,100 J**	250,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-83	GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97
Sample Number:		GC-SED-83(0-2)	GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)
Sample Depth:		0-2	11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9
Sample Date:		1/30/2006	1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Chrysene	ug/kg	**11,000**	**16,000**	**17,000**	**16,000**	**110,000**	**63,000**	**58,000**	**48,000**	**61,000**	**190,000**	**48,000**	**52,000 J**	**70,000 J**	**75,000**	**24,000**	**6,200**	**36,000 J**	**210,000 J**
Dibenz(a,h)anthracene	ug/kg	**1,400 J**	**1,500 J**	**1,400 J**	**1,200 J**	**7,700 J**	**8,900 J**	**8,500 J**	**6,300 J**	**5,700 J**	**16,000 J**	19,000 U	**3,700 J**	460,000 UJ	**9,700 J**	**2,100 J**	**640 J**	**3,700 J**	250,000 U
Dibenzofuran	ug/kg	6,600 U	**1,800 J**	6,900 U	4,900 U	**11,000 J**	**4,300 J**	**5,200 J**	**2,900 J**	**6,200 J**	**17,000 J**	19,000 U	24,000 UJ	460,000 UJ	**5,000 J**	**4,100 J**	3,300 U	**1,800 J**	250,000 U
Diethyl phthalate	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	**9,600 J**	**170,000 J**	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Dimethyl phthalate	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Di-n-butyl phthalate	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Di-n-octylphthalate	ug/kg	6,600 U	6,300 U	**2,100 J**	**2,100 J**	33,000 U	**11,000 J**	20,000 U	10,000 U	**6,700 J**	84,000 U	**4,000 J**	**9,700 J**	460,000 UJ	**9,100 J**	**1,300 J**	**880 J**	**3,500 J**	250,000 U
Fluoranthene	ug/kg	**15,000**	**20,000**	**30,000**	**29,000**	**180,000**	**110,000**	**75,000**	**66,000**	**93,000**	**290,000**	**72,000**	**82,000 J**	**90,000 J**	**88,000**	**45,000**	**9,700**	**49,000**	**290,000**
Fluorene	ug/kg	**980 J**	**7,600**	**1,600 J**	**1,200 J**	**66,000 J**	**25,000 J**	**26,000**	**13,000**	**48,000**	**56,000 J**	**28,000**	24,000 UJ	460,000 UJ	**12,000**	**38,000**	3,300 U	**9,000**	**270,000**
Hexachlorobenzene	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Hexachlorobutadiene	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Hexachlorocyclopentadiene	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Hexachloroethane	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**5,000 J**	**4,700 J**	**4,800 J**	**3,400 J**	**27,000 J**	**28,000**	**17,000 J**	**14,000**	**16,000 J**	**55,000 J**	**9,900 J**	**13,000 J**	460,000 UJ	**28,000**	**7,000 J**	**2,100 J**	**11,000**	250,000 U
Isophorone	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Naphthalene	ug/kg	**1,700 J**	**18,000**	**3,200 J**	**2,800 J**	**110,000**	**18,000 J**	**19,000 J**	**21,000**	**100,000**	**100,000**	**77,000**	**12,000 J**	460,000 UJ	**29,000**	**140,000**	**1,200 J**	**6,200 J**	**1,300,000**
Nitrobenzene	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
N-nitrosodi-n-propylamine	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
N-nitrosodiphenylamine	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Pentachlorophenol	ug/kg	32,000 U	31,000 U	33,000 U	24,000 U	160,000 U	130,000 U	96,000 U	50,000 U	86,000 U	410,000 U	90,000 U	120,000 UJ	2,200,000 UJ	55,000 U	50,000 U	16,000 U	33,000 U	1,200,000 U
Phenanthrene	ug/kg	**4,400 J**	**31,000**	**14,000**	**4,500 J**	**400,000**	**150,000**	**99,000**	**59,000**	**160,000**	**650,000**	**120,000**	**29,000 J**	**110,000 J**	**140,000**	**110,000**	**3,000 J**	**46,000 J**	**670,000**
Phenol	ug/kg	6,600 U	6,300 U	6,900 U	4,900 U	33,000 U	27,000 U	20,000 U	10,000 U	18,000 U	84,000 U	19,000 U	24,000 UJ	460,000 UJ	11,000 U	10,000 U	3,300 U	6,800 U	250,000 U
Pyrene	ug/kg	**18,000**	**33,000**	**41,000**	**41,000**	**280,000**	**130,000**	**91,000**	**97,000**	**120,000**	**400,000**	**120,000**	**140,000 J**	**170,000 J**	**150,000**	**49,000**	**15,000**	**57,000**	**260,000**
Total PAHs	ug/kg	**99,780**	**210,600**	**183,000**	**163,300**	**1,858,700**	**890,900**	**686,500**	**576,700**	**1,020,700**	**2,859,000**	**750,400**	**545,100**	**508,000**	**948,800**	**696,800**	**62,150**	**391,300**	**5,159,000**

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-98	GC-SED-98	GC-SED-99B	GC-SED-99B
Sample Number:		GC-SED-98(1-2)	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
Sample Depth:		1-2	8.5-9.5	3.5-4.5	7.2-8.7
Sample Date:		1/27/2006	1/27/2006	12/22/2005	12/22/2005
Sample Type:		N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**			
2,4,5-trichlorophenol	ug/kg	37,000 U	6,300,000 U	530,000 U	4,100,000 U
2,4,6-trichlorophenol	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2,4-dichlorophenol	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2,4-dimethylphenol	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2,4-dinitrophenol	ug/kg	37,000 U	6,300,000 U	530,000 U	4,100,000 U
2,4-dinitrotoluene	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2,6-dinitrotoluene	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2-chloronaphthalene	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2-chlorophenol	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2-methylnaphthalene	ug/kg	**1,800 J**	**6,400,000**	**740,000**	**5,800,000**
2-methylphenol (o-cresol)	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
2-nitroaniline	ug/kg	37,000 U	6,300,000 U	530,000 U	4,100,000 U
2-nitrophenol	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
3,3'-dichlorobenzidine	ug/kg	15,000 U	2,600,000 U	220,000 U	1,700,000 U
3-nitroaniline	ug/kg	37,000 U	6,300,000 U	530,000 U	4,100,000 U
4,6-dinitro-2-methylphenol	ug/kg	37,000 U	6,300,000 U	530,000 U	4,100,000 U
4-bromophenyl phenyl ether	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
4-chloro-3-methylphenol	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
4-chloroaniline	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
4-chlorophenyl phenyl ether	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
4-methylphenol (p-cresol)	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
4-nitroaniline	ug/kg	15,000 U	2,600,000 U	220,000 U	1,700,000 U
4-nitrophenol	ug/kg	37,000 U	6,300,000 U	530,000 U	4,100,000 U
Acenaphthene	ug/kg	**19,000**	**2,900,000**	**360,000**	**2,400,000**
Acenaphthylene	ug/kg	**11,000**	**230,000 J**	**110,000 J**	**440,000 J**
Anthracene	ug/kg	**23,000**	**1,200,000 J**	**310,000**	**1,100,000**
Benzo(a)anthracene	ug/kg	**29,000**	**520,000 J**	**200,000**	**630,000 J**
Benzo(a)pyrene	ug/kg	**25,000**	**310,000 J**	**160,000**	**440,000 J**
Benzo(b)fluoranthene	ug/kg	**19,000**	1,300,000 U	**67,000 J**	**300,000 J**
Benzo(g,h,i)perylene	ug/kg	**11,000**	1,300,000 U	**98,000 J**	**140,000 J**
Benzo(k)fluoranthene	ug/kg	**5,400 J**	1,300,000 U	**81,000 J**	860,000 U
Benzyl butyl phthalate	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Bis(2-chloroethoxy) methane	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Bis(2-chloroethyl) ether	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**58,000**	1,300,000 U	**16,000 J**	860,000 U
Carbazole	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U

TABLE I-9A
SVOC Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-SED-98**	**GC-SED-98**	**GC-SED-99B**	**GC-SED-99B**
Sample Number:		**GC-SED-98(1-2)**	**GC-SED-98(8.5-9.5)**	**GC-SED-99(3.5-4.5)**	**GC-SED-99(7.2-8.7)**
Sample Depth:		**1-2**	**8.5-9.5**	**3.5-4.5**	**7.2-8.7**
Sample Date:		**1/27/2006**	**1/27/2006**	**12/22/2005**	**12/22/2005**
Sample Type:		**N**	**N**	**N**	**N**
Parameter	**Units**	**Semi-Volatile Organic Compounds**			
Chrysene	ug/kg	**29,000**	**530,000 J**	**240,000**	**700,000 J**
Dibenz(a,h)anthracene	ug/kg	**3,400 J**	1,300,000 U	**26,000 J**	860,000 U
Dibenzofuran	ug/kg	7,500 U	1,300,000 U	**39,000 J**	**140,000 J**
Diethyl phthalate	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Dimethyl phthalate	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Di-n-butyl phthalate	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 UJ
Di-n-octylphthalate	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Fluoranthene	ug/kg	**42,000**	**880,000 J**	**340,000**	**1,000,000**
Fluorene	ug/kg	7,500 U	**1,500,000**	**240,000**	**1,100,000**
Hexachlorobenzene	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Hexachlorobutadiene	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Hexachlorocyclopentadiene	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Hexachloroethane	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**9,800**	1,300,000 U	**77,000 J**	**120,000 J**
Isophorone	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Naphthalene	ug/kg	**3,500 J**	**12,000,000**	**810,000**	**9,300,000**
Nitrobenzene	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
N-nitrosodi-n-propylamine	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
N-nitrosodiphenylamine	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Pentachlorophenol	ug/kg	37,000 U	6,300,000 U	530,000 U	4,100,000 U
Phenanthrene	ug/kg	**15,000**	**3,600,000**	**880,000**	**3,500,000**
Phenol	ug/kg	7,500 U	1,300,000 U	110,000 U	860,000 U
Pyrene	ug/kg	**42,000**	**1,500,000**	**500,000**	**1,800,000**
Total PAHs	ug/kg	**288,900**	**31,570,000**	**5,239,000**	**28,770,000**

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125
Sample Number:	GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01
Sample Depth:	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10
Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	7,100 (R)	3,100 J (R)	13,000 (R)	6,100 J (R)	48,000 J (A,R)	1,500,000 J (A,R)	2,100,000 J (A,R)	1,700,000 J (A,R)	4,500 J (R)	15,000 (R)	13,000 (R)	13,000 (R)	66,000 (A,R)	66,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	8,500 (R)	3,500 J (R)	13,000 (R)	7,000 J (R)	160,000 (R)	1,000,000 (A,R)	1,200,000 J (A,R)	970,000 J (A,R)	4,400 J (R)	11,000 (R)	11,000 (R)	8,600 J (R)	57,000 (R)	53,000 (R)
Acenaphthylene	ug/kg	2,300 J (R)		2,200 J (R)		18,000 J (R)	120,000 (R)	140,000 (R)	73,000 (R)		1,700 J (R)	1,900 J (R)		8,400 J (R)	4,000 J (R)
Acetophenone	ug/kg		1,100 J	1,800 J	1,500 J										
Anthracene	ug/kg	8,500 (R)	2,200 J (R)	14,000 (R)	6,000 J (R)	110,000 (R)	580,000 (R)	620,000 J (R)	670,000 J (R)	2,700 J (R)	9,400 (R)	11,000 (R)	11,000 (R)	94,000 (R)	42,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	7,700 (A,R)	1,500 J (A,R)	14,000 (A,R)	11,000 (A,R)	76,000 (A,R)	300,000 (A,R)	270,000 (A,R)	220,000 (A,R)	2,800 J (A,R)	7,700 J (A,R)	10,000 (A,R)	13,000 (A,R)	140,000 (A,R)	51,000 (A,R)
Benzo(a)pyrene	ug/kg	5,800 J (A,R)		12,000 (A,R)	9,100 (A,R)	58,000 J (A,R)	220,000 (A,R)	210,000 (A,R)	160,000 (A,R)	2,600 J (A,R)	5,700 J (A,R)	8,000 J (A,R)	11,000 (A,R)	120,000 (A,R)	35,000 (A,R)
Benzo(b)fluoranthene	ug/kg	3,500 J (A)		9,700 (A,R)	8,700 (A,R)	32,000 J (A,R)	94,000 (A,R)	110,000 (A,R)	100,000 (A,R)	2,500 J (A)	4,200 J (A)	5,700 J (A,R)	11,000 (A,R)	120,000 (A,R)	24,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	2,400 J (R)		6,500 J (R)	5,200 J (R)	21,000 J (R)	73,000 J (R)	60,000 (R)	47,000 (R)	1,500 J (R)	2,800 J (R)	3,800 J (R)	5,600 J (R)	68,000 (R)	19,000 (R)
Benzo(k)fluoranthene	ug/kg	3,800 J (A)		11,000 (A,R)	8,900 (A,R)	44,000 J (A,R)	150,000 (A,R)	120,000 (A,R)	90,000 (A,R)	2,200 J (A)	4,300 J (A)	7,100 J (A,R)	9,400 J (A,R)	95,000 (A,R)	27,000 (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg				1,300 J	28,000 J	200,000	190,000	120,000						
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg		10,000 (R)	52,000 (A,R)								270,000 J (A,R)			
*Carbazole	ug/kg			2,200 J	2,900 J		20,000 J	21,000	13,000 J				2,500 J	41,000	7,500 J
Chrysene	ug/kg	7,600 (R)	1,600 J (R)	16,000 (A,R)	11,000 (R)	77,000 (A,R)	280,000 (A,R)	250,000 (A,R)	210,000 (A,R)	3,200 J (R)	8,300 J (R)	11,000 (R)	15,000 (R)	130,000 (A,R)	57,000 (A,R)
Dibenz(a,h)anthracene	ug/kg			2,000 J (A,R)	1,500 J (A,R)		22,000 J (A,R)	22,000 (A,R)	19,000 J (A,R)					20,000 J (A,R)	6,600 J (A,R)
Dibenzofuran	ug/kg			3,000 J (R)	2,800 J (R)	12,000 J (A,R)	140,000 (A,R)	59,000 (A,R)	46,000 (A,R)			1,600 J (R)	3,100 J (R)	26,000 J (A,R)	9,700 J (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg	1,200 J (R)	1,400 J (R)								19,000 (R)	6,500 J (R)			
Fluoranthene	ug/kg	15,000 (R)	4,400 J (R)	40,000 (R)	31,000 (R)	150,000 (R)	620,000 (A,R)	690,000 J (A,R)	630,000 J (A,R)	7,300 (R)	19,000 (R)	23,000 (R)	37,000 (R)	360,000 (A,R)	110,000 (R)
Fluorene	ug/kg	3,600 J (R)	1,300 J (R)	9,800 (R)	5,000 J (R)	86,000 (R)	580,000 (A,R)	590,000 J (A,R)	540,000 J (A,R)	2,400 J (R)	7,000 J (R)	6,900 J (R)	6,800 J (R)	53,000 (R)	32,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	2,300 J (A,R)		7,700 J (A,R)	6,600 J (A,R)	26,000 J (A,R)	84,000 (A,R)	68,000 (A,R)	56,000 (A,R)	1,700 J (A,R)	2,700 J (A,R)	3,900 J (A,R)	6,500 J (A,R)	83,000 (A,R)	22,000 (A,R)
Naphthalene	ug/kg	7,700 (A,R)	3,700 J (A,R)	12,000 (A,R)	11,000 (A,R)	88,000 (A,R)	3,400,000 J (A,R)	4,500,000 J (A,R)	2,400,000 J (A,R)	5,400 J (A,R)	10,000 (A,R)	3,000 J (R)	7,600 J (A,R)	51,000 (A,R)	29,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	21,000 (R)	6,100 J (R)	48,000 (R)	26,000 (R)	370,000 (R)	2,000,000 J (A,R)	2,100,000 J (A,R)	1,900,000 J (A,R)	11,000 (R)	35,000 (R)	36,000 (R)	46,000 (R)	380,000 (R)	170,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	19,000 (R)	4,700 J (R)	38,000 (R)	22,000 (R)	190,000 (A,R)	810,000 (A,R)	920,000 J (A,R)	810,000 J (A,R)	7,600 (R)	21,000 (R)	26,000 (R)	34,000 (R)	280,000 (A,R)	130,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125
	Sample Number:	GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01
	Sample Depth:	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10
	Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	125,800 (R)	32,100 (R)	268,900 (R)	176,100 (R)	1,554,000 (R)	11,833,000 (R)	13,970,000 (R)	10,595,000 (R)	61,800 (R)	164,800 (R)	181,300 (R)	235,500 (R)	2,125,400 (R)	877,600 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD126	GC-SD126	GC-SD126	GC-SD126	GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108
Sample Number:	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	D-03042010-01	GC-SD126-04.0-06.0	GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0
Sample Depth:	0-2	2-4	2-4	4-6	6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8
Sample Date:	3/4/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg		22,000 (R)	26,000 (R)	48,000 (A,R)	13,000 (R)	50,000 (A,R)	19,000 (R)	100,000 (A,R)	2,300,000 (A,R)	7,300 J (R)	42,000 (A,R)	170,000 (A,R)	68,000 (A,R)	14,000 (R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg								1,200 J (R)						
Acenaphthene	ug/kg		30,000 (R)	33,000 (R)	55,000 (R)	16,000 (R)	43,000 (R)	19,000 (R)	91,000 (R)	1,300,000 (A,R)	19,000 (R)	71,000 (R)	140,000 (R)	80,000 (R)	27,000 (R)
Acenaphthylene	ug/kg	3,000 J (R)	4,700 J (R)	5,200 J (R)	4,900 J (R)	2,600 J (R)	7,100 J (R)	2,200 J (R)	12,000 J (R)	41,000 J (R)	3,300 J (R)	9,700 (R)	17,000 J (R)	9,900 J (R)	5,400 J (R)
Acetophenone	ug/kg										2,500 J	2,100 J			1,500 J
Anthracene	ug/kg	2,500 J (R)	22,000 (R)	24,000 (R)	30,000 (R)	12,000 (R)	29,000 (R)	9,900 J (R)	95,000 (R)	570,000 (R)	16,000 (R)	53,000 (R)	81,000 (R)	47,000 J (R)	29,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	9,100 J (A,R)	18,000 (A,R)	19,000 (A,R)	21,000 J (A,R)	10,000 (A,R)	21,000 (A,R)	11,000 (A,R)	71,000 (A,R)	290,000 J (A,R)	11,000 J (A,R)	37,000 (A,R)	57,000 (A,R)	36,000 (A,R)	24,000 (A,R)
Benzo(a)pyrene	ug/kg	8,100 J (A,R)	15,000 (A,R)	15,000 (A,R)	17,000 (A,R)	8,400 (A,R)	18,000 (A,R)		52,000 (A,R)		8,900 J (A,R)	30,000 (A,R)	47,000 (A,R)	28,000 (A,R)	18,000 (A,R)
Benzo(b)fluoranthene	ug/kg	6,300 J (A,R)	8,800 J (A,R)	8,900 J (A,R)	12,000 (A,R)	5,700 J (A,R)	14,000 (A,R)		48,000 (A,R)		3,900 J (A)	17,000 (A,R)	25,000 J (A,R)	17,000 (A,R)	11,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	3,700 J (R)	6,500 J (R)	6,700 J (R)	7,400 J (R)	3,600 J (R)	10,000 J (R)	5,000 J (R)	27,000 J (R)	110,000 J (R)	3,800 J (R)	12,000 J (R)	6,100 J (R)	13,000 J (R)	8,200 J (R)
Benzo(k)fluoranthene	ug/kg	6,000 J (A,R)	11,000 J (A,R)	11,000 J (A,R)	11,000 (A,R)	6,500 J (A,R)					6,000 J (A,R)	19,000 (A,R)	36,000 (A,R)	21,000 (A,R)	14,000 (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg		2,400 J	3,100 J			2,800 J	660 J	2,200 J	230,000 J (A)	2,300 J	9,500 J	24,000 J	13,000	
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	7,700 J (R)	46,000 (A,R)	42,000 (A,R)	16,000 (R)	72,000 (A,R)		53,000 (A,R)			22,000 (R)	56,000 (A,R)	93,000 (A,R)	110,000 (A,R)	24,000 (R)
*Carbazole	ug/kg						970 J	760 J	5,200 J	22,000 J				2,600 J	
Chrysene	ug/kg	10,000 J (R)	19,000 (A,R)	20,000 (A,R)	21,000 J (A,R)	12,000 (R)	22,000 (A,R)	9,500 J (R)	67,000 (A,R)	270,000 J (A,R)	11,000 J (R)	35,000 (A,R)	57,000 (A,R)	36,000 (A,R)	25,000 (A,R)
Dibenz(a,h)anthracene	ug/kg		1,900 J (A,R)		2,200 J (A,R)		1,800 J (A,R)	1,400 J (A,R)	6,000 J (A,R)			3,400 J (A,R)	4,800 J (A,R)	4,100 J (A,R)	2,400 J (A,R)
Dibenzofuran	ug/kg		2,200 J (R)	2,100 J (R)	2,900 J (R)	2,100 J (R)	2,900 J (R)	1,500 J (R)	9,600 J (A,R)	62,000 J (A,R)		4,600 J (R)	9,400 J (A,R)	6,000 J (R)	2,300 J (R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg				1,700 J (R)	9,100 (R)							20,000 J (R)	38,000 (A,R)	7,100 J (R)
Fluoranthene	ug/kg	14,000 (R)	41,000 (R)	41,000 (R)	42,000 J (R)	23,000 (R)	37,000 (R)	18,000 (R)	120,000 (R)	540,000 (A,R)	25,000 (R)	77,000 (R)	150,000 (R)	69,000 J (R)	47,000 (R)
Fluorene	ug/kg		15,000 (R)	17,000 (R)	23,000 (R)	8,000 J (R)	19,000 (R)	8,100 J (R)	58,000 (R)	530,000 (A,R)	6,800 J (R)	29,000 (R)	61,000 (R)	31,000 (R)	16,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	4,000 J (A,R)	6,900 J (A,R)	7,100 J (A,R)	8,200 (A,R)	4,000 J (A,R)	9,500 J (A,R)	5,300 J (A,R)	26,000 J (A,R)	98,000 J (A,R)	3,800 J (A,R)	13,000 J (A,R)	21,000 J (A,R)	16,000 J (A,R)	9,900 J (A,R)
Naphthalene	ug/kg		26,000 (A,R)	31,000 (A,R)	71,000 (A,R)	8,000 J (A,R)	22,000 (A,R)			3,900,000 (A,R)	17,000 (A,R)	73,000 (A,R)	220,000 (A,R)	100,000 (A,R)	14,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	5,500 J (R)	73,000 (R)	76,000 (R)	89,000 (R)	42,000 (R)	87,000 (R)	36,000 (R)	260,000 (R)	1,700,000 (R)	40,000 (R)	130,000 (R)	250,000 (R)	130,000 J (R)	71,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	19,000 (R)	52,000 (R)	54,000 (R)	58,000 J (R)	29,000 (R)	62,000 (R)	25,000 (R)	180,000 (A,R)	970,000 (A,R)	29,000 (R)	97,000 (R)	150,000 (R)	93,000 (R)	61,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD126	GC-SD126	GC-SD126	GC-SD126	GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108
	Sample Number:	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	D-03042010-01	GC-SD126-04.0-06.0	GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0
	Sample Depth:	0-2	2-4	2-4	4-6	6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8
	Sample Date:	3/4/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	91,200 (R)	372,800 (R)	394,900 (R)	520,700 (R)	203,800 (R)	452,400 (R)	169,400 (R)	1,213,000 (R)	12,619,000 (R)	211,800 (R)	748,100 (R)	1,492,900 (R)	799,000 (R)	396,900 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148
Sample Number:	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0	GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0
Sample Depth:	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4	4-6	6-6.6	0-2	2-3.1	0-2	2-4
Sample Date:	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	6,000 J (R)	3,400 J (R)	1,800 J (R)	35,000 (A,R)	2,200 J (R)	44,000 (A,R)	26 J	2,400 J (R)	48,000 (A,R)	81,000 (A,R)	1,100 J (R)	23,000 (R)	16 J	41,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg						1,800 J (R)	47 J						28 J	1,600 J (R)
Acenaphthene	ug/kg	7,900 J (R)	13,000 J (R)	11,000 (R)	37,000 (R)	7,600 J (R)	330,000 (R)	180 J (R)	14,000 (R)	130,000 (R)	230,000 (R)	7,000 J (R)	34,000 (R)	110 J (R)	87,000 (R)
Acenaphthylene	ug/kg	3,400 J (R)	2,900 J (R)	990 J (R)	4,200 J (R)	3,200 J (R)	14,000 J (R)	190 J (R)	3,500 J (R)	10,000 J (R)	19,000 J (R)	1,400 J (R)	6,500 J (R)	120 J (R)	8,500 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	7,900 J (R)	10,000 J (R)	5,400 (R)	19,000 (R)	6,200 J (R)	260,000 (R)	220 J (R)	12,000 J (R)	39,000 (R)	150,000 (R)	5,800 J (R)	41,000 (R)	140 J (R)	60,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	10,000 J (A,R)	9,900 J (A,R)	4,700 J (A,R)	16,000 (A,R)	12,000 (A,R)	81,000 J (A,R)	630 (A,R)	14,000 (A,R)	37,000 J (A,R)	59,000 J (A,R)		38,000 (A,R)	300 J (A,R)	48,000 (A,R)
Benzo(a)pyrene	ug/kg	8,200 J (A,R)	7,700 J (A,R)		12,000 (A,R)	11,000 (A,R)	45,000 (A,R)	690 (A,R)	15,000 (A,R)			4,300 J (A,R)	31,000 (A,R)		35,000 (A,R)
Benzo(b)fluoranthene	ug/kg	4,500 J (A)	5,100 J (A,R)			4,500 J (A)	22,000 J (A,R)					1,700 J (A)	15,000 J (A,R)		30,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	3,600 J (R)	3,600 J (R)	2,400 J (R)	7,500 J (R)	2,900 J (R)	10,000 J (R)	190 J	6,700 J (R)	8,300 J (R)	32,000 J (R)	2,100 J (R)	7,400 J (R)	140 J	17,000 J (R)
Benzo(k)fluoranthene	ug/kg	6,300 J (A,R)	5,100 J (A,R)			5,600 J (A,R)	29,000 J (A,R)					2,500 J (A)	18,000 J (A,R)		
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg			810 J	2,000 J	580 J	12,000 J	16 J	600 J	10,000 J	28,000 J	400 J	800 J		2,700 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	23,000 J (R)	25,000 (R)			15,000 (R)	2,200 J (R)					8,000 J (R)	120,000 (A,R)		
*Carbazole	ug/kg				960 J		2,300 J								
Chrysene	ug/kg	10,000 J (R)	11,000 J (R)	4,800 J (R)	15,000 (R)	15,000 (R)	84,000 J (A,R)	770 (R)	23,000 J (A,R)	41,000 J (A,R)	58,000 J (A,R)		43,000 (A,R)	470 (R)	48,000 (A,R)
Dibenz(a,h)anthracene	ug/kg				2,200 J (A,R)	1,400 J (A,R)	4,900 J (A,R)	51 J (A)	2,000 J (A,R)	2,200 J (A,R)	11,000 J (A,R)	650 J (A,R)	1,900 J (A,R)		4,300 J (A,R)
Dibenzofuran	ug/kg			620 J (R)	2,500 J (R)	460 J (R)	6,700 J (R)	31 J		5,100 J (R)	12,000 J (A,R)	480 J (R)	2,900 J (R)		6,100 J (R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg												7,300 J (R)		
Fluoranthene	ug/kg	18,000 J (R)	20,000 (R)	9,400 (R)	30,000 (R)	20,000 (R)	220,000 J (R)	820 (R)	41,000 (R)	66,000 J (R)	140,000 (R)	8,100 J (R)	100,000 (R)	530	84,000 (R)
Fluorene	ug/kg	3,700 J (R)		3,400 J (R)	15,000 (R)	2,100 J (R)	57,000 (R)	72 J (R)	3,200 J (R)	24,000 J (R)	77,000 (R)	2,800 J (R)	12,000 J (R)	38 J (R)	37,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	3,400 J (A,R)	3,300 J (A,R)	1,700 J (A,R)	6,300 J (A,R)	3,600 J (A,R)	12,000 J (A,R)	140 J	5,200 J (A,R)	6,700 J (A,R)	25,000 J (A,R)	1,500 J (A,R)	5,900 J (A,R)	110 J	18,000 J (A,R)
Naphthalene	ug/kg	15,000 J (A,R)	18,000 (A,R)		19,000 (A,R)	7,800 J (A,R)	140,000 (A,R)			80,000 (A,R)	130,000 (A,R)	4,100 J (A,R)	18,000 J (A,R)		31,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	24,000 J (R)	21,000 (R)	20,000 (R)	60,000 (R)	10,000 (R)	320,000 (R)	440 J (R)	23,000 (R)	160,000 (R)	540,000 (R)	16,000 (R)	150,000 (R)	230 J	160,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	24,000 J (R)	27,000 (R)	16,000 (R)	37,000 (R)	34,000 (R)	260,000 J (A,R)	1,200 (R)	61,000 (R)	100,000 J (R)	230,000 (A,R)	12,000 J (R)	110,000 (R)	550	130,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148
Sample Number:		GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0	GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0
Sample Depth:		0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4	4-6	6-6.6	0-2	2-3.1	0-2	2-4
Sample Date:		3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	**155,900 (R)**	**161,000 (R)**	**81,590 (R)**	**315,200 (R)**	**149,100 (R)**	**1,932,900 (R)**	**5,619 (R)**	**226,000 (R)**	**752,200 (R)**	**1,782,000 (R)**	**71,050 (R)**	**654,700 (R)**	2,754	**838,800 (R)**

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD129
Sample Number:	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0	GC-SD129-06.0-06.5
Sample Depth:	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	4-6	0-2	2-2.5	0-2	2-4	4-6	6-6.5
Sample Date:	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	590,000 (A,R)	4,200 J (R)				26,000 (R)	4,200,000 J (A,R)	5,000,000 J (A,R)	3,900 J (R)	110,000 (A,R)	2,800 J (R)	210,000 (A,R)	3,800,000 (A,R)	920,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	1,100,000 (A,R)	44,000 (R)	160,000 (R)	130,000 (R)	6,200 J (R)	30,000 (R)	2,600,000 J (A,R)	2,800,000 J (A,R)	14,000 (R)	79,000 (R)	11,000 J (R)	130,000 (R)	2,100,000 (A,R)	580,000 (A,R)
Acenaphthylene	ug/kg	50,000 J (R)	2,500 J (R)	12,000 (R)	10,000 (R)	3,600 J (R)	8,000 J (R)	120,000 (R)	130,000 (R)	6,700 J (R)	43,000 (R)	2,700 J (R)	12,000 J (R)	98,000 J (R)	32,000 J (R)
Acetophenone	ug/kg										5,600 J				
Anthracene	ug/kg	860,000 (R)	9,300 J (R)	31,000 (R)	24,000 (R)	8,500 J (R)	41,000 (R)	2,000,000 J (A,R)	2,200,000 J (A,R)	22,000 (R)	110,000 (R)	17,000 (R)	98,000 (R)	1,100,000 (R)	320,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	330,000 (A,R)	13,000 J (A,R)	44,000 (A,R)	45,000 (A,R)	14,000 (A,R)	36,000 (A,R)	630,000 (A,R)	640,000 (A,R)	25,000 (A,R)	280,000 (A,R)	25,000 (A,R)	72,000 (A,R)	590,000 (A,R)	190,000 (A,R)
Benzo(a)pyrene	ug/kg	230,000 (A,R)	11,000 J (A,R)	34,000 (A,R)	33,000 (A,R)	12,000 (A,R)	28,000 (A,R)	410,000 (A,R)	420,000 (A,R)	20,000 (A,R)	240,000 (A,R)	17,000 (A,R)	48,000 (A,R)	420,000 (A,R)	
Benzo(b)fluoranthene	ug/kg		7,700 J (A,R)	18,000 (A,R)	18,000 (A,R)	7,500 J (A,R)	20,000 (A,R)	250,000 (A,R)	200,000 (A,R)	11,000 J (A,R)	220,000 (A,R)	19,000 (A,R)	44,000 (A,R)		
Benzo(g,h,i)perylene	ug/kg	87,000 J (R)	4,100 J (R)	12,000 (R)	11,000 (R)	5,600 J (R)	9,800 J (R)	100,000 (R)	95,000 J (R)	8,800 J (R)	90,000 (R)	11,000 J (R)	24,000 J (R)	190,000 J (A,R)	50,000 J (R)
Benzo(k)fluoranthene	ug/kg		6,000 J (A,R)	25,000 (A,R)	21,000 (A,R)	8,600 J (A,R)	17,000 (A,R)	250,000 (A,R)	280,000 (A,R)	15,000 (A,R)	190,000 (A,R)				
Benzyl butyl phthalate	ug/kg			2,000 J						2,000 J	4,100 J				
Biphenyl (diphenyl)	ug/kg	58,000 J		3,800 J	6,600 J		4,000 J	380,000 (A)	380,000 (A)			760 J	21,000 J	360,000 J (A)	120,000 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg		32,000 (R)	78,000 (A,R)	45,000 (A,R)	36,000 (A,R)	89,000 (A,R)			68,000 (A,R)	170,000 (A,R)	60,000 (A,R)			
*Carbazole	ug/kg							28,000 J	31,000 J			2,500 J	2,400 J	25,000 J	8,100 J
Chrysene	ug/kg	280,000 (A,R)	14,000 J (R)	44,000 (A,R)	42,000 (A,R)	15,000 (R)	36,000 (A,R)	590,000 (A,R)	640,000 (A,R)	26,000 (A,R)	250,000 (A,R)	27,000 (A,R)	73,000 (A,R)	610,000 (A,R)	180,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	25,000 J (A,R)		4,400 J (A,R)	3,200 J (A,R)		2,900 J (A,R)	50,000 J (A,R)	36,000 J (A,R)	2,500 J (A,R)	37,000 (A,R)	2,200 J (A,R)	6,700 J (A,R)	63,000 J (A,R)	15,000 J (A,R)
Dibenzofuran	ug/kg	62,000 J (A,R)		7,400 J (R)	6,400 J (R)		2,900 J (R)	160,000 (A,R)	120,000 (A,R)		6,600 J (R)	2,000 J (R)	10,000 J (A,R)	100,000 J (A,R)	37,000 J (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg			2,800 J (R)						4,900 J (R)	18,000 J (R)				
Fluoranthene	ug/kg	620,000 (A,R)	23,000 (R)	92,000 (R)	100,000 (R)	25,000 (R)	63,000 (R)	1,300,000 J (A,R)	1,200,000 (A,R)	42,000 (R)	260,000 (A,R)	50,000 (R)	120,000 (R)	960,000 (A,R)	320,000 (A,R)
Fluorene	ug/kg	590,000 (A,R)	2,600 J (R)	9,800 J (R)	10,000 (R)		18,000 (R)	1,400,000 J (A,R)	1,400,000 (A,R)	6,400 J (R)	43,000 (R)	5,700 J (R)	75,000 (R)	1,000,000 (A,R)	330,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	85,000 J (A,R)	4,900 J (A,R)	15,000 (A,R)	13,000 (A,R)	5,900 J (A,R)	11,000 J (A,R)	140,000 (A,R)	130,000 (A,R)	9,800 J (A,R)	140,000 (A,R)	10,000 J (A,R)	23,000 J (A,R)	150,000 J (A,R)	54,000 J (A,R)
Naphthalene	ug/kg	640,000 (A,R)	5,500 J (A,R)	2,400 J (R)	2,500 J (R)		22,000 (A,R)	4,200,000 J (A,R)	5,300,000 J (A,R)	3,100 J (R)	190,000 (A,R)		200,000 (A,R)	4,000,000 (A,R)	1,200,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	2,000,000 (A,R)	18,000 (R)	18,000 (R)	7,200 J (R)	5,900 J (R)	98,000 (R)	4,300,000 J (A,R)	4,800,000 J (A,R)	48,000 (R)	220,000 (R)	45,000 (R)	290,000 (R)	3,300,000 (A,R)	990,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	840,000 (A,R)	31,000 (R)	130,000 (R)	110,000 (R)	31,000 (R)	90,000 (R)	1,700,000 J (A,R)	1,900,000 J (A,R)	55,000 (R)	250,000 (A,R)	60,000 (R)	190,000 (A,R)	1,800,000 (A,R)	470,000 (A,R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD129
	Sample Number:	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0	GC-SD129-06.0-06.5
	Sample Depth:	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	4-6	0-2	2-2.5	0-2	2-4	4-6	6-6.5
	Sample Date:	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	Units	Semi-Volatile Organic Compounds													
Total PAHs	ug/kg	8,327,000 (R)	200,800 (R)	651,600 (R)	579,900 (R)	148,800 (R)	556,700 (R)	24,240,000 (R)	27,171,000 (R)	319,200 (R)	2,752,000 (R)	305,400 (R)	1,615,700 (R)	20,181,000 (R)	5,651,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113
Sample Number:	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0
Sample Depth:	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9
Sample Date:	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	18,000 (R)	22,000 J (R)	26,000 (R)	45,000 (A,R)	170,000 (A,R)		2,000 J (R)	3,000 J (R)	7,500 J (R)	29,000 (R)	38,000 (A,R)	84,000 (A,R)	2,000,000 (A,R)	3,400,000 J (A,R)
4-chloroaniline	ug/kg			2,700 J (A)											
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	31,000 (R)	38,000 (R)	31,000 (R)	36,000 (R)	94,000 (R)		7,000 J (R)	7,400 J (R)	9,600 J (R)	22,000 (R)	35,000 (R)	62,000 (R)	1,100,000 (A,R)	1,800,000 J (A,R)
Acenaphthylene	ug/kg	33,000 (R)	17,000 J (R)	12,000 (R)	16,000 (R)	19,000 J (R)		3,200 J (R)	2,800 J (R)	4,400 J (R)	10,000 (R)	8,700 J (R)	8,400 J (R)	61,000 J (R)	77,000 J (R)
Acetophenone	ug/kg								1,800 J		2,200 J				
Anthracene	ug/kg	66,000 (R)	63,000 (R)	51,000 (R)	62,000 (R)	99,000 (R)		13,000 (R)	15,000 (R)	15,000 (R)	33,000 J (R)	34,000 J (R)	40,000 (R)	720,000 (R)	710,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	120,000 (A,R)	66,000 (A,R)	41,000 (A,R)	69,000 (A,R)	80,000 (A,R)	2,800 J (A,R)	32,000 (A,R)	20,000 (A,R)	20,000 (A,R)	35,000 (A,R)	36,000 (A,R)	30,000 (A,R)	270,000 (A,R)	340,000 (A,R)
Benzo(a)pyrene	ug/kg	83,000 (A,R)	44,000 (A,R)	31,000 (A,R)	45,000 (A,R)	48,000 (A,R)	2,100 J (A,R)	31,000 (A,R)	13,000 (A,R)	14,000 (A,R)	24,000 (A,R)	26,000 (A,R)	20,000 (A,R)	160,000 J (A,R)	210,000 (A,R)
Benzo(b)fluoranthene	ug/kg	54,000 (A,R)	27,000 (A,R)	15,000 (A,R)	32,000 (A,R)	27,000 J (A,R)	1,500 J (A)	30,000 (A,R)	11,000 (A,R)	10,000 (A,R)	16,000 (A,R)	18,000 (A,R)	12,000 J (A,R)	76,000 J (A,R)	100,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	40,000 (R)	21,000 J (R)	14,000 J (R)	23,000 (R)	21,000 J (R)	1,100 J (R)	17,000 (R)	6,700 J (R)	6,300 J (R)	12,000 (R)	14,000 (R)	7,300 J (R)	59,000 J (R)	61,000 J (R)
Benzo(k)fluoranthene	ug/kg	53,000 (A,R)	30,000 (A,R)	23,000 (A,R)	29,000 (A,R)	31,000 J (A,R)	1,700 J (A)	30,000 (A,R)	9,600 (A,R)	10,000 (A,R)	16,000 (A,R)	16,000 (A,R)	13,000 J (A,R)	110,000 J (A,R)	140,000 (A,R)
Benzyl butyl phthalate	ug/kg	4,500 J		3,400 J	2,200 J			3,900 J		1,600 J	2,100 J	2,600 J			
Biphenyl (diphenyl)	ug/kg	3,100 J	4,800 J	4,500 J	5,700 J	18,000 J				1,400 J	3,500 J	5,800 J	11,000 J	170,000 J	260,000 (A)
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	140,000 (A,R)	250,000 (A,R)	110,000 (A,R)	120,000 (A,R)	8,300 J (R)	13,000 (R)	11,000 (R)	16,000 (R)	57,000 (A,R)	84,000 (A,R)	71,000 (A,R)	40,000 (A,R)		
*Carbazole	ug/kg							1,300 J	1,600 J						26,000 J
Chrysene	ug/kg	110,000 (A,R)	66,000 (A,R)	41,000 (A,R)	67,000 (A,R)	83,000 (A,R)	2,800 J (R)	33,000 (A,R)	18,000 (A,R)	21,000 (A,R)	36,000 (A,R)	37,000 (A,R)	33,000 (A,R)	270,000 (A,R)	300,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	14,000 (A,R)	6,900 J (A,R)	4,400 J (A,R)	8,300 J (A,R)	7,500 J (A,R)		8,300 (A,R)	2,200 J (A,R)	2,000 J (A,R)	4,100 J (A,R)	5,000 J (A,R)	2,600 J (A,R)		21,000 J (A,R)
Dibenzofuran	ug/kg	2,800 J (R)	4,100 J (R)	3,200 J (R)	4,500 J (R)	7,100 J (R)		1,400 J (R)	1,900 J (R)		2,100 J (R)	3,000 J (R)	5,400 J (R)	68,000 J (A,R)	86,000 (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg	13,000 (R)		9,600 J (R)							7,000 J (R)	6,600 J (R)			
Fluoranthene	ug/kg	130,000 (R)	110,000 (R)	74,000 (R)	100,000 (R)	140,000 (R)	5,800 J (R)	39,000 (R)	36,000 (R)	37,000 (R)	56,000 J (R)	54,000 J (R)	56,000 (R)	690,000 (A,R)	720,000 (A,R)
Fluorene	ug/kg	22,000 (R)	29,000 (R)	22,000 (R)	34,000 (R)	73,000 (R)		2,300 J (R)	3,900 J (R)	6,500 J (R)	18,000 (R)	25,000 (R)	36,000 (R)	500,000 (A,R)	870,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	55,000 (A,R)	24,000 J (A,R)	14,000 J (A,R)	27,000 (A,R)	23,000 J (A,R)	1,400 J (A,R)	25,000 (A,R)	8,300 (A,R)	7,500 J (A,R)	14,000 (A,R)	17,000 (A,R)	8,800 J (A,R)	69,000 J (A,R)	87,000 (A,R)
Naphthalene	ug/kg	12,000 J (A,R)	18,000 J (A,R)	14,000 (A,R)	24,000 (A,R)	110,000 (A,R)		6,800 J (A,R)	11,000 (A,R)	7,400 J (A,R)	20,000 (A,R)	69,000 (A,R)	160,000 (A,R)	2,500,000 (A,R)	4,200,000 J (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	120,000 (R)	150,000 (R)	110,000 (R)	150,000 (R)	270,000 (R)	1,200 J (R)	19,000 (R)	22,000 (R)	39,000 (R)	78,000 J (R)	84,000 J (R)	120,000 (R)	1,500,000 (R)	2,300,000 J (A,R)
Phenol	ug/kg														
Pyrene	ug/kg	170,000 (R)	140,000 (R)	93,000 (R)	130,000 (R)	160,000 (R)	7,000 (R)	46,000 (R)	42,000 (R)	44,000 (R)	66,000 (R)	63,000 (R)	76,000 (R)	670,000 (A,R)	830,000 (A,R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113
	Sample Number:	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0
	Sample Depth:	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9
	Sample Date:	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
	Sample Type:	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N
Parameter	Units	Semi-Volatile Organic Compounds													
Total PAHs	ug/kg	1,131,000 (R)	871,900 (R)	616,400 (R)	897,300 (R)	1,455,500 (R)	27,400 (R)	344,600 (R)	231,900 (R)	261,200 (R)	489,100 (R)	579,700 (R)	769,100 (R)	10,755,000 (R)	16,166,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD37B	GC-SD37B	GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115
Sample Number:	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9	GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5
Sample Depth:	0-0.5	1.4-1.9	2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5
Sample Date:	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	FD	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg										400 J (R)				
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	2,000 J (R)	4,800 J (R)	1,700,000 (A,R)	2,200,000 (A,R)	2,000,000 (A,R)	1,900 (R)	25,000 (R)	160,000 (A,R)	7,400 J (R)	14,000 (R)	140,000 (A,R)	190,000 (A,R)	1,600,000 (A,R)	540,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg									110 J					
4-methylphenol (p-cresol)	ug/kg						150 J	500 J		240 J	410 J	650 J			
Acenaphthene	ug/kg	19,000 (R)	33,000 (R)	840,000 (A,R)	960,000 (A,R)	740,000 (A,R)	7,200 (R)	25,000 (R)	120,000 (R)	8,600 J (R)	9,800 (R)	59,000 (R)	79,000 (R)	800,000 (A,R)	410,000 (A,R)
Acenaphthylene	ug/kg	6,300 J (R)	7,500 J (R)	48,000 J (R)	150,000 J (R)	130,000 J (R)	1,600 J (R)	3,300 J (R)	23,000 J (R)	2,400 J (R)	2,500 J (R)	12,000 (R)	18,000 J (R)	82,000 J (R)	110,000 J (R)
Acetophenone	ug/kg						210 J	650 J	4,800 J	360 J	360 J				9,200 J
Anthracene	ug/kg	26,000 (R)	37,000 (R)	390,000 (R)	530,000 (R)	360,000 (R)	8,500 J (R)	24,000 J (R)	110,000 (R)	11,000 J (R)	11,000 (R)	52,000 (R)	83,000 (R)	540,000 (R)	420,000 (R)
Benzaldehyde	ug/kg									480 J					
Benzo(a)anthracene	ug/kg	23,000 (A,R)	37,000 (A,R)	170,000 J (A,R)	400,000 (A,R)	290,000 (A,R)	6,000 (A,R)	16,000 (A,R)	66,000 (A,R)	10,000 J (A,R)	9,700 (A,R)	40,000 (A,R)	59,000 (A,R)	310,000 (A,R)	270,000 (A,R)
Benzo(a)pyrene	ug/kg	17,000 (A,R)	27,000 (A,R)		270,000 (A,R)	190,000 (A,R)	4,500 (A,R)	9,600 (A,R)	50,000 (A,R)	7,000 J (A,R)	6,300 (A,R)	27,000 (A,R)	37,000 J (A,R)	200,000 (A,R)	180,000 (A,R)
Benzo(b)fluoranthene	ug/kg		24,000 (A,R)			170,000 (A,R)	4,100 (A)	8,500 (A,R)	41,000 J (A,R)	6,100 J (A,R)	5,100 (A,R)	24,000 (A,R)	30,000 J (A,R)	170,000 (A,R)	140,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	8,300 J (R)	15,000 J (R)	52,000 J (R)	130,000 J (R)	89,000 J (R)	2,200 (R)	5,100 (R)	19,000 J (R)	4,000 J (R)	3,700 J (R)	12,000 (R)	20,000 J (R)	110,000 J (R)	76,000 J (R)
Benzo(k)fluoranthene	ug/kg						1,300 J	3,200 J (A)	12,000 J (A,R)	2,000 J (A)	2,100 J (A)	5,600 J (A,R)	13,000 J (A,R)	53,000 J (A,R)	52,000 J (A,R)
Benzyl butyl phthalate	ug/kg									600 J	790 J	3,500 J	4,000 J	22,000 J (R)	
Biphenyl (diphenyl)	ug/kg	1,500 J	1,200 J	130,000 J	200,000 J	170,000	370 J	2,800 J	17,000 J	990 J	1,500 J	9,500 J	12,000 J	110,000 J	62,000 J
Bis(2-chloroethoxy) methane	ug/kg						58 J								
Bis(2-ethylhexyl) phthalate	ug/kg						8,800 (R)	40,000 (A,R)	72,000 (A,R)	26,000 J (R)	54,000 (A,R)	85,000 (A,R)	210,000 (A,R)		
*Carbazole	ug/kg			16,000 J	23,000 J	16,000 J		360 J	3,800 J	230 J	320 J	1,500 J	5,400 J	18,000 J	9,000 J
Chrysene	ug/kg	23,000 (A,R)	32,000 (A,R)	170,000 J (A,R)	450,000 (A,R)	300,000 (A,R)	6,600 (R)	17,000 (A,R)	72,000 (A,R)	11,000 J (R)	11,000 (R)	42,000 (A,R)	68,000 (A,R)	320,000 (A,R)	270,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	2,200 J (A,R)	3,500 J (A,R)	22,000 J (A,R)		33,000 J (A,R)	610 J (A,R)	1,200 J (A,R)	9,100 J (A,R)	1,000 J (A,R)	1,100 J (A,R)	4,300 J (A,R)	7,000 J (A,R)	37,000 J (A,R)	34,000 J (A,R)
Dibenzofuran	ug/kg	1,600 J (R)	1,600 J (R)	59,000 J (A,R)	72,000 J (A,R)	64,000 J (A,R)	570 J (R)	2,200 J (R)	11,000 J (A,R)	1,000 J (R)	1,100 J (R)	6,200 J (R)	8,800 J (A,R)	54,000 J (A,R)	39,000 J (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg						390 J	2,300 J (R)		1,500 J (R)	3,900 J (R)	5,200 J (R)	6,600 J (R)		
Fluoranthene	ug/kg	32,000 (R)	48,000 (R)	330,000 (A,R)	570,000 (A,R)	400,000 (A,R)	10,000 (R)	29,000 (R)	130,000 (R)	14,000 J (R)	15,000 (R)	65,000 (R)	100,000 (R)	500,000 (A,R)	400,000 (A,R)
Fluorene	ug/kg	9,500 J (R)	8,400 (R)	460,000 (A,R)	680,000 (A,R)	560,000 (A,R)	2,600 (R)	17,000 (R)	91,000 (R)	5,300 J (R)	8,000 (R)	46,000 (R)	57,000 (R)	470,000 (A,R)	250,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	7,600 J (A,R)	12,000 (A,R)	49,000 J (A,R)	110,000 J (A,R)	83,000 J (A,R)	2,300 (A,R)	4,600 (A,R)	24,000 J (A,R)	3,800 J (A,R)	3,600 J (A,R)	13,000 (A,R)	18,000 J (A,R)	81,000 J (A,R)	86,000 J (A,R)
Naphthalene	ug/kg			2,400,000 (A,R)	2,700,000 (A,R)	2,400,000 (A,R)	4,600 (A,R)	35,000 (A,R)	260,000 (A,R)	11,000 J (A,R)	16,000 (A,R)	150,000 (A,R)	310,000 (A,R)	2,200,000 (A,R)	590,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	60,000 (R)	48,000 (R)	1,100,000 (R)	1,900,000 (A,R)	1,300,000 (R)	15,000 (R)	62,000 (R)	300,000 (R)	25,000 J (R)	31,000 (R)	160,000 (R)	240,000 (R)	1,500,000 (R)	940,000 (R)
Phenol	ug/kg						82 J	170 J		99 J					
Pyrene	ug/kg	48,000 (R)	70,000 (R)	480,000 (A,R)	960,000 (A,R)	590,000 (A,R)	15,000 J (R)	44,000 J (R)	180,000 (A,R)	25,000 J (R)	24,000 (R)	93,000 (R)	150,000 (R)	750,000 (A,R)	610,000 (A,R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD37B	GC-SD37B	GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115
	Sample Number:	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9	GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5
	Sample Depth:	0-0.5	1.4-1.9	2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5
	Sample Date:	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	283,900 (R)	407,200 (R)	8,211,000 (R)	12,010,000 (R)	9,635,000 (R)	94,010 (R)	329,500 (R)	1,667,100 (R)	154,600 (R)	173,900 (R)	944,900 (R)	1,479,000 (R)	9,723,000 (R)	5,378,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119
Sample Number:	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01
Sample Depth:	0-2	2-4	2-4	4-6	6-7	0-1.3	0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8
Sample Date:	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg					26,000 J (A)									
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	20,000 (R)	1,400,000 (A,R)	1,400,000 (A,R)	2,500,000 (A,R)	2,000,000 (A,R)	360,000 (A,R)	32,000 (A,R)	1,200,000 (A,R)	1,500,000 (A,R)	880,000 (A,R)	390,000 (A,R)	180,000 (A,R)	460,000 (A,R)	810,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	27,000 (R)	310,000 (R)	330,000 (R)	910,000 (A,R)	770,000 (A,R)	190,000 (R)	42,000 (R)	860,000 (A,R)	1,300,000 (A,R)	540,000 (A,R)	200,000 (R)	91,000 (R)	260,000 (R)	420,000 (A,R)
Acenaphthylene	ug/kg	6,100 J (R)	340,000 (R)	340,000 (R)	340,000 (R)	160,000 J (R)	33,000 J (R)	14,000 (R)	65,000 J (R)	50,000 J (R)	60,000 J (R)	77,000 J (R)	18,000 J (R)	35,000 J (R)	55,000 J (R)
Acetophenone	ug/kg	1,200 J						1,000 J							
Anthracene	ug/kg	24,000 (R)	360,000 (R)	370,000 (R)	630,000 (R)	500,000 (R)	130,000 (R)	39,000 (R)	590,000 (R)	760,000 (R)	350,000 (R)	200,000 (R)	66,000 (R)	190,000 (R)	310,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	21,000 (A,R)	240,000 (A,R)	230,000 (A,R)	300,000 (A,R)	240,000 J (A,R)	66,000 (A,R)	40,000 (A,R)	280,000 (A,R)	400,000 J (A,R)	280,000 (A,R)	220,000 (A,R)	45,000 (A,R)	110,000 (A,R)	170,000 (A,R)
Benzo(a)pyrene	ug/kg	15,000 (A,R)	160,000 J (A,R)	160,000 J (A,R)	190,000 J (A,R)	160,000 J (A,R)	44,000 J (A,R)	29,000 (A,R)	180,000 J (A,R)	260,000 J (A,R)	190,000 (A,R)	190,000 (A,R)	33,000 (A,R)	76,000 (A,R)	110,000 (A,R)
Benzo(b)fluoranthene	ug/kg	7,900 J (A,R)	72,000 J (A,R)	68,000 J (A,R)	81,000 J (A,R)	66,000 J (A,R)	42,000 J (A,R)	15,000 (A,R)	96,000 J (A,R)	120,000 J (A,R)	170,000 (A,R)	84,000 J (A,R)	15,000 J (A,R)	35,000 J (A,R)	48,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	4,500 J (R)	68,000 J (R)	66,000 J (R)	79,000 J (R)		17,000 J (R)	9,900 J (R)	65,000 J (R)	86,000 J (R)	92,000 J (R)	93,000 J (R)	15,000 J (R)	23,000 J (R)	43,000 J (R)
Benzo(k)fluoranthene	ug/kg	9,800 (A,R)	110,000 J (A,R)	110,000 J (A,R)	140,000 J (A,R)	100,000 J (A,R)	6,900 J (A,R)	19,000 (A,R)	110,000 J (A,R)	150,000 J (A,R)	54,000 J (A,R)	120,000 (A,R)	21,000 J (A,R)	54,000 J (A,R)	69,000 J (A,R)
Benzyl butyl phthalate	ug/kg											15,000 J (R)			
Biphenyl (diphenyl)	ug/kg	2,000 J	96,000 J	94,000 J	160,000 J	120,000 J	24,000 J	3,400 J	100,000 J	130,000 J	85,000 J	44,000 J	17,000 J	38,000 J	63,000 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	14,000 (R)						30,000 (R)							
*Carbazole	ug/kg	550 J	12,000 J	15,000 J	22,000 J	18,000 J	3,500 J	1,000 J			12,000 J	7,500 J		3,900 J	5,900 J
Chrysene	ug/kg	24,000 (A,R)	270,000 (A,R)	250,000 (A,R)	330,000 (A,R)	260,000 J (A,R)	73,000 (A,R)	44,000 (A,R)	320,000 (A,R)	360,000 J (A,R)	270,000 (A,R)	250,000 (A,R)	47,000 (A,R)	110,000 (A,R)	170,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	1,800 J (A,R)		27,000 J (A,R)				3,400 J (A,R)			36,000 J (A,R)	25,000 J (A,R)	4,700 J (A,R)	8,800 J (A,R)	16,000 J (A,R)
Dibenzofuran	ug/kg		51,000 J (A,R)	54,000 J (A,R)	74,000 J (A,R)	54,000 J (A,R)	12,000 J (A,R)	4,300 J (R)	43,000 J (A,R)	60,000 J (A,R)	56,000 J (A,R)	40,000 J (A,R)	10,000 J (A,R)	19,000 J (A,R)	33,000 J (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg												15,000 J (R)		
Fluoranthene	ug/kg	33,000 (R)	350,000 (A,R)	350,000 (A,R)	490,000 (A,R)	360,000 J (A,R)	110,000 (R)	65,000 (R)	450,000 (A,R)	730,000 (A,R)	430,000 (A,R)	300,000 (A,R)	75,000 (R)	190,000 (R)	300,000 (A,R)
Fluorene	ug/kg	7,800 J (R)	370,000 (A,R)	360,000 (A,R)	610,000 (A,R)	460,000 (A,R)	120,000 (R)	15,000 (R)	360,000 (A,R)	530,000 J (A,R)	360,000 (A,R)	180,000 (R)	53,000 (R)	170,000 (R)	230,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	4,300 J (A,R)	53,000 J (A,R)	55,000 J (A,R)	68,000 J (A,R)		18,000 J (A,R)	8,200 J (A,R)	56,000 J (A,R)	70,000 J (A,R)	86,000 J (A,R)	67,000 J (A,R)	10,000 J (A,R)	20,000 J (A,R)	40,000 J (A,R)
Naphthalene	ug/kg	38,000 (A,R)	1,800,000 (A,R)	1,800,000 (A,R)	3,400,000 (A,R)	2,900,000 (A,R)	270,000 (A,R)	64,000 (A,R)	2,200,000 (A,R)	3,700,000 (A,R)	1,400,000 (A,R)	420,000 (A,R)	170,000 (A,R)	440,000 (A,R)	840,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	44,000 (R)	1,200,000 (R)	1,200,000 (R)	1,800,000 (A,R)	1,400,000 (R)	330,000 (R)	84,000 (R)	1,500,000 (R)	2,300,000 (A,R)	1,300,000 (R)	720,000 (R)	220,000 (R)	590,000 (R)	960,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	55,000 (R)	660,000 (A,R)	630,000 (A,R)	880,000 (A,R)	650,000 (A,R)	180,000 (A,R)	100,000 (R)	820,000 (A,R)	1,300,000 (A,R)	620,000 (A,R)	580,000 (A,R)	140,000 (R)	330,000 (A,R)	500,000 (A,R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119
	Sample Number:	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01
	Sample Depth:	0-2	2-4	2-4	4-6	6-7	0-1.3	0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8
	Sample Date:	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD
Parameter	Units	Semi-Volatile Organic Compounds													
Total PAHs	ug/kg	343,200 (R)	7,763,000 (R)	7,746,000 (R)	12,748,000 (R)	10,026,000 (R)	1,989,900 (R)	623,500 (R)	9,152,000 (R)	13,616,000 (R)	7,118,000 (R)	4,116,000 (R)	1,203,700 (R)	3,101,800 (R)	5,091,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133	GC-SD134	GC-SD134	GC-SD134
Sample Number:	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4
Sample Depth:	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8	0-2	2-4	4-4.4
Sample Date:	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	3,800,000 (A,R)	370,000 (A,R)	140,000 (A,R)	39,000 (A,R)	1,000,000 J (A,R)	1,000,000 J (A,R)	1,100,000 (A,R)	14,000 (R)	2,300 J (R)	330,000 (A,R)	470,000 (A,R)	24,000 (R)	980,000 (A,R)	2,100,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg								870 J (R)						
Acenaphthene	ug/kg	1,800,000 (A,R)	210,000 (R)	92,000 (R)	47,000 (R)	510,000 J (A,R)	500,000 J (A,R)	570,000 (A,R)	20,000 (R)	4,700 J (R)	190,000 (R)	680,000 (A,R)	17,000 (R)	470,000 (A,R)	1,100,000 (A,R)
Acenaphthylene	ug/kg	250,000 J (R)	15,000 J (R)	7,200 J (R)	13,000 (R)	47,000 (R)	36,000 (R)	51,000 J (R)	2,300 J (R)	2,200 J (R)	18,000 J (R)	20,000 J (R)	3,300 J (R)	43,000 J (R)	70,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	980,000 (R)	91,000 (R)	44,000 (R)	57,000 (R)	210,000 J (R)	360,000 J (R)	270,000 (R)	12,000 (R)	6,100 J (R)	83,000 (R)	170,000 J (R)	13,000 J (R)	230,000 (R)	540,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	420,000 (A,R)	50,000 (A,R)	25,000 (A,R)	35,000 (A,R)	110,000 (A,R)	110,000 (A,R)	150,000 (A,R)	15,000 (A,R)	15,000 J (A,R)	70,000 (A,R)	160,000 J (A,R)	11,000 (A,R)	130,000 J (A,R)	190,000 J (A,R)
Benzo(a)pyrene	ug/kg	290,000 J (A,R)	34,000 J (A,R)	17,000 J (A,R)	27,000 (A,R)	81,000 (A,R)	69,000 (A,R)	110,000 J (A,R)	9,100 (A,R)	10,000 J (A,R)	30,000 J (A,R)	53,000 J (A,R)	12,000 (A,R)	110,000 J (A,R)	170,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	110,000 J (A,R)	13,000 J (A,R)	6,600 J (A,R)	12,000 (A,R)	32,000 (A,R)	21,000 (A,R)	41,000 J (A,R)	10,000 (A,R)	11,000 J (A,R)	16,000 J (A,R)	80,000 J (A,R)	5,600 J (A,R)	45,000 J (A,R)	69,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	100,000 J (R)	13,000 J (R)	7,000 J (R)	9,800 (R)	21,000 (R)	20,000 (R)	42,000 J (R)	4,700 J (R)	3,400 J (R)			4,900 J (R)	51,000 J (R)	73,000 J (R)
Benzo(k)fluoranthene	ug/kg	220,000 J (A,R)	24,000 J (A,R)	12,000 J (A,R)	14,000 (A,R)	46,000 (A,R)	41,000 (A,R)	68,000 J (A,R)	2,000 J (A)	3,300 J (A)	27,000 J (A,R)	26,000 J (A,R)	8,300 (A,R)	47,000 J (A,R)	120,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	240,000 J (A)	23,000 J	9,600 J	5,300 J	150,000 J	130,000	69,000 J	2,600 J	550 J	42,000 J	120,000 J	3,100 J	100,000 J	210,000 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg								45,000 (A,R)	29,000 (R)	16,000 J (R)	24,000 J (R)	21,000 (R)	13,000 J (R)	
*Carbazole	ug/kg	29,000 J	3,000 J	1,200 J		6,100 J	7,000 J	9,600 J	2,000 J		9,200 J	57,000 J	630 J	12,000 J	20,000 J
Chrysene	ug/kg	410,000 (A,R)	49,000 (A,R)	24,000 (A,R)	41,000 J (A,R)	100,000 J (A,R)	97,000 J (A,R)	160,000 (A,R)	14,000 (R)	15,000 J (R)	82,000 (A,R)	110,000 J (A,R)	16,000 (A,R)	140,000 J (A,R)	200,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	41,000 J (A,R)	4,400 J (A,R)	1,800 J (A,R)	3,600 J (A,R)	6,800 J (A,R)	6,800 J (A,R)	14,000 J (A,R)	1,300 J (A,R)	1,800 J (A,R)			1,500 J (A,R)		22,000 J (A,R)
Dibenzofuran	ug/kg	99,000 J (A,R)	11,000 J (A,R)	5,200 J (R)	2,400 J (R)	34,000 (A,R)	29,000 (A,R)		11,000 (A,R)	900 J (R)	51,000 J (A,R)	430,000 (A,R)	1,500 J (R)	33,000 J (A,R)	60,000 J (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg												9,200		
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg								7,400 J (R)	2,000 J (R)			3,600 J (R)		
Fluoranthene	ug/kg	720,000 (A,R)	85,000 (R)	43,000 (R)	80,000 (R)	160,000 J (R)	340,000 J (A,R)	260,000 (A,R)	42,000 (R)	25,000 (R)	160,000 (R)	710,000 (A,R)	27,000 (R)	240,000 (A,R)	390,000 (A,R)
Fluorene	ug/kg	920,000 (A,R)	89,000 (R)	43,000 (R)	11,000 (R)	210,000 J (R)	410,000 J (A,R)	280,000 (A,R)	15,000 (R)	1,700 J (R)	100,000 (R)	520,000 (A,R)	7,200 J (R)	190,000 (R)	430,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	94,000 J (A,R)	12,000 J (A,R)	6,000 J (A,R)	7,600 (A,R)	17,000 (A,R)	17,000 (A,R)	32,000 J (A,R)	3,900 J (A,R)	7,100 J (A,R)	15,000 J (A,R)	38,000 J (A,R)	3,900 J (A,R)	40,000 J (A,R)	58,000 J (A,R)
Naphthalene	ug/kg	5,300,000 (A,R)	410,000 (A,R)	80,000 (A,R)	70,000 (A,R)	1,800,000 J (A,R)	1,800,000 J (A,R)	1,500,000 (A,R)	18,000 (A,R)	5,400 J (A,R)	440,000 (A,R)	900,000 (A,R)	27,000 (A,R)	1,400,000 (A,R)	3,400,000 (A,R)
N-nitrosodiphenylamine	ug/kg								5,900 J				3,600 J		
Phenanthrene	ug/kg	2,800,000 (A,R)	310,000 (R)	150,000 (R)	98,000 J (R)	760,000 J (R)	730,000 J (R)	940,000 (R)	58,000 J (R)	6,900 J (R)	560,000 (R)	1,400,000 J (R)	37,000 J (R)	990,000 (R)	1,900,000 (A,R)
Phenol	ug/kg								620 J (R)	1,000 J (R)			290 J		
Pyrene	ug/kg	1,400,000 (A,R)	160,000 (R)	77,000 (R)	100,000 J (R)	270,000 J (A,R)	350,000 J (A,R)	470,000 (A,R)	40,000 (R)	30,000 (R)	200,000 (A,R)	540,000 (A,R)	50,000 (R)	380,000 (A,R)	680,000 (A,R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133	GC-SD134	GC-SD134	GC-SD134
	Sample Number:	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4
	Sample Depth:	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8	0-2	2-4	4-4.4
	Sample Date:	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	19,655,000 (R)	1,939,400 (R)	775,600 (R)	665,000 (R)	5,380,800 (R)	5,907,800 (R)	6,058,000 (R)	281,300 (R)	150,900 (R)	2,321,000 (R)	5,877,000 (R)	268,700 (R)	5,486,000 (R)	11,512,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
Sample Number:	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0
Sample Depth:	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2
Sample Date:	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	3,300 J (R)	34,000 (A,R)	2,100 J (R)	3,700 J (R)	19,000 (R)	46,000 (A,R)	130,000 (A,R)	13,000 (R)	2,700 J (R)	150 J (R)	260 J (R)	740 J (R)	57,000 (A,R)	420 (R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg		1,300 J (R)		380 J	530 J	770 J (R)				30 J				18 J
Acenaphthene	ug/kg	11,000 (R)	36,000 (R)	4,900 J (R)	4,500 J (R)	11,000 J (R)	27,000 (R)	53,000 (R)	8,400 J (R)	7,500 (R)	390 J (R)	1,300 J (R)	1,900 J (R)	89,000 (R)	430 (R)
Acenaphthylene	ug/kg	2,400 J (R)	5,800 J (R)	2,500 J (R)	2,200 J (R)	7,200 J (R)	9,000 J (R)	15,000 J (R)	1,900 J (R)	440 J (R)	780 (R)	410 J (R)	470 J (R)	9,200 J (R)	120 J (R)
Acetophenone	ug/kg			2,200 J				4,100 J	990 J						
Anthracene	ug/kg	6,400 J (R)	32,000 (R)	7,800 J (R)	8,400 J (R)	25,000 (R)	45,000 (R)	39,000 (R)	6,300 J (R)	5,200 J (R)	880 J (R)	1,200 J (R)	1,500 J (R)	67,000 (R)	440 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	8,400 J (A,R)	23,000 (A,R)	17,000 (A,R)	7,500 J (A,R)	28,000 (A,R)	37,000 (A,R)	44,000 (A,R)	7,800 J (A,R)	2,000 J (A,R)	2,700 (A,R)	1,400 J (A,R)	1,300 J (A,R)	52,000 J (A,R)	540 (A,R)
Benzo(a)pyrene	ug/kg	8,100 J (A,R)	19,000 (A,R)	13,000 (A,R)	9,300 (A,R)	23,000 (A,R)	37,000 (A,R)	22,000 (A,R)	5,500 J (A,R)	1,800 J (A,R)	2,700 (A,R)				620 (A,R)
Benzo(b)fluoranthene	ug/kg	3,500 J (A)	10,000 J (A,R)	7,000 J (A,R)	3,800 J (A)	12,000 J (A,R)	19,000 J (A,R)	24,000 (A,R)	4,000 J (A)	940 J (A)	1,300 (A)				360 (A)
Benzo(g,h,i)perylene	ug/kg	3,600 J (R)	8,000 J (R)	4,200 J (R)	3,100 J (R)	8,400 J (R)	14,000 J (R)	16,000 J (R)	3,100 J (R)	1,100 J (R)	740 J (R)	720 J (R)	510 J		260
Benzo(k)fluoranthene	ug/kg	5,600 J (A,R)	14,000 J (A,R)	9,300 (A,R)	6,900 J (A,R)	15,000 J (A,R)	26,000 (A,R)	17,000 J (A,R)	4,600 J (A)	1,200 J	1,500				440
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	2,000 J	6,000 J	380 J	820 J	3,200 J	7,200 J	12,000 J	860 J	950 J	35 J			13,000 J	64 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	9,900 (R)	24,000 (R)	52,000 (A,R)	37,000 (A,R)	75,000 (A,R)	73,000 (A,R)	56,000 (A,R)	2,900 J (R)	3,800 J (R)			16,000 (R)		
*Carbazole	ug/kg	690 J	2,500 J			900 J		1,900 J	360 J	1,100 J	40 J			3,100 J	26 J
Chrysene	ug/kg	9,700 (R)	27,000 (A,R)	20,000 (A,R)	13,000 (R)	39,000 (A,R)	63,000 (A,R)	42,000 (A,R)	8,800 (R)	1,900 J (R)	3,100 (R)	2,000 J (R)	2,200 J (R)	64,000 J (A,R)	670 J (R)
Dibenz(a,h)anthracene	ug/kg	1,200 J (A,R)	2,000 J (A,R)	980 J (A,R)		2,500 J (A,R)		14,000 J (A,R)			340 J (A,R)	220 J (A,R)		4,000 J (A,R)	75 J (A,R)
Dibenzofuran	ug/kg	1,500 J (R)	6,200 J (R)		550 J (R)		4,700 J (R)	5,600 J (R)	710 J (R)	4,000 J (R)	63 J	410 J (R)	330 J (R)	15,000 J (A,R)	48 J
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg			7,200 J (R)	4,600 J (R)	13,000 J (R)		8,600 J (R)							
Fluoranthene	ug/kg	20,000 (R)	52,000 (R)	46,000 (R)	15,000 (R)	46,000 (R)	71,000 (R)	58,000 (R)	14,000 (R)	12,000 (R)	6,100 (R)	4,700 J (R)	2,900 J (R)	130,000 J (R)	1,000 (R)
Fluorene	ug/kg	4,600 J (R)	24,000 (R)	710 J (R)	2,500 J (R)	14,000 J (R)	24,000 (R)	42,000 (R)	3,800 J (R)	5,500 J (R)	170 J (R)	420 J (R)	740 J (R)	40,000 (R)	210 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	3,300 J (A,R)	5,700 J (A,R)	3,400 J (A,R)	2,500 J (A,R)	6,300 J (A,R)	12,000 J (A,R)	20,000 (A,R)	2,800 J (A,R)	860 J (A,R)	650 (A)	580 J (A)	390 J (A)	7,300 J (A,R)	220 J (A)
Naphthalene	ug/kg	11,000 (A,R)	59,000 (A,R)		5,100 J (A,R)	16,000 (A,R)	60,000 (A,R)	170,000 (A,R)	18,000 (A,R)					300,000 (A,R)	570 (R)
N-nitrosodiphenylamine	ug/kg				14,000 (R)	35,000 (R)									
Phenanthrene	ug/kg	16,000 (R)	160,000 (R)	5,700 J (R)	17,000 J (R)	98,000 (R)	210,000 (R)	120,000 (R)	13,000 (R)	19,000 (R)	1,500 J (R)	2,600 (R)	4,800 (R)	320,000 (R)	1,200 (R)
Phenol	ug/kg	360 J		440 J (R)	410 J										18 J
Pyrene	ug/kg	38,000 J (R)	80,000 (R)	51,000 J (R)	28,000 J (R)	72,000 (R)	130,000 J (R)	70,000 J (R)	20,000 (R)	11,000 (R)	5,300 (R)	3,600 J (R)	2,500 J (R)	110,000 J (R)	1,300 J (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
	Sample Number:	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0
	Sample Depth:	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2
	Sample Date:	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	156,100 (R)	591,500 (R)	195,590 (R)	132,500 (R)	442,400 (R)	830,000 (R)	896,000 (R)	135,000 (R)	73,140 (R)	28,300 (R)	19,410 (R)	19,950 (R)	1,249,500 (R)	8,875 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139
Sample Number:		GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8
Sample Depth:		2-4	4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8
Sample Date:		4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	**610 (R)**	**200 J (R)**	**790 J (R)**	**3,900 J (R)**	**14,000 (R)**	**12,000 (R)**		**37,000 (A,R)**	**51,000 (A,R)**	**250,000 (A,R)**	**1,400,000 (A,R)**	**1,700,000 (A,R)**	**2,100,000 (A,R)**	**820,000 (A,R)**
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg	13 J				400 J									
Acenaphthene	ug/kg	**590 (R)**	**790 (R)**	**1,200 J (R)**	**8,400 J (R)**	**8,800 J (R)**	**9,500 J (R)**	6.9 J	**38,000 (R)**	**32,000 (R)**	**100,000 J (R)**	**600,000 (A,R)**	**490,000 (A,R)**	**420,000 (A,R)**	**340,000 (R)**
Acenaphthylene	ug/kg	**98 J (R)**	**130 J (R)**	**550 J (R)**	**1,300 J (R)**	**2,300 J (R)**	**3,700 J (R)**	40 J	**7,200 J (R)**	**7,500 J (R)**	**21,000 J (R)**	**99,000 J (R)**	**280,000 (R)**	**460,000 (A,R)**	**66,000 J (R)**
Acetophenone	ug/kg														
Anthracene	ug/kg	**490 (R)**	**1,500 (R)**	**1,500 J (R)**	**6,900 J (R)**	**10,000 J (R)**	**13,000 (R)**	33 J	**31,000 (R)**	**28,000 (R)**	**78,000 J (R)**	**320,000 (R)**	**330,000 (R)**	**340,000 (R)**	**180,000 (R)**
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	**510 (A,R)**	**2,100 (A,R)**	**2,200 J (A,R)**	**5,900 J (A,R)**	**9,000 J (A,R)**	**15,000 (A,R)**	**170 J (A)**	**32,000 (A,R)**	**27,000 (A,R)**	**65,000 J (A,R)**	**220,000 J (A,R)**	**260,000 (A,R)**	**240,000 J (A,R)**	**130,000 J (A,R)**
Benzo(a)pyrene	ug/kg	**590 (A,R)**	**1,800 (A,R)**	**2,400 J (A,R)**	**5,700 J (A,R)**	**5,600 J (A,R)**	**13,000 (A,R)**		**23,000 (A,R)**	**21,000 (A,R)**					
Benzo(b)fluoranthene	ug/kg	**290 (A)**	**1,600 (A)**	**1,400 J (A)**	**2,300 J (A)**	**2,700 J (A)**	**6,400 J (A,R)**		**23,000 (A,R)**	**17,000 (A,R)**					
Benzo(g,h,i)perylene	ug/kg	250	**670 J (R)**	**1,700 J (R)**	**2,900 J (R)**	**2,000 J (R)**	**4,700 J (R)**	97 J	**12,000 J (R)**	**13,000 J (R)**	**32,000 J (R)**	**83,000 J (R)**	**97,000 J (R)**	**88,000 J (R)**	**62,000 J (R)**
Benzo(k)fluoranthene	ug/kg	360	1,200	1,300 J	**3,100 J (A)**	**3,500 J (A)**	**7,400 J (A,R)**								
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	75 J	94 J		1,300 J	2,100 J	2,200 J		5,900 J	6,900 J	22,000 J	120,000 J	150,000 J	180,000 J	79,000 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg			**4,100 J (R)**	**28,000 (R)**	**46,000 (A,R)**	**22,000 (R)**								
*Carbazole	ug/kg	38 J	240 J									9,400 J	22,000 J	22,000 J	11,000 J
Chrysene	ug/kg	**670 J (R)**	**2,100 J (R)**	**2,700 J (R)**	**7,300 J (R)**	**12,000 J (R)**	**21,000 (A,R)**	160 J	**37,000 (A,R)**	**31,000 (A,R)**	**76,000 J (A,R)**	**230,000 (A,R)**	**280,000 (A,R)**	**320,000 (A,R)**	**130,000 (A,R)**
Dibenz(a,h)anthracene	ug/kg	**74 J (A,R)**	**220 J (A,R)**		**1,000 J (A,R)**		**2,200 J (A,R)**		**3,800 J (A,R)**	**3,000 J (A,R)**		**35,000 J (A,R)**			
Dibenzofuran	ug/kg	100 J	**330 J (R)**		**820 J (R)**		**1,700 J (R)**		**4,200 J (R)**	**5,100 J (R)**	**12,000 J (A,R)**	**58,000 J (A,R)**	**54,000 J (A,R)**	**64,000 J (A,R)**	**48,000 J (A,R)**
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg					**1,300 J (R)**	710 J								
Fluoranthene	ug/kg	**1,500 (R)**	**9,700 (R)**	**4,900 J (R)**	**13,000 J (R)**	**16,000 (R)**	**29,000 (R)**	390	**50,000 (R)**	**38,000 (R)**	**91,000 J (R)**	**330,000 (A,R)**	**370,000 (A,R)**	**380,000 (A,R)**	**210,000 (R)**
Fluorene	ug/kg	**280 (R)**	**520 J (R)**		**3,700 J (R)**	**6,000 J (R)**	**7,700 J (R)**		**19,000 (R)**	**24,000 (R)**	**88,000 J (R)**	**440,000 (A,R)**	**460,000 (A,R)**	**520,000 (A,R)**	**230,000 (R)**
Indeno(1,2,3-c,d)pyrene	ug/kg	**180 J (A)**	**660 J (A)**	**1,300 J (A,R)**	**2,200 J (A,R)**	**1,500 J (A,R)**	**4,200 J (A,R)**	72 J	**12,000 J (A,R)**	**12,000 J (A,R)**	**29,000 J (A,R)**	**89,000 J (A,R)**	**74,000 J (A,R)**	**63,000 J (A,R)**	**47,000 J (A,R)**
Naphthalene	ug/kg	**750 (R)**	**810 (R)**			**14,000 (A,R)**	**24,000 (A,R)**		**85,000 (A,R)**	**140,000 (A,R)**	**650,000 (A,R)**	**3,200,000 (A,R)**	**2,600,000 (A,R)**	**2,800,000 (A,R)**	**1,300,000 (A,R)**
N-nitrosodiphenylamine	ug/kg				6,500 J										
Phenanthrene	ug/kg	**2,000 (R)**	**7,500 (R)**	**2,000 J (R)**	**12,000 J (R)**	**32,000 (R)**	**58,000 (R)**	28 J	**76,000 (R)**	**87,000 (R)**	**270,000 (R)**	**990,000 (R)**	**1,200,000 (R)**	**1,300,000 (R)**	**600,000 (R)**
Phenol	ug/kg														
Pyrene	ug/kg	**1,900 J (R)**	**6,200 J (R)**	**6,100 J (R)**	**17,000 (R)**	**28,000 (R)**	**43,000 (R)**	640	**73,000 (R)**	**62,000 (R)**	**160,000 (R)**	**530,000 (A,R)**	**570,000 (A,R)**	**630,000 (A,R)**	**340,000 (A,R)**

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139
	Sample Number:	GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8
	Sample Depth:	2-4	4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8
	Sample Date:	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	11,142 (R)	37,700 (R)	30,040 (R)	96,600 (R)	167,400 (R)	273,800 (R)	1,637	559,000 (R)	593,500 (R)	1,910,000 (R)	8,566,000 (R)	8,711,000 (R)	9,661,000 (R)	4,455,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1
Sample Number:	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B
Sample Depth:	0-2	2-4	4-6	0-2	2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1
Sample Date:	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	**4,500 J (R)**	**88 J (R)**	**15,000 (R)**	**72 J (R)**	**260 J (R)**	**31,000 (R)**	62 J	39 J	47 J	28 J	**350,000 (A,R)**	**650,000 (A,R)**	**3,100 J (R)**	**1,300,000 J (A,R)**
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg				27 J	39 J				25 J					
Acenaphthene	ug/kg	**7,000 J (R)**	**130 J (R)**	**7,600 J (R)**	**120 J (R)**	**740 (R)**	**19,000 (R)**	**270 J (R)**	**200 J (R)**	**130 J (R)**	**88 J (R)**	**170,000 (R)**	**270,000 (R)**	**8,800 (R)**	**1,100,000 J (A,R)**
Acenaphthylene	ug/kg	**1,400 J (R)**	**76 J (R)**	**2,200 J (R)**	**120 J (R)**	**370 (R)**	**3,800 J (R)**	**200 J (R)**	**91 J (R)**	**100 J (R)**	**64 J (R)**	**37,000 J (R)**	**34,000 J (R)**	**1,800 J (R)**	**74,000 J (R)**
Acetophenone	ug/kg									59 J	74 J				
Anthracene	ug/kg	**5,400 J (R)**	**140 J (R)**	**9,000 J (R)**	**250 J (R)**	**1,300 (R)**	**15,000 (R)**	**320 J (R)**	**260 J (R)**	**220 J (R)**	**100 J (R)**	**97,000 (R)**	**120,000 (R)**	**6,200 (R)**	**800,000 J (R)**
Benzaldehyde	ug/kg									100 J	120 J				
Benzo(a)anthracene	ug/kg	**7,800 J (A,R)**	**190 J (A)**	**11,000 J (A,R)**	**610 (A,R)**	**1,800 (A,R)**	**12,000 (A,R)**	**730 J (A,R)**	**650 (A,R)**	**550 (A,R)**	**250 J (A)**	**75,000 (A,R)**	**100,000 (A,R)**	**6,500 (A,R)**	**390,000 J (A,R)**
Benzo(a)pyrene	ug/kg				**580 (A,R)**	**1,600 (A,R)**	**10,000 (A,R)**			**560 (A,R)**	**250 J (A)**	**46,000 (A,R)**		**5,800 (A,R)**	**280,000 J (A,R)**
Benzo(b)fluoranthene	ug/kg					**820 (A)**				**280 J (A)**	**180 J (A)**			**3,800 (A)**	**170,000 J (A,R)**
Benzo(g,h,i)perylene	ug/kg	**3,000 J (R)**	190 J	**3,900 J (R)**	160 J	540	**4,500 J (R)**	390 J	140 J	140 J	72 J	**20,000 J (R)**	**34,000 J (R)**	**2,600 J (R)**	**85,000 J (R)**
Benzo(k)fluoranthene	ug/kg					910				420 J	170 J			**4,900 (A,R)**	**140,000 J (A,R)**
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	1,100 J	23 J	1,900 J	25 J	49 J	4,500 J			16 J		41,000	57,000 J		150,000 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg		**2,200 (R)**		**3,800 (R)**	**4,400 (R)**				**2,500 (R)**				**16,000 (R)**	**120,000 J (A,R)**
*Carbazole	ug/kg											3,400 J	5,400 J		8,900 J
Chrysene	ug/kg	**6,800 J (R)**	330 J	**9,900 J (R)**	**700 J (R)**	**2,400 J (R)**	**12,000 J (R)**	**1,000 J (R)**	**720 (R)**	**750 J (R)**	320 J	**87,000 (A,R)**	**110,000 (A,R)**	**7,100 (R)**	**360,000 J (A,R)**
Dibenz(a,h)anthracene	ug/kg	**1,200 J (A,R)**	**110 J (A,R)**	**1,000 J (A,R)**	**38 J (A)**	**180 J (A,R)**	**1,500 J (A,R)**	**210 J (A,R)**	**53 J (A)**	**58 J (A)**		**6,600 J (A,R)**	**12,000 J (A,R)**	**840 J (A,R)**	**25,000 J (A,R)**
Dibenzofuran	ug/kg	**1,000 J (R)**		**1,400 J (R)**		100 J	**2,100 J (R)**	36 J	35 J			**17,000 J (A,R)**	**24,000 J (A,R)**		**51,000 J (A,R)**
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg									40 J	21 J				
Di-n-octylphthalate	ug/kg										130 J			1,100 J	**6,700 J (R)**
Fluoranthene	ug/kg	**11,000 (R)**	330 J	**16,000 (R)**	**1,300 (R)**	**3,300 (R)**	**20,000 (R)**	**2,900 J (R)**	**1,900 (R)**	**860 (R)**	380 J	**120,000 (R)**	**140,000 (R)**	**13,000 (R)**	**650,000 J (A,R)**
Fluorene	ug/kg	**4,200 J (R)**	**55 J (R)**	**7,400 J (R)**	**56 J (R)**	**160 J (R)**	**11,000 (R)**	**84 J (R)**	**110 J (R)**	**47 J (R)**	**34 J (R)**	**130,000 (R)**	**160,000 (R)**	**4,300 (R)**	**530,000 J (A,R)**
Indeno(1,2,3-c,d)pyrene	ug/kg	**3,000 J (A,R)**	120 J	**3,000 J (A,R)**	120 J	**440 (A)**	**3,600 J (A,R)**	**330 J (A)**	100 J	120 J	61 J	**23,000 J (A,R)**	**29,000 J (A,R)**	**3,100 J (A,R)**	**85,000 J (A,R)**
Naphthalene	ug/kg	**9,400 (A,R)**		**16,000 (A,R)**		**540 (R)**	**54,000 (A,R)**			76 J	56 J	**510,000 (A,R)**	**810,000 (A,R)**	**26,000 (A,R)**	**1,800,000 J (A,R)**
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	**15,000 (R)**	**300 J (R)**	**26,000 (R)**	**460 J (R)**	**1,100 (R)**	**68,000 (R)**	**950 (R)**	**550 J (R)**	190 J	140 J	**360,000 (R)**	**450,000 (R)**	**18,000 (R)**	**2,500,000 J (A,R)**
Phenol	ug/kg					23 J									
Pyrene	ug/kg	**18,000 (R)**	370 J	**25,000 (R)**	**1,300 J (R)**	**4,400 J (R)**	**35,000 J (R)**	**2,000 J (R)**	**1,900 (R)**	**1,200 J (R)**	550 J	**190,000 (A,R)**	**250,000 (A,R)**	**16,000 (R)**	**1,200,000 J (A,R)**

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1
Sample Number:		GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B
Sample Depth:		0-2	2-4	4-6	0-2	2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1
Sample Date:		4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	**97,700 (R)**	2,429	**153,000 (R)**	**5,886 (R)**	**20,860 (R)**	**300,400 (R)**	**9,446 (R)**	**6,713 (R)**	**5,748 (R)**	2,743	**2,221,600 (R)**	**3,169,000 (R)**	**131,840 (R)**	**11,489,000 (R)**

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3
Sample Number:		ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B
Sample Depth:		1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-6.8	0-0.5	0.5-1
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	150,000 J (A,R)	22,000 (R)	20,000 (R)	7,200 (R)	1,600 J (R)	1,900 (R)	310 J (R)	2,800 J (R)	3,700 (R)	15,000 J (R)	23,000 J (R)	21,000 J (R)	16,000 J (R)	16,000 J (R)
4-chloroaniline	ug/kg		1,300 J												
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	150,000 J (R)	23,000 (R)	17,000 (R)	12,000 (R)	12,000 (R)	4,800 (R)	1,100 (R)	3,400 (R)	3,200 (R)	18,000 J (R)	67,000 J (R)	34,000 J (R)	20,000 J (R)	16,000 J (R)
Acenaphthylene	ug/kg	18,000 J (R)	3,300 J (R)	3,500 J (R)	1,200 J (R)	3,000 J (R)	790 J (R)	190 J (R)	550 J (R)	670 J (R)				2,700 J (R)	2,100 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	120,000 J (R)	20,000 (R)	17,000 (R)	12,000 (R)	12,000 (R)	4,200 (R)	1,000 J (R)	3,700 (R)	3,800 (R)	18,000 J (R)	140,000 J (R)	67,000 J (R)	18,000 J (R)	15,000 J (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	79,000 J (A,R)	16,000 (A,R)	17,000 (A,R)	14,000 (A,R)	15,000 (A,R)	4,800 (A,R)	1,600 (A,R)	7,900 (A,R)	6,800 (A,R)	15,000 J (A,R)	220,000 J (A,R)	89,000 J (A,R)	17,000 J (A,R)	15,000 J (A,R)
Benzo(a)pyrene	ug/kg	64,000 J (A,R)	12,000 (A,R)	13,000 (A,R)	12,000 (A,R)	12,000 (A,R)	3,700 (A,R)	1,200 (A,R)	6,400 (A,R)	6,200 (A,R)	11,000 J (A,R)	210,000 J (A,R)	87,000 J (A,R)	11,000 J (A,R)	10,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	30,000 J (A,R)	8,800 (A,R)	9,200 (A,R)	10,000 (A,R)	8,000 (A,R)	3,000 (A)	1,100 J (A)	7,400 (A,R)	6,100 (A,R)	9,200 J (A,R)	210,000 J (A,R)	81,000 J (A,R)	7,900 J (A,R)	8,100 J (A,R)
Benzo(g,h,i)perylene	ug/kg	22,000 J (R)	4,900 (R)	4,700 (R)	4,900 (R)	5,000 (R)	1,800 (R)	660 J (R)	3,200 (R)	3,200 (R)	5,300 J (R)	98,000 J (R)	43,000 J (R)	3,700 J (R)	3,500 J (R)
Benzo(k)fluoranthene	ug/kg	45,000 J (A,R)	8,700 (A,R)	9,600 (A,R)	11,000 J (A,R)	8,800 (A,R)	2,300 (A)	1,200	7,100 (A,R)	5,600 (A,R)	8,300 J (A,R)	170,000 J (A,R)	63,000 J (A,R)	9,000 J (A,R)	6,600 J (A,R)
Benzyl butyl phthalate	ug/kg		3,100 J	1,100 J		1,000 J	820 J		680 J	960 J				1,300 J	1,400 J
Biphenyl (diphenyl)	ug/kg				480 J							4,800 J	2,200 J	870 J	
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	120,000 J (A,R)	66,000 J (A,R)	92,000 J (A,R)	11,000 (R)	37,000 (A,R)	26,000 J (R)	9,700 (R)	24,000 (R)	31,000 (R)	79,000 J (A,R)			130,000 J (A,R)	110,000 J (A,R)
*Carbazole	ug/kg		1,400 J	1,200 J	2,800 J	1,200 J	350 J		1,800 J	1,600 J		81,000 J	21,000 J		
Chrysene	ug/kg	89,000 J (A,R)	17,000 (A,R)	17,000 (A,R)	16,000 (A,R)	14,000 (R)	4,800 (R)	1,700 (R)	9,500 (R)	7,800 (R)	16,000 J (A,R)	240,000 J (A,R)	93,000 J (A,R)	16,000 J (A,R)	15,000 J (R)
Dibenz(a,h)anthracene	ug/kg	6,500 J (A,R)	1,900 J (A,R)	1,800 J (A,R)	1,800 J (A,R)	1,900 J (A,R)	620 J (A,R)		1,300 J (A,R)	1,200 J (A,R)		35,000 J (A,R)	14,000 J (A,R)		
Dibenzofuran	ug/kg	12,000 J (A,R)			3,200 (R)						3,900 J (R)	60,000 J (A,R)	16,000 J (A,R)		
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg					1,700 J									
Di-n-octylphthalate	ug/kg		35,000 (R)	23,000 (R)	1,400 J (R)		6,300 (R)	2,500 (R)	2,200 J (R)		6,400 J (R)				4,200 J (R)
Fluoranthene	ug/kg	160,000 J (R)	29,000 (R)	31,000 (R)	36,000 (R)	23,000 (R)	7,600 (R)	3,600 (R)	19,000 (R)	16,000 (R)	33,000 J (R)	6,500,000 J (A,R)	230,000 J (R)	40,000 J (R)	33,000 J (R)
Fluorene	ug/kg	86,000 J (R)	15,000 (R)	13,000 (R)	8,800 (R)	4,200 (R)	2,400 (R)	420 J (R)	2,300 J (R)	2,700 J (R)	11,000 J (R)	65,000 J (R)	26,000 J (R)	14,000 J (R)	12,000 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	23,000 J (A,R)	5,900 (A,R)	6,000 (A,R)	6,100 (A,R)	6,300 J (A,R)	2,000 J (A,R)	820 J (A,R)	4,500 J (A,R)	4,300 J (A,R)	5,600 J (A,R)	120,000 J (A,R)	47,000 J (A,R)	4,900 J (A,R)	4,300 J (A,R)
Naphthalene	ug/kg	27,000 J (A,R)	7,900 (A,R)	2,800 J (R)	2,500 J (R)	3,300 (R)	3,400 (R)	610 J (R)	4,700 (A,R)	7,200 (A,R)	23,000 J (A,R)	82,000 J (A,R)	59,000 J (A,R)	8,300 J (A,R)	8,800 J (A,R)
N-nitrosodiphenylamine	ug/kg		3,700 J												
Phenanthrene	ug/kg	570,000 J (R)	55,000 J (R)	58,000 (R)	46,000 (R)	31,000 (R)	13,000 (R)	3,400 (R)	25,000 (R)	19,000 (R)	59,000 J (R)	810,000 J (R)	230,000 J (R)	70,000 J (R)	57,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	250,000 J (A,R)	52,000 (R)	53,000 (R)	37,000 (R)	39,000 J (R)	14,000 (R)	4,000 (R)	22,000 J (R)	18,000 J (R)	42,000 J (R)	560,000 J (A,R)	220,000 J (A,R)	42,000 J (R)	42,000 J (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3
	Sample Number:	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B
	Sample Depth:	1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-6.8	0-0.5	0.5-1
	Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	1,889,500 (R)	302,400 (R)	293,600 (R)	238,500 (R)	200,100 (R)	75,110 (R)	22,910 (R)	130,750 (R)	115,470 (R)	289,400 (R)	9,550,000 (R)	1,404,000 (R)	300,500 (R)	264,400 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F	FD-02
Sample Depth:	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	4-5
Sample Date:	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	FD

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	32,000 J (A,R)	63,000 J (A,R)	76,000 J (A,R)	23,000 J (R)	26,000 J (R)	43,000 J (A,R)	19,000 J (R)	27,000 J (R)	56,000 J (A,R)	130,000 J (A,R)	620,000 J (A,R)	290,000 J (A,R)	280,000 J (A,R)	290,000 J (A,R)
4-chloroaniline	ug/kg			5,700 J (A)											
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	33,000 J (R)	49,000 J (R)	84,000 J (R)	23,000 J (R)	24,000 J (R)	35,000 J (R)	20,000 J (R)	220,000 J (R)	110,000 J (R)	110,000 J (R)	350,000 J (A,R)	170,000 J (R)	200,000 J (R)	230,000 J (R)
Acenaphthylene	ug/kg	4,500 J (R)	6,000 J (R)	9,900 J (R)	3,400 J (R)	3,400 J (R)	3,300 J (R)	930 J (R)	49,000 J (R)	10,000 J (R)	7,300 J (R)	29,000 J (R)	10,000 J (R)	6,500 J (R)	15,000 J (R)
Acetophenone	ug/kg														4,100 J
Anthracene	ug/kg	27,000 J (R)	35,000 J (R)	66,000 J (R)	15,000 J (R)	21,000 J (R)	31,000 J (R)	18,000 J (R)	180,000 J (R)	81,000 J (R)	75,000 J (R)	200,000 J (R)	98,000 J (R)	93,000 J (R)	140,000 J (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	27,000 J (A,R)	45,000 J (A,R)	51,000 J (A,R)	17,000 J (A,R)	20,000 J (A,R)	42,000 J (A,R)	24,000 J (A,R)	86,000 J (A,R)	36,000 J (A,R)	41,000 J (A,R)	110,000 J (A,R)	62,000 J (A,R)	61,000 J (A,R)	75,000 J (A,R)
Benzo(a)pyrene	ug/kg	18,000 J (A,R)	27,000 J (A,R)	41,000 J (A,R)	11,000 J (A,R)	14,000 J (A,R)	29,000 J (A,R)	21,000 J (A,R)	71,000 J (A,R)	28,000 J (A,R)	33,000 J (A,R)	86,000 J (A,R)	48,000 J (A,R)	47,000 J (A,R)	52,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	12,000 J (A,R)	23,000 J (A,R)	19,000 J (A,R)	8,600 J (A,R)	9,200 J (A,R)	23,000 J (A,R)	18,000 J (A,R)	31,000 J (A,R)	13,000 J (A,R)	14,000 J (A,R)	47,000 J (A,R)	25,000 J (A,R)	24,000 J (A,R)	31,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	5,200 J (R)	7,900 J (R)	11,000 J (R)	4,700 J (R)	5,100 J (R)	9,900 J (R)	7,600 J (R)	24,000 J (R)	9,700 J (R)	12,000 J (R)	32,000 J (R)	18,000 J (R)	17,000 J (R)	19,000 J (R)
Benzo(k)fluoranthene	ug/kg	12,000 J (A,R)	15,000 J (A,R)	31,000 J (A,R)	7,800 J (A,R)	11,000 J (A,R)	23,000 J (A,R)	13,000 J (A,R)	41,000 J (A,R)	17,000 J (A,R)	22,000 J (A,R)	45,000 J (A,R)	35,000 J (A,R)	37,000 J (A,R)	35,000 J (A,R)
Benzyl butyl phthalate	ug/kg	1,900 J	1,600 J		1,800 J	2,500 J									
Biphenyl (diphenyl)	ug/kg	2,300 J	3,700 J	14,000 J	4,000 J	2,200 J	1,700 J	820 J	30,000 J	21,000 J	19,000 J	65,000 J	25,000 J	16,000 J	18,000 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	95,000 J (A,R)	100,000 J (A,R)	240,000 J (A,R)	170,000 J (A,R)	120,000 J (A,R)	14,000 J (R)	6,300 J (R)						240,000 J (A,R)	130,000 J (A,R)
*Carbazole	ug/kg		1,200 J				5,100 J	5,300 J							
Chrysene	ug/kg	22,000 J (A,R)	34,000 J (A,R)	52,000 J (A,R)	16,000 J (A,R)	19,000 J (A,R)	36,000 J (A,R)	24,000 J (A,R)	82,000 J (A,R)	37,000 J (A,R)	41,000 J (A,R)	110,000 J (A,R)	60,000 J (A,R)	61,000 J (A,R)	76,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	2,200 J (A,R)	2,800 J (A,R)			2,000 J (A,R)	4,500 J (A,R)	3,000 J (A,R)	6,700 J (A,R)		4,100 J (A,R)	9,000 J (A,R)	5,100 J (A,R)	5,800 J (A,R)	6,100 J (A,R)
Dibenzofuran	ug/kg			5,500 J (R)			7,600 J (R)	5,500 J (R)	12,000 J (A,R)	5,600 J (R)	7,300 J (R)	21,000 J (A,R)	12,000 J (A,R)	12,000 J (A,R)	14,000 J (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg		9,700 J (R)	68,000 J (A,R)	58,000 J (A,R)	30,000 J (R)	16,000 J (R)						5,500 J (R)	12,000 J (R)	11,000 J (R)
Fluoranthene	ug/kg	53,000 J (R)	55,000 J (R)	100,000 J (R)	37,000 J (R)	53,000 J (R)	81,000 J (R)	61,000 J (R)	160,000 J (R)	69,000 J (R)	70,000 J (R)	200,000 J (R)	110,000 J (R)	110,000 J (R)	130,000 J (R)
Fluorene	ug/kg	23,000 J (R)	34,000 J (R)	53,000 J (R)	15,000 J (R)	15,000 J (R)	26,000 J (R)	13,000 J (R)	87,000 J (R)	57,000 J (R)	55,000 J (R)	160,000 J (R)	78,000 J (R)	77,000 J (R)	120,000 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	6,600 J (A,R)	9,600 J (A,R)	15,000 J (A,R)	4,300 J (A,R)	6,200 J (A,R)	15,000 J (A,R)	10,000 J (A,R)	25,000 J (A,R)	10,000 J (A,R)	13,000 J (A,R)	31,000 J (A,R)	18,000 J (A,R)	17,000 J (A,R)	21,000 J (A,R)
Naphthalene	ug/kg	21,000 J (A,R)	48,000 J (A,R)	48,000 J (A,R)	20,000 J (A,R)	15,000 J (A,R)	8,800 J (A,R)	8,300 J (A,R)	160,000 J (A,R)	150,000 J (A,R)	240,000 J (A,R)	920,000 J (A,R)	450,000 J (A,R)	320,000 J (A,R)	260,000 J (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	96,000 J (R)	190,000 J (R)	230,000 J (R)	65,000 J (R)	79,000 J (R)	160,000 J (R)	86,000 J (R)	550,000 J (R)	240,000 J (R)	250,000 J (R)	660,000 J (R)	310,000 J (R)	320,000 J (R)	500,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	67,000 J (R)	110,000 J (R)	140,000 J (R)	46,000 J (R)	52,000 J (R)	95,000 J (R)	55,000 J (R)	260,000 J (A,R)	110,000 J (R)	140,000 J (R)	350,000 J (A,R)	190,000 J (A,R)	200,000 J (A,R)	240,000 J (A,R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F	FD-02
Sample Depth:		1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	4-5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	461,500 (R)	754,300 (R)	1,026,900 (R)	316,800 (R)	374,900 (R)	665,500 (R)	401,830 (R)	2,059,700 (R)	1,033,700 (R)	1,257,400 (R)	3,959,000 (R)	1,977,100 (R)	1,876,300 (R)	2,240,100 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3
Sample Number:	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B
Sample Depth:	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1
Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	44,000 (A,R)	120,000 J (A,R)	2,100 J (R)	14,000 (R)	71,000 (A,R)	100,000 (A,R)	200,000 J (A,R)	59,000 (A,R)	1,300,000 J (A,R)	2,800,000 J (A,R)	120,000 J (A,R)	630,000 J (A,R)	290 J (R)	3,500 J (R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	32,000 (R)	91,000 J (R)	14,000 (R)	17,000 (R)	57,000 (R)	85,000 (R)	110,000 J (R)	36,000 (R)	780,000 J (A,R)	1,700,000 J (A,R)	79,000 J (R)	440,000 J (A,R)	3,100 J (R)	3,900 J (R)
Acenaphthylene	ug/kg		6,800 J (R)	3,200 J (R)	1,400 J (R)	3,100 J (R)	7,700 J (R)	8,000 J (R)	1,900 J (R)	35,000 J (R)	86,000 J (R)	5,300 J (R)	18,000 J (R)	1,200 J (R)	580 J (R)
Acetophenone	ug/kg											3,500 J	3,000 J		
Anthracene	ug/kg	21,000 (R)	89,000 J (R)	13,000 (R)	16,000 (R)	41,000 (R)	58,000 (R)	71,000 J (R)	24,000 (R)	470,000 J (R)	930,000 J (R)	59,000 J (R)	160,000 J (R)	6,300 J (R)	3,400 J (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	17,000 (A,R)	60,000 J (A,R)	8,800 (A,R)	11,000 (A,R)	26,000 (A,R)	40,000 (A,R)	35,000 J (A,R)	16,000 (A,R)	160,000 J (A,R)	370,000 J (A,R)	32,000 J (A,R)	67,000 J (A,R)	7,700 J (A,R)	4,700 J (A,R)
Benzo(a)pyrene	ug/kg	12,000 (A,R)	47,000 J (A,R)	7,000 (A,R)	9,000 (A,R)	20,000 (A,R)	31,000 (A,R)	31,000 J (A,R)	13,000 (A,R)	120,000 J (A,R)	270,000 J (A,R)	27,000 J (A,R)	58,000 J (A,R)	5,600 J (A,R)	3,200 J (A,R)
Benzo(b)fluoranthene	ug/kg	8,300 J (A,R)	30,000 J (A,R)	3,400 J (A)	4,100 J (A)	9,400 J (A,R)	15,000 (A,R)	19,000 J (A,R)	7,100 (A,R)	60,000 J (A,R)	93,000 J (A,R)	14,000 J (A,R)	27,000 J (A,R)	4,200 J (A)	2,500 J (A)
Benzo(g,h,i)perylene	ug/kg	4,600 J (R)	15,000 J (R)	2,500 J (R)	3,300 J (R)	7,600 J (R)	10,000 J (R)	12,000 J (R)	4,900 J (R)	37,000 J (R)	87,000 J (R)	11,000 J (R)	18,000 J (R)	1,600 J (R)	980 J (R)
Benzo(k)fluoranthene	ug/kg	8,500 J (A,R)	33,000 J (A,R)	4,600 J (A)	5,800 (A,R)	14,000 (A,R)	19,000 (A,R)	20,000 J (A,R)	9,700 (A,R)	67,000 J (A,R)	190,000 J (A,R)	20,000 J (A,R)	33,000 J (A,R)	3,500 J (A)	2,300 J (A)
Benzyl butyl phthalate	ug/kg													350 J	1,300 J
Biphenyl (diphenyl)	ug/kg	1,900 J	3,200 J		2,800 J	11,000 J	14,000	5,200 J	2,500 J	110,000 J	280,000 J (A)	7,900 J	59,000 J		520 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg								46,000 (A,R)	120,000 J (A,R)				11,000 J (R)	9,600 J (R)
*Carbazole	ug/kg							5,100 J		12,000 J		3,600 J	5,500 J		
Chrysene	ug/kg	17,000 (A,R)	59,000 J (A,R)	8,600 (R)	11,000 (R)	25,000 (A,R)	38,000 (A,R)	39,000 J (A,R)	17,000 (A,R)	150,000 J (A,R)	370,000 J (A,R)	33,000 J (A,R)	63,000 J (A,R)	6,000 J (R)	4,800 J (R)
Dibenz(a,h)anthracene	ug/kg		4,800 J (A,R)		1,100 J (A,R)		3,700 J (A,R)	4,100 J (A,R)	1,700 J (A,R)	12,000 J (A,R)		3,100 J (A,R)	6,200 J (A,R)	630 J (A,R)	420 J (A,R)
Dibenzofuran	ug/kg		6,400 J (R)					6,200 J (R)		38,000 J (A,R)	79,000 J (A,R)	5,000 J (R)	16,000 J (A,R)		
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg	3,200 J (R)					3,300 J (R)	3,100 J (R)	6,000 J (R)	27,000 J (R)	130,000 J (A,R)	6,100 J (R)			650 J
Fluoranthene	ug/kg	30,000 (R)	87,000 J (R)	17,000 (R)	18,000 (R)	43,000 (R)	61,000 (R)	74,000 J (R)	26,000 (R)	310,000 J (A,R)	750,000 J (A,R)	72,000 J (R)	150,000 J (R)	13,000 J (R)	6,800 J (R)
Fluorene	ug/kg	17,000 (R)	48,000 J (R)	3,900 J (R)	10,000 (R)	34,000 (R)	47,000 (R)	51,000 J (R)	18,000 (R)	320,000 J (A,R)	750,000 J (A,R)	37,000 J (R)	170,000 J (R)	1,200 J (R)	3,000 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	5,200 J (A,R)	17,000 J (A,R)	2,800 J (A,R)	3,800 J (A,R)	8,300 J (A,R)	11,000 J (A,R)	13,000 J (A,R)	5,600 J (A,R)	39,000 J (A,R)	80,000 J (A,R)	12,000 J (A,R)	20,000 J (A,R)	2,100 J (A,R)	1,400 J (A,R)
Naphthalene	ug/kg	23,000 (A,R)	45,000 J (A,R)	5,700 (A,R)	16,000 (A,R)	77,000 (A,R)	140,000 (A,R)	240,000 J (A,R)	53,000 (A,R)	2,900,000 J (A,R)	6,900,000 J (A,R)	300,000 J (A,R)	1,400,000 J (A,R)	310 J (R)	3,200 J (R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	68,000 (R)	230,000 J (R)	29,000 (R)	43,000 (R)	120,000 (R)	170,000 (R)	170,000 J (R)	67,000 (R)	1,200,000 J (R)	2,600,000 J (A,R)	180,000 J (R)	610,000 J (R)	10,000 J (R)	14,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	46,000 (R)	180,000 J (A,R)	27,000 (R)	28,000 (R)	71,000 (R)	98,000 (R)	100,000 J (R)	44,000 (R)	630,000 J (A,R)	1,200,000 J (A,R)	94,000 J (R)	260,000 J (A,R)	18,000 J (R)	9,400 J (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3
	Sample Number:	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B
	Sample Depth:	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1
	Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	353,600 (R)	1,162,600 (R)	152,600 (R)	212,500 (R)	627,400 (R)	934,400 (R)	1,197,100 (R)	403,900 (R)	8,590,000 (R)	19,176,000 (R)	1,098,400 (R)	4,130,200 (R)	84,730 (R)	68,080 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1
Sample Number:	ERT2-3-C	ERT2-3-D	ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G
Sample Depth:	1-2	2-3	3-4	4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6
Sample Date:	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	810 J (R)	5,500 J (R)	11,000 J (R)	30,000 J (R)	28,000 J (R)	27,000 (R)	160,000 J (A,R)	960 J (R)			480 J (R)		22,000 J (R)	18,000 (R)
4-chloroaniline	ug/kg					4,200 J (A)			1,400 J	1,500 J					
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	1,800 J (R)	6,400 J (R)	26,000 J (R)	23,000 J (R)	24,000 J (R)	27,000 (R)	73,000 J (R)	54,000 J (R)	76,000 J (R)	48,000 (R)	23,000 (R)	12,000 (R)	59,000 J (R)	19,000 (R)
Acenaphthylene	ug/kg	650 J (R)	820 J (R)	3,000 J (R)	2,800 J (R)	3,500 J (R)	3,000 J (R)		8,800 (R)	5,800 (R)	5,500 (R)	4,400 (R)	1,400 J (R)	6,300 J (R)	7,400 (R)
Acetophenone	ug/kg							2,400 J	1,100 J						
Anthracene	ug/kg	3,100 J (R)	7,300 J (R)	19,000 J (R)	21,000 J (R)	20,000 J (R)	21,000 (R)	38,000 J (R)	26,000 (R)	43,000 (R)	32,000 (R)	15,000 (R)	7,900 (R)	69,000 J (R)	30,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	4,000 J (A,R)	5,700 J (A,R)	19,000 J (A,R)	18,000 J (A,R)	19,000 J (A,R)	16,000 (A,R)	24,000 J (A,R)	26,000 (A,R)	22,000 (A,R)	21,000 (A,R)	12,000 (A,R)	6,300 (A,R)	57,000 J (A,R)	25,000 (A,R)
Benzo(a)pyrene	ug/kg	3,500 J (A,R)	4,500 J (A,R)	16,000 J (A,R)	14,000 J (A,R)	14,000 J (A,R)	12,000 (A,R)	18,000 J (A,R)	22,000 (A,R)	16,000 (A,R)	19,000 (A,R)	9,500 (A,R)	5,700 (A,R)	9,500 J (A,R)	20,000 (A,R)
Benzo(b)fluoranthene	ug/kg	2,700 J (A)	3,600 J (A)	12,000 J (A,R)	11,000 J (A,R)	8,600 J (A,R)	15,000 (A,R)	14,000 J (A,R)	21,000 (A,R)	9,100 (A,R)	12,000 (A,R)	6,200 (A,R)	2,700 (A)	55,000 J (A,R)	13,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	1,200 J (R)	1,400 J (R)	5,500 J (R)	4,800 J (R)	4,000 J (R)	4,500 J (R)	7,000 J (R)	6,600 (R)	4,700 (R)	4,800 J (R)	2,900 (R)	1,600 J (R)	15,000 J (R)	6,200 (R)
Benzo(k)fluoranthene	ug/kg	2,700 J (A)	3,800 J (A)	12,000 J (A,R)	9,900 J (A,R)	10,000 J (A,R)	15,000 (A,R)	13,000 J (A,R)	22,000 (A,R)	10,000 (A,R)	12,000 (A,R)	5,300 (A,R)	4,000 (A)	58,000 J (A,R)	14,000 (A,R)
Benzyl butyl phthalate	ug/kg	650 J			1,500 J										
Biphenyl (diphenyl)	ug/kg							5,800 J						4,500 J	2,800 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	17,000 J (R)	22,000 J (R)	74,000 J (A,R)	83,000 J (A,R)	98,000 J (A,R)	96,000 (A,R)		48,000 J (A,R)	38,000 (A,R)	37,000 (A,R)	13,000 (R)	9,300 (R)	44,000 J (A,R)	9,500 (R)
*Carbazole	ug/kg							3,300 J						9,900 J	1,300 J
Chrysene	ug/kg	3,800 J (R)	6,200 J (R)	18,000 J (A,R)	18,000 J (A,R)	19,000 J (A,R)	18,000 (A,R)	27,000 J (A,R)	24,000 (A,R)	21,000 (A,R)	21,000 (A,R)	11,000 (R)	6,500 (R)	54,000 J (A,R)	25,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	510 J (A,R)		2,900 J (A,R)		1,700 J (A,R)	1,700 J (A,R)	2,400 J (A,R)	2,800 J (A,R)	1,800 J (A,R)	1,800 J (A,R)	1,100 J (A,R)	600 J (A,R)	5,600 J (A,R)	3,000 (A,R)
Dibenzofuran	ug/kg					2,200 J (R)		4,600 J (R)						12,000 J (A,R)	
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg	700 J			8,200 J (R)	17,000 J (R)	9,000 (R)		3,100 (R)	4,100 (R)				11,000 J (R)	
Fluoranthene	ug/kg	8,500 J (R)	15,000 J (R)	44,000 J (R)	43,000 J (R)	33,000 J (R)	33,000 (R)	47,000 J (R)	54,000 J (R)	62,000 J (R)	42,000 (R)	22,000 (R)	11,000 (R)	110,000 J (R)	52,000 J (R)
Fluorene	ug/kg	1,700 J (R)		11,000 J (R)	12,000 J (R)	13,000 J (R)	14,000 (R)	28,000 J (R)			1,600 J (R)	960 J (R)	420 J (R)	2,600 J (R)	16,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	1,600 J (A,R)	1,800 J (A,R)	7,600 J (A,R)	6,400 J (A,R)	5,700 J (A,R)	5,200 J (A,R)	7,500 J (A,R)	7,600 (A,R)	6,000 (A,R)	6,400 (A,R)	3,800 (A,R)	2,200 (A,R)	19,000 J (A,R)	7,700 (A,R)
Naphthalene	ug/kg	990 J (R)	3,000 J (R)	7,700 J (A,R)	2,800 J (R)	2,800 J (R)	2,300 J (R)	340,000 J (A,R)	1,600 J (R)	1,300 J (R)	1,500 J (R)	1,000 J (R)	650 J (R)	22,000 J (A,R)	8,700 (A,R)
N-nitrosodiphenylamine	ug/kg								7,900						
Phenanthrene	ug/kg	9,800 J (R)	25,000 J (R)	68,000 J (R)	75,000 J (R)	66,000 J (R)	63,000 (R)	120,000 J (R)	16,000 (R)	29,000 (R)	18,000 (R)	7,100 (R)	3,500 (R)	190,000 J (R)	79,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	8,600 J (R)	14,000 J (R)	46,000 J (R)	41,000 J (R)	41,000 J (R)	48,000 (R)	78,000 J (R)	83,000 J (R)	82,000 J (R)	65,000 (R)	28,000 (R)	18,000 (R)	140,000 J (R)	79,000 J (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1
	Sample Number:	ERT2-3-C	ERT2-3-D	ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G
	Sample Depth:	1-2	2-3	3-4	4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6
	Sample Date:	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	55,960 (R)	104,020 (R)	328,700 (R)	332,700 (R)	313,300 (R)	325,700 (R)	996,900 (R)	376,360 (R)	389,700 (R)	311,600 (R)	153,740 (R)	84,470 (R)	894,000 (R)	423,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3
Sample Number:	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E
Sample Depth:	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	23,000 (R)	710 J (R)	600 J (R)		12,000 J (R)	6,600 J (R)	34,000 J (A,R)	16,000 J (R)	100,000 J (A,R)	630 (R)	140 J (R)	300 J (R)	6,400 (R)	2,600 J (R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	24,000 (R)	6,400 (R)	9,900 (R)	45,000 J (R)	120,000 J (R)	55,000 J (R)	89,000 J (R)	5,000 J (R)	72,000 J (R)	960 (R)	860 (R)	3,100 (R)	36,000 (R)	30,000 (R)
Acenaphthylene	ug/kg	6,400 (R)	2,600 J (R)	3,000 (R)	5,900 J (R)	15,000 J (R)	4,100 J (R)	7,200 J (R)	7,600 J (R)	3,400 J (R)	790 (R)	770 (R)	1,500 (R)	9,600 (R)	4,500 (R)
Acetophenone	ug/kg					3,300 J					140 J	180 J			
Anthracene	ug/kg	35,000 (R)	7,700 (R)	11,000 (R)	27,000 J (R)	76,000 J (R)	33,000 J (R)	61,000 J (R)	37,000 J (R)	46,000 J (R)	1,800 (R)	960 (R)	2,900 (R)	34,000 (R)	23,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	29,000 (A,R)	13,000 (A,R)	11,000 (A,R)	22,000 (A,R)	57,000 J (A,R)	25,000 J (A,R)	36,000 J (A,R)	24,000 (A,R)	19,000 J (A,R)	2,700 (A,R)	2,400 (A,R)	4,900 (A,R)	35,000 (A,R)	22,000 (A,R)
Benzo(a)pyrene	ug/kg	23,000 (A,R)	11,000 (A,R)	4,900 (A,R)	19,000 (A,R)	52,000 J (A,R)	22,000 J (A,R)	32,000 J (A,R)	19,000 (A,R)	17,000 J (A,R)	2,200 (A,R)	2,300 (A,R)	4,400 (A,R)	26,000 (A,R)	16,000 (A,R)
Benzo(b)fluoranthene	ug/kg	27,000 (A,R)	6,200 (A,R)	4,600 (A)	12,000 (A,R)	48,000 J (A,R)	23,000 J (A,R)	17,000 J (A,R)	18,000 (A,R)	6,400 J (A,R)	1,700 (A)	1,900 (A)	3,200 (A)	16,000 (A,R)	11,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	8,200 (R)	4,000 J (R)	2,700 (R)	6,500 J (R)	20,000 J (R)	7,800 J (R)	11,000 J (R)	6,300 (R)	6,200 J (R)	1,000 (R)	1,100 (R)	1,800 (R)	11,000 (R)	7,400 (R)
Benzo(k)fluoranthene	ug/kg	28,000 (A,R)	7,800 (A,R)	6,400 (A,R)	12,000 (A,R)	51,000 J (A,R)	24,000 J (A,R)	23,000 J (A,R)	19,000 J (A,R)	14,000 J (A,R)	1,600 (A)	1,600 (A)	2,700 (A)	17,000 (A,R)	10,000 (A,R)
Benzyl butyl phthalate	ug/kg				3,100 J						180 J	360 J	370 J	1,000 J	1,200 J
Biphenyl (diphenyl)	ug/kg	2,200 J						3,600 J	660 J	11,000 J	85 J				
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	7,700 (R)		8,000 (R)	39,000 (A,R)	56,000 J (A,R)	22,000 J (R)	69,000 J (A,R)	30,000 (R)		4,800 J (R)	6,300 J (R)	11,000 (R)	52,000 (A,R)	60,000 (A,R)
*Carbazole	ug/kg	2,200 J							850 J						
Chrysene	ug/kg	34,000 (A,R)	13,000 (R)	11,000 (R)	22,000 (A,R)	57,000 J (A,R)	25,000 J (A,R)	37,000 J (A,R)	24,000 (A,R)	20,000 J (A,R)	2,500 (R)	2,200 (R)	4,900 (R)	33,000 (A,R)	20,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	3,200 J (A,R)	1,500 J (A,R)	1,000 J (A,R)	2,100 J (A,R)	6,200 J (A,R)	2,500 J (A,R)	3,500 J (A,R)	2,500 J (A,R)		370 J (A,R)	460 J (A,R)	670 J (A,R)	3,800 J (A,R)	2,400 J (A,R)
Dibenzofuran	ug/kg					5,700 J (R)	3,200 J (R)	5,100 J (R)		4,100 J (R)					
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg				1,600 J (R)	7,400 J (R)	2,800 J (R)	9,100 J (R)	3,700 (R)			150 J			
Fluoranthene	ug/kg	63,000 (R)	21,000 (R)	19,000 (R)	46,000 J (R)	110,000 J (R)	41,000 J (R)	75,000 J (R)	55,000 J (R)	37,000 J (R)	3,800 (R)	2,800 (R)	7,300 (R)	54,000 (R)	34,000 (R)
Fluorene	ug/kg	20,000 (R)	1,000 J (R)	2,700 (R)	1,900 J (R)	19,000 J (R)	12,000 J (R)	27,000 J (R)	18,000 J (R)	27,000 J (R)	330 J (R)	170 J (R)	470 J (R)	16,000 (R)	10,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	9,700 (A,R)	4,700 (A,R)	3,000 (A,R)	6,800 J (A,R)	22,000 J (A,R)	9,000 J (A,R)	12,000 J (A,R)	7,200 (A,R)	5,900 J (A,R)	1,200 (A,R)	1,300 (A,R)	2,100 (A,R)	12,000 (A,R)	8,100 (A,R)
Naphthalene	ug/kg	13,000 (A,R)		1,200 J (R)	2,400 J (R)	54,000 J (A,R)	24,000 J (A,R)	90,000 J (A,R)	25,000 J (A,R)	180,000 J (A,R)	1,100 (R)	220 J (R)	350 J (R)	1,000 J (R)	1,100 J (R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	84,000 (R)	11,000 (R)	27,000 (R)	26,000 J (R)	180,000 J (R)	95,000 J (R)	160,000 J (R)	110,000 J (R)	110,000 J (R)	1,600 (R)	950 (R)	3,800 (R)	120,000 J (R)	61,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	74,000 (R)	30,000 (R)	29,000 (R)	62,000 (R)	170,000 J (R)	78,000 J (R)	120,000 J (R)	73,000 J (R)	68,000 J (R)	6,400 (R)	6,600 (R)	12,000 (R)	120,000 J (R)	58,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3
Sample Number:		ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E
Sample Depth:		6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Total PAHs	ug/kg	504,500 (R)	141,610 (R)	148,000 (R)		1,069,200 (R)	487,000 (R)	834,700 (R)	466,600 (R)	731,900 (R)	30,680 (R)	26,730 (R)	56,390 (R)	550,800 (R)	321,100 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H
Sample Depth:	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.3
Sample Date:	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg												2,300 J	
2-methylnaphthalene	ug/kg	1,900 J (R)	34,000 (A,R)	87,000 J (A,R)	86,000 J (A,R)	130,000 J (A,R)	610,000 J (A,R)	580 (R)	120 J (R)	180 J (R)	540 J (R)	34,000 J (A,R)	13,000 (R)	15,000 (R)	17,000 (R)
4-chloroaniline	ug/kg													
4-chlorophenyl phenyl ether	ug/kg													
4-methylphenol (p-cresol)	ug/kg													
Acenaphthene	ug/kg	25,000 (R)	61,000 (R)	120,000 J (R)	140,000 J (R)	180,000 J (R)	410,000 J (A,R)	840 (R)	600 (R)	4,400 (R)	11,000 (R)	62,000 J (R)	35,000 (R)	31,000 (R)	35,000 (R)
Acenaphthylene	ug/kg	2,300 J (R)	4,400 J (R)	5,900 J (R)	9,500 J (R)	7,400 J (R)	15,000 J (R)	800 (R)	630 (R)	1,800 (R)	2,700 (R)	11,000 J (R)	7,900 (R)	5,200 (R)	5,700 (R)
Acetophenone	ug/kg			3,400 J				170 J	120 J		330 J	3,900 J	970 J		750 J
Anthracene	ug/kg	17,000 (R)	31,000 (R)	56,000 J (R)	65,000 J (R)	69,000 J (R)	260,000 J (R)	1,300 (R)	870 (R)	5,300 (R)	12,000 (R)	66,000 J (R)	39,000 (R)	30,000 (R)	29,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	15,000 (A,R)	25,000 (A,R)	35,000 J (A,R)	43,000 J (A,R)	40,000 J (A,R)	90,000 J (A,R)	2,900 (A,R)	1,900 (A,R)	6,500 (A,R)	14,000 J (A,R)	53,000 J (A,R)	30,000 (A,R)	26,000 (A,R)	36,000 (A,R)
Benzo(a)pyrene	ug/kg	11,000 (A,R)	19,000 (A,R)	28,000 J (A,R)	40,000 J (A,R)	31,000 J (A,R)	66,000 J (A,R)	2,700 (A,R)	2,000 (A,R)	5,400 (A,R)	10,000 (A,R)	40,000 J (A,R)	25,000 (A,R)	22,000 (A,R)	27,000 (A,R)
Benzo(b)fluoranthene	ug/kg	13,000 (A,R)	10,000 (A,R)	16,000 J (A,R)	18,000 J (A,R)	29,000 J (A,R)	62,000 J (A,R)	2,000 J (A)	1,700 (A)	5,900 (A,R)	10,000 (A,R)	41,000 J (A,R)	15,000 (A,R)	13,000 (A,R)	21,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	3,700 J (R)	6,500 J (R)	8,400 J (R)	14,000 J (R)	9,500 J (R)	17,000 J (R)	1,700 (R)	680 (R)	1,700 (R)	2,700 (R)	12,000 J (R)	6,800 (R)	6,400 (R)	10,000 (R)
Benzo(k)fluoranthene	ug/kg	13,000 (A,R)	15,000 (A,R)	19,000 J (A,R)	27,000 J (A,R)	32,000 J (A,R)	65,000 J (A,R)	2,100 (A)	1,400	6,200 (A,R)	11,000 (A,R)	43,000 J (A,R)	17,000 (A,R)	15,000 (A,R)	13,000 (A,R)
Benzyl butyl phthalate	ug/kg	1,200 J	1,800 J					240 J	160 J	260 J	420 J		1,500 J	1,100 J	500 J
Biphenyl (diphenyl)	ug/kg						2,300 J				180 J	3,400 J			1,200 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	43,000 (A,R)	76,000 (A,R)					6,200 (R)	6,100 (R)	12,000 (R)	27,000 J (R)	110,000 J (A,R)	58,000 J (A,R)	60,000 J (A,R)	46,000 (A,R)
*Carbazole	ug/kg						3,600 J				290 J	3,900 J	1,200 J	1,200 J	
Chrysene	ug/kg	16,000 (A,R)	25,000 (A,R)	33,000 J (A,R)	41,000 J (A,R)	37,000 J (A,R)	81,000 J (A,R)	3,100 (R)	2,200 (R)	6,900 (R)	12,000 (R)	54,000 J (A,R)	27,000 (A,R)	25,000 (A,R)	31,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	1,400 J (A,R)	2,200 J (A,R)	2,900 J (A,R)	4,200 J (A,R)	3,000 J (A,R)	6,400 J (A,R)	340 J (A,R)	250 J (A,R)	600 J (A,R)	1,000 (A,R)	4,100 J (A,R)	2,600 J (A,R)	2,100 J (A,R)	3,700 (A,R)
Dibenzofuran	ug/kg			5,800 J (R)	6,900 J (R)	15,000 J (A,R)	22,000 J (A,R)				1,300 (R)	11,000 J (A,R)			
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg	2,200 J (R)	4,700 J (R)	3,700 J (R)	5,400 J (R)	3,900 J (R)			230 J	620 J	1,500 (R)	7,100 J (R)	4,900 (R)	4,000 (R)	3,500 (R)
Fluoranthene	ug/kg	29,000 (R)	45,000 (R)	62,000 J (R)	69,000 J (R)	110,000 J (R)	160,000 J (R)	4,600 (R)	3,000 (R)	12,000 (R)	28,000 J (R)	100,000 J (R)	52,000 (R)	48,000 (R)	45,000 (R)
Fluorene	ug/kg	8,400 (R)	16,000 (R)	32,000 J (R)	41,000 J (R)	63,000 J (R)	190,000 J (R)	400 J (R)	87 J (R)	330 J (R)	2,800 (R)	33,000 J (R)	15,000 (R)	13,000 (R)	12,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	4,000 J (A,R)	7,300 J (A,R)	11,000 J (A,R)	15,000 J (A,R)	11,000 J (A,R)	21,000 J (A,R)	1,000 (A,R)	810 (A,R)	1,900 (A,R)	3,100 (A,R)	14,000 J (A,R)	8,000 (A,R)	7,100 (A,R)	12,000 (A,R)
Naphthalene	ug/kg			10,000 J (A,R)	11,000 J (A,R)	14,000 J (A,R)	16,000 J (A,R)	970 (R)	180 J (R)	340 J (R)	1,800 (R)	26,000 J (A,R)	15,000 (A,R)	16,000 (A,R)	24,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	46,000 (R)	86,000 (R)	170,000 J (R)	190,000 J (R)	250,000 J (R)	570,000 J (R)	1,700 (R)	540 (R)	1,800 (R)	25,000 J (R)	170,000 J (R)	91,000 J (R)	82,000 J (R)	67,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	48,000 J (R)	80,000 (R)	120,000 J (R)	110,000 J (R)	130,000 J (R)	330,000 J (A,R)	6,800 J (R)	4,900 (R)	21,000 J (R)	40,000 J (R)	150,000 J (R)	81,000 J (R)	86,000 J (R)	95,000 J (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
	Sample Number:	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H
	Sample Depth:	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.3
	Sample Date:	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
	Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	Units	Semi-Volatile Organic Compounds													
Total PAHs	ug/kg	254,700 (R)	467,400 (R)	816,200 (R)	923,700 (R)	1,145,900 (R)	2,969,400 (R)	33,830 (R)	21,867 (R)	82,250 (R)	187,640 (R)	913,100 (R)	480,300 (R)	442,800 (R)	483,400 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10
Sample Number:		GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)
Sample Depth:		1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5
Sample Date:		12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg		82,000 (A,R)		51,000 (A,R)	150 J (R)	14,000 (R)	3,600 J (R)	420,000 (A,R)	1,800 J (R)	95,000 (A,R)	35,000 (A,R)	52,000 (A,R)	3,300,000 (A,R)	6,700 (R)
4-chloroaniline	ug/kg				4,000 J (A)		6,400 J (A)								
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	710 J (R)	51,000 (R)	4,800 (R)	46,000 (R)	430 J (R)	9,300 (R)	44,000 (R)	310,000 (R)	29,000 (R)	150,000 (R)	36,000 (R)	97,000 (R)	1,600,000 (A,R)	59,000 (R)
Acenaphthylene	ug/kg	740 J (R)	6,100 J (R)		8,000 J (R)	410 J (R)	3,500 J (R)	11,000 (R)	56,000 J (R)	7,500 J (R)	37,000 (R)	18,000 (R)	20,000 J (R)	260,000 J (R)	9,200 (R)
Anthracene	ug/kg	1,200 (R)	41,000 (R)	1,700 J (R)	25,000 (R)	830 (R)	8,300 (R)	32,000 (R)	290,000 (R)	20,000 (R)	94,000 (R)	39,000 (R)	77,000 (R)	600,000 (R)	21,000 (R)
Benzo(a)anthracene	ug/kg	1,900 (A,R)	47,000 (A,R)	2,400 J (A,R)	24,000 (A,R)	1,400 (A,R)	8,300 (A,R)	20,000 (A,R)	150,000 (A,R)	14,000 (A,R)	81,000 (A,R)	35,000 (A,R)	51,000 (A,R)	390,000 J (A,R)	18,000 (A,R)
Benzo(a)pyrene	ug/kg	1,500 (A,R)	39,000 (A,R)	1,700 J (A,R)	14,000 (A,R)	1,100 (A,R)	7,100 J (A,R)	17,000 (A,R)	110,000 J (A,R)	11,000 (A,R)	74,000 (A,R)	24,000 (A,R)	45,000 (A,R)	360,000 J (A,R)	12,000 (A,R)
Benzo(b)fluoranthene	ug/kg	1,700 (A)	41,000 (A,R)	2,100 J (A)	14,000 (A,R)	1,100 (A)	7,500 J (A,R)	7,000 J (A,R)	42,000 J (A,R)	4,800 J (A,R)	51,000 (A,R)	23,000 (A,R)	20,000 J (A,R)		9,800 (A,R)
Benzo(g,h,i)perylene	ug/kg	1,300 J (R)	21,000 J (R)	1,400 J (R)	7,200 J (R)	410 J	5,100 J (R)	8,000 J (R)	42,000 J (R)	6,800 J (R)	29,000 J (R)	10,000 J (R)	23,000 J (R)	230,000 J (A,R)	8,700 (R)
Benzo(k)fluoranthene	ug/kg	420 J	20,000 J (A,R)	570 J	4,400 J (A)	390 J	2,500 J (A)	7,900 J (A,R)	61,000 J (A,R)	5,600 J (A,R)	26,000 J (A,R)	6,300 J (A,R)	28,000 J (A,R)		3,900 J (A)
Benzyl butyl phthalate	ug/kg	170 J		1,400 J	1,600 J	210 J	4,300 J								
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	5,800 (R)		31,000 (R)	87,000 (A,R)	3,300 (R)	68,000 (A,R)	25,000 (R)		7,900 J (R)	140,000 (A,R)		120,000 (A,R)	120,000 J (A,R)	18,000 (R)
*Carbazole	ug/kg	260 J	12,000 J		2,300 J		1,500 J					2,600 J			
Chrysene	ug/kg	1,900 (R)	54,000 (A,R)	2,500 J (R)	24,000 (A,R)	1,400 (R)	11,000 (R)	20,000 (A,R)	150,000 (A,R)	14,000 (R)	83,000 (A,R)	40,000 (A,R)	52,000 (A,R)	390,000 J (A,R)	18,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	380 J (A,R)	6,200 J (A,R)		2,200 J (A,R)	120 J (A,R)	1,700 J (A,R)	2,500 J (A,R)	17,000 J (A,R)	1,900 J (A,R)	7,900 J (A,R)		5,800 J (A,R)		2,300 J (A,R)
Dibenzofuran	ug/kg		12,000 J (A,R)		4,200 J (R)		1,600 J (R)	2,300 J (R)	24,000 J (A,R)		9,000 J (A,R)	4,100 J (R)	6,500 J (R)		2,800 J (R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														780 J
Di-n-octylphthalate	ug/kg	130 J		460 J	19,000 (R)	110 J	11,000 J (R)				13,000 J (R)		8,800 J (R)		
Fluoranthene	ug/kg	2,800 (R)	110,000 (R)	4,900 (R)	45,000 (R)	3,000 (R)	22,000 (R)	39,000 (R)	300,000 (A,R)	27,000 (R)	140,000 (R)	54,000 (R)	120,000 (R)	800,000 (A,R)	30,000 (R)
Fluorene	ug/kg	630 J (R)	38,000 (R)	2,000 J (R)	29,000 (R)	280 J (R)	6,100 J (R)	4,800 J (R)	190,000 (R)	8,100 J (R)	59,000 (R)	27,000 (R)	38,000 (R)	690,000 (A,R)	13,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	1,100 J (A,R)	18,000 J (A,R)	1,300 J (A,R)	6,100 J (A,R)	430 J (A)	4,600 J (A,R)	6,500 J (A,R)	39,000 J (A,R)	5,300 J (A,R)	23,000 J (A,R)	8,800 J (A,R)	17,000 J (A,R)	180,000 J (A,R)	6,600 (A,R)
Naphthalene	ug/kg	470 J (R)	310,000 (A,R)	1,400 J (R)	40,000 (A,R)	1,100 (R)	9,900 (A,R)	6,600 J (A,R)	430,000 (A,R)	13,000 (A,R)	100,000 (A,R)	39,000 (A,R)	8,400 J (A,R)	6,300,000 (A,R)	14,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	3,100 (R)	170,000 (R)	2,800 J (R)	100,000 (R)	2,800 (R)	34,000 (R)	92,000 (R)	800,000 (R)	62,000 (R)	280,000 (R)	100,000 (R)	220,000 (R)	2,200,000 (A,R)	62,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	3,000 (R)	95,000 (R)	4,200 (R)	56,000 (R)	4,200 (R)	17,000 (R)	53,000 (R)	360,000 (A,R)	31,000 (R)	160,000 (R)	63,000 (R)	150,000 (R)	1,100,000 (A,R)	37,000 (R)
Total PAHs	ug/kg	22,850 (R)	1,149,300 (R)	33,770 (R)	495,900 (R)	19,550 (R)	171,900 (R)	374,900 (R)	3,767,000 (R)	262,800 (R)	1,489,900 (R)	558,100 (R)	1,024,200 (R)	18,400,000 (R)	331,200 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-100	GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14
Sample Number:	GC-SED-100(5-6)	GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)
Sample Depth:	5-6	4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5
Sample Date:	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	810,000 (A,R)	1,500,000 (A,R)	5,100,000 (A,R)	4,900,000 (A,R)		1,500,000 (A,R)	1,100,000 (A,R)	49,000 (A,R)		11,000 (R)	180,000 (A,R)		3,300 J (R)	2,100,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	330,000 (R)	530,000 (A,R)	1,800,000 (A,R)	1,700,000 (A,R)	54,000 (R)	580,000 (A,R)	670,000 (A,R)	51,000 (R)	3,900 J (R)	17,000 (R)	130,000 (R)	1,100 J (R)	19,000 (R)	1,900,000 (A,R)
Acenaphthylene	ug/kg	98,000 J (R)	130,000 J (R)	440,000 J (A,R)	380,000 J (A,R)	40,000 (R)	120,000 J (R)	140,000 J (R)	30,000 (R)	17,000 (R)	9,500 (R)	52,000 (R)	1,800 J (R)	9,800 (R)	
Anthracene	ug/kg	230,000 (R)	490,000 (R)	1,000,000 J (R)	950,000 J (R)	87,000 (R)	330,000 (R)	410,000 (R)	41,000 (R)	18,000 (R)	14,000 (R)	90,000 (R)	2,200 J (R)	20,000 (R)	970,000 (R)
Benzo(a)anthracene	ug/kg	150,000 J (A,R)	210,000 J (A,R)	630,000 J (A,R)	510,000 J (A,R)	59,000 (A,R)	190,000 J (A,R)	270,000 (A,R)	43,000 (A,R)	43,000 (A,R)	16,000 (A,R)	58,000 (A,R)	5,400 (A,R)	23,000 (A,R)	530,000 J (A,R)
Benzo(a)pyrene	ug/kg	130,000 J (A,R)	150,000 J (A,R)	440,000 J (A,R)	390,000 J (A,R)	50,000 (A,R)	140,000 J (A,R)	180,000 J (A,R)	36,000 (A,R)	32,000 J (A,R)	13,000 (A,R)	43,000 (A,R)	4,700 (A,R)	18,000 (A,R)	380,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	100,000 J (A,R)	100,000 J (A,R)			40,000 (A,R)	130,000 J (A,R)	140,000 J (A,R)	14,000 (A,R)	16,000 J (A,R)	9,600 (A,R)	26,000 J (A,R)	4,100 (A)	16,000 (A,R)	270,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	30,000 J (R)	71,000 J (R)	340,000 J (A,R)	270,000 J (A,R)	10,000 J (R)		77,000 J (R)	13,000 J (R)	9,900 J (R)	10,000 (R)	26,000 J (R)	2,000 J (R)	5,000 J (R)	110,000 J (R)
Benzo(k)fluoranthene	ug/kg	33,000 J (A,R)	36,000 J (A,R)	260,000 J (A,R)		19,000 J (A,R)		56,000 J (A,R)	20,000 (A,R)	21,000 J (A,R)	4,900 (A,R)	14,000 J (A,R)	1,900 J (A)	4,600 J (A)	97,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg								29,000 (R)	110,000 (A,R)	21,000 (R)		28,000 (R)	25,000 (R)	
*Carbazole	ug/kg														
Chrysene	ug/kg	180,000 (A,R)	250,000 (A,R)	710,000 J (A,R)	590,000 J (A,R)	54,000 (A,R)	190,000 J (A,R)	280,000 (A,R)	45,000 (A,R)	43,000 (A,R)	15,000 (R)	62,000 (A,R)	5,600 (R)	22,000 (A,R)	520,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg					5,000 J (A,R)			4,300 J (A,R)	3,100 J (A,R)	2,400 J (A,R)	5,500 J (A,R)	470 J (A,R)	1,200 J (A,R)	
Dibenzofuran	ug/kg	31,000 J (A,R)	45,000 J (A,R)	300,000 J (A,R)	210,000 J (A,R)			45,000 J (A,R)	4,400 J (R)		1,200 J (R)	9,500 J (A,R)			
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg									2,300 J (R)	540 J			1,000 J	
Fluoranthene	ug/kg	220,000 (R)	290,000 (A,R)	1,100,000 J (A,R)	920,000 J (A,R)	110,000 (R)	350,000 (A,R)	450,000 (A,R)	91,000 (R)	230,000 (R)	24,000 (R)	100,000 (R)	7,900 (R)	43,000 (R)	960,000 (A,R)
Fluorene	ug/kg	230,000 (R)	360,000 (A,R)	1,300,000 (A,R)	1,200,000 (A,R)	31,000 J (R)	350,000 (A,R)	390,000 (A,R)	19,000 (R)		6,500 (R)	74,000 (R)		4,200 J (R)	620,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	31,000 J (A,R)	56,000 J (A,R)	240,000 J (A,R)	220,000 J (A,R)	9,200 J (A,R)		71,000 J (A,R)	11,000 (A,R)	8,900 J (A,R)	7,000 (A,R)	18,000 J (A,R)	1,900 J (A,R)	4,800 J (A,R)	96,000 J (A,R)
Naphthalene	ug/kg	1,100,000 (A,R)	2,700,000 (A,R)	12,000,000 (A,R)	11,000,000 (A,R)	17,000 J (A,R)	2,000,000 (A,R)	2,000,000 (A,R)	71,000 (A,R)	3,200 J (R)	22,000 (A,R)	310,000 (A,R)	660 J (R)	13,000 (A,R)	8,500,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	640,000 (R)	850,000 (R)	3,600,000 (A,R)	3,200,000 (A,R)	150,000 (R)	910,000 (R)	1,400,000 (R)	100,000 (R)	5,800 J (R)	27,000 (R)	250,000 (R)	2,700 J (R)	46,000 (R)	3,200,000 (A,R)
Phenol	ug/kg														
Pyrene	ug/kg	270,000 (A,R)	400,000 (A,R)	1,600,000 (A,R)	1,400,000 (A,R)	64,000 (R)	270,000 J (A,R)	750,000 (A,R)	99,000 (R)	160,000 (R)	34,000 (R)	150,000 (R)	16,000 (R)	71,000 (R)	1,700,000 (A,R)
Total PAHs	ug/kg	4,582,000 (R)	8,123,000 (R)	30,560,000 (R)	27,630,000 (R)	799,200 (R)	7,060,000 (R)	8,384,000 (R)	737,300 (R)	614,800 (R)	242,900 (R)	1,588,500 (R)	58,430 (R)	323,900 (R)	21,953,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B
Sample Number:		GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)
Sample Depth:		0-0.75	0-2	0-2	0-1	1.5-2	5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-5
Sample Date:		1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg		9,900 (R)	25,000 J (R)	2,000 J (R)	1,700 J (R)	9,400 J (R)	380 J (R)	9,500 J (R)		1,800 J (R)		94,000 (A,R)	570 J (R)	1,300 J (R)
4-chloroaniline	ug/kg										1,300 J				600 J
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	1,800 J (R)	10,000 (R)	15,000 J (R)	9,500 (R)	12,000 J (R)	28,000 (R)	1,400 J (R)	9,700 J (R)	20,000 (R)	10,000 (R)	2,200 J (R)	80,000 (R)	2,200 (R)	3,400 (R)
Acenaphthylene	ug/kg	2,000 J (R)	6,300 (R)	7,100 J (R)	2,300 J (R)	8,700 (R)	17,000 J (R)	1,800 (R)	9,500 J (R)	15,000 J (R)	3,700 (R)	3,000 J (R)	18,000 (R)	2,600 (R)	3,700 (R)
Anthracene	ug/kg	2,600 J (R)	10,000 (R)	11,000 J (R)	6,500 (R)	15,000 J (R)	48,000 (R)	2,200 (R)	13,000 J (R)	26,000 (R)	12,000 (R)	3,600 (R)	65,000 (R)	3,100 (R)	5,100 (R)
Benzo(a)anthracene	ug/kg	6,000 (A,R)	10,000 (A,R)	13,000 J (A,R)	6,300 (A,R)	22,000 J (A,R)	55,000 (A,R)	5,100 (A,R)	21,000 J (A,R)	43,000 (A,R)	15,000 (A,R)	7,200 (A,R)	50,000 (A,R)	5,300 (A,R)	7,600 (A,R)
Benzo(a)pyrene	ug/kg	5,200 (A,R)	8,400 (A,R)	11,000 J (A,R)	5,100 (A,R)	18,000 J (A,R)	42,000 (A,R)	4,400 (A,R)	19,000 J (A,R)	35,000 (A,R)	12,000 (A,R)	6,200 (A,R)	40,000 (A,R)	4,600 (A,R)	7,100 (A,R)
Benzo(b)fluoranthene	ug/kg	4,500 (A)	7,800 (A,R)	11,000 J (A,R)	4,500 (A)	16,000 J (A,R)	39,000 (A,R)	5,500 (A,R)	16,000 J (A,R)	32,000 (A,R)	11,000 (A,R)	6,100 (A,R)	30,000 (A,R)	5,200 (A,R)	7,300 (A,R)
Benzo(g,h,i)perylene	ug/kg	2,400 J (R)	3,200 J (R)	4,200 J (R)	2,200 J (R)	5,500 J (R)	18,000 J (R)	1,500 J (R)	4,700 J (R)	15,000 J (R)	2,800 J (R)	2,700 J (R)	13,000 J (R)	1,500 J (R)	1,700 (R)
Benzo(k)fluoranthene	ug/kg	2,100 J (A)	2,200 J (A)	2,700 J (A)	1,600 J (A)	5,300 J (A,R)	18,000 J (A,R)	1,400 J	5,600 J (A,R)	13,000 J (A,R)	3,100 J (A)	1,900 J (A)	10,000 J (A,R)	1,200 J	2,200 (A)
Benzyl butyl phthalate	ug/kg		740 J					270 J	1,200 J	3,600 J	1,000 J	840 J	2,800 J	320 J	590 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	19,000 (R)	38,000 (A,R)	13,000 J (R)	26,000 (R)	62,000 J (A,R)	120,000 (A,R)	9,800 (R)	61,000 J (A,R)	120,000 (A,R)	42,000 (A,R)	32,000 (R)	140,000 (A,R)	22,000 (R)	22,000 (R)
*Carbazole	ug/kg			1,000 J				560 J			770 J				340 J
Chrysene	ug/kg	6,300 (R)	10,000 (R)	12,000 J (R)	6,600 (R)	23,000 J (A,R)	60,000 (A,R)	4,600 (R)	23,000 J (A,R)	50,000 (A,R)	15,000 (R)	8,000 (R)	49,000 (A,R)	6,000 (R)	8,400 (R)
Dibenz(a,h)anthracene	ug/kg	410 J (A,R)	770 J (A,R)	1,200 J (A,R)	510 J (A,R)	1,400 J (A,R)		540 J (A,R)	1,100 J (A,R)	2,800 J (A,R)	920 J (A,R)	640 J (A,R)	3,400 J (A,R)	570 J (A,R)	640 J (A,R)
Dibenzofuran	ug/kg		820 J (R)	1,300 J (R)				440 J (R)	850 J (R)					330 J (R)	310 J (R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg										560 J				260 J
Di-n-octylphthalate	ug/kg		680 J		850 J	2,200 J (R)	6,500 J (R)	330 J	1,400 J (R)	5,500 J (R)	3,200 J (R)	710 J	6,500 J (R)	500 J	850 J
Fluoranthene	ug/kg	9,300 (R)	21,000 (R)	19,000 J (R)	14,000 (R)	47,000 J (R)	110,000 (R)	8,200 (R)	35,000 J (R)	87,000 (R)	26,000 (R)	12,000 (R)	100,000 (R)	8,000 (R)	12,000 (R)
Fluorene	ug/kg		6,600 (R)	8,700 J (R)	3,100 J (R)	3,000 J (R)	15,000 J (R)	770 J (R)	4,300 J (R)	4,500 J (R)	3,900 (R)		31,000 (R)	960 J (R)	1,400 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	2,500 J (A,R)	3,300 J (A,R)	3,600 J (A,R)	2,100 J (A,R)	5,800 J (A,R)	19,000 J (A,R)	1,500 J (A,R)	5,400 J (A,R)	13,000 J (A,R)	3,500 (A,R)	2,600 J (A,R)	12,000 J (A,R)	1,500 J (A,R)	1,900 J (A,R)
Naphthalene	ug/kg	1,200 J (R)	44,000 (A,R)	47,000 J (A,R)	6,600 (A,R)	3,400 J (R)	13,000 J (A,R)	800 J (R)	22,000 J (A,R)	6,500 J (A,R)	5,200 (A,R)	850 J (R)	170,000 (A,R)	1,000 J (R)	2,500 (R)
N-nitrosodiphenylamine	ug/kg										3,300 J				
Phenanthrene	ug/kg	2,600 J (R)	33,000 (R)	38,000 J (R)	24,000 (R)	17,000 J (R)	120,000 (R)	5,600 (R)	18,000 J (R)	28,000 (R)	32,000 (R)	2,400 J (R)	200,000 (R)	3,700 (R)	6,300 (R)
Phenol	ug/kg														
Pyrene	ug/kg	18,000 (R)	35,000 J (R)	23,000 J (R)	25,000 (R)	55,000 J (R)	160,000 (R)	6,500 (R)	60,000 J (R)	130,000 (R)	48,000 (R)	18,000 (R)	170,000 (R)	8,300 (R)	10,000 (R)
Total PAHs	ug/kg	66,910 (R)	221,470 (R)	252,500 (R)	121,910 (R)	259,800 (R)	771,400 (R)	52,190 (R)	276,800 (R)	520,800 (R)	205,920 (R)	77,390 (R)	1,135,400 (R)	56,300 (R)	82,540 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31	GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B
Sample Number:		GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)	GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)
Sample Depth:		1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5	11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3
Sample Date:		1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006	1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	1,400 J (R)	3,200 J (R)		550,000 (A,R)		17,000 (R)	2,300 (R)	5,400 (R)	14,000 (R)	7,500,000 (A,R)		150,000 (A,R)	6,000 J (R)	16,000 (R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	4,800 J (R)	4,900 J (R)	570 J (R)		2,500 J (R)	11,000 (R)	2,900 (R)	6,300 (R)	14,000 (R)	3,900,000 (A,R)	1,200 J (R)	97,000 (R)	8,400 J (R)	31,000 (R)
Acenaphthylene	ug/kg	4,500 J (R)	5,200 (R)	1,200 J (R)	29,000 J (R)	3,500 J (R)	3,500 (R)	2,400 (R)	5,000 (R)	9,300 J (R)	190,000 J (R)	1,400 J (R)	25,000 J (R)	7,000 J (R)	21,000 (R)
Anthracene	ug/kg	7,400 (R)	6,400 (R)	1,100 J (R)	200,000 (R)	4,900 J (R)	8,900 (R)	3,600 (R)	9,100 (R)	25,000 (R)	1,300,000 (R)	1,900 J (R)	83,000 (R)	14,000 (R)	44,000 (R)
Benzo(a)anthracene	ug/kg	13,000 (A,R)	14,000 (A,R)	3,300 (A,R)	100,000 J (A,R)	9,400 (A,R)	8,900 (A,R)	6,000 (A,R)	12,000 (A,R)	25,000 (A,R)	550,000 J (A,R)	3,400 (A,R)	54,000 (A,R)	18,000 (A,R)	46,000 (A,R)
Benzo(a)pyrene	ug/kg	11,000 (A,R)	12,000 (A,R)	2,900 J (A,R)	67,000 J (A,R)	8,400 (A,R)	6,800 (A,R)	5,600 (A,R)	11,000 (A,R)	20,000 (A,R)	380,000 J (A,R)	3,400 (A,R)	43,000 (A,R)	15,000 (A,R)	39,000 (A,R)
Benzo(b)fluoranthene	ug/kg	5,500 J (A,R)	11,000 (A,R)	3,400 (A)	61,000 J (A,R)	5,000 J (A,R)	3,100 (A)	3,400 (A)	5,300 (A,R)	11,000 J (A,R)		2,400 J (A)	21,000 J (A,R)	7,500 J (A,R)	18,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	7,800 (R)	3,200 J (R)	1,500 J (R)		6,700 J (R)	3,000 (R)	3,100 J (R)	8,600 J (R)	13,000 (R)	160,000 J (R)	2,600 J (R)	24,000 J (R)	12,000 J (R)	24,000 (R)
Benzo(k)fluoranthene	ug/kg	7,700 (A,R)	3,200 J (A)	990 J	24,000 J (A,R)	4,700 J (A,R)	3,300 (A)	3,300 (A)	6,000 (A,R)	11,000 J (A,R)	260,000 J (A,R)	2,100 J (A)	21,000 J (A,R)	11,000 J (A,R)	21,000 (A,R)
Benzyl butyl phthalate	ug/kg	3,600 J	1,300 J	780 J		730 J	380 J	3,100	1,100 J	3,700 J		720 J		3,700 J	2,400 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	32,000 (R)	43,000 (A,R)	15,000 (R)	90,000 J (A,R)	47,000 (A,R)	12,000 (R)	22,000 (R)	48,000 (A,R)	96,000 (A,R)		20,000 (R)	180,000 (A,R)	110,000 (A,R)	120,000 (A,R)
*Carbazole	ug/kg						400 J	400 J							
Chrysene	ug/kg	14,000 (R)	13,000 (R)	3,300 (R)	110,000 J (A,R)	11,000 (R)	9,900 (R)	7,000 (R)	13,000 (R)	28,000 (A,R)	570,000 J (A,R)	4,300 (R)	62,000 (A,R)	21,000 (A,R)	53,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	2,100 J (A,R)	880 J (A,R)			2,100 J (A,R)	1,300 J (A,R)	1,100 J (A,R)	2,700 J (A,R)	4,300 J (A,R)		740 J (A,R)	8,100 J (A,R)	3,300 J (A,R)	7,500 J (A,R)
Dibenzofuran	ug/kg	900 J (R)					1,200 J (R)	500 J (R)	1,100 J (R)		200,000 J (A,R)		8,200 J (A,R)		2,800 J (R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg	950 J				1,300 J (R)		800 J	1,400 J (R)	4,000 J (R)			4,000 J (R)	2,700 J (R)	4,500 J (R)
Fluoranthene	ug/kg	22,000 (R)	27,000 (R)	5,100 (R)	190,000 (R)	17,000 (R)	15,000 (R)	11,000 (R)	22,000 (R)	48,000 (R)	1,300,000 (A,R)	7,100 (R)	100,000 (R)	35,000 (R)	78,000 (R)
Fluorene	ug/kg	2,000 J (R)			120,000 (R)	900 J (R)	5,800 (R)	1,100 J (R)	3,500 J (R)	11,000 J (R)	1,600,000 (A,R)	560 J (R)	62,000 (R)	5,800 J (R)	9,900 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	6,000 (A,R)	3,400 J (A,R)	1,700 J (A,R)		5,500 (A,R)	2,600 J (A,R)	2,800 (A,R)	6,900 (A,R)	9,900 J (A,R)		2,100 J (A,R)	20,000 J (A,R)	8,700 J (A,R)	17,000 (A,R)
Naphthalene	ug/kg	2,100 J (R)	4,900 J (A,R)		680,000 (A,R)	1,400 J (R)	17,000 (A,R)	3,600 (R)	6,800 (A,R)	11,000 J (A,R)	12,000,000 (A,R)	790 J (R)	150,000 (A,R)	5,900 J (A,R)	17,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	11,000 (R)	5,600 (R)	1,200 J (R)	530,000 (R)	5,300 J (R)	22,000 (R)	5,600 (R)	20,000 (R)	63,000 (R)	4,300,000 (A,R)	3,000 J (R)	230,000 (R)	32,000 (R)	83,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	27,000 J (R)	35,000 (R)	8,100 (R)	330,000 (A,R)	20,000 (R)	19,000 (R)	11,000 (R)	25,000 (R)	58,000 (R)	1,700,000 (A,R)	7,300 (R)	120,000 (R)	41,000 (R)	97,000 (R)
Total PAHs	ug/kg	149,300 (R)	152,880 (R)	34,360 (R)	2,991,000 (R)	108,300 (R)	158,100 (R)	75,800 (R)	168,600 (R)	375,500 (R)	35,710,000 (R)	44,290 (R)	1,270,100 (R)	251,600 (R)	622,400 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43	GC-SED-43	GC-SED-44
Sample Number:		GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)	GC-SED-43(7.3-8.3)	GC-SED-44(0.5-2.5)
Sample Depth:		5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3	7.3-8.3	0.5-2.5
Sample Date:		1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006	1/23/2006	1/23/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	71,000 (A,R)	200,000 (A,R)	2,000,000 (A,R)	16,000 J (R)	7,100,000 (A,R)	4,000,000 (A,R)	230,000 (A,R)	2,000 J (R)	3,200,000 (A,R)	13,000 (R)	260 J (R)	2,200,000 (A,R)	4,400,000 (A,R)	1,600,000 (A,R)
4-chloroaniline	ug/kg	8,700 J (A)													
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	50,000 (R)	81,000 (R)	620,000 (A,R)	19,000 (R)	3,300,000 (A,R)	1,800,000 (A,R)	140,000 (R)	27,000 (R)	1,400,000 (A,R)	13,000 (R)	180 J (R)	1,000,000 (A,R)	1,600,000 (A,R)	480,000 (A,R)
Acenaphthylene	ug/kg	25,000 (R)	23,000 J (R)	340,000 J (R)	16,000 J (R)	220,000 J (R)	440,000 J (A,R)	71,000 (R)	21,000 (R)	280,000 J (R)	5,100 (R)	420 (R)	310,000 J (R)	520,000 J (A,R)	380,000 (A,R)
Anthracene	ug/kg	70,000 (R)	42,000 (R)	420,000 (R)	28,000 (R)	1,800,000 (A,R)	1,100,000 (R)	170,000 (R)	50,000 (R)	670,000 (R)	9,600 (R)	500 (R)	700,000 (R)	840,000 (R)	370,000 (R)
Benzo(a)anthracene	ug/kg	56,000 (A,R)	26,000 J (A,R)	220,000 J (A,R)	33,000 (A,R)	520,000 J (A,R)	650,000 (A,R)	130,000 (A,R)	54,000 (A,R)	410,000 J (A,R)	9,200 (A,R)	910 (A,R)	400,000 (A,R)	470,000 J (A,R)	220,000 J (A,R)
Benzo(a)pyrene	ug/kg	46,000 (A,R)	20,000 J (A,R)	150,000 J (A,R)	30,000 (A,R)	320,000 J (A,R)	510,000 (A,R)	100,000 (A,R)	43,000 (A,R)	230,000 J (A,R)	6,900 (A,R)	680 (A,R)	260,000 J (A,R)	370,000 J (A,R)	130,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	23,000 (A,R)			12,000 J (A,R)		270,000 J (A,R)	41,000 J (A,R)	18,000 (A,R)	220,000 J (A,R)	2,400 J (A)	290 J (A)		260,000 J (A,R)	100,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	27,000 (R)	10,000 J (R)	80,000 J (R)	19,000 (R)	120,000 J (R)	300,000 J (A,R)	63,000 (R)	32,000 J (R)	79,000 J (R)	3,900 J (R)	260 J		99,000 J (R)	41,000 J (R)
Benzo(k)fluoranthene	ug/kg	22,000 (A,R)	11,000 J (A,R)	79,000 J (A,R)	21,000 (A,R)		270,000 J (A,R)	50,000 (A,R)	25,000 (A,R)		4,400 (A)	330 J		100,000 J (A,R)	40,000 J (A,R)
Benzyl butyl phthalate	ug/kg	3,200 J	10,000 J (R)					120,000 (R)	1,500 J						
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	170,000 (A,R)	22,000 J (R)		99,000 (A,R)			49,000 (A,R)	40,000 J (A,R)		1,700 J (R)	110 J			
*Carbazole	ug/kg						93,000 J								
Chrysene	ug/kg	65,000 (A,R)	30,000 J (A,R)	250,000 J (A,R)	38,000 (A,R)	520,000 J (A,R)	670,000 (A,R)	140,000 (A,R)	59,000 (A,R)	500,000 (A,R)	10,000 (R)	1,000 (R)	410,000 (A,R)	610,000 (A,R)	230,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	8,200 J (A,R)			5,800 J (A,R)		110,000 J (A,R)	19,000 J (A,R)	11,000 (A,R)		1,200 J (A,R)	100 J (A,R)			
Dibenzofuran	ug/kg	5,700 J (R)				190,000 J (A,R)	280,000 J (A,R)	13,000 J (A,R)	2,500 J (R)	80,000 J (A,R)	930 J (R)				
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg	11,000 J (R)			3,300 J (R)				1,200 J (R)						
Fluoranthene	ug/kg	110,000 (R)	45,000 (R)	370,000 J (A,R)	56,000 (R)	1,000,000 (A,R)	1,200,000 (A,R)	190,000 (R)	87,000 (R)	540,000 (A,R)	15,000 (R)	1,300 (R)	590,000 (A,R)	700,000 (A,R)	330,000 (A,R)
Fluorene	ug/kg	37,000 (R)	43,000 (R)	420,000 (A,R)	15,000 J (R)	1,700,000 (A,R)	1,000,000 (A,R)	98,000 (R)		750,000 (A,R)	7,000 (R)	90 J (R)	700,000 (A,R)	1,100,000 (A,R)	440,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	20,000 (A,R)	8,400 J (A,R)	64,000 J (A,R)	14,000 J (A,R)	100,000 J (A,R)	280,000 J (A,R)	47,000 (A,R)	25,000 (A,R)	84,000 J (A,R)	3,000 J (A,R)	230 J (A)	100,000 J (A,R)	99,000 J (A,R)	47,000 J (A,R)
Naphthalene	ug/kg	53,000 (A,R)	340,000 (A,R)	3,500,000 (A,R)	18,000 (A,R)	9,000,000 (A,R)	7,000,000 (A,R)	230,000 (A,R)	4,000 J (A,R)	5,100,000 (A,R)	26,000 (A,R)	510 (R)	3,400,000 (A,R)	7,400,000 (A,R)	3,300,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	180,000 (R)	130,000 (R)	1,200,000 (R)	66,000 (R)	4,100,000 (A,R)	3,400,000 (A,R)	400,000 (R)	54,000 (R)	2,100,000 (A,R)	21,000 (R)	290 J (R)	2,000,000 (A,R)	2,700,000 (A,R)	1,200,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	140,000 (R)	63,000 (R)	490,000 (A,R)	71,000 J (R)	1,400,000 (A,R)	1,500,000 (A,R)	270,000 (A,R)	110,000 (R)	820,000 (A,R)	23,000 (R)	1,900 (R)	1,000,000 (A,R)	1,200,000 (A,R)	570,000 (A,R)
Total PAHs	ug/kg	1,003,200 (R)	1,072,400 (R)	10,203,000 (R)	477,800 (R)	31,200,000 (R)	24,500,000 (R)	2,389,000 (R)	622,000 (R)	16,383,000 (R)	173,700 (R)	9,250 (R)	13,070,000 (R)	22,468,000 (R)	9,478,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53
Sample Number:		GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)
Sample Depth:		5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5
Sample Date:		1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	4,100,000 (A,R)	6,700,000 (A,R)	500,000 (A,R)	5,600,000 (A,R)	1,600,000 (A,R)	660,000 (A,R)	4,100,000 (A,R)	4,000,000 (A,R)	1,500,000 (A,R)	6,500,000 (A,R)	500,000 (A,R)	9,100,000 (A,R)	3,500,000 (A,R)	680,000 (A,R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	1,500,000 (A,R)	2,300,000 (A,R)	280,000 (R)	2,400,000 (A,R)	590,000 (A,R)	350,000 (A,R)	1,600,000 (A,R)	1,400,000 (A,R)	590,000 (A,R)	2,800,000 (A,R)	320,000 (R)	2,500,000 (A,R)	310,000 J (R)	290,000 (R)
Acenaphthylene	ug/kg	340,000 J (R)	1,100,000 (A,R)	96,000 J (R)	370,000 J (A,R)	150,000 J (R)	110,000 J (R)	190,000 J (R)	410,000 J (A,R)	130,000 J (R)	540,000 J (A,R)	94,000 J (R)	1,200,000 (A,R)	220,000 J (R)	93,000 (R)
Anthracene	ug/kg	730,000 (R)	2,000,000 (A,R)	230,000 (R)	1,100,000 (R)	370,000 (R)	280,000 (R)	1,100,000 (R)	930,000 (R)	350,000 (R)	1,400,000 (R)	270,000 (R)	1,800,000 (A,R)	680,000 (R)	230,000 (R)
Benzo(a)anthracene	ug/kg	460,000 J (A,R)	690,000 J (A,R)	210,000 (A,R)	590,000 J (A,R)	170,000 J (A,R)	230,000 (A,R)	410,000 J (A,R)	670,000 (A,R)	140,000 J (A,R)	630,000 J (A,R)	190,000 (A,R)	880,000 J (A,R)	480,000 (A,R)	160,000 (A,R)
Benzo(a)pyrene	ug/kg	320,000 J (A,R)	460,000 J (A,R)	130,000 (A,R)	400,000 J (A,R)	110,000 J (A,R)	140,000 J (A,R)	250,000 J (A,R)	370,000 J (A,R)	110,000 J (A,R)	480,000 J (A,R)	130,000 J (A,R)	630,000 J (A,R)	320,000 J (A,R)	110,000 (A,R)
Benzo(b)fluoranthene	ug/kg	220,000 J (A,R)	320,000 J (A,R)	100,000 J (A,R)	310,000 J (A,R)	78,000 J (A,R)	120,000 J (A,R)	270,000 J (A,R)	270,000 J (A,R)	85,000 J (A,R)		120,000 J (A,R)		240,000 J (A,R)	94,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	100,000 J (R)		44,000 J (R)		51,000 J (R)	62,000 J (R)	77,000 J (R)	120,000 J (R)	38,000 J (R)	200,000 J (A,R)	60,000 J (R)	240,000 J (A,R)	130,000 J (R)	38,000 J (R)
Benzo(k)fluoranthene	ug/kg	94,000 J (A,R)	150,000 J (A,R)	37,000 J (A,R)		28,000 J (A,R)	39,000 J (A,R)		100,000 J (A,R)	32,000 J (A,R)	290,000 J (A,R)	30,000 J (A,R)	380,000 J (A,R)	84,000 J (A,R)	29,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg			540,000 (A,R)		31,000 J (R)	79,000 J (A,R)					81,000 J (A,R)			28,000 J (R)
*Carbazole	ug/kg														
Chrysene	ug/kg	530,000 J (A,R)	850,000 J (A,R)	200,000 (A,R)	680,000 J (A,R)	210,000 J (A,R)	240,000 (A,R)	460,000 J (A,R)	660,000 (A,R)	200,000 J (A,R)	740,000 J (A,R)	210,000 (A,R)	1,100,000 J (A,R)	600,000 (A,R)	190,000 (A,R)
Dibenz(a,h)anthracene	ug/kg			13,000 J (A,R)					62,000 J (A,R)			17,000 J (A,R)			13,000 J (A,R)
Dibenzofuran	ug/kg	95,000 J (A,R)	180,000 J (A,R)	30,000 J (A,R)		44,000 J (A,R)		110,000 J (A,R)	100,000 J (A,R)	42,000 J (A,R)		24,000 J (A,R)	260,000 J (A,R)	99,000 J (A,R)	19,000 J (A,R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	570,000 J (A,R)	1,200,000 (A,R)	270,000 (A,R)	840,000 J (A,R)	280,000 (A,R)	300,000 (A,R)	700,000 (A,R)	840,000 (A,R)	250,000 (A,R)	1,000,000 (A,R)	280,000 (A,R)	1,300,000 (A,R)	590,000 (A,R)	220,000 (R)
Fluorene	ug/kg	950,000 (A,R)	1,700,000 (A,R)	220,000 (R)	1,300,000 (A,R)	410,000 (A,R)	250,000 (A,R)	940,000 (A,R)	990,000 (A,R)	330,000 (A,R)	1,600,000 (A,R)	190,000 (R)	2,000,000 (A,R)	710,000 (A,R)	230,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	82,000 J (A,R)	100,000 J (A,R)	41,000 J (A,R)	110,000 J (A,R)	37,000 J (A,R)	49,000 J (A,R)		110,000 J (A,R)	32,000 J (A,R)	170,000 J (A,R)	51,000 J (A,R)	180,000 J (A,R)	95,000 J (A,R)	30,000 J (A,R)
Naphthalene	ug/kg	8,200,000 (A,R)	12,000,000 (A,R)	820,000 (A,R)	11,000,000 (A,R)	2,800,000 (A,R)	790,000 (A,R)	7,100,000 (A,R)	6,500,000 (A,R)	2,200,000 (A,R)	13,000,000 (A,R)	720,000 (A,R)	16,000,000 (A,R)	5,200,000 (A,R)	1,100,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	2,500,000 (A,R)	3,800,000 (A,R)	750,000 (R)	3,200,000 (A,R)	950,000 (R)	730,000 (R)	2,300,000 (A,R)	2,700,000 (A,R)	800,000 (R)	3,900,000 (A,R)	740,000 (R)	5,200,000 (A,R)	2,300,000 (A,R)	730,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	1,300,000 (A,R)	1,100,000 (A,R)	580,000 (A,R)	1,600,000 (A,R)	320,000 (A,R)	440,000 (A,R)	1,200,000 (A,R)	1,300,000 (A,R)	340,000 (A,R)	1,900,000 (A,R)	490,000 (A,R)	2,500,000 (A,R)	1,200,000 (A,R)	430,000 (A,R)
Total PAHs	ug/kg	21,996,000 (R)	34,470,000 (R)	4,521,000 (R)	29,500,000 (R)	8,154,000 (R)	4,790,000 (R)	20,697,000 (R)	21,432,000 (R)	7,127,000 (R)	35,150,000 (R)	4,412,000 (R)	45,010,000 (R)	16,659,000 (R)	4,667,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-54B	GC-SED-54B	GC-SED-55	GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B
Sample Number:	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)	GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)
Sample Depth:	0-2	4.5-5.7	1.5-2.5	10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1
Sample Date:	1/20/2006	1/20/2006	1/24/2006	1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dimethylphenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2,6-dinitrotoluene	ug/kg														
2-methylnaphthalene	ug/kg	5,400 J (R)	5,500,000 (A,R)	5,300 J (R)	63,000 (A,R)	45,000 (A,R)	2,400,000 (A,R)	1,100,000 (A,R)	160,000 (A,R)	16,000 J (R)	2,400,000 (A,R)	100,000 (A,R)	1,200,000 (A,R)	1,400,000 (A,R)	930 J (R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														1,500 J (R)
Acenaphthene	ug/kg	70,000 (R)	1,800,000 (A,R)	53,000 (R)	45,000 (R)	70,000 (R)	1,000,000 (A,R)	740,000 (A,R)	170,000 (R)	38,000 (R)	1,200,000 (A,R)	71,000 (R)	780,000 (A,R)	120,000 J (R)	2,200 (R)
Acenaphthylene	ug/kg	23,000 (R)	480,000 J (A,R)	27,000 J (R)	13,000 (R)	22,000 (R)	120,000 J (R)	350,000 J (A,R)	97,000 (R)	24,000 (R)	110,000 J (R)	26,000 J (R)	110,000 J (R)	480,000 (A,R)	3,200 (R)
Anthracene	ug/kg	62,000 (R)	970,000 (R)	96,000 (R)	47,000 (R)	100,000 (R)	730,000 (R)	580,000 (R)	190,000 (R)	49,000 (R)	550,000 (R)	62,000 (R)	370,000 (R)	210,000 J (R)	3,600 (R)
Benzo(a)anthracene	ug/kg	52,000 J (A,R)	560,000 J (A,R)	88,000 (A,R)	38,000 (A,R)	77,000 (A,R)	200,000 J (A,R)	450,000 (A,R)	200,000 (A,R)	52,000 J (A,R)	270,000 J (A,R)	56,000 (A,R)	260,000 J (A,R)	200,000 J (A,R)	8,700 (A,R)
Benzo(a)pyrene	ug/kg	38,000 J (A,R)	390,000 J (A,R)	66,000 (A,R)	28,000 (A,R)	59,000 (A,R)	120,000 J (A,R)	340,000 J (A,R)	140,000 (A,R)	38,000 J (A,R)	190,000 J (A,R)	40,000 J (A,R)	190,000 J (A,R)	140,000 J (A,R)	8,000 (A,R)
Benzo(b)fluoranthene	ug/kg	31,000 J (A,R)	280,000 J (A,R)	52,000 (A,R)	19,000 (A,R)	48,000 (A,R)	110,000 J (A,R)		110,000 (A,R)	30,000 J (A,R)	140,000 J (A,R)	33,000 J (A,R)	150,000 J (A,R)	130,000 J (A,R)	8,500 (A,R)
Benzo(g,h,i)perylene	ug/kg	13,000 J (R)	150,000 J (R)	39,000 (R)	15,000 (R)	25,000 (R)		110,000 J (R)	53,000 J (R)	14,000 J (R)		14,000 J (R)	67,000 J (R)	58,000 J (R)	3,800 J (R)
Benzo(k)fluoranthene	ug/kg	12,000 J (A,R)		18,000 J (A,R)	8,900 J (A,R)	16,000 (A,R)			44,000 J (A,R)	11,000 J (A,R)	71,000 J (A,R)	10,000 J (A,R)			
Benzyl butyl phthalate	ug/kg														
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	57,000 J (A,R)		42,000 (A,R)	56,000 (A,R)	49,000 (A,R)			140,000 (A,R)	47,000 J (A,R)		43,000 J (A,R)			18,000 (R)
*Carbazole	ug/kg														600 J
Chrysene	ug/kg	58,000 J (A,R)	610,000 J (A,R)	100,000 (A,R)	41,000 (A,R)	80,000 (A,R)	190,000 J (A,R)	490,000 (A,R)	220,000 (A,R)	54,000 J (A,R)	280,000 J (A,R)	60,000 (A,R)	240,000 J (A,R)	220,000 J (A,R)	8,300 (R)
Dibenz(a,h)anthracene	ug/kg	3,700 J (A,R)		15,000 J (A,R)	5,800 J (A,R)	6,300 J (A,R)				4,000 J (A,R)					1,300 J (A,R)
Dibenzofuran	ug/kg	3,300 J (R)			3,200 J (R)	4,900 J (R)									740 J (R)
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg				3,300 J (R)	1,700 J (R)									200 J
Fluoranthene	ug/kg	92,000 (R)	740,000 J (A,R)	130,000 (R)	55,000 (R)	160,000 (R)	350,000 (A,R)	590,000 (A,R)	220,000 (R)	73,000 (R)	430,000 J (A,R)	79,000 (R)	400,000 (A,R)	270,000 J (A,R)	17,000 (R)
Fluorene	ug/kg	13,000 J (R)	1,300,000 (A,R)	18,000 J (R)	31,000 (R)	35,000 (R)	510,000 (A,R)	450,000 (A,R)	120,000 (R)	19,000 (R)	570,000 (A,R)	45,000 J (R)	410,000 (A,R)	380,000 (A,R)	1,700 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	13,000 J (A,R)	130,000 J (A,R)	33,000 (A,R)	12,000 (A,R)	21,000 (A,R)	34,000 J (A,R)	90,000 J (A,R)	48,000 J (A,R)	13,000 J (A,R)		14,000 J (A,R)	47,000 J (A,R)	45,000 J (A,R)	3,300 (A,R)
Naphthalene	ug/kg	24,000 (A,R)	10,000,000 (A,R)	11,000 J (A,R)	71,000 (A,R)	52,000 (A,R)	3,900,000 (A,R)	2,500,000 (A,R)	170,000 (A,R)	32,000 (A,R)	5,100,000 (A,R)	150,000 (A,R)	3,100,000 (A,R)	2,100,000 (A,R)	1,900 (R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	110,000 (R)	3,200,000 (A,R)	130,000 (R)	110,000 (R)	210,000 (R)	1,400,000 (R)	1,600,000 (R)	570,000 (R)	83,000 (R)	1,700,000 (R)	200,000 (R)	1,500,000 (R)	800,000 (R)	7,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	150,000 J (R)	1,400,000 J (A,R)	180,000 (A,R)	83,000 (R)	220,000 (A,R)	620,000 (A,R)	1,000,000 (A,R)	490,000 (A,R)	120,000 J (R)	770,000 (A,R)	140,000 (R)	720,000 (A,R)	410,000 (A,R)	17,000 (R)
Total PAHs	ug/kg	770,100 (R)	27,510,000 (R)	1,061,300 (R)	685,700 (R)	1,246,300 (R)	11,684,000 (R)	10,390,000 (R)	3,002,000 (R)	670,000 (R)	13,781,000 (R)	1,100,000 (R)	9,544,000 (R)	6,963,000 (R)	96,430 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C
Sample Number:	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)
Sample Depth:	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5	2.5-4	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4
Sample Date:	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	**2,700,000 (A,R)**	**2,300 J (R)**	**1,900,000 (A,R)**	**2,700 J (R)**	**41,000 J (A,R)**	**87,000 (A,R)**	**380,000 J (A,R)**	70 J	**13,000 (R)**				**820 J (R)**
4-chloroaniline	ug/kg									**5,500 J (A)**				
4-chlorophenyl phenyl ether	ug/kg													
4-methylphenol (p-cresol)	ug/kg													
Acenaphthene	ug/kg	**1,000,000 (A,R)**	**5,300 (R)**	**670,000 (A,R)**	**7,600 (R)**	**32,000 (R)**	**39,000 (R)**	**160,000 (R)**	**70 J (R)**	**13,000 (R)**			**830 J (R)**		**2,000 J (R)**
Acenaphthylene	ug/kg	**220,000 J (R)**	**5,800 (R)**	**170,000 J (R)**	**7,800 (R)**	**5,900 J (R)**	**8,900 J (R)**	**36,000 J (R)**	**130 J (R)**	**11,000 J (R)**	**5,700 (R)**	**13,000 J (R)**	**2,100 J (R)**	**140 J (R)**	**2,800 J (R)**
Anthracene	ug/kg	**450,000 (R)**	**10,000 (R)**	**310,000 J (R)**	**10,000 (R)**	**20,000 (R)**	**25,000 (R)**	**82,000 (R)**	**110 J (R)**	**27,000 (R)**	**8,300 (R)**	**56,000 J (R)**	**1,800 J (R)**	70 J	**3,400 (R)**
Benzo(a)anthracene	ug/kg	**350,000 J (A,R)**	**19,000 (A,R)**	**210,000 J (A,R)**	**18,000 (A,R)**	**13,000 (A,R)**	**23,000 (A,R)**	**51,000 J (A,R)**	**340 J (A,R)**	**33,000 J (A,R)**	**17,000 (A,R)**	**47,000 J (A,R)**	**5,100 (A,R)**	**280 J (A,R)**	**11,000 (A,R)**
Benzo(a)pyrene	ug/kg	**240,000 J (A,R)**	**16,000 (A,R)**	**110,000 J (A,R)**	**17,000 (A,R)**	**10,000 (A,R)**	**16,000 J (A,R)**	**38,000 J (A,R)**	**330 J (A)**	**26,000 J (A,R)**	**14,000 (A,R)**	**40,000 J (A,R)**	**4,200 (A,R)**	**500 (A,R)**	**9,800 (A,R)**
Benzo(b)fluoranthene	ug/kg	**190,000 J (A,R)**	**15,000 (A,R)**		**10,000 (A,R)**	**4,600 J (A)**	**14,000 J (A,R)**		**330 J (A)**	**22,000 (A,R)**	**11,000 (A,R)**	**33,000 J (A,R)**	**3,600 J (A)**	**360 J (A)**	**9,800 (A,R)**
Benzo(g,h,i)perylene	ug/kg	**80,000 J (R)**	**6,100 (R)**	**68,000 J (R)**	**12,000 (R)**	**5,700 J (R)**	**6,300 J (R)**	**27,000 J (R)**	140 J	**10,000 J (R)**	**6,500 J (R)**	**19,000 J (R)**	**2,800 J (R)**	220 J	**5,700 (R)**
Benzo(k)fluoranthene	ug/kg	**62,000 J (A,R)**	**4,600 (A)**		**8,900 (A,R)**	**5,100 J (A,R)**	**4,000 J (A)**		100 J	**8,300 J (A,R)**	**3,600 J (A)**	**11,000 J (A,R)**	**1,900 J (A)**	150 J	**3,400 (A)**
Benzyl butyl phthalate	ug/kg														
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg		**26,000 (R)**		**35,000 (R)**		**18,000 J (R)**		**480 (R)**	**140,000 (A,R)**	**16,000 (R)**	**63,000 J (A,R)**	**7,800 (R)**	160 J	**30,000 (R)**
*Carbazole	ug/kg		1,000 J		1,100 J						690 J				
Chrysene	ug/kg	**430,000 (A,R)**	**21,000 (A,R)**	**260,000 J (A,R)**	**21,000 (A,R)**	**15,000 (R)**	**21,000 (A,R)**	**61,000 J (A,R)**	310 J	**34,000 J (A,R)**	**16,000 (A,R)**	**49,000 J (A,R)**	**5,100 (R)**	230 J	**10,000 (R)**
Dibenz(a,h)anthracene	ug/kg		**1,900 J (A,R)**		**3,600 J (A,R)**	**2,100 J (A,R)**		**9,200 J (A,R)**		**2,500 J (A,R)**	**1,900 J (A,R)**		**770 J (A,R)**	**70 J (A,R)**	**1,300 J (A,R)**
Dibenzofuran	ug/kg		**1,500 J (R)**		**2,500 J (R)**	**2,300 J (R)**	**3,300 J (R)**				**1,200 J (R)**				
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg		**1,700 J (R)**		**1,600 J (R)**					**14,000 (R)**					
Fluoranthene	ug/kg	**520,000 (A,R)**	**40,000 (R)**	**320,000 J (A,R)**	**38,000 (R)**	**21,000 (R)**	**32,000 (R)**	**79,000 (R)**	490	**58,000 J (R)**	**25,000 (R)**	**76,000 J (R)**	**11,000 (R)**	290 J	**25,000 (R)**
Fluorene	ug/kg	**580,000 (A,R)**	**2,300 J (R)**	**330,000 J (A,R)**	**4,400 J (R)**	**17,000 (R)**	**24,000 (R)**	**100,000 (R)**	**50 J (R)**	**11,000 J (R)**	**2,500 J (R)**	**39,000 J (R)**	**580 J (R)**		**760 J (R)**
Indeno(1,2,3-c,d)pyrene	ug/kg	**69,000 J (A,R)**	**6,100 (A,R)**	**55,000 J (A,R)**	**9,900 (A,R)**	**4,600 J (A,R)**	**6,300 J (A,R)**	**19,000 J (A,R)**	120 J	**11,000 J (A,R)**	**5,900 (A,R)**	**17,000 J (A,R)**	**2,200 J (A,R)**	**190 J (A)**	**4,700 (A,R)**
Naphthalene	ug/kg	**4,100,000 (A,R)**	**4,900 (A,R)**	**3,200,000 (A,R)**	**5,700 J (A,R)**	**50,000 J (A,R)**	**150,000 (A,R)**	**600,000 J (A,R)**	90 J	**19,000 (A,R)**		**650,000 (A,R)**		80 J	**2,200 J (R)**
N-nitrosodiphenylamine	ug/kg		2,500 J							**16,000 (R)**					1,200 J
Phenanthrene	ug/kg	**1,900,000 (A,R)**	**14,000 (R)**	**1,100,000 (R)**	**24,000 (R)**	**62,000 (R)**	**74,000 (R)**	**280,000 J (R)**	200 J	**75,000 J (R)**	**11,000 (R)**	**140,000 (R)**	**1,800 J (R)**	60 J	**2,900 J (R)**
Phenol	ug/kg														
Pyrene	ug/kg	**1,000,000 (A,R)**	**50,000 (R)**	**630,000 (A,R)**	**41,000 (R)**	**31,000 (R)**	**37,000 (R)**	**130,000 (R)**	**1,100 (R)**	**84,000 (R)**	**27,000 (R)**	**110,000 (R)**	**11,000 (R)**	**1,100 (R)**	**28,000 (R)**
Total PAHs	ug/kg	**13,891,000 (R)**	**224,300 (R)**	**9,333,000 (R)**	**241,600 (R)**	**340,000 (R)**	**567,500 (R)**	**2,052,200 (R)**	3,980	**457,800 (R)**	**155,400 (R)**	**1,300,000 (R)**	**54,780 (R)**	3,740	**123,580 (R)**

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83	GC-SED-83	GC-SED-84	GC-SED-85B
Sample Number:	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)	GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)
Sample Depth:	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8	0-2	11-11.9	1-2	0-1
Sample Date:	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006	1/30/2006	1/30/2006	12/15/2005	12/16/2005
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	430 J (R)	330,000 (A,R)		6,700 J (R)	62,000 (A,R)	3,000 J (R)	54,000 J (A,R)		27,000 J (R)	490,000 (A,R)		9,500 (R)	1,700 J (R)	1,500 J (R)
4-chloroaniline	ug/kg														
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	640 J (R)	230,000 (R)	1,400 J (R)	24,000 (R)	38,000 (R)	4,600 J (R)	46,000 (R)		160,000 (R)	210,000 (R)	2,300 J (R)	13,000 (R)	5,100 J (R)	5,600 J (R)
Acenaphthylene	ug/kg	2,000 (R)	34,000 J (R)	2,100 J (R)	4,400 J (R)	11,000 J (R)	3,800 J (R)	9,500 J (R)		43,000 J (R)	55,000 (R)	2,400 J (R)	4,100 J (R)	4,100 J (R)	4,300 J (R)
Anthracene	ug/kg	2,800 (R)	140,000 (R)	2,300 J (R)	17,000 (R)	34,000 (R)	7,600 J (R)	49,000 (R)		120,000 (R)	110,000 (R)	4,400 J (R)	12,000 (R)	9,000 (R)	9,500 (R)
Benzo(a)anthracene	ug/kg	5,600 (A,R)	97,000 (A,R)	7,000 (A,R)	22,000 (A,R)	34,000 (A,R)	12,000 (A,R)	39,000 (A,R)		96,000 (A,R)	83,000 (A,R)	9,800 (A,R)	14,000 (A,R)	15,000 (A,R)	15,000 (A,R)
Benzo(a)pyrene	ug/kg	6,300 (A,R)	75,000 (A,R)	5,300 (A,R)	14,000 J (A,R)	26,000 (A,R)	8,700 J (A,R)	31,000 (A,R)		65,000 (A,R)	65,000 (A,R)	7,900 (A,R)	9,700 (A,R)	13,000 (A,R)	12,000 (A,R)
Benzo(b)fluoranthene	ug/kg	6,000 (A,R)	60,000 (A,R)	6,300 (A,R)	15,000 (A,R)	21,000 (A,R)	7,400 J (A,R)	23,000 (A,R)		54,000 J (A,R)	46,000 (A,R)	6,800 (A,R)	7,900 (A,R)	13,000 (A,R)	10,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	3,300 (R)	37,000 J (R)	3,000 J (R)	6,600 J (R)	10,000 J (R)	4,000 J (R)	12,000 J (R)		43,000 J (R)	33,000 J (R)	5,900 J (R)	5,900 J (R)	5,400 J (R)	3,300 J (R)
Benzo(k)fluoranthene	ug/kg	1,900 (A)	19,000 J (A,R)	2,400 J (A)	5,200 J (A,R)	6,300 J (A,R)	3,300 J (A)	7,700 J (A,R)		19,000 J (A,R)	16,000 J (A,R)	2,800 J (A)	2,700 J (A)	3,700 J (A)	3,000 J (A)
Benzyl butyl phthalate	ug/kg													1,800 J	2,500 J
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	11,000 (R)		9,000 (R)	55,000 (A,R)	4,300 J (R)	78,000 (A,R)					15,000 (R)	28,000 (R)	58,000 (A,R)	65,000 (A,R)
*Carbazole	ug/kg														730 J
Chrysene	ug/kg	5,800 (R)	92,000 (A,R)	7,200 (R)	22,000 (A,R)	37,000 (A,R)	13,000 (R)	44,000 (A,R)		110,000 (A,R)	96,000 (A,R)	11,000 (R)	16,000 (A,R)	17,000 (A,R)	16,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	850 J (A,R)	8,600 J (A,R)	700 J (A,R)		3,200 J (A,R)	1,100 J (A,R)			11,000 J (A,R)	8,300 J (A,R)	1,400 J (A,R)	1,500 J (A,R)	1,400 J (A,R)	1,200 J (A,R)
Dibenzofuran	ug/kg		27,000 J (A,R)		12,000 J (A,R)	4,200 J (R)		6,800 J (R)		14,000 J (A,R)	20,000 J (A,R)		1,800 J (R)		
Diethyl phthalate	ug/kg														
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg													2,100 J (R)	2,100 J (R)
Fluoranthene	ug/kg	8,700 (R)	150,000 (R)	17,000 (R)	73,000 (R)	52,000 (R)	19,000 (R)	73,000 (R)		130,000 (R)	100,000 (R)	15,000 (R)	20,000 (R)	30,000 (R)	29,000 (R)
Fluorene	ug/kg	630 J (R)	150,000 (R)	490 J (R)	17,000 (R)	23,000 (R)	2,700 J (R)	30,000 (R)		86,000 (R)	150,000 (R)	980 J (R)	7,600 (R)	1,600 J (R)	1,200 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	2,700 (A,R)	27,000 J (A,R)	2,600 J (A,R)	5,700 J (A,R)	8,500 J (A,R)	4,000 J (A,R)	9,800 J (A,R)		31,000 J (A,R)	21,000 J (A,R)	5,000 J (A,R)	4,700 J (A,R)	4,800 J (A,R)	3,400 J (A,R)
Naphthalene	ug/kg	720 J (R)	360,000 (A,R)	700 J (R)	7,400 J (A,R)	140,000 (A,R)	6,500 J (A,R)	130,000 J (A,R)		68,000 (A,R)	610,000 (A,R)	1,700 J (R)	18,000 (A,R)	3,200 J (R)	2,800 J (R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	4,800 (R)	400,000 (R)	1,700 J (R)	62,000 (R)	120,000 (R)	11,000 (R)	160,000 (R)	60 J	330,000 (R)	370,000 (R)	4,400 J (R)	31,000 (R)	14,000 (R)	4,500 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	12,000 (R)	210,000 (A,R)	16,000 (R)	64,000 (R)	100,000 (R)	28,000 (R)	120,000 (R)	60 J	240,000 (A,R)	180,000 (A,R)	18,000 (R)	33,000 (R)	41,000 (R)	41,000 (R)
Total PAHs	ug/kg	65,170 (R)	2,419,600 (R)	76,190 (R)	366,000 (R)	726,000 (R)	139,700 (R)	838,000 (R)	120	1,633,000 (R)	2,643,300 (R)	99,780 (R)	210,600 (R)	183,000 (R)	163,300 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97
Sample Number:	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)
Sample Depth:	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9
Sample Date:	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dimethylphenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2,6-dinitrotoluene	ug/kg													
2-methylnaphthalene	ug/kg	140,000 (A,R)	15,000 J (R)	10,000 J (R)	4,400 J (R)	81,000 (A,R)	53,000 J (A,R)	27,000 (R)	4,400 J (R)		8,100 J (R)	96,000 (A,R)	610 J (R)	3,500 J (R)	970,000 (A,R)
4-chloroaniline	ug/kg		8,800 J (A)			9,100 J (A)					4,800 J (A)			2,400 J	
4-chlorophenyl phenyl ether	ug/kg														
4-methylphenol (p-cresol)	ug/kg														
Acenaphthene	ug/kg	93,000 (R)	34,000 (R)	32,000 (R)	38,000 (R)	80,000 (R)	210,000 (R)	59,000 (R)	26,000 J (R)		58,000 (R)	68,000 (R)	1,200 J (R)	19,000 (R)	430,000 (A,R)
Acenaphthylene	ug/kg	34,000 (R)	32,000 (R)	23,000 (R)	18,000 (R)	36,000 (R)	78,000 J (R)	17,000 J (R)	18,000 J (R)		46,000 (R)	12,000 (R)	1,500 J (R)	15,000 (R)	89,000 J (R)
Anthracene	ug/kg	120,000 (R)	63,000 (R)	51,000 (R)	46,000 (R)	66,000 (R)	250,000 (R)	49,000 (R)	34,000 J (R)		74,000 (R)	36,000 (R)	2,500 J (R)	30,000 J (R)	230,000 J (R)
Benzo(a)anthracene	ug/kg	100,000 (A,R)	61,000 (A,R)	67,000 (A,R)	50,000 (A,R)	54,000 (A,R)	170,000 (A,R)	47,000 (A,R)	46,000 J (A,R)	68,000 J (A,R)	88,000 (A,R)	26,000 (A,R)	5,500 (A,R)	36,000 (A,R)	200,000 J (A,R)
Benzo(a)pyrene	ug/kg	71,000 (A,R)	53,000 (A,R)	40,000 J (A,R)	34,000 (A,R)	40,000 (A,R)	140,000 (A,R)	29,000 (A,R)	32,000 J (A,R)		55,000 (A,R)	18,000 (A,R)	4,500 (A,R)	29,000 (A,R)	110,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	63,000 (A,R)	40,000 (A,R)	33,000 J (A,R)	26,000 (A,R)	31,000 (A,R)	100,000 (A,R)	29,000 (A,R)	29,000 J (A,R)		42,000 (A,R)	11,000 (A,R)	4,800 (A,R)	22,000 (A,R)	130,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	31,000 J (R)	34,000 J (R)	21,000 J (R)	24,000 J (R)	18,000 (R)	61,000 J (R)	9,700 J (R)	14,000 J (R)		33,000 (R)	8,900 J (R)	2,100 J (R)	12,000 (R)	
Benzo(k)fluoranthene	ug/kg	26,000 J (A,R)	26,000 J (A,R)	16,000 J (A,R)	12,000 (A,R)	11,000 J (A,R)	40,000 J (A,R)	8,800 J (A,R)	10,000 J (A,R)		13,000 (A,R)	5,800 J (A,R)	1,600 J (A)	6,900 (A,R)	
Benzyl butyl phthalate	ug/kg		7,800 J (R)						4,300 J				11,000 (R)	3,000 J	
Bis(2-chloroethoxy) methane	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	89,000 (A,R)	220,000 (A,R)	120,000 (A,R)	49,000 (A,R)	170,000 (A,R)	71,000 J (A,R)	80,000 (A,R)	180,000 J (A,R)	2,800,000 J (A,R)	100,000 (A,R)	53,000 (A,R)	50,000 (A,R)	91,000 (A,R)	
*Carbazole	ug/kg	5,500 J		3,000 J										1,100 J	
Chrysene	ug/kg	110,000 (A,R)	63,000 (A,R)	58,000 (A,R)	48,000 (A,R)	61,000 (A,R)	190,000 (A,R)	48,000 (A,R)	52,000 J (A,R)	70,000 J (A,R)	75,000 (A,R)	24,000 (A,R)	6,200 (R)	36,000 J (A,R)	210,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	7,700 J (A,R)	8,900 J (A,R)	8,500 J (A,R)	6,300 J (A,R)	5,700 J (A,R)	16,000 J (A,R)		3,700 J (A,R)		9,700 J (A,R)	2,100 J (A,R)	640 J (A,R)	3,700 J (A,R)	
Dibenzofuran	ug/kg	11,000 J (A,R)	4,300 J (R)	5,200 J (R)	2,900 J (R)	6,200 J (R)	17,000 J (A,R)				5,000 J (R)	4,100 J (R)		1,800 J (R)	
Diethyl phthalate	ug/kg								9,600 J	170,000 J (R)					
Dimethyl phthalate	ug/kg														
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg		11,000 J (R)			6,700 J (R)		4,000 J (R)	9,700 J (R)		9,100 J (R)	1,300 J (R)	880 J	3,500 J (R)	
Fluoranthene	ug/kg	180,000 (R)	110,000 (R)	75,000 (R)	66,000 (R)	93,000 (R)	290,000 (A,R)	72,000 (R)	82,000 J (R)	90,000 J (R)	88,000 (R)	45,000 (R)	9,700 (R)	49,000 (R)	290,000 (A,R)
Fluorene	ug/kg	66,000 J (R)	25,000 J (R)	26,000 (R)	13,000 (R)	48,000 (R)	56,000 J (R)	28,000 (R)			12,000 (R)	38,000 (R)		9,000 (R)	270,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	27,000 J (A,R)	28,000 (A,R)	17,000 J (A,R)	14,000 (A,R)	16,000 J (A,R)	55,000 J (A,R)	9,900 J (A,R)	13,000 J (A,R)		28,000 (A,R)	7,000 J (A,R)	2,100 J (A,R)	11,000 (A,R)	
Naphthalene	ug/kg	110,000 (A,R)	18,000 J (A,R)	19,000 J (A,R)	21,000 (A,R)	100,000 (A,R)	100,000 (A,R)	77,000 (A,R)	12,000 J (A,R)		29,000 (A,R)	140,000 (A,R)	1,200 J (R)	6,200 J (A,R)	1,300,000 (A,R)
N-nitrosodiphenylamine	ug/kg														
Phenanthrene	ug/kg	400,000 (R)	150,000 (R)	99,000 (R)	59,000 (R)	160,000 (R)	650,000 (R)	120,000 (R)	29,000 J (R)	110,000 J (R)	140,000 (R)	110,000 (R)	3,000 J (R)	46,000 J (R)	670,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	280,000 (A,R)	130,000 (R)	91,000 (R)	97,000 (R)	120,000 (R)	400,000 (A,R)	120,000 (R)	140,000 J (R)	170,000 J (R)	150,000 (R)	49,000 (R)	15,000 (R)	57,000 (R)	260,000 (A,R)
Total PAHs	ug/kg	1,858,700 (R)	890,900 (R)	686,500 (R)	576,700 (R)	1,020,700 (R)	2,859,000 (R)	750,400 (R)	545,100 (R)	508,000 (R)	948,800 (R)	696,800 (R)	62,150 (R)	391,300 (R)	5,159,000 (R)

TABLE I-9B
SVOC Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-98	GC-SED-98	GC-SED-99B	GC-SED-99B
Sample Number:	GC-SED-98(1-2)	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
Sample Depth:	1-2	8.5-9.5	3.5-4.5	7.2-8.7
Sample Date:	1/27/2006	1/27/2006	12/22/2005	12/22/2005
Sample Type:	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**			
2,4-dimethylphenol	ug/kg				
2,4-dinitrotoluene	ug/kg				
2,6-dinitrotoluene	ug/kg				
2-methylnaphthalene	ug/kg	1,800 J (R)	6,400,000 (A,R)	740,000 (A,R)	5,800,000 (A,R)
4-chloroaniline	ug/kg				
4-chlorophenyl phenyl ether	ug/kg				
4-methylphenol (p-cresol)	ug/kg				
Acenaphthene	ug/kg	19,000 (R)	2,900,000 (A,R)	360,000 (A,R)	2,400,000 (A,R)
Acenaphthylene	ug/kg	11,000 (R)	230,000 J (R)	110,000 J (R)	440,000 J (A,R)
Anthracene	ug/kg	23,000 (R)	1,200,000 J (R)	310,000 (R)	1,100,000 (R)
Benzo(a)anthracene	ug/kg	29,000 (A,R)	520,000 J (A,R)	200,000 (A,R)	630,000 J (A,R)
Benzo(a)pyrene	ug/kg	25,000 (A,R)	310,000 J (A,R)	160,000 (A,R)	440,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	19,000 (A,R)		67,000 J (A,R)	300,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	11,000 (R)		98,000 J (R)	140,000 J (R)
Benzo(k)fluoranthene	ug/kg	5,400 J (A,R)		81,000 J (A,R)	
Benzyl butyl phthalate	ug/kg				
Bis(2-chloroethoxy) methane	ug/kg				
Bis(2-ethylhexyl) phthalate	ug/kg	58,000 (A,R)		16,000 J (R)	
*Carbazole	ug/kg				
Chrysene	ug/kg	29,000 (A,R)	530,000 J (A,R)	240,000 (A,R)	700,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	3,400 J (A,R)		26,000 J (A,R)	
Dibenzofuran	ug/kg			39,000 J (A,R)	140,000 J (A,R)
Diethyl phthalate	ug/kg				
Dimethyl phthalate	ug/kg				
Di-n-butyl phthalate	ug/kg				
Di-n-octylphthalate	ug/kg				
Fluoranthene	ug/kg	42,000 (R)	880,000 J (A,R)	340,000 (A,R)	1,000,000 (A,R)
Fluorene	ug/kg		1,500,000 (A,R)	240,000 (A,R)	1,100,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	9,800 (A,R)		77,000 J (A,R)	120,000 J (A,R)
Naphthalene	ug/kg	3,500 J (R)	12,000,000 (A,R)	810,000 (A,R)	9,300,000 (A,R)
N-nitrosodiphenylamine	ug/kg				
Phenanthrene	ug/kg	15,000 (R)	3,600,000 (A,R)	880,000 (R)	3,500,000 (A,R)
Phenol	ug/kg				
Pyrene	ug/kg	42,000 (R)	1,500,000 (A,R)	500,000 (A,R)	1,800,000 (A,R)
Total PAHs	ug/kg	288,900 (R)	31,570,000 (R)	5,239,000 (R)	28,770,000 (R)

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TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
	Sample Number:	GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	GC-SD126-04.0-06.0	D-03042010-02
	Sample Depth:	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4	4-6	4-6
	Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	FD
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.7 U	2.2 U	8.8 U	5 UJ	3.9 U	11 R	9.1 R	**48 J**	**1.5 J**	**8.2 NJ**	6.9 UJ	3.6 UJ	9.4 U	8.9 U	**11 J**	4.1 U	5.2 R	**13 J**
Alpha BHC	ug/kg	2.7 U	2.2 U	8.8 U	5 UJ	3.9 U	4 UJ	3.3 U	**110 J**	2.3 U	6 R	6.9 UJ	7 R	9.4 U	**7.6 J**	2.8 UJ	4.1 U	2.9 UJ	5.8 UJ
Alpha endosulfan	ug/kg	2.7 U	2.2 U	8.8 U	5 UJ	3.9 U	4 U	3.3 U	16 R	2.3 U	7.3 R	6.9 U	4.1 R	9.4 U	8.9 U	2.8 U	4.1 U	**20 J**	**48 J**
Alpha-chlordane	ug/kg	**24 J**	**14 NJ**	8.8 UJ	8.9 R	3.9 U	10 R	19 R	**130 NJ**	2.8 R	**48 NJ**	**140 J**	**62 NJ**	9.4 U	8.9 U	2.8 U	10 R	**63 J**	82 R
Beta BHC	ug/kg	2.7 UJ	2.2 UJ	18 R	24 R	3.9 U	24 R	3.3 U	6.4 UJ	2.9 R	3.2 U	32 R	16 R	12 R	8.9 U	3.4 R	17 R	**59**	50 R
Beta endosulfan	ug/kg	5.3 U	4.2 U	19 R	9.7 UJ	7.5 U	16 R	**68 NJ**	150 R	4.5 U	6.1 U	13 U	7 U	18 U	17 U	5.4 U	8 U	5.7 U	24 R
Delta BHC	ug/kg	2.7 U	2.2 UJ	8.8 U	**61 J**	3.9 U	4 UJ	3.3 U	41 R	**1.2 J**	3.2 U	6.9 U	3.6 U	9.4 U	8.9 U	**4.3 NJ**	5 R	**34 J**	**49 NJ**
Dieldrin	ug/kg	5.3 U	**11 J**	63 R	12 R	7.5 U	11 R	**81 NJ**	55 R	4.6 R	**32 J**	**130 NJ**	**76 NJ**	32 R	**74 J**	5.4 U	**61 J**	**250**	**250 J**
Endosulfan sulfate	ug/kg	**28 J**	4.2 U	110 R	10 R	12 R	160 R	**460 J**	390 R	4.5 UJ	**15 J**	**63 J**	13 R	18 U	39 R	15 R	**47 NJ**	83 R	99 R
Endrin	ug/kg	5.3 U	11 R	25 R	9.7 UJ	7.5 U	9.4 R	29 R	12 UJ	4.5 UJ	6.1 UJ	13 UJ	14 R	18 UJ	170 R	6 R	8 U	36 R	59 R
Endrin aldehyde	ug/kg	10 R	4.5 R	**34 J**	9.7 UJ	7.5 U	41 R	47 R	19 R	4.5 UJ	**11 NJ**	48 R	**69 J**	27 R	**68 NJ**	13 R	**87 NJ**	31 R	**200 J**
Endrin ketone	ug/kg	**24 NJ**	**7.7 J**	**150 J**	31 R	7.5 UJ	45 R	**140 J**	**160 J**	6.6 R	9 R	**56 NJ**	33 R	52 R	81 R	**17 J**	**20 J**	**68 NJ**	37 R
Gamma BHC	ug/kg	2.7 U	2.2 U	8.8 U	**23 NJ**	3.9 U	4 UJ	**28 J**	**32 NJ**	2.3 U	3.2 U	6.9 UJ	3.6 U	9.4 U	8.9 U	8.5 R	4.1 R	2.9 R	**26 J**
Gamma-chlordane	ug/kg	**120 NJ**	**78 NJ**	**71 NJ**	5 UJ	9.4 R	86 R	34 R	44 R	87 R	57 R	330 R	91 R	15 R	8.9 UJ	42 R	**180 NJ**	**150 NJ**	250 R
Heptachlor	ug/kg	4.2 R	2.4 R	9.1 R	**21 J**	3.9 U	4 U	12 R	6.4 UJ	2.3 UJ	18 R	9.3 R	**48 J**	9.4 UJ	8.9 UJ	2.8 U	4.1 U	3.6 R	11 R
Heptachlor epoxide	ug/kg	2.7 UJ	**1.5 J**	9.3 R	**7.4 J**	3.9 U	**35 J**	3.3 U	**130 J**	2.3 U	**47 J**	35 R	**48 NJ**	20 R	23 R	2.8 U	4.1 U	25 R	39 R
Methoxychlor	ug/kg	27 UJ	22 U	88 UJ	50 UJ	39 UJ	170 R	**900 J**	**630 NJ**	23 U	**380 J**	95 R	36 UJ	94 UJ	89 UJ	28 UJ	65 R	110 R	120 R
P,P'-DDD	ug/kg	85 R	**28 NJ**	**510 NJ**	**430 J**	**22 NJ**	**280 J**	**710 J**	260 R	6.3 R	**120 J**	**570 J**	**470 J**	180 R	17 U	16 R	**79 NJ**	210 R	**200 J**
P,P'-DDE	ug/kg	**27 J**	21 R	140 R	19 R	7.5 UR	**60 JN**	46 R	12 UR	**16 NJ**	**89 NJ**	210 R	**300 NJ**	150 R	98 R	**7.4 NJ**	**67 NJ**	**170 NJ**	**210 NJ**
P,P'-DDT	ug/kg	43 R	12 R	**250 NJ**	71 R	**26 J**	77 R	**220 J**	**380 NJ**	**67 NJ**	74 R	**150 NJ**	110 R	**590 J**	**480 J**	**130 J**	**110 J**	**490 NJ**	**560 J**
Toxaphene	ug/kg	270 U	220 U	880 U	500 UJ	390 U	400 U	330 U	640 UJ	230 U	320 U	690 U	360 U	940 U	890 U	280 U	410 U	290 U	580 UJ
Total DDTs	ug/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**256**	**660**	**970**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146
Sample Number:		GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	GC-SD108-06.0-08.0	D-03052010-02	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0
Sample Depth:		6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	6-8	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4
Sample Date:		3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.7 U	4.7 U	**13 J**	3.4 U	3 U	4.3 U	9.6 R	**52 NJ**	**23 J**	6.6 R	**5.3 J**	**5.5**	4.2 U	**4.5 J**	3.5 U	2.7 U	4.5 U	4.3 U
Alpha BHC	ug/kg	2.7 U	4.7 U	4.3 U	**25 J**	**5.3 J**	4.3 U	6.5 UJ	11 UJ	**10 NJ**	2.6 UJ	**8.3 J**	**3.1 J**	4.2 U	3.2 UJ	3.5 U	**17 J**	4.5 U	4.3 U
Alpha endosulfan	ug/kg	2.7 U	4.7 U	4.3 U	3.4 U	**3.8 J**	4.3 UJ	6.5 U	13 R	2.6 U	2.6 U	5.2 U	4.8 U	4.2 U	3.2 U	3.5 U	3.2 R	4.5 U	4.3 U
Alpha-chlordane	ug/kg	24 R	**9 NJ**	**50 J**	**78 NJ**	3 U	**7.4 NJ**	**62 J**	**95 J**	**37 J**	**66**	**5.8 NJ**	4.8 U	**4.4 J**	**11 J**	**3.1 J**	2.7 UR	4.5 U	4.3 U
Beta BHC	ug/kg	**20 J**	4.7 U	**8.2 NJ**	**23 J**	3 U	5.3 R	24 R	**21 NJ**	11 R	2.7 R	14 R	**13 NJ**	4.2 U	3.2 UJ	3.5 U	2.7 UJ	4.5 U	4.3 U
Beta endosulfan	ug/kg	5.2 U	9.1 U	8.4 U	6.6 U	5.8 UJ	8.4 U	13 UJ	21 UJ	5 U	5.1 U	10 U	9.3 U	8.1 U	6.2 U	6.7 U	18 R	8.7 U	8.4 U
Delta BHC	ug/kg	2.7 U	4.7 U	4.3 U	3.4 U	3 U	4.3 U	6.5 U	11 U	6.1 R	8.6 R	**12 J**	**8 NJ**	4.2 U	**9.1 J**	3.5 U	2.7 U	4.5 U	4.3 U
Dieldrin	ug/kg	**57 J**	**11 J**	**34 J**	6.6 U	5.8 U	9.2 R	**56 J**	**88 NJ**	**50 NJ**	**74 NJ**	10 UJ	9.3 U	**5.7 J**	**13 J**	6.7 U	5 UJ	8.7 U	8.4 U
Endosulfan sulfate	ug/kg	15 R	**63**	**41 J**	**110 J**	14 R	**41 J**	**180 NJ**	**340 J**	110 R	110 R	16 R	23 R	15 R	26 R	**7.9**	87 R	8.7 U	8.4 U
Endrin	ug/kg	6.6 R	9.1 U	8.4 U	6.6 U	5.8 U	8.4 U	13 U	21 U	5 U	5.1 U	10 U	9.3 UJ	8.1 U	6.2 U	6.7 U	**15 J**	8.7 U	8.4 U
Endrin aldehyde	ug/kg	**21 NJ**	**9.6 J**	**27 J**	**29 J**	6 R	**22 NJ**	**59 J**	**110 J**	**59 NJ**	**190 J**	**23 J**	**29**	8.1 UJ	**15 NJ**	6.7 U	13 R	8.7 U	8.4 U
Endrin ketone	ug/kg	**17 J**	9.1 U	8.4 U	6.6 U	9.1 R	14 R	32 R	65 R	**27 J**	**34 J**	10 UJ	9.3 U	8.1 U	6.2 U	6.7 U	**7.8 J**	8.7 U	8.4 U
Gamma BHC	ug/kg	2.7 R	4.7 U	4.3 U	3.4 U	3 U	**4.3 J**	6.5 U	11 U	2.6 U	21 R	**8.2 NJ**	4.8 R	4.2 U	3.2 U	3.5 U	2.7 U	4.5 U	4.3 U
Gamma-chlordane	ug/kg	**100 NJ**	94 R	200 R	**100 NJ**	3 U	130 R	340 R	**460 NJ**	140 R	200 R	**260 NJ**	74 R	40 R	44 R	3.5 U	14 R	4.5 U	16 R
Heptachlor	ug/kg	3 R	**3.2 J**	**9.8 J**	**15 J**	**3.5 J**	4.3 U	13 R	15 R	8.2 R	9.3 R	5.2 U	4.8 U	**2.2 J**	3.2 UJ	3.5 U	7.2 R	4.5 U	4.3 U
Heptachlor epoxide	ug/kg	21 R	4.7 U	11 R	**19 NJ**	3 U	4.3 U	6.5 UJ	24 R	5.9 R	16 R	5.2 U	4.8 U	4.2 U	3.2 UJ	3.5 U	2.7 U	4.5 U	4.3 U
Methoxychlor	ug/kg	37 R	47 U	**50 J**	**140 J**	30 U	43 UJ	**210 J**	**330 J**	**92 NJ**	110 R	55 R	48 U	42 U	**48 J**	**20 J**	**78 J**	45 U	43 U
P,P'-DDD	ug/kg	**95 J**	**34 NJ**	**100 NJ**	**230 J**	**17 J**	76 R	120 R	200 R	**160 J**	**130 NJ**	18 R	27 R	**31 J**	**79 J**	**59**	37 R	8.7 U	**8.7**
P,P'-DDE	ug/kg	**100 NJ**	21 R	100 R	100 R	5.8 U	**26 J**	130 R	220 R	94 R	150 R	**18 NJ**	26 R	15 R	34 R	**25 NJ**	9.6 R	8.7 UR	8.4 UR
P,P'-DDT	ug/kg	**99 J**	**25 J**	**74 J**	**130 J**	7.4 R	24 R	110 R	**190 NJ**	**98 NJ**	**140 J**	11 R	**28 J**	**13 NJ**	**28 NJ**	6.7 U	**47 NJ**	8.7 U	8.4 U
Toxaphene	ug/kg	270 U	470 U	430 U	340 U	300 U	430 U	650 U	1,100 U	260 U	260 U	520 U	480 U	420 U	320 U	350 U	270 U	450 U	430 U
Total DDTs	ug/kg	**294**	---	---	---	---	---	---	---	---	---	---	---	---	---	**84**	---	---	---

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129
Sample Number:		GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0
Sample Depth:		4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	0-2	2-2.5	0-2	2-4	4-6
Sample Date:		4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	4.4 U	2.6 U	4.6 U	3.4 U	4.4 U	**6.4 J**	4 R	4.6 UJ	4 U	3 U	4 U	7.8 UJ	**35 NJ**	4.4 U	4 U	5.9 R	3.8 U	**7.5 J**
Alpha BHC	ug/kg	4.4 U	**3.3 NJ**	4.6 U	3.4 U	4.4 U	**3.9 NJ**	**6.4 J**	4.6 UJ	4 UJ	**3.2 J**	4 U	7.8 U	3.3 U	4.4 U	5 R	4.1 U	**4 NJ**	3.3 U
Alpha endosulfan	ug/kg	4.4 U	2.6 U	4.6 U	3.4 U	4.4 U	3.6 U	2.9 U	4.6 UJ	4 UJ	3 U	4 U	7.8 U	29 R	4.4 U	3.5 UJ	**18 J**	3.8 U	3.3 U
Alpha-chlordane	ug/kg	4.4 U	2.6 U	4.6 UR	**11 NJ**	4.4 U	**8 J**	**7.6 J**	5.6 R	**36 J**	**22 J**	**14 J**	**55 J**	3.5 R	**10 NJ**	**58 J**	15 R	**17 J**	3.3 U
Beta BHC	ug/kg	4.4 U	2.6 UJ	4.6 U	3.4 U	4.4 U	5 R	12 R	4.6 UJ	4 U	**8.9 NJ**	4 UJ	7.8 U	3.3 U	4.4 UJ	**17 J**	6.1 R	5.2 R	3.3 U
Beta endosulfan	ug/kg	8.5 U	5 U	8.9 U	6.6 U	8.5 U	7 U	**30 J**	8.9 UJ	8 UJ	12 R	7.7 U	15 U	110 R	8.5 U	7.7 U	8 U	7.3 U	6.3 U
Delta BHC	ug/kg	4.4 U	2.6 U	4.6 U	3.4 U	4.4 U	3.6 U	2.9 U	4.6 UJ	4 U	3 U	4 U	7.8 U	**3.1 J**	4.4 U	4 U	4.1 U	3.8 U	3.3 U
Dieldrin	ug/kg	8.5 U	5 U	8.9 U	**19 NJ**	8.5 U	**16 J**	5.6 U	8.9 UJ	**73 J**	**34 J**	7.7 U	**69 NJ**	6.4 U	9.9 R	**120 J**	**23 NJ**	**66 NJ**	6.3 U
Endosulfan sulfate	ug/kg	8.5 U	5 U	8.9 U	6.6 U	8.5 U	20 R	35 R	8.9 UJ	**50 J**	**180 J**	7.7 UJ	**110 J**	89 R	22 R	**72 NJ**	32 R	**240 J**	58 R
Endrin	ug/kg	8.5 U	5 U	8.9 U	6.6 U	8.5 U	7 U	5.6 U	8.9 UJ	8.5 R	6 UJ	7.7 U	15 UJ	6.4 U	8.5 UJ	8.6 R	8 U	13 R	6.3 U
Endrin aldehyde	ug/kg	8.5 U	**11 NJ**	8.9 U	**13**	8.5 U	**23 J**	13 R	**6.8 J**	**42 J**	24 R	**18 NJ**	**41 J**	67 R	**13 NJ**	28 R	21 R	**63 J**	40 R
Endrin ketone	ug/kg	8.5 U	5 U	8.9 U	6.6 U	8.5 U	**23 J**	**16 J**	8.9 UJ	18 R	16 R	11 R	17 R	**94 NJ**	8.5 U	13 R	15 R	7.3 U	40 R
Gamma BHC	ug/kg	4.4 U	2.6 U	4.6 U	3.4 U	4.4 U	3.6 U	2.9 U	4.6 UJ	4 U	3 U	4 U	7.8 U	3.3 U	4.4 U	2.1 UJ	**2.7 J**	3.8 U	3.3 U
Gamma-chlordane	ug/kg	5.8 R	3.9 R	4.6 U	3.4 UJ	27 R	36 R	14 R	**6.8 NJ**	**31 J**	**22 J**	4 U	21 R	**46 J**	**10 J**	**55 J**	56 R	26 R	**8.1 J**
Heptachlor	ug/kg	4.4 U	2.6 U	4.6 U	**5**	4.4 U	3.6 U	2.9 U	4.6 UJ	**5.3 NJ**	3 UJ	4 UJ	**8.6 NJ**	3.3 U	4.4 UJ	**14 NJ**	**17 NJ**	**5.5 NJ**	3.3 U
Heptachlor epoxide	ug/kg	4.4 U	**5.5 NJ**	4.6 U	**7.4 NJ**	4.4 U	**12 J**	16 R	4.6 UJ	**7.4 J**	8.7 R	**3 J**	7.8 UJ	**19 J**	4.4 UJ	**14 NJ**	4.1 U	**45 J**	**3.1 J**
Methoxychlor	ug/kg	44 U	26 U	46 U	34 U	44 U	**100 J**	**98 NJ**	46 UJ	58 R	**170 J**	40 UJ	78 U	310 R	44 U	130 R	41 U	120 R	93 R
P,P'-DDD	ug/kg	**19 J**	7 R	8.9 U	**65**	8.5 U	**110 J**	**110 NJ**	**30 J**	**200 J**	**79 NJ**	**60 J**	**340 J**	6.4 U	51 R	**260 NJ**	55 R	**160 NJ**	8 R
P,P'-DDE	ug/kg	8.7 R	**7 NJ**	8.9 UR	**40 NJ**	8.5 U	42 R	**30 NJ**	**25 NJ**	**110 NJ**	**82 NJ**	**41 NJ**	**150 J**	**11 J**	**43 NJ**	**270 NJ**	38 R	**230 NJ**	6.3 U
P,P'-DDT	ug/kg	8.5 U	**13 NJ**	8.9 U	9.3 R	8.5 U	**46 NJ**	**37 NJ**	**23 J**	**130 NJ**	**98 NJ**	**47 NJ**	**100 NJ**	**210 NJ**	38 R	**240 J**	45 R	**140 NJ**	**41 J**
Toxaphene	ug/kg	440 U	260 U	460 U	340 U	440 U	360 U	290 U	460 UJ	400 U	300 U	400 U	780 U	330 U	440 U	400 U	410 U	380 U	330 U
Total DDTs	ug/kg	---	---	---	---	ND	---	**177**	**78**	**440**	**259**	**148**	**590**	**221**	---	**770**	---	**530**	---

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B	GC-SD37B
Sample Number:		GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9	GC-SD037B-02.5-04.2
Sample Depth:		6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	1.4-1.9	2.5-4.2
Sample Date:		4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.8 U	**34 J**	8.6 UJ	**110 J**	3.9 UJ	**4 J**	2.1 U	9.7 R	**9.6 NJ**	3.1 UJ	16 R	5.5 R	2.5 U	**10 J**	6.4 R	4.1 U	2.6 R	6.4 R
Alpha BHC	ug/kg	2.8 U	8.2 UJ	8.6 UJ	8.2 UJ	3.9 UJ	2.8 UJ	2.1 U	9.5 U	4.7 UJ	3.1 U	3.1 U	4.7 UJ	2.5 U	**20 J**	11 R	4.1 U	2.2 U	3.1 UJ
Alpha endosulfan	ug/kg	2.8 U	8.2 UJ	8.6 UJ	8.2 UJ	3.9 UJ	2.8 U	2.1 U	9.5 U	4.7 UJ	3.1 U	3.1 U	4.7 UJ	2.5 U	11 R	37 R	4.1 U	2.2 U	5.7 R
Alpha-chlordane	ug/kg	2.8 U	**65 J**	**110 J**	**170 NJ**	**47 J**	6.4 R	**7.5 NJ**	**1,200 J**	**510 J**	**14 J**	**10 NJ**	4.7 UJ	**6 J**	3 R	5 R	4.1 U	**4.3 J**	**25 J**
Beta BHC	ug/kg	2.8 UJ	8.2 UJ	8.6 UJ	8.2 UJ	3.9 UJ	2.8 UJ	2.1 U	**13 NJ**	7.8 R	**12 J**	**10 NJ**	4.7 UJ	**10 J**	2.6 U	2.6 U	4.1 U	**3.6 J**	**4.3 J**
Beta endosulfan	ug/kg	7.9 R	16 UJ	17 UJ	110 R	7.8 UJ	5.5 U	4 U	18 U	9.2 U	5.9 U	6.2 UJ	9.4 UJ	4.9 U	**77 NJ**	**83 NJ**	8 U	4.2 U	9.1 R
Delta BHC	ug/kg	2.8 U	8.2 UJ	8.6 UJ	8.2 UJ	3.9 UJ	2.8 UJ	2.1 U	9.5 U	4.7 U	3.1 U	3.1 U	4.7 UJ	**24 NJ**	4.3 R	2.6 UJ	4.1 U	2.2 U	**27 J**
Dieldrin	ug/kg	5.3 U	**150 J**	**180 J**	**240 J**	**110 J**	18 R	4.3 R	39 R	28 R	**42 NJ**	**93 NJ**	**38 NJ**	**53 NJ**	14 R	**17 J**	8 U	**14 J**	**98 J**
Endosulfan sulfate	ug/kg	35 R	82 R	35 R	29 R	48 R	**180 NJ**	4 U	18 UJ	9.2 UJ	**31 NJ**	40 R	**160 NJ**	**95 NJ**	**430 NJ**	110 R	25 R	22 R	**170 J**
Endrin	ug/kg	5.3 U	19 R	17 UJ	16 UJ	11 R	5.5 UJ	**17**	33 R	14 R	8.9 R	22 R	9.9 R	9 R	5 U	5.1 U	8 U	4.2 U	14 R
Endrin aldehyde	ug/kg	5.3 U	**95 J**	70 R	**130 J**	**48 J**	18 R	**7.3**	18 U	9.2 UJ	**44 NJ**	43 R	15 R	**60 NJ**	74 R	12 R	12 R	**15 J**	**74 J**
Endrin ketone	ug/kg	5.3 U	20 R	23 R	**40 NJ**	29 R	**19 J**	4 U	18 U	9.2 UJ	13 R	**25 J**	**49 J**	**18 J**	**91 NJ**	**140 J**	**13 NJ**	9.8 R	12 R
Gamma BHC	ug/kg	2.8 U	8.2 UJ	8.6 UJ	8.2 UJ	3.9 UJ	2.8 U	2.1 U	9.5 UJ	4.7 UJ	5 R	3.1 U	4.7 UJ	2.5 UJ	**10 J**	2.6 UJ	4.1 U	2.2 U	3.1 U
Gamma-chlordane	ug/kg	2.8 U	64 R	230 R	380 R	73 R	20 R	2.9 R	**920 J**	**400 J**	38 R	130 R	29 R	38 R	2.6 U	25 R	33 R	40 R	22 R
Heptachlor	ug/kg	2.8 U	**11 NJ**	16 R	29 R	**8.9 NJ**	**4.7 J**	2.1 U	**25 J**	**20 J**	**8.2 J**	**5.3 NJ**	4.7 UJ	3.3 R	2.6 U	2.6 U	4.1 U	**2.9 J**	5.6 R
Heptachlor epoxide	ug/kg	3.8 R	16 R	8.6 UJ	28 R	16 R	**28 NJ**	**1.1 J**	22 R	11 R	3.1 UJ	3.8 R	11 R	2.9 R	4 R	**10 J**	4.1 U	2.2 U	3.7 R
Methoxychlor	ug/kg	28 U	170 R	86 UJ	120 R	80 R	71 R	21 U	95 U	47 U	34 R	40 R	47 UJ	75 R	190 R	110 R	**84 J**	23 R	190 R
P,P'-DDD	ug/kg	5.3 U	**290 J**	**480 J**	**910 J**	**260 J**	**200 J**	**32 J**	**730 J**	**510 J**	**94 J**	**360 J**	**170 J**	**210 J**	5 U	5.1 U	**41 J**	**35 J**	**180 NJ**
P,P'-DDE	ug/kg	5.3 UJ	**250 NJ**	**270 NJ**	**470 NJ**	**140 NJ**	**430 NJ**	**15 NJ**	**230 J**	**130 NJ**	**58 NJ**	**67 NJ**	**59 NJ**	**70 NJ**	**74 NJ**	5.1 UR	8 U	**11 NJ**	**73 J**
P,P'-DDT	ug/kg	5.3 U	**260 J**	**270 J**	**400 J**	**150 J**	**75 NJ**	**24 J**	**1,500 J**	**600 J**	**120 J**	**210 J**	**130 NJ**	**140 NJ**	**94 J**	**200 J**	26 R	**31 J**	**160 NJ**
Toxaphene	ug/kg	280 U	820 UJ	860 UJ	820 UJ	390 UJ	280 U	210 U	950 U	470 U	310 U	310 U	470 UJ	250 U	260 U	260 U	410 U	220 U	310 U
Total DDTs	ug/kg	ND	**800**	**1,020**	**1,780**	**550**	**705**	**71**	**2,460**	**1,240**	**272**	**637**	**359**	**420**	**168**	**---**	**---**	**77**	**413**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location:	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132
		Sample Number:	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0
		Sample Depth:	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3	0-2
		Sample Date:	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010
		Sample Type:	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N
											Pesticides									
Aldrin	ug/kg		2.8 U	2.7 UJ	**19 J**	9.4 UJ	16 UJ	8.8 R	5 UJ	4.4 UJ	13 U	4.4 R	2.4 R	**11 J**	**3.4 J**	5.3 UJ	**4 NJ**	11 R	**4.3 NJ**	**11 J**
Alpha BHC	ug/kg		2.8 U	2.7 UJ	5.3 U	9.4 UJ	16 UJ	6.1 UJ	5 UJ	4.4 UR	13 U	2.5 UJ	2.1 UJ	3 U	2.8 U	**5.1 J**	3.8 UJ	2.3 U	2.4 U	3.6 UJ
Alpha endosulfan	ug/kg		2.8 U	2.7 UJ	5.3 U	9.4 UJ	16 UJ	6.1 UJ	5 UJ	4.4 UR	13 UJ	9.7 R	2.1 UJ	3 U	2.8 U	5.3 U	9.5 R	5.7 R	2.4 U	3.6 UJ
Alpha-chlordane	ug/kg		**8.4 J**	2.7 UJ	**16 J**	**59 J**	**83 NJ**	**84 J**	**73 J**	**67 J**	**82 NJ**	2.5 UJ	**5.6 NJ**	**7.5 NJ**	**21 J**	**43 J**	**6.7 J**	**5.6 J**	2.4 UJ	**7.6 NJ**
Beta BHC	ug/kg		6.2 R	2.7 UJ	**5.5 J**	9.4 UJ	**17 J**	**22 NJ**	17 R	5.5 R	13 UJ	2.5 UJ	9.5 R	**3.8 NJ**	2.8 UJ	**12 NJ**	3.8 UJ	2.3 U	**3.5 NJ**	3.6 UJ
Beta endosulfan	ug/kg		22 R	7.4 R	10 UJ	18 UJ	32 UJ	95 R	93 R	110 R	25 U	**230 NJ**	**37 J**	6.6 R	**26 J**	**33 J**	**53 J**	28 R	4.6 UJ	7 UJ
Delta BHC	ug/kg		2.8 U	2.7 UJ	5.3 U	9.4 UJ	16 UJ	**110 NJ**	**250 J**	**510 J**	13 U	2.5 UJ	2.1 UJ	**18 J**	**13 NJ**	5.3 U	**11 J**	**4.2 NJ**	2.4 U	**18 J**
Dieldrin	ug/kg		**35 J**	5.2 UJ	**75 NJ**	120 R	**450 J**	**180 J**	**120 J**	**170 J**	**170 J**	4.8 UJ	**49 J**	13 R	5.4 U	**55 NJ**	7.5 U	6 R	4.6 UJ	**24 J**
Endosulfan sulfate	ug/kg		95 R	9 R	64 R	99 R	**290 J**	200 R	**100 NJ**	**120 NJ**	**140 NJ**	140 R	33 R	52 R	**52 NJ**	190 R	99 R	4.5 U	**41 NJ**	15 R
Endrin	ug/kg		5.4 U	5.2 UJ	22 R	38 R	84 R	12 UJ	9.7 UJ	8.5 R	25 UJ	4.8 UJ	4 UJ	6 UJ	5.4 U	10 U	7.5 U	4.5 U	4.6 U	7 UJ
Endrin aldehyde	ug/kg		5.4 U	**19 NJ**	**95 J**	**170 J**	**440 J**	**150 NJ**	**110 NJ**	20 R	45 R	25 R	4 UJ	11 R	5.4 U	21 R	8.4 R	**46 NJ**	**15 NJ**	**20 J**
Endrin ketone	ug/kg		**30 NJ**	6.5 R	39 R	77 R	230 R	**57 NJ**	**27 NJ**	**27 NJ**	57 R	75 R	**43 NJ**	6.3 R	**23 J**	**37 J**	**49 J**	**37 J**	6.4 R	**18 J**
Gamma BHC	ug/kg		**5.4 J**	2.7 UJ	5.3 U	9.4 UJ	16 UJ	6.1 UJ	5 UJ	13 R	13 R	2.5 UJ	2.2 R	3 U	**8.5 J**	5.3 UJ	3.8 U	**2.7 J**	2.4 U	3.6 UJ
Gamma-chlordane	ug/kg		2.9 R	4.8 R	**63 J**	**120 J**	**66 J**	**350 NJ**	**300 NJ**	**67 NJ**	84 R	14 R	2.1 UJ	9.7 R	35 R	54 R	23 R	**31 NJ**	9.3 R	40 R
Heptachlor	ug/kg		2.8 U	2.7 UJ	5.3 UJ	10 R	22 R	8.9 R	32 R	**110 NJ**	**130 NJ**	2.5 UJ	2.1 UJ	3 UJ	2.8 U	5.3 U	3.8 U	2.3 U	2.4 U	3.6 UJ
Heptachlor epoxide	ug/kg		**13 J**	**4 J**	**62 J**	14 R	39 R	8.2 R	9.9 R	11 R	160 R	2.5 UJ	2.1 UJ	**18 NJ**	**14 J**	12 R	9 R	5.9 R	5 R	**19 NJ**
Methoxychlor	ug/kg		28 U	**59 J**	71 R	130 R	580 R	240 R	140 R	100 R	190 R	120 R	47 R	**140 J**	**130 J**	110 R	**250 J**	**140 J**	**38 J**	42 R
P,P'-DDD	ug/kg		**130 J**	9.6 R	**370 J**	**620 J**	**1,300 J**	**160 J**	**170 J**	**290 J**	**380 J**	4.8 UJ	**49 NJ**	**47 J**	**210 J**	**310 J**	**100 NJ**	**130 J**	14 R	**37 J**
P,P'-DDE	ug/kg		**75 J**	**9.6 NJ**	**73 NJ**	**210 NJ**	**310 NJ**	**220 NJ**	**220 NJ**	**220 NJ**	**220 NJ**	4.8 UR	**50 NJ**	**35 J**	**92 J**	**140 J**	7.5 U	**50 J**	4.6 UJ	**20 NJ**
P,P'-DDT	ug/kg		**81 NJ**	**29 NJ**	**230 NJ**	**460 J**	**1,100 J**	**400 NJ**	**300 J**	**250 NJ**	**280 NJ**	4.8 UJ	**180 J**	**63 J**	**63 J**	62 R	**72 NJ**	**85 J**	19 R	**58 J**
Toxaphene	ug/kg		280 U	270 UJ	530 U	940 UJ	1,600 UJ	610 UJ	500 UJ	440 UR	1,300 U	250 UJ	210 UJ	300 U	280 U	530 U	380 U	230 U	240 U	360 UJ
Total DDTs	ug/kg		**286**	**---**	**673**	**1,290**	**2,710**	**780**	**690**	**760**	**880**	**---**	**279**	**145**	**365**	**---**	**172**	**265**	**---**	**115**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133
Sample Number:		GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8
Sample Depth:		2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8
Sample Date:		3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	**13 NJ**	**17 NJ**	2.2 U	4 U	2.4 U	3.4 U	3.5 U	3.2 U	2.1 U	1.9 U	2.1 U	3 U	2.6 U	2 U	2.7 U	3.1 U	2.8 U	2.5 U
Alpha BHC	ug/kg	1.9 U	3.3 R	**2 J**	4 U	2.4 U	**3.1 J**	3.5 U	3.2 U	2.1 U	1.9 U	2.1 U	3 U	2.6 U	**2 J**	2.7 U	3.1 U	2.8 U	2.5 U
Alpha endosulfan	ug/kg	1.9 U	3 U	**4.1 J**	4 U	2.4 U	**9.4 J**	3.5 U	**6.9 J**	3.2 R	**1.7 J**	2.1 U	**4.2 NJ**	2.6 U	2 U	2.7 U	3.1 U	2.8 U	5.9 R
Alpha-chlordane	ug/kg	**4.7 J**	4.2 R	**13 J**	**37 NJ**	**3.6 J**	3.4 U	3.5 U	3.2 U	2.1 U	1.9 U	**3.3 J**	3 U	2.6 U	2 U	2.7 U	**24 NJ**	**24 J**	**13 J**
Beta BHC	ug/kg	1.9 U	3 U	2.2 U	4 U	**1.9 J**	3.4 UJ	3.5 UJ	3.2 UJ	2.1 U	1.9 U	2.1 U	3 U	2.6 U	2 UJ	2.7 U	3.8 R	3.4 R	2.5 U
Beta endosulfan	ug/kg	14 R	**44 J**	4.3 U	7.8 U	6.3 R	6.6 U	6.7 U	6.9 R	4.1 U	**7.7 J**	4.1 U	10 R	5.1 U	**28 J**	5.3 U	6.1 U	5.5 U	4.9 U
Delta BHC	ug/kg	1.9 U	3 U	2.2 U	**400 J**	2.4 U	3.4 U	3.5 U	3.2 U	2.1 U	1.9 U	2.1 U	3 U	2.6 U	2 U	2.7 U	3.1 U	2.8 U	2.5 U
Dieldrin	ug/kg	3.8 U	5.9 U	4.3 U	**100 J**	4.6 UJ	**3.6 J**	**6.7 J**	6.2 UJ	4.1 U	3.8 U	4.1 UJ	5.8 U	5.1 U	4 U	**4.4 J**	**50 J**	**19 NJ**	4.9 U
Endosulfan sulfate	ug/kg	3.8 U	**78 J**	4.3 U	96 R	4.6 U	97 R	6.7 U	6.2 U	4.1 U	3.8 U	12 R	50 R	13 R	29 R	5.3 U	**22 NJ**	5.5 U	**27 NJ**
Endrin	ug/kg	3.8 U	5.9 U	4.3 U	7.8 UJ	4.6 U	6.6 U	6.7 U	6.2 U	4.1 U	3.8 U	4.1 U	5.8 U	5.1 U	**7 NJ**	**6.4 NJ**	41 R	5.5 U	4.9 UJ
Endrin aldehyde	ug/kg	**8.1 NJ**	5.9 U	4.3 U	25 R	4.6 U	6.6 U	6.7 U	6.2 U	4.1 U	3.8 U	**5.4 NJ**	13 R	13 R	**36 NJ**	5.3 U	**23**	**13 NJ**	**12 J**
Endrin ketone	ug/kg	10 R	**31 J**	4.3 U	24 R	4.6 U	6.6 U	6.7 U	6.2 U	4.1 U	3.8 U	4.1 U	15 R	**13 J**	4 U	5.3 U	16 R	5.5 U	13 R
Gamma BHC	ug/kg	1.9 U	3 U	2.2 U	4 U	2.4 U	3.4 U	3.5 U	3.2 U	2.1 U	1.9 U	2.1 U	3 U	2.6 U	2 U	2.7 U	3.1 U	2.8 U	2.5 U
Gamma-chlordane	ug/kg	**13 J**	**28 J**	19 R	38 R	2.4 U	3.4 U	3.5 U	**5.1 J**	2.1 UJ	2.3 R	4.2 R	15 R	3.7 R	13 R	2.7 U	29 R	32 R	13 R
Heptachlor	ug/kg	1.9 U	3 U	2.2 U	**110 NJ**	2.9 R	3.4 UJ	3.5 UJ	3.2 UJ	2.1 U	1.9 U	2.1 U	**5.1 NJ**	2.6 U	2 UJ	2.7 U	**5.1 J**	2.8 U	2.5 U
Heptachlor epoxide	ug/kg	**1 J**	**1.5 J**	6.3 R	**120 NJ**	4.4 R	3.4 U	**7.3 J**	**6 J**	2.1 U	**2.9 J**	**5.1 J**	**17 J**	**5.9 NJ**	9.8 R	2.7 U	3.1 U	**16 J**	2.5 U
Methoxychlor	ug/kg	**51 NJ**	60 R	22 U	**250 J**	24 U	34 U	35 U	32 U	21 U	19 U	21 U	30 U	**27 J**	**80 J**	27 U	31 U	**88 J**	**74 J**
P,P'-DDD	ug/kg	**51 J**	**70 NJ**	**160 J**	**340 J**	**32 J**	**36 J**	**27 J**	**33 NJ**	**18 J**	7.7 R	**26 NJ**	5.8 U	5.1 U	29 R	**10**	**130 J**	**120 J**	**22 NJ**
P,P'-DDE	ug/kg	3.8 UR	**9.5 NJ**	**65 NJ**	**94 NJ**	**23 NJ**	12 R	**16 NJ**	10 R	4.1 UR	**4.5 NJ**	13 R	**12 NJ**	**5.9 NJ**	9.6 R	5.3 UR	43 R	45 R	**11 NJ**
P,P'-DDT	ug/kg	**22 NJ**	**47 NJ**	36 R	**140 J**	16 R	**50 J**	**32 NJ**	**47 NJ**	18 R	**9.3 J**	5.1 R	**40 J**	**15 J**	4 U	**10**	**65 J**	**89 J**	**39 J**
Toxaphene	ug/kg	190 U	300 U	220 U	400 U	240 U	340 U	350 U	320 U	210 U	190 U	210 U	300 U	260 U	200 U	270 U	310 U	280 U	250 U
Total DDTs	ug/kg	**---**	**126.5**	**---**	**574**	**---**	**---**	**75**	**---**	**---**	**---**	**---**	**52**	**20.9**	**---**	**---**	**---**	**---**	**72**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151
Sample Number:		GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0	GC-SD151-02.0-04.0
Sample Depth:		0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2	2-4
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.4 U	**4.3 J**	**13 NJ**	3.1 U	2.5 U	2.6 U	2.4 U	2.8 U	2.9 U	3.1 U	3.4 U	1.9 UJ	4.5 U	3.4 U	4.4 U	3.3 U	2.6 U	2.3 U
Alpha BHC	ug/kg	2.4 U	2.5 UJ	2.1 U	3.1 U	2.5 U	2.6 U	2.4 U	2.8 U	2.9 U	3.1 U	3.4 U	1.9 UJ	4.5 U	3.4 U	4.4 U	3.3 U	2.6 U	2.3 U
Alpha endosulfan	ug/kg	2.4 U	17 R	2.1 U	**5.9 NJ**	**6.3 NJ**	2.6 U	2.4 U	7.5 R	5.5 R	3.1 U	3.4 U	1.9 UJ	4.5 U	3.4 U	4.4 U	3.3 U	2.6 U	2.3 U
Alpha-chlordane	ug/kg	**12 J**	**15 J**	**1.5 J**	3.1 U	**26 NJ**	**11 J**	13 R	**36 J**	**44 NJ**	**8.3 J**	**4.1 NJ**	1.9 UJ	4.5 UR	3.4 UR	**2.9 NJ**	**2.9 NJ**	2.6 U	2.3 U
Beta BHC	ug/kg	7.4 R	**7.6 J**	11 R	3.1 U	9.6 R	5.6 R	2.4 U	**39 J**	2.9 U	**8.1**	4.3 R	1.9 UJ	4.5 U	3.4 U	4.4 U	3.3 U	2.6 U	2.3 U
Beta endosulfan	ug/kg	4.8 U	9.3 R	**59 J**	6.1 U	5.3 R	5 UJ	4.7 U	5.3 R	5.7 U	6.1 U	6.5 U	3.7 UJ	8.7 U	6.6 U	8.5 U	6.4 U	5 U	4.6 U
Delta BHC	ug/kg	2.4 U	2.5 U	3.6 R	3.1 U	2.5 U	2.6 U	2.4 U	2.8 U	2.9 U	3.1 U	3.4 U	1.9 UJ	4.5 U	3.4 U	4.4 U	3.3 U	2.6 U	2.3 U
Dieldrin	ug/kg	4.8 U	7.8 R	**14 NJ**	6.1 U	7.3 R	5 UJ	**21**	**68 J**	5.7 U	**22**	**9.8 J**	3.7 UJ	8.7 U	6.6 U	8.5 U	6.4 UJ	5 U	4.6 U
Endosulfan sulfate	ug/kg	**29 J**	130 R	59 R	6.1 U	**29 NJ**	43 R	11 R	28 R	**26 NJ**	6.1 U	**41 J**	3.7 UJ	8.7 U	**4 J**	8.5 U	6.4 U	5 U	4.6 U
Endrin	ug/kg	**4.8 J**	4.8 U	4.1 U	9.8 R	**140 J**	**32 NJ**	**29**	7.3 R	9 R	6.1 U	6.5 UJ	3.7 UJ	8.7 U	6.6 U	8.5 U	6.4 U	5 U	4.6 U
Endrin aldehyde	ug/kg	8.1 R	29 R	4.1 U	**8.3**	25 R	**21 NJ**	**15**	**35 J**	**30 J**	**9**	**10 NJ**	3.7 UJ	8.7 U	6.6 U	**6.2 J**	6.4 U	5 U	4.6 U
Endrin ketone	ug/kg	6.2 R	**30 J**	**45 J**	**5.5 J**	15 R	**16 NJ**	7.3 R	25 R	13 R	**8.4**	**23 J**	3.7 UJ	8.7 U	6.6 U	8.5 U	6.4 U	5 U	4.6 U
Gamma BHC	ug/kg	**4.4 J**	2.5 U	2.1 U	3.1 U	**5.1 J**	**3.2 NJ**	2.4 U	2.8 U	3.8 R	**3.8 NJ**	3.4 U	1.9 UJ	4.5 U	3.4 U	4.4 U	3.3 U	2.6 U	2.3 U
Gamma-chlordane	ug/kg	50 R	36 R	**35 NJ**	5.9 R	**120 J**	72 R	14 R	41 R	60 R	**39 J**	5.1 R	1.9 UJ	4.5 UJ	**3.6 NJ**	4.4 U	3.3 U	2.6 U	2.3 U
Heptachlor	ug/kg	4 R	2.5 UJ	2.1 U	3.1 U	2.5 U	2.6 U	**9.9 J**	**42 J**	**50 J**	**8.7 NJ**	**4.5 NJ**	1.9 UJ	4.5 U	**2.1 J**	**6.3 NJ**	**3.1 J**	2.6 U	2.3 U
Heptachlor epoxide	ug/kg	**27 J**	7.2 R	4.3 R	3.1 U	**130 J**	**41 J**	**50 J**	**190 J**	16 R	3.1 U	**14 J**	1.9 UJ	4.5 U	3.4 U	4.4 U	3.3 U	2.6 U	2.3 U
Methoxychlor	ug/kg	**54 NJ**	**140 J**	**180 J**	**28 J**	**81 J**	**92 J**	24 U	130 R	37 R	**45**	**87 NJ**	19 UJ	45 U	34 U	44 U	33 U	26 U	23 U
P,P'-DDD	ug/kg	**47 NJ**	**290 J**	**140 NJ**	6.1 U	29 R	26 R	**55**	**210 J**	**270 J**	**83**	**21 J**	3.7 UJ	8.7 U	6.6 U	8.5 U	**17 NJ**	5 U	4.6 U
P,P'-DDE	ug/kg	**29 NJ**	4.8 UR	4.1 UR	**12 NJ**	**52 NJ**	**50 NJ**	**38 NJ**	**98 NJ**	**110 NJ**	**24 NJ**	**13 NJ**	3.7 UR	8.7 UR	6.6 UJ	**11 NJ**	**21**	5 UR	4.6 UR
P,P'-DDT	ug/kg	26 R	**57 J**	**33 NJ**	6.1 U	**140 J**	**64 J**	4.8 R	**110 J**	**120 J**	**29**	**26 NJ**	3.7 UJ	8.7 U	6.6 U	8.5 U	6.4 U	5 U	4.6 U
Toxaphene	ug/kg	240 U	250 U	210 U	310 U	250 U	260 U	240 U	280 U	290 U	310 U	340 U	190 UJ	450 U	340 U	440 U	330 U	260 U	230 U
Total DDTs	ug/kg	---	---	---	**12**	---	---	---	**418**	**500**	**136**	**60**	---	---	ND	**11**	**38**	---	---

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141
Sample Number:		GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0
Sample Depth:		4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2	2-4
Sample Date:		4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	2.6 U	**22 NJ**	2.9 U	2.4 U	2.9 U	3 U	2.4 U	3 U	4.2 U	120 U	3.8 U	3.6 U
Alpha BHC	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	2.6 U	2.7 U	2.9 U	2.4 U	2.9 U	3 U	2.4 U	3 U	4.2 U	120 U	3.8 U	3.6 U
Alpha endosulfan	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	**14 J**	21 R	**36 J**	2.4 U	**3.8 J**	**4 J**	2.4 UJ	3 U	4.2 U	120 U	3.8 U	3.6 U
Alpha-chlordane	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	4.6 R	2.2 U	13 R	**26 NJ**	**32 J**	**5.3 J**	2.9 U	3 UJ	2.4 U	3 U	**4.7 NJ**	120 U	**6.4 NJ**	**11 NJ**
Beta BHC	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	4.6 R	**26 J**	**20 J**	2.4 UJ	2.9 U	3 U	2.4 U	3 U	4.2 U	120 U	3.8 U	**8 J**
Beta endosulfan	ug/kg	4.3 U	8.7 U	8.9 UJ	8.7 UJ	6.6 UJ	4.3 U	5 U	5.3 U	5.6 U	6 R	**7.1 J**	5.8 UJ	4.7 U	5.9 U	8.2 U	240 U	7.4 U	7 U
Delta BHC	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	2.6 U	2.7 U	9.8 R	2.4 U	2.9 U	3 U	2.4 U	3 U	**32**	**150**	3.8 U	**32**
Dieldrin	ug/kg	4.3 U	8.7 U	8.9 UJ	8.7 UJ	6.6 UJ	4.3 U	11 R	**32 J**	45 R	4.7 U	5.7 U	5.9 U	4.7 U	5.9 U	**9.2**	240 U	7.4 U	**17 J**
Endosulfan sulfate	ug/kg	4.3 U	8.7 U	**5.1 J**	8.7 UJ	10 R	4.3 U	46 R	**130 J**	67 R	12 R	5.7 U	27 R	4.7 U	5.9 U	8.2 U	240 U	7.4 U	**15**
Endrin	ug/kg	4.3 U	8.7 U	8.9 UJ	8.7 UJ	6.6 UJ	4.3 U	5 UJ	5.3 U	5.6 U	4.7 U	5.7 U	5.9 U	4.7 U	5.9 U	8.2 U	240 U	7.4 U	7 U
Endrin aldehyde	ug/kg	4.3 U	8.7 U	8.9 UJ	8.7 UJ	**8.2 J**	4.3 U	11 R	**14 J**	17 R	4.7 U	5.7 U	5.9 UJ	**13 J**	5.9 U	8.2 U	240 U	**8.8 NJ**	7 U
Endrin ketone	ug/kg	4.3 U	8.7 U	8.9 UJ	8.7 UJ	6.6 UJ	4.3 U	**11 J**	**17 J**	18 R	**7.2 J**	11 R	**12 J**	4.7 U	5.9 U	8.2 U	240 U	7.4 U	7 U
Gamma BHC	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	**4.5 J**	8 R	15 R	2.4 U	2.9 U	3 U	2.4 U	3 U	4.2 U	120 U	3.8 U	3.6 U
Gamma-chlordane	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	17 R	130 R	13 R	8.1 R	2.9 U	5.6 R	2.9 R	5.8 R	24 R	120 U	24 R	26 R
Heptachlor	ug/kg	2.2 U	4.5 U	4.6 UJ	**5.6 NJ**	**2.4 J**	2.2 U	2.6 U	**38 J**	2.9 U	2.4 U	2.9 U	3 U	2.4 U	3 U	**6.9 J**	120 U	**5.6 J**	**7.8 NJ**
Heptachlor epoxide	ug/kg	2.2 U	4.5 U	4.6 UJ	4.5 UJ	3.4 UJ	2.2 U	11 R	4.6 R	22 R	2.5 R	2.9 U	3 UJ	2.4 U	3 U	**24 NJ**	**130 J**	3.8 U	**33 NJ**
Methoxychlor	ug/kg	22 U	45 U	46 UJ	45 UJ	34 UJ	22 U	**74 J**	**69 J**	**90 J**	24 U	29 U	**33 J**	**47 NJ**	30 U	42 U	1,200 U	38 U	**20 J**
P,P'-DDD	ug/kg	4.3 U	8.7 U	8.9 UJ	8.7 UJ	**22 J**	**6.4 J**	59 R	**90 J**	**120 NJ**	**71 J**	**67 J**	**58 J**	**14 J**	**9.1 J**	**21 J**	240 U	**25**	**52**
P,P'-DDE	ug/kg	4.3 UR	8.7 UR	**8.8 NJ**	**10 NJ**	18 R	4.3 U	25 R	59 R	42 R	**28 J**	**50 J**	**38 J**	**8.7 J**	5.9 U	**20 NJ**	240 U	12 R	28 R
P,P'-DDT	ug/kg	4.3 U	8.7 U	8.9 UJ	8.7 UJ	6.6 UJ	6.5 R	23 R	**44 NJ**	41 R	12 R	5.7 U	8.5 R	**23 J**	**6.8 J**	17 R	240 U	14 R	43 R
Toxaphene	ug/kg	220 U	450 U	460 UJ	450 UJ	340 UJ	220 U	260 U	270 U	290 U	240 U	290 U	300 U	240 U	300 U	420 U	12,000 U	380 U	360 U
Total DDTs	ug/kg	---	---	**8.8**	**10**	---	---	---	---	---	---	**117**	---	**45.7**	**15.9**	---	ND	---	---

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E
Sample Depth:	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2.8 U	4 U	3.1 U	4.2 U	4 U	2.6 U	2.9 U	3.4 U	4.3 UJ	**69 J**	6.5 R	16 R	29 UJ	13 R	3.2 R	2.2 U	2.9 U	3 U
Alpha BHC	ug/kg	2.8 U	4 U	3.1 U	4.2 U	4 U	2.6 U	2.9 U	3.4 U	**18 NJ**	4.5 U	4.1 U	4.5 U	**18 J**	3.2 U	2.5 U	2.2 U	2.9 U	3 U
Alpha endosulfan	ug/kg	2.8 U	4 U	3.1 U	4.2 U	4 U	2.6 U	2.9 U	3.4 UJ	7.5 R	4.5 U	4.2 R	4.5 U	**11 J**	3.2 U	5.4 R	2.2 U	2.9 UJ	3 UJ
Alpha-chlordane	ug/kg	**15 J**	**4.7 NJ**	3.1 U	**5.9 NJ**	4 U	2.6 U	2.9 U	**8.4 J**	**80 NJ**	**31 J**	**42 NJ**	**210 J**	29 U	**44 J**	28 R	12 R	**41 NJ**	**59 J**
Beta BHC	ug/kg	**5.6 J**	**6.1 NJ**	3.1 U	4.2 U	4 U	2.6 U	2.9 U	3.4 U	4.3 U	4.5 U	4.1 U	4.5 U	39 R	65 R	2.5 U	2.2 U	29 R	46 R
Beta endosulfan	ug/kg	5.4 U	7.7 U	5.9 UJ	8.2 U	7.8 U	5.1 U	5.7 U	6.6 U	**47 NJ**	**45 NJ**	9.5 R	26 R	57 U	6.2 U	4.8 U	4.2 U	5.7 U	5.9 UJ
Delta BHC	ug/kg	2.8 U	**21**	**8.2 NJ**	**23 J**	**12 J**	2.6 U	2.9 U	**3.6 J**	**13 J**	4.5 U	4.1 UJ	4.5 U	29 U	3.2 U	2.5 U	2.2 U	**4.6 J**	**6.4 J**
Dieldrin	ug/kg	12 R	**6.5 J**	5.9 U	**7.5 J**	7.8 U	5.1 U	5.7 U	10 R	**29 NJ**	14 R	**55 NJ**	**140 NJ**	**100 NJ**	**29 J**	**18 J**	**7.3 NJ**	**40 NJ**	**42 J**
Endosulfan sulfate	ug/kg	20 R	8.5 R	5.9 UJ	8.2 U	7.8 U	10 R	5.7 U	**15 J**	56 R	29 R	**38 J**	**130 J**	57 U	**28 J**	**23 J**	4.2 UJ	5.7 UJ	5.9 U
Endrin	ug/kg	5.4 UJ	7.7 U	5.9 UJ	8.2 U	7.8 U	5.1 U	5.7 U	6.6 U	23 R	8.7 U	8 U	8.7 U	57 UJ	12 R	**15 NJ**	4.2 U	**8.3 J**	5.9 U
Endrin aldehyde	ug/kg	**20 J**	**6.5 J**	5.9 UJ	8.2 U	7.8 U	5.1 U	5.7 U	6.6 U	**38 NJ**	84 R	52 R	**160 J**	57 U	28 R	**33 NJ**	5.5 R	5.7 U	**31 J**
Endrin ketone	ug/kg	5.4 U	7.7 U	**23 J**	8.2 U	7.8 U	**6.3 J**	5.7 U	6.6 U	20 R	130 R	8 U	80 R	89 R	6.2 U	4.8 U	4.2 U	5.7 U	**190 J**
Gamma BHC	ug/kg	2.8 UJ	4 U	3.1 U	4.2 U	4 U	2.6 U	2.9 U	3.4 U	4.3 U	4.5 U	4.1 U	4.5 U	29 UJ	3.2 U	2.5 U	2.2 U	2.9 U	3 U
Gamma-chlordane	ug/kg	2.8 U	15 R	3.1 U	**5.7 NJ**	4 U	3.9 R	2.9 U	13 R	**110 NJ**	**200 J**	100 R	**330 J**	**220 NJ**	86 R	**31 NJ**	**14 J**	**60 J**	**110 NJ**
Heptachlor	ug/kg	**11 J**	**6 NJ**	**2.8 J**	**4.4 J**	4 U	2.6 U	2.9 U	3.4 UJ	4.3 U	4.5 U	4.1 U	4.5 U	29 UJ	3.2 U	2.5 UJ	2.2 UJ	2.9 UJ	3 U
Heptachlor epoxide	ug/kg	**35 J**	17 R	**12 NJ**	**20 J**	**12**	2.6 U	2.9 U	**11 J**	**68 NJ**	**66 J**	19 R	21 R	47 R	**9.6 J**	12 R	2.2 U	2.9 U	**11 J**
Methoxychlor	ug/kg	**36 J**	40 U	31 U	42 U	40 U	26 U	29 U	**39 J**	**150 NJ**	180 R	110 R	**150 NJ**	290 U	160 R	57 R	22 UJ	**52 J**	130 R
P,P'-DDD	ug/kg	**140 J**	**23 J**	9.1 R	**12 NJ**	7.8 U	**28 J**	5.7 U	**21 J**	**81 J**	**100 J**	**64 J**	**910 J**	**510**	**150 J**	**72 J**	**31 J**	**91 J**	**110 J**
P,P'-DDE	ug/kg	71 R	16 R	6.2 R	**15 NJ**	**10 J**	**10 J**	5.7 U	**14 NJ**	**70 J**	**150 J**	**70 J**	8.7 U	**460**	**57 J**	41 R	14 R	**75 J**	**52 NJ**
P,P'-DDT	ug/kg	**36 NJ**	**18 J**	**13 J**	18 R	12 R	5.1 U	5.7 U	**11 NJ**	**17 J**	110 R	**34 J**	**62 NJ**	**200 NJ**	**86 NJ**	**18 J**	**7.8 NJ**	**21 NJ**	**20 NJ**
Toxaphene	ug/kg	280 U	400 U	310 U	420 U	400 U	260 U	290 U	340 U	430 U	450 U	410 U	450 U	2,900 U	320 U	250 U	220 U	290 U	300 U
Total DDTs	ug/kg	---	---	---	---	---	**38**	ND	**46**	**168**	---	**168**	**972**	**1,170**	**293**	---	---	**187**	**182**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F
Sample Depth:		4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
Aldrin	ug/kg	3.1 U	2.8 UJ	2.4 U	52 U	5.2 U	59 UJ	45 U	46 U	49 U	**26 NJ**	36 U	23 U	4.6 U	4.9 R	**27 J**	52 UJ	45 U	40 U
Alpha BHC	ug/kg	3.1 U	2.8 U	2.4 U	52 U	5.2 U	59 UJ	45 U	46 U	49 U	4.4 R	36 U	23 U	34 R	15 R	46 U	75 R	70 R	40 U
Alpha endosulfan	ug/kg	62 R	**120 NJ**	2.4 UJ	52 U	**4.5 J**	59 UJ	45 U	46 U	49 U	4.4 R	36 U	23 U	4.6 UJ	4.9 R	46 U	52 U	45 U	40 U
Alpha-chlordane	ug/kg	**120 J**	2.8 U	2.4 U	52 U	**23 J**	59 UJ	**68 NJ**	85 R	68 R	**120 NJ**	**170 J**	23 U	**300 J**	4.9 R	**110 J**	**230 NJ**	180 R	**110 NJ**
Beta BHC	ug/kg	3.1 U	2.8 U	2.4 U	52 U	5.2 U	59 UJ	52 R	46 U	60 R	4.4 R	92 R	23 U	11 R	4.9 R	54 R	52 U	45 U	70 R
Beta endosulfan	ug/kg	17 R	5.6 UJ	6.5 R	100 U	10.4 U	110 UJ	87 U	89 U	94 U	16 R	72 U	44 U	68 R	23 R	**51 J**	100 U	87 U	79 U
Delta BHC	ug/kg	3.1 U	**17 NJ**	2.4 U	52 U	5.2 U	59 UJ	45 U	46 U	49 U	4.4 R	36 U	23 U	5.8 R	**8.4 J**	46 U	**25 J**	45 U	40 U
Dieldrin	ug/kg	**200 J**	110 R	40 R	**64 J**	**26**	110 UJ	**81 J**	**130**	**140**	8.5 R	**300**	44 U	13 R	**21 J**	89 U	100 UJ	**110 J**	**170**
Endosulfan sulfate	ug/kg	**160 J**	**230 J**	**50 J**	100 U	**12 NJ**	110 UJ	87 U	89 U	94 U	**130 J**	78 R	44 U	77 R	23 R	89 U	100 U	170 R	110 R
Endrin	ug/kg	**110 J**	**220 NJ**	**180 NJ**	100 U	**6 J**	110 UJ	87 U	89 U	94 U	8.5 R	72 U	44 U	**140 J**	11 R	89 U	100 UJ	87 U	79 U
Endrin aldehyde	ug/kg	**160 NJ**	**97 J**	**87 NJ**	100 U	10.4 U	110 UJ	93 R	89 U	94 U	**210 J**	72 U	44 U	**59 NJ**	32 R	89 U	100 U	87 U	79 U
Endrin ketone	ug/kg	**160 J**	**210 NJ**	160 R	100 U	10.4 U	110 UJ	87 U	89 U	94 U	**120 J**	130 R	44 U	**60 J**	9.4 R	89 U	100 U	87 U	79 U
Gamma BHC	ug/kg	3.1 U	19 R	18 R	52 U	5.2 U	59 UJ	45 U	46 U	49 U	4.4 R	36 U	23 U	29 R	4.9 R	46 U	52 UJ	45 U	40 U
Gamma-chlordane	ug/kg	**300 NJ**	2.8 U	**170 NJ**	62 R	53 R	69 R	120 R	180 R	170 R	**320 NJ**	**330**	23 U	**220 J**	50 R	49 R	150 R	210 R	270 R
Heptachlor	ug/kg	3.1 U	2.8 UJ	2.4 U	52 U	5.2 U	59 UJ	45 U	46 U	49 U	4.4 R	36 U	23 U	4.6 U	4.9 UJ	**24 J**	52 U	45 U	40 U
Heptachlor epoxide	ug/kg	**63 J**	23 R	**66 J**	**18 J**	7.2 R	59 UJ	45 U	**72**	49 U	27 R	36 U	23 U	84 R	**37 NJ**	**180**	**280 NJ**	**380 J**	81 R
Methoxychlor	ug/kg	480 R	**800 NJ**	570 R	520 U	**52**	590 UJ	450 U	460 U	490 U	**160 J**	360 U	230 U	**280 NJ**	**170 NJ**	460 U	**470 J**	450 U	400 U
P,P'-DDD	ug/kg	**300 J**	**610 J**	**130 J**	100 U	**30 NJ**	**70 J**	**150 J**	**180 J**	94 U	**320 J**	**870**	**76**	**110 J**	**33 J**	**79 J**	**180 NJ**	**250**	**430**
P,P'-DDE	ug/kg	**140 NJ**	140 R	110 R	100 U	**38 J**	**72 J**	120 R	**140**	**130**	41 R	**410**	44 U	110 R	100 R	**69 J**	**210 J**	**280**	**250 NJ**
P,P'-DDT	ug/kg	640 R	**570 J**	**250 J**	100 U	**22 NJ**	110 UJ	87 U	89 U	94 U	120 R	170 R	**41 J**	17 R	9.8 UJ	89 U	100 U	87 U	110 R
Toxaphene	ug/kg	310 U	280 U	240 U	5,200 U	520 U	5,900 UJ	4,500 U	4,600 U	4,900 U	440 R	3,600 U	2,300 U	460 U	490 R	4,600 U	5,200 U	4,500 U	4,000 U
Total DDTs	ug/kg	**---**	**---**	**---**	ND	**90**	**142**	**---**	**320**	**130**	**---**	**---**	**117**	**---**	**---**	**148**	**390**	**530**	**---**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3
Sample Number:		FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D	ERT2-3-E
Sample Depth:		4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	39 U	36 U	39 U	47 U	46 U	45 U	45 U	32 U	33 U	36 U	35 U	28 U	**15 J**	4.1 R	19 U	4.4 R	23 U	35 U
Alpha BHC	ug/kg	45 R	**17 J**	**260 J**	47 U	46 U	45 U	45 U	**130 J**	**48 J**	86 R	40 R	28 U	33 R	**4 J**	19 U	**3.6 J**	23 U	35 U
Alpha endosulfan	ug/kg	**21 J**	**21 J**	**29 J**	47 U	46 U	45 U	45 U	32 U	**29 J**	36 U	35 U	**14 J**	20 U	4.1 R	19 UJ	4.4 UJ	**9.7 J**	35 U
Alpha-chlordane	ug/kg	**89 NJ**	**53 J**	54 R	47 U	46 U	**17 J**	**46 NJ**	**65**	**90 NJ**	**120 NJ**	**110 NJ**	50 R	20 U	**5 J**	19 UJ	**11 J**	23 U	35 U
Beta BHC	ug/kg	51 R	51 R	220 R	47 U	46 U	59 R	45 U	**170 J**	87 R	36 U	35 U	35 R	20 U	4.1 R	19 UJ	4.5 R	23 U	44 R
Beta endosulfan	ug/kg	75 U	70 U	**60 J**	92 U	89 U	**22 J**	87 U	62 U	65 U	70 U	69 U	55 U	40 U	8 UJ	37 UJ	8.5 R	45 UJ	69 U
Delta BHC	ug/kg	39 U	**20 J**	39 U	47 U	46 U	**12 J**	45 U	32 U	**28 J**	**51 NJ**	35 U	28 U	**15 J**	4.1 R	19 U	**4.5 J**	**11 J**	35 U
Dieldrin	ug/kg	**110**	**80 J**	**100**	**40 J**	89 U	87 U	**84 J**	**88**	**130**	**220**	**170 J**	**84 NJ**	40 U	8 UJ	**23 J**	8.5 UJ	**24 J**	**100 NJ**
Endosulfan sulfate	ug/kg	77 R	70 U	75 U	92 U	89 U	87 U	87 U	68 R	80 R	70 U	120 R	**92 NJ**	42 R	8 UJ	37 U	**14 NJ**	**26 J**	69 U
Endrin	ug/kg	75 U	70 U	75 U	92 U	89 U	87 U	87 U	62 U	65 U	86 R	69 U	55 U	43 R	8 UJ	37 U	8.5 UJ	45 U	69 U
Endrin aldehyde	ug/kg	75 U	70 U	75 U	92 U	89 U	87 U	87 U	62 U	65 U	70 U	69 U	55 U	40 U	8 R	37 U	8.5 R	45 U	69 U
Endrin ketone	ug/kg	**72 J**	70 U	75 U	92 U	89 U	87 U	87 R	62 U	65 U	82 R	87 R	55 U	73 R	9.6 R	37 UJ	8.5 UJ	45 UJ	130 R
Gamma BHC	ug/kg	39 U	36 U	39 U	47 U	46 U	45 U	45 U	32 U	33 U	36 U	35 U	28 U	20 U	4.1 R	19 U	4.4 UJ	23 U	35 U
Gamma-chlordane	ug/kg	**140 J**	140 R	120 R	47 U	46 U	45 U	120 R	140 R	190 R	260 R	260 R	110 R	53 R	13 R	19 UJ	19 R	24 R	**140 NJ**
Heptachlor	ug/kg	39 U	36 U	39 U	47 U	46 U	45 U	45 U	32 U	33 U	36 U	35 U	28 U	20 U	4.1 R	19 U	4.4 UJ	23 UJ	35 U
Heptachlor epoxide	ug/kg	**58**	36 U	39 U	**71 J**	**96**	45 U	45 U	40 R	**61 J**	**380 J**	**190 J**	30 R	28 R	5.4 R	19 U	4.4 UJ	23 UJ	35 U
Methoxychlor	ug/kg	390 U	360 U	390 U	**240 J**	460 U	450 U	450 U	320 U	330 U	360 U	350 U	280 U	**350 NJ**	**48 J**	**90 J**	44 R	230 U	350 U
P,P'-DDD	ug/kg	**270 J**	**140**	**140**	**27 J**	**40 J**	**51 J**	**210**	**180**	**260**	**450**	**320**	**160**	**150**	**21 J**	37 UJ	**20 J**	**21 J**	**97 NJ**
P,P'-DDE	ug/kg	**210**	**170**	**76 NJ**	92 U	**50 J**	**30 J**	87 U	**150**	**210**	210 R	**230**	**110**	**94**	**14 J**	**17 J**	**18 J**	**20 J**	**35 J**
P,P'-DDT	ug/kg	100 R	70 U	**120 NJ**	92 U	89 U	87 U	87 U	82 R	95 R	75 R	100 R	68 R	40 U	**10 NJ**	37 U	**13 NJ**	**18 J**	**130**
Toxaphene	ug/kg	3,900 U	3,600 U	3,900 U	4,700 U	4,600 U	4,500 U	4,500 U	3,200 U	3,300 U	3,600 U	3,500 U	2,800 U	2,000 U	410 R	1,900 U	440 R	2,300 U	3,500 U
Total DDTs	ug/kg	**---**	**310**	**336**	**27**	**90**	**81**	**210**	**---**	**---**	**---**	**---**	**---**	**244**	**45**	**17**	**51**	**59**	**262**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2
Sample Number:		ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F
Sample Depth:		4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	41 U	38 U	40 UJ	27 U	**52 NJ**	51 R	50 R	2.2 U	2 U	38 R	37 R	**70 NJ**	41 U	4.4 U	18 U	29 U	24 U	29 U
Alpha BHC	ug/kg	41 U	38 U	40 U	31 R	3 U	3 R	2.5 R	2.2 U	2.1 R	2.5 R	3 R	3 R	41 U	**6 J**	**21 NJ**	**30 NJ**	24 U	29 U
Alpha endosulfan	ug/kg	41 U	38 U	40 U	**16 J**	3 U	**340 NJ**	**260 J**	2.2 U	3.3 R	360 R	270 R	280 R	41 U	4.4 U	18 U	29 U	24 U	**17 J**
Alpha-chlordane	ug/kg	53 R	**170 NJ**	**180 NJ**	**32**	**59 J**	**110 J**	47 UJ	**36 J**	**15 J**	**140 J**	**92 NJ**	**76 NJ**	41 U	4.4 U	18 U	29 U	**48**	**66 NJ**
Beta BHC	ug/kg	41 U	68 R	100 R	56 R	3 U	**240 J**	2.5 R	2.2 U	2 U	22 R	26 R	3 R	41 U	50 R	18 U	29 U	30 R	29 U
Beta endosulfan	ug/kg	80 U	73 U	80 U	**24 J**	**52 NJ**	**90 J**	**44 J**	15 R	3.9 UJ	**60 J**	5.8 R	5.8 R	80 U	19 R	35 UJ	57 U	46 U	56 U
Delta BHC	ug/kg	41 U	38 U	40 U	27 U	3 U	3 R	2.5 R	2.2 U	2 U	2.5 R	3 R	3 R	41 U	4.4 U	18 U	**17 J**	24 U	29 U
Dieldrin	ug/kg	**89 J**	**220**	**250 J**	57 R	96 R	5.9 R	**61 NJ**	**37**	**13 J**	**66 J**	**57 NJ**	5.8 R	**76 J**	**14 J**	**50 J**	**93**	**47**	**120**
Endosulfan sulfate	ug/kg	**66 J**	73 U	**94 NJ**	**150**	56 R	65 R	58 R	**25 NJ**	9.1 R	**180 J**	**130 J**	**220 NJ**	80 U	12 R	45 R	71 R	46 U	62 R
Endrin	ug/kg	80 U	73 U	**46 J**	**44 J**	5.9 U	**110 J**	**62 NJ**	**30 NJ**	3.9 U	**110 J**	8.6 R	5.8 R	80 U	9 R	35 U	57 U	46 U	56 U
Endrin aldehyde	ug/kg	80 U	73 U	80 U	54 U	**59 J**	**110 J**	**60 NJ**	43 R	3.9 U	**96 NJ**	**170 NJ**	40 R	80 U	28 R	35 UJ	57 U	46 U	56 U
Endrin ketone	ug/kg	80 U	79 R	88 R	58 R	**41 J**	**110 J**	**57 NJ**	**38**	**11 J**	**85 J**	**98 J**	**96 J**	80 U	19 R	35 U	57 U	46 U	56 U
Gamma BHC	ug/kg	41 U	38 U	40 UJ	27 U	3 U	**47 NJ**	2.5 R	2.2 U	2 U	60 R	3 R	**110 J**	41 U	4.4 U	18 U	29 U	24 U	29 U
Gamma-chlordane	ug/kg	130 R	**370 NJ**	**410**	**120**	**56 J**	**99 J**	**74 J**	**25 NJ**	**11 J**	**150 NJ**	**210 NJ**	**100 J**	41 U	33 R	**70 J**	90 R	**43 J**	**160 NJ**
Heptachlor	ug/kg	41 U	38 U	40 UJ	**24 J**	3 U	3 R	2.5 R	2.2 U	2 U	2.5 R	3 R	3 R	41 U	4.4 U	18 U	29 U	24 U	29 U
Heptachlor epoxide	ug/kg	**37 J**	38 U	61 R	**38 NJ**	34 R	59 R	29 R	16 R	3.3 R	**92 NJ**	57 R	**48 J**	**45 J**	**25 J**	**28 J**	**38**	24 U	**62 J**
Methoxychlor	ug/kg	410 U	380 U	400 U	270 U	**170 J**	140 R	**130 J**	**58 NJ**	32 R	280 R	340 R	240 R	**330 J**	**85 J**	180 U	290 U	240 U	290 U
P,P'-DDD	ug/kg	**92 J**	**560**	**620**	**170 J**	**180 J**	**250 J**	**200 J**	**100 J**	**57 J**	**420 J**	**870 J**	**480 J**	80 U	**43 J**	**190 J**	**220**	**130**	**300**
P,P'-DDE	ug/kg	**89 J**	**300 J**	**380**	**150**	93 UJ	140 UJ	90 UJ	4.2 U	**24 J**	460 UJ	1,200 UJ	900 UJ	**36 J**	**23 NJ**	78 R	**100 NJ**	68 R	**150 J**
P,P'-DDT	ug/kg	80 U	**490 J**	**1,300 J**	**320 J**	**54 NJ**	**48 J**	**73 J**	**71 J**	**9.8 J**	**53 J**	**260 NJ**	43 R	80 U	14 R	49 R	57 U	46 U	76 R
Toxaphene	ug/kg	4,100 U	3,800 U	4,000 U	2,700 U	300 U	300 R	250 R	220 U	200 U	250 R	300 R	300 R	4,100 U	440 U	1,800 U	2,900 U	2,400 U	2,900 U
Total DDTs	ug/kg	**181**	**1,350**	**2,300**	**640**	**234**	**298**	**273**	**171**	**90.8**	**473**	**1,130**	**---**	**36**	**---**	**---**	**320**	**---**	**---**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E
Sample Depth:		5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:		1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	29 U	21 U	21 U	21 U	21 U	46 U	40 U	47 U	41 UJ	31 U	33 U	30 U	23 U	4.7 U	4.5 U	21 U	41 U	35 U
Alpha BHC	ug/kg	29 U	21 U	21 U	21 U	21 U	46 U	40 U	47 U	**28 J**	**40 NJ**	33 U	**230 J**	**700 J**	4.7 U	4.5 U	21 U	**29 J**	35 U
Alpha endosulfan	ug/kg	29 U	21 U	21 U	21 U	21 U	46 U	40 U	47 U	41 U	31 U	33 U	30 U	23 U	4.7 U	4.5 U	21 U	41 U	**12 J**
Alpha-chlordane	ug/kg	**110**	**41 J**	21 UJ	**5.4 J**	**5 J**	**36 J**	**50 NJ**	**47 J**	**43 NJ**	**51**	33 U	**30 J**	**600 J**	**3.2 J**	4.5 U	21 UJ	**57 J**	**45 J**
Beta BHC	ug/kg	29 U	21 U	21 UJ	21 U	21 U	46 U	40 U	57 R	56 R	31 U	33 U	30 U	**750 J**	4.7 U	4.5 U	21 UJ	53 R	35 U
Beta endosulfan	ug/kg	57 U	41 U	41 U	41 U	41 U	89 U	77 U	92 U	80 U	61 U	63 U	58 U	74 R	9.2 U	8.7 U	41 U	82 U	69 U
Delta BHC	ug/kg	29 U	21 U	21 U	21 U	21 U	46 U	40 U	47 U	41 U	31 U	33 U	30 U	**110**	4.7 U	4.5 U	21 U	41 U	35 U
Dieldrin	ug/kg	**190**	**57 J**	41 UJ	**13 J**	**13 J**	**55 J**	**99**	**73 J**	**70 J**	**67 J**	**62 J**	**85**	45 U	9.2 U	**6.1 J**	41 UJ	**85**	**78**
Endosulfan sulfate	ug/kg	110 R	41 U	41 U	41 U	41 U	89 U	**99 NJ**	**120 NJ**	80 U	61 U	63 U	58 U	45 U	9.2 U	8.7 U	**29 J**	82 U	74 R
Endrin	ug/kg	57 U	41 U	41 U	41 U	41 U	89 U	77 U	92 U	80 U	61 U	63 U	58 U	**380 NJ**	9.2 U	8.7 U	41 U	82 U	69 U
Endrin aldehyde	ug/kg	57 U	57 R	41 U	41 U	41 U	89 U	77 U	92 U	80 U	61 U	63 U	58 U	**64 J**	9.2 U	8.7 U	41 U	**160 NJ**	69 U
Endrin ketone	ug/kg	57 U	45 R	41 U	41 U	41 U	89 U	80 R	98 R	80 U	61 U	63 U	58 U	280 R	**3.2 J**	8.7 U	41 UJ	82 U	**22 J**
Gamma BHC	ug/kg	29 U	21 U	21 U	21 U	21 U	46 U	40 U	47 U	41 UJ	31 U	33 U	30 U	26 R	4.7 U	4.5 U	21 U	41 U	35 U
Gamma-chlordane	ug/kg	**220 J**	61 R	21 UJ	21 U	21 U	76 R	120 R	96 R	91 R	86 R	84 R	140 R	**520 NJ**	5.9 R	6.8 R	21 UJ	110 R	92 R
Heptachlor	ug/kg	29 U	21 U	21 U	21 U	21 U	46 U	40 U	47 U	41 UJ	31 U	33 U	30 U	23 U	4.7 U	4.5 U	21 U	41 U	**21 J**
Heptachlor epoxide	ug/kg	45 R	21 U	**10 J**	**9.8 J**	**6.1 J**	**27 J**	**43 NJ**	47 U	41 U	31 U	33 U	**110 J**	**200 NJ**	4.7 U	4.5 U	21 UJ	**55**	35 U
Methoxychlor	ug/kg	290 U	210 U	210 U	210 U	210 U	460 U	400 U	470 U	410 U	310 U	330 U	300 U	**1,000 J**	47 U	45 U	210 U	410 U	350 U
P,P'-DDD	ug/kg	**540**	**170 J**	**23 J**	**12 J**	**21 J**	**130 J**	**140**	**120**	**100 J**	**160**	**120**	**130**	**350**	**10 NJ**	**12**	**33 J**	**230**	**170 J**
P,P'-DDE	ug/kg	**260**	**77**	41 UJ	**11 J**	**13 J**	**74 J**	**120**	**100**	110 R	**110 J**	**110**	**250 J**	**380 NJ**	9.2 U	**8.4 J**	41 UJ	**130 J**	**130 NJ**
P,P'-DDT	ug/kg	98 R	41 U	**18 J**	41 U	**28 J**	89 U	86 R	92 U	80 UJ	**87 NJ**	63 U	60 R	**130 NJ**	9.2 U	8.7 U	**44 J**	**83 NJ**	69 U
Toxaphene	ug/kg	2,900 U	2,100 U	2,100 U	2,100 U	2,100 U	4,600 U	4,000 U	4,700 U	4,100 U	3,100 U	3,300 U	3,000 U	2,300 U	470 U	450 U	2,100 U	4,100 U	3,500 U
Total DDTs	ug/kg	**---**	**247**	**41**	**23**	**62**	**204**	**---**	**220**	**---**	**357**	**230**	**---**	**860**	**10**	**20.4**	**77**	**443**	**300**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10	GC-SED-100
	Sample Number:	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)	GC-SED-100(5-6)
	Sample Depth:	4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5	5-6
	Sample Date:	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005	1/28/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	34 U	31 U	30 U	10 U	30 U	10 U	30 U	**2.8 J**	**10 J**	20 U	10 U	10 U	20 U	20 U	**10 J**	80 U	60 U	520 U
Alpha BHC	ug/kg	34 U	31 U	**28 J**	10 U	**10 J**	10 U	30 U	5.4 U	30 U	20 U	**10**	9.7 U	20 U	20 U	20 U	70 U	50 U	**440 J**
Alpha endosulfan	ug/kg	34 U	31 U	30 U	10 U	30 U	10 U	30 U	5.4 U	30 U	20 U	10 U	9.7 U	20 U	20 U	20 U	70 U	50 U	440 U
Alpha-chlordane	ug/kg	**52 NJ**	35 R	**47 NJ**	10 U	30 U	10 U	**60 J**	5.4 U	**40 NJ**	20 U	10 U	9.7 U	**30 NJ**	20 U	**20 NJ**	**80 NJ**	50 U	440 U
Beta BHC	ug/kg	34 U	39 R	52 R	**6.5 J**	30 U	10 U	30 U	5.4 U	**10 J**	**8.2 J**	**20 NJ**	9.7 U	**20 J**	20 U	20 U	70 U	50 U	440 U
Beta endosulfan	ug/kg	66 U	60 U	58 U	30 U	60 U	20 U	50 U	**6.4 J**	70 U	30 U	20 U	10 U	40 U	40 U	40 U	150 U	100 U	850 U
Delta BHC	ug/kg	34 U	31 U	30 U	**10 J**	**30 J**	10 UJ	30 UJ	**5.5 J**	30 UJ	**10 J**	**9.7 J**	**10 J**	**30 NJ**	**10 J**	20 UR	70 UJ	50 UJ	440 UR
Dieldrin	ug/kg	**100**	**70**	**85**	30 U	60 U	20 U	50 U	10 U	70 U	30 U	20 U	10 U	40 U	40 U	40 U	**80 J**	100 U	**140 J**
Endosulfan sulfate	ug/kg	92 R	60 U	58 U	30 U	60 U	20 U	50 U	10 U	70 U	30 UJ	**50 NJ**	10 UJ	40 U	40 U	40 UJ	150 UJ	100 UJ	850 U
Endrin	ug/kg	66 U	60 U	58 U	40 U	90 U	30 U	80 U	10 U	110 U	50 U	40 U	20 U	60 U	60 U	60 U	220 U	150 U	1,300 U
Endrin aldehyde	ug/kg	66 U	60 U	58 U	30 U	60 U	20 U	50 U	10 U	70 U	30 UJ	20 UJ	**8.4 J**	**20 J**	**30 J**	40 UJ	**50 J**	100 U	850 U
Endrin ketone	ug/kg	66 U	60 U	58 U	30 UJ	60 UJ	20 UJ	50 UJ	10 U	70 UJ	**10 J**	20 U	10 U	40 UJ	40 UJ	40 U	150 U	100 U	850 U
Gamma BHC	ug/kg	34 U	31 U	30 U	10 U	30 U	10 U	30 U	**6.2**	30 U	20 U	10 U	9.7 U	20 U	20 U	20 U	70 U	50 U	440 U
Gamma-chlordane	ug/kg	130 R	80 R	84 R	**140**	30 U	**40**	**260**	**60**	**200**	**70**	**10 NJ**	**60**	**200**	20 U	**330**	**140 NJ**	**80**	440 U
Heptachlor	ug/kg	34 U	31 U	30 U	10 U	30 U	10 U	30 U	5.4 U	30 U	**10 J**	10 U	**3.4 J**	20 U	20 U	20 U	70 U	50 U	440 U
Heptachlor epoxide	ug/kg	**49 NJ**	**45**	**31 J**	10 U	30 U	10 U	30 U	5.4 U	30 U	20 U	**20**	9.7 U	20 U	20 U	20 U	70 U	50 U	**120 J**
Methoxychlor	ug/kg	340 U	310 U	300 U	160 UJ	320 UJ	120 UJ	300 UJ	50 U	370 UJ	200 U	**210 NJ**	90 U	210 UJ	230 UJ	230 U	750 U	**1,700 J**	4,400 U
P,P'-DDD	ug/kg	**180**	**180**	**270**	**10 J**	**280 J**	20 UJ	**140 J**	10 UJ	**80 J**	30 UJ	20 U	**8.6 J**	**130 J**	**60 NJ**	**80 J**	150 UJ	100 UJ	850 U
P,P'-DDE	ug/kg	**160 NJ**	**97**	**120 NJ**	**10 J**	**130 NJ**	**9.8 J**	50 UJ	**8.4 J**	**90 J**	**10 J**	20 UJ	**10 J**	**70 NJ**	**60 NJ**	**50 NJ**	**240 J**	100 U	850 U
P,P'-DDT	ug/kg	66 U	60 U	58 U	**20 J**	**70 J**	20 UJ	**60 NJ**	**10 J**	70 UJ	30 UJ	**90 NJ**	10 UJ	**60 NJ**	**90 NJ**	**70 NJ**	**180 NJ**	100 UJ	850 U
Toxaphene	ug/kg	3,400 U	3,100 U	3,000 U	620 U	1,300 U	490 U	1,200 U	210 U	1,400 U	770 U	580 U	380 U	810 U	910 U	920 U	3,000 U	2,000 U	17,000 U
Total DDTs	ug/kg	**340**	**277**	**390**	**50**	**480**	**9.8**	**200**	**20**	**180**	**10**	**90**	**20**	**260**	**220**	**200**	**420**	ND	ND

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C
Sample Number:		GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)
Sample Depth:		4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1	1.5-2
Sample Date:		1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	70 U	1,800 U	1,500 U	20 U	40 U	140 UJ	**50 J**	**60 NJ**	20 U	10 U	10 U	20 U	80 U	**20 J**	20 U	30 U	**7.8 J**	10 U
Alpha BHC	ug/kg	60 U	1,500 U	1,300 U	**10 J**	**140**	120 UJ	20 U	30 U	20 U	9.4 U	10 U	20 U	**120 J**	9.3 U	20 U	20 U	5.2 UJ	**3.5 J**
Alpha endosulfan	ug/kg	60 U	1,500 U	1,300 U	20 U	30 U	120 U	20 U	30 U	20 U	9.4 U	10 U	20 U	60 U	9.3 U	20 U	20 U	5.2 UJ	10 U
Alpha-chlordane	ug/kg	60 U	1,500 U	1,300 U	20 U	30 U	120 U	20 U	**70 NJ**	20 U	9.4 U	10 U	20 U	60 U	**20 NJ**	20 U	**6.6 J**	**10 J**	10 U
Beta BHC	ug/kg	**150**	1,500 U	1,300 U	20 U	**90 J**	120 UJ	20 U	30 U	20 U	9.4 U	10 U	20 U	60 U	9.3 U	20 U	20 U	5.2 UJ	10 U
Beta endosulfan	ug/kg	120 U	2,900 U	2,500 U	40 U	**130 J**	**320 J**	40 U	70 U	40 U	10 U	10 U	40 U	130 U	10 U	40 U	50 U	10 UJ	30 U
Delta BHC	ug/kg	60 UR	1,500 U	1,300 UJ	20 UR	30 UR	120 UJ	**30**	**40**	**40 J**	9.4 UR	**20 J**	**30 J**	**70 J**	**20 J**	**40 J**	**10 J**	**7.1 NJ**	**10 J**
Dieldrin	ug/kg	**520**	2,900 U	2,500 U	**50 NJ**	**190 J**	230 U	40 U	70 U	40 U	10 U	10 U	40 U	130 U	**10 J**	40 U	50 U	10 UJ	30 U
Endosulfan sulfate	ug/kg	**730 NJ**	2,900 U	2,500 U	40 U	**700 NJ**	**470 NJ**	40 U	70 U	40 UJ	10 U	10 U	40 U	130 U	10 U	40 U	50 U	10 UJ	30 U
Endrin	ug/kg	180 U	4,500 U	3,800 U	60 U	**340**	**150 J**	70 U	110 U	70 U	20 U	20 U	60 U	200 U	20 U	70 U	70 U	10 UJ	40 U
Endrin aldehyde	ug/kg	120 U	2,900 U	2,500 U	40 U	**210 NJ**	230 U	40 U	70 U	40 U	10 U	10 U	40 U	130 U	10 U	40 U	50 U	10 UJ	30 UJ
Endrin ketone	ug/kg	**260 NJ**	2,900 U	2,500 U	40 U	**190 NJ**	230 U	40 UJ	70 UJ	40 U	10 U	10 UJ	40 UJ	**990 J**	**30 J**	40 UJ	50 U	**6.3 J**	30 U
Gamma BHC	ug/kg	60 U	1,500 U	1,300 U	20 U	30 U	120 UJ	20 U	30 U	20 U	9.4 U	10 U	20 U	60 U	9.3 UJ	20 U	20 U	5.2 UJ	10 U
Gamma-chlordane	ug/kg	60 U	1,500 U	1,300 U	20 U	**640 NJ**	**570 J**	20 U	**60 NJ**	**30 NJ**	**10 NJ**	**10 NJ**	20 U	**110 NJ**	**20 J**	20 U	**80**	5.2 UJ	**110 J**
Heptachlor	ug/kg	60 UJ	1,500 U	1,300 U	20 U	30 U	120 UJ	20 UJ	30 UJ	20 U	9.4 U	10 U	20 U	60 UJ	9.3 UJ	20 UJ	20 U	5.2 UJ	10 U
Heptachlor epoxide	ug/kg	60 U	1,500 U	1,300 U	20 U	**80 NJ**	**90 J**	20 U	30 U	20 U	9.4 U	10 U	20 U	60 U	**10 NJ**	20 U	20 U	5.2 UJ	10 U
Methoxychlor	ug/kg	600 UJ	15,000 U	13,000 U	210 U	370 U	**650 J**	**620 NJ**	380 UJ	**360 NJ**	**820 J**	**190 NJ**	**250 NJ**	**8,600 J**	**100 NJ**	250 UJ	260 U	50 UJ	160 UJ
P,P'-DDD	ug/kg	**680**	2,900 U	2,500 U	**70 J**	**780 NJ**	**1,200 J**	**70 NJ**	**240 NJ**	**70 NJ**	**50 NJ**	**30 NJ**	**70 J**	**200 NJ**	**30 NJ**	40 UJ	**10 J**	**10 NJ**	**110 J**
P,P'-DDE	ug/kg	**700 J**	2,900 U	2,500 U	40 U	**560 J**	**390 NJ**	**60 NJ**	**180 NJ**	**110 NJ**	**120 NJ**	**50 NJ**	**50 J**	130 U	**40 J**	**70 NJ**	**10 J**	**10 NJ**	**30 NJ**
P,P'-DDT	ug/kg	**1,100 J**	**1,500 J**	**1,700 J**	**160 J**	**490 NJ**	**490 J**	40 UR	70 UR	40 UR	10 U	10 UR	**60 J**	130 UJ	10 UJ	40 UR	50 U	10 UR	**50 NJ**
Toxaphene	ug/kg	2,300 U	60,000 U	51,000 U	830 U	1,400 U	4,700 U	970 U	1,500 U	930 U	370 U	390 U	850 U	2,700 U	370 U	970 U	1,000 U	200 UJ	630 U
Total DDTs	ug/kg	**2,480**	**1,500**	**1,700**	**230**	**1,830**	**2,080**	**140**	**420**	**180**	**170**	**90**	**190**	**200**	**80**	**70**	**20**	**30**	**190**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31
Sample Number:		GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)
Sample Depth:		5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5
Sample Date:		1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	**10 J**	5.3 UR	50 UJ	20 U	**5.6 J**	**4.6 J**	50 U	20 UJ	**40 NJ**	80 U	190 U	240 U	380 U	210 U	100 U	250 U	150 U	70 UJ
Alpha BHC	ug/kg	10 U	4.5 UR	40 UJ	20 U	**50 J**	**4.2 J**	**10 J**	20 UJ	10 U	70 U	160 U	210 U	320 U	180 U	80 U	210 U	130 U	60 U
Alpha endosulfan	ug/kg	10 U	4.5 UR	40 UJ	20 U	10 U	10 U	40 U	20 UJ	10 U	70 U	160 U	210 U	320 U	180 U	80 U	210 U	130 U	60 U
Alpha-chlordane	ug/kg	**20**	4.5 UR	40 UJ	**40 J**	**10**	**8.5 J**	**30 J**	20 UJ	**10 NJ**	**20 J**	160 U	210 U	320 U	180 U	80 U	210 U	130 U	60 U
Beta BHC	ug/kg	10 U	4.5 UR	40 UJ	20 U	10 U	10 U	40 U	20 UJ	10 U	70 U	160 U	210 U	320 U	180 U	80 U	210 U	130 U	60 UJ
Beta endosulfan	ug/kg	20 U	8.8 UR	80 UJ	40 U	20 U	30 U	80 U	30 UJ	30 UJ	140 U	310 U	400 U	620 U	350 U	170 U	410 U	250 U	120 U
Delta BHC	ug/kg	**20**	4.5 UR	40 UR	**20**	**10 J**	10 U	**30 J**	20 UR	10 UR	70 UR	160 UR	210 UR	320 UR	180 UR	80 UR	210 UR	130 UR	60 UR
Dieldrin	ug/kg	**20 NJ**	8.8 UR	80 UJ	40 U	20 U	30 U	80 U	30 UJ	30 U	140 U	310 U	400 U	620 U	350 U	170 U	410 U	250 U	**200**
Endosulfan sulfate	ug/kg	**6.8 J**	8.8 UR	**90 NJ**	**9.8 J**	20 U	**2.3 J**	80 U	30 U	30 U	140 U	310 U	400 U	620 U	350 U	170 U	410 U	250 U	120 UJ
Endrin	ug/kg	40 U	10 UR	130 UJ	60 U	30 U	50 U	130 U	50 U	50 U	210 U	470 U	610 U	950 U	530 U	260 U	630 U	380 U	180 UJ
Endrin aldehyde	ug/kg	20 UJ	8.8 UR	80 UJ	40 UJ	20 UJ	30 UJ	80 UJ	30 UJ	30 U	140 U	310 U	400 U	620 U	350 U	170 U	410 U	250 U	**160 NJ**
Endrin ketone	ug/kg	20 U	8.8 UR	80 UJ	40 U	20 U	30 U	80 U	30 U	30 UJ	140 U	310 U	400 U	620 U	350 U	170 U	410 U	250 U	120 UJ
Gamma BHC	ug/kg	10 U	4.5 UR	40 UJ	20 U	10 U	10 U	40 U	20 UJ	10 U	70 U	160 U	210 U	320 U	180 U	80 U	210 U	130 U	60 UJ
Gamma-chlordane	ug/kg	**20 NJ**	**5.1 J**	**60 NJ**	**120 J**	10 U	**120**	**130 J**	**10 J**	**40 NJ**	70 U	160 U	210 U	320 U	180 U	80 U	210 U	130 U	**90 NJ**
Heptachlor	ug/kg	10 U	4.5 UR	40 UJ	20 U	10 U	**3.6 J**	40 U	20 UJ	10 UJ	70 U	160 U	210 U	320 U	180 U	80 U	210 U	130 U	60 UJ
Heptachlor epoxide	ug/kg	10 U	4.5 UJ	40 UJ	20 U	10 U	10 U	40 U	20 UJ	10 U	70 U	160 U	210 U	320 U	180 U	80 U	210 U	130 U	60 UJ
Methoxychlor	ug/kg	140 UJ	40 UJ	460 UJ	230 UJ	120 U	180 U	430 UJ	200 UJ	**220 NJ**	730 UJ	1,600 U	2,100 U	3,200 U	1,800 U	890 U	2,100 U	1,300 U	600 UJ
P,P'-DDD	ug/kg	**190 J**	**20 NJ**	**330 NJ**	**190 J**	**120 J**	**20 J**	**160 J**	**20 NJ**	**180 NJ**	140 UJ	310 U	400 U	620 U	350 U	**40 J**	410 U	250 U	**280 J**
P,P'-DDE	ug/kg	**60 NJ**	**10 NJ**	**150 NJ**	**60 NJ**	**20 NJ**	30 UJ	80 UJ	30 UJ	**220 NJ**	140 UJ	310 U	400 U	620 U	350 U	170 U	410 U	250 U	**180**
P,P'-DDT	ug/kg	**70 NJ**	8.8 UR	80 UR	**110 NJ**	20 UJ	30 UJ	**130 NJ**	30 UR	30 UR	140 UR	310 U	400 U	620 U	350 U	**30 J**	410 U	250 U	120 U
Toxaphene	ug/kg	560 U	180 UR	1,800 UJ	900 U	460 U	710 U	1,700 U	790 U	760 U	2,900 U	6,300 U	8,100 U	13,000 U	7,200 U	3,500 U	8,400 U	5,100 U	2,400 U
Total DDTs	ug/kg	**320**	**30**	**480**	**360**	**140**	**20**	**290**	**20**	**400**	ND	ND	ND	ND	ND	**70**	ND	ND	**460**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43	GC-SED-43
Sample Number:		GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)	GC-SED-43(7.3-8.3)
Sample Depth:		11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3	7.3-8.3
Sample Date:		1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006	1/23/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	210 UJ	20 UJ	90 UJ	40 UJ	210 U	240 U	50 U	150 U	50 UJ	180 UJ	170 U	**80 J**	50 U	**250**	10 UJ	2 U	120 U	**60 J**
Alpha BHC	ug/kg	**350**	**10 J**	**100**	**120 J**	180 U	200 U	50 U	120 U	40 U	**320**	140 U	250 U	40 U	40 U	**7.1 J**	**1.4 J**	90 U	**30 J**
Alpha endosulfan	ug/kg	180 U	20 U	70 U	30 U	180 U	200 U	50 U	120 U	40 U	150 U	140 U	250 U	40 U	40 U	8.8 U	1.7 UJ	90 U	40 U
Alpha-chlordane	ug/kg	180 U	20 U	**290**	30 U	180 U	200 U	50 U	**40 J**	**40 J**	150 U	140 U	**240 J**	40 U	40 U	8.8 U	1.7 U	**200**	**90 J**
Beta BHC	ug/kg	180 UJ	20 UJ	**100 J**	**40 NJ**	180 U	200 U	50 U	120 U	**20 J**	150 UJ	**110 J**	250 U	40 U	**100 J**	8.8 UJ	1.7 U	**90 J**	40 U
Beta endosulfan	ug/kg	**380 NJ**	40 U	**40 J**	**170 NJ**	340 U	390 U	90 U	**160 J**	80 U	**390 NJ**	280 U	480 U	90 U	90 U	10 U	3.3 U	190 U	80 U
Delta BHC	ug/kg	180 UR	20 UR	70 UJ	30 UJ	**180 J**	200 UJ	50 UR	**20 J**	40 UJ	150 UR	140 UJ	250 UR	**270 J**	**630 J**	8.8 UR	1.7 UR	90 U	40 U
Dieldrin	ug/kg	350 U	40 U	**830**	70 U	**480 NJ**	390 U	90 U	240 U	**130**	290 U	**60 J**	**790**	**90 J**	**60 J**	10 U	3.3 UJ	190 U	80 U
Endosulfan sulfate	ug/kg	350 UJ	40 UJ	**180 NJ**	**190 NJ**	340 U	390 U	90 U	240 U	80 UJ	**370 NJ**	**300 NJ**	480 UJ	90 U	**150 NJ**	10 UJ	3.3 UJ	**490**	**100 NJ**
Endrin	ug/kg	530 UJ	60 UJ	230 UJ	110 UJ	520 U	590 U	150 U	370 U	130 UJ	450 UJ	420 U	730 U	140 U	140 U	20 UJ	5 UJ	290 U	140 U
Endrin aldehyde	ug/kg	350 U	40 U	**240 NJ**	70 U	**540 J**	**350 J**	90 U	240 U	**140**	290 U	280 UJ	**710 J**	90 U	90 U	10 U	**6.5**	190 U	**100 NJ**
Endrin ketone	ug/kg	**390 J**	40 UJ	**160 NJ**	**360 J**	340 U	390 U	**7.6 J**	240 U	80 UJ	**570 J**	280 U	480 U	90 U	90 U	10 UJ	3.3 U	190 U	80 U
Gamma BHC	ug/kg	180 UJ	20 UJ	70 UJ	30 UJ	180 U	200 U	50 U	120 U	40 UJ	150 UJ	140 U	250 U	40 U	40 U	8.8 UJ	1.7 UJ	90 U	40 U
Gamma-chlordane	ug/kg	180 U	20 U	**750 J**	**320**	180 U	200 U	50 U	120 U	**110 J**	150 U	140 U	250 U	40 U	**80 NJ**	8.8 U	1.7 U	**160 NJ**	**80**
Heptachlor	ug/kg	180 UJ	20 UJ	70 UJ	30 UJ	180 U	200 U	50 U	120 U	40 UJ	150 UJ	140 U	250 U	40 U	**90 NJ**	8.8 UJ	1.7 UJ	90 U	**40**
Heptachlor epoxide	ug/kg	180 UJ	20 UJ	70 UJ	**50 J**	180 U	200 U	50 U	120 U	40 UJ	150 UJ	**90 J**	250 U	40 U	**60 NJ**	8.8 UJ	1.7 U	90 U	40 U
Methoxychlor	ug/kg	1,800 UJ	230 UJ	790 UJ	360 UJ	1,800 U	2,000 U	500 U	1,200 U	430 UJ	**1,400 J**	1,400 U	2,500 U	480 U	490 U	80 UJ	10 UJ	980 U	460 U
P,P'-DDD	ug/kg	350 UJ	**8.2 J**	**1,900 J**	70 UJ	340 U	390 U	90 U	240 U	80 UJ	290 UJ	**140 J**	**1,100 J**	90 U	90 U	**5.6 J**	**1.8 NJ**	**1,100**	**230 J**
P,P'-DDE	ug/kg	**380 J**	40 U	**610 NJ**	**110 J**	340 UJ	390 UJ	90 U	240 U	**90**	**380 J**	280 U	480 UJ	**30 J**	**110 J**	10 U	**1.1 NJ**	**570 J**	**260**
P,P'-DDT	ug/kg	350 U	40 U	150 U	**200 NJ**	**2,400 J**	**1,600 J**	90 UJ	**400 NJ**	80 U	**690 J**	**420 NJ**	**1,800 NJ**	**200 NJ**	**240 NJ**	10 U	3.3 UR	**660 J**	**160 NJ**
Toxaphene	ug/kg	7,100 U	890 U	3,100 U	1,400 U	7,000 U	7,900 U	2,000 U	4,900 U	1,700 U	6,000 U	5,700 U	9,800 U	1,900 U	1,900 U	350 U	60 U	3,900 U	1,800 U
Total DDTs	ug/kg	**380**	**8.2**	**2,510**	**310**	**2,400**	**1,600**	ND	**400**	**90**	**1,070**	**560**	**2,900**	**230**	**350**	**5.6**	**2.9**	**2,330**	**650**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B	GC-SED-55
	Sample Number:	GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)
	Sample Depth:	0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7	1.5-2.5
	Sample Date:	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006	1/24/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	**140**	30 U	1,500 U	**200**	170 U	**110 NJ**	290 U	740 U	1,700 U	1,700 U	30 U	80 U	140 U	140 U	70 U	20 U	140 U	890 U
Alpha BHC	ug/kg	**30 J**	**20 J**	1,300 U	**20 J**	**60 J**	50 U	250 U	630 U	1,400 U	1,400 U	**70**	70 U	**360 J**	**1,800 NJ**	**90**	20 U	**270 J**	760 U
Alpha endosulfan	ug/kg	100 U	30 U	1,300 U	150 U	150 U	50 U	250 U	630 U	1,400 U	1,400 U	30 U	70 U	120 U	**230**	60 U	20 U	110 U	760 U
Alpha-chlordane	ug/kg	100 U	**50 J**	1,300 U	**160 J**	**110 J**	**160 J**	**110 J**	6,300 U	1,400 U	1,400 U	30 U	70 U	120 U	**150 NJ**	60 U	**60 NJ**	110 U	760 U
Beta BHC	ug/kg	**60 J**	30 U	1,300 U	150 U	**90 J**	50 U	**70 J**	630 U	1,400 U	1,400 U	30 UJ	**50 J**	120 U	120 U	60 UJ	**30 J**	110 UJ	760 U
Beta endosulfan	ug/kg	200 U	60 U	**190 J**	290 U	290 U	110 U	480 U	**180 J**	2,800 U	2,800 U	**90 NJ**	140 U	230 UJ	**950**	**230 J**	**40 J**	**430 NJ**	1,500 U
Delta BHC	ug/kg	**120 J**	30 U	1,300 U	**280**	150 U	50 U	250 U	630 U	1,400 U	1,400 U	30 UJ	70 UJ	120 UJ	120 UR	60 UR	20 UR	110 UJ	760 U
Dieldrin	ug/kg	**160 J**	60 U	2,500 U	**450**	290 U	**290**	**260 J**	1,200 U	2,800 U	2,800 U	60 U	**270 J**	230 UJ	240 U	120 U	**160**	220 UJ	1,500 U
Endosulfan sulfate	ug/kg	**350 J**	**120 NJ**	2,500 U	290 U	290 U	**420 J**	480 U	**430 J**	2,800 U	**260 J**	**210 NJ**	**530 NJ**	**350 NJ**	240 U	120 U	**390**	**660 NJ**	1,500 U
Endrin	ug/kg	300 U	90 U	3,700 U	440 U	440 U	160 U	720 U	1,900 U	4,200 U	4,200 U	**260 J**	210 UJ	**570 J**	360 U	**130 J**	**90 J**	**320 J**	2,200 U
Endrin aldehyde	ug/kg	200 U	60 U	2,500 U	**360 NJ**	290 U	**370 NJ**	480 U	1,200 U	2,800 U	2,800 U	60 U	140 U	230 UJ	240 U	120 U	**190**	220 UJ	1,500 U
Endrin ketone	ug/kg	200 U	**80 NJ**	2,500 U	**210 J**	290 U	**130 J**	**130 J**	**200 J**	**210 J**	2,800 U	**200 NJ**	140 U	**290 NJ**	**440 NJ**	120 U	**40 NJ**	220 UJ	1,500 U
Gamma BHC	ug/kg	100 U	30 U	1,300 U	150 U	150 U	50 U	250 U	630 U	1,400 U	1,400 U	30 UJ	70 UJ	120 U	**190 J**	60 UJ	20 U	110 UJ	760 U
Gamma-chlordane	ug/kg	100 U	**60 J**	1,300 U	**220 NJ**	150 U	**80 NJ**	250 U	6,300 U	**80 J**	1,400 U	30 U	70 U	120 U	**650 NJ**	60 U	**70 NJ**	110 U	760 U
Heptachlor	ug/kg	100 U	**40**	1,300 UR	150 U	150 U	**160 J**	250 UR	630 UR	1,400 UR	1,400 UR	30 UJ	70 UJ	120 UJ	**260 NJ**	60 UJ	20 U	110 UJ	760 UR
Heptachlor epoxide	ug/kg	100 U	**40 J**	**150 J**	150 U	150 U	50 U	250 U	**80 J**	1,400 U	1,400 U	**30 J**	70 U	**230 J**	**420 NJ**	60 U	20 U	110 U	**60 J**
Methoxychlor	ug/kg	1,000 U	320 U	13,000 U	220 U	1,500 U	550 U	2,500 U	6,300 U	14,000 U	14,000 U	**570 J**	700 UJ	1,200 UJ	**3,000 NJ**	600 UJ	200 U	1,100 UJ	7,600 U
P,P'-DDD	ug/kg	**170 J**	**120 NJ**	2,500 UJ	**860 J**	290 U	**360 J**	**490 J**	1,200 UJ	**530 J**	2,800 U	**420 J**	**480 NJ**	**600 NJ**	240 U	**710 J**	**200**	**410 NJ**	1,500 U
P,P'-DDE	ug/kg	200 U	**140**	2,500 U	**330 NJ**	**190 J**	**220**	**320 J**	1,200 U	2,800 U	2,800 U	60 U	**230 NJ**	230 UJ	**960 J**	**180 J**	**150**	**230 J**	1,500 U
P,P'-DDT	ug/kg	**560 NJ**	**180 NJ**	2,500 UJ	**950 NJ**	**310 NJ**	**650 NJ**	**740 J**	1,200 UJ	2,800 UJ	2,800 U	**390 NJ**	140 UR	**380 NJ**	**1,700**	**320 J**	30 U	**1,100 J**	1,500 U
Toxaphene	ug/kg	4,000 U	1,200 U	50,000 U	5,900 U	5,800 U	2,200 U	9,700 U	25,000 U	56,000 U	57,000 U	1,300 U	2,800 U	4,800 U	4,800 U	2,400 U	790 U	4,500 U	30,000 U
Total DDTs	ug/kg	**730**	**440**	ND	**2,140**	**500**	**1,230**	**1,550**	ND	**530**	ND	**810**	**710**	**980**	**2,660**	**1,210**	**350**	**1,740**	ND

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C
Sample Number:		GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)
Sample Depth:		10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5	2.5-4
Sample Date:		1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	1,500 U	40 U	520 U	20 U	60 UJ	20 UJ	70 UJ	140 U	90 U	110 U	**20 NJ**	320 U	**110 J**	150 U	**110 J**	10 U	130 U	10 U
Alpha BHC	ug/kg	1,300 U	30 U	440 U	20 U	50 UJ	20 UJ	60 UJ	120 U	**70 J**	90 U	10 U	**140 J**	20 U	130 UJ	40 U	10 U	110 U	**5 J**
Alpha endosulfan	ug/kg	1,300 U	30 U	440 U	20 U	50 U	20 U	60 U	120 U	80 U	90 U	10 U	270 U	20 U	130 U	40 U	10 U	110 U	10 U
Alpha-chlordane	ug/kg	1,300 U	30 U	440 U	**10 J**	50 U	20 U	60 U	120 U	80 U	90 U	10 U	270 U	**40 NJ**	**30 J**	**40 NJ**	10 U	110 U	**6.3 J**
Beta BHC	ug/kg	1,300 U	30 UJ	440 U	20 U	**60 NJ**	20 UJ	60 UJ	120 UJ	80 U	**20 J**	10 U	270 U	20 U	130 U	40 U	10 U	110 U	10 U
Beta endosulfan	ug/kg	2,400 U	70 U	850 U	40 U	110 UJ	40 UJ	**250 J**	230 U	160 U	190 U	20 U	530 U	40 U	250 U	80 U	10 U	210 U	20 U
Delta BHC	ug/kg	**240 J**	30 UJ	440 UR	20 U	50 UR	20 UR	60 UR	**130 J**	80 UJ	90 U	10 UR	270 UJ	20 UR	130 UJ	40 UJ	**10 J**	110 UJ	10 UJ
Dieldrin	ug/kg	2,400 U	**80**	850 U	**9.9 J**	**380 J**	40 U	120 U	**90 J**	160 U	190 U	20 U	530 U	40 U	250 U	80 U	10 U	210 U	20 U
Endosulfan sulfate	ug/kg	2,400 U	70 U	850 U	40 U	**170 NJ**	40 U	**270 NJ**	230 U	160 U	190 U	20 UJ	530 U	40 U	250 U	80 U	10 U	210 U	20 U
Endrin	ug/kg	3,700 U	**40 J**	1,300 U	60 U	160 U	60 U	180 U	340 UJ	240 U	290 U	30 U	810 U	70 U	**140 J**	**60 J**	20 U	320 U	30 U
Endrin aldehyde	ug/kg	2,400 U	70 U	850 U	40 U	110 U	40 U	120 U	230 U	160 U	190 U	20 U	530 U	40 U	250 U	80 U	10 U	210 U	20 U
Endrin ketone	ug/kg	2,400 U	70 U	**680 J**	**10 J**	110 U	40 U	120 U	230 U	**340**	**20 J**	20 U	530 U	40 U	250 U	80 U	10 U	210 U	20 U
Gamma BHC	ug/kg	1,300 U	30 UJ	440 U	20 U	50 UJ	20 UJ	60 UJ	120 U	80 U	90 U	10 U	270 U	20 U	130 U	40 U	10 U	110 U	10 U
Gamma-chlordane	ug/kg	1,300 U	30 U	440 U	**10 J**	50 U	20 U	**230**	120 U	80 U	90 U	10 U	270 U	**30**	130 U	40 U	10 U	110 U	10 U
Heptachlor	ug/kg	1,300 UR	30 UJ	440 U	20 U	50 UJ	20 UJ	60 UJ	120 U	80 U	90 U	10 U	270 U	20 U	130 U	40 U	10 U	110 U	10 U
Heptachlor epoxide	ug/kg	1,300 U	30 U	440 U	**10 J**	50 U	20 U	60 U	120 U	80 U	90 U	10 U	270 U	20 U	130 U	40 U	10 U	**70 J**	10 U
Methoxychlor	ug/kg	13,000 U	390 UJ	**1,500 J**	**30 J**	560 U	220 U	600 U	1,200 UJ	**3,100 J**	970 U	120 UJ	**6,800 NJ**	240 UJ	**4,300**	**500 NJ**	**250 NJ**	1,100 U	100 U
P,P'-DDD	ug/kg	**430 J**	**160 NJ**	850 U	40 U	**1,000 NJ**	**160 J**	**360 J**	**240 J**	160 UJ	190 U	**30 NJ**	530 U	**80 NJ**	250 U	80 UJ	**110 J**	**130 J**	**30 J**
P,P'-DDE	ug/kg	2,400 U	**120 NJ**	850 U	**20 J**	**530 J**	**40 NJ**	120 UJ	**70 J**	160 UJ	190 U	**30 NJ**	**560 NJ**	**90 NJ**	**360 J**	**240 NJ**	**50 J**	210 UJ	20 UJ
P,P'-DDT	ug/kg	2,400 UJ	70 UR	**1,100 J**	40 U	**430 J**	**110 NJ**	**280 NJ**	**240 NJ**	160 UR	190 U	20 UR	530 U	40 UR	250 U	80 UR	10 UJ	210 UJ	20 UJ
Toxaphene	ug/kg	49,000 U	1,600 U	17,000 U	820 U	2,200 U	870 U	2,300 U	4,600 U	3,200 U	3,800 U	480 U	11,000 U	960 U	5,000 U	1,800 U	400 U	4,300 U	400 U
Total DDTs	ug/kg	**430**	**280**	**1,100**	**20**	**1,960**	**310**	**640**	**550**	ND	ND	**60**	**560**	**170**	**360**	**240**	**160**	**130**	**30**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83
	Sample Number:	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)
	Sample Depth:	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8	0-2
	Sample Date:	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006	1/30/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	**1.3 J**	**610**	20 U	**640 NJ**	290 U	110 U	40 U	10 U	10 U	20 U	40 U	50 U	**330 J**	30 U	4.6 U	10 U	10 U	20 U
Alpha BHC	ug/kg	1.8 UJ	70 U	20 U	210 U	250 U	90 U	30 U	9.1 U	10 U	20 U	30 U	40 U	40 U	20 U	3.9 UJ	10 U	10 U	10 U
Alpha endosulfan	ug/kg	1.8 U	70 U	20 U	210 U	250 U	90 U	30 U	9.1 U	10 U	20 U	30 U	40 U	40 U	20 U	3.9 U	10 U	10 U	10 U
Alpha-chlordane	ug/kg	1.8 U	**300 NJ**	20 U	210 U	250 U	90 U	**20 J**	9.1 U	**4.4 J**	20 U	30 U	**50 NJ**	**90 NJ**	20 U	3.9 U	**5.6 J**	**6.3 J**	10 U
Beta BHC	ug/kg	1.8 U	70 U	20 U	**650 NJ**	250 U	90 U	**20 J**	**9.4 J**	**6.6 J**	20 UJ	30 UJ	40 U	40 U	20 U	3.9 U	10 U	10 U	10 U
Beta endosulfan	ug/kg	3.5 U	150 U	40 U	410 U	480 U	180 U	70 U	10 U	20 U	40 U	70 U	90 U	90 U	40 U	7.6 U	20 U	20 U	30 U
Delta BHC	ug/kg	1.8 UJ	70 UJ	20 UJ	**2,900 NJ**	250 U	90 U	30 UJ	**20 J**	10 U	20 UJ	30 UJ	40 UR	40 UR	20 UJ	3.9 UR	10 U	10 U	**10 J**
Dieldrin	ug/kg	3.5 U	150 U	**10 J**	**280 J**	480 U	180 U	70 U	**10 J**	20 U	40 U	70 U	90 U	90 U	40 U	7.6 U	20 U	20 U	**10 J**
Endosulfan sulfate	ug/kg	3.5 U	150 U	40 U	410 U	480 U	180 U	70 U	10 U	20 U	**20 J**	**30 J**	90 U	90 U	40 U	7.6 U	20 U	20 U	30 U
Endrin	ug/kg	5.3 U	220 U	70 U	620 U	720 U	270 U	110 UJ	20 U	30 U	60 UJ	110 UJ	140 U	140 U	70 U	10 U	40 U	30 U	50 U
Endrin aldehyde	ug/kg	3.5 U	150 U	**10 J**	**140 J**	480 U	180 U	70 U	10 UJ	20 UJ	40 U	70 U	90 U	90 U	40 U	7.6 U	20 UJ	20 U	30 UJ
Endrin ketone	ug/kg	3.5 U	150 U	**4.9 J**	410 U	480 U	180 U	70 U	**9.4 J**	20 U	40 U	70 U	90 U	90 U	40 U	7.6 U	20 U	20 U	30 U
Gamma BHC	ug/kg	1.8 U	70 U	20 U	210 U	250 U	90 U	30 UJ	9.1 U	10 U	20 UJ	30 UJ	40 U	40 U	20 U	3.9 U	10 U	10 U	10 U
Gamma-chlordane	ug/kg	1.8 U	**240**	20 U	210 U	250 U	90 U	**50 NJ**	**40 NJ**	10 U	20 U	30 U	**60 NJ**	**60**	**30 NJ**	3.9 U	10 U	10 U	10 U
Heptachlor	ug/kg	1.8 U	70 U	20 U	**980 NJ**	250 UR	90 UR	30 UJ	9.1 U	10 U	20 UJ	30 UJ	40 U	40 U	20 U	3.9 U	10 U	10 U	10 U
Heptachlor epoxide	ug/kg	1.8 U	70 U	20 U	210 U	250 U	90 U	30 U	**10**	**3.6 J**	20 U	30 U	40 U	40 U	20 U	3.9 U	10 U	10 U	10 U
Methoxychlor	ug/kg	10 U	750 UJ	240 U	**350 J**	2,500 U	930 U	380 UJ	90 U	110 U	230 UJ	370 UJ	**700 NJ**	480 UJ	**1,100 J**	30 U	150 U	110 U	180 U
P,P'-DDD	ug/kg	3.5 U	**590 NJ**	40 UJ	**420 J**	480 U	180 U	**90 NJ**	**10 J**	20 UJ	40 UJ	**30 NJ**	**170 J**	90 UJ	**160 J**	7.6 U	**20 J**	20 UJ	**10 J**
P,P'-DDE	ug/kg	3.5 U	**650 NJ**	40 U	410 UJ	480 U	180 U	**110 NJ**	**20**	**10 J**	**40 NJ**	**50 NJ**	**250 J**	**230 J**	**120 J**	7.6 U	20 UJ	**8.2 J**	30 UJ
P,P'-DDT	ug/kg	3.5 U	150 UR	**10 J**	**600 J**	480 U	180 U	70 UR	10 U	**10 J**	40 UR	70 UR	**40 J**	90 UJ	40 UJ	7.6 U	**10 J**	**20 J**	30 UJ
Toxaphene	ug/kg	70 U	3,000 U	950 U	8,300 U	9,700 U	3,700 U	1,500 U	360 U	450 U	910 U	1,500 U	1,900 U	1,900 U	990 U	150 U	590 U	420 U	690 U
Total DDTs	ug/kg	ND	**1,240**	**10**	**1,020**	ND	ND	**200**	**30**	**20**	**40**	**80**	**460**	**230**	**280**	ND	**40**	**20**	**10**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98
Sample Number:		GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)
Sample Depth:		11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9	1-2
Sample Date:		1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	40 U	**70**	**80**	390 U	**400 J**	600 U	310 UJ	**230 J**	1,000 UJ	**60 J**	**160 J**	**300 J**	**480 NJ**	**210 J**	**30 J**	40 U	780 U	20 U
Alpha BHC	ug/kg	30 U	30 U	50 U	330 U	700 U	510 UJ	260 U	450 U	860 U	**10 J**	60 UJ	50 UJ	50 U	530 U	30 U	30 U	670 U	**20 J**
Alpha endosulfan	ug/kg	30 U	30 U	50 U	330 U	700 U	**440 J**	260 U	450 U	860 U	40 U	60 UJ	50 UJ	50 U	530 U	30 U	30 U	670 U	10 UJ
Alpha-chlordane	ug/kg	30 U	**110**	**80**	**450 NJ**	700 U	**380 J**	260 U	**370 J**	860 U	40 U	**130 J**	**120 NJ**	**210 NJ**	**120 J**	**50**	**130 J**	670 U	10 U
Beta BHC	ug/kg	30 U	30 U	50 U	330 U	700 U	510 U	260 U	450 U	860 U	40 U	60 UJ	50 UJ	50 U	530 U	30 U	**40 NJ**	**230 J**	10 U
Beta endosulfan	ug/kg	60 U	60 U	90 U	640 U	1,400 U	990 U	510 U	870 U	1,700 U	90 U	120 UJ	120 UJ	110 U	1,000 U	60 U	60 U	1,300 U	30 UJ
Delta BHC	ug/kg	**80 J**	30 UR	50 UR	330 UR	700 UJ	510 UJ	260 UR	450 UR	860 UJ	**40 NJ**	60 UR	50 UR	**70 NJ**	530 UJ	30 UR	30 UR	670 UR	10 UR
Dieldrin	ug/kg	**20 J**	60 U	90 U	**400 J**	1,400 U	990 U	510 U	870 U	1,700 U	**70 J**	120 UJ	120 UJ	**140 J**	1,000 U	60 U	**400 J**	1,300 U	**60 NJ**
Endosulfan sulfate	ug/kg	60 U	60 UJ	90 UJ	640 U	1,400 UJ	990 UJ	510 UJ	870 UJ	1,700 UJ	90 U	120 UJ	120 UJ	110 UJ	1,000 UJ	60 UJ	**160 NJ**	1,300 U	**50 J**
Endrin	ug/kg	90 U	100 U	150 U	980 U	2,100 U	1,500 U	770 U	1,300 U	2,500 U	140 U	180 UJ	170 UJ	170 U	1,600 U	90 U	100 U	2,000 U	50 UJ
Endrin aldehyde	ug/kg	60 UJ	60 U	90 U	640 U	1,400 U	990 U	510 U	870 U	1,700 U	90 U	120 UJ	120 UJ	110 U	1,000 U	60 U	**410 J**	1,300 U	30 UJ
Endrin ketone	ug/kg	60 U	60 U	90 U	640 U	1,400 U	990 U	510 U	870 U	1,700 U	90 U	120 UJ	120 UJ	110 U	1,000 U	60 U	60 U	1,300 U	30 UJ
Gamma BHC	ug/kg	30 U	30 U	50 U	330 U	700 U	510 UJ	260 U	450 U	860 U	40 U	60 UJ	50 UJ	50 U	530 U	30 U	30 U	670 U	10 U
Gamma-chlordane	ug/kg	30 U	**70**	**50**	**610 J**	700 U	**460 J**	260 U	450 U	860 U	**60**	**110 J**	**100 J**	**350 J**	530 U	30 U	**270 NJ**	670 U	10 U
Heptachlor	ug/kg	30 U	30 U	50 U	330 U	700 U	510 U	260 U	450 U	860 U	40 U	60 UJ	50 UJ	50 U	530 U	30 U	30 UJ	670 U	10 UJ
Heptachlor epoxide	ug/kg	**80**	30 U	50 U	330 U	700 U	510 U	260 U	450 U	860 U	40 U	60 UJ	50 UJ	50 U	530 U	30 U	30 U	670 U	10 UJ
Methoxychlor	ug/kg	340 U	350 UJ	500 UJ	3,300 UJ	7,000 U	5,100 U	2,600 U	4,500 U	8,600 U	470 U	610 UJ	590 UJ	**1,000 NJ**	5,300 U	340 UJ	360 UJ	6,700 U	190 UJ
P,P'-DDD	ug/kg	**30 J**	**210 NJ**	**170 NJ**	**1,900 NJ**	1,400 U	990 U	510 U	870 U	1,700 U	**90 J**	**200 NJ**	**160 NJ**	**690 NJ**	1,000 U	60 UJ	**500 J**	**1,200 J**	30 UJ
P,P'-DDE	ug/kg	60 UJ	**170 NJ**	**150 NJ**	**1,700 J**	1,400 U	**1,600 NJ**	**540 NJ**	**930 J**	1,700 U	**110 J**	**290 NJ**	**230 NJ**	**440 NJ**	1,000 U	**90 J**	**390 J**	1,300 U	**70 NJ**
P,P'-DDT	ug/kg	**50 J**	60 UR	90 UR	640 UJ	1,400 UJ	990 U	510 UJ	870 UJ	1,700 UJ	**170 NJ**	120 UR	120 UR	110 UR	1,000 UJ	**40 J**	**990 J**	1,300 U	30 UR
Toxaphene	ug/kg	1,300 U	1,400 U	2,000 U	13,000 U	28,000 U	20,000 U	10,000 U	18,000 U	34,000 U	1,900 U	2,400 UJ	2,300 UJ	2,300 U	21,000 U	1,300 U	1,400 U	26,000 U	760 U
Total DDTs	ug/kg	**80**	**380**	**320**	**3,600**	ND	**1,600**	**540**	**930**	ND	**370**	**490**	**390**	**1,130**	ND	**130**	**1,880**	**1,200**	**70**

TABLE I-10A
Pesticide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-SED-98**	**GC-SED-99B**	**GC-SED-99B**
Sample Number:		**GC-SED-98(8.5-9.5)**	**GC-SED-99(3.5-4.5)**	**GC-SED-99(7.2-8.7)**
Sample Depth:		**8.5-9.5**	**3.5-4.5**	**7.2-8.7**
Sample Date:		**1/27/2006**	**12/22/2005**	**12/22/2005**
Sample Type:		**N**	**N**	**N**
Parameter	**Units**	**Pesticides**		
Aldrin	ug/kg	980 U	170 U	**200 NJ**
Alpha BHC	ug/kg	**940 J**	140 U	**60 J**
Alpha endosulfan	ug/kg	830 U	140 U	50 U
Alpha-chlordane	ug/kg	830 U	**240 J**	**60 NJ**
Beta BHC	ug/kg	830 U	140 U	**70 NJ**
Beta endosulfan	ug/kg	**380 J**	280 U	110 U
Delta BHC	ug/kg	830 UR	**30 J**	**40 J**
Dieldrin	ug/kg	1,600 U	280 U	110 U
Endosulfan sulfate	ug/kg	1,600 U	280 UJ	**140 NJ**
Endrin	ug/kg	2,400 U	430 U	170 U
Endrin aldehyde	ug/kg	1,600 U	280 UJ	110 UJ
Endrin ketone	ug/kg	1,600 U	280 U	110 U
Gamma BHC	ug/kg	830 U	140 U	50 U
Gamma-chlordane	ug/kg	830 U	**250**	**100 NJ**
Heptachlor	ug/kg	830 U	**60 J**	50 U
Heptachlor epoxide	ug/kg	830 U	**140 J**	**100**
Methoxychlor	ug/kg	8,300 U	**290 J**	**380 J**
P,P'-DDD	ug/kg	1,600 U	**1,100**	**350**
P,P'-DDE	ug/kg	1,600 U	**610 J**	**250**
P,P'-DDT	ug/kg	1,600 U	**300 NJ**	**280 NJ**
Toxaphene	ug/kg	33,000 U	5,700 U	2,200 U
Total DDTs	ug/kg	ND	**2,010**	**880**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg								**48 J (A)**	1.5 J	8.2 NJ					11 J	
Alpha BHC	ug/kg								**110 J (A)**						7.6 J		
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg	**24 J (R)**	**14 NJ (R)**						**130 NJ (R)**		**48 NJ (R)**	**140 J (R)**	**62 NJ (R)**				
Beta BHC	ug/kg																
Beta endosulfan	ug/kg							**68 NJ (R)**									
Delta BHC	ug/kg				61 J					1.2 J						4.3 NJ	
Dieldrin	ug/kg		11 J					**81 NJ (A)**			**32 J (A)**	**130 NJ (A)**	**76 NJ (A)**		**74 J (A)**		**61 J (A)**
Endosulfan sulfate	ug/kg	28 J						460 J			15 J	63 J					47 NJ
Endrin	ug/kg																
Endrin aldehyde	ug/kg			34 J							11 NJ		69 J		68 NJ		87 NJ
Endrin ketone	ug/kg	24 NJ	7.7 J	150 J				140 J	160 J			56 NJ				17 J	20 J
Gamma BHC	ug/kg				**23 NJ (R)**			**28 J (R)**	**32 NJ (R)**								
Gamma-chlordane	ug/kg	**120 NJ (R)**	**78 NJ (R)**	**71 NJ (R)**													**180 NJ (R)**
Heptachlor	ug/kg				**21 J (R)**								**48 J (R)**				
Heptachlor epoxide	ug/kg		1.5 J		**7.4 J (R)**		**35 J (R)**		**130 J (A,R)**		**47 J (R)**		**48 NJ (R)**				
Methoxychlor	ug/kg							900 J	630 NJ		380 J						
P,P'-DDD	ug/kg		**28 NJ (R)**	**510 NJ (R)**	**430 J (R)**	**22 NJ (R)**	**280 J (R)**	**710 J (R)**			**120 J (R)**	**570 J (R)**	**470 J (R)**				**79 NJ (R)**
P,P'-DDE	ug/kg	**27 J (R)**					**60 JN (R)**			**16 NJ (R)**	**89 NJ (R)**		**300 NJ (R)**			**7.4 NJ (R)**	**67 NJ (R)**
P,P'-DDT	ug/kg			**250 NJ (R)**		**26 J (R)**		**220 J (R)**	**380 NJ (R)**	**67 NJ (R)**		**150 NJ (R)**		**590 J (R)**	**480 J (R)**	**130 J (R)**	**110 J (R)**
Total DDTs	ug/kg																**256 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD126	GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153
Sample Number:		GC-SD126-04.0-06.0	D-03042010-02	GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	GC-SD108-06.0-08.0	D-03052010-02	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2
Sample Depth:		4-6	4-6	6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	6-8	6-8	0-2	2-4	0-2	2-3.2
Sample Date:		3/4/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg		13 J			13 J					**52 NJ (A)**	23 J		5.3 J	5.5		4.5 J
Alpha BHC	ug/kg						25 J	5.3 J				10 NJ		8.3 J	3.1 J		
Alpha endosulfan	ug/kg	**20 J (R)**	**48 J (R)**					**3.8 J (R)**									
Alpha-chlordane	ug/kg	**63 J (R)**			**9 NJ (R)**	**50 J (R)**	**78 NJ (R)**		**7.4 NJ (R)**	**62 J (R)**	**95 J (R)**	**37 J (R)**	**66 (R)**	**5.8 NJ (R)**		**4.4 J (R)**	**11 J (R)**
Beta BHC	ug/kg	59		20 J		8.2 NJ	23 J				21 NJ				13 NJ		
Beta endosulfan	ug/kg																
Delta BHC	ug/kg	34 J	49 NJ											12 J	8 NJ		9.1 J
Dieldrin	ug/kg	**250 (A)**	**250 J (A)**	**57 J (A)**	11 J	**34 J (A)**				**56 J (A)**	**88 NJ (A)**	**50 NJ (A)**	**74 NJ (A)**			5.7 J	13 J
Endosulfan sulfate	ug/kg				63	41 J	110 J		41 J	180 NJ	340 J						
Endrin	ug/kg																
Endrin aldehyde	ug/kg		200 J	21 NJ	9.6 J	27 J	29 J		22 NJ	59 J	110 J	59 NJ	190 J	23 J	29		15 NJ
Endrin ketone	ug/kg	68 NJ		17 J								27 J	34 J				
Gamma BHC	ug/kg		**26 J (R)**						**4.3 J (R)**					**8.2 NJ (R)**			
Gamma-chlordane	ug/kg	**150 NJ (R)**		**100 NJ (R)**			**100 NJ (R)**				**460 NJ (R)**			**260 NJ (R)**			
Heptachlor	ug/kg				**3.2 J (R)**	**9.8 J (R)**	**15 J (R)**	**3.5 J (R)**								**2.2 J (R)**	
Heptachlor epoxide	ug/kg						**19 NJ (R)**										
Methoxychlor	ug/kg					50 J	140 J			210 J	330 J	92 NJ					48 J
P,P'-DDD	ug/kg		**200 J (R)**	**95 J (R)**	**34 NJ (R)**	**100 NJ (R)**	**230 J (R)**	**17 J (R)**				**160 J (R)**	**130 NJ (R)**			**31 J (R)**	**79 J (R)**
P,P'-DDE	ug/kg	**170 NJ (R)**	**210 NJ (R)**	**100 NJ (R)**					**26 J (R)**					**18 NJ (R)**			
P,P'-DDT	ug/kg	**490 NJ (R)**	**560 J (R)**	**99 J (R)**	**25 J (R)**	**74 J (R)**	**130 J (R)**				**190 NJ (R)**	**98 NJ (R)**	**140 J (R)**		**28 J (R)**	13 NJ	**28 NJ (R)**
Total DDTs	ug/kg	**660 (R)**	**970 (R)**	**294 (R)**													

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD145	GC-SD145	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128
	Sample Number:	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-02.0-04.0	GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-02.0-03.1	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5
	Sample Depth:	0-2	2-3.5	2-4	4-6	6-6.6	2-3.1	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	0-2	2-2.5
	Sample Date:	4/9/2010	4/9/2010	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg							6.4 J							**35 NJ (A)**		
Alpha BHC	ug/kg		17 J			3.3 NJ		3.9 NJ	6.4 J			3.2 J					
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg	**3.1 J (R)**					**11 NJ (R)**	**8 J (R)**	**7.6 J (R)**		**36 J (R)**	**22 J (R)**	**14 J (R)**	**55 J (R)**		**10 NJ (R)**	**58 J (R)**
Beta BHC	ug/kg											8.9 NJ					17 J
Beta endosulfan	ug/kg								**30 J (R)**								
Delta BHC	ug/kg														3.1 J		
Dieldrin	ug/kg						19 NJ	16 J			**73 J (A)**	**34 J (A)**		**69 NJ (A)**			**120 J (A)**
Endosulfan sulfate	ug/kg	7.9									50 J	180 J		110 J			72 NJ
Endrin	ug/kg		**15 J (R)**														
Endrin aldehyde	ug/kg					11 NJ	13	23 J		6.8 J	42 J		18 NJ	41 J		13 NJ	
Endrin ketone	ug/kg		7.8 J					23 J	16 J						94 NJ		
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg									**6.8 NJ (R)**	**31 J (R)**	**22 J (R)**			**46 J (R)**	**10 J (R)**	**55 J (R)**
Heptachlor	ug/kg						**5 (R)**				**5.3 NJ (R)**			**8.6 NJ (R)**			**14 NJ (R)**
Heptachlor epoxide	ug/kg					**5.5 NJ (R)**	**7.4 NJ (R)**	**12 J (R)**			**7.4 J (R)**		**3 J (R)**		**19 J (R)**		**14 NJ (R)**
Methoxychlor	ug/kg	20 J	78 J					100 J	98 NJ			170 J					
P,P'-DDD	ug/kg	**59 (R)**		**8.7 (R)**	**19 J (R)**		**65 (R)**	**110 J (R)**	**110 NJ (R)**	**30 J (R)**	**200 J (R)**	**79 NJ (R)**	**60 J (R)**	**340 J (R)**			**260 NJ (R)**
P,P'-DDE	ug/kg	**25 NJ (R)**				**7 NJ (R)**	**40 NJ (R)**		**30 NJ (R)**	**25 NJ (R)**	**110 NJ (R)**	**82 NJ (R)**	**41 NJ (R)**	**150 J (R)**	**11 J (R)**	**43 NJ (R)**	**270 NJ (R)**
P,P'-DDT	ug/kg		**47 NJ (R)**			13 NJ		**46 NJ (R)**	**37 NJ (R)**	**23 J (R)**	**130 NJ (R)**	**98 NJ (R)**	**47 NJ (R)**	**100 NJ (R)**	**210 NJ (R)**		**240 J (R)**
Total DDTs	ug/kg	**84 (R)**							**177 (R)**	**78 (R)**	**440 (R)**	**259 (R)**	**148 (R)**	**590 (R)**	**221 (R)**		**770 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD129	GC-SD129	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113
	Sample Number:	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0
	Sample Depth:	0-2	2-4	4-6	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8
	Sample Date:	4/14/2010	4/14/2010	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
	Sample Type:	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	FD	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg			7.5 J	**34 J (A)**		**110 J (A)**		4 J			9.6 NJ					10 J
Alpha BHC	ug/kg		4 NJ														20 J
Alpha endosulfan	ug/kg	**18 J (R)**															
Alpha-chlordane	ug/kg		**17 J (R)**		**65 J (R)**	**110 J (R)**	**170 NJ (R)**	**47 J (R)**		**7.5 NJ (R)**	**1,200 J (R)**	**510 J (R)**	**14 J (R)**	**10 NJ (R)**		**6 J (R)**	
Beta BHC	ug/kg										13 NJ		12 J	10 NJ		10 J	
Beta endosulfan	ug/kg																**77 NJ (R)**
Delta BHC	ug/kg															24 NJ	
Dieldrin	ug/kg	23 NJ	**66 NJ (A)**		**150 J (A)**	**180 J (A)**	**240 J (A)**	**110 J (A)**					**42 NJ (A)**	**93 NJ (A)**	**38 NJ (A)**	**53 NJ (A)**	
Endosulfan sulfate	ug/kg		240 J						180 NJ				31 NJ		160 NJ	95 NJ	430 NJ
Endrin	ug/kg									**17 (R)**							
Endrin aldehyde	ug/kg		63 J		95 J		130 J	48 J		7.3			44 NJ			60 NJ	
Endrin ketone	ug/kg						40 NJ		19 J					25 J	49 J	18 J	91 NJ
Gamma BHC	ug/kg	**2.7 J (R)**															**10 J (R)**
Gamma-chlordane	ug/kg			**8.1 J (R)**							**920 J (R)**	**400 J (R)**					
Heptachlor	ug/kg	**17 NJ (R)**	**5.5 NJ (R)**		**11 NJ (R)**			**8.9 NJ (R)**	**4.7 J (R)**		**25 J (R)**	**20 J (R)**	**8.2 J (R)**	**5.3 NJ (R)**			
Heptachlor epoxide	ug/kg		**45 J (R)**	**3.1 J (R)**					**28 NJ (R)**	1.1 J							
Methoxychlor	ug/kg																
P,P'-DDD	ug/kg		**160 NJ (R)**		**290 J (R)**	**480 J (R)**	**910 J (R)**	**260 J (R)**	**200 J (R)**	**32 J (R)**	**730 J (R)**	**510 J (R)**	**94 J (R)**	**360 J (R)**	**170 J (R)**	**210 J (R)**	
P,P'-DDE	ug/kg		**230 NJ (R)**		**250 NJ (R)**	**270 NJ (R)**	**470 NJ (R)**	**140 NJ (R)**	**430 NJ (R)**	**15 NJ (R)**	**230 J (R)**	**130 NJ (R)**	**58 NJ (R)**	**67 NJ (R)**	**59 NJ (R)**	**70 NJ (R)**	**74 NJ (R)**
P,P'-DDT	ug/kg		**140 NJ (R)**	**41 J (R)**	**260 J (R)**	**270 J (R)**	**400 J (R)**	**150 J (R)**	**75 NJ (R)**	**24 J (R)**	**1,500 J (R)**	**600 J (R)**	**120 J (R)**	**210 J (R)**	**130 NJ (R)**	**140 NJ (R)**	**94 J (R)**
Total DDTs	ug/kg		**530 (R)**		**800 (R)**	**1,020 (R)**	**1,780 (R)**	**550 (R)**	**705 (R)**	**71 (R)**	**2,460 (R)**	**1,240 (R)**	**272 (R)**	**637 (R)**	**359 (R)**	**420 (R)**	**168 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD113	GC-SD37B	GC-SD37B	GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130
	Sample Number:	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9	GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0
	Sample Depth:	8-9	0-0.5	1.4-1.9	2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2
	Sample Date:	3/15/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg							19 J									11 J
Alpha BHC	ug/kg																
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg			**4.3 J (R)**	**25 J (R)**	**8.4 J (R)**		**16 J (R)**	**59 J (R)**	**83 NJ (R)**	**84 J (R)**	**73 J (R)**	**67 J (R)**	**82 NJ (R)**		**5.6 NJ (R)**	**7.5 NJ (R)**
Beta BHC	ug/kg			3.6 J	4.3 J			5.5 J		17 J	22 NJ						3.8 NJ
Beta endosulfan	ug/kg	**83 NJ (R)**													**230 NJ (R)**	**37 J (R)**	
Delta BHC	ug/kg				27 J						110 NJ	250 J	**510 J (A)**				18 J
Dieldrin	ug/kg	17 J		14 J	**98 J (A)**	**35 J (A)**		**75 NJ (A)**		**450 J (A,R)**	**180 J (A)**	**120 J (A)**	**170 J (A)**	**170 J (A)**		**49 J (A)**	
Endosulfan sulfate	ug/kg				170 J					290 J		100 NJ	120 NJ	140 NJ			
Endrin	ug/kg																
Endrin aldehyde	ug/kg			15 J	74 J		19 NJ	95 J	170 J	440 J	150 NJ	110 NJ					
Endrin ketone	ug/kg	140 J	13 NJ			30 NJ					57 NJ	27 NJ	27 NJ			43 NJ	
Gamma BHC	ug/kg					**5.4 J (R)**											
Gamma-chlordane	ug/kg							**63 J (R)**	**120 J (R)**	**66 J (R)**	**350 NJ (R)**	**300 NJ (R)**	**67 NJ (R)**				
Heptachlor	ug/kg			**2.9 J (R)**									**110 NJ (R)**	**130 NJ (A,R)**			
Heptachlor epoxide	ug/kg	**10 J (R)**				**13 J (R)**	**4 J (R)**	**62 J (A,R)**									**18 NJ (R)**
Methoxychlor	ug/kg		84 J				59 J										140 J
P,P'-DDD	ug/kg		**41 J (R)**	**35 J (R)**	**180 NJ (R)**	**130 J (R)**		**370 J (R)**	**620 J (R)**	**1,300 J (R)**	**160 J (R)**	**170 J (R)**	**290 J (R)**	**380 J (R)**		**49 NJ (R)**	**47 J (R)**
P,P'-DDE	ug/kg			**11 NJ (R)**	**73 J (R)**	**75 J (R)**	**9.6 NJ (R)**	**73 NJ (R)**	**210 NJ (R)**	**310 NJ (R)**	**220 NJ (R)**	**220 NJ (R)**	**220 NJ (R)**	**220 NJ (R)**		**50 NJ (R)**	**35 J (R)**
P,P'-DDT	ug/kg	**200 J (R)**		**31 J (R)**	**160 NJ (R)**	**81 NJ (R)**	**29 NJ (R)**	**230 NJ (R)**	**460 J (R)**	**1,100 J (R)**	**400 NJ (R)**	**300 J (R)**	**250 NJ (R)**	**280 NJ (R)**		**180 J (R)**	**63 J (R)**
Total DDTs	ug/kg			**77 (R)**	**413 (R)**	**286 (R)**		**673 (R)**	**1,290 (R)**	**2,710 (R)**	**780 (R)**	**690 (R)**	**760 (R)**	**880 (R)**		**279 (R)**	**145 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119
	Sample Number:	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0
	Sample Depth:	2-4	2-4	4-6	6-7	0-1.3	0-2	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13
	Sample Date:	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010
	Sample Type:	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg	3.4 J		4 NJ		4.3 NJ	11 J	13 NJ	17 NJ								
Alpha BHC	ug/kg		5.1 J							2 J			3.1 J				
Alpha endosulfan	ug/kg									**4.1 J (R)**			**9.4 J (R)**		**6.9 J (R)**		**1.7 J (R)**
Alpha-chlordane	ug/kg	**21 J (R)**	**43 J (R)**	**6.7 J (R)**	**5.6 J (R)**		**7.6 NJ (R)**	**4.7 J (R)**		**13 J (R)**	**37 NJ (R)**	**3.6 J (R)**					
Beta BHC	ug/kg		12 NJ			3.5 NJ						1.9 J					
Beta endosulfan	ug/kg	**26 J (R)**	**33 J (R)**	**53 J (R)**					**44 J (R)**								**7.7 J (R)**
Delta BHC	ug/kg	13 NJ		11 J	4.2 NJ		18 J				**400 J (A)**						
Dieldrin	ug/kg		**55 NJ (A)**				24 J				**100 J (A)**		3.6 J	6.7 J			
Endosulfan sulfate	ug/kg	52 NJ				41 NJ			78 J								
Endrin	ug/kg																
Endrin aldehyde	ug/kg				46 NJ	15 NJ	20 J	8.1 NJ									
Endrin ketone	ug/kg	23 J	37 J	49 J	37 J		18 J		31 J								
Gamma BHC	ug/kg	**8.5 J (R)**			**2.7 J (R)**												
Gamma-chlordane	ug/kg				**31 NJ (R)**			**13 J (R)**	**28 J (R)**						**5.1 J (R)**		
Heptachlor	ug/kg										**110 NJ (R)**						
Heptachlor epoxide	ug/kg	**14 J (R)**					**19 NJ (R)**	1 J	1.5 J		**120 NJ (A,R)**			**7.3 J (R)**	**6 J (R)**		**2.9 J (R)**
Methoxychlor	ug/kg	130 J		250 J	140 J	38 J		51 NJ			250 J						
P,P'-DDD	ug/kg	**210 J (R)**	**310 J (R)**	**100 NJ (R)**	**130 J (R)**		**37 J (R)**	**51 J (R)**	**70 NJ (R)**	**160 J (R)**	**340 J (R)**	**32 J (R)**	**36 J (R)**	**27 J (R)**	**33 NJ (R)**	**18 J (R)**	
P,P'-DDE	ug/kg	**92 J (R)**	**140 J (R)**		**50 J (R)**		**20 NJ (R)**		**9.5 NJ (R)**	**65 NJ (R)**	**94 NJ (R)**	**23 NJ (R)**		**16 NJ (R)**			**4.5 NJ (R)**
P,P'-DDT	ug/kg	**63 J (R)**		**72 NJ (R)**	**85 J (R)**		**58 J (R)**	**22 NJ (R)**	**47 NJ (R)**		**140 J (R)**		**50 J (R)**	**32 NJ (R)**	**47 NJ (R)**		9.3 J
Total DDTs	ug/kg	**365 (R)**		**172 (R)**	**265 (R)**		**115 (R)**		**126.5 (R)**		**574 (R)**			**75 (R)**			

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133	GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135
Sample Number:	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0
Sample Depth:	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8	0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8
Sample Date:	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter / **Units**	**Pesticides**															
Aldrin ug/kg										4.3 J	13 NJ					
Alpha BHC ug/kg				2 J												
Alpha endosulfan ug/kg		**4.2 NJ (R)**										**5.9 NJ (R)**	**6.3 NJ (R)**			
Alpha-chlordane ug/kg	**3.3 J (R)**					**24 NJ (R)**	**24 J (R)**	**13 J (R)**	**12 J (R)**	**15 J (R)**	**1.5 J (R)**		**26 NJ (R)**	**11 J (R)**		**36 J (R)**
Beta BHC ug/kg										7.6 J						39 J
Beta endosulfan ug/kg				**28 J (R)**							**59 J (R)**					
Delta BHC ug/kg																
Dieldrin ug/kg					4.4 J	**50 J (A)**	19 NJ				14 NJ				21	**68 J (A)**
Endosulfan sulfate ug/kg						22 NJ		27 NJ	29 J				29 NJ			
Endrin ug/kg				7 NJ	6.4 NJ				4.8 J				**140 J (R)**	**32 NJ (R)**	**29 (R)**	
Endrin aldehyde ug/kg	5.4 NJ			36 NJ		23	13 NJ	12 J				8.3		21 NJ	15	35 J
Endrin ketone ug/kg			13 J							30 J	45 J	5.5 J		16 NJ		
Gamma BHC ug/kg									**4.4 J (R)**				**5.1 J (R)**	**3.2 NJ (R)**		
Gamma-chlordane ug/kg											**35 NJ (R)**		**120 J (R)**			
Heptachlor ug/kg		**5.1 NJ (R)**				**5.1 J (R)**									**9.9 J (R)**	**42 J (R)**
Heptachlor epoxide ug/kg	**5.1 J (R)**	**17 J (R)**	**5.9 NJ (R)**				**16 J (R)**		**27 J (R)**				**130 J (A,R)**	**41 J (R)**	**50 J (R)**	**190 J (A,R)**
Methoxychlor ug/kg			27 J	80 J			88 J	74 J	54 NJ	140 J	180 J	28 J	81 J	92 J		
P,P'-DDD ug/kg	**26 NJ (R)**				**10 (R)**	**130 J (R)**	**120 J (R)**	**22 NJ (R)**	**47 NJ (R)**	**290 J (R)**	**140 NJ (R)**				**55 (R)**	**210 J (R)**
P,P'-DDE ug/kg		**12 NJ (R)**	**5.9 NJ (R)**					**11 NJ (R)**	**29 NJ (R)**			**12 NJ (R)**	**52 NJ (R)**	**50 NJ (R)**	**38 NJ (R)**	**98 NJ (R)**
P,P'-DDT ug/kg		**40 J (R)**	15 J		10	**65 J (R)**	**89 J (R)**	**39 J (R)**		**57 J (R)**	**33 NJ (R)**		**140 J (R)**	**64 J (R)**		**110 J (R)**
Total DDTs ug/kg		**52 (R)**	**20.9 (R)**					**72 (R)**				**12 (R)**				**418 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD135	GC-SD122	GC-SD136	GC-SD150	GC-SD150	GC-SD150	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139
Sample Number:	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01
Sample Depth:	8-10	0-0.7	0-2	2-4	4-6	6-8.2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12
Sample Date:	4/6/2010	4/7/2010	3/22/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Pesticides**														
Aldrin	ug/kg											22 NJ				
Alpha BHC	ug/kg															
Alpha endosulfan	ug/kg										**14 J (R)**		**36 J (R)**		**3.8 J (R)**	**4 J (R)**
Alpha-chlordane	ug/kg	**44 NJ (R)**	**8.3 J (R)**	**4.1 NJ (R)**		**2.9 NJ (R)**	**2.9 NJ (R)**					**26 NJ (R)**	**32 J (R)**	**5.3 J (R)**		
Beta BHC	ug/kg		8.1									26 J	20 J			
Beta endosulfan	ug/kg														**7.1 J (R)**	
Delta BHC	ug/kg															
Dieldrin	ug/kg		22	9.8 J								**32 J (A)**				
Endosulfan sulfate	ug/kg	26 NJ		41 J	4 J			5.1 J				130 J				
Endrin	ug/kg															
Endrin aldehyde	ug/kg	30 J	9	10 NJ		6.2 J				8.2 J		14 J				
Endrin ketone	ug/kg		8.4	23 J							11 J	17 J		7.2 J		12 J
Gamma BHC	ug/kg		**3.8 NJ (R)**								**4.5 J (R)**					
Gamma-chlordane	ug/kg		**39 J (R)**		**3.6 NJ (R)**											
Heptachlor	ug/kg	**50 J (R)**	**8.7 NJ (R)**	**4.5 NJ (R)**	**2.1 J (R)**	**6.3 NJ (R)**	**3.1 J (R)**		**5.6 NJ (R)**	**2.4 J (R)**		**38 J (R)**				
Heptachlor epoxide	ug/kg			**14 J (R)**												
Methoxychlor	ug/kg		45	87 NJ							74 J	69 J	90 J			33 J
P,P'-DDD	ug/kg	**270 J (R)**	**83 (R)**	**21 J (R)**			**17 NJ (R)**			**22 J (R)**	**6.4 J (R)**	**90 J (R)**	**120 NJ (R)**	**71 J (R)**	**67 J (R)**	**58 J (R)**
P,P'-DDE	ug/kg	**110 NJ (R)**	**24 NJ (R)**	**13 NJ (R)**		**11 NJ (R)**	**21 (R)**	**8.8 NJ (R)**	**10 NJ (R)**					**28 J (R)**	**50 J (R)**	**38 J (R)**
P,P'-DDT	ug/kg	**120 J (R)**	**29 (R)**	**26 NJ (R)**								**44 NJ (R)**				
Total DDTs	ug/kg	**500 (R)**	**136 (R)**	**60 (R)**		**11 (R)**	**38 (R)**	**8.8 (R)**	**10 (R)**						**117 (R)**	

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1
Sample Number:		GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D
Sample Depth:		12-12.8	0-2	2-4	4-6	0-2	2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	0-0.5	0.5-1	1-2	2-3
Sample Date:		4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg															**69 J (A)**	
Alpha BHC	ug/kg														18 NJ		
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg			**4.7 NJ (R)**		**6.4 NJ (R)**	**11 NJ (R)**	**15 J (R)**	**4.7 NJ (R)**		**5.9 NJ (R)**			**8.4 J (R)**	**80 NJ (R)**	**31 J (R)**	**42 NJ (R)**
Beta BHC	ug/kg						8 J	5.6 J	6.1 NJ								
Beta endosulfan	ug/kg														**47 NJ (R)**	**45 NJ (R)**	
Delta BHC	ug/kg			32	150		32		21	8.2 NJ	23 J	12 J		3.6 J	13 J		
Dieldrin	ug/kg			9.2			17 J		6.5 J		7.5 J				29 NJ		**55 NJ (A)**
Endosulfan sulfate	ug/kg						15							15 J			38 J
Endrin	ug/kg																
Endrin aldehyde	ug/kg	13 J				8.8 NJ		20 J	6.5 J						38 NJ		
Endrin ketone	ug/kg									23 J			6.3 J				
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg										**5.7 NJ (R)**				**110 NJ (R)**	**200 J (R)**	
Heptachlor	ug/kg			**6.9 J (R)**		**5.6 J (R)**	**7.8 NJ (R)**	**11 J (R)**	**6 NJ (R)**	**2.8 J (R)**	**4.4 J (R)**						
Heptachlor epoxide	ug/kg			**24 NJ (R)**	**130 J (A,R)**		**33 NJ (R)**	**35 J (R)**		**12 NJ (R)**	**20 J (R)**	**12 (R)**		**11 J (R)**	**68 NJ (A,R)**	**66 J (A,R)**	
Methoxychlor	ug/kg	47 NJ					20 J	36 J						39 J	150 NJ		
P,P'-DDD	ug/kg	**14 J (R)**	**9.1 J (R)**	**21 J (R)**		**25 (R)**	**52 (R)**	**140 J (R)**	**23 J (R)**		**12 NJ (R)**		**28 J (R)**	**21 J (R)**	**81 J (R)**	**100 J (R)**	**64 J (R)**
P,P'-DDE	ug/kg	**8.7 J (R)**		**20 NJ (R)**							**15 NJ (R)**	**10 J (R)**	**10 J (R)**	**14 NJ (R)**	**70 J (R)**	**150 J (R)**	**70 J (R)**
P,P'-DDT	ug/kg	**23 J (R)**	6.8 J					**36 NJ (R)**	18 J	13 J				11 NJ	17 J		**34 J (R)**
Total DDTs	ug/kg	**45.7 (R)**	**15.9 (R)**										**38 (R)**	**46 (R)**	**168 (R)**		**168 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3
Sample Number:		ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F
Sample Depth:		3-4	4-5.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg		18 J														
Alpha endosulfan	ug/kg		**11 J (R)**							**120 NJ (R)**			**4.5 J (R)**				
Alpha-chlordane	ug/kg	**210 J (R)**		**44 J (R)**			**41 NJ (R)**	**59 J (R)**	**120 J (R)**				**23 J (R)**		**68 NJ (R)**		
Beta BHC	ug/kg																
Beta endosulfan	ug/kg																
Delta BHC	ug/kg						4.6 J	6.4 J		17 NJ							
Dieldrin	ug/kg	**140 NJ (A)**	**100 NJ (A)**	29 J	18 J	7.3 NJ	**40 NJ (A)**	**42 J (A)**	**200 J (A)**			**64 J (A)**	26		**81 J (A)**	**130 (A)**	**140 (A)**
Endosulfan sulfate	ug/kg	130 J		28 J	23 J				160 J	230 J	50 J		12 NJ				
Endrin	ug/kg				**15 NJ (R)**		8.3 J		**110 J (R)**	**220 NJ (R)**	**180 NJ (R)**		6 J				
Endrin aldehyde	ug/kg	160 J			33 NJ			31 J	160 NJ	97 J	87 NJ						
Endrin ketone	ug/kg							190 J	160 J	210 NJ							
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**330 J (R)**	**220 NJ (R)**		**31 NJ (R)**	**14 J (R)**	**60 J (R)**	**110 NJ (R)**	**300 NJ (R)**		**170 NJ (R)**						
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg			**9.6 J (R)**				**11 J (R)**	**63 J (A,R)**		**66 J (A,R)**	**18 J (R)**				**72 (A,R)**	
Methoxychlor	ug/kg	150 NJ					52 J			800 NJ			52				
P,P'-DDD	ug/kg	**910 J (R)**	**510 (R)**	**150 J (R)**	**72 J (R)**	**31 J (R)**	**91 J (R)**	**110 J (R)**	**300 J (R)**	**610 J (R)**	**130 J (R)**		**30 NJ (R)**	**70 J (R)**	**150 J (R)**	**180 J (R)**	
P,P'-DDE	ug/kg		**460 (R)**	**57 J (R)**			**75 J (R)**	**52 NJ (R)**	**140 NJ (R)**				**38 J (R)**	**72 J (R)**		**140 (R)**	**130 (R)**
P,P'-DDT	ug/kg	**62 NJ (R)**	**200 NJ (R)**	**86 NJ (R)**	18 J	7.8 NJ	**21 NJ (R)**	20 NJ		**570 J (R)**	**250 J (R)**		**22 NJ (R)**				
Total DDTs	ug/kg	**972 (R)**	**1,170 (R)**	**293 (R)**			**187 (R)**	**182 (R)**					**90 (R)**	**142 (R)**		**320 (R)**	**130 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2
Sample Number:		ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F	FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D
Sample Depth:		5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg	26 NJ					27 J										
Alpha BHC	ug/kg											17 J	**260 J (A)**				
Alpha endosulfan	ug/kg										**21 J (R)**	**21 J (R)**	**29 J (R)**				
Alpha-chlordane	ug/kg	**120 NJ (R)**	**170 J (R)**		**300 J (R)**		**110 J (R)**	**230 NJ (R)**		**110 NJ (R)**	**89 NJ (R)**	**53 J (R)**				**17 J (R)**	**46 NJ (R)**
Beta BHC	ug/kg																
Beta endosulfan	ug/kg						**51 J (R)**						**60 J (R)**			**22 J (R)**	
Delta BHC	ug/kg					8.4 J		25 J				20 J				12 J	
Dieldrin	ug/kg		**300 (A)**			21 J			**110 J (A)**	**170 (A)**	**110 (A)**	**80 J (A)**	**100 (A)**	**40 J (A)**			**84 J (A)**
Endosulfan sulfate	ug/kg	130 J															
Endrin	ug/kg				**140 J (R)**												
Endrin aldehyde	ug/kg	210 J			59 NJ												
Endrin ketone	ug/kg	120 J			60 J						72 J						
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**320 NJ (R)**	**330 (R)**		**220 J (R)**						**140 J (R)**						
Heptachlor	ug/kg						**24 J (R)**										
Heptachlor epoxide	ug/kg					**37 NJ (R)**	**180 (A,R)**	**280 NJ (A,R)**	**380 J (A,R)**		**58 (A,R)**			**71 J (A,R)**	**96 (A,R)**		
Methoxychlor	ug/kg	160 J			280 NJ	170 NJ		470 J						240 J			
P,P'-DDD	ug/kg	**320 J (R)**	**870 (R)**	**76 (R)**	**110 J (R)**	**33 J (R)**	**79 J (R)**	**180 NJ (R)**	**250 (R)**	**430 (R)**	**270 J (R)**	**140 (R)**	**140 (R)**	**27 J (R)**	**40 J (R)**	**51 J (R)**	**210 (R)**
P,P'-DDE	ug/kg		**410 (R)**				**69 J (R)**	**210 J (R)**	**280 (R)**	**250 NJ (R)**	**210 (R)**	**170 (R)**	**76 NJ (R)**		**50 J (R)**	**30 J (R)**	
P,P'-DDT	ug/kg			**41 J (R)**									**120 NJ (R)**				
Total DDTs	ug/kg			**117 (R)**			**148 (R)**	**390 (R)**	**530 (R)**			**310 (R)**	**336 (R)**	**27 (R)**	**90 (R)**	**81 (R)**	**210 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1
Sample Number:		ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D	ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A
Sample Depth:		3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	8-9.4	0-0.5
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg						15 J										**52 NJ (A)**
Alpha BHC	ug/kg	**130 J (A)**	48 J					4 J		3.6 J							
Alpha endosulfan	ug/kg		**29 J (R)**			**14 J (R)**					**9.7 J (R)**					**16 J (R)**	
Alpha-chlordane	ug/kg	**65 (R)**	**90 NJ (R)**	**120 NJ (R)**	**110 NJ (R)**			**5 J (R)**		**11 J (R)**				**170 NJ (R)**	**180 NJ (R)**	**32 (R)**	**59 J (R)**
Beta BHC	ug/kg	170 J															
Beta endosulfan	ug/kg															**24 J (R)**	**52 NJ (R)**
Delta BHC	ug/kg		28 J	51 NJ			15 J			4.5 J	11 J						
Dieldrin	ug/kg	**88 (A)**	**130 (A)**	**220 (A)**	**170 J (A)**	**84 NJ (A)**			23 J		24 J	**100 NJ (A)**	**89 J (A)**	**220 (A)**	**250 J (A)**		
Endosulfan sulfate	ug/kg					92 NJ				14 NJ	26 J		66 J		94 NJ	150	
Endrin	ug/kg														**46 J (R)**	**44 J (R)**	
Endrin aldehyde	ug/kg																59 J
Endrin ketone	ug/kg																41 J
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg											**140 NJ (R)**		**370 NJ (R)**	**410 (R)**	**120 (R)**	**56 J (R)**
Heptachlor	ug/kg															**24 J (R)**	
Heptachlor epoxide	ug/kg		**61 J (A,R)**	**380 J (A,R)**	**190 J (A,R)**								**37 J (R)**			**38 NJ (R)**	
Methoxychlor	ug/kg						350 NJ	48 J	90 J								170 J
P,P'-DDD	ug/kg	**180 (R)**	**260 (R)**	**450 (R)**	**320 (R)**	**160 (R)**	**150 (R)**	**21 J (R)**		**20 J (R)**	**21 J (R)**	**97 NJ (R)**	**92 J (R)**	**560 (R)**	**620 (R)**	**170 J (R)**	**180 J (R)**
P,P'-DDE	ug/kg	**150 (R)**	**210 (R)**		**230 (R)**	**110 (R)**	**94 (R)**	**14 J (R)**	**17 J (R)**	**18 J (R)**	**20 J (R)**	**35 J (R)**	**89 J (R)**	**300 J (R)**	**380 (R)**	**150 (R)**	
P,P'-DDT	ug/kg							10 NJ		13 NJ	18 J	**130 (R)**		**490 J (R)**	**1,300 J (R)**	**320 J (R)**	**54 NJ (R)**
Total DDTs	ug/kg						**244 (R)**	**45 (R)**	**17 (R)**	**51 (R)**	**59 (R)**	**262 (R)**	**181 (R)**	**1,350 (R)**	**2,300 (R)**	**640 (R)**	**234 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-3
Sample Number:		ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A
Sample Depth:		0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.4	0-0.5
Sample Date:		1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																
										Pesticides							
Aldrin	ug/kg							**70 NJ (A)**									
Alpha BHC	ug/kg									6 J	21 NJ	30 NJ					
Alpha endosulfan	ug/kg	**340 NJ (R)**	**260 J (R)**											**17 J (R)**			
Alpha-chlordane	ug/kg	**110 J (R)**		**36 J (R)**	**15 J (R)**	**140 J (R)**	**92 NJ (R)**	**76 NJ (R)**					**48 (R)**	**66 NJ (R)**	**110 (R)**	**41 J (R)**	
Beta BHC	ug/kg	240 J															
Beta endosulfan	ug/kg	**90 J (R)**	**44 J (R)**			**60 J (R)**											
Delta BHC	ug/kg											17 J					
Dieldrin	ug/kg		**61 NJ (A)**	**37 (A)**	13 J	**66 J (A)**	**57 NJ (A)**		**76 J (A)**	14 J	**50 J (A)**	**93 (A)**	**47 (A)**	**120 (A)**	**190 (A)**	**57 J (A)**	
Endosulfan sulfate	ug/kg			25 NJ		180 J	130 J	220 NJ									
Endrin	ug/kg	**110 J (R)**	**62 NJ (R)**	**30 NJ (R)**		**110 J (R)**											
Endrin aldehyde	ug/kg	110 J	60 NJ			96 NJ	170 NJ										
Endrin ketone	ug/kg	110 J	57 NJ	38	11 J	85 J	98 J	96 J									
Gamma BHC	ug/kg	**47 NJ (R)**						**110 J (R)**									
Gamma-chlordane	ug/kg	**99 J (R)**	**74 J (R)**	**25 NJ (R)**	**11 J (R)**	**150 NJ (R)**	**210 NJ (R)**	**100 J (R)**			**70 J (R)**		**43 J (R)**	**160 NJ (R)**	**220 J (R)**		
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg					**92 NJ (A,R)**		**48 J (R)**	**45 J (R)**	**25 J (R)**	**28 J (R)**	**38 (R)**		**62 J (A,R)**			**10 J (R)**
Methoxychlor	ug/kg		130 J	58 NJ					330 J	85 J							
P,P'-DDD	ug/kg	**250 J (R)**	**200 J (R)**	**100 J (R)**	**57 J (R)**	**420 J (R)**	**870 J (R)**	**480 J (R)**		**43 J (R)**	**190 J (R)**	**220 (R)**	**130 (R)**	**300 (R)**	**540 (R)**	**170 J (R)**	**23 J (R)**
P,P'-DDE	ug/kg				**24 J (R)**				**36 J (R)**	**23 NJ (R)**		**100 NJ (R)**		**150 J (R)**	**260 (R)**	**77 (R)**	
P,P'-DDT	ug/kg	**48 J (R)**	**73 J (R)**	**71 J (R)**	9.8 J	**53 J (R)**	**260 NJ (R)**										18 J
Total DDTs	ug/kg	**298 (R)**	**273 (R)**	**171 (R)**	**90.8 (R)**	**473 (R)**	**1,130 (R)**		**36 (R)**			**320 (R)**				**247 (R)**	**41 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E	ERT4-3-F
Sample Depth:		0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg						28 J	40 NJ		**230 J (A)**	**700 J (A)**				29 J		
Alpha endosulfan	ug/kg															**12 J (R)**	
Alpha-chlordane	ug/kg	**5.4 J (R)**	**5 J (R)**	**36 J (R)**	**50 NJ (R)**	**47 J (R)**	**43 NJ (R)**	**51 (R)**		**30 J (R)**	**600 J (R)**	**3.2 J (R)**			**57 J (R)**	**45 J (R)**	**52 NJ (R)**
Beta BHC	ug/kg										**750 J (A)**						
Beta endosulfan	ug/kg																
Delta BHC	ug/kg										110						
Dieldrin	ug/kg	13 J	13 J	**55 J (A)**	**99 (A)**	**73 J (A)**	**70 J (A)**	**67 J (A)**	**62 J (A)**	**85 (A)**			6.1 J		**85 (A)**	**78 (A)**	**100 (A)**
Endosulfan sulfate	ug/kg				99 NJ	120 NJ								29 J			
Endrin	ug/kg										**380 NJ (R)**						
Endrin aldehyde	ug/kg										64 J				160 NJ		
Endrin ketone	ug/kg											3.2 J				22 J	
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg										**520 NJ (R)**						
Heptachlor	ug/kg															**21 J (R)**	
Heptachlor epoxide	ug/kg	**9.8 J (R)**	**6.1 J (R)**	**27 J (R)**	**43 NJ (R)**					**110 J (A,R)**	**200 NJ (A,R)**				**55 (A,R)**		**49 NJ (R)**
Methoxychlor	ug/kg										1,000 J						
P,P'-DDD	ug/kg	**12 J (R)**	**21 J (R)**	**130 J (R)**	**140 (R)**	**120 (R)**	**100 J (R)**	**160 (R)**	**120 (R)**	**130 (R)**	**350 (R)**	**10 NJ (R)**	**12 (R)**	**33 J (R)**	**230 (R)**	**170 J (R)**	**180 (R)**
P,P'-DDE	ug/kg	**11 J (R)**	**13 J (R)**	**74 J (R)**	**120 (R)**	**100 (R)**		**110 J (R)**	**110 (R)**	**250 J (R)**	**380 NJ (R)**		**8.4 J (R)**		**130 J (R)**	**130 NJ (R)**	**160 NJ (R)**
P,P'-DDT	ug/kg		**28 J (R)**					**87 NJ (R)**			**130 NJ (R)**			**44 J (R)**	**83 NJ (R)**		
Total DDTs	ug/kg	**23 (R)**	**62 (R)**	**204 (R)**		**220 (R)**		**357 (R)**	**230 (R)**		**860 (R)**	**10 (R)**	**20.4 (R)**	**77 (R)**	**443 (R)**	**300 (R)**	**340 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10
Sample Number:		ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)
Sample Depth:		5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5
Sample Date:		1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg							2.8 J	10 J						10 J		
Alpha BHC	ug/kg		28 J		10 J						10						
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg		**47 NJ (R)**				**60 J (R)**		**40 NJ (R)**				**30 NJ (R)**		**20 NJ (R)**	**80 NJ (R)**	
Beta BHC	ug/kg			6.5 J					10 J	8.2 J	20 NJ		20 J				
Beta endosulfan	ug/kg							**6.4 J (R)**									
Delta BHC	ug/kg			10 J	30 J			5.5 J		10 J	9.7 J	10 J	30 NJ	10 J			
Dieldrin	ug/kg	**70 (A)**	**85 (A)**													**80 J (A)**	
Endosulfan sulfate	ug/kg										50 NJ						
Endrin	ug/kg																
Endrin aldehyde	ug/kg											8.4 J	20 J	30 J		50 J	
Endrin ketone	ug/kg									10 J							
Gamma BHC	ug/kg							**6.2 (R)**									
Gamma-chlordane	ug/kg			**140 (R)**		**40 (R)**	**260 (R)**	**60 (R)**	**200 (R)**	**70 (R)**	**10 NJ (R)**	**60 (R)**	**200 (R)**		**330 (R)**	**140 NJ (R)**	**80 (R)**
Heptachlor	ug/kg									**10 J (R)**		**3.4 J (R)**					
Heptachlor epoxide	ug/kg	**45 (R)**	**31 J (R)**								**20 (R)**						
Methoxychlor	ug/kg										210 NJ						1,700 J
P,P'-DDD	ug/kg	**180 (R)**	**270 (R)**	**10 J (R)**	**280 J (R)**		**140 J (R)**		**80 J (R)**			**8.6 J (R)**	**130 J (R)**	**60 NJ (R)**	**80 J (R)**		
P,P'-DDE	ug/kg	**97 (R)**	**120 NJ (R)**	**10 J (R)**	**130 NJ (R)**	**9.8 J (R)**		**8.4 J (R)**	**90 J (R)**	**10 J (R)**		**10 J (R)**	**70 NJ (R)**	**60 NJ (R)**	**50 NJ (R)**	**240 J (R)**	
P,P'-DDT	ug/kg			20 J	**70 J (R)**		**60 NJ (R)**	10 J			**90 NJ (R)**		**60 NJ (R)**	**90 NJ (R)**	**70 NJ (R)**	**180 NJ (R)**	
Total DDTs	ug/kg	**277 (R)**	**390 (R)**	**50 (R)**	**480 (R)**	**9.8 (R)**	**200 (R)**	**20 (R)**	**180 (R)**	**10 (R)**	**90 (R)**	**20 (R)**	**260 (R)**	**220 (R)**	**200 (R)**	**420 (R)**	

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-100	GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16
Sample Number:		GC-SED-100(5-6)	GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)
Sample Depth:		5-6	4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2
Sample Date:		1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg								**50 J (A)**	**60 NJ (A)**						20 J	
Alpha BHC	ug/kg	**440 J (A)**				10 J	**140 (A)**								**120 J (A)**		
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg									**70 NJ (R)**						**20 NJ (R)**	
Beta BHC	ug/kg		150				90 J										
Beta endosulfan	ug/kg						**130 J (R)**	**320 J (R)**									
Delta BHC	ug/kg								30	40	40 J		20 J	30 J	70 J	20 J	40 J
Dieldrin	ug/kg	**140 J (A)**	**520 (A,R)**			**50 NJ (A)**	**190 J (A)**									10 J	
Endosulfan sulfate	ug/kg		730 NJ				700 NJ	470 NJ									
Endrin	ug/kg						**340 (R)**	**150 J (R)**									
Endrin aldehyde	ug/kg						210 NJ										
Endrin ketone	ug/kg		260 NJ				190 NJ								990 J	30 J	
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg						**640 NJ (R)**	**570 J (R)**		**60 NJ (R)**	**30 NJ (R)**	**10 NJ (R)**	**10 NJ (R)**		**110 NJ (R)**	**20 J (R)**	
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg	**120 J (A,R)**					**80 NJ (A,R)**	**90 J (A,R)**								**10 NJ (R)**	
Methoxychlor	ug/kg							650 J	620 NJ		360 NJ	820 J	190 NJ	250 NJ	8,600 J	100 NJ	
P,P'-DDD	ug/kg		**680 (R)**			**70 J (R)**	**780 NJ (R)**	**1,200 J (R)**	**70 NJ (R)**	**240 NJ (R)**	**70 NJ (R)**	**50 NJ (R)**	**30 NJ (R)**	**70 J (R)**	**200 NJ (R)**	**30 NJ (R)**	
P,P'-DDE	ug/kg		**700 J (R)**				**560 J (R)**	**390 NJ (R)**	**60 NJ (R)**	**180 NJ (R)**	**110 NJ (R)**	**120 NJ (R)**	**50 NJ (R)**	**50 J (R)**		**40 J (R)**	**70 NJ (R)**
P,P'-DDT	ug/kg		**1,100 J (R)**	**1,500 J (R)**	**1,700 J (R)**	**160 J (R)**	**490 NJ (R)**	**490 J (R)**						**60 J (R)**			
Total DDTs	ug/kg		**2,480 (R)**	**1,500 (R)**	**1,700 (R)**	**230 (R)**	**1,830 (R)**	**2,080 (R)**	**140 (R)**	**420 (R)**	**180 (R)**	**170 (R)**	**90 (R)**	**190 (R)**	**200 (R)**	**80 (R)**	**70 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-17	GC-SED-18	GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-28	GC-SED-31	GC-SED-31
	Sample Number:	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-28(4.9-5.8)	GC-SED-31(2.5-4.5)	GC-SED-31(11.5-12.5)
	Sample Depth:	0-2	0-1	1.5-2	5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-5	1-4	4.9-5.8	2.5-4.5	11.5-12.5
	Sample Date:	1/8/2006	1/7/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/16/2006	1/16/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg		7.8 J		10 J				5.6 J	4.6 J			**40 NJ (A)**				
Alpha BHC	ug/kg			3.5 J					50 J	4.2 J	10 J						**350 (A)**
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg	**6.6 J (R)**	**10 J (R)**		**20 (R)**			**40 J (R)**	**10 (R)**	**8.5 J (R)**	**30 J (R)**		**10 NJ (R)**	**20 J (R)**			
Beta BHC	ug/kg																
Beta endosulfan	ug/kg																**380 NJ (R)**
Delta BHC	ug/kg	10 J	7.1 NJ	10 J	20			20	10 J		30 J						
Dieldrin	ug/kg				20 NJ											**200 (A)**	
Endosulfan sulfate	ug/kg				6.8 J		90 NJ	9.8 J		2.3 J							
Endrin	ug/kg																
Endrin aldehyde	ug/kg															160 NJ	
Endrin ketone	ug/kg		6.3 J														390 J
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**80 (R)**		**110 J (R)**	**20 NJ (R)**	**5.1 J (R)**	**60 NJ (R)**	**120 J (R)**		**120 (R)**	**130 J (R)**	**10 J (R)**	**40 NJ (R)**			**90 NJ (R)**	
Heptachlor	ug/kg									**3.6 J (R)**							
Heptachlor epoxide	ug/kg																
Methoxychlor	ug/kg												220 NJ				
P,P'-DDD	ug/kg	**10 J (R)**	**10 NJ (R)**	**110 J (R)**	**190 J (R)**	**20 NJ (R)**	**330 NJ (R)**	**190 J (R)**	**120 J (R)**	**20 J (R)**	**160 J (R)**	**20 NJ (R)**	**180 NJ (R)**		**40 J (R)**	**280 J (R)**	
P,P'-DDE	ug/kg	**10 J (R)**	**10 NJ (R)**	**30 NJ (R)**	**60 NJ (R)**	**10 NJ (R)**	**150 NJ (R)**	**60 NJ (R)**	**20 NJ (R)**				**220 NJ (R)**			**180 (R)**	**380 J (R)**
P,P'-DDT	ug/kg			**50 NJ (R)**	**70 NJ (R)**			**110 NJ (R)**			**130 NJ (R)**				**30 J (R)**		
Total DDTs	ug/kg	**20 (R)**	**30 (R)**	**190 (R)**	**320 (R)**	**30 (R)**	**480 (R)**	**360 (R)**	**140 (R)**	**20 (R)**	**290 (R)**	**20 (R)**	**400 (R)**		**70 (R)**	**460 (R)**	**380 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43
Sample Number:		GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)
Sample Depth:		0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3
Sample Date:		1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg											**80 J (A)**		**250 (A)**			
Alpha BHC	ug/kg	10 J	**100 (A)**	**120 J (A)**						**320 (A)**					7.1 J	1.4 J	
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg		**290 (R)**					**40 J (R)**	**40 J (R)**			**240 J (R)**					**200 (R)**
Beta BHC	ug/kg		100 J	40 NJ					20 J		110 J			100 J			90 J
Beta endosulfan	ug/kg		**40 J (R)**	**170 NJ (R)**				**160 J (R)**		**390 NJ (R)**							
Delta BHC	ug/kg				180 J			20 J					270 J	**630 J (A)**			
Dieldrin	ug/kg		**830 (A,R)**		**480 NJ (A,R)**				**130 (A)**		**60 J (A)**	**790 (A,R)**	**90 J (A)**	**60 J (A)**			
Endosulfan sulfate	ug/kg		180 NJ	190 NJ						370 NJ	300 NJ			150 NJ			490
Endrin	ug/kg																
Endrin aldehyde	ug/kg		240 NJ		540 J	350 J			140			710 J				6.5	
Endrin ketone	ug/kg		160 NJ	360 J			7.6 J			570 J							
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg		**750 J (R)**	**320 (R)**					**110 J (R)**					**80 NJ (R)**			**160 NJ (R)**
Heptachlor	ug/kg													**90 NJ (R)**			
Heptachlor epoxide	ug/kg			**50 J (R)**							**90 J (A,R)**			**60 NJ (A,R)**			
Methoxychlor	ug/kg									1,400 J							
P,P'-DDD	ug/kg	**8.2 J (R)**	**1,900 J (R)**								**140 J (R)**	**1,100 J (R)**			**5.6 J (R)**	**1.8 NJ (R)**	**1,100 (R)**
P,P'-DDE	ug/kg		**610 NJ (R)**	**110 J (R)**					**90 (R)**	**380 J (R)**			**30 J (R)**	**110 J (R)**		1.1 NJ	**570 J (R)**
P,P'-DDT	ug/kg			**200 NJ (R)**	**2,400 J (A,R)**	**1,600 J (R)**		**400 NJ (R)**		**690 J (R)**	**420 NJ (R)**	**1,800 NJ (A,R)**	**200 NJ (R)**	**240 NJ (R)**			**660 J (R)**
Total DDTs	ug/kg	**8.2 (R)**	**2,510 (R)**	**310 (R)**	**2,400 (R)**	**1,600 (R)**		**400 (R)**	**90 (R)**	**1,070 (R)**	**560 (R)**	**2,900 (R)**	**230 (R)**	**350 (R)**	**5.6 (R)**	**2.9 (R)**	**2,330 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-43	GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53
Sample Number:		GC-SED-43(7.3-8.3)	GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)
Sample Depth:		7.3-8.3	0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5
Sample Date:		1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg	**60 J (A)**	**140 (A)**			**200 (A)**		**110 NJ (A)**									
Alpha BHC	ug/kg	30 J	30 J	20 J		20 J	60 J						70		**360 J (A)**	**1,800 NJ (A)**	**90 (A)**
Alpha endosulfan	ug/kg															**230 (R)**	
Alpha-chlordane	ug/kg	**90 J (R)**		**50 J (R)**		**160 J (R)**	**110 J (R)**	**160 J (R)**	**110 J (R)**							**150 NJ (R)**	
Beta BHC	ug/kg		60 J				90 J		70 J					50 J			
Beta endosulfan	ug/kg				**190 J (R)**					**180 J (R)**			**90 NJ (R)**			**950 (R)**	**230 J (R)**
Delta BHC	ug/kg		120 J			**280 (A)**											
Dieldrin	ug/kg		**160 J (A)**			**450 (A,R)**		**290 (A)**	**260 J (A)**					**270 J (A)**			
Endosulfan sulfate	ug/kg	100 NJ	350 J	120 NJ				420 J		430 J		260 J	210 NJ	530 NJ	350 NJ		
Endrin	ug/kg												**260 J (R)**		**570 J (R)**		**130 J (R)**
Endrin aldehyde	ug/kg	100 NJ				360 NJ		370 NJ									
Endrin ketone	ug/kg			80 NJ		210 J		130 J	130 J	200 J	210 J		200 NJ		290 NJ	440 NJ	
Gamma BHC	ug/kg															**190 J (R)**	
Gamma-chlordane	ug/kg	**80 (R)**		**60 J (R)**		**220 NJ (R)**		**80 NJ (R)**			**80 J (R)**					**650 NJ (R)**	
Heptachlor	ug/kg	**40 (R)**		**40 (R)**				**160 J (A,R)**								**260 NJ (A,R)**	
Heptachlor epoxide	ug/kg			**40 J (R)**	**150 J (A,R)**					**80 J (A,R)**			**30 J (R)**		**230 J (A,R)**	**420 NJ (A,R)**	
Methoxychlor	ug/kg												570 J			3,000 NJ	
P,P'-DDD	ug/kg	**230 J (R)**	**170 J (R)**	**120 NJ (R)**		**860 J (R)**		**360 J (R)**	**490 J (R)**		**530 J (R)**		**420 J (R)**	**480 NJ (R)**	**600 NJ (R)**		**710 J (R)**
P,P'-DDE	ug/kg	**260 (R)**		**140 (R)**		**330 NJ (R)**	**190 J (R)**	**220 (R)**	**320 J (R)**					**230 NJ (R)**		**960 J (R)**	**180 J (R)**
P,P'-DDT	ug/kg	**160 NJ (R)**	**560 NJ (R)**	**180 NJ (R)**		**950 NJ (R)**	**310 NJ (R)**	**650 NJ (R)**	**740 J (R)**				**390 NJ (R)**		**380 NJ (R)**	**1,700 (R)**	**320 J (R)**
Total DDTs	ug/kg	**650 (R)**	**730 (R)**	**440 (R)**		**2,140 (R)**	**500 (R)**	**1,230 (R)**	**1,550 (R)**		**530 (R)**		**810 (R)**	**710 (R)**	**980 (R)**	**2,660 (R)**	**1,210 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-54B	GC-SED-54B	GC-SED-55	GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68
Sample Number:		GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)	GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)
Sample Depth:		0-2	4.5-5.7	1.5-2.5	10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1
Sample Date:		1/20/2006	1/20/2006	1/24/2006	1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg														20 NJ		**110 J (A)**
Alpha BHC	ug/kg		**270 J (A)**										70 J			**140 J (A)**	
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg	**60 NJ (R)**						**10 J (R)**									**40 NJ (R)**
Beta BHC	ug/kg	30 J							60 NJ					20 J			
Beta endosulfan	ug/kg	**40 J (R)**	**430 NJ (R)**							**250 J (R)**							
Delta BHC	ug/kg				240 J							130 J					
Dieldrin	ug/kg	**160 (A)**				**80 (A)**		9.9 J	**380 J (A,R)**			**90 J (A)**					
Endosulfan sulfate	ug/kg	390	660 NJ						170 NJ		270 NJ						
Endrin	ug/kg	**90 J (R)**	**320 J (R)**			**40 J (R)**											
Endrin aldehyde	ug/kg	190															
Endrin ketone	ug/kg	40 NJ					680 J	10 J					340	20 J			
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**70 NJ (R)**						**10 J (R)**			**230 (R)**						**30 (R)**
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg			**60 J (A,R)**				**10 J (R)**									
Methoxychlor	ug/kg						1,500 J	30 J					3,100 J			6,800 NJ	
P,P'-DDD	ug/kg	**200 (R)**	**410 NJ (R)**		**430 J (R)**	**160 NJ (R)**			**1,000 NJ (R)**	**160 J (R)**	**360 J (R)**	**240 J (R)**			**30 NJ (R)**		**80 NJ (R)**
P,P'-DDE	ug/kg	**150 (R)**	**230 J (R)**			**120 NJ (R)**		**20 J (R)**	**530 J (R)**	**40 NJ (R)**		**70 J (R)**			**30 NJ (R)**	**560 NJ (R)**	**90 NJ (R)**
P,P'-DDT	ug/kg		**1,100 J (R)**				**1,100 J (R)**		**430 J (R)**	**110 NJ (R)**	**280 NJ (R)**	**240 NJ (R)**					
Total DDTs	ug/kg	**350 (R)**	**1,740 (R)**		**430 (R)**	**280 (R)**	**1,100 (R)**	**20 (R)**	**1,960 (R)**	**310 (R)**	**640 (R)**	**550 (R)**			**60 (R)**	**560 (R)**	**170 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80
	Sample Number:	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)
	Sample Depth:	2.2-3.1	0-1	6-7	1.5-2.5	2.5-4	0-2	5.5-7	1-2.5	5.3-6.3	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2
	Sample Date:	12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**									**Pesticides**							
Aldrin	ug/kg		**110 J (A)**				1.3 J	**610 (A)**		**640 NJ (A)**							**330 J (A)**
Alpha BHC	ug/kg					5 J											
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg	**30 J (R)**	**40 NJ (R)**			**6.3 J (R)**		**300 NJ (R)**			**20 J (R)**		**4.4 J (R)**			**50 NJ (R)**	**90 NJ (R)**
Beta BHC	ug/kg									**650 NJ (A)**	20 J	9.4 J	6.6 J				
Beta endosulfan	ug/kg																
Delta BHC	ug/kg			10 J						**2,900 NJ (A)**		20 J					
Dieldrin	ug/kg								10 J	**280 J (A)**		10 J					
Endosulfan sulfate	ug/kg													20 J	30 J		
Endrin	ug/kg	**140 J (R)**	**60 J (R)**														
Endrin aldehyde	ug/kg								10 J	140 J							
Endrin ketone	ug/kg								4.9 J			9.4 J					
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg							**240 (R)**			**50 NJ (R)**	**40 NJ (R)**				**60 NJ (R)**	**60 (R)**
Heptachlor	ug/kg									**980 NJ (A,R)**							
Heptachlor epoxide	ug/kg				**70 J (A,R)**							**10 (R)**	**3.6 J (R)**				
Methoxychlor	ug/kg	4,300	500 NJ	250 NJ						350 J						700 NJ	
P,P'-DDD	ug/kg			**110 J (R)**	**130 J (R)**	**30 J (R)**		**590 NJ (R)**		**420 J (R)**	**90 NJ (R)**	**10 J (R)**			**30 NJ (R)**	**170 J (R)**	
P,P'-DDE	ug/kg	**360 J (R)**	**240 NJ (R)**	**50 J (R)**				**650 NJ (R)**			**110 NJ (R)**	**20 (R)**	**10 J (R)**	**40 NJ (R)**	**50 NJ (R)**	**250 J (R)**	**230 J (R)**
P,P'-DDT	ug/kg								10 J	**600 J (R)**			10 J			**40 J (R)**	
Total DDTs	ug/kg	**360 (R)**	**240 (R)**	**160 (R)**	**130 (R)**	**30 (R)**		**1,240 (R)**	**10 (R)**	**1,020 (R)**	**200 (R)**	**30 (R)**	**20 (R)**	**40 (R)**	**80 (R)**	**460 (R)**	**230 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83	GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94
	Sample Number:	GC-SED-81(8-11)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)	GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)
	Sample Depth:	8-11	0-2	12-12.8	0-2	11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	4.7-6.2	0-2	0-1	0.5-1.25
	Sample Date:	12/18/2005	1/30/2006	1/30/2006	1/30/2006	1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg						**70 (A)**	**80 (A)**		**400 J (A)**			**230 J (A)**	**60 J (A)**	**160 J (A)**	**300 J (A)**	**480 NJ (A)**
Alpha BHC	ug/kg													10 J			
Alpha endosulfan	ug/kg										**440 J (R)**						
Alpha-chlordane	ug/kg		**5.6 J (R)**	**6.3 J (R)**			**110 (R)**	**80 (R)**	**450 NJ (R)**		**380 J (R)**		**370 J (R)**		**130 J (R)**	**120 NJ (R)**	**210 NJ (R)**
Beta BHC	ug/kg																
Beta endosulfan	ug/kg																
Delta BHC	ug/kg				10 J	80 J								40 NJ			70 NJ
Dieldrin	ug/kg				10 J	20 J			**400 J (A,R)**					**70 J (A)**			**140 J (A)**
Endosulfan sulfate	ug/kg																
Endrin	ug/kg																
Endrin aldehyde	ug/kg																
Endrin ketone	ug/kg																
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**30 NJ (R)**					**70 (R)**	**50 (R)**	**610 J (R)**		**460 J (R)**			**60 (R)**	**110 J (R)**	**100 J (R)**	**350 J (R)**
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg					**80 (A,R)**											
Methoxychlor	ug/kg	1,100 J															1,000 NJ
P,P'-DDD	ug/kg	**160 J (R)**	**20 J (R)**		**10 J (R)**	**30 J (R)**	**210 NJ (R)**	**170 NJ (R)**	**1,900 NJ (R)**					**90 J (R)**	**200 NJ (R)**	**160 NJ (R)**	**690 NJ (R)**
P,P'-DDE	ug/kg	**120 J (R)**		**8.2 J (R)**			**170 NJ (R)**	**150 NJ (R)**	**1,700 J (A,R)**		**1,600 NJ (A,R)**	**540 NJ (R)**	**930 J (R)**	**110 J (R)**	**290 NJ (R)**	**230 NJ (R)**	**440 NJ (R)**
P,P'-DDT	ug/kg		10 J	20 J		**50 J (R)**								**170 NJ (R)**			
Total DDTs	ug/kg	**280 (R)**	**40 (R)**	**20 (R)**	**10 (R)**	**80 (R)**	**380 (R)**	**320 (R)**	**3,600 (R)**		**1,600 (R)**	**540 (R)**	**930 (R)**	**370 (R)**	**490 (R)**	**390 (R)**	**1,130 (R)**

TABLE I-10B
Pesticide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98	GC-SED-98	GC-SED-99B	GC-SED-99B
Sample Number:		GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
Sample Depth:		3.5-4.5	0-1	0.5-2	8.5-9	1-2	8.5-9.5	3.5-4.5	7.2-8.7
Sample Date:		12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006	1/27/2006	12/22/2005	12/22/2005
Sample Type:		N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**							
Aldrin	ug/kg	**210 J (A)**	**30 J (A)**						**200 NJ (A)**
Alpha BHC	ug/kg					20 J	**940 J (A)**		60 J
Alpha endosulfan	ug/kg								
Alpha-chlordane	ug/kg	**120 J (R)**	**50 (R)**	**130 J (R)**				**240 J (R)**	**60 NJ (R)**
Beta BHC	ug/kg			40 NJ	230 J				70 NJ
Beta endosulfan	ug/kg						**380 J (R)**		
Delta BHC	ug/kg							30 J	40 J
Dieldrin	ug/kg			**400 J (A,R)**		**60 NJ (A)**			
Endosulfan sulfate	ug/kg			160 NJ		50 J			140 NJ
Endrin	ug/kg								
Endrin aldehyde	ug/kg			410 J					
Endrin ketone	ug/kg								
Gamma BHC	ug/kg								
Gamma-chlordane	ug/kg			**270 NJ (R)**				**250 (R)**	**100 NJ (R)**
Heptachlor	ug/kg							**60 J (R)**	
Heptachlor epoxide	ug/kg							**140 J (A,R)**	**100 (A,R)**
Methoxychlor	ug/kg							290 J	380 J
P,P'-DDD	ug/kg			**500 J (R)**	**1,200 J (R)**			**1,100 (R)**	**350 (R)**
P,P'-DDE	ug/kg		**90 J (R)**	**390 J (R)**		**70 NJ (R)**		**610 J (R)**	**250 (R)**
P,P'-DDT	ug/kg		**40 J (R)**	**990 J (R)**				**300 NJ (R)**	**280 NJ (R)**
Total DDTs	ug/kg		**130 (R)**	**1,880 (R)**	**1,200 (R)**	**70 (R)**		**2,010 (R)**	**880 (R)**

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TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	GC-SD126-04.0-06.0	D-03042010-02
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4	4-6	4-6
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	FD
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	52 U	42 U	58 U	49 U	75 U	79 U	63 UJ	62 UJ	45 U	62 U	200 U	140 U	61 U	120 U	53 U	80 U	110 U	170 U
Aroclor 1221	ug/kg	52 U	42 U	58 U	49 U	75 U	79 U	63 UJ	62 UJ	45 U	62 U	200 U	140 U	61 U	120 U	53 U	80 U	110 U	170 U
Aroclor 1232	ug/kg	52 U	42 U	58 U	49 U	75 U	79 U	63 UJ	62 UJ	45 U	62 U	200 U	140 U	61 U	120 U	53 U	80 U	110 U	170 U
Aroclor 1242	ug/kg	**540 J**	42 U	**2,600 J**	**310 J**	**250 J**	**760 J**	**2,700 J**	**3,000 J**	45 U	**1,000 NJ**	**6,500 J**	**4,600 J**	**1,300 NJ**	**1,400 NJ**	**79 J**	780 R	110 U	2,800 R
Aroclor 1248	ug/kg	52 U	42 U	58 U	49 U	75 U	79 U	63 UJ	62 UJ	45 U	62 U	200 U	140 U	61 U	120 U	53 U	80 U	110 U	170 U
Aroclor 1254	ug/kg	620 R	42 U	**2,500 J**	**360 NJ**	**340 J**	**1,000 J**	**2,900 J**	**1,000 J**	140 R	810 R	**5,100 J**	140 U	61 U	120 U	77 R	860 R	**2,400 J**	**3,600 NJ**
Aroclor 1260	ug/kg	**500**	42 U	58 U	**830 J**	**240 J**	79 U	63 UJ	62 UJ	45 U	**1,000 J**	**3,400 J**	**5,800 J**	**3,100 J**	**3,500 J**	53 U	**1,900 J**	**5,300 J**	**8,800 J**
Aroclor 1262	ug/kg	52 U	42 U	58 U	49 U	75 U	79 U	63 UJ	62 UJ	45 U	62 U	200 U	140 U	61 U	120 U	53 U	80 U	110 U	170 U
Aroclor 1268	ug/kg	52 U	42 U	58 U	49 U	75 U	79 U	63 UJ	62 UJ	45 U	62 U	200 U	140 U	61 U	120 U	53 U	80 U	110 U	170 U
Total PCBs	ug/kg	---	ND	**5,100**	**1,500**	**830**	**1,760**	**5,600**	**4,000**	---	---	**15,000**	**10,400**	**4,400**	**4,900**	---	---	**7,700**	**12,400**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146
Sample Number:		GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	GC-SD108-06.0-08.0	D-03052010-02	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0
Sample Depth:		6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	6-8	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4
Sample Date:		3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	52 U	91 U	85 U	66 U	58 U	84 U	63 U	68 U	50 U	51 U	100 U	93 U	81 U	62 U	66 U	52 U	87 U	85 U
Aroclor 1221	ug/kg	52 U	91 U	85 U	66 U	58 U	84 U	63 U	68 U	50 U	51 U	100 U	93 U	81 U	62 U	66 U	52 U	87 U	85 U
Aroclor 1232	ug/kg	52 U	91 U	85 U	66 U	58 U	84 U	63 U	68 U	50 U	51 U	100 U	93 U	81 U	62 U	66 U	52 U	87 U	85 U
Aroclor 1242	ug/kg	**1,200 NJ**	**650**	**5,200 J**	**2,100 J**	58 U	**580 J**	**1,000 J**	**2,700 J**	**1,500 J**	**2,500 J**	**170 J**	**350**	**250**	**520**	**380**	52 U	87 U	**150**
Aroclor 1248	ug/kg	52 U	91 U	85 U	66 U	58 U	84 U	63 U	68 U	50 U	51 U	100 U	93 U	81 U	62 U	66 U	52 U	87 U	85 U
Aroclor 1254	ug/kg	**1,200 NJ**	91 U	85 U	66 U	58 U	530 R	**1,100 NJ**	**2,400 NJ**	**1,400 J**	**2,600 NJ**	170 R	320 R	81 U	62 U	550 R	**190 NJ**	87 U	**220 J**
Aroclor 1260	ug/kg	**1,700 J**	**560**	**2,500 J**	**1,200 J**	**320 J**	**490**	**800 J**	**1,800 J**	**930 J**	**1,700 J**	100 U	**370 J**	**220 J**	**440**	**380**	52 U	87 U	**190**
Aroclor 1262	ug/kg	52 U	91 U	85 U	66 U	58 U	84 U	63 U	68 U	50 U	51 U	100 U	93 U	81 U	62 U	66 U	52 U	87 U	85 U
Aroclor 1268	ug/kg	52 U	91 U	85 U	66 U	58 U	84 U	63 U	68 U	50 U	51 U	100 U	93 U	81 U	62 U	66 U	52 U	87 U	85 U
Total PCBs	ug/kg	**4,100**	**1,210**	**7,700**	**3,300**	**320**	**---**	**2,900**	**6,900**	**3,830**	**6,800**	**---**	**---**	**470**	**960**	**---**	**190**	ND	**560**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129
Sample Number:	GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0
Sample Depth:	4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	0-2	2-2.5	0-2	2-4	4-6
Sample Date:	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	84 U	50 U	89 U	66 U	84 U	70 U	56 U	89 U	78 U	58 U	76 U	77 U	65 U	86 U	77 U	79 U	73 U	63 U
Aroclor 1221	ug/kg	84 U	50 U	89 U	66 U	84 U	70 U	56 U	89 U	78 U	58 U	76 U	77 U	65 U	86 U	77 U	79 U	73 U	63 U
Aroclor 1232	ug/kg	84 U	50 U	89 U	66 U	84 U	70 U	56 U	89 U	78 U	58 U	76 U	77 U	65 U	86 U	77 U	79 U	73 U	63 U
Aroclor 1242	ug/kg	**140**	**130 NJ**	89 U	**620**	**120 J**	**490 J**	56 U	89 U	78 U	**380 J**	**370**	**3,200 J**	65 U	**820 J**	**2,300 J**	**480**	73 U	63 U
Aroclor 1248	ug/kg	84 U	50 U	89 U	66 U	84 U	70 U	56 U	89 U	78 U	58 U	76 U	77 U	65 U	86 U	77 U	79 U	73 U	63 U
Aroclor 1254	ug/kg	**240 J**	**160 J**	**110 NJ**	**1,100 J**	84 U	70 U	56 U	89 U	78 U	58 U	410 R	**2,900 J**	65 U	920 R	**2,400 NJ**	79 U	73 U	63 U
Aroclor 1260	ug/kg	**120**	**61**	89 U	**640**	**110**	**440**	56 U	89 U	78 U	58 U	**530**	**3,000 J**	65 U	**1,100 J**	**3,100 J**	**590**	**3,000 J**	63 U
Aroclor 1262	ug/kg	84 U	50 U	89 U	66 U	84 U	70 U	56 U	89 U	78 U	58 U	76 U	77 U	65 U	86 U	77 U	79 U	73 U	63 U
Aroclor 1268	ug/kg	84 U	50 U	89 U	66 U	84 U	70 U	56 U	89 U	78 U	58 U	76 U	77 U	65 U	86 U	77 U	79 U	73 U	63 U
Total PCBs	ug/kg	**500**	**351**	**110**	**2,360**	**230**	**930**	ND	ND	ND	**380**	**---**	**9,100**	ND	**---**	**7,800**	**1,070**	**3,000**	ND

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B	GC-SD37B
Sample Number:	GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9	GC-SD037B-02.5-04.2
Sample Depth:	6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	1.4-1.9	2.5-4.2
Sample Date:	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:	N	N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	54 U	79 UJ	84 U	80 U	76 U	54 U	41 U	46 U	45 U	59 U	120 U	90 U	49 U	51 U	51 U	80 U	42 U	61 U
Aroclor 1221	ug/kg	54 U	79 UJ	84 U	80 U	76 U	54 U	41 U	46 U	45 U	59 U	120 U	90 U	49 U	51 U	51 U	80 U	42 U	61 U
Aroclor 1232	ug/kg	54 U	79 UJ	84 U	80 U	76 U	54 U	41 U	46 U	45 U	59 U	120 U	90 U	49 U	51 U	51 U	80 U	42 U	61 U
Aroclor 1242	ug/kg	54 U	**2,900 J**	**5,300 J**	**5,600 J**	**2,800 J**	**700 J**	**180**	46 U	45 U	**1,400 J**	**2,300 J**	**1,700 J**	**1,200 J**	**110 J**	51 U	**250**	**260**	**2,900 J**
Aroclor 1248	ug/kg	54 U	79 UJ	84 U	80 U	76 U	54 U	41 U	46 U	45 U	59 U	120 U	90 U	49 U	51 U	51 U	80 U	42 U	61 U
Aroclor 1254	ug/kg	54 U	**3,000 NJ**	**4,600 J**	**4,800 J**	**3,100 J**	**1,700 J**	170 R	46 U	45 U	**1,400 NJ**	**2,300 NJ**	**2,000 NJ**	**1,300 NJ**	140 R	51 U	80 U	42 U	61 U
Aroclor 1260	ug/kg	54 U	**4,300 J**	**4,900 J**	**4,800 J**	**3,300 J**	**1,200 J**	**220**	46 U	45 U	**2,300 J**	**4,200 J**	**3,300 J**	**2,200 J**	**110**	51 U	**380**	**450**	**6,000 J**
Aroclor 1262	ug/kg	54 U	79 UJ	84 U	80 U	76 U	54 U	41 U	46 U	45 U	59 U	120 U	90 U	49 U	51 U	51 U	80 U	42 U	61 U
Aroclor 1268	ug/kg	54 U	79 UJ	84 U	80 U	76 U	54 U	41 U	46 U	45 U	59 U	120 U	90 U	49 U	51 U	51 U	80 U	42 U	61 U
Total PCBs	ug/kg	ND	**10,200**	**14,800**	**15,200**	**9,200**	**3,600**	---	ND	ND	**5,100**	**8,800**	**7,000**	**4,700**	---	ND	**630**	**710**	**8,900**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132
Sample Number:	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0
Sample Depth:	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3	0-2
Sample Date:	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010
Sample Type:	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	55 U	53 U	100 U	180 U	120 U	120 UJ	96 U	420 U	340 U	48 UJ	40 U	58 U	54 U	52 U	74 UJ	46 U	45 U	70 U
Aroclor 1221	ug/kg	55 U	53 U	100 U	180 U	120 U	120 UJ	96 U	420 U	340 U	48 UJ	40 U	58 U	54 U	52 U	74 UJ	46 U	45 U	70 U
Aroclor 1232	ug/kg	55 U	53 U	100 U	180 U	120 U	120 UJ	96 U	420 U	340 U	48 UJ	40 U	58 U	54 U	52 U	74 UJ	46 U	45 U	70 U
Aroclor 1242	ug/kg	55 U	53 U	**2,100 J**	**5,000 J**	**3,000 NJ**	**5,300 J**	**11,000 J**	**33,000 J**	**14,000 J**	**1,900 J**	**310 J**	**1,000 J**	54 U	52 U	74 UJ	46 U	**290**	**2,100 J**
Aroclor 1248	ug/kg	55 U	53 U	100 U	180 U	120 U	120 UJ	96 U	420 U	340 U	48 UJ	40 U	58 U	54 U	52 U	74 UJ	46 U	45 U	70 U
Aroclor 1254	ug/kg	55 U	53 U	**2,800 NJ**	**6,500 NJ**	**3,600 NJ**	**4,500 J**	**6,600 J**	**8,800 J**	**3,300 J**	**1,100 J**	**260 NJ**	**860 J**	54 U	52 U	74 UJ	46 U	**220 NJ**	**1,800 J**
Aroclor 1260	ug/kg	55 U	**210 J**	**4,800 J**	**11,000 J**	**7,900 J**	**6,200 J**	**6,200 J**	**8,900 J**	**3,600**	48 UJ	**350 J**	**950 J**	54 U	52 U	74 UJ	46 U	**240**	**2,200 J**
Aroclor 1262	ug/kg	55 U	53 U	100 U	180 U	120 U	120 UJ	96 U	420 U	340 U	48 UJ	40 U	58 U	54 U	52 U	74 UJ	46 U	45 U	70 U
Aroclor 1268	ug/kg	55 U	53 U	100 U	180 U	120 U	120 UJ	96 U	420 U	340 U	48 UJ	40 U	58 U	54 U	52 U	74 UJ	46 U	45 U	70 U
Total PCBs	ug/kg	ND	**210**	**9,700**	**22,500**	**14,500**	**16,000**	**23,800**	**50,700**	**20,900**	**3,000**	**920**	**2,810**	ND	ND	ND	ND	**750**	**6,100**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133
Sample Number:	GC-SD132-02.0-04.0	GC-SD132-04.0-04.7	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8
Sample Depth:	2-4	4-4.7	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8
Sample Date:	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	38 U	58 U	43 U	310 U	46 U	65 U	67 U	62 U	41 U	37 U	41 U	58 U	52 U	39 U	53 U	61 U	54 U	49 U
Aroclor 1221	ug/kg	38 U	58 U	43 U	310 U	46 U	65 U	67 U	62 U	41 U	37 U	41 U	58 U	52 U	39 U	53 U	61 U	54 U	49 U
Aroclor 1232	ug/kg	38 U	58 U	43 U	310 U	46 U	65 U	67 U	62 U	41 U	37 U	41 U	58 U	52 U	39 U	53 U	61 U	54 U	49 U
Aroclor 1242	ug/kg	38 U	58 U	43 U	**18,000 J**	**510**	**580 J**	**760 J**	**700 J**	**99**	**38 J**	**270**	58 U	52 U	**98**	**730 NJ**	**1,700 J**	**870 J**	**210 J**
Aroclor 1248	ug/kg	38 U	58 U	43 U	310 U	46 U	65 U	67 U	62 U	41 U	37 U	41 U	58 U	52 U	39 U	53 U	61 U	54 U	49 U
Aroclor 1254	ug/kg	38 U	58 U	43 U	**4,700 J**	**240 J**	**390 NJ**	**540 J**	**380 NJ**	41 U	37 U	**290 J**	58 U	52 U	87 R	**540 NJ**	61 U	54 U	49 U
Aroclor 1260	ug/kg	38 U	58 U	43 U	310 U	**130**	**220 J**	67 U	**170 J**	41 U	37 U	**110**	58 U	52 U	**41 NJ**	53 U	**1,600 J**	**670 J**	**370 J**
Aroclor 1262	ug/kg	38 U	58 U	43 U	310 U	46 U	65 U	67 U	62 U	41 U	37 U	41 U	58 U	52 U	39 U	53 U	61 U	54 U	49 U
Aroclor 1268	ug/kg	38 U	58 U	43 U	310 U	46 U	65 U	67 U	62 U	41 U	37 U	41 U	58 U	52 U	39 U	53 U	61 U	54 U	49 U
Total PCBs	ug/kg	ND	ND	ND	**22,700**	**880**	**1,190**	**1,300**	**1,250**	**99**	**38**	**670**	ND	ND	**---**	**1,270**	**3,300**	**1,540**	**580**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151
Sample Number:	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0	GC-SD151-02.0-04.0
Sample Depth:	0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2	2-4
Sample Date:	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	47 U	47 U	41 U	61 U	49 U	50 U	47 U	220 U	230 U	61 U	65 U	37 U	85 U	65 U	84 U	64 U	50 U	45 U
Aroclor 1221 ug/kg	47 U	47 U	41 U	61 U	49 U	50 U	47 U	220 U	230 U	61 U	65 U	37 U	85 U	65 U	84 U	64 U	50 U	45 U
Aroclor 1232 ug/kg	47 U	47 U	41 U	61 U	49 U	50 U	47 U	220 U	230 U	61 U	65 U	37 U	85 U	65 U	84 U	64 U	50 U	45 U
Aroclor 1242 ug/kg	47 U	47 U	41 U	61 U	49 U	50 U	47 U	220 U	230 U	61 U	**360 J**	**91 NJ**	85 U	**450**	**1,500 J**	**960 J**	50 U	45 U
Aroclor 1248 ug/kg	**3,600 J**	**2,100 J**	41 U	**1,000 NJ**	**2,000 J**	**1,900 J**	**2,700 J**	**16,000 J**	**15,000 J**	**4,300 J**	65 U	37 U	85 U	65 U	84 U	64 U	50 U	45 U
Aroclor 1254 ug/kg	**2,400 J**	**1,900 NJ**	**330 NJ**	**1,100 J**	**1,500 J**	**1,400 J**	**1,900 J**	**7,300 J**	**7,600 J**	**2,800 J**	310 R	**110**	**100 NJ**	**250 J**	**460**	**930 J**	50 U	45 U
Aroclor 1260 ug/kg	**700 J**	**490 J**	**97**	**570 J**	**840 J**	**770 J**	**870 J**	**3,800 J**	**2,300 J**	**870 J**	65 U	37 U	85 U	**160**	**350**	**280 J**	50 U	45 U
Aroclor 1262 ug/kg	47 U	47 U	41 U	61 U	49 U	50 U	47 U	220 U	230 U	61 U	65 U	37 U	85 U	65 U	84 U	64 U	50 U	45 U
Aroclor 1268 ug/kg	47 U	47 U	41 U	61 U	49 U	50 U	47 U	220 U	230 U	61 U	65 U	37 U	85 U	65 U	84 U	64 U	50 U	45 U
Total PCBs ug/kg	**6,700**	**4,490**	**427**	**2,670**	**4,340**	**4,070**	**5,470**	**27,100**	**24,900**	**7,970**	**---**	**201**	**100**	**860**	**2,310**	**2,170**	ND	ND

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141
Sample Number:		GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0
Sample Depth:		4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2	2-4
Sample Date:		4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	43 U	87 U	89 U	87 U	65 U	42 U	51 U	53 U	57 U	48 UJ	57 U	60 UJ	48 U	60 U	83 U	2,400 U	75 U	70 U
Aroclor 1221	ug/kg	43 U	87 U	89 U	87 U	65 U	42 U	51 U	53 U	57 U	48 UJ	57 U	60 UJ	48 U	60 U	83 U	2,400 U	75 U	70 U
Aroclor 1232	ug/kg	43 U	87 U	89 U	87 U	65 U	42 U	51 U	53 U	57 U	48 UJ	57 U	60 UJ	48 U	60 U	83 U	2,400 U	75 U	70 U
Aroclor 1242	ug/kg	43 U	87 U	89 U	87 U	65 U	42 U	**950 J**	53 U	**920 J**	**220 J**	57 U	60 UJ	48 U	**180**	83 U	2,400 U	**350**	**1,100 J**
Aroclor 1248	ug/kg	43 U	**150 J**	**430 J**	**3,800 J**	**1,400 J**	42 U	51 U	**2,300 J**	57 U	48 UJ	57 U	60 UJ	48 U	60 U	**1,100 J**	**4,300 J**	75 U	70 U
Aroclor 1254	ug/kg	43 U	**140**	**350 J**	**1,300 J**	**1,200 J**	42 U	51 U	53 U	57 U	48 UJ	57 U	60 UJ	48 U	60 U	83 U	2,400 U	75 U	**730 J**
Aroclor 1260	ug/kg	43 U	87 U	89 U	87 U	**850 J**	**56**	**230**	53 U	**410 J**	59 R	57 U	60 UJ	**56 NJ**	**74 J**	**370**	2,400 U	**190**	70 U
Aroclor 1262	ug/kg	43 U	87 U	89 U	87 U	65 U	42 U	51 U	53 U	57 U	48 UJ	57 U	60 UJ	48 U	60 U	83 U	2,400 U	75 U	70 U
Aroclor 1268	ug/kg	43 U	87 U	89 U	87 U	65 U	42 U	51 U	53 U	57 U	48 UJ	57 U	60 UJ	48 U	60 U	83 U	2,400 U	75 U	70 U
Total PCBs	ug/kg	ND	**290**	**780**	**5,100**	**3,450**	**56**	**1,180**	**2,300**	**1,330**	**---**	ND	ND	**56**	**254**	**1,470**	**4,300**	**540**	**1,830**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E
Sample Depth:	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	55 U	77 U	59 U	82 U	79 U	52 U	58 U	330 U	**2,300 NJ**	**1,300 NJ**	**890 J**	**2,500 J**	**2,100 J**	**560 J**	**210 J**	**84 J**	**240 J**	**290 J**
Aroclor 1221	ug/kg	55 U	77 U	59 U	82 U	79 U	52 U	58 U	330 U	410 U	430 U	400 U	430 U	280 U	310 UJ	240 UJ	210 UJ	280 UJ	290 UJ
Aroclor 1232	ug/kg	55 U	77 U	59 U	82 U	79 U	52 U	58 U	330 U	410 U	430 U	400 U	430 U	280 U	310 UJ	240 UJ	210 UJ	280 UJ	290 UJ
Aroclor 1242	ug/kg	**570**	77 U	59 U	**1,100 J**	79 U	**90 J**	58 U	330 U	410 U	430 U	400 U	430 U	280 U	310 UJ	240 UJ	210 UJ	280 UJ	290 UJ
Aroclor 1248	ug/kg	55 U	**650 J**	**1,100 J**	82 U	**560 J**	52 U	58 U	330 U	410 U	430 U	400 U	430 U	280 U	310 UJ	240 UJ	210 UJ	280 UJ	290 UJ
Aroclor 1254	ug/kg	55 U	77 U	59 U	82 U	79 U	52 U	58 U	330 U	**740 J**	**1,200 NJ**	**1,200 NJ**	**2,400 J**	**2,900 J**	390 R	280 R	**110 J**	**490 NJ**	**610 NJ**
Aroclor 1260	ug/kg	**240 J**	**280**	**230 J**	**310**	**210**	52 U	**100 J**	330 U	**1,100 J**	**1,800 J**	**1,200 J**	**2,000 J**	**3,400 J**	390 R	**300 NJ**	210 UJ	**390 J**	**550 J**
Aroclor 1262	ug/kg	55 U	77 U	59 U	82 U	79 U	52 U	58 U	330 U	410 U	430 U	400 U	430 U	280 U	310 UJ	240 UJ	210 UJ	280 UJ	290 UJ
Aroclor 1268	ug/kg	55 U	77 U	59 U	82 U	79 U	52 U	58 U	330 U	410 U	430 U	400 U	430 U	280 U	310 UJ	240 UJ	210 UJ	280 UJ	290 UJ
Total PCBs	ug/kg	**810**	**930**	**1,330**	**1,410**	**770**	**90**	**100**	ND	**4,140**	**4,300**	**3,290**	**6,900**	**8,400**	---	---	**194**	**1,120**	**1,450**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F
Sample Depth:		4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	**1,200 J**	270 UJ	240 UJ	**2,100 J**	**1,000 NJ**	570 UJ	430 U	**1,600 J**	**1,700 NJ**	**1,200 NJ**	**3,700 J**	220 U	450 UJ	470 UJ	450 U	**1,400 J**	**1,500 NJ**	**1,800 NJ**
Aroclor 1221	ug/kg	300 UJ	270 UJ	240 UJ	500 U	500 U	570 UJ	430 U	450 U	470 U	420 U	350 U	220 U	450 U	470 U	450 U	500 U	430 UJ	390 U
Aroclor 1232	ug/kg	300 UJ	270 UJ	240 UJ	500 U	500 U	570 UJ	430 U	450 U	470 U	420 U	350 U	220 U	450 U	470 U	450 U	500 U	430 UJ	390 U
Aroclor 1242	ug/kg	300 UJ	270 UJ	240 UJ	500 U	500 U	570 UJ	430 U	450 U	470 U	420 U	350 U	220 U	450 U	470 U	450 U	500 U	430 UJ	390 U
Aroclor 1248	ug/kg	300 UJ	270 UJ	240 UJ	500 U	500 U	570 UJ	430 U	450 U	470 U	420 U	350 U	220 U	450 U	470 U	450 U	500 U	430 UJ	390 U
Aroclor 1254	ug/kg	**1,600 NJ**	**850 J**	**430 NJ**	**2,400 J**	**870 NJ**	**2,200 NJ**	430 U	**1,500 J**	**2,600 J**	**1,700 J**	**2,900 J**	220 U	**130 J**	470 UJ	450 U	500 U	**1,300 NJ**	**1,700 J**
Aroclor 1260	ug/kg	**1,900 J**	**1,400 J**	**650 NJ**	**1,900 J**	500 U	**6,900 J**	430 U	**910 J**	**1,800 J**	**1,400 J**	**2,800 J**	220 U	**200 J**	**210 J**	**500 NJ**	**710 NJ**	**1,300 J**	**1,200 J**
Aroclor 1262	ug/kg	300 UJ	270 UJ	240 UJ	500 U	500 U	570 UJ	430 U	450 U	470 U	420 U	350 U	220 U	450 U	470 U	450 U	500 U	430 UJ	390 U
Aroclor 1268	ug/kg	300 UJ	270 UJ	240 UJ	500 U	500 U	570 UJ	430 U	450 U	470 U	420 U	350 U	220 U	450 U	470 U	450 U	500 U	430 UJ	390 U
Total PCBs	ug/kg	**4,700**	**2,250**	**1,080**	**6,400**	**1,870**	**9,100**	ND	**4,010**	**6,100**	**4,300**	**9,400**	ND	**330**	**210**	**500**	**2,110**	**4,100**	**4,700**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3
Sample Number:	FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D	ERT2-3-E
Sample Depth:	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	**1,500 J**	**680 NJ**	**2,100 J**	460 U	450 U	430 UJ	**830 J**	**1,200 J**	**1,600 J**	**2,200 J**	**1,800 J**	**730 NJ**	200 UJ	400 U	370 U	420 U	**850 NJ**	340 U
Aroclor 1221	ug/kg	380 U	350 U	380 U	460 U	450 U	430 UJ	430 UJ	310 UJ	320 U	350 UJ	340 UJ	280 U	200 UJ	400 U	370 U	420 U	450 U	340 U
Aroclor 1232	ug/kg	380 U	350 U	380 U	460 U	450 U	430 UJ	430 UJ	310 UJ	320 U	350 UJ	340 UJ	280 U	200 UJ	400 U	370 U	420 U	450 U	340 U
Aroclor 1242	ug/kg	380 U	350 U	380 U	460 U	450 U	430 UJ	430 UJ	310 UJ	320 U	350 UJ	340 UJ	280 U	200 UJ	400 U	370 U	420 U	450 U	340 U
Aroclor 1248	ug/kg	380 U	350 U	380 U	460 U	450 U	430 UJ	430 UJ	310 UJ	320 U	350 UJ	340 UJ	280 U	200 UJ	400 U	370 U	420 U	450 U	340 U
Aroclor 1254	ug/kg	**1,200 J**	**1,100 J**	**1,100 J**	460 U	450 U	430 UJ	**660 J**	**1,100 NJ**	**1,500 J**	**2,300 J**	**1,600 J**	**790 NJ**	200 UJ	400 U	370 U	420 U	**940 J**	**400 NJ**
Aroclor 1260	ug/kg	**1,200 NJ**	**950 J**	**950 J**	460 U	**220 J**	**350 J**	**620 J**	**1,100 J**	**1,500 J**	**1,700 NJ**	**2,100 J**	**910 J**	**360 NJ**	400 U	370 U	420 U	**680 J**	**340 J**
Aroclor 1262	ug/kg	380 U	350 U	380 U	460 U	450 U	430 UJ	430 UJ	310 UJ	320 U	350 UJ	340 UJ	280 U	200 UJ	400 U	370 U	420 U	450 U	340 U
Aroclor 1268	ug/kg	380 U	350 U	380 U	460 U	450 U	430 UJ	430 UJ	310 UJ	320 U	350 UJ	340 UJ	280 U	200 UJ	400 U	370 U	420 U	450 U	340 U
Total PCBs	ug/kg	**3,900**	**2,730**	**4,150**	ND	**220**	**350**	**2,110**	**3,400**	**4,600**	**6,200**	**5,500**	**2,430**	**360**	ND	ND	ND	**2,470**	**740**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2
	Sample Number:	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F
	Sample Depth:	4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5
	Sample Date:	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	**1,200 J**	370 U	**2,500 J**	**580 J**	**1,000 J**	**710 NJ**	**730 J**	**340 NJ**	**250 J**	**1,800 J**	**1,600 J**	**900 J**	400 U	420 U	**820 NJ**	**1,500 J**	**1,400 NJ**	**1,500 J**
Aroclor 1221	ug/kg	400 U	370 U	380 U	260 U	290 UJ	290 UJ	240 UJ	210 UJ	200 UJ	240 UJ	290 UJ	290 UJ	400 U	420 U	350 U	280 UJ	230 U	280 U
Aroclor 1232	ug/kg	400 U	370 U	380 U	260 U	290 UJ	290 UJ	240 UJ	210 UJ	200 UJ	240 UJ	290 UJ	290 UJ	400 U	420 U	350 U	280 UJ	230 U	280 U
Aroclor 1242	ug/kg	400 U	370 U	380 U	260 U	290 UJ	290 UJ	240 UJ	210 UJ	200 UJ	240 UJ	290 UJ	290 UJ	400 U	420 U	350 U	280 UJ	230 U	280 U
Aroclor 1248	ug/kg	400 U	370 U	380 U	260 U	290 UJ	290 UJ	240 UJ	210 UJ	200 UJ	240 UJ	290 UJ	290 UJ	400 U	420 U	350 U	280 UJ	230 U	280 U
Aroclor 1254	ug/kg	**400 NJ**	370 UJ	**3,000 J**	**990 J**	830 R	640 R	630 R	310 R	240 R	**2,000 J**	**2,500 J**	**2,200 J**	400 U	420 U	**550 NJ**	**950 NJ**	**670 NJ**	1,300 R
Aroclor 1260	ug/kg	400 UJ	370 UJ	**3,000 J**	**1,700 J**	**790 J**	**650 J**	**660 J**	**340 J**	**260 J**	**1,400 J**	**2,500 J**	**2,800 J**	**400 J**	420 U	**580 J**	**850 NJ**	**770 J**	**1,400 J**
Aroclor 1262	ug/kg	400 U	370 U	380 U	260 U	290 UJ	290 UJ	240 UJ	210 UJ	200 UJ	240 UJ	290 UJ	290 UJ	400 U	420 U	350 U	280 UJ	230 U	280 U
Aroclor 1268	ug/kg	400 U	370 U	380 U	260 U	290 UJ	290 UJ	240 UJ	210 UJ	200 UJ	240 UJ	290 UJ	290 UJ	400 U	420 U	350 U	280 UJ	230 U	280 U
Total PCBs	ug/kg	**1,600**	ND	**8,500**	**3,270**	**---**	**---**	**---**	**---**	**---**	**5,200**	**6,600**	**5,900**	**400**	ND	**1,950**	**3,300**	**2,840**	**---**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E
Sample Depth:	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4
Sample Date:	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	**2,100 J**	**1,800 J**	410 U	410 U	**200 J**	**1,100 J**	**1,600 J**	**1,800 J**	**1,500 J**	**1,800 J**	**1,300 J**	**1,200 J**	230 UJ	460 U	430 U	**250 J**	**1,000 J**	**1,200 J**
Aroclor 1221	ug/kg	290 U	200 U	410 U	410 U	410 U	450 U	380 U	460 U	400 U	310 U	320 U	290 U	230 UJ	460 U	430 U	410 U	400 U	340 U
Aroclor 1232	ug/kg	290 U	200 U	410 U	410 U	410 U	450 U	380 U	460 U	400 U	310 U	320 U	290 U	230 UJ	460 U	430 U	410 U	400 U	340 U
Aroclor 1242	ug/kg	290 U	200 U	410 U	410 U	410 U	450 U	380 U	460 U	400 U	310 U	320 U	290 U	230 UJ	460 U	430 U	410 U	400 U	340 U
Aroclor 1248	ug/kg	290 U	200 U	410 U	410 U	410 U	450 U	380 U	460 U	400 U	310 U	320 U	290 U	230 UJ	460 U	430 U	410 U	400 U	340 U
Aroclor 1254	ug/kg	1,500 R	**1,700 J**	**130 J**	**140 J**	**210 J**	**830 NJ**	**1,800 NJ**	**2,100 NJ**	**1,400 NJ**	**980 NJ**	**1,100 NJ**	**1,100 J**	230 UJ	**190 J**	430 UJ	410 UJ	**850 NJ**	**1,100 NJ**
Aroclor 1260	ug/kg	**1,600 J**	**1,500 J**	410 U	410 U	**190 J**	**1,200 J**	**2,800 J**	**2,800 J**	**1,700 J**	**1,000 J**	**1,200 J**	**870 J**	230 UJ	460 U	430 U	**290 J**	**1,200 J**	**1,800 J**
Aroclor 1262	ug/kg	290 U	200 U	410 U	410 U	410 U	450 U	380 U	460 U	400 U	310 U	320 U	290 U	230 UJ	460 U	430 U	410 U	400 U	340 U
Aroclor 1268	ug/kg	290 U	200 U	410 U	410 U	410 U	450 U	380 U	460 U	400 U	310 U	320 U	290 U	230 UJ	460 U	430 U	410 U	400 U	340 U
Total PCBs	ug/kg	---	**5,000**	**130**	**140**	**600**	**3,130**	**6,200**	**6,700**	**4,600**	**3,780**	**3,600**	**3,170**	ND	**190**	ND	**540**	**3,050**	**4,100**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10	GC-SED-100
	Sample Number:	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)	GC-SED-100(5-6)
	Sample Depth:	4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5	5-6
	Sample Date:	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005	1/28/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	**1,100 J**	**1,300 J**	**1,400 J**	30 U	320 U	20 U	150 U	20 U	180 U	150 UJ	150 U	150 UJ	210 U	230 U	230 UJ	750 UJ	260 U	110 U
Aroclor 1221	ug/kg	330 U	300 U	290 U	60 U	620 U	40 U	290 U	50 U	360 U	280 U	280 U	280 U	400 U	450 U	450 U	1,500 U	500 U	210 U
Aroclor 1232	ug/kg	330 U	300 U	290 U	30 U	320 U	20 U	150 U	20 U	180 U	150 U	150 U	150 U	210 U	230 U	230 U	750 U	260 U	110 U
Aroclor 1242	ug/kg	330 U	300 U	290 U	30 U	320 U	20 U	150 U	20 U	180 U	150 U	150 U	150 U	**680 J**	230 U	**510**	750 U	**140 J**	110 U
Aroclor 1248	ug/kg	330 U	300 U	290 U	**60 J**	**680**	**30**	**200**	**130**	**740 J**	**240 J**	**560 J**	**180**	210 U	**280**	230 U	**1,600**	260 U	**450**
Aroclor 1254	ug/kg	**960 NJ**	**1,100 NJ**	**1,200 NJ**	**110**	**690 J**	**50 J**	**450**	**80**	**770 J**	**850 J**	**460 J**	**270 J**	**1,700**	**300 J**	**830 J**	**2,500 J**	**290 J**	**660 J**
Aroclor 1260	ug/kg	**1,400 J**	**1,400 J**	**1,400 J**	**70**	**420**	**30**	**190**	**40**	**430**	**210 J**	**170 J**	**80 J**	**640**	**560**	**600**	**1,600**	**210 J**	**980**
Aroclor 1262	ug/kg	330 U	300 U	290 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Aroclor 1268	ug/kg	330 U	300 U	290 U	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total PCBs	ug/kg	**3,460**	**3,800**	**4,000**	**240**	**1,790**	**120**	**840**	**250**	**1,940**	**1,300**	**1,190**	**530**	**3,020**	**1,140**	**1,940**	**5,700**	**640**	**2,090**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C
Sample Number:		GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)
Sample Depth:		4-7	2-4	6.5-8.5	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1	1.5-2
Sample Date:		1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	600 U	610 U	260 U	210 U	180 U	240 U	40 UJ	190 U	240 U	30 UJ	100 U	80 U	170 U	90 U	90 UJ	100 U	50 UJ	640 U
Aroclor 1221	ug/kg	1,200 U	1,200 U	500 U	410 U	360 U	460 U	90 U	370 U	460 U	70 UJ	190 U	170 U	340 U	180 U	190 U	200 U	100 UJ	1,200 U
Aroclor 1232	ug/kg	600 U	610 U	260 U	210 U	180 U	240 U	40 U	190 U	240 U	30 UJ	100 U	80 U	170 U	90 U	90 U	100 U	50 UJ	640 U
Aroclor 1242	ug/kg	600 U	610 U	260 U	210 U	180 U	240 U	**80 J**	**450**	**130 J**	30 UJ	**100 J**	**250**	170 U	**120 J**	**80 J**	**80 J**	**70 J**	**900 J**
Aroclor 1248	ug/kg	**2,100 J**	610 U	260 U	**210**	**500**	240 U	40 U	190 U	240 U	30 UJ	100 U	80 U	170 U	90 U	90 U	100 U	50 UJ	640 U
Aroclor 1254	ug/kg	**2,200 J**	**580 J**	260 U	**190 J**	**910 J**	**870**	**150 J**	**610 J**	**340 J**	**50 J**	**220 J**	**260 J**	170 U	**170 J**	**170 J**	**130**	**50 J**	**1,000 J**
Aroclor 1260	ug/kg	**3,500**	**700 J**	260 U	**390**	**1,700**	**190 J**	**130 J**	**720**	**300**	**30 J**	**160**	**150**	170 U	**140**	**140 J**	**110**	**40 J**	**1,400 J**
Total PCBs	ug/kg	**7,800**	**1,280**	ND	**790**	**3,110**	**1,060**	**360**	**1,780**	**770**	**80**	**480**	**660**	ND	**430**	**390**	**320**	**160**	**3,300**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31
Sample Number:		GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)
Sample Depth:		5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5
Sample Date:		1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	280 UJ	230 U	2,900 UJ	460 UJ	120 UJ	220 U	860 U	250 U	380 U	730 U	160 U	160 U	640 U	360 U	30 UJ	430 U	520 U	600 U
Aroclor 1221	ug/kg	550 UJ	440 U	5,600 UJ	890 UJ	230 UJ	440 U	1,700 U	490 U	750 U	1,400 U	310 U	320 U	1,200 U	710 U	60 UJ	830 U	1,000 U	1,200 U
Aroclor 1232	ug/kg	280 UJ	230 U	2,900 UJ	460 UJ	120 UJ	220 U	860 U	250 U	380 U	730 U	160 U	160 U	640 U	360 U	30 UJ	430 U	520 U	600 U
Aroclor 1242	ug/kg	**2,200 J**	230 U	2,900 UJ	**1,300 J**	**920 J**	**140 J**	**2,000**	250 U	380 U	730 U	**360 J**	**290 J**	**760 J**	**400 J**	30 UJ	**310 J**	**810**	**470 J**
Aroclor 1248	ug/kg	280 UJ	230 U	**5,000 J**	460 UJ	120 UJ	220 U	860 U	**480 J**	**1,100**	**1,000 J**	160 U	160 U	640 U	360 U	30 UJ	430 U	520 U	600 U
Aroclor 1254	ug/kg	280 UJ	**350 J**	**3,800 J**	**2,200 J**	120 UJ	**380 J**	**2,700 J**	**220 J**	**1,100 J**	**950**	**600 J**	**200 J**	**1,400**	**820 J**	**70 J**	**640 J**	**600 J**	**530 J**
Aroclor 1260	ug/kg	**2,900 J**	**620**	**5,700 J**	**1,900 J**	**1,100 J**	**690**	**3,100**	**360**	**1,600**	**1,600**	**530**	**260**	**380 J**	**800**	**60 J**	**490**	**760 J**	**650**
Total PCBs	ug/kg	**5,100**	**970**	**14,500**	**5,400**	**2,020**	**1,210**	**7,800**	**1,060**	**3,800**	**3,550**	**1,490**	**750**	**2,540**	**2,020**	**140**	**1,440**	**2,170**	**1,650**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43	GC-SED-43
	Sample Number:	GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)	GC-SED-43(7.3-8.3)
	Sample Depth:	11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3	7.3-8.3
	Sample Date:	1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006	1/23/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	70 U	40 UJ	200 U	360 U	1,800 U	2,000 U	50 U	120 U	430 U	610 U	1,400 U	5,000 UJ	480 U	1,200 U	10 U	10 U	20 UR	460 U
Aroclor 1221	ug/kg	140 U	80 UJ	380 U	700 U	3,400 U	3,900 U	90 U	240 U	830 U	1,200 U	2,800 U	9,700 U	940 U	2,400 U	30 U	30 U	30 UR	890 U
Aroclor 1232	ug/kg	70 U	40 UJ	200 U	360 U	1,800 U	2,000 U	50 U	120 U	430 U	610 U	1,400 U	5,000 U	480 U	1,200 U	10 U	10 U	20 UR	460 U
Aroclor 1242	ug/kg	70 U	**100 J**	**130 J**	**400**	1,800 U	2,000 U	**570 J**	120 U	**690**	610 U	1,400 U	5,000 U	**6,200**	**14,000**	**10 J**	**30**	**10 J**	460 U
Aroclor 1248	ug/kg	70 U	40 UJ	200 U	360 U	**2,600**	**6,500**	50 U	120 U	430 U	610 U	1,400 U	**4,600 J**	480 U	1,200 U	10 U	10 U	20 UR	460 U
Aroclor 1254	ug/kg	70 U	**420 J**	200 U	**490 J**	**5,700 J**	**8,300 J**	**700 J**	120 U	**940**	610 U	**4,500**	**5,300 J**	**940 J**	1,200 U	10 U	**5.9 J**	**20 J**	460 U
Aroclor 1260	ug/kg	70 U	**580 J**	**460**	**1,100**	**17,000**	**28,000**	**660 J**	**150**	**1,100**	610 U	**3,600**	**24,000**	**2,100**	**1,400**	**40**	**10 J**	**20 J**	**650**
Total PCBs	ug/kg	ND	**1,100**	**590**	**1,990**	**25,300**	**42,800**	**1,930**	**150**	**2,730**	ND	**8,100**	**33,900**	**9,240**	**15,400**	**50**	**50**	**50**	**650**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B	GC-SED-55
Sample Number:	GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)
Sample Depth:	0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7	1.5-2.5
Sample Date:	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006	1/24/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	1,000 U	320 U	250 U	1,500 U	590 U	550 U	490 U	630 U	570 U	290 U	160 U	350 U	240 U	1,200 U	480 U	200 U	110 UJ	190 U
Aroclor 1221 ug/kg	2,000 U	610 U	490 U	2,900 U	1,100 U	1,100 U	950 U	1,200 U	1,100 U	560 U	310 U	680 U	470 U	2,400 U	930 U	390 U	220 U	370 U
Aroclor 1232 ug/kg	1,000 U	320 U	250 U	1,500 U	590 U	550 U	490 U	630 U	570 U	290 U	160 U	350 U	240 U	1,200 U	480 U	200 U	110 U	190 U
Aroclor 1242 ug/kg	**950 J**	320 U	250 U	**3,000 J**	590 U	**2,400**	**1,200**	630 U	570 U	290 U	160 U	**390**	240 U	1,200 U	**650**	**230**	**320 J**	**190 J**
Aroclor 1248 ug/kg	1,000 U	320 U	250 U	1,500 U	590 U	550 U	490 U	630 U	570 U	290 U	160 U	350 U	240 U	1,200 U	480 U	200 U	110 U	190 U
Aroclor 1254 ug/kg	**1,300**	320 U	250 U	**5,100**	590 U	**4,600**	**3,800 J**	630 U	570 U	290 U	160 U	**1,200**	240 U	1,200 U	**2,200 J**	**930**	**1,400**	**470 J**
Aroclor 1260 ug/kg	**2,200**	320 U	**440 J**	**6,300**	**280 J**	**6,500**	**4,700**	630 U	570 U	290 U	**200**	**870**	240 U	1,200 UJ	**1,300 J**	**650 J**	**670 J**	**390**
Total PCBs ug/kg	**4,450**	ND	**440**	**14,400**	**280**	**13,500**	**9,700**	ND	ND	ND	**200**	**2,460**	ND	ND	**4,150**	**1,810**	**2,390**	**1,050**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C
Sample Number:		GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)
Sample Depth:		10-11	7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5	2.5-4
Sample Date:		1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	250 U	200 U	220 U	1,000 U	1,100 UJ	220 UJ	150 U	230 U	400 U	190 U	40 U	270 U	490 U	510 U	910 U	100 U	110 U	100 U
Aroclor 1221	ug/kg	490 U	380 U	430 U	2,000 U	2,200 U	430 U	290 U	450 U	780 U	380 U	90 U	530 U	940 U	980 U	1,800 U	190 U	210 U	200 U
Aroclor 1232	ug/kg	250 U	200 U	220 U	1,000 U	1,100 U	220 U	150 U	230 U	400 U	190 U	40 U	270 U	490 U	510 U	910 U	100 U	110 U	100 U
Aroclor 1242	ug/kg	**360 J**	200 U	220 U	**1,900**	**1,500**	**260**	**140 J**	**1,700**	400 U	190 U	**200 J**	270 U	490 U	510 U	910 U	100 U	**70 J**	100 U
Aroclor 1248	ug/kg	250 U	**650**	220 U	1,000 U	1,100 U	220 U	150 U	230 U	400 U	190 U	40 U	270 U	**2,700 J**	510 U	**610 J**	100 U	110 U	100 U
Aroclor 1254	ug/kg	**990 J**	**270 J**	220 U	**1,500**	**2,000**	**760 J**	**930 J**	**2,700**	**380 J**	190 U	**470**	**500 J**	**2,900**	**940 J**	910 U	100 U	**80 J**	100 U
Aroclor 1260	ug/kg	**590 J**	**510**	220 U	**1,400**	**790 J**	**570 J**	**290 J**	**1,100**	**260 J**	190 U	**110**	**400**	**1,000**	**1,300**	**2,300**	100 U	**40 J**	100 U
Total PCBs	ug/kg	**1,940**	**1,430**	ND	**4,800**	**4,290**	**1,590**	**1,360**	**5,500**	**640**	ND	**780**	**900**	**6,600**	**2,240**	**2,910**	ND	**200**	ND

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83
Sample Number:		GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)
Sample Depth:		0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8	0-2
Sample Date:		12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006	1/30/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	90 U	600 U	90 UJ	420 U	250 U	90 U	190 U	230 U	40 U	90 U	190 U	120 U	950 U	130 U	200 U	60 U	110 U	180 U
Aroclor 1221	ug/kg	180 U	1,200 U	190 UJ	820 U	480 U	180 U	370 U	440 U	80 U	180 U	360 U	230 U	1,800 U	240 U	380 U	120 U	200 U	340 U
Aroclor 1232	ug/kg	90 U	600 U	90 UJ	420 U	250 U	90 U	190 U	230 U	40 U	90 U	190 U	120 U	950 U	130 U	200 U	60 U	110 U	180 U
Aroclor 1242	ug/kg	90 U	600 U	**40 J**	**5,400**	**250 J**	90 U	**340**	**230 J**	**60 J**	90 U	190 U	**320**	**12,000**	130 U	200 U	**130 J**	110 U	**1,000**
Aroclor 1248	ug/kg	90 U	**4,900**	90 UJ	420 U	250 U	90 U	190 U	230 U	40 U	**190 J**	**340 J**	120 U	950 U	**100 J**	200 U	60 U	110 U	180 U
Aroclor 1254	ug/kg	90 U	**2,700 J**	**80 J**	**2,300 J**	**370 J**	90 U	**690**	**470 J**	**230 J**	**250 J**	**340 J**	**480**	**9,200**	130 U	200 U	**280 J**	110 U	**1,200 J**
Aroclor 1260	ug/kg	90 U	**1,700**	**80 J**	**450**	**360**	90 U	**440**	**320 J**	**110 J**	**160**	**200**	**220**	**2,700**	**110 J**	200 U	**130 J**	110 U	**620**
Total PCBs	ug/kg	ND	**9,300**	**220**	**8,150**	**980**	ND	**1,470**	**1,020**	**400**	**600**	**880**	**1,020**	**23,900**	**210**	ND	**540**	ND	**2,820**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98
Sample Number:		GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)
Sample Depth:		11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9	1-2
Sample Date:		1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	340 U	170 U	500 U	3,300 U	350 U	510 U	1,100 U	900 U	860 U	950 U	610 UJ	590 UJ	580 U	50 U	170 U	710 U	170 U	190 U
Aroclor 1221	ug/kg	650 U	340 U	980 U	6,400 U	680 U	990 U	2,000 U	1,700 U	1,700 U	1,800 U	1,200 UJ	1,200 UJ	1,100 U	100 U	330 U	1,400 U	320 U	370 U
Aroclor 1232	ug/kg	340 U	170 U	500 U	3,300 U	350 U	510 U	1,100 U	900 U	860 U	950 U	610 UJ	590 UJ	580 U	50 U	170 U	710 U	170 U	190 U
Aroclor 1242	ug/kg	**3,500**	**380**	**640**	**3,600**	350 U	510 U	1,100 U	900 U	860 U	**390 J**	**910 J**	**3,900 J**	**1,600**	50 U	**230**	710 U	170 U	190 U
Aroclor 1248	ug/kg	340 U	170 U	500 U	3,300 U	**1,700**	**2,900**	**3,300 J**	**2,700 J**	**2,400 J**	950 U	610 UJ	590 UJ	580 U	**400 J**	170 U	**940 J**	170 U	**530**
Aroclor 1254	ug/kg	**3,000 J**	**330 J**	**830 J**	**7,700 J**	350 U	510 U	1,100 U	900 U	860 U	**540 J**	**890 J**	**1,500 J**	**1,500 J**	50 U	**270 J**	**1,400 J**	**240 J**	**240 J**
Aroclor 1260	ug/kg	**800**	**330 J**	**810**	**5,300**	**2,100**	**2,500**	**5,300**	**3,700**	**7,500**	**570 J**	**1,100 J**	**1,200 J**	**890**	**510 J**	**270**	**1,300**	**280 J**	**690**
Total PCBs	ug/kg	**7,300**	**1,040**	**2,280**	**16,600**	**3,800**	**5,400**	**8,600**	**6,400**	**9,900**	**1,500**	**2,900**	**6,600**	**3,990**	**910**	**770**	**3,640**	**520**	**1,460**

TABLE I-11A
PCB Aroclor Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-98	GC-SED-99B	GC-SED-99B
	Sample Number:	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
	Sample Depth:	8.5-9.5	3.5-4.5	7.2-8.7
	Sample Date:	1/27/2006	12/22/2005	12/22/2005
	Sample Type:	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**		
Aroclor 1016	ug/kg	830 U	1,400 UJ	280 U
Aroclor 1221	ug/kg	1,600 U	2,800 U	550 U
Aroclor 1232	ug/kg	830 U	1,400 U	280 U
Aroclor 1242	ug/kg	830 U	1,400 U	280 U
Aroclor 1248	ug/kg	830 U	**1,800**	280 U
Aroclor 1254	ug/kg	830 U	**7,200**	**1,100 J**
Aroclor 1260	ug/kg	**1,100 J**	**2,600**	**930**
Total PCBs	ug/kg	**1,100**	**11,600**	**2,030**

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
	Sample Number:	GC-SD107-00.0-02.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	GC-SD126-04.0-06.0	D-03042010-02
	Sample Depth:	0-2	4-6	6-8	0-2	2-4	4-6	6-7.5	2-4	4-6	6-8	8-10	8-10	0-2	2-4	4-6	4-6
	Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	FD
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	540 J (A,R)	2,600 J (A,R)	310 J (A,R)	250 J (A,R)	760 J (A,R)	2,700 J (A,R)	3,000 J (A,R)	1,000 NJ (A,R)	6,500 J (A,R)	4,600 J (A,R)	1,300 NJ (A,R)	1,400 NJ (A,R)	79 J (R)			
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg		2,500 J (A,R)	360 NJ (A,R)	340 J (A,R)	1,000 J (A,R)	2,900 J (A,R)	1,000 J (A,R)		5,100 J (A,R)						2,400 J (A,R)	3,600 NJ (A,R)
Aroclor 1260	ug/kg	500 (A,R)		830 J (A,R)	240 J (A,R)				1,000 J (A,R)	3,400 J (A,R)	5,800 J (A,R)	3,100 J (A,R)	3,500 J (A,R)		1,900 J (A,R)	5,300 J (A,R)	8,800 J (A,R)
Total PCBs	ug/kg		5,100 (A,R)	1,500 (A,R)	830 (A,R)	1,760 (A,R)	5,600 (A,R)	4,000 (A,R)		15,000 (A,R)	10,400 (A,R)	4,400 (A,R)	4,900 (A,R)			7,700 (A,R)	12,400 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145
	Sample Number:	GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	GC-SD108-06.0-08.0	D-03052010-02	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5
	Sample Depth:	6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	6-8	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5
	Sample Date:	3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	1,200 NJ (A,R)	650 (A,R)	5,200 J (A,R)	2,100 J (A,R)		580 J (A,R)	1,000 J (A,R)	2,700 J (A,R)	1,500 J (A,R)	2,500 J (A,R)	170 J (R)	350 (A,R)	250 (A,R)	520 (A,R)	380 (A,R)	
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	1,200 NJ (A,R)						1,100 NJ (A,R)	2,400 NJ (A,R)	1,400 J (A,R)	2,600 NJ (A,R)						190 NJ (A,R)
Aroclor 1260	ug/kg	1,700 J (A,R)	560 (A,R)	2,500 J (A,R)	1,200 J (A,R)	320 J (A,R)	490 (A,R)	800 J (A,R)	1,800 J (A,R)	930 J (A,R)	1,700 J (A,R)		370 J (A,R)	220 J (R)	440 (A,R)	380 (A,R)	
Total PCBs	ug/kg	4,100 (A,R)	1,210 (A,R)	7,700 (A,R)	3,300 (A,R)	320 (A,R)		2,900 (A,R)	6,900 (A,R)	3,830 (A,R)	6,800 (A,R)			470 (A,R)	960 (A,R)		190 (R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD110	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD111	GC-SD111
	Sample Number:	GC-SD146-02.0-04.0	GC-SD146-04.0-06.0	GC-SD146-06.0-06.6	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD128-00.0-02.0	GC-SD128-02.0-02.5	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0
	Sample Depth:	2-4	4-6	6-6.6	0-2	2-3.1	0-2	2-4	4-5	0-2	2-4	0-2	2-2.5	0-2	2-4	0-2	2-4
	Sample Date:	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	3/16/2010	3/16/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	150 (R)	140 (R)	130 NJ (R)		620 (A,R)	120 J (R)	490 J (A,R)	380 J (A,R)	370 (A,R)	3,200 J (A,R)	820 J (A,R)	2,300 J (A,R)	480 (A,R)		2,900 J (A,R)	5,300 J (A,R)
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	220 J (A,R)	240 J (A,R)	160 J (A,R)	110 NJ (R)	1,100 J (A,R)					2,900 J (A,R)		2,400 NJ (A,R)			3,000 NJ (A,R)	4,600 J (A,R)
Aroclor 1260	ug/kg	190 (R)	120 (R)	61 (R)		640 (A,R)	110 (R)	440 (A,R)		530 (A,R)	3,000 J (A,R)	1,100 J (A,R)	3,100 J (A,R)	590 (A,R)	3,000 J (A,R)	4,300 J (A,R)	4,900 J (A,R)
Total PCBs	ug/kg	560 (A,R)	500 (A,R)	351 (A,R)	110 (R)	2,360 (A,R)	230 (A,R)	930 (A,R)	380 (A,R)		9,100 (A,R)		7,800 (A,R)	1,070 (A,R)	3,000 (A,R)	10,200 (A,R)	14,800 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B	GC-SD37B	GC-SD38A	GC-SD116	GC-SD116	GC-SD116
	Sample Number:	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD037B-00.0-00.5	GC-SD037B-01.4-01.9	GC-SD037B-02.5-04.2	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0
	Sample Depth:	2-4	4-6	6-8	0-2	0-2	2-4	4-6	4-6	6-8	0-0.5	1.4-1.9	2.5-4.2	2.6-4.4	0-2	2-4	4-6
	Sample Date:	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010
	Sample Type:	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	5,600 J (A,R)	2,800 J (A,R)	700 J (A,R)	180 (R)	1,400 J (A,R)	2,300 J (A,R)	1,700 J (A,R)	1,200 J (A,R)	110 J (R)	250 (A,R)	260 (A,R)	2,900 J (A,R)		2,100 J (A,R)	5,000 J (A,R)	3,000 NJ (A,R)
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	4,800 J (A,R)	3,100 J (A,R)	1,700 J (A,R)		1,400 NJ (A,R)	2,300 NJ (A,R)	2,000 NJ (A,R)	1,300 NJ (A,R)						2,800 NJ (A,R)	6,500 NJ (A,R)	3,600 NJ (A,R)
Aroclor 1260	ug/kg	4,800 J (A,R)	3,300 J (A,R)	1,200 J (A,R)	220 (R)	2,300 J (A,R)	4,200 J (A,R)	3,300 J (A,R)	2,200 J (A,R)	110 (R)	380 (A,R)	450 (A,R)	6,000 J (A,R)	210 J (R)	4,800 J (A,R)	11,000 J (A,R)	7,900 J (A,R)
Total PCBs	ug/kg	15,200 (A,R)	9,200 (A,R)	3,600 (A,R)		5,100 (A,R)	8,800 (A,R)	7,000 (A,R)	4,700 (A,R)		630 (A,R)	710 (A,R)	8,900 (A,R)	210 (R)	9,700 (A,R)	22,500 (A,R)	14,500 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD131	GC-SD132	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119
	Sample Number:	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD119-12.0-13.0
	Sample Depth:	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	0-1.3	0-2	0-1.2	4.5-6	6-8	6-8	8-10	10-12	12-13
	Sample Date:	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/18/2010	3/22/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010
	Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	5,300 J (A,R)	11,000 J (A,R)	33,000 J (A,R)	14,000 J (A,R)	1,900 J (A,R)	310 J (A,R)	1,000 J (A,R)	290 (A,R)	2,100 J (A,R)	18,000 J (A,R)	510 (A,R)	580 J (A,R)	760 J (A,R)	700 J (A,R)	99 (R)	38 J (R)
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	4,500 J (A,R)	6,600 J (A,R)	8,800 J (A,R)	3,300 J (A,R)	1,100 J (A,R)	260 NJ (A,R)	860 J (A,R)	220 NJ (A,R)	1,800 J (A,R)	4,700 J (A,R)	240 J (A,R)	390 NJ (A,R)	540 J (A,R)	380 NJ (A,R)		
Aroclor 1260	ug/kg	6,200 J (A,R)	6,200 J (A,R)	8,900 J (A,R)	3,600 (A,R)		350 J (A,R)	950 J (A,R)	240 (A,R)	2,200 J (A,R)		130 (R)	220 J (R)		170 J (R)		
Total PCBs	ug/kg	16,000 (A,R)	23,800 (A,R)	50,700 (A,R)	20,900 (A,R)	3,000 (A,R)	920 (A,R)	2,810 (A,R)	750 (A,R)	6,100 (A,R)	22,700 (A,R)	880 (A,R)	1,190 (A,R)	1,300 (A,R)	1,250 (A,R)	99 (R)	38 (R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133	GC-SD134	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122
Sample Number:	GC-SD149-00.0-02.0	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD134-04.0-04.4	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7
Sample Depth:	0-2	0-1.3	0-2	2-4	4-6	6-7.8	0-2	2-4	4-4.4	0-2	2-4	2-4	4-6	6-8	8-10	0-0.7
Sample Date:	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**														
Aroclor 1016	ug/kg															
Aroclor 1242	ug/kg	270 (A,R)	98 (R)	730 NJ (A,R)	1,700 J (A,R)	870 J (A,R)	210 J (R)									
Aroclor 1248	ug/kg							3,600 J (A,R)	2,100 J (A,R)		1,000 NJ (A,R)	2,000 J (A,R)	1,900 J (A,R)	2,700 J (A,R)	16,000 J (A,R)	15,000 J (A,R)	4,300 J (A,R)
Aroclor 1254	ug/kg	290 J (A,R)		540 NJ (A,R)				2,400 J (A,R)	1,900 NJ (A,R)	330 NJ (A,R)	1,100 J (A,R)	1,500 J (A,R)	1,400 J (A,R)	1,900 J (A,R)	7,300 J (A,R)	7,600 J (A,R)	2,800 J (A,R)
Aroclor 1260	ug/kg	110 (R)	41 NJ (R)		1,600 J (A,R)	670 J (A,R)	370 J (A,R)	700 J (A,R)	490 J (A,R)	97 (R)	570 J (A,R)	840 J (A,R)	770 J (A,R)	870 J (A,R)	3,800 J (A,R)	2,300 J (A,R)	870 J (A,R)
Total PCBs	ug/kg	670 (A,R)		1,270 (A,R)	3,300 (A,R)	1,540 (A,R)	580 (A,R)	6,700 (A,R)	4,490 (A,R)	427 (A,R)	2,670 (A,R)	4,340 (A,R)	4,070 (A,R)	5,470 (A,R)	27,100 (A,R)	24,900 (A,R)	7,970 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139
	Sample Number:	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-12.0-12.8
	Sample Depth:	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2	2-4	4-6	6-6.8	0-2	2-4	4-6	6-8	8-10	12-12.8
	Sample Date:	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	360 J (A,R)	91 NJ (R)		450 (A,R)	1,500 J (A,R)	960 J (A,R)						950 J (A,R)		920 J (A,R)	220 J (R)	
Aroclor 1248	ug/kg							150 J (R)	430 J (A,R)	3,800 J (A,R)	1,400 J (A,R)			2,300 J (A,R)			
Aroclor 1254	ug/kg		110 (R)	100 NJ (R)	250 J (A,R)	460 (A,R)	930 J (A,R)	140 (A,R)	350 J (A,R)	1,300 J (A,R)	1,200 J (A,R)						
Aroclor 1260	ug/kg				160 (R)	350 (A,R)	280 J (A,R)				850 J (A,R)	56 (R)	230 (A,R)		410 J (A,R)		56 NJ (R)
Total PCBs	ug/kg		201 (R)	100 (R)	860 (A,R)	2,310 (A,R)	2,170 (A,R)	290 (A,R)	780 (A,R)	5,100 (A,R)	3,450 (A,R)	56 (R)	1,180 (A,R)	2,300 (A,R)	1,330 (A,R)		56 (R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1
Sample Number:	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E
Sample Depth:	0-2	2-4	4-6	0-2	2-4	4-5.7	0-2	2-3.8	0-2	2-2.9	0-2	2-3.3	0.5-1	1-2	2-3	3-4
Sample Date:	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**															
Aroclor 1016 ug/kg													2,300 NJ (A,R)	1,300 NJ (A,R)	890 J (A,R)	2,500 J (A,R)
Aroclor 1242 ug/kg	180 (R)			350 (A,R)	1,100 J (A,R)	570 (A,R)			1,100 J (A,R)		90 J (R)					
Aroclor 1248 ug/kg		1,100 J (A,R)	4,300 J (A,R)				650 J (A,R)	1,100 J (A,R)		560 J (A,R)						
Aroclor 1254 ug/kg					730 J (A,R)								740 J (A,R)	1,200 NJ (A,R)	1,200 NJ (A,R)	2,400 J (A,R)
Aroclor 1260 ug/kg	74 J (R)	370 (A,R)		190 (R)		240 J (A,R)	280 (A,R)	230 J (A,R)	310 (A,R)	210 (R)		100 J (R)	1,100 J (A,R)	1,800 J (A,R)	1,200 J (A,R)	2,000 J (A,R)
Total PCBs ug/kg	254 (A,R)	1,470 (A,R)	4,300 (A,R)	540 (A,R)	1,830 (A,R)	810 (A,R)	930 (A,R)	1,330 (A,R)	1,410 (A,R)	770 (A,R)	90 (R)	100 (R)	4,140 (A,R)	4,300 (A,R)	3,290 (A,R)	6,900 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3
Sample Number:		ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H
Sample Depth:		4-5.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-6.8	0-0.5	0.5-1	1-2	3-4	4-5	5-6	6-7
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg	2,100 J (A,R)	560 J (A,R)	210 J (R)	84 J (R)	240 J (R)	290 J (R)	1,200 J (A,R)			2,100 J (A,R)	1,000 NJ (A,R)		1,600 J (A,R)	1,700 NJ (A,R)	1,200 NJ (A,R)	3,700 J (A,R)
Aroclor 1242	ug/kg																
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	2,900 J (A,R)			110 J (R)	490 NJ (A,R)	610 NJ (A,R)	1,600 NJ (A,R)	850 J (A,R)	430 NJ (A,R)	2,400 J (A,R)	870 NJ (A,R)	2,200 NJ (A,R)	1,500 J (A,R)	2,600 J (A,R)	1,700 J (A,R)	2,900 J (A,R)
Aroclor 1260	ug/kg	3,400 J (A,R)		300 NJ (A,R)		390 J (A,R)	550 J (A,R)	1,900 J (A,R)	1,400 J (A,R)	650 NJ (A,R)	1,900 J (A,R)		6,900 J (A,R)	910 J (A,R)	1,800 J (A,R)	1,400 J (A,R)	2,800 J (A,R)
Total PCBs	ug/kg	8,400 (A,R)			194 (R)	1,120 (A,R)	1,450 (A,R)	4,700 (A,R)	2,250 (A,R)	1,080 (A,R)	6,400 (A,R)	1,870 (A,R)	9,100 (A,R)	4,010 (A,R)	6,100 (A,R)	4,300 (A,R)	9,400 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2
Sample Number:		ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F	FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03
Sample Depth:		0-0.5	0.5-1	1-2	2-3	3-4	4-5	4-5	5-6	6-7	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg				1,400 J (A,R)	1,500 NJ (A,R)	1,800 NJ (A,R)	1,500 J (A,R)	680 NJ (A,R)	2,100 J (A,R)			830 J (A,R)	1,200 J (A,R)	1,600 J (A,R)	2,200 J (A,R)	1,800 J (A,R)
Aroclor 1242	ug/kg																
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	130 J (A,R)				1,300 NJ (A,R)	1,700 J (A,R)	1,200 J (A,R)	1,100 J (A,R)	1,100 J (A,R)			660 J (A,R)	1,100 NJ (A,R)	1,500 J (A,R)	2,300 J (A,R)	1,600 J (A,R)
Aroclor 1260	ug/kg	200 J (R)	210 J (R)	500 NJ (A,R)	710 NJ (A,R)	1,300 J (A,R)	1,200 J (A,R)	1,200 NJ (A,R)	950 J (A,R)	950 J (A,R)	220 J (R)	350 J (A,R)	620 J (A,R)	1,100 J (A,R)	1,500 J (A,R)	1,700 NJ (A,R)	2,100 J (A,R)
Total PCBs	ug/kg	330 (A,R)	210 (R)	500 (A,R)	2,110 (A,R)	4,100 (A,R)	4,700 (A,R)	3,900 (A,R)	2,730 (A,R)	4,150 (A,R)	220 (R)	350 (A,R)	2,110 (A,R)	3,400 (A,R)	4,600 (A,R)	6,200 (A,R)	5,500 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2
	Sample Number:	ERT2-2-H	ERT2-2-I	ERT2-3-D	ERT2-3-E	ERT2-3-F	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A
	Sample Depth:	6-7	7-8	2-3	3-4	4-5	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5
	Sample Date:	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg	730 NJ (A,R)		850 NJ (A,R)		1,200 J (A,R)	2,500 J (A,R)	580 J (A,R)	1,000 J (A,R)	710 NJ (A,R)	730 J (A,R)	340 NJ (R)	250 J (R)	1,800 J (A,R)	1,600 J (A,R)	900 J (A,R)	
Aroclor 1242	ug/kg																
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	790 NJ (A,R)		940 J (A,R)	400 NJ (A,R)	400 NJ (A,R)	3,000 J (A,R)	990 J (A,R)						2,000 J (A,R)	2,500 J (A,R)	2,200 J (A,R)	
Aroclor 1260	ug/kg	910 J (A,R)	360 NJ (A,R)	680 J (A,R)	340 J (A,R)		3,000 J (A,R)	1,700 J (A,R)	790 J (A,R)	650 J (A,R)	660 J (A,R)	340 J (A,R)	260 J (A,R)	1,400 J (A,R)	2,500 J (A,R)	2,800 J (A,R)	400 J (A,R)
Total PCBs	ug/kg	2,430 (A,R)	360 (A,R)	2,470 (A,R)	740 (A,R)	1,600 (A,R)	8,500 (A,R)	3,270 (A,R)						5,200 (A,R)	6,600 (A,R)	5,900 (A,R)	400 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3
Sample Number:		ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I
Sample Depth:		1-2	2-3	3-4	4-5	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg	820 NJ (A,R)	1,500 J (A,R)	1,400 NJ (A,R)	1,500 J (A,R)	2,100 J (A,R)	1,800 J (A,R)			200 J (R)	1,100 J (A,R)	1,600 J (A,R)	1,800 J (A,R)	1,500 J (A,R)	1,800 J (A,R)	1,300 J (A,R)	1,200 J (A,R)
Aroclor 1242	ug/kg																
Aroclor 1248	ug/kg																
Aroclor 1254	ug/kg	550 NJ (A,R)	950 NJ (A,R)	670 NJ (A,R)			1,700 J (A,R)	130 J (A,R)	140 J (A,R)	210 J (A,R)	830 NJ (A,R)	1,800 NJ (A,R)	2,100 NJ (A,R)	1,400 NJ (A,R)	980 NJ (A,R)	1,100 NJ (A,R)	1,100 J (A,R)
Aroclor 1260	ug/kg	580 J (A,R)	850 NJ (A,R)	770 J (A,R)	1,400 J (A,R)	1,600 J (A,R)	1,500 J (A,R)			190 J (R)	1,200 J (A,R)	2,800 J (A,R)	2,800 J (A,R)	1,700 J (A,R)	1,000 J (A,R)	1,200 J (A,R)	870 J (A,R)
Total PCBs	ug/kg	1,950 (A,R)	3,300 (A,R)	2,840 (A,R)			5,000 (A,R)	130 (R)	140 (R)	600 (A,R)	3,130 (A,R)	6,200 (A,R)	6,700 (A,R)	4,600 (A,R)	3,780 (A,R)	3,600 (A,R)	3,170 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05
	Sample Number:	ERT4-3-A	ERT4-3-C	ERT4-3-D	ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)
	Sample Depth:	0-0.5	1-2	2-3	3-4	4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2
	Sample Date:	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg		250 J (R)	1,000 J (A,R)	1,200 J (A,R)	1,100 J (A,R)	1,300 J (A,R)	1,400 J (A,R)									
Aroclor 1242	ug/kg																
Aroclor 1248	ug/kg								60 J (R)	680 (A,R)	30 (R)	200 (R)	130 (R)	740 J (A,R)	240 J (A,R)	560 J (A,R)	180 (R)
Aroclor 1254	ug/kg	190 J (A,R)		850 NJ (A,R)	1,100 NJ (A,R)	960 NJ (A,R)	1,100 NJ (A,R)	1,200 NJ (A,R)	110 (R)	690 J (A,R)	50 J (R)	450 (A,R)	80 (R)	770 J (A,R)	850 J (A,R)	460 J (A,R)	270 J (A,R)
Aroclor 1260	ug/kg		290 J (A,R)	1,200 J (A,R)	1,800 J (A,R)	1,400 J (A,R)	1,400 J (A,R)	1,400 J (A,R)	70 (R)	420 (A,R)	30 (R)	190 (R)	40 (R)	430 (A,R)	210 J (R)	170 J (R)	80 J (R)
Total PCBs	ug/kg	190 (R)	540 (A,R)	3,050 (A,R)	4,100 (A,R)	3,460 (A,R)	3,800 (A,R)	4,000 (A,R)	240 (A,R)	1,790 (A,R)	120 (R)	840 (A,R)	250 (A,R)	1,940 (A,R)	1,300 (A,R)	1,190 (A,R)	530 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10	GC-SED-100	GC-SED-101	GC-SED-102	GC-SED-103	GC-SED-103	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B
Sample Number:	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)	GC-SED-100(5-6)	GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)
Sample Depth:	0-2.5	7.5-8.5	1-2	6-7	0-1.5	5-6	4-7	2-4	1-2	8.1-9.1	2.5-4	1-3	11-13	0-2	13-14	0-2
Sample Date:	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**															
Aroclor 1016 ug/kg																
Aroclor 1242 ug/kg	680 J (A,R)		510 (A,R)		140 J (R)							80 J (R)	450 (A,R)	130 J (R)		100 J (R)
Aroclor 1248 ug/kg		280 (A,R)		1,600 (A,R)		450 (A,R)	2,100 J (A,R)		210 (R)	500 (A,R)						
Aroclor 1254 ug/kg	1,700 (A,R)	300 J (A,R)	830 J (A,R)	2,500 J (A,R)	290 J (A,R)	660 J (A,R)	2,200 J (A,R)	580 J (A,R)	190 J (A,R)	910 J (A,R)	870 (A,R)	150 J (A,R)	610 J (A,R)	340 J (A,R)	50 J (R)	220 J (A,R)
Aroclor 1260 ug/kg	640 (A,R)	560 (A,R)	600 (A,R)	1,600 (A,R)	210 J (R)	980 (A,R)	3,500 (A,R)	700 J (A,R)	390 (A,R)	1,700 (A,R)	190 J (R)	130 J (R)	720 (A,R)	300 (A,R)	30 J (R)	160 (R)
Total PCBs ug/kg	3,020 (A,R)	1,140 (A,R)	1,940 (A,R)	5,700 (A,R)	640 (A,R)	2,090 (A,R)	7,800 (A,R)	1,280 (A,R)	790 (A,R)	3,110 (A,R)	1,060 (A,R)	360 (A,R)	1,780 (A,R)	770 (A,R)	80 (R)	480 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B
	Sample Number:	GC-SED-14(0-1.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)
	Sample Depth:	0-1.5	0-0.75	0-2	0-2	0-1	1.5-2	5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8	0-2	3-5	1-4
	Sample Date:	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	250 (A,R)	120 J (R)	80 J (R)	80 J (R)	70 J (R)	900 J (A,R)	2,200 J (A,R)			1,300 J (A,R)	920 J (A,R)	140 J (R)	2,000 (A,R)			
Aroclor 1248	ug/kg									5,000 J (A,R)					480 J (A,R)	1,100 (A,R)	1,000 J (A,R)
Aroclor 1254	ug/kg	260 J (A,R)	170 J (A,R)	170 J (A,R)	130 (A,R)	50 J (R)	1,000 J (A,R)		350 J (A,R)	3,800 J (A,R)	2,200 J (A,R)		380 J (A,R)	2,700 J (A,R)	220 J (A,R)	1,100 J (A,R)	950 (A,R)
Aroclor 1260	ug/kg	150 (R)	140 (R)	140 J (R)	110 (R)	40 J (R)	1,400 J (A,R)	2,900 J (A,R)	620 (A,R)	5,700 J (A,R)	1,900 J (A,R)	1,100 J (A,R)	690 (A,R)	3,100 (A,R)	360 (A,R)	1,600 (A,R)	1,600 (A,R)
Total PCBs	ug/kg	660 (A,R)	430 (A,R)	390 (A,R)	320 (A,R)	160 (R)	3,300 (A,R)	5,100 (A,R)	970 (A,R)	14,500 (A,R)	5,400 (A,R)	2,020 (A,R)	1,210 (A,R)	7,800 (A,R)	1,060 (A,R)	3,800 (A,R)	3,550 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B	GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36
	Sample Number:	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)	GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)
	Sample Depth:	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5	0.5-1.5	5.9-6.9	1.5-3	2-3	5.8-6.8	0-4.5	8.8-10.8	2.5-4.5
	Sample Date:	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006	1/13/2006	1/13/2006	1/13/2006	1/16/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	360 J (A,R)	290 J (A,R)	760 J (A,R)	400 J (A,R)		310 J (A,R)	810 (A,R)	470 J (A,R)	100 J (R)	130 J (R)	400 (A,R)			570 J (A,R)		690 (A,R)
Aroclor 1248	ug/kg												2,600 (A,R)	6,500 (A,R)			
Aroclor 1254	ug/kg	600 J (A,R)	200 J (A,R)	1,400 (A,R)	820 J (A,R)	70 J (R)	640 J (A,R)	600 J (A,R)	530 J (A,R)	420 J (A,R)		490 J (A,R)	5,700 J (A,R)	8,300 J (A,R)	700 J (A,R)		940 (A,R)
Aroclor 1260	ug/kg	530 (A,R)	260 (A,R)	380 J (A,R)	800 (A,R)	60 J (R)	490 (A,R)	760 J (A,R)	650 (A,R)	580 J (A,R)	460 (A,R)	1,100 (A,R)	17,000 (A,R)	28,000 (A,R)	660 J (A,R)	150 (R)	1,100 (A,R)
Total PCBs	ug/kg	1,490 (A,R)	750 (A,R)	2,540 (A,R)	2,020 (A,R)	140 (R)	1,440 (A,R)	2,170 (A,R)	1,650 (A,R)	1,100 (A,R)	590 (A,R)	1,990 (A,R)	25,300 (A,R)	42,800 (A,R)	1,930 (A,R)	150 (R)	2,730 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43	GC-SED-43	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-50B	GC-SED-51
	Sample Number:	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)	GC-SED-43(7.3-8.3)	GC-SED-44(0.5-2.5)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-50(2-5)	GC-SED-51(0-1.5)
	Sample Depth:	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3	7.3-8.3	0.5-2.5	1-1.5	1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	2-5	0-1.5
	Sample Date:	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg			6,200 (A,R)	14,000 (A,R)	10 J	30 (R)	10 J		950 J (A,R)		3,000 J (A,R)		2,400 (A,R)	1,200 (A,R)		390 (A,R)
Aroclor 1248	ug/kg		4,600 J (A,R)														
Aroclor 1254	ug/kg	4,500 (A,R)	5,300 J (A,R)	940 J (A,R)			5.9 J	20 J		1,300 (A,R)		5,100 (A,R)		4,600 (A,R)	3,800 J (A,R)		1,200 (A,R)
Aroclor 1260	ug/kg	3,600 (A,R)	24,000 (A,R)	2,100 (A,R)	1,400 (A,R)	40 (R)	10 J	20 J	650 (A,R)	2,200 (A,R)	440 J (A,R)	6,300 (A,R)	280 J (A,R)	6,500 (A,R)	4,700 (A,R)	200 (R)	870 (A,R)
Total PCBs	ug/kg	8,100 (A,R)	33,900 (A,R)	9,240 (A,R)	15,400 (A,R)	50 (R)	50 (R)	50 (R)	650 (A,R)	4,450 (A,R)	440 (A,R)	14,400 (A,R)	280 (A,R)	13,500 (A,R)	9,700 (A,R)	200 (R)	2,460 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-53	GC-SED-54B	GC-SED-54B	GC-SED-55	GC-SED-55	GC-SED-57	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68
	Sample Number:	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)	GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)
	Sample Depth:	0.5-1.5	0-2	4.5-5.7	1.5-2.5	10-11	7-9	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0-1	7-8	0-1	2.2-3.1
	Sample Date:	1/20/2006	1/20/2006	1/20/2006	1/24/2006	1/24/2006	1/26/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	650 (A,R)	230 (A,R)	320 J (A,R)	190 J (R)	360 J (A,R)		1,900 (A,R)	1,500 (A,R)	260 (A,R)	140 J (R)	1,700 (A,R)		200 J (R)			
Aroclor 1248	ug/kg						650 (A,R)									2,700 J (A,R)	
Aroclor 1254	ug/kg	2,200 J (A,R)	930 (A,R)	1,400 (A,R)	470 J (A,R)	990 J (A,R)	270 J (A,R)	1,500 (A,R)	2,000 (A,R)	760 J (A,R)	930 J (A,R)	2,700 (A,R)	380 J (A,R)	470 (A,R)	500 J (A,R)	2,900 (A,R)	940 J (A,R)
Aroclor 1260	ug/kg	1,300 J (A,R)	650 J (A,R)	670 J (A,R)	390 (A,R)	590 J (A,R)	510 (A,R)	1,400 (A,R)	790 J (A,R)	570 J (A,R)	290 J (A,R)	1,100 (A,R)	260 J (A,R)	110 (R)	400 (A,R)	1,000 (A,R)	1,300 (A,R)
Total PCBs	ug/kg	4,150 (A,R)	1,810 (A,R)	2,390 (A,R)	1,050 (A,R)	1,940 (A,R)	1,430 (A,R)	4,800 (A,R)	4,290 (A,R)	1,590 (A,R)	1,360 (A,R)	5,500 (A,R)	640 (A,R)	780 (A,R)	900 (A,R)	6,600 (A,R)	2,240 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-69C	GC-SED-71C	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-82	GC-SED-83
	Sample Number:	GC-SED-69(0-1)	GC-SED-71C(1.5-2.5)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-82(0-2)	GC-SED-83(0-2)
	Sample Depth:	0-1	1.5-2.5	5.5-7	1-2.5	5.3-6.3	0-0.7	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	0-2	0-2
	Sample Date:	12/18/2005	1/29/2006	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	1/30/2006	1/30/2006
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg		70 J (R)		40 J (R)	5,400 (A,R)	250 J (A,R)	340 (A,R)	230 J (A,R)	60 J (R)			320 (A,R)	12,000 (A,R)		130 J (R)	1,000 (A,R)
Aroclor 1248	ug/kg	610 J (A,R)		4,900 (A,R)							190 J (R)	340 J (A,R)			100 J (R)		
Aroclor 1254	ug/kg		80 J (R)	2,700 J (A,R)	80 J (R)	2,300 J (A,R)	370 J (A,R)	690 (A,R)	470 J (A,R)	230 J (A,R)	250 J (A,R)	340 J (A,R)	480 (A,R)	9,200 (A,R)		280 J (A,R)	1,200 J (A,R)
Aroclor 1260	ug/kg	2,300 (A,R)	40 J (R)	1,700 (A,R)	80 J (R)	450 (A,R)	360 (A,R)	440 (A,R)	320 J (A,R)	110 J (R)	160 (R)	200 (R)	220 (R)	2,700 (A,R)	110 J (R)	130 J (R)	620 (A,R)
Total PCBs	ug/kg	2,910 (A,R)	200 (R)	9,300 (A,R)	220 (R)	8,150 (A,R)	980 (A,R)	1,470 (A,R)	1,020 (A,R)	400 (A,R)	600 (A,R)	880 (A,R)	1,020 (A,R)	23,900 (A,R)	210 (R)	540 (A,R)	2,820 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86	GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97
Sample Number:	GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)	GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)
Sample Depth:	11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2
Sample Date:	1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**														
Aroclor 1016	ug/kg															
Aroclor 1242	ug/kg	3,500 (A,R)	380 (A,R)	640 (A,R)	3,600 (A,R)					390 J (A,R)	910 J (A,R)	3,900 J (A,R)	1,600 (A,R)		230 (A,R)	
Aroclor 1248	ug/kg					1,700 (A,R)	2,900 (A,R)	3,300 J (A,R)	2,700 J (A,R)	2,400 J (A,R)				400 J (A,R)		940 J (A,R)
Aroclor 1254	ug/kg	3,000 J (A,R)	330 J (A,R)	830 J (A,R)	7,700 J (A,R)					540 J (A,R)	890 J (A,R)	1,500 J (A,R)	1,500 J (A,R)		270 J (A,R)	1,400 J (A,R)
Aroclor 1260	ug/kg	800 (A,R)	330 J (A,R)	810 (A,R)	5,300 (A,R)	2,100 (A,R)	2,500 (A,R)	5,300 (A,R)	3,700 (A,R)	7,500 (A,R)	570 J (A,R)	1,100 J (A,R)	1,200 J (A,R)	890 (A,R)	510 J (A,R)	270 (A,R)	1,300 (A,R)
Total PCBs	ug/kg	7,300 (A,R)	1,040 (A,R)	2,280 (A,R)	16,600 (A,R)	3,800 (A,R)	5,400 (A,R)	8,600 (A,R)	6,400 (A,R)	9,900 (A,R)	1,500 (A,R)	2,900 (A,R)	6,600 (A,R)	3,990 (A,R)	910 (A,R)	770 (A,R)	3,640 (A,R)

TABLE I-11B
PCB Aroclor Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SED-97	GC-SED-98	GC-SED-98	GC-SED-99B	GC-SED-99B
	Sample Number:	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
	Sample Depth:	8.5-9	1-2	8.5-9.5	3.5-4.5	7.2-8.7
	Sample Date:	1/28/2006	1/27/2006	1/27/2006	12/22/2005	12/22/2005
	Sample Type:	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**				
Aroclor 1016	ug/kg					
Aroclor 1242	ug/kg					
Aroclor 1248	ug/kg		530 (A,R)		1,800 (A,R)	
Aroclor 1254	ug/kg	240 J (A,R)	240 J (A,R)		7,200 (A,R)	1,100 J (A,R)
Aroclor 1260	ug/kg	280 J (A,R)	690 (A,R)	1,100 J (A,R)	2,600 (A,R)	930 (A,R)
Total PCBs	ug/kg	520 (A,R)	1,460 (A,R)	1,100 (A,R)	11,600 (A,R)	2,030 (A,R)

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TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0	D-03042010-01	GC-SD126-04.0-06.0
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4	2-4	4-6
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N
Parameter	**Units**																		
									Metals										
Aluminum	mg/kg	**6,730**	**3,010**	**4,660**	**5,780**	**7,700 J**	**5,780 J**	**7,140**	**4,470**	**2,590**	**5,280**	**5,700**	**5,340 J**	**3,230**	**4,000**	**12,700 J**	**8,630 J**	**8,680 J**	**8,270**
Antimony	mg/kg	10.7 UJ	**18 J**	**37.2 J**	7.9 UJ	**1.2 J**	**2.7 J**	**23 J**	**14.1 J**	8.1 UJ	11.1 UJ	67.6 R	**42.4 J**	**17.7 J**	**11.6 J**	12.4 UJ	**2.8 J**	**2 J**	**3.3 J**
Arsenic	mg/kg	**3.5**	**2.9**	**12**	**5**	**4.3 J**	**4.9 J**	**23.9**	**17.2**	**1.7**	**7**	**10.7**	**22.2 J**	**11.4**	**14.3**	**8 J**	**11.9 J**	**13.2 J**	**22.7**
Barium	mg/kg	**232**	**327**	**1,150**	**201**	**67 J**	**118 J**	**978**	**936**	**331**	**664**	**1,210**	**1,050 J**	**862**	**1,530**	**113 J**	**436 J**	**408 J**	**436**
Beryllium	mg/kg	0.89 U	0.67 U	0.83 U	0.66 U	1.3 UJ	1.1 UJ	0.91 U	0.92 U	0.64 U	0.92 U	0.99 U	1.4 UJ	0.81 U	0.95 U	1 UJ	1.1 UJ	**0.36 J**	0.86 U
Cadmium	mg/kg	**1.9**	**2.4**	**9.7**	**1.9**	1.3 UJ	**1.1 J**	**11.8**	**6.3**	**0.47 J**	**7.2**	**12.3**	**17.7 J**	**6.2**	**10.3**	**2.1 J**	**5 J**	**5.3 J**	**5.1**
Calcium	mg/kg	**8,050**	**6,750**	**7,320**	**1,590**	**164,000 J**	**132,000 J**	**10,200**	**8,420**	**5,700**	**13,500**	**7,590**	**10,800 J**	**7,930**	**8,070**	**10,000 J**	**12,100 J**	**12,300 J**	**9,100**
Chromium	mg/kg	**75.5**	**42.5**	**170**	**53.3**	**30.7 J**	**42.1 J**	**162**	**73.1**	**13.5**	**97.1**	**168**	**197 J**	**69.8**	**148**	**76.4 J**	**58.6 J**	**65.6 J**	**64.2**
Cobalt	mg/kg	8.9 U	6.7 U	8.3 U	**7.5**	12.8 UJ	10.5 UJ	**9.7**	9.2 U	6.4 U	9.2 U	9.9 U	14 UJ	8.1 U	9.5 U	**9.5 J**	**8.2 J**	**8.2 J**	**9.1**
Copper	mg/kg	**200**	**203**	**666**	**128**	**56.4 J**	**102 J**	**874**	**388**	**68.8**	**353**	**713**	**989 J**	**377**	**741**	**182 J**	**456 J**	**471 J**	**306**
Iron	mg/kg	**17,200**	**10,300**	**23,100**	**10,200**	**17,000 J**	**13,800 J**	**39,300**	**25,600**	**8,310**	**19,400**	**20,300**	**30,900 J**	**18,700**	**22,900**	**27,400 J**	**27,100 J**	**26,100 J**	**33,200**
Lead	mg/kg	**505**	**1,080**	**2,240**	**395**	**63.6 J**	**214 J**	**2,190**	**1,240**	**212**	**1,210**	**1,790**	**2,780 J**	**2,080**	**1,540**	**265 J**	**716 J**	**685 J**	**803**
Magnesium	mg/kg	**5,700**	**3,120**	**4,140**	**2,430**	**4,310 J**	**3,690 J**	**5,240**	**3,960**	**2,650**	**5,200**	**4,510**	**5,210 J**	**3,440**	**3,780**	**7,490 J**	**6,710 J**	**7,210 J**	**4,390**
Manganese	mg/kg	**94.6**	**58.4**	**93.2**	**61**	**360 J**	**239 J**	**200 J**	**109 J**	**62.8**	**114**	**93.9**	**110 J**	**88**	**95.5**	**285 J**	**203 J**	**187 J**	**238**
Mercury	mg/kg	**2.2**	**0.84**	**2.1**	**1**	**0.45 J**	**0.63 J**	**1.4**	**3.9**	**0.29**	**7.2**	**4.3**	**3.6 J**	**1.5**	**4.5**	**1.5 J**	**3.3 J**	**4 J**	**2.1**
Nickel	mg/kg	**35.2**	**35.3**	**90.7**	**37.4**	**17.1 J**	**21 J**	**121**	**34.6**	**13.6**	**87.1**	**101**	**139 J**	**47.8**	**82.3**	**40.4 J**	**49.7 J**	**51.2 J**	**49.6**
Potassium	mg/kg	**1,500**	**632 J**	**782 J**	**929**	**1,820 J**	**1,400 J**	**1,080**	**1,230**	**547 J**	**919 J**	**982 J**	**919 J**	**589 J**	**706 J**	**3,170 J**	**1,830 J**	**1,860 J**	**1,540**
Selenium	mg/kg	6.2 U	4.7 U	**1.2 J**	4.6 U	8.9 UJ	7.4 UJ	**1 J**	**1.4 J**	4.5 U	6.5 U	6.9 U	**2.9 J**	**0.87 J**	6.6 U	7.2 UJ	**1.9 J**	8.1 UJ	**2.7 J**
Silver	mg/kg	**7.8 J**	**6.7 J**	**23.3 J**	**5.2 J**	1,277 UJ	**2.5 J**	**21.4**	**8.2**	**0.82 J**	**33.7 J**	**27.3 J**	**35.9 J**	**22.1 J**	**25.3 J**	**6.1 J**	**7.7 J**	**8.8 J**	**5.7**
Sodium	mg/kg	**6,770**	**2,770**	**1,900**	658 U	**2,690 J**	**2,410 J**	**5,780**	**5,990**	**1,620**	**2,520**	**1,480**	**1,430 J**	814 U	946 U	**9,290 J**	**8,440 J**	**9,700 J**	**2,160**
Thallium	mg/kg	4.5 U	3.4 U	4.2 U	3.3 U	**3.5 J**	**2 J**	**3.2 J**	**2 J**	3.2 U	4.6 U	4.9 U	7 UJ	4.1 U	4.7 U	5.2 UJ	5.4 UJ	5.8 UJ	4.3 U
Vanadium	mg/kg	**32.7**	**21.4**	**74.5**	**23.5**	**21.8 J**	**24.5 J**	**64.7**	**34.9**	**10.3**	**37.7**	**91**	**118 J**	**25.9**	**41.9**	**41.5 J**	**47.2 J**	**47.5 J**	**61**
Zinc	mg/kg	**489**	**436**	**1,420**	**365**	**130 J**	**214 J**	**1,550**	**1,690**	**356**	**984**	**1,480**	**2,270 J**	**1,260**	**1,820**	**372 J**	**927 J**	**891 J**	**631**
Cyanide, Total	mg/kg	**0.41 J**	**0.25 J**	**0.77 J**	3.4 U	6.3 UJ	5.4 UJ	4.7 U	4.6 U	3.2 U	4.4 U	4.9 U	6.9 UJ	4 U	4.6 U	5.3 UJ	5.4 UJ	5.7 UJ	4.2 U

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD146	GC-SD146
Sample Number:		GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2	GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0
Sample Depth:		6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8	0-2	2-4	0-2	2-3.2	0-2	2-3.5	0-2	2-4
Sample Date:		3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**5,210**	**3,270**	**8,340 J**	**6,120**	**4,590**	**13,700 J**	**6,930**	**9,040 J**	**8,960 J**	**2,770**	**16,400 J**	**13,700 J**	**13,600 J**	**6,370**	**9,180 J**	**4,520**	**15,000 J**	**12,800 J**
Antimony	mg/kg	**3.4 J**	6.1 UJ	14.2 UJ	11.8 U	**12.5**	15 UJ	**2.9 J**	**4.9 J**	**4.6 J**	**3.4 J**	17.9 UJ	**0.75 J**	15 UJ	10.4 U	13.3 UJ	10.3 U	**2.4 J**	**3.7 J**
Arsenic	mg/kg	**7**	**3.3**	**13.5 J**	**18.4**	**23.9**	**8.3 J**	**9**	**14.4 J**	**14.4 J**	**6.6**	**8 J**	**9.1 J**	**9 J**	**8.1**	**11.7 J**	**20**	**9.5 J**	**16.9 J**
Barium	mg/kg	**1,130**	**202**	**1,690 J**	**1,230**	**1,860**	**189 J**	**633**	**1,410 J**	**1,460 J**	**348**	**108 J**	**229 J**	**135 J**	**380**	**338 J**	**1,740**	**136 J**	**403 J**
Beryllium	mg/kg	0.85 U	0.51 U	1.2 UJ	0.99 U	0.89 U	1.3 UJ	0.92 U	1 UJ	1.1 UJ	**0.22 J**	**0.61 J**	**0.64 J**	1.3 UJ	0.87 U	1.1 UJ	0.86 U	**0.78 J**	**0.83 J**
Cadmium	mg/kg	**8.7**	**3.1**	**21.3 J**	**13**	**5.9**	**4 J**	**10.9**	**23.8 J**	**22.9 J**	**4.2**	**2.7 J**	**3.8 J**	**3.2 J**	**6.6**	**5.2 J**	**5.1**	**2.7 J**	**10.1 J**
Calcium	mg/kg	**10,500**	**4,780 J**	**13,100 J**	**10,200 J**	**11,300 J**	**8,010 J**	**8,020**	**11,100 J**	**12,000 J**	**3,240**	**8,750 J**	**8,370 J**	**5,960 J**	**6,270 J**	**5,100 J**	**10,100 J**	**7,050 J**	**12,700 J**
Chromium	mg/kg	**137**	**50.5**	**272 J**	**171**	**76.3**	**93.6 J**	**158**	**312 J**	**295 J**	**61.2**	**75.1 J**	**89.7 J**	**87.8 J**	**130**	**99 J**	**56.7**	**80.4 J**	**125 J**
Cobalt	mg/kg	**5.2 J**	**3.2 J**	**8.7 J**	**7.5 J**	**6.4 J**	**9.9 J**	**7.1 J**	**10.1 J**	**9.2 J**	**3.2 J**	**11.7 J**	**11.7 J**	**10.3 J**	**6.2 J**	**9.4 J**	8.6 U	13.3 UJ	12.9 UJ
Copper	mg/kg	**521**	**200**	**990 J**	**724**	**458**	**263 J**	**531**	**939 J**	**952 J**	**229**	**223 J**	**258 J**	**234 J**	**360**	**292 J**	**483**	**252 J**	**448 J**
Iron	mg/kg	**18,900**	**9,710**	**26,300 J**	**28,100**	**22,000**	**28,300 J**	**22,000**	**29,600 J**	**28,900 J**	**11,400**	**31,800 J**	**31,300 J**	**28,000 J**	**23,400**	**30,800 J**	**21,100**	**30,400 J**	**32,800 J**
Lead	mg/kg	**1,270**	**317**	**1,980 J**	**1,430**	**1,350**	**381 J**	**1,440**	**1,830 J**	**1,830 J**	**517**	**251 J**	**399 J**	**308 J**	**645**	**750 J**	**1,340**	**269 J**	**704 J**
Magnesium	mg/kg	**4,130**	**2,600**	**6,240 J**	**4,010**	**3,160**	**8,410 J**	**5,490**	**7,250 J**	**7,400 J**	**1,670**	**9,710 J**	**7,610 J**	**7,660 J**	**3,610**	**6,120 J**	**3,090**	**9,230 J**	**9,540 J**
Manganese	mg/kg	**97.2**	**76.5 J**	**212 J**	**200 J**	**145**	**266 J**	**144**	**168 J**	**167 J**	**72.8 J**	**311 J**	**281 J**	**302 J**	**142**	**240 J**	**157**	**319 J**	**288 J**
Mercury	mg/kg	**2.5**	**1.1**	**7.6 J**	**5.9**	**6.2**	**2 J**	**2.2**	**4.3 J**	**6.9 J**	**1.2**	**1.6 J**	**1.2 J**	**1.4 J**	**1.8**	**1.6 J**	**7.7**	**1 J**	**1.7 J**
Nickel	mg/kg	**114**	**33**	**187 J**	**100**	**29.9**	**49.3 J**	**107**	**221 J**	**211 J**	**32.7**	**38.8 J**	**51.3 J**	**44.5 J**	**73.6**	**52.4 J**	**29**	**41 J**	**84.2 J**
Potassium	mg/kg	**940**	**687 J**	**1,310 J**	**1,060 J**	887 UJ	**3,550 J**	**1,350**	**1,700 J**	**1,640 J**	**502 J**	**4,140 J**	**3,080 J**	**3,520 J**	**907 J**	**2,520 J**	**1,080 J**	**3,960 J**	**3,140 J**
Selenium	mg/kg	**1.6 J**	**1.4 J**	**5.1 J**	**4.5 J**	**5.5 J**	8.8 UJ	**1.9 J**	**2.7 J**	**3.2 J**	5 U	10.4 UJ	8 UJ	**2.3 J**	**2.8 J**	3.9 UJ	6 U	**3 J**	**4.8 J**
Silver	mg/kg	**14.9**	**4.7**	**33.1 J**	**20.1**	**8.1**	**5.4 J**	**12.4**	**28 J**	**27.5 J**	**7.3**	**4.8 J**	**6.7 J**	**6.4 J**	**7.4**	**5.7 J**	**6.1**	**5.4 J**	**11.9 J**
Sodium	mg/kg	**1,230**	**2,100**	**2,220 J**	**1,230**	887 U	**12,800 J**	**6,740**	**5,880 J**	**5,500 J**	716 U	**12,600 J**	**3,330 J**	**5,360 J**	**896**	**7,220 J**	**1,820**	**9,810 J**	**3,860 J**
Thallium	mg/kg	4.3 U	2.5 U	**1.4 J**	4.9 U	**0.89 J**	6.3 UJ	4.6 U	5.1 UJ	5.3 UJ	3.6 U	7.5 UJ	5.7 UJ	6.3 UJ	4.3 U	2.8 UJ	4.3 U	6.7 UJ	**0.97 J**
Vanadium	mg/kg	**53.7**	**19.2**	**99.8 J**	**107**	**26.6**	**50.4 J**	**56.3**	**102 J**	**108 J**	**26.3**	**50.6 J**	**48.4 J**	**46.3 J**	**34.2**	**42.6 J**	**24.1**	**49.5 J**	**57.8 J**
Zinc	mg/kg	**1,070**	**380**	**1,630 J**	**1,360**	**2,010**	**559 J**	**1,140**	**1,690 J**	**1,730 J**	**531**	**499 J**	**692 J**	**438 J**	**775**	**736 J**	**1,880**	**480 J**	**979 J**
Cyanide, Total	mg/kg	4.3 U	2.5 U	**0.68 J**	**0.31 J**	**0.92 J**	6.1 UJ	4.7 U	5.2 UJ	5.4 UJ	3.4 U	7.4 UJ	5.6 UJ	6.3 UJ	4.2 U	**0.72 J**	**0.55 J**	6.7 UJ	**0.48 J**

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD129
Sample Number:		GC-SD146-04.0-06.0	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0	D-03112010-01	GC-SD128-00.0-02.0	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0	GC-SD129-06.0-06.5
Sample Depth:		4-6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6	4-6	0-2	0-2	2-4	4-6	6-6.5
Sample Date:		4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**7,330 J**	**10,600 J**	**7,110 J**	**15,000 J**	**7,780 J**	**6,430**	**15,600 J**	**9,350 J**	**7,370**	**13,000 J**	**8,940 J**	**6,810**	**7,190**	**14,100 J**	**11,900 J**	**7,210 J**	**6,340**	**7,950**
Antimony	mg/kg	**3.8 J**	17.7 UJ	13.7 UJ	15.2 UJ	13.4 UJ	10.7 U	15.9 UJ	14.4 UJ	10.3 UJ	15.2 UJ	12.9 UJ	11.5 UJ	11.3 UJ	14.8 UJ	14.8 UJ	12.1 UJ	11 U	9.9 U
Arsenic	mg/kg	**10.9 J**	**10.4 J**	**13.8 J**	**8.9 J**	**19.7 J**	**25.5**	**11.5 J**	**11.8 J**	**8.8**	**9.2 J**	**21.3 J**	**28.7**	**34.6**	**11.4 J**	**13.2 J**	**13.6 J**	**39.3**	**18.1**
Barium	mg/kg	**524 J**	**270 J**	**522 J**	**126 J**	**631 J**	**729**	**313 J**	**725 J**	**479 J**	**259 J**	**2,030 J**	**1,370 J**	**1,450 J**	**349 J**	**398 J**	**491 J**	**584**	**197**
Beryllium	mg/kg	**0.37 J**	1.5 UJ	1.1 UJ	1.3 UJ	1.1 UJ	0.89 U	**0.79 J**	**0.47 J**	**0.36 J**	**0.63 J**	**0.58 J**	**0.53 J**	**0.53 J**	**0.74 J**	1.2 UJ	1 UJ	0.92 U	0.83 U
Cadmium	mg/kg	**13 J**	**6.1 J**	**13.8 J**	**2.8 J**	**12.1 J**	**4**	**3.6 J**	**7.2 J**	**3.7**	**4 J**	**26.2 J**	**4.4**	**5.4**	**7 J**	**9.2 J**	**12.5 J**	**4.3**	**2.2**
Calcium	mg/kg	**9,150 J**	**8,280 J**	**10,100 J**	**7,440 J**	**10,700 J**	**10,600 J**	**10,900 J**	**12,500 J**	**6,020**	**9,400 J**	**11,300 J**	**9,200**	**11,100**	**8,750 J**	**13,100 J**	**9,850 J**	**28,700 J**	**6,470 J**
Chromium	mg/kg	**152 J**	**118 J**	**202 J**	**93 J**	**196 J**	**49.4**	**108 J**	**119 J**	**77.8**	**101 J**	**492 J**	**59.6**	**69.1**	**171 J**	**174 J**	**215 J**	**46**	**186**
Cobalt	mg/kg	11.8 UJ	14.7 UJ	11.4 UJ	**11.9 J**	**10.1 J**	**7.2 J**	**11.1 J**	**8.3 J**	**5.9 J**	**9.4 J**	**10.3 J**	**6 J**	**7 J**	**11 J**	**16 J**	**9.9 J**	**7.3 J**	**7.5 J**
Copper	mg/kg	**420 J**	**414 J**	**591 J**	**222 J**	**567 J**	**366**	**324 J**	**494 J**	**215**	**369 J**	**1,120 J**	**469**	**498**	**487 J**	**514 J**	**652 J**	**637**	**368**
Iron	mg/kg	**27,300 J**	**28,000 J**	**39,300 J**	**30,400 J**	**33,500 J**	**21,500**	**33,300 J**	**28,900 J**	**19,100**	**29,500 J**	**35,500 J**	**22,900**	**22,700**	**35,300 J**	**33,300 J**	**27,000 J**	**23,000**	**21,900**
Lead	mg/kg	**666 J**	**575 J**	**1,080 J**	**344 J**	**1,210 J**	**785**	**431 J**	**754 J**	**414 J**	**464 J**	**1,690 J**	**987 J**	**1,100 J**	**705 J**	**875 J**	**1,050 J**	**969**	**813**
Magnesium	mg/kg	**5,480 J**	**8,060 J**	**5,970 J**	**8,590 J**	**5,680 J**	**3,430**	**8,600 J**	**7,210 J**	**4,510**	**8,740 J**	**7,120 J**	**3,850**	**4,360**	**8,130 J**	**9,650 J**	**6,340 J**	**4,000**	**4,130**
Manganese	mg/kg	**384 J**	**237 J**	**170 J**	**336 J**	**326 J**	**515**	**455 J**	**380 J**	**241 J**	**281 J**	**167 J**	**166 J**	**160 J**	**286 J**	**252 J**	**144 J**	**144**	**135**
Mercury	mg/kg	**1.2 J**	**2.8 J**	**2.2 J**	**1.4 J**	**2.5 J**	**5.1**	**2 J**	**1.1 J**	**1.1**	**2.6 J**	**5 J**	**0.58**	**2.7**	**1.5 J**	**1.3 J**	**3.2 J**	**8.5**	**9.4**
Nickel	mg/kg	**87.3 J**	**66.6 J**	**142 J**	**43.6 J**	**133 J**	**35**	**54.2 J**	**79 J**	**57.6**	**57.4 J**	**318 J**	**36.7**	**50.1**	**102 J**	**140 J**	**143 J**	**36.7**	**27.6**
Potassium	mg/kg	**1,700 J**	**2,950 J**	**1,600 J**	**3,900 J**	**1,700 J**	**1,620 J**	**3,050 J**	**1,880 J**	**1,400**	**3,410 J**	**1,970 J**	**1,700**	**1,720**	**3,230 J**	**3,740 J**	**1,760 J**	**1,530 J**	**1,490 J**
Selenium	mg/kg	8.3 UJ	10.3 UJ	8 UJ	**2.6 J**	**4.4 J**	**4.8 J**	**1.5 J**	**1.4 J**	**0.8 J**	**1.3 J**	**3.2 J**	**4 J**	**4.6 J**	**1.7 J**	**4.1 J**	**4.1 J**	**6.4 J**	**4.4 J**
Silver	mg/kg	**9.2 J**	**8.3 J**	**13.1 J**	**6.2 J**	**11.1 J**	**5.3**	**10.8 J**	**10.8 J**	**4.7**	**7.4 J**	**27.5 J**	**6.6**	**7.4**	**10.7 J**	**10.5 J**	**11.2 J**	**7.2**	**6.4**
Sodium	mg/kg	**1,520 J**	**10,400 J**	**1,600 J**	**5,750 J**	1,117 UJ	894 U	**1,560 J**	**1,350 J**	860 U	**11,100 J**	**9,870 J**	**5,790**	**4,900**	**5,470 J**	**10,000 J**	**4,590 J**	**3,360**	**2,770**
Thallium	mg/kg	5.9 UJ	7.4 UJ	5.7 UJ	**1.6 J**	**1.1 J**	**1.5 J**	**0.97 J**	**1.4 J**	**0.88 J**	**1 J**	**1.4 J**	**1.8 J**	**1.8 J**	**1.6 J**	**1.6 J**	5 UJ	**1.3 J**	**0.73 J**
Vanadium	mg/kg	**52.7 J**	**52.4 J**	**59.5 J**	**50.8 J**	**51 J**	**31.7**	**56.3 J**	**47.5 J**	**33.1**	**48.7 J**	**145 J**	**38.7**	**45.2**	**62.8 J**	**55.8 J**	**59.4 J**	**24.6**	**25.6**
Zinc	mg/kg	**872 J**	**828 J**	**1,440 J**	**468 J**	**1,520 J**	**1,270**	**642 J**	**971 J**	**506**	**643 J**	**2,020 J**	**1,620**	**1,740**	**853 J**	**1,140 J**	**1,250 J**	**1,330**	**801**
Cyanide, Total	mg/kg	**0.49 J**	7.4 UJ	**1.5 J**	6.6 UJ	**0.5 J**	4.4 U	6.6 UJ	6.1 UJ	4.5 U	6.3 UJ	5.6 UJ	4.9 U	4.9 U	6.3 UJ	**0.55 J**	**0.49 J**	**0.33 J**	**0.55 J**

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B	GC-SD38A	GC-SD38A
Sample Number:		GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0	GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4
Sample Depth:		0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4	4-6	4-6	6-8	8-9	0-0.5	2.5-4.2	2.1-2.6	2.6-4.4
Sample Date:		3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	FD	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**																		
		Metals																	
Aluminum	mg/kg	**11,700 J**	**10,200 J**	**9,390 J**	**11,200 J**	**7,130 J**	**4,030**	**4,250**	**4,720**	**8,460**	**7,580 J**	**8,480**	**6,300**	**8,810 J**	**3,630**	**9,780 J**	**3,870**	**5,750**	**4,950**
Antimony	mg/kg	14.3 UJ	14.6 UJ	13.9 UJ	15.4 UJ	9 UJ	**0.98 J**	**2.9 J**	**4.1 J**	**2 J**	**2.9 J**	**3.5 J**	**2.3 J**	**6.2 J**	**2.9 J**	15.2 UJ	10.6 UJ	10.3 UJ	10.1 UJ
Arsenic	mg/kg	**13.3 J**	**19.7 J**	**20.4 J**	**31.7 J**	**16.6**	**2.9**	**8.9**	**10.3**	**10.6**	**10.3 J**	**11**	**8.9**	**33.1 J**	**23.9**	**6.7 J**	**20**	**24.2**	**21.4**
Barium	mg/kg	**558 J**	**1,360 J**	**2,010 J**	**1,790 J**	**419 J**	**99**	**393**	**751**	**270 J**	**322 J**	**352 J**	**308 J**	**1,150 J**	**279 J**	**67.8 J**	**757**	**447**	**464**
Beryllium	mg/kg	1.2 UJ	1.2 UJ	1.2 UJ	1.3 UJ	0.75 U	0.63 U	0.66 U	0.77 U	**0.65 J**	**0.54 J**	**0.48 J**	**0.29 J**	**1.1 J**	**0.24 J**	1.3 UJ	0.89 U	0.86 U	0.84 U
Cadmium	mg/kg	**14.6 J**	**33.2 J**	**38.6 J**	**38.3 J**	**9.8**	**1.3**	**5.6**	**7.4**	**5.7**	**9.5 J**	**10.2**	**6**	**7 J**	**3.2**	**1.4 J**	**10.2**	**14.4**	**9**
Calcium	mg/kg	**14,000 J**	**12,000 J**	**10,700 J**	**11,000 J**	**3,710**	**16,600**	**12,600**	**17,800**	**14,800**	**11,000 J**	**8,150**	**12,800**	**14,300 J**	**4,380**	**7,730 J**	**5,450 J**	**12,600 J**	**6,190 J**
Chromium	mg/kg	**314 J**	**582 J**	**594 J**	**719 J**	**151**	**35.4**	**250**	**401**	**146**	**187 J**	**144**	**110**	**59.5 J**	**24.4**	**48.1 J**	**142**	**227**	**87.1**
Cobalt	mg/kg	11.9 UJ	**12.6 J**	11.6 UJ	12.8 UJ	**7.6**	6.3 U	6.6 U	7.7 U	**7.6 J**	**8.8 J**	**6.1 J**	**6.3 J**	**5.9 J**	**3.9 J**	**7 J**	**8.6 J**	**9.8**	**6.6 J**
Copper	mg/kg	**633 J**	**1,050 J**	**1,230 J**	**1,380 J**	**349**	**86.2**	**1,610**	**546**	**313**	**433 J**	**319**	**228**	**957 J**	**164**	**115 J**	**414**	**491**	**378**
Iron	mg/kg	**32,300 J**	**34,700 J**	**30,700 J**	**34,100 J**	**19,900 J**	**14,900**	**20,000**	**20,500**	**26,600**	**26,200 J**	**22,100**	**33,700**	**28,900 J**	**17,400**	**20,200 J**	**33,000**	**50,300**	**23,900**
Lead	mg/kg	**1,170 J**	**1,860 J**	**1,960 J**	**1,770 J**	**549 J**	**346**	**1,030**	**1,260**	**626**	**638 J**	**529**	**453**	**1,270 J**	**2,440**	**126 J**	**1,070**	**802**	**777**
Magnesium	mg/kg	**9,760 J**	**8,600 J**	**7,610 J**	**7,930 J**	**3,520**	**10,400**	**6,540**	**5,590**	**8,600**	**11,700 J**	**7,260**	**6,730**	**5,950 J**	**2,580**	**7,630 J**	**3,360**	**5,310**	**3,190**
Manganese	mg/kg	**219 J**	**183 J**	**158 J**	**192 J**	**124**	**121**	**163**	**161**	**169**	**142 J**	**170**	**176**	**187 J**	**121**	**220 J**	**151**	**224**	**108**
Mercury	mg/kg	**2.1 J**	**4.3 J**	**4.8 J**	**4.7 J**	**2.4**	**0.37**	**2.2**	**1**	**1.6 J**	**3.7 J**	**1.4 J**	**0.8 J**	**1.9 J**	**3.7 J**	**0.45 J**	**3.4**	**1.8**	**2.1**
Nickel	mg/kg	**186 J**	**374 J**	**484 J**	**443 J**	**69.5**	**28.8**	**173**	**254**	**88.9**	**137 J**	**91.8**	**70.7**	**36.6 J**	**19.7**	**23 J**	**96**	**132**	**28.6**
Potassium	mg/kg	**3,330 J**	**2,410 J**	**2,270 J**	**2,650 J**	**1,680**	**1,010**	**936**	**1,110**	**2,340**	**1,980 J**	**1,670**	**1,130**	**2,370 J**	**932**	**2,830 J**	**994 J**	**1,440 J**	**1,310 J**
Selenium	mg/kg	**4.5 J**	**5.5 J**	**5.2 J**	**5.6 J**	**3.3 J**	4.4 U	4.6 U	5.4 U	6.5 U	8.1 UJ	6 U	5 U	8.3 UJ	5.6 U	8.8 UJ	6.2 U	**7.1**	5.9 U
Silver	mg/kg	**12.7 J**	**24.6 J**	**30 J**	**31.2 J**	**12.5**	**1.1 J**	**4**	**4.8**	**6.8**	**8.5 J**	**6.6**	**5.6**	**8.1 J**	**1.8**	**2.1 J**	**7.4**	**18.4**	**11.1**
Sodium	mg/kg	**12,800 J**	**13,000 J**	**12,800 J**	**12,900 J**	**3,960**	**4,570**	**4,710**	**5,590**	**8,550**	**11,100 J**	**5,200**	**4,430**	**4,190 J**	**1,860**	**10,200 J**	**5,500**	**6,070**	**5,500**
Thallium	mg/kg	**6.3 J**	**6.7 J**	**5.7 J**	**7.3 J**	**3.9 J**	3.2 U	**1.1 J**	**1.8 J**	**3 J**	5.8 UJ	4.3 U	**3.6**	6 UJ	4 U	6.3 UJ	**1.1 J**	**2.9 J**	**1.3 J**
Vanadium	mg/kg	**75.7 J**	**114 J**	**142 J**	**199 J**	**47.1**	**14.7**	**42.5**	**54.6**	**47**	**48.1 J**	**38.5**	**26.6**	**31.9 J**	**17.8**	**29.7 J**	**40.6**	**72.9**	**35.7**
Zinc	mg/kg	**1,290 J**	**2,100 J**	**2,170 J**	**2,350 J**	**725**	**289**	**968**	**1,380**	**696**	**857 J**	**943**	**549**	**1,870 J**	**2,480**	**227 J**	**1,340**	**966**	**1,080**
Cyanide, Total	mg/kg	5.9 UJ	6.8 UJ	6 UJ	6.2 UJ	3.6 U	3.2 U	3.4 U	3.8 U	4.6 UJ	5.8 UJ	4.1 UJ	**4.6 J**	5.8 UJ	4.1 UJ	**0.52 J**	**1.2 J**	**0.46 J**	**0.41 J**

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132	GC-SD132	GC-SD118
Sample Number:		GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD118-00.2-00.7
Sample Depth:		0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3	0-2	2-4	0.2-0.7
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010	3/22/2010	4/1/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**13,100 J**	**12,300 J**	**4,490**	**14,400 J**	**12,500 J**	**10,800 J**	**10,500 J**	**5,910**	**2,340**	**7,650**	**6,720**	**8,630**	**8,420 J**	**3,880**	**2,450**	**10,500 J**	**6,340**	**2,340**
Antimony	mg/kg	19.2 UJ	16.6 UJ	11.1 U	**4.4 J**	**7.2 J**	**12.4 J**	**6.3 J**	**4.8 J**	7.5 U	**2.8 J**	**3.4 J**	**3.3 J**	**3 J**	**3 J**	**2.2 J**	**1.9 J**	**2.5 J**	7.7 U
Arsenic	mg/kg	**21.6 J**	**22.1 J**	**10**	**17.6 J**	**20.9 J**	**21 J**	**20.5 J**	**15.7**	**6.2**	**13.8**	**15.2**	**16.1**	**19.7 J**	**14.2**	**3.7**	**18.8 J**	**32.9**	**12.7**
Barium	mg/kg	**571 J**	**1,470 J**	**635 J**	**891 J**	**1,500 J**	**1,390 J**	**1,320 J**	**355**	**48.7 J**	**250**	**308**	**301**	**359 J**	**197**	**213**	**382 J**	**299**	**395 J**
Beryllium	mg/kg	1.6 UJ	1.4 UJ	0.92 U	1.6 UJ	1.5 UJ	1.3 UJ	1.3 UJ	0.73 U	0.62 U	**0.32 J**	**0.29 J**	**0.38 J**	**0.4 J**	**0.2 J**	0.56 U	**0.46 J**	**0.25 J**	**0.15 J**
Cadmium	mg/kg	**15.1 J**	**56.1 J**	**17**	**35.1 J**	**65.4 J**	**42.8 J**	**39.8 J**	**4.5**	**1.2**	**10.9**	**12.9**	**11.9**	**2.8 J**	**2**	**1.2**	**19.4 J**	**1.9**	**4.3**
Calcium	mg/kg	**22,000 J**	**14,600 J**	**4,480**	**17,500 J**	**13,100 J**	**11,700 J**	**11,000 J**	**4,130**	**8,110**	**16,800**	**25,400**	**46,000**	**32,000 J**	**18,300**	**11,600**	**14,400 J**	**8,110**	**6,880**
Chromium	mg/kg	**289 J**	**695 J**	**210**	**469 J**	**651 J**	**501 J**	**458 J**	**57.2**	**27.9**	**159**	**132**	**132**	**46.4 J**	**42.2**	**20.4**	**243 J**	**40**	**79.7**
Cobalt	mg/kg	16 UJ	13.9 UJ	9.2 U	**11 J**	**12.5 J**	**11.1 J**	**10.4 J**	**6 J**	**2.3 J**	**6.8 J**	**5.8 J**	**6 J**	**5 J**	**3.9 J**	**2.8 J**	**9.3 J**	**6.3 J**	**14.8**
Copper	mg/kg	**529 J**	**1,180 J**	**412**	**828 J**	**1,180 J**	**982 J**	**945 J**	**466**	**89.6**	**353**	**327**	**387**	**238 J**	**185**	**139**	**570 J**	**673**	**186**
Iron	mg/kg	**31,500 J**	**34,100 J**	**15,800**	**30,700 J**	**31,800 J**	**28,900 J**	**27,900 J**	**16,700**	**12,500**	**21,900**	**20,100**	**23,200**	**16,100 J**	**13,300**	**7,880**	**28,600 J**	**19,400**	**16,700**
Lead	mg/kg	**809 J**	**1,610 J**	**770**	**1,040 J**	**1,570 J**	**1,430 J**	**1,370 J**	**420**	**112**	**552**	**865**	**567**	**459 J**	**432**	**137**	**752 J**	**779**	**750**
Magnesium	mg/kg	**15,300 J**	**10,200 J**	**3,290**	**11,200 J**	**8,880 J**	**7,560 J**	**7,070 J**	**2,640**	**3,590**	**10,500**	**12,900**	**18,100**	**17,900 J**	**5,600**	**5,870**	**10,100 J**	**4,100**	**1,520**
Manganese	mg/kg	**259 J**	**215 J**	**84**	**218 J**	**195 J**	**171 J**	**164 J**	**90.3**	**82**	**162**	**149**	**198**	**187 J**	**98.8**	**61.8**	**208 J**	**111**	**118**
Mercury	mg/kg	**1.8 J**	**5.6 J**	**2.1**	**4 J**	**4.6 J**	**5.1 J**	**4.7 J**	**2.6**	**0.28**	**1.6**	**0.91**	**1.4**	**1.6 J**	**1.4**	**0.13**	**2.1 J**	**3**	**0.49**
Nickel	mg/kg	**143 J**	**373 J**	**137**	**222 J**	**370 J**	**347 J**	**304 J**	**34.5**	**15.7**	**69.5**	**57.8**	**67.7**	**27 J**	**18.9**	**14.3**	**118 J**	**26.2**	**32.4**
Potassium	mg/kg	**3,230 J**	**2,680 J**	**1,050 J**	**2,980 J**	**2,600 J**	**2,260 J**	**2,290 J**	**1,280**	622 UJ	**1,870**	**1,130**	**1,420**	**1,330 J**	**596 J**	**627**	**2,350 J**	**1,430**	639 U
Selenium	mg/kg	**4.1 J**	**5.6 J**	**2.5 J**	11.4 UJ	10.8 UJ	8.9 UJ	**1.8 J**	**1.3 J**	**1.3 J**	6.5 U	5.6 U	6.6 U	8.9 UJ	**1.1 J**	3.9 U	6.8 UJ	**3 J**	**1.7 J**
Silver	mg/kg	**11 J**	**27.4 J**	**11.6**	**19.6 J**	**32.2 J**	**25.2 J**	**24.3 J**	**3.9**	**0.92 J**	**6.8**	**8.8**	**8.4**	**3.1 J**	**2.5**	**0.7 J**	**12.2 J**	**4.6**	**2.4**
Sodium	mg/kg	**18,400 J**	**13,300 J**	**3,940**	**9,270 J**	**7,560 J**	**5,280 J**	**5,230 J**	**1,510**	**1,720**	**7,710**	**6,520**	**9,140**	**12,200 J**	**2,300**	**2,480**	**9,120 J**	**5,690**	639 U
Thallium	mg/kg	**8.7 J**	**9 J**	**3.5 J**	8.1 UJ	7.7 UJ	6.4 UJ	**2 J**	**1.3 J**	**2.1 J**	**1.3 J**	4 U	4.7 U	6.4 UJ	**1.2 J**	2.8 U	**2.2 J**	**1.6 J**	3.2 U
Vanadium	mg/kg	**64.9 J**	**105 J**	**58.3**	**77.3 J**	**109 J**	**112 J**	**108 J**	**26.4**	**13.8**	**35.2**	**49**	**55.1**	**29.9 J**	**16.7**	**17.7**	**50.3 J**	**21.3**	**21.4**
Zinc	mg/kg	**1,200 J**	**2,220 J**	**864**	**1,610 J**	**2,140 J**	**1,940 J**	**1,760 J**	**450**	**127**	**747**	**688**	**686**	**617 J**	**481**	**148**	**1,150 J**	**844**	**518 J**
Cyanide, Total	mg/kg	8 UJ	6.9 UJ	4.6 U	**1.2 J**	7.7 UJ	**1 J**	**0.91 J**	**1.7 J**	3 U	4.7 U	4.2 U	4.7 U	6.4 UJ	3.3 U	2.8 U	5 UJ	3.6 U	3.2 U

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133	GC-SD134	GC-SD134	GC-SD135	GC-SD135
Sample Number:		GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0	GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0
Sample Depth:		0-1.2	4.5-6	6-8	6-8	8-10	10-12	0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8	0-2	2-4	0-2	2-4
Sample Date:		3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**9,510 J**	6,170	**9,560 J**	**8,730 J**	8,660	4,800	2,450	5,820	14,600	2,460	5,060	4,580	5,960	4,000	4,770	3,180	8,290	6,580
Antimony	mg/kg	15 UJ	9.3 U	12.5 UJ	12.1 UJ	10.8 U	7.6 UJ	**2.1 J**	**5.5 J**	9 U	7 UJ	10.1 U	10.2 U	9.6 U	7.4 UJ	9.1 U	9.2 U	10.9 U	9.2 U
Arsenic	mg/kg	**13.6 J**	**7.5**	**23.7 J**	**23.4 J**	**18.4**	**4.9**	**5**	**105**	**13.2**	**7.3**	**7.7 J**	**10.7 J**	**14.8 J**	**17.4 J**	**4.5 J**	**11.2 J**	**8.5 J**	**7.7 J**
Barium	mg/kg	**694 J**	**158 J**	**831 J**	**604 J**	**287 J**	**51.5 J**	**109**	**297**	**124**	**28.4 J**	**392**	**589**	**542**	**375**	**236**	**270**	**157**	**355**
Beryllium	mg/kg	1.3 UJ	**0.47 J**	**0.64 J**	**0.65 J**	**0.56 J**	**0.31 J**	**0.18 J**	**0.39 J**	**0.71 J**	**0.21 J**	**0.45 J**	**0.23 J**	**0.33 J**	**0.27 J**	0.75 U	0.77 U	**0.35 J**	**0.44 J**
Cadmium	mg/kg	**30.6 J**	**3**	**5.9 J**	**5.5 J**	**4.1**	**1.3**	**8.5**	**6**	**1.3**	**0.41 J**	**28.4**	**33.3**	**28.5**	**5.7**	**12.6**	**13.6**	**5.2**	**15.3 J**
Calcium	mg/kg	**42,200 J**	**38,500**	**31,200 J**	**33,200 J**	**35,800**	**4,990**	**5,280 J**	**3,870 J**	**2,380 J**	**1,020**	**6,710**	**5,340**	**7,230**	**4,180**	**6,030**	**6,140**	**7,280**	**8,100**
Chromium	mg/kg	**209 J**	**34.9**	**64.7 J**	**58.2 J**	**39**	**15.2**	**42.9**	**54.2**	**36.8**	**8.1**	**176**	**444**	**237**	**75.1**	**91.6**	**128**	**73**	**154**
Cobalt	mg/kg	**7.6 J**	**3.6 J**	**7.1 J**	**6.2 J**	**7 J**	**4.4 J**	6.5 U	7.9 U	**12**	**6.3**	8.4 U	8.5 U	8 U	6.2 U	**6.7 J**	**5.1 J**	9.1 U	**9.5**
Copper	mg/kg	**466 J**	**99.789**	**343 J**	**317 J**	**182**	**43.3**	**99.8849**	**506**	**103**	**23.8**	**444**	**622**	**518**	**260**	**215**	**250**	**180**	**270**
Iron	mg/kg	**28,300 J**	**13,700**	**22,300 J**	**23,600 J**	**16,000**	**9,640**	**12,100**	**19,400**	**21,700**	**6,730**	**21,400**	**21,700**	**21,400**	**15,700**	**14,800**	**17,800**	**19,700**	**20,300**
Lead	mg/kg	**1,230 J**	**259**	**790 J**	**622 J**	**441**	**69.7**	**223**	**818**	**151**	**41.8**	**978**	**1,050**	**738**	**515**	**510**	**850**	**378**	**654**
Magnesium	mg/kg	**14,500 J**	**14,200**	**15,500 J**	**13,300 J**	**17,300**	**4,150**	**2,010**	**3,070**	**5,380**	**1,030**	**4,200**	**3,570**	**4,400**	**2,250**	**4,680**	**3,320**	**7,090**	**5,490**
Manganese	mg/kg	**202 J**	**145**	**231 J**	**221 J**	**206**	**138**	**78.4**	**147**	**343**	**63.3**	**106**	**87.5**	**116**	**98**	**88.5**	**96.3**	**173**	**145**
Mercury	mg/kg	**5.1 J**	**8.8**	**5.3 J**	**7 J**	**3**	**0.61**	**0.45**	**6.3**	**1.5**	**0.33**	**1.5**	**2.9**	**1.7**	**2.2**	**0.69**	**1.1**	**0.41**	**1 J**
Nickel	mg/kg	**113 J**	**17.1**	**33.8 J**	**30.5 J**	**37.9**	**22.7**	**22.7**	**28.7**	**58.9**	**9**	**91.3**	**142**	**76.2**	**24.4**	**60.4**	**49.7**	**36.9**	**58.2 J**
Potassium	mg/kg	**1,830 J**	**864**	**1,900 J**	**1,750 J**	**1,530**	**1,180**	**552 J**	**1,560 J**	**2,690 J**	586 U	**1,020 J**	**975 J**	**1,200 J**	**937 J**	**1,170 J**	**831 J**	**2,140 J**	**1,430 J**
Selenium	mg/kg	8.8 UJ	5.4 U	**2.7 J**	**3.3 J**	**2.4 J**	4.5 U	4.6 U	**9.6**	3.8 U	4.1 U	**2.5 J**	**2.7 J**	**2.9 J**	**2.3 J**	5.3 U	5.4 U	**1.8 J**	**2.3 J**
Silver	mg/kg	**10 J**	**1.3 J**	**3.9 J**	**3.8 J**	**2.3**	**0.31 J**	**2.5**	**3**	**0.41 J**	**0.2 J**	**8.4**	**12.4**	**14.3**	**6.9**	**5.8**	**3.8**	**5**	**5 J**
Sodium	mg/kg	**9,970 J**	**4,330**	**7,120 J**	**6,480 J**	**4,730**	**1,680**	**2,540**	**2,530**	**1,320**	**605**	**1,790**	**2,030**	**1,660**	618 U	**4,510**	**5,020**	**6,750**	**3,340**
Thallium	mg/kg	**2.2 J**	**0.84 J**	**1.6 J**	**2.2 J**	**1.9 J**	3.2 U	3.3 U	3.9 U	2.7 U	2.9 U	4.2 U	4.2 U	4 U	3.1 U	3.8 U	3.8 U	4.5 U	3.8 U
Vanadium	mg/kg	**82.4 J**	**18.2**	**34.6 J**	**32 J**	**25.4**	**13.4**	**13.8**	**22.9**	**35.8**	**6.7**	**52.7**	**78.5**	**61.5**	**23**	**20.4**	**24.1**	**30.2**	**28.4**
Zinc	mg/kg	**1,010 J**	**375**	**1,160 J**	**978 J**	**548**	**109**	**240**	**829**	**226**	**66.1**	**1,170**	**1,410**	**1,100**	**767**	**621**	**746**	**595**	**747**
Cyanide, Total	mg/kg	**1 J**	**1.2 J**	**1.7 J**	**1.1 J**	**1.5 J**	**0.21 J**	3.2 U	**2.3 J**	**0.39 J**	2.9 U	**0.33 J**	**0.45 J**	**0.54 J**	**0.5 J**	3.8 U	**0.42 J**	4.5 U	**0.32 J**

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123
Sample Number:		D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0	GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0	GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8
Sample Depth:		2-4	4-6	6-8	8-10	0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2	2-4	4-4.8	0-2	2-4	4-6	6-6.8
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
Metals																			
Aluminum	mg/kg	**6,510**	**5,270**	**5,230**	**5,900**	**4,820 J**	**9,730 J**	**5,730**	**14,100 J**	**8,720**	**12,200 J**	**9,800 J**	**6,700**	**6,310**	**4,530**	**5,620 J**	**13,700 J**	**13,700 J**	**10,500**
Antimony	mg/kg	9.1 U	8.5 U	9.6 U	10.8 U	11.6 UJ	**1.1 J**	6.8 UJ	**2.1 J**	**2.2 J**	**3.7 J**	**3.9 J**	8.2 U	8.2 U	7.5 U	15.9 UJ	15.8 UJ	15.4 UJ	11.3 UJ
Arsenic	mg/kg	**7.7 J**	**4 J**	**7.8 J**	**14.2 J**	**6.8 J**	**8 J**	**2.6**	**11.5 J**	**11.6**	**25.2 J**	**23.5 J**	**6.8**	**6.2**	**4.9**	**6.5 J**	**11.4 J**	**14.2 J**	**14.7**
Barium	mg/kg	**331**	**336**	**523**	**835**	**409 J**	**153 J**	**26.4**	**200 J**	**412**	**1,090 J**	**537 J**	**211**	**108**	**88.6**	**36.4 J**	**145 J**	**677 J**	**466**
Beryllium	mg/kg	0.75 U	**0.48 J**	**0.45 J**	0.9 U	**0.26 J**	**0.48 J**	**0.44 J**	**0.66 J**	**0.5 J**	**0.81 J**	**0.66 J**	0.68 U	0.68 U	0.62 U	**0.51 J**	**0.77 J**	**0.89 J**	**0.65 J**
Cadmium	mg/kg	**28.4 J**	**23.2**	**40.9**	**32.5**	**23.8 J**	**3.5 J**	0.54 U	**3.8 J**	**16.2**	**48.9 J**	**19.5 J**	**2.6**	**3.9**	**2.8**	1.3 UJ	**4.1 J**	**26 J**	**20.6**
Calcium	mg/kg	**7,130**	**5,660**	**5,840**	**6,810**	**6,760 J**	**10,400 J**	**978 J**	**10,700 J**	**8,220 J**	**8,280 J**	**5,920 J**	**7,830 J**	**9,800 J**	**13,800 J**	1,326 UJ	**7,150 J**	**9,190 J**	**5,390 J**
Chromium	mg/kg	**140**	**157**	**224**	**360**	**125 J**	**70.4 J**	**13.4**	**84.6 J**	**136**	**375 J**	**241 J**	**25.6**	**36.5**	**27.7**	**14.5 J**	**88.6 J**	**261 J**	**218**
Cobalt	mg/kg	**7.8**	7.1 U	**8.3**	9 U	**4.7 J**	**9.1 J**	**6.8**	**11.4 J**	**7.5 J**	**11.5 J**	**10.3 J**	**5.1 J**	**5.5 J**	**5.2 J**	**8.6 J**	**11.1 J**	**10.8 J**	**9.3 J**
Copper	mg/kg	**309**	**397**	**555**	**654**	**333 J**	**208 J**	**10.8**	**234 J**	**335**	**799 J**	**517 J**	**94.3**	**87.6**	**69.9**	**14.7 J**	**201 J**	**562 J**	**423**
Iron	mg/kg	**20,400**	**20,600**	**23,800**	**26,100**	**17,500 J**	**22,800 J**	**15,000**	**30,900 J**	**22,700**	**31,600 J**	**30,900 J**	**15,200**	**15,700**	**19,500**	**28,200 J**	**29,800 J**	**30,700 J**	**26,000**
Lead	mg/kg	**617**	**850**	**1,260**	**1,270**	**628 J**	**282 J**	**7.1 J**	**268 J**	**512**	**865 J**	**633 J**	**213**	**550**	**178**	**8.1 J**	**203 J**	**531 J**	**422 J**
Magnesium	mg/kg	**5,680**	**4,200**	**4,210**	**4,260**	**5,020 J**	**8,880 J**	**2,550**	**10,400 J**	**5,910**	**6,800 J**	**5,240 J**	**4,730**	**3,720**	**3,650**	**3,950 J**	**9,050 J**	**8,270 J**	**5,650**
Manganese	mg/kg	**131**	**86.5**	**98.7**	**126**	**109 J**	**196 J**	**314**	**313 J**	**202**	**288 J**	**247 J**	**179**	**192**	**178**	**272 J**	**315 J**	**300 J**	**257**
Mercury	mg/kg	**1.5 J**	**0.98**	**1.9**	**1.9**	**1.2 J**	**1.7 J**	0.11 U	**1.1 J**	**2.4**	**4.8 J**	**4.1 J**	**0.34**	**0.77**	**0.28**	0.27 UJ	**2.2 J**	**4.3 J**	**4.4**
Nickel	mg/kg	**138 J**	**73.7**	**118**	**118**	**58 J**	**58.7 J**	**13.6**	**39.3 J**	**56**	**160 J**	**70.8 J**	**26.4**	**22.2**	**24.1**	**29.5 J**	**39.5 J**	**90.4 J**	**68.8**
Potassium	mg/kg	**1,530 J**	**1,060 J**	**1,130 J**	**1,380 J**	**1,300 J**	**2,400 J**	**1,290 J**	**3,840 J**	**2,060 J**	**2,870 J**	**2,430 J**	**1,690 J**	**1,540 J**	**1,100 J**	**940 J**	**3,910 J**	**3,710 J**	**2,760 J**
Selenium	mg/kg	5.3 U	**2.6 J**	**2.6 J**	**3.1 J**	6.8 UJ	7.4 UJ	**0.49 J**	**3.1 J**	**2.4 J**	**4.3 J**	**4 J**	4.8 U	4.8 U	4.3 U	9.3 UJ	**1.4 J**	**2.3 J**	**1.6 J**
Silver	mg/kg	**8.1**	**6.7**	**8.7**	**14.7**	**7.7 J**	**4.8 J**	1.1 U	**4.8 J**	**7.8**	**21.7 J**	**15.3 J**	1.4 U	1.4 U	1.2 U	2.7 UJ	**4.8 J**	**14.6 J**	**12.4**
Sodium	mg/kg	**4,130**	**3,140**	**4,460**	**5,280**	**9,270 J**	**9,660 J**	**844**	**13,100 J**	**2,170**	**1,900 J**	**1,380 J**	**4,400**	**2,400**	**1,320**	1,326 UJ	**15,000 J**	**12,600 J**	**6,450**
Thallium	mg/kg	3.8 U	3.5 U	4 U	4.5 U	4.8 UJ	5.3 UJ	2.7 U	**1.5 J**	**0.86 J**	**0.88 J**	**0.87 J**	3.4 U	3.4 U	3.1 U	6.6 UJ	6.6 UJ	6.4 UJ	4.7 U
Vanadium	mg/kg	**29.8**	**24.3**	**40.7**	**86.4**	**32.8 J**	**35.5 J**	**22**	**43.3 J**	**37.5**	**71.8 J**	**71.8 J**	**18.8**	**20.6**	**20.6**	**22.6 J**	**42.6 J**	**53 J**	**52.7**
Zinc	mg/kg	**748**	**748**	**1,190**	**1,370**	**593 J**	**527 J**	**35.4**	**511 J**	**562**	**1,200 J**	**945 J**	**232**	**234**	**237**	**41 J**	**357 J**	**771 J**	**614**
Cyanide, Total	mg/kg	**0.26 J**	3.6 U	**0.37 J**	**0.51 J**	**0.4 J**	5.1 UJ	2.8 U	6.8 UJ	**0.39 J**	**0.63 J**	**0.69 J**	**0.69 J**	**0.23 J**	**0.94 J**	6.8 UJ	**0.59 J**	6.5 UJ	4.7 U

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143
Sample Number:		GC-SD139-00.0-02.0	GC-SD139-02.0-04.0	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9
Sample Depth:		0-2	2-4	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2	2-4	4-5.7	0-2	2-3.8	0-2	2-2.9
Sample Date:		4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
										Metals									
Aluminum	mg/kg	**5,150**	**8,080**	**6,990**	**8,940**	**6,870**	**9,290**	**8,730**	**8,140**	**7,680**	**14,800 J**	**12,800 J**	**11,000 J**	**9,860 J**	**7,170**	**9,150 J**	**8,260**	**12,700 J**	**13,000 J**
Antimony	mg/kg	8.5 U	9.1 UJ	**239 J**	10.1 UJ	8.8 UJ	11.2 UJ	9.9 UJ	8.9 UJ	11.1 U	14.7 UJ	14.3 UJ	12.8 UJ	12.1 UJ	10.1 UJ	11.9 UJ	10.7 U	14.1 UJ	15.7 UJ
Arsenic	mg/kg	**4.8**	**10.6**	**13.3**	**20.4**	**18.7**	**30.4**	**26.4**	**23**	**9.2**	**16.2 J**	**25.6 J**	**10.2 J**	**12.5 J**	**15.3**	**10.8 J**	**11**	**12.2 J**	**13.9 J**
Barium	mg/kg	**53.7**	**286**	**327**	**326**	**369**	**328**	**323**	**239**	**103**	**600 J**	**573 J**	**339 J**	**312 J**	**181**	**172 J**	**155**	**196 J**	**266 J**
Beryllium	mg/kg	0.7 U	**0.97**	0.83 U	0.84 U	0.74 U	0.93 U	0.82 U	0.74 U	0.92 U	1.2 UJ	1.2 UJ	**1.1 J**	**1.1 J**	0.84 U	0.99 UJ	0.89 U	1.2 UJ	1.3 UJ
Cadmium	mg/kg	**1.2**	**13.6**	**16.1**	**27.9**	**11.8**	**9.7**	**10.2**	**5**	**4.2**	**31.1 J**	**28.9 J**	**14.8 J**	**15.7 J**	**8**	**7.6 J**	**8.8**	**8.5 J**	**12.9 J**
Calcium	mg/kg	**5,540 J**	**6,060 J**	**6,060 J**	**3,640 J**	**3,700 J**	**4,110 J**	**3,900 J**	**3,190 J**	**3,610 J**	**7,580 J**	**7,160 J**	**7,660 J**	**5,370 J**	**2,770 J**	**4,650 J**	**4,180 J**	**5,460 J**	**5,640 J**
Chromium	mg/kg	**26**	**165**	**167**	**254**	**149**	**169**	**157**	**81.3**	**71.1**	**292 J**	**332 J**	**147 J**	**192 J**	**127**	**155 J**	**120**	**133 J**	**172 J**
Cobalt	mg/kg	**5.5 J**	**9.8**	**8.5**	**9.1**	**8.7**	**8.3 J**	**9**	**8.2**	**7.9 J**	**12 J**	**11.7 J**	**12 J**	**15.1 J**	**7.2 J**	**10.7 J**	**8.6 J**	11.8 UJ	13.1 UJ
Copper	mg/kg	**78**	**370**	**306 J**	**552**	**315 J**	**424**	**399**	**238 J**	**155**	**527 J**	**601 J**	**360 J**	**568 J**	**266 J**	**289 J**	**240**	**251 J**	**291 J**
Iron	mg/kg	**14,700**	**27,200**	**43,800**	**25,600**	**25,700**	**28,700**	**28,000**	**25,300**	**20,300**	**34,500 J**	**33,900 J**	**30,000 J**	**29,500 J**	**25,300**	**25,100 J**	**29,300**	**29,100 J**	**31,200 J**
Lead	mg/kg	**432**	**558 J**	**446 J**	**508 J**	**442 J**	**520 J**	**502 J**	**403 J**	**191**	**498 J**	**590 J**	**406 J**	**535 J**	**323 J**	**580 J**	**202**	**238 J**	**285 J**
Magnesium	mg/kg	**6,120**	**5,220**	**4,150**	**4,650**	**3,790**	**4,740**	**4,540**	**3,850**	**4,720**	**8,040 J**	**6,640 J**	**6,570 J**	**5,170 J**	**3,570**	**5,190 J**	**4,110**	**6,510 J**	**6,730 J**
Manganese	mg/kg	**138**	**205**	**373**	**201**	**195**	**212**	**224**	**212**	**195**	**359 J**	**318 J**	**280 J**	**284 J**	**207**	**240 J**	**222**	**322 J**	**337 J**
Mercury	mg/kg	**0.27**	**1.7**	**3.1**	**3.6**	**1.6**	**3.3**	**3**	**3.5**	**0.97**	**4.5 J**	**5.3 J**	**2.1 J**	**2.5 J**	**2.1**	**1.6 J**	**1.6**	**2.3 J**	**2.6 J**
Nickel	mg/kg	**22.5**	**71**	**61**	**104**	**41.5**	**42**	**52.2**	**30.9**	**32.5**	**92 J**	**96.7 J**	**77 J**	**135 J**	**36.2**	**64.4 J**	**51.1**	**49.6 J**	**61 J**
Potassium	mg/kg	**1,160 J**	**2,390 J**	**1,850 J**	**2,440 J**	**1,860 J**	**2,500 J**	**2,400 J**	**2,170 J**	**2,310 J**	**4,170 J**	**3,480 J**	**2,930 J**	**2,440 J**	**1,890 J**	**2,590 J**	**2,340 J**	**3,520 J**	**3,630 J**
Selenium	mg/kg	4.9 U	5.3 U	5.9 U	5.9 U	5.2 U	6.5 U	5.8 U	5.2 U	**1.8 J**	**3 J**	**3.7 J**	7.5 UJ	7.1 UJ	5.9 U	**2.2 J**	**2.3 J**	**2.5 J**	**2.6 J**
Silver	mg/kg	1.4 U	**7.1**	**8.2**	**14.2**	**6.9**	**11.5**	**9.4**	**5.1**	**3.7**	**15.4 J**	**17.3 J**	**7.3 J**	**9.8 J**	**7.4**	**6 J**	**5.2**	**6.6 J**	**8.6 J**
Sodium	mg/kg	**3,990**	**7,090**	**6,060**	**7,400**	**4,440**	**6,170**	**5,450**	**3,550**	**8,710**	**12,000 J**	**7,240 J**	**8,590 J**	**3,990 J**	**1,710**	**7,470 J**	**4,680**	**6,520 J**	**8,640 J**
Thallium	mg/kg	3.5 U	**1.6 J**	**2.9 J**	**1.9 J**	**1.5 J**	**1.7 J**	**1.3 J**	**1.6 J**	4.6 U	**1.7 J**	**1.9 J**	5.3 UJ	5 UJ	4.2 U	**0.83 J**	**0.7 J**	5.9 UJ	**0.94 J**
Vanadium	mg/kg	**15.5**	**38.8**	**41.6**	**74.4**	**43.9**	**64.6**	**57**	**42.6**	**26.6**	**57.2 J**	**72.4 J**	**40.3 J**	**47 J**	**38.9**	**33.2 J**	**32.6**	**42.3 J**	**47.4 J**
Zinc	mg/kg	**245**	**691**	**615 J**	**884**	**622 J**	**716**	**861**	**566 J**	**298**	**775 J**	**964 J**	**792 J**	**1,040 J**	**482 J**	**519 J**	**414**	**421 J**	**501 J**
Cyanide, Total	mg/kg	**0.59 J**	**3.3 J**	**1.2 J**	**1.1 J**	**2 J**	**1.7 J**	**2.1 J**	**1.2 J**	4.5 U	**0.57 J**	**0.7 J**	**2 J**	**2.3 J**	**1.7 J**	5.1 UJ	4.2 U	5.7 UJ	6.4 UJ

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-3	ERT1-3
Sample Number:	GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H	ERT1-3-A	ERT1-3-B
Sample Depth:	0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-6.8	0-0.5	0.5-1
Sample Date:	4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																	
Metals																		
Aluminum	mg/kg	6,000	8,610	6,630	6,110 J	5,980 J	5,410 J	4,560 J	4,600 J	5,490	4,030	2,570	3,460	5,180	6,120	2,480	3,570	5,510 J	5,200 J
Antimony	mg/kg	10.3 UJ	9.9 UJ	1.4 J	4.2 J	4.4 J	10.2 J	13.9 J	16.8 J	3.1 J	6.4 J	2 J	34.6	3.3 J	11.8	8.8 J	4.4 J	4.4 J	5.1 J
Arsenic	mg/kg	11.9	22.8	3.9	5.7 J	5.4 J	6.4 J	13.6 J	12.6 J	3.6	2.3	1.8	12.3	4.1	11.7	7.7	2.6	5.3 J	5.2 J
Barium	mg/kg	131	223	88 J	247 J	492 J	1,170 J	975 J	960 J	338 J	148 J	78.3 J	1,080 J	384 J	1,360 J	886 J	316 J	332 J	414 J
Beryllium	mg/kg	1.2	0.83 U	0.82 U	1.1 UJ	1.2 UJ	0.97 UJ	1 UJ	1.2 UJ	0.91 U	0.59 U	0.48 U	0.71 U	0.84 U	0.74 U	0.74 U	0.63 U	1.2 UJ	1.5 UJ
Cadmium	mg/kg	2.6	6.9	1.5	6.5 J	6.1 J	16.3 J	16.9 J	18.1 J	2.5	1.4	1.3	6.5	4.1	13.3	6.8	3.5	5.4 J	5.4 J
Calcium	mg/kg	3,610 J	3,160 J	6,650 J	15,800 J	14,500 J	13,100 J	8,290 J	9,180 J	13,900 J	8,060 J	5,610 J	8,960 J	12,100 J	9,260 J	10,900 J	7,200 J	11,500 J	11,700 J
Chromium	mg/kg	43.6	98.7	42.7 J	65.7 J	123 J	223 J	227 J	207 J	66.4 J	27.8 J	13.6 J	61.1 J	60.2 J	169 J	39.3 J	51.7 J	87.6 J	84.3 J
Cobalt	mg/kg	8.4 J	8.8	8.2 U	10.9 UJ	11.7 UJ	9.7 UJ	10.1 UJ	11.7 UJ	9.1 U	5.9 U	4.8 U	7.1 U	8.4 U	7.4 U	7.4 U	6.3 U	12.1 UJ	15.2 UJ
Copper	mg/kg	162 J	261 J	119 J	456 J	462 J	653 J	1,040 J	909 J	156 J	185 J	126 J	331 J	338 J	606 J	432 J	285 J	448 J	458 J
Iron	mg/kg	19,400	25,300	16,800	21,500 J	22,500 J	31,800 J	23,200 J	24,700 J	21,500	13,500	10,400	20,400	19,700	26,000	17,000	14,900	19,800 J	19,600 J
Lead	mg/kg	625 J	310 J	293	624 J	991 J	1,840 J	1,940 J	1,830 J	705	609	460	2,880	966	2,280	1,740	927	934 J	856 J
Magnesium	mg/kg	3,390	4,150	5,400	6,930 J	6,230 J	6,200 J	4,450 J	4,270 J	6,190	4,160	2,910	3,350	5,010	4,690	3,550	3,730	7,090 J	7,410 J
Manganese	mg/kg	238	240	148	141 J	125 J	135 J	91.4 J	119 J	120	95.7	71.8	107	107	148	93.9	64.6	102 J	105 J
Mercury	mg/kg	1.7	3.3	1.2	2.2 J	6.6 J	6.2 J	17.7 J	6 J	0.82	0.68	3.7	1.2	2.3	2.8	0.91	2.1	7.5 J	3.3 J
Nickel	mg/kg	43.2	35.4	24.5	50 J	57.3 J	132 J	124 J	125 J	27.9	25.3	23.7	35.6	82.5	112	51.2	153	49.7 J	57.9 J
Potassium	mg/kg	1,730 J	2,270 J	1,700 J	1,330 J	1,070 J	930 J	832 J	807 J	1,530 J	892 J	554 J	620 J	932 J	835 J	386 J	797 J	1,400 J	1,400 J
Selenium	mg/kg	6 U	5.8 U	1.2 J	2.5 J	2.5 J	3.1 J	3.8 J	3.2 J	6.3 U	4.2 U	3.4 U	2.5 J	1.3 J	2.4 J	1.8 J	1.1 J	2.4 J	3.6 J
Silver	mg/kg	2.1	5.5	2.9	19.7 J	15 J	25.4 J	37.1 J	42.1 J	1.9	1.6	0.93 J	31.1	3.1	21.9	6	5	8.6 J	9.4 J
Sodium	mg/kg	5,390	3,450	6,790	2,530 J	1,400 J	1,070 J	1,010 UJ	1,170 UJ	6,830	3,420	1,680	711 U	4,460	2,870	735 U	4,810	13,100 J	14,500 J
Thallium	mg/kg	4.3 U	1.4 J	4.1 U	5.5 UJ	5.9 UJ	4.9 UJ	5 UJ	5.8 UJ	4.5 U	3 U	2.4 U	3.6 U	4.2 U	3.7 U	3.7 U	3.1 U	6 UJ	7.6 UJ
Vanadium	mg/kg	22.8	42.9	25.7	32.7 J	36.5 J	56 J	132 J	103 J	29.4	17.5	13.4	20.3	28.7	83.1	16.1	23.9	35.9 J	37.5 J
Zinc	mg/kg	655 J	475 J	348 J	960 J	1,080 J	1,370 J	1,530 J	1,610 J	567 J	303 J	445 J	1,140 J	661 J	1,300 J	1,070 J	611 J	945 J	964 J
Cyanide, Total	mg/kg	1.2 J	0.64 J	0.43 J	6.9 J	9.8 J	1.2 J	10.1 J	0.77 J	7.8	3.6 U	3 U	1.1 J	16.8	2.1 J	11	4.1	8.7 J	11.1 J

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-2	ERT2-2
Sample Number:		ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F	FD-02	ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B
Sample Depth:		1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	4-5	5-6	6-7	0-0.5	0.5-1
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**																		
Metals																			
Aluminum	mg/kg	**5,240 J**	**5,960 J**	**6,440 J**	**6,390 J**	**5,940 J**	**5,160 J**	**2,550**	**12,800 J**	**13,900 J**	**13,100 J**	**13,500**	**10,300 J**	**7,110 J**	**6,540 J**	**5,040**	**5,490 J**	**10,600 J**	**12,100 J**
Antimony	mg/kg	**5.9 J**	**9.9 J**	**8.5 J**	**10.5 J**	**11.1 J**	**14.5 J**	**3.4 J**	**0.93 J**	16.8 UJ	**1.7 J**	**2.1 J**	**4.3 J**	**11.2 J**	**12.1 J**	**8.2 J**	**11.4 J**	**1.2 J**	15 U
Arsenic	mg/kg	**4.2 J**	**4 J**	**7.5 J**	**8.3 J**	**8.7 J**	**13.1 J**	**6.7**	**9.4 J**	**11.6 J**	**16.8 J**	**12.3**	**11.3 J**	**9.8 J**	**10.8 J**	**14.5**	**21.9 J**	**8.4 J**	**12.2 J**
Barium	mg/kg	**472 J**	**579 J**	**928 J**	**1,370 J**	**1,090 J**	**1,180 J**	**387**	**58.1 J**	**74.4 J**	**75.6 J**	**83.9**	**305 J**	**847 J**	**783 J**	**704**	**1,040 J**	**65.4 J**	**65.1 J**
Beryllium	mg/kg	1.4 UJ	1.2 UJ	0.93 UJ	1.1 UJ	1.2 UJ	0.85 UJ	0.55 U	1.1 UJ	1.4 UJ	1.3 UJ	0.86 UJ	1.1 UJ	1 UJ	1.1 UJ	0.95 U	0.99 UJ	1.2 UJ	1.2 UJ
Cadmium	mg/kg	**7.6 J**	**7.9 J**	**14.5 J**	**16.6 J**	**13.1 J**	**16.2 J**	**2.4**	1.1 UJ	1.4 UJ	**1.4 J**	**1.5 J**	**5 J**	**13.2 J**	**13.4 J**	**8.7**	**8.7 J**	1.2 UJ	1.2 UJ
Calcium	mg/kg	**11,600 J**	**12,800 J**	**14,200 J**	**14,300 J**	**15,000 J**	**9,520 J**	**4,960**	**7,660 J**	**8,570 J**	**11,200 J**	**10,600**	**11,800 J**	**12,200 J**	**11,600 J**	**8,130**	**8,680 J**	**12,200 J**	**11,400 J**
Chromium	mg/kg	**104 J**	**98.5 J**	**150 J**	**207 J**	**223 J**	**188 J**	**32.7 J**	**51.4 J**	**59.9 J**	**75.8 J**	**75.5**	**98.1 J**	**167 J**	**171 J**	**116 J**	**85.6 J**	**53.2 J**	**65.8 J**
Cobalt	mg/kg	13.6 UJ	12.3 UJ	9.3 UJ	10.6 UJ	12.4 UJ	8.5 UJ	5.5 U	**11.5 J**	14 UJ	12.6 UJ	12.4 UJ	11.3 UJ	10.1 UJ	11.1 UJ	9.5 U	9.9 UJ	12.5 UJ	12.4 UJ
Copper	mg/kg	**500 J**	**560 J**	**622 J**	**857 J**	**763 J**	**861 J**	**171**	**65.8 J**	**78.4 J**	**106 J**	**110**	**273 J**	**766 J**	**588 J**	**451**	**553 J**	**80.2 J**	**111 J**
Iron	mg/kg	**20,900 J**	**23,500 J**	**22,200 J**	**23,700 J**	**28,500 J**	**43,000 J**	**12,400**	**29,200 J**	**33,600 J**	**32,300 J**	**32,900**	**28,600 J**	**25,500 J**	**27,100 J**	**47,000**	**29,000 J**	**26,800 J**	**29,400 J**
Lead	mg/kg	**1,180 J**	**1,550 J**	**1,890 J**	**2,050 J**	**1,910 J**	**1,910 J**	**1,800**	**126 J**	**119 J**	**141 J**	**167**	**571 J**	**1,410 J**	**1,300 J**	**2,510**	**1,600 J**	**222 J**	**137 J**
Magnesium	mg/kg	**6,580 J**	**6,580 J**	**7,670 J**	**7,270 J**	**5,820 J**	**4,800 J**	**2,120**	**7,300 J**	**7,490 J**	**7,230 J**	**7,250**	**6,630 J**	**5,700 J**	**5,480 J**	**4,110**	**4,540 J**	**6,920 J**	**7,380 J**
Manganese	mg/kg	**106 J**	**123 J**	**131 J**	**127 J**	**160 J**	**161 J**	**96**	**453 J**	**699 J**	**664 J**	**682**	**397 J**	**169 J**	**194 J**	**215**	**141 J**	**393 J**	**531 J**
Mercury	mg/kg	**61.6 J**	**12.3 J**	**3.3 J**	**4.4 J**	**5.3 J**	**18.3 J**	**2.4**	**0.83 J**	**0.98 J**	**1.7 J**	**1.5**	**2.4 J**	**5.4 J**	**3.7 J**	**2.9**	**9.7 J**	**0.98 J**	**1.3 J**
Nickel	mg/kg	**65.8 J**	**72.7 J**	**118 J**	**195 J**	**230 J**	**127 J**	**22.4 J**	**30.3 J**	**34.2 J**	**35.4 J**	**38.2**	**57.2 J**	**96.6 J**	**97.4 J**	**77.8**	**48.8 J**	**34.7 J**	**34.2 J**
Potassium	mg/kg	**1,360 J**	**1,260 J**	**1,400 J**	**1,390 J**	**1,190 J**	**1,050 J**	**522 J**	**3,060 J**	**3,180 J**	**3,030 J**	**3,350**	**2,260 J**	**1,250 J**	**1,310 J**	**972**	**1,170 J**	**2,760 J**	**3,070 J**
Selenium	mg/kg	**3.8 J**	**2.3 J**	**3.4 J**	**3.9 J**	**3.1 J**	**4.1 J**	**1.2 J**	7.6 UJ	9.8 UJ	8.8 UJ	10.1 U	7.9 UJ	**2.8 J**	**2.7 J**	**3.1 J**	**4 J**	8.7 UJ	8.7 UJ
Silver	mg/kg	**14.8 J**	**14.4 J**	**24.1 J**	**28.3 J**	**22.1 J**	**23.7 J**	**2.4**	2.2 UJ	2.8 UJ	**0.46 J**	**2 J**	**7.1 J**	**22.1 J**	**26.8 J**	**12.3 J**	**8.4 J**	**0.58 J**	**1.3 J**
Sodium	mg/kg	**13,000 J**	**8,160 J**	**7,440 J**	**6,880 J**	**4,810 J**	**2,440 J**	551 U	**10,500 J**	**4,820 J**	**2,320 J**	**2,010**	**1,480 J**	**1,270 J**	**1,260 J**	**1,110**	**1,780 J**	**10,100 J**	**8,900 J**
Thallium	mg/kg	6.8 UJ	6.2 UJ	4.7 UJ	5.3 UJ	6.2 UJ	4.3 UJ	2.8 U	5.4 UJ	7 UJ	6.3 UJ	7.2 U	5.7 UJ	5.1 UJ	5.6 UJ	4.7 U	5 UJ	6.2 UJ	6.2 UJ
Vanadium	mg/kg	**41.9 J**	**49.1 J**	**61.2 J**	**70.3 J**	**75.1 J**	**127 J**	**18.2**	**30.5 J**	**36.5 J**	**36 J**	**38.5**	**41.6 J**	**56.6 J**	**58 J**	**37.5**	**36.1 J**	**30.6 J**	**35.7 J**
Zinc	mg/kg	**1,050 J**	**1,150 J**	**1,200 J**	**1,500 J**	**1,480 J**	**1,390 J**	**705**	**195 J**	**243 J**	**238 J**	**236**	**594 J**	**1,230 J**	**1,110 J**	**992**	**1,630 J**	**230 J**	**201 J**
Cyanide, Total	mg/kg	**9.9 J**	**14.9 J**	**5.2 J**	**3.3 J**	**1.4 J**	**12.7 J**	**0.34 J**	**0.58 J**	6.7 UJ	**0.88 J**	7.1 U	**4.6 J**	**17.1 J**	**3 J**	**12.3**	**14.7 J**	6.6 UJ	6.5 UJ

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1
Sample Number:		ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D	ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A
Sample Depth:		1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	8-9.4	0-0.5
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**11,600 J**	**10,600 J**	**4,380**	**5,730**	**6,610**	**6,450**	**4,450**	**4,840**	**9,790 J**	**9,440 J**	**11,500 J**	**10,300 J**	**8,050 J**	**6,270 J**	**5,140 J**	**4,870 J**	**3,110**	**5,120**
Antimony	mg/kg	**1.4 J**	**2.8 J**	**16.9 J**	**14.5 J**	**12.8 J**	**15 J**	**16 J**	6.1 UJ	**2.2 J**	**1.8 J**	**3.6 J**	**1.8 J**	**4.2 J**	**8.1 J**	**8.5 J**	**19.6 J**	**12.5 J**	**4.2 J**
Arsenic	mg/kg	**12.3 J**	**11.8 J**	**13**	**12**	**10.8**	**10.3**	**6.9**	**1.4**	**7.2 J**	**6.7 J**	**7.4 J**	**8.1 J**	**8.7 J**	**4.9 J**	**7.3 J**	**12.7 J**	**10.4**	**5.7**
Barium	mg/kg	**80.3 J**	**239 J**	**521**	**953**	**1,340**	**1,060**	**393**	**25.7**	**73.5 J**	**98 J**	**119 J**	**108 J**	**382 J**	**487 J**	**757 J**	**952 J**	**417**	**447 J**
Beryllium	mg/kg	1.1 UJ	1.1 UJ	0.39 UJ	0.42 UJ	0.5 UJ	0.5 UJ	0.4 UJ	0.36 UJ	1.2 UJ	1.1 UJ	0.94 UJ	0.98 UJ	0.86 UJ	1 UJ	0.76 UJ	1.1 UJ	0.74 U	0.74 U
Cadmium	mg/kg	**1.8 J**	**3.6 J**	**6.7 J**	**12.5 J**	**17.2 J**	**15.7 J**	**6.9 J**	0.29 UJ	**1.5 J**	**1.7 J**	**1.9 J**	**2.1 J**	**5.9 J**	**7.1 J**	**11 J**	**14.8 J**	**6.8**	**7.6**
Calcium	mg/kg	**11,400 J**	**11,100 J**	**9,740**	**9,340**	**10,500**	**10,800**	**14,700**	**940**	**13,000 J**	**10,700 J**	**10,400 J**	**9,420 J**	**13,900 J**	**12,300 J**	**10,800 J**	**10,400 J**	**4,960**	**4,660 J**
Chromium	mg/kg	**74.1 J**	**98.5 J**	**81.3**	**171**	**258**	**232**	**73.1**	**14**	**51.1 J**	**59.2 J**	**73.4 J**	**69.8 J**	**92.4 J**	**92.9 J**	**118 J**	**196 J**	**67.7 J**	**107 J**
Cobalt	mg/kg	**11.9 J**	**11.5 J**	6.5 UJ	7.6 UJ	7.8 UJ	8.9 UJ	6.1 UJ	3.6 UJ	11.6 UJ	**11.3 J**	**10.7 J**	**10.1 J**	8.8 U	10.1 UJ	7.6 UJ	10.6 UJ	7.4 U	7.4 U
Copper	mg/kg	**123 J**	**227 J**	**384**	**645**	**784**	**598**	**427**	**12.4**	**129 J**	**124 J**	**178 J**	**222 J**	**474 J**	**471 J**	**557 J**	**729 J**	**365**	**309 J**
Iron	mg/kg	**29,900 J**	**30,900 J**	**23,000**	**26,700**	**25,800**	**25,800**	**19,300**	**7,560**	**27,100 J**	**29,100 J**	**29,600 J**	**28,900 J**	**28,500 J**	**20,500 J**	**20,500 J**	**26,300 J**	**17,100**	**17,600**
Lead	mg/kg	**187 J**	**469 J**	**1,070**	**1,400**	**1,690**	**1,720**	**950**	**22.6**	**262 J**	**290 J**	**294 J**	**325 J**	**758 J**	**1,250 J**	**1,550 J**	**2,000 J**	**930**	**667**
Magnesium	mg/kg	**6,730 J**	**6,710 J**	**5,400**	**4,720**	**5,740**	**5,560**	**4,610**	**2,180**	**7,190 J**	**7,300 J**	**7,320 J**	**6,920 J**	**7,340 J**	**5,440 J**	**4,870 J**	**4,670 J**	**2,480**	**4,410**
Manganese	mg/kg	**427 J**	**357 J**	**142**	**153**	**147**	**177**	**118**	**59.7**	**255 J**	**305 J**	**269 J**	**300 J**	**182 J**	**135 J**	**141 J**	**148 J**	**89.5**	**137**
Mercury	mg/kg	**1.8 J**	**2 J**	**2.1**	**4**	**4.8**	**4.3**	**2.9**	**0.063 J**	**0.73 J**	**2.2 J**	**0.91 J**	**1.4 J**	**1.6 J**	**2.2 J**	**3 J**	**3.3 J**	0.19 U	**3.5**
Nickel	mg/kg	**38.7 J**	**50.7 J**	**52.3**	**101**	**140**	**132**	**69.5**	**11.9**	**30.5 J**	**35.8 J**	**36.3 J**	**39.3 J**	**57.4 J**	**59.4 J**	**93.6 J**	**105 J**	**50.6**	**76.4**
Potassium	mg/kg	**2,750 J**	**2,530 J**	**983**	**1,170**	**1,350**	**1,360**	**929**	**841**	**2,500 J**	**2,460 J**	**2,870 J**	**2,500 J**	**1,670 J**	**970 J**	**969 J**	1,060 UJ	742 U	**1,330 J**
Selenium	mg/kg	8 UJ	**1.7 J**	**2.5 J**	**2.4 J**	**3 J**	**2.7 J**	**1.7 J**	3.6 U	**2.1 J**	**1.6 J**	**1.7 J**	**2 J**	**2.4 J**	**2.6 J**	**2.5 J**	**3.3 J**	**2.3 J**	**1.4 J**
Silver	mg/kg	**2.2 J**	**5.3 J**	**10.1 J**	**17.9 J**	**25.9 J**	**20.6 J**	**11.9 J**	1 UJ	**0.37 J**	**1.1 J**	**1.9 J**	**6.3 J**	**7.2 J**	**16.9 J**	**19.6 J**	**19.5 J**	**18.1**	**8.7**
Sodium	mg/kg	**5,790 J**	**5,160 J**	**2,410**	**3,080**	**2,730**	**2,220**	830 UJ	278 UJ	**9,650 J**	**7,490 J**	**7,150 J**	**3,800 J**	**2,580 J**	**1,580 J**	**1,090 J**	**1,180 J**	742 U	**6,270**
Thallium	mg/kg	5.7 UJ	5.7 UJ	3.7 U	4.4 U	5.3 U	4.9 U	4.3 U	2.5 U	5.8 UJ	5.3 UJ	4.7 UJ	4.9 UJ	4.4 UJ	5 UJ	3.8 UJ	5.3 UJ	3.7 U	3.7 U
Vanadium	mg/kg	**35.2 J**	**43.1 J**	**33.1**	**73.4**	**76**	**61**	**33.4**	**14.4**	**34.5 J**	**34 J**	**38.7 J**	**36.9 J**	**42.1 J**	**43.4 J**	**60.8 J**	**121 J**	**28.7**	**37.9**
Zinc	mg/kg	**266 J**	**473 J**	**954**	**1,200**	**1,430**	**1,280**	**927**	**40.7**	**347 J**	**340 J**	**433 J**	**415 J**	**889 J**	**992 J**	**996 J**	**1,370 J**	**760**	**594 J**
Cyanide, Total	mg/kg	**3.8 J**	6.2 UJ	**1.5 J**	**41.8**	**8.6**	**1.9 J**	**3.4 J**	2.8 U	**3.4 J**	**22.4 J**	**1.7 J**	**0.71 J**	**7 J**	5.3 UJ	5 UJ	**0.84 J**	4.4 U	**1.4 J**

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3
Sample Number:		ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C	ERT3-2-D	ERT3-2-E	ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C
Sample Depth:		0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.4	0-0.5	0.5-1	1-2
Sample Date:		1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
										Metals									
Aluminum	mg/kg	4,670	3,820	3,590	5,410	4,700	5,950	5,110	9,250	10,400	8,590	3,000	2,290	4,620	4,260	5,350	12,300 J	11,200 J	11,500 J
Antimony	mg/kg	4.5 J	3.7 J	2.6 J	1.7 J	11	13.4	11.5	3.7 J	2.9 J	2.8 J	3.2 J	3.8 J	6.4 J	11.5 J	7.9 J	1.5 J	1.3 J	1.6 J
Arsenic	mg/kg	6.6	5.1	3.5	3.3	14.5	20.5	22.3	6	5.8	6.1	5.1	3.5	8.5	11.2	10.8	7.7 J	8 J	10 J
Barium	mg/kg	464 J	336 J	213 J	118 J	749 J	967 J	1,030 J	77.6	83.6	130	180	124	485	747	826	85.4 J	74.2 J	87.7 J
Beryllium	mg/kg	0.74 U	0.65 U	0.5 U	0.59 U	0.68 U	0.68 U	0.74 U	0.58 UJ	0.74 UJ	0.57 UJ	0.2 UJ	0.38 UJ	0.4 UJ	0.36 UJ	0.5 UJ	0.99 UJ	1.2 UJ	0.94 UJ
Cadmium	mg/kg	8.4	6.2	3.6	1.6	17.6	26.9	19.1	1.6 J	1.8 J	3.7 J	3.2 J	2.5 J	8.9 J	10 J	10 J	2.3 J	2 J	2.4 J
Calcium	mg/kg	5,650 J	4,070 J	5,990 J	6,270 J	6,430 J	7,850 J	11,100 J	6,610	9,680	6,330	3,680	3,230	5,960	6,130	4,270	7,230 J	6,820 J	7,670 J
Chromium	mg/kg	119 J	93.6 J	46.7 J	34.2 J	235 J	325 J	217 J	50.7	59	60.5	47.4	29.8	136	145	147	62.3 J	67 J	76.7 J
Cobalt	mg/kg	7.4 U	6.5 U	11.8	6.2	7.6	9.2	8.5	8.7 UJ	10.1 UJ	8.5	4.3 UJ	2.9 UJ	6.8 UJ	6 UJ	7.8 UJ	12 J	11.6 UJ	11.2 J
Copper	mg/kg	346 J	237 J	133 J	183 J	579 J	794 J	746 J	139	138	150	194	125	1,250	481	399	164 J	145 J	148 J
Iron	mg/kg	18,700	15,700	13,300	14,600	24,700	26,100	49,500	22,900	27,000	22,700	13,100	51,000	20,600	20,300	21,100	27,900 J	27,800 J	30,100 J
Lead	mg/kg	734	556	386	173	1,270	1,820	1,520	230	210	296	362	244	787	1,210	798	241 J	196 J	207 J
Magnesium	mg/kg	4,300	3,090	3,460	6,760	3,970	4,760	4,600	6,490	6,880	5,260	2,610	1,600	4,310	3,510	3,240	9,020 J	8,070 J	8,030 J
Manganese	mg/kg	128	103	105	162	120	130	159	198	259	211	94.2	365	123	113	149	295 J	299 J	365 J
Mercury	mg/kg	2.5	1.7	0.71	0.45	5.9	3.9	3.3	1.2	1.1	1.3	0.32	0.75	2.9	2.5	1.5	1.5 J	1.8 J	2.4 J
Nickel	mg/kg	85.9	61.4	42.9	44.6	122	153	116	30.3	37.6	41.3	45.5	29.5	301	101	92.1	37.7 J	36.3 J	37.9 J
Potassium	mg/kg	1,080 J	820 J	518 J	1,570 J	997 J	1,210 J	1,010 J	2,320	2,500	1,800	597 J	439 J	902	809	1,040	2,940 J	2,870 J	2,880 J
Selenium	mg/kg	2.6 J	1.4 J	0.97 J	4.1 U	3.4 J	4.5 J	5.8	6.7 U	8.8 U	1.3 J	1.1 J	1.6 J	1.8 J	2.1 J	2.2 J	1.7 J	1.9 J	1.8 J
Silver	mg/kg	9.4	5.8	5.7	0.74 J	16	26.7	25.2	0.93 J	2.7 J	2.2 J	2.4 J	1.2 UJ	14.4 J	13.2 J	9.7 J	1.4 J	1.9 J	2.5 J
Sodium	mg/kg	4,470	2,440	1,250	1,010	2,430	3,630	3,080	6,470	4,040	1,420	362 UJ	323 UJ	999	967	665 UJ	10,900 J	10,600 J	9,400 J
Thallium	mg/kg	3.7 U	3.3 U	2.5 U	2.9 U	3.4 U	3.4 U	3.7 U	4.8 U	6.3 U	4.1 U	3.6 U	2.9 U	3.9 U	3.2 U	4.1 U	5 UJ	5.8 UJ	4.7 UJ
Vanadium	mg/kg	37	27.1	14.5	15.3	76.3	115	76.1	32.6	35.5	29.8	20.6	12.7	42.6	76.4	77.9	41.4 J	38.7 J	40.6 J
Zinc	mg/kg	732 J	464 J	260 J	210 J	1,090 J	1,690 J	1,420 J	353	430	416	400	255	762	947	822	398 J	324 J	320 J
Cyanide, Total	mg/kg	1.5 J	5.6	0.26 J	2.9 U	9	11.4	20.7	12.6	3.9 J	4.7 U	0.64 J	0.9 J	0.43 J	2.4 J	0.27 J	1.1 J	0.65 J	5.9 J

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01
Sample Number:		ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J	ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)
Sample Depth:		2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.3	1-2.5	16-17
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**7,110 J**	**8,360 J**	**9,390 J**	**7,190 J**	**4,130**	**4,010**	**4,040 J**	**5,020 J**	**11,700 J**	**12,700 J**	**10,500 J**	**7,340 J**	**6,350 J**	**6,310**	**4,970**	**4,320**	**8,360**	**3,990**
Antimony	mg/kg	**4.5 J**	**4.2 J**	**6.9 J**	**4.5 J**	**4.4 J**	**5.8 J**	**7 J**	**6.4 J**	**2.2 J**	**1.6 J**	**2.5 J**	**3.8 J**	**5.4 J**	**5.2 J**	**5 J**	**5.3 J**	17.5 UJ	**6.5 J**
Arsenic	mg/kg	**8.8 J**	**11 J**	**11.3 J**	**9.8 J**	**8.2**	**6.3**	**13.6 J**	**17 J**	**8.6 J**	**7.7 J**	**8.7 J**	**9.5 J**	**11.4 J**	**9.9**	**8.2**	**8.1**	**5.8 J**	**14.8**
Barium	mg/kg	**403 J**	**513 J**	**631 J**	**467 J**	**495**	**466**	**607 J**	**927 J**	**77.3 J**	**88.6 J**	**137 J**	**386 J**	**450 J**	**443**	**360**	**343**	**100**	**517**
Beryllium	mg/kg	1.3 UJ	1.1 UJ	1 UJ	1.2 UJ	0.88 U	0.74 U	0.92 UJ	0.81 UJ	1.3 UJ	1.2 UJ	1.2 UJ	1 UJ	0.84 UJ	0.95 U	0.85 U	0.74 U	3 U	3.1 U
Cadmium	mg/kg	**6.7 J**	**11.1 J**	**12.6 J**	**10.9 J**	**6.9**	**8.4**	**8.7 J**	**8 J**	**2.1 J**	**2.6 J**	**3.5 J**	**7 J**	**10.6 J**	**10.2**	**7.6**	**7.3**	4.5 UJ	**8.1 J**
Calcium	mg/kg	**16,700 J**	**15,200 J**	**14,700 J**	**13,300 J**	**5,360**	**5,240**	**6,500 J**	**9,860 J**	**6,960 J**	**6,350 J**	**7,560 J**	**13,300 J**	**10,400 J**	**10,000**	**8,080**	**6,370**	**7,960**	**8,330**
Chromium	mg/kg	**83.5 J**	**150 J**	**189 J**	**195 J**	**114 J**	**123 J**	**99.694 J**	**71.9 J**	**61.9 J**	**74.8 J**	**82.8 J**	**97.5 J**	**157 J**	**173**	**120**	**137**	**60.2**	**86.2**
Cobalt	mg/kg	12.8 UJ	11 UJ	10.4 UJ	11.9 UJ	8.8 U	7.4 U	9.2 UJ	8.1 UJ	12.5 UJ	**11.8 J**	11.6 UJ	10.1 UJ	**8.4 J**	9.5 U	8.5 U	7.4 U	**9.1 J**	**7.6 J**
Copper	mg/kg	**430 J**	**562 J**	**638 J**	**598 J**	**350**	**371**	**358 J**	**458 J**	**171 J**	**170 J**	**227 J**	**500 J**	**542 J**	**550**	**497**	**361**	**188**	**519**
Iron	mg/kg	**26,600 J**	**27,200 J**	**30,000 J**	**25,000 J**	**22,400**	**18,500**	**20,300 J**	**26,900 J**	**26,600 J**	**28,300 J**	**27,700 J**	**27,700 J**	**28,900 J**	**28,000**	**27,800**	**24,600**	**21,600**	**21,800**
Lead	mg/kg	**809 J**	**1,090 J**	**1,100 J**	**1,000 J**	**649**	**780**	**724 J**	**1,190 J**	**232 J**	**259 J**	**396 J**	**802 J**	**1,060 J**	**1,080**	**972**	**1,160**	**232**	**1,620**
Magnesium	mg/kg	**8,900 J**	**8,730 J**	**8,610 J**	**6,820 J**	**3,470**	**3,250**	**2,920 J**	**3,530 J**	**8,890 J**	**8,930 J**	**8,270 J**	**8,580 J**	**6,530 J**	**6,290**	**4,790**	**4,690**	**6,110**	**3,470**
Manganese	mg/kg	**179 J**	**182 J**	**206 J**	**177 J**	**176**	**152**	**151 J**	**199 J**	**293 J**	**320 J**	**274 J**	**157 J**	**138 J**	**134**	**128**	**126**	**206**	**104**
Mercury	mg/kg	**3 J**	**4.2 J**	**4.2 J**	**3.7 J**	**2.3**	**1.2**	**0.11 J**	**4.3 J**	**2 J**	**3.2 J**	**2.4 J**	**4 J**	**3.1 J**	**2.5**	**2.7**	**1.8**	**1.1**	**4**
Nickel	mg/kg	**64.5 J**	**96 J**	**114 J**	**96.2 J**	**87.8**	**100**	**62.8 J**	**41.3 J**	**36.3 J**	**38.9 J**	**46.3 J**	**71.8 J**	**122 J**	**116**	**96.9**	**80.9**	**41.6**	**64.3**
Potassium	mg/kg	**1,410 J**	**1,470 J**	**1,680 J**	**1,060 J**	**704 J**	**710 J**	**684 J**	**925 J**	**2,950 J**	**3,140 J**	**2,660 J**	**1,730 J**	**1,370 J**	**1,290**	**976**	**744**	**1,900**	**455 J**
Selenium	mg/kg	**2.7 J**	**2.9 J**	**3.5 J**	**3 J**	**2.3 J**	**2.3 J**	**3.3 J**	**4.5 J**	**2.4 J**	**2.4 J**	**1.9 J**	**2.8 J**	**2.7 J**	**2.9 J**	**2.5 J**	**2.1 J**	23.9 U	24.8 U
Silver	mg/kg	**9.3 J**	**11.8 J**	**12.8 J**	**11.9 J**	**6.1**	**7.3**	**9.7 J**	**13.5 J**	**1.2 J**	**2.8 J**	**4.9 J**	**8.1 J**	**9.1 J**	**10.7**	**6.6**	**6**	**3.9 J**	**29.7**
Sodium	mg/kg	**5,340 J**	**2,370 J**	**2,660 J**	**1,370 J**	884 U	735 U	916 UJ	813 UJ	**9,910 J**	**10,700 J**	**11,000 J**	**10,600 J**	**6,730 J**	**5,890**	**3,650**	**2,360**	**7,070 J**	**298 J**
Thallium	mg/kg	6.4 UJ	5.5 UJ	5.2 UJ	6 UJ	4.4 U	3.7 U	4.6 UJ	4.1 UJ	6.2 UJ	5.9 UJ	5.8 UJ	5 UJ	4.2 UJ	4.8 U	4.3 U	3.7 U	29.9 UJ	31 UJ
Vanadium	mg/kg	**43.9 J**	**50.9 J**	**58.1 J**	**48.2 J**	**34.7**	**38.6**	**34.5 J**	**33.7 J**	**40.4 J**	**43.4 J**	**42 J**	**44.5 J**	**47.9 J**	**50.3**	**34.2**	**31.3**	**33.4**	**35.5**
Zinc	mg/kg	**1,180 J**	**1,300 J**	**1,380 J**	**1,560 J**	**750**	**689**	**1,340 J**	**1,570 J**	**406 J**	**406 J**	**509 J**	**1,040 J**	**1,090 J**	**1,110 J**	**956 J**	**752 J**	**463 J**	**1,550 J**
Cyanide, Total	mg/kg	**7.2 J**	**1.7 J**	**0.74 J**	**1.6 J**	4.6 U	**1.1 J**	**2.9 J**	4.7 UJ	**1.6 J**	5.9 UJ	**1.2 J**	**3.1 J**	**3.3 J**	**4.9**	**2.6 J**	3.8 U	0.91 UJ	0.92 UJ

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04	GC-SED-05	GC-SED-07	GC-SED-07	GC-SED-08	GC-SED-09B	GC-SED-10	GC-SED-100	GC-SED-101	GC-SED-102	GC-SED-102	GC-SED-103	GC-SED-103
Sample Number:		GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)	GC-SED-05(0-2)	GC-SED-07(0-2.5)	GC-SED-07(7.5-8.5)	GC-SED-08(1-2)	GC-SED-09(6-7)	GC-SED-10(0-1.5)	GC-SED-100(5-6)	GC-SED-101(4-7)	GC-SED-102(2-4)	GC-SED-102(6.5-8.5)	GC-SED-103(1-2)	GC-SED-103(8.1-9.1)
Sample Depth:		1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3	0-2	0-2.5	7.5-8.5	1-2	6-7	0-1.5	5-6	4-7	2-4	6.5-8.5	1-2	8.1-9.1
Sample Date:		12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/23/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005	12/21/2005	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006	1/28/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,140**	**4,800**	**6,350**	**6,120**	**15,200**	**4,580**	**15,900**	**7,810**	**2,170**	**9,530**	**7,510**	**15,600**	**3,910**	**4,750**	**6,110**	**2,890**	**12,600**	**429**
Antimony	mg/kg	15.9 UJ	**3.9 J**	16.8 UJ	**3.9 J**	37 UJ	**5.4 J**	33.7 UJ	26.9 UJ	**2.7 J**	**8.4 J**	23.8 UJ	41.8 UJ	**12.6 J**	**2 J**	18.7 UJ	16.6 UJ	32.4 UJ	11.8 UJ
Arsenic	mg/kg	10.9 U	**5.4 J**	**6 J**	**7.2 J**	**14.3 J**	**20.4 J**	**15.1 J**	**14.3 J**	**13**	**12.6 J**	**12.1 J**	**11.7 J**	**16.4 J**	**12.2 J**	**30.9 J**	**35.6 J**	**10.2 J**	8.1 UJ
Barium	mg/kg	**285**	**629**	**149**	**737**	**132 J**	**984 J**	**99.8 J**	**986**	**740**	**759 J**	**986 J**	**149 J**	**431 J**	**529 J**	**442**	**291**	**195 J**	**11 J**
Beryllium	mg/kg	2.7 U	4.2 U	2.9 U	5.3 U	6.3 U	3.3 U	5.8 U	4.6 U	2.6 U	7 U	4.1 U	7.1 U	2.4 U	3.4 U	3.2 U	2.8 U	5.5 U	2 U
Cadmium	mg/kg	**1.4 J**	**8.5 J**	4.3 UJ	**6.7 J**	9.5 U	**6.5**	8.6 U	**20.8 J**	**3.5 J**	**13.9**	**19.6**	10.7 U	**11**	**14.8**	**6.6 J**	**1.9 J**	**3.6 J**	3 U
Calcium	mg/kg	**11,000**	**15,600**	**7,780**	**20,000**	**9,260**	**7,060**	**9,430**	**12,200**	**6,380**	**14,200**	**13,500**	**10,000**	**8,610**	**24,300**	**5,960**	**3,140 J**	**21,900**	**3,500**
Chromium	mg/kg	**22.5**	**95**	**39.7**	**99.6**	**93.5**	**61.8**	**83.8**	**302**	**65.2**	**202**	**290**	**82.1**	**144**	**213**	**109**	**24.4**	**96.4**	**7**
Cobalt	mg/kg	**4 J**	**6.4 J**	**7.5 J**	**9.6 J**	**11.4 J**	**5.9 J**	**13 J**	**8.9 J**	**6.4 J**	**9 J**	**7.2 J**	**12.3 J**	**5.4 J**	**6.1 J**	**9.4 J**	**4.5 J**	**11 J**	2 UJ
Copper	mg/kg	**138**	**436**	**315**	**481**	**159**	**379**	**148**	**862**	**246**	**756**	**699**	**201**	**735**	**460**	**460**	**198**	**249**	**25**
Iron	mg/kg	**11,400**	**18,300**	**17,900**	**25,100**	**36,500**	**24,900**	**37,300**	**27,400**	**32,100**	**32,600**	**32,000**	**35,300**	**16,400**	**38,000**	**55,300**	**34,600 J**	**27,200**	**1,310**
Lead	mg/kg	**450**	**1,840**	**375**	**1,560**	**249**	**1,400**	**193**	**1,690**	**1,720**	**1,520**	**1,420**	**278**	**701**	**847**	**829 J**	**559 J**	**359**	**19.7**
Magnesium	mg/kg	**3,640**	**5,810**	**5,300**	**6,800**	**9,070**	**2,810**	**9,450**	**7,610**	**2,340**	**7,030**	**5,910**	**9,050**	**3,730 J**	**14,900 J**	**4,490**	**1,750 J**	**14,800 J**	**793 J**
Manganese	mg/kg	**72.3**	**124**	**160**	**176**	**523**	**133**	**541**	**173**	**149**	**262**	**186**	**461**	**91.9 J**	**185 J**	**175**	**127**	**297 J**	**13 J**
Mercury	mg/kg	**0.84**	**1.8**	**0.45**	**3**	**0.63 J**	**4.9 J**	**0.3 J**	**4.2**	**0.84**	**3.9 J**	**0.43 J**	**1.5**	**0.03**	**1.9**	**0.82**	**0.07**	**1.8**	**0.43**
Nickel	mg/kg	**23.3**	**61.6**	**113**	**110**	**43.5**	**30**	**46.9**	**186**	**36.1**	**124**	**140**	**45.6**	**87.9 J**	**158 J**	**64.3**	**16.4**	**46.5 J**	**3.1 J**
Potassium	mg/kg	**681 J**	**815 J**	**1,310 J**	**1,030 J**	**2,970 J**	**626 J**	**3,020 J**	**1,430 J**	**416 J**	**1,010 J**	**888 J**	**2,280 J**	**719 J**	**990 J**	**1,560 J**	**688 J**	**2,590 J**	**84.9 J**
Selenium	mg/kg	21.8 U	33.8 U	23 U	42.3 U	50.6 U	26.6 U	46.1 U	36.9 U	21.1 U	55.8 U	32.6 U	57.2 U	18.8 UJ	26.9 UJ	25.6 U	22.8 U	44.4 UJ	16.2 UJ
Silver	mg/kg	**4.7**	**16.3**	4.3 U	**14**	**10.8**	**7.9**	8.6 U	**23.7**	**6.9**	**18.1**	**26.5**	10.7 U	**10.5**	**10.5**	**8.1 J**	4.3 U	**8.5**	3 U
Sodium	mg/kg	**3,480 J**	**4,410 J**	**4,620 J**	**3,980 J**	**11,400 J**	**656 J**	**11,500 J**	**9,200 J**	**640 J**	**1,660 J**	**1,040 J**	**1,900 J**	**3,820**	**5,650**	**8,720**	**2,950**	**10,700**	95 U
Thallium	mg/kg	27.2 UJ	42.3 UJ	28.7 UJ	52.9 UJ	63.2 UJ	33.3 UJ	57.6 UJ	46.1 UJ	26.4 UJ	69.7 UJ	40.7 UJ	71.4 UJ	23.5 U	33.6 U	31.9 UJ	28.5 U	55.4 U	20.2 U
Vanadium	mg/kg	**18.4**	**46.8**	**23.9**	**51.5**	**45.1**	**31**	**43.3**	**85**	**18.8**	**75.6**	**65.7**	**49.8**	**44.9**	**59.8**	**49.1**	**15.8**	**48.4**	**2.6 J**
Zinc	mg/kg	**480 J**	**1,120 J**	**344 J**	**1,400 J**	**336**	**1,770**	**298**	**1,760 J**	**1,780 J**	**1,620**	**1,400**	**508**	**2,440 J**	**923 J**	**1,070**	**487**	**637 J**	**24.7 J**
Cyanide, Total	mg/kg	0.71 UJ	**0.18 J**	0.78 UJ	**1.35 J**	1.42 UJ	0.82 UJ	1.39 UJ	**0.3 J**	0.68 UJ	1.39 UJ	1.07 UJ	1.46 UJ	**1.66 J**	**0.18 J**	**4.51 J**	**8.82 J**	1.24 UJ	0.54 UJ

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SED-105	GC-SED-11	GC-SED-11	GC-SED-12	GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B
Sample Number:	GC-SED-105(2.5-4)	GC-SED-11(1-3)	GC-SED-11(11-13)	GC-SED-12(0-2)	GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)
Sample Depth:	2.5-4	1-3	11-13	0-2	13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1	1.5-2	5.8-6.8	0-1.5	4-5	1.5-3	7-8
Sample Date:	1/22/2006	1/5/2006	1/5/2006	12/21/2005	12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**								**Metals**										
Aluminum mg/kg	**3,790**	**11,900 J**	**8,580 J**	**12,000**	**2,940**	**25,000 J**	**12,700 J**	**5,950 J**	**13,500 J**	**24,700 J**	**11,400 J**	**12,900 J**	**8,950 J**	**5,590 J**	**12,600**	**13,300 J**	**10,300**	**3,810 J**
Antimony mg/kg	16.4 UJ	26.3 UJ	25.9 UJ	31.6 UJ	15.5 UJ	35.2 UJ	36 UJ	26.2 UJ	30.2 UJ	38 UJ	30.6 UJ	38.1 UJ	26.4 UJ	18.9 UJ	29.5 UJ	43 UJ	36.4 UJ	**2.7 J**
Arsenic mg/kg	**14.3**	**12.8 J**	**31.1 J**	**10.8 J**	**7.4 J**	**17.2 J**	**11 J**	**14.9 J**	**10.7 J**	**21.7 J**	**9 J**	**10.2 J**	**11.5 J**	**13.9 J**	**10.4 J**	**17 J**	**16.3 J**	**8.8 J**
Barium mg/kg	**114 J**	**234 J**	**442 J**	**229 J**	**145 J**	**154 J**	**216 J**	**443 J**	**175 J**	**293 J**	**76.7 J**	**138 J**	**577 J**	**473 J**	**106 J**	**714 J**	**650 J**	**212 J**
Beryllium mg/kg	2.8 U	4.5 U	4.4 U	5.4 U	2.7 U	6 U	6.2 U	4.5 U	5.2 U	6.5 U	5.2 U	6.5 U	4.5 U	3.2 U	5.1 U	7.3 UJ	6.2 U	2.7 U
Cadmium mg/kg	4.2 U	**4 J**	**12.4 J**	**4.3 J**	4 U	9 UJ	**3.9 J**	**2.8 J**	7.7 UJ	**6 J**	7.9 UJ	9.8 UJ	**8.6 J**	**12.3 J**	7.6 U	**11.3 J**	**10.9**	**7.8 J**
Calcium mg/kg	**3,900 J**	**12,200 J**	**12,800 J**	**9,050**	**2,600**	**12,200 J**	**9,890 J**	**9,040 J**	**9,290 J**	**17,900 J**	**7,840 J**	**9,090 J**	**6,260 J**	**7,280 J**	**7,320 J**	**13,900 J**	**15,900**	**10,300 J**
Chromium mg/kg	**36.5**	**93.4 J**	**207 J**	**96.6**	**20.7**	**137 J**	**90.6 J**	**46.7 J**	**106 J**	**187 J**	**74.8 J**	**84.6 J**	**89.4 J**	**188 J**	**78.1**	**162 J**	**173**	**62.6 J**
Cobalt mg/kg	**4.8 J**	**11.1 J**	**9.9 J**	**10.4 J**	**4.1 J**	**21.2 J**	**12.8 J**	**7 J**	**12.3 J**	**23.9 J**	**11.4 J**	**12.2 J**	**9.1 J**	**8.8 J**	**9.8 J**	**14.6 J**	**12.2 J**	**5.7 J**
Copper mg/kg	**82.1**	**292 J**	**739 J**	**320**	**111**	**291 J**	**315 J**	**470 J**	**198 J**	**562 J**	**160 J**	**223 J**	**396 J**	**1,070 J**	**254**	**629 J**	**626**	**1,190 J**
Iron mg/kg	**13,300**	**32,200 J**	**31,400 J**	**31,900**	**15,400**	**49,400 J**	**34,200 J**	**21,900 J**	**31,900 J**	**55,400 J**	**27,100 J**	**29,300 J**	**28,100 J**	**38,300 J**	**26,800**	**54,100 J**	**40,700**	**35,700 J**
Lead mg/kg	**308**	**507 J**	**1,290 J**	**528**	**1,200**	**357 J**	**703 J**	**1,350 J**	**812 J**	**927 J**	**215 J**	**339 J**	**690 J**	**1,230 J**	**268**	**1,640 J**	**1,180**	**844 J**
Magnesium mg/kg	**2,250 J**	**8,590 J**	**7,600 J**	**8,670**	**2,530**	**16,900 J**	**9,350 J**	**4,050 J**	**9,280 J**	**16,800 J**	**8,080 J**	**9,920 J**	**6,510 J**	**4,500 J**	**8,470**	**10,600 J**	**11,100**	**4,010 J**
Manganese mg/kg	**74.5**	**436 J**	**389 J**	**313**	**204**	**608 J**	**473 J**	**95.9 J**	**387 J**	**591 J**	**319 J**	**294 J**	**212 J**	**139 J**	**301**	**337 J**	**214**	**216 J**
Mercury mg/kg	**0.56**	**1.4 J**	**0.9 J**	**1.4**	**0.94**	**1.2 J**	**1.1 J**	**11.7 J**	**0.3 J**	**1.5 J**	**1.3**	**1.2 J**	**1.2 J**	**1.4**	**1.1**	**2.4 J**	**2**	**2.7**
Nickel mg/kg	**16.6**	**53.6 J**	**137 J**	**55.8**	**27.7**	**64 J**	**52.1 J**	**29.6 J**	**43.5 J**	**102 J**	**34.9 J**	**45.5 J**	**55 J**	**147 J**	**37.3 J**	**106 J**	**124**	**48.4 J**
Potassium mg/kg	**568 J**	**1,770 J**	**969 J**	**2,240 J**	**562 J**	**5,870 J**	**2,670 J**	**1,020 J**	**2,990 J**	**4,560 J**	**2,510 J**	**2,870 J**	**1,710 J**	**704 J**	**2,680 J**	**2,380 J**	**2,140 J**	**701 J**
Selenium mg/kg	22.5 U	36 U	35.4 U	43.2 U	21.2 U	48.1 U	49.3 U	35.8 U	41.3 U	51.9 U	41.9 U	52.1 U	36.1 U	**2.6 J**	40.4 U	58.7 UJ	49.8 U	21.7 U
Silver mg/kg	4.2 U	**8.6 J**	**17.4 J**	8.1 U	4 U	**8.2 J**	**5.8 J**	**8.1 J**	**7.2 J**	**14.1 J**	**4.8 J**	**6.2 J**	**7.2 J**	**15 J**	7.6 UJ	**12.1 J**	**12.6 J**	4.1 UJ
Sodium mg/kg	1,680 UJ	**3,420 J**	**1,790 J**	**8,950**	**245 J**	**22,200 J**	**10,600 J**	**4,950 J**	**12,100 J**	**6,810 J**	**8,050 J**	**14,100 J**	**5,990 J**	**607 J**	**11,100 J**	**5,970 J**	**11,200 J**	**1,380 J**
Thallium mg/kg	28.1 UJ	45 UJ	44.3 UJ	54 UJ	26.6 UJ	60.2 UJ	61.6 UJ	44.7 UJ	51.6 UJ	64.9 UJ	52.4 UJ	65.1 UJ	45.2 UJ	32.3 UJ	50.5 UJ	73.4 UJ	62.3 UJ	27.1 UJ
Vanadium mg/kg	**16.5 J**	**50.2 J**	**67.9 J**	**48.5**	**11.5 J**	**79.1 J**	**48.1 J**	**23.4 J**	**49 J**	**101 J**	**43.1 J**	**47.9 J**	**39.1 J**	**48.5 J**	**43.8 J**	**61.8 J**	**62.2**	**23.1 J**
Zinc mg/kg	**298**	**704 J**	**1,630 J**	**730**	**340**	**671 J**	**670 J**	**1,350 J**	**601 J**	**1,230 J**	**405 J**	**595 J**	**846 J**	**1,460 J**	**602 J**	**1,800 J**	**1,630**	**1,350 J**
Cyanide, Total mg/kg	**0.18 J**	1.43 UJ	1.11 UJ	1.33 UJ	0.53 UJ	1.48 UJ	1.28 UJ	1.01 UJ	1.37 UJ	1.38 UJ	1.51 UR	1.55 UJ	0.93 UR	0.85 UR	1.32 UR	1.7 UR	**0.17 J**	0.66 UR

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-22B	GC-SED-22B	GC-SED-23	GC-SED-24B	GC-SED-25B	GC-SED-26	GC-SED-27	GC-SED-27	GC-SED-28	GC-SED-28	GC-SED-29	GC-SED-30	GC-SED-31	GC-SED-31	GC-SED-32	GC-SED-32	GC-SED-33	GC-SED-34B
Sample Number:		GC-SED-22B(0-1)	GC-SED-22B(7-8)	GC-SED-23(0-2)	GC-SED-24(3-4.5)	GC-SED-25(1-4)	GC-SED-26(1-2)	GC-SED-27(0.5-1)	GC-SED-27(4.9-5.4)	GC-SED-28(1.5-2.5)	GC-SED-28(4.9-5.8)	GC-SED-29(2.3-4.6)	GC-SED-30(3.5-5.5)	GC-SED-31(2.5-4.5)	GC-SED-31(11.5-12.5)	GC-SED-32(0.5-1.5)	GC-SED-32(5.9-6.9)	GC-SED-33(1.5-3)	GC-SED-34B(2-3)
Sample Depth:		0-1	7-8	0-2	3-5	1-4	1-2	0.5-1	4.9-5.4	1.5-2.5	4.9-5.8	2.3-4.6	3.5-5.5	2.5-4.5	11.5-12.5	0.5-1.5	5.9-6.9	1.5-3	2-3
Sample Date:		1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/12/2006	1/16/2006	1/16/2006	1/16/2006	1/16/2006	1/17/2006	1/13/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**15,800 J**	**7,490 J**	**15,200**	**13,300**	**10,600**	**8,220**	**15,700**	**4,720**	**8,380**	**1,110**	**8,250**	**5,250**	**7,050 J**	**4,600 J**	**10,100 J**	**5,410 J**	**7,170 J**	**7,440**
Antimony	mg/kg	32.7 UJ	34.1 UJ	40.2 UJ	32 UJ	26.8 UJ	20.5 UJ	35.7 UJ	**8.2 J**	22.6 UJ	10.5 UJ	36 UJ	17 UJ	**3.4 J**	25.4 UJ	32 UJ	**8.3 J**	25 UJ	22.9 UJ
Arsenic	mg/kg	**11.5 J**	**15.8 J**	**11.2 J**	**11.8 J**	**8 J**	**9.4 J**	**10.3 J**	**17.4 J**	**9.9 J**	**2.4 J**	**7.8 J**	**8.6 J**	**13 J**	**67 J**	**7.7 J**	**17 J**	**11.3 J**	**15.2 J**
Barium	mg/kg	**120 J**	**489 J**	**120 J**	**217 J**	**141 J**	**204 J**	**137 J**	**451 J**	**236 J**	**36 J**	**186 J**	**274 J**	**365 J**	**639 J**	**139 J**	**643 J**	**235 J**	**343 J**
Beryllium	mg/kg	5.6 U	5.8 U	6.9 U	5.5 U	4.6 U	3.5 U	6.1 U	4.5 U	3.9 U	1.8 U	6.2 U	2.9 U	3.5 U	4.3 U	5.5 U	4.1 U	4.3 U	3.9 U
Cadmium	mg/kg	**3.1 J**	**11.5 J**	10.3 U	**4.4 J**	**2.5 J**	**4.7 J**	9.1 U	**19.6**	**3.9 J**	**1 J**	**3.1 J**	**4.8**	**11.6**	**3.9 J**	**3.7 J**	**17.9**	**6.6**	**12**
Calcium	mg/kg	**7,860 J**	**26,200 J**	**8,080 J**	**8,630 J**	**8,020 J**	**17,700 J**	**9,340 J**	**7,730 J**	**11,400 J**	**116,000 J**	**11,900 J**	**15,400 J**	**13,900 J**	**6,670 J**	**7,750 J**	**9,360 J**	**14,700 J**	**18,400 J**
Chromium	mg/kg	**110 J**	**191 J**	**85.2**	**111**	**81.3**	**96.1**	**89.9**	**214**	**78.8**	**19.5**	**74.2**	**78.1**	**230 J**	**44.3 J**	**78.7 J**	**285 J**	**132 J**	**241**
Cobalt	mg/kg	**13.6 J**	**10 J**	**12.4 J**	**12.1 J**	**9.9 J**	**10.4 J**	**14.3 J**	**7.4 J**	**8.6 J**	**2.5 J**	**8.9 J**	**6 J**	**9.4 J**	**9.1 J**	**8.8 J**	**7.7 J**	**8.2 J**	**13 J**
Copper	mg/kg	**229 J**	**564 J**	**218**	**305**	**204**	**288**	**205**	**821**	**255**	**104**	**243**	**220**	**514 J**	**393 J**	**255 J**	**693 J**	**305 J**	**558**
Iron	mg/kg	**33,000 J**	**55,600 J**	**32,700**	**32,300**	**24,200**	**22,900**	**32,100**	**24,600**	**22,500**	**15,000**	**22,300**	**15,600**	**27,400 J**	**22,200 J**	**24,500 J**	**25,700 J**	**18,800 J**	**33,100**
Lead	mg/kg	**325 J**	**964 J**	**307**	**495**	**352**	**560**	**339**	**1,090**	**552**	**86.4**	**924**	**666**	**1,190 J**	**1,260 J**	**430 J**	**1,770 J**	**706 J**	**1,130**
Magnesium	mg/kg	**10,000 J**	**7,710 J**	**9,510**	**9,240**	**7,990**	**8,990**	**10,700**	**4,090**	**8,140**	**78,600**	**7,970**	**6,280**	**7,770 J**	**2,890 J**	**8,400 J**	**4,580 J**	**7,970 J**	**9,910**
Manganese	mg/kg	**392 J**	**294 J**	**329**	**312**	**251**	**190**	**352**	**136**	**184**	**134**	**190**	**133**	**160 J**	**208 J**	**230 J**	**123 J**	**156 J**	**178**
Mercury	mg/kg	**1.5**	**2.7**	**1.7**	**1.4**	**1.7**	**0.91**	**1.2**	**3.3**	**1.4 J**	**0.44**	**3.2**	**1.8**	**2.1 J**	**8.5 J**	**2.2 J**	**7.6 J**	**1.9 J**	**1.9**
Nickel	mg/kg	**51.3 J**	**119 J**	**42.3 J**	**57.6 J**	**44.9 J**	**69 J**	**50.7 J**	**184 J**	**45.8 J**	**23.8 J**	**40.5 J**	**49.4 J**	**178 J**	**28 J**	**42.6 J**	**227 J**	**88.8 J**	**152 J**
Potassium	mg/kg	**3,010 J**	**1,090 J**	**2,820 J**	**2,560 J**	**2,140 J**	**2,160 J**	**3,070 J**	**690 J**	**1,810 J**	**288 J**	**1,770 J**	**1,300 J**	**1,250 J**	**748 J**	**2,020 J**	**753 J**	**1,870 J**	**1,420 J**
Selenium	mg/kg	44.7 U	46.6 U	55 U	43.8 U	36.7 U	28.1 U	48.8 U	36 U	31 U	14.3 U	49.2 U	23.2 U	28.1 U	**5 J**	43.7 U	32.8 U	34.2 U	31.3 U
Silver	mg/kg	8.4 UJ	**11.1 J**	10.3 UJ	**9.1 J**	**6.9 J**	**5.2 J**	**6.1 J**	**12.3 J**	**8.7 J**	**0.83 J**	**8.2 J**	**3.3 J**	**8.9 J**	**7.5 J**	**7.9 J**	**22.7 J**	**5.7 J**	**12.1 J**
Sodium	mg/kg	**7,860 J**	**1,330 J**	**7,760 J**	**8,980 J**	**8,280 J**	**7,610**	**10,600**	**2,940**	**8,810**	**1,220**	**10,600**	**6,120**	**5,940 J**	**2,010 J**	**10,900 J**	**2,540 J**	**5,950 J**	**8,680**
Thallium	mg/kg	55.8 UJ	58.3 UJ	68.7 UJ	54.7 UJ	45.9 U	35.1 U	61 U	45 U	38.7 U	17.9 U	61.5 U	29 U	35.1 UJ	43.5 UJ	54.6 UJ	40.9 UJ	42.8 UJ	39.1 U
Vanadium	mg/kg	**56.5 J**	**51.5 J**	**48.7 J**	**49.7 J**	**39.1 J**	**38.4 J**	**52.5 J**	**58.2 J**	**36.8 J**	**5.9 J**	**35.1 J**	**25.6 J**	**49.3 J**	**26.2 J**	**43.1 J**	**129 J**	**38 J**	**53.2 J**
Zinc	mg/kg	**547 J**	**1,160 J**	**533 J**	**698 J**	**487 J**	**727 J**	**511 J**	**4,350 J**	**710 J**	**198 J**	**605 J**	**603 J**	**1,200 J**	**1,530 J**	**632 J**	**2,110 J**	**770 J**	**1,160 J**
Cyanide, Total	mg/kg	1.31 UR	1.24 UR	1.47 UR	1.16 UR	1.09 UR	0.92 UJ	1.15 UJ	0.9 UJ	1.08 UJ	0.51 UJ	1.24 UJ	0.77 UJ	0.88 UJ	**0.29 J**	1.32 UJ	1.15 UJ	1.07 UJ	**0.22 J**

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-34B	GC-SED-35	GC-SED-35	GC-SED-36	GC-SED-36	GC-SED-37B	GC-SED-38	GC-SED-39	GC-SED-39	GC-SED-40	GC-SED-41	GC-SED-43	GC-SED-43	GC-SED-44	GC-SED-44	GC-SED-45C	GC-SED-46C	GC-SED-46C
Sample Number:		GC-SED-34B(5.8-6.8)	GC-SED-35(0-4.5)	GC-SED-35(8.8-10.8)	GC-SED-36(2.5-4.5)	GC-SED-36(8-9)	GC-SED-37B(7-8)	GC-SED-38(5.1-6.1)	GC-SED-39(1-2)	GC-SED-39(4.5-5.5)	GC-SED-40(2.5-3.5)	GC-SED-41(0-4.5)	GC-SED-43(2-3)	GC-SED-43(7.3-8.3)	GC-SED-44(0.5-2.5)	GC-SED-44(5.6-6.1)	GC-SED-45C(1-1.5)	GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)
Sample Depth:		5.8-6.8	0-4.5	8.8-10.8	2.5-4.5	8-9	7-8	5.1-6.1	1-2	4.5-5.5	2.5-3.5	0-4.5	2-3	7.3-8.3	0.5-2.5	5.6-6.1	1-1.5	1.5-2.5	5-5.5
Sample Date:		1/13/2006	1/13/2006	1/13/2006	1/16/2006	1/16/2006	12/22/2005	12/22/2005	1/8/2006	1/8/2006	1/17/2006	1/17/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006	1/23/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**10,600**	**12,000**	**3,520**	**3,670 J**	**7,250 J**	**5,600**	**4,780**	**6,770 J**	**2,080 J**	**1,070 J**	**206 J**	**2,910**	**4,670**	**2,830**	**6,390**	**4,410**	**5,980**	**5,320**
Antimony	mg/kg	28.9 UJ	39.4 UJ	17.4 UJ	37.4 UJ	**2.6 J**	**2.8 J**	**11.5 J**	14.7 UJ	15.2 UJ	12.8 UJ	10.1 UJ	11.8 UJ	15.7 UJ	14.9 UJ	**6.7 J**	16.5 UJ	19 UJ	**3.3 J**
Arsenic	mg/kg	**21.3 J**	**19.5 J**	**36.6 J**	**7.6 J**	**37.1 J**	**29.1**	**17.2**	**11.1 J**	**16.3 J**	**9.9 J**	**3 J**	**8 J**	**27.3**	**8.3 J**	**34.3**	**23.3**	**14.3**	**36.6**
Barium	mg/kg	**555 J**	**124 J**	**102 J**	**59.5 J**	**690 J**	**934 J**	**478 J**	**219 J**	**109 J**	**14.2 J**	**3 J**	**161 J**	**338 J**	**63.7 J**	**440 J**	**171**	**655 J**	**582 J**
Beryllium	mg/kg	4.9 U	6.7 U	3 U	6.4 U	3.4 U	3.8 U	3.2 U	2.5 U	2.6 U	2.2 U	1.7 U	2 U	2.7 U	2.5 U	3.5 U	2.8 U	3.3 U	3 U
Cadmium	mg/kg	**33.6**	10.1 U	4.5 U	**4.1 J**	**5.1 J**	**6.3**	**14.2**	**4.3 J**	**1.8 J**	3.3 U	2.6 U	**5.5**	**4 J**	**1.6 J**	**7.5**	**2.1 J**	**43.2**	**6.2**
Calcium	mg/kg	**19,500 J**	**8,200 J**	**2,740 J**	**15,400 J**	**11,600 J**	**7,530**	**8,810**	**19,900 J**	**3,000 J**	**72,100 J**	**180,000 J**	**51,400 J**	**4,780 J**	**24,800 J**	**7,640 J**	**8,510 J**	**12,300 J**	**8,430 J**
Chromium	mg/kg	**484**	**84.2**	**39.6**	**60.5 J**	**63.9 J**	**89.2**	**215**	**767 J**	**26.3 J**	**11.2 J**	**3.7 J**	**93.2**	**55.8**	**47.1**	**110**	**45.3**	**373**	**79.5**
Cobalt	mg/kg	**11.7 J**	**11.7 J**	**5.5 J**	**3.9 J**	**8 J**	**6.4 J**	**7.2 J**	**10 J**	**4.1 J**	**2.8 J**	**2.5 J**	**3.9 J**	**6.4 J**	**2.9 J**	**7.2 J**	**4.8 J**	**7.8 J**	**7.2 J**
Copper	mg/kg	**903**	**236**	**67.8**	**158 J**	**501 J**	**399**	**454**	**243 J**	**95.2 J**	**18.6 J**	**9.3 J**	**205**	**230**	**86.3**	**393**	**285**	**671**	**422**
Iron	mg/kg	**34,400**	**27,000**	**13,600**	**9,420 J**	**30,400 J**	**29,100**	**24,800**	**17,800 J**	**25,900 J**	**9,480 J**	**4,470 J**	**19,000**	**17,700**	**10,400**	**22,900**	**16,300**	**22,900**	**24,500**
Lead	mg/kg	**1,550**	**352**	**207**	**334 J**	**1,160 J**	**1,250**	**901**	**404 J**	**316 J**	**25.4 J**	**5.2 J**	**587 J**	**564 J**	**133 J**	**784 J**	**581 J**	**1,100 J**	**960 J**
Magnesium	mg/kg	**12,300**	**9,200**	**3,030**	**7,710 J**	**4,660 J**	**3,530**	**4,210**	**22,600 J**	**1,250 J**	**43,900 J**	**129,000 J**	**30,000 J**	**2,690 J**	**10,400 J**	**4,160 J**	**5,130 J**	**7,120 J**	**3,580 J**
Manganese	mg/kg	**201**	**298**	**108**	**107 J**	**226 J**	**131**	**97.4**	**169 J**	**124 J**	**88.6 J**	**151 J**	**143 J**	**103 J**	**109 J**	**189 J**	**98.7 J**	**124 J**	**140 J**
Mercury	mg/kg	**5.4**	**1.7**	**2.3**	**2.1 J**	**1.6 J**	**4.6 J**	**3.7 J**	**0.25**	0.06 U	0.03 UJ	0.03 UJ	**1.4 J**	**2.3 J**	**0.08 J**	**4.2 J**	**6.6**	**3 J**	**1.4 J**
Nickel	mg/kg	**295 J**	**41.4 J**	**29.1 J**	**40.2 J**	**38.9 J**	**33.4**	**135**	**118 J**	**23.3 J**	**10.9 J**	**3.8 J**	**55**	**31.6**	**28.7**	**55.4**	**26.2**	**254**	**39.1**
Potassium	mg/kg	**1,650 J**	**2,440 J**	**479 J**	**639 J**	**1,330 J**	**960 J**	**823 J**	**1,570 J**	**302 J**	**194 J**	**123 J**	**587 J**	**729 J**	**414 J**	**1,020 J**	**816 J**	**1,070 J**	**864 J**
Selenium	mg/kg	39.6 U	53.9 U	23.8 U	51.2 U	**4.7 J**	30.3 U	25.8 U	20.1 U	20.8 U	17.5 U	13.8 U	16.1 U	**4.1 J**	20.4 U	**4 J**	**3.1 J**	26 U	**6.3 J**
Silver	mg/kg	**19.9 J**	**8.7 J**	**1.4 J**	**3.1 J**	**6.8 J**	**10.2**	**11**	**4.1 J**	**3 J**	3.3 U	2.6 U	**4.4 J**	**5.7 J**	3.8 U	**11.3**	4.2 U	**15.7**	**7.9 J**
Sodium	mg/kg	**9,470**	**11,300**	**1,290 J**	**4,690 J**	**4,730 J**	**4,700 J**	**4,220 J**	**5,950 J**	**1,750 J**	**627 J**	**361 J**	**3,020 J**	3,440 UJ	2,230 UJ	**5,340 J**	**3,790 J**	**6,830 J**	2,930 UJ
Thallium	mg/kg	49.5 U	67.4 U	29.8 U	63.9 UJ	34.3 UJ	37.8 UJ	32.3 UJ	25.2 UJ	26 UJ	21.9 UJ	17.2 UJ	20.2 U	26.9 U	25.5 U	35 U	28.2 UJ	32.5 U	29.6 U
Vanadium	mg/kg	**99.9 J**	**47.7 J**	**16.9 J**	**17.1 J**	**36.7 J**	**41.8**	**81.2**	**40.1 J**	**14.6 J**	**7.6 J**	**7.3 J**	**30.2**	**28.3**	**14.1**	**47.3**	**19.2**	**277**	**37.6**
Zinc	mg/kg	**1,930 J**	**557 J**	**175 J**	**468 J**	**1,650 J**	**1,430**	**1,210**	**1,020 J**	**339 J**	**45.7 J**	**5.5 J**	**433**	**637**	**188**	**981**	**613**	**1,260**	**1,330**
Cyanide, Total	mg/kg	1.12 UJ	1.47 UJ	0.69 UJ	1.27 UJ	0.87 UJ	**0.11 J**	**1.12 J**	0.69 UR	0.69 UR	**0.07 J**	2.5 UJ	0.57 U	**0.11 J**	0.59 U	**2.19**	**0.47 J**	**0.25 J**	**2.77**

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B	GC-SED-55	GC-SED-55	GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B
Sample Number:		GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)	GC-SED-55(10-11)	GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)
Sample Depth:		1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7	1.5-2.5	10-11	7-9	0-5	0.5-1	0-2.5
Sample Date:		1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006	1/24/2006	1/24/2006	1/26/2006	1/27/2006	1/22/2006	1/21/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**4,660**	**4,620**	**7,590**	**4,500**	**9,410**	**4,100**	**9,540**	**1,940**	**916**	**2,680**	**9,260**	**3,670**	**9,750**	**6,020**	**15,100**	**3,550**	**2,000**	**3,030**
Antimony	mg/kg	15.9 UJ	18.8 UJ	20.7 UJ	18.6 UJ	17.7 UJ	24.3 UJ	30.4 UJ	17.3 UJ	16.8 UJ	19.1 UJ	29.8 UJ	19.6 UJ	22.8 UJ	17.7 UJ	26 UJ	16.6 UJ	16.4 UJ	16.3 UJ
Arsenic	mg/kg	**15.4**	**12.9**	**30.9**	**28.1**	**26**	**39.2 J**	**18.2 J**	**31.1 J**	**13.6**	**6.7 J**	**15.1 J**	**23.2**	**15.1 J**	**9.6 J**	**5.1 J**	**12.3 J**	**6.4 J**	**10.6 J**
Barium	mg/kg	**444**	**243**	**316**	**359**	**115**	**486**	**368**	**385**	**53.2 J**	**90 J**	**496 J**	**127 J**	**649**	**332**	**64.7 J**	**165 J**	**119 J**	**211 J**
Beryllium	mg/kg	2.7 U	3.2 U	3.5 U	3.2 U	3 U	4.2 U	5.2 U	3 U	2.9 U	3.3 U	5.1 U	3.4 U	3.9 U	3 U	4.4 U	2.8 U	2.8 U	2.8 U
Cadmium	mg/kg	**16.6**	**8.9**	**2.1 J**	**5.9**	4.5 U	**3.3 J**	**11.7**	**4 J**	**1.9 J**	**3.1 J**	**10**	5 U	**8.3**	**14.6**	6.7 U	4.2 U	**2.8 J**	**8.7**
Calcium	mg/kg	**7,500 J**	**11,300 J**	**8,210 J**	**5,720 J**	**4,490 J**	**5,930**	**20,500**	**9,200**	**2,230 J**	**10,000 J**	**16,100 J**	2,020 UJ	**17,000 J**	**26,900 J**	**46,900**	**6,810**	**8,960 J**	**20,700 J**
Chromium	mg/kg	**233**	**157**	**45.2**	**82.5**	**48.3**	**30.7**	**206**	**20**	**59.3 J**	**51.7**	**138**	**19**	**106**	**167**	**23.1**	**41.6**	**33.2**	**93.9**
Cobalt	mg/kg	**6.5 J**	**5.4 J**	**7.6 J**	**7.5 J**	**8.5 J**	**5.7 J**	**8.3 J**	**5.1 J**	**2.9 J**	**3.6 J**	**7.6 J**	**4.3 J**	**8.6 J**	**5.2 J**	**14.3 J**	**4.4 J**	2.8 U	**4.6 J**
Copper	mg/kg	**443**	**290**	**456**	**426**	**174**	**354**	**390**	**204**	**279**	**111**	**333**	**153**	**318**	**300**	**36.2**	**97.5**	**73.9**	**259**
Iron	mg/kg	**20,500**	**23,400**	**25,300**	**29,000**	**34,800**	**34,900**	**26,000**	**110,000**	**70,900**	**12,000**	**24,400**	**17,700**	**26,100**	**18,400 J**	**34,100**	**12,100**	**10,000**	**46,200**
Lead	mg/kg	**961 J**	**557 J**	**894 J**	**848 J**	**323 J**	**1,360**	**666**	**1,270**	**147**	**182**	**553**	**364**	**536 J**	**490 J**	**42.1**	**231**	**323 J**	**465**
Magnesium	mg/kg	**4,160 J**	**5,960 J**	**4,360 J**	**3,380 J**	**4,670 J**	**2,870**	**12,600**	**2,150**	**1,460 J**	**4,280 J**	**11,400 J**	**1,850 J**	**11,500 J**	**8,830 J**	**25,900**	**2,140 J**	**2,000 J**	**3,900 J**
Manganese	mg/kg	**122 J**	**131 J**	**134 J**	**125 J**	**264 J**	**154**	**216**	**664**	**212**	**78.7**	**205**	**79.9**	**212 J**	**165 J**	**920**	**133 J**	**85.3 J**	**253**
Mercury	mg/kg	**0.12**	**1.3**	**4.1**	**1.1**	**0.98**	**0.21**	**1.7**	**0.02**	**0.68**	**0.7**	**1.3**	**0.08**	**1.8 J**	**1.6**	**2.2**	**2.8**	**0.12 J**	**0.24**
Nickel	mg/kg	**204**	**79.7**	**30.5**	**36.8**	**27.2**	**27.8**	**98.4**	**23.6**	**77.4**	**28.2**	**63.6**	**15.3**	**51.1**	**82.5**	**29.3**	**15 J**	**20.2**	**53.5**
Potassium	mg/kg	**845 J**	**855 J**	**1,280 J**	**802 J**	**1,520 J**	**771 J**	**1,630 J**	**338 J**	**463 J**	**425 J**	**1,990 J**	**565 J**	**1,990 J**	**963 J**	**1,380 J**	**493 J**	281 U	**658 J**
Selenium	mg/kg	21.8 U	25.7 U	**4.5 J**	**4.7 J**	**4.2 J**	**6.4 J**	41.6 UJ	23.7 UJ	**3 J**	26.2 U	40.7 U	26.9 U	31.2 U	24.2 U	35.5 UJ	22.6 UJ	22.4 U	22.3 U
Silver	mg/kg	**10.1 J**	**5.6**	**5.1 J**	**6.8 J**	4.5 U	**3.7 J**	**8.1**	**1.8 J**	**2 J**	**2.3 J**	**7.1 J**	**1.3 J**	**7.4**	**6.8**	6.7 U	**0.67 J**	4.2 U	4.2 U
Sodium	mg/kg	**4,110 J**	**4,150 J**	**4,950 J**	**3,800 J**	**2,780 J**	**3,990 J**	**8,220 J**	**1,690 J**	3,400 UJ	2,420 UJ	**11,000 J**	2,300 UJ	**10,200 J**	**5,080 J**	**305 J**	**556 J**	550 UJ	3,080 UJ
Thallium	mg/kg	27.2 UJ	32.2 UJ	35.4 UJ	31.9 UJ	30.2 UJ	41.5 UJ	52 UJ	29.7 UJ	28.7 U	32.7 U	50.9 U	33.6 U	39 UJ	30.3 UJ	44.4 UJ	28.3 U	28.1 UJ	27.9 UJ
Vanadium	mg/kg	**55.1**	**35.1**	**27.9**	**35.8**	**29.5**	**22.2**	**50**	**16.5**	**36 J**	**20.1 J**	**39.8 J**	**14.1 J**	**41.1**	**31.8**	**20.8 J**	**16.1**	**12.3 J**	**22.2 J**
Zinc	mg/kg	**979**	**698**	**966**	**1,100**	**322**	**1,130**	**912**	**2,130**	**154 J**	**253**	**797**	**322**	**871**	**638**	**271**	**382 J**	**290**	**652**
Cyanide, Total	mg/kg	**1.25**	**1.45**	0.93 U	**10.8**	**0.47 J**	**3.27**	1.02 U	0.7 U	**48.2**	0.7 UJ	1.2 UJ	0.67 UJ	1.15 U	**0.35 J**	1.1 U	0.63 UJ	**0.06 J**	0.66 UJ

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C	GC-SED-71C	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C
Sample Number:		GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)	GC-SED-71C(2.5-4.0)	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)
Sample Depth:		0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5	2.5-4	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7
Sample Date:		1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006	1/29/2006	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**11,200**	**8,750**	**3,150**	**2,520**	**5,990**	**3,900**	**4,980**	**4,730**	**5,010**	**11,800**	**7,530**	**2,790**	**3,710**	**575**	**7,960**	**14,100**	**11,000**	**12,000**
Antimony	mg/kg	30.3 UJ	19.7 UJ	19.2 UJ	17.5 UJ	12.9 UJ	15.2 UJ	**1.9 J**	19.3 UJ	**2.7 J**	36.6 UJ	17.2 UJ	**20,200 J**	11.4 UJ	12.9 UJ	**2.6 J**	34.6 UJ	30.1 UJ	40.1 UJ
Arsenic	mg/kg	**12.1 J**	**46.8**	**4.8 J**	**25.8 J**	**7.5 J**	**3.1 J**	**22.4 J**	**5.3 J**	**20.5 J**	**11 J**	**6.9 J**	**11.3 J**	**3.6 J**	**4.1 J**	**11.4 J**	**12.2 J**	**23.7 J**	**10.7 J**
Barium	mg/kg	**186 J**	**163 J**	**167**	**225 J**	**54.9 J**	**436**	**502**	**214**	**355**	**173**	**29.6 J**	**113**	**14.9 J**	**6.5 J**	**823**	**193**	**1,100**	**107 J**
Beryllium	mg/kg	5.2 U	3.4 U	3.3 U	3 U	**0.66 J**	2.6 U	3 U	3.3 U	3 U	6.2 U	2.9 U	2.8 U	1.9 U	2.2 U	4.2 U	5.9 U	5.1 U	6.9 U
Cadmium	mg/kg	**3.2 J**	5 U	**10.8 J**	4.5 U	3.3 U	**6.5**	**13**	**14.2**	**8.7**	**3.9 J**	4.4 U	**5.3**	2.9 U	3.3 U	**57.6**	**6.7 J**	**46.2**	10.3 U
Calcium	mg/kg	**8,780 J**	**4,240 J**	**6,590**	**3,630 J**	364 UJ	**6,370**	**6,540**	**7,360**	**7,160**	**8,890**	**773 J**	**3,860**	**660 J**	**166,000**	**10,000**	**11,400**	**8,520**	**9,240 J**
Chromium	mg/kg	**81.9**	**86.3**	**79**	**29.7**	**10.6**	**40.4 J**	**113**	**89.6**	**75.7**	**77.6**	**14.3**	**49.2**	**8.4**	**3.6**	**387**	**98.2**	**355**	**77.1**
Cobalt	mg/kg	**10 J**	**7.5 J**	**3.2 J**	**3 J**	**5.7 J**	**5.6 J**	**6.3 J**	**6.7 J**	**7.4 J**	**9.5 J**	**5.5 J**	**3.3 J**	**3.1 J**	**1.6 J**	**7.8 J**	**11.7 J**	**11.2 J**	**10.7 J**
Copper	mg/kg	**254**	**235**	**151**	**138**	**11.5**	**94.6**	**357**	**242**	**292**	**232**	**22.3**	**104**	**10.3**	**10.4**	**650**	**266**	**755**	**181**
Iron	mg/kg	**26,500**	**24,500**	**15,200**	**17,800**	**21,400**	**9,420**	**20,300**	**14,500**	**24,800**	**27,200**	**17,600**	**12,700**	**9,850**	**4,470**	**24,900**	**33,500**	**34,700**	**28,800**
Lead	mg/kg	**405**	**655**	**317**	**542**	**6.5 J**	**700**	**995**	**414**	**788**	**318**	**28.9**	**274 J**	**13.4 J**	**10.7**	**986**	**335 J**	**1,070 J**	**226 J**
Magnesium	mg/kg	**9,160 J**	**4,410 J**	**4,220**	**1,030**	**2,260 J**	**3,710**	**3,620**	**4,910**	**3,750**	**9,300**	**2,580**	**2,890**	**1,800**	**117,000**	**6,550**	**11,800**	**7,710**	**9,710 J**
Manganese	mg/kg	**264**	**194**	**85.8**	**110**	**97.1 J**	**97.5 J**	**111 J**	**90.7 J**	**165 J**	**248 J**	**98.1 J**	**151**	**113**	**132 J**	**149 J**	**316**	**257**	**301 J**
Mercury	mg/kg	**1.6**	**3.2**	**0.72**	**2.4**	**0.02 J**	**0.36**	**0.18**	**0.6**	**0.65**	**1.4**	**0.25**	**0.17**	**0.04**	**0.02**	**2.3**	**2.3**	**6.9**	**0.95**
Nickel	mg/kg	**43.3**	**24.4**	**40.5**	**10.4 J**	**15.2**	**33.8 J**	**55.6**	**53.3**	**46.7**	**41.5**	**13.1**	**25**	**8.5**	**3.9 J**	**153**	**48.2**	**136**	**34.4**
Potassium	mg/kg	**2,250 J**	**1,320 J**	**763 J**	**372 J**	**657 J**	**537 J**	**839 J**	**789 J**	**791 J**	**2,380 J**	**772 J**	**578 J**	**668 J**	**308 J**	**1,620 J**	**3,490 J**	**2,550 J**	**2,620 J**
Selenium	mg/kg	41.4 U	26.9 U	26.3 U	24 U	17.6 U	20.7 U	24 UJ	26.4 UJ	24.1 UJ	50 UJ	23.5 UJ	22.3 U	15.6 U	17.6 UJ	33.2 UJ	47.3 U	41.2 U	54.8 U
Silver	mg/kg	7.8 U	5 U	4.9 U	4.5 UJ	3.3 U	**2 J**	**13**	**4 J**	**9.7**	**5.1 J**	**1.6 J**	4.2 U	2.9 U	3.3 U	**18.1**	8.9 U	**21.2**	**4.2 J**
Sodium	mg/kg	**10,800 J**	2,130 UJ	**2,470 J**	**281 J**	978 UJ	**1,590**	**3,360**	**3,450**	**3,820**	**11,300**	**1,440 J**	**3,520**	**1,920**	**699 J**	**7,770**	**17,700**	**13,500**	**13,200 J**
Thallium	mg/kg	51.8 UJ	33.6 UJ	32.8 UJ	29.9 UJ	22 UJ	25.9 U	30 U	33 U	30.1 U	62.5 U	29.4 U	27.9 U	19.4 U	22 U	41.6 U	59.1 U	51.5 U	68.6 UJ
Vanadium	mg/kg	**38.8 J**	**26.1 J**	**20.9**	**11.3 J**	**18.3**	**12 J**	**44.8**	**21.2**	**40.8**	**36.7**	**20.3**	**21.5**	**9.3 J**	**5.1 J**	**51.3**	**44.1**	**100**	**38**
Zinc	mg/kg	**537**	**396**	**422 J**	**559 J**	**56.2**	**918 J**	**1,090**	**720**	**963**	**600**	**59.2**	**243**	**23.4**	**17.4 J**	**1,490**	**702**	**1,410**	**447**
Cyanide, Total	mg/kg	1.31 UJ	**1.32 J**	0.67 UJ	**0.09 J**	**0.79**	0.7 U	0.8 UJ	0.71 UJ	**0.08 J**	1.27 UJ	**0.31 J**	0.63 UJ	**0.12 J**	**0.26 J**	0.88 UJ	1.45 UJ	1.24 UJ	1.44 U

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81	GC-SED-82	GC-SED-82	GC-SED-83	GC-SED-83	GC-SED-84	GC-SED-85B	GC-SED-85B	GC-SED-86
Sample Number:		GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)	GC-SED-82(0-2)	GC-SED-82(12-12.8)	GC-SED-83(0-2)	GC-SED-83(11-11.9)	GC-SED-84(1-2)	GC-SED-85B(0-1)	GC-SED-85B(8.5-9.3)	GC-SED-86(0-1)
Sample Depth:		0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5	0-2	12-12.8	0-2	11-11.9	1-2	0-1	8.5-9.3	0-1
Sample Date:		1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/30/2006	1/30/2006	1/30/2006	1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**1,850**	**7,260**	**14,900 J**	**6,960 J**	**11,000**	**10,700 J**	**6,730**	**12,400**	**8,750**	**2,770**	**7,300 J**	**4,950 J**	**11,900 J**	**11,300 J**	**12,200**	**6,840**	**7,260**	**7,780 J**
Antimony	mg/kg	11.2 UJ	32.9 UJ	35.2 UJ	16.8 UJ	26.6 UJ	30.3 UJ	16.1 UJ	31.5 UJ	17.1 UJ	11.9 UJ	21.7 UJ	12 UJ	26.7 UJ	21.3 UJ	30.2 UJ	**5.6 J**	**3.8 J**	22.1 UJ
Arsenic	mg/kg	**1.2 J**	**11.5 J**	**17.1 J**	**13 J**	**11.1 J**	**15.8 J**	**18.4 J**	**22.4 J**	**16.1 J**	**4 J**	**27.3 J**	**10.8 J**	**15.5 J**	**24.5 J**	**9.9 J**	**8.7 J**	**23.1 J**	**15.4 J**
Barium	mg/kg	**7.7 J**	**59.6 J**	**296 J**	**123 J**	**85.1 J**	**218 J**	**202**	**540**	**118**	**11.2 J**	**174 J**	**59.6 J**	**260 J**	**346 J**	**348**	**267**	**688**	**492**
Beryllium	mg/kg	1.9 U	5.6 U	6 U	2.9 U	4.5 U	5.2 U	**1.1 J**	**2.6 J**	2.9 U	2 U	3.7 U	2.1 U	**2.5 J**	3.6 U	5.2 U	3.3 U	4.6 U	3.8 U
Cadmium	mg/kg	2.9 U	**14.4**	**5.5 J**	**3.1 J**	**3.2 J**	**14.3 J**	**11.5**	**27.7**	**2.1 J**	3.1 U	**4.6 J**	3.1 U	**10.8**	**20.2**	**6.9 J**	**6**	**23.5**	**16.6**
Calcium	mg/kg	**67,100 J**	**6,810**	**7,200**	**2,260**	**8,440**	**9,840**	**3,400**	**6,580**	**2,160**	**355 J**	**3,470**	**1,450**	**7,180**	**5,400**	**26,700**	**11,200**	**9,870**	**11,600 J**
Chromium	mg/kg	**4.9**	**115**	**106 J**	**50.4 J**	**80.7**	**147**	**170**	**336**	**74.5**	**8.1**	**81.5 J**	**19 J**	**177 J**	**268 J**	**134 J**	**130 J**	**493 J**	**434**
Cobalt	mg/kg	**2.1 J**	**7.9 J**	**12.3 J**	**8.1 J**	**9.4 J**	**9.2 J**	**9.7 J**	**17.6 J**	**7.9 J**	**9.2 J**	**11 J**	**6.4 J**	**19.2 J**	**12.1 J**	**10.9 J**	**9.1 J**	**9.1 J**	**10.6 J**
Copper	mg/kg	**18.8**	**250**	**217 J**	**109 J**	**191**	**292**	**411**	**755**	**141**	**6**	**225 J**	**42.9 J**	**563 J**	**466 J**	**393**	**648**	**804**	**734**
Iron	mg/kg	**6,630**	**21,700**	**36,300 J**	**24,600 J**	**27,300**	**28,600**	**29,300**	**40,100**	**23,000**	**23,100**	**31,300 J**	**17,000 J**	**38,100 J**	**37,100 J**	**27,900**	**24,600**	**29,500**	**29,000**
Lead	mg/kg	**5.6 J**	**314**	**258 J**	**173 J**	**221**	**372**	**393**	**754**	**292**	9.2 U	**316 J**	**114 J**	**513 J**	**438 J**	**787**	**898**	**1,580**	**1,340**
Magnesium	mg/kg	**43,200 J**	**6,340**	**9,720 J**	**3,700 J**	**8,690**	**7,840**	**3,340**	**8,430**	**4,080**	**1,750**	**4,700 J**	**2,460 J**	**7,440 J**	**6,310 J**	**12,400**	**6,500**	**6,240**	**8,170**
Manganese	mg/kg	**78.8 J**	**225**	**393 J**	**279 J**	**301**	**278**	**221 J**	**362 J**	**188 J**	**92.5 J**	**311 J**	**126 J**	**386 J**	**323 J**	**247 J**	**142 J**	**173 J**	**150 J**
Mercury	mg/kg	**0.04**	**2.6**	**1.9**	**2.1**	**2 J**	**2.3**	**2.6**	**3.7**	**2.6**	0.04 U	**3.9**	**0.64**	**1.6**	**4.2**	**1.4**	**2.1**	**4.3**	**2.4**
Nickel	mg/kg	**5.3 J**	**42.7**	**43.1 J**	**24.3 J**	**32.1**	**50.9**	**76.5**	**152**	**27.4**	**14.4**	**36.4 J**	**16 J**	**149 J**	**77.6 J**	**86.4 J**	**123 J**	**273 J**	**225**
Potassium	mg/kg	**265 J**	**1,440 J**	**3,230 J**	**1,360 J**	**2,390 J**	**2,020 J**	**1,180 J**	**2,800 J**	**1,440 J**	**509 J**	**1,610 J**	**916 J**	**2,760 J**	**2,620 J**	**3,550 J**	**1,560 J**	**1,260 J**	**1,500 J**
Selenium	mg/kg	15.4 U	45 UJ	48.1 UJ	23 UJ	36.3 UJ	41.5 UJ	22 UJ	43 UJ	23.4 UJ	16.3 UJ	**3.7 J**	16.5 UJ	36.5 UJ	29.1 UJ	41.3 U	26 U	37 U	30.2 U
Silver	mg/kg	2.9 U	**5.7 J**	9 U	4.3 U	**5.2 J**	**7.9**	**8.6**	**15.5**	**2 J**	3.1 U	5.6 U	3.1 U	**7.5 J**	**12.1 J**	**7.3 J**	**6.1**	**16.8**	**11.9**
Sodium	mg/kg	**1,100 J**	**7,800 J**	**9,920 J**	**884 J**	**12,900 J**	**9,350 J**	**2,750**	**13,800**	**3,010**	**793 J**	**7,680 J**	**2,020 J**	**11,400 J**	**8,060 J**	**8,650**	**3,540**	**6,320**	**8,840 J**
Thallium	mg/kg	19.2 UJ	56.3 UJ	60.2 UJ	28.8 UJ	45.4 UJ	51.8 UJ	27.5 U	53.8 U	29.3 U	20.4 U	37.2 UJ	20.6 UJ	45.7 UJ	36.4 UJ	51.7 U	32.5 U	46.2 U	37.8 U
Vanadium	mg/kg	**7.8 J**	**31.2**	**47.8 J**	**33.5 J**	**39.4**	**41.9**	**46**	**66.4**	**29.1**	**17.9**	**33.9 J**	**16.2 J**	**42.7 J**	**62.8 J**	**55**	**36**	**138**	**69.3**
Zinc	mg/kg	**20.7**	**518**	**449 J**	**280 J**	**387**	**549**	**856**	**1,560**	**297**	**29.3**	**522 J**	**140 J**	**1,460 J**	**750 J**	**931 J**	**922 J**	**2,040 J**	**1,550**
Cyanide, Total	mg/kg	0.55 U	1.06 U	1.35 UJ	0.66 UJ	1.27 U	**0.28 J**	0.69 UJ	1.39 UJ	0.73 UJ	0.56 UJ	0.84 UJ	0.63 UJ	1.05 UJ	0.98 UJ	1.04 U	0.71 U	**0.44 J**	1.04 UJ

TABLE I-12A
Metal and Cyanide Concentrations in Soft Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-87	GC-SED-88	GC-SED-89B	GC-SED-90B	GC-SED-91	GC-SED-92	GC-SED-93	GC-SED-94	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98	GC-SED-98	GC-SED-99B	GC-SED-99B
Sample Number:		GC-SED-87(4.4-6.2)	GC-SED-88(0.5-1)	GC-SED-89(1.8-2.3)	GC-SED-90B(0-1)	GC-SED-91(4.7-6.2)	GC-SED-92(0-2)	GC-SED-93(0-1)	GC-SED-94(0.5-1.25)	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
Sample Depth:		4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25	3.5-4.5	0-1	0.5-2	8.5-9	1-2	8.5-9.5	3.5-4.5	7.2-8.7
Sample Date:		12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005	12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006	1/27/2006	12/22/2005	12/22/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**12,400 J**	**12,000 J**	**13,100 J**	**7,350 J**	**14,000**	**17,900 J**	**12,600 J**	**5,400**	**7,730 J**	**6,260**	**9,980**	**4,740**	**10,100**	**4,530**	**7,810**	**6,130**
Antimony	mg/kg	43.2 UJ	34.1 UJ	35.2 UJ	**17.6 J**	29.3 UJ	39.7 UJ	46.7 UJ	20.2 UJ	17.6 UJ	26 UJ	29.6 UJ	**4.7 J**	30 UJ	**5.2 J**	**44.5 J**	18.1 UJ
Arsenic	mg/kg	**40.2 J**	**16.4 J**	**22.3 J**	**18.8 J**	**22.6**	**18.3 J**	**23.1 J**	**11.9 J**	**10.6 J**	**15.6 J**	**15.7 J**	**20.9 J**	**8.5 J**	**41.5 J**	**33.3**	**51.6 J**
Barium	mg/kg	**1,120**	**1,560**	**1,200**	**536**	**739 J**	**1,370 J**	**1,790 J**	**551 J**	**390**	**138**	**453 J**	**686 J**	**242 J**	**727 J**	**729 J**	**417 J**
Beryllium	mg/kg	7.4 U	5.8 U	6 U	4.6 U	5 U	6.8 UJ	8 UJ	3.4 U	3 U	4.4 U	5.1 U	4.5 U	5.1 U	4.2 U	3.5 U	3.1 U
Cadmium	mg/kg	**49.3**	**7.1 J**	**43.8**	**19.2**	**15.1**	**11.1 J**	**97.6 J**	**23.5**	**10.1**	6.7 U	**12.6**	**10.5**	**3.2 J**	**5.5 J**	**20.2**	**4.1 J**
Calcium	mg/kg	**13,300 J**	**18,900 J**	**16,000 J**	7,400 U	**20,100 J**	**14,200 J**	**15,300 J**	**9,290**	**15,200 J**	**27,600**	**18,900**	**11,400**	**8,850**	**5,630**	**10,700**	**5,370**
Chromium	mg/kg	**812**	**137**	**667**	**297**	**188**	**184 J**	**874 J**	**205**	**214**	**63.3 J**	**240 J**	**124**	**87**	**74.1**	**243**	**59.9**
Cobalt	mg/kg	**15.1 J**	**11.1 J**	**13.3 J**	**9.4 J**	**12.2 J**	**14.1 J**	**13 J**	**6.8 J**	**9.1 J**	**5.6 J**	**11.1 J**	**10.6 J**	**9 J**	**10 J**	**9 J**	**6.5 J**
Copper	mg/kg	**1,220**	**370**	**1,030**	**481**	**502**	**473 J**	**1,310 J**	**425**	**423**	**219**	**559**	**465**	**234**	**571**	**648**	**361**
Iron	mg/kg	**38,200**	**27,100**	**31,800**	**25,300**	**33,500**	**36,000 J**	**32,800 J**	**25,100**	**21,300**	**36,300**	**29,600**	**25,700**	**25,200**	**30,800**	**27,200**	**24,000**
Lead	mg/kg	**1,820**	**570**	**1,510**	**683**	**834 J**	**673 J**	**1,650 J**	**978**	**809**	**315**	**1,120**	**2,030**	**442**	**1,090**	**1,090**	**809**
Magnesium	mg/kg	**7,220**	**14,900**	**11,900**	**5,530**	**14,600**	**14,100 J**	**11,300 J**	**5,560**	**7,820**	**6,230**	**11,700 J**	**3,720 J**	**9,110 J**	**3,950 J**	**7,070**	**3,430**
Manganese	mg/kg	**418 J**	**253 J**	**236 J**	**144 J**	**287**	**340 J**	**213 J**	**109**	**156 J**	**483 J**	**195 J**	**110 J**	**225 J**	**136 J**	**170**	**150**
Mercury	mg/kg	**6.5**	**1.4**	**4.5**	**2.3**	**1.5 J**	**1.9 J**	**4.8 J**	**2.9**	**1.4**	**0.91**	**10.2 J**	**4.5**	**1.3 J**	**5.6**	**0.96 J**	**1.3 J**
Nickel	mg/kg	**322**	**68.3 J**	**345**	**137**	**104**	**88 J**	**469 J**	**145**	**136**	**51.1 J**	**162 J**	**64.5 J**	**47.9 J**	**51.2 J**	**101**	**33.7**
Potassium	mg/kg	**1,380 J**	**2,670 J**	**2,250 J**	**1,450 J**	**2,320 J**	**3,280 J**	**2,210 J**	**976 J**	**1,380 J**	**1,510 J**	**1,900 J**	**828 J**	**2,120 J**	**1,100 J**	**1,340 J**	**1,010 J**
Selenium	mg/kg	59.1 U	46.6 U	48.2 U	36.8 U	40.1 U	54.3 UJ	63.8 UJ	27.6 U	24 U	35.5 U	40.5 UJ	35.8 UJ	41 UJ	34 UJ	28.3 U	24.8 U
Silver	mg/kg	**31.4**	**7.9 J**	**23**	**11.5**	**10.4 J**	**11.4 J**	**33.1 J**	**10.3**	**7.3**	**4.1 J**	**13.5**	**16.5**	**10.5**	**8.1**	**16.8**	**5.5**
Sodium	mg/kg	**546 J**	**15,100 J**	**13,400 J**	**8,960 J**	**7,490 J**	**6,930 J**	**9,640 J**	**5,000**	**3,790 J**	**6,290**	**8,580**	**4,590**	**10,200**	**8,500**	**6,120 J**	**3,250 J**
Thallium	mg/kg	73.8 U	58.3 U	60.2 U	46 U	50.2 UJ	67.8 UJ	79.7 UJ	34.5 UJ	30 U	44.4 U	50.7 U	44.8 U	51.2 U	42.5 U	35.3 UJ	31 UJ
Vanadium	mg/kg	**230**	**53.6**	**126**	**89.3**	**61**	**73 J**	**105 J**	**50**	**45.8**	**26.8**	**55.6**	**40.7**	**42.4**	**31**	**120**	**30.8**
Zinc	mg/kg	**2,560**	**906**	**2,140**	**1,120**	**1,250**	**1,150 J**	**2,560 J**	**991**	**1,020**	**673 J**	**1,360 J**	**1,300 J**	**640 J**	**1,650 J**	**1,550**	**842**
Cyanide, Total	mg/kg	1.45 UJ	1.53 UJ	**0.16 J**	**0.28 J**	1.41 U	1.79 UJ	1.74 UJ	0.86 UJ	0.74 UJ	0.91 U	1.04 UJ	0.96 UJ	1.15 UJ	1.23 UJ	0.83 UJ	**0.35 J**

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TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD124	GC-SD124	GC-SD124	GC-SD124	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD125	GC-SD126	GC-SD126
Sample Number:		GC-SD107-00.0-02.0	GC-SD107-02.0-04.0	GC-SD107-04.0-06.0	GC-SD107-06.0-08.0	GC-SD124-00.0-02.0	GC-SD124-02.0-04.0	GC-SD124-04.0-06.0	GC-SD124-06.0-07.5	GC-SD125-00.0-02.0	GC-SD125-02.0-04.0	GC-SD125-04.0-06.0	GC-SD125-06.0-08.0	GC-SD125-08.0-10.0	D-03092010-01	GC-SD126-00.0-02.0	GC-SD126-02.0-04.0
Sample Depth:		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-7.5	0-2	2-4	4-6	6-8	8-10	8-10	0-2	2-4
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	6,730	3,010	4,660	5,780	7,700 J	5,780 J	7,140	4,470	2,590	5,280	5,700	5,340 J	3,230	4,000	**12,700 J (A)**	**8,630 J (A)**
Antimony	mg/kg		**18 J (A,R)**	**37.2 J (A,R)**		1.2 J	**2.7 J (R)**	**23 J (A,R)**	**14.1 J (A,R)**				**42.4 J (A,R)**	**17.7 J (A,R)**	**11.6 J (A,R)**		**2.8 J (R)**
Arsenic	mg/kg	**3.5 (A)**	**2.9 (A)**	**12 (A,R)**	**5 (A)**	**4.3 J (A)**	**4.9 J (A)**	**23.9 (A,R)**	**17.2 (A,R)**	**1.7 (A)**	**7 (A)**	**10.7 (A,R)**	**22.2 J (A,R)**	**11.4 (A,R)**	**14.3 (A,R)**	**8 J (A)**	**11.9 J (A,R)**
Barium	mg/kg	**232 (R)**	**327 (R)**	**1,150 (R)**	**201 (R)**	67 J	118 J	**978 (R)**	**936 (R)**	**331 (R)**	**664 (R)**	**1,210 (R)**	**1,050 J (R)**	**862 (R)**	**1,530 (A,R)**	113 J	**436 J (R)**
Beryllium	mg/kg																
Cadmium	mg/kg	**1.9 (R)**	**2.4 (R)**	**9.7 (A,R)**	**1.9 (R)**		1.1 J	**11.8 (A,R)**	**6.3 (R)**	0.47 J	**7.2 (A,R)**	**12.3 (A,R)**	**17.7 J (A,R)**	**6.2 (R)**	**10.3 (A,R)**	**2.1 J (R)**	**5 J (R)**
*Calcium	mg/kg	8,050	6,750	7,320	1,590	164,000 J	132,000 J	10,200	8,420	5,700	13,500	7,590	10,800 J	7,930	8,070	10,000 J	12,100 J
Chromium	mg/kg	**75.5 (A)**	**42.5 (A)**	**170 (A,R)**	**53.3 (A)**	**30.7 J (A)**	**42.1 J (A)**	**162 (A,R)**	**73.1 (A)**	**13.5 (A)**	**97.1 (A,R)**	**168 (A,R)**	**197 J (A,R)**	**69.8 (A)**	**148 (A,R)**	**76.4 J (A)**	**58.6 J (A)**
Cobalt	mg/kg				**7.5 (A)**			**9.7 (A)**								**9.5 J (A)**	**8.2 J (A)**
Copper	mg/kg	**200 (R)**	**203 (R)**	**666 (A,R)**	**128 (R)**	**56.4 J (R)**	**102 J (R)**	**874 (A,R)**	**388 (A,R)**	**68.8 (R)**	**353 (A,R)**	**713 (A,R)**	**989 J (A,R)**	**377 (A,R)**	**741 (A,R)**	**182 J (R)**	**456 J (A,R)**
Iron	mg/kg	**17,200 (A)**	**10,300 (A)**	**23,100 (A)**	**10,200 (A)**	**17,000 J (A)**	**13,800 J (A)**	**39,300 (A)**	**25,600 (A)**	**8,310 (A)**	**19,400 (A)**	**20,300 (A)**	**30,900 J (A)**	**18,700 (A)**	**22,900 (A)**	**27,400 J (A)**	**27,100 J (A)**
Lead	mg/kg	**505 (A,R)**	**1,080 (A,R)**	**2,240 (A,R)**	**395 (R)**	**63.6 J (R)**	**214 J (R)**	**2,190 (A,R)**	**1,240 (A,R)**	**212 (R)**	**1,210 (A,R)**	**1,790 (A,R)**	**2,780 J (A,R)**	**2,080 (A,R)**	**1,540 (A,R)**	**265 J (R)**	**716 J (A,R)**
*Magnesium	mg/kg	5,700	3,120	4,140	2,430	4,310 J	3,690 J	5,240	3,960	2,650	5,200	4,510	5,210 J	3,440	3,780	7,490 J	6,710 J
Manganese	mg/kg	94.6	58.4	93.2	61	**360 J (A)**	**239 J (A)**	**200 J (A)**	109 J	62.8	114	93.9	110 J	88	95.5	**285 J (A)**	**203 J (A)**
Mercury	mg/kg	**2.2 (R)**	**0.84 (R)**	**2.1 (R)**	**1 (R)**	**0.45 J (R)**	**0.63 J (R)**	**1.4 (R)**	**3.9 (A,R)**	**0.29 (R)**	**7.2 (A,R)**	**4.3 (A,R)**	**3.6 J (A,R)**	**1.5 (R)**	**4.5 (A,R)**	**1.5 J (R)**	**3.3 J (A,R)**
Nickel	mg/kg	**35.2 (R)**	**35.3 (R)**	**90.7 (R)**	**37.4 (R)**	17.1 J	**21 J (R)**	**121 (R)**	**34.6 (R)**	13.6	**87.1 (R)**	**101 (R)**	**139 J (R)**	**47.8 (R)**	**82.3 (R)**	**40.4 J (R)**	**49.7 J (R)**
*Potassium	mg/kg	1,500	632 J	782 J	929	1,820 J	1,400 J	1,080	1,230	547 J	919 J	982 J	919 J	589 J	706 J	3,170 J	1,830 J
Selenium	mg/kg			1.2 J				1 J	1.4 J				2.9 J	0.87 J			1.9 J
Silver	mg/kg	**7.8 J (R)**	**6.7 J (R)**	**23.3 J (R)**	**5.2 J (R)**		**2.5 J (R)**	**21.4 (R)**	**8.2 (R)**	0.82 J	**33.7 J (R)**	**27.3 J (R)**	**35.9 J (R)**	**22.1 J (R)**	**25.3 J (R)**	**6.1 J (R)**	**7.7 J (R)**
*Sodium	mg/kg	6,770	2,770	1,900		2,690 J	2,410 J	5,780	5,990	1,620	2,520	1,480	1,430 J			9,290 J	8,440 J
*Thallium	mg/kg					3.5 J	2 J	3.2 J	2 J								
Vanadium	mg/kg	32.7	21.4	**74.5 (A)**	23.5	21.8 J	24.5 J	**64.7 (A)**	34.9	10.3	37.7	**91 (A)**	**118 J (A)**	25.9	**41.9 (A)**	**41.5 J (A)**	**47.2 J (A)**
Zinc	mg/kg	**489 (R)**	**436 (R)**	**1,420 (R)**	**365 (R)**	130 J	**214 J (R)**	**1,550 (R)**	**1,690 (R)**	**356 (R)**	**984 (R)**	**1,480 (R)**	**2,270 J (R)**	**1,260 (R)**	**1,820 (R)**	**372 J (R)**	**927 J (R)**
Cyanide, Total	mg/kg	0.41 J	0.25 J	0.77 J													

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD126	GC-SD126	GC-SD126	GC-SD152	GC-SD152	GC-SD152	GC-SD152	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD108	GC-SD109	GC-SD109	GC-SD153	GC-SD153
Sample Number:		D-03042010-01	GC-SD126-04.0-06.0	GC-SD126-06.0-06.6	GC-SD152-00.0-02.0	GC-SD152-02.0-04.0	GC-SD152-04.0-06.0	GC-SD152-06.0-07.3	GC-SD108-00.0-02.0	GC-SD108-02.0-04.0	GC-SD108-04.0-06.0	D-03052010-01	GC-SD108-06.0-08.0	GC-SD109-00.0-02.0	GC-SD109-02.0-04.0	GC-SD153-00.0-02.0	GC-SD153-02.0-03.2
Sample Depth:		2-4	4-6	6-6.6	0-2	2-4	4-6	6-7.3	0-2	2-4	4-6	4-6	6-8	0-2	2-4	0-2	2-3.2
Sample Date:		3/4/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	4/15/2010	4/15/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**8,680 J (A)**	**8,270 (A)**	5,210	3,270	**8,340 J (A)**	6,120	4,590	**13,700 J (A)**	6,930	**9,040 J (A)**	**8,960 J (A)**	2,770	**16,400 J (A)**	**13,700 J (A)**	**13,600 J (A)**	6,370
Antimony	mg/kg	2 J	**3.3 J (A,R)**	**3.4 J (A,R)**				**12.5 (A,R)**		**2.9 J (R)**	**4.9 J (A,R)**	**4.6 J (A,R)**	**3.4 J (A,R)**		0.75 J		
Arsenic	mg/kg	**13.2 J (A,R)**	**22.7 (A,R)**	**7 (A)**	**3.3 (A)**	**13.5 J (A,R)**	**18.4 (A,R)**	**23.9 (A,R)**	**8.3 J (A,R)**	**9 (A,R)**	**14.4 J (A,R)**	**14.4 J (A,R)**	**6.6 (A)**	**8 J (A)**	**9.1 J (A,R)**	**9 J (A,R)**	**8.1 (A)**
Barium	mg/kg	**408 J (R)**	**436 (R)**	**1,130 (R)**	**202 (R)**	**1,690 J (A,R)**	**1,230 (R)**	**1,860 (A,R)**	**189 J (R)**	**633 (R)**	**1,410 J (R)**	**1,460 J (R)**	**348 (R)**	108 J	**229 J (R)**	**135 J (R)**	**380 (R)**
Beryllium	mg/kg	0.36 J											0.22 J	0.61 J	0.64 J		
Cadmium	mg/kg	**5.3 J (R)**	**5.1 (R)**	**8.7 (A,R)**	**3.1 (R)**	**21.3 J (A,R)**	**13 (A,R)**	**5.9 (R)**	**4 J (R)**	**10.9 (A,R)**	**23.8 J (A,R)**	**22.9 J (A,R)**	**4.2 (R)**	**2.7 J (R)**	**3.8 J (R)**	**3.2 J (R)**	**6.6 (R)**
*Calcium	mg/kg	12,300 J	9,100	10,500	4,780 J	13,100 J	10,200 J	11,300 J	8,010 J	8,020	11,100 J	12,000 J	3,240	8,750 J	8,370 J	5,960 J	6,270 J
Chromium	mg/kg	**65.6 J (A)**	**64.2 (A)**	**137 (A,R)**	**50.5 (A)**	**272 J (A,R)**	**171 (A,R)**	**76.3 (A)**	**93.6 J (A,R)**	**158 (A,R)**	**312 J (A,R)**	**295 J (A,R)**	**61.2 (A)**	**75.1 J (A)**	**89.7 J (A,R)**	**87.8 J (A,R)**	**130 (A,R)**
Cobalt	mg/kg	**8.2 J (A)**	**9.1 (A)**	**5.2 J (A)**	**3.2 J (A)**	**8.7 J (A)**	**7.5 J (A)**	**6.4 J (A)**	**9.9 J (A)**	**7.1 J (A)**	**10.1 J (A)**	**9.2 J (A)**	**3.2 J (A)**	**11.7 J (A)**	**11.7 J (A)**	**10.3 J (A)**	**6.2 J (A)**
Copper	mg/kg	**471 J (A,R)**	**306 (R)**	**521 (A,R)**	**200 (R)**	**990 J (A,R)**	**724 (A,R)**	**458 (A,R)**	**263 J (R)**	**531 (A,R)**	**939 J (A,R)**	**952 J (A,R)**	**229 (R)**	**223 J (R)**	**258 J (R)**	**234 J (R)**	**360 (A,R)**
Iron	mg/kg	**26,100 J (A)**	**33,200 (A)**	**18,900 (A)**	**9,710 (A)**	**26,300 J (A)**	**28,100 (A)**	**22,000 (A)**	**28,300 J (A)**	**22,000 (A)**	**29,600 J (A)**	**28,900 J (A)**	**11,400 (A)**	**31,800 J (A)**	**31,300 J (A)**	**28,000 J (A)**	**23,400 (A)**
Lead	mg/kg	**685 J (A,R)**	**803 (A,R)**	**1,270 (A,R)**	**317 (R)**	**1,980 J (A,R)**	**1,430 (A,R)**	**1,350 (A,R)**	**381 J (R)**	**1,440 (A,R)**	**1,830 J (A,R)**	**1,830 J (A,R)**	**517 (A,R)**	**251 J (R)**	**399 J (R)**	**308 J (R)**	**645 (A,R)**
*Magnesium	mg/kg	7,210 J	4,390	4,130	2,600	6,240 J	4,010	3,160	8,410 J	5,490	7,250 J	7,400 J	1,670	9,710 J	7,610 J	7,660 J	3,610
Manganese	mg/kg	**187 J (A)**	**238 (A)**	97.2	76.5 J	**212 J (A)**	**200 J (A)**	145	**266 J (A)**	144	168 J	167 J	72.8 J	**311 J (A)**	**281 J (A)**	**302 J (A)**	142
Mercury	mg/kg	**4 J (A,R)**	**2.1 (R)**	**2.5 (A,R)**	**1.1 (R)**	**7.6 J (A,R)**	**5.9 (A,R)**	**6.2 (A,R)**	**2 J (R)**	**2.2 (R)**	**4.3 J (A,R)**	**6.9 J (A,R)**	**1.2 (R)**	**1.6 J (R)**	**1.2 J (R)**	**1.4 J (R)**	**1.8 (R)**
Nickel	mg/kg	**51.2 J (R)**	**49.6 (R)**	**114 (R)**	**33 (R)**	**187 J (A,R)**	**100 (R)**	**29.9 (R)**	**49.3 J (R)**	**107 (R)**	**221 J (A,R)**	**211 J (A,R)**	**32.7 (R)**	**38.8 J (R)**	**51.3 J (R)**	**44.5 J (R)**	**73.6 (R)**
*Potassium	mg/kg	1,860 J	1,540	940	687 J	1,310 J	1,060 J		3,550 J	1,350	1,700 J	1,640 J	502 J	4,140 J	3,080 J	3,520 J	907 J
Selenium	mg/kg		2.7 J	1.6 J	1.4 J	5.1 J	4.5 J	5.5 J		1.9 J	2.7 J	3.2 J				2.3 J	2.8 J
Silver	mg/kg	**8.8 J (R)**	**5.7 (R)**	**14.9 (R)**	**4.7 (R)**	**33.1 J (R)**	**20.1 (R)**	**8.1 (R)**	**5.4 J (R)**	**12.4 (R)**	**28 J (R)**	**27.5 J (R)**	**7.3 (R)**	**4.8 J (R)**	**6.7 J (R)**	**6.4 J (R)**	**7.4 (R)**
*Sodium	mg/kg	9,700 J	2,160	1,230	2,100	2,220 J	1,230		12,800 J	6,740	5,880 J	5,500 J		12,600 J	3,330 J	5,360 J	896
*Thallium	mg/kg					1.4 J		0.89 J									
Vanadium	mg/kg	**47.5 J (A)**	**61 (A)**	**53.7 (A)**	19.2	**99.8 J (A)**	**107 (A)**	26.6	**50.4 J (A)**	**56.3 (A)**	**102 J (A)**	**108 J (A)**	26.3	**50.6 J (A)**	**48.4 J (A)**	**46.3 J (A)**	34.2
Zinc	mg/kg	**891 J (R)**	**631 (R)**	**1,070 (R)**	**380 (R)**	**1,630 J (R)**	**1,360 (R)**	**2,010 (R)**	**559 J (R)**	**1,140 (R)**	**1,690 J (R)**	**1,730 J (R)**	**531 (R)**	**499 J (R)**	**692 J (R)**	**438 J (R)**	**775 (R)**
Cyanide, Total	mg/kg					0.68 J	0.31 J	0.92 J									

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD145	GC-SD145	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD127	GC-SD127	GC-SD127
Sample Number:		GC-SD145-00.0-02.0	GC-SD145-02.0-03.5	GC-SD146-00.0-02.0	GC-SD146-02.0-04.0	GC-SD146-04.0-06.0	GC-SD147-00.0-02.0	GC-SD147-02.0-03.1	GC-SD148-00.0-02.0	GC-SD148-02.0-04.0	GC-SD148-04.0-05.5	GC-SD110-00.0-02.0	GC-SD110-02.0-04.0	GC-SD110-04.0-05.0	GC-SD127-00.0-02.0	GC-SD127-02.0-04.0	GC-SD127-04.0-06.0
Sample Depth:		0-2	2-3.5	0-2	2-4	4-6	0-2	2-3.1	0-2	2-4	4-5.5	0-2	2-4	4-5	0-2	2-4	4-6
Sample Date:		4/9/2010	4/9/2010	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**9,180 J (A)**	4,520	**15,000 J (A)**	**12,800 J (A)**	7,330 J	**10,600 J (A)**	7,110 J	**15,000 J (A)**	**7,780 J (A)**	6,430	**15,600 J (A)**	**9,350 J (A)**	7,370	**13,000 J (A)**	**8,940 J (A)**	6,810
Antimony	mg/kg			**2.4 J (R)**	**3.7 J (A,R)**	**3.8 J (A,R)**											
Arsenic	mg/kg	**11.7 J (A,R)**	**20 (A,R)**	**9.5 J (A,R)**	**16.9 J (A,R)**	**10.9 J (A,R)**	**10.4 J (A,R)**	**13.8 J (A,R)**	**8.9 J (A,R)**	**19.7 J (A,R)**	**25.5 (A,R)**	**11.5 J (A,R)**	**11.8 J (A,R)**	**8.8 (A,R)**	**9.2 J (A,R)**	**21.3 J (A,R)**	**28.7 (A,R)**
Barium	mg/kg	**338 J (R)**	**1,740 (A,R)**	**136 J (R)**	**403 J (R)**	**524 J (R)**	**270 J (R)**	**522 J (R)**	126 J	**631 J (R)**	**729 (R)**	**313 J (R)**	**725 J (R)**	**479 J (R)**	**259 J (R)**	**2,030 J (A,R)**	**1,370 J (R)**
Beryllium	mg/kg			0.78 J	0.83 J	0.37 J						0.79 J	0.47 J	0.36 J	0.63 J	0.58 J	0.53 J
Cadmium	mg/kg	**5.2 J (R)**	**5.1 (R)**	**2.7 J (R)**	**10.1 J (A,R)**	**13 J (A,R)**	**6.1 J (R)**	**13.8 J (A,R)**	**2.8 J (R)**	**12.1 J (A,R)**	**4 (R)**	**3.6 J (R)**	**7.2 J (A,R)**	**3.7 (R)**	**4 J (R)**	**26.2 J (A,R)**	**4.4 (R)**
*Calcium	mg/kg	5,100 J	10,100 J	7,050 J	12,700 J	9,150 J	8,280 J	10,100 J	7,440 J	10,700 J	10,600 J	10,900 J	12,500 J	6,020	9,400 J	11,300 J	9,200
Chromium	mg/kg	**99 J (A,R)**	**56.7 (A)**	**80.4 J (A)**	**125 J (A,R)**	**152 J (A,R)**	**118 J (A,R)**	**202 J (A,R)**	**93 J (A,R)**	**196 J (A,R)**	**49.4 (A)**	**108 J (A,R)**	**119 J (A,R)**	**77.8 (A)**	**101 J (A,R)**	**492 J (A,R)**	**59.6 (A)**
Cobalt	mg/kg	**9.4 J (A)**							**11.9 J (A)**	**10.1 J (A)**	**7.2 J (A)**	**11.1 J (A)**	**8.3 J (A)**	**5.9 J (A)**	**9.4 J (A)**	**10.3 J (A)**	**6 J (A)**
Copper	mg/kg	**292 J (R)**	**483 (A,R)**	**252 J (R)**	**448 J (A,R)**	**420 J (A,R)**	**414 J (A,R)**	**591 J (A,R)**	**222 J (R)**	**567 J (A,R)**	**366 (A,R)**	**324 J (A,R)**	**494 J (A,R)**	**215 (R)**	**369 J (A,R)**	**1,120 J (A,R)**	**469 (A,R)**
Iron	mg/kg	**30,800 J (A)**	**21,100 (A)**	**30,400 J (A)**	**32,800 J (A)**	**27,300 J (A)**	**28,000 J (A)**	**39,300 J (A)**	**30,400 J (A)**	**33,500 J (A)**	**21,500 (A)**	**33,300 J (A)**	**28,900 J (A)**	**19,100 (A)**	**29,500 J (A)**	**35,500 J (A)**	**22,900 (A)**
Lead	mg/kg	**750 J (A,R)**	**1,340 (A,R)**	**269 J (R)**	**704 J (A,R)**	**666 J (A,R)**	**575 J (A,R)**	**1,080 J (A,R)**	**344 J (R)**	**1,210 J (A,R)**	**785 (A,R)**	**431 J (A,R)**	**754 J (A,R)**	**414 J (A,R)**	**464 J (A,R)**	**1,690 J (A,R)**	**987 J (A,R)**
*Magnesium	mg/kg	6,120 J	3,090	9,230 J	9,540 J	5,480 J	8,060 J	5,970 J	8,590 J	5,680 J	3,430	8,600 J	7,210 J	4,510	8,740 J	7,120 J	3,850
Manganese	mg/kg	**240 J (A)**	157	**319 J (A)**	**288 J (A)**	**384 J (A)**	**237 J (A)**	170 J	**336 J (A)**	**326 J (A)**	**515 (A,R)**	**455 J (A)**	**380 J (A)**	**241 J (A)**	**281 J (A)**	167 J	166 J
Mercury	mg/kg	**1.6 J (R)**	**7.7 (A,R)**	**1 J (R)**	**1.7 J (R)**	**1.2 J (R)**	**2.8 J (A,R)**	**2.2 J (R)**	**1.4 J (R)**	**2.5 J (A,R)**	**5.1 (A,R)**	**2 J (R)**	**1.1 J (R)**	**1.1 (R)**	**2.6 J (A,R)**	**5 J (A,R)**	**0.58 (R)**
Nickel	mg/kg	**52.4 J (R)**	**29 (R)**	**41 J (R)**	**84.2 J (R)**	**87.3 J (R)**	**66.6 J (R)**	**142 J (R)**	**43.6 J (R)**	**133 J (R)**	**35 (R)**	**54.2 J (R)**	**79 J (R)**	**57.6 (R)**	**57.4 J (R)**	**318 J (A,R)**	**36.7 (R)**
*Potassium	mg/kg	2,520 J	1,080 J	3,960 J	3,140 J	1,700 J	2,950 J	1,600 J	3,900 J	1,700 J	1,620 J	3,050 J	1,880 J	1,400	3,410 J	1,970 J	1,700
Selenium	mg/kg			3 J	4.8 J				2.6 J	4.4 J	4.8 J	1.5 J	1.4 J	0.8 J	1.3 J	3.2 J	4 J
Silver	mg/kg	**5.7 J (R)**	**6.1 (R)**	**5.4 J (R)**	**11.9 J (R)**	**9.2 J (R)**	**8.3 J (R)**	**13.1 J (R)**	**6.2 J (R)**	**11.1 J (R)**	**5.3 (R)**	**10.8 J (R)**	**10.8 J (R)**	**4.7 (R)**	**7.4 J (R)**	**27.5 J (R)**	**6.6 (R)**
*Sodium	mg/kg	7,220 J	1,820	9,810 J	3,860 J	1,520 J	10,400 J	1,600 J	5,750 J			1,560 J	1,350 J		11,100 J	9,870 J	5,790
*Thallium	mg/kg				0.97 J				1.6 J	1.1 J	1.5 J	0.97 J	1.4 J	0.88 J	1 J	1.4 J	1.8 J
Vanadium	mg/kg	**42.6 J (A)**	24.1	**49.5 J (A)**	**57.8 J (A)**	**52.7 J (A)**	**52.4 J (A)**	**59.5 J (A)**	**50.8 J (A)**	**51 J (A)**	31.7	**56.3 J (A)**	**47.5 J (A)**	33.1	**48.7 J (A)**	**145 J (A)**	38.7
Zinc	mg/kg	**736 J (R)**	**1,880 (R)**	**480 J (R)**	**979 J (R)**	**872 J (R)**	**828 J (R)**	**1,440 J (R)**	**468 J (R)**	**1,520 J (R)**	**1,270 (R)**	**642 J (R)**	**971 J (R)**	**506 (R)**	**643 J (R)**	**2,020 J (R)**	**1,620 (R)**
Cyanide, Total	mg/kg	0.72 J	0.55 J		0.48 J	0.49 J		1.5 J		0.5 J							

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD127	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD129	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD112	GC-SD112	GC-SD112	GC-SD113	GC-SD113
Sample Number:		D-03112010-01	GC-SD128-00.0-02.0	GC-SD129-00.0-02.0	GC-SD129-02.0-04.0	GC-SD129-04.0-06.0	GC-SD129-06.0-06.5	GC-SD111-00.0-02.0	GC-SD111-02.0-04.0	D-03162010-02	GC-SD111-04.0-06.0	GC-SD111-06.0-08.0	GC-SD112-00.0-02.0	GC-SD112-02.0-04.0	D-03122010-01	GC-SD113-00.0-02.0	GC-SD113-02.0-04.0
Sample Depth:		4-6	0-2	0-2	2-4	4-6	6-6.5	0-2	2-4	2-4	4-6	6-8	0-2	2-4	2-4	0-2	2-4
Sample Date:		3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/15/2010	3/15/2010
Sample Type:		FD	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	7,190	**14,100 J (A)**	**11,900 J (A)**	7,210 J	6,340	**7,950 (A)**	**11,700 J (A)**	**10,200 J (A)**	**9,390 J (A)**	**11,200 J (A)**	7,130 J	4,030	4,250	4,720	**8,460 (A)**	7,580 J
Antimony	mg/kg												0.98 J	**2.9 J (R)**	**4.1 J (A,R)**	2 J	**2.9 J (R)**
Arsenic	mg/kg	**34.6 (A,R)**	**11.4 J (A,R)**	**13.2 J (A,R)**	**13.6 J (A,R)**	**39.3 (A,R)**	**18.1 (A,R)**	**13.3 J (A,R)**	**19.7 J (A,R)**	**20.4 J (A,R)**	**31.7 J (A,R)**	**16.6 (A,R)**	**2.9 (A)**	**8.9 (A,R)**	**10.3 (A,R)**	**10.6 (A,R)**	**10.3 J (A,R)**
Barium	mg/kg	**1,450 J (R)**	**349 J (R)**	**398 J (R)**	**491 J (R)**	**584 (R)**	**197 (R)**	**558 J (R)**	**1,360 J (R)**	**2,010 J (A,R)**	**1,790 J (A,R)**	**419 J (R)**	99	**393 (R)**	**751 (R)**	**270 J (R)**	**322 J (R)**
Beryllium	mg/kg	0.53 J	0.74 J													0.65 J	0.54 J
Cadmium	mg/kg	**5.4 (R)**	**7 J (R)**	**9.2 J (A,R)**	**12.5 J (A,R)**	**4.3 (R)**	**2.2 (R)**	**14.6 J (A,R)**	**33.2 J (A,R)**	**38.6 J (A,R)**	**38.3 J (A,R)**	**9.8 (A,R)**	**1.3 (R)**	**5.6 (R)**	**7.4 (A,R)**	**5.7 (R)**	**9.5 J (A,R)**
*Calcium	mg/kg	11,100	8,750 J	13,100 J	9,850 J	28,700 J	6,470 J	14,000 J	12,000 J	10,700 J	11,000 J	3,710	16,600	12,600	17,800	14,800	11,000 J
Chromium	mg/kg	**69.1 (A)**	**171 J (A,R)**	**174 J (A,R)**	**215 J (A,R)**	**46 (A)**	**186 (A,R)**	**314 J (A,R)**	**582 J (A,R)**	**594 (A,R)**	**719 J (A,R)**	**151 (A,R)**	**35.4 (A)**	**250 (A,R)**	**401 (A,R)**	**146 (A,R)**	**187 J (A,R)**
Cobalt	mg/kg	**7 J (A)**	**11 J (A)**	**16 J (A)**	**9.9 J (A)**	**7.3 J (A)**	**7.5 J (A)**		**12.6 J (A)**			**7.6 (A)**				**7.6 J (A)**	**8.8 J (A)**
Copper	mg/kg	**498 (A,R)**	**487 J (A,R)**	**514 J (A,R)**	**652 J (A,R)**	**637 (A,R)**	**368 (A,R)**	**633 J (A,R)**	**1,050 J (A,R)**	**1,230 J (A,R)**	**1,380 J (A,R)**	**349 (A,R)**	**86.2 (R)**	**1,610 (A,R)**	**546 (A,R)**	**313 (A,R)**	**433 J (A,R)**
Iron	mg/kg	**22,700 (A)**	**35,300 J (A)**	**33,300 J (A)**	**27,000 J (A)**	**23,000 (A)**	**21,900 (A)**	**32,300 J (A)**	**34,700 J (A)**	**30,700 J (A)**	**34,100 J (A)**	**19,900 J (A)**	**14,900 (A)**	**20,000 (A)**	**20,500 (A)**	**26,600 (A)**	**26,200 J (A)**
Lead	mg/kg	**1,100 J (A,R)**	**705 J (A,R)**	**875 J (A,R)**	**1,050 J (A,R)**	**969 (A,R)**	**813 (A,R)**	**1,170 J (A,R)**	**1,860 J (A,R)**	**1,960 J (A,R)**	**1,770 J (A,R)**	**549 J (A,R)**	**346 (R)**	**1,030 (A,R)**	**1,260 (A,R)**	**626 (A,R)**	**638 J (A,R)**
*Magnesium	mg/kg	4,360	8,130 J	9,650 J	6,340 J	4,000	4,130	9,760 J	8,600 J	7,610 J	7,930 J	3,520	10,400	6,540	5,590	8,600	11,700 J
Manganese	mg/kg	160 J	**286 J (A)**	**252 J (A)**	144 J	144	135	**219 J (A)**	**183 J (A)**	158 J	**192 J (A)**	124	121	163	161	169	142 J
Mercury	mg/kg	**2.7 (A,R)**	**1.5 J (R)**	**1.3 J (R)**	**3.2 J (A,R)**	**8.5 (A,R)**	**9.4 (A,R)**	**2.1 J (R)**	**4.3 J (A,R)**	**4.8 J (A,R)**	**4.7 J (A,R)**	**2.4 (A,R)**	**0.37 (R)**	**2.2 (R)**	**1 (R)**	**1.6 J (R)**	**3.7 J (A,R)**
Nickel	mg/kg	**50.1 (R)**	**102 J (R)**	**140 J (R)**	**143 J (R)**	**36.7 (R)**	**27.6 (R)**	**186 J (A,R)**	**374 J (A,R)**	**484 J (A,R)**	**443 J (A,R)**	**69.5 (R)**	**28.8 (R)**	**173 (A,R)**	**254 (A,R)**	**88.9 (R)**	**137 J (R)**
*Potassium	mg/kg	1,720	3,230 J	3,740 J	1,760 J	1,530 J	1,490 J	3,330 J	2,410 J	2,270 J	2,650 J	1,680	1,010	936	1,110	2,340	1,980 J
Selenium	mg/kg	4.6 J	1.7 J	4.1 J	4.1 J	6.4 J	4.4 J	4.5 J	5.5 J	5.2 J	5.6 J	3.3 J					
Silver	mg/kg	**7.4 (R)**	**10.7 J (R)**	**10.5 J (R)**	**11.2 J (R)**	**7.2 (R)**	**6.4 (R)**	**12.7 J (R)**	**24.6 J (R)**	**30 J (R)**	**31.2 J (R)**	**12.5 (R)**	**1.1 J (R)**	**4 (R)**	**4.8 (R)**	**6.8 (R)**	**8.5 J (R)**
*Sodium	mg/kg	4,900	5,470 J	10,000 J	4,590 J	3,360	2,770	12,800 J	13,000 J	12,800 J	12,900 J	3,960	4,570	4,710	5,590	8,550	11,100 J
*Thallium	mg/kg	1.8 J	1.6 J	1.6 J		1.3 J	0.73 J	6.3 J	6.7 J	5.7 J	7.3 J	3.9 J		1.1 J	1.8 J	3 J	
Vanadium	mg/kg	**45.2 (A)**	**62.8 J (A)**	**55.8 J (A)**	**59.4 J (A)**	24.6	25.6	**75.7 J (A)**	**114 J (A)**	**142 J (A)**	**199 J (A)**	**47.1 (A)**	14.7	**42.5 (A)**	**54.6 (A)**	**47 (A)**	**48.1 J (A)**
Zinc	mg/kg	**1,740 (R)**	**853 J (R)**	**1,140 J (R)**	**1,250 J (R)**	**1,330 (R)**	**801 (R)**	**1,290 J (R)**	**2,100 J (R)**	**2,170 J (R)**	**2,350 J (A,R)**	**725 (R)**	**289 (R)**	**968 (R)**	**1,380 (R)**	**696 (R)**	**857 J (R)**
Cyanide, Total	mg/kg			0.55 J	0.49 J	0.33 J	0.55 J										

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD37B	GC-SD37B	GC-SD38A	GC-SD38A	GC-SD116	GC-SD116	GC-SD116	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD117
Sample Number:		GC-SD113-04.0-06.0	D-03152010-01	GC-SD113-06.0-08.0	GC-SD113-08.0-09.0	GC-SD037B-00.0-00.5	GC-SD037B-02.5-04.2	GC-SD038A-02.1-02.6	GC-SD038A-02.6-04.4	GC-SD116-00.0-02.0	GC-SD116-02.0-04.0	GC-SD116-04.0-06.0	GC-SD117-00.0-02.0	GC-SD117-02.0-04.0	GC-SD117-04.0-06.0	D-03182010-01	GC-SD117-06.0-07.6
Sample Depth:		4-6	4-6	6-8	8-9	0-0.5	2.5-4.2	2.1-2.6	2.6-4.4	0-2	2-4	4-6	0-2	2-4	4-6	4-6	6-7.6
Sample Date:		3/15/2010	3/15/2010	3/15/2010	3/15/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**8,480 (A)**	6,300	**8,810 J (A)**	3,630	**9,780 J (A)**	3,870	5,750	4,950	**13,100 J (A)**	**12,300 J (A)**	4,490	**14,400 J (A)**	**12,500 J (A)**	**10,800 J (A)**	**10,500 J (A)**	5,910
Antimony	mg/kg	**3.5 J (A,R)**	**2.3 J (R)**	**6.2 J (A,R)**	**2.9 J (R)**								**4.4 J (A,R)**	**7.2 J (A,R)**	**12.4 J (A,R)**	**6.3 J (A,R)**	**4.8 J (A,R)**
Arsenic	mg/kg	**11 (A,R)**	**8.9 (A,R)**	**33.1 J (A,R)**	**23.9 (A,R)**	**6.7 J (A)**	**20 (A,R)**	**24.2 (A,R)**	**21.4 (A,R)**	**21.6 J (A,R)**	**22.1 J (A,R)**	**10 (A,R)**	**17.6 J (A,R)**	**20.9 J (A,R)**	**21 J (A,R)**	**20.5 J (A,R)**	**15.7 (A,R)**
Barium	mg/kg	**352 J (R)**	**308 J (R)**	**1,150 J (R)**	**279 J (R)**	67.8 J	**757 (R)**	**447 (R)**	**464 (R)**	**571 J (R)**	**1,470 J (R)**	**635 J (R)**	**891 J (R)**	**1,500 J (R)**	**1,390 J (R)**	**1,320 J (R)**	**355 (R)**
Beryllium	mg/kg	0.48 J	0.29 J	1.1 J	0.24 J												
Cadmium	mg/kg	**10.2 (A,R)**	**6 (R)**	**7 J (R)**	**3.2 (R)**	**1.4 J (R)**	**10.2 (A,R)**	**14.4 (A,R)**	**9 (A,R)**	**15.1 J (A,R)**	**56.1 J (A,R)**	**17 (A,R)**	**35.1 J (A,R)**	**65.4 J (A,R)**	**42.8 J (A,R)**	**39.8 J (A,R)**	**4.5 (R)**
*Calcium	mg/kg	8,150	12,800	14,300 J	4,380	7,730 J	5,450 J	12,600 J	6,190 J	22,000 J	14,600 J	4,480	17,500 J	13,100 J	11,700 J	11,000 J	4,130
Chromium	mg/kg	**144 (A,R)**	**110 (A,R)**	**59.5 J (A)**	**24.4 (A)**	**48.1 J (A)**	**142 (A,R)**	**227 (A,R)**	**87.1 (A,R)**	**289 J (A,R)**	**695 J (A,R)**	**210 (A,R)**	**469 J (A,R)**	**651 J (A,R)**	**501 J (A,R)**	**458 J (A,R)**	**57.2 (A)**
Cobalt	mg/kg	**6.1 J (A)**	**6.3 J (A)**	**5.9 J (A)**	**3.9 J (A)**	**7 J (A)**	**8.6 J (A)**	**9.8 (A)**	**6.6 J (A)**				**11 J (A)**	**12.5 J (A)**	**11.1 J (A)**	**10.4 J (A)**	**6 J (A)**
Copper	mg/kg	**319 (A,R)**	**228 (R)**	**957 J (A,R)**	**164 (R)**	**115 J (R)**	**414 (A,R)**	**491 (A,R)**	**378 (A,R)**	**529 J (A,R)**	**1,180 J (A,R)**	**412 (A,R)**	**828 J (A,R)**	**1,180 J (A,R)**	**982 J (A,R)**	**945 J (A,R)**	**466 (A,R)**
Iron	mg/kg	**22,100 (A)**	**33,700 (A)**	**28,900 J (A)**	**17,400 (A)**	**20,200 J (A)**	**33,000 (A)**	**50,300 (A)**	**23,900 (A)**	**31,500 J (A)**	**34,100 J (A)**	**15,800 (A)**	**30,700 J (A)**	**31,800 J (A)**	**28,900 J (A)**	**27,900 J (A)**	**16,700 (A)**
Lead	mg/kg	**529 (A,R)**	**453 (A,R)**	**1,270 J (A,R)**	**2,440 (A,R)**	**126 J (R)**	**1,070 (A,R)**	**802 (A,R)**	**777 (A,R)**	**809 J (A,R)**	**1,610 J (A,R)**	**770 (A,R)**	**1,040 J (A,R)**	**1,570 J (A,R)**	**1,430 J (A,R)**	**1,370 J (A,R)**	**420 (A,R)**
*Magnesium	mg/kg	7,260	6,730	5,950 J	2,580	7,630 J	3,360	5,310	3,190	15,300 J	10,200 J	3,290	11,200 J	8,880 J	7,560 J	7,070 J	2,640
Manganese	mg/kg	170	176	**187 J (A)**	121	**220 J (A)**	151	**224 (A)**	108	**259 J (A)**	**215 J (A)**	84	**218 J (A)**	**195 J (A)**	171 J	164 J	90.3
Mercury	mg/kg	**1.4 J (R)**	**0.8 J (R)**	**1.9 J (R)**	**3.7 J (A,R)**	**0.45 J (R)**	**3.4 (A,R)**	**1.8 (R)**	**2.1 (R)**	**1.8 J (R)**	**5.6 J (A,R)**	**2.1 (R)**	**4 J (A,R)**	**4.6 J (A,R)**	**5.1 J (A,R)**	**4.7 J (A,R)**	**2.6 (A,R)**
Nickel	mg/kg	**91.8 (R)**	**70.7 (R)**	**36.6 J (R)**	19.7	**23 J (R)**	**96 (R)**	**132 (R)**	**28.6 (R)**	**143 J (R)**	**373 J (A,R)**	**137 (R)**	**222 J (A,R)**	**370 J (A,R)**	**347 J (A,R)**	**304 J (A,R)**	**34.5 (R)**
*Potassium	mg/kg	1,670	1,130	2,370 J	932	2,830 J	994 J	1,440 J	1,310 J	3,230 J	2,680 J	1,050 J	2,980 J	2,600 J	2,260 J	2,290 J	1,280
Selenium	mg/kg							7.1		4.1 J	5.6 J	2.5 J				1.8 J	1.3 J
Silver	mg/kg	**6.6 (R)**	**5.6 (R)**	**8.1 J (R)**	**1.8 (R)**	**2.1 J (R)**	**7.4 (R)**	**18.4 (R)**	**11.1 (R)**	**11 J (R)**	**27.4 J (R)**	**11.6 (R)**	**19.6 J (R)**	**32.2 J (R)**	**25.2 J (R)**	**24.3 J (R)**	**3.9 (R)**
*Sodium	mg/kg	5,200	4,430	4,190 J	1,860	10,200 J	5,500	6,070	5,500	18,400 J	13,300 J	3,940	9,270 J	7,560 J	5,280 J	5,230 J	1,510
*Thallium	mg/kg		3.6				1.1 J	2.9 J	1.3 J	8.7 J	9 J	3.5 J				2 J	1.3 J
Vanadium	mg/kg	38.5	26.6	31.9 J	17.8	29.7 J	**40.6 (A)**	**72.9 (A)**	35.7	**64.9 J (A)**	**105 J (A)**	**58.3 (A)**	**77.3 J (A)**	**109 J (A)**	**112 J (A)**	**108 J (A)**	26.4
Zinc	mg/kg	**943 (R)**	**549 (R)**	**1,870 J (R)**	**2,480 (A,R)**	**227 J (R)**	**1,340 (R)**	**966 (R)**	**1,080 (R)**	**1,200 J (R)**	**2,220 J (R)**	**864 (R)**	**1,610 J (R)**	**2,140 J (R)**	**1,940 J (R)**	**1,760 J (R)**	**450 (R)**
Cyanide, Total	mg/kg		4.6 J			0.52 J	1.2 J	0.46 J	0.41 J				1.2 J		1 J	0.91 J	1.7 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD115	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD132	GC-SD132	GC-SD118	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119	GC-SD119
Sample Number:	GC-SD115-00.0-01.5	GC-SD130-00.0-02.0	GC-SD130-02.0-04.0	D-03222010-01	GC-SD130-04.0-06.0	GC-SD130-06.0-07.0	GC-SD131-00.0-01.3	GC-SD132-00.0-02.0	GC-SD132-02.0-04.0	GC-SD118-00.2-00.7	GC-SD119-00.0-01.2	GC-SD119-04.5-06.0	GC-SD119-06.0-08.0	D-03312010-01	GC-SD119-08.0-10.0	GC-SD119-10.0-12.0
Sample Depth:	0-1.5	0-2	2-4	2-4	4-6	6-7	0-1.3	0-2	2-4	0.2-0.7	0-1.2	4.5-6	6-8	6-8	8-10	10-12
Sample Date:	3/17/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/22/2010	3/22/2010	4/1/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Metals**														
Aluminum	mg/kg	2,340	7,650	6,720	**8,630 (A)**	**8,420 J (A)**	3,880	2,450	**10,500 J (A)**	6,340	2,340	**9,510 J (A)**	6,170	**9,560 J (A)**	**8,730 J (A)**	**8,660 (A)**	4,800
Antimony	mg/kg		**2.8 J (R)**	**3.4 J (A,R)**	**3.3 J (A,R)**	**3 J (R)**	**3 J (R)**	**2.2 J (R)**	1.9 J	**2.5 J (R)**							
Arsenic	mg/kg	**6.2 (A)**	**13.8 (A,R)**	**15.2 (A,R)**	**16.1 (A,R)**	**19.7 J (A,R)**	**14.2 (A,R)**	**3.7 (A)**	**18.8 J (A,R)**	**32.9 (A,R)**	**12.7 (A,R)**	**13.6 J (A,R)**	**7.5 (A)**	**23.7 J (A,R)**	**23.4 J (A,R)**	**18.4 (A,R)**	**4.9 (A)**
Barium	mg/kg	48.7 J	**250 (R)**	**308 (R)**	**301 (R)**	**359 J (R)**	**197 (R)**	**213 (R)**	**382 J (R)**	**299 (R)**	**395 J (R)**	**694 J (R)**	**158 J (R)**	**831 J (R)**	**604 J (R)**	**287 J (R)**	51.5 J
Beryllium	mg/kg		0.32 J	0.29 J	0.38 J	0.4 J	0.2 J		0.46 J	0.25 J	0.15 J		0.47 J	0.64 J	0.65 J	0.56 J	0.31 J
Cadmium	mg/kg	1.2	**10.9 (A,R)**	**12.9 (A,R)**	**11.9 (A,R)**	**2.8 J (R)**	**2 (R)**	1.2	**19.4 J (A,R)**	**1.9 (R)**	**4.3 (R)**	**30.6 J (A,R)**	**3 (R)**	**5.9 J (R)**	**5.5 J (R)**	**4.1 (R)**	**1.3 (R)**
*Calcium	mg/kg	8,110	16,800	25,400	46,000	32,000 J	18,300	11,600	14,400 J	8,110	6,880	42,200 J	38,500	31,200 J	33,200 J	35,800	4,990
Chromium	mg/kg	**27.9 (A)**	**159 (A,R)**	**132 (A,R)**	**132 (A,R)**	**46.4 J (A)**	**42.2 (A)**	**20.4 (A)**	**243 J (A,R)**	**40 (A)**	**79.7 (A)**	**209 J (A,R)**	**34.9 (A)**	**64.7 J (A)**	**58.2 J (A)**	**39 (A)**	**15.2 (A)**
Cobalt	mg/kg	2.3 J	**6.8 J (A)**	**5.8 J (A)**	**6 J (A)**	**5 J (A)**	**3.9 J (A)**	**2.8 J (A)**	**9.3 J (A)**	**6.3 J (A)**	**14.8 (A)**	**7.6 J (A)**	**3.6 J (A)**	**7.1 J (A)**	**6.2 J (A)**	**7 J (A)**	**4.4 J (A)**
Copper	mg/kg	**89.6 (R)**	**353 (A,R)**	**327 (A,R)**	**387 (A,R)**	**238 J (R)**	**185 (R)**	**139 (R)**	**570 J (A,R)**	**673 (A,R)**	**186 (R)**	**466 J (A,R)**	**99.789 (R)**	**343 J (A,R)**	**317 J (A,R)**	**182 (R)**	**43.3 (R)**
Iron	mg/kg	**12,500 (A)**	**21,900 (A)**	**20,100 (A)**	**23,200 (A)**	**16,100 J (A)**	**13,300 (A)**	**7,880 (A)**	**28,600 J (A)**	**19,400 (A)**	**16,700 (A)**	**28,300 J (A)**	**13,700 (A)**	**22,300 J (A)**	**23,600 J (A)**	**16,000 (A)**	**9,640 (A)**
Lead	mg/kg	**112 (R)**	**552 (A,R)**	**865 (A,R)**	**567 (A,R)**	**459 J (A,R)**	**432 (A,R)**	**137 (R)**	**752 J (A,R)**	**779 (A,R)**	**750 (A,R)**	**1,230 J (A,R)**	**259 (R)**	**790 J (A,R)**	**622 J (A,R)**	**441 (A,R)**	**69.7 (R)**
*Magnesium	mg/kg	3,590	10,500	12,900	18,100	17,900 J	5,600	5,870	10,100 J	4,100	1,520	14,500 J	14,200	15,500 J	13,300 J	17,300	4,150
Manganese	mg/kg	82	162	149	**198 (A)**	**187 J (A)**	98.8	61.8	**208 J (A)**	111	118	**202 J (A)**	145	**231 J (A)**	**221 J (A)**	**206 (A)**	138
Mercury	mg/kg	**0.28 (R)**	**1.6 (R)**	**0.91 (R)**	**1.4 (R)**	**1.6 J (R)**	**1.4 (R)**	0.13	**2.1 J (R)**	**3 (A,R)**	**0.49 (R)**	**5.1 J (A,R)**	**8.8 (A,R)**	**5.3 J (A,R)**	**7 J (A,R)**	**3 (A,R)**	**0.61 (R)**
Nickel	mg/kg	15.7	**69.5 (R)**	**57.8 (R)**	**67.7 (R)**	**27 J (R)**	18.9	14.3	**118 J (R)**	**26.2 (R)**	**32.4 (R)**	**113 J (R)**	17.1	**33.8 J (R)**	**30.5 J (R)**	**37.9 (R)**	**22.7 (R)**
*Potassium	mg/kg		1,870	1,130	1,420	1,330 J	596 J	627	2,350 J	1,430		1,830 J	864	1,900 J	1,750 J	1,530	1,180
Selenium	mg/kg	1.3 J					1.1 J			3 J	1.7 J			2.7 J	3.3 J	2.4 J	
Silver	mg/kg	0.92 J	**6.8 (R)**	**8.8 (R)**	**8.4 (R)**	**3.1 J (R)**	**2.5 (R)**	0.7 J	**12.2 J (R)**	**4.6 (R)**	**2.4 (R)**	**10 J (R)**	**1.3 J (R)**	**3.9 J (R)**	**3.8 J (R)**	**2.3 (R)**	0.31 J
*Sodium	mg/kg	1,720	7,710	6,520	9,140	12,200 J	2,300	2,480	9,120 J	5,690		9,970 J	4,330	7,120 J	6,480 J	4,730	1,680
*Thallium	mg/kg	2.1 J	1.3 J				1.2 J		2.2 J	1.6 J		2.2 J	0.84 J	1.6 J	2.2 J	1.9 J	
Vanadium	mg/kg	13.8	35.2	**49 (A)**	**55.1 (A)**	29.9 J	16.7	17.7	**50.3 J (A)**	21.3	21.4	**82.4 J (A)**	18.2	34.6 J	32 J	25.4	13.4
Zinc	mg/kg	127	**747 (R)**	**688 (R)**	**686 (R)**	**617 J (R)**	**481 (R)**	148	**1,150 J (R)**	**844 (R)**	**518 J (R)**	**1,010 J (R)**	**375 (R)**	**1,160 J (R)**	**978 J (R)**	**548 (R)**	109
Cyanide, Total	mg/kg											1 J	1.2 J	1.7 J	1.1 J	1.5 J	0.21 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD149	GC-SD149	GC-SD149	GC-SD120	GC-SD133	GC-SD133	GC-SD133	GC-SD133	GC-SD134	GC-SD134	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135	GC-SD135
Sample Number:		GC-SD149-00.0-02.0	GC-SD149-02.0-04.0	GC-SD149-04.0-04.7	GC-SD120-00.0-01.3	GC-SD133-00.0-02.0	GC-SD133-02.0-04.0	GC-SD133-04.0-06.0	GC-SD133-06.0-07.8	GC-SD134-00.0-02.0	GC-SD134-02.0-04.0	GC-SD135-00.0-02.0	GC-SD135-02.0-04.0	D-04062010-01	GC-SD135-04.0-06.0	GC-SD135-06.0-08.0	GC-SD135-08.0-10.0
Sample Depth:		0-2	2-4	4-4.7	0-1.3	0-2	2-4	4-6	6-7.8	0-2	2-4	0-2	2-4	2-4	4-6	6-8	8-10
Sample Date:		4/12/2010	4/12/2010	4/12/2010	3/31/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	2,450	5,820	**14,600 (A)**	2,460	5,060	4,580	5,960	4,000	4,770	3,180	**8,290 (A)**	6,580	6,510	5,270	5,230	5,900
Antimony	mg/kg	**2.1 J (R)**	**5.5 J (A,R)**														
Arsenic	mg/kg	**5 (A)**	**105 (A,R)**	**13.2 (A,R)**	**7.3 (A)**	**7.7 J (A)**	**10.7 J (A,R)**	**14.8 J (A,R)**	**17.4 J (A,R)**	**4.5 J (A)**	**11.2 J (A,R)**	**8.5 J (A,R)**	**7.7 J (A)**	**7.7 J (A)**	**4 J (A)**	**7.8 J (A)**	**14.2 J (A,R)**
Barium	mg/kg	109	**297 (R)**	124	28.4 J	**392 (R)**	**589 (R)**	**542 (R)**	**375 (R)**	**236 (R)**	**270 (R)**	**157 (R)**	**355 (R)**	**331 (R)**	**336 (R)**	**523 (R)**	**835 (R)**
Beryllium	mg/kg	0.18 J	0.39 J	0.71 J	0.21 J	0.45 J	0.23 J	0.33 J	0.27 J			0.35 J	0.44 J		0.48 J	0.45 J	
Cadmium	mg/kg	**8.5 (A,R)**	**6 (R)**	**1.3 (R)**	0.41 J	**28.4 (A,R)**	**33.3 (A,R)**	**28.5 (A,R)**	**5.7 (R)**	**12.6 (A,R)**	**13.6 (A,R)**	**5.2 (R)**	**15.3 J (A,R)**	**28.4 J (A,R)**	**23.2 (A,R)**	**40.9 (A,R)**	**32.5 (A,R)**
*Calcium	mg/kg	5,280 J	3,870 J	2,380 J	1,020	6,710	5,340	7,230	4,180	6,030	6,140	7,280	8,100	7,130	5,660	5,840	6,810
Chromium	mg/kg	**42.9 (A)**	**54.2 (A)**	**36.8 (A)**	**8.1 (A)**	**176 (A,R)**	**444 (A,R)**	**237 (A,R)**	**75.1 (A)**	**91.6 (A,R)**	**128 (A,R)**	**73 (A)**	**154 (A,R)**	**140 (A,R)**	**157 (A,R)**	**224 (A,R)**	**360 (A,R)**
Cobalt	mg/kg			**12 (A)**	**6.3 (A)**					**6.7 J (A)**	**5.1 J (A)**		**9.5 (A)**	**7.8 (A)**		**8.3 (A)**	
Copper	mg/kg	**99.8849 (R)**	**506 (A,R)**	**103 (R)**	23.8	**444 (A,R)**	**622 (A,R)**	**518 (A,R)**	**260 (R)**	**215 (R)**	**250 (R)**	**180 (R)**	**270 (R)**	**309 (R)**	**397 (A,R)**	**555 (A,R)**	**654 (A,R)**
Iron	mg/kg	**12,100 (A)**	**19,400 (A)**	**21,700 (A)**	**6,730 (A)**	**21,400 (A)**	**21,700 (A)**	**21,400 (A)**	**15,700 (A)**	**14,800 (A)**	**17,800 (A)**	**19,700 (A)**	**20,300 (A)**	**20,400 (A)**	**20,600 (A)**	**23,800 (A)**	**26,100 (A)**
Lead	mg/kg	**223 (R)**	**818 (A,R)**	**151 (R)**	41.8	**978 (A,R)**	**1,050 (A,R)**	**738 (A,R)**	**515 (A,R)**	**510 (A,R)**	**850 (A,R)**	**378 (R)**	**654 (A,R)**	**617 (A,R)**	**850 (A,R)**	**1,260 (A,R)**	**1,270 (A,R)**
*Magnesium	mg/kg	2,010	3,070	5,380	1,030	4,200	3,570	4,400	2,250	4,680	3,320	7,090	5,490	5,680	4,200	4,210	4,260
Manganese	mg/kg	78.4	147	**343 (A)**	63.3	106	87.5	116	98	88.5	96.3	173	145	131	86.5	98.7	126
Mercury	mg/kg	**0.45 (R)**	**6.3 (A,R)**	**1.5 (R)**	**0.33 (R)**	**1.5 (R)**	**2.9 (A,R)**	**1.7 (R)**	**2.2 (R)**	**0.69 (R)**	**1.1 (R)**	**0.41 (R)**	**1 J (R)**	**1.5 J (R)**	**0.98 (R)**	**1.9 (R)**	**1.9 (R)**
Nickel	mg/kg	**22.7 (R)**	**28.7 (R)**	**58.9 (R)**	9	**91.3 (R)**	**142 (R)**	**76.2 (R)**	**24.4 (R)**	**60.4 (R)**	**49.7 (R)**	**36.9 (R)**	**58.2 J (R)**	**138 J (R)**	**73.7 (R)**	**118 (R)**	**118 (R)**
*Potassium	mg/kg	552 J	1,560 J	2,690 J		1,020 J	975 J	1,200 J	937 J	1,170 J	831 J	2,140 J	1,430 J	1,530 J	1,060 J	1,130 J	1,380 J
Selenium	mg/kg		9.6			2.5 J	2.7 J	2.9 J	2.3 J			1.8 J	2.3 J		2.6 J	2.6 J	3.1 J
Silver	mg/kg	**2.5 (R)**	**3 (R)**	0.41 J	0.2 J	**8.4 (R)**	**12.4 (R)**	**14.3 (R)**	**6.9 (R)**	**5.8 (R)**	**3.8 (R)**	**5 (R)**	**5 J (R)**	**8.1 (R)**	**6.7 (R)**	**8.7 (R)**	**14.7 (R)**
*Sodium	mg/kg	2,540	2,530	1,320	605	1,790	2,030	1,660		4,510	5,020	6,750	3,340	4,130	3,140	4,460	5,280
*Thallium	mg/kg																
Vanadium	mg/kg	13.8	22.9	35.8	6.7	**52.7 (A)**	**78.5 (A)**	**61.5 (A)**	23	20.4	24.1	30.2	28.4	29.8	24.3	**40.7 (A)**	**86.4 (A)**
Zinc	mg/kg	**240 (R)**	**829 (R)**	**226 (R)**	66.1	**1,170 (R)**	**1,410 (R)**	**1,100 (R)**	**767 (R)**	**621 (R)**	**746 (R)**	**595 (R)**	**747 (R)**	**748 (R)**	**748 (R)**	**1,190 (R)**	**1,370 (R)**
Cyanide, Total	mg/kg		2.3 J	0.39 J		0.33 J	0.45 J	0.54 J	0.5 J		0.42 J		0.32 J	0.26 J		0.37 J	0.51 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD122	GC-SD136	GC-SD138	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151	GC-SD151	GC-SD123	GC-SD123	GC-SD123	GC-SD123	GC-SD139	GC-SD139
Sample Number:		GC-SD122-00.0-00.7	GC-SD136-00.0-02.0	GC-SD138-00.0-01.7	GC-SD150-00.0-02.0	GC-SD150-02.0-04.0	GC-SD150-04.0-06.0	GC-SD150-06.0-08.2	GC-SD151-00.0-02.0	GC-SD151-02.0-04.0	GC-SD151-04.0-04.8	GC-SD123-00.0-02.0	GC-SD123-02.0-04.0	GC-SD123-04.0-06.0	GC-SD123-06.0-06.8	GC-SD139-00.0-02.0	GC-SD139-02.0-04.0
Sample Depth:		0-0.7	0-2	0-1.7	0-2	2-4	4-6	6-8.2	0-2	2-4	4-4.8	0-2	2-4	4-6	6-6.8	0-2	2-4
Sample Date:		4/7/2010	3/22/2010	4/8/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	4,820 J	**9,730 J (A)**	5,730	**14,100 J (A)**	**8,720 (A)**	**12,200 J (A)**	**9,800 J (A)**	6,700	6,310	4,530	5,620 J	**13,700 J (A)**	**13,700 J (A)**	**10,500 (A)**	5,150	**8,080 (A)**
Antimony	mg/kg		1.1 J		**2.1 J (R)**	**2.2 J (R)**	**3.7 J (A,R)**	**3.9 J (A,R)**									
Arsenic	mg/kg	**6.8 J (A)**	**8 J (A)**	**2.6 (A)**	**11.5 J (A,R)**	**11.6 (A,R)**	**25.2 J (A,R)**	**23.5 J (A,R)**	**6.8 (A)**	**6.2 (A)**	**4.9 (A)**	**6.5 J (A)**	**11.4 J (A,R)**	**14.2 J (A,R)**	**14.7 (A,R)**	**4.8 (A)**	**10.6 (A,R)**
Barium	mg/kg	**409 J (R)**	**153 J (R)**	26.4	**200 J (R)**	**412 (R)**	**1,090 J (R)**	**537 J (R)**	**211 (R)**	108	88.6	36.4 J	**145 J (R)**	**677 J (R)**	**466 (R)**	53.7	**286 (R)**
Beryllium	mg/kg	0.26 J	0.48 J	0.44 J	0.66 J	0.5 J	0.81 J	0.66 J				0.51 J	0.77 J	0.89 J	0.65 J		0.97
Cadmium	mg/kg	**23.8 J (A,R)**	**3.5 J (R)**		**3.8 J (R)**	**16.2 (A,R)**	**48.9 J (A,R)**	**19.5 J (A,R)**	**2.6 (R)**	**3.9 (R)**	**2.8 (R)**		**4.1 J (R)**	**26 J (A,R)**	**20.6 (A,R)**	1.2	**13.6 (A,R)**
*Calcium	mg/kg	6,760 J	10,400 J	978 J	10,700 J	8,220 J	8,280 J	5,920 J	7,830 J	9,800 J	13,800 J		7,150 J	9,190 J	5,390 J	5,540 J	6,060 J
Chromium	mg/kg	**125 J (A,R)**	**70.4 J (A)**	**13.4 (A)**	**84.6 J (A,R)**	**136 (A,R)**	**375 J (A,R)**	**241 J (A,R)**	**25.6 (A)**	**36.5 (A)**	**27.7 (A)**	**14.5 J (A)**	**88.6 J (A,R)**	**261 J (A,R)**	**218 (A,R)**	**26 (A)**	**165 (A,R)**
Cobalt	mg/kg	**4.7 J (A)**	**9.1 J (A)**	**6.8 (A)**	**11.4 J (A)**	**7.5 J (A)**	**11.5 J (A)**	**10.3 J (A)**	**5.1 J (A)**	**5.5 J (A)**	**5.2 J (A)**	**8.6 J (A)**	**11.1 J (A)**	**10.8 J (A)**	**9.3 J (A)**	**5.5 J (A)**	**9.8 (A)**
Copper	mg/kg	**333 J (A,R)**	**208 J (R)**	10.8	**234 J (R)**	**335 (A,R)**	**799 J (A,R)**	**517 J (A,R)**	**94.3 (R)**	**87.6 (R)**	**69.9 (R)**	14.7 J	**201 J (R)**	**562 J (A,R)**	**423 (A,R)**	**78 (R)**	**370 (A,R)**
Iron	mg/kg	**17,500 J (A)**	**22,800 J (A)**	**15,000 (A)**	**30,900 J (A)**	**22,700 (A)**	**31,600 J (A)**	**30,900 J (A)**	**15,200 (A)**	**15,700 (A)**	**19,500 (A)**	**28,200 J (A)**	**29,800 J (A)**	**30,700 J (A)**	**26,000 (A)**	**14,700 (A)**	**27,200 (A)**
Lead	mg/kg	**628 J (A,R)**	**282 J (R)**	7.1 J	**268 J (R)**	**512 (A,R)**	**865 J (A,R)**	**633 J (A,R)**	**213 (R)**	**550 (A,R)**	**178 (R)**	8.1 J	**203 J (R)**	**531 J (A,R)**	**422 J (A,R)**	**432 (A,R)**	**558 J (A,R)**
*Magnesium	mg/kg	5,020 J	8,880 J	2,550	10,400 J	5,910	6,800 J	5,240 J	4,730	3,720	3,650	3,950 J	9,050 J	8,270 J	5,650	6,120	5,220
Manganese	mg/kg	109 J	**196 J (A)**	**314 (A)**	**313 J (A)**	**202 (A)**	**288 J (A)**	**247 J (A)**	179	**192 (A)**	178	**272 J (A)**	**315 J (A)**	**300 J (A)**	**257 (A)**	138	**205 (A)**
Mercury	mg/kg	**1.2 J (R)**	**1.7 J (R)**		**1.1 J (R)**	**2.4 (A,R)**	**4.8 J (A,R)**	**4.1 J (A,R)**	**0.34 (R)**	**0.77 (R)**	**0.28 (R)**		**2.2 J (R)**	**4.3 J (A,R)**	**4.4 (A,R)**	**0.27 (R)**	**1.7 (R)**
Nickel	mg/kg	**58 J (R)**	**58.7 J (R)**	13.6	**39.3 J (R)**	**56 (R)**	**160 J (A,R)**	**70.8 J (R)**	**26.4 (R)**	**22.2 (R)**	**24.1 (R)**	**29.5 J (R)**	**39.5 J (R)**	**90.4 J (R)**	**68.8 (R)**	**22.5 (R)**	**71 (R)**
*Potassium	mg/kg	1,300 J	2,400 J	1,290 J	3,840 J	2,060 J	2,870 J	2,430 J	1,690 J	1,540 J	1,100 J	940 J	3,910 J	3,710 J	2,760 J	1,160 J	2,390 J
Selenium	mg/kg			0.49 J	3.1 J	2.4 J	4.3 J	4 J					1.4 J	2.3 J	1.6 J		
Silver	mg/kg	**7.7 J (R)**	**4.8 J (R)**		**4.8 J (R)**	**7.8 (R)**	**21.7 J (R)**	**15.3 J (R)**					**4.8 J (R)**	**14.6 J (R)**	**12.4 (R)**		**7.1 (R)**
*Sodium	mg/kg	9,270 J	9,660 J	844	13,100 J	2,170	1,900 J	1,380 J	4,400	2,400	1,320		15,000 J	12,600 J	6,450	3,990	7,090
*Thallium	mg/kg				1.5 J	0.86 J	0.88 J	0.87 J									1.6 J
Vanadium	mg/kg	32.8 J	35.5 J	22	**43.3 J (A)**	37.5	**71.8 J (A)**	**71.8 J (A)**	18.8	20.6	20.6	22.6 J	**42.6 J (A)**	**53 J (A)**	**52.7 (A)**	15.5	38.8
Zinc	mg/kg	**593 J (R)**	**527 J (R)**	35.4	**511 J (R)**	**562 (R)**	**1,200 J (R)**	**945 J (R)**	**232 (R)**	**234 (R)**	**237 (R)**	41 J	**357 J (R)**	**771 J (R)**	**614 (R)**	**245 (R)**	**691 (R)**
Cyanide, Total	mg/kg	0.4 J				0.39 J	0.63 J	0.69 J	0.69 J	0.23 J	0.94 J		0.59 J			0.59 J	3.3 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD139	GC-SD140	GC-SD140	GC-SD140	GC-SD141	GC-SD141	GC-SD141	GC-SD142	GC-SD142	GC-SD143	GC-SD143
Sample Number:	GC-SD139-04.0-06.0	GC-SD139-06.0-08.0	GC-SD139-08.0-10.0	GC-SD139-10.0-12.0	D-04132010-01	GC-SD139-12.0-12.8	GC-SD140-00.0-02.0	GC-SD140-02.0-04.0	GC-SD140-04.0-06.0	GC-SD141-00.0-02.0	GC-SD141-02.0-04.0	GC-SD141-04.0-05.7	GC-SD142-00.0-02.0	GC-SD142-02.0-03.8	GC-SD143-00.0-02.0	GC-SD143-02.0-02.9
Sample Depth:	4-6	6-8	8-10	10-12	10-12	12-12.8	0-2	2-4	4-6	0-2	2-4	4-5.7	0-2	2-3.8	0-2	2-2.9
Sample Date:	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/14/2010	4/14/2010	4/14/2010	4/12/2010	4/12/2010	4/12/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010
Sample Type:	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**														
Aluminum	mg/kg	6,990	**8,940 (A)**	6,870	**9,290 (A)**	**8,730 (A)**	**8,140 (A)**	7,680	**14,800 J (A)**	**12,800 J (A)**	**11,000 J (A)**	**9,860 J (A)**	7,170	**9,150 J (A)**	**8,260 (A)**	**12,700 J (A)**	**13,000 J (A)**
Antimony	mg/kg	**239 J (A,R)**															
Arsenic	mg/kg	**13.3 (A,R)**	**20.4 (A,R)**	**18.7 (A,R)**	**30.4 (A,R)**	**26.4 (A,R)**	**23 (A,R)**	**9.2 (A,R)**	**16.2 J (A,R)**	**25.6 J (A,R)**	**10.2 J (A,R)**	**12.5 J (A,R)**	**15.3 (A,R)**	**10.8 J (A,R)**	**11 (A,R)**	**12.2 J (A,R)**	**13.9 J (A,R)**
Barium	mg/kg	**327 (R)**	**326 (R)**	**369 (R)**	**328 (R)**	**323 (R)**	**239 (R)**	103	**600 J (R)**	**573 J (R)**	**339 J (R)**	**312 J (R)**	**181 (R)**	**172 J (R)**	**155 (R)**	**196 J (R)**	**266 J (R)**
Beryllium	mg/kg										1.1 J	1.1 J					
Cadmium	mg/kg	**16.1 (A,R)**	**27.9 (A,R)**	**11.8 (A,R)**	**9.7 (A,R)**	**10.2 (A,R)**	**5 (R)**	**4.2 (R)**	**31.1 J (A,R)**	**28.9 J (A,R)**	**14.8 J (A,R)**	**15.7 J (A,R)**	**8 (A,R)**	**7.6 J (A,R)**	**8.8 (A,R)**	**8.5 J (A,R)**	**12.9 J (A,R)**
*Calcium	mg/kg	6,060 J	3,640 J	3,700 J	4,110 J	3,900 J	3,190 J	3,610 J	7,580 J	7,160 J	7,660 J	5,370 J	2,770 J	4,650 J	4,180 J	5,460 J	5,640 J
Chromium	mg/kg	**167 (A,R)**	**254 (A,R)**	**149 (A,R)**	**169 (A,R)**	**157 (A,R)**	**81.3 (A,R)**	**71.1 (A)**	**292 J (A,R)**	**332 J (A,R)**	**147 J (A,R)**	**192 J (A,R)**	**127 (A,R)**	**155 J (A,R)**	**120 (A,R)**	**133 J (A,R)**	**172 J (A,R)**
Cobalt	mg/kg	**8.5 (A)**	**9.1 (A)**	**8.7 (A)**	**8.3 J (A)**	**9 (A)**	**8.2 (A)**	**7.9 J (A)**	**12 J (A)**	**11.7 J (A)**	**12 J (A)**	**15.1 J (A)**	**7.2 J (A)**	**10.7 J (A)**	**8.6 J (A)**		
Copper	mg/kg	**306 J (R)**	**552 (A,R)**	**315 J (A,R)**	**424 (A,R)**	**399 (A,R)**	**238 J (R)**	**155 (R)**	**527 J (A,R)**	**601 J (A,R)**	**360 J (A,R)**	**568 J (A,R)**	**266 J (R)**	**289 J (R)**	**240 (R)**	**251 J (R)**	**291 J (R)**
Iron	mg/kg	**43,800 (A)**	**25,600 (A)**	**25,700 (A)**	**28,700 (A)**	**28,000 (A)**	**25,300 (A)**	**20,300 (A)**	**34,500 J (A)**	**33,900 J (A)**	**30,000 J (A)**	**29,500 J (A)**	**25,300 (A)**	**25,100 J (A)**	**29,300 (A)**	**29,100 J (A)**	**31,200 J (A)**
Lead	mg/kg	**446 J (A,R)**	**508 J (A,R)**	**442 J (A,R)**	**520 J (A,R)**	**502 J (A,R)**	**403 J (A,R)**	**191 (R)**	**498 J (A,R)**	**590 J (A,R)**	**406 J (A,R)**	**535 J (A,R)**	**323 J (R)**	**580 J (A,R)**	**202 (R)**	**238 J (R)**	**285 J (R)**
*Magnesium	mg/kg	4,150	4,650	3,790	4,740	4,540	3,850	4,720	8,040 J	6,640 J	6,570 J	5,170 J	3,570	5,190 J	4,110	6,510 J	6,730 J
Manganese	mg/kg	**373 (A)**	**201 (A)**	**195 (A)**	**212 (A)**	**224 (A)**	**212 (A)**	**195 (A)**	**359 J (A)**	**318 J (A)**	**280 J (A)**	**284 J (A)**	**207 (A)**	**240 J (A)**	**222 (A)**	**322 J (A)**	**337 J (A)**
Mercury	mg/kg	**3.1 (A,R)**	**3.6 (A,R)**	**1.6 (R)**	**3.3 (A,R)**	**3 (A,R)**	**3.5 (A,R)**	**0.97 (R)**	**4.5 J (A,R)**	**5.3 J (A,R)**	**2.1 J (R)**	**2.5 J (A,R)**	**2.1 (R)**	**1.6 J (R)**	**1.6 (R)**	**2.3 J (R)**	**2.6 J (A,R)**
Nickel	mg/kg	**61 (R)**	**104 (R)**	**41.5 (R)**	**42 (R)**	**52.2 (R)**	**30.9 (R)**	**32.5 (R)**	**92 J (R)**	**96.7 J (R)**	**77 J (R)**	**135 J (R)**	**36.2 (R)**	**64.4 J (R)**	**51.1 (R)**	**49.6 J (R)**	**61 J (R)**
*Potassium	mg/kg	1,850 J	2,440 J	1,860 J	2,500 J	2,400 J	2,170 J	2,310 J	4,170 J	3,480 J	2,930 J	2,440 J	1,890 J	2,590 J	2,340 J	3,520 J	3,630 J
Selenium	mg/kg							1.8 J	3 J	3.7 J				2.2 J	2.3 J	2.5 J	2.6 J
Silver	mg/kg	**8.2 (R)**	**14.2 (R)**	**6.9 (R)**	**11.5 (R)**	**9.4 (R)**	**5.1 (R)**	**3.7 (R)**	**15.4 J (R)**	**17.3 J (R)**	**7.3 J (R)**	**9.8 J (R)**	**7.4 (R)**	**6 J (R)**	**5.2 (R)**	**6.6 J (R)**	**8.6 J (R)**
*Sodium	mg/kg	6,060	7,400	4,440	6,170	5,450	3,550	8,710	12,000 J	7,240 J	8,590 J	3,990 J	1,710	7,470 J	4,680	6,520 J	8,640 J
*Thallium	mg/kg	2.9 J	1.9 J	1.5 J	1.7 J	1.3 J	1.6 J		1.7 J	1.9 J				0.83 J	0.7 J		0.94 J
Vanadium	mg/kg	**41.6 (A)**	**74.4 (A)**	**43.9 (A)**	**64.6 (A)**	**57 (A)**	**42.6 (A)**	26.6	**57.2 J (A)**	**72.4 J (A)**	**40.3 J (A)**	**47 J (A)**	38.9	33.2 J	32.6	**42.3 J (A)**	**47.4 J (A)**
Zinc	mg/kg	**615 J (R)**	**884 (R)**	**622 J (R)**	**716 (R)**	**861 (R)**	**566 J (R)**	**298 (R)**	**775 J (R)**	**964 J (R)**	**792 J (R)**	**1,040 J (R)**	**482 J (R)**	**519 J (R)**	**414 (R)**	**421 J (R)**	**501 J (R)**
Cyanide, Total	mg/kg	1.2 J	1.1 J	2 J	1.7 J	2.1 J	1.2 J		0.57 J	0.7 J	2 J	2.3 J	1.7 J				

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD144C	GC-SD144C	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2	ERT1-2
Sample Number:		GC-SD144C-00.0-02.0	GC-SD144C-02.0-03.3	ERT1-1-A	ERT1-1-B	ERT1-1-C	ERT1-1-D	ERT1-1-E	ERT1-1-F	ERT1-2-A	ERT1-2-B	ERT1-2-C	ERT1-2-D	ERT1-2-E	ERT1-2-F	ERT1-2-G	ERT1-2-H
Sample Depth:		0-2	2-3.3	0-0.5	0.5-1	1-2	2-3	3-4	4-5.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-6.8
Sample Date:		4/13/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**								**Metals**								
Aluminum	mg/kg	6,000	**8,610 (A)**	6,630	6,110 J	5,980 J	5,410 J	4,560 J	4,600 J	5,490	4,030	2,570	3,460	5,180	6,120	2,480	3,570
Antimony	mg/kg			1.4 J	**4.2 J (A,R)**	**4.4 J (A,R)**	**10.2 J (A,R)**	**13.9 J (A,R)**	**16.8 J (A,R)**	**3.1 J (R)**	**6.4 J (A,R)**	2 J	**34.6 (A,R)**	**3.3 J (A,R)**	**11.8 (A,R)**	**8.8 J (A,R)**	**4.4 J (A,R)**
Arsenic	mg/kg	**11.9 (A,R)**	**22.8 (A,R)**	**3.9 (A)**	**5.7 J (A)**	**5.4 J (A)**	**6.4 J (A)**	**13.6 J (A,R)**	**12.6 J (A,R)**	**3.6 (A)**	**2.3 (A)**	**1.8 (A)**	**12.3 (A,R)**	**4.1 (A)**	**11.7 (A,R)**	**7.7 (A)**	**2.6 (A)**
Barium	mg/kg	**131 (R)**	**223 (R)**	88 J	**247 J (R)**	**492 J (R)**	**1,170 J (R)**	**975 J (R)**	**960 J (R)**	**338 J (R)**	**148 J (R)**	78.3 J	**1,080 J (R)**	**384 J (R)**	**1,360 J (R)**	**886 J (R)**	**316 J (R)**
Beryllium	mg/kg	1.2															
Cadmium	mg/kg	**2.6 (R)**	**6.9 (R)**	**1.5 (R)**	**6.5 J (R)**	**6.1 J (R)**	**16.3 J (A,R)**	**16.9 J (A,R)**	**18.1 J (A,R)**	**2.5 (R)**	**1.4 (R)**	**1.3 (R)**	**6.5 (R)**	**4.1 (R)**	**13.3 (A,R)**	**6.8 (R)**	**3.5 (R)**
*Calcium	mg/kg	3,610 J	3,160 J	6,650 J	15,800 J	14,500 J	13,100 J	8,290 J	9,180 J	13,900 J	8,060 J	5,610 J	8,960 J	12,100 J	9,260 J	10,900 J	7,200 J
Chromium	mg/kg	**43.6 (A)**	**98.7 (A,R)**	**42.7 J (A)**	**65.7 J (A)**	**123 J (A,R)**	**223 J (A,R)**	**227 J (A,R)**	**207 J (A,R)**	**66.4 J (A)**	**27.8 J (A)**	**13.6 J (A)**	**61.1 J (A)**	**60.2 J (A)**	**169 J (A,R)**	**39.3 J (A)**	**51.7 J (A)**
Cobalt	mg/kg	**8.4 J (A)**	**8.8 (A)**														
Copper	mg/kg	**162 J (R)**	**261 J (R)**	**119 J (R)**	**456 J (A,R)**	**462 J (A,R)**	**653 J (A,R)**	**1,040 J (A,R)**	**909 J (A,R)**	**156 J (R)**	**185 J (R)**	**126 J (R)**	**331 J (A,R)**	**338 J (A,R)**	**606 J (A,R)**	**432 J (A,R)**	**285 J (R)**
Iron	mg/kg	**19,400 (A)**	**25,300 (A)**	**16,800 (A)**	**21,500 J (A)**	**22,500 J (A)**	**31,800 J (A)**	**23,200 J (A)**	**24,700 J (A)**	**21,500 (A)**	**13,500 (A)**	**10,400 (A)**	**20,400 (A)**	**19,700 (A)**	**26,000 (A)**	**17,000 (A)**	**14,900 (A)**
Lead	mg/kg	**625 J (A,R)**	**310 J (R)**	**293 (R)**	**624 J (A,R)**	**991 J (A,R)**	**1,840 J (A,R)**	**1,940 J (A,R)**	**1,830 J (A,R)**	**705 (A,R)**	**609 (A,R)**	**460 (A,R)**	**2,880 (A,R)**	**966 (A,R)**	**2,280 (A,R)**	**1,740 (A,R)**	**927 (A,R)**
*Magnesium	mg/kg	3,390	4,150	5,400	6,930 J	6,230 J	6,200 J	4,450 J	4,270 J	6,190	4,160	2,910	3,350	5,010	4,690	3,550	3,730
Manganese	mg/kg	**238 (A)**	**240 (A)**	148	141 J	125 J	135 J	91.4 J	119 J	120	95.7	71.8	107	107	148	93.9	64.6
Mercury	mg/kg	**1.7 (R)**	**3.3 (A,R)**	**1.2 (R)**	**2.2 J (R)**	**6.6 J (A,R)**	**6.2 J (A,R)**	**17.7 J (A,R)**	**6 J (A,R)**	**0.82 (R)**	**0.68 (R)**	**3.7 (A,R)**	**1.2 (R)**	**2.3 (R)**	**2.8 (A,R)**	**0.91 (R)**	**2.1 (R)**
Nickel	mg/kg	**43.2 (R)**	**35.4 (R)**	**24.5 (R)**	**50 J (R)**	**57.3 J (R)**	**132 J (R)**	**124 J (R)**	**125 J (R)**	**27.9 (R)**	**25.3 (R)**	**23.7 (R)**	**35.6 (R)**	**82.5 (R)**	**112 (R)**	**51.2 (R)**	**153 (A,R)**
*Potassium	mg/kg	1,730 J	2,270 J	1,700 J	1,330 J	1,070 J	930 J	832 J	807 J	1,530 J	892 J	554 J	620 J	932 J	835 J	386 J	797 J
Selenium	mg/kg			1.2 J	2.5 J	2.5 J	3.1 J	3.8 J	3.2 J				2.5 J	1.3 J	2.4 J	1.8 J	1.1 J
Silver	mg/kg	**2.1 (R)**	**5.5 (R)**	**2.9 (R)**	**19.7 J (R)**	**15 J (R)**	**25.4 J (R)**	**37.1 J (R)**	**42.1 J (A,R)**	**1.9 (R)**	**1.6 (R)**	0.93 J	**31.1 (R)**	**3.1 (R)**	**21.9 (R)**	**6 (R)**	**5 (R)**
*Sodium	mg/kg	5,390	3,450	6,790	2,530 J	1,400 J	1,070 J			6,830	3,420	1,680		4,460	2,870		4,810
*Thallium	mg/kg		1.4 J														
Vanadium	mg/kg	22.8	**42.9 (A)**	25.7	32.7 J	36.5 J	**56 J (A)**	**132 J (A)**	**103 J (A)**	29.4	17.5	13.4	20.3	28.7	**83.1 (A)**	16.1	23.9
Zinc	mg/kg	**655 J (R)**	**475 J (R)**	**348 J (R)**	**960 J (R)**	**1,080 J (R)**	**1,370 J (R)**	**1,530 J (R)**	**1,610 J (R)**	**567 J (R)**	**303 J (R)**	**445 J (R)**	**1,140 J (R)**	**661 J (R)**	**1,300 J (R)**	**1,070 J (R)**	**611 J (R)**
Cyanide, Total	mg/kg	1.2 J	0.64 J	0.43 J	6.9 J	9.8 J	1.2 J	10.1 J	0.77 J	7.8			1.1 J	16.8	2.1 J	11	4.1

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1	ERT2-1
Sample Number:		ERT1-3-A	ERT1-3-B	ERT1-3-C	ERT1-3-D	ERT1-3-E	ERT1-3-F	ERT1-3-G	ERT1-3-H	ERT1-3-I	ERT2-1-A	ERT2-1-B	ERT2-1-C	ERT2-1-D	ERT2-1-E	ERT2-1-F	FD-02
Sample Depth:		0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	7-7.7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	4-5
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	5,510 J	5,200 J	5,240 J	5,960 J	6,440 J	6,390 J	5,940 J	5,160 J	2,550	**12,800 J (A)**	**13,900 J (A)**	**13,100 J (A)**	**13,500 (A)**	**10,300 J (A)**	7,110 J	6,540 J
Antimony	mg/kg	**4.4 J (A,R)**	**5.1 J (A,R)**	**5.9 J (A,R)**	**9.9 J (A,R)**	**8.5 J (A,R)**	**10.5 J (A,R)**	**11.1 J (A,R)**	**14.5 J (A,R)**	**3.4 J (A,R)**	0.93 J		1.7 J	**2.1 J (R)**	**4.3 J (A,R)**	**11.2 J (A,R)**	**12.1 J (A,R)**
Arsenic	mg/kg	**5.3 J (A)**	**5.2 J (A)**	**4.2 J (A)**	**4 J (A)**	**7.5 J (A)**	**8.3 J (A,R)**	**8.7 J (A,R)**	**13.1 J (A,R)**	**6.7 (A)**	**9.4 J (A,R)**	**11.6 J (A,R)**	**16.8 J (A,R)**	**12.3 (A,R)**	**11.3 J (A,R)**	**9.8 J (A,R)**	**10.8 J (A,R)**
Barium	mg/kg	**332 J (R)**	**414 J (R)**	**472 J (R)**	**579 J (R)**	**928 J (R)**	**1,370 J (R)**	**1,090 J (R)**	**1,180 J (R)**	**387 (R)**	58.1 J	74.4 J	75.6 J	83.9	**305 J (R)**	**847 J (R)**	**783 J (R)**
Beryllium	mg/kg																
Cadmium	mg/kg	**5.4 J (R)**	**5.4 J (R)**	**7.6 J (A,R)**	**7.9 J (A,R)**	**14.5 J (A,R)**	**16.6 J (A,R)**	**13.1 J (A,R)**	**16.2 J (A,R)**	**2.4 (R)**			**1.4 J (R)**	**1.5 J (R)**	**5 J (R)**	**13.2 J (A,R)**	**13.4 J (A,R)**
*Calcium	mg/kg	11,500 J	11,700 J	11,600 J	12,800 J	14,200 J	14,300 J	15,000 J	9,520 J	4,960	7,660 J	8,570 J	11,200 J	10,600	11,800 J	12,200 J	11,600 J
Chromium	mg/kg	**87.6 J (A,R)**	**84.3 J (A,R)**	**104 J (A,R)**	**98.5 J (A,R)**	**150 J (A,R)**	**207 J (A,R)**	**223 J (A,R)**	**188 J (A,R)**	**32.7 J (A)**	**51.4 J (A)**	**59.9 J (A)**	**75.8 J (A)**	**75.5 (A)**	**98.1 J (A,R)**	**167 J (A,R)**	**171 J (A,R)**
Cobalt	mg/kg										**11.5 J (A)**						
Copper	mg/kg	**448 J (A,R)**	**458 J (A,R)**	**500 J (A,R)**	**560 J (A,R)**	**622 J (A,R)**	**857 J (A,R)**	**763 J (A,R)**	**861 J (A,R)**	**171 (R)**	**65.8 J (R)**	**78.4 J (R)**	**106 J (R)**	**110 (R)**	**273 J (R)**	**766 J (A,R)**	**588 J (A,R)**
Iron	mg/kg	**19,800 J (A)**	**19,600 J (A)**	**20,900 J (A)**	**23,500 J (A)**	**22,200 J (A)**	**23,700 J (A)**	**28,500 J (A)**	**43,000 J (A)**	**12,400 (A)**	**29,200 J (A)**	**33,600 J (A)**	**32,300 J (A)**	**32,900 (A)**	**28,600 J (A)**	**25,500 J (A)**	**27,100 J (A)**
Lead	mg/kg	**934 J (A,R)**	**856 J (A,R)**	**1,180 J (A,R)**	**1,550 J (A,R)**	**1,890 J (A,R)**	**2,050 J (A,R)**	**1,910 J (A,R)**	**1,910 J (A,R)**	**1,800 (A,R)**	**126 J (R)**	**119 J (R)**	**141 J (R)**	**167 (R)**	**571 J (A,R)**	**1,410 J (A,R)**	**1,300 J (A,R)**
*Magnesium	mg/kg	7,090 J	7,410 J	6,580 J	6,580 J	7,670 J	7,270 J	5,820 J	4,800 J	2,120	7,300 J	7,490 J	7,230 J	7,250	6,630 J	5,700 J	5,480 J
Manganese	mg/kg	102 J	105 J	106 J	123 J	131 J	127 J	160 J	161 J	96	**453 J (A)**	**699 J (A,R)**	**664 J (A,R)**	**682 (A,R)**	**397 J (A)**	169 J	**194 J (A)**
Mercury	mg/kg	**7.5 J (A,R)**	**3.3 J (A,R)**	**61.6 J (A,R)**	**12.3 J (A,R)**	**3.3 J (A,R)**	**4.4 J (A,R)**	**5.3 J (A,R)**	**18.3 J (A,R)**	**2.4 (A,R)**	**0.83 J (R)**	**0.98 J (R)**	**1.7 J (R)**	**1.5 (R)**	**2.4 J (A,R)**	**5.4 J (A,R)**	**3.7 J (A,R)**
Nickel	mg/kg	**49.7 J (R)**	**57.9 J (R)**	**65.8 J (R)**	**72.7 J (R)**	**118 J (R)**	**195 J (A,R)**	**230 J (A,R)**	**127 J (R)**	**22.4 J (R)**	**30.3 J (R)**	**34.2 J (R)**	**35.4 J (R)**	**38.2 (R)**	**57.2 J (R)**	**96.6 J (R)**	**97.4 J (R)**
*Potassium	mg/kg	1,400 J	1,400 J	1,360 J	1,260 J	1,400 J	1,390 J	1,190 J	1,050 J	522 J	3,060 J	3,180 J	3,030 J	3,350	2,260 J	1,250 J	1,310 J
Selenium	mg/kg	2.4 J	3.6 J	3.8 J	2.3 J	3.4 J	3.9 J	3.1 J	4.1 J	1.2 J						2.8 J	2.7 J
Silver	mg/kg	**8.6 J (R)**	**9.4 J (R)**	**14.8 J (R)**	**14.4 J (R)**	**24.1 J (R)**	**28.3 J (R)**	**22.1 J (R)**	**23.7 J (R)**	**2.4 (R)**			0.46 J	**2 J (R)**	**7.1 J (R)**	**22.1 J (R)**	**26.8 J (R)**
*Sodium	mg/kg	13,100 J	14,500 J	13,000 J	8,160 J	7,440 J	6,880 J	4,810 J	2,440 J		10,500 J	4,820 J	2,320 J	2,010	1,480 J	1,270 J	1,260 J
*Thallium	mg/kg																
Vanadium	mg/kg	35.9 J	37.5 J	**41.9 J (A)**	**49.1 J (A)**	**61.2 J (A)**	**70.3 J (A)**	**75.1 J (A)**	**127 J (A)**	18.2	30.5 J	36.5 J	36 J	38.5	**41.6 J (A)**	**56.6 J (A)**	**58 J (A)**
Zinc	mg/kg	**945 J (R)**	**964 J (R)**	**1,050 J (R)**	**1,150 J (R)**	**1,200 J (R)**	**1,500 J (R)**	**1,480 J (R)**	**1,390 J (R)**	**705 (R)**	**195 J (R)**	**243 J (R)**	**238 J (R)**	**236 (R)**	**594 J (R)**	**1,230 J (R)**	**1,110 J (R)**
Cyanide, Total	mg/kg	8.7 J	11.1 J	9.9 J	14.9 J	5.2 J	3.3 J	1.4 J	12.7 J	0.34 J	0.58 J		0.88 J		4.6 J	17.1 J	3 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-1	ERT2-1	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-2	ERT2-3	ERT2-3	ERT2-3	ERT2-3
Sample Number:		ERT2-1-G	ERT2-1-H	ERT2-2-A	ERT2-2-B	ERT2-2-C	ERT2-2-D	ERT2-2-E	ERT2-2-F	ERT2-2-G	FD-03	ERT2-2-H	ERT2-2-I	ERT2-3-A	ERT2-3-B	ERT2-3-C	ERT2-3-D
Sample Depth:		5-6	6-7	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	5-6	6-7	7-8	0-0.5	0.5-1	1-2	2-3
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	5,040	5,490 J	**10,600 J (A)**	**12,100 J (A)**	**11,600 J (A)**	**10,600 J (A)**	4,380	5,730	6,610	6,450	4,450	4,840	**9,790 J (A)**	**9,440 J (A)**	**11,500 J (A)**	**10,300 J (A)**
Antimony	mg/kg	**8.2 J (A,R)**	**11.4 J (A,R)**	1.2 J		1.4 J	**2.8 J (R)**	**16.9 J (A,R)**	**14.5 J (A,R)**	**12.8 J (A,R)**	**15 J (A,R)**	**16 J (A,R)**		**2.2 J (R)**	1.8 J	**3.6 J (A,R)**	1.8 J
Arsenic	mg/kg	**14.5 (A,R)**	**21.9 J (A,R)**	**8.4 J (A,R)**	**12.2 J (A,R)**	**12.3 J (A,R)**	**11.8 J (A,R)**	**13 (A,R)**	**12 (A,R)**	**10.8 (A,R)**	**10.3 (A,R)**	**6.9 (A)**	**1.4 (A)**	**7.2 J (A)**	**6.7 J (A)**	**7.4 J (A)**	**8.1 J (A)**
Barium	mg/kg	**704 (R)**	**1,040 J (R)**	65.4 J	65.1 J	80.3 J	**239 J (R)**	**521 (R)**	**953 (R)**	**1,340 (R)**	**1,060 (R)**	**393 (R)**	25.7	73.5 J	98 J	119 J	108 J
Beryllium	mg/kg																
Cadmium	mg/kg	**8.7 (A,R)**	**8.7 J (A,R)**			**1.8 J (R)**	**3.6 J (R)**	**6.7 J (R)**	**12.5 J (A,R)**	**17.2 J (A,R)**	**15.7 J (A,R)**	**6.9 J (R)**		**1.5 J (R)**	**1.7 J (R)**	**1.9 J (R)**	**2.1 J (R)**
*Calcium	mg/kg	8,130	8,680 J	12,200 J	11,400 J	11,400 J	11,100 J	9,740	9,340	10,500	10,800	14,700	940	13,000 J	10,700 J	10,400 J	9,420 J
Chromium	mg/kg	**116 J (A,R)**	**85.6 J (A,R)**	**53.2 J (A)**	**65.8 J (A)**	**74.1 J (A)**	**98.5 J (A,R)**	**81.3 (A,R)**	**171 (A,R)**	**258 (A,R)**	**232 (A,R)**	**73.1 (A)**	**14 (A)**	**51.1 J (A)**	**59.2 J (A)**	**73.4 J (A)**	**69.8 J (A)**
Cobalt	mg/kg					**11.9 J (A)**	**11.5 J (A)**								**11.3 J (A)**	**10.7 J (A)**	**10.1 J (A)**
Copper	mg/kg	**451 (A,R)**	**553 J (A,R)**	**80.2 J (R)**	**111 J (R)**	**123 J (R)**	**227 J (R)**	**384 (A,R)**	**645 (A,R)**	**784 (A,R)**	**598 (A,R)**	**427 (A,R)**	12.4	**129 J (R)**	**124 J (R)**	**178 J (R)**	**222 J (R)**
Iron	mg/kg	**47,000 (A)**	**29,000 J (A)**	**26,800 J (A)**	**29,400 J (A)**	**29,900 J (A)**	**30,900 J (A)**	**23,000 (A)**	**26,700 (A)**	**25,800 (A)**	**25,800 (A)**	**19,300 (A)**	**7,560 (A)**	**27,100 J (A)**	**29,100 J (A)**	**29,600 J (A)**	**28,900 J (A)**
Lead	mg/kg	**2,510 (A,R)**	**1,600 J (A,R)**	**222 J (R)**	**137 J (R)**	**187 J (R)**	**469 J (A,R)**	**1,070 (A,R)**	**1,400 (A,R)**	**1,690 (A,R)**	**1,720 (A,R)**	**950 (A,R)**	22.6	**262 J (R)**	**290 J (R)**	**294 J (R)**	**325 J (R)**
*Magnesium	mg/kg	4,110	4,540 J	6,920 J	7,380 J	6,730 J	6,710 J	5,400	4,720	5,740	5,560	4,610	2,180	7,190 J	7,300 J	7,320 J	6,920 J
Manganese	mg/kg	**215 (A)**	141 J	**393 J (A)**	**531 J (A,R)**	**427 J (A)**	**357 J (A)**	142	153	147	177	118	59.7	**255 J (A)**	**305 J (A)**	**269 J (A)**	**300 J (A)**
Mercury	mg/kg	**2.9 (A,R)**	**9.7 J (A,R)**	**0.98 J (R)**	**1.3 J (R)**	**1.8 J (R)**	**2 J (R)**	**2.1 (R)**	**4 (A,R)**	**4.8 (A,R)**	**4.3 (A,R)**	**2.9 (A,R)**	0.063 J	**0.73 J (R)**	**2.2 J (R)**	**0.91 J (R)**	**1.4 J (R)**
Nickel	mg/kg	**77.8 (R)**	**48.8 J (R)**	**34.7 J (R)**	**34.2 J (R)**	**38.7 J (R)**	**50.7 J (R)**	**52.3 (R)**	**101 (R)**	**140 (R)**	**132 (R)**	**69.5 (R)**	11.9	**30.5 J (R)**	**35.8 J (R)**	**36.3 J (R)**	**39.3 J (R)**
*Potassium	mg/kg	972	1,170 J	2,760 J	3,070 J	2,750 J	2,530 J	983	1,170	1,350	1,360	929	841	2,500 J	2,460 J	2,870 J	2,500 J
Selenium	mg/kg	3.1 J	4 J				1.7 J	2.5 J	2.4 J	3 J	2.7 J	1.7 J		2.1 J	1.6 J	1.7 J	2 J
Silver	mg/kg	**12.3 J (R)**	**8.4 J (R)**	0.58 J	**1.3 J (R)**	**2.2 J (R)**	**5.3 J (R)**	**10.1 J (R)**	**17.9 J (R)**	**25.9 J (R)**	**20.6 J (R)**	**11.9 J (R)**		0.37 J	**1.1 J (R)**	**1.9 J (R)**	**6.3 J (R)**
*Sodium	mg/kg	1,110	1,780 J	10,100 J	8,900 J	5,790 J	5,160 J	2,410	3,080	2,730	2,220			9,650 J	7,490 J	7,150 J	3,800 J
*Thallium	mg/kg																
Vanadium	mg/kg	37.5	36.1 J	30.6 J	35.7 J	35.2 J	**43.1 J (A)**	33.1	**73.4 (A)**	**76 (A)**	**61 (A)**	33.4	14.4	34.5 J	34 J	38.7 J	36.9 J
Zinc	mg/kg	**992 (R)**	**1,630 J (R)**	**230 J (R)**	**201 J (R)**	**266 J (R)**	**473 J (R)**	**954 (R)**	**1,200 (R)**	**1,430 (R)**	**1,280 (R)**	**927 (R)**	40.7	**347 J (R)**	**340 J (R)**	**433 J (R)**	**415 J (R)**
Cyanide, Total	mg/kg	12.3	14.7 J			3.8 J		1.5 J	41.8	8.6	1.9 J	3.4 J		3.4 J	22.4 J	1.7 J	0.71 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT2-3	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-1	ERT3-2	ERT3-2	ERT3-2
Sample Number:		ERT2-3-E	ERT2-3-F	ERT2-3-G	ERT2-3-H	ERT2-3-J	ERT3-1-A	ERT3-1-B	ERT3-1-C	ERT3-1-D	ERT3-1-E	ERT3-1-F	ERT3-1-G	ERT3-1-H	ERT3-2-A	ERT3-2-B	ERT3-2-C
Sample Depth:		3-4	4-5	5-6	6-7	8-9.4	0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7	0-0.5	0.5-1	1-2
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/27/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**8,050 J (A)**	6,270 J	5,140 J	4,870 J	3,110	5,120	4,670	3,820	3,590	5,410	4,700	5,950	5,110	**9,250 (A)**	**10,400 (A)**	**8,590 (A)**
Antimony	mg/kg	**4.2 J (A,R)**	**8.1 J (A,R)**	**8.5 J (A,R)**	**19.6 J (A,R)**	**12.5 J (A,R)**	**4.2 J (A,R)**	**4.5 J (A,R)**	**3.7 J (A,R)**	**2.6 J (R)**	1.7 J	**11 (A,R)**	**13.4 (A,R)**	**11.5 (A,R)**	**3.7 J (A,R)**	**2.9 J (R)**	**2.8 J (R)**
Arsenic	mg/kg	**8.7 J (A,R)**	**4.9 J (A)**	**7.3 J (A)**	**12.7 J (A,R)**	**10.4 (A,R)**	**5.7 (A)**	**6.6 (A)**	**5.1 (A)**	**3.5 (A)**	**3.3 (A)**	**14.5 (A,R)**	**20.5 (A,R)**	**22.3 (A,R)**	**6 (A)**	**5.8 (A)**	**6.1 (A)**
Barium	mg/kg	**382 J (R)**	**487 J (R)**	**757 J (R)**	**952 J (R)**	**417 (R)**	**447 J (R)**	**464 J (R)**	**336 J (R)**	**213 J (R)**	118 J	**749 J (R)**	**967 J (R)**	**1,030 J (R)**	77.6	83.6	130
Beryllium	mg/kg																
Cadmium	mg/kg	**5.9 J (R)**	**7.1 J (A,R)**	**11 J (A,R)**	**14.8 J (A,R)**	**6.8 (R)**	**7.6 (A,R)**	**8.4 (A,R)**	**6.2 (R)**	**3.6 (R)**	**1.6 (R)**	**17.6 (A,R)**	**26.9 (A,R)**	**19.1 (A,R)**	**1.6 J (R)**	**1.8 J (R)**	**3.7 J (R)**
*Calcium	mg/kg	13,900 J	12,300 J	10,800 J	10,400 J	4,960	4,660 J	5,650 J	4,070 J	5,990 J	6,270 J	6,430 J	7,850 J	11,100 J	6,610	9,680	6,330
Chromium	mg/kg	**92.4 J (A,R)**	**92.9 J (A,R)**	**118 J (A,R)**	**196 J (A,R)**	**67.7 J (A)**	**107 J (A,R)**	**119 J (A,R)**	**93.6 J (A,R)**	**46.7 J (A)**	**34.2 J (A)**	**235 J (A,R)**	**325 J (A,R)**	**217 J (A,R)**	**50.7 (A)**	**59 (A)**	**60.5 (A)**
Cobalt	mg/kg									**11.8 (A)**	**6.2 (A)**	**7.6 (A)**	**9.2 (A)**	**8.5 (A)**			**8.5 (A)**
Copper	mg/kg	**474 J (A,R)**	**471 J (A,R)**	**557 J (A,R)**	**729 J (A,R)**	**365 (A,R)**	**309 J (R)**	**346 J (A,R)**	**237 J (R)**	**133 J (R)**	**183 J (R)**	**579 J (A,R)**	**794 J (A,R)**	**746 J (A,R)**	**139 (R)**	**138 (R)**	**150 (R)**
Iron	mg/kg	**28,500 J (A)**	**20,500 J (A)**	**20,500 J (A)**	**26,300 J (A)**	**17,100 (A)**	**17,600 (A)**	**18,700 (A)**	**15,700 (A)**	**13,300 (A)**	**14,600 (A)**	**24,700 (A)**	**26,100 (A)**	**49,500 (A)**	**22,900 (A)**	**27,000 (A)**	**22,700 (A)**
Lead	mg/kg	**758 J (A,R)**	**1,250 J (A,R)**	**1,550 J (A,R)**	**2,000 J (A,R)**	**930 (A,R)**	**667 (A,R)**	**734 (A,R)**	**556 (A,R)**	**386 (R)**	**173 (R)**	**1,270 (A,R)**	**1,820 (A,R)**	**1,520 (A,R)**	**230 (R)**	**210 (R)**	**296 (R)**
*Magnesium	mg/kg	7,340 J	5,440 J	4,870 J	4,670 J	2,480	4,410	4,300	3,090	3,460	6,760	3,970	4,760	4,600	6,490	6,880	5,260
Manganese	mg/kg	**182 J (A)**	135 J	141 J	148 J	89.5	137	128	103	105	162	120	130	159	**198 (A)**	**259 (A)**	**211 (A)**
Mercury	mg/kg	**1.6 J (R)**	**2.2 J (R)**	**3 J (A,R)**	**3.3 J (A,R)**		**3.5 (A,R)**	**2.5 (A,R)**	**1.7 (R)**	**0.71 (R)**	**0.45 (R)**	**5.9 (A,R)**	**3.9 (A,R)**	**3.3 (A,R)**	**1.2 (R)**	**1.1 (R)**	**1.3 (R)**
Nickel	mg/kg	**57.4 J (R)**	**59.4 J (R)**	**93.6 J (R)**	**105 J (R)**	**50.6 (R)**	**76.4 (R)**	**85.9 (R)**	**61.4 (R)**	**42.9 (R)**	**44.6 (R)**	**122 (R)**	**153 (A,R)**	**116 (R)**	**30.3 (R)**	**37.6 (R)**	**41.3 (R)**
*Potassium	mg/kg	1,670 J	970 J	969 J			1,330 J	1,080 J	820 J	518 J	1,570 J	997 J	1,210 J	1,010 J	2,320	2,500	1,800
Selenium	mg/kg	2.4 J	2.6 J	2.5 J	3.3 J	2.3 J	1.4 J	2.6 J	1.4 J	0.97 J		3.4 J	4.5 J	5.8			1.3 J
Silver	mg/kg	**7.2 J (R)**	**16.9 J (R)**	**19.6 J (R)**	**19.5 J (R)**	**18.1 (R)**	**8.7 (R)**	**9.4 (R)**	**5.8 (R)**	**5.7 (R)**	0.74 J	**16 (R)**	**26.7 (R)**	**25.2 (R)**	0.93 J	**2.7 J (R)**	**2.2 J (R)**
*Sodium	mg/kg	2,580 J	1,580 J	1,090 J	1,180 J		6,270	4,470	2,440	1,250	1,010	2,430	3,630	3,080	6,470	4,040	1,420
*Thallium	mg/kg																
Vanadium	mg/kg	**42.1 J (A)**	**43.4 J (A)**	**60.8 J (A)**	**121 J (A)**	28.7	37.9	37	27.1	14.5	15.3	**76.3 (A)**	**115 (A)**	**76.1 (A)**	32.6	35.5	29.8
Zinc	mg/kg	**889 J (R)**	**992 J (R)**	**996 J (R)**	**1,370 J (R)**	**760 (R)**	**594 J (R)**	**732 J (R)**	**464 J (R)**	**260 J (R)**	**210 J (R)**	**1,090 J (R)**	**1,690 J (R)**	**1,420 J (R)**	**353 (R)**	**430 (R)**	**416 (R)**
Cyanide, Total	mg/kg	7 J			0.84 J		1.4 J	1.5 J	5.6	0.26 J		9	11.4	20.7	12.6	3.9 J	

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3	ERT3-3
Sample Number:		ERT3-2-D	ERT3-2-E	ERT3-2-F	ERT3-2-G	ERT3-2-H	ERT3-3-A	ERT3-3-B	ERT3-3-C	ERT3-3-D	ERT3-3-E	FD-06	ERT3-3-F	ERT3-3-G	ERT3-3-H	ERT3-3-I	ERT3-3-J
Sample Depth:		2-3	3-4	4-5	5-6	6-7.4	0-0.5	0.5-1	1-2	2-3	3-4	3-4	4-5	5-6	6-7	7-8	8-8.6
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,000	2,290	4,620	4,260	5,350	**12,300 J (A)**	**11,200 J (A)**	**11,500 J (A)**	7,110 J	**8,360 J (A)**	**9,390 J (A)**	7,190 J	4,130	4,010	4,040 J	5,020 J
Antimony	mg/kg	**3.2 J (A,R)**	**3.8 J (A,R)**	**6.4 J (A,R)**	**11.5 J (A,R)**	**7.9 J (A,R)**	1.5 J	1.3 J	1.6 J	**4.5 J (A,R)**	**4.2 J (A,R)**	**6.9 J (A,R)**	**4.5 J (A,R)**	**4.4 J (A,R)**	**5.8 J (A,R)**	**7 J (A,R)**	**6.4 J (A,R)**
Arsenic	mg/kg	**5.1 (A)**	**3.5 (A)**	**8.5 (A,R)**	**11.2 (A,R)**	**10.8 (A,R)**	**7.7 J (A)**	**8 J (A)**	**10 J (A,R)**	**8.8 J (A,R)**	**11 J (A,R)**	**11.3 J (A,R)**	**9.8 J (A,R)**	**8.2 (A)**	**6.3 (A)**	**13.6 J (A,R)**	**17 J (A,R)**
Barium	mg/kg	**180 (R)**	124	**485 (R)**	**747 (R)**	**826 (R)**	85.4 J	74.2 J	87.7 J	**403 J (R)**	**513 J (R)**	**631 J (R)**	**467 J (R)**	**495 (R)**	**466 (R)**	**607 J (R)**	**927 J (R)**
Beryllium	mg/kg																
Cadmium	mg/kg	**3.2 J (R)**	**2.5 J (R)**	**8.9 J (A,R)**	**10 J (A,R)**	**10 J (A,R)**	**2.3 J (R)**	**2 J (R)**	**2.4 J (R)**	**6.7 J (R)**	**11.1 J (A,R)**	**12.6 J (A,R)**	**10.9 J (A,R)**	**6.9 (R)**	**8.4 (A,R)**	**8.7 J (A,R)**	**8 J (A,R)**
*Calcium	mg/kg	3,680	3,230	5,960	6,130	4,270	7,230 J	6,820 J	7,670 J	16,700 J	15,200 J	14,700 J	13,300 J	5,360	5,240	6,500 J	9,860 J
Chromium	mg/kg	**47.4 (A)**	**29.8 (A)**	**136 (A,R)**	**145 (A,R)**	**147 (A,R)**	**62.3 J (A)**	**67 J (A)**	**76.7 J (A)**	**83.5 J (A,R)**	**150 J (A,R)**	**189 J (A,R)**	**195 J (A,R)**	**114 J (A,R)**	**123 J (A,R)**	**99.694 J (A,R)**	**71.9 J (A)**
Cobalt	mg/kg						**12 J (A)**		**11.2 J (A)**								
Copper	mg/kg	**194 (R)**	**125 (R)**	**1,250 (A,R)**	**481 (A,R)**	**399 (A,R)**	**164 J (R)**	**145 J (R)**	**148 J (R)**	**430 J (A,R)**	**562 J (A,R)**	**638 J (A,R)**	**598 J (A,R)**	**350 (A,R)**	**371 (A,R)**	**358 J (A,R)**	**458 J (A,R)**
Iron	mg/kg	**13,100 (A)**	**51,000 (A)**	**20,600 (A)**	**20,300 (A)**	**21,100 (A)**	**27,900 J (A)**	**27,800 J (A)**	**30,100 J (A)**	**26,600 J (A)**	**27,200 J (A)**	**30,000 J (A)**	**25,000 J (A)**	**22,400 (A)**	**18,500 (A)**	**20,300 J (A)**	**26,900 J (A)**
Lead	mg/kg	**362 (R)**	**244 (R)**	**787 (A,R)**	**1,210 (A,R)**	**798 (A,R)**	**241 J (R)**	**196 J (R)**	**207 J (R)**	**809 J (A,R)**	**1,090 J (A,R)**	**1,100 J (A,R)**	**1,000 J (A,R)**	**649 (A,R)**	**780 (A,R)**	**724 J (A,R)**	**1,190 J (A,R)**
*Magnesium	mg/kg	2,610	1,600	4,310	3,510	3,240	9,020 J	8,070 J	8,030 J	8,900 J	8,730 J	8,610 J	6,820 J	3,470	3,250	2,920 J	3,530 J
Manganese	mg/kg	94.2	**365 (A)**	123	113	149	**295 J (A)**	**299 J (A)**	**365 J (A)**	179 J	**182 J (A)**	**206 J (A)**	177 J	176	152	151 J	**199 J (A)**
Mercury	mg/kg	**0.32 (R)**	**0.75 (R)**	**2.9 (A,R)**	**2.5 (A,R)**	**1.5 (R)**	**1.5 J (R)**	**1.8 J (R)**	**2.4 J (A,R)**	**3 J (A,R)**	**4.2 J (A,R)**	**4.2 J (A,R)**	**3.7 J (A,R)**	**2.3 (R)**	**1.2 (R)**	0.11 J	**4.3 J (A,R)**
Nickel	mg/kg	**45.5 (R)**	**29.5 (R)**	**301 (A,R)**	**101 (R)**	**92.1 (R)**	**37.7 J (R)**	**36.3 J (R)**	**37.9 J (R)**	**64.5 J (R)**	**96 J (R)**	**114 J (R)**	**96.2 J (R)**	**87.8 (R)**	**100 (R)**	**62.8 J (R)**	**41.3 J (R)**
*Potassium	mg/kg	597 J	439 J	902	809	1,040	2,940 J	2,870 J	2,880 J	1,410 J	1,470 J	1,680 J	1,060 J	704 J	710 J	684 J	925 J
Selenium	mg/kg	1.1 J	1.6 J	1.8 J	2.1 J	2.2 J	1.7 J	1.9 J	1.8 J	2.7 J	2.9 J	3.5 J	3 J	2.3 J	2.3 J	3.3 J	4.5 J
Silver	mg/kg	**2.4 J (R)**		**14.4 J (R)**	**13.2 J (R)**	**9.7 J (R)**	**1.4 J (R)**	**1.9 J (R)**	**2.5 J (R)**	**9.3 J (R)**	**11.8 J (R)**	**12.8 J (R)**	**11.9 J (R)**	**6.1 (R)**	**7.3 (R)**	**9.7 J (R)**	**13.5 J (R)**
*Sodium	mg/kg			999	967		10,900 J	10,600 J	9,400 J	5,340 J	2,370 J	2,660 J	1,370 J				
*Thallium	mg/kg																
Vanadium	mg/kg	20.6	12.7	**42.6 (A)**	**76.4 (A)**	**77.9 (A)**	**41.4 J (A)**	38.7 J	**40.6 J (A)**	**43.9 J (A)**	**50.9 J (A)**	**58.1 J (A)**	**48.2 J (A)**	34.7	38.6	34.5 J	33.7 J
Zinc	mg/kg	**400 (R)**	**255 (R)**	**762 (R)**	**947 (R)**	**822 (R)**	**398 J (R)**	**324 J (R)**	**320 J (R)**	**1,180 J (R)**	**1,300 J (R)**	**1,380 J (R)**	**1,560 J (R)**	**750 (R)**	**689 (R)**	**1,340 J (R)**	**1,570 J (R)**
Cyanide, Total	mg/kg	0.64 J	0.9 J	0.43 J	2.4 J	0.27 J	1.1 J	0.65 J	5.9 J	7.2 J	1.7 J	0.74 J	1.6 J		1.1 J	2.9 J	

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	ERT4-3	GC-SED-01	GC-SED-01	GC-SED-02	GC-SED-02	GC-SED-03	GC-SED-03	GC-SED-04	GC-SED-04
Sample Number:		ERT4-3-A	ERT4-3-B	ERT4-3-C	ERT4-3-D	ERT4-3-E	ERT4-3-F	ERT4-3-G	ERT4-3-H	GC-SED-01(1-2.5)	GC-SED-01(16-17)	GC-SED-02(1-2)	GC-SED-02(9.6-10.6)	GC-SED-03(0-1.5)	GC-SED-03(7.5-9.3)	GC-SED-04(0-2)	GC-SED-04(10.3-11.3)
Sample Depth:		0-0.5	0.5-1	1-2	2-3	3-4	4-5	5-6	6-7.3	1-2.5	16-17	1-2	9.6-10.6	0-1.5	7.5-9.3	0-2	10.3-11.3
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/19/2005	12/23/2005	12/23/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**11,700 J (A)**	**12,700 J (A)**	**10,500 J (A)**	7,340 J	6,350 J	6,310	4,970	4,320	**8,360 (A)**	3,990	3,140	4,800	6,350	6,120	**15,200 (A)**	4,580
Antimony	mg/kg	**2.2 J (R)**	1.6 J	**2.5 J (R)**	**3.8 J (A,R)**	**5.4 J (A,R)**	**5.2 J (A,R)**	**5 J (A,R)**	**5.3 J (A,R)**		**6.5 J (A,R)**		**3.9 J (A,R)**		**3.9 J (A,R)**		**5.4 J (A,R)**
Arsenic	mg/kg	**8.6 J (A,R)**	**7.7 J (A)**	**8.7 J (A,R)**	**9.5 J (A,R)**	**11.4 J (A,R)**	**9.9 (A,R)**	**8.2 (A)**	**8.1 (A)**	**5.8 J (A)**	**14.8 (A,R)**		**5.4 J (A)**	**6 J (A)**	**7.2 J (A)**	**14.3 J (A,R)**	**20.4 J (A,R)**
Barium	mg/kg	77.3 J	88.6 J	**137 J (R)**	**386 J (R)**	**450 J (R)**	**443 (R)**	**360 (R)**	**343 (R)**	100	**517 (R)**	**285 (R)**	**629 (R)**	**149 (R)**	**737 (R)**	**132 J (R)**	**984 J (R)**
Beryllium	mg/kg																
Cadmium	mg/kg	**2.1 J (R)**	**2.6 J (R)**	**3.5 J (R)**	**7 J (R)**	**10.6 J (A,R)**	**10.2 (A,R)**	**7.6 (A,R)**	**7.3 (A,R)**		**8.1 J (A,R)**	**1.4 J (R)**	**8.5 J (A,R)**		**6.7 J (R)**		**6.5 (R)**
*Calcium	mg/kg	6,960 J	6,350 J	7,560 J	13,300 J	10,400 J	10,000	8,080	6,370	7,960	8,330	11,000	15,600	7,780	20,000	9,260	7,060
Chromium	mg/kg	**61.9 J (A)**	**74.8 J (A)**	**82.8 J (A,R)**	**97.5 J (A,R)**	**157 J (A,R)**	**173 (A,R)**	**120 (A,R)**	**137 (A,R)**	**60.2 (A)**	**86.2 (A,R)**	**22.5 (A)**	**95 (A,R)**	**39.7 (A)**	**99.6 (A,R)**	**93.5 (A,R)**	**61.8 (A)**
Cobalt	mg/kg		**11.8 J (A)**			**8.4 J (A)**				**9.1 J (A)**	**7.6 J (A)**	**4 J (A)**	**6.4 J (A)**	**7.5 J (A)**	**9.6 J (A)**	**11.4 J (A)**	**5.9 J (A)**
Copper	mg/kg	**171 J (R)**	**170 J (R)**	**227 J (R)**	**500 J (A,R)**	**542 J (A,R)**	**550 (A,R)**	**497 (A,R)**	**361 (A,R)**	**188 (R)**	**519 (A,R)**	**138 (R)**	**436 (A,R)**	**315 (A,R)**	**481 (A,R)**	**159 (R)**	**379 (A,R)**
Iron	mg/kg	**26,600 J (A)**	**28,300 J (A)**	**27,700 J (A)**	**27,700 J (A)**	**28,900 J (A)**	**28,000 (A)**	**27,800 (A)**	**24,600 (A)**	**21,600 (A)**	**21,800 (A)**	**11,400 (A)**	**18,300 (A)**	**17,900 (A)**	**25,100 (A)**	**36,500 (A)**	**24,900 (A)**
Lead	mg/kg	**232 J (R)**	**259 J (R)**	**396 J (R)**	**802 J (A,R)**	**1,060 J (A,R)**	**1,080 (A,R)**	**972 (A,R)**	**1,160 (A,R)**	**232 (R)**	**1,620 (A,R)**	**450 (A,R)**	**1,840 (A,R)**	**375 (R)**	**1,560 (A,R)**	**249 (R)**	**1,400 (A,R)**
*Magnesium	mg/kg	8,890 J	8,930 J	8,270 J	8,580 J	6,530 J	6,290	4,790	4,690	6,110	3,470	3,640	5,810	5,300	6,800	9,070	2,810
Manganese	mg/kg	**293 J (A)**	**320 J (A)**	**274 J (A)**	157 J	138 J	134	128	126	**206 (A)**	104	72.3	124	160	176	**523 (A,R)**	133
Mercury	mg/kg	**2 J (R)**	**3.2 J (A,R)**	**2.4 J (A,R)**	**4 J (A,R)**	**3.1 J (A,R)**	**2.5 (A,R)**	**2.7 (A,R)**	**1.8 (R)**	**1.1 (R)**	**4 (A,R)**	**0.84 (R)**	**1.8 (R)**	**0.45 (R)**	**3 (A,R)**	**0.63 J (R)**	**4.9 J (A,R)**
Nickel	mg/kg	**36.3 J (R)**	**38.9 J (R)**	**46.3 J (R)**	**71.8 J (R)**	**122 J (R)**	**116 (R)**	**96.9 (R)**	**80.9 (R)**	**41.6 (R)**	**64.3 (R)**	**23.3 (R)**	**61.6 (R)**	**113 (R)**	**110 (R)**	**43.5 (R)**	**30 (R)**
*Potassium	mg/kg	2,950 J	3,140 J	2,660 J	1,730 J	1,370 J	1,290	976	744	1,900	455 J	681 J	815 J	1,310 J	1,030 J	2,970 J	626 J
Selenium	mg/kg	2.4 J	2.4 J	1.9 J	2.8 J	2.7 J	2.9 J	2.5 J	2.1 J								
Silver	mg/kg	**1.2 J (R)**	**2.8 J (R)**	**4.9 J (R)**	**8.1 J (R)**	**9.1 J (R)**	**10.7 (R)**	**6.6 (R)**	**6 (R)**	**3.9 J (R)**	**29.7 (R)**	**4.7 (R)**	**16.3 (R)**		**14 (R)**	**10.8 (R)**	**7.9 (R)**
*Sodium	mg/kg	9,910 J	10,700 J	11,000 J	10,600 J	6,730 J	5,890	3,650	2,360	7,070 J	298 J	3,480 J	4,410 J	4,620 J	3,980 J	11,400 J	656 J
*Thallium	mg/kg																
Vanadium	mg/kg	**40.4 J (A)**	**43.4 J (A)**	**42 J (A)**	**44.5 J (A)**	**47.9 J (A)**	**50.3 (A)**	34.2	31.3	33.4	35.5	18.4	**46.8 (A)**	23.9	**51.5 (A)**	**45.1 (A)**	31
Zinc	mg/kg	**406 J (R)**	**406 J (R)**	**509 J (R)**	**1,040 J (R)**	**1,090 J (R)**	**1,110 J (R)**	**956 J (R)**	**752 J (R)**	**463 J (R)**	**1,550 J (R)**	**480 J (R)**	**1,120 J (R)**	**344 J (R)**	**1,400 J (R)**	**336 (R)**	**1,770 (R)**
Cyanide, Total	mg/kg	1.6 J		1.2 J	3.1 J	3.3 J	4.9	2.6 J					0.18 J		1.35 J		

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location: / Sample Number: / Sample Depth: / Sample Date: / Sample Type:															
		GC-SED-05 GC-SED-05(0-2) 0-2 12/23/2005 N	GC-SED-07 GC-SED-07(0-2.5) 0-2.5 12/19/2005 N	GC-SED-07 GC-SED-07(7.5-8.5) 7.5-8.5 12/19/2005 N	GC-SED-08 GC-SED-08(1-2) 1-2 12/23/2005 N	GC-SED-09B GC-SED-09(6-7) 6-7 12/23/2005 N	GC-SED-10 GC-SED-10(0-1.5) 0-1.5 12/21/2005 N	GC-SED-100 GC-SED-100(5-6) 5-6 1/28/2006 N	GC-SED-101 GC-SED-101(4-7) 4-7 1/28/2006 N	GC-SED-102 GC-SED-102(2-4) 2-4 1/28/2006 N	GC-SED-102 GC-SED-102(6.5-8.5) 6.5-8.5 1/28/2006 N	GC-SED-103 GC-SED-103(1-2) 1-2 1/28/2006 N	GC-SED-103 GC-SED-103(8.1-9.1) 8.1-9.1 1/28/2006 N	GC-SED-105 GC-SED-105(2.5-4) 2.5-4 1/22/2006 N	GC-SED-11 GC-SED-11(1-3) 1-3 1/5/2006 N	GC-SED-11 GC-SED-11(11-13) 11-13 1/5/2006 N	GC-SED-12 GC-SED-12(0-2) 0-2 12/21/2005 N
		Metals															
Aluminum	mg/kg	**15,900 (A)**	**7,810 (A)**	2,170	**9,530 (A)**	7,510	**15,600 (A)**	3,910	4,750	6,110	2,890	**12,600 (A)**	429	3,790	**11,900 J (A)**	**8,580 J (A)**	**12,000 (A)**
Antimony	mg/kg			**2.7 J (R)**	**8.4 J (A,R)**			**12.6 J (A,R)**	2 J								
Arsenic	mg/kg	**15.1 J (A,R)**	**14.3 J (A,R)**	**13 (A,R)**	**12.6 J (A,R)**	**12.1 J (A,R)**	**11.7 J (A,R)**	**16.4 J (A,R)**	**12.2 J (A,R)**	**30.9 J (A,R)**	**35.6 J (A,R)**	**10.2 J (A,R)**		**14.3 (A,R)**	**12.8 J (A,R)**	**31.1 J (A,R)**	**10.8 J (A,R)**
Barium	mg/kg	99.8 J	**986 (R)**	**740 (R)**	**759 J (R)**	**986 J (R)**	**149 J (R)**	**431 J (R)**	**529 J (R)**	**442 (R)**	**291 (R)**	**195 J (R)**	11 J	114 J	**234 J (R)**	**442 J (R)**	**229 J (R)**
Beryllium	mg/kg																
Cadmium	mg/kg		**20.8 J (A,R)**	**3.5 J (R)**	**13.9 (A,R)**	**19.6 (A,R)**		**11 (A,R)**	**14.8 (A,R)**	**6.6 J (R)**	**1.9 J (R)**	**3.6 J (R)**			**4 J (R)**	**12.4 J (A,R)**	**4.3 J (R)**
*Calcium	mg/kg	9,430	12,200	6,380	14,200	13,500	10,000	8,610	24,300	5,960	3,140 J	21,900	3,500	3,900 J	12,200 J	12,800 J	9,050
Chromium	mg/kg	**83.8 (A,R)**	**302 (A,R)**	**65.2 (A)**	**202 (A,R)**	**290 (A,R)**	**82.1 (A,R)**	**144 (A,R)**	**213 (A,R)**	**109 (A,R)**	**24.4 (A)**	**96.4 (A,R)**	**7 (A)**	**36.5 (A)**	**93.4 J (A,R)**	**207 J (A,R)**	**96.6 (A,R)**
Cobalt	mg/kg	**13 J (A)**	**8.9 J (A)**	**6.4 J (A)**	**9 J (A)**	**7.2 J (A)**	**12.3 J (A)**	**5.4 J (A)**	**6.1 J (A)**	**9.4 J (A)**	**4.5 J (A)**	**11 J (A)**		**4.8 J (A)**	**11.1 J (A)**	**9.9 J (A)**	**10.4 J (A)**
Copper	mg/kg	**148 (R)**	**862 (A,R)**	**246 (R)**	**756 (A,R)**	**699 (A,R)**	**201 (R)**	**735 (A,R)**	**460 (A,R)**	**460 (A,R)**	**198 (R)**	**249 (R)**	25	**82.1 (R)**	**292 J (R)**	**739 J (A,R)**	**320 (A,R)**
Iron	mg/kg	**37,300 (A)**	**27,400 (A)**	**32,100 (A)**	**32,600 (A)**	**32,000 (A)**	**35,300 (A)**	**16,400 (A)**	**38,000 (A)**	**55,300 (A)**	**34,600 J (A)**	**27,200 (A)**	1,310	**13,300 (A)**	**32,200 J (A)**	**31,400 J (A)**	**31,900 (A)**
Lead	mg/kg	**193 (R)**	**1,690 (A,R)**	**1,720 (A,R)**	**1,520 (A,R)**	**1,420 (A,R)**	**278 (R)**	**701 (A,R)**	**847 (A,R)**	**829 J (A,R)**	**559 J (A,R)**	**359 (R)**	19.7	**308 (R)**	**507 J (A,R)**	**1,290 J (A,R)**	**528 (A,R)**
*Magnesium	mg/kg	9,450	7,610	2,340	7,030	5,910	9,050	3,730 J	14,900 J	4,490	1,750 J	14,800 J	793 J	2,250 J	8,590 J	7,600 J	8,670
Manganese	mg/kg	**541 (A,R)**	173	149	**262 (A)**	**186 (A)**	**461 (A,R)**	91.9 J	**185 J (A)**	175	127	**297 J (A)**	13 J	74.5	**436 J (A)**	**389 J (A)**	**313 (A)**
Mercury	mg/kg	**0.3 J (R)**	**4.2 (A,R)**	**0.84 (R)**	**3.9 J (A,R)**	**0.43 J (R)**	**1.5 (R)**	0.03	**1.9 (R)**	**0.82 (R)**	0.07	**1.8 (R)**	**0.43 (R)**	**0.56 (R)**	**1.4 J (R)**	**0.9 J (R)**	**1.4 (R)**
Nickel	mg/kg	**46.9 (R)**	**186 (A,R)**	**36.1 (R)**	**124 (R)**	**140 (R)**	**45.6 (R)**	**87.9 J (R)**	**158 J (A,R)**	**64.3 (R)**	16.4	**46.5 J (R)**	3.1 J	16.6	**53.6 J (R)**	**137 J (R)**	**55.8 (R)**
*Potassium	mg/kg	3,020 J	1,430 J	416 J	1,010 J	888 J	2,280 J	719 J	990 J	1,560 J	688 J	2,590 J	84.9 J	568 J	1,770 J	969 J	2,240 J
Selenium	mg/kg																
Silver	mg/kg		**23.7 (R)**	**6.9 (R)**	**18.1 (R)**	**26.5 (R)**		**10.5 (R)**	**10.5 (R)**	**8.1 J (R)**		**8.5 (R)**			**8.6 J (R)**	**17.4 J (R)**	
*Sodium	mg/kg	11,500 J	9,200 J	640 J	1,660 J	1,040 J	1,900 J	3,820	5,650	8,720	2,950	10,700			3,420 J	1,790 J	8,950
*Thallium	mg/kg																
Vanadium	mg/kg	**43.3 (A)**	**85 (A)**	18.8	**75.6 (A)**	**65.7 (A)**	**49.8 (A)**	**44.9 (A)**	**59.8 (A)**	**49.1 (A)**	15.8	**48.4 (A)**	2.6 J	16.5 J	**50.2 J (A)**	**67.9 J (A)**	**48.5 (A)**
Zinc	mg/kg	**298 (R)**	**1,760 J (R)**	**1,780 J (R)**	**1,620 (R)**	**1,400 (R)**	**508 (R)**	**2,440 J (A,R)**	**923 J (R)**	**1,070 (R)**	**487 (R)**	**637 J (R)**	24.7 J	**298 (R)**	**704 J (R)**	**1,630 J (R)**	**730 (R)**
Cyanide, Total	mg/kg		0.3 J					1.66 J	0.18 J	4.51 J	8.82 J			0.18 J			

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-12	GC-SED-13B	GC-SED-14	GC-SED-14	GC-SED-15	GC-SED-16	GC-SED-17	GC-SED-18	GC-SED-19C	GC-SED-19C	GC-SED-20	GC-SED-20	GC-SED-21B	GC-SED-21B	GC-SED-22B	GC-SED-22B
Sample Number:		GC-SED-12(13-14)	GC-SED-13B(0-2)	GC-SED-14(0-1.5)	GC-SED-14(5.5-6.5)	GC-SED-15(0-0.75)	GC-SED-16(0-2)	GC-SED-17(0-2)	GC-SED-18(0-1)	GC-SED-19C(1.5-2)	GC-SED-19C(5.8-6.8)	GC-SED-20(0-1.5)	GC-SED-20(4-5)	GC-SED-21B(1.5-3)	GC-SED-21B(7-8)	GC-SED-22B(0-1)	GC-SED-22B(7-8)
Sample Depth:		13-14	0-2	0-1.5	5.5-6.5	0-0.75	0-2	0-2	0-1	1.5-2	5.8-6.8	0-1.5	4-5	1.5-3	7-8	0-1	7-8
Sample Date:		12/21/2005	1/7/2006	1/7/2006	1/7/2006	1/7/2006	1/8/2006	1/8/2006	1/7/2006	1/9/2006	1/9/2006	1/10/2006	1/10/2006	1/9/2006	1/9/2006	1/9/2006	1/9/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	2,940	**25,000 J (A)**	**12,700 J (A)**	5,950 J	**13,500 J (A)**	**24,700 J (A)**	**11,400 J (A)**	**12,900 J (A)**	**8,950 J (A)**	5,590 J	**12,600 (A)**	**13,300 J (A)**	**10,300 (A)**	3,810 J	**15,800 J (A)**	7,490 J
Antimony	mg/kg														**2.7 J (R)**		
Arsenic	mg/kg	**7.4 J (A)**	**17.2 J (A,R)**	**11 J (A,R)**	**14.9 J (A,R)**	**10.7 J (A,R)**	**21.7 J (A,R)**	**9 J (A,R)**	**10.2 J (A,R)**	**11.5 J (A,R)**	**13.9 J (A,R)**	**10.4 J (A,R)**	**17 J (A,R)**	**16.3 J (A,R)**	**8.8 J (A,R)**	**11.5 J (A,R)**	**15.8 J (A,R)**
Barium	mg/kg	**145 J (R)**	**154 J (R)**	**216 J (R)**	**443 J (R)**	**175 J (R)**	**293 J (R)**	76.7 J	**138 J (R)**	**577 J (R)**	**473 J (R)**	106 J	**714 J (R)**	**650 J (R)**	**212 J (R)**	120 J	**489 J (R)**
Beryllium	mg/kg																
Cadmium	mg/kg			**3.9 J (R)**	**2.8 J (R)**		**6 J (R)**			**8.6 J (A,R)**	**12.3 J (A,R)**		**11.3 J (A,R)**	**10.9 (A,R)**	**7.8 J (A,R)**	**3.1 J (R)**	**11.5 J (A,R)**
*Calcium	mg/kg	2,600	12,200 J	9,890 J	9,040 J	9,290 J	17,900 J	7,840 J	9,090 J	6,260 J	7,280 J	7,320 J	13,900 J	15,900	10,300 J	7,860 J	26,200 J
Chromium	mg/kg	**20.7 (A)**	**137 J (A,R)**	**90.6 J (A,R)**	**46.7 J (A)**	**106 J (A,R)**	**187 J (A,R)**	**74.8 J (A)**	**84.6 J (A,R)**	**89.4 J (A,R)**	**188 J (A,R)**	**78.1 (A)**	**162 J (A,R)**	**173 (A,R)**	**62.6 J (A)**	**110 J (A,R)**	**191 J (A,R)**
Cobalt	mg/kg	**4.1 J (A)**	**21.2 J (A)**	**12.8 J (A)**	**7 J (A)**	**12.3 J (A)**	**23.9 J (A)**	**11.4 J (A)**	**12.2 J (A)**	**9.1 J (A)**	**8.8 J (A)**	**9.8 J (A)**	**14.6 J (A)**	**12.2 J (A)**	**5.7 J (A)**	**13.6 J (A)**	**10 J (A)**
Copper	mg/kg	**111 (R)**	**291 J (R)**	**315 J (A,R)**	**470 J (A,R)**	**198 J (R)**	**562 J (A,R)**	**160 J (R)**	**223 J (R)**	**396 J (A,R)**	**1,070 J (A,R)**	**254 (R)**	**629 J (A,R)**	**626 (A,R)**	**1,190 J (A,R)**	**229 J (R)**	**564 J (A,R)**
Iron	mg/kg	**15,400 (A)**	**49,400 J (A)**	**34,200 J (A)**	**21,900 J (A)**	**31,900 J (A)**	**55,400 J (A)**	**27,100 J (A)**	**29,300 J (A)**	**28,100 J (A)**	**38,300 J (A)**	**26,800 (A)**	**54,100 J (A)**	**40,700 (A)**	**35,700 J (A)**	**33,000 J (A)**	**55,600 J (A)**
Lead	mg/kg	**1,200 (A,R)**	**357 J (R)**	**703 J (A,R)**	**1,350 J (A,R)**	**812 J (A,R)**	**927 J (A,R)**	**215 J (R)**	**339 J (R)**	**690 J (A,R)**	**1,230 J (A,R)**	**268 (R)**	**1,640 J (A,R)**	**1,180 (A,R)**	**844 J (A,R)**	**325 J (R)**	**964 J (A,R)**
*Magnesium	mg/kg	2,530	16,900 J	9,350 J	4,050 J	9,280 J	16,800 J	8,080 J	9,920 J	6,510 J	4,500 J	8,470	10,600 J	11,100	4,010 J	10,000 J	7,710 J
Manganese	mg/kg	**204 (A)**	**608 J (A,R)**	**473 J (A,R)**	95.9 J	**387 J (A)**	**591 J (A,R)**	**319 J (A)**	**294 J (A)**	**212 J (A)**	139 J	**301 (A)**	**337 J (A)**	**214 (A)**	**216 J (A)**	**392 J (A)**	**294 J (A)**
Mercury	mg/kg	**0.94 (R)**	**1.2 J (R)**	**1.1 J (R)**	**11.7 J (A,R)**	**0.3 J (R)**	**1.5 J (R)**	**1.3 (R)**	**1.2 J (R)**	**1.2 J (R)**	**1.4 (R)**	**1.1 (R)**	**2.4 J (A,R)**	**2 (R)**	**2.7 (A,R)**	**1.5 (R)**	**2.7 (A,R)**
Nickel	mg/kg	**27.7 (R)**	**64 J (R)**	**52.1 J (R)**	**29.6 J (R)**	**43.5 J (R)**	**102 J (R)**	**34.9 J (R)**	**45.5 J (R)**	**55 J (R)**	**147 J (R)**	**37.3 J (R)**	**106 J (R)**	**124 (R)**	**48.4 J (R)**	**51.3 J (R)**	**119 J (R)**
*Potassium	mg/kg	562 J	5,870 J	2,670 J	1,020 J	2,990 J	4,560 J	2,510 J	2,870 J	1,710 J	704 J	2,680 J	2,380 J	2,140 J	701 J	3,010 J	1,090 J
Selenium	mg/kg										2.6 J						
Silver	mg/kg		**8.2 J (R)**	**5.8 J (R)**	**8.1 J (R)**	**7.2 J (R)**	**14.1 J (R)**	**4.8 J (R)**	**6.2 J (R)**	**7.2 J (R)**	**15 J (R)**		**12.1 J (R)**	**12.6 J (R)**			**11.1 J (R)**
*Sodium	mg/kg	245 J	22,200 J	10,600 J	4,950 J	12,100 J	6,810 J	8,050 J	14,100 J	5,990 J	607 J	11,100 J	5,970 J	11,200 J	1,380 J	7,860 J	1,330 J
*Thallium	mg/kg																
Vanadium	mg/kg	11.5 J	**79.1 J (A)**	**48.1 J (A)**	23.4 J	**49 J (A)**	**101 J (A)**	**43.1 J (A)**	**47.9 J (A)**	**39.1 J (A)**	**48.5 J (A)**	**43.8 J (A)**	**61.8 J (A)**	**62.2 (A)**	23.1 J	**56.5 J (A)**	**51.5 J (A)**
Zinc	mg/kg	**340 (R)**	**671 J (R)**	**670 J (R)**	**1,350 J (R)**	**601 J (R)**	**1,230 J (R)**	**405 J (R)**	**595 J (R)**	**846 J (R)**	**1,460 J (R)**	**602 J (R)**	**1,800 J (R)**	**1,630 (R)**	**1,350 J (R)**	**547 J (R)**	**1,160 J (R)**
Cyanide, Total	mg/kg													0.17 J			

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GC-SED-23 GC-SED-23(0-2) 0-2 1/10/2006 N	GC-SED-24B GC-SED-24(3-4.5) 3-5 1/10/2006 N	GC-SED-25B GC-SED-25(1-4) 1-4 1/12/2006 N	GC-SED-26 GC-SED-26(1-2) 1-2 1/12/2006 N	GC-SED-27 GC-SED-27(0.5-1) 0.5-1 1/12/2006 N	GC-SED-27 GC-SED-27(4.9-5.4) 4.9-5.4 1/12/2006 N	GC-SED-28 GC-SED-28(1.5-2.5) 1.5-2.5 1/12/2006 N	GC-SED-28 GC-SED-28(4.9-5.8) 4.9-5.8 1/12/2006 N	GC-SED-29 GC-SED-29(2.3-4.6) 2.3-4.6 1/12/2006 N	GC-SED-30 GC-SED-30(3.5-5.5) 3.5-5.5 1/12/2006 N	GC-SED-31 GC-SED-31(2.5-4.5) 2.5-4.5 1/16/2006 N	GC-SED-31 GC-SED-31(11.5-12.5) 11.5-12.5 1/16/2006 N	GC-SED-32 GC-SED-32(0.5-1.5) 0.5-1.5 1/16/2006 N	GC-SED-32 GC-SED-32(5.9-6.9) 5.9-6.9 1/16/2006 N	GC-SED-33 GC-SED-33(1.5-3) 1.5-3 1/17/2006 N	GC-SED-34B GC-SED-34B(2-3) 2-3 1/13/2006 N
		Metals															
Aluminum	mg/kg	**15,200 (A)**	**13,300 (A)**	**10,600 (A)**	**8,220 (A)**	**15,700 (A)**	4,720	**8,380 (A)**	1,110	**8,250 (A)**	5,250	7,050 J	4,600 J	**10,100 J (A)**	5,410 J	7,170 J	7,440
Antimony	mg/kg						**8.2 J (A,R)**					**3.4 J (A,R)**			**8.3 J (A,R)**		
Arsenic	mg/kg	**11.2 J (A,R)**	**11.8 J (A,R)**	**8 J (A)**	**9.4 J (A,R)**	**10.3 J (A,R)**	**17.4 J (A,R)**	**9.9 J (A,R)**	**2.4 J (A)**	**7.8 J (A)**	**8.6 J (A,R)**	**13 J (A,R)**	**67 J (A,R)**	**7.7 J (A)**	**17 J (A,R)**	**11.3 J (A,R)**	**15.2 J (A,R)**
Barium	mg/kg	120 J	**217 J (R)**	**141 J (R)**	**204 J (R)**	**137 J (R)**	**451 J (R)**	**236 J (R)**	36 J	**186 J (R)**	**274 J (R)**	**365 J (R)**	**639 J (R)**	**139 J (R)**	**643 J (R)**	**235 J (R)**	**343 J (R)**
Beryllium	mg/kg																
Cadmium	mg/kg		**4.4 J (R)**	**2.5 J (R)**	**4.7 J (R)**		**19.6 (A,R)**	**3.9 J (R)**	1 J	**3.1 J (R)**	**4.8 (R)**	**11.6 (A,R)**	**3.9 J (R)**	**3.7 J (R)**	**17.9 (A,R)**	**6.6 (R)**	**12 (A,R)**
*Calcium	mg/kg	8,080 J	8,630 J	8,020 J	17,700 J	9,340 J	7,730 J	11,400 J	116,000 J	11,900 J	15,400 J	13,900 J	6,670 J	7,750 J	9,360 J	14,700 J	18,400 J
Chromium	mg/kg	**85.2 (A,R)**	**111 (A,R)**	**81.3 (A,R)**	**96.1 (A,R)**	**89.9 (A,R)**	**214 (A,R)**	**78.8 (A)**	**19.5 (A)**	**74.2 (A)**	**78.1 (A)**	**230 J (A,R)**	**44.3 J (A)**	**78.7 J (A)**	**285 J (A,R)**	**132 J (A,R)**	**241 (A,R)**
Cobalt	mg/kg	**12.4 J (A)**	**12.1 J (A)**	**9.9 J (A)**	**10.4 J (A)**	**14.3 J (A)**	**7.4 J (A)**	**8.6 J (A)**	**2.5 J (A)**	**8.9 J (A)**	**6 J (A)**	**9.4 J (A)**	**9.1 J (A)**	**8.8 J (A)**	**7.7 J (A)**	**8.2 J (A)**	**13 J (A)**
Copper	mg/kg	**218 (R)**	**305 (R)**	**204 (R)**	**288 (R)**	**205 (R)**	**821 (A,R)**	**255 (R)**	**104 (R)**	**243 (R)**	**220 (R)**	**514 J (A,R)**	**393 J (A,R)**	**255 J (R)**	**693 J (A,R)**	**305 J (R)**	**558 (A,R)**
Iron	mg/kg	**32,700 (A)**	**32,300 (A)**	**24,200 (A)**	**22,900 (A)**	**32,100 (A)**	**24,600 (A)**	**22,500 (A)**	**15,000 (A)**	**22,300 (A)**	**15,600 (A)**	**27,400 J (A)**	**22,200 J (A)**	**24,500 J (A)**	**25,700 J (A)**	**18,800 J (A)**	**33,100 (A)**
Lead	mg/kg	**307 (R)**	**495 (A,R)**	**352 (R)**	**560 (A,R)**	**339 (R)**	**1,090 (A,R)**	**552 (A,R)**	**86.4 (R)**	**924 (A,R)**	**666 (A,R)**	**1,190 J (A,R)**	**1,260 J (A,R)**	**430 J (A,R)**	**1,770 J (A,R)**	**706 J (A,R)**	**1,130 (A,R)**
*Magnesium	mg/kg	9,510	9,240	7,990	8,990	10,700	4,090	8,140	78,600	7,970	6,280	7,770 J	2,890 J	8,400 J	4,580 J	7,970 J	9,910
Manganese	mg/kg	**329 (A)**	**312 (A)**	**251 (A)**	**190 (A)**	**352 (A)**	136	**184 (A)**	134	**190 (A)**	133	160 J	**208 J (A)**	**230 J (A)**	123 J	156 J	178
Mercury	mg/kg	**1.7 (R)**	**1.4 (R)**	**1.7 (R)**	**0.91 (R)**	**1.2 (R)**	**3.3 (A,R)**	**1.4 J (R)**	**0.44 (R)**	**3.2 (A,R)**	**1.8 (R)**	**2.1 J (R)**	**8.5 J (A,R)**	**2.2 J (R)**	**7.6 J (A,R)**	**1.9 J (R)**	**1.9 (R)**
Nickel	mg/kg	**42.3 J (R)**	**57.6 J (R)**	**44.9 J (R)**	**69 J (R)**	**50.7 J (R)**	**184 J (A,R)**	**45.8 J (R)**	**23.8 J (R)**	**40.5 J (R)**	**49.4 J (R)**	**178 J (A,R)**	**28 J (R)**	**42.6 J (R)**	**227 J (A,R)**	**88.8 J (R)**	**152 J (A,R)**
*Potassium	mg/kg	2,820 J	2,560 J	2,140 J	2,160 J	3,070 J	690 J	1,810 J	288 J	1,770 J	1,300 J	1,250 J	748 J	2,020 J	753 J	1,870 J	1,420 J
Selenium	mg/kg												5 J				
Silver	mg/kg		**9.1 J (R)**	**6.9 J (R)**	**5.2 J (R)**	**6.1 J (R)**	**12.3 J (R)**	**8.7 J (R)**	0.83 J	**8.2 J (R)**	**3.3 J (R)**	**8.9 J (R)**	**7.5 J (R)**	**7.9 J (R)**	**22.7 J (R)**	**5.7 J (R)**	**12.1 J (R)**
*Sodium	mg/kg	7,760 J	8,980 J	8,280 J	7,610	10,600	2,940	8,810	1,220	10,600	6,120	5,940 J	2,010 J	10,900 J	2,540 J	5,950 J	8,680
*Thallium	mg/kg																
Vanadium	mg/kg	**48.7 J (A)**	**49.7 J (A)**	**39.1 J (A)**	38.4 J	**52.5 J (A)**	**58.2 J (A)**	36.8 J	5.9 J	35.1 J	25.6 J	**49.3 J (A)**	26.2 J	**43.1 J (A)**	**129 J (A)**	38 J	**53.2 J (A)**
Zinc	mg/kg	**533 J (R)**	**698 J (R)**	**487 J (R)**	**727 J (R)**	**511 J (R)**	**4,350 J (A,R)**	**710 J (R)**	**198 J (R)**	**605 J (R)**	**603 J (R)**	**1,200 J (R)**	**1,530 J (R)**	**632 J (R)**	**2,110 J (R)**	**770 J (R)**	**1,160 J (R)**
Cyanide, Total	mg/kg												0.29 J				0.22 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location: / Sample Number: / Sample Depth: / Sample Date: / Sample Type:															
		GC-SED-34B GC-SED-34B(5.8-6.8) 5.8-6.8 1/13/2006 N	GC-SED-35 GC-SED-35(0-4.5) 0-4.5 1/13/2006 N	GC-SED-35 GC-SED-35(8.8-10.8) 8.8-10.8 1/13/2006 N	GC-SED-36 GC-SED-36(2.5-4.5) 2.5-4.5 1/16/2006 N	GC-SED-36 GC-SED-36(8-9) 8-9 1/16/2006 N	GC-SED-37B GC-SED-37B(7-8) 7-8 12/22/2005 N	GC-SED-38 GC-SED-38(5.1-6.1) 5.1-6.1 12/22/2005 N	GC-SED-39 GC-SED-39(1-2) 1-2 1/8/2006 N	GC-SED-39 GC-SED-39(4.5-5.5) 4.5-5.5 1/8/2006 N	GC-SED-40 GC-SED-40(2.5-3.5) 2.5-3.5 1/17/2006 N	GC-SED-41 GC-SED-41(0-4.5) 0-4.5 1/17/2006 N	GC-SED-43 GC-SED-43(2-3) 2-3 1/23/2006 N	GC-SED-43 GC-SED-43(7.3-8.3) 7.3-8.3 1/23/2006 N	GC-SED-44 GC-SED-44(0.5-2.5) 0.5-2.5 1/23/2006 N	GC-SED-44 GC-SED-44(5.6-6.1) 5.6-6.1 1/23/2006 N	GC-SED-45C GC-SED-45C(1-1.5) 1-1.5 1/23/2006 N
		Metals															
Aluminum	mg/kg	**10,600 (A)**	**12,000 (A)**	3,520	3,670 J	7,250 J	5,600	4,780	6,770 J	2,080 J	1,070 J	206 J	2,910	4,670	2,830	6,390	4,410
Antimony	mg/kg					**2.6 J (R)**	**2.8 J (R)**	**11.5 J (A,R)**								**6.7 J (A,R)**	
Arsenic	mg/kg	**21.3 J (A,R)**	**19.5 J (A,R)**	**36.6 J (A,R)**	**7.6 J (A)**	**37.1 J (A,R)**	**29.1 (A,R)**	**17.2 (A,R)**	**11.1 J (A,R)**	**16.3 J (A,R)**	**9.9 J (A,R)**	**3 J (A)**	**8 J (A)**	**27.3 (A,R)**	**8.3 J (A,R)**	**34.3 (A,R)**	**23.3 (A,R)**
Barium	mg/kg	**555 J (R)**	124 J	102 J	59.5 J	**690 J (R)**	**934 J (R)**	**478 J (R)**	**219 J (R)**	109 J	14.2 J	3 J	**161 J (R)**	**338 J (R)**	63.7 J	**440 J (R)**	**171 (R)**
Beryllium	mg/kg																
Cadmium	mg/kg	**33.6 (A,R)**			**4.1 J (R)**	**5.1 J (R)**	**6.3 (R)**	**14.2 (A,R)**	**4.3 J (R)**	**1.8 J (R)**			**5.5 (R)**	**4 J (R)**	**1.6 J (R)**	**7.5 (A,R)**	**2.1 J (R)**
*Calcium	mg/kg	19,500 J	8,200 J	2,740 J	15,400 J	11,600 J	7,530	8,810	19,900 J	3,000 J	72,100 J	180,000 J	51,400 J	4,780 J	24,800 J	7,640 J	8,510 J
Chromium	mg/kg	**484 (A,R)**	**84.2 (A,R)**	**39.6 (A)**	**60.5 J (A)**	**63.9 J (A)**	**89.2 (A,R)**	**215 (A,R)**	**767 J (A,R)**	**26.3 J (A)**	**11.2 J (A)**	**3.7 J (A)**	**93.2 (A,R)**	**55.8 (A)**	**47.1 (A)**	**110 (A,R)**	**45.3 (A)**
Cobalt	mg/kg	**11.7 J (A)**	**11.7 J (A)**	**5.5 J (A)**	**3.9 J (A)**	**8 J (A)**	**6.4 J (A)**	**7.2 J (A)**	**10 J (A)**	**4.1 J (A)**	**2.8 J (A)**	**2.5 J (A)**	**3.9 J (A)**	**6.4 J (A)**	**2.9 J (A)**	**7.2 J (A)**	**4.8 J (A)**
Copper	mg/kg	**903 (A,R)**	**236 (R)**	**67.8 (R)**	**158 J (R)**	**501 J (A,R)**	**399 (A,R)**	**454 (A,R)**	**243 J (R)**	**95.2 J (R)**	18.6 J	9.3 J	**205 (R)**	**230 (R)**	**86.3 (R)**	**393 (A,R)**	**285 (R)**
Iron	mg/kg	**34,400 (A)**	**27,000 (A)**	**13,600 (A)**	**9,420 J (A)**	**30,400 J (A)**	**29,100 (A)**	**24,800 (A)**	**17,800 J (A)**	**25,900 J (A)**	**9,480 J (A)**	4,470 J	**19,000 (A)**	**17,700 (A)**	**10,400 (A)**	**22,900 (A)**	**16,300 (A)**
Lead	mg/kg	**1,550 (A,R)**	**352 (R)**	**207 (R)**	**334 J (R)**	**1,160 J (A,R)**	**1,250 (A,R)**	**901 (A,R)**	**404 J (A,R)**	**316 J (R)**	25.4 J	5.2 J	**587 J (A,R)**	**564 J (A,R)**	**133 J (R)**	**784 J (A,R)**	**581 J (A,R)**
*Magnesium	mg/kg	12,300	9,200	3,030	7,710 J	4,660 J	3,530	4,210	22,600 J	1,250 J	43,900 J	129,000 J	30,000 J	2,690 J	10,400 J	4,160 J	5,130 J
Manganese	mg/kg	**201 (A)**	**298 (A)**	108	107 J	**226 J (A)**	131	97.4	169 J	124 J	88.6 J	151 J	143 J	103 J	109 J	**189 J (A)**	98.7 J
Mercury	mg/kg	**5.4 (A,R)**	**1.7 (R)**	**2.3 (R)**	**2.1 J (R)**	**1.6 J (R)**	**4.6 J (A,R)**	**3.7 J (A,R)**	**0.25 (R)**				**1.4 J (R)**	**2.3 J (R)**	0.08 J	**4.2 J (A,R)**	**6.6 (A,R)**
Nickel	mg/kg	**295 J (A,R)**	**41.4 J (R)**	**29.1 J (R)**	**40.2 J (R)**	**38.9 J (R)**	**33.4 (R)**	**135 (R)**	**118 J (R)**	**23.3 J (R)**	10.9 J	3.8 J	**55 (R)**	**31.6 (R)**	**28.7 (R)**	**55.4 (R)**	**26.2 (R)**
*Potassium	mg/kg	1,650 J	2,440 J	479 J	639 J	1,330 J	960 J	823 J	1,570 J	302 J	194 J	123 J	587 J	729 J	414 J	1,020 J	816 J
Selenium	mg/kg					4.7 J								4.1 J		4 J	3.1 J
Silver	mg/kg	**19.9 J (R)**	**8.7 J (R)**	**1.4 J (R)**	**3.1 J (R)**	**6.8 J (R)**	**10.2 (R)**	**11 (R)**	**4.1 J (R)**	**3 J (R)**			**4.4 J (R)**	**5.7 J (R)**		**11.3 (R)**	
*Sodium	mg/kg	9,470	11,300	1,290 J	4,690 J	4,730 J	4,700 J	4,220 J	5,950 J	1,750 J	627 J	361 J	3,020 J			5,340 J	3,790 J
*Thallium	mg/kg																
Vanadium	mg/kg	**99.9 J (A)**	**47.7 J (A)**	16.9 J	17.1 J	36.7 J	**41.8 (A)**	**81.2 (A)**	**40.1 J (A)**	14.6 J	7.6 J	7.3 J	30.2	28.3	14.1	**47.3 (A)**	19.2
Zinc	mg/kg	**1,930 J (R)**	**557 J (R)**	**175 J (R)**	**468 J (R)**	**1,650 J (R)**	**1,430 (R)**	**1,210 (R)**	**1,020 J (R)**	**339 J (R)**	45.7 J	5.5 J	**433 (R)**	**637 (R)**	**188 (R)**	**981 (R)**	**613 (R)**
Cyanide, Total	mg/kg						0.11 J	1.12 J			0.07 J			0.11 J		2.19	0.47 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-46C	GC-SED-46C	GC-SED-47	GC-SED-48	GC-SED-48	GC-SED-49	GC-SED-49	GC-SED-50B	GC-SED-51	GC-SED-51	GC-SED-52	GC-SED-53	GC-SED-54B	GC-SED-54B	GC-SED-55	GC-SED-55
Sample Number:		GC-SED-46C(1.5-2.5)	GC-SED-46C(5-5.5)	GC-SED-47(1.5-2.5)	GC-SED-48(0.5-1.5)	GC-SED-48(5-5.8)	GC-SED-49(2.5-3.5)	GC-SED-49(5.4-5.9)	GC-SED-50(2-5)	GC-SED-51(0-1.5)	GC-SED-51(6.7-7.2)	GC-SED-52(3-6)	GC-SED-53(0.5-1.5)	GC-SED-54B(0-2)	GC-SED-54B(4.5-5.7)	GC-SED-55(1.5-2.5)	GC-SED-55(10-11)
Sample Depth:		1.5-2.5	5-5.5	1.5-2.5	0.5-1.5	5-5.8	2.5-3.5	5.4-5.9	2-5	0-1.5	6.7-7.2	3-6	0.5-1.5	0-2	4.5-5.7	1.5-2.5	10-11
Sample Date:		1/23/2006	1/23/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/24/2006	1/26/2006	1/26/2006	1/26/2006	1/20/2006	1/20/2006	1/20/2006	1/20/2006	1/24/2006	1/24/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	5,980	5,320	4,660	4,620	7,590	4,500	**9,410 (A)**	4,100	**9,540 (A)**	1,940	916	2,680	**9,260 (A)**	3,670	**9,750 (A)**	6,020
Antimony	mg/kg		**3.3 J (A,R)**														
Arsenic	mg/kg	**14.3 (A,R)**	**36.6 (A,R)**	**15.4 (A,R)**	**12.9 (A,R)**	**30.9 (A,R)**	**28.1 (A,R)**	**26 (A,R)**	**39.2 J (A,R)**	**18.2 J (A,R)**	**31.1 J (A,R)**	**13.6 (A,R)**	**6.7 J (A)**	**15.1 J (A,R)**	**23.2 (A,R)**	**15.1 J (A,R)**	**9.6 J (A,R)**
Barium	mg/kg	**655 J (R)**	**582 J (R)**	**444 (R)**	**243 (R)**	**316 (R)**	**359 (R)**	115	**486 (R)**	**368 (R)**	**385 (R)**	53.2 J	90 J	**496 J (R)**	127 J	**649 (R)**	**332 (R)**
Beryllium	mg/kg																
Cadmium	mg/kg	**43.2 (A,R)**	**6.2 (R)**	**16.6 (A,R)**	**8.9 (A,R)**	**2.1 J (R)**	**5.9 (R)**		**3.3 J (R)**	**11.7 (A,R)**	**4 J (R)**	**1.9 J (R)**	**3.1 J (R)**	**10 (A,R)**		**8.3 (A,R)**	**14.6 (A,R)**
*Calcium	mg/kg	12,300 J	8,430 J	7,500 J	11,300 J	8,210 J	5,720 J	4,490 J	5,930	20,500	9,200	2,230 J	10,000 J	16,100 J		17,000 J	26,900 J
Chromium	mg/kg	**373 (A,R)**	**79.5 (A)**	**233 (A,R)**	**157 (A,R)**	**45.2 (A)**	**82.5 (A,R)**	**48.3 (A)**	**30.7 (A)**	**206 (A,R)**	**20 (A)**	**59.3 J (A)**	**51.7 (A)**	**138 (A,R)**	**19 (A)**	**106 (A,R)**	**167 (A,R)**
Cobalt	mg/kg	**7.8 J (A)**	**7.2 J (A)**	**6.5 J (A)**	**5.4 J (A)**	**7.6 J (A)**	**7.5 J (A)**	**8.5 J (A)**	**5.7 J (A)**	**8.3 J (A)**	**5.1 J (A)**	**2.9 J (A)**	**3.6 J (A)**	**7.6 J (A)**	**4.3 J (A)**	**8.6 J (A)**	**5.2 J (A)**
Copper	mg/kg	**671 (A,R)**	**422 (A,R)**	**443 (A,R)**	**290 (R)**	**456 (A,R)**	**426 (A,R)**	**174 (R)**	**354 (A,R)**	**390 (A,R)**	**204 (R)**	**279 (R)**	**111 (R)**	**333 (A,R)**	**153 (R)**	**318 (A,R)**	**300 (R)**
Iron	mg/kg	**22,900 (A)**	**24,500 (A)**	**20,500 (A)**	**23,400 (A)**	**25,300 (A)**	**29,000 (A)**	**34,800 (A)**	**34,900 (A)**	**26,000 (A)**	**110,000 (A)**	**70,900 (A)**	**12,000 (A)**	**24,400 (A)**	**17,700 (A)**	**26,100 (A)**	**18,400 J (A)**
Lead	mg/kg	**1,100 J (A,R)**	**960 J (A,R)**	**961 J (A,R)**	**557 J (A,R)**	**894 J (A,R)**	**848 J (A,R)**	**323 J (R)**	**1,360 (A,R)**	**666 (A,R)**	**1,270 (A,R)**	**147 (R)**	**182 (R)**	**553 (A,R)**	**364 (R)**	**536 J (A,R)**	**490 J (A,R)**
*Magnesium	mg/kg	7,120 J	3,580 J	4,160 J	5,960 J	4,360 J	3,380 J	4,670 J	2,870	12,600	2,150	1,460 J	4,280 J	11,400 J	1,850 J	11,500 J	8,830 J
Manganese	mg/kg	124 J	140 J	122 J	131 J	134 J	125 J	**264 J (A)**	154	**216 (A)**	**664 (A,R)**	**212 (A)**	78.7	**205 (A)**	79.9	**212 J (A)**	165 J
Mercury	mg/kg	**3 J (A,R)**	**1.4 J (R)**	0.12	**1.3 (R)**	**4.1 (A,R)**	**1.1 (R)**	**0.98 (R)**	**0.21 (R)**	**1.7 (R)**	0.02	**0.68 (R)**	**0.7 (R)**	**1.3 (R)**	0.08	**1.8 J (R)**	**1.6 (R)**
Nickel	mg/kg	**254 (A,R)**	**39.1 (R)**	**204 (A,R)**	**79.7 (R)**	**30.5 (R)**	**36.8 (R)**	**27.2 (R)**	**27.8 (R)**	**98.4 (R)**	**23.6 (R)**	**77.4 (R)**	**28.2 (R)**	**63.6 (R)**	15.3	**51.1 (R)**	**82.5 (R)**
*Potassium	mg/kg	1,070 J	864 J	845 J	855 J	1,280 J	802 J	1,520 J	771 J	1,630 J	338 J	463 J	425 J	1,990 J	565 J	1,990 J	963 J
Selenium	mg/kg		6.3 J			4.5 J	4.7 J	4.2 J	6.4 J			3 J					
Silver	mg/kg	**15.7 (R)**	**7.9 J (R)**	**10.1 J (R)**	**5.6 (R)**	**5.1 J (R)**	**6.8 J (R)**		**3.7 J (R)**	**8.1 (R)**	**1.8 J (R)**	**2 J (R)**	**2.3 J (R)**	**7.1 J (R)**	**1.3 J (R)**	**7.4 (R)**	**6.8 (R)**
*Sodium	mg/kg	6,830 J		4,110 J	4,150 J	4,950 J	3,800 J	2,780 J	3,990 J	8,220 J	1,690 J			11,000 J		10,200 J	5,080 J
*Thallium	mg/kg																
Vanadium	mg/kg	**277 (A)**	37.6	**55.1 (A)**	35.1	27.9	35.8	29.5	22.2	**50 (A)**	16.5	36 J	20.1 J	**39.8 J (A)**	14.1 J	**41.1 (A)**	31.8
Zinc	mg/kg	**1,260 (R)**	**1,330 (R)**	**979 (R)**	**698 (R)**	**966 (R)**	**1,100 (R)**	**322 (R)**	**1,130 (R)**	**912 (R)**	**2,130 (R)**	**154 J (R)**	**253 (R)**	**797 (R)**	**322 (R)**	**871 (R)**	**638 (R)**
Cyanide, Total	mg/kg	0.25 J	2.77	1.25	1.45		10.8	0.47 J	3.27			48.2					0.35 J

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-57	GC-SED-58C	GC-SED-59	GC-SED-60B	GC-SED-62C	GC-SED-62C	GC-SED-63	GC-SED-64D	GC-SED-65	GC-SED-67B	GC-SED-67B	GC-SED-68	GC-SED-68	GC-SED-69C	GC-SED-69C	GC-SED-71C
Sample Number:		GC-SED-57(7-9)	GC-SED-58C(0-5)	GC-SED-59(0.5-1)	GC-SED-60B(0-2.5)	GC-SED-62C(0-2)	GC-SED-62C(3-4)	GC-SED-63(3-3.5)	GC-SED-64D(2-4)	GC-SED-65(0.5-1.25)	GC-SED-67(0-1)	GC-SED-67(7-8)	GC-SED-68(0-1)	GC-SED-68(2.2-3.1)	GC-SED-69(0-1)	GC-SED-69(6-7)	GC-SED-71C(1.5-2.5)
Sample Depth:		7-9	0-5	0.5-1	0-2.5	0-2	3-4	3-3.5	2-4	0.5-1.25	0-1	7-8	0-1	2.2-3.1	0-1	6-7	1.5-2.5
Sample Date:		1/26/2006	1/27/2006	1/22/2006	1/21/2006	1/21/2006	1/21/2006	12/20/2005	1/11/2006	1/22/2006	12/17/2005	12/17/2005	12/17/2005	12/17/2005	12/18/2005	12/18/2005	1/29/2006
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**15,100 (A)**	3,550	2,000	3,030	**11,200 (A)**	**8,750 (A)**	3,150	2,520	5,990	3,900	4,980	4,730	5,010	**11,800 (A)**	7,530	2,790
Antimony	mg/kg											1.9 J		**2.7 J (R)**			**20,200 J (A,R)**
Arsenic	mg/kg	**5.1 J (A)**	**12.3 J (A,R)**	**6.4 J (A)**	**10.6 J (A,R)**	**12.1 J (A,R)**	**46.8 (A,R)**	**4.8 J (A)**	**25.8 J (A,R)**	**7.5 J (A)**	**3.1 J (A)**	**22.4 J (A,R)**	**5.3 J (A)**	**20.5 J (A,R)**	**11 J (A,R)**	**6.9 J (A)**	**11.3 J (A,R)**
Barium	mg/kg	64.7 J	**165 J (R)**	119 J	**211 J (R)**	**186 J (R)**	**163 J (R)**	**167 (R)**	**225 J (R)**	54.9 J	**436 (R)**	**502 (R)**	**214 (R)**	**355 (R)**	**173 (R)**	29.6 J	113
Beryllium	mg/kg									0.66 J							
Cadmium	mg/kg			**2.8 J (R)**	**8.7 (A,R)**	**3.2 J (R)**		**10.8 J (A,R)**			**6.5 (R)**	**13 (A,R)**	**14.2 (A,R)**	**8.7 (A,R)**	**3.9 J (R)**		**5.3 (R)**
*Calcium	mg/kg	46,900	6,810	8,960 J	20,700 J	8,780 J	4,240 J	6,590	3,630 J		6,370	6,540	7,360	7,160	8,890	773 J	3,860
Chromium	mg/kg	**23.1 (A)**	**41.6 (A)**	**33.2 (A)**	**93.9 (A,R)**	**81.9 (A,R)**	**86.3 (A,R)**	**79 (A)**	**29.7 (A)**	**10.6 (A)**	**40.4 J (A)**	**113 (A,R)**	**89.6 (A,R)**	**75.7 (A)**	**77.6 (A)**	**14.3 (A)**	**49.2 (A)**
Cobalt	mg/kg	**14.3 J (A)**	**4.4 J (A)**		**4.6 J (A)**	**10 J (A)**	**7.5 J (A)**	**3.2 J (A)**	**3 J (A)**	**5.7 J (A)**	**5.6 J (A)**	**6.3 J (A)**	**6.7 J (A)**	**7.4 J (A)**	**9.5 J (A)**	**5.5 J (A)**	**3.3 J (A)**
Copper	mg/kg	**36.2 (R)**	**97.5 (R)**	**73.9 (R)**	**259 (R)**	**254 (R)**	**235 (R)**	**151 (R)**	**138 (R)**	11.5	**94.6 (R)**	**357 (A,R)**	**242 (R)**	**292 (R)**	**232 (R)**	22.3	**104 (R)**
Iron	mg/kg	**34,100 (A)**	**12,100 (A)**	**10,000 (A)**	**46,200 (A)**	**26,500 (A)**	**24,500 (A)**	**15,200 (A)**	**17,800 (A)**	**21,400 (A)**	**9,420 (A)**	**20,300 (A)**	**14,500 (A)**	**24,800 (A)**	**27,200 (A)**	**17,600 (A)**	**12,700 (A)**
Lead	mg/kg	42.1	**231 (R)**	**323 J (R)**	**465 (A,R)**	**405 (A,R)**	**655 (A,R)**	**317 (R)**	**542 (A,R)**	6.5 J	**700 (A,R)**	**995 (A,R)**	**414 (A,R)**	**788 (A,R)**	**318 (R)**	28.9	**274 J (R)**
*Magnesium	mg/kg	25,900	2,140 J	2,000 J	3,900 J	9,160 J	4,410 J	4,220	1,030	2,260 J	3,710	3,620	4,910	3,750	9,300	2,580	2,890
Manganese	mg/kg	**920 (A,R)**	133 J	85.3 J	**253 (A)**	**264 (A)**	**194 (A)**	85.8	110	97.1 J	97.5 J	111 J	90.7 J	165 J	**248 J (A)**	98.1 J	151
Mercury	mg/kg	**2.2 (R)**	**2.8 (A,R)**	0.12 J	**0.24 (R)**	**1.6 (R)**	**3.2 (A,R)**	**0.72 (R)**	**2.4 (A,R)**	0.02 J	**0.36 (R)**	**0.18 (R)**	**0.6 (R)**	**0.65 (R)**	**1.4 (R)**	**0.25 (R)**	**0.17 (R)**
Nickel	mg/kg	**29.3 (R)**	15 J	20.2	**53.5 (R)**	**43.3 (R)**	**24.4 (R)**	**40.5 (R)**	10.4 J	15.2	**33.8 J (R)**	**55.6 (R)**	**53.3 (R)**	**46.7 (R)**	**41.5 (R)**	13.1	**25 (R)**
*Potassium	mg/kg	1,380 J	493 J		658 J	2,250 J	1,320 J	763 J	372 J	657 J	537 J	839 J	789 J	791 J	2,380 J	772 J	578 J
Selenium	mg/kg																
Silver	mg/kg		0.67 J								**2 J (R)**	**13 (R)**	**4 J (R)**	**9.7 (R)**	**5.1 J (R)**	**1.6 J (R)**	
*Sodium	mg/kg	305 J	556 J			10,800 J		2,470 J	281 J		1,590	3,360	3,450	3,820	11,300	1,440 J	3,520
*Thallium	mg/kg																
Vanadium	mg/kg	20.8 J	16.1	12.3 J	22.2 J	38.8 J	26.1 J	20.9	11.3 J	18.3	12 J	**44.8 (A)**	21.2	**40.8 (A)**	36.7	20.3	21.5
Zinc	mg/kg	**271 (R)**	**382 J (R)**	**290 (R)**	**652 (R)**	**537 (R)**	**396 (R)**	**422 J (R)**	**559 J (R)**	56.2	**918 J (R)**	**1,090 (R)**	**720 (R)**	**963 (R)**	**600 (R)**	59.2	**243 (R)**
Cyanide, Total	mg/kg			0.06 J			1.32 J		0.09 J	0.79				0.08 J		0.31 J	

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SED-71C	GC-SED-72B	GC-SED-72B	GC-SED-73E	GC-SED-74	GC-SED-75C	GC-SED-75C	GC-SED-76C	GC-SED-77	GC-SED-77	GC-SED-78B	GC-SED-78B	GC-SED-79	GC-SED-80	GC-SED-81	GC-SED-81
Sample Number:		GC-SED-71C(2.5-4.0)	GC-SED-72(0-2)	GC-SED-72(5.5-7)	GC-SED-73E(1.0-2.5)	GC-SED-74(5.3-6.3)	GC-SED-75C(0-0.7)	GC-SED-75C(0.7-1.5)	GC-SED-76C(2.5-3.4)	GC-SED-77(0-3)	GC-SED-77(14.5-15.4)	GC-SED-78B(0-1)	GC-SED-78B(2.5-5)	GC-SED-79(2.5-3.5)	GC-SED-80(0-2)	GC-SED-81(8-11)	GC-SED-81(13-13.5)
Sample Depth:		2.5-4	0-2	5.5-7	1-2.5	5.3-6.3	0-0.7	0.7-1.5	2.5-3.4	0-3	14.5-15.4	0-1	2.5-5	2.5-3.5	0-2	8-11	13-13.5
Sample Date:		1/29/2006	12/18/2005	12/18/2005	1/29/2006	1/29/2006	1/25/2006	1/25/2006	1/25/2006	1/30/2006	1/30/2006	1/25/2006	1/25/2006	12/17/2005	12/17/2005	12/18/2005	12/18/2005
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,710	575	**7,960 (A)**	**14,100 (A)**	**11,000 (A)**	**12,000 (A)**	1,850	7,260	**14,900 J (A)**	6,960 J	**11,000 (A)**	**10,700 J (A)**	6,730	**12,400 (A)**	**8,750 (A)**	2,770
Antimony	mg/kg			**2.6 J (R)**													
Arsenic	mg/kg	**3.6 J (A)**	**4.1 J (A)**	**11.4 J (A,R)**	**12.2 J (A,R)**	**23.7 J (A,R)**	**10.7 J (A,R)**	**1.2 J (A)**	**11.5 J (A,R)**	**17.1 J (A,R)**	**13 J (A,R)**	**11.1 J (A,R)**	**15.8 J (A,R)**	**18.4 J (A,R)**	**22.4 J (A,R)**	**16.1 J (A,R)**	**4 J (A)**
Barium	mg/kg	14.9 J	6.5 J	**823 (R)**	**193 (R)**	**1,100 (R)**	107 J	7.7 J	59.6 J	**296 J (R)**	123 J	85.1 J	**218 J (R)**	**202 (R)**	**540 (R)**	118	11.2 J
Beryllium	mg/kg													1.1 J	2.6 J		
Cadmium	mg/kg			**57.6 (A,R)**	**6.7 J (R)**	**46.2 (A,R)**			**14.4 (A,R)**	**5.5 J (R)**	**3.1 J (R)**	**3.2 J (R)**	**14.3 J (A,R)**	**11.5 (A,R)**	**27.7 (A,R)**	**2.1 J (R)**	
*Calcium	mg/kg	660 J	166,000	10,000	11,400	8,520	9,240 J	67,100 J	6,810	7,200	2,260	8,440	9,840	3,400	6,580	2,160	355 J
Chromium	mg/kg	**8.4 (A)**	**3.6 (A)**	**387 (A,R)**	**98.2 (A,R)**	**355 (A,R)**	**77.1 (A)**	**4.9 (A)**	**115 (A,R)**	**106 J (A,R)**	**50.4 J (A)**	**80.7 (A)**	**147 (A,R)**	**170 (A,R)**	**336 (A,R)**	**74.5 (A)**	**8.1 (A)**
Cobalt	mg/kg	**3.1 J (A)**	1.6 J	**7.8 J (A)**	**11.7 J (A)**	**11.2 J (A)**	**10.7 J (A)**	2.1 J	**7.9 J (A)**	**12.3 J (A)**	**8.1 J (A)**	**9.4 J (A)**	**9.2 J (A)**	**9.7 J (A)**	**17.6 J (A)**	**7.9 J (A)**	**9.2 J (A)**
Copper	mg/kg	10.3	10.4	**650 (A,R)**	**266 (R)**	**755 (A,R)**	**181 (R)**	18.8	**250 (R)**	**217 J (R)**	**109 J (R)**	**191 (R)**	**292 (R)**	**411 (A,R)**	**755 (A,R)**	**141 (R)**	6
Iron	mg/kg	**9,850 (A)**	4,470	**24,900 (A)**	**33,500 (A)**	**34,700 (A)**	**28,800 (A)**	**6,630 (A)**	**21,700 (A)**	**36,300 J (A)**	**24,600 J (A)**	**27,300 (A)**	**28,600 (A)**	**29,300 (A)**	**40,100 (A)**	**23,000 (A)**	**23,100 (A)**
Lead	mg/kg	13.4 J	10.7	**986 (A,R)**	**335 J (R)**	**1,070 J (A,R)**	**226 J (R)**	5.6 J	**314 (R)**	**258 J (R)**	**173 J (R)**	**221 (R)**	**372 (R)**	**393 (R)**	**754 (A,R)**	**292 (R)**	
*Magnesium	mg/kg	1,800	117,000	6,550	11,800	7,710	9,710 J	43,200 J	6,340	9,720 J	3,700 J	8,690	7,840	3,340	8,430	4,080	1,750
Manganese	mg/kg	113	132 J	149 J	**316 (A)**	**257 (A)**	**301 J (A)**	78.8 J	**225 (A)**	**393 J (A)**	**279 J (A)**	**301 (A)**	**278 (A)**	**221 J (A)**	**362 J (A)**	**188 J (A)**	92.5 J
Mercury	mg/kg	0.04	0.02	**2.3 (R)**	**2.3 (R)**	**6.9 (A,R)**	**0.95 (R)**	0.04	**2.6 (A,R)**	**1.9 (R)**	**2.1 (R)**	**2 J (R)**	**2.3 (R)**	**2.6 (A,R)**	**3.7 (A,R)**	**2.6 (A,R)**	
Nickel	mg/kg	8.5	3.9 J	**153 (A,R)**	**48.2 (R)**	**136 (R)**	**34.4 (R)**	5.3 J	**42.7 (R)**	**43.1 J (R)**	**24.3 J (R)**	**32.1 (R)**	**50.9 (R)**	**76.5 (R)**	**152 (A,R)**	**27.4 (R)**	14.4
*Potassium	mg/kg	668 J	308 J	1,620 J	3,490 J	2,550 J	2,620 J	265 J	1,440 J	3,230 J	1,360 J	2,390 J	2,020 J	1,180 J	2,800 J	1,440 J	509 J
Selenium	mg/kg																
Silver	mg/kg			**18.1 (R)**		**21.2 (R)**	**4.2 J (R)**		**5.7 J (R)**			**5.2 J (R)**	**7.9 (R)**	**8.6 (R)**	**15.5 (R)**	**2 J (R)**	
*Sodium	mg/kg	1,920	699 J	7,770	17,700	13,500	13,200 J	1,100 J	7,800 J	9,920 J	884 J	12,900 J	9,350 J	2,750	13,800	3,010	793 J
*Thallium	mg/kg																
Vanadium	mg/kg	9.3 J	5.1 J	**51.3 (A)**	**44.1 (A)**	**100 (A)**	38	7.8 J	31.2	**47.8 J (A)**	33.5 J	**39.4 (A)**	**41.9 (A)**	**46 (A)**	**66.4 (A)**	29.1	17.9
Zinc	mg/kg	23.4	17.4 J	**1,490 (R)**	**702 (R)**	**1,410 (R)**	**447 (R)**	20.7	**518 (R)**	**449 J (R)**	**280 J (R)**	**387 (R)**	**549 (R)**	**856 (R)**	**1,560 (R)**	**297 (R)**	29.3
Cyanide, Total	mg/kg	0.12 J	0.26 J										0.28 J				

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location: / Sample Number:	GC-SED-82 GC-SED-82(0-2)	GC-SED-82 GC-SED-82(12-12.8)	GC-SED-83 GC-SED-83(0-2)	GC-SED-83 GC-SED-83(11-11.9)	GC-SED-84 GC-SED-84(1-2)	GC-SED-85B GC-SED-85B(0-1)	GC-SED-85B GC-SED-85B(8.5-9.3)	GC-SED-86 GC-SED-86(0-1)	GC-SED-87 GC-SED-87(4.4-6.2)	GC-SED-88 GC-SED-88(0.5-1)	GC-SED-89B GC-SED-89(1.8-2.3)	GC-SED-90B GC-SED-90B(0-1)	GC-SED-91 GC-SED-91(4.7-6.2)	GC-SED-92 GC-SED-92(0-2)	GC-SED-93 GC-SED-93(0-1)	GC-SED-94 GC-SED-94(0.5-1.25)
		Sample Depth:	0-2	12-12.8	0-2	11-11.9	1-2	0-1	8.5-9.3	0-1	4.4-6.2	0.5-1	1.8-2.3	0-1	4.7-6.2	0-2	0-1	0.5-1.25
		Sample Date:	1/30/2006	1/30/2006	1/30/2006	1/30/2006	12/15/2005	12/16/2005	12/16/2005	12/15/2005	12/15/2005	12/14/2005	12/14/2005	12/14/2005	1/22/2006	12/16/2005	12/16/2005	12/20/2005
		Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
			Metals															
Aluminum	mg/kg		7,300 J	4,950 J	**11,900 J (A)**	**11,300 J (A)**	**12,200 (A)**	6,840	7,260	**7,780 J (A)**	**12,400 J (A)**	**12,000 J (A)**	**13,100 J (A)**	7,350 J	**14,000 (A)**	**17,900 J (A)**	**12,600 J (A)**	5,400
Antimony	mg/kg							**5.6 J (A,R)**	**3.8 J (A,R)**					**17.6 J (A,R)**				
Arsenic	mg/kg		**27.3 J (A,R)**	**10.8 J (A,R)**	**15.5 J (A,R)**	**24.5 J (A,R)**	**9.9 J (A,R)**	**8.7 J (A,R)**	**23.1 J (A,R)**	**15.4 J (A,R)**	**40.2 J (A,R)**	**16.4 J (A,R)**	**22.3 J (A,R)**	**18.8 J (A,R)**	**22.6 (A,R)**	**18.3 J (A,R)**	**23.1 J (A,R)**	**11.9 J (A,R)**
Barium	mg/kg		**174 J (R)**	59.6 J	**260 J (R)**	**346 J (R)**	**348 (R)**	**267 (R)**	**688 (R)**	**492 (R)**	**1,120 (R)**	**1,560 (A,R)**	**1,200 (R)**	**536 (R)**	**739 J (R)**	**1,370 J (R)**	**1,790 J (A,R)**	**551 J (R)**
Beryllium	mg/kg				2.5 J													
Cadmium	mg/kg		**4.6 J (R)**		**10.8 (A,R)**	**20.2 (A,R)**	**6.9 J (R)**	**6 (R)**	**23.5 (A,R)**	**16.6 (A,R)**	**49.3 (A,R)**	**7.1 J (A,R)**	**43.8 (A,R)**	**19.2 (A,R)**	**15.1 (A,R)**	**11.1 J (A,R)**	**97.6 J (A,R)**	**23.5 (A,R)**
*Calcium	mg/kg		3,470	1,450	7,180	5,400	26,700	11,200	9,870	11,600 J	13,300 J	18,900 J	16,000 J		20,100 J	14,200 J	15,300 J	9,290
Chromium	mg/kg		**81.5 J (A,R)**	**19 J (A)**	**177 J (A,R)**	**268 J (A,R)**	**134 J (A,R)**	**130 J (A,R)**	**493 J (A,R)**	**434 (A,R)**	**812 (A,R)**	**137 (A,R)**	**667 (A,R)**	**297 (A,R)**	**188 (A,R)**	**184 J (A,R)**	**874 J (A,R)**	**205 (A,R)**
Cobalt	mg/kg		**11 J (A)**	**6.4 J (A)**	**19.2 J (A)**	**12.1 J (A)**	**10.9 J (A)**	**9.1 J (A)**	**9.1 J (A)**	**10.6 J (A)**	**15.1 J (A)**	**11.1 J (A)**	**13.3 J (A)**	**9.4 J (A)**	**12.2 J (A)**	**14.1 J (A)**	**13 J (A)**	**6.8 J (A)**
Copper	mg/kg		**225 J (R)**	**42.9 J (R)**	**563 J (A,R)**	**466 J (A,R)**	**393 (A,R)**	**648 (A,R)**	**804 (A,R)**	**734 (A,R)**	**1,220 (A,R)**	**370 (A,R)**	**1,030 (A,R)**	**481 (A,R)**	**502 (A,R)**	**473 J (A,R)**	**1,310 J (A,R)**	**425 (A,R)**
Iron	mg/kg		**31,300 J (A)**	**17,000 J (A)**	**38,100 J (A)**	**37,100 J (A)**	**27,900 (A)**	**24,600 (A)**	**29,500 (A)**	**29,000 (A)**	**38,200 (A)**	**27,100 (A)**	**31,800 (A)**	**25,300 (A)**	**33,500 (A)**	**36,000 J (A)**	**32,800 J (A)**	**25,100 (A)**
Lead	mg/kg		**316 J (R)**	**114 J (R)**	**513 J (A,R)**	**438 J (A,R)**	**787 (A,R)**	**898 (A,R)**	**1,580 (A,R)**	**1,340 (A,R)**	**1,820 (A,R)**	**570 (A,R)**	**1,510 (A,R)**	**683 (A,R)**	**834 J (A,R)**	**673 J (A,R)**	**1,650 J (A,R)**	**978 (A,R)**
*Magnesium	mg/kg		4,700 J	2,460 J	7,440 J	6,310 J	12,400	6,500	6,240	8,170	7,220	14,900	11,900	5,530	14,600	14,100 J	11,300 J	5,560
Manganese	mg/kg		**311 J (A)**	126 J	**386 J (A)**	**323 J (A)**	**247 J (A)**	142 J	173 J	150 J	**418 J (A)**	**253 J (A)**	**236 J (A)**	144 J	**287 (A)**	**340 J (A)**	**213 J (A)**	109
Mercury	mg/kg		**3.9 (A,R)**	**0.64 (R)**	**1.6 (R)**	**4.2 (A,R)**	**1.4 (R)**	**2.1 (R)**	**4.3 (A,R)**	**2.4 (A,R)**	**6.5 (A,R)**	**1.4 (R)**	**4.5 (A,R)**	**2.3 (R)**	**1.5 J (R)**	**1.9 J (R)**	**4.8 J (A,R)**	**2.9 (A,R)**
Nickel	mg/kg		**36.4 J (R)**	16 J	**149 J (R)**	**77.6 J (R)**	**86.4 J (R)**	**123 J (R)**	**273 J (A,R)**	**225 (A,R)**	**322 (A,R)**	**68.3 J (R)**	**345 (A,R)**	**137 (R)**	**104 (R)**	**88 J (R)**	**469 J (A,R)**	**145 (R)**
*Potassium	mg/kg		1,610 J	916 J	2,760 J	2,620 J	3,550 J	1,560 J	1,260 J	1,500 J	1,380 J	2,670 J	2,250 J	1,450 J	2,320 J	3,280 J	2,210 J	976 J
Selenium	mg/kg		3.7 J															
Silver	mg/kg				**7.5 J (R)**	**12.1 J (R)**	**7.3 J (R)**	**6.1 (R)**	**16.8 (R)**	**11.9 (R)**	**31.4 (R)**	**7.9 J (R)**	**23 (R)**	**11.5 (R)**	**10.4 J (R)**	**11.4 J (R)**	**33.1 J (R)**	**10.3 (R)**
*Sodium	mg/kg		7,680 J	2,020 J	11,400 J	8,060 J	8,650	3,540	6,320	8,840 J	546 J	15,100 J	13,400 J	8,960 J	7,490 J	6,930 J	9,640 J	5,000
*Thallium	mg/kg																	
Vanadium	mg/kg		33.9 J	16.2 J	**42.7 J (A)**	**62.8 J (A)**	**55 (A)**	36	**138 (A)**	**69.3 (A)**	**230 (A)**	**53.6 (A)**	**126 (A)**	**89.3 (A)**	**61 (A)**	**73 J (A)**	**105 J (A)**	**50 (A)**
Zinc	mg/kg		**522 J (R)**	140 J	**1,460 J (R)**	**750 J (R)**	**931 J (R)**	**922 J (R)**	**2,040 J (R)**	**1,550 (R)**	**2,560 (A,R)**	**906 (R)**	**2,140 (R)**	**1,120 (R)**	**1,250 (R)**	**1,150 J (R)**	**2,560 J (A,R)**	**991 (R)**
Cyanide, Total	mg/kg								0.44 J				0.16 J	0.28 J				

TABLE I-12B
Metal and Cyanide Concentrations in Soft Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location:	GC-SED-95	GC-SED-96	GC-SED-97	GC-SED-97	GC-SED-98	GC-SED-98	GC-SED-99B	GC-SED-99B
		Sample Number:	GC-SED-95(3.5-4.5)	GC-SED-96(0-1)	GC-SED-97(0.5-2.0)	GC-SED-97(8.5-9.0)	GC-SED-98(1-2)	GC-SED-98(8.5-9.5)	GC-SED-99(3.5-4.5)	GC-SED-99(7.2-8.7)
		Sample Depth:	3.5-4.5	0-1	0.5-2	8.5-9	1-2	8.5-9.5	3.5-4.5	7.2-8.7
		Sample Date:	12/15/2005	12/15/2005	1/28/2006	1/28/2006	1/27/2006	1/27/2006	12/22/2005	12/22/2005
		Sample Type:	N	N	N	N	N	N	N	N
Parameter	**Units**									**Metals**
Aluminum	mg/kg		**7,730 J (A)**	6,260	**9,980 (A)**	4,740	**10,100 (A)**	4,530	**7,810 (A)**	6,130
Antimony	mg/kg					**4.7 J (A,R)**		**5.2 J (A,R)**	**44.5 J (A,R)**	
Arsenic	mg/kg		**10.6 J (A,R)**	**15.6 J (A,R)**	**15.7 J (A,R)**	**20.9 J (A,R)**	**8.5 J (A,R)**	**41.5 J (A,R)**	**33.3 (A,R)**	**51.6 J (A,R)**
Barium	mg/kg		**390 (R)**	**138 (R)**	**453 J (R)**	**686 J (R)**	**242 J (R)**	**727 J (R)**	**729 J (R)**	**417 J (R)**
Beryllium	mg/kg									
Cadmium	mg/kg		**10.1 (A,R)**		**12.6 (A,R)**	**10.5 (A,R)**	**3.2 J (R)**	**5.5 J (R)**	**20.2 (A,R)**	**4.1 J (R)**
*Calcium	mg/kg		15,200 J	27,600	18,900	11,400	8,850	5,630	10,700	5,370
Chromium	mg/kg		**214 (A,R)**	**63.3 J (A)**	**240 J (A,R)**	**124 (A,R)**	**87 (A,R)**	**74.1 (A)**	**243 (A,R)**	**59.9 (A)**
Cobalt	mg/kg		**9.1 J (A)**	**5.6 J (A)**	**11.1 J (A)**	**10.6 J (A)**	**9 J (A)**	**10 J (A)**	**9 J (A)**	**6.5 J (A)**
Copper	mg/kg		**423 (A,R)**	**219 (R)**	**559 (A,R)**	**465 (A,R)**	**234 (R)**	**571 (A,R)**	**648 (A,R)**	**361 (A,R)**
Iron	mg/kg		**21,300 (A)**	**36,300 (A)**	**29,600 (A)**	**25,700 (A)**	**25,200 (A)**	**30,800 (A)**	**27,200 (A)**	**24,000 (A)**
Lead	mg/kg		**809 (A,R)**	**315 (R)**	**1,120 (A,R)**	**2,030 (A,R)**	**442 (A,R)**	**1,090 (A,R)**	**1,090 (A,R)**	**809 (A,R)**
*Magnesium	mg/kg		7,820	6,230	11,700 J	3,720 J	9,110 J	3,950 J	7,070	3,430
Manganese	mg/kg		156 J	**483 J (A,R)**	**195 J (A)**	110 J	**225 J (A)**	136 J	170	150
Mercury	mg/kg		**1.4 (R)**	**0.91 (R)**	**10.2 J (A,R)**	**4.5 (A,R)**	**1.3 J (R)**	**5.6 (A,R)**	**0.96 J (R)**	**1.3 J (R)**
Nickel	mg/kg		**136 (R)**	**51.1 J (R)**	**162 J (A,R)**	**64.5 J (R)**	**47.9 J (R)**	**51.2 J (R)**	**101 (R)**	**33.7 (R)**
*Potassium	mg/kg		1,380 J	1,510 J	1,900 J	828 J	2,120 J	1,100 J	1,340 J	1,010 J
Selenium	mg/kg									
Silver	mg/kg		**7.3 (R)**	**4.1 J (R)**	**13.5 (R)**	**16.5 (R)**	**10.5 (R)**	**8.1 (R)**	**16.8 (R)**	**5.5 (R)**
*Sodium	mg/kg		3,790 J	6,290	8,580	4,590	10,200	8,500	6,120 J	3,250 J
*Thallium	mg/kg									
Vanadium	mg/kg		**45.8 (A)**	26.8	**55.6 (A)**	**40.7 (A)**	**42.4 (A)**	31	**120 (A)**	30.8
Zinc	mg/kg		**1,020 (R)**	**673 J (R)**	**1,360 J (R)**	**1,300 J (R)**	**640 J (R)**	**1,650 J (R)**	**1,550 (R)**	**842 (R)**
Cyanide, Total	mg/kg									0.35 J

TABLE I-13
Physical Characteristics - Soft Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Bulk Density (g/cm^3)	Investigation
GC-SD107	GC-SD107-00.0-02.0	0.0	2.0	31300	54.4	1900	68.03	58.79	9.24	31.97		USEPA, 2010
GC-SD107	GC-SD107-02.0-04.0	2.0	4.0	81200	76.3	2370	55.47	51.21	4.26	44.53		USEPA, 2010
GC-SD107	GC-SD107-04.0-06.0	4.0	6.0	100000	59.1	3280	51.07	46.75	4.32	48.93		USEPA, 2010
GC-SD107	GC-SD107-06.0-08.0	6.0	8.0	69500	66.5	699	68.04	57.15	10.89	31.96		USEPA, 2010
GC-SD108	GC-SD108-00.0-02.0	0.0	2.0	109000	41.1	3900	44.31	40.74	3.57	55.69		USEPA, 2010
GC-SD108	GC-SD108-02.0-04.0	2.0	4.0	132000	50.9	4030	42.83	39.6	3.23	57.17		USEPA, 2010
GC-SD108	GC-SD108-04.0-06.0	4.0	6.0	182000	51.5	5240	63.07	57.7	5.37	36.93		USEPA, 2010
GC-SD108	D-03052010-01	4.0	6.0		46.8	4560						USEPA, 2010
GC-SD108	GC-SD108-06.0-08.0	6.0	8.0	143000	58.1	341	45.39	42.48	2.91	54.61		USEPA, 2010
GC-SD109	GC-SD109-00.0-02.0	0.0	2.0	69600	28.7	4740	53.12	44.61	8.51	46.88		USEPA, 2010
GC-SD109	GC-SD109-02.0-04.0	2.0	4.0	73400	35.9	3200	64.08	52.85	11.23	35.92		USEPA, 2010
GC-SD110	GC-SD110-0.0-02.0	0.0	2.0	68500	36.4	4200	82.43	67.1	15.33	17.58		USEPA, 2010
GC-SD110	GC-SD110-02.0-04.0	2.0	4.0	99400	42.3	6180	84.4	66.25	18.15	15.6		USEPA, 2010
GC-SD110	GC-SD110-04.0-05.0	4.0	5.0		47.7	4750						USEPA, 2010
GC-SD111	GC-SD111-00.0-02.0	0.0	2.0	129000	40.4	7470	54.26	48.49	5.77	45.74		USEPA, 2010
GC-SD111	GC-SD111-02.0-04.0	2.0	4.0	163000	40.7	7720	61.53	55.97	5.56	38.47		USEPA, 2010
GC-SD111	D-03162010-02	2.0	4.0		41.3	6620						USEPA, 2010
GC-SD111	GC-SD111-04.0-06.0	4.0	6.0	174000	38.9	4910	71.34	64.02	7.32	28.66		USEPA, 2010
GC-SD111	GC-SD111-06.0-08.0	6.0	8.0	110000	59	5000	67.52	57.16	10.36	32.48		USEPA, 2010
GC-SD112	GC-SD112-00.0-02.0	0.0	2.0	61000	69.1	2800	68.08	57.14	10.94	31.92		USEPA, 2010
GC-SD112	GC-SD112-02.0-04.0	2.0	4.0	50000	73.5	3220	66.5	55.98	10.52	33.5		USEPA, 2010
GC-SD112	D-03122010-01	2.0	4.0		67.3	2350						USEPA, 2010
GC-SD113	GC-SD113-00.0-02.0	0.0	2.0	66600	50	5780	59.91	51.12	8.79	40.09		USEPA, 2010
GC-SD113	GC-SD113-02.0-04.0	2.0	4.0	58000	54.4	4880	72.18	59.12	13.06	27.82		USEPA, 2010
GC-SD113	GC-SD113-04.0-06.0	4.0	6.0	39800	66.7	3840	70.41	61.21	9.2	29.59		USEPA, 2010
GC-SD113	D-03152010-01	4.0	6.0		53.1	4080						USEPA, 2010
GC-SD113	GC-SD113-06.0-08.0	6.0	8.0	148000	63	4030	51.68	45.65	6.03	48.32		USEPA, 2010
GC-SD113	GC-SD113-08.0-09.0	8.0	9.0	43500	62.6	3390	69.61	58.75	10.86	30.39		USEPA, 2010
GC-SD115	GC-SD115-00.0-01.5	0.0	1.5	10800	83.1	728	60.05	46.4	13.65	39.95		USEPA, 2010
GC-SD116	GC-SD116-00.0-02.0	0.0	2.0	117000	29.8	8000	69.3	60.3	9	30.71		USEPA, 2010
GC-SD116	GC-SD116-00.0-02.0	0.0	15.8									USEPA, 2010
GC-SD116	GC-SD116-02.0-04.0	2.0	4.0	179000	36.9	7650	74.58	64.97	9.61	25.42		USEPA, 2010
GC-SD116	GC-SD116-04.0-06.0	4.0	6.0	149000	45.4	6300	67.47	59.2	8.27	32.53		USEPA, 2010
GC-SD117	GC-SD117-00.0-02.0	0.0	2.0	134000	29.8	8330	67.51	59.39	8.12	32.49		USEPA, 2010
GC-SD117	GC-SD117-02.0-04.0	2.0	4.0	157000	34.5	7660	65.87	58.09	7.78	34.14		USEPA, 2010
GC-SD117	GC-SD117-04.0-06.0	4.0	6.0	185000	39.5	6080	66.46	57.91	8.55	33.54		USEPA, 2010
GC-SD117	D-03182010-01	4.0	6.0		37.9	6790						USEPA, 2010
GC-SD117	GC-SD117-06.0-07.6	6.0	7.6	156000	68.4	3670	64.19	52.37	11.82	35.81		USEPA, 2010
GC-SD118	GC-SD118-00.2-00.7	0.0	0.7	160000	78.4	3800	37.82	32.41	5.41	62.17		USEPA, 2010
GC-SD119	GC-SD119-00.0-01.2	0.0	1.2		53.3	5980						USEPA, 2010
GC-SD119	GC-SD119-00.0-13.0	0.0	13.0									USEPA, 2010
GC-SD119	GC-SD119-04.5-6.0	4.5	6.0	92200	48.9	4160	66.26	54.78	11.48	33.74		USEPA, 2010
GC-SD119	GC-SD119-06.0-8.0	6.0	8.0	188000	55.7	5690	75.88	63.24	12.64	24.12		USEPA, 2010
GC-SD119	D-03312010-01	6.0	8.0		80.9	342						USEPA, 2010
GC-SD119	GC-SD119-08.0-10.0	8.0	10.0	75600	73.5	4150	74.68	60.98	13.7	25.32		USEPA, 2010
GC-SD119	GC-SD119-10.0-12.0	10.0	12.0	19500	74.7	1650	69.81	53.39	16.42	30.19		USEPA, 2010
GC-SD119	GC-SD119-12.0-13.0	12.0	13.0									USEPA, 2010

TABLE I-13
Physical Characteristics - Soft Sediment
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Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Bulk Density (g/cm^3)	Investigation
GC-SD120	GC-SD120-00.0-01.3	0.0	1.3		97.2	209						USEPA, 2010
GC-SD122	GC-SD122-00.0-00.7	0.0	0.7									USEPA, 2010
GC-SD123	GC-SD123-00.0-02.0	0.0	2.0	48100	37.4	2830	82.84	65.26	17.58	17.16		USEPA, 2010
GC-SD123	GC-SD123-02.0-04.0	0.0	2.0	71800	37.2	4250	84.48	67.65	16.83	15.52		USEPA, 2010
GC-SD123	GC-SD123-04.0-06.0	0.0	2.0	73600	37.1	5170	82.53	62.55	19.98	17.47		USEPA, 2010
GC-SD123	GC-SD123-06.0-06.8	0.0	2.0	48800	53.5	4070	78.82	65.02	13.8	21.17		USEPA, 2010
GC-SD123	GC-SD123-00.0-02.0	0.0	11.0									USEPA, 2010
GC-SD124	GC-SD124-0.0-02.0	0.0	2.0	42800	38.3	7250	80.48	60.88	19.6	19.51		USEPA, 2010
GC-SD124	GC-SD124-02.0-04.0	2.0	4.0	63200	42.7	4310	68.71	54.2	14.51	31.29		USEPA, 2010
GC-SD124	GC-SD124-04.0-06.0	4.0	6.0	157000	53.1	2690	73.29	66.77	6.52	26.71		USEPA, 2010
GC-SD124	GC-SD124-06.0-07.5	6.0	7.5	226000	54.6	2760	53.95	48.51	5.44	46.05		USEPA, 2010
GC-SD125	GC-SD125-00.0-02.0	0.0	2.0	18500	60.6	1570	68.61	56.93	11.68	31.38		USEPA, 2010
GC-SD125	GC-SD125-02.0-04.0	2.0	4.0	111000	54.4	4560	53.83	49.03	4.8	46.18		USEPA, 2010
GC-SD125	GC-SD125-04.0-06.0	4.0	6.0	145000	49.4	4540	56.66	51.74	4.92	43.35		USEPA, 2010
GC-SD125	GC-SD125-06.0-08.0	6.0	8.0	255000	43.8	4090	58.78	54.83	3.95	41.23		USEPA, 2010
GC-SD125	GC-SD125-08.0-10.0	8.0	10.0	125000	58.2	2140	55.68	51.82	3.86	44.31		USEPA, 2010
GC-SD125	D-03092010-01	8.0	10.0		79.5	1440						USEPA, 2010
GC-SD126	GC-SD-126-00.0-02.0	0.0	2.0	55400	44.6	2610	58.09	45.73	12.36	41.92		USEPA, 2010
GC-SD126	GC-SD-126-02.0-04.0	2.0	4.0	97500	45.5	3920	46.85	42.5	4.35	53.15		USEPA, 2010
GC-SD126	D-0304210-02	4.0	6.0		53.8	2990						USEPA, 2010
GC-SD126	GC-SD-126-04.0-06.0	4.0	6.0	151000	57.9	3450	20.38	19.21	1.17	79.62		USEPA, 2010
GC-SD126	GC-SD-126-06.0-06.6	6.0	6.6	102000	63.9	2920	57.27	51.44	5.83	42.72		USEPA, 2010
GC-SD127	GC-SD127-00.0-02.0	0.0	2.0	63900	39.9	6690	67.84	56.12	11.72	32.16		USEPA, 2010
GC-SD127	GC-SD127-02.0-04.0	2.0	4.0	184000	42.7	6490	65.76	57.85	7.91	34.24		USEPA, 2010
GC-SD127	D-03112010-01	4.0	6.0		50.4	3410						USEPA, 2010
GC-SD127	GC-SD127-04.0-06.0	4.0	6.0	203000	52.1	3590	59.62	50.92	8.7	40.38		USEPA, 2010
GC-SD128	GC-SD128-00.0-02.0	0.0	2.0	71400	36.7	5870	85.32	63.51	21.81	14.68		USEPA, 2010
GC-SD128	GC-SD128-02.0-02.5	2.0	2.5									USEPA, 2010
GC-SD129	GC-SD129-00.0-02.0	0.0	2.0	87200	40.8	2460	63.89	53.22	10.67	36.11		USEPA, 2010
GC-SD129	GC-SD129-02.0-04.0	2.0	4.0	152000	49	5720	53.58	47.14	6.44	46.42		USEPA, 2010
GC-SD129	GC-SD129-04.0-06.0	4.0	6.0	173000	55.2	4450	55.33	48.12	7.21	44.66		USEPA, 2010
GC-SD129	GC-SD129-06.0-06.5	6.0	6.5									USEPA, 2010
GC-SD130	GC-SD130-00.0-02.0	0.0	2.0	66300	52.1	4970	68.54	57.71	10.83	31.46		USEPA, 2010
GC-SD130	GC-SD130-02.0-04.0	2.0	4.0	117000	51.3	4800	46.09	39.95	6.14	53.9		USEPA, 2010
GC-SD130	D-03222010-01	2.0	4.0		54.3	4160						USEPA, 2010
GC-SD130	GC-SD130-04.0-06.0	4.0	6.0	169000	41.8	6600	54.21	48.42	5.79	45.79		USEPA, 2010
GC-SD130	GC-SD130-06.0-07.0	6.0	7.0	155000	71.5	3810	67.87	56.14	11.73	32.14		USEPA, 2010
GC-SD131	GC-SD131-00.0-01.3	0.0	1.3	20600	83.7	404	59.75	48.53	11.22	40.25		USEPA, 2010
GC-SD131	D-03182010-02	7.5	9.5		82	18.5 U						USEPA, 2010
GC-SD132	GC-SD132-00.0-02.0	0.0	2.0	83800	56.1	4980	61.68	53.46	8.22	38.32		USEPA, 2010
GC-SD132	GC-SD132-02.0-04.0	2.0	4.0	119000	73.5	3550	65.57	55.22	10.35	34.43		USEPA, 2010
GC-SD132	GC-SD132-04.0-04.7	4.0	4.7									USEPA, 2010
GC-SD133	GC-SD133-00.0-02.0	0.0	2.0	47700	61.8	4290	21.51	18.44	3.07	78.49		USEPA, 2010
GC-SD133	GC-SD133-02.0-04.0	2.0	4.0	131000	55.1	3190	53.59	48.12	5.47	46.41		USEPA, 2010
GC-SD133	GC-SD133-04.0-06.0	4.0	6.0	85500	61.1	2490	49.86	43.97	5.89	50.14		USEPA, 2010
GC-SD133	GC-SD133-06.0-07.8	6.0	7.8	65300	69.9	3610	63.01	51.63	11.38	36.99		USEPA, 2010
GC-SD134	GC-SD134-00.0-02.0	0.0	2.0	20700	64.5	2070	63.38	53.74	9.64	36.63		USEPA, 2010

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Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Bulk Density (g/cm^3)	Investigation
GC-SD134	GC-SD134-02.0-04.0	2.0	4.0	102000	67.4	3490	55.86	48.21	7.65	44.14		USEPA, 2010
GC-SD134	GC-SD134-04.0-04.4	4.0	4.4									USEPA, 2010
GC-SD135	GC-SD135-00.0-02.0	0.0	2.0	45900	54.6	3440	46.09	35.42	10.67	53.9		USEPA, 2010
GC-SD135	GC-SD135-02.0-04.0	2.0	4.0	29500	65.2	1890	61.44	49.32	12.12	38.56		USEPA, 2010
GC-SD135	D-04062010-01	2.0	4.0		70.7	1280						USEPA, 2010
GC-SD135	GC-SD135-04.0-06.0	4.0	6.0	20300	72.9	3840	64.67	57.63	7.04	35.32		USEPA, 2010
GC-SD135	GC-SD135-06.0-08.0	6.0	8.0	73800	62.1	3390	48.4	43.23	5.17	51.6		USEPA, 2010
GC-SD135	GC-SD135-08.0-10.0	8.0	10.0	133000	51.6	4420	46.73	42.49	4.24	53.27		USEPA, 2010
GC-SD136	GC-SD0136-00.0-02.0	0.0	2.0	52300	50	3300	79.19	62.4	16.79	20.81		USEPA, 2010
GC-SD138	GC-SD138-00.0-01.7	0.0	1.7	32100	89.7	291	71.31	56.66	14.65	28.69		USEPA, 2010
GC-SD139	GC-SD139-00.0-02.0	0.0	2.0	3540	86.6	728	84.94	65.46	19.48	15.07		USEPA, 2010
GC-SD139	GC-SD139-02.0-04.0	2.0	4.0	54900	65.4	3190	79.69	64.02	15.67	20.32		USEPA, 2010
GC-SD139	GC-SD139-04.0-06.0	4.0	6.0	69800	61	3930	78.68	65.51	13.17	21.32		USEPA, 2010
GC-SD139	GC-SD139-06.0-08.0	6.0	8.0	61200	61.7	3840	73.4	60.49	12.91	26.6		USEPA, 2010
GC-SD139	GC-SD139-08.0-10.0	8.0	10.0	163000	74	3160	72.03	58.93	13.1	27.97		USEPA, 2010
GC-SD139	GC-SD139-10.0-12.0	10.0	12.0	120000	57.2	3960	78.64	63.5	15.14	21.36		USEPA, 2010
GC-SD139	D-04132010-01	10.0	12.0		54.5	4390						USEPA, 2010
GC-SD139	GC-SD139-12.0-12.8	12.0	12.8	84600	60.9	4230	70.85	58.01	12.84	29.15		USEPA, 2010
GC-SD140	GC-SD140-00.0-02.0	0.0	2.0	25700	51.1	3120	71.89	55.65	16.24	28.11		USEPA, 2010
GC-SD140	GC-SD140-02.0-04.0	2.0	4.0	80700	39.1	3340	89.8	69.6	20.2	10.2		USEPA, 2010
GC-SD140	GC-SD140-04.0-06.0	4.0	6.0	91400	40.6	5690	77.51	59.97	17.54	22.49		USEPA, 2010
GC-SD141	GC-SD141-00.0-02.0	0.0	2.0	51400	44.4	2610	85.76	64.02	21.74	14.24		USEPA, 2010
GC-SD141	GC-SD141-02.0-04.0	2.0	4.0	49100	49.4	2940	87.04	65.03	22.01	12.96		USEPA, 2010
GC-SD141	GC-SD141-04.0-05.7	4.0	5.7	112000	61	3520	79.51	63.15	16.36	20.49		USEPA, 2010
GC-SD142	GC-SD142-00.0-02.0	0.0	2.0	33400	43.7	4680	77.13	56.76	20.37	22.86		USEPA, 2010
GC-SD142	GC-SD142-02.0-03.8	2.0	3.8	21600	61.1	3880	79.6	59.9	19.7	20.4		USEPA, 2010
GC-SD143	GC-SD143-00.0-02.0	0.0	2.0	51200	38.3	3090	76.18	58.75	17.43	23.81		USEPA, 2010
GC-SD143	GC-SD143-02.0-02.9	2.0	2.9		39.1	2410						USEPA, 2010
GC-SD144C	GC-SD144C-00.0-02.0	0.0	2.0	61100	65.2	2400	65.31	49.88	15.43	34.69		USEPA, 2010
GC-SD144C	GC-SD144C-02.0-03.3	2.0	3.3	86000	58.2	3510	66.58	52.33	14.25	33.42		USEPA, 2010
GC-SD145	GC-SD145-00.0-02.0	0.0	2.0	82500	44.9	2470	74.04	60.42	13.62	25.96		USEPA, 2010
GC-SD145	GC-SD145-02.0-03.5	2.0	3.5	171000	60.2	4770	51.72	44.68	7.04	48.28		USEPA, 2010
GC-SD146	GC-SD146-00.0-02.0	0.0	2.0	64900	35.8	3230	70.24	56.05	14.19	29.77		USEPA, 2010
GC-SD146	GC-SD146-02.0-04.0	2.0	4.0	109000	38.6	5890	73.98	60.24	13.74	26.02		USEPA, 2010
GC-SD146	GC-SD146-04.0-06.0	4.0	6.0	77500	41.1	5680	66.76	55.98	10.78	33.24		USEPA, 2010
GC-SD146	GC-SD146-06.0-06.6	6.0	6.6									USEPA, 2010
GC-SD147	GC-SD147-00.0-02.0	0.0	2.0	57600	35.3	4170	75.81	61	14.81	24.19		USEPA, 2010
GC-SD147	GC-SD147-02.0-03.1	2.0	3.1		44.8	6780						USEPA, 2010
GC-SD148	GC-SD148-00.0-02.0	0.0	2.0	59900	38.3	3090	71.53	55.72	15.81	28.47		USEPA, 2010
GC-SD148	GC-SD148-02.0-04.0	2.0	4.0	114000	45.9	3240	53.97	47.47	6.5	46.03		USEPA, 2010
GC-SD148	GC-SD148-04.0-05.5	4.0	5.5	164000	56.3	3920	56.57	49.25	7.32	43.43		USEPA, 2010
GC-SD149	GC-SD149-00.0-02.0	0.0	2.0	53800	84.2	184	61.68	53.37	8.31	38.31		USEPA, 2010
GC-SD149	GC-SD149-02.0-04.0	2.0	4.0	278000	61.8	3140	64.66	54.73	9.93	35.34		USEPA, 2010
GC-SD149	GC-SD149-04.0-04.7	4.0	4.7		66.7	3740						USEPA, 2010
GC-SD150	GC-SD150-00.0-02.0	0.0	2.0	46100	37.9	4330	62.27	49.94	12.33	37.73		USEPA, 2010
GC-SD150	GC-SD150-02.0-04.0	2.0	4.0	47200	53.1	3410	82.89	65.72	17.17	17.11		USEPA, 2010
GC-SD150	GC-SD150-04.0-06.0	4.0	6.0	121000	40	4920	80.76	66.83	13.93	19.24		USEPA, 2010

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GC-SD150	GC-SD150-06.0-08.2	6.0	8.2	97300	50.9	4810	72.82	58.97	13.85	27.18		USEPA, 2010
GC-SD151	GC-SD151-00.0-02.0	0.0	2.0	17600	65.3	492	87.69	63.7	23.99	12.31		USEPA, 2010
GC-SD151	GC-SD151-02.0-04.0	2.0	4.0	20300	74.2	1430	81.43	59.19	22.24	18.58		USEPA, 2010
GC-SD151	GC-SD151-04.0-04.8	4.0	4.8									USEPA, 2010
GC-SD152	GC-SD152-00.0-02.0	0.0	2.0	130000	34.7	5760	56.24	49.8	6.44	43.75		USEPA, 2010
GC-SD152	GC-SD152-02.0-04.0	2.0	4.0	179000	37.8	6630	64.22	57.63	6.59	35.78		USEPA, 2010
GC-SD152	GC-SD152-04.0-06.0	4.0	6.0	204000	46.5	6320	58.73	52.62	6.11	41.27		USEPA, 2010
GC-SD152	GC-SD152-06.0-07.3	6.0	7.3	143000	55.7	4350	47.97	42.02	5.95	52.04		USEPA, 2010
GC-SD153	GC-SD153-00.0-02.0	0.0	2.0	62900	39.5	2710	73.38	55.72	17.66	26.61		USEPA, 2010
GC-SD153	GC-SD153-02.0-03.2	2.0	3.2									USEPA, 2010
GC-SD37B	GC-SD037B-00.0-00.5	0.0	0.5	32200	37.7	2340	77.79	65.77	12.02	22.21		USEPA, 2010
GC-SD37B	GC-SD037B-01.4-01.9	1.4	1.9		70.6	2150						USEPA, 2010
GC-SD37B	GC-SD037B-02.5-04.2	2.5	4.2	189000	54.1	4720	51.34	46.52	4.82	48.66		USEPA, 2010
GC-SD38A	GC-SD038A-02.1-02.6	2.1	2.6									USEPA, 2010
GC-SD38A	GC-SD038A-02.6-04.4	2.6	4.4	247000	59.6	4560	45.34	40.08	5.26	54.66		USEPA, 2010
GC-SED-01	GC-SED-01(1-2.5)	1.0	2.5	44000	53.6						0.78	National Grid, 2005[1]
GC-SED-01	GC-SED-01(16-17)	16.0	17.0	170000	87.6						0.75	National Grid, 2005[1]
GC-SED-02	GC-SED-02(1-2)	1.0	2.0	16000	58.9						1.2	National Grid, 2005[1]
GC-SED-02	GC-SED-02(9.6-10.6)	9.6	10.6	130000	55.5						0.74	National Grid, 2005[1]
GC-SED-03	GC-SED-03(0-1.5)	0.0	1.5	32000	54.8						0.8	National Grid, 2005[1]
GC-SED-03	GC-SED-03(7.5-9.3)	7.5	9.3	120000	58.2						0.73	National Grid, 2005[1]
GC-SED-04	GC-SED-04(0-2)	0.0	2.0	41000	35.1						0.45	National Grid, 2005[1]
GC-SED-04	GC-SED-04(10.3-11.3)	10.3	11.3	330000	66.5						0.81	National Grid, 2005[1]
GC-SED-05	GC-SED-05(0-2)	0.0	2.0	42000	36.3						0.48	National Grid, 2005[1]
GC-SED-07	GC-SED-07(0-2.5)	0.0	2.5	180000	37.7						0.57	National Grid, 2005[1]
GC-SED-07	GC-SED-07(7.5-8.5)	7.5	8.5	160000	52.8						0.97	National Grid, 2005[1]
GC-SED-08	GC-SED-08(1-2)	1.0	2.0	170000	39.5						0.5	National Grid, 2005[1]
GC-SED-09B	GC-SED-09(6-7)	6.0	7.0	170000	42						0.63	National Grid, 2005[1]
GC-SED-10	GC-SED-10(0-1.5)	0.0	1.5	75000	36.8						0.6	National Grid, 2005[1]
GC-SED-100	GC-SED-100(5-6)	5.0	6.0	300000	57.6						0.69	National Grid, 2005[1]
GC-SED-101	GC-SED-101(4-7)	4.0	7.0	210000	55.1						0.79	National Grid, 2005[1]
GC-SED-102	GC-SED-102(2-4)	2.0	4.0	270000	48.6						0.57	National Grid, 2005[1]
GC-SED-102	GC-SED-102(6.5-8.5)	6.5	8.5	350000	60.6						0.8	National Grid, 2005[1]
GC-SED-103	GC-SED-103(1-2)	1.0	2.0	88000	39.1						0.57	National Grid, 2005[1]
GC-SED-103	GC-SED-103(8.1-9.1)	8.1	9.1	97000	73.9						1.19	National Grid, 2005[1]
GC-SED-105	GC-SED-105(2.5-4)	2.5	4.0	200000	78.9						1.49	National Grid, 2005[1]
GC-SED-11	GC-SED-11(1-3)	1.0	3.0	110000	33.6						0.45	National Grid, 2005[1]
GC-SED-11	GC-SED-11(11-13)	11.0	13.0	160000	45.7						0.66	National Grid, 2005[1]
GC-SED-12	GC-SED-12(0-2)	0.0	2.0	70000	35.8						0.57	National Grid, 2005[1]
GC-SED-12	GC-SED-12(13-14)	13.0	14.0	92000	71.6						1.98	National Grid, 2005[1]
GC-SED-13B	GC-SED-13B(0-2)	0.0	2.0	59000	36.6						0.48	National Grid, 2005[1]
GC-SED-14	GC-SED-14(0-1.5)	0.0	1.5	100000	35.6						0.53	National Grid, 2005[1]
GC-SED-14	GC-SED-14(5.5-6.5)	5.5	6.5	180000	49.2						0.61	National Grid, 2005[1]

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GC-SED-15	GC-SED-15(0-0.75)	0.0	0.8	61000	36.2						0.5	National Grid, 2005[1]
GC-SED-16	GC-SED-16(0-2)	0.0	2.0	67000	36.8						0.47	National Grid, 2005[1]
GC-SED-17	GC-SED-17(0-2)	0.0	2.0	64000	33.1						0.44	National Grid, 2005[1]
GC-SED-18	GC-SED-18(0-1)	0.0	1.0	70000	41.3						0.57	National Grid, 2005[1]
GC-SED-19C	GC-SED-19C(1.5-2)	1.5	2.0	77000	41.8						0.61	National Grid, 2005[1]
GC-SED-19C	GC-SED-19C(5.8-6.8)	5.8	6.8	140000	61.1						0.87	National Grid, 2005[1]
GC-SED-20	GC-SED-20(0-1.5)	0.0	1.5	57000	34						0.49	National Grid, 2005[1]
GC-SED-20	GC-SED-20(4-5)	4.0	5.0	100000	45						0.68	National Grid, 2005[1]
GC-SED-21B	GC-SED-21B(1.5-3)	1.5	3.0	140000	44.9						0.54	National Grid, 2005[1]
GC-SED-21B	GC-SED-21B(7-8)	7.0	8.0	68000	50.3						1.34	National Grid, 2005[1]
GC-SED-22B	GC-SED-22B(0-1)	0.0	1.0	65000	34.9						0.47	National Grid, 2005[1]
GC-SED-22B	GC-SED-22B(7-8)	7.0	8.0	140000	46.8						0.7	National Grid, 2005[1]
GC-SED-23	GC-SED-23(0-2)	0.0	2.0	65000	34.1						0.46	National Grid, 2005[1]
GC-SED-24B	GC-SED-24(3-4.5)	3.0	4.5	90000	40						0.6	National Grid, 2005[1]
GC-SED-25B	GC-SED-25(1-4)	1.0	4.0	110000	42.3						0.64	National Grid, 2005[1]
GC-SED-26	GC-SED-26(1-2)	1.0	2.0	90000	50.7						0.8	National Grid, 2005[1]
GC-SED-27	GC-SED-27(0.5-1)	0.5	1.0	52000	41.1						0.55	National Grid, 2005[1]
GC-SED-27	GC-SED-27(4.9-5.4)	4.9	5.4	180000	51.7						0.76	National Grid, 2005[1]
GC-SED-28	GC-SED-28(1.5-2.5)	1.5	2.5	74000	44.1						0.6	National Grid, 2005[1]
GC-SED-28	GC-SED-28(4.9-5.8)	4.9	5.8	52000	87.8						1.64	National Grid, 2005[1]
GC-SED-29	GC-SED-29(2.3-4.6)	2.3	4.6	84000	43.8						0.62	National Grid, 2005[1]
GC-SED-30	GC-SED-30(3.5-5.5)	3.5	5.5	90000	63.6						1.04	National Grid, 2005[1]
GC-SED-31	GC-SED-31(2.5-4.5)	2.5	4.5	72000	50.1						0.79	National Grid, 2005[1]
GC-SED-31	GC-SED-31(11.5-12.5)	11.5	12.5	280000	34.2						0.71	National Grid, 2005[1]
GC-SED-32	GC-SED-32(0.5-1.5)	0.5	1.5	80000	38						0.53	National Grid, 2005[1]
GC-SED-32	GC-SED-32(5.9-6.9)	5.9	6.9	170000	45.4						0.69	National Grid, 2005[1]
GC-SED-33	GC-SED-33(1.5-3)	1.5	3.0	110000	39.7						0.71	National Grid, 2005[1]
GC-SED-34B	GC-SED-34B(2-3)	2.0	3.0	150000	51.9						0.77	National Grid, 2005[1]
GC-SED-34B	GC-SED-34B(5.8-6.8)	5.8	6.8	190000	42.6						0.48	National Grid, 2005[1]
GC-SED-35	GC-SED-35(0-4.5)	0.0	4.5	94000	34.9						0.48	National Grid, 2005[1]
GC-SED-35	GC-SED-35(8.8-10.8)	8.8	10.8	54000	68.2						1.11	National Grid, 2005[1]
GC-SED-36	GC-SED-36(2.5-4.5)	2.5	4.5	110000	40.5						0.57	National Grid, 2005[1]
GC-SED-36	GC-SED-36(8-9)	8.0	9.0	260000	38.3						0.79	National Grid, 2005[1]
GC-SED-37B	GC-SED-37B(7-8)	7.0	8.0	410000	61.6						0.7	National Grid, 2005[1]
GC-SED-38	GC-SED-38(5.1-6.1)	5.1	6.1	220000	65.1						0.86	National Grid, 2005[1]
GC-SED-39	GC-SED-39(1-2)	1.0	2.0	98000	63.7						1.44	National Grid, 2005[1]
GC-SED-39	GC-SED-39(4.5-5.5)	4.5	5.5	280000	60.9						0.98	National Grid, 2005[1]
GC-SED-40	GC-SED-40(2.5-3.5)	2.5	3.5	60000	92.4						1.82	National Grid, 2005[1]
GC-SED-41	GC-SED-41(0-4.5)	0.0	4.5	110000	98.9						1.52	National Grid, 2005[1]
GC-SED-43	GC-SED-43(2-3)	2.0	3.0	330000	70.7						1.48	National Grid, 2005[1]
GC-SED-43	GC-SED-43(7.3-8.3)	7.3	8.3	360000	58.8						0.75	National Grid, 2005[1]

TABLE I-13
Physical Characteristics - Soft Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Bulk Density (g/cm^3)	Investigation
GC-SED-44	GC-SED-44(0.5-2.5)	0.5	2.5	65000	78.6						1.47	National Grid, 2005[1]
GC-SED-44	GC-SED-44(5.6-6.1)	5.6	6.1	200000	66						0.73	National Grid, 2005[1]
GC-SED-45C	GC-SED-45C(1-1.5)	1.0	1.5	250000	63.6						0.81	National Grid, 2005[1]
GC-SED-46C	GC-SED-46C(1.5-2.5)	1.5	2.5	160000	54.2						0.89	National Grid, 2005[1]
GC-SED-46C	GC-SED-46C(5-5.5)	5.0	5.5	370000	56.5						0.73	National Grid, 2005[1]
GC-SED-47	GC-SED-47(1.5-2.5)	1.5	2.5	180000	56.3						0.91	National Grid, 2005[1]
GC-SED-48	GC-SED-48(0.5-1.5)	0.5	1.5	160000	58.5						0.92	National Grid, 2005[1]
GC-SED-48	GC-SED-48(5-5.8)	5.0	5.8	200000	53.3						0.72	National Grid, 2005[1]
GC-SED-49	GC-SED-49(2.5-3.5)	2.5	3.5	440000	48.8						0.69	National Grid, 2005[1]
GC-SED-49	GC-SED-49(5.4-5.9)	5.4	5.9	100000	60.9						0.84	National Grid, 2005[1]
GC-SED-50B	GC-SED-50(2-5)	2.0	5.0	190000	73.7						1.01	National Grid, 2005[1]
GC-SED-51	GC-SED-51(0-1.5)	0.0	1.5	160000	39.6						0.51	National Grid, 2005[1]
GC-SED-51	GC-SED-51(6.7-7.2)	6.7	7.2	490000	76.5						1.27	National Grid, 2005[1]
GC-SED-52	GC-SED-52(3-6)	3.0	6.0	330000	68.8						0.68	National Grid, 2005[1]
GC-SED-53	GC-SED-53(0.5-1.5)	0.5	1.5	210000	79.7						1.23	National Grid, 2005[1]
GC-SED-54B	GC-SED-54B(0-2)	0.0	2.0	100000	37.6						0.48	National Grid, 2005[1]
GC-SED-54B	GC-SED-54B(4.5-5.7)	4.5	5.7	300000	74.5						0.98	National Grid, 2005[1]
GC-SED-55	GC-SED-55(1.5-2.5)	1.5	2.5	95000	42.2						0.62	National Grid, 2005[1]
GC-SED-55	GC-SED-55(10-11)	10.0	11.0	92000	58.6						1.14	National Grid, 2005[1]
GC-SED-57	GC-SED-57(7-9)	7.0	9.0	120000	40.5						0.54	National Grid, 2005[1]
GC-SED-58C	GC-SED-58C(0-5)	0.0	5.0	170000								National Grid, 2005[1]
GC-SED-59	GC-SED-59(0.5-1)	0.5	1.0	130000	83.5						1.09	National Grid, 2005[1]
GC-SED-60B	GC-SED-60B(0-2.5)	0.0	2.5	190000	75.5						1.06	National Grid, 2005[1]
GC-SED-62C	GC-SED-62C(0-2)	0.0	2.0	100000	41.9						0.56	National Grid, 2005[1]
GC-SED-62C	GC-SED-62C(3-4)	3.0	4.0	180000	56.9						0.92	National Grid, 2005[1]
GC-SED-63	GC-SED-63(3-3.5)	3.0	3.5	110000	65.3						1.27	National Grid, 2005[1]
GC-SED-64D	GC-SED-64D(2-4)	2.0	4.0	310000	68.6						1.09	National Grid, 2005[1]
GC-SED-65	GC-SED-65(0.5-1.25)	0.5	1.3	43000	85.8						1.6	National Grid, 2005[1]
GC-SED-67B	GC-SED-67(0-1)	0.0	1.0	13000	73.9						1.26	National Grid, 2005[1]
GC-SED-67B	GC-SED-67(7-8)	7.0	8.0	270000	68.6						0.84	National Grid, 2005[1]
GC-SED-68	GC-SED-68(0-1)	0.0	1.0	55000	55.7						1.11	National Grid, 2005[1]
GC-SED-68	GC-SED-68(2.2-3.1)	2.2	3.1	220000	62.1						1.16	National Grid, 2005[1]
GC-SED-69C	GC-SED-69(0-1)	0.0	1.0	99000	43						0.56	National Grid, 2005[1]
GC-SED-69C	GC-SED-69(6-7)	6.0	7.0	7400	78.9						1.84	National Grid, 2005[1]
GC-SED-71C	GC-SED-71C(1.5-2.5)	1.5	2.5	68000	65.2						1.26	National Grid, 2005[1]
GC-SED-71C	GC-SED-71C(2.5-4.0)	2.5	4.0	30000	84.3						1.48	National Grid, 2005[1]
GC-SED-72B	GC-SED-72(0-2)	0.0	5.0	110000	93.3						1.53	National Grid, 2005[1]
GC-SED-72B	GC-SED-72(5.5-7)	5.5	7.0	110000	57.3						0.79	National Grid, 2005[1]
GC-SED-73E	GC-SED-73E(1.0-2.5)	1.0	2.5	70000	34.8						0.54	National Grid, 2005[1]
GC-SED-74	GC-SED-74(5.3-6.3)	5.3	6.3	110000	41.9						0.59	National Grid, 2005[1]
GC-SED-75C	GC-SED-75C(0-0.7)	0.0	0.7	58000	36.6						1.17	National Grid, 2005[1]

TABLE I-13
Physical Characteristics - Soft Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Bulk Density (g/cm^3)	Investigation
GC-SED-75C	GC-SED-75C(0.7-1.5)	0.7	1.5	11000	85.9						1.82	National Grid, 2005[1]
GC-SED-76C	GC-SED-76C(2.5-3.4)	2.5	3.4	52000	45.6						0.68	National Grid, 2005[1]
GC-SED-77	GC-SED-77(0-3)	0.0	3.0	47000	29.7						0.57	National Grid, 2005[1]
GC-SED-77	GC-SED-77(14.5-15.4)	14.5	15.4	44000	69.5						1.23	National Grid, 2005[1]
GC-SED-78B	GC-SED-78B(0-1)	0.0	1.0	55000	35						0.5	National Grid, 2005[1]
GC-SED-78B	GC-SED-78B(2.5-5)	2.5	5.0	61000	45.6						0.62	National Grid, 2005[1]
GC-SED-79	GC-SED-79(2.5-3.5)	2.5	3.5	88000	44.8						0.71	National Grid, 2005[1]
GC-SED-80	GC-SED-80(0-2)	0.0	2.0	52000	43.2						0.57	National Grid, 2005[1]
GC-SED-81	GC-SED-81(8-11)	8.0	11.0	51000	62.9						1.15	National Grid, 2005[1]
GC-SED-81	GC-SED-81(13-13.5)	13.0	13.5	730	78.5						1.47	National Grid, 2005[1]
GC-SED-82	GC-SED-82(0-2)	0.0	2.0	57000	65						0.99	National Grid, 2005[1]
GC-SED-82	GC-SED-82(12-12.8)	12.0	12.8	34000	76						1.56	National Grid, 2005[1]
GC-SED-83	GC-SED-83(0-2)	0.0	2.0	32000	47.1						0.72	National Grid, 2005[1]
GC-SED-83	GC-SED-83(11-11.9)	11.0	11.9	57000	49.9						0.74	National Grid, 2005[1]
GC-SED-84	GC-SED-84(1-2)	1.0	2.0	99000	44.4						0.63	National Grid, 2005[1]
GC-SED-85B	GC-SED-85B(0-1)	0.0	1.0	67000	60.9						0.98	National Grid, 2005[1]
GC-SED-85B	GC-SED-85B(8.5-9.3)	8.5	9.3	190000	44						0.58	National Grid, 2005[1]
GC-SED-86	GC-SED-86(0-1)	0.0	1.0	160000	37.5						0.51	National Grid, 2005[1]
GC-SED-87	GC-SED-87(4.4-6.2)	4.4	6.2	200000	32.1						0.38	National Grid, 2005[1]
GC-SED-88	GC-SED-88(0.5-1)	0.5	1.0	84000	41.2						0.49	National Grid, 2005[1]
GC-SED-89B	GC-SED-89(1.8-2.3)	1.8	2.3	150000	32.4						0.39	National Grid, 2005[1]
GC-SED-90B	GC-SED-90B(0-1)	0.0	1.0	110000	31.5						0.52	National Grid, 2005[1]
GC-SED-91	GC-SED-91(4.7-6.2)	4.7	6.2	110000	36.8						0.48	National Grid, 2005[1]
GC-SED-92	GC-SED-92(0-2)	0.0	2.0	86000	25.2						0.31	National Grid, 2005[1]
GC-SED-93	GC-SED-93(0-1)	0.0	1.0	170000	26.2						0.34	National Grid, 2005[1]
GC-SED-94	GC-SED-94(0.5-1.25)	0.5	1.3	110000	62.2						0.98	National Grid, 2005[1]
GC-SED-95	GC-SED-95(3.5-4.5)	3.5	4.5	140000	44.3						0.9	National Grid, 2005[1]
GC-SED-96	GC-SED-96(0-1)	0.0	1.0	72000	41.4						0.64	National Grid, 2005[1]
GC-SED-97	GC-SED-97(0.5-2.0)	0.5	2.0	110000	49.5						0.65	National Grid, 2005[1]
GC-SED-97	GC-SED-97(8.5-9.0)	8.5	9.0	280000	70.6						0.85	National Grid, 2005[1]
GC-SED-98	GC-SED-98(1-2)	1.0	2.0	91000	40.8						0.5	National Grid, 2005[1]
GC-SED-98	GC-SED-98(8.5-9.5)	8.5	9.5	260000	50.6						0.61	National Grid, 2005[1]
GC-SED-99B	GC-SED-99(3.5-4.5)	3.5	4.5	270000	59.9						0.83	National Grid, 2005[1]
GC-SED-99B	GC-SED-99(7.2-8.7)	7.2	8.7	430000	61.4						0.85	National Grid, 2005[1]

Notes:

[1.] Grainsize data for the National Grid 2005 data set are available, but were not included due to uncertainty about data comparability

ft - feet

g/cm^3 - grams per cubic centimeter

mg/kg - milligram/kilogram

% - percent

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TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
Sample Number:		GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
Sample Depth:		8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	580 U	5.2 U	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,1,2,2-tetrachloroethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	580 U	5.2 U	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,1,2-trichloroethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,1-dichloroethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,1-dichloroethene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,2,3-trichlorobenzene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,2,4-trichlorobenzene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,2-dibromo-3-chloropropane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,2-dibromoethane	ug/kg	580 U	5.2 U	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,2-dichlorobenzene	ug/kg	**270 J**	5.2 U	**0.77 J**	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,2-dichloroethane	ug/kg	580 U	5.2 U	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,2-dichloropropane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,3-dichlorobenzene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,4-dichlorobenzene	ug/kg	**2,100**	**51**	**8.3**	**27**	**1.4 J**	3,400 U	**1.9 J**	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
1,4-dioxane (p-dioxane)	ug/kg	12,000 UR	**23 J**	99 UR	110 UR	95 UR	68,000 UR	98 UR	53,000 UR	72,000 UR	23,000 UR	18,000 UR	5,900 UR	4,500 UR	10,000 UR	160,000 UR	53,000 R	6,500 UR	5,100 UR
2-hexanone	ug/kg	1,200 U	10 U	9.9 U	11 U	9.5 U	6,800 U	9.8 U	5,300 U	7,200 U	2,300 U	1,800 U	590 U	450 U	1,000 U	16,000 U	5,300 U	650 U	510 U
Acetone	ug/kg	1,200 U	**66**	**28**	**37**	14 U	6,800 U	10 U	5,300 U	7,200 U	2,300 U	1,800 U	590 U	450 U	1,000 U	16,000 U	5,300 U	650 U	510 U
Benzene	ug/kg	**810**	**15**	**11**	**5.8**	4.7 U	3,400 U	4.9 U	2,600 U	**6,600**	**2,000**	**2,000**	**250 J**	**390**	500 U	7,800 U	**10,000**	**1,200**	**170 J**
Bromochloromethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Bromodichloromethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Bromoform	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Bromomethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 UJ	220 UJ	500 U	7,800 U	2,600 U	320 U	250 U
Carbon disulfide	ug/kg	580 U	**11**	**4.1 J**	**5.2 J**	**2 J**	3,400 U	**1.9 J**	2,600 U	3,600 U	1,200 U	920 U	300 UJ	220 UJ	500 U	7,800 U	2,600 U	320 U	250 U
Carbon tetrachloride	ug/kg	580 U	5.2 U	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Chlorobenzene	ug/kg	**1,200**	**40**	**9.3**	**10**	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Chloroethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 UJ	220 UJ	500 U	7,800 U	2,600 U	320 U	250 U
Chloroform	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Chloromethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 UJ	220 UJ	500 U	7,800 U	2,600 U	320 U	250 U
cis-1,2-dichloroethylene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
cis-1,3-dichloropropene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Cyclohexane	ug/kg	580 U	**5.4**	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Dibromochloromethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Dichlorodifluoromethane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 UJ	220 UJ	500 U	7,800 U	2,600 U	320 U	250 U
Ethylbenzene	ug/kg	580 U	**13**	**2.5 J**	**3.5 J**	4.7 U	**66,000**	**12**	**40,000**	**77,000**	**29,000**	**22,000**	**520**	**1,600**	**10,000**	**77,000**	**73,000**	**9,300**	**1,200**
Isopropylbenzene (cumene)	ug/kg	580 U	**93**	**17**	**82**	4.7 U	**11,000**	**7.9**	**8,600**	**16,000**	**7,400**	**2,700**	300 U	**120 J**	**1,200**	**8,900**	**16,000**	**2,800**	**180 J**
m, p xylenes	ug/kg	580 U	**5.9**	**1.1 J**	**2.3 J**	4.7 U	**9,500**	**0.99 J**	**8,100**	**28,000**	**22,000**	**970**	300 U	**1,100**	**670**	**10,000**	**4,400**	**790**	250 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
Sample Number:		GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
Sample Depth:		8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	580 U	**1.5 J**	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Methyl ethyl ketone (2-butanone)	ug/kg	1,200 U	**17**	**9.2 J**	**11**	9.5 U	**1,400 J**	**2.3 J**	5,300 U	7,200 U	2,300 U	1,800 U	590 U	450 U	1,000 U	16,000 U	5,300 U	650 U	510 U
Methyl isobutyl ketone	ug/kg	1,200 U	10 U	9.9 U	11 U	9.5 U	6,800 U	9.8 U	5,300 U	7,200 U	2,300 U	1,800 U	590 U	450 U	1,000 U	16,000 U	5,300 U	650 U	510 U
Methylcyclohexane	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Methylene chloride	ug/kg	580 U	5.2 U	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**190 J**	**18**	**3.8 J**	**24**	4.7 U	**18,000**	**6.6**	**15,000**	**26,000**	**11,000**	**7,500**	**110 J**	**480**	**3,300**	**23,000**	**27,000**	**3,700**	**410**
Styrene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Tert-butyl methyl ether	ug/kg	580 U	5.2 U	**1.7 J**	**24**	**18 J**	3,400 U	**0.4 J**	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Tetrachloroethylene(PCE)	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Toluene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
trans-1,2-dichloroethene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
trans-1,3-dichloropropene	ug/kg	580 U	5.2 U	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Trichloroethylene (TCE)	ug/kg	580 U	**0.6 J**	5 U	5.4 U	4.7 U	3,400 U	4.9 U	2,600 U	3,600 U	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Trichlorofluoromethane	ug/kg	580 U	5.2 U	5 UJ	5.4 U	4.7 UJ	3,400 U	4.9 UJ	2,600 UJ	3,600 U	1,200 U	920 UJ	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U
Vinyl chloride	ug/kg	580 UJ	5.2 U	5 U	5.4 U	4.7 U	3,400 UJ	4.9 U	2,600 UJ	3,600 UJ	1,200 U	920 U	300 U	220 U	500 U	7,800 U	2,600 U	320 U	250 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:		GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:		13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:		3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:		N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
1,1,2,2-tetrachloroethane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
1,1,2-trichloroethane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,1-dichloroethane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,1-dichloroethene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,2,3-trichlorobenzene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,2,4-trichlorobenzene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,2-dibromo-3-chloropropane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,2-dibromoethane	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
1,2-dichlorobenzene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,2-dichloroethane	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
1,2-dichloropropane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,3-dichlorobenzene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
1,4-dichlorobenzene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	**2.9 J**	5.2 U	5.2 U
1,4-dioxane (p-dioxane)	ug/kg	140,000 UR	26,000 UR	22,000 UR	11,000 UR	12,000 UR	15,000 UR	62,000 UR	84,000 UR	110,000 UR	95,000 UR	33,000 UR	40,000 UR	9,400 UR	38,000 UR	5,900 R	99 R	100 R	100 UR
2-hexanone	ug/kg	14,000 U	2,600 U	2,200 U	1,100 U	1,200 U	1,500 U	6,200 U	8,400 U	11,000 U	9,500 U	3,300 U	4,000 U	940 U	3,800 U	590 U	9.9 U	10 U	10 U
Acetone	ug/kg	14,000 U	2,600 U	2,200 U	1,100 U	1,200 U	1,500 U	6,200 U	8,400 U	11,000 U	9,500 U	3,300 U	4,000 U	940 U	3,800 U	590 U	9.9 U	10 U	10 U
Benzene	ug/kg	**14,000**	**7,400**	**1,700**	**860**	**1,400**	**3,200**	**12,000**	**12,000**	**17,000**	**15,000**	**7,400**	**1,000 J**	**720**	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Bromochloromethane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Bromodichloromethane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Bromoform	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Bromomethane	ug/kg	6,800 U	1,300 U	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Carbon disulfide	ug/kg	6,800 U	1,300 U	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	**1.4 J**	**6.8**	**3.9 J**
Carbon tetrachloride	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
Chlorobenzene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Chloroethane	ug/kg	6,800 U	1,300 U	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Chloroform	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Chloromethane	ug/kg	6,800 U	1,300 U	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
cis-1,2-dichloroethylene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
cis-1,3-dichloropropene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Cyclohexane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Dibromochloromethane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Dichlorodifluoromethane	ug/kg	6,800 U	1,300 U	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Ethylbenzene	ug/kg	**170,000**	**36,000**	**13,000**	**7,200**	**19,000**	**16,000**	**79,000**	**95,000**	**120,000**	**110,000**	**58,000**	**45,000**	**13,000**	**48,000**	**260 J**	4.9 U	5.2 U	5.2 U
Isopropylbenzene (cumene)	ug/kg	**44,000**	**4,500**	**2,200**	**1,200**	**2,400**	**1,900**	**8,200**	**11,000**	**14,000**	**9,700**	**5,600**	**5,600**	**1,200**	**6,900**	**1,500**	4.9 U	5.2 U	**0.39 J**
m, p xylenes	ug/kg	**7,500**	**1,200 J**	1,100 U	550 U	**13,000**	**2,300**	**18,000**	**43,000**	**58,000**	**20,000**	**27,000**	**30,000**	**330 J**	**1,400 J**	290 U	4.9 U	5.2 U	**0.4 J**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:		GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:		13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:		3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:		N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	14,000 U	2,600 U	2,200 U	1,100 U	1,200 U	1,500 U	6,200 U	8,400 U	11,000 U	9,500 U	3,300 U	4,000 U	940 U	3,800 U	**260 J**	9.9 U	10 U	10 U
Methyl isobutyl ketone	ug/kg	14,000 U	2,600 U	2,200 U	1,100 U	1,200 U	1,500 U	6,200 U	8,400 U	11,000 U	9,500 U	3,300 U	4,000 U	940 U	3,800 U	590 U	9.9 U	10 U	10 U
Methylcyclohexane	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	**150 J**	4.9 U	5.2 U	5.2 U
Methylene chloride	ug/kg	6,800 U	**850 J**	**560 J**	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	**49,000**	**9,000**	**2,800**	**1,600**	**6,600**	**5,400**	**25,000**	**33,000**	**42,000**	**32,000**	**18,000**	**15,000**	**4,000**	**16,000**	**87 J**	4.9 U	5.2 U	5.2 U
Styrene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	**790 J**	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Tert-butyl methyl ether	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
Tetrachloroethylene(PCE)	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Toluene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
trans-1,2-dichloroethene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
trans-1,3-dichloropropene	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U
Trichloroethylene (TCE)	ug/kg	6,800 U	1,300 U	1,100 U	550 U	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	**1.8 J**	5.2 U	5.2 U
Trichlorofluoromethane	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 UJ	5.2 UJ	5.2 UJ
Vinyl chloride	ug/kg	6,800 U	1,300 UJ	1,100 UJ	550 UJ	620 U	750 U	3,100 U	4,200 U	5,600 U	4,800 U	1,600 U	2,000 U	470 U	1,900 U	290 U	4.9 U	5.2 U	5.2 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A
Sample Number:		D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4
Sample Depth:		7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
1,1,2,2-tetrachloroethane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
1,1,2-trichloroethane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,1-dichloroethane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,1-dichloroethene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,2,3-trichlorobenzene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,2,4-trichlorobenzene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,2-dibromo-3-chloropropane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,2-dibromoethane	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
1,2-dichlorobenzene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,2-dichloroethane	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
1,2-dichloropropane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,3-dichlorobenzene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,4-dichlorobenzene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
1,4-dioxane (p-dioxane)	ug/kg	5,800 UR	100 UR	95 UR	92,000 UR	160,000 UR	160,000 UR	5,600 UR	53,000 UR	56,000 UR	5,600 UR	5,900 UR	14,000 R	190,000 R	21,000 R	30,000 UR	110,000 UR	6,000 UR	48,000 UR
2-hexanone	ug/kg	580 U	10 U	9.5 U	9,200 U	16,000 U	16,000 U	560 U	5,300 U	5,600 U	560 U	590 U	1,400 U	19,000 U	2,100 U	3,000 U	11,000 U	600 U	4,800 U
Acetone	ug/kg	580 U	10 U	9.5 U	9,200 U	16,000 U	16,000 U	560 U	5,300 U	5,600 U	560 U	590 U	1,400 U	19,000 U	2,100 U	3,000 U	11,000 U	600 U	4,800 U
Benzene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	**12,000**	**14,000**	**170 J**	**3,300**	**9,100**	280 U	**220 J**	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Bromochloromethane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Bromodichloromethane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Bromoform	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Bromomethane	ug/kg	290 UJ	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 UJ	290 UJ	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 UJ	2,400 U
Carbon disulfide	ug/kg	290 UJ	**6.5**	**6.6**	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 UJ	290 UJ	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 UJ	2,400 U
Carbon tetrachloride	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
Chlorobenzene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Chloroethane	ug/kg	290 UJ	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 UJ	290 UJ	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 UJ	2,400 U
Chloroform	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Chloromethane	ug/kg	290 UJ	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 UJ	290 UJ	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 UJ	2,400 U
cis-1,2-dichloroethylene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
cis-1,3-dichloropropene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Cyclohexane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Dibromochloromethane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Dichlorodifluoromethane	ug/kg	290 UJ	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 UJ	290 UJ	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 UJ	2,400 U
Ethylbenzene	ug/kg	290 U	5.2 U	4.7 U	**48,000**	**140,000**	**130,000**	**470**	**67,000**	**97,000**	**250 J**	**1,600**	**12,000**	**300,000**	**23,000**	**38,000**	**130,000**	**170 J**	**2,300 J**
Isopropylbenzene (cumene)	ug/kg	290 U	**1.3 J**	4.7 U	**5,900**	**10,000**	**12,000**	280 U	**2,900**	**3,300**	280 U	290 U	**6,500**	**8,600 J**	**6,000**	**1,300 J**	5,400 U	**110 J**	**5,100**
m, p xylenes	ug/kg	290 U	5.2 U	4.7 U	**34,000**	**97,000**	**82,000**	**350**	**48,000**	**80,000**	**190 J**	**660**	**17,000**	**280,000**	**25,000**	**33,000**	**150,000**	300 U	2,400 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A
Sample Number:		D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4
Sample Depth:		7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
Methyl ethyl ketone (2-butanone)	ug/kg	580 U	10 U	9.5 U	9,200 U	16,000 U	16,000 U	560 U	5,300 U	5,600 U	560 U	590 U	**280 J**	19,000 U	2,100 U	3,000 U	11,000 U	600 U	4,800 U
Methyl isobutyl ketone	ug/kg	580 U	10 U	9.5 U	9,200 U	16,000 U	16,000 U	560 U	5,300 U	5,600 U	560 U	590 U	1,400 U	19,000 U	2,100 U	3,000 U	11,000 U	600 U	4,800 U
Methylcyclohexane	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Methylene chloride	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
o-xylene (1,2-dimethylbenzene)	ug/kg	290 U	5.2 U	4.7 U	**16,000**	**47,000**	**40,000**	**200 J**	**27,000**	**40,000**	**99 J**	**420**	**7,300**	**130,000**	**11,000**	**17,000**	**72,000**	300 U	**730 J**
Styrene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	**610**	680 U	9,400 U	1,100 U	**3,100**	**41,000**	300 U	2,400 U
Tert-butyl methyl ether	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
Tetrachloroethylene(PCE)	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Toluene	ug/kg	290 U	5.2 U	4.7 U	**17,000**	**84,000**	**29,000**	280 U	**5,400**	**12,000**	280 U	290 U	**1,100**	**71,000**	**1,700**	**1,700**	**20,000**	300 U	2,400 U
trans-1,2-dichloroethene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
trans-1,3-dichloropropene	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Trichloroethylene (TCE)	ug/kg	290 U	5.2 U	4.7 U	4,600 U	8,200 U	8,100 U	280 U	2,700 U	2,800 U	280 U	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U
Trichlorofluoromethane	ug/kg	290 UJ	5.2 UJ	4.7 UJ	4,600 UJ	8,200 UJ	8,100 UJ	280 U	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 UJ	300 UJ	2,400 U
Vinyl chloride	ug/kg	290 U	5.2 U	4.7 U	4,600 UJ	8,200 UJ	8,100 UJ	280 UJ	2,700 UJ	2,800 UJ	280 UJ	290 U	680 U	9,400 U	1,100 U	1,500 U	5,400 U	300 U	2,400 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146
Sample Number:		GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0
Sample Depth:		2-4	4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	880 UJ	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,1,2,2-tetrachloroethane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	880 UJ	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,1,2-trichloroethane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,1-dichloroethane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,1-dichloroethene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,2,3-trichlorobenzene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,2,4-trichlorobenzene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,2-dibromo-3-chloropropane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,2-dibromoethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	880 UJ	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,2-dichlorobenzene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**7**	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,2-dichloroethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	**0.67 J**	880 UJ	**0.45 J**	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,2-dichloropropane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**8.1**	880 U	**22**	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,3-dichlorobenzene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**0.6 J**	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,4-dichlorobenzene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**6.4**	880 U	5.1 U	**220 J**	5 U	**1,000 J**	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
1,4-dioxane (p-dioxane)	ug/kg	22,000 UR	5,500 UR	53,000 UR	5,500 R	24,000 R	62,000 R	100 UR	18,000 UR	**24 J**	16,000 UR	100 UR	41,000 UR	6,100 UR	29,000 UR	110,000 UR	14,000 UR	32,000 UR	98 UR
2-hexanone	ug/kg	2,200 U	550 U	5,300 U	550 U	2,400 U	6,200 U	10 U	1,800 U	10 U	1,600 U	10 U	4,100 U	610 U	2,900 U	11,000 U	1,400 U	3,200 U	9.8 U
Acetone	ug/kg	2,200 U	550 U	5,300 U	550 U	2,400 U	6,200 U	**40**	1,800 U	10 U	1,600 U	10 U	4,100 U	610 U	2,900 U	11,000 U	1,400 U	3,200 U	9.8 U
Benzene	ug/kg	**640 J**	270 U	**2,300 J**	270 U	1,200 U	3,100 U	**12**	880 U	**17**	820 U	5 U	2,000 U	310 U	**760 J**	5,700 U	700 U	1,600 U	4.9 U
Bromochloromethane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	**1.3 J**	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Bromodichloromethane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Bromoform	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Bromomethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Carbon disulfide	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	**27**	880 U	**20**	820 U	**1.6 J**	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	**14**
Carbon tetrachloride	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	880 UJ	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Chlorobenzene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**3.6 J**	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Chloroethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Chloroform	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Chloromethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
cis-1,2-dichloroethylene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
cis-1,3-dichloropropene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**2.9 J**	880 U	**4.2 J**	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Cyclohexane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Dibromochloromethane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Dichlorodifluoromethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Ethylbenzene	ug/kg	**1,500**	270 U	**6,200**	**4,600**	**40,000**	**70,000**	**130**	**17,000**	**38**	**13,000**	**1.5 J**	**27,000**	**5,600**	**43,000**	**96,000**	**10,000**	**30,000**	**2.4 J**
Isopropylbenzene (cumene)	ug/kg	**4,100**	270 U	**15,000**	**3,100**	**6,900**	3,100 U	**130**	**6,400**	**5.5**	**3,000**	**0.41 J**	**2,800**	**1,600**	**12,000**	**16,000**	**2,900**	**9,200**	**0.87 J**
m, p xylenes	ug/kg	**850 J**	270 U	2,600 U	**3,900**	**34,000**	**85,000**	**29**	**9,600**	**18**	**6,100**	**0.62 J**	**13,000**	**2,600**	**37,000**	**57,000**	**7,600**	**25,000**	**2.1 J**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146
Sample Number:		GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0
Sample Depth:		2-4	4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	880 UJ	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Methyl ethyl ketone (2-butanone)	ug/kg	2,200 U	550 U	5,300 U	550 U	2,400 U	6,200 U	**11**	1,800 U	10 U	1,600 U	10 U	4,100 U	610 U	2,900 U	11,000 U	1,400 U	3,200 U	9.8 U
Methyl isobutyl ketone	ug/kg	2,200 U	550 U	5,300 U	550 U	2,400 U	6,200 U	10 U	1,800 U	10 U	1,600 U	10 U	4,100 U	610 U	2,900 U	11,000 U	1,400 U	3,200 U	9.8 U
Methylcyclohexane	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**15**	880 U	**10**	820 U	5 U	2,000 U	**130 J**	**950 J**	5,700 U	700 U	1,600 U	4.9 U
Methylene chloride	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	**350 J**	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**650 J**	270 U	**2,700**	**2,500**	**18,000**	**41,000**	**66**	**8,800**	**18**	**4,400**	**0.96 J**	**13,000**	**3,000**	**20,000**	**33,000**	**5,800**	**15,000**	**1.6 J**
Styrene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Tert-butyl methyl ether	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	880 UJ	**0.34 J**	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Tetrachloroethylene(PCE)	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Toluene	ug/kg	1,100 U	270 U	2,600 U	270 U	**1,200**	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
trans-1,2-dichloroethene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
trans-1,3-dichloropropene	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	**1.5 J**	880 U	**1.9 J**	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Trichloroethylene (TCE)	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 U	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Trichlorofluoromethane	ug/kg	1,100 U	270 UJ	2,600 U	270 U	1,200 U	3,100 U	5.2 UJ	880 UJ	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U
Vinyl chloride	ug/kg	1,100 U	270 U	2,600 U	270 U	1,200 U	3,100 U	5.2 U	880 U	5.1 UJ	820 U	5 U	2,000 U	310 U	1,500 U	5,700 U	700 U	1,600 U	4.9 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B
Sample Number:	D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0
Sample Depth:	11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6
Sample Date:	4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:	FD	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
1,1,2,2-tetrachloroethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
1,1,2-trichloroethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
1,1-dichloroethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
1,1-dichloroethene	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
1,2,3-trichlorobenzene	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
1,2,4-trichlorobenzene	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
1,2-dibromo-3-chloropropane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
1,2-dibromoethane	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
1,2-dichlorobenzene	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
1,2-dichloroethane	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
1,2-dichloropropane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
1,3-dichlorobenzene	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
1,4-dichlorobenzene	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
1,4-dioxane (p-dioxane)	ug/kg	91 UR	46,000 UR	53,000 UR	43,000 UR	24,000 UR	55,000 UR	44,000 UR	160,000 UR	130,000 UR	4,900 UR	5,000 UR	110 UR	110 UR	5,300 UR	5,700 UR	100 UR	98 UR	10,000 UR
2-hexanone	ug/kg	9.1 U	4,600 U	5,300 U	4,300 U	2,400 U	5,500 U	4,400 U	16,000 U	13,000 U	490 U	500 U	11 U	11 U	530 U	570 U	10 U	10 U	1,000 U
Acetone	ug/kg	**12**	4,600 U	5,300 U	4,300 U	2,400 U	5,500 U	4,400 U	16,000 U	13,000 U	490 U	500 U	11 U	11 U	530 U	570 U	10 U	10 U	1,000 U
Benzene	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	**9,000**	**4,100 J**	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	**0.7 J**	**0.7 J**	520 U
Bromochloromethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Bromodichloromethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Bromoform	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Bromomethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 UJ	5.5 U	270 U	280 U	5 U	5 U	520 U
Carbon disulfide	ug/kg	**36**	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	**19**	**4.6 J**	270 U	280 U	**2 J**	**2 J**	520 U
Carbon tetrachloride	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
Chlorobenzene	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Chloroethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
Chloroform	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Chloromethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
cis-1,2-dichloroethylene	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	**1.7 J**	270 U	280 U	5 U	5 U	520 U
cis-1,3-dichloropropene	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
Cyclohexane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Dibromochloromethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Dichlorodifluoromethane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	**0.72 J**	270 U	280 U	5 U	5 U	520 U
Ethylbenzene	ug/kg	**16**	**25,000**	**27,000**	**30,000**	**9,400**	**37,000**	**26,000**	**88,000**	**72,000**	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	**1 J**	**0.5 J**	**9,000**
Isopropylbenzene (cumene)	ug/kg	**4.4 J**	**1,600 J**	**1,600 J**	**1,800 J**	**3,300**	**12,000**	**11,000**	8,000 U	**7,700**	**76 J**	**150 J**	**0.49 J**	**2.3 J**	**760**	280 U	5 U	**0.4 J**	**2,000**
m, p xylenes	ug/kg	**12**	**36,000**	**42,000**	**46,000**	**13,000**	**49,000**	**36,000**	**150,000**	**96,000**	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	**0.3 J**	**4,800**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B
Sample Number:	D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0
Sample Depth:	11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6
Sample Date:	4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:	FD	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
Methyl acetate	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
Methyl ethyl ketone (2-butanone)	ug/kg	9.1 U	4,600 U	5,300 U	4,300 U	2,400 U	5,500 U	4,400 U	16,000 U	13,000 U	490 U	500 U	11 U	11 U	530 U	570 U	10 U	**2 J**	1,000 U
Methyl isobutyl ketone	ug/kg	9.1 U	4,600 U	5,300 U	4,300 U	2,400 U	5,500 U	4,400 U	16,000 U	13,000 U	490 U	500 U	11 U	11 U	530 U	570 U	10 U	10 U	1,000 U
Methylcyclohexane	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Methylene chloride	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**8.3**	**17,000**	**21,000**	**23,000**	**8,100**	**25,000**	**20,000**	**75,000**	**50,000**	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	**0.6 J**	**0.8 J**	**3,900**
Styrene	ug/kg	4.6 U	**6,800**	**9,700**	**11,000**	1,200 U	2,700 U	2,200 U	**66,000**	**25,000**	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Tert-butyl methyl ether	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
Tetrachloroethylene(PCE)	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Toluene	ug/kg	4.6 U	**5,300**	**5,300**	**5,900**	1,200 U	2,700 U	2,200 U	**64,000**	**18,000**	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
trans-1,2-dichloroethene	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
trans-1,3-dichloropropene	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U
Trichloroethylene (TCE)	ug/kg	4.6 U	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 UJ	270 U	280 U	5 U	5 U	520 U
Trichlorofluoromethane	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 UJ	250 U	5.4 U	5.5 UJ	270 U	280 U	5 UJ	5 UJ	520 U
Vinyl chloride	ug/kg	4.6 UJ	2,300 U	2,700 U	2,100 U	1,200 U	2,700 U	2,200 U	8,000 U	6,400 U	250 U	250 U	5.4 U	5.5 U	270 U	280 U	5 U	5 U	520 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128
Sample Number:		GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3
Sample Depth:		6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,1,2,2-tetrachloroethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,1,2-trichloroethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,1-dichloroethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,1-dichloroethene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,2,3-trichlorobenzene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,2,4-trichlorobenzene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,2-dibromo-3-chloropropane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,2-dibromoethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,2-dichlorobenzene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,2-dichloroethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,2-dichloropropane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,3-dichlorobenzene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,4-dichlorobenzene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
1,4-dioxane (p-dioxane)	ug/kg	27,000 UR	37,000 UR	12,000 UR	33,000 UR	58,000 UR	37,000 UR	56,000 UR	100 UR	72,000 UR	41,000 UR	40,000 UR	41,000 UR	24,000 UR	93,000 UR	6,400 UR	6,400 UR	16,000 UR	37,000 UR
2-hexanone	ug/kg	2,700 U	3,700 U	1,200 U	3,300 U	5,800 U	3,700 U	5,600 U	10 U	7,200 U	4,100 U	4,000 U	4,100 U	2,400 U	9,300 U	640 U	640 U	1,600 U	3,700 U
Acetone	ug/kg	2,700 U	3,700 U	1,200 U	3,300 U	5,800 U	3,700 U	5,600 U	10 U	7,200 U	4,100 U	4,000 U	4,100 U	2,400 U	9,300 U	640 U	640 U	1,600 U	3,700 U
Benzene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	**1,100 J**	**1,100 J**	**1,700 J**	**1,200 J**	**2,400 J**	320 U	320 U	**390 J**	1,900 U
Bromochloromethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Bromodichloromethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Bromoform	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Bromomethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 UJ	1,800 UJ	2,800 UJ	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Carbon disulfide	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 UJ	1,800 UJ	2,800 UJ	**0.57 J**	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Carbon tetrachloride	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Chlorobenzene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Chloroethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 UJ	1,800 UJ	2,800 UJ	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Chloroform	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Chloromethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 UJ	1,800 UJ	2,800 UJ	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
cis-1,2-dichloroethylene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
cis-1,3-dichloropropene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Cyclohexane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Dibromochloromethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Dichlorodifluoromethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 UJ	1,800 UJ	2,800 UJ	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Ethylbenzene	ug/kg	**26,000**	**34,000**	**12,000**	**8,200**	**50,000**	**33,000**	**53,000**	**7.8**	**45,000**	**33,000**	**36,000**	**41,000**	**28,000**	**110,000**	**2,200**	**1,000**	**18,000**	**34,000**
Isopropylbenzene (cumene)	ug/kg	**6,000**	**8,200**	**2,100**	**4,400**	**14,000**	**9,200**	**15,000**	**0.92 J**	**13,000**	**6,500**	**7,800**	**8,200**	**5,500**	**21,000**	**580**	**350**	**3,700**	**8,500**
m, p xylenes	ug/kg	**10,000**	**17,000**	**6,300**	**4,900**	**16,000**	**3,400**	**54,000**	**1.8 J**	**23,000**	**32,000**	**34,000**	**37,000**	**25,000**	**94,000**	**1,200**	**550**	**10,000**	**34,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128
Sample Number:		GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3
Sample Depth:		6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	**120 J**	320 U	810 U	1,900 U
Methyl ethyl ketone (2-butanone)	ug/kg	2,700 U	3,700 U	1,200 U	3,300 U	5,800 U	3,700 U	5,600 U	10 U	7,200 U	4,100 U	4,000 U	4,100 U	2,400 U	9,300 U	640 U	640 U	1,600 U	3,700 U
Methyl isobutyl ketone	ug/kg	2,700 U	3,700 U	1,200 U	3,300 U	5,800 U	3,700 U	5,600 U	10 U	7,200 U	4,100 U	4,000 U	4,100 U	2,400 U	9,300 U	640 U	640 U	1,600 U	3,700 U
Methylcyclohexane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Methylene chloride	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**12,000**	**14,000**	**5,100**	**3,700**	**24,000**	**16,000**	**27,000**	**3.1 J**	**24,000**	**16,000**	**16,000**	**18,000**	**12,000**	**49,000**	**1,600**	**770**	**14,000**	**23,000**
Styrene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Tert-butyl methyl ether	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Tetrachloroethylene(PCE)	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Toluene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	**7,200**	320 U	320 U	810 U	1,900 U
trans-1,2-dichloroethene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
trans-1,3-dichloropropene	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Trichloroethylene (TCE)	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Trichlorofluoromethane	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 U	1,800 U	2,800 U	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U
Vinyl chloride	ug/kg	1,400 U	1,800 U	610 U	1,600 U	2,900 UJ	1,800 UJ	2,800 UJ	5.2 U	3,600 U	2,000 U	2,000 U	2,100 U	1,200 U	4,600 U	320 U	320 U	810 U	1,900 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A
Sample Number:		GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1
Sample Depth:		9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1
Sample Date:		3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
1,1,2,2-tetrachloroethane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
1,1,2-trichloroethane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,1-dichloroethane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,1-dichloroethene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,2,3-trichlorobenzene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,2,4-trichlorobenzene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,2-dibromo-3-chloropropane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,2-dibromoethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
1,2-dichlorobenzene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,2-dichloroethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
1,2-dichloropropane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,3-dichlorobenzene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,4-dichlorobenzene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
1,4-dioxane (p-dioxane)	ug/kg	16,000 UR	16,000 UR	7,700 UR	8,300 UR	73,000 UR	120,000 UR	100,000 UR	110,000 UR	110,000 UR	35,000 UR	38,000 UR	12,000 UR	20,000 UR	240,000 UR	100 UR	7,300 UR	6,600 UR	15,000 UR
2-hexanone	ug/kg	1,600 U	1,600 U	770 U	830 U	7,300 U	12,000 U	10,000 U	11,000 U	11,000 U	3,500 U	3,800 U	1,200 U	2,000 U	24,000 U	10 U	730 U	660 U	1,500 U
Acetone	ug/kg	1,600 U	1,600 U	770 U	830 U	7,300 U	12,000 U	10,000 U	11,000 U	11,000 U	3,500 U	3,800 U	1,200 U	2,000 U	24,000 U	10 U	730 U	660 U	1,500 U
Benzene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	**3,200 J**	**3,700 J**	**6,400**	**10,000**	**940 J**	1,900 U	610 U	1,000 U	12,000 U	**9.8**	**260 J**	**160 J**	750 U
Bromochloromethane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Bromodichloromethane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Bromoform	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Bromomethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 UJ
Carbon disulfide	ug/kg	820 U	820 U	390 UJ	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 UJ
Carbon tetrachloride	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
Chlorobenzene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Chloroethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 UJ
Chloroform	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Chloromethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 UJ
cis-1,2-dichloroethylene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
cis-1,3-dichloropropene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Cyclohexane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Dibromochloromethane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Dichlorodifluoromethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 UJ
Ethylbenzene	ug/kg	**16,000**	**20,000**	**4,800**	**1,300**	**47,000**	**74,000**	**70,000**	**120,000**	**130,000**	**23,000**	**24,000**	**8,600**	**11,000**	**130,000**	**27**	**11,000**	**4,700**	**17,000**
Isopropylbenzene (cumene)	ug/kg	**3,800**	**5,000**	**1,000**	**230 J**	**11,000**	**13,000**	**11,000**	**20,000**	**17,000**	**9,800**	**9,400**	**2,100**	**2,500**	**14,000**	**2.4 J**	**3,200**	**1,000**	**5,100**
m, p xylenes	ug/kg	**10,000**	**14,000**	**5,000**	**1,300**	**38,000**	**63,000**	**59,000**	**100,000**	**120,000**	**17,000**	**24,000**	**11,000**	**14,000**	**180,000**	**21**	**13,000**	**4,600**	**21,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A
Sample Number:		GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1
Sample Depth:		9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1
Sample Date:		3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
Methyl ethyl ketone (2-butanone)	ug/kg	1,600 U	1,600 U	770 U	830 U	7,300 U	12,000 U	10,000 U	11,000 U	11,000 U	3,500 U	3,800 U	1,200 U	2,000 U	24,000 U	10 U	730 U	660 U	1,500 U
Methyl isobutyl ketone	ug/kg	1,600 U	1,600 U	770 U	830 U	7,300 U	12,000 U	10,000 U	11,000 U	11,000 U	3,500 U	3,800 U	1,200 U	2,000 U	24,000 U	10 U	730 U	660 U	1,500 U
Methylcyclohexane	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Methylene chloride	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**8,500**	**11,000**	**2,700**	**700**	**22,000**	**31,000**	**29,000**	**50,000**	**58,000**	**17,000**	**20,000**	**5,700**	**7,500**	**84,000**	**14**	**6,100**	**2,200**	**10,000**
Styrene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Tert-butyl methyl ether	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
Tetrachloroethylene(PCE)	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Toluene	ug/kg	820 U	820 U	**780**	410 U	3,600 U	**13,000**	**16,000**	**26,000**	**23,000**	**3,900**	**2,300**	**690**	**1,000**	**26,000**	**14**	**2,600**	**900**	750 U
trans-1,2-dichloroethene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
trans-1,3-dichloropropene	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Trichloroethylene (TCE)	ug/kg	820 U	820 U	390 U	410 U	3,600 U	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 U	330 U	750 U
Trichlorofluoromethane	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 U
Vinyl chloride	ug/kg	820 U	820 U	390 UJ	410 U	3,600 UJ	6,100 U	5,200 U	5,600 U	5,700 U	1,700 U	1,900 U	610 U	1,000 U	12,000 U	5.1 U	370 UJ	330 U	750 UJ

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD27A	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A
Sample Number:	GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0
Sample Depth:	8.1-8.6	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10
Sample Date:	4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter / **Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,1,2,2-tetrachloroethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,1,2-trichloro-1,2,2-trifluoroethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,1,2-trichloroethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,1-dichloroethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,1-dichloroethene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,2,3-trichlorobenzene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,2,4-trichlorobenzene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,2-dibromo-3-chloropropane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,2-dibromoethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,2-dichlorobenzene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,2-dichloroethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,2-dichloropropane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,3-dichlorobenzene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,4-dichlorobenzene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
1,4-dioxane (p-dioxane) ug/kg	5,000 UR	6,300 UR	6,600 UR	6,500 UR	120 UR	6,500 UR	5,700 UR	100 UR	7,000 UR	22,000 UR	79,000 UR	6,300 UR	86,000 UR	98 UR	240,000 UR	190,000 UR	6,300 UR	13,000 UR
2-hexanone ug/kg	500 U	630 U	660 U	650 U	12 U	650 U	570 U	10 U	700 U	2,200 U	7,900 U	630 U	8,600 U	9.8 U	24,000 U	19,000 U	630 U	1,300 U
Acetone ug/kg	500 U	630 U	660 U	650 U	**44**	650 U	570 U	10 U	700 U	2,200 U	7,900 U	630 U	8,600 U	12 U	24,000 U	19,000 U	630 U	1,300 U
Benzene ug/kg	250 U	310 U	330 U	320 U	**4.6 J**	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	**120 J**	**4,500**	**80**	**17,000**	**14,000**	**320 J**	630 U
Bromochloromethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Bromodichloromethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Bromoform ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Bromomethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Carbon disulfide ug/kg	250 U	310 U	330 U	320 U	**1.9 J**	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	**1.8 J**	12,000 U	9,500 U	320 U	630 U
Carbon tetrachloride ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Chlorobenzene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Chloroethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Chloroform ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Chloromethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
cis-1,2-dichloroethylene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
cis-1,3-dichloropropene ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Cyclohexane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Dibromochloromethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Dichlorodifluoromethane ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Ethylbenzene ug/kg	**670**	**3,000**	**480**	**330**	5.8 U	320 U	290 U	5.1 U	**3,900**	**21,000**	**61,000**	**3,400**	**68,000**	**220 J**	**240,000**	**270,000**	**5,400**	**7,800**
Isopropylbenzene (cumene) ug/kg	250 U	**650**	330 U	320 U	5.8 U	**360**	290 U	5.1 U	**1,200**	**3,900**	**8,900**	**360**	**6,500**	**34**	**14,000**	**13,000**	**820**	**1,500**
m, p xylenes ug/kg	**690**	**3,400**	**360**	**280 J**	5.8 U	320 U	290 U	5.1 U	**3,200**	**16,000**	**48,000**	**2,700**	**49,000**	**190**	**220,000**	**250,000**	**4,600**	**7,200**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD27A	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A
Sample Number:		GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0
Sample Depth:		8.1-8.6	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10
Sample Date:		4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Methyl ethyl ketone (2-butanone)	ug/kg	500 U	630 U	**340 J**	650 U	**12**	650 U	570 U	10 U	700 U	2,200 U	7,900 U	630 U	8,600 U	**2.9 J**	24,000 U	19,000 U	630 U	1,300 U
Methyl isobutyl ketone	ug/kg	500 U	630 U	660 U	650 U	12 U	650 U	570 U	10 U	700 U	2,200 U	7,900 U	630 U	8,600 U	9.8 U	24,000 U	19,000 U	630 U	1,300 U
Methylcyclohexane	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Methylene chloride	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**330**	**1,800**	**180 J**	**150 J**	5.8 U	320 U	290 U	5.1 U	**1,900**	**9,000**	**26,000**	**1,600**	**31,000**	**120**	**110,000**	**120,000**	**2,100**	**3,600**
Styrene	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	**26,000**	9,500 U	320 U	630 U
Tert-butyl methyl ether	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Tetrachloroethylene(PCE)	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Toluene	ug/kg	250 U	**570**	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	**320**	**6,300**	**45**	**31,000**	**30,000**	**980**	**1,100**
trans-1,2-dichloroethene	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
trans-1,3-dichloropropene	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Trichloroethylene (TCE)	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Trichlorofluoromethane	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U
Vinyl chloride	ug/kg	250 U	310 U	330 U	320 U	5.8 U	320 U	290 U	5.1 U	350 U	1,100 U	4,000 U	310 U	4,300 U	4.9 U	12,000 U	9,500 U	320 U	630 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113
Sample Number:		GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02
Sample Depth:		10-12	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15
Sample Date:		3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,1,2,2-tetrachloroethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,1,2-trichloroethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,1-dichloroethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,1-dichloroethene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,2,3-trichlorobenzene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,2,4-trichlorobenzene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,2-dibromo-3-chloropropane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,2-dibromoethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,2-dichlorobenzene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,2-dichloroethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,2-dichloropropane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,3-dichlorobenzene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,4-dichlorobenzene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
1,4-dioxane (p-dioxane)	ug/kg	130,000 UR	290,000 UR	95 UR	65,000 UR	62,000 UR	52,000 UR	51,000 UR	15,000 UR	250,000 UR	120,000 UR	15,000 UR	42,000 UR	25,000 UR	190,000 UR	74,000 UR	120,000 UR	30,000 UR	38,000 UR
2-hexanone	ug/kg	13,000 U	29,000 U	9.5 U	6,500 U	6,200 U	5,200 U	5,100 U	1,500 U	25,000 U	12,000 U	1,500 U	4,200 U	2,500 U	19,000 U	7,400 U	12,000 U	3,000 U	3,800 U
Acetone	ug/kg	13,000 U	29,000 U	9.5 U	6,500 U	6,200 U	5,200 U	5,100 U	1,500 U	25,000 U	12,000 U	1,500 U	4,200 U	2,500 U	19,000 U	7,400 U	12,000 U	3,000 U	3,800 U
Benzene	ug/kg	**6,300 J**	**8,900 J**	4.8 U	**3,800**	**2,600 J**	**1,500 J**	**1,100 J**	**820**	**46,000**	**25,000**	**410 J**	**2,000 J**	**1,700**	**24,000**	3,700 U	**4,800 J**	**1,500 J**	**2,700**
Bromochloromethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Bromodichloromethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Bromoform	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Bromomethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Carbon disulfide	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Carbon tetrachloride	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Chlorobenzene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Chloroethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Chloroform	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Chloromethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
cis-1,2-dichloroethylene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
cis-1,3-dichloropropene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	**4,500**	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Cyclohexane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Dibromochloromethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Dichlorodifluoromethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Ethylbenzene	ug/kg	**81,000**	**200,000**	**2.5 J**	**78,000**	**60,000**	**47,000**	**46,000**	**14,000**	**360,000**	**190,000**	**12,000**	**43,000**	**26,000**	**190,000**	**44,000**	**100,000**	**25,000**	**42,000**
Isopropylbenzene (cumene)	ug/kg	**15,000**	**30,000**	4.8 U	**11,000**	**8,900**	**6,900**	**5,700**	**2,000**	**14,000**	**9,100**	**1,100**	**3,800**	**2,000**	9,400 U	**4,800**	**10,000**	**3,000**	**5,000**
m, p xylenes	ug/kg	**63,000**	**170,000**	**1.7 J**	**63,000**	**49,000**	**38,000**	**38,000**	**12,000**	**290,000**	**190,000**	**13,000**	**42,000**	**24,000**	**170,000**	**39,000**	**88,000**	**22,000**	**35,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113
Sample Number:		GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02
Sample Depth:		10-12	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15
Sample Date:		3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Methyl ethyl ketone (2-butanone)	ug/kg	13,000 U	29,000 U	9.5 U	6,500 U	6,200 U	5,200 U	5,100 U	1,500 U	25,000 U	12,000 U	1,500 U	4,200 U	2,500 U	19,000 U	7,400 U	12,000 U	3,000 U	3,800 U
Methyl isobutyl ketone	ug/kg	13,000 U	29,000 U	9.5 U	6,500 U	6,200 U	5,200 U	5,100 U	1,500 U	25,000 U	12,000 U	1,500 U	4,200 U	2,500 U	19,000 U	7,400 U	12,000 U	3,000 U	3,800 U
Methylcyclohexane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	**25,000**	3,700 U	5,900 U	1,500 U	1,900 U
Methylene chloride	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**35,000**	**88,000**	**1.2 J**	**30,000**	**24,000**	**18,000**	**18,000**	**5,900**	**140,000**	**91,000**	**5,800**	**19,000**	**11,000**	**86,000**	**18,000**	**39,000**	**11,000**	**17,000**
Styrene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Tert-butyl methyl ether	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Tetrachloroethylene(PCE)	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Toluene	ug/kg	6,400 U	**23,000**	4.8 U	3,200 U	3,100 U	2,600 U	**3,100**	760 U	**120,000**	**120,000**	**2,800**	**9,900**	**4,600**	**110,000**	**6,100**	**11,000**	1,500 U	1,900 U
trans-1,2-dichloroethene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
trans-1,3-dichloropropene	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Trichloroethylene (TCE)	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Trichlorofluoromethane	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U
Vinyl chloride	ug/kg	6,400 U	15,000 U	4.8 U	3,200 U	3,100 U	2,600 U	2,500 U	760 U	12,000 U	5,900 U	760 U	2,100 U	1,300 U	9,400 U	3,700 U	5,900 U	1,500 U	1,900 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114
Sample Number:		GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01
Sample Depth:		8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2
Sample Date:		3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,1,2,2-tetrachloroethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,1,2-trichloroethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,1-dichloroethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,1-dichloroethene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,2,3-trichlorobenzene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,2,4-trichlorobenzene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,2-dibromo-3-chloropropane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,2-dibromoethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,2-dichlorobenzene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,2-dichloroethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,2-dichloropropane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,3-dichlorobenzene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,4-dichlorobenzene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
1,4-dioxane (p-dioxane)	ug/kg	48,000 UR	290,000 UR	510,000 UR	110,000 UR	190,000 UR	200,000 UR	170,000 UR	160,000 UR	68,000 UR	300,000 UR	240,000 UR	150,000 UR	290,000 UR	330,000 UR	630,000 UR	310,000 UR	330,000 UR	460,000 UR
2-hexanone	ug/kg	4,800 U	29,000 U	51,000 U	11,000 U	19,000 U	20,000 U	17,000 U	16,000 U	6,800 U	30,000 U	24,000 U	15,000 U	29,000 U	33,000 U	63,000 U	31,000 U	33,000 U	46,000 U
Acetone	ug/kg	4,800 U	29,000 U	51,000 U	11,000 U	19,000 U	20,000 U	17,000 U	16,000 U	6,800 U	30,000 U	24,000 U	15,000 U	29,000 U	33,000 U	63,000 U	31,000 U	33,000 U	46,000 U
Benzene	ug/kg	**2,700**	**42,000**	**160,000**	**15,000**	**26,000**	**18,000**	**33,000**	**34,000**	**8,700**	**49,000**	**46,000**	**31,000**	**68,000**	**91,000**	**220,000**	**110,000**	**77,000**	**200,000**
Bromochloromethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Bromodichloromethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Bromoform	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Bromomethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Carbon disulfide	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Carbon tetrachloride	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Chlorobenzene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Chloroethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Chloroform	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Chloromethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
cis-1,2-dichloroethylene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
cis-1,3-dichloropropene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Cyclohexane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Dibromochloromethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Dichlorodifluoromethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Ethylbenzene	ug/kg	**42,000**	**230,000**	**470,000**	**85,000**	**190,000**	**140,000**	**170,000**	**140,000**	**59,000**	**350,000**	**210,000**	**130,000**	**300,000**	**300,000**	**610,000**	**270,000**	**160,000**	**350,000**
Isopropylbenzene (cumene)	ug/kg	**5,900**	**33,000**	**57,000**	**13,000**	**29,000**	**21,000**	**34,000**	**20,000**	**2,400 J**	**6,500 J**	**22,000**	**14,000**	**44,000**	**13,000 J**	**13,000 J**	**5,200 J**	16,000 U	**7,400 J**
m, p xylenes	ug/kg	**36,000**	**180,000**	**420,000**	**66,000**	**160,000**	**120,000**	**170,000**	**110,000**	**48,000**	**290,000**	**160,000**	**100,000**	**220,000**	**230,000**	**630,000**	**260,000**	**260,000**	**530,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114
Sample Number:		GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01
Sample Depth:		8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2
Sample Date:		3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Methyl ethyl ketone (2-butanone)	ug/kg	4,800 U	29,000 U	51,000 U	11,000 U	19,000 U	20,000 U	17,000 U	16,000 U	6,800 U	30,000 U	24,000 U	15,000 U	29,000 U	33,000 U	63,000 U	31,000 U	33,000 U	46,000 U
Methyl isobutyl ketone	ug/kg	4,800 U	29,000 U	51,000 U	11,000 U	19,000 U	20,000 U	17,000 U	16,000 U	6,800 U	30,000 U	24,000 U	15,000 U	29,000 U	33,000 U	63,000 U	31,000 U	33,000 U	46,000 U
Methylcyclohexane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Methylene chloride	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**16,000**	**97,000**	**220,000**	**37,000**	**80,000**	**58,000**	**89,000**	**56,000**	**23,000**	**120,000**	**85,000**	**50,000**	**120,000**	**120,000**	**300,000**	**120,000**	**120,000**	**240,000**
Styrene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	**200,000**	**65,000**	**160,000**	**330,000**
Tert-butyl methyl ether	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Tetrachloroethylene(PCE)	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Toluene	ug/kg	2,400 U	**99,000**	**440,000**	5,700 U	**45,000**	10,000 U	**53,000**	**110,000**	**35,000**	**190,000**	**160,000**	**100,000**	**240,000**	**260,000**	**600,000**	**260,000**	**200,000**	**450,000**
trans-1,2-dichloroethene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
trans-1,3-dichloropropene	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Trichloroethylene (TCE)	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Trichlorofluoromethane	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U
Vinyl chloride	ug/kg	2,400 U	14,000 U	26,000 U	5,700 U	9,400 U	10,000 U	8,600 U	7,800 U	3,400 U	15,000 U	12,000 U	7,400 U	15,000 U	16,000 U	31,000 U	15,000 U	16,000 U	23,000 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116
Sample Number:		GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01
Sample Depth:		7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,1,2,2-tetrachloroethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,1,2-trichloroethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,1-dichloroethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,1-dichloroethene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,2,3-trichlorobenzene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,2,4-trichlorobenzene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,2-dibromo-3-chloropropane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,2-dibromoethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,2-dichlorobenzene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,2-dichloroethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,2-dichloropropane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,3-dichlorobenzene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,4-dichlorobenzene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
1,4-dioxane (p-dioxane)	ug/kg	460,000 UR	620,000 UR	390,000 UR	620,000 UR	160,000 UR	72,000 UR	240,000 UR	97,000 UR	340,000 UR	200,000 UR	360,000 UR	280,000 UR	41,000 UR	59,000 UR	400,000 UR	79,000 UR	6,400 UR	6,500 UR
2-hexanone	ug/kg	46,000 U	62,000 U	39,000 U	62,000 U	16,000 U	7,200 U	24,000 U	9,700 U	34,000 U	20,000 U	36,000 U	28,000 U	4,100 U	5,900 U	40,000 U	7,900 U	640 U	650 U
Acetone	ug/kg	46,000 U	62,000 U	39,000 U	62,000 U	16,000 U	7,200 U	24,000 U	9,700 U	34,000 U	20,000 U	36,000 U	28,000 U	4,100 U	5,900 U	40,000 U	7,900 U	640 U	650 U
Benzene	ug/kg	**180,000**	**340,000**	**150,000**	**270,000**	**19,000**	**10,000**	**39,000**	**27,000**	**130,000**	**67,000**	**160,000**	**43,000**	**12,000**	**12,000**	**150,000**	**12,000**	**410**	**260 J**
Bromochloromethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Bromodichloromethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Bromoform	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Bromomethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Carbon disulfide	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Carbon tetrachloride	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Chlorobenzene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Chloroethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Chloroform	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Chloromethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
cis-1,2-dichloroethylene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
cis-1,3-dichloropropene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Cyclohexane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Dibromochloromethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Dichlorodifluoromethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Ethylbenzene	ug/kg	**320,000**	**530,000**	**290,000**	**390,000**	**140,000**	**73,000**	**260,000**	**97,000**	**310,000**	**200,000**	**240,000**	**130,000**	**26,000**	**51,000**	**400,000**	**40,000**	**1,100**	**930**
Isopropylbenzene (cumene)	ug/kg	**6,300 J**	**8,800 J**	20,000 U	31,000 U	8,200 U	**2,700 J**	**7,200 J**	4,800 U	17,000 U	**3,100 J**	18,000 U	**5,300 J**	**860 J**	**4,500**	**13,000 J**	**7,900**	320 U	330 U
m, p xylenes	ug/kg	**500,000**	**790,000**	**390,000**	**590,000**	**110,000**	**59,000**	**230,000**	**79,000**	**280,000**	**200,000**	**360,000**	**230,000**	**47,000**	**41,000**	**340,000**	**110,000**	**800**	**730**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116
Sample Number:		GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01
Sample Depth:		7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Methyl ethyl ketone (2-butanone)	ug/kg	46,000 U	62,000 U	39,000 U	62,000 U	16,000 U	7,200 U	24,000 U	9,700 U	34,000 U	20,000 U	36,000 U	28,000 U	4,100 U	5,900 U	40,000 U	7,900 U	640 U	650 U
Methyl isobutyl ketone	ug/kg	46,000 U	62,000 U	39,000 U	62,000 U	16,000 U	7,200 U	24,000 U	9,700 U	34,000 U	20,000 U	36,000 U	28,000 U	4,100 U	5,900 U	40,000 U	7,900 U	640 U	650 U
Methylcyclohexane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Methylene chloride	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**230,000**	**340,000**	**180,000**	**280,000**	**58,000**	**29,000**	**100,000**	**40,000**	**140,000**	**95,000**	**160,000**	**110,000**	**23,000**	**21,000**	**170,000**	**76,000**	**430**	**380**
Styrene	ug/kg	**330,000**	**530,000**	**270,000**	**480,000**	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	**200,000 J**	**38,000**	2,900 U	20,000 U	3,900 U	320 U	330 U
Tert-butyl methyl ether	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Tetrachloroethylene(PCE)	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Toluene	ug/kg	**400,000**	**720,000**	**400,000**	**590,000**	**92,000**	**38,000**	**64,000**	**76,000**	**310,000**	**190,000**	**450,000**	**200,000**	**43,000**	**39,000**	**400,000**	**17,000**	320 U	330 U
trans-1,2-dichloroethene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
trans-1,3-dichloropropene	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Trichloroethylene (TCE)	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Trichlorofluoromethane	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U
Vinyl chloride	ug/kg	23,000 U	31,000 U	20,000 U	31,000 U	8,200 U	3,600 U	12,000 U	4,800 U	17,000 U	9,800 U	18,000 U	14,000 U	2,100 U	2,900 U	20,000 U	3,900 U	320 U	330 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A
Sample Number:		GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6
Sample Depth:		10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,1,2,2-tetrachloroethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,1,2-trichloroethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,1-dichloroethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,1-dichloroethene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,2,3-trichlorobenzene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,2,4-trichlorobenzene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 UJ
1,2-dibromo-3-chloropropane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,2-dibromoethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,2-dichlorobenzene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,2-dichloroethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,2-dichloropropane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,3-dichlorobenzene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,4-dichlorobenzene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
1,4-dioxane (p-dioxane)	ug/kg	53,000 UR	120,000 UR	6,100 UR	240,000 UR	410,000 UR	370,000 UR	26,000 UR	24,000 UR	11,000 UR	43,000 UR	200,000 UR	6,000 UR	6,700 UR	110 UR	95,000 UR	240,000 UR	120,000 UR	79,000 UR
2-hexanone	ug/kg	5,300 U	12,000 U	610 U	24,000 U	41,000 U	37,000 U	2,600 U	2,400 U	1,100 U	4,300 U	20,000 U	600 U	670 U	11 U	9,500 U	24,000 U	12,000 U	7,900 U
Acetone	ug/kg	5,300 U	12,000 U	610 U	24,000 U	41,000 U	37,000 U	2,600 U	2,400 U	1,100 U	4,300 U	20,000 U	600 U	670 U	19 U	9,500 U	24,000 U	12,000 U	7,900 U
Benzene	ug/kg	**1,400 J**	**11,000**	**230 J**	**38,000**	**61,000**	**46,000**	1,300 U	**1,500**	**680**	**3,700**	**4,200 J**	**200 J**	340 U	**4 J**	**14,000**	**67,000**	**29,000**	**24,000**
Bromochloromethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Bromodichloromethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Bromoform	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Bromomethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Carbon disulfide	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	**3 J**	4,800 U	12,000 U	5,900 U	3,900 U
Carbon tetrachloride	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Chlorobenzene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Chloroethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Chloroform	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Chloromethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
cis-1,2-dichloroethylene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
cis-1,3-dichloropropene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Cyclohexane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Dibromochloromethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Dichlorodifluoromethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Ethylbenzene	ug/kg	**32,000**	**98,000**	**850**	**170,000**	**280,000**	**330,000**	**17,000**	**15,000**	**9,600**	**36,000**	**40,000**	**410**	**520**	**68**	**83,000**	**220,000**	**110,000**	**55,000**
Isopropylbenzene (cumene)	ug/kg	**1,300 J**	**4,500 J**	310 U	**20,000**	**13,000 J**	**24,000**	**2,100**	**1,400**	**1,000**	**6,500**	**2,800 J**	**550**	340 U	**0.8 J**	**7,700**	**30,000**	5,900 U	**5,800**
m, p xylenes	ug/kg	**30,000**	**120,000**	310 U	**160,000**	**290,000**	**290,000**	**18,000**	**6,300**	**3,400**	**28,000**	**33,000**	**350**	**500**	**3.9 J**	**65,000**	**170,000**	**87,000**	**49,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A
Sample Number:		GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6
Sample Depth:		10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Methyl ethyl ketone (2-butanone)	ug/kg	5,300 U	12,000 U	610 U	24,000 U	41,000 U	37,000 U	2,600 U	2,400 U	1,100 U	4,300 U	20,000 U	600 U	670 U	**5.4 J**	9,500 U	24,000 U	12,000 U	**4,100 J**
Methyl isobutyl ketone	ug/kg	5,300 U	12,000 U	610 U	24,000 U	41,000 U	37,000 U	2,600 U	2,400 U	1,100 U	4,300 U	20,000 U	600 U	670 U	11 U	9,500 U	24,000 U	12,000 U	7,900 U
Methylcyclohexane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Methylene chloride	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**16,000**	**57,000**	310 U	**71,000**	**130,000**	**130,000**	**9,600**	**8,100**	**5,400**	**14,000**	**18,000**	**190 J**	**210 J**	**3.6 J**	**33,000**	**90,000**	**42,000**	**24,000**
Styrene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Tert-butyl methyl ether	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Tetrachloroethylene(PCE)	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Toluene	ug/kg	**4,100**	**24,000**	310 U	**23,000**	**47,000**	**130,000**	**2,900**	**1,400**	**780**	2,200 U	10,000 U	300 U	340 U	5.3 U	**45,000**	**200,000**	**86,000**	**59,000**
trans-1,2-dichloroethene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
trans-1,3-dichloropropene	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Trichloroethylene (TCE)	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Trichlorofluoromethane	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U
Vinyl chloride	ug/kg	2,600 U	6,200 U	310 U	12,000 U	21,000 U	19,000 U	1,300 U	1,200 U	560 U	2,200 U	10,000 U	300 U	340 U	5.3 U	4,800 U	12,000 U	5,900 U	3,900 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A
Sample Number:		GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4
Sample Depth:		2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4
Sample Date:		3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,1,2,2-tetrachloroethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,1,2-trichloroethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,1-dichloroethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,1-dichloroethene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,2,3-trichlorobenzene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,2,4-trichlorobenzene	ug/kg	1,900 UJ	2,900 UJ	10,000 UJ	12,000 UJ	6,100 UJ	12,000 UJ	6,300 UJ	3,500 UJ	12,000 UJ	5,000 UJ	6,900 U	5,400 UJ	3,100 UJ	4,300 U	11,000 UJ	2,200 UJ	8,100 U	28,000 U
1,2-dibromo-3-chloropropane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	**4,500 J**	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,2-dibromoethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,2-dichlorobenzene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,2-dichloroethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,2-dichloropropane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,3-dichlorobenzene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,4-dichlorobenzene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
1,4-dioxane (p-dioxane)	ug/kg	38,000 UR	58,000 UR	210,000 UR	240,000 UR	120,000 UR	240,000 UR	130,000 UR	71,000 UR	240,000 UR	99,000 UR	140,000 UR	110,000 UR	61,000 UR	86,000 UR	210,000 UR	44,000 UR	160,000 UR	560,000 UR
2-hexanone	ug/kg	3,800 U	5,800 U	21,000 U	24,000 U	12,000 U	24,000 U	13,000 U	7,100 U	24,000 U	9,900 U	14,000 U	11,000 U	6,100 U	8,600 U	21,000 U	4,400 U	16,000 U	56,000 U
Acetone	ug/kg	3,800 U	5,800 U	21,000 U	24,000 U	12,000 U	24,000 U	13,000 U	7,100 U	24,000 U	9,900 U	14,000 U	11,000 U	6,100 U	**3,100 J**	21,000 U	4,400 U	16,000 U	56,000 U
Benzene	ug/kg	**12,000**	**10,000**	**130,000**	**160,000**	**75,000**	**150,000**	**27,000**	**13,000**	**59,000**	**12,000**	**21,000**	**47,000**	**4,900**	**12,000**	**25,000**	**5,400**	**23,000**	**160,000**
Bromochloromethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Bromodichloromethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Bromoform	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Bromomethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Carbon disulfide	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Carbon tetrachloride	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Chlorobenzene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Chloroethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Chloroform	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Chloromethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
cis-1,2-dichloroethylene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
cis-1,3-dichloropropene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Cyclohexane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Dibromochloromethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Dichlorodifluoromethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Ethylbenzene	ug/kg	**13,000**	**34,000**	**86,000**	**97,000**	**52,000**	**110,000**	**120,000**	**64,000**	**240,000**	**72,000**	**150,000**	**140,000**	**34,000**	**92,000**	**120,000**	**24,000**	**100,000**	**460,000**
Isopropylbenzene (cumene)	ug/kg	**1,500 J**	**1,500 J**	10,000 U	12,000 U	6,100 U	12,000 U	**13,000**	**6,600**	**25,000**	**2,800 J**	**5,700 J**	**14,000**	**2,900 J**	**7,200**	11,000 U	**910 J**	**12,000**	**25,000 J**
m, p xylenes	ug/kg	**15,000**	**30,000**	**220,000**	**280,000**	**160,000**	**270,000**	**90,000**	**49,000**	**180,000**	**55,000**	**110,000**	**100,000**	**27,000**	**69,000**	**98,000**	**19,000**	**79,000**	**360,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A
Sample Number:		GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4
Sample Depth:		2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4
Sample Date:		3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Methyl ethyl ketone (2-butanone)	ug/kg	3,800 U	**2,100 J**	21,000 U	24,000 U	12,000 U	24,000 U	13,000 U	7,100 U	24,000 U	9,900 U	14,000 U	11,000 U	6,100 U	8,600 U	21,000 U	4,400 U	16,000 U	56,000 U
Methyl isobutyl ketone	ug/kg	3,800 U	5,800 U	21,000 U	24,000 U	12,000 U	24,000 U	13,000 U	7,100 U	24,000 U	9,900 U	14,000 U	11,000 U	6,100 U	8,600 U	21,000 U	4,400 U	16,000 U	56,000 U
Methylcyclohexane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Methylene chloride	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**7,200**	**14,000**	**100,000**	**130,000**	**76,000**	**120,000**	**44,000**	**24,000**	**88,000**	**27,000**	**52,000**	**49,000**	**14,000**	**34,000**	**46,000**	**9,600**	**39,000**	**170,000**
Styrene	ug/kg	1,900 U	**1,200 J**	**310,000 J**	**400,000 J**	**190,000 J**	**300,000 J**	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Tert-butyl methyl ether	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Tetrachloroethylene(PCE)	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Toluene	ug/kg	**20,000**	**26,000**	**190,000**	**370,000**	**160,000**	**250,000**	**95,000**	**46,000**	**180,000**	**17,000**	**34,000**	**27,000**	**19,000**	**54,000**	**84,000**	**12,000**	**64,000**	**440,000**
trans-1,2-dichloroethene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
trans-1,3-dichloropropene	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Trichloroethylene (TCE)	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Trichlorofluoromethane	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U
Vinyl chloride	ug/kg	1,900 U	2,900 U	10,000 U	12,000 U	6,100 U	12,000 U	6,300 U	3,500 U	12,000 U	5,000 U	6,900 U	5,400 U	3,100 U	4,300 U	11,000 U	2,200 U	8,100 U	28,000 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B
Sample Number:	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5
Sample Depth:	6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5
Sample Date:	3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010
Sample Type:	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,1,2,2-tetrachloroethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,1,2-trichloro-1,2,2-trifluoroethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,1,2-trichloroethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,1-dichloroethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,1-dichloroethene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,2,3-trichlorobenzene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,2,4-trichlorobenzene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 UJ
1,2-dibromo-3-chloropropane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,2-dibromoethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,2-dichlorobenzene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,2-dichloroethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,2-dichloropropane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,3-dichlorobenzene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,4-dichlorobenzene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
1,4-dioxane (p-dioxane) ug/kg	290,000 UR	120,000 UR	26,000 UR	6,000 UR	110 UR	95 UR	130,000 UR	220,000 UR	240,000 UR	110 UR	97 UR	110 UR	100 UR	99 UR	160,000 UR	530,000 UR	250,000 UR	180,000 UR
2-hexanone ug/kg	29,000 U	12,000 U	2,600 U	600 U	11 U	9.5 U	13,000 U	22,000 U	24,000 U	11 U	9.7 U	11 U	10 U	9.9 U	16,000 U	53,000 U	25,000 U	18,000 U
Acetone ug/kg	29,000 U	12,000 U	2,600 U	600 U	11 U	16 U	13,000 U	22,000 U	24,000 U	11 U	9.7 U	11 U	10 U	**23**	16,000 U	53,000 U	25,000 U	18,000 U
Benzene ug/kg	**180,000**	**40,000**	**2,100**	300 U	**2 J**	**1.7 J**	**20,000**	**17,000**	**24,000**	**0.65 J**	4.8 U	5.3 U	5 U	5 U	**75,000**	**210,000**	**150,000**	**110,000**
Bromochloromethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Bromodichloromethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Bromoform ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Bromomethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Carbon disulfide ug/kg	15,000 U	6,100 U	1,300 U	300 U	**1.4 J**	**2 J**	6,600 U	11,000 U	12,000 U	**11**	**2.7 J**	**10**	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Carbon tetrachloride ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Chlorobenzene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Chloroethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Chloroform ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Chloromethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
cis-1,2-dichloroethylene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
cis-1,3-dichloropropene ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Cyclohexane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Dibromochloromethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Dichlorodifluoromethane ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	**0.66 J**	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Ethylbenzene ug/kg	**230,000**	**74,000**	**19,000**	**630**	**27**	**140**	**140,000**	**210,000**	**210,000**	**31**	**1.7 J**	5.3 U	**0.42 J**	5 U	**200,000**	**600,000**	**310,000**	**190,000**
Isopropylbenzene (cumene) ug/kg	15,000 U	**4,300 J**	**3,800**	**120 J**	**3.1 J**	**22**	**15,000**	**34,000**	**32,000**	**6.8**	4.8 U	5.3 U	5 U	5 U	**25,000**	**19,000 J**	**14,000**	**23,000**
m, p xylenes ug/kg	**190,000**	**53,000**	**15,000**	**510**	**2.2 J**	**23**	**110,000**	**180,000**	**180,000**	**33**	**1.3 J**	5.3 U	5 U	5 U	**190,000**	**560,000**	**310,000**	**240,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B
Sample Number:	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5
Sample Depth:	6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5
Sample Date:	3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010
Sample Type:	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
Methyl acetate	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Methyl ethyl ketone (2-butanone)	ug/kg	29,000 U	12,000 U	2,600 U	600 U	11 U	9.5 U	13,000 U	22,000 U	24,000 U	11 U	9.7 U	11 U	10 U	**6.8 J**	16,000 U	53,000 U	25,000 U	18,000 U
Methyl isobutyl ketone	ug/kg	29,000 U	12,000 U	2,600 U	600 U	11 U	9.5 U	13,000 U	22,000 U	24,000 U	11 U	9.7 U	11 U	10 U	9.9 U	16,000 U	53,000 U	25,000 U	18,000 U
Methylcyclohexane	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Methylene chloride	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**86,000**	**24,000**	**9,700**	**290 J**	**6.7**	**53**	**51,000**	**92,000**	**89,000**	**25**	**1.1 J**	5.3 U	5 U	5 U	**93,000**	**270,000**	**140,000**	**110,000**
Styrene	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	**93,000 J**	9,200 U
Tert-butyl methyl ether	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Tetrachloroethylene(PCE)	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Toluene	ug/kg	**140,000**	**50,000**	1,300 U	300 U	5.4 U	**6.7**	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	**220,000**	**560,000**	**360,000**	**260,000**
trans-1,2-dichloroethene	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
trans-1,3-dichloropropene	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Trichloroethylene (TCE)	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Trichlorofluoromethane	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 UJ	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U
Vinyl chloride	ug/kg	15,000 U	6,100 U	1,300 U	300 U	5.4 U	4.8 U	6,600 U	11,000 U	12,000 U	5.7 U	4.8 U	5.3 U	5 U	5 U	8,200 U	27,000 U	12,000 U	9,200 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130
Sample Number:		GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8
Sample Depth:		6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8
Sample Date:		3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,1,2,2-tetrachloroethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,1,2-trichloroethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,1-dichloroethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,1-dichloroethene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,2,3-trichlorobenzene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,2,4-trichlorobenzene	ug/kg	3,800 UJ	380 UJ	4,300 UJ	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,2-dibromo-3-chloropropane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,2-dibromoethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,2-dichlorobenzene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,2-dichloroethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,2-dichloropropane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,3-dichlorobenzene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,4-dichlorobenzene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
1,4-dioxane (p-dioxane)	ug/kg	75,000 UR	7,600 UR	85,000 UR	190,000 UR	70,000 UR	110,000 UR	200,000 UR	120,000 UR	590,000 UR	550,000 UR	200,000 UR	120,000 UR	120,000 UR	200,000 UR	330,000 UR	490,000 UR	360,000 UR	310,000 UR
2-hexanone	ug/kg	7,500 U	760 U	8,500 U	19,000 U	7,000 U	11,000 U	20,000 U	12,000 U	59,000 U	55,000 U	20,000 U	12,000 U	12,000 U	20,000 U	33,000 U	49,000 U	36,000 U	31,000 U
Acetone	ug/kg	7,500 U	760 U	8,500 U	19,000 U	7,000 U	11,000 U	20,000 U	12,000 U	59,000 U	55,000 U	20,000 U	12,000 U	12,000 U	20,000 U	3,000 U	49,000 U	36,000 U	31,000 U
Benzene	ug/kg	**30,000**	**1,900**	**24,000**	**47,000**	**22,000**	**18,000**	**39,000**	**30,000**	**250,000**	**190,000**	**26,000**	**26,000**	**32,000**	**72,000**	**69,000**	**95,000**	**91,000**	**57,000**
Bromochloromethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Bromodichloromethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Bromoform	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Bromomethane	ug/kg	3,800 U	380 UJ	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Carbon disulfide	ug/kg	3,800 U	380 UJ	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Carbon tetrachloride	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Chlorobenzene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Chloroethane	ug/kg	3,800 U	380 UJ	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Chloroform	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Chloromethane	ug/kg	3,800 U	380 UJ	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
cis-1,2-dichloroethylene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
cis-1,3-dichloropropene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Cyclohexane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Dibromochloromethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Dichlorodifluoromethane	ug/kg	3,800 U	380 UJ	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Ethylbenzene	ug/kg	**84,000**	**1,500**	**80,000**	**190,000**	**79,000**	**100,000**	**200,000**	**140,000**	**550,000**	**460,000**	**84,000**	**57,000**	**68,000**	**99,000**	**330,000**	**340,000**	**370,000**	**310,000**
Isopropylbenzene (cumene)	ug/kg	**11,000**	**110 J**	**4,400**	**29,000**	**11,000**	**4,400 J**	10,000 U	5,900 U	30,000 U	**18,000 J**	**6,600 J**	**1,800 J**	**6,600**	**7,400 J**	**11,000 J**	25,000 U	**53,000**	**38,000**
m, p xylenes	ug/kg	**88,000**	**1,600**	**82,000**	**150,000**	**60,000**	**90,000**	**170,000**	**120,000**	**760,000**	**700,000**	**140,000**	**150,000**	**100,000**	**190,000**	**290,000**	**290,000**	**290,000**	**240,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130
Sample Number:		GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8
Sample Depth:		6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8
Sample Date:		3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Methyl ethyl ketone (2-butanone)	ug/kg	7,500 U	760 U	8,500 U	19,000 U	7,000 U	11,000 U	20,000 U	12,000 U	59,000 U	55,000 U	20,000 U	12,000 U	12,000 U	20,000 U	33,000 U	49,000 U	36,000 U	31,000 U
Methyl isobutyl ketone	ug/kg	7,500 U	760 U	8,500 U	19,000 U	7,000 U	11,000 U	20,000 U	12,000 U	59,000 U	55,000 U	20,000 U	12,000 U	12,000 U	20,000 U	33,000 U	49,000 U	36,000 U	31,000 U
Methylcyclohexane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Methylene chloride	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**42,000**	**760**	**36,000**	**81,000**	**32,000**	**39,000**	**79,000**	**53,000**	**340,000**	**320,000**	**68,000**	**70,000**	**52,000**	**94,000**	**150,000**	**150,000**	**150,000**	**120,000**
Styrene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	**470,000**	**450,000**	**50,000**	**120,000**	**36,000**	**110,000**	16,000 U	**30,000**	18,000 U	15,000 U
Tert-butyl methyl ether	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Tetrachloroethylene(PCE)	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Toluene	ug/kg	**84,000**	**930**	**25,000**	**43,000**	**30,000**	**34,000**	**63,000**	**52,000**	**410,000**	**390,000**	**79,000**	**71,000**	**93,000**	**200,000**	**240,000**	**320,000**	**300,000**	**160,000**
trans-1,2-dichloroethene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
trans-1,3-dichloropropene	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Trichloroethylene (TCE)	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Trichlorofluoromethane	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U
Vinyl chloride	ug/kg	3,800 U	380 U	4,300 U	9,600 U	3,500 U	5,400 U	10,000 U	5,900 U	30,000 U	28,000 U	10,000 U	6,100 U	6,100 U	9,900 U	16,000 U	25,000 U	18,000 U	15,000 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A
Sample Number:		GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1
Sample Depth:		1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1
Sample Date:		3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010
Sample Type:		N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,1,2,2-tetrachloroethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,1,2-trichloroethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,1-dichloroethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,1-dichloroethene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,2,3-trichlorobenzene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,2,4-trichlorobenzene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,2-dibromo-3-chloropropane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,2-dibromoethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,2-dichlorobenzene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,2-dichloroethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,2-dichloropropane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,3-dichlorobenzene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,4-dichlorobenzene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
1,4-dioxane (p-dioxane)	ug/kg	25,000 UR	24,000 UR	580,000 UR	400,000 UR	74,000 UR	6,400 UR	98,000 UR	20,000 UR	20,000 UR	78,000 UR	130,000 UR	140,000 UR	180,000 UR	280,000 UR	100,000 UR	150,000 UR	140,000 UR	160,000 UR
2-hexanone	ug/kg	2,500 U	2,400 U	58,000 U	40,000 U	7,400 U	640 U	9,800 U	2,000 U	2,000 U	7,800 U	13,000 U	14,000 U	18,000 U	28,000 U	10,000 U	15,000 U	14,000 U	16,000 U
Acetone	ug/kg	2,500 U	2,400 U	58,000 U	40,000 U	7,400 U	640 U	9,800 U	2,000 U	2,000 U	7,800 U	13,000 U	14,000 U	18,000 U	28,000 U	10,000 U	15,000 U	14,000 U	16,000 U
Benzene	ug/kg	**4,100**	**5,800**	**69,000**	**71,000**	**14,000**	**860**	**12,000**	**2,300**	**3,000**	**4,200**	**9,100**	**4,800 J**	**14,000**	**12,000 J**	5,000 U	**19,000**	**16,000**	**18,000**
Bromochloromethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Bromodichloromethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Bromoform	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Bromomethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Carbon disulfide	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Carbon tetrachloride	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Chlorobenzene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Chloroethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Chloroform	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Chloromethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
cis-1,2-dichloroethylene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
cis-1,3-dichloropropene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Cyclohexane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Dibromochloromethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Dichlorodifluoromethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Ethylbenzene	ug/kg	**12,000**	**13,000**	**310,000**	**360,000**	**66,000**	**800**	**95,000**	**9,300**	**12,000**	**55,000**	**110,000**	**130,000**	**180,000**	**350,000**	**66,000**	**160,000**	**140,000**	**180,000**
Isopropylbenzene (cumene)	ug/kg	**1,900**	**2,200**	**42,000**	**40,000**	**7,700**	320 U	**10,000**	**640 J**	**830 J**	3,900 U	**26,000**	**17,000**	**22,000**	**16,000**	5,000 U	**4,800 J**	**16,000**	**4,100 J**
m, p xylenes	ug/kg	**19,000**	**21,000**	**260,000**	**270,000**	**50,000**	**600**	**72,000**	**6,100**	**7,800**	**46,000**	**84,000**	**98,000**	**100,000**	**430,000**	**67,000**	**160,000**	**120,000**	**130,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A
Sample Number:		GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1
Sample Depth:		1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1
Sample Date:		3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010
Sample Type:		N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Methyl ethyl ketone (2-butanone)	ug/kg	2,500 U	2,400 U	58,000 U	40,000 U	7,400 U	640 U	9,800 U	2,000 U	2,000 U	7,800 U	13,000 U	14,000 U	18,000 U	28,000 U	10,000 U	15,000 U	14,000 U	16,000 U
Methyl isobutyl ketone	ug/kg	2,500 U	2,400 U	58,000 U	40,000 U	7,400 U	640 U	9,800 U	2,000 U	2,000 U	7,800 U	13,000 U	14,000 U	18,000 U	28,000 U	10,000 U	15,000 U	14,000 U	16,000 U
Methylcyclohexane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Methylene chloride	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**8,500**	**9,600**	**130,000**	**130,000**	**24,000**	**270 J**	**34,000**	**2,900**	**3,600**	**22,000**	**49,000**	**52,000**	**62,000**	**180,000**	**29,000**	**73,000**	**52,000**	**61,000**
Styrene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	**88,000 J**	5,000 U	7,400 U	7,000 U	7,900 U
Tert-butyl methyl ether	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Tetrachloroethylene(PCE)	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Toluene	ug/kg	**9,000**	**13,000**	**220,000**	20,000 U	3,700 U	320 U	4,900 U	**2,500**	**4,000**	**14,000**	6,300 U	7,000 U	9,000 U	**130,000**	**17,000**	**64,000**	**25,000**	**38,000**
trans-1,2-dichloroethene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
trans-1,3-dichloropropene	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Trichloroethylene (TCE)	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Trichlorofluoromethane	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U
Vinyl chloride	ug/kg	1,200 U	1,200 U	29,000 U	20,000 U	3,700 U	320 U	4,900 U	1,000 U	980 U	3,900 U	6,300 U	7,000 U	9,000 U	14,000 U	5,000 U	7,400 U	7,000 U	7,900 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120
Sample Number:		GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5
Sample Depth:		11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5
Sample Date:		4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,1,2,2-tetrachloroethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,1,2-trichloroethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,1-dichloroethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,1-dichloroethene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,2,3-trichlorobenzene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,2,4-trichlorobenzene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,2-dibromo-3-chloropropane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,2-dibromoethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,2-dichlorobenzene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,2-dichloroethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,2-dichloropropane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,3-dichlorobenzene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,4-dichlorobenzene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
1,4-dioxane (p-dioxane)	ug/kg	170,000 UR	350,000 UR	350,000 UR	29,000 UR	110,000 UR	190,000 UR	140,000 UR	120,000 UR	250,000 UR	110 UR	240,000 UR	84,000 UR	270,000 UR	270,000 UR	210,000 UR	51,000 UR	71,000 UR	60,000 UR
2-hexanone	ug/kg	17,000 U	35,000 U	35,000 U	2,900 U	11,000 U	19,000 U	14,000 U	12,000 U	25,000 U	11 U	24,000 U	8,400 U	27,000 U	27,000 U	21,000 U	5,100 U	7,100 U	6,000 U
Acetone	ug/kg	17,000 U	35,000 U	35,000 U	2,900 U	11,000 U	19,000 U	14,000 U	12,000 U	25,000 U	11 U	24,000 U	8,400 U	27,000 U	27,000 U	21,000 U	5,700 U	7,100 U	6,000 U
Benzene	ug/kg	8,400 U	**57,000**	**67,000**	**4,800**	**7,000**	**22,000**	**26,000**	**19,000**	**28,000**	**210**	**15,000**	**8,900**	**19,000**	**43,000**	**32,000**	**4,800**	**5,600**	**3,900**
Bromochloromethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Bromodichloromethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Bromoform	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Bromomethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Carbon disulfide	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Carbon tetrachloride	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Chlorobenzene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Chloroethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Chloroform	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Chloromethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
cis-1,2-dichloroethylene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	**3.5 J**	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
cis-1,3-dichloropropene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Cyclohexane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Dibromochloromethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Dichlorodifluoromethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Ethylbenzene	ug/kg	**190,000**	**270,000**	**320,000**	**15,000**	**120,000**	**140,000**	**160,000**	**150,000**	**290,000**	**120**	**180,000**	**56,000**	**150,000**	**320,000**	**230,000**	**43,000**	**45,000**	**32,000**
Isopropylbenzene (cumene)	ug/kg	**21,000**	**36,000**	**42,000**	**830 J**	**17,000**	**18,000**	**17,000**	**16,000**	**31,000**	**5.4 J**	**16,000**	**4,100 J**	**9,700 J**	**20,000**	**41,000**	**5,700**	**6,800**	**4,900**
m, p xylenes	ug/kg	**140,000**	**220,000**	**250,000**	**15,000**	**39,000**	**86,000**	**38,000**	**100,000**	**170,000**	**20**	**150,000**	**42,000**	**110,000**	**240,000**	**210,000**	**42,000**	**43,000**	**30,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120
Sample Number:		GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5
Sample Depth:		11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5
Sample Date:		4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Methyl ethyl ketone (2-butanone)	ug/kg	17,000 U	35,000 U	35,000 U	2,900 U	11,000 U	19,000 U	14,000 U	12,000 U	25,000 U	11 U	24,000 U	8,400 U	27,000 U	27,000 U	21,000 U	5,100 U	7,100 U	6,000 U
Methyl isobutyl ketone	ug/kg	17,000 U	35,000 U	35,000 U	2,900 U	11,000 U	19,000 U	14,000 U	12,000 U	25,000 U	11 U	24,000 U	8,400 U	27,000 U	27,000 U	21,000 U	5,100 U	7,100 U	6,000 U
Methylcyclohexane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Methylene chloride	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**68,000**	**110,000**	**130,000**	**6,600**	**47,000**	**57,000**	**51,000**	**50,000**	**99,000**	**44**	**68,000**	**19,000**	**51,000**	**110,000**	**100,000**	**18,000**	**20,000**	**15,000**
Styrene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Tert-butyl methyl ether	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Tetrachloroethylene(PCE)	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Toluene	ug/kg	8,400 U	**200,000**	**240,000**	**5,400**	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	**27,000**	**8,500**	14,000 U	**31,000**	10,000 U	**1,100 J**	3,600 U	3,000 U
trans-1,2-dichloroethene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
trans-1,3-dichloropropene	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Trichloroethylene (TCE)	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Trichlorofluoromethane	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U
Vinyl chloride	ug/kg	8,400 U	18,000 U	17,000 U	1,500 U	5,600 U	9,300 U	7,100 U	6,200 U	12,000 U	5.7 U	12,000 U	4,200 U	14,000 U	14,000 U	10,000 U	2,600 U	3,600 U	3,000 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121
Sample Number:		D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5
Sample Depth:		6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5
Sample Date:		3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,1,2,2-tetrachloroethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,1,2-trichloroethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,1-dichloroethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,1-dichloroethene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 UJ	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,2,3-trichlorobenzene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,2,4-trichlorobenzene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,2-dibromo-3-chloropropane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,2-dibromoethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,2-dichlorobenzene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,2-dichloroethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,2-dichloropropane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,3-dichlorobenzene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,4-dichlorobenzene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
1,4-dioxane (p-dioxane)	ug/kg	59,000 UR	61,000 UR	150,000 UR	120,000 UR	370,000 UR	220,000 UR	620,000 UR	250,000 UR	3,500 UR	110 UR	100 UR	6,200 UR	5,900 UR	170,000 UR	240,000 UR	140,000 UR	130,000 UR	130,000 UR
2-hexanone	ug/kg	5,900 U	6,100 U	15,000 U	12,000 U	37,000 U	22,000 U	62,000 U	25,000 U	350 U	11 U	10 U	620 U	590 U	17,000 U	24,000 U	14,000 U	13,000 U	13,000 U
Acetone	ug/kg	5,900 U	6,100 U	15,000 U	12,000 U	37,000 U	22,000 U	62,000 U	25,000 U	350 U	11 U	10 U	620 U	590 U	17,000 U	24,000 U	14,000 U	13,000 U	13,000 U
Benzene	ug/kg	**5,600**	**4,000**	**18,000**	**12,000**	**44,000**	**18,000**	**68,000**	**24,000**	**240**	**100**	**6**	**370**	**410**	**13,000**	**18,000**	**20,000**	**19,000**	**10,000**
Bromochloromethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Bromodichloromethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Bromoform	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Bromomethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Carbon disulfide	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	**0.95 J**	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Carbon tetrachloride	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Chlorobenzene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Chloroethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Chloroform	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Chloromethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
cis-1,2-dichloroethylene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 UJ	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
cis-1,3-dichloropropene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Cyclohexane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Dibromochloromethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Dichlorodifluoromethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Ethylbenzene	ug/kg	**47,000**	**34,000**	**130,000**	**97,000**	**290,000**	**160,000**	**320,000**	**110,000**	180 U	**32**	5.1 U	310 U	**240 J**	**77,000**	**88,000**	**110,000**	**110,000**	**95,000**
Isopropylbenzene (cumene)	ug/kg	**6,900**	**5,100**	**19,000**	**7,400**	18,000 U	**4,100 J**	31,000 U	13,000 U	180 U	**1.1 J**	5.1 U	310 U	300 U	8,600 U	**3,300 J**	**3,300 J**	**14,000**	**2,400 J**
m, p xylenes	ug/kg	**42,000**	**32,000**	**120,000**	**120,000**	**260,000**	**140,000**	**420,000**	**190,000**	180 U	**6.8**	**1.7 J**	310 U	300 U	**130,000**	**140,000**	**180,000**	**21,000**	**100,000**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121
Sample Number:		D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5
Sample Depth:		6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5
Sample Date:		3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Methyl ethyl ketone (2-butanone)	ug/kg	5,900 U	6,100 U	15,000 U	12,000 U	37,000 U	22,000 U	62,000 U	25,000 U	350 U	11 U	10 U	620 U	590 U	17,000 U	24,000 U	14,000 U	13,000 U	13,000 U
Methyl isobutyl ketone	ug/kg	5,900 U	6,100 U	15,000 U	12,000 U	37,000 U	22,000 U	62,000 U	25,000 U	350 U	11 U	10 U	620 U	590 U	17,000 U	24,000 U	14,000 U	13,000 U	13,000 U
Methylcyclohexane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Methylene chloride	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**20,000**	**15,000**	**56,000**	**55,000**	**130,000**	**69,000**	**210,000**	**97,000**	180 U	**9.6**	**1.2 J**	310 U	300 U	**57,000**	**63,000**	**80,000**	**38,000**	**46,000**
Styrene	ug/kg	3,000 U	3,000 U	7,700 U	**34,000 J**	**39,000 J**	11,000 U	**150,000 J**	**130,000 J**	180 U	5.5 U	5.1 U	310 U	300 U	**69,000 J**	**80,000 J**	**94,000 J**	6,500 U	**28,000 J**
Tert-butyl methyl ether	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Tetrachloroethylene(PCE)	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Toluene	ug/kg	3,000 U	3,000 U	7,700 U	**31,000**	**55,000**	**36,000**	**81,000**	**32,000**	180 U	5.5 U	5.1 U	310 U	300 U	**18,000**	**33,000**	**42,000**	6,500 U	**53,000**
trans-1,2-dichloroethene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 UJ	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
trans-1,3-dichloropropene	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Trichloroethylene (TCE)	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Trichlorofluoromethane	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 U	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U
Vinyl chloride	ug/kg	3,000 U	3,000 U	7,700 U	6,000 U	18,000 U	11,000 U	31,000 U	13,000 U	180 U	5.5 U	5.1 UJ	310 U	300 U	8,600 U	12,000 U	7,100 U	6,500 U	6,700 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B
Sample Number:	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD67B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0	D-04062010-02
Sample Depth:	3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12	10-12
Sample Date:	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,1,2,2-tetrachloroethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,1,2-trichloroethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,1-dichloroethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,1-dichloroethene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,2,3-trichlorobenzene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 UJ
1,2,4-trichlorobenzene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 UJ
1,2-dibromo-3-chloropropane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,2-dibromoethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,2-dichlorobenzene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 UJ
1,2-dichloroethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,2-dichloropropane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
1,3-dichlorobenzene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 UJ
1,4-dichlorobenzene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 UJ
1,4-dioxane (p-dioxane)	ug/kg	220,000 UR	120 UR	5,200 UR	5,700 UR	120 UR	93 UR	14,000 UR	190,000 UR	130,000 UR	12,000 UR	100 UR	110 UR	57,000 UR	6,200 UR	6,300 UR	100 UR	110 UR	110 UR
2-hexanone	ug/kg	22,000 U	12 U	520 U	570 U	12 U	9.3 U	1,400 U	19,000 U	13,000 U	1,200 U	10 U	11 U	5,700 U	620 U	630 U	10 U	11 U	11 U
Acetone	ug/kg	22,000 U	16 U	520 U	570 U	12 U	9.3 U	1,400 U	19,000 U	13,000 U	1,200 U	10 U	11 U	5,700 U	620 U	630 U	**44**	**43**	**32**
Benzene	ug/kg	**12,000**	**110**	**680**	**360**	**230**	**48**	**970**	**9,400 J**	**5,700 J**	**1,500**	**150**	**81**	2,800 U	310 U	**580**	**0.75 J**	**1.6 J**	5.3 U
Bromochloromethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Bromodichloromethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Bromoform	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Bromomethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 UJ	5.2 U	5.3 U	5.3 U
Carbon disulfide	ug/kg	11,000 U	6 U	260 U	290 U	**0.48 J**	4.7 U	690 U	9,700 U	6,400 U	620 U	**0.45 J**	5.5 U	2,800 U	310 U	320 UJ	5.2 U	**0.42 J**	5.3 U
Carbon tetrachloride	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Chlorobenzene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 UJ
Chloroethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 UJ	5.2 U	5.3 U	5.3 U
Chloroform	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Chloromethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 UJ	5.2 U	5.3 U	5.3 U
cis-1,2-dichloroethylene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
cis-1,3-dichloropropene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Cyclohexane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Dibromochloromethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Dichlorodifluoromethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 UJ	5.2 U	5.3 U	5.3 U
Ethylbenzene	ug/kg	**100,000**	**56**	**330**	**230 J**	**160**	**34**	**12,000**	**170,000**	**110,000**	**7,800**	**120**	**53**	**67,000**	**440**	**530**	**0.46 J**	**11**	**19**
Isopropylbenzene (cumene)	ug/kg	**4,700 J**	**1.4 J**	260 U	290 U	**11**	**1.9 J**	**1,000**	9,700 U	**9,100**	**350 J**	**9.7**	**2.5 J**	**15,000**	**4,100**	320 U	5.2 U	**2 J**	**2.5 J**
m, p xylenes	ug/kg	**140,000**	**52**	260 U	290 U	**15**	**2.3 J**	**11,000**	**100,000**	**65,000**	**9,800**	**12**	**4.5 J**	**8,400**	**560**	**580**	**0.4 J**	**8.1**	**15**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B
Sample Number:		GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD67B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0	D-04062010-02
Sample Depth:		3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12	10-12
Sample Date:		4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Methyl ethyl ketone (2-butanone)	ug/kg	22,000 U	12 U	520 U	570 U	12 U	9.3 U	1,400 U	19,000 U	13,000 U	1,200 U	10 U	11 U	5,700 U	620 U	630 U	**8.7 J**	**7.9 J**	**6.3 J**
Methyl isobutyl ketone	ug/kg	22,000 U	12 U	520 U	570 U	12 U	9.3 U	1,400 U	19,000 U	13,000 U	1,200 U	10 U	11 U	5,700 U	620 U	630 U	10 U	11 U	11 U
Methylcyclohexane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Methylene chloride	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**70,000**	**30**	**83 J**	290 U	**56**	**11**	**4,800**	**66,000**	**42,000**	**4,900**	**34**	**14**	**24,000**	**350**	**340**	5.2 U	**5.1 J**	**8.2**
Styrene	ug/kg	**81,000 J**	**22**	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	**4,100 J**	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Tert-butyl methyl ether	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Tetrachloroethylene(PCE)	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Toluene	ug/kg	**62,000**	**48**	260 U	290 U	**6.4**	4.7 U	**2,400**	**25,000**	**14,000**	**3,800**	5.1 U	5.5 U	2,800 U	310 U	**840**	5.2 U	**5.7**	**11**
trans-1,2-dichloroethene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
trans-1,3-dichloropropene	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Trichloroethylene (TCE)	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Trichlorofluoromethane	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 U
Vinyl chloride	ug/kg	11,000 U	6 U	260 U	290 U	5.9 U	4.7 U	690 U	9,700 U	6,400 U	620 U	5.1 U	5.5 U	2,800 U	310 U	320 U	5.2 U	5.3 U	5.3 UJ

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137
Sample Number:		GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD70B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0
Sample Depth:		1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,1,2,2-tetrachloroethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,1,2-trichloroethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,1-dichloroethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,1-dichloroethene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,2,3-trichlorobenzene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,2,4-trichlorobenzene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,2-dibromo-3-chloropropane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,2-dibromoethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,2-dichlorobenzene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,2-dichloroethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,2-dichloropropane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,3-dichlorobenzene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,4-dichlorobenzene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
1,4-dioxane (p-dioxane)	ug/kg	87,000 UR	25,000 UR	80,000 UR	34,000 UR	99 UR	120 UR	120 UR	100 UR	88 UR	11,000 UR	180 UR	15,000 UR	15,000 UR	13,000 UR	18,000 UR	110 UR	17,000 UR	100 UR
2-hexanone	ug/kg	8,700 U	2,500 U	8,000 U	3,400 U	9.9 U	12 U	12 U	10 U	8.8 U	1,100 U	18 U	1,500 U	1,500 U	1,300 U	1,800 U	11 U	1,700 U	10 U
Acetone	ug/kg	8,700 U	2,500 U	8,000 U	3,400 U	**24**	**18**	12 U	**15**	**22**	1,100 U	**210**	1,500 U	1,500 U	**690 J**	**930 J**	**23**	1,700 U	**15**
Benzene	ug/kg	**10,000**	**1,700**	**2,100 J**	1,700 U	**50**	5.8 U	5.9 U	**4.1 J**	**1.3 J**	530 U	**19**	740 U	770 U	630 U	910 U	5.3 U	**4,500**	**7.3**
Bromochloromethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Bromodichloromethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Bromoform	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Bromomethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	4.4 U	530 U	9 U	740 UJ	770 U	630 U	910 U	5.3 U	830 U	5 U
Carbon disulfide	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	**2.2 J**	**0.89 J**	5.9 UJ	**0.44 J**	4.4 U	530 U	**170**	740 UJ	770 U	630 U	910 U	5.3 U	830 U	**3.1 J**
Carbon tetrachloride	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Chlorobenzene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Chloroethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	4.4 U	530 U	9 U	740 UJ	770 U	630 U	910 U	5.3 U	830 U	5 U
Chloroform	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Chloromethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	4.4 U	530 U	9 U	740 UJ	770 U	630 U	910 U	5.3 U	830 U	5 U
cis-1,2-dichloroethylene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
cis-1,3-dichloropropene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Cyclohexane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Dibromochloromethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Dichlorodifluoromethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	**0.39 J**	530 U	9 U	740 UJ	770 U	630 U	910 U	5.3 U	830 U	5 U
Ethylbenzene	ug/kg	**110,000**	**22,000**	**75,000**	**21,000**	**170**	5.8 U	5.9 U	**0.64 J**	**1.8 J**	**650**	**180**	**660 J**	**990**	**2,400**	**4,600**	**3.9 J**	**24,000**	**100**
Isopropylbenzene (cumene)	ug/kg	**19,000**	**3,700**	**17,000**	**4,300**	**5.2**	5.8 U	5.9 U	5.1 U	4.4 U	**170 J**	**35**	740 U	770 U	**350 J**	**380 J**	5.3 U	**970**	**34**
m, p xylenes	ug/kg	**86,000**	**20,000**	**62,000**	**18,000**	**13**	5.8 U	5.9 U	**0.51 J**	**1 J**	530 U	**64**	740 U	**600 J**	**1,900**	**3,900**	**1.5 J**	**25,000**	**21**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137
Sample Number:		GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD70B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0
Sample Depth:		1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	**400 J**	5.3 U	830 U	5 U
Methyl ethyl ketone (2-butanone)	ug/kg	8,700 U	2,500 U	8,000 U	3,400 U	**8.7 J**	12 U	12 U	10 U	8.8 U	1,100 U	**54**	1,500 U	1,500 U	1,300 U	1,800 U	**7.7 J**	1,700 U	10 U
Methyl isobutyl ketone	ug/kg	8,700 U	2,500 U	8,000 U	3,400 U	9.9 U	12 U	12 U	10 U	8.8 U	1,100 U	18 U	1,500 U	1,500 U	1,300 U	1,800 U	11 U	1,700 U	10 U
Methylcyclohexane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Methylene chloride	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**47,000**	**9,900**	**40,000**	**11,000**	**63**	5.8 U	5.9 U	5.1 U	**0.7 J**	**350 J**	**110**	**220 J**	**610 J**	**970**	**1,800**	**1.5 J**	**14,000**	**25**
Styrene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	**6,900**	5 U
Tert-butyl methyl ether	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Tetrachloroethylene(PCE)	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Toluene	ug/kg	**39,000**	**7,900**	**3,200 J**	**710 J**	**2.2 J**	5.8 U	5.9 U	**0.72 J**	**0.61 J**	530 U	9 U	740 U	770 U	630 U	**860 J**	**0.64 J**	**21,000**	**1.1 J**
trans-1,2-dichloroethene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
trans-1,3-dichloropropene	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Trichloroethylene (TCE)	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Trichlorofluoromethane	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 U	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U
Vinyl chloride	ug/kg	4,300 U	1,300 U	4,000 U	1,700 U	5 U	5.8 U	5.9 UJ	5.1 U	4.4 U	530 U	9 U	740 U	770 U	630 U	910 U	5.3 U	830 U	5 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151
Sample Number:		GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2	GC-SD151-07.2-09.2
Sample Depth:		4-6	6-8	8-9.8	8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2	7.2-9.2
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	FD	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,1,2,2-tetrachloroethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,1,2-trichloroethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,1-dichloroethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,1-dichloroethene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,2,3-trichlorobenzene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,2,4-trichlorobenzene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 UJ	5.8 U	5.3 UJ
1,2-dibromo-3-chloropropane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,2-dibromoethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,2-dichlorobenzene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,2-dichloroethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,2-dichloropropane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,3-dichlorobenzene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
1,4-dichlorobenzene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 UJ	5.8 U	5.3 UJ
1,4-dioxane (p-dioxane)	ug/kg	110 UR	110 UR	24,000 UR	6,000 UR	100 UR	100 UR	120 UR	99 UR	100 UR	120 UR	120 UR	17,000 UR	12,000 UR	120 UR	110 UR	110 UR	120 UR	110 UR
2-hexanone	ug/kg	11 U	11 U	2,400 U	600 U	10 U	10 U	12 U	9.9 U	10 U	12 U	12 U	1,700 U	1,200 U	12 U	11 U	11 U	12 U	11 U
Acetone	ug/kg	**35**	**10 J**	2,400 U	600 U	16 U	10 U	19 U	12 U	**30**	**36**	**43**	1,700 U	1,200 U	12 U	11 U	11 U	**15**	**34**
Benzene	ug/kg	**3.5 J**	5.5 U	1,200 U	300 U	**5.6**	5.2 U	6 U	5 U	**3.1 J**	5.8 U	**4.3 J**	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Bromochloromethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Bromodichloromethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Bromoform	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Bromomethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Carbon disulfide	ug/kg	**3.1 J**	**0.6 J**	1,200 U	300 U	**0.65 J**	5.2 UJ	**0.93 J**	**0.5 J**	**0.63 J**	**1.5 J**	**1.5 J**	850 U	590 U	5.9 U	5.6 U	5.5 U	**0.48 J**	**1.1 J**
Carbon tetrachloride	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Chlorobenzene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Chloroethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Chloroform	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Chloromethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
cis-1,2-dichloroethylene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	**0.61 J**	5.5 U	5.8 U	5.3 U
cis-1,3-dichloropropene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Cyclohexane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Dibromochloromethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Dichlorodifluoromethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Ethylbenzene	ug/kg	**88**	**0.99 J**	**19,000**	**5,500**	**9.5**	5.2 U	6 U	5 U	**21**	**6.7**	5.8 U	**12,000**	**9,200**	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Isopropylbenzene (cumene)	ug/kg	**44**	5.5 U	**5,100**	**1,400**	**1 J**	5.2 U	6 U	5 U	**3.1 J**	**0.49 J**	5.8 U	**7,300**	**5,700**	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
m, p xylenes	ug/kg	**5.8**	5.5 U	**2,400**	**690**	**2 J**	5.2 U	6 U	5 U	**5.5**	**0.89 J**	5.8 U	**3,100**	**2,200**	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151
Sample Number:		GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2	GC-SD151-07.2-09.2
Sample Depth:		4-6	6-8	8-9.8	8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2	7.2-9.2
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	FD	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Methyl ethyl ketone (2-butanone)	ug/kg	11 U	11 U	2,400 U	600 U	10 U	10 U	12 U	9.9 U	**6.2 J**	**8.9 J**	12 U	1,700 U	1,200 U	12 U	11 U	11 U	12 U	11 U
Methyl isobutyl ketone	ug/kg	11 U	11 U	2,400 U	600 U	10 U	10 U	12 U	9.9 U	10 U	12 U	12 U	1,700 U	1,200 U	12 U	11 U	11 U	12 U	11 U
Methylcyclohexane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Methylene chloride	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**15**	5.5 U	**3,100**	**1,000**	**1.3 J**	5.2 U	6 U	5 U	**14**	**2.5 J**	5.8 U	**6,500**	**4,600**	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Styrene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Tert-butyl methyl ether	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	**0.66 J**
Tetrachloroethylene(PCE)	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Toluene	ug/kg	**0.78 J**	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	**3.8 J**	**0.86 J**	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
trans-1,2-dichloroethene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
trans-1,3-dichloropropene	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Trichloroethylene (TCE)	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Trichlorofluoromethane	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 U	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 U
Vinyl chloride	ug/kg	5.5 U	5.5 U	1,200 U	300 U	5.2 U	5.2 UJ	6 U	5 U	5.2 U	5.8 U	5.8 U	850 U	590 U	5.9 U	5.6 U	5.5 U	5.8 U	5.3 UJ

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142
Sample Number:	D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1
Sample Depth:	7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1
Sample Date:	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
1,1,2,2-tetrachloroethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
1,1,2-trichloroethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 UJ	5.3 U
1,1-dichloroethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,1-dichloroethene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 UJ	5.1 UJ	5.1 U	5.2 UJ	4.7 UJ	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,2,3-trichlorobenzene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,2,4-trichlorobenzene	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,2-dibromo-3-chloropropane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,2-dibromoethane	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
1,2-dichlorobenzene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,2-dichloroethane	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
1,2-dichloropropane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,3-dichlorobenzene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,4-dichlorobenzene	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
1,4-dioxane (p-dioxane)	ug/kg	100 UR	110 UR	65,000 UR	63,000 UR	110 UR	130,000 UR	120 UR	100 UR	100 UR	100 UR	94 UR	100 UR	120 UR	120 UR	100 UR	110 UR	110 UR	110 UR
2-hexanone	ug/kg	10 U	11 U	6,500 U	6,300 U	11 U	13,000 U	12 U	10 U	10 U	10 U	9.4 U	10 U	12 U	12 U	10 U	11 U	11 U	11 U
Acetone	ug/kg	**26**	**33**	6,500 U	6,300 U	15 U	13,000 U	12 U	10 U	10 U	10 U	9.4 U	**12**	12 U	12 U	10 U	11 U	**42**	11 U
Benzene	ug/kg	5.2 U	**0.62 J**	**5,900**	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Bromochloromethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Bromodichloromethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Bromoform	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Bromomethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 UJ	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 UJ
Carbon disulfide	ug/kg	**0.86 J**	**0.47 J**	3,300 U	3,200 U	**5.8**	6,300 U	**5 J**	5.1 U	5.1 U	**4.1 J**	**3.4 J**	5.2 UJ	**5.3 J**	**1.4 J**	**0.43 J**	5.6 U	**32**	**9.5**
Carbon tetrachloride	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
Chlorobenzene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Chloroethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 UJ	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Chloroform	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Chloromethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 UJ	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
cis-1,2-dichloroethylene	ug/kg	5.2 U	**19**	3,300 U	3,200 U	5.6 U	6,300 U	5.9 UJ	5.1 UJ	5.1 U	5.2 UJ	4.7 UJ	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
cis-1,3-dichloropropene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 UJ	5.3 U
Cyclohexane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Dibromochloromethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Dichlorodifluoromethane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 UJ	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Ethylbenzene	ug/kg	5.2 U	5.4 U	**71,000**	**11,000**	5.6 U	**25,000**	**5.5 J**	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Isopropylbenzene (cumene)	ug/kg	5.2 U	5.4 U	**14,000**	**3,100 J**	5.6 U	**14,000**	**2.3 J**	5.1 U	5.1 U	**0.58 J**	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
m, p xylenes	ug/kg	5.2 U	5.4 U	**56,000**	**6,400**	5.6 U	**7,000**	**3.7 J**	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	**1.1 J**	5.3 U	5.3 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142
Sample Number:		D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1
Sample Depth:		7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1
Sample Date:		4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
Methyl ethyl ketone (2-butanone)	ug/kg	10 U	**8.2 J**	6,500 U	6,300 U	11 U	13,000 U	12 U	10 U	10 U	10 U	9.4 U	10 U	12 U	12 U	10 U	11 U	**6.8 J**	**3.5 J**
Methyl isobutyl ketone	ug/kg	10 U	11 U	6,500 U	6,300 U	11 U	13,000 U	12 U	10 U	10 U	10 U	9.4 U	10 U	12 U	12 U	10 U	11 U	11 U	11 U
Methylcyclohexane	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Methylene chloride	ug/kg	**0.81 J**	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
o-xylene (1,2-dimethylbenzene)	ug/kg	5.2 U	5.4 U	**32,000**	**5,600**	5.6 U	**16,000**	**3.5 J**	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	**0.49 J**	5.3 U	5.3 U
Styrene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Tert-butyl methyl ether	ug/kg	**0.35 J**	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	**0.48 J**	**0.93 J**	**0.7 J**	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
Tetrachloroethylene(PCE)	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Toluene	ug/kg	5.2 U	5.4 U	**7,600**	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
trans-1,2-dichloroethene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 UJ	5.1 UJ	5.1 U	5.2 UJ	4.7 UJ	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
trans-1,3-dichloropropene	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 UJ	5.3 U
Trichloroethylene (TCE)	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U
Trichlorofluoromethane	ug/kg	5.2 U	5.4 UJ	3,300 U	3,200 U	5.6 U	6,300 U	5.9 U	5.1 U	5.1 U	5.2 U	4.7 U	5.2 U	6 UJ	5.8 UJ	5.2 UJ	5.6 UJ	5.3 U	5.3 U
Vinyl chloride	ug/kg	5.2 U	5.4 U	3,300 U	3,200 U	5.6 U	6,300 U	5.9 UJ	5.1 UJ	5.1 UJ	5.2 UJ	4.7 UJ	5.2 UJ	6 U	5.8 U	5.2 U	5.6 U	5.3 U	5.3 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A	GC-SD81A
Sample Number:		GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3	D-04152010-03
Sample Depth:		8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3	5.3-7.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
1,1,2,2-tetrachloroethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
1,1,2-trichloroethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,1-dichloroethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,1-dichloroethene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,2,3-trichlorobenzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,2,4-trichlorobenzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,2-dibromo-3-chloropropane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,2-dibromoethane	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
1,2-dichlorobenzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	**0.47 J**	5.7 U
1,2-dichloroethane	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	**0.56 J**	5.7 UJ
1,2-dichloropropane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	**3.3 J**	5.7 U
1,3-dichlorobenzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,4-dichlorobenzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
1,4-dioxane (p-dioxane)	ug/kg	110 UR	110 UR	110 UR	100 UR	110 UR	110 UR	100 UR	110 UR	120 UR	110 UR	110 UR	110 UR	110 UR	110 UR	100 UR	110 UR	**35 J**	110 UR
2-hexanone	ug/kg	11 U	11 U	11 U	10 U	11 U	11 U	10 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U
Acetone	ug/kg	11 U	11 U	11 U	10 U	**12**	11 U	10 U	11 U	12 U	11 U	11 U	11 U	11 U	**25**	**24**	11 U	**20**	11 U
Benzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	**23**	**63**	5.5 U	**2.7 J**	5.7 U
Bromochloromethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Bromodichloromethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Bromoform	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Bromomethane	ug/kg	5.6 UJ	5.7 U	5.5 UJ	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 UJ	5.1 UJ	5.5 UJ	5.5 U	5.7 U
Carbon disulfide	ug/kg	**1.5 J**	**1.7 J**	**3.4 J**	5.2 U	**15**	**18**	5.1 U	5.5 U	5.9 U	5.3 U	**0.84 J**	5.5 U	**0.56 J**	**4.4 J**	**3.3 J**	5.5 U	**4.5 J**	**4.8 J**
Carbon tetrachloride	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
Chlorobenzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	**0.54 J**	5.7 U
Chloroethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Chloroform	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Chloromethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
cis-1,2-dichloroethylene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
cis-1,3-dichloropropene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	**3.2 J**	5.7 U
Cyclohexane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Dibromochloromethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Dichlorodifluoromethane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Ethylbenzene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	**11**	**1.2 J**	5.5 U	**3.4 J**	**7.4**	5.5 U	**43**	**38**
Isopropylbenzene (cumene)	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	**0.97 J**	5.5 U	5.5 U	**2.7 J**	**1.6 J**	5.5 U	**12**	**11**
m, p xylenes	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	**3.6 J**	**0.51 J**	5.5 U	**2.2 J**	**1.7 J**	5.5 U	**38**	**26**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A	GC-SD81A
Sample Number:		GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3	D-04152010-03
Sample Depth:		8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3	5.3-7.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	**2.9 J**	11 U	**2.8 J**	10 U	**4.8 J**	11 U	10 U	11 U	12 U	11 U	11 U	11 U	11 U	**4.6 J**	**4.1 J**	11 U	**3.3 J**	**2.8 J**
Methyl isobutyl ketone	ug/kg	11 U	11 U	11 U	10 U	11 U	11 U	10 U	11 U	12 U	11 U	11 U	11 U	11 U	11 U	10 U	11 U	11 U	11 U
Methylcyclohexane	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	**1.3 J**	5.7 U
Methylene chloride	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	**4.3 J**	**0.51 J**	5.5 U	**2 J**	**1.6 J**	5.5 U	**23**	**20**
Styrene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Tert-butyl methyl ether	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
Tetrachloroethylene(PCE)	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Toluene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	**7.4**	**6.7**
trans-1,2-dichloroethene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
trans-1,3-dichloropropene	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 UJ	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	**1.7 J**	5.7 U
Trichloroethylene (TCE)	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 UJ	5.9 UJ	5.3 U	5.5 U	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 U	5.7 U
Trichlorofluoromethane	ug/kg	5.6 UJ	5.7 UJ	5.5 UJ	5.2 UJ	5.6 U	5.4 UJ	5.1 UJ	5.5 UJ	5.9 UJ	5.3 UJ	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 UJ	5.5 UJ	5.5 UJ	5.7 UJ
Vinyl chloride	ug/kg	5.6 U	5.7 U	5.5 U	5.2 U	5.6 U	5.4 U	5.1 U	5.5 U	5.9 U	5.3 U	5.5 UJ	5.5 U	5.5 U	5.4 U	5.1 U	5.5 U	5.5 UJ	5.7 U

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3
Sample Number:	GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05
Sample Depth:	7.3-9.3	9.3-11.3	5-7	7-9	9-11	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3
Sample Date:	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
1,1,2,2-tetrachloroethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 U	5.1 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
1,1,2-trichloroethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 U	830 U	4.7 U	5.3 U	5.1 U
1,1-dichloroethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 UJ	4.1 U	4.2 U	4 U	4.4 UJ	4.5 UJ	4 U	4.4 U	830 U	4.7 UJ	5.3 U	5.1 U
1,1-dichloroethene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 UJ	4 U	4.4 U	830 U	4.7 U	5.3 UJ	5.1 UJ
1,2,3-trichlorobenzene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 UJ	4.2 U	4 U	4.4 U	270 U	4 U	4.4 U	830 U	4.7 R	1,100 U	1,000 U
1,2,4-trichlorobenzene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 UJ	4.2 U	4 U	4.4 U	270 U	4 U	4.4 U	830 U	4.7 R	1,100 U	1,000 U
1,2-dibromo-3-chloropropane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	270 U	4 U	4.4 U	830 U	4.7 R	1,100 U	1,000 U
1,2-dibromoethane	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
1,2-dichlorobenzene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 UJ	4.2 U	4 U	4.4 U	270 U	4 U	4.4 U	830 U	4.7 R	1,100 U	1,000 U
1,2-dichloroethane	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
1,2-dichloropropane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 UJ	4.5 UJ	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 U	5.1 U
1,3-dichlorobenzene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 UJ	4.2 U	4 U	4.4 U	**0.31 J**	4 U	4.4 U	830 U	4.7 R	1,100 U	1,000 U
1,4-dichlorobenzene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	**14 J**	**12**	**28**	4.4 U	**170 J**	**31**	**1.8 J**	100 UJ	**59 J**	**15 J**	**11 J**
1,4-dioxane (p-dioxane)	ug/kg	110 UR	110 UR	110 UR	110 UR	90 UR	110 UR	94 R	82 R	83 R	81 R	88 R	90 R	81 R	88 R	17,000 R	94 R	110 R	100 R
2-hexanone	ug/kg	11 U	11 U	11 U	11 U	9 U	11 U	9.4 U	8.2 U	8.3 U	8.1 U	8.8 U	9 U	8.1 U	8.8 U	1,700 U	9.4 U	11 U	10 U
Acetone	ug/kg	11 U	11 U	11 U	11 U	9 U	11 U	**35**	**17**	**17**	**28**	8.8 U	9 U	**21**	8.8 U	**1,900 J**	**30**	14 U	10 U
Benzene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	**24**	**53**	**2.1 J**	**7.8**	**5.3**	**96**	**27**	4.4 U	710 UJ	**600 J**	**12,000 J**	**3,300 J**
Bromochloromethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 UJ	4.1 U	4.2 U	4 U	4.4 UJ	4.5 UJ	4 U	4.4 U	830 U	4.7 UJ	5.3 U	5.1 U
Bromodichloromethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 UJ	4.5 UJ	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 U	5.1 U
Bromoform	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 UJ	4.1 U	4.2 U	4 U	4.4 UJ	270 U	4 U	4.4 U	830 U	4.7 R	1,100 U	1,000 U
Bromomethane	ug/kg	5.5 U	5.6 U	5.6 UJ	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 UJ	5.1 UJ
Carbon disulfide	ug/kg	5.5 U	**0.82 J**	**0.98 J**	**0.86 J**	4.5 U	**0.47 J**	**0.83 J**	**1 J**	**0.34 J**	**1.2 J**	**1.9 J**	**8.4**	**3.5 J**	**0.62 J**	42 U	**4.3 J**	**0.57 J**	**0.44 J**
Carbon tetrachloride	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
Chlorobenzene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	**3.6 J**	**9.3 J**	**2.8 J**	**13**	4.4 U	**6.6 J**	**2.3 J**	4.4 U	830 U	4.7 U	5.3 U	5.1 U
Chloroethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 UJ	5.1 UJ
Chloroform	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 UJ	4.1 U	4.2 U	4 U	4.4 UJ	4.5 UJ	4 U	4.4 U	830 U	4.7 UJ	5.3 U	5.1 U
Chloromethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 UJ	5.1 UJ
cis-1,2-dichloroethylene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 UJ	4 U	4.4 U	830 U	**0.47 J**	5.3 UJ	5.1 UJ
cis-1,3-dichloropropene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 U	830 U	4.7 U	5.3 U	5.1 U
Cyclohexane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 UJ	4.5 UJ	5.6 U	4.7 U	4.1 U	**0.67 J**	**4 J**	4.4 U	**13**	**2 J**	4.4 U	140 UJ	4.7 U	5.3 U	5.1 U
Dibromochloromethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 UJ	4.1 U	4.2 U	4 U	4.4 UJ	4.5 UJ	4 U	4.4 U	830 U	4.7 UJ	5.3 U	5.1 U
Dichlorodifluoromethane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 UJ	5.1 UJ
Ethylbenzene	ug/kg	5.5 U	**1 J**	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	**20**	**0.49 J**	**1.7 J**	**0.54 J**	**530 J**	**150**	4.4 U	**2,800 J**	**17,000 J**	**41,000 J**	**28,000 J**
Isopropylbenzene (cumene)	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	**4.8**	**14**	**2.7 J**	**7.2**	**2.3 J**	**230 J**	**39**	4.4 U	**870**	**3,800 J**	**6,300 J**	**4,500 J**
m, p xylenes	ug/kg	5.5 U	**0.86 J**	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	**6.7**	**0.6 J**	**1.5 J**	**0.46 J**	**310 J**	**64**	4.4 U	2,800 UJ	**5,500 J**	**3,900 J**	**2,600 J**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3
Sample Number:		GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05
Sample Depth:		7.3-9.3	9.3-11.3	5-7	7-9	9-11	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	11 U	11 U	11 U	11 U	9 U	11 U	**10**	8.2 U	8.3 U	**9.7**	8.8 U	9 U	8.1 U	8.8 U	860 U	9.4 U	11 U	10 U
Methyl isobutyl ketone	ug/kg	11 U	11 U	11 U	11 U	9 U	11 U	9.4 U	8.2 U	8.3 U	8.1 U	8.8 U	9 U	8.1 U	8.8 U	1,700 U	9.4 U	11 U	10 U
Methylcyclohexane	ug/kg	5.5 U	5.6 U	5.6 U	5.7 UJ	4.5 UJ	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	**23**	4 U	4.4 U	750 UJ	**82 J**	**20 J**	**7.2 J**
Methylene chloride	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	5.5 U	**0.48 J**	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	**14**	**0.46 J**	**1.1 J**	**2.2 J**	**330 J**	**68**	4.4 U	**870**	**5,400 J**	**13,000 J**	**9,200 J**
Styrene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 UJ	4 U	4.4 U	830 U	4.7 U	5.3 U	5.1 U
Tert-butyl methyl ether	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	**2 J**	**2 J**	**2.6 J**	**6**	**2.6 J**	**15 J**	**8.4 J**	**98 J**	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
Tetrachloroethylene(PCE)	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 UJ	4 U	4.4 U	830 U	4.7 U	5.3 U	5.1 U
Toluene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	**9.3**	4.7 U	4.1 U	**0.39 J**	**0.5 J**	4.4 U	**18 J**	**4.2**	**0.33 J**	220 UJ	**250 J**	**82**	**56 J**
trans-1,2-dichloroethene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 UJ	4 U	4.4 U	830 U	4.7 U	5.3 UJ	5.1 UJ
trans-1,3-dichloropropene	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 U	830 U	4.7 U	5.3 U	5.1 U
Trichloroethylene (TCE)	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 U	4.1 U	4.2 U	4 U	4.4 U	4.5 UJ	4 U	4.4 U	830 U	4.7 U	5.3 U	5.1 U
Trichlorofluoromethane	ug/kg	5.5 UJ	5.6 UJ	5.6 UJ	5.7 UJ	4.5 UJ	5.6 UJ	4.7 UJ	4.1 UJ	4.2 U	4 U	4.4 UJ	4.5 UJ	4 UJ	4.4 UJ	830 UJ	4.7 UJ	5.3 UJ	5.1 UJ
Vinyl chloride	ug/kg	5.5 U	5.6 U	5.6 U	5.7 U	4.5 U	5.6 U	4.7 UJ	4.1 U	4.2 U	4 U	4.4 U	4.5 U	4 U	4.4 U	830 U	4.7 U	5.3 UJ	5.1 UJ

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:	ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:	7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**						
1,1,1-trichloroethane	ug/kg	4.6 UJ	4.7 UJ	420 U	5 U	4.2 UJ	1,600 UJ	4.6 UJ	5.3 UJ
1,1,2,2-tetrachloroethane	ug/kg	4.6 UJ	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	4.6 UJ	4.7 UJ	4.6 UJ	5 U	4.2 UJ	8 UJ	4.6 UJ	5.3 UJ
1,1,2-trichloroethane	ug/kg	4.6 U	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
1,1-dichloroethane	ug/kg	4.6 UJ	4.7 U	4.6 U	5 U	4.2 U	8 U	4.6 U	5.3 U
1,1-dichloroethene	ug/kg	4.6 UJ	4.7 U	4.6 U	5 U	4.2 U	8 U	4.6 UJ	5.3 U
1,2,3-trichlorobenzene	ug/kg	2,800 U	2,800 U	420 U	5 R	4.2 R	1,600 U	820 U	5.3 U
1,2,4-trichlorobenzene	ug/kg	2,800 U	2,800 U	420 U	5 R	4.2 R	1,600 U	820 U	5.3 U
1,2-dibromo-3-chloropropane	ug/kg	2,800 U	2,800 U	420 U	5 R	4.2 R	1,600 U	820 U	5.3 U
1,2-dibromoethane	ug/kg	4.6 UJ	4.7 UJ	420 U	5 U	4.2 UJ	1,600 UJ	4.6 UJ	5.3 UJ
1,2-dichlorobenzene	ug/kg	2,800 U	2,800 U	420 U	5 R	4.2 R	1,600 U	820 U	5.3 U
1,2-dichloroethane	ug/kg	4.6 UJ	4.7 UJ	4.6 UJ	5 U	4.2 UJ	8 UJ	4.6 UJ	5.3 UJ
1,2-dichloropropane	ug/kg	4.6 U	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
1,3-dichlorobenzene	ug/kg	2,800 U	2,800 U	420 U	5 R	4.2 R	1,600 U	820 U	5.3 U
1,4-dichlorobenzene	ug/kg	2,800 U	2,800 U	420 U	5 R	4.2 R	23 UJ	820 U	5.3 U
1,4-dioxane (p-dioxane)	ug/kg	93 R	93 R	93 R	100 R	84 R	33,000 R	93 R	110 R
2-hexanone	ug/kg	9.3 U	9.3 U	840 U	10 U	8.4 U	3,300 U	9.3 U	11 U
Acetone	ug/kg	17 U	14 U	**55**	**20**	9.6 U	29 U	**19**	11 U
Benzene	ug/kg	**2,800 J**	**4,800 J**	**630 J**	**1,800 J**	**500 J**	**4,700**	**1,300 J**	**30**
Bromochloromethane	ug/kg	4.6 UJ	4.7 U	4.6 U	5 U	4.2 U	8 U	4.6 U	5.3 U
Bromodichloromethane	ug/kg	4.6 U	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Bromoform	ug/kg	2,800 U	2,800 U	420 U	5 R	4.2 R	1,600 U	820 U	5.3 U
Bromomethane	ug/kg	4.6 U	4.7 U	4.6 U	5 U	4.2 U	8 UJ	4.6 UJ	5.3 U
Carbon disulfide	ug/kg	14 U	**8.5**	**8.6**	**3.6 J**	**2.3 J**	11 UJ	**9.1 J**	**5.5**
Carbon tetrachloride	ug/kg	4.6 UJ	4.7 UJ	420 U	5 U	4.2 UJ	1,600 UJ	4.6 UJ	5.3 UJ
Chlorobenzene	ug/kg	4.6 U	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Chloroethane	ug/kg	4.6 U	4.7 U	4.6 U	5 U	4.2 U	8 UJ	4.6 UJ	5.3 U
Chloroform	ug/kg	4.6 UJ	4.7 U	4.6 U	5 U	4.2 U	8 U	4.6 U	5.3 U
Chloromethane	ug/kg	4.6 U	4.7 U	4.6 U	5 U	4.2 U	8 UJ	4.6 UJ	5.3 U
cis-1,2-dichloroethylene	ug/kg	**0.44 J**	4.7 U	**4.6 J**	5 U	4.2 U	8 U	4.6 UJ	5.3 U
cis-1,3-dichloropropene	ug/kg	4.6 U	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Cyclohexane	ug/kg	4.6 U	4.7 U	420 U	**650 J**	**54 J**	1,600 U	4.6 U	5.3 U
Dibromochloromethane	ug/kg	4.6 UJ	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Dichlorodifluoromethane	ug/kg	4.6 U	4.7 U	4.6 U	5 U	4.2 U	8 UJ	4.6 UJ	5.3 U
Ethylbenzene	ug/kg	**78,000 J**	**8,300 J**	**7,200 J**	**8,000 J**	**3,600 J**	**48,000**	**25,000 J**	**39**
Isopropylbenzene (cumene)	ug/kg	**15,000 J**	**17,000 J**	**680 J**	**9,900 J**	**5,600 J**	**7,200**	**3,500 J**	**2.6 J**
m, p xylenes	ug/kg	**66,000 J**	**71,000 J**	**6,000 J**	**1,600 J**	**110**	**34,000**	**17,000 J**	**13**

TABLE I-14A
VOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:	ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:	7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	N
Parameter	**Units**							**Volatile Organic Compounds**
Methyl acetate	ug/kg	4.6 UJ	4.7 UJ	4.6 UJ	5 U	4.2 UJ	8 UJ	4.6 UJ	5.3 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	9.3 U	9.3 U	**16**	10 U	8.4 U	9.7 UJ	9.3 U	11 U
Methyl isobutyl ketone	ug/kg	9.3 U	9.3 U	840 U	10 U	8.4 U	3,300 U	9.3 U	11 U
Methylcyclohexane	ug/kg	**41 J**	**89 J**	420 U	**2,400 J**	**1,800 J**	310 UJ	**36 J**	5.3 U
Methylene chloride	ug/kg	4.6 UJ	4.7 UJ	4.6 UJ	5 U	4.2 UJ	8 UJ	4.6 UJ	5.3 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	**28,000 J**	**30,000 J**	**2,900 J**	**1,600 J**	**120**	**17,000**	**8,700 J**	**15**
Styrene	ug/kg	4.6 UJ	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Tert-butyl methyl ether	ug/kg	4.6 UJ	4.7 UJ	4.6 UJ	**26**	**14 J**	8 UJ	4.6 UJ	5.3 UJ
Tetrachloroethylene(PCE)	ug/kg	4.6 UJ	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Toluene	ug/kg	**140 J**	**430 J**	**330 J**	**23 J**	**5.3**	**1,500 J**	**370 J**	**5.1 J**
trans-1,2-dichloroethene	ug/kg	4.6 UJ	4.7 U	4.6 U	5 U	4.2 U	8 U	4.6 UJ	5.3 U
trans-1,3-dichloropropene	ug/kg	4.6 U	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Trichloroethylene (TCE)	ug/kg	4.6 UJ	4.7 U	420 U	5 U	4.2 U	1,600 U	4.6 U	5.3 U
Trichlorofluoromethane	ug/kg	4.6 UJ	4.7 UJ	4.6 UJ	5 U	4.2 UJ	8 UJ	4.6 UJ	5.3 UJ
Vinyl chloride	ug/kg	4.6 UJ	4.7 U	4.6 U	5 U	4.2 U	8 UJ	4.6 UJ	5.3 U

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
Sample Number:	GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
Sample Depth:	8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg	**270 J (R)**		0.77 J														
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg	**2,100 (R)**	51	8.3	27	1.4 J	1.9 J											
1,4-dioxane (p-dioxane)	ug/kg		23 J															
Acetone	ug/kg		66	28	37													
Benzene	ug/kg	**810 (R)**	15	11	5.8				**6,600 (A,R)**	**2,000 (A,R)**	**2,000 (A,R)**	250 J	390			**10,000 (A,R)**	**1,200 (A,R)**	170 J
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg		11	4.1 J	5.2 J	2 J	1.9 J											
Chlorobenzene	ug/kg	**1,200 (R)**	40	9.3	10													
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg		5.4															
Dichlorodifluoromethane	ug/kg																	
Ethylbenzene	ug/kg		13	2.5 J	3.5 J		**66,000 (A,R)**	12	**40,000 (A,R)**	**77,000 (A,R)**	**29,000 (A,R)**	**22,000 (A,R)**	**520 (R)**	**1,600 (R)**	**10,000 (A,R)**	**77,000 (A,R)**	**73,000 (A,R)**	**9,300 (A,R)**	**1,200 (R)**
Isopropylbenzene (cumene)	ug/kg		93	17	82		11,000	7.9	8,600	16,000	7,400	2,700		120 J	1,200	8,900	16,000	2,800	180 J
m, p xylenes	ug/kg		5.9	1.1 J	2.3 J		**9,500 (R)**	0.99 J	**8,100 (R)**	**28,000 (R)**	**22,000 (R)**	**970 (R)**		**1,100 (R)**	**670 (R)**	**10,000 (R)**	**4,400 (R)**	**790 (R)**	
Methyl acetate	ug/kg		1.5 J															
Methyl ethyl ketone (2-butanone)	ug/kg		17	9.2 J	11		1,400 J	2.3 J											
*Methylcyclohexane	ug/kg																	
Methylene chloride	ug/kg																	
o-xylene (1,2-dimethylbenzene)	ug/kg	190 J	18	3.8 J	24		**18,000 (R)**	6.6	**15,000 (R)**	**26,000 (R)**	**11,000 (R)**	**7,500 (R)**	110 J	480	**3,300 (R)**	**23,000 (R)**	**27,000 (R)**	**3,700 (R)**	410
Styrene	ug/kg																	
Tert-butyl methyl ether	ug/kg			1.7 J	24	18 J		0.4 J											
Toluene	ug/kg																	
trans-1,3-dichloropropene	ug/kg																	
Trichloroethylene (TCE)	ug/kg		0.6 J															

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:		GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:		13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:		3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:		N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																2.9 J		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**14,000 (A,R)**	**7,400 (A,R)**	**1,700 (A,R)**	**860 (R)**	**1,400 (A,R)**	**3,200 (A,R)**	**12,000 (A,R)**	**12,000 (A,R)**	**17,000 (A,R)**	**15,000 (A,R)**	**7,400 (A,R)**	**1,000 J (R)**	**720 (R)**					
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg																1.4 J	6.8	3.9 J
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**170,000 (A,R)**	**36,000 (A,R)**	**13,000 (A,R)**	**7,200 (A,R)**	**19,000 (A,R)**	**16,000 (A,R)**	**79,000 (A,R)**	**95,000 (A,R)**	**120,000 (A,R)**	**110,000 (A,R)**	**58,000 (A,R)**	**45,000 (A,R)**	**13,000 (A,R)**	**48,000 (A,R)**	**260 J (R)**			
Isopropylbenzene (cumene)	ug/kg	44,000	4,500	2,200	1,200	2,400	1,900	8,200	11,000	14,000	9,700	5,600	5,600	1,200	6,900	1,500			0.39 J
m, p xylenes	ug/kg	**7,500 (R)**	**1,200 J (R)**			**13,000 (R)**	**2,300 (R)**	**18,000 (R)**	**43,000 (R)**	**58,000 (R)**	**20,000 (R)**	**27,000 (R)**	**30,000 (R)**	330 J	**1,400 J (R)**				0.4 J
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg															260 J			
*Methylcyclohexane	ug/kg															150 J			
Methylene chloride	ug/kg		850 J	560 J												87 J			
o-xylene (1,2-dimethylbenzene)	ug/kg	**49,000 (R)**	**9,000 (R)**	**2,800 (R)**	**1,600 (R)**	**6,600 (R)**	**5,400 (R)**	**25,000 (R)**	**33,000 (R)**	**42,000 (R)**	**32,000 (R)**	**18,000 (R)**	**15,000 (R)**	**4,000 (R)**	**16,000 (R)**				
Styrene	ug/kg												790 J						
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg																		
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																1.8 J		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD17A
Sample Number:		GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4	GC-SD017A-02.0-04.0
Sample Depth:		9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4	2-4
Sample Date:		3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg				**12,000 (A,R)**	**14,000 (A,R)**	170 J	**3,300 (A,R)**	**9,100 (A,R)**		220 J								**640 J (R)**
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg	6.5	6.6																
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg			**48,000 (A,R)**	**140,000 (A,R)**	**130,000 (A,R)**	**470 (R)**	**67,000 (A,R)**	**97,000 (A,R)**	**250 J (R)**	**1,600 (R)**	**12,000 (A,R)**	**300,000 (A,R)**	**23,000 (A,R)**	**38,000 (A,R)**	**130,000 (A,R)**	**170 J (R)**	**2,300 J (R)**	**1,500 (R)**
Isopropylbenzene (cumene)	ug/kg	1.3 J		5,900	10,000	12,000		2,900	3,300			6,500	8,600 J	6,000	1,300 J		110 J	5,100	4,100
m, p xylenes	ug/kg			**34,000 (R)**	**97,000 (R)**	**82,000 (R)**	350	**48,000 (R)**	**80,000 (R)**	190 J	**660 (R)**	**17,000 (R)**	**280,000 (R)**	**25,000 (R)**	**33,000 (R)**	**150,000 (R)**			**850 J (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg											280 J							
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg			**16,000 (R)**	**47,000 (R)**	**40,000 (R)**	200 J	**27,000 (R)**	**40,000 (R)**	99 J	420	**7,300 (R)**	**130,000 (R)**	**11,000 (R)**	**17,000 (R)**	**72,000 (R)**		**730 J (R)**	**650 J (R)**
Styrene	ug/kg										610				3,100	41,000			
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg			**17,000 (R)**	**84,000 (R)**	**29,000 (R)**		**5,400 (R)**	**12,000 (R)**			**1,100 (R)**	**71,000 (R)**	**1,700 (R)**	**1,700 (R)**	**20,000 (R)**			
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146	GC-SD146	GC-SD147
Sample Number:	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0	D-04122010-02	GC-SD147-03.5-05.5
Sample Depth:	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13	11-13	3.5-5.5
Sample Date:	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/9/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg					7												
1,2-dichloroethane	ug/kg					0.67 J		0.45 J										
1,2-dichloropropane	ug/kg					8.1		22										
1,3-dichlorobenzene	ug/kg					0.6 J												
1,4-dichlorobenzene	ug/kg					6.4			220 J		**1,000 J (R)**							
1,4-dioxane (p-dioxane)	ug/kg							24 J										
Acetone	ug/kg					40											12	
Benzene	ug/kg	**2,300 J (A,R)**				12		17				**760 J (R)**						
*Bromochloromethane	ug/kg							1.3 J										
Carbon disulfide	ug/kg					27		20		1.6 J						14	36	
Chlorobenzene	ug/kg					3.6 J												
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg					2.9 J		4.2 J										
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg																	
Ethylbenzene	ug/kg	**6,200 (A,R)**	**4,600 (R)**	**40,000 (A,R)**	**70,000 (A,R)**	**130 (R)**	**17,000 (A,R)**	38	**13,000 (A,R)**	1.5 J	**27,000 (A,R)**	**5,600 (A,R)**	**43,000 (A,R)**	**96,000 (A,R)**	**10,000 (A,R)**	**30,000 (A,R)**	2.4 J	16	**25,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	15,000	3,100	6,900		130	6,400	5.5	3,000	0.41 J	2,800	1,600	12,000	16,000	2,900	9,200	0.87 J	4.4 J	1,600 J
m, p xylenes	ug/kg		**3,900 (R)**	**34,000 (R)**	**85,000 (R)**	29	**9,600 (R)**	18	**6,100 (R)**	0.62 J	**13,000 (R)**	**2,600 (R)**	**37,000 (R)**	**57,000 (R)**	**7,600 (R)**	**25,000 (R)**	2.1 J	12	**36,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg					11													
*Methylcyclohexane	ug/kg					15		10				130 J	950 J						
Methylene chloride	ug/kg						350 J												
o-xylene (1,2-dimethylbenzene)	ug/kg	**2,700 (R)**	**2,500 (R)**	**18,000 (R)**	**41,000 (R)**	66	**8,800 (R)**	18	**4,400 (R)**	0.96 J	**13,000 (R)**	**3,000 (R)**	**20,000 (R)**	**33,000 (R)**	**5,800 (R)**	**15,000 (R)**	1.6 J	8.3	**17,000 (R)**
Styrene	ug/kg																		6,800
Tert-butyl methyl ether	ug/kg							0.34 J											
Toluene	ug/kg			**1,200 (R)**															**5,300 (R)**
trans-1,3-dichloropropene	ug/kg					1.5 J		1.9 J											
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B
Sample Number:	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0	GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0
Sample Depth:	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	10-12	12-14	4-6	6-8	8-10	10-12
Sample Date:	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg																	
Benzene	ug/kg						**9,000 (A,R)**	**4,100 J (A,R)**					0.7 J	0.7 J				
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg									19	4.6 J		2 J	2 J				
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg										1.7 J							
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg										0.72 J							
Ethylbenzene	ug/kg	**27,000 (A,R)**	**30,000 (A,R)**	**9,400 (A,R)**	**37,000 (A,R)**	**26,000 (A,R)**	**88,000 (A,R)**	**72,000 (A,R)**					1 J	0.5 J	**9,000 (A,R)**	**26,000 (A,R)**	**34,000 (A,R)**	**12,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	1,600 J	1,800 J	3,300	12,000	11,000		7,700	76 J	150 J	0.49 J	2.3 J	760	0.4 J	2,000	6,000	8,200	2,100
m, p xylenes	ug/kg	**42,000 (R)**	**46,000 (R)**	**13,000 (R)**	**49,000 (R)**	**36,000 (R)**	**150,000 (R)**	**96,000 (R)**						0.3 J	**4,800 (R)**	**10,000 (R)**	**17,000 (R)**	**6,300 (R)**
Methyl acetate	ug/kg																	
Methyl ethyl ketone (2-butanone)	ug/kg													2 J				
*Methylcyclohexane	ug/kg																	
Methylene chloride	ug/kg																	
o-xylene (1,2-dimethylbenzene)	ug/kg	**21,000 (R)**	**23,000 (R)**	**8,100 (R)**	**25,000 (R)**	**20,000 (R)**	**75,000 (R)**	**50,000 (R)**					0.6 J	0.8 J	**3,900 (R)**	**12,000 (R)**	**14,000 (R)**	**5,100 (R)**
Styrene	ug/kg	9,700	11,000				66,000	25,000										
Tert-butyl methyl ether	ug/kg																	
Toluene	ug/kg	**5,300 (R)**	**5,900 (R)**				**64,000 (R)**	**18,000 (R)**										
trans-1,3-dichloropropene	ug/kg																	
Trichloroethylene (TCE)	ug/kg																	

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD129
Sample Number:	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3	GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6
Sample Depth:	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	6.6-8.6
Sample Date:	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg							**1,100 J (R)**	**1,100 J (R)**	**1,700 J (A,R)**	**1,200 J (A,R)**	**2,400 J (A,R)**			390 J				
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg					0.57 J													
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**8,200 (A,R)**	**50,000 (A,R)**	**33,000 (A,R)**	**53,000 (A,R)**	7.8	**45,000 (A,R)**	**33,000 (A,R)**	**36,000 (A,R)**	**41,000 (A,R)**	**28,000 (A,R)**	**110,000 (A,R)**	**2,200 (R)**	**1,000 (R)**	**18,000 (A,R)**	**34,000 (A,R)**	**16,000 (A,R)**	**20,000 (A,R)**	**4,800 (R)**
Isopropylbenzene (cumene)	ug/kg	4,400	14,000	9,200	15,000	0.92 J	13,000	6,500	7,800	8,200	5,500	21,000	580	350	3,700	8,500	3,800	5,000	1,000
m, p xylenes	ug/kg	**4,900 (R)**	**16,000 (R)**	**3,400 (R)**	**54,000 (R)**	1.8 J	**23,000 (R)**	**32,000 (R)**	**34,000 (R)**	**37,000 (R)**	**25,000 (R)**	**94,000 (R)**	**1,200 (R)**	**550 (R)**	**10,000 (R)**	**34,000 (R)**	**10,000 (R)**	**14,000 (R)**	**5,000 (R)**
Methyl acetate	ug/kg												120 J						
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**3,700 (R)**	**24,000 (R)**	**16,000 (R)**	**27,000 (R)**	3.1 J	**24,000 (R)**	**16,000 (R)**	**16,000 (R)**	**18,000 (R)**	**12,000 (R)**	**49,000 (R)**	**1,600 (R)**	**770 (R)**	**14,000 (R)**	**23,000 (R)**	**8,500 (R)**	**11,000 (R)**	**2,700 (R)**
Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg											**7,200 (R)**							780
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A	GC-SD111	GC-SD111
Sample Number:	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1	GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3
Sample Depth:	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1	8.1-8.6	8.3-10.3	10.3-12.3
Sample Date:	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/16/2010	3/16/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg																	
Benzene	ug/kg			**3,200 J (A,R)**	**3,700 J (A,R)**	**6,400 (A,R)**	**10,000 (A,R)**	**940 J (R)**					9.8	260 J	160 J			
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg																	
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg																	
Ethylbenzene	ug/kg	**1,300 (R)**	**47,000 (A,R)**	**74,000 (A,R)**	**70,000 (A,R)**	**120,000 (A,R)**	**130,000 (A,R)**	**23,000 (A,R)**	**24,000 (A,R)**	**8,600 (A,R)**	**11,000 (A,R)**	**130,000 (A,R)**	27	**11,000 (A,R)**	**4,700 (R)**	**17,000 (A,R)**	**670 (R)**	**3,000 (R)**	**480 (R)**
Isopropylbenzene (cumene)	ug/kg	230 J	11,000	13,000	11,000	20,000	17,000	9,800	9,400	2,100	2,500	14,000	2.4 J	3,200	1,000	5,100		650	
m, p xylenes	ug/kg	**1,300 (R)**	**38,000 (R)**	**63,000 (R)**	**59,000 (R)**	**100,000 (R)**	**120,000 (R)**	**17,000 (R)**	**24,000 (R)**	**11,000 (R)**	**14,000 (R)**	**180,000 (R)**	21	**13,000 (R)**	**4,600 (R)**	**21,000 (R)**	**690 (R)**	**3,400 (R)**	360
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		340 J
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**700 (R)**	**22,000 (R)**	**31,000 (R)**	**29,000 (R)**	**50,000 (R)**	**58,000 (R)**	**17,000 (R)**	**20,000 (R)**	**5,700 (R)**	**7,500 (R)**	**84,000 (R)**	14	**6,100 (R)**	**2,200 (R)**	**10,000 (R)**	330	**1,800 (R)**	180 J
Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg			**13,000 (R)**	**16,000 (R)**	**26,000 (R)**	**23,000 (R)**	**3,900 (R)**	**2,300 (R)**	690	**1,000 (R)**	**26,000 (R)**	14	**2,600 (R)**	900			570	
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD111	GC-SD111	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A
Sample Number:	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0	GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01
Sample Depth:	12.3-14.3	14.3-15.9	8.3-10.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10	10-12	12-14	16-17.7	9.3-11.3	9.3-11.3
Sample Date:	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg		44															
Benzene	ug/kg		4.6 J				120 J	**4,500 (A,R)**	80	**17,000 (A,R)**	**14,000 (A,R)**	320 J		**6,300 J (A,R)**	**8,900 J (A,R)**		**3,800 (A,R)**	**2,600 J (A,R)**
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg		1.9 J						1.8 J									
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg																	**4,500 (A)**
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg																	
Ethylbenzene	ug/kg	**330 (R)**			**3,900 (R)**	**21,000 (A,R)**	**61,000 (A,R)**	**3,400 (R)**	**68,000 (A,R)**	**220 J (R)**	**240,000 (A,R)**	**270,000 (A,R)**	**5,400 (R)**	**7,800 (A,R)**	**81,000 (A,R)**	**200,000 (A,R)**	2.5 J	**78,000 (A,R)**	**60,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg			360	1,200	3,900	8,900	360	6,500	34	14,000	13,000	820	1,500	15,000	30,000		11,000	8,900
m, p xylenes	ug/kg	280 J			**3,200 (R)**	**16,000 (R)**	**48,000 (R)**	**2,700 (R)**	**49,000 (R)**	190	**220,000 (R)**	**250,000 (R)**	**4,600 (R)**	**7,200 (R)**	**63,000 (R)**	**170,000 (R)**	1.7 J	**63,000 (R)**	**49,000 (R)**
Methyl acetate	ug/kg																	
Methyl ethyl ketone (2-butanone)	ug/kg		12							2.9 J								
*Methylcyclohexane	ug/kg																	
Methylene chloride	ug/kg																	
o-xylene (1,2-dimethylbenzene)	ug/kg	150 J			**1,900 (R)**	**9,000 (R)**	**26,000 (R)**	**1,600 (R)**	**31,000 (R)**	120	**110,000 (R)**	**120,000 (R)**	**2,100 (R)**	**3,600 (R)**	**35,000 (R)**	**88,000 (R)**	1.2 J	**30,000 (R)**	**24,000 (R)**
Styrene	ug/kg										26,000								
Tert-butyl methyl ether	ug/kg																	
Toluene	ug/kg							320	**6,300 (R)**	45	**31,000 (R)**	**30,000 (R)**	**980 (R)**	**1,100 (R)**		**23,000 (R)**			
trans-1,3-dichloropropene	ug/kg																	
Trichloroethylene (TCE)	ug/kg																	

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A
Sample Number:	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02	GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1
Sample Depth:	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15	8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1
Sample Date:	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg																	
Benzene	ug/kg	**1,500 J (A,R)**	**1,100 J (R)**	**820 (R)**	**46,000 (A,R)**	**25,000 (A,R)**	410 J	**2,000 J (A,R)**	**1,700 (A,R)**	**24,000 (A,R)**		**4,800 J (A,R)**	**1,500 J (A,R)**	**2,700 (A,R)**	**2,700 (A,R)**	**42,000 (A,R)**	**160,000 (A,R)**	**15,000 (A,R)**	**26,000 (A,R)**
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg																	
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg																	
Ethylbenzene	ug/kg	**47,000 (A,R)**	**46,000 (A,R)**	**14,000 (A,R)**	**360,000 (A,R)**	**190,000 (A,R)**	**12,000 (A,R)**	**43,000 (A,R)**	**26,000 (A,R)**	**190,000 (A,R)**	**44,000 (A,R)**	**100,000 (A,R)**	**25,000 (A,R)**	**42,000 (A,R)**	**42,000 (A,R)**	**230,000 (A,R)**	**470,000 (A,R)**	**85,000 (A,R)**	**190,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	6,900	5,700	2,000	14,000	9,100	1,100	3,800	2,000		4,800	10,000	3,000	5,000	5,900	33,000	57,000	13,000	29,000
m, p xylenes	ug/kg	**38,000 (R)**	**38,000 (R)**	**12,000 (R)**	**290,000 (R)**	**190,000 (R)**	**13,000 (R)**	**42,000 (R)**	**24,000 (R)**	**170,000 (R)**	**39,000 (R)**	**88,000 (R)**	**22,000 (R)**	**35,000 (R)**	**36,000 (R)**	**180,000 (R)**	**420,000 (A,R)**	**66,000 (R)**	**160,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg									25,000									
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**18,000 (R)**	**18,000 (R)**	**5,900 (R)**	**140,000 (R)**	**91,000 (R)**	**5,800 (R)**	**19,000 (R)**	**11,000 (R)**	**86,000 (R)**	**18,000 (R)**	**39,000 (R)**	**11,000 (R)**	**17,000 (R)**	**16,000 (R)**	**97,000 (R)**	**220,000 (R)**	**37,000 (R)**	**80,000 (R)**
Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg		**3,100 (R)**		**120,000 (R)**	**120,000 (R)**	**2,800 (R)**	**9,900 (R)**	**4,600 (R)**	**110,000 (R)**	**6,100 (R)**	**11,000 (R)**				**99,000 (R)**	**440,000 (R)**		**45,000 (R)**
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A
Sample Number:		GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01	GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6
Sample Depth:		8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6
Sample Date:		3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**18,000 (A,R)**	**33,000 (A,R)**	**34,000 (A,R)**	**8,700 (A,R)**	**49,000 (A,R)**	**46,000 (A,R)**	**31,000 (A,R)**	**68,000 (A,R)**	**91,000 (A,R)**	**220,000 (A,R)**	**110,000 (A,R)**	**77,000 (A,R)**	**200,000 (A,R)**	**180,000 (A,R)**	**340,000 (A,R)**	**150,000 (A,R)**	**270,000 (A,R)**	**19,000 (A,R)**
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg																		
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**140,000 (A,R)**	**170,000 (A,R)**	**140,000 (A,R)**	**59,000 (A,R)**	**350,000 (A,R)**	**210,000 (A,R)**	**130,000 (A,R)**	**300,000 (A,R)**	**300,000 (A,R)**	**610,000 (A,R)**	**270,000 (A,R)**	**160,000 (A,R)**	**350,000 (A,R)**	**320,000 (A,R)**	**530,000 (A,R)**	**290,000 (A,R)**	**390,000 (A,R)**	**140,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	21,000	34,000	20,000	2,400 J	6,500 J	22,000	14,000	44,000	13,000 J	13,000 J	5,200 J		7,400 J	6,300 J	8,800 J			
m, p xylenes	ug/kg	**120,000 (R)**	**170,000 (R)**	**110,000 (R)**	**48,000 (R)**	**290,000 (R)**	**160,000 (R)**	**100,000 (R)**	**220,000 (R)**	**230,000 (R)**	**630,000 (A,R)**	**260,000 (R)**	**260,000 (R)**	**530,000 (A,R)**	**500,000 (A,R)**	**790,000 (A,R)**	**390,000 (A,R)**	**590,000 (A,R)**	**110,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**58,000 (R)**	**89,000 (R)**	**56,000 (R)**	**23,000 (R)**	**120,000 (R)**	**85,000 (R)**	**50,000 (R)**	**120,000 (R)**	**120,000 (R)**	**300,000 (R)**	**120,000 (R)**	**120,000 (R)**	**240,000 (R)**	**230,000 (R)**	**340,000 (R)**	**180,000 (R)**	**280,000 (R)**	**58,000 (R)**
Styrene	ug/kg										200,000	65,000	160,000	330,000	330,000	530,000	270,000	480,000	
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg		**53,000 (R)**	**110,000 (R)**	**35,000 (R)**	**190,000 (R)**	**160,000 (R)**	**100,000 (R)**	**240,000 (R)**	**260,000 (R)**	**600,000 (A,R)**	**260,000 (R)**	**200,000 (R)**	**450,000 (R)**	**400,000 (R)**	**720,000 (A,R)**	**400,000 (R)**	**590,000 (A,R)**	**92,000 (R)**
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A
Sample Number:		GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01	GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0
Sample Depth:		4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5	10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12
Sample Date:		3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**10,000 (A,R)**	**39,000 (A,R)**	**27,000 (A,R)**	**130,000 (A,R)**	**67,000 (A,R)**	**160,000 (A,R)**	**43,000 (A,R)**	**12,000 (A,R)**	**12,000 (A,R)**	**150,000 (A,R)**	**12,000 (A,R)**	410	260 J	**1,400 J (A,R)**	**11,000 (A,R)**	230 J	**38,000 (A,R)**	**61,000 (A,R)**
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg																		
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**73,000 (A,R)**	**260,000 (A,R)**	**97,000 (A,R)**	**310,000 (A,R)**	**200,000 (A,R)**	**240,000 (A,R)**	**130,000 (A,R)**	**26,000 (A,R)**	**51,000 (A,R)**	**400,000 (A,R)**	**40,000 (A,R)**	**1,100 (R)**	**930 (R)**	**32,000 (A,R)**	**98,000 (A,R)**	**850 (R)**	**170,000 (A,R)**	**280,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	2,700 J	7,200 J			3,100 J		5,300 J	860 J	4,500	13,000 J	7,900			1,300 J	4,500 J		20,000	13,000 J
m, p xylenes	ug/kg	**59,000 (R)**	**230,000 (R)**	**79,000 (R)**	**280,000 (R)**	**200,000 (R)**	**360,000 (A,R)**	**230,000 (R)**	**47,000 (R)**	**41,000 (R)**	**340,000 (R)**	**110,000 (R)**	**800 (R)**	**730 (R)**	**30,000 (R)**	**120,000 (R)**		**160,000 (R)**	**290,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**29,000 (R)**	**100,000 (R)**	**40,000 (R)**	**140,000 (R)**	**95,000 (R)**	**160,000 (R)**	**110,000 (R)**	**23,000 (R)**	**21,000 (R)**	**170,000 (R)**	**76,000 (R)**	430	380	**16,000 (R)**	**57,000 (R)**		**71,000 (R)**	**130,000 (R)**
Styrene	ug/kg							200,000 J	38,000										
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg	**38,000 (R)**	**64,000 (R)**	**76,000 (R)**	**310,000 (R)**	**190,000 (R)**	**450,000 (R)**	**200,000 (R)**	**43,000 (R)**	**39,000 (R)**	**400,000 (R)**	**17,000 (R)**			**4,100 (R)**	**24,000 (R)**		**23,000 (R)**	**47,000 (R)**
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A
Sample Number:		GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6	GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6
Sample Depth:		12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6	2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6
Sample Date:		3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**46,000 (A,R)**		**1,500 (A,R)**	**680 (R)**	**3,700 (A,R)**	**4,200 J (A,R)**	200 J		4 J	**14,000 (A,R)**	**67,000 (A,R)**	**29,000 (A,R)**	**24,000 (A,R)**	**12,000 (A,R)**	**10,000 (A,R)**	**130,000 (A,R)**	**160,000 (A,R)**	**75,000 (A,R)**
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg									3 J									
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**330,000 (A,R)**	**17,000 (A,R)**	**15,000 (A,R)**	**9,600 (A,R)**	**36,000 (A,R)**	**40,000 (A,R)**	**410 (R)**	**520 (R)**	68	**83,000 (A,R)**	**220,000 (A,R)**	**110,000 (A,R)**	**55,000 (A,R)**	**13,000 (A,R)**	**34,000 (A,R)**	**86,000 (A,R)**	**97,000 (A,R)**	**52,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	24,000	2,100	1,400	1,000	6,500	2,800 J	550		0.8 J	7,700	30,000		5,800	1,500 J	1,500 J			
m, p xylenes	ug/kg	**290,000 (R)**	**18,000 (R)**	**6,300 (R)**	**3,400 (R)**	**28,000 (R)**	**33,000 (R)**	350	500	3.9 J	**65,000 (R)**	**170,000 (R)**	**87,000 (R)**	**49,000 (R)**	**15,000 (R)**	**30,000 (R)**	**220,000 (R)**	**280,000 (R)**	**160,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg									5.4 J				4,100 J		2,100 J			
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**130,000 (R)**	**9,600 (R)**	**8,100 (R)**	**5,400 (R)**	**14,000 (R)**	**18,000 (R)**	190 J	210 J	3.6 J	**33,000 (R)**	**90,000 (R)**	**42,000 (R)**	**24,000 (R)**	**7,200 (R)**	**14,000 (R)**	**100,000 (R)**	**130,000 (R)**	**76,000 (R)**
Styrene	ug/kg															1,200 J	310,000 J	400,000 J	190,000 J
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg	**130,000 (R)**	**2,900 (R)**	**1,400 (R)**	780						**45,000 (R)**	**200,000 (R)**	**86,000 (R)**	**59,000 (R)**	**20,000 (R)**	**26,000 (R)**	**190,000 (R)**	**370,000 (R)**	**160,000 (R)**
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A	GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117
Sample Number:	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7
Sample Depth:	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4	6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7
Sample Date:	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010
Sample Type:	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg						4,500 J (A)											
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg									3,100 J								
Benzene	ug/kg	150,000 (A,R)	27,000 (A,R)	13,000 (A,R)	59,000 (A,R)	12,000 (A,R)	21,000 (A,R)	47,000 (A,R)	4,900 (A,R)	12,000 (A,R)	25,000 (A,R)	5,400 (A,R)	23,000 (A,R)	160,000 (A,R)	180,000 (A,R)	40,000 (A,R)	2,100 (A,R)		2 J
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg																		1.4 J
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	110,000 (A,R)	120,000 (A,R)	64,000 (A,R)	240,000 (A,R)	72,000 (A,R)	150,000 (A,R)	140,000 (A,R)	34,000 (A,R)	92,000 (A,R)	120,000 (A,R)	24,000 (A,R)	100,000 (A,R)	460,000 (A,R)	230,000 (A,R)	74,000 (A,R)	19,000 (A,R)	630 (R)	27
Isopropylbenzene (cumene)	ug/kg		13,000	6,600	25,000	2,800 J	5,700 J	14,000	2,900 J	7,200		910 J	12,000	25,000 J		4,300 J	3,800	120 J	3.1 J
m, p xylenes	ug/kg	270,000 (R)	90,000 (R)	49,000 (R)	180,000 (R)	55,000 (R)	110,000 (R)	100,000 (R)	27,000 (R)	69,000 (R)	98,000 (R)	19,000 (R)	79,000 (R)	360,000 (A,R)	190,000 (R)	53,000 (R)	15,000 (R)	510	2.2 J
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	120,000 (R)	44,000 (R)	24,000 (R)	88,000 (R)	27,000 (R)	52,000 (R)	49,000 (R)	14,000 (R)	34,000 (R)	46,000 (R)	9,600 (R)	39,000 (R)	170,000 (R)	86,000 (R)	24,000 (R)	9,700 (R)	290 J	6.7
Styrene	ug/kg	300,000 J																	
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg	250,000 (R)	95,000 (R)	46,000 (R)	180,000 (R)	17,000 (R)	34,000 (R)	27,000 (R)	19,000 (R)	54,000 (R)	84,000 (R)	12,000 (R)	64,000 (R)	440,000 (R)	140,000 (R)	50,000 (R)			
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B	GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115
Sample Number:	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5	GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02
Sample Depth:	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5	6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8
Sample Date:	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010	3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010
Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg								23									
Benzene	ug/kg	1.7 J	**20,000 (A,R)**	**17,000 (A,R)**	**24,000 (A,R)**	0.65 J				**75,000 (A,R)**	**210,000 (A,R)**	**150,000 (A,R)**	**110,000 (A,R)**	**30,000 (A,R)**	**1,900 (A,R)**	**24,000 (A,R)**	**47,000 (A,R)**	**22,000 (A,R)**
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg	2 J				11	2.7 J	10										
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg						0.66 J											
Ethylbenzene	ug/kg	**140 (R)**	**140,000 (A,R)**	**210,000 (A,R)**	**210,000 (A,R)**	31	1.7 J		0.42 J	**200,000 (A,R)**	**600,000 (A,R)**	**310,000 (A,R)**	**190,000 (A,R)**	**84,000 (A,R)**	**1,500 (R)**	**80,000 (A,R)**	**190,000 (A,R)**	**79,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	22	15,000	34,000	32,000	6.8				25,000	19,000 J	14,000	23,000	11,000	110 J	4,400	29,000	11,000
m, p xylenes	ug/kg	23	**110,000 (R)**	**180,000 (R)**	**180,000 (R)**	33	1.3 J			**190,000 (R)**	**560,000 (A,R)**	**310,000 (R)**	**240,000 (R)**	**88,000 (R)**	**1,600 (R)**	**82,000 (R)**	**150,000 (R)**	**60,000 (R)**
Methyl acetate	ug/kg																	
Methyl ethyl ketone (2-butanone)	ug/kg								6.8 J									
*Methylcyclohexane	ug/kg																	
Methylene chloride	ug/kg																	
o-xylene (1,2-dimethylbenzene)	ug/kg	53	**51,000 (R)**	**92,000 (R)**	**89,000 (R)**	25	1.1 J			**93,000 (R)**	**270,000 (R)**	**140,000 (R)**	**110,000 (R)**	**42,000 (R)**	**760 (R)**	**36,000 (R)**	**81,000 (R)**	**32,000 (R)**
Styrene	ug/kg											93,000 J						
Tert-butyl methyl ether	ug/kg																	
Toluene	ug/kg	6.7								**220,000 (R)**	**560,000 (A,R)**	**360,000 (R)**	**260,000 (R)**	**84,000 (R)**	**930 (R)**	**25,000 (R)**	**43,000 (R)**	**30,000 (R)**
trans-1,3-dichloropropene	ug/kg																	
Trichloroethylene (TCE)	ug/kg																	

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131
Sample Number:		GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8	GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02
Sample Depth:		3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**18,000 (A,R)**	**39,000 (A,R)**	**30,000 (A,R)**	**250,000 (A,R)**	**190,000 (A,R)**	**26,000 (A,R)**	**26,000 (A,R)**	**32,000 (A,R)**	**72,000 (A,R)**	**69,000 (A,R)**	**95,000 (A,R)**	**91,000 (A,R)**	**57,000 (A,R)**	**4,100 (A,R)**	**5,800 (A,R)**	**69,000 (A,R)**	**71,000 (A,R)**	**14,000 (A,R)**
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg																		
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**100,000 (A,R)**	**200,000 (A,R)**	**140,000 (A,R)**	**550,000 (A,R)**	**460,000 (A,R)**	**84,000 (A,R)**	**57,000 (A,R)**	**68,000 (A,R)**	**99,000 (A,R)**	**330,000 (A,R)**	**340,000 (A,R)**	**370,000 (A,R)**	**310,000 (A,R)**	**12,000 (A,R)**	**13,000 (A,R)**	**310,000 (A,R)**	**360,000 (A,R)**	**66,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	4,400 J				18,000 J	6,600 J	1,800 J	6,600	7,400 J	11,000 J		53,000	38,000	1,900	2,200	42,000	40,000	7,700
m, p xylenes	ug/kg	**90,000 (R)**	**170,000 (R)**	**120,000 (R)**	**760,000 (A,R)**	**700,000 (A,R)**	**140,000 (R)**	**150,000 (R)**	**100,000 (R)**	**190,000 (R)**	**290,000 (R)**	**290,000 (R)**	**290,000 (R)**	**240,000 (R)**	**19,000 (R)**	**21,000 (R)**	**260,000 (R)**	**270,000 (R)**	**50,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**39,000 (R)**	**79,000 (R)**	**53,000 (R)**	**340,000 (R)**	**320,000 (R)**	**68,000 (R)**	**70,000 (R)**	**52,000 (R)**	**94,000 (R)**	**150,000 (R)**	**150,000 (R)**	**150,000 (R)**	**120,000 (R)**	**8,500 (R)**	**9,600 (R)**	**130,000 (R)**	**130,000 (R)**	**24,000 (R)**
Styrene	ug/kg				470,000	450,000	50,000	120,000	36,000	110,000		30,000							
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg	**34,000 (R)**	**63,000 (R)**	**52,000 (R)**	**410,000 (R)**	**390,000 (R)**	**79,000 (R)**	**71,000 (R)**	**93,000 (R)**	**200,000 (R)**	**240,000 (R)**	**320,000 (R)**	**300,000 (R)**	**160,000 (R)**	**9,000 (R)**	**13,000 (R)**	**220,000 (R)**		
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C
Sample Number:		GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1	GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7
Sample Depth:		9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1	11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7
Sample Date:		3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**860 (R)**	**12,000 (A,R)**	**2,300 (A,R)**	**3,000 (A,R)**	**4,200 (A,R)**	**9,100 (A,R)**	**4,800 J (A,R)**	**14,000 (A,R)**	**12,000 J (A,R)**		**19,000 (A,R)**	**16,000 (A,R)**	**18,000 (A,R)**		**57,000 (A,R)**	**67,000 (A,R)**	**4,800 (A,R)**	**7,000 (A,R)**
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg																		
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**800 (R)**	**95,000 (A,R)**	**9,300 (A,R)**	**12,000 (A,R)**	**55,000 (A,R)**	**110,000 (A,R)**	**130,000 (A,R)**	**180,000 (A,R)**	**350,000 (A,R)**	**66,000 (A,R)**	**160,000 (A,R)**	**140,000 (A,R)**	**180,000 (A,R)**	**190,000 (A,R)**	**270,000 (A,R)**	**320,000 (A,R)**	**15,000 (A,R)**	**120,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg		10,000	640 J	830 J		26,000	17,000	22,000	16,000		4,800 J	16,000	4,100 J	21,000	36,000	42,000	830 J	17,000
m, p xylenes	ug/kg	**600 (R)**	**72,000 (R)**	**6,100 (R)**	**7,800 (R)**	**46,000 (R)**	**84,000 (R)**	**98,000 (R)**	**100,000 (R)**	**430,000 (A,R)**	**67,000 (R)**	**160,000 (R)**	**120,000 (R)**	**130,000 (R)**	**140,000 (R)**	**220,000 (R)**	**250,000 (R)**	**15,000 (R)**	**39,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	270 J	**34,000 (R)**	**2,900 (R)**	**3,600 (R)**	**22,000 (R)**	**49,000 (R)**	**52,000 (R)**	**62,000 (R)**	**180,000 (R)**	**29,000 (R)**	**73,000 (R)**	**52,000 (R)**	**61,000 (R)**	**68,000 (R)**	**110,000 (R)**	**130,000 (R)**	**6,600 (R)**	**47,000 (R)**
Styrene	ug/kg									88,000 J									
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg			**2,500 (R)**	**4,000 (R)**	**14,000 (R)**				**130,000 (R)**	**17,000 (R)**	**64,000 (R)**	**25,000 (R)**	**38,000 (R)**		**200,000 (R)**	**240,000 (R)**	**5,400 (R)**	
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D
Sample Number:		GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5	D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1
Sample Depth:		9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1
Sample Date:		4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**22,000 (A,R)**	**26,000 (A,R)**	**19,000 (A,R)**	**28,000 (A,R)**	210	**15,000 (A,R)**	**8,900 (A,R)**	**19,000 (A,R)**	**43,000 (A,R)**	**32,000 (A,R)**	**4,800 (A,R)**	**5,600 (A,R)**	**3,900 (A,R)**	**5,600 (A,R)**	**4,000 (A,R)**	**18,000 (A,R)**	**12,000 (A,R)**	**44,000 (A,R)**
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg																		
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg					3.5 J													
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**140,000 (A,R)**	**160,000 (A,R)**	**150,000 (A,R)**	**290,000 (A,R)**	120	**180,000 (A,R)**	**56,000 (A,R)**	**150,000 (A,R)**	**320,000 (A,R)**	**230,000 (A,R)**	**43,000 (A,R)**	**45,000 (A,R)**	**32,000 (A,R)**	**47,000 (A,R)**	**34,000 (A,R)**	**130,000 (A,R)**	**97,000 (A,R)**	**290,000 (A,R)**
Isopropylbenzene (cumene)	ug/kg	18,000	17,000	16,000	31,000	5.4 J	16,000	4,100 J	9,700 J	20,000	41,000	5,700	6,800	4,900	6,900	5,100	19,000	7,400	
m, p xylenes	ug/kg	**86,000 (R)**	**38,000 (R)**	**100,000 (R)**	**170,000 (R)**	20	**150,000 (R)**	**42,000 (R)**	**110,000 (R)**	**240,000 (R)**	**210,000 (R)**	**42,000 (R)**	**43,000 (R)**	**30,000 (R)**	**42,000 (R)**	**32,000 (R)**	**120,000 (R)**	**120,000 (R)**	**260,000 (R)**
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**57,000 (R)**	**51,000 (R)**	**50,000 (R)**	**99,000 (R)**	44	**68,000 (R)**	**19,000 (R)**	**51,000 (R)**	**110,000 (R)**	**100,000 (R)**	**18,000 (R)**	**20,000 (R)**	**15,000 (R)**	**20,000 (R)**	**15,000 (R)**	**56,000 (R)**	**55,000 (R)**	**130,000 (R)**
Styrene	ug/kg																	34,000 J	39,000 J
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg						**27,000 (R)**	**8,500 (R)**		**31,000 (R)**		**1,100 J (R)**						**31,000 (R)**	**55,000 (R)**
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121
Sample Number:		GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5
Sample Depth:		7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5
Sample Date:		4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg																		
Benzene	ug/kg	**18,000 (A,R)**	**68,000 (A,R)**	**24,000 (A,R)**	240	100	6	370	410	**13,000 (A,R)**	**18,000 (A,R)**	**20,000 (A,R)**	**19,000 (A,R)**	**10,000 (A,R)**	**12,000 (A,R)**	110	**680 (R)**	360	230
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg					0.95 J													0.48 J
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	**160,000 (A,R)**	**320,000 (A,R)**	**110,000 (A,R)**		32			**240 J (R)**	**77,000 (A,R)**	**88,000 (A,R)**	**110,000 (A,R)**	**110,000 (A,R)**	**95,000 (A,R)**	**100,000 (A,R)**	56	**330 (R)**	**230 J (R)**	**160 (R)**
Isopropylbenzene (cumene)	ug/kg	4,100 J				1.1 J					3,300 J	3,300 J	14,000	2,400 J	4,700 J	1.4 J			11
m, p xylenes	ug/kg	**140,000 (R)**	**420,000 (A,R)**	**190,000 (R)**		6.8	1.7 J			**130,000 (R)**	**140,000 (R)**	**180,000 (R)**	**21,000 (R)**	**100,000 (R)**	**140,000 (R)**	52			15
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	**69,000 (R)**	**210,000 (R)**	**97,000 (R)**		9.6	1.2 J			**57,000 (R)**	**63,000 (R)**	**80,000 (R)**	**38,000 (R)**	**46,000 (R)**	**70,000 (R)**	30	83 J		56
Styrene	ug/kg		150,000 J	130,000 J						69,000 J	80,000 J	94,000 J		28,000 J	81,000 J	22			
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg	**36,000 (R)**	**81,000 (R)**	**32,000 (R)**						**18,000 (R)**	**33,000 (R)**	**42,000 (R)**		**53,000 (R)**	**62,000 (R)**	48			6.4
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122
Sample Number:		D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.2	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD67B-06.0-08.0	GC-SD67B-08.0-10.0	GC-SD67B-10.0-12.0	D-04062010-02	GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1
Sample Depth:		11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12	10-12	1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1
Sample Date:		4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		FD	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2-dibromo-3-chloropropane	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,2-dichloropropane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
1,4-dioxane (p-dioxane)	ug/kg																		
Acetone	ug/kg											44	43	32					24
Benzene	ug/kg	48	**970 (R)**	**9,400 J (A,R)**	**5,700 J (A,R)**	**1,500 (A,R)**	150	81			**580 (R)**	0.75 J	1.6 J		**10,000 (A,R)**	**1,700 (A,R)**	**2,100 J (A,R)**		50
*Bromochloromethane	ug/kg																		
Carbon disulfide	ug/kg						0.45 J						0.42 J						2.2 J
Chlorobenzene	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
cis-1,3-dichloropropene	ug/kg																		
Cyclohexane	ug/kg																		
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	34	**12,000 (A,R)**	**170,000 (A,R)**	**110,000 (A,R)**	**7,800 (A,R)**	120	53	**67,000 (A,R)**	**440 (R)**	**530 (R)**	0.46 J	11	19	**110,000 (A,R)**	**22,000 (A,R)**	**75,000 (A,R)**	**21,000 (A,R)**	**170 (R)**
Isopropylbenzene (cumene)	ug/kg	1.9 J	1,000		9,100	350 J	9.7	2.5 J	15,000	4,100			2 J	2.5 J	19,000	3,700	17,000	4,300	5.2
m, p xylenes	ug/kg	2.3 J	**11,000 (R)**	**100,000 (R)**	**65,000 (R)**	**9,800 (R)**	12	4.5 J	**8,400 (R)**	**560 (R)**	**580 (R)**	0.4 J	8.1	15	**86,000 (R)**	**20,000 (R)**	**62,000 (R)**	**18,000 (R)**	13
Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg											8.7 J	7.9 J	6.3 J					8.7 J
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	11	**4,800 (R)**	**66,000 (R)**	**42,000 (R)**	**4,900 (R)**	34	14	**24,000 (R)**	350	340		5.1 J	8.2	**47,000 (R)**	**9,900 (R)**	**40,000 (R)**	**11,000 (R)**	63
Styrene	ug/kg					4,100 J													
Tert-butyl methyl ether	ug/kg																		
Toluene	ug/kg		**2,400 (R)**	**25,000 (R)**	**14,000 (R)**	**3,800 (R)**					840		5.7	11	**39,000 (R)**	**7,900 (R)**	**3,200 J (R)**	710 J	2.2 J
trans-1,3-dichloropropene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E
Sample Number:	GC-SD122-11.1-13.1	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0	GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	GC-SD074E-06.4-08.4
Sample Depth:	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4	4-6	6-8	8-9.8	8-9.8	4.4-6.4	6.4-8.4
Sample Date:	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N

Parameter	Units	Volatile Organic Compounds																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg	18	15	22		210			690 J	930 J	23		15	35	10 J			
Benzene	ug/kg		4.1 J	1.3 J		19						**4,500 (A,R)**	7.3	3.5 J			5.6	
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg	0.89 J	0.44 J			170							3.1 J	3.1 J	0.6 J		0.65 J	0.93 J
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg			0.39 J														
Ethylbenzene	ug/kg		0.64 J	1.8 J	**650 (R)**	**180 (R)**	**660 J (R)**	**990 (R)**	**2,400 (R)**	**4,600 (R)**	3.9 J	**24,000 (A,R)**	100	88	0.99 J	**19,000 (A,R)**	**5,500 (A,R)**	9.5
Isopropylbenzene (cumene)	ug/kg				170 J	35			350 J	380 J		970	34	44		5,100	1,400	1 J
m, p xylenes	ug/kg		0.51 J	1 J		64		**600 J (R)**	**1,900 (R)**	**3,900 (R)**	1.5 J	**25,000 (R)**	21	5.8		**2,400 (R)**	**690 (R)**	2 J
Methyl acetate	ug/kg									400 J								
Methyl ethyl ketone (2-butanone)	ug/kg					54					7.7 J							
*Methylcyclohexane	ug/kg																	
Methylene chloride	ug/kg																	
o-xylene (1,2-dimethylbenzene)	ug/kg			0.7 J	350 J	110	220 J	**610 J (R)**	**970 (R)**	**1,800 (R)**	1.5 J	**14,000 (R)**	25	15		**3,100 (R)**	**1,000 (R)**	1.3 J
Styrene	ug/kg											6,900						
Tert-butyl methyl ether	ug/kg																	
Toluene	ug/kg		0.72 J	0.61 J						860 J	0.64 J	**21,000 (R)**	1.1 J	0.78 J				
trans-1,3-dichloropropene	ug/kg																	
Trichloroethylene (TCE)	ug/kg																	

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151	GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD123
Sample Number:	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-12.6-14.6	GC-SD151-05.2-07.2	GC-SD151-07.2-09.2	D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0
Sample Depth:	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	12.6-14.6	5.2-7.2	7.2-9.2	7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	10.7-12.4	7-9
Sample Date:	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010
Sample Type:	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg		30	36	43				15	34	26	33						
Benzene	ug/kg		3.1 J		4.3 J							0.62 J	**5,900 (A,R)**					
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg	0.5 J	0.63 J	1.5 J	1.5 J				0.48 J	1.1 J	0.86 J	0.47 J			5.8		5 J		4.1 J
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg							0.61 J				19						
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg																	
Ethylbenzene	ug/kg		21	6.7	**12,000 (A,R)**	**9,200 (A,R)**						**71,000 (A,R)**	**11,000 (A,R)**		**25,000 (A,R)**	5.5 J		
Isopropylbenzene (cumene)	ug/kg		3.1 J	0.49 J	7,300	5,700						14,000	3,100 J		14,000	2.3 J		0.58 J
m, p xylenes	ug/kg		5.5	0.89 J	**3,100 (R)**	**2,200 (R)**						**56,000 (R)**	**6,400 (R)**		**7,000 (R)**	3.7 J		
Methyl acetate	ug/kg																	
Methyl ethyl ketone (2-butanone)	ug/kg		6.2 J	8.9 J							8.2 J							
*Methylcyclohexane	ug/kg																	
Methylene chloride	ug/kg									0.81 J								
o-xylene (1,2-dimethylbenzene)	ug/kg		14	2.5 J	**6,500 (R)**	**4,600 (R)**						**32,000 (R)**	**5,600 (R)**		**16,000 (R)**	3.5 J		
Styrene	ug/kg																	
Tert-butyl methyl ether	ug/kg								0.66 J	0.35 J							0.48 J	0.93 J
Toluene	ug/kg		3.8 J	0.86 J								**7,600 (R)**						
trans-1,3-dichloropropene	ug/kg																	
Trichloroethylene (TCE)	ug/kg																	

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142	GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A
Sample Number:	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1	GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	D-04142010-03	GC-SD143-05.3-07.3	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0
Sample Depth:	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1	8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	5.3-7.3	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10
Sample Date:	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	FD	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,2-dichloropropane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
1,4-dioxane (p-dioxane)	ug/kg																	
Acetone	ug/kg		12				42					12					25	24
Benzene	ug/kg																23	63
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg	3.4 J		5.3 J	1.4 J	0.43 J	32	9.5	1.5 J	1.7 J	3.4 J	15	18	0.84 J		0.56 J	4.4 J	3.3 J
Chlorobenzene	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
cis-1,3-dichloropropene	ug/kg																	
Cyclohexane	ug/kg																	
Dichlorodifluoromethane	ug/kg																	
Ethylbenzene	ug/kg													11	1.2 J		3.4 J	7.4
Isopropylbenzene (cumene)	ug/kg													0.97 J			2.7 J	1.6 J
m, p xylenes	ug/kg					1.1 J								3.6 J	0.51 J		2.2 J	1.7 J
Methyl acetate	ug/kg																	
Methyl ethyl ketone (2-butanone)	ug/kg						6.8 J	3.5 J	2.9 J		2.8 J	4.8 J					4.6 J	4.1 J
*Methylcyclohexane	ug/kg																	
Methylene chloride	ug/kg																	
o-xylene (1,2-dimethylbenzene)	ug/kg					0.49 J								4.3 J	0.51 J		2 J	1.6 J
Styrene	ug/kg																	
Tert-butyl methyl ether	ug/kg	0.7 J																
Toluene	ug/kg																	
trans-1,3-dichloropropene	ug/kg																	
Trichloroethylene (TCE)	ug/kg																	

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3
Sample Number:	GC-SD081A-05.3-07.3	D-04152010-03	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05
Sample Depth:	5.3-7.3	5.3-7.3	9.3-11.3	5-7	7-9	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3
Sample Date:	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:	N	FD	N	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Volatile Organic Compounds**																
1,2-dibromo-3-chloropropane	ug/kg																	
1,2-dichlorobenzene	ug/kg	0.47 J																
1,2-dichloroethane	ug/kg	0.56 J																
1,2-dichloropropane	ug/kg	3.3 J																
1,3-dichlorobenzene	ug/kg											0.31 J						
1,4-dichlorobenzene	ug/kg							14 J	12	28		170 J	31	1.8 J		59 J	15 J	11 J
1,4-dioxane (p-dioxane)	ug/kg	35 J																
Acetone	ug/kg	20					35	17	17	28			21		1,900 J	30		
Benzene	ug/kg	2.7 J					24	53	2.1 J	7.8	5.3	96	27			**600 J (R)**	**12,000 J (A,R)**	**3,300 J (A,R)**
*Bromochloromethane	ug/kg																	
Carbon disulfide	ug/kg	4.5 J	4.8 J	0.82 J	0.98 J	0.86 J	0.47 J	0.83 J	1 J	0.34 J	1.2 J	1.9 J	8.4	3.5 J	0.62 J		4.3 J	0.57 J	0.44 J
Chlorobenzene	ug/kg	0.54 J						3.6 J	9.3 J	2.8 J	13		6.6 J	2.3 J					
cis-1,2-dichloroethylene	ug/kg																0.47 J		
cis-1,3-dichloropropene	ug/kg	3.2 J																	
Cyclohexane	ug/kg									0.67 J	4 J		13	2 J					
Dichlorodifluoromethane	ug/kg																		
Ethylbenzene	ug/kg	43	38	1 J				20	0.49 J	1.7 J	0.54 J	**530 J (R)**	**150 (R)**		**2,800 J (R)**	**17,000 J (A,R)**	**41,000 J (A,R)**	**28,000 J (A,R)**
Isopropylbenzene (cumene)	ug/kg	12	11				4.8	14	2.7 J	7.2	2.3 J	230 J	39		870	3,800 J	6,300 J	4,500 J
m, p xylenes	ug/kg	38	26	0.86 J				6.7	0.6 J	1.5 J	0.46 J	310 J	64			**5,500 J (R)**	**3,900 J (R)**	**2,600 J (R)**
Methyl acetate	ug/kg																	
Methyl ethyl ketone (2-butanone)	ug/kg	3.3 J	2.8 J				10			9.7								
*Methylcyclohexane	ug/kg	1.3 J										23				82 J	20 J	7.2 J
Methylene chloride	ug/kg																	
o-xylene (1,2-dimethylbenzene)	ug/kg	23	20	0.48 J				14	0.46 J	1.1 J	2.2 J	330 J	68		**870 (R)**	**5,400 J (R)**	**13,000 J (R)**	**9,200 J (R)**
Styrene	ug/kg																	
Tert-butyl methyl ether	ug/kg						2 J	2 J	2.6 J	6	2.6 J	15 J	8.4 J	98 J				
Toluene	ug/kg	7.4	6.7			9.3			0.39 J	0.5 J		18 J	4.2	0.33 J		250 J	82	56 J
trans-1,3-dichloropropene	ug/kg	1.7 J																
Trichloroethylene (TCE)	ug/kg																	

TABLE I-14B
VOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:	ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:	7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**							
1,2-dibromo-3-chloropropane	ug/kg								
1,2-dichlorobenzene	ug/kg								
1,2-dichloroethane	ug/kg								
1,2-dichloropropane	ug/kg								
1,3-dichlorobenzene	ug/kg								
1,4-dichlorobenzene	ug/kg								
1,4-dioxane (p-dioxane)	ug/kg								
Acetone	ug/kg			55	20			19	
Benzene	ug/kg	**2,800 J (A,R)**	**4,800 J (A,R)**	**630 J (R)**	**1,800 J (A,R)**	500 J	**4,700 (A,R)**	**1,300 J (A,R)**	30
*Bromochloromethane	ug/kg								
Carbon disulfide	ug/kg		8.5	8.6	3.6 J	2.3 J		9.1 J	5.5
Chlorobenzene	ug/kg								
cis-1,2-dichloroethylene	ug/kg	0.44 J		4.6 J					
cis-1,3-dichloropropene	ug/kg								
Cyclohexane	ug/kg				650 J	54 J			
Dichlorodifluoromethane	ug/kg								
Ethylbenzene	ug/kg	**78,000 J (A,R)**	**8,300 J (A,R)**	**7,200 J (A,R)**	**8,000 J (A,R)**	**3,600 J (R)**	**48,000 (A,R)**	**25,000 J (A,R)**	39
Isopropylbenzene (cumene)	ug/kg	15,000 J	17,000 J	680 J	9,900 J	5,600 J	7,200	3,500 J	2.6 J
m, p xylenes	ug/kg	**66,000 J (R)**	**71,000 J (R)**	**6,000 J (R)**	**1,600 J (R)**	110	**34,000 (R)**	**17,000 J (R)**	13
Methyl acetate	ug/kg								
Methyl ethyl ketone (2-butanone)	ug/kg			16					
*Methylcyclohexane	ug/kg	41 J	89 J		2,400 J	1,800 J		36 J	
Methylene chloride	ug/kg								
o-xylene (1,2-dimethylbenzene)	ug/kg	**28,000 J (R)**	**30,000 J (R)**	**2,900 J (R)**	**1,600 J (R)**	120	**17,000 (R)**	**8,700 J (R)**	15
Styrene	ug/kg								
Tert-butyl methyl ether	ug/kg				26	14 J			
Toluene	ug/kg	140 J	430 J	330 J	23 J	5.3	**1,500 J (R)**	370 J	5.1 J
trans-1,3-dichloropropene	ug/kg								
Trichloroethylene (TCE)	ug/kg								

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
Sample Number:		GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
Sample Depth:		8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	280 UR	220 UR	220 UR	240 UR	210 UR	5,900 UR	5,700 UR	12,000 UR	6,300 UR	12,000 UR	13,000 UR	5,900 UR	5,600 UR	5,800 UR	12,000 UR	30,000 R	29,000 UR	5,700 UR
2,3,4,6-tetrachlorophenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 UJ	5,600 U	5,800 U	12,000 UJ	30,000 U	29,000 U	5,700 U
2,4,5-trichlorophenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 UJ	5,600 U	5,800 U	12,000 UJ	30,000 U	29,000 U	5,700 U
2,4,6-trichlorophenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 UJ	5,600 U	5,800 U	12,000 UJ	30,000 U	29,000 U	5,700 U
2,4-dichlorophenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 UJ	5,600 U	5,800 U	12,000 UJ	30,000 U	29,000 U	5,700 U
2,4-dimethylphenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 UJ	5,700 U
2,4-dinitrophenol	ug/kg	550 U	420 U	430 U	460 U	400 U	12,000 U	11,000 U	24,000 U	13,000 U	24,000 U	26,000 U	12,000 U	11,000 U	12,000 U	24,000 U	60,000 U	59,000 U	11,000 U
2,4-dinitrotoluene	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
2,6-dinitrotoluene	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
2-chloronaphthalene	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
2-chlorophenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
2-methylnaphthalene	ug/kg	280 U	**54 J**	**210 J**	**270**	210 U	**510,000 J**	**19,000**	**410,000 J**	**380,000 J**	**690,000 J**	**280,000 J**	**130,000 J**	**140,000 J**	**340,000 J**	**580,000 J**	**300,000**	**340,000**	**270,000 J**
2-methylphenol (o-cresol)	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 UJ	5,700 U
2-nitroaniline	ug/kg	550 U	420 U	430 U	460 U	400 U	12,000 U	11,000 U	24,000 U	13,000 U	24,000 U	26,000 U	12,000 U	11,000 U	12,000 U	24,000 U	60,000 U	59,000 U	11,000 U
2-nitrophenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
3,3'-dichlorobenzidine	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
3-nitroaniline	ug/kg	550 U	420 U	430 U	460 U	400 U	12,000 U	11,000 U	24,000 U	13,000 U	24,000 U	26,000 U	12,000 U	11,000 U	12,000 U	24,000 U	60,000 U	59,000 U	11,000 U
4,6-dinitro-2-methylphenol	ug/kg	550 U	420 U	430 U	460 U	400 U	12,000 U	11,000 U	24,000 U	13,000 U	24,000 U	26,000 U	12,000 U	11,000 U	12,000 U	24,000 U	60,000 U	59,000 U	11,000 U
4-bromophenyl phenyl ether	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
4-chloro-3-methylphenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 UJ	5,600 U	5,800 U	12,000 UJ	30,000 U	29,000 U	5,700 U
4-chloroaniline	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
4-chlorophenyl phenyl ether	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
4-methylphenol (p-cresol)	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 UJ	5,700 U
4-nitroaniline	ug/kg	550 U	420 U	430 U	460 U	400 U	12,000 U	11,000 U	24,000 U	13,000 U	24,000 U	26,000 U	12,000 U	11,000 U	12,000 U	24,000 U	60,000 U	59,000 U	11,000 U
4-nitrophenol	ug/kg	550 U	420 U	430 U	460 U	400 U	12,000 U	11,000 U	24,000 U	13,000 U	24,000 U	26,000 U	12,000 U	11,000 U	12,000 U	24,000 U	60,000 U	59,000 U	11,000 U
Acenaphthene	ug/kg	**110 J**	**100 J**	**300**	**330**	**230**	**320,000 J**	**19,000**	**250,000 J**	**220,000 J**	**360,000 J**	**140,000**	**86,000**	**69,000**	**230,000 J**	**350,000 J**	**200,000**	**210,000**	**160,000 J**
Acenaphthylene	ug/kg	280 U	220 U	220 U	240 U	210 U	**16,000**	5,700 U	**12,000**	**15,000**	**24,000**	**9,500 J**	**3,900 J**	**4,000 J**	**12,000**	**16,000**	**9,000 J**	**7,200 J**	**9,300**
Acetophenone	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Anthracene	ug/kg	**54 J**	**73 J**	**190 J**	**400**	210 U	**150,000 J**	**9,300**	**85,000**	**91,000**	**140,000**	**59,000**	**34,000**	**33,000**	**85,000**	**120,000**	**83,000**	**94,000**	**67,000**
Atrazine	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Benzaldehyde	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Benzo(a)anthracene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**54,000**	**4,500 J**	**46,000**	**45,000**	**76,000**	**32,000**	**19,000**	**18,000**	**49,000**	**64,000**	**41,000**	**46,000**	**32,000**
Benzo(a)pyrene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**43,000**	**3,400 J**	**35,000**	**37,000**	**52,000**	**21,000**	**13,000**	**13,000**	**35,000**	**44,000**	**32,000**	**35,000**	**24,000**
Benzo(b)fluoranthene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**26,000**	**1,600 J**	**17,000**	**22,000**	**27,000**	**11,000 J**	**7,600**	**6,400**	**15,000**	**22,000**	**13,000 J**	**17,000 J**	**9,700**
Benzo(g,h,i)perylene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**15,000**	**990 J**	**13,000**	**14,000**	**18,000**	**7,600 J**	**5,000 J**	**3,300 J**	**12,000**	**15,000**	**11,000 J**	**10,000 J**	**8,200**
Benzo(k)fluoranthene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**24,000**	**2,200 J**	**25,000**	**21,000**	**41,000**	**18,000**	**11,000**	**9,900**	**28,000**	**32,000**	**22,000 J**	**24,000 J**	**17,000**
Benzyl butyl phthalate	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
Sample Number:		GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
Sample Depth:		8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	280 U	220 U	220 U	240 U	210 U	**44,000**	**2,400 J**	**36,000**	**38,000**	**62,000**	**24,000**	**16,000**	**14,000**	**39,000**	**56,000**	**32,000**	**37,000**	**27,000**
Bis(2-chloroethoxy) methane	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Bis(2-chloroethyl) ether	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Bis(2-chloroisopropyl) ether	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Bis(2-ethylhexyl) phthalate	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Caprolactam	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Carbazole	ug/kg	280 U	220 U	**65 J**	**74 J**	**43 J**	**3,700 J**	5,700 U	**2,700 J**	**3,300 J**	**4,300 J**	13,000 U	**1,100 J**	**1,000 J**	**2,800 J**	**3,900 J**	30,000 U	29,000 U	**1,900 J**
Chrysene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**50,000**	**4,700 J**	**44,000**	**42,000**	**74,000**	**32,000**	**19,000**	**18,000**	**48,000**	**63,000**	**39,000**	**44,000**	**31,000**
Dibenz(a,h)anthracene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**4,900 J**	5,700 U	**3,900 J**	**4,400 J**	**5,800 J**	**2,300 J**	**1,300 J**	**960 J**	**3,400 J**	**4,800 J**	30,000 U	29,000 U	**2,300 J**
Dibenzofuran	ug/kg	280 U	220 U	220 U	**63 J**	210 U	**12,000**	5,700 U	**9,700 J**	**9,800**	**16,000**	**5,800 J**	**3,400 J**	**3,100 J**	**8,800**	**12,000**	**8,900 J**	**10,000 J**	**6,800**
Diethyl phthalate	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Dimethyl phthalate	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Di-n-butyl phthalate	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Di-n-octylphthalate	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Fluoranthene	ug/kg	**83 J**	**65 J**	**170 J**	**76 J**	210 UJ	**150,000 J**	**10,000**	**99,000**	**110,000 J**	**170,000 J**	**76,000**	**50,000**	**43,000**	**84,000 J**	**150,000**	**90,000**	**98,000**	**69,000**
Fluorene	ug/kg	280 U	**64 J**	**180 J**	**240**	**89 J**	**130,000 J**	5,700 U	**86,000**	**96,000**	**170,000**	**64,000**	**38,000**	**33,000**	**89,000**	**130,000**	**85,000**	**93,000**	**68,000**
Hexachlorobenzene	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Hexachlorobutadiene	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 UJ	5,600 U	5,800 U	12,000 UJ	30,000 U	29,000 U	5,700 U
Hexachlorocyclopentadiene	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Hexachloroethane	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Indeno(1,2,3-c,d)pyrene	ug/kg	280 U	220 U	220 U	240 U	210 UJ	**16,000**	**1,200 J**	**15,000**	**15,000**	**23,000**	**9,200 J**	**6,000**	**4,100 J**	**15,000**	**18,000**	**12,000 J**	**11,000 J**	**8,700**
Isophorone	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Naphthalene	ug/kg	280 U	**86 J**	**360**	240 U	210 U	**1,100,000 J**	**21,000**	**840,000 J**	**770,000 J**	**1,000,000 J**	**560,000 J**	**260,000 J**	**300,000 J**	**680,000 J**	**1,200,000 J**	**570,000**	**560,000 J**	**510,000 J**
Nitrobenzene	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
N-nitrosodi-n-propylamine	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
N-nitrosodiphenylamine	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 U	13,000 U	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Pentachlorophenol	ug/kg	550 U	420 U	430 U	460 U	400 U	12,000 U	11,000 U	24,000 U	13,000 U	24,000 UJ	26,000 UJ	12,000 UJ	11,000 U	12,000 U	24,000 UJ	60,000 U	59,000 U	11,000 U
Phenanthrene	ug/kg	**190 J**	**250**	**650**	**1,400**	**140 J**	**450,000 J**	**29,000**	**380,000 J**	**330,000 J**	**580,000 J**	**190,000**	**130,000 J**	**130,000 J**	**300,000 J**	**460,000 J**	**270,000**	**300,000**	**230,000 J**
Phenol	ug/kg	280 U	220 U	220 U	240 U	210 U	5,900 U	5,700 U	12,000 U	6,300 U	12,000 UJ	13,000 UJ	5,900 U	5,600 U	5,800 U	12,000 U	30,000 U	29,000 U	5,700 U
Pyrene	ug/kg	**100 J**	**86 J**	220 U	**86 J**	210 UJ	**210,000 J**	**13,000**	**130,000**	**150,000 J**	**290,000 J**	**94,000**	**67,000**	**54,000**	**160,000 J**	**190,000**	**120,000**	**140,000**	**110,000 J**
Total PAHs	ug/kg	**537**	**778**	**2,060**	**2,802**	**459**	**3,268,900**	**138,890**	**2,490,900**	**2,362,400**	**3,740,800**	**1,605,600**	**880,800**	**879,660**	**2,185,400**	**3,458,800**	**1,897,000**	**2,029,200**	**1,626,200**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:	GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:	13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:	3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	6,000 UR	45,000 U	17,000 U	11,000 U	30,000 UR	30,000 UR	29,000 UR	110,000 UR	29,000 UR	30,000 UR	150,000 UR	6,500 UR	6,700 UR	5,600 UR	5,700 R	5,700 R	5,700 R	5,800 UR
2,3,4,6-tetrachlorophenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 UJ
2,4,5-trichlorophenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 UJ
2,4,6-trichlorophenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 UJ
2,4-dichlorophenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 UJ
2,4-dimethylphenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
2,4-dinitrophenol	ug/kg	12,000 U	90,000 U	34,000 U	22,000 U	60,000 U	60,000 U	58,000 U	230,000 U	58,000 U	60,000 U	290,000 U	13,000 U	13,000 U	11,000 U	11,000 U	11,000 U	11,000 U	12,000 U
2,4-dinitrotoluene	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
2,6-dinitrotoluene	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
2-chloronaphthalene	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
2-chlorophenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
2-methylnaphthalene	ug/kg	**150,000 J**	**320,000**	**46,000**	**31,000**	**560,000 J**	**440,000**	**380,000**	**430,000**	**570,000 J**	**350,000**	**510,000**	**980,000 J**	**290,000 J**	**60,000**	**61,000**	5,700 U	5,700 U	5,800 U
2-methylphenol (o-cresol)	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
2-nitroaniline	ug/kg	12,000 U	90,000 U	34,000 U	22,000 U	60,000 U	60,000 U	58,000 U	230,000 U	58,000 U	60,000 U	290,000 U	13,000 U	13,000 U	11,000 U	11,000 U	11,000 U	11,000 U	12,000 U
2-nitrophenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
3,3'-dichlorobenzidine	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
3-nitroaniline	ug/kg	12,000 U	90,000 U	34,000 U	22,000 U	60,000 U	60,000 U	58,000 U	230,000 U	58,000 U	60,000 U	290,000 U	13,000 U	13,000 U	11,000 U	11,000 U	11,000 U	11,000 U	12,000 U
4,6-dinitro-2-methylphenol	ug/kg	12,000 U	90,000 U	34,000 U	22,000 U	60,000 U	60,000 U	58,000 U	230,000 U	58,000 U	60,000 U	290,000 U	13,000 U	13,000 U	11,000 U	11,000 U	11,000 U	11,000 U	12,000 U
4-bromophenyl phenyl ether	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
4-chloro-3-methylphenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 UJ
4-chloroaniline	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
4-chlorophenyl phenyl ether	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
4-methylphenol (p-cresol)	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
4-nitroaniline	ug/kg	12,000 U	90,000 U	34,000 U	22,000 U	60,000 U	60,000 U	58,000 U	230,000 U	58,000 U	60,000 U	290,000 U	13,000 U	13,000 U	11,000 U	11,000 U	11,000 U	11,000 U	12,000 U
4-nitrophenol	ug/kg	12,000 U	90,000 U	34,000 U	22,000 U	60,000 U	60,000 U	58,000 U	230,000 U	58,000 U	60,000 U	290,000 U	13,000 U	13,000 U	11,000 U	11,000 U	11,000 U	11,000 U	12,000 U
Acenaphthene	ug/kg	**130,000 J**	**250,000**	**68,000**	**51,000**	**320,000**	**280,000**	**220,000**	**270,000**	**330,000**	**230,000**	**320,000**	**650,000 J**	**150,000 J**	**40,000**	**180,000**	**31,000**	5,700 U	**7,600**
Acenaphthylene	ug/kg	**8,300**	**12,000 J**	**3,300 J**	**2,600 J**	**18,000 J**	**18,000 J**	**13,000 J**	110,000 U	**20,000 J**	**15,000 J**	150,000 U	**35,000**	**33,000**	**1,800 J**	**9,400**	**2,700 J**	5,700 U	**4,500 J**
Acetophenone	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Anthracene	ug/kg	**55,000**	**98,000**	**27,000**	**21,000**	**130,000**	**120,000**	**100,000**	**120,000**	**150,000**	**110,000**	**150,000**	**300,000 J**	**78,000**	**19,000**	**63,000**	**4,600 J**	5,700 U	**3,200 J**
Atrazine	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Benzaldehyde	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Benzo(a)anthracene	ug/kg	**30,000**	**63,000**	**19,000**	**13,000**	**67,000**	**66,000**	**51,000**	**54,000 J**	**68,000**	**49,000**	**67,000 J**	**100,000**	**41,000**	**8,300**	**36,000**	**12,000**	5,700 U	**41,000**
Benzo(a)pyrene	ug/kg	**22,000**	45,000 U	17,000 U	**12,000**	**49,000**	**47,000**	**43,000**	**39,000 J**	**53,000**	**40,000**	**52,000 J**	**80,000**	**33,000**	**6,800**	**29,000**	**9,800**	5,700 U	**30,000**
Benzo(b)fluoranthene	ug/kg	**9,700**	45,000 U	17,000 U	11,000 U	**23,000 J**	**21,000 J**	**20,000 J**	**19,000 J**	**26,000 J**	**18,000 J**	**25,000 J**	**43,000**	**14,000**	**2,600 J**	**12,000**	**4,100 J**	5,700 U	**18,000**
Benzo(g,h,i)perylene	ug/kg	**7,700**	**21,000 J**	**8,000 J**	**5,600 J**	**17,000 J**	**16,000 J**	**15,000 J**	110,000 U	**20,000 J**	**12,000 J**	150,000 U	**30,000 J**	**10,000 J**	**2,100 J**	**10,000**	**3,300 J**	5,700 U	**11,000**
Benzo(k)fluoranthene	ug/kg	**15,000**	45,000 U	17,000 U	11,000 U	**36,000**	**31,000**	**25,000 J**	**26,000 J**	**33,000**	**25,000 J**	**33,000 J**	**48,000**	**22,000**	**4,800 J**	**21,000**	**6,200**	5,700 U	**24,000**
Benzyl butyl phthalate	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:		GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:		13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:		3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:		N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**20,000**	**50,000**	**11,000 J**	**7,500 J**	**54,000**	**46,000**	**42,000**	**43,000 J**	**55,000**	**39,000**	**54,000 J**	**64,000**	**31,000**	**6,800**	**23,000**	5,700 U	5,700 U	5,800 U
Bis(2-chloroethoxy) methane	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Bis(2-chloroethyl) ether	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Bis(2-chloroisopropyl) ether	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Bis(2-ethylhexyl) phthalate	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Caprolactam	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Carbazole	ug/kg	**1,500 J**	**3,000 J**	17,000 U	**540 J**	30,000 U	30,000 U	29,000 U	110,000 U	**5,800 J**	30,000 U	150,000 U	**7,700**	**3,300 J**	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Chrysene	ug/kg	**28,000**	**55,000**	**16,000 J**	**12,000**	**63,000**	**64,000**	**49,000**	**49,000 J**	**66,000**	**47,000**	**67,000 J**	**93,000**	**38,000**	**7,900**	**34,000**	**11,000**	5,700 U	**39,000**
Dibenz(a,h)anthracene	ug/kg	**2,400 J**	**5,900 J**	17,000 U	**1,500 J**	**5,300 J**	**4,900 J**	29,000 U	110,000 U	**4,900 J**	30,000 U	150,000 U	**9,200**	**3,100 J**	5,600 U	**2,900 J**	**940 J**	5,700 U	**2,800 J**
Dibenzofuran	ug/kg	**5,400 J**	**13,000 J**	**2,800 J**	**2,300 J**	**16,000 J**	**13,000 J**	**11,000 J**	110,000 U	**14,000 J**	**10,000 J**	150,000 U	**23,000**	**8,100**	**1,600 J**	**7,600**	**1,700 J**	5,700 U	5,800 U
Diethyl phthalate	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Dimethyl phthalate	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Di-n-butyl phthalate	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Di-n-octylphthalate	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Fluoranthene	ug/kg	**60,000**	**100,000**	**26,000**	**25,000**	**150,000**	**130,000**	**110,000**	**120,000**	**150,000**	**110,000**	**150,000 J**	**350,000 J**	**88,000**	**20,000**	**80,000**	**25,000**	**1,300 J**	**89,000**
Fluorene	ug/kg	**51,000**	**110,000**	**31,000**	**23,000**	**150,000**	**120,000**	**95,000**	**120,000**	**140,000**	**96,000**	**130,000 J**	**300,000 J**	**77,000**	**17,000**	**57,000**	**3,200 J**	5,700 U	**1,200 J**
Hexachlorobenzene	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Hexachlorobutadiene	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 UJ
Hexachlorocyclopentadiene	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Hexachloroethane	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**8,600**	**18,000 J**	**6,900 J**	**4,600 J**	**20,000 J**	**17,000 J**	**16,000 J**	110,000 U	**20,000 J**	**14,000 J**	150,000 U	**35,000 J**	**12,000 J**	**2,400 J**	**11,000**	**3,500 J**	5,700 U	**12,000**
Isophorone	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Naphthalene	ug/kg	**260,000 J**	**400,000**	17,000 U	11,000 U	**980,000 J**	**980,000 J**	**820,000 J**	**960,000**	**1,300,000 J**	**540,000 J**	**1,200,000**	**2,000,000 J**	**610,000 J**	**93,000 J**	**62,000**	5,700 U	5,700 U	5,800 U
Nitrobenzene	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
N-nitrosodi-n-propylamine	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
N-nitrosodiphenylamine	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Pentachlorophenol	ug/kg	12,000 U	90,000 U	34,000 U	22,000 U	60,000 U	60,000 U	58,000 U	230,000 U	58,000 U	60,000 U	290,000 U	13,000 U	13,000 U	11,000 U	11,000 U	11,000 U	11,000 U	12,000 UJ
Phenanthrene	ug/kg	**190,000 J**	**380,000**	**95,000**	**80,000**	**460,000**	**390,000**	**340,000**	**380,000**	**450,000**	**320,000**	**470,000**	**940,000 J**	**270,000 J**	**55,000**	**250,000**	**2,800 J**	5,700 U	5,800 U
Phenol	ug/kg	6,000 U	45,000 U	17,000 U	11,000 U	30,000 U	30,000 U	29,000 U	110,000 U	29,000 U	30,000 U	150,000 U	6,500 U	6,700 U	5,600 U	5,700 U	5,700 U	5,700 U	5,800 U
Pyrene	ug/kg	**79,000**	**200,000**	**58,000**	**44,000**	**200,000**	**170,000**	**160,000**	**160,000**	**200,000**	**150,000**	**210,000**	**390,000 J**	**120,000 J**	**27,000**	**130,000**	**34,000**	**1,700 J**	**120,000 J**
Total PAHs	ug/kg	**1,106,700**	**2,032,900**	**404,200**	**326,300**	**3,248,300**	**2,914,900**	**2,457,000**	**2,747,000**	**3,600,900**	**2,126,000**	**3,384,000**	**6,383,200**	**1,889,100**	**367,700**	**1,048,300**	**154,140**	**3,000**	**403,300**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A
Sample Number:		D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4
Sample Depth:		7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	5,700 UR	28,000 UR	5,700 UR	5,900 UR	29,000 UR	29,000 UR	12,000 UR	83,000 UR	110,000 UR	19,000 UR	6,700 UR	120,000 R	88,000 R	37,000 R	29,000 UR	30,000 UR	30,000 UR	28,000 UR
2,3,4,6-tetrachlorophenol	ug/kg	5,700 UJ	28,000 UJ	5,700 UJ	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 UJ	30,000 UJ	30,000 UJ	28,000 U
2,4,5-trichlorophenol	ug/kg	5,700 UJ	28,000 UJ	5,700 UJ	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 UJ	30,000 UJ	30,000 UJ	28,000 U
2,4,6-trichlorophenol	ug/kg	5,700 UJ	28,000 UJ	5,700 UJ	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 UJ	30,000 UJ	30,000 UJ	28,000 U
2,4-dichlorophenol	ug/kg	5,700 UJ	28,000 UJ	5,700 UJ	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 UJ	30,000 UJ	30,000 UJ	28,000 U
2,4-dimethylphenol	ug/kg	5,700 UJ	28,000 UJ	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
2,4-dinitrophenol	ug/kg	11,000 U	56,000 U	11,000 U	12,000 U	58,000 U	58,000 U	24,000 U	170,000 U	220,000 U	38,000 U	13,000 U	230,000 U	180,000 U	73,000 U	59,000 U	59,000 U	61,000 U	56,000 U
2,4-dinitrotoluene	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	**6,500 J**	30,000 U	30,000 U	28,000 U
2,6-dinitrotoluene	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
2-chloronaphthalene	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
2-chlorophenol	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
2-methylnaphthalene	ug/kg	5,700 U	28,000 U	5,700 U	**190,000 J**	**1,200,000 J**	**760,000 J**	**190,000**	**470,000**	**530,000**	**63,000**	**9,500**	**810,000**	**730,000**	**240,000**	**300,000**	**790,000 J**	**220,000**	**250,000**
2-methylphenol (o-cresol)	ug/kg	5,700 UJ	28,000 UJ	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
2-nitroaniline	ug/kg	11,000 U	56,000 U	11,000 U	12,000 U	58,000 U	58,000 U	24,000 U	170,000 U	220,000 U	38,000 U	13,000 U	230,000 U	180,000 U	73,000 U	59,000 U	59,000 U	61,000 U	56,000 U
2-nitrophenol	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
3,3'-dichlorobenzidine	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
3-nitroaniline	ug/kg	11,000 U	56,000 U	11,000 U	12,000 U	58,000 U	58,000 U	24,000 U	170,000 U	220,000 U	38,000 U	13,000 U	230,000 U	180,000 U	73,000 U	59,000 U	59,000 U	61,000 U	56,000 U
4,6-dinitro-2-methylphenol	ug/kg	11,000 U	56,000 U	11,000 U	12,000 U	58,000 U	58,000 U	24,000 U	170,000 U	220,000 U	38,000 U	13,000 U	230,000 U	180,000 U	73,000 U	59,000 U	59,000 U	61,000 U	56,000 U
4-bromophenyl phenyl ether	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
4-chloro-3-methylphenol	ug/kg	5,700 UJ	28,000 UJ	5,700 UJ	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 UJ	30,000 UJ	30,000 UJ	28,000 U
4-chloroaniline	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
4-chlorophenyl phenyl ether	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
4-methylphenol (p-cresol)	ug/kg	5,700 UJ	28,000 UJ	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
4-nitroaniline	ug/kg	11,000 U	56,000 U	11,000 U	12,000 U	58,000 U	58,000 U	24,000 U	170,000 U	220,000 U	38,000 U	13,000 U	230,000 U	180,000 U	73,000 U	59,000 U	59,000 U	61,000 U	56,000 U
4-nitrophenol	ug/kg	11,000 U	56,000 U	11,000 U	12,000 U	58,000 U	58,000 U	24,000 U	170,000 U	220,000 U	38,000 U	13,000 U	230,000 U	180,000 U	73,000 U	59,000 U	59,000 U	61,000 U	56,000 U
Acenaphthene	ug/kg	**5,700**	**8,200 J**	**910 J**	**110,000 J**	**410,000**	**200,000**	**20,000**	**250,000**	**96,000 J**	**5,800 J**	**1,900 J**	**300,000**	**300,000**	**36,000 J**	**110,000**	**60,000**	**76,000**	**300,000**
Acenaphthylene	ug/kg	**3,100 J**	**6,700 J**	**1,500 J**	**14,000**	**420,000**	**220,000**	**110,000**	**110,000**	**270,000**	**44,000**	**5,600 J**	**170,000**	**150,000**	**120,000**	**140,000**	**380,000**	**120,000**	**35,000**
Acetophenone	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Anthracene	ug/kg	**2,600 J**	**5,400 J**	**930 J**	**51,000**	**400,000**	**230,000**	**70,000**	**180,000**	**180,000**	**30,000**	**3,500 J**	**250,000**	**220,000**	**91,000**	**130,000**	**210,000**	**75,000**	**180,000**
Atrazine	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Benzaldehyde	ug/kg	5,700 UJ	28,000 UJ	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 UJ	28,000 U
Benzo(a)anthracene	ug/kg	**32,000**	**61,000**	**6,500**	**27,000**	**230,000**	**150,000**	**50,000**	**120,000**	**120,000**	**22,000**	**1,900 J**	**130,000**	**110,000**	**51,000**	**75,000**	**120,000**	**41,000**	**91,000**
Benzo(a)pyrene	ug/kg	**24,000**	**39,000**	**4,300 J**	**22,000**	**180,000**	**120,000**	**37,000**	**83,000 J**	**81,000 J**	**15,000 J**	**1,500 J**	**100,000 J**	**86,000 J**	**41,000**	**50,000**	**90,000**	**24,000 J**	**75,000**
Benzo(b)fluoranthene	ug/kg	**12,000**	**20,000 J**	**2,300 J**	**9,800**	**76,000**	**57,000**	**19,000**	**42,000 J**	**45,000 J**	**7,200 J**	6,700 U	**44,000 J**	**46,000 J**	**20,000 J**	**24,000 J**	**46,000**	**12,000 J**	**33,000**
Benzo(g,h,i)perylene	ug/kg	**10,000**	**17,000 J**	**2,400 J**	**8,400**	**66,000**	**46,000**	**15,000**	**34,000 J**	**30,000 J**	**5,800 J**	6,700 U	**41,000 J**	**30,000 J**	**16,000 J**	**15,000 J**	**30,000 J**	**11,000 J**	**28,000 J**
Benzo(k)fluoranthene	ug/kg	**20,000**	**37,000**	**3,700 J**	**16,000**	**110,000**	**73,000**	**24,000**	**60,000 J**	**58,000 J**	**12,000 J**	6,700 U	**71,000 J**	**52,000 J**	**25,000 J**	**43,000**	**67,000**	**19,000 J**	**47,000**
Benzyl butyl phthalate	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A
Sample Number:		D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4
Sample Depth:		7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	5,700 U	28,000 U	5,700 U	**18,000**	**140,000**	**72,000**	**24,000**	**60,000 J**	**63,000 J**	**8,400 J**	**1,200 J**	**92,000 J**	**81,000 J**	**31,000 J**	**51,000**	**93,000**	**37,000**	**58,000**
Bis(2-chloroethoxy) methane	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Bis(2-chloroethyl) ether	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Bis(2-chloroisopropyl) ether	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Caprolactam	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Carbazole	ug/kg	5,700 U	28,000 U	5,700 U	**1,500 J**	**11,000 J**	**5,400 J**	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	**6,000 J**	30,000 U	28,000 U
Chrysene	ug/kg	**30,000**	**60,000**	**6,700**	**26,000**	**220,000**	**140,000**	**46,000**	**110,000**	**120,000**	**21,000**	**1,800 J**	**120,000**	**110,000**	**48,000**	**75,000**	**120,000**	**41,000**	**89,000**
Dibenz(a,h)anthracene	ug/kg	**2,100 J**	28,000 U	5,700 U	**2,400 J**	**19,000 J**	**13,000 J**	**4,100 J**	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	**7,800 J**	30,000 U	**7,200 J**
Dibenzofuran	ug/kg	5,700 U	28,000 U	5,700 U	**5,000 J**	**40,000**	**20,000 J**	**6,100 J**	**18,000 J**	**18,000 J**	19,000 U	6,700 U	**25,000 J**	**22,000 J**	**8,600 J**	**13,000 J**	**23,000 J**	**8,300 J**	**18,000 J**
Diethyl phthalate	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Dimethyl phthalate	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Di-n-butyl phthalate	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Di-n-octylphthalate	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Fluoranthene	ug/kg	**62,000**	**130,000**	**15,000**	**59,000**	**480,000 J**	**280,000**	**93,000**	**240,000**	**240,000**	**42,000**	**3,900 J**	**290,000**	**250,000**	**110,000**	**160,000**	**290,000**	**99,000**	**200,000**
Fluorene	ug/kg	5,700 U	28,000 U	5,700 U	**54,000**	**400,000**	**200,000**	**68,000**	**180,000**	**190,000**	**28,000**	**3,300 J**	**230,000**	**220,000**	**78,000**	**150,000**	**260,000**	**97,000**	**160,000**
Hexachlorobenzene	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Hexachlorobutadiene	ug/kg	5,700 UJ	28,000 UJ	5,700 UJ	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 UJ	30,000 UJ	30,000 UJ	28,000 U
Hexachlorocyclopentadiene	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Hexachloroethane	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**10,000**	**18,000 J**	**2,400 J**	**9,000**	**72,000**	**45,000**	**15,000**	**34,000 J**	**36,000 J**	**6,300 J**	6,700 U	**41,000 J**	**33,000 J**	**16,000 J**	**18,000 J**	**37,000**	**11,000 J**	**31,000**
Isophorone	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Naphthalene	ug/kg	5,700 U	28,000 U	5,700 U	**290,000 J**	**2,300,000 J**	**1,700,000 J**	**430,000 J**	**860,000**	**1,200,000**	**180,000**	**26,000**	**1,500,000**	**1,400,000**	**540,000**	**820,000 J**	**1,500,000 J**	**460,000**	**500,000 J**
Nitrobenzene	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 UJ
N-nitrosodi-n-propylamine	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
N-nitrosodiphenylamine	ug/kg	5,700 U	28,000 U	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 U	28,000 U
Pentachlorophenol	ug/kg	11,000 UJ	56,000 UJ	11,000 UJ	12,000 U	58,000 U	58,000 U	24,000 U	170,000 U	220,000 U	38,000 U	13,000 U	230,000 U	180,000 U	73,000 U	59,000 UJ	59,000 UJ	61,000 UJ	56,000 UJ
Phenanthrene	ug/kg	5,700 U	28,000 U	5,700 U	**200,000 J**	**1,300,000 J**	**1,100,000 J**	**260,000 J**	**660,000**	**680,000**	**110,000**	**12,000**	**830,000**	**720,000**	**290,000**	**460,000**	**820,000 J**	**300,000**	**550,000 J**
Phenol	ug/kg	5,700 UJ	28,000 UJ	5,700 U	5,900 U	29,000 U	29,000 U	12,000 U	83,000 U	110,000 U	19,000 U	6,700 U	120,000 U	88,000 U	37,000 U	29,000 U	30,000 U	30,000 UJ	28,000 U
Pyrene	ug/kg	**80,000**	**190,000**	**24,000**	**79,000**	**630,000 J**	**370,000**	**120,000**	**310,000**	**310,000**	**52,000**	**5,400 J**	**400,000**	**330,000**	**150,000**	**250,000**	**410,000**	**150,000**	**250,000**
Total PAHs	ug/kg	**293,500**	**592,300**	**70,640**	**1,167,600**	**8,513,000**	**5,704,000**	**1,571,100**	**3,743,000**	**4,186,000**	**644,100**	**76,300**	**5,327,000**	**4,787,000**	**1,872,000**	**2,820,000**	**5,237,800**	**1,756,000**	**2,826,200**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146
Sample Number:		GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0
Sample Depth:		2-4	4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	5,900 UR	5,900 UR	5,700 UR	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2,3,4,6-tetrachlorophenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2,4,5-trichlorophenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2,4,6-trichlorophenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2,4-dichlorophenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2,4-dimethylphenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2,4-dinitrophenol	ug/kg	12,000 U	12,000 U	11,000 U	12,000 U	240,000 U	12,000 U	54,000 U	36,000 U	59,000 U	67,000 U	110,000 U	120,000 U	130,000 U	120,000 U	120,000 U	94,000 U	59,000 U	1,800 U
2,4-dinitrotoluene	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2,6-dinitrotoluene	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2-chloronaphthalene	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2-chlorophenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2-methylnaphthalene	ug/kg	**2,800 J**	**30,000**	5,700 U	**260,000**	**1,200,000**	**130,000**	27,000 U	**3,300 J**	**34,000**	**26,000 J**	**2,500 J**	**200,000**	**480,000**	**500,000**	**590,000**	**90,000**	**260,000**	**130 J**
2-methylphenol (o-cresol)	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
2-nitroaniline	ug/kg	12,000 U	12,000 U	11,000 U	12,000 U	240,000 U	12,000 U	54,000 U	36,000 U	59,000 U	67,000 U	110,000 U	120,000 U	130,000 U	120,000 U	120,000 U	94,000 U	59,000 U	1,800 U
2-nitrophenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
3,3'-dichlorobenzidine	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 UJ	940 U
3-nitroaniline	ug/kg	12,000 U	12,000 U	11,000 U	12,000 U	240,000 U	12,000 U	54,000 U	36,000 U	59,000 U	67,000 U	110,000 U	120,000 U	130,000 U	120,000 U	120,000 U	94,000 U	59,000 U	1,800 U
4,6-dinitro-2-methylphenol	ug/kg	12,000 U	12,000 U	11,000 U	12,000 U	240,000 U	12,000 U	54,000 U	36,000 U	59,000 U	67,000 U	110,000 U	120,000 U	130,000 U	120,000 U	120,000 U	94,000 U	59,000 U	1,800 U
4-bromophenyl phenyl ether	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
4-chloro-3-methylphenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
4-chloroaniline	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 UJ	940 U
4-chlorophenyl phenyl ether	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
4-methylphenol (p-cresol)	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
4-nitroaniline	ug/kg	12,000 U	12,000 U	11,000 U	12,000 U	240,000 U	12,000 U	54,000 U	36,000 U	59,000 U	67,000 U	110,000 U	120,000 U	130,000 U	120,000 U	120,000 U	94,000 U	59,000 U	1,800 U
4-nitrophenol	ug/kg	12,000 U	12,000 U	11,000 U	12,000 U	240,000 U	12,000 U	54,000 U	36,000 U	59,000 U	67,000 U	110,000 U	120,000 U	130,000 U	120,000 U	120,000 U	94,000 U	59,000 U	1,800 U
Acenaphthene	ug/kg	**25,000**	**70,000**	**20,000**	**160,000**	**650,000**	**74,000**	**62,000**	**40,000**	**91,000**	**140,000**	**190,000**	**180,000**	**260,000**	**290,000**	**340,000**	**250,000**	**140,000**	**350 J**
Acenaphthylene	ug/kg	**1,400 J**	**6,100**	**1,200 J**	**5,000 J**	**69,000 J**	**16,000**	**9,500 J**	**4,500 J**	**7,800 J**	**8,700 J**	**17,000 J**	**53,000 J**	**13,000 J**	**18,000 J**	**24,000 J**	**13,000 J**	**24,000 J**	**660 J**
Acetophenone	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	**1,000 J**	**690 J**	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Anthracene	ug/kg	**13,000**	**38,000**	**10,000**	**72,000**	**380,000**	**42,000**	**53,000**	**33,000**	**47,000**	**84,000**	**120,000**	**120,000**	**140,000**	**160,000**	**190,000**	**120,000**	**71,000**	**330 J**
Atrazine	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Benzaldehyde	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Benzo(a)anthracene	ug/kg	**7,100**	**20,000**	**6,000**	**37,000**	**170,000**	**26,000**	**37,000**	**19,000**	**39,000**	**45,000 J**	**68,000**	**55,000 J**	**74,000**	**81,000**	**100,000**	**46,000 J**	**29,000 J**	**4,800 J**
Benzo(a)pyrene	ug/kg	**5,800 J**	**17,000**	**5,300 J**	**31,000**	**130,000**	**22,000**	**31,000**	**13,000 J**	**30,000**	**36,000**	**54,000 J**	**51,000 J**	**52,000 J**	**58,000 J**	**71,000**	47,000 U	30,000 U	**4,500**
Benzo(b)fluoranthene	ug/kg	**2,700 J**	**7,800**	**2,200 J**	**15,000**	**64,000 J**	**8,400**	**18,000 J**	**11,000 J**	**26,000 J**	**11,000 J**	**21,000 J**	**18,000 J**	**26,000 J**	**30,000 J**	**31,000 J**	47,000 U	30,000 U	**1,200**
Benzo(g,h,i)perylene	ug/kg	**1,600 J**	**6,500**	**1,300 J**	**9,000**	**41,000 J**	**6,900**	**15,000 J**	**7,200 J**	**15,000 J**	**11,000 J**	**19,000 J**	**21,000 J**	**17,000 J**	**20,000 J**	**26,000 J**	**15,000 J**	**11,000 J**	**1,100 J**
Benzo(k)fluoranthene	ug/kg	**4,000 J**	**11,000**	**3,900 J**	**18,000**	**79,000 J**	**15,000**	**11,000 J**	**4,600 J**	**7,800 J**	**20,000 J**	**35,000 J**	**30,000 J**	**35,000 J**	**38,000 J**	**46,000 J**	47,000 U	30,000 U	**2,200**
Benzyl butyl phthalate	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146
Sample Number:		GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0
Sample Depth:		2-4	4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**4,800 J**	**14,000**	**4,500 J**	**24,000**	**130,000**	**16,000**	**11,000 J**	**5,700 J**	**17,000 J**	**7,300 J**	**7,300 J**	**46,000 J**	**45,000 J**	**50,000 J**	**64,000**	**42,000 J**	**31,000**	**72 J**
Bis(2-chloroethoxy) methane	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Bis(2-chloroethyl) ether	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Bis(2-chloroisopropyl) ether	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Bis(2-ethylhexyl) phthalate	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	**1,800 J**	**1,600 J**	**2,000 J**	**1,300 J**	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Caprolactam	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Carbazole	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	**560 J**	**1,400 J**	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	**1,200 J**	940 U
Chrysene	ug/kg	**6,700**	**19,000**	**5,700**	**34,000**	**160,000**	**24,000**	**27,000**	**19,000**	**37,000**	**41,000 J**	**62,000**	**52,000 J**	**71,000**	**75,000**	**96,000**	**41,000 J**	**27,000 J**	**4,700 J**
Dibenz(a,h)anthracene	ug/kg	5,900 UR	**1,800 J**	5,700 U	**3,000 J**	120,000 U	**2,300 J**	**4,000 J**	18,000 U	**4,000 J**	**4,500 J**	**6,500 J**	**6,800 J**	63,000 U	62,000 U	60,000 U	**4,700 J**	**3,800 J**	**280 J**
Dibenzofuran	ug/kg	**1,300 J**	**3,700 J**	**1,100 J**	**5,800 J**	**33,000 J**	**4,000 J**	**3,500 J**	**2,200 J**	**4,700 J**	**6,800 J**	57,000 U	**13,000 J**	**14,000 J**	**14,000 J**	**17,000 J**	**12,000 J**	**7,300 J**	940 U
Diethyl phthalate	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Dimethyl phthalate	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Di-n-butyl phthalate	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Di-n-octylphthalate	ug/kg	5,900 UR	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Fluoranthene	ug/kg	**16,000**	**46,000**	**14,000**	**77,000**	**370,000**	**47,000**	**74,000**	**38,000**	**80,000**	**120,000 J**	**160,000**	**140,000**	**150,000**	**170,000**	**190,000**	**120,000**	**74,000**	**7,500 J**
Fluorene	ug/kg	**13,000**	**36,000**	**10,000**	**63,000**	**380,000**	**39,000**	**18,000 J**	**5,500 J**	**17,000 J**	**59,000**	**74,000**	**110,000**	**150,000**	**150,000**	**160,000**	**120,000**	**68,000**	**140 J**
Hexachlorobenzene	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Hexachlorobutadiene	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Hexachlorocyclopentadiene	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 UJ	940 U
Hexachloroethane	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**1,500 J**	**7,500**	**1,600 J**	**12,000**	**56,000 J**	**9,200**	**12,000 J**	**6,400 J**	**14,000 J**	**12,000 J**	**21,000 J**	**18,000 J**	**20,000 J**	**24,000 J**	**30,000 J**	**13,000 J**	**9,300 J**	**840 J**
Isophorone	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Naphthalene	ug/kg	**9,900**	**66,000**	**830 J**	**370,000**	**1,800,000**	**280,000**	**1,900 J**	**59,000**	**170,000**	**59,000**	**100,000**	**390,000**	**430,000**	**630,000**	**960,000 J**	**210,000**	**330,000**	940 U
Nitrobenzene	ug/kg	5,900 U	5,900 UJ	5,700 UJ	5,900 UJ	120,000 U	6,000 UJ	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
N-nitrosodi-n-propylamine	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
N-nitrosodiphenylamine	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Pentachlorophenol	ug/kg	12,000 U	12,000 UJ	11,000 UJ	12,000 U	240,000 U	12,000 U	54,000 U	36,000 U	59,000 U	67,000 U	110,000 U	120,000 U	130,000 U	120,000 U	120,000 U	94,000 U	59,000 U	1,800 U
Phenanthrene	ug/kg	**44,000**	**120,000 J**	**38,000**	**310,000**	**1,200,000**	**190,000**	**180,000**	**130,000**	**210,000**	**470,000**	**610,000**	**620,000**	**470,000**	**510,000**	**580,000**	**610,000**	**370,000**	**590 J**
Phenol	ug/kg	5,900 U	5,900 U	5,700 U	5,900 U	120,000 U	6,000 U	27,000 U	18,000 U	29,000 U	33,000 U	57,000 U	61,000 U	63,000 U	62,000 U	60,000 U	47,000 U	30,000 U	940 U
Pyrene	ug/kg	**23,000**	**59,000**	**19,000**	**130,000**	**520,000**	**73,000**	**100,000**	**56,000**	**110,000**	**160,000 J**	**230,000**	**220,000**	**220,000**	**230,000**	**280,000**	**200,000**	**120,000**	**11,000 J**
Total PAHs	ug/kg	**---**	**561,700**	**139,030**	**1,606,000**	**7,269,000**	**1,004,800**	**653,400**	**449,500**	**939,600**	**1,307,200**	**1,790,000**	**2,284,800**	**2,608,000**	**2,984,000**	**3,714,000**	**1,852,700**	**1,537,100**	**40,320**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B
Sample Number:		D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0
Sample Depth:		11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6
Sample Date:		4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		FD	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
2,3,4,6-tetrachlorophenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
2,4,5-trichlorophenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
2,4,6-trichlorophenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
2,4-dichlorophenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
2,4-dimethylphenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
2,4-dinitrophenol	ug/kg	1,800 U	92,000 U	35,000 U	99,000 U	23,000 U	110,000 U	200,000 U	230,000 U	350,000 U	13,000 U	24,000 U	24,000 U	1,800 U	47,000 U	12,000 U	380 UJ	380 UJ	23,000 U
2,4-dinitrotoluene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
2,6-dinitrotoluene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
2-chloronaphthalene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
2-chlorophenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
2-methylnaphthalene	ug/kg	**99 J**	**190,000**	**98,000**	**250,000**	**72,000**	**270,000**	**640,000**	**980,000**	**1,600,000**	**2,500 J**	**2,100 J**	**2,000 J**	910 U	24,000 U	6,000 U	200 UJ	200 UJ	**460,000 J**
2-methylphenol (o-cresol)	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
2-nitroaniline	ug/kg	1,800 U	92,000 U	35,000 U	99,000 U	23,000 U	110,000 U	200,000 U	230,000 U	350,000 U	13,000 U	24,000 U	24,000 U	1,800 U	47,000 U	12,000 U	380 UJ	380 UJ	23,000 U
2-nitrophenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
3,3'-dichlorobenzidine	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
3-nitroaniline	ug/kg	1,800 U	92,000 U	35,000 U	99,000 U	23,000 U	110,000 U	200,000 U	230,000 U	350,000 U	13,000 U	24,000 U	24,000 U	1,800 U	47,000 U	12,000 U	380 UJ	380 UJ	23,000 U
4,6-dinitro-2-methylphenol	ug/kg	1,800 U	92,000 U	35,000 U	99,000 U	23,000 U	110,000 U	200,000 U	230,000 U	350,000 U	13,000 U	24,000 U	24,000 U	1,800 U	47,000 U	12,000 U	380 UJ	380 UJ	23,000 U
4-bromophenyl phenyl ether	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
4-chloro-3-methylphenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
4-chloroaniline	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
4-chlorophenyl phenyl ether	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
4-methylphenol (p-cresol)	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
4-nitroaniline	ug/kg	1,800 U	92,000 U	35,000 U	99,000 U	23,000 U	110,000 U	200,000 U	230,000 U	350,000 U	13,000 U	24,000 U	24,000 U	1,800 U	47,000 U	12,000 U	380 UJ	380 UJ	23,000 U
4-nitrophenol	ug/kg	1,800 U	92,000 U	35,000 U	99,000 U	23,000 U	110,000 U	200,000 U	230,000 U	350,000 U	13,000 U	24,000 U	24,000 U	1,800 U	47,000 U	12,000 U	380 UJ	380 UJ	23,000 U
Acenaphthene	ug/kg	**340 J**	**33,000 J**	**23,000**	**50,000**	**19,000**	**150,000**	**340,000**	**150,000**	**250,000**	**45,000**	**63,000**	**84,000**	**5,200**	**110,000**	**1,500 J**	200 UJ	**38 J**	**270,000 J**
Acenaphthylene	ug/kg	**710 J**	**70,000**	**33,000**	**89,000**	**22,000**	**13,000 J**	**31,000 J**	**380,000**	**660,000**	**2,700 J**	**4,100 J**	**7,300 J**	**680 J**	**13,000 J**	6,000 U	200 UJ	200 UJ	**11,000 J**
Acetophenone	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Anthracene	ug/kg	**330 J**	**49,000**	**30,000**	**71,000**	**21,000**	**76,000**	**200,000**	**280,000**	**470,000**	**23,000**	**29,000**	**13,000**	**380 J**	**12,000 J**	**1,400 J**	200 UJ	**38 J**	**110,000**
Atrazine	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Benzaldehyde	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Benzo(a)anthracene	ug/kg	**4,400 J**	**20,000 J**	**13,000 J**	**33,000 J**	**9,500 J**	**34,000 J**	**94,000 J**	**130,000**	**210,000**	**18,000**	**23,000**	**39,000**	**3,400 J**	**71,000**	**1,700 J**	200 UJ	200 UJ	**62,000**
Benzo(a)pyrene	ug/kg	**4,500**	**16,000 J**	**11,000 J**	**18,000 J**	**9,400 J**	**35,000 J**	**82,000 J**	**92,000 J**	**120,000 J**	**12,000**	**16,000**	**26,000**	**2,000**	**54,000**	**1,400 J**	200 UJ	200 UJ	**40,000**
Benzo(b)fluoranthene	ug/kg	**1,100**	**5,700 J**	**3,700 J**	**14,000 J**	**3,300 J**	**11,000 J**	**26,000 J**	**38,000 J**	**69,000 J**	**9,300**	**13,000**	**20,000**	910 U	**22,000 J**	6,000 U	200 UJ	200 UJ	**19,000**
Benzo(g,h,i)perylene	ug/kg	**1,300 J**	**8,100 J**	**5,200 J**	49,000 U	**4,100 J**	**17,000 J**	**44,000 J**	110,000 U	180,000 U	**4,200 J**	**6,600 J**	**12,000 J**	**660 J**	**14,000 J**	6,000 U	200 UJ	200 UJ	**13,000**
Benzo(k)fluoranthene	ug/kg	**2,200**	**8,800 J**	**6,300 J**	**17,000 J**	**5,000 J**	**21,000 J**	**40,000 J**	**65,000 J**	**110,000 J**	6,600 U	12,000 U	12,000 U	**1,100**	**41,000**	6,000 U	200 UJ	200 UJ	**29,000**
Benzyl butyl phthalate	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B
Sample Number:		D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0
Sample Depth:		11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6
Sample Date:		4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		FD	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**56 J**	**22,000 J**	**12,000 J**	**31,000 J**	**9,300 J**	**34,000 J**	**74,000 J**	**110,000 J**	**190,000**	**780 J**	**980 J**	**550 J**	910 U	**8,800 J**	6,000 U	200 UJ	200 UJ	**43,000**
Bis(2-chloroethoxy) methane	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Bis(2-chloroethyl) ether	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Bis(2-chloroisopropyl) ether	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	940 U	46,000 U	**910 J**	49,000 U	**1,200 J**	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	**180 J**	200 UJ	11,000 U
Caprolactam	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Carbazole	ug/kg	940 U	46,000 U	**690 J**	49,000 U	**530 J**	**1,900 J**	**4,000 J**	**6,400 J**	**12,000 J**	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Chrysene	ug/kg	**4,500 J**	**17,000 J**	**12,000 J**	**34,000 J**	**8,900 J**	**34,000 J**	**93,000 J**	**120,000**	**210,000**	**13,000**	**20,000**	**34,000**	**3,400 J**	**67,000**	**1,700 J**	200 UJ	200 UJ	**60,000**
Dibenz(a,h)anthracene	ug/kg	**270 J**	46,000 U	**1,800 J**	**4,100 J**	**1,100 J**	**4,100 J**	**11,000 J**	**18,000 J**	**22,000 J**	**1,200 J**	**2,000 J**	**3,300 J**	**230 J**	**4,900 J**	6,000 U	200 UJ	200 UJ	**4,900 J**
Dibenzofuran	ug/kg	940 U	**6,200 J**	**3,500 J**	**9,000 J**	**2,600 J**	**9,000 J**	**22,000 J**	**32,000 J**	**57,000 J**	**2,400 J**	**3,500 J**	**6,000 J**	**260 J**	**5,600 J**	6,000 U	200 UJ	200 UJ	**12,000**
Diethyl phthalate	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Dimethyl phthalate	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Di-n-butyl phthalate	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Di-n-octylphthalate	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Fluoranthene	ug/kg	**6,900 J**	**47,000**	**29,000**	**70,000**	**22,000**	**78,000**	**200,000**	**290,000**	**480,000**	**30,000**	**41,000**	**71,000**	**11,000 J**	**150,000**	**3,400 J**	**36 J**	**56 J**	**120,000**
Fluorene	ug/kg	**110 J**	**50,000**	**28,000**	**66,000**	**20,000**	**63,000**	**150,000**	**260,000**	**430,000**	**17,000**	**19,000**	**7,400 J**	910 U	**14,000 J**	6,000 U	200 UJ	200 UJ	**120,000**
Hexachlorobenzene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Hexachlorobutadiene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 UJ
Hexachlorocyclopentadiene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Hexachloroethane	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**1,000**	**6,300 J**	**4,200 J**	**8,500 J**	**3,200 J**	**13,000 J**	**33,000 J**	**43,000 J**	**63,000 J**	**4,600 J**	**7,200 J**	**11,000 J**	**490 J**	**19,000 J**	6,000 U	200 UJ	200 UJ	**16,000**
Isophorone	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Naphthalene	ug/kg	940 U	**310,000**	**130,000**	**370,000**	**90,000**	**410,000**	**900,000**	**1,400,000**	**2,200,000**	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	**530,000 J**
Nitrobenzene	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
N-nitrosodi-n-propylamine	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
N-nitrosodiphenylamine	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Pentachlorophenol	ug/kg	1,800 U	92,000 U	35,000 U	99,000 U	23,000 U	110,000 U	200,000 U	230,000 U	350,000 U	13,000 U	24,000 U	24,000 U	1,800 U	47,000 U	12,000 U	380 UJ	380 UJ	23,000 UJ
Phenanthrene	ug/kg	**660 J**	**220,000**	**140,000**	**330,000**	**110,000**	**340,000**	**990,000**	**1,500,000**	**2,600,000**	**58,000**	**66,000**	**17,000**	**130 J**	24,000 U	6,000 U	200 UJ	**58 J**	**410,000 J**
Phenol	ug/kg	940 U	46,000 U	18,000 U	49,000 U	12,000 U	53,000 U	99,000 U	110,000 U	180,000 U	6,600 U	12,000 U	12,000 U	910 U	24,000 U	6,000 U	200 UJ	200 UJ	11,000 U
Pyrene	ug/kg	**11,000 J**	**68,000**	**43,000**	**86,000**	**37,000**	**110,000**	**320,000**	**440,000**	**710,000**	**47,000**	**61,000**	**99,000**	**13,000 J**	**230,000**	**5,000 J**	200 UJ	200 UJ	**170,000**
Total PAHs	ug/kg	**39,419**	**1,118,900**	**611,200**	**1,510,600**	**457,500**	**1,679,100**	**4,194,000**	**6,186,000**	**10,204,000**	**287,500**	**373,000**	**446,000**	**41,670**	**821,900**	**16,100**	**36**	**190**	**2,444,900**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128
Sample Number:		GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3
Sample Depth:		6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 UR	30,000 UR	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2,3,4,6-tetrachlorophenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2,4,5-trichlorophenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2,4,6-trichlorophenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2,4-dichlorophenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2,4-dimethylphenol	ug/kg	18,000 UJ	18,000 UJ	18,000 UJ	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2,4-dinitrophenol	ug/kg	36,000 U	36,000 U	35,000 U	38,000 U	59,000 UJ	340,000 U	66,000 U	400 U	12,000 U	13,000 U	60,000 U	25,000 UR	22,000 U	22,000 U	13,000 U	26,000 U	13,000 U	13,000 U
2,4-dinitrotoluene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2,6-dinitrotoluene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2-chloronaphthalene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2-chlorophenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2-methylnaphthalene	ug/kg	**660,000 J**	**340,000 J**	**350,000 J**	**18,000 J**	**270,000**	**530,000**	**400,000**	**120 J**	**16,000**	**150,000 J**	**900,000 J**	**380,000 J**	**230,000 J**	**250,000 J**	**180,000 J**	**110,000**	**250,000 J**	**260,000 J**
2-methylphenol (o-cresol)	ug/kg	18,000 UJ	18,000 UJ	18,000 UJ	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
2-nitroaniline	ug/kg	36,000 U	36,000 U	35,000 U	38,000 U	59,000 UJ	340,000 U	66,000 U	400 U	12,000 U	13,000 U	60,000 U	25,000 UR	22,000 U	22,000 U	13,000 U	26,000 U	13,000 U	13,000 U
2-nitrophenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
3,3'-dichlorobenzidine	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
3-nitroaniline	ug/kg	36,000 U	36,000 U	35,000 U	38,000 U	59,000 UJ	340,000 U	66,000 U	400 U	12,000 U	13,000 U	60,000 U	25,000 UR	22,000 U	22,000 U	13,000 U	26,000 U	13,000 U	13,000 U
4,6-dinitro-2-methylphenol	ug/kg	36,000 U	36,000 U	35,000 U	38,000 U	59,000 U	340,000 U	66,000 U	400 U	12,000 U	13,000 U	60,000 U	25,000 UR	22,000 U	22,000 UR	13,000 U	26,000 U	13,000 U	13,000 U
4-bromophenyl phenyl ether	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 UR	6,500 U	13,000 U	6,400 U	6,700 U
4-chloro-3-methylphenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
4-chloroaniline	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
4-chlorophenyl phenyl ether	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
4-methylphenol (p-cresol)	ug/kg	18,000 UJ	18,000 UJ	18,000 UJ	19,000 U	30,000 U	170,000 U	33,000 UJ	210 U	5,900 UJ	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
4-nitroaniline	ug/kg	36,000 U	36,000 U	35,000 U	38,000 U	59,000 UJ	340,000 U	66,000 U	400 U	12,000 U	13,000 U	60,000 U	25,000 UR	22,000 U	22,000 U	13,000 U	26,000 U	13,000 U	13,000 U
4-nitrophenol	ug/kg	36,000 U	36,000 U	35,000 U	38,000 U	59,000 UJ	340,000 U	66,000 U	400 U	12,000 U	13,000 U	60,000 U	25,000 UR	22,000 U	22,000 U	13,000 U	26,000 U	13,000 U	13,000 U
Acenaphthene	ug/kg	**360,000 J**	**180,000**	**160,000**	**140,000**	**180,000**	**320,000**	**260,000**	**480**	**57,000**	**85,000**	**580,000 J**	**230,000 J**	**120,000**	**130,000**	**100,000**	**60,000**	**81,000**	**130,000 J**
Acenaphthylene	ug/kg	**12,000 J**	**7,300 J**	**8,300 J**	**9,200 J**	**11,000 J**	**18,000 J**	**26,000 J**	**71 J**	**4,800 J**	**4,800 J**	**32,000**	**8,900 J**	**7,400 J**	**9,100 J**	**16,000**	**11,000 J**	**54,000**	**19,000**
Acetophenone	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Anthracene	ug/kg	**160,000**	**87,000**	**82,000**	**100,000**	**83,000**	**160,000 J**	**170,000**	**360**	**39,000**	**38,000**	**260,000**	**98,000 J**	**62,000**	**82,000 J**	**57,000**	**36,000**	**62,000**	**76,000**
Atrazine	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 UR	6,500 U	13,000 U	6,400 U	6,700 U
Benzaldehyde	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Benzo(a)anthracene	ug/kg	**78,000**	**45,000**	**40,000**	**54,000**	**34,000 J**	**81,000 J**	**100,000**	**210**	**25,000**	**21,000**	**130,000**	**47,000 J**	**35,000**	**46,000**	**31,000**	**17,000**	**34,000**	**46,000**
Benzo(a)pyrene	ug/kg	**55,000**	**31,000**	**28,000**	**12,000 J**	30,000 U	170,000 U	**64,000**	210 U	**16,000**	**14,000**	**91,000**	**31,000 J**	**23,000**	**30,000**	**23,000**	**11,000 J**	**24,000**	**30,000**
Benzo(b)fluoranthene	ug/kg	**22,000**	**12,000 J**	**13,000 J**	**16,000 J**	30,000 U	170,000 U	**52,000**	210 U	**12,000**	**6,000 J**	**44,000**	**12,000 J**	**11,000 J**	**15,000**	**12,000**	**5,000 J**	**11,000**	**16,000**
Benzo(g,h,i)perylene	ug/kg	**16,000 J**	**7,900 J**	**7,900 J**	**11,000 J**	**7,400 J**	**34,000 J**	**27,000 J**	**63 J**	**6,200 J**	**4,000 J**	**25,000 J**	**9,600 J**	**6,600 J**	**8,600 J**	**6,100 J**	**3,500 J**	**8,000**	**10,000**
Benzo(k)fluoranthene	ug/kg	**43,000**	**25,000**	**19,000**	**25,000**	30,000 U	170,000 U	33,000 U	210 U	5,900 U	**10,000**	**60,000**	**25,000 J**	**15,000**	**18,000**	**15,000**	**7,400 J**	**16,000**	**18,000**
Benzyl butyl phthalate	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128
Sample Number:		GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3
Sample Depth:		6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**53,000**	**30,000**	**27,000**	**15,000 J**	**30,000**	**69,000 J**	**56,000**	**64 J**	**11,000**	**12,000**	**83,000**	**31,000 J**	**20,000**	**22,000**	**20,000**	**12,000 J**	**24,000**	**25,000**
Bis(2-chloroethoxy) methane	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Bis(2-chloroethyl) ether	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 UJ	210 U	5,900 UJ	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Bis(2-chloroisopropyl) ether	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Bis(2-ethylhexyl) phthalate	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	**1,600 J**	13,000 U	6,400 U	6,700 U
Caprolactam	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Carbazole	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	**1,800 J**	170,000 U	**3,400 J**	210 U	**720 J**	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 UR	**1,400 J**	13,000 U	**1,600 J**	**1,600 J**
Chrysene	ug/kg	**76,000**	**42,000**	**37,000**	**50,000**	**34,000 J**	**69,000 J**	**95,000**	**250**	**23,000**	**19,000**	**120,000**	**43,000 J**	**33,000**	**44,000**	**29,000**	**16,000**	**32,000**	**43,000**
Dibenz(a,h)anthracene	ug/kg	**6,500 J**	**2,700 J**	**2,800 J**	**4,000 J**	**4,800 J**	**16,000 J**	**7,700 J**	210 U	**2,000 J**	**1,800 J**	**11,000 J**	**3,200 J**	**2,400 J**	**3,200 J**	**2,000 J**	13,000 U	**2,500 J**	**3,600 J**
Dibenzofuran	ug/kg	**15,000 J**	**8,500 J**	**7,900 J**	**7,600 J**	30,000 U	170,000 U	**16,000 J**	**25 J**	**3,800 J**	**4,200 J**	**29,000 J**	**10,000 J**	**6,200 J**	**7,800 J**	**5,900 J**	**3,700 J**	**7,000**	**7,900**
Diethyl phthalate	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Dimethyl phthalate	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Di-n-butyl phthalate	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 UR	6,500 U	13,000 U	6,400 U	6,700 U
Di-n-octylphthalate	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Fluoranthene	ug/kg	**160,000**	**90,000**	**80,000**	**100,000**	**89,000 J**	**160,000 J**	**160,000**	**410**	**41,000**	**41,000**	**260,000**	**93,000 J**	**64,000**	**78,000 J**	**57,000**	**36,000**	**62,000**	**78,000**
Fluorene	ug/kg	**150,000**	**88,000**	**77,000**	**11,000 J**	**70,000**	**140,000 J**	**160,000**	**330**	**39,000**	**44,000**	**290,000**	**100,000 J**	**62,000**	**67,000**	**61,000**	**35,000**	**67,000**	**71,000**
Hexachlorobenzene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 UR	6,500 U	13,000 U	6,400 U	6,700 U
Hexachlorobutadiene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Hexachlorocyclopentadiene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Hexachloroethane	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**22,000**	**11,000 J**	**12,000 J**	**14,000 J**	**13,000 J**	**29,000 J**	**25,000 J**	**41 J**	**6,200**	**5,300 J**	**34,000**	**13,000 J**	**8,500 J**	**11,000**	**7,400**	**4,300 J**	**9,700**	**12,000**
Isophorone	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Naphthalene	ug/kg	**770,000 J**	**420,000 J**	**420,000 J**	**16,000 J**	**410,000**	**770,000**	**470,000**	210 U	**50,000**	**160,000 J**	**1,100,000 J**	**450,000 J**	**270,000 J**	**340,000 J**	**250,000 J**	**160,000**	**380,000 J**	**370,000 J**
Nitrobenzene	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 UJ	30,000 UJ	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
N-nitrosodi-n-propylamine	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
N-nitrosodiphenylamine	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 UR	6,500 U	13,000 U	6,400 U	6,700 U
Pentachlorophenol	ug/kg	36,000 U	36,000 U	35,000 U	38,000 U	59,000 U	340,000 U	66,000 U	400 U	12,000 U	13,000 UJ	60,000 UJ	25,000 UR	22,000 U	22,000 UR	13,000 U	26,000 U	13,000 U	13,000 U
Phenanthrene	ug/kg	**580,000 J**	**280,000**	**250,000**	**360,000 J**	**450,000**	**560,000**	**550,000 J**	**1,400**	**140,000 J**	**140,000 J**	**870,000 J**	**360,000 J**	**240,000 J**	**290,000 J**	**190,000 J**	**120,000**	**200,000 J**	**250,000 J**
Phenol	ug/kg	18,000 U	18,000 U	18,000 U	19,000 U	30,000 U	170,000 U	33,000 U	210 U	5,900 U	6,400 U	30,000 U	13,000 UR	11,000 U	11,000 U	6,500 U	13,000 U	6,400 U	6,700 U
Pyrene	ug/kg	**230,000**	**130,000**	**110,000**	**150,000**	**150,000 J**	**260,000 J**	**270,000**	**770 J**	**63,000**	**51,000**	**340,000**	**120,000 J**	**89,000**	**110,000**	**85,000**	**48,000**	**83,000**	**100,000**
Total PAHs	ug/kg	**3,400,500**	**1,798,900**	**1,697,000**	**1,090,200**	**1,806,200**	**3,147,000**	**2,836,700**	**4,505**	**540,200**	**794,900**	**5,147,000**	**2,023,700**	**1,278,900**	**1,531,900**	**1,121,500**	**680,200**	**1,376,200**	**1,532,600**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A
Sample Number:		GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1
Sample Depth:		9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1
Sample Date:		3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2,3,4,6-tetrachlorophenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2,4,5-trichlorophenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2,4,6-trichlorophenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2,4-dichlorophenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2,4-dimethylphenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2,4-dinitrophenol	ug/kg	11,000 U	11,000 U	710,000 UR	61,000 U	120,000 U	23,000 U	110,000 U	240,000 U	120,000 U	240,000 U	130,000 U	47,000 U	110,000 U	1,200,000 U	8,100 U	25,000 U	13,000 U	200,000 U
2,4-dinitrotoluene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2,6-dinitrotoluene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2-chloronaphthalene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2-chlorophenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2-methylnaphthalene	ug/kg	**170,000 J**	**150,000 J**	**3,200,000 J**	**240,000**	**530,000**	**700,000 J**	**650,000**	**1,300,000**	**2,700,000 J**	**930,000**	**310,000**	**100,000**	**150,000**	**2,700,000**	**21,000**	**59,000**	**23,000**	**950,000**
2-methylphenol (o-cresol)	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
2-nitroaniline	ug/kg	11,000 U	11,000 U	710,000 UR	61,000 U	120,000 U	23,000 U	110,000 U	240,000 U	120,000 U	240,000 U	130,000 U	47,000 U	110,000 U	1,200,000 U	8,100 U	25,000 U	13,000 U	200,000 U
2-nitrophenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
3,3'-dichlorobenzidine	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
3-nitroaniline	ug/kg	11,000 U	11,000 U	710,000 UR	61,000 U	120,000 U	23,000 U	110,000 U	240,000 U	120,000 U	240,000 U	130,000 U	47,000 U	110,000 U	1,200,000 U	8,100 U	25,000 U	13,000 U	200,000 U
4,6-dinitro-2-methylphenol	ug/kg	11,000 U	11,000 U	710,000 UR	61,000 U	120,000 U	23,000 U	110,000 U	240,000 U	120,000 U	240,000 U	130,000 U	47,000 U	110,000 U	1,200,000 U	8,100 U	25,000 U	13,000 U	200,000 U
4-bromophenyl phenyl ether	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
4-chloro-3-methylphenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
4-chloroaniline	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
4-chlorophenyl phenyl ether	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
4-methylphenol (p-cresol)	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
4-nitroaniline	ug/kg	11,000 U	11,000 U	710,000 UR	61,000 U	120,000 U	23,000 U	110,000 U	240,000 U	120,000 U	240,000 U	130,000 U	47,000 U	110,000 U	1,200,000 U	8,100 U	25,000 U	13,000 U	200,000 U
4-nitrophenol	ug/kg	11,000 U	11,000 U	710,000 UR	61,000 U	120,000 U	23,000 U	110,000 U	240,000 U	120,000 U	240,000 U	130,000 U	47,000 U	110,000 U	1,200,000 U	8,100 U	25,000 U	13,000 U	200,000 U
Acenaphthene	ug/kg	**90,000**	**88,000**	**2,300,000 J**	**150,000**	**340,000**	**370,000 J**	**380,000**	**710,000**	**1,100,000 J**	**160,000**	**91,000**	**35,000**	**60,000**	**400,000 J**	**11,000**	**34,000**	**15,000**	**480,000**
Acenaphthylene	ug/kg	**6,200**	**6,200**	**160,000 J**	**10,000 J**	**18,000 J**	**18,000**	**16,000 J**	**56,000 J**	**510,000**	**250,000**	**45,000 J**	**11,000 J**	**27,000 J**	**840,000**	**7,000**	**1,600 J**	**760 J**	**25,000 J**
Acetophenone	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Anthracene	ug/kg	**54,000**	**49,000**	**1,200,000 J**	**83,000**	**190,000**	**140,000**	**200,000**	**360,000**	**690,000**	**150,000**	**54,000 J**	**19,000 J**	**41,000 J**	**580,000 J**	**11,000 J**	**13,000**	**6,200 J**	**190,000**
Atrazine	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Benzaldehyde	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Benzo(a)anthracene	ug/kg	**36,000**	**30,000**	**750,000 J**	**48,000**	**130,000**	**110,000**	**100,000**	**180,000**	**530,000**	**75,000 J**	**26,000 J**	**10,000 J**	**18,000 J**	**360,000 J**	**6,100**	**3,600 J**	**2,200 J**	**78,000 J**
Benzo(a)pyrene	ug/kg	**21,000**	**20,000**	**440,000 J**	**31,000**	**91,000**	**75,000**	**61,000**	**100,000 J**	**350,000**	**48,000 J**	**16,000 J**	**7,200 J**	**18,000 J**	**220,000 J**	**4,000 J**	12,000 U	6,400 U	100,000 U
Benzo(b)fluoranthene	ug/kg	**10,000**	**9,000**	**360,000 J**	30,000 U	**81,000**	**33,000**	**25,000 J**	**43,000 J**	**180,000**	**18,000 J**	**4,700 J**	**2,300 J**	**15,000 J**	**96,000 J**	**3,400 J**	12,000 U	6,400 U	100,000 U
Benzo(g,h,i)perylene	ug/kg	**7,800**	**6,700**	**210,000 J**	**15,000 J**	**39,000 J**	**19,000**	**18,000 J**	**34,000 J**	**85,000**	**16,000 J**	64,000 U	23,000 U	57,000 U	610,000 U	**1,300 J**	12,000 U	**680 J**	**34,000 J**
Benzo(k)fluoranthene	ug/kg	**14,000**	**13,000**	350,000 UJ	30,000 U	59,000 U	**49,000**	**48,000 J**	**70,000 J**	**220,000**	**35,000 J**	**10,000 J**	**5,000 J**	**13,000 J**	**150,000 J**	**970 J**	12,000 U	6,400 U	100,000 U
Benzyl butyl phthalate	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A
Sample Number:		GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1
Sample Depth:		9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1
Sample Date:		3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**16,000**	**15,000**	**400,000 J**	**28,000 J**	**61,000**	**63,000**	**70,000**	**120,000**	**260,000**	**57,000 J**	**18,000 J**	**6,500 J**	**12,000 J**	**180,000 J**	**2,400 J**	**5,800 J**	**2,600 J**	**93,000 J**
Bis(2-chloroethoxy) methane	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Bis(2-chloroethyl) ether	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Bis(2-chloroisopropyl) ether	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	5,700 U	5,700 U	350,000 UJ	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Caprolactam	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Carbazole	ug/kg	5,700 U	5,700 U	**30,000 J**	**2,400 J**	**4,900 J**	**4,400 J**	57,000 U	120,000 U	**19,000 J**	120,000 U	**1,900 J**	23,000 U	57,000 U	610,000 U	**290 J**	**1,200 J**	**380 J**	**6,700 J**
Chrysene	ug/kg	**33,000**	**30,000**	**630,000 J**	**47,000**	**120,000**	**94,000**	**91,000**	**160,000**	**490,000**	**72,000 J**	**25,000 J**	**9,500 J**	**19,000 J**	**360,000 J**	**6,100**	**3,100 J**	**2,100 J**	**79,000 J**
Dibenz(a,h)anthracene	ug/kg	**2,900 J**	**2,300 J**	**55,000 J**	**3,100 J**	**15,000 J**	**6,400 J**	57,000 U	120,000 U	**32,000 J**	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	**11,000 J**
Dibenzofuran	ug/kg	**5,000 J**	**4,900 J**	**130,000 J**	**8,900 J**	**21,000 J**	**17,000**	**17,000 J**	**34,000 J**	**77,000**	**21,000 J**	**7,000 J**	**2,300 J**	**4,100 J**	**65,000 J**	**1,100 J**	**1,900 J**	**820 J**	**24,000 J**
Diethyl phthalate	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Dimethyl phthalate	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Di-n-butyl phthalate	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Di-n-octylphthalate	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Fluoranthene	ug/kg	**55,000**	**50,000**	**1,200,000 J**	**82,000**	**200,000**	**160,000**	**200,000**	**410,000**	**810,000**	**140,000**	**50,000 J**	**18,000 J**	**32,000 J**	**580,000 J**	**11,000**	**11,000 J**	**5,700 J**	**180,000**
Fluorene	ug/kg	**43,000**	**45,000**	**1,200,000 J**	**79,000**	**190,000**	**180,000**	**190,000**	**380,000**	**860,000**	**190,000**	**68,000**	**23,000 J**	**48,000 J**	**630,000**	**11,000**	**15,000**	**6,300 J**	**210,000**
Hexachlorobenzene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Hexachlorobutadiene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Hexachlorocyclopentadiene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Hexachloroethane	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**8,100**	**7,400**	**200,000 J**	**13,000 J**	**38,000 J**	**25,000**	**23,000 J**	**39,000 J**	**110,000**	**15,000 J**	64,000 U	23,000 U	57,000 U	610,000 U	**1,500 J**	12,000 U	**700 J**	**26,000 J**
Isophorone	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Naphthalene	ug/kg	**190,000 J**	**180,000 J**	**3,800,000 J**	**250,000**	**580,000**	**790,000 J**	**810,000**	**1,500,000**	**3,000,000 J**	**940,000**	**460,000**	**150,000**	**230,000**	**4,000,000**	**20,000**	**76,000**	**29,000**	**1,200,000**
Nitrobenzene	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
N-nitrosodi-n-propylamine	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
N-nitrosodiphenylamine	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Pentachlorophenol	ug/kg	11,000 U	11,000 U	710,000 UR	61,000 U	120,000 U	23,000 U	110,000 U	240,000 U	120,000 U	240,000 U	130,000 U	47,000 U	110,000 U	1,200,000 U	8,100 U	25,000 U	13,000 U	200,000 U
Phenanthrene	ug/kg	**180,000 J**	**150,000 J**	**4,100,000 J**	**290,000**	**670,000**	**580,000 J**	**650,000**	**1,100,000**	**2,300,000 J**	**560,000**	**210,000**	**72,000**	**140,000**	**2,200,000**	**39,000**	**54,000**	**25,000**	**850,000**
Phenol	ug/kg	5,700 U	5,700 U	350,000 UR	30,000 U	59,000 U	11,000 U	57,000 U	120,000 U	58,000 U	120,000 U	64,000 U	23,000 U	57,000 U	610,000 U	4,200 U	12,000 U	6,400 U	100,000 U
Pyrene	ug/kg	**73,000**	**67,000**	**1,900,000 J**	**120,000**	**300,000**	**180,000**	**310,000**	**480,000**	**850,000**	**230,000**	**84,000**	**30,000**	**60,000**	**1,000,000**	**17,000 J**	**14,000 J**	**9,000**	**270,000 J**
Total PAHs	ug/kg	**994,000**	**903,600**	**21,705,000**	**1,461,100**	**3,532,000**	**3,529,400**	**3,772,000**	**6,922,000**	**14,817,000**	**3,829,000**	**1,453,700**	**492,000**	**871,000**	**14,116,000**	**171,370**	**284,300**	**125,640**	**4,583,000**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD27A	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A
Sample Number:		GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0
Sample Depth:		8.1-8.6	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10
Sample Date:		4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 UR	2,100 U	32,000 U
2,3,4,6-tetrachlorophenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2,4,5-trichlorophenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2,4,6-trichlorophenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2,4-dichlorophenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2,4-dimethylphenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2,4-dinitrophenol	ug/kg	55,000 U	12,000 U	13,000 U	1,700 UJ	450 UJ	12,000 U	12,000 U	400 UJ	13,000 U	13,000 U	24,000 U	13,000 U	13,000 U	24,000 U	1,200,000 U	120,000 U	4,100 U	64,000 U
2,4-dinitrotoluene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2,6-dinitrotoluene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2-chloronaphthalene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	**1,800 J**	**6,100 J**	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2-chlorophenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2-methylnaphthalene	ug/kg	**210,000**	**41,000**	**11,000**	**7,200 J**	**140 J**	6,100 U	5,800 U	210 UJ	**51,000**	**370,000 J**	**670,000 J**	**16,000**	**240,000 J**	**72,000**	**5,200,000**	**4,000,000 J**	**25,000**	**150,000**
2-methylphenol (o-cresol)	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
2-nitroaniline	ug/kg	55,000 U	12,000 U	13,000 U	1,700 UJ	450 UJ	12,000 U	12,000 U	400 UJ	13,000 U	13,000 U	24,000 U	13,000 U	13,000 U	24,000 U	1,200,000 U	120,000 U	4,100 U	64,000 U
2-nitrophenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
3,3'-dichlorobenzidine	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
3-nitroaniline	ug/kg	55,000 U	12,000 U	13,000 U	1,700 UJ	450 UJ	12,000 U	12,000 U	400 UJ	13,000 U	13,000 U	24,000 U	13,000 U	13,000 U	24,000 U	1,200,000 U	120,000 U	4,100 U	64,000 U
4,6-dinitro-2-methylphenol	ug/kg	55,000 U	12,000 U	13,000 U	1,700 UJ	450 UJ	12,000 U	12,000 U	400 UJ	13,000 U	13,000 U	24,000 U	13,000 U	13,000 U	24,000 U	1,200,000 U	120,000 U	4,100 U	64,000 U
4-bromophenyl phenyl ether	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
4-chloro-3-methylphenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
4-chloroaniline	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
4-chlorophenyl phenyl ether	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
4-methylphenol (p-cresol)	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
4-nitroaniline	ug/kg	55,000 U	12,000 U	13,000 U	1,700 UJ	450 UJ	12,000 U	12,000 U	400 UJ	13,000 U	13,000 U	24,000 U	13,000 U	13,000 U	24,000 U	1,200,000 U	120,000 U	4,100 U	64,000 U
4-nitrophenol	ug/kg	55,000 U	12,000 U	13,000 U	1,700 UJ	450 UJ	12,000 U	12,000 U	400 UJ	13,000 U	13,000 U	24,000 U	13,000 U	13,000 U	24,000 U	1,200,000 U	120,000 U	4,100 U	64,000 U
Acenaphthene	ug/kg	**120,000**	**21,000**	**4,700 J**	**3,400 J**	**80 J**	**70,000**	**910 J**	**66 J**	**28,000**	**210,000 J**	**390,000 J**	**6,200 J**	**58,000**	**21,000**	**740,000**	**470,000**	**18,000**	**70,000**
Acenaphthylene	ug/kg	**7,800 J**	**7,400**	**1,900 J**	**1,200 J**	230 UJ	**11,000**	**1,200 J**	210 UJ	**1,300 J**	**8,200**	**18,000**	**3,500 J**	**60,000**	**22,000**	**2,200,000**	**1,700,000 J**	**1,200 J**	**3,100 J**
Acetophenone	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Anthracene	ug/kg	**49,000**	**17,000**	**3,800 J**	**3,000 J**	**57 J**	**57,000**	**6,200**	**59 J**	**13,000**	**83,000**	**140,000**	**5,200 J**	**53,000**	**20,000**	**1,400,000**	**790,000**	**7,300**	**23,000 J**
Atrazine	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Benzaldehyde	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Benzo(a)anthracene	ug/kg	**25,000 J**	**10,000**	**1,600 J**	**1,600 J**	**48 J**	**74,000**	**11,000**	**71 J**	**4,700 J**	**42,000**	**72,000**	**2,500 J**	**32,000**	**10,000 J**	**710,000**	**430,000**	**3,200**	**8,700 J**
Benzo(a)pyrene	ug/kg	28,000 U	**6,600**	**1,200 J**	**1,200 J**	230 UJ	**46,000**	**6,400**	**47 J**	**3,000 J**	**30,000**	**48,000**	**1,500 J**	**22,000**	**7,000 J**	**400,000 J**	**300,000**	**2,200**	**5,500 J**
Benzo(b)fluoranthene	ug/kg	28,000 U	**2,900 J**	6,300 U	**440 J**	230 UJ	**28,000**	**2,800 J**	210 UJ	**1,200 J**	**14,000**	**20,000**	6,300 U	**9,500**	**2,700 J**	**190,000 J**	**120,000**	**1,700 J**	**2,200 J**
Benzo(g,h,i)perylene	ug/kg	**8,100 J**	**1,900 J**	6,300 U	**340 J**	230 UJ	**15,000**	**1,700 J**	210 UJ	6,400 U	**10,000**	**15,000**	6,300 U	**7,400**	**2,600 J**	**120,000 J**	**84,000**	**920 J**	32,000 U
Benzo(k)fluoranthene	ug/kg	28,000 U	**3,500 J**	6,300 U	**670 J**	230 UJ	**24,000**	**3,700 J**	210 UJ	**2,300 J**	**21,000**	**35,000**	**1,200 J**	**14,000**	**5,300 J**	**250,000 J**	**180,000**	**590 J**	**3,500 J**
Benzyl butyl phthalate	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD27A	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A
Sample Number:		GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0
Sample Depth:		8.1-8.6	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10
Sample Date:		4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**22,000 J**	**4,900 J**	**1,200 J**	**730 J**	230 UJ	**13,000**	5,800 U	210 UJ	**4,300 J**	**32,000**	**49,000**	**1,300 J**	**20,000**	**6,800 J**	**500,000 J**	**300,000**	**2,200**	**9,000 J**
Bis(2-chloroethoxy) methane	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Bis(2-chloroethyl) ether	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Bis(2-chloroisopropyl) ether	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	**140 J**	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Caprolactam	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Carbazole	ug/kg	**1,500 J**	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	**2,400 J**	**3,400 J**	6,300 U	**1,300 J**	12,000 U	590,000 U	**23,000 J**	**290 J**	**1,300 J**
Chrysene	ug/kg	**25,000 J**	**9,500**	**1,500 J**	**1,600 J**	**41 J**	**64,000**	**11,000**	**71 J**	**4,600 J**	**41,000**	**70,000**	**2,400 J**	**31,000**	**10,000 J**	**670,000**	**410,000**	**3,000**	**8,200 J**
Dibenz(a,h)anthracene	ug/kg	**3,200 J**	6,200 U	6,300 U	880 UJ	230 UJ	**5,400 J**	5,800 U	210 UJ	6,400 U	**3,500 J**	**5,100 J**	6,300 U	**2,500 J**	12,000 U	590,000 U	**28,000 J**	2,100 U	32,000 U
Dibenzofuran	ug/kg	**6,100 J**	**1,700 J**	6,300 U	880 UJ	230 UJ	**8,600**	5,800 U	210 UJ	**1,300 J**	**9,400**	**15,000**	6,300 U	**5,600 J**	**2,000 J**	**150,000 J**	**77,000**	**910 J**	**3,500 J**
Diethyl phthalate	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Dimethyl phthalate	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Di-n-butyl phthalate	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Di-n-octylphthalate	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Fluoranthene	ug/kg	**49,000**	**21,000**	**3,900 J**	**3,200 J**	**68 J**	**170,000 J**	**19,000**	**130 J**	**9,800**	**80,000**	**130,000**	**4,500 J**	**56,000**	**21,000**	**1,600,000**	**770,000**	**6,800**	**19,000 J**
Fluorene	ug/kg	**51,000**	**16,000**	**3,600 J**	**2,500 J**	**52 J**	**25,000**	5,800 U	**46 J**	**13,000**	**92,000**	**140,000**	**5,400 J**	**55,000**	**20,000**	**1,400,000**	**780,000**	**9,100**	**29,000 J**
Hexachlorobenzene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Hexachlorobutadiene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Hexachlorocyclopentadiene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Hexachloroethane	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**7,400 J**	**2,300 J**	6,300 U	**400 J**	230 UJ	**18,000**	**2,100 J**	210 UJ	**1,400 J**	**12,000 J**	**17,000 J**	6,300 UJ	**8,900 J**	**2,800 J**	**120,000 J**	**100,000**	**1,000 J**	32,000 U
Isophorone	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Naphthalene	ug/kg	**210,000**	**40,000**	**12,000**	**8,600 J**	**120 J**	6,100 U	5,800 U	210 UJ	**76,000**	**570,000 J**	**910,000 J**	**22,000**	**380,000 J**	**100,000**	**7,300,000**	**6,500,000 J**	**27,000**	**200,000**
Nitrobenzene	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
N-nitrosodi-n-propylamine	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
N-nitrosodiphenylamine	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Pentachlorophenol	ug/kg	55,000 U	12,000 U	13,000 U	1,700 UJ	450 UJ	12,000 U	12,000 U	400 UJ	13,000 U	13,000 U	24,000 U	13,000 U	13,000 U	24,000 UJ	1,200,000 U	120,000 U	4,100 U	64,000 U
Phenanthrene	ug/kg	**200,000**	**51,000**	**12,000**	**9,100 J**	**190 J**	**280,000 J**	**6,000**	**200 J**	**36,000**	**270,000 J**	**540,000 J**	**16,000**	**210,000 J**	**66,000**	**4,500,000**	**3,800,000 J**	**25,000**	**90,000**
Phenol	ug/kg	28,000 U	6,200 U	6,300 U	880 UJ	230 UJ	6,100 U	5,800 U	210 UJ	6,400 U	6,600 U	12,000 U	6,300 U	6,600 U	12,000 U	590,000 U	60,000 U	2,100 U	32,000 U
Pyrene	ug/kg	**88,000 J**	**25,000**	**5,000 J**	**3,900 J**	230 UJ	**190,000 J**	**24,000**	210 UJ	**14,000**	**100,000**	**180,000**	**6,300 J**	**76,000**	**26,000**	**1,800,000**	**1,700,000 J**	**9,200**	**33,000**
Total PAHs	ug/kg	**1,053,500**	**276,100**	**62,200**	**48,350**	**796**	**1,077,400**	**96,010**	**690**	**259,300**	**1,956,700**	**3,400,100**	**92,700**	**1,315,300**	**408,400**	**28,600,000**	**22,162,000**	**141,210**	**645,200**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113
Sample Number:	GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02
Sample Depth:	10-12	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15
Sample Date:	3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 UR	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 UR
2,3,4,6-tetrachlorophenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2,4,5-trichlorophenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2,4,6-trichlorophenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2,4-dichlorophenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2,4-dimethylphenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2,4-dinitrophenol	ug/kg	120,000 U	960,000 U	370 U	12,000 U	24,000 U	300,000 U	13,000 U	37,000 U	470,000 U	470,000 U	59,000 U	38,000 U	210,000 U	230,000 U	96,000 U	37,000 U	45,000 U	58,000 U
2,4-dinitrotoluene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2,6-dinitrotoluene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2-chloronaphthalene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2-chlorophenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2-methylnaphthalene	ug/kg	**330,000**	**2,500,000**	**400**	**370,000 J**	**390,000 J**	**1,000,000**	**230,000 J**	**120,000**	**1,800,000**	**1,400,000**	**390,000**	**200,000**	**710,000**	**1,600,000**	**570,000**	**270,000**	**290,000**	**410,000**
2-methylphenol (o-cresol)	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
2-nitroaniline	ug/kg	120,000 U	960,000 U	370 U	12,000 U	24,000 U	300,000 U	13,000 U	37,000 U	470,000 U	470,000 U	59,000 U	38,000 U	210,000 U	230,000 U	96,000 U	37,000 U	45,000 U	58,000 U
2-nitrophenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
3,3'-dichlorobenzidine	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
3-nitroaniline	ug/kg	120,000 U	960,000 U	370 U	12,000 U	24,000 U	300,000 U	13,000 U	37,000 U	470,000 U	470,000 U	59,000 U	38,000 U	210,000 U	230,000 U	96,000 U	37,000 U	45,000 U	58,000 U
4,6-dinitro-2-methylphenol	ug/kg	120,000 U	960,000 U	370 U	12,000 U	24,000 U	300,000 U	13,000 U	37,000 U	470,000 U	470,000 U	59,000 U	38,000 U	210,000 U	230,000 U	96,000 U	37,000 U	45,000 U	58,000 U
4-bromophenyl phenyl ether	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
4-chloro-3-methylphenol	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
4-chloroaniline	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
4-chlorophenyl phenyl ether	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
4-methylphenol (p-cresol)	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
4-nitroaniline	ug/kg	120,000 U	960,000 U	370 U	12,000 U	24,000 U	300,000 U	13,000 U	37,000 U	470,000 U	470,000 U	59,000 U	38,000 U	210,000 U	230,000 U	96,000 U	37,000 U	45,000 U	58,000 U
4-nitrophenol	ug/kg	120,000 U	960,000 U	370 U	12,000 U	24,000 U	300,000 U	13,000 U	37,000 U	470,000 U	470,000 U	59,000 U	38,000 U	210,000 U	230,000 U	96,000 U	37,000 U	45,000 U	58,000 U
Acenaphthene	ug/kg	**170,000**	**720,000**	**210**	**200,000 J**	**230,000 J**	**550,000**	**94,000**	**63,000**	**660,000**	**120,000 J**	**180,000**	**79,000**	**290,000**	**170,000**	**290,000**	**130,000**	**130,000**	**200,000**
Acenaphthylene	ug/kg	**8,500 J**	**420,000 J**	**110 J**	**9,200**	**13,000**	**26,000 J**	**5,800 J**	**4,200 J**	**330,000**	**610,000**	**39,000**	**30,000**	**100,000**	**680,000**	**23,000 J**	**8,800 J**	**11,000 J**	**16,000 J**
Acetophenone	ug/kg	61,000 U	480,000 U	**31 J**	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Anthracene	ug/kg	**64,000**	**520,000**	**240**	**56,000**	**89,000**	**220,000**	**41,000**	**29,000**	**440,000**	**350,000**	**91,000**	**44,000**	**170,000**	**370,000**	**120,000**	**56,000**	**67,000**	**100,000**
Atrazine	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Benzaldehyde	ug/kg	**5,600 J**	480,000 U	**73 J**	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Benzo(a)anthracene	ug/kg	**33,000 J**	**300,000 J**	**150 J**	**34,000**	**38,000**	**90,000 J**	**17,000**	**13,000 J**	**230,000 J**	**160,000 J**	**41,000**	**19,000 J**	**75,000 J**	**170,000**	**59,000**	**25,000**	**32,000**	**40,000**
Benzo(a)pyrene	ug/kg	**23,000 J**	**210,000 J**	**96 J**	**23,000**	**27,000**	**48,000 J**	**11,000**	**7,200 J**	**110,000 J**	**92,000 J**	**24,000 J**	**10,000 J**	**38,000 J**	**97,000 J**	**31,000 J**	**14,000 J**	**18,000 J**	**25,000 J**
Benzo(b)fluoranthene	ug/kg	**9,100 J**	**71,000 J**	**73 J**	**9,300**	**9,300 J**	150,000 UR	**4,500 J**	**3,400 J**	**53,000 J**	**39,000 J**	**9,900 J**	**4,000 J**	**17,000 J**	**43,000 J**	**13,000 J**	**6,200 J**	**8,200 J**	**10,000 J**
Benzo(g,h,i)perylene	ug/kg	**8,000 J**	**63,000 J**	**50 J**	**5,600 J**	**6,700 J**	150,000 UR	**2,900 J**	18,000 U	**36,000 J**	240,000 U	**6,400 J**	19,000 U	100,000 U	**29,000 J**	**8,600 J**	**4,000 J**	**5,100 J**	**6,200 J**
Benzo(k)fluoranthene	ug/kg	**14,000 J**	**120,000 J**	**24 J**	**15,000**	**19,000**	**36,000 J**	**6,800**	**4,400 J**	**69,000 J**	**66,000 J**	**17,000 J**	**6,900 J**	**26,000 J**	**64,000 J**	**22,000 J**	**10,000 J**	**11,000 J**	**17,000 J**
Benzyl butyl phthalate	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113
Sample Number:		GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02
Sample Depth:		10-12	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15
Sample Date:		3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**22,000 J**	**160,000 J**	**38 J**	**27,000**	**35,000**	**84,000 J**	**17,000**	**11,000 J**	**170,000 J**	**110,000 J**	**34,000**	**17,000 J**	**61,000 J**	**150,000**	**50,000**	**23,000**	**25,000**	**38,000**
Bis(2-chloroethoxy) methane	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Bis(2-chloroethyl) ether	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Bis(2-chloroisopropyl) ether	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	61,000 U	480,000 U	**67 J**	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Caprolactam	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Carbazole	ug/kg	**1,900 J**	**17,000 J**	190 U	**2,500 J**	**2,600 J**	150,000 U	**2,400 J**	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Chrysene	ug/kg	**32,000 J**	**290,000 J**	**140 J**	**32,000**	**37,000**	**83,000 J**	**15,000**	**12,000 J**	**200,000 J**	**150,000 J**	**38,000**	**17,000 J**	**67,000 J**	**160,000**	**54,000**	**23,000**	**29,000**	**37,000**
Dibenz(a,h)anthracene	ug/kg	61,000 U	480,000 U	190 U	**1,900 J**	12,000 U	150,000 UR	**1,000 J**	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Dibenzofuran	ug/kg	**8,600 J**	480,000 U	**20 J**	**7,900**	**9,800 J**	**27,000 J**	**4,600 J**	**3,000 J**	**53,000 J**	**57,000 J**	**10,000 J**	**5,100 J**	**20,000 J**	**39,000 J**	**15,000 J**	**6,500 J**	**7,700 J**	**10,000 J**
Diethyl phthalate	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Dimethyl phthalate	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Di-n-butyl phthalate	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Di-n-octylphthalate	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 UR	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Fluoranthene	ug/kg	**59,000 J**	**480,000 J**	**250**	**66,000**	**89,000**	**230,000**	**47,000**	**31,000 J**	**480,000 J**	**430,000 J**	**110,000 J**	**46,000 J**	**190,000 J**	**400,000 J**	**150,000 J**	**62,000 J**	**75,000 J**	**83,000**
Fluorene	ug/kg	**76,000**	**560,000**	**210**	**81,000**	**110,000**	**260,000**	**49,000**	**32,000**	**480,000**	**360,000**	**120,000**	**56,000**	**200,000**	120,000 U	**160,000**	**72,000**	**72,000**	**110,000**
Hexachlorobenzene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Hexachlorobutadiene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Hexachlorocyclopentadiene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Hexachloroethane	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**7,400 J**	**62,000 J**	**46 J**	**8,000**	**8,200 J**	150,000 UR	**3,900 J**	18,000 U	**44,000 J**	240,000 U	**8,300 J**	**4,000 J**	100,000 U	**39,000 J**	**11,000 J**	**5,200 J**	**6,800 J**	**8,800 J**
Isophorone	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Naphthalene	ug/kg	**400,000**	**3,600,000**	**710**	**470,000 J**	**510,000 J**	**1,400,000**	**350,000 J**	**190,000**	**2,400,000**	**2,100,000**	**400,000**	**220,000**	**820,000**	**1,900,000**	**610,000**	**290,000**	**320,000**	**800,000 J**
Nitrobenzene	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
N-nitrosodi-n-propylamine	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
N-nitrosodiphenylamine	ug/kg	61,000 U	480,000 U	190 U	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Pentachlorophenol	ug/kg	120,000 U	960,000 U	370 U	12,000 U	24,000 U	300,000 U	13,000 U	37,000 U	470,000 U	470,000 U	59,000 U	38,000 U	210,000 U	230,000 U	96,000 U	37,000 U	45,000 U	58,000 U
Phenanthrene	ug/kg	**230,000**	**1,900,000**	**840**	**260,000 J**	**260,000 J**	**760,000**	**170,000 J**	**95,000**	**1,300,000**	**1,200,000**	**280,000**	**140,000**	**570,000**	**1,100,000**	**360,000**	**170,000**	**190,000**	**290,000**
Phenol	ug/kg	61,000 U	480,000 U	**6.7 J**	6,100 U	12,000 U	150,000 U	6,300 U	18,000 U	240,000 U	240,000 U	29,000 U	19,000 U	100,000 U	120,000 U	48,000 U	18,000 U	23,000 U	29,000 U
Pyrene	ug/kg	**100,000**	**860,000**	**370**	**61,000**	**120,000**	**280,000**	**46,000**	**38,000**	**570,000**	**440,000**	**120,000**	**57,000**	**210,000**	**480,000**	**170,000**	**73,000**	**83,000**	**130,000**
Total PAHs	ug/kg	**1,564,000**	**12,676,000**	**3,919**	**1,702,000**	**1,956,200**	**---**	**1,094,900**	**642,200**	**9,202,000**	**7,517,000**	**1,874,600**	**932,900**	**3,483,000**	**7,302,000**	**2,651,600**	**1,219,200**	**1,348,100**	**2,283,000**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114
Sample Number:		GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01
Sample Depth:		8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2
Sample Date:		3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2,3,4,6-tetrachlorophenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2,4,5-trichlorophenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2,4,6-trichlorophenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2,4-dichlorophenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2,4-dimethylphenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2,4-dinitrophenol	ug/kg	240,000 U	310,000 U	250,000 U	91,000 U	700,000 U	360,000 U	460,000 U	230,000 U	250,000 U	500,000 U	290,000 U	260,000 U	260,000 U	230,000 U	710,000 U	270,000 U	770,000 U	500,000 U
2,4-dinitrotoluene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2,6-dinitrotoluene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2-chloronaphthalene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2-chlorophenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2-methylnaphthalene	ug/kg	**420,000**	**1,300,000**	**1,000,000**	**200,000**	**2,100,000**	**870,000**	**950,000**	**560,000**	**820,000**	**2,000,000**	**740,000**	**880,000**	**870,000**	**550,000**	**1,500,000**	**970,000**	**1,700,000**	**1,100,000**
2-methylphenol (o-cresol)	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
2-nitroaniline	ug/kg	240,000 U	310,000 U	250,000 U	91,000 U	700,000 U	360,000 U	460,000 U	230,000 U	250,000 U	500,000 U	290,000 U	260,000 U	260,000 U	230,000 U	710,000 U	270,000 U	770,000 U	500,000 U
2-nitrophenol	ug/kg	120,000 UJ	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
3,3'-dichlorobenzidine	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
3-nitroaniline	ug/kg	240,000 U	310,000 U	250,000 U	91,000 U	700,000 U	360,000 U	460,000 U	230,000 U	250,000 U	500,000 U	290,000 U	260,000 U	260,000 U	230,000 U	710,000 U	270,000 U	770,000 U	500,000 U
4,6-dinitro-2-methylphenol	ug/kg	240,000 U	310,000 U	250,000 U	91,000 U	700,000 U	360,000 U	460,000 U	230,000 U	250,000 U	500,000 U	290,000 U	260,000 U	260,000 U	230,000 U	710,000 U	270,000 U	770,000 U	500,000 U
4-bromophenyl phenyl ether	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
4-chloro-3-methylphenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
4-chloroaniline	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
4-chlorophenyl phenyl ether	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
4-methylphenol (p-cresol)	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
4-nitroaniline	ug/kg	240,000 U	310,000 U	250,000 U	91,000 U	700,000 U	360,000 U	460,000 U	230,000 U	250,000 U	500,000 U	290,000 U	260,000 U	260,000 U	230,000 U	710,000 U	270,000 U	770,000 U	500,000 U
4-nitrophenol	ug/kg	240,000 U	310,000 U	250,000 U	91,000 U	700,000 U	360,000 U	460,000 U	230,000 U	250,000 U	500,000 U	290,000 U	260,000 U	260,000 U	230,000 U	710,000 U	270,000 U	770,000 U	500,000 U
Acenaphthene	ug/kg	**230,000**	**450,000**	**240,000**	**83,000**	**630,000**	**420,000**	**300,000**	**190,000**	**88,000 J**	**160,000 J**	**130,000 J**	**180,000**	**61,000 J**	**41,000 J**	**100,000 J**	**60,000 J**	**91,000 J**	**69,000 J**
Acenaphthylene	ug/kg	**10,000 J**	**87,000 J**	**140,000**	**8,700 J**	**270,000 J**	**26,000 J**	**98,000 J**	**85,000 J**	**300,000**	**810,000**	**190,000**	**210,000**	**270,000**	**160,000**	**540,000**	**370,000**	**680,000**	**470,000**
Acetophenone	ug/kg	120,000 U	**4,900 J**	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Anthracene	ug/kg	**76,000 J**	**200,000**	**150,000**	**37,000 J**	**350,000 J**	**130,000 J**	**200,000 J**	**120,000 J**	**160,000**	**360,000**	**150,000**	**170,000**	**160,000**	**95,000 J**	**280,000 J**	**200,000**	**300,000 J**	**230,000 J**
Atrazine	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Benzaldehyde	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Benzo(a)anthracene	ug/kg	**41,000 J**	**120,000 J**	**100,000 J**	**20,000 J**	**200,000 J**	**84,000 J**	**140,000 J**	**72,000 J**	**78,000 J**	**160,000 J**	**71,000 J**	**78,000 J**	**100,000 J**	**64,000 J**	**130,000 J**	**96,000 J**	**140,000 J**	**120,000 J**
Benzo(a)pyrene	ug/kg	**28,000 J**	**75,000 J**	**68,000 J**	**14,000 J**	**130,000 J**	**50,000 J**	**86,000 J**	**45,000 J**	**54,000 J**	**130,000 J**	**46,000 J**	**55,000 J**	**77,000 J**	**44,000 J**	**97,000 J**	**64,000 J**	**88,000 J**	**78,000 J**
Benzo(b)fluoranthene	ug/kg	**18,000 J**	**33,000 J**	**26,000 J**	**5,200 J**	**41,000 J**	**26,000 J**	**75,000 J**	**43,000 J**	**48,000 J**	**98,000 J**	**37,000 J**	**41,000 J**	**57,000 J**	**35,000 J**	**60,000 J**	**51,000 J**	**70,000 J**	**65,000 J**
Benzo(g,h,i)perylene	ug/kg	120,000 U	**31,000 J**	**29,000 J**	**4,800 J**	350,000 UJ	180,000 UJ	**49,000 J**	**23,000 J**	**24,000 J**	**51,000 J**	140,000 U	130,000 U	**35,000 J**	**23,000 J**	360,000 U	130,000 U	380,000 U	250,000 U
Benzo(k)fluoranthene	ug/kg	**9,200 J**	**45,000 J**	**36,000 J**	**7,600 J**	**79,000 J**	**44,000 J**	**35,000 J**	**15,000 J**	**14,000 J**	**26,000 J**	**10,000 J**	**17,000 J**	**18,000 J**	**13,000 J**	**40,000 J**	**23,000 J**	**22,000 J**	**40,000 J**
Benzyl butyl phthalate	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114
Sample Number:		GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01
Sample Depth:		8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2
Sample Date:		3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**29,000 J**	**71,000 J**	**55,000 J**	**11,000 J**	**110,000 J**	**50,000 J**	**59,000 J**	**38,000 J**	**53,000 J**	**130,000 J**	**40,000 J**	**53,000 J**	**50,000 J**	**35,000 J**	**88,000 J**	**63,000 J**	**91,000 J**	**68,000 J**
Bis(2-chloroethoxy) methane	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Bis(2-chloroethyl) ether	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Bis(2-chloroisopropyl) ether	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	**27,000 J**
Caprolactam	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Carbazole	ug/kg	120,000 U	**12,000 J**	**7,200 J**	**1,900 J**	**15,000 J**	**5,700 J**	230,000 U	120,000 U	**5,700 J**	**9,900 J**	**6,300 J**	**6,800 J**	**8,600 J**	**5,500 J**	360,000 U	**8,300 J**	380,000 U	250,000 U
Chrysene	ug/kg	**40,000 J**	**140,000 J**	**120,000 J**	**22,000 J**	**210,000 J**	**85,000 J**	**150,000 J**	**82,000 J**	**88,000 J**	**180,000 J**	**75,000 J**	**100,000 J**	**120,000 J**	**81,000 J**	**150,000 J**	**99,000 J**	**140,000 J**	**140,000 J**
Dibenz(a,h)anthracene	ug/kg	120,000 U	150,000 U	**11,000 J**	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Dibenzofuran	ug/kg	**11,000 J**	**32,000 J**	**28,000 J**	**5,000 J**	**54,000 J**	**21,000 J**	**27,000 J**	**19,000 J**	**19,000 J**	**48,000 J**	**19,000 J**	**25,000 J**	**22,000 J**	**12,000 J**	**36,000 J**	**28,000 J**	**46,000 J**	**30,000 J**
Diethyl phthalate	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Dimethyl phthalate	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Di-n-butyl phthalate	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Di-n-octylphthalate	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Fluoranthene	ug/kg	**73,000 J**	**180,000**	**140,000**	**31,000 J**	**290,000 J**	**120,000 J**	**180,000 J**	**100,000 J**	**150,000**	**290,000**	**120,000 J**	**120,000 J**	**160,000**	**86,000 J**	**230,000 J**	**150,000**	**230,000 J**	**170,000 J**
Fluorene	ug/kg	**110,000 J**	**240,000**	**180,000**	**41,000 J**	**340,000 J**	**200,000**	**250,000**	**160,000**	**220,000**	**540,000**	**170,000**	**220,000**	**210,000**	**120,000**	**380,000**	**240,000**	**460,000**	**310,000**
Hexachlorobenzene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Hexachlorobutadiene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Hexachlorocyclopentadiene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Hexachloroethane	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	120,000 U	**28,000 J**	**25,000 J**	**4,500 J**	350,000 U	180,000 U	**42,000 J**	**21,000 J**	**21,000 J**	**41,000 J**	140,000 U	130,000 U	**29,000 J**	**18,000 J**	360,000 U	130,000 U	380,000 U	250,000 U
Isophorone	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Naphthalene	ug/kg	**580,000**	**2,000,000**	**1,500,000**	**300,000**	**2,900,000**	**1,200,000**	**1,400,000**	**900,000**	**1,400,000**	**3,700,000**	**1,400,000**	**1,500,000**	**1,400,000**	**870,000**	**2,600,000**	**1,800,000**	**3,100,000**	**2,300,000**
Nitrobenzene	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
N-nitrosodi-n-propylamine	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
N-nitrosodiphenylamine	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Pentachlorophenol	ug/kg	240,000 U	310,000 U	250,000 U	91,000 U	700,000 U	360,000 U	460,000 UJ	230,000 UJ	250,000 UJ	500,000 UJ	290,000 UJ	260,000 UJ	260,000 UJ	230,000 UJ	710,000 UJ	270,000 UJ	770,000 UJ	500,000 UJ
Phenanthrene	ug/kg	**280,000**	**740,000**	**550,000**	**120,000**	**1,200,000**	**560,000**	**660,000**	**360,000**	**550,000**	**1,200,000**	**460,000**	**500,000**	**560,000**	**320,000**	**890,000**	**620,000**	**960,000**	**770,000**
Phenol	ug/kg	120,000 U	150,000 U	130,000 U	45,000 U	350,000 U	180,000 U	230,000 U	120,000 U	120,000 U	250,000 U	140,000 U	130,000 U	130,000 U	110,000 U	360,000 U	130,000 U	380,000 U	250,000 U
Pyrene	ug/kg	**100,000 J**	**340,000**	**270,000**	**56,000**	**550,000**	**250,000**	**290,000**	**180,000**	**240,000**	**520,000**	**210,000**	**220,000**	**250,000**	**170,000**	**430,000**	**280,000**	**370,000 J**	**310,000**
Total PAHs	ug/kg	**2,015,200**	**6,009,000**	**4,585,000**	**954,800**	**9,290,000**	**4,065,000**	**4,905,000**	**2,956,000**	**4,255,000**	**10,266,000**	**3,809,000**	**4,291,000**	**4,377,000**	**2,690,000**	**7,427,000**	**5,023,000**	**8,351,000**	**6,172,000**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116
Sample Number:		GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01
Sample Depth:		7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2,3,4,6-tetrachlorophenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2,4,5-trichlorophenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2,4,6-trichlorophenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2,4-dichlorophenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2,4-dimethylphenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2,4-dinitrophenol	ug/kg	2,400,000 U	3,500,000 U	1,900,000 U	1,100,000 U	120,000 U	56,000 U	910,000 U	250,000 U	500,000 U	590,000 U	1,200,000 U	490,000 U	360,000 U	33,000 U	530,000 U	96,000 U	3,700 U	7,000 U
2,4-dinitrotoluene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	**44,000 J**	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2,6-dinitrotoluene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2-chloronaphthalene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2-chlorophenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2-methylnaphthalene	ug/kg	**5,100,000**	**6,300,000**	**5,000,000**	**2,000,000**	**600,000**	**190,000**	**2,900,000**	**540,000**	**1,800,000**	**1,700,000**	**3,000,000**	**2,100,000**	**1,200,000**	**85,000**	**1,100,000**	**250,000**	**23,000**	**26,000**
2-methylphenol (o-cresol)	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
2-nitroaniline	ug/kg	2,400,000 U	3,500,000 U	1,900,000 U	1,100,000 U	120,000 U	56,000 U	910,000 U	250,000 U	500,000 U	590,000 U	1,200,000 U	490,000 U	360,000 U	33,000 U	530,000 U	96,000 U	3,700 U	7,000 U
2-nitrophenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 UJ	250,000 UJ	300,000 U	580,000 U	240,000 U	180,000 U	16,000 UJ	260,000 UJ	48,000 U	1,900 U	3,600 U
3,3'-dichlorobenzidine	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
3-nitroaniline	ug/kg	2,400,000 U	3,500,000 U	1,900,000 U	1,100,000 U	120,000 U	56,000 U	910,000 U	250,000 U	500,000 U	590,000 U	1,200,000 U	490,000 U	360,000 U	33,000 U	530,000 U	96,000 U	3,700 U	7,000 U
4,6-dinitro-2-methylphenol	ug/kg	2,400,000 U	3,500,000 U	1,900,000 U	1,100,000 U	120,000 U	56,000 U	910,000 U	250,000 U	500,000 U	590,000 U	1,200,000 U	490,000 U	360,000 U	33,000 U	530,000 U	96,000 U	3,700 U	7,000 U
4-bromophenyl phenyl ether	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
4-chloro-3-methylphenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
4-chloroaniline	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
4-chlorophenyl phenyl ether	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
4-methylphenol (p-cresol)	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
4-nitroaniline	ug/kg	2,400,000 U	3,500,000 U	1,900,000 U	1,100,000 U	120,000 U	56,000 U	910,000 U	250,000 U	500,000 U	590,000 U	1,200,000 U	490,000 U	360,000 U	33,000 U	530,000 U	96,000 U	3,700 U	7,000 U
4-nitrophenol	ug/kg	2,400,000 U	3,500,000 U	1,900,000 U	1,100,000 U	120,000 U	56,000 U	910,000 U	250,000 U	500,000 U	590,000 U	1,200,000 U	490,000 U	360,000 U	33,000 U	530,000 U	96,000 U	3,700 U	7,000 U
Acenaphthene	ug/kg	**270,000 J**	**360,000 J**	**360,000 J**	**130,000 J**	**150,000**	**48,000**	**260,000 J**	**53,000 J**	**110,000 J**	**120,000 J**	**230,000 J**	**160,000 J**	**120,000 J**	**36,000**	**250,000 J**	**18,000 J**	**4,100**	**3,900**
Acenaphthylene	ug/kg	**2,100,000**	**2,700,000**	**2,400,000**	**890,000**	**140,000**	**60,000**	**1,200,000**	**150,000**	**680,000**	**740,000**	**2,200,000**	**1,000,000**	**730,000**	**15,000 J**	**330,000**	**120,000**	**12,000**	**11,000**
Acetophenone	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	**83 J**	3,600 U
Anthracene	ug/kg	**1,000,000 J**	**1,300,000 J**	**1,300,000**	**420,000 J**	**120,000**	**46,000**	**480,000**	**150,000**	**340,000**	**460,000**	**1,200,000**	**570,000**	**400,000**	**22,000**	**310,000**	**64,000**	**7,000 J**	**7,000 J**
Atrazine	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Benzaldehyde	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Benzo(a)anthracene	ug/kg	**470,000 J**	**660,000 J**	**700,000 J**	**260,000 J**	**58,000 J**	**21,000 J**	**260,000 J**	**55,000 J**	**170,000 J**	**230,000 J**	**800,000**	**340,000**	**240,000**	**7,500 J**	**120,000 J**	**32,000 J**	**3,200**	**3,200 J**
Benzo(a)pyrene	ug/kg	**270,000 J**	**370,000 J**	**430,000 J**	**170,000 J**	**39,000 J**	**14,000 J**	**170,000 J**	**37,000 J**	**110,000 J**	**160,000 J**	**620,000**	**230,000 J**	**160,000 J**	**5,100 J**	**79,000 J**	**21,000 J**	**2,000**	**2,300 J**
Benzo(b)fluoranthene	ug/kg	**210,000 J**	**310,000 J**	**290,000 J**	**120,000 J**	**32,000 J**	**11,000 J**	**110,000 J**	**29,000 J**	**87,000 J**	**120,000 J**	**490,000 J**	**180,000 J**	**120,000 J**	**3,600 J**	**65,000 J**	**17,000 J**	**1,700 J**	**1,800 J**
Benzo(g,h,i)perylene	ug/kg	1,200,000 U	1,800,000 U	**190,000 J**	530,000 U	**15,000 J**	**5,400 J**	**56,000 J**	**15,000 J**	**45,000 J**	**65,000 J**	**450,000 J**	**88,000 J**	**62,000 J**	**2,200 J**	**34,000 J**	48,000 U	**840 J**	**800 J**
Benzo(k)fluoranthene	ug/kg	**84,000 J**	**150,000 J**	**150,000 J**	**55,000 J**	**11,000 J**	**2,900 J**	**54,000 J**	**10,000 J**	**25,000 J**	**44,000 J**	**120,000 J**	**43,000 J**	**39,000 J**	**1,200 J**	**26,000 J**	**7,800 J**	**620 J**	**760 J**
Benzyl butyl phthalate	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116
Sample Number:		GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01
Sample Depth:		7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**320,000 J**	**440,000 J**	**380,000 J**	**160,000 J**	**35,000 J**	**14,000 J**	**190,000 J**	**31,000 J**	**110,000 J**	**130,000 J**	**380,000 J**	**170,000 J**	**120,000 J**	**6,900 J**	**79,000 J**	**20,000 J**	**2,000**	**2,000 J**
Bis(2-chloroethoxy) methane	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Bis(2-chloroethyl) ether	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Bis(2-chloroisopropyl) ether	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Bis(2-ethylhexyl) phthalate	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Caprolactam	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Carbazole	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	**6,000 J**	**2,000 J**	**15,000 J**	**6,100 J**	**14,000 J**	**15,000 J**	**29,000 J**	**21,000 J**	**15,000 J**	**2,400 J**	**10,000 J**	48,000 U	**450 J**	**430 J**
Chrysene	ug/kg	**430,000 J**	**570,000 J**	**590,000 J**	**280,000 J**	**65,000**	**22,000 J**	**210,000 J**	**68,000 J**	**180,000 J**	**220,000 J**	**740,000**	**320,000**	**220,000**	**8,600 J**	**130,000 J**	**34,000 J**	**3,100**	**2,900 J**
Dibenz(a,h)anthracene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	**6,200 J**	**2,500 J**	450,000 U	**7,100 J**	**18,000 J**	**18,000 J**	**180,000 J**	**28,000 J**	**20,000 J**	16,000 U	**16,000 J**	48,000 U	**290 J**	3,600 U
Dibenzofuran	ug/kg	**130,000 J**	**150,000 J**	**150,000 J**	**54,000 J**	**18,000 J**	**6,100 J**	**70,000 J**	**13,000 J**	**44,000 J**	**45,000 J**	**140,000 J**	**67,000 J**	**48,000 J**	**3,000 J**	**30,000 J**	**6,900 J**	**830 J**	**820 J**
Diethyl phthalate	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Dimethyl phthalate	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Di-n-butyl phthalate	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Di-n-octylphthalate	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Fluoranthene	ug/kg	**860,000 J**	**1,200,000 J**	**1,200,000**	**480,000 J**	**100,000**	**39,000**	**480,000**	**86,000 J**	**280,000**	**450,000**	**1,700,000**	**620,000**	**440,000**	**14,000 J**	**200,000 J**	**58,000**	**6,500**	**6,200**
Fluorene	ug/kg	**1,300,000**	**1,700,000 J**	**1,600,000**	**600,000**	**170,000**	**61,000**	**780,000**	**130,000 J**	**440,000**	**510,000**	**1,300,000**	**690,000**	**470,000**	**26,000**	**310,000**	**82,000**	**9,500**	**9,000**
Hexachlorobenzene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Hexachlorobutadiene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Hexachlorocyclopentadiene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Hexachloroethane	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Indeno(1,2,3-c,d)pyrene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	**15,000 J**	**5,100 J**	**53,000 J**	**16,000 J**	**47,000 J**	**65,000 J**	**420,000 J**	**95,000 J**	**61,000 J**	**2,100 J**	**35,000 J**	48,000 U	**850 J**	**850 J**
Isophorone	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Naphthalene	ug/kg	**9,200,000**	**13,000,000**	**11,000,000**	**3,800,000**	**880,000**	**240,000**	**4,600,000**	**770,000**	**3,200,000**	**3,400,000**	**7,400,000**	**3,800,000**	**2,500,000**	**140,000**	**2,100,000**	**280,000**	**22,000**	**25,000**
Nitrobenzene	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
N-nitrosodi-n-propylamine	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
N-nitrosodiphenylamine	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Pentachlorophenol	ug/kg	2,400,000 UJ	3,500,000 UJ	1,900,000 UJ	1,100,000 UJ	120,000 U	56,000 U	910,000 U	250,000 U	500,000 U	590,000 U	1,200,000 U	490,000 U	360,000 U	33,000 U	530,000 U	96,000 U	3,700 U	7,000 U
Phenanthrene	ug/kg	**3,300,000**	**4,600,000**	**4,600,000**	**1,700,000**	**400,000**	**160,000**	**1,800,000**	**320,000**	**1,000,000**	**1,500,000**	**4,800,000**	**1,900,000**	**1,400,000**	**61,000**	**820,000**	**200,000**	**24,000**	**24,000**
Phenol	ug/kg	1,200,000 U	1,800,000 U	970,000 U	530,000 U	61,000 U	28,000 U	450,000 U	130,000 U	250,000 U	300,000 U	580,000 U	240,000 U	180,000 U	16,000 U	260,000 U	48,000 U	1,900 U	3,600 U
Pyrene	ug/kg	**1,400,000**	**1,900,000**	**2,000,000**	**770,000**	**130,000**	**51,000**	**660,000**	**120,000 J**	**420,000**	**540,000**	**2,000,000**	**800,000**	**610,000**	**21,000**	**310,000**	**82,000**	**9,500 J**	**10,000 J**
Total PAHs	ug/kg	**25,994,000**	**35,120,000**	**31,810,000**	**11,675,000**	**2,931,200**	**978,900**	**14,073,000**	**2,556,100**	**8,952,000**	**10,342,000**	**27,650,000**	**12,964,000**	**8,792,000**	**450,300**	**6,235,000**	**1,265,800**	**130,200**	**134,710**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A
Sample Number:		GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6
Sample Depth:		10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 UR	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2,3,4,6-tetrachlorophenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2,4,5-trichlorophenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2,4,6-trichlorophenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2,4-dichlorophenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2,4-dimethylphenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2,4-dinitrophenol	ug/kg	2,600 U	230,000 U	1,400 U	230,000 U	240,000 U	460,000 U	58,000 U	61,000 U	23,000 U	49,000 U	12,000 U	24,000 U	13,000 U	420 UJ	130,000 U	280,000 U	110,000 U	98,000 U
2,4-dinitrotoluene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2,6-dinitrotoluene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2-chloronaphthalene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2-chlorophenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2-methylnaphthalene	ug/kg	**7,200**	**590,000**	**4,000**	**360,000**	**720,000**	**1,100,000**	**180,000**	**200,000**	**47,000**	**1,000,000 J**	**320,000 J**	**500,000 J**	**4,600 J**	**220 J**	**430,000**	**1,100,000**	**340,000**	**190,000**
2-methylphenol (o-cresol)	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
2-nitroaniline	ug/kg	2,600 U	230,000 U	1,400 U	230,000 U	240,000 U	460,000 U	58,000 U	61,000 U	23,000 U	49,000 U	12,000 U	24,000 U	13,000 U	420 UJ	130,000 U	280,000 U	110,000 U	98,000 U
2-nitrophenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
3,3'-dichlorobenzidine	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
3-nitroaniline	ug/kg	2,600 U	230,000 U	1,400 U	230,000 U	240,000 U	460,000 U	58,000 U	61,000 U	23,000 U	49,000 U	12,000 U	24,000 U	13,000 U	420 UJ	130,000 U	280,000 U	110,000 U	98,000 U
4,6-dinitro-2-methylphenol	ug/kg	2,600 U	230,000 U	1,400 U	230,000 U	240,000 U	460,000 U	58,000 U	61,000 U	23,000 U	49,000 U	12,000 U	24,000 U	13,000 U	420 UJ	130,000 U	280,000 U	110,000 U	98,000 UJ
4-bromophenyl phenyl ether	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
4-chloro-3-methylphenol	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
4-chloroaniline	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
4-chlorophenyl phenyl ether	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
4-methylphenol (p-cresol)	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
4-nitroaniline	ug/kg	2,600 U	230,000 U	1,400 U	230,000 U	240,000 U	460,000 U	58,000 U	61,000 U	23,000 U	49,000 U	12,000 U	24,000 U	13,000 U	420 UJ	130,000 U	280,000 U	110,000 U	98,000 U
4-nitrophenol	ug/kg	2,600 U	230,000 U	1,400 U	230,000 U	240,000 U	460,000 U	58,000 U	61,000 U	23,000 U	49,000 U	12,000 U	24,000 U	13,000 U	420 UJ	130,000 U	280,000 U	110,000 U	98,000 U
Acenaphthene	ug/kg	**1,600**	**56,000 J**	**640 J**	**170,000**	**120,000**	**420,000**	**76,000**	**41,000**	**24,000**	**540,000 J**	**160,000 J**	**260,000 J**	**1,200 J**	**140 J**	**150,000**	**330,000**	**77,000**	**40,000 J**
Acenaphthylene	ug/kg	**4,400**	**260,000**	**2,300**	**13,000 J**	**220,000**	**72,000 J**	**50,000**	**85,000**	**16,000**	**44,000**	**14,000**	**36,000**	**1,500 J**	220 UJ	**25,000 J**	**83,000 J**	**65,000**	**30,000 J**
Acetophenone	ug/kg	1,300 U	120,000 U	**42 J**	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	**550 J**	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Anthracene	ug/kg	**3,700 J**	**140,000**	**1,800 J**	**69,000 J**	**150,000**	**210,000 J**	**67,000**	**69,000**	**23,000**	**250,000**	**56,000**	**160,000 J**	6,300 U	**92 J**	**110,000**	**230,000**	**66,000**	**37,000 J**
Atrazine	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Benzaldehyde	ug/kg	1,300 U	120,000 U	**110 J**	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Benzo(a)anthracene	ug/kg	**1,700**	**67,000 J**	**970**	**46,000 J**	**70,000 J**	**130,000 J**	**32,000**	**31,000**	**12,000**	**160,000**	**48,000**	**83,000**	6,300 U	**54 J**	**43,000 J**	**100,000 J**	**42,000 J**	**7,600 J**
Benzo(a)pyrene	ug/kg	**1,200 J**	**48,000 J**	**610 J**	**28,000 J**	**48,000 J**	**77,000 J**	**24,000 J**	**25,000 J**	**7,500 J**	**100,000**	**31,000**	**60,000**	6,300 U	220 UJ	**30,000 J**	**66,000 J**	**27,000 J**	**3,400 J**
Benzo(b)fluoranthene	ug/kg	**920 J**	**33,000 J**	**520 J**	**23,000 J**	**39,000 J**	**70,000 J**	**17,000 J**	**18,000 J**	**6,100 J**	**45,000**	**15,000**	**23,000**	6,300 U	220 UJ	**23,000 J**	**52,000 J**	**20,000 J**	**1,600 J**
Benzo(g,h,i)perylene	ug/kg	**410 J**	120,000 U	**240 J**	120,000 U	120,000 U	230,000 U	**7,800 J**	**8,800 J**	**3,000 J**	**32,000**	**10,000**	**17,000 J**	6,300 U	220 UJ	**12,000 J**	**29,000 J**	**11,000 J**	49,000 U
Benzo(k)fluoranthene	ug/kg	**370 J**	**18,000 J**	**170 J**	**11,000 J**	**15,000 J**	**33,000 J**	**7,100 J**	**7,400 J**	**2,100 J**	**63,000**	**16,000**	**39,000**	6,300 U	220 UJ	**8,100 J**	**17,000 J**	**8,000 J**	**2,600 J**
Benzyl butyl phthalate	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A
Sample Number:		GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6
Sample Depth:		10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**780 J**	**47,000 J**	**360 J**	**24,000 J**	**48,000 J**	**75,000 J**	**17,000 J**	**19,000 J**	**5,300 J**	**81,000**	**25,000**	**49,000**	6,300 U	220 UJ	**26,000 J**	**55,000 J**	**21,000 J**	**8,900 J**
Bis(2-chloroethoxy) methane	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 UJ
Bis(2-chloroethyl) ether	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Bis(2-chloroisopropyl) ether	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Caprolactam	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Carbazole	ug/kg	**170 J**	120,000 U	**76 J**	120,000 U	**5,100 J**	230,000 U	**1,300 J**	**1,600 J**	12,000 U	**5,500 J**	**2,000 J**	**3,900 J**	6,300 U	220 UJ	**6,100 J**	**13,000 J**	**4,700 J**	**4,600 J**
Chrysene	ug/kg	**1,800**	**66,000 J**	**880**	**42,000 J**	**66,000 J**	**100,000 J**	**29,000 J**	**34,000**	**9,700 J**	**140,000**	**41,000**	**82,000**	6,300 U	**49 J**	**71,000**	**120,000 J**	**43,000 J**	**8,000 J**
Dibenz(a,h)anthracene	ug/kg	**150 J**	120,000 U	**68 J**	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	**8,800 J**	**3,500 J**	**6,500 J**	6,300 U	220 UJ	**4,900 J**	**12,000 J**	**5,200 J**	49,000 U
Dibenzofuran	ug/kg	**360 J**	**16,000 J**	**160 J**	**8,700 J**	**17,000 J**	**24,000 J**	**6,600 J**	**7,400 J**	**2,200 J**	**23,000 J**	**8,600**	**14,000**	6,300 U	220 UJ	**12,000 J**	**26,000 J**	**9,800 J**	**5,300 J**
Diethyl phthalate	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Dimethyl phthalate	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Di-n-butyl phthalate	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Di-n-octylphthalate	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Fluoranthene	ug/kg	**3,300**	**120,000**	**1,700**	**61,000 J**	**130,000**	**190,000 J**	**59,000**	**66,000**	**22,000**	**280,000**	**66,000**	**160,000**	6,300 U	**92 J**	**68,000**	**170,000**	**60,000**	**19,000 J**
Fluorene	ug/kg	**3,900**	**180,000**	**2,100**	**95,000 J**	**190,000**	**280,000**	**69,000**	**76,000**	**24,000**	**240,000**	**70,000**	**140,000**	6,300 U	**91 J**	**100,000**	**240,000**	**88,000**	**34,000 J**
Hexachlorobenzene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Hexachlorobutadiene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Hexachlorocyclopentadiene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Hexachloroethane	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**450 J**	120,000 U	**240 J**	120,000 U	120,000 U	230,000 U	**9,900 J**	**9,500 J**	**3,000 J**	**39,000**	**12,000**	**19,000 J**	6,300 U	220 UJ	**12,000 J**	**30,000 J**	**10,000 J**	49,000 U
Isophorone	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Naphthalene	ug/kg	**4,800**	**870,000**	**4,000**	**780,000**	**1,200,000**	**1,800,000**	**190,000**	**220,000**	**31,000**	**1,000,000 J**	**320,000 J**	**560,000 J**	**13,000**	**290 J**	**700,000**	**1,600,000**	**470,000**	**350,000**
Nitrobenzene	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
N-nitrosodi-n-propylamine	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
N-nitrosodiphenylamine	ug/kg	1,300 U	120,000 U	740 U	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Pentachlorophenol	ug/kg	2,600 U	230,000 U	1,400 U	230,000 U	240,000 U	460,000 U	58,000 U	61,000 U	23,000 U	49,000 U	12,000 U	24,000 U	13,000 U	420 UJ	130,000 U	280,000 U	110,000 U	98,000 U
Phenanthrene	ug/kg	**12,000**	**480,000**	**6,100**	**250,000**	**510,000**	**750,000**	**200,000**	**210,000**	**75,000**	**850,000 J**	**260,000 J**	**460,000 J**	**1,900 J**	**290 J**	**270,000**	**570,000**	**220,000**	**100,000**
Phenol	ug/kg	1,300 U	120,000 U	**24 J**	120,000 U	120,000 U	230,000 U	29,000 U	30,000 U	12,000 U	24,000 U	6,000 U	12,000 U	6,300 U	220 UJ	63,000 U	140,000 U	53,000 U	49,000 U
Pyrene	ug/kg	**5,200 J**	**190,000**	**2,700 J**	**120,000**	**220,000**	**310,000**	**80,000**	**96,000**	**29,000**	**260,000**	**67,000**	**220,000 J**	6,300 U	220 UJ	**96,000**	**230,000**	**77,000**	**35,000 J**
Total PAHs	ug/kg	**53,100**	**3,118,000**	**29,038**	**2,068,000**	**3,698,000**	**5,542,000**	**1,097,800**	**1,196,700**	**334,400**	**5,051,800**	**1,509,500**	**2,825,500**	**22,200**	**1,318**	**2,153,000**	**4,979,000**	**1,629,200**	**858,200**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A
Sample Number:		GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4
Sample Depth:		2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4
Sample Date:		3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2,3,4,6-tetrachlorophenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2,4,5-trichlorophenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2,4,6-trichlorophenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2,4-dichlorophenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2,4-dimethylphenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2,4-dinitrophenol	ug/kg	89,000 U	260,000 U	250,000 U	250,000 U	250,000 U	120,000 U	140,000 U	130,000 U	65,000 U	130,000 U	110,000 U	160,000 U	240,000 U	240,000 U	120,000 U	220,000 U	280,000 U	240,000 U
2,4-dinitrotoluene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2,6-dinitrotoluene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2-chloronaphthalene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2-chlorophenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2-methylnaphthalene	ug/kg	**240,000**	**400,000**	**270,000**	**720,000**	**380,000**	**250,000**	**410,000**	**560,000**	**260,000**	**310,000**	**420,000**	**320,000**	**370,000**	**450,000**	**280,000**	**370,000**	**1,200,000**	**1,200,000**
2-methylphenol (o-cresol)	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
2-nitroaniline	ug/kg	89,000 U	260,000 U	250,000 U	250,000 U	250,000 U	120,000 U	140,000 U	130,000 U	65,000 U	130,000 U	110,000 U	160,000 U	240,000 U	240,000 U	120,000 U	220,000 U	280,000 U	240,000 U
2-nitrophenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
3,3'-dichlorobenzidine	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
3-nitroaniline	ug/kg	89,000 U	260,000 U	250,000 U	250,000 U	250,000 U	120,000 U	140,000 U	130,000 U	65,000 U	130,000 U	110,000 U	160,000 U	240,000 U	240,000 U	120,000 U	220,000 U	280,000 U	240,000 U
4,6-dinitro-2-methylphenol	ug/kg	89,000 U	260,000 U	250,000 U	250,000 U	250,000 U	120,000 U	140,000 U	130,000 U	65,000 U	130,000 U	110,000 U	160,000 U	240,000 U	240,000 U	120,000 U	220,000 U	280,000 U	240,000 U
4-bromophenyl phenyl ether	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
4-chloro-3-methylphenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
4-chloroaniline	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
4-chlorophenyl phenyl ether	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
4-methylphenol (p-cresol)	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
4-nitroaniline	ug/kg	89,000 U	260,000 U	250,000 U	250,000 U	250,000 U	120,000 U	140,000 U	130,000 U	65,000 U	130,000 U	110,000 U	160,000 U	240,000 U	240,000 U	120,000 U	220,000 U	280,000 U	240,000 U
4-nitrophenol	ug/kg	89,000 U	260,000 U	250,000 U	250,000 U	250,000 U	120,000 U	140,000 U	130,000 U	65,000 U	130,000 U	110,000 U	160,000 U	240,000 U	240,000 U	120,000 U	220,000 U	280,000 U	240,000 U
Acenaphthene	ug/kg	**26,000 J**	**86,000 J**	**17,000 J**	**39,000 J**	**20,000 J**	**13,000 J**	**140,000**	**240,000**	**91,000**	**96,000**	**110,000**	**110,000**	**160,000**	**190,000**	**96,000**	**78,000 J**	**330,000**	**200,000**
Acenaphthylene	ug/kg	**58,000**	**70,000 J**	**170,000**	**430,000**	**240,000**	**140,000**	**30,000 J**	**32,000 J**	**41,000**	**69,000**	**78,000**	**25,000 J**	**14,000 J**	**19,000 J**	**30,000 J**	**94,000 J**	**120,000 J**	**270,000**
Acetophenone	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Anthracene	ug/kg	**41,000 J**	**84,000 J**	**84,000 J**	**200,000**	**110,000 J**	**59,000 J**	**90,000**	**150,000**	**59,000**	**77,000**	**66,000**	**70,000 J**	**78,000 J**	**96,000 J**	**52,000 J**	**61,000 J**	**190,000**	**190,000**
Atrazine	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Benzaldehyde	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Benzo(a)anthracene	ug/kg	**15,000 J**	**36,000 J**	**63,000 J**	**140,000**	**77,000 J**	**38,000 J**	**43,000 J**	**56,000 J**	**27,000 J**	**33,000 J**	**32,000 J**	**26,000 J**	**36,000 J**	**42,000 J**	**28,000 J**	**31,000 J**	**110,000 J**	**110,000 J**
Benzo(a)pyrene	ug/kg	**10,000 J**	**21,000 J**	**45,000 J**	**95,000 J**	**54,000 J**	**25,000 J**	**30,000 J**	**39,000 J**	**18,000 J**	**19,000 J**	**20,000 J**	**16,000 J**	**21,000 J**	**30,000 J**	**18,000 J**	**20,000 J**	**75,000 J**	**75,000 J**
Benzo(b)fluoranthene	ug/kg	**3,800 J**	**12,000 J**	**19,000 J**	**37,000 J**	**24,000 J**	**11,000 J**	**20,000 J**	**30,000 J**	**14,000 J**	**16,000 J**	**7,400 J**	**6,400 J**	**7,600 J**	**11,000 J**	**7,400 J**	**9,800 J**	**31,000 J**	**29,000 J**
Benzo(g,h,i)perylene	ug/kg	44,000 U	130,000 U	**14,000 J**	**28,000 J**	**16,000 J**	**7,800 J**	**11,000 J**	**15,000 J**	**5,700 J**	**6,300 J**	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	**42,000 J**	**29,000 J**
Benzo(k)fluoranthene	ug/kg	**5,800 J**	**14,000 J**	**32,000 J**	**66,000 J**	**35,000 J**	**19,000 J**	**11,000 J**	**9,200 J**	**4,000 J**	**3,600 J**	**16,000 J**	**9,100 J**	**20,000 J**	**20,000 J**	**13,000 J**	**13,000 J**	**55,000 J**	**44,000 J**
Benzyl butyl phthalate	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A
Sample Number:		GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4
Sample Depth:		2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4
Sample Date:		3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**11,000 J**	**20,000 J**	**25,000 J**	**63,000 J**	**32,000 J**	**20,000 J**	**26,000 J**	**37,000 J**	**16,000 J**	**21,000 J**	**21,000 J**	**18,000 J**	**20,000 J**	**23,000 J**	**15,000 J**	**22,000 J**	**55,000 J**	**56,000 J**
Bis(2-chloroethoxy) methane	ug/kg	44,000 UJ	130,000 UJ	120,000 UJ	130,000 UJ	120,000 UJ	62,000 UJ	68,000 U	65,000 U	33,000 U	63,000 U	57,000 UJ	81,000 UJ	120,000 UJ	120,000 UJ	61,000 UJ	110,000 UJ	140,000 U	120,000 U
Bis(2-chloroethyl) ether	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Bis(2-chloroisopropyl) ether	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Caprolactam	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Carbazole	ug/kg	**4,100 J**	**5,000 J**	120,000 U	**5,800 J**	120,000 U	**1,900 J**	**5,900 J**	**5,800 J**	**2,200 J**	**2,300 J**	**2,800 J**	**5,400 J**	120,000 U	120,000 U	**2,100 J**	110,000 U	**10,000 J**	**7,400 J**
Chrysene	ug/kg	**19,000 J**	**52,000 J**	**58,000 J**	**130,000**	**71,000 J**	**35,000 J**	**47,000 J**	**64,000 J**	**25,000 J**	**31,000 J**	**30,000 J**	**32,000 J**	**44,000 J**	**50,000 J**	**29,000 J**	**28,000 J**	**130,000 J**	**120,000 J**
Dibenz(a,h)anthracene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	**4,100 J**	**5,700 J**	**2,000 J**	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	**21,000 J**	**12,000 J**
Dibenzofuran	ug/kg	**5,900 J**	130,000 U	**10,000 J**	**26,000 J**	**13,000 J**	**8,400 J**	**13,000 J**	**16,000 J**	**8,000 J**	**11,000 J**	**12,000 J**	**8,300 J**	**9,000 J**	**11,000 J**	**6,800 J**	**8,800 J**	**30,000 J**	**32,000 J**
Diethyl phthalate	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Dimethyl phthalate	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Di-n-butyl phthalate	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Di-n-octylphthalate	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Fluoranthene	ug/kg	**28,000 J**	**53,000 J**	**120,000 J**	**250,000**	**140,000**	**70,000**	**71,000**	**100,000**	**48,000**	**61,000 J**	**59,000**	**46,000 J**	**57,000 J**	**74,000 J**	**43,000 J**	**53,000 J**	**160,000**	**160,000**
Fluorene	ug/kg	**46,000**	**83,000 J**	**130,000**	**200,000**	**130,000**	**74,000**	**110,000**	**160,000**	**72,000**	**94,000**	**78,000**	**69,000 J**	**84,000 J**	**100,000 J**	**63,000**	**88,000 J**	**220,000**	**240,000**
Hexachlorobenzene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Hexachlorobutadiene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Hexachlorocyclopentadiene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Hexachloroethane	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	44,000 U	130,000 U	**11,000 J**	**21,000 J**	**13,000 J**	**5,800 J**	**9,300 J**	**15,000 J**	**6,400 J**	**7,300 J**	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	**34,000 J**	**26,000 J**
Isophorone	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Naphthalene	ug/kg	**420,000**	**660,000**	**680,000**	**1,600,000**	**950,000**	**470,000**	**630,000**	**930,000**	**450,000**	**420,000**	**600,000**	**540,000**	**580,000**	**700,000**	**450,000**	**580,000**	**1,600,000**	**1,500,000**
Nitrobenzene	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 UJ	120,000 UJ
N-nitrosodi-n-propylamine	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
N-nitrosodiphenylamine	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Pentachlorophenol	ug/kg	89,000 U	260,000 U	250,000 U	250,000 U	250,000 U	120,000 U	140,000 U	130,000 U	65,000 U	130,000 U	110,000 U	160,000 U	240,000 U	240,000 U	120,000 U	220,000 U	280,000 UJ	240,000 UJ
Phenanthrene	ug/kg	**130,000**	**220,000**	**360,000**	**820,000**	**470,000**	**250,000**	**280,000**	**370,000**	**180,000**	**240,000**	**260,000**	**200,000**	**220,000**	**270,000**	**170,000**	**230,000**	**630,000**	**650,000**
Phenol	ug/kg	44,000 U	130,000 U	120,000 U	130,000 U	120,000 U	62,000 U	68,000 U	65,000 U	33,000 U	63,000 U	57,000 U	81,000 U	120,000 U	120,000 U	61,000 U	110,000 U	140,000 U	120,000 U
Pyrene	ug/kg	**50,000**	**99,000 J**	**180,000**	**410,000**	**240,000**	**120,000**	**93,000**	**120,000**	**59,000**	**74,000**	**98,000**	**84,000**	**97,000 J**	**120,000 J**	**74,000**	**86,000 J**	**320,000**	**330,000**
Total PAHs	ug/kg	**1,092,600**	**1,890,000**	**2,253,000**	**5,186,000**	**2,970,000**	**1,587,600**	**2,029,400**	**2,895,900**	**1,362,100**	**1,557,200**	**1,874,400**	**1,553,500**	**1,788,600**	**2,172,000**	**1,353,400**	**1,741,800**	**5,268,000**	**5,185,000**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B
Sample Number:		GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5
Sample Depth:		6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5
Sample Date:		3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2,3,4,6-tetrachlorophenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2,4,5-trichlorophenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2,4,6-trichlorophenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2,4-dichlorophenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2,4-dimethylphenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2,4-dinitrophenol	ug/kg	36,000 U	59,000 U	13,000 U	350 U	320 U	650 U	240,000 U	240,000 U	230,000 U	400 U	380 U	380 U	390 U	410 U	390,000 U	150,000 U	220,000 U	53,000 U
2,4-dinitrotoluene	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2,6-dinitrotoluene	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2-chloronaphthalene	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2-chlorophenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2-methylnaphthalene	ug/kg	**130,000**	**180,000**	**22,000**	**55 J**	**55 J**	**830**	**640,000**	**490,000**	**780,000**	**190 J**	**76 J**	**47 J**	**50 J**	**180 J**	**1,100,000**	**390,000**	**450,000**	**170,000**
2-methylphenol (o-cresol)	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
2-nitroaniline	ug/kg	36,000 U	59,000 U	13,000 U	350 U	320 U	650 U	240,000 U	240,000 U	230,000 U	400 U	380 U	380 U	390 U	410 U	390,000 U	150,000 U	220,000 U	53,000 U
2-nitrophenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
3,3'-dichlorobenzidine	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
3-nitroaniline	ug/kg	36,000 U	59,000 U	13,000 U	350 U	320 U	650 U	240,000 U	240,000 U	230,000 U	400 U	380 U	380 U	390 U	410 U	390,000 U	150,000 U	220,000 U	53,000 U
4,6-dinitro-2-methylphenol	ug/kg	36,000 U	59,000 U	13,000 U	350 U	320 U	650 U	240,000 U	240,000 U	230,000 U	400 U	380 U	380 U	390 U	410 U	390,000 U	150,000 U	220,000 U	53,000 U
4-bromophenyl phenyl ether	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
4-chloro-3-methylphenol	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
4-chloroaniline	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
4-chlorophenyl phenyl ether	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
4-methylphenol (p-cresol)	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
4-nitroaniline	ug/kg	36,000 U	59,000 U	13,000 U	350 U	320 U	650 U	240,000 U	240,000 U	230,000 U	400 U	380 U	380 U	390 U	410 U	390,000 U	150,000 U	220,000 U	53,000 U
4-nitrophenol	ug/kg	36,000 U	59,000 U	13,000 U	**8.3 J**	320 U	650 U	240,000 U	240,000 U	230,000 U	400 U	380 U	380 U	390 U	410 U	390,000 U	150,000 U	220,000 U	53,000 U
Acenaphthene	ug/kg	**16,000 J**	**31,000**	**20,000**	**47 J**	**310**	**1,700**	**220,000**	**190,000**	**300,000**	**110 J**	**41 J**	**31 J**	**26 J**	**84 J**	**74,000 J**	**40,000 J**	**52,000 J**	**44,000**
Acenaphthylene	ug/kg	**57,000**	**78,000**	**1,900 J**	**9.6 J**	**40 J**	**52 J**	**35,000 J**	**22,000 J**	**37,000 J**	**22 J**	**7.2 J**	**6.9 J**	200 U	**58 J**	**420,000**	**140,000**	**230,000**	**48,000**
Acetophenone	ug/kg	18,000 U	29,000 U	**390 J**	**23 J**	**29 J**	**20 J**	**4,000 J**	120,000 U	**3,900 J**	**27 J**	**29 J**	**26 J**	**29 J**	**34 J**	190,000 U	74,000 U	110,000 U	26,000 U
Anthracene	ug/kg	**31,000**	**49,000**	**14,000**	**50 J**	**20 J**	**350**	**110,000 J**	**78,000 J**	**120,000**	**92 J**	**35 J**	**25 J**	**20 J**	**52 J**	**260,000**	**90,000**	**160,000**	**43,000**
Atrazine	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Benzaldehyde	ug/kg	18,000 U	29,000 U	6,300 U	**53 J**	**54 J**	**54 J**	120,000 U	120,000 U	120,000 U	**58 J**	**73 J**	**51 J**	**78 J**	**71 J**	190,000 U	74,000 U	110,000 U	26,000 U
Benzo(a)anthracene	ug/kg	**15,000 J**	**24,000 J**	**8,300**	**43 J**	**11 J**	**16 J**	**76,000 J**	**59,000 J**	**87,000 J**	**47 J**	**25 J**	**14 J**	**21 J**	**49 J**	**140,000 J**	**53,000 J**	**93,000 J**	**21,000 J**
Benzo(a)pyrene	ug/kg	**10,000 J**	**16,000 J**	**6,100 J**	**39 J**	**9.5 J**	340 U	**47,000 J**	**36,000 J**	**58,000 J**	**31 J**	**24 J**	200 U	200 U	**52 J**	**100,000 J**	**36,000 J**	**68,000 J**	**13,000 J**
Benzo(b)fluoranthene	ug/kg	**3,300 J**	**6,200 J**	**4,900 J**	**36 J**	**9.1 J**	340 U	**18,000 J**	**19,000 J**	**25,000 J**	**26 J**	**16 J**	200 U	200 U	**35 J**	**82,000 J**	**26,000 J**	**48,000 J**	**5,500 J**
Benzo(g,h,i)perylene	ug/kg	**3,700 J**	**6,700 J**	**2,500 J**	**24 J**	160 U	340 U	**24,000 J**	**15,000 J**	**24,000 J**	210 U	190 U	200 U	200 U	210 U	**51,000 J**	74,000 U	**32,000 J**	**4,800 J**
Benzo(k)fluoranthene	ug/kg	**6,600 J**	**8,700 J**	**1,700 J**	**37 J**	160 U	340 U	**25,000 J**	**26,000 J**	**39,000 J**	**10 J**	190 U	200 U	200 U	**16 J**	**39,000 J**	**13,000 J**	**23,000 J**	**7,100 J**
Benzyl butyl phthalate	ug/kg	18,000 U	29,000 U	6,300 U	**6.7 J**	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B
Sample Number:		GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5
Sample Depth:		6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5
Sample Date:		3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**8,300 J**	**13,000 J**	**2,300 J**	180 U	**16 J**	**170 J**	**34,000 J**	**28,000 J**	**45,000 J**	**15 J**	190 U	200 U	200 U	**14 J**	**68,000 J**	**27,000 J**	**44,000 J**	**11,000 J**
Bis(2-chloroethoxy) methane	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Bis(2-chloroethyl) ether	ug/kg	18,000 U	29,000 U	6,300 U	**11 J**	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Bis(2-chloroisopropyl) ether	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	18,000 U	29,000 U	6,300 U	**49 J**	**31 J**	**250 J**	120,000 U	120,000 U	120,000 U	**110 J**	**84 J**	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Caprolactam	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Carbazole	ug/kg	**1,500 J**	**2,100 J**	**370 J**	180 U	**70 J**	**170 J**	**6,300 J**	**3,800 J**	**6,000 J**	**16 J**	190 U	200 U	200 U	210 U	**9,600 J**	**3,200 J**	110,000 U	**3,500 J**
Chrysene	ug/kg	**14,000 J**	**23,000 J**	**8,200**	**46 J**	**9.3 J**	**12 J**	**90,000 J**	**63,000 J**	**97,000 J**	**45 J**	**23 J**	**13 J**	**21 J**	**45 J**	**160,000 J**	**56,000 J**	**92,000 J**	**21,000 J**
Dibenz(a,h)anthracene	ug/kg	**1,700 J**	**3,600 J**	6,300 U	**8.1 J**	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	**1,600 J**
Dibenzofuran	ug/kg	18,000 U	**6,400 J**	**1,300 J**	180 U	**13 J**	**99 J**	**16,000 J**	**13,000 J**	**20,000 J**	210 U	190 U	200 U	200 U	210 U	**33,000 J**	**12,000 J**	**18,000 J**	26,000 U
Diethyl phthalate	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Dimethyl phthalate	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Di-n-butyl phthalate	ug/kg	18,000 U	29,000 U	6,300 U	**5.8 J**	**5 J**	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Di-n-octylphthalate	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Fluoranthene	ug/kg	**27,000**	**45,000**	**14,000**	**72 J**	**17 J**	**71 J**	**110,000 J**	**78,000 J**	**120,000 J**	**78 J**	**41 J**	**18 J**	**23 J**	**50 J**	**210,000**	**94,000**	**190,000**	**41,000**
Fluorene	ug/kg	**45,000**	**64,000**	**11,000**	**34 J**	**25 J**	**560**	**120,000 J**	**99,000 J**	**150,000**	**78 J**	**30 J**	**19 J**	**18 J**	**59 J**	**320,000**	**120,000**	**160,000**	**56,000**
Hexachlorobenzene	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Hexachlorobutadiene	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Hexachlorocyclopentadiene	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Hexachloroethane	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**3,200 J**	**6,000 J**	**2,600 J**	**19 J**	160 U	340 U	**18,000 J**	**13,000 J**	**19,000 J**	210 U	190 U	200 U	200 U	210 U	**41,000 J**	74,000 U	**28,000 J**	**4,200 J**
Isophorone	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Naphthalene	ug/kg	**87,000**	**99,000**	**33,000**	180 U	**940**	**2,600**	**1,100,000**	**810,000**	**1,200,000**	**360**	190 U	200 U	200 U	**260**	**1,900,000**	**580,000**	**820,000**	**180,000**
Nitrobenzene	ug/kg	18,000 UJ	29,000 UJ	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 UJ
N-nitrosodi-n-propylamine	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
N-nitrosodiphenylamine	ug/kg	18,000 U	29,000 U	6,300 U	180 U	160 U	340 U	120,000 U	120,000 U	120,000 U	210 U	190 U	200 U	200 U	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Pentachlorophenol	ug/kg	36,000 UJ	59,000 UJ	13,000 U	350 U	320 U	650 U	240,000 U	240,000 U	230,000 U	400 U	380 U	380 U	390 U	410 U	390,000 U	150,000 U	220,000 U	53,000 UJ
Phenanthrene	ug/kg	**120,000**	**180,000**	**43,000**	**170 J**	**82 J**	**1,500**	**390,000**	**300,000**	**470,000**	**310**	**120 J**	**73 J**	**58 J**	**170 J**	**820,000**	**310,000**	**560,000**	**160,000**
Phenol	ug/kg	18,000 U	29,000 U	6,300 U	**6.5 J**	**7.7 J**	340 U	120,000 U	120,000 U	120,000 U	**9.4 J**	**7 J**	**7 J**	**7.6 J**	210 U	190,000 U	74,000 U	110,000 U	26,000 U
Pyrene	ug/kg	**48,000**	**73,000**	**21,000**	**120 J**	**23 J**	**89 J**	**200,000**	**150,000**	**230,000**	**96 J**	**57 J**	**32 J**	**37 J**	**78 J**	**330,000**	**140,000**	**240,000**	**71,000**
Total PAHs	ug/kg	**618,500**	**893,200**	**214,200**	**809.7**	**1,551**	**7,780**	**3,223,000**	**2,448,000**	**3,756,000**	**1,495**	**495.2**	**278.9**	**274**	**1,188**	**6,047,000**	**2,088,000**	**3,246,000**	**891,200**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130
Sample Number:		GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8
Sample Depth:		6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8
Sample Date:		3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2,3,4,6-tetrachlorophenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2,4,5-trichlorophenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2,4,6-trichlorophenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2,4-dichlorophenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2,4-dimethylphenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2,4-dinitrophenol	ug/kg	65,000 U	27,000 U	39,000 U	23,000 U	91,000 U	230,000 U	450,000 U	1,100,000 U	4,700,000 U	1,900,000 U	230,000 U	240,000 U	380,000 U	250,000 U	260,000 U	340,000 U	230,000 U	710,000 U
2,4-dinitrotoluene	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2,6-dinitrotoluene	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2-chloronaphthalene	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2-chlorophenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2-methylnaphthalene	ug/kg	**280,000**	**45,000**	**180,000**	**78,000**	**210,000**	**340,000**	**850,000**	**3,600,000**	**1,000,000**	**5,800,000**	**800,000**	**1,200,000**	**1,200,000**	**1,100,000**	**410,000**	**1,300,000**	**1,100,000**	**1,500,000**
2-methylphenol (o-cresol)	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
2-nitroaniline	ug/kg	65,000 U	27,000 U	39,000 U	23,000 U	91,000 U	230,000 U	450,000 U	1,100,000 U	4,700,000 U	1,900,000 U	230,000 U	240,000 U	380,000 U	250,000 U	260,000 U	340,000 U	230,000 U	710,000 U
2-nitrophenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
3,3'-dichlorobenzidine	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
3-nitroaniline	ug/kg	65,000 U	27,000 U	39,000 U	23,000 U	91,000 U	230,000 U	450,000 U	1,100,000 U	4,700,000 U	1,900,000 U	230,000 U	240,000 U	380,000 U	250,000 U	260,000 U	340,000 U	230,000 U	710,000 U
4,6-dinitro-2-methylphenol	ug/kg	65,000 U	27,000 U	39,000 U	23,000 U	91,000 U	230,000 U	450,000 U	1,100,000 U	4,700,000 U	1,900,000 U	230,000 U	240,000 U	380,000 U	250,000 U	260,000 U	340,000 U	230,000 U	710,000 U
4-bromophenyl phenyl ether	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
4-chloro-3-methylphenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
4-chloroaniline	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
4-chlorophenyl phenyl ether	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
4-methylphenol (p-cresol)	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
4-nitroaniline	ug/kg	65,000 U	27,000 U	39,000 U	23,000 U	91,000 U	230,000 U	450,000 U	1,100,000 U	4,700,000 U	1,900,000 U	230,000 U	240,000 U	380,000 U	250,000 U	260,000 U	340,000 U	230,000 U	710,000 U
4-nitrophenol	ug/kg	65,000 U	27,000 U	39,000 U	23,000 U	91,000 U	230,000 U	450,000 U	1,100,000 U	4,700,000 U	1,900,000 U	230,000 U	240,000 U	380,000 U	250,000 U	260,000 U	340,000 U	230,000 U	710,000 U
Acenaphthene	ug/kg	**75,000**	**23,000**	**26,000**	**25,000**	**50,000**	**56,000 J**	**73,000 J**	**290,000 J**	**810,000 J**	**450,000 J**	**37,000 J**	**43,000 J**	**120,000 J**	**65,000 J**	**83,000 J**	**300,000**	**360,000**	**700,000**
Acenaphthylene	ug/kg	**59,000**	**1,100 J**	**77,000**	**22,000**	**53,000**	**140,000**	**360,000**	**1,600,000**	**4,100,000**	**2,800,000**	**270,000**	**480,000**	**380,000**	**400,000**	**100,000 J**	**280,000**	**110,000 J**	**73,000 J**
Acetophenone	ug/kg	33,000 U	14,000 U	20,000 U	**760 J**	**1,500 J**	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Anthracene	ug/kg	**56,000**	**3,500 J**	**43,000**	**30,000**	**50,000**	**91,000 J**	**190,000 J**	**800,000**	**2,000,000 J**	**1,300,000**	**150,000**	**210,000**	**210,000**	**190,000**	**93,000 J**	**250,000**	**200,000**	**290,000 J**
Atrazine	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Benzaldehyde	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Benzo(a)anthracene	ug/kg	**29,000 J**	**800 J**	**23,000**	**15,000**	**29,000 J**	**58,000 J**	**94,000 J**	**450,000 J**	**1,200,000 J**	**690,000 J**	**90,000 J**	**110,000 J**	**110,000 J**	**120,000 J**	**55,000 J**	**140,000 J**	**120,000**	**190,000 J**
Benzo(a)pyrene	ug/kg	**20,000 J**	14,000 U	**16,000 J**	**10,000 J**	**20,000 J**	**43,000 J**	**59,000 J**	**320,000 J**	**830,000 J**	**470,000 J**	**62,000 J**	**72,000 J**	**66,000 J**	**89,000 J**	**40,000 J**	**88,000 J**	**90,000 J**	**130,000 J**
Benzo(b)fluoranthene	ug/kg	**7,200 J**	14,000 U	**6,500 J**	**8,200 J**	**7,500 J**	**33,000 J**	**51,000 J**	**260,000 J**	**650,000 J**	**390,000 J**	**22,000 J**	**32,000 J**	**57,000 J**	**67,000 J**	**31,000 J**	**51,000 J**	**27,000 J**	**54,000 J**
Benzo(g,h,i)perylene	ug/kg	**6,200 J**	14,000 U	**5,300 J**	**5,900 J**	**8,600 J**	**19,000 J**	230,000 U	**110,000 J**	2,400,000 U	**190,000 J**	**23,000 J**	**25,000 J**	190,000 U	**37,000 J**	130,000 U	**38,000 J**	**29,000 J**	**56,000 J**
Benzo(k)fluoranthene	ug/kg	**12,000 J**	14,000 U	**10,000 J**	**2,900 J**	**13,000 J**	**13,000 J**	**22,000 J**	**83,000 J**	**290,000 J**	**170,000 J**	**37,000 J**	**51,000 J**	**32,000 J**	**18,000 J**	**13,000 J**	**51,000 J**	**55,000 J**	**77,000 J**
Benzyl butyl phthalate	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130
Sample Number:		GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8
Sample Depth:		6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8
Sample Date:		3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**16,000 J**	**2,900 J**	**11,000 J**	**6,800 J**	**15,000 J**	**27,000 J**	**62,000 J**	**270,000 J**	**700,000 J**	**500,000 J**	**46,000 J**	**69,000 J**	**77,000 J**	**67,000 J**	**27,000 J**	**78,000 J**	**63,000 J**	**98,000 J**
Bis(2-chloroethoxy) methane	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Bis(2-chloroethyl) ether	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Bis(2-chloroisopropyl) ether	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Caprolactam	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Carbazole	ug/kg	**5,000 J**	**1,000 J**	**1,800 J**	**960 J**	**2,200 J**	120,000 U	230,000 U	**24,000 J**	2,400,000 U	**37,000 J**	**5,400 J**	**6,500 J**	**12,000 J**	**9,300 J**	130,000 U	**15,000 J**	**9,100 J**	350,000 U
Chrysene	ug/kg	**33,000 J**	**680 J**	**21,000**	**16,000**	**32,000 J**	**59,000 J**	**79,000 J**	**400,000 J**	**980,000 J**	**590,000 J**	**98,000 J**	**110,000 J**	**110,000 J**	**130,000**	**53,000 J**	**170,000**	**150,000**	**200,000 J**
Dibenz(a,h)anthracene	ug/kg	**2,500 J**	14,000 U	**2,300 J**	**1,700 J**	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	**14,000 J**	**10,000 J**	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Dibenzofuran	ug/kg	**8,400 J**	**1,200 J**	**5,500 J**	**3,000 J**	46,000 U	**11,000 J**	**20,000 J**	**88,000 J**	**240,000 J**	**170,000 J**	**21,000 J**	**24,000 J**	**33,000 J**	**31,000 J**	**9,600 J**	**38,000 J**	**28,000 J**	350,000 U
Diethyl phthalate	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Dimethyl phthalate	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Di-n-butyl phthalate	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Di-n-octylphthalate	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Fluoranthene	ug/kg	**47,000**	**1,600 J**	**40,000**	**25,000**	**46,000 J**	**91,000 J**	**190,000 J**	**860,000**	**1,700,000 J**	**1,300,000**	**120,000**	**180,000**	**160,000 J**	**170,000**	**79,000 J**	**210,000**	**190,000**	**310,000 J**
Fluorene	ug/kg	**78,000**	**10,000 J**	**63,000**	**29,000**	**50,000**	**120,000**	**220,000 J**	**1,000,000**	**2,900,000**	**1,800,000**	**160,000**	**260,000**	**310,000**	**270,000**	**120,000 J**	**290,000**	**230,000**	**290,000 J**
Hexachlorobenzene	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Hexachlorobutadiene	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Hexachlorocyclopentadiene	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Hexachloroethane	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**6,400 J**	14,000 U	**4,900 J**	**4,700 J**	**6,900 J**	120,000 U	230,000 U	**110,000 J**	2,400,000 U	**180,000 J**	**20,000 J**	**22,000 J**	190,000 U	**36,000 J**	130,000 U	**32,000 J**	**25,000 J**	350,000 U
Isophorone	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Naphthalene	ug/kg	**250,000**	**74,000**	**110,000**	**93,000**	**370,000**	**590,000**	**1,800,000**	**7,000,000**	**21,000,000**	**11,000,000**	**1,300,000**	**1,900,000**	**2,000,000**	**1,900,000**	**670,000**	**2,000,000**	**1,600,000**	**2,600,000**
Nitrobenzene	ug/kg	33,000 UJ	14,000 UJ	20,000 UJ	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
N-nitrosodi-n-propylamine	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
N-nitrosodiphenylamine	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Pentachlorophenol	ug/kg	65,000 UJ	27,000 UJ	39,000 UJ	23,000 U	91,000 U	230,000 U	450,000 U	1,100,000 U	4,700,000 U	1,900,000 U	230,000 U	240,000 U	380,000 UJ	250,000 UJ	260,000 UJ	340,000 U	230,000 U	710,000 U
Phenanthrene	ug/kg	**190,000**	**16,000**	**160,000**	**81,000**	**160,000**	**310,000**	**640,000**	**3,000,000**	**6,800,000**	**4,700,000**	**470,000**	**740,000**	**700,000**	**650,000**	**290,000**	**840,000**	**720,000**	**1,100,000**
Phenol	ug/kg	33,000 U	14,000 U	20,000 U	12,000 U	46,000 U	120,000 U	230,000 U	570,000 U	2,400,000 U	960,000 U	120,000 U	120,000 U	190,000 U	130,000 U	130,000 U	170,000 U	120,000 U	350,000 U
Pyrene	ug/kg	**84,000**	**2,200 J**	**70,000**	**36,000**	**81,000**	**130,000**	**250,000**	**1,300,000**	**3,200,000**	**2,000,000**	**240,000**	**340,000**	**320,000**	**300,000**	**170,000**	**390,000**	**360,000**	**570,000**
Total PAHs	ug/kg	**1,235,300**	**177,880**	**858,000**	**483,400**	**1,187,000**	**2,093,000**	**4,878,000**	**21,183,000**	**47,460,000**	**33,830,000**	**3,913,000**	**5,785,000**	**5,775,000**	**5,542,000**	**2,207,000**	**6,430,000**	**5,366,000**	**8,140,000**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A
Sample Number:	GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1
Sample Depth:	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1
Sample Date:	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010
Sample Type:	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2,3,4,6-tetrachlorophenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2,4,5-trichlorophenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2,4,6-trichlorophenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2,4-dichlorophenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2,4-dimethylphenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2,4-dinitrophenol	ug/kg	140,000 U	15,000 U	200,000 U	250,000 U	240,000 U	1,100 U	120,000 U	54,000 U	37,000 U	460,000 U	180,000 U	240,000 U	570,000 U	910,000 U	470,000 U	**3,700 J**	230,000 U	61,000 U
2,4-dinitrotoluene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2,6-dinitrotoluene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2-chloronaphthalene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2-chlorophenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2-methylnaphthalene	ug/kg	**260,000**	**40,000**	**400,000**	**440,000**	**1,000,000**	**1,900**	**320,000**	**93,000**	**54,000**	**630,000**	**560,000**	**600,000**	**2,700,000**	**5,900,000**	**710,000**	**1,600,000**	**930,000**	**150,000**
2-methylphenol (o-cresol)	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
2-nitroaniline	ug/kg	140,000 U	15,000 U	200,000 U	250,000 U	240,000 U	1,100 U	120,000 U	54,000 U	37,000 U	460,000 U	180,000 U	240,000 U	570,000 U	910,000 U	470,000 U	230,000 U	230,000 U	61,000 U
2-nitrophenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
3,3'-dichlorobenzidine	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
3-nitroaniline	ug/kg	140,000 U	15,000 U	200,000 U	250,000 U	240,000 U	1,100 U	120,000 U	54,000 U	37,000 U	460,000 U	180,000 U	240,000 U	570,000 U	910,000 U	470,000 U	230,000 U	230,000 U	61,000 U
4,6-dinitro-2-methylphenol	ug/kg	140,000 U	15,000 U	200,000 U	250,000 U	240,000 U	1,100 U	120,000 U	54,000 U	37,000 U	460,000 U	180,000 U	240,000 U	570,000 U	910,000 U	470,000 U	230,000 U	230,000 U	61,000 U
4-bromophenyl phenyl ether	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
4-chloro-3-methylphenol	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
4-chloroaniline	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
4-chlorophenyl phenyl ether	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
4-methylphenol (p-cresol)	ug/kg	69,000 U	**320 J**	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
4-nitroaniline	ug/kg	140,000 U	15,000 U	200,000 U	250,000 U	240,000 U	1,100 U	120,000 U	54,000 U	37,000 U	460,000 U	180,000 U	240,000 U	570,000 U	910,000 U	470,000 U	230,000 U	230,000 U	61,000 U
4-nitrophenol	ug/kg	140,000 U	15,000 U	200,000 U	250,000 U	240,000 U	1,100 U	120,000 U	54,000 U	37,000 U	460,000 U	180,000 U	240,000 U	570,000 U	910,000 U	470,000 U	230,000 U	230,000 U	61,000 U
Acenaphthene	ug/kg	**93,000**	**15,000**	**110,000**	**250,000**	**500,000**	**1,900**	**200,000**	**47,000**	**36,000**	**160,000 J**	**270,000**	**310,000**	**1,300,000**	**700,000 J**	**53,000 J**	**220,000**	**250,000**	**84,000**
Acenaphthylene	ug/kg	**27,000 J**	**3,100 J**	**75,000 J**	**24,000 J**	**73,000 J**	**150 J**	**12,000 J**	**11,000 J**	**2,900 J**	**130,000 J**	**20,000 J**	**23,000 J**	**120,000 J**	**2,400,000**	**330,000**	**430,000**	**290,000**	**45,000**
Acetophenone	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	**3,800 J**	**30 J**	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Anthracene	ug/kg	**58,000 J**	**7,900 J**	**76,000 J**	**130,000**	**250,000**	**1,100**	**93,000**	**22,000 J**	**15,000 J**	**110,000 J**	**160,000**	**130,000**	**530,000**	**1,300,000**	**140,000 J**	**290,000**	**210,000**	**59,000**
Atrazine	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Benzaldehyde	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	**76 J**	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Benzo(a)anthracene	ug/kg	**21,000 J**	**3,800 J**	**33,000 J**	**78,000 J**	**160,000**	**570**	**50,000 J**	**19,000 J**	**10,000 J**	**74,000 J**	**69,000 J**	**61,000 J**	**270,000 J**	**670,000**	**74,000 J**	**140,000**	**110,000 J**	**33,000**
Benzo(a)pyrene	ug/kg	**13,000 J**	**2,500 J**	**25,000 J**	**56,000 J**	**110,000 J**	**440 J**	**37,000 J**	**16,000 J**	**7,400 J**	**54,000 J**	**48,000 J**	**43,000 J**	**190,000 J**	**420,000 J**	**54,000 J**	**110,000**	**89,000 J**	**27,000 J**
Benzo(b)fluoranthene	ug/kg	**10,000 J**	**2,000 J**	**17,000 J**	**45,000 J**	**46,000 J**	**320 J**	**28,000 J**	**6,400 J**	**2,900 J**	**20,000 J**	**38,000 J**	**35,000 J**	**130,000 J**	**360,000 J**	**36,000 J**	**40,000 J**	**41,000 J**	**12,000 J**
Benzo(g,h,i)perylene	ug/kg	69,000 U	**1,200 J**	100,000 U	**27,000 J**	**43,000 J**	**240 J**	**16,000 J**	**5,800 J**	**2,700 J**	230,000 UJ	91,000 U	120,000 U	**74,000 J**	**170,000 J**	230,000 U	**47,000 J**	**42,000 J**	**12,000 J**
Benzo(k)fluoranthene	ug/kg	69,000 U	**830 J**	100,000 U	**14,000 J**	**72,000 J**	**110 J**	**14,000 J**	**10,000 J**	**4,900 J**	**32,000 J**	**18,000 J**	**14,000 J**	**77,000 J**	**130,000 J**	**27,000 J**	**76,000 J**	**49,000 J**	**14,000 J**
Benzyl butyl phthalate	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A
Sample Number:		GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1
Sample Depth:		1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1
Sample Date:		3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010
Sample Type:		N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**17,000 J**	**2,500 J**	**29,000 J**	**38,000 J**	**83,000 J**	**210 J**	**28,000 J**	**6,600 J**	**4,200 J**	**45,000 J**	**44,000 J**	**41,000 J**	**210,000 J**	**500,000**	**49,000 J**	**120,000**	**110,000 J**	**29,000 J**
Bis(2-chloroethoxy) methane	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Bis(2-chloroethyl) ether	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Bis(2-chloroisopropyl) ether	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Caprolactam	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Carbazole	ug/kg	69,000 U	**470 J**	**5,800 J**	120,000 U	**7,400 J**	**93 J**	59,000 U	27,000 U	**630 J**	230,000 U	**4,200 J**	**3,800 J**	**15,000 J**	**46,000 J**	230,000 U	**8,500 J**	**7,200 J**	**2,100 J**
Chrysene	ug/kg	**19,000 J**	**3,300 J**	**37,000 J**	**82,000 J**	**180,000**	**470 J**	**48,000 J**	**17,000 J**	**9,600 J**	**74,000 J**	**77,000 J**	**62,000 J**	**220,000 J**	**660,000**	**83,000 J**	**150,000**	**110,000 J**	**32,000**
Dibenz(a,h)anthracene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	**18,000 J**	**55 J**	59,000 U	**2,700 J**	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	**52,000 J**	230,000 U	**14,000 J**	120,000 U	**3,900 J**
Dibenzofuran	ug/kg	**6,800 J**	**1,000 J**	**12,000 J**	**13,000 J**	**30,000 J**	**130 J**	**11,000 J**	27,000 U	**1,700 J**	**18,000 J**	**18,000 J**	**18,000 J**	**82,000 J**	**180,000 J**	**21,000 J**	**34,000 J**	120,000 U	30,000 U
Diethyl phthalate	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Dimethyl phthalate	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Di-n-butyl phthalate	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Di-n-octylphthalate	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Fluoranthene	ug/kg	**41,000 J**	**6,500 J**	**62,000 J**	**150,000**	**260,000**	**1,000**	**93,000**	**27,000 J**	**17,000 J**	**130,000 J**	**130,000**	**140,000**	**520,000**	**1,400,000**	**150,000 J**	**290,000**	**250,000**	**63,000**
Fluorene	ug/kg	**78,000**	**11,000**	**100,000**	**140,000**	**270,000**	**1,200**	**100,000**	**27,000 J**	**16,000 J**	**160,000 J**	**160,000**	**160,000**	**720,000**	**2,000,000**	**220,000 J**	**330,000**	**260,000**	**58,000**
Hexachlorobenzene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Hexachlorobutadiene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Hexachlorocyclopentadiene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Hexachloroethane	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	69,000 U	**1,200 J**	100,000 U	**20,000 J**	**38,000 J**	**170 J**	**14,000 J**	**4,700 J**	**2,600 J**	230,000 U	91,000 U	120,000 U	**81,000 J**	**180,000 J**	230,000 U	**38,000 J**	**33,000 J**	**9,800 J**
Isophorone	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Naphthalene	ug/kg	**470,000**	**68,000**	**800,000**	**780,000**	**1,900,000**	**2,600**	**570,000**	**200,000**	**130,000**	**1,300,000**	**810,000**	**740,000**	**4,100,000**	**12,000,000 J**	**1,200,000**	**1,800,000 J**	**1,200,000**	**84,000**
Nitrobenzene	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
N-nitrosodi-n-propylamine	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
N-nitrosodiphenylamine	ug/kg	69,000 U	7,900 U	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Pentachlorophenol	ug/kg	140,000 U	15,000 U	200,000 U	250,000 U	240,000 U	1,100 U	120,000 U	54,000 U	37,000 U	460,000 U	180,000 U	240,000 U	570,000 U	910,000 UJ	470,000 U	230,000 U	230,000 U	61,000 U
Phenanthrene	ug/kg	**190,000**	**28,000**	**280,000**	**460,000**	**920,000**	**3,900**	**330,000**	**81,000**	**57,000**	**490,000**	**440,000**	**500,000**	**1,900,000**	**5,200,000**	**580,000**	**1,400,000**	**1,100,000**	**310,000**
Phenol	ug/kg	69,000 U	**560 J**	100,000 U	120,000 U	120,000 U	550 U	59,000 U	27,000 U	18,000 U	230,000 U	91,000 U	120,000 U	280,000 U	460,000 U	230,000 U	110,000 U	120,000 U	30,000 U
Pyrene	ug/kg	**77,000**	**10,000**	**110,000**	**220,000**	**450,000**	**1,600**	**170,000**	**47,000**	**31,000**	**230,000 J**	**180,000**	**170,000**	**690,000**	**1,900,000 J**	**240,000**	**510,000**	**400,000**	**120,000**
Total PAHs	ug/kg	**1,357,000**	**204,330**	**2,125,000**	**2,916,000**	**6,290,000**	**17,725**	**2,095,000**	**636,600**	**399,000**	**3,594,000**	**2,980,000**	**2,988,000**	**13,622,000**	**35,442,000**	**3,897,000**	**7,485,000**	**5,364,000**	**1,116,700**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120
Sample Number:		GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5
Sample Depth:		11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5
Sample Date:		4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2,3,4,6-tetrachlorophenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2,4,5-trichlorophenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2,4,6-trichlorophenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2,4-dichlorophenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2,4-dimethylphenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2,4-dinitrophenol	ug/kg	120,000 U	270,000 U	140,000 U	150,000 U	240,000 U	440,000 U	140,000 U	57,000 U	57,000 U	12,000 U	40,000 U	46,000 U	250,000 U	240,000 U	11,000 U	120,000 U	120,000 U	110,000 U
2,4-dinitrotoluene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2,6-dinitrotoluene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2-chloronaphthalene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2-chlorophenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2-methylnaphthalene	ug/kg	**470,000**	**1,200,000**	**400,000**	**520,000**	**580,000**	**1,100,000**	**220,000**	**32,000**	**25,000 J**	6,100 U	**160,000**	**100,000**	**510,000**	**600,000**	**840,000 J**	**440,000**	**330,000**	**380,000**
2-methylphenol (o-cresol)	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
2-nitroaniline	ug/kg	120,000 U	270,000 U	140,000 U	150,000 U	240,000 U	440,000 U	140,000 U	57,000 U	57,000 U	12,000 U	40,000 U	46,000 U	250,000 U	240,000 U	11,000 U	120,000 U	120,000 U	110,000 U
2-nitrophenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
3,3'-dichlorobenzidine	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
3-nitroaniline	ug/kg	120,000 U	270,000 U	140,000 U	150,000 U	240,000 U	440,000 U	140,000 U	57,000 U	57,000 U	12,000 U	40,000 U	46,000 U	250,000 U	240,000 U	11,000 U	120,000 U	120,000 U	110,000 U
4,6-dinitro-2-methylphenol	ug/kg	120,000 U	270,000 U	140,000 U	150,000 U	240,000 U	440,000 U	140,000 U	57,000 U	57,000 U	12,000 U	40,000 U	46,000 U	250,000 U	240,000 U	11,000 U	120,000 U	120,000 U	110,000 U
4-bromophenyl phenyl ether	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
4-chloro-3-methylphenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
4-chloroaniline	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
4-chlorophenyl phenyl ether	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
4-methylphenol (p-cresol)	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
4-nitroaniline	ug/kg	120,000 U	270,000 U	140,000 U	150,000 U	240,000 U	440,000 U	140,000 U	57,000 U	57,000 U	12,000 U	40,000 U	46,000 U	250,000 U	240,000 U	11,000 U	120,000 U	120,000 U	110,000 U
4-nitrophenol	ug/kg	120,000 U	270,000 U	140,000 U	150,000 U	240,000 U	440,000 U	140,000 U	57,000 U	57,000 U	12,000 U	40,000 U	46,000 U	250,000 U	240,000 U	11,000 U	120,000 U	120,000 U	110,000 U
Acenaphthene	ug/kg	**350,000**	**270,000**	**120,000**	**160,000**	**300,000**	**580,000**	**190,000**	**41,000**	**54,000**	6,100 U	**110,000**	**85,000**	**290,000**	**280,000**	**360,000 J**	**240,000**	**160,000**	**220,000**
Acenaphthylene	ug/kg	**23,000 J**	**260,000**	**120,000**	**95,000**	**19,000 J**	**30,000 J**	**10,000 J**	**2,100 J**	**2,700 J**	6,100 U	**18,000 J**	**9,100 J**	**61,000 J**	**50,000 J**	**54,000**	**18,000 J**	**32,000 J**	**20,000 J**
Acetophenone	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Anthracene	ug/kg	**140,000**	**260,000**	**100,000**	**110,000**	**120,000 J**	**210,000 J**	**110,000**	**17,000 J**	**26,000 J**	6,100 U	**50,000**	**26,000**	**120,000**	**130,000**	**170,000 J**	**110,000**	**100,000**	**100,000**
Atrazine	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Benzaldehyde	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Benzo(a)anthracene	ug/kg	**66,000**	**140,000**	**52,000 J**	**55,000 J**	**58,000 J**	**110,000 J**	**50,000 J**	**11,000 J**	**17,000 J**	**230 J**	**24,000**	**12,000 J**	**64,000 J**	**67,000 J**	**100,000 J**	**60,000 J**	**45,000 J**	**46,000 J**
Benzo(a)pyrene	ug/kg	**61,000**	**99,000 J**	**43,000 J**	**41,000 J**	**20,000 J**	**83,000 J**	**46,000 J**	**8,900 J**	**12,000 J**	6,100 U	**18,000 J**	**7,800 J**	**47,000 J**	**51,000 J**	**87,000**	**45,000 J**	**34,000 J**	**36,000 J**
Benzo(b)fluoranthene	ug/kg	**25,000 J**	**77,000 J**	**35,000 J**	**35,000 J**	**23,000 J**	**38,000 J**	**19,000 J**	**4,100 J**	**4,800 J**	6,100 U	**14,000 J**	**7,700 J**	**40,000 J**	**40,000 J**	**33,000**	**21,000 J**	**24,000 J**	**33,000 J**
Benzo(g,h,i)perylene	ug/kg	**24,000 J**	**43,000 J**	**18,000 J**	**17,000 J**	**21,000 J**	**33,000 J**	**21,000 J**	**4,100 J**	**6,600 J**	6,100 U	**7,500 J**	23,000 U	120,000 U	120,000 U	**19,000**	**17,000 J**	**15,000 J**	**16,000 J**
Benzo(k)fluoranthene	ug/kg	**40,000 J**	**34,000 J**	**11,000 J**	**9,500 J**	**26,000 J**	**46,000 J**	**25,000 J**	**6,000 J**	**8,400 J**	6,100 U	**7,500 J**	**1,700 J**	**17,000 J**	**19,000 J**	**44,000**	**28,000 J**	**13,000 J**	**8,000 J**
Benzyl butyl phthalate	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120
Sample Number:		GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5
Sample Depth:		11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5
Sample Date:		4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**68,000**	**80,000 J**	**45,000 J**	**40,000 J**	**58,000 J**	**110,000 J**	**38,000 J**	**7,600 J**	**10,000 J**	6,100 U	**19,000 J**	**12,000 J**	**46,000 J**	**48,000 J**	**120,000 J**	**29,000 J**	**40,000 J**	**44,000 J**
Bis(2-chloroethoxy) methane	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Bis(2-chloroethyl) ether	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Bis(2-chloroisopropyl) ether	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	**1,500 J**	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Caprolactam	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Carbazole	ug/kg	**4,100 J**	**8,100 J**	**3,800 J**	**4,500 J**	**5,400 J**	**9,400 J**	**3,200 J**	29,000 U	29,000 U	6,100 U	**1,800 J**	**2,400 J**	120,000 U	120,000 U	**4,600 J**	**5,200 J**	**3,300 J**	**3,900 J**
Chrysene	ug/kg	**62,000**	**160,000**	**45,000 J**	**54,000 J**	**59,000 J**	**110,000 J**	**49,000 J**	**11,000 J**	**17,000 J**	**200 J**	**22,000**	**11,000 J**	**63,000 J**	**66,000 J**	**100,000 J**	**59,000 J**	**42,000 J**	**44,000 J**
Dibenz(a,h)anthracene	ug/kg	**7,800 J**	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	**7,100**	**6,100 J**	60,000 U	57,000 U
Dibenzofuran	ug/kg	**17,000 J**	**37,000 J**	**12,000 J**	**16,000 J**	120,000 U	220,000 U	70,000 U	**2,400 J**	29,000 U	6,100 U	**7,600 J**	**4,800 J**	**19,000 J**	**16,000 J**	**32,000**	61,000 U	**11,000 J**	**13,000 J**
Diethyl phthalate	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Dimethyl phthalate	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Di-n-butyl phthalate	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Di-n-octylphthalate	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Fluoranthene	ug/kg	**160,000**	**270,000**	**100,000**	**140,000**	**100,000 J**	**200,000 J**	**90,000**	**22,000 J**	**31,000**	**320 J**	**56,000**	**26,000**	**150,000**	**140,000**	**140,000 J**	**110,000**	**99,000**	**100,000**
Fluorene	ug/kg	**160,000**	**320,000**	**140,000**	**150,000**	**130,000**	**260,000**	**85,000**	**21,000 J**	**27,000 J**	6,100 U	**71,000**	**38,000**	**180,000**	**170,000**	**170,000 J**	**140,000**	**100,000**	**110,000**
Hexachlorobenzene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Hexachlorobutadiene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Hexachlorocyclopentadiene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Hexachloroethane	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**21,000 J**	**36,000 J**	**17,000 J**	**15,000 J**	**16,000 J**	**28,000 J**	**16,000 J**	**3,200 J**	**5,000 J**	6,100 U	**7,600 J**	23,000 U	120,000 U	120,000 U	**15,000**	**14,000 J**	60,000 U	**16,000 J**
Isophorone	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Naphthalene	ug/kg	**330,000**	**1,700,000**	**490,000**	**600,000**	**940,000**	**1,700,000**	**160,000**	29,000 U	29,000 U	6,100 U	**180,000**	**140,000**	**850,000**	**960,000**	**1,400,000 J**	**430,000**	**460,000**	**470,000**
Nitrobenzene	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 UJ	60,000 U	57,000 U
N-nitrosodi-n-propylamine	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
N-nitrosodiphenylamine	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Pentachlorophenol	ug/kg	120,000 U	270,000 U	140,000 U	150,000 U	240,000 U	440,000 U	140,000 U	57,000 U	57,000 U	12,000 U	40,000 U	46,000 U	250,000 U	240,000 U	11,000 U	120,000 UJ	120,000 U	110,000 U
Phenanthrene	ug/kg	**740,000**	**930,000**	**350,000**	**430,000**	**420,000**	**790,000**	**380,000**	**80,000**	**120,000**	**600 J**	**180,000**	**120,000**	**460,000**	**510,000**	**630,000 J**	**390,000**	**320,000**	**330,000**
Phenol	ug/kg	61,000 U	130,000 U	70,000 U	77,000 U	120,000 U	220,000 U	70,000 U	29,000 U	29,000 U	6,100 U	20,000 U	23,000 U	120,000 U	120,000 U	5,800 U	61,000 U	60,000 U	57,000 U
Pyrene	ug/kg	**270,000**	**380,000**	**140,000**	**160,000**	**160,000**	**330,000**	**160,000**	**36,000**	**54,000**	**580 J**	**66,000**	**37,000**	**190,000**	**200,000**	**250,000 J**	**200,000**	**130,000**	**120,000**
Total PAHs	ug/kg	**2,949,800**	**6,179,000**	**2,181,000**	**2,591,500**	**2,992,000**	**5,648,000**	**1,631,000**	**299,400**	**410,500**	**1,930**	**991,600**	**621,300**	**3,042,000**	**3,283,000**	**4,419,100**	**2,328,100**	**1,904,000**	**2,049,000**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121
Sample Number:		D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5
Sample Depth:		6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5
Sample Date:		3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2,3,4,6-tetrachlorophenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 UJ
2,4,5-trichlorophenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2,4,6-trichlorophenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2,4-dichlorophenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2,4-dimethylphenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2,4-dinitrophenol	ug/kg	180,000 U	120,000 U	230,000 U	340,000 U	23,000 U	210,000 U	420,000 U	32,000 U	11,000 U	12,000 U	10,000 U	12,000 U	16,000 U	12,000 U	290,000 U	93,000 U	190,000 U	46,000 U
2,4-dinitrotoluene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2,6-dinitrotoluene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2-chloronaphthalene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2-chlorophenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2-methylnaphthalene	ug/kg	**450,000**	**340,000**	**660,000**	**890,000**	**140,000**	**420,000**	**1,200,000**	**55,000**	5,700 U	5,900 U	5,000 U	6,000 U	**900 J**	**2,200 J**	**890,000**	**270,000**	**230,000**	**140,000**
2-methylphenol (o-cresol)	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
2-nitroaniline	ug/kg	180,000 U	120,000 U	230,000 U	340,000 U	23,000 U	210,000 U	420,000 U	32,000 U	11,000 U	12,000 U	10,000 U	12,000 U	16,000 U	12,000 U	290,000 U	93,000 U	190,000 U	46,000 U
2-nitrophenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
3,3'-dichlorobenzidine	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
3-nitroaniline	ug/kg	180,000 U	120,000 U	230,000 U	340,000 U	23,000 U	210,000 U	420,000 U	32,000 U	11,000 U	12,000 U	10,000 U	12,000 U	16,000 U	12,000 U	290,000 U	93,000 U	190,000 U	46,000 U
4,6-dinitro-2-methylphenol	ug/kg	180,000 U	120,000 U	230,000 U	340,000 U	23,000 U	210,000 U	420,000 U	32,000 U	11,000 U	12,000 U	10,000 U	12,000 U	16,000 U	12,000 U	290,000 U	93,000 U	190,000 U	46,000 U
4-bromophenyl phenyl ether	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
4-chloro-3-methylphenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
4-chloroaniline	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
4-chlorophenyl phenyl ether	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
4-methylphenol (p-cresol)	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
4-nitroaniline	ug/kg	180,000 U	120,000 U	230,000 U	340,000 U	23,000 U	210,000 U	420,000 U	32,000 U	11,000 U	12,000 U	10,000 U	12,000 U	16,000 U	12,000 U	290,000 U	93,000 U	190,000 U	46,000 U
4-nitrophenol	ug/kg	180,000 U	120,000 U	230,000 U	340,000 U	23,000 U	210,000 U	420,000 U	32,000 U	11,000 U	12,000 U	10,000 U	12,000 U	16,000 U	12,000 U	290,000 U	93,000 U	190,000 U	46,000 U
Acenaphthene	ug/kg	**240,000**	**190,000**	**390,000**	**260,000**	**13,000**	**28,000 J**	**75,000 J**	**4,500 J**	5,700 U	5,900 U	5,000 U	6,000 U	**780 J**	**760 J**	**85,000 J**	**30,000 J**	**370,000**	**13,000 J**
Acenaphthylene	ug/kg	**21,000 J**	**17,000 J**	**25,000 J**	**200,000**	**77,000**	**190,000**	**530,000**	**30,000**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**2,600 J**	**440,000**	**140,000**	**26,000 J**	**62,000**
Acetophenone	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	**330 J**	6,000 U	**590 J**	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Anthracene	ug/kg	**130,000**	**89,000**	**170,000**	**190,000**	**44,000**	**96,000 J**	**270,000**	**15,000 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**2,500 J**	**220,000**	**77,000**	**220,000**	**36,000**
Atrazine	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Benzaldehyde	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Benzo(a)anthracene	ug/kg	**57,000 J**	**46,000 J**	**84,000 J**	**92,000 J**	**24,000**	**53,000 J**	**140,000 J**	**8,700 J**	**180 J**	5,900 U	5,000 U	6,000 U	7,800 U	**1,400 J**	**130,000 J**	**40,000 J**	**99,000**	**18,000 J**
Benzo(a)pyrene	ug/kg	**40,000 J**	**34,000 J**	**61,000 J**	**80,000 J**	**16,000**	**39,000 J**	**110,000 J**	**6,200 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**1,100 J**	**95,000 J**	**33,000 J**	**77,000 J**	**14,000 J**
Benzo(b)fluoranthene	ug/kg	**35,000 J**	**26,000 J**	**58,000 J**	**34,000 J**	**12,000 J**	**18,000 J**	**40,000 J**	**4,600 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**970 J**	**76,000 J**	**22,000 J**	**58,000 J**	**12,000 J**
Benzo(g,h,i)perylene	ug/kg	**18,000 J**	**15,000 J**	**27,000 J**	**36,000 J**	**8,900 J**	**18,000 J**	**41,000 J**	**3,100 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	**33,000 J**	**13,000 J**	**33,000 J**	**7,700 J**
Benzo(k)fluoranthene	ug/kg	**11,000 J**	**14,000 J**	**17,000 J**	**43,000 J**	**3,900 J**	**23,000 J**	**72,000 J**	**1,700 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**180 J**	**31,000 J**	**10,000 J**	**21,000 J**	**4,400 J**
Benzyl butyl phthalate	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121
Sample Number:		D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5
Sample Depth:		6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5
Sample Date:		3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**48,000 J**	**37,000 J**	**69,000 J**	**100,000 J**	**19,000**	**48,000 J**	**130,000 J**	**6,800 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**390 J**	**86,000 J**	**25,000 J**	**56,000 J**	**16,000 J**
Bis(2-chloroethoxy) methane	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Bis(2-chloroethyl) ether	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Bis(2-chloroisopropyl) ether	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	**180 J**	5,900 U	**160 J**	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Caprolactam	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Carbazole	ug/kg	**4,700 J**	**3,900 J**	**7,100 J**	**7,100 J**	**1,500 J**	**4,400 J**	**9,800 J**	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	**9,600 J**	**3,100 J**	**6,200 J**	**1,000 J**
Chrysene	ug/kg	**43,000 J**	**41,000 J**	**78,000 J**	**110,000 J**	**18,000**	**52,000 J**	**140,000 J**	**7,200 J**	**170 J**	5,900 U	**180 J**	6,000 U	7,800 U	**1,100 J**	**100,000 J**	**35,000 J**	**88,000 J**	**16,000 J**
Dibenz(a,h)anthracene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	**2,700 J**	110,000 U	210,000 U	16,000 UJ	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Dibenzofuran	ug/kg	**16,000 J**	**13,000 J**	**27,000 J**	**27,000 J**	**5,900 J**	110,000 U	**37,000 J**	**2,400 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**300 J**	**41,000 J**	**12,000 J**	**26,000 J**	**4,800 J**
Diethyl phthalate	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Dimethyl phthalate	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Di-n-butyl phthalate	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Di-n-octylphthalate	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Fluoranthene	ug/kg	**130,000**	**98,000**	**200,000**	**180,000**	**47,000**	**87,000 J**	**240,000**	**17,000**	5,700 U	5,900 U	**280 J**	6,000 U	7,800 U	**3,000 J**	**270,000**	**90,000**	**230,000**	**45,000**
Fluorene	ug/kg	**120,000**	**92,000**	**190,000**	**210,000**	**53,000**	**97,000 J**	**270,000**	**21,000**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	**2,700 J**	**300,000**	**99,000**	**190,000**	**47,000**
Hexachlorobenzene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Hexachlorobutadiene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Hexachlorocyclopentadiene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Hexachloroethane	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**19,000 J**	**16,000 J**	**30,000 J**	**27,000 J**	**8,800 J**	110,000 U	**34,000 J**	**2,800 J**	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	**37,000 J**	**13,000 J**	**35,000 J**	**7,200 J**
Isophorone	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Naphthalene	ug/kg	**630,000**	**500,000**	**1,100,000**	**1,500,000**	**180,000**	**710,000**	**2,000,000**	**66,000**	5,700 U	5,900 U	**740 J**	6,000 U	**4,400 J**	5,900 U	**1,500,000**	**350,000**	**650,000**	**170,000**
Nitrobenzene	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
N-nitrosodi-n-propylamine	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 UJ
N-nitrosodiphenylamine	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Pentachlorophenol	ug/kg	180,000 U	120,000 U	230,000 U	340,000 U	23,000 U	210,000 U	420,000 U	32,000 U	11,000 U	12,000 U	10,000 U	12,000 U	16,000 U	12,000 U	290,000 U	93,000 U	190,000 U	46,000 UJ
Phenanthrene	ug/kg	**390,000**	**310,000**	**640,000**	**760,000**	**130,000**	**350,000**	**1,000,000**	**58,000**	5,700 U	5,900 U	**290 J**	6,000 U	7,800 U	**8,700**	**820,000**	**260,000**	**750,000**	**140,000**
Phenol	ug/kg	90,000 U	59,000 U	120,000 U	170,000 U	12,000 U	110,000 U	210,000 U	16,000 U	5,700 U	5,900 U	5,000 U	6,000 U	7,800 U	5,900 U	150,000 U	46,000 U	94,000 U	23,000 U
Pyrene	ug/kg	**160,000**	**140,000**	**240,000**	**280,000**	**51,000**	**160,000**	**430,000**	**19,000**	**210 J**	5,900 U	**340 J**	6,000 U	7,800 U	**3,700 J**	**370,000**	**120,000**	**280,000**	**43,000**
Total PAHs	ug/kg	**2,494,000**	**1,968,000**	**3,970,000**	**4,892,000**	**829,300**	**2,341,000**	**6,592,000**	**319,800**	**560**	ND	**1,830**	ND	**6,080**	**30,910**	**5,397,000**	**1,602,000**	**3,357,000**	**775,300**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B
Sample Number:	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD067B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0	D-04062010-02
Sample Depth:	3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12	10-12
Sample Date:	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2,3,4,6-tetrachlorophenol	ug/kg	600,000 UR	12,000 UJ	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 UJ	100,000 U	5,800 UJ	5,900 UJ	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2,4,5-trichlorophenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2,4,6-trichlorophenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2,4-dichlorophenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2,4-dimethylphenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2,4-dinitrophenol	ug/kg	1,200,000 UR	24,000 U	11,000 U	12,000 U	14,000 U	14,000 U	19,000 U	9,900 U	12,000 U	210,000 U	12,000 U	12,000 U	190,000 U	350,000 U	13,000 U	12,000 U	12,000 U	12,000 U
2,4-dinitrotoluene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2,6-dinitrotoluene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2-chloronaphthalene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2-chlorophenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2-methylnaphthalene	ug/kg	**5,000,000 J**	**66,000**	**2,600 J**	5,900 U	**2,000 J**	6,800 U	**40,000**	**35,000**	**6,500**	**410,000**	**270 J**	5,900 U	**380,000**	**16,000 J**	**1,000 J**	**330 J**	**1,100 J**	**1,200 J**
2-methylphenol (o-cresol)	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
2-nitroaniline	ug/kg	1,200,000 UR	24,000 U	11,000 U	12,000 U	14,000 U	14,000 U	19,000 U	9,900 U	12,000 U	210,000 U	12,000 U	12,000 U	190,000 U	350,000 U	13,000 U	12,000 U	12,000 U	12,000 U
2-nitrophenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
3,3'-dichlorobenzidine	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
3-nitroaniline	ug/kg	1,200,000 UR	24,000 U	11,000 U	12,000 U	14,000 U	14,000 U	19,000 U	9,900 U	12,000 U	210,000 U	12,000 U	12,000 U	190,000 U	350,000 U	13,000 U	12,000 U	12,000 U	12,000 U
4,6-dinitro-2-methylphenol	ug/kg	1,200,000 UR	24,000 U	11,000 U	12,000 U	14,000 U	14,000 U	19,000 U	9,900 U	12,000 U	210,000 U	12,000 U	12,000 U	190,000 U	350,000 U	13,000 U	12,000 U	12,000 U	12,000 U
4-bromophenyl phenyl ether	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
4-chloro-3-methylphenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
4-chloroaniline	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
4-chlorophenyl phenyl ether	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
4-methylphenol (p-cresol)	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
4-nitroaniline	ug/kg	1,200,000 UR	24,000 U	11,000 U	12,000 U	14,000 U	14,000 U	19,000 U	9,900 U	12,000 U	210,000 U	12,000 U	12,000 U	190,000 U	350,000 U	13,000 U	12,000 U	12,000 U	12,000 U
4-nitrophenol	ug/kg	1,200,000 UR	24,000 U	11,000 U	12,000 U	14,000 U	14,000 U	19,000 U	9,900 U	12,000 U	210,000 U	12,000 U	12,000 U	190,000 U	350,000 U	13,000 U	12,000 U	12,000 U	12,000 U
Acenaphthene	ug/kg	**430,000 J**	**6,200 J**	**400 J**	**230 J**	**790 J**	6,800 U	**27,000**	**14,000**	**5,500 J**	**46,000 J**	**290 J**	5,900 U	**380,000**	**520,000**	**390 J**	6,200 U	**400 J**	**400 J**
Acenaphthylene	ug/kg	**2,400,000 J**	**32,000**	**1,200 J**	5,900 U	**440 J**	6,800 U	**13,000**	**9,100**	**2,500 J**	**180,000**	5,800 U	5,900 U	**18,000 J**	**25,000 J**	6,500 U	6,200 U	**190 J**	6,100 U
Acetophenone	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Anthracene	ug/kg	**1,200,000 J**	**20,000**	**1,100 J**	**270 J**	**700 J**	6,800 U	**25,000**	**12,000**	**5,300 J**	**99,000 J**	5,800 U	5,900 U	**160,000**	**190,000**	**200 J**	6,200 U	**390 J**	**280 J**
Atrazine	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Benzaldehyde	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Benzo(a)anthracene	ug/kg	**640,000 J**	**9,900 J**	**600 J**	**310 J**	**510 J**	6,800 U	**14,000**	**7,300**	**3,500 J**	**48,000 J**	**440 J**	**270 J**	**69,000 J**	**96,000 J**	6,500 U	6,200 U	**320 J**	**290 J**
Benzo(a)pyrene	ug/kg	**490,000 J**	**8,400 J**	**640 J**	5,900 U	6,800 U	6,800 U	**12,000**	**5,300**	**2,400 J**	**45,000 J**	**500 J**	5,900 U	**57,000 J**	**83,000 J**	6,500 U	6,200 U	6,200 U	6,100 U
Benzo(b)fluoranthene	ug/kg	**390,000 J**	**6,700 J**	**350 J**	5,900 U	6,800 U	6,800 U	**12,000**	**4,200 J**	**2,100 J**	**19,000 J**	**320 J**	5,900 U	**27,000 J**	**32,000 J**	6,500 U	6,200 U	6,200 U	6,100 U
Benzo(g,h,i)perylene	ug/kg	**290,000 J**	**4,300 J**	5,700 UJ	5,900 UJ	6,800 U	6,800 UJ	**8,800 J**	**2,500 J**	**1,400 J**	**20,000 J**	5,800 U	5,900 U	**24,000 J**	**35,000 J**	6,500 U	6,200 U	6,200 U	6,100 U
Benzo(k)fluoranthene	ug/kg	**160,000 J**	**2,700 J**	**220 J**	5,900 U	6,800 U	6,800 U	**3,200 J**	**1,500 J**	**490 J**	**28,000 J**	**230 J**	5,900 U	**41,000 J**	**48,000 J**	6,500 U	6,200 U	6,200 U	6,100 U
Benzyl butyl phthalate	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B
Sample Number:		GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD067B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0	D-04062010-02
Sample Depth:		3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12	10-12
Sample Date:		4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**600,000 J**	**7,600 J**	**240 J**	5,900 U	6,800 U	6,800 U	**10,000**	**5,100**	**1,800 J**	**56,000 J**	5,800 U	5,900 U	**72,000 J**	**100,000 J**	6,500 U	6,200 U	6,200 U	6,100 U
Bis(2-chloroethoxy) methane	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Bis(2-chloroethyl) ether	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Bis(2-chloroisopropyl) ether	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Bis(2-ethylhexyl) phthalate	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Caprolactam	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Carbazole	ug/kg	**42,000 J**	**450 J**	5,700 U	5,900 U	6,800 U	6,800 U	**2,300 J**	**760 J**	**420 J**	**4,600 J**	5,800 U	5,900 U	**4,500 J**	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Chrysene	ug/kg	**570,000 J**	**9,000 J**	**540 J**	5,900 U	**250 J**	6,800 U	**12,000**	**7,000**	**2,900 J**	**47,000 J**	**370 J**	5,900 U	**64,000 J**	**83,000 J**	6,500 U	6,200 U	**400 J**	**310 J**
Dibenz(a,h)anthracene	ug/kg	**70,000 J**	12,000 U	5,700 UJ	5,900 UJ	6,800 U	6,800 UJ	**2,100 J**	**790 J**	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Dibenzofuran	ug/kg	**170,000 J**	**2,400 J**	5,700 U	5,900 U	6,800 U	6,800 U	**7,200 J**	**2,100 J**	**780 J**	100,000 U	5,800 U	5,900 U	**21,000 J**	**28,000 J**	6,500 U	6,200 U	6,200 U	6,100 U
Diethyl phthalate	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Dimethyl phthalate	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Di-n-butyl phthalate	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Di-n-octylphthalate	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Fluoranthene	ug/kg	**1,500,000 J**	**23,000**	**1,100 J**	**320 J**	**620 J**	6,800 U	**41,000**	**12,000**	**6,700**	**100,000 J**	5,800 U	5,900 U	**150,000**	**190,000**	**210 J**	6,200 U	**380 J**	**380 J**
Fluorene	ug/kg	**1,700,000 J**	**24,000**	**1,100 J**	**250 J**	**780 J**	6,800 U	**29,000**	**15,000**	**5,900 J**	**110,000**	5,800 U	5,900 U	**150,000**	**240,000**	6,500 U	6,200 U	**360 J**	**310 J**
Hexachlorobenzene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Hexachlorobutadiene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Hexachlorocyclopentadiene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Hexachloroethane	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**290,000 J**	**3,900 J**	5,700 UJ	5,900 UJ	6,800 U	6,800 UJ	**8,600 J**	**3,000 J**	**1,200 J**	**16,000 J**	5,800 U	5,900 U	**23,000 J**	**31,000 J**	6,500 U	6,200 U	6,200 U	6,100 U
Isophorone	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Naphthalene	ug/kg	**6,600,000 J**	**75,000**	5,700 U	5,900 U	6,800 U	6,800 U	**65,000**	**52,000**	5,900 U	**760,000**	5,800 U	5,900 U	**760,000**	**130,000 J**	**2,200 J**	**690 J**	**1,300 J**	**1,400 J**
Nitrobenzene	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
N-nitrosodi-n-propylamine	ug/kg	600,000 UR	12,000 UJ	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 UJ	100,000 U	5,800 UJ	5,900 UJ	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
N-nitrosodiphenylamine	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Pentachlorophenol	ug/kg	1,200,000 UR	24,000 UJ	11,000 U	12,000 U	14,000 U	14,000 U	19,000 U	9,900 U	12,000 UJ	210,000 U	12,000 UJ	12,000 UJ	190,000 U	350,000 UJ	13,000 U	12,000 U	12,000 U	12,000 U
Phenanthrene	ug/kg	**4,400,000 J**	**72,000**	**3,300 J**	**700 J**	**2,200 J**	**250 J**	**87,000**	**41,000**	**18,000**	**380,000**	**320 J**	5,900 U	**620,000**	**770,000**	**640 J**	**240 J**	**1,300 J**	**1,200 J**
Phenol	ug/kg	600,000 UR	12,000 U	5,700 U	5,900 U	6,800 U	6,800 U	9,400 U	4,900 U	5,900 U	100,000 U	5,800 U	5,900 U	93,000 U	170,000 U	6,500 U	6,200 U	6,200 U	6,100 U
Pyrene	ug/kg	**1,600,000 J**	**24,000**	**1,300 J**	**360 J**	**1,200 J**	6,800 U	**32,000**	**16,000**	**7,700**	**160,000**	**270 J**	5,900 U	**250,000**	**320,000 J**	**460 J**	6,200 U	**910 J**	**830 J**
Total PAHs	ug/kg	**27,730,000**	**387,100**	**14,450**	**2,440**	**9,490**	**250**	**431,700**	**237,690**	**72,090**	**2,468,000**	**3,010**	**270**	**3,173,000**	**2,809,000**	**5,100**	**1,260**	**7,050**	**6,600**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137
Sample Number:		GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0
Sample Depth:		1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2,3,4,6-tetrachlorophenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2,4,5-trichlorophenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2,4,6-trichlorophenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2,4-dichlorophenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2,4-dimethylphenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 UJ	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2,4-dinitrophenol	ug/kg	90,000 U	130,000 U	150,000 U	40,000 U	13,000 U	12,000 U	13,000 U	13,000 U	12,000 U	19,000 U	16,000 U	15,000 U	19,000 U	23,000 U	21,000 U	12,000 U	11,000 U	12,000 U
2,4-dinitrotoluene	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**940 J**	11,000 U	6,000 U	5,600 U	6,100 U
2,6-dinitrotoluene	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2-chloronaphthalene	ug/kg	45,000 UJ	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2-chlorophenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
2-methylnaphthalene	ug/kg	**300,000 J**	**480,000**	**710,000**	**160,000**	**530 J**	6,100 U	**320 J**	**210 J**	5,800 U	**970 J**	**270 J**	**300 J**	**520 J**	**30,000**	**4,800 J**	6,000 U	**35,000**	**47,000**
2-methylphenol (o-cresol)	ug/kg	45,000 UJ	66,000 U	75,000 U	20,000 U	6,500 UJ	6,100 UJ	6,300 UJ	6,500 UJ	5,800 UJ	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 UJ	6,100 UJ
2-nitroaniline	ug/kg	90,000 U	130,000 U	150,000 U	40,000 U	13,000 U	12,000 U	13,000 U	13,000 U	12,000 U	19,000 U	16,000 U	15,000 U	19,000 U	23,000 U	21,000 U	12,000 U	11,000 U	12,000 U
2-nitrophenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
3,3'-dichlorobenzidine	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
3-nitroaniline	ug/kg	90,000 U	130,000 U	150,000 U	40,000 U	13,000 U	12,000 U	13,000 U	13,000 U	12,000 U	19,000 U	16,000 U	15,000 U	19,000 U	23,000 U	21,000 U	12,000 U	11,000 U	12,000 U
4,6-dinitro-2-methylphenol	ug/kg	90,000 U	130,000 U	150,000 U	40,000 U	13,000 U	12,000 U	13,000 U	13,000 U	12,000 U	19,000 U	16,000 U	15,000 U	19,000 U	23,000 U	21,000 U	12,000 U	11,000 U	12,000 U
4-bromophenyl phenyl ether	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
4-chloro-3-methylphenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
4-chloroaniline	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
4-chlorophenyl phenyl ether	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
4-methylphenol (p-cresol)	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 UJ	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
4-nitroaniline	ug/kg	90,000 U	130,000 U	150,000 U	40,000 U	13,000 U	12,000 U	13,000 U	13,000 U	12,000 U	19,000 U	16,000 U	15,000 U	19,000 U	23,000 U	21,000 U	12,000 U	11,000 U	12,000 U
4-nitrophenol	ug/kg	90,000 U	130,000 U	150,000 U	40,000 U	13,000 U	12,000 U	13,000 U	13,000 U	12,000 U	19,000 U	16,000 U	15,000 U	19,000 U	23,000 U	21,000 U	12,000 U	11,000 U	12,000 U
Acenaphthene	ug/kg	**170,000 J**	**240,000**	**320,000**	**84,000**	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	**1,100 J**	**820 J**	**1,400 J**	9,300 U	**39,000**	**2,200 J**	6,000 U	**10,000**	**6,200**
Acenaphthylene	ug/kg	**21,000 J**	**28,000 J**	**54,000 J**	**8,400 J**	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**12,000**	11,000 U	6,000 U	**13,000**	**17,000**
Acetophenone	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	**700 J**	6,100 U	**560 J**	**720 J**	**580 J**	**530 J**	**540 J**	**510 J**	**470 J**	**860 J**	**660 J**	**450 J**	**1,000 J**	**1,100 J**
Anthracene	ug/kg	**81,000**	**110,000**	**170,000**	**44,000**	**250 J**	6,100 U	**200 J**	6,500 U	5,800 U	**790 J**	7,800 U	7,300 U	9,300 U	**36,000**	**340 J**	6,000 U	**15,000**	**9,500**
Atrazine	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Benzaldehyde	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Benzo(a)anthracene	ug/kg	**37,000 J**	**57,000 J**	**85,000**	**24,000**	**440 J**	**250 J**	6,300 U	6,500 U	5,800 U	**520 J**	7,800 U	7,300 U	9,300 U	**16,000**	11,000 U	6,000 U	**12,000**	**7,000**
Benzo(a)pyrene	ug/kg	**23,000 J**	**38,000 J**	**61,000 J**	**17,000 J**	**360 J**	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**13,000**	11,000 U	6,000 U	**7,700**	**5,400 J**
Benzo(b)fluoranthene	ug/kg	**24,000 J**	**34,000 J**	**52,000 J**	**13,000 J**	**380 J**	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**4,400 J**	11,000 U	6,000 U	**6,700**	**4,300 J**
Benzo(g,h,i)perylene	ug/kg	**4,300 J**	66,000 U	**12,000 J**	**5,600 J**	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**5,300 J**	11,000 U	6,000 U	**4,100 J**	**2,300 J**
Benzo(k)fluoranthene	ug/kg	**8,800 J**	**13,000 J**	**18,000 J**	**6,200 J**	**210 J**	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**9,100 J**	11,000 U	6,000 U	**1,700 J**	**1,200 J**
Benzyl butyl phthalate	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137
Sample Number:		GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0
Sample Depth:		1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**35,000 J**	**49,000 J**	**74,000 J**	**18,000 J**	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**9,200 J**	**610 J**	6,000 U	**3,600 J**	**5,400 J**
Bis(2-chloroethoxy) methane	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Bis(2-chloroethyl) ether	ug/kg	45,000 UJ	66,000 U	75,000 U	20,000 U	6,500 UJ	6,100 UJ	6,300 UJ	6,500 UJ	5,800 UJ	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 UJ	6,100 UJ
Bis(2-chloroisopropyl) ether	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Bis(2-ethylhexyl) phthalate	ug/kg	**2,800 J**	66,000 U	75,000 U	20,000 U	**260 J**	**270 J**	**400 J**	**280 J**	**310 J**	**2,300 J**	**2,000 J**	**2,500 J**	9,300 U	11,000 U	11,000 U	6,000 U	**420 J**	6,100 U
Caprolactam	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Carbazole	ug/kg	**4,000 J**	**4,200 J**	**5,000 J**	**1,200 J**	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**650 J**	11,000 U	6,000 U	**510 J**	**880 J**
Chrysene	ug/kg	**37,000 J**	**53,000 J**	**84,000**	**23,000**	**340 J**	6,100 U	6,300 U	6,500 U	5,800 U	**430 J**	7,800 U	7,300 U	9,300 U	**14,000**	11,000 U	6,000 U	**11,000**	**7,300**
Dibenz(a,h)anthracene	ug/kg	**3,800 J**	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**1,800 J**	11,000 U	6,000 U	**1,100 J**	6,100 U
Dibenzofuran	ug/kg	**13,000 J**	**15,000 J**	**20,000 J**	**5,700 J**	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**4,100 J**	11,000 U	6,000 U	**1,800 J**	**2,200 J**
Diethyl phthalate	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Dimethyl phthalate	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Di-n-butyl phthalate	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Di-n-octylphthalate	ug/kg	**1,800 J**	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Fluoranthene	ug/kg	**75,000**	**120,000**	**180,000**	**45,000**	**220 J**	6,100 U	6,300 U	6,500 U	5,800 U	**950 J**	7,800 U	7,300 U	9,300 U	**43,000**	11,000 U	6,000 U	**17,000**	**10,000**
Fluorene	ug/kg	**100,000**	**150,000**	**200,000**	**55,000**	**210 J**	6,100 U	6,300 U	6,500 U	5,800 U	**650 J**	**370 J**	**410 J**	9,300 U	**32,000**	**1,200 J**	6,000 U	**13,000**	**16,000**
Hexachlorobenzene	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Hexachlorobutadiene	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Hexachlorocyclopentadiene	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Hexachloroethane	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**13,000 J**	**20,000 J**	**28,000 J**	**8,000 J**	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	**4,500 J**	11,000 U	6,000 U	**3,600 J**	**2,800 J**
Isophorone	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Naphthalene	ug/kg	**460,000 J**	**660,000**	**970,000**	**210,000**	**1,000 J**	**250 J**	**470 J**	**210 J**	5,800 U	**1,000 J**	**1,500 J**	**3,200 J**	**770 J**	**8,500 J**	**5,900 J**	6,000 U	**46,000**	**75,000**
Nitrobenzene	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
N-nitrosodi-n-propylamine	ug/kg	45,000 UJ	66,000 U	75,000 U	20,000 U	6,500 UJ	6,100 UJ	6,300 UJ	6,500 UJ	5,800 UJ	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 UJ	6,100 UJ
N-nitrosodiphenylamine	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Pentachlorophenol	ug/kg	90,000 U	130,000 U	150,000 U	40,000 U	13,000 U	12,000 U	13,000 U	13,000 U	12,000 U	19,000 U	16,000 U	15,000 U	19,000 U	23,000 U	21,000 U	12,000 U	11,000 U	12,000 U
Phenanthrene	ug/kg	**290,000**	**440,000**	**590,000**	**160,000**	**720 J**	**210 J**	**450 J**	6,500 U	5,800 U	**2,800 J**	**450 J**	**390 J**	9,300 U	**180,000**	**1,800 J**	6,000 U	**46,000**	**36,000**
Phenol	ug/kg	45,000 U	66,000 U	75,000 U	20,000 U	6,500 U	6,100 U	6,300 U	6,500 U	5,800 U	9,600 U	7,800 U	7,300 U	9,300 U	11,000 U	11,000 U	6,000 U	5,600 U	6,100 U
Pyrene	ug/kg	**120,000**	**180,000 J**	**280,000 J**	**77,000 J**	**470 J**	**250 J**	6,300 U	6,500 U	5,800 U	**1,400 J**	7,800 U	**270 J**	9,300 U	**68,000**	11,000 U	6,000 U	**29,000**	**16,000**
Total PAHs	ug/kg	**1,767,900**	**2,623,000**	**3,814,000**	**940,200**	**5,130**	**960**	**1,440**	**420**	ND	**10,610**	**3,410**	**5,970**	**1,290**	**516,600**	**16,240**	ND	**271,900**	**263,000**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151
Sample Number:	GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2	GC-SD151-07.2-09.2
Sample Depth:	4-6	6-8	8-9.8	8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2	7.2-9.2
Sample Date:	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:	N	N	N	FD	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2,3,4,6-tetrachlorophenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2,4,5-trichlorophenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2,4,6-trichlorophenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2,4-dichlorophenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2,4-dimethylphenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2,4-dinitrophenol	ug/kg	46,000 U	11,000 U	12,000 U	59,000 U	11,000 U	12,000 U	11,000 U	14,000 U	13,000 U	13,000 U	13,000 U	25,000 U	50,000 U	380 U	360 U	370 U	430 U	420 U
2,4-dinitrotoluene	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2,6-dinitrotoluene	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2-chloronaphthalene	ug/kg	23,000 U	5,600 UJ	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2-chlorophenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2-methylnaphthalene	ug/kg	**120,000**	5,600 UJ	**14,000**	**120,000**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**4,100 J**	**7,200 J**	200 U	190 U	190 U	220 U	220 U
2-methylphenol (o-cresol)	ug/kg	23,000 U	5,600 UJ	6,000 UJ	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 UJ	6,400 UJ	6,400 UJ	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
2-nitroaniline	ug/kg	46,000 U	11,000 U	12,000 U	59,000 U	11,000 U	12,000 U	11,000 U	14,000 U	13,000 U	13,000 U	13,000 U	25,000 U	50,000 U	380 U	360 U	370 U	430 U	420 U
2-nitrophenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
3,3'-dichlorobenzidine	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
3-nitroaniline	ug/kg	46,000 U	11,000 U	12,000 U	59,000 U	11,000 U	12,000 U	11,000 U	14,000 U	13,000 U	13,000 U	13,000 U	25,000 U	50,000 U	380 U	360 U	370 U	430 U	420 U
4,6-dinitro-2-methylphenol	ug/kg	46,000 U	11,000 U	12,000 U	59,000 U	11,000 U	12,000 U	11,000 U	14,000 U	13,000 U	13,000 U	13,000 U	25,000 U	50,000 U	380 U	360 U	370 U	430 U	420 U
4-bromophenyl phenyl ether	ug/kg	23,000 U	5,600 UJ	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
4-chloro-3-methylphenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
4-chloroaniline	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
4-chlorophenyl phenyl ether	ug/kg	23,000 U	5,600 UJ	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
4-methylphenol (p-cresol)	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
4-nitroaniline	ug/kg	46,000 U	11,000 U	12,000 U	59,000 U	11,000 U	12,000 U	11,000 U	14,000 U	13,000 U	13,000 U	13,000 U	25,000 U	50,000 U	380 U	360 U	370 U	430 U	420 U
4-nitrophenol	ug/kg	46,000 U	11,000 U	12,000 U	59,000 U	11,000 U	12,000 U	11,000 U	14,000 U	13,000 U	13,000 U	13,000 U	25,000 U	50,000 U	380 U	360 U	370 U	430 U	420 U
Acenaphthene	ug/kg	**86,000**	5,600 UJ	**29,000**	**150,000**	**630 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**45,000**	**97,000**	**72 J**	**7.7 J**	**25 J**	220 U	220 U
Acenaphthylene	ug/kg	**6,900 J**	5,600 UJ	**2,200 J**	**13,000 J**	**170 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**7,300 J**	**14,000 J**	**9.3 J**	190 U	**9.1 J**	220 U	220 U
Acetophenone	ug/kg	23,000 U	**790 J**	**580 J**	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	**510 J**	**660 J**	**470 J**	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Anthracene	ug/kg	**45,000**	5,600 UJ	**14,000**	**83,000**	**550 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**29,000**	**62,000**	**11 J**	**8.8 J**	**41 J**	220 U	220 U
Atrazine	ug/kg	23,000 U	5,600 UJ	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Benzaldehyde	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Benzo(a)anthracene	ug/kg	**24,000**	5,600 UJ	**7,200**	**42,000**	**420 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**13,000**	**31,000**	**8.9 J**	**6.5 J**	**36 J**	220 U	220 U
Benzo(a)pyrene	ug/kg	**12,000 J**	**870 J**	**4,800 J**	**29,000 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	**28,000**	200 U	190 U	190 U	220 U	220 U
Benzo(b)fluoranthene	ug/kg	**15,000 J**	5,600 UJ	**4,000 J**	**24,000 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Benzo(g,h,i)perylene	ug/kg	23,000 U	5,600 UJ	**2,500 J**	**13,000 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**6,000 J**	**12,000 J**	200 U	190 UJ	190 UJ	220 U	220 U
Benzo(k)fluoranthene	ug/kg	**4,900 J**	5,600 UJ	**1,500 J**	**8,300 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 UJ	220 UJ
Benzyl butyl phthalate	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151
Sample Number:		GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2	GC-SD151-07.2-09.2
Sample Depth:		4-6	6-8	8-9.8	8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2	7.2-9.2
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	FD	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	**17,000 J**	5,600 U	**5,900 J**	**32,000**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**9,400 J**	**20,000 J**	200 U	190 U	190 U	220 U	220 U
Bis(2-chloroethoxy) methane	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Bis(2-chloroethyl) ether	ug/kg	23,000 U	5,600 UJ	6,000 UJ	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 UJ	6,400 UJ	6,400 UJ	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Bis(2-chloroisopropyl) ether	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Bis(2-ethylhexyl) phthalate	ug/kg	23,000 U	**310 J**	6,000 U	30,000 U	**220 J**	5,900 U	5,500 U	6,900 U	**200 J**	**2,400 J**	**350 J**	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Caprolactam	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Carbazole	ug/kg	**1,700 J**	5,600 UJ	**390 J**	**2,100 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**1,600 J**	**3,500 J**	**11 J**	190 U	190 U	220 U	220 U
Chrysene	ug/kg	**20,000 J**	5,600 UJ	**7,100**	**36,000**	**390 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**12,000 J**	**27,000**	**8.6 J**	**5.9 J**	**27 J**	220 U	220 U
Dibenz(a,h)anthracene	ug/kg	23,000 U	5,600 UJ	**510 J**	**3,900 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**1,800 J**	**3,900 J**	200 U	190 U	190 U	220 U	220 U
Dibenzofuran	ug/kg	**6,600 J**	5,600 UJ	**2,300 J**	**13,000 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**8,700 J**	**18,000 J**	200 U	190 U	190 U	220 U	220 U
Diethyl phthalate	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Dimethyl phthalate	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Di-n-butyl phthalate	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Di-n-octylphthalate	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Fluoranthene	ug/kg	**48,000**	5,600 UJ	**14,000**	**87,000**	**740 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**47,000**	**110,000**	**15 J**	**15 J**	**70 J**	220 U	220 U
Fluorene	ug/kg	**50,000**	5,600 UJ	**16,000**	**95,000**	**450 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**25,000**	**49,000**	**11 J**	190 U	**21 J**	220 U	220 U
Hexachlorobenzene	ug/kg	23,000 U	5,600 UJ	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Hexachlorobutadiene	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Hexachlorocyclopentadiene	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Hexachloroethane	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**6,400 J**	5,600 UJ	**2,400 J**	**12,000 J**	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**5,300 J**	**11,000 J**	200 U	190 U	190 U	220 U	220 U
Isophorone	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Naphthalene	ug/kg	**140,000**	5,600 UJ	**16,000**	**280,000**	5,400 U	5,900 U	5,500 U	6,900 U	**300 J**	**200 J**	6,400 U	**40,000**	**74,000**	200 U	190 U	190 U	220 U	220 U
Nitrobenzene	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
N-nitrosodi-n-propylamine	ug/kg	23,000 U	5,600 UJ	6,000 UJ	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 UJ	6,400 UJ	6,400 UJ	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
N-nitrosodiphenylamine	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Pentachlorophenol	ug/kg	46,000 U	11,000 U	12,000 U	59,000 U	11,000 U	12,000 U	11,000 U	14,000 U	13,000 U	13,000 U	13,000 U	25,000 U	50,000 U	380 U	360 U	370 U	430 U	420 U
Phenanthrene	ug/kg	**170,000**	5,600 UJ	**47,000**	**290,000**	**2,000 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**150,000**	**350,000**	**36 J**	**26 J**	**120 J**	**9.5 J**	220 U
Phenol	ug/kg	23,000 U	5,600 U	6,000 U	30,000 U	5,400 U	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	12,000 U	25,000 U	200 U	190 U	190 U	220 U	220 U
Pyrene	ug/kg	**68,000 J**	**1,500 J**	**23,000**	**120,000 J**	**1,200 J**	5,900 U	5,500 U	6,900 U	6,300 U	6,400 U	6,400 U	**50,000**	**110,000**	**24 J**	**22 J**	**97 J**	220 UJ	220 UJ
Total PAHs	ug/kg	**816,200**	**2,370**	**205,210**	**1,406,200**	**6,550**	ND	ND	ND	**300**	**200**	ND	**435,500**	**986,100**	**195.8**	**91.9**	**446.1**	**9.5**	ND

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142
Sample Number:	D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1
Sample Depth:	7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1
Sample Date:	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2,3,4,6-tetrachlorophenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2,4,5-trichlorophenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2,4,6-trichlorophenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2,4-dichlorophenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2,4-dimethylphenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2,4-dinitrophenol	ug/kg	410 U	410 U	250,000 U	13,000 U	9,800 U	14,000 U	11,000 U	11,000 U	12,000 U	11,000 U	11,000 U	11,000 U	370 U	400 U	390 U	370 U	390 U	380 U
2,4-dinitrotoluene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2,6-dinitrotoluene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2-chloronaphthalene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2-chlorophenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2-methylnaphthalene	ug/kg	210 U	210 U	**520,000**	**2,200 J**	**170 J**	**940 J**	5,600 U	5,500 U	**240 J**	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2-methylphenol (o-cresol)	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
2-nitroaniline	ug/kg	410 U	410 U	250,000 U	13,000 U	9,800 U	14,000 U	11,000 U	11,000 U	12,000 U	11,000 U	11,000 U	11,000 U	370 U	400 U	390 U	370 U	390 U	380 U
2-nitrophenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
3,3'-dichlorobenzidine	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
3-nitroaniline	ug/kg	410 U	410 U	250,000 U	13,000 U	9,800 U	14,000 U	11,000 U	11,000 U	12,000 U	11,000 U	11,000 U	11,000 U	370 U	400 U	390 U	370 U	390 U	380 U
4,6-dinitro-2-methylphenol	ug/kg	410 U	410 U	250,000 U	13,000 U	9,800 U	14,000 U	11,000 U	11,000 U	12,000 U	11,000 U	11,000 U	11,000 U	370 U	400 U	390 U	370 U	390 U	380 U
4-bromophenyl phenyl ether	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
4-chloro-3-methylphenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
4-chloroaniline	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
4-chlorophenyl phenyl ether	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
4-methylphenol (p-cresol)	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
4-nitroaniline	ug/kg	410 U	410 U	250,000 U	13,000 U	9,800 U	14,000 U	11,000 U	11,000 U	12,000 U	11,000 U	11,000 U	11,000 U	370 U	400 U	390 U	370 U	390 U	380 U
4-nitrophenol	ug/kg	410 U	410 U	250,000 U	13,000 U	9,800 U	14,000 U	11,000 U	11,000 U	12,000 U	11,000 U	11,000 U	11,000 U	370 U	400 U	390 U	370 U	390 U	380 U
Acenaphthene	ug/kg	210 U	210 U	**300,000**	**1,900 J**	**480 J**	**21,000**	5,600 U	5,500 U	**470 J**	5,600 U	**470 J**	5,600 U	**10 J**	210 U	200 U	190 U	200 U	200 U
Acenaphthylene	ug/kg	210 U	210 U	**53,000 J**	**830 J**	4,900 U	**4,500 J**	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	**8.4 J**	200 U
Acetophenone	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	**22 J**	**21 J**	200 U	200 U
Anthracene	ug/kg	210 U	210 U	**150,000**	**2,600 J**	**470 J**	**15,000**	5,600 U	5,500 U	**250 J**	5,600 U	**600 J**	5,600 U	190 U	210 U	200 U	**6.2 J**	**7.7 J**	200 U
Atrazine	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Benzaldehyde	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	**42 J**	**38 J**	200 U	200 U
Benzo(a)anthracene	ug/kg	210 U	210 U	**70,000 J**	**1,300 J**	**400 J**	**6,400 J**	5,600 U	5,500 U	5,900 U	5,600 U	**430 J**	5,600 U	190 U	210 U	**12 J**	**9.9 J**	**27 J**	200 U
Benzo(a)pyrene	ug/kg	210 U	210 U	**57,000 J**	**1,000 J**	**280 J**	**5,600 J**	5,600 U	5,500 U	5,900 U	5,600 U	**210 J**	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Benzo(b)fluoranthene	ug/kg	210 U	210 U	**25,000 J**	**540 J**	4,900 U	**2,100 J**	5,600 U	5,500 U	5,900 U	5,600 U	**180 J**	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Benzo(g,h,i)perylene	ug/kg	210 U	210 U	**31,000 J**	**650 J**	4,900 U	**2,500 J**	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 UJ	210 UJ	200 U	190 U	200 U	200 U
Benzo(k)fluoranthene	ug/kg	210 UJ	210 UJ	**41,000 J**	**610 J**	**230 J**	**3,600 J**	5,600 U	5,500 U	5,900 U	5,600 UJ	**210 J**	5,600 UJ	190 U	210 U	200 U	190 U	200 U	200 U
Benzyl butyl phthalate	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142
Sample Number:		D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1
Sample Depth:		7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1
Sample Date:		4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	210 U	210 U	**67,000 J**	**520 J**	4,900 U	**4,200 J**	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Bis(2-chloroethoxy) methane	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Bis(2-chloroethyl) ether	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Bis(2-chloroisopropyl) ether	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Bis(2-ethylhexyl) phthalate	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	**290 J**	5,600 U	**1,700 J**	**320 J**	**730 J**	**540 J**	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Caprolactam	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Carbazole	ug/kg	210 U	210 U	**5,900 J**	6,700 U	4,900 U	**330 J**	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Chrysene	ug/kg	210 U	210 U	**62,000 J**	**1,300 J**	**370 J**	**5,800 J**	5,600 U	5,500 U	5,900 U	5,600 U	**390 J**	5,600 U	190 U	210 U	**7.1 J**	190 UJ	**16 J**	200 U
Dibenz(a,h)anthracene	ug/kg	210 U	210 U	**11,000 J**	6,700 U	4,900 U	**1,100 J**	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Dibenzofuran	ug/kg	210 U	210 U	**30,000 J**	**300 J**	4,900 U	**1,800 J**	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Diethyl phthalate	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Dimethyl phthalate	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Di-n-butyl phthalate	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Di-n-octylphthalate	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Fluoranthene	ug/kg	**11 J**	210 U	**160,000**	**2,600 J**	**690 J**	**17,000**	5,600 U	5,500 U	**320 J**	5,600 U	**730 J**	5,600 U	**13 J**	210 U	**7.9 J**	**12 J**	**24 J**	200 U
Fluorene	ug/kg	210 U	210 U	**170,000**	**1,600 J**	**320 J**	**15,000**	5,600 U	5,500 U	5,900 U	5,600 U	**380 J**	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Hexachlorobenzene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Hexachlorobutadiene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Hexachlorocyclopentadiene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Hexachloroethane	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Indeno(1,2,3-c,d)pyrene	ug/kg	210 U	210 U	**25,000 J**	**500 J**	4,900 U	**2,300 J**	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Isophorone	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Naphthalene	ug/kg	210 U	210 U	**660,000**	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Nitrobenzene	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
N-nitrosodi-n-propylamine	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
N-nitrosodiphenylamine	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Pentachlorophenol	ug/kg	410 U	410 U	250,000 U	13,000 U	9,800 U	14,000 U	11,000 U	11,000 U	12,000 U	11,000 U	11,000 U	11,000 U	370 U	400 U	390 U	370 U	390 U	380 U
Phenanthrene	ug/kg	**18 J**	210 U	**690,000**	**9,100**	**1,800 J**	**75,000**	5,600 U	5,500 U	**630 J**	5,600 U	**2,100 J**	**210 J**	**11 J**	210 U	**7.2 J**	**7.7 J**	**10 J**	200 U
Phenol	ug/kg	210 U	210 U	120,000 U	6,700 U	4,900 U	7,100 U	5,600 U	5,500 U	5,900 U	5,600 U	5,700 U	5,600 U	190 U	210 U	200 U	190 U	200 U	200 U
Pyrene	ug/kg	**18 J**	210 UJ	**230,000**	**4,200 J**	**1,100 J**	**27,000**	5,600 U	5,500 U	**580 J**	**220 J**	**1,200 J**	5,600 U	**22 J**	210 U	**17 J**	**26 J**	**84 J**	**8.4 J**
Total PAHs	ug/kg	**47**	ND	**3,255,000**	**30,930**	**6,310**	**204,840**	ND	ND	**2,490**	**220**	**6,900**	**210**	**56**	ND	**51.2**	**61.8**	**177.1**	**8.4**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A	GC-SD81A
Sample Number:		GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3	D-04152010-03
Sample Depth:		8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3	5.3-7.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2,3,4,6-tetrachlorophenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2,4,5-trichlorophenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2,4,6-trichlorophenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2,4-dichlorophenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2,4-dimethylphenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2,4-dinitrophenol	ug/kg	400 U	380 U	400 UJ	390 U	380 U	360 U	370 U	440 U	420 U	430 U	23,000 U	390 U	11,000 U	12,000 U	380 U	360 U	410 U	410 U
2,4-dinitrotoluene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2,6-dinitrotoluene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2-chloronaphthalene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2-chlorophenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2-methylnaphthalene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**5,000 J**	200 U	**3,200 J**	**45,000**	200 U	190 U	**280**	**330**
2-methylphenol (o-cresol)	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
2-nitroaniline	ug/kg	400 U	380 U	400 UJ	390 U	380 U	360 U	370 U	440 U	420 U	430 U	23,000 U	390 U	11,000 U	12,000 U	380 U	360 U	410 U	410 U
2-nitrophenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
3,3'-dichlorobenzidine	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
3-nitroaniline	ug/kg	400 U	380 U	400 UJ	390 U	380 U	360 U	370 U	440 U	420 U	430 U	23,000 U	390 U	11,000 U	12,000 U	380 U	360 U	410 U	410 U
4,6-dinitro-2-methylphenol	ug/kg	400 U	380 U	400 U	390 U	380 U	360 U	370 U	440 U	420 U	430 U	23,000 U	390 U	11,000 U	12,000 U	380 U	360 U	410 U	410 U
4-bromophenyl phenyl ether	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
4-chloro-3-methylphenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
4-chloroaniline	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
4-chlorophenyl phenyl ether	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
4-methylphenol (p-cresol)	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
4-nitroaniline	ug/kg	400 U	380 U	400 UJ	390 U	380 U	360 U	370 U	440 U	420 U	430 U	23,000 U	390 U	11,000 U	12,000 U	380 U	360 U	410 U	410 U
4-nitrophenol	ug/kg	400 U	380 U	400 UJ	390 U	380 U	360 U	370 U	440 U	420 U	430 U	23,000 U	390 U	11,000 U	12,000 U	380 U	360 U	410 U	410 U
Acenaphthene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**16,000**	200 U	**23,000**	**31,000**	**8.7 J**	190 U	**860**	**810**
Acenaphthylene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**25,000**	200 U	**5,100 J**	**2,600 J**	200 U	190 U	**100 J**	**100 J**
Acetophenone	ug/kg	210 U	200 U	210 U	**16 J**	**36 J**	**25 J**	**20 J**	**29 J**	**28 J**	**25 J**	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	**33 J**	**39 J**
Anthracene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**24,000**	200 U	**25,000**	**18,000**	200 U	190 U	**550**	**480**
Atrazine	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Benzaldehyde	ug/kg	210 U	200 U	210 U	**20 J**	**53 J**	**34 J**	**29 J**	**45 J**	**33 J**	**33 J**	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	**57 J**	**55 J**
Benzo(a)anthracene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**17,000**	200 U	**25,000**	**15,000**	200 U	190 U	**290**	**240**
Benzo(a)pyrene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	**19,000**	**11,000**	200 U	190 U	**280**	**220**
Benzo(b)fluoranthene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	**18,000**	**10,000**	200 U	190 U	**110 J**	**89 J**
Benzo(g,h,i)perylene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**5,500 J**	200 U	**8,900 J**	**5,500 J**	200 U	190 U	**130 J**	**100 J**
Benzo(k)fluoranthene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	**5,700**	5,800 U	200 U	190 U	**160 J**	**110 J**
Benzyl butyl phthalate	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A	GC-SD81A
Sample Number:		GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3	D-04152010-03
Sample Depth:		8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3	5.3-7.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**8,300 J**	200 U	**890 J**	**5,800**	200 U	190 U	**60 J**	**100 J**
Bis(2-chloroethoxy) methane	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Bis(2-chloroethyl) ether	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Bis(2-chloroisopropyl) ether	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Bis(2-ethylhexyl) phthalate	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	23,000 U	5,800 U	200 U	190 U	**140 J**	**82 J**
Caprolactam	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Carbazole	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**660 J**	200 U	5,700 U	**740 J**	200 U	190 U	210 U	210 U
Chrysene	ug/kg	210 U	200 U	210 U	200 UJ	**6.1 J**	190 U	190 U	230 U	220 U	220 U	**19,000**	200 U	**26,000**	**18,000**	200 U	190 U	**380**	**290**
Dibenz(a,h)anthracene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**3,000 J**	200 U	**2,700 J**	**1,700 J**	200 U	190 U	**44 J**	**44 J**
Dibenzofuran	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**3,500 J**	200 U	**1,500 J**	**3,400 J**	200 U	190 U	**40 J**	**56 J**
Diethyl phthalate	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Dimethyl phthalate	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Di-n-butyl phthalate	ug/kg	210 U	200 U	210 U	200 U	**6.2 J**	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Di-n-octylphthalate	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Fluoranthene	ug/kg	210 U	200 U	**7.4 J**	200 U	**8.3 J**	**7.4 J**	190 U	230 U	220 U	220 U	**24,000**	200 U	**39,000**	**21,000**	200 U	190 U	**740**	**640**
Fluorene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**27,000**	200 U	**7,000**	**18,000**	200 U	190 U	**430**	**420**
Hexachlorobenzene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 UJ	200 U	5,700 UJ	5,800 U	200 U	190 U	210 U	210 U
Hexachlorobutadiene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Hexachlorocyclopentadiene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Hexachloroethane	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Indeno(1,2,3-c,d)pyrene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**5,100 J**	200 U	**9,200**	**5,100 J**	200 U	190 U	**83 J**	**71 J**
Isophorone	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Naphthalene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	**64,000**	200 U	5,700 U	**48,000**	200 U	190 U	**260**	**220**
Nitrobenzene	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
N-nitrosodi-n-propylamine	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
N-nitrosodiphenylamine	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Pentachlorophenol	ug/kg	400 U	380 U	400 U	390 U	380 U	360 U	370 U	440 U	420 U	430 U	23,000 U	390 U	11,000 U	12,000 U	380 U	360 U	410 U	410 U
Phenanthrene	ug/kg	210 U	200 U	210 U	200 U	**6.4 J**	190 U	190 U	230 U	220 U	220 U	**81,000**	**6.3 J**	**32,000**	**64,000**	**13 J**	190 U	**2,400**	**2,400**
Phenol	ug/kg	210 U	200 U	210 U	200 U	190 U	190 U	190 U	230 U	220 U	220 U	11,000 U	200 U	5,700 U	5,800 U	200 U	190 U	210 U	210 U
Pyrene	ug/kg	210 U	200 U	**16 J**	200 UJ	**23 J**	**15 J**	190 U	230 U	220 U	220 U	**41,000**	**11 J**	**50,000**	**35,000**	**12 J**	190 U	**1,200**	**870**
Total PAHs	ug/kg	ND	ND	**23.4**	ND	**43.8**	**22.4**	ND	ND	ND	ND	**356,600**	**17.3**	**298,800**	**348,900**	**33.7**	ND	**8,297**	**7,434**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3
Sample Number:	GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05
Sample Depth:	7.3-9.3	9.3-11.3	5-7	7-9	9-11	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3
Sample Date:	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2,3,4,6-tetrachlorophenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2,4,5-trichlorophenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2,4,6-trichlorophenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2,4-dichlorophenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2,4-dimethylphenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2,4-dinitrophenol	ug/kg	420 U	380 U	380 U	430 U	380 U	370 U	13,000 U	390 U	1,900 U	4,000 U	390 UJ	400 UJ	2,000 UJ	390 UJ	38,000 UJ	26,000 UJ	24,000 UJ	23,000 UJ
2,4-dinitrotoluene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2,6-dinitrotoluene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2-chloronaphthalene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2-chlorophenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2-methylnaphthalene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	**4,000 J**	**480**	**1,300**	**2,200**	**850 J**	**6,300 J**	**9,400 J**	200 UJ	**290,000 J**	**640,000 J**	**380,000 J**	**280,000 J**
2-methylphenol (o-cresol)	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
2-nitroaniline	ug/kg	420 U	380 U	380 U	430 U	380 U	370 U	13,000 U	390 U	1,900 U	4,000 U	390 UJ	400 UJ	2,000 UJ	390 UJ	38,000 UJ	26,000 UJ	24,000 UJ	23,000 UJ
2-nitrophenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
3,3'-dichlorobenzidine	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
3-nitroaniline	ug/kg	420 U	380 U	380 U	430 U	380 U	370 U	13,000 U	390 U	1,900 U	4,000 U	390 UJ	400 UJ	2,000 UJ	390 UJ	38,000 UJ	26,000 UJ	24,000 UJ	23,000 UJ
4,6-dinitro-2-methylphenol	ug/kg	420 U	380 U	380 U	430 U	380 U	370 U	13,000 U	390 U	1,900 U	4,000 U	390 UJ	400 UJ	2,000 UJ	390 UJ	38,000 UJ	26,000 UJ	24,000 UJ	23,000 UJ
4-bromophenyl phenyl ether	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
4-chloro-3-methylphenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
4-chloroaniline	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
4-chlorophenyl phenyl ether	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
4-methylphenol (p-cresol)	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
4-nitroaniline	ug/kg	420 U	380 U	380 U	430 U	380 U	370 U	13,000 U	390 U	1,900 U	4,000 U	390 UJ	400 UJ	2,000 UJ	390 UJ	38,000 UJ	26,000 UJ	24,000 UJ	23,000 UJ
4-nitrophenol	ug/kg	420 U	380 U	380 U	430 U	380 U	370 U	13,000 U	390 U	1,900 U	4,000 U	390 UJ	400 UJ	2,000 UJ	390 UJ	38,000 UJ	26,000 UJ	24,000 UJ	23,000 UJ
Acenaphthene	ug/kg	220 U	190 U	**14 J**	220 U	200 U	190 U	**13,000**	**470**	**1,800**	**2,900**	**950 J**	**5,500 J**	**9,000 J**	**120 J**	**200,000 J**	**470,000 J**	**260,000 J**	**170,000 J**
Acenaphthylene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	**97 J**	**180 J**	**390 J**	200 UJ	**7,800 J**	**15,000 J**	**6,400 J**	**5,100 J**
Acetophenone	ug/kg	**26 J**	**23 J**	**27 J**	**30 J**	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	**3,600 J**	13,000 UJ	**1,800 J**	12,000 UJ
Anthracene	ug/kg	**7.9 J**	**6.3 J**	**14 J**	220 U	200 U	190 U	**21,000**	**94 J**	**1,700**	**4,800**	**460 J**	**2,600 J**	**6,500 J**	**85 J**	**130,000 J**	**370,000 J**	**140,000 J**	**84,000 J**
Atrazine	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Benzaldehyde	ug/kg	**27 J**	**26 J**	**37 J**	**39 J**	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Benzo(a)anthracene	ug/kg	**8.3 J**	**7.5 J**	**16 J**	220 U	200 U	190 U	**25,000**	**53 J**	**3,300 J**	**8,600**	**930 J**	**2,000 J**	**5,000 J**	**57 J**	**72,000 J**	**120,000 J**	**47,000 J**	**39,000 J**
Benzo(a)pyrene	ug/kg	220 U	190 U	**16 J**	220 U	200 U	190 U	**20,000**	**41 J**	**2,800**	**7,800**	**670 J**	**1,200 J**	**3,100 J**	200 UJ	**54,000 J**	**94,000 J**	**5,700 J**	**32,000 J**
Benzo(b)fluoranthene	ug/kg	220 U	190 U	**9.8 J**	220 U	200 U	190 U	**18,000**	200 U	**1,300**	**6,500**	**430 J**	**700 J**	**1,600 J**	200 UJ	**57,000 J**	**45,000 J**	**36,000 J**	**28,000 J**
Benzo(g,h,i)perylene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	**9,300**	200 U	**1,300**	**3,700**	**280 J**	**290 J**	**750 J**	200 UJ	**19,000 J**	**30,000 J**	**15,000 J**	**11,000 J**
Benzo(k)fluoranthene	ug/kg	220 U	190 U	**7.6 J**	220 U	200 U	190 U	**18,000**	200 U	**1,400**	**5,900**	**400 J**	**640 J**	**1,800 J**	200 UJ	**60,000 J**	**63,000 J**	**37,000 J**	**30,000 J**
Benzyl butyl phthalate	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3
Sample Number:		GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05
Sample Depth:		7.3-9.3	9.3-11.3	5-7	7-9	9-11	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	**55 J**	990 U	2,000 U	**35 J**	**840 J**	**1,200 J**	200 UJ	**19,000 J**	**68,000 J**	**38,000 J**	**31,000 J**
Bis(2-chloroethoxy) methane	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Bis(2-chloroethyl) ether	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Bis(2-chloroisopropyl) ether	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Bis(2-ethylhexyl) phthalate	ug/kg	**72 J**	**87 J**	**120 J**	**120 J**	230 U	190 U	6,700 U	**230**	990 U	2,000 U	**1,500 J**	**150 J**	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Caprolactam	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Carbazole	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	**5,900 J**	**64 J**	**830 J**	**1,700 J**	**78 J**	**250 J**	1,000 UJ	200 UJ	19,000 UJ	**3,000 J**	**2,400 J**	12,000 UJ
Chrysene	ug/kg	**7 J**	190 U	**17 J**	220 U	200 U	190 U	**24,000**	**59 J**	**3,500 J**	**8,900**	**710 J**	**1,800 J**	**4,700 J**	**57 J**	**71,000 J**	**110,000 J**	**48,000 J**	**36,000 J**
Dibenz(a,h)anthracene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	**3,700 J**	200 U	**430 J**	**1,300 J**	**74 J**	**140 J**	**390 J**	200 UJ	**7,000 J**	**11,000 J**	**4,200 J**	**3,200 J**
Dibenzofuran	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	**420 J**	1,000 UJ	200 UJ	**13,000 J**	**25,000 J**	**10,000 J**	**7,700 J**
Diethyl phthalate	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Dimethyl phthalate	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Di-n-butyl phthalate	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Di-n-octylphthalate	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	**53 J**	990 U	2,000 U	**340 J**	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Fluoranthene	ug/kg	**12 J**	**9.5 J**	**34 J**	220 U	200 U	190 U	**56,000**	**120 J**	**7,200 J**	**17,000**	**1,100 J**	**2,200 J**	**6,200 J**	**88 J**	**130,000 J**	**270,000 J**	**110,000 J**	**80,000 J**
Fluorene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	**9,900**	**180 J**	**760 J**	**2,400**	**600 J**	**2,800 J**	**4,700 J**	200 UJ	**100,000 J**	**230,000 J**	**94,000 J**	**72,000 J**
Hexachlorobenzene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Hexachlorobutadiene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Hexachlorocyclopentadiene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Hexachloroethane	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Indeno(1,2,3-c,d)pyrene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	**13,000 J**	200 U	**1,900 J**	**4,700**	**280 J**	**390 J**	**1,100 J**	200 UJ	**22,000 J**	**33,000 J**	**15,000 J**	**11,000 J**
Isophorone	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Naphthalene	ug/kg	220 U	190 U	**7 J**	220 U	200 U	190 U	**3,600 J**	**930**	**2,000**	**3,100**	**140 J**	**4,700 J**	**5,300 J**	200 UJ	**190,000 J**	**500,000 J**	**620,000 J**	**510,000 J**
Nitrobenzene	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
N-nitrosodi-n-propylamine	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
N-nitrosodiphenylamine	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Pentachlorophenol	ug/kg	420 U	380 U	380 U	430 U	380 U	370 U	13,000 U	390 U	1,900 U	4,000 U	390 UJ	400 UJ	2,000 UJ	390 UJ	38,000 UJ	26,000 UJ	24,000 UJ	23,000 UJ
Phenanthrene	ug/kg	**23 J**	**20 J**	**15 J**	220 U	200 U	190 U	**58,000**	**350**	**8,500**	**18,000**	**2,100 J**	**12,000 J**	**26,000 J**	**210 J**	**380,000 J**	**850,000 J**	**370,000 J**	**290,000 J**
Phenol	ug/kg	220 U	190 U	200 U	220 U	200 U	190 U	6,700 U	200 U	990 U	2,000 U	200 UJ	210 UJ	1,000 UJ	200 UJ	19,000 UJ	13,000 UJ	12,000 UJ	12,000 UJ
Pyrene	ug/kg	**23 J**	**18 J**	**61 J**	220 U	200 UJ	190 UJ	**51,000**	200 U	**7,500 J**	**19,000**	**1,600 J**	**4,400 J**	**11,000 J**	200 UJ	**240,000 J**	**370,000 J**	**180,000 J**	**150,000 J**
Total PAHs	ug/kg	**81.2**	**61.3**	**211.4**	ND	ND	ND	**347,500**	**2,777**	**46,690**	**116,800**	**11,671**	**47,840**	**96,930**	**617**	**2,029,800**	**4,221,000**	**2,368,300**	**1,831,300**

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:	ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:	7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	N	N	N	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds							
1,2,4,5-tetrachlorobenzene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2,3,4,6-tetrachlorophenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2,4,5-trichlorophenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2,4,6-trichlorophenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2,4-dichlorophenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2,4-dimethylphenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2,4-dinitrophenol	ug/kg	240,000 UJ	240,000 UJ	220,000 UJ	24,000 UJ	23,000 UJ	24,000 UJ	22,000 UJ	2,000 U
2,4-dinitrotoluene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2,6-dinitrotoluene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2-chloronaphthalene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2-chlorophenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2-methylnaphthalene	ug/kg	**510,000 J**	**440,000 J**	**520,000 J**	**38,000 J**	**36,000 J**	**770,000 J**	**300,000 J**	**12,000**
2-methylphenol (o-cresol)	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
2-nitroaniline	ug/kg	240,000 UJ	240,000 UJ	220,000 UJ	24,000 UJ	23,000 UJ	24,000 UJ	22,000 UJ	2,000 U
2-nitrophenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
3,3'-dichlorobenzidine	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
3-nitroaniline	ug/kg	240,000 UJ	240,000 UJ	220,000 UJ	24,000 UJ	23,000 UJ	24,000 UJ	22,000 UJ	2,000 U
4,6-dinitro-2-methylphenol	ug/kg	240,000 UJ	240,000 UJ	220,000 UJ	24,000 UJ	23,000 UJ	24,000 UJ	22,000 UJ	2,000 U
4-bromophenyl phenyl ether	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
4-chloro-3-methylphenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 UJ
4-chloroaniline	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
4-chlorophenyl phenyl ether	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
4-methylphenol (p-cresol)	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
4-nitroaniline	ug/kg	240,000 UJ	240,000 UJ	220,000 UJ	24,000 UJ	23,000 UJ	24,000 UJ	22,000 UJ	2,000 U
4-nitrophenol	ug/kg	240,000 UJ	240,000 UJ	220,000 UJ	24,000 UJ	23,000 UJ	24,000 UJ	22,000 UJ	2,000 U
Acenaphthene	ug/kg	**260,000 J**	**240,000 J**	**46,000 J**	**380,000 J**	**140,000 J**	**540,000 J**	**200,000 J**	**9,700**
Acenaphthylene	ug/kg	**20,000 J**	120,000 UJ	**180,000 J**	**13,000 J**	**4,400 J**	**24,000 J**	**14,000 J**	**490 J**
Acetophenone	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Anthracene	ug/kg	**140,000 J**	**140,000 J**	**160,000 J**	**140,000 J**	**68,000 J**	**270,000 J**	**130,000 J**	**4,800**
Atrazine	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Benzaldehyde	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Benzo(a)anthracene	ug/kg	**63,000 J**	**60,000 J**	**61,000 J**	**55,000 J**	**22,000 J**	**120,000 J**	**62,000 J**	**2,900**
Benzo(a)pyrene	ug/kg	**55,000 J**	**49,000 J**	**49,000 J**	**46,000 J**	**20,000 J**	**14,000 J**	**49,000 J**	**2,300**
Benzo(b)fluoranthene	ug/kg	**26,000 J**	**25,000 J**	**44,000 J**	**40,000 J**	**8,300 J**	**51,000 J**	**23,000 J**	**970 J**
Benzo(g,h,i)perylene	ug/kg	**22,000 J**	**19,000 J**	**23,000 J**	**13,000 J**	**5,900 J**	**32,000 J**	**18,000 J**	**1,000**
Benzo(k)fluoranthene	ug/kg	**34,000 J**	**29,000 J**	**46,000 J**	**42,000 J**	**14,000 J**	**60,000 J**	**30,000 J**	**1,500**
Benzyl butyl phthalate	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U

TABLE I-15A
SVOC Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:		7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**							
Biphenyl (diphenyl)	ug/kg	**49,000 J**	**47,000 J**	**49,000 J**	**9,200 J**	**13,000 J**	**77,000 J**	**36,000 J**	**1,600**
Bis(2-chloroethoxy) methane	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Bis(2-chloroethyl) ether	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Bis(2-chloroisopropyl) ether	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Caprolactam	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Carbazole	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	**3,700 J**	**2,200 J**	1,000 U
Chrysene	ug/kg	**61,000 J**	**54,000 J**	**59,000 J**	**50,000 J**	**23,000 J**	**110,000 J**	**60,000 J**	**2,700**
Dibenz(a,h)anthracene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	**4,200 J**	**1,800 J**	**11,000 J**	**5,300 J**	**270 J**
Dibenzofuran	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	**12,000 J**	**5,800 J**	**23,000 J**	**10,000 J**	1,000 U
Diethyl phthalate	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Dimethyl phthalate	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Di-n-butyl phthalate	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Di-n-octylphthalate	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Fluoranthene	ug/kg	**130,000 J**	**120,000 J**	**150,000 J**	**110,000 J**	**52,000 J**	**270,000 J**	**140,000 J**	**5,000**
Fluorene	ug/kg	**120,000 J**	**110,000 J**	**130,000 J**	**110,000 J**	**46,000 J**	**230,000 J**	**100,000 J**	**4,300**
Hexachlorobenzene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Hexachlorobutadiene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Hexachlorocyclopentadiene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Hexachloroethane	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**21,000 J**	**19,000 J**	**20,000 J**	**16,000 J**	**6,800 J**	**35,000 J**	**19,000 J**	**980 J**
Isophorone	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Naphthalene	ug/kg	**1,200,000 J**	**1,000,000 J**	**1,200,000 J**	**45,000 J**	**7,000 J**	**1,200,000 J**	**540,000 J**	**27,000 J**
Nitrobenzene	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
N-nitrosodi-n-propylamine	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
N-nitrosodiphenylamine	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Pentachlorophenol	ug/kg	240,000 UJ	240,000 UJ	220,000 UJ	24,000 UJ	23,000 UJ	24,000 UJ	22,000 UJ	2,000 U
Phenanthrene	ug/kg	**420,000 J**	**410,000 J**	**490,000 J**	**370,000 J**	**180,000 J**	**830,000 J**	**350,000 J**	**13,000**
Phenol	ug/kg	120,000 UJ	120,000 UJ	110,000 UJ	12,000 UJ	12,000 UJ	12,000 UJ	11,000 UJ	1,000 U
Pyrene	ug/kg	**200,000 J**	**220,000 J**	**200,000 J**	**190,000 J**	**83,000 J**	**360,000 J**	**170,000 J**	**7,500**
Total PAHs	ug/kg	**3,282,000**	**2,935,000**	**3,378,000**	**1,662,200**	**718,200**	**4,927,000**	**2,210,300**	**96,410**

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A
Sample Number:	GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0
Sample Depth:	8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10
Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg		54 J	210 J (R)	270 (R)		510,000 J (A,R)	19,000 (R)	410,000 J (A,R)	380,000 J (A,R)	690,000 J (A,R)	280,000 J (A,R)	130,000 J (A,R)	140,000 J (A,R)	340,000 J (A,R)
4-methylphenol (p-cresol)	ug/kg													
4-nitrophenol	ug/kg													
Acenaphthene	ug/kg	110 J (R)	100 J (R)	300 (R)	330 (R)	230 (R)	320,000 J (R)	19,000 (R)	250,000 J (R)	220,000 J (R)	360,000 J (A,R)	140,000 (R)	86,000 (R)	69,000 (R)	230,000 J (R)
Acenaphthylene	ug/kg						16,000 (R)		12,000 (R)	15,000 (R)	24,000 (R)	9,500 J (R)	3,900 J (R)	4,000 J (R)	12,000 (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	54 J	73 J	190 J (R)	400 (R)		150,000 J (R)	9,300 (R)	85,000 (R)	91,000 (R)	140,000 (R)	59,000 (R)	34,000 (R)	33,000 (R)	85,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg						54,000 (A,R)	4,500 J (A,R)	46,000 (A,R)	45,000 (A,R)	76,000 (A,R)	32,000 (A,R)	19,000 (A,R)	18,000 (A,R)	49,000 (A,R)
Benzo(a)pyrene	ug/kg						43,000 (A,R)	3,400 J (A,R)	35,000 (A,R)	37,000 (A,R)	52,000 (A,R)	21,000 (A,R)	13,000 (A,R)	13,000 (A,R)	35,000 (A,R)
Benzo(b)fluoranthene	ug/kg						26,000 (A,R)	1,600 J (A)	17,000 (A,R)	22,000 (A,R)	27,000 (A,R)	11,000 J (A,R)	7,600 (A,R)	6,400 (A,R)	15,000 (A,R)
Benzo(g,h,i)perylene	ug/kg						15,000 (R)	990 J (R)	13,000 (R)	14,000 (R)	18,000 (R)	7,600 J (R)	5,000 J (R)	3,300 J (R)	12,000 (R)
Benzo(k)fluoranthene	ug/kg						24,000 (A,R)	2,200 J (A)	25,000 (A,R)	21,000 (A,R)	41,000 (A,R)	18,000 (A,R)	11,000 (A,R)	9,900 (A,R)	28,000 (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg						44,000	2,400 J	36,000	38,000	62,000	24,000	16,000	14,000	39,000
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg			65 J	74 J	43 J	3,700 J		2,700 J	3,300 J	4,300 J		1,100 J	1,000 J	2,800 J
Chrysene	ug/kg						50,000 (A,R)	4,700 J (R)	44,000 (A,R)	42,000 (A,R)	74,000 (A,R)	32,000 (A,R)	19,000 (A,R)	18,000 (A,R)	48,000 (A,R)
Dibenz(a,h)anthracene	ug/kg						4,900 J (A,R)		3,900 J (A,R)	4,400 J (A,R)	5,800 J (A,R)	2,300 J (A,R)	1,300 J (A,R)	960 J (A,R)	3,400 J (A,R)
Dibenzofuran	ug/kg				63 J		12,000 (A,R)		9,700 J (A,R)	9,800 (A,R)	16,000 (A,R)	5,800 J (R)	3,400 J (R)	3,100 J (R)	8,800 (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	83 J	65 J	170 J	76 J		150,000 J (R)	10,000 (R)	99,000 (R)	110,000 J (R)	170,000 J (R)	76,000 (R)	50,000 (R)	43,000 (R)	84,000 J (R)
Fluorene	ug/kg		64 J (R)	180 J (R)	240 (R)	89 J (R)	130,000 J (R)		86,000 (R)	96,000 (R)	170,000 (R)	64,000 (R)	38,000 (R)	33,000 (R)	89,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg						16,000 (A,R)	1,200 J (A,R)	15,000 (A,R)	15,000 (A,R)	23,000 (A,R)	9,200 J (A,R)	6,000 (A,R)	4,100 J (A,R)	15,000 (A,R)
Naphthalene	ug/kg		86 J	360 (R)			1,100,000 J (A,R)	21,000 (A,R)	840,000 J (A,R)	770,000 J (A,R)	1,000,000 J (A,R)	560,000 J (A,R)	260,000 J (A,R)	300,000 J (A,R)	680,000 J (A,R)
Phenanthrene	ug/kg	190 J	250 (R)	650 (R)	1,400 (R)	140 J	450,000 J (R)	29,000 (R)	380,000 J (R)	330,000 J (R)	580,000 J (R)	190,000 (R)	130,000 J (R)	130,000 J (R)	300,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	100 J	86 J		86 J		210,000 J (A,R)	13,000 (R)	130,000 (R)	150,000 J (R)	290,000 J (A,R)	94,000 (R)	67,000 (R)	54,000 (R)	160,000 J (R)
Total PAHs	ug/kg	537	778	2,060	2,802	459	3,268,900 (R)	138,890 (R)	2,490,900 (R)	2,362,400 (R)	3,740,800 (R)	1,605,600 (R)	880,800 (R)	879,660 (R)	2,185,400 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A	GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A
Sample Number:	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4	GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0
Sample Depth:	10-12	8.5-10.4	9.4-11.4	11.4-13.4	13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12
Sample Date:	3/10/2010	3/4/2010	3/8/2010	3/8/2010	3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg	580,000 J (A,R)	300,000 (A,R)	340,000 (A,R)	270,000 J (A,R)	150,000 J (A,R)	320,000 (A,R)	46,000 (A,R)	31,000 (R)	560,000 J (A,R)	440,000 (A,R)	380,000 (A,R)	430,000 (A,R)	570,000 J (A,R)	350,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	350,000 J (A,R)	200,000 (R)	210,000 (R)	160,000 J (R)	130,000 J (R)	250,000 (R)	68,000 (R)	51,000 (R)	320,000 (R)	280,000 (R)	220,000 (R)	270,000 (R)	330,000 (R)	230,000 (R)
Acenaphthylene	ug/kg	16,000 (R)	9,000 J (R)	7,200 J (R)	9,300 (R)	8,300 (R)	12,000 J (R)	3,300 J (R)	2,600 J (R)	18,000 J (R)	18,000 J (R)	13,000 J (R)		20,000 J (R)	15,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	120,000 (R)	83,000 (R)	94,000 (R)	67,000 (R)	55,000 (R)	98,000 (R)	27,000 (R)	21,000 (R)	130,000 (R)	120,000 (R)	100,000 (R)	120,000 (R)	150,000 (R)	110,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	64,000 (A,R)	41,000 (A,R)	46,000 (A,R)	32,000 (A,R)	30,000 (A,R)	63,000 (A,R)	19,000 (A,R)	13,000 (A,R)	67,000 (A,R)	66,000 (A,R)	51,000 (A,R)	54,000 J (A,R)	68,000 (A,R)	49,000 (A,R)
Benzo(a)pyrene	ug/kg	44,000 (A,R)	32,000 (A,R)	35,000 (A,R)	24,000 (A,R)	22,000 (A,R)			12,000 (A,R)	49,000 (A,R)	47,000 (A,R)	43,000 (A,R)	39,000 J (A,R)	53,000 (A,R)	40,000 (A,R)
Benzo(b)fluoranthene	ug/kg	22,000 (A,R)	13,000 J (A,R)	17,000 J (A,R)	9,700 (A,R)	9,700 (A,R)				23,000 J (A,R)	21,000 J (A,R)	20,000 J (A,R)	19,000 J (A,R)	26,000 J (A,R)	18,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	15,000 (R)	11,000 J (R)	10,000 J (R)	8,200 (R)	7,700 (R)	21,000 J (R)	8,000 J (R)	5,600 J (R)	17,000 J (R)	16,000 J (R)	15,000 J (R)		20,000 J (R)	12,000 J (R)
Benzo(k)fluoranthene	ug/kg	32,000 (A,R)	22,000 J (A,R)	24,000 J (A,R)	17,000 (A,R)	15,000 (A,R)				36,000 (A,R)	31,000 (A,R)	25,000 J (A,R)	26,000 J (A,R)	33,000 (A,R)	25,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	56,000	32,000	37,000	27,000	20,000	50,000	11,000 J	7,500 J	54,000	46,000	42,000	43,000 J	55,000	39,000
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg	3,900 J			1,900 J	1,500 J	3,000 J		540 J					5,800 J	
Chrysene	ug/kg	63,000 (A,R)	39,000 (A,R)	44,000 (A,R)	31,000 (A,R)	28,000 (A,R)	55,000 (A,R)	16,000 J (A,R)	12,000 (R)	63,000 (A,R)	64,000 (A,R)	49,000 (A,R)	49,000 J (A,R)	66,000 (A,R)	47,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	4,800 J (A,R)			2,300 J (A,R)	2,400 J (A,R)	5,900 J (A,R)		1,500 J (A,R)	5,300 J (A,R)	4,900 J (A,R)			4,900 J (A,R)	
Dibenzofuran	ug/kg	12,000 (A,R)	8,900 J (A,R)	10,000 J (A,R)	6,800 (R)	5,400 J (R)	13,000 J (A,R)	2,800 J (R)	2,300 J (R)	16,000 J (A,R)	13,000 J (A,R)	11,000 J (A,R)		14,000 J (A,R)	10,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	150,000 (R)	90,000 (R)	98,000 (R)	69,000 (R)	60,000 (R)	100,000 (R)	26,000 (R)	25,000 (R)	150,000 (R)	130,000 (R)	110,000 (R)	120,000 (R)	150,000 (R)	110,000 (R)
Fluorene	ug/kg	130,000 (R)	85,000 (R)	93,000 (R)	68,000 (R)	51,000 (R)	110,000 (R)	31,000 (R)	23,000 (R)	150,000 (R)	120,000 (R)	95,000 (R)	120,000 (R)	140,000 (R)	96,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	18,000 (A,R)	12,000 J (A,R)	11,000 J (A,R)	8,700 (A,R)	8,600 (A,R)	18,000 J (A,R)	6,900 J (A,R)	4,600 J (A,R)	20,000 J (A,R)	17,000 J (A,R)	16,000 J (A,R)		20,000 J (A,R)	14,000 J (A,R)
Naphthalene	ug/kg	1,200,000 J (A,R)	570,000 (A,R)	560,000 J (A,R)	510,000 J (A,R)	260,000 J (A,R)	400,000 (A,R)			980,000 J (A,R)	980,000 J (A,R)	820,000 J (A,R)	960,000 (A,R)	1,300,000 J (A,R)	540,000 J (A,R)
Phenanthrene	ug/kg	460,000 J (R)	270,000 (R)	300,000 (R)	230,000 J (R)	190,000 J (R)	380,000 (R)	95,000 (R)	80,000 (R)	460,000 (R)	390,000 (R)	340,000 (R)	380,000 (R)	450,000 (R)	320,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	190,000 (A,R)	120,000 (R)	140,000 (R)	110,000 J (R)	79,000 (R)	200,000 (A,R)	58,000 (R)	44,000 (R)	200,000 (A,R)	170,000 (R)	160,000 (R)	160,000 (R)	200,000 (A,R)	150,000 (R)
Total PAHs	ug/kg	3,458,800 (R)	1,897,000 (R)	2,029,200 (R)	1,626,200 (R)	1,106,700 (R)	2,032,900 (R)	404,200 (R)	326,300 (R)	3,248,300 (R)	2,914,900 (R)	2,457,000 (R)	2,747,000 (R)	3,600,900 (R)	2,126,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A	GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B
Sample Number:		GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7	D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0
Sample Depth:		12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7	7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12
Sample Date:		3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	510,000 (A,R)	980,000 J (A,R)	290,000 J (A,R)	60,000 (A,R)	61,000 (A,R)							190,000 J (A,R)	1,200,000 J (A,R)	760,000 J (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	320,000 (R)	650,000 J (A,R)	150,000 J (R)	40,000 (R)	180,000 (R)	31,000 (R)		7,600 (R)	5,700 (R)	8,200 J (R)	910 J (R)	110,000 J (R)	410,000 (A,R)	200,000 (R)
Acenaphthylene	ug/kg		35,000 (R)	33,000 (R)	1,800 J (R)	9,400 (R)	2,700 J (R)		4,500 J (R)	3,100 J (R)	6,700 J (R)	1,500 J (R)	14,000 (R)	420,000 (A,R)	220,000 (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	150,000 (R)	300,000 J (R)	78,000 (R)	19,000 (R)	63,000 (R)	4,600 J (R)		3,200 J (R)	2,600 J (R)	5,400 J (R)	930 J (R)	51,000 (R)	400,000 (R)	230,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	67,000 J (A,R)	100,000 (A,R)	41,000 (A,R)	8,300 (A,R)	36,000 (A,R)	12,000 (A,R)		41,000 (A,R)	32,000 (A,R)	61,000 (A,R)	6,500 (A,R)	27,000 (A,R)	230,000 (A,R)	150,000 (A,R)
Benzo(a)pyrene	ug/kg	52,000 J (A,R)	80,000 (A,R)	33,000 (A,R)	6,800 (A,R)	29,000 (A,R)	9,800 (A,R)		30,000 (A,R)	24,000 (A,R)	39,000 (A,R)	4,300 J (A,R)	22,000 (A,R)	180,000 (A,R)	120,000 (A,R)
Benzo(b)fluoranthene	ug/kg	25,000 J (A,R)	43,000 (A,R)	14,000 (A,R)	2,600 J (A)	12,000 (A,R)	4,100 J (A)		18,000 (A,R)	12,000 (A,R)	20,000 J (A,R)	2,300 J (A)	9,800 (A,R)	76,000 (A,R)	57,000 (A,R)
Benzo(g,h,i)perylene	ug/kg		30,000 J (R)	10,000 J (R)	2,100 J (R)	10,000 (R)	3,300 J (R)		11,000 (R)	10,000 (R)	17,000 J (R)	2,400 J (R)	8,400 (R)	66,000 (R)	46,000 (R)
Benzo(k)fluoranthene	ug/kg	33,000 J (A,R)	48,000 (A,R)	22,000 (A,R)	4,800 J (A,R)	21,000 (A,R)	6,200 (A,R)		24,000 (A,R)	20,000 (A,R)	37,000 (A,R)	3,700 J (A)	16,000 (A,R)	110,000 (A,R)	73,000 (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	54,000 J	64,000	31,000	6,800	23,000							18,000	140,000	72,000
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg		7,700	3,300 J									1,500 J	11,000 J	5,400 J
Chrysene	ug/kg	67,000 J (A,R)	93,000 (A,R)	38,000 (A,R)	7,900 (R)	34,000 (A,R)	11,000 (R)		39,000 (A,R)	30,000 (A,R)	60,000 (A,R)	6,700 (R)	26,000 (A,R)	220,000 (A,R)	140,000 (A,R)
Dibenz(a,h)anthracene	ug/kg		9,200 (A,R)	3,100 J (A,R)		2,900 J (A,R)	940 J (A,R)		2,800 J (A,R)	2,100 J (A,R)			2,400 J (A,R)	19,000 J (A,R)	13,000 J (A,R)
Dibenzofuran	ug/kg		23,000 (A,R)	8,100 (A,R)	1,600 J (R)	7,600 (R)	1,700 J (R)						5,000 J (R)	40,000 (A,R)	20,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	150,000 J (R)	350,000 J (A,R)	88,000 (R)	20,000 (R)	80,000 (R)	25,000 (R)	1,300 J (R)	89,000 (R)	62,000 (R)	130,000 (R)	15,000 (R)	59,000 (R)	480,000 J (A,R)	280,000 (A,R)
Fluorene	ug/kg	130,000 J (R)	300,000 J (A,R)	77,000 (R)	17,000 (R)	57,000 (R)	3,200 J (R)		1,200 J (R)				54,000 (R)	400,000 (A,R)	200,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg		35,000 J (A,R)	12,000 J (A,R)	2,400 J (A,R)	11,000 (A,R)	3,500 J (A,R)		12,000 (A,R)	10,000 (A,R)	18,000 J (A,R)	2,400 J (A,R)	9,000 (A,R)	72,000 (A,R)	45,000 (A,R)
Naphthalene	ug/kg	1,200,000 (A,R)	2,000,000 J (A,R)	610,000 J (A,R)	93,000 J (A,R)	62,000 (A,R)							290,000 J (A,R)	2,300,000 J (A,R)	1,700,000 J (A,R)
Phenanthrene	ug/kg	470,000 (R)	940,000 J (R)	270,000 J (R)	55,000 (R)	250,000 (R)	2,800 J (R)						200,000 J (R)	1,300,000 J (R)	1,100,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	210,000 (A,R)	390,000 J (A,R)	120,000 J (R)	27,000 (R)	130,000 (R)	34,000 (R)	1,700 J (R)	120,000 J (R)	80,000 (R)	190,000 (A,R)	24,000 (R)	79,000 (R)	630,000 J (A,R)	370,000 (A,R)
Total PAHs	ug/kg	3,384,000 (R)	6,383,200 (R)	1,889,100 (R)	367,700 (R)	1,048,300 (R)	154,140 (R)	3,000	403,300 (R)	293,500 (R)	592,300 (R)	70,640 (R)	1,167,600 (R)	8,513,000 (R)	5,704,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD17A	GC-SD17A
Sample Number:		GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4	GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0
Sample Depth:		14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4	2-4	4-6
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg									6,500 J (A)					
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	190,000 (A,R)	470,000 (A,R)	530,000 (A,R)	63,000 (A,R)	9,500 (R)	810,000 (A,R)	730,000 (A,R)	240,000 (A,R)	300,000 (A,R)	790,000 J (A,R)	220,000 (A,R)	250,000 (A,R)	2,800 J (R)	30,000 (R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	20,000 (R)	250,000 (R)	96,000 J (R)	5,800 J (R)	1,900 J (R)	300,000 (R)	300,000 (R)	36,000 J (R)	110,000 (R)	60,000 (R)	76,000 (R)	300,000 (R)	25,000 (R)	70,000 (R)
Acenaphthylene	ug/kg	110,000 (R)	110,000 (R)	270,000 (R)	44,000 (R)	5,600 J (R)	170,000 (R)	150,000 (R)	120,000 (R)	140,000 (R)	380,000 (A,R)	120,000 (R)	35,000 (R)	1,400 J (R)	6,100 (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	70,000 (R)	180,000 (R)	180,000 (R)	30,000 (R)	3,500 J (R)	250,000 (R)	220,000 (R)	91,000 (R)	130,000 (R)	210,000 (R)	75,000 (R)	180,000 (R)	13,000 (R)	38,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	50,000 (A,R)	120,000 (A,R)	120,000 (A,R)	22,000 (A,R)	1,900 J (A,R)	130,000 (A,R)	110,000 (A,R)	51,000 (A,R)	75,000 (A,R)	120,000 (A,R)	41,000 (A,R)	91,000 (A,R)	7,100 (A,R)	20,000 (A,R)
Benzo(a)pyrene	ug/kg	37,000 (A,R)	83,000 J (A,R)	81,000 J (A,R)	15,000 J (A,R)	1,500 J (A,R)	100,000 J (A,R)	86,000 J (A,R)	41,000 (A,R)	50,000 (A,R)	90,000 (A,R)	24,000 J (A,R)	75,000 (A,R)	5,800 J (A,R)	17,000 (A,R)
Benzo(b)fluoranthene	ug/kg	19,000 (A,R)	42,000 J (A,R)	45,000 J (A,R)	7,200 J (A,R)		44,000 J (A,R)	46,000 J (A,R)	20,000 J (A,R)	24,000 J (A,R)	46,000 (A,R)	12,000 J (A,R)	33,000 (A,R)	2,700 J (A)	7,800 (A,R)
Benzo(g,h,i)perylene	ug/kg	15,000 (R)	34,000 J (R)	30,000 J (R)	5,800 J (R)		41,000 J (R)	30,000 J (R)	16,000 J (R)	15,000 J (R)	30,000 J (R)	11,000 J (R)	28,000 J (R)	1,600 J (R)	6,500 (R)
Benzo(k)fluoranthene	ug/kg	24,000 (A,R)	60,000 J (A,R)	58,000 J (A,R)	12,000 J (A,R)		71,000 J (A,R)	52,000 J (A,R)	25,000 J (A,R)	43,000 (A,R)	67,000 (A,R)	19,000 J (A,R)	47,000 (A,R)	4,000 J (A)	11,000 (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	24,000	60,000 J	63,000 J	8,400 J	1,200 J	92,000 J	81,000 J	31,000 J	51,000	93,000	37,000	58,000	4,800 J	14,000
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg										6,000 J				
Chrysene	ug/kg	46,000 (A,R)	110,000 (A,R)	120,000 (A,R)	21,000 (A,R)	1,800 J (R)	120,000 (A,R)	110,000 (A,R)	48,000 (A,R)	75,000 (A,R)	120,000 (A,R)	41,000 (A,R)	89,000 (A,R)	6,700 (R)	19,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	4,100 J (A,R)									7,800 J (A,R)		7,200 J (A,R)		1,800 J (A,R)
Dibenzofuran	ug/kg	6,100 J (R)	18,000 J (A,R)	18,000 J (A,R)			25,000 J (A,R)	22,000 J (A,R)	8,600 J (A,R)	13,000 J (A,R)	23,000 J (A,R)	8,300 J (A,R)	18,000 J (A,R)	1,300 J (R)	3,700 J (R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	93,000 (R)	240,000 (A,R)	240,000 (A,R)	42,000 (R)	3,900 J (R)	290,000 (A,R)	250,000 (A,R)	110,000 (R)	160,000 (R)	290,000 (A,R)	99,000 (R)	200,000 (R)	16,000 (R)	46,000 (R)
Fluorene	ug/kg	68,000 (R)	180,000 (R)	190,000 (R)	28,000 (R)	3,300 J (R)	230,000 (R)	220,000 (R)	78,000 (R)	150,000 (R)	260,000 (A,R)	97,000 (R)	160,000 (R)	13,000 (R)	36,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	15,000 (A,R)	34,000 J (A,R)	36,000 J (A,R)	6,300 J (A,R)		41,000 J (A,R)	33,000 J (A,R)	16,000 J (A,R)	18,000 J (A,R)	37,000 (A,R)	11,000 J (A,R)	31,000 (A,R)	1,500 J (A,R)	7,500 (A,R)
Naphthalene	ug/kg	430,000 J (A,R)	860,000 (A,R)	1,200,000 (A,R)	180,000 (A,R)	26,000 (A,R)	1,500,000 (A,R)	1,400,000 (A,R)	540,000 (A,R)	820,000 J (A,R)	1,500,000 J (A,R)	460,000 (A,R)	500,000 J (A,R)	9,900 (A,R)	66,000 (A,R)
Phenanthrene	ug/kg	260,000 J (R)	660,000 (R)	680,000 (R)	110,000 (R)	12,000 (R)	830,000 (R)	720,000 (R)	290,000 (R)	460,000 (R)	820,000 J (R)	300,000 (R)	550,000 J (R)	44,000 (R)	120,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	120,000 (R)	310,000 (A,R)	310,000 (A,R)	52,000 (R)	5,400 J (R)	400,000 (A,R)	330,000 (A,R)	150,000 (R)	250,000 (A,R)	410,000 (A,R)	150,000 (R)	250,000 (A,R)	23,000 (R)	59,000 (R)
Total PAHs	ug/kg	1,571,100 (R)	3,743,000 (R)	4,186,000 (R)	644,100 (R)	76,300 (R)	5,327,000 (R)	4,787,000 (R)	1,872,000 (R)	2,820,000 (R)	5,237,800 (R)	1,756,000 (R)	2,826,200 (R)		561,700 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146
Sample Number:		GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0
Sample Depth:		6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9
Sample Date:		3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg		260,000 (A,R)	1,200,000 (A,R)	130,000 (A,R)		3,300 J (R)	34,000 (A,R)	26,000 J (R)	2,500 J (R)	200,000 (A,R)	480,000 (A,R)	500,000 (A,R)	590,000 (A,R)	90,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	20,000 (R)	160,000 (R)	650,000 (A,R)	74,000 (R)	62,000 (R)	40,000 (R)	91,000 (R)	140,000 (R)	190,000 (R)	180,000 (R)	260,000 (R)	290,000 (R)	340,000 (R)	250,000 (R)
Acenaphthylene	ug/kg	1,200 J (R)	5,000 J (R)	69,000 J (R)	16,000 (R)	9,500 J (R)	4,500 J (R)	7,800 J (R)	8,700 J (R)	17,000 J (R)	53,000 J (R)	13,000 J (R)	18,000 J (R)	24,000 J (R)	13,000 J (R)
Acetophenone	ug/kg					1,000 J	690 J								
Anthracene	ug/kg	10,000 (R)	72,000 (R)	380,000 (R)	42,000 (R)	53,000 (R)	33,000 (R)	47,000 (R)	84,000 (R)	120,000 (R)	120,000 (R)	140,000 (R)	160,000 (R)	190,000 (R)	120,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	6,000 (A,R)	37,000 (A,R)	170,000 (A,R)	26,000 (A,R)	37,000 (A,R)	19,000 (A,R)	39,000 (A,R)	45,000 J (A,R)	68,000 (A,R)	55,000 J (A,R)	74,000 (A,R)	81,000 (A,R)	100,000 (A,R)	46,000 J (A,R)
Benzo(a)pyrene	ug/kg	5,300 J (A,R)	31,000 (A,R)	130,000 (A,R)	22,000 (A,R)	31,000 (A,R)	13,000 J (A,R)	30,000 (A,R)	36,000 (A,R)	54,000 J (A,R)	51,000 J (A,R)	52,000 J (A,R)	58,000 J (A,R)	71,000 (A,R)	
Benzo(b)fluoranthene	ug/kg	2,200 J (A)	15,000 (A,R)	64,000 J (A,R)	8,400 (A,R)	18,000 J (A,R)	11,000 J (A,R)	26,000 J (A,R)	11,000 J (A,R)	21,000 J (A,R)	18,000 J (A,R)	26,000 J (A,R)	30,000 J (A,R)	31,000 J (A,R)	
Benzo(g,h,i)perylene	ug/kg	1,300 J (R)	9,000 (R)	41,000 J (R)	6,900 (R)	15,000 J (R)	7,200 J (R)	15,000 J (R)	11,000 J (R)	19,000 J (R)	21,000 J (R)	17,000 J (R)	20,000 J (R)	26,000 J (R)	15,000 J (R)
Benzo(k)fluoranthene	ug/kg	3,900 J (A)	18,000 (A,R)	79,000 J (A,R)	15,000 (A,R)	11,000 J (A,R)	4,600 J (A)	7,800 J (A,R)	20,000 J (A,R)	35,000 J (A,R)	30,000 J (A,R)	35,000 J (A,R)	38,000 J (A,R)	46,000 J (A,R)	
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	4,500 J	24,000	130,000	16,000	11,000 J	5,700 J	17,000 J	7,300 J	7,300 J	46,000 J	45,000 J	50,000 J	64,000	42,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg					1,800 J (R)	1,600 J (R)	2,000 J (R)	1,300 J (R)						
*Carbazole	ug/kg						560 J	1,400 J							
Chrysene	ug/kg	5,700 (R)	34,000 (A,R)	160,000 (A,R)	24,000 (A,R)	27,000 (A,R)	19,000 (A,R)	37,000 (A,R)	41,000 J (A,R)	62,000 (A,R)	52,000 J (A,R)	71,000 (A,R)	75,000 (A,R)	96,000 (A,R)	41,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg		3,000 J (A,R)		2,300 J (A,R)	4,000 J (A,R)		4,000 J (A,R)	4,500 J (A,R)	6,500 J (A,R)	6,800 J (A,R)				4,700 J (A,R)
Dibenzofuran	ug/kg	1,100 J (R)	5,800 J (R)	33,000 J (A,R)	4,000 J (R)	3,500 J (R)	2,200 J (R)	4,700 J (R)	6,800 J (R)		13,000 J (A,R)	14,000 J (A,R)	14,000 J (A,R)	17,000 J (A,R)	12,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	14,000 (R)	77,000 (R)	370,000 (A,R)	47,000 (R)	74,000 (R)	38,000 (R)	80,000 (R)	120,000 J (R)	160,000 (R)	140,000 (R)	150,000 (R)	170,000 (R)	190,000 (R)	120,000 (R)
Fluorene	ug/kg	10,000 (R)	63,000 (R)	380,000 (A,R)	39,000 (R)	18,000 J (R)	5,500 J (R)	17,000 J (R)	59,000 (R)	74,000 (R)	110,000 (R)	150,000 (R)	150,000 (R)	160,000 (R)	120,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	1,600 J (A,R)	12,000 (A,R)	56,000 J (A,R)	9,200 (A,R)	12,000 J (A,R)	6,400 J (A,R)	14,000 J (A,R)	12,000 J (A,R)	21,000 J (A,R)	18,000 J (A,R)	20,000 J (A,R)	24,000 J (A,R)	30,000 J (A,R)	13,000 J (A,R)
Naphthalene	ug/kg	830 J (R)	370,000 (A,R)	1,800,000 (A,R)	280,000 (A,R)	1,900 J (R)	59,000 (A,R)	170,000 (A,R)	59,000 (A,R)	100,000 (A,R)	390,000 (A,R)	430,000 (A,R)	630,000 (A,R)	960,000 J (A,R)	210,000 (A,R)
Phenanthrene	ug/kg	38,000 (R)	310,000 (R)	1,200,000 (R)	190,000 (R)	180,000 (R)	130,000 (R)	210,000 (R)	470,000 (R)	610,000 (R)	620,000 (R)	470,000 (R)	510,000 (R)	580,000 (R)	610,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	19,000 (R)	130,000 (R)	520,000 (A,R)	73,000 (R)	100,000 (R)	56,000 (R)	110,000 (R)	160,000 J (R)	230,000 (A,R)	220,000 (A,R)	220,000 (A,R)	230,000 (A,R)	280,000 (A,R)	200,000 (A,R)
Total PAHs	ug/kg	139,030 (R)	1,606,000 (R)	7,269,000 (R)	1,004,800 (R)	653,400 (R)	449,500 (R)	939,600 (R)	1,307,200 (R)	1,790,000 (R)	2,284,800 (R)	2,608,000 (R)	2,984,000 (R)	3,714,000 (R)	1,852,700 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148
Sample Number:	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0	D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2
Sample Depth:	9-11	11-13	11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2
Sample Date:	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010
Sample Type:	N	N	FD	N	N	FD	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg	260,000 (A,R)	130 J (R)	99 J (R)	190,000 (A,R)	98,000 (A,R)	250,000 (A,R)	72,000 (A,R)	270,000 (A,R)	640,000 (A,R)	980,000 (A,R)	1,600,000 (A,R)	2,500 J (R)	2,100 J (R)	2,000 J (R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	140,000 (R)	350 J (R)	340 J (R)	33,000 J (R)	23,000 (R)	50,000 (R)	19,000 (R)	150,000 (R)	340,000 (R)	150,000 (R)	250,000 (R)	45,000 (R)	63,000 (R)	84,000 (R)
Acenaphthylene	ug/kg	24,000 J (R)	660 J (R)	710 J (R)	70,000 (R)	33,000 (R)	89,000 (R)	22,000 (R)	13,000 J (R)	31,000 J (R)	380,000 (A,R)	660,000 (A,R)	2,700 J (R)	4,100 J (R)	7,300 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	71,000 (R)	330 J (R)	330 J (R)	49,000 (R)	30,000 (R)	71,000 (R)	21,000 (R)	76,000 (R)	200,000 (R)	280,000 (R)	470,000 (R)	23,000 (R)	29,000 (R)	13,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	29,000 J (A,R)	4,800 J (A,R)	4,400 J (A,R)	20,000 J (A,R)	13,000 J (A,R)	33,000 J (A,R)	9,500 J (A,R)	34,000 J (A,R)	94,000 J (A,R)	130,000 (A,R)	210,000 (A,R)	18,000 (A,R)	23,000 (A,R)	39,000 (A,R)
Benzo(a)pyrene	ug/kg		4,500 (A,R)	4,500 (A,R)	16,000 J (A,R)	11,000 J (A,R)	18,000 J (A,R)	9,400 J (A,R)	35,000 J (A,R)	82,000 J (A,R)	92,000 J (A,R)	120,000 J (A,R)	12,000 (A,R)	16,000 (A,R)	26,000 (A,R)
Benzo(b)fluoranthene	ug/kg		1,200 (A)	1,100 (A)	5,700 J (A,R)	3,700 J (A)	14,000 J (A,R)	3,300 J (A)	11,000 J (A,R)	26,000 J (A,R)	38,000 J (A,R)	69,000 J (A,R)	9,300 (A,R)	13,000 (A,R)	20,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	11,000 J (R)	1,100 J (R)	1,300 J (R)	8,100 J (R)	5,200 J (R)		4,100 J (R)	17,000 J (R)	44,000 J (R)			4,200 J (R)	6,600 J (R)	12,000 J (R)
Benzo(k)fluoranthene	ug/kg		2,200 (A)	2,200 (A)	8,800 J (A,R)	6,300 J (A,R)	17,000 J (A,R)	5,000 J (A,R)	21,000 J (A,R)	40,000 J (A,R)	65,000 J (A,R)	110,000 J (A,R)			
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	31,000	72 J	56 J	22,000 J	12,000 J	31,000 J	9,300 J	34,000 J	74,000 J	110,000 J	190,000	780 J	980 J	550 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg					910 J (R)		1,200 J (R)							
*Carbazole	ug/kg	1,200 J				690 J		530 J	1,900 J	4,000 J	6,400 J	12,000 J			
Chrysene	ug/kg	27,000 J (A,R)	4,700 J (R)	4,500 J (R)	17,000 J (A,R)	12,000 J (R)	34,000 J (A,R)	8,900 J (R)	34,000 J (A,R)	93,000 J (A,R)	120,000 (A,R)	210,000 (A,R)	13,000 (R)	20,000 (A,R)	34,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	3,800 J (A,R)	280 J (A,R)	270 J (A,R)		1,800 J (A,R)	4,100 J (A,R)	1,100 J (A,R)	4,100 J (A,R)	11,000 J (A,R)	18,000 J (A,R)	22,000 J (A,R)	1,200 J (A,R)	2,000 J (A,R)	3,300 J (A,R)
Dibenzofuran	ug/kg	7,300 J (R)			6,200 J (R)	3,500 J (R)	9,000 J (A,R)	2,600 J (R)	9,000 J (A,R)	22,000 J (A,R)	32,000 J (A,R)	57,000 J (A,R)	2,400 J (R)	3,500 J (R)	6,000 J (R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	74,000 (R)	7,500 J (R)	6,900 J (R)	47,000 (R)	29,000 (R)	70,000 (R)	22,000 (R)	78,000 (R)	200,000 (R)	290,000 (A,R)	480,000 (A,R)	30,000 (R)	41,000 (R)	71,000 (R)
Fluorene	ug/kg	68,000 (R)	140 J (R)	110 J (R)	50,000 (R)	28,000 (R)	66,000 (R)	20,000 (R)	63,000 (R)	150,000 (R)	260,000 (A,R)	430,000 (A,R)	17,000 (R)	19,000 (R)	7,400 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	9,300 J (A,R)	840 J (A,R)	1,000 (A,R)	6,300 J (A,R)	4,200 J (A,R)	8,500 J (A,R)	3,200 J (A,R)	13,000 J (A,R)	33,000 J (A,R)	43,000 J (A,R)	63,000 J (A,R)	4,600 J (A,R)	7,200 J (A,R)	11,000 J (A,R)
Naphthalene	ug/kg	330,000 (A,R)			310,000 (A,R)	130,000 (A,R)	370,000 (A,R)	90,000 (A,R)	410,000 (A,R)	900,000 (A,R)	1,400,000 (A,R)	2,200,000 (A,R)			
Phenanthrene	ug/kg	370,000 (R)	590 J (R)	660 J (R)	220,000 (R)	140,000 (R)	330,000 (R)	110,000 (R)	340,000 (R)	990,000 (R)	1,500,000 (R)	2,600,000 (A,R)	58,000 (R)	66,000 (R)	17,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	120,000 (R)	11,000 J (R)	11,000 J (R)	68,000 (R)	43,000 (R)	86,000 (R)	37,000 (R)	110,000 (R)	320,000 (A,R)	440,000 (A,R)	710,000 (A,R)	47,000 (R)	61,000 (R)	99,000 (R)
Total PAHs	ug/kg	1,537,100 (R)	40,320 (R)	39,419 (R)	1,118,900 (R)	611,200 (R)	1,510,600 (R)	457,500 (R)	1,679,100 (R)	4,194,000 (R)	6,186,000 (R)	10,204,000 (R)	287,500 (R)	373,000 (R)	446,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B
Sample Number:	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0	GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8
Sample Depth:	10.2-11.9	6-8	8-10	10-12	12-14	4-6	6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8
Sample Date:	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg						460,000 J (A,R)	660,000 J (A,R)	340,000 J (A,R)	350,000 J (A,R)	18,000 J (R)	270,000 (A,R)	530,000 (A,R)	400,000 (A,R)	120 J (R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	5,200 (R)	110,000 (R)	1,500 J (R)		38 J (R)	270,000 J (R)	360,000 J (A,R)	180,000 (R)	160,000 (R)	140,000 (R)	180,000 (R)	320,000 (R)	260,000 (R)	480 (R)
Acenaphthylene	ug/kg	680 J (R)	13,000 J (R)				11,000 J (R)	12,000 J (R)	7,300 J (R)	8,300 J (R)	9,200 J (R)	11,000 J (R)	18,000 J (R)	26,000 J (R)	71 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	380 J (R)	12,000 J (R)	1,400 J (R)		38 J	110,000 (R)	160,000 (R)	87,000 (R)	82,000 (R)	100,000 (R)	83,000 (R)	160,000 J (R)	170,000 (R)	360 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	3,400 J (A,R)	71,000 (A,R)	1,700 J (A,R)			62,000 (A,R)	78,000 (A,R)	45,000 (A,R)	40,000 (A,R)	54,000 (A,R)	34,000 J (A,R)	81,000 J (A,R)	100,000 (A,R)	210 (A)
Benzo(a)pyrene	ug/kg	2,000 (A,R)	54,000 (A,R)	1,400 J (A,R)			40,000 (A,R)	55,000 (A,R)	31,000 (A,R)	28,000 (A,R)	12,000 J (A,R)			64,000 (A,R)	
Benzo(b)fluoranthene	ug/kg		22,000 J (A,R)				19,000 (A,R)	22,000 (A,R)	12,000 J (A,R)	13,000 J (A,R)	16,000 J (A,R)			52,000 (A,R)	
Benzo(g,h,i)perylene	ug/kg	660 J (R)	14,000 J (R)				13,000 (R)	16,000 J (R)	7,900 J (R)	7,900 J (R)	11,000 J (R)	7,400 J (R)	34,000 J (R)	27,000 J (R)	63 J
Benzo(k)fluoranthene	ug/kg	1,100	41,000 (A,R)				29,000 (A,R)	43,000 (A,R)	25,000 (A,R)	19,000 (A,R)	25,000 (A,R)				
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg		8,800 J				43,000	53,000	30,000	27,000	15,000 J	30,000	69,000 J	56,000	64 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg				180 J										
*Carbazole	ug/kg											1,800 J		3,400 J	
Chrysene	ug/kg	3,400 J (R)	67,000 (A,R)	1,700 J (R)			60,000 (A,R)	76,000 (A,R)	42,000 (A,R)	37,000 (A,R)	50,000 (A,R)	34,000 J (A,R)	69,000 J (A,R)	95,000 (A,R)	250
Dibenz(a,h)anthracene	ug/kg	230 J (A,R)	4,900 J (A,R)				4,900 J (A,R)	6,500 J (A,R)	2,700 J (A,R)	2,800 J (A,R)	4,000 J (A,R)	4,800 J (A,R)	16,000 J (A,R)	7,700 J (A,R)	
Dibenzofuran	ug/kg	260 J	5,600 J (R)				12,000 (A,R)	15,000 J (A,R)	8,500 J (A,R)	7,900 J (A,R)	7,600 J (R)			16,000 J (A,R)	25 J
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	11,000 J (R)	150,000 (R)	3,400 J (R)	36 J	56 J	120,000 (R)	160,000 (R)	90,000 (R)	80,000 (R)	100,000 (R)	89,000 J (R)	160,000 J (R)	160,000 (R)	410
Fluorene	ug/kg		14,000 J (R)				120,000 (R)	150,000 (R)	88,000 (R)	77,000 (R)	11,000 J (R)	70,000 (R)	140,000 J (R)	160,000 (R)	330 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	490 J (A)	19,000 J (A,R)				16,000 (A,R)	22,000 (A,R)	11,000 J (A,R)	12,000 J (A,R)	14,000 J (A,R)	13,000 J (A,R)	29,000 J (A,R)	25,000 J (A,R)	41 J
Naphthalene	ug/kg						530,000 J (A,R)	770,000 J (A,R)	420,000 J (A,R)	420,000 J (A,R)	16,000 J (A,R)	410,000 (A,R)	770,000 (A,R)	470,000 (A,R)	
Phenanthrene	ug/kg	130 J				58 J	410,000 J (R)	580,000 J (R)	280,000 (R)	250,000 (R)	360,000 J (R)	450,000 (R)	560,000 (R)	550,000 J (R)	1,400 (R)
Phenol	ug/kg														
Pyrene	ug/kg	13,000 J (R)	230,000 (A,R)	5,000 J (R)			170,000 (R)	230,000 (A,R)	130,000 (R)	110,000 (R)	150,000 (R)	150,000 J (R)	260,000 J (A,R)	270,000 (A,R)	770 J (R)
Total PAHs	ug/kg	41,670 (R)	821,900 (R)	16,100 (R)	36	190	2,444,900 (R)	3,400,500 (R)	1,798,900 (R)	1,697,000 (R)	1,090,200 (R)	1,806,200 (R)	3,147,000 (R)	2,836,700 (R)	4,505 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD129	GC-SD129
Sample Number:	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3	GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02
Sample Depth:	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6
Sample Date:	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg	16,000 (R)	150,000 J (A,R)	900,000 J (A,R)	380,000 J (A,R)	230,000 J (A,R)	250,000 J (A,R)	180,000 J (A,R)	110,000 (A,R)	250,000 J (A,R)	260,000 J (A,R)	170,000 J (A,R)	150,000 J (A,R)	3,200,000 J (A,R)	240,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	57,000 (R)	85,000 (R)	580,000 J (A,R)	230,000 J (R)	120,000 (R)	130,000 (R)	100,000 (R)	60,000 (R)	81,000 (R)	130,000 J (R)	90,000 (R)	88,000 (R)	2,300,000 J (A,R)	150,000 (R)
Acenaphthylene	ug/kg	4,800 J (R)	4,800 J (R)	32,000 (R)	8,900 J (R)	7,400 J (R)	9,100 J (R)	16,000 (R)	11,000 J (R)	54,000 (R)	19,000 (R)	6,200 (R)	6,200 (R)	160,000 J (R)	10,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	39,000 (R)	38,000 (R)	260,000 (R)	98,000 J (R)	62,000 (R)	82,000 J (R)	57,000 (R)	36,000 (R)	62,000 (R)	76,000 (R)	54,000 (R)	49,000 (R)	1,200,000 J (R)	83,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	25,000 (A,R)	21,000 (A,R)	130,000 (A,R)	47,000 J (A,R)	35,000 (A,R)	46,000 (A,R)	31,000 (A,R)	17,000 (A,R)	34,000 (A,R)	46,000 (A,R)	36,000 (A,R)	30,000 (A,R)	750,000 J (A,R)	48,000 (A,R)
Benzo(a)pyrene	ug/kg	16,000 (A,R)	14,000 (A,R)	91,000 (A,R)	31,000 J (A,R)	23,000 (A,R)	30,000 (A,R)	23,000 (A,R)	11,000 J (A,R)	24,000 (A,R)	30,000 (A,R)	21,000 (A,R)	20,000 (A,R)	440,000 J (A,R)	31,000 (A,R)
Benzo(b)fluoranthene	ug/kg	12,000 (A,R)	6,000 J (A,R)	44,000 (A,R)	12,000 J (A,R)	11,000 J (A,R)	15,000 (A,R)	12,000 (A,R)	5,000 J (A,R)	11,000 (A,R)	16,000 (A,R)	10,000 (A,R)	9,000 (A,R)	360,000 J (A,R)	
Benzo(g,h,i)perylene	ug/kg	6,200 J (R)	4,000 J (R)	25,000 J (R)	9,600 J (R)	6,600 J (R)	8,600 J (R)	6,100 J (R)	3,500 J (R)	8,000 (R)	10,000 (R)	7,800 (R)	6,700 (R)	210,000 J (A,R)	15,000 J (R)
Benzo(k)fluoranthene	ug/kg		10,000 (A,R)	60,000 (A,R)	25,000 J (A,R)	15,000 (A,R)	18,000 (A,R)	15,000 (A,R)	7,400 J (A,R)	16,000 (A,R)	18,000 (A,R)	14,000 (A,R)	13,000 (A,R)		
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	11,000	12,000	83,000	31,000 J	20,000	22,000	20,000	12,000 J	24,000	25,000	16,000	15,000	400,000 J (A)	28,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg							1,600 J (R)							
*Carbazole	ug/kg	720 J						1,400 J		1,600 J	1,600 J			30,000 J	2,400 J
Chrysene	ug/kg	23,000 (A,R)	19,000 (A,R)	120,000 (A,R)	43,000 J (A,R)	33,000 (A,R)	44,000 (A,R)	29,000 (A,R)	16,000 (A,R)	32,000 (A,R)	43,000 (A,R)	33,000 (A,R)	30,000 (A,R)	630,000 J (A,R)	47,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	2,000 J (A,R)	1,800 J (A,R)	11,000 J (A,R)	3,200 J (A,R)	2,400 J (A,R)	3,200 J (A,R)	2,000 J (A,R)		2,500 J (A,R)	3,600 J (A,R)	2,900 J (A,R)	2,300 J (A,R)	55,000 J (A,R)	3,100 J (A,R)
Dibenzofuran	ug/kg	3,800 J (R)	4,200 J (R)	29,000 J (A,R)	10,000 J (A,R)	6,200 J (R)	7,800 J (R)	5,900 J (R)	3,700 J (R)	7,000 (R)	7,900 (A,R)	5,000 J (R)	4,900 J (R)	130,000 J (A,R)	8,900 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	41,000 (R)	41,000 (R)	260,000 (A,R)	93,000 J (R)	64,000 (R)	78,000 J (R)	57,000 (R)	36,000 (R)	62,000 (R)	78,000 (R)	55,000 (R)	50,000 (R)	1,200,000 J (A,R)	82,000 (R)
Fluorene	ug/kg	39,000 (R)	44,000 (R)	290,000 (A,R)	100,000 J (R)	62,000 (R)	67,000 (R)	61,000 (R)	35,000 (R)	67,000 (R)	71,000 (R)	43,000 (R)	45,000 (R)	1,200,000 J (A,R)	79,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	6,200 (A,R)	5,300 J (A,R)	34,000 (A,R)	13,000 J (A,R)	8,500 J (A,R)	11,000 (A,R)	7,400 (A,R)	4,300 J (A,R)	9,700 (A,R)	12,000 (A,R)	8,100 (A,R)	7,400 (A,R)	200,000 J (A,R)	13,000 J (A,R)
Naphthalene	ug/kg	50,000 (A,R)	160,000 J (A,R)	1,100,000 J (A,R)	450,000 J (A,R)	270,000 J (A,R)	340,000 J (A,R)	250,000 J (A,R)	160,000 (A,R)	380,000 J (A,R)	370,000 J (A,R)	190,000 J (A,R)	180,000 J (A,R)	3,800,000 J (A,R)	250,000 (A,R)
Phenanthrene	ug/kg	140,000 J (R)	140,000 J (R)	870,000 J (R)	360,000 J (R)	240,000 J (R)	290,000 J (R)	190,000 J (R)	120,000 (R)	200,000 J (R)	250,000 J (R)	180,000 J (R)	150,000 J (R)	4,100,000 J (A,R)	290,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	63,000 (R)	51,000 (R)	340,000 (A,R)	120,000 J (R)	89,000 (R)	110,000 (R)	85,000 (R)	48,000 (R)	83,000 (R)	100,000 (R)	73,000 (R)	67,000 (R)	1,900,000 J (A,R)	120,000 (R)
Total PAHs	ug/kg	540,200 (R)	794,900 (R)	5,147,000 (R)	2,023,700 (R)	1,278,900 (R)	1,531,900 (R)	1,121,500 (R)	680,200 (R)	1,376,200 (R)	1,532,600 (R)	994,000 (R)	903,600 (R)	21,705,000 (R)	1,461,100 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A
Sample Number:		GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1
Sample Depth:		8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1
Sample Date:		4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	530,000 (A,R)	700,000 J (A,R)	650,000 (A,R)	1,300,000 (A,R)	2,700,000 J (A,R)	930,000 (A,R)	310,000 (A,R)	100,000 (A,R)	150,000 (A,R)	2,700,000 (A,R)	21,000 (R)	59,000 (A,R)	23,000 (R)	950,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	340,000 (R)	370,000 J (A,R)	380,000 (A,R)	710,000 (A,R)	1,100,000 J (A,R)	160,000 (R)	91,000 (R)	35,000 (R)	60,000 (R)	400,000 J (A,R)	11,000 (R)	34,000 (R)	15,000 (R)	480,000 (A,R)
Acenaphthylene	ug/kg	18,000 J (R)	18,000 (R)	16,000 J (R)	56,000 J (R)	510,000 (A,R)	250,000 (R)	45,000 J (R)	11,000 J (R)	27,000 J (R)	840,000 (A,R)	7,000 (R)	1,600 J (R)	760 J (R)	25,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	190,000 (R)	140,000 (R)	200,000 (R)	360,000 (R)	690,000 (R)	150,000 (R)	54,000 J (R)	19,000 J (R)	41,000 J (R)	580,000 J (R)	11,000 J (R)	13,000 (R)	6,200 J (R)	190,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	130,000 (A,R)	110,000 (A,R)	100,000 (A,R)	180,000 (A,R)	530,000 (A,R)	75,000 J (A,R)	26,000 J (A,R)	10,000 J (A,R)	18,000 J (A,R)	360,000 J (A,R)	6,100 (A,R)	3,600 J (A,R)	2,200 J (A,R)	78,000 J (A,R)
Benzo(a)pyrene	ug/kg	91,000 (A,R)	75,000 (A,R)	61,000 (A,R)	100,000 J (A,R)	350,000 (A,R)	48,000 J (A,R)	16,000 J (A,R)	7,200 J (A,R)	18,000 J (A,R)	220,000 J (A,R)	4,000 J (A,R)			
Benzo(b)fluoranthene	ug/kg	81,000 (A,R)	33,000 (A,R)	25,000 J (A,R)	43,000 J (A,R)	180,000 (A,R)	18,000 J (A,R)	4,700 J (A,R)	2,300 J (A)	15,000 J (A,R)	96,000 J (A,R)	3,400 J (A)			
Benzo(g,h,i)perylene	ug/kg	39,000 J (R)	19,000 (R)	18,000 J (R)	34,000 J (R)	85,000 (R)	16,000 J (R)					1,300 J (R)		680 J (R)	34,000 J (R)
Benzo(k)fluoranthene	ug/kg		49,000 (A,R)	48,000 J (A,R)	70,000 J (A,R)	220,000 (A,R)	35,000 J (A,R)	10,000 J (A,R)	5,000 J (A,R)	13,000 J (A,R)	150,000 J (A,R)	970 J			
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	61,000	63,000	70,000	120,000	260,000 (A)	57,000 J	18,000 J	6,500 J	12,000 J	180,000 J	2,400 J	5,800 J	2,600 J	93,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg	4,900 J	4,400 J			19,000 J		1,900 J				290 J	1,200 J	380 J	6,700 J
Chrysene	ug/kg	120,000 (A,R)	94,000 (A,R)	91,000 (A,R)	160,000 (A,R)	490,000 (A,R)	72,000 J (A,R)	25,000 J (A,R)	9,500 J (R)	19,000 J (A,R)	360,000 J (A,R)	6,100 (R)	3,100 J (R)	2,100 J (R)	79,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	15,000 J (A,R)	6,400 J (A,R)			32,000 J (A,R)									11,000 J (A,R)
Dibenzofuran	ug/kg	21,000 J (A,R)	17,000 (A,R)	17,000 J (A,R)	34,000 J (A,R)	77,000 (A,R)	21,000 J (A,R)	7,000 J (R)	2,300 J (R)	4,100 J (R)	65,000 J (A,R)	1,100 J (R)	1,900 J (R)	820 J (R)	24,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	200,000 (R)	160,000 (R)	200,000 (R)	410,000 (A,R)	810,000 (A,R)	140,000 (R)	50,000 J (R)	18,000 J (R)	32,000 J (R)	580,000 J (A,R)	11,000 (R)	11,000 J (R)	5,700 J (R)	180,000 (R)
Fluorene	ug/kg	190,000 (R)	180,000 (R)	190,000 (R)	380,000 (A,R)	860,000 (A,R)	190,000 (R)	68,000 (R)	23,000 J (R)	48,000 J (R)	630,000 (A,R)	11,000 (R)	15,000 (R)	6,300 J (R)	210,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	38,000 J (A,R)	25,000 (A,R)	23,000 J (A,R)	39,000 J (A,R)	110,000 (A,R)	15,000 J (A,R)					1,500 J (A,R)		700 J (A,R)	26,000 J (A,R)
Naphthalene	ug/kg	580,000 (A,R)	790,000 J (A,R)	810,000 (A,R)	1,500,000 (A,R)	3,000,000 J (A,R)	940,000 (A,R)	460,000 (A,R)	150,000 (A,R)	230,000 (A,R)	4,000,000 (A,R)	20,000 (A,R)	76,000 (A,R)	29,000 (A,R)	1,200,000 (A,R)
Phenanthrene	ug/kg	670,000 (R)	580,000 J (R)	650,000 (R)	1,100,000 (R)	2,300,000 J (A,R)	560,000 (R)	210,000 (R)	72,000 (R)	140,000 (R)	2,200,000 (A,R)	39,000 (R)	54,000 (R)	25,000 (R)	850,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	300,000 (A,R)	180,000 (A,R)	310,000 (A,R)	480,000 (A,R)	850,000 (A,R)	230,000 (A,R)	84,000 (R)	30,000 (R)	60,000 (R)	1,000,000 (A,R)	17,000 J (R)	14,000 J (R)	9,000 (R)	270,000 J (A,R)
Total PAHs	ug/kg	3,532,000 (R)	3,529,400 (R)	3,772,000 (R)	6,922,000 (R)	14,817,000 (R)	3,829,000 (R)	1,453,700 (R)	492,000 (R)	871,000 (R)	14,116,000 (R)	171,370 (R)	284,300 (R)	125,640 (R)	4,583,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD27A	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A
Sample Number:		GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8
Sample Depth:		8.1-8.6	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8
Sample Date:		4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg										1,800 J	6,100 J			
2-methylnaphthalene	ug/kg	210,000 (A,R)	41,000 (A,R)	11,000 (R)	7,200 J (R)	140 J (R)				51,000 (A,R)	370,000 J (A,R)	670,000 J (A,R)	16,000 (R)	240,000 J (A,R)	72,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	120,000 (R)	21,000 (R)	4,700 J (R)	3,400 J (R)	80 J (R)	70,000 (R)	910 J (R)	66 J (R)	28,000 (R)	210,000 J (R)	390,000 J (A,R)	6,200 J (R)	58,000 (R)	21,000 (R)
Acenaphthylene	ug/kg	7,800 J (R)	7,400 (R)	1,900 J (R)	1,200 J (R)		11,000 (R)	1,200 J (R)		1,300 J (R)	8,200 (R)	18,000 (R)	3,500 J (R)	60,000 (R)	22,000 (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	49,000 (R)	17,000 (R)	3,800 J (R)	3,000 J (R)	57 J	57,000 (R)	6,200 (R)	59 J	13,000 (R)	83,000 (R)	140,000 (R)	5,200 J (R)	53,000 (R)	20,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	25,000 J (A,R)	10,000 (A,R)	1,600 J (A,R)	1,600 J (A,R)	48 J	74,000 (A,R)	11,000 (A,R)	71 J	4,700 J (A,R)	42,000 (A,R)	72,000 (A,R)	2,500 J (A,R)	32,000 (A,R)	10,000 J (A,R)
Benzo(a)pyrene	ug/kg		6,600 (A,R)	1,200 J (A,R)	1,200 J (A,R)		46,000 (A,R)	6,400 (A,R)	47 J (A)	3,000 J (A,R)	30,000 (A,R)	48,000 (A,R)	1,500 J (A,R)	22,000 (A,R)	7,000 J (A,R)
Benzo(b)fluoranthene	ug/kg		2,900 J (A)		440 J (A)		28,000 (A,R)	2,800 J (A)		1,200 J (A)	14,000 (A,R)	20,000 (A,R)		9,500 (A,R)	2,700 J (A)
Benzo(g,h,i)perylene	ug/kg	8,100 J (R)	1,900 J (R)		340 J		15,000 (R)	1,700 J (R)			10,000 (R)	15,000 (R)		7,400 (R)	2,600 J (R)
Benzo(k)fluoranthene	ug/kg		3,500 J (A)		670 J		24,000 (A,R)	3,700 J (A)		2,300 J (A)	21,000 (A,R)	35,000 (A,R)	1,200 J	14,000 (A,R)	5,300 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	22,000 J	4,900 J	1,200 J	730 J		13,000			4,300 J	32,000	49,000	1,300 J	20,000	6,800 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg					140 J									
*Carbazole	ug/kg	1,500 J									2,400 J	3,400 J		1,300 J	
Chrysene	ug/kg	25,000 J (A,R)	9,500 (R)	1,500 J (R)	1,600 J (R)	41 J	64,000 (A,R)	11,000 (R)	71 J	4,600 J (R)	41,000 (A,R)	70,000 (A,R)	2,400 J (R)	31,000 (A,R)	10,000 J (R)
Dibenz(a,h)anthracene	ug/kg	3,200 J (A,R)					5,400 J (A,R)				3,500 J (A,R)	5,100 J (A,R)		2,500 J (A,R)	
Dibenzofuran	ug/kg	6,100 J (R)	1,700 J (R)				8,600 (A,R)			1,300 J (R)	9,400 (A,R)	15,000 (A,R)		5,600 J (R)	2,000 J (R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	49,000 (R)	21,000 (R)	3,900 J (R)	3,200 J (R)	68 J	170,000 J (R)	19,000 (R)	130 J	9,800 (R)	80,000 (R)	130,000 (R)	4,500 J (R)	56,000 (R)	21,000 (R)
Fluorene	ug/kg	51,000 (R)	16,000 (R)	3,600 J (R)	2,500 J (R)	52 J (R)	25,000 (R)		46 J (R)	13,000 (R)	92,000 (R)	140,000 (R)	5,400 J (R)	55,000 (R)	20,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	7,400 J (A,R)	2,300 J (A,R)		400 J (A)		18,000 (A,R)	2,100 J (A,R)		1,400 J (A,R)	12,000 J (A,R)	17,000 J (A,R)		8,900 J (A,R)	2,800 J (A,R)
Naphthalene	ug/kg	210,000 (A,R)	40,000 (A,R)	12,000 (A,R)	8,600 J (A,R)	120 J				76,000 (A,R)	570,000 J (A,R)	910,000 J (A,R)	22,000 (A,R)	380,000 J (A,R)	100,000 (A,R)
Phenanthrene	ug/kg	200,000 (R)	51,000 (R)	12,000 (R)	9,100 J (R)	190 J	280,000 J (R)	6,000 (R)	200 J	36,000 (R)	270,000 J (R)	540,000 J (R)	16,000 (R)	210,000 J (R)	66,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	88,000 J (R)	25,000 (R)	5,000 J (R)	3,900 J (R)		190,000 J (A,R)	24,000 (R)		14,000 (R)	100,000 (R)	180,000 (A,R)	6,300 J (R)	76,000 (R)	26,000 (R)
Total PAHs	ug/kg	1,053,500 (R)	276,100 (R)	62,200 (R)	48,350 (R)	796	1,077,400 (R)	96,010 (R)	690	259,300 (R)	1,956,700 (R)	3,400,100 (R)	92,700 (R)	1,315,300 (R)	408,400 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A
Sample Number:		GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0	GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1
Sample Depth:		11.8-13.8	11.8-13.8	6-8	8-10	10-12	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1
Sample Date:		3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:		N	FD	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	5,200,000 (A,R)	4,000,000 J (A,R)	25,000 (R)	150,000 (A,R)	330,000 (A,R)	2,500,000 (A,R)	400 (R)	370,000 J (A,R)	390,000 J (A,R)	1,000,000 (A,R)	230,000 J (A,R)	120,000 (A,R)	1,800,000 (A,R)	1,400,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	740,000 (A,R)	470,000 (A,R)	18,000 (R)	70,000 (R)	170,000 (R)	720,000 (A,R)	210 (R)	200,000 J (R)	230,000 J (R)	550,000 (A,R)	94,000 (R)	63,000 (R)	660,000 (A,R)	120,000 J (R)
Acenaphthylene	ug/kg	2,200,000 (A,R)	1,700,000 J (A,R)	1,200 J (R)	3,100 J (R)	8,500 J (R)	420,000 J (A,R)	110 J (R)	9,200 (R)	13,000 (R)	26,000 J (R)	5,800 J (R)	4,200 J (R)	330,000 (R)	610,000 (A,R)
Acetophenone	ug/kg							31 J							
Anthracene	ug/kg	1,400,000 (R)	790,000 (R)	7,300 (R)	23,000 J (R)	64,000 (R)	520,000 (R)	240 (R)	56,000 (R)	89,000 (R)	220,000 (R)	41,000 (R)	29,000 (R)	440,000 (R)	350,000 (R)
Benzaldehyde	ug/kg					5,600 J		73 J							
Benzo(a)anthracene	ug/kg	710,000 (A,R)	430,000 (A,R)	3,200 (A,R)	8,700 J (A,R)	33,000 J (A,R)	300,000 J (A,R)	150 J	34,000 (A,R)	38,000 (A,R)	90,000 J (A,R)	17,000 (A,R)	13,000 J (A,R)	230,000 J (A,R)	160,000 J (A,R)
Benzo(a)pyrene	ug/kg	400,000 J (A,R)	300,000 (A,R)	2,200 (A,R)	5,500 J (A,R)	23,000 J (A,R)	210,000 J (A,R)	96 J (A)	23,000 (A,R)	27,000 (A,R)	48,000 J (A,R)	11,000 (A,R)	7,200 J (A,R)	110,000 J (A,R)	92,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	190,000 J (A,R)	120,000 (A,R)	1,700 J (A)	2,200 J (A)	9,100 J (A,R)	71,000 J (A,R)	73 J	9,300 (A,R)	9,300 J (A,R)		4,500 J (A)	3,400 J (A)	53,000 J (A,R)	39,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	120,000 J (R)	84,000 (R)	920 J (R)		8,000 J (R)	63,000 J (R)	50 J	5,600 J (R)	6,700 J (R)		2,900 J (R)		36,000 J (R)	
Benzo(k)fluoranthene	ug/kg	250,000 J (A,R)	180,000 (A,R)	590 J	3,500 J (A)	14,000 J (A,R)	120,000 J (A,R)	24 J	15,000 (A,R)	19,000 (A,R)	36,000 J (A,R)	6,800 (A,R)	4,400 J (A)	69,000 J (A,R)	66,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	500,000 J (A)	300,000 (A)	2,200	9,000 J	22,000 J	160,000 J	38 J	27,000	35,000	84,000 J	17,000	11,000 J	170,000 J	110,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg							67 J							
*Carbazole	ug/kg		23,000 J	290 J	1,300 J	1,900 J	17,000 J		2,500 J	2,600 J		2,400 J			
Chrysene	ug/kg	670,000 (A,R)	410,000 (A,R)	3,000 (R)	8,200 J (R)	32,000 J (A,R)	290,000 J (A,R)	140 J	32,000 (A,R)	37,000 (A,R)	83,000 J (A,R)	15,000 (R)	12,000 J (R)	200,000 J (A,R)	150,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg		28,000 J (A,R)						1,900 J (A,R)			1,000 J (A,R)			
Dibenzofuran	ug/kg	150,000 J (A,R)	77,000 (A,R)	910 J (R)	3,500 J (R)	8,600 J (A,R)		20 J	7,900 (A,R)	9,800 J (A,R)	27,000 J (A,R)	4,600 J (R)	3,000 J (R)	53,000 J (A,R)	57,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	1,600,000 (A,R)	770,000 (A,R)	6,800 (R)	19,000 J (R)	59,000 J (R)	480,000 J (A,R)	250	66,000 (R)	89,000 (R)	230,000 (R)	47,000 (R)	31,000 J (R)	480,000 J (A,R)	430,000 J (A,R)
Fluorene	ug/kg	1,400,000 (A,R)	780,000 (A,R)	9,100 (R)	29,000 J (R)	76,000 (R)	560,000 (A,R)	210 (R)	81,000 (R)	110,000 (R)	260,000 (A,R)	49,000 (R)	32,000 (R)	480,000 (A,R)	360,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	120,000 J (A,R)	100,000 (A,R)	1,000 J (A,R)		7,400 J (A,R)	62,000 J (A,R)	46 J	8,000 (A,R)	8,200 J (A,R)		3,900 J (A,R)		44,000 J (A,R)	
Naphthalene	ug/kg	7,300,000 (A,R)	6,500,000 J (A,R)	27,000 (A,R)	200,000 (A,R)	400,000 (A,R)	3,600,000 (A,R)	710 (R)	470,000 J (A,R)	510,000 J (A,R)	1,400,000 (A,R)	350,000 J (A,R)	190,000 (A,R)	2,400,000 (A,R)	2,100,000 (A,R)
Phenanthrene	ug/kg	4,500,000 (A,R)	3,800,000 J (A,R)	25,000 (R)	90,000 (R)	230,000 (R)	1,900,000 (A,R)	840 (R)	260,000 J (R)	260,000 J (R)	760,000 (R)	170,000 J (R)	95,000 (R)	1,300,000 (R)	1,200,000 (R)
Phenol	ug/kg							6.7 J							
Pyrene	ug/kg	1,800,000 (A,R)	1,700,000 J (A,R)	9,200 (R)	33,000 (R)	100,000 (R)	860,000 (A,R)	370	61,000 (R)	120,000 (R)	280,000 (A,R)	46,000 (R)	38,000 (R)	570,000 (A,R)	440,000 (A,R)
Total PAHs	ug/kg	28,600,000 (R)	22,162,000 (R)	141,210 (R)	645,200 (R)	1,564,000 (R)	12,676,000 (R)	3,919	1,702,000 (R)	1,956,200 (R)		1,094,900 (R)	642,200 (R)	9,202,000 (R)	7,517,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A
Sample Number:	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02	GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2
Sample Depth:	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15	8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2
Sample Date:	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	390,000 (A,R)	200,000 (A,R)	710,000 (A,R)	1,600,000 (A,R)	570,000 (A,R)	270,000 (A,R)	290,000 (A,R)	410,000 (A,R)	420,000 (A,R)	1,300,000 (A,R)	1,000,000 (A,R)	200,000 (A,R)	2,100,000 (A,R)	870,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	180,000 (R)	79,000 (R)	290,000 (R)	170,000 (R)	290,000 (R)	130,000 (R)	130,000 (R)	200,000 (R)	230,000 (R)	450,000 (A,R)	240,000 (R)	83,000 (R)	630,000 (A,R)	420,000 (A,R)
Acenaphthylene	ug/kg	39,000 (R)	30,000 (R)	100,000 (R)	680,000 (A,R)	23,000 J (R)	8,800 J (R)	11,000 J (R)	16,000 J (R)	10,000 J (R)	87,000 J (R)	140,000 (R)	8,700 J (R)	270,000 J (R)	26,000 J (R)
Acetophenone	ug/kg										4,900 J				
Anthracene	ug/kg	91,000 (R)	44,000 (R)	170,000 (R)	370,000 (R)	120,000 (R)	56,000 (R)	67,000 (R)	100,000 (R)	76,000 J (R)	200,000 (R)	150,000 (R)	37,000 J (R)	350,000 J (R)	130,000 J (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	41,000 (A,R)	19,000 J (A,R)	75,000 J (A,R)	170,000 (A,R)	59,000 (A,R)	25,000 (A,R)	32,000 (A,R)	40,000 (A,R)	41,000 J (A,R)	120,000 J (A,R)	100,000 J (A,R)	20,000 J (A,R)	200,000 J (A,R)	84,000 J (A,R)
Benzo(a)pyrene	ug/kg	24,000 J (A,R)	10,000 J (A,R)	38,000 J (A,R)	97,000 J (A,R)	31,000 J (A,R)	14,000 J (A,R)	18,000 J (A,R)	25,000 J (A,R)	28,000 J (A,R)	75,000 J (A,R)	68,000 J (A,R)	14,000 J (A,R)	130,000 J (A,R)	50,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	9,900 J (A,R)	4,000 J (A)	17,000 J (A,R)	43,000 J (A,R)	13,000 J (A,R)	6,200 J (A,R)	8,200 J (A,R)	10,000 J (A,R)	18,000 J (A,R)	33,000 J (A,R)	26,000 J (A,R)	5,200 J (A,R)	41,000 J (A,R)	26,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	6,400 J (R)			29,000 J (R)	8,600 J (R)	4,000 J (R)	5,100 J (R)	6,200 J (R)		31,000 J (R)	29,000 J (R)	4,800 J (R)		
Benzo(k)fluoranthene	ug/kg	17,000 J (A,R)	6,900 J (A,R)	26,000 J (A,R)	64,000 J (A,R)	22,000 J (A,R)	10,000 J (A,R)	11,000 J (A,R)	17,000 J (A,R)	9,200 J (A,R)	45,000 J (A,R)	36,000 J (A,R)	7,600 J (A,R)	79,000 J (A,R)	44,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	34,000	17,000 J	61,000 J	150,000	50,000	23,000	25,000	38,000	29,000 J	71,000 J	55,000 J	11,000 J	110,000 J	50,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg										12,000 J	7,200 J	1,900 J	15,000 J	5,700 J
Chrysene	ug/kg	38,000 (A,R)	17,000 J (A,R)	67,000 J (A,R)	160,000 (A,R)	54,000 (A,R)	23,000 (A,R)	29,000 (A,R)	37,000 (A,R)	40,000 J (A,R)	140,000 J (A,R)	120,000 J (A,R)	22,000 J (A,R)	210,000 J (A,R)	85,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg											11,000 J (A,R)			
Dibenzofuran	ug/kg	10,000 J (A,R)	5,100 J (R)	20,000 J (A,R)	39,000 J (A,R)	15,000 J (A,R)	6,500 J (R)	7,700 J (R)	10,000 J (A,R)	11,000 J (A,R)	32,000 J (A,R)	28,000 J (A,R)	5,000 J (R)	54,000 J (A,R)	21,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	110,000 J (R)	46,000 J (R)	190,000 J (R)	400,000 J (A,R)	150,000 J (R)	62,000 J (R)	75,000 J (R)	83,000 (R)	73,000 J (R)	180,000 (R)	140,000 (R)	31,000 J (R)	290,000 J (A,R)	120,000 J (R)
Fluorene	ug/kg	120,000 (R)	56,000 (R)	200,000 (R)		160,000 (R)	72,000 (R)	72,000 (R)	110,000 (R)	110,000 J (R)	240,000 (A,R)	180,000 (R)	41,000 J (R)	340,000 J (A,R)	200,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	8,300 J (A,R)	4,000 J (A,R)		39,000 J (A,R)	11,000 J (A,R)	5,200 J (A,R)	6,800 J (A,R)	8,800 J (A,R)		28,000 J (A,R)	25,000 J (A,R)	4,500 J (A,R)		
Naphthalene	ug/kg	400,000 (A,R)	220,000 (A,R)	820,000 (A,R)	1,900,000 (A,R)	610,000 (A,R)	290,000 (A,R)	320,000 (A,R)	800,000 J (A,R)	580,000 (A,R)	2,000,000 (A,R)	1,500,000 (A,R)	300,000 (A,R)	2,900,000 (A,R)	1,200,000 (A,R)
Phenanthrene	ug/kg	280,000 (R)	140,000 (R)	570,000 (R)	1,100,000 (R)	360,000 (R)	170,000 (R)	190,000 (R)	290,000 (R)	280,000 (R)	740,000 (R)	550,000 (R)	120,000 (R)	1,200,000 (R)	560,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	120,000 (R)	57,000 (R)	210,000 (A,R)	480,000 (A,R)	170,000 (R)	73,000 (R)	83,000 (R)	130,000 (R)	100,000 J (R)	340,000 (A,R)	270,000 (A,R)	56,000 (R)	550,000 (A,R)	250,000 (A,R)
Total PAHs	ug/kg	1,874,600 (R)	932,900 (R)	3,483,000 (R)	7,302,000 (R)	2,651,600 (R)	1,219,200 (R)	1,348,100 (R)	2,283,000 (R)	2,015,200 (R)	6,009,000 (R)	4,585,000 (R)	954,800 (R)	9,290,000 (R)	4,065,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114
Sample Number:		GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01	GC-SD114-07.2-09.2	GC-SD114-09.2-11.2
Sample Depth:		4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2	7.2-9.2	9.2-11.2
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	950,000 (A,R)	560,000 (A,R)	820,000 (A,R)	2,000,000 (A,R)	740,000 (A,R)	880,000 (A,R)	870,000 (A,R)	550,000 (A,R)	1,500,000 (A,R)	970,000 (A,R)	1,700,000 (A,R)	1,100,000 (A,R)	5,100,000 (A,R)	6,300,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	300,000 (R)	190,000 (R)	88,000 J (R)	160,000 J (R)	130,000 J (R)	180,000 (R)	61,000 J (R)	41,000 J (R)	100,000 J (R)	60,000 J (R)	91,000 J (R)	69,000 J (R)	270,000 J (R)	360,000 J (A,R)
Acenaphthylene	ug/kg	98,000 J (R)	85,000 J (R)	300,000 (R)	810,000 (A,R)	190,000 (R)	210,000 (R)	270,000 (R)	160,000 (R)	540,000 (A,R)	370,000 (A,R)	680,000 (A,R)	470,000 (A,R)	2,100,000 (A,R)	2,700,000 (A,R)
Acetophenone	ug/kg														
Anthracene	ug/kg	200,000 J (R)	120,000 J (R)	160,000 (R)	360,000 (R)	150,000 (R)	170,000 (R)	160,000 (R)	95,000 J (R)	280,000 J (R)	200,000 (R)	300,000 J (R)	230,000 J (R)	1,000,000 J (R)	1,300,000 J (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	140,000 J (A,R)	72,000 J (A,R)	78,000 J (A,R)	160,000 J (A,R)	71,000 J (A,R)	78,000 J (A,R)	100,000 J (A,R)	64,000 J (A,R)	130,000 J (A,R)	96,000 J (A,R)	140,000 J (A,R)	120,000 J (A,R)	470,000 J (A,R)	660,000 J (A,R)
Benzo(a)pyrene	ug/kg	86,000 J (A,R)	45,000 J (A,R)	54,000 J (A,R)	130,000 J (A,R)	46,000 J (A,R)	55,000 J (A,R)	77,000 J (A,R)	44,000 J (A,R)	97,000 J (A,R)	64,000 J (A,R)	88,000 J (A,R)	78,000 J (A,R)	270,000 J (A,R)	370,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	75,000 J (A,R)	43,000 J (A,R)	48,000 J (A,R)	98,000 J (A,R)	37,000 J (A,R)	41,000 J (A,R)	57,000 J (A,R)	35,000 J (A,R)	60,000 J (A,R)	51,000 J (A,R)	70,000 J (A,R)	65,000 J (A,R)	210,000 J (A,R)	310,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	49,000 J (R)	23,000 J (R)	24,000 J (R)	51,000 J (R)			35,000 J (R)	23,000 J (R)						
Benzo(k)fluoranthene	ug/kg	35,000 J (A,R)	15,000 J (A,R)	14,000 J (A,R)	26,000 J (A,R)	10,000 J (A,R)	17,000 J (A,R)	18,000 J (A,R)	13,000 J (A,R)	40,000 J (A,R)	23,000 J (A,R)	22,000 J (A,R)	40,000 J (A,R)	84,000 J (A,R)	150,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	59,000 J	38,000 J	53,000 J	130,000 J	40,000 J	53,000 J	50,000 J	35,000 J	88,000 J	63,000 J	91,000 J	68,000 J	320,000 J (A)	440,000 J (A)
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg												27,000 J (R)		
*Carbazole	ug/kg			5,700 J	9,900 J	6,300 J	6,800 J	8,600 J	5,500 J		8,300 J				
Chrysene	ug/kg	150,000 J (A,R)	82,000 J (A,R)	88,000 J (A,R)	180,000 J (A,R)	75,000 J (A,R)	100,000 J (A,R)	120,000 J (A,R)	81,000 J (A,R)	150,000 J (A,R)	99,000 J (A,R)	140,000 J (A,R)	140,000 J (A,R)	430,000 J (A,R)	570,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg														
Dibenzofuran	ug/kg	27,000 J (A,R)	19,000 J (A,R)	19,000 J (A,R)	48,000 J (A,R)	19,000 J (A,R)	25,000 J (A,R)	22,000 J (A,R)	12,000 J (A,R)	36,000 J (A,R)	28,000 J (A,R)	46,000 J (A,R)	30,000 J (A,R)	130,000 J (A,R)	150,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	180,000 J (R)	100,000 J (R)	150,000 (R)	290,000 (A,R)	120,000 J (R)	120,000 J (R)	160,000 (R)	86,000 J (R)	230,000 J (R)	150,000 (R)	230,000 J (R)	170,000 J (R)	860,000 J (A,R)	1,200,000 J (A,R)
Fluorene	ug/kg	250,000 (A,R)	160,000 (R)	220,000 (R)	540,000 (A,R)	170,000 (R)	220,000 (R)	210,000 (R)	120,000 (R)	380,000 (A,R)	240,000 (A,R)	460,000 (A,R)	310,000 (A,R)	1,300,000 (A,R)	1,700,000 J (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	42,000 J (A,R)	21,000 J (A,R)	21,000 J (A,R)	41,000 J (A,R)			29,000 J (A,R)	18,000 J (A,R)						
Naphthalene	ug/kg	1,400,000 (A,R)	900,000 (A,R)	1,400,000 (A,R)	3,700,000 (A,R)	1,400,000 (A,R)	1,500,000 (A,R)	1,400,000 (A,R)	870,000 (A,R)	2,600,000 (A,R)	1,800,000 (A,R)	3,100,000 (A,R)	2,300,000 (A,R)	9,200,000 (A,R)	13,000,000 (A,R)
Phenanthrene	ug/kg	660,000 (R)	360,000 (R)	550,000 (R)	1,200,000 (R)	460,000 (R)	500,000 (R)	560,000 (R)	320,000 (R)	890,000 (R)	620,000 (R)	960,000 (R)	770,000 (R)	3,300,000 (A,R)	4,600,000 (A,R)
Phenol	ug/kg														
Pyrene	ug/kg	290,000 (A,R)	180,000 (A,R)	240,000 (A,R)	520,000 (A,R)	210,000 (A,R)	220,000 (A,R)	250,000 (A,R)	170,000 (R)	430,000 (A,R)	280,000 (A,R)	370,000 J (A,R)	310,000 (A,R)	1,400,000 (A,R)	1,900,000 (A,R)
Total PAHs	ug/kg	4,905,000 (R)	2,956,000 (R)	4,255,000 (R)	10,266,000 (R)	3,809,000 (R)	4,291,000 (R)	4,377,000 (R)	2,690,000 (R)	7,427,000 (R)	5,023,000 (R)	8,351,000 (R)	6,172,000 (R)	25,994,000 (R)	35,120,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116
Sample Number:		GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5
Sample Depth:		11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5
Sample Date:		3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg					44,000 J (A)									
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	5,000,000 (A,R)	2,000,000 (A,R)	600,000 (A,R)	190,000 (A,R)	2,900,000 (A,R)	540,000 (A,R)	1,800,000 (A,R)	1,700,000 (A,R)	3,000,000 (A,R)	2,100,000 (A,R)	1,200,000 (A,R)	85,000 (A,R)	1,100,000 (A,R)	250,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	360,000 J (A,R)	130,000 J (R)	150,000 (R)	48,000 (R)	260,000 J (R)	53,000 J (R)	110,000 J (R)	120,000 J (R)	230,000 J (R)	160,000 J (R)	120,000 J (R)	36,000 (R)	250,000 J (R)	18,000 J (R)
Acenaphthylene	ug/kg	2,400,000 (A,R)	890,000 (A,R)	140,000 (R)	60,000 (R)	1,200,000 (A,R)	150,000 (R)	680,000 (A,R)	740,000 (A,R)	2,200,000 (A,R)	1,000,000 (A,R)	730,000 (A,R)	15,000 J (R)	330,000 (R)	120,000 (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	1,300,000 (R)	420,000 J (R)	120,000 (R)	46,000 (R)	480,000 (R)	150,000 (R)	340,000 (R)	460,000 (R)	1,200,000 (R)	570,000 (R)	400,000 (R)	22,000 (R)	310,000 (R)	64,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	700,000 J (A,R)	260,000 J (A,R)	58,000 J (A,R)	21,000 J (A,R)	260,000 J (A,R)	55,000 J (A,R)	170,000 J (A,R)	230,000 J (A,R)	800,000 (A,R)	340,000 (A,R)	240,000 (A,R)	7,500 J (A,R)	120,000 J (A,R)	32,000 J (A,R)
Benzo(a)pyrene	ug/kg	430,000 J (A,R)	170,000 J (A,R)	39,000 J (A,R)	14,000 J (A,R)	170,000 J (A,R)	37,000 J (A,R)	110,000 J (A,R)	160,000 J (A,R)	620,000 (A,R)	230,000 J (A,R)	160,000 J (A,R)	5,100 J (A,R)	79,000 J (A,R)	21,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	290,000 J (A,R)	120,000 J (A,R)	32,000 J (A,R)	11,000 J (A,R)	110,000 J (A,R)	29,000 J (A,R)	87,000 J (A,R)	120,000 J (A,R)	490,000 J (A,R)	180,000 J (A,R)	120,000 J (A,R)	3,600 J (A)	65,000 J (A,R)	17,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	190,000 J (A,R)		15,000 J (R)	5,400 J (R)	56,000 J (R)	15,000 J (R)	45,000 J (R)	65,000 J (R)	450,000 J (A,R)	88,000 J (R)	62,000 J (R)	2,200 J (R)	34,000 J (R)	
Benzo(k)fluoranthene	ug/kg	150,000 J (A,R)	55,000 J (A,R)	11,000 J (A,R)	2,900 J (A)	54,000 J (A,R)	10,000 J (A,R)	25,000 J (A,R)	44,000 J (A,R)	120,000 J (A,R)	43,000 J (A,R)	39,000 J (A,R)	1,200 J	26,000 J (A,R)	7,800 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	380,000 J (A)	160,000 J	35,000 J	14,000 J	190,000 J	31,000 J	110,000 J	130,000 J	380,000 J (A)	170,000 J	120,000 J	6,900 J	79,000 J	20,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg			6,000 J	2,000 J	15,000 J	6,100 J	14,000 J	15,000 J	29,000 J	21,000 J	15,000 J	2,400 J	10,000 J	
Chrysene	ug/kg	590,000 J (A,R)	280,000 J (A,R)	65,000 (A,R)	22,000 J (A,R)	210,000 J (A,R)	68,000 J (A,R)	180,000 J (A,R)	220,000 J (A,R)	740,000 (A,R)	320,000 (A,R)	220,000 (A,R)	8,600 J (R)	130,000 J (A,R)	34,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg			6,200 J (A,R)	2,500 J (A,R)		7,100 J (A,R)	18,000 J (A,R)	18,000 J (A,R)	180,000 J (A,R)	28,000 J (A,R)	20,000 J (A,R)		16,000 J (A,R)	
Dibenzofuran	ug/kg	150,000 J (A,R)	54,000 J (A,R)	18,000 J (A,R)	6,100 J (R)	70,000 J (A,R)	13,000 J (A,R)	44,000 J (A,R)	45,000 J (A,R)	140,000 J (A,R)	67,000 J (A,R)	48,000 J (A,R)	3,000 J (R)	30,000 J (A,R)	6,900 J (R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	1,200,000 (A,R)	480,000 J (A,R)	100,000 (R)	39,000 (R)	480,000 (A,R)	86,000 J (R)	280,000 (A,R)	450,000 (A,R)	1,700,000 (A,R)	620,000 (A,R)	440,000 (A,R)	14,000 J (R)	200,000 J (R)	58,000 (R)
Fluorene	ug/kg	1,600,000 (A,R)	600,000 (A,R)	170,000 (R)	61,000 (R)	780,000 (A,R)	130,000 J (R)	440,000 (A,R)	510,000 (A,R)	1,300,000 (A,R)	690,000 (A,R)	470,000 (A,R)	26,000 (R)	310,000 (A,R)	82,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg			15,000 J (A,R)	5,100 J (A,R)	53,000 J (A,R)	16,000 J (A,R)	47,000 J (A,R)	65,000 J (A,R)	420,000 J (A,R)	95,000 J (A,R)	61,000 J (A,R)	2,100 J (A,R)	35,000 J (A,R)	
Naphthalene	ug/kg	11,000,000 (A,R)	3,800,000 (A,R)	880,000 (A,R)	240,000 (A,R)	4,600,000 (A,R)	770,000 (A,R)	3,200,000 (A,R)	3,400,000 (A,R)	7,400,000 (A,R)	3,800,000 (A,R)	2,500,000 (A,R)	140,000 (A,R)	2,100,000 (A,R)	280,000 (A,R)
Phenanthrene	ug/kg	4,600,000 (A,R)	1,700,000 (R)	400,000 (R)	160,000 (R)	1,800,000 (A,R)	320,000 (R)	1,000,000 (R)	1,500,000 (R)	4,800,000 (A,R)	1,900,000 (A,R)	1,400,000 (R)	61,000 (R)	820,000 (R)	200,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	2,000,000 (A,R)	770,000 (A,R)	130,000 (R)	51,000 (R)	660,000 (A,R)	120,000 J (R)	420,000 (A,R)	540,000 (A,R)	2,000,000 (A,R)	800,000 (A,R)	610,000 (A,R)	21,000 (R)	310,000 (A,R)	82,000 (R)
Total PAHs	ug/kg	31,810,000 (R)	11,675,000 (R)	2,931,200 (R)	978,900 (R)	14,073,000 (R)	2,556,100 (R)	8,952,000 (R)	10,342,000 (R)	27,650,000 (R)	12,964,000 (R)	8,792,000 (R)	450,300 (R)	6,235,000 (R)	1,265,800 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B
Sample Number:		GC-SD116-08.5-10.5	D-03172010-01	GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03
Sample Depth:		8.5-10.5	8.5-10.5	10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	23,000 (R)	26,000 (R)	7,200 (R)	590,000 (A,R)	4,000 (R)	360,000 (A,R)	720,000 (A,R)	1,100,000 (A,R)	180,000 (A,R)	200,000 (A,R)	47,000 (A,R)	1,000,000 J (A,R)	320,000 J (A,R)	500,000 J (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	4,100 (R)	3,900 (R)	1,600 (R)	56,000 J (R)	640 J (R)	170,000 (R)	120,000 (R)	420,000 (A,R)	76,000 (R)	41,000 (R)	24,000 (R)	540,000 J (A,R)	160,000 J (R)	260,000 J (R)
Acenaphthylene	ug/kg	12,000 (R)	11,000 (R)	4,400 (R)	260,000 (R)	2,300 (R)	13,000 J (R)	220,000 (R)	72,000 J (R)	50,000 (R)	85,000 (R)	16,000 (R)	44,000 (R)	14,000 (R)	36,000 (R)
Acetophenone	ug/kg	83 J				42 J						550 J			
Anthracene	ug/kg	7,000 J (R)	7,000 J (R)	3,700 J (R)	140,000 (R)	1,800 J (R)	69,000 J (R)	150,000 (R)	210,000 J (R)	67,000 (R)	69,000 (R)	23,000 (R)	250,000 (R)	56,000 (R)	160,000 J (R)
Benzaldehyde	ug/kg					110 J									
Benzo(a)anthracene	ug/kg	3,200 (A,R)	3,200 J (A,R)	1,700 (A,R)	67,000 J (A,R)	970 (A,R)	46,000 J (A,R)	70,000 J (A,R)	130,000 J (A,R)	32,000 (A,R)	31,000 (A,R)	12,000 (A,R)	160,000 (A,R)	48,000 (A,R)	83,000 (A,R)
Benzo(a)pyrene	ug/kg	2,000 (A,R)	2,300 J (A,R)	1,200 J (A,R)	48,000 J (A,R)	610 J (A,R)	28,000 J (A,R)	48,000 J (A,R)	77,000 J (A,R)	24,000 J (A,R)	25,000 J (A,R)	7,500 J (A,R)	100,000 (A,R)	31,000 (A,R)	60,000 (A,R)
Benzo(b)fluoranthene	ug/kg	1,700 J (A)	1,800 J (A)	920 J (A)	33,000 J (A,R)	520 J (A)	23,000 J (A,R)	39,000 J (A,R)	70,000 J (A,R)	17,000 J (A,R)	18,000 J (A,R)	6,100 J (A,R)	45,000 (A,R)	15,000 (A,R)	23,000 (A,R)
Benzo(g,h,i)perylene	ug/kg	840 J (R)	800 J (R)	410 J		240 J				7,800 J (R)	8,800 J (R)	3,000 J (R)	32,000 (R)	10,000 (R)	17,000 J (R)
Benzo(k)fluoranthene	ug/kg	620 J	760 J	370 J	18,000 J (A,R)	170 J	11,000 J (A,R)	15,000 J (A,R)	33,000 J (A,R)	7,100 J (A,R)	7,400 J (A,R)	2,100 J (A)	63,000 (A,R)	16,000 (A,R)	39,000 (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	2,000	2,000 J	780 J	47,000 J	360 J	24,000 J	48,000 J	75,000 J	17,000 J	19,000 J	5,300 J	81,000	25,000	49,000
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg	450 J	430 J	170 J		76 J		5,100 J		1,300 J	1,600 J		5,500 J	2,000 J	3,900 J
Chrysene	ug/kg	3,100 (R)	2,900 J (R)	1,800 (R)	66,000 J (A,R)	880 (R)	42,000 J (A,R)	66,000 J (A,R)	100,000 J (A,R)	29,000 J (A,R)	34,000 (A,R)	9,700 J (R)	140,000 (A,R)	41,000 (A,R)	82,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	290 J (A,R)		150 J (A,R)		68 J (A,R)							8,800 J (A,R)	3,500 J (A,R)	6,500 J (A,R)
Dibenzofuran	ug/kg	830 J (R)	820 J (R)	360 J (R)	16,000 J (A,R)	160 J	8,700 J (A,R)	17,000 J (A,R)	24,000 J (A,R)	6,600 J (R)	7,400 J (R)	2,200 J (R)	23,000 J (A,R)	8,600 (A,R)	14,000 (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	6,500 (R)	6,200 (R)	3,300 (R)	120,000 (R)	1,700 (R)	61,000 J (R)	130,000 (R)	190,000 J (R)	59,000 (R)	66,000 (R)	22,000 (R)	280,000 (A,R)	66,000 (R)	160,000 (R)
Fluorene	ug/kg	9,500 (R)	9,000 (R)	3,900 (R)	180,000 (R)	2,100 (R)	95,000 J (R)	190,000 (R)	280,000 (A,R)	69,000 (R)	76,000 (R)	24,000 (R)	240,000 (A,R)	70,000 (R)	140,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	850 J (A,R)	850 J (A,R)	450 J (A)		240 J (A)				9,900 J (A,R)	9,500 J (A,R)	3,000 J (A,R)	39,000 (A,R)	12,000 (A,R)	19,000 J (A,R)
Naphthalene	ug/kg	22,000 (A,R)	25,000 (A,R)	4,800 (A,R)	870,000 (A,R)	4,000 (A,R)	780,000 (A,R)	1,200,000 (A,R)	1,800,000 (A,R)	190,000 (A,R)	220,000 (A,R)	31,000 (A,R)	1,000,000 J (A,R)	320,000 J (A,R)	560,000 J (A,R)
Phenanthrene	ug/kg	24,000 (R)	24,000 (R)	12,000 (R)	480,000 (R)	6,100 (R)	250,000 (R)	510,000 (R)	750,000 (R)	200,000 (R)	210,000 (R)	75,000 (R)	850,000 J (R)	260,000 J (R)	460,000 J (R)
Phenol	ug/kg					24 J									
Pyrene	ug/kg	9,500 J (R)	10,000 J (R)	5,200 J (R)	190,000 (A,R)	2,700 J (R)	120,000 (R)	220,000 (A,R)	310,000 (A,R)	80,000 (R)	96,000 (R)	29,000 (R)	260,000 (A,R)	67,000 (R)	220,000 J (A,R)
Total PAHs	ug/kg	130,200 (R)	134,710 (R)	53,100 (R)	3,118,000 (R)	29,038 (R)	2,068,000 (R)	3,698,000 (R)	5,542,000 (R)	1,097,800 (R)	1,196,700 (R)	334,400 (R)	5,051,800 (R)	1,509,500 (R)	2,825,500 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A
Sample Number:	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6	GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4
Sample Depth:	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6	2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4
Sample Date:	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg	4,600 J (R)	220 J (R)	430,000 (A,R)	1,100,000 (A,R)	340,000 (A,R)	190,000 (A,R)	240,000 (A,R)	400,000 (A,R)	270,000 (A,R)	720,000 (A,R)	380,000 (A,R)	250,000 (A,R)	410,000 (A,R)	560,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	1,200 J (R)	140 J (R)	150,000 (R)	330,000 (R)	77,000 (R)	40,000 J (R)	26,000 J (R)	86,000 J (R)	17,000 J (R)	39,000 J (R)	20,000 J (R)	13,000 J (R)	140,000 (R)	240,000 (R)
Acenaphthylene	ug/kg	1,500 J (R)		25,000 J (R)	83,000 J (R)	65,000 (R)	30,000 J (R)	58,000 (R)	70,000 J (R)	170,000 (R)	430,000 (A,R)	240,000 (R)	140,000 (R)	30,000 J (R)	32,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg		92 J (R)	110,000 (R)	230,000 (R)	66,000 (R)	37,000 J (R)	41,000 J (R)	84,000 J (R)	84,000 J (R)	200,000 (R)	110,000 J (R)	59,000 J (R)	90,000 (R)	150,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg		54 J	43,000 J (A,R)	100,000 J (A,R)	42,000 J (A,R)	7,600 J (A,R)	15,000 J (A,R)	36,000 J (A,R)	63,000 J (A,R)	140,000 (A,R)	77,000 J (A,R)	38,000 J (A,R)	43,000 J (A,R)	56,000 J (A,R)
Benzo(a)pyrene	ug/kg			30,000 J (A,R)	66,000 J (A,R)	27,000 J (A,R)	3,400 J (A,R)	10,000 J (A,R)	21,000 J (A,R)	45,000 J (A,R)	95,000 J (A,R)	54,000 J (A,R)	25,000 J (A,R)	30,000 J (A,R)	39,000 J (A,R)
Benzo(b)fluoranthene	ug/kg			23,000 J (A,R)	52,000 J (A,R)	20,000 J (A,R)	1,600 J (A)	3,800 J (A)	12,000 J (A,R)	19,000 J (A,R)	37,000 J (A,R)	24,000 J (A,R)	11,000 J (A,R)	20,000 J (A,R)	30,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg			12,000 J (R)	29,000 J (R)	11,000 J (R)				14,000 J (R)	28,000 J (R)	16,000 J (R)	7,800 J (R)	11,000 J (R)	15,000 J (R)
Benzo(k)fluoranthene	ug/kg			8,100 J (A,R)	17,000 J (A,R)	8,000 J (A,R)	2,600 J (A)	5,800 J (A,R)	14,000 J (A,R)	32,000 J (A,R)	66,000 J (A,R)	35,000 J (A,R)	19,000 J (A,R)	11,000 J (A,R)	9,200 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg			26,000 J	55,000 J	21,000 J	8,900 J	11,000 J	20,000 J	25,000 J	63,000 J	32,000 J	20,000 J	26,000 J	37,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg			6,100 J	13,000 J	4,700 J	4,600 J	4,100 J	5,000 J		5,800 J		1,900 J	5,900 J	5,800 J
Chrysene	ug/kg		49 J	71,000 (A,R)	120,000 J (A,R)	43,000 J (A,R)	8,000 J (R)	19,000 J (A,R)	52,000 J (A,R)	58,000 J (A,R)	130,000 (A,R)	71,000 J (A,R)	35,000 J (A,R)	47,000 J (A,R)	64,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg			4,900 J (A,R)	12,000 J (A,R)	5,200 J (A,R)								4,100 J (A,R)	5,700 J (A,R)
Dibenzofuran	ug/kg			12,000 J (A,R)	26,000 J (A,R)	9,800 J (A,R)	5,300 J (R)	5,900 J (R)		10,000 J (A,R)	26,000 J (A,R)	13,000 J (A,R)	8,400 J (A,R)	13,000 J (A,R)	16,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg		92 J	68,000 (R)	170,000 (R)	60,000 (R)	19,000 J (R)	28,000 J (R)	53,000 J (R)	120,000 J (R)	250,000 (A,R)	140,000 (R)	70,000 (R)	71,000 (R)	100,000 (R)
Fluorene	ug/kg		91 J (R)	100,000 (R)	240,000 (A,R)	88,000 (R)	34,000 J (R)	46,000 (R)	83,000 J (R)	130,000 (R)	200,000 (R)	130,000 (R)	74,000 (R)	110,000 (R)	160,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg			12,000 J (A,R)	30,000 J (A,R)	10,000 J (A,R)				11,000 J (A,R)	21,000 J (A,R)	13,000 J (A,R)	5,800 J (A,R)	9,300 J (A,R)	15,000 J (A,R)
Naphthalene	ug/kg	13,000 (A,R)	290 J (R)	700,000 (A,R)	1,600,000 (A,R)	470,000 (A,R)	350,000 (A,R)	420,000 (A,R)	660,000 (A,R)	680,000 (A,R)	1,600,000 (A,R)	950,000 (A,R)	470,000 (A,R)	630,000 (A,R)	930,000 (A,R)
Phenanthrene	ug/kg	1,900 J (R)	290 J (R)	270,000 (R)	570,000 (R)	220,000 (R)	100,000 (R)	130,000 (R)	220,000 (R)	360,000 (R)	820,000 (R)	470,000 (R)	250,000 (R)	280,000 (R)	370,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg			96,000 (R)	230,000 (A,R)	77,000 (R)	35,000 J (R)	50,000 (R)	99,000 J (R)	180,000 (A,R)	410,000 (A,R)	240,000 (A,R)	120,000 (R)	93,000 (R)	120,000 (R)
Total PAHs	ug/kg	22,200 (R)	1,318	2,153,000 (R)	4,979,000 (R)	1,629,200 (R)	858,200 (R)	1,092,600 (R)	1,890,000 (R)	2,253,000 (R)	5,186,000 (R)	2,970,000 (R)	1,587,600 (R)	2,029,400 (R)	2,895,900 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A	GC-SD51A	GC-SD51A	GC-SD117	GC-SD117
Sample Number:	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7
Sample Depth:	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4	6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7
Sample Date:	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/18/2010	3/18/2010
Sample Type:	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	260,000 (A,R)	310,000 (A,R)	420,000 (A,R)	320,000 (A,R)	370,000 (A,R)	450,000 (A,R)	280,000 (A,R)	370,000 (A,R)	1,200,000 (A,R)	1,200,000 (A,R)	130,000 (A,R)	180,000 (A,R)	22,000 (R)	55 J
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														8.3 J
Acenaphthene	ug/kg	91,000 (R)	96,000 (R)	110,000 (R)	110,000 (R)	160,000 (R)	190,000 (R)	96,000 (R)	78,000 J (R)	330,000 (R)	200,000 (R)	16,000 J (R)	31,000 (R)	20,000 (R)	47 J (R)
Acenaphthylene	ug/kg	41,000 (R)	69,000 (R)	78,000 (R)	25,000 J (R)	14,000 J (R)	19,000 J (R)	30,000 J (R)	94,000 J (R)	120,000 J (R)	270,000 (R)	57,000 (R)	78,000 (R)	1,900 J (R)	9.6 J
Acetophenone	ug/kg													390 J	23 J
Anthracene	ug/kg	59,000 (R)	77,000 (R)	66,000 (R)	70,000 J (R)	78,000 J (R)	96,000 J (R)	52,000 J (R)	61,000 J (R)	190,000 (R)	190,000 (R)	31,000 (R)	49,000 (R)	14,000 (R)	50 J
Benzaldehyde	ug/kg														53 J
Benzo(a)anthracene	ug/kg	27,000 J (A,R)	33,000 J (A,R)	32,000 J (A,R)	26,000 J (A,R)	36,000 J (A,R)	42,000 J (A,R)	28,000 J (A,R)	31,000 J (A,R)	110,000 J (A,R)	110,000 J (A,R)	15,000 J (A,R)	24,000 J (A,R)	8,300 (A,R)	43 J
Benzo(a)pyrene	ug/kg	18,000 J (A,R)	19,000 J (A,R)	20,000 J (A,R)	16,000 J (A,R)	21,000 J (A,R)	30,000 J (A,R)	18,000 J (A,R)	20,000 J (A,R)	75,000 J (A,R)	75,000 J (A,R)	10,000 J (A,R)	16,000 J (A,R)	6,100 J (A,R)	39 J (A)
Benzo(b)fluoranthene	ug/kg	14,000 J (A,R)	16,000 J (A,R)	7,400 J (A,R)	6,400 J (A,R)	7,600 J (A,R)	11,000 J (A,R)	7,400 J (A,R)	9,800 J (A,R)	31,000 J (A,R)	29,000 J (A,R)	3,300 J (A)	6,200 J (A,R)	4,900 J (A,R)	36 J
Benzo(g,h,i)perylene	ug/kg	5,700 J (R)	6,300 J (R)							42,000 J (R)	29,000 J (R)	3,700 J (R)	6,700 J (R)	2,500 J (R)	24 J
Benzo(k)fluoranthene	ug/kg	4,000 J (A)	3,600 J (A)	16,000 J (A,R)	9,100 J (A,R)	20,000 J (A,R)	20,000 J (A,R)	13,000 J (A,R)	13,000 J (A,R)	55,000 J (A,R)	44,000 J (A,R)	6,600 J (A,R)	8,700 J (A,R)	1,700 J (A)	37 J
Benzyl butyl phthalate	ug/kg														6.7 J
Biphenyl (diphenyl)	ug/kg	16,000 J	21,000 J	21,000 J	18,000 J	20,000 J	23,000 J	15,000 J	22,000 J	55,000 J	56,000 J	8,300 J	13,000 J	2,300 J	
Bis(2-chloroethyl) ether	ug/kg														11 J
Bis(2-ethylhexyl) phthalate	ug/kg														49 J
*Carbazole	ug/kg	2,200 J	2,300 J	2,800 J	5,400 J			2,100 J		10,000 J	7,400 J	1,500 J	2,100 J	370 J	
Chrysene	ug/kg	25,000 J (A,R)	31,000 J (A,R)	30,000 J (A,R)	32,000 J (A,R)	44,000 J (A,R)	50,000 J (A,R)	29,000 J (A,R)	28,000 J (A,R)	130,000 J (A,R)	120,000 J (A,R)	14,000 J (R)	23,000 J (A,R)	8,200 (R)	46 J
Dibenz(a,h)anthracene	ug/kg	2,000 J (A,R)								21,000 J (A,R)	12,000 J (A,R)	1,700 J (A,R)	3,600 J (A,R)		8.1 J
Dibenzofuran	ug/kg	8,000 J (A,R)	11,000 J (A,R)	12,000 J (A,R)	8,300 J (A,R)	9,000 J (A,R)	11,000 J (A,R)	6,800 J (R)	8,800 J (A,R)	30,000 J (A,R)	32,000 J (A,R)		6,400 J (R)	1,300 J (R)	
Di-n-butyl phthalate	ug/kg														5.8 J
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	48,000 (R)	61,000 J (R)	59,000 (R)	46,000 J (R)	57,000 J (R)	74,000 J (R)	43,000 J (R)	53,000 J (R)	160,000 (R)	160,000 (R)	27,000 (R)	45,000 (R)	14,000 (R)	72 J
Fluorene	ug/kg	72,000 (R)	94,000 (R)	78,000 (R)	69,000 J (R)	84,000 J (R)	100,000 J (R)	63,000 (R)	88,000 J (R)	220,000 (R)	240,000 (A,R)	45,000 (R)	64,000 (R)	11,000 (R)	34 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	6,400 J (A,R)	7,300 J (A,R)							34,000 J (A,R)	26,000 J (A,R)	3,200 J (A,R)	6,000 J (A,R)	2,600 J (A,R)	19 J
Naphthalene	ug/kg	450,000 (A,R)	420,000 (A,R)	600,000 (A,R)	540,000 (A,R)	580,000 (A,R)	700,000 (A,R)	450,000 (A,R)	580,000 (A,R)	1,600,000 (A,R)	1,500,000 (A,R)	87,000 (A,R)	99,000 (A,R)	33,000 (A,R)	
Phenanthrene	ug/kg	180,000 (R)	240,000 (R)	260,000 (R)	200,000 (R)	220,000 (R)	270,000 (R)	170,000 (R)	230,000 (R)	630,000 (R)	650,000 (R)	120,000 (R)	180,000 (R)	43,000 (R)	170 J
Phenol	ug/kg														6.5 J
Pyrene	ug/kg	59,000 (R)	74,000 (R)	98,000 (R)	84,000 (R)	97,000 J (R)	120,000 J (R)	74,000 (R)	86,000 J (R)	320,000 (A,R)	330,000 (A,R)	48,000 (R)	73,000 (R)	21,000 (R)	120 J
Total PAHs	ug/kg	1,362,100 (R)	1,557,200 (R)	1,874,400 (R)	1,553,500 (R)	1,788,600 (R)	2,172,000 (R)	1,353,400 (R)	1,741,800 (R)	5,268,000 (R)	5,185,000 (R)	618,500 (R)	893,200 (R)	214,200 (R)	809.7

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B
Sample Number:		GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5
Sample Depth:		12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5
Sample Date:		3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	55 J	**830 (R)**	**640,000 (A,R)**	**490,000 (A,R)**	**780,000 (A,R)**	**190 J (R)**	**76 J (R)**	47 J	50 J	**180 J (R)**	**1,100,000 (A,R)**	**390,000 (A,R)**	**450,000 (A,R)**	**170,000 (A,R)**
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	**310 (R)**	**1,700 (R)**	**220,000 (R)**	**190,000 (R)**	**300,000 (R)**	**110 J (R)**	**41 J (R)**	**31 J (R)**	**26 J (R)**	**84 J (R)**	**74,000 J (R)**	**40,000 J (R)**	**52,000 J (R)**	**44,000 (R)**
Acenaphthylene	ug/kg	40 J	**52 J (R)**	**35,000 J (R)**	**22,000 J (R)**	**37,000 J (R)**	22 J	7.2 J	6.9 J		**58 J (R)**	**420,000 (A,R)**	**140,000 (R)**	**230,000 (R)**	**48,000 (R)**
Acetophenone	ug/kg	29 J	20 J	4,000 J		3,900 J	27 J	29 J	26 J	29 J	34 J				
Anthracene	ug/kg	20 J	**350 (R)**	**110,000 J (R)**	**78,000 J (R)**	**120,000 (R)**	**92 J (R)**	35 J	25 J	20 J	52 J	**260,000 (R)**	**90,000 (R)**	**160,000 (R)**	**43,000 (R)**
Benzaldehyde	ug/kg	54 J	54 J				58 J	73 J	51 J	78 J	71 J				
Benzo(a)anthracene	ug/kg	11 J	16 J	**76,000 J (A,R)**	**59,000 J (A,R)**	**87,000 J (A,R)**	47 J	25 J	14 J	21 J	49 J	**140,000 J (A,R)**	**53,000 J (A,R)**	**93,000 J (A,R)**	**21,000 J (A,R)**
Benzo(a)pyrene	ug/kg	9.5 J		**47,000 J (A,R)**	**36,000 J (A,R)**	**58,000 J (A,R)**	**31 J (A)**	**24 J (A)**			**52 J (A)**	**100,000 J (A,R)**	**36,000 J (A,R)**	**68,000 J (A,R)**	**13,000 J (A,R)**
Benzo(b)fluoranthene	ug/kg	9.1 J		**18,000 J (A,R)**	**19,000 J (A,R)**	**25,000 J (A,R)**	26 J	16 J			35 J	**82,000 J (A,R)**	**26,000 J (A,R)**	**48,000 J (A,R)**	**5,500 J (A,R)**
Benzo(g,h,i)perylene	ug/kg			**24,000 J (R)**	**15,000 J (R)**	**24,000 J (R)**						**51,000 J (R)**		**32,000 J (R)**	**4,800 J (R)**
Benzo(k)fluoranthene	ug/kg			**25,000 J (A,R)**	**26,000 J (A,R)**	**39,000 J (A,R)**	10 J				16 J	**39,000 J (A,R)**	**13,000 J (A,R)**	**23,000 J (A,R)**	**7,100 J (A,R)**
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	16 J	170 J	34,000 J	28,000 J	45,000 J	15 J				14 J	68,000 J	27,000 J	44,000 J	11,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	31 J	**250 J (R)**				110 J	84 J							
*Carbazole	ug/kg	70 J	170 J	6,300 J	3,800 J	6,000 J	16 J					9,600 J	3,200 J		3,500 J
Chrysene	ug/kg	9.3 J	12 J	**90,000 J (A,R)**	**63,000 J (A,R)**	**97,000 J (A,R)**	45 J	23 J	13 J	21 J	45 J	**160,000 J (A,R)**	**56,000 J (A,R)**	**92,000 J (A,R)**	**21,000 J (A,R)**
Dibenz(a,h)anthracene	ug/kg														**1,600 J (A,R)**
Dibenzofuran	ug/kg	13 J	99 J	**16,000 J (A,R)**	**13,000 J (A,R)**	**20,000 J (A,R)**						**33,000 J (A,R)**	**12,000 J (A,R)**	**18,000 J (A,R)**	
Di-n-butyl phthalate	ug/kg	5 J													
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	17 J	71 J	**110,000 J (R)**	**78,000 J (R)**	**120,000 J (R)**	78 J	41 J	18 J	23 J	50 J	**210,000 (R)**	**94,000 (R)**	**190,000 (R)**	**41,000 (R)**
Fluorene	ug/kg	**25 J (R)**	**560 (R)**	**120,000 J (R)**	**99,000 J (R)**	**150,000 (R)**	**78 J (R)**	**30 J (R)**	19 J	18 J	**59 J (R)**	**320,000 (A,R)**	**120,000 (R)**	**160,000 (R)**	**56,000 (R)**
Indeno(1,2,3-c,d)pyrene	ug/kg			**18,000 J (A,R)**	**13,000 J (A,R)**	**19,000 J (A,R)**						**41,000 J (A,R)**		**28,000 J (A,R)**	**4,200 J (A,R)**
Naphthalene	ug/kg	**940 (R)**	**2,600 (R)**	**1,100,000 (A,R)**	**810,000 (A,R)**	**1,200,000 (A,R)**	**360 (R)**				**260 (R)**	**1,900,000 (A,R)**	**580,000 (A,R)**	**820,000 (A,R)**	**180,000 (A,R)**
Phenanthrene	ug/kg	82 J	**1,500 (R)**	**390,000 (R)**	**300,000 (R)**	**470,000 (R)**	**310 (R)**	120 J	73 J	58 J	170 J	**820,000 (R)**	**310,000 (R)**	**560,000 (R)**	**160,000 (R)**
Phenol	ug/kg	7.7 J					9.4 J	7 J	7 J	7.6 J					
Pyrene	ug/kg	23 J	89 J	**200,000 (A,R)**	**150,000 (R)**	**230,000 (A,R)**	96 J	57 J	32 J	37 J	78 J	**330,000 (A,R)**	**140,000 (R)**	**240,000 (A,R)**	**71,000 (R)**
Total PAHs	ug/kg	1,551	**7,780 (R)**	**3,223,000 (R)**	**2,448,000 (R)**	**3,756,000 (R)**	1,495	495.2	278.9	274	1,188	**6,047,000 (R)**	**2,088,000 (R)**	**3,246,000 (R)**	**891,200 (R)**

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A
Sample Number:		GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2
Sample Depth:		6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2
Sample Date:		3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	280,000 (A,R)	45,000 (A,R)	180,000 (A,R)	78,000 (A,R)	210,000 (A,R)	340,000 (A,R)	850,000 (A,R)	3,600,000 (A,R)	1,000,000 (A,R)	5,800,000 (A,R)	800,000 (A,R)	1,200,000 (A,R)	1,200,000 (A,R)	1,100,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	75,000 (R)	23,000 (R)	26,000 (R)	25,000 (R)	50,000 (R)	56,000 J (R)	73,000 J (R)	290,000 J (R)	810,000 J (A,R)	450,000 J (A,R)	37,000 J (R)	43,000 J (R)	120,000 J (R)	65,000 J (R)
Acenaphthylene	ug/kg	59,000 (R)	1,100 J (R)	77,000 (R)	22,000 (R)	53,000 (R)	140,000 (R)	360,000 (A,R)	1,600,000 (A,R)	4,100,000 (A,R)	2,800,000 (A,R)	270,000 (R)	480,000 (A,R)	380,000 (A,R)	400,000 (A,R)
Acetophenone	ug/kg				760 J	1,500 J									
Anthracene	ug/kg	56,000 (R)	3,500 J (R)	43,000 (R)	30,000 (R)	50,000 (R)	91,000 J (R)	190,000 J (R)	800,000 (R)	2,000,000 J (A,R)	1,300,000 (R)	150,000 (R)	210,000 (R)	210,000 (R)	190,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	29,000 J (A,R)	800 J (A,R)	23,000 (A,R)	15,000 (A,R)	29,000 J (A,R)	58,000 J (A,R)	94,000 J (A,R)	450,000 J (A,R)	1,200,000 J (A,R)	690,000 J (A,R)	90,000 J (A,R)	110,000 J (A,R)	110,000 J (A,R)	120,000 J (A,R)
Benzo(a)pyrene	ug/kg	20,000 J (A,R)		16,000 J (A,R)	10,000 J (A,R)	20,000 J (A,R)	43,000 J (A,R)	59,000 J (A,R)	320,000 J (A,R)	830,000 J (A,R)	470,000 J (A,R)	62,000 J (A,R)	72,000 J (A,R)	66,000 J (A,R)	89,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	7,200 J (A,R)		6,500 J (A,R)	8,200 J (A,R)	7,500 J (A,R)	33,000 J (A,R)	51,000 J (A,R)	260,000 J (A,R)	650,000 J (A,R)	390,000 J (A,R)	22,000 J (A,R)	32,000 J (A,R)	57,000 J (A,R)	67,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	6,200 J (R)		5,300 J (R)	5,900 J (R)	8,600 J (R)	19,000 J (R)		110,000 J (R)		190,000 J (A,R)	23,000 J (R)	25,000 J (R)		37,000 J (R)
Benzo(k)fluoranthene	ug/kg	12,000 J (A,R)		10,000 J (A,R)	2,900 J (A)	13,000 J (A,R)	13,000 J (A,R)	22,000 J (A,R)	83,000 J (A,R)	290,000 J (A,R)	170,000 J (A,R)	37,000 J (A,R)	51,000 J (A,R)	32,000 J (A,R)	18,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	16,000 J	2,900 J	11,000 J	6,800 J	15,000 J	27,000 J	62,000 J	270,000 J (A)	700,000 J (A)	500,000 J (A)	46,000 J	69,000 J	77,000 J	67,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg	5,000 J	1,000 J	1,800 J	960 J	2,200 J			24,000 J		37,000 J	5,400 J	6,500 J	12,000 J	9,300 J
Chrysene	ug/kg	33,000 J (A,R)	680 J (R)	21,000 (A,R)	16,000 (A,R)	32,000 J (A,R)	59,000 J (A,R)	79,000 J (A,R)	400,000 J (A,R)	980,000 J (A,R)	590,000 J (A,R)	98,000 J (A,R)	110,000 J (A,R)	110,000 J (A,R)	130,000 (A,R)
Dibenz(a,h)anthracene	ug/kg	2,500 J (A,R)		2,300 J (A,R)	1,700 J (A,R)							14,000 J (A,R)	10,000 J (A,R)		
Dibenzofuran	ug/kg	8,400 J (A,R)	1,200 J (R)	5,500 J (R)	3,000 J (R)		11,000 J (A,R)	20,000 J (A,R)	88,000 J (A,R)	240,000 J (A,R)	170,000 J (A,R)	21,000 J (A,R)	24,000 J (A,R)	33,000 J (A,R)	31,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	47,000 (R)	1,600 J (R)	40,000 (R)	25,000 (R)	46,000 J (R)	91,000 J (R)	190,000 J (R)	860,000 (A,R)	1,700,000 J (A,R)	1,300,000 (A,R)	120,000 (R)	180,000 (R)	160,000 J (R)	170,000 (R)
Fluorene	ug/kg	78,000 (R)	10,000 J (R)	63,000 (R)	29,000 (R)	50,000 (R)	120,000 (R)	220,000 J (R)	1,000,000 (A,R)	2,900,000 (A,R)	1,800,000 (A,R)	160,000 (R)	260,000 (A,R)	310,000 (A,R)	270,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	6,400 J (A,R)		4,900 J (A,R)	4,700 J (A,R)	6,900 J (A,R)			110,000 J (A,R)		180,000 J (A,R)	20,000 J (A,R)	22,000 J (A,R)		36,000 J (A,R)
Naphthalene	ug/kg	250,000 (A,R)	74,000 (A,R)	110,000 (A,R)	93,000 (A,R)	370,000 (A,R)	590,000 (A,R)	1,800,000 (A,R)	7,000,000 (A,R)	21,000,000 (A,R)	11,000,000 (A,R)	1,300,000 (A,R)	1,900,000 (A,R)	2,000,000 (A,R)	1,900,000 (A,R)
Phenanthrene	ug/kg	190,000 (R)	16,000 (R)	160,000 (R)	81,000 (R)	160,000 (R)	310,000 (R)	640,000 (R)	3,000,000 (A,R)	6,800,000 (A,R)	4,700,000 (A,R)	470,000 (R)	740,000 (R)	700,000 (R)	650,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	84,000 (R)	2,200 J (R)	70,000 (R)	36,000 (R)	81,000 (R)	130,000 (R)	250,000 (A,R)	1,300,000 (A,R)	3,200,000 (A,R)	2,000,000 (A,R)	240,000 (A,R)	340,000 (A,R)	320,000 (A,R)	300,000 (A,R)
Total PAHs	ug/kg	1,235,300 (R)	177,880 (R)	858,000 (R)	483,400 (R)	1,187,000 (R)	2,093,000 (R)	4,878,000 (R)	21,183,000 (R)	47,460,000 (R)	33,830,000 (R)	3,913,000 (R)	5,785,000 (R)	5,775,000 (R)	5,542,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD57A	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132
Sample Number:	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8	GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6
Sample Depth:	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6
Sample Date:	3/23/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010
Sample Type:	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	410,000 (A,R)	1,300,000 (A,R)	1,100,000 (A,R)	1,500,000 (A,R)	260,000 (A,R)	40,000 (A,R)	400,000 (A,R)	440,000 (A,R)	1,000,000 (A,R)	1,900 (R)	320,000 (A,R)	93,000 (A,R)	54,000 (A,R)	630,000 (A,R)
4-methylphenol (p-cresol)	ug/kg						320 J								
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	83,000 J (R)	300,000 (R)	360,000 (A,R)	700,000 (A,R)	93,000 (R)	15,000 (R)	110,000 (R)	250,000 (R)	500,000 (A,R)	1,900 (R)	200,000 (R)	47,000 (R)	36,000 (R)	160,000 J (R)
Acenaphthylene	ug/kg	100,000 J (R)	280,000 (R)	110,000 J (R)	73,000 J (R)	27,000 J (R)	3,100 J (R)	75,000 J (R)	24,000 J (R)	73,000 J (R)	150 J (R)	12,000 J (R)	11,000 J (R)	2,900 J (R)	130,000 J (R)
Acetophenone	ug/kg									3,800 J	30 J				
Anthracene	ug/kg	93,000 J (R)	250,000 (R)	200,000 (R)	290,000 J (R)	58,000 J (R)	7,900 J (R)	76,000 J (R)	130,000 (R)	250,000 (R)	1,100 (R)	93,000 (R)	22,000 J (R)	15,000 J (R)	110,000 J (R)
Benzaldehyde	ug/kg										76 J				
Benzo(a)anthracene	ug/kg	55,000 J (A,R)	140,000 J (A,R)	120,000 (A,R)	190,000 J (A,R)	21,000 J (A,R)	3,800 J (A,R)	33,000 J (A,R)	78,000 J (A,R)	160,000 (A,R)	570 (A,R)	50,000 J (A,R)	19,000 J (A,R)	10,000 J (A,R)	74,000 J (A,R)
Benzo(a)pyrene	ug/kg	40,000 J (A,R)	88,000 J (A,R)	90,000 J (A,R)	130,000 J (A,R)	13,000 J (A,R)	2,500 J (A,R)	25,000 J (A,R)	56,000 J (A,R)	110,000 J (A,R)	440 J (A,R)	37,000 J (A,R)	16,000 J (A,R)	7,400 J (A,R)	54,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	31,000 J (A,R)	51,000 J (A,R)	27,000 J (A,R)	54,000 J (A,R)	10,000 J (A,R)	2,000 J (A)	17,000 J (A,R)	45,000 J (A,R)	46,000 J (A,R)	320 J (A)	28,000 J (A,R)	6,400 J (A,R)	2,900 J (A)	20,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg		38,000 J (R)	29,000 J (R)	56,000 J (R)		1,200 J (R)		27,000 J (R)	43,000 J (R)	240 J	16,000 J (R)	5,800 J (R)	2,700 J (R)	
Benzo(k)fluoranthene	ug/kg	13,000 J (A,R)	51,000 J (A,R)	55,000 J (A,R)	77,000 J (A,R)		830 J		14,000 J (A,R)	72,000 J (A,R)	110 J	14,000 J (A,R)	10,000 J (A,R)	4,900 J (A,R)	32,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	27,000 J	78,000 J	63,000 J	98,000 J	17,000 J	2,500 J	29,000 J	38,000 J	83,000 J	210 J	28,000 J	6,600 J	4,200 J	45,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg		15,000 J	9,100 J			470 J	5,800 J		7,400 J	93 J			630 J	
Chrysene	ug/kg	53,000 J (A,R)	170,000 (A,R)	150,000 (A,R)	200,000 J (A,R)	19,000 J (A,R)	3,300 J (R)	37,000 J (A,R)	82,000 J (A,R)	180,000 (A,R)	470 J (R)	48,000 J (A,R)	17,000 J (A,R)	9,600 J (R)	74,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg									18,000 J (A,R)	55 J (A)		2,700 J (A,R)		
Dibenzofuran	ug/kg	9,600 J (A,R)	38,000 J (A,R)	28,000 J (A,R)		6,800 J (R)	1,000 J (R)	12,000 J (A,R)	13,000 J (A,R)	30,000 J (A,R)	130 J	11,000 J (A,R)		1,700 J (R)	18,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	79,000 J (R)	210,000 (R)	190,000 (R)	310,000 J (A,R)	41,000 J (R)	6,500 J (R)	62,000 J (R)	150,000 (R)	260,000 (A,R)	1,000 (R)	93,000 (R)	27,000 J (R)	17,000 J (R)	130,000 J (R)
Fluorene	ug/kg	120,000 J (R)	290,000 (A,R)	230,000 (R)	290,000 J (A,R)	78,000 (R)	11,000 (R)	100,000 (R)	140,000 (R)	270,000 (A,R)	1,200 (R)	100,000 (R)	27,000 J (R)	16,000 J (R)	160,000 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg		32,000 J (A,R)	25,000 J (A,R)			1,200 J (A,R)		20,000 J (A,R)	38,000 J (A,R)	170 J (A)	14,000 J (A,R)	4,700 J (A,R)	2,600 J (A,R)	
Naphthalene	ug/kg	670,000 (A,R)	2,000,000 (A,R)	1,600,000 (A,R)	2,600,000 (A,R)	470,000 (A,R)	68,000 (A,R)	800,000 (A,R)	780,000 (A,R)	1,900,000 (A,R)	2,600 (R)	570,000 (A,R)	200,000 (A,R)	130,000 (A,R)	1,300,000 (A,R)
Phenanthrene	ug/kg	290,000 (R)	840,000 (R)	720,000 (R)	1,100,000 (R)	190,000 (R)	28,000 (R)	280,000 (R)	460,000 (R)	920,000 (R)	3,900 (R)	330,000 (R)	81,000 (R)	57,000 (R)	490,000 (R)
Phenol	ug/kg						560 J (R)								
Pyrene	ug/kg	170,000 (R)	390,000 (A,R)	360,000 (A,R)	570,000 (A,R)	77,000 (R)	10,000 (R)	110,000 (R)	220,000 (A,R)	450,000 (A,R)	1,600 (R)	170,000 (R)	47,000 (R)	31,000 (R)	230,000 J (A,R)
Total PAHs	ug/kg	2,207,000 (R)	6,430,000 (R)	5,366,000 (R)	8,140,000 (R)	1,357,000 (R)	204,330 (R)	2,125,000 (R)	2,916,000 (R)	6,290,000 (R)	17,725 (R)	2,095,000 (R)	636,600 (R)	399,000 (R)	3,594,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C
Sample Number:		GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1	GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7
Sample Depth:		1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1	11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7
Sample Date:		4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg						3,700 J								
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	560,000 (A,R)	600,000 (A,R)	2,700,000 (A,R)	5,900,000 (A,R)	710,000 (A,R)	1,600,000 (A,R)	930,000 (A,R)	150,000 (A,R)	470,000 (A,R)	1,200,000 (A,R)	400,000 (A,R)	520,000 (A,R)	580,000 (A,R)	1,100,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	270,000 (R)	310,000 (R)	1,300,000 (A,R)	700,000 J (A,R)	53,000 J (R)	220,000 (R)	250,000 (R)	84,000 (R)	350,000 (A,R)	270,000 (R)	120,000 (R)	160,000 (R)	300,000 (R)	580,000 (A,R)
Acenaphthylene	ug/kg	20,000 J (R)	23,000 J (R)	120,000 J (R)	2,400,000 (A,R)	330,000 (R)	430,000 (A,R)	290,000 (R)	45,000 (R)	23,000 J (R)	260,000 (R)	120,000 (R)	95,000 (R)	19,000 J (R)	30,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	160,000 (R)	130,000 (R)	530,000 (R)	1,300,000 (R)	140,000 J (R)	290,000 (R)	210,000 (R)	59,000 (R)	140,000 (R)	260,000 (R)	100,000 (R)	110,000 (R)	120,000 J (R)	210,000 J (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	69,000 J (A,R)	61,000 J (A,R)	270,000 J (A,R)	670,000 (A,R)	74,000 J (A,R)	140,000 (A,R)	110,000 J (A,R)	33,000 (A,R)	66,000 (A,R)	140,000 (A,R)	52,000 J (A,R)	55,000 J (A,R)	58,000 J (A,R)	110,000 J (A,R)
Benzo(a)pyrene	ug/kg	48,000 J (A,R)	43,000 J (A,R)	190,000 J (A,R)	420,000 J (A,R)	54,000 J (A,R)	110,000 (A,R)	89,000 J (A,R)	27,000 J (A,R)	61,000 (A,R)	99,000 J (A,R)	43,000 J (A,R)	41,000 J (A,R)	20,000 J (A,R)	83,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	38,000 J (A,R)	35,000 J (A,R)	130,000 J (A,R)	360,000 J (A,R)	36,000 J (A,R)	40,000 J (A,R)	41,000 J (A,R)	12,000 J (A,R)	25,000 J (A,R)	77,000 J (A,R)	35,000 J (A,R)	35,000 J (A,R)	23,000 J (A,R)	38,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg			74,000 J (R)	170,000 J (R)		47,000 J (R)	42,000 J (R)	12,000 J (R)	24,000 J (R)	43,000 J (R)	18,000 J (R)	17,000 J (R)	21,000 J (R)	33,000 J (R)
Benzo(k)fluoranthene	ug/kg	18,000 J (A,R)	14,000 J (A,R)	77,000 J (A,R)	130,000 J (A,R)	27,000 J (A,R)	76,000 J (A,R)	49,000 J (A,R)	14,000 J (A,R)	40,000 J (A,R)	34,000 J (A,R)	11,000 J (A,R)	9,500 J (A,R)	26,000 J (A,R)	46,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	44,000 J	41,000 J	210,000 J	500,000 (A)	49,000 J	120,000	110,000 J	29,000 J	68,000	80,000 J	45,000 J	40,000 J	58,000 J	110,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg	4,200 J	3,800 J	15,000 J	46,000 J		8,500 J	7,200 J	2,100 J	4,100 J	8,100 J	3,800 J	4,500 J	5,400 J	9,400 J
Chrysene	ug/kg	77,000 J (A,R)	62,000 J (A,R)	220,000 J (A,R)	660,000 (A,R)	83,000 J (A,R)	150,000 (A,R)	110,000 J (A,R)	32,000 (A,R)	62,000 (A,R)	160,000 (A,R)	45,000 J (A,R)	54,000 J (A,R)	59,000 J (A,R)	110,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg				52,000 J (A,R)		14,000 J (A,R)		3,900 J (A,R)	7,800 J (A,R)					
Dibenzofuran	ug/kg	18,000 J (A,R)	18,000 J (A,R)	82,000 J (A,R)	180,000 J (A,R)	21,000 J (A,R)	34,000 J (A,R)			17,000 J (A,R)	37,000 J (A,R)	12,000 J (A,R)	16,000 J (A,R)		
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	130,000 (R)	140,000 (R)	520,000 (A,R)	1,400,000 (A,R)	150,000 J (R)	290,000 (A,R)	250,000 (A,R)	63,000 (R)	160,000 (R)	270,000 (A,R)	100,000 (R)	140,000 (R)	100,000 J (R)	200,000 J (R)
Fluorene	ug/kg	160,000 (R)	160,000 (R)	720,000 (A,R)	2,000,000 (A,R)	220,000 J (R)	330,000 (A,R)	260,000 (A,R)	58,000 (R)	160,000 (R)	320,000 (A,R)	140,000 (R)	150,000 (R)	130,000 (R)	260,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg			81,000 J (A,R)	180,000 J (A,R)		38,000 J (A,R)	33,000 J (A,R)	9,800 J (A,R)	21,000 J (A,R)	36,000 J (A,R)	17,000 J (A,R)	15,000 J (A,R)	16,000 J (A,R)	28,000 J (A,R)
Naphthalene	ug/kg	810,000 (A,R)	740,000 (A,R)	4,100,000 (A,R)	12,000,000 J (A,R)	1,200,000 (A,R)	1,800,000 J (A,R)	1,200,000 (A,R)	84,000 (A,R)	330,000 (A,R)	1,700,000 (A,R)	490,000 (A,R)	600,000 (A,R)	940,000 (A,R)	1,700,000 (A,R)
Phenanthrene	ug/kg	440,000 (R)	500,000 (R)	1,900,000 (A,R)	5,200,000 (A,R)	580,000 (R)	1,400,000 (R)	1,100,000 (R)	310,000 (R)	740,000 (R)	930,000 (R)	350,000 (R)	430,000 (R)	420,000 (R)	790,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	180,000 (A,R)	170,000 (R)	690,000 (A,R)	1,900,000 J (A,R)	240,000 (A,R)	510,000 (A,R)	400,000 (A,R)	120,000 (R)	270,000 (A,R)	380,000 (A,R)	140,000 (R)	160,000 (R)	160,000 (R)	330,000 (A,R)
Total PAHs	ug/kg	2,980,000 (R)	2,988,000 (R)	13,622,000 (R)	35,442,000 (R)	3,897,000 (R)	7,485,000 (R)	5,364,000 (R)	1,116,700 (R)	2,949,800 (R)	6,179,000 (R)	2,181,000 (R)	2,591,500 (R)	2,992,000 (R)	5,648,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD120
Sample Number:	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5	D-03312010-02	GC-SD120-08.5-10.5
Sample Depth:	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5	6.5-8.5	8.5-10.5
Sample Date:	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	220,000 (A,R)	32,000 (A,R)	25,000 J (R)		160,000 (A,R)	100,000 (A,R)	510,000 (A,R)	600,000 (A,R)	840,000 J (A,R)	440,000 (A,R)	330,000 (A,R)	380,000 (A,R)	450,000 (A,R)	340,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	190,000 (R)	41,000 (R)	54,000 (R)		110,000 (R)	85,000 (R)	290,000 (R)	280,000 (R)	360,000 J (A,R)	240,000 (R)	160,000 (R)	220,000 (R)	240,000 (R)	190,000 (R)
Acenaphthylene	ug/kg	10,000 J (R)	2,100 J (R)	2,700 J (R)		18,000 J (R)	9,100 J (R)	61,000 J (R)	50,000 J (R)	54,000 (R)	18,000 J (R)	32,000 J (R)	20,000 J (R)	21,000 J (R)	17,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	110,000 (R)	17,000 J (R)	26,000 J (R)		50,000 (R)	26,000 (R)	120,000 (R)	130,000 (R)	170,000 J (R)	110,000 (R)	100,000 (R)	100,000 (R)	130,000 (R)	89,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	50,000 J (A,R)	11,000 J (A,R)	17,000 J (A,R)	230 J (A)	24,000 (A,R)	12,000 J (A,R)	64,000 J (A,R)	67,000 J (A,R)	100,000 J (A,R)	60,000 J (A,R)	45,000 J (A,R)	46,000 J (A,R)	57,000 J (A,R)	46,000 J (A,R)
Benzo(a)pyrene	ug/kg	46,000 J (A,R)	8,900 J (A,R)	12,000 J (A,R)		18,000 J (A,R)	7,800 J (A,R)	47,000 J (A,R)	51,000 J (A,R)	87,000 (A,R)	45,000 J (A,R)	34,000 J (A,R)	36,000 J (A,R)	40,000 J (A,R)	34,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	19,000 J (A,R)	4,100 J (A)	4,800 J (A,R)		14,000 J (A,R)	7,700 J (A,R)	40,000 J (A,R)	40,000 J (A,R)	33,000 (A,R)	21,000 J (A,R)	24,000 J (A,R)	33,000 J (A,R)	35,000 J (A,R)	26,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	21,000 J (R)	4,100 J (R)	6,600 J (R)		7,500 J (R)				19,000 (R)	17,000 J (R)	15,000 J (R)	16,000 J (R)	18,000 J (R)	15,000 J (R)
Benzo(k)fluoranthene	ug/kg	25,000 J (A,R)	6,000 J (A,R)	8,400 J (A,R)		7,500 J (A,R)	1,700 J (A)	17,000 J (A,R)	19,000 J (A,R)	44,000 (A,R)	28,000 J (A,R)	13,000 J (A,R)	8,000 J (A,R)	11,000 J (A,R)	14,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	38,000 J	7,600 J	10,000 J		19,000 J	12,000 J	46,000 J	48,000 J	120,000 J	29,000 J	40,000 J	44,000 J	48,000 J	37,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg			1,500 J (R)											
*Carbazole	ug/kg	3,200 J				1,800 J	2,400 J			4,600 J	5,200 J	3,300 J	3,900 J	4,700 J	3,900 J
Chrysene	ug/kg	49,000 J (A,R)	11,000 J (R)	17,000 J (A,R)	200 J	22,000 (A,R)	11,000 J (R)	63,000 J (A,R)	66,000 J (A,R)	100,000 J (A,R)	59,000 J (A,R)	42,000 J (A,R)	44,000 J (A,R)	43,000 J (A,R)	41,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg									7,100 (A,R)	6,100 J (A,R)				
Dibenzofuran	ug/kg		2,400 J (R)			7,600 J (R)	4,800 J (R)	19,000 J (A,R)	16,000 J (A,R)	32,000 (A,R)		11,000 J (A,R)	13,000 J (A,R)	16,000 J (A,R)	13,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	90,000 (R)	22,000 J (R)	31,000 (R)	320 J	56,000 (R)	26,000 (R)	150,000 (R)	140,000 (R)	140,000 J (R)	110,000 (R)	99,000 (R)	100,000 (R)	130,000 (R)	98,000 (R)
Fluorene	ug/kg	85,000 (R)	21,000 J (R)	27,000 J (R)		71,000 (R)	38,000 (R)	180,000 (R)	170,000 (R)	170,000 J (R)	140,000 (R)	100,000 (R)	110,000 (R)	120,000 (R)	92,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	16,000 J (A,R)	3,200 J (A,R)	5,000 J (A,R)		7,600 J (A,R)				15,000 (A,R)	14,000 J (A,R)		16,000 J (A,R)	19,000 J (A,R)	16,000 J (A,R)
Naphthalene	ug/kg	160,000 (A,R)				180,000 (A,R)	140,000 (A,R)	850,000 (A,R)	960,000 (A,R)	1,400,000 J (A,R)	430,000 (A,R)	460,000 (A,R)	470,000 (A,R)	630,000 (A,R)	500,000 (A,R)
Phenanthrene	ug/kg	380,000 (R)	80,000 (R)	120,000 (R)	600 J (R)	180,000 (R)	120,000 (R)	460,000 (R)	510,000 (R)	630,000 J (R)	390,000 (R)	320,000 (R)	330,000 (R)	390,000 (R)	310,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	160,000 (R)	36,000 (R)	54,000 (R)	580 J	66,000 (R)	37,000 (R)	190,000 (A,R)	200,000 (A,R)	250,000 J (A,R)	200,000 (A,R)	130,000 (R)	120,000 (R)	160,000 (R)	140,000 (R)
Total PAHs	ug/kg	1,631,000 (R)	299,400 (R)	410,500 (R)	1,930	991,600 (R)	621,300 (R)	3,042,000 (R)	3,283,000 (R)	4,419,100 (R)	2,328,100 (R)	1,904,000 (R)	2,049,000 (R)	2,494,000 (R)	1,968,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121
Sample Number:	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	D-04052010-01	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5
Sample Depth:	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5
Sample Date:	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg	660,000 (A,R)	890,000 (A,R)	140,000 (A,R)	420,000 (A,R)	1,200,000 (A,R)	55,000 (A,R)			900 J (R)	2,200 J (R)	890,000 (A,R)	270,000 (A,R)	230,000 (A,R)	140,000 (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	390,000 (A,R)	260,000 (R)	13,000 (R)	28,000 J (R)	75,000 J (R)	4,500 J (R)			780 J (R)	760 J (R)	85,000 J (R)	30,000 J (R)	370,000 (A,R)	13,000 J (R)
Acenaphthylene	ug/kg	25,000 J (R)	200,000 (R)	77,000 (R)	190,000 (R)	530,000 (A,R)	30,000 (R)				2,600 J (R)	440,000 (A,R)	140,000 (R)	26,000 J (R)	62,000 (R)
Acetophenone	ug/kg								330 J	590 J					
Anthracene	ug/kg	170,000 (R)	190,000 (R)	44,000 (R)	96,000 J (R)	270,000 (R)	15,000 J (R)				2,500 J (R)	220,000 (R)	77,000 (R)	220,000 (R)	36,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	84,000 J (A,R)	92,000 J (A,R)	24,000 (A,R)	53,000 J (A,R)	140,000 J (A,R)	8,700 J (A,R)	180 J (A)			1,400 J (A,R)	130,000 J (A,R)	40,000 J (A,R)	99,000 (A,R)	18,000 J (A,R)
Benzo(a)pyrene	ug/kg	61,000 J (A,R)	80,000 J (A,R)	16,000 (A,R)	39,000 J (A,R)	110,000 J (A,R)	6,200 J (A,R)				1,100 J (A,R)	95,000 J (A,R)	33,000 J (A,R)	77,000 J (A,R)	14,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	58,000 J (A,R)	34,000 J (A,R)	12,000 J (A,R)	18,000 J (A,R)	40,000 J (A,R)	4,600 J (A)				970 J (A)	76,000 J (A,R)	22,000 J (A,R)	58,000 J (A,R)	12,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	27,000 J (R)	36,000 J (R)	8,900 J (R)	18,000 J (R)	41,000 J (R)	3,100 J (R)					33,000 J (R)	13,000 J (R)	33,000 J (R)	7,700 J (R)
Benzo(k)fluoranthene	ug/kg	17,000 J (A,R)	43,000 J (A,R)	3,900 J (A)	23,000 J (A,R)	72,000 J (A,R)	1,700 J (A)				180 J	31,000 J (A,R)	10,000 J (A,R)	21,000 J (A,R)	4,400 J (A)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	69,000 J	100,000 J	19,000	48,000 J	130,000 J	6,800 J				390 J	86,000 J	25,000 J	56,000 J	16,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg							180 J	160 J						
*Carbazole	ug/kg	7,100 J	7,100 J	1,500 J	4,400 J	9,800 J						9,600 J	3,100 J	6,200 J	1,000 J
Chrysene	ug/kg	78,000 J (A,R)	110,000 J (A,R)	18,000 (A,R)	52,000 J (A,R)	140,000 J (A,R)	7,200 J (R)	170 J	180 J		1,100 J (R)	100,000 J (A,R)	35,000 J (A,R)	88,000 J (A,R)	16,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg			2,700 J (A,R)											
Dibenzofuran	ug/kg	27,000 J (A,R)	27,000 J (A,R)	5,900 J (R)		37,000 J (A,R)	2,400 J (R)				300 J	41,000 J (A,R)	12,000 J (A,R)	26,000 J (A,R)	4,800 J (R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	200,000 (R)	180,000 (R)	47,000 (R)	87,000 J (R)	240,000 (A,R)	17,000 (R)		280 J		3,000 J (R)	270,000 (A,R)	90,000 (R)	230,000 (R)	45,000 (R)
Fluorene	ug/kg	190,000 (R)	210,000 (R)	53,000 (R)	97,000 J (R)	270,000 (A,R)	21,000 (R)				2,700 J (R)	300,000 (A,R)	99,000 (R)	190,000 (R)	47,000 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	30,000 J (A,R)	27,000 J (A,R)	8,800 J (A,R)		34,000 J (A,R)	2,800 J (A,R)					37,000 J (A,R)	13,000 J (A,R)	35,000 J (A,R)	7,200 J (A,R)
Naphthalene	ug/kg	1,100,000 (A,R)	1,500,000 (A,R)	180,000 (A,R)	710,000 (A,R)	2,000,000 (A,R)	66,000 (A,R)		740 J (R)	4,400 J (A,R)		1,500,000 (A,R)	350,000 (A,R)	650,000 (A,R)	170,000 (A,R)
Phenanthrene	ug/kg	640,000 (R)	760,000 (R)	130,000 (R)	350,000 (R)	1,000,000 (R)	58,000 (R)		290 J (R)		8,700 (R)	820,000 (R)	260,000 (R)	750,000 (R)	140,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	240,000 (A,R)	280,000 (A,R)	51,000 (R)	160,000 (R)	430,000 (A,R)	19,000 (R)	210 J	340 J		3,700 J (R)	370,000 (A,R)	120,000 (R)	280,000 (A,R)	43,000 (R)
Total PAHs	ug/kg	3,970,000 (R)	4,892,000 (R)	829,300 (R)	2,341,000 (R)	6,592,000 (R)	319,800 (R)	560	1,830	6,080 (R)	30,910 (R)	5,397,000 (R)	1,602,000 (R)	3,357,000 (R)	775,300 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133
Sample Number:	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7
Sample Depth:	3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7
Sample Date:	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010
Sample Type:	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg	5,000,000 J (A,R)	66,000 (A,R)	2,600 J (R)		2,000 J (R)		40,000 (A,R)	35,000 (A,R)	6,500 (R)	410,000 (A,R)	270 J (R)		380,000 (A,R)	16,000 J (R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	430,000 J (A,R)	6,200 J (R)	400 J (R)	230 J (R)	790 J (R)		27,000 (R)	14,000 (R)	5,500 J (R)	46,000 J (R)	290 J (R)		380,000 (A,R)	520,000 (A,R)
Acenaphthylene	ug/kg	2,400,000 J (A,R)	32,000 (R)	1,200 J (R)		440 J (R)		13,000 (R)	9,100 (R)	2,500 J (R)	180,000 (R)			18,000 J (R)	25,000 J (R)
Acetophenone	ug/kg														
Anthracene	ug/kg	1,200,000 J (R)	20,000 (R)	1,100 J (R)	270 J (R)	700 J (R)		25,000 (R)	12,000 (R)	5,300 J (R)	99,000 J (R)			160,000 (R)	190,000 (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	640,000 J (A,R)	9,900 J (A,R)	600 J (A,R)	310 J (A,R)	510 J (A,R)		14,000 (A,R)	7,300 (A,R)	3,500 J (A,R)	48,000 J (A,R)	440 J (A,R)	270 J (A,R)	69,000 J (A,R)	96,000 J (A,R)
Benzo(a)pyrene	ug/kg	490,000 J (A,R)	8,400 J (A,R)	640 J (A,R)				12,000 (A,R)	5,300 (A,R)	2,400 J (A,R)	45,000 J (A,R)	500 J (A,R)		57,000 J (A,R)	83,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	390,000 J (A,R)	6,700 J (A,R)	350 J (A)				12,000 (A,R)	4,200 J (A)	2,100 J (A)	19,000 J (A,R)	320 J (A)		27,000 J (A,R)	32,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	290,000 J (A,R)	4,300 J (R)					8,800 J (R)	2,500 J (R)	1,400 J (R)	20,000 J (R)			24,000 J (R)	35,000 J (R)
Benzo(k)fluoranthene	ug/kg	160,000 J (A,R)	2,700 J (A)	220 J				3,200 J (A)	1,500 J	490 J	28,000 J (A,R)	230 J		41,000 J (A,R)	48,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg	600,000 J (A)	7,600 J	240 J				10,000	5,100	1,800 J	56,000 J			72,000 J	100,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg														
*Carbazole	ug/kg	42,000 J	450 J					2,300 J	760 J	420 J	4,600 J			4,500 J	
Chrysene	ug/kg	570,000 J (A,R)	9,000 J (R)	540 J (R)		250 J		12,000 (R)	7,000 (R)	2,900 J (R)	47,000 J (A,R)	370 J		64,000 J (A,R)	83,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	70,000 J (A,R)						2,100 J (A,R)	790 J (A,R)						
Dibenzofuran	ug/kg	170,000 J (A,R)	2,400 J (R)					7,200 J (R)	2,100 J (R)	780 J (R)				21,000 J (A,R)	28,000 J (A,R)
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	1,500,000 J (A,R)	23,000 (R)	1,100 J (R)	320 J	620 J (R)		41,000 (R)	12,000 (R)	6,700 (R)	100,000 J (R)			150,000 (R)	190,000 (R)
Fluorene	ug/kg	1,700,000 J (A,R)	24,000 (R)	1,100 J (R)	250 J (R)	780 J (R)		29,000 (R)	15,000 (R)	5,900 J (R)	110,000 (R)			150,000 (R)	240,000 (A,R)
Indeno(1,2,3-c,d)pyrene	ug/kg	290,000 J (A,R)	3,900 J (A,R)					8,600 J (A,R)	3,000 J (A,R)	1,200 J (A,R)	16,000 J (A,R)			23,000 J (A,R)	31,000 J (A,R)
Naphthalene	ug/kg	6,600,000 J (A,R)	75,000 (A,R)					65,000 (A,R)	52,000 (A,R)		760,000 (A,R)			760,000 (A,R)	130,000 J (A,R)
Phenanthrene	ug/kg	4,400,000 J (A,R)	72,000 (R)	3,300 J (R)	700 J (R)	2,200 J (R)	250 J (R)	87,000 (R)	41,000 (R)	18,000 (R)	380,000 (R)	320 J (R)		620,000 (R)	770,000 (R)
Phenol	ug/kg														
Pyrene	ug/kg	1,600,000 J (A,R)	24,000 (R)	1,300 J (R)	360 J	1,200 J (R)		32,000 (R)	16,000 (R)	7,700 (R)	160,000 (R)	270 J		250,000 (A,R)	320,000 J (A,R)
Total PAHs	ug/kg	27,730,000 (R)	387,100 (R)	14,450 (R)	2,440	9,490 (R)	250	431,700 (R)	237,690 (R)	72,090 (R)	2,468,000 (R)	3,010	270	3,173,000 (R)	2,809,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B
Sample Number:		GC-SD067B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0	D-04062010-02	GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8
Sample Depth:		6-8	8-10	10-12	10-12	1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8
Sample Date:		4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	**1,000 J (R)**	**330 J (R)**	**1,100 J (R)**	**1,200 J (R)**	**300,000 J (A,R)**	**480,000 (A,R)**	**710,000 (A,R)**	**160,000 (A,R)**	**530 J (R)**		**320 J (R)**	**210 J (R)**		**970 J (R)**
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	**390 J (R)**		**400 J (R)**	**400 J (R)**	**170,000 J (R)**	**240,000 (R)**	**320,000 (R)**	**84,000 (R)**						**1,100 J (R)**
Acenaphthylene	ug/kg			**190 J (R)**		**21,000 J (R)**	**28,000 J (R)**	**54,000 J (R)**	**8,400 J (R)**						
Acetophenone	ug/kg									700 J		560 J	720 J	580 J	530 J
Anthracene	ug/kg	**200 J (R)**		**390 J (R)**	**280 J (R)**	**81,000 (R)**	**110,000 (R)**	**170,000 (R)**	**44,000 (R)**	**250 J (R)**		**200 J (R)**			**790 J (R)**
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg			**320 J (A,R)**	**290 J (A,R)**	**37,000 J (A,R)**	**57,000 J (A,R)**	**85,000 (A,R)**	**24,000 (A,R)**	**440 J (A,R)**	**250 J (A)**				**520 J (A,R)**
Benzo(a)pyrene	ug/kg					**23,000 J (A,R)**	**38,000 J (A,R)**	**61,000 J (A,R)**	**17,000 J (A,R)**	**360 J (A)**					
Benzo(b)fluoranthene	ug/kg					**24,000 J (A,R)**	**34,000 J (A,R)**	**52,000 J (A,R)**	**13,000 J (A,R)**	**380 J (A)**					
Benzo(g,h,i)perylene	ug/kg					**4,300 J (R)**		**12,000 J (R)**	**5,600 J (R)**						
Benzo(k)fluoranthene	ug/kg					**8,800 J (A,R)**	**13,000 J (A,R)**	**18,000 J (A,R)**	**6,200 J (A,R)**	210 J					
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg					35,000 J	49,000 J	74,000 J	18,000 J						
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg					**2,800 J (R)**				**260 J (R)**	**270 J (R)**	**400 J (R)**	**280 J (R)**	**310 J (R)**	**2,300 J (R)**
*Carbazole	ug/kg					4,000 J	4,200 J	5,000 J	1,200 J						
Chrysene	ug/kg			**400 J (R)**	310 J	**37,000 J (A,R)**	**53,000 J (A,R)**	**84,000 (A,R)**	**23,000 (A,R)**	340 J					**430 J (R)**
Dibenz(a,h)anthracene	ug/kg					**3,800 J (A,R)**									
Dibenzofuran	ug/kg					**13,000 J (A,R)**	**15,000 J (A,R)**	**20,000 J (A,R)**	**5,700 J (R)**						
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg					**1,800 J (R)**									
Fluoranthene	ug/kg	210 J		380 J	380 J	**75,000 (R)**	**120,000 (R)**	**180,000 (R)**	**45,000 (R)**	220 J					**950 J (R)**
Fluorene	ug/kg			**360 J (R)**	**310 J (R)**	**100,000 (R)**	**150,000 (R)**	**200,000 (R)**	**55,000 (R)**	**210 J (R)**					**650 J (R)**
Indeno(1,2,3-c,d)pyrene	ug/kg					**13,000 J (A,R)**	**20,000 J (A,R)**	**28,000 J (A,R)**	**8,000 J (A,R)**						
Naphthalene	ug/kg	**2,200 J (R)**	**690 J (R)**	**1,300 J (R)**	**1,400 J (R)**	**460,000 J (A,R)**	**660,000 (A,R)**	**970,000 (A,R)**	**210,000 (A,R)**	**1,000 J (R)**	**250 J (R)**	**470 J (R)**	**210 J (R)**		**1,000 J (R)**
Phenanthrene	ug/kg	**640 J (R)**	240 J	**1,300 J (R)**	**1,200 J (R)**	**290,000 (R)**	**440,000 (R)**	**590,000 (R)**	**160,000 (R)**	**720 J (R)**	210 J	**450 J (R)**			**2,800 J (R)**
Phenol	ug/kg														
Pyrene	ug/kg	460 J		**910 J (R)**	**830 J (R)**	**120,000 (R)**	**180,000 J (A,R)**	**280,000 J (A,R)**	**77,000 J (R)**	470 J	250 J				**1,400 J (R)**
Total PAHs	ug/kg	**5,100 (R)**	1,260	**7,050 (R)**	**6,600 (R)**	**1,767,900 (R)**	**2,623,000 (R)**	**3,814,000 (R)**	**940,200 (R)**	**5,130 (R)**	960	1,440	420		**10,610 (R)**

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD75C
Sample Number:		GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0	GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	GC-SD075C-01.0-03.0
Sample Depth:		6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4	4-6	6-8	8-9.8	8-9.8	4.4-6.4	1-3
Sample Date:		4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg				940 J										
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	**270 J (R)**	**300 J (R)**	**520 J (R)**	**30,000 (R)**	**4,800 J (R)**		**35,000 (A,R)**	**47,000 (A,R)**	**120,000 (A,R)**		**14,000 (R)**	**120,000 (A,R)**		
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	**820 J (R)**	**1,400 J (R)**		**39,000 (R)**	**2,200 J (R)**		**10,000 (R)**	**6,200 (R)**	**86,000 (R)**		**29,000 (R)**	**150,000 (R)**	**630 J (R)**	
Acenaphthylene	ug/kg				**12,000 (R)**			**13,000 (R)**	**17,000 (R)**	**6,900 J (R)**		**2,200 J (R)**	**13,000 J (R)**	**170 J (R)**	
Acetophenone	ug/kg	540 J	510 J	470 J	860 J	660 J	450 J	1,000 J	1,100 J		790 J	580 J			510 J
Anthracene	ug/kg				**36,000 (R)**	**340 J (R)**		**15,000 (R)**	**9,500 (R)**	**45,000 (R)**		**14,000 (R)**	**83,000 (R)**	**550 J (R)**	
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg				**16,000 (A,R)**			**12,000 (A,R)**	**7,000 (A,R)**	**24,000 (A,R)**		**7,200 (A,R)**	**42,000 (A,R)**	**420 J (A,R)**	
Benzo(a)pyrene	ug/kg				**13,000 (A,R)**			**7,700 (A,R)**	**5,400 J (A,R)**	**12,000 J (A,R)**	**870 J (A,R)**	**4,800 J (A,R)**	**29,000 J (A,R)**		
Benzo(b)fluoranthene	ug/kg				**4,400 J (A)**			**6,700 (A,R)**	**4,300 J (A)**	**15,000 J (A,R)**		**4,000 J (A)**	**24,000 J (A,R)**		
Benzo(g,h,i)perylene	ug/kg				**5,300 J (R)**			**4,100 J (R)**	**2,300 J (R)**			**2,500 J (R)**	**13,000 J (R)**		
Benzo(k)fluoranthene	ug/kg				**9,100 J (A,R)**			**1,700 J (A)**	1,200 J	**4,900 J (A,R)**		1,500 J	**8,300 J (A,R)**		
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg				9,200 J	610 J		3,600 J	5,400 J	17,000 J		5,900 J	32,000		
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	**2,000 J (R)**	**2,500 J (R)**					**420 J (R)**			**310 J (R)**			**220 J (R)**	**200 J (R)**
*Carbazole	ug/kg				650 J			510 J	880 J	1,700 J		390 J	2,100 J		
Chrysene	ug/kg				**14,000 (R)**			**11,000 (R)**	**7,300 (R)**	**20,000 J (A,R)**		**7,100 (R)**	**36,000 (A,R)**	**390 J (R)**	
Dibenz(a,h)anthracene	ug/kg				**1,800 J (A,R)**			**1,100 J (A,R)**				**510 J (A,R)**	**3,900 J (A,R)**		
Dibenzofuran	ug/kg				**4,100 J (R)**			**1,800 J (R)**	**2,200 J (R)**	**6,600 J (R)**		**2,300 J (R)**	**13,000 J (A,R)**		
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg				**43,000 (R)**			**17,000 (R)**	**10,000 (R)**	**48,000 (R)**		**14,000 (R)**	**87,000 (R)**	**740 J (R)**	
Fluorene	ug/kg	**370 J (R)**	**410 J (R)**		**32,000 (R)**	**1,200 J (R)**		**13,000 (R)**	**16,000 (R)**	**50,000 (R)**		**16,000 (R)**	**95,000 (R)**	**450 J (R)**	
Indeno(1,2,3-c,d)pyrene	ug/kg				**4,500 J (A,R)**			**3,600 J (A,R)**	**2,800 J (A,R)**	**6,400 J (A,R)**		**2,400 J (A,R)**	**12,000 J (A,R)**		
Naphthalene	ug/kg	**1,500 J (R)**	**3,200 J (R)**	**770 J (R)**	**8,500 J (A,R)**	**5,900 J (A,R)**		**46,000 (A,R)**	**75,000 (A,R)**	**140,000 (A,R)**		**16,000 (A,R)**	**280,000 (A,R)**		**300 J (R)**
Phenanthrene	ug/kg	**450 J (R)**	**390 J (R)**		**180,000 (R)**	**1,800 J (R)**		**46,000 (R)**	**36,000 (R)**	**170,000 (R)**		**47,000 (R)**	**290,000 (R)**	**2,000 J (R)**	
Phenol	ug/kg														
Pyrene	ug/kg		270 J		**68,000 (R)**			**29,000 (R)**	**16,000 (R)**	**68,000 J (R)**	**1,500 J (R)**	**23,000 (R)**	**120,000 J (R)**	**1,200 J (R)**	
Total PAHs	ug/kg	3,410	**5,970 (R)**	1,290	**516,600 (R)**	**16,240 (R)**		**271,900 (R)**	**263,000 (R)**	**816,200 (R)**	2,370	**205,210 (R)**	**1,406,200 (R)**	**6,550 (R)**	300

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A
Sample Number:		GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2	D-04122010-03	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-08.7-10.7
Sample Depth:		3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2	7.2-9.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	8.7-10.7
Sample Date:		4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010
Sample Type:		N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg			**4,100 J (R)**	**7,200 J (R)**						**520,000 (A,R)**	**2,200 J (R)**	**170 J (R)**	**940 J (R)**	
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg			**45,000 (R)**	**97,000 (R)**	**72 J (R)**	7.7 J	**25 J (R)**			**300,000 (R)**	**1,900 J (R)**	**480 J (R)**	**21,000 (R)**	
Acenaphthylene	ug/kg			**7,300 J (R)**	**14,000 J (R)**	9.3 J		9.1 J			**53,000 J (R)**	**830 J (R)**		**4,500 J (R)**	
Acetophenone	ug/kg	660 J	470 J												
Anthracene	ug/kg			**29,000 (R)**	**62,000 (R)**	11 J	8.8 J	41 J			**150,000 (R)**	**2,600 J (R)**	**470 J (R)**	**15,000 (R)**	
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg			**13,000 (A,R)**	**31,000 (A,R)**	8.9 J	6.5 J	36 J			**70,000 J (A,R)**	**1,300 J (A,R)**	**400 J (A,R)**	**6,400 J (A,R)**	
Benzo(a)pyrene	ug/kg				**28,000 (A,R)**						**57,000 J (A,R)**	**1,000 J (A,R)**	**280 J (A)**	**5,600 J (A,R)**	
Benzo(b)fluoranthene	ug/kg										**25,000 J (A,R)**	**540 J (A)**		**2,100 J (A)**	
Benzo(g,h,i)perylene	ug/kg			**6,000 J (R)**	**12,000 J (R)**						**31,000 J (R)**	**650 J (R)**		**2,500 J (R)**	
Benzo(k)fluoranthene	ug/kg										**41,000 J (A,R)**	610 J	230 J	**3,600 J (A)**	
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg			9,400 J	20,000 J						67,000 J	520 J		4,200 J	
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	**2,400 J (R)**	**350 J (R)**											**290 J (R)**	**1,700 J (R)**
*Carbazole	ug/kg			1,600 J	3,500 J	11 J					5,900 J			330 J	
Chrysene	ug/kg			**12,000 J (R)**	**27,000 (A,R)**	8.6 J	5.9 J	27 J			**62,000 J (A,R)**	**1,300 J (R)**	370 J	**5,800 J (R)**	
Dibenz(a,h)anthracene	ug/kg			**1,800 J (A,R)**	**3,900 J (A,R)**						**11,000 J (A,R)**			**1,100 J (A,R)**	
Dibenzofuran	ug/kg			**8,700 J (A,R)**	**18,000 J (A,R)**						**30,000 J (A,R)**	300 J		**1,800 J (R)**	
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg			**47,000 (R)**	**110,000 (R)**	15 J	15 J	70 J		11 J	**160,000 (R)**	**2,600 J (R)**	**690 J (R)**	**17,000 (R)**	
Fluorene	ug/kg			**25,000 (R)**	**49,000 (R)**	11 J		**21 J (R)**			**170,000 (R)**	**1,600 J (R)**	**320 J (R)**	**15,000 (R)**	
Indeno(1,2,3-c,d)pyrene	ug/kg			**5,300 J (A,R)**	**11,000 J (A,R)**						**25,000 J (A,R)**	**500 J (A)**		**2,300 J (A,R)**	
Naphthalene	ug/kg	**200 J (R)**		**40,000 (A,R)**	**74,000 (A,R)**						**660,000 (A,R)**				
Phenanthrene	ug/kg			**150,000 (R)**	**350,000 (R)**	36 J	26 J	120 J	9.5 J	18 J	**690,000 (R)**	**9,100 (R)**	**1,800 J (R)**	**75,000 (R)**	
Phenol	ug/kg														
Pyrene	ug/kg			**50,000 (R)**	**110,000 (R)**	24 J	22 J	97 J		18 J	**230,000 (A,R)**	**4,200 J (R)**	**1,100 J (R)**	**27,000 (R)**	
Total PAHs	ug/kg	200		**435,500 (R)**	**986,100 (R)**	195.8	91.9	446.1	9.5	47	**3,255,000 (R)**	**30,930 (R)**	**6,310 (R)**	**204,840 (R)**	

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143
Sample Number:	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3
Sample Depth:	10.7-12.4	7-9	7-9	9-11	6.2-8.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3
Sample Date:	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N

Parameter	Units	Semi-Volatile Organic Compounds													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	**240 J (R)**													
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	**470 J (R)**		**470 J (R)**		10 J									
Acenaphthylene	ug/kg								8.4 J						
Acetophenone	ug/kg						22 J	21 J				16 J	36 J	25 J	20 J
Anthracene	ug/kg	**250 J (R)**		**600 J (R)**				6.2 J	7.7 J						
Benzaldehyde	ug/kg						42 J	38 J				20 J	53 J	34 J	29 J
Benzo(a)anthracene	ug/kg			**430 J (A,R)**			12 J	9.9 J	27 J						
Benzo(a)pyrene	ug/kg			**210 J (A)**											
Benzo(b)fluoranthene	ug/kg			**180 J (A)**											
Benzo(g,h,i)perylene	ug/kg														
Benzo(k)fluoranthene	ug/kg			210 J											
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg														
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg	**320 J (R)**	**730 J (R)**	**540 J (R)**											
*Carbazole	ug/kg														
Chrysene	ug/kg			**390 J (R)**			7.1 J		16 J				6.1 J		
Dibenz(a,h)anthracene	ug/kg														
Dibenzofuran	ug/kg														
Di-n-butyl phthalate	ug/kg												6.2 J		
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg	320 J		**730 J (R)**		13 J	7.9 J	12 J	24 J		7.4 J		8.3 J	7.4 J	
Fluorene	ug/kg			**380 J (R)**											
Indeno(1,2,3-c,d)pyrene	ug/kg														
Naphthalene	ug/kg														
Phenanthrene	ug/kg	**630 J (R)**		**2,100 J (R)**	210 J	11 J	7.2 J	7.7 J	10 J				6.4 J		
Phenol	ug/kg														
Pyrene	ug/kg	580 J	220 J	**1,200 J (R)**		22 J	17 J	26 J	84 J	8.4 J	16 J		23 J	15 J	
Total PAHs	ug/kg	2,490	220	**6,900 (R)**	210	56	51.2	61.8	177.1	8.4	23.4		43.8	22.4	

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A
Sample Number:	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD081A-05.3-07.3	D-04152010-03	GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0
Sample Depth:	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	5.3-7.3	5.3-7.3	7.3-9.3	9.3-11.3	5-7	7-9
Sample Date:	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
2,4-dinitrophenol	ug/kg													
2,4-dinitrotoluene	ug/kg													
2-chloronaphthalene	ug/kg													
2-methylnaphthalene	ug/kg				**5,000 J (R)**		**3,200 J (R)**	**45,000 (A,R)**		**280 (R)**	**330 (R)**				
4-methylphenol (p-cresol)	ug/kg													
4-nitrophenol	ug/kg													
Acenaphthene	ug/kg				**16,000 (R)**		**23,000 (R)**	**31,000 (R)**	8.7 J	**860 (R)**	**810 (R)**			14 J	
Acenaphthylene	ug/kg				**25,000 (R)**		**5,100 J (R)**	**2,600 J (R)**		**100 J (R)**	**100 J (R)**				
Acetophenone	ug/kg	29 J	28 J	25 J						33 J	39 J	26 J	23 J	27 J	30 J
Anthracene	ug/kg				**24,000 (R)**		**25,000 (R)**	**18,000 (R)**		**550 (R)**	**480 (R)**	7.9 J	6.3 J	14 J	
Benzaldehyde	ug/kg	45 J	33 J	33 J						57 J	55 J	27 J	26 J	37 J	39 J
Benzo(a)anthracene	ug/kg				**17,000 (A,R)**		**25,000 (A,R)**	**15,000 (A,R)**		**290 (A,R)**	**240 (A)**	8.3 J	7.5 J	16 J	
Benzo(a)pyrene	ug/kg						**19,000 (A,R)**	**11,000 (A,R)**		**280 (A)**	**220 (A)**			**16 J (A)**	
Benzo(b)fluoranthene	ug/kg						**18,000 (A,R)**	**10,000 (A,R)**		110 J	89 J			9.8 J	
Benzo(g,h,i)perylene	ug/kg				**5,500 J (R)**		**8,900 J (R)**	**5,500 J (R)**		130 J	100 J				
Benzo(k)fluoranthene	ug/kg						**5,700 (A,R)**			160 J	110 J			7.6 J	
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg				8,300 J		890 J	5,800		60 J	100 J				
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg									140 J	82 J	72 J	87 J	120 J	120 J
*Carbazole	ug/kg				660 J			740 J							
Chrysene	ug/kg				**19,000 (A,R)**		**26,000 (A,R)**	**18,000 (A,R)**		380	290	7 J		17 J	
Dibenz(a,h)anthracene	ug/kg				**3,000 J (A,R)**		**2,700 J (A,R)**	**1,700 J (A,R)**		**44 J (A)**	**44 J (A)**				
Dibenzofuran	ug/kg				**3,500 J (R)**		**1,500 J (R)**	**3,400 J (R)**		40 J	56 J				
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg														
Fluoranthene	ug/kg				**24,000 (R)**		**39,000 (R)**	**21,000 (R)**		**740 (R)**	**640 (R)**	12 J	9.5 J	34 J	
Fluorene	ug/kg				**27,000 (R)**		**7,000 (R)**	**18,000 (R)**		**430 (R)**	**420 (R)**				
Indeno(1,2,3-c,d)pyrene	ug/kg				**5,100 J (A,R)**		**9,200 (A,R)**	**5,100 J (A,R)**		83 J	71 J				
Naphthalene	ug/kg				**64,000 (A,R)**			**48,000 (A,R)**		**260 (R)**	**220 (R)**			7 J	
Phenanthrene	ug/kg				**81,000 (R)**	6.3 J	**32,000 (R)**	**64,000 (R)**	13 J	**2,400 (R)**	**2,400 (R)**	23 J	20 J	15 J	
Phenol	ug/kg														
Pyrene	ug/kg				**41,000 (R)**	11 J	**50,000 (R)**	**35,000 (R)**	12 J	**1,200 (R)**	**870 (R)**	23 J	18 J	61 J	
Total PAHs	ug/kg				**356,600 (R)**	17.3	**298,800 (R)**	**348,900 (R)**	33.7	**8,297 (R)**	**7,434 (R)**	81.2	61.3	211.4	

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3	ERT3-2	ERT3-2
Sample Number:		ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05	ERT3-2-I	ERT3-2-J
Sample Depth:		5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3	7.4-8	8-9
Sample Date:		1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010
Sample Type:		N	N	N	FD	N	N	FD	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
2,4-dinitrophenol	ug/kg														
2,4-dinitrotoluene	ug/kg														
2-chloronaphthalene	ug/kg														
2-methylnaphthalene	ug/kg	4,000 J (R)	480 (R)	1,300 (R)	2,200 (R)	850 J (R)	6,300 J (R)	9,400 J (R)		290,000 J (A,R)	640,000 J (A,R)	380,000 J (A,R)	280,000 J (A,R)	510,000 J (A,R)	440,000 J (A,R)
4-methylphenol (p-cresol)	ug/kg														
4-nitrophenol	ug/kg														
Acenaphthene	ug/kg	13,000 (R)	470 (R)	1,800 (R)	2,900 (R)	950 J (R)	5,500 J (R)	9,000 J (R)	120 J (R)	200,000 J (R)	470,000 J (A,R)	260,000 J (R)	170,000 J (R)	260,000 J (R)	240,000 J (R)
Acenaphthylene	ug/kg					97 J (R)	180 J (R)	390 J (R)		7,800 J (R)	15,000 J (R)	6,400 J (R)	5,100 J (R)	20,000 J (R)	
Acetophenone	ug/kg									3,600 J		1,800 J			
Anthracene	ug/kg	21,000 (R)	94 J (R)	1,700 (R)	4,800 (R)	460 J (R)	2,600 J (R)	6,500 J (R)	85 J	130,000 J (R)	370,000 J (R)	140,000 J (R)	84,000 J (R)	140,000 J (R)	140,000 J (R)
Benzaldehyde	ug/kg														
Benzo(a)anthracene	ug/kg	25,000 (A,R)	53 J	3,300 J (A,R)	8,600 (A,R)	930 J (A,R)	2,000 J (A,R)	5,000 J (A,R)	57 J	72,000 J (A,R)	120,000 J (A,R)	47,000 J (A,R)	39,000 J (A,R)	63,000 J (A,R)	60,000 J (A,R)
Benzo(a)pyrene	ug/kg	20,000 (A,R)	41 J (A)	2,800 (A,R)	7,800 (A,R)	670 J (A,R)	1,200 J (A,R)	3,100 J (A,R)		54,000 J (A,R)	94,000 J (A,R)	5,700 J (A,R)	32,000 J (A,R)	55,000 J (A,R)	49,000 J (A,R)
Benzo(b)fluoranthene	ug/kg	18,000 (A,R)		1,300 (A)	6,500 (A,R)	430 J (A)	700 J (A)	1,600 J (A)		57,000 J (A,R)	45,000 J (A,R)	36,000 J (A,R)	28,000 J (A,R)	26,000 J (A,R)	25,000 J (A,R)
Benzo(g,h,i)perylene	ug/kg	9,300 (R)		1,300 (R)	3,700 (R)	280 J	290 J	750 J (R)		19,000 J (R)	30,000 J (R)	15,000 J (R)	11,000 J (R)	22,000 J (R)	19,000 J (R)
Benzo(k)fluoranthene	ug/kg	18,000 (A,R)		1,400	5,900 (A,R)	400 J	640 J	1,800 J (A)		60,000 J (A,R)	63,000 J (A,R)	37,000 J (A,R)	30,000 J (A,R)	34,000 J (A,R)	29,000 J (A,R)
Benzyl butyl phthalate	ug/kg														
Biphenyl (diphenyl)	ug/kg		55 J			35 J	840 J	1,200 J		19,000 J	68,000 J	38,000 J	31,000 J	49,000 J	47,000 J
Bis(2-chloroethyl) ether	ug/kg														
Bis(2-ethylhexyl) phthalate	ug/kg		230 (R)			1,500 J (R)	150 J								
*Carbazole	ug/kg	5,900 J	64 J	830 J	1,700 J	78 J	250 J				3,000 J	2,400 J			
Chrysene	ug/kg	24,000 (A,R)	59 J	3,500 J (R)	8,900 (R)	710 J (R)	1,800 J (R)	4,700 J (R)	57 J	71,000 J (A,R)	110,000 J (A,R)	48,000 J (A,R)	36,000 J (A,R)	61,000 J (A,R)	54,000 J (A,R)
Dibenz(a,h)anthracene	ug/kg	3,700 J (A,R)		430 J (A,R)	1,300 J (A,R)	74 J (A,R)	140 J (A,R)	390 J (A,R)		7,000 J (A,R)	11,000 J (A,R)	4,200 J (A,R)	3,200 J (A,R)		
Dibenzofuran	ug/kg						420 J (R)			13,000 J (A,R)	25,000 J (A,R)	10,000 J (A,R)	7,700 J (R)		
Di-n-butyl phthalate	ug/kg														
Di-n-octylphthalate	ug/kg		53 J			340 J									
Fluoranthene	ug/kg	56,000 (R)	120 J	7,200 J (R)	17,000 (R)	1,100 J (R)	2,200 J (R)	6,200 J (R)	88 J	130,000 J (R)	270,000 J (A,R)	110,000 J (R)	80,000 J (R)	130,000 J (R)	120,000 J (R)
Fluorene	ug/kg	9,900 (R)	180 J (R)	760 J (R)	2,400 (R)	600 J (R)	2,800 J (R)	4,700 J (R)		100,000 J (R)	230,000 J (R)	94,000 J (R)	72,000 J (R)	120,000 J (R)	110,000 J (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	13,000 J (A,R)		1,900 J (A,R)	4,700 (A,R)	280 J (A)	390 J (A)	1,100 J (A,R)		22,000 J (A,R)	33,000 J (A,R)	15,000 J (A,R)	11,000 J (A,R)	21,000 J (A,R)	19,000 J (A,R)
Naphthalene	ug/kg	3,600 J (R)	930 (R)	2,000 (R)	3,100 (R)	140 J	4,700 J (A,R)	5,300 J (A,R)		190,000 J (A,R)	500,000 J (A,R)	620,000 J (A,R)	510,000 J (A,R)	1,200,000 J (A,R)	1,000,000 J (A,R)
Phenanthrene	ug/kg	58,000 (R)	350 (R)	8,500 (R)	18,000 (R)	2,100 J (R)	12,000 J (R)	26,000 J (R)	210 J	380,000 J (R)	850,000 J (R)	370,000 J (R)	290,000 J (R)	420,000 J (R)	410,000 J (R)
Phenol	ug/kg														
Pyrene	ug/kg	51,000 (R)		7,500 J (R)	19,000 (R)	1,600 J (R)	4,400 J (R)	11,000 J (R)		240,000 J (A,R)	370,000 J (A,R)	180,000 J (A,R)	150,000 J (R)	200,000 J (A,R)	220,000 J (A,R)
Total PAHs	ug/kg	347,500 (R)	2,777	46,690 (R)	116,800 (R)	11,671 (R)	47,840 (R)	96,930 (R)	617	2,029,800 (R)	4,221,000 (R)	2,368,300 (R)	1,831,300 (R)	3,282,000 (R)	2,935,000 (R)

TABLE I-15B
SVOC Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:		9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:		1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**					
2,4-dinitrophenol	ug/kg						
2,4-dinitrotoluene	ug/kg						
2-chloronaphthalene	ug/kg						
2-methylnaphthalene	ug/kg	520,000 J (A,R)	38,000 J (A,R)	36,000 J (A,R)	770,000 J (A,R)	300,000 J (A,R)	12,000 (R)
4-methylphenol (p-cresol)	ug/kg						
4-nitrophenol	ug/kg						
Acenaphthene	ug/kg	46,000 J (R)	380,000 J (A,R)	140,000 J (R)	540,000 J (A,R)	200,000 J (R)	9,700 (R)
Acenaphthylene	ug/kg	180,000 J (R)	13,000 J (R)	4,400 J (R)	24,000 J (R)	14,000 J (R)	490 J (R)
Acetophenone	ug/kg						
Anthracene	ug/kg	160,000 J (R)	140,000 J (R)	68,000 J (R)	270,000 J (R)	130,000 J (R)	4,800 (R)
Benzaldehyde	ug/kg						
Benzo(a)anthracene	ug/kg	61,000 J (A,R)	55,000 J (A,R)	22,000 J (A,R)	120,000 J (A,R)	62,000 J (A,R)	2,900 (A,R)
Benzo(a)pyrene	ug/kg	49,000 J (A,R)	46,000 J (A,R)	20,000 J (A,R)	14,000 J (A,R)	49,000 J (A,R)	2,300 (A,R)
Benzo(b)fluoranthene	ug/kg	44,000 J (A,R)	40,000 J (A,R)	8,300 J (A,R)	51,000 J (A,R)	23,000 J (A,R)	970 J (A)
Benzo(g,h,i)perylene	ug/kg	23,000 J (R)	13,000 J (R)	5,900 J (R)	32,000 J (R)	18,000 J (R)	1,000 (R)
Benzo(k)fluoranthene	ug/kg	46,000 J (A,R)	42,000 J (A,R)	14,000 J (A,R)	60,000 J (A,R)	30,000 J (A,R)	1,500
Benzyl butyl phthalate	ug/kg						
Biphenyl (diphenyl)	ug/kg	49,000 J	9,200 J	13,000 J	77,000 J	36,000 J	1,600
Bis(2-chloroethyl) ether	ug/kg						
Bis(2-ethylhexyl) phthalate	ug/kg						
*Carbazole	ug/kg				3,700 J	2,200 J	
Chrysene	ug/kg	59,000 J (A,R)	50,000 J (A,R)	23,000 J (A,R)	110,000 J (A,R)	60,000 J (A,R)	2,700 (R)
Dibenz(a,h)anthracene	ug/kg		4,200 J (A,R)	1,800 J (A,R)	11,000 J (A,R)	5,300 J (A,R)	270 J (A,R)
Dibenzofuran	ug/kg		12,000 J (A,R)	5,800 J (R)	23,000 J (A,R)	10,000 J (A,R)	
Di-n-butyl phthalate	ug/kg						
Di-n-octylphthalate	ug/kg						
Fluoranthene	ug/kg	150,000 J (R)	110,000 J (R)	52,000 J (R)	270,000 J (A,R)	140,000 J (R)	5,000 (R)
Fluorene	ug/kg	130,000 J (R)	110,000 J (R)	46,000 J (R)	230,000 J (R)	100,000 J (R)	4,300 (R)
Indeno(1,2,3-c,d)pyrene	ug/kg	20,000 J (A,R)	16,000 J (A,R)	6,800 J (A,R)	35,000 J (A,R)	19,000 J (A,R)	980 J (A,R)
Naphthalene	ug/kg	1,200,000 J (A,R)	45,000 J (A,R)	7,000 J (A,R)	1,200,000 J (A,R)	540,000 J (A,R)	27,000 J (A,R)
Phenanthrene	ug/kg	490,000 J (R)	370,000 J (R)	180,000 J (R)	830,000 J (R)	350,000 J (R)	13,000 (R)
Phenol	ug/kg						
Pyrene	ug/kg	200,000 J (A,R)	190,000 J (A,R)	83,000 J (R)	360,000 J (A,R)	170,000 J (R)	7,500 (R)
Total PAHs	ug/kg	3,378,000 (R)	1,662,200 (R)	718,200 (R)	4,927,000 (R)	2,210,300 (R)	96,410 (R)

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TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
Sample Number:	GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
Sample Depth:	8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2.2 R	1.9 U	2 U	2.1 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2.1 UJ	1.9 UJ	2 UJ
Alpha BHC	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2.1 U	**5.2 NJ**	**2.9 J**	**1.4 J**	**1.3 J**	2 UJ	2 U	**2.1 J**	**2.6 J**	2 UJ
Alpha endosulfan	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	**8 J**	1.9 U	**3 NJ**	3 R	2 U	2 U	2 U	2 U	2 U	2 U	**1 J**	1.9 UJ	2 UJ
Alpha-chlordane	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	**7.6 J**	1.9 U	2 UJ	**12 J**	2 U	2 U	3.1 R	2 U	**4 NJ**	2 U	2.1 UJ	1.9 UJ	2 UJ
Beta BHC	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	13 R	1.9 U	**4.2 NJ**	8.7 R	6.6 R	2.9 UJ	2 U	3.5 R	2 UJ	**1.1 J**	4.3 R	3.7 R	6.4 R
Beta endosulfan	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	10 R	3.7 U	4 UJ	4 UJ	3.9 U	3.8 UJ	3.8 U	3.8 UJ	3.9 U	3.9 UJ	7.9 R	3.8 UJ	6 R
Delta BHC	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	3 R	1.9 U	**1.6 J**	2.1 UJ	2 U	2 U	2 U	2 U	2 U	2 U	**1.8 J**	**1.3 J**	2 UJ
Dieldrin	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	11 R	3.7 U	**6.1 J**	**4.8 J**	3.9 U	3.8 U	3.8 U	3.8 U	3.9 U	3.9 U	4 UJ	3.8 UJ	3.8 UJ
Endosulfan sulfate	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	85 R	3.7 U	38 R	64 R	15 R	6.5 R	16 R	23 R	5.8 R	6.2 R	32 R	16 R	21 R
Endrin	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	3.9 UJ	3.7 U	4 UJ	4 UJ	3.9 U	**3 J**	**2.7 J**	3.8 U	3.9 U	3.9 U	4 UR	3.8 UR	3.8 UR
Endrin aldehyde	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	13 R	3.7 U	9.6 R	28 R	17 R	7.8 R	6.2 R	8.8 R	6.6 R	6.7 R	4 UJ	12 R	10 R
Endrin ketone	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	**26 J**	3.7 U	**16 NJ**	**31 J**	**11 NJ**	**5.5 J**	**5.9 J**	**9.4 NJ**	3.9 UJ	3.9 U	7.5 R	**16 NJ**	**13 NJ**
Gamma BHC	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	**2.1 J**	1.9 UJ	2 UJ
Gamma-chlordane	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	**35 J**	1.9 U	13 R	**28 J**	4.4 R	2 UJ	2 UJ	2.1 R	2 UJ	**4.2 NJ**	13 R	9.8 R	**10 J**
Heptachlor	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	12 R	1.9 U	4.2 R	8.1 R	2 UJ	2.1 R	2 UJ	2 U	**2.7 J**	2 U	2.1 UJ	1.9 UJ	2 UJ
Heptachlor epoxide	ug/kg	2 U	2.1 U	2.1 U	2.1 U	2.1 U	**54 J**	1.9 U	18 R	20 R	2 U	2 U	2 U	2 U	2 U	2 U	7.3 R	**5.2 NJ**	5.4 R
Methoxychlor	ug/kg	20 U	21 U	21 U	21 U	21 U	79 R	19 U	**150 J**	**250 J**	55 R	22 R	**42 J**	**89 J**	20 UJ	84 R	110 R	**78 J**	**91 NJ**
P,P'-DDD	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	**67 J**	3.7 U	4 UJ	13 R	3.9 U	**14 NJ**	7.8 R	3.8 UJ	4.8 R	7.7 R	4.7 R	4.7 R	4.3 R
P,P'-DDE	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	**68 NJ**	3.7 U	4 UJ	18 R	3.9 UJ	3.8 U	**3.4 J**	3.8 U	3.9 UJ	3.9 U	4 UR	3.8 UR	**8.1 NJ**
P,P'-DDT	ug/kg	3.9 U	4.1 U	4 U	4.1 U	4 U	**27 J**	3.7 U	13 R	**42 J**	16 R	**4.9 NJ**	**4.7 J**	**16 J**	3.9 U	3.9 U	11 R	**7 NJ**	6.8 R
Toxaphene	ug/kg	200 U	210 U	210 U	210 U	210 U	200 U	190 U	200 U	210 U	200 U	200 U	200 U	200 U	200 U	200 U	210 UJ	190 UJ	200 UJ
Total DDTs	ug/kg	ND	ND	ND	ND	ND	**162**	ND	**---**	**---**	**---**	**18.9**	**---**	**16**	**---**	**---**	**---**	**---**	**---**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:	GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	GC-SD008A-10.0-12.0	D-03082010-02	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:	13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	10-12	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:	3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter / **Units**								**Pesticides**										
Aldrin ug/kg	2.1 UJ	4.4 U	1.9 U	1.8 U	2.1 UJ	**3.5 J**	1.9 U	2 U	**7.5 NJ**	**4.4 NJ**	3.1 R	13 R	2.3 U	1.8 U	1.9 UJ	2 UJ	1.9 UJ	2 U
Alpha BHC ug/kg	**2.1 J**	**3.3 J**	1.9 U	1.8 U	2.1 UJ	2 U	**4.6 NJ**	2 R	3.3 R	3.6 R	3.1 R	2.3 U	**2.5 J**	1.8 UJ	1.9 UJ	2 UJ	1.9 UJ	2 U
Alpha endosulfan ug/kg	**5.1 J**	4.4 U	1.9 U	1.8 U	2.1 UJ	5.4 R	1.9 U	8.9 R	2 U	2 U	2 U	12 R	3.2 R	1.8 U	1.9 UJ	2 UJ	1.9 UJ	2 U
Alpha-chlordane ug/kg	**4.1 NJ**	4.4 U	1.9 U	1.8 U	2.1 UJ	**5.5 NJ**	**3.7 J**	4.1 R	2 U	2 U	2 UJ	7.7 R	3.4 R	**4.3 J**	1.9 UJ	2 UJ	1.9 UJ	**1.4 J**
Beta BHC ug/kg	**4.3 NJ**	4.4 U	1.9 U	1.8 U	5.7 R	4 R	6.5 R	**10 NJ**	7.1 R	3.2 R	8.3 R	**23 NJ**	2.3 UJ	1.8 U	**4 J**	2 UJ	1.9 UJ	**4 NJ**
Beta endosulfan ug/kg	4 UJ	8.5 U	3.7 U	3.6 U	4.6 R	7.7 R	**17 J**	**23 NJ**	3.8 UJ	3.9 UJ	**17 NJ**	48 R	4.5 U	3.6 U	3.8 UJ	3.8 UJ	3.8 UJ	3.8 U
Delta BHC ug/kg	**1.4 J**	4.4 U	1.9 U	1.8 U	2.1 UJ	2 U	2.3 R	2.3 R	**4.5 NJ**	2 UJ	2 UJ	**12 J**	2.3 UJ	1.8 U	**1.5 J**	2 UJ	1.9 UJ	2 U
Dieldrin ug/kg	4 UJ	8.5 U	3.7 U	3.6 U	**8 NJ**	6.9 R	6.1 R	6.4 R	3.8 U	3.9 U	3.9 UJ	18 R	4.5 UJ	3.6 UJ	3.8 UJ	3.8 UJ	3.8 UJ	3.8 U
Endosulfan sulfate ug/kg	35 R	**31**	3.7 UJ	3.6 UJ	31 R	33 R	49 R	59 R	57 R	47 R	64 R	170 R	24 R	6.5 R	35 R	4.5 R	3.8 UJ	18 R
Endrin ug/kg	4 UR	8.5 U	3.7 U	3.6 U	4.1 UR	3.8 U	3.8 U	3.8 U	3.8 U	3.9 U	3.9 U	4.5 U	5.7 R	**2.3 J**	3.8 UJ	3.8 UR	3.8 UR	3.8 U
Endrin aldehyde ug/kg	8.5 R	9.4 R	3.7 UJ	**2.9 J**	6.5 R	12 R	20 R	27 R	24 R	25 R	22 R	**4.5 J**	**17 NJ**	**12 J**	5.2 R	5.3 R	**2.1 NJ**	3.8 UJ
Endrin ketone ug/kg	**19 NJ**	8.5 U	3.7 U	3.6 U	**15 J**	**16 J**	**30 J**	**32 J**	25 R	18 R	**36 J**	**39 J**	**14 J**	**3.8 J**	8.7 R	**2.5 NJ**	3.8 UJ	**6.7 J**
Gamma BHC ug/kg	2.1 UJ	4.4 U	1.9 U	1.8 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	2 U	3 R	2.3 U	1.8 R	1.9 UJ	2 UJ	1.9 UJ	**2.6 J**
Gamma-chlordane ug/kg	**11 J**	4.4 U	1.9 UJ	1.8 U	10 R	**23 NJ**	**14 NJ**	**24 J**	21 R	18 R	**18 J**	61 R	16 R	9.1 R	7 R	**3.2 J**	1.9 UJ	2.8 R
Heptachlor ug/kg	**3.9 J**	4.4 U	1.9 U	1.8 U	2.1 UJ	2 U	1.9 UJ	2 U	6.8 R	5.4 R	2 U	2.3 U	3.5 R	1.8 U	1.9 UJ	2 UJ	1.9 UJ	2 UJ
Heptachlor epoxide ug/kg	**6.5 NJ**	4.4 U	1.9 UJ	1.8 UJ	5.4 R	**14 NJ**	9.6 R	**15 J**	**12 J**	**12 J**	7.6 R	**48 NJ**	**13 NJ**	**8.7 NJ**	4.2 R	**2 NJ**	1.9 UJ	2 U
Methoxychlor ug/kg	**120 J**	44 U	19 U	18 U	**71 NJ**	38 R	**160 J**	**220 J**	**170 J**	**150 J**	**230 J**	**200 J**	25 R	**36 J**	**66 J**	20 UJ	19 UJ	**33 J**
P,P'-DDD ug/kg	16 R	8.6 R	**4.4 J**	**3.4 J**	8.2 R	**35 J**	**30 NJ**	16 R	20 R	22 R	17 R	52 R	**27 J**	3.6 UJ	8.1 R	5.3 R	3.8 U	3.8 U
P,P'-DDE ug/kg	4 UJ	8.5 U	3.7 U	3.6 U	**11 J**	**31 NJ**	**20 NJ**	7.4 R	**47 NJ**	**43 NJ**	**32 NJ**	4.5 U	10 R	6.1 R	**5.3 NJ**	3.8 UR	3.8 UR	3.8 U
P,P'-DDT ug/kg	9.6 R	8.5 U	3.7 U	3.6 U	6.3 R	**17 NJ**	**28 J**	**44 J**	**40 NJ**	**41 NJ**	**35 NJ**	**43 NJ**	**9.1 NJ**	4.5 R	3.8 UJ	3.8 UJ	3.8 UJ	6.1 R
Toxaphene ug/kg	210 UJ	440 U	190 U	180 U	210 UJ	200 U	190 U	200 U	200 U	200 U	200 U	230 U	230 U	180 U	190 UJ	200 UJ	190 UJ	200 U
Total DDTs ug/kg	---	---	**4.4**	**3.4**	---	**83**	**78**	---	---	---	---	---	---	---	---	---	---	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A
Sample Number:	D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4
Sample Depth:	7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4
Sample Date:	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	1.9 U	2 U	2 U	19 R	8.7 R	2 U	9 R	8.2 R	2.1 U	2.3 U	2 U	4.1 U	2 U	2 U	2 U	2 U	2 U
Alpha BHC	ug/kg	2 U	1.9 U	2 U	**2.6 J**	1.9 U	1.9 U	**2.5 J**	1.9 U	2 U	2.1 U	2.3 U	2 U	4.1 U	2 U	2 UJ	2 UJ	2 U	2 U
Alpha endosulfan	ug/kg	2 U	1.9 U	2 U	**1 J**	20 R	9.1 R	2 U	4.1 R	2 UJ	2.1 UJ	2.3 U	2 UJ	4.1 U	2 U	2 U	2 U	2 U	2 U
Alpha-chlordane	ug/kg	2 UJ	1.9 U	2 U	2 U	5.4 R	1.9 UJ	2 U	1.9 UJ	2.6 R	**2.6 J**	2.3 U	2 UJ	4.1 U	2 U	2 U	2 U	2 U	2 U
Beta BHC	ug/kg	**9.4 NJ**	1.9 U	2 U	2 UJ	1.9 U	8.6 R	2.6 R	15 R	15 R	2.1 U	2.3 U	**17 J**	5.7 R	**7.9 NJ**	2.3 R	**2.2 J**	2 U	3.1 R
Beta endosulfan	ug/kg	3.8 U	3.7 U	3.8 U	3.9 UJ	20 R	3.7 U	3.9 UJ	4.6 R	23 R	4.1 U	4.4 U	14 R	**34 J**	15 R	3.9 U	3.9 UJ	3.9 UJ	3.8 UJ
Delta BHC	ug/kg	3.5 R	1.9 U	2 U	2 U	2.7 R	**3 J**	**2.1 J**	2.7 R	3.1 R	**1.1 J**	2.3 U	3.3 R	4.1 U	2 UJ	2 U	2 U	2 U	2 U
Dieldrin	ug/kg	3.8 U	3.7 U	3.8 U	3.9 U	67 R	5 R	3.9 UJ	3.8 U	3.8 U	**9.9 J**	4.4 U	3.8 U	7.9 U	3.9 UJ	3.9 U	3.9 UJ	3.9 U	3.8 U
Endosulfan sulfate	ug/kg	16 R	7.9 R	3.8 U	12 R	36 R	20 R	33 R	57 R	230 R	5.5 R	4.4 U	3.8 U	**340**	**220 NJ**	18 R	17 R	3.9 UJ	17 R
Endrin	ug/kg	3.8 U	3.7 U	3.8 U	3.9 U	3.7 U	3.7 UJ	3.9 UJ	3.8 U	3.8 U	**10 NJ**	4.4 U	3.8 U	7.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.8 U
Endrin aldehyde	ug/kg	3.8 UJ	4.1 R	3.8 UJ	12 R	3.7 UJ	6.7 R	7.1 R	7.9 R	21 R	4.1 UJ	4.4 U	20 R	52 R	12 R	16 R	15 R	5 R	14 R
Endrin ketone	ug/kg	**5.6 NJ**	4.2 R	3.8 U	**4.9 NJ**	**27 NJ**	**17 J**	**9.5 NJ**	**29 NJ**	3.8 UJ	4.1 U	4.4 U	23 R	35 R	**31 NJ**	**20 J**	3.9 UJ	3.9 U	14 R
Gamma BHC	ug/kg	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U	1.9 U	2 UJ	**2.9 NJ**	2.3 U	2 R	4.1 U	2 R	2 UJ	2 U	2 U	2 U
Gamma-chlordane	ug/kg	4.7 R	1.9 U	2 U	5.7 R	1.9 U	**26 NJ**	**22 J**	11 R	**37 J**	6.5 R	2.3 U	**14 J**	**14 J**	11 R	**4.4 NJ**	5.2 R	2 U	7.1 R
Heptachlor	ug/kg	2.2 R	1.9 U	2 U	2 U	1.9 U	1.9 U	3.7 R	1.9 U	2 U	2.7 R	2.3 U	2 U	4.1 UJ	2 U	2 U	2 U	2 U	2 U
Heptachlor epoxide	ug/kg	2 U	1.9 U	2 U	8.2 R	**55 NJ**	**33 J**	19 R	**21 NJ**	**21 NJ**	**10 NJ**	2.3 U	**17 NJ**	10 R	**20 NJ**	2 U	**1.6 J**	2 U	**1.4 J**
Methoxychlor	ug/kg	**42 J**	**25 J**	20 U	**49 J**	19 UJ	**53 J**	62 R	48 R	100 R	21 U	23 U	86 R	100 R	**300 J**	**58 J**	20 UJ	20 UJ	46 R
P,P'-DDD	ug/kg	3.8 U	3.7 UJ	3.8 UJ	7.4 R	3.7 U	**58 J**	**38 J**	**42 J**	**130 J**	**12 NJ**	4.4 U	46 R	11 R	**46 J**	**28 J**	6 R	3.9 U	9 R
P,P'-DDE	ug/kg	3.8 U	3.7 U	**2.7 J**	3.9 UJ	33 R	**43 NJ**	16 R	29 R	**59 NJ**	**6.3 J**	4.4 U	21 R	8.9 R	22 R	3.9 U	3.9 U	3.9 U	3.8 U
P,P'-DDT	ug/kg	3.8 UJ	3.9 R	3.8 U	**4.5 J**	3.7 U	**9.1 J**	6.5 R	8.5 R	**39 J**	**34 J**	4.4 U	18 R	**60 J**	**50 J**	**24 J**	3.9 UJ	3.9 U	3.8 UJ
Toxaphene	ug/kg	200 U	190 U	200 U	200 U	190 U	190 U	200 U	190 U	200 U	210 U	230 U	200 U	410 U	200 U	200 U	200 U	200 U	200 U
Total DDTs	ug/kg	ND	---	**2.7**	---	---	**110.1**	---	---	**228**	**52.3**	ND	---	---	---	**52**	---	ND	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146
Sample Number:		GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD19C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0
Sample Depth:		2-4	4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13
Sample Date:		3/10/2010	3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 U	2 U	1.9 U	2.8 R	9.8 U	2 U	1.9 U	2 U	2 U	2.1 U	2 U	2.1 U	2.1 U	4.5 R	1.9 U	2 U	2 U	1.9 U
Alpha BHC	ug/kg	2 U	2 U	1.9 U	2 U	9.8 U	2 U	1.9 U	2 U	2 U	2.1 U	2 U	2.1 U	**7 J**	**14 J**	1.9 U	2 U	2 U	1.9 U
Alpha endosulfan	ug/kg	2 U	2 U	1.9 U	2 U	9.8 U	**4.9 NJ**	**6.2 J**	2 U	**2 J**	2.1 U	2 U	**1.3 J**	2.1 U	2.6 R	1.9 UJ	2 U	2 U	1.9 U
Alpha-chlordane	ug/kg	2 U	2 U	1.9 U	**7.9 NJ**	9.8 UJ	2 U	1.9 U	2 U	2 U	2.1 UR	2 UR	2.6 R	2.1 UJ	2 U	1.9 UJ	2 U	2 U	1.9 U
Beta BHC	ug/kg	**1.4 J**	2 U	1.9 U	7.9 R	**12 J**	3.4 R	1.9 U	2 U	2 U	2.1 U	2 U	2.1 U	2.1 UJ	3.8 R	2.1 R	2 U	2 U	1.9 U
Beta endosulfan	ug/kg	3.9 U	3.9 U	3.6 U	**24 NJ**	**55 NJ**	**24 NJ**	**3.4 J**	3.8 U	6 R	4.1 U	3.9 U	4.1 U	4.1 UJ	4 UJ	4.8 R	3.8 U	3.8 U	3.6 U
Delta BHC	ug/kg	2 U	2 U	1.9 U	2 UJ	9.8 U	2 U	1.9 U	2 U	2 U	2.1 U	2 U	2.1 U	**1.7 J**	**2.6 NJ**	1.9 U	2 U	2 U	1.9 U
Dieldrin	ug/kg	3.9 U	3.9 U	3.6 U	5 R	19 U	3.9 UJ	**4.1 J**	3.8 U	3.9 U	4.1 U	3.9 U	4.1 U	4.1 U	4 U	3.7 U	3.8 U	3.8 U	3.6 U
Endosulfan sulfate	ug/kg	29 R	15 R	12 R	**180 NJ**	**370 NJ**	**250 J**	3.7 U	5.2 R	18 R	4.1 U	3.9 U	6.5 R	42 R	61 R	26 R	16 R	3.8 U	3.6 U
Endrin	ug/kg	3.9 U	3.9 U	3.6 U	3.9 UJ	19 U	3.9 U	3.7 U	3.8 U	3.9 U	4.1 U	3.9 U	4.1 U	4.1 U	4 U	3.7 U	3.8 U	3.8 U	3.6 U
Endrin aldehyde	ug/kg	20 R	14 R	9.8 R	**52 NJ**	79 R	32 R	**4.2 NJ**	**3.8 J**	5.2 R	4.1 U	3.9 U	4.1 UJ	**61 J**	48 R	19 R	7.3 R	3.8 U	3.6 U
Endrin ketone	ug/kg	**30 J**	**27 J**	**10 NJ**	**28 NJ**	23 R	**44 J**	3.7 U	3.8 U	3.9 U	4.1 U	3.9 U	4.1 U	**46 J**	**28 NJ**	**10 NJ**	**7 NJ**	3.8 U	3.6 U
Gamma BHC	ug/kg	2 U	2 U	1.9 U	2 U	9.8 U	**1.7 J**	1.9 U	2 U	2 U	2.1 U	2 U	2.1 UJ	**2.1 J**	2 U	1.9 U	2 U	2 U	1.9 U
Gamma-chlordane	ug/kg	2 U	2 U	1.9 U	**20 J**	19 R	9.6 R	7.3 R	2 U	**4.2 NJ**	2.1 U	**0.98 J**	**3.7 J**	**3.3 J**	**11 NJ**	**5.6 J**	2 U	2 U	1.9 U
Heptachlor	ug/kg	2 U	2 U	1.9 U	2 U	**8.4 J**	2 UJ	1.9 U	2 U	2 U	2.1 U	2 U	2.1 U	**3.3 NJ**	**7.4 NJ**	1.9 U	2 U	2 U	1.9 U
Heptachlor epoxide	ug/kg	**1.3 J**	2 U	1.9 U	**35 J**	**30 NJ**	11 R	5 R	2 U	**4.4 NJ**	2.1 U	**1.1 J**	2.1 U	2.1 U	2.1 R	1.9 UJ	**5 J**	2 U	1.9 U
Methoxychlor	ug/kg	**43 J**	**30 J**	19 UJ	**120 J**	110 R	**300 J**	19 U	20 U	**28 NJ**	21 U	20 U	**24 J**	**220 J**	120 R	42 R	20 U	20 U	19 U
P,P'-DDD	ug/kg	22 R	3.9 R	7.9 R	**48 NJ**	19 UJ	6 R	3.7 U	**2.9 J**	4.8 R	4.1 U	3.9 U	4.1 UJ	4.1 UJ	19 R	13 R	3.8 U	3.8 U	3.6 U
P,P'-DDE	ug/kg	3.9 U	3.9 U	3.6 U	**31 NJ**	19 UJ	**20 J**	**6.3 NJ**	**2.8 J**	3.9 UJ	4.1 UR	3.9 UR	4.1 UJ	4.1 U	4 UJ	3.7 UJ	3.8 UR	**3.9 NJ**	3.6 UR
P,P'-DDT	ug/kg	**44 J**	3.9 R	**15 J**	**47 J**	64 R	**43**	**5.7 J**	3.8 U	3.9 U	4.1 U	3.9 UJ	**5.2 NJ**	**34 J**	**62 NJ**	**28 J**	4.1 R	3.8 U	3.6 U
Toxaphene	ug/kg	200 U	200 U	190 U	200 U	980 U	200 U	190 U	200 U	200 U	210 U	200 U	210 U	210 U	200 U	190 U	200 U	200 U	190 U
Total DDTs	ug/kg	---	---	---	**126**	---	---	**12**	**5.7**	---	---	---	**5.2**	**34**	---	---	---	**3.9**	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B
Sample Number:	D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0
Sample Depth:	11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6
Sample Date:	4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:	FD	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	1.9 U	2 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.1 U	1.9 U	2 U	1.9 U
Alpha BHC	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	1.9 U	2 U	2.1 U	**2.8 J**	**2.3 J**	2 U	2 U	**1.2 J**	2.1 U	1.9 U	2 U	1.9 U
Alpha endosulfan	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	1.9 U	2 U	2.1 U	**2 J**	**2.5 NJ**	2 U	2 U	2 U	2.1 U	1.9 U	2 U	1.9 U
Alpha-chlordane	ug/kg	1.9 U	1.9 UR	2 UR	2 UR	2.1 UR	2 UR	1.9 UR	2 UR	2.1 UR	2 U	6.9 R	2 U	2 U	2 U	2.1 U	1.9 U	2 U	1.9 UJ
Beta BHC	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	1.9 U	2 U	2.1 U	2 U	1.9 U	2 U	2 U	**2.3 J**	2.1 U	1.9 U	2 U	**6.3 J**
Beta endosulfan	ug/kg	3.7 U	3.7 U	3.9 U	3.9 U	4 U	3.8 U	3.7 U	3.9 U	4 U	3.9 U	3.8 U	4 U	3.8 U	3.8 UJ	4 U	3.8 U	3.9 U	3.8 UJ
Delta BHC	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	1.9 U	2 U	**1.3 J**	2 U	1.9 U	2 U	2 U	2 U	2.1 U	1.9 U	2 U	1.9 U
Dieldrin	ug/kg	3.7 U	3.7 U	3.9 U	3.9 U	4 U	3.8 U	3.7 U	3.9 U	4 U	3.9 U	3.8 U	4 U	3.8 U	3.8 UJ	4 U	3.8 U	3.9 U	3.8 UJ
Endosulfan sulfate	ug/kg	3.7 U	3.7 U	5.9 R	3.9 U	4 U	6 R	8 R	12 R	12 R	8.7 R	11 R	11 R	7.6 R	38 R	4 U	3.8 U	3.9 U	48 R
Endrin	ug/kg	3.7 U	3.7 U	3.9 U	3.9 U	4 U	3.8 U	3.7 U	3.9 U	4 U	3.9 U	3.8 U	4 U	3.8 U	3.8 U	4 U	3.8 U	3.9 U	3.8 U
Endrin aldehyde	ug/kg	3.7 U	3.7 U	3.9 U	3.9 U	4 U	3.8 U	3.7 U	5.2 R	6.9 R	6.9 R	**14 J**	4 U	3.8 U	**44 NJ**	4 U	3.8 U	3.9 U	35 R
Endrin ketone	ug/kg	3.7 U	3.7 U	3.9 U	3.9 U	4 U	3.8 U	3.7 U	**7.1 J**	**7.7 NJ**	**4 NJ**	**8.4 J**	4 U	3.8 U	**26 J**	4 U	3.8 U	3.9 U	**31 J**
Gamma BHC	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	1.9 U	2 U	2.1 U	2 U	1.9 U	2 U	2 U	2 UJ	2.1 U	1.9 U	2 U	1.9 U
Gamma-chlordane	ug/kg	1.9 U	1.9 U	2 U	2 UJ	2.1 U	**1.1 J**	**2.1 J**	2 UJ	2.3 R	2.8 R	4.6 R	2 U	2 U	2 UJ	2.1 U	1.9 U	2 U	**2.7 NJ**
Heptachlor	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	1.9 U	**1.3 J**	**3 J**	2 U	1.9 U	2 U	2 U	2 U	2.1 U	1.9 U	2 U	1.9 U
Heptachlor epoxide	ug/kg	1.9 U	1.9 U	2 U	2 U	2.1 U	2 U	**2.1 NJ**	2 U	2.1 U	**5 J**	**12 J**	2 U	2 U	2 UJ	2.1 U	1.9 U	2 U	**2.1 J**
Methoxychlor	ug/kg	19 U	19 U	20 U	**17 J**	21 U	20 U	19 U	**47 J**	**50 J**	20 U	25 R	20 U	20 U	72 R	21 U	19 U	20 U	**110 NJ**
P,P'-DDD	ug/kg	3.7 U	3.7 U	3.9 U	3.9 U	4 U	3.8 U	3.7 U	3.9 U	**15 J**	6 R	**13 NJ**	4 U	3.8 U	13 R	4 U	3.8 U	3.9 U	9.4 R
P,P'-DDE	ug/kg	3.7 UR	3.7 UR	3.9 UR	3.9 UR	4 UR	3.8 UR	3.7 UR	3.9 UJ	**7.7 NJ**	3.9 U	3.9 R	4 U	3.8 U	3.87 UJ	4 U	3.8 U	3.9 U	3.8 UJ
P,P'-DDT	ug/kg	3.7 U	3.7 U	3.9 U	3.9 U	4 U	3.8 U	3.7 U	3.9 U	9.6 R	5.1 R	**7.7 J**	4 U	3.8 U	**44 J**	4 U	3.8 U	3.9 U	**41 J**
Toxaphene	ug/kg	190 U	190 U	200 U	200 U	210 U	200 U	190 U	200 U	210 U	200 U	190 U	200 U	200 U	200 U	210 U	190 U	200 U	190 U
Total DDTs	ug/kg	---	---	---	---	---	---	---	ND	---	---	---	ND	ND	---	ND	ND	ND	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128
Sample Number:		GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	D-03112010-02	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3
Sample Depth:		6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	1.9 U	1.9 UJ	2 U	**2.5 NJ**	2 U	1.9 U	2 U	2 U	2.1 U	2.2 U	2.1 U	**8.2 J**	2.1 UJ	**1.9 J**	1.9 U	2.2 U	2.1 U	2.2 U
Alpha BHC	ug/kg	1.9 U	**2 J**	2 U	2 U	2 U	1.9 U	2 U	2 U	2.1 U	**5.4 J**	**4.2 J**	**15 J**	**5.6 J**	**3.9 J**	1.9 U	2.2 U	2.1 U	2.2 UJ
Alpha endosulfan	ug/kg	**4.2 J**	2.2 R	2 U	2 U	2 U	1.9 U	2 U	2 U	2.1 U	2.2 U	2.1 U	2 U	2.1 U	1.9 U	1.9 U	2.2 U	2.1 U	2.2 U
Alpha-chlordane	ug/kg	**1.8 J**	**2 NJ**	2 U	2 UJ	2 U	1.9 U	2 U	2 U	2.1 U	2.2 U	2.1 U	2.7 R	2.1 U	1.9 UJ	1.9 UJ	**1.5 J**	2.1 UJ	1.7 UJ
Beta BHC	ug/kg	**10 J**	**8.1 J**	3.9 R	**2.3 NJ**	3.3 R	2.2 R	2 U	2 U	2.1 U	2.2 U	2.1 U	8.6 R	2.1 U	1.9 UJ	1.9 U	2.2 U	2.1 U	2.7 R
Beta endosulfan	ug/kg	5 R	3.7 UJ	3.8 UJ	3.9 UJ	**15 J**	3.8 U	3.9 U	4 U	4.1 U	5.9 R	4.1 U	3.9 UJ	4.1 UJ	3.7 U	3.6 UJ	4.2 U	5 R	4.2 U
Delta BHC	ug/kg	1.9 U	1.9 UJ	2 U	2 U	2 U	1.9 U	2 U	2 U	2.1 U	**1.1 J**	2.1 U	2 U	2.1 U	1.9 U	1.9 U	2.2 U	2.1 U	2.2 U
Dieldrin	ug/kg	3.8 U	3.7 U	3.8 U	3.9 U	3.9 U	3.8 U	3.9 U	4 U	4.1 U	4.2 U	4.1 U	3.9 U	4.1 UJ	3.7 UJ	3.6 U	4.2 U	4.2 U	**2.5 J**
Endosulfan sulfate	ug/kg	42 R	42 R	28 R	42 R	30 R	12 R	3.9 U	4 U	4.1 U	41 R	7.9 R	190 R	32 R	23 R	23 R	6.8 R	20 R	21 R
Endrin	ug/kg	3.8 U	3.7 U	3.8 U	3.9 U	3.9 U	3.8 U	3.9 U	4 U	4.1 U	4.2 U	4.1 U	3.9 U	4.1 U	3.7 U	3.6 U	4.2 U	4.2 U	4.2 U
Endrin aldehyde	ug/kg	33 R	29 R	**38 J**	24 R	17 R	7.6 R	3.9 U	4 U	4.1 U	11 R	4.1 UJ	10 R	13 R	14 R	6 R	7.8 R	15 R	28 R
Endrin ketone	ug/kg	**32 J**	**31 J**	9.5 R	**23 J**	**17 J**	**5.3 NJ**	3.9 U	4 U	4.1 U	**11 NJ**	4.1 UJ	**25 J**	**15 J**	**15 J**	**8.9 J**	4.2 U	**9.3 J**	**22 NJ**
Gamma BHC	ug/kg	1.9 UJ	1.9 U	2 UJ	2 U	2 UJ	1.9 U	2 U	2 U	2.1 U	2.2 U	2.1 U	2 U	2.1 U	1.9 U	1.9 U	2.2 U	2.1 U	2.2 U
Gamma-chlordane	ug/kg	**7.3 NJ**	**4.8 NJ**	2 UJ	**6.2 J**	**9.6 NJ**	5.5 R	2.1 R	2 U	2.4 R	2.2 U	2.1 U	14 R	**2.1 J**	2 R	1.9 U	2.2 U	2.1 U	1.3 UJ
Heptachlor	ug/kg	1.9 U	1.9 UJ	2 UJ	2 U	3.1 R	**2.3 J**	2 U	2 U	2.1 U	**2.7 NJ**	2.1 UJ	**10 J**	2.1 UJ	1.9 UJ	1.9 U	2.2 U	2.1 U	2.2 U
Heptachlor epoxide	ug/kg	**2.5 NJ**	1.9 U	2 U	2 UJ	6.5 R	1.9 U	2 U	2 U	2.1 U	2.2 U	**1.3 J**	**6.9 J**	2.1 UJ	1.9 U	1.9 U	2.2 U	2.1 U	2.2 U
Methoxychlor	ug/kg	72 R	96 R	**110 J**	**71 NJ**	40 R	19 U	20 U	20 U	21 U	30 R	21 UJ	59 R	36 R	33 R	**46 NJ**	22 U	24 R	**94 J**
P,P'-DDD	ug/kg	27 R	10 R	5.8 R	12 R	**16 NJ**	11 R	3.9 UJ	4 U	**4.4 NJ**	23 R	**20 J**	**93 NJ**	**29 J**	**35 J**	8.7 R	**12 J**	**26 J**	8.9 R
P,P'-DDE	ug/kg	5 R	3.7 U	3.8 U	3.9 U	7 R	3.8 U	3.9 U	4 U	4.1 U	**3.9 J**	4.1 U	**27 J**	4.1 U	3.7 UJ	3.6 U	4.2 U	**4.9 J**	4.2 UJ
P,P'-DDT	ug/kg	**48 J**	**49 J**	**39 J**	14 R	**15 NJ**	**10 J**	3.9 U	4 U	4.1 U	**15 NJ**	4.1 U	**46 NJ**	**13 NJ**	7.5 R	**7.5 NJ**	**5.6 J**	**12 J**	9.9 R
Toxaphene	ug/kg	190 U	190 U	200 U	200 U	200 U	190 U	200 U	200 U	210 U	220 U	210 U	200 U	210 U	190 U	190 U	220 U	210 U	220 U
Total DDTs	ug/kg	---	---	---	---	---	---	ND	ND	**4.4**	---	**20**	**166**	**42**	---	---	**17.6**	**42.9**	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD128	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A
	Sample Number:	GC-SD128-07.3-09.3	GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02
	Sample Depth:	7.3-9.3	9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1
	Sample Date:	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010
	Sample Type:	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 U	1.9 U	1.9 U	2.1 U	2.2 U	2 U	4.4 R	**11 J**	2 UJ	16 R	2 UJ	2.1 U	2 U	2 U	5.9 R	2 U	2.2 U	2.2 U
Alpha BHC	ug/kg	2 U	1.9 U	1.9 U	2.1 U	2.2 U	**1.1 J**	2 U	1.9 U	2 U	3.8 UJ	2 U	2.1 U	2 U	2 U	2 U	2 U	2.2 U	2.2 U
Alpha endosulfan	ug/kg	2 U	1.9 U	1.9 U	2.1 U	2.2 U	2 U	2 UJ	1.9 UJ	2 U	7.4 R	2 U	2.1 U	2 U	2 U	4.9 R	2 U	2.2 U	2.2 U
Alpha-chlordane	ug/kg	0.95 UJ	1.1 UJ	1.9 UJ	2.1 U	2.2 U	2 U	2 U	1.9 U	2 U	4.3 R	2 U	2.1 U	2 U	2 U	**2.8 J**	2 U	2.2 U	2.2 U
Beta BHC	ug/kg	2 UJ	1.9 U	1.9 U	2.1 U	2.2 U	2 U	2 UJ	3.3 R	2 UJ	6.8 R	3.1 R	2.1 UJ	2 U	2 U	2 U	2 U	2.2 U	2.2 U
Beta endosulfan	ug/kg	**3.3 J**	3.8 U	3.7 U	4.2 U	4.3 U	3.8 U	12 R	**27 J**	**38 J**	**55 J**	**14 NJ**	**8.3 J**	3.9 U	3.9 U	**40 J**	4 U	4.2 U	4.3 U
Delta BHC	ug/kg	2 U	1.9 U	1.9 U	2.1 U	2.2 U	2 U	2 U	1.9 UJ	**2.7 J**	**20 NJ**	2 UJ	2.1 U	2 U	2 U	2.1 R	2 U	2.2 U	2.2 U
Dieldrin	ug/kg	3.8 U	3.8 U	3.7 U	4.2 U	4.3 U	3.8 U	**7.9 J**	3.7 U	**9.9 J**	7.5 UJ	4 UJ	4.1 U	3.9 U	3.9 U	**6.6 NJ**	4 U	4.2 U	4.3 U
Endosulfan sulfate	ug/kg	15 R	8.9 R	11 R	4.2 U	4.3 U	37 R	3.8 U	38 R	200 R	9.9 R	130 R	57 R	**23 NJ**	37 R	3.9 U	4 UJ	8.5 R	5.9 R
Endrin	ug/kg	3.8 U	3.8 U	3.7 U	4.2 U	4.3 U	3.8 U	3.8 U	3.7 U	3.8 UJ	7.5 UJ	4 UJ	4.1 U	3.9 U	3.9 U	3.9 U	4 U	4.2 U	4.3 U
Endrin aldehyde	ug/kg	8.7 R	3.8 U	5.7 R	4.2 U	4.3 U	4.1 R	13 R	49 R	8.3 R	8.6 R	19 R	**40 J**	**5.4 NJ**	7 R	3.9 U	**4.2**	**7.2 J**	**5 J**
Endrin ketone	ug/kg	**11 J**	**5.8 J**	**7.2 NJ**	4.2 U	4.3 U	3.8 U	8 R	**61 J**	**90 J**	38 R	**17 J**	**26 J**	3.9 U	**5.1**	**28 NJ**	4 U	**4.6 NJ**	5.2 R
Gamma BHC	ug/kg	2 U	1.9 U	1.9 U	2.1 U	2.2 U	2 U	2 U	1.9 U	2 UJ	3.8 UJ	2 U	2.1 U	2 U	2 U	2 U	2 U	2.2 U	2.2 U
Gamma-chlordane	ug/kg	2 U	1.9 U	1.9 U	2.1 U	2.2 U	2 U	8.4 R	**14 J**	20 R	12 R	13 R	2.1 UJ	2 U	2 U	**15 J**	1.9 U	2.2 U	2.2 U
Heptachlor	ug/kg	2 U	1.9 U	1.9 U	2.1 U	2.2 U	**3.4 J**	2 U	**2.1 J**	2 UJ	3.8 UJ	**5.8 NJ**	2.1 UJ	2 U	2 U	2 U	2 U	2.2 U	2.2 U
Heptachlor epoxide	ug/kg	2 U	1.9 U	1.9 U	**2.3 J**	2.2 U	5.1 R	4.5 R	**7.3 J**	5.8 R	**23 J**	**14 J**	**3 NJ**	2 U	2 U	3.6 R	**2.3 NJ**	2.2 U	2.2 U
Methoxychlor	ug/kg	**36 NJ**	**20 NJ**	19 UJ	21 U	22 U	20 U	24 R	140 R	**93 J**	**140 J**	20 UJ	**66 NJ**	20 U	20 U	34 R	20 U	22 U	**23 J**
P,P'-DDD	ug/kg	**19 J**	3.8 U	4.4 R	4.2 U	4.3 U	**36 J**	10 R	8.9 R	**110 NJ**	**270 J**	**54**	7.5 R	**4 NJ**	4.5 R	**85 J**	**3.7 J**	4.3 R	4.3 U
P,P'-DDE	ug/kg	3.8 U	3.8 U	3.7 UJ	4.2 U	4.3 U	6.5 R	3.8 UR	3.7 UR	3.8 UR	7.5 UR	8.1 R	4.1 UJ	3.9 U	3.9 U	3.9 U	4 U	4.2 U	4.3 U
P,P'-DDT	ug/kg	**8.1 NJ**	**3.8 NJ**	4.6 R	4.2 U	4.3 U	3.8 U	21 R	**65 J**	**27 J**	42 R	**24 NJ**	**18 J**	3.9 U	**6.1 J**	**43 NJ**	4 U	**4.5 NJ**	4.3 U
Toxaphene	ug/kg	200 U	190 U	190 U	210 U	220 U	200 U	200 U	190 U	200 U	380 UJ	200 U	210 U	200 U	200 U	200 U	200 U	220 U	220 U
Total DDTs	ug/kg	**27.1**	**3.8**	**---**	ND	ND	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**4**	**---**	**128**	**3.7**	**---**	ND

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD27A	GC-SD27A	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A
Sample Number:	GC-SD027A-06.1-08.1	GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0
Sample Depth:	6.1-8.1	8.1-8.6	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8
Sample Date:	4/13/2010	4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	2 U	2.1 U	4.4 U	2.2 U	2.3 U	5.1 R	2 U	2 U	2.2 U	**2.7 J**	2.1 U	2.1 U	2.2 U	2 U	7.8 UJ	40 R	2.1 U
Alpha BHC	ug/kg	2 U	2 U	2.1 U	4.4 U	2.2 U	2.3 U	2.1 U	2 U	2 U	2.2 U	2.1 U	2.1 U	2.1 U	2.2 U	2 U	7.8 UJ	6 UJ	**1.7 J**
Alpha endosulfan	ug/kg	2 U	2 U	2.1 U	4.4 U	2.2 U	2.3 U	2.1 U	2 U	2 U	2.2 U	2.1 U	2.1 U	2.1 U	**2 J**	2 U	**100 J**	6 UJ	2.1 UJ
Alpha-chlordane	ug/kg	2 U	2 U	2.1 U	4.4 U	2.2 U	2.3 U	4 UJ	2 U	2 U	2.2 U	2.1 UJ	2.1 U	2.1 U	2.2 U	2 U	11 R	7.5 R	2.1 UJ
Beta BHC	ug/kg	2.6 R	2 U	2.1 U	4.4 U	2.2 U	2.3 U	2.1 U	2 U	2 U	2.2 U	**1.7 J**	2.3 R	2.1 U	2.2 U	2 U	7.8 UJ	6 UJ	2.1 U
Beta endosulfan	ug/kg	7.7 R	6 R	4 U	8.6 U	4.2 U	4.6 U	4 U	3.8 U	3.8 U	4.2 U	4.2 U	5.4 R	4.1 U	4.2 UJ	4 U	**150 J**	120 R	4.1 U
Delta BHC	ug/kg	2 U	2 U	2.1 U	4.4 U	2.2 U	2.3 U	2.1 U	2 U	2 U	2.2 U	2.1 U	2.1 U	2.1 U	2.2 U	2 U	**62 J**	**65 J**	2.1 U
Dieldrin	ug/kg	4 U	3.8 U	4 U	8.6 U	4.2 U	4.6 U	4 U	3.8 U	3.8 U	4.2 U	4.2 U	5 R	4.1 U	4.2 U	4 U	15 UJ	12 UJ	4.1 U
Endosulfan sulfate	ug/kg	15 R	6.4 R	14 R	**12 NJ**	4.2 U	4.6 U	10 R	9.6 R	3.8 U	4.2 U	23 R	36 R	**7 NJ**	13 R	7.3 R	**1,700 NJ**	18 R	16 R
Endrin	ug/kg	4 U	3.8 U	4 U	8.6 U	4.2 U	4.6 U	4 UJ	3.8 U	3.8 U	4.2 U	4.2 U	4 U	4.1 U	4.2 U	4 U	15 UJ	58 R	**2.2 J**
Endrin aldehyde	ug/kg	19 R	**8.8 J**	**7.1 NJ**	**6.1 J**	4.2 U	4.6 U	4 UJ	**4.8 J**	3.8 U	4.2 U	17 R	8.2 R	**2.9 J**	**8.5 J**	4.5 R	69 R	12 UJ	**19 J**
Endrin ketone	ug/kg	17 R	8.3 R	4 UJ	8.6 U	4.2 U	4.6 U	**5.9 J**	4.5 R	3.8 U	4.2 U	**15 J**	**15 J**	4.1 U	**8.8 J**	**3.3 J**	**110 J**	69 R	**11 J**
Gamma BHC	ug/kg	2 U	2 U	2.1 U	4.4 U	2.2 U	2.3 U	2.1 UJ	2 U	2 U	2.2 U	2.1 U	2.1 U	2.1 U	2.2 U	2 U	7.8 UJ	6 UJ	2.1 U
Gamma-chlordane	ug/kg	5.8 R	2 U	3.3 R	4.4 U	2.2 U	2.3 U	2.9 R	**4.4 NJ**	2 U	2.2 U	**2.2 NJ**	**16 NJ**	2.1 U	5.9 R	2 UJ	**52 J**	**70 J**	5.8 R
Heptachlor	ug/kg	3 R	2 U	2.1 U	4.4 U	2.2 U	2.3 U	2.1 U	2 U	2 U	2.2 U	2.1 U	2.1 U	2.1 U	2.2 UJ	2 U	7.8 UJ	6 UJ	2.2 R
Heptachlor epoxide	ug/kg	3.8 R	2 U	5.8 R	4.4 U	2.2 U	2.3 U	2.1 U	2 U	2 U	2.2 U	2.1 U	**24 NJ**	2.1 U	5.7 R	**2.3 NJ**	7.8 UJ	**11 J**	6.6 R
Methoxychlor	ug/kg	**54 NJ**	**29 J**	21 R	44 U	22 U	23 U	21 UJ	20 UJ	20 U	22 U	37 R	**100 J**	21 U	**53 J**	20 UJ	78 UJ	60 UJ	**73 J**
P,P'-DDD	ug/kg	7.9 R	**4.6 NJ**	4 UJ	8.6 U	4.2 U	4.6 U	4 UJ	3.8 UJ	3.8 U	4.2 U	10 R	4 UJ	**4 J**	6.7 R	4 UJ	**470 J**	**440 J**	**22 J**
P,P'-DDE	ug/kg	4 U	3.8 U	4 UJ	8.6 UR	4.2 UR	4.6 UR	4 UR	**2.6 NJ**	3.8 UR	4.2 U	4.2 U	17 R	4.1 UR	5.7 R	4 UR	**140 JN**	**100 NJ**	**7.4 J**
P,P'-DDT	ug/kg	**17 J**	**8.5 NJ**	4 UJ	8.6 U	4.2 U	4.6 U	5.5 R	3.8 U	3.8 U	4.2 U	8.4 R	12 R	4.1 U	9 R	4 U	**180 J**	**300 J**	**16 J**
Toxaphene	ug/kg	200 U	200 U	210 U	440 U	220 U	230 U	210 U	200 U	200 U	220 U	210 U	210 U	210 U	220 U	200 U	780 UJ	600 UJ	210 U
Total DDTs	ug/kg	**---**	**13.1**	ND	**---**	**---**	**---**	**---**	**2.6**	**---**	ND	**---**	**---**	**---**	**---**	**---**	**790**	**840**	**45.4**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD30A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113
Sample Number:		GC-SD030A-08.0-10.0	GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0
Sample Depth:		8-10	10-12	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15
Sample Date:		3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.1 U	2 U	**22 J**	2 U	2.1 U	2 U	2 U	2.1 U	2 U	**9.9 NJ**	8.6 R	2 UJ	2.2 UJ	2 U	**18 J**	2 U	2 U	3 R
Alpha BHC	ug/kg	**1.4 J**	2 UJ	2 U	2 U	2.1 UJ	2 U	2 U	2.1 U	2 U	2 U	2 U	**6.5 J**	**4.5 J**	**5.4 NJ**	2 UJ	2 UJ	**2.9 NJ**	2 UJ
Alpha endosulfan	ug/kg	2.1 UJ	2 UJ	**15 NJ**	2 U	2.1 U	2 U	2 U	2.1 U	2 U	17 R	4.3 R	2 U	**2 J**	2 UJ	4.2 R	2 U	2 U	2 U
Alpha-chlordane	ug/kg	2.1 UJ	2 U	2 UJ	2 U	2.1 U	2 U	2 U	4.1 UJ	2 U	5.1 R	2 U	2 UJ	2.2 UJ	2 U	**12 J**	2 U	2 U	2 UJ
Beta BHC	ug/kg	2.1 UJ	2.5 R	7.7 R	2 U	2.1 UJ	2 U	2 UJ	2.1 U	2 U	2 U	2 UJ	1.1 UJ	2.2 U	2.3 R	2 UJ	2 UJ	2.9 UJ	2 UJ
Beta endosulfan	ug/kg	5.6 R	3.9 U	**40 J**	3.9 U	**8.2 NJ**	4 U	3.8 U	4.1 U	4 U	40 R	11 R	**7.9 NJ**	4.2 U	8.5 R	**47 NJ**	9.7 R	**10 NJ**	**18 J**
Delta BHC	ug/kg	2.1 U	2 U	2 U	2 U	2.1 U	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2.2 U	2 UJ	**3.2 NJ**	2 U	2 U	**1.5 J**
Dieldrin	ug/kg	4.1 U	3.9 U	**4.6 NJ**	3.9 U	4 U	4 UJ	3.8 U	4.1 U	4 U	21 R	3.9 U	3.8 U	4.2 U	4 U	9 R	3.9 U	3.9 U	3.8 U
Endosulfan sulfate	ug/kg	19 R	29 R	150 R	3.9 U	7.6 R	8.1 R	36 R	17 R	10 R	14 R	130 R	26 R	14 R	**100 NJ**	3.8 UJ	8.3 R	20 R	23 R
Endrin	ug/kg	4.1 U	3.9 UJ	3.9 U	3.9 U	4 U	4 U	3.8 U	4.1 U	4 U	**48 J**	3.9 U	3.8 U	4.2 UJ	4 UJ	**40 J**	3.9 U	3.9 U	3.8 U
Endrin aldehyde	ug/kg	14 R	26 R	28 R	3.9 U	19 R	13 R	15 R	4.1 UJ	**8.3 NJ**	9.6 R	**32 J**	18 R	14 R	18 R	46 R	13 R	12 R	27 R
Endrin ketone	ug/kg	**11 J**	**21 J**	**33 NJ**	3.9 U	6.2 R	4.7 R	**21 J**	**7.3 J**	**7.8 J**	28 R	**36 J**	**18 J**	**9.4 J**	**25 J**	44 R	**8.5 NJ**	**15 J**	**21 J**
Gamma BHC	ug/kg	2.1 U	2 U	2 U	2 U	2.1 U	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2.2 U	2 U	2 UJ	2 U	2 U	2 U
Gamma-chlordane	ug/kg	2.6 R	12 R	8.6 R	2 U	7.3 R	3.6 R	5.2 R	2.3 R	**3.4 J**	2 U	10 R	8.5 R	**9.2 J**	6.6 R	**15 J**	**14 NJ**	6.2 R	**11 NJ**
Heptachlor	ug/kg	2.1 UJ	2 U	2 U	2 U	**2 J**	2 U	2 U	2.1 U	2 U	2 U	2 U	2 UJ	2.2 U	**2.2 NJ**	2 UJ	2 U	2 U	2 U
Heptachlor epoxide	ug/kg	**5.4 NJ**	**8.5 NJ**	**4.2 J**	2 U	5.5 R	2 U	2 UJ	2.1 U	**3.6 NJ**	**48 NJ**	**21 NJ**	**12 J**	4.3 R	6.3 R	**17 J**	4.7 R	2.2 R	3.4 R
Methoxychlor	ug/kg	**81 J**	**130 J**	**77 J**	20 U	**28 J**	**21 NJ**	34 R	21 U	20 U	20 UJ	27 R	**140 J**	**70 J**	**160 J**	83 R	20 U	20 U	58 R
P,P'-DDD	ug/kg	**18 J**	20 R	**67 J**	3.9 U	**41 J**	**35 J**	**51 J**	**19 J**	4 UJ	**210 J**	**89 J**	11 R	13 R	**47 NJ**	**210 J**	5.8 R	4.7 R	5.9 R
P,P'-DDE	ug/kg	4.5 R	**14 J**	3.9 U	3.9 U	5.2 R	4 UJ	**6.3 NJ**	4.1 UJ	4 UJ	4 UJ	**30 JN**	**11 NJ**	**8.9 NJ**	**16 NJ**	**14 NJ**	**16 NJ**	4.2 R	4.9 R
P,P'-DDT	ug/kg	**15 NJ**	**33 J**	**56 J**	3.9 U	**26 NJ**	**20 J**	25 R	5.2 R	**6.3 J**	38 R	**43 J**	**20 NJ**	5.1 R	**24 J**	**130 J**	**19 NJ**	18 R	**44 J**
Toxaphene	ug/kg	210 U	200 U	200 U	200 U	210 U	200 U	200 U	210 U	200 U	200 U	200 U	200 U	220 U	200 U	200 UJ	200 U	200 U	200 U
Total DDTs	ug/kg	**---**	**---**	**123**	ND	**---**	**55**	**---**	**---**	**6.3**	**---**	**162**	**---**	**---**	**87**	**354**	**---**	**---**	**---**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD113	GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114
Sample Number:		D-03152010-02	GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2
Sample Depth:		13.3-15	8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2
Sample Date:		3/15/2010	3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 UJ	2 U	**9 NJ**	5 R	1.9 U	2 UJ	2 UJ	**8.6 J**	2 U	2 U	2 U	2.3 U	2.2 U	2.2 U	1.9 U	4.3 R	4.3 R	2.1 UJ
Alpha BHC	ug/kg	2 U	**3.5 J**	2.6 U	2.1 UJ	1.9 U	2 UJ	2 U	2.5 R	2 UJ	2 U	**4 NJ**	2.3 U	2.2 U	2.2 UJ	1.9 UJ	2.5 UJ	2.1 U	**1.9 J**
Alpha endosulfan	ug/kg	**2.3 NJ**	**5.6 J**	4.6 R	3.4 R	**1.5 J**	2 U	2 U	1.9 U	2 U	2 U	2 U	2.3 U	2.2 U	2.2 U	1.9 U	2.3 U	2.1 U	2.1 U
Alpha-chlordane	ug/kg	2 U	2 U	2.6 UJ	2.1 UJ	1.9 U	2 UJ	2 UJ	1.9 U	2.7 UJ	**1.7 J**	**2.6 J**	2.3 U	2.2 U	2.2 U	**2.8 J**	**1.8 J**	**1.7 J**	**2.4 J**
Beta BHC	ug/kg	2.4 R	3.6 R	7.1 R	2.1 UJ	1.9 U	2 UJ	2 U	4.6 R	2 U	2 U	2 U	2.3 U	2.2 U	2.2 UJ	1.9 U	2.5 R	2.4 R	2.1 UJ
Beta endosulfan	ug/kg	**20 J**	3.9 U	**45 NJ**	**39 J**	3.7 UJ	**10 NJ**	**6.4 J**	**15 NJ**	3.9 U	3.9 U	15 R	4.4 U	10 R	**17 NJ**	14 R	**19 J**	**20 J**	**44 J**
Delta BHC	ug/kg	2 U	2 U	**2 J**	**1.5 J**	1.9 U	2 U	2 U	1.9 U	2 U	2 U	2 U	2.3 U	**2.3 J**	2.2 U	1.9 U	2.3 U	2.1 U	2.1 U
Dieldrin	ug/kg	6.6 R	3.9 U	5 U	4.1 UJ	3.7 U	**3.9 J**	3.9 U	3.7 U	**4.5 J**	3.9 U	4 U	4.4 U	8.9 R	**4.9 J**	**6.4 J**	4.4 U	4 U	4.1 UJ
Endosulfan sulfate	ug/kg	67 R	3.9 U	**96 NJ**	4.1 UJ	14 R	10 R	11 R	3.7 U	3.9 U	3.9 U	150 R	4.4 U	4.3 U	59 R	3.7 U	91 R	71 R	150 R
Endrin	ug/kg	3.8 U	**8.9 J**	5 U	4.1 UJ	3.7 UJ	3.9 U	3.9 U	3.7 U	3.9 U	3.9 U	4 U	4.4 U	4.3 U	4.2 U	3.7 U	4.4 U	4 U	4.1 U
Endrin aldehyde	ug/kg	34 R	25 R	**60 J**	**48 NJ**	4.5 R	7 R	9.7 R	19 R	3.9 U	3.9 U	4 U	4.4 U	4.3 U	4.2 U	3.7 U	22 R	22 R	28 R
Endrin ketone	ug/kg	**31 J**	3.9 U	**33 NJ**	**35 J**	**4.5 NJ**	**5.9 J**	**7 NJ**	3.7 U	3.9 U	3.9 U	4 U	4.4 U	4.3 U	4.2 U	3.7 U	**22 J**	4.6 R	**19 NJ**
Gamma BHC	ug/kg	2 U	2 U	2.6 U	2.1 UJ	1.9 UJ	2 U	2 U	1.9 U	2 U	2 U	2 U	2.3 U	2.2 U	2.2 U	1.9 U	2.3 U	2.1 U	2.1 U
Gamma-chlordane	ug/kg	9.2 R	4.7 R	15 R	**16 J**	1.9 UJ	4 R	2.6 R	1.9 U	2.7 R	4.9 R	12 R	2.3 U	**9.8 J**	**7.5 J**	**10 J**	**5.1 NJ**	4.7 R	13 R
Heptachlor	ug/kg	2 U	5 R	2.6 U	2.1 UJ	**2 J**	2 U	2 U	1.9 U	**1.4 J**	2 U	2 U	2.3 U	**7.2 J**	2.2 U	1.9 U	2.3 U	2.1 U	2.1 U
Heptachlor epoxide	ug/kg	4.8 R	8 R	4.7 R	3.7 R	1.9 UJ	2.5 R	2 U	1.9 U	2 UJ	2 U	**2.9 NJ**	2.3 U	9.8 R	2.2 UJ	1.9 U	**2.1 J**	2.1 UJ	3.8 R
Methoxychlor	ug/kg	69 R	20 U	**86 J**	**110 NJ**	19 U	**31 J**	**25 NJ**	19 U	20 U	20 U	20 U	23 U	22 U	22 U	19 U	**94 J**	34 R	46 R
P,P'-DDD	ug/kg	**47 J**	**46 J**	5 U	4.1 UJ	**13 J**	**33 NJ**	**26 J**	3.7 U	**22 J**	26 R	**86 J**	19 R	20 R	35 R	40 R	45 R	40 R	**72 NJ**
P,P'-DDE	ug/kg	**12 NJ**	**12 NJ**	5 U	4.1 UJ	3.7 UJ	3 UJ	3.9 U	11 R	**6.2 NJ**	3.9 UR	4 UR	4.4 UR	**19 NJ**	4.3 R	3.7 UR	4.4 U	4 U	4.1 U
P,P'-DDT	ug/kg	**48 J**	**39 J**	**78 NJ**	**79 J**	4.1 R	17 R	**15 J**	**44 J**	17 R	**22 J**	**50 NJ**	4.4 U	30 R	**47 J**	**45 J**	**41 J**	**40 J**	**41 NJ**
Toxaphene	ug/kg	200 U	200 U	260 U	210 UJ	190 U	200 U	200 U	190 U	200 U	200 U	200 U	230 U	220 U	220 U	190 U	230 U	210 U	210 U
Total DDTs	ug/kg	**107**	**97**	**78**	**79**	**---**	**---**	**41**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**113**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116
Sample Number:		D-03232010-01	GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5
Sample Depth:		5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	13 U	**7.5 J**	19 R	18 R	8.3 R	2.1 U	1.9 U	**25 NJ**	2.3 U	2.1 U	**24 J**	2 U	**25 NJ**	2 U	2.7 U	5.8 R	2 U	2 U
Alpha BHC	ug/kg	13 U	2.1 U	5.9 R	**3.2 NJ**	2.1 U	2.1 U	1.9 U	**6 J**	2.3 U	2.1 U	2 U	2 U	**6.6 NJ**	**2.6 J**	2.7 U	2.2 U	2 UJ	2 U
Alpha endosulfan	ug/kg	13 U	2.1 U	4 U	2 U	15 R	4.3 R	1.9 U	2 U	2.3 U	2.1 U	2 U	2 U	2 U	2 U	2.7 UJ	2.2 U	2 UJ	2 U
Alpha-chlordane	ug/kg	**7 J**	2.1 UJ	4 UJ	2 UJ	**3.3 J**	2.1 U	3.8 R	**3.8 J**	2.3 U	**1.9 J**	2 U	2 U	2 U	**2.7 J**	**3.5 NJ**	2.2 U	2 UJ	2 U
Beta BHC	ug/kg	13 U	2.1 U	4 U	2 U	6 R	2.1 R	1.9 U	2 U	**3.7 J**	2.1 U	2 U	2 U	2 U	2 U	2.7 U	2.2 U	2 UJ	2 U
Beta endosulfan	ug/kg	**26 J**	**69 J**	61 R	**51 NJ**	**43 J**	**20 NJ**	3.7 U	3.8 U	4.5 U	**50 J**	**40 J**	3.9 U	**72 J**	**53 J**	13 R	**45 J**	**28 J**	3.9 U
Delta BHC	ug/kg	13 U	4.4 R	9.7 R	6.3 R	4 R	**3 NJ**	**3.9 J**	2 U	2.3 U	2.1 U	2 U	2 U	**10 NJ**	2 U	2.7 U	2.2 U	**4.6 J**	2 U
Dieldrin	ug/kg	25 U	4 U	7.8 U	4 U	4.1 U	**17 J**	3.7 U	3.8 U	4.5 U	**6.3 J**	**3.9 J**	3.9 U	4 U	4 U	5.2 U	4.3 U	**10 NJ**	3.9 U
Endosulfan sulfate	ug/kg	25 U	55 R	100 R	43 R	120 R	4 U	3.7 U	3.8 U	43 R	200 R	120 R	3.9 U	81 R	4 U	5.2 U	**87 NJ**	210 R	5.5 R
Endrin	ug/kg	25 U	4 U	7.8 U	4 U	4.1 U	4.3 R	8.2 R	3.8 U	4.5 U	4 U	3.9 U	3.9 U	4 U	4 U	**6.9 NJ**	4.3 U	3.9 U	3.9 U
Endrin aldehyde	ug/kg	25 U	38 R	54 R	27 R	28 R	4 U	3.7 U	3.8 U	46 R	4 U	3.9 U	3.9 U	4 U	4 U	5.2 U	4.3 U	40 R	6.3 R
Endrin ketone	ug/kg	25 U	**34 NJ**	**65 NJ**	27 R	**29 J**	4 U	3.7 U	**36 J**	**27 J**	**37 J**	3.9 U	3.9 U	**47 J**	4 U	**28 NJ**	**49 J**	**40 J**	**3.5 J**
Gamma BHC	ug/kg	13 U	2.1 U	4 U	2 U	2.1 U	2.1 U	1.9 U	2 U	2.3 U	2.1 U	2 U	2 U	2 U	2 U	2.7 UJ	2.2 U	2 U	2 U
Gamma-chlordane	ug/kg	13 U	**17 NJ**	16 R	5 R	**16 NJ**	**7.8 NJ**	**7.3 NJ**	2 U	2.3 U	**14 J**	2 U	2 U	2 U	**20 J**	3.9 R	2.2 U	**26 J**	2 U
Heptachlor	ug/kg	13 U	2.1 U	4 U	2 U	2.1 U	**8.9 J**	**11 J**	2 U	2.3 U	2.1 U	**21 J**	2 U	2 U	2 U	2.7 UJ	2.2 U	2 UJ	2 U
Heptachlor epoxide	ug/kg	13 U	**5.6 NJ**	**8 NJ**	**4.3 NJ**	2.7 R	8.5 R	8.3 R	4.1 R	2.3 UJ	2.1 U	2 U	2 U	2 U	2 U	5.2 R	3 R	**17 J**	2 U
Methoxychlor	ug/kg	130 U	**53 J**	110 R	24 R	33 R	21 U	19 U	20 U	23 U	21 U	20 U	20 U	20 U	20 U	27 U	22 U	**210 NJ**	20 U
P,P'-DDD	ug/kg	**47 NJ**	39 R	36 R	20 R	**37 J**	**37 NJ**	**22 NJ**	3.8 U	21 R	20 R	**61 NJ**	3.9 U	**4 J**	4 U	**33 NJ**	48 R	**74 J**	**6.1**
P,P'-DDE	ug/kg	25 U	**40 J**	**61 J**	**19 J**	4.1 U	**20 NJ**	**19 NJ**	3.8 UR	4.5 UR	4.3 R	55 R	3.9 UR	**45 NJ**	4 UR	**7.2 NJ**	4.3 UR	**33 NJ**	3.9 UR
P,P'-DDT	ug/kg	**50 J**	**130 J**	**200 J**	**70 J**	**64 J**	**25 NJ**	3.7 U	**160 J**	4.5 U	**100 J**	**47 NJ**	**86 J**	**94 J**	**60 J**	**43 J**	**100 J**	**48 NJ**	**7.3**
Toxaphene	ug/kg	1,300 U	210 U	400 U	200 U	210 U	210 U	190 U	200 U	230 U	210 U	200 U	200 U	200 U	200 U	270 U	220 U	200 U	200 U
Total DDTs	ug/kg	**97**	**---**	**---**	**---**	**101**	**82**	**41**	**---**	**---**	**---**	**---**	**---**	**143**	**---**	**83.2**	**---**	**155**	**---**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C
Sample Number:	D-03172010-01	GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD88A-08.0-10.0	GC-SD88A-10.0-12.0	GC-SD88A-12.0-14.0	GC-SD89B-08.3-10.3	GC-SD89B-10.3-12.3	GC-SD89B-12.3-14.3	GC-SD90B-05.4-07.4	GC-SD90B-07.4-09.4	D-03162010-03	GC-SD90B-09.4-11.4	GC-SD90B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9
Sample Depth:	8.5-10.5	10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9
Sample Date:	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	2 U	2 R	2 U	4 R	4 R	3.9 R	2 U	2 U	1.9 U	**15 J**	2 U	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.2 U
Alpha BHC	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.9 U	2 U	2 U	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.2 U
Alpha endosulfan	ug/kg	2 U	2 U	2 U	2 U	2 U	2 UJ	2 UJ	2 U	2 U	1.9 U	4.2 R	**1.6 J**	2 U	2.1 U	2.1 U	2.1 U	2.2 U	**8.1 NJ**
Alpha-chlordane	ug/kg	**1.2 J**	2 U	2 UJ	2 U	2 U	2 U	**2 J**	2 U	2 U	1.9 UJ	2 U	2 U	2 UJ	2.1 U	2.1 U	2.1 U	9.5 R	2.2 U
Beta BHC	ug/kg	2 U	2 U	5.3 R	2 U	6.5 R	3.4 R	4.9 R	2 UJ	2 UJ	1.9 U	9.3 R	2 U	2 UJ	2.1 U	2.1 U	2.1 U	2.2 UJ	2.2 U
Beta endosulfan	ug/kg	3.9 UJ	3.8 U	**26 J**	4 U	**48 J**	**31 NJ**	**33 NJ**	3.8 U	3.9 U	3.8 U	**43 J**	**5.5 NJ**	**7.7 NJ**	4.2 U	4.1 U	4.1 U	4.3 U	**16 J**
Delta BHC	ug/kg	2 U	2 U	**6.2 J**	2 U	2 UJ	2 U	2 U	2 U	2 U	1.9 U	2 UJ	2 U	2 U	2.1 U	2.1 U	2.1 U	2.2 UJ	2.2 UJ
Dieldrin	ug/kg	3.9 U	3.8 U	3.8 UJ	4 U	**5.3 J**	3.9 UJ	3.9 R	3.8 U	3.9 U	3.8 U	3.9 U	3.9 UJ	3.8 U	4.2 U	4.1 U	4.1 U	4.3 U	4.2 UJ
Endosulfan sulfate	ug/kg	18 R	**3.6 J**	160 R	**4 NJ**	**93 NJ**	190 R	180 R	22 R	10 R	26 R	91 R	14 R	7.8 R	4.2 U	4.1 U	4.1 U	4.3 U	4.3 U
Endrin	ug/kg	3.9 U	3.8 U	3.8 U	4 U	3.8 U	3.9 U	3.8 U	3.8 U	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	4.2 U	4.1 U	4.1 U	4.3 U	4.3 U
Endrin aldehyde	ug/kg	6.6 R	3.8 U	34 R	4 U	24 R	30 R	36 R	18 R	20 R	3.8 UJ	56 R	**15 NJ**	13 R	4.2 U	4.1 U	4.1 U	8.1 R	4.3 U
Endrin ketone	ug/kg	4.3 R	3.8 U	**27 NJ**	4 U	26 R	**34 J**	**52 J**	**14 NJ**	8.1 R	7 R	**61 J**	**13 J**	4.4 R	4.2 U	4.1 U	4.1 U	4.3 U	4.3 U
Gamma BHC	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.9 U	**1.3 J**	2 UJ	2 U	2.1 U	2.1 U	2.1 U	2.2 U	2.2 U
Gamma-chlordane	ug/kg	2 UJ	2 U	**8 NJ**	2 U	5.8 R	**5.4 NJ**	7.2 R	**4.1 J**	**4.8 J**	**3.4 NJ**	**20 NJ**	4.2 R	3.3 R	2.1 U	2.1 U	2.1 UJ	**13 NJ**	8.4 R
Heptachlor	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.9 U	2 U	2 U	2 U	2.1 U	2.1 U	2.1 U	**5 NJ**	**9.8 J**
Heptachlor epoxide	ug/kg	**3 NJ**	2 U	3 R	2 U	**5.6 J**	**3 J**	**3.5 J**	2 U	2 U	1.9 UJ	**24 J**	4.9 R	**0.99 J**	2.1 U	2.1 U	2.1 U	**21 NJ**	17 R
Methoxychlor	ug/kg	20 U	20 U	60 R	20 U	81 R	**160 J**	100 R	**63 J**	**57 J**	19 U	**260 J**	29 R	**41 J**	21 U	21 U	21 U	22 U	22 U
P,P'-DDD	ug/kg	5.8 R	3.8 U	**75 J**	4 U	**67 NJ**	**67 J**	**57 NJ**	**39 J**	**43 J**	**24 J**	**130 J**	**22 J**	**21 NJ**	4.2 U	4.1 U	**17 J**	17 R	**42 J**
P,P'-DDE	ug/kg	3.9 UR	3.8 UR	**14 NJ**	4 UR	3.8 UR	3.9 UJ	3.8 UJ	**6.5 NJ**	**8.2 NJ**	**5 NJ**	**23 JN**	**10 NJ**	**4.5 NJ**	4.2 UR	4.1 UR	4.1 U	15 R	25 R
P,P'-DDT	ug/kg	8.4 R	3.8 U	**54 J**	4 U	60 R	**76 J**	**61 J**	**26 J**	**27 J**	10 R	**45 J**	**17 J**	**18 J**	4.2 U	4.1 U	4.1 U	11 R	21 R
Toxaphene	ug/kg	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	190 U	200 U	200 U	200 U	210 U	210 U	210 U	220 U	220 U
Total DDTs	ug/kg	---	---	**143**	---	---	**143**	**118**	**71.5**	**78.2**	---	**198**	**49**	**43.5**	---	---	**17**	---	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A
Sample Number:	GC-SD047A-00.6-02.6	GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4
Sample Depth:	0.6-2.6	2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4
Sample Date:	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	3.3 U	3.1 U	2.3 U	2.1 U	**12 J**	2.1 U	2.1 U	2.8 U	2.1 U	2.2 U	1.9 U	2 U	2.5 U	2 U	2 U	2 U	1.9 U	2.8 U
Alpha BHC	ug/kg	4.6 R	3.1 U	2.3 U	2.1 U	2.1 U	2.1 U	2.1 U	2.8 U	2.1 U	2.2 U	1.9 U	2.8 R	2.5 U	2 U	2 U	2 U	1.9 U	2.8 U
Alpha endosulfan	ug/kg	3.3 U	3.1 U	2.3 U	2.1 U	2.1 U	2.1 U	2.1 U	2.8 U	5.7 R	2.2 U	1.9 U	2 U	2.5 U	2 U	2 U	2 U	1.9 U	**1.4 J**
Alpha-chlordane	ug/kg	3.3 U	5.9 R	**1.3 J**	2.1 U	**2.1 J**	**1.5 J**	**1.6 J**	**6.7 NJ**	2.1 U	2.2 U	5.8 R	2 U	2.5 U	**1 J**	**1.1 J**	2 U	**1.2 J**	2.8 U
Beta BHC	ug/kg	3.3 U	**5.3 J**	2.3 U	2.1 U	2.1 U	2.1 U	**1.4 J**	2.8 U	2.1 UJ	2.2 U	1.9 U	2 UJ	**4.7**	2 U	2 UJ	2 U	1.9 U	2.8 U
Beta endosulfan	ug/kg	43 R	**38 J**	**15**	**12**	4.1 U	4.1 U	4 U	5.5 U	**16 NJ**	12 R	3.8 U	6 R	4.9 U	3.8 U	4 U	3.9 U	3.7 U	5.4 U
Delta BHC	ug/kg	3.5 R	3.1 U	2.3 U	2.1 U	2.1 U	2.1 U	2.1 U	2.8 U	**2.8 J**	**2.2 NJ**	1.9 U	3.1 R	2.5 U	2 U	2 U	2 U	1.9 U	2.8 U
Dieldrin	ug/kg	6.4 U	6 U	4.5 U	4.1 U	**24 J**	4.1 U	4 U	5.5 U	4.1 U	**15 NJ**	**5.4 J**	3.8 U	4.9 U	3.8 U	4 U	3.9 U	3.7 U	5.4 U
Endosulfan sulfate	ug/kg	26 R	**52 J**	**26**	14 R	4.1 U	4.1 U	4 U	5.5 U	4.1 U	4.2 U	3.8 U	3.8 U	4.9 U	23 R	4 U	3.9 U	3.7 U	5.4 U
Endrin	ug/kg	6.4 U	6 U	4.5 U	4.1 UJ	**21 J**	4.1 U	4 U	5.5 U	**8.6 J**	**7.3 NJ**	**8.3 NJ**	**15 J**	4.9 U	3.8 U	4 U	3.9 U	3.7 U	5.4 U
Endrin aldehyde	ug/kg	6.4 U	40 R	16 R	12 R	4.1 U	4.1 U	4 U	**15 J**	4.1 U	4.2 U	**18 J**	**49 J**	4.9 U	3.8 U	4 U	3.9 U	3.7 U	5.4 U
Endrin ketone	ug/kg	6.4 U	**30 J**	**14 J**	**7.9**	4.1 U	4.1 U	4 U	5.5 U	4.1 U	4.2 U	3.8 U	3.8 U	4.9 U	3.8 U	4 U	3.9 U	3.7 U	16 R
Gamma BHC	ug/kg	3.3 U	3.1 U	2.3 U	2.1 UJ	**9.3 J**	2.1 U	2.1 U	2.8 U	2.1 U	2.2 U	1.9 U	2 U	2.5 U	2 U	2 U	2 U	1.9 U	2.8 U
Gamma-chlordane	ug/kg	3.3 U	5.1 R	2.3 UJ	2.1 U	3.5 R	**2.9 NJ**	**3.4 J**	6.5 R	19 R	**17 NJ**	4.2 R	18 R	2.5 UJ	2 U	3.3 R	2 U	1.9 U	5.3 R
Heptachlor	ug/kg	3.3 U	3.1 U	2.3 U	2.1 U	**11 J**	2.1 U	2.1 U	3.7 R	**10 J**	**9.1 J**	**6.4 J**	11 R	2.5 U	2 U	2 U	2 U	1.9 U	**1.6 J**
Heptachlor epoxide	ug/kg	3.3 U	8.1 R	2.3 U	2.1 U	2.1 U	2.1 U	2.1 U	12 R	21 R	15 R	11 R	23 R	2.5 U	2 U	**1.4 J**	2 U	1.9 U	2.8 UJ
Methoxychlor	ug/kg	33 U	31 U	23 U	**29 J**	21 U	21 U	21 U	28 U	21 U	22 U	19 U	20 U	25 U	20 U	20 U	20 U	19 U	28 U
P,P'-DDD	ug/kg	6.4 U	28 R	15 R	5.8 R	4.1 U	**7.7 J**	4 U	5.5 U	**47 J**	18 R	3.9 R	**70 NJ**	**5.6 J**	12 R	4 U	**11 NJ**	**18 J**	**22 J**
P,P'-DDE	ug/kg	6.4 U	6 UJ	4.5 U	4.1 U	4.1 U	4.1 U	4 U	7.8 R	**27 NJ**	23 R	4.6 R	**27 NJ**	4.9 U	3.8 U	4 U	3.9 U	3.7 U	5.4 U
P,P'-DDT	ug/kg	6.4 U	**53 J**	**22 NJ**	**18 J**	**31 J**	**5.1 NJ**	4 U	5.5 U	**39 J**	**32 J**	5.8 R	**39 J**	4.9 U	**8.4 J**	4 U	5.4 R	3.7 U	**19 J**
Toxaphene	ug/kg	330 U	310 U	230 U	210 U	210 U	210 U	210 U	280 U	210 U	220 U	190 U	200 U	250 U	200 U	200 U	200 U	190 U	280 U
Total DDTs	ug/kg	ND	---	---	---	**31**	**12.8**	ND	---	**113**	---	---	**136**	**5.6**	---	ND	---	**18**	**41**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD51A	GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A
Sample Number:		GC-SD051A-04.4-06.4	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5
Sample Depth:		4.4-6.4	6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5
Sample Date:		3/31/2010	3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 R	**16 NJ**	2.8 R	2.1 U	1.9 U	1.9 U	2 U	2.1 U	2.3 U	2.5 U	2.4 U
Alpha BHC	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**2.9 NJ**	2 UJ	1.9 U	2.1 U	1.9 U	1.9 U	2 U	2.1 U	2.3 U	2.5 U	2.4 U
Alpha endosulfan	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	6.3 R	1.9 U	2.1 U	1.9 U	1.9 U	2 U	2.1 U	2.3 U	2.5 U	2.4 U
Alpha-chlordane	ug/kg	2 UJ	2 U	2 U	2 U	2 U	2 U	2 U	**2.6 J**	2 UJ	1.9 U	2.1 U	1.9 U	1.9 U	2 U	2.1 U	2.3 U	**2.9 J**	2.4 UJ
Beta BHC	ug/kg	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	2 U	2 U	2.5 R	2.1 U	1.9 U	1.9 U	2 U	2.1 U	**1.7 J**	2.5 U	2.4 U
Beta endosulfan	ug/kg	3.9 U	4.3 R	3.8 U	3.9 U	3.8 U	3.9 U	3.9 U	**22 J**	**59 J**	**47 J**	4 U	3.8 U	3.8 U	3.8 U	4 U	4.6 U	4.8 U	4.6 U
Delta BHC	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	1.9 U	2.1 U	1.9 U	1.9 U	2 U	2.1 U	2.3 U	2.5 U	2.4 U
Dieldrin	ug/kg	3.9 U	3.9 U	3.8 U	3.9 UJ	3.8 U	3.9 U	3.9 U	3.9 U	5.5 R	**4.5 NJ**	4 U	3.8 U	3.8 U	3.8 U	4 U	4.6 U	4.8 U	4.6 U
Endosulfan sulfate	ug/kg	3.9 U	3.9 U	3.8 U	8.9 R	3.8 U	3.9 U	3.9 U	83 R	260 R	**240 NJ**	4 U	3.8 U	3.8 U	3.8 U	4 U	4.6 U	4.8 U	4.6 U
Endrin	ug/kg	3.9 U	3.9 U	3.8 U	3.9 U	3.8 U	3.9 U	3.9 U	3.9 UJ	3.8 U	3.8 U	4 U	3.8 U	3.8 U	3.8 U	4 U	4.6 U	**3 J**	**4.8 NJ**
Endrin aldehyde	ug/kg	3.9 U	4.7 R	10 R	**10 J**	3.8 U	3.9 U	3.9 U	26 R	47 R	19 R	4 U	3.8 U	3.8 U	3.8 U	4 U	4.6 U	7.4 R	12 R
Endrin ketone	ug/kg	3.9 U	3.9 U	3.8 U	**6.7 J**	3.8 U	3.9 U	3.9 U	**17 NJ**	**42 NJ**	21 R	4 U	3.8 U	3.8 U	3.8 U	4 U	**22 J**	4.8 U	4.6 U
Gamma BHC	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.9 U	2.1 U	1.9 U	1.9 U	2 U	2.1 U	2.3 U	2.5 U	2.4 U
Gamma-chlordane	ug/kg	2 U	2 U	2 U	4.5 R	2 U	2 U	2 U	**17 NJ**	**14 J**	5.2 R	2.1 U	1.9 UJ	1.9 U	2 U	2.1 U	2.3 U	**4 NJ**	3.7 R
Heptachlor	ug/kg	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.9 U	2.1 U	1.9 U	1.9 U	2 U	2.1 U	2.3 U	2.5 UJ	2.4 U
Heptachlor epoxide	ug/kg	2 U	**2.7 NJ**	**3.8 NJ**	**7.2 J**	2 U	2 U	2 U	6.3 R	**2.1 NJ**	4 R	2.1 U	**3.5 J**	1.9 U	2 U	2.1 U	**1.6 J**	2.5 U	2.4 U
Methoxychlor	ug/kg	20 U	20 U	20 U	**49 J**	20 U	20 U	20 U	40 R	57 R	38 R	21 U	19 U	19 U	20 U	21 U	23 U	25 U	24 U
P,P'-DDD	ug/kg	9.7 R	**5.6 NJ**	**16 J**	**7.4 NJ**	3.8 U	3.9 U	3.9 U	**17 NJ**	**67 NJ**	65 R	4 U	**3.5 J**	3.8 U	3.8 U	4 U	16 R	**17 NJ**	**15 NJ**
P,P'-DDE	ug/kg	3.9 U	3.9 UJ	3.8 UJ	3.9 UJ	3.8 UR	3.9 UR	3.9 UR	3.9 UJ	3.8 U	3.8 U	4 U	**2.3 J**	3.8 U	3.8 U	4 U	4.6 UR	**6.4 NJ**	**8.9 NJ**
P,P'-DDT	ug/kg	15 R	5 R	**12**	**5.2 J**	3.8 U	3.9 U	3.9 U	**24 NJ**	**60 NJ**	**100 J**	4 U	**5.5**	3.8 U	3.8 U	4 U	4.6 U	4.8 U	**17 NJ**
Toxaphene	ug/kg	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	190 U	210 U	190 U	190 U	200 U	210 U	230 U	250 U	240 U
Total DDTs	ug/kg	---	---	**28**	**12.6**	---	---	---	**41**	**127**	---	ND	**11.3**	ND	ND	ND	---	**23.4**	**40.9**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130
Sample Number:		GC-SD054B-04.5-06.5	GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4
Sample Depth:		4.5-6.5	6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4
Sample Date:		3/29/2010	3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	3 U	**3.1 J**	2.2 U	2.2 U	2 U	1.9 U	2.9 R	4.6 R	16 R	1.9 UJ	2 UJ	4.2 R	6.5 R	5.2 R	4.3 R	4.5 U	**17 J**	4.9 R
Alpha BHC	ug/kg	3 U	2.6 U	2.2 U	2.2 U	**2.2 J**	1.9 U	2 UJ	2 UJ	1.9 UJ	1.9 UJ	2 UJ	1.9 U	1.9 U	3.1 U	2.9 UJ	4.5 U	3.4 UJ	2 UJ
Alpha endosulfan	ug/kg	3 U	2.6 U	2.2 U	2.2 U	2 UJ	1.9 UJ	2 U	2 UJ	1.9 UJ	1.9 UJ	5.6 R	1.9 U	1.9 UJ	3.1 UJ	2.9 UJ	4.5 U	3.4 U	8.3 R
Alpha-chlordane	ug/kg	3 U	2.6 U	2.2 U	2.2 U	2 U	1.9 U	2 U	2 UJ	**3 J**	3.6 R	2 UJ	**1.4 J**	**1.9 J**	3.1 U	**1.9 J**	4.5 U	**3.8 J**	**2 J**
Beta BHC	ug/kg	3 UJ	2.6 U	2.2 U	2.2 U	2 UJ	1.9 U	2 U	3.4 R	1.9 UJ	1.9 UJ	2 UJ	1.9 UJ	**2.9 NJ**	3.1 UJ	4.8 R	4.5 UJ	3.4 U	2 U
Beta endosulfan	ug/kg	5.8 U	5.1 U	4.3 U	4.2 U	3.8 UJ	3.8 UJ	**13 NJ**	**24 NJ**	**54 J**	**140 J**	**100 NJ**	**24 J**	**35 J**	**99 J**	**62 J**	8.8 U	21 R	**20 NJ**
Delta BHC	ug/kg	3 U	2.6 U	2.2 U	2.2 U	2 UJ	1.9 U	2 U	2 UJ	1.9 UJ	**24 NJ**	**39 J**	1.9 U	1.9 U	3.1 U	2.9 UJ	4.5 U	3.4 U	2 U
Dieldrin	ug/kg	5.8 U	5.1 U	4.3 U	4.2 U	4.5 R	3.8 U	3.8 U	3.8 UJ	3.7 UJ	5.1 R	3.9 UJ	3.8 UJ	3.8 UJ	6 UJ	5.6 UJ	8.8 U	**10 J**	4.3 R
Endosulfan sulfate	ug/kg	5.8 U	55 R	4.3 U	4.2 U	6.6 R	4.7 R	24 R	**67 NJ**	57 R	30 R	**360 NJ**	89 R	140 R	**430 NJ**	**96 J**	110 R	140 R	30 R
Endrin	ug/kg	5.8 U	5.1 U	4.3 U	4.2 U	3.8 U	3.8 U	3.8 U	3.8 UJ	3.7 UJ	3.8 UJ	3.9 UJ	3.8 UJ	3.8 U	6 U	5.6 UJ	8.8 U	6.7 U	4 U
Endrin aldehyde	ug/kg	34 R	30 R	4.3 U	19 R	**8 NJ**	**8.3 J**	3.8 U	24 R	31 R	3.8 UJ	22 R	22 R	36 R	86 R	33 R	66 R	12 R	4 U
Endrin ketone	ug/kg	5.8 U	5.1 U	4.3 U	4.2 U	**3.8 NJ**	**8.4 J**	**16 J**	**34 NJ**	36 R	**40 NJ**	**130 J**	**18 J**	**21 NJ**	**60 J**	**32 J**	**36 J**	**25 J**	6.5 R
Gamma BHC	ug/kg	3 U	2.6 U	2.2 U	2.2 U	2 U	1.9 U	2 U	2 UJ	1.9 UJ	1.9 UJ	2 UJ	1.9 UJ	1.9 U	3.1 U	2.9 UJ	4.5 U	3.4 U	2 U
Gamma-chlordane	ug/kg	9.7 R	2.6 U	2.2 U	2.2 UJ	12 R	4.9 R	6.1 R	8 R	25 R	1.9 UJ	2 UJ	**3.7 NJ**	**6.1 J**	**5.1 J**	**5.9 NJ**	4.5 UJ	**16 J**	**15 J**
Heptachlor	ug/kg	3 U	2.6 U	2.2 U	2.2 U	2.5 R	1.9 UJ	2 U	2 UJ	1.9 UJ	1.9 UJ	2 UJ	1.9 UJ	1.9 U	3.1 U	2.9 UJ	4.5 U	3.4 U	2 U
Heptachlor epoxide	ug/kg	4.9 R	2.6 U	2.2 U	2.2 UJ	11 R	2.9 R	**2.5 NJ**	**3.9 J**	**6.6 NJ**	**7.8 J**	2 R	**2.4 J**	**2.6 J**	**4.1 J**	**4.6 NJ**	**3.6 J**	4.3 R	2.2 R
Methoxychlor	ug/kg	30 U	26 U	22 U	22 U	**35 J**	20 R	29 R	**130 NJ**	**110 J**	94 R	**41 J**	36 R	120 R	**160 NJ**	**130 J**	110 R	53 R	20 UJ
P,P'-DDD	ug/kg	16 R	22 R	4.3 U	10 R	8 R	3.8 UJ	**44 NJ**	**71 J**	**17 NJ**	3.8 UJ	3.9 UJ	36 R	**64 NJ**	50 R	48 R	36 R	**78 NJ**	**55 J**
P,P'-DDE	ug/kg	**7.4 J**	5.1 U	4.3 U	**3.2 J**	6.1 R	**3.7 NJ**	3.8 UR	3.8 UR	**29 NJ**	3.8 UR	3.9 UR	3.8 U	3.8 U	6 U	5.6 UJ	8.8 U	8.1 R	4 U
P,P'-DDT	ug/kg	**35 J**	21 R	4.3 U	**29 J**	4.2 R	5.2 R	**29 J**	**47 NJ**	**110 J**	**39 NJ**	**150 NJ**	**40 J**	**73 J**	**200 J**	**89 J**	**160 J**	45 R	**43 J**
Toxaphene	ug/kg	300 U	260 U	220 U	220 U	200 U	190 U	200 U	200 UJ	190 UJ	190 UJ	200 UJ	190 U	190 U	310 U	290 UJ	450 U	340 U	200 U
Total DDTs	ug/kg	---	---	ND	---	---	---	---	---	**156**	---	---	---	**137**	---	---	---	---	**98**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD130	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A
Sample Number:		GC-SD130-11.4-12.8	GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1
Sample Depth:		11.4-12.8	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1
Sample Date:		3/22/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	9.6 R	2.9 U	3.1 U	**21 J**	**30 J**	**20 J**	2 U	2 U	3.1 U	3.1 U	3.1 U	2 U	2 U	**5.6 NJ**	2 U	2 U	2 U	2.1 U
Alpha BHC	ug/kg	1.9 U	2.9 U	3.1 U	3.4 UJ	2.1 UJ	2.1 U	2 U	2.4 R	3.1 U	3.1 U	3.1 U	2 U	2 U	**2.5 J**	3.2 R	2.5 R	2 U	**3.6 J**
Alpha endosulfan	ug/kg	1.9 U	3.7 R	3.1 U	3.4 U	15 R	7.2 R	2 U	2 U	3.1 U	3.1 U	3.4 R	8.5 R	2 U	2 U	2 U	2 U	7.4 R	11 R
Alpha-chlordane	ug/kg	1.9 UJ	**4.9 NJ**	**1.9 J**	4 R	**6.8 J**	**7.6 J**	2 U	**1.9 J**	3.1 U	3.1 U	3.1 U	2.1 R	3.3 R	2 U	2 U	2 U	**6.5 J**	**6.4 J**
Beta BHC	ug/kg	1.9 U	8.9 R	3.8 R	3.4 U	2.1 U	2.1 U	2 U	3.9 R	3.1 U	3.1 U	3.1 U	2 U	2 U	4.3 R	2 U	2 U	2 UJ	2.9 R
Beta endosulfan	ug/kg	**37 J**	**120 J**	**73 J**	**22 J**	**37 J**	**22 NJ**	3.9 U	**13 J**	6 U	5.9 U	6 UJ	4 U	3.9 U	3.8 U	3.8 U	13 R	4 U	4 U
Delta BHC	ug/kg	3.2 R	3.8 R	3.1 U	3.4 U	2.1 UJ	2.1 U	2 U	**4.2 J**	3.1 U	3.1 U	3.1 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2.1 U
Dieldrin	ug/kg	3.6 U	**3.6 J**	6.1 U	6.6 U	4 U	4.1 U	3.9 U	3.9 U	6 U	5.9 U	6 U	4 U	3.9 U	3.8 U	**17 J**	3.9 U	4 U	4 U
Endosulfan sulfate	ug/kg	40 R	**580 NJ**	160 R	30 R	4 U	4.1 U	3.9 U	37 R	9.2 R	5.9 U	6 UJ	4 U	3.9 U	180 R	240 R	3.9 U	18 R	4 U
Endrin	ug/kg	**31 J**	5.7 UJ	6.1 U	6.6 U	4 U	4.1 U	3.9 U	3.9 UJ	6 U	5.9 U	6 UJ	4 U	**3.9 NJ**	3.8 U	3.8 UJ	**6.6 J**	**7.2 J**	**9.3 J**
Endrin aldehyde	ug/kg	9.4 R	**190 NJ**	120 R	6.6 UJ	4 U	4.1 U	3.9 U	22 R	**7.9**	**4.8 J**	**19 J**	4 U	21 R	3.8 U	3.8 U	21 R	18 R	4 U
Endrin ketone	ug/kg	**20 J**	85 R	61 R	**13 NJ**	**23 J**	7.7 R	3.9 U	**20 J**	6 U	5.9 U	6 UJ	4 U	**13 J**	3.8 U	3.8 U	3.9 U	**15 J**	4 U
Gamma BHC	ug/kg	1.9 UJ	2.9 U	3.1 U	3.4 U	2.1 UJ	2.1 UJ	2 U	2 U	3.1 U	3.1 U	3.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 UJ
Gamma-chlordane	ug/kg	**18 J**	9.5 R	3.1 UJ	9.2 R	**18 J**	**18 J**	2 U	**12 J**	3.1 U	3.1 U	12 R	**27 J**	2 U	**11 J**	**18 J**	2 U	**17 J**	**17 J**
Heptachlor	ug/kg	1.9 U	2.9 U	3.1 U	3.4 U	2.1 U	2.1 U	2 U	3.8 R	3.1 U	3.1 U	**9.6 J**	2 U	**2.5 NJ**	2 U	2 U	**1.8 J**	**4.1 NJ**	**4.4 NJ**
Heptachlor epoxide	ug/kg	2.6 R	**27 NJ**	**8.9 NJ**	3.4 U	**3 NJ**	3.1 R	2 U	7.1 R	3.1 U	3.1 U	12 R	2 U	2 U	**4.3 J**	**5.8 J**	2 U	**14 NJ**	12 R
Methoxychlor	ug/kg	**110 J**	420 R	490 R	**100 J**	21 UJ	**33 J**	20 U	**140 J**	31 U	31 U	42 R	20 U	20 U	20 U	20 U	20 U	20 U	21 U
P,P'-DDD	ug/kg	**44 NJ**	**42 J**	**24 J**	**59 NJ**	**60 J**	**56 J**	**2.2 J**	20 R	7 R	**5.7 J**	**31 NJ**	**51 NJ**	**30 J**	**100 J**	**140 J**	**23 J**	**27 NJ**	**37 NJ**
P,P'-DDE	ug/kg	6.9 R	8.5 R	**9 NJ**	6.6 UJ	4 U	4.1 U	3.9 U	**12 NJ**	6 UJ	5.9 UR	14 R	4 UR	**6 NJ**	3.8 UR	3.8 UR	**6.8 NJ**	**15 NJ**	11 R
P,P'-DDT	ug/kg	**51 J**	**340 J**	**210 J**	27 R	**54 J**	15 R	3.9 U	**29 J**	6 U	5.9 U	6 UJ	**40 NJ**	3.9 U	30 R	**120 J**	3.9 U	**28 J**	**24 NJ**
Toxaphene	ug/kg	190 U	290 U	310 U	340 U	210 U	210 U	200 U	200 U	310 U	310 U	310 U	200 U	200 U	200 U	200 U	200 U	200 U	210 U
Total DDTs	ug/kg	---	---	**243**	---	**114**	---	**2.2**	---	---	---	---	---	**36**	---	---	**29.8**	**70**	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD59A	GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120
Sample Number:	GC-SD059A-06.1-08.1	GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5
Sample Depth:	6.1-8.1	11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5
Sample Date:	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010
Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	2.1 U	2.2 U	2.2 U	2.7 U	2 U	2.1 U	2.2 U	2 U	2 U	2.1 U	2.3 U	2.6 U	2.2 U	2.2 U	2 U	2.1 U	2 U
Alpha BHC	ug/kg	2 U	3 R	2.2 UJ	2.2 U	2.7 U	**1.2 J**	**4 J**	2.2 U	2 U	2 U	2.1 U	2.3 U	2.6 U	2.2 U	2.2 U	2 U	2.1 U	2 U
Alpha endosulfan	ug/kg	2 U	11 R	2.2 U	2.2 U	2.7 U	2 U	2.1 U	2.2 U	2 U	2 U	2.1 U	2.3 U	2.6 U	2.2 U	2.2 U	2 U	2.1 U	2 U
Alpha-chlordane	ug/kg	2.3 R	14 R	2.2 U	2.2 U	2.7 U	4.1 R	4.1 R	4.4 R	2 U	2 U	2.1 U	**1.5 J**	2.6 U	**1.5 J**	2.2 U	2 U	2.1 U	**2 J**
Beta BHC	ug/kg	2 U	3.1 R	2.2 UJ	2.2 U	2.7 U	2 U	2.1 UJ	2.2 U	2 U	2 U	2.1 U	2.3 U	2.6 U	2.2 U	2.2 U	2 U	2.1 U	**1.7 J**
Beta endosulfan	ug/kg	8.7 R	23 R	4.2 UJ	4.3 U	5.3 U	3.9 U	**11 J**	**10 J**	3.9 U	3.9 U	4.1 U	4.5 U	5 U	4.2 U	4.3 U	3.8 U	4 U	3.8 U
Delta BHC	ug/kg	2 U	**2.2 J**	2.2 U	2.2 U	2.7 U	2 U	2.1 U	2.2 U	2 U	2 U	2.1 U	2.3 U	2.6 U	2.2 U	2.2 U	2 U	2.1 U	2 U
Dieldrin	ug/kg	4.1 R	4 U	4.2 U	4.3 U	5.3 U	3.9 U	4 U	**4.3 J**	3.9 U	3.9 U	4.1 U	4.5 U	5 U	4.2 U	4.3 U	3.8 U	4 U	3.8 U
Endosulfan sulfate	ug/kg	4 U	4 U	4.2 U	21 R	9.5 R	12 R	17 R	25 R	3.9 UJ	3.9 U	4.1 U	4.5 U	5 U	4.2 U	4.3 U	26 R	43 R	41 R
Endrin	ug/kg	4 U	**16 J**	4.2 U	4.3 U	5.3 U	3.9 U	4 U	**6 J**	3.9 U	3.9 U	4.1 U	4.5 U	5 U	4.2 U	4.3 UJ	3.8 U	4 U	3.8 U
Endrin aldehyde	ug/kg	**11 NJ**	28 R	4.2 U	13 R	**20 J**	**16 J**	**19 NJ**	**16 NJ**	3.9 U	**5.9**	4.1 U	4.5 U	**6.8 J**	4.2 U	**14 NJ**	14 R	4 U	3.8 U
Endrin ketone	ug/kg	4 U	23 R	26 R	15 R	**8.8**	**9.2 J**	4 U	4.2 U	3.9 U	6.3 R	4.1 U	4.5 U	5 U	4.2 U	4.3 U	**15 J**	4 U	3.8 U
Gamma BHC	ug/kg	2 U	2.1 U	2.2 U	2.2 U	2.7 U	2 U	2.1 U	2.2 U	2 U	2 U	2.1 U	2.3 U	2.6 U	2.2 U	2.2 U	2 U	2.1 U	2 U
Gamma-chlordane	ug/kg	7 R	**34 J**	2.2 UJ	2.2 U	2.9 R	9.5 R	8.6 R	**7.5 J**	2 U	**3 J**	2.1 U	2.3 U	2.6 U	2.2 U	2.2 UJ	2 U	2.1 U	2 U
Heptachlor	ug/kg	2 U	5.8 R	2.2 U	2.2 U	2.7 U	2 UJ	2.4 R	2.2 U	2 U	2 U	2.1 U	2.3 U	2.6 U	2.2 U	2.2 UJ	**2.3 NJ**	2.1 U	2 U
Heptachlor epoxide	ug/kg	**5 NJ**	26 R	**3 NJ**	**3.1 NJ**	2.7 U	**8.5 NJ**	2.1 U	**7.2 NJ**	2 U	**3.1 NJ**	2.1 U	2.3 U	2.6 U	2.2 U	2.2 U	**4.3 J**	2.1 U	2 UJ
Methoxychlor	ug/kg	20 U	21 U	22 U	**77 NJ**	**36**	**37 NJ**	21 U	22 U	20 U	20 U	21 U	23 U	26 U	22 U	22 U	20 U	21 U	20 U
P,P'-DDD	ug/kg	7 R	19 R	32 R	**30 J**	13 R	**17 NJ**	**27 J**	**25 J**	3.9 UJ	**5.9 NJ**	4.1 U	**8.5 J**	**6.8 NJ**	**21 J**	**18 J**	3.8 U	21 R	17 R
P,P'-DDE	ug/kg	5.3 R	17 R	4.2 UR	4.9 R	5.3 U	**7.4 J**	6.6 R	**11 NJ**	3.9 UR	3.9 UJ	4.1 UR	4.5 UR	**3.7 NJ**	4.2 UR	**6.4 NJ**	**4.7 NJ**	**6.2 NJ**	**6.3 NJ**
P,P'-DDT	ug/kg	14 R	**23 NJ**	**48 J**	**27 J**	12 R	3.9 U	**25 NJ**	**16 J**	3.9 U	3.9 U	4.1 U	4.5 U	5 U	4.2 U	4.3 U	**16 NJ**	4 U	3.8 U
Toxaphene	ug/kg	200 U	210 U	220 U	220 U	270 U	200 U	210 U	220 U	200 U	200 U	210 U	230 U	260 U	220 U	220 U	200 U	210 U	200 U
Total DDTs	ug/kg	---	---	---	---	---	**24.4**	---	**52**	---	**5.9**	---	---	**10.5**	---	**24.4**	**20.7**	---	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C
Sample Number:	GC-SD120-06.5-08.5	D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7
Sample Depth:	6.5-8.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7
Sample Date:	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010
Sample Type:	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	2 U	2 U	2.1 U	2 U	2.1 U	2.2 U	2.1 U	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Alpha BHC	ug/kg	2 U	2 U	2 U	2.1 U	2 U	2.1 U	2.2 U	2.1 U	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Alpha endosulfan	ug/kg	2 U	2 U	2 U	2.1 U	2 U	2.1 U	**6.9 NJ**	9.8 R	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Alpha-chlordane	ug/kg	2 U	2 U	2 U	2.1 U	4.1 R	4.7 R	2.2 U	11 R	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Beta BHC	ug/kg	2 U	2 U	2 U	**1.6 J**	2 U	2.1 U	2.2 UJ	**3.6 J**	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Beta endosulfan	ug/kg	3.8 U	**16 J**	3.9 U	4.1 U	**8.6 NJ**	4 U	**22 J**	4 U	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	**4.9 NJ**
Delta BHC	ug/kg	2 U	2 U	2 U	2.1 U	2 U	2.1 U	**2.5 J**	2.1 U	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Dieldrin	ug/kg	3.8 U	3.9 U	3.9 U	4.1 U	3.8 U	4 U	4.2 U	4 U	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U
Endosulfan sulfate	ug/kg	41 R	24 R	27 R	45 R	14 R	13 R	22 R	29 R	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U
Endrin	ug/kg	3.8 U	3.9 U	3.9 U	4.1 U	**5.1 J**	4 U	**11 NJ**	7.1 R	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U
Endrin aldehyde	ug/kg	14 R	22 R	3.9 U	20 R	**15 NJ**	4 UJ	**25 NJ**	4 U	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U
Endrin ketone	ug/kg	3.8 U	3.9 U	3.9 U	**4.1 J**	3.8 U	4 U	4.2 U	4 U	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U
Gamma BHC	ug/kg	2 U	2 U	2 U	2.1 U	2 U	2.1 U	**2.1 J**	2.1 U	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Gamma-chlordane	ug/kg	2 U	2 UJ	2 U	2.1 U	6.5 R	7.4 R	**28 J**	12 R	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	**4.5 J**	2 U	2 U
Heptachlor	ug/kg	2 U	2 U	2 U	**2.1 J**	2.6 R	2.1 U	2.2 U	4.3 R	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Heptachlor epoxide	ug/kg	2 U	2.7 R	2 U	2.1 UJ	6 R	**8.1 NJ**	21 R	**21 NJ**	1.9 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U
Methoxychlor	ug/kg	20 U	20 U	20 U	21 U	20 U	21 U	**51 NJ**	21 U	19 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
P,P'-DDD	ug/kg	**20 NJ**	12 R	13 R	37 R	5.7 R	8.3 R	14 R	7 R	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	**32 J**	**7.7 NJ**	**12 J**
P,P'-DDE	ug/kg	**5.1 NJ**	**7.7 NJ**	**4.2 NJ**	4.1 UJ	**8 NJ**	**5.6 NJ**	**21 NJ**	**25 J**	3.8 U	4 UR	3.9 UR	4 UR	3.9 UR	3.8 UR	3.9 UR	3.9 UR	4 UJ	**6.7 NJ**
P,P'-DDT	ug/kg	3.8 U	13 R	**19 J**	**22 NJ**	**23 NJ**	4 UJ	**34 NJ**	**13 J**	3.8 U	4 U	3.9 U	4 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U
Toxaphene	ug/kg	200 U	200 U	200 U	210 U	200 U	210 U	220 U	210 U	190 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Total DDTs	ug/kg	**25.1**	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	**7.7**	**18.7**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B
Sample Number:		GC-SD121-01.5-03.5	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD067B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0
Sample Depth:		1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12
Sample Date:		4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 U	2 U	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
Alpha BHC	ug/kg	2 U	2 U	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 UJ	2.1 U	2.2 U	2.1 U
Alpha endosulfan	ug/kg	2 U	**6.2 J**	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**11 NJ**	2.1 U	2.2 U	2.1 U
Alpha-chlordane	ug/kg	**4.7 NJ**	6.1 R	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	3 R	2 U	2.1 U	2.2 U	2.1 U
Beta BHC	ug/kg	2 U	2 UJ	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5.3 R	2.1 U	2.2 U	2.1 U
Beta endosulfan	ug/kg	3.9 U	**12 NJ**	4 U	4 U	4 U	4 U	4 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	3.9 UJ	3.8 UJ	4.1 U	4.2 U	4.2 U
Delta BHC	ug/kg	2 U	2 U	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
Dieldrin	ug/kg	3.9 U	3.9 U	4 U	4 U	4 U	4 U	4 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	3.9 U	3.8 U	4.1 U	4.2 U	4.2 U
Endosulfan sulfate	ug/kg	3.9 U	3.9 U	4 U	4 U	4 U	4 U	4 U	3.8 UJ	3.9 U	3.9 U	4 UJ	3.9 U	3.9 U	17 R	40 R	4.1 U	4.2 U	4.2 U
Endrin	ug/kg	**4.5 NJ**	4.3 R	4 U	4 U	4 U	4 U	4 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	3.9 UJ	3.8 U	4.1 U	4.2 U	4.2 U
Endrin aldehyde	ug/kg	5.6 R	13 R	4 U	4 U	4 U	4 U	4 U	3.8 U	3.9 U	3.9 U	6.6 R	3.9 U	3.9 U	**11 NJ**	3.8 U	4.1 U	4.2 U	4.2 U
Endrin ketone	ug/kg	5.3 R	8.1 R	4 U	4 U	4 U	4 U	4 U	3.8 U	3.9 U	3.9 U	**6 NJ**	3.9 U	3.9 U	11 R	**41 NJ**	4.1 U	4.2 U	4.2 U
Gamma BHC	ug/kg	2 U	2 U	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
Gamma-chlordane	ug/kg	3.6 R	6.4 R	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**4.7 NJ**	**8.2 J**	2.1 U	2.2 U	2.1 U
Heptachlor	ug/kg	2 U	2.8 R	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U	2.2 U	2.1 U
Heptachlor epoxide	ug/kg	**5.8 J**	9.9 R	2 U	2 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	**2.4 J**	2.1 U	2.2 U	2.1 U
Methoxychlor	ug/kg	20 UJ	20 U	20 U	20 U	21 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	21 U	22 U	21 U
P,P'-DDD	ug/kg	8.5 R	**31 J**	4 U	4 U	4 U	4 U	4 U	**4.5 J**	**4 J**	3.9 U	**8.2 NJ**	3.9 U	3.9 U	**14 J**	21 R	4.1 U	4.2 U	4.2 U
P,P'-DDE	ug/kg	5.9 R	**11 J**	4 U	4 U	4 U	4 U	4 U	3.8 U	3.9 U	3.9 UR	4 UJ	3.9 U	3.9 UR	**4.3 NJ**	3.8 UR	4.1 UR	4.2 UR	4.2 UR
P,P'-DDT	ug/kg	**7.5 J**	**11 J**	4 U	4 U	4 U	4 U	4 U	3.8 U	2.3 UJ	3.9 U	4 UJ	3.9 U	3.9 U	**7 NJ**	**44 NJ**	4.1 U	4.2 U	4.2 U
Toxaphene	ug/kg	200 U	200 U	200 U	200 U	210 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	210 U	220 U	210 U
Total DDTs	ug/kg	---	**53**	ND	ND	ND	ND	ND	**4.5**	**4**	---	**8.2**	ND	---	**25.3**	---	---	---	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD67B	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137
Sample Number:		D-04062010-02	GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0
Sample Depth:		10-12	1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2
Sample Date:		4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.2 U	2.9 U	3 U	2.6 U	2.2 U	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Alpha BHC	ug/kg	2.2 U	2.9 U	3 U	2.6 U	2.2 U	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Alpha endosulfan	ug/kg	2.2 U	2.9 U	3 U	2.6 UJ	**2.8 J**	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Alpha-chlordane	ug/kg	2.2 U	2.9 U	3 U	2.6 U	2.2 U	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Beta BHC	ug/kg	2.2 U	2.9 U	3 U	2.6 U	2.2 U	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Beta endosulfan	ug/kg	4.3 U	5.6 U	5.9 U	5 U	4.3 U	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	6.7 U	6.9 U	4.2 U	3.8 U
Delta BHC	ug/kg	2.2 U	2.9 U	3 U	2.6 U	2.2 U	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Dieldrin	ug/kg	4.3 U	5.6 U	5.9 U	5 UJ	4.3 U	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	6.7 U	6.9 U	4.2 U	3.8 U
Endosulfan sulfate	ug/kg	4.3 U	7.6 R	9.4 R	19 R	46 R	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	6.7 U	6.9 U	4.2 U	3.8 U
Endrin	ug/kg	4.3 U	5.6 U	5.9 U	5 UJ	4.3 UJ	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	6.7 U	6.9 U	4.2 U	3.8 U
Endrin aldehyde	ug/kg	4.3 U	**11**	**11 NJ**	**17 NJ**	9.1 R	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	**3.6 J**	6.9 U	4.2 U	3.8 U
Endrin ketone	ug/kg	4.3 U	5.6 U	9.5 R	14 R	8.9 R	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	6.7 U	6.9 U	4.2 U	3.8 U
Gamma BHC	ug/kg	2.2 U	2.9 U	3 U	2.6 UJ	2.2 U	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Gamma-chlordane	ug/kg	2.2 U	**4.4 J**	**5 NJ**	**4.1 NJ**	4.3 R	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Heptachlor	ug/kg	2.2 U	2.9 U	3 UJ	2.6 UJ	2.2 U	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Heptachlor epoxide	ug/kg	2.2 U	2.9 U	3 U	2.6 U	**6.8 NJ**	2.2 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.8 U	2.5 U	3.2 U	3.4 U	3.5 U	2.2 U	1.9 U
Methoxychlor	ug/kg	22 U	29 U	30 UJ	40 R	22 UJ	22 U	22 U	21 U	21 U	20 U	22 U	28 U	25 U	32 U	34 U	35 U	22 U	19 U
P,P'-DDD	ug/kg	4.3 U	**11 NJ**	**16 J**	**23 J**	**12 J**	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	6.7 U	6.9 U	4.2 U	**2.7 NJ**
P,P'-DDE	ug/kg	4.3 UR	5.6 UJ	**6.9 NJ**	**7.6 NJ**	**7.8 NJ**	4.3 UR	4.2 UR	4.2 UR	4.1 UR	3.9 UR	4.3 UR	5.4 UR	4.9 UR	6.3 UR	6.7 UR	6.9 UR	4.2 UR	3.8 UR
P,P'-DDT	ug/kg	4.3 U	7.3 R	**7.8 NJ**	**22 NJ**	**9.9 J**	4.3 U	4.2 U	4.2 U	4.1 U	3.9 U	4.3 U	5.4 U	4.9 U	6.3 U	6.7 U	6.9 U	4.2 U	**2.8 J**
Toxaphene	ug/kg	220 U	290 U	300 U	260 U	220 U	220 U	220 U	210 U	210 U	200 U	220 U	280 U	250 U	320 U	340 U	350 U	220 U	190 U
Total DDTs	ug/kg	---	---	**30.7**	**52.6**	**29.7**	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
Sample Number:		GC-SD137-02.0-04.0	GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2
Sample Depth:		2-4	4-6	6-8	8-9.8	8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	FD	N	FD	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 U	2 U	2 U	1.9 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Alpha BHC	ug/kg	2 U	2 U	2 U	1.9 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Alpha endosulfan	ug/kg	2 U	2 U	2 U	1.9 U	2.1 UJ	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Alpha-chlordane	ug/kg	2 U	2 U	2 U	1.9 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 UR	2.2 U	2 UR	1.9 U	1.9 U	2.2 U
Beta BHC	ug/kg	2 U	2 U	2 U	1.9 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Beta endosulfan	ug/kg	3.9 U	3.8 U	3.9 U	**4 J**	4 UJ	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	4.2 U	3.8 U	3.7 U	3.7 U	4.2 U
Delta BHC	ug/kg	2 U	2 U	2 U	1.9 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Dieldrin	ug/kg	3.9 U	3.8 U	3.9 U	3.7 U	4 U	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	4.2 U	3.8 U	3.7 U	3.7 U	4.2 U
Endosulfan sulfate	ug/kg	3.9 U	3.8 U	3.9 U	6.8 R	10 R	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	4.6 R	3.8 U	3.7 U	3.7 U	4.2 U
Endrin	ug/kg	3.9 U	3.8 U	3.9 U	3.7 U	4 U	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	4.2 U	3.8 U	3.7 U	3.7 U	4.2 U
Endrin aldehyde	ug/kg	3.9 U	3.8 U	3.9 U	**8.3 NJ**	**9.1 NJ**	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	4.2 U	3.8 U	3.7 U	3.7 U	4.2 U
Endrin ketone	ug/kg	3.9 U	3.8 U	3.9 U	3.7 U	9 R	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	4.2 U	3.8 U	3.7 U	3.7 U	4.2 U
Gamma BHC	ug/kg	2 U	2 U	2 U	1.9 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 UJ	2.2 U
Gamma-chlordane	ug/kg	2 U	**1.1 J**	2 U	**2.3**	**5.4 J**	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Heptachlor	ug/kg	2 U	2 U	2 U	1.9 U	2.1 U	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Heptachlor epoxide	ug/kg	2 U	2 U	2 U	1.9 U	3.4 R	2.2 U	2.1 U	2.1 U	2 U	2.2 U	2.2 U	2.3 U	2.1 U	2.2 U	2 U	1.9 U	1.9 U	2.2 U
Methoxychlor	ug/kg	20 U	20 U	20 U	19 U	21 U	22 U	21 U	21 U	20 U	22 U	22 U	23 U	21 U	22 U	20 U	19 U	19 U	22 U
P,P'-DDD	ug/kg	3.9 U	**2.9 J**	3.9 U	**9.3 J**	**13 J**	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	**4.3**	3.8 U	3.7 U	3.7 U	4.2 U
P,P'-DDE	ug/kg	3.9 UR	3.8 UR	3.9 UR	**3.5 NJ**	**5.5 NJ**	4.2 UR	4.1 UR	4.1 UR	3.9 UR	4.3 UR	4.3 UR	4.4 UR	4 UR	4.2 UR	3.8 UR	3.7 UR	3.7 UR	4.2 UR
P,P'-DDT	ug/kg	3.9 U	3.8 U	3.9 U	**11 J**	**9.5 J**	4.2 U	4.1 U	4.1 U	3.9 U	4.3 U	4.3 U	4.4 U	4 U	4.2 U	3.8 U	3.7 U	3.7 U	4.2 U
Toxaphene	ug/kg	200 U	200 U	200 U	190 U	210 U	220 U	210 U	210 U	200 U	220 U	220 U	230 U	210 U	220 U	200 U	190 U	190 U	220 U
Total DDTs	ug/kg	---	---	---	**23.8**	**28**	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD151	GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142
Sample Number:		GC-SD151-07.2-09.2	D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1
Sample Depth:		7.2-9.2	7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1
Sample Date:		4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Alpha BHC	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Alpha endosulfan	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Alpha-chlordane	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Beta BHC	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Beta endosulfan	ug/kg	4.3 U	4.1 U	4 U	4.8 R	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	11 R
Delta BHC	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Dieldrin	ug/kg	4.3 U	4.1 U	4 U	3.9 U	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	3.9 U
Endosulfan sulfate	ug/kg	4.3 U	4.1 U	4 U	11 R	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	3.9 U
Endrin	ug/kg	4.3 U	4.1 U	4 U	3.9 U	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	3.9 U
Endrin aldehyde	ug/kg	4.3 U	4.1 U	4 U	**10 NJ**	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	3.9 U
Endrin ketone	ug/kg	4.3 U	4.1 U	4 U	**9.8 NJ**	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	6.9 R
Gamma BHC	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Gamma-chlordane	ug/kg	2.2 U	2.1 U	2.1 U	**3 NJ**	2.1 U	2 U	**1.3 J**	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Heptachlor	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Heptachlor epoxide	ug/kg	2.2 U	2.1 U	2.1 U	2 U	2.1 U	2 U	2.1 UJ	2 U	1.9 U	2 U	2 U	2 U	1.9 U	2 U	2 U	1.9 U	1.9 U	2 U
Methoxychlor	ug/kg	22 U	21 U	21 U	24 R	21 U	20 U	21 UJ	20 U	19 U	20 U	20 U	20 U	19 U	20 U	20 U	19 U	19 U	20 U
P,P'-DDD	ug/kg	4.3 U	4.1 U	4 U	7.7 R	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	3.9 U
P,P'-DDE	ug/kg	4.3 UR	4.1 U	4 U	**4.2 NJ**	4 UR	3.8 UR	4.2 UR	3.9 UR	3.8 UR	3.9 UR	3.9 UR	3.8 UR	3.8 UR	3.9 U	3.9 U	3.8 U	3.7 U	3.9 U
P,P'-DDT	ug/kg	4.3 U	4.1 U	4 U	**13 NJ**	4 U	3.8 U	4.2 UJ	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.8 U	3.9 U	3.9 U	3.8 U	3.7 U	3.9 U
Toxaphene	ug/kg	220 U	210 U	210 U	200 U	210 U	200 U	210 UJ	200 U	190 U	200 U	200 U	200 U	190 U	200 U	200 U	190 U	190 U	200 U
Total DDTs	ug/kg	---	ND	ND	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	ND	ND

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD142	GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A
Sample Number:		GC-SD142-06.1-08.1	GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3
Sample Depth:		6.1-8.1	8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Alpha BHC	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Alpha endosulfan	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Alpha-chlordane	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Beta BHC	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Beta endosulfan	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
Delta BHC	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Dieldrin	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
Endosulfan sulfate	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	7.5 R	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
Endrin	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	3.9 U	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
Endrin aldehyde	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	**4.8 NJ**	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
Endrin ketone	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	**4 J**	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
Gamma BHC	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Gamma-chlordane	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2.2 R	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Heptachlor	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	2 U	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Heptachlor epoxide	ug/kg	1.9 U	2.1 U	2 U	2 U	1.9 U	2 U	1.9 U	2 U	2.2 U	2.3 U	2.3 U	**4.1 J**	1.9 U	2 U	2 U	2 U	1.8 U	2 U
Methoxychlor	ug/kg	19 U	21 U	20 U	20 U	19 U	20 U	19 U	20 U	22 U	23 U	23 U	**29 J**	19 U	20 U	20 U	20 U	18 U	20 U
P,P'-DDD	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	**8.3 NJ**	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
P,P'-DDE	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	**5.3 J**	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
P,P'-DDT	ug/kg	3.7 U	4 U	3.9 U	3.9 U	3.7 U	3.8 U	3.8 U	3.8 U	4.3 U	4.4 U	4.4 U	**8.7 J**	3.8 U	3.9 U	3.9 U	3.8 U	3.6 U	4 U
Toxaphene	ug/kg	190 U	210 U	200 U	200 U	190 U	200 U	190 U	200 U	220 U	230 U	230 U	200 U	190 U	200 U	200 U	200 U	180 U	200 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**22.3**	ND	ND	ND	ND	ND	ND

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3
Sample Number:	D-04152010-03	GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L
Sample Depth:	5.3-7.3	7.3-9.3	9.3-11.3	5-7	7-9	9-11	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3
Sample Date:	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010
Sample Type:	FD	N	N	N	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	2.2 U	2 U	2 U	2 U	2 U	21 U	2 U	2 U	33 U	22 U	**14 J**
Alpha BHC	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	**4.3 J**	2 U	2 U	2 U	2 U	21 U	3.1 R	2 U	**120 NJ**	**140 NJ**	30 R
Alpha endosulfan	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	3.3 R	2 U	2 U	2 U	2 U	21 U	2 UJ	2 U	33 U	22 U	20 U
Alpha-chlordane	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	**13 J**	2 U	2 U	2 UJ	2 U	**25 NJ**	**12 J**	2 U	34 R	22 U	20 U
Beta BHC	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	4.7 R	**2 J**	2 U	2 U	**2.9 NJ**	21 U	2 U	2 U	200 R	240 R	20 U
Beta endosulfan	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	4.3 U	3.9 U	3.8 U	4 U	3.9 U	40 U	4 UJ	3.9 U	63 U	56 R	39 U
Delta BHC	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	2.2 U	2 U	2 U	2 U	**2.3**	21 U	2 UJ	2 U	33 U	**56 J**	20 U
Dieldrin	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	9.2 R	3.9 U	3.8 U	4 UJ	**1.3 J**	**10 J**	**1.9 J**	3.9 U	63 U	43 U	39 U
Endosulfan sulfate	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	6.1 R	3.9 U	3.8 U	4 U	**3.8 J**	40 U	4 U	3.9 U	63 U	43 U	39 U
Endrin	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	4.3 U	3.9 U	3.8 U	4 U	**1.2 J**	40 U	**4.6 NJ**	3.9 U	63 U	94 R	39 U
Endrin aldehyde	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	4.3 U	3.9 U	3.8 U	4 U	3.9 U	18 U	4 UJ	3.9 U	63 U	43 U	39 U
Endrin ketone	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	19 R	3.9 U	3.8 U	4 U	3.9 U	40 U	4 U	3.9 U	63 U	110 R	57 R
Gamma BHC	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	2.2 U	2 U	2 U	2 U	2 U	21 U	**0.57 J**	2 U	33 U	22 U	20 U
Gamma-chlordane	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	**34 J**	2 UJ	2 U	2 UJ	2.3 R	12 U	2.9 R	2 U	54 R	280 R	32 R
Heptachlor	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	**3.3 J**	2 U	2 U	2 UJ	**0.93 J**	21 U	2 U	2 U	33 U	22 U	**11 J**
Heptachlor epoxide	ug/kg	2 U	2.1 U	2 U	2 U	2.1 U	1.9 U	1.9 U	4.1 R	2 UJ	2 U	**2.5 J**	2 U	21 U	2 UJ	2 U	**140 J**	**250 J**	**110 J**
Methoxychlor	ug/kg	20 U	21 U	20 U	20 U	21 U	19 U	19 U	80 R	20 U	20 U	20 U	**4.4 J**	210 U	**21 NJ**	20 U	330 U	**780**	200 U
P,P'-DDD	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	**50 J**	3.9 U	**7.2**	**7.6 J**	**2 J**	**19 J**	6.7 R	3.9 U	**79**	**240**	**64 J**
P,P'-DDE	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	29 R	3.9 U	3.8 U	4 UJ	3.9 U	40 U	**8.8 NJ**	3.9 U	77 R	200 R	**55**
P,P'-DDT	ug/kg	3.9 U	4.1 U	3.8 U	3.9 U	4.1 U	3.7 U	3.7 U	24 R	3.9 U	**5.7 J**	**7.7 J**	3.9 U	40 U	**2.9 J**	3.9 U	63 U	**73 NJ**	39 U
Toxaphene	ug/kg	200 U	210 U	200 U	200 U	210 U	190 U	190 U	220 U	200 U	200 U	200 U	200 U	2,100 U	200 U	200 U	3,300 U	2,200 U	2,000 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	---	ND	**12.9**	**15.3**	**2**	**19**	**11.7**	ND	---	---	**119**

TABLE I-16A
Pesticide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		FD-05	ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:		10-11.3	7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:		1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**								
Aldrin	ug/kg	20 U	40 U	21 U	21 U	**20 J**	20 U	**18 J**	19 U	20 U
Alpha BHC	ug/kg	25 R	40 U	28 R	35 R	20 U	**21 NJ**	72 R	36 R	20 U
Alpha endosulfan	ug/kg	20 U	40 U	21 U	21 U	20 U	20 U	20 U	19 U	20 U
Alpha-chlordane	ug/kg	47 R	120 R	21 U	21 U	20 U	**29**	20 U	19 U	20 U
Beta BHC	ug/kg	20 U	40 U	21 U	21 U	20 U	20 U	**31 NJ**	19 U	27 R
Beta endosulfan	ug/kg	38 U	78 U	42 U	64 R	39 U	38 U	47 R	37 U	39 U
Delta BHC	ug/kg	20 U	40 U	21 U	21 U	20 U	**9.3 J**	38 R	**31 NJ**	20 U
Dieldrin	ug/kg	38 U	78 U	42 U	42 U	39 U	38 U	40 U	37 U	39 U
Endosulfan sulfate	ug/kg	38 U	78 U	42 U	42 U	67 R	38 U	40 U	37 R	44 R
Endrin	ug/kg	38 U	**95 J**	**110**	70 R	39 U	38 U	57 R	37 U	39 U
Endrin aldehyde	ug/kg	38 U	78 U	42 U	42 U	39 U	38 U	**54**	37 U	39 U
Endrin ketone	ug/kg	38 U	130 R	150 R	240 R	39 U	38 U	160 R	82 R	39 U
Gamma BHC	ug/kg	20 U	40 U	21 U	21 U	20 U	20 U	20 U	19 U	20 U
Gamma-chlordane	ug/kg	21 R	43 R	35 R	300 R	21 R	21 R	230 R	31 R	20 U
Heptachlor	ug/kg	20 U	40 U	21 U	21 U	20 U	20 U	**17 J**	19 U	20 U
Heptachlor epoxide	ug/kg	50 R	40 U	72 R	**140 J**	20 U	22 R	**75 NJ**	**61 NJ**	30 R
Methoxychlor	ug/kg	**300 NJ**	**670 NJ**	210 U	**1,100**	**820 NJ**	200 U	200 U	**580 NJ**	**150 J**
P,P'-DDD	ug/kg	**57 J**	**98**	**100**	**160**	39 U	**42**	150 R	**94**	39 U
P,P'-DDE	ug/kg	**42**	78 U	**59 J**	**99 J**	39 U	38 U	96 R	**58 J**	39 U
P,P'-DDT	ug/kg	38 U	78 U	**74 NJ**	**110**	**28 J**	38 U	**63 NJ**	37 U	39 U
Toxaphene	ug/kg	2,000 U	4,000 U	2,100 U	2,100 U	2,000 U	2,000 U	2,000 U	1,900 U	2,000 U
Total DDTs	ug/kg	**99**	**98**	**233**	**369**	**28**	**42**	**---**	**152**	ND

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TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD01A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A	GC-SD06A	GC-SD152	GC-SD152	GC-SD152
Sample Number:		GC-SD001A-09.4-11.4	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4	GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02
Sample Depth:		9.4-11.4	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4	13.4-14	7.7-9.7	9.7-11.7	9.7-11.7
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010	3/8/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg				5.2 NJ	2.9 J	1.4 J	1.3 J			2.1 J	2.6 J		2.1 J	3.3 J		
Alpha endosulfan	ug/kg	**8 J (R)**	**3 NJ (R)**								**1 J (R)**			**5.1 J (R)**			
Alpha-chlordane	ug/kg	**7.6 J (R)**		**12 J (R)**					**4 NJ (R)**					**4.1 NJ (R)**			
Beta BHC	ug/kg		4.2 NJ							1.1 J				4.3 NJ			
Beta endosulfan	ug/kg																
Delta BHC	ug/kg		1.6 J								1.8 J	1.3 J		1.4 J			
Dieldrin	ug/kg		6.1 J	4.8 J													
Endosulfan sulfate	ug/kg														31		
Endrin	ug/kg					3 J	2.7 J										
Endrin aldehyde	ug/kg																2.9 J
Endrin ketone	ug/kg	26 J	16 NJ	31 J	11 NJ	5.5 J	5.9 J	9.4 NJ				16 NJ	13 NJ	19 NJ			
Gamma BHC	ug/kg										**2.1 J (R)**						
Gamma-chlordane	ug/kg	**35 J (R)**		**28 J (R)**						**4.2 NJ (R)**			**10 J (R)**	**11 J (R)**			
Heptachlor	ug/kg								**2.7 J (R)**					**3.9 J (R)**			
Heptachlor epoxide	ug/kg	**54 J (A,R)**										**5.2 NJ (R)**		**6.5 NJ (R)**			
Methoxychlor	ug/kg		150 J	250 J			42 J	89 J				78 J	91 NJ	120 J			
P,P'-DDD	ug/kg	**67 J (R)**			**14 NJ (R)**											**4.4 J (R)**	**3.4 J (R)**
P,P'-DDE	ug/kg	**68 NJ (R)**					**3.4 J (R)**						**8.1 NJ (R)**				
P,P'-DDT	ug/kg	**27 J (R)**		**42 J (R)**	4.9 NJ		4.7 J	16 J				7 NJ					
Total DDTs	ug/kg	**162 (R)**			**18.9 (R)**			**16 (R)**								**4.4 (R)**	**3.4 (R)**

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A	GC-SD11A	GC-SD11A
Sample Number:		GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	GC-SD008A-10.0-12.0	D-03082010-02	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7	D-03102010-01	GC-SD011A-09.7-11.7
Sample Depth:		7-9	9-11	11-13	8-10	10-12	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7	7.7-9.7	9.7-11.7
Sample Date:		3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg		3.5 J			7.5 NJ	4.4 NJ										
Alpha BHC	ug/kg			4.6 NJ						2.5 J							
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg		**5.5 NJ (R)**	**3.7 J (R)**							**4.3 J (R)**				**1.4 J (R)**		
Beta BHC	ug/kg				10 NJ				23 NJ			4 J			4 NJ	9.4 NJ	
Beta endosulfan	ug/kg			**17 J (R)**	**23 NJ (R)**			**17 NJ (R)**									
Delta BHC	ug/kg					4.5 NJ			12 J			1.5 J					
Dieldrin	ug/kg	8 NJ															
Endosulfan sulfate	ug/kg																
Endrin	ug/kg										2.3 J						
Endrin aldehyde	ug/kg								4.5 J	17 NJ	12 J			2.1 NJ			
Endrin ketone	ug/kg	15 J	16 J	30 J	32 J			36 J	39 J	14 J	3.8 J		2.5 NJ		6.7 J	5.6 NJ	
Gamma BHC	ug/kg														**2.6 J (R)**		
Gamma-chlordane	ug/kg		**23 NJ (R)**	**14 NJ (R)**	**24 J (R)**			**18 J (R)**					**3.2 J (R)**				
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg		**14 NJ (R)**		**15 J (R)**	**12 J (R)**	**12 J (R)**		**48 NJ (R)**	**13 NJ (R)**	**8.7 NJ (R)**		**2 NJ (R)**				
Methoxychlor	ug/kg	71 NJ		160 J	220 J	170 J	150 J	230 J	200 J		36 J	66 J			33 J	42 J	25 J
P,P'-DDD	ug/kg		**35 J (R)**	**30 NJ (R)**						**27 J (R)**							
P,P'-DDE	ug/kg	**11 J (R)**	**31 NJ (R)**	**20 NJ (R)**		**47 NJ (R)**	**43 NJ (R)**	**32 NJ (R)**				**5.3 NJ (R)**					
P,P'-DDT	ug/kg		17 NJ	**28 J (R)**	**44 J (R)**	**40 NJ (R)**	**41 NJ (R)**	**35 NJ (R)**	**43 NJ (R)**	9.1 NJ							
Total DDTs	ug/kg		**83 (R)**	**78 (R)**													

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD17A	GC-SD17A
	Sample Number:	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-11.4-13.4	GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0
	Sample Depth:	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	11.4-13.4	2-4	4-6
	Sample Date:	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg		2.6 J			2.5 J											
Alpha endosulfan	ug/kg		**1 J (R)**														
Alpha-chlordane	ug/kg								**2.6 J (R)**								
Beta BHC	ug/kg									17 J		7.9 NJ		2.2 J		1.4 J	
Beta endosulfan	ug/kg										**34 J (R)**						
Delta BHC	ug/kg				3 J	2.1 J			1.1 J								
Dieldrin	ug/kg								9.9 J								
Endosulfan sulfate	ug/kg										340	220 NJ					
Endrin	ug/kg								10 NJ								
Endrin aldehyde	ug/kg																
Endrin ketone	ug/kg		4.9 NJ	27 NJ	17 J	9.5 NJ	29 NJ					31 NJ	20 J			30 J	27 J
Gamma BHC	ug/kg								**2.9 NJ (R)**								
Gamma-chlordane	ug/kg				**26 NJ (R)**	**22 J (R)**		**37 J (R)**		**14 J (R)**	**14 J (R)**		**4.4 NJ (R)**				
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg			**55 NJ (A,R)**	**33 J (R)**		**21 NJ (R)**	**21 NJ (R)**	**10 NJ (R)**	**17 NJ (R)**		**20 NJ (R)**		1.6 J	1.4 J	1.3 J	
Methoxychlor	ug/kg		49 J		53 J							300 J	58 J			43 J	30 J
P,P'-DDD	ug/kg				**58 J (R)**	**38 J (R)**	**42 J (R)**	**130 J (R)**	**12 NJ (R)**			**46 J (R)**	**28 J (R)**				
P,P'-DDE	ug/kg	**2.7 J (R)**			**43 NJ (R)**			**59 NJ (R)**	**6.3 J (R)**								
P,P'-DDT	ug/kg		4.5 J		9.1 J			**39 J (R)**	**34 J (R)**		**60 J (R)**	**50 J (R)**	**24 J (R)**			**44 J (R)**	
Total DDTs	ug/kg	**2.7 (R)**			**110.1 (R)**			**228 (R)**	**52.3 (R)**				**52 (R)**				

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD147	GC-SD147
Sample Number:		GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	D-04092010-01	GC-SD147-09.5-11.5
Sample Depth:		6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	5.5-7.5	9.5-11.5
Sample Date:		3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg										7 J	14 J					
Alpha endosulfan	ug/kg				**4.9 NJ (R)**	**6.2 J (R)**		**2 J (R)**		**1.3 J (R)**							
Alpha-chlordane	ug/kg		**7.9 NJ (R)**														
Beta BHC	ug/kg			12 J													
Beta endosulfan	ug/kg		**24 NJ (R)**	**55 NJ (R)**	**24 NJ (R)**	**3.4 J (R)**											
Delta BHC	ug/kg										1.7 J	2.6 NJ					
Dieldrin	ug/kg					4.1 J											
Endosulfan sulfate	ug/kg		180 NJ	370 NJ	250 J												
Endrin	ug/kg																
Endrin aldehyde	ug/kg		52 NJ			4.2 NJ	3.8 J				61 J						
Endrin ketone	ug/kg	10 NJ	28 NJ		44 J						46 J	28 NJ	10 NJ	7 NJ			
Gamma BHC	ug/kg				**1.7 J (R)**						**2.1 J (R)**						
Gamma-chlordane	ug/kg		**20 J (R)**					**4.2 NJ (R)**	**0.98 J (R)**	**3.7 J (R)**	**3.3 J (R)**	**11 NJ (R)**	**5.6 J (R)**				**1.1 J (R)**
Heptachlor	ug/kg			**8.4 J (R)**							**3.3 NJ (R)**	**7.4 NJ (R)**					
Heptachlor epoxide	ug/kg		**35 J (R)**	**30 NJ (R)**				**4.4 NJ (R)**	1.1 J					**5 J (R)**			
Methoxychlor	ug/kg		120 J		300 J			28 NJ		24 J	220 J					17 J	
P,P'-DDD	ug/kg		**48 NJ (R)**				**2.9 J (R)**										
P,P'-DDE	ug/kg		**31 NJ (R)**		**20 J (R)**	**6.3 NJ (R)**	**2.8 J (R)**								**3.9 NJ (R)**		
P,P'-DDT	ug/kg	15 J	**47 J (R)**		**43 (R)**	5.7 J				5.2 NJ	**34 J (R)**	**62 NJ (R)**	**28 J (R)**				
Total DDTs	ug/kg		**126 (R)**			**12 (R)**	**5.7 (R)**			**5.2 (R)**	**34 (R)**				**3.9 (R)**		

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD110	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127
Sample Number:		GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD110-06.0-08.0	GC-SD022B-04.0-06.0	GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	D-03112010-02
Sample Depth:		11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	6-8	4-6	6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	12.8-14.8	6-8	6-8
Sample Date:		4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg											2.5 NJ					
Alpha BHC	ug/kg				2.8 J	2.3 J	1.2 J			2 J						5.4 J	4.2 J
Alpha endosulfan	ug/kg				**2 J (R)**	**2.5 NJ (R)**			**4.2 J (R)**								
Alpha-chlordane	ug/kg								**1.8 J (R)**	**2 NJ (R)**							
Beta BHC	ug/kg						2.3 J	6.3 J	10 J	8.1 J		2.3 NJ					
Beta endosulfan	ug/kg												**15 J (R)**				
Delta BHC	ug/kg			1.3 J												1.1 J	
Dieldrin	ug/kg																
Endosulfan sulfate	ug/kg																
Endrin	ug/kg																
Endrin aldehyde	ug/kg					14 J	44 NJ				38 J						
Endrin ketone	ug/kg		7.1 J	7.7 NJ	4 NJ	8.4 J	26 J	31 J	32 J	31 J		23 J	17 J	5.3 NJ		11 NJ	
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**2.1 J (R)**						**2.7 NJ (R)**	**7.3 NJ (R)**	**4.8 NJ (R)**		**6.2 J (R)**	**9.6 NJ (R)**				
Heptachlor	ug/kg		1.3 J	**3 J (R)**										**2.3 J (R)**		**2.7 NJ (R)**	
Heptachlor epoxide	ug/kg	**2.1 NJ (R)**			**5 J (R)**	**12 J (R)**		**2.1 J (R)**	**2.5 NJ (R)**								1.3 J
Methoxychlor	ug/kg		47 J	50 J				110 NJ			110 J	71 NJ					
P,P'-DDD	ug/kg			**15 J (R)**		**13 NJ (R)**							**16 NJ (R)**		**4.4 NJ (R)**		**20 J (R)**
P,P'-DDE	ug/kg			**7.7 NJ (R)**												**3.9 J (R)**	
P,P'-DDT	ug/kg					7.7 J	**44 J (R)**	**41 J (R)**	**48 J (R)**	**49 J (R)**	**39 J (R)**		15 NJ	10 J		15 NJ	
Total DDTs	ug/kg														**4.4 (R)**		**20 (R)**

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B
Sample Number:		GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3	GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6
Sample Depth:		8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg	8.2 J		1.9 J											11 J		
Alpha BHC	ug/kg	15 J	5.6 J	3.9 J									1.1 J				
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg					**1.5 J (R)**											
Beta BHC	ug/kg																
Beta endosulfan	ug/kg								**3.3 J (R)**						**27 J (R)**	**38 J (R)**	**55 J (R)**
Delta BHC	ug/kg															2.7 J	20 NJ
Dieldrin	ug/kg							2.5 J						7.9 J		9.9 J	
Endosulfan sulfate	ug/kg																
Endrin	ug/kg																
Endrin aldehyde	ug/kg																
Endrin ketone	ug/kg	25 J	15 J	15 J	8.9 J		9.3 J	22 NJ	11 J	5.8 J	7.2 NJ				61 J	90 J	
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg		**2.1 J (R)**												**14 J (R)**		
Heptachlor	ug/kg	**10 J (R)**											**3.4 J (R)**		**2.1 J (R)**		
Heptachlor epoxide	ug/kg	**6.9 J (R)**										**2.3 J (R)**			**7.3 J (R)**		**23 J (R)**
Methoxychlor	ug/kg				46 NJ			94 J	36 NJ	20 NJ						93 J	140 J
P,P'-DDD	ug/kg	**93 NJ (R)**	**29 J (R)**	**35 J (R)**		**12 J (R)**	**26 J (R)**		**19 J (R)**				**36 J (R)**			**110 NJ (R)**	**270 J (R)**
P,P'-DDE	ug/kg	**27 J (R)**					**4.9 J (R)**										
P,P'-DDT	ug/kg	**46 NJ (R)**	13 NJ		7.5 NJ	5.6 J	12 J		8.1 NJ	3.8 NJ					**65 J (R)**	**27 J (R)**	
Total DDTs	ug/kg	**166 (R)**	**42 (R)**			**17.6 (R)**	**42.9 (R)**		**27.1 (R)**	**3.8 (R)**							

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A	GC-SD27A	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B
Sample Number:		GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1	GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8
Sample Depth:		2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1	8.1-8.6	8.3-10.3	10.3-12.3	8.3-10.3	10.3-12.3	8.8-10.8	10.8-12.8
Sample Date:		3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010
Sample Type:		N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg															2.7 J	
Alpha BHC	ug/kg																
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg					**2.8 J (R)**											
Beta BHC	ug/kg															1.7 J	
Beta endosulfan	ug/kg	**14 NJ (R)**	**8.3 J (R)**			**40 J (R)**											
Delta BHC	ug/kg																
Dieldrin	ug/kg					6.6 NJ											
Endosulfan sulfate	ug/kg			23 NJ									12 NJ				
Endrin	ug/kg																
Endrin aldehyde	ug/kg		40 J	5.4 NJ			4.2	7.2 J	5 J		8.8 J	7.1 NJ	6.1 J		4.8 J		
Endrin ketone	ug/kg	17 J	26 J		5.1	28 NJ		4.6 NJ						5.9 J		15 J	15 J
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg					**15 J (R)**									**4.4 NJ (R)**	**2.2 NJ (R)**	**16 NJ (R)**
Heptachlor	ug/kg	**5.8 NJ (R)**															
Heptachlor epoxide	ug/kg	**14 J (R)**	**3 NJ (R)**				**2.3 NJ (R)**										**24 NJ (R)**
Methoxychlor	ug/kg		66 NJ						23 J	54 NJ	29 J						100 J
P,P'-DDD	ug/kg	**54 (R)**		**4 NJ (R)**		**85 J (R)**	**3.7 J (R)**				**4.6 NJ (R)**						
P,P'-DDE	ug/kg														**2.6 NJ (R)**		
P,P'-DDT	ug/kg	**24 NJ (R)**	18 J		6.1 J	**43 NJ (R)**		4.5 NJ		17 J	8.5 NJ						
Total DDTs	ug/kg			**4 (R)**		**128 (R)**	**3.7 (R)**				**13.1 (R)**				**2.6 (R)**		

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A
Sample Number:		GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0	GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1
Sample Depth:		4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10	10-12	12-14	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1
Sample Date:		3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg									22 J						9.9 NJ	
Alpha BHC	ug/kg						1.7 J	1.4 J									
Alpha endosulfan	ug/kg		**2 J (R)**		**100 J (R)**					**15 NJ (R)**							
Alpha-chlordane	ug/kg																
Beta BHC	ug/kg																
Beta endosulfan	ug/kg				**150 J (R)**					**40 J (R)**	**8.2 NJ (R)**						
Delta BHC	ug/kg				62 J	65 J											
Dieldrin	ug/kg									4.6 NJ							
Endosulfan sulfate	ug/kg	7 NJ			1,700 NJ												
Endrin	ug/kg						2.2 J									**48 J (R)**	
Endrin aldehyde	ug/kg	2.9 J	8.5 J				19 J								8.3 NJ		32 J
Endrin ketone	ug/kg		8.8 J	3.3 J	110 J		11 J	11 J	21 J	33 NJ			21 J	7.3 J	7.8 J		36 J
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg				**52 J (R)**	**70 J (R)**									**3.4 J (R)**		
Heptachlor	ug/kg										**2 J (R)**						
Heptachlor epoxide	ug/kg			**2.3 NJ (R)**		**11 J (R)**		**5.4 NJ (R)**	**8.5 NJ (R)**	**4.2 J (R)**					**3.6 NJ (R)**	**48 NJ (R)**	**21 NJ (R)**
Methoxychlor	ug/kg		53 J				73 J	81 J	130 J	77 J	28 J	21 NJ					
P,P'-DDD	ug/kg	**4 J (R)**			**470 J (R)**	**440 J (R)**	**22 J (R)**	**18 J (R)**		**67 J (R)**	**41 J (R)**	**35 J (R)**	**51 J (R)**	**19 J (R)**		**210 J (R)**	**89 J (R)**
P,P'-DDE	ug/kg				**140 JN (R)**	**100 NJ (R)**	**7.4 J (R)**		**14 J (R)**				**6.3 NJ (R)**				**30 JN (R)**
P,P'-DDT	ug/kg				**180 J (R)**	**300 J (R)**	16 J	15 NJ	**33 J (R)**	**56 J (R)**	**26 NJ (R)**	20 J			6.3 J		**43 J (R)**
Total DDTs	ug/kg				**790 (R)**	**840 (R)**	**45.4 (R)**			**123 (R)**		**55 (R)**			**6.3 (R)**		**162 (R)**

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A
	Sample Number:	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02	GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4
	Sample Depth:	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15	8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4
	Sample Date:	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg				18 J						9 NJ					8.6 J	
Alpha BHC	ug/kg	6.5 J	4.5 J	5.4 NJ			2.9 NJ			3.5 J							
Alpha endosulfan	ug/kg		**2 J (R)**						**2.3 NJ (R)**	**5.6 J (R)**			**1.5 J (R)**				
Alpha-chlordane	ug/kg				**12 J (R)**												
Beta BHC	ug/kg																
Beta endosulfan	ug/kg	**7.9 NJ (R)**			**47 NJ (R)**		**10 NJ (R)**	**18 J (R)**	**20 J (R)**		**45 NJ (R)**	**39 J (R)**		**10 NJ (R)**	**6.4 J (R)**	**15 NJ (R)**	
Delta BHC	ug/kg				3.2 NJ			1.5 J			2 J	1.5 J					
Dieldrin	ug/kg													3.9 J			4.5 J
Endosulfan sulfate	ug/kg			100 NJ							96 NJ						
Endrin	ug/kg				**40 J (R)**					8.9 J							
Endrin aldehyde	ug/kg										60 J	48 NJ					
Endrin ketone	ug/kg	18 J	9.4 J	25 J		8.5 NJ	15 J	21 J	31 J		33 NJ	35 J	4.5 NJ	5.9 J	7 NJ		
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg		**9.2 J (R)**		**15 J (R)**	**14 NJ (R)**		**11 NJ (R)**				**16 J (R)**					
Heptachlor	ug/kg			**2.2 NJ (R)**									**2 J (R)**				1.4 J
Heptachlor epoxide	ug/kg	**12 J (R)**			**17 J (R)**												
Methoxychlor	ug/kg	140 J	70 J	160 J							86 J	110 NJ		31 J	25 NJ		
P,P'-DDD	ug/kg			**47 NJ (R)**	**210 J (R)**				**47 J (R)**	**46 J (R)**			**13 J (R)**	**33 NJ (R)**	**26 J (R)**		**22 J (R)**
P,P'-DDE	ug/kg	**11 NJ (R)**	**8.9 NJ (R)**	**16 NJ (R)**	**14 NJ (R)**	**16 NJ (R)**			**12 NJ (R)**	**12 NJ (R)**							**6.2 NJ (R)**
P,P'-DDT	ug/kg	20 NJ		**24 J (R)**	**130 J (R)**	19 NJ		**44 J (R)**	**48 J (R)**	**39 J (R)**	**78 NJ (R)**	**79 J (R)**			15 J	**44 J (R)**	
Total DDTs	ug/kg			**87 (R)**	**354 (R)**				**107 (R)**	**97 (R)**	**78 (R)**	**79 (R)**			**41 (R)**		

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A
	Sample Number:	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01	GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6
	Sample Depth:	4.4-6.4	6.4-7.5	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6
	Sample Date:	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010
	Sample Type:	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg										7.5 J						25 NJ
Alpha BHC	ug/kg		4 NJ						1.9 J				3.2 NJ				6 J
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg	**1.7 J (R)**	**2.6 J (R)**			**2.8 J (R)**	**1.8 J (R)**	**1.7 J (R)**	**2.4 J (R)**	**7 J (R)**				**3.3 J (R)**			**3.8 J (R)**
Beta BHC	ug/kg																
Beta endosulfan	ug/kg				**17 NJ (R)**		**19 J (R)**	**20 J (R)**	**44 J (R)**	**26 J (R)**	**69 J (R)**		**51 NJ (R)**	**43 J (R)**	**20 NJ (R)**		
Delta BHC	ug/kg			2.3 J											3 NJ	3.9 J	
Dieldrin	ug/kg				4.9 J	6.4 J									17 J		
Endosulfan sulfate	ug/kg																
Endrin	ug/kg																
Endrin aldehyde	ug/kg																
Endrin ketone	ug/kg						22 J		19 NJ		34 NJ	65 NJ		29 J			36 J
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg			**9.8 J (R)**	**7.5 J (R)**	**10 J (R)**	**5.1 NJ (R)**				**17 NJ (R)**			**16 NJ (R)**	**7.8 NJ (R)**	**7.3 NJ (R)**	
Heptachlor	ug/kg			**7.2 J (R)**											**8.9 J (R)**	**11 J (R)**	
Heptachlor epoxide	ug/kg		**2.9 NJ (R)**				**2.1 J (R)**				**5.6 NJ (R)**	**8 NJ (R)**	**4.3 NJ (R)**				
Methoxychlor	ug/kg						94 J				53 J						
P,P'-DDD	ug/kg		**86 J (R)**						**72 NJ (R)**	**47 NJ (R)**				**37 J (R)**	**37 NJ (R)**	**22 NJ (R)**	
P,P'-DDE	ug/kg			**19 NJ (R)**							**40 J (R)**	**61 J (R)**	**19 J (R)**		**20 NJ (R)**	**19 NJ (R)**	
P,P'-DDT	ug/kg	**22 J (R)**	**50 NJ (R)**		**47 J (R)**	**45 J (R)**	**41 J (R)**	**40 J (R)**	**41 NJ (R)**	**50 J (R)**	**130 J (R)**	**200 J (R)**	**70 J (R)**	**64 J (R)**	**25 NJ (R)**		**160 J (R)**
Total DDTs	ug/kg								**113 (R)**	**97 (R)**				**101 (R)**	**82 (R)**	**41 (R)**	

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A
	Sample Number:	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01	GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0
	Sample Depth:	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5	10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12
	Sample Date:	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010
	Sample Type:	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg			24 J		25 NJ											
Alpha BHC	ug/kg					6.6 NJ	2.6 J										
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg		**1.9 J (R)**				**2.7 J (R)**	**3.5 NJ (R)**				**1.2 J (R)**					
Beta BHC	ug/kg	3.7 J															
Beta endosulfan	ug/kg		**50 J (R)**	**40 J (R)**		**72 J (R)**	**53 J (R)**		**45 J (R)**	**28 J (R)**				**26 J (R)**		**48 J (R)**	**31 NJ (R)**
Delta BHC	ug/kg					10 NJ				4.6 J				6.2 J			
Dieldrin	ug/kg		6.3 J	3.9 J						10 NJ						5.3 J	
Endosulfan sulfate	ug/kg								87 NJ				3.6 J		4 NJ	93 NJ	
Endrin	ug/kg							6.9 NJ									
Endrin aldehyde	ug/kg																
Endrin ketone	ug/kg	27 J	37 J			47 J		28 NJ	49 J	40 J	3.5 J			27 NJ			34 J
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg		**14 J (R)**				**20 J (R)**			**26 J (R)**				**8 NJ (R)**			**5.4 NJ (R)**
Heptachlor	ug/kg			**21 J (R)**													
Heptachlor epoxide	ug/kg									**17 J (R)**		**3 NJ (R)**				**5.6 J (R)**	**3 J (R)**
Methoxychlor	ug/kg									210 NJ							160 J
P,P'-DDD	ug/kg			**61 NJ (R)**		**4 J (R)**		**33 NJ (R)**		**74 J (R)**	**6.1 (R)**			**75 J (R)**		**67 NJ (R)**	**67 J (R)**
P,P'-DDE	ug/kg					**45 NJ (R)**		**7.2 NJ (R)**		**33 NJ (R)**				**14 NJ (R)**			
P,P'-DDT	ug/kg		**100 J (R)**	**47 NJ (R)**	**86 J (R)**	**94 J (R)**	**60 J (R)**	**43 J (R)**	**100 J (R)**	**48 NJ (R)**	7.3			**54 J (R)**			**76 J (R)**
Total DDTs	ug/kg					**143 (R)**		**83.2 (R)**		**155 (R)**				**143 (R)**			**143 (R)**

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A
	Sample Number:	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6
	Sample Depth:	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	3.9-5.9	5.9-7.9	7.9-9.9	2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6
	Sample Date:	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010
	Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg					15 J									12 J		
Alpha BHC	ug/kg																
Alpha endosulfan	ug/kg						**1.6 J (R)**				**8.1 NJ (R)**						
Alpha-chlordane	ug/kg	**2 J (R)**											**1.3 J (R)**		**2.1 J (R)**	**1.5 J (R)**	**1.6 J (R)**
Beta BHC	ug/kg											5.3 J					1.4 J
Beta endosulfan	ug/kg	**33 NJ (R)**				**43 J (R)**	**5.5 NJ (R)**	**7.7 NJ (R)**			**16 J (R)**	**38 J (R)**	**15 (R)**	**12 (R)**			
Delta BHC	ug/kg																
Dieldrin	ug/kg														24 J		
Endosulfan sulfate	ug/kg											52 J	26				
Endrin	ug/kg														**21 J (R)**		
Endrin aldehyde	ug/kg						15 NJ										
Endrin ketone	ug/kg	52 J	14 NJ			61 J	13 J					30 J	14 J	7.9			
Gamma BHC	ug/kg					**1.3 J (R)**									**9.3 J (R)**		
Gamma-chlordane	ug/kg		**4.1 J (R)**	**4.8 J (R)**	**3.4 NJ (R)**	**20 NJ (R)**				**13 NJ (R)**						**2.9 NJ (R)**	**3.4 J (R)**
Heptachlor	ug/kg									**5 NJ (R)**	**9.8 J (R)**				**11 J (R)**		
Heptachlor epoxide	ug/kg	**3.5 J (R)**				**24 J (R)**		0.99 J		**21 NJ (R)**							
Methoxychlor	ug/kg		63 J	57 J		260 J		41 J						29 J			
P,P'-DDD	ug/kg	**57 NJ (R)**	**39 J (R)**	**43 J (R)**	**24 J (R)**	**130 J (R)**	**22 J (R)**	**21 NJ (R)**	**17 J (R)**		**42 J (R)**					**7.7 J (R)**	
P,P'-DDE	ug/kg		**6.5 NJ (R)**	**8.2 NJ (R)**	**5 NJ (R)**	**23 JN (R)**	**10 NJ (R)**	**4.5 NJ (R)**									
P,P'-DDT	ug/kg	**61 J (R)**	**26 J (R)**	**27 J (R)**		**45 J (R)**	17 J	18 J				**53 J (R)**	**22 NJ (R)**	18 J	**31 J (R)**	5.1 NJ	
Total DDTs	ug/kg	**118 (R)**	**71.5 (R)**	**78.2 (R)**		**198 (R)**	**49 (R)**	**43.5 (R)**	**17 (R)**						**31 (R)**	**12.8 (R)**	

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A	GC-SD51A	GC-SD117	GC-SD91A	GC-SD91A
Sample Number:		GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2
Sample Depth:		3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	6.4-8.4	8.4-9.3	8.7-10.7	9.2-11.2	11.2-13.2
Sample Date:		3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010
Sample Type:		N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																16 NJ
Alpha BHC	ug/kg															2.9 NJ	
Alpha endosulfan	ug/kg											**1.4 J (R)**					
Alpha-chlordane	ug/kg	**6.7 NJ (R)**						**1 J (R)**	**1.1 J (R)**		**1.2 J (R)**					**2.6 J (R)**	
Beta BHC	ug/kg						4.7										
Beta endosulfan	ug/kg		**16 NJ (R)**													**22 J (R)**	**59 J (R)**
Delta BHC	ug/kg		2.8 J	2.2 NJ													
Dieldrin	ug/kg			15 NJ	5.4 J												
Endosulfan sulfate	ug/kg																
Endrin	ug/kg		8.6 J	7.3 NJ	8.3 NJ	**15 J (R)**											
Endrin aldehyde	ug/kg	15 J			18 J	49 J									10 J		
Endrin ketone	ug/kg														6.7 J	17 NJ	42 NJ
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg			**17 NJ (R)**												**17 NJ (R)**	**14 J (R)**
Heptachlor	ug/kg		**10 J (R)**	**9.1 J (R)**	**6.4 J (R)**							1.6 J					
Heptachlor epoxide	ug/kg								1.4 J				**2.7 NJ (R)**	**3.8 NJ (R)**	**7.2 J (R)**		**2.1 NJ (R)**
Methoxychlor	ug/kg														49 J		
P,P'-DDD	ug/kg		**47 J (R)**			**70 NJ (R)**	**5.6 J (R)**			**11 NJ (R)**	**18 J (R)**	**22 J (R)**	**5.6 NJ (R)**	**16 J (R)**	**7.4 NJ (R)**	**17 NJ (R)**	**67 NJ (R)**
P,P'-DDE	ug/kg		**27 NJ (R)**			**27 NJ (R)**											
P,P'-DDT	ug/kg		**39 J (R)**	**32 J (R)**		**39 J (R)**		8.4 J				19 J		12	5.2 J	**24 NJ (R)**	**60 NJ (R)**
Total DDTs	ug/kg		**113 (R)**			**136 (R)**	**5.6 (R)**				**18 (R)**	**41 (R)**		**28 (R)**	**12.6 (R)**	**41 (R)**	**127 (R)**

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD91A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A
Sample Number:		D-03182010-03	GC-SD093A-07.2-09.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5	GC-SD054B-06.5-08.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6
Sample Depth:		11.2-13.2	7.2-9.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5	6.5-8.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6
Sample Date:		3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg							3.1 J									
Alpha BHC	ug/kg									2.2 J							
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg				**2.9 J (R)**									**3 J (R)**			**1.4 J (R)**
Beta BHC	ug/kg			1.7 J													
Beta endosulfan	ug/kg	**47 J (R)**										**13 NJ (R)**	**24 NJ (R)**	**54 J (R)**	**140 J (R)**	**100 NJ (R)**	**24 J (R)**
Delta BHC	ug/kg														24 NJ	39 J	
Dieldrin	ug/kg	4.5 NJ															
Endosulfan sulfate	ug/kg	240 NJ											67 NJ			360 NJ	
Endrin	ug/kg				3 J	4.8 NJ											
Endrin aldehyde	ug/kg									8 NJ	8.3 J						
Endrin ketone	ug/kg			22 J						3.8 NJ	8.4 J	16 J	34 NJ		40 NJ	130 J	18 J
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg				**4 NJ (R)**												**3.7 NJ (R)**
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg		**3.5 J (R)**	1.6 J								**2.5 NJ (R)**	**3.9 J (R)**	**6.6 NJ (R)**	**7.8 J (R)**		**2.4 J (R)**
Methoxychlor	ug/kg									35 J			130 NJ	110 J		41 J	
P,P'-DDD	ug/kg		**3.5 J (R)**		**17 NJ (R)**	**15 NJ (R)**						**44 NJ (R)**	**71 J (R)**	**17 NJ (R)**			
P,P'-DDE	ug/kg		**2.3 J (R)**		**6.4 NJ (R)**	**8.9 NJ (R)**	**7.4 J (R)**		**3.2 J (R)**		**3.7 NJ (R)**			**29 NJ (R)**			
P,P'-DDT	ug/kg	**100 J (R)**	5.5			17 NJ	**35 J (R)**		**29 J (R)**			**29 J (R)**	**47 NJ (R)**	**110 J (R)**	**39 NJ (R)**	**150 NJ (R)**	**40 J (R)**
Total DDTs	ug/kg		**11.3 (R)**		**23.4 (R)**	**40.9 (R)**								**156 (R)**			

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132
Sample Number:		GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8	GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02
Sample Depth:		3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9
Sample Date:		3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	FD
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg					17 J					21 J	**30 J (A)**	20 J				
Alpha BHC	ug/kg																
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg	**1.9 J (R)**		**1.9 J (R)**		**3.8 J (R)**	**2 J (R)**		**4.9 NJ (R)**	**1.9 J (R)**		**6.8 J (R)**	**7.6 J (R)**		**1.9 J (R)**		
Beta BHC	ug/kg	2.9 NJ															
Beta endosulfan	ug/kg	**35 J (R)**	**99 J (R)**	**62 J (R)**			**20 NJ (R)**	**37 J (R)**	**120 J (R)**	**73 J (R)**	**22 J (R)**	**37 J (R)**	**22 NJ (R)**		**13 J (R)**		
Delta BHC	ug/kg														4.2 J		
Dieldrin	ug/kg					10 J			3.6 J								
Endosulfan sulfate	ug/kg		430 NJ	96 J					580 NJ								
Endrin	ug/kg							**31 J (R)**									
Endrin aldehyde	ug/kg								190 NJ							7.9	4.8 J
Endrin ketone	ug/kg	21 NJ	60 J	32 J	36 J	25 J		20 J			13 NJ	23 J			20 J		
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**6.1 J (R)**	**5.1 J (R)**	**5.9 NJ (R)**		**16 J (R)**	**15 J (R)**	**18 J (R)**				**18 J (R)**	**18 J (R)**		**12 J (R)**		
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg	**2.6 J (R)**	**4.1 J (R)**	**4.6 NJ (R)**	**3.6 J (R)**				**27 NJ (R)**	**8.9 NJ (R)**		**3 NJ (R)**					
Methoxychlor	ug/kg		160 NJ	130 J				110 J			100 J		33 J		140 J		
P,P'-DDD	ug/kg	**64 NJ (R)**				**78 NJ (R)**	**55 J (R)**	**44 NJ (R)**	**42 J (R)**	**24 J (R)**	**59 NJ (R)**	**60 J (R)**	**56 J (R)**	**2.2 J (R)**			**5.7 J (R)**
P,P'-DDE	ug/kg									**9 NJ (R)**					**12 NJ (R)**		
P,P'-DDT	ug/kg	**73 J (R)**	**200 J (R)**	**89 J (R)**	**160 J (R)**		**43 J (R)**	**51 J (R)**	**340 J (R)**	**210 J (R)**		**54 J (R)**			**29 J (R)**		
Total DDTs	ug/kg	**137 (R)**					**98 (R)**			**243 (R)**		**114 (R)**		**2.2 (R)**			

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C
Sample Number:		GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1	GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5
Sample Depth:		6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1	11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5
Sample Date:		3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg				5.6 NJ												
Alpha BHC	ug/kg				2.5 J				3.6 J						1.2 J	4 J	
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg							**6.5 J (R)**	**6.4 J (R)**								
Beta BHC	ug/kg																
Beta endosulfan	ug/kg															**11 J (R)**	**10 J (R)**
Delta BHC	ug/kg										2.2 J						
Dieldrin	ug/kg					17 J											4.3 J
Endosulfan sulfate	ug/kg																
Endrin	ug/kg			3.9 NJ			6.6 J	7.2 J	9.3 J		**16 J (R)**						6 J
Endrin aldehyde	ug/kg	19 J								11 NJ				20 J	16 J	19 NJ	16 NJ
Endrin ketone	ug/kg			13 J				15 J						8.8	9.2 J		
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg		**27 J (R)**		**11 J (R)**	**18 J (R)**		**17 J (R)**	**17 J (R)**		**34 J (R)**						**7.5 J (R)**
Heptachlor	ug/kg	**9.6 J (R)**		**2.5 NJ (R)**			1.8 J	**4.1 NJ (R)**	**4.4 NJ (R)**								
Heptachlor epoxide	ug/kg				**4.3 J (R)**	**5.8 J (R)**		**14 NJ (R)**		**5 NJ (R)**		**3 NJ (R)**	**3.1 NJ (R)**		**8.5 NJ (R)**		**7.2 NJ (R)**
Methoxychlor	ug/kg												77 NJ	36	37 NJ		
P,P'-DDD	ug/kg	**31 NJ (R)**	**51 NJ (R)**	**30 J (R)**	**100 J (R)**	**140 J (R)**	**23 J (R)**	**27 NJ (R)**	**37 NJ (R)**				**30 J (R)**		**17 NJ (R)**	**27 J (R)**	**25 J (R)**
P,P'-DDE	ug/kg			**6 NJ (R)**			**6.8 NJ (R)**	**15 NJ (R)**							**7.4 J (R)**		**11 NJ (R)**
P,P'-DDT	ug/kg		**40 NJ (R)**			**120 J (R)**		**28 J (R)**	**24 NJ (R)**		**23 NJ (R)**	**48 J (R)**	**27 J (R)**			**25 NJ (R)**	16 J
Total DDTs	ug/kg			**36 (R)**			**29.8 (R)**	**70 (R)**							**24.4 (R)**		**52 (R)**

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D
	Sample Number:	GC-SD062C-08.5-10.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5	D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1
	Sample Depth:	8.5-10.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1
	Sample Date:	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010
	Sample Type:	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg																
Alpha endosulfan	ug/kg															**6.9 NJ (R)**	
Alpha-chlordane	ug/kg		**1.5 J (R)**		**1.5 J (R)**				**2 J (R)**								
Beta BHC	ug/kg								1.7 J				1.6 J				3.6 J
Beta endosulfan	ug/kg										**16 J (R)**			**8.6 NJ (R)**		**22 J (R)**	
Delta BHC	ug/kg															2.5 J	
Dieldrin	ug/kg																
Endosulfan sulfate	ug/kg																
Endrin	ug/kg													5.1 J		11 NJ	
Endrin aldehyde	ug/kg	5.9		6.8 J		14 NJ								15 NJ		25 NJ	
Endrin ketone	ug/kg						15 J						4.1 J				
Gamma BHC	ug/kg															**2.1 J (R)**	
Gamma-chlordane	ug/kg	**3 J (R)**														**28 J (R)**	
Heptachlor	ug/kg						**2.3 NJ (R)**						**2.1 J (R)**				
Heptachlor epoxide	ug/kg	**3.1 NJ (R)**					**4.3 J (R)**								**8.1 NJ (R)**		**21 NJ (R)**
Methoxychlor	ug/kg															51 NJ	
P,P'-DDD	ug/kg	**5.9 NJ (R)**	**8.5 J (R)**	**6.8 NJ (R)**	**21 J (R)**	**18 J (R)**				**20 NJ (R)**							
P,P'-DDE	ug/kg			**3.7 NJ (R)**		**6.4 NJ (R)**	**4.7 NJ (R)**	**6.2 NJ (R)**	**6.3 NJ (R)**	**5.1 NJ (R)**	**7.7 NJ (R)**	**4.2 NJ (R)**		**8 NJ (R)**	**5.6 NJ (R)**	**21 NJ (R)**	**25 J (R)**
P,P'-DDT	ug/kg						16 NJ					19 J	**22 NJ (R)**	**23 NJ (R)**		**34 NJ (R)**	13 J
Total DDTs	ug/kg	**5.9 (R)**		**10.5 (R)**		**24.4 (R)**	**20.7 (R)**			**25.1 (R)**							

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD72B	GC-SD137
	Sample Number:	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5	GC-SD121-03.5-05.5	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	GC-SD105A-05.9-07.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD072B-03.8-05.8	GC-SD137-00.0-02.0
	Sample Depth:	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5	3.5-5.5	1.9-3.9	3.9-5.9	5.9-7.9	8.2-10.2	10.2-10.7	1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	3.8-5.8	0-2
	Sample Date:	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg																
Alpha endosulfan	ug/kg					**6.2 J (R)**					**11 NJ (R)**				**2.8 J (R)**		
Alpha-chlordane	ug/kg				**4.7 NJ (R)**												
Beta BHC	ug/kg																
Beta endosulfan	ug/kg			**4.9 NJ (R)**		**12 NJ (R)**											
Delta BHC	ug/kg																
Dieldrin	ug/kg																
Endosulfan sulfate	ug/kg																
Endrin	ug/kg				4.5 NJ												
Endrin aldehyde	ug/kg									11 NJ		11	11 NJ	17 NJ		3.6 J	
Endrin ketone	ug/kg								6 NJ		41 NJ						
Gamma BHC	ug/kg																
Gamma-chlordane	ug/kg	**4.5 J (R)**								**4.7 NJ (R)**	**8.2 J (R)**	**4.4 J (R)**	**5 NJ (R)**	**4.1 NJ (R)**			
Heptachlor	ug/kg																
Heptachlor epoxide	ug/kg				**5.8 J (R)**						**2.4 J (R)**				**6.8 NJ (R)**		
Methoxychlor	ug/kg																
P,P'-DDD	ug/kg	**32 J (R)**	**7.7 NJ (R)**	**12 J (R)**		**31 J (R)**	**4.5 J (R)**	**4 J (R)**	**8.2 NJ (R)**	**14 J (R)**		**11 NJ (R)**	**16 J (R)**	**23 J (R)**	**12 J (R)**		**2.7 NJ (R)**
P,P'-DDE	ug/kg			**6.7 NJ (R)**		**11 J (R)**				**4.3 NJ (R)**			**6.9 NJ (R)**	**7.6 NJ (R)**	**7.8 NJ (R)**		
P,P'-DDT	ug/kg				7.5 J	11 J				7 NJ	**44 NJ (R)**		7.8 NJ	**22 NJ (R)**	9.9 J		2.8 J
Total DDTs	ug/kg		**7.7 (R)**	**18.7 (R)**		**53 (R)**	**4.5 (R)**	**4 (R)**	**8.2 (R)**	**25.3 (R)**			**30.7 (R)**	**52.6 (R)**	**29.7 (R)**		

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD137	GC-SD137	GC-SD137	GC-SD150	GC-SD76C	GC-SD76C	GC-SD144B	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1
Sample Number:		GC-SD137-04.0-06.0	GC-SD137-08.0-09.8	D-04072010-02	D-04122010-01	GC-SD076C-05.8-07.8	GC-SD076C-11.8-13.8	GC-SD144B-00.8-02.8	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT2-1-I	ERT2-1-J
Sample Depth:		4-6	8-9.8	8-9.8	8.6-10.6	5.8-7.8	11.8-13.8	0.8-2.8	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	7-8	8-8.5
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/8/2010	4/8/2010	4/13/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010
Sample Type:		N	N	FD	FD	N	N	N	N	N	N	FD	N	N	FD	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg								4.3 J							**120 NJ (A)**	**140 NJ (A)**
Alpha endosulfan	ug/kg																
Alpha-chlordane	ug/kg								**13 J (R)**					**25 NJ (R)**	**12 J (R)**		
Beta BHC	ug/kg									2 J			2.9 NJ				
Beta endosulfan	ug/kg		**4 J (R)**														
Delta BHC	ug/kg												2.3				56 J
Dieldrin	ug/kg												1.3 J	10 J	1.9 J		
Endosulfan sulfate	ug/kg												3.8 J				
Endrin	ug/kg												1.2 J		4.6 NJ		
Endrin aldehyde	ug/kg		8.3 NJ	9.1 NJ		10 NJ		4.8 NJ									
Endrin ketone	ug/kg					9.8 NJ		4 J									
Gamma BHC	ug/kg														**0.57 J (R)**		
Gamma-chlordane	ug/kg	**1.1 J (R)**	**2.3 (R)**	**5.4 J (R)**		**3 NJ (R)**	**1.3 J (R)**		**34 J (R)**								
Heptachlor	ug/kg								**3.3 J (R)**				0.93 J				
Heptachlor epoxide	ug/kg							**4.1 J (R)**				**2.5 J (R)**				**140 J (A,R)**	**250 J (A,R)**
Methoxychlor	ug/kg							29 J					4.4 J		21 NJ		780
P,P'-DDD	ug/kg	**2.9 J (R)**	**9.3 J (R)**	**13 J (R)**	**4.3 (R)**			**8.3 NJ (R)**	**50 J (R)**		**7.2 (R)**	**7.6 J (R)**	**2 J (R)**	**19 J (R)**		**79 (R)**	**240 (R)**
P,P'-DDE	ug/kg		**3.5 NJ (R)**	**5.5 NJ (R)**		**4.2 NJ (R)**		**5.3 J (R)**							**8.8 NJ (R)**		
P,P'-DDT	ug/kg		11 J	9.5 J		13 NJ		8.7 J			5.7 J	7.7 J			2.9 J		**73 NJ (R)**
Total DDTs	ug/kg		**23.8 (R)**	**28 (R)**				**22.3 (R)**			**12.9 (R)**	**15.3 (R)**	**2 (R)**	**19 (R)**	**11.7 (R)**		

TABLE I-16B
Pesticide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT2-3	ERT2-3	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT2-3-L	FD-05	ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:		10-11.3	10-11.3	7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:		1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**									
Aldrin	ug/kg	14 J					20 J		18 J		
Alpha BHC	ug/kg							21 NJ			
Alpha endosulfan	ug/kg										
Alpha-chlordane	ug/kg							**29 (R)**			
Beta BHC	ug/kg								31 NJ		
Beta endosulfan	ug/kg										
Delta BHC	ug/kg							9.3 J		31 NJ	
Dieldrin	ug/kg										
Endosulfan sulfate	ug/kg										
Endrin	ug/kg			**95 J (R)**	**110 (R)**						
Endrin aldehyde	ug/kg								54		
Endrin ketone	ug/kg										
Gamma BHC	ug/kg										
Gamma-chlordane	ug/kg										
Heptachlor	ug/kg	**11 J (R)**							**17 J (R)**		
Heptachlor epoxide	ug/kg	**110 J (A,R)**				**140 J (A,R)**			**75 NJ (A,R)**	**61 NJ (A,R)**	
Methoxychlor	ug/kg		300 NJ	670 NJ		1,100	820 NJ			580 NJ	150 J
P,P'-DDD	ug/kg	**64 J (R)**	**57 J (R)**	**98 (R)**	**100 (R)**	**160 (R)**		**42 (R)**		**94 (R)**	
P,P'-DDE	ug/kg	**55 (R)**	**42 (R)**		**59 J (R)**	**99 J (R)**				**58 J (R)**	
P,P'-DDT	ug/kg				**74 NJ (R)**	**110 (R)**	**28 J (R)**		**63 NJ (R)**		
Total DDTs	ug/kg	**119 (R)**	**99 (R)**	**98 (R)**	**233 (R)**	**369 (R)**	**28 (R)**	**42 (R)**		**152 (R)**	

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
Sample Number:		GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
Sample Depth:		8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
Sample Date:		3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1221	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1232	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1242	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	**240 J**	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1248	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1254	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1260	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1262	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Aroclor 1268	ug/kg	39 U	41 U	40 U	41 U	40 U	39 U	38 U	39 U	41 U	39 U	38 U	38 U	38 U	39 U	39 U	40 U	38 U	38 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	**240**	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:		GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	GC-SD008A-10.0-12.0	D-03082010-02	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:		13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	10-12	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:		3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	37 U	38 U	38 U	38 U	45 U	45 U	36 U	37 U	38 U	37 U	38 U
Aroclor 1221	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	37 U	38 U	38 U	38 U	45 U	45 U	36 U	37 U	38 U	37 U	38 U
Aroclor 1232	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	37 U	38 U	38 U	38 U	45 U	45 U	36 U	37 U	38 U	37 U	38 U
Aroclor 1242	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	**120 J**	38 U	38 U	38 U	**130 NJ**	45 U	36 U	**47 J**	**67 J**	37 U	38 U
Aroclor 1248	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	37 U	38 U	38 U	38 U	45 U	45 U	36 U	37 U	38 U	37 U	38 U
Aroclor 1254	ug/kg	40 U	110 R	37 U	36 U	41 U	38 U	37 U	37 U	38 U	38 U	38 U	**300 NJ**	45 U	36 U	37 U	38 U	37 U	38 U
Aroclor 1260	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	**450 J**	38 UJ	38 U	38 U	**180 J**	45 U	36 U	**83 J**	**150 J**	37 U	38 U
Aroclor 1262	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	37 U	38 U	38 U	38 U	45 U	45 U	36 U	37 U	38 U	37 U	38 U
Aroclor 1268	ug/kg	40 U	85 U	37 U	36 U	41 U	38 U	37 U	37 U	38 U	38 U	38 U	45 U	45 U	36 U	37 U	38 U	37 U	38 U
Total PCBs	ug/kg	ND	---	ND	ND	ND	ND	ND	**570**	ND	ND	ND	**610**	ND	ND	**130**	**217**	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A
Sample Number:	D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD014A-13.4-13.9	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4
Sample Depth:	7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	13.4-13.9	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4
Sample Date:	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	38 U	37 U	38 U	38 U	37 U	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Aroclor 1221	ug/kg	38 U	37 U	38 U	38 U	37 U	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Aroclor 1232	ug/kg	38 U	37 U	38 U	38 U	37 U	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Aroclor 1242	ug/kg	38 U	37 U	38 U	38 U	**870 J**	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	**74 J**	39 U	39 U	39 U	37 U
Aroclor 1248	ug/kg	38 U	37 U	38 U	38 U	37 U	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Aroclor 1254	ug/kg	38 U	37 U	38 U	38 U	37 U	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Aroclor 1260	ug/kg	38 U	37 U	38 U	38 U	**1,200 J**	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Aroclor 1262	ug/kg	38 U	37 U	38 U	38 U	37 U	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Aroclor 1268	ug/kg	38 U	37 U	38 U	38 U	37 U	37 U	38 U	38 U	38 U	41 U	44 U	38 U	200 U	39 U	39 U	39 U	39 U	37 U
Total PCBs	ug/kg	ND	ND	ND	ND	**2,070**	ND	ND	ND	ND	ND	ND	ND	ND	**74**	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD17A	GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146
Sample Number:	GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0
Sample Depth:	2-4	4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13
Sample Date:	3/10/2010	3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1221 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1232 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1242 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1248 ug/kg	39 U	39 U	37 U	38 U	97 R	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1254 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1260 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1262 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Aroclor 1268 ug/kg	39 U	39 U	37 U	38 U	38 U	39 U	38 U	39 U	39 U	41 U	39 U	40 U	41 U	40 U	38 U	38 U	38 U	37 U
Total PCBs ug/kg	ND	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B
Sample Number:		D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0
Sample Depth:		11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6
Sample Date:		4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		FD	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Aroclor 1221	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Aroclor 1232	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Aroclor 1242	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	**95 J**	40 U	37 U	39 U	37 U
Aroclor 1248	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Aroclor 1254	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Aroclor 1260	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Aroclor 1262	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Aroclor 1268	ug/kg	37 U	37 U	39 U	39 U	40 U	38 U	37 U	39 U	40 U	39 U	38 U	40 U	39 U	38 U	40 U	37 U	39 U	37 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**95**	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128
Sample Number:		GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	D-03112010-02	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3
Sample Depth:		6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3
Sample Date:		3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	42 U	42 U	39 U	41 U	37 U	36 UR	41 U	42 U	42 U
Aroclor 1221	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	42 U	42 U	39 U	41 U	37 U	36 UR	41 U	42 U	42 U
Aroclor 1232	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	42 U	42 U	39 U	41 U	37 U	36 UR	41 U	42 U	42 U
Aroclor 1242	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	**280**	**150 J**	**430 J**	41 U	37 U	270 R	41 U	42 U	42 U
Aroclor 1248	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	42 U	42 U	39 U	41 U	37 U	36 UR	41 U	42 U	42 U
Aroclor 1254	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	320 R	160 R	480 R	41 U	37 U	36 UR	41 U	42 U	42 U
Aroclor 1260	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	**430**	**190 J**	**620 J**	41 U	37 U	36 UR	41 U	42 U	42 U
Aroclor 1262	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	42 U	42 U	39 U	41 U	37 U	36 UR	41 U	42 U	42 U
Aroclor 1268	ug/kg	38 U	37 U	38 U	39 U	39 U	38 U	39 U	40 U	41 U	42 U	42 U	39 U	41 U	37 U	36 UR	41 U	42 U	42 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	---	---	ND	ND	---	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD128	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A
Sample Number:		GC-SD128-07.3-09.3	GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02
Sample Depth:		7.3-9.3	9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1
Sample Date:		3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1221	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1232	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1242	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1248	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1254	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1260	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 UJ	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1262	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Aroclor 1268	ug/kg	39 U	37 U	37 U	42 U	43 U	39 U	39 U	37 U	38 U	38 UJ	39 U	41 U	39 U	39 U	39 U	40 U	42 U	43 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD27A	GC-SD27A	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A
Sample Number:	GC-SD027A-06.1-08.1	GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0
Sample Depth:	6.1-8.1	8.1-8.6	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8
Sample Date:	4/13/2010	4/13/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	42 U	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1221 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	42 U	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1232 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	42 U	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1242 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	42 U	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1248 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	**110**	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1254 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	**70 J**	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1260 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	42 U	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1262 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	42 U	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Aroclor 1268 ug/kg	40 U	38 U	40 U	85 U	42 U	45 U	40 U	38 U	38 U	42 U	42 U	40 U	41 U	42 U	40 U	38 U	38 U	41 U
Total PCBs ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	**180**	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD30A	GC-SD30A	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113
Sample Number:		GC-SD030A-08.0-10.0	GC-SD030A-10.0-12.0	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0
Sample Depth:		8-10	10-12	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15
Sample Date:		3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	39 U	38 U	39 U	39 U	38 U
Aroclor 1221	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	39 U	38 U	39 U	39 U	38 U
Aroclor 1232	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	39 U	38 U	39 U	39 U	38 U
Aroclor 1242	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	**84 NJ**	38 U	39 U	39 U	38 U
Aroclor 1248	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	39 U	38 U	39 U	39 U	38 U
Aroclor 1254	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	**240 NJ**	38 U	39 U	39 U	38 U
Aroclor 1260	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	39 U	38 U	39 U	39 U	38 U
Aroclor 1262	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	39 U	38 U	39 U	39 U	38 U
Aroclor 1268	ug/kg	41 U	40 U	40 U	39 U	40 U	40 U	39 U	41 U	39 U	38 U	38 U	39 U	42 U	39 U	38 U	39 U	39 U	38 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**324**	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD113	GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114
Sample Number:		D-03152010-02	GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2
Sample Depth:		13.3-15	8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2
Sample Date:		3/15/2010	3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1221	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1232	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1242	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	**39 J**	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1248	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1254	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1260	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1262	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Aroclor 1268	ug/kg	38 U	39 U	51 U	42 U	37 U	38 U	39 U	38 UJ	40 U	40 UJ	40 U	44 U	43 U	42 U	37 U	44 U	40 U	41 UJ
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	**39**	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116
Sample Number:		D-03232010-01	GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5
Sample Depth:		5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1221	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1232	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1242	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1248	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1254	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1260	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1262	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Aroclor 1268	ug/kg	41 U	40 U	39 U	39 U	41 U	40 U	37 U	38 U	44 U	41 U	39 U	39 U	40 U	40 U	52 U	43 U	39 U	39 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C
Sample Number:		D-03172010-01	GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9
Sample Depth:		8.5-10.5	10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1221	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1232	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1242	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1248	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1254	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1260	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1262	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Aroclor 1268	ug/kg	39 U	38 U	38 U	39 U	39 U	39 U	37 U	38 U	39 U	37 U	39 U	39 U	38 U	42 U	41 U	42 U	43 U	43 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A
Sample Number:	GC-SD047A-00.6-02.6	GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4
Sample Depth:	0.6-2.6	2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4
Sample Date:	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1221	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1232	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1242	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1248	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1254	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1260	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1262	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Aroclor 1268	ug/kg	64 U	60 U	45 U	41 U	41 U	40 U	40 U	55 U	41 U	43 U	38 U	38 U	49 U	39 U	39 U	39 U	38 U	55 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD51A	GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A
Sample Number:		GC-SD051A-04.4-06.4	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5
Sample Depth:		4.4-6.4	6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5
Sample Date:		3/31/2010	3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	39 U	38 U	39 U	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1221	ug/kg	38 U	39 U	38 U	39 U	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1232	ug/kg	38 U	39 U	38 U	39 U	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1242	ug/kg	38 U	39 U	38 U	**93**	38 U	39 U	39 U	38 U	38 U	38 U	**49**	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1248	ug/kg	38 U	39 U	38 U	39 U	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1254	ug/kg	38 U	39 U	38 U	63 R	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1260	ug/kg	38 U	39 U	38 U	39 U	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1262	ug/kg	38 U	39 U	38 U	39 U	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Aroclor 1268	ug/kg	38 U	39 U	38 U	39 U	38 U	39 U	39 U	38 U	38 U	38 U	40 U	38 U	38 U	38 U	40 U	46 U	48 U	45 U
Total PCBs	ug/kg	ND	ND	ND	---	ND	ND	ND	ND	ND	ND	**49**	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130
Sample Number:		GC-SD054B-04.5-06.5	GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4
Sample Depth:		4.5-6.5	6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4
Sample Date:		3/29/2010	3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1221	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1232	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1242	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1248	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1254	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1260	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1262	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Aroclor 1268	ug/kg	58 U	51 U	43 U	42 U	38 U	38 U	38 U	38 U	37 U	38 UJ	39 UJ	38 U	38 U	60 U	56 U	44 U	67 U	40 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD130	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A
Sample Number:		GC-SD130-11.4-12.8	GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD131-11.5-11.9	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1
Sample Depth:		11.4-12.8	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	11.5-11.9	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1
Sample Date:		3/22/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1221	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1232	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1242	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1248	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1254	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1260	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1262	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Aroclor 1268	ug/kg	37 U	57 U	60 U	66 U	40 U	41 U	38 U	39 U	60 U	60 U	60 U	40 U	39 U	38 U	38 U	39 U	40 U	40 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD59A	GC-SD59A	GC-SD60B	GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120
Sample Number:		GC-SD059A-06.1-08.1	GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2	D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5
Sample Depth:		6.1-8.1	11-13	5.2-7.2	5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5
Sample Date:		4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1221	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1232	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1242	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1248	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1254	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1260	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1262	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Aroclor 1268	ug/kg	40 U	40 U	42 U	43 U	53 U	39 U	40 U	42 U	39 U	38 U	41 U	45 U	50 U	41 U	42 U	38 U	40 U	38 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C
Sample Number:		GC-SD120-06.5-08.5	D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7
Sample Depth:		6.5-8.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7
Sample Date:		3/31/2010	3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1221	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1232	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1242	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1248	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1254	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1260	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1262	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Aroclor 1268	ug/kg	38 U	39 U	39 U	41 U	38 U	41 U	42 U	40 U	38 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U	39 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B
Sample Number:		GC-SD121-01.5-03.5	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD067B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0
Sample Depth:		1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12
Sample Date:		4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Aroclor 1221	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Aroclor 1232	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Aroclor 1242	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Aroclor 1248	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Aroclor 1254	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	170 R	41 U	42 U	42 U
Aroclor 1260	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Aroclor 1262	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Aroclor 1268	ug/kg	39 U	38 U	39 U	39 U	40 U	40 U	39 U	38 U	39 U	39 U	39 U	39 U	38 U	39 U	38 U	41 U	42 U	42 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD67B	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137
Sample Number:		D-04062010-02	GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD070B-08.8-09.1	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0
Sample Depth:		10-12	1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	8.8-9.1	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2
Sample Date:		4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1221	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1232	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1242	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1248	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1254	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1260	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1262	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Aroclor 1268	ug/kg	43 U	56 U	59 U	50 U	43 U	42 U	42 U	42 U	41 U	38 U	42 U	53 U	48 U	62 U	67 U	68 U	41 U	37 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151
Sample Number:	GC-SD137-02.0-04.0	GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2
Sample Depth:	2-4	4-6	6-8	8-9.8	8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2
Sample Date:	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:	N	N	N	N	FD	N	FD	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1221	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1232	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1242	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1248	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1254	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1260	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1262	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Aroclor 1268	ug/kg	39 U	39 U	39 U	37 U	40 U	42 U	41 U	41 U	39 U	43 U	43 U	45 U	40 U	42 U	38 U	37 U	37 U	42 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD151	GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142
Sample Number:	GC-SD151-07.2-09.2	D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1
Sample Depth:	7.2-9.2	7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1
Sample Date:	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010
Sample Type:	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1221 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1232 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1242 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1248 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1254 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1260 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1262 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Aroclor 1268 ug/kg	43 U	41 U	41 U	39 U	40 U	38 U	41 U	39 U	38 U	38 U	38 U	38 U	38 U	39 U	40 U	38 U	37 U	39 U
Total PCBs ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD142	GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A
Sample Number:		GC-SD142-06.1-08.1	GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3
Sample Depth:		6.1-8.1	8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3
Sample Date:		4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1221	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1232	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1242	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1248	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1254	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1260	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1262	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Aroclor 1268	ug/kg	38 U	41 U	39 U	38 U	37 U	38 U	38 U	38 U	43 U	43 U	45 U	39 U	38 U	39 U	39 U	39 U	36 U	40 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3
Sample Number:	D-04152010-03	GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L
Sample Depth:	5.3-7.3	7.3-9.3	9.3-11.3	5-7	7-9	9-11	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3
Sample Date:	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010
Sample Type:	FD	N	N	N	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	**200 J**	190 U	190 U	200 U	190 U	200 U	200 U	200 U	**1,500 J**	220 UJ	190 U
Aroclor 1221	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	220 U	190 U	190 U	200 U	190 U	200 U	200 U	200 U	320 U	220 UJ	190 U
Aroclor 1232	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	220 U	190 U	190 U	200 U	190 U	200 U	200 U	200 U	320 U	220 UJ	190 U
Aroclor 1242	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	220 U	190 U	190 U	200 U	190 U	200 U	200 U	200 U	320 U	220 UJ	190 U
Aroclor 1248	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	220 U	190 U	190 U	200 U	190 U	200 U	200 U	200 U	320 U	220 UJ	190 U
Aroclor 1254	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	**240 J**	190 U	190 U	200 U	190 U	200 U	200 U	**460 J**	**540 J**	220 UJ	190 U
Aroclor 1260	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	**290 J**	190 U	**48 J**	200 U	190 U	200 U	200 U	**350 J**	**570 NJ**	**600 NJ**	330 R
Aroclor 1262	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	220 U	190 U	190 U	200 U	190 U	200 U	200 U	200 U	320 U	220 UJ	190 U
Aroclor 1268	ug/kg	39 U	41 U	38 U	39 U	41 U	38 U	37 U	220 U	190 U	190 U	200 U	190 U	200 U	200 U	200 U	320 U	220 UJ	190 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	**730**	ND	**48**	ND	ND	ND	ND	**810**	**2,610**	**600**	ND

TABLE I-17A
PCB Aroclor Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	ERT2-3	ERT3-2	ERT3-2	ERT3-2	ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:	FD-05	ERT3-2-I	ERT3-2-J	ERT3-2-K	ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:	10-11.3	7.4-8	8-9	9-10.4	10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:	1/29/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**							
Aroclor 1016	ug/kg	190 U	**360 NJ**	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Aroclor 1221	ug/kg	190 U	200 U	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Aroclor 1232	ug/kg	190 U	200 U	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Aroclor 1242	ug/kg	190 U	200 U	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Aroclor 1248	ug/kg	190 U	200 U	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Aroclor 1254	ug/kg	190 U	470 R	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Aroclor 1260	ug/kg	**250 J**	**270 NJ**	200 U	210 U	190 U	190 U	**450 NJ**	190 U	200 U
Aroclor 1262	ug/kg	190 U	200 U	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Aroclor 1268	ug/kg	190 U	200 U	200 U	210 U	190 U	190 U	200 UJ	190 U	200 U
Total PCBs	ug/kg	**250**	**---**	ND	ND	ND	ND	**450**	ND	ND

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TABLE I-17B
PCB Aroclor Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD125	GC-SD08A	GC-SD108	GC-SD10A	GC-SD10A	GC-SD13B	GC-SD109	GC-SD110	GC-SD127	GC-SD127	GC-SD127	GC-SD28B	GC-SD33A	GC-SD41A	GC-SD117	GC-SD93A
	Sample Number:	GC-SD125-12.0-13.6	GC-SD008A-08.0-10.0	GC-SD108-08.0-10.0	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD013B-08.0-10.0	GC-SD109-08.8-10.8	GC-SD110-06.0-08.0	GC-SD127-06.0-08.0	D-03112010-02	GC-SD127-08.0-10.0	GC-SD028B-06.8-08.8	GC-SD033A-10.2-12.2	GC-SD041A-02.4-04.4	GC-SD117-08.7-10.7	GC-SD093A-05.2-07.2
	Sample Depth:	12-13.6	8-10	8-10	6.4-8.4	8.4-10.4	8-10	8.8-10.8	6-8	6-8	6-8	8-10	6.8-8.8	10.2-12.2	2.4-4.4	8.7-10.7	5.2-7.2
	Sample Date:	3/9/2010	3/8/2010	3/5/2010	3/4/2010	3/4/2010	3/9/2010	3/4/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/12/2010	3/15/2010	3/23/2010	3/18/2010	3/18/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**															
Aroclor 1016	ug/kg																
Aroclor 1242	ug/kg	240 J (A,R)	120 J (R)	130 NJ (R)	47 J (R)	67 J (R)	870 J (A,R)	74 J (R)	95 J (R)	280 (A,R)	150 J (R)	430 J (A,R)		84 NJ (R)	39 J (R)	93 (R)	49 (R)
Aroclor 1248	ug/kg												110 (R)				
Aroclor 1254	ug/kg			300 NJ (A,R)									70 J (R)	240 NJ (A,R)			
Aroclor 1260	ug/kg		450 J (A,R)	180 J (R)	83 J (R)	150 J (R)	1,200 J (A,R)			430 (A,R)	190 J (R)	620 J (A,R)					
Total PCBs	ug/kg	240 (A,R)	570 (A,R)	610 (A,R)	130 (R)	217 (R)	2,070 (A,R)	74 (R)	95 (R)				180 (R)	324 (A,R)	39 (R)		49 (R)

TABLE I-17B
PCB Aroclor Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**ERT1-1**	**ERT1-2**	**ERT1-3**	**ERT2-1**	**ERT2-1**	**ERT2-3**	**ERT3-2**	**ERT4-3**
Sample Number:		**ERT1-1-G**	**ERT1-2-I**	**ERT1-3-N**	**ERT2-1-I**	**ERT2-1-J**	**FD-05**	**ERT3-2-I**	**ERT4-3-I**
Sample Depth:		**5.4-6**	**6.8-8.3**	**12-12.9**	**7-8**	**8-8.5**	**10-11.3**	**7.4-8**	**7.3-8**
Sample Date:		**1/28/2010**	**1/28/2010**	**1/29/2010**	**1/28/2010**	**1/28/2010**	**1/29/2010**	**1/28/2010**	**1/29/2010**
Sample Type:		**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**
Parameter	**Units**	**Polychlorinated Biphenyls**							
Aroclor 1016	ug/kg	**200 J (R)**			**1,500 J (A,R)**			**360 NJ (R)**	
Aroclor 1242	ug/kg								
Aroclor 1248	ug/kg								
Aroclor 1254	ug/kg	**240 J (A,R)**		**460 J (A,R)**	**540 J (A,R)**				
Aroclor 1260	ug/kg	**290 J (A,R)**	**48 J (R)**	**350 J (A,R)**	**570 NJ (A,R)**	**600 NJ (A,R)**	**250 J (A,R)**	**270 NJ (A,R)**	**450 NJ (A,R)**
Total PCBs	ug/kg	**730 (A,R)**	**48 (R)**	**810 (A,R)**	**2,610 (A,R)**	**600 (A,R)**	**250 (A,R)**		**450 (A,R)**

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A	GC-SD06A	GC-SD06A
		Sample Number:	GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4	GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4
		Sample Depth:	8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4	9.4-11.4	11.4-13.4
		Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010	3/8/2010	3/8/2010
		Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
											Metals									
Aluminum	mg/kg		**3,270**	**5,160**	**3,160**	**4,990**	**3,950**	**2,390**	**2,750**	**2,760**	**3,640**	**3,640**	**3,980**	**1,950**	**4,460**	**2,740**	**2,150**	**6,550**	**4,220**	**4,060**
Antimony	mg/kg		6.9 UJ	7.3 UJ	7.1 UJ	8.2 UJ	7.5 UJ	7.7 UJ	6.9 UJ	7.1 UJ	7.5 UJ	6.8 UJ	7.4 UJ	7.2 UJ	6.6 UJ	7 UJ	7.1 UJ	7.3 UJ	6.9 UJ	7 UJ
Arsenic	mg/kg		**0.32 J**	**1.3**	**0.7 J**	**4.6**	**2.5**	**0.69 J**	1.2 U	**0.76 J**	**1.6**	**5.6**	**2.5**	**0.76 J**	**0.7 J**	**0.91 J**	**0.72 J**	**1.8**	**0.84 J**	**1.5**
Barium	mg/kg		22.8 UJ	24.3 UJ	23.6 UJ	27.2 UJ	25.2 UJ	**15.9 J**	23.1 UJ	**11.1 J**	**13.7 J**	22.7 UJ	24.6 UJ	24.1 UJ	22 UJ	**27.1 J**	23.6 UJ	**25.6**	**18.4 J**	**20.8 J**
Beryllium	mg/kg		0.57 U	**0.28 J**	**0.13 J**	**0.26 J**	**0.16 J**	0.64 U	0.58 U	0.59 U	0.62 U	**0.14 J**	**0.15 J**	0.6 U	**0.18 J**	0.58 U	0.59 U	**0.39 J**	**0.31 J**	**0.28 J**
Cadmium	mg/kg		0.57 U	0.61 U	0.59 U	0.68 U	0.63 U	0.64 U	0.58 U	0.59 U	0.62 U	0.57 U	0.61 U	0.6 U	0.55 U	0.58 U	0.59 U	**0.5 J**	**0.028 J**	0.58 U
Calcium	mg/kg		571 U	607 U	590 U	**784**	629 U	639 U	**910**	595 U	625 U	**685**	**853**	604 U	**759**	**740**	**863**	**1,070**	**767**	**928**
Chromium	mg/kg		**10.1**	**12.8**	**8.4**	**11.5**	**8.7**	**6**	**7.5**	**7.8**	**8.8**	**11.8**	**15.7**	**11.1**	**14.2**	**7.3**	**6**	**20.5**	**14.5**	**11.1**
Cobalt	mg/kg		**2.7 J**	**6.9**	**3.5 J**	**6.1 J**	**4.2 J**	6.4 U	**2.3 J**	6 U	6.3 U	**3.2 J**	**2.8 J**	**1.3 J**	**3.3 J**	**1.9 J**	**1.3 J**	**7.8**	**5.2 J**	**4.6 J**
Copper	mg/kg		**9.5 J**	**10.2 J**	**5.9 J**	**10.7 J**	**7.8 J**	**4.9**	**6.6 J**	**5.6**	**5.6**	**8.2 J**	**9.6 J**	**4.9 J**	**9.8 J**	**6.3 J**	**5.5 J**	**15**	**7**	**8.1**
Iron	mg/kg		**6,210**	**8,790**	**6,200**	**9,580**	**7,180**	**6,660**	**6,600**	**6,080**	**8,500**	**6,840**	**7,840**	**5,160**	**6,900**	**6,390**	**5,590**	**10,700**	**7,820**	**8,080**
Lead	mg/kg		**4.1**	**6**	**5.1**	**6.7**	**4.9**	**3.5**	**3.3**	**9.5**	**5.6**	**5.2**	**6.9**	**2.6**	**5.6**	**2.5**	**2.4**	**9.2**	**4.8**	**4.1**
Magnesium	mg/kg		**1,480**	**2,010**	**1,340**	**2,230**	**1,710**	**1,650**	**1,670**	**1,400**	**1,780**	**1,660**	**1,920**	**1,360**	**1,890**	**1,620**	**2,150**	**2,860**	**1,920**	**2,460**
Manganese	mg/kg		**41.5**	**59.5**	**44.9**	**76.7**	**59.4**	**49.2**	**46.7**	**45.4**	**82.1**	**47.4**	**59**	**83.1**	**61.1**	**69**	**44.6**	**74.2**	**58.3 J**	**74.6 J**
Mercury	mg/kg		0.11 U	0.12 U	0.11 U	0.14 U	0.13 U	0.13 U	0.12 U	0.12 U	0.13 U	0.12 U	0.13 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg		**12.4**	**20.2**	**10.7**	**14**	**11.3**	**11.7**	**11.4**	**10.5**	**13**	**14.2**	**16.4**	**9**	**12.9**	**10.9**	**15.4**	**20.5**	**14.7**	**16.6**
Potassium	mg/kg		571 UJ	**856 J**	590 UJ	**896 J**	**697 J**	**495 J**	577 UJ	**591 J**	**713**	**696 J**	**833 J**	604 UJ	**737 J**	**675 J**	591 UJ	**1,110**	**690**	**1,040**
Selenium	mg/kg		4 U	**2.3 J**	4.1 U	**0.53 J**	4.4 U	4.5 U	4 U	4.2 U	4.4 U	**0.61 J**	**0.74 J**	4.2 U	3.9 U	4.1 U	4.1 U	4.2 U	4 U	4.1 U
Silver	mg/kg		1.1 U	1.2 U	1.2 U	1.4 U	1.3 U	1.3 UJ	1.2 U	1.2 UJ	1.2 UJ	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U
Sodium	mg/kg		571 U	607 U	590 U	680 U	629 U	639 U	577 U	595 U	625 U	568 U	614 U	604 U	551 U	581 U	591 U	605 U	572 U	582 U
Thallium	mg/kg		2.9 U	3 U	2.9 U	3.4 U	3.1 U	3.2 U	2.9 U	3 U	3.1 U	2.8 U	3.1 U	3 U	2.8 U	2.9 U	3 U	3 U	2.9 U	2.9 U
Vanadium	mg/kg		**12**	**30.4**	**13.1**	**21.3**	**14.2**	**7.1**	**7.3**	**9.3**	**10.1**	**14.5**	**17.5**	**10.7**	**19.6**	**9.6**	**7.1**	**31.8**	**19.6**	**12.4**
Zinc	mg/kg		**26.9**	**31.8**	**44.2**	**33**	**25.8**	**14.8**	**15.7**	**17.7**	**24.6**	**24.4**	**30**	**14.7**	**28.9**	**15.9**	**12.2**	**52.3**	**33.4**	**22**
Cyanide, Total	mg/kg		2.9 U	3 U	2.9 U	**0.37 J**	3.3 U	3 U	2.9 U	3 U	3.1 U	2.8 U	3.1 U	3 U	2.9 U	2.8 U	3.1 U	3 U	2.8 U	2.9 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A
Sample Number:	GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7
Sample Depth:	13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12	12-13	8-10	10-12	12-13.5	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7
Sample Date:	3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010
Sample Type:	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter / **Units**																		
Metals																		
Aluminum mg/kg	**4,540**	**3,700**	**3,020**	**3,260**	**5,200**	**3,320**	**3,150**	**2,840**	**3,110**	**3,420**	**3,420**	**4,730**	**6,720**	**4,920**	**3,680**	**2,630**	**4,860**	**2,520**
Antimony mg/kg	7.3 UJ	6.9 UJ	6.9 UJ	6.8 UJ	**0.84 J**	7.1 UJ	**0.43 J**	6.9 UJ	**0.42 J**	**0.58 J**	**0.43 J**	**3.2 J**	**0.54 J**	6.3 UJ	7 UJ	7 UJ	6.4 UJ	6.6 UJ
Arsenic mg/kg	**1.2 J**	**1.1 J**	**0.84 J**	**0.69 J**	**8.8**	**1.6**	**2.9**	**6.5**	**6.5**	**4**	**1.4**	**22.3**	**6.7**	**1.5**	**1.1 J**	**1.1 J**	**1.9**	**1.4**
Barium mg/kg	**24.5**	23.1 U	**61.6**	**51.7**	**78.9**	**13.3 J**	22.1 U	23.1 U	22.6 U	23.4 U	22.8 U	**472**	**35.5**	**19.2 J**	**27.5**	**20.3 J**	**32.9**	**34.4 J**
Beryllium mg/kg	**0.32 J**	0.58 U	0.57 U	0.57 U	**0.34 J**	**0.2 J**	0.55 U	0.58 U	0.56 U	0.59 U	0.57 U	**0.38 J**	**0.53 J**	**0.38 J**	**0.24 J**	0.58 U	0.53 U	0.55 U
Cadmium mg/kg	0.61 U	0.58 U	0.57 U	0.57 U	**0.32 J**	0.59 U	0.55 U	0.58 U	0.56 U	0.59 U	0.57 U	**1.7**	**0.1 J**	0.53 U	0.59 U	**0.11 J**	**0.33 J**	0.55 U
Calcium mg/kg	**1,130**	**999 J**	**1,030 J**	**1,050 J**	**1,320**	**846**	**688**	577 U	564 U	**658**	**1,070**	**3,300**	**16,200**	**1,020**	**1,250**	**826**	**1,410**	**906**
Chromium mg/kg	**11.9**	**9.3**	**9.2**	**9.3**	**16.3**	**9**	**9.9**	**9.2**	**9.7**	**10.1**	**11.8**	**29**	**14.7**	**11.4**	**8.9**	**5.3**	**11.3**	**7.6**
Cobalt mg/kg	**5.5 J**	**3 J**	**5.2 J**	**5 J**	**5.3 J**	**3.6 J**	5.5 U	5.8 U	5.6 U	5.9 U	5.7 U	**5.2 J**	**6.7 J**	**5 J**	**3.7 J**	**2.4 J**	**4.7 J**	**2.1 J**
Copper mg/kg	**8.9**	**9**	**18.4**	**20.3**	**27.5**	**6.3**	**7.1**	**7.3**	**6.4**	**7**	**6.1**	**223**	**14.6**	**17.9**	**10.3**	**8.3**	**13.6**	**14.1 J**
Iron mg/kg	**9,570**	**6,310**	**6,220**	**6,800**	**11,000**	**8,100**	**10,700**	**6,250**	**6,080**	**8,840**	**8,660**	**14,700**	**19,000**	**9,030**	**7,620**	**5,660**	**11,100**	**5,910**
Lead mg/kg	**5**	**5**	**3.9**	**4.5**	**51**	**3.6**	**4.7**	**5.4**	**6.8**	**6**	**3.9**	**484**	**8.1**	**5.4**	**3.6**	**2.6**	**5.9**	**10.9**
Magnesium mg/kg	**2,680**	**1,870**	**2,580**	**2,550**	**2,130**	**1,970**	**2,410**	**1,230**	**1,350**	**2,750**	**2,540**	**2,230**	**4,490**	**3,960**	**1,810**	**1,710**	**3,780**	**1,500**
Manganese mg/kg	**79 J**	**56.9 J**	**1,370**	**1,090**	**89.9 J**	**87.6 J**	**109 J**	**53 J**	**47.4 J**	**102 J**	**62.9 J**	**151 J**	**222 J**	**84.9 J**	**146 J**	**123**	**225**	**104**
Mercury mg/kg	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U	**0.068 J**	**0.053 J**	**0.05 J**	**0.062 J**	**1.9**	0.17 U	0.11 U	0.11 U	0.12 U	0.11 U	0.11 U
Nickel mg/kg	**17.2**	**12.9**	**45.9**	**37.7**	**16.8**	**14**	**28.3**	**13.9**	**10.3**	**20.4**	**16.1**	**29**	**18.9**	**32.7**	**18.2**	**13.7**	**24.7**	**19**
Potassium mg/kg	**938**	**655 J**	**634 J**	**647 J**	**826**	**675**	**755**	**509 J**	**516 J**	**681**	**921**	**968**	**1,470**	**1,100**	**867**	**591**	**1,590**	**625 J**
Selenium mg/kg	4.3 U	**0.52 J**	4 U	4 U	4.1 U	4.1 U	3.9 U	4 U	4 U	4.1 U	4 U	**3.9 J**	5.6 U	3.7 U	4.1 U	4.1 U	3.7 U	3.9 U
Silver mg/kg	1.2 U	1.2 U	**0.094 J**	1.1 U	**0.34 J**	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	**2.7**	1.6 U	1.1 U	1.2 U	1.2 U	1.1 U	**0.093 J**
Sodium mg/kg	608 U	579 U	575 U	566 U	**643**	591 U	551 U	577 U	564 U	586 U	571 U	**714 J**	**894**	527 U	585 U	583 U	534 U	553 U
Thallium mg/kg	3 U	2.9 U	2.9 U	2.8 U	2.9 U	3 U	**1.9 J**	2.9 U	**0.89 J**	**0.9 J**	**1.2 J**	3.6 U	4 U	2.6 U	2.9 U	2.9 U	2.7 U	2.8 U
Vanadium mg/kg	**15.3**	**11.2**	**11.5**	**20.8**	**17.8**	**12.5**	**14**	**8.6**	**7.8**	**11.6**	**13.6**	**19.5**	**22.2**	**16.2**	**13.3**	**7.4**	**15.9**	**7.6**
Zinc mg/kg	**26.3**	**22.9**	**26.9**	**26.7**	**84.7**	**18.8**	**19.4**	**18.5**	**15.5**	**22.2**	**16.2**	**653**	**42.5**	**29.6**	**16**	**12.6**	**21.1**	**21.6**
Cyanide, Total mg/kg	3 U	2.9 U	2.7 U	2.8 U	2.9 U	3 U	2.8 U	2.9 U	2.9 U	2.9 U	2.9 U	3.5 U	3.9 U	2.7 U	2.8 U	3 U	2.6 U	2.8 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD17A
Sample Number:	D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4	GC-SD017A-02.0-04.0
Sample Depth:	7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	4.8-6.8	6.8-8.8	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4	2-4
Sample Date:	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010
Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**								**Metals**										
Aluminum mg/kg	**2,950**	**1,920**	**2,920**	**7,970**	**4,230**	**2,920**	**2,970**	**2,830**	**3,440**	**5,180**	**4,030**	**3,170**	**3,120**	**2,390**	**2,740**	**2,080**	**2,520**	**2,800**
Antimony mg/kg	6.6 UJ	6.7 UJ	6.9 UJ	7.1 UJ	6.9 UJ	6.9 UJ	7.2 UJ	6.8 UJ	6.5 UJ	7.5 UJ	6.7 UJ	6.7 UJ	7.3 UJ	**0.81 J**	7.1 UJ	7 UJ	7.1 UJ	6.7 UJ
Arsenic mg/kg	**1.6**	**1.4**	**1.1 J**	**1.7**	**0.93 J**	**3.1**	**1.1 J**	**2.5**	**0.91 J**	**1.7**	**1.7**	**1.7**	**1.4**	**4.2**	**0.93 J**	**0.48 J**	**0.71 J**	**2.2**
Barium mg/kg	**32.4 J**	22.3 UJ	22.1 UJ	**28.6**	**16.7 J**	**9.7 J**	**11.5 J**	**8.2 J**	**13.8 J**	**54.4**	**11.6 J**	**8.8 J**	**18.5 J**	24.1 UJ	23.6 UJ	23.3 UJ	**24.7 J**	**18.6 J**
Beryllium mg/kg	0.55 U	0.56 U	0.58 U	**0.61**	0.57 U	0.57 U	0.6 U	0.57 U	0.55 U	0.63 U	**0.2 J**	**0.32 J**	**0.3 J**	0.6 U	0.59 U	0.58 U	0.59 U	0.56 U
Cadmium mg/kg	0.55 U	0.56 U	0.58 U	0.59 U	0.57 U	0.57 U	0.6 U	0.57 U	0.55 U	0.63 U	**0.14 J**	**0.11 J**	**0.15 J**	0.6 U	0.59 U	0.58 U	0.59 U	0.56 U
Calcium mg/kg	**1,040**	**559**	**823**	591 U	573 U	572 U	596 U	569 U	**669**	**6,420**	557 U	557 U	605 U	601 U	589 U	582 U	**714**	555 U
Chromium mg/kg	**7.7**	**4.1**	**5.3**	**15.3**	**9.6**	**7.5**	**8.6**	**7.8**	**9.1**	**13.1**	**7.8**	**6.8**	**7.1**	**5.6**	**6.6**	**5.9**	**5.8**	**6.5**
Cobalt mg/kg	**2.9 J**	**1.3 J**	**2.1 J**	**8.3**	5.7 U	5.7 U	6 U	5.7 U	5.5 U	**6.9**	**2.7 J**	**2.6 J**	**3.4 J**	**1.8 J**	**3 J**	**2.5 J**	**2.6 J**	5.6 U
Copper mg/kg	**16.3 J**	**7.2 J**	**9.7 J**	**14.3**	**5.5**	**4.5**	**5.7**	**5.7**	**8.1**	**12.3**	**6.5**	**6.2**	**5.7**	**5.1 J**	**5.5 J**	**6.4 J**	**12.1 J**	**4.1**
Iron mg/kg	**6,910**	**3,880**	**5,460**	**14,800**	**5,920**	**6,580**	**6,510**	**6,810**	**8,480**	**11,900**	**7,340**	**6,400**	**8,550**	**5,890**	**6,680**	**6,170**	**6,470**	**7,780**
Lead mg/kg	**7.6**	**2**	**2.9**	**8.2**	**4.6**	**4**	**3.9**	**5**	**3.9**	**5**	**5.5**	**3.4**	**3.7**	**3**	**3.2**	**2.4**	**3.1**	**3.5**
Magnesium mg/kg	**2,090**	**1,200**	**1,700**	**2,400**	**1,320**	**1,090**	**1,360**	**1,070**	**1,880**	**6,260**	**1,330**	**1,190**	**1,370**	**931**	**1,380**	**1,630**	**1,550**	**1,100**
Manganese mg/kg	**116**	**72.2**	**92.6**	**67.3**	**38**	**37.7**	**37.5**	**43.1**	**55.1**	**173**	**41.8**	**48**	**51.8**	**49.1**	**49.3**	**49.7**	**53.4**	**63**
Mercury mg/kg	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.11 U	0.13 U	**0.08 J**	**0.11 J**	**0.07 J**	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Nickel mg/kg	**26.1**	**12.2**	**13.8**	**17.6**	**9.8**	**9.7**	**11.5**	**9.8**	**16.7**	**21.8**	**7.3**	**7.1**	**9.8**	**7.1**	**10.2**	**13.1**	**11.8**	**9.6**
Potassium mg/kg	**657 J**	556 UJ	578 UJ	**1,500**	**755**	**588**	**665**	**595**	**929**	**1,890**	**746**	**597**	**615**	601 UJ	589 UJ	582 UJ	594 UJ	**539 J**
Selenium mg/kg	3.9 U	3.9 U	4 U	4.1 U	4 U	4 U	4.2 U	4 U	3.8 U	4.4 U	3.9 U	3.9 U	4.2 U	4.2 U	4.1 U	4.1 U	4.2 U	3.9 U
Silver mg/kg	**0.12 J**	1.1 U	1.2 U	1.2 UJ	1.1 UJ	1.1 UJ	1.2 UJ	1.1 UJ	1.1 UJ	1.3 UJ	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U
Sodium mg/kg	551 U	556 U	578 U	**1,120**	573 U	572 U	596 U	569 U	**569**	**1,150**	557 U	557 U	605 U	601 U	589 U	582 U	594 U	555 U
Thallium mg/kg	2.8 U	2.8 U	2.9 U	3 U	2.9 U	2.9 U	3 U	2.8 U	2.8 U	3.2 U	2.8 U	2.8 U	3 U	3 U	2.9 U	2.9 U	3 U	2.8 U
Vanadium mg/kg	**10**	**5.3 J**	**6.8**	**19.7**	**11.5**	**10.2**	**8.8**	**10.8**	**11.1**	**17.3**	**13.3**	**10**	**9**	**9.2**	**10.6**	**8.5**	**9.4**	**11.1**
Zinc mg/kg	**21.2**	**11.5**	**15.7**	**44.2**	**20.4**	**19.8**	**17.2**	**19.3**	**19.1**	**30**	**19.1**	**20.8**	**24.9**	**17**	**18.9**	**15.4**	**22.3**	**25.2**
Cyanide, Total mg/kg	2.8 U	2.8 U	2.8 U	2.9 U	2.8 U	2.9 U	2.9 U	2.9 U	2.8 U	3.1 U	2.9 U	2.9 U	2.9 U	3 U	3 U	2.9 U	2.9 U	2.8 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146	GC-SD146
Sample Number:		GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0	D-04122010-02
Sample Depth:		4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13	11-13
Sample Date:		3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,040**	**3,200**	**3,260**	**2,800**	**2,730**	**2,250**	**2,430**	**2,580**	**6,700**	**2,580**	**2,240**	**4,180**	**5,340**	**3,950**	**3,750**	**4,580**	**3,150 J**	**4,570 J**
Antimony	mg/kg	6.8 UJ	6.7 UJ	6.9 UJ	6.9 UJ	7.1 UJ	6.8 UJ	7.1 UJ	7 UJ	7.4 UJ	6.7 UJ	7.3 UJ	7 UJ	**0.4 J**	6.8 UJ	**0.81 J**	**0.76 J**	6.8 UJ	6.3 UJ
Arsenic	mg/kg	**3.1**	**6**	**1.5**	**4.2**	**5.1**	**1.6**	**1.7**	**1.3**	**3.9**	**2.2**	**1.3**	**11.2**	**5.8**	**1.7**	**4.1**	**1.5**	**1.2**	**1.8**
Barium	mg/kg	**22.4 J**	**30**	**14.7 J**	**10.6 J**	**14.1 J**	22.7 U	23.7 U	23.3 U	**28.4**	22.4 U	24.2 U	**13.2 J**	**19.9 J**	**14.7 J**	**17.3 J**	**21.2 J**	**27.2**	**34.7**
Beryllium	mg/kg	0.57 U	**0.69**	**0.11 J**	**0.26 J**	**0.16 J**	0.57 U	0.59 U	0.58 U	0.62 U	0.56 U	0.6 U	0.58 U	0.61 U	0.57 U	**0.24 J**	**0.23 J**	**0.16 J**	**0.31 J**
Cadmium	mg/kg	0.57 U	0.56 U	**0.21 J**	**0.16 J**	**0.28 J**	0.57 U	0.59 U	0.58 U	**0.21 J**	0.56 U	0.61 U	0.58 U	0.61 U	0.57 U	**0.12 J**	**0.1 J**	**0.11 J**	**0.12 J**
Calcium	mg/kg	568 U	**780**	575 U	577 U	592 U	566 UJ	593 UJ	581 UJ	**952 J**	561 UJ	605 UJ	**822**	**935**	**672**	**706 J**	**1,170 J**	**641 J**	**780 J**
Chromium	mg/kg	**7.3**	**7.5**	**8.2**	**6.5**	**6.1**	**7.8**	**5.5 J**	**6.5 J**	**13.9**	**5.9**	**5.1**	**10.4**	**13.7**	**10.5**	**13.1**	**12.5**	**8.7**	**12**
Cobalt	mg/kg	5.7 U	**5.7**	**2.3 J**	**3.1 J**	**8.2**	**2.6 J**	**2.3 J**	**3 J**	**8.5**	5.6 U	**3 J**	**6.4**	**6.6**	5.7 U	5.5 U	**5.6**	5.7 U	**6.2**
Copper	mg/kg	**5.2**	**9.6**	**8.8**	**6.1**	**4.8**	**15.3**	**4.2**	**4.3**	**20.3**	**4.5**	**3.9**	**7.2**	**10.6**	**7.6**	**13**	**15.2**	**9.8**	**15.2**
Iron	mg/kg	**7,790**	**7,940**	**6,210**	**8,150**	**8,990**	**5,080**	**5,360 J**	**6,620 J**	**14,000**	**5,430**	**5,030**	**13,900**	**13,500**	**8,760**	**7,110**	**9,320**	**7,150 J**	**10,900 J**
Lead	mg/kg	**3.7**	**4.1**	**9.9**	**3.4**	**3.8**	**25.3**	**2.6**	**3.1**	**10.8**	**4.2**	**3.7**	**5.9**	**6.9**	**5.1**	**6.9**	**4.8**	**3.6**	**4.9**
Magnesium	mg/kg	**1,290**	**2,230**	**1,170**	**1,090**	**1,220**	**1,120**	**1,160**	**1,180**	**3,150**	**1,290**	**1,160**	**1,910**	**2,310**	**2,150**	**1,800**	**2,600**	**1,930**	**2,970**
Manganese	mg/kg	**66.2**	**89.2**	**49**	**67.3**	**94.7**	**52.1 J**	**54 J**	**55 J**	**140**	**60.1**	**61**	**294**	**165**	**56.2**	**98.6**	**140**	**140**	**181**
Mercury	mg/kg	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	**0.056 J**	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.1 U
Nickel	mg/kg	**11.5**	**21**	**6.9**	**8.3**	**11.5**	**8.8**	**7.1**	**8.2**	**18.2**	**8.5**	**8**	**12.4**	**14.9**	**13.4**	**20.5**	**28.8**	**17.5**	**26.2**
Potassium	mg/kg	**581**	**640**	**625**	**554 J**	**533 J**	566 UJ	**588 J**	**659 J**	**1,580 J**	**520 J**	**477 J**	**822**	**991**	**841**	**836 J**	**1,640 J**	**1,020 J**	**1,540 J**
Selenium	mg/kg	4 U	3.9 U	4 U	4 U	4.1 U	**0.43 J**	4.2 U	4.1 U	4.31 U	3.9 U	4.2 U	4.1 U	4.3 U	4 U	3.9 U	5.5 U	4 U	3.7 U
Silver	mg/kg	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	**0.19 J**	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	**0.055 J**	1.1 U	1.1 U	1 U
Sodium	mg/kg	568 U	556 U	575 U	577 U	592 U	566 U	593 U	581 U	616 U	561 U	605 U	582 U	611 U	568 U	552 U	551 U	566 U	526 U
Thallium	mg/kg	2.8 U	2.8 U	2.9 U	2.9 U	3 U	2.8 U	3 U	2.9 U	3.1 U	2.8 U	3 U	**0.9 J**	3.1 U	2.8 U	2.8 U	2.8 U	2.8 U	2.6 U
Vanadium	mg/kg	**10.8**	**10.2**	**13**	**9.2**	**10.2**	**9.2**	**6.8**	**8.5**	**19.5**	**9**	**6.7**	**17.9**	**21.2**	**13**	**12.5**	**16.5**	**11.2**	**15.2**
Zinc	mg/kg	**20.2**	**41.5**	**25.1**	**22.2**	**24.5**	**48.5**	**16.8**	**18.1**	**54.6**	**20.3**	**17**	**27.3**	**31.4**	**20.7**	**22.1**	**23.7**	16.8 R	**64**
Cyanide, Total	mg/kg	3 U	2.8 U	2.8 U	2.9 U	2.9 U	2.8 U	2.8 U	2.9 U	3.1 U	2.8 U	3 U	2.9 U	3.1 U	2.9 U	2.9 U	2.9 U	2.8 U	2.6 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B	GC-SD22B
Sample Number:		GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0	GC-SD022B-06.0-08.0
Sample Depth:		3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6	6-8
Sample Date:		4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**6,260**	**7,830**	**9,280**	**7,820**	**4,390**	**3,270**	**3,490**	**3,080**	**2,940**	**3,250**	**2,600**	**2,950**	**4,690**	**3,300**	**2,920**	**2,520**	**4,320**	**3,390**
Antimony	mg/kg	6.6 UJ	7.1 UJ	6.9 UJ	7.1 UJ	6.7 UJ	**0.84 J**	7.4 UJ	6.9 UJ	7.3 UJ	6.9 UJ	7.5 UJ	7.2 UJ	6.9 UJ	7.1 UJ	6.8 UJ	7 UJ	6.7 UJ	7.1 UJ
Arsenic	mg/kg	**2.6**	**2.1**	**2.2**	**1.4**	**0.84 J**	**0.79 J**	**2**	**2.1**	**3.1**	**4.7**	**2.6**	**1.5**	**10.3**	**2.5**	1.1 U	1.2 U	**4.5**	**1.8**
Barium	mg/kg	**63**	**123**	**119**	**95.9**	**52.9**	**36.1**	**32.5**	**23.6**	**50.5**	**27.4**	25 U	23.9 U	**88.1 J**	**34.9 J**	**33.4 J**	23.3 UJ	**22.4**	**19.4 J**
Beryllium	mg/kg	0.55 U	0.59 U	**0.51 J**	**0.42 J**	**0.3 J**	**0.26 J**	**0.19 J**	**0.27 J**	0.61 U	0.57 U	0.63 U	0.6 U	**0.21 J**	**0.2 J**	**0.16 J**	**0.15 J**	0.56 U	**0.23 J**
Cadmium	mg/kg	**0.16 J**	**0.21 J**	**0.3 J**	**0.25 J**	0.56 U	0.56 U	0.61 U	0.58 U	**0.15 J**	**0.16 J**	0.63 U	0.6 U	**0.25 J**	0.59 U	0.56 U	0.58 U	0.56 U	0.59 U
Calcium	mg/kg	**6,670 J**	**9,450 J**	**11,400 J**	**10,300 J**	**6,790 J**	**1,070 J**	**778 J**	**662 J**	**907 J**	**961 J**	**769 J**	**918 J**	**674**	**701**	**784**	**628**	**900**	**693**
Chromium	mg/kg	**14.1**	**16.1**	**18.6**	**17.3**	**9.4**	**8.2**	**7.8**	**6.5**	**7.6**	**9.2**	**7.1**	**6.7**	**11.9**	**7.1**	**5.6**	**5.2**	**11.4**	**8.3**
Cobalt	mg/kg	**6.9**	**7.8**	**9.3**	**8.4**	5.6 U	5.6 U	6.1 U	5.8 U	**3.1 J**	**4.2 J**	**2.8 J**	**3.5 J**	**2.8 J**	**3.4 J**	**2.5 J**	**2 J**	5.6 U	**3.9 J**
Copper	mg/kg	**20.3**	**16.9**	**19.8**	**17**	**10.8**	**9.6**	**9.7**	**10.7**	**12.1**	**12.1**	**8.8**	**7**	**17.1**	**10.1**	**7.9**	**7.3**	**10.5**	**9.4**
Iron	mg/kg	**13,000**	**15,100**	**17,800**	**15,500**	**9,280**	**7,790**	**6,660**	**5,660**	**7,090**	**8,550**	**6,510**	**6,310**	**7,750**	**5,740**	**5,310**	**5,320**	**8,830**	**8,580**
Lead	mg/kg	**8.5**	**6.8**	**7.7**	**6**	**5**	**3.3**	**3.1**	**3.1**	**11.7 J**	**6.1 J**	**4.9**	**2.2**	**5.3 J**	**2.7 J**	**2.6 J**	**2.4 J**	**4.7**	**4.6**
Magnesium	mg/kg	**5,380**	**6,920**	**8,040**	**7,760**	**4,470**	**2,310**	**1,920**	**1,580**	**1,450**	**1,720**	**1,290**	**1,830**	**1,800**	**1,400**	**1,520**	**1,480**	**1,770**	**1,670**
Manganese	mg/kg	**293**	**372**	**416**	**358**	**207**	**74.1**	**105**	**90**	**213 J**	**335 J**	**124**	**88.1**	**114 J**	**156 J**	**88.7 J**	**89.3 J**	**75.9**	**57.5**
Mercury	mg/kg	0.11 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	**0.14**	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U
Nickel	mg/kg	**24.6**	**22**	**25.3**	**28.2**	**16.8**	**15**	**13.8**	**14.5**	**16.5 J**	**27.9**	**15.7**	**16.9**	**15.3**	**18**	**13.3**	**14.4**	**15**	**17.3**
Potassium	mg/kg	**2,340 J**	**2,840 J**	**3,310 J**	**2,880 J**	**1,570 J**	**1,050 J**	**1,060 J**	**778 J**	**821 J**	**788 J**	**685 J**	**946 J**	**768**	**730**	**677**	**625**	**844**	**734**
Selenium	mg/kg	3.8 U	4.1 U	**0.71 J**	**0.96 J**	**0.57 J**	3.9 U	**0.86 J**	**0.8 J**	**0.56 J**	**0.68 J**	4.4 U	4.2 U	4 U	4.1 U	4 U	4.1 U	3.9 U	4.1 U
Silver	mg/kg	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U
Sodium	mg/kg	550 U	588 U	576 U	590 U	556 U	560 U	613 U	578 U	607 U	571 U	626 U	597 U	574 U	592 U	564 U	582 U	558 U	592 U
Thallium	mg/kg	2.7 U	2.9 U	**0.92 J**	**0.68 J**	2.8 U	2.8 U	3.1 U	2.9 U	3 U	2.9 U	3.1 U	3 U	2.9 U	**3**	2.8 U	2.9 U	2.8 U	3 U
Vanadium	mg/kg	**16**	**19.5**	**22.2**	**20.7**	**13.7**	**10.9**	**10.4**	**8.8**	**9**	**10.9**	**7.7**	**9.5**	**14.4**	**9.5**	**7.2**	**7.1**	**12.7**	**11.4**
Zinc	mg/kg	**31.9**	**35.9**	**40.8**	**35.4**	**21.1**	**17.5**	**16.9**	**15.6**	**40.6**	**21.2 J**	**15.2**	**15.7**	**19.2**	**14.2**	**13.6**	**15.1**	**19.7**	**17.9**
Cyanide, Total	mg/kg	2.7 U	2.9 U	2.8 U	2.9 U	2.8 U	2.8 U	3.1 U	3 U	3 U	2.8 U	3 U	3 U	2.8 U	3 U	2.8 U	2.9 U	2.8 U	3 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128
Sample Number:		GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3	GC-SD128-09.3-11.3
Sample Depth:		8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8	10.8-12.8	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3
Sample Date:		3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**4,590**	**5,760**	**5,160**	**2,650**	**2,470**	**4,550**	**4,980**	**5,120**	**10,600**	**3,130**	**5,630**	**4,030**	**4,910**	**8,820**	**10,200**	**4,450**	**6,140**	**4,600**
Antimony	mg/kg	6.9 UJ	**0.38 J**	6.8 UJ	7.3 UJ	6.9 UJ	7 UJ	7.4 UJ	7.4 UJ	7.5 UJ	7.6 UJ	7.3 UJ	6.7 UJ	6.6 UJ	7.6 UJ	**0.52 J**	7.5 UJ	8 UJ	6.8 UJ
Arsenic	mg/kg	**4.1**	**2**	**4.4**	**2.9**	**1.6**	**2**	**1.9**	**1.5**	**2.8**	**5**	**14.7**	**2.1**	**1.6**	**2.7**	**4.2**	**5.7**	**4.5**	**0.56 J**
Barium	mg/kg	**32**	**38**	**30.8**	**24.3**	**22.9**	**43.6**	**47.8**	**50.4**	**34.1 J**	25.5 UJ	**27.3**	22.3 UJ	22 UJ	**36.7 J**	**45.1**	**42 J**	**47.6 J**	**26.6 J**
Beryllium	mg/kg	0.58 U	0.54 U	0.57 U	0.61 U	0.57 U	0.58 U	0.62 U	0.62 U	**0.6 J**	**0.19 J**	0.61 U	**0.23 J**	**0.26 J**	**0.5 J**	0.64 U	**0.29 J**	**0.43 J**	**0.27 J**
Cadmium	mg/kg	0.58 U	0.54 U	0.57 U	0.61 U	**0.099 J**	**0.23 J**	**0.25 J**	**0.35 J**	0.62 U	0.64 U	0.61 U	0.56 U	0.55 U	0.63 UJ	0.64 U	0.63 U	0.66 U	0.57 U
Calcium	mg/kg	**1,090**	**1,740**	**902**	**671 J**	**784 J**	**6,140 J**	**7,980 J**	**4,250 J**	**1,850**	**768**	**1,440**	**3,590**	**3,720**	**2,340**	**1,780**	**1,050**	**3,590**	**1,350**
Chromium	mg/kg	**12.2**	**17.5**	**13.7**	**7.3**	**5.8**	**10.7**	**12.2**	**11.3**	**18.6**	**6.8**	**12.1**	**7.1**	**8.4**	**18.4**	**20.6**	**9.8**	**13.3**	**10.2**
Cobalt	mg/kg	5.8 U	**8.5**	5.7 U	**2.8 J**	**2.5 J**	**5.3 J**	**6.2 J**	**5.7 J**	**10.8**	**3 J**	**7.3**	**4.1 J**	**5.3 J**	**7.9**	**10.5**	**4.7 J**	**7**	**4.3 J**
Copper	mg/kg	**14.4**	**23.5**	**12.3**	**6.7**	**7.1**	**11.2**	**11.2**	**12.4**	**21.6**	**5.9**	**10.4**	**10.3**	**11.6**	**25.5**	**28.9**	**8.6**	**12.9**	**11.5**
Iron	mg/kg	**10,300**	**12,100**	**8,240**	**6,150**	**6,160**	**9,740**	**10,500**	**10,600**	**18,600**	**9,930**	**17,100**	**8,110**	**9,750**	**17,400**	**18,500**	**12,700**	**18,200**	**10,300**
Lead	mg/kg	**5.1**	**10.2**	**4.3**	**3.2**	**3**	**4**	**4.4**	**5.1**	**11 J**	**4.3 J**	**7.3**	**4.9 J**	**5.8 J**	**21.2 J**	**28.3**	**5.7 J**	**7.6 J**	**4.7 J**
Magnesium	mg/kg	**2,930**	**6,050**	**2,460**	**1,290**	**1,380**	**4,770**	**5,720**	**4,020**	**4,760**	**1,520**	**2,870**	**3,300**	**3,760**	**4,440**	**4,690**	**2,340**	**3,340**	**3,010**
Manganese	mg/kg	**104**	**136**	**111**	**73.5**	**119**	**248**	**242**	**402**	**194 J**	**234 J**	**411**	**234 J**	**172 J**	**177 J**	**161**	**230 J**	**606 J**	**154 J**
Mercury	mg/kg	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.13 U	0.12 U	0.11 U	0.11 U	**0.066 J**	0.13 U	0.13 U	0.13 U	0.11 U
Nickel	mg/kg	**29.4**	**64**	**20.2**	**10.9**	**12.1**	**18.5**	**20.2**	**19**	**22.4**	**8.5**	**15.2**	**14.6**	**17.3**	**20.7**	**23.5**	**11.9**	**16.8**	**16.6**
Potassium	mg/kg	**1,390**	**1,220**	**733**	**580 J**	**631 J**	**1,620 J**	**1,810 J**	**1,670 J**	**1,760**	637 U	**1,160**	**783**	**834**	**1,650**	**2,040**	**916**	**1,290**	**1,040**
Selenium	mg/kg	4 U	3.8 U	4 U	4.2 U	4 U	4.1 U	4.3 U	4.3 U	4.4 U	4.5 U	4.3 U	3.9 U	3.8 U	4.4 U	4.5 U	4.4 U	4.7 U	4 U
Silver	mg/kg	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.1 U	1.1 U	**0.15 J**	**0.11 J**	1.3 U	1.3 U	1.1 U
Sodium	mg/kg	575 U	538 U	566 U	606 U	595 U	584 U	617 U	638 U	**1,250**	637 U	609 U	559 U	549 U	633 U	641 U	628 U	664 U	567 U
Thallium	mg/kg	**1.2 J**	2.7 U	2.8 U	3 U	2.9 U	2.9 U	**0.45 J**	3.1 U	**0.87 J**	3.2 U	**1.3 J**	2.8 U	**2.7**	**0.62 J**	3.2 U	3.1 U	**0.69 J**	2.8 U
Vanadium	mg/kg	**17.7**	**19.5**	**12.8**	**8.1**	**8.1**	**13.8**	**15.4**	**14.7**	**24.5**	**9.4**	**19.9**	**9.5**	**11.2**	**21.4**	**25**	**14.3**	**20.8**	**13.5**
Zinc	mg/kg	**23.4**	**38.7**	**20.4**	**14.3**	**13.3**	**26.7**	**30.6**	**27.8**	**58.2**	**24.5**	**34.2**	**23.1**	**32.6**	**62.2**	**74.8**	**32.3**	**38.1**	**25.8**
Cyanide, Total	mg/kg	**3**	2.8 U	2.9 U	3 U	3 U	2.9 U	2.9 U	3 U	3.1 U	3.1 U	2.9 U	2.8 U	2.7 U	3.1 U	3.1 U	3.2 U	3.4 U	2.8 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD128	GC-SD129	GC-SD129	GC-SD129	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A	GC-SD27A
Sample Number:		GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6	GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1	GC-SD027A-08.1-08.6
Sample Depth:		11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6	4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1	8.1-8.6
Sample Date:		3/11/2010	4/14/2010	4/14/2010	4/14/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**4,180**	**5,850**	6,040	4,490	3,060	3,290	2,780	2,520	3,790	4,310	4,780	4,010	3,180	4,730	9,850	7,990	3,380	4,220
Antimony	mg/kg	6.8 UJ	7.6 UJ	8 UJ	7 UJ	**0.83 J**	**0.82 J**	7.1 UJ	6.8 UJ	7.7 U	**1.1 J**	**0.87 J**	6.9 UJ	**0.86 J**	7.2 UJ	7.7 UJ	7.8 UJ	7.2 UJ	6.7 UJ
Arsenic	mg/kg	1.1 U	**6.6**	**6.5**	**4.6**	**2.3**	**1.6**	**1.2**	**1.7**	**5.3**	**20**	**21.6**	**34.6**	**1.3**	**0.55 J**	**5.1**	**7.3**	**13.7**	**9.4**
Barium	mg/kg	**22.1 J**	**33.6**	**33.9**	**27.1**	**25.2 J**	**23.8 J**	**37.3 J**	22.7 UJ	**23.2 J**	**52.8 J**	**40.1 J**	**32.7 J**	**27.1 J**	**55.2 J**	**38.9**	**35.7**	24 U	**28.9**
Beryllium	mg/kg	0.57 U	0.63 U	0.67 U	0.59 U	**0.21 J**	**0.19 J**	**0.2 J**	**0.2 J**	**0.29 J**	**0.29 J**	**0.33 J**	**0.21 J**	**0.28 J**	**0.3 J**	0.64 U	0.65 U	0.6 U	0.56 U
Cadmium	mg/kg	0.57 U	**0.55 J**	**0.53 J**	**0.21 J**	0.56 U	0.53 U	0.59 U	0.57 U	0.64 U	0.65 U	0.57 U	0.57 U	0.62 U	0.6 U	**0.51 J**	**0.49 J**	**0.22 J**	**0.26 J**
Calcium	mg/kg	**1,180**	**2,850 J**	**2,610 J**	**1,750 J**	**5,000**	**5,050**	**9,340**	**6,930**	638 U	**740**	**1,090**	**778**	**8,650**	**13,200**	**1,920 J**	**1,230 J**	**745 J**	**972 J**
Chromium	mg/kg	**8.8**	**13.2**	**14**	**12**	**9.2**	**7.2**	**5.9**	**5.3**	**8.1**	**10.7**	**14.8**	**11.2**	**7.5**	**11.1**	**19.6**	**17.1**	**16.5**	**11.4**
Cobalt	mg/kg	5.7 U	**8.4**	**8.5**	**6**	**3.5 J**	**3.7 J**	**2.7 J**	**2.4 J**	**4.2 J**	**4.4 J**	**4.2 J**	**4.7 J**	**3.1 J**	**4.9 J**	**10.9**	**8.2**	**5.2 J**	**5.1 J**
Copper	mg/kg	**8.5**	**13.5**	**14.1**	**10.3**	**8.4**	**8.8**	**7.5**	**6.3**	**14.2 J**	**10.1 J**	**10.5 J**	**12.1 J**	**10.5 J**	**13.3 J**	**23.2**	**16.8**	**6.5**	**10.1**
Iron	mg/kg	**8,660**	**19,600**	**21,100**	**10,900**	**8,510**	**8,300**	**6,490**	**5,400**	**9,310**	**12,700**	**13,500**	**14,800**	**7,190**	**10,900**	**20,800**	**18,100**	**10,300**	**12,100**
Lead	mg/kg	**4.3**	**8.6**	**9.6**	**5.4**	**4**	**4.1**	**3**	**2.6**	**10.6**	**6.2**	**6.7**	**6.3**	**3.3**	**5**	**12.4**	**9.6**	**4.4**	**6.9**
Magnesium	mg/kg	**2,600**	**3,110**	**3,220**	**2,620**	**2,900**	**2,940**	**3,590**	**3,000**	**1,830**	**2,430**	**2,560**	**2,260**	**3,880**	**5,920**	**5,290**	**3,970**	**1,950**	**2,410**
Manganese	mg/kg	**85.1**	**1,030**	**1,040**	**338**	**355**	**160**	**220**	**182**	**67.5**	**92**	**125**	**90.9**	**228**	**299**	**191**	**142**	**77.7**	**94.8**
Mercury	mg/kg	0.11 U	0.13 U	0.13 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.13 U	0.13 U	0.11 U	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.12 U	0.11 U
Nickel	mg/kg	**14.1**	**16.9**	**17.6**	**20.3**	**10.8**	**12**	**9.3**	**8.7**	**12.8**	**15.7**	**14.4**	**11.5**	**12.9**	**20.3**	**23.9**	**19.2**	**37.5**	**16**
Potassium	mg/kg	**823**	**1,390 J**	**1,440 J**	**1,090 J**	**801**	**798**	**842**	**826**	**834 J**	**980 J**	**1,160 J**	**911 J**	**1,130 J**	**1,610 J**	**1,870 J**	**1,700 J**	**772 J**	**978 J**
Selenium	mg/kg	4 U	**1.3 J**	**1.3 J**	**1.2 J**	4 U	3.7 U	4.1 U	4 U	**0.68 J**	**1.1 J**	**1.6 J**	**1.4 J**	4.3 U	**0.67 J**	4.5 U	4.5 U	4.2 U	3.9 U
Silver	mg/kg	1.1 U	1.3 U	1.3 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.3 U	1.3 U	1.1 U	1.1 U	1.2 U	1.2 U	1.3 U	1.3 U	**0.059 J**	1.1 U
Sodium	mg/kg	570 U	**1,050**	**1,050**	587 U	**600**	533 U	**694**	587 U	**703**	**810**	570 U	575 U	**679**	**683**	641 U	646 U	599 U	556 U
Thallium	mg/kg	2.9 U	**1.7 J**	**1.3 J**	2.9 U	2.8 U	2.7 U	3 U	2.8 U	**2.7 J**	**3.5 J**	**4.8 J**	**4.1 J**	**2.2 J**	**3.1**	**0.53 J**	3.2 U	3 U	2.8 U
Vanadium	mg/kg	**11.9**	**19.5**	**20.8**	**15.4**	**15**	**11.5**	**8.4**	**7.5**	**8.7**	**20.7**	**27.5**	**21**	**9.6**	**14**	**24.8**	**22.1**	**20.3**	**19.3**
Zinc	mg/kg	**19.2**	**42.5**	**45.6**	**31.2**	**17.4 J**	**18.5 J**	**14.5 J**	**12.6 J**	**55.5**	**35.8**	**29.2**	**31.7**	**17.5**	**27**	**66.3**	**57**	**28.7**	**27.4**
Cyanide, Total	mg/kg	2.8 U	3.2 U	3.2 U	2.9 U	2.9 U	2.8 U	3 U	2.9 U	3.1 U	3.2 U	2.9 U	2.9 U	3 U	3 U	3.1 U	3.2 U	3.1 U	2.7 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD111	GC-SD111	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A	GC-SD30A
Sample Number:	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0	GC-SD030A-10.0-12.0
Sample Depth:	8.3-10.3	10.3-12.3	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10	10-12
Sample Date:	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Metals**																
Aluminum	mg/kg	**10,900 J**	**11,600 J**	**8,870 J**	**8,470 J**	**7,120 J**	**3,280 J**	**2,370 J**	**13,300**	**5,620**	**2,800**	**11,000**	**5,520**	**4,130**	**2,830**	**1,860**	**9,570**	**3,980**	**1,890**
Antimony	mg/kg	7.4 UJ	7.5 UJ	7.5 UJ	8.3 UJ	7.2 UJ	6.9 UJ	6.8 UJ	**0.6 J**	7.6 UJ	**0.78 J**	7.6 UJ	**0.95 J**	7.6 UJ	**0.82 J**	7.2 UJ	7.6 U	6 UJ	6.3 UJ
Arsenic	mg/kg	**5**	**3**	**3.8**	**4.4**	**4.4**	**1.7**	**2.4**	**2.7**	**4.2**	**3.3**	**5.4**	**3.7**	**1.9**	**5.1**	**4.6**	**3.4**	**2.9**	**1.9**
Barium	mg/kg	**65.6 J**	**66.1 J**	**38.5 J**	**79.4 J**	**31.2 J**	23.2 UJ	22.6 UJ	**78.2**	**42.5**	**81.4 J**	**32.9 J**	**33.3 J**	**24.1 J**	23.4 UJ	24 UJ	**35.3 J**	**20.9 J**	**7.3 J**
Beryllium	mg/kg	**0.68**	**0.65**	0.62 U	0.69 U	0.6 U	0.58 U	0.57 U	**0.84**	0.63 U	**0.24 J**	**0.7**	**0.4 J**	0.63 U	**0.24 J**	**0.2 J**	0.64 U	0.5 U	**0.18 J**
Cadmium	mg/kg	0.62 U	0.62 U	0.62 U	0.69 U	0.6 U	0.58 U	0.57 U	0.6 U	**0.12 J**	0.57 U	0.63 U	0.63 U	**0.039 J**	0.58 U	0.6 U	0.64 U	0.5 U	0.52 U
Calcium	mg/kg	**1,500**	**8,630**	**8,310**	**1,620**	**1,240**	**696**	**997**	**2,290**	**937**	**700**	**4,280**	**2,910**	**1,080**	**781**	601 U	**7,400**	**1,130**	524 U
Chromium	mg/kg	**17.1**	**18.7**	**15.1**	**17.4**	**11.6**	**7.3**	**4.5**	**19.7**	**11.8**	**6.5**	**17.9**	**11.5**	**8.1**	**6.1**	**4.4**	**15.5**	**8.2**	**4.4**
Cobalt	mg/kg	**10.6**	**12.8**	**8.9**	**8.2**	**5.7 J**	5.8 U	5.7 U	**12.2**	6.3 U	**5.8**	**9**	**5.7 J**	6.3 U	**2.9 J**	**2.3 J**	**9.6**	**4.4 J**	**2.1 J**
Copper	mg/kg	**23.4**	**25.9**	**21**	**17.2**	**13.5**	**6.7**	**6.4**	**31.5**	**9.7**	**5.7**	**33.9**	**10.9**	**7.6**	**6.1**	**3.6**	**22.7 J**	**7.7 J**	**4.2 J**
Iron	mg/kg	**25,600 J**	**23,700 J**	**20,500 J**	**17,200 J**	**15,400 J**	**8,490 J**	**6,620 J**	**27,800**	**12,700**	**8,730**	**26,500**	**12,900**	**8,560**	**7,220**	**6,180**	**21,100**	**9,170**	**5,230**
Lead	mg/kg	12.8 R	12.6 R	10.6 R	**12 J**	8.4 R	5 R	3.4 R	**16.9**	**6.9**	**4**	**12.1**	**6.4**	**6.2**	**4.8**	**2.7**	**11.3**	**5.1**	**3.2**
Magnesium	mg/kg	**4,240**	**6,910**	**5,740**	**3,890**	**2,760**	**1,940**	**1,930**	**6,110**	**2,720**	**1,450**	**4,940**	**2,970**	**1,870**	**1,380**	**868**	**5,780**	**1,860**	**802**
Manganese	mg/kg	**846**	**413**	**426**	**171**	**138**	**88.9**	**73.4**	**206**	**87.2**	**226**	**366**	**183**	**82.1**	**97.1**	**66.3**	**383**	**98.4**	**49.5**
Mercury	mg/kg	**0.78**	0.13 U	0.13 U	0.14 U	0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.13 U	0.12 U	0.12 U	0.13 U	0.1 U	0.1 U
Nickel	mg/kg	**24.6**	**26**	**20.3**	**20.4**	**16.4**	**16.2**	**17.3**	**26.3**	**14.5**	**11.2**	**22.6**	**13.7**	**9.2**	**7.7**	**6.6**	**23.3**	**10.8**	**5.7**
Potassium	mg/kg	**2,110**	**2,160**	**1,630**	**1,490**	**1,440**	579 U	566 U	**2,690**	**1,010**	**576**	**2,170**	**1,040**	**823**	**617**	**417 J**	**1,710 J**	**746 J**	524 UJ
Selenium	mg/kg	**1.4 J**	**1.6 J**	**1.3 J**	**1.1 J**	**1.2 J**	**0.58 J**	**0.64 J**	4.2 U	4.4 U	4 U	4.4 U	4.4 U	4.4 U	**0.71 J**	**0.49 J**	**1.4 J**	**0.57 J**	**0.52 J**
Silver	mg/kg	1.2 U	1.2 U	1.2 U	1.4 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.3 U	1 U	1 U
Sodium	mg/kg	**1,440**	**1,390**	**1,120**	**1,330**	600 U	579 U	566 U	**1,320**	**880**	572 U	**1,140**	**940**	**1,020**	584 U	601 U	**1,190**	**692**	524 U
Thallium	mg/kg	**5.8 J**	**5.2 J**	**4.7 J**	**3.5 J**	**2.6 J**	**1.3 J**	2.8 U	3 U	3.2 U	2.9 U	**1.9 J**	3.1 U	3.2 U	2.9 U	3 U	**6.8 J**	**2.7**	**1.1 J**
Vanadium	mg/kg	**21.8**	**23.4**	**18**	**23**	**16**	**8.8**	**6.6**	**26.9**	**16**	**11.5**	**26.2**	**14.8**	**11.8**	**9.9**	**8.4**	**18.8**	**10.9**	**6.2**
Zinc	mg/kg	**69.4**	**67.8**	**55.7**	**66.2**	**42**	**21.9**	**17**	**72.5**	**39.2**	**22.1 J**	**62.1 J**	**39.7 J**	**26.7**	**20.1 J**	**17.2 J**	**61.6**	**30.5**	**17.9**
Cyanide, Total	mg/kg	3 U	3.1 U	3.1 U	3.5 U	3 U	2.8 U	2.9 U	3 U	3.2 U	3 U	3.1 U	3.2 U	3.2 U	2.9 U	2.9 U	3.1 U	2.5 U	2.5 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113	GC-SD113	GC-SD34B
Sample Number:	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0	D-03152010-02	GC-SD034B-08.1-09.9
Sample Depth:	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15	13.3-15	8.1-9.9
Sample Date:	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/24/2010
Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Metals**																
Aluminum	mg/kg	**3,370**	**3,570**	**5,450 J**	**4,780 J**	**2,800 J**	**5,970 J**	**5,400**	**2,950**	**5,050**	**6,010**	**13,800**	**4,550**	**3,150**	**5,210**	**3,100**	**3,320**	**3,190**	**2,850**
Antimony	mg/kg	7.2 UJ	6.6 UJ	7.3 UJ	7.2 UJ	6.7 UJ	7 UJ	7.2 UJ	**0.82 J**	7 UJ	6.7 UJ	7.8 UJ	7.1 UJ	6.8 UJ	7.2 UJ	7.3 UJ	6.6 UJ	6.8 UJ	7.6 U
Arsenic	mg/kg	**6.9**	**1.8**	**4**	**4.1**	**3.3**	**3.9**	**2.3**	**6.2**	**6.9**	**7.1**	**3.4**	**3.3**	**13.5**	**8.3**	**12.2**	**9.6**	**14**	**8.4**
Barium	mg/kg	**19.8 J**	**23.1 J**	**39.6 J**	**40.2 J**	22.4 UJ	**55.7 J**	**107 J**	**29.6 J**	**48.4 J**	**13.4 J**	**52.5 J**	**21.9 J**	**17.6 J**	**50.4 J**	**24.6 J**	**28.2 J**	**32.7 J**	**18.7 J**
Beryllium	mg/kg	**0.31 J**	**0.29 J**	0.61 U	0.6 U	0.56 U	0.59 U	**0.48 J**	**0.3 J**	**0.39 J**	**0.48 J**	**0.75**	**0.33 J**	**0.27 J**	**0.26 J**	**0.22 J**	**0.23 J**	**0.25 J**	**0.15 J**
Cadmium	mg/kg	0.6 U	0.55 U	0.61 U	0.6 U	0.56 U	0.59 U	0.6 U	0.57 U	0.58 U	0.56 U	0.65 U	0.59 U	0.57 U	0.6 U	0.6 U	0.55 U	0.57 U	0.64 U
Calcium	mg/kg	**923**	**4,530**	**1,880**	**1,100**	560 U	**777**	**651**	**481 J**	**1,380**	**248 J**	**2,680**	**1,720**	**941**	**1,350**	**524 J**	**725**	**559 J**	637 U
Chromium	mg/kg	**7.5**	**8.6**	**10.6**	**10.1**	**6.9**	**12.6**	**11.7**	**6.4**	**11.1**	**9.8**	**20**	**9**	**6.5**	**9.1**	**7.2**	**7.6**	**7.3**	**6.3**
Cobalt	mg/kg	**4.1 J**	**3.6 J**	6.1 U	6 U	5.6 U	**6.6**	**4.7 J**	**3.4 J**	**4.8 J**	**7.4 J**	**13**	**5.2 J**	**3.4 J**	**3.7 J**	**2.5 J**	**2.9 J**	**2.8 J**	**2.4 J**
Copper	mg/kg	**6.7 J**	**8.8 J**	**12.4**	**9.6**	**4.5**	**10.4**	**8.6**	**5.3**	**12.4**	**10.8**	**30.8**	**7.9**	**6.3**	**7**	**5.1**	**6.9**	**6.5**	**3.9**
Iron	mg/kg	**11,200**	**8,810**	**11,500 J**	**10,200 J**	**7,060 J**	**11,800 J**	**8,630**	**8,550**	**12,400**	**14,100**	**30,100**	**11,600**	**9,700**	**8,610**	**10,700**	**8,570**	**11,300**	**6,890**
Lead	mg/kg	**5.8**	**4.6**	8.1 R	6.1 R	4.1 R	7.1 R	**6.8**	**4.2**	**7.2**	**6.8**	**13**	**5.7**	**4.1**	**9.2**	**3.6**	**3.6**	**3.9**	**6**
Magnesium	mg/kg	**1,560**	**3,380**	**3,070**	**2,430**	**1,190**	**2,490**	**2,150**	**1,440**	**2,810**	**1,880**	**5,510**	**1,990**	**1,590**	**1,800**	**1,450**	**1,880**	**1,650**	**1,070**
Manganese	mg/kg	**255**	**235**	**113**	**84.5**	**77.2**	**128**	**70.4**	**174**	**269**	**99.3**	**298**	**108**	**349**	**63**	**67.4**	**94.2**	**82.2**	**68.4**
Mercury	mg/kg	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U	0.12 U	**0.075 J**	0.12 UJ	0.12 UJ	0.12 UJ	0.13 UJ	0.12 UJ	0.12 UJ	0.12 UJ	0.12 UJ	0.12 UJ	0.12 UJ	0.13 U
Nickel	mg/kg	**10.4**	**14.7**	**14.1**	**12.1**	**8.4**	**15.3**	**14.2**	**8.8**	**15.2**	**11.7**	**27.7**	**10.5**	**9.6**	**9.9**	**8**	**10.2**	**9.5**	**5.7**
Potassium	mg/kg	**745 J**	**905 J**	**1,040**	**964**	**605**	**1,100**	**971**	**661**	**1,250**	**1,130**	**2,670**	**881**	**711**	**893**	**598 J**	**763**	**642**	**539 J**
Selenium	mg/kg	**1.1 J**	**0.54 J**	**1.1 J**	**0.89 J**	**0.6 J**	**1 J**	4.2 U	4 U	4.1 U	3.9 U	4.5 U	4.1 U	4 U	4.2 U	4.2 U	3.8 U	4 U	4.5 U
Silver	mg/kg	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.3 U	1.2 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.3 U
Sodium	mg/kg	596 U	548 U	**711**	**736**	560 U	**645**	598 U	570 U	**605**	**645**	**1,250**	589 U	567 U	**640**	617 U	549 U	571 U	637 U
Thallium	mg/kg	**3**	**2.8**	**1.7 J**	**1.4 J**	**0.82 J**	**2.1 J**	3 U	2.8 U	**0.88 J**	2.9 U	3.2 U	2.9 U	2.8 U	3 U	3.1 U	2.7 U	2.9 U	3.2 U
Vanadium	mg/kg	**12.4**	**11.8**	**14**	**13.7**	**8.4**	**18.3**	**18.9**	**8.7**	**18**	**15.7**	**26.2**	**12.7**	**9.9**	**12**	**9.7**	**10.9**	**11.3**	**6.9**
Zinc	mg/kg	**25.3**	**23.2**	**42.7**	**40.1**	**22.2**	**41.2**	**31.1**	**54.2**	**30.3**	**31.4**	**70.2**	**29**	**22.1**	**28.4**	**22.8**	**19.7**	**21.1**	**15.9**
Cyanide, Total	mg/kg	2.9 U	2.7 U	3 U	3 U	2.8 U	3 U	2.9 UJ	2.8 UJ	3 UJ	2.8 UJ	3.2 UJ	3.1 UJ	2.8 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.9 UJ	3.2 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114
Sample Number:		GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2	GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01	GC-SD114-07.2-09.2
Sample Depth:		5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2	3.2-5.2	5.2-7.2	5.2-7.2	7.2-9.2
Sample Date:		3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**4,150**	**2,450**	**2,210**	**5,070**	**3,840**	**3,330**	**3,600**	**6,160**	**5,230**	**5,730**	**7,150**	**2,880**	**5,290**	**2,140**	**5,480**	**7,580**	**6,180**	**6,330**
Antimony	mg/kg	**1.1 J**	8.1 U	6.7 UJ	**0.6 J**	7 UJ	6.8 UJ	7.5 UJ	**0.45 J**	**0.42 J**	8.2 UJ	8.8 UJ	7.5 UJ	**0.39 J**	**0.45 J**	**0.5 J**	**0.58 J**	**0.51 J**	**0.41 J**
Arsenic	mg/kg	**12.5**	**15.8**	**14.2**	**12**	**11.3**	**3.6**	**4.1**	**3.2**	**4.9**	**8.2**	**10.5**	**2.7**	**5.8**	**7**	**4.7**	**2.3**	**2.5**	**2.4**
Barium	mg/kg	**57.3 J**	**34.8 J**	**17.6 J**	**56.8**	**40.6**	**11.7 J**	**15.7 J**	**19.7 J**	**28.1**	**18.3 J**	**25.6 J**	**15.5 J**	**19.6 J**	**11.7 J**	**30.8**	**44.2**	**36.6**	**58.2**
Beryllium	mg/kg	**0.31 J**	**0.16 J**	0.56 U	**0.33 J**	**0.22 J**	**0.13 J**	**0.12 J**	**0.4 J**	**0.24 J**	**0.25 J**	**0.35 J**	**0.072 J**	**0.23 J**	**0.067 J**	**0.24 J**	**0.34 J**	**0.26 J**	**0.26 J**
Cadmium	mg/kg	0.73 U	0.67 U	0.56 U	0.58 U	0.58 U	**0.1 J**	0.62 U	0.6 U	0.59 U	0.68 U	0.73 U	0.62 U	0.61 U	0.59 U	0.62 U	0.6 U	0.61 U	0.6 U
Calcium	mg/kg	**1,510**	**753**	**562 J**	**658**	580 U	569 U	622 U	**811**	**6,800**	**837**	**1,080**	623 U	**1,200**	621 U	**4,580**	**5,940**	**4,720**	**8,580**
Chromium	mg/kg	**13.1**	**8.2**	**4.7**	**11.2**	**8.7**	**7.2**	**11.3**	**16.6**	**11.3**	**13.6**	**17.8**	**7.3**	**13.6**	**10.5**	**16.1**	**22.6**	**18.3**	**16.2**
Cobalt	mg/kg	**3.4 J**	**2.3 J**	**1.7 J**	**5.7 J**	**3.7 J**	**6.8**	**2.3 J**	**5.2 J**	**5.3 J**	**4.2 J**	**5.5 J**	**4.4 J**	**5.4 J**	**2.1 J**	**5.7 J**	**7.8**	**6.2**	**7.4**
Copper	mg/kg	**43.5 J**	**4.2 J**	**3.5 J**	**10.3**	**6.3**	**5.9**	**5.5**	**14.1**	**15.6**	**8**	**11.4**	**4**	**15.6**	**2.4 J**	**16.2**	**17.9**	**14.6**	**15.1**
Iron	mg/kg	**9,930**	**8,190**	**6,400**	**13,600**	**9,800**	**5,850**	**6,320**	**8,200**	**12,600**	**13,800**	**17,500**	**5,520**	**10,900**	**3,980**	**11,400**	**15,600**	**13,200**	**13,800**
Lead	mg/kg	**315**	**4.4**	**2.8**	**6.8**	**4.8**	**7.1**	**6.4**	**7**	**5.2**	**7**	**12.9**	**3.4**	**5.7**	**2.3**	**5.7**	**6.8**	**5.4**	**5.7**
Magnesium	mg/kg	**2,100**	**1,170**	**1,240**	**2,400**	**1,920**	**1,070**	**1,320**	**3,290**	**5,600**	**2,510**	**3,100**	**1,260**	**2,690**	**943**	**5,280**	**7,910**	**6,130**	**8,240**
Manganese	mg/kg	**96**	**69.1**	**54.1**	**89.2**	**75.3**	**49**	**76.5**	**77**	**230**	**115**	**152**	**40.8**	**98.5**	**42.5**	**158**	**211**	**165**	**264**
Mercury	mg/kg	**0.68**	0.13 U	0.11 U	0.12 U	0.12 U	0.11 U	0.13 U	0.12 U	0.12 U	0.14 U	0.15 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**10.8**	**6**	**7.6**	**12.9**	**10.1**	**7.1**	**7**	**25.4**	**19.2**	**11**	**13.3**	**7**	**14.4**	**4.3 J**	**22.2**	**36.3**	**26**	**38.4**
Potassium	mg/kg	**918 J**	672 UJ	562 UJ	**928**	**673**	**576**	**621 J**	**1,060**	**1,610**	**1,280**	**1,570**	**396 J**	**764**	**348 J**	**1,580**	**2,470**	**1,960**	**1,980**
Selenium	mg/kg	**1.2 J**	**0.92 J**	**0.74 J**	4.1 U	4.1 U	4 U	4.4 U	4.2 U	4.1 U	4.8 U	5.1 U	4.4 U	4.3 U	4.1 U	4.3 U	4.2 U	4.3 U	4.2 U
Silver	mg/kg	1.5 U	1.3 U	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.4 U	1.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Sodium	mg/kg	**2,140**	**950**	562 U	**970**	**670**	569 U	**1,200**	**1,280**	**1,070**	**2,580**	**3,090**	**1,350**	**1,050**	**974**	**1,310**	**1,420**	**1,310**	**1,060**
Thallium	mg/kg	**2.9 J**	**2.2 J**	**1.6 J**	2.9 U	2.9 U	2.8 U	3.1 U	3 U	**1.1 J**	3.4 U	3.6 U	3.1 U	3.1 U	3 U	3.1 U	**1.8 J**	3.1 U	**1.1 J**
Vanadium	mg/kg	**14.9**	**8.6**	**6.6**	**15.6**	**11.3**	**6.4**	**11.1**	**24.6**	**14.8**	**14.6**	**17.6**	**7.7**	**25.1**	**8.3**	**23**	**21.6**	**18.5**	**16.8**
Zinc	mg/kg	**104**	**19.2**	**16.8**	**37.9**	**27.9**	**18.9**	**19.2**	**32.2**	**24.4**	**28.5**	**38.3**	**16.2**	**31.6**	**12.3**	**26.4**	**35.3**	**29.7**	**30.7**
Cyanide, Total	mg/kg	3.6 U	3.3 U	2.8 U	2.8 U	3 U	2.7 U	3.1 U	3 U	3.1 U	3.4 U	3.8 U	**0.23 J**	2.9 U	3.1 U	3.1 U	3 U	3 U	3.1 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116	GC-SD116
Sample Number:		GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01	GC-SD116-10.5-12.5
Sample Depth:		9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5	10.5-12.5
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,980**	**4,700**	**5,070**	**6,840**	**6,210**	**5,240**	**5,960**	**8,520**	**6,380**	**4,010**	**5,440**	**5,690**	**14,000**	**4,200**	**3,070**	**3,440**	**3,640**	**2,720**
Antimony	mg/kg	7.1 UJ	7.1 UJ	7.1 UJ	7.3 U	6.8 U	6.9 U	**0.4 J**	7.9 U	6.8 U	**0.39 J**	7.1 U	**0.52 J**	**0.7 J**	7.4 U	7 U	6.9 U	7.6 U	6.9 U
Arsenic	mg/kg	**2.1**	**2.6**	**2**	**2.9**	**1.7**	**1.2**	**6.6**	**6.3**	**5.1**	**2.6**	**1.8**	**1.6**	**11.6**	**6.9**	**3.6**	**3**	**3.1**	1.1 U
Barium	mg/kg	**27.3**	**32.5**	**54.4**	**40.4**	**28.3**	**23.4**	**37.2**	**40.9**	**41.9**	**32**	**41.3**	**44.8**	**40.9**	**15.4 J**	**10.5 J**	**22.2 J**	**18.3 J**	**12.3 J**
Beryllium	mg/kg	**0.18 J**	**0.23 J**	**0.22 J**	**0.45 J**	**0.36 J**	**0.27 J**	**0.26 J**	**0.46 J**	**0.34 J**	**0.19 J**	**0.25 J**	**0.29 J**	**0.65 J**	**0.18 J**	0.58 U	0.57 U	0.63 U	0.57 U
Cadmium	mg/kg	0.59 U	0.59 U	0.59 U	**0.032 J**	**0.057 J**	**0.036 J**	**0.075 J**	**0.2 J**	**0.032 J**	0.58 U	**0.051 J**	**0.034 J**	**0.21 J**	**0.034 J**	0.58 U	0.57 U	0.63 U	0.57 U
Calcium	mg/kg	**9,700**	**10,800**	**2,100**	611 U	**1,460**	**3,740**	**809**	**1,230**	**4,810**	**9,370**	**13,900**	**14,000**	**1,790**	**803**	582 U	575 U	632 U	**661**
Chromium	mg/kg	**8**	**9.5**	**10.4**	**15.6**	**11.9**	**13.5**	**13.3**	**18**	**19.8**	**8.8**	**10.5**	**11.4**	**30.8**	**10.8**	**6**	**9.1**	**9.6**	**6.9**
Cobalt	mg/kg	**4.2 J**	**4.8 J**	**5.4 J**	**6.1**	**6.8**	**5.7 J**	**4.2 J**	**6 J**	**6.5**	**4.6 J**	**5 J**	**5.4 J**	**8.5**	**3.3 J**	5.8 U	**5.8**	**8.1**	5.7 U
Copper	mg/kg	**9.7**	**12.7**	**14.1**	**9.9**	**12.7**	**13.2**	**6.2**	**12.8**	**13.4**	**10.4**	**14.3**	**15.4**	**15.7**	**5.3**	**5.2**	**6.8**	**7.7**	**5.5**
Iron	mg/kg	**8,160**	**9,490**	**10,200**	**9,130**	**11,000**	**11,000**	**10,300**	**11,900**	**12,500**	**7,460**	**10,100**	**10,900**	**29,800**	**8,630**	**5,300**	**6,820**	**6,960**	**6,080**
Lead	mg/kg	**3.5**	**5**	**4.7**	**7.8**	**7.5**	**5.4**	**9.4**	**9.2**	**7.3**	**3.5**	**4.6**	**4.9**	**13**	**4.9**	**4.4**	**5.5**	**5.9**	**4**
Magnesium	mg/kg	**4,810**	**5,570**	**3,600**	**2,460**	**3,260**	**5,010**	**2,240**	**3,500**	**5,050**	**5,770**	**6,300**	**6,630**	**5,480**	**1,850**	**1,060**	**1,720**	**1,870**	**1,660**
Manganese	mg/kg	**215**	**231**	**149**	**76.1**	**114**	**166**	**91**	**131**	**168**	**246**	**249**	**264**	**221**	**74.1**	**50**	**56.2**	**57.4**	**57.3**
Mercury	mg/kg	0.11 U	0.12 U	0.12 U	0.12 U	0.11 U	0.11 U	0.13 U	0.13 U	0.11 U	0.12 U	0.12 U	0.12 U	0.17 U	0.13 U	0.12 U	0.12 U	0.13 U	0.11 U
Nickel	mg/kg	**13.5**	**14.8**	**18**	**14.4**	**18**	**21.1**	**9.5**	**16.2**	**22.9**	**25.9**	**15.3**	**17**	**22.6**	**7.2**	**6.1**	**13.8**	**21.4**	**10.8**
Potassium	mg/kg	**1,190**	**1,450**	**1,440**	**1,380**	**1,180**	**1,400**	**1,020**	**1,630**	**1,810**	**1,160**	**1,570**	**1,670**	**3,020**	**866**	**583 J**	**699 J**	**746 J**	**629 J**
Selenium	mg/kg	4.1 U	4.2 U	4.1 U	4.3 U	4 U	4.1 U	4.6 U	4.6 U	4 U	4 U	4.1 U	4.2 U	5.9 U	4.3 U	**0.46 J**	**0.5 J**	**0.67 J**	4 U
Silver	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.3 U	1.1 U	1.2 U	1.2 U	1.2 U	1.7 U	1.2 U	1.2 U	1.1 U	1.3 U	1.1 U
Sodium	mg/kg	**656**	**650**	**709**	**1,270**	**881**	**775**	**2,000**	**2,090**	**1,310**	**948**	**1,150**	**1,230**	**5,220**	**1,920**	**922**	**1,090**	**1,310**	**946**
Thallium	mg/kg	3 U	3 U	3 U	3.1 U	2.8 U	2.9 U	3.3 U	3.3 U	**0.84 J**	2.9 U	3 U	3 U	**1.2 J**	3.1 U	**1 J**	**1.3 J**	**0.86 J**	**1.1 J**
Vanadium	mg/kg	**10.1**	**11.6**	**12.2**	**22.9**	**22.1**	**14.5**	**14**	**23.6**	**22.2**	**9.8**	**12.5**	**13.5**	**30.1**	**11.2**	**9.9**	**13.3**	**15**	**9.6**
Zinc	mg/kg	**20**	**21.8**	**24.5**	**33.2**	**35**	**25.2**	**29.8**	**43.4**	**30.8**	**17**	**24.1**	**25.5**	**61.9**	**20.6**	**18.8**	**27.4**	**28.7**	**19.5**
Cyanide, Total	mg/kg	**0.19 J**	3 U	3 U	3.1 U	2.8 U	2.8 U	3.1 U	3.2 U	2.9 U	2.7 U	3 U	3 U	**0.32 J**	3.2 U	2.9 U	3 U	3.2 U	2.8 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A	GC-SD47A
Sample Number:		GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4	D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6	GC-SD047A-02.6-04.6
Sample Depth:		12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4	7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6	2.6-4.6
Sample Date:		3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,880**	**4,300**	**4,830**	**4,180**	**3,280**	**4,640**	**3,860**	**3,190**	**3,370 J**	**6,500 J**	**5,770**	**8,500 J**	**3,990 J**	**3,840**	**4,440**	**5,680**	**14,700**	**12,300**
Antimony	mg/kg	6.7 U	7.2 U	7 UJ	6.9 UJ	6.7 UJ	7 U	7.3 U	682 U	6.9 UJ	6.9 UJ	7.2 U	7.4 UJ	7 UJ	7.6 U	7.8 U	7.7 U	**1.1 J**	**1.1 J**
Arsenic	mg/kg	**2.8**	**1.5**	**3.1**	**0.99 J**	**2.1**	**2.4**	**8.5**	**5**	**3.9**	**2.7**	**1.4**	**5.7**	**3.9**	**4.7**	**7.4**	**13.8**	**11.8**	**12.5**
Barium	mg/kg	**35.7 J**	**33.2 J**	**21.4 J**	**18.9 J**	**21 J**	**9.8 J**	**9.6 J**	**8.3 J**	23.1 UJ	22.9 UJ	**13.1 J**	**31.2 J**	23.2 UJ	**14.5 J**	**37.3**	**30.4**	**36.8 J**	**44.5**
Beryllium	mg/kg	0.56 U	0.6 U	0.58 U	0.57 U	0.56 U	0.58 U	0.61 U	0.57 U	0.58 U	0.57 U	0.6 U	0.62 U	0.58 U	**0.16 J**	**0.25 J**	**0.48 J**	0.98 U	0.89 U
Cadmium	mg/kg	0.56 U	0.6 U	0.58 U	0.57 U	0.55 U	0.58 U	0.61 U	0.57 U	0.58 U	0.57 U	0.6 U	0.62 U	0.58 U	**0.032 J**	**0.087 J**	**0.1 J**	0.98 U	0.89 U
Calcium	mg/kg	**7,510**	**15,000**	582 U	574 U	555 U	584 U	610 U	569 U	576 U	574 U	597 U	**3,440**	**731**	805 U	**1,050**	**1,360**	**2,120**	**2,160**
Chromium	mg/kg	**8.9**	**8.8**	**11**	**6.9**	**6.3**	**9.1**	**11.4**	**9**	**7.2**	**11.5**	**9.7**	**14.5**	**8.6**	**8.4**	**12**	**13.2**	**30.7**	**30**
Cobalt	mg/kg	5.6 U	6 U	**2.7 J**	**2.1 J**	**2.2 J**	5.8 U	**15.6**	**3.1 J**	5.8 U	5.7 U	6 U	**9.1**	5.8 U	**2.7 J**	**3.1 J**	**5.6 J**	**9.4 J**	**8.6 J**
Copper	mg/kg	**12.2**	**16**	**3.6**	**4.5**	**3.8**	**6**	**9.9**	**7.4**	**4.9**	**11.1**	**10.1**	**21**	**6.4**	**4.9**	**6.9**	**11.1**	**17.7**	**15.8**
Iron	mg/kg	**9,320**	**9,860**	**6,420**	**5,220**	**6,660**	**7,320**	**5,470**	**5,660**	**8,160 J**	**15,100 J**	**11,200**	**23,500 J**	**10,800 J**	**8,190**	**6,760**	**9,440**	**32,900**	**29,800**
Lead	mg/kg	**4.7**	**4.5**	**4.2**	**3.7**	**3.2**	**5.9**	**5.8**	**4**	4 R	6.4 R	**6**	10.4 R	4.5 R	**5.9**	**4.3**	**5.8**	**17.1**	**12.7**
Magnesium	mg/kg	**4,470**	**7,300**	**1,450**	**1,340**	**1,030**	**1,350**	**1,460**	**1,510**	**970**	**2,110**	**2,020**	**4,870**	**1,860**	**1,390**	**1,660**	**2,560**	**6,440**	**5,170**
Manganese	mg/kg	**204**	**305**	**85.6**	**46.8**	**50.1**	**45.2**	**49.1**	**49.9**	**41.1**	**88.4**	**66.1**	**686**	**138**	**87.7**	**74.9**	**78.7**	**279**	**266**
Mercury	mg/kg	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.13 U	0.2 U	0.18 U
Nickel	mg/kg	**17**	**28.8**	**8.1**	**7**	**6.3**	**6.9**	**33.9**	**13.6**	**6.9**	**12.5**	**11.8**	**20.3**	**10**	**6.6**	**7.7**	**13**	**26.5**	**22.3**
Potassium	mg/kg	**1,220 J**	**1,400 J**	**747**	**790**	**628**	**653 J**	**741 J**	**648 J**	**749**	**1,290**	**1,010 J**	**1,580**	**710**	**772**	**733**	**891**	**3,310 J**	**2,600 J**
Selenium	mg/kg	**0.77 J**	4.2 U	4.1 U	4 U	3.9 U	**0.54 J**	**0.66 J**	**0.55 J**	**0.79 J**	**1.4 J**	**0.69 J**	**1.5 J**	**0.74 J**	**0.75 J**	**1 J**	4.5 U	**1.1 J**	6.2 U
Silver	mg/kg	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U	1.3 U	2 U	1.8 U
Sodium	mg/kg	**1,220**	**1,260**	**728**	**680**	555 U	**1,200**	**1,510**	**866**	**676**	**959**	**893**	**1,240**	**911**	**739**	**1,410**	**1,850**	**7,070**	**5,820**
Thallium	mg/kg	**1.8 J**	**2.5 J**	2.9 U	2.9 U	2.8 U	**1.1 J**	3 U	2.8 U	**1.1 J**	**3.1 J**	**2.5 J**	**5.8 J**	**1.5 J**	3.2 U	3.3 U	3.2 U	4.9 U	**2.2 J**
Vanadium	mg/kg	**11.2**	**10.8**	**7.8**	**6.3**	**8.6**	**13.8**	**16.4**	**9**	**12.4**	**18.7**	**14.2**	**17.8**	**11.3**	**10.5**	**17.1**	**25.7**	**37.6**	**30**
Zinc	mg/kg	**24.4**	**27.4**	**18.2**	**18.8**	**15**	**22.8**	**36**	**21.2**	**23.7**	**36.8**	**35.6**	**58**	**48.6**	**18.8**	**21.4**	**46.7**	**65.7**	**57**
Cyanide, Total	mg/kg	2.9 U	2.9 U	2.9 U	2.9 U	2.8 U	3 U	3 U	2.8 U	2.8 U	2.8 U	3 U	3.1 U	2.9 U	3.1 U	3.3 U	**0.23 J**	4.8 U	4.2 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A	GC-SD51A
Sample Number:		GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4	GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4	GC-SD051A-06.4-08.4
Sample Depth:		4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4	11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4	6.4-8.4
Sample Date:		3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**5,120**	**6,300**	**5,210**	**4,430**	**4,990**	**13,300**	**5,060**	**3,640**	**3,140**	**3,020**	**7,430**	**3,120**	**2,690**	**2,770**	**2,880**	**2,630**	**3,130**	**5,640**
Antimony	mg/kg	**0.44 J**	**0.59 J**	**0.62 J**	**0.53 J**	**0.42 J**	**0.68 J**	7.9 U	8 U	6.6 U	6.7 U	**0.72 J**	**0.47 J**	7.2 UJ	7 UJ	**0.32 J**	8.1 UJ	7 UJ	6.9 UJ
Arsenic	mg/kg	**7**	**2.1**	**1.6**	**1.7**	**1.2**	**10.9**	**15.3**	**14.2**	**5.1**	**4.5**	**15.9**	**8.7**	**2.4**	**1.4**	**1.1**	**15.7**	**1.3**	**3.9**
Barium	mg/kg	**27.7**	**45.5**	**40.4**	**31.5**	**43.1**	**43.4**	**27.8**	**18.2 J**	**12.1 J**	**12.1 J**	**42.6**	**26.7**	**20 J**	**17.6 J**	**17.6 J**	**32.7 J**	23.5 UJ	**28.6 J**
Beryllium	mg/kg	0.65 U	0.62 U	0.61 U	0.6 U	0.59 U	**0.61 J**	**0.23 J**	**0.17 J**	**0.16 J**	**0.16 J**	0.76 U	0.65 U	0.6 U	0.58 U	0.56 U	0.68 U	0.59 U	0.58 U
Cadmium	mg/kg	**0.038 J**	0.62 U	0.61 U	0.6 U	0.59 U	**0.38 J**	**0.017 J**	**0.036 J**	0.55 U	0.56 U	**0.036 J**	**0.021 J**	0.6 U	0.58 U	0.56 U	**0.2 J**	0.59 U	**0.084 J**
Calcium	mg/kg	**927**	**12,200**	**11,800**	**13,100**	**13,200**	**2,000**	**859**	668 U	**679**	**829**	**1,370**	**1,060**	**617**	**636**	**625**	**4,370**	587 U	**994**
Chromium	mg/kg	**15**	**13.8**	**12.7**	**8.7**	**10**	**27.9**	**10.9**	**8.2**	**11**	**8.4**	**21.8**	**13.6**	**11.6**	**8.5**	**7.7**	**9.3**	**8.2**	**14.5**
Cobalt	mg/kg	**4.3 J**	**6.5**	**6 J**	**4.4 J**	**4.9 J**	**8.6**	**3.7 J**	**5.4 J**	**5.7**	**4.8 J**	**6.9 J**	**5.7 J**	**4 J**	**3.2 J**	**2.4 J**	**4.2 J**	**2.9 J**	**7.4**
Copper	mg/kg	**13.5**	**16.5**	**16.2**	**11.2**	**13.4**	**17.9**	**5.6**	**5.1**	**5**	**7.2**	**9.4**	**5.7**	**5.4**	**5.2**	**4.8**	**14.2**	**5**	**11.6**
Iron	mg/kg	**10,800**	**13,100**	**11,200**	**9,210**	**9,850**	**29,100**	**11,600**	**6,940**	**5,590**	**5,130**	**16,600**	**6,610**	**4,700**	**4,730**	**4,700**	**6,310**	**4,560**	**9,680**
Lead	mg/kg	**6.3**	**5.7**	**4.8**	**4.3**	**4.7**	**21.7**	**5.5**	**3.9**	**4**	**3.8**	**12.4**	**4.8**	**3.7**	**3.7**	**3.5**	**42 J**	**3.6 J**	**7.1 J**
Magnesium	mg/kg	**2,280**	**7,460**	**8,410**	**5,890**	**6,200**	**5,300**	**1,740**	**1,500**	**4,200**	**3,610**	**3,160**	**1,960**	**1,970**	**2,230**	**1,630**	**1,280**	**1,280**	**2,810**
Manganese	mg/kg	**77.8**	**283**	**237**	**213**	**224**	**270**	**64.1**	**41.3**	**47.9**	**50.2**	**113**	**54.6**	**43.1**	**45.6**	**110**	**53.9**	**45.7**	**117**
Mercury	mg/kg	0.13 U	0.12 U	0.12 U	0.12 U	0.12 U	**0.16 J**	0.13 U	0.13 U	0.11 U	0.11 U	0.16 U	0.13 U	0.11 U	0.11 U	0.11 U	ND	**0.06 J**	0.11 U
Nickel	mg/kg	**10.8**	**26.1**	**37.3**	**14.9**	**16.9**	**23.5**	**8.3**	**10.7**	**39.2**	**24.1**	**14.7**	**12.8**	**13.3**	**14.3**	**9.5**	**7.7**	**9.3**	**15.6**
Potassium	mg/kg	**956 J**	**1,900 J**	**1,430 J**	**1,260 J**	**1,520 J**	**2,900**	**945**	**615 J**	**715**	**663**	**1,410 J**	**429 J**	**400 J**	**488 J**	**507 J**	678 U	**588**	**1,120**
Selenium	mg/kg	4.5 U	4.3 U	4.3 U	4.2 U	4.2 U	5.6 U	4.6 U	4.7 U	3.8 U	3.9 U	**1.1 J**	4.5 U	4.2 U	4.1 U	3.9 U	4.7 U	4.1 U	4 U
Silver	mg/kg	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	**0.11 J**	1.3 U	1.3 U	1.1 U	1.1 U	1.5 U	1.3 U	1.2 U	1.2 U	1.1 U	**0.068 J**	1.2 U	1.2 U
Sodium	mg/kg	**2,140**	**1,270**	**1,020**	**726**	**698**	**3,380**	**1,030**	**825**	**646**	**624**	**2,400**	**1,180**	**689**	**621**	559 U	**1,640**	**597**	**781**
Thallium	mg/kg	3.2 U	**1.4 J**	**0.95 J**	**1.2 J**	**1.3 J**	4 U	3.3 U	3.3 U	2.7 U	2.8 U	3.8 U	3.2 U	3 U	2.9 U	2.8 U	3.4 U	2.9 U	2.9 U
Vanadium	mg/kg	**17.5**	**16**	**13.9**	**10.9**	**11.8**	**32.3**	**11.4**	**10.9**	**10.6**	**10.2**	**25.9**	**18.7**	**9.2**	**7.3**	**6.1**	**11.2**	**7.3**	**21.8**
Zinc	mg/kg	**24.6**	**30.1**	**24.3**	**23.1**	**23.5**	**65.1**	**22.5**	**24.2**	**16.4**	**17.9**	**39.6**	**24.2**	**19.4**	**17.6**	**17.8**	**44.7**	**18.4**	**38.6**
Cyanide, Total	mg/kg	3.2 U	3.1 U	**0.59 J**	3.1 U	3 U	**1.3 J**	3.3 U	**0.25 J**	2.7 U	2.9 U	3.9 U	3.2 U	2.9 U	2.9 U	2.8 U	3.3 U	2.8 U	2.8 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A	GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B	GC-SD54B
Sample Number:		GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2	GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5	GC-SD054B-06.5-08.5
Sample Depth:		8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2	11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5	6.5-8.5
Sample Date:		3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010	3/29/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,890**	**4,850**	**3,910**	**6,290**	**6,500**	**3,530**	**3,320**	**2,960**	**10,600**	**4,110**	**3,840**	**3,370**	**5,400**	**6,580**	**7,370**	**4,740**	**13,900**	**11,900**
Antimony	mg/kg	7.2 UJ	7.2 UJ	6.9 UJ	6.9 UJ	7.2 UJ	698 U	711 UJ	690 UJ	7.2 UJ	7 UJ	6.9 UJ	7.1 UJ	766 U	7.7 U	8.4 U	8.3 U	9.4 U	9.8 U
Arsenic	mg/kg	**0.4 J**	**3.7**	**1.4**	**4.3**	**4.2**	**2.2**	**1.3**	**1.3**	**4.2**	**5.6**	**4.5**	**2.3**	**4.5**	**5.9**	**6.6**	**5.7**	**10.6**	**9.8**
Barium	mg/kg	23.9 UJ	**16.6 J**	**14 J**	**33.2**	**42**	**21.8 J**	**18.7 J**	**15.9 J**	**14.4 J**	**6.9 J**	**10.4 J**	**19 J**	**34.1 J**	25.7 UJ	28.1 UJ	**34.5 J**	**33.3 J**	**57.4 J**
Beryllium	mg/kg	0.6 U	0.6 U	0.57 U	0.58 U	0.6 U	0.58 U	0.59 U	0.57 U	0.6 U	**0.37 J**	**0.22 J**	**0.21 J**	**0.52 J**	**0.28 J**	**0.35 J**	**0.2 J**	0.79 U	0.81 U
Cadmium	mg/kg	0.6 U	**0.12 J**	0.57 U	0.58 U	**0.025 J**	0.58 U	0.59 U	0.57 U	0.6 U	0.58 U	0.57 U	0.59 U	0.64 U	**0.49 J**	**0.51 J**	**0.25 J**	**0.25 J**	**0.31 J**
Calcium	mg/kg	**653**	602 U	575 U	**830**	**1,350**	581 U	593 U	575 U	602 U	582 U	573 U	590 U	638 U	**924**	**1,050**	**1,160**	**1,590**	**1,780**
Chromium	mg/kg	**8.8**	**9.8**	**7.1**	**17.6**	**17.6**	**9.9**	**6.9**	**5.8**	**16**	**8**	**8.7**	**6.8**	**14.6**	**14.3**	**17.1**	**14.2**	**26.7**	**26.7**
Cobalt	mg/kg	**3.9 J**	**4.1 J**	**2.9 J**	**6.5**	**6.8**	**1.8 J**	**2.4 J**	**1.9 J**	**10.3**	**4 J**	**2.9 J**	**1.8 J**	**6.6**	**4.2 J**	**5.2 J**	**3.3 J**	**8.3**	**7.7 J**
Copper	mg/kg	**7.9**	**18.8**	**4.5**	**8.9**	**11.9**	**4.9**	**5.2**	**4.5**	**23.1**	**7.3**	**5.1**	**4.8**	**9.3**	**8.9**	**9.2**	**5.1**	**18**	**13.7**
Iron	mg/kg	**7,110**	**10,500**	**7,220**	**9,300**	**10,500**	**6,110**	**6,930**	**6,220**	**18,700**	**11,500**	**7,710**	**6,700**	**8,290**	**15,100**	**16,200**	**8,730**	**23,800**	**25,000**
Lead	mg/kg	**9.4 J**	**13.4**	**4.6**	**7**	**7.2**	**4.5 J**	**4.3 J**	**3.4 J**	**10.4 J**	**4.3 J**	**4.1 J**	**3.9 J**	**6.9**	**6.6**	**6.4**	**4.3**	**12.6**	**11**
Magnesium	mg/kg	**1,940**	**1,560**	**1,370**	**2,310**	**3,210**	**1,130**	**1,030**	**900**	**3,550**	**1,250**	**1,210**	**1,070**	**2,010**	**2,610**	**2,770**	**1,670**	**5,030**	**4,330**
Manganese	mg/kg	**90.8**	**64.3**	**45.7**	**63.9**	**84.1**	**44.3**	**66.2**	**63.9**	**148**	**51.9**	**40.1**	**36.5**	**57.8**	**135**	**148**	**60.7**	**182**	**252**
Mercury	mg/kg	0.12 U	0.11 U	0.11 U	0.13 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.14 U	0.14 U	0.16 U	0.17 U
Nickel	mg/kg	**10.6**	**8.6**	**6.6**	**15.1**	**19.7**	**5.8**	**6.4**	**5.8**	**17.1**	**8.3**	**6.9**	**5.8**	**14.5**	**12.2**	**13.3**	**8.3**	**23.9**	**20**
Potassium	mg/kg	**773**	**969**	**843**	**1,390**	**1,470**	**640**	**680**	**607**	**1,310**	**810**	**752**	**716**	**1,130**	**1,450**	**1,520**	**782**	**2,940**	**2,550**
Selenium	mg/kg	4.2 U	4.2 U	4 U	4 U	4.2 U	**0.86 J**	4.2 U	**0.58 J**	**1.6 J**	**0.83 J**	**0.69 J**	**0.55 J**	**0.66 J**	**0.6 J**	**0.68 J**	**0.65 J**	5.5 U	5.7 U
Silver	mg/kg	1.2 U	**0.15 J**	1.1 U	1.2 U	1.2 U	1.2 U	**0.078 J**	1.1 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.3 U	1.4 U	1.4 U	1.6 U	1.6 U
Sodium	mg/kg	**839**	602 U	575 U	577 U	598 U	581 U	593 U	575 U	602 U	582 U	573 U	590 U	**700**	**2,120**	**2,570**	**1,760**	**4,650**	**3,870**
Thallium	mg/kg	3 U	3 U	2.9 U	2.9 U	3 U	2.9 U	3 U	2.9 U	**1.6 J**	**0.57 J**	2.9 U	2.9 U	3.2 U	3.2 U	3.5 U	3.4 U	**1.4 J**	**1.6 J**
Vanadium	mg/kg	**7.7**	**13.7**	**12.9**	**23.7**	**25.9**	**8.6**	**10.4**	**8.7**	**21.4**	**13.8**	**11.8**	**12.3**	**21.7**	**14.9**	**16.5**	**12.6**	**30.2**	**28**
Zinc	mg/kg	**26.8**	**31.1**	**18.2**	**34.2**	**34.4**	**17.5**	**21.6**	**17.9**	**46**	**27.5**	**22.7**	**18.2**	**36**	**33.3 J**	**37.4 J**	**23.7 J**	**64.8**	**56.4**
Cyanide, Total	mg/kg	3 U	3 U	2.8 U	3 U	3 U	3 U	3 U	2.8 U	2.9 U	2.9 U	2.8 U	2.9 U	3.3 U	**0.88 J**	**1.3 J**	**0.63 J**	**0.58 J**	**0.41 J**

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD54B	GC-SD54B	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130	GC-SD131
Sample Number:		GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02	GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8	GC-SD131-01.5-03.5
Sample Depth:		8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8	1.5-3.5
Sample Date:		3/29/2010	3/29/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**7,970**	**3,340**	**3,690**	**3,750**	**3,270**	**2,740**	**2,610**	**1,800**	**3,990**	**3,060**	**2,600**	**8,100**	**4,010**	**3,270**	**6,330**	**2,830**	**1,690**	**16,400**
Antimony	mg/kg	8 UJ	7.8 UJ	6.8 U	6.8 U	692 U	6.8 U	6.7 U	6.7 U	7.2 UJ	**0.33 J**	6.7 UJ	**0.75 J**	7.6 UJ	7.5 UJ	10.3 U	10.4 U	6.9 UJ	**0.59 J**
Arsenic	mg/kg	**1.6**	**8.9**	**4.9**	**6.3**	**2.5**	1.1 U	1.1 U	**3.5**	**2.9**	**4.8**	**1.3**	**11.3**	**2**	**3**	**15.7**	**1.3 J**	**1.9**	**10**
Barium	mg/kg	**144 J**	26 UJ	**11.4 J**	**12 J**	**11 J**	**7.1 J**	**9.9 J**	**4.2 J**	**22.4 J**	**6.4 J**	**10.6 J**	**33.4 J**	**50.6**	**35.8**	**60.3**	**21.3 J**	**7.9 J**	**46**
Beryllium	mg/kg	**0.71**	0.65 U	0.57 U	0.57 U	0.58 U	0.57 U	0.56 U	0.56 U	0.6 U	**0.19 J**	**0.13 J**	**0.44 J**	**0.26 J**	**0.15 J**	**0.35 J**	**0.099 J**	**0.054 J**	0.84 U
Cadmium	mg/kg	**0.2 J**	**0.18 J**	0.57 U	0.57 U	0.58 U	0.57 U	0.56 U	0.56 U	0.6 U	0.58 U	0.56 U	0.93 U	0.63 U	0.63 U	**0.06 J**	0.86 U	0.57 U	0.84 U
Calcium	mg/kg	**1,430**	651 U	**567 J**	566 U	576 U	568 U	**556 J**	**560 J**	604 U	584 U	558 U	**2,170**	**859**	**779**	**3,110**	865 U	573 U	**1,790**
Chromium	mg/kg	**26**	**9.8**	**9.2**	**9.6**	**6.7**	**6.6**	**8.7**	**4.1**	**10.6**	**11.1**	**9.4**	**23.8**	**10.6**	**8.7**	**42.6**	**30.4**	**7.5**	**30.7**
Cobalt	mg/kg	**5.9 J**	**5.6 J**	**2 J**	**2.4 J**	**2.5 J**	**2.3 J**	**2 J**	**2 J**	**4.5 J**	**3.7 J**	**2 J**	**6.2 J**	**2.2 J**	**2.4 J**	**8.9**	**2.9 J**	**1.8 J**	**9.8**
Copper	mg/kg	**7.7**	**5**	**4.7**	**5.9**	**4.5**	**4.5**	**4.6**	**3.3**	**5.5**	**5.1**	**4.7**	**10.8**	**5.7**	**4.6**	**11.3**	**5.2**	**4**	**18.7**
Iron	mg/kg	**6,820**	**5,960**	**6,290**	**6,470**	**5,730**	**5,860**	**5,660**	**4,040**	**7,140**	**7,230**	**4,660**	**18,900**	**3,600**	**3,650**	**10,900**	**3,770**	**3,120**	**33,900**
Lead	mg/kg	**5.8 J**	**3.6 J**	**3.8**	**5.3**	**4.2**	**3.9**	**4.8**	**3**	**4.5**	**3.8**	**3.4**	**8.4**	**3.9**	**3**	**14.8**	**4**	**2.8**	**14.5**
Magnesium	mg/kg	**1,950**	**1,140**	**1,130**	**1,170**	**1,190**	**1,120**	**1,040**	**767**	**1,560**	**1,080**	**967**	**3,970**	**1,360**	**1,150**	**2,620**	**867**	**773**	**6,130**
Manganese	mg/kg	**54.3**	**36.1**	**46.1**	**49.6**	**47.8**	**42.7**	**38.2**	**27.7**	**50**	**49.3**	**38.3**	**141**	**29.1**	**29.8**	**56.6**	**28.1**	**21.4**	**229**
Mercury	mg/kg	**0.08 J**	**0.1 J**	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U	0.18 U	0.13 U	0.13 U	0.17 U	0.17 U	0.11 U	0.18 U
Nickel	mg/kg	**11.2**	**14.8**	**6.1**	**6.3**	**7**	**7.1**	**7.8**	**5.9**	**10.3**	**7.1**	**5.3**	**15.3**	**8**	**6.3**	**17.6**	**9.6**	**5.4**	**28.6**
Potassium	mg/kg	**930**	651 U	**612 J**	**619 J**	**608 J**	568 UJ	556 UJ	560 UJ	**838**	**665**	**559**	**1,780**	**464 J**	**373 J**	**953**	**316 J**	**241 J**	**3,650**
Selenium	mg/kg	**0.54 J**	4.6 U	4 U	4 U	**0.44 J**	**0.51 J**	**0.43 J**	**0.48 J**	4.2 U	4.1 U	3.9 U	6.5 U	4.4 U	4.4 U	**2.4 J**	6.1 U	4 U	5.9 U
Silver	mg/kg	1.3 U	1.3 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.9 U	1.3 U	1.3 U	1.7 U	1.7 U	1.1 U	1.7 U
Sodium	mg/kg	**1,520**	**792**	**644**	**629**	576 U	568 U	**593**	560 U	**677**	584 U	558 U	**4,960**	**1,200**	**685**	**3,460**	865 U	573 U	**5,380**
Thallium	mg/kg	3.3 U	3.3 U	2.8 U	2.8 U	**0.41 J**	2.8 U	2.8 U	2.8 U	3 U	2.9 U	2.8 U	4.7 U	3.2 U	3.1 U	4.3 U	4.3 U	2.9 U	**1.8 J**
Vanadium	mg/kg	**24.5**	**12.3**	**10.1**	**11.4**	**9.6**	**9.9**	**10.5**	**6.6**	**13**	**11.9**	**15.6**	**20.8**	**10.7**	**11.3**	**62.6**	**7.7 J**	**4.1 J**	**34.7**
Zinc	mg/kg	**49.6**	**19.7**	**16.8**	**18.7**	**19.4**	**19**	**24.2**	**16.5**	**24.6**	**17**	**15**	**40.3**	**16.5**	**16.1**	**43.6**	**19.1**	**12.7**	**74.7**
Cyanide, Total	mg/kg	**0.26 J**	3.1 U	2.8 U	2.9 U	2.9 U	2.8 U	2.8 U	2.8 U	3 U	2.9 U	2.8 U	4.6 U	3.2 U	3.2 U	4.3 U	2.8 U	2.7 U	4.3 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD60B
Sample Number:		GC-SD131-03.5-05.5	GC-SD131-05.5-07.5	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1	GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2
Sample Depth:		3.5-5.5	5.5-7.5	7.5-9.5	7.5-9.5	9.5-11.5	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1	11-13	5.2-7.2
Sample Date:		3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010
Sample Type:		N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
										Metals									
Aluminum	mg/kg	**18,500**	**9,100 J**	**5,040**	**3,730**	**5,650**	**14,500**	**14,800**	**10,900**	**3,330**	**2,460**	**2,550**	**1,920**	**5,260**	**3,460**	**3,370**	**3,470**	**3,320**	**4,950**
Antimony	mg/kg	**0.82 J**	11.9 UJ	7.5 UJ	9.3 U	6.9 UJ	**0.89 J**	**0.83 J**	**0.68 J**	7.1 UJ	7.2 UJ	6.8 UJ	6.9 UJ	7.1 UJ	7.2 UJ	7.1 UJ	7.2 UJ	7.1 UJ	7.5 UJ
Arsenic	mg/kg	**20**	**33.9 J**	**2.4**	**5.4**	**1.5**	**16.9**	**17.7**	**27.5**	**9.5**	**5.9**	**1.6**	**1.5**	**1.3**	**3.8**	**1.7**	**1.4**	**1.3**	**9.3**
Barium	mg/kg	**74**	**80.3 J**	**54**	**40**	**28.6**	**64.3**	**67.8**	**79.6**	23.6 UJ	23.9 UJ	22.8 UJ	23.1 UJ	**46.8 J**	18.8 UJ	**31.5**	**35.2**	20.4 UJ	**27.3 J**
Beryllium	mg/kg	**0.95**	0.99 UJ	0.62 U	0.77 U	0.57 U	**0.68 J**	**0.68 J**	**0.57 J**	**0.17 J**	**0.17 J**	**0.22 J**	**0.15 J**	**0.24 J**	0.21 UJ	0.23 UJ	0.31 UJ	0.17 UJ	**0.21 J**
Cadmium	mg/kg	0.89 U	0.99 U	**0.095 J**	0.77 U	0.57 U	0.89 U	0.89 U	0.92 U	**0.28 J**	**0.14 J**	**0.14 J**	0.58 U	**0.26 J**	0.6 U	0.6 U	0.6 U	0.59 U	**0.43 J**
Calcium	mg/kg	**2,240**	**3,040 J**	**1,030**	**889**	**800**	**2,360**	**2,380**	**3,000**	591 U	598 U	570 U	577 U	**678**	299 UJ	322 UJ	532 UJ	498 UJ	622 U
Chromium	mg/kg	**34.1**	**33.4 J**	**35.5**	**18.4**	**15.7**	**33.6**	**34.5**	**47.2**	**14.6**	**8.5**	**6.1**	**4.4**	**9.5**	**11.4**	**12**	**7.3**	**5.4**	**13.6**
Cobalt	mg/kg	**10.8**	**9.4 J**	**4.6 J**	**3.7 J**	**5.6 J**	**10.7**	**10.6**	**8.6 J**	**6**	**2.8 J**	**3 J**	**2.5 J**	**6.1**	**2.3 J**	**2.3 J**	**4.1 J**	**3.6 J**	**3.4 J**
Copper	mg/kg	**20**	**10 J**	**5.5**	**4.2**	**7.8**	**19.5**	**20**	**14.7**	**6.9**	**3.9**	**4.3**	**3.3**	**8.7**	**6.8**	**5.1**	**6**	**6.9**	**12.9**
Iron	mg/kg	**39,400**	**18,300 J**	**5,930**	**5,100**	**9,140**	**37,100**	**35,600**	**23,200**	**8,760**	**6,040**	**6,410**	**4,190**	**9,840**	**6,350**	**5,730**	**8,060**	**6,640**	**13,300**
Lead	mg/kg	**16.2**	**7.3 J**	**4.5**	**8**	**6.7**	**14.5**	**15.3**	**10.7**	**3.8**	**2.8**	**2.8**	**2.5**	**6.4**	**4.2**	**3.5**	**4.5**	**5.3**	**11.2**
Magnesium	mg/kg	**6,780**	**3,250 J**	**1,340**	**1,140**	**2,300**	**5,930**	**6,020**	**4,610**	**1,420**	**860**	**932**	**720**	**2,270**	**1,350**	**1,180**	**1,490**	**1,520**	**1,950**
Manganese	mg/kg	**284**	**81 J**	**35.4**	**33.2**	**63**	**249**	**264**	**147**	**87.6**	**56.5**	**39.6**	**27.6**	**96.5**	**40.9**	**38.5**	**62.6**	**72.8**	**128**
Mercury	mg/kg	0.18 U	0.21 UJ	0.12 U	0.15 U	0.12 U	**0.22**	0.2 U	0.17 U	**0.45**	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.13 U	0.12 U	0.12 U	0.13 U
Nickel	mg/kg	**29.7**	**15 J**	**11**	**8.2**	**12.9**	**26.1**	**26.7**	**20**	**9.5**	**5.7**	**6.8**	**6.4**	**14.6**	**7.1**	**6.7**	**9.2**	**8.9**	**10.8**
Potassium	mg/kg	**3,930**	**1,780 J**	**634**	**518 J**	**1,150**	**2,700**	**2,760**	**2,040**	**663**	598 U	570 U	577 U	**990**	**616**	**513 J**	**633**	**491 J**	**1,010**
Selenium	mg/kg	6.2 U	**1.3 J**	4.4 U	5.4 U	4 U	6.2 U	6.2 U	6.4 U	**0.65 J**	4.2 U	4 U	4 U	4.1 U	4.2 U	**0.6 J**	4.2 U	4.1 U	**0.92 J**
Silver	mg/kg	1.8 U	2 UJ	1.2 U	1.5 U	1.1 U	1.8 U	**0.15 J**	1.8 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Sodium	mg/kg	**4,630**	**3,630 J**	**868**	774 U	573 U	**5,880**	**5,990**	**4,700**	591 U	598 U	570 U	577 U	588 U	149 UJ	145 UJ	146 UJ	127 UJ	**1,170**
Thallium	mg/kg	**2.8 J**	5 UJ	3.1 U	3.9 U	2.9 U	**1.6 J**	**2 J**	4.6 U	3 U	3 U	2.8 U	2.9 U	2.9 U	3 U	3 U	3 U	2.9 U	3.1 U
Vanadium	mg/kg	**41.7**	**55.8 J**	**13.7**	**22.1**	**13.7**	**34.4**	**35.7**	**45.8**	**13.4**	**8.3**	**9.9**	**7.5**	**14.5**	**10.7**	**11**	**14.7**	**7.2**	**15**
Zinc	mg/kg	**73.8**	**43.2 J**	**26.2**	**20.8**	**29.4**	**68.4**	**74.3**	**53.4**	**19.6 J**	**16.8 J**	**18.8 J**	**14.3 J**	**35.4 J**	**19.6**	**18.5**	**23.9**	**31.5**	**34.8 J**
Cyanide, Total	mg/kg	4.6 U	5 UJ	3.1 U	3.8 U	3 U	4.5 U	4.6 U	4.5 U	3 U	2.9 U	2.8 U	2.9 U	3 U	3 UJ	3.1 UJ	2.9 UJ	2.9 UJ	3.2 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120	GC-SD120	GC-SD120
Sample Number:		D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5	D-03312010-02	GC-SD120-08.5-10.5
Sample Depth:		5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5	6.5-8.5	8.5-10.5
Sample Date:		4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N
Parameter	**Units**									**Metals**									
Aluminum	mg/kg	**5,690**	**7,970**	**3,010**	**3,410**	**3,230**	**5,210**	**4,170**	**2,790**	**7,050**	**6,590**	**3,550**	**3,050**	**2,890**	**3,200**	**3,460**	**2,960**	**2,590**	**3,070**
Antimony	mg/kg	7.3 UJ	8.9 U	7 UJ	6.8 UJ	7.4 UJ	7 UJ	7.1 UJ	7.4 UJ	7.9 U	8.9 U	8.1 U	7.2 UJ	**0.99 J**	7.2 UJ	7.1 UJ	6.8 UJ	**1.7 J**	694 UJ
Arsenic	mg/kg	**10.9**	**7.4**	**4.7**	**8.9**	**7.2**	**1.6**	**2.2**	**0.84 J**	**8.1**	**12**	**3.8**	**2.6**	**8.4**	**4.4**	**3**	**2.1**	**1.8**	**1.7**
Barium	mg/kg	**37.9 J**	**65.4 J**	**46.2**	**46.3**	18.3 UJ	**33.9**	**24.8**	22.9 UJ	26.3 UJ	**31 J**	27.2 UJ	**26.4 J**	**13.4 J**	**18.9 J**	**18.3 J**	**16.4 J**	18.5 UJ	**13.2 J**
Beryllium	mg/kg	**0.25 J**	**0.29 J**	**0.25 J**	**0.17 J**	0.19 UJ	0.25 UJ	0.24 UJ	0.61 U	**0.27 J**	**0.3 J**	**0.17 J**	0.6 U	**0.22 J**	0.6 U	**0.3 J**	**0.25 J**	0.19 UJ	**0.26 J**
Cadmium	mg/kg	**0.59 J**	**0.48 J**	**0.12 J**	**0.22 J**	0.62 U	0.58 U	0.6 U	0.61 U	**0.45 J**	**0.34 J**	**0.14 J**	**0.15 J**	**0.19 J**	**0.18 J**	**0.2 J**	**0.2 J**	**0.15 J**	**0.18 J**
Calcium	mg/kg	**817**	**1,230**	**693**	570 U	430 UJ	420 UJ	479 UJ	351 UJ	657 U	**775**	679 U	598 U	**1,400 J**	600 U	595 U	570 U	293 UJ	578 U
Chromium	mg/kg	**16.9**	**39.5**	**6.8**	**7.1**	**18.3**	**11.5**	**9.4**	**5.3**	**14**	**24**	**20.9**	**16**	**9.2**	**8.1**	**11.4**	**7.2**	**7.1**	**7.5**
Cobalt	mg/kg	**4.1 J**	**6.2 J**	**6.6**	**6.5**	**2.5 J**	**2.3 J**	**4.2 J**	**4.2 J**	**4.8 J**	**5.2 J**	**2.5 J**	**2.2 J**	5.6 U	**5.8 J**	**4.7 J**	**4.1 J**	**3.7 J**	**4.1 J**
Copper	mg/kg	**16.3**	**9.9**	**5**	**6.9**	**4.6**	**5**	**7.6**	**4.7**	**9.4**	**8.7**	**4.4**	**3.9**	**15.7**	**8.3**	**7.4**	**6.4**	**6.5**	**6.5**
Iron	mg/kg	**14,400**	**11,200**	**6,610 J**	**8,960 J**	**6,420**	**6,840**	**7,820**	**6,960**	**16,300**	**14,400**	**5,920**	**5,520**	**7,710**	**10,200**	**10,300**	**8,350**	**8,450**	**9,000**
Lead	mg/kg	**18**	**7.3**	**3.5 J**	**5.3 J**	**4.1**	**4.3**	**5.4**	**4.2**	**6**	**6.7**	**3.1**	**2.9**	**14.8**	**8.3 J**	**5.7 J**	**4.3 J**	**4.1**	**3.6 J**
Magnesium	mg/kg	**2,230**	**2,970**	**1,150 J**	**1,400 J**	**1,310**	**1,620**	**1,560**	**1,200**	**2,770**	**2,450**	**1,220**	**993**	**4,800**	**1,200**	**1,220**	**1,080**	**1,090**	**1,180**
Manganese	mg/kg	**126**	**88.5**	**409**	**141**	**52.1**	**50.6**	**72.3**	**63.2**	**151**	**119**	**65.9**	**54.7**	**102**	**75.2**	**80**	**67.4**	**65.1**	**73.2**
Mercury	mg/kg	**0.06 J**	**0.07 J**	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.14 U	0.15 U	0.14 U	0.12 U	0.05 U	0.12 U	0.12 U	0.11 U	0.11 U	0.12 U
Nickel	mg/kg	**12.1**	**18.3**	**14.9 J**	**12.5 J**	**6.6**	**9.4**	**9.4**	**7.4**	**14.2**	**13.6**	**7.8**	**6.1**	**34.7**	**12**	**10.8**	**9.4**	**9**	**10.2**
Potassium	mg/kg	**1,150**	**1,500**	**496 J**	**588**	**631**	**524 J**	**501 J**	**376 J**	**1,310**	**1,300**	679 U	598 U	**729 J**	**633**	**636**	570 U	**423 J**	578 U
Selenium	mg/kg	**0.94 J**	**2.7 J**	4.1 U	4 U	4.3 U	4.1 U	4.2 U	4.3 U	**0.56 J**	**0.63 J**	**0.73 J**	4.2 U	3.9 U	4.2 U	4.2 U	4 U	4 U	4 U
Silver	mg/kg	**0.092 J**	1.5 U	1.2 U	1.1 U	0.06 UJ	1.2 U	1.2 U	1.2 U	1.3 U	1.5 U	1.4 U	1.2 U	**0.064 J**	1.2 U	1.2 U	1.1 U	0.098 UJ	1.2 U
Sodium	mg/kg	**1,470**	**2,190**	587 U	570 U	294 UJ	264 UJ	223 UJ	154 UJ	657 U	740 U	679 U	598 U	559 U	600 U	595 U	570 U	130 UJ	578 U
Thallium	mg/kg	3 U	3.7 U	2.9 U	2.8 U	3.1 U	2.9 U	3 U	3.1 U	3.3 U	3.7 U	3.4 U	3 U	2.8 U	3 U	3 U	2.9 U	2.9 U	2.9 U
Vanadium	mg/kg	**19.9**	**35**	**8.6**	**8.3**	**14**	**9.4**	**11.6**	**6.4**	**15.8**	**23.3**	**12.9**	**10.2**	**11.7**	**10.4**	**10.9**	**8.6**	**8.9**	**9.7**
Zinc	mg/kg	**46.5 J**	**42 J**	**32.9 J**	**27.4 J**	**19.4**	**21.9**	**25.4**	**17.3**	**34.5 J**	**36.6 J**	**18.2 J**	**15.6 J**	**42.9**	**25.2**	**23.4**	**20.4**	**19**	**20.1**
Cyanide, Total	mg/kg	3.1 U	3.6 U	3 U	2.9 U	3.1 UJ	2.8 UJ	2.9 UJ	3.1 UJ	3.4 U	3.7 U	3.3 U	3 U	2.8 U	3 U	2.9 U	2.9 U	2.9 UJ	2.8 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD66C	GC-SD121	GC-SD121	GC-SD121
Sample Number:		GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5
Sample Depth:		10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7	10.7-12.7	1.5-3.5	3.5-5.5	5.5-7.5
Sample Date:		3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/2/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,300**	**3,070**	**7,950**	**4,160**	**5,040**	**3,600**	**5,710**	**4,160**	**5,550**	**2,800**	**3,710**	**9,290**	**4,420**	**4,260**	**2,850**	**5,190**	**3,880**	**5,880**
Antimony	mg/kg	7.4 UJ	7 UJ	7.3 UJ	7.3 UJ	7.2 UJ	7.1 UJ	7.1 UJ	6.8 UJ	7.2 UJ	6.9 UJ	7.1 UJ	6.8 UJ	7 UJ	7 UJ	7 UJ	7.1 UJ	7 UJ	7.3 UJ
Arsenic	mg/kg	**2.2**	**2.7**	**7**	**4.9**	**7.4**	**0.9 J**	**8.3**	**1.1 J**	**6.9**	**0.55 J**	**3.4**	1.1 U	1.2 U	**1.2**	**1.9**	**3.1**	**1.1 J**	**1.8**
Barium	mg/kg	**15.7 J**	**10 J**	**30.6**	**21.1 J**	**37.3**	**19.1 J**	**43.5**	**33**	**42.7**	22 UJ	21.8 UJ	**50 J**	23.2 UJ	23.3 UJ	23.4 UJ	**34.6**	23.3 U	**44.3**
Beryllium	mg/kg	**0.25 J**	**0.23 J**	**0.31 J**	**0.3 J**	**0.33 J**	**0.15 J**	0.5 UJ	0.28 UJ	0.49 UJ	0.15 UJ	0.22 UJ	**0.51 J**	**0.17 J**	**0.19 J**	**0.16 J**	**0.36 J**	**0.32 J**	**0.49 J**
Cadmium	mg/kg	**0.23 J**	0.58 U	**0.51 J**	**0.14 J**	**0.3 J**	**0.087 J**	**0.12 J**	0.57 U	**0.1 J**	0.58 U	**0.57 J**	**0.23 J**	**0.13 J**	**0.15 J**	**0.3 J**	**0.087 J**	0.58 U	**0.18 J**
Calcium	mg/kg	613 U	584 U	**856**	611 U	597 U	593 U	583 UJ	270 UJ	592 UJ	262 UJ	542 UJ	568 U	580 U	583 U	584 U	592 U	582 U	606 U
Chromium	mg/kg	**5.7**	**6.7**	**14.4**	**10**	**11.7**	**6.8**	**14.6**	**10.4**	**14.1**	**5.8**	**9.8**	**20**	**9.7**	**9.8**	**8.5**	**13.4**	**9.8**	**16.3**
Cobalt	mg/kg	**3.9 J**	**2.3 J**	**10.8**	**4.3 J**	**5.2 J**	**3.7 J**	**5.1 J**	**3.6 J**	**5.5 J**	**1.8 J**	**7.3**	**4.8 J**	**2.7 J**	**3.7 J**	**4 J**	**4.6 J**	**4.1 J**	**6.6**
Copper	mg/kg	**6.4**	**5.2**	**22.6**	**7.5**	**9.2**	**7.8**	**11**	**8**	**10.6**	**3.9**	**11.5**	**16**	**7**	**5.7**	**6.3**	**10.1**	**7.5**	**10**
Iron	mg/kg	**10,200**	**9,050 J**	**18,000 J**	**8,950 J**	**11,300 J**	**8,350 J**	**10,600**	**6,890**	**9,000**	**5,790**	**8,260**	**11,200**	**7,220**	**7,330**	**9,670**	**7,910 J**	**7,620 J**	**11,900 J**
Lead	mg/kg	**4.5 J**	**3.8 J**	**9.1 J**	**4.6 J**	**5.7 J**	**6.1 J**	**7.4**	**5.5**	**7.3**	**3.2**	**6**	**7.9**	**5.1**	**4.5**	**4.1**	**6.3 J**	**4.8 J**	**7.8 J**
Magnesium	mg/kg	**1,260**	**1,070 J**	**3,200 J**	**1,670 J**	**2,070 J**	**1,520 J**	**2,260**	**1,440**	**2,310**	**1,120**	**1,710**	**2,540**	**1,400**	**1,460**	**1,130**	**1,920 J**	**1,440 J**	**2,160 J**
Manganese	mg/kg	**116**	**43.3**	**91.5**	**52.1**	**61.1**	**71**	**63**	**61.2**	**60.8**	**71.2**	**79.1**	**80.8**	**47.8**	**60.8**	**55.3**	**71.4**	**71.7**	**112**
Mercury	mg/kg	0.12 U	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U	0.11 U	0.13 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**10**	**7.4 J**	**20 J**	**10.5 J**	**12.8 J**	**10 J**	**12.7**	**6.5**	**13.9**	**4.9**	**19**	**14.8**	**6.4**	**7.8**	**9.2**	**11.6 J**	**7.8 J**	**13.8 J**
Potassium	mg/kg	613 U	**715**	**1,320**	**850**	**1,090**	**605**	**1,070**	**842**	**1,010**	**476 J**	**507 J**	**1,470**	**967**	**756**	584 U	**1,040**	**834**	**1,310**
Selenium	mg/kg	4.3 U	4.1 U	4.3 U	4.3 U	4.2 U	4.2 U	4.1 U	4 U	4.2 U	4 U	**1.6 J**	4 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.2 U
Silver	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	0.086 UJ	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Sodium	mg/kg	613 U	584 U	**661**	611 U	597 U	593 U	**875**	494 UJ	**878**	249 UJ	142 UJ	**1,050**	580 U	583 U	584 U	**854**	582 U	**670**
Thallium	mg/kg	3.1 U	2.9 U	**0.85 J**	3.1 U	3 U	3 U	2.9 U	2.8 U	3 U	2.9 U	3 U	2.8 U	2.9 U	2.9 U	2.9 U	3 U	2.9 U	**0.78 J**
Vanadium	mg/kg	**9.3**	**12**	**16**	**12.1**	**13.8**	**8.5**	**22.6**	**17.5**	**22.6**	**9.9**	**12.2**	**19.8**	**18.9**	**12.4**	**9.5**	**22.1**	**13.2**	**27.8**
Zinc	mg/kg	**22**	**24.8 J**	**55.1 J**	**32.6 J**	**40 J**	**25.7 J**	**35**	**24.6**	**37.1**	**14.7**	**26.8**	**46.4 J**	**18.1 J**	**26.3 J**	**20.7 J**	**33 J**	**28.5 J**	**37.9 J**
Cyanide, Total	mg/kg	3 U	2.9 U	3 U	3.1 U	2.9 U	3 U	3 UJ	2.9 UJ	3 UJ	3 UJ	3 UJ	3 U	2.8 U	2.9 U	2.9 U	3 U	2.9 U	3 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD122	GC-SD122
Sample Number:		GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7	GC-SD067B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0	D-04062010-02	GC-SD122-01.1-03.1	GC-SD122-03.1-05.1
Sample Depth:		7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7	6-8	8-10	10-12	10-12	1.1-3.1	3.1-5.1
Sample Date:		4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010
Sample Type:		N	N	N	FD	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**4,720**	**4,240**	**3,770**	**3,940**	**6,000**	**2,880**	**3,260**	**5,080**	**4,910**	**3,350**	**2,890**	**2,140**	**8,110**	**7,830**	**8,860**	**8,490**	**6,360**	**6,430**
Antimony	mg/kg	7.3 UJ	7 UJ	7 UJ	7.1 UJ	7.1 UJ	7.3 UJ	6.8 UJ	7 UJ	7.1 UJ	7.1 UJ	6.8 UJ	6.7 UJ	7.5 UJ	7.6 UJ	7.7 UJ	7.3 UJ	8.8 UJ	10.9 U
Arsenic	mg/kg	**1.4**	**1.4**	1.2 U	1.2 U	**3.3**	**4.5**	**3.3**	**7.6**	**1.1 J**	**0.47 J**	**5.4 J**	**2.9 J**	**4.3 J**	**3.6 J**	**4.1 J**	**3.3 J**	**10.8**	**16**
Barium	mg/kg	**17.7 J**	**18.2 J**	**21.2 J**	**23.8**	**24.6**	**12.5 J**	**15.3 J**	**33.6**	**13.8 J**	**11.2 J**	22.5 U	22.4 U	**48.8**	**41.5**	**49.1**	**40.2**	29.5 U	**39.5**
Beryllium	mg/kg	**0.25 J**	**0.17 J**	0.58 U	0.59 U	**0.31 J**	**0.15 J**	**0.19 J**	**0.57 J**	**0.21 J**	**0.14 J**	**0.28 J**	**0.15 J**	**0.66**	**0.7**	**0.7**	**0.75**	**0.23 J**	**0.29 J**
Cadmium	mg/kg	**0.12 J**	**0.11 J**	0.58 U	0.59 U	**0.15 J**	0.61 U	0.57 U	**0.15 J**	**0.13 J**	0.59 U	0.56 U	0.56 U	0.62 U	0.64 U	0.64 U	0.61 U	0.74 U	0.91 U
Calcium	mg/kg	**697**	**648**	580 U	591 U	588 U	607 U	568 U	580 U	**730**	590 U	563 U	560 U	**807**	**775**	**832**	**850**	**2,380 J**	**1,480 J**
Chromium	mg/kg	**9.4**	**8.1**	**7.5**	**7.7**	**15.2**	**8**	**8.5**	**13.7**	**9.1**	**7**	**7.4**	**6.1**	**22.3**	**21.3**	**24.6**	**22.9**	**18**	**25.4**
Cobalt	mg/kg	**5 J**	**5.1 J**	**3.5 J**	**3.6 J**	**4 J**	**2.9 J**	**2.7 J**	**6.1**	**5 J**	**2.9 J**	5.6 U	5.6 U	**9.4**	**9.7**	**8.2**	**7**	**4.9 J**	**5.7 J**
Copper	mg/kg	**8.9**	**8.6**	**8.1**	**8.6**	**10.3**	**5**	**4.6**	**9**	**9.9**	**6.8**	**4.6**	2.8 U	**13.1**	**12.7**	**14.3**	**14.6**	**9.1 J**	**9.6 J**
Iron	mg/kg	**9,220 J**	**8,670 J**	**6,810 J**	**7,070 J**	**8,640 J**	**4,490 J**	**4,980 J**	**8,230 J**	**9,260 J**	**6,600 J**	**7,730**	**4,200**	**14,900**	**15,800**	**17,500**	**20,200**	**21,000**	**23,100**
Lead	mg/kg	**6.1 J**	**5.8 J**	**5.2 J**	**6.4 J**	**6.2 J**	**3.5 J**	**4.1 J**	**6.1 J**	**6.6 J**	**4.6 J**	**4**	**2.9**	**9.7**	**9.1**	**10.1 J**	**15.5 J**	**8**	**7**
Magnesium	mg/kg	**2,200 J**	**1,970 J**	**1,630 J**	**1,700 J**	**2,070 J**	**1,020 J**	**1,230 J**	**1,980 J**	**2,280 J**	**1,540 J**	**741**	**631**	**2,960**	**2,840**	**3,110**	**3,000**	**2,980**	**3,080**
Manganese	mg/kg	**139**	**149**	**73.1**	**75.9**	**57.8**	**36.7**	**41.8**	**63.3**	**106**	**63.3**	**41.2**	**33.9**	**137**	**109**	**105**	**116**	**175**	**177**
Mercury	mg/kg	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.13 U	0.13 U	0.13 U	0.13 U	0.15 U	0.18 U
Nickel	mg/kg	**12.1 J**	**14.1 J**	**10.4 J**	**10.7 J**	**13.9 J**	**8.7 J**	**7.5 J**	**13.2 J**	**12.4 J**	**9 J**	**6.4**	**4.6**	**19.4**	**16.9**	**17.2**	**15.5**	**12.8**	**12.8**
Potassium	mg/kg	**845**	**711**	**577 J**	**605**	**1,130**	**541 J**	**609**	**1,150**	**800**	**609**	**679 J**	**557 J**	**2,040 J**	**1,970 J**	**2,080 J**	**2,090 J**	**1,430 J**	**1,380 J**
Selenium	mg/kg	4.2 U	4.1 U	4.1 U	4.1 U	4.1 U	4.2 U	4 U	4.1 U	4.1 U	4.1 U	3.9 U	3.9 U	4.4 U	4.4 U	4.5 U	4.3 U	5.2 U	6.3 U
Silver	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.3 U	1.3 U	1.2 U	1.5 U	1.8 U
Sodium	mg/kg	605 U	587 U	580 U	591 U	**667**	607 U	568 U	580 U	591 U	590 U	563 U	560 U	**1,910**	**2,000**	**2,090**	**2,150**	**4,340**	**5,650**
Thallium	mg/kg	3 U	2.9 U	2.9 U	3 U	2.9 U	3 U	2.8 U	2.9 U	3 U	3 U	2.8 U	2.8 U	3.1 U	3.2 U	3.2 U	3.1 U	3.7 U	4.5 U
Vanadium	mg/kg	**14.4**	**11.8**	**10.3**	**10.5**	**16.3**	**10.1**	**10.8**	**20.6**	**13.3**	**8.9**	**13.5**	**8.8**	**33.9**	**32.2**	**36.4**	**34.1**	**16.2**	**19.7**
Zinc	mg/kg	**32.3 J**	**31.7 J**	**28.7 J**	**28.5 J**	**30 J**	**18.8 J**	**20.8 J**	**33.8 J**	**92.7 J**	**22.2 J**	**19.1**	**13.1**	**48.8**	**49.4**	**51.2**	**48.7**	**35.6 J**	**43.5 J**
Cyanide, Total	mg/kg	3 U	2.9 U	2.8 U	2.9 U	2.9 U	2.9 U	2.9 U	2.8 U	3 U	2.8 U	3 U	2.9 U	3.1 U	3.2 U	3 U	3 U	3.8 U	4.4 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137
Sample Number:		GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD072B-01.8-03.8	GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0	GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8
Sample Depth:		5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	1.8-3.8	3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4	4-6	6-8	8-9.8
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**2,690**	**2,240**	**4,900**	**5,120**	**5,170**	**6,480**	**4,860**	**16,200 J**	**5,400**	**13,700**	**8,170**	**5,530**	**5,890**	**3,990**	**4,490**	**3,140**	**2,950**	**3,080**
Antimony	mg/kg	8.6 UJ	8.7 UJ	7.6 U	7.6 UJ	7.3 U	7.5 U	7.1 U	12.1 UJ	9.4 U	10.9 U	9 U	6.9 UJ	7.4 UJ	6.8 U	6.9 U	7.2 U	6.7 U	7.4 U
Arsenic	mg/kg	**10.8**	**4.4**	**4.1**	**3.4**	**3.6**	**4.6**	**1.2**	**19.6 J**	**19.1 J**	**12.5**	**10.7**	**11.1**	**0.82 J**	**2.3**	**1.1 J**	**3.1**	**2.2**	**3.1**
Barium	mg/kg	28.5 U	28.9 U	25.2 U	25.3 U	24.5 U	**34.2**	23.6 U	**61.4 J**	**32.1**	**37.2**	30.1 U	**25.1**	**38**	**26.7**	**33**	**32.6**	**22.7**	**38.1**
Beryllium	mg/kg	0.71 U	0.72 U	**0.31 J**	**0.42 J**	**0.38 J**	**0.47 J**	**0.22 J**	1 UJ	0.78 U	**0.53 J**	0.75 U	0.58 U	0.62 U	**0.2 J**	**0.24 J**	0.6 U	0.56 U	0.62 U
Cadmium	mg/kg	0.71 U	0.72 U	0.63 U	0.63 U	0.61 U	0.63 U	0.59 U	1 UJ	0.78 U	**0.34 J**	0.75 U	0.58 U	0.62 U	0.57 U	0.57 U	0.6 U	0.56 U	0.62 U
Calcium	mg/kg	**733 J**	723 UJ	**651 J**	**642 J**	**637 J**	**768 J**	**634 J**	**1,850 J**	**1,220**	**2,010 J**	**1,500 J**	**853 J**	620 UJ	**750 J**	**827 J**	599 UJ	556 UJ	619 UJ
Chromium	mg/kg	**11.5**	**10.2**	**13**	**14**	**14**	**16.5**	**10.9**	**40.7 J**	**18.4**	**35.4**	**22.9**	**14.1**	**14**	**9.9**	**10.2**	**7.2**	**7.3**	**7.5**
Cobalt	mg/kg	**2.5 J**	**2 J**	**5.2 J**	**5.1 J**	**6.9**	**9.7**	**6.2**	**11.3 J**	**4.1 J**	**9.6**	7.5 U	5.8 U	6.2 U	**5 J**	**5.9**	**6.9**	**4.3 J**	**4.8 J**
Copper	mg/kg	**3.9 J**	3.6 UJ	**9 J**	**9.3 J**	**10 J**	**13.2 J**	**9.1 J**	**19 J**	**7.2**	**19.5 J**	**11.2**	**6.4**	**3.9**	**8 J**	**9 J**	**7 J**	**6.4 J**	**6.9 J**
Iron	mg/kg	**10,000**	**4,100**	**9,000**	**8,950**	**9,190**	**11,600**	**9,850**	**44,900 J**	**31,300**	**39,900**	**27,300**	**19,300**	**8,940**	**10,900**	**9,550**	**10,100**	**9,750**	**9,250**
Lead	mg/kg	**3.2**	**2.9**	**6.1**	**7.3**	**7.1**	**9**	**6.5**	**14 J**	**6**	**14.3**	**8.9 J**	**5 J**	**5.2 J**	**6.1**	**6.4**	**4.6**	**4.7**	**4.7**
Magnesium	mg/kg	**1,370**	**1,130**	**2,190**	**2,170**	**2,300**	**2,790**	**2,110**	**6,020 J**	**2,400**	**5,860**	**3,580**	**2,180**	**1,370**	**1,900**	**2,160**	**1,370**	**1,280**	**1,390**
Manganese	mg/kg	**91.5**	**56**	**124**	**77.3**	**82.7**	**126**	**102**	**347 J**	**196**	**389**	**219**	**106**	**47.9**	**235**	**121**	**98.5**	**96.6**	**109**
Mercury	mg/kg	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.21 UJ	0.16 U	0.19 U	0.15 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**5.8**	**5.1 J**	**11.6**	**11.2**	**14**	**20.5**	**13.4**	**27.2 J**	**9.8**	**26**	**15.5**	**10**	**7.7**	**11.2**	**13.1**	**12**	**9.9**	**9.8**
Potassium	mg/kg	713 UJ	723 UJ	**1,130 J**	**1,210 J**	**1,200 J**	**1,240 J**	**735 J**	**4,020 J**	**1,280 J**	**3,050 J**	**1,930 J**	**1,200 J**	**578 J**	**930 J**	**846 J**	599 UJ	556 UJ	619 UJ
Selenium	mg/kg	5 U	**0.69 J**	**0.56 J**	**0.64 J**	**0.64 J**	**1.1 J**	**0.81 J**	7.1 UJ	5.5 U	6.4 U	**1.8 J**	**1.1 J**	4.3 U	4 U	4 U	4.2 U	3.9 U	4.3 U
Silver	mg/kg	1.4 U	1.4 U	1.3 U	1.3 U	1.2 U	1.3 U	1.2 U	2 UJ	1.6 U	1.8 U	1.5 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U
Sodium	mg/kg	**2,920**	**2,200**	**2,080**	**2,030**	**2,280**	**1,570**	**762**	**6,830 J**	**3,930**	**7,550**	**5,600**	**3,210**	**1,800**	570 U	573 U	599 U	556 U	619 U
Thallium	mg/kg	3.6 U	3.6 U	3.1 U	3.2 U	3.1 U	3.1 U	3 U	5.1 UJ	3.9 U	4.6 U	3.8 U	2.9 U	3.1 U	2.8 U	2.9 U	3 U	2.8 U	3.1 U
Vanadium	mg/kg	**10.2**	**8.2**	**19.9**	**23.7**	**21.9**	**24.6**	**15.2**	**40.2 J**	**17.2**	**32.2**	**21.3**	**16.7**	**18.9**	**15.4**	**15**	**10.6**	**10**	**8**
Zinc	mg/kg	**18.8 J**	**16.6 J**	**34.1 J**	**32.5 J**	**37.7 J**	**44.6 J**	**45.1 J**	**70.8 J**	**30.5**	**70.8 J**	**43.9**	**26.5**	**25.9**	**34.1 J**	**32 J**	**23.3 J**	**21 J**	**21.2 J**
Cyanide, Total	mg/kg	3.6 U	3.6 U	3.1 U	3.2 U	3 U	3 U	2.8 U	5.2 UJ	3.8 U	4.7 U	3.8 U	2.9 U	3.1 U	2.9 U	2.8 U	3.1 U	**0.22 J**	3.1 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151	GC-SD151	GC-SD151	GC-SD76C
Sample Number:		D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0	GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2	GC-SD151-07.2-09.2	D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8
Sample Depth:		8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7	8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2	7.2-9.2	7.2-9.2	9.2-11.2	5.8-7.8
Sample Date:		4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010
Sample Type:		FD	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,110**	**5,250**	**5,150**	**5,460**	**5,690**	**6,500**	**5,980**	**6,680**	**3,030**	**2,840**	**3,470**	**2,270**	**2,330**	**7,320**	**5,640**	**5,890**	**6,270**	**3,030**
Antimony	mg/kg	7.2 U	7.6 UJ	6.1 UJ	7.7 UJ	6.8 UJ	7.6 UJ	7.8 UJ	7.8 UJ	**1.1 J**	**1.1 J**	**1 J**	**0.79 J**	**0.95 J**	8 U	7.5 U	7.2 U	7.5 U	7.1 UJ
Arsenic	mg/kg	**2.9**	**2.2**	**2.2**	**2.6**	**2.2**	**4.6**	**3.7**	**3.8**	**4.8**	**4.6**	**2.6**	**3.7**	**4.8**	**3.2**	**2**	**2.1**	**1.7**	**1.4**
Barium	mg/kg	**37.4**	**31**	**22.5**	**25.5 J**	**25.5**	**33.6**	**27.4**	**37.5**	**29.2**	**31.6**	**20 J**	**36.7**	**18.2 J**	**49.2**	**27.3**	**26.4**	**29.4**	23.6 U
Beryllium	mg/kg	0.6 U	**0.45 J**	**0.3 J**	**0.45 J**	**0.38 J**	**0.59 J**	**0.43 J**	**0.51 J**	**0.23 J**	**0.23 J**	**0.18 J**	**0.21 J**	**0.24 J**	**0.7**	0.63 U	0.6 U	0.63 U	0.59 U
Cadmium	mg/kg	0.6 U	0.63 U	0.51 U	0.64 U	0.57 U	0.63 U	0.65 U	0.65 U	**0.16 J**	**0.17 J**	0.56 U	0.53 U	**0.083 J**	**0.38 J**	**0.26 J**	**0.3 J**	**0.26 J**	0.59 U
Calcium	mg/kg	602 UJ	631 UJ	**835 J**	**941 J**	**917 J**	630 UJ	649 UJ	**672 J**	618 UJ	629 UJ	**629 J**	534 UJ	559 UJ	**1,130 J**	**826 J**	**938 J**	**829 J**	590 UJ
Chromium	mg/kg	**6.4**	**16.3**	**10.9**	**12.9**	**12**	**20.5**	**17.7**	**19.5**	**7.5**	**7.7**	**7.1**	**5.6**	**7.6**	**19.1**	**14**	**14.4**	**14.5**	**6.5**
Cobalt	mg/kg	**4.8 J**	6.3 U	**6.3**	6.4 U	**6.9**	**7.7**	**7.3**	**7.1**	6.2 U	6.3 U	5.6 U	5.3 U	**3.7 J**	**8.4**	**6.6**	**6.7**	**7.5**	5.9 U
Copper	mg/kg	**6.9 J**	**18.1**	**9.7**	**10.4**	**10.8**	**12.4 J**	**11 J**	**12.7 J**	**8.2**	**7.8**	**7.3**	**5.4**	**5.4**	**13.8**	**9.3**	**10.2**	**11.6**	**6.8**
Iron	mg/kg	**9,220**	**9,880**	**12,900**	**14,500**	**14,400**	**10,400**	**10,100**	**11,500**	**13,500**	**13,700**	**11,000**	**11,400**	**13,400**	**19,900**	**15,400**	**16,400**	**15,400**	**11,100**
Lead	mg/kg	**4.7**	**13.9 J**	**6.6 J**	**6.9 J**	**7.4 J**	**8.4**	**7.8**	**8.5**	**6.4**	**6.4**	**5.3**	**3.6**	**3.7**	**9.4**	**7.2**	**7.4**	**8.3**	**4.9 J**
Magnesium	mg/kg	**1,380**	**2,180**	**2,440**	**2,490**	**2,720**	**2,580**	**2,420**	**2,720**	**1,380**	**1,320**	**1,570**	**1,080**	**1,110**	**3,050**	**2,480**	**2,600**	**2,830**	**1,490**
Manganese	mg/kg	**114**	**101**	**188 J**	**277 J**	**209**	**70**	**74.9**	**85.7**	**123**	**108**	**134**	**104**	**113**	**299**	**225**	**247**	**146**	**86.4**
Mercury	mg/kg	0.12 U	0.13 U	0.1 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.11 U	0.11 U	0.11 U	0.14 U	0.13 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**9.6**	**12.8**	**12.4**	**13.4**	**13.8**	**15.7**	**15.8**	**14.9**	**10.2**	**9.9**	**9.8**	**8.7**	**8**	**16.8**	**13.7**	**14.3**	**15.8**	**9.3**
Potassium	mg/kg	602 UJ	**1,350 J**	**963 J**	**1,230 J**	**1,090 J**	**1,590 J**	**1,360 J**	**1,480 J**	**571 J**	**503 J**	**605 J**	**377 J**	**405 J**	**1,850 J**	**1,420 J**	**1,470 J**	**1,260 J**	**621 J**
Selenium	mg/kg	4.2 U	4.4 U	**0.53 J**	**0.62 J**	**0.53 J**	**0.96 J**	4.5 U	4.6 U	**0.75 J**	**0.86 J**	**0.76 J**	**0.81 J**	**0.8 J**	4.6 U	4.4 U	4.2 U	4.4 U	4.1 U
Silver	mg/kg	1.2 U	**0.081 J**	1 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	**0.078 J**	1.1 U	1.1 U	1.1 U	1.3 U	1.3 U	1.2 U	1.3 U	1.2 U
Sodium	mg/kg	602 U	**943**	507 U	**903**	566 U	**2,290**	**1,740**	**1,700**	618 U	629 U	562 U	534 U	559 U	**891**	628 U	597 U	627 U	590 U
Thallium	mg/kg	3 U	3.2 U	2.5 U	3.2 U	2.8 U	3.1 U	3.2 U	3.3 U	3.1 U	3.1 U	2.8 U	2.7 U	2.8 U	3.3 U	3.1 U	3 U	3.1 U	3 U
Vanadium	mg/kg	**7.7**	**22**	**17.4**	**21**	**19.3**	**32.2**	**27.4**	**30.7**	**10.6**	**10**	**7.9**	**7.7**	**10.2**	**29.6**	**21**	**22.1**	**21.4**	**9.7**
Zinc	mg/kg	**21.1 J**	**48.8**	**31.8**	**35.5**	**35.2**	**48.8 J**	**42.4 J**	**45.9 J**	**24.4**	**22.9**	**25.2**	**16.8**	**15.5**	**46.7**	**36.7**	**38.9**	**41.1**	**22**
Cyanide, Total	mg/kg	3 U	3.1 U	2.7 U	3.1 U	2.9 U	3.1 U	3.2 U	3.2 U	3.1 U	3.1 U	2.9 U	2.7 U	2.8 U	3.3 U	3.1 U	3 U	3 U	**0.7 J**

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142	GC-SD142	GC-SD142	GC-SD142
Sample Number:		GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1	GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2
Sample Depth:		7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1	8.1-10.1	8.1-10.1	10.1-11.2
Sample Date:		4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,670**	**2,630**	**2,650**	**4,580**	**2,630**	**2,780**	**2,810**	**2,820**	**2,470**	**2,240**	**2,780**	**2,820**	**2,470**	**2,920**	**2,690**	**3,090**	**3,330**	**2,530**
Antimony	mg/kg	7.4 UJ	6.6 UJ	7.2 UJ	7.1 UJ	6.7 UJ	7 UJ	6.8 UJ	6.5 UJ	6.7 U	6.5 UJ	7.2 UJ	7.2 UJ	6.7 UJ	6.7 UJ	6.8 UJ	7.1 UJ	7.3 U	6.8 UJ
Arsenic	mg/kg	**4.5**	**1.7**	**0.73 J**	**5.3**	**3.5**	**3.4**	**2.8**	**4.5**	**3.5**	**6.7**	**4.1**	**4**	**2.5**	**2.9**	**2.3**	**1.9**	**1.6**	**4.9**
Barium	mg/kg	24.5 U	22.1 U	24.1 U	**184**	**9.6 J**	**18.4 J**	**14.3 J**	21.7 U	**26.4**	**22.2**	**60.1**	23.9 U	22.3 U	22.5 U	22.6 U	23.5 U	24.5 U	22.8 U
Beryllium	mg/kg	0.61 U	0.55 U	0.6 U	**0.24 J**	**0.16 J**	**0.27 J**	**0.22 J**	0.54 U	0.56 U	0.55 U	0.6 U	0.6 U	0.56 U	0.56 U	0.57 U	0.59 U	0.61 U	0.57 U
Cadmium	mg/kg	0.61 U	0.55 U	0.6 U	**7.2**	0.56 U	0.58 U	0.57 U	**0.12 J**	0.56 U	**0.19 J**	**0.11 J**	0.6 U	0.56 U	0.56 U	0.57 U	0.59 U	0.61 U	0.57 U
Calcium	mg/kg	613 UJ	554 UJ	604 UJ	**2,470 J**	559 UJ	583 UJ	571 UJ	542 UJ	555 UJ	545 UJ	600 UJ	599 UJ	558 UJ	**1,660 J**	566 UJ	588 UJ	612 UJ	570 UJ
Chromium	mg/kg	**7.1**	**6**	**5.3**	**75.2**	**5.2**	**6.1**	**8.3**	**10.3**	**5.7**	**5.8**	**6.2**	**25 J**	**6 J**	**8.5**	**16.5**	**7.2**	**6.8**	**11.5**
Cobalt	mg/kg	**5.5 J**	5.5 U	6 U	**4.4 J**	5.6 U	**4.4 J**	**4.1 J**	**4.2 J**	**3.4 J**	**3.8 J**	**3.8 J**	6 U	5.6 U	**5.1 J**	**4.8 J**	**6.2**	**6.8**	**8.2**
Copper	mg/kg	**7.2**	**5.6**	**6**	**143**	**5.9**	**6.5**	**7**	**8.3**	**6.3**	**5.8**	**5.6**	**8**	**6.3**	**9.3**	**6.3**	**7.1**	**6.3**	**6.2**
Iron	mg/kg	**11,000**	**9,400**	**7,680**	**12,000**	**9,760**	**10,700**	**10,000**	**11,800**	**9,560**	**13,100**	**10,100**	**16,200 J**	**9,300 J**	**10,900**	**11,500**	**9,100**	**8,260**	**11,000**
Lead	mg/kg	**5.4 J**	**3.8 J**	**4.1 J**	**143 J**	**3.9 J**	**3.8 J**	**4.3 J**	**5.3**	**3.3**	**3.9**	**4.8**	**4.3**	**3.2**	**10.9**	**4.4**	**4.5**	**5.2**	**3.9**
Magnesium	mg/kg	**1,880**	**1,380**	**1,320**	**2,660**	**1,270**	**1,640**	**1,410**	**1,550**	**1,430**	**1,090**	**1,370**	**1,230**	**1,500**	**1,750**	**1,220**	**1,440**	**1,810**	**1,380**
Manganese	mg/kg	**94.2**	**70.5**	**77.7**	**120**	**97.8**	**108**	**90.3**	**104**	**88.6**	**148**	**125**	**156 J**	**120 J**	**92.5 J**	**80.4 J**	**74.4 J**	**70.7**	**90.2 J**
Mercury	mg/kg	0.12 U	0.11 U	0.13 U	**0.56**	0.11 U	0.12 U	**1.7**	0.11 UR	0.11 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**12.5**	**10.4**	**9**	**28.1**	**9.2**	**11.4**	**10.1**	**11.6**	**10.3**	**9**	**8.2**	**11.2**	**10.4**	**10**	**12.1**	**10.9**	**12.4**	**11.7**
Potassium	mg/kg	**703 J**	**507 J**	**502 J**	**1,120 J**	**455 J**	**579 J**	**468 J**	**434 J**	**411 J**	**507 J**	**590 J**	**658 J**	**521 J**	**579 J**	566 UJ	**653 J**	**721 J**	570 UJ
Selenium	mg/kg	**0.54 J**	3.9 U	4.2 U	**1.2 J**	3.9 U	4.1 U	4 U	3.8 U	3.9 U	**0.86 J**	**0.5 J**	**0.98 J**	3.9 U	3.9 U	**0.57 J**	4.1 U	4.3 U	**0.62 J**
Silver	mg/kg	1.2 U	1.1 U	1.2 U	**3.9**	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	**0.062 J**	1.1 U	1.2 U	1.2 U	1.1 U
Sodium	mg/kg	613 U	554 U	604 U	**3,220**	559 U	583 U	571 U	542 U	555 U	545 U	600 U	599 U	558 U	**659**	566 U	**832**	**887**	**722**
Thallium	mg/kg	3.1 U	2.8 U	3 U	2.9 U	2.8 U	2.9 U	2.9 U	2.7 U	2.8 U	2.7 U	3 U	3 U	2.8 U	2.8 U	2.8 U	2.9 U	3.1 U	2.8 U
Vanadium	mg/kg	**10.4**	**10**	**7.2**	**17.3**	**7.9**	**9.1**	**8.3**	**12.1**	**8.5**	**9**	**7.3**	**17.8**	**7.7**	**12**	**14.6**	**10.2**	**9.1**	**13.5**
Zinc	mg/kg	**22.6**	**17**	**17.5**	**224**	**17.4**	**19.9**	**19.2**	**22.5**	**17.5**	**18.5**	**20.6**	**23.8**	**16.9**	**31.3**	**24.8**	**22.1**	**23.7**	**20.8**
Cyanide, Total	mg/kg	3.1 U	2.8 U	3.2 U	2.9 U	2.7 U	2.9 U	2.8 U	2.7 U	2.7 U	2.8 U	3 U	2.9 U	2.7 U	2.9 U	2.7 U	2.9 U	2.9 U	2.8 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD83A
Sample Number:		GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3	GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3	D-04152010-03	GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0
Sample Depth:		3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3	5.3-7.3	7.3-9.3	9.3-11.3	5-7
Sample Date:		4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**2,490**	**2,660**	**2,780**	**2,290**	**10,600**	**8,720**	**14,100**	**2,750**	**2,340**	**2,700**	**5,790**	**2,280**	**2,890**	**2,980**	**3,040**	**3,170**	**2,580**	**2,860**
Antimony	mg/kg	7 UJ	6.7 UJ	6.8 UJ	6.4 UJ	7.9 U	7.9 U	7.7 U	7.1 UJ	7 UJ	6.8 UJ	6.8 UJ	6.6 UJ	6.6 UJ	6.9 UJ	6.6 UJ	7.1 UJ	6.8 UJ	7 UJ
Arsenic	mg/kg	**2.7**	**1.5**	**2.2**	**1.2**	**2.2**	**1.8**	**2.8**	**3.5 J**	**4.3**	**4.8**	**2.2**	**1.6**	**2.3**	**3.6**	**3.1**	**2**	**3.5**	**2.8**
Barium	mg/kg	23.2 U	22.3 U	22.8 U	21.4 U	**95.2**	**64.6**	**86.1**	23.5 U	23.3 U	22.6 U	**27.5**	21.9 U	22.1 U	23 U	**11.8 J**	**15.5 J**	**16.7 J**	**10.3 J**
Beryllium	mg/kg	0.58 U	0.56 U	0.57 U	0.54 U	0.66 U	0.66 U	**0.75**	0.59 U	0.58 U	0.57 U	0.57 U	0.55 U	0.55 U	0.57 U	**0.21 J**	0.59 U	**0.13 J**	0.58 U
Cadmium	mg/kg	0.58 U	0.56 U	0.57 U	0.54 U	0.66 U	0.66 U	0.64 U	0.59 U	**0.17 J**	**0.22 J**	0.57 U	0.55 U	0.55 U	0.57 U	**0.099 J**	0.59 U	0.57 U	0.58 U
Calcium	mg/kg	579 UJ	558 UJ	571 UJ	536 UJ	**15,100 J**	**24,000 J**	**19,900 J**	588 UJ	583 UJ	566 UJ	**694 J**	547 UJ	552 UJ	**577 J**	550 UJ	594 UJ	**811 J**	584 UJ
Chromium	mg/kg	**7.5 J**	**5.8 J**	**6.1 J**	**6.8 J**	**32.9**	**27.8**	**32.9**	**7**	**5.9**	**11.9**	**12.4**	**5.8**	**7.1**	**29.4 J**	**6.6 J**	**7.7 J**	**7.2 J**	**6.8 J**
Cobalt	mg/kg	**3.6 J**	**4.7 J**	**4.7 J**	**3.3 J**	**15.6**	**14.4**	**15.1**	**7.3**	**4.3 J**	**4.7 J**	**10.4**	**5.5**	**6.1**	**5.9**	**5.7**	**4.8 J**	**4.1 J**	5.8 U
Copper	mg/kg	**7.2**	**5.9**	**6.6**	**4.5**	**25.4**	**22.2**	**27.3**	**5.9**	**5.2**	**6**	**24.4**	**5.1**	**6.3**	**8.7**	**7**	**6**	**7.3**	**6.7**
Iron	mg/kg	**10,900 J**	**8,120 J**	**9,310 J**	**7,810 J**	**21,000**	**16,500**	**23,900**	**11,000**	**9,750**	**11,700**	**13,300**	**8,490**	**10,400**	**14,000 J**	**12,400 J**	**9,810 J**	**11,900 J**	**11,200 J**
Lead	mg/kg	**3.2**	**4.2**	**4.4**	**2.5**	**8.3**	**7**	**11.7**	**4.5**	**3.4**	**4**	**20.4 J**	**3.7**	**4.5**	**8.6**	**6.3**	**4.5**	**4**	**4.9**
Magnesium	mg/kg	**1,330**	**1,220**	**1,280**	**1,270**	**20,800**	**22,700**	**17,300**	**1,280**	**1,120**	**1,360**	**2,640**	**1,070**	**1,420**	**1,320**	**1,440**	**1,400**	**1,200**	**1,380**
Manganese	mg/kg	**92.8 J**	**69.9 J**	**91 J**	**63.6 J**	**578**	**689**	**620**	**137**	**182**	**148**	**100 J**	**75.7 J**	**120 J**	**106 J**	**104 J**	**99.6 J**	**122 J**	**79.3 J**
Mercury	mg/kg	0.12 U	0.11 U	0.12 U	0.11 U	0.13 U	0.14 U	0.13 U	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U	0.11 U	0.12 U
Nickel	mg/kg	**9.5**	**10.3**	**11.2**	**9**	**129**	**154**	**86.8**	**14.2**	**10.2**	**11.4**	**21.1**	**10**	**11.7**	**12.6**	**11.7**	**9.5**	**10.3**	**11.2**
Potassium	mg/kg	**547 J**	**579 J**	**577 J**	**521 J**	**3,530 J**	**3,040 J**	**4,600 J**	**523 J**	**463 J**	**514 J**	**1,190 J**	547 UJ	552 UJ	**646 J**	**701 J**	**621 J**	**519 J**	**661 J**
Selenium	mg/kg	**0.45 J**	3.9 U	4 U	**0.42 J**	**1.1 J**	**0.6 J**	**0.88 J**	4.1 U	4.1 U	4 U	**0.86 J**	3.8 U	**0.46 J**	**0.77 J**	3.9 U	**0.64 J**	**0.64 J**	4.1 U
Silver	mg/kg	1.2 U	1.1 U	1.1 U	1.1 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	**0.13 J**	1.2 U	1.1 U	1.2 U
Sodium	mg/kg	**1,040**	558 U	**679**	**931**	**2,480**	**2,030**	**1,830**	**680**	**805**	**1,040**	568 U	547 U	552 U	574 U	550 U	594 U	566 U	**599**
Thallium	mg/kg	2.9 U	2.8 U	2.9 U	2.7 U	**1.5 J**	**1.6 J**	**2.6 J**	2.9 U	**0.51 J**	**0.56 J**	2.8 U	2.7 U	2.8 U	2.9 U	2.8 U	3 U	2.8 U	2.9 U
Vanadium	mg/kg	**10.9**	**7.9**	**9.4**	**8.1**	**27**	**21.2**	**32.8**	**9**	**7.3**	**10.2**	**19**	**9.8**	**10.3**	**13.6**	**11.7**	**8.6**	**14.1**	**10.3**
Zinc	mg/kg	**17.6**	**20.9**	**21.7**	**14.8**	**46.5**	**36**	**56.4**	**23.9**	**18.3**	**20.7**	**105**	**18.1**	**24.3**	**31.1**	**26**	**23.5**	**18.2**	**23**
Cyanide, Total	mg/kg	2.9 U	2.8 U	2.8 U	2.7 U	3.2 U	3.4 U	3.1 U	3 U	3 U	2.9 U	2.8 U	**4**	2.8 U	2.9 U	2.8 U	3.1 U	2.7 U	2.9 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-SD83A	GC-SD83A	GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3	ERT3-2	ERT3-2	ERT3-2
Sample Number:	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0	D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05	ERT3-2-I	ERT3-2-J	ERT3-2-K
Sample Depth:	7-9	9-11	9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3	7.4-8	8-9	9-10.4
Sample Date:	4/15/2010	4/15/2010	4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:	N	N	FD	N	N	N	FD	N	N	FD	N	N	N	N	FD	N	N	N
Parameter	**Units**										**Metals**							
Aluminum	mg/kg	**2,870**	**2,700**	**2,470**	**3,280**	**5,100**	**3,580**	**3,720**	**2,840**	**4,400**	**3,810**	**2,350**	**4,540**	**3,330**	**1,320**	**1,020**	**3,080**	**2,530**	**8,000**
Antimony	mg/kg	7.7 UJ	6.7 UJ	6.7 UJ	**3.1 J**	5 U	**0.64 J**	6.3 U	5.8 U	**0.49 J**	7 U	5.3 U	**12.5 J**	**1.6 J**	6.2 UJ	5.1 UJ	5.1 UJ	**0.46 J**	**0.57 J**
Arsenic	mg/kg	**1.7**	**2.5**	**2.5**	**4.6**	**0.9**	**1.5**	**0.43 J**	**1.4**	**4.3**	**4.4**	**0.43 J**	**21.5**	**3.5**	1 U	**0.37 J**	**1.4**	**1.8**	**3.3**
Barium	mg/kg	**17.5 J**	**12.4 J**	**10.5 J**	**223**	**19.2**	**55.4 J**	**21 J**	19.4 U	19.9 U	23.2 U	17.6 U	**799**	**123**	20.7 U	17.1 U	**17.1**	**10.2 J**	**19.2**
Beryllium	mg/kg	0.64 U	**0.17 J**	0.56 U	0.49 U	0.41 U	0.56 U	0.53 U	0.49 U	0.5 U	0.58 U	0.44 U	0.77 U	0.56 U	0.52 U	0.43 U	0.34 UJ	0.2 UJ	**0.52**
Cadmium	mg/kg	0.64 U	0.55 U	**0.22 J**	**2.2**	0.41 U	0.56 U	0.53 U	0.49 U	0.5 U	0.58 U	0.44 U	**8.9**	**0.8**	0.52 U	0.43 U	0.21 UJ	0.11 UJ	**0.65 J**
Calcium	mg/kg	642 UJ	554 UJ	558 UJ	**4,340**	**715**	**922 J**	**377 J**	485 U	497 U	580 U	439 U	**8,520**	**1,590**	518 U	427 U	**408 J**	**292 J**	**4,440**
Chromium	mg/kg	**4.8 J**	**8.7 J**	**8.2**	**27.1 J**	**11.7 J**	**11.8 J**	**9.9 J**	**7.3 J**	**12.7 J**	**10.7 J**	**7.6 J**	**59.8 J**	**18.4 J**	**6.8 J**	**5.2 J**	**12**	**9.8**	**13.9**
Cobalt	mg/kg	**4.8 J**	**5.9**	**5.2 J**	4.9 U	4.1 U	5.6 U	5.3 U	4.9 U	**9.4**	**7.6**	4.4 U	7.7 U	5.6 U	5.2 U	4.3 U	**7.5**	4.1 UJ	**11.1**
Copper	mg/kg	**5.4**	**6.2**	**5.7**	**129**	**13.1**	**21.6 J**	**9.7 J**	**8.6**	**10.3**	**7.5**	**3.5**	**483**	**56.8**	**3.6**	**5.1**	**6.4**	**5.4**	**19.1**
Iron	mg/kg	**8,010 J**	**11,300 J**	**10,500**	**14,900**	**6,950**	**6,040**	**5,020**	**4,290**	**7,510**	**6,790**	**4,750**	**27,300**	**11,200**	**2,840**	**2,360**	**8,930**	**6,370**	**19,300**
Lead	mg/kg	**3.9**	**3.5 J**	**5.8**	**468**	**15.8**	**132**	**19.3**	**19.9**	**6.2**	**5.8**	**3.6**	**1,360**	**158**	**2.5**	**4.5**	**5.6**	**4.5**	**11.9**
Magnesium	mg/kg	**1,310**	**1,360**	**1,250**	**1,880**	**1,790**	**1,360**	**1,270**	**962**	**1,840**	**1,430**	**1,210**	**4,040**	**1,540**	**964**	**987**	**1,550**	**1,190**	**6,070**
Manganese	mg/kg	**76.3 J**	**84.5 J**	**90.5 J**	**105**	**46.1**	**40**	**32.7**	**28**	**49.4**	**39.8**	**40.5**	**125**	**49.8**	**26.7**	**20.1**	**51.3**	**47.2**	**211**
Mercury	mg/kg	0.13 U	0.11 U	0.11 U	**1.6**	**0.097 J**	**0.11 J**	**0.065 J**	**0.14**	0.12 U	0.12 U	0.12 U	**4.8**	**0.29**	0.1 U	0.11 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**9.2**	**12.3**	**11.4**	**25.4**	**10.6**	**9.4**	**7.5**	**5.7 J**	**15.9 J**	**10.9 J**	**7.8 J**	**35.6**	**11.8**	**5**	**6.4**	**12**	**8.4**	**24.3**
Potassium	mg/kg	**577 J**	**500 J**	558 UJ	**708**	**790**	**645 J**	**668 J**	**555**	**769**	**718**	**405 J**	**923**	**698**	518 U	**161 J**	**734**	**611**	**1,220**
Selenium	mg/kg	4.5 U	3.9 U	3.9 U	**0.96 J**	2.9 U	3.9 U	3.7 U	3.4 U	**1.3 J**	**1.3 J**	3.1 U	**4.2 J**	3.9 U	3.6 U	3 U	3 U	3.5 U	3.1 U
Silver	mg/kg	1.3 U	1.1 U	1.1 U	**3.7 J**	0.83 U	1.1 U	1.1 U	0.97 U	1 U	1.2 U	0.88 U	**5.9 J**	1.1 U	1 U	0.85 U	0.85 UJ	1 UJ	0.89 UJ
Sodium	mg/kg	**899**	**654**	**864**	491 U	413 U	564 U	526 U	485 U	497 U	580 U	439 U	**1,620**	560 U	518 U	427 U	186 UJ	160 UJ	243 UJ
Thallium	mg/kg	3.2 U	2.8 U	2.8 U	2.5 U	2.1 U	2.8 U	2.6 U	2.4 U	2.5 U	2.9 U	2.2 U	3.9 U	2.8 U	2.6 U	2.1 U	2.1 U	2.5 U	2.2 U
Vanadium	mg/kg	**6.8**	**8.8**	**11.7**	**16.6**	**14.1**	**14.5**	**11.9**	**12.1**	**24.4**	**21.5**	**8.8**	**28.7**	**11.3**	5.2 U	**3.5 J**	**14.8**	**10.2**	**16.2**
Zinc	mg/kg	**19**	**26.4**	**19.7**	**315**	**29.1**	**85.3 J**	**28.8 J**	**23.7**	**31.6**	**24.1**	**18.1**	**1,580**	**198**	**12.8**	**11.3**	**22.5**	**17.3**	**53.3**
Cyanide, Total	mg/kg	3.1 U	2.8 U	2.8 U	3.2 U	2.8 U	2.7 U	2.7 U	2.9 U	2.9 U	2.8 U	2.8 U	**9.6**	**0.36 J**	2.7 U	2.8 U	2.9 U	2.9 U	2.9 U

TABLE I-18A
Metal and Cyanide Concentrations in Native Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**ERT3-3**	**ERT3-3**	**ERT4-3**	**ERT4-3**	**ERT4-3**
Sample Number:		**ERT3-3-L**	**ERT3-3-N**	**ERT4-3-I**	**ERT4-3-J**	**ERT4-3-K**
Sample Depth:		**10-11**	**12-13.4**	**7.3-8**	**8-9**	**9-9.8**
Sample Date:		**1/29/2010**	**1/29/2010**	**1/29/2010**	**1/29/2010**	**1/29/2010**
Sample Type:		**N**	**N**	**N**	**N**	**N**
Parameter	**Units**	**Metals**				
Aluminum	mg/kg	**2,460**	**2,500**	**3,280**	**3,170**	**3,050**
Antimony	mg/kg	4.9 UJ	**0.32 J**	5.9 UJ	**0.46 J**	7.1 UJ
Arsenic	mg/kg	0.81 U	**0.93**	**1.8**	**2.2**	**1 J**
Barium	mg/kg	**28.9**	**28.8**	**27.4**	19.7 U	23.6 U
Beryllium	mg/kg	0.4 U	0.4 U	0.49 U	0.49 U	0.59 U
Cadmium	mg/kg	0.4 U	0.4 U	0.49 U	0.49 U	0.59 U
Calcium	mg/kg	**494**	**633**	490 U	**879**	591 U
Chromium	mg/kg	**10.7 J**	**7.4 J**	**11.1**	**11.2**	**9.4**
Cobalt	mg/kg	4 U	4 U	4.9 U	4.9 U	5.9 U
Copper	mg/kg	**7.5**	**8**	**18.8**	**11.4**	**10.4**
Iron	mg/kg	**5,500**	**5,400**	**7,620**	**14,800**	**8,090**
Lead	mg/kg	**4.9**	**3.8**	**32.7**	**10.7**	**6.8**
Magnesium	mg/kg	**1,410**	**1,540**	**1,240**	**1,400**	**1,400**
Manganese	mg/kg	**44.3**	**46.7**	**49.5**	**109**	**60.8**
Mercury	mg/kg	0.11 U	0.12 U	**0.26**	**0.091 J**	**0.07 J**
Nickel	mg/kg	**14.4**	**14.1**	**13.9**	**14.8**	**12.8**
Potassium	mg/kg	**444**	**539**	**688**	**678**	**715**
Selenium	mg/kg	2.8 U	2.8 U	3.4 U	3.4 U	4.1 U
Silver	mg/kg	0.81 U	0.79 U	0.98 U	0.98 U	1.2 U
Sodium	mg/kg	404 U	396 U	490 U	491 U	591 U
Thallium	mg/kg	2 U	2 U	2.5 U	2.5 U	3 U
Vanadium	mg/kg	**7.2**	**7**	**10.4**	**11.8**	**11.9**
Zinc	mg/kg	**18.3**	**16.6**	**39 J**	**25.3 J**	**19.5 J**
Cyanide, Total	mg/kg	2.8 U	2.8 U	2.7 U	2.6 U	**3.9**

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TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD107	GC-SD01A	GC-SD02A	GC-SD125	GC-SD125	GC-SD04A	GC-SD04A	GC-SD04A	GC-SD05A	GC-SD05A	GC-SD05A	GC-SD06A
	Sample Number:	GC-SD107-08.0-10.0	GC-SD107-10.0-12.0	D-03092010-02	GC-SD107-12.0-14.0	GC-SD107-14.0-16.0	GC-SD001A-09.4-11.4	GC-SD002A-11.9-13.9	GC-SD125-10.0-12.0	GC-SD125-12.0-13.6	GC-SD004A-07.3-09.3	GC-SD004A-09.3-11.3	GC-SD004A-11.3-13.3	GC-SD005A-06.0-08.0	GC-SD005A-08.0-10.0	GC-SD005A-10.0-12.0	GC-SD006A-08.5-10.4
	Sample Depth:	8-10	10-12	10-12	12-14	14-16	9.4-11.4	11.9-13.9	10-12	12-13.6	7.3-9.3	9.3-11.3	11.3-13.3	6-8	8-10	10-12	8.5-10.4
	Sample Date:	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/10/2010	3/9/2010	3/9/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/4/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,270	5,160	3,160	4,990	3,950	2,390	2,750	2,760	3,640	3,640	3,980	1,950	4,460	2,740	2,150	6,550
Antimony	mg/kg																
Arsenic	mg/kg	0.32 J	**1.3 (A)**	**0.7 J (A)**	**4.6 (A)**	**2.5 (A)**	**0.69 J (A)**		**0.76 J (A)**	**1.6 (A)**	**5.6 (A)**	**2.5 (A)**	**0.76 J (A)**	**0.7 J (A)**	**0.91 J (A)**	**0.72 J (A)**	**1.8 (A)**
Barium	mg/kg						15.9 J		11.1 J	13.7 J					27.1 J		25.6
Beryllium	mg/kg		0.28 J	0.13 J	0.26 J	0.16 J					0.14 J	0.15 J		0.18 J			0.39 J
Cadmium	mg/kg																0.5 J
*Calcium	mg/kg				784			910			685	853		759	740	863	1,070
Chromium	mg/kg	**10.1 (A)**	**12.8 (A)**	**8.4 (A)**	**11.5 (A)**	**8.7 (A)**	**6 (A)**	**7.5 (A)**	**7.8 (A)**	**8.8 (A)**	**11.8 (A)**	**15.7 (A)**	**11.1 (A)**	**14.2 (A)**	**7.3 (A)**	**6 (A)**	**20.5 (A)**
Cobalt	mg/kg	**2.7 J (A)**	**6.9 (A)**	**3.5 J (A)**	**6.1 J (A)**	**4.2 J (A)**		2.3 J			**3.2 J (A)**	**2.8 J (A)**	1.3 J	**3.3 J (A)**	1.9 J	1.3 J	**7.8 (A)**
Copper	mg/kg	9.5 J	10.2 J	5.9 J	10.7 J	7.8 J	4.9	6.6 J	5.6	5.6	8.2 J	9.6 J	4.9 J	9.8 J	6.3 J	5.5 J	15
Iron	mg/kg	**6,210 (A)**	**8,790 (A)**	**6,200 (A)**	**9,580 (A)**	**7,180 (A)**	**6,660 (A)**	**6,600 (A)**	**6,080 (A)**	**8,500 (A)**	**6,840 (A)**	**7,840 (A)**	5,160	**6,900 (A)**	**6,390 (A)**	**5,590 (A)**	**10,700 (A)**
Lead	mg/kg	4.1	6	5.1	6.7	4.9	3.5	3.3	9.5	5.6	5.2	6.9	2.6	5.6	2.5	2.4	9.2
*Magnesium	mg/kg	1,480	2,010	1,340	2,230	1,710	1,650	1,670	1,400	1,780	1,660	1,920	1,360	1,890	1,620	2,150	2,860
Manganese	mg/kg	41.5	59.5	44.9	76.7	59.4	49.2	46.7	45.4	82.1	47.4	59	83.1	61.1	69	44.6	74.2
Mercury	mg/kg																
Nickel	mg/kg	12.4	20.2	10.7	14	11.3	11.7	11.4	10.5	13	14.2	16.4	9	12.9	10.9	15.4	20.5
*Potassium	mg/kg		856 J		896 J	697 J	495 J		591 J	713	696 J	833 J		737 J	675 J		1,110
Selenium	mg/kg		2.3 J		0.53 J						0.61 J	0.74 J					
Silver	mg/kg																
*Sodium	mg/kg																
*Thallium	mg/kg																
Vanadium	mg/kg	12	30.4	13.1	21.3	14.2	7.1	7.3	9.3	10.1	14.5	17.5	10.7	19.6	9.6	7.1	31.8
Zinc	mg/kg	26.9	31.8	44.2	33	25.8	14.8	15.7	17.7	24.6	24.4	30	14.7	28.9	15.9	12.2	52.3
Cyanide, Total	mg/kg				0.37 J												

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD06A	GC-SD06A	GC-SD06A	GC-SD152	GC-SD152	GC-SD152	GC-SD07A	GC-SD07A	GC-SD07A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD08A	GC-SD108	GC-SD108	GC-SD108
Sample Number:		GC-SD006A-09.4-11.4	GC-SD006A-11.4-13.4	GC-SD006A-13.4-14.0	GC-SD152-07.7-09.7	GC-SD152-09.7-11.7	D-04152010-02	GC-SD007A-07.0-09.0	GC-SD007A-09.0-11.0	GC-SD007A-11.0-13.0	GC-SD008A-08.0-10.0	D-03082010-01	GC-SD008A-10.0-12.0	GC-SD008A-12.0-13.0	GC-SD108-08.0-10.0	GC-SD108-10.0-12.0	GC-SD108-12.0-13.5
Sample Depth:		9.4-11.4	11.4-13.4	13.4-14	7.7-9.7	9.7-11.7	9.7-11.7	7-9	9-11	11-13	8-10	8-10	10-12	12-13	8-10	10-12	12-13.5
Sample Date:		3/8/2010	3/8/2010	3/8/2010	4/15/2010	4/15/2010	4/15/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/8/2010	3/5/2010	3/5/2010	3/5/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	4,220	4,060	4,540	3,700	3,020	3,260	5,200	3,320	3,150	2,840	3,110	3,420	3,420	4,730	6,720	4,920
Antimony	mg/kg							0.84 J		0.43 J		0.42 J	0.58 J	0.43 J	**3.2 J (A,R)**	0.54 J	
Arsenic	mg/kg	**0.84 J (A)**	**1.5 (A)**	**1.2 J (A)**	**1.1 J (A)**	**0.84 J (A)**	**0.69 J (A)**	**8.8 (A,R)**	**1.6 (A)**	**2.9 (A)**	**6.5 (A)**	**6.5 (A)**	**4 (A)**	**1.4 (A)**	**22.3 (A,R)**	**6.7 (A)**	**1.5 (A)**
Barium	mg/kg	18.4 J	20.8 J	24.5		61.6	51.7	78.9	13.3 J						**472 (R)**	35.5	19.2 J
Beryllium	mg/kg	0.31 J	0.28 J	0.32 J				0.34 J	0.2 J						0.38 J	0.53 J	0.38 J
Cadmium	mg/kg	0.028 J						0.32 J							**1.7 (R)**	0.1 J	
*Calcium	mg/kg	767	928	1,130	999 J	1,030 J	1,050 J	1,320	846	688			658	1,070	3,300	16,200	1,020
Chromium	mg/kg	**14.5 (A)**	**11.1 (A)**	**11.9 (A)**	**9.3 (A)**	**9.2 (A)**	**9.3 (A)**	**16.3 (A)**	**9 (A)**	**9.9 (A)**	**9.2 (A)**	**9.7 (A)**	**10.1 (A)**	**11.8 (A)**	**29 (A)**	**14.7 (A)**	**11.4 (A)**
Cobalt	mg/kg	**5.2 J (A)**	**4.6 J (A)**	**5.5 J (A)**	**3 J (A)**	**5.2 J (A)**	**5 J (A)**	**5.3 J (A)**	**3.6 J (A)**						**5.2 J (A)**	**6.7 J (A)**	**5 J (A)**
Copper	mg/kg	7	8.1	8.9	9	18.4	20.3	27.5	6.3	7.1	7.3	6.4	7	6.1	**223 (R)**	14.6	17.9
Iron	mg/kg	**7,820 (A)**	**8,080 (A)**	**9,570 (A)**	**6,310 (A)**	**6,220 (A)**	**6,800 (A)**	**11,000 (A)**	**8,100 (A)**	**10,700 (A)**	**6,250 (A)**	**6,080 (A)**	**8,840 (A)**	**8,660 (A)**	**14,700 (A)**	**19,000 (A)**	**9,030 (A)**
Lead	mg/kg	4.8	4.1	5	5	3.9	4.5	**51 (R)**	3.6	4.7	5.4	6.8	6	3.9	**484 (A,R)**	8.1	5.4
*Magnesium	mg/kg	1,920	2,460	2,680	1,870	2,580	2,550	2,130	1,970	2,410	1,230	1,350	2,750	2,540	2,230	4,490	3,960
Manganese	mg/kg	58.3 J	74.6 J	79 J	56.9 J	**1,370 (A,R)**	**1,090 (A,R)**	89.9 J	87.6 J	109 J	53 J	47.4 J	102 J	62.9 J	151 J	**222 J (A)**	84.9 J
Mercury	mg/kg										0.068 J	0.053 J	0.05 J	0.062 J	**1.9 (R)**		
Nickel	mg/kg	14.7	16.6	17.2	12.9	**45.9 (R)**	**37.7 (R)**	16.8	14	**28.3 (R)**	13.9	10.3	20.4	16.1	**29 (R)**	18.9	**32.7 (R)**
*Potassium	mg/kg	690	1,040	938	655 J	634 J	647 J	826	675	755	509 J	516 J	681	921	968	1,470	1,100
Selenium	mg/kg				0.52 J										3.9 J		
Silver	mg/kg					0.094 J		0.34 J							**2.7 (R)**		
*Sodium	mg/kg							643							714 J	894	
*Thallium	mg/kg									1.9 J		0.89 J	0.9 J	1.2 J			
Vanadium	mg/kg	19.6	12.4	15.3	11.2	11.5	20.8	17.8	12.5	14	8.6	7.8	11.6	13.6	19.5	22.2	16.2
Zinc	mg/kg	33.4	22	26.3	22.9	26.9	26.7	84.7	18.8	19.4	18.5	15.5	22.2	16.2	**653 (R)**	42.5	29.6
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD10A	GC-SD10A	GC-SD10A	GC-SD11A	GC-SD11A	GC-SD11A	GC-SD11A	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD13B	GC-SD14A	GC-SD14A	GC-SD14A	GC-SD109	GC-SD109
	Sample Number:	GC-SD010A-06.4-08.4	GC-SD010A-08.4-10.4	GC-SD010A-10.4-11.2	GC-SD011A-07.7-09.7	D-03102010-01	GC-SD011A-09.7-11.7	GC-SD011A-11.7-13.7	GC-SD013B-06.0-08.0	GC-SD013B-08.0-10.0	GC-SD013B-10.0-12.0	GC-SD013B-14.0-16.0	GC-SD014A-07.4-09.4	GC-SD014A-09.4-11.4	GC-SD014A-11.4-13.4	GC-SD109-04.8-06.8	GC-SD109-06.8-08.8
	Sample Depth:	6.4-8.4	8.4-10.4	10.4-11.2	7.7-9.7	7.7-9.7	9.7-11.7	11.7-13.7	6-8	8-10	10-12	14-16	7.4-9.4	9.4-11.4	11.4-13.4	4.8-6.8	6.8-8.8
	Sample Date:	3/4/2010	3/4/2010	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/9/2010	3/4/2010	3/4/2010
	Sample Type:	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,680	2,630	4,860	2,520	2,950	1,920	2,920	**7,970 (A)**	4,230	2,920	2,970	2,830	3,440	5,180	4,030	3,170
Antimony	mg/kg																
Arsenic	mg/kg	**1.1 J (A)**	**1.1 J (A)**	**1.9 (A)**	**1.4 (A)**	**1.6 (A)**	**1.4 (A)**	**1.1 J (A)**	**1.7 (A)**	**0.93 J (A)**	**3.1 (A)**	**1.1 J (A)**	**2.5 (A)**	**0.91 J (A)**	**1.7 (A)**	**1.7 (A)**	**1.7 (A)**
Barium	mg/kg	27.5	20.3 J	32.9	34.4 J	32.4 J			28.6	16.7 J	9.7 J	11.5 J	8.2 J	13.8 J	54.4	11.6 J	8.8 J
Beryllium	mg/kg	0.24 J							0.61							0.2 J	0.32 J
Cadmium	mg/kg		0.11 J	0.33 J												0.14 J	0.11 J
*Calcium	mg/kg	1,250	826	1,410	906	1,040	559	823						669	6,420		
Chromium	mg/kg	**8.9 (A)**	**5.3 (A)**	**11.3 (A)**	**7.6 (A)**	**7.7 (A)**	**4.1 (A)**	**5.3 (A)**	**15.3 (A)**	**9.6 (A)**	**7.5 (A)**	**8.6 (A)**	**7.8 (A)**	**9.1 (A)**	**13.1 (A)**	**7.8 (A)**	**6.8 (A)**
Cobalt	mg/kg	**3.7 J (A)**	**2.4 J (A)**	**4.7 J (A)**	2.1 J	**2.9 J (A)**	1.3 J	2.1 J	**8.3 (A)**						**6.9 (A)**	**2.7 J (A)**	**2.6 J (A)**
Copper	mg/kg	10.3	8.3	13.6	14.1 J	16.3 J	7.2 J	9.7 J	14.3	5.5	4.5	5.7	5.7	8.1	12.3	6.5	6.2
Iron	mg/kg	**7,620 (A)**	**5,660 (A)**	**11,100 (A)**	**5,910 (A)**	**6,910 (A)**	3,880	5,460	**14,800 (A)**	**5,920 (A)**	**6,580 (A)**	**6,510 (A)**	**6,810 (A)**	**8,480 (A)**	**11,900 (A)**	**7,340 (A)**	**6,400 (A)**
Lead	mg/kg	3.6	2.6	5.9	10.9	7.6	2	2.9	8.2	4.6	4	3.9	5	3.9	5	5.5	3.4
*Magnesium	mg/kg	1,810	1,710	3,780	1,500	2,090	1,200	1,700	2,400	1,320	1,090	1,360	1,070	1,880	6,260	1,330	1,190
Manganese	mg/kg	146 J	123	**225 (A)**	104	116	72.2	92.6	67.3	38	37.7	37.5	43.1	55.1	173	41.8	48
Mercury	mg/kg															0.08 J	0.11 J
Nickel	mg/kg	18.2	13.7	**24.7 (R)**	19	**26.1 (R)**	12.2	13.8	17.6	9.8	9.7	11.5	9.8	16.7	**21.8 (R)**	7.3	7.1
*Potassium	mg/kg	867	591	1,590	625 J	657 J			1,500	755	588	665	595	929	1,890	746	597
Selenium	mg/kg																
Silver	mg/kg				0.093 J	0.12 J											
*Sodium	mg/kg								1,120					569	1,150		
*Thallium	mg/kg																
Vanadium	mg/kg	13.3	7.4	15.9	7.6	10	5.3 J	6.8	19.7	11.5	10.2	8.8	10.8	11.1	17.3	13.3	10
Zinc	mg/kg	16	12.6	21.1	21.6	21.2	11.5	15.7	44.2	20.4	19.8	17.2	19.3	19.1	30	19.1	20.8
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD109	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD16A	GC-SD17A	GC-SD17A	GC-SD17A	GC-SD18A	GC-SD18A	GC-SD18A	GC-SD153	GC-SD153	GC-SD153	GC-SD145	GC-SD145
	Sample Number:	GC-SD109-08.8-10.8	GC-SD016A-05.4-07.4	GC-SD016A-07.4-09.4	GC-SD016A-09.4-11.4	GC-SD016A-11.4-13.4	GC-SD017A-02.0-04.0	GC-SD017A-04.0-06.0	GC-SD017A-06.0-08.0	GC-SD018A-04.0-06.0	GC-SD018A-06.0-08.0	GC-SD018A-08.0-10.0	GC-SD153-04.2-06.2	GC-SD153-06.2-08.2	GC-SD153-08.2-08.8	GC-SD145-03.8-05.8	GC-SD145-05.8-07.8
	Sample Depth:	8.8-10.8	5.4-7.4	7.4-9.4	9.4-11.4	11.4-13.4	2-4	4-6	6-8	4-6	6-8	8-10	4.2-6.2	6.2-8.2	8.2-8.8	3.8-5.8	5.8-7.8
	Sample Date:	3/4/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/10/2010	3/3/2010	3/3/2010	3/3/2010	4/15/2010	4/15/2010	4/15/2010	4/9/2010	4/9/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,120	2,390	2,740	2,080	2,520	2,800	3,040	3,200	3,260	2,800	2,730	2,250	2,430	2,580	6,700	2,580
Antimony	mg/kg		0.81 J														
Arsenic	mg/kg	**1.4 (A)**	**4.2 (A)**	**0.93 J (A)**	**0.48 J (A)**	**0.71 J (A)**	**2.2 (A)**	**3.1 (A)**	**6 (A)**	**1.5 (A)**	**4.2 (A)**	**5.1 (A)**	**1.6 (A)**	**1.7 (A)**	**1.3 (A)**	**3.9 (A)**	**2.2 (A)**
Barium	mg/kg	18.5 J				24.7 J	18.6 J	22.4 J	30	14.7 J	10.6 J	14.1 J				28.4	
Beryllium	mg/kg	0.3 J							0.69	0.11 J	0.26 J	0.16 J					
Cadmium	mg/kg	0.15 J								0.21 J	0.16 J	0.28 J				0.21 J	
*Calcium	mg/kg					714			780							952 J	
Chromium	mg/kg	**7.1 (A)**	**5.6 (A)**	**6.6 (A)**	**5.9 (A)**	**5.8 (A)**	**6.5 (A)**	**7.3 (A)**	**7.5 (A)**	**8.2 (A)**	**6.5 (A)**	**6.1 (A)**	**7.8 (A)**	**5.5 J (A)**	**6.5 J (A)**	**13.9 (A)**	**5.9 (A)**
Cobalt	mg/kg	**3.4 J (A)**	1.8 J	**3 J (A)**	**2.5 J (A)**	**2.6 J (A)**			**5.7 (A)**	2.3 J	**3.1 J (A)**	**8.2 (A)**	**2.6 J (A)**	2.3 J	**3 J (A)**	**8.5 (A)**	
Copper	mg/kg	5.7	5.1 J	5.5 J	6.4 J	12.1 J	4.1	5.2	9.6	8.8	6.1	4.8	15.3	4.2	4.3	20.3	4.5
Iron	mg/kg	**8,550 (A)**	**5,890 (A)**	**6,680 (A)**	**6,170 (A)**	**6,470 (A)**	**7,780 (A)**	**7,790 (A)**	**7,940 (A)**	**6,210 (A)**	**8,150 (A)**	**8,990 (A)**	5,080	5,360 J	**6,620 J (A)**	**14,000 (A)**	5,430
Lead	mg/kg	3.7	3	3.2	2.4	3.1	3.5	3.7	4.1	9.9	3.4	3.8	25.3	2.6	3.1	10.8	4.2
*Magnesium	mg/kg	1,370	931	1,380	1,630	1,550	1,100	1,290	2,230	1,170	1,090	1,220	1,120	1,160	1,180	3,150	1,290
Manganese	mg/kg	51.8	49.1	49.3	49.7	53.4	63	66.2	89.2	49	67.3	94.7	52.1 J	54 J	55 J	140	60.1
Mercury	mg/kg	0.07 J											0.056 J				
Nickel	mg/kg	9.8	7.1	10.2	13.1	11.8	9.6	11.5	**21 (R)**	6.9	8.3	11.5	8.8	7.1	8.2	18.2	8.5
*Potassium	mg/kg	615					539 J	581	640	625	554 J	533 J		588 J	659 J	1,580 J	520 J
Selenium	mg/kg												0.43 J				
Silver	mg/kg												0.19 J				
*Sodium	mg/kg																
*Thallium	mg/kg																
Vanadium	mg/kg	9	9.2	10.6	8.5	9.4	11.1	10.8	10.2	13	9.2	10.2	9.2	6.8	8.5	19.5	9
Zinc	mg/kg	24.9	17	18.9	15.4	22.3	25.2	20.2	41.5	25.1	22.2	24.5	48.5	16.8	18.1	54.6	20.3
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD145	GC-SD19C	GC-SD19C	GC-SD19C	GC-SD146	GC-SD146	GC-SD146	GC-SD146	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147	GC-SD147
	Sample Number:	GC-SD145-07.8-09.6	GC-SD019C-06.8-08.8	GC-SD019C-08.8-10.8	GC-SD019C-10.8-11.5	GC-SD146-07.0-09.0	GC-SD146-09.0-11.0	GC-SD146-11.0-13.0	D-04122010-02	GC-SD147-03.5-05.5	GC-SD147-05.5-07.5	D-04092010-01	GC-SD147-07.5-09.5	GC-SD147-09.5-11.5	GC-SD147-11.5-13.5	GC-SD147-13.5-15.5	GC-SD147-15.5-17.0
	Sample Depth:	7.8-9.6	6.8-8.8	8.8-10.8	10.8-11.5	7-9	9-11	11-13	11-13	3.5-5.5	5.5-7.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	13.5-15.5	15.5-17
	Sample Date:	4/9/2010	3/12/2010	3/12/2010	3/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010	4/9/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	2,240	4,180	5,340	3,950	3,750	4,580	3,150 J	4,570 J	6,260	**7,830 (A)**	**9,280 (A)**	**7,820 (A)**	4,390	3,270	3,490	3,080
Antimony	mg/kg			0.4 J		0.81 J	0.76 J								0.84 J		
Arsenic	mg/kg	**1.3 (A)**	**11.2 (A,R)**	**5.8 (A)**	**1.7 (A)**	**4.1 (A)**	**1.5 (A)**	**1.2 (A)**	**1.8 (A)**	**2.6 (A)**	**2.1 (A)**	**2.2 (A)**	**1.4 (A)**	**0.84 J (A)**	**0.79 J (A)**	**2 (A)**	**2.1 (A)**
Barium	mg/kg		13.2 J	19.9 J	14.7 J	17.3 J	21.2 J	27.2	34.7	63	123	119	95.9	52.9	36.1	32.5	23.6
Beryllium	mg/kg					0.24 J	0.23 J	0.16 J	0.31 J			0.51 J	0.42 J	0.3 J	0.26 J	0.19 J	0.27 J
Cadmium	mg/kg					0.12 J	0.1 J	0.11 J	0.12 J	0.16 J	0.21 J	0.3 J	0.25 J				
*Calcium	mg/kg		822	935	672	706 J	1,170 J	641 J	780 J	6,670 J	9,450 J	11,400 J	10,300 J	6,790 J	1,070 J	778 J	662 J
Chromium	mg/kg	**5.1 (A)**	**10.4 (A)**	**13.7 (A)**	**10.5 (A)**	**13.1 (A)**	**12.5 (A)**	**8.7 (A)**	**12 (A)**	**14.1 (A)**	**16.1 (A)**	**18.6 (A)**	**17.3 (A)**	**9.4 (A)**	**8.2 (A)**	**7.8 (A)**	**6.5 (A)**
Cobalt	mg/kg	**3 J (A)**	**6.4 (A)**	**6.6 (A)**			**5.6 (A)**		**6.2 (A)**	**6.9 (A)**	**7.8 (A)**	**9.3 (A)**	**8.4 (A)**				
Copper	mg/kg	3.9	7.2	10.6	7.6	13	15.2	9.8	15.2	20.3	16.9	19.8	17	10.8	9.6	9.7	10.7
Iron	mg/kg	5,030	**13,900 (A)**	**13,500 (A)**	**8,760 (A)**	**7,110 (A)**	**9,320 (A)**	**7,150 J (A)**	**10,900 J (A)**	**13,000 (A)**	**15,100 (A)**	**17,800 (A)**	**15,500 (A)**	**9,280 (A)**	**7,790 (A)**	**6,660 (A)**	**5,660 (A)**
Lead	mg/kg	3.7	5.9	6.9	5.1	6.9	4.8	3.6	4.9	8.5	6.8	7.7	6	5	3.3	3.1	3.1
*Magnesium	mg/kg	1,160	1,910	2,310	2,150	1,800	2,600	1,930	2,970	5,380	6,920	8,040	7,760	4,470	2,310	1,920	1,580
Manganese	mg/kg	61	**294 (A)**	165	56.2	98.6	140	140	**181 (A)**	**293 (A)**	**372 (A)**	**416 (A)**	**358 (A)**	**207 (A)**	74.1	105	90
Mercury	mg/kg																
Nickel	mg/kg	8	12.4	14.9	13.4	20.5	**28.8 (R)**	17.5	**26.2 (R)**	**24.6 (R)**	**22 (R)**	**25.3 (R)**	**28.2 (R)**	16.8	15	13.8	14.5
*Potassium	mg/kg	477 J	822	991	841	836 J	1,640 J	1,020 J	1,540 J	2,340 J	2,840 J	3,310 J	2,880 J	1,570 J	1,050 J	1,060 J	778 J
Selenium	mg/kg											0.71 J	0.96 J	0.57 J		0.86 J	0.8 J
Silver	mg/kg					0.055 J											
*Sodium	mg/kg																
*Thallium	mg/kg		0.9 J									0.92 J	0.68 J				
Vanadium	mg/kg	6.7	17.9	21.2	13	12.5	16.5	11.2	15.2	16	19.5	22.2	20.7	13.7	10.9	10.4	8.8
Zinc	mg/kg	17	27.3	31.4	20.7	22.1	23.7		64	31.9	35.9	40.8	35.4	21.1	17.5	16.9	15.6
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD148	GC-SD148	GC-SD148	GC-SD148	GC-SD110	GC-SD110	GC-SD110	GC-SD110	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD22B	GC-SD24B	GC-SD24B	GC-SD24B
	Sample Number:	GC-SD148-06.2-08.2	D-04142010-01	GC-SD148-08.2-10.2	GC-SD148-10.2-11.9	GC-SD110-06.0-08.0	GC-SD110-08.0-10.0	GC-SD110-10.0-12.0	GC-SD110-12.0-14.0	GC-SD022B-04.0-06.0	GC-SD022B-06.0-08.0	GC-SD022B-08.0-10.0	GC-SD022B-10.0-12.0	GC-SD022B-12.0-14.0	GC-SD024B-04.8-06.8	GC-SD024B-06.8-08.8	GC-SD024B-08.8-10.8
	Sample Depth:	6.2-8.2	6.2-8.2	8.2-10.2	10.2-11.9	6-8	8-10	10-12	12-14	4-6	6-8	8-10	10-12	12-14	4.8-6.8	6.8-8.8	8.8-10.8
	Sample Date:	4/14/2010	4/14/2010	4/14/2010	4/14/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/13/2010	4/13/2010	4/13/2010
	Sample Type:	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	2,940	3,250	2,600	2,950	4,690	3,300	2,920	2,520	4,320	3,390	4,590	5,760	5,160	2,650	2,470	4,550
Antimony	mg/kg												0.38 J				
Arsenic	mg/kg	**3.1 (A)**	**4.7 (A)**	**2.6 (A)**	**1.5 (A)**	**10.3 (A,R)**	**2.5 (A)**			**4.5 (A)**	**1.8 (A)**	**4.1 (A)**	**2 (A)**	**4.4 (A)**	**2.9 (A)**	**1.6 (A)**	**2 (A)**
Barium	mg/kg	50.5	27.4			88.1 J	34.9 J	33.4 J		22.4	19.4 J	32	38	30.8	24.3	22.9	43.6
Beryllium	mg/kg					0.21 J	0.2 J	0.16 J	0.15 J		0.23 J						
Cadmium	mg/kg	0.15 J	0.16 J			0.25 J										0.099 J	0.23 J
*Calcium	mg/kg	907 J	961 J	769 J	918 J	674	701	784	628	900	693	1,090	1,740	902	671 J	784 J	6,140 J
Chromium	mg/kg	**7.6 (A)**	**9.2 (A)**	**7.1 (A)**	**6.7 (A)**	**11.9 (A)**	**7.1 (A)**	**5.6 (A)**	**5.2 (A)**	**11.4 (A)**	**8.3 (A)**	**12.2 (A)**	**17.5 (A)**	**13.7 (A)**	**7.3 (A)**	**5.8 (A)**	**10.7 (A)**
Cobalt	mg/kg	**3.1 J (A)**	**4.2 J (A)**	**2.8 J (A)**	**3.5 J (A)**	**2.8 J (A)**	**3.4 J (A)**	**2.5 J (A)**	2 J		**3.9 J (A)**		**8.5 (A)**		**2.8 J (A)**	**2.5 J (A)**	**5.3 J (A)**
Copper	mg/kg	12.1	12.1	8.8	7	17.1	10.1	7.9	7.3	10.5	9.4	14.4	23.5	12.3	6.7	7.1	11.2
Iron	mg/kg	**7,090 (A)**	**8,550 (A)**	**6,510 (A)**	**6,310 (A)**	**7,750 (A)**	**5,740 (A)**	5,310	5,320	**8,830 (A)**	**8,580 (A)**	**10,300 (A)**	**12,100 (A)**	**8,240 (A)**	**6,150 (A)**	**6,160 (A)**	**9,740 (A)**
Lead	mg/kg	11.7 J	6.1 J	4.9	2.2	5.3 J	2.7 J	2.6 J	2.4 J	4.7	4.6	5.1	10.2	4.3	3.2	3	4
*Magnesium	mg/kg	1,450	1,720	1,290	1,830	1,800	1,400	1,520	1,480	1,770	1,670	2,930	6,050	2,460	1,290	1,380	4,770
Manganese	mg/kg	**213 J (A)**	**335 J (A)**	124	88.1	114 J	156 J	88.7 J	89.3 J	75.9	57.5	104	136	111	73.5	119	**248 (A)**
Mercury	mg/kg					0.14											
Nickel	mg/kg	16.5 J	**27.9 (R)**	15.7	16.9	15.3	18	13.3	14.4	15	17.3	**29.4 (R)**	**64 (R)**	20.2	10.9	12.1	18.5
*Potassium	mg/kg	821 J	788 J	685 J	946 J	768	730	677	625	844	734	1,390	1,220	733	580 J	631 J	1,620 J
Selenium	mg/kg	0.56 J	0.68 J														
Silver	mg/kg																
*Sodium	mg/kg																
*Thallium	mg/kg						3					1.2 J					
Vanadium	mg/kg	9	10.9	7.7	9.5	14.4	9.5	7.2	7.1	12.7	11.4	17.7	19.5	12.8	8.1	8.1	13.8
Zinc	mg/kg	40.6	21.2 J	15.2	15.7	19.2	14.2	13.6	15.1	19.7	17.9	23.4	38.7	20.4	14.3	13.3	26.7
Cyanide, Total	mg/kg											3					

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD24B	GC-SD24B	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD127	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD128	GC-SD129	GC-SD129	GC-SD129
	Sample Number:	GC-SD024B-10.8-12.8	GC-SD024B-12.8-14.8	GC-SD127-06.0-08.0	GC-SD127-08.0-10.0	GC-SD127-10.0-12.0	GC-SD127-12.0-14.0	GC-SD127-14.0-15.8	GC-SD128-03.3-05.3	D-03112010-03	GC-SD128-05.3-07.3	GC-SD128-07.3-09.3	GC-SD128-09.3-11.3	GC-SD128-11.3-13.3	GC-SD129-06.6-08.6	D-04142010-02	GC-SD129-08.6-10.6
	Sample Depth:	10.8-12.8	12.8-14.8	6-8	8-10	10-12	12-14	14-15.8	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3	9.3-11.3	11.3-13.3	6.6-8.6	6.6-8.6	8.6-10.6
	Sample Date:	4/13/2010	4/13/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	3/11/2010	4/14/2010	4/14/2010	4/14/2010
	Sample Type:	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	4,980	5,120	**10,600 (A)**	3,130	5,630	4,030	4,910	**8,820 (A)**	**10,200 (A)**	4,450	6,140	4,600	4,180	5,850	6,040	4,490
Antimony	mg/kg									0.52 J							
Arsenic	mg/kg	**1.9 (A)**	**1.5 (A)**	**2.8 (A)**	**5 (A)**	**14.7 (A,R)**	**2.1 (A)**	**1.6 (A)**	**2.7 (A)**	**4.2 (A)**	**5.7 (A)**	**4.5 (A)**	**0.56 J (A)**		**6.6 (A)**	**6.5 (A)**	**4.6 (A)**
Barium	mg/kg	47.8	50.4	34.1 J		27.3			36.7 J	45.1	42 J	47.6 J	26.6 J	22.1 J	33.6	33.9	27.1
Beryllium	mg/kg			0.6 J	0.19 J		0.23 J	0.26 J	0.5 J		0.29 J	0.43 J	0.27 J				
Cadmium	mg/kg	0.25 J	0.35 J												0.55 J	0.53 J	0.21 J
*Calcium	mg/kg	7,980 J	4,250 J	1,850	768	1,440	3,590	3,720	2,340	1,780	1,050	3,590	1,350	1,180	2,850 J	2,610 J	1,750 J
Chromium	mg/kg	**12.2 (A)**	**11.3 (A)**	**18.6 (A)**	**6.8 (A)**	**12.1 (A)**	**7.1 (A)**	**8.4 (A)**	**18.4 (A)**	**20.6 (A)**	**9.8 (A)**	**13.3 (A)**	**10.2 (A)**	**8.8 (A)**	**13.2 (A)**	**14 (A)**	**12 (A)**
Cobalt	mg/kg	**6.2 J (A)**	**5.7 J (A)**	**10.8 (A)**	**3 J (A)**	**7.3 (A)**	**4.1 J (A)**	**5.3 J (A)**	**7.9 (A)**	**10.5 (A)**	**4.7 J (A)**	**7 (A)**	**4.3 J (A)**		**8.4 (A)**	**8.5 (A)**	**6 (A)**
Copper	mg/kg	11.2	12.4	21.6	5.9	10.4	10.3	11.6	25.5	28.9	8.6	12.9	11.5	8.5	13.5	14.1	10.3
Iron	mg/kg	**10,500 (A)**	**10,600 (A)**	**18,600 (A)**	**9,930 (A)**	**17,100 (A)**	**8,110 (A)**	**9,750 (A)**	**17,400 (A)**	**18,500 (A)**	**12,700 (A)**	**18,200 (A)**	**10,300 (A)**	**8,660 (A)**	**19,600 (A)**	**21,100 (A)**	**10,900 (A)**
Lead	mg/kg	4.4	5.1	11 J	4.3 J	7.3	4.9 J	5.8 J	21.2 J	28.3	5.7 J	7.6 J	4.7 J	4.3	8.6	9.6	5.4
*Magnesium	mg/kg	5,720	4,020	4,760	1,520	2,870	3,300	3,760	4,440	4,690	2,340	3,340	3,010	2,600	3,110	3,220	2,620
Manganese	mg/kg	**242 (A)**	**402 (A)**	**194 J (A)**	**234 J (A)**	**411 (A)**	**234 J (A)**	172 J	177 J	161	**230 J (A)**	**606 J (A,R)**	154 J	85.1	**1,030 (A,R)**	**1,040 (A,R)**	**338 (A)**
Mercury	mg/kg								0.066 J								
Nickel	mg/kg	20.2	19	**22.4 (R)**	8.5	15.2	14.6	17.3	20.7	**23.5 (R)**	11.9	16.8	16.6	14.1	16.9	17.6	20.3
*Potassium	mg/kg	1,810 J	1,670 J	1,760		1,160	783	834	1,650	2,040	916	1,290	1,040	823	1,390 J	1,440 J	1,090 J
Selenium	mg/kg														1.3 J	1.3 J	1.2 J
Silver	mg/kg								0.15 J	0.11 J							
*Sodium	mg/kg			1,250											1,050	1,050	
*Thallium	mg/kg	0.45 J		0.87 J		1.3 J		2.7	0.62 J			0.69 J			1.7 J	1.3 J	
Vanadium	mg/kg	15.4	14.7	24.5	9.4	19.9	9.5	11.2	21.4	25	14.3	20.8	13.5	11.9	19.5	20.8	15.4
Zinc	mg/kg	30.6	27.8	58.2	24.5	34.2	23.1	32.6	62.2	74.8	32.3	38.1	25.8	19.2	42.5	45.6	31.2
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD25B	GC-SD25B	GC-SD25B	GC-SD25B	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD26A	GC-SD27A	GC-SD27A	GC-SD27A	GC-SD27A	GC-SD111	GC-SD111
Sample Number:		GC-SD025B-04.8-06.8	GC-SD025B-06.8-08.8	GC-SD025B-08.8-10.8	GC-SD025B-10.8-11.6	GC-SD026A-02.4-04.4	GC-SD026A-04.4-06.4	GC-SD026A-06.4-08.4	D-03192010-01	GC-SD026A-10.4-12.4	GC-SD026A-12.4-14.4	GC-SD027A-04.1-06.1	D-04132010-02	GC-SD027A-06.1-08.1	GC-SD027A-08.1-08.6	GC-SD111-08.3-10.3	GC-SD111-10.3-12.3
Sample Depth:		4.8-6.8	6.8-8.8	8.8-10.8	10.8-11.6	2.4-4.4	4.4-6.4	6.4-8.4	6.4-8.4	10.4-12.4	12.4-14.4	4.1-6.1	4.1-6.1	6.1-8.1	8.1-8.6	8.3-10.3	10.3-12.3
Sample Date:		3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	3/19/2010	4/13/2010	4/13/2010	4/13/2010	4/13/2010	3/16/2010	3/16/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,060	3,290	2,780	2,520	3,790	4,310	4,780	4,010	3,180	4,730	**9,850 (A)**	**7,990 (A)**	3,380	4,220	**10,900 J (A)**	**11,600 J (A)**
Antimony	mg/kg	0.83 J	0.82 J				1.1 J	0.87 J		0.86 J							
Arsenic	mg/kg	**2.3 (A)**	**1.6 (A)**	**1.2 (A)**	**1.7 (A)**	**5.3 (A)**	**20 (A,R)**	**21.6 (A,R)**	**34.6 (A,R)**	**1.3 (A)**	**0.55 J (A)**	**5.1 (A)**	**7.3 (A)**	**13.7 (A,R)**	**9.4 (A,R)**	**5 (A)**	**3 (A)**
Barium	mg/kg	25.2 J	23.8 J	37.3 J		23.2 J	52.8 J	40.1 J	32.7 J	27.1 J	55.2 J	38.9	35.7		28.9	65.6 J	66.1 J
Beryllium	mg/kg	0.21 J	0.19 J	0.2 J	0.2 J	0.29 J	0.29 J	0.33 J	0.21 J	0.28 J	0.3 J					0.68	0.65
Cadmium	mg/kg											0.51 J	0.49 J	0.22 J	0.26 J		
*Calcium	mg/kg	5,000	5,050	9,340	6,930		740	1,090	778	8,650	13,200	1,920 J	1,230 J	745 J	972 J	1,500	8,630
Chromium	mg/kg	**9.2 (A)**	**7.2 (A)**	**5.9 (A)**	**5.3 (A)**	**8.1 (A)**	**10.7 (A)**	**14.8 (A)**	**11.2 (A)**	**7.5 (A)**	**11.1 (A)**	**19.6 (A)**	**17.1 (A)**	**16.5 (A)**	**11.4 (A)**	**17.1 (A)**	**18.7 (A)**
Cobalt	mg/kg	**3.5 J (A)**	**3.7 J (A)**	**2.7 J (A)**	**2.4 J (A)**	**4.2 J (A)**	**4.4 J (A)**	**4.2 J (A)**	**4.7 J (A)**	**3.1 J (A)**	**4.9 J (A)**	**10.9 (A)**	**8.2 (A)**	**5.2 J (A)**	**5.1 J (A)**	**10.6 (A)**	**12.8 (A)**
Copper	mg/kg	8.4	8.8	7.5	6.3	14.2 J	10.1 J	10.5 J	12.1 J	10.5 J	13.3 J	23.2	16.8	6.5	10.1	23.4	25.9
Iron	mg/kg	**8,510 (A)**	**8,300 (A)**	**6,490 (A)**	5,400	**9,310 (A)**	**12,700 (A)**	**13,500 (A)**	**14,800 (A)**	**7,190 (A)**	**10,900 (A)**	**20,800 (A)**	**18,100 (A)**	**10,300 (A)**	**12,100 (A)**	**25,600 J (A)**	**23,700 J (A)**
Lead	mg/kg	4	4.1	3	2.6	10.6	6.2	6.7	6.3	3.3	5	12.4	9.6	4.4	6.9		
*Magnesium	mg/kg	2,900	2,940	3,590	3,000	1,830	2,430	2,560	2,260	3,880	5,920	5,290	3,970	1,950	2,410	4,240	6,910
Manganese	mg/kg	**355 (A)**	160	**220 (A)**	**182 (A)**	67.5	92	125	90.9	**228 (A)**	**299 (A)**	**191 (A)**	142	77.7	94.8	**846 (A,R)**	**413 (A)**
Mercury	mg/kg															**0.78 (R)**	
Nickel	mg/kg	10.8	12	9.3	8.7	12.8	15.7	14.4	11.5	12.9	20.3	**23.9 (R)**	19.2	**37.5 (R)**	16	**24.6 (R)**	**26 (R)**
*Potassium	mg/kg	801	798	842	826	834 J	980 J	1,160 J	911 J	1,130 J	1,610 J	1,870 J	1,700 J	772 J	978 J	2,110	2,160
Selenium	mg/kg					0.68 J	1.1 J	1.6 J	1.4 J		0.67 J					1.4 J	1.6 J
Silver	mg/kg													0.059 J			
*Sodium	mg/kg	600		694		703	810			679	683					1,440	1,390
*Thallium	mg/kg					2.7 J	3.5 J	4.8 J	4.1 J	2.2 J	3.1	0.53 J				5.8 J	5.2 J
Vanadium	mg/kg	15	11.5	8.4	7.5	8.7	20.7	27.5	21	9.6	14	24.8	22.1	20.3	19.3	21.8	23.4
Zinc	mg/kg	17.4 J	18.5 J	14.5 J	12.6 J	55.5	35.8	29.2	31.7	17.5	27	66.3	57	28.7	27.4	69.4	67.8
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD111	GC-SD111	GC-SD87A	GC-SD87A	GC-SD87A	GC-SD28B	GC-SD28B	GC-SD28B	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD29A	GC-SD30A	GC-SD30A	GC-SD30A
	Sample Number:	GC-SD111-12.3-14.3	GC-SD111-14.3-15.9	GC-SD087A-08.3-10.3	GC-SD087A-10.3-12.3	GC-SD087A-12.3-14.3	GC-SD028B-06.8-08.8	GC-SD028B-08.8-10.8	GC-SD028B-10.8-12.8	GC-SD029A-04.8-06.8	GC-SD029A-06.8-08.8	GC-SD029A-08.8-10.8	GC-SD029A-11.8-13.8	D-03122010-02	GC-SD030A-06.0-08.0	GC-SD030A-08.0-10.0	GC-SD030A-10.0-12.0
	Sample Depth:	12.3-14.3	14.3-15.9	8.3-10.3	10.3-12.3	12.3-14.3	6.8-8.8	8.8-10.8	10.8-12.8	4.8-6.8	6.8-8.8	8.8-10.8	11.8-13.8	11.8-13.8	6-8	8-10	10-12
	Sample Date:	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/12/2010	3/19/2010	3/19/2010	3/19/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**8,870 J (A)**	**8,470 J (A)**	7,120 J	3,280 J	2,370 J	**13,300 (A)**	5,620	2,800	**11,000 (A)**	5,520	4,130	2,830	1,860	**9,570 (A)**	3,980	1,890
Antimony	mg/kg						0.6 J		0.78 J		0.95 J		0.82 J				
Arsenic	mg/kg	**3.8 (A)**	**4.4 (A)**	**4.4 (A)**	**1.7 (A)**	**2.4 (A)**	**2.7 (A)**	**4.2 (A)**	**3.3 (A)**	**5.4 (A)**	**3.7 (A)**	**1.9 (A)**	**5.1 (A)**	**4.6 (A)**	**3.4 (A)**	**2.9 (A)**	**1.9 (A)**
Barium	mg/kg	38.5 J	79.4 J	31.2 J			78.2	42.5	81.4 J	32.9 J	33.3 J	24.1 J			35.3 J	20.9 J	7.3 J
Beryllium	mg/kg						0.84		0.24 J	0.7	0.4 J		0.24 J	0.2 J			0.18 J
Cadmium	mg/kg							0.12 J				0.039 J					
*Calcium	mg/kg	8,310	1,620	1,240	696	997	2,290	937	700	4,280	2,910	1,080	781		7,400	1,130	
Chromium	mg/kg	**15.1 (A)**	**17.4 (A)**	**11.6 (A)**	**7.3 (A)**	**4.5 (A)**	**19.7 (A)**	**11.8 (A)**	**6.5 (A)**	**17.9 (A)**	**11.5 (A)**	**8.1 (A)**	**6.1 (A)**	**4.4 (A)**	**15.5 (A)**	**8.2 (A)**	**4.4 (A)**
Cobalt	mg/kg	**8.9 (A)**	**8.2 (A)**	**5.7 J (A)**			**12.2 (A)**		**5.8 (A)**	**9 (A)**	**5.7 J (A)**		**2.9 J (A)**	2.3 J	**9.6 (A)**	**4.4 J (A)**	2.1 J
Copper	mg/kg	21	17.2	13.5	6.7	6.4	31.5	9.7	5.7	33.9	10.9	7.6	6.1	3.6	22.7 J	7.7 J	4.2 J
Iron	mg/kg	**20,500 J (A)**	**17,200 J (A)**	**15,400 J (A)**	**8,490 J (A)**	**6,620 J (A)**	**27,800 (A)**	**12,700 (A)**	**8,730 (A)**	**26,500 (A)**	**12,900 (A)**	**8,560 (A)**	**7,220 (A)**	**6,180 (A)**	**21,100 (A)**	**9,170 (A)**	5,230
Lead	mg/kg		12 J				16.9	6.9	4	12.1	6.4	6.2	4.8	2.7	11.3	5.1	3.2
*Magnesium	mg/kg	5,740	3,890	2,760	1,940	1,930	6,110	2,720	1,450	4,940	2,970	1,870	1,380	868	5,780	1,860	802
Manganese	mg/kg	**426 (A)**	171	138	88.9	73.4	**206 (A)**	87.2	**226 (A)**	**366 (A)**	**183 (A)**	82.1	97.1	66.3	**383 (A)**	98.4	49.5
Mercury	mg/kg																
Nickel	mg/kg	20.3	20.4	16.4	16.2	17.3	**26.3 (R)**	14.5	11.2	**22.6 (R)**	13.7	9.2	7.7	6.6	**23.3 (R)**	10.8	5.7
*Potassium	mg/kg	1,630	1,490	1,440			2,690	1,010	576	2,170	1,040	823	617	417 J	1,710 J	746 J	
Selenium	mg/kg	1.3 J	1.1 J	1.2 J	0.58 J	0.64 J							0.71 J	0.49 J	1.4 J	0.57 J	0.52 J
Silver	mg/kg																
*Sodium	mg/kg	1,120	1,330				1,320	880		1,140	940	1,020			1,190	692	
*Thallium	mg/kg	4.7 J	3.5 J	2.6 J	1.3 J					1.9 J					6.8 J	2.7	1.1 J
Vanadium	mg/kg	18	23	16	8.8	6.6	26.9	16	11.5	26.2	14.8	11.8	9.9	8.4	18.8	10.9	6.2
Zinc	mg/kg	55.7	66.2	42	21.9	17	72.5	39.2	22.1 J	62.1 J	39.7 J	26.7	20.1 J	17.2 J	61.6	30.5	17.9
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD30A	GC-SD30A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD31A	GC-SD32A	GC-SD32A	GC-SD32A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD33A	GC-SD113	GC-SD113	GC-SD113
	Sample Number:	GC-SD030A-12.0-14.0	GC-SD030A-16.0-17.7	GC-SD031A-09.3-11.3	D-03162010-01	GC-SD031A-11.3-13.3	GC-SD031A-13.3-13.9	GC-SD032A-06.1-08.1	GC-SD032A-08.1-10.1	GC-SD032A-10.1-12.1	GC-SD033A-06.2-08.2	GC-SD033A-08.2-10.2	GC-SD033A-10.2-12.2	GC-SD033A-13.6-15.6	GC-SD113-09.3-11.3	GC-SD113-11.3-13.3	GC-SD113-13.3-15.0
	Sample Depth:	12-14	16-17.7	9.3-11.3	9.3-11.3	11.3-13.3	13.3-13.9	6.1-8.1	8.1-10.1	10.1-12.1	6.2-8.2	8.2-10.2	10.2-12.2	13.6-15.6	9.3-11.3	11.3-13.3	13.3-15
	Sample Date:	3/19/2010	3/19/2010	3/16/2010	3/16/2010	3/16/2010	3/16/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010	3/15/2010
	Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,370	3,570	5,450 J	4,780 J	2,800 J	5,970 J	5,400	2,950	5,050	6,010	**13,800 (A)**	4,550	3,150	5,210	3,100	3,320
Antimony	mg/kg								0.82 J								
Arsenic	mg/kg	**6.9 (A)**	**1.8 (A)**	**4 (A)**	**4.1 (A)**	**3.3 (A)**	**3.9 (A)**	**2.3 (A)**	**6.2 (A)**	**6.9 (A)**	**7.1 (A)**	**3.4 (A)**	**3.3 (A)**	**13.5 (A,R)**	**8.3 (A,R)**	**12.2 (A,R)**	**9.6 (A,R)**
Barium	mg/kg	19.8 J	23.1 J	39.6 J	40.2 J		55.7 J	107 J	29.6 J	48.4 J	13.4 J	52.5 J	21.9 J	17.6 J	50.4 J	24.6 J	28.2 J
Beryllium	mg/kg	0.31 J	0.29 J					0.48 J	0.3 J	0.39 J	0.48 J	0.75	0.33 J	0.27 J	0.26 J	0.22 J	0.23 J
Cadmium	mg/kg																
*Calcium	mg/kg	923	4,530	1,880	1,100		777	651	481 J	1,380	248 J	2,680	1,720	941	1,350	524 J	725
Chromium	mg/kg	**7.5 (A)**	**8.6 (A)**	**10.6 (A)**	**10.1 (A)**	**6.9 (A)**	**12.6 (A)**	**11.7 (A)**	**6.4 (A)**	**11.1 (A)**	**9.8 (A)**	**20 (A)**	**9 (A)**	**6.5 (A)**	**9.1 (A)**	**7.2 (A)**	**7.6 (A)**
Cobalt	mg/kg	**4.1 J (A)**	**3.6 J (A)**				**6.6 (A)**	**4.7 J (A)**	**3.4 J (A)**	**4.8 J (A)**	**7.4 J (A)**	**13 (A)**	**5.2 J (A)**	**3.4 J (A)**	**3.7 J (A)**	**2.5 J (A)**	**2.9 J (A)**
Copper	mg/kg	6.7 J	8.8 J	12.4	9.6	4.5	10.4	8.6	5.3	12.4	10.8	30.8	7.9	6.3	7	5.1	6.9
Iron	mg/kg	**11,200 (A)**	**8,810 (A)**	**11,500 J (A)**	**10,200 J (A)**	**7,060 J (A)**	**11,800 J (A)**	**8,630 (A)**	**8,550 (A)**	**12,400 (A)**	**14,100 (A)**	**30,100 (A)**	**11,600 (A)**	**9,700 (A)**	**8,610 (A)**	**10,700 (A)**	**8,570 (A)**
Lead	mg/kg	5.8	4.6					6.8	4.2	7.2	6.8	13	5.7	4.1	9.2	3.6	3.6
*Magnesium	mg/kg	1,560	3,380	3,070	2,430	1,190	2,490	2,150	1,440	2,810	1,880	5,510	1,990	1,590	1,800	1,450	1,880
Manganese	mg/kg	**255 (A)**	**235 (A)**	113	84.5	77.2	128	70.4	174	**269 (A)**	99.3	**298 (A)**	108	**349 (A)**	63	67.4	94.2
Mercury	mg/kg							0.075 J									
Nickel	mg/kg	10.4	14.7	14.1	12.1	8.4	15.3	14.2	8.8	15.2	11.7	**27.7 (R)**	10.5	9.6	9.9	8	10.2
*Potassium	mg/kg	745 J	905 J	1,040	964	605	1,100	971	661	1,250	1,130	2,670	881	711	893	598 J	763
Selenium	mg/kg	1.1 J	0.54 J	1.1 J	0.89 J	0.6 J	1 J										
Silver	mg/kg																
*Sodium	mg/kg			711	736		645			605	645	1,250			640		
*Thallium	mg/kg	3	2.8	1.7 J	1.4 J	0.82 J	2.1 J			0.88 J							
Vanadium	mg/kg	12.4	11.8	14	13.7	8.4	18.3	18.9	8.7	18	15.7	26.2	12.7	9.9	12	9.7	10.9
Zinc	mg/kg	25.3	23.2	42.7	40.1	22.2	41.2	31.1	54.2	30.3	31.4	70.2	29	22.1	28.4	22.8	19.7
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD113	GC-SD34B	GC-SD35A	GC-SD35A	GC-SD35A	GC-SD36A	GC-SD36A	GC-SD40A	GC-SD41A	GC-SD41A	GC-SD41A	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD42B	GC-SD114
Sample Number:		D-03152010-02	GC-SD034B-08.1-09.9	GC-SD035A-05.3-07.3	GC-SD035A-07.3-09.3	GC-SD035A-09.3-11.3	GC-SD036A-06.1-08.1	GC-SD036A-08.1-09.2	GC-SD040A-04.0-05.0	GC-SD041A-02.4-04.4	GC-SD041A-04.4-06.4	GC-SD041A-06.4-07.5	GC-SD042B-02.2-04.2	D-03232010-02	GC-SD042B-04.2-06.2	GC-SD042B-06.2-07.0	GC-SD114-01.2-03.2
Sample Depth:		13.3-15	8.1-9.9	5.3-7.3	7.3-9.3	9.3-11.3	6.1-8.1	8.1-9.2	4-5	2.4-4.4	4.4-6.4	6.4-7.5	2.2-4.2	2.2-4.2	4.2-6.2	6.2-7	1.2-3.2
Sample Date:		3/15/2010	3/24/2010	3/19/2010	3/19/2010	3/19/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**																
								Metals									
Aluminum	mg/kg	3,190	2,850	4,150	2,450	2,210	5,070	3,840	3,330	3,600	6,160	5,230	5,730	7,150	2,880	5,290	2,140
Antimony	mg/kg			1.1 J			0.6 J				0.45 J	0.42 J				0.39 J	0.45 J
Arsenic	mg/kg	**14 (A,R)**	**8.4 (A,R)**	**12.5 (A,R)**	**15.8 (A,R)**	**14.2 (A,R)**	**12 (A,R)**	**11.3 (A,R)**	**3.6 (A)**	**4.1 (A)**	**3.2 (A)**	**4.9 (A)**	**8.2 (A)**	**10.5 (A,R)**	**2.7 (A)**	**5.8 (A)**	**7 (A)**
Barium	mg/kg	32.7 J	18.7 J	57.3 J	34.8 J	17.6 J	56.8	40.6	11.7 J	15.7 J	19.7 J	28.1	18.3 J	25.6 J	15.5 J	19.6 J	11.7 J
Beryllium	mg/kg	0.25 J	0.15 J	0.31 J	0.16 J		0.33 J	0.22 J	0.13 J	0.12 J	0.4 J	0.24 J	0.25 J	0.35 J	0.072 J	0.23 J	0.067 J
Cadmium	mg/kg								0.1 J								
*Calcium	mg/kg	559 J		1,510	753	562 J	658				811	6,800	837	1,080		1,200	
Chromium	mg/kg	**7.3 (A)**	**6.3 (A)**	**13.1 (A)**	**8.2 (A)**	**4.7 (A)**	**11.2 (A)**	**8.7 (A)**	**7.2 (A)**	**11.3 (A)**	**16.6 (A)**	**11.3 (A)**	**13.6 (A)**	**17.8 (A)**	**7.3 (A)**	**13.6 (A)**	**10.5 (A)**
Cobalt	mg/kg	**2.8 J (A)**	**2.4 J (A)**	**3.4 J (A)**	2.3 J	1.7 J	**5.7 J (A)**	**3.7 J (A)**	**6.8 (A)**	2.3 J	**5.2 J (A)**	**5.3 J (A)**	**4.2 J (A)**	**5.5 J (A)**	**4.4 J (A)**	**5.4 J (A)**	2.1 J
Copper	mg/kg	6.5	3.9	**43.5 J (R)**	4.2 J	3.5 J	10.3	6.3	5.9	5.5	14.1	15.6	8	11.4	4	15.6	2.4 J
Iron	mg/kg	**11,300 (A)**	**6,890 (A)**	**9,930 (A)**	**8,190 (A)**	**6,400 (A)**	**13,600 (A)**	**9,800 (A)**	**5,850 (A)**	**6,320 (A)**	**8,200 (A)**	**12,600 (A)**	**13,800 (A)**	**17,500 (A)**	**5,520 (A)**	**10,900 (A)**	3,980
Lead	mg/kg	3.9	6	**315 (R)**	4.4	2.8	6.8	4.8	7.1	6.4	7	5.2	7	12.9	3.4	5.7	2.3
*Magnesium	mg/kg	1,650	1,070	2,100	1,170	1,240	2,400	1,920	1,070	1,320	3,290	5,600	2,510	3,100	1,260	2,690	943
Manganese	mg/kg	82.2	68.4	96	69.1	54.1	89.2	75.3	49	76.5	77	**230 (A)**	115	152	40.8	98.5	42.5
Mercury	mg/kg			**0.68 (R)**													
Nickel	mg/kg	9.5	5.7	10.8	6	7.6	12.9	10.1	7.1	7	**25.4 (R)**	19.2	11	13.3	7	14.4	4.3 J
*Potassium	mg/kg	642	539 J	918 J			928	673	576	621 J	1,060	1,610	1,280	1,570	396 J	764	348 J
Selenium	mg/kg			1.2 J	0.92 J	0.74 J											
Silver	mg/kg																
*Sodium	mg/kg			2,140	950		970	670		1,200	1,280	1,070	2,580	3,090	1,350	1,050	974
*Thallium	mg/kg			2.9 J	2.2 J	1.6 J						1.1 J					
Vanadium	mg/kg	11.3	6.9	14.9	8.6	6.6	15.6	11.3	6.4	11.1	24.6	14.8	14.6	17.6	7.7	25.1	8.3
Zinc	mg/kg	21.1	15.9	104	19.2	16.8	37.9	27.9	18.9	19.2	32.2	24.4	28.5	38.3	16.2	31.6	12.3
Cyanide, Total	mg/kg														0.23 J		

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD114	GC-SD43A	GC-SD43A	GC-SD43A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A	GC-SD44A
Sample Number:		GC-SD114-03.2-05.2	GC-SD114-05.2-07.2	D-03232010-01	GC-SD114-07.2-09.2	GC-SD114-09.2-11.2	GC-SD114-11.2-13.2	GC-SD114-13.2-14.9	GC-SD043A-02.6-04.6	GC-SD043A-04.6-06.6	GC-SD043A-06.6-08.6	GC-SD044A-01.7-03.7	GC-SD044A-03.7-05.7	GC-SD044A-05.7-07.7	GC-SD044A-09.7-11.7	GC-SD044A-14.1-16.1	D-03242010-01
Sample Depth:		3.2-5.2	5.2-7.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	13.2-14.9	2.6-4.6	4.6-6.6	6.6-8.6	1.7-3.7	3.7-5.7	5.7-7.7	9.7-11.7	14.1-16.1	14.1-16.1
Sample Date:		3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/23/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010	3/24/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	5,480	7,580	6,180	6,330	3,980	4,700	5,070	6,840	6,210	5,240	5,960	**8,520 (A)**	6,380	4,010	5,440	5,690
Antimony	mg/kg	0.5 J	0.58 J	0.51 J	0.41 J							0.4 J			0.39 J		0.52 J
Arsenic	mg/kg	**4.7 (A)**	**2.3 (A)**	**2.5 (A)**	**2.4 (A)**	**2.1 (A)**	**2.6 (A)**	**2 (A)**	**2.9 (A)**	**1.7 (A)**	**1.2 (A)**	**6.6 (A)**	**6.3 (A)**	**5.1 (A)**	**2.6 (A)**	**1.8 (A)**	**1.6 (A)**
Barium	mg/kg	30.8	44.2	36.6	58.2	27.3	32.5	54.4	40.4	28.3	23.4	37.2	40.9	41.9	32	41.3	44.8
Beryllium	mg/kg	0.24 J	0.34 J	0.26 J	0.26 J	0.18 J	0.23 J	0.22 J	0.45 J	0.36 J	0.27 J	0.26 J	0.46 J	0.34 J	0.19 J	0.25 J	0.29 J
Cadmium	mg/kg								0.032 J	0.057 J	0.036 J	0.075 J	0.2 J	0.032 J		0.051 J	0.034 J
*Calcium	mg/kg	4,580	5,940	4,720	8,580	9,700	10,800	2,100		1,460	3,740	809	1,230	4,810	9,370	13,900	14,000
Chromium	mg/kg	**16.1 (A)**	**22.6 (A)**	**18.3 (A)**	**16.2 (A)**	**8 (A)**	**9.5 (A)**	**10.4 (A)**	**15.6 (A)**	**11.9 (A)**	**13.5 (A)**	**13.3 (A)**	**18 (A)**	**19.8 (A)**	**8.8 (A)**	**10.5 (A)**	**11.4 (A)**
Cobalt	mg/kg	**5.7 J (A)**	**7.8 (A)**	**6.2 (A)**	**7.4 (A)**	**4.2 J (A)**	**4.8 J (A)**	**5.4 J (A)**	**6.1 (A)**	**6.8 (A)**	**5.7 J (A)**	**4.2 J (A)**	**6 J (A)**	**6.5 (A)**	**4.6 J (A)**	**5 J (A)**	**5.4 J (A)**
Copper	mg/kg	16.2	17.9	14.6	15.1	9.7	12.7	14.1	9.9	12.7	13.2	6.2	12.8	13.4	10.4	14.3	15.4
Iron	mg/kg	**11,400 (A)**	**15,600 (A)**	**13,200 (A)**	**13,800 (A)**	**8,160 (A)**	**9,490 (A)**	**10,200 (A)**	**9,130 (A)**	**11,000 (A)**	**11,000 (A)**	**10,300 (A)**	**11,900 (A)**	**12,500 (A)**	**7,460 (A)**	**10,100 (A)**	**10,900 (A)**
Lead	mg/kg	5.7	6.8	5.4	5.7	3.5	5	4.7	7.8	7.5	5.4	9.4	9.2	7.3	3.5	4.6	4.9
*Magnesium	mg/kg	5,280	7,910	6,130	8,240	4,810	5,570	3,600	2,460	3,260	5,010	2,240	3,500	5,050	5,770	6,300	6,630
Manganese	mg/kg	158	**211 (A)**	165	**264 (A)**	**215 (A)**	**231 (A)**	149	76.1	114	166	91	131	168	**246 (A)**	**249 (A)**	**264 (A)**
Mercury	mg/kg																
Nickel	mg/kg	**22.2 (R)**	**36.3 (R)**	**26 (R)**	**38.4 (R)**	13.5	14.8	18	14.4	18	**21.1 (R)**	9.5	16.2	**22.9 (R)**	**25.9 (R)**	15.3	17
*Potassium	mg/kg	1,580	2,470	1,960	1,980	1,190	1,450	1,440	1,380	1,180	1,400	1,020	1,630	1,810	1,160	1,570	1,670
Selenium	mg/kg																
Silver	mg/kg																
*Sodium	mg/kg	1,310	1,420	1,310	1,060	656	650	709	1,270	881	775	2,000	2,090	1,310	948	1,150	1,230
*Thallium	mg/kg		1.8 J		1.1 J									0.84 J			
Vanadium	mg/kg	23	21.6	18.5	16.8	10.1	11.6	12.2	22.9	22.1	14.5	14	23.6	22.2	9.8	12.5	13.5
Zinc	mg/kg	26.4	35.3	29.7	30.7	20	21.8	24.5	33.2	35	25.2	29.8	43.4	30.8	17	24.1	25.5
Cyanide, Total	mg/kg					0.19 J											

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD45C	GC-SD45C	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD116	GC-SD88A	GC-SD88A	GC-SD88A	GC-SD89B	GC-SD89B	GC-SD89B	GC-SD90B	GC-SD90B
	Sample Number:	GC-SD045C-04.7-06.7	GC-SD045C-06.7-07.9	GC-SD116-06.5-08.5	GC-SD116-08.5-10.5	D-03172010-01	GC-SD116-10.5-12.5	GC-SD116-12.5-14.5	GC-SD116-14.5-15.8	GC-SD088A-08.0-10.0	GC-SD088A-10.0-12.0	GC-SD088A-12.0-14.0	GC-SD089B-08.3-10.3	GC-SD089B-10.3-12.3	GC-SD089B-12.3-14.3	GC-SD090B-05.4-07.4	GC-SD090B-07.4-09.4
	Sample Depth:	4.7-6.7	6.7-7.9	6.5-8.5	8.5-10.5	8.5-10.5	10.5-12.5	12.5-14.5	14.5-15.8	8-10	10-12	12-14	8.3-10.3	10.3-12.3	12.3-14.3	5.4-7.4	7.4-9.4
	Sample Date:	3/24/2010	3/24/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/18/2010	3/18/2010	3/18/2010	3/17/2010	3/17/2010	3/17/2010	3/16/2010	3/16/2010
	Sample Type:	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**									**Metals**							
Aluminum	mg/kg	**14,000 (A)**	4,200	3,070	3,440	3,640	2,720	3,880	4,300	4,830	4,180	3,280	4,640	3,860	3,190	3,370 J	6,500 J
Antimony	mg/kg	0.7 J															
Arsenic	mg/kg	**11.6 (A,R)**	**6.9 (A)**	**3.6 (A)**	**3 (A)**	**3.1 (A)**		**2.8 (A)**	**1.5 (A)**	**3.1 (A)**	**0.99 J (A)**	**2.1 (A)**	**2.4 (A)**	**8.5 (A,R)**	**5 (A)**	**3.9 (A)**	**2.7 (A)**
Barium	mg/kg	40.9	15.4 J	10.5 J	22.2 J	18.3 J	12.3 J	35.7 J	33.2 J	21.4 J	18.9 J	21 J	9.8 J	9.6 J	8.3 J		
Beryllium	mg/kg	0.65 J	0.18 J														
Cadmium	mg/kg	0.21 J	0.034 J														
*Calcium	mg/kg	1,790	803				661	7,510	15,000								
Chromium	mg/kg	**30.8 (A)**	**10.8 (A)**	**6 (A)**	**9.1 (A)**	**9.6 (A)**	**6.9 (A)**	**8.9 (A)**	**8.8 (A)**	**11 (A)**	**6.9 (A)**	**6.3 (A)**	**9.1 (A)**	**11.4 (A)**	**9 (A)**	**7.2 (A)**	**11.5 (A)**
Cobalt	mg/kg	**8.5 (A)**	**3.3 J (A)**		**5.8 (A)**	**8.1 (A)**				**2.7 J (A)**	2.1 J	2.2 J		**15.6 (A)**	**3.1 J (A)**		
Copper	mg/kg	15.7	5.3	5.2	6.8	7.7	5.5	12.2	16	3.6	4.5	3.8	6	9.9	7.4	4.9	11.1
Iron	mg/kg	**29,800 (A)**	**8,630 (A)**	5,300	**6,820 (A)**	**6,960 (A)**	**6,080 (A)**	**9,320 (A)**	**9,860 (A)**	**6,420 (A)**	5,220	**6,660 (A)**	**7,320 (A)**	5,470	**5,660 (A)**	**8,160 J (A)**	**15,100 J (A)**
Lead	mg/kg	13	4.9	4.4	5.5	5.9	4	4.7	4.5	4.2	3.7	3.2	5.9	5.8	4		
*Magnesium	mg/kg	5,480	1,850	1,060	1,720	1,870	1,660	4,470	7,300	1,450	1,340	1,030	1,350	1,460	1,510	970	2,110
Manganese	mg/kg	**221 (A)**	74.1	50	56.2	57.4	57.3	**204 (A)**	**305 (A)**	85.6	46.8	50.1	45.2	49.1	49.9	41.1	88.4
Mercury	mg/kg																
Nickel	mg/kg	**22.6 (R)**	7.2	6.1	13.8	**21.4 (R)**	10.8	17	**28.8 (R)**	8.1	7	6.3	6.9	**33.9 (R)**	13.6	6.9	12.5
*Potassium	mg/kg	3,020	866	583 J	699 J	746 J	629 J	1,220 J	1,400 J	747	790	628	653 J	741 J	648 J	749	1,290
Selenium	mg/kg			0.46 J	0.5 J	0.67 J		0.77 J					0.54 J	0.66 J	0.55 J	0.79 J	1.4 J
Silver	mg/kg																
*Sodium	mg/kg	5,220	1,920	922	1,090	1,310	946	1,220	1,260	728	680		1,200	1,510	866	676	959
*Thallium	mg/kg	1.2 J		1 J	1.3 J	0.86 J	1.1 J	1.8 J	2.5 J				1.1 J			1.1 J	3.1 J
Vanadium	mg/kg	30.1	11.2	9.9	13.3	15	9.6	11.2	10.8	7.8	6.3	8.6	13.8	16.4	9	12.4	18.7
Zinc	mg/kg	61.9	20.6	18.8	27.4	28.7	19.5	24.4	27.4	18.2	18.8	15	22.8	36	21.2	23.7	36.8
Cyanide, Total	mg/kg	0.32 J															

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD90B	GC-SD90B	GC-SD90B	GC-SD46C	GC-SD46C	GC-SD46C	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD47A	GC-SD49A	GC-SD49A	GC-SD49A
Sample Number:		D-03162010-03	GC-SD090B-09.4-11.4	GC-SD090B-11.4-13.4	GC-SD046C-03.9-05.9	GC-SD046C-05.9-07.9	GC-SD046C-07.9-09.9	GC-SD047A-00.6-02.6	GC-SD047A-02.6-04.6	GC-SD047A-04.6-06.6	GC-SD047A-10.6-12.6	GC-SD047A-12.6-14.6	GC-SD047A-14.6-16.6	GC-SD047A-16.6-18.6	GC-SD049A-03.4-05.4	GC-SD049A-05.4-07.4	GC-SD049A-07.4-09.4
Sample Depth:		7.4-9.4	9.4-11.4	11.4-13.4	3.9-5.9	5.9-7.9	7.9-9.9	0.6-2.6	2.6-4.6	4.6-6.6	10.6-12.6	12.6-14.6	14.6-16.6	16.6-18.6	3.4-5.4	5.4-7.4	7.4-9.4
Sample Date:		3/16/2010	3/16/2010	3/16/2010	3/24/2010	3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/24/2010	3/24/2010	3/24/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	5,770	**8,500 J (A)**	3,990 J	3,840	4,440	5,680	**14,700 (A)**	**12,300 (A)**	5,120	6,300	5,210	4,430	4,990	**13,300 (A)**	5,060	3,640
Antimony	mg/kg							1.1 J	1.1 J	0.44 J	0.59 J	0.62 J	0.53 J	0.42 J	0.68 J		
Arsenic	mg/kg	**1.4 (A)**	**5.7 (A)**	**3.9 (A)**	**4.7 (A)**	**7.4 (A)**	**13.8 (A,R)**	**11.8 (A,R)**	**12.5 (A,R)**	**7 (A)**	**2.1 (A)**	**1.6 (A)**	**1.7 (A)**	**1.2 (A)**	**10.9 (A,R)**	**15.3 (A,R)**	**14.2 (A,R)**
Barium	mg/kg	13.1 J	31.2 J		14.5 J	37.3	30.4	36.8 J	44.5	27.7	45.5	40.4	31.5	43.1	43.4	27.8	18.2 J
Beryllium	mg/kg				0.16 J	0.25 J	0.48 J								0.61 J	0.23 J	0.17 J
Cadmium	mg/kg				0.032 J	0.087 J	0.1 J			0.038 J					0.38 J	0.017 J	0.036 J
*Calcium	mg/kg		3,440	731		1,050	1,360	2,120	2,160	927	12,200	11,800	13,100	13,200	2,000	859	
Chromium	mg/kg	**9.7 (A)**	**14.5 (A)**	**8.6 (A)**	**8.4 (A)**	**12 (A)**	**13.2 (A)**	**30.7 (A)**	**30 (A)**	**15 (A)**	**13.8 (A)**	**12.7 (A)**	**8.7 (A)**	**10 (A)**	**27.9 (A)**	**10.9 (A)**	**8.2 (A)**
Cobalt	mg/kg		**9.1 (A)**		**2.7 J (A)**	**3.1 J (A)**	**5.6 J (A)**	**9.4 J (A)**	**8.6 J (A)**	**4.3 J (A)**	**6.5 (A)**	**6 J (A)**	**4.4 J (A)**	**4.9 J (A)**	**8.6 (A)**	**3.7 J (A)**	**5.4 J (A)**
Copper	mg/kg	10.1	21	6.4	4.9	6.9	11.1	17.7	15.8	13.5	16.5	16.2	11.2	13.4	17.9	5.6	5.1
Iron	mg/kg	**11,200 (A)**	**23,500 J (A)**	**10,800 J (A)**	**8,190 (A)**	**6,760 (A)**	**9,440 (A)**	**32,900 (A)**	**29,800 (A)**	**10,800 (A)**	**13,100 (A)**	**11,200 (A)**	**9,210 (A)**	**9,850 (A)**	**29,100 (A)**	**11,600 (A)**	**6,940 (A)**
Lead	mg/kg	6			5.9	4.3	5.8	17.1	12.7	6.3	5.7	4.8	4.3	4.7	21.7	5.5	3.9
*Magnesium	mg/kg	2,020	4,870	1,860	1,390	1,660	2,560	6,440	5,170	2,280	7,460	8,410	5,890	6,200	5,300	1,740	1,500
Manganese	mg/kg	66.1	**686 (A,R)**	138	87.7	74.9	78.7	**279 (A)**	**266 (A)**	77.8	**283 (A)**	**237 (A)**	**213 (A)**	**224 (A)**	**270 (A)**	64.1	41.3
Mercury	mg/kg														**0.16 J (R)**		
Nickel	mg/kg	11.8	20.3	10	6.6	7.7	13	**26.5 (R)**	**22.3 (R)**	10.8	**26.1 (R)**	**37.3 (R)**	14.9	16.9	**23.5 (R)**	8.3	10.7
*Potassium	mg/kg	1,010 J	1,580	710	772	733	891	3,310 J	2,600 J	956 J	1,900 J	1,430 J	1,260 J	1,520 J	2,900	945	615 J
Selenium	mg/kg	0.69 J	1.5 J	0.74 J	0.75 J	1 J		1.1 J									
Silver	mg/kg														0.11 J		
*Sodium	mg/kg	893	1,240	911	739	1,410	1,850	7,070	5,820	2,140	1,270	1,020	726	698	3,380	1,030	825
*Thallium	mg/kg	2.5 J	5.8 J	1.5 J					2.2 J		1.4 J	0.95 J	1.2 J	1.3 J			
Vanadium	mg/kg	14.2	17.8	11.3	10.5	17.1	25.7	37.6	30	17.5	16	13.9	10.9	11.8	32.3	11.4	10.9
Zinc	mg/kg	35.6	58	48.6	18.8	21.4	46.7	65.7	57	24.6	30.1	24.3	23.1	23.5	65.1	22.5	24.2
Cyanide, Total	mg/kg						0.23 J					0.59 J			1.3 J		0.25 J

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD49A	GC-SD49A	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD50B	GC-SD51A	GC-SD51A	GC-SD51A	GC-SD51A	GC-SD117	GC-SD117	GC-SD117	GC-SD117	GC-SD91A
Sample Number:		GC-SD049A-11.4-13.3	D-03242010-02	GC-SD050B-01.7-03.7	GC-SD050B-03.7-05.7	D-03252010-01	GC-SD050B-05.7-07.7	GC-SD050B-09.7-11.7	GC-SD051A-02.4-04.4	GC-SD051A-04.4-06.4	GC-SD051A-06.4-08.4	GC-SD051A-08.4-09.3	GC-SD117-08.7-10.7	GC-SD117-10.7-12.7	GC-SD117-12.7-14.7	GC-SD117-14.7-15.7	GC-SD091A-09.2-11.2
Sample Depth:		11.4-13.3	11.4-13.3	1.7-3.7	3.7-5.7	3.7-5.7	5.7-7.7	9.7-11.7	2.4-4.4	4.4-6.4	6.4-8.4	8.4-9.3	8.7-10.7	10.7-12.7	12.7-14.7	14.7-15.7	9.2-11.2
Sample Date:		3/24/2010	3/24/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/25/2010	3/31/2010	3/31/2010	3/31/2010	3/31/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010
Sample Type:		N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,140	3,020	7,430	3,120	2,690	2,770	2,880	2,630	3,130	5,640	3,890	4,850	3,910	6,290	6,500	3,530
Antimony	mg/kg			0.72 J	0.47 J			0.32 J									
Arsenic	mg/kg	**5.1 (A)**	**4.5 (A)**	**15.9 (A,R)**	**8.7 (A,R)**	**2.4 (A)**	**1.4 (A)**	**1.1 (A)**	**15.7 (A,R)**	**1.3 (A)**	**3.9 (A)**	**0.4 J (A)**	**3.7 (A)**	**1.4 (A)**	**4.3 (A)**	**4.2 (A)**	**2.2 (A)**
Barium	mg/kg	12.1 J	12.1 J	42.6	26.7	20 J	17.6 J	17.6 J	32.7 J		28.6 J		16.6 J	14 J	33.2	42	21.8 J
Beryllium	mg/kg	0.16 J	0.16 J														
Cadmium	mg/kg			0.036 J	0.021 J				0.2 J		0.084 J		0.12 J			0.025 J	
*Calcium	mg/kg	679	829	1,370	1,060	617	636	625	4,370		994	653			830	1,350	
Chromium	mg/kg	**11 (A)**	**8.4 (A)**	**21.8 (A)**	**13.6 (A)**	**11.6 (A)**	**8.5 (A)**	**7.7 (A)**	**9.3 (A)**	**8.2 (A)**	**14.5 (A)**	**8.8 (A)**	**9.8 (A)**	**7.1 (A)**	**17.6 (A)**	**17.6 (A)**	**9.9 (A)**
Cobalt	mg/kg	**5.7 (A)**	**4.8 J (A)**	**6.9 J (A)**	**5.7 J (A)**	**4 J (A)**	**3.2 J (A)**	**2.4 J (A)**	**4.2 J (A)**	**2.9 J (A)**	**7.4 (A)**	**3.9 J (A)**	**4.1 J (A)**	**2.9 J (A)**	**6.5 (A)**	**6.8 (A)**	1.8 J
Copper	mg/kg	5	7.2	9.4	5.7	5.4	5.2	4.8	14.2	5	11.6	7.9	18.8	4.5	8.9	11.9	4.9
Iron	mg/kg	**5,590 (A)**	5,130	**16,600 (A)**	**6,610 (A)**	4,700	4,730	4,700	**6,310 (A)**	4,560	**9,680 (A)**	**7,110 (A)**	**10,500 (A)**	**7,220 (A)**	**9,300 (A)**	**10,500 (A)**	**6,110 (A)**
Lead	mg/kg	4	3.8	12.4	4.8	3.7	3.7	3.5	42 J	3.6 J	7.1 J	9.4 J	13.4	4.6	7	7.2	4.5 J
*Magnesium	mg/kg	4,200	3,610	3,160	1,960	1,970	2,230	1,630	1,280	1,280	2,810	1,940	1,560	1,370	2,310	3,210	1,130
Manganese	mg/kg	47.9	50.2	113	54.6	43.1	45.6	110	53.9	45.7	117	90.8	64.3	45.7	63.9	84.1	44.3
Mercury	mg/kg									0.06 J							
Nickel	mg/kg	**39.2 (R)**	**24.1 (R)**	14.7	12.8	13.3	14.3	9.5	7.7	9.3	15.6	10.6	8.6	6.6	15.1	19.7	5.8
*Potassium	mg/kg	715	663	1,410 J	429 J	400 J	488 J	507 J		588	1,120	773	969	843	1,390	1,470	640
Selenium	mg/kg			1.1 J													0.86 J
Silver	mg/kg								0.068 J				0.15 J				
*Sodium	mg/kg	646	624	2,400	1,180	689	621		1,640	597	781	839					
*Thallium	mg/kg																
Vanadium	mg/kg	10.6	10.2	25.9	18.7	9.2	7.3	6.1	11.2	7.3	21.8	7.7	13.7	12.9	23.7	25.9	8.6
Zinc	mg/kg	16.4	17.9	39.6	24.2	19.4	17.6	17.8	44.7	18.4	38.6	26.8	31.1	18.2	34.2	34.4	17.5
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD91A	GC-SD91A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD93A	GC-SD53A	GC-SD53A	GC-SD53A	GC-SD54B	GC-SD54B	GC-SD54B	GC-SD54B	GC-SD115	GC-SD115
Sample Number:		GC-SD091A-11.2-13.2	D-03182010-03	GC-SD093A-05.2-07.2	GC-SD093A-07.2-09.2	GC-SD093A-09.2-11.2	GC-SD093A-11.2-13.2	GC-SD093A-15.2-17.2	GC-SD053A-02.5-04.5	GC-SD053A-04.5-06.5	GC-SD053A-06.5-08.5	GC-SD054B-04.5-06.5	GC-SD054B-06.5-08.5	GC-SD054B-08.5-10.5	GC-SD054B-10.5-11.2	GC-SD115-01.8-03.8	D-03172010-02
Sample Depth:		11.2-13.2	11.2-13.2	5.2-7.2	7.2-9.2	9.2-11.2	11.2-13.2	15.2-17.2	2.5-4.5	4.5-6.5	6.5-8.5	4.5-6.5	6.5-8.5	8.5-10.5	10.5-11.2	1.8-3.8	1.8-3.8
Sample Date:		3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	3/18/2010	4/1/2010	4/1/2010	4/1/2010	3/29/2010	3/29/2010	3/29/2010	3/29/2010	3/17/2010	3/17/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,320	2,960	**10,600 (A)**	4,110	3,840	3,370	5,400	6,580	7,370	4,740	**13,900 (A)**	**11,900 (A)**	**7,970 (A)**	3,340	3,690	3,750
Antimony	mg/kg																
Arsenic	mg/kg	**1.3 (A)**	**1.3 (A)**	**4.2 (A)**	**5.6 (A)**	**4.5 (A)**	**2.3 (A)**	**4.5 (A)**	**5.9 (A)**	**6.6 (A)**	**5.7 (A)**	**10.6 (A,R)**	**9.8 (A,R)**	**1.6 (A)**	**8.9 (A,R)**	**4.9 (A)**	**6.3 (A)**
Barium	mg/kg	18.7 J	15.9 J	14.4 J	6.9 J	10.4 J	19 J	34.1 J			34.5 J	33.3 J	57.4 J	**144 J (R)**		11.4 J	12 J
Beryllium	mg/kg				0.37 J	0.22 J	0.21 J	0.52 J	0.28 J	0.35 J	0.2 J			0.71			
Cadmium	mg/kg								0.49 J	0.51 J	0.25 J	0.25 J	0.31 J	0.2 J	0.18 J		
*Calcium	mg/kg								924	1,050	1,160	1,590	1,780	1,430		567 J	
Chromium	mg/kg	**6.9 (A)**	**5.8 (A)**	**16 (A)**	**8 (A)**	**8.7 (A)**	**6.8 (A)**	**14.6 (A)**	**14.3 (A)**	**17.1 (A)**	**14.2 (A)**	**26.7 (A)**	**26.7 (A)**	**26 (A)**	**9.8 (A)**	**9.2 (A)**	**9.6 (A)**
Cobalt	mg/kg	**2.4 J (A)**	1.9 J	**10.3 (A)**	**4 J (A)**	**2.9 J (A)**	1.8 J	**6.6 (A)**	**4.2 J (A)**	**5.2 J (A)**	**3.3 J (A)**	**8.3 (A)**	**7.7 J (A)**	**5.9 J (A)**	**5.6 J (A)**	2 J	**2.4 J (A)**
Copper	mg/kg	5.2	4.5	23.1	7.3	5.1	4.8	9.3	8.9	9.2	5.1	18	13.7	7.7	5	4.7	5.9
Iron	mg/kg	**6,930 (A)**	**6,220 (A)**	**18,700 (A)**	**11,500 (A)**	**7,710 (A)**	**6,700 (A)**	**8,290 (A)**	**15,100 (A)**	**16,200 (A)**	**8,730 (A)**	**23,800 (A)**	**25,000 (A)**	**6,820 (A)**	**5,960 (A)**	**6,290 (A)**	**6,470 (A)**
Lead	mg/kg	4.3 J	3.4 J	10.4 J	4.3 J	4.1 J	3.9 J	6.9	6.6	6.4	4.3	12.6	11	5.8 J	3.6 J	3.8	5.3
*Magnesium	mg/kg	1,030	900	3,550	1,250	1,210	1,070	2,010	2,610	2,770	1,670	5,030	4,330	1,950	1,140	1,130	1,170
Manganese	mg/kg	66.2	63.9	148	51.9	40.1	36.5	57.8	135	148	60.7	**182 (A)**	**252 (A)**	54.3	36.1	46.1	49.6
Mercury	mg/kg													0.08 J	0.1 J		
Nickel	mg/kg	6.4	5.8	17.1	8.3	6.9	5.8	14.5	12.2	13.3	8.3	**23.9 (R)**	20	11.2	14.8	6.1	6.3
*Potassium	mg/kg	680	607	1,310	810	752	716	1,130	1,450	1,520	782	2,940	2,550	930		612 J	619 J
Selenium	mg/kg		0.58 J	1.6 J	0.83 J	0.69 J	0.55 J	0.66 J	0.6 J	0.68 J	0.65 J			0.54 J			
Silver	mg/kg	0.078 J															
*Sodium	mg/kg							700	2,120	2,570	1,760	4,650	3,870	1,520	792	644	629
*Thallium	mg/kg			1.6 J	0.57 J							1.4 J	1.6 J				
Vanadium	mg/kg	10.4	8.7	21.4	13.8	11.8	12.3	21.7	14.9	16.5	12.6	30.2	28	24.5	12.3	10.1	11.4
Zinc	mg/kg	21.6	17.9	46	27.5	22.7	18.2	36	33.3 J	37.4 J	23.7 J	64.8	56.4	49.6	19.7	16.8	18.7
Cyanide, Total	mg/kg								0.88 J	1.3 J	0.63 J	0.58 J	0.41 J	0.26 J			

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD115	GC-SD56A	GC-SD56A	GC-SD57A	GC-SD57A	GC-SD57A	GC-SD130	GC-SD130	GC-SD130	GC-SD131	GC-SD131	GC-SD131
Sample Number:		GC-SD115-03.8-05.8	GC-SD115-05.8-07.8	GC-SD115-07.8-09.8	GC-SD115-09.8-11.8	GC-SD115-11.8-13.8	GC-SD056A-01.6-03.6	GC-SD056A-03.6-05.3	GC-SD057A-07.2-09.2	GC-SD057A-09.2-11.2	GC-SD057A-11.2-11.9	GC-SD130-07.4-09.4	GC-SD130-09.4-11.4	GC-SD130-11.4-12.8	GC-SD131-01.5-03.5	GC-SD131-03.5-05.5	GC-SD131-05.5-07.5
Sample Depth:		3.8-5.8	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	1.6-3.6	3.6-5.3	7.2-9.2	9.2-11.2	11.2-11.9	7.4-9.4	9.4-11.4	11.4-12.8	1.5-3.5	3.5-5.5	5.5-7.5
Sample Date:		3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/17/2010	3/22/2010	3/22/2010	3/23/2010	3/23/2010	3/23/2010	3/22/2010	3/22/2010	3/22/2010	3/18/2010	3/18/2010	3/18/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,270	2,740	2,610	1,800	3,990	3,060	2,600	**8,100 (A)**	4,010	3,270	6,330	2,830	1,690	**16,400 (A)**	**18,500 (A)**	**9,100 J (A)**
Antimony	mg/kg						0.33 J		0.75 J						0.59 J	0.82 J	
Arsenic	mg/kg	**2.5 (A)**			**3.5 (A)**	**2.9 (A)**	**4.8 (A)**	**1.3 (A)**	**11.3 (A,R)**	**2 (A)**	**3 (A)**	**15.7 (A,R)**	**1.3 J (A)**	**1.9 (A)**	**10 (A,R)**	**20 (A,R)**	**33.9 J (A,R)**
Barium	mg/kg	11 J	7.1 J	9.9 J	4.2 J	22.4 J	6.4 J	10.6 J	33.4 J	50.6	35.8	60.3	21.3 J	7.9 J	46	74	80.3 J
Beryllium	mg/kg						0.19 J	0.13 J	0.44 J	0.26 J	0.15 J	0.35 J	0.099 J	0.054 J		0.95	
Cadmium	mg/kg											0.06 J					
*Calcium	mg/kg			556 J	560 J				2,170	859	779	3,110			1,790	2,240	3,040 J
Chromium	mg/kg	**6.7 (A)**	**6.6 (A)**	**8.7 (A)**	**4.1 (A)**	**10.6 (A)**	**11.1 (A)**	**9.4 (A)**	**23.8 (A)**	**10.6 (A)**	**8.7 (A)**	**42.6 (A)**	**30.4 (A)**	**7.5 (A)**	**30.7 (A)**	**34.1 (A)**	**33.4 J (A)**
Cobalt	mg/kg	**2.5 J (A)**	2.3 J	2 J	2 J	**4.5 J (A)**	**3.7 J (A)**	2 J	**6.2 J (A)**	2.2 J	**2.4 J (A)**	**8.9 (A)**	**2.9 J (A)**	1.8 J	**9.8 (A)**	**10.8 (A)**	**9.4 J (A)**
Copper	mg/kg	4.5	4.5	4.6	3.3	5.5	5.1	4.7	10.8	5.7	4.6	11.3	5.2	4	18.7	20	10 J
Iron	mg/kg	**5,730 (A)**	**5,860 (A)**	**5,660 (A)**	4,040	**7,140 (A)**	**7,230 (A)**	4,660	**18,900 (A)**	3,600	3,650	**10,900 (A)**	3,770	3,120	**33,900 (A)**	**39,400 (A)**	**18,300 J (A)**
Lead	mg/kg	4.2	3.9	4.8	3	4.5	3.8	3.4	8.4	3.9	3	14.8	4	2.8	14.5	16.2	7.3 J
*Magnesium	mg/kg	1,190	1,120	1,040	767	1,560	1,080	967	3,970	1,360	1,150	2,620	867	773	6,130	6,780	3,250 J
Manganese	mg/kg	47.8	42.7	38.2	27.7	50	49.3	38.3	141	29.1	29.8	56.6	28.1	21.4	**229 (A)**	**284 (A)**	81 J
Mercury	mg/kg																
Nickel	mg/kg	7	7.1	7.8	5.9	10.3	7.1	5.3	15.3	8	6.3	17.6	9.6	5.4	**28.6 (R)**	**29.7 (R)**	15 J
*Potassium	mg/kg	608 J				838	665	559	1,780	464 J	373 J	953	316 J	241 J	3,650	3,930	1,780 J
Selenium	mg/kg	0.44 J	0.51 J	0.43 J	0.48 J							2.4 J					1.3 J
Silver	mg/kg																
*Sodium	mg/kg			593		677			4,960	1,200	685	3,460			5,380	4,630	3,630 J
*Thallium	mg/kg	0.41 J													1.8 J	2.8 J	
Vanadium	mg/kg	9.6	9.9	10.5	6.6	13	11.9	15.6	20.8	10.7	11.3	**62.6 (A)**	7.7 J	4.1 J	34.7	**41.7 (A)**	**55.8 J (A)**
Zinc	mg/kg	19.4	19	24.2	16.5	24.6	17	15	40.3	16.5	16.1	43.6	19.1	12.7	74.7	73.8	43.2 J
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD131	GC-SD131	GC-SD131	GC-SD132	GC-SD132	GC-SD132	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD118	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD59A	GC-SD60B
	Sample Number:	GC-SD131-07.5-09.5	D-03182010-02	GC-SD131-09.5-11.5	GC-SD132-04.9-06.9	D-03222010-02	GC-SD132-06.9-08.6	GC-SD118-01.0-03.0	GC-SD118-03.0-05.0	GC-SD118-05.0-07.0	GC-SD118-07.0-09.0	GC-SD118-09.0-10.2	GC-SD059A-02.1-04.1	GC-SD059A-04.1-06.1	GC-SD059A-06.1-08.1	GC-SD059A-11.0-13.0	GC-SD060B-05.2-07.2
	Sample Depth:	7.5-9.5	7.5-9.5	9.5-11.5	4.9-6.9	4.9-6.9	6.9-8.6	1-3	3-5	5-7	7-9	9-10.2	2.1-4.1	4.1-6.1	6.1-8.1	11-13	5.2-7.2
	Sample Date:	3/18/2010	3/18/2010	3/18/2010	3/22/2010	3/22/2010	3/22/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010
	Sample Type:	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	5,040	3,730	5,650	**14,500 (A)**	**14,800 (A)**	**10,900 (A)**	3,330	2,460	2,550	1,920	5,260	3,460	3,370	3,470	3,320	4,950
Antimony	mg/kg				0.89 J	0.83 J	0.68 J										
Arsenic	mg/kg	**2.4 (A)**	**5.4 (A)**	**1.5 (A)**	**16.9 (A,R)**	**17.7 (A,R)**	**27.5 (A,R)**	**9.5 (A,R)**	**5.9 (A)**	**1.6 (A)**	**1.5 (A)**	**1.3 (A)**	**3.8 (A)**	**1.7 (A)**	**1.4 (A)**	**1.3 (A)**	**9.3 (A,R)**
Barium	mg/kg	54	40	28.6	64.3	67.8	79.6					46.8 J		31.5	35.2		27.3 J
Beryllium	mg/kg				0.68 J	0.68 J	0.57 J	0.17 J	0.17 J	0.22 J	0.15 J	0.24 J					0.21 J
Cadmium	mg/kg	0.095 J						0.28 J	0.14 J	0.14 J		0.26 J					0.43 J
*Calcium	mg/kg	1,030	889	800	2,360	2,380	3,000					678					
Chromium	mg/kg	**35.5 (A)**	**18.4 (A)**	**15.7 (A)**	**33.6 (A)**	**34.5 (A)**	**47.2 (A)**	**14.6 (A)**	**8.5 (A)**	**6.1 (A)**	**4.4 (A)**	**9.5 (A)**	**11.4 (A)**	**12 (A)**	**7.3 (A)**	**5.4 (A)**	**13.6 (A)**
Cobalt	mg/kg	**4.6 J (A)**	**3.7 J (A)**	**5.6 J (A)**	**10.7 (A)**	**10.6 (A)**	**8.6 J (A)**	**6 (A)**	**2.8 J (A)**	**3 J (A)**	**2.5 J (A)**	**6.1 (A)**	2.3 J	2.3 J	**4.1 J (A)**	**3.6 J (A)**	**3.4 J (A)**
Copper	mg/kg	5.5	4.2	7.8	19.5	20	14.7	6.9	3.9	4.3	3.3	8.7	6.8	5.1	6	6.9	12.9
Iron	mg/kg	**5,930 (A)**	5,100	**9,140 (A)**	**37,100 (A)**	**35,600 (A)**	**23,200 (A)**	**8,760 (A)**	**6,040 (A)**	**6,410 (A)**	4,190	**9,840 (A)**	**6,350 (A)**	**5,730 (A)**	**8,060 (A)**	**6,640 (A)**	**13,300 (A)**
Lead	mg/kg	4.5	8	6.7	14.5	15.3	10.7	3.8	2.8	2.8	2.5	6.4	4.2	3.5	4.5	5.3	11.2
*Magnesium	mg/kg	1,340	1,140	2,300	5,930	6,020	4,610	1,420	860	932	720	2,270	1,350	1,180	1,490	1,520	1,950
Manganese	mg/kg	35.4	33.2	63	**249 (A)**	**264 (A)**	147	87.6	56.5	39.6	27.6	96.5	40.9	38.5	62.6	72.8	128
Mercury	mg/kg				**0.22 (R)**			**0.45 (R)**									
Nickel	mg/kg	11	8.2	12.9	**26.1 (R)**	**26.7 (R)**	20	9.5	5.7	6.8	6.4	14.6	7.1	6.7	9.2	8.9	10.8
*Potassium	mg/kg	634	518 J	1,150	2,700	2,760	2,040	663				990	616	513 J	633	491 J	1,010
Selenium	mg/kg							0.65 J						0.6 J			0.92 J
Silver	mg/kg					0.15 J											
*Sodium	mg/kg	868			5,880	5,990	4,700										1,170
*Thallium	mg/kg				1.6 J	2 J											
Vanadium	mg/kg	13.7	22.1	13.7	34.4	35.7	**45.8 (A)**	13.4	8.3	9.9	7.5	14.5	10.7	11	14.7	7.2	15
Zinc	mg/kg	26.2	20.8	29.4	68.4	74.3	53.4	19.6 J	16.8 J	18.8 J	14.3 J	35.4 J	19.6	18.5	23.9	31.5	34.8 J
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD60B	GC-SD60B	GC-SD61C	GC-SD61C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD62C	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD63A	GC-SD149	GC-SD120	GC-SD120	GC-SD120
Sample Number:		D-04012010-02	GC-SD060B-07.2-08.0	GC-SD061C-07.7-09.7	GC-SD061C-09.7-11.7	GC-SD062C-04.5-06.5	GC-SD062C-06.5-08.5	GC-SD062C-08.5-10.5	GC-SD062C-10.5-12.5	GC-SD063A-03.1-05.1	GC-SD063A-05.1-07.1	GC-SD063A-07.1-09.1	D-04012010-01	GC-SD149-05.0-07.0	GC-SD120-02.5-04.5	GC-SD120-04.5-06.5	GC-SD120-06.5-08.5
Sample Depth:		5.2-7.2	7.2-8	7.7-9.7	9.7-11.7	4.5-6.5	6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	7.1-9.1	5-7	2.5-4.5	4.5-6.5	6.5-8.5
Sample Date:		4/1/2010	4/1/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010	4/1/2010	4/12/2010	3/31/2010	3/31/2010	3/31/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**									**Metals**							
Aluminum	mg/kg	5,690	**7,970 (A)**	3,010	3,410	3,230	5,210	4,170	2,790	7,050	6,590	3,550	3,050	2,890	3,200	3,460	2,960
Antimony	mg/kg													0.99 J			
Arsenic	mg/kg	**10.9 (A,R)**	**7.4 (A)**	**4.7 (A)**	**8.9 (A,R)**	**7.2 (A)**	**1.6 (A)**	**2.2 (A)**	**0.84 J (A)**	**8.1 (A)**	**12 (A,R)**	**3.8 (A)**	**2.6 (A)**	**8.4 (A,R)**	**4.4 (A)**	**3 (A)**	**2.1 (A)**
Barium	mg/kg	37.9 J	65.4 J	46.2	46.3		33.9	24.8			31 J		26.4 J	13.4 J	18.9 J	18.3 J	16.4 J
Beryllium	mg/kg	0.25 J	0.29 J	0.25 J	0.17 J					0.27 J	0.3 J	0.17 J		0.22 J		0.3 J	0.25 J
Cadmium	mg/kg	0.59 J	0.48 J	0.12 J	0.22 J					0.45 J	0.34 J	0.14 J	0.15 J	0.19 J	0.18 J	0.2 J	0.2 J
*Calcium	mg/kg	817	1,230	693							775			1,400 J			
Chromium	mg/kg	**16.9 (A)**	**39.5 (A)**	**6.8 (A)**	**7.1 (A)**	**18.3 (A)**	**11.5 (A)**	**9.4 (A)**	**5.3 (A)**	**14 (A)**	**24 (A)**	**20.9 (A)**	**16 (A)**	**9.2 (A)**	**8.1 (A)**	**11.4 (A)**	**7.2 (A)**
Cobalt	mg/kg	**4.1 J (A)**	**6.2 J (A)**	**6.6 (A)**	**6.5 (A)**	**2.5 J (A)**	2.3 J	**4.2 J (A)**	**4.2 J (A)**	**4.8 J (A)**	**5.2 J (A)**	**2.5 J (A)**	2.2 J		**5.8 J (A)**	**4.7 J (A)**	**4.1 J (A)**
Copper	mg/kg	16.3	9.9	5	6.9	4.6	5	7.6	4.7	9.4	8.7	4.4	3.9	15.7	8.3	7.4	6.4
Iron	mg/kg	**14,400 (A)**	**11,200 (A)**	**6,610 J (A)**	**8,960 J (A)**	**6,420 (A)**	**6,840 (A)**	**7,820 (A)**	**6,960 (A)**	**16,300 (A)**	**14,400 (A)**	**5,920 (A)**	**5,520 (A)**	**7,710 (A)**	**10,200 (A)**	**10,300 (A)**	**8,350 (A)**
Lead	mg/kg	18	7.3	3.5 J	5.3 J	4.1	4.3	5.4	4.2	6	6.7	3.1	2.9	14.8	8.3 J	5.7 J	4.3 J
*Magnesium	mg/kg	2,230	2,970	1,150 J	1,400 J	1,310	1,620	1,560	1,200	2,770	2,450	1,220	993	4,800	1,200	1,220	1,080
Manganese	mg/kg	126	88.5	**409 (A)**	141	52.1	50.6	72.3	63.2	151	119	65.9	54.7	102	75.2	80	67.4
Mercury	mg/kg	0.06 J	0.07 J														
Nickel	mg/kg	12.1	18.3	14.9 J	12.5 J	6.6	9.4	9.4	7.4	14.2	13.6	7.8	6.1	**34.7 (R)**	12	10.8	9.4
*Potassium	mg/kg	1,150	1,500	496 J	588	631	524 J	501 J	376 J	1,310	1,300			729 J	633	636	
Selenium	mg/kg	0.94 J	2.7 J							0.56 J	0.63 J	0.73 J					
Silver	mg/kg	0.092 J												0.064 J			
*Sodium	mg/kg	1,470	2,190														
*Thallium	mg/kg																
Vanadium	mg/kg	19.9	35	8.6	8.3	14	9.4	11.6	6.4	15.8	23.3	12.9	10.2	11.7	10.4	10.9	8.6
Zinc	mg/kg	46.5 J	42 J	32.9 J	27.4 J	19.4	21.9	25.4	17.3	34.5 J	36.6 J	18.2 J	15.6 J	42.9	25.2	23.4	20.4
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD120	GC-SD120	GC-SD120	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD64D	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD65A	GC-SD66C	GC-SD66C	GC-SD66C
Sample Number:		D-03312010-02	GC-SD120-08.5-10.5	GC-SD120-10.5-12.5	GC-SD064D-03.1-05.1	GC-SD064D-05.1-07.1	GC-SD064D-07.1-09.1	GC-SD064D-09.1-11.1	GC-SD064D-13.1-15.1	GC-SD065A-01.0-03.0	GC-SD065A-03.0-05.0	D-04052010-01	GC-SD065A-05.0-07.0	GC-SD065A-11.0-12.7	GC-SD066C-02.7-04.7	GC-SD066C-04.7-06.7	GC-SD066C-06.7-08.7
Sample Depth:		6.5-8.5	8.5-10.5	10.5-12.5	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	13.1-15.1	1-3	3-5	3-5	5-7	11-12.7	2.7-4.7	4.7-6.7	6.7-8.7
Sample Date:		3/31/2010	3/31/2010	3/31/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/5/2010	4/1/2010	4/1/2010	4/1/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**									**Metals**							
Aluminum	mg/kg	2,590	3,070	3,300	3,070	**7,950 (A)**	4,160	5,040	3,600	5,710	4,160	5,550	2,800	3,710	**9,290 (A)**	4,420	4,260
Antimony	mg/kg	1.7 J															
Arsenic	mg/kg	**1.8 (A)**	**1.7 (A)**	**2.2 (A)**	**2.7 (A)**	**7 (A)**	**4.9 (A)**	**7.4 (A)**	**0.9 J (A)**	**8.3 (A,R)**	**1.1 J (A)**	**6.9 (A)**	**0.55 J (A)**	**3.4 (A)**			**1.2 (A)**
Barium	mg/kg		13.2 J	15.7 J	10 J	30.6	21.1 J	37.3	19.1 J	43.5	33	42.7			50 J		
Beryllium	mg/kg		0.26 J	0.25 J	0.23 J	0.31 J	0.3 J	0.33 J	0.15 J						0.51 J	0.17 J	0.19 J
Cadmium	mg/kg	0.15 J	0.18 J	0.23 J		0.51 J	0.14 J	0.3 J	0.087 J	0.12 J		0.1 J		0.57 J	0.23 J	0.13 J	0.15 J
*Calcium	mg/kg					856											
Chromium	mg/kg	**7.1 (A)**	**7.5 (A)**	**5.7 (A)**	**6.7 (A)**	**14.4 (A)**	**10 (A)**	**11.7 (A)**	**6.8 (A)**	**14.6 (A)**	**10.4 (A)**	**14.1 (A)**	**5.8 (A)**	**9.8 (A)**	**20 (A)**	**9.7 (A)**	**9.8 (A)**
Cobalt	mg/kg	**3.7 J (A)**	**4.1 J (A)**	**3.9 J (A)**	2.3 J	**10.8 (A)**	**4.3 J (A)**	**5.2 J (A)**	**3.7 J (A)**	**5.1 J (A)**	**3.6 J (A)**	**5.5 J (A)**	1.8 J	**7.3 (A)**	**4.8 J (A)**	**2.7 J (A)**	**3.7 J (A)**
Copper	mg/kg	6.5	6.5	6.4	5.2	22.6	7.5	9.2	7.8	11	8	10.6	3.9	11.5	16	7	5.7
Iron	mg/kg	**8,450 (A)**	**9,000 (A)**	**10,200 (A)**	**9,050 J (A)**	**18,000 J (A)**	**8,950 J (A)**	**11,300 J (A)**	**8,350 J (A)**	**10,600 (A)**	**6,890 (A)**	**9,000 (A)**	**5,790 (A)**	**8,260 (A)**	**11,200 (A)**	**7,220 (A)**	**7,330 (A)**
Lead	mg/kg	4.1	3.6 J	4.5 J	3.8 J	9.1 J	4.6 J	5.7 J	6.1 J	7.4	5.5	7.3	3.2	6	7.9	5.1	4.5
*Magnesium	mg/kg	1,090	1,180	1,260	1,070 J	3,200 J	1,670 J	2,070 J	1,520 J	2,260	1,440	2,310	1,120	1,710	2,540	1,400	1,460
Manganese	mg/kg	65.1	73.2	116	43.3	91.5	52.1	61.1	71	63	61.2	60.8	71.2	79.1	80.8	47.8	60.8
Mercury	mg/kg																
Nickel	mg/kg	9	10.2	10	7.4 J	20 J	10.5 J	12.8 J	10 J	12.7	6.5	13.9	4.9	19	14.8	6.4	7.8
*Potassium	mg/kg	423 J			715	1,320	850	1,090	605	1,070	842	1,010	476 J	507 J	1,470	967	756
Selenium	mg/kg													1.6 J			
Silver	mg/kg																
*Sodium	mg/kg					661				875		878			1,050		
*Thallium	mg/kg					0.85 J											
Vanadium	mg/kg	8.9	9.7	9.3	12	16	12.1	13.8	8.5	22.6	17.5	22.6	9.9	12.2	19.8	18.9	12.4
Zinc	mg/kg	19	20.1	22	24.8 J	55.1 J	32.6 J	40 J	25.7 J	35	24.6	37.1	14.7	26.8	46.4 J	18.1 J	26.3 J
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD66C	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD121	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD105A	GC-SD133	GC-SD133
	Sample Number:	GC-SD066C-10.7-12.7	GC-SD121-01.5-03.5	GC-SD121-03.5-05.5	GC-SD121-05.5-07.5	GC-SD121-07.5-09.5	GC-SD121-09.5-11.5	GC-SD121-11.5-13.5	D-04022010-01	GC-SD105A-01.9-03.9	GC-SD105A-03.9-05.9	D-04022010-02	GC-SD105A-05.9-07.9	GC-SD105A-09.9-11.9	GC-SD105A-11.9-13.9	GC-SD133-08.2-10.2	GC-SD133-10.2-10.7
	Sample Depth:	10.7-12.7	1.5-3.5	3.5-5.5	5.5-7.5	7.5-9.5	9.5-11.5	11.5-13.5	11.5-13.5	1.9-3.9	3.9-5.9	3.9-5.9	5.9-7.9	9.9-11.9	11.9-13.9	8.2-10.2	10.2-10.7
	Sample Date:	4/1/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/2/2010	4/6/2010	4/6/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	2,850	5,190	3,880	5,880	4,720	4,240	3,770	3,940	6,000	2,880	3,260	5,080	4,910	3,350	2,890	2,140
Antimony	mg/kg																
Arsenic	mg/kg	**1.9 (A)**	**3.1 (A)**	**1.1 J (A)**	**1.8 (A)**	**1.4 (A)**	**1.4 (A)**			**3.3 (A)**	**4.5 (A)**	**3.3 (A)**	**7.6 (A)**	**1.1 J (A)**	**0.47 J (A)**	**5.4 J (A)**	**2.9 J (A)**
Barium	mg/kg		34.6		44.3	17.7 J	18.2 J	21.2 J	23.8	24.6	12.5 J	15.3 J	33.6	13.8 J	11.2 J		
Beryllium	mg/kg	0.16 J	0.36 J	0.32 J	0.49 J	0.25 J	0.17 J			0.31 J	0.15 J	0.19 J	0.57 J	0.21 J	0.14 J	0.28 J	0.15 J
Cadmium	mg/kg	0.3 J	0.087 J		0.18 J	0.12 J	0.11 J			0.15 J			0.15 J	0.13 J			
*Calcium	mg/kg					697	648							730			
Chromium	mg/kg	**8.5 (A)**	**13.4 (A)**	**9.8 (A)**	**16.3 (A)**	**9.4 (A)**	**8.1 (A)**	**7.5 (A)**	**7.7 (A)**	**15.2 (A)**	**8 (A)**	**8.5 (A)**	**13.7 (A)**	**9.1 (A)**	**7 (A)**	**7.4 (A)**	**6.1 (A)**
Cobalt	mg/kg	**4 J (A)**	**4.6 J (A)**	**4.1 J (A)**	**6.6 (A)**	**5 J (A)**	**5.1 J (A)**	**3.5 J (A)**	**3.6 J (A)**	**4 J (A)**	**2.9 J (A)**	**2.7 J (A)**	**6.1 (A)**	**5 J (A)**	**2.9 J (A)**		
Copper	mg/kg	6.3	10.1	7.5	10	8.9	8.6	8.1	8.6	10.3	5	4.6	9	9.9	6.8	4.6	
Iron	mg/kg	**9,670 (A)**	**7,910 J (A)**	**7,620 J (A)**	**11,900 J (A)**	**9,220 J (A)**	**8,670 J (A)**	**6,810 J (A)**	**7,070 J (A)**	**8,640 J (A)**	4,490 J	4,980 J	**8,230 J (A)**	**9,260 J (A)**	**6,600 J (A)**	**7,730 (A)**	4,200
Lead	mg/kg	4.1	6.3 J	4.8 J	7.8 J	6.1 J	5.8 J	5.2 J	6.4 J	6.2 J	3.5 J	4.1 J	6.1 J	6.6 J	4.6 J	4	2.9
*Magnesium	mg/kg	1,130	1,920 J	1,440 J	2,160 J	2,200 J	1,970 J	1,630 J	1,700 J	2,070 J	1,020 J	1,230 J	1,980 J	2,280 J	1,540 J	741	631
Manganese	mg/kg	55.3	71.4	71.7	112	139	149	73.1	75.9	57.8	36.7	41.8	63.3	106	63.3	41.2	33.9
Mercury	mg/kg																
Nickel	mg/kg	9.2	11.6 J	7.8 J	13.8 J	12.1 J	14.1 J	10.4 J	10.7 J	13.9 J	8.7 J	7.5 J	13.2 J	12.4 J	9 J	6.4	4.6
*Potassium	mg/kg		1,040	834	1,310	845	711	577 J	605	1,130	541 J	609	1,150	800	609	679 J	557 J
Selenium	mg/kg																
Silver	mg/kg																
*Sodium	mg/kg		854		670					667							
*Thallium	mg/kg				0.78 J												
Vanadium	mg/kg	9.5	22.1	13.2	27.8	14.4	11.8	10.3	10.5	16.3	10.1	10.8	20.6	13.3	8.9	13.5	8.8
Zinc	mg/kg	20.7 J	33 J	28.5 J	37.9 J	32.3 J	31.7 J	28.7 J	28.5 J	30 J	18.8 J	20.8 J	33.8 J	92.7 J	22.2 J	19.1	13.1
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD67B	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD122	GC-SD70B	GC-SD70B	GC-SD72B
	Sample Number:	GC-SD067B-06.0-08.0	GC-SD067B-08.0-10.0	GC-SD067B-10.0-12.0	D-04062010-02	GC-SD122-01.1-03.1	GC-SD122-03.1-05.1	GC-SD122-05.1-07.1	GC-SD122-07.1-09.1	GC-SD122-09.1-11.1	GC-SD122-11.1-13.1	D-04072010-01	GC-SD122-13.1-15.1	GC-SD122-15.1-16.1	GC-SD070B-04.8-06.8	GC-SD070B-06.8-08.8	GC-SD072B-01.8-03.8
	Sample Depth:	6-8	8-10	10-12	10-12	1.1-3.1	3.1-5.1	5.1-7.1	7.1-9.1	9.1-11.1	11.1-13.1	11.1-13.1	13.1-15.1	15.1-16.1	4.8-6.8	6.8-8.8	1.8-3.8
	Sample Date:	4/6/2010	4/6/2010	4/6/2010	4/6/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/6/2010	4/6/2010	4/7/2010
	Sample Type:	N	N	N	FD	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**8,110 (A)**	**7,830 (A)**	**8,860 (A)**	**8,490 (A)**	6,360	6,430	2,690	2,240	4,900	5,120	5,170	6,480	4,860	**16,200 J (A)**	5,400	**13,700 (A)**
Antimony	mg/kg																
Arsenic	mg/kg	**4.3 J (A)**	**3.6 J (A)**	**4.1 J (A)**	**3.3 J (A)**	**10.8 (A,R)**	**16 (A,R)**	**10.8 (A,R)**	**4.4 (A)**	**4.1 (A)**	**3.4 (A)**	**3.6 (A)**	**4.6 (A)**	**1.2 (A)**	**19.6 J (A,R)**	**19.1 J (A,R)**	**12.5 (A,R)**
Barium	mg/kg	48.8	41.5	49.1	40.2		39.5						34.2		61.4 J	32.1	37.2
Beryllium	mg/kg	0.66	0.7	0.7	0.75	0.23 J	0.29 J			0.31 J	0.42 J	0.38 J	0.47 J	0.22 J			0.53 J
Cadmium	mg/kg																0.34 J
*Calcium	mg/kg	807	775	832	850	2,380 J	1,480 J	733 J		651 J	642 J	637 J	768 J	634 J	1,850 J	1,220	2,010 J
Chromium	mg/kg	**22.3 (A)**	**21.3 (A)**	**24.6 (A)**	**22.9 (A)**	**18 (A)**	**25.4 (A)**	**11.5 (A)**	**10.2 (A)**	**13 (A)**	**14 (A)**	**14 (A)**	**16.5 (A)**	**10.9 (A)**	**40.7 J (A)**	**18.4 (A)**	**35.4 (A)**
Cobalt	mg/kg	**9.4 (A)**	**9.7 (A)**	**8.2 (A)**	**7 (A)**	**4.9 J (A)**	**5.7 J (A)**	**2.5 J (A)**	2 J	**5.2 J (A)**	**5.1 J (A)**	**6.9 (A)**	**9.7 (A)**	**6.2 (A)**	**11.3 J (A)**	**4.1 J (A)**	**9.6 (A)**
Copper	mg/kg	13.1	12.7	14.3	14.6	9.1 J	9.6 J	3.9 J		9 J	9.3 J	10 J	13.2 J	9.1 J	19 J	7.2	19.5 J
Iron	mg/kg	**14,900 (A)**	**15,800 (A)**	**17,500 (A)**	**20,200 (A)**	**21,000 (A)**	**23,100 (A)**	**10,000 (A)**	4,100	**9,000 (A)**	**8,950 (A)**	**9,190 (A)**	**11,600 (A)**	**9,850 (A)**	**44,900 J (A)**	**31,300 (A)**	**39,900 (A)**
Lead	mg/kg	9.7	9.1	10.1 J	15.5 J	8	7	3.2	2.9	6.1	7.3	7.1	9	6.5	14 J	6	14.3
*Magnesium	mg/kg	2,960	2,840	3,110	3,000	2,980	3,080	1,370	1,130	2,190	2,170	2,300	2,790	2,110	6,020 J	2,400	5,860
Manganese	mg/kg	137	109	105	116	175	177	91.5	56	124	77.3	82.7	126	102	**347 J (A)**	**196 (A)**	**389 (A)**
Mercury	mg/kg																
Nickel	mg/kg	19.4	16.9	17.2	15.5	12.8	12.8	5.8	5.1 J	11.6	11.2	14	20.5	13.4	**27.2 J (R)**	9.8	**26 (R)**
*Potassium	mg/kg	2,040 J	1,970 J	2,080 J	2,090 J	1,430 J	1,380 J			1,130 J	1,210 J	1,200 J	1,240 J	735 J	4,020 J	1,280 J	3,050 J
Selenium	mg/kg								0.69 J	0.56 J	0.64 J	0.64 J	1.1 J	0.81 J			
Silver	mg/kg																
*Sodium	mg/kg	1,910	2,000	2,090	2,150	4,340	5,650	2,920	2,200	2,080	2,030	2,280	1,570	762	6,830 J	3,930	7,550
*Thallium	mg/kg																
Vanadium	mg/kg	33.9	32.2	36.4	34.1	16.2	19.7	10.2	8.2	19.9	23.7	21.9	24.6	15.2	**40.2 J (A)**	17.2	32.2
Zinc	mg/kg	48.8	49.4	51.2	48.7	35.6 J	43.5 J	18.8 J	16.6 J	34.1 J	32.5 J	37.7 J	44.6 J	45.1 J	70.8 J	30.5	70.8 J
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD72B	GC-SD72B	GC-SD72B	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD137	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD74E	GC-SD75C	GC-SD75C	GC-SD75C
Sample Number:		GC-SD072B-03.8-05.8	GC-SD072B-05.8-07.8	GC-SD072B-07.8-09.8	GC-SD137-00.0-02.0	GC-SD137-02.0-04.0	GC-SD137-04.0-06.0	GC-SD137-06.0-08.0	GC-SD137-08.0-09.8	D-04072010-02	GC-SD074E-04.4-06.4	D-04082010-01	GC-SD074E-06.4-08.4	GC-SD074E-08.4-10.4	GC-SD075C-01.0-03.0	GC-SD075C-03.0-05.0	GC-SD075C-05.0-07.0
Sample Depth:		3.8-5.8	5.8-7.8	7.8-9.8	0-2	2-4	4-6	6-8	8-9.8	8-9.8	4.4-6.4	4.4-6.4	6.4-8.4	8.4-10.4	1-3	3-5	5-7
Sample Date:		4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/7/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/7/2010	4/7/2010	4/7/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**8,170 (A)**	5,530	5,890	3,990	4,490	3,140	2,950	3,080	3,110	5,250	5,150	5,460	5,690	6,500	5,980	6,680
Antimony	mg/kg																
Arsenic	mg/kg	**10.7 (A,R)**	**11.1 (A,R)**	**0.82 J (A)**	**2.3 (A)**	**1.1 J (A)**	**3.1 (A)**	**2.2 (A)**	**3.1 (A)**	**2.9 (A)**	**2.2 (A)**	**2.2 (A)**	**2.6 (A)**	**2.2 (A)**	**4.6 (A)**	**3.7 (A)**	**3.8 (A)**
Barium	mg/kg		25.1	38	26.7	33	32.6	22.7	38.1	37.4	31	22.5	25.5 J	25.5	33.6	27.4	37.5
Beryllium	mg/kg				0.2 J	0.24 J					0.45 J	0.3 J	0.45 J	0.38 J	0.59 J	0.43 J	0.51 J
Cadmium	mg/kg																
*Calcium	mg/kg	1,500 J	853 J		750 J	827 J						835 J	941 J	917 J			672 J
Chromium	mg/kg	**22.9 (A)**	**14.1 (A)**	**14 (A)**	**9.9 (A)**	**10.2 (A)**	**7.2 (A)**	**7.3 (A)**	**7.5 (A)**	**6.4 (A)**	**16.3 (A)**	**10.9 (A)**	**12.9 (A)**	**12 (A)**	**20.5 (A)**	**17.7 (A)**	**19.5 (A)**
Cobalt	mg/kg				**5 J (A)**	**5.9 (A)**	**6.9 (A)**	**4.3 J (A)**	**4.8 J (A)**	**4.8 J (A)**		**6.3 (A)**		**6.9 (A)**	**7.7 (A)**	**7.3 (A)**	**7.1 (A)**
Copper	mg/kg	11.2	6.4	3.9	8 J	9 J	7 J	6.4 J	6.9 J	6.9 J	18.1	9.7	10.4	10.8	12.4 J	11 J	12.7 J
Iron	mg/kg	**27,300 (A)**	**19,300 (A)**	**8,940 (A)**	**10,900 (A)**	**9,550 (A)**	**10,100 (A)**	**9,750 (A)**	**9,250 (A)**	**9,220 (A)**	**9,880 (A)**	**12,900 (A)**	**14,500 (A)**	**14,400 (A)**	**10,400 (A)**	**10,100 (A)**	**11,500 (A)**
Lead	mg/kg	8.9 J	5 J	5.2 J	6.1	6.4	4.6	4.7	4.7	4.7	13.9 J	6.6 J	6.9 J	7.4 J	8.4	7.8	8.5
*Magnesium	mg/kg	3,580	2,180	1,370	1,900	2,160	1,370	1,280	1,390	1,380	2,180	2,440	2,490	2,720	2,580	2,420	2,720
Manganese	mg/kg	**219 (A)**	106	47.9	**235 (A)**	121	98.5	96.6	109	114	101	**188 J (A)**	**277 J (A)**	**209 (A)**	70	74.9	85.7
Mercury	mg/kg																
Nickel	mg/kg	15.5	10	7.7	11.2	13.1	12	9.9	9.8	9.6	12.8	12.4	13.4	13.8	15.7	15.8	14.9
*Potassium	mg/kg	1,930 J	1,200 J	578 J	930 J	846 J					1,350 J	963 J	1,230 J	1,090 J	1,590 J	1,360 J	1,480 J
Selenium	mg/kg	1.8 J	1.1 J									0.53 J	0.62 J	0.53 J	0.96 J		
Silver	mg/kg										0.081 J						
*Sodium	mg/kg	5,600	3,210	1,800							943		903		2,290	1,740	1,700
*Thallium	mg/kg																
Vanadium	mg/kg	21.3	16.7	18.9	15.4	15	10.6	10	8	7.7	22	17.4	21	19.3	32.2	27.4	30.7
Zinc	mg/kg	43.9	26.5	25.9	34.1 J	32 J	23.3 J	21 J	21.2 J	21.1 J	48.8	31.8	35.5	35.2	48.8 J	42.4 J	45.9 J
Cyanide, Total	mg/kg							0.22 J									

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD150	GC-SD151	GC-SD151	GC-SD151	GC-SD151	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD76C	GC-SD77A	GC-SD77A	GC-SD77A
Sample Number:		GC-SD150-08.6-10.6	D-04122010-01	GC-SD150-10.6-12.6	GC-SD150-12.6-14.6	GC-SD150-14.6-15.5	GC-SD151-05.2-07.2	GC-SD151-07.2-09.2	D-04122010-03	GC-SD151-09.2-11.2	GC-SD076C-05.8-07.8	GC-SD076C-07.8-09.8	GC-SD076C-09.8-11.8	GC-SD076C-11.8-13.8	GC-SD077A-06.7-08.7	GC-SD077A-08.7-10.7	GC-SD077A-10.7-12.4
Sample Depth:		8.6-10.6	8.6-10.6	10.6-12.6	12.6-14.6	14.6-15.5	5.2-7.2	7.2-9.2	7.2-9.2	9.2-11.2	5.8-7.8	7.8-9.8	9.8-11.8	11.8-13.8	6.7-8.7	8.7-10.7	10.7-12.4
Sample Date:		4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/12/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010	4/8/2010
Sample Type:		N	FD	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	3,030	2,840	3,470	2,270	2,330	7,320	5,640	5,890	6,270	3,030	3,670	2,630	2,650	4,580	2,630	2,780
Antimony	mg/kg	1.1 J	1.1 J	1 J	0.79 J	0.95 J											
Arsenic	mg/kg	**4.8 (A)**	**4.6 (A)**	**2.6 (A)**	**3.7 (A)**	**4.8 (A)**	**3.2 (A)**	**2 (A)**	**2.1 (A)**	**1.7 (A)**	**1.4 (A)**	**4.5 (A)**	**1.7 (A)**	**0.73 J (A)**	**5.3 (A)**	**3.5 (A)**	**3.4 (A)**
Barium	mg/kg	29.2	31.6	20 J	36.7	18.2 J	49.2	27.3	26.4	29.4					**184 (R)**	9.6 J	18.4 J
Beryllium	mg/kg	0.23 J	0.23 J	0.18 J	0.21 J	0.24 J	0.7								0.24 J	0.16 J	0.27 J
Cadmium	mg/kg	0.16 J	0.17 J			0.083 J	0.38 J	0.26 J	0.3 J	0.26 J					**7.2 (A,R)**		
*Calcium	mg/kg			629 J			1,130 J	826 J	938 J	829 J					2,470 J		
Chromium	mg/kg	**7.5 (A)**	**7.7 (A)**	**7.1 (A)**	**5.6 (A)**	**7.6 (A)**	**19.1 (A)**	**14 (A)**	**14.4 (A)**	**14.5 (A)**	**6.5 (A)**	**7.1 (A)**	**6 (A)**	**5.3 (A)**	**75.2 (A)**	**5.2 (A)**	**6.1 (A)**
Cobalt	mg/kg					**3.7 J (A)**	**8.4 (A)**	**6.6 (A)**	**6.7 (A)**	**7.5 (A)**		**5.5 J (A)**			**4.4 J (A)**		**4.4 J (A)**
Copper	mg/kg	8.2	7.8	7.3	5.4	5.4	13.8	9.3	10.2	11.6	6.8	7.2	5.6	6	**143 (R)**	5.9	6.5
Iron	mg/kg	**13,500 (A)**	**13,700 (A)**	**11,000 (A)**	**11,400 (A)**	**13,400 (A)**	**19,900 (A)**	**15,400 (A)**	**16,400 (A)**	**15,400 (A)**	**11,100 (A)**	**11,000 (A)**	**9,400 (A)**	**7,680 (A)**	**12,000 (A)**	**9,760 (A)**	**10,700 (A)**
Lead	mg/kg	6.4	6.4	5.3	3.6	3.7	9.4	7.2	7.4	8.3	4.9 J	5.4 J	3.8 J	4.1 J	**143 J (R)**	3.9 J	3.8 J
*Magnesium	mg/kg	1,380	1,320	1,570	1,080	1,110	3,050	2,480	2,600	2,830	1,490	1,880	1,380	1,320	2,660	1,270	1,640
Manganese	mg/kg	123	108	134	104	113	**299 (A)**	**225 (A)**	**247 (A)**	146	86.4	94.2	70.5	77.7	120	97.8	108
Mercury	mg/kg														**0.56 (R)**		
Nickel	mg/kg	10.2	9.9	9.8	8.7	8	16.8	13.7	14.3	15.8	9.3	12.5	10.4	9	**28.1 (R)**	9.2	11.4
*Potassium	mg/kg	571 J	503 J	605 J	377 J	405 J	1,850 J	1,420 J	1,470 J	1,260 J	621 J	703 J	507 J	502 J	1,120 J	455 J	579 J
Selenium	mg/kg	0.75 J	0.86 J	0.76 J	0.81 J	0.8 J						0.54 J			1.2 J		
Silver	mg/kg		0.078 J												**3.9 (R)**		
*Sodium	mg/kg						891								3,220		
*Thallium	mg/kg																
Vanadium	mg/kg	10.6	10	7.9	7.7	10.2	29.6	21	22.1	21.4	9.7	10.4	10	7.2	17.3	7.9	9.1
Zinc	mg/kg	24.4	22.9	25.2	16.8	15.5	46.7	36.7	38.9	41.1	22	22.6	17	17.5	**224 (R)**	17.4	19.9
Cyanide, Total	mg/kg										0.7 J						

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-SD123	GC-SD123	GC-SD123	GC-SD140	GC-SD140	GC-SD140	GC-SD140	GC-SD142	GC-SD142	GC-SD142	GC-SD142	GC-SD142	GC-SD143	GC-SD143	GC-SD143	GC-SD143
	Sample Number:	GC-SD123-07.0-09.0	D-04082010-02	GC-SD123-09.0-11.0	GC-SD140-06.2-08.2	GC-SD140-08.2-10.2	GC-SD140-10.2-12.2	GC-SD140-12.2-12.7	GC-SD142-04.1-06.1	GC-SD142-06.1-08.1	GC-SD142-08.1-10.1	D-04152010-01	GC-SD142-10.1-11.2	GC-SD143-03.3-05.3	D-04142010-03	GC-SD143-05.3-07.3	GC-SD143-07.3-09.3
	Sample Depth:	7-9	7-9	9-11	6.2-8.2	8.2-10.2	10.2-12.2	12.2-12.7	4.1-6.1	6.1-8.1	8.1-10.1	8.1-10.1	10.1-11.2	3.3-5.3	3.3-5.3	5.3-7.3	7.3-9.3
	Sample Date:	4/8/2010	4/8/2010	4/8/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/14/2010	4/14/2010	4/14/2010	4/14/2010
	Sample Type:	N	FD	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	2,810	2,820	2,470	2,240	2,780	2,820	2,470	2,920	2,690	3,090	3,330	2,530	2,490	2,660	2,780	2,290
Antimony	mg/kg																
Arsenic	mg/kg	**2.8 (A)**	**4.5 (A)**	**3.5 (A)**	**6.7 (A)**	**4.1 (A)**	**4 (A)**	**2.5 (A)**	**2.9 (A)**	**2.3 (A)**	**1.9 (A)**	**1.6 (A)**	**4.9 (A)**	**2.7 (A)**	**1.5 (A)**	**2.2 (A)**	**1.2 (A)**
Barium	mg/kg	14.3 J		26.4	22.2	60.1											
Beryllium	mg/kg	0.22 J															
Cadmium	mg/kg		0.12 J		0.19 J	0.11 J											
*Calcium	mg/kg								1,660 J								
Chromium	mg/kg	**8.3 (A)**	**10.3 (A)**	**5.7 (A)**	**5.8 (A)**	**6.2 (A)**	**25 J (A)**	**6 J (A)**	**8.5 (A)**	**16.5 (A)**	**7.2 (A)**	**6.8 (A)**	**11.5 (A)**	**7.5 J (A)**	**5.8 J (A)**	**6.1 J (A)**	**6.8 J (A)**
Cobalt	mg/kg	**4.1 J (A)**	**4.2 J (A)**	**3.4 J (A)**	**3.8 J (A)**	**3.8 J (A)**			**5.1 J (A)**	**4.8 J (A)**	**6.2 (A)**	**6.8 (A)**	**8.2 (A)**	**3.6 J (A)**	**4.7 J (A)**	**4.7 J (A)**	**3.3 J (A)**
Copper	mg/kg	7	8.3	6.3	5.8	5.6	8	6.3	9.3	6.3	7.1	6.3	6.2	7.2	5.9	6.6	4.5
Iron	mg/kg	**10,000 (A)**	**11,800 (A)**	**9,560 (A)**	**13,100 (A)**	**10,100 (A)**	**16,200 J (A)**	**9,300 J (A)**	**10,900 (A)**	**11,500 (A)**	**9,100 (A)**	**8,260 (A)**	**11,000 (A)**	**10,900 J (A)**	**8,120 J (A)**	**9,310 J (A)**	**7,810 J (A)**
Lead	mg/kg	4.3 J	5.3	3.3	3.9	4.8	4.3	3.2	10.9	4.4	4.5	5.2	3.9	3.2	4.2	4.4	2.5
*Magnesium	mg/kg	1,410	1,550	1,430	1,090	1,370	1,230	1,500	1,750	1,220	1,440	1,810	1,380	1,330	1,220	1,280	1,270
Manganese	mg/kg	90.3	104	88.6	148	125	156 J	120 J	92.5 J	80.4 J	74.4 J	70.7	90.2 J	92.8 J	69.9 J	91 J	63.6 J
Mercury	mg/kg	**1.7 (R)**															
Nickel	mg/kg	10.1	11.6	10.3	9	8.2	11.2	10.4	10	12.1	10.9	12.4	11.7	9.5	10.3	11.2	9
*Potassium	mg/kg	468 J	434 J	411 J	507 J	590 J	658 J	521 J	579 J		653 J	721 J		547 J	579 J	577 J	521 J
Selenium	mg/kg				0.86 J	0.5 J	0.98 J			0.57 J			0.62 J	0.45 J			0.42 J
Silver	mg/kg								0.062 J								
*Sodium	mg/kg								659		832	887	722	1,040		679	931
*Thallium	mg/kg																
Vanadium	mg/kg	8.3	12.1	8.5	9	7.3	17.8	7.7	12	14.6	10.2	9.1	13.5	10.9	7.9	9.4	8.1
Zinc	mg/kg	19.2	22.5	17.5	18.5	20.6	23.8	16.9	31.3	24.8	22.1	23.7	20.8	17.6	20.9	21.7	14.8
Cyanide, Total	mg/kg																

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD143	GC-SD143	GC-SD143	GC-SD144B	GC-SD144B	GC-SD144B	GC-SD79A	GC-SD79A	GC-SD79A	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD81A	GC-SD83A	GC-SD83A	GC-SD83A
Sample Number:		GC-SD143-09.3-11.3	GC-SD143-11.3-13.3	GC-SD143-13.3-13.8	GC-SD144B-00.8-02.8	GC-SD144B-02.8-04.8	GC-SD144B-04.8-06.5	GC-SD079A-06.0-08.0	GC-SD079A-08.0-10.0	GC-SD079A-10.0-12.0	GC-SD081A-05.3-07.3	D-04152010-03	GC-SD081A-07.3-09.3	GC-SD081A-09.3-11.3	GC-SD083A-05.0-07.0	GC-SD083A-07.0-09.0	GC-SD083A-09.0-11.0
Sample Depth:		9.3-11.3	11.3-13.3	13.3-13.8	0.8-2.8	2.8-4.8	4.8-6.5	6-8	8-10	10-12	5.3-7.3	5.3-7.3	7.3-9.3	9.3-11.3	5-7	7-9	9-11
Sample Date:		4/14/2010	4/14/2010	4/14/2010	4/13/2010	4/13/2010	4/13/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010	4/15/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**															
Aluminum	mg/kg	**10,600 (A)**	**8,720 (A)**	**14,100 (A)**	2,750	2,340	2,700	5,790	2,280	2,890	2,980	3,040	3,170	2,580	2,860	2,870	2,700
Antimony	mg/kg																
Arsenic	mg/kg	**2.2 (A)**	**1.8 (A)**	**2.8 (A)**	**3.5 J (A)**	**4.3 (A)**	**4.8 (A)**	**2.2 (A)**	**1.6 (A)**	**2.3 (A)**	**3.6 (A)**	**3.1 (A)**	**2 (A)**	**3.5 (A)**	**2.8 (A)**	**1.7 (A)**	**2.5 (A)**
Barium	mg/kg	95.2	64.6	86.1				27.5				11.8 J	15.5 J	16.7 J	10.3 J	17.5 J	12.4 J
Beryllium	mg/kg			0.75								0.21 J		0.13 J			0.17 J
Cadmium	mg/kg					0.17 J	0.22 J					0.099 J					
*Calcium	mg/kg	15,100 J	24,000 J	19,900 J				694 J			577 J			811 J			
Chromium	mg/kg	**32.9 (A)**	**27.8 (A)**	**32.9 (A)**	**7 (A)**	**5.9 (A)**	**11.9 (A)**	**12.4 (A)**	**5.8 (A)**	**7.1 (A)**	**29.4 J (A)**	**6.6 J (A)**	**7.7 J (A)**	**7.2 J (A)**	**6.8 J (A)**	**4.8 J (A)**	**8.7 J (A)**
Cobalt	mg/kg	**15.6 (A)**	**14.4 (A)**	**15.1 (A)**	**7.3 (A)**	**4.3 J (A)**	**4.7 J (A)**	**10.4 (A)**	**5.5 (A)**	**6.1 (A)**	**5.9 (A)**	**5.7 (A)**	**4.8 J (A)**	**4.1 J (A)**		**4.8 J (A)**	**5.9 (A)**
Copper	mg/kg	25.4	22.2	27.3	5.9	5.2	6	24.4	5.1	6.3	8.7	7	6	7.3	6.7	5.4	6.2
Iron	mg/kg	**21,000 (A)**	**16,500 (A)**	**23,900 (A)**	**11,000 (A)**	**9,750 (A)**	**11,700 (A)**	**13,300 (A)**	**8,490 (A)**	**10,400 (A)**	**14,000 J (A)**	**12,400 J (A)**	**9,810 J (A)**	**11,900 J (A)**	**11,200 J (A)**	**8,010 J (A)**	**11,300 J (A)**
Lead	mg/kg	8.3	7	11.7	4.5	3.4	4	20.4 J	3.7	4.5	8.6	6.3	4.5	4	4.9	3.9	3.5 J
*Magnesium	mg/kg	20,800	22,700	17,300	1,280	1,120	1,360	2,640	1,070	1,420	1,320	1,440	1,400	1,200	1,380	1,310	1,360
Manganese	mg/kg	**578 (A,R)**	**689 (A,R)**	**620 (A,R)**	137	**182 (A)**	148	100 J	75.7 J	120 J	106 J	104 J	99.6 J	122 J	79.3 J	76.3 J	84.5 J
Mercury	mg/kg																
Nickel	mg/kg	**129 (R)**	**154 (A,R)**	**86.8 (R)**	14.2	10.2	11.4	**21.1 (R)**	10	11.7	12.6	11.7	9.5	10.3	11.2	9.2	12.3
*Potassium	mg/kg	3,530 J	3,040 J	4,600 J	523 J	463 J	514 J	1,190 J			646 J	701 J	621 J	519 J	661 J	577 J	500 J
Selenium	mg/kg	1.1 J	0.6 J	0.88 J				0.86 J		0.46 J	0.77 J		0.64 J	0.64 J			
Silver	mg/kg											0.13 J					
*Sodium	mg/kg	2,480	2,030	1,830	680	805	1,040								599	899	654
*Thallium	mg/kg	1.5 J	1.6 J	2.6 J		0.51 J	0.56 J										
Vanadium	mg/kg	27	21.2	32.8	9	7.3	10.2	19	9.8	10.3	13.6	11.7	8.6	14.1	10.3	6.8	8.8
Zinc	mg/kg	46.5	36	56.4	23.9	18.3	20.7	105	18.1	24.3	31.1	26	23.5	18.2	23	19	26.4
Cyanide, Total	mg/kg								4								

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-SD83A	ERT1-1	ERT1-1	ERT1-2	ERT1-2	ERT1-3	ERT1-3	ERT1-3	ERT1-3	ERT2-1	ERT2-1	ERT2-3	ERT2-3	ERT3-2	ERT3-2	ERT3-2
Sample Number:		D-04152010-04	ERT1-1-G	ERT1-1-H	ERT1-2-I	FD-01	ERT1-3-J	ERT1-3-L	FD-04	ERT1-3-N	ERT2-1-I	ERT2-1-J	ERT2-3-L	FD-05	ERT3-2-I	ERT3-2-J	ERT3-2-K
Sample Depth:		9-11	5.4-6	6-7.2	6.8-8.3	6.8-8.3	7.7-9	10-11	10-11	12-12.9	7-8	8-8.5	10-11.3	10-11.3	7.4-8	8-9	9-10.4
Sample Date:		4/15/2010	1/28/2010	1/28/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/29/2010	1/29/2010	1/28/2010	1/28/2010	1/28/2010
Sample Type:		FD	N	N	N	FD	N	N	FD	N	N	N	N	FD	N	N	N
Parameter	**Units**										**Metals**						
Aluminum	mg/kg	2,470	3,280	5,100	3,580	3,720	2,840	4,400	3,810	2,350	4,540	3,330	1,320	1,020	3,080	2,530	**8,000 (A)**
Antimony	mg/kg		**3.1 J (R)**		0.64 J			0.49 J			**12.5 J (A,R)**	1.6 J				0.46 J	0.57 J
Arsenic	mg/kg	**2.5 (A)**	**4.6 (A)**	**0.9 (A)**	**1.5 (A)**	**0.43 J (A)**	**1.4 (A)**	**4.3 (A)**	**4.4 (A)**	**0.43 J (A)**	**21.5 (A,R)**	**3.5 (A)**		0.37 J	**1.4 (A)**	**1.8 (A)**	**3.3 (A)**
Barium	mg/kg	10.5 J	**223 (R)**	19.2	55.4 J	21 J					**799 (R)**	123			17.1	10.2 J	19.2
Beryllium	mg/kg																0.52
Cadmium	mg/kg	0.22 J	**2.2 (R)**								**8.9 (A,R)**	0.8					0.65 J
*Calcium	mg/kg		4,340	715	922 J	377 J					8,520	1,590			408 J	292 J	4,440
Chromium	mg/kg	**8.2 (A)**	**27.1 J (A)**	**11.7 J (A)**	**11.8 J (A)**	**9.9 J (A)**	**7.3 J (A)**	**12.7 J (A)**	**10.7 J (A)**	**7.6 J (A)**	**59.8 J (A)**	**18.4 J (A)**	**6.8 J (A)**	**5.2 J (A)**	**12 (A)**	**9.8 (A)**	**13.9 (A)**
Cobalt	mg/kg	**5.2 J (A)**						**9.4 (A)**	**7.6 (A)**						**7.5 (A)**		**11.1 (A)**
Copper	mg/kg	5.7	**129 (R)**	13.1	21.6 J	9.7 J	8.6	10.3	7.5	3.5	**483 (A,R)**	**56.8 (R)**	3.6	5.1	6.4	5.4	19.1
Iron	mg/kg	**10,500 (A)**	**14,900 (A)**	**6,950 (A)**	**6,040 (A)**	5,020	4,290	**7,510 (A)**	**6,790 (A)**	4,750	**27,300 (A)**	**11,200 (A)**	2,840	2,360	**8,930 (A)**	**6,370 (A)**	**19,300 (A)**
Lead	mg/kg	5.8	**468 (A,R)**	15.8	**132 (R)**	19.3	19.9	6.2	5.8	3.6	**1,360 (A,R)**	**158 (R)**	2.5	4.5	5.6	4.5	11.9
*Magnesium	mg/kg	1,250	1,880	1,790	1,360	1,270	962	1,840	1,430	1,210	4,040	1,540	964	987	1,550	1,190	6,070
Manganese	mg/kg	90.5 J	105	46.1	40	32.7	28	49.4	39.8	40.5	125	49.8	26.7	20.1	51.3	47.2	**211 (A)**
Mercury	mg/kg		**1.6 (R)**	0.097 J	0.11 J	0.065 J	0.14				**4.8 (A,R)**	**0.29 (R)**					
Nickel	mg/kg	11.4	**25.4 (R)**	10.6	9.4	7.5	5.7 J	15.9 J	10.9 J	7.8 J	**35.6 (R)**	11.8	5	6.4	12	8.4	**24.3 (R)**
*Potassium	mg/kg		708	790	645 J	668 J	555	769	718	405 J	923	698		161 J	734	611	1,220
Selenium	mg/kg		0.96 J					1.3 J	1.3 J		4.2 J						
Silver	mg/kg		**3.7 J (R)**								**5.9 J (R)**						
*Sodium	mg/kg	864									1,620						
*Thallium	mg/kg																
Vanadium	mg/kg	11.7	16.6	14.1	14.5	11.9	12.1	24.4	21.5	8.8	28.7	11.3		3.5 J	14.8	10.2	16.2
Zinc	mg/kg	19.7	**315 (R)**	29.1	85.3 J	28.8 J	23.7	31.6	24.1	18.1	**1,580 (R)**	**198 (R)**	12.8	11.3	22.5	17.3	53.3
Cyanide, Total	mg/kg										9.6	0.36 J					

TABLE I-18B
Metal and Cyanide Concentrations in Native Sediments, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		ERT3-3	ERT3-3	ERT4-3	ERT4-3	ERT4-3
Sample Number:		ERT3-3-L	ERT3-3-N	ERT4-3-I	ERT4-3-J	ERT4-3-K
Sample Depth:		10-11	12-13.4	7.3-8	8-9	9-9.8
Sample Date:		1/29/2010	1/29/2010	1/29/2010	1/29/2010	1/29/2010
Sample Type:		N	N	N	N	N
Parameter	**Units**	**Metals**				
Aluminum	mg/kg	2,460	2,500	3,280	3,170	3,050
Antimony	mg/kg		0.32 J		0.46 J	
Arsenic	mg/kg		**0.93 (A)**	**1.8 (A)**	**2.2 (A)**	**1 J (A)**
Barium	mg/kg	28.9	28.8	27.4		
Beryllium	mg/kg					
Cadmium	mg/kg					
*Calcium	mg/kg	494	633		879	
Chromium	mg/kg	**10.7 J (A)**	**7.4 J (A)**	**11.1 (A)**	**11.2 (A)**	**9.4 (A)**
Cobalt	mg/kg					
Copper	mg/kg	7.5	8	18.8	11.4	10.4
Iron	mg/kg	5,500	5,400	**7,620 (A)**	**14,800 (A)**	**8,090 (A)**
Lead	mg/kg	4.9	3.8	32.7	10.7	6.8
*Magnesium	mg/kg	1,410	1,540	1,240	1,400	1,400
Manganese	mg/kg	44.3	46.7	49.5	109	60.8
Mercury	mg/kg			**0.26 (R)**	0.091 J	0.07 J
Nickel	mg/kg	14.4	14.1	13.9	14.8	12.8
*Potassium	mg/kg	444	539	688	678	715
Selenium	mg/kg					
Silver	mg/kg					
*Sodium	mg/kg					
*Thallium	mg/kg					
Vanadium	mg/kg	7.2	7	10.4	11.8	11.9
Zinc	mg/kg	18.3	16.6	39 J	25.3 J	19.5 J
Cyanide, Total	mg/kg					3.9

TABLE I-19
Physical Characteristics - Native Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD01A	GC-SD001A-09.4-11.4	9.4	11.4	17900	81.6	72.7	34.19	27.06	7.13	65.8	USEPA, 2010
GC-SD02A	GC-SD002A-11.9-13.9	11.9	13.9	1190	87.1	366	79.98	60.78	19.2	20.03	USEPA, 2010
GC-SD04 A	GC-SD004A-07.3-09.3	7.3	9.3	11400	85.6	20.7	79.18	58.32	20.86	20.81	USEPA, 2010
GC-SD04 A	GC-SD004A-09.3-11.3	9.3	11.3	4330	84	22.6	78.6	58.36	20.24	21.4	USEPA, 2010
GC-SD04 A	GC-SD004A-11.3-13.3	11.3	13.3	1520	88.1	48	23.23	19.41	3.82	76.77	USEPA, 2010
GC-SD05A	GC-SD005A-06.0-08.0	6.0	8.0	4920	86.8	16 U	88.7	56.6	32.1	11.3	USEPA, 2010
GC-SD05A	GC-SD005A-08.0-10.0	8.0	10.0	2680	86	22.8	65.06	49.88	15.18	34.95	USEPA, 2010
GC-SD05A	GC-SD005A-10.0-12.0	10.0	12.0	3880	84.6	18.6 U	9.82	8.51	1.31	90.18	USEPA, 2010
GC-SD06A	GC-SD006A-08.5-10.4	8.5	10.4	24100	81.6	121	92.47	69.39	23.08	7.53	USEPA, 2010
GC-SD06A (redo)	GC-SD006A-09.4-11.4	9.4	11.4	7160	85.9	18.6	30.06	25.95	4.11	69.94	USEPA, 2010
GC-SD06A (redo)	GC-SD006A-11.4-13.4	11.4	13.4	3670	85.6	18.5 U	11.83	10.57	1.26	88.17	USEPA, 2010
GC-SD06A (redo)	GC-SD006A-13.4-14	13.4	14.0	13400	79.7	19.7	28.66	25.77	2.89	71.33	USEPA, 2010
GC-SD07A	GC-SD007A-07.0-09.0	7.0	9.0	13700	82.3	19.3 U	40.34	34.57	5.77	59.66	USEPA, 2010
GC-SD07A	GC-SD007A-09.0-11.0	9.0	11.0	18900	82.3	19.3 U	11.93	10.88	1.05	88.07	USEPA, 2010
GC-SD07A	GC-SD007A-11.0-13.0	11.0	13.0	3560	87.1	45	16.63	14.27	2.36	83.37	USEPA, 2010
GC-SD08A	GC-SD008A-08.0-10.0	8.0	10.0	9610	86.7	22.6	27.52	22.01	5.51	72.47	USEPA, 2010
GC-SD08A	D-03082010-01	8.0	10.0		83.2	19.2					USEPA, 2010
GC-SD08A	GC-SD008A-10.0-12.0	10.0	12.0	4220	86.4	44.6	7.99	7.07	0.92	92.01	USEPA, 2010
GC-SD08A	GC-SD008A-12.0-13.0	12.0	13.0	4890	86.5	18.3	10.9	10.43	0.47	89.1	USEPA, 2010
GC-SD105A	GC-SD105A-01.9-03.9	1.9	3.9	2170	85.6	143	89.6	65.1	24.5	10.4	USEPA, 2010
GC-SD105A	GC-SD105A-03.9-05.9	3.9	5.9	2600	82.7	40.7	43.2	34.21	8.99	56.8	USEPA, 2010
GC-SD105A	D-04222010-02	3.9	5.9		85.9	65.1					USEPA, 2010
GC-SD105A	GC-SD105A-05.9-07.9	5.9	7.9	8270	82.2	227	89.66	74.04	15.62	10.34	USEPA, 2010
GC-SD105A	GC-SD105A-09.9-11.9	9.9	11.9	1690	83.9	36	60.35	55.53	4.82	39.65	USEPA, 2010
GC-SD105A	GC-SD105A-11.9-13.9	11.9	13.9	1180 U	84.9	39.4					USEPA, 2010
GC-SD107	GC-SD107-08.0-10.0	8.0	10.0	1220 U	81.7	528	85.17	63.22	21.95	14.83	USEPA, 2010
GC-SD107	GC-SD107-10.0-12.0	10.0	12.0	1250 U	80.2	702	7.96	7.08	0.88	92.04	USEPA, 2010
GC-SD107	D-03092010-02	10.0	12.0		79.8	512					USEPA, 2010
GC-SD107	GC-SD107-12.0-14.0	12.0	14.0	2490	75.1	337	27.28	24.6	2.68	72.71	USEPA, 2010
GC-SD107	GC-SD107-14.0-16.0	14.0	16.0	1830	77.3	279	38.74	35.24	3.5	61.25	USEPA, 2010
GC-SD108	GC-SD108-08.0-10.0	8.0	10.0	168000	72	3110	38.83	34.28	4.55	61.17	USEPA, 2010
GC-SD108	GC-SD108-10.0-12.0	10.0	12.0	97600	72.8	57.6	3.81	3.57	0.24	96.18	USEPA, 2010
GC-SD108	GC-SD108-12.0-13.5	12.0	13.5	46900	89.7	25.6	15.81	11.57	4.24	84.18	USEPA, 2010
GC-SD109	GC-SD109-04.8-06.8	4.8	6.8	13000	85.8	22.1	2.85	2.85	0	97.15	USEPA, 2010
GC-SD109	GC-SD109-06.8-08.8	6.8	8.8	10800	84.8	33	3.75	3.22	0.53	96.25	USEPA, 2010
GC-SD109	GC-SD109-08.8-10.8	8.8	10.8	11800	84	138	11.74	10.18	1.56	88.26	USEPA, 2010
GC-SD10A	GC-SD010A-06.4-08.4	6.4	8.4	25600	87.4	18.2	14.83	11.12	3.71	85.17	USEPA, 2010
GC-SD10A	GC-SD010A-08.4-10.4	8.4	10.4	12800	83.1	19	36.58	27.98	8.6	63.42	USEPA, 2010
GC-SD10A	GC-SD010A-10.4-11.2	10.4	11.2	3230	88.7	18	77.94	60.99	16.95	22.06	USEPA, 2010
GC-SD110	GC-SD110-06.0-08.0	6.0	8.0	4490	87.5	74.7	84.64	63.46	21.18	15.36	USEPA, 2010
GC-SD110	GC-SD110-08.0-10.0	8.0	10.0	1210 U	82.9	68	50.28	33.66	16.62	49.73	USEPA, 2010
GC-SD110	GC-SD110-10.0-12.0	10.0	12.0	1150 U	87.1	59.5	12.35	9.35	3	87.65	USEPA, 2010
GC-SD110	GC-SD110-12.0-14.0	12.0	14.0	1190 U	84	51.7	17.59	14.39	3.2	82.42	USEPA, 2010
GC-SD111	GC-SD111-8.3-10.3	8.3	10.3	5040	81.7	24	98.08	61.89	36.19	1.92	USEPA, 2010
GC-SD111	GC-SD111-10.3-12.3	10.3	12.3	4800	79.3	160	95.56	69.49	26.07	4.44	USEPA, 2010

TABLE I-19
Physical Characteristics - Native Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD111	GC-SD111-12.3-14.3	12.3	14.3	3480	77.8	104	89.32	66.32	23	10.69	USEPA, 2010
GC-SD111	GC-SD111-14.3-15.9	14.3	15.9	22400	73.6	831	69.94	56.83	13.11	30.06	USEPA, 2010
GC-SD113	GC-SD113-09.3-11.3	9.3	11.3	12900	84.2	93.8	85.51	66.01	19.5	14.49	USEPA, 2010
GC-SD113	GC-SD113-11.3-13.3	11.3	13.3	10100	86.6	79.6	42.57	35.2	7.37	57.43	USEPA, 2010
GC-SD113	GC-SD113-13.3-15.0	13.3	15.0	7380	82.9	79.2	88.46	69.97	18.49	11.54	USEPA, 2010
GC-SD113	D-03152010-02	13.3	15.0		86.2	78.4					USEPA, 2010
GC-SD114	GC-SD114-00.0-14.9	0.0	14.9								USEPA, 2010
GC-SD114	GC-SD114-01.2-03.2	1.2	3.2	39000	73.5	28.8	70.32	61.74	8.58	29.68	USEPA, 2010
GC-SD114	GC-SD114-03.2-05.2	3.2	5.2	25000	81.7	238	81.44	72.47	8.97	18.56	USEPA, 2010
GC-SD114	GC-SD114-05.2-07.2	5.2	7.2	32200	80.8	555	78.6	70.31	8.29	21.4	USEPA, 2010
GC-SD114	D-03232010-01	5.2	7.2		79.5	485					USEPA, 2010
GC-SD114	GC-SD114-07.2-09.2	7.2	9.2	65000	81.9	504	76.28	70.54	5.74	23.72	USEPA, 2010
GC-SD114	GC-SD114-09.2-11.2	9.2	11.2	67300	83.9	288	76.59	71.09	5.5	23.41	USEPA, 2010
GC-SD114	GC-SD114-11.2-13.2	11.2	13.2	70700	82.6	54.8	59.36	55.97	3.39	40.64	USEPA, 2010
GC-SD114	GC-SD114-13.2-14.9	13.2	14.9	20400	79.5	168	60.58	55.79	4.79	39.42	USEPA, 2010
GC-SD115	GC-SD115-00.0-13.8	1.0	13.8								USEPA, 2010
GC-SD115	GC-SD115-01.8-03.8	1.8	3.8	15500	86.7	78	18.33	16.65	1.68	81.66	USEPA, 2010
GC-SD115	D-03172010-02	1.8	3.8		85.7	43.5					USEPA, 2010
GC-SD115	GC-SD115-03.8-05.8	3.8	5.8	15900	83.9	59.1	71.84	54.88	16.96	28.16	USEPA, 2010
GC-SD115	GC-SD115-05.8-07.8	5.8	7.8	3880	85.6	185	13.23	10.85	2.38	86.78	USEPA, 2010
GC-SD115	GC-SD115-07.8-09.8	7.8	9.8	31600	85.2	224	10.04	9.43	0.61	89.95	USEPA, 2010
GC-SD115	GC-SD115-09.8-11.8	9.8	11.8	113000	87.5	102	5.48	4.78	0.7	94.52	USEPA, 2010
GC-SD115	GC-SD115-11.8-13.8	11.8	13.8	71400	84.8	136	16.84	14.55	2.29	83.16	USEPA, 2010
GC-SD116	GC-SD116-06.5-08.5	6.5	8.5	47600	87.3	37.6	13.61	11.39	2.22	86.39	USEPA, 2010
GC-SD116	GC-SD116-08.5-10.5	8.5	10.5	4320	78.9	143	67.54	54	13.54	32.47	USEPA, 2010
GC-SD116	D-03172010-01	8.5	10.5		83	133					USEPA, 2010
GC-SD116	GC-SD116-10.5-12.5	10.5	12.5	1260	86.9	30.7	29.76	26.53	3.23	70.23	USEPA, 2010
GC-SD116	GC-SD116-12.5-14.5	12.5	14.5	15900	78.4	147	43.67	40.14	3.53	56.34	USEPA, 2010
GC-SD116	GC-SD116-14.5-15.8	14.5	15.8	2030	82.8	99.7	45.89	43.26	2.63	54.11	USEPA, 2010
GC-SD117	GC-SD117-00.0-15.7	0.0	15.7								USEPA, 2010
GC-SD117	GC-SD117-08.7-10.7	8.7	10.7	2720	84.8	26.4	21.95	18.68	3.27	78.04	USEPA, 2010
GC-SD117	GC-SD117-10.7-12.7	10.7	12.7	1170 U	85.8	463	13.8	12.03	1.77	86.2	USEPA, 2010
GC-SD117	GC-SD117-12.7-14.7	12.7	14.7	2440	83.4	24	40.37	32.4	7.97	59.63	USEPA, 2010
GC-SD117	GC-SD117-14.7-15.7	14.7	15.7	4050	83.3	18.7 U	29.89	25.43	4.46	70.11	USEPA, 2010
GC-SD118	GC-SD118-00.0-10.2	0.0	10.2								USEPA, 2010
GC-SD118	GC-SD118-01.0-03.0	1.0	3.0	20900	83.4	39.2	4.18	3.62	0.56	95.82	USEPA, 2010
GC-SD118	GC-SD118-03.0-05.0	3.0	5.0	8740	84.9	53.1	9.97	7.76	2.21	90.03	USEPA, 2010
GC-SD118	GC-SD118-05.0-07.0	5.0	7.0	39400	85.9	46.2	4.82	4.05	0.77	95.18	USEPA, 2010
GC-SD118	GC-SD118-07.0-09.0	7.0	9.0	68600	88.2	107	5.12	4.55	0.57	94.89	USEPA, 2010
GC-SD118	GC-SD118-09.0-10.2	9.0	10.2	30600	84.8	239	64.06	57.5	6.56	35.93	USEPA, 2010
GC-SD11A	GC-SD011A-07.7-09.7	7.7	9.7	4860	89.2	21.8	98.17	81.17	17	1.82	USEPA, 2010
GC-SD11A	D-03102010-01	7.7	9.7		84.4	41.8					USEPA, 2010
GC-SD11A	GC-SD011A-09.7-11.7	9.7	11.7	12300	88.7	24.8	66.81	56.54	10.27	33.19	USEPA, 2010
GC-SD11A	GC-SD011A-11.7-13.7	11.7	13.7	1120 U	89	37.7	60.63	53.07	7.56	39.37	USEPA, 2010
GC-SD120	GC-SD120-02.5-04.5	2.5	4.5	10000	76.1	369	13.7	10.21	3.49	86.3	USEPA, 2010

TABLE I-19
Physical Characteristics - Native Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD120	GC-SD120-04.5-06.5	4.5	6.5	9960	82.8	207	26.82	19.65	7.17	73.18	USEPA, 2010
GC-SD120	GC-SD120-06.5-08.5	6.5	8.5	14900	84.2	127	12.91	9.59	3.32	87.09	USEPA, 2010
GC-SD120	D-03312010-02	6.5	8.5		49.5	7300					USEPA, 2010
GC-SD120	GC-SD120-08.5-10.5	8.5	10.5	11000	83	392	6.83	5.3	1.53	93.17	USEPA, 2010
GC-SD120	GC-SD120-10.5-12.5	10.5	12.5	19700	82.9	141	1.11	1.11	0	98.89	USEPA, 2010
GC-SD121	GC-SD121-01.5-03.5	1.5	3.5	7180	84	41.4	36.24	25.72	10.52	63.76	USEPA, 2010
GC-SD121	GC-SD121-03.5-05.5	3.5	5.5	17500	84.3	36.6	58.65	46.79	11.86	41.36	USEPA, 2010
GC-SD121	GC-SD121-05.5-07.5	5.5	7.5	1680	81.9	28.7	77.05	59.16	17.89	22.94	USEPA, 2010
GC-SD121	GC-SD121-07.5-09.5	7.5	9.5	6420	80.7	58.1	65.94	54.87	11.07	34.06	USEPA, 2010
GC-SD121	GC-SD121-09.5-11.5	9.5	11.5	2930	83.8	20.5	40.43	35.69	4.74	59.58	USEPA, 2010
GC-SD121	GC-SD121-11.5-13.5	11.5	13.5	1190 U	83.7	17	65.13	55.73	9.4	34.87	USEPA, 2010
GC-SD121	D-04222010-01	11.5	13.5		84.6	52.8					USEPA, 2010
GC-SD122	GC-SD122-01.1-03.1	1.1	3.1	45600	66.4	64.3	62.88	51.13	11.75	37.13	USEPA, 2010
GC-SD122	GC-SD122-03.1-05.1	3.1	5.1	104000	49.5	96.3	49.91	43.61	6.3	50.09	USEPA, 2010
GC-SD122	GC-SD122-05.1-07.1	5.1	7.1	51200	67.5	27.6	52.85	47.68	5.17	47.15	USEPA, 2010
GC-SD122	GC-SD122-07.1-09.1	7.1	9.1	22300	76.7	38.5	52.32	46.31	6.01	47.68	USEPA, 2010
GC-SD122	GC-SD122-09.1-11.1	9.1	11.1	7100	77.6	41.2	44.84	38.86	5.98	55.16	USEPA, 2010
GC-SD122	GC-SD122-11.1-13.1	11.1	13.1	5760	76.4	23.2	31.53	28.39	3.14	68.47	USEPA, 2010
GC-SD122	D-04072010-01	11.1	13.1		75.9	20.1					USEPA, 2010
GC-SD122	GC-SD122-13.1-15.1	13.1	15.1	5970	79.6	55.9	72.93	62.22	10.71	27.07	USEPA, 2010
GC-SD122	GC-SD122-15.1-16.1	15.1	16.1	1600	84.6	16.7 U	36.54	33.78	2.76	63.47	USEPA, 2010
GC-SD123	GC-SD123-07.0-09.0	0.0	2.0	1170 U	85.2	102	8.22	6.69	1.53	91.79	USEPA, 2010
GC-SD123	D-04082010-02	0.0	2.0		81.7	468					USEPA, 2010
GC-SD123	GC-SD123-09.0-11.0	0.0	2.0	1150 U	87.1	17.5 U				100	USEPA, 2010
GC-SD125	GC-SD125-10.0-12.0	10.0	12.0	14900	82.3	22	59.88	34.89	24.99	40.12	USEPA, 2010
GC-SD125	GC-SD125-12.0-13.6	12.0	13.6	20300	81.4	251	68.63	57.96	10.67	31.37	USEPA, 2010
GC-SD127	GC-SD127-06.0-08.0	6.0	8.0	17900	79.1	1080	86.52	67.64	18.88	13.48	USEPA, 2010
GC-SD127	GC-SD127-08.0-10.0	8.0	10.0	24000	83.1	63	69.81	59.31	10.5	30.18	USEPA, 2010
GC-SD127	GC-SD127-10.0-12.0	10.0	12.0	20100	80.5	147	82.32	66.82	15.5	17.67	USEPA, 2010
GC-SD127	GC-SD127-12.0-14.0	12.0	14.0	6090	88.6	170	82.88	63.62	19.26	17.12	USEPA, 2010
GC-SD127	GC-SD127-14.0-15.8	14.0	15.8	7290	90.4	48.7	98.55	36.11	62.44	1.45	USEPA, 2010
GC-SD128	GC-SD128-03.3-05.3	3.3	5.3	14600	77.6	147	89.81	68.04	21.77	10.18	USEPA, 2010
GC-SD128	D-03112010-03	3.3	5.3		80.8	39.6					USEPA, 2010
GC-SD128	GC-SD128-05.3-07.3	5.3	7.3	20500	75.7	525	72.09	61.46	10.63	27.91	USEPA, 2010
GC-SD128	GC-SD128-07.3-09.3	7.3	9.3	22200	77.4	113	83.42	69.09	14.33	16.57	USEPA, 2010
GC-SD128	GC-SD128-09.3-11.3	9.3	11.3	5260	87.4	75	100	25.64	74.36	0	USEPA, 2010
GC-SD128	GC-SD128-11.3-13.3	11.3	13.3	7410	86.9	18.4 U	100	55.9	44.1	0	USEPA, 2010
GC-SD129	GC-SD129-06.6-08.6	6.6	8.6	20200	78.2	472	61.62	53.19	8.43	38.38	USEPA, 2010
GC-SD129	D-04142010-02	6.6	8.6		77.6	386					USEPA, 2010
GC-SD129	GC-SD129-08.6-10.6	8.6	10.6	25100	81.6	18.8 U	44	38.75	5.25	56.01	USEPA, 2010
GC-SD130	GC-SD130-07.4-09.4	7.4	9.4	118000	55	323	64.28	55.24	9.04	35.72	USEPA, 2010
GC-SD130	GC-SD130-09.4-11.4	9.4	11.4	21900	86.9	39.1	14.81	11.54	3.27	85.19	USEPA, 2010
GC-SD130	GC-SD130-11.4-12.8	11.4	12.8	29600	83.7	18.6	32.28	27.17	5.11	67.73	USEPA, 2010
GC-SD131	GC-SD131-01.5-03.5	1.5	3.5	28000	57.4	397	89.42	63.87	25.55	10.58	USEPA, 2010
GC-SD131	GC-SD131-03.5-05.5	3.5	5.5	33100	55.7	27.2 U	82.06	55.24	26.82	17.94	USEPA, 2010

TABLE I-19
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Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD131	GC-SD131-05.5-07.5	5.5	7.5	98800	48.1	32.7 U	64.98	54.63	10.35	35.02	USEPA, 2010
GC-SD131	GC-SD131-07.5-09.5	7.5	9.5	52100	78.2	20 U	72.17	59.3	12.87	27.83	USEPA, 2010
GC-SD131	GC-SD131-09.5-11.5	9.5	11.5	2190	84.2	17 U	47.74	38.27	9.47	52.26	USEPA, 2010
GC-SD131	GC-SD131-11.5-11.9	11.5	11.9								USEPA, 2010
GC-SD132	GC-SD132-04.9-06.9	4.9	6.9	57600	54.6	95.4	73.39	55.39	18	26.61	USEPA, 2010
GC-SD132	D-03222010-02	4.9	6.9		56.9	39.5					USEPA, 2010
GC-SD132	GC-SD132-06.9-08.6	6.9	8.6	78700	56.2	126	57.14	45.73	11.41	42.86	USEPA, 2010
GC-SD133	GC-SD133-08.2-10.2	8.2	10.2	15400	85.6	37.3	5.09	4.71	0.38	94.92	USEPA, 2010
GC-SD133	GC-SD133-10.2-10.7	10.2	10.7								USEPA, 2010
GC-SD137	GC-SD137-00.0-02.0	0.0	2.0	1740	85.9	703	17.5	15.73	1.77	82.5	USEPA, 2010
GC-SD137	GC-SD137-02.0-04.0	0.0	2.0	3120	80.9	123	57.41	51.34	6.07	42.59	USEPA, 2010
GC-SD137	GC-SD137-04.0-06.0	0.0	2.0	4820	82.4	130	36.65	30.6	6.05	63.35	USEPA, 2010
GC-SD137	GC-SD137-06.0-08.0	0.0	2.0	1170 U	85.3	18.7	14.16	13.31	0.85	85.84	USEPA, 2010
GC-SD137	GC-SD137-08.0-09.8	0.0	2.0	4020	78.6	493	8.23	8.23	0	91.77	USEPA, 2010
GC-SD137	D-04072010-02	0.0	2.0		76	607					USEPA, 2010
GC-SD13B	GC-SD013B-06.0-08.0	6.0	8.0	3930	87.1	19.2	88.31	54.61	33.7	11.69	USEPA, 2010
GC-SD13B	GC-SD013B-08.0-10.0	8.0	10.0	32700	87.6	54.8	34.63	25.72	8.91	65.38	USEPA, 2010
GC-SD13B	GC-SD013B-10.0-12.0	10.0	12.0	11300	84.8	46.0	48.47	34.91	13.56	51.53	USEPA, 2010
GC-SD13B	GC-SD013B-14.0-16.0	14.0	16.0	5170	84.2	44.6	80.38	56.88	23.5	19.62	USEPA, 2010
GC-SD140	GC-SD140-06.2-08.2	6.2	8.2	1120 U	88.9	746	3.71	2.84	0.87	96.28	USEPA, 2010
GC-SD140	GC-SD140-08.2-10.2	8.2	10.2	1190 U	84.3	18.7 U	1.95	1.7	0.25	98.05	USEPA, 2010
GC-SD140	GC-SD140-10.2-12.2	10.2	12.2	1180 U	84.4	18.7 U		0	0	100	USEPA, 2010
GC-SD140	GC-SD140-12.2-12.7	12.2	12.7								USEPA, 2010
GC-SD142	GC-SD142-04.1-06.1	4.1	6.1	1380	84.8	855	78.61	58.93	19.68	21.39	USEPA, 2010
GC-SD142	GC-SD142-06.1-08.1	6.1	8.1	1130 U	88.8	287	4.8	3.62	1.18	95.19	USEPA, 2010
GC-SD142	GC-SD142-08.1-10.1	8.1	10.1	1330	83.7	18.9 U	23.25	18.18	5.07	76.75	USEPA, 2010
GC-SD142	D-04142010-01	8.1	10.1		86	22.9					USEPA, 2010
GC-SD142	GC-SD142-10.1-11.2	10.1	11.2	1230	87.3	88.9	28.33	17.92	10.41	71.67	USEPA, 2010
GC-SD143	GC-SD143-03.3-05.3	3.3	5.3	1110 U	89.9	15.2 U	8.26	5.75	2.51	91.74	USEPA, 2010
GC-SD143	D-04142010-03	3.3	5.3		83	421					USEPA, 2010
GC-SD143	GC-SD143-05.3-07.3	5.3	7.3	1350	86.8	114	30.29	20.87	9.42	69.71	USEPA, 2010
GC-SD143	GC-SD143-07.3-09.3	7.3	9.3	1130 U	88.2	18.1 U		0	0	100	USEPA, 2010
GC-SD143	GC-SD143-09.3-11.3	8.3	11.3	1340 U	74.5	20.1 U	98.53	78.58	19.95	1.48	USEPA, 2010
GC-SD143	GC-SD143-11.3-13.3	11.3	13.3	1290 U	77.8	19.7 U	88.21	71.18	17.03	11.79	USEPA, 2010
GC-SD143	GC-SD143-13.3-13.8	13.3	13.8								USEPA, 2010
GC-SD144B	GC-SD144B-00.8-02.8	0.8	2.8	38800	87.9	589	1.2	1.15	0.05	98.81	USEPA, 2010
GC-SD144B	GC-SD144B-02.8-04.8	2.8	4.8	1150 U	86.9	16.5 U	1.7	1.42	0.28	98.3	USEPA, 2010
GC-SD144B	GC-SD144B-04.8-06.5	4.8	6.5	1140 U	87.6	18.2 U	5.46	3.33	2.13	94.54	USEPA, 2010
GC-SD145	GC-SD145-03.8-05.8	3.8	5.8	21000	80.9	522	76.84	60.42	16.42	23.16	USEPA, 2010
GC-SD145	GC-SD145-05.8-07.8	5.8	7.8	6440	85.6	213	44.44	36.15	8.29	55.56	USEPA, 2010
GC-SD145	GC-SD145-07.8-09.6	7.8	9.6	17100	79.2	17.9 U	25.38	18.75	6.63	74.62	USEPA, 2010
GC-SD146	GC-SD146-07.0-09.0	7.0	9.0	14600	86.2	16.6 U	62.85	46.15	16.7	37.16	USEPA, 2010
GC-SD146	GC-SD146-09.0-11.0	9.0	11.0	6380	88	16.3 U	50.32	42.37	7.95	49.69	USEPA, 2010
GC-SD146	GC-SD146-11.0-13.0	11.0	13.0	1100 U	90.5	17.6 U	81.72	55.73	25.99	18.27	USEPA, 2010
GC-SD146	D-04122010-02	11.0	13.0		87.1	14.7					USEPA, 2010

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Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD147	GC-SD147-03.5-05.5	3.5	5.5	11300	87.5	129	82.51	51.84	30.67	17.49	USEPA, 2010
GC-SD147	GC-SD147-05.5-07.5	5.5	7.5	7770	84.9	485	83.56	57.31	26.25	16.44	USEPA, 2010
GC-SD147	D-04092010-01	5.5	7.5		88.8	174					USEPA, 2010
GC-SD147	GC-SD147-07.5-09.5	7.5	9.5	3080	85.1	17.4 U	77.6	56.21	21.39	22.4	USEPA, 2010
GC-SD147	GC-SD147-09.5-11.5	9.5	11.5	13400	84.8	15.7 U	57.76	36.48	21.28	42.24	USEPA, 2010
GC-SD147	GC-SD147-11.5-13.5	11.5	13.5	24100	88	16.7 U	81.09	54.89	26.2	18.92	USEPA, 2010
GC-SD147	GC-SD147-13.5-15.5	13.5	15.5	23500	85.7	268	69.58	54.18	15.4	30.42	USEPA, 2010
GC-SD147	GC-SD147-15.5-17.0	15.5	17.0	32300	84.1	16 U	42.76	31.51	11.25	57.25	USEPA, 2010
GC-SD148	GC-SD148-06.2-08.2	6.2	8.2	3930	85	18.3 U	11.48	8.91	2.57	88.53	USEPA, 2010
GC-SD148	D-04142010-01	6.2	8.2		81.5	19.4 U					USEPA, 2010
GC-SD148	GC-SD148-08.2-10.2	8.2	10.2	5380	82.2	19.2 U	7.47	6.06	1.41	92.53	USEPA, 2010
GC-SD148	GC-SD148-10.2-11.9	10.2	11.9	1210 U	82.8	19 U	54.68	44.41	10.27	45.32	USEPA, 2010
GC-SD149	GC-SD149-05.0-07.0	5.0	7.0	42300	86.8	599	63.54	50.22	13.32	36.46	USEPA, 2010
GC-SD14A	GC-SD014A-07.4-09.4	7.4	9.4	12000	86.9	90.7	42.24	29.43	12.81	57.76	USEPA, 2010
GC-SD14A	GC-SD014A-09.4-11.4	9.4	11.4	18900	87.6	134	62.06	52.44	9.62	37.94	USEPA, 2010
GC-SD14A	GC-SD014A-11.4-13.4	11.4	13.4	15600	80.1	448	77.4	64.96	12.44	22.6	USEPA, 2010
GC-SD150	GC-SD150-08.6-10.6	8.6	10.6	7670	80.1	507	54.87	44	10.87	45.13	USEPA, 2010
GC-SD150	D-04122010-01	8.6	10.6		83.2	166					USEPA, 2010
GC-SD150	GC-SD150-10.6-12.6	10.6	12.6	1860	86	42.7	86.37	72.9	13.47	13.64	USEPA, 2010
GC-SD150	GC-SD150-12.6-14.6	12.6	14.6	1110 U	90.2	15.3 U	3.37	2.26	1.11	96.63	USEPA, 2010
GC-SD150	GC-SD150-14.6-15.5	14.6	15.5	1130 U	88.6	16.4 U	29.48	17.88	11.6	70.52	USEPA, 2010
GC-SD151	GC-SD151-05.2-07.2	5.2	7.2	15300	74.7	109	81.3	61.79	19.51	18.7	USEPA, 2010
GC-SD151	GC-SD151-07.2-09.2	7.2	9.2	2890	76.4	283	87.81	39.49	48.32	12.19	USEPA, 2010
GC-SD151	D-04122010-03	7.2	9.2		74.4	251					USEPA, 2010
GC-SD151	GC-SD151-09.2-11.2	9.2	11.2	4980	80.9	18.5 U	81.31	68.04	13.27	18.69	USEPA, 2010
GC-SD152	GC-SD152-07.7-09.7	7.7	9.7	33500	87	17.7	48.68	39.76	8.92	51.32	USEPA, 2010
GC-SD152	GC-SD152-09.7-11.7	9.7	11.7	2260	88.5	92.7	58.85	42.37	16.48	41.15	USEPA, 2010
GC-SD152	D-04152010-02	9.7	11.7		81.5	81.8					USEPA, 2010
GC-SD153	GC-SD153-04.2-06.2	4.2	6.2	2220	86.1	521	87.7	67.36	20.34	12.31	USEPA, 2010
GC-SD153	GC-SD153-06.2-08.2	6.2	8.2	3970	85.2	18.4	25.15	18.93	6.22	74.85	USEPA, 2010
GC-SD153	GC-SD153-08.2-08.8	8.2	8.8	5250	84.2	16	16.49	12.55	3.94	83.51	USEPA, 2010
GC-SD16A	GC-SD016A-05.4-07.4	5.4	7.4	11000	82.2	23.6	71.54	51.91	19.63	28.45	USEPA, 2010
GC-SD16A	GC-SD016A-07.4-09.4	7.4	9.4	11400	84.2	18.6	76.71	58.25	18.46	23.29	USEPA, 2010
GC-SD16A	GC-SD016A-09.4-11.4	9.4	11.4	2620	84.9	41.6	60.66	48.42	12.24	39.34	USEPA, 2010
GC-SD16A	GC-SD016A-11.4-13.4	11.4	3.4	9610	86.1	195	71.37	54.91	16.46	28.63	USEPA, 2010
GC-SD17A	GC-SD017A-02.0-04.0	2.0	4.0	2450	85.2	17.6 U	11.02	8.6	2.42	88.99	USEPA, 2010
GC-SD17A	GC-SD017A-04.0-06.0	4.0	6.0	1170 U	85.4	30.6	77.73	59.68	18.05	22.27	USEPA, 2010
GC-SD17A	GC-SD017A-06.0-08.0	6.0	8.0	1250	87.6	43.5	15.61	12.95	2.66	84.38	USEPA, 2010
GC-SD18A	GC-SD018A-04.0-06.0	4.0	6.0	4960	85.6	23	30.24	23.49	6.75	69.77	USEPA, 2010
GC-SD18A	GC-SD018A-06.0-08.0	6.0	8.0	13700	84.8	69.2		0	0	100	USEPA, 2010
GC-SD18A	GC-SD018A-08.0-10.0	8.0	10.0	1510	84	23.3	3.02	2.75	0.27	96.98	USEPA, 2010
GC-SD19C	GC-SD019C-06.8-08.8	6.8	8.8	19600	80.4	84.9	78.58	62.67	15.91	21.42	USEPA, 2010
GC-SD19C	GC-SD019C-08.8-10.8	8.8	10.8	22200	84.2	63.8	89.47	71.1	18.37	10.54	USEPA, 2010
GC-SD19C	GC-SD019C-10.8-11.5	10.8	11.5	12400	87.7	27.1	73.98	55.26	18.72	26.02	USEPA, 2010
GC-SD22B	GC-SD022B-04.0-06.0	4.0	6.0	11100	87.9	22.6	100	42.87	57.13	0	USEPA, 2010

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Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD22B	GC-SD022B-06.0-0.8.0	6.0	8.0	21000	83	18.8	71.63	52.41	19.22	28.38	USEPA, 2010
GC-SD22B	GC-SD022B-08.0-10.0	8.0	10.0	8780	86.5	23.1	61.44	40.59	20.85	38.56	USEPA, 2010
GC-SD22B	GC-SD022B-10.0-12.0	10.0	12.0	17900	83.8	47.4	98.48	29.65	68.83	1.52	USEPA, 2010
GC-SD22B	GC-SD022B-12.0-14.0	12.0	14.0	5110	85.2	23.4	73.01	53.98	19.03	26.99	USEPA, 2010
GC-SD24B	GC-SD024B-04.8-06.8	4.8	6.8	11800	83.5	15.2 U	26.95	20.27	6.68	73.05	USEPA, 2010
GC-SD24B	GC-SD024B-06.8-08.8	6.8	8.8	19700	86.7	16.2 U	36.19	27.04	9.15	63.81	USEPA, 2010
GC-SD24B	GC-SD024B-08.8-10.8	8.8	10.8	15000	84.1	18.2 U	58.04	51.9	6.14	41.96	USEPA, 2010
GC-SD24B	GC-SD024B-10.8-12.8	10.8	12.8	1220 U	82.3	18.3 U	77.87	64.14	13.73	22.13	USEPA, 2010
GC-SD24B	GC-SD024B-12.8-14.8	12.8	14.8	7220	80.9	17.2 U	85.26	64.17	21.09	14.74	USEPA, 2010
GC-SD25B	GC-SD025B-04.8-06.8	4.8	6.8	22200	86	88.6	26.46	21.9	4.56	73.54	USEPA, 2010
GC-SD25B	GC-SD025B-06.8-08.8	6.8	8.8	17800	90.2	34.1	73.46	54.99	18.47	26.54	USEPA, 2010
GC-SD25B	GC-SD025B-08.8-10.8	8.8	10.8	28600	85.5	155	2.87	2.87	0	97.13	USEPA, 2010
GC-SD25B	GC-SD025B-10.8-11.6	10.8	11.6	40300	87.3	224	1.64	1.64	0	98.36	USEPA, 2010
GC-SD26A	GC-SD026A-02.4-04.4	2.4	4.4	15600	84.8	35.3	89.47	66.08	23.39	10.53	USEPA, 2010
GC-SD26A	GC-SD026A-04.4-06.4	4.4	6.4	11400	77.3	18.9 U	46.94	39.85	7.09	53.06	USEPA, 2010
GC-SD26A	GC-SD026A-06.4-08.4	6.4	8.4	2430	84.3	253	83.42	64.24	19.18	16.58	USEPA, 2010
GC-SD26A	D-03192010-01	6.4	8.4		81.5	206					USEPA, 2010
GC-SD26A	GC-SD026A-10.4-12.4	10.4	12.4	40900	83.9	121	12.1	11.81	0.29	87.89	USEPA, 2010
GC-SD26A	GC-SD026A-12.4-14.4	12.4	14.4	1250 U	80.1	46.6	83.97	75.36	8.61	16.03	USEPA, 2010
GC-SD27A	GC-SD027A-04.1-06.1	4.1	6.1	14200	77.2	19.1 U	94.49	68.69	25.8	5.51	USEPA, 2010
GC-SD27A	D-04132010-02	4.1	6.1		79.8	20 U					USEPA, 2010
GC-SD27A	GC-SD027A-06.1-08.1	6.1	8.1	18200	81.4	17.6 U	65.48	54.48	11	34.53	USEPA, 2010
GC-SD27A	GC-SD027A-08.1-08.6	8.1	8.6								USEPA, 2010
GC-SD28A	GC-SD028B-06.8-08.8	6.8	8.8	17000	74.8	61.1	61.81	51.68	10.13	38.19	USEPA, 2010
GC-SD28A	GC-SD028B-08.8-10.8	8.8	10.8	8090	78.2	602	97.67	73.53	24.14	2.33	USEPA, 2010
GC-SD28A	GC-SD028B-10.8-12.8	10.8	12.8	14800	82.5	22.5	34.34	28.05	6.29	65.65	USEPA, 2010
GC-SD29A	GC-SD029A-04.8-06.8	4.8	6.8	3040	80.4	655	99.39	67.04	32.35	0.62	USEPA, 2010
GC-SD29A	GC-SD029A-06.8-08.8	6.8	8.8	12100	77.2	139	76.55	61.21	15.34	23.45	USEPA, 2010
GC-SD29A	GC-SD029A-08.8-10.8	8.8	10.8	13000	81	31.7	94.82	70.27	24.55	5.18	USEPA, 2010
GC-SD29A	GC-SD029A-11.8-13.8	11.8	13.8	87500	87.2	244	7.01	6.2	0.81	92.99	USEPA, 2010
GC-SD29A	D-03122010-02	11.8	13.8		86.4	56.7					USEPA, 2010
GC-SD30A	GC-SD030A-06.0-08.0	6.0	8.0	7410	79.7	89.3	80.4	61.24	19.16	19.6	USEPA, 2010
GC-SD30A	GC-SD030A-08.0-10.0	8.0	10.0	13400	80.3	49.7	73.38	59.89	13.49	26.62	USEPA, 2010
GC-SD30A	GC-SD030A-10.0-12.0	10.0	12.0	4260	83.9	53.5	81.62	62.57	19.05	18.38	USEPA, 2010
GC-SD30A	GC-SD030A-12.0-14.0	12.0	14.0	32200	84.8	62.3	46.63	35.47	11.16	53.37	USEPA, 2010
GC-SD30A	GC-SD030A-16.0-17.7	16.0	17.7	1170	87.1	33.3	55.96	45.78	10.18	44.04	USEPA, 2010
GC-SD31A	GC-SD031A-09.3-11.3	9.3	11.3	11300	81.9	107	71.8	57.6	14.2	28.2	USEPA, 2010
GC-SD31A	D-03162010-01	9.3	11.3		80	220					USEPA, 2010
GC-SD31A	GC-SD031A-11.3-13.3	11.3	13.3	18300	79.2	508	79.4	63.1	16.3	20.6	USEPA, 2010
GC-SD31A	GC-SD031A-13.3-13.9	13.3	13.9	9610	84.5	18.7	33.48	27.11	6.37	66.51	USEPA, 2010
GC-SD32A	GC-SD032A-06.1-08.1	6.1	8.1	3940	79.1	70.7	74.76	56.88	17.88	25.23	USEPA, 2010
GC-SD32A	GC-SD032A-08.1-10.1	8.1	10.1	42700	83	75.9	21.07	18.45	2.62	78.93	USEPA, 2010
GC-SD32A	GC-SD032A-10.1-12.1	10.1	12.1	31300	89	66.6	39.21	30.45	8.76	60.79	USEPA, 2010
GC-SD33A	GC-SD033A-06.2-08.2	6.2	8.2	9770	86.1	49.8	79.44	55.48	23.96	20.56	USEPA, 2010
GC-SD33A	GC-SD033A-08.2-10.2	8.2	10.2	11800	78.3	266	96.55	72.38	24.17	3.45	USEPA, 2010

TABLE I-19
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Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD33A	GC-SD033A-10.2-12.2	10.2	12.2	15300	80	678	39.68	33.02	6.66	60.32	USEPA, 2010
GC-SD33A	GC-SD033A-13.6-15.6	13.6	15.6	40900	85.7	205	19.21	16.27	2.94	80.78	USEPA, 2010
GC-SD34B	GC-SD034B-08.1-09.9	8.1	9.9	6930	84.7	18.9 U	18.86	15.45	3.41	81.14	USEPA, 2010
GC-SD35A	GC-SD035A-05.3-07.3	5.3	7.3	96200	61.4	146	69.19	58.81	10.38	30.81	USEPA, 2010
GC-SD35A	GC-SD035A-07.3-09.3	7.3	9.3	65500	79.6	40	49.93	43.37	6.56	50.07	USEPA, 2010
GC-SD35A	GC-SD035A-09.3-011.3	9.3	11.3	5280	89.4	59.5	3.67	3.41	0.26	96.34	USEPA, 2010
GC-SD36A	GC-SD036A-06.1-08.1	6.1	8.1	33100	84.3	315	46.65	36	10.65	53.35	USEPA, 2010
GC-SD36A	GC-SD036A-08.1-09.2	8.1	9.2	15700	84.4	44	50.44	41.04	9.4	49.57	USEPA, 2010
GC-SD40A	GC-SD040A-04.0-05.0	4.0	5.0	48000	87	50.2	8.87	7.72	1.15	91.13	USEPA, 2010
GC-SD41A	GC-SD041A-02.4-04.4	2.4	4.4	21900	81.9	38.2	25.4	20.69	4.71	74.6	USEPA, 2010
GC-SD41A	GC-SD041A-04.4-06.4	4.4	6.4	23400	83	623	34.38	27.91	6.47	65.61	USEPA, 2010
GC-SD41A	GC-SD041A-06.4-07.5	6.4	7.5	21200	80.7	54.3	50.03	47.35	2.68	49.97	USEPA, 2010
GC-SD42B	GC-SD042B-02.2-04.2	2.2	4.2	46900	77.2	68.5	50.93	39.55	11.38	49.07	USEPA, 2010
GC-SD42B	D-03232010-02	2.2	4.2		71.9	55.1					USEPA, 2010
GC-SD42B	GC-SD042B-04.2-06.2	4.2	6.2	58300	72.5	90.6	23.57	21.31	2.26	76.43	USEPA, 2010
GC-SD42B	GC-SD042B-06.2-07.0	6.2	7.0	63100	86.8	233	22.28	18.24	4.04	77.72	USEPA, 2010
GC-SD43A	GC-SD043A-02.6-04.6	2.6	4.6	19500	81.6	82.6	67.83	52.85	14.98	32.17	USEPA, 2010
GC-SD43A	GC-SD043A-04.6-06.6	4.6	6.6	12000	87.8	40.6	84.14	65.92	18.22	15.86	USEPA, 2010
GC-SD43A	GC-SD043A-06.6-08.6	6.6	8.6	59300	87.3	568	73.42	63.19	10.23	26.59	USEPA, 2010
GC-SD44A	GC-SD044A-01.7-03.7	1.7	3.7	23000	82.9	28.6	59.28	47.65	11.63	40.72	USEPA, 2010
GC-SD44A	GC-SD044A-03.7-05.7	3.7	5.7	47900	80	69.2	68.1	56.16	11.94	31.9	USEPA, 2010
GC-SD44A	GC-SD044A-05.7-07.7	5.7	7.7	37100	84.6	342	76.54	65.04	11.5	23.46	USEPA, 2010
GC-SD44A	GC-SD044A-09.7-11.7	9.7	11.7	79900	84	42.7	68.73	63.32	5.41	31.27	USEPA, 2010
GC-SD44A	GC-SD044A-14.1-16.1	14.1	16.1	26600	81.3	78.6	77.66	70.94	6.72	22.34	USEPA, 2010
GC-SD44A	D-03242010-01	14.1	16.1		80.8	34.3					USEPA, 2010
GC-SD45C	GC-SD045C-04.7-06.7	4.7	6.7	49600	73.3	38	66.33	53.4	12.93	33.67	USEPA, 2010
GC-SD45C	GC-SD045C-06.7-07.9	6.7	7.9	34600	63.7	62	80.92	61.68	19.24	19.07	USEPA, 2010
GC-SD46C	GC-SD046C-03.9-05.9	3.9	5.9	44500	78.8	20.1 U	69.65	54.49	15.16	30.36	USEPA, 2010
GC-SD46C	GC-SD046C-05.9-07.9	5.9	7.9	42200	76.6	26	66.21	53.21	13	33.79	USEPA, 2010
GC-SD46C	GC-SD046C-07.9-09.9	7.9	9.9	36600	76.7	20.6	71.74	62.72	9.02	28.26	USEPA, 2010
GC-SD47A	GC-SD047A-00.6-02.6	0.6	2.6	58800	53.6	58.8	61.71	49.92	11.79	38.3	USEPA, 2010
GC-SD47A	GC-SD047A-02.6-04.6	2.6	4.6	57200	59.4	82.6	72.08	56.96	15.12	27.91	USEPA, 2010
GC-SD47A	GC-SD047A-04.6-06.6	4.6	6.6	32800	74.2	36.2	69.12	57.33	11.79	30.88	USEPA, 2010
GC-SD47A	GC-SD047A-10.6-12.6	10.6	12.6	21800	81.8	38.3	81.72	72.31	9.41	18.28	USEPA, 2010
GC-SD47A	GC-SD047A-12.6-14.6	12.6	14.6	1250 U	79.9	65.1	69.75	65.27	4.48	30.24	USEPA, 2010
GC-SD47A	GC-SD047A-14.6-16.6	14.6	16.6	4230	80.7	41	51.35	48.85	2.5	48.65	USEPA, 2010
GC-SD47A	GC-SD047A-16.6-18.6	16.6	18.6	10600	81.4	78.8	65.66	60.51	5.15	34.34	USEPA, 2010
GC-SD49A	GC-SD049A-03.4-05.4	3.4	5.4	57800	59	84.3	67.51	50.28	17.23	32.49	USEPA, 2010
GC-SD49A	GC-SD049A-05.4-07.4	5.4	7.4	28300	74.5	53.6	71.12	54.38	16.74	28.88	USEPA, 2010
GC-SD49A	GC-SD049A-07.4-09.4	7.4	9.4	6830	76.5	41.6	54.87	45.09	9.78	45.14	USEPA, 2010
GC-SD49A	GC-SD049A-11.4-13.3	11.4	13.3	10400	87	29.9	19.12	15.15	3.97	80.87	USEPA, 2010
GC-SD49A	D-03242010-02	11.4	13.3		79.9	24.8					USEPA, 2010
GC-SD50B	GC-SD050B-01.7-03.7	1.7	3.7	47800	64.4	41.1	79.2	61.99	17.21	20.8	USEPA, 2010
GC-SD50B	GC-SD050B-03.7-05.7	3.7	5.7	9180	81.4	167	60.08	51.51	8.57	39.92	USEPA, 2010
GC-SD50B	D-03252010-01	3.7	5.7		82.3	118					USEPA, 2010

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Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD50B	GC-SD050B-05.7-07.7	6.7	7.7	10700	86.6	82.8	14.35	12.24	2.11	85.65	USEPA, 2010
GC-SD50B	GC-SD050B-09.7-11.7	9.7	11.7	2640	87.9	40.7	6.94	6.02	0.92	93.06	USEPA, 2010
GC-SD51A	GC-SD051A-02.4-04.4	2.4	4.4	48900	71.8	297	25.99	23	2.99	74.01	USEPA, 2010
GC-SD51A	GC-SD051A-04.4-06.4	4.4	6.4	18100	81.2	145	10.73	8.97	1.76	89.26	USEPA, 2010
GC-SD51A	GC-SD051A-06.4-08.4	6.4	8.4	5860	85.6	16.9 U	67.46	58.13	9.33	32.55	USEPA, 2010
GC-SD51A	GC-SD051A-08.4-09.3	8.4	9.3	3670	81.1	110	29.8	27.74	2.06	70.19	USEPA, 2010
GC-SD53A	GC-SD053A-02.5-04.5	2.5	4.5	55400	73.6	82.7	56.1	42.1	14	43.9	USEPA, 2010
GC-SD53A	GC-SD053A-04.5-06.5	4.5	6.5	56200	70.8	76.6	56.68	45.02	11.66	43.31	USEPA, 2010
GC-SD53A	GC-SD053A-06.5-08.5	6.5	8.5	32700	73.6	69.5	75.76	60.2	15.56	24.24	USEPA, 2010
GC-SD54B	GC-SD054B-04.5-06.5	4.5	6.5	62000	62.8	41.9	61.45	45.33	16.12	38.55	USEPA, 2010
GC-SD54B	GC-SD054B-06.5-08.5	6.5	8.5	21300	69.2	21.3 U	67.33	54.15	13.18	32.67	USEPA, 2010
GC-SD54B	GC-SD054B-08.5-10.5	8.5	10.5	8840	72.1	20.6 U	51.94	44.29	7.65	48.06	USEPA, 2010
GC-SD54B	GC-SD054B-10.5-11.2	10.5	11.2	8540	78.3	18.3 U	24.52	20.64	3.88	75.47	USEPA, 2010
GC-SD56A	GC-SD056A-01.6-03.6	1.6	3.6	29100	86.2	29.1	26.07	20.69	5.38	73.92	USEPA, 2010
GC-SD56A	GC-SD056A-03.6-05.3	3.6	5.3	12500	85	41.2	5.64	4.98	0.66	94.37	USEPA, 2010
GC-SD57A	GC-SD057A-07.2-09.2	7.2	9.2	82800	60.7	52.9	62.58	50.43	12.15	37.42	USEPA, 2010
GC-SD57A	GC-SD057A-09.2-11.2	9.2	11.2	103000	65.9	56.9	63.89	54.94	8.95	36.11	USEPA, 2010
GC-SD57A	GC-SD057A-11.2-11.9	11.2	11.9	34700	75	40.1	72.91	62.88	10.03	27.09	USEPA, 2010
GC-SD59A	GC-SD059A-02.1-04.1	2.1	4.1	29300	85	18.3	30.04	24.46	5.58	69.96	USEPA, 2010
GC-SD59A	GC-SD059A-04.1-06.1	4.1	6.1	29000	80.4	805	33.69	27.85	5.84	66.31	USEPA, 2010
GC-SD59A	GC-SD059A-06.1-08.1	6.1	8.1	10100	84.2	158	22.42	18.22	4.2	77.58	USEPA, 2010
GC-SD59A	GC-SD059A-11.0-13.0	11.0	13.0	21300	82.4	91.8	21.97	20.11	1.86	78.03	USEPA, 2010
GC-SD60B	GC-SD060B-05.2-07.2	5.2	7.2	66600	81.9	38	74.92	58.02	16.9	25.08	USEPA, 2010
GC-SD60B	D-04012010-02	5.2	7.2		88.7	39.9					USEPA, 2010
GC-SD60B	GC-SD060B-07.2-08.0	7.2	8.0	55300	61.8	23.9	83.31	61.63	21.68	16.69	USEPA, 2010
GC-SD61C	GC-SD061C-07.7-09.7	7.7	9.7	17600	84.5	307	60.18	48.93	11.25	39.81	USEPA, 2010
GC-SD61C	GC-SD061C-09.7-11.7	9.7	11.7	23900	84.1	159	87.94	77.67	10.27	12.06	USEPA, 2010
GC-SD62C	GC-SD062C-04.5-06.5	4.5	6.5	14700	80.1	66	17.22	12.65	4.57	82.78	USEPA, 2010
GC-SD62C	GC-SD062C-06.5-08.5	6.5	8.5	3520	86.1	83.2	18.31	12.61	5.7	81.69	USEPA, 2010
GC-SD62C	GC-SD062C-08.5-10.5	8.5	10.5	5750	82.4	19 U	28.38	23.55	4.83	71.63	USEPA, 2010
GC-SD62C	GC-SD062C-10.5-12.5	10.5	12.5	1230 U	81.3	19.6 U	1.41	1.29	0.12	98.59	USEPA, 2010
GC-SD63A	GC-SD063A-03.1-05.1	3.1	5.1	16300	71.4	52.3	57.95	44.35	13.6	42.06	USEPA, 2010
GC-SD63A	GC-SD063A-05.1-07.1	5.1	7.1	33300	73.4	46.5	53.1	40.81	12.29	46.89	USEPA, 2010
GC-SD63A	GC-SD063A-07.1-09.1	7.1	9.1	13800	77	121	39.01	32.2	6.81	61	USEPA, 2010
GC-SD63A	D-04012010-01	7.1	9.1		78.7	187					USEPA, 2010
GC-SD64D	GC-SD064D-03.1-05.1	3.1	5.1	18400	85.2	151	27.24	21.05	6.19	72.76	USEPA, 2010
GC-SD64D	GC-SD064D-05.1-07.1	5.1	7.1	9780	78.7	28.6	93.92	77.93	15.99	6.08	USEPA, 2010
GC-SD64D	GC-SD064D-07.1-09.1	7.1	9.1	25500	79.7	52.9	56.22	46.36	9.86	43.77	USEPA, 2010
GC-SD64D	GC-SD064D-09.1-11.1	9.1	11.1	34400	78.8	249	69.52	59.29	10.23	30.48	USEPA, 2010
GC-SD64D	GC-SD064D-13.1-15.1	13.1	15.1	2460	84.3	118	47.97	42.04	5.93	52.03	USEPA, 2010
GC-SD65A	GC-SD065A-01.0-03.0	1.0	3.0	9950	83.7	18.8 U	84.6	60.93	23.67	15.41	USEPA, 2010
GC-SD65A	GC-SD065A-05.0-07.0	1.0	3.0	1210 U	82.5	17.9	30.06	25.72	4.34	69.94	USEPA, 2010
GC-SD65A	GC-SD065A-11.0-12.7	1.0	3.0	1610	77.4	20 U	45.82	39.21	6.61	54.18	USEPA, 2010
GC-SD65A	GC-SD065A-03.0-05.0	3.0	5.0	1180 U	85.1	26.7	42.27	33.6	8.67	57.73	USEPA, 2010
GC-SD65A	D-04052010-01	3.0	5.0		77.5	20.5					USEPA, 2010

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Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD66C	GC-SD066C-02.7-04.7	2.7	4.7	16300	84.2	80	43.33	33.72	9.61	56.67	USEPA, 2010
GC-SD66C	GC-SD066C-04.7-06.7	4.7	6.7	10100	81.5	77.1	42.1	36.72	5.38	57.89	USEPA, 2010
GC-SD66C	GC-SD066C-06.7-08.7	6.7	8.7	3030	84.1	74.9	81.01	56.18	24.83	18.99	USEPA, 2010
GC-SD66C	GC-SD066C-10.7-12.7	10.7	12.7	12000	83.7	1250	18.25	14.78	3.47	81.75	USEPA, 2010
GC-SD67B	GC-SD067B-06.0-08.0	6.0	8.0	8730	80.5	115	71.03	58.74	12.29	28.97	USEPA, 2010
GC-SD67B	GC-SD067B-08.0-10.0	8.0	10.0	10500	77.2	92.7	59.08	49.35	9.73	40.92	USEPA, 2010
GC-SD67B	GC-SD067B-10.0-12.0	10.0	12.0	13500	77.8	33.8	58.48	49.32	9.16	41.53	USEPA, 2010
GC-SD67B	D-04062010-02	10.0	12.0		75	54.6					USEPA, 2010
GC-SD70B	GC-SD070B-04.8-06.8	4.8	6.8	48300	54.1	27.8 U	60.43	49.55	10.88	39.56	USEPA, 2010
GC-SD70B	GC-SD070B-06.8-08.8	6.8	8.8	54200	61.4	24.9 U	56.9	48.45	8.45	43.1	USEPA, 2010
GC-SD70B	GC-SD070B-08.8-09.1	8.8	9.1								USEPA, 2010
GC-SD72B	GC-SD072B-01.8-03.8	1.8	3.8	44700	52.4	36	70.57	55.65	14.92	29.44	USEPA, 2010
GC-SD72B	GC-SD072B-03.8-05.8	3.8	5.8	50300	55.7	28.2 U	62.28	53.19	9.09	37.72	USEPA, 2010
GC-SD72B	GC-SD072B-05.8-07.8	5.8	7.8	77300	48.6	37.4	55.25	47.69	7.56	44.75	USEPA, 2010
GC-SD72B	GC-SD072B-07.8-09.8	7.8	9.8	3250	80.6	18.8 U	59.9	47.32	12.58	40.11	USEPA, 2010
GC-SD74E	GC-SD074E-04.4-06.4	4.4	6.4	5880	77.7	67.8	62.84	49.03	13.81	37.15	USEPA, 2010
GC-SD74E	D-04082010-01	4.4	6.4		76.6	41.5					USEPA, 2010
GC-SD74E	GC-SD074E-06.4-08.4	6.4	8.4	4880	80.4	57.5	79.04	63.11	15.93	20.96	USEPA, 2010
GC-SD74E	GC-SD074E-08.4-10.4	8.4	10.4	1970	82.3	64.1	68.57	59.19	9.38	31.44	USEPA, 2010
GC-SD75C	GC-SD075C-01.0-03.0	1.0	3.0	10400	77.1	40.5	54.36	46.06	8.3	45.64	USEPA, 2010
GC-SD75C	GC-SD075C-03.0-05.0	3.0	5.0	4970	75.4	24.6	33.28	29.16	4.12	66.72	USEPA, 2010
GC-SD75C	GC-SD075C-05.0-07.0	5.0	7.0	11100	73.5	98.5	62.58	53.47	9.11	37.42	USEPA, 2010
GC-SD76C	GC-SD076C-05.8-07.8	5.8	7.8	18800	83.3	477	28.5	25.35	3.15	71.5	USEPA, 2010
GC-SD76C	GC-SD076C-07.8-09.8	7.8	9.8	1220 U	82	157	28.31	25.95	2.36	71.68	USEPA, 2010
GC-SD76C	GC-SD076C-09.8-11.8	9.8	11.8	1150 U	86.9	237	16.32	10.62	5.7	83.68	USEPA, 2010
GC-SD76C	GC-SD076C-11.8-13.8	11.8	13.8	1750	79.5	245	16.34	14.46	1.88	83.66	USEPA, 2010
GC-SD77A	GC-SD077A-06.7-08.7	6.7	8.7	1170 U	85.3	110	3.73	2.73	1	96.27	USEPA, 2010
GC-SD77A	GC-SD077A-08.7-10.7	8.7	10.7	1120 U	89.2	15.5 U	4.1	2.86	1.24	95.9	USEPA, 2010
GC-SD77A	GC-SD077A-10.7-12.4	10.7	12.4	1170 U	85.5	18	5.47	3.82	1.65	94.53	USEPA, 2010
GC-SD79A	GC-SD079A-06.0-08.0	6.0	8.0	1180 U	84.9	179	45.57	37.02	8.55	54.43	USEPA, 2010
GC-SD79A	GC-SD079A-08.0-10.0	8.0	10.0	1140 U	88	17.6	1.81	1.59	0.22	98.19	USEPA, 2010
GC-SD79A	GC-SD079A-10.0-12.0	10.0	12.0	1100 U	91.1	15.5 U	1.36	1.17	0.19	98.64	USEPA, 2010
GC-SD81A	GC-SD081A-05.3-07.3	5.3	7.3	1210	82.9	52.3	26.15	17.38	8.77	73.85	USEPA, 2010
GC-SD81A	D-04152010-03	5.3	7.3		81.9	48.1					USEPA, 2010
GC-SD81A	GC-SD081A-07.3-09.3	7.3	9.3	1250	80.3	18.8	0.92	0.69	0.23	99.09	USEPA, 2010
GC-SD81A	GC-SD081A-09.3-11.3	9.3	11.3	1180	84.6	18.5	5.15	3.81	1.34	94.85	USEPA, 2010
GC-SD83A	GC-SD083A-05.0-07.0	5.0	7.0	1160	86.4	18.3	25.34	18.48	6.86	74.66	USEPA, 2010
GC-SD83A	GC-SD083A-07.0-09.0	7.0	9.0	1270	78.8	20.1	0.53	0.46	0.07	99.47	USEPA, 2010
GC-SD83A	GC-SD083A-09.0-11.0	9.0	11.0	1130	89.1	17.2	1.4	1.26	0.14	98.6	USEPA, 2010
GC-SD83A	D-04152010-04	9.0	11.0		85	18.2					USEPA, 2010
GC-SD87A	GC-SD087A-08.3-10.3	8.3	10.3	2010	86.5	295	36.4	31.95	4.45	63.61	USEPA, 2010
GC-SD87A	GC-SD087A-10.3-12.3	10.3	12.3	1250 U	80	53.8	15.34	12.4	2.94	84.67	USEPA, 2010
GC-SD87A	GC-SD087A-12.3-14.3	12.3	14.3	12700	75.8	61.5	42.56	30.22	12.34	57.44	USEPA, 2010
GC-SD88A	GC-SD088A-08.0-10.0	8.0	10.0	12900	85.9	18.4 U	39.69	33.11	6.58	60.31	USEPA, 2010
GC-SD88A	GC-SD088A-10.0-12.0	10.0	12.0	9730	86	18 U	34.14	28.15	5.99	65.86	USEPA, 2010

TABLE I-19

Physical Characteristics - Native Sediment

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	Sulfide (mg/kg)	Total % Fines	% Silt	%Clay	%Sand	Investigation
GC-SD88A	GC-SD088A-12.0-14.0	12.0	14.0	21400	87.1	17 U	12.25	10.2	2.05	87.75	USEPA, 2010
GC-SD89B	GC-SD089B-08.3-10.3	8.3	10.3	4290	85.7	43.9	42.64	35.38	7.26	57.36	USEPA, 2010
GC-SD89B	GC-SD089B-10.3-12.3	10.3	12.3	6540	83.4	22.8	80.13	62.99	17.14	19.87	USEPA, 2010
GC-SD89B	GC-SD089B-12.3-14.3	12.3	14.3	3560	84	55.6	67.66	53.04	14.62	32.34	USEPA, 2010
GC-SD90B	GC-SD090B-05.4-07.4	5.4	7.4	20500	85.6	78.3	18.62	15	3.62	81.39	USEPA, 2010
GC-SD90B	GC-SD090B-07.4-09.4	7.4	9.4	33600	83.6	113	76.79	58.44	18.35	23.21	USEPA, 2010
GC-SD90B	D-03162010-03	7.4	9.4		83	115					USEPA, 2010
GC-SD90B	GC-SD090B-09.4-11.4	9.4	11.4	4460	78.3	57	89.26	67.29	21.97	10.73	USEPA, 2010
GC-SD90B	GC-SD090B-11.4-13.4	11.4	13.4	5820	79.6	347	69.26	56.13	13.13	30.74	USEPA, 2010
GC-SD91A	GC-SD091A-09.2-11.2	9.2	11.2	29100	84.4	69.4	47.83	38.27	9.56	52.17	USEPA, 2010
GC-SD91A	GC-SD091A-11.2-13.2	11.2	13.2	16000	85.2	264	15.56	11.02	4.54	84.44	USEPA, 2010
GC-SD91A	D-03182010-03	11.2	13.2		85.2	196					USEPA, 2010
GC-SD93A	GC-SD093A-05.2-07.2	5.2	7.2	1220 U	82	17 U	42.7	39.06	3.64	57.3	USEPA, 2010
GC-SD93A	GC-SD093A-07.2-09.2	7.2	9.2	1140 U	87.6	19	34.23	29.64	4.59	65.76	USEPA, 2010
GC-SD93A	GC-SD093A-09.2-11.2	9.2	11.2	1180 U	84.9	18.3 U	9.84	7.82	2.02	90.16	USEPA, 2010
GC-SD93A	GC-SD093A-11.2-13.2	11.2	13.2	1180 U	85	18.6 U	7.25	5.9	1.35	92.75	USEPA, 2010
GC-SD93A	GC-SD093A-15.2-17.2	15.2	17.2	3060	82.9	57.1	61.24	46.61	14.63	38.76	USEPA, 2010

Notes:

ft - feet

mg/kg - milligram/kilogram

% - percent

TABLE I-20

TCLP, Reactivity, Ignitability and Corrosivity Concentrations in Composite Sediments

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Volatile Organic Compounds (ug/l)																							
Location ID	**Field ID**	**1,1-dichloroethene**		**1,2-dichloroethane**		**1,4-dichlorobenzene**		**Benzene (Toxic - D018)**		**Carbon tetrachloride**		**Chloro-benzene**		**Chloroform**		**Methyl ethyl ketone (2-butanone)**		**Tetrachloro-ethylene (PCE)**		**Trichloro-ethylene (TCE)**		**Vinyl chloride**	
TCLP Regulatory Screening Limits (1)		**700**		**500**		**7,500**		**500**		**500**		**100,000**		**6,000**		**200,000**		**700**		**500**		**200**	
GC-SD107	GC-SD107-00.0-16.0	**5**	U	**5**	U	**18**		**6.1**		**5**	U	**16**		**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD108	GC-SD108-00.0-13.5	**5**	U	**5**	U	**6.9**		**11**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD109	GC-SD109-00.0-10.8	**5**	U	**5**	U	**41**		**2.3**	J	**5**	U	**76**		**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD110	GC-SD110-00.0-14.2	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD111	GC-SD111-00.0-15.9	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD112	GC-SD112-00.0-04.0	**5**	U	**5**	U	**15**		**2.7**	J	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD113	GC-SD113-00.0-15.0	**5**	U	**5**	U	**5**	U	**17**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD114	GC-SD114-00.0-14.9	**50**	U	**50**	U	**50**	U	**730**		**50**	U	**50**	U	**50**	U	**100**	U	**50**	U	**50**	U	**50**	U
GC-SD115	GC-SD115-00.0-13.8	**5**	U	**5**	U	5	UR	**1,600**	J	**5**	U	**5**	U	**5**	U	**250**	U	**5**	U	**5**	U	**5**	U
GC-SD116	GC-SD116-00.0-15.8	**5**	U	**5**	U	**5**	U	**22**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD117	GC-SD117-00.0-15.7	**5**	U	**5**	U	**5**	U	**73**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD118	GC-SD118-00.0-10.2	**5**	U	**5**	U	**5**	U	**12**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD119	GC-SD119-00.0-13.0	**5**	U	**5**	U	**5**	U	**48**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD120	GC-SD120-00.0-12.5	**5**	U	**5**	U	**5**	U	**15**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD121	GC-SD121-00.0-13.5	**5**	U	**5**	U	**5**	U	**5**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD122	GC-SD122-00.0-16.1	**5**	U	**5**	U	**5**	U	**3**	J	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD123	GC-SD123-00.0-11.0	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD141	GC-SD141-00.0-05.7	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD145	GC-SD145-00.0-09.6	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD149	GC-SD149-00.0-07.0	**5**	U	**5**	U	**5**	U	**91**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD152	GC-SD152-00.0-12.0	**5**	U	**5**	U	**5**	U	**18**		**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
GC-SD153	GC-SD153-00.0-08.8	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U

TABLE I-20

TCLP, Reactivity, Ignitability and Corrosivity Concentrations in Composite Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

		Semi-Volatile Organic Compounds (ug/l)																													
Location ID	Field ID	2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dinitro toluene		2-methylphenol (o-cresol)		3-methylphenol & 4-methylphenol (sum of m- and p-cresol)		Cresol, total		Hexachloro-benzene		Hexachloro-butadiene		Hexachloro-ethane		Nitro-benzene		Pentachloro-phenol		Pyridine							
TCLP Regulatory Screening Limits (1)		**400,000**		**2,000**		**130**		**200,000**		**200,000**		**200,000**		**130**		**500**		**3,000**		**2,000**		**100,000**		**5,000**							
GC-SD107	GC-SD107-00.0-16.0	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	UJ	**5**	U						
GC-SD108	GC-SD108-00.0-13.5	**5**	U	**5**	U	**5**	U	**5**	U	**1.5**	J	**1.5**	J	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ						
GC-SD109	GC-SD109-00.0-10.8	**5**	U	**5**	U	**5**	U	**5**	U	**1.3**	J	**1.3**	J	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ						
GC-SD110	GC-SD110-00.0-14.2	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ						
GC-SD111	GC-SD111-00.0-15.9	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD112	GC-SD112-00.0-04.0	**5**	U	**5**	U	**5**	U	**5**	U	**0.69**	J	**0.69**	J	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD113	GC-SD113-00.0-15.0	**5**	U	**5**	U	**5**	U	**1.6**	J	**1.4**	J	**3**	J	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD114	GC-SD114-00.0-14.9	**5**	U	**5**	U	**5**	U	**15**	J	**20**	J	**35**		**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ						
GC-SD115	GC-SD115-00.0-13.8	**5**	U	**5**	U	**5**	U	**14**	J	**17**	J	**31**	J	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD116	GC-SD116-00.0-15.8	**5**	U	**5**	U	**5**	U	**0.78**	J	**1.2**	J	**2**	J	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD117	GC-SD117-00.0-15.7	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD118	GC-SD118-00.0-10.2	**5**	U	**5**	U	**5**	UJ	**5**	U	**6.3**		**6.3**		**5**	U	**5**	U	**5**	UJ	**5**	UJ	**10**	U	**5**	UJ						
GC-SD119	GC-SD119-00.0-13.0	**5**	U	**5**	U	**5**	UJ	**1.9**	J	**3.4**	J	**5.3**	J	**5**	U	**5**	U	**5**	UJ	**5**	UJ	**10**	U	**5**	UJ						
GC-SD120	GC-SD120-00.0-12.5	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ						
GC-SD121	GC-SD121-00.0-13.5	**5**	UJ	**5**	UJ	**5**	U	**5**	U	**1.7**	J	**1.7**	J	**5**	U	**5**	UJ	**5**	U	**5**	U	**10**	UJ	**5**	UJ						
GC-SD122	GC-SD122-00.0-16.1	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ						
GC-SD123	GC-SD123-00.0-11.0	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ						
GC-SD141	GC-SD141-00.0-05.7	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD145	GC-SD145-00.0-09.6	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U						
GC-SD149	GC-SD149-00.0-07.0	**5**	U	**5**	U	**5**	UJ	**7.2**		**9.7**		**17**		**5**	U	**5**	U	**5**	UJ	**5**	UJ	**10**	U	**5**	U						
GC-SD152	GC-SD152-00.0-12.0	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	UJ	**5**	U						
GC-SD153	GC-SD153-00.0-08.8	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	UJ	**5**	U						

TABLE I-20

TCLP, Reactivity, Ignitability and Corrosivity Concentrations in Composite Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

		Pesticides (ug/l)																					
Location ID	**Field ID**	**2,4-D (dichlorophen oxyacetic acid)**		**Alpha-chlordane [2]**		**Endrin**		**Gamma BHC (Lindane)**		**Gamma-chlordane [2]**		**Heptachlor**		**Heptachlor epoxide**		**Methoxychlor**		**Silvex (2,4,5-TP)**		**Toxaphene**	
TCLP Regulatory Screening Limits (1)		**10,000**		**30**		**20**		**40**		**30**		**8**		**8**		**10,000**		**1,000**		**500**	
GC-SD107	GC-SD107-00.0-16.0	**0.5**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**5**	U
GC-SD108	GC-SD108-00.0-13.5	**0.5**	U	**0.05**	UJ	**0.1**	UJ	**0.26**	NJ	0.24	R	0.058	R	**0.094**	J	**0.5**	U	**0.047**	J	**5**	U
GC-SD109	GC-SD109-00.0-10.8	**2**	J	**0.05**	U	**0.1**	U	**0.16**		0.077	R	**0.05**	U	0.055	R	**0.5**	U	**0.1**	U	**5**	U
GC-SD110	GC-SD110-00.0-14.2	**0.5**	U	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.13**	NJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	U	**5**	UJ
GC-SD111	GC-SD111-00.0-15.9	**0.5**	U	**0.05**	U	**0.058**	J	**0.05**	U	0.052	R	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**5**	U
GC-SD112	GC-SD112-00.0-04.0	**0.5**	U	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	U	**5**	UJ
GC-SD113	GC-SD113-00.0-15.0	**0.5**	U	**0.05**	U	**0.1**	U	**0.76**	J	0.38	R	**0.25**	NJ	**0.05**	U	**0.5**	U	**0.1**	U	**5**	U
GC-SD114	GC-SD114-00.0-14.9	**0.5**	U	**0.05**	U	**0.1**	U	0.075	R	0.31	R	**0.05**	U	**0.05**	UJ	**0.5**	U	**0.1**	U	**5**	U
GC-SD115	GC-SD115-00.0-13.8	**0.5**	U	0.058	R	**0.33**	J	**0.05**	U	0.13	R	**0.12**	J	**0.24**	J	**0.7**	NJ	**0.1**	U	**5**	U
GC-SD116	GC-SD116-00.0-15.8	**0.5**	U	**0.05**	U	**0.1**	U	**0.12**	J	0.16	R	**0.045**	J	**0.099**		**0.5**	U	**0.1**	U	**5**	U
GC-SD117	GC-SD117-00.0-15.7	**0.5**	U	**0.05**	U	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.071**	NJ	**0.12**	J	**0.5**	UJ	**0.1**	U	**5**	U
GC-SD118	GC-SD118-00.0-10.2	**0.5**	U	**0.19**	NJ	0.052		**Bad**		NJ	0.25	R	**0.05**	U	**0.26**		**0.5**	U	**0.1**	U	**5**	U
GC-SD119	GC-SD119-00.0-13.0	**0.5**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.05**	UJ	**0.05**	U	0.051	R	**0.5**	U	**0.1**	U	**5**	U
GC-SD120	GC-SD120-00.0-12.5	**0.5**	U	0.14	R	**0.077**	J	**0.13**		0.32	R	**0.14**	NJ	0.24	R	**0.5**	U	**0.1**	U	**5**	U
GC-SD121	GC-SD121-00.0-13.5	**0.5**	U	**0.05**	U	**0.1**	U	**0.048**	J	0.13	R	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**5**	U
GC-SD122	GC-SD122-00.0-16.1	**0.5**	U	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.34**	J	**0.1**	U	**5**	UJ
GC-SD123	GC-SD123-00.0-11.0	**0.5**	U	**0.05**	U	**0.1**	U	**0.05**	U	0.051	R	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**5**	U
GC-SD141	GC-SD141-00.0-05.7	**0.5**	U	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	U	**5**	UJ
GC-SD145	GC-SD145-00.0-09.6	**0.5**	U	**0.05**	U	**0.14**	J	**0.21**	J	0.3	R	0.15	R	**0.05**	U	**0.5**	U	**0.27**	NJ	**5**	U
GC-SD149	GC-SD149-00.0-07.0	**0.5**	U	**0.05**	U	**0.11**	J	**0.05**	U	**0.05**	U	**0.25**	NJ	**0.05**	U	**0.5**	U	**0.59**		**5**	U
GC-SD152	GC-SD152-00.0-12.0	**0.5**	U	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	0.1	R	0.16	R	**0.05**	UJ	**0.5**	UJ	0.43	R	**5**	UJ
GC-SD153	GC-SD153-00.0-08.8	**0.5**	U	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	0.05	R	**0.091**	J	**0.05**	UJ	**0.5**	UJ	**0.1**	U	**5**	UJ

TABLE I-20

TCLP, Reactivity, Ignitability and Corrosivity Concentrations in Composite Sediments
Gowanus Canal Remedial Investigation
Brooklyn, New York

		Metals (ug/L)															Other characteristics						
Location ID	Field ID	Arsenic		Barium		Cadmium		Chromium		Lead		Mercury		Selenium		Silver		Cyanide, Reactive (mg/kg)		Flashpoint (ºF)		pH, dissolved (pH units)	Sulfide, Reactive (mg/kg)	
TCLP Regulatory Screening Limits (1)		**5,000**		**100,000**		**1,000**		**5,000**		**5,000**		**200**		**1,000**		**5,000**		**250**		**<140**		**pH<2 or >12.5**	**500**	
GC-SD107	GC-SD107-00.0-16.0	**23.6**		**775**	J	**5**	U	**1.7**	J	**6.2**	J	**0.2**	U	**35**	UJ	**10**	U	**200**		--		--	--	
GC-SD108	GC-SD108-00.0-13.5	**23.5**		**452**	J	**5**	U	**66.9**	J	**6.9**	J	**0.2**	U	**35**	UJ	**10**	U	**200**		**200**	NI	**8.2**	**100**	U
GC-SD109	GC-SD109-00.0-10.8	**22.7**		**118**	J	**5**	U	**1**	J	**51.6**		**0.2**	U	**35**	UJ	**10**	U	**200**		**200**	NI	**8.36**	**100**	U
GC-SD110	GC-SD110-00.0-14.2	**23.5**		**964**	J	**1.9**	J	**3.2**	J	**192**		**0.2**	U	**35**	UJ	**10**	U	**200**		**200**	NI	**8.34**	**96**	U
GC-SD111	GC-SD111-00.0-15.9	**17.4**		**471**	J	**5**	U	**79.3**	J	**7.6**	J	**0.2**	U	**35**	UJ	**10**	U	**200**		**200**	NI	**8.06**	**4**	U
GC-SD112	GC-SD112-00.0-04.0	**18.5**		**224**	J	**5**	U	**108**	J	**7.1**	J	**0.2**	U	**35**	UJ	**10**	U	**200**		**200**	NI	**8.78**	**4**	U
GC-SD113	GC-SD113-00.0-15.0	**28.2**		**693**	J	**5**	U	**1.7**	J	**102**		**0.2**	U	**35**	UJ	**10**	U	**200**		**200**	NI	**8.49**	**4**	U
GC-SD114	GC-SD114-00.0-14.9	**17.4**		**480**		**0.95**	J	**6**	J	**37.7**	J	**0.2**	U	**13.8**	J	**2.7**	J	**200**		**200**	NI	**8.76**	**4**	U
GC-SD115	GC-SD115-00.0-13.8	**19.2**		**375**		**0.65**	J	**37.4**		**174**	J	**0.11**	J	**35**	U	**10**	U	**200**		**200**	NI	**8.89**	**4**	U
GC-SD116	GC-SD116-00.0-15.8	**13.9**		**536**		**5**	U	**161**		**13.8**	J	**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**8.3**	**4**	U
GC-SD117	GC-SD117-00.0-15.7	**12.3**		**456**		**5**	U	**216**		**19.8**	J	**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**8.26**	**4**	U
GC-SD118	GC-SD118-00.0-10.2	**13.1**		**460**	J	**5**	U	**10**	U	**36.5**		**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**8.5**	**4**	U
GC-SD119	GC-SD119-00.0-13.0	**20.6**		**560**	J	**1.2**	J	**72.7**		**8.1**	J	**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**9.17**	**4**	U
GC-SD120	GC-SD120-00.0-12.5	**16.8**		**335**	J	**5**	U	**10**	U	**7.1**	J	**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**8.05**	**4**	U
GC-SD121	GC-SD121-00.0-13.5	**15.8**		**459**	J	**5**	U	**10**	U	**9.6**	J	**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**8.47**	**4**	U
GC-SD122	GC-SD122-00.0-16.1	**25.4**		**232**		**5**	U	**1.2**	J	**13.2**		**0.2**	U	**18.9**	J	**10**	U	**200**		**200**	NI	**7.59**	**100**	U
GC-SD123	GC-SD123-00.0-11.0	**35**		**840**		**5**	U	**14**		**22.9**		**0.2**	U	**18**	J	**10**	U	**200**		**200**	NI	**7.95**	**100**	U
GC-SD141	GC-SD141-00.0-05.7	**15.9**		**393**		**1.6**	J	**90.5**		**10.5**		**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**8.12**	**4**	U
GC-SD145	GC-SD145-00.0-09.6	**22.3**		**582**		**3.5**	J	**2.4**	J	**520**		**0.2**	U	**17.7**	J	**10**	U	**200**		**200**	NI	**8.09**	**4**	U
GC-SD149	GC-SD149-00.0-07.0	**65.2**		**554**		**1.1**	J	**10**	U	**115**		**0.2**	U	**35**	U	**10**	U	**200**		**200**	NI	**8.04**	**4**	U
GC-SD152	GC-SD152-00.0-12.0	**23.6**		**805**		**1.9**	J	**32**		**31.8**		**0.2**	U	**35**	U	**0.92**	J	**200**		**200**	NI	**7.63**	**4**	U
GC-SD153	GC-SD153-00.0-08.8	**24.5**		**673**		**5**	U	**10**	U	**35.4**		**0.2**	U	**35**	U	**10**	U	**45**	U	**200**	NI	**8.26**	**4**	U

Notes:

mg/kg - milligrams/kilogram

ug/l - micrograms per liter.

-- Analytical results not available.

Concentrations shaded in gray exceeded applicable TCLP limits.

J - estimated value

NI Not ignitible up to the indicated limit.

R - rejected

U - not detected greater than reporting limit

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
Sample Number:		GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
Weather:		DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.12 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.13 J**	0.5 U	0.5 U	0.5 U	**0.13 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.12 J**	0.5 U	0.5 U	0.5 U	**0.81**	0.5 U	**0.87**	0.5 U	**0.79**	0.5 U	**0.69**	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	**1.2 J**	5 U	**1.2 J**	5 U	**1.6 J**	5 U	5 U	**1.6 J**	5 U	5 U	5 U	**1.2 J**	10 U	**1.2 J**	12 U	**1.7 J**	**12**	**1.6 J**
Benzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**11**	**0.6**	**0.76**	**0.64**	**2**	**0.56**	**1.6**	**0.49 J**	**1.6**	**0.68**	**1.7**
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.3 J**	0.5 U	**0.33 J**	0.5 U	**0.31 J**	0.5 U	**0.29 J**	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.51**	0.5 U	**0.57**	0.5 U	**0.57**	0.5 U	**0.56**	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.25 J**	0.5 U	**0.26 J**	0.5 U	**0.26 J**	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.7**	**0.18 J**	**0.21 J**	**0.26 J**	**0.23 J**	**0.26 J**	**0.26 J**	**0.26 J**	**0.29 J**	**0.32 J**	**0.25 J**
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.71**	**0.18 J**	**0.21 J**	**0.26 J**	**0.23 J**	**0.25 J**	**0.24 J**	**0.26 J**	**0.27 J**	**0.32 J**	**0.25 J**

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
Sample Number:		GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
Weather:		DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 U	0.5 U	1.3 U	0.5 U	**1.3**	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.24 J**	0.5 U	0.5 U	**0.13 J**	0.5 U	**0.15 J**	0.5 U	**0.15 J**	0.5 U	**0.25 J**	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.18 J**	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.7**	0.5 U	**6.7**	0.5 U	**14**	0.5 U	**15**	0.5 U	**16**	0.5 U	**17**	0.5 U
Toluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.85**	**0.58**	**2.4**	**0.21 J**	**4.3**	**0.17 J**	**4.7**	**0.21 J**	**5**	**0.51**	**5.5**	**0.22 J**
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	**0.16 J**	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
Sample Number:		GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	GC-SW312-0.5-WW	D-06192010-02	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	**0.62**	0.5 U	**0.61**	0.5 U	0.5 U	0.5 U	**0.55**	**0.44 J**	0.5 U	**0.55**	0.5 U	**0.54**	0.5 U	0.5 U	0.5 U	0.5 U	**0.58**	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	5 U	**1.4 J**	11 U	**5.5**	5 U	**3.8 J**	12 U	5 U	**1.8 J**	5 U	**3 J**	5 U	**1.9 J**	**4.8 J**	15 U	**1.8 J**	13 U	**1.8 J**
Benzene	ug/l	**0.51**	**1.6**	**0.61**	**0.97**	**0.58**	0.5 U	**0.42 J**	**0.31 J**	**0.82**	**0.93**	**1.1**	**1.5**	0.5 U	0.5 U	0.5 U	**0.78**	0.5 U	**0.95**
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	**0.15 J**	0.5 U	**0.17 J**	0.5 U	**0.15 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.14 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.17 J**	0.5 U
Carbon tetrachloride	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Chlorobenzene	ug/l	**0.26 J**	0.5 U	**0.25 J**	0.5 U	**0.24 J**	0.5 U	**0.23 J**	0.5 U	0.5 U	**0.25 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.28 J**	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	**0.5 J**	0.5 U	0.5 U	0.5 U	**0.5 J**	0.5 U	**0.53**	0.5 U	0.5 U	**0.52**	0.5 U	0.5 U	0.5 U	0.5 U	**0.61**	0.5 U	**0.55**	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	**0.26 J**	0.5 U	**0.25 J**	0.5 U	**0.24 J**	0.5 U	**0.24 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.32 J**	0.5 U	0.5 U	**0.43 J**	0.5 U	**0.33 J**	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	**0.33 J**	**0.38 J**	**0.33 J**	0.5 U	**0.34 J**	0.5 U	**0.21 J**	0.5 U	**0.24 J**	**0.68**	**0.38 J**	**1.3**	0.5 U	0.5 U	**0.5**	**0.38 J**	**0.29 J**	**0.86**
Isopropylbenzene (cumene)	ug/l	**0.096 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.17 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.1 J**	0.5 U
m, p xylenes	ug/l	**0.31 J**	**0.37 J**	**0.33 J**	0.5 U	**0.34 J**	0.5 U	**0.21 J**	0.5 U	**0.25 J**	**0.67**	**0.38 J**	**1.3**	0.5 U	0.5 U	**0.49 J**	**0.37 J**	**0.28 J**	**0.84**

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
Sample Number:		GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	GC-SW312-0.5-WW	D-06192010-02	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	1.1 U	0.5 U	1.2 U	0.5 U	1.1 U	**1**	1.2 U	0.5 U	0.5 U	1.1 U	0.5 U	1.3 U	**0.76**	0.5 U	1.9 U	0.5 U	1.5 U	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	**0.21 J**	**0.3 J**	**0.21 J**	0.5 U	**0.23 J**	0.5 U	**0.15 J**	0.5 U	0.5 U	**0.65**	0.5 U	**1.9**	0.5 U	0.5 U	**0.53**	0.5 U	0.5 U	**0.34 J**
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Tetrachloroethylene(PCE)	ug/l	**18**	0.5 U	**16**	0.5 U	**17**	0.5 U	**16**	**13**	0.5 U	**20 J**	0.5 U	**18 J**	0.5 U	0.5 U	**28 J**	0.5 U	**18 J**	0.5 U
Toluene	ug/l	**4.9**	**0.95**	**4.2**	0.5 U	**4**	0.5 U	**3.9**	**3.2**	**0.21 J**	**6**	**0.32 J**	**9.6**	**0.39 J**	0.5 U	**5.9**	**0.22 J**	**6.3**	**0.35 J**
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
Sample Number:		GC-SW316-0.5-WW	D-06192010-03	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	GC-SW318-0.5-WW	D-06192010-04	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
Weather:		WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	FD	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UR	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UR	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.5 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.5 UJ	0.05 U	0.05 UR	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	**0.41 J**	0.5 U	0.5 U	**0.53**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	**0.53**	**0.11 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UR	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	13 U	5 U	**2.1 J**	12 U	**6.7**	13 U	**1.7 J**	10 U	5 UR	**1.7 J**	13 U	11 U	**1.7 J**	9 U	**1.4 J**	13 U	**1.1 J**	8 U
Benzene	ug/l	**2.9**	**0.92**	**0.77**	0.5 U	**0.86**	0.5 U	**0.67**	**0.55**	0.5 UR	**1.1**	**0.36 J**	0.5 U	**1.4**	0.5 U	**0.5 J**	**0.44 J**	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/l	**0.2 J**	0.5 U	0.5 U	**0.24 J**	0.5 U	**0.31 J**	0.5 U	0.5 U	0.5 UR	0.5 U	**0.31 J**	**0.24 J**	0.5 U	**0.21 J**	0.5 U	**0.19 J**	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	0.5 U	0.5 U	**0.61**	0.5 U	**0.59**	0.5 U	0.5 U	0.5 UR	0.5 U	**0.68**	0.5 U	0.5 U	0.5 U	0.5 U	**0.69**	0.5 U	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	**0.35 J**	0.5 U	0.5 U	**0.43 J**	0.5 U	**0.37 J**	0.5 U	0.5 U	0.5 UR	0.5 U	**0.51**	**0.34 J**	0.5 U	**0.37 J**	0.5 U	**0.36 J**	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UR	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	**2.6**	**0.6**	**0.19 J**	**0.39 J**	**0.22 J**	**0.23 J**	**0.24 J**	0.5 U	0.5 UR	**1.1**	**0.36 J**	**0.22 J**	**1.3**	**0.35 J**	0.5 U	**0.53**	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	**0.2 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	**2.6**	**0.59**	**0.2 J**	**0.38 J**	**0.22 J**	**0.24 J**	**0.23 J**	0.5 U	0.5 UR	**1.1**	**0.34 J**	**0.22 J**	**1.3**	**0.36 J**	**0.16 J**	**0.52**	0.5 U	**0.34 J**
Methyl acetate	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.44 J**	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
Sample Number:		GC-SW316-0.5-WW	D-06192010-03	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	GC-SW318-0.5-WW	D-06192010-04	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
Weather:		WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	FD	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U	5 U	5 UR	5 U	1.3 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UR	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	2.9 U	**0.86**	0.5 U	1.8 U	0.5 U	**1.3**	0.5 U	**0.99**	0.5 UJ	0.5 U	**1.5**	0.5 U	0.5 U	**1.4**	0.5 U	**3.4**	0.5 U	**1.9**
o-xylene (1,2-dimethylbenzene)	ug/l	**5.1**	0.5 U	0.5 U	**0.32 J**	0.5 U	**0.17 J**	0.5 U	0.5 U	0.5 UR	**0.4 J**	**0.25 J**	**0.15 J**	**0.53**	**0.27 J**	0.5 U	**0.38 J**	0.5 U	**0.25 J**
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	**19**	0.5 U	0.5 U	**26 J**	0.5 U	**35 J**	0.5 U	**14**	0.5 UR	0.5 U	**40 J**	**31 J**	0.5 U	**17 J**	0.5 U	**20 J**	0.5 U	**17**
Toluene	ug/l	**16**	**0.43 J**	**0.26 J**	**6.7**	**0.24 J**	**6.8**	**0.41 J**	**1.8**	0.5 UR	**0.39 J**	**8.1**	**6.1**	**0.69**	**6.2**	0.5 U	**7.3**	0.5 U	**4.5**
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UR	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	**0.12 J**	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
Sample Number:		GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	GC-SW329-0.5-WW	D-06192010-01	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
Weather:		DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 UJ	0.05 U	0.05 U	0.5 UJ
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.5 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	**3.4 J**	9.9 U	5 U	**1.5 J**	6.6 U	**1.6 J**	**2.1 J**	5 U	**1.7 J**	5 U	**1.5 J**	5 U	**1.2 J**	5 U	**1.5 J**	**0.97 J**	5 U	**1.8 J**
Benzene	ug/l	0.5 U	**0.38 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/l	0.5 U	**0.12 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	**0.21 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	**0.48 J**	**0.4 J**	0.5 U	**0.28 J**	0.5 U	0.5 U	**0.15 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	0.5 U	**0.48 J**	**0.38 J**	0.5 U	**0.27 J**	0.5 U	0.5 U	**0.14 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl acetate	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
Sample Number:		GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	GC-SW329-0.5-WW	D-06192010-01	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
Weather:		DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	0.5 U	**1.9**	0.5 U	0.5 U	**1.6**	0.5 U	0.5 U	**0.85**	0.5 U	**0.45 J**	0.5 U	0.5 U	**0.62**	**0.5 J**	**0.85**	**0.55**	**0.4 J**	**1.1**
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	**0.48 J**	**0.36 J**	0.5 U	**0.26 J**	0.5 U	0.5 U	**0.13 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	**14**	**11**	0.5 U	**6.7**	0.5 U	0.5 U	**5.1**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.17 J**	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/l	0.5 U	**4.9**	**3.7**	0.5 U	**2.4**	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**										
1,1,1-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.5 UJ	0.05 U	0.5 UJ	0.05 U	0.5 UJ	0.05 U	0.5 UJ	0.05 U	0.5 UJ	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.5 U	0.05 U	0.5 U	0.05 U	0.5 U	0.05 U	0.5 U	0.05 U	0.5 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	5 U	5 U	5 U	**0.92 J**	5 U	**1 J**	5 U	**1.4 J**	5 U	5 U	5 U
Benzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl acetate	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21A
VOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**										
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	**0.45 J**	**0.57**	0.5 U	**0.53**	**0.49 J**	**0.58**	**0.7**	**0.81**	0.5 U	**0.64**	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	**0.17 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-21B
VOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	302	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A	308A	308B	308B
Sample Number:		GC-SW301-0.5-DW	GC-SW302-0.5-DW	GC-SW303-0.5-DW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW	GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW
Weather:		DRY	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		6/19/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2,4-trichlorobenzene	ug/l								0.12 J										
1,3-dichlorobenzene	ug/l				0.13 J				0.13 J										
1,4-dichlorobenzene	ug/l				0.12 J				0.81		0.87		0.79		0.69		0.62		0.61
Acetone	ug/l	1.2 J	1.2 J	1.6 J		1.6 J				1.2 J		1.2 J		1.7 J	12	1.6 J		1.4 J	
Benzene	ug/l					**11 (T)**	0.6	0.76	0.64	2	0.56	1.6	0.49 J	1.6	0.68	1.7	0.51	1.6	0.61
Carbon disulfide	ug/l																0.15 J		0.17 J
Chlorobenzene	ug/l								0.3 J		0.33 J		0.31 J		0.29 J		0.26 J		0.25 J
Chloroform	ug/l								0.51		0.57		0.57		0.56		0.5 J		
cis-1,2-dichloroethylene	ug/l										0.25 J		0.26 J		0.26 J		0.26 J		0.25 J
Ethylbenzene	ug/l					0.7	0.18 J	0.21 J	0.26 J	0.23 J	0.26 J	0.26 J	0.26 J	0.29 J	0.32 J	0.25 J	0.33 J	0.38 J	0.33 J
Isopropylbenzene (cumene)	ug/l																0.096 J		
m, p xylenes	ug/l					0.71	0.18 J	0.21 J	0.26 J	0.23 J	0.25 J	0.24 J	0.26 J	0.27 J	0.32 J	0.25 J	0.31 J	0.37 J	0.33 J
Methyl acetate	ug/l																		
Methylene chloride	ug/l														1.3				
o-xylene (1,2-dimethylbenzene)	ug/l		0.24 J						0.13 J		0.15 J		0.15 J		0.25 J		0.21 J	0.3 J	0.21 J
Tert-butyl methyl ether	ug/l		0.18 J																
Tetrachloroethylene(PCE)	ug/l	0.7		**6.7 (T)**		**14 (T)**			**15 (T)**			**16 (T)**			**17 (T)**		**18 (T)**		**16 (T)**
Toluene	ug/l	0.85	0.58	2.4	0.21 J	4.3	0.17 J	4.7	0.21 J	5	0.51	5.5	0.22 J	4.9	0.95	4.2			
trans-1,3-dichloropropene	ug/l								0.16 J										
Trichloroethylene (TCE)	ug/l																		

TABLE I-21B
VOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316	316	316	315
Sample Number:	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	D-06192010-02	GC-SW312-0.5-WW	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW	D-06192010-03	GC-SW316-0.5-WW	GC-SW315-0.5-DW
Weather:	DRY	WET	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,2,4-trichlorobenzene	ug/l																	
1,3-dichlorobenzene	ug/l																	
1,4-dichlorobenzene	ug/l				0.55	0.44 J		0.55			0.54			0.58			0.41 J	
Acetone	ug/l	5.5		3.8 J			1.8 J		3 J	1.9 J		4.8 J		1.8 J		1.8 J		2.1 J
Benzene	ug/l	0.97	0.58		0.42 J	0.31 J	0.82	0.93	1.1		1.5		0.78		0.95	0.92	2.9	0.77
Carbon disulfide	ug/l		0.15 J					0.14 J						0.17 J				
Chlorobenzene	ug/l		0.24 J		0.23 J			0.25 J						0.28 J			0.2 J	
Chloroform	ug/l		0.5 J		0.53			0.52				0.61		0.55				
cis-1,2-dichloroethylene	ug/l		0.24 J		0.24 J						0.32 J	0.43 J		0.33 J			0.35 J	
Ethylbenzene	ug/l		0.34 J		0.21 J		0.24 J	0.68	0.38 J		1.3	0.5	0.38 J	0.29 J	0.86	0.6	**2.6 (T)**	0.19 J
Isopropylbenzene (cumene)	ug/l										0.17 J			0.1 J			0.2 J	
m, p xylenes	ug/l		0.34 J		0.21 J		0.25 J	0.67	0.38 J		1.3	0.49 J	0.37 J	0.28 J	0.84	0.59	2.6	0.2 J
Methyl acetate	ug/l																	
Methylene chloride	ug/l			1						0.76						0.86		
o-xylene (1,2-dimethylbenzene)	ug/l		0.23 J		0.15 J			0.65			1.9	0.53			0.34 J		5.1	
Tert-butyl methyl ether	ug/l																	
Tetrachloroethylene(PCE)	ug/l		**17 (T)**		**16 (T)**	**13 (T)**		**20 J (T)**			**18 J (T)**	**28 J (T)**		**18 J (T)**			**19 (T)**	
Toluene	ug/l		4		3.9	3.2	0.21 J	6	0.32 J	0.39 J	9.6	5.9	0.22 J	6.3	0.35 J	0.43 J	16	0.26 J
trans-1,3-dichloropropene	ug/l																	
Trichloroethylene (TCE)	ug/l		0.1 J															

TABLE I-21B
VOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		315	317	317	318	318	319	319	319	320	320	321	321	322	322	324	324	324	323
Sample Number:		GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	GC-SW318-0.5-WW	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW	GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2,4-trichlorobenzene	ug/l																		
1,3-dichlorobenzene	ug/l																		
1,4-dichlorobenzene	ug/l	0.53							0.53	0.11 J									
Acetone	ug/l		6.7		1.7 J		1.7 J			1.7 J		1.4 J		1.1 J		3.4 J			1.5 J
Benzene	ug/l		0.86		0.67	0.55	1.1	0.36 J		1.4		0.5 J	0.44 J				0.38 J		
Carbon disulfide	ug/l																		
Chlorobenzene	ug/l	0.24 J		0.31 J				0.31 J	0.24 J		0.21 J		0.19 J				0.12 J		
Chloroform	ug/l	0.61		0.59				0.68					0.69						
cis-1,2-dichloroethylene	ug/l	0.43 J		0.37 J				0.51	0.34 J		0.37 J		0.36 J				0.21 J		
Ethylbenzene	ug/l	0.39 J	0.22 J	0.23 J	0.24 J		1.1	0.36 J	0.22 J	1.3	0.35 J		0.53				0.48 J	0.4 J	
Isopropylbenzene (cumene)	ug/l																		
m, p xylenes	ug/l	0.38 J	0.22 J	0.24 J	0.23 J		1.1	0.34 J	0.22 J	1.3	0.36 J	0.16 J	0.52		0.34 J		0.48 J	0.38 J	
Methyl acetate	ug/l			0.44 J															
Methylene chloride	ug/l			1.3		0.99		1.5			1.4		3.4		1.9		1.9		
o-xylene (1,2-dimethylbenzene)	ug/l	0.32 J		0.17 J			0.4 J	0.25 J	0.15 J	0.53	0.27 J		0.38 J		0.25 J		0.48 J	0.36 J	
Tert-butyl methyl ether	ug/l																		
Tetrachloroethylene(PCE)	ug/l	**26 J (T)**		**35 J (T)**		**14 (T)**		**40 J (T)**	**31 J (T)**		**17 J (T)**		**20 J (T)**		**17 (T)**		**14 (T)**	**11 (T)**	
Toluene	ug/l	6.7	0.24 J	6.8	0.41 J	1.8	0.39 J	8.1	6.1	0.69	6.2		7.3		4.5		4.9	3.7	
trans-1,3-dichloropropene	ug/l																		
Trichloroethylene (TCE)	ug/l										0.12 J								

TABLE I-21B
VOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		323	325	326	326	327	327	328	329	329	329	330	330	331	331	332	333	333	334
Sample Number:		GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW329-0.5-DW	D-06192010-01	GC-SW329-0.5-WW	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW	GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW
Weather:		WET	DRY	DRY	WET	DRY	WET	DRY	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,2,4-trichlorobenzene	ug/l																		
1,3-dichlorobenzene	ug/l																		
1,4-dichlorobenzene	ug/l																		
Acetone	ug/l		1.6 J	2.1 J		1.7 J		1.5 J	1.2 J	1.5 J		0.97 J		1.8 J			0.92 J		1 J
Benzene	ug/l																		
Carbon disulfide	ug/l																		
Chlorobenzene	ug/l																		
Chloroform	ug/l																		
cis-1,2-dichloroethylene	ug/l																		
Ethylbenzene	ug/l	0.28 J			0.15 J														
Isopropylbenzene (cumene)	ug/l																		
m, p xylenes	ug/l	0.27 J			0.14 J														
Methyl acetate	ug/l																		
Methylene chloride	ug/l	1.6			0.85		0.45 J		0.62	0.85	0.5 J	0.55	0.4 J	1.1	0.45 J	0.57	0.53	0.49 J	0.58
o-xylene (1,2-dimethylbenzene)	ug/l	0.26 J			0.13 J														
Tert-butyl methyl ether	ug/l																		
Tetrachloroethylene(PCE)	ug/l	**6.7 (T)**			**5.1 (T)**						0.17 J				0.17 J				
Toluene	ug/l	2.4			1.4														
trans-1,3-dichloropropene	ug/l																		
Trichloroethylene (TCE)	ug/l																		

TABLE I-21B
VOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		334	335	336
Sample Number:		GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW336-0.5-DW
Weather:		WET	DRY	DRY
Sample Date:		7/13/2010	6/19/2010	6/19/2010
Sample Type:		N	N	N
Parameter	**Units**	**Volatile Organic Compounds**		
1,2,4-trichlorobenzene	ug/l			
1,3-dichlorobenzene	ug/l			
1,4-dichlorobenzene	ug/l			
Acetone	ug/l		1.4 J	
Benzene	ug/l			
Carbon disulfide	ug/l			
Chlorobenzene	ug/l			
Chloroform	ug/l			
cis-1,2-dichloroethylene	ug/l			
Ethylbenzene	ug/l			
Isopropylbenzene (cumene)	ug/l			
m, p xylenes	ug/l			
Methyl acetate	ug/l			
Methylene chloride	ug/l	0.7	0.81	0.64
o-xylene (1,2-dimethylbenzene)	ug/l			
Tert-butyl methyl ether	ug/l			
Tetrachloroethylene(PCE)	ug/l			
Toluene	ug/l			
trans-1,3-dichloropropene	ug/l			
Trichloroethylene (TCE)	ug/l			

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TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
Sample Number:		GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
Weather:		DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U
2,6-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.2**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	0.1 U	**0.13**	0.1 U	**0.16**	0.1 U	**0.096 J**	**0.12**	0.1 U	**0.3 J**	**0.43**	**0.17**	**0.35**	**0.23**	**0.37**	**0.095 J**	**0.26**	**0.2**	0.1 U
Acenaphthylene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acetophenone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	ug/l	0.1 U	0.1 U	0.1 U	**0.095 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	ug/l	0.1 U	0.1 U	**0.22**	**0.15**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.12**	0.1 U	0.1 U	0.1 U	**0.18**	0.1 U	**0.13**	0.1 U	0.1 U
Benzo(a)pyrene	ug/l	0.1 U	**0.2**	**0.19**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/l	**0.11**	**0.15**	**0.47**	**0.21**	0.1 U	0.1 U	0.1 U	0.1 U	**0.21**	**0.14**	0.1 U	0.1 U	0.1 U	**0.25**	**0.16**	**0.32**	**0.2**	0.1 U
Benzo(g,h,i)perylene	ug/l	0.1 U	**0.18**	**0.15**	0.12 U	0.1 U	**0.34**	**0.23**	0.1 U	**0.55**	0.1 U	**0.22**	0.1 U	**0.13**	**0.15**	**0.59**	**0.14**	**0.98 J**	0.1 U
Benzo(k)fluoranthene	ug/l	0.1 U	**0.047 J**	**0.18**	**0.066 J**	0.1 U	0.1 U	0.1 U	0.1 U	**0.058 J**	0.1 U	0.1 U	0.1 U	0.1 U	**0.26**	**0.039 J**	**0.22**	0.1 U	0.1 U

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
Sample Number:		GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
Weather:		DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.1 J**	5 U	5 U	5 U
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	0.1 U	0.1 U	**0.33 J**	**0.11**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.14 J**	0.1 U	0.1 U	0.1 U	**0.37 J**	0.1 U	**0.31 J**	0.1 U	0.1 U
Dibenz(a,h)anthracene	ug/l	0.1 U	**0.1**	0.1 U	0.1 UJ	0.1 U	**0.11**	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butyl phthalate	ug/l	**1.4 J**	**0.38 J**	5 U	5 U	5 U	**0.28 J**	5 U	5 U	**0.59 J**	5 U	5 U	5 U	5 U	5 U	**0.45 J**	5 U	5 U	5 U
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	0.1 U	**0.089 J**	**0.54**	**0.26**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.28**	**0.14**	**0.17**	**0.11**	**0.69**	**0.13**	**0.7**	**0.13**	0.1 U
Fluorene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.091 J**	0.1 U	0.1 U	**0.12**	0.1 U	**0.12**	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.1 U	**0.17**	**0.13**	**0.19**	0.1 U	**0.16**	**0.16**	0.1 U	**0.37**	0.1 U	**0.19**	0.1 U	0.15 U	**0.21**	**0.34**	**0.2**	**0.45**	0.1 U
Isophorone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	0.1 U	**0.13**	0.1 U	0.1 U	0.1 U	**0.18**	**0.14**	0.1 U	**0.54**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 U
Phenanthrene	ug/l	0.1 U	**0.17**	**0.15**	**0.29**	0.1 U	0.1 U	**0.16**	0.1 U	**0.22**	0.1 U	**0.28**	0.1 U	**0.13**	**0.1**	**0.19**	**0.11**	**0.18**	0.1 U
Phenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	ug/l	0.1 U	**0.17**	**0.68**	**0.31**	0.1 U	0.1 U	**0.1**	0.1 U	**0.16**	0.1 U	**0.15**	**0.15**	**0.13**	0.1 U	0.1 U	0.1 U	**0.17**	0.1 U
Total PAHs	ug/l	**0.11**	**1.536**	**3.04**	**1.841**	ND	**0.886**	**0.91**	ND	**2.699**	**1.11**	**1.15**	**0.79**	**0.73**	**2.7**	**1.544**	**2.39**	**2.31**	ND

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
Sample Number:		GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	GC-SW312-0.5-WW	D-06192010-02	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	**0.11**	**0.33**	**0.15**	**0.43**	**0.21**	**0.47**	0.1 U	**0.19**	**0.38**	**0.19**	**0.66**	**0.15**	**0.38**	**0.59**	0.1 U	**0.69**	**0.4**	**0.78**
Acenaphthylene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acetophenone	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Anthracene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.1**	0.1 U
Benzo(a)pyrene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	**0.3**	0.1 U	**0.14**	0.1 U	0.1 U	**0.2**	**0.28**	0.1 U	**0.25**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/l	**0.26**	0.1 U	**0.17**	**0.13**	**0.12**	**0.12**	0.1 U	**0.15**	**0.37**	**0.14**	**0.15**	0.1 U	**0.13**	**0.16**	**0.17**	**0.23**	**0.15**	**0.16**
Benzo(g,h,i)perylene	ug/l	**1.5 J**	0.1 U	**0.66**	0.1 U	**0.9**	0.1 U	**0.64**	**0.52**	0.1 U	**0.41**	0.1 U	**0.22**	0.1 U	0.1 U	**0.59**	0.1 U	**0.25**	0.1 U
Benzo(k)fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.12**	0.1 U	0.1 U	0.1 U	0.1 U	**0.11**	0.1 U	**0.11**	0.1 U	**0.1**

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
Sample Number:		GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	GC-SW312-0.5-WW	D-06192010-02	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	**0.74 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.73 J**	5 U
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	5 U	5 U	5 U	**0.93 J**	5 U	**2.4 J**	5 U	5 U	**1.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	**1.2 J**	5 U	**1.7 J**
Caprolactam	ug/l	5 U	5 U	5 U	5 U	**0.33 J**	5 U	5 U	**1.2 J**	5 U	**1 J**	**1 J**	**1 J**	5 U	5 U	**1.4 J**	5 U	**1.1 J**	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.16 J**	0.1 U	**0.15 J**	0.1 U	**0.099 J**	**0.16 J**	0.1 U	**0.21 J**	0.1 U	**0.25 J**
Dibenz(a,h)anthracene	ug/l	0.1 UJ	0.1 U	0.1 UJ	0.1 U	**0.099 J**	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.7 J**	5 U	**2.5 J**	5 U	**2.8 J**
Di-n-butyl phthalate	ug/l	**0.5 J**	5 U	5 U	5 U	**0.3 J**	5 U	**0.41 J**	5 U	5 U	5 U	**1 J**	**0.35 J**	5 U	5 U	5 U	5 U	**0.41 J**	5 U
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	**0.23 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	**0.16**	**0.19**	**0.19**	**0.17**	**0.16**	**0.16**	0.1 U	**0.15**	**0.34**	**0.14**	**0.37**	**0.16**	**0.24**	**0.46**	**0.22**	**0.52**	**0.32**	**0.59 J**
Fluorene	ug/l	0.1 U	0.1 U	0.1 U	**0.12**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.13**	0.1 U	0.1 U	**0.12**	0.1 U	**0.11**	**0.32 J**	**0.13**
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	**0.62**	0.1 U	**0.36**	**0.11**	**0.35 J**	0.1 U	**0.35 J**	**0.32**	**0.12**	**0.26 J**	0.1 U	**0.2**	0.1 U	0.1 U	**0.35**	**0.097 J**	**0.2**	0.1 U
Isophorone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 UJ	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 U	0.2 UJ	0.2 UJ	0.2 U	**0.13 J**	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
Phenanthrene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.15**	0.1 U	**0.12**	**0.22**	0.1 U	**0.12**	0.1 U	**0.16**	**0.69 J**	**0.1**
Phenol	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	**1.3 J**	5 U	5 U	5 U	5 U
Pyrene	ug/l	**0.19**	0.1 U	**0.2**	0.1 U	**0.24**	0.1 U	0.1 U	**0.21**	0.1 U	**0.18**	**0.32**	**0.21**	0.1 U	0.1 U	**0.25**	0.1 U	**0.34**	0.1 U
Total PAHs	ug/l	**2.84**	**0.52**	**1.73**	**0.96**	**2.379**	**0.75**	**1.13**	**1.54**	**1.64**	**1.52**	**2.18**	**1.16**	**1.099**	**1.72**	**1.58**	**2.127**	**2.77**	**2.11**

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
Sample Number:		GC-SW316-0.5-WW	D-06192010-03	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	GC-SW318-0.5-WW	D-06192010-04	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
Weather:		WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	FD	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
2,6-dinitrotoluene	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
2-chloronaphthalene	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	**3**	0.1 U	**0.017 J**	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	**0.17**	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U
2-methylphenol (o-cresol)	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	1 U	**0.66**	**0.61**	**0.15**	**0.4**	**0.23**	**0.65**	**0.1**	**0.65**	**0.94**	**0.2**	**0.19**	**0.77**	**0.15**	**0.62**	0.1 U	0.1 U	0.1 U
Acenaphthylene	ug/l	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acetophenone	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Anthracene	ug/l	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**1.9 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Atrazine	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	ug/l	1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.074 J**	0.1 U	**0.097 J**	0.1 U	**0.66**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene	ug/l	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.66**	0.1 U	**0.21**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/l	1 U	**0.14**	**0.11**	0.1 U	**0.15**	**0.13**	**0.11**	**0.21**	**0.17**	**0.88**	0.1 U	**0.33**	**0.22**	**0.3**	**0.12**	0.1 U	**0.12**	0.1 U
Benzo(g,h,i)perylene	ug/l	1 U	0.1 U	0.1 U	**0.93 J**	0.1 U	**0.14**	0.1 U	**0.48**	0.1 U	**0.12**	**0.2**	**0.26**	0.1 U	**0.84 J**	0.1 U	**0.14**	0.1 U	**0.15**
Benzo(k)fluoranthene	ug/l	1 U	**0.1 J**	0.1 U	0.1 U	0.1 U	**0.037 J**	0.1 U	**0.054 J**	**0.12**	**0.29**	0.1 UJ	**0.12 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ
Benzyl butyl phthalate	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
Sample Number:		GC-SW316-0.5-WW	D-06192010-03	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	GC-SW318-0.5-WW	D-06192010-04	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
Weather:		WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	FD	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-chloroethyl) ether	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-chloroisopropyl) ether	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-ethylhexyl) phthalate	ug/l	50 U	**5.4**	**1.5 J**	5 U	**1.7 J**	5 U	**1.6 J**	5 U	**1.5 J**	5 U	5 U	5 U	**1 J**	5 U	**5.6**	5 U	5 U	5 U
Caprolactam	ug/l	50 U	5 U	5 U	**1.2 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.2 J**	5 U	**1.5 J**	5 U	**1.1 J**	5 U	5 U
Carbazole	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	1 U	**0.2 J**	**0.11 J**	0.1 U	0.1 U	**0.057 J**	0.1 U	**0.076 J**	**0.11 J**	**0.75 J**	0.1 U	0.1 U	**0.12 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	ug/l	1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	**0.071 J**	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 UJ
Dibenzofuran	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	50 U	**2.7 J**	**2.5 J**	5 U	**2.9 J**	5 U	**1.5 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butyl phthalate	ug/l	50 U	5 U	5 U	5 U	5 U	**0.5 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.62 J**	**1.1 J**	5 U	5 U	5 U
Di-n-octylphthalate	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.28 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.23 J**
Fluoranthene	ug/l	1 U	**0.48 J**	**0.2**	**0.14**	**0.42 J**	**0.14**	**0.31**	**0.25**	**0.32**	**1.5 J**	**0.19**	**0.19**	**0.37 J**	**0.17**	**0.25**	**0.17**	**0.095 J**	**0.17**
Fluorene	ug/l	1 U	**0.14**	**0.14**	0.1 U	0.1 U	**0.079 J**	0.1 U	0.1 U	**0.12**	**0.12**	0.1 U	0.1 U	**0.11**	0.1 U	**0.12**	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Indeno(1,2,3-c,d)pyrene	ug/l	**1.1**	0.1 U	0.1 U	**0.36**	0.1 U	**0.17**	0.1 U	**0.34**	0.1 U	**0.22**	**0.17**	**0.26**	**0.12**	**0.66**	0.1 U	**0.17**	**0.11**	0.1 U
Isophorone	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	**1.4**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.23**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
N-nitrosodi-n-propylamine	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
N-nitrosodiphenylamine	ug/l	50 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Pentachlorophenol	ug/l	2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 U	0.2 UJ	10 U	0.2 U
Phenanthrene	ug/l	**1.4**	**0.097 J**	0.1 U	**0.25**	0.1 U	**0.13**	0.1 U	0.1 U	0.1 U	**0.43**	**0.34**	**0.19**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	ug/l	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	ug/l	1 U	0.1 U	0.1 U	**0.17**	0.1 U	**0.2**	0.1 U	**0.31**	0.1 U	**1.2 J**	**0.19**	**0.24**	0.1 U	**0.23**	**0.23**	**0.15**	0.1 U	**0.17**
Total PAHs	ug/l	**6.9**	**1.817**	**1.187**	**2**	**0.97**	**1.387**	**1.07**	**1.917**	**1.49**	**9.67**	**1.69**	**2.061**	**1.71**	**2.35**	**1.34**	**0.63**	**0.325**	**0.49**

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
Sample Number:		GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	GC-SW329-0.5-WW	D-06192010-01	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
Weather:		DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	**0.48**	0.1 U	0.1 U	**0.42**	0.1 U	**0.34**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acenaphthylene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acetophenone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	ug/l	**1.2 J**	0.1 U	0.1 U	0.1 U	0.1 U	**5.2 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	ug/l	**0.4**	0.1 U	0.1 U	0.1 U	0.1 U	**0.83**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U
Benzo(a)pyrene	ug/l	0.1 U	**0.18**	**0.16**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**1.4 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/l	**0.39**	0.1 U	0.1 U	0.1 U	0.1 U	**0.76**	0.1 U	**0.15**	0.1 U	0.1 U	**0.16**	**1.3 J**	0.1 U	0.1 U	0.1 U	0.1 U	**0.18**	0.1 U
Benzo(g,h,i)perylene	ug/l	0.1 U	**0.41**	**0.4**	0.1 U	0.1 U	**0.099 J**	0.1 U	**0.57 J**	0.1 U	**0.24**	0.1 U	**0.96 J**	0.1 U	**0.34**	0.1 U	0.1 U	**0.68**	0.1 U
Benzo(k)fluoranthene	ug/l	**0.18**	0.1 U	0.1 U	0.1 U	0.1 U	**0.29**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**1.4 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
Sample Number:		GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	GC-SW329-0.5-WW	D-06192010-01	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
Weather:		DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	**4.2 J**	5 U	5 U	**5.5**	5 U	**0.71 J**	5 U	5 U	**1.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	ug/l	5 U	5 U	5 U	5 U	**1.3 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.64 J**	5 U	5 U	5 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	**2.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	**0.39 J**	0.1 U	0.1 U	0.1 U	0.1 U	**1.1 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.19**	0.1 U	0.1 U	**0.12**	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	**3.4 J**	5 U	5 U	5 U	5 U	**2 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**2.2 J**	5 U	**5.4**	5 U
Di-n-butyl phthalate	ug/l	5 U	5 U	5 U	5 U	**0.56 J**	5 U	5 U	**0.28 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.47 J**
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	**0.93**	**0.099 J**	**0.17**	**0.19**	0.1 U	**2.3 J**	0.1 U	**0.12**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Fluorene	ug/l	**0.12**	0.1 U	0.1 U	**0.12**	0.1 U	**0.19**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.1 U	**0.25 J**	**0.24 J**	0.1 U	0.1 UJ	**0.12**	0.1 U	**0.22 J**	0.1 U	**0.19**	**0.14**	**0.94 J**	0.1 U	**0.21**	0.1 U	0.1 U	**0.28**	0.1 U
Isophorone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.13**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 UJ	0.2 UJ	10 U	0.2 U	10 U	0.2 U	10 U	0.2 UJ	0.2 U	0.2 UJ	0.2 U	10 U	0.2 U	0.2 UJ
Phenanthrene	ug/l	**0.25**	0.1 U	0.1 U	0.1 U	0.1 U	**0.58**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**1.5 J**	0.1 U	**0.13**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PAHs	ug/l	**4.34**	**0.939**	**0.97**	**0.73**	ND	**13.309**	ND	**1.51**	ND	**0.43**	**0.42**	**6**	ND	**0.55**	ND	ND	**1.14**	ND

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**										
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**9 J**	10 U
2,4-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**9**	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acenaphthylene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.55**	0.1 U
Acetophenone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Benzo(a)anthracene	ug/l	0.1 U	0.1 U	0.1 U	**0.94**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Benzo(a)pyrene	ug/l	0.1 U	0.1 U	0.1 U	**0.46**	0.1 U	0.1 U	0.1 U	0.1 U	**0.17**	0.1 U	**0.18**
Benzo(b)fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	**0.55**	0.1 U	0.1 U	0.1 U	0.1 U	**0.12**	**0.15**	0.1 U
Benzo(g,h,i)perylene	ug/l	0.1 U	**0.051 J**	**0.14**	0.22 U	**0.13**	0.1 U	**0.51**	0.1 U	**0.81**	0.1 U	**0.25**
Benzo(k)fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	**0.36**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-22A
SVOC Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**										
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Caprolactam	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.57 J**	5 U	**0.59 J**
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	0.1 U	0.1 U	0.1 U	**0.79 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**2.2 J**	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.22 J**
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	**0.61**	0.1 U	0.1 U	0.1 U	0.1 U	**0.17**	0.1 U	0.1 U
Fluorene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.11**	0.1 U	0.1 U	0.1 U
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U
Hexachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.1 U	0.1 U	**0.13**	**0.19**	**0.15**	0.1 U	**0.2**	0.1 U	**0.41 J**	**0.76 J**	**0.2**
Isophorone	ug/l	**0.8 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	**0.13**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 UJ	0.2 UJ	10 U	0.2 U
Phenanthrene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Pyrene	ug/l	0.1 U	0.1 U	0.1 U	**0.62**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Total PAHs	ug/l	**0.13**	**0.051**	**0.27**	**4.52**	**0.28**	ND	**0.71**	**0.11**	**1.68**	**1.46**	**0.63**

TABLE I-22B
SVOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		301	301	302	302	303	303	304	305	305	306	306	307A	307A	307B	307B	308A	308B	308B
Sample Number:		GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW
Weather:		DRY	WET	DRY	WET	WET	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET
Sample Date:		6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4-dinitrophenol	ug/l																		
2-methylnaphthalene	ug/l							0.2											
4-methylphenol (p-cresol)	ug/l																		
Acenaphthene	ug/l		0.13		0.16	0.096 J	0.12	0.3 J	0.43	0.17	0.35	0.23	0.37	0.095 J	0.26	0.2	0.11	0.33	0.15
Acenaphthylene	ug/l																		
Anthracene	ug/l				0.095 J														
Benzo(a)anthracene	ug/l			**0.22 (T)**	**0.15 (T)**				**0.12 (T)**				**0.18 (T)**		**0.13 (T)**				
Benzo(a)pyrene	ug/l		**0.2 (T)**	**0.19 (T)**															
Benzo(b)fluoranthene	ug/l	**0.11 (T)**	**0.15 (T)**	**0.47 (T)**	**0.21 (T)**			**0.21 (T)**	**0.14 (T)**				**0.25 (T)**	**0.16 (T)**	**0.32 (T)**	**0.2 (T)**	**0.26 (T)**		**0.17 (T)**
Benzo(g,h,i)perylene	ug/l		0.18	0.15		0.34	0.23	0.55		0.22		0.13	0.15	0.59	0.14	0.98 J	1.5 J		0.66
Benzo(k)fluoranthene	ug/l		**0.047 J (T)**	**0.18 (T)**	**0.066 J (T)**			**0.058 J (T)**					**0.26 (T)**	**0.039 J (T)**	**0.22 (T)**				
Benzyl butyl phthalate	ug/l													1.1 J					
Bis(2-ethylhexyl) phthalate	ug/l																		
Caprolactam	ug/l																		
*Carbazole	ug/l																		
Chrysene	ug/l			**0.33 J (T)**	**0.11 (T)**				**0.14 J (T)**				**0.37 J (T)**		**0.31 J (T)**				
Dibenz(a,h)anthracene	ug/l		**0.1 (T)**			**0.11 (T)**													
Diethyl phthalate	ug/l																		
Dimethyl phthalate	ug/l																		
Di-n-butyl phthalate	ug/l	1.4 J	0.38 J			0.28 J		0.59 J						0.45 J			0.5 J		
Di-n-octylphthalate	ug/l																		
Fluoranthene	ug/l		0.089 J	0.54	0.26				0.28	0.14	0.17	0.11	0.69	0.13	0.7	0.13	0.16	0.19	0.19
Fluorene	ug/l							0.091 J			0.12		0.12						
Indeno(1,2,3-c,d)pyrene	ug/l		**0.17 (T)**	**0.13 (T)**	**0.19 (T)**	**0.16 (T)**	**0.16 (T)**	**0.37 (T)**		**0.19 (T)**			**0.21 (T)**	**0.34 (T)**	**0.2 (T)**	**0.45 (T)**	**0.62 (T)**		**0.36 (T)**
Isophorone	ug/l																		
Naphthalene	ug/l		0.13			**0.18 (T)**	0.14	**0.54 (T)**											
Pentachlorophenol	ug/l																		
Phenanthrene	ug/l		0.17	0.15	0.29		0.16	0.22		0.28		0.13	0.1	0.19	0.11	0.18			
Phenol	ug/l																		
Pyrene	ug/l		0.17	0.68	0.31		0.1	0.16		0.15	0.15	0.13				0.17	0.19		0.2
*Total PAHs	ug/l	0.11	1.536	3.04	1.841	0.886	0.91	2.699	1.11	1.15	0.79	0.73	2.7	1.544	2.39	2.31	2.84	0.52	1.73

TABLE I-22B
SVOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		309	309	310	310	310	311	311	312	312	312	314	314	313	313	316	316	316	315
Sample Number:		GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	D-06192010-02	GC-SW312-0.5-WW	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW	D-06192010-03	GC-SW316-0.5-WW	GC-SW315-0.5-DW
Weather:		DRY	WET	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4-dinitrophenol	ug/l																		
2-methylnaphthalene	ug/l																	3	0.017 J
4-methylphenol (p-cresol)	ug/l																		
Acenaphthene	ug/l	0.43	0.21	0.47		0.19	0.38	0.19	0.66	0.38	0.15	0.59		0.69	0.4	0.78	0.66		0.61
Acenaphthylene	ug/l																		
Anthracene	ug/l																		
Benzo(a)anthracene	ug/l														**0.1 (T)**				
Benzo(a)pyrene	ug/l		**0.3 (T)**		**0.14 (T)**			**0.2 (T)**	**0.28 (T)**	**0.25 (T)**									
Benzo(b)fluoranthene	ug/l	**0.13 (T)**	**0.12 (T)**	**0.12 (T)**		**0.15 (T)**	**0.37 (T)**	**0.14 (T)**	**0.15 (T)**	**0.13 (T)**		**0.16 (T)**	**0.17 (T)**	**0.23 (T)**	**0.15 (T)**	**0.16 (T)**	**0.14 (T)**		**0.11 (T)**
Benzo(g,h,i)perylene	ug/l		0.9		0.64	0.52		0.41			0.22		0.59		0.25				
Benzo(k)fluoranthene	ug/l						**0.12 (T)**					**0.11 (T)**		**0.11 (T)**		**0.1 (T)**	**0.1 J (T)**		
Benzyl butyl phthalate	ug/l				0.74 J										0.73 J				
Bis(2-ethylhexyl) phthalate	ug/l	0.93 J		**2.4 J (T)**			1.1 J							1.2 J		1.7 J	**5.4 (T)**		1.5 J
Caprolactam	ug/l		0.33 J			1.2 J		1 J	1 J		1 J		1.4 J		1.1 J				
*Carbazole	ug/l																		
Chrysene	ug/l						**0.16 J (T)**		**0.15 J (T)**	**0.099 J (T)**		**0.16 J (T)**		**0.21 J (T)**		**0.25 J (T)**	**0.2 J (T)**		**0.11 J (T)**
Dibenz(a,h)anthracene	ug/l		**0.099 J (T)**																
Diethyl phthalate	ug/l																		
Dimethyl phthalate	ug/l											1.7 J		2.5 J		2.8 J	2.7 J		2.5 J
Di-n-butyl phthalate	ug/l		0.3 J		0.41 J				1 J		0.35 J				0.41 J				
Di-n-octylphthalate	ug/l				0.23 J														
Fluoranthene	ug/l	0.17	0.16	0.16		0.15	0.34	0.14	0.37	0.24	0.16	0.46	0.22	0.52	0.32	0.59 J	0.48 J		0.2
Fluorene	ug/l	0.12							0.13			0.12		0.11	0.32 J	0.13	0.14		0.14
Indeno(1,2,3-c,d)pyrene	ug/l	**0.11 (T)**	**0.35 J (T)**		**0.35 J (T)**	**0.32 (T)**	**0.12 (T)**	**0.26 J (T)**			**0.2 (T)**		**0.35 (T)**	**0.097 J (T)**	**0.2 (T)**			**1.1 (T)**	
Isophorone	ug/l																		
Naphthalene	ug/l																	**1.4 (T)**	
Pentachlorophenol	ug/l							0.13 J											
Phenanthrene	ug/l						0.15		0.12		0.22	0.12		0.16	0.69 J	0.1	0.097 J	1.4	
Phenol	ug/l											1.3 J							
Pyrene	ug/l		0.24			0.21		0.18	0.32		0.21		0.25		0.34				
*Total PAHs	ug/l	0.96	2.379	0.75	1.13	1.54	1.64	1.52	2.18	1.099	1.16	1.72	1.58	2.127	2.77	2.11	1.817	6.9	1.187

TABLE I-22B
SVOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		315	317	317	318	318	318	319	319	319	320	320	321	321	322	322	324	324	324
Sample Number:		GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	D-06192010-04	GC-SW318-0.5-WW	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW	GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04
Weather:		WET	DRY	WET	DRY	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010
Sample Type:		N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4-dinitrophenol	ug/l																		
2-methylnaphthalene	ug/l								0.17										
4-methylphenol (p-cresol)	ug/l																		
Acenaphthene	ug/l	0.15	0.4	0.23	0.65	0.65	0.1	0.94	0.2	0.19	0.77	0.15	0.62				0.48		
Acenaphthylene	ug/l																		
Anthracene	ug/l							1.9 J									1.2 J		
Benzo(a)anthracene	ug/l			**0.074 J (T)**			**0.097 J (T)**	**0.66 (T)**									**0.4 (T)**		
Benzo(a)pyrene	ug/l							**0.66 (T)**		**0.21 (T)**								**0.18 (T)**	**0.16 (T)**
Benzo(b)fluoranthene	ug/l		**0.15 (T)**	**0.13 (T)**	**0.11 (T)**	**0.17 (T)**	**0.21 (T)**	**0.88 (T)**		**0.33 (T)**	**0.22 (T)**	**0.3 (T)**	**0.12 (T)**		**0.12 (T)**		**0.39 (T)**		
Benzo(g,h,i)perylene	ug/l	0.93 J		0.14			0.48	0.12	0.2	0.26		0.84 J		0.14		0.15		0.41	0.4
Benzo(k)fluoranthene	ug/l			**0.037 J (T)**		**0.12 (T)**	**0.054 J (T)**	**0.29 (T)**		**0.12 J (T)**							**0.18 (T)**		
Benzyl butyl phthalate	ug/l																		
Bis(2-ethylhexyl) phthalate	ug/l		1.7 J		1.6 J	1.5 J					1 J		**5.6 (T)**				**4.2 J (T)**		
Caprolactam	ug/l	1.2 J								1.2 J		1.5 J		1.1 J					
*Carbazole	ug/l							1.1 J											
Chrysene	ug/l			**0.057 J (T)**		**0.11 J (T)**	**0.076 J (T)**	**0.75 J (T)**			**0.12 J (T)**						**0.39 J (T)**		
Dibenz(a,h)anthracene	ug/l									**0.071 J (T)**									
Diethyl phthalate	ug/l																		
Dimethyl phthalate	ug/l		2.9 J		1.5 J												3.4 J		
Di-n-butyl phthalate	ug/l			0.5 J								0.62 J	1.1 J						
Di-n-octylphthalate	ug/l						0.28 J									0.23 J			
Fluoranthene	ug/l	0.14	0.42 J	0.14	0.31	0.32	0.25	1.5 J	0.19	0.19	0.37 J	0.17	0.25	0.17	0.095 J	0.17	0.93	0.099 J	0.17
Fluorene	ug/l			0.079 J		0.12		0.12			0.11		0.12				0.12		
Indeno(1,2,3-c,d)pyrene	ug/l	**0.36 (T)**		**0.17 (T)**			**0.34 (T)**	**0.22 (T)**	**0.17 (T)**	**0.26 (T)**	**0.12 (T)**	**0.66 (T)**		**0.17 (T)**	**0.11 (T)**			**0.25 J (T)**	**0.24 J (T)**
Isophorone	ug/l																		
Naphthalene	ug/l								**0.23 (T)**										
Pentachlorophenol	ug/l																		
Phenanthrene	ug/l	0.25		0.13				0.43	0.34	0.19							0.25		
Phenol	ug/l																		
Pyrene	ug/l	0.17		0.2			0.31	1.2 J	0.19	0.24		0.23	0.23	0.15		0.17			
*Total PAHs	ug/l	2	0.97	1.387	1.07	1.49	1.917	9.67	1.69	2.061	1.71	2.35	1.34	0.63	0.325	0.49	4.34	0.939	0.97

TABLE I-22B
SVOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		323	323	325	326	327	327	328	328	329	329	330	331	331	332	332	333	333	334
Sample Number:		GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	D-06192010-01	GC-SW329-0.5-WW	GC-SW330-0.5-WW	GC-SW331-0.5-DW	GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-WW
Weather:		DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	WET
Sample Date:		6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2,4-dinitrophenol	ug/l																		
2-methylnaphthalene	ug/l																		
4-methylphenol (p-cresol)	ug/l																		
Acenaphthene	ug/l	0.42		0.34															
Acenaphthylene	ug/l																		
Anthracene	ug/l			5.2 J															
Benzo(a)anthracene	ug/l			**0.83 (T)**													**0.94 (T)**		
Benzo(a)pyrene	ug/l								**1.4 J (T)**								**0.46 (T)**		
Benzo(b)fluoranthene	ug/l			**0.76 (T)**	**0.15 (T)**			**0.16 (T)**	**1.3 J (T)**			**0.18 (T)**					**0.55 (T)**		
Benzo(g,h,i)perylene	ug/l			0.099 J	0.57 J		0.24		0.96 J		0.34	0.68			0.051 J	0.14		0.13	0.51
Benzo(k)fluoranthene	ug/l			**0.29 (T)**					**1.4 J (T)**								**0.36 (T)**		
Benzyl butyl phthalate	ug/l																		
Bis(2-ethylhexyl) phthalate	ug/l	**5.5 (T)**		0.71 J		1.1 J													
Caprolactam	ug/l		1.3 J								0.64 J								
*Carbazole	ug/l			2.1 J															
Chrysene	ug/l			**1.1 J (T)**													**0.79 J (T)**		
Dibenz(a,h)anthracene	ug/l				**0.19 (T)**			**0.12 (T)**											
Diethyl phthalate	ug/l																		
Dimethyl phthalate	ug/l			2 J						2.2 J		**5.4 (S)**							
Di-n-butyl phthalate	ug/l		0.56 J		0.28 J								0.47 J						
Di-n-octylphthalate	ug/l																		
Fluoranthene	ug/l	0.19		2.3 J	0.12												0.61		
Fluorene	ug/l	0.12		0.19															
Indeno(1,2,3-c,d)pyrene	ug/l			**0.12 (T)**	**0.22 J (T)**		**0.19 (T)**	**0.14 (T)**	**0.94 J (T)**		**0.21 (T)**	**0.28 (T)**				**0.13 (T)**	**0.19 (T)**	**0.15 (T)**	**0.2 (T)**
Isophorone	ug/l													0.8 J					
Naphthalene	ug/l				0.13									0.13					
Pentachlorophenol	ug/l																		
Phenanthrene	ug/l			0.58															
Phenol	ug/l																		
Pyrene	ug/l			1.5 J	0.13												0.62		
*Total PAHs	ug/l	0.73		13.309	1.51		0.43	0.42	6		0.55	1.14		0.13	0.051	0.27	4.52	0.28	0.71

TABLE I-22B
SVOC Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**335**	**335**	**336**	**336**
Sample Number:		**GC-SW335-0.5-DW**	**GC-SW335-0.5-WW**	**GC-SW336-0.5-DW**	**GC-SW336-0.5-WW**
Weather:		**DRY**	**WET**	**DRY**	**WET**
Sample Date:		**6/19/2010**	**7/13/2010**	**6/19/2010**	**7/13/2010**
Sample Type:		**N**	**N**	**N**	**N**
Parameter	**Units**	**Semi-Volatile Organic Compounds**			
2,4-dinitrophenol	ug/l			9 J	
2-methylnaphthalene	ug/l				
4-methylphenol (p-cresol)	ug/l			9	
Acenaphthene	ug/l				
Acenaphthylene	ug/l			0.55	
Anthracene	ug/l				
Benzo(a)anthracene	ug/l				
Benzo(a)pyrene	ug/l		**0.17 (T)**		**0.18 (T)**
Benzo(b)fluoranthene	ug/l		**0.12 (T)**	**0.15 (T)**	
Benzo(g,h,i)perylene	ug/l		0.81		0.25
Benzo(k)fluoranthene	ug/l				
Benzyl butyl phthalate	ug/l				
Bis(2-ethylhexyl) phthalate	ug/l				
Caprolactam	ug/l		0.57 J		0.59 J
*Carbazole	ug/l				
Chrysene	ug/l				
Dibenz(a,h)anthracene	ug/l				
Diethyl phthalate	ug/l			2.2 J	
Dimethyl phthalate	ug/l				
Di-n-butyl phthalate	ug/l				0.22 J
Di-n-octylphthalate	ug/l				
Fluoranthene	ug/l		0.17		
Fluorene	ug/l	0.11			
Indeno(1,2,3-c,d)pyrene	ug/l		**0.41 J (T)**	**0.76 J (T)**	**0.2 (T)**
Isophorone	ug/l				
Naphthalene	ug/l				
Pentachlorophenol	ug/l				
Phenanthrene	ug/l				
Phenol	ug/l				
Pyrene	ug/l				
*Total PAHs	ug/l	0.11	1.68	1.46	0.63

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TABLE I-23A
Pesticide Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
	Sample Number:	GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
	Weather:	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	
	Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE I-23A
Pesticide Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
Sample Number:		GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	GC-SW312-0.5-WW	D-06192010-02	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l	---	---	---	---	ND	---	ND	---	---	ND	---	ND	---	---	---	---	---	---

TABLE I-23A
Pesticide Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
Sample Number:		GC-SW316-0.5-WW	D-06192010-03	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	GC-SW318-0.5-WW	D-06192010-04	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
Weather:		WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	FD	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l	---	---	---	---	---	ND	---	ND	---	---	---	ND	---	---	---	---	---	---

TABLE I-23A
Pesticide Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
Sample Number:		GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	GC-SW329-0.5-WW	D-06192010-01	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
Weather:		DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 UR	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 U
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 U	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l	---	ND	ND	---	ND	---	---	ND	---	ND	---	---	---	---	---	---	---	---

TABLE I-23A
Pesticide Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**										
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 UR
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 U
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l	---	---	ND	---	ND	---	ND	---	ND	---	ND

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TABLE I-24A
PCB Aroclor Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
	Sample Number:	GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
	Weather:	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
	Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-24A
PCB Aroclor Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
	Sample Number:	GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	GC-SW312-0.5-WW	D-06192010-02	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
	Weather:	WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
	Sample Date:	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-24A
PCB Aroclor Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
Sample Number:		GC-SW316-0.5-WW	D-06192010-03	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	GC-SW318-0.5-WW	D-06192010-04	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
Weather:		WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	FD	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-24A
PCB Aroclor Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
	Sample Number:	GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	GC-SW329-0.5-WW	D-06192010-01	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
	Weather:	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-24A
PCB Aroclor Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	331	332	332	333	333	334	334	335	335	336	336
	Sample Number:	GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
	Weather:	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
	Sample Date:	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**										
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
	Sample Number:	GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
	Weather:	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
	Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																		
Aluminum	ug/l	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U
Aluminum, dissolved	ug/l	2,000 U	15,000 U	2,000 U	15,000 U	2,000 U	15,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	2,000 U
Antimony	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Antimony, dissolved	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Arsenic	ug/l	**16.7**	**22.3**	**16.4 J**	**26.2**	**9.1 J**	**23.7**	**25.1**	**12**	**17.3**	**12.6**	**15.4**	**9.8 J**	**13.8**	**14.4**	**12**	**16.4**	**11.2**	6.4 UR
Arsenic, dissolved	ug/l	**18**	**14.7**	**19.5 J**	**14.7**	**15.1 J**	**18.6**	**19.9 J**	**16.1**	**15.7**	**17.2**	**12.1**	**18.3 J**	**12.6 J**	**20.6 J**	**10.9 J**	**20.2 J**	**11.2 J**	16.4 UR
Barium	ug/l	100 U	**18.4 J**	**19.2 J**	**18.8 J**	10 U	**18.5 J**	**18.4 J**	100 U	**22.2 J**	100 U	**22.9 J**	**19 J**	**24.9 J**	100 U	**42.8 J**	**18.7 J**	**35.3 J**	100 U
Barium, dissolved	ug/l	**18.2 J**	100 U	**23 J**	**19.6 J**	**18 J**	100 U	**18.4 J**	**32.5 J**	**19.6 J**	**18.8 J**	**18.4 J**	**26.3 J**	**21.7 J**	**19.3 J**	**22.2 J**	**20.7 J**	**21.8 J**	**25.6 J**
Beryllium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Beryllium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Calcium	ug/l	**293,000 J**	322,000 R	**285,000 J**	341,000 R	**287,000 J**	324,000 R	**291,000**	**296,000 J**	**195,000**	**295,000 J**	**153,000**	**296,000 J**	**151,000**	**294,000 J**	**128,000**	**300,000 J**	**149,000**	**292,000 J**
Calcium, dissolved	ug/l	**291,000 J**	1,590,000 R	**286,000 J**	1,500,000 R	**280,000 J**	1,510,000 R	**304,000**	**280,000 J**	**170,000**	**288,000 J**	**150,000**	**298,000 J**	**153,000**	**284,000 J**	**131,000**	**278,000 J**	**148,000**	**298,000 J**
Chromium	ug/l	**6.2 J**	**5.1 J**	**4.5 J**	**4.5 J**	2 U	**5.2 J**	**5.3 J**	**13.4 J**	**4.1 J**	20 U	**4.1 J**	**4.7 J**	**4.5 J**	20 U	**11.4 J**	20 U	**4.1 J**	20 UJ
Chromium, dissolved	ug/l	**4.5 J**	20 U	**8.3 J**	**3.8 J**	**4.2 J**	**4.6 J**	20 UJ	**4.8 J**	20 U	**3.7 J**	20 U	**6.8 J**	20 UJ	**4.7 J**	20 UJ	**5.3 J**	20 UJ	**6.7 J**
Cobalt	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**3.9 J**	10 U	10 U	10 U
Cobalt, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**2.8 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	ug/l	**151 J**	375 U	**153 J**	375 U	**208**	375 U	375 U	**214**	375 U	**186 J**	375 U	**184 J**	375 U	**123 J**	375 U	**151 J**	375 U	**231**
Copper, dissolved	ug/l	**184 J**	1,880 U	**181 J**	1,880 U	**282 J**	1,880 U	375 U	**277 J**	375 U	**241 J**	375 U	**231 J**	375 U	**208 J**	375 U	**205 J**	375 U	**260 J**
Iron	ug/l	1,000 U	1,500 U	1,000 U	1,500 U	1,000 U	1,500 U	1,500 U	1,000 U	1,500 U	1,000 U	1,500 U	1,000 U	1,500 U	1,000 U	1,500 U	1,000 U	1,500 U	1,000 U
Iron, dissolved	ug/l	1,000 U	7,500 UJ	1,000 U	7,500 UJ	1,000 U	7,500 UJ	1,500 UJ	1,000 U	1,500 UJ	1,000 U	1,500 UJ	1,000 U	1,500 UJ	1,000 U	1,500 UJ	1,000 U	1,500 UJ	1,000 U
Lead	ug/l	10 U	**3.3 J**	10 U	**3.9 J**	10 U	**2.9 J**	10 U	**7.3 J**	**11.8**	10 U	**15**	10 U	**13.3**	**3.8 J**	**15.6**	10 U	**13**	10 U
Lead, dissolved	ug/l	10 U	10 U	10 U	**1.9 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Magnesium	ug/l	**928,000**	**969,000**	**907,000**	1,030,000 R	**909,000**	**972,000**	**886,000**	**932,000**	**568,000**	**933,000**	**440,000**	**940,000**	**442,000**	**933,000**	**369,000**	**950,000**	**438,000**	**927,000**
Magnesium, dissolved	ug/l	**918,000**	**4,880,000**	**898,000**	4,620,000 R	**884,000**	**4,640,000**	**906,000**	**884,000**	**510,000**	**912,000**	**441,000**	**942,000**	**444,000**	**898,000**	**372,000**	**874,000**	**424,000**	**942,000**
Manganese	ug/l	**52.8 J**	**57.7**	**54.8 J**	**60.2**	**50.8 J**	**59.7**	**62.8**	**71.4 J**	**52.2**	**58.8 J**	**54.6**	**60.3 J**	**50.9**	**55.9 J**	**65.6**	**60 J**	**52.4**	**57.2 J**
Manganese, dissolved	ug/l	**41.5 J**	**37.4**	**40.9 J**	**38.2**	**40 J**	**43.8**	**52.8**	**53.7 J**	**46.2**	**45.5 J**	**36.1**	**51.2 J**	**46.4**	**49.7 J**	**43.3**	**48.9 J**	**42.2**	**50.8 J**
Mercury	ug/l	0.2 U	**0.08 J**	0.2 U	**0.089 J**	0.2 U	**0.088 J**	**0.055 J**	0.2 U	**0.085 J**	0.2 U	**0.086 J**	0.2 U	**0.072 J**	0.2 U	**0.078 J**	0.2 U	**0.075 J**	0.2 U
Mercury, dissolved	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**3.1 J**	**2.1 J**	**2.4 J**	**2.1 J**	**2.9 J**	**2.3 J**	**3.5 J**	**6.5 J**	**2.2 J**	10 UJ	**3.4 J**	**2.2 J**	**3.3 J**	10 UJ	**9.5 J**	10 UJ	**2.9 J**	**3.1 J**
Nickel, dissolved	ug/l	10 UJ	**3.3 J**	10 UJ	**4 J**	10 UJ	**3.6 J**	**2.4 J**	**10 J**	**3.1 J**	10 UJ	**2.2 J**	10 UJ	**3.4 J**	10 UJ	**2.7 J**	**2.9 J**	**2.4 J**	10 UJ
Potassium	ug/l	**308,000 J**	313,000 R	**299,000 J**	333,000 R	**299,000 J**	313,000 R	**287,000**	**309,000 J**	**183,000**	**307,000 J**	**141,000**	**310,000 J**	**141,000**	**307,000 J**	**118,000**	**314,000 J**	**139,000**	**305,000 J**
Potassium, dissolved	ug/l	**305,000 J**	1,630,000 R	**299,000 J**	1,530,000 R	**292,000 J**	1,530,000 R	**292,000**	**290,000 J**	**167,000**	**301,000 J**	**144,000**	**311,000 J**	**142,000**	**297,000 J**	**119,000**	**292,000 J**	**135,000**	**313,000 J**
Selenium	ug/l	**39.3 J**	**64.6 J**	**42.5 J**	**58.4 J**	**29.3 J**	**50.7 J**	**42.1 J**	**36.2 J**	**36.7 J**	**33.9 J**	**33 J**	**31.7 J**	**26 J**	**40.3 J**	**21.2 J**	**41.6 J**	**20.6 J**	14.5 UR
Selenium, dissolved	ug/l	34.1 UR	**37 J**	33.7 UR	**40.1 J**	34.4 UR	**41.9 J**	24.1 R	35.5 UR	**33.9 J**	32.3 UR	**24.1 J**	50 UR	21.1 R	30.5 UR	20 R	33.6 UR	19.6 R	31.6 UR

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
	Sample Number:	GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
	Weather:	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
	Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Silver	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U
Silver, dissolved	ug/l	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Sodium	ug/l	**6,270,000 J**	**7,090,000 J**	**6,410,000 J**	7,320,000 R	**6,530,000 J**	7,180,000 R	**6,760,000**	**6,360,000 J**	**4,430,000**	**6,290,000 J**	**3,400,000**	**6,300,000 J**	**3,570,000**	**6,300,000 J**	**2,970,000**	**6,620,000 J**	**3,450,000**	**6,340,000 J**
Sodium, dissolved	ug/l	**6,190,000 J**	**9,180,000 J**	**6,390,000 J**	36,600,000 R	**5,710,000 J**	35,800,000 R	**6,450,000**	**6,360,000 J**	**4,310,000**	**6,160,000 J**	**3,690,000**	**6,280,000 J**	**3,500,000**	**6,430,000 J**	**2,990,000**	**6,270,000 J**	**3,350,000**	**6,060,000 J**
Thallium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Thallium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Vanadium, dissolved	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	20 U	20 UJ	20 U	20 UJ	**19.1 J**	**21.3 J**	20 UR	12.6 UR	**27.3 J**	20 U	**49.6 J**	20 U	**34.8**	20 U	**45.9**	20 U	**38**	20 U
Zinc, dissolved	ug/l	**11 J**	**17 J**	**13.4 J**	**32.4**	20 U	20 U	53.3 R	31.1 UR	**11 J**	**10 J**	**19.2 J**	**11.2 J**	**21.9**	20 U	**22.6**	**11.2 J**	**21.9**	**9.9 J**
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total suspended solids	mg/l	**57**	**85**	**80**	**93**	**77**	**81**	**---**	**70**	**47**	**67**	**47**	**74**	**45**	**52**	**46 J**	**63**	**36**	**83**

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
Sample Number:		GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	D-06192010-02	GC-SW312-0.5-WW	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**										**Metals**								
Aluminum	ug/l	3,000 U	2,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	2,000 U	2,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U
Aluminum, dissolved	ug/l	3,000 U	2,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	2,000 U	2,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U
Antimony	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Antimony, dissolved	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Arsenic	ug/l	**14.1**	7.8 UR	**13.1**	**23.4**	**15.8**	**21.3**	**13.3**	**17.9**	**23**	**12.4**	**13.8**	**16**	**10.1**	**22.4**	**10.9**	**20.6**	**11.1**	**21.2**
Arsenic, dissolved	ug/l	**12.7 J**	17.2 UR	**11.3 J**	**20.8 J**	**14 J**	**19.7 J**	**12.5 J**	**13 J**	**18.8**	**12.8**	**15.4**	**20 J**	**10.3**	**19.2 J**	**12.4**	**19 J**	**9.2 J**	**19.3 J**
Barium	ug/l	**24.8 J**	100 U	**24.2 J**	100 U	**28.4 J**	**22.3 J**	**29 J**	**27.5 J**	100 U	**25.6 J**	**19.9 J**	**23 J**	**25.5 J**	**19.1 J**	**28.6 J**	**18.4 J**	**25.6 J**	**22.1 J**
Barium, dissolved	ug/l	**22.2 J**	**20.2 J**	**25 J**	100 U	**22.4 J**	**20.5 J**	**23.2 J**	**21.6 J**	100 U	**20.1 J**	**18.9 J**	**22.2 J**	**21.1 J**	**19.2 J**	**25.2 J**	100 U	**21.3 J**	**18.6 J**
Beryllium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Beryllium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Calcium	ug/l	**137,000**	**301,000 J**	**148,000**	**274,000**	**173,000**	**269,000**	**168,000**	**165,000**	**268,000**	**137,000**	**315,000 J**	**296,000 J**	**127,000**	**271,000**	**133,000**	**269,000**	**102,000**	**254,000**
Calcium, dissolved	ug/l	**157,000**	**283,000 J**	**154,000**	**262,000**	**164,000**	**260,000**	**173,000**	**168,000**	**257,000**	**155,000**	**278,000 J**	**285,000 J**	**134,000**	**259,000**	**141,000**	**260,000**	**105,000**	**260,000**
Chromium	ug/l	**4.9 J**	20 U	**29.3 J**	**10 J**	**6.2 J**	**19.9 J**	**6.1 J**	**6.1 J**	**4.4 J**	**5.2 J**	20 U	**8.9 J**	**9.2 J**	**7.8 J**	**11.1 J**	**8.4 J**	**6.1 J**	**4.8 J**
Chromium, dissolved	ug/l	20 UJ	**4.3 J**	20 UJ	**4.2 J**	20 UJ	**10.5 J**	20 UJ	20 UJ	**3.6 J**	20 UJ	**4.5 J**	**5.8 J**	20 UJ	20 U	**5.8 J**	**3.8 J**	20 UJ	**3.8 J**
Cobalt	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	ug/l	375 U	**232**	375 U	25 U	375 U	25 U	375 U	375 U	25 U	375 U	**170 J**	**143 J**	375 U	25 U	375 U	25 U	375 U	25 U
Copper, dissolved	ug/l	375 U	**252 J**	375 U	25 U	375 U	25 U	375 U	375 U	25 U	375 U	**205 J**	**194 J**	375 U	25 U	375 U	25 U	375 U	25 U
Iron	ug/l	1,500 U	1,000 U	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 U	1,500 UR	1,500 U	1,000 U	1,000 U	1,500 U	1,500 UR	**651 J**	1,500 UR	1,500 U	1,500 UR
Iron, dissolved	ug/l	1,500 UJ	1,000 U	1,500 UJ	1,500 UR	1,500 UJ	1,500 UR	1,500 UJ	**1,020 J**	1,500 UR	1,500 U	1,000 U	1,000 U	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 UR
Lead	ug/l	**12.4**	10 U	**13.4**	**2 J**	**12.1**	10 U	**14.3**	**12.7**	10 U	**13.4**	10 U	10 U	**13.8**	10 U	**13.4**	10 U	**17.1**	**1.9 J**
Lead, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	**1.9 J**	10 U	10 U	**2.4 J**	10 U	10 U	10 U	10 U	**17.7**	10 U	10 U	10 U
Magnesium	ug/l	**398,000**	**951,000**	**434,000**	**863,000 J**	**512,000**	**839,000 J**	**486,000**	**483,000**	**836,000 J**	**400,000**	**998,000**	**933,000**	**368,000**	**847,000 J**	**388,000**	**842,000 J**	**292,000**	**787,000 J**
Magnesium, dissolved	ug/l	**453,000**	**896,000**	**445,000**	**817,000 J**	**473,000**	**807,000 J**	**495,000**	**489,000**	**803,000 J**	**455,000**	**876,000**	**901,000**	**390,000**	**807,000 J**	**413,000**	**809,000 J**	**301,000**	**811,000 J**
Manganese	ug/l	**49**	**57.6 J**	**62.6**	**56**	**54.6**	**72.9**	**57.5**	**55.3**	**53.7**	**54**	**56.1 J**	**58.6 J**	**48.4**	**68.6**	**54.4**	**55**	**49**	**56.7**
Manganese, dissolved	ug/l	**43.7**	**49.8 J**	**45.6**	**51.5 J**	**46.7**	**68.2 J**	**47.5**	**44.2**	**50.4 J**	**42.2**	**48.9 J**	**51 J**	**43.3**	**64.4 J**	**45.3**	**50.9 J**	**38**	**56 J**
Mercury	ug/l	**0.081 J**	0.2 U	**0.081 J**	**0.047 J**	**0.077 J**	**0.051 J**	**0.083 J**	**0.082 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.052 J**	0.2 U	**0.052 J**	0.2 U	**0.055 J**
Mercury, dissolved	ug/l	0.2 U	0.2 U	0.2 U	**0.054 J**	0.2 U	**0.057 J**	0.2 U	0.2 U	**0.063 J**	0.2 U	0.2 U	0.2 U	0.2 U	**0.054 J**	0.2 U	0.2 U	0.2 U	**0.053 J**
Nickel	ug/l	**3.3 J**	10 UJ	**29.8 J**	**5.2 J**	**5.3 J**	**9.4 J**	**5.6 J**	**4.1 J**	**2 J**	**3.7 J**	10 UJ	**4.1 J**	**8.6 J**	**4.9 J**	**8.8 J**	**4.7 J**	**5.7 J**	**3 J**
Nickel, dissolved	ug/l	**3.1 J**	10 UJ	**3.8 J**	**4.7 J**	**3 J**	**13.4 J**	**3.2 J**	10 UJ	**2.2 J**	**4.2 J**	10 UJ	10 UJ	**7.3 J**	**6 J**	**6.1 J**	**2.8 J**	**3.9 J**	10 UJ
Potassium	ug/l	**127,000**	**316,000 J**	**138,000**	**294,000**	**163,000**	**286,000**	**156,000**	**156,000**	**288,000**	**130,000**	**328,000 J**	**308,000 J**	**119,000**	**291,000**	**125,000**	**289,000**	**93,800**	**268,000**
Potassium, dissolved	ug/l	**146,000**	**297,000 J**	**143,000**	**280,000**	**149,000**	**274,000**	**158,000**	**154,000**	**274,000**	**143,000**	**290,000 J**	**297,000 J**	**126,000**	**274,000**	**132,000**	**275,000**	**96,700**	**277,000**
Selenium	ug/l	**24.4 J**	**18.7 J**	**21.7 J**	**41.1 J**	**27.1 J**	**36 J**	**22.9 J**	**24.6 J**	**42.9 J**	**25.9 J**	**34.6 J**	**40 J**	**17.3 J**	**39.1 J**	**22.3 J**	**42.3 J**	**15.9 J**	**42.4 J**
Selenium, dissolved	ug/l	21 R	34.2 UR	17.4 R	**44.2 J**	22.5 R	**46.3 J**	25.2 R	22.7 R	**50.5**	**20.6 J**	35.2 UR	33.9 UR	**18.4 J**	**43.2 J**	**20.2 J**	**46.6 J**	**15 J**	**42.5 J**

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
Sample Number:		GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	D-06192010-02	GC-SW312-0.5-WW	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Silver	ug/l	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Silver, dissolved	ug/l	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Sodium	ug/l	**3,180,000**	**6,240,000 J**	**3,470,000**	**5,890,000 J**	**3,980,000**	**5,550,000 J**	**3,800,000**	**3,740,000**	**5,720,000 J**	**3,400,000**	**6,540,000 J**	**6,270,000 J**	**3,120,000**	**5,690,000 J**	**3,270,000**	**6,170,000 J**	**2,510,000**	**5,370,000 J**
Sodium, dissolved	ug/l	**3,660,000**	**6,330,000 J**	**3,570,000**	**5,490,000 J**	**3,690,000**	**5,390,000 J**	**3,840,000**	**3,670,000**	**5,330,000 J**	**3,760,000**	**6,690,000 J**	**6,480,000 J**	**3,260,000**	**5,370,000 J**	**3,440,000**	**5,750,000 J**	**2,540,000**	**5,630,000 J**
Thallium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Thallium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Vanadium, dissolved	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	**42.6**	20 U	**48.2**	**11 J**	**36.2**	**14.8 J**	**41.7**	**33**	11.7 R	**35.4**	20 U	20 UR	**41.2**	12.3 R	**40.7**	**14.7 J**	**42.1**	20 R
Zinc, dissolved	ug/l	**21.9**	20 U	**27.1**	20 UJ	**21.1**	20 UJ	**25.1**	**17.8 J**	30.6 UR	**19.4 J**	**13.3 J**	27.2 UR	**19.2 J**	40.4 UR	**40.2**	20 UJ	**21.7**	20 UJ
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total suspended solids	mg/l	**48**	**84**	**33**	**106**	**36**	**91**	**51**	**---**	**93**	**39**	**95**	**---**	**41**	**99**	**60**	**103**	**44**	**92**

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
	Sample Number:	D-06192010-03	GC-SW316-0.5-WW	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	D-06192010-04	GC-SW318-0.5-WW	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
	Weather:	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
	Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
	Sample Type:	FD	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	ug/l	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U
Aluminum, dissolved	ug/l	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U
Antimony	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Antimony, dissolved	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Arsenic	ug/l	**22**	**8.8 J**	**20.4**	**10.2**	**21.6**	**6.9 J**	**20.8**	**20.9**	**16.6**	**19.8**	**12.6**	**11.2**	**20.1**	**15.9**	**19.9**	**17.7**	**21.8**	**14.7**
Arsenic, dissolved	ug/l	**18.2**	**9.8 J**	**19.4 J**	**9.8 J**	**18.9**	**9.1 J**	**19.8 J**	**20.3 J**	**13.9**	**21.2 J**	**10.6**	**10.4 J**	**21 J**	**14.6**	**18.8**	**11.8**	**21.2**	**21 J**
Barium	ug/l	**21.9 J**	**27.4 J**	100 U	**26.7 J**	100 U	**30.8 J**	100 U	**19.2 J**	**25.9 J**	100 U	**27.4 J**	**27 J**	100 U	**28.6 J**	100 U	**27 J**	100 U	**22 J**
Barium, dissolved	ug/l	**20.7 J**	**22.8 J**	100 U	**30.1 J**	100 U	**20.7 J**	100 U	**21.3 J**	**21.8 J**	100 U	**19 J**	**19.1 J**	**19.6 J**	**24.8 J**	**18.2 J**	**21.5 J**	100 U	**31.1 J**
Beryllium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Beryllium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Calcium	ug/l	**269,000**	**111,000**	**274,000**	**122,000**	**259,000**	**97,200**	**261,000**	**267,000**	**186,000**	**268,000**	**128,000**	**138,000**	**264,000**	**141,000**	**273,000**	**172,000**	**279,000**	**222,000**
Calcium, dissolved	ug/l	**261,000**	**110,000**	**261,000**	**119,000**	**272,000**	**100,000**	**270,000**	**261,000**	**177,000**	**265,000**	**131,000**	**140,000**	**270,000**	**126,000**	**264,000**	**169,000**	**281,000**	**226,000**
Chromium	ug/l	**5.3 J**	**5.6 J**	**17.3 J**	**5.4 J**	**33.9**	**6.2 J**	**4.3 J**	**5.3 J**	**3.9 J**	**7.1 J**	**6.6 J**	**6.1 J**	**4 J**	**4.7 J**	**5.1 J**	**4.6 J**	**8 J**	**6.9 J**
Chromium, dissolved	ug/l	20 U	**4.2 J**	**3.7 J**	**5 J**	**5.4 J**	20 UJ	**5.3 J**	**3.6 J**	**3.9 J**	**3.7 J**	20 U	20 UJ	20 U	20 U	20 U	20 U	**3.9 J**	20 UJ
Cobalt	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt, dissolved	ug/l	10 U	10 U	10 U	**2.5 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	ug/l	25 U	375 U	25 U	375 U	25 U	375 U	25 U	25 U	375 U	25 U	375 U	375 U	25 U	375 U	25 U	375 U	375 U	375 U
Copper, dissolved	ug/l	25 U	375 U	25 U	375 U	25 U	375 U	25 U	25 U	375 U	25 U	375 U	375 U	25 U	375 U	25 U	375 U	375 U	375 U
Iron	ug/l	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 UR	**1,040 J**	1,500 UR	1,500 UR	1,500 U	1,500 UR	**655 J**	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 U
Iron, dissolved	ug/l	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 UR	1,500 UJ	1,500 UR	1,500 UJ	1,500 UJ	1,500 UR	1,500 UJ	1,500 UR	1,500 UJ	1,500 UR	1,500 UJ
Lead	ug/l	10 U	**16.4**	10 U	**17.6**	10 U	**26.8**	10 U	**3.2 J**	**15.5**	**3.3 J**	**22.8**	**20.3**	10 U	**18.7**	10 U	**12.5**	10 U	**9.5 J**
Lead, dissolved	ug/l	10 U	**2.1 J**	10 U	**2.1 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Magnesium	ug/l	**835,000 J**	**318,000**	**856,000 J**	**351,000**	**809,000 J**	**276,000**	**815,000 J**	**842,000 J**	**542,000**	**838,000 J**	**368,000**	**401,000**	**829,000 J**	**405,000**	**859,000 J**	**503,000**	**866,000**	**661,000**
Magnesium, dissolved	ug/l	**809,000 J**	**316,000**	**818,000 J**	**347,000**	**855,000 J**	**286,000**	**840,000 J**	**818,000 J**	**524,000**	**825,000 J**	**385,000**	**403,000**	**843,000 J**	**367,000**	**825,000 J**	**502,000**	**866,000**	**667,000**
Manganese	ug/l	**60.4**	**48.8**	**53.3**	**51.1**	**60.7**	**53.6**	**51.2**	**50.8**	**57.4**	**56**	**54.8**	**49.8**	**49.9**	**55.6**	**51.7**	**63.6**	**49**	**52**
Manganese, dissolved	ug/l	**55 J**	**39.5**	**49.3 J**	**41.5**	**53.6 J**	**35.6**	**56 J**	**51.3 J**	**43.9**	**51.1 J**	**34.7**	**37**	**51.6 J**	**43.7**	**49 J**	**41.3**	**46.1**	**63**
Mercury	ug/l	**0.05 J**	0.2 U	**0.05 J**	0.2 U	**0.051 J**	0.2 U	**0.053 J**	**0.051 J**	**0.076 J**	**0.049 J**	**0.079 J**	**0.073 J**	**0.054 J**	**0.077 J**	**0.052 J**	**0.081 J**	0.2 U	**0.083 J**
Mercury, dissolved	ug/l	**0.058 J**	0.2 U	**0.051 J**	0.2 U	**0.054 J**	0.2 U	**0.049 J**	**0.062 J**	0.2 U	0.2 U	0.2 U	0.2 U	**0.059 J**	0.2 U	**0.057 J**	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**3 J**	4 R	**11.4 J**	**4.8 J**	**11.8 J**	**6.3 J**	2.1 R	**3.1 J**	**4.7 J**	**3.7 J**	**10.6 J**	**4.2 J**	10 UJ	**3.5 J**	**2.6 J**	**2.9 J**	**3 J**	**4.5 J**
Nickel, dissolved	ug/l	**2.8 J**	10.9 R	**4.3 J**	**8 J**	**3.5 J**	**4.2 J**	5.9 UR	**3.9 J**	**3.6 J**	**2.9 J**	**3.3 J**	10 UJ	**2.4 J**	**3 J**	**4.4 J**	**2.7 J**	**2.2 J**	**3.6 J**
Potassium	ug/l	**285,000**	**102,000**	**293,000**	**113,000**	**277,000**	**88,700**	**278,000**	**288,000**	**175,000**	**288,000**	**117,000**	**129,000**	**283,000**	**128,000**	**293,000**	**160,000**	**312,000**	**213,000**
Potassium, dissolved	ug/l	**278,000**	**101,000**	**276,000**	**112,000**	**291,000**	**92,300**	**287,000**	**277,000**	**172,000**	**281,000**	**125,000**	**128,000**	**287,000**	**120,000**	**281,000**	**165,000**	**316,000**	**215,000**
Selenium	ug/l	**39.3 J**	**13.9 J**	**42.2 J**	**20.3 J**	**37.9 J**	**14.7 J**	**39 J**	**47.4 J**	**35.5 J**	**37.6 J**	**27.4 J**	**18 J**	**38.5 J**	**29.2 J**	**34.3 J**	**35.7 J**	**50.9**	**27.4 J**
Selenium, dissolved	ug/l	**43.9 J**	**15.5 J**	**48.8 J**	**16 J**	**38.6 J**	**14.7 J**	**47.9 J**	**47.9 J**	**25 J**	**41.5 J**	**17.7 J**	15.9 R	**50.3**	**22.9 J**	**45.9 J**	**29.3 J**	**46.1 J**	35.8 R
Silver	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 UJ

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
	Sample Number:	D-06192010-03	GC-SW316-0.5-WW	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	D-06192010-04	GC-SW318-0.5-WW	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
	Weather:	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
	Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
	Sample Type:	FD	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	10 U	10 UJ
Sodium	ug/l	**5,580,000 J**	**2,730,000**	**6,300,000 J**	**2,970,000**	**5,590,000 J**	**2,340,000**	**5,960,000 J**	**5,830,000 J**	**4,220,000**	**6,000,000 J**	**2,900,000**	**3,190,000**	**5,720,000 J**	**3,150,000**	**6,110,000 J**	**3,890,000**	**6,370,000**	**5,130,000**
Sodium, dissolved	ug/l	**5,790,000 J**	**2,630,000**	**5,860,000 J**	**2,940,000**	**5,910,000 J**	**2,480,000**	**5,580,000 J**	**5,860,000 J**	**4,280,000**	**5,660,000 J**	**3,240,000**	**3,150,000**	**5,900,000 J**	**3,090,000**	**5,600,000 J**	**4,190,000**	**6,790,000 J**	**5,150,000**
Thallium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**2.1 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Thallium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Vanadium, dissolved	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	53.6 R	**45.3**	**12.6 J**	**44.7**	20 UJ	**58.9**	**13.2 J**	**13.6 J**	**75.7 J**	**17 J**	**70.6 J**	**47.8**	**13 J**	**57.2 J**	**25.7 J**	**49.6 J**	**15.3 J**	**33.3**
Zinc, dissolved	ug/l	20 UJ	**27.5**	**20.8 J**	**25**	20 UJ	**20.2**	**23.5 J**	33.6 UR	**31.6**	20 UJ	**21.7**	**14.7 J**	**20.3 J**	**25.9**	**37.9 J**	**24**	**11.3 J**	**20.1**
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	---	10 U
Total suspended solids	mg/l	---	**44**	**77**	**38**	**92**	**42 J**	**69**	---	**49**	**84**	**67**	---	**104**	**56**	**74**	**51**	**72**	**61**

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
	Sample Number:	GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	D-06192010-01	GC-SW329-0.5-WW	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
	Weather:	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	ug/l	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	2,000 U
Aluminum, dissolved	ug/l	**1,480 J**	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	3,000 U	2,000 U
Antimony	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Antimony, dissolved	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Arsenic	ug/l	**21.6**	**17.2**	**22.1**	**18.8**	**14.1**	**22**	**21.7**	**19.5**	**20.2**	**19.4**	**24.7**	**18.9**	**22.7**	**19.5**	**19.8**	**23.4**	**19**	**18.5**
Arsenic, dissolved	ug/l	**19.3 J**	**19 J**	**17.8 J**	**21.6 J**	**16.1 J**	**18.2**	**23.3**	**17.2 J**	**22.9**	**17.3 J**	**22.6**	**23.5 J**	**19.6**	**22.3 J**	**19.7 J**	**22.5**	**21.5**	**21.3 J**
Barium	ug/l	100 U	**18.8 J**	100 U	100 U	**22.2 J**	100 U	100 U	100 U	100 U	100 U	100 U	**23.6 J**	100 U	100 U	100 U	100 U	100 U	100 U
Barium, dissolved	ug/l	100 U	**18.5 J**	**20.2 J**	**19.3 J**	**22.9 J**	100 U	100 U	100 U	100 U	**21.9 J**	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Beryllium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Beryllium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Calcium	ug/l	**269,000**	**247,000**	**296,000**	**259,000**	**259,000**	**266,000**	**260,000**	**271,000**	**257,000**	**301,000**	**265,000**	**317,000**	**256,000**	**263,000**	**296,000**	**258,000**	**326,000**	**321,000 J**
Calcium, dissolved	ug/l	**261,000**	**276,000**	**278,000**	**271,000**	**246,000**	**263,000**	**276,000**	**265,000**	**284,000**	**310,000**	**264,000**	**321,000**	**272,000**	**277,000**	**333,000**	**284,000**	**303,000**	**276,000 J**
Chromium	ug/l	**5.6 J**	**4.8 J**	**4.3 J**	**99.7**	**4.9 J**	**5.3 J**	**5 J**	**4.9 J**	**15.1 J**	**5.4 J**	**5 J**	**7 J**	**4.5 J**	**30.6 J**	**5.5 J**	**18.4 J**	**4.5 J**	20 UJ
Chromium, dissolved	ug/l	**5 J**	20 UJ	**3.6 J**	**5.6 J**	20 UJ	20 U	**4 J**	20 UJ	**4 J**	20 UJ	**4.9 J**	**4.1 J**	**4.2 J**	**4.2 J**	**4.2 J**	**4.1 J**	**3.9 J**	**5.7 J**
Cobalt	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	ug/l	25 U	375 U	375 U	25 U	375 U	25 U	375 U	375 U	375 U	375 U	375 U	375 U	375 U	**49**	375 U	375 U	375 U	**134 J**
Copper, dissolved	ug/l	25 U	375 U	375 U	25 U	375 U	25 U	375 U	375 U	375 U	375 U	375 U	375 U	375 U	25 U	375 U	375 U	375 U	**169 J**
Iron	ug/l	1,500 UR	1,500 U	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 U	1,500 UR	1,500 UR	1,500 U	1,500 UR	1,500 U	1,000 U
Iron, dissolved	ug/l	1,500 UR	1,500 UJ	1,500 UJ	1,500 UR	1,500 UJ	1,500 UR	1,500 UR	1,500 UJ	1,500 UR	1,500 UJ	1,500 UR	1,500 UJ	1,500 UR	1,500 UR	1,500 UJ	1,500 UR	1,500 U	1,000 U
Lead	ug/l	10 U	**4.2 J**	10 U	**4.9 J**	**5.3 J**	10 U	10 U	**3.1 J**	10 U	10 U	10 UR	10 U	10 UR	24.9 R	10 U	**4 J**	10 U	**6 J**
Lead, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	29.7 R	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Magnesium	ug/l	**843,000 J**	**748,000**	**901,000**	**816,000 J**	**781,000**	**836,000 J**	**805,000**	**828,000**	**797,000**	**918,000**	**827,000**	**968,000**	**797,000**	**828,000 J**	**905,000**	**799,000**	**997,000**	**1,020,000**
Magnesium, dissolved	ug/l	**816,000 J**	**830,000**	**835,000**	**853,000 J**	**733,000**	**821,000 J**	**854,000**	**792,000**	**877,000**	**936,000**	**812,000**	**970,000**	**835,000**	**866,000 J**	**1,010,000**	**875,000**	**927,000**	**867,000**
Manganese	ug/l	**46.4**	**48.9**	**44.9**	**69.2**	**49.5**	**45**	**36.9**	**44.8**	**45.5**	**45.5**	**39.1**	**44.1**	36.1 R	**60.4**	**42.1**	**60.3**	**44.5**	**41 J**
Manganese, dissolved	ug/l	**45.9 J**	**45.5**	**52.5**	**71.5 J**	**48.6**	**42.4 J**	**34.6**	**39.9**	**38.2**	**38.1**	**41.6**	**30.7**	**33.7**	**37.1 J**	**34**	**32.8**	**30.2**	**29 J**
Mercury	ug/l	**0.06 J**	**0.065 J**	0.2 U	**0.05 J**	**0.087 J**	**0.052 J**	0.2 U	**0.055 J**	0.2 U	**0.053 J**	0.2 U	0.2 U	0.2 U	**0.053 J**	0.2 U	0.2 U	0.2 U	0.2 U
Mercury, dissolved	ug/l	**0.047 J**	0.2 U	0.2 U	**0.091 J**	0.2 U	**0.047 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.053 J**	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**2.6 J**	**3.2 J**	**2.7 J**	**52.3 J**	**3.6 J**	**2.5 J**	10 U	**2.8 J**	**6 J**	**3.4 J**	**2 J**	**4.1 J**	10 UJ	**16.9 J**	**2.5 J**	**18.8**	**2.7 J**	10 UJ
Nickel, dissolved	ug/l	**4.5 J**	**3 J**	**2.2 J**	**3.5 J**	**2.8 J**	10 UJ	10 U	10 UJ	**2.4 J**	**8.5 J**	**3.9 J**	10 UJ	**2 J**	**3.4 J**	**5 J**	**2.1 J**	**2.9 J**	10 UJ
Potassium	ug/l	**289,000**	**244,000**	**290,000**	**279,000**	**255,000**	**285,000**	**281,000**	**271,000**	**286,000**	**299,000**	**297,000**	**316,000**	**285,000**	**282,000**	**295,000**	**289,000**	**316,000**	**337,000 J**
Potassium, dissolved	ug/l	**278,000**	**267,000**	**265,000**	**290,000**	**235,000**	**279,000**	**308,000**	**255,000**	**320,000**	**299,000**	**297,000**	**311,000**	**307,000**	**296,000**	**322,000**	**320,000**	**300,000**	**290,000 J**
Selenium	ug/l	**42.6 J**	**35 J**	**38.5 J**	**43.4 J**	**28.2 J**	**40.6 J**	**46.9 J**	**33.1 J**	**47.8 J**	**36.7 J**	**52.2**	**32.2 J**	**45.9 J**	**38.6 J**	**40 J**	**49.1 J**	**34.8 J**	**45.8 J**
Selenium, dissolved	ug/l	**43.4 J**	27.8 R	29.8 R	**53.5**	31.8 R	**43.6 J**	**37.5 J**	29.6 R	**42.2 J**	31.4 R	**43.5 J**	33.3 R	**43.2 J**	**51.1**	33.3 R	**43.9 J**	**34.5 J**	33.6 UR
Silver	ug/l	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 U	10 UJ	10 U	10 U	10 U

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
Sample Number:		GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	D-06192010-01	GC-SW329-0.5-WW	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
Weather:		DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
Sample Date:		6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**																		
									Metals										
Silver, dissolved	ug/l	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 U	10 UJ	10 UJ	10 U	10 UJ	10 UJ
Sodium	ug/l	**5,860,000 J**	**5,850,000**	**6,600,000**	**5,910,000 J**	**5,930,000**	**5,960,000 J**	**6,200,000**	**6,320,000**	**6,150,000**	**7,030,000**	**6,250,000**	**7,330,000**	**6,020,000**	**5,530,000 J**	**6,800,000**	**6,090,000**	**8,190,000**	**6,600,000 J**
Sodium, dissolved	ug/l	**5,360,000 J**	**6,220,000**	**6,050,000**	**6,240,000 J**	**5,710,000**	**5,430,000 J**	**6,910,000 J**	**5,960,000**	**6,770,000 J**	**6,850,000**	**6,360,000 J**	**7,090,000**	**6,680,000 J**	**6,330,000 J**	**7,140,000**	**6,700,000 J**	**7,240,000**	**6,040,000 J**
Thallium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Thallium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Vanadium, dissolved	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	**14.9 J**	**17.7 J**	**10.9 J**	**20 J**	**20.5**	**15.6 J**	**10.5 J**	**10.5 J**	**10.9 J**	20 U	15.7 R	20 U	20 U	**24.3 J**	20 U	**24.7**	20 U	20 U
Zinc, dissolved	ug/l	20 UJ	**16.3 J**	**18.2 J**	20 UJ	**22.4**	20 UJ	**10.6 J**	**10.2 J**	**11.6 J**	20 U	43.4 R	20 U	**10.3 J**	20 UJ	20 U	**11.6 J**	20 U	**12.5 J**
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	---	10 U	---	10 U	---	10 U	---	10 U	10 U	---	10 U	10 U
Total suspended solids	mg/l	**86**	**86**	---	**64**	**48**	**56**	**45**	**63**	**90**	**97**	**94**	**77**	**90**	---	**83**	**104**	**62**	**106**

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											
Metals												
Aluminum	ug/l	3,000 U	2,000 U	3,000 U	3,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	3,000 U	3,000 U
Aluminum, dissolved	ug/l	3,000 U	2,000 U	3,000 U	3,000 U	3,000 U	2,000 U	3,000 U	2,000 U	3,000 U	3,000 U	3,000 U
Antimony	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Antimony, dissolved	ug/l	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Arsenic	ug/l	**20.6**	**16.3**	**23.2**	**23.3**	**19.4**	**17.9**	**17.7**	**19.6 J**	**22.1**	**25.8**	**20.5**
Arsenic, dissolved	ug/l	**18.3**	**17.7**	**20.2**	**22.2**	**21.1**	**18.1**	**23.3**	**20.3 J**	**21.6**	**21.5**	**22.7**
Barium	ug/l	100 U	100 U	100 U	100 U	100 U	21.2 U	100 U	**30.1 J**	100 U	100 U	100 U
Barium, dissolved	ug/l	100 U	**23.4 J**	100 U	100 U	100 U	**21.3 J**	100 U	100 U	100 U	100 U	100 U
Beryllium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Beryllium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cadmium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Calcium	ug/l	**304,000**	**294,000 J**	**306,000**	**256,000**	**336,000**	**265,000 J**	**318,000**	**290,000 J**	**308,000**	**262,000**	**301,000**
Calcium, dissolved	ug/l	**300,000**	**273,000 J**	**305,000**	**272,000**	**315,000**	**244,000 J**	**315,000**	**286,000 J**	**298,000**	**284,000**	**294,000**
Chromium	ug/l	**7.6 J**	**12.4 J**	**7 J**	**7.8 J**	**4.9 J**	**4.7 J**	**7.5 J**	**12.4 J**	**7 J**	**6.8 J**	**5.1 J**
Chromium, dissolved	ug/l	**4.3 J**	**9.1 J**	**4.5 J**	**3.9 J**	**5.2 J**	**5.5 J**	**5.3 J**	**3.9 J**	**9.2 J**	**3.9 J**	**4.2 J**
Cobalt	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Copper	ug/l	375 U	**146 J**	375 U	375 U	375 U	**125 J**	375 U	**122 J**	375 U	375 U	375 U
Copper, dissolved	ug/l	375 U	**177 J**	375 U	375 U	375 U	**172 J**	375 U	**169 J**	375 U	375 U	375 U
Iron	ug/l	1,500 U	1,000 U	1,500 U	1,500 UR	1,500 U	1,000 U	1,500 U	1,000 U	1,500 U	1,500 UR	1,500 U
Iron, dissolved	ug/l	1,500 U	1,000 U	1,500 U	1,500 UR	1,500 U	1,000 U	1,500 U	1,000 U	1,500 U	1,500 UR	1,500 U
Lead	ug/l	10 U	**17.3**	**2.5 J**	**17.9**	10 U	10 U	10 U	**2 J**	**3.3 J**	10 U	**5.9 J**
Lead, dissolved	ug/l	10 U	10 U	10 U	**2 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Magnesium	ug/l	**929,000**	**932,000**	**934,000**	**795,000**	**1,030,000**	**836,000**	**968,000**	**923,000**	**938,000**	**813,000**	**910,000**
Magnesium, dissolved	ug/l	**916,000**	**859,000**	**930,000**	**836,000**	**964,000**	**763,000**	**965,000**	**897,000**	**904,000**	**873,000**	**896,000**
Manganese	ug/l	**43.7**	**59.7 J**	**42.2**	**50**	**45.2**	**42 J**	**43.4**	**43.7 J**	**43.5**	**46.8**	**59**
Manganese, dissolved	ug/l	**32.4**	**36.7 J**	**29.3**	**34.3**	**29.2**	**47.9 J**	**35.5**	**30.7 J**	**40.2**	**34.9**	**41.5**
Mercury	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Mercury, dissolved	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**3.6 J**	**8.1 J**	**4.6 J**	**3 J**	**3 J**	2.8 UR	**4.6 J**	**4.2 J**	**3.6 J**	**2.6 J**	**3.2 J**
Nickel, dissolved	ug/l	**2.8 J**	**5.8 J**	**2.4 J**	10 U	**3.5 J**	7.5 UR	**4.8 J**	10 UJ	**6.6 J**	10 U	**2.5 J**
Potassium	ug/l	**299,000**	**307,000 J**	**305,000**	**284,000**	**333,000**	**274,000 J**	**315,000**	**304,000 J**	**306,000**	**294,000**	**296,000**
Potassium, dissolved	ug/l	**298,000**	**283,000 J**	**304,000**	**306,000**	**310,000**	**251,000 J**	**311,000**	**301,000 J**	**297,000**	**322,000**	**291,000**
Selenium	ug/l	**32.1 J**	**36.6 J**	**36.4 J**	**48.1 J**	**27.4 J**	**40.7 J**	**27.2 J**	**49 J**	**32.6 J**	**45.7 J**	**28.3 J**
Selenium, dissolved	ug/l	**31.9 J**	32.8 UR	**31.8 J**	**46.2 J**	**29.4 J**	32 UR	**30.2 J**	35.6 UR	**30 J**	**42.6 J**	**29.2 J**
Silver	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

TABLE I-25A
Metal, Cyanide, and TSS Concentrations in Surface Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**										
Silver, dissolved	ug/l	10 UJ	10 UJ	10 UJ	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 UJ
Sodium	ug/l	**6,980,000**	**6,120,000 J**	**6,980,000**	**6,090,000**	**8,250,000**	**5,830,000 J**	**7,260,000**	**6,410,000 J**	**7,270,000**	**6,090,000**	**6,910,000**
Sodium, dissolved	ug/l	**7,010,000**	**5,910,000 J**	**6,950,000**	**6,690,000 J**	**6,990,000**	**4,790,000 J**	**7,090,000**	**6,260,000 J**	**6,810,000**	**6,830,000 J**	**6,570,000**
Thallium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Thallium, dissolved	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Vanadium, dissolved	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	20 U	**24.1**	**21.1**	**23.1**	20 U	20 UR	20 U	20 UR	**12.8 J**	**10.5 J**	**23.9**
Zinc, dissolved	ug/l	20 U	**14 J**	20 U	**13.2 J**	20 U	21.3 UR	20 U	21.7 UR	**10.5 J**	20 U	20 U
Cyanide, Total	ug/l	10 U	10 U	10 U	---	10 U	10 U	10 U	10 U	10 U	---	10 U
Total suspended solids	mg/l	**94**	**82**	**80**	**60**	**79**	**42**	**91**	**64**	**63**	**85**	**116**

TABLE I-25B
Metal and Cyanide Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	301	301	302	302	303	303	303	304	304	305	305	306	306	307A	307A	307B	307B	308A
	Sample Number:	GC-SW301-0.5-DW	GC-SW301-0.5-WW	GC-SW302-0.5-DW	GC-SW302-0.5-WW	GC-SW303-0.5-DW	GC-SW303-0.5-WW	D-07132010-01	GC-SW304-0.5-DW	GC-SW304-0.5-WW	GC-SW305-0.5-DW	GC-SW305-0.5-WW	GC-SW306-0.5-DW	GC-SW306-0.5-WW	GC-SW307A-0.5-DW	GC-SW307A-0.5-WW	GC-SW307B-0.5-DW	GC-SW307B-0.5-WW	GC-SW308A-0.5-DW
	Weather:	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
	Sample Type:	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	ug/l																		
Aluminum, dissolved	ug/l																		
Arsenic	ug/l	**16.7 (T)**	**22.3 (T)**	**16.4 J (T)**	**26.2 (T)**	**9.1 J (T)**	**23.7 (T)**	**25.1 (T)**	**12 (T)**	**17.3 (T)**	**12.6 (T)**	**15.4 (T)**	**9.8 J (T)**	**13.8 (T)**	**14.4 (T)**	**12 (T)**	**16.4 (T)**	**11.2 (T)**	
Arsenic, dissolved	ug/l	**18 (T)**	**14.7 (T)**	**19.5 J (T)**	**14.7 (T)**	**15.1 J (T)**	**18.6 (T)**	**19.9 J (T)**	**16.1 (T)**	**15.7 (T)**	**17.2 (T)**	**12.1 (T)**	**18.3 J (T)**	**12.6 J (T)**	**20.6 J (T)**	**10.9 J (T)**	**20.2 J (T)**	**11.2 J (T)**	
Barium	ug/l		18.4 J	19.2 J	18.8 J		18.5 J	18.4 J		22.2 J		22.9 J	19 J	24.9 J		42.8 J	18.7 J	35.3 J	
Barium, dissolved	ug/l	18.2 J		23 J	19.6 J	18 J		18.4 J	32.5 J	19.6 J	18.8 J	18.4 J	26.3 J	21.7 J	19.3 J	22.2 J	20.7 J	21.8 J	25.6 J
*Calcium	ug/l	293,000 J		285,000 J		287,000 J		291,000	296,000 J	195,000	295,000 J	153,000	296,000 J	151,000	294,000 J	128,000	300,000 J	149,000	292,000 J
*Calcium, dissolved	ug/l	291,000 J		286,000 J		280,000 J		304,000	280,000 J	170,000	288,000 J	150,000	298,000 J	153,000	284,000 J	131,000	278,000 J	148,000	298,000 J
Chromium	ug/l	**6.2 J (T)**	**5.1 J (T)**	**4.5 J (T)**	**4.5 J (T)**		**5.2 J (T)**	**5.3 J (T)**	**13.4 J (T)**	**4.1 J (T)**		**4.1 J (T)**	**4.7 J (T)**	**4.5 J (T)**		**11.4 J (T)**		**4.1 J (T)**	
Chromium, dissolved	ug/l	**4.5 J (T)**		**8.3 J (T)**	**3.8 J (T)**	**4.2 J (T)**	**4.6 J (T)**		**4.8 J (T)**		**3.7 J (T)**		**6.8 J (T)**		**4.7 J (T)**		**5.3 J (T)**		**6.7 J (T)**
Cobalt	ug/l															**3.9 J (T,S)**			
Cobalt, dissolved	ug/l								**2.8 J (T,S)**										
Copper	ug/l	**151 J (T,S)**		**153 J (T,S)**		**208 (T,S)**			**214 (T,S)**		**186 J (T,S)**		**184 J (T,S)**		**123 J (S)**		**151 J (T,S)**		**231 (T,S)**
Copper, dissolved	ug/l	**184 J (T,S)**		**181 J (T,S)**		**282 J (T,S)**			**277 J (T,S)**		**241 J (T,S)**		**231 J (T,S)**		**208 J (T,S)**		**205 J (T,S)**		**260 J (T,S)**
Iron	ug/l																		
Iron, dissolved	ug/l																		
Lead	ug/l		3.3 J		3.9 J		2.9 J		7.3 J	**11.8 (S)**		**15 (S)**		**13.3 (S)**	3.8 J	**15.6 (T,S)**		**13 (S)**	
Lead, dissolved	ug/l				1.9 J														
*Magnesium	ug/l	928,000	969,000	907,000		909,000	972,000	886,000	932,000	568,000	933,000	440,000	940,000	442,000	933,000	369,000	950,000	438,000	927,000
*Magnesium, dissolved	ug/l	918,000	4,880,000	898,000		884,000	4,640,000	906,000	884,000	510,000	912,000	441,000	942,000	444,000	898,000	372,000	874,000	424,000	942,000
Manganese	ug/l	52.8 J	57.7	54.8 J	60.2	50.8 J	59.7	62.8	71.4 J	52.2	58.8 J	54.6	60.3 J	50.9	55.9 J	65.6	60 J	52.4	57.2 J
Manganese, dissolved	ug/l	41.5 J	37.4	40.9 J	38.2	40 J	43.8	52.8	53.7 J	46.2	45.5 J	36.1	51.2 J	46.4	49.7 J	43.3	48.9 J	42.2	50.8 J
Mercury	ug/l		**0.08 J (T)**		**0.089 J (T)**		**0.088 J (T)**	**0.055 J (T)**		**0.085 J (T)**		**0.086 J (T)**		**0.072 J (T)**		**0.078 J (T)**		**0.075 J (T)**	
Mercury, dissolved	ug/l																		
Nickel	ug/l	3.1 J	2.1 J	2.4 J	2.1 J	2.9 J	2.3 J	3.5 J	6.5 J	2.2 J		3.4 J	2.2 J	3.3 J		**9.5 J (S)**		2.9 J	3.1 J
Nickel, dissolved	ug/l		3.3 J		4 J		3.6 J	2.4 J	**10 J (S)**	3.1 J		2.2 J		3.4 J		2.7 J	2.9 J	2.4 J	
*Potassium	ug/l	308,000 J		299,000 J		299,000 J		287,000	309,000 J	183,000	307,000 J	141,000	310,000 J	141,000	307,000 J	118,000	314,000 J	139,000	305,000 J
*Potassium, dissolved	ug/l	305,000 J		299,000 J		292,000 J		292,000	290,000 J	167,000	301,000 J	144,000	311,000 J	142,000	297,000 J	119,000	292,000 J	135,000	313,000 J
Selenium	ug/l	39.3 J	64.6 J	42.5 J	58.4 J	29.3 J	50.7 J	42.1 J	36.2 J	36.7 J	33.9 J	33 J	31.7 J	26 J	40.3 J	21.2 J	41.6 J	20.6 J	
Selenium, dissolved	ug/l		37 J		40.1 J		41.9 J			33.9 J		24.1 J							
*Sodium	ug/l	6,270,000 J	7,090,000 J	6,410,000 J		6,530,000 J		6,760,000	6,360,000 J	4,430,000	6,290,000 J	3,400,000	6,300,000 J	3,570,000	6,300,000 J	2,970,000	6,620,000 J	3,450,000	6,340,000 J
*Sodium, dissolved	ug/l	6,190,000 J	9,180,000 J	6,390,000 J		5,710,000 J		6,450,000	6,360,000 J	4,310,000	6,160,000 J	3,690,000	6,280,000 J	3,500,000	6,430,000 J	2,990,000	6,270,000 J	3,350,000	6,060,000 J
Thallium	ug/l																		
Thallium, dissolved	ug/l																		
Zinc	ug/l					19.1 J	21.3 J			27.3 J		49.6 J		34.8		45.9		38	
Zinc, dissolved	ug/l	11 J	17 J	13.4 J	32.4					11 J	10 J	19.2 J	11.2 J	21.9		22.6	11.2 J	21.9	9.9 J

TABLE I-25B
Metal and Cyanide Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	308A	308B	308B	309	309	310	310	310	311	311	312	312	312	314	314	313	313	316
	Sample Number:	GC-SW308A-0.5-WW	GC-SW308B-0.5-DW	GC-SW308B-0.5-WW	GC-SW309-0.5-DW	GC-SW309-0.5-WW	GC-SW310-0.5-DW	GC-SW310-0.5-WW	D-07132010-02	GC-SW311-0.5-DW	GC-SW311-0.5-WW	GC-SW312-0.5-DW	D-06192010-02	GC-SW312-0.5-WW	GC-SW314-0.5-DW	GC-SW314-0.5-WW	GC-SW313-0.5-DW	GC-SW313-0.5-WW	GC-SW316-0.5-DW
	Weather:	WET	DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY
	Sample Date:	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	ug/l																		
Aluminum, dissolved	ug/l																		
Arsenic	ug/l	**14.1 (T)**		**13.1 (T)**	**23.4 (T)**	**15.8 (T)**	**21.3 (T)**	**13.3 (T)**	**17.9 (T)**	**23 (T)**	**12.4 (T)**	**13.8 (T)**	**16 (T)**	**10.1 (T)**	**22.4 (T)**	**10.9 (T)**	**20.6 (T)**	**11.1 (T)**	**21.2 (T)**
Arsenic, dissolved	ug/l	**12.7 J (T)**		**11.3 J (T)**	**20.8 J (T)**	**14 J (T)**	**19.7 J (T)**	**12.5 J (T)**	**13 J (T)**	**18.8 (T)**	**12.8 (T)**	**15.4 (T)**	**20 J (T)**	**10.3 (T)**	**19.2 J (T)**	**12.4 (T)**	**19 J (T)**	**9.2 J (T)**	**19.3 J (T)**
Barium	ug/l	24.8 J		24.2 J		28.4 J	22.3 J	29 J	27.5 J		25.6 J	19.9 J	23 J	25.5 J	19.1 J	28.6 J	18.4 J	25.6 J	22.1 J
Barium, dissolved	ug/l	22.2 J	20.2 J	25 J		22.4 J	20.5 J	23.2 J	21.6 J		20.1 J	18.9 J	22.2 J	21.1 J	19.2 J	25.2 J		21.3 J	18.6 J
*Calcium	ug/l	137,000	301,000 J	148,000	274,000	173,000	269,000	168,000	165,000	268,000	137,000	315,000 J	296,000 J	127,000	271,000	133,000	269,000	102,000	254,000
*Calcium, dissolved	ug/l	157,000	283,000 J	154,000	262,000	164,000	260,000	173,000	168,000	257,000	155,000	278,000 J	285,000 J	134,000	259,000	141,000	260,000	105,000	260,000
Chromium	ug/l	**4.9 J (T)**		**29.3 J (T)**	**10 J (T)**	**6.2 J (T)**	**19.9 J (T)**	**6.1 J (T)**	**6.1 J (T)**	**4.4 J (T)**	**5.2 J (T)**		**8.9 J (T)**	**9.2 J (T)**	**7.8 J (T)**	**11.1 J (T)**	**8.4 J (T)**	**6.1 J (T)**	**4.8 J (T)**
Chromium, dissolved	ug/l		**4.3 J (T)**		**4.2 J (T)**		**10.5 J (T)**			**3.6 J (T)**		**4.5 J (T)**	**5.8 J (T)**			**5.8 J (T)**	**3.8 J (T)**		**3.8 J (T)**
Cobalt	ug/l																		
Cobalt, dissolved	ug/l																		
Copper	ug/l		**232 (T,S)**									**170 J (T,S)**	**143 J (S)**						
Copper, dissolved	ug/l		**252 J (T,S)**									**205 J (T,S)**	**194 J (T,S)**						
Iron	ug/l															**651 J (S)**			
Iron, dissolved	ug/l								**1,020 J (S)**										
Lead	ug/l	**12.4 (S)**		**13.4 (S)**	2 J	**12.1 (S)**		**14.3 (S)**	**12.7 (S)**		**13.4 (S)**			**13.8 (S)**		**13.4 (S)**		**17.1 (T,S)**	1.9 J
Lead, dissolved	ug/l							1.9 J			2.4 J					**17.7 (T,S)**			
*Magnesium	ug/l	398,000	951,000	434,000	863,000 J	512,000	839,000 J	486,000	483,000	836,000 J	400,000	998,000	933,000	368,000	847,000 J	388,000	842,000 J	292,000	787,000 J
*Magnesium, dissolved	ug/l	453,000	896,000	445,000	817,000 J	473,000	807,000 J	495,000	489,000	803,000 J	455,000	876,000	901,000	390,000	807,000 J	413,000	809,000 J	301,000	811,000 J
Manganese	ug/l	49	57.6 J	62.6	56	54.6	72.9	57.5	55.3	53.7	54	56.1 J	58.6 J	48.4	68.6	54.4	55	49	56.7
Manganese, dissolved	ug/l	43.7	49.8 J	45.6	51.5 J	46.7	68.2 J	47.5	44.2	50.4 J	42.2	48.9 J	51 J	43.3	64.4 J	45.3	50.9 J	38	56 J
Mercury	ug/l	**0.081 J (T)**		**0.081 J (T)**	**0.047 J (T)**	**0.077 J (T)**	**0.051 J (T)**	**0.083 J (T)**	**0.082 J (T)**						**0.052 J (T)**		**0.052 J (T)**		**0.055 J (T)**
Mercury, dissolved	ug/l				**0.054 J (T)**		**0.057 J (T)**			**0.063 J (T)**					**0.054 J (T)**				**0.053 J (T)**
Nickel	ug/l	3.3 J		**29.8 J (S)**	5.2 J	5.3 J	**9.4 J (S)**	5.6 J	4.1 J	2 J	3.7 J		4.1 J	**8.6 J (S)**	4.9 J	**8.8 J (S)**	4.7 J	5.7 J	3 J
Nickel, dissolved	ug/l	3.1 J		3.8 J	4.7 J	3 J	**13.4 J (S)**	3.2 J		2.2 J	4.2 J			7.3 J	6 J	6.1 J	2.8 J	3.9 J	
*Potassium	ug/l	127,000	316,000 J	138,000	294,000	163,000	286,000	156,000	156,000	288,000	130,000	328,000 J	308,000 J	119,000	291,000	125,000	289,000	93,800	268,000
*Potassium, dissolved	ug/l	146,000	297,000 J	143,000	280,000	149,000	274,000	158,000	154,000	274,000	143,000	290,000 J	297,000 J	126,000	274,000	132,000	275,000	96,700	277,000
Selenium	ug/l	24.4 J	18.7 J	21.7 J	41.1 J	27.1 J	36 J	22.9 J	24.6 J	42.9 J	25.9 J	34.6 J	40 J	17.3 J	39.1 J	22.3 J	42.3 J	15.9 J	42.4 J
Selenium, dissolved	ug/l				44.2 J		46.3 J			50.5	20.6 J			18.4 J	43.2 J	20.2 J	46.6 J	15 J	42.5 J
*Sodium	ug/l	3,180,000	6,240,000 J	3,470,000	5,890,000 J	3,980,000	5,550,000 J	3,800,000	3,740,000	5,720,000 J	3,400,000	6,540,000 J	6,270,000 J	3,120,000	5,690,000 J	3,270,000	6,170,000 J	2,510,000	5,370,000 J
*Sodium, dissolved	ug/l	3,660,000	6,330,000 J	3,570,000	5,490,000 J	3,690,000	5,390,000 J	3,840,000	3,670,000	5,330,000 J	3,760,000	6,690,000 J	6,480,000 J	3,260,000	5,370,000 J	3,440,000	5,750,000 J	2,540,000	5,630,000 J
Thallium	ug/l																		
Thallium, dissolved	ug/l																		
Zinc	ug/l	42.6		48.2	11 J	36.2	14.8 J	41.7	33		35.4			41.2		40.7	14.7 J	42.1	
Zinc, dissolved	ug/l	21.9		27.1		21.1		25.1	17.8 J		19.4 J	13.3 J		19.2 J		40.2		21.7	

TABLE I-25B
Metal and Cyanide Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	316	316	315	315	317	317	318	318	318	319	319	319	320	320	321	321	322	322
Sample Number:	D-06192010-03	GC-SW316-0.5-WW	GC-SW315-0.5-DW	GC-SW315-0.5-WW	GC-SW317-0.5-DW	GC-SW317-0.5-WW	GC-SW318-0.5-DW	D-06192010-04	GC-SW318-0.5-WW	GC-SW319-0.5-DW	GC-SW319-0.5-WW	D-07132010-03	GC-SW320-0.5-DW	GC-SW320-0.5-WW	GC-SW321-0.5-DW	GC-SW321-0.5-WW	GC-SW322-0.5-DW	GC-SW322-0.5-WW
Weather:	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:	FD	N	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Metals**																
Aluminum	ug/l																	
Aluminum, dissolved	ug/l																	
Arsenic	ug/l	**22 (T)**	**8.8 J (T)**	**20.4 (T)**	**10.2 (T)**	**21.6 (T)**	**6.9 J (T)**	**20.8 (T)**	**20.9 (T)**	**16.6 (T)**	**19.8 (T)**	**12.6 (T)**	**11.2 (T)**	**20.1 (T)**	**15.9 (T)**	**19.9 (T)**	**17.7 (T)**	**21.8 (T)**	**14.7 (T)**
Arsenic, dissolved	ug/l	**18.2 (T)**	**9.8 J (T)**	**19.4 J (T)**	**9.8 J (T)**	**18.9 (T)**	**9.1 J (T)**	**19.8 J (T)**	**20.3 J (T)**	**13.9 (T)**	**21.2 J (T)**	**10.6 (T)**	**10.4 J (T)**	**21 J (T)**	**14.6 (T)**	**18.8 (T)**	**11.8 (T)**	**21.2 (T)**	**21 J (T)**
Barium	ug/l	21.9 J	27.4 J		26.7 J		30.8 J		19.2 J	25.9 J		27.4 J	27 J		28.6 J		27 J		22 J
Barium, dissolved	ug/l	20.7 J	22.8 J		30.1 J		20.7 J		21.3 J	21.8 J		19 J	19.1 J	19.6 J	24.8 J	18.2 J	21.5 J		31.1 J
*Calcium	ug/l	269,000	111,000	274,000	122,000	259,000	97,200	261,000	267,000	186,000	268,000	128,000	138,000	264,000	141,000	273,000	172,000	279,000	222,000
*Calcium, dissolved	ug/l	261,000	110,000	261,000	119,000	272,000	100,000	270,000	261,000	177,000	265,000	131,000	140,000	270,000	126,000	264,000	169,000	281,000	226,000
Chromium	ug/l	**5.3 J (T)**	**5.6 J (T)**	**17.3 J (T)**	**5.4 J (T)**	**33.9 (T)**	**6.2 J (T)**	**4.3 J (T)**	**5.3 J (T)**	**3.9 J (T)**	**7.1 J (T)**	**6.6 J (T)**	**6.1 J (T)**	**4 J (T)**	**4.7 J (T)**	**5.1 J (T)**	**4.6 J (T)**	**8 J (T)**	**6.9 J (T)**
Chromium, dissolved	ug/l		**4.2 J (T)**	**3.7 J (T)**	**5 J (T)**	**5.4 J (T)**		**5.3 J (T)**	**3.6 J (T)**	**3.9 J (T)**	**3.7 J (T)**							**3.9 J (T)**	
Cobalt	ug/l																		
Cobalt, dissolved	ug/l				**2.5 J (T,S)**														
Copper	ug/l																		
Copper, dissolved	ug/l																		
Iron	ug/l						**1,040 J (S)**					**655 J (S)**							
Iron, dissolved	ug/l																		
Lead	ug/l		**16.4 (T,S)**		**17.6 (T,S)**		**26.8 (T,S)**		3.2 J	**15.5 (T,S)**	3.3 J	**22.8 (T,S)**	**20.3 (T,S)**		**18.7 (T,S)**		**12.5 (S)**		**9.5 J (S)**
Lead, dissolved	ug/l		2.1 J		2.1 J														
*Magnesium	ug/l	835,000 J	318,000	856,000 J	351,000	809,000 J	276,000	815,000 J	842,000 J	542,000	838,000 J	368,000	401,000	829,000 J	405,000	859,000 J	503,000	866,000	661,000
*Magnesium, dissolved	ug/l	809,000 J	316,000	818,000 J	347,000	855,000 J	286,000	840,000 J	818,000 J	524,000	825,000 J	385,000	403,000	843,000 J	367,000	825,000 J	502,000	866,000	667,000
Manganese	ug/l	60.4	48.8	53.3	51.1	60.7	53.6	51.2	50.8	57.4	56	54.8	49.8	49.9	55.6	51.7	63.6	49	52
Manganese, dissolved	ug/l	55 J	39.5	49.3 J	41.5	53.6 J	35.6	56 J	51.3 J	43.9	51.1 J	34.7	37	51.6 J	43.7	49 J	41.3	46.1	63
Mercury	ug/l	**0.05 J (T)**		**0.05 J (T)**		**0.051 J (T)**		**0.053 J (T)**	**0.051 J (T)**	**0.076 J (T)**	**0.049 J (T)**	**0.079 J (T)**	**0.073 J (T)**	**0.054 J (T)**	**0.077 J (T)**	**0.052 J (T)**	**0.081 J (T)**		**0.083 J (T)**
Mercury, dissolved	ug/l	**0.058 J (T)**		**0.051 J (T)**		**0.054 J (T)**		**0.049 J (T)**	**0.062 J (T)**					**0.059 J (T)**		**0.057 J (T)**			
Nickel	ug/l	3 J		**11.4 J (S)**	4.8 J	**11.8 J (S)**	6.3 J		3.1 J	4.7 J	3.7 J	**10.6 J (S)**	4.2 J		3.5 J	2.6 J	2.9 J	3 J	4.5 J
Nickel, dissolved	ug/l	2.8 J		4.3 J	8 J	3.5 J	4.2 J		3.9 J	3.6 J	2.9 J	3.3 J		2.4 J	3 J	4.4 J	2.7 J	2.2 J	3.6 J
*Potassium	ug/l	285,000	102,000	293,000	113,000	277,000	88,700	278,000	288,000	175,000	288,000	117,000	129,000	283,000	128,000	293,000	160,000	312,000	213,000
*Potassium, dissolved	ug/l	278,000	101,000	276,000	112,000	291,000	92,300	287,000	277,000	172,000	281,000	125,000	128,000	287,000	120,000	281,000	165,000	316,000	215,000
Selenium	ug/l	39.3 J	13.9 J	42.2 J	20.3 J	37.9 J	14.7 J	39 J	47.4 J	35.5 J	37.6 J	27.4 J	18 J	38.5 J	29.2 J	34.3 J	35.7 J	50.9	27.4 J
Selenium, dissolved	ug/l	43.9 J	15.5 J	48.8 J	16 J	38.6 J	14.7 J	47.9 J	47.9 J	25 J	41.5 J	17.7 J		50.3	22.9 J	45.9 J	29.3 J	46.1 J	
*Sodium	ug/l	5,580,000 J	2,730,000	6,300,000 J	2,970,000	5,590,000 J	2,340,000	5,960,000 J	5,830,000 J	4,220,000	6,000,000 J	2,900,000	3,190,000	5,720,000 J	3,150,000	6,110,000 J	3,890,000	6,370,000	5,130,000
*Sodium, dissolved	ug/l	5,790,000 J	2,630,000	5,860,000 J	2,940,000	5,910,000 J	2,480,000	5,580,000 J	5,860,000 J	4,280,000	5,660,000 J	3,240,000	3,150,000	5,900,000 J	3,090,000	5,600,000 J	4,190,000	6,790,000 J	5,150,000
Thallium	ug/l								**2.1 J (T)**										
Thallium, dissolved	ug/l																		
Zinc	ug/l		45.3	12.6 J	44.7		58.9	13.2 J	13.6 J	75.7 J	17 J	70.6 J	47.8	13 J	57.2 J	25.7 J	49.6 J	15.3 J	33.3
Zinc, dissolved	ug/l		27.5	20.8 J	25		20.2	23.5 J		31.6		21.7	14.7 J	20.3 J	25.9	37.9 J	24	11.3 J	20.1

TABLE I-25B
Metal and Cyanide Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	324	324	324	323	323	325	326	326	327	327	328	328	329	329	329	330	330	331
	Sample Number:	GC-SW324-0.5-DW	GC-SW324-0.5-WW	D-07132010-04	GC-SW323-0.5-DW	GC-SW323-0.5-WW	GC-SW325-0.5-DW	GC-SW326-0.5-DW	GC-SW326-0.5-WW	GC-SW327-0.5-DW	GC-SW327-0.5-WW	GC-SW328-0.5-DW	GC-SW328-0.5-WW	GC-SW329-0.5-DW	D-06192010-01	GC-SW329-0.5-WW	GC-SW330-0.5-DW	GC-SW330-0.5-WW	GC-SW331-0.5-DW
	Weather:	DRY	WET	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY	WET	DRY	DRY	WET	DRY	WET	DRY
	Sample Date:	6/19/2010	7/13/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010
	Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	ug/l																		
Aluminum, dissolved	ug/l	1,480 J																	
Arsenic	ug/l	**21.6 (T)**	**17.2 (T)**	**22.1 (T)**	**18.8 (T)**	**14.1 (T)**	**22 (T)**	**21.7 (T)**	**19.5 (T)**	**20.2 (T)**	**19.4 (T)**	**24.7 (T)**	**18.9 (T)**	**22.7 (T)**	**19.5 (T)**	**19.8 (T)**	**23.4 (T)**	**19 (T)**	**18.5 (T)**
Arsenic, dissolved	ug/l	**19.3 J (T)**	**19 J (T)**	**17.8 J (T)**	**21.6 J (T)**	**16.1 J (T)**	**18.2 (T)**	**23.3 (T)**	**17.2 J (T)**	**22.9 (T)**	**17.3 J (T)**	**22.6 (T)**	**23.5 J (T)**	**19.6 (T)**	**22.3 J (T)**	**19.7 J (T)**	**22.5 (T)**	**21.5 (T)**	**21.3 J (T)**
Barium	ug/l		18.8 J			22.2 J							23.6 J						
Barium, dissolved	ug/l		18.5 J	20.2 J	19.3 J	22.9 J					21.9 J								
*Calcium	ug/l	269,000	247,000	296,000	259,000	259,000	266,000	260,000	271,000	257,000	301,000	265,000	317,000	256,000	263,000	296,000	258,000	326,000	321,000 J
*Calcium, dissolved	ug/l	261,000	276,000	278,000	271,000	246,000	263,000	276,000	265,000	284,000	310,000	264,000	321,000	272,000	277,000	333,000	284,000	303,000	276,000 J
Chromium	ug/l	**5.6 J (T)**	**4.8 J (T)**	**4.3 J (T)**	**99.7 (T)**	**4.9 J (T)**	**5.3 J (T)**	**5 J (T)**	**4.9 J (T)**	**15.1 J (T)**	**5.4 J (T)**	**5 J (T)**	**7 J (T)**	**4.5 J (T)**	**30.6 J (T)**	**5.5 J (T)**	**18.4 J (T)**	**4.5 J (T)**	
Chromium, dissolved	ug/l	**5 J (T)**		**3.6 J (T)**	**5.6 J (T)**			**4 J (T)**		**4 J (T)**		**4.9 J (T)**	**4.1 J (T)**	**4.2 J (T)**	**4.2 J (T)**	**4.2 J (T)**	**4.1 J (T)**	**3.9 J (T)**	**5.7 J (T)**
Cobalt	ug/l																		
Cobalt, dissolved	ug/l																		
Copper	ug/l														**49 (S)**				**134 J (S)**
Copper, dissolved	ug/l																		**169 J (T,S)**
Iron	ug/l																		
Iron, dissolved	ug/l																		
Lead	ug/l		4.2 J		4.9 J	5.3 J			3.1 J								4 J		6 J
Lead, dissolved	ug/l																		
*Magnesium	ug/l	843,000 J	748,000	901,000	816,000 J	781,000	836,000 J	805,000	828,000	797,000	918,000	827,000	968,000	797,000	828,000 J	905,000	799,000	997,000	1,020,000
*Magnesium, dissolved	ug/l	816,000 J	830,000	835,000	853,000 J	733,000	821,000 J	854,000	792,000	877,000	936,000	812,000	970,000	835,000	866,000 J	1,010,000	875,000	927,000	867,000
Manganese	ug/l	46.4	48.9	44.9	69.2	49.5	45	36.9	44.8	45.5	45.5	39.1	44.1		60.4	42.1	60.3	44.5	41 J
Manganese, dissolved	ug/l	45.9 J	45.5	52.5	71.5 J	48.6	42.4 J	34.6	39.9	38.2	38.1	41.6	30.7	33.7	37.1 J	34	32.8	30.2	29 J
Mercury	ug/l	**0.06 J (T)**	**0.065 J (T)**		**0.05 J (T)**	**0.087 J (T)**	**0.052 J (T)**		**0.055 J (T)**		**0.053 J (T)**				**0.053 J (T)**				
Mercury, dissolved	ug/l	**0.047 J (T)**			**0.091 J (T)**		**0.047 J (T)**								**0.053 J (T)**				
Nickel	ug/l	2.6 J	3.2 J	2.7 J	**52.3 J (S)**	3.6 J	2.5 J		2.8 J	6 J	3.4 J	2 J	4.1 J		**16.9 J (S)**	2.5 J	**18.8 (S)**	2.7 J	
Nickel, dissolved	ug/l	4.5 J	3 J	2.2 J	3.5 J	2.8 J				2.4 J	**8.5 J (S)**	3.9 J		2 J	3.4 J	5 J	2.1 J	2.9 J	
*Potassium	ug/l	289,000	244,000	290,000	279,000	255,000	285,000	281,000	271,000	286,000	299,000	297,000	316,000	285,000	282,000	295,000	289,000	316,000	337,000 J
*Potassium, dissolved	ug/l	278,000	267,000	265,000	290,000	235,000	279,000	308,000	255,000	320,000	299,000	297,000	311,000	307,000	296,000	322,000	320,000	300,000	290,000 J
Selenium	ug/l	42.6 J	35 J	38.5 J	43.4 J	28.2 J	40.6 J	46.9 J	33.1 J	47.8 J	36.7 J	52.2	32.2 J	45.9 J	38.6 J	40 J	49.1 J	34.8 J	45.8 J
Selenium, dissolved	ug/l	43.4 J			53.5		43.6 J	37.5 J		42.2 J		43.5 J		43.2 J	51.1		43.9 J	34.5 J	
*Sodium	ug/l	5,860,000 J	5,850,000	6,600,000	5,910,000 J	5,930,000	5,960,000 J	6,200,000	6,320,000	6,150,000	7,030,000	6,250,000	7,330,000	6,020,000	5,530,000 J	6,800,000	6,090,000	8,190,000	6,600,000 J
*Sodium, dissolved	ug/l	5,360,000 J	6,220,000	6,050,000	6,240,000 J	5,710,000	5,430,000 J	6,910,000 J	5,960,000	6,770,000 J	6,850,000	6,360,000 J	7,090,000	6,680,000 J	6,330,000 J	7,140,000	6,700,000 J	7,240,000	6,040,000 J
Thallium	ug/l																		
Thallium, dissolved	ug/l																		
Zinc	ug/l	14.9 J	17.7 J	10.9 J	20 J	20.5	15.6 J	10.5 J	10.5 J	10.9 J					24.3 J		24.7		
Zinc, dissolved	ug/l		16.3 J	18.2 J		22.4		10.6 J	10.2 J	11.6 J				10.3 J			11.6 J		12.5 J

TABLE I-25B
Metal and Cyanide Concentrations in Surface Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		331	332	332	333	333	334	334	335	335	336	336
Sample Number:		GC-SW331-0.5-WW	GC-SW332-0.5-DW	GC-SW332-0.5-WW	GC-SW333-0.5-DW	GC-SW333-0.5-WW	GC-SW334-0.5-DW	GC-SW334-0.5-WW	GC-SW335-0.5-DW	GC-SW335-0.5-WW	GC-SW336-0.5-DW	GC-SW336-0.5-WW
Weather:		WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET	DRY	WET
Sample Date:		7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010	6/19/2010	7/13/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**										
Aluminum	ug/l											
Aluminum, dissolved	ug/l											
Arsenic	ug/l	**20.6 (T)**	**16.3 (T)**	**23.2 (T)**	**23.3 (T)**	**19.4 (T)**	**17.9 (T)**	**17.7 (T)**	**19.6 J (T)**	**22.1 (T)**	**25.8 (T)**	**20.5 (T)**
Arsenic, dissolved	ug/l	**18.3 (T)**	**17.7 (T)**	**20.2 (T)**	**22.2 (T)**	**21.1 (T)**	**18.1 (T)**	**23.3 (T)**	**20.3 J (T)**	**21.6 (T)**	**21.5 (T)**	**22.7 (T)**
Barium	ug/l								30.1 J			
Barium, dissolved	ug/l		23.4 J				21.3 J					
*Calcium	ug/l	304,000	294,000 J	306,000	256,000	336,000	265,000 J	318,000	290,000 J	308,000	262,000	301,000
*Calcium, dissolved	ug/l	300,000	273,000 J	305,000	272,000	315,000	244,000 J	315,000	286,000 J	298,000	284,000	294,000
Chromium	ug/l	**7.6 J (T)**	**12.4 J (T)**	**7 J (T)**	**7.8 J (T)**	**4.9 J (T)**	**4.7 J (T)**	**7.5 J (T)**	**12.4 J (T)**	**7 J (T)**	**6.8 J (T)**	**5.1 J (T)**
Chromium, dissolved	ug/l	**4.3 J (T)**	**9.1 J (T)**	**4.5 J (T)**	**3.9 J (T)**	**5.2 J (T)**	**5.5 J (T)**	**5.3 J (T)**	**3.9 J (T)**	**9.2 J (T)**	**3.9 J (T)**	**4.2 J (T)**
Cobalt	ug/l											
Cobalt, dissolved	ug/l											
Copper	ug/l		**146 J (S)**				**125 J (S)**		**122 J (S)**			
Copper, dissolved	ug/l		**177 J (T,S)**				**172 J (T,S)**		**169 J (T,S)**			
Iron	ug/l											
Iron, dissolved	ug/l											
Lead	ug/l		**17.3 (T,S)**	2.5 J	**17.9 (T,S)**				2 J	3.3 J		5.9 J
Lead, dissolved	ug/l				2 J							
*Magnesium	ug/l	929,000	932,000	934,000	795,000	1,030,000	836,000	968,000	923,000	938,000	813,000	910,000
*Magnesium, dissolved	ug/l	916,000	859,000	930,000	836,000	964,000	763,000	965,000	897,000	904,000	873,000	896,000
Manganese	ug/l	43.7	59.7 J	42.2	50	45.2	42 J	43.4	43.7 J	43.5	46.8	59
Manganese, dissolved	ug/l	32.4	36.7 J	29.3	34.3	29.2	47.9 J	35.5	30.7 J	40.2	34.9	41.5
Mercury	ug/l											
Mercury, dissolved	ug/l											
Nickel	ug/l	3.6 J	8.1 J	4.6 J	3 J	3 J		4.6 J	4.2 J	3.6 J	2.6 J	3.2 J
Nickel, dissolved	ug/l	2.8 J	5.8 J	2.4 J		3.5 J		4.8 J		6.6 J		2.5 J
*Potassium	ug/l	299,000	307,000 J	305,000	284,000	333,000	274,000 J	315,000	304,000 J	306,000	294,000	296,000
*Potassium, dissolved	ug/l	298,000	283,000 J	304,000	306,000	310,000	251,000 J	311,000	301,000 J	297,000	322,000	291,000
Selenium	ug/l	32.1 J	36.6 J	36.4 J	48.1 J	27.4 J	40.7 J	27.2 J	49 J	32.6 J	45.7 J	28.3 J
Selenium, dissolved	ug/l	31.9 J		31.8 J	46.2 J	29.4 J		30.2 J		30 J	42.6 J	29.2 J
*Sodium	ug/l	6,980,000	6,120,000 J	6,980,000	6,090,000	8,250,000	5,830,000 J	7,260,000	6,410,000 J	7,270,000	6,090,000	6,910,000
*Sodium, dissolved	ug/l	7,010,000	5,910,000 J	6,950,000	6,690,000 J	6,990,000	4,790,000 J	7,090,000	6,260,000 J	6,810,000	6,830,000 J	6,570,000
Thallium	ug/l											
Thallium, dissolved	ug/l											
Zinc	ug/l		24.1	21.1	23.1					12.8 J	10.5 J	23.9
Zinc, dissolved	ug/l		14 J		13.2 J					10.5 J		

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TABLE I-26

Geochemistry Results in Surface Water

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	SWMW-2	SWMW-3	SWMW-9	SWMW-15	SWMW-18	SWMW-20	SWMW-23	SWMW-31	SWMW-37
Sample Number:	SW-01	GC-SWMW3	SW-02	GC-SWMW15	SW-03	GC-SWMW20	GC-SWMW23	GC-SWMW31	GC-SWMW37
Sampling Entity:	NYC	EPA	NYC	EPA	NYC	EPA	National Grid	National Grid	EPA
Sample Depth:	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Sample Date:	6/25/2010	7/12/2010	6/29/2010	7/27/2010	6/28/2010	7/23/2010	7/21/2010	7/21/2010	7/26/2010
Sample Type:	N	N	N	N	N	N	N	N	N
Parameter									
Alkalinity	95.9	97.5	101	101 J	98.1	111	110 J	130 J	116 J
Ammonia (as nitrogen)	NA	0.66	NA	0.37	NA	0.72	0.78	1.3	0.26
Chloride	13300	14700	13600	15200	14100	13800	16600	18100	13700
Organic Carbon - Dissolved	2.4	1 UJ	3.6	1 U	2.9	1 U	4.6	5.4 J	1 U
Total Hardness (as Calcium Carbonate)	4480	4580	4430	5090	4530	4420	4550	4370	4140
Nitrogen, Nitrate	0.35	3.2	0.28	1 U	0.28	1.8 J	NA	NA	1 U
Nitrogen, Nitrate + Nitrite	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrite	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen	1.8	0.6	0.53	0.2 U	0.57	0.52	0.61	0.86	0.2 U
Total Orthophosphate Phosphorus (As PO4)	0.46	1 U	0.14	1 U	0.17	5 U	0.34	0.32	1 U
Silica (SiO_2)	1 U	1.8	1 U	1350 J	1 U	2.2	2.2	5.7	2760 J
Sulfate	1980	1970	2190	1990	2040	1720	2050	2120	1810
Total Dissolved Solids	50900	24600	17400	23200	25800	24000	NA	NA	22600
Organic Carbon - Total	2.8	1 UJ	2.6	1 U	3.2	1 U	5.1 J	5.6 J	1 U
Total Suspended Solids	11	50	4 U	88	4	89	NA	NA	110
Aluminum	7.8 U	NA	7.8 U	NA	7.8 U	NA	208	500	NA
Calcium	275000	NA	258000	NA	255000	NA	289000	283000	NA
Iron - Total	385	NA	233	NA	225	NA	361 J	1810 J	NA
Magnesium	NA	NA	859000	NA	859000	NA	928000	889000	NA
Manganese - Total	56.5	NA	48.2	NA	41.8	NA	58.3	132	NA
Potassium	NA	NA	NA	NA		NA	305000	290000	NA
Sodium	NA	NA	7590000	NA	6970000	NA	7780000	7380000	NA
Iron - Dissolved	18 U	NA	18 U	NA	2670	NA	71.7 J	141 J	NA
Manganese - Dissolved	43.2	NA	42.8	NA	41.9	NA	54.5	121	NA
Iron - Ferrous	4	0	2	0	2	NA	0.056 J	NA	NA

Notes:

All units in ug/l - micrograms/liter

J - estimated value

N - normal sample

NA - Not Analyzed

U - not detected above reporting limit

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TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:		SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:		0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	0.24 U	13 U	0.18 U	0.23 U	330 U	0.21 U	0.14 U	0.13 U	0.13 U	290 U	0.13 U	0.28 U	0.27 U	7.1 U	0.75 U	0.12 U	0.13 U	0.14 U
1,1,2,2-tetrachloroethane	ug/kg	0.54 U	29 U	0.4 U	0.53 U	330 U	0.47 U	0.31 U	0.29 U	0.31 U	290 U	0.3 U	0.64 U	0.61 U	7.1 U	1.7 U	0.28 U	0.3 U	0.31 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1 U	55 U	0.77 U	1 U	330 U	0.91 U	0.6 U	0.55 U	0.59 U	290 U	0.57 U	1.2 U	1.2 U	7.1 U	3.3 U	0.53 U	0.58 U	0.6 U
1,1,2-trichloroethane	ug/kg	0.34 U	18 U	0.25 U	0.33 U	330 U	0.3 U	0.2 U	0.18 U	0.19 U	290 U	0.19 U	0.4 U	0.38 U	7.1 U	1.1 U	0.18 U	0.19 U	0.2 U
1,1-dichloroethane	ug/kg	0.26 U	14 U	0.19 U	0.25 U	330 U	0.22 U	0.15 U	0.14 U	0.14 U	290 U	0.14 U	0.3 U	0.29 U	7.1 U	0.81 U	0.13 U	0.14 U	0.15 U
1,1-dichloroethene	ug/kg	1.2 U	65 U	0.91 U	1.2 U	330 U	1.1 U	0.71 U	0.65 U	0.69 U	290 U	0.67 U	1.4 U	1.4 U	7.1 U	3.9 U	0.63 U	0.68 U	0.71 U
1,2,3-trichlorobenzene	ug/kg	1.1 U	58 U	0.81 U	1.1 U	330 U	0.95 U	0.63 U	0.58 U	0.62 U	290 U	0.6 U	1.3 U	1.2 U	7.1 UR	3.5 U	0.56 U	0.6 U	0.63 U
1,2,4-trichlorobenzene	ug/kg	0.64 U	34 U	0.48 U	0.62 U	330 U	0.56 U	0.37 U	0.34 U	0.36 U	290 U	0.35 U	0.75 U	0.72 U	7.1 UR	2 U	0.33 U	0.35 U	0.37 U
1,2-dibromo-3-chloropropane	ug/kg	1 U	53 U	0.75 U	0.97 U	330 U	0.87 U	0.58 U	0.53 U	0.57 U	290 U	0.55 U	1.2 U	1.1 U	7.1 UR	3.2 U	0.51 U	0.55 U	0.58 U
1,2-dibromoethane	ug/kg	0.25 U	13 U	0.19 U	0.25 U	330 U	0.22 U	0.15 U	0.14 U	0.14 U	290 U	0.14 U	0.3 U	0.28 U	7.1 U	0.8 U	0.13 U	0.14 U	0.15 U
1,2-dichlorobenzene	ug/kg	0.5 U	27 U	0.37 U	0.48 U	330 U	0.44 U	0.29 U	0.27 U	0.28 U	290 U	0.28 U	0.59 U	0.56 U	7.1 UR	1.6 U	0.26 U	0.28 U	0.29 U
1,2-dichloroethane	ug/kg	0.64 U	34 U	0.48 U	0.62 U	330 U	0.56 U	0.37 U	0.34 U	0.36 U	290 U	0.35 U	0.75 U	0.72 U	7.1 U	2 U	0.33 U	0.35 U	0.37 U
1,2-dichloropropane	ug/kg	0.24 U	13 U	0.18 U	0.23 U	330 U	0.21 U	0.14 U	0.13 U	0.14 U	290 U	0.13 U	0.28 U	0.27 U	7.1 U	0.76 U	0.12 U	0.13 U	0.14 U
1,3-dichlorobenzene	ug/kg	0.51 U	27 U	0.38 U	0.49 U	330 U	0.44 U	0.29 U	0.27 U	0.29 U	290 U	0.28 U	0.6 U	0.57 U	7.1 UR	1.6 U	0.26 U	0.28 U	0.29 U
1,4-dichlorobenzene	ug/kg	0.63 U	33 U	0.46 U	0.6 U	330 U	**1.7 J**	0.36 U	0.33 U	0.35 U	290 U	0.34 U	0.74 U	0.7 U	7.1 UR	2 U	0.32 U	0.34 U	0.36 U
1,4-dioxane (p-dioxane)	ug/kg	160 U	8,500 U	120 U	150 U	6,700 UR	140 U	93 U	85 U	90 U	5,800 UR	88 U	190 U	180 U	140 UR	510 U	82 U	88 U	92 U
2-hexanone	ug/kg	1.8 U	95 U	1.3 U	1.7 U	670 U	1.6 U	1 U	0.95 U	1 U	580 U	0.98 U	2.1 U	2 U	14 U	5.6 U	0.91 U	0.99 U	1 U
Acetone	ug/kg	**12,800**	**1,800**	**90,500**	**37,300**	**17,000**	**6,550**	**17,200**	**44.9**	**1,460**	**820**	2.3 U	**93.6**	**48,300**	**170**	**116**	**651**	2.3 U	**74.4**
Benzene	ug/kg	0.63 U	**58.8 J**	**1.7**	**4.9**	**230 J**	**3.8**	0.37 U	0.34 U	**0.86 J**	290 U	**2.6**	**4.5**	**0.88 J**	**10 J**	**216**	**1.7**	0.35 U	0.36 U
Bromochloromethane	ug/kg	0.41 U	22 U	0.3 U	0.39 U	330 U	0.36 U	0.24 U	0.22 U	0.23 U	290 U	0.22 U	0.48 U	0.46 U	7.1 U	1.3 U	0.21 U	0.23 U	0.23 U
Bromodichloromethane	ug/kg	0.48 U	25 U	0.35 U	0.46 U	330 U	0.42 U	0.28 U	0.25 U	0.27 U	290 U	0.26 U	0.56 U	0.53 U	7.1 U	1.5 U	0.24 U	0.26 U	0.27 U
Bromoform	ug/kg	0.28 U	15 U	0.21 U	0.27 U	330 U	0.24 U	0.16 U	0.15 U	0.16 U	290 U	0.15 U	0.33 U	0.31 U	7.1 UR	0.88 U	0.14 U	0.15 U	0.16 U
Bromomethane	ug/kg	0.75 U	40 U	0.56 U	0.72 U	330 UJ	0.65 U	0.43 U	0.4 U	0.42 U	290 UJ	0.41 U	0.88 U	0.84 U	7.1 U	2.4 U	0.38 U	0.41 U	0.43 U
Carbon disulfide	ug/kg	0.57 U	**160 J**	**1.9 J**	**5 J**	330 U	**6.1 J**	**5.5**	**0.52 J**	**2.9 J**	290 U	0.31 U	**1.4 J**	**6.2 J**	**4.4 J**	**17.5 J**	**5.5**	**2.2 J**	**2.6 J**
Carbon tetrachloride	ug/kg	1 U	55 U	0.76 U	1 U	330 U	0.9 U	0.59 U	0.55 U	0.58 U	290 U	0.57 U	1.2 U	1.2 U	7.1 U	3.2 U	0.53 U	0.57 U	0.59 U
Chlorobenzene	ug/kg	0.63 U	33 U	0.47 U	0.61 U	330 U	0.55 U	0.36 U	0.33 U	0.35 U	290 U	0.35 U	0.74 U	0.7 U	7.1 U	2 U	0.32 U	0.35 U	0.36 U
Chloroethane	ug/kg	1.9 U	98 U	1.4 U	1.8 U	330 U	1.6 U	1.1 U	0.99 U	1 U	290 U	1 U	2.2 U	2.1 U	7.1 U	5.9 U	0.95 U	1 U	1.1 U
Chloroform	ug/kg	0.59 U	31 U	0.44 U	0.57 U	330 U	0.51 U	0.34 U	0.31 U	0.33 U	290 U	0.32 U	0.69 U	0.66 U	7.1 U	1.9 U	0.3 U	0.33 U	0.34 U
Chloromethane	ug/kg	0.31 U	16 U	0.23 U	0.3 U	330 U	0.27 U	0.18 U	0.16 U	0.17 U	290 U	0.17 U	0.36 U	0.34 U	7.1 U	0.97 U	0.16 U	0.17 U	0.18 U
cis-1,2-dichloroethylene	ug/kg	0.44 U	24 U	0.33 U	0.43 U	330 U	0.39 U	0.26 U	0.24 U	**0.37 J**	290 U	0.24 U	0.52 U	0.5 U	7.1 U	1.4 U	0.23 U	0.24 U	0.26 U
cis-1,3-dichloropropene	ug/kg	0.25 U	13 U	0.18 U	0.24 U	330 U	0.21 U	0.14 U	0.13 U	0.14 U	290 U	0.14 U	0.29 U	0.28 U	7.1 U	0.78 U	0.13 U	0.14 U	0.14 U
Cyclohexane	ug/kg	0.28 U	**1,030**	**5.8 J**	**4.3 J**	330 U	**11.9**	0.16 U	0.15 U	**2 J**	290 U	0.15 U	0.33 U	0.31 U	7.1 U	0.88 U	0.14 U	0.15 U	0.16 U
Dibromochloromethane	ug/kg	0.2 U	11 U	0.15 U	0.2 U	330 U	0.18 U	0.12 U	0.11 U	0.12 U	290 U	0.11 U	0.24 U	0.23 U	7.1 U	0.64 U	0.1 U	0.11 U	0.12 U
Dichlorodifluoromethane	ug/kg	1.8 U	93 U	1.3 U	1.7 U	330 U	1.5 U	1 U	0.93 U	0.99 U	290 U	0.96 U	2.1 U	2 U	7.1 U	5.5 U	0.9 U	0.97 U	1 U
Ethylbenzene	ug/kg	0.69 U	**134**	**2.3**	0.67 U	330 U	**2.4**	0.4 U	0.37 U	0.39 U	290 U	0.38 U	0.81 U	0.77 U	7.1 U	**295**	0.35 U	0.38 U	0.4 U
Isopropylbenzene (cumene)	ug/kg	0.96 U	**2,180**	0.71 U	0.93 U	330 U	0.84 U	0.56 U	0.51 U	0.54 U	290 U	0.53 U	1.1 U	1.1 U	7.1 U	**15.7 J**	0.49 U	0.53 U	0.55 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:		SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:		0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	0.87 U	**362**	**5.1**	**1.9 J**	**110 J**	**5.3**	0.5 U	0.46 U	0.49 U	290 U	0.48 U	1 U	0.97 U	7.1 U	**33.1**	0.45 U	0.48 U	0.5 U
Methyl acetate	ug/kg	1.5 U	**342 J**	1.1 U	1.5 U	**510**	1.3 U	0.88 U	0.81 U	0.86 U	290 U	0.84 U	1.8 U	1.7 U	7.1 U	4.8 U	0.78 U	0.84 U	0.88 U
Methyl ethyl ketone (2-butanone)	ug/kg	3.7 U	190 U	2.7 U	3.5 U	**200 J**	3.2 U	2.1 U	1.9 U	2.1 U	580 U	2 U	4.3 U	4.1 U	**54**	12 U	1.9 U	2 U	2.1 U
Methyl isobutyl ketone	ug/kg	1.5 U	80 U	1.1 U	1.5 U	670 U	1.3 U	0.87 U	0.8 U	0.85 U	580 U	0.83 U	1.8 U	1.7 U	14 U	4.7 U	0.77 U	0.83 U	0.87 U
Methylcyclohexane	ug/kg	1.2 U	**18,000**	**10.6**	**15.6**	330 U	**52.7**	0.7 U	0.65 U	**11.9**	290 U	0.67 U	1.4 U	1.4 U	7.1 U	3.8 U	0.62 U	0.67 U	**1.8 J**
Methylene chloride	ug/kg	0.41 U	22 U	0.31 U	0.4 U	330 U	0.36 U	0.24 U	0.22 U	0.23 U	290 U	0.23 U	0.49 U	0.46 U	7.1 U	1.3 U	0.21 U	0.23 U	0.24 U
o-xylene (1,2-dimethylbenzene)	ug/kg	0.87 U	**67 J**	**0.77 J**	0.84 U	330 U	**0.91 J**	0.5 U	0.46 U	0.49 U	290 U	0.48 U	1 U	0.97 U	7.1 U	**99**	0.45 U	0.48 U	0.5 U
Styrene	ug/kg	0.2 U	11 U	0.15 U	0.19 U	330 U	0.17 U	0.11 U	0.11 U	0.11 U	290 U	0.11 U	0.23 U	0.22 U	7.1 U	0.63 U	0.1 U	0.11 U	0.11 U
Tert-butyl methyl ether	ug/kg	0.52 U	28 U	0.39 U	**5.8**	330 U	**1.3 J**	**37**	0.28 U	**1.9**	290 U	0.29 U	**1 J**	0.59 U	7.1 U	1.6 U	0.27 U	0.29 U	0.3 U
Tetrachloroethylene(PCE)	ug/kg	0.27 U	14 U	0.2 U	0.26 U	330 U	0.23 U	0.16 U	0.14 U	0.15 U	290 U	0.15 U	0.32 U	0.3 U	7.1 U	0.85 U	0.14 U	0.15 U	0.15 U
Toluene	ug/kg	**0.61 J**	**85.4 J**	**0.88 J**	**1.3 J**	330 U	**1.2 J**	0.31 U	0.29 U	0.31 U	290 U	**1.3**	**0.88 J**	0.61 U	**3.1 J**	**14.8**	0.28 U	0.3 U	0.31 U
trans-1,2-dichloroethene	ug/kg	0.83 U	44 U	0.62 U	0.81 U	330 U	0.73 U	0.48 U	0.44 U	0.47 U	290 U	0.46 U	0.98 U	0.93 U	7.1 U	2.6 U	0.43 U	0.46 U	0.48 U
trans-1,3-dichloropropene	ug/kg	0.18 U	9.4 U	0.13 U	0.17 U	330 U	0.16 U	0.1 U	0.095 U	0.1 U	290 U	0.098 U	0.21 U	0.2 U	7.1 U	0.56 U	0.091 U	0.098 U	0.1 U
Trichloroethylene (TCE)	ug/kg	0.98 U	52 U	0.72 U	0.94 U	330 U	0.85 U	0.56 U	0.52 U	0.55 U	290 U	0.54 U	1.1 U	1.1 U	7.1 U	3.1 U	0.5 U	0.54 U	0.56 U
Trichlorofluoromethane	ug/kg	0.43 U	23 U	0.32 U	0.41 U	330 U	0.37 U	0.25 U	0.23 U	0.24 U	290 U	0.23 U	0.5 U	0.48 U	7.1 U	1.3 U	0.22 U	0.23 U	0.24 U
Vinyl chloride	ug/kg	0.33 U	18 U	0.25 U	0.32 U	330 U	0.29 U	0.19 U	0.18 U	0.19 U	290 U	0.18 U	0.39 U	0.37 U	7.1 U	1 U	0.17 U	0.18 U	0.19 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
Sample Number:		SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
Sample Depth:		30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
Sample Date:		6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.2 U	0.16 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,1,2,2-tetrachloroethane	ug/kg	5.2 U	0.36 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.2 U	0.7 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,1,2-trichloroethane	ug/kg	5.2 U	0.23 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,1-dichloroethane	ug/kg	5.2 U	0.17 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,1-dichloroethene	ug/kg	5.2 U	0.82 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,2,3-trichlorobenzene	ug/kg	5.2 U	0.73 U	11 U	1,500 U	**7,300 J**	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,2,4-trichlorobenzene	ug/kg	5.2 U	0.43 U	11 U	1,500 U	**7,000 J**	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,2-dibromo-3-chloropropane	ug/kg	5.2 U	0.67 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,2-dibromoethane	ug/kg	5.2 U	0.17 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,2-dichlorobenzene	ug/kg	5.2 U	0.34 U	11 U	1,500 U	**2,700 J**	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,2-dichloroethane	ug/kg	5.2 U	0.43 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,2-dichloropropane	ug/kg	5.2 U	0.16 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,3-dichlorobenzene	ug/kg	5.2 U	0.34 U	11 U	1,500 U	**3,100 J**	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,4-dichlorobenzene	ug/kg	5.2 U	0.42 U	11 U	1,500 U	**2,100 J**	5.7 U	6.1 U	**0.76 J**	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
1,4-dioxane (p-dioxane)	ug/kg	100 UR	110 U	220 UR	30,000 UR	590,000 UR	110 UR	120 UR	110 UR	110 UR	95 UR	200 UR	87 UR	99 UR	100 UR	99 UR	98 UR	11,000 UR	200 UR
2-hexanone	ug/kg	10 U	1.2 U	22 U	3,000 U	59,000 U	11 U	12 U	11 U	11 U	9.5 U	20 U	8.7 U	9.9 U	10 U	9.9 U	9.8 U	1,100 U	20 U
Acetone	ug/kg	**380**	**34.8**	**40**	3,000 U	59,000 U	11 U	12 U	11 U	11 U	**31**	**35**	**7.5 J**	**6.8 J**	**5.4 J**	9.9 U	**9 J**	1,100 U	**49**
Benzene	ug/kg	5.2 U	0.42 U	11 U	1,500 U	**8,300 J**	5.7 U	6.1 U	5.4 U	**1.3 J**	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Bromochloromethane	ug/kg	5.2 U	0.27 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Bromodichloromethane	ug/kg	5.2 U	0.32 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Bromoform	ug/kg	5.2 U	0.19 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Bromomethane	ug/kg	5.2 U	0.5 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Carbon disulfide	ug/kg	**1.9 J**	**2.7 J**	**24**	1,500 U	29,000 U	**1 J**	**1.1 J**	**4.7 J**	**1.5 J**	4.7 U	**23**	**1.9 J**	5 U	5.2 U	5 U	4.9 U	570 U	**15**
Carbon tetrachloride	ug/kg	5.2 U	0.69 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Chlorobenzene	ug/kg	5.2 U	0.42 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Chloroethane	ug/kg	5.2 U	1.2 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Chloroform	ug/kg	5.2 U	0.4 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Chloromethane	ug/kg	5.2 U	0.21 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
cis-1,2-dichloroethylene	ug/kg	5.2 U	0.3 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	**2.5 J**	5.2 U	**1.7 J**	**2.2 J**	570 U	9.8 U
cis-1,3-dichloropropene	ug/kg	5.2 U	0.17 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Cyclohexane	ug/kg	5.2 U	0.19 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	**62 J**	9.8 U
Dibromochloromethane	ug/kg	5.2 U	0.14 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Dichlorodifluoromethane	ug/kg	5.2 U	1.2 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Ethylbenzene	ug/kg	5.2 U	0.46 U	**0.96 J**	**2,400**	**160,000**	**0.55 J**	**0.16 J**	5.4 U	5.5 U	**0.25 J**	10 U	**0.17 J**	5 U	5.2 U	**0.33 J**	**0.29 J**	**30 J**	9.8 U
Isopropylbenzene (cumene)	ug/kg	5.2 U	0.64 U	**1 J**	**1,400 J**	**5,600 J**	5.7 U	6.1 U	**0.55 J**	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	**79 J**	9.8 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
Sample Number:		SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
Sample Depth:		30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
Sample Date:		6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	5.2 U	0.58 U	**1.5 J**	**590 J**	**120,000**	**0.43 J**	**0.31 J**	5.4 U	**0.65 J**	**0.72 J**	**0.89 J**	**0.54 J**	**0.39 J**	---	**0.9 J**	**0.78 J**	**15 J**	**0.28 J**
Methyl acetate	ug/kg	5.2 U	1 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Methyl ethyl ketone (2-butanone)	ug/kg	10 U	2.4 U	**16 J**	3,000 U	59,000 U	11 U	12 U	11 U	11 U	**9.4 J**	20 U	8.7 U	9.9 U	10 U	9.9 U	9.8 U	1,100 U	**27**
Methyl isobutyl ketone	ug/kg	10 U	1 U	22 U	3,000 U	59,000 U	11 U	12 U	11 U	11 U	9.5 U	20 U	8.7 U	9.9 U	10 U	9.9 U	9.8 U	1,100 U	20 U
Methylcyclohexane	ug/kg	5.2 U	0.81 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	**620**	9.8 U
Methylene chloride	ug/kg	5.2 U	0.28 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
o-xylene (1,2-dimethylbenzene)	ug/kg	5.2 U	0.58 U	**1.4 J**	**740 J**	**54,000**	**0.31 J**	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Styrene	ug/kg	5.2 U	0.13 U	11 U	1,500 U	**26,000 J**	5.7 U	6.1 U	5.4 U	5.5 U	**0.44 J**	10 U	4.3 U	5 U	**0.46 J**	**0.78 J**	**0.74 J**	570 U	9.8 U
Tert-butyl methyl ether	ug/kg	5.2 U	0.35 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	**1.8 J**	**5.5 J**	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Tetrachloroethylene(PCE)	ug/kg	5.2 U	0.18 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Toluene	ug/kg	5.2 U	0.36 U	11 U	**57 J**	**45,000**	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
trans-1,2-dichloroethene	ug/kg	5.2 U	0.56 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
trans-1,3-dichloropropene	ug/kg	5.2 U	0.12 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Trichloroethylene (TCE)	ug/kg	5.2 U	0.65 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Trichlorofluoromethane	ug/kg	5.2 U	0.28 U	**0.93 J**	1,500 U	29,000 U	5.7 U	**0.84 J**	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U
Vinyl chloride	ug/kg	5.2 U	0.22 U	11 U	1,500 U	29,000 U	5.7 U	6.1 U	5.4 U	5.5 U	4.7 U	10 U	4.3 U	5 U	5.2 U	5 U	4.9 U	570 U	9.8 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
Sample Number:		059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
Sample Depth:		15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,1,2,2-tetrachloroethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,1,2-trichloroethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,1-dichloroethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,1-dichloroethene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,2,3-trichlorobenzene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,2,4-trichlorobenzene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,2-dibromo-3-chloropropane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,2-dibromoethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,2-dichlorobenzene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,2-dichloroethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,2-dichloropropane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,3-dichlorobenzene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,4-dichlorobenzene	ug/kg	13 U	5 U	5.1 U	**0.37 J**	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
1,4-dioxane (p-dioxane)	ug/kg	250 UR	100 UR	100 UR	110 UR	190 UR	190 UR	150 UR	99 UR	100 UR	89 UR	11,000 UR	320,000 UR	180 UR	170 UR	190 UR	180 UR	99 UR	110 UR
2-hexanone	ug/kg	25 U	10 U	10 U	11 U	19 U	19 U	15 U	9.9 U	10 U	8.9 U	1,100 U	32,000 U	18 UJ	17 UJ	19 UJ	18 UJ	9.9 UJ	11 UJ
Acetone	ug/kg	**66**	10 U	10 U	**40**	**67**	**48**	**53**	9.9 U	10 U	8.9 U	1,100 U	32,000 U	**27 J**	**43 J**	**70 J**	**99 J**	**46 J**	11 UJ
Benzene	ug/kg	13 U	5 U	5.1 U	5.7 U	**2.9 J**	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	**8,300 J**	9.2 UJ	8.7 UJ	9.6 UJ	**2 J**	4.9 UJ	5.3 UJ
Bromochloromethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Bromodichloromethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Bromoform	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Bromomethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Carbon disulfide	ug/kg	**30**	5 U	5.1 U	**1.8 J**	**33**	**32**	**28**	**1 J**	**0.83 J**	4.4 U	540 U	16,000 U	**19 J**	**17 J**	**34 J**	**29 J**	**2.3 J**	**1 J**
Carbon tetrachloride	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Chlorobenzene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Chloroethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Chloroform	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Chloromethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
cis-1,2-dichloroethylene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
cis-1,3-dichloropropene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Cyclohexane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Dibromochloromethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Dichlorodifluoromethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Ethylbenzene	ug/kg	13 U	5 U	5.1 U	5.7 U	**0.37 J**	9.4 U	7.4 U	5 U	5.1 U	**0.23 J**	**990**	**190,000**	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Isopropylbenzene (cumene)	ug/kg	13 U	5 U	5.1 U	**0.67 J**	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	**180 J**	**36,000**	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
Sample Number:		059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
Sample Depth:		15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**0.45 J**	5 U	**0.15 J**	**0.5 J**	**0.67 J**	**0.26 J**	**0.26 J**	5 U	5.1 U	**0.17 J**	**760**	**160,000**	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Methyl acetate	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	**28**	10 U	10 U	11 U	**17 J**	**14 J**	**16**	9.9 U	10 U	8.9 U	1,100 U	32,000 U	18 UJ	17 UJ	19 UJ	**34 J**	**14 J**	11 UJ
Methyl isobutyl ketone	ug/kg	25 U	10 U	10 U	11 U	19 U	19 U	15 U	9.9 U	10 U	8.9 U	1,100 U	32,000 U	18 UJ	17 UJ	19 UJ	18 UJ	9.9 UJ	11 UJ
Methylcyclohexane	ug/kg	13 U	5 U	5.1 U	**7.1**	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Methylene chloride	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	13 U	5 U	**0.079 J**	**0.21 J**	**0.42 J**	9.4 U	**0.12 J**	5 U	5.1 U	4.4 U	**440 J**	**73,000**	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Styrene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Tert-butyl methyl ether	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Tetrachloroethylene(PCE)	ug/kg	13 U	5 U	5.1 U	**1.7 J**	**34**	**0.15 J**	**5.8 J**	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Toluene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	**130 J**	**4,600 J**	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
trans-1,2-dichloroethene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
trans-1,3-dichloropropene	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Trichloroethylene (TCE)	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ
Trichlorofluoromethane	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	**1.5 J**	9.6 UJ	**1.6 J**	**0.74 J**	5.3 UJ
Vinyl chloride	ug/kg	13 U	5 U	5.1 U	5.7 U	9.7 U	9.4 U	7.4 U	5 U	5.1 U	4.4 U	540 U	16,000 U	9.2 UJ	8.7 UJ	9.6 UJ	9 UJ	4.9 UJ	5.3 UJ

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg	0.24 U	0.13 U	0.14 U	8.9 U	310 U	0.16 U	0.17 U	0.27 U	0.2 U	0.13 U	4.9 U	0.14 U	0.14 U	8.1 U	5 U	0.14 U	0.15 U	0.14 U
1,1,2,2-tetrachloroethane	ug/kg	0.56 U	0.3 U	0.32 U	20 U	310 U	0.37 U	0.38 U	0.62 U	0.46 U	0.3 U	4.9 U	0.33 U	0.33 U	19 U	5 U	0.31 U	0.35 U	0.31 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1.1 U	0.58 U	0.61 U	39 U	310 U	0.7 U	0.73 U	1.2 U	0.89 U	0.57 U	4.9 U	0.63 U	0.63 U	36 U	5 U	0.6 U	0.68 U	0.6 U
1,1,2-trichloroethane	ug/kg	0.35 U	0.19 U	0.2 U	13 U	310 U	0.23 U	0.24 U	0.39 U	0.29 U	0.19 U	4.9 U	0.21 U	0.21 U	12 U	5 U	0.2 U	0.22 U	0.2 U
1,1-dichloroethane	ug/kg	0.26 U	0.14 U	0.15 U	9.6 U	310 U	0.17 U	0.18 U	0.29 U	0.22 U	0.14 U	4.9 U	0.16 U	0.15 U	8.8 U	5 U	0.15 U	0.17 U	0.15 U
1,1-dichloroethene	ug/kg	1.3 U	0.69 U	0.71 U	46 U	310 U	0.83 U	0.86 U	1.4 U	1 U	0.67 U	4.9 U	0.74 U	0.74 U	42 U	5 U	0.7 U	0.8 U	0.7 U
1,2,3-trichlorobenzene	ug/kg	1.1 U	0.61 U	0.64 U	41 U	310 U	0.74 U	0.76 U	1.3 U	0.93 U	0.6 U	4.9 U	0.66 U	0.66 U	38 U	5 U	0.63 U	0.71 U	0.62 U
1,2,4-trichlorobenzene	ug/kg	0.66 U	0.36 U	0.37 U	24 U	310 U	0.43 U	0.45 U	0.74 U	0.55 U	0.35 U	4.9 U	0.39 U	0.39 U	22 U	5 U	0.37 U	0.42 U	0.37 U
1,2-dibromo-3-chloropropane	ug/kg	1 U	0.56 U	0.58 U	38 U	310 U	0.68 U	0.7 U	1.2 U	0.85 U	0.55 U	4.9 U	0.61 U	0.6 U	34 U	5 U	0.57 U	0.65 U	0.57 U
1,2-dibromoethane	ug/kg	0.26 U	0.14 U	0.15 U	9.6 U	310 U	0.17 U	0.18 U	0.29 U	0.22 U	0.14 U	4.9 U	0.15 U	0.15 U	8.7 U	5 U	0.15 U	0.16 U	0.15 U
1,2-dichlorobenzene	ug/kg	0.51 U	0.28 U	0.29 U	19 U	310 U	0.34 U	0.35 U	0.58 U	0.43 U	0.27 U	4.9 U	0.3 U	0.3 U	17 U	5 U	0.29 U	0.32 U	0.29 U
1,2-dichloroethane	ug/kg	0.66 U	0.36 U	0.37 U	24 U	310 U	0.43 U	0.45 U	0.74 U	0.55 U	0.35 U	4.9 U	0.39 U	0.39 U	22 U	5 U	0.37 U	0.42 U	0.37 U
1,2-dichloropropane	ug/kg	0.25 U	0.14 U	0.14 U	9.1 U	310 U	0.16 U	0.17 U	0.28 U	0.21 U	0.13 U	4.9 U	0.15 U	0.15 U	8.3 U	5 U	0.14 U	0.16 U	0.14 U
1,3-dichlorobenzene	ug/kg	0.52 U	0.29 U	0.3 U	19 U	310 U	0.34 U	0.36 U	0.59 U	0.43 U	0.28 U	4.9 U	0.31 U	0.31 U	17 U	5 U	0.29 U	0.33 U	0.29 U
1,4-dichlorobenzene	ug/kg	0.64 U	0.35 U	0.36 U	24 U	310 U	0.42 U	0.44 U	0.72 U	0.53 U	0.34 U	4.9 U	0.38 U	0.38 U	21 U	5 U	0.36 U	0.41 U	0.36 U
1,4-dioxane (p-dioxane)	ug/kg	160 U	90 U	93 U	6,000 U	6,300 UR	110 U	110 U	180 U	140 U	87 U	98 UR	97 U	97 U	5,500 U	99 UR	92 U	100 U	92 U
2-hexanone	ug/kg	1.8 U	1 U	1 U	67 U	630 U	1.2 U	1.2 U	2.1 U	1.5 U	0.97 U	9.8 U	1.1 U	1.1 U	61 U	9.9 U	1 U	1.2 U	1 U
Acetone	ug/kg	4.2 U	**30.1**	**14.6**	**10,600**	**5,800**	**129**	**459 J**	**261**	**29**	**39**	**150**	**20.3**	**22.9**	**12,200**	**4,500 J**	**2,310**	**83.9**	**2,390**
Benzene	ug/kg	0.65 U	**1.9**	**0.76 J**	24 U	310 U	0.43 U	0.44 U	0.73 U	0.54 U	**8**	**2.3 J**	0.38 U	0.38 U	22 U	5 U	0.36 U	0.41 U	0.36 U
Bromochloromethane	ug/kg	0.42 U	0.23 U	0.24 U	15 U	310 U	0.28 U	0.28 U	0.47 U	0.35 U	0.22 U	4.9 U	0.25 U	0.25 U	14 U	5 U	0.23 U	0.26 U	0.23 U
Bromodichloromethane	ug/kg	0.49 U	0.27 U	0.28 U	18 U	310 U	0.32 U	0.33 U	0.55 U	0.41 U	0.26 U	4.9 U	0.29 U	0.29 U	16 U	5 U	0.27 U	0.31 U	0.27 U
Bromoform	ug/kg	0.29 U	0.16 U	0.16 U	11 U	310 U	0.19 U	0.2 U	0.32 U	0.24 U	0.15 U	4.9 U	0.17 U	0.17 U	9.6 U	5 U	0.16 U	0.18 U	0.16 U
Bromomethane	ug/kg	0.77 U	0.42 U	0.43 U	28 U	310 UJ	0.51 U	0.52 U	0.86 U	0.64 U	0.41 U	4.9 U	0.45 U	0.45 U	26 U	5 U	0.43 U	0.49 U	0.43 U
Carbon disulfide	ug/kg	0.58 U	**2.1 J**	**1.2 J**	21 U	310 U	0.38 U	**0.57 J**	0.65 U	**3.1 J**	**1.3 J**	**2.8 J**	**0.44 J**	**1.1 J**	19 U	5 U	0.32 U	0.37 U	0.32 U
Carbon tetrachloride	ug/kg	1.1 U	0.58 U	0.6 U	39 U	310 U	0.69 U	0.72 U	1.2 U	0.88 U	0.56 U	4.9 U	0.62 U	0.62 U	35 U	5 U	0.59 U	0.67 U	0.59 U
Chlorobenzene	ug/kg	0.65 U	0.35 U	0.36 U	24 U	310 U	0.42 U	0.44 U	0.72 U	0.54 U	0.34 U	4.9 U	0.38 U	0.38 U	22 U	5 U	0.36 U	0.41 U	0.36 U
Chloroethane	ug/kg	1.9 U	1 U	1.1 U	70 U	310 U	1.3 U	1.3 U	2.1 U	1.6 U	1 U	4.9 U	1.1 U	1.1 U	64 U	5 U	1.1 U	1.2 U	1.1 U
Chloroform	ug/kg	0.61 U	0.33 U	0.34 U	22 U	310 U	0.4 U	0.41 U	0.68 U	0.5 U	0.32 U	4.9 U	0.36 U	0.36 U	20 U	5 U	0.34 U	0.38 U	0.34 U
Chloromethane	ug/kg	0.31 U	0.17 U	0.18 U	12 U	310 U	0.21 U	0.21 U	0.35 U	0.26 U	0.17 U	4.9 U	0.19 U	0.18 U	10 U	5 U	0.18 U	0.2 U	0.17 U
cis-1,2-dichloroethylene	ug/kg	0.46 U	0.25 U	0.26 U	17 U	310 U	0.3 U	0.31 U	0.51 U	0.38 U	0.24 U	4.9 U	0.27 U	0.27 U	15 U	5 U	0.25 U	0.29 U	0.25 U
cis-1,3-dichloropropene	ug/kg	0.25 U	0.14 U	0.14 U	9.3 U	310 U	0.17 U	0.17 U	0.28 U	0.21 U	0.13 U	4.9 U	0.15 U	0.15 U	8.5 U	5 U	0.14 U	0.16 U	0.14 U
Cyclohexane	ug/kg	0.29 U	0.16 U	0.16 U	11 U	310 U	0.19 U	0.2 U	0.32 U	0.24 U	0.15 U	4.9 U	0.17 U	0.17 U	9.6 U	5 U	0.16 U	0.18 U	0.16 U
Dibromochloromethane	ug/kg	0.21 U	0.11 U	0.12 U	7.7 U	310 U	0.14 U	0.14 U	0.23 U	0.17 U	0.11 U	4.9 U	0.12 U	0.12 U	7 U	5 U	0.12 U	0.13 U	0.12 U
Dichlorodifluoromethane	ug/kg	1.8 U	0.98 U	1 U	66 U	310 U	1.2 U	1.2 U	2 U	1.5 U	0.96 U	4.9 U	1.1 U	1.1 U	60 U	5 U	1 U	1.1 U	1 U
Ethylbenzene	ug/kg	0.71 U	0.39 U	0.4 U	26 U	310 U	0.46 U	0.48 U	0.79 U	0.59 U	0.38 U	4.9 U	0.42 U	0.41 U	24 U	5 U	0.39 U	0.45 U	0.39 U
Isopropylbenzene (cumene)	ug/kg	0.99 U	0.54 U	0.56 U	36 U	310 U	0.65 U	0.67 U	1.1 U	0.82 U	0.52 U	4.9 U	0.58 U	0.58 U	33 U	5 U	0.55 U	0.62 U	0.55 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:		SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:		0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:		N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	0.89 U	0.49 U	0.5 U	33 U	310 U	0.59 U	0.61 U	1 U	0.74 U	0.47 U	4.9 U	0.53 U	**0.83 J**	30 U	5 U	0.5 U	0.56 U	0.5 U
Methyl acetate	ug/kg	1.6 U	0.86 U	0.89 U	57 U	310 U	1 U	1.1 U	1.8 U	1.3 U	0.83 U	4.9 U	0.92 U	0.92 U	52 U	5 U	0.87 U	0.99 U	0.87 U
Methyl ethyl ketone (2-butanone)	ug/kg	3.8 U	2 U	2.1 U	140 U	**150 J**	2.5 U	2.5 U	4.2 U	3.1 U	2 U	9.8 U	2.2 U	2.2 U	130 U	**4.7 J**	2.1 U	2.4 U	2.1 U
Methyl isobutyl ketone	ug/kg	1.5 U	0.84 U	0.87 U	57 U	630 U	1 U	1 U	1.7 U	1.3 U	0.82 U	9.8 U	0.91 U	0.91 U	52 U	9.9 U	0.86 U	0.98 U	0.86 U
Methylcyclohexane	ug/kg	1.2 U	0.68 U	0.7 U	46 U	310 U	0.82 U	0.84 U	1.4 U	1 U	0.66 U	4.9 U	0.73 U	0.73 U	42 U	5 U	0.69 U	0.79 U	0.69 U
Methylene chloride	ug/kg	0.42 U	0.23 U	0.24 U	16 U	310 U	0.28 U	0.29 U	0.48 U	0.35 U	0.23 U	4.9 U	0.25 U	0.25 U	14 U	5 U	0.24 U	0.27 U	0.24 U
o-xylene (1,2-dimethylbenzene)	ug/kg	0.89 U	0.49 U	0.5 U	33 U	310 U	0.59 U	0.61 U	1 U	0.74 U	0.47 U	4.9 U	0.53 U	**0.84 J**	30 U	5 U	0.5 U	0.56 U	0.5 U
Styrene	ug/kg	0.2 U	0.11 U	0.12 U	7.5 U	310 U	0.13 U	0.14 U	0.23 U	0.17 U	0.11 U	4.9 U	0.12 U	0.12 U	6.8 U	5 U	0.11 U	0.13 U	0.11 U
Tert-butyl methyl ether	ug/kg	0.54 U	0.29 U	0.3 U	20 U	310 U	0.35 U	0.36 U	0.6 U	0.45 U	0.29 U	4.9 U	0.32 U	0.32 U	18 U	5 U	0.3 U	0.34 U	0.3 U
Tetrachloroethylene(PCE)	ug/kg	0.28 U	0.15 U	0.16 U	**39.2 J**	310 U	0.18 U	0.19 U	0.31 U	0.23 U	0.15 U	4.9 U	0.16 U	**0.32 J**	9.2 U	5 U	0.15 U	0.17 U	0.15 U
Toluene	ug/kg	0.56 U	**0.67 J**	0.31 U	20 U	310 U	0.37 U	0.38 U	0.62 U	0.46 U	0.3 U	4.9 U	0.33 U	**0.43 J**	19 U	5 U	0.31 U	0.35 U	0.31 U
trans-1,2-dichloroethene	ug/kg	0.86 U	0.47 U	0.48 U	31 U	310 U	0.56 U	0.58 U	0.96 U	0.71 U	0.45 U	4.9 U	0.5 U	0.5 U	29 U	5 U	0.48 U	0.54 U	0.48 U
trans-1,3-dichloropropene	ug/kg	0.18 U	0.1 U	0.1 U	6.7 U	310 U	0.12 U	0.12 U	0.2 U	0.15 U	0.097 U	4.9 U	0.11 U	0.11 U	6.1 U	5 U	0.1 U	0.12 U	0.1 U
Trichloroethylene (TCE)	ug/kg	1 U	0.55 U	0.57 U	**58 J**	310 U	0.66 U	0.68 U	1.1 U	0.83 U	0.53 U	4.9 U	0.59 U	0.59 U	33 U	5 U	0.56 U	0.63 U	0.56 U
Trichlorofluoromethane	ug/kg	0.44 U	0.24 U	0.25 U	16 U	310 U	0.29 U	0.3 U	0.49 U	0.36 U	0.23 U	4.9 U	0.26 U	0.26 U	15 U	5 U	0.24 U	0.28 U	0.24 U
Vinyl chloride	ug/kg	0.34 U	0.19 U	0.19 U	12 U	310 U	0.22 U	0.23 U	0.38 U	0.28 U	0.18 U	4.9 U	0.2 U	0.2 U	11 U	5 U	0.19 U	0.21 U	0.19 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
Sample Depth:		30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	0.13 U	0.14 U	0.14 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,1,2,2-tetrachloroethane	ug/kg	0.3 U	0.31 U	0.32 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	0.58 U	0.6 U	0.61 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,1,2-trichloroethane	ug/kg	0.19 U	0.2 U	0.2 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,1-dichloroethane	ug/kg	0.14 U	0.15 U	0.15 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,1-dichloroethene	ug/kg	0.69 U	0.7 U	0.72 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,2,3-trichlorobenzene	ug/kg	0.61 U	0.63 U	0.64 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,2,4-trichlorobenzene	ug/kg	0.36 U	0.37 U	0.38 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,2-dibromo-3-chloropropane	ug/kg	0.56 U	0.58 U	0.59 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,2-dibromoethane	ug/kg	0.14 U	0.15 U	0.15 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,2-dichlorobenzene	ug/kg	0.28 U	0.29 U	0.29 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,2-dichloroethane	ug/kg	0.36 U	0.37 U	0.38 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,2-dichloropropane	ug/kg	0.14 U	0.14 U	0.14 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,3-dichlorobenzene	ug/kg	0.29 U	0.29 U	0.3 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,4-dichlorobenzene	ug/kg	0.35 U	0.36 U	0.37 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
1,4-dioxane (p-dioxane)	ug/kg	90 U	92 U	94 U	110 UR	100 UR	100 UR	100 UR	7,500 UR	170 UR	130 UR	7,100 UR	500,000 UR	74,000 UR	130 UR	130,000 UR	6,400 UR	6,000 UR	110 UR
2-hexanone	ug/kg	1 U	1 U	1.1 U	11 U	10 U	10 U	10 U	750 U	17 U	13 U	710 U	50,000 U	7,400 U	13 U	13,000 U	640 U	600 U	11 U
Acetone	ug/kg	**3,450**	**1,910**	**1,800**	**760 J**	**800 J**	**39**	**33**	750 U	**47**	**41**	710 U	50,000 U	7,400 U	13 U	13,000 U	640 U	600 U	**33**
Benzene	ug/kg	0.35 U	0.36 U	0.37 U	5.6 U	5.2 U	**4.9 J**	**70**	**120 J**	**3.3 J**	**220 J**	**97 J**	**11,000 J**	**920 J**	**2.3 J**	**9,600**	**2,300**	**310**	**140**
Bromochloromethane	ug/kg	0.23 U	0.23 U	0.24 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Bromodichloromethane	ug/kg	0.27 U	0.27 U	0.28 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Bromoform	ug/kg	0.16 U	0.16 U	0.16 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Bromomethane	ug/kg	0.42 U	0.43 U	0.44 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Carbon disulfide	ug/kg	0.32 U	0.32 U	0.33 U	5.6 U	5.2 U	**2.6 J**	**1.5 J**	**47 J**	**28**	**18**	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	**0.68 J**
Carbon tetrachloride	ug/kg	0.58 U	0.59 U	0.61 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Chlorobenzene	ug/kg	0.35 U	0.36 U	0.37 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Chloroethane	ug/kg	1 U	1.1 U	1.1 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Chloroform	ug/kg	0.33 U	0.34 U	**0.43 J**	5.6 U	**2.4 J**	5.2 U	5.2 U	370 U	8.5 U	**0.6 J**	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Chloromethane	ug/kg	0.17 U	0.18 U	0.18 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
cis-1,2-dichloroethylene	ug/kg	0.25 U	0.25 U	0.26 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	**0.58 J**	6,500 U	320 U	300 U	5.3 U
cis-1,3-dichloropropene	ug/kg	0.14 U	0.14 U	0.15 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Cyclohexane	ug/kg	0.16 U	0.16 U	0.16 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	**34**	360 U	25,000 U	3,700 U	6.6 U	**45,000**	**740**	**63 J**	**7.9**
Dibromochloromethane	ug/kg	0.11 U	0.12 U	0.12 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Dichlorodifluoromethane	ug/kg	0.98 U	1 U	1 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Ethylbenzene	ug/kg	0.39 U	0.39 U	0.4 U	5.6 U	5.2 U	**2 J**	**65**	**66 J**	**0.57 J**	**19 J**	**170 J**	**100,000**	**1,900 J**	**3.6 J**	**51,000**	**710**	**270 J**	**140**
Isopropylbenzene (cumene)	ug/kg	0.54 U	0.55 U	0.57 U	5.6 U	5.2 U	**5.9**	**15**	**20 J**	8.5 U	**9.9 J**	**160 J**	**17,000 J**	**210 J**	**0.33 J**	**9,500**	**85 J**	**17 J**	**6.2**

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
Sample Depth:		30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	0.49 U	0.5 U	0.51 U	5.6 U	5.2 U	**6.5**	**190**	**67 J**	**1.1 J**	**52 J**	**170 J**	**96,000**	**6,900**	**1.4 J**	**170,000**	**2,400**	**740**	**69**
Methyl acetate	ug/kg	0.85 U	0.88 U	0.9 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Methyl ethyl ketone (2-butanone)	ug/kg	2 U	2.1 U	2.2 U	11 U	10 U	10 U	**7.2 J**	750 U	**10 J**	13 U	710 U	50,000 U	7,400 U	13 U	13,000 U	640 U	600 U	11 U
Methyl isobutyl ketone	ug/kg	0.84 U	0.86 U	0.89 U	11 U	10 U	10 U	10 U	750 U	17 U	13 U	710 U	50,000 U	7,400 U	13 U	13,000 U	640 U	600 U	11 U
Methylcyclohexane	ug/kg	0.68 U	0.7 U	0.71 U	5.6 U	5.2 U	**2 J**	**1.5 J**	370 U	8.5 U	**11**	360 U	25,000 U	3,700 U	6.6 U	**17,000**	**200 J**	300 U	**3.2 J**
Methylene chloride	ug/kg	0.23 U	0.24 U	0.24 U	**2.1 J**	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
o-xylene (1,2-dimethylbenzene)	ug/kg	0.49 U	0.5 U	0.51 U	5.6 U	5.2 U	**4.3 J**	**83**	**41 J**	**0.35 J**	**13 J**	**86 J**	**42,000**	**3,200 J**	**1 J**	**69,000**	**970**	**330**	**17**
Styrene	ug/kg	0.11 U	0.11 U	0.12 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	**9,500**	6.6 U	6,500 U	320 U	300 U	5.3 U
Tert-butyl methyl ether	ug/kg	0.29 U	0.3 U	0.31 U	5.6 U	5.2 U	**1 J**	**7.9**	**18 J**	**1.3 J**	**23 J**	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Tetrachloroethylene(PCE)	ug/kg	0.15 U	0.15 U	0.16 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Toluene	ug/kg	0.3 U	0.31 U	0.32 U	5.6 U	5.2 U	5.2 U	**6.3**	**41 J**	8.5 U	**71 J**	**59 J**	**23,000 J**	**2,100 J**	6.6 U	**97,000**	**3,600**	**520**	**7.6**
trans-1,2-dichloroethene	ug/kg	0.47 U	0.48 U	0.49 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
trans-1,3-dichloropropene	ug/kg	0.1 U	0.1 U	0.1 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Trichloroethylene (TCE)	ug/kg	0.55 U	0.56 U	0.57 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U
Trichlorofluoromethane	ug/kg	0.24 U	0.24 U	0.25 U	5.6 U	5.2 U	**1.2 J**	**0.64 J**	370 U	**3 J**	**0.58 J**	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	**0.42 J**
Vinyl chloride	ug/kg	0.18 U	0.19 U	0.19 U	5.6 U	5.2 U	5.2 U	5.2 U	370 U	8.5 U	6.3 U	360 U	25,000 U	3,700 U	6.6 U	6,500 U	320 U	300 U	5.3 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:		059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:		26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:		5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,1,2,2-tetrachloroethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,1,2-trichloroethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,1-dichloroethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,1-dichloroethene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,2,3-trichlorobenzene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,2,4-trichlorobenzene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,2-dibromo-3-chloropropane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,2-dibromoethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,2-dichlorobenzene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,2-dichloroethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	**14**	**19**	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,2-dichloropropane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,3-dichlorobenzene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,4-dichlorobenzene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
1,4-dioxane (p-dioxane)	ug/kg	110 UR	100 UR	96 UR	6,400 UR	100 UR	96 UR	120,000 UR	120 UR	130 UR	190 UR	190 UR	180 UR	120 UR	110 UR	120 UR	8,800 UR	110 UR	110 UR
2-hexanone	ug/kg	11 U	10 U	9.6 U	640 U	10 U	9.6 U	12,000 U	12 UR	13 UR	19 UR	19 UR	990 U	12 UR	11 UR	12 UR	880 U	11 U	11 U
Acetone	ug/kg	**25**	**31**	**18**	640 U	**33**	**30**	12,000 U	23 R	32 R	74 R	180 R	990 U	12 UR	11 UR	12 UR	880 U	**20**	11 U
Benzene	ug/kg	**3 J**	**2.3 J**	**1.5 J**	320 U	**1.4 J**	4.8 U	**970 J**	2.2 R	6.4 UR	9.5 UR	9.4 UR	500 U	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Bromochloromethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Bromodichloromethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Bromoform	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Bromomethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Carbon disulfide	ug/kg	5.3 U	5.1 U	4.8 U	**62 J**	5.1 U	4.8 U	5,800 U	8.1 R	9.9 R	77 R	110 R	500 U	1.5 R	0.96 R	5.8 UR	440 U	5.3 U	**1.8 J**
Carbon tetrachloride	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Chlorobenzene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Chloroethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Chloroform	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Chloromethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
cis-1,2-dichloroethylene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	500 U	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
cis-1,3-dichloropropene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Cyclohexane	ug/kg	**12**	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 R	6.4 UR	9.5 UR	9.4 UR	8.9 R	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Dibromochloromethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Dichlorodifluoromethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Ethylbenzene	ug/kg	**0.58 J**	**0.33 J**	**0.4 J**	**14 J**	**0.2 J**	**0.2 J**	**9,000**	7.7 R	6.4 R	9.5 UR	9.4 UR	8.9 R	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Isopropylbenzene (cumene)	ug/kg	**0.19 J**	5.1 U	4.8 U	320 U	5.1 U	4.8 U	**1,300 J**	0.6 R	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	**130 J**	5.3 U	5.4 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:		059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:		26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:		5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**1.4 J**	---	**1 J**	**30 J**	**0.52 J**	**0.45 J**	**11,000**	---	---	---	---	500 U	---	---	---	440 U	5.3 U	5.4 U
Methyl acetate	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Methyl ethyl ketone (2-butanone)	ug/kg	**6.5 J**	10 U	9.6 U	640 U	10 U	9.6 U	12,000 U	13 R	11 R	30 R	61 R	990 U	12 UR	11 UR	12 UR	880 U	11 U	11 U
Methyl isobutyl ketone	ug/kg	11 U	10 U	9.6 U	640 U	10 U	9.6 U	12,000 U	12 UR	13 UR	19 UR	19 UR	990 U	12 UR	11 UR	12 UR	880 U	11 U	11 U
Methylcyclohexane	ug/kg	**6.5**	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Methylene chloride	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 R	6.4 R	9.5 R	10 R	**27 J**	5.9 R	5.3 R	5.8 R	**30 J**	5.3 U	5.4 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**0.59 J**	**0.3 J**	**0.38 J**	320 U	**0.23 J**	**0.24 J**	**4,400 J**	6.1 R	6.4 UR	9.5 UR	9.4 UR	8.9 R	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Styrene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Tert-butyl methyl ether	ug/kg	5.3 U	5.1 U	**40**	**400**	**10**	**18**	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	**1.3 J**	**1.1 J**
Tetrachloroethylene(PCE)	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Toluene	ug/kg	5.3 U	5.1 U	4.8 U	**52 J**	5.1 U	4.8 U	**2,400 J**	6.1 R	6.4 R	9.5 R	10 R	8.9 R	5.9 R	5.3 R	5.8 UR	440 U	5.3 U	5.4 U
trans-1,2-dichloroethene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
trans-1,3-dichloropropene	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Trichloroethylene (TCE)	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U
Trichlorofluoromethane	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 R	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	**1.4 J**
Vinyl chloride	ug/kg	5.3 U	5.1 U	4.8 U	320 U	5.1 U	4.8 U	5,800 U	6.1 UR	6.4 UR	9.5 UR	9.4 UR	8.9 UR	5.9 UR	5.3 UR	5.8 UR	440 U	5.3 U	5.4 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
Sample Number:		059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
Sample Depth:		15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,1,2,2-tetrachloroethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 UR	8.2 UR	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,1,2-trichloroethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,1-dichloroethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 UR	8.2 UJ	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,1-dichloroethene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,2,3-trichlorobenzene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,2,4-trichlorobenzene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,2-dibromo-3-chloropropane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 UR	8.2 UR	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,2-dibromoethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,2-dichlorobenzene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,2-dichloroethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,2-dichloropropane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,3-dichlorobenzene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,4-dichlorobenzene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
1,4-dioxane (p-dioxane)	ug/kg	120 UR	110 UR	100 UR	100 UR	120 UR	110 UR	120 UR	120 UR	110 UR	120 UR	160 UR	110 UR	130 UR	110 UR	100 UR	120 UR	120 UR	95 UR
2-hexanone	ug/kg	12 U	11 U	10 UJ	10 UJ	12 UJ	11 UJ	12 UJ	12 UJ	11 UJ	12 U	16 U	11 U	13 U	11 U	10 U	12 U	12 U	9.5 U
Acetone	ug/kg	**34**	11 U	**20 J**	**18 J**	**30 J**	**48 J**	**19 J**	12 UJ	11 UJ	**22**	**25**	**27**	**18**	11 U	**6.4 J**	**6.7 J**	**9.3 J**	**6.3 J**
Benzene	ug/kg	6 U	5.4 U	**3 J**	**2 J**	**3.4 J**	**4.4 J**	**1.4 J**	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Bromochloromethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 UR	8.2 UJ	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Bromodichloromethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Bromoform	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 UR	8.2 UJ	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Bromomethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Carbon disulfide	ug/kg	**11**	**5.6**	**2.3 J**	**2.2 J**	6.2 UJ	**1.8 J**	**1.9 J**	5.8 UJ	**1.1 J**	**9.2**	**18**	**9.1**	**7**	**1.5 J**	5.1 U	6.1 U	6 U	4.7 U
Carbon tetrachloride	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Chlorobenzene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Chloroethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Chloroform	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	**53 J**	**53 J**	5.6 U	6.7 U	**2.3 J**	5.1 U	6.1 U	6 U	4.7 U
Chloromethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
cis-1,2-dichloroethylene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
cis-1,3-dichloropropene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Cyclohexane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Dibromochloromethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 UR	8.2 UJ	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Dichlorodifluoromethane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Ethylbenzene	ug/kg	6 U	5.4 U	5.1 UJ	**0.2 J**	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	**0.6 J**	8.2 U	**0.27 J**	**0.47 J**	**0.23 J**	5.1 U	**0.35 J**	**0.35 J**	**0.26 J**
Isopropylbenzene (cumene)	ug/kg	6 U	5.4 U	**0.39 J**	**0.89 J**	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
Sample Number:		059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
Sample Depth:		15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	6 U	5.4 U	---	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	**1.5 J**	8.2 U	**0.79 J**	**1.5 J**	**0.77 J**	**0.72 J**	**1 J**	**1.2 J**	**0.77 J**
Methyl acetate	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Methyl ethyl ketone (2-butanone)	ug/kg	**13**	11 U	**13 J**	10 UJ	12 UJ	11 UJ	12 UJ	12 UJ	11 UJ	12 U	16 U	11 U	13 U	11 U	10 U	12 U	12 U	9.5 U
Methyl isobutyl ketone	ug/kg	12 U	11 U	10 UJ	10 UJ	12 UJ	11 UJ	12 UJ	12 UJ	11 UJ	12 U	16 U	11 U	13 U	11 U	10 U	12 U	12 U	9.5 U
Methylcyclohexane	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Methylene chloride	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
o-xylene (1,2-dimethylbenzene)	ug/kg	6 U	5.4 U	5.1 UJ	**5.2 J**	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	**0.77 J**	8.2 U	**0.48 J**	**0.58 J**	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Styrene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	**0.88 J**	8.2 U	**0.44 J**	**0.66 J**	**0.64 J**	**0.67 J**	**1.2 J**	**1.1 J**	**0.8 J**
Tert-butyl methyl ether	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Tetrachloroethylene(PCE)	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Toluene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
trans-1,2-dichloroethene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
trans-1,3-dichloropropene	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Trichloroethylene (TCE)	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	**16**	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Trichlorofluoromethane	ug/kg	6 U	5.4 U	5.1 UJ	**0.86 J**	**0.44 J**	5.6 UJ	6.1 UJ	**2.5 J**	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U
Vinyl chloride	ug/kg	6 U	5.4 U	5.1 UJ	5 UJ	6.2 UJ	5.6 UJ	6.1 UJ	5.8 UJ	5.4 UJ	6.2 U	8.2 U	5.6 U	6.7 U	5.6 U	5.1 U	6.1 U	6 U	4.7 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
Sample Number:		059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
Sample Depth:		50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.14 U	**0.47 J**	0.2 U	360 U	0.22 U	0.21 U	0.16 U
1,1,2,2-tetrachloroethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.32 U	0.32 U	0.46 U	360 U	0.5 U	0.49 U	0.37 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.61 U	0.61 U	0.88 U	360 U	0.97 U	0.94 U	0.7 U
1,1,2-trichloroethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.2 U	0.2 U	0.29 U	360 U	0.32 U	0.31 U	0.23 U
1,1-dichloroethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	**0.29 J**	**0.86 J**	0.22 U	360 U	0.24 U	0.23 U	0.17 U
1,1-dichloroethene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.71 U	0.72 U	1 U	360 U	1.1 U	1.1 U	0.83 U
1,2,3-trichlorobenzene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.64 U	0.64 U	0.92 U	360 U	1 U	0.99 U	0.74 U
1,2,4-trichlorobenzene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.37 U	0.38 U	0.54 U	360 U	0.59 U	0.58 U	0.43 U
1,2-dibromo-3-chloropropane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.58 U	0.59 U	0.85 U	360 U	0.93 U	0.91 U	0.68 U
1,2-dibromoethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.15 U	0.15 U	0.21 U	360 U	0.24 U	0.23 U	0.17 U
1,2-dichlorobenzene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.29 U	0.29 U	0.42 U	360 U	0.46 U	0.45 U	0.34 U
1,2-dichloroethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.37 U	0.38 U	0.54 U	360 U	0.59 U	0.58 U	0.43 U
1,2-dichloropropane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.14 U	0.14 U	0.2 U	360 U	0.22 U	0.22 U	0.16 U
1,3-dichlorobenzene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.3 U	0.3 U	0.43 U	360 U	0.47 U	0.46 U	0.34 U
1,4-dichlorobenzene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.36 U	0.37 U	0.53 U	360 U	0.58 U	0.56 U	0.42 U
1,4-dioxane (p-dioxane)	ug/kg	110 UR	150 UR	110 UR	120 UR	110 UR	130 UR	110 UR	110 UR	110 UR	110 UR	110 UR	93 U	94 U	140 U	7,200 UR	150 U	140 U	110 U
2-hexanone	ug/kg	11 U	15 U	11 U	12 U	11 U	13 U	11 U	11 U	11 U	11 U	11 U	1 U	1.1 U	1.5 U	720 U	1.7 U	1.6 U	1.2 U
Acetone	ug/kg	**7.8 J**	**23**	**19**	**14**	**19**	**19**	**11**	11 U	**7.9 J**	**9.2 J**	11 U	**18.5**	**125**	**10,000**	**9,400**	**27.6**	**4,120**	**956**
Benzene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	**0.41 J**	0.37 U	0.53 U	360 U	0.59 U	0.57 U	**0.96 J**
Bromochloromethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.24 U	0.24 U	0.34 U	360 U	0.38 U	0.37 U	0.28 U
Bromodichloromethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.28 U	0.28 U	0.4 U	360 U	0.44 U	0.43 U	0.32 U
Bromoform	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.16 U	0.16 U	0.24 U	360 U	0.26 U	0.25 U	0.19 U
Bromomethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.44 U	0.44 U	0.63 U	360 UJ	0.69 U	0.68 U	0.51 U
Carbon disulfide	ug/kg	5.4 U	**3.4 J**	**1.9 J**	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	**1.3 J**	**32.9**	**1 J**	360 U	**2.1 J**	**11.2**	**2.7 J**
Carbon tetrachloride	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.6 U	0.61 U	0.87 U	360 U	0.95 U	0.93 U	0.69 U
Chlorobenzene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.37 U	0.37 U	0.53 U	360 U	0.58 U	0.57 U	0.42 U
Chloroethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	1.1 U	**1.5 J**	1.6 U	360 U	1.7 U	1.7 U	1.3 U
Chloroform	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.34 U	0.35 U	0.5 U	360 U	0.55 U	0.53 U	0.4 U
Chloromethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.18 U	0.18 U	0.26 U	360 U	0.28 U	0.28 U	0.21 U
cis-1,2-dichloroethylene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.26 U	0.26 U	0.37 U	360 U	0.41 U	0.4 U	0.3 U
cis-1,3-dichloropropene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.14 U	0.15 U	0.21 U	360 U	0.23 U	0.22 U	0.17 U
Cyclohexane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.16 U	0.16 U	0.24 U	360 U	0.26 U	0.25 U	0.19 U
Dibromochloromethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.12 U	0.12 U	0.17 U	360 U	0.19 U	0.18 U	0.14 U
Dichlorodifluoromethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	1 U	1 U	1.5 U	360 U	1.6 U	1.6 U	1.2 U
Ethylbenzene	ug/kg	**0.28 J**	**0.37 J**	**0.35 J**	**0.3 J**	**0.15 J**	**0.32 J**	**0.36 J**	**0.21 J**	**0.24 J**	**0.25 J**	**0.26 J**	0.4 U	0.41 U	0.58 U	360 U	0.64 U	0.62 U	0.46 U
Isopropylbenzene (cumene)	ug/kg	5.4 U	**5.6 J**	**0.16 J**	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.56 U	0.57 U	0.81 U	360 U	0.89 U	0.87 U	0.65 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
Sample Number:		059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
Sample Depth:		50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**0.95 J**	**0.98 J**	**1.1 J**	**0.88 J**	**0.47 J**	**1.1 J**	**1.1 J**	**---**	**0.67 J**	**0.88 J**	**0.72 J**	0.51 U	0.51 U	0.73 U	360 U	0.81 U	0.79 U	0.59 U
Methyl acetate	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.89 U	0.9 U	1.3 U	360 U	1.4 U	1.4 U	1 U
Methyl ethyl ketone (2-butanone)	ug/kg	11 U	15 U	11 U	12 U	11 U	13 U	11 U	11 U	11 U	11 U	11 U	2.1 U	2.2 U	3.1 U	**180 J**	3.4 U	3.3 U	2.5 U
Methyl isobutyl ketone	ug/kg	11 U	15 U	11 U	12 U	11 U	13 U	11 U	11 U	11 U	11 U	11 U	0.87 U	0.89 U	1.3 U	720 U	1.4 U	1.4 U	1 U
Methylcyclohexane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.7 U	0.71 U	1 U	360 U	1.1 U	1.1 U	0.82 U
Methylene chloride	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.24 U	0.24 U	0.35 U	360 U	0.38 U	0.37 U	0.28 U
o-xylene (1,2-dimethylbenzene)	ug/kg	5.4 U	7.6 U	**0.54 J**	**0.38 J**	5.4 U	6.3 U	**0.51 J**	5.6 U	5.6 U	5.6 U	**0.37 J**	0.51 U	0.51 U	0.73 U	360 U	0.81 U	0.79 U	0.59 U
Styrene	ug/kg	**0.84 J**	**0.83 J**	**0.62 J**	**0.86 J**	**0.48 J**	6.3 U	**1.3 J**	**0.58 J**	**0.39 J**	**0.62 J**	**0.78 J**	0.12 U	0.12 U	0.17 U	360 U	0.18 U	0.18 U	0.13 U
Tert-butyl methyl ether	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.3 U	0.31 U	**0.63 J**	360 U	**1.2 J**	0.47 U	0.35 U
Tetrachloroethylene(PCE)	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.16 U	0.16 U	0.23 U	360 U	0.25 U	0.24 U	0.18 U
Toluene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	**0.33 J**	**0.43 J**	0.46 U	360 U	0.5 U	0.49 U	0.37 U
trans-1,2-dichloroethene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.48 U	0.49 U	0.7 U	360 U	0.77 U	0.75 U	0.56 U
trans-1,3-dichloropropene	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.1 U	0.1 U	0.15 U	360 U	0.16 U	0.16 U	0.12 U
Trichloroethylene (TCE)	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.57 U	0.57 U	0.82 U	360 U	0.9 U	0.88 U	0.66 U
Trichlorofluoromethane	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.25 U	0.25 U	0.36 U	360 U	0.39 U	0.38 U	0.29 U
Vinyl chloride	ug/kg	5.4 U	7.6 U	5.4 U	6 U	5.4 U	6.3 U	5.5 U	5.6 U	5.6 U	5.6 U	5.3 U	0.19 U	0.19 U	0.28 U	360 U	0.31 U	0.3 U	0.22 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
Sample Number:		SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
Sample Depth:		30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	0.18 U	0.2 U	0.18 U	3.6 U	0.15 U	9 U	0.17 U	0.2 U	0.21 U	5.9 U	19 U	10 U	0.26 U	0.17 U	0.13 U	41 U	0.15 U	9 U
1,1,2,2-tetrachloroethane	ug/kg	0.4 U	0.46 U	0.41 U	3.6 U	0.35 U	21 U	0.4 U	0.45 U	0.48 U	5.9 U	44 U	23 U	0.6 U	0.39 U	0.3 U	93 U	0.34 U	21 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	0.77 U	0.88 U	0.79 U	3.6 U	0.68 U	39 U	0.76 U	0.86 U	0.92 U	5.9 U	84 U	44 U	1.1 U	0.74 U	0.58 U	180 U	0.64 U	40 U
1,1,2-trichloroethane	ug/kg	0.25 U	0.29 U	0.26 U	3.6 U	0.22 U	13 U	0.25 U	0.28 U	0.3 U	5.9 U	28 U	14 U	0.38 U	0.24 U	0.19 U	59 U	0.21 U	13 U
1,1-dichloroethane	ug/kg	0.19 U	0.22 U	0.19 U	3.6 U	0.17 U	9.7 U	0.19 U	0.21 U	0.23 U	5.9 U	21 U	11 U	0.28 U	0.18 U	0.14 U	44 U	0.16 U	9.7 U
1,1-dichloroethene	ug/kg	0.91 U	1 U	0.93 U	3.6 U	0.8 U	47 U	0.9 U	1 U	1.1 U	5.9 U	99 U	52 U	1.4 U	0.87 U	0.68 U	210 U	0.76 U	47 U
1,2,3-trichlorobenzene	ug/kg	0.81 U	0.92 U	0.83 U	3.6 UR	0.71 U	41 U	0.8 U	0.91 U	0.96 U	5.9 U	88 U	46 U	1.2 U	0.78 U	0.61 U	190 U	0.68 U	42 U
1,2,4-trichlorobenzene	ug/kg	0.48 U	0.54 U	0.49 U	3.6 UR	0.42 U	24 U	0.47 U	0.53 U	0.56 U	5.9 U	52 U	27 U	0.71 U	0.46 U	0.36 U	110 U	0.4 U	24 U
1,2-dibromo-3-chloropropane	ug/kg	0.75 U	0.85 U	0.76 U	3.6 UR	0.65 U	38 U	0.73 U	0.83 U	0.88 U	5.9 U	81 U	42 U	1.1 U	0.71 U	0.56 U	170 U	0.62 U	38 U
1,2-dibromoethane	ug/kg	0.19 U	0.21 U	0.19 U	3.6 U	0.16 U	9.6 U	0.19 U	0.21 U	0.22 U	5.9 U	21 U	11 U	0.28 U	0.18 U	0.14 U	43 U	0.16 U	9.6 U
1,2-dichlorobenzene	ug/kg	0.37 U	0.42 U	0.38 U	3.6 UR	0.33 U	19 U	0.37 U	0.41 U	0.44 U	5.9 U	40 U	21 U	0.55 U	0.36 U	0.28 U	86 U	0.31 U	19 U
1,2-dichloroethane	ug/kg	0.48 U	0.54 U	0.49 U	3.6 U	0.42 U	24 U	0.47 U	0.53 U	0.56 U	5.9 U	52 U	27 U	0.71 U	0.46 U	0.36 U	110 U	0.4 U	24 U
1,2-dichloropropane	ug/kg	0.18 U	0.2 U	0.18 U	3.6 U	0.16 U	9.1 U	0.18 U	0.2 U	0.21 U	5.9 U	19 U	10 U	0.27 U	0.17 U	0.13 U	41 U	0.15 U	9.2 U
1,3-dichlorobenzene	ug/kg	0.38 U	0.43 U	0.39 U	3.6 UR	0.33 U	19 U	0.37 U	0.42 U	0.45 U	5.9 U	41 U	21 U	0.56 U	0.36 U	0.28 U	87 U	0.32 U	19 U
1,4-dichlorobenzene	ug/kg	0.46 U	0.53 U	0.47 U	3.6 UR	0.41 U	24 U	0.46 U	0.52 U	0.55 U	5.9 U	50 U	26 U	0.69 U	0.44 U	0.35 U	110 U	0.39 U	24 U
1,4-dioxane (p-dioxane)	ug/kg	120 U	140 U	120 U	73 UR	100 U	6,100 U	120 U	130 U	140 U	120 UR	13,000 U	6,700 U	180 U	110 U	89 U	27,000 U	99 U	6,100 U
2-hexanone	ug/kg	1.3 U	1.5 U	1.4 U	**11**	1.2 U	68 U	1.3 U	1.5 U	1.6 U	12 U	140 U	75 U	2 U	1.3 U	1 U	310 U	1.1 U	68 U
Acetone	ug/kg	**520 J**	**2,130**	**78.5**	**32**	2.7 U	**17,500**	**6.9 J**	**18.9**	**50.6**	**36**	**178,000**	**65,000**	**2,030**	**512 J**	**12.9**	710 U	**102**	160 U
Benzene	ug/kg	**0.83 J**	0.53 U	**3.2**	**2.9 J**	0.41 U	24 U	0.46 U	0.52 U	0.56 U	5.9 U	51 U	27 U	0.7 U	0.45 U	0.35 U	**305 J**	**1.5**	24 U
Bromochloromethane	ug/kg	0.3 U	0.34 U	0.31 U	3.6 U	0.26 U	15 U	0.3 U	0.34 U	0.36 U	5.9 U	33 U	17 U	0.45 U	0.29 U	0.23 U	70 U	0.25 U	15 U
Bromodichloromethane	ug/kg	0.35 U	0.4 U	0.36 U	3.6 U	0.31 U	18 U	0.35 U	0.39 U	0.42 U	5.9 U	38 U	20 U	0.53 U	0.34 U	0.27 U	81 U	0.29 U	18 U
Bromoform	ug/kg	0.21 U	0.24 U	0.21 U	3.6 UR	0.18 U	11 U	0.2 U	0.23 U	0.25 U	5.9 U	23 U	12 U	0.31 U	0.2 U	0.16 U	48 U	0.17 U	11 U
Bromomethane	ug/kg	0.56 U	0.63 U	0.57 U	3.6 U	0.49 U	28 U	0.55 U	0.62 U	0.66 U	5.9 U	61 U	32 U	0.83 U	0.53 U	0.42 U	130 U	0.46 U	28 U
Carbon disulfide	ug/kg	**10**	**4.7 J**	0.43 U	**1.4 J**	0.37 U	**48.5 J**	**1.2 J**	**1.3 J**	**4.6 J**	**6.6**	46 U	24 U	**7.7 J**	**3.2 J**	0.32 U	97 U	**2.8 J**	21 U
Carbon tetrachloride	ug/kg	0.76 U	0.87 U	0.78 U	3.6 U	0.67 U	39 U	0.75 U	0.85 U	0.91 U	5.9 U	83 U	43 U	1.1 U	0.73 U	0.57 U	180 U	0.64 U	39 U
Chlorobenzene	ug/kg	0.47 U	0.53 U	0.48 U	3.6 U	0.41 U	24 U	0.46 U	0.52 U	0.55 U	5.9 U	51 U	26 U	0.69 U	0.45 U	0.35 U	110 U	0.39 U	24 U
Chloroethane	ug/kg	1.4 U	1.6 U	1.4 U	3.6 U	1.2 U	70 U	1.4 U	1.5 U	1.6 U	5.9 U	150 U	78 U	2 U	1.3 U	1 U	320 U	1.1 U	70 U
Chloroform	ug/kg	0.44 U	0.5 U	0.45 U	3.6 U	0.38 U	22 U	0.43 U	0.49 U	**0.71 J**	5.9 U	48 U	25 U	0.65 U	0.42 U	0.33 U	100 U	0.36 U	22 U
Chloromethane	ug/kg	0.23 U	0.26 U	0.23 U	3.6 U	0.2 U	12 U	0.22 U	0.25 U	0.27 U	5.9 U	25 U	13 U	0.34 U	0.22 U	0.17 U	52 U	0.19 U	12 U
cis-1,2-dichloroethylene	ug/kg	0.33 U	0.37 U	0.34 U	3.6 U	0.29 U	17 U	0.32 U	0.37 U	0.39 U	5.9 U	36 U	19 U	0.49 U	0.32 U	0.25 U	76 U	**4.7 J**	17 U
cis-1,3-dichloropropene	ug/kg	0.18 U	0.21 U	0.19 U	3.6 U	0.16 U	9.3 U	0.18 U	0.2 U	0.22 U	5.9 U	20 U	10 U	0.27 U	0.18 U	0.14 U	42 U	0.15 U	9.4 U
Cyclohexane	ug/kg	0.21 U	0.24 U	0.21 U	3.6 U	0.18 U	11 U	0.2 U	0.23 U	0.25 U	5.9 U	23 U	12 U	0.31 U	0.2 U	0.16 U	48 U	0.17 U	11 U
Dibromochloromethane	ug/kg	0.15 U	0.17 U	0.15 U	3.6 U	0.13 U	7.7 U	0.15 U	0.17 U	0.18 U	5.9 U	16 U	8.6 U	0.22 U	0.15 U	0.11 U	35 U	0.13 U	7.7 U
Dichlorodifluoromethane	ug/kg	1.3 U	1.5 U	1.3 U	3.6 U	1.1 U	66 U	1.3 U	1.5 U	1.5 U	5.9 U	140 U	74 U	1.9 U	1.2 U	0.98 U	300 U	1.1 U	67 U
Ethylbenzene	ug/kg	0.51 U	0.58 U	0.52 U	3.6 U	0.45 U	26 U	0.5 U	0.57 U	0.61 U	5.9 U	56 U	29 U	0.76 U	0.49 U	**0.4 J**	**12,700**	**49.2**	**66.1 J**
Isopropylbenzene (cumene)	ug/kg	0.71 U	0.81 U	0.73 U	3.6 U	0.62 U	36 U	0.7 U	0.8 U	0.85 U	5.9 U	78 U	40 U	1.1 U	0.68 U	0.54 U	**1,260 J**	**3.9 J**	36 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
Sample Number:		SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
Sample Depth:		30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	0.65 U	0.73 U	0.66 U	3.6 U	0.56 U	33 U	0.64 U	0.72 U	0.77 U	5.9 U	70 U	37 U	0.96 U	0.62 U	0.49 U	**19,400**	**68.8**	**99.7 J**
Methyl acetate	ug/kg	1.1 U	1.3 U	1.2 U	3.6 U	0.99 U	**226 J**	1.1 U	1.3 U	1.3 U	5.9 U	120 U	**549**	1.7 U	1.1 U	0.85 U	260 U	0.94 U	58 U
Methyl ethyl ketone (2-butanone)	ug/kg	2.7 U	3.1 U	2.8 U	**4 J**	2.4 U	140 U	2.7 U	3 U	3.2 U	**11 J**	300 U	150 U	4 U	2.6 U	2 U	620 U	2.3 U	140 U
Methyl isobutyl ketone	ug/kg	1.1 U	1.3 U	1.1 U	7.3 U	0.98 U	57 U	1.1 U	1.2 U	1.3 U	12 U	120 U	63 U	1.7 U	1.1 U	0.84 U	260 U	0.93 U	57 U
Methylcyclohexane	ug/kg	0.9 U	1 U	0.92 U	3.6 U	0.79 U	46 U	0.89 U	1 U	1.1 U	5.9 U	98 U	51 U	1.3 U	0.86 U	0.68 U	210 U	0.75 U	46 U
Methylene chloride	ug/kg	0.31 U	0.35 U	0.31 U	3.6 U	0.27 U	16 U	0.3 U	0.34 U	0.36 U	5.9 U	33 U	17 U	0.46 U	0.29 U	0.23 U	71 U	0.26 U	16 U
o-xylene (1,2-dimethylbenzene)	ug/kg	0.65 U	0.73 U	0.66 U	3.6 U	0.56 U	33 U	0.64 U	0.72 U	0.77 U	5.9 U	70 U	37 U	0.96 U	0.62 U	0.49 U	**8,690**	**36.2**	**37.5 J**
Styrene	ug/kg	0.15 U	0.17 U	0.15 U	3.6 U	0.13 U	7.5 U	0.14 U	0.16 U	0.17 U	5.9 U	16 U	8.3 U	0.22 U	0.14 U	0.11 U	34 U	**6.8**	7.5 U
Tert-butyl methyl ether	ug/kg	0.39 U	0.44 U	0.4 U	3.6 U	0.34 U	20 U	0.38 U	0.43 U	**0.89 J**	5.9 U	42 U	22 U	0.58 U	0.37 U	0.29 U	89 U	0.32 U	20 U
Tetrachloroethylene(PCE)	ug/kg	0.2 U	0.23 U	0.2 U	3.6 U	0.17 U	10 U	0.2 U	0.22 U	0.24 U	5.9 U	22 U	11 U	0.3 U	0.19 U	0.15 U	46 U	0.17 U	10 U
Toluene	ug/kg	0.4 U	0.46 U	0.41 U	3.6 U	0.35 U	21 U	0.4 U	0.45 U	0.48 U	5.9 U	44 U	23 U	0.6 U	0.39 U	0.3 U	**2,610**	**10.8**	21 U
trans-1,2-dichloroethene	ug/kg	0.62 U	0.7 U	0.63 U	3.6 U	0.54 U	32 U	0.61 U	0.69 U	0.73 U	5.9 U	67 U	35 U	0.92 U	0.59 U	0.46 U	140 U	0.52 U	32 U
trans-1,3-dichloropropene	ug/kg	0.13 U	0.15 U	0.14 U	3.6 U	0.12 U	6.7 U	0.13 U	0.15 U	0.16 U	5.9 U	14 U	7.5 U	0.2 U	0.13 U	0.099 U	30 U	0.11 U	6.8 U
Trichloroethylene (TCE)	ug/kg	0.72 U	0.82 U	0.74 U	3.6 U	0.63 U	37 U	0.71 U	0.81 U	0.86 U	5.9 U	79 U	41 U	1.1 U	0.69 U	0.54 U	170 U	**1.3 J**	37 U
Trichlorofluoromethane	ug/kg	0.32 U	0.36 U	0.32 U	3.6 U	0.28 U	16 U	0.31 U	0.35 U	0.37 U	5.9 U	34 U	18 U	0.47 U	0.3 U	0.24 U	73 U	0.26 U	16 U
Vinyl chloride	ug/kg	0.25 U	0.28 U	**0.72 J**	**1.8 J**	0.21 U	13 U	0.24 U	0.27 U	0.29 U	5.9 U	27 U	14 U	0.36 U	0.24 U	0.18 U	56 U	0.2 U	13 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
Sample Number:		SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
Sample Depth:		50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	4.7 U	5 U	9.9 U	0.17 U	0.15 U	0.12 U	0.17 U	4 UR	0.16 U	0.17 U	0.28 U	0.15 U	0.14 U	0.16 U	0.15 U	0.14 U	0.16 U	4 U
1,1,2,2-tetrachloroethane	ug/kg	4.7 U	5 U	23 U	0.38 U	0.33 U	0.27 U	0.38 U	4 UR	0.36 U	0.4 U	0.65 U	0.33 U	0.31 U	0.36 U	0.35 U	0.31 U	0.37 U	4 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	4.7 U	5 U	43 U	0.73 U	0.64 U	0.53 U	0.73 U	4 UR	0.7 U	0.76 U	1.2 U	0.64 U	0.6 U	0.69 U	0.67 U	0.6 U	0.72 U	4 U
1,1,2-trichloroethane	ug/kg	4.7 U	5 U	14 U	0.24 U	0.21 U	0.17 U	0.24 U	4 UR	0.23 U	0.25 U	0.41 U	0.21 U	0.2 U	0.23 U	0.22 U	0.2 U	0.24 U	4 U
1,1-dichloroethane	ug/kg	4.7 U	5 U	11 U	0.18 U	0.16 U	0.13 U	0.18 U	4 UR	0.17 U	0.19 U	0.31 U	0.16 U	0.15 U	0.17 U	0.16 U	0.15 U	0.18 U	4 U
1,1-dichloroethene	ug/kg	4.7 U	5 U	51 U	0.87 U	0.75 U	0.62 U	0.86 U	4 UR	0.82 U	0.9 U	1.5 U	0.75 U	0.7 U	0.81 U	0.79 U	0.71 U	0.84 U	4 U
1,2,3-trichlorobenzene	ug/kg	4.7 U	5 UJ	46 U	0.77 U	0.67 U	0.55 U	0.76 U	4 UR	0.73 U	0.8 U	1.3 U	0.67 U	0.63 U	0.72 U	0.7 U	0.63 U	0.75 U	4 U
1,2,4-trichlorobenzene	ug/kg	4.7 U	5 UJ	27 U	0.45 U	0.39 U	0.32 U	0.45 U	4 UR	0.43 U	**0.57 J**	0.77 U	0.39 U	0.37 U	0.42 U	0.41 U	0.37 U	0.44 U	4 U
1,2-dibromo-3-chloropropane	ug/kg	4.7 U	5 U	42 U	0.71 U	0.61 U	0.51 U	0.7 U	4 UR	0.67 U	0.73 U	1.2 U	0.61 U	0.58 U	0.66 U	0.64 U	0.58 U	0.69 U	4 U
1,2-dibromoethane	ug/kg	4.7 U	5 U	11 U	0.18 U	0.16 U	0.13 U	0.18 U	4 UR	0.17 U	0.19 U	0.3 U	0.16 U	0.15 U	0.17 U	0.16 U	0.15 U	0.17 U	4 U
1,2-dichlorobenzene	ug/kg	4.7 U	5 UJ	21 U	0.35 U	0.31 U	0.25 U	0.35 U	4 UR	0.33 U	0.37 U	0.6 U	0.31 U	0.29 U	0.33 U	0.32 U	0.29 U	0.34 U	4 U
1,2-dichloroethane	ug/kg	4.7 U	5 U	27 U	0.45 U	0.39 U	0.32 U	0.45 U	4 UR	0.43 U	0.47 U	0.77 U	0.39 U	0.37 U	0.42 U	0.41 U	0.37 U	0.44 U	4 U
1,2-dichloropropane	ug/kg	4.7 U	5 U	10 U	0.17 U	0.15 U	0.12 U	0.17 U	4 UR	0.16 U	0.18 U	0.29 U	0.15 U	0.14 U	0.16 U	0.15 U	0.14 U	0.17 U	4 U
1,3-dichlorobenzene	ug/kg	4.7 U	5 UJ	21 U	0.36 U	0.31 U	0.26 U	0.36 U	4 UR	0.34 U	0.37 U	0.61 U	0.31 U	0.29 U	0.34 U	0.33 U	0.3 U	0.35 U	4 U
1,4-dichlorobenzene	ug/kg	4.7 U	5 UJ	26 U	0.44 U	0.38 U	0.32 U	0.44 U	4 UR	0.42 U	0.46 U	0.75 U	0.38 U	0.36 U	0.41 U	0.4 U	0.36 U	0.43 U	4 U
1,4-dioxane (p-dioxane)	ug/kg	94 UR	100 UR	6,700 U	110 U	98 U	81 U	110 U	81 UR	110 U	120 U	190 U	98 U	92 U	110 U	100 U	93 U	110 U	79 UR
2-hexanone	ug/kg	9.4 U	10 U	75 U	1.3 U	1.1 U	0.9 U	1.2 U	8.1 UR	1.2 U	1.3 U	2.1 U	1.1 U	1 U	1.2 U	1.1 U	1 U	1.2 U	7.9 U
Acetone	ug/kg	**42**	**35**	170 U	2.9 U	**7.1 J**	**21.1**	**18.8**	**22**	**8.1 J**	**19.9**	**1,220 J**	**83.3**	**293 J**	**1,460**	**1,020**	**4.2 J**	2.8 U	7.9 U
Benzene	ug/kg	**2.2 J**	5 U	26 U	0.45 U	0.39 U	**1.1**	0.44 U	**1.7 J**	0.42 U	0.46 U	0.76 U	0.39 U	**8.1**	0.42 U	0.41 U	0.37 U	0.43 U	4 U
Bromochloromethane	ug/kg	4.7 U	5 U	17 U	0.29 U	0.25 U	0.21 U	0.28 U	4 UR	0.27 U	0.3 U	0.49 U	0.25 U	0.23 U	0.27 U	0.26 U	0.24 U	0.28 U	4 U
Bromodichloromethane	ug/kg	4.7 U	5 U	20 U	0.34 U	0.29 U	0.24 U	0.33 U	4 UR	0.32 U	0.35 U	0.57 U	0.29 U	0.27 U	0.31 U	0.31 U	0.28 U	0.33 U	4 U
Bromoform	ug/kg	4.7 U	5 U	12 U	0.2 U	0.17 U	0.14 U	0.2 U	4 UR	0.19 U	0.2 U	0.33 U	0.17 U	0.16 U	0.18 U	0.18 U	0.16 U	0.19 U	4 U
Bromomethane	ug/kg	4.7 U	5 U	31 U	0.53 U	0.46 U	0.38 U	0.52 U	4 UJ	0.5 U	0.55 U	0.9 U	0.46 U	0.43 U	0.49 U	0.48 U	0.43 U	0.51 U	4 U
Carbon disulfide	ug/kg	**1.8 J**	5 U	24 U	**0.76 J**	**2.9 J**	**3.9 J**	**6.3 J**	**11 J**	**3.6 J**	**3.6 J**	**1.5 J**	**1.9 J**	**0.42 J**	0.37 U	**1.5 J**	0.33 U	0.39 U	4 U
Carbon tetrachloride	ug/kg	4.7 U	5 U	43 U	0.73 U	0.63 U	0.52 U	0.72 U	4 UR	0.69 U	0.75 U	1.2 U	0.63 U	0.59 U	0.68 U	0.66 U	0.6 U	0.71 U	4 U
Chlorobenzene	ug/kg	4.7 U	5 UJ	26 U	0.44 U	0.38 U	**0.51 J**	**0.94 J**	**2.8 J**	0.42 U	0.46 U	0.75 U	0.38 U	0.36 U	0.41 U	0.4 U	0.36 U	0.43 U	4 U
Chloroethane	ug/kg	4.7 U	5 U	77 U	1.3 U	1.1 U	0.94 U	1.3 U	4 UJ	1.2 U	1.4 U	2.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.3 U	4 U
Chloroform	ug/kg	4.7 U	5 U	25 U	0.42 U	0.36 U	0.3 U	0.41 U	**46 J**	0.39 U	0.43 U	0.71 U	0.36 U	0.34 U	0.39 U	0.38 U	0.34 U	0.41 U	4 U
Chloromethane	ug/kg	4.7 U	5 U	13 U	0.22 U	0.19 U	0.15 U	0.21 U	4 UJ	0.2 U	0.22 U	0.37 U	0.19 U	0.18 U	0.2 U	0.2 U	0.18 U	0.21 U	4 U
cis-1,2-dichloroethylene	ug/kg	**2.9 J**	**2.1 J**	18 U	0.31 U	0.27 U	0.22 U	0.31 U	4 UR	0.3 U	0.32 U	0.53 U	0.27 U	0.25 U	0.29 U	**5.2 J**	**0.49 J**	0.3 U	4 U
cis-1,3-dichloropropene	ug/kg	4.7 U	5 U	10 U	0.17 U	0.15 U	0.12 U	0.17 U	4 UR	0.16 U	0.18 U	0.3 U	0.15 U	0.14 U	0.16 U	0.16 U	0.14 U	0.17 U	4 U
Cyclohexane	ug/kg	4.7 U	5 U	12 U	0.2 U	0.17 U	0.14 U	0.2 U	4 UR	0.19 U	0.2 U	0.33 U	0.17 U	0.16 U	0.18 U	0.18 U	0.16 U	0.19 U	4 U
Dibromochloromethane	ug/kg	4.7 U	5 U	8.5 U	0.14 U	0.12 U	0.1 U	0.14 U	4 UR	0.14 U	0.15 U	0.24 U	0.12 U	0.12 U	0.13 U	0.13 U	0.12 U	0.14 U	4 U
Dichlorodifluoromethane	ug/kg	4.7 U	5 U	73 U	1.2 U	1.1 U	0.89 U	1.2 U	4 UJ	1.2 U	1.3 U	2.1 U	1.1 U	1 U	1.2 U	1.1 U	1 U	1.2 U	4 U
Ethylbenzene	ug/kg	**53**	**6**	**251**	0.48 U	0.42 U	0.35 U	0.48 U	4 UR	0.46 U	0.5 U	0.82 U	0.42 U	**0.59 J**	0.45 U	0.44 U	0.4 U	0.47 U	4 U
Isopropylbenzene (cumene)	ug/kg	**5.7**	5 U	40 U	**0.95 J**	**0.76 J**	**0.8 J**	0.67 U	**2 J**	0.64 U	0.7 U	1.1 U	0.59 U	0.55 U	0.63 U	0.62 U	0.56 U	0.66 U	4 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
Sample Number:		SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
Sample Depth:		50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**82**	**9.3**	**382**	0.61 U	0.53 U	**0.95 J**	**1.6 J**	**4.8 J**	0.58 U	0.64 U	1 U	0.53 U	0.5 U	0.57 U	0.56 U	0.5 U	0.6 U	4 U
Methyl acetate	ug/kg	4.7 U	5 U	64 U	1.1 U	0.93 U	0.77 U	1.1 U	4 UR	1 U	1.1 U	1.8 U	0.93 U	0.88 U	1 U	0.98 U	0.88 U	1 U	4 U
Methyl ethyl ketone (2-butanone)	ug/kg	9.4 U	10 U	150 U	2.6 U	2.2 U	1.8 U	2.5 U	**6.8 J**	2.4 U	2.7 U	4.4 U	2.2 U	2.1 U	2.4 U	2.3 U	2.1 U	2.5 U	7.9 U
Methyl isobutyl ketone	ug/kg	9.4 U	10 U	63 U	1.1 U	0.92 U	0.76 U	1 U	8.1 UR	1 U	1.1 U	1.8 U	0.92 U	0.86 U	0.99 U	0.97 U	0.87 U	1 U	7.9 U
Methylcyclohexane	ug/kg	4.7 U	5 U	51 U	0.85 U	0.74 U	0.61 U	0.85 U	**4.1 J**	0.81 U	0.89 U	1.5 U	0.74 U	0.7 U	0.8 U	0.78 U	0.7 U	0.83 U	4 U
Methylene chloride	ug/kg	4.7 U	5 U	17 U	0.29 U	0.25 U	0.21 U	0.29 U	4 UR	0.28 U	0.3 U	0.49 U	0.25 U	0.24 U	0.27 U	0.27 U	0.24 U	0.28 U	4 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**39**	**4.5 J**	**165**	0.61 U	0.53 U	**0.74 J**	**1.4**	**4 J**	0.58 U	0.64 U	1 U	0.53 U	0.5 U	0.57 U	0.56 U	0.5 U	0.6 U	4 U
Styrene	ug/kg	**9.1**	5 U	**28.6 J**	0.14 U	0.12 U	0.1 U	0.14 U	4 UR	0.13 U	0.14 U	0.24 U	0.12 U	0.11 U	0.13 U	0.13 U	0.11 U	0.14 U	4 U
Tert-butyl methyl ether	ug/kg	4.7 U	5 U	22 U	0.37 U	0.32 U	0.26 U	0.36 U	4 UR	0.35 U	0.38 U	0.63 U	**0.48 J**	**1.2**	0.35 U	0.34 U	0.3 U	0.36 U	4 U
Tetrachloroethylene(PCE)	ug/kg	4.7 U	5 U	11 U	0.19 U	0.16 U	0.14 U	0.19 U	4 UR	0.18 U	0.2 U	0.32 U	0.16 U	0.15 U	0.18 U	0.17 U	0.16 U	0.18 U	4 U
Toluene	ug/kg	**11**	5 U	**34.1 J**	0.38 U	0.33 U	**0.95**	**0.72 J**	**1.7 J**	0.36 U	0.4 U	0.65 U	0.33 U	**4.4**	0.36 U	0.35 U	0.31 U	0.37 U	4 U
trans-1,2-dichloroethene	ug/kg	4.7 U	5 U	35 U	0.59 U	0.51 U	0.42 U	0.58 U	4 UR	0.56 U	0.61 U	1 U	0.51 U	0.48 U	0.55 U	**0.74 J**	0.48 U	0.57 U	4 U
trans-1,3-dichloropropene	ug/kg	4.7 U	5 U	7.4 U	0.13 U	0.11 U	0.09 U	0.12 U	4 UR	0.12 U	0.13 U	0.21 U	0.11 U	0.1 U	0.12 U	0.11 U	0.1 U	0.12 U	4 U
Trichloroethylene (TCE)	ug/kg	**9.6**	**8.4**	**44.4 J**	0.69 U	0.6 U	0.49 U	0.68 U	**8.6 J**	0.65 U	0.71 U	1.2 U	0.6 U	0.56 U	**0.81 J**	**8.4**	0.56 U	0.67 U	4 U
Trichlorofluoromethane	ug/kg	4.7 U	5 U	18 U	0.3 U	0.26 U	0.21 U	0.3 U	4 UR	0.28 U	0.31 U	0.51 U	0.26 U	0.24 U	0.28 U	0.27 U	0.25 U	0.29 U	4 U
Vinyl chloride	ug/kg	4.7 U	5 U	14 U	0.23 U	0.2 U	0.17 U	0.23 U	4 UR	0.22 U	0.24 U	0.39 U	0.2 U	0.19 U	0.22 U	0.21 U	0.19 U	0.23 U	4 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:		SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(2.5-3)	GC-MW23I(7-7.5)	SB23IC-S-NG	GC-MW23I(11.5-12)	GC-MW23I(17-17.5)	GC-MW23I(22-22.5)
Sample Depth:		60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	2.5-3	7-7.5	10-15	11.5-12	17-17.5	22-22.5
Sample Date:		6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	0.15 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
1,1,2,2-tetrachloroethane	ug/kg	0.34 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UJ	6.3 UR	10 U	18 UJ	12 UJ	4,400 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	0.65 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
1,1,2-trichloroethane	ug/kg	0.22 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 U	18 UJ	12 UJ	4,400 U
1,1-dichloroethane	ug/kg	0.16 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
1,1-dichloroethene	ug/kg	0.77 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
1,2,3-trichlorobenzene	ug/kg	0.69 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UJ	**11 J**	10 UR	**7 J**	**6 J**	4,400 U
1,2,4-trichlorobenzene	ug/kg	0.4 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UJ	**9.3 J**	10 UR	18 UJ	11 UJ	4,400 U
1,2-dibromo-3-chloropropane	ug/kg	0.63 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UJ	6.3 UR	10 UR	18 UJ	12 UJ	4,400 U
1,2-dibromoethane	ug/kg	0.16 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 U	18 UJ	12 UJ	4,400 U
1,2-dichlorobenzene	ug/kg	0.31 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UJ	**4.3 J**	10 UR	18 UJ	**2.1 J**	4,400 U
1,2-dichloroethane	ug/kg	0.4 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
1,2-dichloropropane	ug/kg	0.15 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
1,3-dichlorobenzene	ug/kg	0.32 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UJ	**4 J**	10 UR	18 UJ	12 UJ	4,400 U
1,4-dichlorobenzene	ug/kg	0.39 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UJ	**4.6 J**	10 UR	**3.4 J**	**2.8 J**	4,400 U
1,4-dioxane (p-dioxane)	ug/kg	100 U	140 UR	180 UR	300,000 UR	570,000 UR	17,000 UR	150 UR	190 UR	120 UR	110 UR	120 UR	110 UR	410 UR	320 UR	200 UR	900 UR	560 UR	220,000 UR
2-hexanone	ug/kg	1.1 U	14 U	18 U	30,000 U	57,000 U	1,700 U	15 U	19 U	12 U	11 U	12 U	11 U	8.2 U	6 UJ	20 U	18 UJ	12 UJ	4,400 U
Acetone	ug/kg	**1,120**	**54**	**42**	30,000 U	57,000 U	1,700 U	**71**	**36**	12 U	11 U	**15**	11 U	**75 J**	**55 J**	**65**	110 UJ	78 UJ	4,400 UR
Benzene	ug/kg	0.4 U	**2.4 J**	**2.5 J**	**10,000 J**	**39,000**	840 U	7.5 U	**2.7 J**	6.1 U	5.4 U	5.9 U	**1.4 J**	**24 J**	6.3 UJ	10 U	18 UJ	11 UJ	**19,000**
Bromochloromethane	ug/kg	0.26 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Bromodichloromethane	ug/kg	0.3 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Bromoform	ug/kg	0.18 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 UR	18 UJ	12 UJ	4,400 U
Bromomethane	ug/kg	0.47 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Carbon disulfide	ug/kg	**0.75 J**	**3.4 J**	**19**	15,000 U	29,000 U	840 U	**24**	**27**	**7.5**	**3.4 J**	**0.76 J**	**1.2 J**	**4.7 J**	6.3 UJ	**22**	18 UJ	**28 J**	4,400 U
Carbon tetrachloride	ug/kg	0.65 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Chlorobenzene	ug/kg	0.39 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 U	18 UJ	12 UJ	4,400 U
Chloroethane	ug/kg	1.2 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Chloroform	ug/kg	**0.69 J**	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	**4.2 J**	11 UJ	4,400 U
Chloromethane	ug/kg	0.19 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
cis-1,2-dichloroethylene	ug/kg	0.28 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
cis-1,3-dichloropropene	ug/kg	0.15 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Cyclohexane	ug/kg	0.18 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Dibromochloromethane	ug/kg	0.13 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 U	18 UJ	12 UJ	4,400 U
Dichlorodifluoromethane	ug/kg	1.1 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Ethylbenzene	ug/kg	0.43 U	**0.34 J**	**2.7 J**	**73,000**	**240,000**	**120 J**	**0.37 J**	**0.24 J**	6.1 U	5.4 U	**0.15 J**	**0.15 J**	**9.7 J**	6 UJ	10 U	18 UJ	12 UJ	**140,000**
Isopropylbenzene (cumene)	ug/kg	0.6 U	7.1 U	**2.7 J**	**10,000 J**	**10,000 J**	**280 J**	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	**3.3 J**	6.3 UR	10 U	18 UJ	12 UJ	**19,000**

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:		SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(2.5-3)	GC-MW23I(7-7.5)	SB23IC-S-NG	GC-MW23I(11.5-12)	GC-MW23I(17-17.5)	GC-MW23I(22-22.5)
Sample Depth:		60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	2.5-3	7-7.5	10-15	11.5-12	17-17.5	22-22.5
Sample Date:		6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	0.55 U	**0.9 J**	**4.6 J**	**69,000**	**200,000**	**140 J**	**0.79 J**	**0.72 J**	**0.15 J**	**0.29 J**	**0.28 J**	**0.34 J**	**24 J**	6 UJ	10 U	18 UJ	12 UJ	**92,000**
Methyl acetate	ug/kg	0.96 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 UR	6.3 UR	10 U	**4.8 J**	11 UR	4,400 UR
Methyl ethyl ketone (2-butanone)	ug/kg	2.3 U	**25**	**14 J**	30,000 U	57,000 U	1,700 U	**10 J**	**13 J**	12 U	11 U	12 U	11 U	**13 J**	**12 J**	**21**	**26 J**	**17 J**	4,400 UR
Methyl isobutyl ketone	ug/kg	0.94 U	14 U	18 U	30,000 U	57,000 U	1,700 U	15 U	19 U	12 U	11 U	12 U	11 U	8.2 U	6.3 UJ	20 U	18 UJ	11 UJ	4,400 U
Methylcyclohexane	ug/kg	0.76 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Methylene chloride	ug/kg	0.26 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
o-xylene (1,2-dimethylbenzene)	ug/kg	0.55 U	**0.38 J**	**2.8 J**	**33,000**	**90,000**	**76 J**	**0.29 J**	**0.24 J**	6.1 U	5.4 U	5.9 U	5.6 U	**11 J**	6 UJ	10 U	18 UJ	12 UJ	**66,000**
Styrene	ug/kg	0.12 U	7.1 U	9.2 U	15,000 U	**19,000 J**	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 U	18 UJ	12 UJ	**6,300**
Tert-butyl methyl ether	ug/kg	0.33 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Tetrachloroethylene(PCE)	ug/kg	0.17 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 U	18 UJ	12 UJ	4,400 U
Toluene	ug/kg	0.34 U	7.1 U	9.2 U	**9,600 J**	**110,000**	**41 J**	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	**16 J**	6 UJ	10 U	18 UJ	12 UJ	**9,800**
trans-1,2-dichloroethene	ug/kg	0.52 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
trans-1,3-dichloropropene	ug/kg	0.11 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6 UJ	10 U	18 UJ	12 UJ	4,400 U
Trichloroethylene (TCE)	ug/kg	0.61 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Trichlorofluoromethane	ug/kg	0.27 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U
Vinyl chloride	ug/kg	0.21 U	7.1 U	9.2 U	15,000 U	29,000 U	840 U	7.5 U	9.6 U	6.1 U	5.4 U	5.9 U	5.6 U	8.2 U	6.3 UJ	10 U	18 UJ	11 UJ	4,400 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
Sample Number:		GC-MW23I(27.5-28)	GC-MW23I(33-33.5)	SB23IH-S-NG	GC-MW23I(35.5-36)	GC-FDXX(0-5)VOC	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
Sample Depth:		27.5-28	33-33.5	35-39	35.5-36	35.5-36	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:		N	N	S	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,1,2,2-tetrachloroethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
1,1,2-trichloroethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,1-dichloroethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
1,1-dichloroethene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
1,2,3-trichlorobenzene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,2,4-trichlorobenzene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,2-dibromo-3-chloropropane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,2-dibromoethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,2-dichlorobenzene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,2-dichloroethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
1,2-dichloropropane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,3-dichlorobenzene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,4-dichlorobenzene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	**0.51 J**	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
1,4-dioxane (p-dioxane)	ug/kg	36,000 UR	36,000 UR	32,000 UR	990,000 UR	140,000 UR	19,000 UR	160 UR	170 UR	210 UR	280,000 UR	99 UR	100 UR	97 UR	110 UR	120 UR	120 UR	170 UR	95 UR
2-hexanone	ug/kg	730 U	720 U	3,200 U	20,000 U	2,800 U	1,900 U	16 U	17 U	21 U	28,000 U	9.9 U	10 U	9.7 U	11 U	12 UR	12 U	17 U	9.5 U
Acetone	ug/kg	790 UJ	720 UJ	3,200 U	20,000 UR	2,800 UR	**740 J**	**36**	**47**	**46**	28,000 U	**13**	10 U	9.7 U	11 U	12 U	**77**	**82**	**13**
Benzene	ug/kg	**1,800**	**990**	**7,000**	**110,000 J**	**12,000 J**	950 U	**3.1 J**	**5.8 J**	**5 J**	**12,000 J**	**11**	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Bromochloromethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Bromodichloromethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Bromoform	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Bromomethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Carbon disulfide	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	**27**	**31**	**61**	14,000 U	**4.8 J**	**2.3 J**	**0.89 J**	5.5 U	6.2 U	6.2 U	**12**	**4.6 J**
Carbon tetrachloride	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Chlorobenzene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Chloroethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Chloroform	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Chloromethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
cis-1,2-dichloroethylene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
cis-1,3-dichloropropene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Cyclohexane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Dibromochloromethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Dichlorodifluoromethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Ethylbenzene	ug/kg	**4,400**	**1,400**	**56,000**	**680,000 J**	**95,000 J**	950 U	**1.2 J**	**1.3 J**	**3.7 J**	**72,000**	**62**	**0.24 J**	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Isopropylbenzene (cumene)	ug/kg	**270 J**	720 U	1,600 U	**32,000 J**	**5,800 J**	**340 J**	**1 J**	**0.41 J**	**0.95 J**	**11,000 J**	**9.4**	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
Sample Number:		GC-MW23I(27.5-28)	GC-MW23I(33-33.5)	SB23IH-S-NG	GC-MW23I(35.5-36)	GC-FDXX(0-5)VOC	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
Sample Depth:		27.5-28	33-33.5	35-39	35.5-36	35.5-36	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:		N	N	S	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**2,800**	**830**	**44,000**	**490,000 J**	**---**	950 U	**1.4 J**	**1.5 J**	**4.4 J**	**57,000**	**43**	**0.32 J**	4.8 U	5.5 U	**---**	6.2 U	8.3 U	4.7 U
Methyl acetate	ug/kg	730 UJ	720 UR	1,600 U	20,000 UR	2,800 UR	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Methyl ethyl ketone (2-butanone)	ug/kg	730 UR	720 UR	3,200 U	20,000 UR	2,800 UR	1,900 U	16 U	**17**	**17 J**	28,000 U	9.9 U	10 U	9.7 U	11 U	12 U	**30**	17 U	9.5 U
Methyl isobutyl ketone	ug/kg	730 U	720 U	3,200 U	20,000 U	2,800 U	1,900 U	16 U	17 U	21 U	28,000 U	9.9 U	10 U	9.7 U	11 U	12 UR	12 U	17 U	9.5 U
Methylcyclohexane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	**360 J**	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Methylene chloride	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UJ	6.2 U	8.3 U	4.7 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**1,300**	**430 J**	**22,000**	**240,000 J**	**35,000 J**	950 U	**1 J**	**0.95 J**	**2.1 J**	**29,000**	**29**	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Styrene	ug/kg	730 U	720 U	**1,200 J**	**13,000 J**	2,800 UJ	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Tert-butyl methyl ether	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	**0.58 J**	**0.89 J**	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Tetrachloroethylene(PCE)	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	**5.1 J**	6.2 U	8.3 U	4.7 U
Toluene	ug/kg	730 U	720 U	**29,000**	**420,000 J**	**51,000 J**	950 U	8.2 U	8.7 U	11 U	**22,000**	**14**	5 U	4.8 U	5.5 U	6.2 UJ	6.2 U	8.3 U	4.7 U
trans-1,2-dichloroethene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
trans-1,3-dichloropropene	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 UR	6.2 U	8.3 U	4.7 U
Trichloroethylene (TCE)	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	**0.48 J**	**0.92 J**	6.2 U	8.3 U	4.7 U
Trichlorofluoromethane	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U
Vinyl chloride	ug/kg	730 U	720 U	1,600 U	20,000 U	2,800 U	950 U	8.2 U	8.7 U	11 U	14,000 U	4.9 U	5 U	4.8 U	5.5 U	6.2 U	6.2 U	8.3 U	4.7 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
Sample Number:		059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
Sample Depth:		30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
Sample Date:		6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,1,2,2-tetrachloroethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,1,2-trichloroethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,1-dichloroethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,1-dichloroethene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,2,3-trichlorobenzene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 UR	9.2 U	4.7 U	5.2 U
1,2,4-trichlorobenzene	ug/kg	**8.1**	**6.9**	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 UR	9.2 U	4.7 U	5.2 U
1,2-dibromo-3-chloropropane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 UR	9.2 U	4.7 U	5.2 U
1,2-dibromoethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,2-dichlorobenzene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 UR	9.2 U	4.7 U	5.2 U
1,2-dichloroethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,2-dichloropropane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
1,3-dichlorobenzene	ug/kg	5.2 U	5.2 U	5.8 U	**2.2 J**	**0.99 J**	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 UR	9.2 U	4.7 U	5.2 U
1,4-dichlorobenzene	ug/kg	5.2 U	5.2 U	5.8 U	**1.7 J**	**0.98 J**	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 UR	9.2 U	4.7 U	5.2 U
1,4-dioxane (p-dioxane)	ug/kg	100 UR	100 UR	120 UR	99 UR	110 UR	97 UR	100 UR	71,000 UR	580,000 UR	510,000 UR	130 UR	96 UR	300,000 UR	200 UR	340 UR	180 UR	95 UR	100 UR
2-hexanone	ug/kg	10 U	10 U	12 U	9.9 U	11 U	9.7 U	10 U	7,100 U	58,000 U	51,000 U	840 U	9.6 U	30,000 U	20 U	34 U	18 U	9.5 U	10 U
Acetone	ug/kg	**17**	**10 J**	12 U	**36**	**23**	**17**	**18**	7,100 U	58,000 U	51,000 U	**320 J**	9.6 U	30,000 U	**60**	**1,200**	**30**	9.5 U	10 U
Benzene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	**660 J**	4.8 U	15,000 U	**3.7 J**	**6.3 J**	9.2 U	4.7 U	**1.1 J**
Bromochloromethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Bromodichloromethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Bromoform	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 UR	9.2 U	4.7 U	5.2 U
Bromomethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Carbon disulfide	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	**14 J**	4.8 U	15,000 U	**3.5 J**	**68**	**8.1 J**	**1.9 J**	**2.2 J**
Carbon tetrachloride	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Chlorobenzene	ug/kg	5.2 U	5.2 U	5.8 U	**2.7 J**	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Chloroethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Chloroform	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Chloromethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
cis-1,2-dichloroethylene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	**0.39 J**
cis-1,3-dichloropropene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Cyclohexane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	**29 J**	4.8 U	15,000 U	10 U	17 UJ	9.2 U	4.7 U	5.2 U
Dibromochloromethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Dichlorodifluoromethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Ethylbenzene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	**2,900 J**	**31,000**	**45,000**	**7,900 J**	**0.7 J**	**29,000**	**1.2 J**	**1.2 J**	9.2 U	**0.19 J**	**0.16 J**
Isopropylbenzene (cumene)	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	**1,600 J**	**13,000 J**	**12,000 J**	**2,600 J**	**1.1 J**	**9,900 J**	10 U	17 U	9.2 U	4.7 U	5.2 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
Sample Number:		059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
Sample Depth:		30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
Sample Date:		6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	5.2 U	---	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	**3,400 J**	**34,000**	**47,000**	**9,400 J**	**0.44 J**	**29,000**	**2.4 J**	**2.8 J**	9.2 U	**0.31 J**	**0.4 J**
Methyl acetate	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Methyl ethyl ketone (2-butanone)	ug/kg	10 U	10 U	12 U	9.9 U	11 U	9.7 U	10 U	7,100 U	58,000 U	51,000 U	**110 J**	9.6 U	30,000 U	**16 J**	**310**	18 U	9.5 U	10 U
Methyl isobutyl ketone	ug/kg	10 U	10 U	12 U	9.9 U	11 U	9.7 U	10 U	7,100 U	58,000 U	51,000 U	840 U	9.6 U	30,000 U	20 U	34 U	18 U	9.5 U	10 U
Methylcyclohexane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	**1,200 J**	29,000 U	26,000 U	**100 J**	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Methylene chloride	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	**35 J**	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
o-xylene (1,2-dimethylbenzene)	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	**2,600 J**	**17,000 J**	**27,000**	**5,100 J**	**0.36 J**	**15,000**	**2.4 J**	**1.3 J**	9.2 U	**0.13 J**	**0.16 J**
Styrene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Tert-butyl methyl ether	ug/kg	5.2 U	5.2 U	5.8 U	**3.1 J**	**2.3 J**	**6.4**	**1.7 J**	3,500 U	29,000 U	26,000 U	**6.1 J**	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Tetrachloroethylene(PCE)	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Toluene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	**460 J**	**5,200 J**	**11,000 J**	**2,100 J**	4.8 U	**4,300 J**	10 U	17 UJ	9.2 U	4.7 U	5.2 U
trans-1,2-dichloroethene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
trans-1,3-dichloropropene	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Trichloroethylene (TCE)	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Trichlorofluoromethane	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U
Vinyl chloride	ug/kg	5.2 U	5.2 U	5.8 U	4.9 U	5.3 U	4.8 U	5.2 U	3,500 U	29,000 U	26,000 U	6.7 UR	4.8 U	15,000 U	10 U	17 U	9.2 U	4.7 U	5.2 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:		059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(2.5)	SB30IB-S-NG	GC-MW30I(8-8.5)	GC-MW30I(13)	GC-MW30I(17.5)	GC-MW30I(24)	GC-MW30I(27.5)	GC-MW30I(31.5)	SB-30I-S-NG
Sample Depth:		25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	2.5-2.5	5-10	8-8.5	13-13	17.5-17.5	24-24	27.5-27.5	31.5-31.5	35-36
Sample Date:		6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	S
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 UJ	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,1,2,2-tetrachloroethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 UJ	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,1,2-trichloroethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,1-dichloroethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,1-dichloroethene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,2,3-trichlorobenzene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	4.8 UJ	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,2,4-trichlorobenzene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	4.8 UJ	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,2-dibromo-3-chloropropane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,2-dibromoethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UJ	4.6 UJ	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,2-dichlorobenzene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,2-dichloroethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 UJ	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,2-dichloropropane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,3-dichlorobenzene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,4-dichlorobenzene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
1,4-dioxane (p-dioxane)	ug/kg	110 UR	130 UR	210 UR	160 UR	98 UR	92 UR	90 UR	110 UR	110 UR	550 UR	92 UR	49,000 UR	240 UR	240 UR	76,000 UR	410 UR	260 UR	110 UR
2-hexanone	ug/kg	11 U	13 U	21 U	16 U	9.8 U	9.2 U	9 U	11 U	11 U	11 UJ	9.2 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	11 U
Acetone	ug/kg	11 U	13 U	**71**	**57**	9.8 U	9.2 U	9 U	11 U	11 U	13 UJ	9.2 U	990 UJ	**46 J**	4.8 UJ	1,500 UR	12 UJ	9.3 UJ	**5.1 J**
Benzene	ug/kg	5.3 U	**1.5 J**	10 U	8.2 U	4.9 U	4.6 U	**0.92 J**	5.5 U	5.3 U	11 U	4.6 U	990 U	**77 J**	**66**	**310 J**	**110**	**170**	**26**
Bromochloromethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Bromodichloromethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Bromoform	ug/kg	5.3 U	6.3 U	10 UJ	8.2 UJ	4.9 UJ	4.6 UJ	4.5 UJ	5.5 UJ	5.3 UJ	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Bromomethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Carbon disulfide	ug/kg	**3.6 J**	6.3 U	**14**	**17**	**3.5 J**	**3.3 J**	**2 J**	5.5 U	**0.72 J**	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	**5.3**	5.7 U
Carbon tetrachloride	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 UJ	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Chlorobenzene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Chloroethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Chloroform	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Chloromethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
cis-1,2-dichloroethylene	ug/kg	**3 J**	**2.4 J**	10 U	8.2 U	**0.71 J**	**0.42 J**	**0.35 J**	**0.53 J**	**1.6 J**	**16 J**	4.6 U	**1,900**	4.8 U	4.8 U	**740 J**	8.2 U	5.1 U	5.7 U
cis-1,3-dichloropropene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Cyclohexane	ug/kg	5.3 U	6.3 U	10 U	8.2 UJ	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	**2.6 J**	1,500 U	8.2 U	5.1 U	5.7 U
Dibromochloromethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Dichlorodifluoromethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Ethylbenzene	ug/kg	**0.15 J**	6.3 U	10 U	8.2 U	4.9 U	4.6 U	**0.18 J**	5.5 U	5.3 U	11 UJ	4.6 U	990 U	**0.87 J**	**12**	**3,500**	**25**	**32**	**3.1 J**
Isopropylbenzene (cumene)	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 U	990 U	**28 J**	**27**	**1,200 J**	**4.8 J**	**5.2**	5.7 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:		059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(2.5)	SB30IB-S-NG	GC-MW30I(8-8.5)	GC-MW30I(13)	GC-MW30I(17.5)	GC-MW30I(24)	GC-MW30I(27.5)	GC-MW30I(31.5)	SB-30I-S-NG
Sample Depth:		25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	2.5-2.5	5-10	8-8.5	13-13	17.5-17.5	24-24	27.5-27.5	31.5-31.5	35-36
Sample Date:		6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	S
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**0.52 J**	**0.42 J**	10 U	8.2 U	**0.37 J**	---	**0.38 J**	5.5 U	5.3 U	11 UJ	4.6 U	990 U	**4.6 J**	**7.6**	**420 J**	**2.6 J**	**2.7 J**	5.7 U
Methyl acetate	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UR	4.6 UJ	990 UR	4.8 UR	4.8 U	1,500 UR	8.2 U	5.1 UR	5.7 U
Methyl ethyl ketone (2-butanone)	ug/kg	11 U	13 U	**26**	**17**	9.8 U	9.2 U	9 U	11 U	11 U	11 UR	9.2 U	990 UR	**14 J**	**5.8 J**	1,500 UR	8.2 UR	5.1 UR	11 U
Methyl isobutyl ketone	ug/kg	11 U	13 U	21 U	16 U	9.8 U	9.2 U	9 U	11 U	11 U	11 U	9.2 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	11 U
Methylcyclohexane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	**25 J**	**11**	**330 J**	8.2 U	**2.4 J**	5.7 U
Methylene chloride	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 UJ	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**0.17 J**	**0.16 J**	10 U	8.2 U	**0.27 J**	4.6 U	**0.25 J**	5.5 U	5.3 U	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	**3.5 J**	**4.2 J**	5.7 U
Styrene	ug/kg	5.3 U	**0.37 J**	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Tert-butyl methyl ether	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 UJ	990 U	**18 J**	**30**	1,500 U	**5.2 J**	**3.7 J**	5.7 U
Tetrachloroethylene(PCE)	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	**7.3 J**	**2.2 J**	**320 J**	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Toluene	ug/kg	5.3 U	6.3 U	10 U	8.2 UJ	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
trans-1,2-dichloroethene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	**280 J**	8.2 U	5.1 U	5.7 U
trans-1,3-dichloropropene	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 UJ	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Trichloroethylene (TCE)	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	**200 J**	**22**	**13,000**	**0.9 J**	4.8 U	**3,500**	8.2 U	5.1 U	5.7 U
Trichlorofluoromethane	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 UJ	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U
Vinyl chloride	ug/kg	5.3 U	6.3 U	10 U	8.2 U	4.9 U	4.6 U	4.5 U	5.5 U	5.3 U	11 U	4.6 U	990 U	4.8 U	4.8 U	1,500 U	8.2 U	5.1 U	5.7 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		GC-MW30I(35.5)	GC-MW31I(3.5-4)	SB31IB-S-NG	GC-MW31I(6-6.5)	GC-MW31I(12-12.5)	GC-MW31I(19-19.5)	GC-MW31I(23-23.5)	GC-MW31I(29.2)	SB31IG-S-NG	GC-MW31I(35.75-36)	GC-MWXX062810VOC	GC-MW32I(0.5-1)	GC-MW32I(9.5-10)	GC-MW32I(10-10.5)	SB32ID-S-NG	GC-MW32I(18-18.5)	GC-MW32I(22.5-23)	GC-MW32I(29.5-30)
Sample Depth:		35.5-35.5	3.5-4	5-10	6-6.5	12-12.5	19-19.5	23-23.5	29.2-29.2	30-35	35.75-36	35.75-36	0.5-1	9.5-10	10-10.5	15-20	18-18.5	22.5-23	29.5-30
Sample Date:		6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010
Sample Type:		N	N	S	N	N	N	N	N	S	N	FD	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 UJ	5.7 U	2,200 UJ
1,1,2,2-tetrachloroethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 UJ	13 U	7 U	10 UJ	5.7 U	2,200 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
1,1,2-trichloroethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.6 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
1,1-dichloroethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
1,1-dichloroethene	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
1,2,3-trichlorobenzene	ug/kg	7.7 U	1,100 U	6.3 UR	950 UJ	**1,300 J**	1,300 U	7.3 U	5.8 U	1,100 UJ	2,200 U	2,800 U	23 U	9.5 UJ	13 U	7 UR	10 UJ	5.7 U	2,200 UJ
1,2,4-trichlorobenzene	ug/kg	7.7 U	1,100 U	6.3 UR	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 UJ	2,200 U	2,800 U	23 U	9.5 UJ	13 U	7 UR	10 UJ	5.7 U	2,200 UJ
1,2-dibromo-3-chloropropane	ug/kg	7.7 U	1,100 U	6.3 UR	950 UJ	7,200 UJ	1,300 UJ	7.3 U	5.8 U	1,100 U	2,200 UJ	2,800 UJ	23 U	9.5 U	13 U	7 UR	10 UJ	5.7 U	2,200 UJ
1,2-dibromoethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.6 U	1,100 U	2,200 U	2,800 U	23 U	9.5 UJ	13 U	7 U	9.2 UJ	5.7 U	2,200 UJ
1,2-dichlorobenzene	ug/kg	7.7 U	1,100 U	6.3 UR	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 UJ	2,200 U	2,800 U	23 U	9.5 UJ	13 U	7 UR	10 UJ	5.7 U	2,200 UJ
1,2-dichloroethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
1,2-dichloropropane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
1,3-dichlorobenzene	ug/kg	7.7 U	1,100 U	6.3 UR	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 UJ	2,200 U	2,800 U	23 U	9.5 UJ	13 U	7 UR	10 UJ	5.7 U	2,200 UJ
1,4-dichlorobenzene	ug/kg	7.7 U	1,100 U	6.3 UR	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 UJ	2,200 U	2,800 U	23 U	9.5 UJ	13 U	7 UR	10 UJ	5.7 U	2,200 UJ
1,4-dioxane (p-dioxane)	ug/kg	380 UR	57,000 UR	130 UR	48,000 UR	360,000 UR	64,000 UR	370 UR	290 UR	21,000 UR	110,000 UR	140,000 UR	1,200 UR	480 UR	660 UR	140 UR	460 UR	280 UR	110,000 UR
2-hexanone	ug/kg	7.7 U	1,100 U	13 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.6 U	2,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	14 U	9.2 UJ	5.7 U	2,200 UJ
Acetone	ug/kg	7.9 UJ	1,100 U	**36**	950 UJ	7,200 UJ	1,300 UJ	11 UJ	**80 J**	2,100 U	2,200 U	2,800 U	25 UJ	10 UJ	17 UJ	**78**	**140 J**	28 UJ	2,200 UJ
Benzene	ug/kg	**33**	1,100 U	6.3 U	950 UJ	7,200 UJ	**1,600**	7.3 U	**210**	**1,200 J**	2,200 U	**960 J**	23 U	9.5 U	13 U	**16 J**	**11 J**	5.7 U	**5,300 J**
Bromochloromethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Bromodichloromethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Bromoform	ug/kg	7.7 U	1,100 U	6.3 UR	950 UJ	7,200 UJ	1,300 U	7.3 U	5.6 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 UR	9.2 UJ	5.7 U	2,200 UJ
Bromomethane	ug/kg	7.7 U	1,100 UJ	6.3 U	950 UJ	7,200 UJ	1,300 UJ	7.3 U	5.8 U	1,100 U	2,200 UJ	2,800 UJ	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Carbon disulfide	ug/kg	**2 J**	1,100 U	6.3 U	950 UJ	**3,100 J**	1,300 U	**11 J**	**1.2 J**	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Carbon tetrachloride	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Chlorobenzene	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.6 U	1,100 UJ	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 UJ	5.7 U	2,200 UJ
Chloroethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Chloroform	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Chloromethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
cis-1,2-dichloroethylene	ug/kg	7.7 U	1,100 U	6.3 U	**260 J**	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
cis-1,3-dichloropropene	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Cyclohexane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	**6.9**	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Dibromochloromethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.6 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 UJ	5.7 U	2,200 UJ
Dichlorodifluoromethane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Ethylbenzene	ug/kg	**4.5 J**	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	**55 J**	**120,000 J**	**59,000**	**78,000**	23 U	9.5 U	**33 J**	**12 J**	**48 J**	5.7 U	2,200 UJ
Isopropylbenzene (cumene)	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	**3.1 J**	**130 J**	**9,900**	**5,800**	**6,900**	23 U	9.5 UJ	**20 J**	**3.4 J**	**22 J**	5.7 U	2,200 UJ

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		GC-MW30I(35.5)	GC-MW31I(3.5-4)	SB31IB-S-NG	GC-MW31I(6-6.5)	GC-MW31I(12-12.5)	GC-MW31I(19-19.5)	GC-MW31I(23-23.5)	GC-MW31I(29.2)	SB31IG-S-NG	GC-MW31I(35.75-36)	GC-MWXX062810VOC	GC-MW32I(0.5-1)	GC-MW32I(9.5-10)	GC-MW32I(10-10.5)	SB32ID-S-NG	GC-MW32I(18-18.5)	GC-MW32I(22.5-23)	GC-MW32I(29.5-30)
Sample Depth:		35.5-35.5	3.5-4	5-10	6-6.5	12-12.5	19-19.5	23-23.5	29.2-29.2	30-35	35.75-36	35.75-36	0.5-1	9.5-10	10-10.5	15-20	18-18.5	22.5-23	29.5-30
Sample Date:		6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010
Sample Type:		N	N	S	N	N	N	N	N	S	N	FD	N	N	N	S	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	**6 J**	**6,000**	**---**	**4,000**	23 U	9.5 U	**71 J**	**22 J**	**80 J**	5.7 U	2,200 UJ
Methyl acetate	ug/kg	7.7 UR	1,100 UR	6.3 U	950 UR	**4,400 J**	1,300 UJ	7.3 UR	5.8 UR	1,100 U	2,200 UR	2,800 UR	23 UR	9.5 UR	13 UR	7 U	9.2 UR	5.7 UR	2,200 UJ
Methyl ethyl ketone (2-butanone)	ug/kg	7.7 U	1,100 UR	13 U	950 UR	7,200 UR	1,300 UR	7.3 UR	**26 J**	2,100 U	2,200 UR	2,800 UR	23 UR	9.5 UR	13 UR	**30**	**44 J**	5.7 UR	2,200 UR
Methyl isobutyl ketone	ug/kg	7.7 U	1,100 U	13 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	2,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	14 U	9.2 U	5.7 U	2,200 UJ
Methylcyclohexane	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	**5 J**	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	**2.2 J**	5.7 U	2,200 UJ
Methylene chloride	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
o-xylene (1,2-dimethylbenzene)	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	**4.4 J**	**37 J**	**37,000**	**21,000**	**26,000**	23 U	9.5 U	**32 J**	**12 J**	**50 J**	5.7 U	2,200 UJ
Styrene	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.6 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	**4.3 J**	5.7 U	2,200 UJ
Tert-butyl methyl ether	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	**2.4 J**	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Tetrachloroethylene(PCE)	ug/kg	7.7 U	1,100 U	6.3 U	**210 J**	7,200 UJ	1,300 U	7.3 U	5.6 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 UJ	5.7 U	2,200 UJ
Toluene	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	**14 J**	**13 J**	**49 J**	5.7 U	2,200 UJ
trans-1,2-dichloroethene	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	**1,300 J**	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
trans-1,3-dichloropropene	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 UJ	5.7 U	2,200 UJ
Trichloroethylene (TCE)	ug/kg	**1.7 J**	1,100 U	6.3 U	**670 J**	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Trichlorofluoromethane	ug/kg	7.7 U	**12,000**	**14**	**3,200 J**	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ
Vinyl chloride	ug/kg	7.7 U	1,100 U	6.3 U	950 UJ	7,200 UJ	1,300 U	7.3 U	5.8 U	1,100 U	2,200 U	2,800 U	23 U	9.5 U	13 U	7 U	9.2 U	5.7 U	2,200 UJ

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
Sample Number:		GC-MW32I(30.5-31)	SB32IH-S-NG	GC-MW32I(35.5-36)	SB32II-S-NG-R	GC-MW32I(40.75)	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022
Sample Depth:		30.5-31	35-40	35.5-36	40-45	40.75-40.75	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
Sample Type:		N	S	N	S	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,1,2,2-tetrachloroethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,1,2-trichloroethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,1-dichloroethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,1-dichloroethene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,2,3-trichlorobenzene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,2,4-trichlorobenzene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,2-dibromo-3-chloropropane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 UJ	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,2-dibromoethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,2-dichlorobenzene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,2-dichloroethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,2-dichloropropane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,3-dichlorobenzene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,4-dichlorobenzene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
1,4-dioxane (p-dioxane)	ug/kg	120,000 UR	92 UR	340 UR	170,000 UR	1,100,000 UR	240 UR	410 UR	160 UR	13,000 UR	5,400 UR	8,000 UR	100 UR	120 UR	170 UR	180 UR	140,000 UR	36,000 UR	110 UR
2-hexanone	ug/kg	2,400 U	9.2 U	6.7 U	17,000 U	23,000 U	24 U	41 U	16 U	1,300 U	540 U	800 U	10 U	12 U	17 U	18 U	14,000 U	3,600 U	11 U
Acetone	ug/kg	2,400 UJ	**6.3 J**	12 UJ	17,000 U	23,000 U	**71**	**180**	**530**	1,300 U	540 U	800 U	10 U	**22**	**46**	**27**	14,000 U	3,600 U	11 U
Benzene	ug/kg	**4,400**	**9.1**	**7.7**	8,600 U	23,000 U	**2.9 J**	**39**	**11**	**2,100**	**960**	**800**	**11**	**54**	8.3 U	8.8 U	6,900 U	**370 J**	5.5 U
Bromochloromethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Bromodichloromethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Bromoform	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Bromomethane	ug/kg	2,400 UJ	4.6 U	6.7 U	8,600 U	23,000 UJ	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Carbon disulfide	ug/kg	2,400 U	**14**	**20**	8,600 U	23,000 U	12 U	**32**	**28**	630 U	270 U	400 U	**0.96 J**	**3.8 J**	**15**	**8.9**	6,900 U	1,800 U	**3.7 J**
Carbon tetrachloride	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Chlorobenzene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Chloroethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Chloroform	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	**1.6 J**	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Chloromethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
cis-1,2-dichloroethylene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	**0.28 J**	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
cis-1,3-dichloropropene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Cyclohexane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Dibromochloromethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Dichlorodifluoromethane	ug/kg	2,400 UJ	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Ethylbenzene	ug/kg	2,400 U	4.6 U	6.7 U	**520,000 J**	**790,000**	**0.4 J**	**2.2 J**	8.1 U	**2,700**	**170 J**	**180 J**	**16**	**32**	8.3 U	8.8 U	**9,100**	**2,600**	**0.31 J**
Isopropylbenzene (cumene)	ug/kg	2,400 U	4.6 U	**3.8 J**	8,600 U	**28,000**	12 U	**1.2 J**	8.1 U	**140 J**	270 U	400 U	**0.63 J**	**1.6 J**	8.3 U	8.8 U	**7,900**	**380 J**	5.5 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
Sample Number:		GC-MW32I(30.5-31)	SB32IH-S-NG	GC-MW32I(35.5-36)	SB32II-S-NG-R	GC-MW32I(40.75)	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022
Sample Depth:		30.5-31	35-40	35.5-36	40-45	40.75-40.75	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
Sample Type:		N	S	N	S	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	2,400 U	**5.5**	**16**	**380,000 J**	**560,000**	**1.2 J**	**1.8 J**	**0.55 J**	**190 J**	**9 J**	400 U	**2.1 J**	**3.7 J**	8.3 U	8.8 U	6,900 U	**230 J**	**0.12 J**
Methyl acetate	ug/kg	2,400 UJ	4.6 U	6.7 UR	8,600 U	23,000 UR	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Methyl ethyl ketone (2-butanone)	ug/kg	2,400 UR	9.2 U	6.7 UR	17,000 U	23,000 UR	**20 J**	**50**	**70**	1,300 U	540 U	800 U	10 U	12 U	**25**	18 U	14,000 U	3,600 U	11 U
Methyl isobutyl ketone	ug/kg	2,400 U	9.2 U	6.7 U	17,000 U	23,000 U	24 U	41 U	16 U	1,300 U	540 U	800 U	10 U	12 U	17 U	18 U	14,000 U	3,600 U	11 U
Methylcyclohexane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	**2.9 J**	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Methylene chloride	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
o-xylene (1,2-dimethylbenzene)	ug/kg	2,400 U	**4 J**	**11**	**180,000**	**260,000**	**0.53 J**	**2.3 J**	8.1 U	**820**	**56 J**	**60 J**	**5.7**	**10**	8.3 U	8.8 U	**2,700 J**	**300 J**	**0.12 J**
Styrene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Tert-butyl methyl ether	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	**1.7 J**	20 U	8.1 U	630 U	**20 J**	400 U	**7.4**	**3.8 J**	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Tetrachloroethylene(PCE)	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Toluene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	**17 J**	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
trans-1,2-dichloroethene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
trans-1,3-dichloropropene	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Trichloroethylene (TCE)	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Trichlorofluoromethane	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U
Vinyl chloride	ug/kg	2,400 U	4.6 U	6.7 U	8,600 U	23,000 U	12 U	20 U	8.1 U	630 U	270 U	400 U	5.1 U	5.9 U	8.3 U	8.8 U	6,900 U	1,800 U	5.5 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37
Sample Number:		059-2024	059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211
Sample Depth:		25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20
Sample Date:		5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,1,2,2-tetrachloroethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,1,2-trichloroethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,1-dichloroethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,1-dichloroethene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,2,3-trichlorobenzene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,2,4-trichlorobenzene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,2-dibromo-3-chloropropane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,2-dibromoethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,2-dichlorobenzene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,2-dichloroethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,2-dichloropropane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,3-dichlorobenzene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,4-dichlorobenzene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
1,4-dioxane (p-dioxane)	ug/kg	120 UR	130,000 UR	970 UR	310 UR	740,000 UR	630,000 UR	310,000 UR	100 UR	200 UR	190 UR	97 UR	120 UR	110 UR	45,000 UR	130 UR	96 UR	170 UR	270 UR
2-hexanone	ug/kg	12 U	13,000 U	97 UJ	31 U	74,000 U	63,000 U	31,000 U	10 U	20 U	19 U	9.7 U	12 U	11 U	4,500 U	13 U	9.6 U	17 U	27 U
Acetone	ug/kg	12 U	13,000 U	**1,700 J**	**50**	**420,000**	**28,000 J**	31,000 U	10 U	**38**	**42**	9.7 U	12 U	11 U	4,500 U	**50**	**18**	**62**	**95**
Benzene	ug/kg	5.9 U	6,400 U	**14 J**	**3.3 J**	37,000 U	31,000 U	**3,400 J**	**4.9 J**	10 U	9.3 U	4.9 U	**1.6 J**	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Bromochloromethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Bromodichloromethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Bromoform	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Bromomethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Carbon disulfide	ug/kg	**4.1 J**	6,400 U	**49 J**	**37**	37,000 U	31,000 U	15,000 U	**0.73 J**	**9.8 J**	**17**	**3 J**	**1.7 J**	**3.3 J**	**330 J**	**1.5 J**	**1.2 J**	**20**	**210**
Carbon tetrachloride	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Chlorobenzene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Chloroethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Chloroform	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Chloromethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
cis-1,2-dichloroethylene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	**1,600 J**	15,000 U	**21**	10 U	9.3 U	**0.73 J**	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
cis-1,3-dichloropropene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Cyclohexane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Dibromochloromethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Dichlorodifluoromethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Ethylbenzene	ug/kg	**0.29 J**	**26,000**	49 UJ	**0.65 J**	**47,000**	**140,000**	**87,000**	**2.8 J**	10 U	9.3 U	**13**	**32**	**8.6**	**3,100**	6.7 U	4.8 U	**0.31 J**	**1.4 J**
Isopropylbenzene (cumene)	ug/kg	5.9 U	**10,000**	49 UJ	16 U	**10,000 J**	**6,500 J**	**3,900 J**	**0.28 J**	10 U	9.3 U	**12**	**12**	**16**	**5,900**	6.7 U	4.8 U	8.5 U	14 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37
Sample Number:		059-2024	059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211
Sample Depth:		25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20
Sample Date:		5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	---	**1,500 J**	**2.4 J**	**1.9 J**	**33,000 J**	**100,000**	**57,000**	**0.27 J**	10 U	9.3 U	4.9 U	6.1 U	5.4 U	**930 J**	6.7 U	4.8 U	**0.29 J**	**1.1 J**
Methyl acetate	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Methyl ethyl ketone (2-butanone)	ug/kg	12 U	13,000 U	**410 J**	**27 J**	74,000 U	63,000 U	31,000 U	10 U	**15 J**	**26**	9.7 U	12 U	11 U	4,500 U	**18**	**7.4 J**	**24**	**40**
Methyl isobutyl ketone	ug/kg	12 U	13,000 U	97 UJ	31 U	74,000 U	63,000 U	31,000 U	10 U	20 U	19 U	9.7 U	12 U	11 U	4,500 U	13 U	9.6 U	17 U	27 U
Methylcyclohexane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	**4.1 J**	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Methylene chloride	ug/kg	5.9 U	6,400 U	49 UJ	16 U	**7,400 J**	**3,100 J**	**2,900 J**	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
o-xylene (1,2-dimethylbenzene)	ug/kg	5.9 U	**5,600 J**	49 UJ	**0.52 J**	**14,000 J**	**42,000**	**27,000**	5 U	10 U	9.3 U	**3.5 J**	**11**	**4.1 J**	**1,200 J**	6.7 U	4.8 U	**0.14 J**	**0.62 J**
Styrene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	**9,900 J**	**6,000 J**	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Tert-butyl methyl ether	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	**1.6 J**	**4.5 J**	14 U
Tetrachloroethylene(PCE)	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Toluene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	**3,100 J**	**17,000 J**	**23,000**	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
trans-1,2-dichloroethene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
trans-1,3-dichloropropene	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U
Trichloroethylene (TCE)	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	**56 J**	6.7 U	4.8 U	8.5 U	14 U
Trichlorofluoromethane	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	**2.1 J**	**2.2 J**	4.9 U	**1.4 J**	5.4 U	2,300 U	6.7 U	4.8 U	**1.8 J**	14 U
Vinyl chloride	ug/kg	5.9 U	6,400 U	49 UJ	16 U	37,000 U	31,000 U	15,000 U	5 U	10 U	9.3 U	4.9 U	6.1 U	5.4 U	2,300 U	6.7 U	4.8 U	8.5 U	14 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
Sample Number:		059-2212	059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135
Sample Depth:		20-25	25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,1,2,2-tetrachloroethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,1,2-trichloroethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,1-dichloroethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,1-dichloroethene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,2,3-trichlorobenzene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UR	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,2,4-trichlorobenzene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UR	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,2-dibromo-3-chloropropane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UR	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,2-dibromoethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,2-dichlorobenzene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UR	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,2-dichloroethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,2-dichloropropane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,3-dichlorobenzene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UR	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,4-dichlorobenzene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UR	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
1,4-dioxane (p-dioxane)	ug/kg	7,100 UR	7,400 UR	99 UR	98 UR	94 UR	250 UR	600 UR	550 UR	94 UR	120 UR	130 UR	130 UR	89 UR	94 UR	91 UR	100 UR	27,000 UR	63,000 UR
2-hexanone	ug/kg	710 U	740 U	9.9 U	9.8 U	9.4 U	25 U	60 UJ	55 UJ	9.4 U	12 U	13 U	13 U	8.9 U	9.4 U	9.1 U	10 U	2,700 U	6,300 U
Acetone	ug/kg	710 U	740 U	**29**	9.8 U	**44**	**61**	**200 J**	**180 J**	9.4 U	12 U	13 U	13 U	**45**	9.4 U	**29**	**53**	2,700 U	6,300 U
Benzene	ug/kg	360 U	370 U	5 U	**1.5 J**	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	**0.99 J**	**1 J**	**1.1 J**	1,300 U	**680 J**
Bromochloromethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Bromodichloromethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Bromoform	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UR	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Bromomethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Carbon disulfide	ug/kg	360 U	370 U	**1.1 J**	**2 J**	4.7 U	**22**	**35 J**	**24 J**	4.7 U	5.9 U	6.5 U	6.4 U	**0.86 J**	4.7 U	**0.72 J**	**1.8 J**	**140 J**	**370 J**
Carbon tetrachloride	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Chlorobenzene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Chloroethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	---	4.6 U	5.1 U	1,300 U	3,200 U
Chloroform	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Chloromethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
cis-1,2-dichloroethylene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
cis-1,3-dichloropropene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Cyclohexane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Dibromochloromethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Dichlorodifluoromethane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Ethylbenzene	ug/kg	**350 J**	**470**	5 U	**21**	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	**0.14 J**	**0.19 J**	**0.18 J**	**1,800**	**6,400**
Isopropylbenzene (cumene)	ug/kg	**120 J**	**97 J**	5 U	**4.1 J**	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	**530 J**	**1,500 J**

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
Sample Number:		059-2212	059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135
Sample Depth:		20-25	25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**320 J**	**460**	5 U	**19**	4.7 U	13 U	---	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	**0.47 J**	**0.47 J**	**0.51 J**	**2,000**	**6,900**
Methyl acetate	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Methyl ethyl ketone (2-butanone)	ug/kg	710 U	740 U	**14**	9.8 U	9.4 U	25 U	60 UJ	55 UJ	9.4 U	12 U	13 U	13 U	**11**	9.4 U	**8.3 J**	**8.8 J**	2,700 U	6,300 U
Methyl isobutyl ketone	ug/kg	710 U	740 U	9.9 U	9.8 U	9.4 U	25 U	60 UJ	55 UJ	9.4 U	12 U	13 U	13 U	8.9 U	9.4 U	9.1 U	10 U	2,700 U	6,300 U
Methylcyclohexane	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Methylene chloride	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**180 J**	**240 J**	5 U	**11**	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	**0.15 J**	**0.14 J**	**0.23 J**	**1,100 J**	**3,600**
Styrene	ug/kg	360 U	370 U	5 U	**3.7 J**	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Tert-butyl methyl ether	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Tetrachloroethylene(PCE)	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Toluene	ug/kg	**40 J**	**120 J**	5 U	**5.5**	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	**530 J**	**2,200 J**
trans-1,2-dichloroethene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
trans-1,3-dichloropropene	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Trichloroethylene (TCE)	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Trichlorofluoromethane	ug/kg	360 U	370 U	**0.71 J**	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	**2.7 J**	6.4 U	**0.74 J**	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U
Vinyl chloride	ug/kg	360 U	370 U	5 U	4.9 U	4.7 U	13 U	30 UJ	27 UJ	4.7 U	5.9 U	6.5 U	6.4 U	4.5 U	4.7 U	4.6 U	5.1 U	1,300 U	3,200 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41
Sample Number:		059-2136	059-2137	GC-MW40D(2.5-3)	SB40IB-S-NG	GC-MW40I(7)	GC-MW40I(11)	GC-MWXX(15)	GC-MW40I(17.5)	GC-MW40I(22)	GC-MW40I(26.5)	GC-MW40I(32.5)	GC-MW40I(37.5)	GC-MW40I(43.5)	GC-MW40I(47.5)	GC-MW40I(52.5)	SB40IJ-S-NG	GC-MW40I(56.5)	GC-MW41S(4.5-5)
Sample Depth:		36.5-37	40-40.5	2.5-3	5-10	7-7	11-11	11-11	17.5-17.5	22-22	26.5-26.5	32.5-32.5	37.5-37.5	43.5-43.5	47.5-47.5	52.5-52.5	55-58	56.5-56.5	4.5-5
Sample Date:		6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010
Sample Type:		N	N	N	S	N	N	FD	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,1,2,2-tetrachloroethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,1,2-trichloroethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,1-dichloroethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	**1.9 J**	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,1-dichloroethene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,2,3-trichlorobenzene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,2,4-trichlorobenzene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,2-dibromo-3-chloropropane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 UJ	33,000 U	11 U	1,600 UJ	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,2-dibromoethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,2-dichlorobenzene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,2-dichloroethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,2-dichloropropane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,3-dichlorobenzene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,4-dichlorobenzene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
1,4-dioxane (p-dioxane)	ug/kg	58,000 UR	94 UR	240 UR	120,000 UR	560,000 UR	880,000 UR	1,600,000 UR	570 UR	79,000 UR	260 UR	230 UR	35,000 UR	330 UR	300 UR	280 UR	110 UR	310 UR	280 UR
2-hexanone	ug/kg	5,800 U	9.4 U	4.8 U	12,000 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	11 U	6.1 U	5.7 U
Acetone	ug/kg	5,800 U	**19**	31 UJ	12,000 U	11,000 U	18,000 U	33,000 U	69 UJ	1,600 U	19 UJ	**51 J**	690 U	17 UJ	8.5 UJ	6.8 UJ	11 U	7.3 UJ	7.2 UJ
Benzene	ug/kg	**690 J**	**1.2 J**	4.8 U	**320,000 J**	**400,000**	**550,000 J**	**1,100,000 J**	**10 J**	**3,600**	**17**	**59**	**1,400**	**6.3 J**	**1.9 J**	5.6 U	5.3 U	6.1 U	**31**
Bromochloromethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Bromodichloromethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Bromoform	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Bromomethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 UJ	18,000 UJ	33,000 UJ	11 U	1,600 UJ	5.2 U	4.6 U	690 UJ	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Carbon disulfide	ug/kg	2,900 U	**1.5 J**	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	**18**	1,600 U	5.2 UJ	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Carbon tetrachloride	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Chlorobenzene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Chloroethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Chloroform	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Chloromethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
cis-1,2-dichloroethylene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
cis-1,3-dichloropropene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Cyclohexane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	**2,900 J**	18,000 U	**7,800 J**	**15**	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Dibromochloromethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Dichlorodifluoromethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Ethylbenzene	ug/kg	**8,600**	**0.26 J**	4.8 U	**32,000**	**44,000**	**49,000 J**	**87,000 J**	**3.6 J**	**470 J**	**27**	**80**	**1,100**	**3.2 J**	**2.6 J**	5.6 U	5.3 U	6.1 U	**58**
Isopropylbenzene (cumene)	ug/kg	**1,800 J**	4.7 U	4.8 U	**2,900 J**	**3,700 J**	**5,100 J**	**8,600 J**	11 U	1,600 U	**1.4 J**	**4.6**	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	**8.9**

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41
Sample Number:		059-2136	059-2137	GC-MW40D(2.5-3)	SB40IB-S-NG	GC-MW40I(7)	GC-MW40I(11)	GC-MWXX(15)	GC-MW40I(17.5)	GC-MW40I(22)	GC-MW40I(26.5)	GC-MW40I(32.5)	GC-MW40I(37.5)	GC-MW40I(43.5)	GC-MW40I(47.5)	GC-MW40I(52.5)	SB40IJ-S-NG	GC-MW40I(56.5)	GC-MW41S(4.5-5)
Sample Depth:		36.5-37	40-40.5	2.5-3	5-10	7-7	11-11	11-11	17.5-17.5	22-22	26.5-26.5	32.5-32.5	37.5-37.5	43.5-43.5	47.5-47.5	52.5-52.5	55-58	56.5-56.5	4.5-5
Sample Date:		6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010
Sample Type:		N	N	N	S	N	N	FD	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**8,400**	**0.7 J**	4.8 U	**190,000**	**240,000**	**---**	**570,000 J**	**7.8 J**	**2,000**	**33**	**120**	**1,200**	**2 J**	**2.1 J**	5.6 U	5.3 U	**1.4 J**	**50**
Methyl acetate	ug/kg	2,900 U	4.7 U	4.8 UR	5,800 U	11,000 UR	18,000 UR	33,000 UR	11 UR	1,600 UR	5.2 UR	4.6 UR	690 UR	6.5 UR	6 UR	5.6 UR	5.3 U	**2 J**	5.7 UR
Methyl ethyl ketone (2-butanone)	ug/kg	5,800 U	9.4 U	**7 J**	12,000 U	11,000 UR	18,000 UR	33,000 UR	**18 J**	1,600 UR	5.2 UR	**19 J**	690 UR	6.5 UR	6 UR	5.6 UR	11 U	6.1 UR	5.7 UR
Methyl isobutyl ketone	ug/kg	5,800 U	9.4 U	4.8 U	12,000 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	**1.4 J**	**2.4 J**	690 U	**4.7 J**	**1.4 J**	**1.7 J**	11 U	6.1 U	5.7 U
Methylcyclohexane	ug/kg	2,900 U	4.7 U	4.8 U	**6,400**	**8,700 J**	**11,000 J**	**23,000 J**	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Methylene chloride	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**4,500**	**0.24 J**	4.8 U	**70,000**	**84,000**	**100,000 J**	**210,000 J**	**17**	**720 J**	**17**	**49**	**560 J**	6.5 U	**1.3 J**	5.6 U	5.3 U	6.1 U	**24**
Styrene	ug/kg	2,900 U	4.7 U	4.8 U	**70,000**	**76,000**	**110,000 J**	**230,000 J**	11 U	**360 J**	**1 J**	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Tert-butyl methyl ether	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	**2 J**	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Tetrachloroethylene(PCE)	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Toluene	ug/kg	**3,400**	4.7 U	4.8 U	**250,000 J**	**300,000**	**400,000 J**	**810,000 J**	11 U	**2,500**	**30**	**87**	**150 J**	6.5 U	6 U	5.6 U	5.3 U	6.1 U	**55**
trans-1,2-dichloroethene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
trans-1,3-dichloropropene	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Trichloroethylene (TCE)	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Trichlorofluoromethane	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U
Vinyl chloride	ug/kg	2,900 U	4.7 U	4.8 U	5,800 U	11,000 U	18,000 U	33,000 U	11 U	1,600 U	5.2 U	4.6 U	690 U	6.5 U	6 U	5.6 U	5.3 U	6.1 U	5.7 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42
Sample Number:		GC-MW41I(5-5.5)	GC-MWXX(0-5)VOC	SB41IB-S-NG	GC-MW41I(10-10.5)	GC-MW41I(18-18.5)	GC-MW41I(21-21.5)	GC-MW41I(27.5-28)	GC-MW41I(31.5-32)	GC-MW41I(37-37.5)	GC-MW41I(42.5-43)	GC-MW41I(47.5-48)	GC-MW41I(51.5-52)	SB41IL-S-NG	GC-MW41I(55.5-56)	059-2061	059-2062	059-2063	059-2064
Sample Depth:		5-5.5	5-5.5	5-10	10-10.5	18-18.5	21-21.5	27.5-28	31.5-32	37-37.5	42.5-43	47.5-48	51.5-52	55-58	55.5-56	5-10	15-20	20-25	25-30
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:		N	FD	S	N	N	N	N	N	N	N	N	N	S	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,1,2,2-tetrachloroethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,1,2-trichloroethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,1-dichloroethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,1-dichloroethene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,2,3-trichlorobenzene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,2,4-trichlorobenzene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,2-dibromo-3-chloropropane	ug/kg	1,000 UJ	760 UJ	310 U	720 UJ	3,400 UJ	700 UJ	620 UJ	810 UJ	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,2-dibromoethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,2-dichlorobenzene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**0.071 J**	5.1 U	5.1 U	4.4 U
1,2-dichloroethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	**0.79 J**	5.1 U	5.1 U	4.4 U
1,2-dichloropropane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,3-dichlorobenzene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
1,4-dichlorobenzene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**0.27 J**	5.1 U	5.1 U	4.4 U
1,4-dioxane (p-dioxane)	ug/kg	51,000 UR	38,000 UR	6,100 UR	36,000 UR	170,000 UR	35,000 UR	31,000 UR	40,000 UR	300 UR	300 UR	300 UR	290 UR	100 UR	280 UR	88 UR	100 UR	100 UR	88 UR
2-hexanone	ug/kg	1,000 U	760 U	610 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	10 U	5.7 U	8.8 U	10 U	10 U	8.8 U
Acetone	ug/kg	1,000 U	760 UJ	610 U	720 UJ	3,400 UJ	700 UJ	620 UJ	810 U	19 UJ	14 UJ	14 UJ	7.4 UJ	10 U	5.9 UJ	**44**	10 U	10 U	**23**
Benzene	ug/kg	**14,000**	**11,000**	**160 J**	720 U	**39,000 J**	**1,400**	**2,200**	**3,500**	**5.5 J**	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**3.1 J**	5.1 U	5.1 U	4.4 U
Bromochloromethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Bromodichloromethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Bromoform	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Bromomethane	ug/kg	1,000 UJ	760 UJ	310 U	720 UJ	3,400 UJ	700 U	620 UJ	810 UJ	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Carbon disulfide	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	**1.5 J**	6.1 U	5.8 U	5.2 U	5.7 U	**3.9 J**	**6.9**	**7.3**	**1 J**
Carbon tetrachloride	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Chlorobenzene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Chloroethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Chloroform	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Chloromethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**2.2 J**	5.1 U	5.1 U	4.4 U
cis-1,2-dichloroethylene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
cis-1,3-dichloropropene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Cyclohexane	ug/kg	**1,600**	**1,100**	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Dibromochloromethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Dichlorodifluoromethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Ethylbenzene	ug/kg	**36,000**	**25,000**	**620**	720 U	3,400 UJ	**210 J**	**310 J**	**1,100**	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**1.2 J**	5.1 U	**0.14 J**	4.4 U
Isopropylbenzene (cumene)	ug/kg	**5,200 J**	**2,900 J**	**190 J**	720 U	3,400 UJ	700 U	620 U	810 U	**2.2 J**	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**0.42 J**	5.1 U	5.1 U	4.4 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42
Sample Number:		GC-MW41I(5-5.5)	GC-MWXX(0-5)VOC	SB41IB-S-NG	GC-MW41I(10-10.5)	GC-MW41I(18-18.5)	GC-MW41I(21-21.5)	GC-MW41I(27.5-28)	GC-MW41I(31.5-32)	GC-MW41I(37-37.5)	GC-MW41I(42.5-43)	GC-MW41I(47.5-48)	GC-MW41I(51.5-52)	SB41IL-S-NG	GC-MW41I(55.5-56)	059-2061	059-2062	059-2063	059-2064
Sample Depth:		5-5.5	5-5.5	5-10	10-10.5	18-18.5	21-21.5	27.5-28	31.5-32	37-37.5	42.5-43	47.5-48	51.5-52	55-58	55.5-56	5-10	15-20	20-25	25-30
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:		N	FD	S	N	N	N	N	N	N	N	N	N	S	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**64,000**	**---**	**650**	**190 J**	3,400 UJ	**280 J**	**450 J**	**1,300**	**4.8 J**	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**2.3 J**	**0.2 J**	**0.27 J**	**---**
Methyl acetate	ug/kg	1,000 UR	760 UJ	**530**	720 UJ	3,400 UR	700 UR	620 UJ	810 UR	6.1 UR	6.1 UR	6.1 UR	5.8 UR	5.2 UJ	5.7 UR	4.4 U	5.1 U	5.1 U	4.4 U
Methyl ethyl ketone (2-butanone)	ug/kg	1,000 UR	760 UR	610 U	720 UR	3,400 UR	700 UR	620 UR	810 UR	6.1 UR	6.1 UR	6.1 U	5.8 UR	10 U	5.7 UR	**10**	10 U	10 U	8.8 U
Methyl isobutyl ketone	ug/kg	1,000 U	760 U	610 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	**2.3 J**	6.1 UR	**1.6 J**	10 U	5.7 U	8.8 U	10 U	10 U	8.8 U
Methylcyclohexane	ug/kg	**5,900**	**4,000**	**260 J**	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Methylene chloride	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**24,000**	**17,000**	**260 J**	720 U	3,400 UJ	700 U	**180 J**	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**1.1 J**	5.1 U	**0.074 J**	**0.081 J**
Styrene	ug/kg	1,000 U	**1,700**	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Tert-butyl methyl ether	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Tetrachloroethylene(PCE)	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**2.9 J**	5.1 U	5.1 U	4.4 U
Toluene	ug/kg	**33,000**	**27,000**	**160 J**	720 U	3,400 UJ	**220 J**	**1,200**	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
trans-1,2-dichloroethene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
trans-1,3-dichloropropene	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Trichloroethylene (TCE)	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	**0.24 J**	5.1 U	5.1 U	4.4 U
Trichlorofluoromethane	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 U	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 UJ	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U
Vinyl chloride	ug/kg	1,000 U	760 U	310 U	720 U	3,400 UJ	700 UJ	620 U	810 U	6.1 U	6.1 U	6.1 U	5.8 U	5.2 U	5.7 U	4.4 U	5.1 U	5.1 U	4.4 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-42	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
Sample Number:		059-2066	059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127
Sample Depth:		25-30	30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,1,2,2-tetrachloroethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,1,2-trichloroethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,1-dichloroethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,1-dichloroethene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,2,3-trichlorobenzene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,2,4-trichlorobenzene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,2-dibromo-3-chloropropane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,2-dibromoethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,2-dichlorobenzene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,2-dichloroethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,2-dichloropropane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,3-dichlorobenzene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,4-dichlorobenzene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
1,4-dioxane (p-dioxane)	ug/kg	91 UR	96 UR	120 UR	110 UR	220 UR	200 UR	99 UR	150 UR	100 UR	290,000 UR	14,000 UR	100 UR	200 UR	190 UR	250 UR	99 UR	180 UR	240 UR
2-hexanone	ug/kg	9.1 U	9.6 U	12 U	11 U	22 U	20 U	9.9 U	15 U	10 U	29,000 U	1,400 U	10 U	20 U	19 U	25 U	9.9 U	18 U	24 U
Acetone	ug/kg	**19**	9.6 U	12 U	**28**	**41**	**63**	**16**	15 U	10 U	29,000 U	1,400 U	10 U	**21**	**140**	**50**	**15**	**54**	**560**
Benzene	ug/kg	**1.2 J**	4.8 U	**9.4**	**4.6 J**	**3 J**	9.9 U	**2.4 J**	**3.1 J**	**2.8 J**	14,000 U	690 U	5.1 U	10 U	**2.7 J**	**2.9 J**	**5**	**3 J**	**330 J**
Bromochloromethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Bromodichloromethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Bromoform	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Bromomethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Carbon disulfide	ug/kg	**3.1 J**	**6.5**	**3.4 J**	**5 J**	**26**	**22**	**4.4 J**	**2.5 J**	**1.6 J**	14,000 U	**96 J**	5.1 U	**4.1 J**	**4.6 J**	**15**	**6.6**	**24**	**6.4 J**
Carbon tetrachloride	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Chlorobenzene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Chloroethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Chloroform	ug/kg	4.6 U	**1.1 J**	**4.1 J**	**4.9 J**	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Chloromethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
cis-1,2-dichloroethylene	ug/kg	4.6 U	4.8 U	**3.2 J**	**2.3 J**	11 U	9.9 U	5 U	**0.91 J**	**1 J**	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	**12**
cis-1,3-dichloropropene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Cyclohexane	ug/kg	4.6 U	4.8 U	6 U	**18**	**16**	9.9 U	**5.9**	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Dibromochloromethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Dichlorodifluoromethane	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Ethylbenzene	ug/kg	**0.18 J**	**0.16 J**	**3 J**	**1.3 J**	**0.44 J**	9.9 U	**0.24 J**	7.4 U	5.1 U	**100,000**	**410 J**	5.1 U	10 U	**1.1 J**	**0.76 J**	**0.3 J**	**0.67 J**	**5.9 J**
Isopropylbenzene (cumene)	ug/kg	4.6 U	4.8 U	**1.7 J**	**1.5 J**	**0.47 J**	9.9 U	**0.29 J**	**0.91 J**	**0.76 J**	**12,000 J**	**74 J**	5.1 U	10 U	**5.9 J**	13 U	**0.74 J**	9.2 U	**3.9 J**

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
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Station Location:		GCMW-42	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
Sample Number:		059-2066	059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127
Sample Depth:		25-30	30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**0.36 J**	**0.24 J**	**10**	5.6 U	11 U	9.9 U	5 U	---	5.1 U	**92,000**	**370 J**	5.1 U	**0.37 J**	**3.4 J**	**1.5 J**	**0.95 J**	**1.9 J**	**28 J**
Methyl acetate	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Methyl ethyl ketone (2-butanone)	ug/kg	9.1 U	9.6 U	12 U	11 U	**29**	**21**	9.9 U	15 U	10 U	29,000 U	1,400 U	10 U	**20 J**	**48**	**27**	**6.8 J**	**12 J**	**170**
Methyl isobutyl ketone	ug/kg	9.1 U	9.6 U	12 U	11 U	22 U	20 U	9.9 U	15 U	10 U	29,000 U	1,400 U	10 U	20 U	19 U	25 U	9.9 U	18 U	24 U
Methylcyclohexane	ug/kg	4.6 U	4.8 U	**3.7 J**	**27**	**3.4 J**	9.9 U	**9.2**	**6.8 J**	**5 J**	14,000 U	690 U	5.1 U	10 U	**3.6 J**	13 U	5 U	9.2 U	12 U
Methylene chloride	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
o-xylene (1,2-dimethylbenzene)	ug/kg	**0.14 J**	4.8 U	**4.2 J**	**2.3 J**	**0.44 J**	9.9 U	**1.9 J**	**1.6 J**	**1.2 J**	**43,000**	**250 J**	5.1 U	10 U	**9.4 J**	**0.63 J**	**1.7 J**	**0.79 J**	**17 J**
Styrene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Tert-butyl methyl ether	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Tetrachloroethylene(PCE)	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Toluene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	**5,500 J**	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 UJ
trans-1,2-dichloroethene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
trans-1,3-dichloropropene	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U
Trichloroethylene (TCE)	ug/kg	4.6 U	4.8 U	**1.5 J**	**1.2 J**	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	**1.1 J**
Trichlorofluoromethane	ug/kg	4.6 U	4.8 U	**2.3 J**	5.6 U	**2 J**	**0.87 J**	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	**2.2 J**
Vinyl chloride	ug/kg	4.6 U	4.8 U	6 U	5.6 U	11 U	9.9 U	5 U	7.4 U	5.1 U	14,000 U	690 U	5.1 U	10 U	9.5 U	13 U	5 U	9.2 U	12 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-44	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
Sample Number:		059-2128	059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174
Sample Depth:		35-40	40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,1,2,2-tetrachloroethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
1,1,2-trichloroethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,1-dichloroethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
1,1-dichloroethene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
1,2,3-trichlorobenzene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,2,4-trichlorobenzene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,2-dibromo-3-chloropropane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,2-dibromoethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,2-dichlorobenzene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,2-dichloroethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
1,2-dichloropropane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,3-dichlorobenzene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,4-dichlorobenzene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
1,4-dioxane (p-dioxane)	ug/kg	110 UR	120 UR	850 UR	180 UR	160 UR	150 UR	150,000 UR	320,000 UR	70,000 UR	180,000 UR	140 UR	150 UR	160 UR	150 UR	180 UR	120 UR	120 UR	120 UR
2-hexanone	ug/kg	11 U	12 U	85 U	18 U	16 U	15 U	15,000 U	32,000 U	7,000 U	18,000 U	14 U	15 U	16 U	15 U	22 U	12 U	12 U	12 U
Acetone	ug/kg	11 U	12 U	**230**	**56**	**54**	**78**	15,000 U	32,000 U	7,000 U	18,000 U	14 U	**44**	**37**	**42**	**240**	12 U	12 U	12 U
Benzene	ug/kg	**2.1 J**	**2.6 J**	**17 J**	**2.7 J**	**2 J**	7.3 U	**1,600 J**	**3,500 J**	**730 J**	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	**2.5 J**	**1.7 J**	**2.4 J**	**1.4 J**
Bromochloromethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Bromodichloromethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Bromoform	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 UJ	7.7 UJ	7.8 UJ	7.6 UJ	9 UR	6.2 UJ	5.9 UJ	6.2 UJ
Bromomethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Carbon disulfide	ug/kg	**0.88 J**	**0.94 J**	**9.3 J**	**25**	**19**	**31**	7,300 U	16,000 U	3,500 U	**1,100 J**	**2.6 J**	**5.3 J**	**11**	**10**	**70 J**	6.2 U	**1.8 J**	6.2 U
Carbon tetrachloride	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Chlorobenzene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Chloroethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Chloroform	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Chloromethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
cis-1,2-dichloroethylene	ug/kg	**8.2**	**11**	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	**590 J**	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	**3 J**	**16**	**6.9**
cis-1,3-dichloropropene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Cyclohexane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Dibromochloromethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Dichlorodifluoromethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Ethylbenzene	ug/kg	5.7 U	**0.2 J**	**4.5 J**	**0.65 J**	**0.33 J**	**0.31 J**	**31,000**	**47,000**	**22,000**	**120,000**	7.2 U	**0.38 J**	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	**0.99 J**
Isopropylbenzene (cumene)	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	**2,900 J**	**3,600 J**	**2,800 J**	**19,000**	7.2 U	**0.38 J**	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U

TABLE I-27A
VOC Concentrations in Soils
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Station Location:		GCMW-44	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
Sample Number:		059-2128	059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174
Sample Depth:		35-40	40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
m, p xylenes	ug/kg	**0.21 J**	**0.46 J**	**12 J**	**1.7 J**	**0.88 J**	**0.59 J**	---	**49,000**	**17,000**	**97,000**	7.2 U	**0.39 J**	7.8 U	7.6 U	11 U	6.2 U	5.9 U	6.2 U
Methyl acetate	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Methyl ethyl ketone (2-butanone)	ug/kg	11 U	12 U	85 U	**24**	**22**	**20**	15,000 U	32,000 U	7,000 U	18,000 U	**14 J**	**14 J**	**14 J**	**22**	**65 J**	12 U	12 U	12 U
Methyl isobutyl ketone	ug/kg	11 U	12 U	85 U	18 U	16 U	15 U	15,000 U	32,000 U	7,000 U	18,000 U	14 U	15 U	16 U	15 U	22 U	12 U	12 U	12 U
Methylcyclohexane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Methylene chloride	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
o-xylene (1,2-dimethylbenzene)	ug/kg	5.7 U	**0.11 J**	**4.5 J**	**0.8 J**	**0.39 J**	**0.21 J**	**12,000**	**20,000**	**8,100**	**43,000**	7.2 U	**0.35 J**	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Styrene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Tert-butyl methyl ether	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Tetrachloroethylene(PCE)	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Toluene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	**1,000 J**	**2,900 J**	**350 J**	**2,200 J**	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
trans-1,2-dichloroethene	ug/kg	**2.3 J**	**3.6 J**	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	**0.65 J**
trans-1,3-dichloropropene	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	6.2 U	5.9 U	6.2 U
Trichloroethylene (TCE)	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	**2,100 J**	7.2 U	7.7 U	7.8 U	7.6 U	9 UR	**1.7 J**	**2.1 J**	**0.53 J**
Trichlorofluoromethane	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U
Vinyl chloride	ug/kg	5.7 U	6.2 U	43 U	9.1 U	7.8 U	7.3 U	7,300 U	16,000 U	3,500 U	9,100 U	7.2 U	7.7 U	7.8 U	7.6 U	9 UJ	6.2 U	5.9 U	6.2 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2175	059-2176	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239	059-2240
Sample Depth:		45-50	50-55	10-15	15-20	25-30	30-35	36-36.5	40-40.5	45-45.5
Sample Date:		6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**								
1,1,1-trichloroethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,1,2,2-tetrachloroethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,1,2-trichloroethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,1-dichloroethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,1-dichloroethene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,2,3-trichlorobenzene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,2,4-trichlorobenzene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,2-dibromo-3-chloropropane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,2-dibromoethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,2-dichlorobenzene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,2-dichloroethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,2-dichloropropane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,3-dichlorobenzene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,4-dichlorobenzene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
1,4-dioxane (p-dioxane)	ug/kg	110 UR	99 UR	11,000 UR	160 UR	35,000 UR	670,000 UR	1,000,000 UR	48,000 UR	110 UR
2-hexanone	ug/kg	11 UJ	9.9 UJ	1,100 U	16 U	3,500 U	67,000 U	100,000 U	4,800 U	11 U
Acetone	ug/kg	11 UJ	9.9 UJ	1,100 U	**41**	3,500 U	67,000 U	100,000 U	4,800 U	11 U
Benzene	ug/kg	5.5 UJ	**2.4 J**	530 U	8 U	**370 J**	**10,000 J**	**19,000 J**	2,400 U	5.4 U
Bromochloromethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Bromodichloromethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Bromoform	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Bromomethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Carbon disulfide	ug/kg	**0.87 J**	4.9 UJ	530 U	**11**	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Carbon tetrachloride	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Chlorobenzene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Chloroethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Chloroform	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Chloromethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
cis-1,2-dichloroethylene	ug/kg	**1.4 J**	**15 J**	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	**6.5**
cis-1,3-dichloropropene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Cyclohexane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Dibromochloromethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Dichlorodifluoromethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Ethylbenzene	ug/kg	5.5 UJ	4.9 UJ	**77 J**	**24**	**4,100**	**94,000**	**240,000**	**4,800**	**1 J**
Isopropylbenzene (cumene)	ug/kg	5.5 UJ	4.9 UJ	**80 J**	**7.8 J**	**790 J**	**7,800 J**	**8,800 J**	**830 J**	5.4 U

TABLE I-27A
VOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2175	059-2176	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239	059-2240
Sample Depth:		45-50	50-55	10-15	15-20	25-30	30-35	36-36.5	40-40.5	45-45.5
Sample Date:		6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**								
m, p xylenes	ug/kg	5.5 UJ	4.9 UJ	**160 J**	**45**	**3,500**	**75,000**	**200,000**	**3,700**	**0.75 J**
Methyl acetate	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Methyl ethyl ketone (2-butanone)	ug/kg	11 UJ	9.9 UJ	1,100 U	16 U	3,500 U	67,000 U	100,000 U	4,800 U	11 U
Methyl isobutyl ketone	ug/kg	11 UJ	9.9 UJ	1,100 U	16 U	3,500 U	67,000 U	100,000 U	4,800 U	11 U
Methylcyclohexane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Methylene chloride	ug/kg	5.5 UJ	4.9 UJ	**52 J**	8 U	**110 J**	33,000 U	50,000 U	2,400 U	5.4 U
o-xylene (1,2-dimethylbenzene)	ug/kg	5.5 UJ	4.9 UJ	**97 J**	**51**	**1,700 J**	**35,000**	**90,000**	**2,100 J**	**0.55 J**
Styrene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	**26,000 J**	2,400 U	5.4 U
Tert-butyl methyl ether	ug/kg	5.5 UJ	**0.56 J**	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Tetrachloroethylene(PCE)	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Toluene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	**56 J**	**24,000 J**	**110,000**	**380 J**	5.4 U
trans-1,2-dichloroethene	ug/kg	5.5 UJ	**6.6 J**	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
trans-1,3-dichloropropene	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Trichloroethylene (TCE)	ug/kg	5.5 UJ	**1.1 J**	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Trichlorofluoromethane	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U
Vinyl chloride	ug/kg	5.5 UJ	4.9 UJ	530 U	8 U	1,800 U	33,000 U	50,000 U	2,400 U	5.4 U

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:	SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:	0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:	N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg																	
1,1-dichloroethane	ug/kg																	
*1,2,3-trichlorobenzene	ug/kg																	
*1,2,4-trichlorobenzene	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg						1.7 J											
*2-hexanone	ug/kg																	
Acetone	ug/kg	**12,800 (Q)**	**1,800 (Q)**	**90,500 (Q)**	**37,300 (Q)**	**17,000 (Q)**	**6,550 (Q)**	**17,200 (Q)**	44.9	**1,460 (Q)**	**820 (Q)**		**93.6 (Q)**	**48,300 (Q)**	**170 (Q)**	**116 (Q)**	**651 (Q)**		**74.4 (Q)**
Benzene	ug/kg		58.8 J	1.7	4.9	**230 J (Q)**	3.8			0.86 J		2.6	4.5	0.88 J	10 J	**216 (Q)**	1.7		
*Carbon disulfide	ug/kg		160 J	1.9 J	5 J		6.1 J	5.5	0.52 J	2.9 J			1.4 J	6.2 J	4.4 J	17.5 J	5.5	2.2 J	2.6 J
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg									0.37 J									
*Cyclohexane	ug/kg		1,030	5.8 J	4.3 J		11.9			2 J									
Ethylbenzene	ug/kg		134	2.3			2.4									295			
*Isopropylbenzene (cumene)	ug/kg		2,180													15.7 J			
m, p xylenes	ug/kg		362	5.1	1.9 J	110 J	5.3									33.1			
*Methyl acetate	ug/kg		342 J			510													
Methyl ethyl ketone (2-butanone)	ug/kg					**200 J (Q)**								54					
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg		18,000	10.6	15.6		52.7			11.9									1.8 J
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg		67 J	0.77 J			0.91 J									99			
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg				5.8		1.3 J	37		1.9			1 J						
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg	0.61 J	85.4 J	0.88 J	1.3 J		1.2 J					1.3	0.88 J		3.1 J	14.8			
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
	Sample Number:	SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
	Sample Depth:	30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
	Sample Date:	6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
	Sample Type:	S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg					7,300 J													
*1,2,4-trichlorobenzene	ug/kg					7,000 J													
1,2-dichlorobenzene	ug/kg					**2,700 J (Q)**													
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg					**3,100 J (Q)**													
1,4-dichlorobenzene	ug/kg					**2,100 J (Q)**			0.76 J										
*2-hexanone	ug/kg																		
Acetone	ug/kg	**380 (Q)**	34.8	40							31	35	7.5 J	6.8 J	5.4 J		9 J		49
Benzene	ug/kg					**8,300 J (Q)**				1.3 J									
*Carbon disulfide	ug/kg	1.9 J	2.7 J	24			1 J	1.1 J	4.7 J	1.5 J		23	1.9 J						15
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg													2.5 J		1.7 J	2.2 J		
*Cyclohexane	ug/kg																	62 J	
Ethylbenzene	ug/kg		0.96 J	**2,400 (Q)**	**160,000 (Q)**	0.55 J	0.16 J			0.25 J		0.17 J				0.33 J	0.29 J	30 J	
*Isopropylbenzene (cumene)	ug/kg		1 J	1,400 J	5,600 J			0.55 J										79 J	
m, p xylenes	ug/kg		1.5 J	590 J	**120,000 (Q)**	0.43 J	0.31 J		0.65 J	0.72 J	0.89 J	0.54 J	0.39 J		0.9 J	0.78 J	15 J	0.28 J	
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg		16 J							9.4 J									27
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																	620	
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg		1.4 J	740 J	**54,000 (Q)**	0.31 J													
*Styrene	ug/kg				26,000 J					0.44 J				0.46 J	0.78 J	0.74 J			
Tert-butyl methyl ether	ug/kg									1.8 J	5.5 J								
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg			57 J	**45,000 (Q)**														
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg		0.93 J					0.84 J											
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-09
	Sample Number:	059-2033	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203	SB09B
	Sample Depth:	15-20	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35	5-10
	Sample Date:	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/8/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg			0.37 J															
*2-hexanone	ug/kg																		
Acetone	ug/kg	**66 (Q)**		40	**67 (Q)**	48	**53 (Q)**						27 J	43 J	**70 J (Q)**	**99 J (Q)**	46 J		30.1
Benzene	ug/kg				2.9 J							**8,300 J (Q)**				2 J			1.9
*Carbon disulfide	ug/kg	30		1.8 J	33	32	28	1 J	0.83 J				19 J	17 J	34 J	29 J	2.3 J	1 J	2.1 J
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg				0.37 J					0.23 J	990	**190,000 (Q)**							
*Isopropylbenzene (cumene)	ug/kg			0.67 J							180 J	36,000							
m, p xylenes	ug/kg	0.45 J	0.15 J	0.5 J	0.67 J	0.26 J	0.26 J			0.17 J	760	**160,000 (Q)**							
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg	28			17 J	14 J	16									34 J	14 J		
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg			7.1															
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg		0.079 J	0.21 J	0.42 J		0.12 J				440 J	**73,000 (Q)**							
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg																		
Tetrachloroethylene(PCE)	ug/kg			1.7 J	34	0.15 J	5.8 J												
Toluene	ug/kg										130 J	**4,600 J (Q)**							0.67 J
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg													1.5 J		1.6 J	0.74 J		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F	SB10G	SB10H
Sample Depth:	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg																	
1,1-dichloroethane	ug/kg																	
*1,2,3-trichlorobenzene	ug/kg																	
*1,2,4-trichlorobenzene	ug/kg																	
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,3-dichlorobenzene	ug/kg																	
1,4-dichlorobenzene	ug/kg																	
*2-hexanone	ug/kg																	
Acetone	ug/kg	14.6	**10,600 (Q)**	**5,800 (Q)**	**129 (Q)**	**459 J (Q)**	**261 (Q)**	29	39	**150 (Q)**	20.3	22.9	**12,200 (Q)**	**4,500 J (Q)**	**2,310 (Q)**	**83.9 (Q)**	**2,390 (Q)**	**3,450 (Q)**	**1,910 (Q)**
Benzene	ug/kg	0.76 J							8	2.3 J									
*Carbon disulfide	ug/kg	1.2 J				0.57 J		3.1 J	1.3 J	2.8 J	0.44 J	1.1 J							
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg																		
*Isopropylbenzene (cumene)	ug/kg																		
m, p xylenes	ug/kg											0.83 J							
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg			**150 J (Q)**										4.7 J					
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg											0.84 J							
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg																		
Tetrachloroethylene(PCE)	ug/kg		39.2 J									0.32 J							
Toluene	ug/kg											0.43 J							
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg		58 J																
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039	059-2040	059-2041
Sample Depth:		40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5	26.5-27	29.5-30
Sample Date:		6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	**1,800 (Q)**	**760 J (Q)**	**800 J (Q)**	39	33		47	41								33	25	31
Benzene	ug/kg				4.9 J	**70 (Q)**	**120 J (Q)**	3.3 J	**220 J (Q)**	**97 J (Q)**	**11,000 J (Q)**	**920 J (Q)**	2.3 J	**9,600 (Q)**	**2,300 (Q)**	**310 (Q)**	**140 (Q)**	3 J	2.3 J
*Carbon disulfide	ug/kg				2.6 J	1.5 J	47 J	28	18								0.68 J		
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg	0.43 J		2.4 J					0.6 J										
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg												0.58 J						
*Cyclohexane	ug/kg								34					45,000	740	63 J	7.9	12	
Ethylbenzene	ug/kg				2 J	65	66 J	0.57 J	19 J	170 J	**100,000 (Q)**	**1,900 J (Q)**	3.6 J	**51,000 (Q)**	710	270 J	140	0.58 J	0.33 J
*Isopropylbenzene (cumene)	ug/kg				5.9	15	20 J		9.9 J	160 J	17,000 J	210 J	0.33 J	9,500	85 J	17 J	6.2	0.19 J	
m, p xylenes	ug/kg				6.5	190	67 J	1.1 J	52 J	170 J	**96,000 (Q)**	**6,900 (Q)**	1.4 J	**170,000 (Q)**	**2,400 (Q)**	740	69	1.4 J	
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg					7.2 J		10 J										6.5 J	
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg				2 J	1.5 J			11					17,000	200 J		3.2 J	6.5	
Methylene chloride	ug/kg		2.1 J																
o-xylene (1,2-dimethylbenzene)	ug/kg				4.3 J	83	41 J	0.35 J	13 J	86 J	**42,000 (Q)**	**3,200 J (Q)**	1 J	**69,000 (Q)**	970	330	17	0.59 J	0.3 J
*Styrene	ug/kg											9,500							
Tert-butyl methyl ether	ug/kg				1 J	7.9	18 J	1.3 J	23 J										
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg					6.3	41 J		71 J	59 J	**23,000 J (Q)**	**2,100 J (Q)**		**97,000 (Q)**	**3,600 (Q)**	520	7.6		
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg				1.2 J	0.64 J		3 J	0.58 J								0.42 J		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GCMW-12 059-2045	GCMW-12 059-2042	GCMW-12 059-2043	GCMW-12 059-2044	GCMW-13 059-2177	GCMW-13 059-2182	GCMW-14 059-2186	GCMW-14 059-2187	GCMW-14 059-2188	GCMW-14 059-2189	GCMW-14 059-2190	GCMW-14 059-2191	GCMW-14 059-2197	GCMW-14 059-2192	GCMW-14 059-2193	GCMW-14 059-2194	GCMW-14 059-2195	GCMW-14 059-2196
Station Location:																			
Sample Number:																			
Sample Depth:		29.5-30	30-35	35-40	40-45	10-15	35-40	6-6.5	10-10.5	10-15	15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:		5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
		Volatile Organic Compounds																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg			14	19														
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	18		33	30				20		34		20 J	18 J	30 J	48 J	19 J		
Benzene	ug/kg	1.5 J		1.4 J		**970 J (Q)**							3 J	2 J	3.4 J	4.4 J	1.4 J		
*Carbon disulfide	ug/kg		62 J							1.8 J	11	5.6	2.3 J	2.2 J		1.8 J	1.9 J		1.1 J
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	0.4 J	14 J	0.2 J	0.2 J	**9,000 (Q)**								0.2 J					
*Isopropylbenzene (cumene)	ug/kg					1,300 J		130 J					0.39 J	0.89 J					
m, p xylenes	ug/kg	1 J	30 J	0.52 J	0.45 J	**11,000 (Q)**													
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg										13		13 J						
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg						27 J	30 J											
o-xylene (1,2-dimethylbenzene)	ug/kg	0.38 J		0.23 J	0.24 J	**4,400 J (Q)**								5.2 J					
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg	40	400	10	18				1.3 J	1.1 J									
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg		52 J			**2,400 J (Q)**													
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg									1.4 J				0.86 J	0.44 J			2.5 J	
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16
	Sample Number:	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097	059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085
	Sample Depth:	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45
	Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	22	25	27	18		6.4 J	6.7 J	9.3 J	6.3 J	7.8 J	23	19	14	19	19	11		7.9 J
Benzene	ug/kg																		
*Carbon disulfide	ug/kg	9.2	18	9.1	7	1.5 J						3.4 J	1.9 J						
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg	53 J	53 J			2.3 J													
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	0.6 J		0.27 J	0.47 J	0.23 J		0.35 J	0.35 J	0.26 J	0.28 J	0.37 J	0.35 J	0.3 J	0.15 J	0.32 J	0.36 J	0.21 J	0.24 J
*Isopropylbenzene (cumene)	ug/kg											5.6 J	0.16 J						
m, p xylenes	ug/kg	1.5 J		0.79 J	1.5 J	0.77 J	0.72 J	1 J	1.2 J	0.77 J	0.95 J	0.98 J	1.1 J	0.88 J	0.47 J	1.1 J	1.1 J		0.67 J
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg																		
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	0.77 J		0.48 J	0.58 J								0.54 J	0.38 J			0.51 J		
*Styrene	ug/kg	0.88 J		0.44 J	0.66 J	0.64 J	0.67 J	1.2 J	1.1 J	0.8 J	0.84 J	0.83 J	0.62 J	0.86 J	0.48 J		1.3 J	0.58 J	0.39 J
Tert-butyl methyl ether	ug/kg																		
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg																		
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg	16																	
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GCMW-16 059-2086	GCMW-16 059-2087	GCMW-17 SB17A	GCMW-17 SB17B	GCMW-17 SB17C	GCMW-17 SB17C-S-NYC	GCMW-17 SB17D	GCMW-17 SB17E	GCMW-17 SB17F	GCMW-17 SB17G	GCMW-17 SB17H	GCMW-17 SB17I	GCMW-17 SB17I-S-NYC	GCMW-18 SB18B	GCMW-18 SB18C	GCMW-18 DUP02	GCMW-18 SB18D	GCMW-18 SB18D-S-NYC
Station Location:																			
Sample Number:																			
Sample Depth:		45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	40-45	5-10	10-15	10-15	15-20	15-20
Sample Date:		6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	N	N	S	N	N	N	N	N	N	S	N	N	FD	N	S
Volatile Organic Compounds																			
1,1,1-trichloroethane	ug/kg				0.47 J														
1,1-dichloroethane	ug/kg			0.29 J	0.86 J														
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg													11					
Acetone	ug/kg	9.2 J		18.5	**125 (Q)**	**10,000 (Q)**	**9,400 (Q)**	27.6	**4,120 (Q)**	**956 (Q)**	**520 J (Q)**	**2,130 (Q)**	**78.5 (Q)**	32	**17,500 (Q)**	6.9 J	18.9	**50.6 (Q)**	36
Benzene	ug/kg			0.41 J						0.96 J	0.83 J		3.2	2.9 J					
*Carbon disulfide	ug/kg			1.3 J	32.9	1 J		2.1 J	11.2	2.7 J	10	4.7 J		1.4 J	48.5 J	1.2 J	1.3 J	4.6 J	6.6
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg				1.5 J														
Chloroform	ug/kg																	0.71 J	
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	0.25 J	0.26 J																
*Isopropylbenzene (cumene)	ug/kg																		
m, p xylenes	ug/kg	0.88 J	0.72 J																
*Methyl acetate	ug/kg														226 J				
Methyl ethyl ketone (2-butanone)	ug/kg						**180 J (Q)**							4 J					11 J
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg		0.37 J																
*Styrene	ug/kg	0.62 J	0.78 J																
Tert-butyl methyl ether	ug/kg					0.63 J		1.2 J										0.89 J	
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg			0.33 J	0.43 J														
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg												0.72 J	1.8 J					

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GCMW-18 SB18E 20-25 6/8/2010 N	GCMW-18 DUP04 20-25 6/8/2010 FD	GCMW-18 SB18F 25-30 6/8/2010 N	GCMW-18 SB18G 30-35 6/8/2010 N	GCMW-18 SB18H 35-40 6/8/2010 N	GCMW-18 SB18I 40-45 6/8/2010 N	GCMW-18 SB18J 45-50 6/8/2010 N	GCMW-18 SB18K 50-55 6/8/2010 N	GCMW-18 SB18K-S-NYC 50-55 6/8/2010 S	GCMW-18 D-06082010-S-NYC 50-55 6/8/2010 SFD	GCMW-18 SB18L 55-58 6/8/2010 N	GCMW-19 SB19A 2-5 6/3/2010 N	GCMW-19 DUP01 2-5 6/3/2010 FD	GCMW-19 SB19B 5-10 6/3/2010 N	GCMW-19 SB19C 10-15 6/3/2010 N	GCMW-19 SB19C-S-NYC 10-15 6/3/2010 S	GCMW-19 SB19D 15-20 6/4/2010 N	GCMW-19 SB19E 20-25 6/4/2010 N
		Volatile Organic Compounds																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		0.57 J
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	**178,000 (Q)**	**65,000 (Q)**	**2,030 (Q)**	**512 J (Q)**	12.9		**102 (Q)**		42	35			7.1 J	21.1	18.8	22	8.1 J	19.9
Benzene	ug/kg						**305 J (Q)**	1.5		2.2 J					1.1		1.7 J		
*Carbon disulfide	ug/kg			7.7 J	3.2 J			2.8 J		1.8 J			0.76 J	2.9 J	3.9 J	6.3 J	11 J	3.6 J	3.6 J
Chlorobenzene	ug/kg														0.51 J	0.94 J	2.8 J		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																46 J		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg							4.7 J		2.9 J	2.1 J								
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg					0.4 J	**12,700 (Q)**	49.2	66.1 J	53	6	251							
*Isopropylbenzene (cumene)	ug/kg						1,260 J	3.9 J		5.7			0.95 J	0.76 J	0.8 J		2 J		
m, p xylenes	ug/kg						**19,400 (Q)**	68.8	99.7 J	82	9.3	382			0.95 J	1.6 J	4.8 J		
*Methyl acetate	ug/kg	549																	
Methyl ethyl ketone (2-butanone)	ug/kg																6.8 J		
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																4.1 J		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg						**8,690 (Q)**	36.2	37.5 J	39	4.5 J	165			0.74 J	1.4	4 J		
*Styrene	ug/kg							6.8		9.1		28.6 J							
Tert-butyl methyl ether	ug/kg																		
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg						**2,610 (Q)**	10.8		11		34.1 J			0.95	0.72 J	1.7 J		
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg							1.3 J		9.6	8.4	44.4 J					8.6 J		
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GCMW-19 SB19F 25-30 6/4/2010 N	GCMW-19 SB19G 30-35 6/4/2010 N	GCMW-19 SB19H 35-40 6/4/2010 N	GCMW-19 SB19I 40-45 6/4/2010 N	GCMW-19 SB19J 45-50 6/4/2010 N	GCMW-19 SB19K 50-55 6/4/2010 N	GCMW-19 SB19M 60-62 6/4/2010 N	GCMW-20 059-2067 5-10 5/26/2010 N	GCMW-20 059-2068 10-15 5/26/2010 N	GCMW-20 059-2069 25-30 5/26/2010 N	GCMW-20 059-2070 30-35 5/26/2010 N	GCMW-20 059-2071 35-40 5/26/2010 N	GCMW-21 059-2055 5-10 5/25/2010 N	GCMW-21 059-2056 10-15 5/25/2010 N	GCMW-21 059-2057 15-20 5/25/2010 N	GCMW-21 059-2058 20-25 5/25/2010 N	GCMW-21 059-2059 25-30 5/25/2010 N	GCMW-21 059-2060 30-35 5/25/2010 N
		Volatile Organic Compounds																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	**1,220 J (Q)**	**83.3 (Q)**	**293 J (Q)**	**1,460 (Q)**	**1,020 (Q)**	4.2 J	**1,120 (Q)**	**54 (Q)**	42				**71 (Q)**	36			15	
Benzene	ug/kg			8.1					2.4 J	2.5 J	**10,000 J (Q)**	**39,000 (Q)**			2.7 J				1.4 J
*Carbon disulfide	ug/kg	1.5 J	1.9 J	0.42 J		1.5 J		0.75 J	3.4 J	19				24	27	7.5	3.4 J	0.76 J	1.2 J
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg							0.69 J											
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg					5.2 J	0.49 J												
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg			0.59 J					0.34 J	2.7 J	**73,000 (Q)**	**240,000 (Q)**	120 J	0.37 J	0.24 J			0.15 J	0.15 J
*Isopropylbenzene (cumene)	ug/kg									2.7 J	10,000 J	10,000 J	280 J						
m, p xylenes	ug/kg								0.9 J	4.6 J	**69,000 (Q)**	**200,000 (Q)**	140 J	0.79 J	0.72 J	0.15 J	0.29 J	0.28 J	0.34 J
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg								25	14 J				10 J	13 J				
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg								0.38 J	2.8 J	**33,000 (Q)**	**90,000 (Q)**	76 J	0.29 J	0.24 J				
*Styrene	ug/kg											19,000 J							
Tert-butyl methyl ether	ug/kg	0.48 J	1.2																
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg		4.4								**9,600 J (Q)**	**110,000 (Q)**	41 J						
trans-1,2-dichloroethene	ug/kg					0.74 J													
Trichloroethylene (TCE)	ug/kg				0.81 J	8.4													
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24
Sample Number:	GC-MW23I(2.5-3)	GC-MW23I(7-7.5)	SB23IC-S-NG	GC-MW23I(11.5-12)	GC-MW23I(17-17.5)	GC-MW23I(22-22.5)	GC-MW23I(27.5-28)	GC-MW23I(33-33.5)	SB23IH-S-NG	GC-MW23I(35.5-36)	GC-FDXX(0-5)VOC	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112
Sample Depth:	2.5-3	7-7.5	10-15	11.5-12	17-17.5	22-22.5	27.5-28	33-33.5	35-39	35.5-36	35.5-36	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35
Sample Date:	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	S	N	N	N	N	N	S	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg																	
1,1-dichloroethane	ug/kg																	
*1,2,3-trichlorobenzene	ug/kg		11 J		7 J	6 J												
*1,2,4-trichlorobenzene	ug/kg		9.3 J															
1,2-dichlorobenzene	ug/kg		4.3 J			2.1 J												
1,2-dichloroethane	ug/kg																	
1,3-dichlorobenzene	ug/kg		4 J															
1,4-dichlorobenzene	ug/kg		4.6 J		3.4 J	2.8 J											0.51 J	
*2-hexanone	ug/kg																	
Acetone	ug/kg	**75 J (Q)**	**55 J (Q)**	**65 (Q)**								**740 J (Q)**	36	47	46		13	
Benzene	ug/kg	24 J					**19,000 (Q)**	**1,800 (Q)**	**990 (Q)**	**7,000 (Q)**	**110,000 J (Q)**	**12,000 J (Q)**		3.1 J	5.8 J	5 J	**12,000 J (Q)**	11	
*Carbon disulfide	ug/kg	4.7 J		22		28 J								27	31	61		4.8 J	2.3 J
Chlorobenzene	ug/kg																	
*Chloroethane	ug/kg																	
Chloroform	ug/kg				4.2 J													
*Chloromethane	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
*Cyclohexane	ug/kg																	
Ethylbenzene	ug/kg	9.7 J					**140,000 (Q)**	**4,400 (Q)**	**1,400 (Q)**	**56,000 (Q)**	**680,000 J (Q)**	**95,000 J (Q)**		1.2 J	1.3 J	3.7 J	**72,000 (Q)**	62	0.24 J
*Isopropylbenzene (cumene)	ug/kg	3.3 J					19,000	270 J			32,000 J	5,800 J	340 J	1 J	0.41 J	0.95 J	11,000 J	9.4	
m, p xylenes	ug/kg	24 J					**92,000 (Q)**	**2,800 (Q)**	830	**44,000 (Q)**	**490,000 J (Q)**			1.4 J	1.5 J	4.4 J	**57,000 (Q)**	43	0.32 J
*Methyl acetate	ug/kg				4.8 J														
Methyl ethyl ketone (2-butanone)	ug/kg	13 J	12 J	21	26 J	17 J									17	17 J			
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg												360 J						
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	11 J					**66,000 (Q)**	1,300	430 J	**22,000 (Q)**	**240,000 J (Q)**	**35,000 J (Q)**		1 J	0.95 J	2.1 J	**29,000 (Q)**	29	
*Styrene	ug/kg						6,300			1,200 J	13,000 J								
Tert-butyl methyl ether	ug/kg														0.58 J	0.89 J			
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg	16 J					**9,800 (Q)**			**29,000 (Q)**	**420,000 J (Q)**	**51,000 J (Q)**					**22,000 (Q)**	14	
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27
Sample Number:	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224	059-2225	059-2227	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233
Sample Depth:	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45
Sample Date:	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/kg																	
1,1-dichloroethane	ug/kg																	
*1,2,3-trichlorobenzene	ug/kg																	
*1,2,4-trichlorobenzene	ug/kg							8.1	6.9									
1,2-dichlorobenzene	ug/kg																	
1,2-dichloroethane	ug/kg																	
1,3-dichlorobenzene	ug/kg									2.2 J	0.99 J							
1,4-dichlorobenzene	ug/kg									1.7 J	0.98 J							
*2-hexanone	ug/kg																	
Acetone	ug/kg				**77 (Q)**	**82 (Q)**	13	17	10 J	36	23	17	18				**320 J (Q)**	
Benzene	ug/kg																**660 J (Q)**	
*Carbon disulfide	ug/kg	0.89 J				12	4.6 J										14 J	
Chlorobenzene	ug/kg									2.7 J								
*Chloroethane	ug/kg																	
Chloroform	ug/kg																	
*Chloromethane	ug/kg																	
cis-1,2-dichloroethylene	ug/kg																	
*Cyclohexane	ug/kg															29 J		
Ethylbenzene	ug/kg												**2,900 J (Q)**	**31,000 (Q)**	**45,000 (Q)**	**7,900 J (Q)**	0.7 J	**29,000 (Q)**
*Isopropylbenzene (cumene)	ug/kg												1,600 J	13,000 J	12,000 J	2,600 J	1.1 J	9,900 J
m, p xylenes	ug/kg												**3,400 J (Q)**	**34,000 (Q)**	**47,000 (Q)**	**9,400 J (Q)**	0.44 J	**29,000 (Q)**
*Methyl acetate	ug/kg																	
Methyl ethyl ketone (2-butanone)	ug/kg				30											110 J		
*Methyl isobutyl ketone	ug/kg																	
*Methylcyclohexane	ug/kg												1,200 J			100 J		
Methylene chloride	ug/kg															35 J		
o-xylene (1,2-dimethylbenzene)	ug/kg												**2,600 J (Q)**	**17,000 J (Q)**	**27,000 (Q)**	**5,100 J (Q)**	0.36 J	**15,000 (Q)**
*Styrene	ug/kg																	
Tert-butyl methyl ether	ug/kg								3.1 J	2.3 J	6.4	1.7 J				6.1 J		
Tetrachloroethylene(PCE)	ug/kg			5.1 J														
Toluene	ug/kg												460 J	**5,200 J (Q)**	**11,000 J (Q)**	**2,100 J (Q)**		**4,300 J (Q)**
trans-1,2-dichloroethene	ug/kg																	
Trichloroethylene (TCE)	ug/kg		0.48 J	0.92 J														
*Trichlorofluoromethane	ug/kg																	
Vinyl chloride	ug/kg																	

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:		059-2147	059-2148	059-2149	059-2150	059-2151	059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(2.5)	SB30IB-S-NG	GC-MW30I(8-8.5)	GC-MW30I(13)
Sample Depth:		0-5	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	2.5-2.5	5-10	8-8.5	13-13
Sample Date:		6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	S	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	**60 (Q)**	**1,200 (Q)**	30					**71 (Q)**	**57 (Q)**									46 J
Benzene	ug/kg	3.7 J	6.3 J			1.1 J		1.5 J					0.92 J						**77 J (Q)**
*Carbon disulfide	ug/kg	3.5 J	68	8.1 J	1.9 J	2.2 J	3.6 J		14	17	3.5 J	3.3 J	2 J		0.72 J				
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg					0.39 J	3 J	2.4 J			0.71 J	0.42 J	0.35 J	0.53 J	1.6 J	16 J		**1,900 (Q)**	
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	1.2 J	1.2 J		0.19 J	0.16 J	0.15 J						0.18 J						0.87 J
*Isopropylbenzene (cumene)	ug/kg																		28 J
m, p xylenes	ug/kg	2.4 J	2.8 J		0.31 J	0.4 J	0.52 J	0.42 J			0.37 J		0.38 J						4.6 J
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg	16 J	**310 (Q)**						26	17									14 J
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		25 J
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	2.4 J	1.3 J		0.13 J	0.16 J	0.17 J	0.16 J			0.27 J		0.25 J						
*Styrene	ug/kg							0.37 J											
Tert-butyl methyl ether	ug/kg																		18 J
Tetrachloroethylene(PCE)	ug/kg															7.3 J	2.2 J	320 J	
Toluene	ug/kg																		
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg															200 J	22	**13,000 (Q)**	0.9 J
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GCMW-30 GC-MW30I(17.5)	GCMW-30 GC-MW30I(24)	GCMW-30 GC-MW30I(27.5)	GCMW-30 GC-MW30I(31.5)	GCMW-30 SB-30I-S-NG	GCMW-30 GC-MW30I(35.5)	GCMW-31 GC-MW31I(3.5-4)	GCMW-31 SB31IB-S-NG	GCMW-31 GC-MW31I(6-6.5)	GCMW-31 GC-MW31I(12-12.5)	GCMW-31 GC-MW31I(19-19.5)	GCMW-31 GC-MW31I(23-23.5)	GCMW-31 GC-MW31I(29.2)	GCMW-31 SB31IG-S-NG	GCMW-31 GC-MW31I(35.75-36)	GCMW-31 GC-MWXX062810VOC	GCMW-32 GC-MW32I(10-10.5)	GCMW-32 SB32ID-S-NG
Station Location:		GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32
Sample Number:		GC-MW30I(17.5)	GC-MW30I(24)	GC-MW30I(27.5)	GC-MW30I(31.5)	SB-30I-S-NG	GC-MW30I(35.5)	GC-MW31I(3.5-4)	SB31IB-S-NG	GC-MW31I(6-6.5)	GC-MW31I(12-12.5)	GC-MW31I(19-19.5)	GC-MW31I(23-23.5)	GC-MW31I(29.2)	SB31IG-S-NG	GC-MW31I(35.75-36)	GC-MWXX062810VOC	GC-MW32I(10-10.5)	SB32ID-S-NG
Sample Depth:		17.5-17.5	24-24	27.5-27.5	31.5-31.5	35-36	35.5-35.5	3.5-4	5-10	6-6.5	12-12.5	19-19.5	23-23.5	29.2-29.2	30-35	35.75-36	35.75-36	10-10.5	15-20
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010	6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010
Sample Type:		N	N	N	N	S	N	N	S	N	N	N	N	N	S	N	FD	N	S
		Volatile Organic Compounds																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg										1,300 J								
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg					5.1 J			36					**80 J (Q)**					**78 (Q)**
Benzene	ug/kg	**66 (Q)**	**310 J (Q)**	**110 (Q)**	**170 (Q)**	26	33					**1,600 (Q)**		**210 (Q)**	**1,200 J (Q)**		**960 J (Q)**		16 J
*Carbon disulfide	ug/kg				5.3		2 J				3,100 J		11 J	1.2 J					
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg		**740 J (Q)**							**260 J (Q)**									
*Cyclohexane	ug/kg	2.6 J												6.9					
Ethylbenzene	ug/kg	12	**3,500 (Q)**	25	32	3.1 J	4.5 J							55 J	**120,000 J (Q)**	**59,000 (Q)**	**78,000 (Q)**	33 J	12 J
*Isopropylbenzene (cumene)	ug/kg	27	1,200 J	4.8 J	5.2								3.1 J	130 J	9,900	5,800	6,900	20 J	3.4 J
m, p xylenes	ug/kg	7.6	420 J	2.6 J	2.7 J									6 J	**6,000 (Q)**		**4,000 (Q)**	71 J	22 J
*Methyl acetate	ug/kg										4,400 J								
Methyl ethyl ketone (2-butanone)	ug/kg	5.8 J												26 J					30
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg	11	330 J		2.4 J									5 J					
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg			3.5 J	4.2 J								4.4 J	37 J	**37,000 (Q)**	**21,000 (Q)**	**26,000 (Q)**	32 J	12 J
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg	30		5.2 J	3.7 J									2.4 J					
Tetrachloroethylene(PCE)	ug/kg									210 J									
Toluene	ug/kg																	14 J	13 J
trans-1,2-dichloroethene	ug/kg		**280 J (Q)**								**1,300 J (Q)**								
Trichloroethylene (TCE)	ug/kg		**3,500 (Q)**				1.7 J			**670 J (Q)**									
*Trichlorofluoromethane	ug/kg							12,000	14	3,200 J									
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34
Sample Number:		GC-MW32I(18-18.5)	GC-MW32I(29.5-30)	GC-MW32I(30.5-31)	SB32IH-S-NG	GC-MW32I(35.5-36)	SB32II-S-NG-R	GC-MW32I(40.75)	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020
Sample Depth:		18-18.5	29.5-30	30.5-31	35-40	35.5-36	40-45	40.75-40.75	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20
Sample Date:		6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010
Sample Type:		N	N	N	S	N	S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	**140 J (Q)**			6.3 J				**71 (Q)**	**180 (Q)**	**530 (Q)**					22	46	27	
Benzene	ug/kg	11 J	**5,300 J (Q)**	**4,400 (Q)**	9.1	7.7			2.9 J	39	11	**2,100 (Q)**	**960 (Q)**	**800 (Q)**	11	54			
*Carbon disulfide	ug/kg				14	20				32	28				0.96 J	3.8 J	15	8.9	
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg															1.6 J			
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg														0.28 J				
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	48 J				**520,000 J (Q)**	**790,000 (Q)**	0.4 J	2.2 J		**2,700 (Q)**	170 J	180 J	16	32			**9,100 (Q)**	
*Isopropylbenzene (cumene)	ug/kg	22 J			3.8 J		28,000		1.2 J		140 J			0.63 J	1.6 J			7,900	
m, p xylenes	ug/kg	80 J		5.5	16	**380,000 J (Q)**	**560,000 (Q)**	1.2 J	1.8 J	0.55 J	190 J	9 J		2.1 J	3.7 J				
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg	44 J						20 J	50	70							25		
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg	2.2 J						2.9 J											
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	50 J		4 J	11	**180,000 (Q)**	**260,000 (Q)**	0.53 J	2.3 J		820	56 J	60 J	5.7	10			**2,700 J (Q)**	
*Styrene	ug/kg	4.3 J																	
Tert-butyl methyl ether	ug/kg							1.7 J				20 J		7.4	3.8 J				
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg	49 J									17 J								
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GCMW-34 059-2021	GCMW-34 059-2022	GCMW-34 059-2024	GCMW-34 059-2023	GCMW-35 059-2154	GCMW-35 059-2155	GCMW-35 059-2156	GCMW-35 059-2157	GCMW-35 059-2158	GCMW-35 059-2159	GCMW-36 059-2012	GCMW-36 059-2013	GCMW-36 059-2014	GCMW-36 059-2015	GCMW-36 059-2016	GCMW-36 059-2017	GCMW-37 059-2208	GCMW-37 059-2209
Station Location:																			
Sample Number:																			
Sample Depth:		20-25	25-30	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10
Sample Date:		5/19/2010	5/19/2010	5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
		Volatile Organic Compounds																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg					**1,700 J (Q)**	50	**420,000 (Q)**	**28,000 J (Q)**			38	42					50	18
Benzene	ug/kg	**370 J (Q)**				14 J	3.3 J			**3,400 J (Q)**	4.9 J				1.6 J				
*Carbon disulfide	ug/kg		3.7 J	4.1 J		49 J	37				0.73 J	9.8 J	17	3 J	1.7 J	3.3 J	330 J	1.5 J	1.2 J
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg								**1,600 J (Q)**		21			0.73 J					
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	**2,600 (Q)**	0.31 J	0.29 J	**26,000 (Q)**		0.65 J	**47,000 (Q)**	**140,000 (Q)**	**87,000 (Q)**	2.8 J			13	32	8.6	**3,100 (Q)**		
*Isopropylbenzene (cumene)	ug/kg	380 J			10,000			10,000 J	6,500 J	3,900 J	0.28 J			12	12	16	5,900		
m, p xylenes	ug/kg	230 J	0.12 J		1,500 J	2.4 J	1.9 J	**33,000 J (Q)**	**100,000 (Q)**	**57,000 (Q)**	0.27 J						930 J		
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg					**410 J (Q)**	27 J					15 J	26					18	7.4 J
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg														4.1 J				
Methylene chloride	ug/kg							**7,400 J (Q)**	**3,100 J (Q)**	**2,900 J (Q)**									
o-xylene (1,2-dimethylbenzene)	ug/kg	300 J	0.12 J		**5,600 J (Q)**		0.52 J	**14,000 J (Q)**	**42,000 (Q)**	**27,000 (Q)**				3.5 J	11	4.1 J	1,200 J		
*Styrene	ug/kg								9,900 J	6,000 J									
Tert-butyl methyl ether	ug/kg																		1.6 J
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg							**3,100 J (Q)**	**17,000 J (Q)**	**23,000 (Q)**									
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																56 J		
*Trichlorofluoromethane	ug/kg											2.1 J	2.2 J		1.4 J				
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
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	Station Location:	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
	Sample Number:	059-2210	059-2211	059-2212	059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2246	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135	059-2136
	Sample Depth:	10-15	15-20	20-25	25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	30-35	5-10	10-15	15-20	20-25	25-30	30-35	36.5-37
	Sample Date:	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	**62 (Q)**	**95 (Q)**			29		44	**61 (Q)**	**200 J (Q)**	**180 J (Q)**		45		29	**53 (Q)**			
Benzene	ug/kg						1.5 J							0.99 J	1 J	1.1 J		**680 J (Q)**	**690 J (Q)**
*Carbon disulfide	ug/kg	20	210			1.1 J	2 J		22	35 J	24 J		0.86 J		0.72 J	1.8 J	140 J	370 J	
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	0.31 J	1.4 J	350 J	470		21							0.14 J	0.19 J	0.18 J	**1,800 (Q)**	**6,400 (Q)**	**8,600 (Q)**
*Isopropylbenzene (cumene)	ug/kg			120 J	97 J		4.1 J										530 J	1,500 J	1,800 J
m, p xylenes	ug/kg	0.29 J	1.1 J	320 J	460		19							0.47 J	0.47 J	0.51 J	**2,000 (Q)**	**6,900 (Q)**	**8,400 (Q)**
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg	24	40			14						11			8.3 J	8.8 J			
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	0.14 J	0.62 J	180 J	240 J		11							0.15 J	0.14 J	0.23 J	1,100 J	**3,600 (Q)**	**4,500 (Q)**
*Styrene	ug/kg						3.7 J												
Tert-butyl methyl ether	ug/kg	4.5 J																	
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg			40 J	120 J		5.5										530 J	**2,200 J (Q)**	**3,400 (Q)**
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg	1.8 J				0.71 J					2.7 J	0.74 J							
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
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Parameter	Units	GCMW-39 059-2137	GCMW-40 GC-MW40D(2.5-3)	GCMW-40 SB40IB-S-NG	GCMW-40 GC-MW40I(7)	GCMW-40 GC-MW40I(11)	GCMW-40 GC-MWXX(15)	GCMW-40 GC-MW40I(17.5)	GCMW-40 GC-MW40I(22)	GCMW-40 GC-MW40I(26.5)	GCMW-40 GC-MW40I(32.5)	GCMW-40 GC-MW40I(37.5)	GCMW-40 GC-MW40I(43.5)	GCMW-40 GC-MW40I(47.5)	GCMW-40 GC-MW40I(52.5)	GCMW-40 GC-MW40I(56.5)	GCMW-41 GC-MW41S(4.5-5)	GCMW-41 GC-MW41I(5-5.5)	GCMW-41 GC-MWXX(0-5)VOC
Station Location:																			
Sample Number:																			
Sample Depth:		40-40.5	2.5-3	5-10	7-7	11-11	11-11	17.5-17.5	22-22	26.5-26.5	32.5-32.5	37.5-37.5	43.5-43.5	47.5-47.5	52.5-52.5	56.5-56.5	4.5-5	5-5.5	5-5.5
Sample Date:		6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010	6/25/2010	6/25/2010
Sample Type:		N	N	S	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	FD
		Volatile Organic Compounds																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg										1.9 J								
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	19									**51 J (Q)**								
Benzene	ug/kg	1.2 J		**320,000 J (Q)**	**400,000 (Q)**	**550,000 J (Q)**	**1,100,000 J (Q)**	10 J	**3,600 (Q)**	17	59	**1,400 (Q)**	6.3 J	1.9 J			31	**14,000 (Q)**	**11,000 (Q)**
*Carbon disulfide	ug/kg	1.5 J						18											
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg																		
*Cyclohexane	ug/kg				2,900 J		7,800 J	15										1,600	1,100
Ethylbenzene	ug/kg	0.26 J		**32,000 (Q)**	**44,000 (Q)**	**49,000 J (Q)**	**87,000 J (Q)**	3.6 J	470 J	27	80	**1,100 (Q)**	3.2 J	2.6 J			58	**36,000 (Q)**	**25,000 (Q)**
*Isopropylbenzene (cumene)	ug/kg			2,900 J	3,700 J	5,100 J	8,600 J			1.4 J	4.6						8.9	5,200 J	2,900 J
m, p xylenes	ug/kg	0.7 J		**190,000 (Q)**	**240,000 (Q)**		**570,000 J (Q)**	7.8 J	**2,000 (Q)**	33	120	1,200	2 J	2.1 J		1.4 J	50	**64,000 (Q)**	
*Methyl acetate	ug/kg															2 J			
Methyl ethyl ketone (2-butanone)	ug/kg		7 J					18 J			19 J								
*Methyl isobutyl ketone	ug/kg									1.4 J	2.4 J		4.7 J	1.4 J	1.7 J				
*Methylcyclohexane	ug/kg			6,400	8,700 J	11,000 J	23,000 J											5,900	4,000
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	0.24 J		**70,000 (Q)**	**84,000 (Q)**	**100,000 J (Q)**	**210,000 J (Q)**	17	720 J	17	49	560 J		1.3 J			24	**24,000 (Q)**	**17,000 (Q)**
*Styrene	ug/kg			70,000	76,000	110,000 J	230,000 J		360 J	1 J									1,700
Tert-butyl methyl ether	ug/kg										2 J								
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg			**250,000 J (Q)**	**300,000 (Q)**	**400,000 J (Q)**	**810,000 J (Q)**		**2,500 (Q)**	30	87	150 J					55	**33,000 (Q)**	**27,000 (Q)**
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg																		
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
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Parameter	Units	GCMW-41 SB41IB-S-NG	GCMW-41 GC-MW41I(10-10.5)	GCMW-41 GC-MW41I(18-18.5)	GCMW-41 GC-MW41I(21-21.5)	GCMW-41 GC-MW41I(27.5-28)	GCMW-41 GC-MW41I(31.5-32)	GCMW-41 GC-MW41I(37-37.5)	GCMW-41 GC-MW41I(42.5-43)	GCMW-41 GC-MW41I(51.5-52)	GCMW-42 059-2061	GCMW-42 059-2062	GCMW-42 059-2063	GCMW-42 059-2064	GCMW-42 059-2066	GCMW-42 059-2065	GCMW-43 059-2001	GCMW-43 059-2002	GCMW-43 059-2003
Station Location:																			
Sample Number:																			
Sample Depth:		5-10	10-10.5	18-18.5	21-21.5	27.5-28	31.5-32	37-37.5	42.5-43	51.5-52	5-10	15-20	20-25	25-30	25-30	30-35	0-5	5-10	12-12.5
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Volatile Organic Compounds																			
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg										0.071 J								
1,2-dichloroethane	ug/kg										0.79 J								
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg										0.27 J								
*2-hexanone	ug/kg																		
Acetone	ug/kg										44			23	19			28	41
Benzene	ug/kg	**160 J (Q)**		**39,000 J (Q)**	**1,400 (Q)**	**2,200 (Q)**	**3,500 (Q)**	5.5 J			3.1 J				1.2 J		9.4	4.6 J	3 J
*Carbon disulfide	ug/kg								1.5 J		3.9 J	6.9	7.3	1 J	3.1 J	6.5	3.4 J	5 J	26
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg															1.1 J	4.1 J	4.9 J	
*Chloromethane	ug/kg										2.2 J								
cis-1,2-dichloroethylene	ug/kg																3.2 J	2.3 J	
*Cyclohexane	ug/kg																	18	16
Ethylbenzene	ug/kg	620			210 J	310 J	**1,100 (Q)**				1.2 J		0.14 J		0.18 J	0.16 J	3 J	1.3 J	0.44 J
*Isopropylbenzene (cumene)	ug/kg	190 J						2.2 J			0.42 J						1.7 J	1.5 J	0.47 J
m, p xylenes	ug/kg	650	190 J		280 J	450 J	1,300	4.8 J			2.3 J	0.2 J	0.27 J		0.36 J	0.24 J	10		
*Methyl acetate	ug/kg	530																	
Methyl ethyl ketone (2-butanone)	ug/kg										10								29
*Methyl isobutyl ketone	ug/kg								2.3 J	1.6 J									
*Methylcyclohexane	ug/kg	260 J															3.7 J	27	3.4 J
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg	260 J				180 J					1.1 J		0.074 J	0.081 J	0.14 J		4.2 J	2.3 J	0.44 J
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg																		
Tetrachloroethylene(PCE)	ug/kg										2.9 J								
Toluene	ug/kg	160 J			220 J	**1,200 (Q)**													
trans-1,2-dichloroethene	ug/kg																		
Trichloroethylene (TCE)	ug/kg										0.24 J						1.5 J	1.2 J	
*Trichlorofluoromethane	ug/kg																2.3 J		2 J
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GCMW-43 059-2004 14.5-15 5/17/2010 N	GCMW-43 059-2005 15-20 5/17/2010 N	GCMW-43 059-2006 20-25 5/17/2010 N	GCMW-43 059-2010 20-25 5/17/2010 FD	GCMW-43 059-2007 25-30 5/17/2010 N	GCMW-43 059-2008 30-35 5/17/2010 N	GCMW-44 059-2122 5-10 6/8/2010 N	GCMW-44 059-2123 10-15 6/8/2010 N	GCMW-44 059-2124 15-20 6/8/2010 N	GCMW-44 059-2125 20-25 6/8/2010 N	GCMW-44 059-2126 25-30 6/8/2010 N	GCMW-44 059-2127 30-35 6/8/2010 N	GCMW-44 059-2128 35-40 6/8/2010 N	GCMW-44 059-2129 40-45 6/8/2010 N	GCMW-45 059-2114 5-10 6/8/2010 N	GCMW-45 059-2115 10-15 6/8/2010 N	GCMW-45 059-2116 15-20 6/8/2010 N	GCMW-45 059-2117 20-25 6/8/2010 N
		Volatile Organic Compounds																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg	**63 (Q)**	16					21	**140 (Q)**	50	15	**54 (Q)**	**560 (Q)**			**230 (Q)**	**56 (Q)**	**54 (Q)**	**78 (Q)**
Benzene	ug/kg		2.4 J	3.1 J	2.8 J				2.7 J	2.9 J	5	3 J	**330 J (Q)**	2.1 J	2.6 J	17 J	2.7 J	2 J	
*Carbon disulfide	ug/kg	22	4.4 J	2.5 J	1.6 J		96 J	4.1 J	4.6 J	15	6.6	24	6.4 J	0.88 J	0.94 J	9.3 J	25	19	31
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg			0.91 J	1 J								12	8.2	11				
*Cyclohexane	ug/kg		5.9																
Ethylbenzene	ug/kg		0.24 J			**100,000 (Q)**	410 J		1.1 J	0.76 J	0.3 J	0.67 J	5.9 J		0.2 J	4.5 J	0.65 J	0.33 J	0.31 J
*Isopropylbenzene (cumene)	ug/kg		0.29 J	0.91 J	0.76 J	12,000 J	74 J		5.9 J		0.74 J		3.9 J						
m, p xylenes	ug/kg					**92,000 (Q)**	370 J	0.37 J	3.4 J	1.5 J	0.95 J	1.9 J	28 J	0.21 J	0.46 J	12 J	1.7 J	0.88 J	0.59 J
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg	21						20 J	48	27	6.8 J	12 J	**170 (Q)**				24	22	20
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg		9.2	6.8 J	5 J				3.6 J										
Methylene chloride	ug/kg																		
o-xylene (1,2-dimethylbenzene)	ug/kg		1.9 J	1.6 J	1.2 J	**43,000 (Q)**	250 J		9.4 J	0.63 J	1.7 J	0.79 J	17 J		0.11 J	4.5 J	0.8 J	0.39 J	0.21 J
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg																		
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg					**5,500 J (Q)**													
trans-1,2-dichloroethene	ug/kg													2.3 J	3.6 J				
Trichloroethylene (TCE)	ug/kg												1.1 J						
*Trichlorofluoromethane	ug/kg	0.87 J											2.2 J						
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47
	Sample Number:	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174	059-2175	059-2176	059-2234	059-2235	059-2236	059-2237
	Sample Depth:	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	10-15	15-20	25-30	30-35
	Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
	Sample Type:	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/kg																		
1,1-dichloroethane	ug/kg																		
*1,2,3-trichlorobenzene	ug/kg																		
*1,2,4-trichlorobenzene	ug/kg																		
1,2-dichlorobenzene	ug/kg																		
1,2-dichloroethane	ug/kg																		
1,3-dichlorobenzene	ug/kg																		
1,4-dichlorobenzene	ug/kg																		
*2-hexanone	ug/kg																		
Acetone	ug/kg						44	37	42	**240 (Q)**							41		
Benzene	ug/kg	**1,600 J (Q)**	**3,500 J (Q)**	**730 J (Q)**						2.5 J	1.7 J	2.4 J	1.4 J		2.4 J			**370 J (Q)**	**10,000 J (Q)**
*Carbon disulfide	ug/kg				1,100 J	2.6 J	5.3 J	11	10	70 J		1.8 J		0.87 J			11		
Chlorobenzene	ug/kg																		
*Chloroethane	ug/kg																		
Chloroform	ug/kg																		
*Chloromethane	ug/kg																		
cis-1,2-dichloroethylene	ug/kg				**590 J (Q)**						3 J	16	6.9	1.4 J	15 J				
*Cyclohexane	ug/kg																		
Ethylbenzene	ug/kg	**31,000 (Q)**	**47,000 (Q)**	**22,000 (Q)**	**120,000 (Q)**		0.38 J						0.99 J			77 J	24	**4,100 (Q)**	**94,000 (Q)**
*Isopropylbenzene (cumene)	ug/kg	2,900 J	3,600 J	2,800 J	19,000		0.38 J									80 J	7.8 J	790 J	7,800 J
m, p xylenes	ug/kg		**49,000 (Q)**	**17,000 (Q)**	**97,000 (Q)**		0.39 J									160 J	45	**3,500 (Q)**	**75,000 (Q)**
*Methyl acetate	ug/kg																		
Methyl ethyl ketone (2-butanone)	ug/kg					14 J	14 J	14 J	22	65 J									
*Methyl isobutyl ketone	ug/kg																		
*Methylcyclohexane	ug/kg																		
Methylene chloride	ug/kg															**52 J (Q)**		**110 J (Q)**	
o-xylene (1,2-dimethylbenzene)	ug/kg	**12,000 (Q)**	**20,000 (Q)**	**8,100 (Q)**	**43,000 (Q)**		0.35 J									97 J	51	**1,700 J (Q)**	**35,000 (Q)**
*Styrene	ug/kg																		
Tert-butyl methyl ether	ug/kg														0.56 J				
Tetrachloroethylene(PCE)	ug/kg																		
Toluene	ug/kg	**1,000 J (Q)**	**2,900 J (Q)**	350 J	**2,200 J (Q)**													56 J	**24,000 J (Q)**
trans-1,2-dichloroethene	ug/kg												0.65 J		6.6 J				
Trichloroethylene (TCE)	ug/kg				**2,100 J (Q)**						1.7 J	2.1 J	0.53 J		1.1 J				
*Trichlorofluoromethane	ug/kg																		
Vinyl chloride	ug/kg																		

TABLE I-27B
VOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GCMW-47**	**GCMW-47**	**GCMW-47**
Sample Number:		**059-2238**	**059-2239**	**059-2240**
Sample Depth:		**36-36.5**	**40-40.5**	**45-45.5**
Sample Date:		**6/28/2010**	**6/28/2010**	**6/28/2010**
Sample Type:		**N**	**N**	**N**
Parameter	**Units**	**Volatile Organic Compounds**		
1,1,1-trichloroethane	ug/kg			
1,1-dichloroethane	ug/kg			
*1,2,3-trichlorobenzene	ug/kg			
*1,2,4-trichlorobenzene	ug/kg			
1,2-dichlorobenzene	ug/kg			
1,2-dichloroethane	ug/kg			
1,3-dichlorobenzene	ug/kg			
1,4-dichlorobenzene	ug/kg			
*2-hexanone	ug/kg			
Acetone	ug/kg			
Benzene	ug/kg	**19,000 J (Q)**		
*Carbon disulfide	ug/kg			
Chlorobenzene	ug/kg			
*Chloroethane	ug/kg			
Chloroform	ug/kg			
*Chloromethane	ug/kg			
cis-1,2-dichloroethylene	ug/kg			6.5
*Cyclohexane	ug/kg			
Ethylbenzene	ug/kg	**240,000 (Q)**	**4,800 (Q)**	1 J
*Isopropylbenzene (cumene)	ug/kg	8,800 J	830 J	
m, p xylenes	ug/kg	**200,000 (Q)**	**3,700 (Q)**	0.75 J
*Methyl acetate	ug/kg			
Methyl ethyl ketone (2-butanone)	ug/kg			
*Methyl isobutyl ketone	ug/kg			
*Methylcyclohexane	ug/kg			
Methylene chloride	ug/kg			
o-xylene (1,2-dimethylbenzene)	ug/kg	**90,000 (Q)**	**2,100 J (Q)**	0.55 J
*Styrene	ug/kg	26,000 J		
Tert-butyl methyl ether	ug/kg			
Tetrachloroethylene(PCE)	ug/kg			
Toluene	ug/kg	**110,000 (Q)**	380 J	
trans-1,2-dichloroethene	ug/kg			
Trichloroethylene (TCE)	ug/kg			
*Trichlorofluoromethane	ug/kg			
Vinyl chloride	ug/kg			

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:	SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:	0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:	N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	13 U	14 U	13 U	13 U	6,300 U	12 U	11 U	10 U	11 U	200 U	9.6 U	13 U	15 U	260 U	34 U	11 U	11 U	11 U
2,3,4,6-tetrachlorophenol	ug/kg	42 U	46 U	42 U	44 U	6,300 U	42 U	38 U	34 U	36 U	200 U	32 U	45 U	50 U	260 U	110 U	37 U	35 U	37 U
2,4,5-trichlorophenol	ug/kg	48 U	52 U	47 U	50 U	6,300 U	47 U	43 U	38 U	41 U	200 U	36 U	51 U	56 U	260 U	130 U	41 U	40 U	42 U
2,4,6-trichlorophenol	ug/kg	39 U	42 U	38 U	40 U	6,300 U	38 U	35 U	31 U	33 U	200 U	29 U	41 U	45 U	260 U	100 U	34 U	32 U	34 U
2,4-dichlorophenol	ug/kg	66 U	72 U	66 U	69 U	6,300 U	65 U	60 U	53 U	56 U	200 U	50 U	70 U	77 U	260 U	180 U	57 U	55 U	58 U
2,4-dimethylphenol	ug/kg	69 U	75 U	69 U	72 U	6,300 U	68 U	63 U	56 U	59 U	200 U	53 U	73 U	81 U	260 U	180 U	60 U	58 U	61 U
2,4-dinitrophenol	ug/kg	50 U	54 U	50 U	52 U	12,000 U	49 U	45 U	40 U	43 U	400 U	38 U	53 U	59 U	510 U	130 U	44 U	42 U	44 U
2,4-dinitrotoluene	ug/kg	18 U	19 U	18 U	19 U	6,300 U	18 U	16 U	14 U	15 U	200 U	14 U	19 U	21 U	260 U	48 U	16 U	15 U	16 U
2,6-dinitrotoluene	ug/kg	16 U	17 U	16 U	16 U	6,300 U	15 U	14 U	13 U	13 U	200 U	12 U	17 U	18 U	260 U	42 U	14 U	13 U	14 U
2-chloronaphthalene	ug/kg	13 U	14 U	13 U	13 U	6,300 U	13 U	12 U	10 U	11 U	200 U	9.7 U	14 U	15 U	260 U	34 U	11 U	11 U	11 U
2-chlorophenol	ug/kg	42 U	45 U	41 U	43 U	6,300 U	41 U	38 U	33 U	35 U	200 U	32 U	44 U	49 U	260 U	110 U	36 U	35 U	37 U
2-methylnaphthalene	ug/kg	23 U	**60.8 J**	23 U	**96**	**3,500**	**35.1 J**	21 U	19 U	20 U	**4.3**	17 U	24 U	27 U	**2.5 J**	61 U	20 U	19 U	20 U
2-methylphenol (o-cresol)	ug/kg	47 U	51 U	47 U	49 U	6,300 U	46 U	42 U	38 U	40 U	200 U	36 U	50 U	55 U	260 U	130 U	41 U	39 U	41 U
2-nitroaniline	ug/kg	18 U	20 U	18 U	19 U	12,000 U	18 U	16 U	15 U	15 U	400 U	14 U	19 U	21 U	510 U	48 U	16 U	15 U	16 U
2-nitrophenol	ug/kg	44 U	47 U	43 U	45 U	6,300 U	43 U	39 U	35 U	37 U	200 U	33 U	46 U	51 U	260 U	120 U	38 U	36 U	38 U
3,3'-dichlorobenzidine	ug/kg	10 U	11 U	10 U	11 U	6,300 U	10 U	9.5 U	8.4 U	8.9 U	200 U	7.9 U	11 U	12 U	260 U	28 U	9.1 U	8.7 U	9.2 U
3-nitroaniline	ug/kg	16 U	18 U	16 U	17 U	12,000 U	16 U	15 U	13 U	14 U	400 U	13 U	17 U	19 U	510 U	44 U	14 U	14 U	14 U
4,6-dinitro-2-methylphenol	ug/kg	50 U	54 U	50 U	52 U	12,000 U	49 U	45 U	40 U	43 U	400 U	38 U	53 U	59 U	510 U	130 U	44 U	42 U	44 U
4-bromophenyl phenyl ether	ug/kg	15 U	16 U	15 U	16 U	6,300 U	15 U	14 U	12 U	13 U	200 U	11 U	16 U	17 U	260 U	40 U	13 U	12 U	13 U
4-chloro-3-methylphenol	ug/kg	41 U	45 U	41 U	43 U	6,300 U	40 U	37 U	33 U	35 U	200 U	31 U	44 U	48 U	260 U	110 U	36 U	34 U	36 U
4-chloroaniline	ug/kg	13 U	14 U	13 U	14 U	6,300 U	13 U	12 U	11 U	11 U	200 U	10 U	14 U	15 U	260 U	35 U	11 U	11 U	12 U
4-chlorophenyl phenyl ether	ug/kg	12 U	13 U	12 U	13 U	6,300 U	12 U	11 U	10 U	11 U	200 U	9.4 U	13 U	14 U	260 U	33 U	11 U	10 U	11 U
4-methylphenol (p-cresol)	ug/kg	---	---	---	---	6,300 U	---	---	---	---	200 U	---	---	---	260 U	---	---	---	---
4-nitroaniline	ug/kg	16 U	17 U	16 U	17 U	12,000 U	16 U	15 U	13 U	14 U	400 U	12 U	17 U	19 U	510 U	43 U	14 U	13 U	14 U
4-nitrophenol	ug/kg	70 U	75 U	69 U	73 U	12,000 U	68 U	63 U	56 U	59 U	400 U	53 U	74 U	81 U	510 U	190 U	60 U	58 U	61 U
Acenaphthene	ug/kg	**108**	**1,040**	**149**	**259**	**7,200**	**175**	11 U	9.6 U	10 U	**22 J**	**24.2 J**	13 U	14 U	**1.7 J**	32 U	10 U	10 U	10 U
Acenaphthylene	ug/kg	**32.4 J**	**18.1 J**	13 U	**23.8 J**	**100 J**	**17.4 J**	12 U	11 U	11 U	4 U	10 U	14 U	15 U	**1.6 J**	35 U	11 U	11 U	12 U
Acetophenone	ug/kg	7.2 U	7.8 U	7.2 U	7.6 U	6,300 U	7.1 U	6.6 U	5.8 U	6.2 U	200 U	5.5 U	7.7 U	8.5 U	260 U	19 U	6.3 U	6 U	6.4 U
Anthracene	ug/kg	**168**	**312**	**58.2**	**256**	**15,000**	**229**	13 U	12 U	12 U	**22 J**	**55.1**	15 U	17 U	**10**	39 U	12 U	12 U	13 U
Atrazine	ug/kg	8.1 U	8.8 U	8.1 U	8.5 U	6,300 U	8 U	7.3 U	6.5 U	6.9 U	200 U	6.2 U	8.6 U	9.5 U	260 U	22 U	7 U	6.8 U	7.1 U
Benzaldehyde	ug/kg	9.5 U	10 U	9.4 U	9.9 U	6,300 U	9.3 U	8.6 U	7.6 U	8.1 U	200 U	7.2 U	10 U	11 U	**47 J**	25 U	8.2 U	7.9 U	8.3 U
Benzo(a)anthracene	ug/kg	**392**	**149**	**91.9**	**581**	**21,000 J**	**493**	12 U	11 U	11 U	**36 J**	**149**	14 U	**32.3 J**	**42 J**	36 U	12 U	11 U	**19.2 J**
Benzo(a)pyrene	ug/kg	**353**	**104**	**89.2**	**598**	**16,000**	**498**	11 U	10 U	11 U	**39 J**	**161**	13 U	**34.8 J**	**43 J**	34 U	11 U	10 U	11 U
Benzo(b)fluoranthene	ug/kg	**349**	**84**	**69.7**	**492**	**15,000**	**370**	12 U	11 U	12 U	**34 J**	**147**	15 U	**32.6 J**	**33**	37 U	12 U	11 U	12 U
Benzo(g,h,i)perylene	ug/kg	**189**	**54**	**50.3**	**317**	**11,000**	**264**	14 U	12 U	13 U	**19**	**82.6**	16 U	**20.2 J**	**29**	41 U	13 U	13 U	13 U
Benzo(k)fluoranthene	ug/kg	**226**	**72.2**	**63.9**	**374**	**11,000**	**305**	14 U	12 U	13 U	**26 J**	**116**	16 U	**24.9 J**	**46 J**	41 U	13 U	13 U	14 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:		SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:		0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	24 U	26 U	24 U	25 U	6,300 U	23 U	22 U	19 U	20 U	**20 J**	18 U	25 U	28 U	260 U	64 U	21 U	20 U	21 U
Biphenyl (diphenyl)	ug/kg	4.8 U	5.2 U	4.7 U	5 U	**920 J**	4.7 U	4.3 U	3.8 U	4.1 U	200 U	3.6 U	5.1 U	5.6 U	260 U	13 U	4.1 U	4 U	4.2 U
Bis(2-chloroethoxy) methane	ug/kg	17 U	18 U	17 U	17 U	6,300 U	16 U	15 U	13 U	14 U	200 U	13 U	18 U	19 U	260 U	44 U	14 U	14 U	15 U
Bis(2-chloroethyl) ether	ug/kg	12 U	13 U	12 U	13 U	6,300 U	12 U	11 U	10 U	11 U	200 U	9.4 U	13 U	14 U	260 U	33 U	11 U	10 U	11 U
Bis(2-chloroisopropyl) ether	ug/kg	---	---	---	---	6,300 U	---	---	---	---	200 U	---	---	---	260 U	---	---	---	---
Bis(2-ethylhexyl) phthalate	ug/kg	**84.4**	39 U	**47.9 J**	38 U	6,300 U	36 U	33 U	29 U	31 U	**130 J**	**32.4 J**	38 U	**107**	**71 J**	97 U	32 U	**43.2 J**	**55.2 J**
Caprolactam	ug/kg	13 U	14 U	13 U	14 U	6,300 U	13 U	12 U	10 U	11 U	200 U	9.8 U	14 U	15 U	260 U	35 U	11 U	11 U	11 U
Carbazole	ug/kg	**37.2 J**	**30.9 J**	19 U	**122**	**7,100**	**88.5**	17 U	15 U	16 U	200 U	**19.3 J**	20 U	22 U	260 U	51 U	17 U	16 U	17 U
Chrysene	ug/kg	**503**	**135**	**89.6**	**616**	**19,000**	**548**	13 U	11 U	12 U	**39 J**	**150**	15 U	**37 J**	**46 J**	37 U	12 U	12 U	**18 J**
Dibenz(a,h)anthracene	ug/kg	**53.9**	15 U	14 U	**105**	**3,800**	**82.5**	13 U	11 U	12 U	**6.5**	**27.6 J**	15 U	16 U	**9.5**	38 U	12 U	12 U	12 U
Dibenzofuran	ug/kg	**48.6 J**	**564**	**62 J**	**98.1**	**6,600**	**73 J**	11 U	9.9 U	10 U	200 U	**15.5 J**	13 U	14 U	260 U	33 U	11 U	10 U	11 U
Diethyl phthalate	ug/kg	14 U	15 U	14 U	15 U	6,300 U	14 U	13 U	11 U	12 U	200 U	11 U	15 U	16 U	260 U	38 U	12 U	12 U	12 U
Dimethyl phthalate	ug/kg	14 U	16 U	14 U	15 U	6,300 U	14 U	13 U	**141**	12 U	200 U	11 U	15 U	17 U	260 U	39 U	13 U	12 U	13 U
Di-n-butyl phthalate	ug/kg	9.1 U	9.9 U	9.1 U	9.5 U	6,300 U	9 U	8.3 U	7.4 U	7.8 U	200 U	6.9 U	9.7 U	11 U	260 U	24 U	7.9 U	7.6 U	8 U
Di-n-octylphthalate	ug/kg	20 U	22 U	20 U	21 U	6,300 U	20 U	18 U	16 U	17 U	200 U	15 U	21 U	23 U	260 U	54 U	17 U	17 U	18 U
Fluoranthene	ug/kg	**901**	**838**	**269**	**1,430**	**56,000**	**1,160**	16 U	15 U	15 U	**88 J**	**301**	19 U	**55**	**78 J**	49 U	16 U	15 U	**35 J**
Fluorene	ug/kg	**87.1**	**755**	**55.8**	**170**	**12,000 J**	**128**	12 U	11 U	12 U	**8**	**22.6 J**	14 U	16 U	**4.3 J**	36 U	12 U	11 U	12 U
Hexachlorobenzene	ug/kg	13 U	15 U	13 U	14 U	6,300 U	13 U	12 U	11 U	11 U	200 U	10 U	14 U	16 U	260 U	36 U	12 U	11 U	12 U
Hexachlorobutadiene	ug/kg	11 U	12 U	11 U	12 U	6,300 U	11 U	10 U	9.2 U	9.8 U	200 U	8.7 U	12 U	13 U	260 U	31 U	9.9 U	9.5 U	10 U
Hexachlorocyclopentadiene	ug/kg	42 U	45 U	42 U	44 U	6,300 U	41 U	38 U	34 U	36 U	200 U	32 U	44 U	49 U	260 UJ	110 U	36 U	35 U	37 U
Hexachloroethane	ug/kg	11 U	12 U	11 U	12 U	6,300 U	11 U	10 U	9.2 U	9.8 U	200 U	8.7 U	12 U	13 U	260 U	31 U	9.9 U	9.5 U	10 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**171**	**39.9 J**	**42.7**	**290**	**10,000**	**229**	13 U	12 U	12 U	**18**	**78.1**	15 U	**19.1 J**	**28**	38 U	12 U	12 U	13 U
Isophorone	ug/kg	11 U	12 U	11 U	12 U	6,300 U	11 U	10 U	8.9 U	9.4 U	200 U	8.4 U	12 U	13 U	260 U	30 U	9.6 U	9.2 U	9.7 U
Naphthalene	ug/kg	**20.2 J**	12 U	**44.5**	**150**	**6,600**	**100**	10 U	9.1 U	9.6 U	**6.7**	**35.7**	12 U	13 U	**5.3**	**97.4 J**	**45.2**	9.4 U	9.9 U
Nitrobenzene	ug/kg	12 U	13 U	12 U	12 U	6,300 U	12 U	11 U	9.6 U	10 U	200 U	9 U	13 U	14 U	260 U	32 U	10 U	9.9 U	10 U
N-nitrosodi-n-propylamine	ug/kg	10 U	11 U	10 U	10 U	6,300 U	9.9 U	9.1 U	8.1 U	8.6 U	200 U	7.6 U	11 U	12 U	260 U	27 U	8.7 U	8.4 U	8.8 U
N-nitrosodiphenylamine	ug/kg	25 U	27 U	24 U	26 U	6,300 U	24 U	22 U	20 U	21 U	200 U	19 U	26 U	29 U	260 U	66 U	21 U	20 U	22 U
Pentachlorophenol	ug/kg	70 U	76 U	70 U	73 U	860 U	69 U	64 U	57 U	60 U	8 U	53 U	74 U	82 U	10 U	190 U	61 U	59 U	62 U
Phenanthrene	ug/kg	**478**	**1,490**	**162**	**1,330**	**67,000**	**1,100**	17 U	15 U	16 U	**72 J**	**222**	20 U	**26.7 J**	**41 J**	50 U	**16 J**	16 U	**23.8 J**
Phenol	ug/kg	43 U	47 U	**531**	45 U	6,300 U	**50.4 J**	39 U	35 U	37 U	200 U	33 U	46 U	51 U	260 U	120 U	37 U	36 U	38 U
Pyrene	ug/kg	**769**	**641**	**225**	**1,280**	**34,000**	**1,220**	14 U	**13.8 J**	**15.3 J**	**80 J**	**302**	17 U	**57.3**	**71 J**	42 U	14 U	**22.2 J**	**44.8**
Total PAHs	ug/kg	**4,801**	**5,793**	**1,461**	**8,368**	**308,200**	**6,954**	ND	**13.8**	**15.3**	**520.5**	**1,874**	ND	**339.9**	**491.9**	**97.4**	**61.2**	**22.2**	**140.8**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
Sample Number:		SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
Sample Depth:		30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
Sample Date:		6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	210 U	11 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2,3,4,6-tetrachlorophenol	ug/kg	210 U	36 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2,4,5-trichlorophenol	ug/kg	210 U	40 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2,4,6-trichlorophenol	ug/kg	210 U	32 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2,4-dichlorophenol	ug/kg	210 U	56 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2,4-dimethylphenol	ug/kg	210 U	58 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2,4-dinitrophenol	ug/kg	400 U	42 U	610 U	1,900 U	7,500 U	380 U	400 U	3,500 U	2,100 U	360 U	570 U	370 U	390 U	370 U	370 U	370 U	2,600 UJ	540 U
2,4-dinitrotoluene	ug/kg	210 U	15 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2,6-dinitrotoluene	ug/kg	210 U	13 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2-chloronaphthalene	ug/kg	210 U	11 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2-chlorophenol	ug/kg	210 U	35 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2-methylnaphthalene	ug/kg	**1.1 J**	19 U	**110 J**	**14,000**	**480,000**	**370**	210 U	**60 J**	1,100 U	**13 J**	290 U	190 U	200 U	190 U	**12 J**	190 U	**250 J**	**9.4 J**
2-methylphenol (o-cresol)	ug/kg	210 U	39 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
2-nitroaniline	ug/kg	400 U	15 U	610 U	1,900 U	7,500 U	380 U	400 U	3,500 U	2,100 U	360 U	570 U	370 U	390 U	370 U	370 U	370 U	2,600 UJ	540 U
2-nitrophenol	ug/kg	210 U	37 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
3,3'-dichlorobenzidine	ug/kg	210 U	8.8 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
3-nitroaniline	ug/kg	400 U	14 U	610 U	1,900 U	7,500 U	380 U	400 U	3,500 U	2,100 U	360 U	570 U	370 U	390 U	370 U	370 U	370 U	2,600 UJ	540 U
4,6-dinitro-2-methylphenol	ug/kg	400 U	42 U	610 U	1,900 U	7,500 U	380 U	400 U	3,500 U	2,100 U	360 U	570 U	370 U	390 U	370 U	370 U	370 U	2,600 U	540 U
4-bromophenyl phenyl ether	ug/kg	210 U	13 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
4-chloro-3-methylphenol	ug/kg	210 U	35 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
4-chloroaniline	ug/kg	210 U	11 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
4-chlorophenyl phenyl ether	ug/kg	210 U	10 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
4-methylphenol (p-cresol)	ug/kg	210 U	---	**16 J**	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	**470**	**13 J**	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
4-nitroaniline	ug/kg	400 U	13 U	610 U	1,900 U	7,500 U	380 U	400 U	3,500 U	2,100 U	360 U	570 U	370 U	390 U	370 U	370 U	370 U	2,600 UJ	540 U
4-nitrophenol	ug/kg	400 U	58 U	610 U	1,900 U	7,500 U	380 U	400 U	3,500 U	2,100 U	360 U	570 U	370 U	390 U	370 U	370 U	370 U	2,600 UJ	540 U
Acenaphthene	ug/kg	**5.4**	10 U	**240 J**	**23,000**	**80,000 J**	**190 J**	**12 J**	**5,600**	**2,500**	190 U	290 U	190 U	200 U	190 U	190 U	190 U	**240 J**	**23 J**
Acenaphthylene	ug/kg	**0.87 J**	11 U	**23 J**	**3,300 J**	**290,000**	**140 J**	**6.1 J**	**650 J**	**290 J**	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Acetophenone	ug/kg	210 U	6.1 U	**91 J**	990 U	3,900 U	**44 J**	**32 J**	1,800 U	**34 J**	**38 J**	**48 J**	**34 J**	**55 J**	**44 J**	**54 J**	**40 J**	1,300 U	**40 J**
Anthracene	ug/kg	**4.8**	12 U	**95 J**	**29,000**	**200,000**	**280**	**9.5 J**	**820 J**	**1,600**	**12 J**	290 U	**6.3 J**	200 U	190 U	190 U	190 U	**170 J**	280 U
Atrazine	ug/kg	210 U	6.8 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Benzaldehyde	ug/kg	210 U	7.9 U	**160 J**	990 U	3,900 U	**88 J**	**74 J**	**61 J**	**63 J**	**100 J**	**110 J**	**61 J**	**95 J**	**73 J**	**81 J**	**66 J**	1,300 U	**62 J**
Benzo(a)anthracene	ug/kg	**13**	11 U	**120 J**	**19,000**	**140,000 J**	**260**	**44 J**	**7,100**	**1,300**	**14 J**	290 U	**21 J**	200 U	190 U	190 U	190 U	**380 J**	**11 J**
Benzo(a)pyrene	ug/kg	**20**	11 U	**69 J**	**15,000**	**110,000 J**	**190 J**	**34 J**	**6,000**	**1,100**	**14 J**	290 U	190 U	200 U	190 U	190 U	190 U	**300 J**	280 U
Benzo(b)fluoranthene	ug/kg	**10**	12 U	**69 J**	**12,000**	**82,000 J**	**150 J**	**29 J**	**3,900**	**750 J**	**14 J**	290 U	**23 J**	200 U	190 U	190 U	190 U	**240 J**	280 U
Benzo(g,h,i)perylene	ug/kg	**11**	13 U	310 U	**6,900**	**38,000 J**	**78 J**	210 U	**2,500**	**340 J**	**10 J**	290 U	190 U	200 U	190 U	190 U	190 U	**310 J**	280 U
Benzo(k)fluoranthene	ug/kg	**8.7**	13 U	**28 J**	**4,600 J**	**31,000 J**	**57 J**	210 U	**1,900**	**380 J**	**9.3 J**	290 U	**10 J**	200 U	190 U	190 U	190 U	**110 J**	280 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
Sample Number:		SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
Sample Depth:		30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
Sample Date:		6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	210 U	20 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	**32 J**	200 U	190 U	190 U	190 U	1,300 U	280 U
Biphenyl (diphenyl)	ug/kg	210 U	4 U	**27 J**	**420 J**	**65,000 J**	**56 J**	210 U	1,800 U	**200 J**	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Bis(2-chloroethoxy) methane	ug/kg	210 U	14 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Bis(2-chloroethyl) ether	ug/kg	210 U	10 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Bis(2-chloroisopropyl) ether	ug/kg	210 U	---	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Bis(2-ethylhexyl) phthalate	ug/kg	**77 J**	**68.8 J**	**50 J**	990 U	3,900 U	**28 J**	**42 J**	1,800 U	1,100 U	**29 J**	**36 J**	**20 J**	**28 J**	**23 J**	**43 J**	**20 J**	**82 J**	**31 J**
Caprolactam	ug/kg	210 U	11 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Carbazole	ug/kg	210 U	16 U	310 U	**350 J**	**4,000**	**11 J**	210 U	1,800 U	1,100 U	**6.6 J**	290 U	**18 J**	200 U	190 U	190 U	190 U	1,300 U	280 U
Chrysene	ug/kg	**13**	12 U	**94 J**	**20,000**	**130,000 J**	**210**	**37 J**	**5,200**	**990 J**	**15 J**	290 U	190 U	200 U	190 U	190 U	190 U	**380 J**	**9.7 J**
Dibenz(a,h)anthracene	ug/kg	**2.7 J**	12 U	310 UJ	**1,800 J**	**9,000 J**	190 UJ	210 UJ	**680 J**	1,100 UJ	190 U	290 U	190 U	200 U	190 U	190 U	190 U	**93 J**	280 U
Dibenzofuran	ug/kg	210 U	10 U	**11 J**	**2,200 J**	**25,000 J**	**25 J**	210 U	**350 J**	**190 J**	**13 J**	290 U	190 U	200 U	190 U	190 U	190 U	**120 J**	280 U
Diethyl phthalate	ug/kg	210 U	12 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Dimethyl phthalate	ug/kg	210 U	12 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Di-n-butyl phthalate	ug/kg	210 U	7.7 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	**45 J**	**74 J**	**48 J**	**47 J**	**43 J**	**50 J**	**61 J**	1,300 U	280 U
Di-n-octylphthalate	ug/kg	210 U	17 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	**28 J**	200 U	190 U	190 U	190 U	1,300 U	280 U
Fluoranthene	ug/kg	**31 J**	15 U	**240 J**	**34,000**	**230,000**	**440**	**75 J**	**12,000**	**2,300**	**39 J**	290 U	190 U	200 U	190 U	190 U	190 U	**520 J**	**18 J**
Fluorene	ug/kg	**3.3 J**	11 U	**78 J**	**22,000**	**250,000**	**270**	210 U	**450 J**	**230 J**	**13 J**	290 U	190 U	200 U	190 U	190 U	190 U	**210 J**	**9.3 J**
Hexachlorobenzene	ug/kg	210 U	11 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Hexachlorobutadiene	ug/kg	210 U	9.6 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Hexachlorocyclopentadiene	ug/kg	210 U	35 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Hexachloroethane	ug/kg	210 U	9.6 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**9.2**	12 U	310 U	**6,000**	**34,000 J**	**76 J**	210 U	**2,300**	**340 J**	190 U	290 U	190 U	200 U	190 U	190 U	190 U	**200 J**	280 U
Isophorone	ug/kg	210 U	9.3 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Naphthalene	ug/kg	**4 J**	9.4 U	**2,000**	**51,000**	**1,300,000**	**600**	**14 J**	**170 J**	**33 J**	**25 J**	290 U	190 U	200 U	190 U	**28 J**	190 U	**180 J**	**14 J**
Nitrobenzene	ug/kg	210 U	10 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
N-nitrosodi-n-propylamine	ug/kg	210 U	8.4 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
N-nitrosodiphenylamine	ug/kg	210 U	21 U	310 U	990 U	3,900 U	190 U	210 U	1,800 U	1,100 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	1,300 U	280 U
Pentachlorophenol	ug/kg	8.2 U	59 U	610 U	1,900 U	7,500 U	380 U	400 U	3,500 U	2,100 U	360 U	570 U	370 U	390 U	370 U	370 U	370 U	2,600 UJ	540 UJ
Phenanthrene	ug/kg	**17**	16 U	**330**	**92,000**	**680,000**	**1,100**	**24 J**	**1,700 J**	**3,700**	**59 J**	**8.8 J**	190 U	200 U	190 U	190 U	190 U	**600 J**	**29 J**
Phenol	ug/kg	210 U	36 U	**20 J**	990 U	3,900 U	**9 J**	210 U	1,800 U	1,100 U	**24 J**	**14 J**	**9.1 J**	**11 J**	**8.5 J**	**9.4 J**	**8.1 J**	1,300 U	**15 J**
Pyrene	ug/kg	**45 J**	**22.7 J**	**220 J**	**60,000 J**	**390,000 J**	**490**	**78 J**	**17,000**	**3,200**	**39 J**	290 U	190 U	200 U	190 U	190 U	190 U	**540 J**	**19 J**
Total PAHs	ug/kg	**200.07**	**22.7**	**3,716**	**413,600**	**4,474,000**	**4,901**	**362.6**	**68,030**	**19,053**	**276.3**	**8.8**	**60.3**	ND	ND	**40**	ND	**4,723**	**142.4**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
Sample Number:		059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
Sample Depth:		15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2,3,4,6-tetrachlorophenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2,4,5-trichlorophenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2,4,6-trichlorophenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2,4-dichlorophenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2,4-dimethylphenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2,4-dinitrophenol	ug/kg	580 U	380 U	370 U	460 U	570 U	590 U	420 U	380 U	380 U	380 U	410 U	11,000 U	580 U	550 U	560 U	560 U	400 U	420 U
2,4-dinitrotoluene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2,6-dinitrotoluene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2-chloronaphthalene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2-chlorophenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2-methylnaphthalene	ug/kg	300 U	190 U	190 U	**14 J**	300 U	**36 J**	**23 J**	200 U	200 U	**14 J**	**470**	**97,000**	300 U	290 U	290 U	290 U	210 U	210 U
2-methylphenol (o-cresol)	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
2-nitroaniline	ug/kg	580 U	380 U	370 U	460 U	570 U	590 U	420 U	380 U	380 U	380 U	410 U	11,000 U	580 U	550 U	560 U	560 U	400 U	420 U
2-nitrophenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
3,3'-dichlorobenzidine	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
3-nitroaniline	ug/kg	580 U	380 U	370 U	460 U	570 U	590 U	420 U	380 U	380 U	380 U	410 U	11,000 U	580 U	550 U	560 U	560 U	400 U	420 U
4,6-dinitro-2-methylphenol	ug/kg	580 U	380 U	370 U	460 U	570 U	590 U	420 U	380 U	380 U	380 U	410 U	11,000 U	580 U	550 U	560 U	560 U	400 U	420 U
4-bromophenyl phenyl ether	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
4-chloro-3-methylphenol	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
4-chloroaniline	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
4-chlorophenyl phenyl ether	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
4-methylphenol (p-cresol)	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
4-nitroaniline	ug/kg	580 U	380 U	370 U	460 U	570 U	590 U	420 U	380 U	380 U	380 U	410 U	11,000 U	580 U	550 U	560 U	560 U	400 U	420 U
4-nitrophenol	ug/kg	580 U	380 U	370 U	460 U	570 U	590 U	420 U	380 U	380 U	380 U	410 U	11,000 U	580 U	550 U	560 U	560 U	400 U	420 U
Acenaphthene	ug/kg	**22 J**	**8.2 J**	190 U	**1,200**	**65 J**	**110 J**	**240**	**6 J**	200 U	**74 J**	**330**	**63,000**	300 U	290 U	290 U	290 U	210 U	210 U
Acenaphthylene	ug/kg	300 U	190 U	190 U	**110 J**	300 U	300 U	**15 J**	200 U	200 U	190 U	**70 J**	**4,200 J**	300 U	290 U	290 U	290 U	210 U	210 U
Acetophenone	ug/kg	**30 J**	**17 J**	**31 J**	**40 J**	**40 J**	**44 J**	220 U	**25 J**	**12 J**	**76 J**	**73 J**	5,800 U	**290 J**	**250 J**	**210 J**	**210 J**	**110 J**	**130 J**
Anthracene	ug/kg	300 U	190 U	190 U	**930**	**44 J**	**56 J**	**160 J**	200 U	200 U	**140 J**	**190 J**	**33,000**	300 U	290 U	290 U	290 U	210 U	210 U
Atrazine	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Benzaldehyde	ug/kg	**48 J**	**32 J**	**57 J**	**62 J**	**39 J**	**73 J**	**45 J**	**36 J**	**19 J**	**88 J**	**100 J**	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Benzo(a)anthracene	ug/kg	300 UJ	190 UJ	190 UJ	**580**	**15 J**	**22 J**	**70 J**	200 UJ	200 UJ	**370**	**130 J**	**19,000**	300 U	290 U	290 U	290 U	210 U	210 U
Benzo(a)pyrene	ug/kg	300 U	190 U	190 U	**520**	**15 J**	**16 J**	**54 J**	200 U	200 U	**270**	**83 J**	**13,000**	300 U	290 U	290 U	290 U	210 U	210 U
Benzo(b)fluoranthene	ug/kg	300 U	190 U	190 U	**400**	**9.1 J**	**14 J**	**46 J**	200 U	200 U	**390**	**68 J**	**10,000 J**	300 U	290 U	290 U	290 U	210 U	210 U
Benzo(g,h,i)perylene	ug/kg	300 U	190 U	190 U	**210 J**	300 U	300 U	**28 J**	200 U	200 U	**160 J**	**34 J**	**4,400 J**	300 U	290 U	290 U	290 U	210 U	210 U
Benzo(k)fluoranthene	ug/kg	300 U	190 U	190 U	**120 J**	300 U	300 U	**19 J**	200 U	200 U	**110 J**	**23 J**	**4,300 J**	300 U	290 U	290 U	290 U	210 U	210 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
Sample Number:		059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
Sample Depth:		15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	**8.7 J**	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Biphenyl (diphenyl)	ug/kg	300 U	190 U	190 U	**83 J**	300 U	**11 J**	**18 J**	200 U	200 U	190 U	**71 J**	**12,000 J**	300 U	290 U	290 U	290 U	210 U	210 U
Bis(2-chloroethoxy) methane	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Bis(2-chloroethyl) ether	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Bis(2-chloroisopropyl) ether	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Bis(2-ethylhexyl) phthalate	ug/kg	**30 J**	**18 J**	**18 J**	**39 J**	**28 J**	**28 J**	**24 J**	**47 J**	**11 J**	**24 J**	**25 J**	5,800 U	**86 J**	290 U	**88 J**	**81 J**	**49 J**	**41 J**
Caprolactam	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	**9.1 J**	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Carbazole	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	**67 J**	**8.2 J**	**840 J**	300 U	290 U	290 U	290 U	210 U	210 U
Chrysene	ug/kg	300 UJ	190 UJ	**5.7 J**	**610**	**19 J**	**19 J**	**83 J**	200 UJ	200 UJ	**300**	**100 J**	**18,000**	300 U	290 U	290 U	290 U	210 U	210 U
Dibenz(a,h)anthracene	ug/kg	300 U	190 U	190 U	**47 J**	300 U	300 U	**9.6 J**	200 U	200 U	**46 J**	**12 J**	**1,900 J**	300 U	290 U	290 U	290 U	210 U	210 U
Dibenzofuran	ug/kg	300 U	190 U	190 U	**84 J**	300 U	300 U	**15 J**	200 U	200 U	**29 J**	**25 J**	**3,700 J**	300 U	290 U	290 U	290 U	210 U	210 U
Diethyl phthalate	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Dimethyl phthalate	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Di-n-butyl phthalate	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	**6.5 J**	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Di-n-octylphthalate	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Fluoranthene	ug/kg	300 UJ	190 UJ	**11 J**	**1,300**	**41 J**	**59 J**	**180 J**	**8 J**	**9.6 J**	**650**	**190 J**	**30,000**	300 U	290 U	290 U	290 U	210 U	210 U
Fluorene	ug/kg	300 U	190 U	190 U	**110 J**	300 U	**18 J**	**12 J**	200 U	200 U	**72 J**	**220**	**34,000**	300 U	290 U	290 U	290 U	210 U	210 U
Hexachlorobenzene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Hexachlorobutadiene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Hexachlorocyclopentadiene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Hexachloroethane	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Indeno(1,2,3-c,d)pyrene	ug/kg	300 U	190 U	190 U	**170 J**	300 U	300 U	**25 J**	200 U	200 U	**180 J**	**29 J**	**4,500 J**	300 U	290 U	290 U	290 U	210 U	210 U
Isophorone	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Methyl isobutyl ketone	ug/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**320 NJ**	---	---	---
Naphthalene	ug/kg	**15 J**	**9.1 J**	190 U	**10 J**	**14 J**	**30 J**	**31 J**	200 U	200 U	**11 J**	**570**	**120,000**	**46 J**	**40 J**	**40 J**	**42 J**	**30 J**	**30 J**
Nitrobenzene	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
N-nitrosodi-n-propylamine	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 UJ	290 UJ	290 UJ	290 UJ	210 UJ	210 UJ
N-nitrosodiphenylamine	ug/kg	300 U	190 U	190 U	240 U	300 U	300 U	220 U	200 U	200 U	190 U	210 U	5,800 U	300 U	290 U	290 U	290 U	210 U	210 U
Pentachlorophenol	ug/kg	580 UJ	380 UJ	370 UJ	460 UJ	570 UJ	590 UJ	420 UJ	380 UJ	380 UJ	380 U	410 U	11,000 U	580 U	550 U	560 U	560 U	400 U	420 U
Phenanthrene	ug/kg	**22 J**	**10 J**	**11 J**	**2,800**	**120 J**	**170 J**	**460**	**17 J**	**14 J**	**540**	**650**	**92,000**	300 U	290 U	290 U	290 U	210 U	210 U
Phenol	ug/kg	**14 J**	**6.8 J**	**9.4 J**	**13 J**	**15 J**	**15 J**	**11 J**	**8.1 J**	200 U	**11 J**	**13 J**	5,800 U	**46 J**	**50 J**	**41 J**	**44 J**	**19 J**	**16 J**
Pyrene	ug/kg	300 UJ	190 UJ	**13 J**	**1,300**	**38 J**	**56 J**	**220 J**	**7.9 J**	**12 J**	**610**	**310**	**52,000**	300 U	290 U	290 U	290 U	210 U	210 U
Total PAHs	ug/kg	**59**	**27.3**	**40.7**	**10,431**	**380.1**	**606**	**1,676**	**38.9**	**35.6**	**3,937**	**3,479**	**600,300**	**46**	**40**	**40**	**42**	**30**	**30**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	9.3 U	10 U	10 U	11 U	500 U	11 U	11 U	14 U	15 U	11 U	200 U	9.6 U	9.5 U	11 U	1,000 U	11 U	12 U	11 U
2,3,4,6-tetrachlorophenol	ug/kg	31 U	33 U	34 U	37 U	500 U	37 U	38 U	46 U	49 U	36 U	200 U	32 U	32 U	36 U	1,000 U	38 U	40 U	36 U
2,4,5-trichlorophenol	ug/kg	35 U	38 U	38 U	41 U	500 U	42 U	43 U	52 U	56 U	40 U	200 U	36 U	36 U	40 U	1,000 U	43 U	45 U	40 U
2,4,6-trichlorophenol	ug/kg	28 U	31 U	31 U	34 U	500 U	34 U	35 U	42 U	45 U	32 U	200 U	29 U	29 U	33 U	1,000 U	35 U	37 U	33 U
2,4-dichlorophenol	ug/kg	49 U	52 U	53 U	57 U	500 U	58 U	59 U	72 U	77 U	56 U	200 U	51 U	50 U	56 U	1,000 U	60 U	63 U	56 U
2,4-dimethylphenol	ug/kg	51 U	55 U	56 U	60 U	500 U	61 U	62 U	75 U	80 U	58 U	200 U	**111 J**	**162**	58 U	1,000 U	62 U	65 U	58 U
2,4-dinitrophenol	ug/kg	37 U	40 U	40 U	43 U	970 U	44 U	45 U	55 U	58 U	42 U	380 U	38 U	38 U	42 U	2,000 U	45 U	48 U	42 U
2,4-dinitrotoluene	ug/kg	13 U	14 U	14 U	16 U	500 U	16 U	16 U	20 U	21 U	15 U	200 U	14 U	14 U	15 U	1,000 U	16 U	17 U	15 U
2,6-dinitrotoluene	ug/kg	12 U	12 U	13 U	14 U	500 U	14 U	14 U	17 U	18 U	13 U	200 U	12 U	12 U	13 U	1,000 U	14 U	15 U	13 U
2-chloronaphthalene	ug/kg	9.4 U	10 U	10 U	11 U	500 U	11 U	11 U	14 U	15 U	11 U	200 U	9.7 U	9.6 U	11 U	1,000 U	11 U	12 U	11 U
2-chlorophenol	ug/kg	31 U	33 U	33 U	36 U	500 U	36 U	37 U	45 U	48 U	35 U	200 U	32 U	31 U	35 U	1,000 U	37 U	39 U	35 U
2-methylnaphthalene	ug/kg	**166**	**100**	**60.6 J**	**97.8**	**250 J**	20 U	21 U	**83 J**	27 U	19 U	**2.3 J**	**934**	**3,200**	**34.3 J**	**380 J**	**172**	**99.9**	19 U
2-methylphenol (o-cresol)	ug/kg	34 U	37 U	38 U	41 U	500 U	41 U	42 U	51 U	55 U	39 U	200 U	36 U	**40.8 J**	39 U	1,000 U	42 U	44 U	39 U
2-nitroaniline	ug/kg	13 U	14 U	15 U	16 U	970 U	16 U	16 U	20 U	21 U	15 U	380 U	14 U	14 U	15 U	2,000 U	16 U	17 U	15 U
2-nitrophenol	ug/kg	32 U	34 U	35 U	38 U	500 U	38 U	39 U	47 U	51 U	37 U	200 U	33 U	33 U	37 U	1,000 U	39 U	41 U	37 U
3,3'-dichlorobenzidine	ug/kg	7.7 U	8.3 U	8.4 U	9.1 U	500 U	9.2 U	9.4 U	11 U	12 U	8.8 U	200 U	8 U	7.9 U	8.8 U	1,000 U	9.4 U	9.9 U	8.8 U
3-nitroaniline	ug/kg	12 U	13 U	13 U	14 U	970 U	14 U	15 U	18 U	19 U	14 U	380 U	13 U	12 U	14 U	2,000 U	15 U	16 U	14 U
4,6-dinitro-2-methylphenol	ug/kg	37 U	40 U	40 U	43 U	970 U	44 U	45 U	55 U	58 U	42 U	380 U	38 U	38 U	42 U	2,000 U	45 U	48 U	42 U
4-bromophenyl phenyl ether	ug/kg	11 U	12 U	12 U	13 U	500 U	13 U	13 U	16 U	17 U	13 U	200 U	11 U	11 U	13 U	1,000 U	13 U	14 U	13 U
4-chloro-3-methylphenol	ug/kg	30 U	33 U	33 U	36 U	500 U	36 U	37 U	45 U	48 U	34 U	200 U	31 U	31 U	35 U	1,000 U	37 U	39 U	35 U
4-chloroaniline	ug/kg	9.7 U	10 U	11 U	11 U	500 U	12 U	12 U	14 U	15 U	11 U	200 U	10 U	9.9 U	11 U	1,000 U	12 U	12 U	11 U
4-chlorophenyl phenyl ether	ug/kg	9.1 U	9.8 U	10 U	11 U	500 U	11 U	11 U	13 U	14 U	10 U	200 U	9.4 U	9.3 U	10 U	1,000 U	11 U	12 U	10 U
4-methylphenol (p-cresol)	ug/kg	---	---	---	---	500 U	---	---	---	---	---	200 U	---	---	---	1,000 U	---	---	---
4-nitroaniline	ug/kg	12 U	13 U	13 U	14 U	970 U	14 U	14 U	17 U	19 U	13 U	380 U	12 U	12 U	13 U	2,000 U	14 U	15 U	13 U
4-nitrophenol	ug/kg	51 U	55 U	56 U	60 U	970 U	61 U	62 U	76 U	81 U	58 U	380 U	53 U	52 U	58 U	2,000 U	63 U	66 U	58 U
Acenaphthene	ug/kg	**378**	**381**	**208**	**268**	**460 J**	**21.2 J**	11 U	**174**	14 U	10 U	**4.8**	**2,410**	**8,190**	**130**	**980 J**	**542**	**373**	**67.2**
Acenaphthylene	ug/kg	**148**	**170**	**78.1**	**124**	**120 J**	**17.2 J**	12 U	14 U	15 U	11 U	3.8 U	**1,300**	**1,980**	**48.5**	**100**	**300**	**176**	**34.5 J**
Acetophenone	ug/kg	5.3 U	5.7 U	5.8 U	6.3 U	500 U	6.4 U	6.5 U	7.9 U	8.4 U	6.1 U	200 U	5.5 U	5.4 U	6.1 U	1,000 U	6.5 U	6.9 U	6.1 U
Anthracene	ug/kg	**1,040**	**1,340**	**533**	**786**	**1,200**	**77.8**	**18 J**	**602**	17 U	12 U	**3.8 J**	**7,070**	**21,400**	**340**	**2,000**	**1,640**	**1,020**	**218**
Atrazine	ug/kg	6 U	6.4 U	6.5 U	7 U	500 U	7.1 U	7.3 U	8.8 U	9.4 U	6.8 U	200 U	6.2 U	6.1 U	6.8 U	1,000 U	7.3 U	7.7 U	6.8 U
Benzaldehyde	ug/kg	7 U	7.5 U	7.6 U	8.2 U	500 U	8.3 U	8.5 U	10 U	11 U	7.9 U	200 U	7.2 U	7.1 U	8 U	1,000 U	8.5 U	9 U	8 U
Benzo(a)anthracene	ug/kg	**1,870**	**2,850**	**1,230**	**1,660**	**2,300**	**153**	12 U	**58.8**	16 U	11 U	**5.9**	**13,400**	**35,500**	**738**	**4,500**	**3,390**	**2,170**	**447**
Benzo(a)pyrene	ug/kg	**1,640**	**2,480**	**995**	**1,450**	**2,100**	**114**	**41**	**64.9**	15 U	11 U	**10**	**13,300**	**33,000**	**699**	**3,700**	**2,850**	**2,090**	**460**
Benzo(b)fluoranthene	ug/kg	**1,500**	**2,390**	**1,020**	**1,200**	**1,900**	**111**	**43.7**	**72.6**	16 U	12 U	**5.1**	**12,900**	**37,000**	**542**	**2,800**	**3,130**	**2,300**	**361**
Benzo(g,h,i)perylene	ug/kg	**986**	**1,400**	**578**	**919**	**1,100 J**	**78.9**	**23.1 J**	**32.6 J**	18 U	13 U	**4**	**6,950**	**15,500**	**413**	**1,700**	**1,830**	**1,300**	**289**
Benzo(k)fluoranthene	ug/kg	**995**	**1,470**	**590**	**923**	**1,600**	**79.2**	14 U	17 U	18 U	13 U	**3.9**	**6,010**	**11,900**	**477**	**3,100**	**1,130**	**718**	**287**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
Benzyl butyl phthalate	ug/kg	18 U	19 U	19 U	21 U	500 U	21 U	21 U	26 U	28 U	20 U	**26 J**	18 U	18 U	20 U	1,000 U	21 U	23 U	20 U
Biphenyl (diphenyl)	ug/kg	**61.8**	**40.4 J**	**24.4 J**	**38 J**	**70 J**	4.2 U	4.3 U	5.2 U	5.6 U	4 U	200 U	**291**	**1,340**	4 U	1,000 U	**65.6 J**	**34.1 J**	4 U
Bis(2-chloroethoxy) methane	ug/kg	12 U	13 U	13 U	14 U	500 U	15 U	15 U	18 U	19 U	14 U	200 U	13 U	12 U	14 U	1,000 U	15 U	16 U	14 U
Bis(2-chloroethyl) ether	ug/kg	9.1 U	9.8 U	10 U	11 U	500 U	11 U	11 U	13 U	14 U	10 U	200 U	9.4 U	9.3 U	10 U	1,000 U	11 U	12 U	10 U
Bis(2-chloroisopropyl) ether	ug/kg	---	---	---	---	500 U	---	---	---	---	---	200 U	---	---	---	1,000 U	---	---	---
Bis(2-ethylhexyl) phthalate	ug/kg	**79.3**	**37.3 J**	29 U	**51.3 J**	500 U	**77.7**	33 U	40 U	42 U	30 U	200 U	28 U	27 U	**37.8 J**	1,000 U	**69.7 J**	34 U	**47.7 J**
Caprolactam	ug/kg	9.5 U	10 U	10 U	11 U	500 U	11 U	12 U	14 U	15 U	11 U	200 U	9.9 U	9.7 U	11 U	1,000 U	12 U	12 U	11 U
Carbazole	ug/kg	**305**	**505**	**182**	**240**	**370 J**	**20.6 J**	17 U	**52.9 J**	22 U	16 U	200 U	**2,680**	**6,410**	**137**	**600 J**	**589**	**355**	**73.2**
Chrysene	ug/kg	**1,870**	**2,790**	**1,060**	**1,630**	**2,300**	**152**	**42.6**	**125**	16 U	12 U	**5.5**	**13,600**	**33,700**	**709**	**4,700**	**2,980**	**2,070**	**460**
Dibenz(a,h)anthracene	ug/kg	**344**	**504**	**199**	**306**	**490 J**	**24.6 J**	13 U	15 U	16 U	12 U	**1.4 J**	**3,410**	**7,760**	**191**	**650**	**875**	**609**	**125**
Dibenzofuran	ug/kg	**306**	**316**	**133**	**199**	**410 J**	**16.8 J**	11 U	**97**	14 U	10 U	200 U	**1,690**	**6,170**	**74.2**	**660 J**	**387**	**228**	**42.4 J**
Diethyl phthalate	ug/kg	10 U	11 U	11 U	12 U	500 U	12 U	13 U	15 U	16 U	12 U	200 U	11 U	11 U	12 U	1,000 U	13 U	13 U	12 U
Dimethyl phthalate	ug/kg	11 U	**34.2 J**	12 U	13 U	500 U	13 U	13 U	16 U	17 U	12 U	200 U	11 U	11 U	12 U	1,000 U	13 U	14 U	12 U
Di-n-butyl phthalate	ug/kg	6.7 U	7.2 U	7.4 U	7.9 U	500 U	8 U	8.2 U	9.9 U	11 U	7.7 U	200 U	7 U	6.9 U	7.7 U	1,000 U	8.2 U	8.7 U	7.7 U
Di-n-octylphthalate	ug/kg	15 U	16 U	16 U	17 U	500 U	18 U	18 U	22 U	23 U	17 U	200 U	15 U	15 U	17 U	1,000 U	18 U	19 U	17 U
Fluoranthene	ug/kg	**4,290**	**6,050**	**2,020**	**3,630**	**4,900**	**303**	**82.7**	**544**	21 U	15 U	**11**	**35,000**	**92,100**	**1,930**	**10,000**	**8,140**	**5,400**	**1,230**
Fluorene	ug/kg	**487**	**475**	**226**	**318**	**560 J**	**28.1 J**	12 U	**299**	16 U	11 U	**2.7 J**	**2,910**	**10,400**	**140**	**1,100**	**669**	**408**	**73.5**
Hexachlorobenzene	ug/kg	9.9 U	11 U	11 U	12 U	500 U	12 U	12 U	15 U	16 U	11 U	200 U	10 U	10 U	11 U	1,000 U	12 U	13 U	11 U
Hexachlorobutadiene	ug/kg	8.4 U	9 U	9.2 U	9.9 U	500 U	10 U	10 U	12 U	13 U	9.6 U	200 U	8.7 U	8.6 U	9.6 U	1,000 U	10 U	11 U	9.6 U
Hexachlorocyclopentadiene	ug/kg	31 U	33 U	34 U	36 U	500 UJ	37 U	38 U	46 U	49 U	35 U	200 UJ	32 U	32 U	35 U	1,000 UJ	38 U	40 U	35 U
Hexachloroethane	ug/kg	8.4 U	9 U	9.2 U	9.9 U	500 U	10 U	10 U	12 U	13 U	9.6 U	200 U	8.7 U	8.6 U	9.6 U	1,000 U	10 U	11 U	9.6 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**895**	**1,310**	**559**	**804**	**1,200 J**	**69.2**	**24.3 J**	**32.8 J**	17 U	12 U	**3.9**	**6,780**	**14,900**	**380**	**1,800**	**1,910**	**1,200**	**257**
Isophorone	ug/kg	8.1 U	8.7 U	8.9 U	9.6 U	500 U	9.7 U	9.9 U	12 U	13 U	9.3 U	200 U	8.4 U	8.3 U	9.3 U	1,000 U	10 U	10 U	9.3 U
Naphthalene	ug/kg	**275**	**146**	**90**	**183**	**430 J**	**17.6 J**	10 U	**58.3**	13 U	9.4 U	**7.6**	**1,800**	**7,760**	**48.1**	**710 J**	**327**	**175**	**36.8**
Nitrobenzene	ug/kg	8.7 U	9.4 U	9.6 U	10 U	500 U	10 U	11 U	13 U	14 U	10 U	200 U	9.1 U	8.9 U	10 U	1,000 U	11 U	11 U	10 U
N-nitrosodi-n-propylamine	ug/kg	7.4 U	7.9 U	8.1 U	8.7 U	500 U	8.8 U	9 U	11 U	12 U	8.4 U	200 U	7.7 U	7.5 U	8.4 U	1,000 U	9 U	9.5 U	8.4 U
N-nitrosodiphenylamine	ug/kg	18 U	19 U	20 U	21 U	500 U	22 U	22 U	27 U	29 U	21 U	200 U	19 U	18 U	21 U	1,000 U	22 U	23 U	21 U
Pentachlorophenol	ug/kg	52 U	56 U	57 U	61 U	79 U	62 U	63 U	77 U	82 U	59 U	7.8 U	54 U	53 U	59 U	160 U	63 U	67 U	59 U
Phenanthrene	ug/kg	**4,120**	**5,420**	**2,040**	**3,120**	**4,900**	**277**	**69.6**	**1,420**	22 U	16 U	**12**	**25,300**	**80,000**	**1,520**	**11,000**	**6,220**	**3,970**	**946**
Phenol	ug/kg	32 U	34 U	35 U	37 U	500 U	38 U	39 U	47 U	50 U	36 U	200 U	33 U	32 U	36 U	1,000 U	39 U	41 U	36 U
Pyrene	ug/kg	**4,000**	**5,440**	**1,960**	**3,460**	**3,800**	**309**	**81.8**	**536**	18 U	13 U	**8**	**29,400**	**74,500**	**1,560**	**9,900**	**6,800**	**4,480**	**1,010**
Total PAHs	ug/kg	**25,004**	**34,716**	**13,447**	**20,879**	**29,610**	**1,833**	**426.8**	**4,103**	ND	ND	**91.9**	**182,474**	**488,790**	**9,900**	**59,120**	**42,905**	**28,559**	**6,302**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
Sample Depth:		30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	11 U	11 U	11 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2,3,4,6-tetrachlorophenol	ug/kg	35 U	36 U	35 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2,4,5-trichlorophenol	ug/kg	40 U	40 U	40 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2,4,6-trichlorophenol	ug/kg	32 U	33 U	32 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2,4-dichlorophenol	ug/kg	55 U	56 U	55 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2,4-dimethylphenol	ug/kg	58 U	58 U	58 U	200 U	200 U	6,000 U	**97 J**	**160 J**	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 UJ	**31 J**	210 U	210 U
2,4-dinitrophenol	ug/kg	42 U	42 U	42 U	390 U	400 U	12,000 U	390 U	400 U	530 U	410 U	2,100 U	110,000 U	120,000 U	420 U	380 UJ	390 U	400 U	410 U
2,4-dinitrotoluene	ug/kg	15 U	15 U	15 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2,6-dinitrotoluene	ug/kg	13 U	13 U	13 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2-chloronaphthalene	ug/kg	11 U	11 U	11 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2-chlorophenol	ug/kg	35 U	35 U	35 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
2-methylnaphthalene	ug/kg	19 U	19 U	19 U	**8**	**7.5**	**620 J**	**260**	**62 J**	**10 J**	**10 J**	**55,000**	**810,000**	**1,700,000**	**3,000**	**8,400**	**190 J**	**13 J**	**15 J**
2-methylphenol (o-cresol)	ug/kg	39 U	39 U	39 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 UJ	**41 J**	210 U	210 U
2-nitroaniline	ug/kg	15 U	15 U	15 U	390 U	400 U	12,000 U	390 U	400 U	530 U	410 U	2,100 U	110,000 U	120,000 U	420 U	380 UJ	390 U	400 U	410 U
2-nitrophenol	ug/kg	36 U	37 U	37 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
3,3'-dichlorobenzidine	ug/kg	8.7 U	8.8 U	8.7 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
3-nitroaniline	ug/kg	14 U	14 U	14 U	390 U	400 U	12,000 U	390 U	400 U	530 U	410 U	2,100 U	110,000 U	120,000 U	420 U	380 UJ	390 U	400 U	410 U
4,6-dinitro-2-methylphenol	ug/kg	42 U	42 U	42 U	390 U	400 U	12,000 U	390 U	400 U	530 U	410 U	2,100 U	110,000 U	120,000 U	420 U	380 U	390 U	400 U	410 U
4-bromophenyl phenyl ether	ug/kg	12 U	13 U	13 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
4-chloro-3-methylphenol	ug/kg	34 U	35 U	34 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
4-chloroaniline	ug/kg	11 U	11 U	11 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
4-chlorophenyl phenyl ether	ug/kg	10 U	10 U	10 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
4-methylphenol (p-cresol)	ug/kg	---	---	---	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 UJ	**57 J**	210 U	210 U
4-nitroaniline	ug/kg	13 U	13 U	13 U	390 U	400 U	12,000 U	390 U	400 U	530 U	410 U	2,100 U	110,000 U	120,000 U	420 U	380 UJ	390 U	400 U	410 U
4-nitrophenol	ug/kg	58 U	58 U	58 U	390 U	400 U	12,000 U	390 U	400 U	530 U	410 U	2,100 U	110,000 U	120,000 U	420 U	380 UJ	390 U	400 U	410 U
Acenaphthene	ug/kg	**15.4 J**	**15.2 J**	**16.7 J**	**23 J**	**32 J**	**1,300 J**	**1,000**	**2,100**	**13 J**	210 U	**33,000**	**450,000**	**120,000 J**	**320**	**120 J**	200 U	210 U	210 U
Acenaphthylene	ug/kg	11 U	11 U	11 U	**5.5**	**3.9 J**	**1,600 J**	**21 J**	**28 J**	270 U	210 U	**1,900 J**	**27,000 J**	**810,000**	**1,200**	**70 J**	**6.1 J**	210 U	210 U
Acetophenone	ug/kg	6 U	6.1 U	6.1 U	200 U	200 U	6,000 U	**64 J**	**78 J**	**72 J**	**48 J**	1,100 U	55,000 U	62,000 U	**39 J**	200 U	200 U	**35 J**	**28 J**
Anthracene	ug/kg	**52.1**	**50.2**	**58.4**	**63 J**	**96 J**	**6,400**	**450**	**1,100**	270 U	210 U	**18,000**	**180,000**	**370,000**	**860**	**250 J**	**23 J**	210 U	210 U
Atrazine	ug/kg	6.8 U	6.8 U	6.8 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Benzaldehyde	ug/kg	7.9 U	8 U	7.9 U	200 U	200 U	6,000 U	**130 J**	**95 J**	**130 J**	**94 J**	**1,000 J**	55,000 U	62,000 U	**110 J**	200 U	200 U	**73 J**	**45 J**
Benzo(a)anthracene	ug/kg	**97.5**	**104**	**122**	**170 J**	**150 J**	**18,000**	**45 J**	**92 J**	270 U	210 UJ	**7,500**	**88,000 J**	**190,000 J**	**420**	**310 J**	**25 J**	210 U	210 U
Benzo(a)pyrene	ug/kg	**96.8**	**102**	**116**	**150**	**150**	**15,000**	**36 J**	**46 J**	270 U	210 U	**6,100 J**	**66,000**	**140,000 J**	**400**	**240 J**	**20 J**	210 U	210 U
Benzo(b)fluoranthene	ug/kg	**60.7**	**76.2**	**71.4**	**120 J**	**110 J**	**18,000**	**38 J**	**56 J**	270 U	210 U	**4,300**	**55,000**	**120,000 J**	**270**	**170 J**	**15 J**	210 U	210 U
Benzo(g,h,i)perylene	ug/kg	**60.1**	**61.2**	**71.8**	**78 J**	**77 J**	**8,900**	**50 J**	**25 J**	270 U	210 U	**2,500**	**23,000 J**	**53,000 J**	**260**	**130 J**	**19 J**	210 U	210 U
Benzo(k)fluoranthene	ug/kg	**81.6**	**71.6**	**97.8**	**100 J**	**120 J**	**5,000 J**	**14 J**	**29 J**	270 U	210 U	**1,800 J**	**20,000 J**	**32,000 J**	**92 J**	**210 J**	**15 J**	210 U	210 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
Sample Depth:		30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	20 U	20 U	20 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Biphenyl (diphenyl)	ug/kg	4 U	4 U	4 U	200 U	200 U	**230 J**	**270 J**	**320**	270 U	210 U	**6,200**	**87,000**	**160,000 J**	**320 J**	**190 J**	**7.2 J**	210 U	210 U
Bis(2-chloroethoxy) methane	ug/kg	14 U	14 U	14 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Bis(2-chloroethyl) ether	ug/kg	10 U	10 U	10 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Bis(2-chloroisopropyl) ether	ug/kg	---	---	---	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Bis(2-ethylhexyl) phthalate	ug/kg	**51 J**	**119**	**63.2 J**	**110 J**	**71 J**	6,000 U	**48 J**	**25 J**	**29 J**	**19 J**	**44 J**	55,000 U	62,000 U	**55 J**	**67 J**	**22 J**	**22 J**	**15 J**
Caprolactam	ug/kg	11 U	11 U	11 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Carbazole	ug/kg	16 U	16 U	16 U	**22 J**	**21 J**	**880 J**	**220 J**	**1,700**	270 U	210 U	**350 J**	**4,700 J**	**10,000 J**	**41 J**	**32 J**	200 U	210 U	210 U
Chrysene	ug/kg	**101**	**109**	**128**	**180 J**	**170 J**	**15,000**	**41 J**	**70 J**	270 U	210 UJ	**7,200**	**84,000 J**	**170,000 J**	**430**	**290 J**	**21 J**	210 U	210 U
Dibenz(a,h)anthracene	ug/kg	**25.8 J**	**20 J**	**30.1 J**	**29**	**29**	**2,100 J**	200 U	**9.1 J**	270 U	210 U	**700 J**	**5,700 J**	**16,000 J**	**48 J**	**60 J**	200 U	210 U	210 U
Dibenzofuran	ug/kg	10 U	10 U	10 U	200 U	**30 J**	**1,400 J**	**1,100**	**2,300**	**10 J**	210 U	**1,700**	**24,000 J**	**46,000 J**	**92 J**	**94 J**	200 U	210 U	210 U
Diethyl phthalate	ug/kg	12 U	12 U	12 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Dimethyl phthalate	ug/kg	12 U	12 U	12 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Di-n-butyl phthalate	ug/kg	7.6 U	7.7 U	7.6 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Di-n-octylphthalate	ug/kg	17 U	17 U	17 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Fluoranthene	ug/kg	**262**	**278**	**329**	**390**	**420**	**38,000**	**670**	**850**	270 U	210 UJ	**17,000**	**170,000**	**330,000**	**930**	**790**	**53 J**	210 U	210 U
Fluorene	ug/kg	**16 J**	**14.7 J**	**18.9 J**	**33 J**	**50 J**	**2,500 J**	**1,200**	**3,800**	**20 J**	210 U	**17,000**	**240,000**	**490,000**	**920**	**190 J**	**8.1 J**	210 U	210 U
Hexachlorobenzene	ug/kg	11 U	11 U	11 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Hexachlorobutadiene	ug/kg	9.5 U	9.6 U	9.6 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Hexachlorocyclopentadiene	ug/kg	35 U	35 U	35 U	200 UJ	200 UJ	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Hexachloroethane	ug/kg	9.5 U	9.6 U	9.6 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**52.2**	**55.9**	**63.8**	**82 J**	**81 J**	**10,000**	**34 J**	**31 J**	270 U	210 U	**2,500**	**19,000 J**	**43,000 J**	**160 J**	**130 J**	**15 J**	210 U	210 U
Isophorone	ug/kg	9.2 U	9.3 U	9.3 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Naphthalene	ug/kg	9.4 U	9.4 U	9.4 U	**11**	**8.6**	**1,700 J**	**4,400**	**4,400**	**52 J**	**27 J**	**71,000**	**1,500,000**	**3,100,000**	**3,900**	**8,200**	**100 J**	**16 J**	**25 J**
Nitrobenzene	ug/kg	9.9 U	10 U	10 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
N-nitrosodi-n-propylamine	ug/kg	8.4 U	8.4 U	8.4 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
N-nitrosodiphenylamine	ug/kg	20 U	21 U	21 U	200 U	200 U	6,000 U	200 U	210 U	270 U	210 U	1,100 U	55,000 U	62,000 U	220 U	200 U	200 U	210 U	210 U
Pentachlorophenol	ug/kg	59 U	59 U	59 U	7.9 U	8.1 U	12,000 UJ	390 UJ	400 UJ	530 UJ	410 UJ	2,100 UJ	110,000 UJ	120,000 UJ	420 UJ	380 U	390 U	400 U	410 U
Phenanthrene	ug/kg	**196**	**227**	**258**	**370**	**480**	**20,000**	**2,600**	**4,600**	**26 J**	210 U	**53,000**	**680,000**	**1,300,000**	**2,800**	**940**	**77 J**	**9.4 J**	210 U
Phenol	ug/kg	36 U	36 U	36 U	200 U	200 U	6,000 U	**17 J**	**15 J**	**15 J**	**14 J**	1,100 U	55,000 U	62,000 U	**13 J**	**43 J**	**36 J**	**13 J**	**12 J**
Pyrene	ug/kg	**223**	**245**	**294**	**430**	**430**	**24,000**	**250 J**	**350 J**	270 U	210 UJ	**20,000**	**280,000**	**600,000**	**1,100**	**790**	**59 J**	210 U	210 U
Total PAHs	ug/kg	**1,340**	**1,430**	**1,676**	**2,243**	**2,415**	**188,120**	**11,109**	**17,648**	**121**	**37**	**318,500**	**4,697,700**	**9,584,000**	**17,110**	**21,290**	**646.2**	**38.4**	**40**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:		059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:		26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:		5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2,3,4,6-tetrachlorophenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2,4,5-trichlorophenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2,4,6-trichlorophenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2,4-dichlorophenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2,4-dimethylphenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**180 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**110 J**	200 U	210 U
2,4-dinitrophenol	ug/kg	420 U	400 U	410 U	410 U	400 U	410 U	400 U	450 U	440 U	520 U	590 U	440 U	370 U	370 U	370 U	2,100 UJ	380 U	410 U
2,4-dinitrotoluene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2,6-dinitrotoluene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2-chloronaphthalene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2-chlorophenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2-methylnaphthalene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**21,000**	**8.5 J**	**16 J**	270 U	300 U	**29 J**	190 U	190 U	190 U	**2,900**	**15 J**	**7.5 J**
2-methylphenol (o-cresol)	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**15 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
2-nitroaniline	ug/kg	420 U	400 U	410 U	410 U	400 U	410 U	400 U	450 U	440 U	520 U	590 U	440 U	370 U	370 U	370 U	2,100 UJ	380 U	410 U
2-nitrophenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
3,3'-dichlorobenzidine	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
3-nitroaniline	ug/kg	420 U	400 U	410 U	410 U	400 U	410 U	400 U	450 U	440 U	520 U	590 U	440 U	370 U	370 U	370 U	2,100 UJ	380 U	410 U
4,6-dinitro-2-methylphenol	ug/kg	420 U	400 U	410 U	410 U	400 U	410 U	400 U	450 U	440 U	520 U	590 U	440 U	370 U	370 U	370 U	2,100 UJ	380 U	410 U
4-bromophenyl phenyl ether	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
4-chloro-3-methylphenol	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
4-chloroaniline	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
4-chlorophenyl phenyl ether	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
4-methylphenol (p-cresol)	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**35 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**110 J**	200 U	210 U
4-nitroaniline	ug/kg	420 U	400 U	410 U	410 U	400 U	410 U	400 U	450 U	440 U	520 U	590 U	440 U	370 U	370 U	370 U	2,100 UJ	380 U	410 U
4-nitrophenol	ug/kg	420 U	400 U	410 U	410 U	400 U	410 U	400 U	450 U	440 U	520 U	590 U	440 U	370 U	370 U	370 U	2,100 UJ	380 U	410 U
Acenaphthene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**7,300**	230 U	230 U	270 U	300 U	**110 J**	**9.8 J**	190 U	**5.9 J**	**13,000**	**18 J**	**18 J**
Acenaphthylene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**400 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Acetophenone	ug/kg	**26 J**	**33 J**	**21 J**	**45 J**	**31 J**	**25 J**	**160 J**	**66 J**	**66 J**	**120 J**	**130 J**	**67 J**	**49 J**	**38 J**	**48 J**	**170 J**	**120 J**	**82 J**
Anthracene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**3,300 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**2,200**	**14 J**	**11 J**
Atrazine	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Benzaldehyde	ug/kg	**38 J**	**59 J**	**32 J**	**86 J**	**62 J**	**33 J**	200 U	**57 J**	**57 J**	**63 J**	**110 J**	**76 J**	**45 J**	**30 J**	**34 J**	1,100 U	200 U	210 U
Benzo(a)anthracene	ug/kg	210 U	210 UJ	210 U	210 U	200 U	210 U	**910 J**	230 U	230 U	270 U	300 U	230 U	190 U	**7.5 J**	190 U	**870 J**	**12 J**	**7.6 J**
Benzo(a)pyrene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**560 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**600 J**	**6.5 J**	210 U
Benzo(b)fluoranthene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**620**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**800 J**	**11 J**	210 U
Benzo(g,h,i)perylene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**330 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**450 J**	200 U	210 U
Benzo(k)fluoranthene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**250 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**200 J**	200 U	210 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:		059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:		26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:		5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Biphenyl (diphenyl)	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**3,100 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**210 J**	200 U	210 U
Bis(2-chloroethoxy) methane	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Bis(2-chloroethyl) ether	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Bis(2-chloroisopropyl) ether	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Bis(2-ethylhexyl) phthalate	ug/kg	**46 J**	**24 J**	**33 J**	**21 J**	**16 J**	**20 J**	**110 J**	**150 J**	**120 J**	**60 J**	**140 J**	**59 J**	**48 J**	**250**	**240**	1,100 U	**48 J**	**40 J**
Caprolactam	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Carbazole	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**1,200**	230 U	230 U	270 U	300 U	**20 J**	190 U	190 U	190 U	**640 J**	200 U	210 U
Chrysene	ug/kg	210 U	210 UJ	210 U	210 U	200 U	210 U	**800 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**770 J**	**10 J**	210 U
Dibenz(a,h)anthracene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**81 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**120 J**	200 U	210 U
Dibenzofuran	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**4,800 J**	230 U	230 U	270 U	300 U	**9.2 J**	190 U	190 U	190 U	**15,000**	**42 J**	**39 J**
Diethyl phthalate	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Dimethyl phthalate	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Di-n-butyl phthalate	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	**7.8 J**	210 U
Di-n-octylphthalate	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Fluoranthene	ug/kg	210 U	210 UJ	210 U	210 U	200 U	210 U	**4,000 J**	230 U	230 U	270 U	300 U	230 U	190 U	**13 J**	190 U	**2,200**	**25 J**	**13 J**
Fluorene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**6,100 J**	230 U	230 U	270 U	300 U	**16 J**	190 U	190 U	190 U	**16,000**	**48 J**	**41 J**
Hexachlorobenzene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Hexachlorobutadiene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Hexachlorocyclopentadiene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Hexachloroethane	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Indeno(1,2,3-c,d)pyrene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**330 J**	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	**420 J**	200 U	210 U
Isophorone	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Methyl isobutyl ketone	ug/kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**450 NJ**
Naphthalene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**56,000**	**36 J**	**53 J**	**13 J**	**19 J**	**180 J**	**7.4 J**	**6.8 J**	190 U	**1,700**	**61 J**	**29 J**
Nitrobenzene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
N-nitrosodi-n-propylamine	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 UJ	200 U	210 U
N-nitrosodiphenylamine	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	200 U	230 U	230 U	270 U	300 U	230 U	190 U	190 U	190 U	1,100 U	200 U	210 U
Pentachlorophenol	ug/kg	420 U	400 U	410 U	410 U	400 U	410 U	400 U	450 U	440 U	520 U	590 U	440 U	370 U	370 U	370 U	2,100 U	380 U	410 U
Phenanthrene	ug/kg	210 U	210 U	210 U	210 U	200 U	210 U	**14,000**	**8.7 J**	**12 J**	270 U	300 U	**20 J**	190 U	**16 J**	190 U	**9,000**	**62 J**	**34 J**
Phenol	ug/kg	210 U	210 U	**11 J**	**9.9 J**	**6.4 J**	**7.1 J**	**30 J**	**14 J**	**14 J**	**23 J**	**28 J**	**14 J**	**11 J**	**7.7 J**	**15 J**	1,100 U	**18 J**	**12 J**
Pyrene	ug/kg	210 U	210 UJ	**8.6 J**	210 U	200 U	210 U	**3,200 J**	230 U	230 U	270 U	300 U	230 U	190 U	**15 J**	**12 J**	**2,200**	**25 J**	**11 J**
Total PAHs	ug/kg	ND	ND	**8.6**	ND	ND	ND	**119,181**	**53.2**	**81**	**13**	**19**	**355**	**17.2**	**58.3**	**17.9**	**53,430**	**307.5**	**172.1**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
Sample Number:	059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
Sample Depth:	15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2,3,4,6-tetrachlorophenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2,4,5-trichlorophenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2,4,6-trichlorophenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2,4-dichlorophenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2,4-dimethylphenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	**25 J**	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2,4-dinitrophenol	ug/kg	410 U	450 U	410 U	410 U	430 U	420 U	390 U	380 U	370 U	13,000 U	17,000 U	2,200 U	400 U	360 U	400 U	380 U	370 U	370 U
2,4-dinitrotoluene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2,6-dinitrotoluene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2-chloronaphthalene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2-chlorophenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2-methylnaphthalene	ug/kg	210 U	230 U	210 U	210 U	220 U	**12 J**	200 U	**7.3 J**	**7.2 J**	**3,100 J**	8,700 U	**120 J**	**10 J**	190 U	210 U	200 U	190 U	190 U
2-methylphenol (o-cresol)	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
2-nitroaniline	ug/kg	410 U	450 U	410 U	410 U	430 U	420 U	390 U	380 U	370 U	13,000 U	17,000 U	2,200 U	400 U	360 U	400 U	380 U	370 U	370 U
2-nitrophenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
3,3'-dichlorobenzidine	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
3-nitroaniline	ug/kg	410 U	450 U	410 U	410 U	430 U	420 U	390 U	380 U	370 U	13,000 U	17,000 U	2,200 U	400 U	360 U	400 U	380 U	370 U	370 U
4,6-dinitro-2-methylphenol	ug/kg	410 U	450 U	410 U	410 U	430 U	420 U	390 U	380 U	370 U	13,000 U	17,000 U	2,200 U	400 U	360 U	400 U	380 U	370 U	370 U
4-bromophenyl phenyl ether	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
4-chloro-3-methylphenol	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
4-chloroaniline	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
4-chlorophenyl phenyl ether	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
4-methylphenol (p-cresol)	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
4-nitroaniline	ug/kg	410 U	450 U	410 U	410 U	430 U	420 U	390 U	380 U	370 U	13,000 U	17,000 U	2,200 U	400 U	360 U	400 U	380 U	370 U	370 U
4-nitrophenol	ug/kg	410 U	450 U	410 U	410 U	430 U	420 U	390 U	380 U	370 U	13,000 U	17,000 U	2,200 U	400 U	360 U	400 U	380 U	370 U	370 U
Acenaphthene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**7,300**	**260 J**	**410 J**	210 U	190 U	210 U	200 U	190 U	190 U
Acenaphthylene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**1,500 J**	**1,000 J**	**70 J**	210 U	190 U	210 U	200 U	190 U	190 U
Acetophenone	ug/kg	**110 J**	**110 J**	**130 J**	**170 J**	**130 J**	**120 J**	**210**	**130 J**	**130 J**	6,500 U	8,700 U	**64 J**	**28 J**	**33 J**	**47 J**	**38 J**	**63 J**	**54 J**
Anthracene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**15,000**	**1,400 J**	**950 J**	**15 J**	190 U	210 U	200 U	190 U	190 U
Atrazine	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Benzaldehyde	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	**92 J**	**70 J**	**73 J**	**93 J**	**67 J**	**130 J**	**100 J**
Benzo(a)anthracene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**39,000**	**8,600 J**	**3,400**	**69 J**	**9.9 J**	210 U	200 U	190 U	190 U
Benzo(a)pyrene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**35,000**	**8,200 J**	**5,000**	**49 J**	**9.3 J**	210 U	200 U	190 U	190 U
Benzo(b)fluoranthene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**27,000**	**4,000 J**	**3,900**	**41 J**	**7.6 J**	210 U	200 U	190 U	190 U
Benzo(g,h,i)perylene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**21,000**	**3,900 J**	**4,100**	**33 J**	190 U	210 U	200 U	190 U	190 U
Benzo(k)fluoranthene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**25,000**	**5,400 J**	**3,400**	**41 J**	**6.3 J**	210 U	200 U	190 U	190 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
Sample Number:		059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
Sample Depth:		15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	**8.3 J**	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	**6.2 J**	190 U
Biphenyl (diphenyl)	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**710 J**	8,700 U	**42 J**	210 U	190 U	210 U	200 U	190 U	190 U
Bis(2-chloroethoxy) methane	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Bis(2-chloroethyl) ether	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Bis(2-chloroisopropyl) ether	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Bis(2-ethylhexyl) phthalate	ug/kg	**48 J**	**53 J**	**71 J**	**42 J**	**57 J**	**56 J**	**55 J**	**51 J**	**58 J**	6,500 U	8,700 U	**95 J**	**17 J**	**23 J**	**29 J**	**26 J**	**20 J**	**25 J**
Caprolactam	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Carbazole	ug/kg	210 U	230 U	210 U	210 U	220 U	**6.6 J**	200 U	200 U	190 U	**9,300**	8,700 U	**440 J**	210 U	190 U	210 U	200 U	190 U	190 U
Chrysene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**34,000**	**5,500 J**	**3,100**	**43 J**	**7.4 J**	210 U	200 U	190 U	190 U
Dibenz(a,h)anthracene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**6,600**	**1,000 J**	**1,100 J**	**8.8 J**	190 U	210 U	200 U	190 U	190 U
Dibenzofuran	ug/kg	210 U	230 U	210 U	210 U	220 U	**11 J**	200 U	**7.3 J**	**5.6 J**	**4,500 J**	8,700 U	**220 J**	**9.4 J**	190 U	210 U	200 U	190 U	190 U
Diethyl phthalate	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Dimethyl phthalate	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Di-n-butyl phthalate	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	**6.6 J**	6,500 U	8,700 U	**58 J**	**26 J**	**37 J**	**51 J**	**25 J**	**36 J**	**40 J**
Di-n-octylphthalate	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Fluoranthene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**93,000**	**6,200 J**	**5,000**	**65 J**	**10 J**	210 U	200 U	190 U	190 U
Fluorene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**7,000**	8,700 U	**340 J**	210 U	190 U	210 U	200 U	190 U	190 U
Hexachlorobenzene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Hexachlorobutadiene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Hexachlorocyclopentadiene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Hexachloroethane	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Indeno(1,2,3-c,d)pyrene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**18,000**	**3,000 J**	**3,500**	**25 J**	190 U	210 U	200 U	190 U	190 U
Isophorone	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Methyl isobutyl ketone	ug/kg	---	---	---	---	---	**560 NJ**	**370 NJ**	**620 NJ**	**440 NJ**	---	---	---	---	---	---	---	---	---
Naphthalene	ug/kg	**30 J**	**29 J**	**39 J**	**47 J**	**30 J**	**56 J**	**29 J**	**41 J**	**42 J**	**6,600**	**1,100 J**	**280 J**	**17 J**	190 U	210 U	200 U	190 U	**6.1 J**
Nitrobenzene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
N-nitrosodi-n-propylamine	ug/kg	210 U	230 U	210 U	210 UJ	220 U	220 U	200 UJ	200 UJ	190 UJ	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
N-nitrosodiphenylamine	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	6,500 U	8,700 U	1,100 U	210 U	190 U	210 U	200 U	190 U	190 U
Pentachlorophenol	ug/kg	410 U	450 U	410 U	410 U	430 U	420 U	390 U	380 U	370 U	13,000 U	17,000 U	2,200 U	400 U	360 U	400 U	380 U	370 U	370 U
Phenanthrene	ug/kg	**6.6 J**	230 U	210 U	210 U	220 U	**8.5 J**	200 U	**6.2 J**	**7.8 J**	**72,000**	**2,000 J**	**3,400**	**34 J**	**5.7 J**	210 U	200 U	190 U	190 U
Phenol	ug/kg	**18 J**	**17 J**	**17 J**	**34 J**	**25 J**	**20 J**	**72 J**	**23 J**	**23 J**	6,500 U	8,700 U	**46 J**	**8.3 J**	**6.2 J**	**9.4 J**	**7.5 J**	**12 J**	**11 J**
Pyrene	ug/kg	210 U	230 U	210 U	210 U	220 U	220 U	200 U	200 U	190 U	**98,000**	**21,000**	**5,500**	**190 J**	**21 J**	210 U	200 U	190 U	**9.6 J**
Total PAHs	ug/kg	**36.6**	**29**	**39**	**47**	**30**	**76.5**	**29**	**54.5**	**57**	**509,100**	**72,560**	**43,570**	**640.8**	**77.2**	ND	ND	ND	**15.7**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
Sample Number:		059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
Sample Depth:		50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	9.2 U	10 U	13 U	580 U	13 U	12 U	11 U
2,3,4,6-tetrachlorophenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	31 U	34 U	43 U	580 U	42 U	41 U	37 U
2,4,5-trichlorophenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	35 U	38 U	49 U	580 U	48 U	46 U	41 U
2,4,6-trichlorophenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	28 U	31 U	40 U	580 U	39 U	38 U	34 U
2,4-dichlorophenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	48 U	53 U	68 U	580 U	66 U	65 U	58 U
2,4-dimethylphenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	51 U	**59.7 J**	71 U	580 U	69 U	67 U	60 U
2,4-dinitrophenol	ug/kg	380 U	430 U	410 U	400 U	430 U	420 U	410 U	440 U	400 U	420 U	360 U	37 U	40 U	51 U	1,100 U	50 U	49 U	44 U
2,4-dinitrotoluene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	13 U	14 U	18 U	580 U	18 U	18 U	16 U
2,6-dinitrotoluene	ug/kg	200 U	220 UJ	210 UJ	200 UJ	220 UJ	220 UJ	210 UJ	230 UJ	200 UJ	220 UJ	180 UJ	11 U	13 U	16 U	580 U	16 U	15 U	14 U
2-chloronaphthalene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	9.3 U	10 U	13 U	580 U	13 U	12 U	11 U
2-chlorophenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	30 U	33 U	42 U	580 U	41 U	40 U	36 U
2-methylnaphthalene	ug/kg	200 U	220 U	**63 J**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**1,610**	**279**	**93.2**	**220 J**	23 U	22 U	20 U
2-methylphenol (o-cresol)	ug/kg	200 U	220 U	**43 J**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	34 U	38 U	48 U	580 U	47 U	46 U	41 U
2-nitroaniline	ug/kg	380 U	430 U	410 U	400 U	430 U	420 U	410 U	440 U	400 U	420 U	360 U	13 U	15 U	19 U	1,100 U	18 U	18 U	16 U
2-nitrophenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	32 U	35 U	45 U	580 U	43 U	42 U	38 U
3,3'-dichlorobenzidine	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	7.6 U	8.4 U	11 U	580 U	10 U	10 U	9.1 U
3-nitroaniline	ug/kg	380 U	430 U	410 U	400 U	430 U	420 U	410 U	440 U	400 U	420 U	360 U	12 U	13 U	17 U	1,100 U	16 U	16 U	14 U
4,6-dinitro-2-methylphenol	ug/kg	380 U	430 U	410 U	400 U	430 U	420 U	410 U	440 U	400 U	420 U	360 U	37 U	40 U	51 U	1,100 U	50 U	49 U	44 U
4-bromophenyl phenyl ether	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	11 U	12 U	15 U	580 U	15 U	15 U	13 U
4-chloro-3-methylphenol	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	30 U	33 U	42 U	580 U	41 U	40 U	36 U
4-chloroaniline	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	9.6 U	11 U	13 U	580 U	13 U	13 U	11 U
4-chlorophenyl phenyl ether	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	9.1 U	10 U	13 U	580 U	12 U	12 U	11 U
4-methylphenol (p-cresol)	ug/kg	200 U	**28 J**	**29 J**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	---	---	---	**130 J**	---	---	---
4-nitroaniline	ug/kg	380 U	430 U	410 U	400 U	430 U	420 U	410 U	440 U	400 U	420 U	360 U	12 U	13 U	16 U	1,100 U	16 U	16 U	14 U
4-nitrophenol	ug/kg	380 U	430 U	410 U	400 U	430 U	420 U	410 U	440 U	400 U	420 U	360 U	51 U	56 U	71 U	1,100 U	69 U	68 U	60 U
Acenaphthene	ug/kg	200 U	**92 J**	**230**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**7,430**	**977**	**404**	**710**	12 U	12 U	**34.9 J**
Acenaphthylene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**123**	**253**	**99.9**	**220 J**	13 U	13 U	11 U
Acetophenone	ug/kg	**34 J**	220 U	**120 J**	**43 J**	**44 J**	**56 J**	**41 J**	**61 J**	**34 J**	**41 J**	**37 J**	5.3 U	5.8 U	7.4 U	580 U	7.2 U	7.1 U	6.3 U
Anthracene	ug/kg	200 U	**61 J**	**1,100**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**16,900**	**2,150**	**1,130**	**1,900**	14 U	**25.7 J**	**35.4 J**
Atrazine	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	5.9 U	6.5 U	8.3 U	580 U	8.1 U	7.9 U	7 U
Benzaldehyde	ug/kg	**67 J**	**93 J**	**130 J**	**58 J**	**68 J**	**91 J**	**70 J**	**92 J**	**62 J**	**61 J**	**61 J**	6.9 U	7.6 U	9.7 U	580 U	9.4 U	9.2 U	8.2 U
Benzo(a)anthracene	ug/kg	200 U	**120 J**	**1,200**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**14,900**	**2,690**	**1,200**	**2,300**	13 U	**40.3**	**50.5**
Benzo(a)pyrene	ug/kg	200 U	**91 J**	**870**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**13,000**	**1,870**	**975**	**2,100**	13 U	**37.6 J**	**49**
Benzo(b)fluoranthene	ug/kg	200 U	**100 J**	**1,200**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**11,200**	**1,720**	**697**	**2,100**	14 U	**28.5 J**	**37.3**
Benzo(g,h,i)perylene	ug/kg	200 U	**43 J**	**370 J**	200 UJ	220 UJ	220 UJ	210 UJ	230 UJ	200 UJ	220 UJ	180 UJ	**5,860**	**914**	**387**	**970 J**	15 U	**19.6 J**	**39.7**
Benzo(k)fluoranthene	ug/kg	200 U	**43 J**	**290**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**9,270**	**1,570**	**698**	**2,000**	15 U	**23.4 J**	**38.4**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
Sample Number:		059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
Sample Depth:		50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	17 U	19 U	24 U	580 U	24 U	23 U	21 U
Biphenyl (diphenyl)	ug/kg	200 U	220 U	**12 J**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**774**	**114**	**46.8 J**	**85 J**	4.8 U	4.6 U	4.1 U
Bis(2-chloroethoxy) methane	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	12 U	13 U	17 U	580 U	17 U	16 U	14 U
Bis(2-chloroethyl) ether	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	9.1 U	10 U	13 U	580 U	12 U	12 U	11 U
Bis(2-chloroisopropyl) ether	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	---	---	---	580 U	---	---	---
Bis(2-ethylhexyl) phthalate	ug/kg	**28 J**	**24 J**	**26 J**	**24 J**	**26 J**	**25 J**	**26 J**	**160 J**	**17 J**	**32 J**	**13 J**	**569**	**96**	**55 J**	**240 J**	36 U	35 U	**66.3 J**
Caprolactam	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	9.5 U	10 U	13 U	580 U	13 U	13 U	11 U
Carbazole	ug/kg	200 U	220 U	**480**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**5,030**	**712**	**288**	**490 J**	19 U	19 U	17 U
Chrysene	ug/kg	200 U	**99 J**	**1,300**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**13,900**	**2,150**	**1,150**	**2,400**	14 U	**40.6**	**57.6**
Dibenz(a,h)anthracene	ug/kg	200 U	220 U	**120 J**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**2,340**	**362**	**170**	**550 J**	14 U	14 U	12 U
Dibenzofuran	ug/kg	200 U	**8 J**	**190 J**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**5,410**	**722**	**327**	**590**	12 U	12 U	11 U
Diethyl phthalate	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	10 U	11 U	14 U	580 U	14 U	14 U	12 U
Dimethyl phthalate	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	11 U	12 U	15 U	580 U	14 U	14 U	13 U
Di-n-butyl phthalate	ug/kg	**21 J**	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	6.7 U	7.3 U	9.3 U	580 U	9.1 U	8.9 U	7.9 U
Di-n-octylphthalate	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	15 U	16 U	20 U	580 U	20 U	20 U	17 U
Fluoranthene	ug/kg	200 U	**230**	**2,300**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**50,100**	**8,610**	**3,100**	**5,900**	18 U	**104**	**88.8**
Fluorene	ug/kg	200 U	**20 J**	**360**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**8,360**	**1,270**	**582**	**1,000 J**	13 U	13 U	12 U
Hexachlorobenzene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	9.8 U	11 U	14 U	580 U	13 U	13 U	12 U
Hexachlorobutadiene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	8.4 U	9.2 U	12 U	580 U	11 U	11 U	9.9 U
Hexachlorocyclopentadiene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	31 U	34 U	43 U	580 U	42 U	41 U	36 U
Hexachloroethane	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	8.4 U	9.2 U	12 U	580 U	11 U	11 U	9.9 U
Indeno(1,2,3-c,d)pyrene	ug/kg	200 U	**45 J**	**460**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**6,000**	**878**	**405**	**1,100 J**	14 U	**18.4 J**	**27.9 J**
Isophorone	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	8.1 U	8.9 U	11 U	580 U	11 U	11 U	9.6 U
Naphthalene	ug/kg	200 U	**34 J**	**77 J**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**3,490**	**412**	**130**	**260 J**	11 U	11 U	9.8 U
Nitrobenzene	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	8.7 U	9.6 U	12 U	580 U	12 U	12 U	10 U
N-nitrosodi-n-propylamine	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	7.3 U	8.1 U	10 U	580 U	10 U	9.8 U	8.7 U
N-nitrosodiphenylamine	ug/kg	200 U	220 U	210 U	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	18 U	20 U	25 U	580 U	24 U	24 U	21 U
Pentachlorophenol	ug/kg	380 U	430 U	410 U	400 U	430 U	420 U	410 U	440 U	400 U	420 U	360 U	51 U	57 U	72 U	92 U	70 U	69 U	61 U
Phenanthrene	ug/kg	200 U	**100 J**	**2,800**	200 U	220 U	220 U	210 U	230 U	200 U	220 U	180 U	**55,000**	**10,100**	**3,480**	**6,000**	19 U	**108**	**73**
Phenol	ug/kg	**7 J**	**50 J**	**23 J**	**8.1 J**	**8.4 J**	**11 J**	**8.7 J**	**12 J**	**8.6 J**	**6.5 J**	**7.7 J**	32 U	35 U	44 U	580 U	43 U	42 U	38 U
Pyrene	ug/kg	**8.1 J**	**240 J**	**2,300 J**	200 UJ	220 UJ	220 UJ	210 UJ	230 UJ	**8.4 J**	**7.4 J**	**11 J**	**34,700**	**8,020**	**2,170**	**3,600**	16 U	**96.8**	**159**
Total PAHs	ug/kg	**8.1**	**1,318**	**15,040**	ND	ND	ND	ND	ND	**8.4**	**7.4**	**11**	**254,183**	**44,225**	**16,871**	**33,330**	ND	**542.9**	**691.5**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
Sample Number:		SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
Sample Depth:		30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	11 U	11 U	11 U	200 U	9.5 U	11 U	12 U	11 U	11 U	230 U	11 U	11 U	13 U	11 U	10 U	11 U	11 U	11 U
2,3,4,6-tetrachlorophenol	ug/kg	38 U	39 U	37 U	200 U	32 U	36 U	39 U	38 U	38 U	230 U	38 U	36 U	45 U	37 U	34 U	37 U	38 U	37 U
2,4,5-trichlorophenol	ug/kg	43 U	43 U	42 U	200 U	36 U	40 U	44 U	43 U	43 U	230 U	42 U	41 U	50 U	42 U	39 U	42 U	43 U	42 U
2,4,6-trichlorophenol	ug/kg	35 U	35 U	34 U	200 U	29 U	33 U	35 U	35 U	35 U	230 U	34 U	33 U	41 U	34 U	31 U	34 U	35 U	34 U
2,4-dichlorophenol	ug/kg	60 U	60 U	58 U	200 U	50 U	56 U	61 U	59 U	60 U	230 U	59 U	56 U	70 U	58 U	54 U	58 U	59 U	58 U
2,4-dimethylphenol	ug/kg	63 U	63 U	60 U	200 U	52 U	58 U	63 U	62 U	63 U	230 U	61 U	59 U	73 U	61 U	56 U	60 U	62 U	60 U
2,4-dinitrophenol	ug/kg	46 U	46 U	44 U	380 U	38 U	42 U	46 U	45 U	46 U	440 U	45 U	43 U	53 U	44 U	41 U	44 U	45 U	44 U
2,4-dinitrotoluene	ug/kg	16 U	16 U	16 U	200 U	13 U	15 U	16 U	16 U	16 U	230 U	16 U	15 U	19 U	16 U	15 U	16 U	16 U	16 U
2,6-dinitrotoluene	ug/kg	14 U	14 U	14 U	200 U	12 U	13 U	14 U	14 U	14 U	230 U	14 U	13 U	16 U	14 U	13 U	14 U	14 U	14 U
2-chloronaphthalene	ug/kg	12 U	12 U	11 U	200 U	9.6 U	11 U	12 U	11 U	12 U	230 U	11 U	11 U	13 U	11 U	10 U	11 U	11 U	11 U
2-chlorophenol	ug/kg	38 U	38 U	36 U	200 U	31 U	35 U	38 U	37 U	38 U	230 U	37 U	35 U	44 U	36 U	34 U	36 U	37 U	36 U
2-methylnaphthalene	ug/kg	21 U	21 U	20 U	**16**	17 U	**34.6 J**	**27.6 J**	**22.7 J**	21 U	**16**	20 U	20 U	24 U	20 U	**297,000**	**62,200**	**1,930**	**251**
2-methylphenol (o-cresol)	ug/kg	43 U	43 U	41 U	200 U	35 U	40 U	43 U	42 U	43 U	230 U	42 U	40 U	49 U	41 U	38 U	41 U	42 U	41 U
2-nitroaniline	ug/kg	16 U	16 U	16 U	380 U	14 U	15 U	17 U	16 U	16 U	440 U	16 U	15 U	19 U	16 U	15 U	16 U	16 U	16 U
2-nitrophenol	ug/kg	40 U	40 U	38 U	200 U	33 U	37 U	40 U	39 U	40 U	230 U	39 U	37 U	46 U	38 U	35 U	38 U	39 U	38 U
3,3'-dichlorobenzidine	ug/kg	9.5 U	9.5 U	9.1 U	200 U	7.8 U	8.8 U	9.6 U	9.4 U	9.5 U	230 U	9.3 U	8.9 U	11 U	9.2 U	8.5 U	9.1 U	9.3 U	9.1 U
3-nitroaniline	ug/kg	15 U	15 U	14 U	380 U	12 U	14 U	15 U	15 U	15 U	440 U	15 U	14 U	17 U	14 U	13 U	14 U	15 U	14 U
4,6-dinitro-2-methylphenol	ug/kg	46 U	46 U	44 U	380 U	38 U	42 U	46 U	45 U	46 U	440 U	45 U	43 U	53 U	44 U	41 U	44 U	45 U	44 U
4-bromophenyl phenyl ether	ug/kg	14 U	14 U	13 U	200 U	11 U	13 U	14 U	13 U	14 U	230 U	13 U	13 U	16 U	13 U	12 U	13 U	13 U	13 U
4-chloro-3-methylphenol	ug/kg	37 U	37 U	36 U	200 U	31 U	35 U	38 U	37 U	37 U	230 U	37 U	35 U	43 U	36 U	33 U	36 U	37 U	36 U
4-chloroaniline	ug/kg	12 U	12 U	12 U	200 U	9.9 U	11 U	12 U	12 U	12 U	230 U	12 U	11 U	14 U	12 U	11 U	11 U	12 U	12 U
4-chlorophenyl phenyl ether	ug/kg	11 U	11 U	11 U	200 U	9.3 U	10 U	11 U	11 U	11 U	230 U	11 U	11 U	13 U	11 U	10 U	11 U	11 U	11 U
4-methylphenol (p-cresol)	ug/kg	---	---	---	200 U	---	---	---	---	---	230 U	---	---	---	---	---	---	---	---
4-nitroaniline	ug/kg	15 U	15 U	14 U	380 U	12 U	14 U	15 U	14 U	15 U	440 U	14 U	14 U	17 U	14 U	13 U	14 U	14 U	14 U
4-nitrophenol	ug/kg	63 U	63 U	61 U	380 U	52 U	59 U	64 U	62 U	63 U	440 U	62 U	59 U	73 U	61 U	56 U	61 U	62 U	61 U
Acenaphthene	ug/kg	**97.1**	**23.2 J**	**28.8 J**	**69 J**	9 U	**225**	**113**	**109**	**25 J**	**99 J**	11 U	**37.1**	13 U	10 U	**109,000**	**19,900**	**1,070**	**203**
Acenaphthylene	ug/kg	12 U	12 U	12 U	**5.4**	9.9 U	**111**	**51.8**	**173**	**14.7 J**	**27 J**	**16.7 J**	11 U	14 U	12 U	**70,100**	**25,300**	**762**	**188**
Acetophenone	ug/kg	6.6 U	6.6 U	6.3 U	200 U	5.4 U	6.1 U	6.6 U	6.5 U	6.6 U	230 U	6.4 U	6.2 U	7.6 U	6.4 U	5.9 U	6.3 U	6.5 U	6.3 U
Anthracene	ug/kg	**59.6**	**16.2 J**	**21.7 J**	**58 J**	11 U	**708**	**230**	**403**	**58.7**	**150 J**	13 U	**93.6**	**34.6 J**	**30.4 J**	**83,500**	**21,700**	**1,210**	**292**
Atrazine	ug/kg	7.4 U	7.4 U	7.1 U	200 U	6.1 U	6.8 U	7.4 U	7.3 U	7.3 U	230 U	7.2 U	6.9 U	8.5 U	7.1 U	6.6 U	7.1 U	7.2 U	7.1 U
Benzaldehyde	ug/kg	8.6 U	8.6 U	8.3 U	200 U	7.1 U	8 U	8.7 U	8.5 U	8.6 U	230 U	8.4 U	8.1 U	9.9 U	8.3 U	7.7 U	8.3 U	8.4 U	8.3 U
Benzo(a)anthracene	ug/kg	**17.5 J**	12 U	12 U	**55 J**	**25.7 J**	**1,590**	**727**	**3,560**	**178**	**520**	**30.1 J**	**239**	**90.2**	**84.3**	**42,900**	**11,400**	**650**	**178**
Benzo(a)pyrene	ug/kg	11 U	11 U	**18.9 J**	**62 J**	**36.9**	**1,610**	**656**	**3,170**	**163**	**490**	**30.1 J**	**218**	**72.1**	**66**	**32,100**	**8,320**	**475**	**129**
Benzo(b)fluoranthene	ug/kg	12 U	13 U	12 U	**60 J**	**35.4**	**1,520**	**496**	**2,200**	**117**	**360**	**20.2 J**	**158**	**53.1**	**51.2**	**13,500**	**5,200**	**230**	**68.3**
Benzo(g,h,i)perylene	ug/kg	14 U	14 U	13 U	**33**	**35.3**	**1,020**	**404**	**1,510**	**108**	**280 J**	**19.9 J**	**147**	**43.8**	**43.4**	**11,600**	**2,400**	**198**	**56.4**
Benzo(k)fluoranthene	ug/kg	14 U	14 U	14 U	**43 J**	**20.9 J**	**696**	**486**	**2,240**	**119**	**460**	**20.3 J**	**148**	**42.1 J**	**55.2**	**20,600**	**3,740**	**269**	**69.3**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
Sample Number:		SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
Sample Depth:		30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	22 U	22 U	21 U	**21 J**	18 U	20 U	22 U	21 U	22 U	230 U	21 U	20 U	25 U	21 U	19 U	21 U	21 U	21 U
Biphenyl (diphenyl)	ug/kg	4.3 U	4.3 U	4.2 U	200 U	3.6 U	4 U	4.4 U	4.3 U	4.3 U	230 U	4.2 U	4.1 U	5 U	4.2 U	**32,700**	**7,770**	**292**	**51.9 J**
Bis(2-chloroethoxy) methane	ug/kg	15 U	15 U	15 U	200 U	12 U	14 U	15 U	15 U	15 U	230 U	15 U	14 U	17 U	15 U	13 U	15 U	15 U	15 U
Bis(2-chloroethyl) ether	ug/kg	11 U	11 U	11 U	200 U	9.3 U	10 U	11 U	11 U	11 U	230 U	11 U	11 U	13 U	11 U	10 U	11 U	11 U	11 U
Bis(2-chloroisopropyl) ether	ug/kg	---	---	---	200 U	---	---	---	---	---	230 U	---	---	---	---	---	---	---	---
Bis(2-ethylhexyl) phthalate	ug/kg	33 U	33 U	32 U	**91 J**	**47.7 J**	**189**	33 U	33 U	33 U	230 U	32 U	31 U	38 U	**99.6**	29 U	**99.1**	**245**	**217**
Caprolactam	ug/kg	12 U	12 U	11 U	200 U	9.7 U	11 U	12 U	12 U	12 U	230 U	12 U	11 U	14 U	11 U	10 U	11 U	12 U	11 U
Carbazole	ug/kg	17 U	17 U	17 U	200 U	14 U	**138**	**46.6 J**	17 U	17 U	230 U	17 U	**23 J**	20 U	17 U	**1,540**	**360**	**30.6 J**	17 U
Chrysene	ug/kg	**18.3 J**	13 U	**23.3 J**	**62 J**	**31.9**	**1,470**	**743**	**3,230**	**181**	**550**	**26.6 J**	**236**	**88.3**	**83.1**	**40,400**	**11,100**	**605**	**164**
Dibenz(a,h)anthracene	ug/kg	13 U	13 U	12 U	**12**	11 U	**560**	**139**	**553**	**34.3 J**	**120 J**	12 U	**43.7**	15 U	12 U	**2,630**	**692**	**64.1**	**15.1 J**
Dibenzofuran	ug/kg	11 U	11 U	11 U	200 U	9.2 U	**78.1**	**43.5 J**	**34.8 J**	11 U	**32 J**	11 U	**16 J**	13 U	11 U	**10,600**	**1,800**	**129**	**26.2 J**
Diethyl phthalate	ug/kg	13 U	13 U	12 U	200 U	11 U	12 U	13 U	13 U	13 U	230 U	12 U	12 U	15 U	12 U	11 U	12 U	13 U	12 U
Dimethyl phthalate	ug/kg	13 U	13 U	13 U	200 U	11 U	12 U	13 U	13 U	13 U	230 U	13 U	12 U	15 U	13 U	12 U	13 U	13 U	13 U
Di-n-butyl phthalate	ug/kg	8.3 U	8.3 U	8 U	200 U	6.9 U	7.7 U	8.4 U	8.2 U	8.3 U	230 U	8.1 U	7.8 U	9.6 U	8 U	7.4 U	8 U	8.2 U	8 U
Di-n-octylphthalate	ug/kg	18 U	18 U	18 U	200 U	15 U	17 U	18 U	18 U	18 U	230 U	18 U	17 U	21 U	18 U	16 U	17 U	18 U	18 U
Fluoranthene	ug/kg	**63.9**	**33.9 J**	**56.2**	**170 J**	**47.7**	**3,380**	**1,350**	**4,480**	**307**	**920**	**47.7**	**434**	**157**	**136**	**94,800**	**23,700**	**1,410**	**376**
Fluorene	ug/kg	12 U	12 U	12 U	**30 J**	10 U	**153**	**78.6**	**59.5**	12 U	**42 J**	12 U	**31.9 J**	14 U	12 U	**103,000**	**26,200**	**1,260**	**288**
Hexachlorobenzene	ug/kg	12 U	12 U	12 U	200 U	10 U	11 U	12 U	12 U	12 U	230 U	12 U	11 U	14 U	12 U	11 U	12 U	12 U	12 U
Hexachlorobutadiene	ug/kg	10 U	10 U	10 U	200 U	8.6 U	9.6 U	10 U	10 U	10 U	230 U	10 U	9.7 U	12 U	10 U	9.3 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	ug/kg	38 U	38 U	37 U	200 U	31 U	35 U	38 U	38 U	38 U	230 UJ	37 U	36 U	44 U	37 U	34 U	37 U	37 U	37 U
Hexachloroethane	ug/kg	10 U	10 U	10 U	200 U	8.6 U	9.6 U	10 U	10 U	10 U	230 U	10 U	9.7 U	12 U	10 U	9.3 U	10 U	10 U	10 U
Indeno(1,2,3-c,d)pyrene	ug/kg	13 U	13 U	12 U	**32**	**21 J**	**889**	**348**	**1,430**	**87.7**	**270 J**	**18.5 J**	**119**	**33.6 J**	**34.8 J**	**10,900**	**2,170**	**175**	**51.3**
Isophorone	ug/kg	10 U	10 U	9.7 U	200 U	8.3 U	9.3 U	10 U	9.9 U	10 U	230 U	9.8 U	9.4 U	12 U	9.7 U	9 U	9.7 U	9.9 U	9.7 U
Naphthalene	ug/kg	10 U	10 U	9.8 U	**9.5**	8.4 U	**37.3**	**45.9**	**54.9**	10 U	**36 J**	10 U	**13.9 J**	12 U	9.9 U	**344,000**	**62,100**	**1,560**	**149**
Nitrobenzene	ug/kg	11 U	11 U	10 U	200 U	8.9 U	10 U	11 U	11 U	11 U	230 U	11 U	10 U	12 U	10 U	9.6 U	10 U	11 U	10 U
N-nitrosodi-n-propylamine	ug/kg	9.1 U	9.1 U	8.8 U	200 U	7.5 U	8.5 U	9.2 U	9 U	9.1 U	230 U	8.9 U	8.6 U	11 U	8.8 U	8.1 U	8.8 U	9 U	8.8 U
N-nitrosodiphenylamine	ug/kg	22 U	22 U	21 U	200 U	18 U	21 U	22 U	22 U	22 U	230 U	22 U	21 U	26 U	22 U	20 U	21 U	22 U	21 U
Pentachlorophenol	ug/kg	64 U	64 U	62 U	7.8 U	53 U	59 U	64 U	63 U	64 U	18 U	62 U	60 U	74 U	62 U	57 U	61 U	63 U	61 U
Phenanthrene	ug/kg	**43.7**	**24.2 J**	**57.6**	**140 J**	**17.5 J**	**1,890**	**457**	**202**	**119**	**220 J**	**22.2 J**	**284**	**87.6**	**83**	**308,000**	**78,200**	**4,420**	**1,050**
Phenol	ug/kg	39 U	39 U	38 U	200 U	32 U	36 U	40 U	39 U	39 U	230 U	38 U	37 U	45 U	38 U	35 U	38 U	39 U	38 U
Pyrene	ug/kg	**82.8**	**34.7 J**	**64.2**	**120 J**	**46.7**	**3,010**	**1,450**	**4,500**	**331**	**920**	**46.9**	**480**	**162**	**166**	**130,000**	**35,400**	**1,890**	**492**
Total PAHs	ug/kg	**382.9**	**132.2**	**270.7**	**976.9**	**319**	**18,904**	**7,803**	**27,897**	**1,843**	**5,480**	**299.2**	**2,683**	**864.4**	**833.4**	**1,714,030**	**399,722**	**18,178**	**4,020**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
Sample Number:	SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
Sample Depth:	50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:	S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	200 U	210 U	12 U	9.6 U	9.3 U	9.5 U	10 U	470 U	9.8 U	11 U	13 U	11 U	11 U	10 U	11 U	10 U	10 U	200 U
2,3,4,6-tetrachlorophenol	ug/kg	200 U	210 U	39 U	32 U	31 U	32 U	35 U	470 U	33 U	36 U	43 U	38 U	36 U	35 U	37 U	33 U	34 U	200 U
2,4,5-trichlorophenol	ug/kg	200 U	210 U	44 U	36 U	35 U	36 U	39 U	470 U	37 U	40 U	48 U	43 U	41 U	39 U	41 U	38 U	38 U	200 U
2,4,6-trichlorophenol	ug/kg	200 U	210 U	35 U	29 U	28 U	29 U	32 U	470 U	30 U	33 U	39 U	35 U	33 U	32 U	34 U	31 U	31 U	200 U
2,4-dichlorophenol	ug/kg	200 U	210 U	61 U	50 U	49 U	50 U	55 U	470 U	51 U	56 U	67 U	59 U	57 U	54 U	57 U	52 U	53 U	200 U
2,4-dimethylphenol	ug/kg	200 U	210 U	63 U	53 U	51 U	52 U	57 U	470 U	54 U	58 U	70 U	62 U	59 U	56 U	60 U	55 U	55 U	200 U
2,4-dinitrophenol	ug/kg	390 U	400 U	46 U	38 U	37 U	38 U	41 U	920 UJ	39 U	42 U	51 U	45 U	43 U	41 U	44 U	40 U	40 U	390 U
2,4-dinitrotoluene	ug/kg	200 U	210 U	16 U	14 U	13 U	14 U	15 U	470 U	14 U	15 U	18 U	16 U	15 U	15 U	16 U	14 U	14 U	200 U
2,6-dinitrotoluene	ug/kg	200 U	210 U	14 U	12 U	12 U	12 U	13 U	470 U	12 U	13 U	16 U	14 U	13 U	13 U	14 U	12 U	12 U	200 U
2-chloronaphthalene	ug/kg	200 U	210 U	12 U	9.7 U	9.4 U	9.6 U	11 U	470 U	9.9 U	11 U	13 U	11 U	11 U	10 U	11 U	10 U	10 U	200 U
2-chlorophenol	ug/kg	200 U	210 U	38 U	32 U	31 U	31 U	34 U	470 U	32 U	35 U	42 U	37 U	36 U	34 U	36 U	33 U	33 U	200 U
2-methylnaphthalene	ug/kg	**470**	**930**	**373**	**91.7**	**142**	**109**	**208**	**380 J**	**89.5**	**68.3 J**	23 U	21 U	20 U	19 U	20 U	18 U	18 U	3.9 U
2-methylphenol (o-cresol)	ug/kg	200 U	210 U	43 U	36 U	34 U	35 U	39 U	470 U	36 U	40 U	47 U	42 U	40 U	38 U	41 U	37 U	37 U	200 U
2-nitroaniline	ug/kg	390 U	400 U	17 U	14 U	13 U	14 U	15 U	920 U	14 U	15 U	18 U	16 U	15 U	15 U	16 U	14 U	14 U	390 U
2-nitrophenol	ug/kg	200 U	210 U	40 U	33 U	32 U	33 U	36 U	470 U	34 U	37 U	44 U	39 U	37 U	36 U	38 U	34 U	35 U	200 U
3,3'-dichlorobenzidine	ug/kg	200 U	210 U	9.5 U	7.9 U	7.7 U	7.9 U	8.6 U	470 U	8.1 U	8.8 U	11 U	9.4 U	8.9 U	8.5 U	9.1 U	8.3 U	8.3 U	200 U
3-nitroaniline	ug/kg	390 U	400 U	15 U	13 U	12 U	12 U	14 U	920 U	13 U	14 U	17 U	15 U	14 U	13 U	14 U	13 U	13 U	390 U
4,6-dinitro-2-methylphenol	ug/kg	390 U	400 U	46 U	38 U	37 U	38 U	41 U	920 U	39 U	42 U	51 U	45 U	43 U	41 U	44 U	40 U	40 U	390 U
4-bromophenyl phenyl ether	ug/kg	200 U	210 U	14 U	11 U	11 U	11 U	12 U	470 U	12 U	13 U	15 U	13 U	13 U	12 U	13 U	12 U	12 U	200 U
4-chloro-3-methylphenol	ug/kg	200 U	210 U	38 U	31 U	30 U	31 U	34 U	470 U	32 U	35 U	42 U	37 U	35 U	34 U	36 U	33 U	33 U	200 U
4-chloroaniline	ug/kg	200 U	210 U	12 U	10 U	9.7 U	9.9 U	11 U	470 U	10 U	11 U	13 U	12 U	11 U	11 U	11 U	10 U	10 U	200 U
4-chlorophenyl phenyl ether	ug/kg	200 U	210 U	11 U	9.4 U	9.1 U	9.3 U	10 U	470 U	9.6 U	10 U	13 U	11 U	11 U	10 U	11 U	9.8 U	9.8 U	200 U
4-methylphenol (p-cresol)	ug/kg	200 U	210 U	---	---	---	---	---	470 U	---	---	---	---	---	---	---	---	---	200 U
4-nitroaniline	ug/kg	390 U	400 U	15 U	12 U	12 U	12 U	13 U	920 U	12 U	14 U	16 U	14 U	14 U	13 U	14 U	13 U	13 U	390 U
4-nitrophenol	ug/kg	390 U	400 U	64 U	53 U	51 U	52 U	57 U	920 U	54 U	59 U	70 U	62 U	59 U	57 U	60 U	55 U	55 U	390 U
Acenaphthene	ug/kg	**320**	**550**	**272**	**34**	**49**	**52.3**	**55.9**	**100 J**	**77.3**	**46.7**	12 U	11 U	10 U	9.7 U	10 U	9.4 U	9.5 U	3.9 U
Acenaphthylene	ug/kg	**240**	**380**	**251**	10 U	9.7 U	9.9 U	11 U	**9.2 J**	**60**	**27.4 J**	13 U	12 U	11 U	11 U	11 U	10 U	10 U	3.9 U
Acetophenone	ug/kg	200 U	210 U	6.6 U	5.5 U	5.3 U	5.5 U	6 U	470 U	5.6 U	6.1 U	7.3 U	6.5 U	6.2 U	5.9 U	6.3 U	5.7 U	5.8 U	200 U
Anthracene	ug/kg	**450**	**660**	**369**	11 U	**13.1 J**	**22.2 J**	**33.8 J**	**110**	**203**	**92.8**	15 U	13 U	12 U	12 U	12 U	11 U	11 U	3.9 U
Atrazine	ug/kg	200 U	210 U	7.4 U	6.2 U	6 U	6.1 U	6.7 U	470 U	6.3 U	6.8 U	8.2 U	7.3 U	6.9 U	6.6 U	7 U	6.4 U	6.4 U	200 U
Benzaldehyde	ug/kg	200 U	210 U	8.6 U	7.2 U	7 U	7.1 U	7.8 U	470 U	7.3 U	8 U	9.6 U	8.5 U	8.1 U	7.7 U	8.2 U	7.5 U	7.5 U	200 U
Benzo(a)anthracene	ug/kg	**280**	**420**	**196**	**16.8 J**	**26.3 J**	**58.3**	**101**	**240 J**	**428**	**169**	14 U	**14.9 J**	11 U	11 U	12 U	11 U	11 U	**1 J**
Benzo(a)pyrene	ug/kg	**220**	**330**	**144**	9.5 U	9.2 U	**45.3**	**58.9**	**130 J**	**410**	**158**	13 U	11 U	11 U	10 U	11 U	9.9 U	10 U	**6.1**
Benzo(b)fluoranthene	ug/kg	**100**	**160 J**	**72.6**	10 U	10 U	**36.8**	**46.1**	**170 J**	**347**	**132**	14 U	12 U	12 U	11 U	12 U	11 U	11 U	**2.3 J**
Benzo(g,h,i)perylene	ug/kg	**80**	**110 J**	**56.3**	12 U	11 U	**31.2**	**35**	**120**	**225**	**95.5**	15 U	14 U	13 U	12 U	13 U	12 U	12 U	**1.1 J**
Benzo(k)fluoranthene	ug/kg	**150 J**	**190 J**	**74.8**	12 U	11 U	**28.5 J**	**44.6**	**120 J**	**300**	**122**	16 U	14 U	13 U	13 U	13 U	12 U	12 U	**1.6 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
Sample Number:		SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
Sample Depth:		50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	200 U	**27 J**	22 U	18 U	18 U	18 U	20 U	470 U	18 U	20 U	24 U	21 U	20 U	19 U	21 U	19 U	19 U	200 U
Biphenyl (diphenyl)	ug/kg	**83 J**	**150 J**	**69.6 J**	3.6 U	3.5 U	3.6 U	**17 J**	470 U	**18.9 J**	4 U	4.8 U	4.3 U	4.1 U	3.9 U	4.1 U	3.8 U	3.8 U	200 U
Bis(2-chloroethoxy) methane	ug/kg	200 U	210 U	15 U	13 U	12 U	13 U	14 U	470 U	13 U	14 U	17 U	15 U	14 U	14 U	14 U	13 U	13 U	200 U
Bis(2-chloroethyl) ether	ug/kg	200 U	210 U	11 U	9.4 U	9.1 U	9.3 U	10 U	470 U	9.6 U	10 U	13 U	11 U	11 U	10 U	11 U	9.8 U	9.8 U	200 U
Bis(2-chloroisopropyl) ether	ug/kg	200 U	210 U	---	---	---	---	---	470 U	---	---	---	---	---	---	---	---	---	200 U
Bis(2-ethylhexyl) phthalate	ug/kg	200 U	210 U	**65.2 J**	**273**	**314**	**152**	**235**	**400 J**	**296**	**311**	**51.4 J**	**83.6**	**55.7 J**	**72.1**	**143**	**138**	**118**	**230**
Caprolactam	ug/kg	200 U	210 U	12 U	9.9 U	9.5 U	9.8 U	11 U	470 U	10 U	11 U	13 U	12 U	11 U	11 U	11 U	10 U	10 U	200 U
Carbazole	ug/kg	200 U	210 U	17 U	14 U	14 U	14 U	16 U	470 U	**25.3 J**	**24.7 J**	19 U	17 U	16 U	16 U	17 U	15 U	15 U	200 U
Chrysene	ug/kg	**270**	**390**	**186**	**77**	**133**	**117**	**287**	**680**	**474**	**208**	14 U	**15.2 J**	12 U	11 U	12 U	11 U	11 U	**1.5 J**
Dibenz(a,h)anthracene	ug/kg	**25**	**35**	13 U	11 U	10 U	11 U	12 U	**45**	**72.4**	**34.5 J**	14 U	13 U	12 U	11 U	12 U	11 U	11 U	3.9 U
Dibenzofuran	ug/kg	**54 J**	**88 J**	**30.3 J**	9.3 U	9 U	9.2 U	10 U	**68 J**	**51 J**	**23.7 J**	12 U	11 U	10 U	10 U	11 U	9.7 U	9.7 U	200 U
Diethyl phthalate	ug/kg	200 U	210 U	13 U	11 U	10 U	11 U	12 U	470 U	11 U	12 U	14 U	13 U	12 U	11 U	12 U	11 U	11 U	200 U
Dimethyl phthalate	ug/kg	200 U	210 U	13 U	**31.8 J**	11 U	11 U	12 U	470 U	11 U	12 U	**126**	**91**	**68 J**	**77.2**	13 U	11 U	12 U	200 U
Di-n-butyl phthalate	ug/kg	200 U	210 U	8.3 U	6.9 U	6.7 U	6.9 U	7.5 U	470 U	7.1 U	7.7 U	9.2 U	8.2 U	7.8 U	7.5 U	7.9 U	7.2 U	7.3 U	200 U
Di-n-octylphthalate	ug/kg	200 U	210 U	18 U	15 U	15 U	15 U	17 U	470 U	16 U	17 U	20 U	18 U	17 U	16 U	17 U	16 U	16 U	200 U
Fluoranthene	ug/kg	**550**	**870**	**424**	**17.4 J**	**34.5**	**120**	**151**	**420 J**	**780**	**290**	18 U	**19 J**	16 U	15 U	16 U	14 U	14 U	**1.2 J**
Fluorene	ug/kg	**530**	**850**	**362**	**72.9**	**94.8**	**80.4**	**101**	**200 J**	**142**	**64.3**	14 U	12 U	12 U	11 U	12 U	11 U	11 U	3.9 U
Hexachlorobenzene	ug/kg	200 U	210 U	12 U	10 U	9.9 U	10 U	11 U	470 U	10 U	11 U	14 U	12 U	11 U	11 U	12 U	11 U	11 U	200 U
Hexachlorobutadiene	ug/kg	200 U	210 U	10 U	8.7 U	8.4 U	8.6 U	9.4 U	470 U	8.9 U	9.7 U	12 U	10 U	9.8 U	9.3 U	9.9 U	9 U	9.1 U	200 U
Hexachlorocyclopentadiene	ug/kg	200 UJ	210 UJ	38 U	32 U	31 U	32 U	35 U	470 UJ	33 U	35 U	42 U	38 U	36 U	34 U	36 U	33 U	33 U	200 U
Hexachloroethane	ug/kg	200 U	210 U	10 U	8.7 U	8.4 U	8.6 U	9.4 U	470 U	8.9 U	9.7 U	12 U	10 U	9.8 U	9.3 U	9.9 U	9 U	9.1 U	200 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**81**	**110**	**47.7**	11 U	10 U	**24 J**	**27.9 J**	**87**	**214**	**89.3**	14 U	13 U	12 U	12 U	12 U	11 U	11 U	**1.2 J**
Isophorone	ug/kg	200 U	210 U	10 U	8.4 U	8.1 U	8.3 U	9.1 U	470 U	8.6 U	9.3 U	11 U	9.9 U	9.5 U	9 U	9.6 U	8.7 U	8.8 U	200 U
Naphthalene	ug/kg	**240**	**460**	**253**	**13.1 J**	**26.9 J**	**20.8 J**	**46.8**	**90 J**	**53.5**	**33.1 J**	11 U	10 U	**40.1**	9.2 U	**22.5 J**	8.9 U	8.9 U	**1.7 J**
Nitrobenzene	ug/kg	200 U	210 U	11 U	9 U	8.7 U	8.9 U	9.8 U	470 U	9.2 U	10 U	12 U	11 U	10 U	9.7 U	10 U	9.4 U	9.4 U	200 U
N-nitrosodi-n-propylamine	ug/kg	200 U	210 U	9.2 U	7.6 U	7.4 U	7.6 U	8.3 U	470 U	7.8 U	8.5 U	10 U	9 U	8.6 U	8.2 U	8.7 U	7.9 U	8 U	200 U
N-nitrosodiphenylamine	ug/kg	200 U	210 U	22 U	19 U	18 U	18 U	20 U	470 U	19 U	21 U	25 U	22 U	21 U	20 U	21 U	19 U	20 U	200 U
Pentachlorophenol	ug/kg	32 U	40 U	64 U	53 U	52 U	53 U	58 U	37 U	55 U	59 U	71 U	63 U	60 U	57 U	61 U	56 U	56 U	8 U
Phenanthrene	ug/kg	**1,800**	**2,600**	**1,260**	**81.7**	**125**	**189**	**312**	**700**	**617**	**245**	19 U	**22.2 J**	16 U	15 U	**17.6 J**	15 U	15 U	**1.2 J**
Phenol	ug/kg	200 U	210 U	39 U	33 U	32 U	33 U	36 U	470 U	33 U	36 U	44 U	39 U	37 U	35 U	37 U	34 U	34 U	200 U
Pyrene	ug/kg	**810**	**1,300**	**543**	**55.8**	**91.6**	**142**	**265**	**390 J**	**616**	**241**	16 U	**17.8 J**	14 U	13 U	14 U	12 U	13 U	3.9 U
Total PAHs	ug/kg	**6,616**	**10,345**	**4,884**	**460.4**	**736.2**	**1,077**	**1,774**	**3,991**	**5,109**	**2,117**	ND	**89.1**	**40.1**	ND	**40.1**	ND	ND	**18.9**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:		SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(0-5)	GC-MW23I(5-10)	GC-MW23I(10-15)	SB23IC-S-NG	GC-MW23I(15-20)	GC-MW23I(20-25)
Sample Depth:		60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	10-15	15-20	20-25
Sample Date:		6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	11 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
2,3,4,6-tetrachlorophenol	ug/kg	36 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
2,4,5-trichlorophenol	ug/kg	40 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	920 UJ	2,300 U	2,300 UJ	320 U	1,500 U	64,000 U
2,4,6-trichlorophenol	ug/kg	33 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
2,4-dichlorophenol	ug/kg	56 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
2,4-dimethylphenol	ug/kg	58 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
2,4-dinitrophenol	ug/kg	42 U	2,600 U	1,000 U	120,000 U	110,000 U	8,000 U	580 U	570 U	390 U	390 U	390 U	400 UJ	920 UJ	2,300 U	2,300 UJ	620 U	1,500 UJ	64,000 UJ
2,4-dinitrotoluene	ug/kg	15 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
2,6-dinitrotoluene	ug/kg	13 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
2-chloronaphthalene	ug/kg	11 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
2-chlorophenol	ug/kg	35 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
2-methylnaphthalene	ug/kg	19 U	**92 J**	**540**	**160,000**	**710,000**	**33,000**	300 U	**10 J**	200 U	200 U	200 U	200 U	**700**	**110 J**	900 UJ	**4.1 J**	**30 J**	**130,000**
2-methylphenol (o-cresol)	ug/kg	39 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
2-nitroaniline	ug/kg	15 U	2,600 U	1,000 U	120,000 U	110,000 U	8,000 U	580 U	570 U	390 U	390 U	390 U	400 UJ	920 UJ	2,300 U	2,300 UJ	620 U	1,500 U	64,000 U
2-nitrophenol	ug/kg	37 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
3,3'-dichlorobenzidine	ug/kg	8.8 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
3-nitroaniline	ug/kg	14 U	2,600 U	1,000 U	120,000 U	110,000 U	8,000 U	580 U	570 U	390 U	390 U	390 U	400 UJ	920 UJ	2,300 U	2,300 UJ	620 U	1,500 U	64,000 U
4,6-dinitro-2-methylphenol	ug/kg	42 U	2,600 U	1,000 U	120,000 U	110,000 U	8,000 U	580 U	570 U	390 U	390 U	390 U	400 U	920 UJ	2,300 U	2,300 UJ	620 U	1,500 U	64,000 U
4-bromophenyl phenyl ether	ug/kg	13 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
4-chloro-3-methylphenol	ug/kg	35 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
4-chloroaniline	ug/kg	11 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
4-chlorophenyl phenyl ether	ug/kg	10 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
4-methylphenol (p-cresol)	ug/kg	---	1,400 U	**220 J**	60,000 U	57,000 U	4,100 U	**10 J**	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
4-nitroaniline	ug/kg	13 U	2,600 U	1,000 U	120,000 U	110,000 U	8,000 U	580 U	570 U	390 U	390 U	390 U	400 UJ	920 UJ	2,300 U	2,300 UJ	620 U	1,500 UJ	64,000 UJ
4-nitrophenol	ug/kg	58 U	2,600 U	1,000 U	120,000 U	110,000 U	8,000 U	580 U	570 U	390 U	390 U	390 U	400 UJ	---	---	---	620 U	---	---
Acenaphthene	ug/kg	10 U	**82 J**	**720**	**29,000 J**	**140,000 J**	**16,000**	**28 J**	**40 J**	**6.9 J**	200 U	200 U	200 U	**65 J**	**850 J**	900 UJ	**7 J**	610 U	**38,000**
Acenaphthylene	ug/kg	11 U	**95 J**	**62 J**	**42,000 J**	**210,000**	**8,600**	300 U	290 U	200 U	200 U	200 U	200 U	**310 J**	920 U	900 UJ	16 U	610 U	**25,000 J**
Acetophenone	ug/kg	6.1 U	**100 J**	**93 J**	60,000 U	57,000 U	**140 J**	**93 J**	**86 J**	**58 J**	**44 J**	**57 J**	**47 J**	**140 J**	920 U	900 UJ	**77 J**	610 U	26,000 U
Anthracene	ug/kg	12 U	**190 J**	**810**	**40,000 J**	**160,000 J**	**11,000**	**45 J**	**70 J**	200 U	200 U	200 U	200 U	**190 J**	**1,600**	900 UJ	**14 J**	610 U	**35,000**
Atrazine	ug/kg	6.8 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
Benzaldehyde	ug/kg	8 U	**140 J**	**110 J**	60,000 U	57,000 U	4,100 U	**170 J**	**150 J**	**100 J**	**82 J**	**100 J**	**100 J**	370 U	**53 J**	900 UJ	**47 J**	610 U	26,000 U
Benzo(a)anthracene	ug/kg	11 U	**950 J**	**670 J**	**20,000 J**	**77,000 J**	**5,800**	**77 J**	**69 J**	200 U	200 U	200 U	200 U	**570**	**2,400**	**59 J**	**59 J**	610 U	**19,000 J**
Benzo(a)pyrene	ug/kg	11 U	**1,400**	**550**	**15,000 J**	**58,000**	**4,400**	**76 J**	**64 J**	200 U	200 U	200 U	200 U	**1,100**	**2,000**	**52 J**	**59**	610 U	**13,000 J**
Benzo(b)fluoranthene	ug/kg	12 U	**1,100 J**	**350 J**	**10,000 J**	**42,000 J**	**1,800 J**	**44 J**	**52 J**	200 U	200 U	200 U	200 U	**1,000**	**2,000**	**74 J**	**48**	610 U	**7,100 J**
Benzo(g,h,i)perylene	ug/kg	13 U	**1,500**	**350 J**	60,000 U	**21,000 J**	**2,100 J**	**45 J**	**52 J**	200 UJ	200 UJ	200 UJ	200 UJ	**890 J**	**530 J**	900 UJ	**26**	610 UJ	**4,500 J**
Benzo(k)fluoranthene	ug/kg	13 U	**1,100 J**	**400 J**	**4,500 J**	**18,000 J**	**2,500 J**	**64 J**	**46 J**	200 U	200 U	200 U	200 U	**620**	**1,900**	**49 J**	**46**	610 U	**6,000 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:		SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(0-5)	GC-MW23I(5-10)	GC-MW23I(10-15)	SB23IC-S-NG	GC-MW23I(15-20)	GC-MW23I(20-25)
Sample Depth:		60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	10-15	15-20	20-25
Sample Date:		6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	20 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	**250 J**	920 U	900 UJ	320 U	610 U	26,000 U
Biphenyl (diphenyl)	ug/kg	4 U	1,400 U	**160 J**	**17,000 J**	**70,000**	**4,500**	300 U	290 U	200 U	200 U	200 U	200 U	**110 J**	920 U	900 UJ	320 U	610 U	**16,000 J**
Bis(2-chloroethoxy) methane	ug/kg	14 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
Bis(2-chloroethyl) ether	ug/kg	10 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
Bis(2-chloroisopropyl) ether	ug/kg	---	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 UJ	900 UJ	320 U	610 U	26,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**349**	**45 J**	**25 J**	60,000 U	57,000 U	4,100 U	**28 J**	**41 J**	**25 J**	**22 J**	**32 J**	**27 J**	**1,000**	**380 J**	**210 J**	**59 J**	610 U	26,000 U
Caprolactam	ug/kg	11 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	**52 J**	610 U	26,000 U
Carbazole	ug/kg	16 U	**61 J**	**200 J**	60,000 U	**4,700 J**	**270 J**	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	**200 J**	900 UJ	320 U	610 U	26,000 U
Chrysene	ug/kg	12 U	**800 J**	**610 J**	**18,000 J**	**70,000**	**5,300**	**71 J**	**58 J**	200 U	200 U	200 U	200 U	**760**	**2,300**	**65 J**	**62 J**	610 U	**18,000 J**
Dibenz(a,h)anthracene	ug/kg	12 U	**410 J**	**120 J**	60,000 U	57,000 U	**600 J**	**14 J**	**9.1 J**	200 U	200 U	200 U	200 U	**140 J**	**97 J**	900 UJ	**12 J**	610 U	26,000 U
Dibenzofuran	ug/kg	10 U	**88 J**	**450 J**	**4,500 J**	**21,000 J**	**1,400 J**	**13 J**	**22 J**	200 U	200 U	200 U	200 U	370 UJ	**450 J**	900 UJ	320 U	610 U	**3,800 J**
Diethyl phthalate	ug/kg	12 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
Dimethyl phthalate	ug/kg	12 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
Di-n-butyl phthalate	ug/kg	7.7 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	**25 J**	920 U	900 UJ	320 U	610 U	26,000 U
Di-n-octylphthalate	ug/kg	17 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	**95 J**	920 U	900 UJ	320 U	610 U	26,000 U
Fluoranthene	ug/kg	15 U	**990 J**	**1,900 J**	**34,000 J**	**140,000 J**	**12,000**	**180 J**	**200 J**	200 U	200 U	200 U	200 U	**770 J**	**6,200**	**120 J**	**110**	610 U	**29,000**
Fluorene	ug/kg	11 U	**54 J**	**650**	**48,000 J**	**200,000**	**13,000**	**17 J**	**14 J**	200 U	200 U	200 U	200 U	**56 J**	**830 J**	900 UJ	**8.9 J**	610 U	**31,000**
Hexachlorobenzene	ug/kg	11 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
Hexachlorobutadiene	ug/kg	9.6 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
Hexachlorocyclopentadiene	ug/kg	35 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
Hexachloroethane	ug/kg	9.6 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	12 U	**1,100 J**	**290 J**	60,000 U	**17,000 J**	**1,700 J**	**41 J**	**36 J**	200 U	200 U	200 U	200 U	**490**	**560 J**	900 UJ	**29**	610 U	**4,200 J**
Isophorone	ug/kg	9.3 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
Naphthalene	ug/kg	9.4 U	**280 J**	**1,100**	**290,000**	**1,300,000**	**35,000**	**54 J**	**26 J**	200 U	**6.7 J**	200 U	200 U	**490**	**210 J**	900 UJ	16 U	**73 J**	**120,000**
Nitrobenzene	ug/kg	10 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
N-nitrosodi-n-propylamine	ug/kg	8.4 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 U	920 U	900 UJ	320 U	610 U	26,000 U
N-nitrosodiphenylamine	ug/kg	21 U	1,400 U	520 U	60,000 U	57,000 U	4,100 U	300 U	290 U	200 U	200 U	200 U	200 U	370 UJ	920 U	900 UJ	320 U	610 U	26,000 U
Pentachlorophenol	ug/kg	59 U	2,600 U	1,000 U	120,000 UJ	110,000 UJ	8,000 U	580 UJ	570 UJ	390 UJ	390 UJ	390 UJ	400 UJ	---	---	---	32 UJ	---	---
Phenanthrene	ug/kg	16 U	**360 J**	**2,700**	**130,000**	**500,000**	**47,000**	**140 J**	**160 J**	200 U	200 U	200 U	200 U	**610 J**	**5,100**	**81 J**	**62 J**	610 U	**120,000**
Phenol	ug/kg	36 U	1,400 U	**49 J**	60,000 U	57,000 U	4,100 U	**21 J**	**18 J**	**11 J**	**8.4 J**	**10 J**	**9.6 J**	370 U	920 U	900 UJ	320 U	610 U	26,000 U
Pyrene	ug/kg	13 U	**1,500**	**1,600 J**	**58,000 J**	**240,000**	**19,000**	**170 J**	**180 J**	200 U	200 U	200 U	200 U	**820**	**4,200**	**95 J**	**100 J**	610 U	**46,000**
Total PAHs	ug/kg	ND	**12,003**	**13,422**	**898,500**	**3,903,000**	**218,800**	**1,066**	**1,086**	**6.9**	**6.7**	ND	ND	**9,581**	**30,887**	**595**	**647**	**103**	**645,800**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
Sample Number:		GC-MW23I(25-30)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
Sample Depth:		25-30	30-35	35-39	35-39	35-39	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:		N	N	N	FD	S	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2,3,4,6-tetrachlorophenol	ug/kg	820 U	5,800 UJ	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2,4,5-trichlorophenol	ug/kg	2,100 U	15,000 U	200,000 U	240,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2,4,6-trichlorophenol	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2,4-dichlorophenol	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2,4-dimethylphenol	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2,4-dinitrophenol	ug/kg	2,100 U	15,000 UR	200,000 UJ	240,000 UJ	10,000 U	12,000 U	540 U	550 U	580 U	11,000 U	380 U	370 U	400 U	3,700 U	380 U	2,400 U	550 U	380 U
2,4-dinitrotoluene	ug/kg	820 U	5,800 UJ	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2,6-dinitrotoluene	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2-chloronaphthalene	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2-chlorophenol	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2-methylnaphthalene	ug/kg	**830**	**26,000**	**290,000**	**380,000**	**340,000 J**	**1,700 J**	**31 J**	**39 J**	**830**	**240,000**	**96 J**	**10 J**	210 U	**260 J**	**34 J**	1,200 U	280 U	200 U
2-methylphenol (o-cresol)	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
2-nitroaniline	ug/kg	2,100 U	15,000 U	200,000 U	240,000 U	10,000 U	12,000 U	540 U	550 U	580 U	11,000 U	380 U	370 U	400 U	3,700 U	380 U	2,400 U	550 U	380 U
2-nitrophenol	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
3,3'-dichlorobenzidine	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 UJ	290 UJ	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
3-nitroaniline	ug/kg	2,100 U	15,000 U	200,000 U	240,000 U	10,000 U	12,000 U	540 U	550 U	580 U	11,000 U	380 U	370 U	400 U	3,700 U	380 U	2,400 U	550 U	380 U
4,6-dinitro-2-methylphenol	ug/kg	2,100 U	15,000 UJ	200,000 U	240,000 U	10,000 U	12,000 U	540 U	550 U	580 U	11,000 U	380 U	370 U	400 U	3,700 U	380 U	2,400 U	550 U	380 U
4-bromophenyl phenyl ether	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
4-chloro-3-methylphenol	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
4-chloroaniline	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 UJ	290 UJ	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
4-chlorophenyl phenyl ether	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
4-methylphenol (p-cresol)	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	**12 J**	**110 J**	**9 J**	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	**17 J**	200 U
4-nitroaniline	ug/kg	2,100 U	15,000 UJ	200,000 UJ	240,000 UJ	10,000 U	12,000 U	540 U	550 U	580 U	11,000 U	380 U	370 U	400 U	3,700 U	380 U	2,400 U	550 U	380 U
4-nitrophenol	ug/kg	---	---	---	---	10,000 U	12,000 U	540 U	550 U	580 U	11,000 U	380 U	370 U	400 U	3,700 U	380 U	2,400 U	550 U	380 U
Acenaphthene	ug/kg	**270 J**	**17,000**	**120,000**	**170,000**	**160,000 J**	**9,200**	**150 J**	**54 J**	**520**	**140,000**	**32 J**	190 U	210 U	**210 J**	190 U	**130 J**	280 U	200 U
Acenaphthylene	ug/kg	820 U	**910 J**	**13,000 J**	97,000 U	**20,000**	**1,300 J**	**22 J**	290 U	300 U	**8,900 J**	**14 J**	190 U	210 U	**120 J**	190 U	1,200 U	280 U	200 U
Acetophenone	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	**260 J**	**140 J**	**140 J**	**130 J**	5,800 U	**53 J**	**63 J**	**66 J**	**330 J**	**110 J**	**220 J**	**130 J**	200 U
Anthracene	ug/kg	820 U	**8,800 J**	**59,000 J**	**80,000 J**	**82,000 J**	**4,900 J**	**210 J**	**100 J**	**680**	**72,000**	**16 J**	**6.7 J**	210 U	**910 J**	**12 J**	**390 J**	**19 J**	200 U
Atrazine	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Benzaldehyde	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	**80 J**	**95 J**	**77 J**	1,900 U	190 U	1,200 U	280 U	200 U
Benzo(a)anthracene	ug/kg	820 U	**5,400 J**	**39,000 J**	**51,000 J**	**50,000**	**3,100 J**	**310**	**150 J**	**690**	**36,000 J**	**9.3 J**	**5.8 J**	210 U	**2,600**	**78 J**	**860 J**	**42 J**	200 U
Benzo(a)pyrene	ug/kg	820 U	**3,600 J**	**26,000 J**	**33,000 J**	**34,000**	**2,100 J**	**240 J**	**110 J**	**500**	**27,000 J**	**8.1 J**	190 U	210 U	**2,100**	**91 J**	**790 J**	**41 J**	200 U
Benzo(b)fluoranthene	ug/kg	820 U	**1,800 J**	**13,000 J**	**13,000 J**	**15,000**	**2,500 J**	**270 J**	**130 J**	**630**	**20,000**	**6.9 J**	190 U	210 U	**3,200**	**150 J**	**960 J**	**35 J**	200 U
Benzo(g,h,i)perylene	ug/kg	820 UJ	**1,200 J**	**9,600 J**	**9,100 J**	**11,000**	**1,000 J**	**140 J**	**59 J**	**290 J**	**10,000 J**	200 U	190 U	210 U	**1,500 J**	**110 J**	**480 J**	**25 J**	200 U
Benzo(k)fluoranthene	ug/kg	820 U	**1,900 J**	**13,000 J**	**19,000 J**	**17,000**	**720 J**	**100 J**	**55 J**	**210 J**	**8,000 J**	200 U	190 U	210 U	**1,100 J**	**52 J**	**290 J**	**15 J**	200 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
Sample Number:		GC-MW23I(25-30)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
Sample Depth:		25-30	30-35	35-39	35-39	35-39	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:		N	N	N	FD	S	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	**12 J**	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Biphenyl (diphenyl)	ug/kg	**65 J**	**3,500 J**	**31,000 J**	**42,000 J**	**31,000**	**330 J**	**18 J**	**9.5 J**	**69 J**	**27,000 J**	**12 J**	190 U	210 U	**57 J**	**12 J**	1,200 U	280 U	200 U
Bis(2-chloroethoxy) methane	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Bis(2-chloroethyl) ether	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Bis(2-chloroisopropyl) ether	ug/kg	820 UJ	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Bis(2-ethylhexyl) phthalate	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	**70 J**	**32 J**	**63 J**	5,800 U	**21 J**	**30 J**	**28 J**	**660 J**	**48 J**	**120 J**	**40 J**	**42 J**
Caprolactam	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Carbazole	ug/kg	820 U	5,800 U	78,000 U	97,000 U	**2,800 J**	6,200 U	**34 J**	**19 J**	**240 J**	**2,100 J**	200 U	190 U	210 U	**370 J**	190 U	1,200 U	280 U	200 U
Chrysene	ug/kg	820 U	**5,100 J**	**39,000 J**	**50,000 J**	**52,000**	**2,600 J**	**240 J**	**120 J**	**650**	**36,000 J**	200 U	190 U	210 U	**2,600**	**140 J**	**790 J**	**32 J**	200 U
Dibenz(a,h)anthracene	ug/kg	820 UJ	5,800 U	78,000 U	97,000 U	**3,200 J**	**380 J**	**36 J**	**25 J**	**61 J**	**3,500 J**	200 U	190 U	210 U	**370 J**	**38 J**	**150 J**	**16 J**	200 U
Dibenzofuran	ug/kg	820 U	**910 J**	**7,500 J**	**11,000 J**	**9,700**	**3,600 J**	**79 J**	**29 J**	**260 J**	**7,200 J**	200 U	190 U	210 U	**250 J**	**24 J**	1,200 U	280 U	200 U
Diethyl phthalate	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	**9.2 J**	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Dimethyl phthalate	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Di-n-butyl phthalate	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	**17 J**	**9.7 J**	**11 J**	5,800 U	**7.7 J**	**5.8 J**	**12 J**	**240 J**	190 U	1,200 U	280 U	**8.7 J**
Di-n-octylphthalate	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Fluoranthene	ug/kg	820 U	**8,100 J**	**57,000 J**	**73,000 J**	**83,000 J**	**11,000**	**690**	**410**	**2,100**	**63,000**	**15 J**	190 U	210 U	**5,500**	**130 J**	**1,200 J**	**64 J**	200 U
Fluorene	ug/kg	**72 J**	**9,200**	**76,000 J**	**100,000**	**110,000 J**	**7,900**	**100 J**	**50 J**	**450**	**78,000**	**19 J**	190 U	210 U	**300 J**	190 U	1,200 U	**11 J**	200 U
Hexachlorobenzene	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Hexachlorobutadiene	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Hexachlorocyclopentadiene	ug/kg	820 U	5,800 UJ	78,000 U	97,000 U	5,300 U	6,200 U	280 UJ	290 UJ	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Hexachloroethane	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Indeno(1,2,3-c,d)pyrene	ug/kg	820 U	**1,000 J**	**5,600 J**	**9,100 J**	**9,800**	**1,200 J**	**140 J**	**72 J**	**310**	**9,900 J**	200 U	190 U	210 U	**1,500 J**	**100 J**	**580 J**	**30 J**	200 U
Isophorone	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Naphthalene	ug/kg	**4,300**	**28,000**	**440,000**	**560,000**	**520,000 J**	**1,600 J**	**130 J**	**170 J**	**2,100**	**250,000**	**270**	**25 J**	**13 J**	**290 J**	**70 J**	**94 J**	**42 J**	**35 J**
Nitrobenzene	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
N-nitrosodi-n-propylamine	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
N-nitrosodiphenylamine	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	280 U	290 U	300 U	5,800 U	200 U	190 U	210 U	1,900 U	190 U	1,200 U	280 U	200 U
Pentachlorophenol	ug/kg	---	---	---	---	10,000 U	12,000 U	540 U	550 U	580 U	11,000 U	380 U	370 U	400 U	3,700 U	380 U	2,400 U	550 U	380 U
Phenanthrene	ug/kg	**130 J**	**34,000**	**230,000**	**310,000**	**300,000 J**	**21,000**	**510**	**400**	**2,900**	**240,000**	**56 J**	**18 J**	210 U	**4,100**	**160 J**	**520 J**	**45 J**	200 U
Phenol	ug/kg	820 U	5,800 U	78,000 U	97,000 U	5,300 U	6,200 U	**32 J**	**90 J**	**42 J**	5,800 U	**11 J**	**14 J**	**16 J**	1,900 U	190 U	1,200 U	280 U	200 U
Pyrene	ug/kg	820 U	**13,000**	**89,000**	**120,000**	**150,000 J**	**11,000**	**610**	**320**	**1,800**	**110,000**	**21 J**	**10 J**	210 U	**4,500**	**110 J**	**1,600 J**	**83 J**	200 U
Total PAHs	ug/kg	**5,602**	**165,010**	**1,519,200**	**1,977,200**	**1,957,000**	**83,200**	**3,929**	**2,264**	**14,721**	**1,352,300**	**563.3**	**75.5**	**13**	**31,160**	**1,275**	**8,834**	**500**	**35**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
Sample Number:		059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
Sample Depth:		30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
Sample Date:		6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2,3,4,6-tetrachlorophenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2,4,5-trichlorophenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2,4,6-trichlorophenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2,4-dichlorophenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2,4-dimethylphenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	**310 J**	470 U	300 U	200 U	200 U
2,4-dinitrophenol	ug/kg	390 U	390 U	440 U	370 U	380 U	380 U	370 U	15,000 U	16,000 U	14,000 U	14,000 U	7,800 U	360 U	14,000 U	910 U	580 U	390 U	380 U
2,4-dinitrotoluene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2,6-dinitrotoluene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2-chloronaphthalene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2-chlorophenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2-methylnaphthalene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**120,000**	**470,000**	**320,000**	**850,000**	**2,200 J**	**8.9 J**	**5,400 J**	**250 J**	**86 J**	**20 J**	**5.8 J**
2-methylphenol (o-cresol)	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
2-nitroaniline	ug/kg	390 U	390 U	440 U	370 U	380 U	380 U	370 U	15,000 U	16,000 U	14,000 U	14,000 U	7,800 U	360 U	14,000 U	910 U	580 U	390 U	380 U
2-nitrophenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
3,3'-dichlorobenzidine	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
3-nitroaniline	ug/kg	390 U	390 U	440 U	370 U	380 U	380 U	370 U	15,000 U	16,000 U	14,000 U	14,000 U	7,800 U	360 U	14,000 U	910 U	580 U	390 U	380 U
4,6-dinitro-2-methylphenol	ug/kg	390 U	390 U	440 U	370 U	380 U	380 U	370 U	15,000 U	16,000 U	14,000 U	14,000 U	7,800 U	360 U	14,000 U	910 U	580 U	390 U	380 U
4-bromophenyl phenyl ether	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
4-chloro-3-methylphenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
4-chloroaniline	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
4-chlorophenyl phenyl ether	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
4-methylphenol (p-cresol)	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**590 J**	**620 J**	7,400 U	7,000 U	4,000 U	190 U	**340 J**	470 U	300 U	200 U	200 U
4-nitroaniline	ug/kg	390 U	390 U	440 U	370 U	380 U	380 U	370 U	15,000 U	16,000 U	14,000 U	14,000 U	7,800 U	360 U	14,000 U	910 U	580 U	390 U	380 U
4-nitrophenol	ug/kg	390 U	390 U	440 U	370 U	380 U	380 U	370 U	15,000 U	16,000 U	14,000 U	14,000 U	7,800 U	360 U	14,000 U	910 U	580 U	390 U	380 U
Acenaphthene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**85,000**	**250,000**	**190,000**	**460,000**	**15,000**	**6.5 J**	**30,000**	**31 J**	**21 J**	**7.2 J**	200 U
Acenaphthylene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**10,000 J**	**17,000 J**	**19,000**	**39,000 J**	**1,500 J**	190 U	**4,200 J**	**40 J**	**28 J**	200 U	200 U
Acetophenone	ug/kg	**100 J**	**100 J**	**89 J**	**100 J**	**95 J**	**71 J**	**110 J**	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	**92 J**	**430 J**	**140 J**	**110 J**	**56 J**	**63 J**
Anthracene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**99,000**	**200,000**	**140,000**	**310,000**	**10,000**	**8.7 J**	**46,000**	**30 J**	**24 J**	**7.6 J**	200 U
Atrazine	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Benzaldehyde	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	**500 J**	**210 J**	**150 J**	**69 J**	**80 J**
Benzo(a)anthracene	ug/kg	200 U	200 U	230 U	**21 J**	200 U	190 U	190 U	**59,000**	**100,000**	**100,000**	**200,000 J**	**6,600**	**8.2 J**	**71,000**	**46 J**	**21 J**	**6.8 J**	200 U
Benzo(a)pyrene	ug/kg	200 U	200 U	230 U	**24 J**	**18 J**	190 U	190 U	**37,000 J**	**58,000**	**66,000**	**120,000 J**	**4,000 J**	190 U	**59,000**	**62 J**	**14 J**	200 U	200 U
Benzo(b)fluoranthene	ug/kg	200 U	200 U	230 U	**19 J**	**10 J**	190 U	190 U	**35,000 J**	**59,000**	**53,000**	**90,000**	**3,200 J**	190 U	**67,000**	**38 J**	**11 J**	200 U	200 U
Benzo(g,h,i)perylene	ug/kg	200 U	200 U	230 U	**17 J**	200 U	190 U	190 U	**16,000 J**	**22,000 J**	**24,000 J**	**44,000 J**	**1,500 J**	190 U	**33,000 J**	**46 J**	300 U	200 U	200 U
Benzo(k)fluoranthene	ug/kg	200 U	200 U	230 U	**13 J**	**14 J**	190 U	190 U	**11,000 J**	**17,000**	**16,000**	**31,000 J**	**950 J**	190 U	**21,000**	**19 J**	300 U	200 U	200 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
Sample Number:		059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
Sample Depth:		30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
Sample Date:		6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Biphenyl (diphenyl)	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**13,000 J**	**34,000 J**	**32,000**	**77,000 J**	**2,200 J**	190 U	**2,200 J**	**24 J**	**11 J**	200 U	200 U
Bis(2-chloroethoxy) methane	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Bis(2-chloroethyl) ether	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Bis(2-chloroisopropyl) ether	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Bis(2-ethylhexyl) phthalate	ug/kg	**36 J**	**37 J**	**31 J**	**36 J**	**26 J**	**26 J**	**46 J**	**29,000 J**	**4,600 J**	**1,600 J**	**1,200 J**	4,000 U	**41 J**	7,300 U	**55 J**	**31 J**	**17 J**	**16 J**
Caprolactam	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Carbazole	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**1,700 J**	**2,500 J**	**1,700 J**	**3,600 J**	4,000 U	190 U	**17,000**	470 U	300 U	200 U	200 U
Chrysene	ug/kg	200 U	200 U	230 U	**22 J**	200 U	190 U	190 U	**55,000**	**91,000**	**93,000**	**180,000 J**	**6,100**	**5.7 J**	**58,000**	**41 J**	**13 J**	200 U	200 U
Dibenz(a,h)anthracene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**6,700 J**	**8,300 J**	**6,800 J**	**17,000 J**	**550 J**	190 U	**7,700**	470 U	300 U	200 U	200 U
Dibenzofuran	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**8,000 J**	**18,000**	**12,000**	**26,000**	4,000 U	190 U	**24,000**	**14 J**	300 U	200 U	200 U
Diethyl phthalate	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Dimethyl phthalate	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Di-n-butyl phthalate	ug/kg	**7.3 J**	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	**11 J**	200 U	**6.5 J**
Di-n-octylphthalate	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Fluoranthene	ug/kg	200 U	200 U	230 U	**11 J**	200 U	190 U	190 U	**100,000**	**180,000**	**160,000**	**290,000**	**10,000**	**8.5 J**	**180,000**	**100 J**	**28 J**	**7 J**	200 U
Fluorene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	**56,000 J**	**150,000 J**	**110,000 J**	**260,000 J**	**7,300 J**	190 U	**32,000**	**31 J**	**20 J**	**7.3 J**	200 U
Hexachlorobenzene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Hexachlorobutadiene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Hexachlorocyclopentadiene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Hexachloroethane	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Indeno(1,2,3-c,d)pyrene	ug/kg	200 U	200 U	230 U	**19 J**	200 U	190 U	190 U	**13,000 J**	**23,000 J**	**21,000**	**44,000 J**	**1,400 J**	190 U	**35,000**	**30 J**	300 U	200 U	200 U
Isophorone	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Naphthalene	ug/kg	**21 J**	**19 J**	**22 J**	**19 J**	**19 J**	**13 J**	**25 J**	**80,000**	**300,000**	**260,000**	**720,000**	**2,100 J**	**34 J**	**10,000**	**720**	**190 J**	**37 J**	**12 J**
Nitrobenzene	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
N-nitrosodi-n-propylamine	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
N-nitrosodiphenylamine	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	190 U	7,300 U	470 U	300 U	200 U	200 U
Pentachlorophenol	ug/kg	390 U	390 U	440 U	370 U	380 U	380 U	370 U	15,000 U	16,000 U	14,000 U	14,000 U	7,800 U	360 U	14,000 U	910 U	580 U	390 U	380 U
Phenanthrene	ug/kg	200 U	200 U	230 U	**11 J**	200 U	190 U	190 U	**270,000**	**700,000**	**570,000**	**1,100,000**	**40,000**	**23 J**	**160,000**	**120 J**	**78 J**	**19 J**	**15 J**
Phenol	ug/kg	200 U	200 U	230 U	190 U	200 U	190 U	190 U	7,800 U	8,000 U	7,400 U	7,000 U	4,000 U	**8.6 J**	7,300 U	**27 J**	**22 J**	**11 J**	**13 J**
Pyrene	ug/kg	200 U	200 U	230 U	**23 J**	200 U	190 U	190 U	**160,000**	**310,000**	**300,000**	**530,000**	**19,000**	**28 J**	**140,000**	**120 J**	**46 J**	**13 J**	**8.2 J**
Total PAHs	ug/kg	**21**	**19**	**22**	**199**	**61**	**13**	**25**	**1,212,700**	**2,955,300**	**2,448,800**	**5,285,000**	**131,400**	**131.5**	**959,300**	**1,724**	**580**	**124.9**	**41**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:	059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(0.2-5)	SB30IB-S-NG	GC-MW30I(6-10)	GC-MW30I(10-15)	GC-MW30I(15-20)	GC-MW30I(20-25)	GC-MW30I(25-30)	GC-MW30I(30-35)	GC-MW30I(35-36)
Sample Depth:	25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	0.2-5	5-10	6-10	10-15	15-20	20-25	25-30	30-35	35-36
Sample Date:	6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:	N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
1,2,4,5-tetrachlorobenzene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2,3,4,6-tetrachlorophenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2,4,5-trichlorophenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	2,100 U	5,600 U	1,000 U	1,000 U	1,100 U	970 U	990 U	940 U	980 U
2,4,6-trichlorophenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2,4-dichlorophenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2,4-dimethylphenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2,4-dinitrophenol	ug/kg	380 U	440 U	550 U	560 U	380 U	400 U	400 U	400 U	390 U	2,100 U	11,000 U	1,000 UJ	1,000 UJ	1,100 UJ	970 UJ	990 UJ	940 U	980 U
2,4-dinitrotoluene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2,6-dinitrotoluene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2-chloronaphthalene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2-chlorophenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2-methylnaphthalene	ug/kg	**19 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	**6.8 J**	**89 J**	**51,000 J**	**93 J**	**93 J**	**56 J**	**64 J**	**110 J**	**140 J**	**29 J**
2-methylphenol (o-cresol)	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
2-nitroaniline	ug/kg	380 U	440 U	550 U	560 U	380 U	400 U	400 U	400 U	390 U	2,100 U	11,000 U	1,000 U	1,000 U	1,100 U	970 U	990 U	940 U	980 U
2-nitrophenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
3,3'-dichlorobenzidine	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 UJ	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
3-nitroaniline	ug/kg	380 U	440 U	550 U	560 U	380 U	400 U	400 U	400 U	390 U	2,100 U	11,000 U	1,000 U	1,000 U	1,100 U	970 U	990 U	940 U	980 U
4,6-dinitro-2-methylphenol	ug/kg	380 U	440 U	550 U	560 U	380 U	400 U	400 U	400 U	390 U	2,100 U	11,000 U	1,000 UJ	1,000 U	1,100 UJ	970 U	990 U	940 U	980 U
4-bromophenyl phenyl ether	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
4-chloro-3-methylphenol	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
4-chloroaniline	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
4-chlorophenyl phenyl ether	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
4-methylphenol (p-cresol)	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
4-nitroaniline	ug/kg	380 U	440 U	550 U	560 U	380 U	400 U	400 U	400 U	390 U	2,100 U	11,000 U	1,000 U	1,000 UJ	1,100 U	970 UJ	990 UJ	940 U	980 U
4-nitrophenol	ug/kg	380 U	440 U	550 U	560 U	380 U	400 U	400 U	400 U	390 U	---	11,000 U	---	---	---	---	---	---	---
Acenaphthene	ug/kg	**14 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**94 J**	**23,000 J**	**63 J**	**130 J**	**400 J**	**2,200**	**530**	**610**	**58 J**
Acenaphthylene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**180 J**	**3,400**	**30 J**	400 U	430 U	380 U	390 U	370 U	390 U
Acetophenone	ug/kg	**49 J**	**63 J**	**64 J**	**63 J**	**32 J**	**34 J**	**30 J**	**38 J**	**43 J**	850 U	5,600 U	**39 J**	**27 J**	430 U	380 U	390 U	370 U	390 U
Anthracene	ug/kg	**13 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**430 J**	**13,000 J**	**84 J**	**57 J**	**61 J**	**230 J**	**370 J**	**470**	**66 J**
Atrazine	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Benzaldehyde	ug/kg	**84 J**	**80 J**	**97 J**	**84 J**	**38 J**	**33 J**	**31 J**	**48 J**	**63 J**	850 U	5,600 U	400 U	**22 J**	430 U	380 U	390 U	370 U	390 U
Benzo(a)anthracene	ug/kg	**8.4 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**2,700 J**	**8,000 J**	**210 J**	**160 J**	**130 J**	**590**	**340 J**	**400**	**69 J**
Benzo(a)pyrene	ug/kg	**6.2 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**2,400**	**5,500**	**210 J**	**150 J**	**100 J**	**520**	**240 J**	**290 J**	**50 J**
Benzo(b)fluoranthene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**2,500**	**4,100 J**	**190 J**	**150 J**	**73 J**	**270 J**	**150 J**	**120 J**	**34 J**
Benzo(g,h,i)perylene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**2,400 J**	**1,900**	**260 J**	**120 J**	**65 J**	**360 J**	**130 J**	**130 J**	390 UJ
Benzo(k)fluoranthene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**2,400**	**2,900**	**200 J**	**120 J**	**86 J**	**250 J**	**130 J**	**210 J**	**38 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:		059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(0.2-5)	SB30IB-S-NG	GC-MW30I(6-10)	GC-MW30I(10-15)	GC-MW30I(15-20)	GC-MW30I(20-25)	GC-MW30I(25-30)	GC-MW30I(30-35)	GC-MW30I(35-36)
Sample Depth:		25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	0.2-5	5-10	6-10	10-15	15-20	20-25	25-30	30-35	35-36
Sample Date:		6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 UJ	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Biphenyl (diphenyl)	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	**4,400 J**	400 U	400 U	430 U	380 U	**37 J**	370 U	390 U
Bis(2-chloroethoxy) methane	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Bis(2-chloroethyl) ether	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Bis(2-chloroisopropyl) ether	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 UJ	5,600 U	400 UJ	400 U	430 UJ	380 U	390 U	370 U	390 U
Bis(2-ethylhexyl) phthalate	ug/kg	**41 J**	**66 J**	**58 J**	**86 J**	**84 J**	**39 J**	**37 J**	**85 J**	**26 J**	850 UJ	5,600 U	400 U	**120 J**	**71 J**	380 U	**30 J**	**53 J**	**43 J**
Caprolactam	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	**110 J**
Carbazole	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**120 J**	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Chrysene	ug/kg	**6.3 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**3,000 J**	**7,300**	**260 J**	**180 J**	**120 J**	**520**	**340 J**	**430**	**72 J**
Dibenz(a,h)anthracene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**430 J**	**610 J**	**26 J**	400 U	430 U	**41 J**	**22 J**	**38 J**	390 UJ
Dibenzofuran	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**56 J**	**1,300 J**	400 U	400 U	430 U	380 U	**24 J**	**27 J**	390 U
Diethyl phthalate	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	**46 J**
Dimethyl phthalate	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Di-n-butyl phthalate	ug/kg	**13 J**	**8.7 J**	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**100 J**	5,600 U	**19 J**	400 U	430 U	380 U	390 U	370 U	390 U
Di-n-octylphthalate	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Fluoranthene	ug/kg	**13 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**3,400**	**13,000 J**	**280 J**	**210 J**	**250 J**	**1,200**	**580**	**760**	**150 J**
Fluorene	ug/kg	**9 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**99 J**	**14,000 J**	**47 J**	**37 J**	**42 J**	**260 J**	**290 J**	**320 J**	**41 J**
Hexachlorobenzene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Hexachlorobutadiene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Hexachlorocyclopentadiene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 UJ	430 U	380 U	390 U	370 U	390 U
Hexachloroethane	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Indeno(1,2,3-c,d)pyrene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**2,000**	**1,700**	**150 J**	**84 J**	**51 J**	**220 J**	**83 J**	**100 J**	390 UJ
Isophorone	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Naphthalene	ug/kg	**23 J**	**8.3 J**	290 U	290 U	200 U	200 U	200 U	210 U	**19 J**	850 U	**75,000**	**140 J**	**190 J**	**260 J**	**510**	**170 J**	**310 J**	**61 J**
Nitrobenzene	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
N-nitrosodi-n-propylamine	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
N-nitrosodiphenylamine	ug/kg	190 U	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Pentachlorophenol	ug/kg	380 U	440 U	550 U	560 U	380 U	400 U	400 U	400 U	390 U	---	1,500 UJ	---	---	---	---	---	---	---
Phenanthrene	ug/kg	**46 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**1,900**	**41,000**	**340 J**	**200 J**	**120 J**	**460**	**1,500**	**1,800**	**260 J**
Phenol	ug/kg	**11 J**	**9.9 J**	**14 J**	**10 J**	200 U	200 U	200 U	210 U	**6.9 J**	850 U	5,600 U	400 U	400 U	430 U	380 U	390 U	370 U	390 U
Pyrene	ug/kg	**21 J**	230 U	290 U	290 U	200 U	200 U	200 U	210 U	200 U	**5,400 J**	**17,000**	**420**	**350 J**	**470**	**2,500**	**1,100**	**1,200 J**	**230 J**
Total PAHs	ug/kg	**178.9**	**8.3**	ND	ND	ND	ND	ND	ND	**25.8**	**29,422**	**282,410**	**3,003**	**2,231**	**2,284**	**10,195**	**6,085**	**7,328**	**1,158**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		SB-30I-S-NG	GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(6-10)	GC-MW31I(10-15)	GC-MW31I(15-20)	GC-MW31I(20-26)	GC-MW31I(26-30)	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(5-10)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(25-30)
Sample Depth:		35-36	0-6	5-10	6-10	10-15	15-20	20-26	26-30	30-36	30-36	30-35	0.5-5	5-10	10-15	15-20	15-20	20-25	25-30
Sample Date:		6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010
Sample Type:		S	N	S	N	N	N	N	N	N	FD	S	N	N	N	N	S	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2,3,4,6-tetrachlorophenol	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 UJ	780 UJ
2,4,5-trichlorophenol	ug/kg	190 U	1,000 UJ	250 U	1,300 U	1,500 U	1,500 U	1,100 U	1,000 U	240,000 U	250,000 U	54,000 U	900 U	1,900 U	1,200 U	390,000 U	270,000 U	2,100 U	2,000 UJ
2,4,6-trichlorophenol	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2,4-dichlorophenol	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2,4-dimethylphenol	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2,4-dinitrophenol	ug/kg	360 U	1,000 UJ	480 U	1,300 U	1,500 UJ	1,500 U	1,100 U	1,000 UJ	240,000 UJ	250,000 UJ	110,000 U	900 U	1,900 UJ	1,200 UJ	390,000 UJ	540,000 U	2,100 UJ	2,000 UJ
2,4-dinitrotoluene	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2,6-dinitrotoluene	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2-chloronaphthalene	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2-chlorophenol	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2-methylnaphthalene	ug/kg	**24 J**	**930**	**550**	**710**	**89 J**	580 U	440 U	**630**	**270,000**	**350,000**	**350,000**	**40 J**	**200 J**	**42 J**	**37,000 J**	**180,000 J**	**230 J**	**100 J**
2-methylphenol (o-cresol)	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
2-nitroaniline	ug/kg	360 U	1,000 UJ	480 U	1,300 U	1,500 U	1,500 U	1,100 U	1,000 U	240,000 U	250,000 U	110,000 U	900 U	1,900 U	1,200 U	390,000 U	540,000 U	2,100 U	2,000 UJ
2-nitrophenol	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
3,3'-dichlorobenzidine	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
3-nitroaniline	ug/kg	360 U	1,000 UJ	480 U	1,300 U	1,500 U	1,500 U	1,100 U	1,000 U	240,000 U	250,000 U	110,000 U	900 U	1,900 U	1,200 U	390,000 U	540,000 U	2,100 U	2,000 UJ
4,6-dinitro-2-methylphenol	ug/kg	360 U	1,000 UJ	480 U	1,300 UJ	1,500 UJ	1,500 UJ	1,100 U	1,000 UJ	240,000 UJ	250,000 UJ	110,000 U	900 U	1,900 U	1,200 U	390,000 U	540,000 U	2,100 U	2,000 UJ
4-bromophenyl phenyl ether	ug/kg	190 U	400 UJ	250 U	500 UJ	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
4-chloro-3-methylphenol	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
4-chloroaniline	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
4-chlorophenyl phenyl ether	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
4-methylphenol (p-cresol)	ug/kg	190 U	400 U	**78 J**	**71 J**	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
4-nitroaniline	ug/kg	360 U	1,000 UJ	480 U	1,300 U	1,500 U	1,500 U	1,100 U	1,000 U	240,000 U	250,000 U	110,000 U	900 U	1,900 UJ	1,200 UJ	390,000 UJ	540,000 U	2,100 UJ	2,000 UJ
4-nitrophenol	ug/kg	360 U	---	480 U	---	---	---	---	---	---	---	110,000 U	---	---	---	---	540,000 U	---	---
Acenaphthene	ug/kg	**55 J**	**130 J**	**470**	**450 J**	**57 J**	580 UJ	440 U	**330 J**	**130,000**	**170,000**	**180,000**	**59 J**	**540 J**	**62 J**	**110,000 J**	**410,000**	**890**	**310 J**
Acenaphthylene	ug/kg	**11 J**	400 UJ	**360**	**260 J**	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	**34 J**	150,000 U	270,000 U	840 U	780 UJ
Acetophenone	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	**46 J**	**62 J**
Anthracene	ug/kg	**74 J**	**190 J**	**660**	**660 J**	**92 J**	580 U	440 U	410 U	**58,000 J**	**72,000 J**	**79,000**	360 U	**930**	**200 J**	**210,000**	**720,000**	**1,500**	**590 J**
Atrazine	ug/kg	190 U	400 UJ	250 U	500 UJ	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Benzaldehyde	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	**63 J**	150,000 U	270,000 U	840 U	**47 J**
Benzo(a)anthracene	ug/kg	**77**	**480**	**1,600**	**1,700**	**190 J**	580 U	440 U	410 U	**32,000 J**	**44,000 J**	**41,000 J**	**380**	**1,800**	**760**	**210,000**	**600,000**	**1,700**	**650 J**
Benzo(a)pyrene	ug/kg	**69**	**470**	**1,600**	**1,700**	**170 J**	580 U	440 U	410 U	**22,000 J**	**29,000 J**	**31,000 J**	**360**	**1,500**	**700**	**160,000**	**500,000**	**1,300**	**480 J**
Benzo(b)fluoranthene	ug/kg	**37**	**700**	**1,600**	**1,900**	**170 J**	580 U	440 U	410 U	**9,000 J**	**11,000 J**	**10,000 J**	**430**	**1,100**	**560**	**120,000 J**	**420,000**	**920**	**360 J**
Benzo(g,h,i)perylene	ug/kg	**33**	**160 J**	**790**	**470 J**	**93 J**	580 UJ	440 U	410 UJ	97,000 UJ	**12,000 J**	**11,000 J**	**140 J**	**1,200**	**420 J**	**88,000 J**	**200,000 J**	**740 J**	**190 J**
Benzo(k)fluoranthene	ug/kg	**47 J**	**530**	**1,100**	**1,400**	**130 J**	580 U	440 U	410 U	**15,000 J**	**21,000 J**	**18,000 J**	**340 J**	**1,200**	**630**	**140,000 J**	**360,000 J**	**1,200**	**420 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		SB-30I-S-NG	GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(6-10)	GC-MW31I(10-15)	GC-MW31I(15-20)	GC-MW31I(20-26)	GC-MW31I(26-30)	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(5-10)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(25-30)
Sample Depth:		35-36	0-6	5-10	6-10	10-15	15-20	20-26	26-30	30-36	30-36	30-35	0.5-5	5-10	10-15	15-20	15-20	20-25	25-30
Sample Date:		6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010
Sample Type:		S	N	S	N	N	N	N	N	N	FD	S	N	N	N	N	S	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	190 U	**240 J**	**45 J**	**64 J**	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	**20 J**	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Biphenyl (diphenyl)	ug/kg	190 U	**130 J**	**240 J**	**300 J**	**32 J**	580 U	440 U	410 U	**29,000 J**	**37,000 J**	**35,000 J**	360 U	**69 J**	480 U	**10,000 J**	**39,000 J**	840 U	780 UJ
Bis(2-chloroethoxy) methane	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Bis(2-chloroethyl) ether	ug/kg	190 U	400 UJ	250 U	500 UJ	590 UJ	580 UJ	440 UJ	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Bis(2-chloroisopropyl) ether	ug/kg	190 U	400 UJ	250 U	500 UJ	590 UJ	580 UJ	440 UJ	410 UJ	97,000 UJ	98,000 UJ	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Bis(2-ethylhexyl) phthalate	ug/kg	**37 J**	**530**	**140 J**	**130 J**	590 U	580 U	440 U	**25 J**	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Caprolactam	ug/kg	**26 J**	400 U	250 U	500 U	590 U	580 U	**87 J**	410 U	97,000 U	98,000 U	54,000 U	360 U	740 UJ	480 UJ	150,000 UJ	270,000 U	840 UJ	780 UJ
Carbazole	ug/kg	190 U	400 UJ	**95 J**	**81 J**	590 U	580 U	440 U	**19 J**	97,000 U	98,000 U	54,000 U	**35 J**	**220 J**	**60 J**	**62,000 J**	**290,000**	**450 J**	**160 J**
Chrysene	ug/kg	**78 J**	**580**	**1,500**	**1,500**	**190 J**	580 U	440 U	410 U	**31,000 J**	**42,000 J**	**40,000 J**	**450**	**1,800**	**810**	**210,000**	**590,000**	**1,800**	**630 J**
Dibenz(a,h)anthracene	ug/kg	**8.2 J**	**29 J**	**300**	**140 J**	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	**40 J**	**240 J**	**130 J**	**17,000 J**	**78,000 J**	**210 J**	**49 J**
Dibenzofuran	ug/kg	190 U	**110 J**	**180 J**	**210 J**	**42 J**	580 U	440 U	410 U	**6,900 J**	**9,000 J**	**9,400 J**	**32 J**	**300 J**	**52 J**	**74,000 J**	**310,000**	**470 J**	**190 J**
Diethyl phthalate	ug/kg	190 U	**100 J**	250 U	**53 J**	590 U	**50 J**	**100 J**	410 U	97,000 U	98,000 U	54,000 U	**130 J**	**180 J**	480 U	150,000 U	270,000 U	840 U	780 UJ
Dimethyl phthalate	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Di-n-butyl phthalate	ug/kg	190 U	400 UJ	250 U	500 UJ	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Di-n-octylphthalate	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Fluoranthene	ug/kg	**160 J**	**1,200 J**	**3,100 J**	**2,900 J**	**320 J**	580 U	440 U	410 U	**57,000 J**	**73,000 J**	**75,000**	**730**	**3,700**	**1,500**	**470,000**	**1,700,000**	**4,000**	**1,500 J**
Fluorene	ug/kg	**48 J**	**210 J**	**440**	**350 J**	**57 J**	580 U	440 U	**59 J**	**56,000 J**	**72,000 J**	**78,000**	**40 J**	**410 J**	**62 J**	**120,000 J**	**440,000**	**810 J**	**310 J**
Hexachlorobenzene	ug/kg	190 U	400 UJ	250 U	500 UJ	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Hexachlorobutadiene	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Hexachlorocyclopentadiene	ug/kg	190 U	400 UJ	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Hexachloroethane	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Indeno(1,2,3-c,d)pyrene	ug/kg	**28**	**130 J**	**770**	**530**	**85 J**	580 UJ	440 U	410 UJ	97,000 UJ	**9,500 J**	**8,300 J**	**130 J**	**940**	**410 J**	**78,000 J**	**220,000 J**	**710 J**	**190 J**
Isophorone	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Naphthalene	ug/kg	**49 J**	**100 J**	**1,500**	**1,400**	**130 J**	580 U	**78 J**	**1,300**	**410,000**	**550,000**	**700,000**	**270 J**	**360 J**	**140 J**	**66,000 J**	**380,000**	**450 J**	**180 J**
Nitrobenzene	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
N-nitrosodi-n-propylamine	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
N-nitrosodiphenylamine	ug/kg	190 U	400 UJ	250 U	500 UJ	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Pentachlorophenol	ug/kg	24 UJ	---	480 U	---	---	---	---	---	---	---	110,000 U	---	---	---	---	540,000 U	---	---
Phenanthrene	ug/kg	**280**	**930 J**	**1,600**	**1,800 J**	**330 J**	580 U	440 U	**69 J**	**200,000**	**260,000**	**270,000**	**400**	**4,800**	**710**	**680,000**	**2,300,000**	**5,200**	**2,000**
Phenol	ug/kg	190 U	400 U	250 U	500 U	590 U	580 U	440 U	410 U	97,000 U	98,000 U	54,000 U	360 U	740 U	480 U	150,000 U	270,000 U	840 U	780 UJ
Pyrene	ug/kg	**210**	**830**	**2,300 J**	**2,300**	**370 J**	580 U	440 U	410 U	**91,000 J**	**120,000**	**100,000 J**	**500**	**4,400**	**1,300**	**480,000**	**1,100,000**	**3,400**	**1,400 J**
Total PAHs	ug/kg	**1,288**	**7,599**	**20,240**	**20,170**	**2,473**	ND	**78**	**2,388**	**1,381,000**	**1,835,500**	**1,991,300**	**4,309**	**25,120**	**8,470**	**3,196,000**	**10,198,000**	**25,060**	**9,359**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
Sample Number:		GC-MW32I(30-35)	GC-MW32I(35-40)	SB32IH-S-NG	GC-MW32I(40-46)	SB32II-S-NG-R	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022
Sample Depth:		30-35	35-40	35-40	40-46	40-45	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
Sample Type:		N	N	S	N	S	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2,3,4,6-tetrachlorophenol	ug/kg	460 UJ	380 UJ	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2,4,5-trichlorophenol	ug/kg	1,200 U	960 U	200 U	290,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2,4,6-trichlorophenol	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2,4-dichlorophenol	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2,4-dimethylphenol	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2,4-dinitrophenol	ug/kg	1,200 UJ	960 UJ	390 U	290,000 U	160,000 U	1,000 U	1,000 U	400 U	410 U	370 U	430 U	400 U	420 U	1,100 U	550 U	12,000 U	12,000 U	8,100 U
2,4-dinitrotoluene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2,6-dinitrotoluene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2-chloronaphthalene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2-chlorophenol	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2-methylnaphthalene	ug/kg	**87 J**	**30 J**	**17 J**	**340,000**	**360,000**	510 U	**54 J**	**35 J**	**360**	**12 J**	**14 J**	**20 J**	**15 J**	**24 J**	**71 J**	**160,000**	**2,900 J**	4,200 U
2-methylphenol (o-cresol)	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
2-nitroaniline	ug/kg	1,200 U	960 U	390 U	290,000 U	160,000 U	1,000 U	1,000 U	400 U	410 U	370 U	430 U	400 U	420 U	1,100 U	550 U	12,000 U	12,000 U	8,100 U
2-nitrophenol	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
3,3'-dichlorobenzidine	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
3-nitroaniline	ug/kg	1,200 U	960 U	390 U	290,000 U	160,000 U	1,000 U	1,000 U	400 U	410 U	370 U	430 U	400 U	420 U	1,100 U	550 U	12,000 U	12,000 U	8,100 U
4,6-dinitro-2-methylphenol	ug/kg	1,200 U	960 U	390 U	290,000 U	160,000 U	1,000 U	1,000 U	400 U	410 U	370 U	430 U	400 U	420 U	1,100 U	550 U	12,000 U	12,000 U	8,100 U
4-bromophenyl phenyl ether	ug/kg	460 U	380 U	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
4-chloro-3-methylphenol	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
4-chloroaniline	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
4-chlorophenyl phenyl ether	ug/kg	460 U	380 U	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
4-methylphenol (p-cresol)	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	**100 J**	200 U	210 U	190 U	220 U	200 U	220 U	570 U	**24 J**	6,100 U	6,200 U	4,200 U
4-nitroaniline	ug/kg	1,200 UJ	960 UJ	390 U	290,000 U	160,000 U	1,000 U	1,000 U	400 U	410 U	370 U	430 U	400 U	420 U	1,100 U	550 U	12,000 U	12,000 U	8,100 U
4-nitrophenol	ug/kg	---	---	390 U	---	160,000 U	1,000 U	1,000 U	400 U	410 U	370 U	430 U	400 U	420 U	1,100 U	550 U	12,000 U	12,000 U	8,100 U
Acenaphthene	ug/kg	**110 J**	**57 J**	**26 J**	**91,000 J**	**110,000**	510 U	510 U	200 U	**210**	**7.2 J**	**10 J**	**17 J**	**10 J**	**31 J**	**53 J**	**140,000**	**13,000**	**23,000**
Acenaphthylene	ug/kg	460 U	380 U	26 U	**32,000 J**	**33,000 J**	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	**9,900**	**1,500 J**	**1,700 J**
Acetophenone	ug/kg	**28 J**	380 U	200 U	110,000 U	81,000 U	**150 J**	**190 J**	**97 J**	**55 J**	**70 J**	**65 J**	**63 J**	**62 J**	**78 J**	**66 J**	**200 J**	**1,100 J**	4,200 U
Anthracene	ug/kg	**150 J**	380 U	**22 J**	**47,000 J**	**52,000 J**	510 U	510 U	200 U	210 U	**7.4 J**	**8.9 J**	**11 J**	**7 J**	**19 J**	**29 J**	**85,000**	**12,000**	**16,000**
Atrazine	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Benzaldehyde	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	**190 J**	**220 J**	**82 J**	**68 J**	**97 J**	**78 J**	**87 J**	**88 J**	**90 J**	**68 J**	6,100 U	6,200 U	4,200 U
Benzo(a)anthracene	ug/kg	**170 J**	380 U	**21 J**	**37,000 J**	**36,000 J**	510 U	510 U	200 U	210 U	**11 J**	220 U	200 U	220 U	**49 J**	**16 J**	**42,000**	**7,500**	**8,500**
Benzo(a)pyrene	ug/kg	**130 J**	**54 J**	26 U	**24,000 J**	**26,000 J**	510 U	510 U	200 U	210 U	**6.9 J**	220 U	200 U	220 U	**30 J**	**12 J**	**32,000**	**5,700 J**	**6,900**
Benzo(b)fluoranthene	ug/kg	**110 J**	**45 J**	**11 J**	**9,400 J**	**12,000 J**	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	**40 J**	**12 J**	**12,000**	**2,100 J**	**4,900**
Benzo(g,h,i)perylene	ug/kg	**68 J**	**27 J**	26 U	**6,200 J**	**10,000 J**	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	**15,000 J**	**2,700 J**	**2,800 J**
Benzo(k)fluoranthene	ug/kg	**100 J**	**45 J**	**10 J**	**19,000 J**	**13,000 J**	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	**23 J**	280 U	**18,000**	**3,700 J**	**2,100 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
Sample Number:		GC-MW32I(30-35)	GC-MW32I(35-40)	SB32IH-S-NG	GC-MW32I(40-46)	SB32II-S-NG-R	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022
Sample Depth:		30-35	35-40	35-40	40-46	40-45	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
Sample Type:		N	N	S	N	S	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	460 U	380 U	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Biphenyl (diphenyl)	ug/kg	460 U	380 U	200 UJ	**29,000 J**	**27,000 J**	510 U	510 U	200 U	**29 J**	190 U	220 U	200 U	220 U	570 U	**9.9 J**	**22,000**	**1,500 J**	**2,300 J**
Bis(2-chloroethoxy) methane	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Bis(2-chloroethyl) ether	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Bis(2-chloroisopropyl) ether	ug/kg	460 U	380 U	200 U	110,000 UJ	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Bis(2-ethylhexyl) phthalate	ug/kg	460 U	380 U	200 UJ	110,000 U	81,000 U	**250 J**	**260 J**	**100 J**	**190 J**	**100 J**	**140 J**	**46 J**	**170 J**	**92 J**	**26 J**	**280 J**	**370 J**	4,200 U
Caprolactam	ug/kg	460 UJ	380 UJ	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Carbazole	ug/kg	**45 J**	**22 J**	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	**15 J**	**8.3 J**	**9.7 J**	200 U	220 U	570 U	280 U	**990 J**	6,200 U	4,200 U
Chrysene	ug/kg	**180 J**	380 U	**22 J**	**37,000 J**	**41,000 J**	510 U	510 U	200 U	210 U	**8.4 J**	220 U	200 U	220 U	**54 J**	**15 J**	**38,000**	**7,100**	**8,200**
Dibenz(a,h)anthracene	ug/kg	460 U	380 U	26 U	110,000 UJ	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	**4,600 J**	**640 J**	**600 J**
Dibenzofuran	ug/kg	**59 J**	**33 J**	200 UJ	**6,800 J**	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	**7,100**	**520 J**	**1,300 J**
Diethyl phthalate	ug/kg	460 U	**22 J**	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Dimethyl phthalate	ug/kg	460 U	380 U	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Di-n-butyl phthalate	ug/kg	460 U	380 U	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Di-n-octylphthalate	ug/kg	460 U	380 U	200 UJ	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Fluoranthene	ug/kg	**360 J**	380 U	**55 J**	**56,000 J**	**59,000 J**	510 U	510 U	**17 J**	210 U	**11 J**	220 U	**13 J**	220 U	**100 J**	**41 J**	**80,000**	**16,000**	**18,000**
Fluorene	ug/kg	**93 J**	**47 J**	**13 J**	**62,000 J**	**50,000 J**	510 U	510 U	200 U	**16 J**	190 U	220 U	**9 J**	**6.6 J**	**19 J**	**30 J**	**80,000**	**8,700**	**1,900 J**
Hexachlorobenzene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Hexachlorobutadiene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Hexachlorocyclopentadiene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Hexachloroethane	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**67 J**	**25 J**	26 U	110,000 U	**8,700 J**	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	**11,000**	**1,800 J**	**2,600 J**
Isophorone	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Naphthalene	ug/kg	**1,100**	**140 J**	**190 J**	**670,000**	**880,000**	510 U	**170 J**	**170 J**	**1,800**	**35 J**	**41 J**	**50 J**	**38 J**	**38 J**	**84 J**	**71,000**	**3,600 J**	4,200 U
Nitrobenzene	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
N-nitrosodi-n-propylamine	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
N-nitrosodiphenylamine	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	510 U	510 U	200 U	210 U	190 U	220 U	200 U	220 U	570 U	280 U	6,100 U	6,200 U	4,200 U
Pentachlorophenol	ug/kg	---	---	53 U	---	160,000 U	1,000 U	1,000 U	400 U	410 U	370 U	430 U	400 U	420 U	1,100 UJ	550 UJ	12,000 UJ	12,000 UJ	8,100 UJ
Phenanthrene	ug/kg	**530**	380 U	**70 J**	**170,000**	**180,000**	**26 J**	**17 J**	**11 J**	210 U	**23 J**	**29 J**	**40 J**	**23 J**	**87 J**	**93 J**	**280,000**	**46,000**	**41,000**
Phenol	ug/kg	460 U	380 U	200 U	110,000 U	81,000 U	**33 J**	**54 J**	**340**	**24 J**	**29 J**	**39 J**	**15 J**	**19 J**	**27 J**	**18 J**	6,100 U	**260 J**	4,200 U
Pyrene	ug/kg	**360 J**	380 U	**39 J**	**74,000 J**	**60,000 J**	510 U	510 U	**9.9 J**	210 U	**19 J**	**8.5 J**	**21 J**	**9.4 J**	**93 J**	**38 J**	**120,000**	**22,000**	**20,000**
Total PAHs	ug/kg	**3,615**	**470**	**496**	**1,674,600**	**1,930,700**	**26**	**241**	**242.9**	**2,386**	**140.9**	**111.4**	**181**	**109**	**607**	**494**	**1,198,500**	**156,940**	**158,200**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37
Sample Number:		059-2024	059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211
Sample Depth:		25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20
Sample Date:		5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2,3,4,6-tetrachlorophenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2,4,5-trichlorophenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2,4,6-trichlorophenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2,4-dichlorophenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2,4-dimethylphenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2,4-dinitrophenol	ug/kg	8,300 U	12,000 U	1,800 UJ	580 U	12,000 U	12,000 U	12,000 U	2,100 U	570 U	560 U	390 U	390 U	370 U	3,500 U	3,200 U	380 U	560 U	680 U
2,4-dinitrotoluene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2,6-dinitrotoluene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2-chloronaphthalene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2-chlorophenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2-methylnaphthalene	ug/kg	4,300 U	**2,100 J**	**49 J**	**56 J**	**44,000**	**560,000**	**490,000**	**3,300**	**19 J**	**13 J**	**14 J**	**12 J**	**200**	**3,800**	**310 J**	**21 J**	290 U	**34 J**
2-methylphenol (o-cresol)	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
2-nitroaniline	ug/kg	8,300 U	12,000 U	1,800 UJ	580 U	12,000 U	12,000 U	12,000 U	2,100 U	570 U	560 U	390 U	390 U	370 U	3,500 U	3,200 U	380 U	560 U	680 U
2-nitrophenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
3,3'-dichlorobenzidine	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
3-nitroaniline	ug/kg	8,300 U	12,000 U	1,800 UJ	580 U	12,000 U	12,000 U	12,000 U	2,100 U	570 U	560 U	390 U	390 U	370 U	3,500 U	3,200 U	380 U	560 U	680 U
4,6-dinitro-2-methylphenol	ug/kg	8,300 U	12,000 U	1,800 UJ	580 U	12,000 U	12,000 U	12,000 U	2,100 U	570 U	560 U	390 U	390 U	370 U	3,500 U	3,200 U	380 U	560 U	680 U
4-bromophenyl phenyl ether	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
4-chloro-3-methylphenol	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
4-chloroaniline	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
4-chlorophenyl phenyl ether	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
4-methylphenol (p-cresol)	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
4-nitroaniline	ug/kg	8,300 U	12,000 U	1,800 UJ	580 U	12,000 U	12,000 U	12,000 U	2,100 U	570 U	560 U	390 U	390 U	370 U	3,500 U	3,200 U	380 U	560 U	680 U
4-nitrophenol	ug/kg	8,300 U	12,000 U	1,800 UJ	580 U	12,000 U	12,000 U	12,000 U	2,100 U	570 U	560 U	390 U	390 U	370 U	3,500 U	3,200 U	380 U	560 U	680 U
Acenaphthene	ug/kg	**23,000**	**37,000**	930 UJ	**44 J**	**42,000**	**94,000 J**	**73,000 J**	**680 J**	290 U	290 U	**1,200**	**1,700**	**3,700 J**	**17,000**	**1,300 J**	**29 J**	290 U	**16 J**
Acenaphthylene	ug/kg	**1,700 J**	**2,500 J**	930 UJ	300 U	**3,200 J**	**230,000**	**210,000**	**1,800**	290 U	290 U	**39 J**	**100 J**	**470**	**1,600 J**	**230 J**	200 U	290 U	350 U
Acetophenone	ug/kg	4,300 U	6,200 U	**320 J**	**70 J**	6,100 U	6,000 U	6,100 U	**49 J**	**48 J**	**54 J**	**44 J**	**48 J**	**46 J**	1,800 U	**88 J**	**57 J**	**79 J**	**99 J**
Anthracene	ug/kg	**14,000**	**26,000**	930 UJ	**31 J**	**30,000**	**190,000**	**150,000**	**1,400**	**10 J**	290 U	**61 J**	**120 J**	**2,000**	**9,100**	**4,000**	**35 J**	290 U	350 U
Atrazine	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Benzaldehyde	ug/kg	4,300 U	6,200 U	**460 J**	**89 J**	6,100 U	6,000 U	6,100 U	1,100 U	**52 J**	**83 J**	**51 J**	**44 J**	**37 J**	1,800 U	1,600 U	**50 J**	**90 J**	**98 J**
Benzo(a)anthracene	ug/kg	**8,500**	**12,000**	930 UJ	**24 J**	**17,000**	**120,000**	**100,000**	**850 J**	290 U	290 U	200 U	200 U	**1,100**	**4,900**	**8,400**	**82 J**	290 U	350 U
Benzo(a)pyrene	ug/kg	**7,100**	**11,000**	930 UJ	**23 J**	**12,000**	**96,000 J**	**79,000 J**	**660 J**	290 U	290 U	200 U	200 U	**900**	**3,800**	**3,400**	**58 J**	290 U	350 U
Benzo(b)fluoranthene	ug/kg	**5,200**	**7,000**	930 UJ	**12 J**	**11,000**	**76,000 J**	**59,000 J**	**510 J**	290 U	290 U	200 U	200 U	**330 J**	**1,200 J**	**7,900**	**86 J**	290 U	350 U
Benzo(g,h,i)perylene	ug/kg	**3,100 J**	**4,400 J**	930 UJ	300 U	**4,700 J**	**38,000 J**	**30,000 J**	**280 J**	290 U	290 U	200 U	200 U	**370 J**	**2,000 J**	**370 J**	**28 J**	290 U	350 U
Benzo(k)fluoranthene	ug/kg	**2,300 J**	**3,500 J**	930 UJ	300 U	**2,700 J**	**20,000**	**22,000 J**	**170 J**	290 U	290 U	200 U	200 U	**490 J**	**2,300**	**2,800**	**22 J**	290 U	350 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37
Sample Number:		059-2024	059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211
Sample Depth:		25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20
Sample Date:		5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	**7.1 J**	290 U	350 U
Biphenyl (diphenyl)	ug/kg	**1,900 J**	**6,000 J**	930 UJ	**9.9 J**	**8,200**	**79,000 J**	**64,000 J**	**560 J**	290 U	290 U	**210**	**310**	**580**	**3,300**	**110 J**	200 U	290 U	350 U
Bis(2-chloroethoxy) methane	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Bis(2-chloroethyl) ether	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Bis(2-chloroisopropyl) ether	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Bis(2-ethylhexyl) phthalate	ug/kg	4,300 U	6,200 U	**390 J**	**42 J**	6,100 U	6,000 U	6,100 U	**40 J**	**200 J**	**70 J**	**45 J**	**35 J**	**41 J**	1,800 U	**130 J**	**20 J**	**30 J**	**39 J**
Caprolactam	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Carbazole	ug/kg	4,300 U	**320 J**	930 UJ	300 U	**620 J**	**5,300 J**	**4,500 J**	**47 J**	290 U	290 U	**39 J**	**40 J**	190 U	**99 J**	**820 J**	**9.8 J**	290 U	350 U
Chrysene	ug/kg	**8,500**	**12,000**	930 UJ	**19 J**	**12,000**	**94,000 J**	**80,000 J**	**710 J**	290 U	290 U	200 U	200 U	**1,000**	**4,500**	**7,400**	**90 J**	290 U	350 U
Dibenz(a,h)anthracene	ug/kg	**610 J**	**870 J**	930 UJ	300 U	**1,200 J**	**11,000 J**	**9,800 J**	**79 J**	290 U	290 U	200 U	200 U	**150 J**	**650 J**	**970 J**	**17 J**	290 U	350 U
Dibenzofuran	ug/kg	**1,200 J**	**1,700 J**	930 UJ	300 U	**2,300 J**	**19,000 J**	**15,000 J**	**150 J**	290 U	290 U	**74 J**	**120 J**	**220**	**1,000 J**	**860 J**	**10 J**	290 U	350 U
Diethyl phthalate	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Dimethyl phthalate	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Di-n-butyl phthalate	ug/kg	4,300 U	6,200 U	**30 J**	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	**6.1 J**	290 U	**11 J**
Di-n-octylphthalate	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Fluoranthene	ug/kg	**19,000**	**29,000**	930 UJ	**40 J**	**34,000**	**220,000**	**180,000**	**1,700**	**15 J**	290 U	200 U	**25 J**	**2,400**	**9,900**	**25,000**	**160 J**	**11 J**	350 U
Fluorene	ug/kg	**960 J**	**14,000**	930 UJ	**32 J**	**24,000**	**190,000**	**180,000**	**1,400**	**12 J**	290 U	**270**	**170 J**	**1,300**	**8,200**	**1,400 J**	**22 J**	290 U	350 U
Hexachlorobenzene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Hexachlorobutadiene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Hexachlorocyclopentadiene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Hexachloroethane	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**2,600 J**	**3,800 J**	930 UJ	300 U	**4,500 J**	**36,000 J**	**27,000 J**	**240 J**	290 U	290 U	200 U	200 U	**270**	**1,200 J**	**2,100**	**46 J**	290 U	350 U
Isophorone	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Naphthalene	ug/kg	4,300 U	**1,300 J**	**160 J**	**89 J**	**52,000**	**1,100,000**	**900,000**	**6,600**	**28 J**	**20 J**	**280**	**50 J**	**250**	**6,500**	**490 J**	**24 J**	**9.6 J**	**57 J**
Nitrobenzene	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
N-nitrosodi-n-propylamine	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
N-nitrosodiphenylamine	ug/kg	4,300 U	6,200 U	930 UJ	300 U	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Pentachlorophenol	ug/kg	8,300 UJ	12,000 UJ	1,800 UJ	580 U	12,000 UJ	12,000 U	12,000 U	2,100 UJ	570 UJ	560 UJ	390 UJ	390 UJ	370 UJ	3,500 UJ	3,200 U	380 U	560 U	680 U
Phenanthrene	ug/kg	**40,000**	**70,000**	**30 J**	**110 J**	**91,000**	**690,000**	**540,000**	**5,100**	**40 J**	**20 J**	**590**	**2,100**	**7,700**	**32,000**	**19,000**	**160 J**	290 U	**33 J**
Phenol	ug/kg	4,300 U	6,200 U	**73 J**	**13 J**	6,100 U	6,000 U	6,100 U	1,100 U	290 U	290 U	200 U	200 U	190 U	1,800 U	1,600 U	200 U	290 U	350 U
Pyrene	ug/kg	**22,000**	**31,000**	**33 J**	**63 J**	**39,000**	**330,000**	**290,000**	**2,400**	**23 J**	290 U	**8.8 J**	**34 J**	**3,400**	**17,000**	**14,000**	**170 J**	**16 J**	350 U
Total PAHs	ug/kg	**158,570**	**267,470**	**272**	**543**	**424,300**	**4,095,000**	**3,419,800**	**27,879**	**147**	**53**	**2,463**	**4,311**	**26,030**	**125,650**	**99,070**	**1,050**	**36.6**	**140**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
Sample Number:		059-2212	059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135
Sample Depth:		20-25	25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2,3,4,6-tetrachlorophenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2,4,5-trichlorophenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2,4,6-trichlorophenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2,4-dichlorophenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2,4-dimethylphenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2,4-dinitrophenol	ug/kg	370 U	870 U	400 U	400 U	1,900 U	800 U	1,300 UJ	1,200 UJ	410 U	460 U	340 U	380 U	1,800 U	380 U	380 U	390 U	1,900 U	12,000 U
2,4-dinitrotoluene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2,6-dinitrotoluene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2-chloronaphthalene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2-chlorophenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2-methylnaphthalene	ug/kg	**130 J**	**3,500**	210 U	**210**	**3,000**	**270 J**	**870 J**	**1,400 J**	**63 J**	**9.3 J**	180 U	**13 J**	**120 J**	**37 J**	**13 J**	**38 J**	**870 J**	**87,000**
2-methylphenol (o-cresol)	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
2-nitroaniline	ug/kg	370 U	870 U	400 U	400 U	1,900 U	800 U	1,300 UJ	1,200 UJ	410 U	460 U	340 U	380 U	1,800 U	380 U	380 U	390 U	1,900 U	12,000 U
2-nitrophenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
3,3'-dichlorobenzidine	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 UJ	990 U	6,000 U
3-nitroaniline	ug/kg	370 U	870 U	400 U	400 U	1,900 U	800 U	1,300 UJ	1,200 UJ	410 U	460 U	340 U	380 U	1,800 U	380 U	380 U	390 U	1,900 U	12,000 U
4,6-dinitro-2-methylphenol	ug/kg	370 U	870 U	400 U	400 U	1,900 U	800 U	1,300 UJ	1,200 UJ	410 U	460 U	340 U	380 U	1,800 U	380 U	380 U	390 U	1,900 U	12,000 U
4-bromophenyl phenyl ether	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
4-chloro-3-methylphenol	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
4-chloroaniline	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 UJ	990 U	6,000 U
4-chlorophenyl phenyl ether	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
4-methylphenol (p-cresol)	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
4-nitroaniline	ug/kg	370 U	870 U	400 U	400 U	1,900 U	800 U	1,300 UJ	1,200 UJ	410 U	460 U	340 U	380 U	1,800 U	380 U	380 U	390 U	1,900 U	12,000 U
4-nitrophenol	ug/kg	370 U	870 U	400 U	400 U	1,900 U	800 U	1,300 UJ	1,200 UJ	410 U	460 U	340 U	380 U	1,800 U	380 U	380 U	390 U	1,900 U	12,000 U
Acenaphthene	ug/kg	**87 J**	**1,500**	210 U	**140 J**	**1,900**	**25 J**	**270 J**	**57 J**	210 U	240 U	180 U	**5.8 J**	**300 J**	**31 J**	**18 J**	**110 J**	**1,200**	**80,000**
Acenaphthylene	ug/kg	**16 J**	**690**	210 U	**53 J**	**520 J**	**16 J**	**200 J**	**29 J**	210 U	240 U	180 U	**25 J**	**130 J**	**6.9 J**	**18 J**	**17 J**	**120 J**	**8,400 J**
Acetophenone	ug/kg	**60 J**	**77 J**	**56 J**	**63 J**	**56 J**	**93 J**	**140 J**	**230 J**	**61 J**	**55 J**	**54 J**	**51 J**	**98 J**	**110 J**	**91 J**	**83 J**	**82 J**	**540 J**
Anthracene	ug/kg	**66 J**	**1,300**	210 U	**130 J**	**1,300**	410 U	**260 J**	590 UJ	210 U	240 U	180 U	**64 J**	**490 J**	**32 J**	**29 J**	**200 J**	**1,400**	**86,000**
Atrazine	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Benzaldehyde	ug/kg	**54 J**	**92 J**	**79 J**	**76 J**	**71 J**	**94 J**	**170 J**	**280 J**	**69 J**	**62 J**	**87 J**	**68 J**	**110 J**	**120 J**	**120 J**	**130 J**	**150 J**	6,000 U
Benzo(a)anthracene	ug/kg	**50 J**	**770**	210 U	**110 J**	**1,000**	**16 J**	**190 J**	**22 J**	210 U	240 U	180 U	**87 J**	**1,800**	**67 J**	**87 J**	**670**	**2,000**	**59,000**
Benzo(a)pyrene	ug/kg	**32 J**	**500**	210 U	**73 J**	**670 J**	410 U	**110 J**	590 UJ	210 U	240 U	180 U	**57 J**	**1,500**	**59 J**	**77 J**	**520**	**1,200**	**41,000**
Benzo(b)fluoranthene	ug/kg	**27 J**	**390 J**	210 U	**55 J**	**590 J**	410 U	**94 J**	590 UJ	210 U	240 U	180 U	**47 J**	**1,900**	**67 J**	**99 J**	**720**	**1,600**	**32,000**
Benzo(g,h,i)perylene	ug/kg	**20 J**	**220 J**	210 U	**32 J**	**290 J**	410 U	**52 J**	590 UJ	210 U	240 U	180 U	**24 J**	**1,600**	**30 J**	**77 J**	**410**	**710 J**	**18,000 J**
Benzo(k)fluoranthene	ug/kg	**10 J**	**150 J**	210 U	**19 J**	**230 J**	410 U	**35 J**	590 UJ	210 U	240 U	180 U	**16 J**	**710 J**	**26 J**	**32 J**	**240**	**550 J**	**12,000 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
Sample Number:		059-2212	059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135
Sample Depth:		20-25	25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	**7 J**	450 U	210 U	**9.9 J**	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	**10 J**	**7 J**	200 U	990 U	6,000 U
Biphenyl (diphenyl)	ug/kg	**15 J**	**330 J**	210 U	**26 J**	**380 J**	**13 J**	**82 J**	**41 J**	210 U	240 U	180 U	200 U	**38 J**	**6.1 J**	190 U	**7.8 J**	**160 J**	**14,000 J**
Bis(2-chloroethoxy) methane	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Bis(2-chloroethyl) ether	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Bis(2-chloroisopropyl) ether	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	**29 J**	**35 J**	**16 J**	**24 J**	**48 J**	**66 J**	**110 J**	**91 J**	**23 J**	**40 J**	**21 J**	**28 J**	**48 J**	**50 J**	**58 J**	**39 J**	990 U	6,000 U
Caprolactam	ug/kg	**10 J**	450 U	**9.5 J**	**13 J**	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Carbazole	ug/kg	190 U	**28 J**	210 U	200 U	**53 J**	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	**340 J**	**6.8 J**	**10 J**	**100 J**	**130 J**	**1,600 J**
Chrysene	ug/kg	**47 J**	**760**	210 U	**110 J**	**970 J**	410 U	**130 J**	590 UJ	210 U	240 U	180 U	**78 J**	**1,500**	**68 J**	**72 J**	**590**	**2,000**	**61,000**
Dibenz(a,h)anthracene	ug/kg	190 U	**74 J**	210 U	**15 J**	**91 J**	410 U	670 UJ	590 UJ	210 U	240 U	180 U	**7.6 J**	**400 J**	**12 J**	**17 J**	**96 J**	**180 J**	**5,000 J**
Dibenzofuran	ug/kg	190 U	**130 J**	210 U	**12 J**	990 U	410 U	**30 J**	590 UJ	210 U	240 U	180 U	200 U	**210 J**	200 U	190 U	**56 J**	**140 J**	**6,400 J**
Diethyl phthalate	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	**7.5 J**	**6.6 J**	**7.3 J**	990 U	6,000 U
Dimethyl phthalate	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Di-n-butyl phthalate	ug/kg	**6.9 J**	450 U	210 U	**8.1 J**	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Di-n-octylphthalate	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Fluoranthene	ug/kg	**68 J**	**1,300**	210 U	**150 J**	**1,600**	**18 J**	**280 J**	590 UJ	210 U	240 U	180 U	**130 J**	**3,300**	**110 J**	**150 J**	**1,400**	**4,400**	**110,000**
Fluorene	ug/kg	**57 J**	**1,200 J**	210 U	**110 J**	**1,300 J**	410 U	**270 J**	590 UJ	210 U	240 U	180 U	**15 J**	**380 J**	**28 J**	**13 J**	**100 J**	**910 J**	**57,000**
Hexachlorobenzene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Hexachlorobutadiene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Hexachlorocyclopentadiene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 UJ	990 U	6,000 U
Hexachloroethane	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**22 J**	**190 J**	210 U	**27 J**	**300 J**	410 U	**43 J**	590 UJ	210 U	240 U	180 U	**21 J**	**1,400**	**39 J**	**67 J**	**410**	**790 J**	**18,000 J**
Isophorone	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Naphthalene	ug/kg	**120 J**	**3,300**	**8.1 J**	**150 J**	**2,800**	**930**	**1,700 J**	**8,500 J**	**200 J**	**18 J**	**9.6 J**	**19 J**	**260 J**	**33 J**	**21 J**	**46 J**	**1,300**	**85,000**
Nitrobenzene	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
N-nitrosodi-n-propylamine	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
N-nitrosodiphenylamine	ug/kg	190 U	450 U	210 U	200 U	990 U	410 U	670 UJ	590 UJ	210 U	240 U	180 U	200 U	950 U	200 U	190 U	200 U	990 U	6,000 U
Pentachlorophenol	ug/kg	370 U	870 U	400 U	400 U	1,900 U	800 U	1,300 UJ	1,200 UJ	410 U	460 U	340 U	380 U	1,800 U	380 U	380 U	390 U	1,900 U	12,000 U
Phenanthrene	ug/kg	**230**	**5,200**	210 U	**410**	**5,300**	**36 J**	**1,000 J**	**44 J**	**10 J**	240 U	180 U	**190 J**	**3,100**	**120 J**	**120 J**	**1,000**	**5,500**	**290,000**
Phenol	ug/kg	190 U	450 U	210 U	200 U	990 U	**17 J**	**27 J**	**43 J**	**12 J**	**11 J**	**10 J**	**10 J**	**32 J**	**17 J**	**17 J**	**19 J**	990 U	6,000 U
Pyrene	ug/kg	**130 J**	**2,300**	210 U	**300**	**2,800**	**26 J**	**460 J**	**28 J**	210 U	240 U	180 U	**220**	**3,300**	**150 J**	**180 J**	**1,200**	**4,300**	**170,000**
Total PAHs	ug/kg	**1,112**	**23,344**	**8.1**	**2,094**	**24,661**	**1,337**	**5,964**	**10,080**	**273**	**27.3**	**9.6**	**1,019**	**22,190**	**915.9**	**1,090**	**7,767**	**29,030**	**1,219,400**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41
Sample Number:		059-2136	059-2137	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG	GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW40I(15-20)	GC-MW40I(20-25)	GC-MW40I(25-30)	GC-MW40I(30-35)	GC-MW40I(35-40)	GC-MW40I(40-45)	GC-MW40I(45-50)	GC-MW40I(50-55)	GC-MW40I(55-58)	SB40IJ-S-NG	GC-MW41S(0-5)
Sample Depth:		36.5-37	40-40.5	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-58	55-58	0-5
Sample Date:		6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010
Sample Type:		N	N	N	N	S	N	FD	N	N	N	N	N	N	N	N	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2,3,4,6-tetrachlorophenol	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2,4,5-trichlorophenol	ug/kg	6,100 U	1,000 U	1,500 U	4,700,000 U	810,000 U	2,000,000 U	2,100,000 U	1,400 U	26,000 U	970 U	2,800 U	1,800 U	1,000 U	1,000 U	960 U	920 U	190 U	2,100,000 U
2,4,6-trichlorophenol	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2,4-dichlorophenol	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2,4-dimethylphenol	ug/kg	6,100 U	1,000 U	590 U	**260,000 J**	**180,000 J**	**110,000 J**	**120,000 J**	550 U	**1,500 J**	390 U	1,100 U	**130 J**	400 U	410 U	**17 J**	360 U	190 U	840,000 U
2,4-dinitrophenol	ug/kg	12,000 U	2,000 U	1,500 U	4,700,000 UJ	1,600,000 U	2,000,000 U	2,100,000 U	1,400 U	26,000 U	970 U	2,800 U	1,800 U	1,000 U	1,000 U	960 U	920 U	370 U	2,100,000 UJ
2,4-dinitrotoluene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2,6-dinitrotoluene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2-chloronaphthalene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2-chlorophenol	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
2-methylnaphthalene	ug/kg	**65,000**	**2,000**	**150 J**	**1,400,000 J**	**990,000**	**600,000 J**	**670,000 J**	550 U	**9,900 J**	**100 J**	**810 J**	**210 J**	**100 J**	**30 J**	380 U	360 U	**2.1 J**	**260,000 J**
2-methylphenol (o-cresol)	ug/kg	6,100 U	1,000 U	590 U	**240,000 J**	**170,000 J**	**98,000 J**	**130,000 J**	550 U	**1,100 J**	390 U	1,100 U	710 U	400 U	410 U	**82 J**	360 U	190 U	840,000 U
2-nitroaniline	ug/kg	12,000 U	2,000 U	1,500 U	4,700,000 U	1,600,000 U	2,000,000 U	2,100,000 U	1,400 U	26,000 U	970 U	2,800 U	1,800 U	1,000 U	1,000 U	960 U	920 U	370 U	2,100,000 U
2-nitrophenol	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
3,3'-dichlorobenzidine	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
3-nitroaniline	ug/kg	12,000 U	2,000 U	1,500 U	4,700,000 U	1,600,000 U	2,000,000 U	2,100,000 U	1,400 U	26,000 U	970 U	2,800 U	1,800 U	1,000 U	1,000 U	960 U	920 U	370 U	2,100,000 U
4,6-dinitro-2-methylphenol	ug/kg	12,000 U	2,000 U	1,500 U	4,700,000 U	1,600,000 U	2,000,000 U	2,100,000 U	1,400 U	26,000 U	970 U	2,800 U	1,800 U	1,000 U	1,000 U	960 U	920 U	370 U	2,100,000 U
4-bromophenyl phenyl ether	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
4-chloro-3-methylphenol	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
4-chloroaniline	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
4-chlorophenyl phenyl ether	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
4-methylphenol (p-cresol)	ug/kg	6,100 U	1,000 U	590 U	**570,000 J**	**400,000 J**	**260,000 J**	**310,000 J**	550 U	**2,700 J**	**18 J**	1,100 U	710 U	**26 J**	410 U	**370 J**	360 U	190 U	840,000 U
4-nitroaniline	ug/kg	12,000 U	2,000 U	1,500 U	4,700,000 UJ	1,600,000 U	2,000,000 U	2,100,000 U	1,400 U	26,000 U	970 U	2,800 U	1,800 U	1,000 U	1,000 U	960 U	920 U	370 U	2,100,000 UJ
4-nitrophenol	ug/kg	12,000 U	2,000 U	---	---	1,600,000 U	---	---	---	---	---	---	---	---	---	---	---	370 U	---
Acenaphthene	ug/kg	**41,000**	**1,400**	**310 J**	**380,000 J**	**260,000 J**	**170,000 J**	**180,000 J**	550 U	**3,400 J**	**67 J**	**420 J**	**71 J**	**70 J**	**37 J**	380 U	360 U	**3.5 J**	**670,000 J**
Acenaphthylene	ug/kg	**4,400 J**	**160 J**	590 U	**810,000 J**	**560,000 J**	**410,000 J**	**430,000 J**	550 U	**6,900 J**	**27 J**	1,100 U	710 U	**39 J**	410 U	380 U	360 U	**1.7 J**	840,000 U
Acetophenone	ug/kg	6,100 U	**84 J**	**47 J**	1,900,000 U	810,000 U	800,000 U	840,000 U	**57 J**	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**28 J**	840,000 U
Anthracene	ug/kg	**28,000**	**850 J**	**410 J**	**860,000 J**	**560,000 J**	**440,000 J**	**500,000 J**	550 U	**9,900 J**	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**4.2**	**1,100,000**
Atrazine	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Benzaldehyde	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Benzo(a)anthracene	ug/kg	**20,000**	**560 J**	**1,100**	**560,000 J**	**380,000 J**	**290,000 J**	**320,000 J**	550 U	**5,900 J**	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**5.1**	**1,100,000**
Benzo(a)pyrene	ug/kg	**12,000**	**370 J**	**1,100**	**510,000 J**	**340,000 J**	**270,000 J**	**290,000 J**	550 U	**5,500 J**	**38 J**	1,100 U	710 U	**75 J**	410 U	380 U	360 U	**8.7**	**980,000**
Benzo(b)fluoranthene	ug/kg	**11,000**	**290 J**	**1,100**	**430,000 J**	**220,000 J**	**230,000 J**	**240,000 J**	550 U	**4,600 J**	**29 J**	1,100 U	710 U	**61 J**	410 U	380 U	360 U	**3.9**	**720,000 J**
Benzo(g,h,i)perylene	ug/kg	**5,400 J**	**150 J**	**910 J**	**280,000 J**	**180,000 J**	**150,000 J**	**150,000 J**	550 U	**3,400 J**	**22 J**	1,100 U	710 U	**55 J**	410 U	380 U	360 U	**2.4 J**	**590,000 J**
Benzo(k)fluoranthene	ug/kg	**2,500 J**	**120 J**	**800**	**400,000 J**	**270,000 J**	**210,000 J**	**240,000 J**	550 U	**4,100 J**	**36 J**	1,100 U	710 U	**74 J**	410 U	380 U	360 U	**3.5 J**	**810,000 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41
Sample Number:		059-2136	059-2137	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG	GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW40I(15-20)	GC-MW40I(20-25)	GC-MW40I(25-30)	GC-MW40I(30-35)	GC-MW40I(35-40)	GC-MW40I(40-45)	GC-MW40I(45-50)	GC-MW40I(50-55)	GC-MW40I(55-58)	SB40IJ-S-NG	GC-MW41S(0-5)
Sample Depth:		36.5-37	40-40.5	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-58	55-58	0-5
Sample Date:		6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010
Sample Type:		N	N	N	N	S	N	FD	N	N	N	N	N	N	N	N	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	**28 J**	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**37 J**	840,000 U
Biphenyl (diphenyl)	ug/kg	**8,200**	**290 J**	**49 J**	**340,000 J**	**210,000 J**	**150,000 J**	**160,000 J**	550 U	**2,700 J**	**31 J**	**97 J**	710 U	**29 J**	410 U	380 U	360 U	190 U	**96,000 J**
Bis(2-chloroethoxy) methane	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Bis(2-chloroethyl) ether	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Bis(2-chloroisopropyl) ether	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Bis(2-ethylhexyl) phthalate	ug/kg	6,100 U	1,000 U	**180 J**	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**65 J**	840,000 U
Caprolactam	ug/kg	6,100 U	1,000 U	590 U	1,900,000 UJ	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Carbazole	ug/kg	**590 J**	1,000 U	**290 J**	**360,000 J**	**230,000 J**	**180,000 J**	**210,000 J**	550 U	**3,900 J**	**220 J**	1,100 U	710 U	**89 J**	**60 J**	**26 J**	360 U	190 U	**470,000 J**
Chrysene	ug/kg	**20,000**	**500 J**	**1,100**	**590,000 J**	**380,000 J**	**330,000 J**	**340,000 J**	550 U	**6,400 J**	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**4.7**	**1,100,000**
Dibenz(a,h)anthracene	ug/kg	**1,700 J**	**49 J**	**290 J**	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	**650 J**	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**0.9 J**	**130,000 J**
Dibenzofuran	ug/kg	**3,100 J**	**99 J**	**240 J**	**780,000 J**	**550,000 J**	**380,000 J**	**400,000 J**	550 U	**7,300 J**	**98 J**	**81 J**	710 U	**75 J**	410 U	380 U	360 U	190 U	**540,000 J**
Diethyl phthalate	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Dimethyl phthalate	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Di-n-butyl phthalate	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Di-n-octylphthalate	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Fluoranthene	ug/kg	**30,000**	**890 J**	**2,500**	**1,900,000**	**1,200,000**	**1,100,000**	**1,200,000**	550 U	**22,000**	390 U	1,100 U	710 U	**290 J**	410 U	380 U	360 U	**13**	**2,800,000**
Fluorene	ug/kg	**27,000**	**910 J**	**400 J**	**700,000 J**	**510,000 J**	**370,000 J**	**400,000 J**	550 U	**7,000 J**	**110 J**	1,100 U	710 U	**80 J**	410 U	380 U	360 U	**2.4 J**	**630,000 J**
Hexachlorobenzene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Hexachlorobutadiene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Hexachlorocyclopentadiene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Hexachloroethane	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**5,100 J**	**140 J**	**750 J**	**240,000 J**	**170,000 J**	**110,000 J**	**110,000 J**	550 U	**2,700 J**	390 U	1,100 U	710 U	**42 J**	410 U	380 U	360 U	**2.6 J**	**570,000 J**
Isophorone	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Naphthalene	ug/kg	**60,000**	**2,100**	**480 J**	**11,000,000**	**7,100,000**	**4,300,000**	**5,100,000**	**1,300**	**56,000**	**420**	**5,300**	**3,300**	**390 J**	**140 J**	**39 J**	360 U	**14**	**820,000 J**
Nitrobenzene	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
N-nitrosodi-n-propylamine	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
N-nitrosodiphenylamine	ug/kg	6,100 U	1,000 U	590 U	1,900,000 U	810,000 U	800,000 U	840,000 U	550 U	10,000 U	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	190 U	840,000 U
Pentachlorophenol	ug/kg	12,000 U	2,000 U	---	---	1,600,000 U	---	---	---	---	---	---	---	---	---	---	---	7.5 UJ	---
Phenanthrene	ug/kg	**95,000**	**3,100**	**2,100**	**3,200,000**	**2,100,000**	**1,600,000**	**1,800,000**	550 U	**34,000**	390 U	1,100 U	710 U	**400 J**	410 U	380 U	360 U	**15**	**4,300,000**
Phenol	ug/kg	6,100 U	1,000 U	590 U	**340,000 J**	**230,000 J**	**170,000 J**	**200,000 J**	550 U	**1,700 J**	390 U	**76 J**	**53 J**	**38 J**	410 U	**520**	360 U	**42 J**	840,000 U
Pyrene	ug/kg	**59,000**	**1,400**	**2,600**	**1,600,000 J**	**910,000**	**740,000 J**	**800,000 J**	550 U	**16,000**	390 U	1,100 U	710 U	400 U	410 U	380 U	360 U	**9.1**	**2,600,000**
Total PAHs	ug/kg	**487,100**	**14,989**	**16,100**	**24,860,000**	**16,130,000**	**11,320,000**	**12,770,000**	**1,300**	**198,350**	**849**	**6,530**	**3,581**	**1,676**	**207**	**39**	ND	**96.8**	**19,180,000**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42
Sample Number:		GC-MW41I(5-10)	GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	GC-MW41I(15-20)	GC-MW41I(20-25)	GC-MW41I(25-30)	GC-MW41I(30-35)	GC-MW41I(35-40)	GC-MW41I(40-45)	GC-MW41I(45-50)	GC-MW41I(50-53)	GC-MW41I(53-58)	SB41IL-S-NG	059-2061	059-2062	059-2063	059-2064
Sample Depth:		5-10	5-10	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-53	53-58	55-58	5-10	15-20	20-25	25-30
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:		N	FD	S	N	N	N	N	N	N	N	N	N	N	S	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2,3,4,6-tetrachlorophenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2,4,5-trichlorophenol	ug/kg	110,000 U	1,000 U	40,000 U	11,000 U	1,400 U	1,000 U	970 U	2,000 U	1,000 U	1,100 U	1,100 U	1,000 U	1,100 U	200 U	990 U	200 U	200 U	190 U
2,4,6-trichlorophenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2,4-dichlorophenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 UJ	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2,4-dimethylphenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	**120 J**	**410**	**190 J**	**290 J**	**39 J**	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2,4-dinitrophenol	ug/kg	110,000 UJ	1,000 UJ	79,000 U	11,000 UJ	1,400 UJ	1,000 UJ	970 UJ	2,000 U	1,000 UJ	1,100 UJ	1,100 UJ	1,000 UJ	1,100 UJ	400 U	1,900 UJ	390 U	400 U	370 U
2,4-dinitrotoluene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2,6-dinitrotoluene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2-chloronaphthalene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2-chlorophenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2-methylnaphthalene	ug/kg	**65,000**	**420**	**86,000**	**5,500**	**75 J**	**200 J**	**130 J**	**440 J**	**24 J**	430 U	420 U	400 U	430 U	**5.8 J**	990 U	200 U	**7 J**	**17 J**
2-methylphenol (o-cresol)	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
2-nitroaniline	ug/kg	110,000 U	1,000 U	79,000 U	11,000 U	1,400 U	1,000 U	970 U	2,000 U	1,000 U	1,100 U	1,100 U	1,000 U	1,100 U	400 U	1,900 UJ	390 U	400 U	370 U
2-nitrophenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
3,3'-dichlorobenzidine	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
3-nitroaniline	ug/kg	110,000 U	1,000 U	79,000 U	11,000 U	1,400 U	1,000 U	970 U	2,000 U	1,000 U	1,100 U	1,100 U	1,000 U	1,100 U	400 U	1,900 UJ	390 U	400 U	370 U
4,6-dinitro-2-methylphenol	ug/kg	110,000 UJ	1,000 UJ	79,000 U	11,000 UJ	1,400 UJ	1,000 UJ	970 UJ	2,000 UJ	1,000 UJ	1,100 UJ	1,100 UJ	1,000 UJ	1,100 UJ	400 U	1,900 U	390 U	400 U	370 U
4-bromophenyl phenyl ether	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
4-chloro-3-methylphenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
4-chloroaniline	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
4-chlorophenyl phenyl ether	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
4-methylphenol (p-cresol)	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	**100 J**	**130 J**	**94 J**	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
4-nitroaniline	ug/kg	110,000 U	1,000 U	79,000 U	11,000 U	1,400 U	1,000 U	970 U	2,000 U	1,000 U	1,100 U	1,100 U	1,000 U	1,100 U	400 U	1,900 UJ	390 U	400 U	370 U
4-nitrophenol	ug/kg	---	---	79,000 U	---	---	---	---	---	---	---	---	---	---	400 U	1,900 UJ	390 U	400 U	370 U
Acenaphthene	ug/kg	**41,000 J**	**290 J**	**61,000**	**5,200**	**57 J**	**76 J**	**31 J**	**76 J**	400 U	**25 J**	420 U	400 U	430 U	**5.4 J**	990 U	**19 J**	**6.5 J**	**7.2 J**
Acenaphthylene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	**12 J**	990 U	200 U	200 U	**15 J**
Acetophenone	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	**27 J**	**41 J**	**29 J**	**32 J**	**29 J**
Anthracene	ug/kg	**36,000 J**	**250 J**	**55,000**	**6,300**	**50 J**	400 U	390 U	800 U	400 U	430 U	420 U	**21 J**	**30 J**	**44**	**35 J**	200 U	200 U	**6.9 J**
Atrazine	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Benzaldehyde	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	**53 J**	**45 J**	**55 J**	**44 J**
Benzo(a)anthracene	ug/kg	**30,000 J**	**210 J**	**42,000**	**6,400**	**44 J**	400 U	390 U	800 U	400 U	430 U	420 U	**30 J**	**31 J**	**39**	**190 J**	200 U	200 U	**6.3 J**
Benzo(a)pyrene	ug/kg	**25,000 J**	**160 J**	**38,000 J**	**5,100**	**32 J**	400 U	390 U	800 U	400 U	430 U	420 U	**21 J**	**23 J**	**44**	**210 J**	200 U	200 U	**7.1 J**
Benzo(b)fluoranthene	ug/kg	**19,000 J**	**130 J**	**22,000 J**	**3,400 J**	560 UJ	400 UJ	390 UJ	800 UJ	400 UJ	430 UJ	420 U	400 U	430 U	**32 J**	**100 J**	200 U	200 U	190 U
Benzo(g,h,i)perylene	ug/kg	**14,000 J**	**74 J**	**15,000 J**	**2,600 J**	560 U	400 U	390 U	800 U	400 U	430 U	420 UJ	400 UJ	430 UJ	**22**	**230 J**	200 U	200 U	190 U
Benzo(k)fluoranthene	ug/kg	**21,000 J**	**150 J**	**32,000 J**	**4,900**	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	**26**	**140 J**	200 U	200 U	190 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42
Sample Number:		GC-MW41I(5-10)	GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	GC-MW41I(15-20)	GC-MW41I(20-25)	GC-MW41I(25-30)	GC-MW41I(30-35)	GC-MW41I(35-40)	GC-MW41I(40-45)	GC-MW41I(45-50)	GC-MW41I(50-53)	GC-MW41I(53-58)	SB41IL-S-NG	059-2061	059-2062	059-2063	059-2064
Sample Depth:		5-10	5-10	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-53	53-58	55-58	5-10	15-20	20-25	25-30
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:		N	FD	S	N	N	N	N	N	N	N	N	N	N	S	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Biphenyl (diphenyl)	ug/kg	**15,000 J**	**100 J**	**20,000 J**	**1,500 J**	560 U	**38 J**	**51 J**	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Bis(2-chloroethoxy) methane	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Bis(2-chloroethyl) ether	ug/kg	44,000 UJ	410 UJ	40,000 U	4,500 UJ	560 UJ	400 UJ	390 UJ	800 UJ	400 UJ	430 UJ	420 UJ	400 UJ	430 UJ	200 U	990 U	200 U	200 U	190 U
Bis(2-chloroisopropyl) ether	ug/kg	44,000 UJ	410 UJ	40,000 U	4,500 UJ	560 UJ	400 UJ	390 UJ	800 UJ	400 UJ	430 UJ	420 UJ	400 UJ	430 UJ	200 U	990 U	200 U	200 U	190 U
Bis(2-ethylhexyl) phthalate	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	**34 J**	**91 J**	**16 J**	**14 J**	**15 J**
Caprolactam	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	**110 J**	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Carbazole	ug/kg	**15,000 J**	**100 J**	**22,000 J**	**2,500 J**	560 U	**71 J**	**250 J**	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Chrysene	ug/kg	**27,000 J**	**200 J**	**38,000 J**	**6,000**	**40 J**	400 U	390 U	800 U	400 U	430 U	420 U	**27 J**	**32 J**	**40**	**200 J**	200 U	200 U	190 U
Dibenz(a,h)anthracene	ug/kg	**2,500 J**	410 U	**5,000 J**	**390 J**	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	**6 J**	**63 J**	200 U	200 U	190 U
Dibenzofuran	ug/kg	**39,000 J**	**260 J**	**55,000**	**4,600**	**36 J**	**65 J**	**97 J**	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Diethyl phthalate	ug/kg	44,000 U	410 U	40,000 U	4,500 U	**47 J**	400 U	390 U	800 U	400 U	**63 J**	**74 J**	400 U	**43 J**	200 U	990 U	200 U	200 U	190 U
Dimethyl phthalate	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Di-n-butyl phthalate	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Di-n-octylphthalate	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Fluoranthene	ug/kg	**82,000**	**630**	**120,000**	**17,000**	**120 J**	400 U	390 U	800 U	**18 J**	430 U	420 U	**59 J**	**86 J**	**120**	**230 J**	200 U	200 U	**10 J**
Fluorene	ug/kg	**39,000 J**	**260 J**	**55,000**	**5,100**	**38 J**	**41 J**	**91 J**	800 U	400 U	430 U	420 U	400 U	430 U	**19 J**	990 U	200 U	200 U	190 U
Hexachlorobenzene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Hexachlorobutadiene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Hexachlorocyclopentadiene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Hexachloroethane	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**12,000 J**	**77 J**	**14,000 J**	**2,600 J**	560 U	400 U	390 U	800 U	400 U	430 U	420 UJ	400 UJ	430 UJ	**20 J**	**150 J**	200 U	200 U	190 U
Isophorone	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Naphthalene	ug/kg	**270,000**	**1,900**	**420,000**	**22,000**	**1,300**	**720**	**650**	**3,700**	**130 J**	430 U	420 U	400 U	430 U	20 U	**58 J**	200 U	**11 J**	**26 J**
Nitrobenzene	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
N-nitrosodi-n-propylamine	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
N-nitrosodiphenylamine	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	400 U	390 U	800 U	400 U	430 U	420 U	400 U	430 U	200 U	990 U	200 U	200 U	190 U
Pentachlorophenol	ug/kg	---	---	79,000 U	---	---	---	---	---	---	---	---	---	---	40 UJ	1,900 U	390 U	400 U	370 U
Phenanthrene	ug/kg	**150,000**	**1,100**	**220,000**	**26,000**	**180 J**	**46 J**	**80 J**	800 U	**24 J**	**20 J**	420 U	**76 J**	**100 J**	**140**	**72 J**	200 U	**15 J**	**24 J**
Phenol	ug/kg	44,000 U	410 U	40,000 U	4,500 U	560 U	**74 J**	**90 J**	**6,000**	**440**	430 U	420 U	400 U	430 U	200 U	990 U	**6.5 J**	**6.6 J**	**5.7 J**
Pyrene	ug/kg	**73,000**	**470**	**84,000**	**13,000**	**88 J**	400 U	390 U	800 U	400 U	430 U	420 U	**57 J**	**79 J**	**79 J**	**390 J**	200 U	**7.1 J**	**17 J**
Total PAHs	ug/kg	**906,500**	**6,321**	**1,307,000**	**131,490**	**2,024**	**1,083**	**982**	**4,216**	**196**	**45**	ND	**291**	**381**	**654.2**	**2,068**	**19**	**46.6**	**136.5**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-42	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
Sample Number:		059-2066	059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127
Sample Depth:		25-30	30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2,3,4,6-tetrachlorophenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2,4,5-trichlorophenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2,4,6-trichlorophenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2,4-dichlorophenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2,4-dimethylphenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2,4-dinitrophenol	ug/kg	380 U	380 U	400 UJ	4,000 U	660 U	550 U	390 U	410 U	390 U	47,000 U	390 U	400 U	520 U	2,800 U	530 U	400 U	500 U	610 U
2,4-dinitrotoluene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2,6-dinitrotoluene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2-chloronaphthalene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2-chlorophenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2-methylnaphthalene	ug/kg	**9.8 J**	200 U	**1,500**	**760 J**	**18 J**	**10 J**	200 U	**79 J**	**120 J**	**360,000**	**13,000**	**19 J**	**410**	**1,400 J**	**53 J**	200 U	**23 J**	310 U
2-methylphenol (o-cresol)	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
2-nitroaniline	ug/kg	380 U	380 U	400 UJ	4,000 U	660 U	550 U	390 U	410 U	390 U	47,000 U	390 U	400 U	520 U	2,800 U	530 U	400 U	500 U	610 U
2-nitrophenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
3,3'-dichlorobenzidine	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 UJ	1,400 U	270 U	200 U	260 U	310 U
3-nitroaniline	ug/kg	380 U	380 U	400 UJ	4,000 U	660 U	550 U	390 U	410 U	390 U	47,000 U	390 U	400 U	520 U	2,800 U	530 U	400 U	500 U	610 U
4,6-dinitro-2-methylphenol	ug/kg	380 U	380 U	400 U	4,000 U	660 U	550 U	390 U	410 U	390 U	47,000 U	390 U	400 U	520 U	2,800 U	530 U	400 U	500 U	610 U
4-bromophenyl phenyl ether	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 UJ	200 U	260 U	310 U
4-chloro-3-methylphenol	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
4-chloroaniline	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 UJ	1,400 U	270 U	200 U	260 U	310 U
4-chlorophenyl phenyl ether	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 UJ	200 U	260 U	310 U
4-methylphenol (p-cresol)	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
4-nitroaniline	ug/kg	380 U	380 U	400 UJ	4,000 U	660 U	550 U	390 U	410 U	390 U	47,000 U	390 U	400 U	520 U	2,800 U	530 U	400 U	500 U	610 U
4-nitrophenol	ug/kg	380 U	380 U	400 UJ	4,000 U	660 U	550 U	390 U	410 U	390 U	47,000 U	390 U	400 U	520 U	2,800 U	530 U	400 U	500 U	610 U
Acenaphthene	ug/kg	**6.9 J**	200 U	**740 J**	**480 J**	340 U	280 U	200 U	**55 J**	**72 J**	**67,000**	**2,100**	210 U	**450**	**1,300 J**	**44 J**	200 U	**20 J**	**12 J**
Acenaphthylene	ug/kg	**8.4 J**	200 U	**230**	2,100 U	340 U	280 U	200 U	210 U	**16 J**	**100,000**	**6,100 J**	**8.9 J**	**58 J**	**130 J**	270 U	200 U	260 U	310 U
Acetophenone	ug/kg	**34 J**	**21 J**	210 U	2,100 U	**60 J**	**51 J**	**34 J**	**32 J**	**31 J**	**3,400 J**	200 U	**31 J**	**120 J**	**150 J**	**71 J**	**55 J**	**85 J**	**110 J**
Anthracene	ug/kg	**10 J**	200 U	**1,000 J**	**590 J**	340 U	280 U	200 U	210 U	**21 J**	**90,000**	**5,000 J**	210 U	**290**	**1,900 J**	**38 J**	200 U	**11 J**	310 U
Atrazine	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Benzaldehyde	ug/kg	**55 J**	**35 J**	210 U	2,100 U	**73 J**	**80 J**	**41 J**	**40 J**	**51 J**	23,000 U	200 U	**45 J**	**190 J**	**250 J**	**100 J**	**87 J**	**130 J**	**210 J**
Benzo(a)anthracene	ug/kg	**9.8 J**	**7.5 J**	**1,600**	**1,200 J**	340 U	280 U	200 U	210 U	**16 J**	**50,000**	**3,000**	210 U	**430**	**2,400**	**23 J**	200 U	**8.2 J**	310 U
Benzo(a)pyrene	ug/kg	**10 J**	200 U	**1,300**	**1,200 J**	340 U	280 U	200 U	210 U	**9.7 J**	**35,000**	**2,100**	210 U	**340**	**1,700**	**21 J**	200 U	260 U	310 U
Benzo(b)fluoranthene	ug/kg	190 U	200 U	**1,400**	**1,000 J**	340 U	280 U	200 U	210 U	**6.3 J**	**13,000 J**	**650**	210 U	**410**	**2,100**	**16 J**	200 U	260 U	310 U
Benzo(g,h,i)perylene	ug/kg	**11 J**	200 U	**840 J**	**900 J**	340 U	280 U	200 U	210 U	200 U	**15,000 J**	**720 J**	210 U	**210 J**	**1,100 J**	**13 J**	200 U	260 U	310 U
Benzo(k)fluoranthene	ug/kg	190 U	200 U	**1,200**	**1,000 J**	340 U	280 U	200 U	210 U	**6.5 J**	**20,000 J**	**1,000**	210 U	**120 J**	**680 J**	270 U	200 U	260 U	310 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-42	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
Sample Number:		059-2066	059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127
Sample Depth:		25-30	30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	**7.9 J**	23,000 U	200 U	210 U	**17 J**	1,400 U	270 UJ	200 U	**9.9 J**	**11 J**
Biphenyl (diphenyl)	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	**7.3 J**	**11 J**	**33,000**	**1,400**	210 U	**72 J**	**280 J**	270 UJ	200 U	260 U	310 U
Bis(2-chloroethoxy) methane	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Bis(2-chloroethyl) ether	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Bis(2-chloroisopropyl) ether	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Bis(2-ethylhexyl) phthalate	ug/kg	**11 J**	**16 J**	**140 J**	**180 J**	**57 J**	**48 J**	**40 J**	**72 J**	**49 J**	23,000 U	**58 J**	**64 J**	**38 J**	1,400 U	**28 J**	**15 J**	**32 J**	**25 J**
Caprolactam	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 UJ	200 U	260 U	310 U
Carbazole	ug/kg	190 U	200 U	**430**	2,100 U	340 U	280 U	200 U	210 U	200 U	**1,400 J**	**49 J**	210 U	**73 J**	**410 J**	270 UJ	200 U	260 U	310 U
Chrysene	ug/kg	**6.5 J**	200 U	**1,600**	**1,100 J**	340 U	280 U	200 U	210 U	**14 J**	**47,000 J**	**2,700**	210 U	**330**	**1,800**	**20 J**	200 U	260 U	310 U
Dibenz(a,h)anthracene	ug/kg	190 U	200 U	**350**	**350 J**	340 U	280 U	200 U	210 U	200 U	**6,400 J**	**270 J**	210 U	**50 J**	**250 J**	270 U	200 U	260 U	310 U
Dibenzofuran	ug/kg	190 U	200 U	**540**	**330 J**	340 U	280 U	200 U	210 U	200 U	**12,000 J**	**460**	210 U	**54 J**	**640 J**	270 UJ	200 U	260 U	310 U
Diethyl phthalate	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 UJ	200 U	260 U	310 U
Dimethyl phthalate	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 UJ	200 U	260 U	310 U
Di-n-butyl phthalate	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Di-n-octylphthalate	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 UJ	200 U	260 U	310 U
Fluoranthene	ug/kg	**13 J**	**8.9 J**	**3,600**	**2,200**	340 U	280 U	200 U	210 U	**21 J**	**89,000**	**5,100 J**	210 U	**850**	**5,600**	**48 J**	200 U	**13 J**	310 U
Fluorene	ug/kg	**7.5 J**	200 U	**800 J**	**430 J**	340 U	280 U	200 U	210 U	**9.3 J**	**84,000**	**4,500 J**	210 U	**290**	**1,200 J**	**31 J**	200 U	**14 J**	310 U
Hexachlorobenzene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Hexachlorobutadiene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Hexachlorocyclopentadiene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 UJ	1,400 U	270 U	200 U	260 U	310 U
Hexachloroethane	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Indeno(1,2,3-c,d)pyrene	ug/kg	190 U	200 U	**620**	**700 J**	340 U	280 U	200 U	210 U	200 U	**10,000 J**	**510**	210 U	**220 J**	**1,200 J**	**12 J**	200 UJ	260 UJ	310 UJ
Isophorone	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Naphthalene	ug/kg	**13 J**	**11 J**	**920 J**	**660 J**	**37 J**	**19 J**	**11 J**	**2,100**	**2,900**	**580,000**	**13,000**	**42 J**	**250 J**	**7,000**	**39 J**	**7.7 J**	**19 J**	**15 J**
Nitrobenzene	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
N-nitrosodi-n-propylamine	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
N-nitrosodiphenylamine	ug/kg	190 U	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	270 U	1,400 U	270 U	200 U	260 U	310 U
Pentachlorophenol	ug/kg	380 U	380 U	400 U	4,000 U	660 UJ	550 UJ	390 UJ	410 UJ	390 UJ	47,000 U	390 U	400 UJ	520 U	2,800 U	530 U	400 U	500 U	610 U
Phenanthrene	ug/kg	**32 J**	**9.4 J**	**3,800**	**1,800 J**	**15 J**	**13 J**	200 U	210 U	**69 J**	**360,000**	**17,000**	**18 J**	**1,300**	**5,400 J**	**150 J**	200 U	**54 J**	310 U
Phenol	ug/kg	**7 J**	200 U	210 U	2,100 U	340 U	280 U	200 U	210 U	200 U	23,000 U	200 U	210 U	**26 J**	**52 J**	**15 J**	**9.8 J**	**20 J**	**22 J**
Pyrene	ug/kg	**21 J**	**13 J**	**3,600**	**2,400**	340 U	280 U	200 U	210 U	**40 J**	**140,000**	**7,800**	**12 J**	**990**	**5,100**	**74 J**	200 U	**22 J**	310 U
Total PAHs	ug/kg	**158.9**	**49.8**	**25,100**	**16,770**	**70**	**42**	**11**	**2,234**	**3,321**	**2,066,400**	**84,550**	**99.9**	**6,998**	**40,260**	**582**	**7.7**	**184.2**	**27**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-44	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
Sample Number:		059-2128	059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174
Sample Depth:		35-40	40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2,3,4,6-tetrachlorophenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2,4,5-trichlorophenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2,4,6-trichlorophenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2,4-dichlorophenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2,4-dimethylphenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2,4-dinitrophenol	ug/kg	410 U	420 U	5,400 U	540 U	510 U	500 U	23,000 U	38,000 U	63,000 U	71,000 U	480 U	2,900 U	520 U	510 U	460 U	400 U	410 U	400 U
2,4-dinitrotoluene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2,6-dinitrotoluene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2-chloronaphthalene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2-chlorophenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2-methylnaphthalene	ug/kg	210 U	220 U	**250 J**	**62 J**	**110 J**	**510**	**63,000**	**99,000**	**230,000**	**210,000**	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2-methylphenol (o-cresol)	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
2-nitroaniline	ug/kg	410 U	420 U	5,400 U	540 U	510 U	500 U	23,000 U	38,000 U	63,000 U	71,000 U	480 U	2,900 U	520 U	510 U	460 U	400 U	410 U	400 U
2-nitrophenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
3,3'-dichlorobenzidine	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
3-nitroaniline	ug/kg	410 U	420 U	5,400 U	540 U	510 U	500 U	23,000 U	38,000 U	63,000 U	71,000 U	480 U	2,900 U	520 U	510 U	460 U	400 U	410 U	400 U
4,6-dinitro-2-methylphenol	ug/kg	410 U	420 U	5,400 U	540 U	510 U	500 U	23,000 U	38,000 U	63,000 U	71,000 U	480 U	2,900 U	520 U	510 U	460 U	400 U	410 U	400 U
4-bromophenyl phenyl ether	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
4-chloro-3-methylphenol	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
4-chloroaniline	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
4-chlorophenyl phenyl ether	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
4-methylphenol (p-cresol)	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	**35 J**	**140 J**	270 U	260 U	240 U	210 U	210 U	210 U
4-nitroaniline	ug/kg	410 U	420 U	5,400 U	540 U	510 U	500 U	23,000 U	38,000 U	63,000 U	71,000 U	480 U	2,900 U	520 U	510 U	460 U	400 U	410 U	400 U
4-nitrophenol	ug/kg	410 U	420 U	5,400 U	540 U	510 U	500 U	23,000 U	38,000 U	63,000 U	71,000 U	480 U	2,900 U	520 U	510 U	460 U	400 U	410 U	400 U
Acenaphthene	ug/kg	**8.7 J**	**14 J**	**230 J**	**110 J**	**19 J**	**80 J**	**14,000**	**24,000**	**110,000**	**120,000**	250 U	**150 J**	270 U	260 U	240 U	**12 J**	**16 J**	**11 J**
Acenaphthylene	ug/kg	210 U	220 U	2,800 U	**11 J**	**8.1 J**	**38 J**	**14,000**	**20,000**	**6,700 J**	**8,300 J**	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Acetophenone	ug/kg	**56 J**	**52 J**	**200 J**	**84 J**	**83 J**	**87 J**	**810 J**	**990 J**	**1,900 J**	**1,700 J**	**45 J**	**150 J**	**47 J**	**34 J**	**53 J**	**35 J**	**39 J**	**50 J**
Anthracene	ug/kg	210 U	220 U	**210 J**	**180 J**	260 U	260 U	**11,000 J**	**22,000**	**48,000**	**59,000**	**11 J**	**340 J**	270 U	260 U	240 U	210 U	210 U	210 U
Atrazine	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Benzaldehyde	ug/kg	**90 J**	**73 J**	**1,400 J**	**190 J**	**160 J**	**140 J**	12,000 U	19,000 U	32,000 U	36,000 U	**58 J**	**200 J**	**71 J**	**47 J**	**96 J**	**58 J**	**62 J**	**98 J**
Benzo(a)anthracene	ug/kg	210 UJ	220 U	**720 J**	**250 J**	260 U	260 U	**5,700 J**	**11,000 J**	**27,000 J**	**30,000 J**	**36 J**	**780 J**	270 U	260 U	240 U	210 U	210 U	210 U
Benzo(a)pyrene	ug/kg	210 U	220 U	**820 J**	**170 J**	260 U	260 U	**3,800 J**	**7,900 J**	**20,000 J**	**22,000 J**	**41 J**	**520 J**	270 U	260 U	240 U	210 U	210 U	210 U
Benzo(b)fluoranthene	ug/kg	210 U	220 U	**960 J**	**220 J**	260 U	260 U	**3,000 J**	**5,600 J**	**15,000 J**	**16,000 J**	**28 J**	**570 J**	270 U	260 U	240 U	210 U	210 U	210 U
Benzo(g,h,i)perylene	ug/kg	210 U	220 U	**520 J**	**97 J**	260 U	260 U	**1,600 J**	**2,900 J**	**7,900 J**	**7,200 J**	**33 J**	**340 J**	270 U	260 U	240 U	210 U	210 U	210 U
Benzo(k)fluoranthene	ug/kg	210 U	220 U	**390 J**	**70 J**	260 U	260 U	**1,200 J**	**2,100 J**	**6,700 J**	**6,800 J**	**13 J**	**170 J**	270 U	260 U	240 U	210 U	210 U	210 U

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-44	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
Sample Number:		059-2128	059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174
Sample Depth:		35-40	40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Benzyl butyl phthalate	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Biphenyl (diphenyl)	ug/kg	210 U	220 U	2,800 U	**11 J**	**9.1 J**	**43 J**	**6,500 J**	**9,500 J**	**22,000 J**	**24,000 J**	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Bis(2-chloroethoxy) methane	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Bis(2-chloroethyl) ether	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Bis(2-chloroisopropyl) ether	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Bis(2-ethylhexyl) phthalate	ug/kg	**24 J**	**13 J**	2,800 U	**33 J**	**22 J**	**29 J**	12,000 U	19,000 U	32,000 U	36,000 U	**98 J**	**120 J**	**43 J**	**53 J**	**85 J**	**56 J**	**36 J**	**61 J**
Caprolactam	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Carbazole	ug/kg	210 U	220 U	2,800 U	**14 J**	260 U	260 U	**1,500 J**	**1,100 J**	**1,300 J**	**2,200 J**	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Chrysene	ug/kg	210 UJ	220 U	**660 J**	**210 J**	260 U	260 U	**4,000 J**	**8,500 J**	**24,000 J**	**25,000 J**	**31 J**	**720 J**	270 U	260 U	240 U	210 U	210 U	210 U
Dibenz(a,h)anthracene	ug/kg	210 U	220 U	**210 J**	**38 J**	260 U	260 U	**740 J**	**1,200 J**	**3,200 J**	**2,800 J**	**9.2 J**	**130 J**	270 U	260 U	240 U	210 U	210 U	210 U
Dibenzofuran	ug/kg	210 U	220 U	2,800 U	**37 J**	260 U	260 U	**1,800 J**	**2,700 J**	**5,900 J**	**7,100 J**	250 U	**59 J**	270 U	260 U	240 U	210 U	210 U	210 U
Diethyl phthalate	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Dimethyl phthalate	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Di-n-butyl phthalate	ug/kg	210 U	220 U	2,800 U	280 U	260 U	**11 J**	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Di-n-octylphthalate	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Fluoranthene	ug/kg	210 UJ	220 U	**1,200 J**	**530**	260 U	260 U	**11,000 J**	**22,000**	**50,000**	**61,000**	**41 J**	**1,100 J**	270 U	260 U	240 U	210 U	210 U	210 U
Fluorene	ug/kg	210 U	220 U	**110 J**	**77 J**	260 U	**21 J**	**16,000**	**27,000**	**56,000**	**70,000**	250 U	**69 J**	270 U	260 U	240 U	210 U	210 U	210 U
Hexachlorobenzene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Hexachlorobutadiene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Hexachlorocyclopentadiene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Hexachloroethane	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Indeno(1,2,3-c,d)pyrene	ug/kg	210 UJ	220 UJ	**540 J**	**110 J**	260 U	260 U	**1,600 J**	**2,800 J**	**7,600 J**	**7,000 J**	**36 J**	**290 J**	270 U	260 U	240 U	210 U	210 U	210 U
Isophorone	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Naphthalene	ug/kg	210 U	220 U	**1,400 J**	**340**	**260 J**	**960**	**140,000**	**170,000**	**170,000**	**340,000**	**8 J**	**110 J**	270 U	260 U	240 U	**6.3 J**	**6.7 J**	**16 J**
Nitrobenzene	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
N-nitrosodi-n-propylamine	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
N-nitrosodiphenylamine	ug/kg	210 U	220 U	2,800 U	280 U	260 U	260 U	12,000 U	19,000 U	32,000 U	36,000 U	250 U	1,500 U	270 U	260 U	240 U	210 U	210 U	210 U
Pentachlorophenol	ug/kg	410 U	420 U	5,400 U	540 U	510 U	500 U	23,000 U	38,000 U	63,000 U	71,000 U	480 U	2,900 U	520 U	510 U	460 U	400 U	410 U	400 U
Phenanthrene	ug/kg	**8.4 J**	**11 J**	**500 J**	**250 J**	**8.8 J**	**11 J**	**42,000**	**74,000**	**180,000**	**220,000**	**33 J**	**610 J**	270 U	260 U	240 U	210 U	210 U	**6.7 J**
Phenol	ug/kg	**10 J**	**12 J**	**88 J**	**19 J**	**25 J**	**22 J**	12,000 U	19,000 U	32,000 U	36,000 U	**9 J**	**57 J**	**8.3 J**	260 U	**9.5 J**	**6.6 J**	**6.3 J**	**8.9 J**
Pyrene	ug/kg	210 UJ	**7.8 J**	**1,000 J**	**430**	260 U	260 U	**15,000**	**33,000**	**78,000**	**88,000**	**47 J**	**1,500 J**	270 U	260 U	240 U	210 U	210 U	210 U
Total PAHs	ug/kg	**17.1**	**32.8**	**9,720**	**3,155**	**405.9**	**1,620**	**347,640**	**533,000**	**1,040,100**	**1,293,100**	**367.2**	**7,399**	ND	ND	ND	**18.3**	**22.7**	**33.7**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2175	059-2176	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239	059-2240
Sample Depth:		45-50	50-55	10-15	15-20	25-30	30-35	36-36.5	40-40.5	45-45.5
Sample Date:		6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**								
1,2,4,5-tetrachlorobenzene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2,3,4,6-tetrachlorophenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2,4,5-trichlorophenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2,4,6-trichlorophenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2,4-dichlorophenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2,4-dimethylphenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2,4-dinitrophenol	ug/kg	370 U	380 U	2,500 U	520 U	12,000 U	600,000 U	350,000 U	48,000 U	1,900 U
2,4-dinitrotoluene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2,6-dinitrotoluene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2-chloronaphthalene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2-chlorophenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2-methylnaphthalene	ug/kg	190 U	190 U	**390 J**	**160 J**	**1,500 J**	**870,000**	**1,200,000**	**120,000**	**1,700**
2-methylphenol (o-cresol)	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
2-nitroaniline	ug/kg	370 U	380 U	2,500 U	520 U	12,000 U	600,000 U	350,000 U	48,000 U	1,900 U
2-nitrophenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
3,3'-dichlorobenzidine	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
3-nitroaniline	ug/kg	370 U	380 U	2,500 U	520 U	12,000 U	600,000 U	350,000 U	48,000 U	1,900 U
4,6-dinitro-2-methylphenol	ug/kg	370 U	380 U	2,500 U	520 U	12,000 U	600,000 U	350,000 U	48,000 U	1,900 U
4-bromophenyl phenyl ether	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
4-chloro-3-methylphenol	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
4-chloroaniline	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
4-chlorophenyl phenyl ether	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
4-methylphenol (p-cresol)	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
4-nitroaniline	ug/kg	370 U	380 U	2,500 U	520 U	12,000 U	600,000 U	350,000 U	48,000 U	1,900 U
4-nitrophenol	ug/kg	370 U	380 U	2,500 U	520 U	12,000 U	600,000 U	350,000 U	48,000 U	1,900 U
Acenaphthene	ug/kg	**9.1 J**	**47 J**	**500 J**	**86 J**	**12,000**	**290,000 J**	**100,000 J**	**67,000**	**1,100**
Acenaphthylene	ug/kg	190 U	**25 J**	1,300 U	**31 J**	**750 J**	**160,000 J**	**490,000**	**11,000 J**	**300 J**
Acetophenone	ug/kg	**35 J**	**46 J**	**75 J**	**84 J**	**1,300 J**	300,000 U	180,000 U	**1,400 J**	**55 J**
Anthracene	ug/kg	190 U	190 U	**440 J**	**77 J**	**6,400**	**210,000 J**	**260,000**	**38,000**	**740 J**
Atrazine	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Benzaldehyde	ug/kg	**50 J**	**73 J**	**120 J**	**110 J**	6,200 U	300,000 U	180,000 U	24,000 U	**63 J**
Benzo(a)anthracene	ug/kg	190 U	190 U	**360 J**	**66 J**	**3,400 J**	**140,000 J**	**150,000 J**	**25,000**	**520 J**
Benzo(a)pyrene	ug/kg	190 U	190 U	**280 J**	**38 J**	**2,300 J**	**94,000 J**	**110,000 J**	**16,000 J**	**340 J**
Benzo(b)fluoranthene	ug/kg	190 U	190 U	**330 J**	**27 J**	**1,700 J**	**69,000 J**	**83,000 J**	**13,000 J**	**280 J**
Benzo(g,h,i)perylene	ug/kg	190 U	190 U	**170 J**	**19 J**	**990 J**	**42,000 J**	**47,000 J**	**7,500 J**	**140 J**
Benzo(k)fluoranthene	ug/kg	190 U	190 U	**100 J**	**15 J**	**660 J**	**26,000 J**	**26,000 J**	**3,200 J**	**91 J**

TABLE I-28A
SVOC Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2175	059-2176	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239	059-2240
Sample Depth:		45-50	50-55	10-15	15-20	25-30	30-35	36-36.5	40-40.5	45-45.5
Sample Date:		6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**								
Benzyl butyl phthalate	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Biphenyl (diphenyl)	ug/kg	190 U	190 U	**110 J**	**23 J**	**2,000 J**	**85,000 J**	**110,000 J**	**14,000 J**	**210 J**
Bis(2-chloroethoxy) methane	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Bis(2-chloroethyl) ether	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Bis(2-chloroisopropyl) ether	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Bis(2-ethylhexyl) phthalate	ug/kg	**36 J**	**46 J**	1,300 U	**46 J**	**300 J**	300,000 U	180,000 U	24,000 U	980 U
Caprolactam	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Carbazole	ug/kg	190 U	190 U	**280 J**	**10 J**	**300 J**	300,000 U	**8,800 J**	**1,000 J**	980 U
Chrysene	ug/kg	190 U	190 U	**330 J**	**54 J**	**3,100 J**	**120,000 J**	**150,000 J**	**24,000 J**	**460 J**
Dibenz(a,h)anthracene	ug/kg	190 U	190 U	**67 J**	270 U	**360 J**	300,000 U	**15,000 J**	**2,600 J**	980 U
Dibenzofuran	ug/kg	190 U	190 U	**410 J**	**28 J**	**630 J**	**27,000 J**	180,000 U	**4,800 J**	**87 J**
Diethyl phthalate	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Dimethyl phthalate	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Di-n-butyl phthalate	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Di-n-octylphthalate	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Fluoranthene	ug/kg	190 U	190 U	**920 J**	**100 J**	**5,600 J**	**220,000 J**	**270,000**	**39,000**	**840 J**
Fluorene	ug/kg	190 U	190 U	**470 J**	**78 J**	**5,600 J**	**230,000 J**	**290,000 J**	**38,000 J**	**740 J**
Hexachlorobenzene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Hexachlorobutadiene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Hexachlorocyclopentadiene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Hexachloroethane	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Indeno(1,2,3-c,d)pyrene	ug/kg	190 U	190 U	**200 J**	**19 J**	**920 J**	**37,000 J**	**45,000 J**	**7,500 J**	**110 J**
Isophorone	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Naphthalene	ug/kg	**6.4 J**	**26 J**	**1,400**	**330**	**1,700 J**	**1,500,000**	**2,100,000**	**150,000**	**1,300**
Nitrobenzene	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
N-nitrosodi-n-propylamine	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
N-nitrosodiphenylamine	ug/kg	190 U	190 U	1,300 U	270 U	6,200 U	300,000 U	180,000 U	24,000 U	980 U
Pentachlorophenol	ug/kg	370 U	380 U	2,500 U	520 U	12,000 U	600,000 U	350,000 U	48,000 U	1,900 U
Phenanthrene	ug/kg	190 U	190 U	**1,300 J**	**270**	**24,000**	**820,000**	**1,000,000**	**150,000**	**2,900**
Phenol	ug/kg	190 U	**8.5 J**	1,300 U	**16 J**	**220 J**	300,000 U	180,000 U	24,000 U	980 U
Pyrene	ug/kg	**6.1 J**	190 U	**920 J**	**160 J**	**10,000**	**370,000**	**430,000**	**66,000**	**1,500**
Total PAHs	ug/kg	**21.6**	**98**	**8,177**	**1,530**	**80,980**	**5,198,000**	**6,766,000**	**777,800**	**13,061**

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:		SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G	SB02G-S-NYC	SB02H
Sample Depth:		0-5	5-10	10-15	15-20	15-20	20-25	30-35	35-40	35-40	0-5	10-15	10-15	15-20	20-25	25-30	30-35	30-35	35-36
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		N	N	N	N	S	N	N	N	S	N	N	S	N	N	N	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg		60.8 J		96	3,500	35.1 J			4.3			2.5 J					1.1 J	
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																		
Acenaphthene	ug/kg	108	1,040	149	259	7,200	175			22 J	24.2 J		1.7 J					5.4	
Acenaphthylene	ug/kg	32.4 J	18.1 J		23.8 J	100 J	17.4 J						1.6 J					0.87 J	
*Acetophenone	ug/kg																		
Anthracene	ug/kg	168	312	58.2	256	15,000	229			22 J	55.1		10					4.8	
*Benzaldehyde	ug/kg												47 J						
Benzo(a)anthracene	ug/kg	392	149	91.9	581	**21,000 J (Q)**	493			36 J	149	32.3 J	42 J				19.2 J	13	
Benzo(a)pyrene	ug/kg	353	104	89.2	598	16,000	498			39 J	161	34.8 J	43 J					20	
Benzo(b)fluoranthene	ug/kg	349	84	69.7	492	**15,000 (Q)**	370			34 J	147	32.6 J	33					10	
Benzo(g,h,i)perylene	ug/kg	189	54	50.3	317	11,000	264			19	82.6	20.2 J	29					11	
Benzo(k)fluoranthene	ug/kg	226	72.2	63.9	374	**11,000 (Q)**	305			26 J	116	24.9 J	46 J					8.7	
*Benzyl butyl phthalate	ug/kg									20 J									
*Biphenyl (diphenyl)	ug/kg					920 J													
*Bis(2-ethylhexyl) phthalate	ug/kg	84.4		47.9 J						130 J	32.4 J	107	71 J			43.2 J	55.2 J	77 J	68.8 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg	37.2 J	30.9 J		122	7,100	88.5				19.3 J								
Chrysene	ug/kg	503	135	89.6	616	**19,000 (Q)**	548			39 J	150	37 J	46 J				18 J	13	
Dibenz(a,h)anthracene	ug/kg	53.9			105	3,800	82.5			6.5	27.6 J		9.5					2.7 J	
Dibenzofuran	ug/kg	48.6 J	564	62 J	98.1	6,600	73 J				15.5 J								
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg							141											
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	901	838	269	1,430	56,000	1,160			88 J	301	55	78 J				35 J	31 J	
Fluorene	ug/kg	87.1	755	55.8	170	12,000 J	128			8	22.6 J		4.3 J					3.3 J	
Indeno(1,2,3-c,d)pyrene	ug/kg	171	39.9 J	42.7	290	**10,000 (Q)**	229			18	78.1	19.1 J	28					9.2	
Naphthalene	ug/kg	20.2 J		44.5	150	6,600	100			6.7	35.7		5.3	97.4 J	45.2			4 J	
Phenanthrene	ug/kg	478	1,490	162	1,330	67,000	1,100			72 J	222	26.7 J	41 J		16 J		23.8 J	17	
Phenol	ug/kg			**531 (Q)**			50.4 J												
Pyrene	ug/kg	769	641	225	1,280	34,000	1,220	13.8 J	15.3 J	80 J	302	57.3	71 J			22.2 J	44.8	45 J	22.7 J
*Total PAHs	ug/kg	4,801	5,793	1,461	8,368	308,200	6,954	13.8	15.3	520.5	1,874	339.9	491.9	97.4	61.2	22.2	140.8	200.07	22.7

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05	GCMW-05	GCMW-05
Sample Number:		059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032	059-2033	059-2034
Sample Depth:		10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15	15-20	25-30
Sample Date:		5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010	5/21/2010	5/21/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg	110 J	14,000	480,000	370		60 J		13 J					12 J		250 J	9.4 J		
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg	16 J							**470 (Q)**	13 J									
Acenaphthene	ug/kg	240 J	23,000	80,000 J	190 J	12 J	5,600	2,500								240 J	23 J	22 J	8.2 J
Acenaphthylene	ug/kg	23 J	3,300 J	**290,000 (Q)**	140 J	6.1 J	650 J	290 J											
*Acetophenone	ug/kg	91 J			44 J	32 J		34 J	38 J	48 J	34 J	55 J	44 J	54 J	40 J		40 J	30 J	17 J
Anthracene	ug/kg	95 J	29,000	200,000	280	9.5 J	820 J	1,600	12 J		6.3 J					170 J			
*Benzaldehyde	ug/kg	160 J			88 J	74 J	61 J	63 J	100 J	110 J	61 J	95 J	73 J	81 J	66 J		62 J	48 J	32 J
Benzo(a)anthracene	ug/kg	120 J	**19,000 (Q)**	**140,000 J (Q)**	260	44 J	**7,100 (Q)**	**1,300 (Q)**	14 J		21 J					380 J	11 J		
Benzo(a)pyrene	ug/kg	69 J	15,000	**110,000 J (Q)**	190 J	34 J	6,000	1,100	14 J							300 J			
Benzo(b)fluoranthene	ug/kg	69 J	**12,000 (Q)**	**82,000 J (Q)**	150 J	29 J	**3,900 (Q)**	750 J	14 J		23 J					240 J			
Benzo(g,h,i)perylene	ug/kg		6,900	38,000 J	78 J		2,500	340 J	10 J							310 J			
Benzo(k)fluoranthene	ug/kg	28 J	**4,600 J (Q)**	**31,000 J (Q)**	57 J		**1,900 (Q)**	380 J	9.3 J		10 J					110 J			
*Benzyl butyl phthalate	ug/kg										32 J								
*Biphenyl (diphenyl)	ug/kg	27 J	420 J	65,000 J	56 J			200 J											
*Bis(2-ethylhexyl) phthalate	ug/kg	50 J			28 J	42 J			29 J	36 J	20 J	28 J	23 J	43 J	20 J	82 J	31 J	30 J	18 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg		350 J	4,000	11 J				6.6 J		18 J								
Chrysene	ug/kg	94 J	**20,000 (Q)**	**130,000 J (Q)**	210	37 J	**5,200 (Q)**	990 J	15 J							380 J	9.7 J		
Dibenz(a,h)anthracene	ug/kg		1,800 J	9,000 J			680 J									93 J			
Dibenzofuran	ug/kg	11 J	2,200 J	25,000 J	25 J		350 J	190 J	13 J							120 J			
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg								45 J	74 J	48 J	47 J	43 J	50 J	61 J				
*Di-n-octylphthalate	ug/kg										28 J								
Fluoranthene	ug/kg	240 J	34,000	230,000	440	75 J	12,000	2,300	39 J							520 J	18 J		
Fluorene	ug/kg	78 J	22,000	250,000	270		450 J	230 J	13 J							210 J	9.3 J		
Indeno(1,2,3-c,d)pyrene	ug/kg		6,000	**34,000 J (Q)**	76 J		2,300	340 J								200 J			
Naphthalene	ug/kg	2,000	**51,000 (Q)**	**1,300,000 (Q)**	600	14 J	170 J	33 J	25 J					28 J		180 J	14 J	15 J	9.1 J
Phenanthrene	ug/kg	330	92,000	680,000	1,100	24 J	1,700 J	3,700	59 J	8.8 J						600 J	29 J	22 J	10 J
Phenol	ug/kg	20 J			9 J				24 J	14 J	9.1 J	11 J	8.5 J	9.4 J	8.1 J		15 J	14 J	6.8 J
Pyrene	ug/kg	220 J	60,000 J	390,000 J	490	78 J	17,000	3,200	39 J							540 J	19 J		
*Total PAHs	ug/kg	3,716	413,600	4,474,000	4,901	362.6	68,030	19,053	276.3	8.8	60.3			40		4,723	142.4	59	27.3

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-09	GCMW-09
Sample Number:		059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203	SB09A	SB09B
Sample Depth:		30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10
Sample Date:		5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg		14 J		36 J	23 J			14 J	470	97,000							166	100
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																		
Acenaphthene	ug/kg		1,200	65 J	110 J	240	6 J		74 J	330	63,000							378	381
Acenaphthylene	ug/kg		110 J			15 J				70 J	4,200 J							148	170
*Acetophenone	ug/kg	31 J	40 J	40 J	44 J		25 J	12 J	76 J	73 J		290 J	250 J	210 J	210 J	110 J	130 J		
Anthracene	ug/kg		930	44 J	56 J	160 J			140 J	190 J	33,000							1,040	1,340
*Benzaldehyde	ug/kg	57 J	62 J	39 J	73 J	45 J	36 J	19 J	88 J	100 J									
Benzo(a)anthracene	ug/kg		580	15 J	22 J	70 J			370	130 J	**19,000 (Q)**							**1,870 (Q)**	**2,850 (Q)**
Benzo(a)pyrene	ug/kg		520	15 J	16 J	54 J			270	83 J	13,000							1,640	2,480
Benzo(b)fluoranthene	ug/kg		400	9.1 J	14 J	46 J			390	68 J	**10,000 J (Q)**							1,500	**2,390 (Q)**
Benzo(g,h,i)perylene	ug/kg		210 J			28 J			160 J	34 J	4,400 J							986	1,400
Benzo(k)fluoranthene	ug/kg		120 J			19 J			110 J	23 J	**4,300 J (Q)**							995	1,470
*Benzyl butyl phthalate	ug/kg									8.7 J									
*Biphenyl (diphenyl)	ug/kg		83 J		11 J	18 J				71 J	12,000 J							61.8	40.4 J
*Bis(2-ethylhexyl) phthalate	ug/kg	18 J	39 J	28 J	28 J	24 J	47 J	11 J	24 J	25 J		86 J		88 J	81 J	49 J	41 J	79.3	37.3 J
*Caprolactam	ug/kg						9.1 J												
*Carbazole	ug/kg								67 J	8.2 J	840 J							305	505
Chrysene	ug/kg	5.7 J	610	19 J	19 J	83 J			300	100 J	**18,000 (Q)**							**1,870 (Q)**	**2,790 (Q)**
Dibenz(a,h)anthracene	ug/kg		47 J			9.6 J			46 J	12 J	1,900 J							344	504
Dibenzofuran	ug/kg		84 J			15 J			29 J	25 J	3,700 J							306	316
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		34.2 J
*Di-n-butyl phthalate	ug/kg									6.5 J									
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	11 J	1,300	41 J	59 J	180 J	8 J	9.6 J	650	190 J	30,000							4,290	6,050
Fluorene	ug/kg		110 J		18 J	12 J			72 J	220	34,000							487	475
Indeno(1,2,3-c,d)pyrene	ug/kg		170 J			25 J			180 J	29 J	4,500 J							895	1,310
*Methyl isobutyl ketone	ug/kg													320 NJ					
Naphthalene	ug/kg		10 J	14 J	30 J	31 J			11 J	570	**120,000 (Q)**	46 J	40 J	40 J	42 J	30 J	30 J	275	146
Phenanthrene	ug/kg	11 J	2,800	120 J	170 J	460	17 J	14 J	540	650	92,000							4,120	5,420
Phenol	ug/kg	9.4 J	13 J	15 J	15 J	11 J	8.1 J		11 J	13 J		46 J	50 J	41 J	44 J	19 J	16 J		
Pyrene	ug/kg	13 J	1,300	38 J	56 J	220 J	7.9 J	12 J	610	310	52,000							4,000	5,440
*Total PAHs	ug/kg	40.7	10,431	380.1	606	1,676	38.9	35.6	3,937	3,479	600,300	46	40	40	42	30	30	25,004	34,716

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:		DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F	SB10G	SB10H	SB10I	SB10I-S-NYC
Sample Depth:		5-10	10-15	10-15	15-20	20-25	25-30	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	40-45
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:		FD	N	S	N	N	N	S	N	N	N	S	N	N	N	N	N	N	S
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg								111 J	162									
*2-methylnaphthalene	ug/kg	60.6 J	97.8	250 J			83 J	2.3 J	934	3,200	34.3 J	380 J	172	99.9					8
2-methylphenol (o-cresol)	ug/kg									40.8 J									
4-methylphenol (p-cresol)	ug/kg																		
Acenaphthene	ug/kg	208	268	460 J	21.2 J		174	4.8	2,410	8,190	130	980 J	542	373	67.2	15.4 J	15.2 J	16.7 J	23 J
Acenaphthylene	ug/kg	78.1	124	120 J	17.2 J				1,300	1,980	48.5	100	300	176	34.5 J				5.5
*Acetophenone	ug/kg																		
Anthracene	ug/kg	533	786	1,200	77.8	18 J	602	3.8 J	7,070	21,400	340	2,000	1,640	1,020	218	52.1	50.2	58.4	63 J
*Benzaldehyde	ug/kg																		
Benzo(a)anthracene	ug/kg	**1,230 (Q)**	**1,660 (Q)**	**2,300 (Q)**	153		58.8	5.9	**13,400 (Q)**	**35,500 (Q)**	738	**4,500 (Q)**	**3,390 (Q)**	**2,170 (Q)**	447	97.5	104	122	170 J
Benzo(a)pyrene	ug/kg	995	1,450	2,100	114	41	64.9	10	13,300	**33,000 (Q)**	699	3,700	2,850	2,090	460	96.8	102	116	150
Benzo(b)fluoranthene	ug/kg	1,020	1,200	**1,900 (Q)**	111	43.7	72.6	5.1	**12,900 (Q)**	**37,000 (Q)**	542	**2,800 (Q)**	**3,130 (Q)**	**2,300 (Q)**	361	60.7	76.2	71.4	120 J
Benzo(g,h,i)perylene	ug/kg	578	919	1,100 J	78.9	23.1 J	32.6 J	4	6,950	15,500	413	1,700	1,830	1,300	289	60.1	61.2	71.8	78 J
Benzo(k)fluoranthene	ug/kg	590	923	1,600	79.2			3.9	**6,010 (Q)**	**11,900 (Q)**	477	**3,100 (Q)**	1,130	718	287	81.6	71.6	97.8	100 J
*Benzyl butyl phthalate	ug/kg							26 J											
*Biphenyl (diphenyl)	ug/kg	24.4 J	38 J	70 J					291	1,340			65.6 J	34.1 J					
*Bis(2-ethylhexyl) phthalate	ug/kg		51.3 J		77.7						37.8 J		69.7 J		47.7 J	51 J	119	63.2 J	110 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg	182	240	370 J	20.6 J		52.9 J		2,680	6,410	137	600 J	589	355	73.2				22 J
Chrysene	ug/kg	**1,060 (Q)**	**1,630 (Q)**	**2,300 (Q)**	152	42.6	125	5.5	**13,600 (Q)**	**33,700 (Q)**	709	**4,700 (Q)**	**2,980 (Q)**	**2,070 (Q)**	460	101	109	128	180 J
Dibenz(a,h)anthracene	ug/kg	199	306	490 J	24.6 J			1.4 J	3,410	7,760	191	650	875	609	125	25.8 J	20 J	30.1 J	29
Dibenzofuran	ug/kg	133	199	410 J	16.8 J		97		1,690	6,170	74.2	660 J	387	228	42.4 J				
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	2,020	3,630	4,900	303	82.7	544	11	35,000	92,100	1,930	10,000	8,140	5,400	1,230	262	278	329	390
Fluorene	ug/kg	226	318	560 J	28.1 J		299	2.7 J	2,910	10,400	140	1,100	669	408	73.5	16 J	14.7 J	18.9 J	33 J
Indeno(1,2,3-c,d)pyrene	ug/kg	559	804	1,200 J	69.2	24.3 J	32.8 J	3.9	6,780	**14,900 (Q)**	380	1,800	1,910	1,200	257	52.2	55.9	63.8	82 J
Naphthalene	ug/kg	90	183	430 J	17.6 J		58.3	7.6	1,800	7,760	48.1	710 J	327	175	36.8				11
Phenanthrene	ug/kg	2,040	3,120	4,900	277	69.6	1,420	12	25,300	80,000	1,520	11,000	6,220	3,970	946	196	227	258	370
Phenol	ug/kg																		
Pyrene	ug/kg	1,960	3,460	3,800	309	81.8	536	8	29,400	74,500	1,560	9,900	6,800	4,480	1,010	223	245	294	430
*Total PAHs	ug/kg	13,447	20,879	29,610	1,833	426.8	4,103	91.9	182,474	488,790	9,900	59,120	42,905	28,559	6,302	1,340	1,430	1,676	2,243

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039	059-2040	059-2041	059-2045	059-2042
Sample Depth:	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5	26.5-27	29.5-30	29.5-30	30-35
Sample Date:	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
*2,4-dimethylphenol	ug/kg			97 J	160 J							31 J						
*2-methylnaphthalene	ug/kg	7.5	620 J	260	62 J	10 J	10 J	55,000	810,000	1,700,000	3,000	8,400	190 J	13 J	15 J				
2-methylphenol (o-cresol)	ug/kg												41 J						
4-methylphenol (p-cresol)	ug/kg												57 J						
Acenaphthene	ug/kg	32 J	1,300 J	1,000	2,100	13 J		33,000	**450,000 (Q)**	**120,000 J (Q)**	320	120 J							
Acenaphthylene	ug/kg	3.9 J	1,600 J	21 J	28 J			1,900 J	27,000 J	**810,000 (Q)**	1,200	70 J	6.1 J						
*Acetophenone	ug/kg			64 J	78 J	72 J	48 J				39 J			35 J	28 J	26 J	33 J	21 J	45 J
Anthracene	ug/kg	96 J	6,400	450	1,100			18,000	180,000	370,000	860	250 J	23 J						
*Benzaldehyde	ug/kg			130 J	95 J	130 J	94 J	1,000 J			110 J			73 J	45 J	38 J	59 J	32 J	86 J
Benzo(a)anthracene	ug/kg	150 J	**18,000 (Q)**	45 J	92 J			**7,500 (Q)**	**88,000 J (Q)**	**190,000 J (Q)**	420	310 J	25 J						
Benzo(a)pyrene	ug/kg	150	15,000	36 J	46 J			6,100 J	**66,000 (Q)**	**140,000 J (Q)**	400	240 J	20 J						
Benzo(b)fluoranthene	ug/kg	110 J	**18,000 (Q)**	38 J	56 J			**4,300 (Q)**	**55,000 (Q)**	**120,000 J (Q)**	270	170 J	15 J						
Benzo(g,h,i)perylene	ug/kg	77 J	8,900	50 J	25 J			2,500	23,000 J	53,000 J	260	130 J	19 J						
Benzo(k)fluoranthene	ug/kg	120 J	**5,000 J (Q)**	14 J	29 J			**1,800 J (Q)**	**20,000 J (Q)**	**32,000 J (Q)**	92 J	210 J	15 J						
*Benzyl butyl phthalate	ug/kg																		
*Biphenyl (diphenyl)	ug/kg		230 J	270 J	320			6,200	87,000	160,000 J	320 J	190 J	7.2 J						
*Bis(2-ethylhexyl) phthalate	ug/kg	71 J		48 J	25 J	29 J	19 J	44 J			55 J	67 J	22 J	22 J	15 J	46 J	24 J	33 J	21 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg	21 J	880 J	220 J	1,700			350 J	4,700 J	10,000 J	41 J	32 J							
Chrysene	ug/kg	170 J	**15,000 (Q)**	41 J	70 J			**7,200 (Q)**	**84,000 J (Q)**	**170,000 J (Q)**	430	290 J	21 J						
Dibenz(a,h)anthracene	ug/kg	29	2,100 J		9.1 J			700 J	5,700 J	16,000 J	48 J	60 J							
Dibenzofuran	ug/kg	30 J	1,400 J	1,100	2,300	10 J		1,700	24,000 J	46,000 J	92 J	94 J							
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	420	38,000	670	850			17,000	170,000	330,000	930	790	53 J						
Fluorene	ug/kg	50 J	2,500 J	1,200	3,800	20 J		17,000	240,000	**490,000 (Q)**	920	190 J	8.1 J						
Indeno(1,2,3-c,d)pyrene	ug/kg	81 J	**10,000 (Q)**	34 J	31 J			2,500	**19,000 J (Q)**	**43,000 J (Q)**	160 J	130 J	15 J						
Naphthalene	ug/kg	8.6	1,700 J	4,400	4,400	52 J	27 J	**71,000 (Q)**	**1,500,000 (Q)**	**3,100,000 (Q)**	3,900	8,200	100 J	16 J	25 J				
Phenanthrene	ug/kg	480	20,000	2,600	4,600	26 J		53,000	680,000	**1,300,000 (Q)**	2,800	940	77 J	9.4 J					
Phenol	ug/kg			17 J	15 J	15 J	14 J				13 J	43 J	36 J	13 J	12 J			11 J	9.9 J
Pyrene	ug/kg	430	24,000	250 J	350 J			20,000	280,000	600,000	1,100	790	59 J					8.6 J	
*Total PAHs	ug/kg	2,415	188,120	11,109	17,648	121	37	318,500	4,697,700	9,584,000	17,110	21,290	646.2	38.4	40			8.6	

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14
Sample Number:		059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188	059-2189	059-2190	059-2191	059-2197
Sample Depth:		35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15	15-20	20-25	25-30	25-30
Sample Date:		5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg			180 J									110 J						
*2-methylnaphthalene	ug/kg			21,000	8.5 J	16 J			29 J				2,900	15 J	7.5 J				
2-methylphenol (o-cresol)	ug/kg			15 J															
4-methylphenol (p-cresol)	ug/kg			35 J									110 J						
Acenaphthene	ug/kg			7,300					110 J	9.8 J		5.9 J	13,000	18 J	18 J				
Acenaphthylene	ug/kg			400 J															
*Acetophenone	ug/kg	31 J	25 J	160 J	66 J	66 J	120 J	130 J	67 J	49 J	38 J	48 J	170 J	120 J	82 J	110 J	110 J	130 J	170 J
Anthracene	ug/kg			3,300 J									2,200	14 J	11 J				
*Benzaldehyde	ug/kg	62 J	33 J		57 J	57 J	63 J	110 J	76 J	45 J	30 J	34 J							
Benzo(a)anthracene	ug/kg			910 J							7.5 J		870 J	12 J	7.6 J				
Benzo(a)pyrene	ug/kg			560 J									600 J	6.5 J					
Benzo(b)fluoranthene	ug/kg			620									800 J	11 J					
Benzo(g,h,i)perylene	ug/kg			330 J									450 J						
Benzo(k)fluoranthene	ug/kg			250 J									200 J						
*Benzyl butyl phthalate	ug/kg																		
*Biphenyl (diphenyl)	ug/kg			3,100 J									210 J						
*Bis(2-ethylhexyl) phthalate	ug/kg	16 J	20 J	110 J	150 J	120 J	60 J	140 J	59 J	48 J	250	240		48 J	40 J	48 J	53 J	71 J	42 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg			1,200					20 J				640 J						
Chrysene	ug/kg			800 J									770 J	10 J					
Dibenz(a,h)anthracene	ug/kg			81 J									120 J						
Dibenzofuran	ug/kg			4,800 J					9.2 J				15,000	42 J	39 J				
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg													7.8 J					
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg			4,000 J							13 J		2,200	25 J	13 J				
Fluorene	ug/kg			6,100 J					16 J				16,000	48 J	41 J				
Indeno(1,2,3-c,d)pyrene	ug/kg			330 J									420 J						
*Methyl isobutyl ketone	ug/kg														450 NJ				
Naphthalene	ug/kg			**56,000 (Q)**	36 J	53 J	13 J	19 J	180 J	7.4 J	6.8 J		1,700	61 J	29 J	30 J	29 J	39 J	47 J
Phenanthrene	ug/kg			14,000	8.7 J	12 J			20 J		16 J		9,000	62 J	34 J	6.6 J			
Phenol	ug/kg	6.4 J	7.1 J	30 J	14 J	14 J	23 J	28 J	14 J	11 J	7.7 J	15 J		18 J	12 J	18 J	17 J	17 J	34 J
Pyrene	ug/kg			3,200 J							15 J	12 J	2,200	25 J	11 J				
*Total PAHs	ug/kg			119,181	53.2	81	13	19	355	17.2	58.3	17.9	53,430	307.5	172.1	36.6	29	39	47

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-16	GCMW-16	GCMW-16
Sample Number:		059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097	059-2098	059-2079	059-2080	059-2081
Sample Depth:		30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20
Sample Date:		6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/1/2010	6/1/2010	6/1/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg					25 J													
*2-methylnaphthalene	ug/kg		12 J		7.3 J	7.2 J	3,100 J		120 J	10 J								63 J	
2-methylphenol (o-cresol)	ug/kg																	43 J	
4-methylphenol (p-cresol)	ug/kg																28 J	29 J	
Acenaphthene	ug/kg						7,300	260 J	410 J								92 J	230	
Acenaphthylene	ug/kg						1,500 J	1,000 J	70 J										
*Acetophenone	ug/kg	130 J	120 J	210	130 J	130 J			64 J	28 J	33 J	47 J	38 J	63 J	54 J	34 J		120 J	43 J
Anthracene	ug/kg						15,000	1,400 J	950 J	15 J							61 J	1,100	
*Benzaldehyde	ug/kg								92 J	70 J	73 J	93 J	67 J	130 J	100 J	67 J	93 J	130 J	58 J
Benzo(a)anthracene	ug/kg						**39,000 (Q)**	**8,600 J (Q)**	**3,400 (Q)**	69 J	9.9 J						120 J	**1,200 (Q)**	
Benzo(a)pyrene	ug/kg						**35,000 (Q)**	8,200 J	5,000	49 J	9.3 J						91 J	870	
Benzo(b)fluoranthene	ug/kg						**27,000 (Q)**	**4,000 J (Q)**	**3,900 (Q)**	41 J	7.6 J						100 J	1,200	
Benzo(g,h,i)perylene	ug/kg						21,000	3,900 J	4,100	33 J							43 J	370 J	
Benzo(k)fluoranthene	ug/kg						**25,000 (Q)**	**5,400 J (Q)**	**3,400 (Q)**	41 J	6.3 J						43 J	290	
*Benzyl butyl phthalate	ug/kg			8.3 J										6.2 J					
*Biphenyl (diphenyl)	ug/kg						710 J		42 J									12 J	
*Bis(2-ethylhexyl) phthalate	ug/kg	57 J	56 J	55 J	51 J	58 J			95 J	17 J	23 J	29 J	26 J	20 J	25 J	28 J	24 J	26 J	24 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg		6.6 J				9,300		440 J									480	
Chrysene	ug/kg						**34,000 (Q)**	**5,500 J (Q)**	**3,100 (Q)**	43 J	7.4 J						99 J	**1,300 (Q)**	
Dibenz(a,h)anthracene	ug/kg						6,600	1,000 J	1,100 J	8.8 J								120 J	
Dibenzofuran	ug/kg		11 J		7.3 J	5.6 J	4,500 J		220 J	9.4 J							8 J	190 J	
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg					6.6 J			58 J	26 J	37 J	51 J	25 J	36 J	40 J	21 J			
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg						93,000	6,200 J	5,000	65 J	10 J						230	2,300	
Fluorene	ug/kg						7,000		340 J								20 J	360	
Indeno(1,2,3-c,d)pyrene	ug/kg						**18,000 (Q)**	3,000 J	3,500	25 J							45 J	460	
*Methyl isobutyl ketone	ug/kg		560 NJ	370 NJ	620 NJ	440 NJ													
Naphthalene	ug/kg	30 J	56 J	29 J	41 J	42 J	6,600	1,100 J	280 J	17 J					6.1 J		34 J	77 J	
Phenanthrene	ug/kg		8.5 J		6.2 J	7.8 J	72,000	2,000 J	3,400	34 J	5.7 J						100 J	2,800	
Phenol	ug/kg	25 J	20 J	72 J	23 J	23 J			46 J	8.3 J	6.2 J	9.4 J	7.5 J	12 J	11 J	7 J	50 J	23 J	8.1 J
Pyrene	ug/kg						98,000	21,000	5,500	190 J	21 J				9.6 J	8.1 J	240 J	2,300 J	
*Total PAHs	ug/kg	30	76.5	29	54.5	57	509,100	72,560	43,570	640.8	77.2				15.7	8.1	1,318	15,040	

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18
Sample Number:	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17E	SB17F	SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A
Sample Depth:	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	20-25	25-30	30-35	35-40	40-45	40-45	2-5
Sample Date:	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010
Sample Type:	N	N	N	FD	N	N	N	N	N	N	S	N	N	N	N	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
*2,4-dimethylphenol	ug/kg								59.7 J									
*2-methylnaphthalene	ug/kg							1,610	279	93.2	220 J						16	
2-methylphenol (o-cresol)	ug/kg																	
4-methylphenol (p-cresol)	ug/kg										130 J							
Acenaphthene	ug/kg							7,430	977	404	710		34.9 J	97.1	23.2 J	28.8 J	69 J	
Acenaphthylene	ug/kg							123	253	99.9	220 J						5.4	
*Acetophenone	ug/kg	44 J	56 J	41 J	61 J	34 J	41 J	37 J										
Anthracene	ug/kg							16,900	2,150	1,130	1,900	25.7 J	35.4 J	59.6	16.2 J	21.7 J	58 J	
*Benzaldehyde	ug/kg	68 J	91 J	70 J	92 J	62 J	61 J	61 J										
Benzo(a)anthracene	ug/kg							**14,900 (Q)**	**2,690 (Q)**	**1,200 (Q)**	**2,300 (Q)**	40.3	50.5	17.5 J			55 J	25.7 J
Benzo(a)pyrene	ug/kg							13,000	1,870	975	2,100	37.6 J	49			18.9 J	62 J	36.9
Benzo(b)fluoranthene	ug/kg							**11,200 (Q)**	**1,720 (Q)**	697	**2,100 (Q)**	28.5 J	37.3				60 J	35.4
Benzo(g,h,i)perylene	ug/kg							5,860	914	387	970 J	19.6 J	39.7				33	35.3
Benzo(k)fluoranthene	ug/kg							**9,270 (Q)**	1,570	698	**2,000 (Q)**	23.4 J	38.4				43 J	20.9 J
*Benzyl butyl phthalate	ug/kg																21 J	
*Biphenyl (diphenyl)	ug/kg							774	114	46.8 J	85 J							
*Bis(2-ethylhexyl) phthalate	ug/kg	26 J	25 J	26 J	160 J	17 J	32 J	13 J	569	96	55 J	240 J		66.3 J			91 J	47.7 J
*Caprolactam	ug/kg																	
*Carbazole	ug/kg							5,030	712	288	490 J							
Chrysene	ug/kg							**13,900 (Q)**	**2,150 (Q)**	**1,150 (Q)**	**2,400 (Q)**	40.6	57.6	18.3 J		23.3 J	62 J	31.9
Dibenz(a,h)anthracene	ug/kg							2,340	362	170	550 J						12	
Dibenzofuran	ug/kg							5,410	722	327	590							
*Diethyl phthalate	ug/kg																	
*Dimethyl phthalate	ug/kg																	
*Di-n-butyl phthalate	ug/kg																	
*Di-n-octylphthalate	ug/kg																	
Fluoranthene	ug/kg							50,100	8,610	3,100	5,900	104	88.8	63.9	33.9 J	56.2	170 J	47.7
Fluorene	ug/kg							8,360	1,270	582	1,000 J						30 J	
Indeno(1,2,3-c,d)pyrene	ug/kg							6,000	878	405	1,100 J	18.4 J	27.9 J				32	21 J
Naphthalene	ug/kg							3,490	412	130	260 J						9.5	
Phenanthrene	ug/kg							55,000	10,100	3,480	6,000	108	73	43.7	24.2 J	57.6	140 J	17.5 J
Phenol	ug/kg	8.4 J	11 J	8.7 J	12 J	8.6 J	6.5 J	7.7 J										
Pyrene	ug/kg					8.4 J	7.4 J	11 J	34,700	8,020	2,170	3,600	96.8	159	82.8	34.7 J	64.2	120 J	46.7
*Total PAHs	ug/kg					8.4	7.4	11	254,183	44,225	16,871	33,330	542.9	691.5	382.9	132.2	270.7	976.9	319

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19
Sample Number:		SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K	SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01
Sample Depth:		5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55	50-55	50-55	55-58	2-5	2-5
Sample Date:		6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010
Sample Type:		N	N	FD	N	S	N	FD	N	N	N	N	N	N	S	SFD	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg	34.6 J	27.6 J	22.7 J		16					297,000	62,200	1,930	251	470	930	373	91.7	142
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																		
Acenaphthene	ug/kg	225	113	109	25 J	99 J		37.1			**109,000 (Q)**	19,900	1,070	203	320	550	272	34	49
Acenaphthylene	ug/kg	111	51.8	173	14.7 J	27 J	16.7 J				70,100	25,300	762	188	240	380	251		
*Acetophenone	ug/kg																		
Anthracene	ug/kg	708	230	403	58.7	150 J		93.6	34.6 J	30.4 J	83,500	21,700	1,210	292	450	660	369		13.1 J
*Benzaldehyde	ug/kg																		
Benzo(a)anthracene	ug/kg	**1,590 (Q)**	727	**3,560 (Q)**	178	520	30.1 J	239	90.2	84.3	**42,900 (Q)**	**11,400 (Q)**	650	178	280	420	196	16.8 J	26.3 J
Benzo(a)pyrene	ug/kg	1,610	656	3,170	163	490	30.1 J	218	72.1	66	**32,100 (Q)**	8,320	475	129	220	330	144		
Benzo(b)fluoranthene	ug/kg	1,520	496	**2,200 (Q)**	117	360	20.2 J	158	53.1	51.2	**13,500 (Q)**	**5,200 (Q)**	230	68.3	100	160 J	72.6		
Benzo(g,h,i)perylene	ug/kg	1,020	404	1,510	108	280 J	19.9 J	147	43.8	43.4	11,600	2,400	198	56.4	80	110 J	56.3		
Benzo(k)fluoranthene	ug/kg	696	486	**2,240 (Q)**	119	460	20.3 J	148	42.1 J	55.2	**20,600 (Q)**	**3,740 (Q)**	269	69.3	150 J	190 J	74.8		
*Benzyl butyl phthalate	ug/kg															27 J			
*Biphenyl (diphenyl)	ug/kg										32,700	7,770	292	51.9 J	83 J	150 J	69.6 J		
*Bis(2-ethylhexyl) phthalate	ug/kg	189								99.6		99.1	245	217			65.2 J	273	314
*Caprolactam	ug/kg																		
*Carbazole	ug/kg	138	46.6 J					23 J			1,540	360	30.6 J						
Chrysene	ug/kg	**1,470 (Q)**	743	**3,230 (Q)**	181	550	26.6 J	236	88.3	83.1	**40,400 (Q)**	**11,100 (Q)**	605	164	270	390	186	77	133
Dibenz(a,h)anthracene	ug/kg	560	139	553	34.3 J	120 J		43.7			2,630	692	64.1	15.1 J	25	35			
Dibenzofuran	ug/kg	78.1	43.5 J	34.8 J		32 J		16 J			10,600	1,800	129	26.2 J	54 J	88 J	30.3 J		
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																	31.8 J	
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	3,380	1,350	4,480	307	920	47.7	434	157	136	94,800	23,700	1,410	376	550	870	424	17.4 J	34.5
Fluorene	ug/kg	153	78.6	59.5		42 J		31.9 J			103,000	26,200	1,260	288	530	850	362	72.9	94.8
Indeno(1,2,3-c,d)pyrene	ug/kg	889	348	1,430	87.7	270 J	18.5 J	119	33.6 J	34.8 J	**10,900 (Q)**	2,170	175	51.3	81	110	47.7		
Naphthalene	ug/kg	37.3	45.9	54.9		36 J		13.9 J			**344,000 (Q)**	**62,100 (Q)**	1,560	149	240	460	253	13.1 J	26.9 J
Phenanthrene	ug/kg	1,890	457	202	119	220 J	22.2 J	284	87.6	83	308,000	78,200	4,420	1,050	1,800	2,600	1,260	81.7	125
Phenol	ug/kg																		
Pyrene	ug/kg	3,010	1,450	4,500	331	920	46.9	480	162	166	130,000	35,400	1,890	492	810	1,300	543	55.8	91.6
*Total PAHs	ug/kg	18,904	7,803	27,897	1,843	5,480	299.2	2,683	864.4	833.4	1,714,030	399,722	18,178	4,020	6,616	10,345	4,884	460.4	736.2

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20
Sample Number:		SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC	SB19M	059-2067	059-2068	059-2069	059-2070
Sample Depth:		5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60	60-62	5-10	10-15	25-30	30-35
Sample Date:		6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:		N	N	S	N	N	N	N	N	N	N	N	N	S	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg	109	208	380 J	89.5	68.3 J										92 J	540	160,000	710,000
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																220 J		
Acenaphthene	ug/kg	52.3	55.9	100 J	77.3	46.7										82 J	720	29,000 J	**140,000 J (Q)**
Acenaphthylene	ug/kg			9.2 J	60	27.4 J										95 J	62 J	42,000 J	**210,000 (Q)**
*Acetophenone	ug/kg															100 J	93 J		
Anthracene	ug/kg	22.2 J	33.8 J	110	203	92.8										190 J	810	40,000 J	160,000 J
*Benzaldehyde	ug/kg															140 J	110 J		
Benzo(a)anthracene	ug/kg	58.3	101	240 J	428	169		14.9 J						1 J		950 J	670 J	**20,000 J (Q)**	**77,000 J (Q)**
Benzo(a)pyrene	ug/kg	45.3	58.9	130 J	410	158								6.1		1,400	550	15,000 J	**58,000 (Q)**
Benzo(b)fluoranthene	ug/kg	36.8	46.1	170 J	347	132								2.3 J		1,100 J	350 J	**10,000 J (Q)**	**42,000 J (Q)**
Benzo(g,h,i)perylene	ug/kg	31.2	35	120	225	95.5								1.1 J		1,500	350 J		21,000 J
Benzo(k)fluoranthene	ug/kg	28.5 J	44.6	120 J	300	122								1.6 J		1,100 J	400 J	**4,500 J (Q)**	**18,000 J (Q)**
*Benzyl butyl phthalate	ug/kg																		
*Biphenyl (diphenyl)	ug/kg		17 J		18.9 J												160 J	17,000 J	70,000
*Bis(2-ethylhexyl) phthalate	ug/kg	152	235	400 J	296	311	51.4 J	83.6	55.7 J	72.1	143	138	118	230	349	45 J	25 J		
*Caprolactam	ug/kg																		
*Carbazole	ug/kg				25.3 J	24.7 J										61 J	200 J		4,700 J
Chrysene	ug/kg	117	287	680	474	208		15.2 J						1.5 J		800 J	610 J	**18,000 J (Q)**	**70,000 (Q)**
Dibenz(a,h)anthracene	ug/kg			45	72.4	34.5 J										410 J	120 J		
Dibenzofuran	ug/kg			68 J	51 J	23.7 J										88 J	450 J	4,500 J	21,000 J
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg						126	91	68 J	77.2									
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	120	151	420 J	780	290		19 J						1.2 J		990 J	1,900 J	34,000 J	140,000 J
Fluorene	ug/kg	80.4	101	200 J	142	64.3										54 J	650	48,000 J	200,000
Indeno(1,2,3-c,d)pyrene	ug/kg	24 J	27.9 J	87	214	89.3								1.2 J		1,100 J	290 J		**17,000 J (Q)**
Naphthalene	ug/kg	20.8 J	46.8	90 J	53.5	33.1 J			40.1		22.5 J			1.7 J		280 J	1,100	**290,000 (Q)**	**1,300,000 (Q)**
Phenanthrene	ug/kg	189	312	700	617	245		22.2 J			17.6 J			1.2 J		360 J	2,700	130,000	500,000
Phenol	ug/kg																49 J		
Pyrene	ug/kg	142	265	390 J	616	241		17.8 J								1,500	1,600 J	58,000 J	240,000
*Total PAHs	ug/kg	1,077	1,774	3,991	5,109	2,117		89.1	40.1		40.1			18.9		12,003	13,422	898,500	3,903,000

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(0-5)	GC-MW23I(5-10)	GC-MW23I(10-15)	SB23IC-S-NG	GC-MW23I(15-20)	GC-MW23I(20-25)	GC-MW23I(25-30)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG
Sample Depth:	35-40	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-39	35-39	35-39
Sample Date:	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	S	N	N	N	N	N	FD	S
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
*2,4-dimethylphenol	ug/kg																	
*2-methylnaphthalene	ug/kg	33,000		10 J				700	110 J		4.1 J	30 J	130,000	830	26,000	290,000	380,000	340,000 J
2-methylphenol (o-cresol)	ug/kg																	
4-methylphenol (p-cresol)	ug/kg		10 J															
Acenaphthene	ug/kg	16,000	28 J	40 J	6.9 J			65 J	850 J		7 J		38,000	270 J	17,000	**120,000 (Q)**	**170,000 (Q)**	**160,000 J (Q)**
Acenaphthylene	ug/kg	8,600						310 J					25,000 J		910 J	13,000 J		20,000
*Acetophenone	ug/kg	140 J	93 J	86 J	58 J	44 J	57 J	47 J	140 J		77 J							
Anthracene	ug/kg	11,000	45 J	70 J					190 J	1,600		14 J		35,000		8,800 J	59,000 J	80,000 J	82,000 J
*Benzaldehyde	ug/kg		170 J	150 J	100 J	82 J	100 J	100 J		53 J		47 J						
Benzo(a)anthracene	ug/kg	**5,800 (Q)**	77 J	69 J					570	**2,400 (Q)**	59 J	59 J		**19,000 J (Q)**		**5,400 J (Q)**	**39,000 J (Q)**	**51,000 J (Q)**	**50,000 (Q)**
Benzo(a)pyrene	ug/kg	4,400	76 J	64 J					1,100	2,000	52 J	59		13,000 J		3,600 J	**26,000 J (Q)**	**33,000 J (Q)**	**34,000 (Q)**
Benzo(b)fluoranthene	ug/kg	**1,800 J (Q)**	44 J	52 J					1,000	**2,000 (Q)**	74 J	48		**7,100 J (Q)**		**1,800 J (Q)**	**13,000 J (Q)**	**13,000 J (Q)**	**15,000 (Q)**
Benzo(g,h,i)perylene	ug/kg	2,100 J	45 J	52 J					890 J	530 J		26		4,500 J		1,200 J	9,600 J	9,100 J	11,000
Benzo(k)fluoranthene	ug/kg	**2,500 J (Q)**	64 J	46 J					620	**1,900 (Q)**	49 J	46		**6,000 J (Q)**		**1,900 J (Q)**	**13,000 J (Q)**	**19,000 J (Q)**	**17,000 (Q)**
*Benzyl butyl phthalate	ug/kg								250 J									
*Biphenyl (diphenyl)	ug/kg	4,500							110 J					16,000 J	65 J	3,500 J	31,000 J	42,000 J	31,000
*Bis(2-ethylhexyl) phthalate	ug/kg		28 J	41 J	25 J	22 J	32 J	27 J	1,000	380 J	210 J	59 J						
*Caprolactam	ug/kg											52 J						
*Carbazole	ug/kg	270 J								200 J								2,800 J
Chrysene	ug/kg	**5,300 (Q)**	71 J	58 J					760	**2,300 (Q)**	65 J	62 J		**18,000 J (Q)**		**5,100 J (Q)**	**39,000 J (Q)**	**50,000 J (Q)**	**52,000 (Q)**
Dibenz(a,h)anthracene	ug/kg	600 J	14 J	9.1 J					140 J	97 J		12 J						3,200 J
Dibenzofuran	ug/kg	1,400 J	13 J	22 J						450 J				3,800 J		910 J	7,500 J	11,000 J	9,700
*Diethyl phthalate	ug/kg																	
*Dimethyl phthalate	ug/kg																	
*Di-n-butyl phthalate	ug/kg								25 J									
*Di-n-octylphthalate	ug/kg								95 J									
Fluoranthene	ug/kg	12,000	180 J	200 J					770 J	6,200	120 J	110		29,000		8,100 J	57,000 J	73,000 J	83,000 J
Fluorene	ug/kg	13,000	17 J	14 J					56 J	830 J		8.9 J		31,000	72 J	9,200	76,000 J	100,000	110,000 J
Indeno(1,2,3-c,d)pyrene	ug/kg	1,700 J	41 J	36 J					490	560 J		29		4,200 J		1,000 J	5,600 J	**9,100 J (Q)**	**9,800 (Q)**
Naphthalene	ug/kg	**35,000 (Q)**	54 J	26 J		6.7 J			490	210 J			73 J	**120,000 (Q)**	4,300	**28,000 (Q)**	**440,000 (Q)**	**560,000 (Q)**	**520,000 J (Q)**
Phenanthrene	ug/kg	47,000	140 J	160 J					610 J	5,100	81 J	62 J		120,000	130 J	34,000	230,000	310,000	300,000 J
Phenol	ug/kg		21 J	18 J	11 J	8.4 J	10 J	9.6 J										
Pyrene	ug/kg	19,000	170 J	180 J					820	4,200	95 J	100 J		46,000		13,000	89,000	120,000	150,000 J
*Total PAHs	ug/kg	218,800	1,066	1,086	6.9	6.7			9,581	30,887	595	647	103	645,800	5,602	165,010	1,519,200	1,977,200	1,957,000

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26
Sample Number:	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224	059-2225	059-2227	059-2226	059-2216	059-2217
Sample Depth:	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	35-40	15-20	20-25
Sample Date:	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
*2,4-dimethylphenol	ug/kg																	
*2-methylnaphthalene	ug/kg	1,700 J	31 J	39 J	830	240,000	96 J	10 J		260 J	34 J							
2-methylphenol (o-cresol)	ug/kg																	
4-methylphenol (p-cresol)	ug/kg		12 J	110 J	9 J								17 J					
Acenaphthene	ug/kg	9,200	150 J	54 J	520	**140,000 (Q)**	32 J			210 J		130 J						
Acenaphthylene	ug/kg	1,300 J	22 J			8,900 J	14 J			120 J								
*Acetophenone	ug/kg	260 J	140 J	140 J	130 J		53 J	63 J	66 J	330 J	110 J	220 J	130 J		100 J	100 J	89 J	100 J	95 J
Anthracene	ug/kg	4,900 J	210 J	100 J	680	72,000	16 J	6.7 J		910 J	12 J	390 J	19 J						
*Benzaldehyde	ug/kg						80 J	95 J	77 J										
Benzo(a)anthracene	ug/kg	**3,100 J (Q)**	310	150 J	690	**36,000 J (Q)**	9.3 J	5.8 J		**2,600 (Q)**	78 J	860 J	42 J					21 J	
Benzo(a)pyrene	ug/kg	2,100 J	240 J	110 J	500	**27,000 J (Q)**	8.1 J			2,100	91 J	790 J	41 J					24 J	18 J
Benzo(b)fluoranthene	ug/kg	**2,500 J (Q)**	270 J	130 J	630	**20,000 (Q)**	6.9 J			**3,200 (Q)**	150 J	960 J	35 J					19 J	10 J
Benzo(g,h,i)perylene	ug/kg	1,000 J	140 J	59 J	290 J	10,000 J				1,500 J	110 J	480 J	25 J					17 J	
Benzo(k)fluoranthene	ug/kg	720 J	100 J	55 J	210 J	**8,000 J (Q)**				1,100 J	52 J	290 J	15 J					13 J	14 J
*Benzyl butyl phthalate	ug/kg						12 J												
*Biphenyl (diphenyl)	ug/kg	330 J	18 J	9.5 J	69 J	27,000 J	12 J			57 J	12 J								
*Bis(2-ethylhexyl) phthalate	ug/kg		70 J	32 J	63 J		21 J	30 J	28 J	660 J	48 J	120 J	40 J	42 J	36 J	37 J	31 J	36 J	26 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg		34 J	19 J	240 J	2,100 J				370 J									
Chrysene	ug/kg	**2,600 J (Q)**	240 J	120 J	650	**36,000 J (Q)**				**2,600 (Q)**	140 J	790 J	32 J					22 J	
Dibenz(a,h)anthracene	ug/kg	380 J	36 J	25 J	61 J	3,500 J				370 J	38 J	150 J	16 J						
Dibenzofuran	ug/kg	3,600 J	79 J	29 J	260 J	7,200 J				250 J	24 J								
*Diethyl phthalate	ug/kg		9.2 J																
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg		17 J	9.7 J	11 J		7.7 J	5.8 J	12 J	240 J				8.7 J	7.3 J				
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	11,000	690	410	2,100	63,000	15 J			5,500	130 J	1,200 J	64 J					11 J	
Fluorene	ug/kg	7,900	100 J	50 J	450	78,000	19 J			300 J			11 J						
Indeno(1,2,3-c,d)pyrene	ug/kg	1,200 J	140 J	72 J	310	**9,900 J (Q)**				1,500 J	100 J	580 J	30 J					19 J	
Naphthalene	ug/kg	1,600 J	130 J	170 J	2,100	**250,000 (Q)**	270	25 J	13 J	290 J	70 J	94 J	42 J	35 J	21 J	19 J	22 J	19 J	19 J
Phenanthrene	ug/kg	21,000	510	400	2,900	240,000	56 J	18 J		4,100	160 J	520 J	45 J					11 J	
Phenol	ug/kg		32 J	90 J	42 J		11 J	14 J	16 J										
Pyrene	ug/kg	11,000	610	320	1,800	110,000	21 J	10 J		4,500	110 J	1,600 J	83 J					23 J	
*Total PAHs	ug/kg	83,200	3,929	2,264	14,721	1,352,300	563.3	75.5	13	31,160	1,275	8,834	500	35	21	19	22	199	61

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29
Sample Number:		059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151	059-2152	059-2153	059-2160	059-2161	059-2162
Sample Depth:		25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20
Sample Date:		6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg									310 J									
*2-methylnaphthalene	ug/kg			120,000	470,000	320,000	850,000	2,200 J	8.9 J	5,400 J	250 J	86 J	20 J	5.8 J	19 J				
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg			**590 J (Q)**	**620 J (Q)**					**340 J (Q)**									
Acenaphthene	ug/kg			85,000	**250,000 (Q)**	**190,000 (Q)**	**460,000 (Q)**	15,000	6.5 J	30,000	31 J	21 J	7.2 J		14 J				
Acenaphthylene	ug/kg			10,000 J	17,000 J	19,000	39,000 J	1,500 J		4,200 J	40 J	28 J							
*Acetophenone	ug/kg	71 J	110 J						92 J	430 J	140 J	110 J	56 J	63 J	49 J	63 J	64 J	63 J	32 J
Anthracene	ug/kg			99,000	200,000	140,000	310,000	10,000	8.7 J	46,000	30 J	24 J	7.6 J		13 J				
*Benzaldehyde	ug/kg									500 J	210 J	150 J	69 J	80 J	84 J	80 J	97 J	84 J	38 J
Benzo(a)anthracene	ug/kg			**59,000 (Q)**	**100,000 (Q)**	**100,000 (Q)**	**200,000 J (Q)**	**6,600 (Q)**	8.2 J	**71,000 (Q)**	46 J	21 J	6.8 J		8.4 J				
Benzo(a)pyrene	ug/kg			**37,000 J (Q)**	**58,000 (Q)**	**66,000 (Q)**	**120,000 J (Q)**	4,000 J		**59,000 (Q)**	62 J	14 J			6.2 J				
Benzo(b)fluoranthene	ug/kg			**35,000 J (Q)**	**59,000 (Q)**	**53,000 (Q)**	**90,000 (Q)**	**3,200 J (Q)**		**67,000 (Q)**	38 J	11 J							
Benzo(g,h,i)perylene	ug/kg			16,000 J	22,000 J	24,000 J	44,000 J	1,500 J		33,000 J	46 J								
Benzo(k)fluoranthene	ug/kg			**11,000 J (Q)**	**17,000 (Q)**	**16,000 (Q)**	**31,000 J (Q)**	950 J		**21,000 (Q)**	19 J								
*Benzyl butyl phthalate	ug/kg																		
*Biphenyl (diphenyl)	ug/kg			13,000 J	34,000 J	32,000	77,000 J	2,200 J		2,200 J	24 J	11 J							
*Bis(2-ethylhexyl) phthalate	ug/kg	26 J	46 J	29,000 J	4,600 J	1,600 J	1,200 J		41 J		55 J	31 J	17 J	16 J	41 J	66 J	58 J	86 J	84 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg			1,700 J	2,500 J	1,700 J	3,600 J			17,000									
Chrysene	ug/kg			**55,000 (Q)**	**91,000 (Q)**	**93,000 (Q)**	**180,000 J (Q)**	**6,100 (Q)**	5.7 J	**58,000 (Q)**	41 J	13 J			6.3 J				
Dibenz(a,h)anthracene	ug/kg			6,700 J	8,300 J	6,800 J	17,000 J	550 J		7,700									
Dibenzofuran	ug/kg			8,000 J	18,000	12,000	26,000			24,000	14 J								
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg											11 J		6.5 J	13 J	8.7 J			
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg			100,000	180,000	160,000	290,000	10,000	8.5 J	180,000	100 J	28 J	7 J		13 J				
Fluorene	ug/kg			56,000 J	150,000 J	110,000 J	260,000 J	7,300 J		32,000	31 J	20 J	7.3 J		9 J				
Indeno(1,2,3-c,d)pyrene	ug/kg			**13,000 J (Q)**	**23,000 J (Q)**	**21,000 (Q)**	**44,000 J (Q)**	1,400 J		**35,000 (Q)**	30 J								
Naphthalene	ug/kg	13 J	25 J	**80,000 (Q)**	**300,000 (Q)**	**260,000 (Q)**	**720,000 (Q)**	2,100 J	34 J	10,000	720	190 J	37 J	12 J	23 J	8.3 J			
Phenanthrene	ug/kg			270,000	700,000	570,000	**1,100,000 (Q)**	40,000	23 J	160,000	120 J	78 J	19 J	15 J	46 J				
Phenol	ug/kg								8.6 J		27 J	22 J	11 J	13 J	11 J	9.9 J	14 J	10 J	
Pyrene	ug/kg			160,000	310,000	300,000	530,000	19,000	28 J	140,000	120 J	46 J	13 J	8.2 J	21 J				
*Total PAHs	ug/kg	13	25	1,212,700	2,955,300	2,448,800	5,285,000	131,400	131.5	959,300	1,724	580	124.9	41	178.9	8.3			

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31
Sample Number:	059-2166	059-2163	059-2164	059-2165	GC-MW30I(0.2-5)	SB30IB-S-NG	GC-MW30I(6-10)	GC-MW30I(10-15)	GC-MW30I(15-20)	GC-MW30I(20-25)	GC-MW30I(25-30)	GC-MW30I(30-35)	GC-MW30I(35-36)	SB-30I-S-NG	GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(6-10)	GC-MW31I(10-15)
Sample Depth:	15-20	20-25	25-30	30-35	0.2-5	5-10	6-10	10-15	15-20	20-25	25-30	30-35	35-36	35-36	0-6	5-10	6-10	10-15
Sample Date:	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010	6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010
Sample Type:	FD	N	N	N	N	S	N	N	N	N	N	N	N	S	N	S	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
*2,4-dimethylphenol	ug/kg																	
*2-methylnaphthalene	ug/kg				6.8 J	89 J	51,000 J	93 J	93 J	56 J	64 J	110 J	140 J	29 J	24 J	930	550	710	89 J
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																78 J	71 J	
Acenaphthene	ug/kg					94 J	23,000 J	63 J	130 J	400 J	2,200	530	610	58 J	55 J	130 J	470	450 J	57 J
Acenaphthylene	ug/kg					180 J	3,400	30 J							11 J		360	260 J	
*Acetophenone	ug/kg	34 J	30 J	38 J	43 J			39 J	27 J										
Anthracene	ug/kg					430 J	13,000 J	84 J	57 J	61 J	230 J	370 J	470	66 J	74 J	190 J	660	660 J	92 J
*Benzaldehyde	ug/kg	33 J	31 J	48 J	63 J				22 J										
Benzo(a)anthracene	ug/kg					**2,700 J (Q)**	**8,000 J (Q)**	210 J	160 J	130 J	590	340 J	400	69 J	77	480	**1,600 (Q)**	**1,700 (Q)**	190 J
Benzo(a)pyrene	ug/kg					2,400	5,500	210 J	150 J	100 J	520	240 J	290 J	50 J	69	470	1,600	1,700	170 J
Benzo(b)fluoranthene	ug/kg					**2,500 (Q)**	**4,100 J (Q)**	190 J	150 J	73 J	270 J	150 J	120 J	34 J	37	700	1,600	**1,900 (Q)**	170 J
Benzo(g,h,i)perylene	ug/kg					2,400 J	1,900	260 J	120 J	65 J	360 J	130 J	130 J		33	160 J	790	470 J	93 J
Benzo(k)fluoranthene	ug/kg					**2,400 (Q)**	**2,900 (Q)**	200 J	120 J	86 J	250 J	130 J	210 J	38 J	47 J	530	1,100	1,400	130 J
*Benzyl butyl phthalate	ug/kg															240 J	45 J	64 J	
*Biphenyl (diphenyl)	ug/kg						4,400 J					37 J				130 J	240 J	300 J	32 J
*Bis(2-ethylhexyl) phthalate	ug/kg	39 J	37 J	85 J	26 J				120 J	71 J		30 J	53 J	43 J	37 J	530	140 J	130 J	
*Caprolactam	ug/kg													110 J	26 J				
*Carbazole	ug/kg					120 J											95 J	81 J	
Chrysene	ug/kg					**3,000 J (Q)**	**7,300 (Q)**	260 J	180 J	120 J	520	340 J	430	72 J	78 J	580	**1,500 (Q)**	**1,500 (Q)**	190 J
Dibenz(a,h)anthracene	ug/kg					430 J	610 J	26 J			41 J	22 J	38 J		8.2 J	29 J	300	140 J	
Dibenzofuran	ug/kg					56 J	1,300 J					24 J	27 J			110 J	180 J	210 J	42 J
*Diethyl phthalate	ug/kg													46 J		100 J		53 J	
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg					100 J		19 J											
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg					3,400	13,000 J	280 J	210 J	250 J	1,200	580	760	150 J	160 J	1,200 J	3,100 J	2,900 J	320 J
Fluorene	ug/kg					99 J	14,000 J	47 J	37 J	42 J	260 J	290 J	320 J	41 J	48 J	210 J	440	350 J	57 J
Indeno(1,2,3-c,d)pyrene	ug/kg					2,000	1,700	150 J	84 J	51 J	220 J	83 J	100 J		28	130 J	770	530	85 J
Naphthalene	ug/kg				19 J		**75,000 (Q)**	140 J	190 J	260 J	510	170 J	310 J	61 J	49 J	100 J	1,500	1,400	130 J
Phenanthrene	ug/kg					1,900	41,000	340 J	200 J	120 J	460	1,500	1,800	260 J	280	930 J	1,600	1,800 J	330 J
Phenol	ug/kg				6.9 J														
Pyrene	ug/kg					5,400 J	17,000	420	350 J	470	2,500	1,100	1,200 J	230 J	210	830	2,300 J	2,300	370 J
*Total PAHs	ug/kg				25.8	29,422	282,410	3,003	2,231	2,284	10,195	6,085	7,328	1,158	1,288	7,599	20,240	20,170	2,473

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		GC-MW31I(15-20)	GC-MW31I(20-26)	GC-MW31I(26-30)	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(5-10)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(25-30)	GC-MW32I(30-35)	GC-MW32I(35-40)	SB32IH-S-NG	GC-MW32I(40-46)	SB32II-S-NG-R
Sample Depth:		15-20	20-26	26-30	30-36	30-36	30-35	0.5-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	40-46	40-45
Sample Date:		6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	FD	S	N	N	N	N	S	N	N	N	N	S	N	S
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg			630	270,000	350,000	350,000	40 J	200 J	42 J	37,000 J	180,000 J	230 J	100 J	87 J	30 J	17 J	340,000	360,000
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																		
Acenaphthene	ug/kg			330 J	**130,000 (Q)**	**170,000 (Q)**	**180,000 (Q)**	59 J	540 J	62 J	**110,000 J (Q)**	**410,000 (Q)**	890	310 J	110 J	57 J	26 J	91,000 J	**110,000 (Q)**
Acenaphthylene	ug/kg									34 J								32,000 J	33,000 J
*Acetophenone	ug/kg												46 J	62 J	28 J				
Anthracene	ug/kg				58,000 J	72,000 J	79,000		930	200 J	210,000	720,000	1,500	590 J	150 J		22 J	47,000 J	52,000 J
*Benzaldehyde	ug/kg									63 J				47 J					
Benzo(a)anthracene	ug/kg				**32,000 J (Q)**	**44,000 J (Q)**	**41,000 J (Q)**	380	**1,800 (Q)**	760	**210,000 (Q)**	**600,000 (Q)**	**1,700 (Q)**	650 J	170 J		21 J	**37,000 J (Q)**	**36,000 J (Q)**
Benzo(a)pyrene	ug/kg				22,000 J	**29,000 J (Q)**	**31,000 J (Q)**	360	1,500	700	**160,000 (Q)**	**500,000 (Q)**	1,300	480 J	130 J	54 J		**24,000 J (Q)**	**26,000 J (Q)**
Benzo(b)fluoranthene	ug/kg				**9,000 J (Q)**	**11,000 J (Q)**	**10,000 J (Q)**	430	1,100	560	**120,000 J (Q)**	**420,000 (Q)**	920	360 J	110 J	45 J	11 J	**9,400 J (Q)**	**12,000 J (Q)**
Benzo(g,h,i)perylene	ug/kg					12,000 J	11,000 J	140 J	1,200	420 J	88,000 J	200,000 J	740 J	190 J	68 J	27 J		6,200 J	10,000 J
Benzo(k)fluoranthene	ug/kg				**15,000 J (Q)**	**21,000 J (Q)**	**18,000 J (Q)**	340 J	1,200	630	**140,000 J (Q)**	**360,000 J (Q)**	1,200	420 J	100 J	45 J	10 J	**19,000 J (Q)**	**13,000 J (Q)**
*Benzyl butyl phthalate	ug/kg							20 J											
*Biphenyl (diphenyl)	ug/kg				29,000 J	37,000 J	35,000 J		69 J		10,000 J	39,000 J						29,000 J	27,000 J
*Bis(2-ethylhexyl) phthalate	ug/kg			25 J															
*Caprolactam	ug/kg		87 J																
*Carbazole	ug/kg			19 J				35 J	220 J	60 J	62,000 J	290,000	450 J	160 J	45 J	22 J			
Chrysene	ug/kg				**31,000 J (Q)**	**42,000 J (Q)**	**40,000 J (Q)**	450	**1,800 (Q)**	810	**210,000 (Q)**	**590,000 (Q)**	**1,800 (Q)**	630 J	180 J		22 J	**37,000 J (Q)**	**41,000 J (Q)**
Dibenz(a,h)anthracene	ug/kg							40 J	240 J	130 J	17,000 J	78,000 J	210 J	49 J					
Dibenzofuran	ug/kg				6,900 J	9,000 J	9,400 J	32 J	300 J	52 J	74,000 J	**310,000 (Q)**	470 J	190 J	59 J	33 J		6,800 J	
*Diethyl phthalate	ug/kg	50 J	100 J					130 J	180 J							22 J			
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg				57,000 J	73,000 J	75,000	730	3,700	1,500	470,000	**1,700,000 (Q)**	4,000	1,500 J	360 J		55 J	56,000 J	59,000 J
Fluorene	ug/kg			59 J	56,000 J	72,000 J	78,000	40 J	410 J	62 J	120,000 J	**440,000 (Q)**	810 J	310 J	93 J	47 J	13 J	62,000 J	50,000 J
Indeno(1,2,3-c,d)pyrene	ug/kg					**9,500 J (Q)**	**8,300 J (Q)**	130 J	940	410 J	**78,000 J (Q)**	**220,000 J (Q)**	710 J	190 J	67 J	25 J			**8,700 J (Q)**
Naphthalene	ug/kg		78 J	1,300	**410,000 (Q)**	**550,000 (Q)**	**700,000 (Q)**	270 J	360 J	140 J	**66,000 J (Q)**	**380,000 (Q)**	450 J	180 J	1,100	140 J	190 J	**670,000 (Q)**	**880,000 (Q)**
Phenanthrene	ug/kg			69 J	200,000	260,000	270,000	400	4,800	710	680,000	**2,300,000 (Q)**	5,200	2,000	530		70 J	170,000	180,000
Phenol	ug/kg																		
Pyrene	ug/kg				91,000 J	120,000	100,000 J	500	4,400	1,300	480,000	**1,100,000 (Q)**	3,400	1,400 J	360 J		39 J	74,000 J	60,000 J
*Total PAHs	ug/kg		78	2,388	1,381,000	1,835,500	1,991,300	4,309	25,120	8,470	3,196,000	10,198,000	25,060	9,359	3,615	470	496	1,674,600	1,930,700

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35
Sample Number:		059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022	059-2024	059-2023	059-2154	059-2155	059-2156
Sample Depth:		5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30	25-30	30-35	5-10	10-15	15-20
Sample Date:		6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg		54 J	35 J	360	12 J	14 J	20 J	15 J	24 J	71 J	160,000	2,900 J			2,100 J	49 J	56 J	44,000
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg		100 J								24 J								
Acenaphthene	ug/kg				210	7.2 J	10 J	17 J	10 J	31 J	53 J	**140,000 (Q)**	13,000	23,000	23,000	37,000		44 J	42,000
Acenaphthylene	ug/kg											9,900	1,500 J	1,700 J	1,700 J	2,500 J			3,200 J
*Acetophenone	ug/kg	150 J	190 J	97 J	55 J	70 J	65 J	63 J	62 J	78 J	66 J	200 J	1,100 J				320 J	70 J	
Anthracene	ug/kg					7.4 J	8.9 J	11 J	7 J	19 J	29 J	85,000	12,000	16,000	14,000	26,000		31 J	30,000
*Benzaldehyde	ug/kg	190 J	220 J	82 J	68 J	97 J	78 J	87 J	88 J	90 J	68 J						460 J	89 J	
Benzo(a)anthracene	ug/kg					11 J				49 J	16 J	**42,000 (Q)**	**7,500 (Q)**	**8,500 (Q)**	**8,500 (Q)**	**12,000 (Q)**		24 J	**17,000 (Q)**
Benzo(a)pyrene	ug/kg					6.9 J				30 J	12 J	**32,000 (Q)**	5,700 J	6,900	7,100	11,000		23 J	12,000
Benzo(b)fluoranthene	ug/kg									40 J	12 J	**12,000 (Q)**	**2,100 J (Q)**	**4,900 (Q)**	**5,200 (Q)**	**7,000 (Q)**		12 J	**11,000 (Q)**
Benzo(g,h,i)perylene	ug/kg											15,000 J	2,700 J	2,800 J	3,100 J	4,400 J			4,700 J
Benzo(k)fluoranthene	ug/kg									23 J		**18,000 (Q)**	**3,700 J (Q)**	**2,100 J (Q)**	**2,300 J (Q)**	**3,500 J (Q)**			**2,700 J (Q)**
*Benzyl butyl phthalate	ug/kg																		
*Biphenyl (diphenyl)	ug/kg				29 J						9.9 J	22,000	1,500 J	2,300 J	1,900 J	6,000 J		9.9 J	8,200
*Bis(2-ethylhexyl) phthalate	ug/kg	250 J	260 J	100 J	190 J	100 J	140 J	46 J	170 J	92 J	26 J	280 J	370 J				390 J	42 J	
*Caprolactam	ug/kg																		
*Carbazole	ug/kg				15 J	8.3 J	9.7 J					990 J				320 J			620 J
Chrysene	ug/kg					8.4 J				54 J	15 J	**38,000 (Q)**	**7,100 (Q)**	**8,200 (Q)**	**8,500 (Q)**	**12,000 (Q)**		19 J	**12,000 (Q)**
Dibenz(a,h)anthracene	ug/kg											4,600 J	640 J	600 J	610 J	870 J			1,200 J
Dibenzofuran	ug/kg											7,100	520 J	1,300 J	1,200 J	1,700 J			2,300 J
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																30 J		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg			17 J		11 J		13 J		100 J	41 J	80,000	16,000	18,000	19,000	29,000		40 J	34,000
Fluorene	ug/kg				16 J			9 J	6.6 J	19 J	30 J	80,000	8,700	1,900 J	960 J	14,000		32 J	24,000
Indeno(1,2,3-c,d)pyrene	ug/kg											**11,000 (Q)**	1,800 J	2,600 J	2,600 J	3,800 J			4,500 J
Naphthalene	ug/kg		170 J	170 J	1,800	35 J	41 J	50 J	38 J	38 J	84 J	**71,000 (Q)**	3,600 J			1,300 J	160 J	89 J	**52,000 (Q)**
Phenanthrene	ug/kg	26 J	17 J	11 J		23 J	29 J	40 J	23 J	87 J	93 J	280,000	46,000	41,000	40,000	70,000	30 J	110 J	91,000
Phenol	ug/kg	33 J	54 J	**340 (Q)**	24 J	29 J	39 J	15 J	19 J	27 J	18 J		260 J				73 J	13 J	
Pyrene	ug/kg			9.9 J		19 J	8.5 J	21 J	9.4 J	93 J	38 J	120,000	22,000	20,000	22,000	31,000	33 J	63 J	39,000
*Total PAHs	ug/kg	26	241	242.9	2,386	140.9	111.4	181	109	607	494	1,198,500	156,940	158,200	158,570	267,470	272	543	424,300

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38
Sample Number:		059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211	059-2212	059-2213	059-2214	059-2215	059-2241
Sample Depth:		20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	5-10
Sample Date:		6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg	560,000	490,000	3,300	19 J	13 J	14 J	12 J	200	3,800	310 J	21 J		34 J	130 J	3,500		210	3,000
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																		
Acenaphthene	ug/kg	94,000 J	73,000 J	680 J			1,200	1,700	3,700 J	17,000	1,300 J	29 J		16 J	87 J	1,500		140 J	1,900
Acenaphthylene	ug/kg	**230,000 (Q)**	**210,000 (Q)**	1,800			39 J	100 J	470	1,600 J	230 J				16 J	690		53 J	520 J
*Acetophenone	ug/kg			49 J	48 J	54 J	44 J	48 J	46 J		88 J	57 J	79 J	99 J	60 J	77 J	56 J	63 J	56 J
Anthracene	ug/kg	190,000	150,000	1,400	10 J		61 J	120 J	2,000	9,100	4,000	35 J			66 J	1,300		130 J	1,300
*Benzaldehyde	ug/kg				52 J	83 J	51 J	44 J	37 J			50 J	90 J	98 J	54 J	92 J	79 J	76 J	71 J
Benzo(a)anthracene	ug/kg	**120,000 (Q)**	**100,000 (Q)**	850 J					**1,100 (Q)**	**4,900 (Q)**	**8,400 (Q)**	82 J			50 J	770		110 J	1,000
Benzo(a)pyrene	ug/kg	**96,000 J (Q)**	**79,000 J (Q)**	660 J					900	3,800	3,400	58 J			32 J	500		73 J	670 J
Benzo(b)fluoranthene	ug/kg	**76,000 J (Q)**	**59,000 J (Q)**	510 J					330 J	1,200 J	**7,900 (Q)**	86 J			27 J	390 J		55 J	590 J
Benzo(g,h,i)perylene	ug/kg	38,000 J	30,000 J	280 J					370 J	2,000 J	370 J	28 J			20 J	220 J		32 J	290 J
Benzo(k)fluoranthene	ug/kg	**20,000 (Q)**	**22,000 J (Q)**	170 J					490 J	**2,300 (Q)**	**2,800 (Q)**	22 J			10 J	150 J		19 J	230 J
*Benzyl butyl phthalate	ug/kg											7.1 J			7 J			9.9 J	
*Biphenyl (diphenyl)	ug/kg	79,000 J	64,000 J	560 J			210	310	580	3,300	110 J				15 J	330 J		26 J	380 J
*Bis(2-ethylhexyl) phthalate	ug/kg			40 J	200 J	70 J	45 J	35 J	41 J		130 J	20 J	30 J	39 J	29 J	35 J	16 J	24 J	48 J
*Caprolactam	ug/kg														10 J		9.5 J	13 J	
*Carbazole	ug/kg	5,300 J	4,500 J	47 J			39 J	40 J		99 J	820 J	9.8 J				28 J			53 J
Chrysene	ug/kg	**94,000 J (Q)**	**80,000 J (Q)**	710 J					1,000	**4,500 (Q)**	**7,400 (Q)**	90 J			47 J	760		110 J	970 J
Dibenz(a,h)anthracene	ug/kg	11,000 J	9,800 J	79 J					150 J	650 J	970 J	17 J				74 J		15 J	91 J
Dibenzofuran	ug/kg	19,000 J	15,000 J	150 J			74 J	120 J	220	1,000 J	860 J	10 J				130 J		12 J	
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg											6.1 J		11 J	6.9 J			8.1 J	
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	220,000	180,000	1,700	15 J			25 J	2,400	9,900	25,000	160 J	11 J		68 J	1,300		150 J	1,600
Fluorene	ug/kg	190,000	180,000	1,400	12 J		270	170 J	1,300	8,200	1,400 J	22 J			57 J	1,200 J		110 J	1,300 J
Indeno(1,2,3-c,d)pyrene	ug/kg	**36,000 J (Q)**	**27,000 J (Q)**	240 J					270	1,200 J	2,100	46 J			22 J	190 J		27 J	300 J
Naphthalene	ug/kg	**1,100,000 (Q)**	**900,000 (Q)**	6,600	28 J	20 J	280	50 J	250	6,500	490 J	24 J	9.6 J	57 J	120 J	3,300	8.1 J	150 J	2,800
Phenanthrene	ug/kg	690,000	540,000	5,100	40 J	20 J	590	2,100	7,700	32,000	19,000	160 J		33 J	230	5,200		410	5,300
Phenol	ug/kg																		
Pyrene	ug/kg	330,000	290,000	2,400	23 J		8.8 J	34 J	3,400	17,000	14,000	170 J	16 J		130 J	2,300		300	2,800
*Total PAHs	ug/kg	4,095,000	3,419,800	27,879	147	53	2,463	4,311	26,030	125,650	99,070	1,050	36.6	140	1,112	23,344	8.1	2,094	24,661

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40
Sample Number:		059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135	059-2136	059-2137	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG
Sample Depth:		16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	36.5-37	40-40.5	0-5	5-10	5-10
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																	260,000 J	180,000 J
*2-methylnaphthalene	ug/kg	270 J	870 J	1,400 J	63 J	9.3 J		13 J	120 J	37 J	13 J	38 J	870 J	87,000	65,000	2,000	150 J	1,400,000 J	990,000
2-methylphenol (o-cresol)	ug/kg																	**240,000 J (Q)**	**170,000 J (Q)**
4-methylphenol (p-cresol)	ug/kg																	**570,000 J (Q)**	**400,000 J (Q)**
Acenaphthene	ug/kg	25 J	270 J	57 J				5.8 J	300 J	31 J	18 J	110 J	1,200	80,000	41,000	1,400	310 J	**380,000 J (Q)**	**260,000 J (Q)**
Acenaphthylene	ug/kg	16 J	200 J	29 J				25 J	130 J	6.9 J	18 J	17 J	120 J	8,400 J	4,400 J	160 J		**810,000 J (Q)**	**560,000 J (Q)**
*Acetophenone	ug/kg	93 J	140 J	230 J	61 J	55 J	54 J	51 J	98 J	110 J	91 J	83 J	82 J	540 J		84 J	47 J		
Anthracene	ug/kg		260 J					64 J	490 J	32 J	29 J	200 J	1,400	86,000	28,000	850 J	410 J	860,000 J	560,000 J
*Benzaldehyde	ug/kg	94 J	170 J	280 J	69 J	62 J	87 J	68 J	110 J	120 J	120 J	130 J	150 J						
Benzo(a)anthracene	ug/kg	16 J	190 J	22 J				87 J	**1,800 (Q)**	67 J	87 J	670	**2,000 (Q)**	**59,000 (Q)**	**20,000 (Q)**	560 J	**1,100 (Q)**	**560,000 J (Q)**	**380,000 J (Q)**
Benzo(a)pyrene	ug/kg		110 J					57 J	1,500	59 J	77 J	520	1,200	**41,000 (Q)**	12,000	370 J	1,100	**510,000 J (Q)**	**340,000 J (Q)**
Benzo(b)fluoranthene	ug/kg		94 J					47 J	**1,900 (Q)**	67 J	99 J	720	1,600	**32,000 (Q)**	**11,000 (Q)**	290 J	1,100	**430,000 J (Q)**	**220,000 J (Q)**
Benzo(g,h,i)perylene	ug/kg		52 J					24 J	1,600	30 J	77 J	410	710 J	18,000 J	5,400 J	150 J	910 J	280,000 J	180,000 J
Benzo(k)fluoranthene	ug/kg		35 J					16 J	710 J	26 J	32 J	240	550 J	**12,000 J (Q)**	**2,500 J (Q)**	120 J	800	**400,000 J (Q)**	**270,000 J (Q)**
*Benzyl butyl phthalate	ug/kg									10 J	7 J								
*Biphenyl (diphenyl)	ug/kg	13 J	82 J	41 J					38 J	6.1 J		7.8 J	160 J	14,000 J	8,200	290 J	49 J	340,000 J	210,000 J
*Bis(2-ethylhexyl) phthalate	ug/kg	66 J	110 J	91 J	23 J	40 J	21 J	28 J	48 J	50 J	58 J	39 J					180 J		
*Caprolactam	ug/kg																		
*Carbazole	ug/kg								340 J	6.8 J	10 J	100 J	130 J	1,600 J	590 J		290 J	360,000 J	230,000 J
Chrysene	ug/kg		130 J					78 J	**1,500 (Q)**	68 J	72 J	590	**2,000 (Q)**	**61,000 (Q)**	**20,000 (Q)**	500 J	**1,100 (Q)**	**590,000 J (Q)**	**380,000 J (Q)**
Dibenz(a,h)anthracene	ug/kg							7.6 J	400 J	12 J	17 J	96 J	180 J	5,000 J	1,700 J	49 J	290 J		
Dibenzofuran	ug/kg		30 J						210 J			56 J	140 J	6,400 J	3,100 J	99 J	240 J	**780,000 J (Q)**	**550,000 J (Q)**
*Diethyl phthalate	ug/kg									7.5 J	6.6 J	7.3 J							
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	18 J	280 J					130 J	3,300	110 J	150 J	1,400	4,400	110,000	30,000	890 J	2,500	**1,900,000 (Q)**	**1,200,000 (Q)**
Fluorene	ug/kg		270 J					15 J	380 J	28 J	13 J	100 J	910 J	57,000	27,000	910 J	400 J	**700,000 J (Q)**	**510,000 J (Q)**
Indeno(1,2,3-c,d)pyrene	ug/kg		43 J					21 J	1,400	39 J	67 J	410	790 J	**18,000 J (Q)**	5,100 J	140 J	750 J	**240,000 J (Q)**	**170,000 J (Q)**
Naphthalene	ug/kg	930	1,700 J	8,500 J	200 J	18 J	9.6 J	19 J	260 J	33 J	21 J	46 J	1,300	**85,000 (Q)**	**60,000 (Q)**	2,100	480 J	**11,000,000 (Q)**	**7,100,000 (Q)**
Phenanthrene	ug/kg	36 J	1,000 J	44 J	10 J			190 J	3,100	120 J	120 J	1,000	5,500	290,000	95,000	3,100	2,100	**3,200,000 (Q)**	**2,100,000 (Q)**
Phenol	ug/kg	17 J	27 J	43 J	12 J	11 J	10 J	10 J	32 J	17 J	17 J	19 J						**340,000 J (Q)**	**230,000 J (Q)**
Pyrene	ug/kg	26 J	460 J	28 J				220	3,300	150 J	180 J	1,200	4,300	170,000	59,000	1,400	2,600	**1,600,000 J (Q)**	910,000
*Total PAHs	ug/kg	1,337	5,964	10,080	273	27.3	9.6	1,019	22,190	915.9	1,090	7,767	29,030	1,219,400	487,100	14,989	16,100	24,860,000	16,130,000

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41
Sample Number:		GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW40I(15-20)	GC-MW40I(20-25)	GC-MW40I(25-30)	GC-MW40I(30-35)	GC-MW40I(35-40)	GC-MW40I(40-45)	GC-MW40I(45-50)	GC-MW40I(50-55)	SB40IJ-S-NG	GC-MW41S(0-5)	GC-MW41I(5-10)	GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	GC-MW41I(15-20)	GC-MW41I(20-25)
Sample Depth:		10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-58	0-5	5-10	5-10	5-10	10-15	15-20	20-25
Sample Date:		6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	S	N	N	FD	S	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg	110,000 J	120,000 J		1,500 J			130 J			17 J							120 J	410
*2-methylnaphthalene	ug/kg	600,000 J	670,000 J		9,900 J	100 J	810 J	210 J	100 J	30 J		2.1 J	260,000 J	65,000	420	86,000	5,500	75 J	200 J
2-methylphenol (o-cresol)	ug/kg	**98,000 J (Q)**	**130,000 J (Q)**		**1,100 J (Q)**						82 J								
4-methylphenol (p-cresol)	ug/kg	**260,000 J (Q)**	**310,000 J (Q)**		**2,700 J (Q)**	18 J			26 J		**370 J (Q)**								100 J
Acenaphthene	ug/kg	**170,000 J (Q)**	**180,000 J (Q)**		3,400 J	67 J	420 J	71 J	70 J	37 J		3.5 J	**670,000 J (Q)**	41,000 J	290 J	61,000	5,200	57 J	76 J
Acenaphthylene	ug/kg	**410,000 J (Q)**	**430,000 J (Q)**		6,900 J	27 J			39 J			1.7 J							
*Acetophenone	ug/kg			57 J								28 J							
Anthracene	ug/kg	440,000 J	500,000 J		9,900 J							4.2	**1,100,000 (Q)**	36,000 J	250 J	55,000	6,300	50 J	
*Benzaldehyde	ug/kg																		
Benzo(a)anthracene	ug/kg	**290,000 J (Q)**	**320,000 J (Q)**		**5,900 J (Q)**							5.1	**1,100,000 (Q)**	**30,000 J (Q)**	210 J	**42,000 (Q)**	**6,400 (Q)**	44 J	
Benzo(a)pyrene	ug/kg	**270,000 J (Q)**	**290,000 J (Q)**		5,500 J	38 J			75 J			8.7	**980,000 (Q)**	**25,000 J (Q)**	160 J	**38,000 J (Q)**	5,100	32 J	
Benzo(b)fluoranthene	ug/kg	**230,000 J (Q)**	**240,000 J (Q)**		**4,600 J (Q)**	29 J			61 J			3.9	**720,000 J (Q)**	**19,000 J (Q)**	130 J	**22,000 J (Q)**	**3,400 J (Q)**		
Benzo(g,h,i)perylene	ug/kg	150,000 J	150,000 J		3,400 J	22 J			55 J			2.4 J	590,000 J	14,000 J	74 J	15,000 J	2,600 J		
Benzo(k)fluoranthene	ug/kg	**210,000 J (Q)**	**240,000 J (Q)**		**4,100 J (Q)**	36 J			74 J			3.5 J	**810,000 J (Q)**	**21,000 J (Q)**	150 J	**32,000 J (Q)**	**4,900 (Q)**		
*Benzyl butyl phthalate	ug/kg			28 J								37 J							
*Biphenyl (diphenyl)	ug/kg	150,000 J	160,000 J		2,700 J	31 J	97 J		29 J				96,000 J	15,000 J	100 J	20,000 J	1,500 J		38 J
*Bis(2-ethylhexyl) phthalate	ug/kg											65 J							
*Caprolactam	ug/kg																		
*Carbazole	ug/kg	180,000 J	210,000 J		3,900 J	220 J			89 J	60 J	26 J		470,000 J	15,000 J	100 J	22,000 J	2,500 J		71 J
Chrysene	ug/kg	**330,000 J (Q)**	**340,000 J (Q)**		**6,400 J (Q)**							4.7	**1,100,000 (Q)**	**27,000 J (Q)**	200 J	**38,000 J (Q)**	**6,000 (Q)**	40 J	
Dibenz(a,h)anthracene	ug/kg				650 J							0.9 J	130,000 J	2,500 J		5,000 J	390 J		
Dibenzofuran	ug/kg	**380,000 J (Q)**	**400,000 J (Q)**		7,300 J	98 J	81 J		75 J				**540,000 J (Q)**	39,000 J	260 J	55,000	4,600	36 J	65 J
*Diethyl phthalate	ug/kg																	47 J	
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	**1,100,000 (Q)**	**1,200,000 (Q)**		22,000				290 J			13	**2,800,000 (Q)**	82,000	630	120,000	17,000	120 J	
Fluorene	ug/kg	370,000 J	**400,000 J (Q)**		7,000 J	110 J			80 J			2.4 J	**630,000 J (Q)**	39,000 J	260 J	55,000	5,100	38 J	41 J
Indeno(1,2,3-c,d)pyrene	ug/kg	**110,000 J (Q)**	**110,000 J (Q)**		2,700 J				42 J			2.6 J	**570,000 J (Q)**	**12,000 J (Q)**	77 J	**14,000 J (Q)**	2,600 J		
Naphthalene	ug/kg	**4,300,000 (Q)**	**5,100,000 (Q)**	1,300	**56,000 (Q)**	420	5,300	3,300	390 J	140 J	39 J	14	**820,000 J (Q)**	**270,000 (Q)**	1,900	**420,000 (Q)**	**22,000 (Q)**	1,300	720
Phenanthrene	ug/kg	**1,600,000 (Q)**	**1,800,000 (Q)**		34,000				400 J			15	**4,300,000 (Q)**	150,000	1,100	220,000	26,000	180 J	46 J
Phenol	ug/kg	**170,000 J (Q)**	**200,000 J (Q)**		**1,700 J (Q)**		76 J	53 J	38 J		**520 (Q)**	42 J							74 J
Pyrene	ug/kg	740,000 J	800,000 J		16,000							9.1	**2,600,000 (Q)**	73,000	470	84,000	13,000	88 J	
*Total PAHs	ug/kg	11,320,000	12,770,000	1,300	198,350	849	6,530	3,581	1,676	207	39	96.8	19,180,000	906,500	6,321	1,307,000	131,490	2,024	1,083

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42	GCMW-42	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43
Sample Number:		GC-MW41I(25-30)	GC-MW41I(30-35)	GC-MW41I(35-40)	GC-MW41I(40-45)	GC-MW41I(45-50)	GC-MW41I(50-53)	GC-MW41I(53-58)	SB41IL-S-NG	059-2061	059-2062	059-2063	059-2064	059-2066	059-2065	059-2001	059-2002	059-2003	059-2004
Sample Depth:		25-30	30-35	35-40	40-45	45-50	50-53	53-58	55-58	5-10	15-20	20-25	25-30	25-30	30-35	0-5	5-10	12-12.5	14.5-15
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010
Sample Type:		N	N	N	N	N	N	N	S	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg	190 J	290 J	39 J															
*2-methylnaphthalene	ug/kg	130 J	440 J	24 J					5.8 J			7 J	17 J	9.8 J		1,500	760 J	18 J	10 J
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg	130 J	94 J																
Acenaphthene	ug/kg	31 J	76 J		25 J				5.4 J		19 J	6.5 J	7.2 J	6.9 J		740 J	480 J		
Acenaphthylene	ug/kg								12 J				15 J	8.4 J		230			
*Acetophenone	ug/kg								27 J	41 J	29 J	32 J	29 J	34 J	21 J			60 J	51 J
Anthracene	ug/kg						21 J	30 J	44	35 J			6.9 J	10 J		1,000 J	590 J		
*Benzaldehyde	ug/kg									53 J	45 J	55 J	44 J	55 J	35 J			73 J	80 J
Benzo(a)anthracene	ug/kg						30 J	31 J	39	190 J			6.3 J	9.8 J	7.5 J	**1,600 (Q)**	**1,200 J (Q)**		
Benzo(a)pyrene	ug/kg						21 J	23 J	44	210 J			7.1 J	10 J		1,300	1,200 J		
Benzo(b)fluoranthene	ug/kg								32 J	100 J						1,400	1,000 J		
Benzo(g,h,i)perylene	ug/kg								22	230 J				11 J		840 J	900 J		
Benzo(k)fluoranthene	ug/kg								26	140 J						1,200	1,000 J		
*Benzyl butyl phthalate	ug/kg																		
*Biphenyl (diphenyl)	ug/kg	51 J																	
*Bis(2-ethylhexyl) phthalate	ug/kg								34 J	91 J	16 J	14 J	15 J	11 J	16 J	140 J	180 J	57 J	48 J
*Caprolactam	ug/kg					110 J													
*Carbazole	ug/kg	250 J														430			
Chrysene	ug/kg						27 J	32 J	40	200 J				6.5 J		**1,600 (Q)**	**1,100 J (Q)**		
Dibenz(a,h)anthracene	ug/kg								6 J	63 J						350	350 J		
Dibenzofuran	ug/kg	97 J														540	330 J		
*Diethyl phthalate	ug/kg				63 J	74 J		43 J											
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg			18 J			59 J	86 J	120	230 J			10 J	13 J	8.9 J	3,600	2,200		
Fluorene	ug/kg	91 J							19 J					7.5 J		800 J	430 J		
Indeno(1,2,3-c,d)pyrene	ug/kg								20 J	150 J						620	700 J		
Naphthalene	ug/kg	650	3,700	130 J						58 J		11 J	26 J	13 J	11 J	920 J	660 J	37 J	19 J
Phenanthrene	ug/kg	80 J		24 J	20 J		76 J	100 J	140	72 J		15 J	24 J	32 J	9.4 J	3,800	1,800 J	15 J	13 J
Phenol	ug/kg	90 J	**6,000 (Q)**	**440 (Q)**							6.5 J	6.6 J	5.7 J	7 J					
Pyrene	ug/kg						57 J	79 J	79 J	390 J		7.1 J	17 J	21 J	13 J	3,600	2,400		
*Total PAHs	ug/kg	982	4,216	196	45		291	381	654.2	2,068	19	46.6	136.5	158.9	49.8	25,100	16,770	70	42

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45
Sample Number:		059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127	059-2128	059-2129	059-2114	059-2115	059-2116	059-2117
Sample Depth:		15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	5-10	10-15	15-20	20-25
Sample Date:		5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg		79 J	120 J	360,000	13,000	19 J	410	1,400 J	53 J		23 J				250 J	62 J	110 J	510
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg																		
Acenaphthene	ug/kg		55 J	72 J	67,000	2,100		450	1,300 J	44 J		20 J	12 J	8.7 J	14 J	230 J	110 J	19 J	80 J
Acenaphthylene	ug/kg			16 J	100,000	6,100 J	8.9 J	58 J	130 J								11 J	8.1 J	38 J
*Acetophenone	ug/kg	34 J	32 J	31 J	3,400 J		31 J	120 J	150 J	71 J	55 J	85 J	110 J	56 J	52 J	200 J	84 J	83 J	87 J
Anthracene	ug/kg			21 J	90,000	5,000 J		290	1,900 J	38 J		11 J				210 J	180 J		
*Benzaldehyde	ug/kg	41 J	40 J	51 J			45 J	190 J	250 J	100 J	87 J	130 J	210 J	90 J	73 J	1,400 J	190 J	160 J	140 J
Benzo(a)anthracene	ug/kg			16 J	**50,000 (Q)**	**3,000 (Q)**		430	**2,400 (Q)**	23 J		8.2 J				720 J	250 J		
Benzo(a)pyrene	ug/kg			9.7 J	**35,000 (Q)**	2,100		340	1,700	21 J						820 J	170 J		
Benzo(b)fluoranthene	ug/kg			6.3 J	**13,000 J (Q)**	650		410	**2,100 (Q)**	16 J						960 J	220 J		
Benzo(g,h,i)perylene	ug/kg				15,000 J	720 J		210 J	1,100 J	13 J						520 J	97 J		
Benzo(k)fluoranthene	ug/kg			6.5 J	**20,000 J (Q)**	1,000		120 J	680 J							390 J	70 J		
*Benzyl butyl phthalate	ug/kg			7.9 J				17 J				9.9 J	11 J						
*Biphenyl (diphenyl)	ug/kg		7.3 J	11 J	33,000	1,400		72 J	280 J								11 J	9.1 J	43 J
*Bis(2-ethylhexyl) phthalate	ug/kg	40 J	72 J	49 J		58 J	64 J	38 J		28 J	15 J	32 J	25 J	24 J	13 J		33 J	22 J	29 J
*Caprolactam	ug/kg																		
*Carbazole	ug/kg				1,400 J	49 J		73 J	410 J								14 J		
Chrysene	ug/kg			14 J	**47,000 J (Q)**	**2,700 (Q)**		330	**1,800 (Q)**	20 J						660 J	210 J		
Dibenz(a,h)anthracene	ug/kg				6,400 J	270 J		50 J	250 J							210 J	38 J		
Dibenzofuran	ug/kg				12,000 J	460		54 J	640 J								37 J		
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		11 J
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg			21 J	89,000	5,100 J		850	5,600	48 J		13 J				1,200 J	530		
Fluorene	ug/kg			9.3 J	84,000	4,500 J		290	1,200 J	31 J		14 J				110 J	77 J		21 J
Indeno(1,2,3-c,d)pyrene	ug/kg				**10,000 J (Q)**	510		220 J	1,200 J	12 J						540 J	110 J		
Naphthalene	ug/kg	11 J	2,100	2,900	**580,000 (Q)**	**13,000 (Q)**	42 J	250 J	7,000	39 J	7.7 J	19 J	15 J			1,400 J	340	260 J	960
Phenanthrene	ug/kg			69 J	360,000	17,000	18 J	1,300	5,400 J	150 J		54 J		8.4 J	11 J	500 J	250 J	8.8 J	11 J
Phenol	ug/kg							26 J	52 J	15 J	9.8 J	20 J	22 J	10 J	12 J	88 J	19 J	25 J	22 J
Pyrene	ug/kg			40 J	140,000	7,800	12 J	990	5,100	74 J		22 J			7.8 J	1,000 J	430		
*Total PAHs	ug/kg	11	2,234	3,321	2,066,400	84,550	99.9	6,998	40,260	582	7.7	184.2	27	17.1	32.8	9,720	3,155	405.9	1,620

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174	059-2175	059-2176	059-2234	059-2235	059-2236	059-2237
Sample Depth:		25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	10-15	15-20	25-30	30-35
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*2,4-dimethylphenol	ug/kg																		
*2-methylnaphthalene	ug/kg	63,000	99,000	230,000	210,000											390 J	160 J	1,500 J	870,000
2-methylphenol (o-cresol)	ug/kg																		
4-methylphenol (p-cresol)	ug/kg					35 J	140 J												
Acenaphthene	ug/kg	14,000	24,000	**110,000 (Q)**	**120,000 (Q)**		150 J				12 J	16 J	11 J	9.1 J	47 J	500 J	86 J	12,000	**290,000 J (Q)**
Acenaphthylene	ug/kg	14,000	20,000	6,700 J	8,300 J										25 J		31 J	750 J	**160,000 J (Q)**
*Acetophenone	ug/kg	810 J	990 J	1,900 J	1,700 J	45 J	150 J	47 J	34 J	53 J	35 J	39 J	50 J	35 J	46 J	75 J	84 J	1,300 J	
Anthracene	ug/kg	11,000 J	22,000	48,000	59,000	11 J	340 J									440 J	77 J	6,400	210,000 J
*Benzaldehyde	ug/kg					58 J	200 J	71 J	47 J	96 J	58 J	62 J	98 J	50 J	73 J	120 J	110 J		
Benzo(a)anthracene	ug/kg	**5,700 J (Q)**	**11,000 J (Q)**	**27,000 J (Q)**	**30,000 J (Q)**	36 J	780 J									360 J	66 J	**3,400 J (Q)**	**140,000 J (Q)**
Benzo(a)pyrene	ug/kg	3,800 J	7,900 J	20,000 J	22,000 J	41 J	520 J									280 J	38 J	2,300 J	**94,000 J (Q)**
Benzo(b)fluoranthene	ug/kg	**3,000 J (Q)**	**5,600 J (Q)**	**15,000 J (Q)**	**16,000 J (Q)**	28 J	570 J									330 J	27 J	1,700 J	**69,000 J (Q)**
Benzo(g,h,i)perylene	ug/kg	1,600 J	2,900 J	7,900 J	7,200 J	33 J	340 J									170 J	19 J	990 J	42,000 J
Benzo(k)fluoranthene	ug/kg	1,200 J	**2,100 J (Q)**	**6,700 J (Q)**	**6,800 J (Q)**	13 J	170 J									100 J	15 J	660 J	**26,000 J (Q)**
*Benzyl butyl phthalate	ug/kg																		
*Biphenyl (diphenyl)	ug/kg	6,500 J	9,500 J	22,000 J	24,000 J											110 J	23 J	2,000 J	85,000 J
*Bis(2-ethylhexyl) phthalate	ug/kg					98 J	120 J	43 J	53 J	85 J	56 J	36 J	61 J	36 J	46 J		46 J	300 J	
*Caprolactam	ug/kg																		
*Carbazole	ug/kg	1,500 J	1,100 J	1,300 J	2,200 J											280 J	10 J	300 J	
Chrysene	ug/kg	**4,000 J (Q)**	**8,500 J (Q)**	**24,000 J (Q)**	**25,000 J (Q)**	31 J	720 J									330 J	54 J	**3,100 J (Q)**	**120,000 J (Q)**
Dibenz(a,h)anthracene	ug/kg	740 J	1,200 J	3,200 J	2,800 J	9.2 J	130 J									67 J		360 J	
Dibenzofuran	ug/kg	1,800 J	2,700 J	5,900 J	7,100 J		59 J									410 J	28 J	630 J	27,000 J
*Diethyl phthalate	ug/kg																		
*Dimethyl phthalate	ug/kg																		
*Di-n-butyl phthalate	ug/kg																		
*Di-n-octylphthalate	ug/kg																		
Fluoranthene	ug/kg	11,000 J	22,000	50,000	61,000	41 J	1,100 J									920 J	100 J	5,600 J	220,000 J
Fluorene	ug/kg	16,000	27,000	56,000	70,000		69 J									470 J	78 J	5,600 J	230,000 J
Indeno(1,2,3-c,d)pyrene	ug/kg	1,600 J	2,800 J	7,600 J	7,000 J	36 J	290 J									200 J	19 J	920 J	**37,000 J (Q)**
Naphthalene	ug/kg	**140,000 (Q)**	**170,000 (Q)**	**170,000 (Q)**	**340,000 (Q)**	8 J	110 J				6.3 J	6.7 J	16 J	6.4 J	26 J	1,400	330	1,700 J	**1,500,000 (Q)**
Phenanthrene	ug/kg	42,000	74,000	180,000	220,000	33 J	610 J						6.7 J			1,300 J	270	24,000	820,000
Phenol	ug/kg					9 J	57 J	8.3 J		9.5 J	6.6 J	6.3 J	8.9 J		8.5 J		16 J	220 J	
Pyrene	ug/kg	15,000	33,000	78,000	88,000	47 J	1,500 J							6.1 J		920 J	160 J	10,000	370,000
*Total PAHs	ug/kg	347,640	533,000	1,040,100	1,293,100	367.2	7,399				18.3	22.7	33.7	21.6	98	8,177	1,530	80,980	5,198,000

TABLE I-28B
SVOC Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-47	GCMW-47	GCMW-47
Sample Number:	059-2238	059-2239	059-2240
Sample Depth:	36-36.5	40-40.5	45-45.5
Sample Date:	6/28/2010	6/28/2010	6/28/2010
Sample Type:	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds		
*2,4-dimethylphenol	ug/kg			
*2-methylnaphthalene	ug/kg	1,200,000	120,000	1,700
2-methylphenol (o-cresol)	ug/kg			
4-methylphenol (p-cresol)	ug/kg			
Acenaphthene	ug/kg	**100,000 J (Q)**	67,000	1,100
Acenaphthylene	ug/kg	**490,000 (Q)**	11,000 J	300 J
*Acetophenone	ug/kg		1,400 J	55 J
Anthracene	ug/kg	260,000	38,000	740 J
*Benzaldehyde	ug/kg			63 J
Benzo(a)anthracene	ug/kg	**150,000 J (Q)**	**25,000 (Q)**	520 J
Benzo(a)pyrene	ug/kg	**110,000 J (Q)**	16,000 J	340 J
Benzo(b)fluoranthene	ug/kg	**83,000 J (Q)**	**13,000 J (Q)**	280 J
Benzo(g,h,i)perylene	ug/kg	47,000 J	7,500 J	140 J
Benzo(k)fluoranthene	ug/kg	**26,000 J (Q)**	**3,200 J (Q)**	91 J
*Benzyl butyl phthalate	ug/kg			
*Biphenyl (diphenyl)	ug/kg	110,000 J	14,000 J	210 J
*Bis(2-ethylhexyl) phthalate	ug/kg			
*Caprolactam	ug/kg			
*Carbazole	ug/kg	8,800 J	1,000 J	
Chrysene	ug/kg	**150,000 J (Q)**	**24,000 J (Q)**	460 J
Dibenz(a,h)anthracene	ug/kg	15,000 J	2,600 J	
Dibenzofuran	ug/kg		4,800 J	87 J
*Diethyl phthalate	ug/kg			
*Dimethyl phthalate	ug/kg			
*Di-n-butyl phthalate	ug/kg			
*Di-n-octylphthalate	ug/kg			
Fluoranthene	ug/kg	270,000	39,000	840 J
Fluorene	ug/kg	290,000 J	38,000 J	740 J
Indeno(1,2,3-c,d)pyrene	ug/kg	**45,000 J (Q)**	7,500 J	110 J
Naphthalene	ug/kg	**2,100,000 (Q)**	**150,000 (Q)**	1,300
Phenanthrene	ug/kg	1,000,000	150,000	2,900
Phenol	ug/kg			
Pyrene	ug/kg	430,000	66,000	1,500
*Total PAHs	ug/kg	6,766,000	777,800	13,061

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TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:	SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:	0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:	N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	0.75 U	0.83 U	0.75 U	0.79 U	2.1 U	0.74 U	0.68 U	0.61 U	0.65 U	2 U	0.58 U	0.8 U	0.89 U	2.6 U	2 U	0.64 U	0.62 U	0.66 U
Alpha BHC	ug/kg	0.52 U	0.57 U	0.52 U	0.54 U	2.1 U	0.51 U	0.47 U	0.42 U	0.44 U	2 U	0.4 U	0.55 U	0.61 U	2.6 U	1.4 U	0.44 U	0.43 U	0.45 U
Alpha endosulfan	ug/kg	0.58 U	0.63 U	0.57 U	0.6 U	2.1 U	0.56 U	0.52 U	0.46 U	0.49 U	2 U	0.44 U	0.61 U	0.68 U	2.6 U	1.5 U	0.49 U	0.47 U	0.5 U
Alpha-chlordane	ug/kg	0.57 U	0.62 U	0.56 U	0.59 U	2.1 U	0.56 U	0.51 U	0.46 U	0.49 U	2 U	0.43 U	0.6 U	0.67 U	2.6 U	1.5 U	0.48 U	0.47 U	0.5 U
Beta BHC	ug/kg	0.82 U	0.89 U	0.81 U	0.85 U	12 R	0.8 U	0.74 U	0.66 U	0.7 U	2 U	0.62 U	0.86 U	0.96 U	**3.1**	2.2 U	0.7 U	0.67 U	0.71 U
Beta endosulfan	ug/kg	0.64 U	0.7 U	0.64 U	0.67 U	4.2 U	0.63 U	0.58 U	0.52 U	0.55 U	3.9 U	0.49 U	0.68 U	0.76 U	5.1 U	1.7 U	0.55 U	0.53 U	0.56 U
Delta BHC	ug/kg	0.46 U	0.5 U	0.46 U	0.48 U	5.8 R	0.45 U	0.41 U	0.37 U	0.39 U	2 U	0.35 U	0.49 U	0.54 U	**1.8 J**	1.2 U	0.39 U	0.38 U	0.4 U
Dieldrin	ug/kg	0.57 U	0.62 U	0.56 U	0.59 U	4.2 U	0.56 U	0.51 U	0.46 U	0.49 U	3.9 U	0.43 U	0.6 U	0.67 U	5.1 U	1.5 U	0.48 U	0.47 U	0.5 U
Endosulfan sulfate	ug/kg	0.64 U	0.7 U	0.64 U	0.67 U	4.2 U	0.63 U	0.58 U	0.52 U	0.55 U	3.9 U	0.49 U	0.68 U	0.76 U	5.1 U	1.7 U	0.55 U	0.53 U	0.56 U
Endrin	ug/kg	0.58 U	0.64 U	0.58 U	0.61 U	4.2 U	0.57 U	0.53 U	0.47 U	0.5 U	3.9 U	0.45 U	0.62 U	0.69 U	5.1 U	1.6 U	0.5 U	0.48 U	0.51 U
Endrin aldehyde	ug/kg	0.79 U	0.86 U	0.79 U	0.83 U	**4.8**	0.77 U	0.71 U	0.64 U	0.68 U	3.9 U	0.6 U	0.83 U	0.93 U	5.1 U	2.1 U	0.67 U	0.65 U	0.69 U
Endrin ketone	ug/kg	0.6 U	0.65 U	0.59 U	0.62 U	**5**	0.59 U	0.54 U	0.48 U	0.51 U	3.9 U	0.46 U	0.63 U	0.7 U	5.1 U	1.6 U	0.51 U	0.49 U	0.52 U
Gamma BHC	ug/kg	0.52 U	0.57 U	0.52 U	0.54 U	**3.8 NJ**	0.51 U	0.47 U	0.42 U	0.45 U	2 U	0.4 U	0.55 U	0.61 U	2.6 U	1.4 U	0.44 U	0.43 U	0.45 U
Gamma-chlordane	ug/kg	0.66 U	0.72 U	0.66 U	0.69 U	**2.6**	0.65 U	0.59 U	0.53 U	0.56 U	2 U	0.5 U	0.7 U	0.77 U	2.6 U	1.8 U	0.56 U	0.54 U	0.58 U
Heptachlor	ug/kg	0.76 U	0.83 U	0.75 U	0.79 U	5.8 R	0.74 U	0.68 U	0.61 U	0.65 U	2 U	0.58 U	0.8 U	0.89 U	2.6 U	2 U	0.65 U	0.62 U	0.66 U
Heptachlor epoxide	ug/kg	0.65 U	0.71 U	0.64 U	0.68 U	2.1 U	0.64 U	0.58 U	0.52 U	0.55 U	2 U	0.49 U	0.68 U	0.76 U	2.6 U	1.7 U	0.55 U	0.53 U	0.57 U
Methoxychlor	ug/kg	0.75 U	0.82 U	0.75 U	0.78 U	21 U	0.74 U	0.68 U	0.61 U	0.64 U	20 U	0.57 U	0.79 U	0.88 U	26 U	2 U	0.64 U	0.62 U	0.66 U
P,P'-DDD	ug/kg	0.72 U	0.79 U	0.72 U	0.75 U	**4.1 J**	0.71 U	0.65 U	0.58 U	0.62 U	3.9 U	0.55 U	0.76 U	0.85 U	5.1 U	1.9 U	0.62 U	0.59 U	0.63 U
P,P'-DDE	ug/kg	**9.5**	0.64 U	**4.1**	0.61 U	4.2 U	0.57 U	0.53 U	0.47 U	0.5 U	3.9 U	**4.7**	0.62 U	0.69 U	5.1 U	1.6 U	0.5 U	0.48 U	0.51 U
P,P'-DDT	ug/kg	0.71 U	0.77 U	**3**	**2.3**	4.2 U	0.69 U	0.64 U	0.57 U	0.61 U	3.9 U	**5.2**	0.74 U	0.83 U	5.1 U	1.9 U	0.6 U	0.58 U	0.62 U
Toxaphene	ug/kg	20 U	21 U	20 U	21 U	210 U	19 U	18 U	16 U	17 U	200 U	15 U	21 U	23 U	260 U	53 U	17 U	16 U	17 U
Total DDTs	ug/kg	**9.5**	ND	**7.1**	**2.3**	**4.1**	ND	ND	ND	ND	ND	**9.9**	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
Sample Number:		SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
Sample Depth:		30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
Sample Date:		6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.1 U	0.63 U	3.1 U	2 UJ	**24 J**	1.9 U	2.1 U	1.8 U	2.1 U	1.9 UJ	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	**0.48 J**
Alpha BHC	ug/kg	2.1 U	0.44 U	3.1 U	2 UJ	1.9 UR	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Alpha endosulfan	ug/kg	2.1 U	0.48 U	3.1 U	2 UJ	1.9 UR	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Alpha-chlordane	ug/kg	2.1 U	0.48 U	3.1 U	2 UJ	36 R	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Beta BHC	ug/kg	2.1 U	0.69 U	3.1 U	2 UJ	1.9 UR	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Beta endosulfan	ug/kg	4.1 U	0.54 U	5.9 U	**4.8 J**	**3.9 J**	3.8 U	4 U	3.5 U	**5**	3.6 UJ	5.7 U	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	5.4 U
Delta BHC	ug/kg	2.1 U	0.39 U	3.1 U	2 UJ	1.9 UR	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Dieldrin	ug/kg	4.1 U	0.48 U	5.9 U	3.8 UJ	3.8 UR	3.8 U	4 U	3.5 U	4.2 U	3.6 U	5.7 U	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	5.4 U
Endosulfan sulfate	ug/kg	4.1 U	0.54 U	**0.18 J**	3.8 UJ	3.8 UR	3.8 U	4 U	3.5 U	4.3 R	3.6 UJ	5.7 U	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	5.4 U
Endrin	ug/kg	4.1 U	0.49 U	5.9 U	3.8 UJ	5.1 R	3.8 U	4 U	3.5 U	4.2 U	**0.69 J**	5.7 U	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	5.4 U
Endrin aldehyde	ug/kg	4.1 U	0.66 U	5.9 U	**14 NJ**	3.8 UR	3.8 U	4 U	3.5 U	**15 J**	3.6 U	5.7 U	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	5.4 U
Endrin ketone	ug/kg	4.1 U	0.5 U	5.9 U	3.8 UJ	3.8 UR	3.8 U	4 U	3.5 U	4.2 U	3.6 U	**1.5 J**	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	**0.56 J**
Gamma BHC	ug/kg	2.1 U	0.44 U	3.1 U	2 UJ	1.9 UR	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Gamma-chlordane	ug/kg	2.1 U	0.55 U	3.1 U	**13 J**	1.9 UR	1.9 U	2.1 U	1.8 U	**14**	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Heptachlor	ug/kg	2.1 U	0.64 U	3.1 U	2 UJ	1.9 UR	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	1.9 U	2.7 U	2.8 U
Heptachlor epoxide	ug/kg	2.1 U	0.54 U	3.1 U	**3.2 NJ**	1.9 UR	1.9 U	2.1 U	1.8 U	2.1 U	1.9 U	2.9 U	1.9 U	2 U	1.9 U	1.9 U	**0.051 J**	2.7 U	2.8 U
Methoxychlor	ug/kg	21 U	0.63 U	31 U	**18 J**	19 UR	19 U	21 U	18 U	21 U	19 UJ	29 U	19 U	20 U	19 U	19 U	19 U	**3 J**	28 U
P,P'-DDD	ug/kg	4.1 U	0.61 U	5.9 U	3.8 UJ	4.1 R	3.8 U	4 U	3.5 U	4.2 U	3.6 U	5.7 U	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	5.4 U
P,P'-DDE	ug/kg	4.1 U	0.49 U	5.9 U	3.8 UJ	3.8 UR	3.8 U	**1.6 J**	3.5 U	4.2 U	3.6 U	5.7 U	3.7 U	4 U	3.7 U	3.7 U	**0.077 J**	5.3 U	5.4 U
P,P'-DDT	ug/kg	4.1 U	0.59 U	5.9 U	**9.9 J**	**5.1 NJ**	3.8 U	**1.5 J**	3.5 U	**11**	**0.15 J**	**0.64 J**	3.7 U	4 U	3.7 U	3.7 U	3.7 U	5.3 U	5.4 U
Toxaphene	ug/kg	210 U	17 U	310 U	200 UJ	190 UR	190 U	210 U	180 U	210 U	190 U	290 U	190 U	200 U	190 U	190 U	190 U	270 U	280 U
Total DDTs	ug/kg	ND	ND	ND	**9.9**	**---**	ND	**3.1**	ND	**11**	**0.15**	**0.64**	ND	ND	ND	ND	**0.077**	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
Sample Number:		059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
Sample Depth:		15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Alpha BHC	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	**0.15 J**
Alpha endosulfan	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Alpha-chlordane	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Beta BHC	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Beta endosulfan	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	4.2 U	**28 J**	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	4.2 UJ
Delta BHC	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Dieldrin	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	4.2 U	**3.8 J**	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	4.2 UJ
Endosulfan sulfate	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	4.2 U	38 U	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	4.2 UJ
Endrin	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	4.2 U	38 U	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	**0.11 J**
Endrin aldehyde	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	4.2 U	38 U	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	4.2 UJ
Endrin ketone	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	**0.24 J**	4.2 UJ	3.9 UJ	3.9 UJ	**5.3 NJ**	4.2 U	38 U	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	4.2 UJ
Gamma BHC	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	**0.18 J**	2.1 UJ
Gamma-chlordane	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	**59**	3 UJ	**0.15 J**	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Heptachlor	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	20 U	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Heptachlor epoxide	ug/kg	3 U	2 U	1.9 U	2.4 UJ	3 UJ	3.1 UJ	2.2 UJ	2 UJ	2 UJ	2 U	2.1 U	**8.1 J**	3 UJ	2.9 UJ	2.9 UJ	2.9 UJ	2.1 UJ	2.1 UJ
Methoxychlor	ug/kg	30 U	20 U	19 U	24 UJ	30 UJ	31 UJ	22 UJ	20 UJ	20 UJ	20 U	21 U	200 U	30 UJ	29 UJ	29 UJ	29 UJ	21 UJ	21 UJ
P,P'-DDD	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	4.2 U	38 U	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	4.2 UJ
P,P'-DDE	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	4.2 U	38 U	5.8 UJ	5.5 UJ	5.7 UJ	**1.4 J**	4 UJ	4.2 UJ
P,P'-DDT	ug/kg	5.8 U	3.8 U	3.8 U	4.7 UJ	5.8 UJ	6 UJ	4.2 UJ	3.9 UJ	3.9 UJ	3.9 U	**0.26 J**	**56**	5.8 UJ	5.5 UJ	5.7 UJ	5.7 UJ	4 UJ	4.2 UJ
Toxaphene	ug/kg	300 U	200 U	190 U	240 UJ	300 UJ	310 UJ	220 UJ	200 UJ	200 UJ	200 U	210 U	2,000 U	300 UJ	290 UJ	290 UJ	290 UJ	210 UJ	210 UJ
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.26**	**56**	ND	ND	ND	**1.4**	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	0.56 U	0.6 U	0.61 U	0.66 U	2 U	0.66 U	0.67 U	0.81 U	0.87 U	0.62 U	2 U	0.58 U	0.57 U	0.63 U	2 U	0.68 U	0.71 U	0.65 U
Alpha BHC	ug/kg	0.39 U	0.41 U	0.42 U	0.45 U	2 U	0.46 U	0.46 U	0.56 U	0.6 U	0.43 U	2 U	0.4 U	0.39 U	0.44 U	2 U	0.47 U	0.49 U	0.45 U
Alpha endosulfan	ug/kg	0.43 U	0.45 U	0.46 U	0.5 U	2 U	0.51 U	0.51 U	0.62 U	0.66 U	0.48 U	2 U	0.44 U	0.44 U	0.48 U	2 U	0.52 U	0.54 U	0.49 U
Alpha-chlordane	ug/kg	**3.7**	0.45 U	0.46 U	0.5 U	**1.5 J**	0.5 U	0.51 U	0.61 U	0.65 U	0.47 U	2 U	0.44 U	0.43 U	0.48 U	2 U	0.51 U	0.54 U	0.49 U
Beta BHC	ug/kg	0.61 U	0.65 U	0.66 U	0.72 U	2 U	0.72 U	0.73 U	0.88 U	0.94 U	0.68 U	2 U	0.63 U	0.62 U	0.69 U	2 U	0.73 U	0.77 U	0.7 U
Beta endosulfan	ug/kg	0.48 U	0.51 U	0.52 U	0.56 U	4 U	0.57 U	0.57 U	0.69 U	0.74 U	0.53 U	3.9 U	0.49 U	0.49 U	0.54 U	3.9 U	0.58 U	0.61 U	0.55 U
Delta BHC	ug/kg	0.34 U	0.36 U	0.37 U	0.4 U	2 U	0.4 U	0.41 U	0.49 U	0.53 U	0.38 U	2 U	0.35 U	0.35 U	0.39 U	2 U	0.41 U	0.44 U	0.39 U
Dieldrin	ug/kg	**2.7**	0.45 U	0.46 U	0.5 U	4 U	0.5 U	0.51 U	0.61 U	0.65 U	0.47 U	3.9 U	0.44 U	0.43 U	0.48 U	3.9 U	0.51 U	0.54 U	0.49 U
Endosulfan sulfate	ug/kg	0.48 U	0.51 U	0.52 U	0.56 U	4 U	0.57 U	0.57 U	0.69 U	0.74 U	0.53 U	3.9 U	0.49 U	0.49 U	0.54 U	3.9 U	0.58 U	0.61 U	0.55 U
Endrin	ug/kg	0.44 U	0.46 U	0.47 U	0.51 U	4 U	0.51 U	0.52 U	0.63 U	0.67 U	0.48 U	3.9 U	0.45 U	0.44 U	0.49 U	3.9 U	0.52 U	0.55 U	0.5 U
Endrin aldehyde	ug/kg	0.59 U	0.62 U	**3.7**	0.69 U	4 U	0.69 U	0.7 U	0.85 U	0.91 U	0.65 U	3.9 U	**19.5**	0.6 U	0.66 U	**4.5 NJ**	**6.6**	**5.1**	0.68 U
Endrin ketone	ug/kg	0.45 U	0.47 U	**5.4**	0.52 U	**5.8**	0.53 U	0.53 U	0.64 U	0.69 U	0.49 U	3.9 U	**55.6**	0.45 U	0.5 U	**8.6**	**10.8**	**8.6**	0.51 U
Gamma BHC	ug/kg	0.39 U	0.41 U	0.42 U	0.46 U	2 U	0.46 U	0.46 U	0.56 U	0.6 U	0.43 U	2 U	0.4 U	0.4 U	0.44 U	2 U	0.47 U	0.49 U	0.45 U
Gamma-chlordane	ug/kg	**2.8**	0.52 U	0.53 U	0.58 U	**1.8 J**	0.58 U	0.59 U	0.71 U	0.76 U	0.55 U	2 U	0.51 U	0.5 U	0.55 U	2 U	0.59 U	0.62 U	0.57 U
Heptachlor	ug/kg	0.57 U	0.6 U	0.61 U	0.66 U	2 U	0.67 U	0.68 U	0.82 U	0.87 U	0.63 U	2 U	0.58 U	0.58 U	0.64 U	2 U	0.68 U	0.72 U	0.65 U
Heptachlor epoxide	ug/kg	0.48 U	0.51 U	0.52 U	0.57 U	2 U	0.57 U	0.58 U	0.7 U	0.74 U	0.54 U	2 U	0.5 U	0.49 U	0.54 U	2 U	0.58 U	0.61 U	0.55 U
Methoxychlor	ug/kg	0.56 U	0.59 U	0.61 U	0.66 U	20 U	0.66 U	0.67 U	0.81 U	0.86 U	0.62 U	20 U	**43.8**	0.57 U	0.63 U	20 U	0.67 U	0.71 U	0.64 U
P,P'-DDD	ug/kg	0.54 U	0.57 U	0.58 U	0.63 U	4 U	0.63 U	0.64 U	0.78 U	0.83 U	0.6 U	3.9 U	0.55 U	0.55 U	0.61 U	3.9 U	0.65 U	0.68 U	0.62 U
P,P'-DDE	ug/kg	0.43 U	0.46 U	0.47 U	0.51 U	4 U	0.51 U	0.52 U	0.63 U	0.67 U	0.48 U	3.9 U	0.45 U	0.44 U	0.49 U	3.9 U	0.52 U	0.55 U	0.5 U
P,P'-DDT	ug/kg	**3.6**	0.56 U	0.57 U	**1.8**	4 U	0.62 U	0.63 U	0.76 U	0.81 U	0.58 U	3.9 U	0.54 U	0.54 U	0.59 U	3.9 U	0.63 U	0.67 U	0.61 U
Toxaphene	ug/kg	15 U	15 U	16 U	17 U	200 U	17 U	18 U	21 U	23 U	16 U	200 U	15 U	15 U	16 U	200 U	18 U	19 U	17 U
Total DDTs	ug/kg	**3.6**	ND	ND	**1.8**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
Sample Depth:		30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	0.65 U	0.64 U	0.64 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	20 U	22 U	2.2 U	2 U	2 U	2.1 U	2.1 U
Alpha BHC	ug/kg	0.44 U	0.44 U	0.44 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	29 R	**18 J**	2.2 U	2 U	2 U	2.1 U	2.1 U
Alpha endosulfan	ug/kg	0.49 U	0.48 U	0.49 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	20 U	22 U	2.2 U	2 U	2 U	2.1 U	2.1 U
Alpha-chlordane	ug/kg	0.49 U	0.48 U	0.48 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	20 U	**71 NJ**	2.2 U	2 U	2 U	2.1 U	2.1 U
Beta BHC	ug/kg	0.7 U	0.69 U	0.7 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	20 U	22 U	2.2 U	2 U	2 U	2.1 U	**0.12 J**
Beta endosulfan	ug/kg	0.55 U	0.54 U	0.55 U	3.9 U	4 U	4 U	4 U	4.1 U	5.3 U	4.1 U	4.2 U	**88**	**19 J**	4.2 U	3.8 U	3.9 U	4 U	4.1 U
Delta BHC	ug/kg	0.39 U	0.39 U	0.39 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	20 U	8.4 R	2.2 U	2 U	2 U	2.1 U	2.1 U
Dieldrin	ug/kg	0.49 U	0.48 U	0.48 U	3.9 U	4 U	4 U	4 U	4.1 U	5.3 U	4.1 U	**0.76 J**	39 U	**6.9 J**	4.2 U	3.8 U	3.9 U	4 U	4.1 U
Endosulfan sulfate	ug/kg	0.55 U	0.54 U	0.55 U	3.9 U	4 U	**13**	4 U	4.1 U	5.3 U	4.1 U	6.6 R	39 U	69 R	4.2 U	**0.67 J**	3.9 U	4 U	4.1 U
Endrin	ug/kg	0.5 U	0.49 U	0.5 U	3.9 U	4 U	4 U	4 U	**0.7 J**	5.3 U	4.1 U	4.2 U	**43**	**7.5 J**	4.2 U	3.8 U	3.9 U	4 U	4.1 U
Endrin aldehyde	ug/kg	0.68 U	0.66 U	0.67 U	3.9 U	4 U	4 U	4 U	4.1 U	5.3 U	4.1 U	9.8 R	**120 NJ**	110 R	4.2 U	3.8 U	3.9 U	4 U	4.1 U
Endrin ketone	ug/kg	0.51 U	0.5 U	0.51 U	3.9 U	4 U	**12 J**	4 U	4.1 U	5.3 U	4.1 U	4.2 U	45 R	4.3 UJ	4.2 U	3.8 U	3.9 U	4 U	4.1 U
Gamma BHC	ug/kg	0.44 U	0.44 U	0.44 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	20 U	22 U	2.2 U	2 U	2 U	2.1 U	2.1 U
Gamma-chlordane	ug/kg	0.56 U	0.55 U	0.56 U	2 U	2.1 U	**7.9 J**	2 U	2.1 U	2.7 U	2.1 U	2.1 U	**160**	**51 J**	2.2 U	2 U	2 U	2.1 U	2.1 U
Heptachlor	ug/kg	0.65 U	0.64 U	0.65 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	20 U	22 U	2.2 U	2 U	2 U	2.1 U	2.1 U
Heptachlor epoxide	ug/kg	0.55 U	0.55 U	0.55 U	2 U	2.1 U	2 U	2 U	2.1 U	2.7 U	2.1 U	2.1 U	25 R	**6.9 J**	2.2 U	2 U	2 U	2.1 U	2.1 U
Methoxychlor	ug/kg	0.64 U	0.63 U	0.64 U	20 U	21 U	20 U	20 U	21 U	27 U	21 U	**20 J**	200 U	**170 J**	22 U	20 U	20 U	21 U	21 U
P,P'-DDD	ug/kg	0.62 U	0.61 U	0.62 U	3.9 U	4 U	4 U	4 U	**0.3 J**	5.3 U	4.1 U	**6.6 J**	39 U	**74 NJ**	4.2 U	3.8 U	3.9 U	4 U	4.1 U
P,P'-DDE	ug/kg	0.5 U	0.49 U	0.5 U	3.9 U	4 U	**2.8 J**	4 U	4.1 U	5.3 U	4.1 U	4.2 U	39 U	**26 J**	**2 J**	3.8 U	3.9 U	4 U	4.1 U
P,P'-DDT	ug/kg	0.6 U	0.59 U	0.6 U	3.9 U	4 U	6.6 R	4 U	**0.4 J**	5.3 U	4.1 U	**19**	**170**	57 R	**1.3 J**	3.8 U	3.9 U	4 U	4.1 U
Toxaphene	ug/kg	17 U	17 U	17 U	200 U	210 U	200 U	200 U	210 U	270 U	210 U	210 U	200 UR	220 UR	220 U	200 U	200 U	210 U	210 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	---	ND	**0.7**	ND	ND	**25.6**	**170**	**99**	**3.3**	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:	059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:	26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Alpha BHC	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Alpha endosulfan	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Alpha-chlordane	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Beta BHC	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Beta endosulfan	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
Delta BHC	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	**4.4 J**	2 U	2.2 U
Dieldrin	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 UJ	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
Endosulfan sulfate	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	**1.8 J**	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
Endrin	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	**0.34 J**
Endrin aldehyde	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
Endrin ketone	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
Gamma BHC	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 UJ	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Gamma-chlordane	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Heptachlor	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Heptachlor epoxide	ug/kg	2.2 U	2.1 U	2.1 U	2.1 U	2 U	2 U	2.1 U	2.3 U	2.3 U	2.7 U	3.1 U	2.3 U	1.9 U	1.9 U	2 U	2.2 UJ	2 U	2.2 U
Methoxychlor	ug/kg	22 U	21 U	21 U	21 U	20 U	20 U	21 U	23 U	23 U	27 U	31 U	23 U	19 U	19 U	20 U	22 UJ	20 U	22 U
P,P'-DDD	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
P,P'-DDE	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
P,P'-DDT	ug/kg	4.2 U	4 U	4.2 U	4.1 U	3.9 U	4 U	4 U	4.5 U	4.4 U	5.2 U	5.9 U	4.4 U	3.7 U	3.7 U	3.8 U	4.3 UJ	3.9 U	4.2 U
Toxaphene	ug/kg	220 U	210 U	210 U	210 U	200 U	200 U	210 U	230 U	230 U	270 U	310 U	230 U	190 U	190 U	200 U	220 UJ	200 U	220 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
Sample Number:		059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
Sample Depth:		15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Alpha BHC	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Alpha endosulfan	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Alpha-chlordane	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Beta BHC	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	**0.22 J**	1.9 UJ	1.9 UJ
Beta endosulfan	ug/kg	4.1 U	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	4.2 UJ	5.6 UJ	4.2 UJ	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
Delta BHC	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Dieldrin	ug/kg	4.1 U	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	4.2 UJ	5.6 UJ	4.2 UJ	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
Endosulfan sulfate	ug/kg	4.1 U	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	**9.6 NJ**	5.6 UJ	**5.1 J**	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
Endrin	ug/kg	4.1 U	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	**8.4 NJ**	5.6 UJ	**2.2 J**	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
Endrin aldehyde	ug/kg	4.1 U	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	4.2 UJ	5.6 UJ	4.2 UJ	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
Endrin ketone	ug/kg	**0.47 J**	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	**8.7 J**	**4.5 J**	4.2 UJ	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
Gamma BHC	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Gamma-chlordane	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	**21 J**	**7.8 NJ**	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Heptachlor	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	2.1 UJ	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Heptachlor epoxide	ug/kg	2.1 U	2.3 U	2.1 U	2.1 UJ	2.2 U	2.2 UJ	2 UJ	2 UJ	1.9 UJ	2.2 UJ	2.9 UJ	2.2 UJ	**0.13 J**	1.9 UJ	2 UJ	2 UJ	1.9 UJ	1.9 UJ
Methoxychlor	ug/kg	21 U	23 U	21 U	21 UJ	22 U	22 UJ	20 UJ	20 UJ	19 UJ	40 R	**25 J**	22 UJ	21 UJ	19 UJ	20 UJ	20 UJ	19 UJ	19 UJ
P,P'-DDD	ug/kg	4.1 U	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	**7.8 NJ**	**6.9 J**	4.2 UJ	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
P,P'-DDE	ug/kg	4.1 U	**0.094 J**	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	**7.7 NJ**	5.6 UJ	4.2 UJ	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
P,P'-DDT	ug/kg	4.1 U	4.5 U	4.1 U	4.1 UJ	4.3 U	4.2 UJ	4 UJ	3.8 UJ	3.7 UJ	**13 J**	5.6 UJ	4.2 UJ	4.1 UJ	3.6 UJ	4 UJ	3.8 UJ	3.7 UJ	3.7 UJ
Toxaphene	ug/kg	210 U	230 U	210 U	210 UJ	220 U	220 UJ	200 UJ	200 UJ	190 UJ	220 UJ	290 UJ	220 UJ	210 UJ	190 UJ	200 UJ	200 UJ	190 UJ	190 UJ
Total DDTs	ug/kg	ND	**0.094**	ND	ND	ND	ND	ND	ND	ND	**28.5**	**6.9**	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
Sample Number:		059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
Sample Depth:		50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.56 U	0.61 U	0.78 U	2.3 U	0.76 U	0.74 U	0.65 U
Alpha BHC	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.38 U	0.42 U	0.53 U	2.3 U	0.52 U	0.51 U	0.45 U
Alpha endosulfan	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.42 U	0.46 U	0.59 U	2.3 U	0.58 U	0.57 U	0.5 U
Alpha-chlordane	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.42 U	0.46 U	0.58 U	2.3 U	0.57 U	0.56 U	0.49 U
Beta BHC	ug/kg	2 UJ	2.2 U	2.1 U	**0.32 J**	2.2 U	**0.23 J**	**0.09 J**	**0.14 J**	**0.096 J**	2.2 U	1.8 U	0.6 U	0.66 U	0.84 U	2.3 U	0.82 U	0.8 U	0.71 U
Beta endosulfan	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.47 U	0.52 U	0.66 U	4.4 U	0.64 U	0.63 U	0.56 U
Delta BHC	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.34 U	0.37 U	0.47 U	2.3 U	0.46 U	0.45 U	0.4 U
Dieldrin	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.42 U	0.46 U	0.58 U	4.4 U	0.57 U	0.56 U	0.49 U
Endosulfan sulfate	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.47 U	0.52 U	0.66 U	4.4 U	0.64 U	0.63 U	0.56 U
Endrin	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.43 U	0.47 U	0.6 U	4.4 U	0.58 U	0.57 U	0.5 U
Endrin aldehyde	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.58 U	0.63 U	0.81 U	4.4 U	0.79 U	0.78 U	0.68 U
Endrin ketone	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 UJ	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.44 U	0.48 U	0.61 U	**2.4 J**	0.6 U	0.59 U	0.52 U
Gamma BHC	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.38 U	0.42 U	0.53 U	2.3 U	0.52 U	0.51 U	0.45 U
Gamma-chlordane	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.49 U	0.53 U	0.68 U	2.3 U	0.66 U	0.65 U	0.57 U
Heptachlor	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.56 U	0.61 U	0.78 U	2.3 U	0.76 U	0.74 U	0.65 U
Heptachlor epoxide	ug/kg	2 UJ	2.2 U	2.1 U	2.1 U	2.2 U	2.1 U	2.1 U	2.2 U	2 U	2.2 U	1.8 U	0.48 U	0.52 U	0.67 U	2.3 U	0.65 U	0.64 U	0.56 U
Methoxychlor	ug/kg	20 UJ	22 U	21 U	21 U	22 U	21 U	21 U	**3 J**	20 U	**0.24 J**	18 U	0.55 U	0.6 U	0.77 U	23 U	0.75 U	0.74 U	0.65 U
P,P'-DDD	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.53 U	0.58 U	0.74 U	4.4 U	0.72 U	0.71 U	0.62 U
P,P'-DDE	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.43 U	0.47 U	0.6 U	4.4 U	0.58 U	0.57 U	0.5 U
P,P'-DDT	ug/kg	3.8 UJ	4.3 U	4.1 U	4 U	4.3 U	4.1 U	4.1 U	4.3 U	3.9 U	4.2 U	3.6 U	0.52 U	0.57 U	0.73 U	4.4 U	0.71 U	0.69 U	0.61 U
Toxaphene	ug/kg	200 UJ	220 U	210 U	210 U	220 U	210 U	210 U	220 U	200 U	220 U	180 U	14 U	16 U	20 U	230 U	20 U	19 U	17 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
Sample Number:	SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
Sample Depth:	30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:	N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	0.7 U	0.69 U	0.66 U	2 U	0.57 U	0.64 U	0.7 U	0.67 U	0.68 U	2.3 U	0.67 U	0.64 U	0.79 U	0.67 U	0.62 U	0.67 U	0.67 U	0.67 U
Alpha BHC	ug/kg	0.48 U	0.47 U	0.45 U	2 U	0.39 U	0.44 U	0.48 U	0.46 U	0.47 U	2.3 U	0.46 U	0.44 U	0.54 U	0.46 U	0.42 U	0.46 U	0.46 U	0.46 U
Alpha endosulfan	ug/kg	0.53 U	0.52 U	0.5 U	2 U	0.44 U	0.49 U	0.53 U	0.51 U	0.52 U	2.3 U	0.51 U	0.49 U	0.6 U	0.51 U	0.47 U	0.51 U	0.51 U	0.51 U
Alpha-chlordane	ug/kg	0.52 U	0.52 U	0.5 U	2 U	0.43 U	0.48 U	0.53 U	0.5 U	0.51 U	2.3 U	0.5 U	0.48 U	0.6 U	0.5 U	0.46 U	0.5 U	0.51 U	0.5 U
Beta BHC	ug/kg	0.75 U	0.75 U	0.71 U	2 U	0.62 U	0.7 U	0.76 U	0.73 U	0.74 U	**7**	0.72 U	0.69 U	0.86 U	0.72 U	0.67 U	0.72 U	0.73 U	0.72 U
Beta endosulfan	ug/kg	0.59 U	0.59 U	0.56 U	3.8 U	0.49 U	0.55 U	0.6 U	0.57 U	0.58 U	4.5 U	0.57 U	0.54 U	0.68 U	0.57 U	0.53 U	0.57 U	0.57 U	0.57 U
Delta BHC	ug/kg	0.42 U	0.42 U	0.4 U	2 U	0.35 U	0.39 U	0.43 U	0.41 U	0.42 U	2.3 U	0.41 U	0.39 U	0.48 U	0.41 U	0.38 U	0.41 U	0.41 U	0.41 U
Dieldrin	ug/kg	0.52 U	0.52 U	0.5 U	3.8 U	0.43 U	0.48 U	0.53 U	0.5 U	0.51 U	4.5 U	0.5 U	0.48 U	0.6 U	0.5 U	0.46 U	0.5 U	0.51 U	0.5 U
Endosulfan sulfate	ug/kg	0.59 U	0.59 U	0.56 U	3.8 U	0.49 U	0.55 U	0.6 U	0.57 U	0.58 U	4.5 U	0.57 U	0.54 U	0.68 U	0.57 U	0.53 U	0.57 U	0.57 U	0.57 U
Endrin	ug/kg	0.54 U	0.53 U	0.51 U	3.8 U	0.44 U	0.5 U	0.54 U	0.52 U	0.53 U	4.5 U	0.52 U	0.49 U	0.61 U	0.52 U	0.48 U	0.52 U	0.52 U	0.52 U
Endrin aldehyde	ug/kg	0.73 U	0.72 U	0.69 U	3.8 U	0.6 U	0.67 U	0.73 U	0.7 U	0.72 U	4.5 U	0.7 U	0.67 U	0.83 U	0.7 U	0.65 U	0.7 U	0.7 U	0.7 U
Endrin ketone	ug/kg	0.55 U	0.54 U	0.52 U	3.8 U	0.45 U	0.51 U	0.55 U	0.53 U	0.54 U	4.5 U	0.53 U	0.51 U	0.63 U	0.53 U	0.49 U	0.53 U	0.53 U	0.53 U
Gamma BHC	ug/kg	0.48 U	0.47 U	0.45 U	2 U	0.39 U	0.44 U	0.48 U	0.46 U	0.47 U	**1.2 J**	0.46 U	0.44 U	0.55 U	0.46 U	0.43 U	0.46 U	0.46 U	0.46 U
Gamma-chlordane	ug/kg	0.61 U	0.6 U	0.58 U	2 U	0.5 U	0.56 U	0.61 U	0.59 U	0.6 U	2.3 U	0.58 U	0.56 U	0.69 U	0.58 U	0.54 U	0.58 U	0.59 U	0.58 U
Heptachlor	ug/kg	0.7 U	0.69 U	0.66 U	2 U	0.57 U	0.65 U	0.7 U	0.68 U	0.69 U	**1.7 J**	0.67 U	0.64 U	0.8 U	0.67 U	0.62 U	0.67 U	0.68 U	0.67 U
Heptachlor epoxide	ug/kg	0.6 U	0.59 U	0.57 U	2 U	0.49 U	0.55 U	0.6 U	0.58 U	0.59 U	2.3 U	0.57 U	0.55 U	0.68 U	0.57 U	0.53 U	0.57 U	0.58 U	0.57 U
Methoxychlor	ug/kg	0.69 U	0.68 U	0.66 U	20 U	0.57 U	0.64 U	0.7 U	0.67 U	0.68 U	23 U	0.67 U	0.64 U	0.79 U	0.66 U	0.61 U	0.66 U	0.67 U	0.66 U
P,P'-DDD	ug/kg	0.67 U	0.66 U	0.63 U	3.8 U	0.55 U	0.62 U	0.67 U	0.64 U	0.65 U	4.5 U	0.64 U	0.61 U	0.76 U	0.64 U	0.59 U	0.64 U	0.64 U	0.64 U
P,P'-DDE	ug/kg	0.54 U	0.53 U	0.51 U	3.8 U	0.44 U	0.5 U	0.54 U	0.52 U	0.53 U	4.5 U	0.52 U	0.49 U	0.61 U	0.52 U	0.48 U	0.51 U	0.52 U	0.51 U
P,P'-DDT	ug/kg	0.65 U	0.64 U	0.62 U	3.8 U	0.53 U	**2.6**	0.65 U	0.63 U	0.64 U	4.5 U	0.63 U	0.6 U	0.74 U	0.62 U	0.58 U	0.62 U	0.63 U	0.62 U
Toxaphene	ug/kg	18 U	18 U	17 U	200 U	15 U	17 U	18 U	17 U	18 U	230 U	17 U	17 U	21 U	17 U	16 U	17 U	18 U	17 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	**2.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
Sample Number:		SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
Sample Depth:		50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 U	2 U	0.7 U	0.58 U	0.56 U	0.57 U	0.62 U	1.9 U	0.59 U	0.64 U	0.77 U	0.68 U	0.65 U	0.62 U	0.66 U	0.6 U	0.6 U	2 U
Alpha BHC	ug/kg	2 U	2 U	0.48 U	0.4 U	0.39 U	0.39 U	0.43 U	1.9 U	0.4 U	0.44 U	0.53 U	0.47 U	0.44 U	0.43 U	0.45 U	0.41 U	0.41 U	2 U
Alpha endosulfan	ug/kg	2 U	2 U	0.53 U	0.44 U	0.43 U	0.44 U	0.47 U	1.9 U	0.45 U	0.49 U	0.59 U	0.52 U	0.49 U	0.47 U	0.5 U	0.45 U	0.46 U	2 U
Alpha-chlordane	ug/kg	2 U	2 U	0.52 U	0.43 U	0.42 U	0.43 U	0.47 U	1.9 U	0.44 U	0.48 U	0.58 U	0.51 U	0.49 U	0.47 U	0.5 U	0.45 U	0.45 U	2 U
Beta BHC	ug/kg	2 U	2 U	0.75 U	0.63 U	0.61 U	0.62 U	0.67 U	**1.9 NJ**	0.64 U	0.7 U	0.84 U	0.73 U	0.7 U	0.67 U	0.72 U	0.65 U	0.65 U	2 U
Beta endosulfan	ug/kg	4 U	3.9 U	0.59 U	0.49 U	0.48 U	0.49 U	0.53 U	3.7 U	0.5 U	0.55 U	0.66 U	0.58 U	0.55 U	0.53 U	0.56 U	0.51 U	0.51 U	4 U
Delta BHC	ug/kg	2 U	2 U	0.42 U	0.35 U	0.34 U	0.35 U	0.38 U	1.9 U	0.36 U	0.39 U	0.47 U	0.41 U	0.39 U	0.38 U	0.4 U	0.36 U	0.37 U	2 U
Dieldrin	ug/kg	4 U	3.9 U	0.52 U	0.43 U	0.42 U	0.43 U	0.47 U	3.7 U	0.44 U	0.48 U	0.58 U	0.51 U	0.49 U	0.47 U	0.5 U	0.45 U	0.45 U	4 U
Endosulfan sulfate	ug/kg	4 U	3.9 U	0.59 U	0.49 U	0.48 U	0.49 U	0.53 U	3.7 U	0.5 U	0.55 U	0.66 U	0.58 U	0.55 U	0.53 U	0.56 U	0.51 U	0.51 U	4 U
Endrin	ug/kg	4 U	3.9 U	0.54 U	0.45 U	0.43 U	0.44 U	0.48 U	3.7 U	0.45 U	0.5 U	0.6 U	0.52 U	0.5 U	0.48 U	0.51 U	0.46 U	0.46 U	4 U
Endrin aldehyde	ug/kg	4 U	3.9 U	0.73 U	0.61 U	0.59 U	0.6 U	0.65 U	3.7 U	0.62 U	0.67 U	0.81 U	0.71 U	0.68 U	0.65 U	0.69 U	0.62 U	0.63 U	4 U
Endrin ketone	ug/kg	4 U	3.9 U	0.55 U	0.46 U	0.44 U	0.45 U	0.49 U	3.7 U	0.47 U	0.51 U	0.61 U	0.54 U	0.51 U	0.49 U	0.52 U	0.47 U	0.48 U	4 U
Gamma BHC	ug/kg	2 U	2 U	0.48 U	0.4 U	0.39 U	0.39 U	0.43 U	1.9 U	0.41 U	0.44 U	0.53 U	0.47 U	0.45 U	0.43 U	0.46 U	0.41 U	0.41 U	2 U
Gamma-chlordane	ug/kg	2 U	2 U	0.61 U	0.5 U	0.49 U	0.5 U	0.54 U	1.9 U	0.51 U	0.56 U	0.67 U	0.59 U	0.56 U	0.54 U	0.58 U	0.52 U	0.52 U	2 U
Heptachlor	ug/kg	2 U	2 U	0.7 U	0.58 U	0.56 U	0.58 U	0.62 U	1.9 U	0.59 U	0.65 U	0.78 U	0.68 U	0.65 U	0.62 U	0.66 U	0.6 U	0.6 U	2 U
Heptachlor epoxide	ug/kg	2 U	2 U	0.6 U	0.5 U	0.48 U	0.49 U	0.53 U	1.9 U	0.5 U	0.55 U	0.66 U	0.58 U	0.55 U	0.53 U	0.57 U	0.51 U	0.52 U	2 U
Methoxychlor	ug/kg	20 U	20 U	0.69 U	0.58 U	0.56 U	0.57 U	0.62 U	19 U	0.58 U	0.64 U	0.77 U	0.67 U	0.64 U	0.62 U	0.66 U	0.59 U	0.6 U	20 U
P,P'-DDD	ug/kg	4 U	3.9 U	0.67 U	0.55 U	0.54 U	0.55 U	0.59 U	3.7 U	0.56 U	0.61 U	0.74 U	0.65 U	0.62 U	0.59 U	0.63 U	0.57 U	0.57 U	4 U
P,P'-DDE	ug/kg	4 U	3.9 U	0.54 U	0.45 U	0.43 U	0.44 U	0.48 U	3.7 U	0.45 U	0.5 U	0.6 U	0.52 U	0.5 U	0.48 U	0.51 U	0.46 U	0.46 U	4 U
P,P'-DDT	ug/kg	4 U	3.9 U	0.65 U	0.54 U	0.52 U	0.54 U	0.58 U	3.7 U	0.55 U	0.6 U	0.72 U	0.63 U	0.61 U	0.58 U	0.62 U	0.56 U	0.56 U	4 U
Toxaphene	ug/kg	200 U	200 U	18 U	15 U	15 U	15 U	16 U	190 U	15 U	17 U	20 U	18 U	17 U	16 U	17 U	16 U	16 U	200 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:		SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(0-5)	GC-MW23I(5-10)	GC-MW23I(10-15)	SB23IC-S-NG	GC-MW23I(15-20)	GC-MW23I(20-25)
Sample Depth:		60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	10-15	15-20	20-25
Sample Date:		6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	0.62 U	2.8 UJ	2.6 UJ	2 UR	**27 J**	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	7.4 U	2.1 U	4.6 UJ	3.3 U	2.9 U	**4 J**
Alpha BHC	ug/kg	0.43 U	2.8 UJ	2.6 UJ	2 UR	2 UR	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	7.4 U	2.1 U	4.6 UJ	3.3 U	2.9 U	2 U
Alpha endosulfan	ug/kg	0.48 U	2.8 UJ	2.6 UJ	2 UR	2 UR	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	7.4 U	2.1 U	4.6 UJ	3.3 U	2.9 U	**2.3 JN**
Alpha-chlordane	ug/kg	0.47 U	2.8 UJ	2.6 UJ	2 UR	**39 NJ**	2.1 UJ	**0.52 J**	3 U	2.1 U	2 U	2 U	2.1 U	7.4 U	2.1 U	4.6 UJ	3.3 U	2.9 U	**13 J**
Beta BHC	ug/kg	0.67 U	2.8 UJ	2.6 UJ	2 UR	2 UR	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	**49 J**	2.1 U	4.6 UJ	4.6 R	2.9 U	**6.2 J**
Beta endosulfan	ug/kg	0.53 U	5.4 UJ	5.1 UJ	**16 J**	**15 J**	**4 J**	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**21 J**
Delta BHC	ug/kg	0.38 U	2.8 UJ	2.6 UJ	2 UJ	2 UR	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	**14 JN**	2.1 U	4.6 UJ	3.3 U	2.9 U	2 U
Dieldrin	ug/kg	0.47 U	5.4 UJ	5.1 UJ	4 UJ	3.9 UR	4 UJ	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**6.2 J**
Endosulfan sulfate	ug/kg	0.53 U	5.4 UJ	5.1 UJ	4 UR	46 R	4 UJ	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**39**
Endrin	ug/kg	0.48 U	5.4 UJ	5.1 UJ	4 UJ	**6.3 NJ**	4 UJ	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**11 J**
Endrin aldehyde	ug/kg	0.65 U	5.4 UJ	5.1 UJ	19 R	**20 NJ**	5.3 R	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**15 JN**
Endrin ketone	ug/kg	0.49 U	5.4 UJ	5.1 UJ	7.1 R	5.5 R	4 UJ	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**36 J**
Gamma BHC	ug/kg	0.43 U	2.8 UJ	2.6 UJ	2 UR	2 UR	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	**9.1 J**	2.1 U	4.6 UJ	3.3 U	2.9 U	2 U
Gamma-chlordane	ug/kg	0.54 U	2.8 UJ	2.6 UJ	**17 J**	2 UR	**5.2 J**	3 U	3 U	2.1 U	2 U	2 U	2.1 U	7.4 U	2.1 U	4.6 UJ	3.3 U	2.9 U	**20**
Heptachlor	ug/kg	0.63 U	2.8 UJ	2.6 UJ	2 UJ	2 UR	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	**11 JN**	2.1 U	4.6 UJ	3.3 U	2.9 U	2 U
Heptachlor epoxide	ug/kg	0.53 U	2.8 UJ	2.6 UJ	2 UR	2 UR	2.1 UJ	3 U	3 U	2.1 U	2 U	2 U	2.1 U	7.4 U	2.1 U	4.6 UJ	3.3 U	2.9 U	**20**
Methoxychlor	ug/kg	0.62 U	28 UJ	26 UJ	**39 J**	20 UJ	**12 J**	30 U	30 U	21 U	20 U	20 U	21 U	74 U	21 U	46 UJ	33 U	29 U	**74 J**
P,P'-DDD	ug/kg	0.6 U	5.4 UJ	5.1 UJ	**6.7 J**	8.5 R	4 UJ	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**9.8 J**
P,P'-DDE	ug/kg	0.48 U	5.4 UJ	**0.48 J**	**3.6 J**	**4.9 NJ**	4 UJ	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**6.8 J**
P,P'-DDT	ug/kg	0.58 U	5.4 UJ	5.1 UJ	**37 J**	**35 J**	**9.3 J**	5.8 U	5.8 U	4.1 U	3.9 U	4 U	4.1 U	15 U	4.3 U	9.2 UJ	6.4 U	5.8 U	**37 J**
Toxaphene	ug/kg	16 U	280 UJ	260 UJ	200 UR	200 UR	210 UJ	300 U	300 U	210 U	200 U	200 U	210 U	740 U	210 U	460 UJ	330 U	290 U	200 U
Total DDTs	ug/kg	ND	ND	**0.48**	**47.3**	**---**	**9.3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**53.6**

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
Sample Number:		GC-MW23I(25-30)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
Sample Depth:		25-30	30-35	35-39	35-39	35-39	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:		N	N	N	FD	S	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.1 U	2.3 UJ	**21 J**	2 UJ	**3.4**	2.1 UR	2.8 U	2.9 U	3 U	19 U	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Alpha BHC	ug/kg	2.1 U	2.3 UJ	2 U	2 UJ	**2.8 NJ**	2.1 UJ	**0.18 J**	**0.19 J**	3 U	19 U	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Alpha endosulfan	ug/kg	2.1 U	2.3 U	**15 J**	2 UJ	3.6 R	2.1 UR	2.8 U	2.9 U	3 U	19 U	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Alpha-chlordane	ug/kg	2.1 U	2.3 UJ	**13 J**	2 UJ	12 R	2.1 UR	2.8 U	2.9 U	3 U	19 U	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Beta BHC	ug/kg	2.1 U	2.3 UJ	**2.9 JN**	2 UJ	**6.2**	2.1 UR	2.8 U	2.9 U	3 U	19 U	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Beta endosulfan	ug/kg	4.1 U	4.5 UJ	**7.7 J**	4.1 UJ	**14**	4.1 UJ	5.5 U	5.6 U	5.9 U	**27 J**	3.8 U	3.8 U	4 U	370 U	3.8 U	4.8 U	5.5 UJ	3.9 UJ
Delta BHC	ug/kg	2.1 U	2.3 U	2 U	2 UJ	2.1 U	2.1 UR	2.8 U	**0.78 J**	3 U	19 U	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Dieldrin	ug/kg	4.1 U	4.5 UJ	**8.6 J**	4.1 UJ	4.2 U	4.1 UR	5.5 U	5.6 U	5.9 U	38 U	3.8 U	3.8 U	4 U	370 U	3.8 U	4.8 U	5.5 UJ	3.9 UJ
Endosulfan sulfate	ug/kg	4.1 U	4.5 U	**20**	**---**	29 R	4.1 UR	5.5 U	5.6 U	5.9 U	38 U	3.8 U	3.8 U	4 U	370 U	3.8 U	4.8 U	5.5 UJ	3.9 UJ
Endrin	ug/kg	4.1 U	4.5 UJ	**14 J**	4.1 UJ	**10**	**0.72 J**	5.5 U	5.6 U	5.9 U	38 U	3.8 U	3.8 U	4 U	370 UR	3.8 UJ	4.8 UJ	5.5 UR	3.9 UR
Endrin aldehyde	ug/kg	4.1 U	4.5 U	**28 J**	4.1 UJ	**15 NJ**	4.1 UR	5.5 U	5.6 U	5.9 U	38 U	3.8 U	3.8 U	4 U	370 U	3.8 UJ	4.8 U	5.5 UJ	3.9 UJ
Endrin ketone	ug/kg	4.1 U	4.5 U	**12 J**	4.1 UJ	**13**	0.28 UJ	5.5 U	5.6 U	5.9 U	38 U	3.8 U	3.8 U	4 U	**120 J**	**2.5 J**	4.8 U	**0.52 J**	**0.6 J**
Gamma BHC	ug/kg	2.1 U	2.3 U	2 U	2 UJ	2.1 U	2.1 UR	2.8 U	2.9 U	3 U	19 U	**0.21 J**	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Gamma-chlordane	ug/kg	2.1 U	**3.9 J**	**9.1 JN**	**4.1 J**	**19**	3.2 R	2.8 U	2.9 U	3 U	**30 NJ**	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Heptachlor	ug/kg	2.1 U	2.3 UJ	2 U	2 UJ	2.1 U	2.1 UJ	**0.11 J**	2.9 U	3 U	19 U	2 U	1.9 U	2.1 U	190 U	1.9 U	2.5 U	2.8 UJ	2 UJ
Heptachlor epoxide	ug/kg	2.1 U	2.3 UJ	**7.2 JN**	2 UJ	**4.6 J**	2.1 UR	2.8 U	2.9 U	3 U	19 U	2 U	1.9 U	2.1 U	190 U	**0.78 J**	2.5 U	2.8 UJ	2 UJ
Methoxychlor	ug/kg	21 U	23 U	**27 J**	20 UJ	38 R	1.4 UJ	28 U	**0.71 J**	30 U	**100 J**	20 U	19 U	21 U	1,900 U	**3.6 J**	25 U	28 UJ	20 UJ
P,P'-DDD	ug/kg	4.1 U	4.5 U	**19 J**	4.1 UJ	14 R	4.1 UR	5.5 U	5.6 U	5.9 U	**27 J**	3.8 U	3.8 U	4 U	370 U	3.8 U	4.8 U	5.5 UJ	3.9 UJ
P,P'-DDE	ug/kg	4.1 U	4.5 UJ	**4.7 JN**	4.1 UJ	**9.6 J**	4.1 UJ	5.5 U	5.6 U	5.9 U	38 U	3.8 U	3.8 U	4 U	370 UJ	3.8 UJ	4.8 UJ	5.5 UJ	3.9 UJ
P,P'-DDT	ug/kg	4.1 U	4.5 UJ	**27 J**	4.1 UJ	10 R	0.48 UJ	**0.21 J**	5.6 U	5.9 U	**75**	3.8 U	3.8 U	4 U	370 UJ	3.8 UJ	**4 J**	5.5 UR	3.9 UR
Toxaphene	ug/kg	210 U	230 U	200 U	200 UJ	210 U	210 UR	280 U	290 U	300 U	1,900 U	200 U	190 U	210 U	19,000 U	190 U	250 U	280 UJ	200 UJ
Total DDTs	ug/kg	ND	ND	**50.7**	ND	**---**	**---**	**0.21**	ND	ND	**102**	ND	ND	ND	ND	ND	**4**	**---**	**---**

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
Sample Number:		059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
Sample Depth:		30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
Sample Date:		6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	27 U	25 U	23 U	2 UJ	1.9 U	2.5 U	4.7 U	3 U	2 U	2 U
Alpha BHC	ug/kg	2 UJ	**0.23 J**	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	27 U	43 R	**130 NJ**	**2.8 NJ**	1.9 U	2.5 UJ	4.7 U	3 U	2 U	2 U
Alpha endosulfan	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	27 U	25 U	23 U	2 UJ	1.9 U	2.5 U	4.7 U	3 U	2 U	2 U
Alpha-chlordane	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	27 U	25 U	260 R	2 UJ	1.9 U	2.5 U	4.7 U	3 U	2 U	2 U
Beta BHC	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	**0.44 J**	2 U	1.9 U	260 U	27 U	25 U	23 U	2 UJ	1.9 U	2.5 U	4.7 U	3 U	2 U	2 U
Beta endosulfan	ug/kg	3.9 UJ	4 UJ	4.5 UJ	3.8 U	3.8 U	3.8 U	3.8 U	510 U	86 R	48 U	**77 NJ**	3.9 UJ	3.6 U	4.8 UJ	9.2 U	5.8 U	3.9 U	3.9 U
Delta BHC	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	27 U	**24 J**	43 R	2 UJ	1.9 U	2.5 U	4.7 U	3 U	2 U	2 U
Dieldrin	ug/kg	3.9 UJ	4 UJ	4.5 UJ	3.8 U	3.8 U	3.8 U	3.8 U	260 U	57 R	48 U	**18 J**	3.9 UJ	3.6 U	4.8 U	9.2 U	5.8 U	3.9 U	3.9 U
Endosulfan sulfate	ug/kg	3.9 UJ	4 UJ	4.5 UJ	3.8 U	**0.12 J**	3.8 U	3.8 U	510 U	52 U	540 R	**880 NJ**	30 R	3.6 U	4.8 U	9.2 U	5.8 U	3.9 U	3.9 U
Endrin	ug/kg	3.9 UR	4 UR	4.5 UR	3.8 UR	3.8 UR	3.8 UR	3.8 UR	510 U	52 U	48 U	**110**	3.9 UJ	3.6 U	4.8 UJ	9.2 U	5.8 U	3.9 U	3.9 U
Endrin aldehyde	ug/kg	3.9 UJ	4 UJ	4.5 UJ	3.8 U	3.8 U	3.8 U	3.8 U	510 U	52 U	48 U	46 U	3.9 UJ	3.6 U	4.8 UJ	9.2 U	5.8 U	3.9 U	3.9 U
Endrin ketone	ug/kg	3.9 UJ	4 UJ	4.5 UJ	**0.38 J**	**0.69 J**	3.8 U	**0.58 J**	510 U	**190 J**	48 U	46 U	3.9 UJ	**0.66 J**	9.9 R	9.2 U	5.8 U	3.9 U	3.9 U
Gamma BHC	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	27 U	25 U	23 U	2 UJ	1.9 U	2.5 UJ	4.7 U	3 U	2 U	2 U
Gamma-chlordane	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	340 R	**240**	**390 J**	**9.6 J**	1.9 U	2.5 U	4.7 U	3 U	2 U	2 U
Heptachlor	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	27 U	25 U	23 U	2 UJ	1.9 U	2.5 U	4.7 U	3 U	2 U	2 U
Heptachlor epoxide	ug/kg	2 UJ	2 UJ	2.3 UJ	2 U	2 U	2 U	1.9 U	260 U	270 U	29 R	**49 J**	**1.4 J**	**0.49 J**	2.5 U	4.7 U	3 U	2 U	2 U
Methoxychlor	ug/kg	20 UJ	20 UJ	23 UJ	20 U	20 U	20 U	19 U	2,600 U	**350**	250 U	230 U	20 UJ	19 U	25 U	47 U	30 U	20 U	20 U
P,P'-DDD	ug/kg	3.9 UJ	4 UJ	4.5 UJ	3.8 UJ	3.8 UJ	3.8 U	3.8 U	**4,900 J**	**1,200 J**	**160 J**	92 R	3.9 UJ	3.6 U	4.8 U	9.2 U	5.8 U	3.9 U	3.9 U
P,P'-DDE	ug/kg	3.9 UJ	4 UJ	4.5 UJ	3.8 U	3.8 U	3.8 U	3.8 U	**19,000**	**7,400 NJ**	**180**	46 U	3.9 UJ	3.6 U	**19 J**	9.2 U	5.8 U	3.9 U	3.9 U
P,P'-DDT	ug/kg	3.9 UR	4 UR	4.5 UR	3.8 UJ	**0.12 J**	3.8 UR	3.8 UR	760 R	520 U	**56**	110 R	**3.2 J**	3.6 U	4.8 UJ	9.2 U	5.8 U	3.9 U	3.9 U
Toxaphene	ug/kg	200 UJ	200 UJ	230 UJ	200 U	200 U	200 U	190 U	26,000 U	2,700 U	2,500 U	2,300 U	200 UJ	190 U	250 U	470 U	300 U	200 U	200 U
Total DDTs	ug/kg	---	---	---	ND	**0.12**	---	---	**23,900**	**8,600**	**396**	---	**3.2**	ND	**19**	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:	059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(0.2-5)	SB30IB-S-NG	GC-MW30I(6-10)	GC-MW30I(10-15)	GC-MW30I(15-20)	GC-MW30I(20-25)	GC-MW30I(25-30)	GC-MW30I(30-35)	GC-MW30I(35-36)
Sample Depth:	25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	0.2-5	5-10	6-10	10-15	15-20	20-25	25-30	30-35	35-36
Sample Date:	6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:	N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Alpha BHC	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Alpha endosulfan	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Alpha-chlordane	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Beta BHC	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	**2.1 JN**	**2 J**
Beta endosulfan	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
Delta BHC	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Dieldrin	ug/kg	3.8 U	4.4 U	5.6 UJ	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
Endosulfan sulfate	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	**4 J**	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
Endrin	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
Endrin aldehyde	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
Endrin ketone	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
Gamma BHC	ug/kg	2 U	2.3 U	**0.63 J**	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Gamma-chlordane	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Heptachlor	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Heptachlor epoxide	ug/kg	2 U	2.3 U	2.9 U	2.9 U	2 U	2.1 U	2.1 U	2.1 U	2 U	1.9 U	2 U	2 U	2 U	2.2 U	2 U	1.9 U	2 U	2 U
Methoxychlor	ug/kg	20 U	23 U	29 U	29 U	20 U	21 U	21 U	21 U	20 U	19 U	20 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
P,P'-DDD	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
P,P'-DDE	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 U	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
P,P'-DDT	ug/kg	3.8 U	4.4 U	5.6 U	5.6 U	3.9 U	4 U	4 U	4.1 U	3.9 UJ	3.8 U	3.8 U	3.9 U	4 U	4.4 U	3.9 U	3.8 U	3.9 U	4 U
Toxaphene	ug/kg	200 U	230 U	290 U	290 U	200 U	210 U	210 U	210 U	200 U	190 U	200 U	200 U	200 U	220 U	200 U	190 U	200 U	200 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		SB-30I-S-NG	GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(6-10)	GC-MW31I(10-15)	GC-MW31I(15-20)	GC-MW31I(20-26)	GC-MW31I(26-30)	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(5-10)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(25-30)
Sample Depth:		35-36	0-6	5-10	6-10	10-15	15-20	20-26	26-30	30-36	30-36	30-35	0.5-5	5-10	10-15	15-20	15-20	20-25	25-30
Sample Date:		6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010
Sample Type:		S	N	S	N	N	N	N	N	N	FD	S	N	N	N	N	S	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	1.9 U	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	2 U	2 U	1.9 U	1.8 U	1.9 U	2.3 U	24 U	4.3 R	2.1 U	3.9 UJ
Alpha BHC	ug/kg	1.9 U	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	2 U	2 U	**1.8 J**	1.8 U	1.9 U	2.3 U	24 U	2.3 UJ	2.1 U	3.9 UJ
Alpha endosulfan	ug/kg	1.9 U	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	**2.1 JN**	2 U	4.2 R	1.8 U	1.9 U	2.3 U	24 U	2.3 UJ	2.1 U	3.9 UJ
Alpha-chlordane	ug/kg	1.9 U	**2.2 J**	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	**2.6 JN**	**2.7 JN**	7.5 R	**4.7**	1.9 U	2.3 U	24 U	**120 J**	2.1 U	3.9 UJ
Beta BHC	ug/kg	1.9 U	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	**8.8 J**	**10 J**	7.2 R	1.8 U	1.9 U	**25 JN**	24 U	25 R	**15 J**	3.9 UJ
Beta endosulfan	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**9.2 J**	**8.4 J**	3.8 U	3.5 U	3.8 U	4.6 U	47 U	4.5 UJ	4.2 U	7.7 UJ
Delta BHC	ug/kg	**1.4 J**	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	**4.3 JN**	**4.9 JN**	**2 J**	1.8 U	1.9 U	**16 J**	24 U	11 R	**5.7 J**	3.9 UJ
Dieldrin	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**8.4 J**	**8.8 J**	3.8 U	3.5 U	3.8 U	4.6 U	47 U	17 R	4.2 U	7.7 UJ
Endosulfan sulfate	ug/kg	3.7 U	3.9 UJ	**3.4 J**	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**9.1 JN**	**8.7 JN**	5.1 R	3.5 U	3.8 U	4.6 U	47 U	4.5 UJ	4.2 U	7.7 UJ
Endrin	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**6.2 J**	**6.4 J**	**7.9**	3.5 U	3.8 U	4.6 U	47 U	7.1 R	4.2 U	7.7 UJ
Endrin aldehyde	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**12 J**	**11 J**	**7.4 NJ**	3.5 U	3.8 U	4.6 U	47 U	5.6 R	4.2 U	7.7 UJ
Endrin ketone	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**8.1 JN**	**7.3 J**	3.8 U	**3.6**	3.8 U	4.6 U	47 U	4.5 UJ	4.2 U	7.7 UJ
Gamma BHC	ug/kg	1.9 U	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	2 U	2 U	1.9 U	1.8 U	1.9 U	**3.4 J**	24 U	6.1 R	**2.7 J**	3.9 UJ
Gamma-chlordane	ug/kg	1.9 U	**2.4 J**	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	**13 J**	**13 J**	**9.2 NJ**	**6.1**	1.9 U	2.3 U	**71**	**57 NJ**	2.1 U	3.9 UJ
Heptachlor	ug/kg	1.9 U	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	2 U	2 U	2.2 R	1.8 U	1.9 U	**2.9 JN**	24 U	**19 NJ**	2.1 U	3.9 UJ
Heptachlor epoxide	ug/kg	1.9 U	2 UJ	2.5 U	2.7 UJ	3 U	3.1 U	2.3 U	2 U	**16 J**	**27 J**	2.4 R	1.8 U	1.9 U	2.3 U	24 U	4.2 R	2.1 U	3.9 UJ
Methoxychlor	ug/kg	19 U	20 UJ	25 U	27 UJ	30 U	31 U	23 U	20 U	**17 J**	**15 J**	33 R	18 U	19 U	23 U	240 U	**180 J**	21 U	39 UJ
P,P'-DDD	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**17 J**	**16 J**	**8.6**	3.5 U	3.8 U	4.6 U	47 U	11 R	4.2 U	7.7 UJ
P,P'-DDE	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**9.8 J**	**9.6**	**4.3 NJ**	3.5 U	3.8 U	4.6 U	47 U	7.2 R	4.2 U	7.7 UJ
P,P'-DDT	ug/kg	3.7 U	3.9 UJ	4.8 U	5.4 UJ	6.1 U	6.1 U	4.6 U	4 U	**11 J**	**11 J**	6.3 R	3.5 U	3.8 U	4.6 U	47 U	4.9 R	4.2 U	7.7 UJ
Toxaphene	ug/kg	190 U	200 UJ	250 U	270 UJ	300 U	310 U	230 U	200 U	200 U	200 U	190 U	180 U	190 U	230 U	2,400 U	230 UJ	210 U	390 UJ
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	**37.8**	**36.6**	**---**	ND	ND	ND	ND	**---**	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
Sample Number:	GC-MW32I(30-35)	GC-MW32I(35-40)	SB32IH-S-NG	GC-MW32I(40-46)	SB32II-S-NG-R	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022
Sample Depth:	30-35	35-40	35-40	40-46	40-45	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:	6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
Sample Type:	N	N	S	N	S	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg	2.3 U	1.9 U	2 U	4.1 U	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	2.1 UJ	2.1 UJ	2.1 UJ
Alpha BHC	ug/kg	2.3 U	1.9 U	2 U	4.1 U	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	6.7 R	2.1 UJ	2.1 UJ
Alpha endosulfan	ug/kg	2.3 U	1.9 U	2 U	4.1 U	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	2.1 UJ	2.1 UJ	2.1 UJ
Alpha-chlordane	ug/kg	2.3 U	1.9 U	2 U	4.1 U	6.2 R	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	2.1 UJ	2.1 UJ	2.1 UJ
Beta BHC	ug/kg	2.3 U	1.9 U	2 U	4.1 U	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	2.1 UJ	2.1 UJ	2.1 UJ
Beta endosulfan	ug/kg	4.6 U	3.9 U	3.8 U	8.2 U	4 U	10 U	10 U	4 U	4.1 U	3.8 UJ	4.3 UJ	4 U	4.3 U	5.6 U	5.5 U	4 UJ	4.1 UJ	4.1 UJ
Delta BHC	ug/kg	2.3 U	1.9 U	2 U	4.1 U	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	**7.5 J**	2.1 UJ	2.1 UJ
Dieldrin	ug/kg	4.6 U	3.9 U	3.8 U	8.2 U	4 U	10 U	10 U	4 U	4.1 U	3.8 UJ	4.3 UJ	4 U	4.3 U	5.6 U	5.5 U	4 UJ	4.1 UJ	4.1 UJ
Endosulfan sulfate	ug/kg	4.6 U	3.9 U	3.8 U	8.2 U	4.7 R	10 U	10 U	4 U	4.1 U	3.8 UJ	4.3 UJ	4 U	4.3 U	5.6 U	5.5 U	8.3 R	4.1 UJ	4.9 R
Endrin	ug/kg	4.6 U	3.9 U	3.8 U	8.2 U	**6.7**	10 UR	10 UJ	4 UJ	4.1 UR	3.8 UR	4.3 UR	4 UR	4.3 UR	5.6 U	5.5 U	**5.5 J**	**3.5 J**	**3.2 J**
Endrin aldehyde	ug/kg	4.6 U	3.9 U	3.8 U	**11**	**6.1**	10 UJ	10 UJ	4 U	4.1 U	3.8 UJ	4.3 UJ	4 U	4.3 U	5.6 U	5.5 U	4 UJ	**15 J**	9.6 R
Endrin ketone	ug/kg	4.6 U	3.9 U	3.8 U	8.2 U	**2.4 J**	10 U	10 U	4 U	4.1 U	3.8 UJ	4.3 UJ	4 UJ	4.3 UJ	5.6 U	5.5 U	**12 J**	4.2 R	**7.2 J**
Gamma BHC	ug/kg	2.3 U	1.9 U	2 U	4.1 U	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	2.1 UJ	2.1 UJ	2.1 UJ
Gamma-chlordane	ug/kg	2.3 U	1.9 U	2 U	**18 J**	**6.6 NJ**	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	**40 J**	2.1 UJ	2.1 UJ
Heptachlor	ug/kg	2.3 U	1.9 U	2 U	4.1 U	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	2.1 UJ	2.1 UJ	**0.17 J**
Heptachlor epoxide	ug/kg	2.3 U	1.9 U	2 U	**21 J**	2 U	5.2 U	5.2 U	2.1 U	2.1 U	1.9 UJ	2.2 UJ	2 U	2.2 U	2.9 U	2.8 U	2.1 UJ	2.1 UJ	2.1 UJ
Methoxychlor	ug/kg	23 U	19 U	20 U	41 U	20 U	52 U	52 U	21 U	21 U	19 UJ	22 UJ	20 U	22 U	29 U	28 U	21 UJ	21 UJ	21 UJ
P,P'-DDD	ug/kg	4.6 U	3.9 U	3.8 U	**15**	**5.8 NJ**	10 U	10 U	4 U	4.1 U	3.8 UJ	4.3 UJ	4 U	4.3 U	5.6 U	5.5 U	**19 NJ**	**15 J**	**5.4 NJ**
P,P'-DDE	ug/kg	4.6 U	3.9 U	3.8 U	8.2 U	5.1 R	10 U	10 UJ	4 U	4.1 U	3.8 UJ	4.3 UJ	4 U	4.3 U	5.6 U	5.5 U	**7.3 NJ**	4.1 UJ	4.1 UJ
P,P'-DDT	ug/kg	4.6 U	3.9 U	3.8 U	8.2 U	4 U	10 UR	10 UJ	4 UR	4.1 UR	3.8 UR	4.3 UJ	4 UJ	4.3 UR	5.6 U	5.5 U	**14 J**	**13 NJ**	**7.7 J**
Toxaphene	ug/kg	230 U	190 U	200 U	410 U	200 U	520 U	520 U	210 U	210 U	190 UJ	220 UJ	200 U	220 U	290 U	280 U	210 UJ	210 UJ	210 UJ
Total DDTs	ug/kg	ND	ND	ND	**15**	**---**	**---**	ND	**---**	**---**	**---**	ND	ND	**---**	ND	ND	**40.3**	**28**	**13.1**

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37
Sample Number:		059-2024	059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211
Sample Depth:		25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20
Sample Date:		5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010
Sample Type:		FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	1.8 U	2 U	2 U	2.9 U	3.5 U
Alpha BHC	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	**11 J**	2 U	2 U	2.9 U	3.5 U
Alpha endosulfan	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	1.8 U	2 U	2 U	2.9 U	3.5 U
Alpha-chlordane	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	1.8 U	2 U	2 U	2.9 U	3.5 U
Beta BHC	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	1.8 U	2 U	2 U	2.9 U	3.5 U
Beta endosulfan	ug/kg	4.2 UJ	4 UJ	18 UJ	5.9 U	4 UJ	39 U	40 U	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	3.8 U	**5.2 NJ**	4 U	**0.6 J**	5.7 U	6.9 U
Delta BHC	ug/kg	**0.88 J**	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 UJ	2.9 UJ	2 UJ	1.9 UJ	1.9 UJ	1.8 UJ	2 U	2 U	2.9 U	3.5 U
Dieldrin	ug/kg	4.2 UJ	4 UJ	18 UJ	5.9 U	4 UJ	39 U	40 U	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	3.8 U	3.5 U	4 U	3.9 U	5.7 U	6.9 U
Endosulfan sulfate	ug/kg	4.2 UJ	5.5 R	18 UJ	5.9 U	4 UJ	39 U	40 U	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	3.8 U	4.9 R	4 U	3.9 U	5.7 U	6.9 U
Endrin	ug/kg	**3.9 J**	4 UJ	18 UJ	5.9 U	4 UJ	39 U	40 U	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	**2 J**	3.5 U	4 UJ	**1.7 J**	5.7 UR	6.9 UR
Endrin aldehyde	ug/kg	11 R	13 R	18 UJ	5.9 U	4 UJ	39 U	40 U	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	3.8 U	**12 NJ**	4 U	3.9 U	5.7 UJ	6.9 U
Endrin ketone	ug/kg	4.2 UJ	**8.3 NJ**	18 UJ	5.9 U	4 UJ	39 U	40 U	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	3.8 U	3.5 U	4 U	3.9 UJ	5.7 U	6.9 U
Gamma BHC	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	1.8 U	2 U	2 U	2.9 U	3.5 U
Gamma-chlordane	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	**17 J**	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	**19 NJ**	**12 J**	2.7 R	2.9 U	3.5 U
Heptachlor	ug/kg	2.2 UJ	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	1.8 U	2 U	2 U	2.9 U	3.5 U
Heptachlor epoxide	ug/kg	**1.9 J**	2.1 UJ	9.4 UJ	3 U	2.1 UJ	20 U	21 U	2.1 U	3 U	2.9 U	2 U	1.9 U	1.9 U	1.8 U	2 U	2 U	2.9 U	3.5 U
Methoxychlor	ug/kg	22 UJ	21 UJ	94 UJ	30 U	**22 NJ**	200 U	210 U	21 U	30 U	29 U	20 U	19 U	19 U	18 U	20 U	20 U	29 U	35 U
P,P'-DDD	ug/kg	5.6 R	9.5 R	18 UJ	5.9 U	**6.8 J**	**48**	**42**	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	3.8 U	**9.4 NJ**	4 UJ	3.9 U	5.7 U	6.9 U
P,P'-DDE	ug/kg	4.2 UJ	4 UJ	18 UJ	5.9 U	4 UJ	39 U	**21 J**	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	**3.5 J**	10 R	4 UJ	3.9 UJ	5.7 U	6.9 U
P,P'-DDT	ug/kg	**8 J**	**12 J**	18 UJ	5.9 U	**17 J**	**120**	**83**	4.2 U	5.8 U	5.6 U	3.9 U	3.8 U	3.8 U	**6.5 J**	4 UR	3.9 UR	5.7 UR	6.9 UR
Toxaphene	ug/kg	220 UJ	210 UJ	940 UJ	300 U	210 UJ	2,000 U	2,100 U	210 U	300 U	290 U	200 U	190 U	190 U	180 U	200 U	200 U	290 U	350 U
Total DDTs	ug/kg	---	---	ND	ND	**23.8**	**168**	**146**	ND	ND	ND	ND	ND	**3.5**	---	---	---	---	---

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
Sample Number:		059-2212	059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135
Sample Depth:		20-25	25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	**0.063 J**	2.1 U	2.5 U	1.8 U	2 U	1.9 U	2 U	2 U	2 U	2 U	2 U
Alpha BHC	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 UJ	2 UJ	2 UJ	2 UJ	2 UJ	**12 NJ**
Alpha endosulfan	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 U	2 U	2 U	2 U	2 U	2 U
Alpha-chlordane	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 U	2 U	2 U	2 U	2 U	73 R
Beta BHC	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	**0.28 J**	2 U	1.9 U	2 U	2 U	2 U	2 U	2 U
Beta endosulfan	ug/kg	3.8 U	4.4 U	4.1 U	4 U	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	3.9 U	3.9 U	39 U
Delta BHC	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 U	2 U	2 U	2 U	2 U	**13 J**
Dieldrin	ug/kg	3.8 U	4.4 U	4.1 U	4 U	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	3.9 U	3.9 U	3.9 U
Endosulfan sulfate	ug/kg	3.8 U	4.4 U	4.1 U	4 U	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	3.9 U	3.9 U	4.9 R
Endrin	ug/kg	3.8 UR	4.4 UR	4.1 UR	4 UR	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	3.9 U	**4.6**	**40**
Endrin aldehyde	ug/kg	3.8 UJ	4.4 U	4.1 U	4 U	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	3.9 U	3.9 U	3.9 U
Endrin ketone	ug/kg	3.8 U	4.4 UJ	4.1 U	4 U	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	3.9 U	3.9 U	3.9 UJ
Gamma BHC	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ
Gamma-chlordane	ug/kg	2 U	**2.2 J**	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 U	2 U	2 U	2 U	2 U	**83 J**
Heptachlor	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 U	2 U	2 U	2 U	2 U	**3.7 NJ**
Heptachlor epoxide	ug/kg	2 U	2.3 U	2.1 U	2 U	2 U	4.1 U	6.8 UJ	5.9 UJ	2.1 U	2.5 U	1.8 U	2 U	1.9 U	2 U	2 U	2 U	2 U	2 U
Methoxychlor	ug/kg	20 U	23 U	21 U	20 U	20 U	41 U	68 UJ	59 UJ	21 U	25 U	18 U	20 U	19 U	20 U	20 U	20 U	**18 J**	20 UJ
P,P'-DDD	ug/kg	3.8 U	4.4 UJ	4.1 U	4 U	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	**4.2 J**	**8.4**	**25 J**
P,P'-DDE	ug/kg	3.8 U	4.4 UJ	4.1 U	4 U	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 U	3.7 U	3.8 U	3.8 U	3.9 U	**7 J**	**20 J**
P,P'-DDT	ug/kg	**0.12 J**	**2.2 J**	4.1 UR	4 UR	3.9 U	8 U	13 UJ	12 UJ	4.1 U	4.8 U	3.5 U	3.8 UJ	**5.4**	3.8 U	3.8 U	3.9 U	**4.1 NJ**	**55**
Toxaphene	ug/kg	200 U	230 U	210 U	200 U	200 U	410 U	680 UJ	590 UJ	210 U	250 U	180 U	200 U	190 U	200 U	200 U	200 U	200 U	200 U
Total DDTs	ug/kg	**0.12**	**2.2**	**---**	**---**	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**	ND	ND	**4.2**	**19.5**	**100**

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
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Station Location:		GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41
Sample Number:		059-2136	059-2137	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG	GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW40I(15-20)	GC-MW40I(20-25)	GC-MW40I(25-30)	GC-MW40I(30-35)	GC-MW40I(35-40)	GC-MW40I(40-45)	GC-MW40I(45-50)	GC-MW40I(50-55)	GC-MW40I(55-58)	SB40IJ-S-NG	GC-MW41S(0-5)
Sample Depth:		36.5-37	40-40.5	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-58	55-58	0-5
Sample Date:		6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010
Sample Type:		N	N	N	N	S	N	FD	N	N	N	N	N	N	N	N	N	S	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.1 UJ	2 U	1.9 U	38 U	10 R	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Alpha BHC	ug/kg	**8.1 J**	2 UJ	1.9 U	38 U	3.9 UJ	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Alpha endosulfan	ug/kg	2.1 UJ	2 U	1.9 U	38 U	3.9 UJ	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Alpha-chlordane	ug/kg	2.1 UJ	2 U	1.9 U	38 U	**270 J**	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	**120 JN**
Beta BHC	ug/kg	2.1 UJ	2 U	**15 J**	38 U	3.9 UJ	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Beta endosulfan	ug/kg	8.6 R	4 U	3.7 U	77 U	18 R	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
Delta BHC	ug/kg	**6.6 J**	2 U	1.9 U	38 U	**26 J**	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Dieldrin	ug/kg	4 UJ	4 U	3.7 U	77 U	11 R	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
Endosulfan sulfate	ug/kg	40 UJ	4 U	3.7 U	**300 JN**	7.6 UJ	**230 J**	**260 J**	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
Endrin	ug/kg	**13 J**	4 U	3.7 U	77 U	7.6 UJ	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
Endrin aldehyde	ug/kg	4 UJ	4 U	3.7 U	77 U	**22 NJ**	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
Endrin ketone	ug/kg	4 UJ	4 U	3.7 U	77 U	**43 NJ**	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	**77 J**
Gamma BHC	ug/kg	2.1 UJ	2 UJ	1.9 U	38 U	3.9 UJ	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Gamma-chlordane	ug/kg	**49 J**	2 UJ	1.9 U	**200**	4.4 R	**160**	**160**	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	**39 J**
Heptachlor	ug/kg	2.1 UJ	2 U	1.9 U	38 U	**11 J**	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Heptachlor epoxide	ug/kg	5.6 R	2 U	1.9 U	38 U	**96 J**	41 U	42 U	2.7 U	2.5 U	2 U	2 U	2.1 U	2 U	2.1 U	2 U	1.9 U	1.9 U	9.5 U
Methoxychlor	ug/kg	21 UJ	20 U	19 U	380 U	210 R	410 U	420 U	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	19 U	95 U
P,P'-DDD	ug/kg	**40**	4 U	3.7 U	77 U	20 R	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
P,P'-DDE	ug/kg	**11 NJ**	4 U	3.7 U	77 U	7.6 UJ	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
P,P'-DDT	ug/kg	**19 J**	4 U	3.7 U	77 U	35 R	81 U	84 U	5.4 U	5 U	3.9 U	3.9 U	4.2 U	4.1 U	4.1 U	3.9 U	3.8 U	3.8 U	19 U
Toxaphene	ug/kg	210 UJ	200 U	190 U	3,800 U	390 UJ	4,100 U	4,200 U	270 U	250 U	200 U	200 U	210 U	200 U	210 U	200 U	190 U	190 U	950 U
Total DDTs	ug/kg	**70**	ND	ND	ND	**---**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42
Sample Number:		GC-MW41I(5-10)	GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	GC-MW41I(15-20)	GC-MW41I(20-25)	GC-MW41I(25-30)	GC-MW41I(30-35)	GC-MW41I(35-40)	GC-MW41I(40-45)	GC-MW41I(45-50)	GC-MW41I(50-53)	GC-MW41I(53-58)	SB41IL-S-NG	059-2061	059-2062	059-2063	059-2064
Sample Depth:		5-10	5-10	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-53	53-58	55-58	5-10	15-20	20-25	25-30
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:		N	FD	S	N	N	N	N	N	N	N	N	N	N	S	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	2.1 U	2.1 U	2.1 U	2.4 U	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Alpha BHC	ug/kg	2.1 U	2.1 U	2.1 U	2.4 U	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Alpha endosulfan	ug/kg	2.1 U	2.1 U	2.1 U	2.4 U	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Alpha-chlordane	ug/kg	2.1 U	2.1 U	**48 NJ**	2.4 U	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Beta BHC	ug/kg	**5.3 JN**	**3.4 J**	6.6 R	**16 J**	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	**0.18 J**
Beta endosulfan	ug/kg	4.3 U	4.3 U	4 U	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	3.9 UJ	3.9 UJ	4 UJ	3.8 UJ
Delta BHC	ug/kg	**5.7 J**	**3.4 J**	3.1 R	**6.6 J**	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Dieldrin	ug/kg	4.3 U	4.3 U	4 U	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	3.9 UJ	3.9 UJ	4 UJ	3.8 UJ
Endosulfan sulfate	ug/kg	**11 JN**	**14 JN**	12 R	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	3.9 UJ	3.9 UJ	4 UJ	3.8 UJ
Endrin	ug/kg	4.3 U	4.3 U	4 U	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	3.9 UJ	3.9 UJ	4 UJ	3.8 UJ
Endrin aldehyde	ug/kg	**6.1 J**	**6.7 J**	4 UJ	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	3.9 UJ	3.9 UJ	4 UJ	3.8 UJ
Endrin ketone	ug/kg	**23 J**	**28 J**	**17 J**	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	**0.2 J**	3.9 UJ	4 UJ	**0.23 J**
Gamma BHC	ug/kg	2.1 U	2.1 U	**3.8 J**	**3.6 J**	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	**0.18 J**	2 UJ	2 UJ	1.9 UJ
Gamma-chlordane	ug/kg	**16 J**	**19 J**	**9.6 NJ**	2.4 U	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Heptachlor	ug/kg	**4.7 JN**	**4.4 J**	4.4 R	2.4 U	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Heptachlor epoxide	ug/kg	2.1 U	2.1 U	2.1 UJ	2.4 U	3 U	2.1 U	2 U	2.1 U	2 U	2.3 U	2.1 U	2 U	2.2 U	2 U	2 UJ	2 UJ	2 UJ	1.9 UJ
Methoxychlor	ug/kg	21 U	21 U	21 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	20 U	20 UJ	20 UJ	20 UJ	19 UJ
P,P'-DDD	ug/kg	4.3 U	4.3 U	**16 NJ**	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	3.9 UJ	3.9 UJ	4 UJ	3.8 UJ
P,P'-DDE	ug/kg	**6.1 JN**	**7.2 J**	4 U	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	**1.7 J**	3.9 UJ	4 UJ	3.8 UJ
P,P'-DDT	ug/kg	**6.5 JN**	**7.3 JN**	5.6 R	4.8 U	6 U	4.1 U	4.1 U	4.2 U	4 U	4.5 U	4.3 U	4.1 U	4.4 U	4 U	3.9 UJ	3.9 UJ	4 UJ	3.8 UJ
Toxaphene	ug/kg	210 U	210 U	210 U	240 U	300 U	210 U	200 U	210 U	200 U	230 U	210 U	200 U	220 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ
Total DDTs	ug/kg	**12.6**	**14.5**	**---**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.7**	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-42	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
	Sample Number:	059-2066	059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127
	Sample Depth:	25-30	30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
	Sample Date:	5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
	Sample Type:	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg	1.9 UJ	2 UJ	2.1 U	2.1 U	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Alpha BHC	ug/kg	1.9 UJ	2 UJ	2.4 R	2.1 U	3.3 U	2.8 U	2 U	2.1 U	2.1 U	**72 NJ**	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Alpha endosulfan	ug/kg	1.9 UJ	2 UJ	2.1 U	2.1 U	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Alpha-chlordane	ug/kg	1.9 UJ	2 UJ	**3.8 NJ**	2.5 R	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Beta BHC	ug/kg	1.9 UJ	2 UJ	2.1 U	2.1 U	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Beta endosulfan	ug/kg	3.8 UJ	3.8 UJ	4 U	4.1 U	6.4 U	5.5 U	3.8 U	4.1 U	4 U	**49 J**	4 U	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
Delta BHC	ug/kg	1.9 UJ	2 UJ	2.1 UJ	2.1 UJ	3.3 UJ	2.8 UJ	2 UJ	2.1 UJ	2.1 UJ	19 UJ	2 UJ	2.1 UJ	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Dieldrin	ug/kg	3.8 UJ	3.8 UJ	4 U	4.1 U	6.4 U	5.5 U	3.8 U	4.1 U	4 U	38 U	4 U	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
Endosulfan sulfate	ug/kg	3.8 UJ	3.8 UJ	4 U	4.1 U	6.4 U	5.5 U	3.8 U	**0.29 J**	4 U	40 R	4 U	4.1 U	5.2 U	**3.7 J**	5.4 U	4 U	5.1 U	6.1 U
Endrin	ug/kg	3.8 UJ	3.8 UJ	4 U	4.1 U	6.4 U	5.5 U	3.8 U	4.1 U	4 U	38 U	**4.9**	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
Endrin aldehyde	ug/kg	3.8 UJ	3.8 UJ	4 U	4.1 U	6.4 U	5.5 U	3.8 U	4.1 U	4 U	**97**	**4.7 NJ**	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
Endrin ketone	ug/kg	3.8 UJ	3.8 UJ	4 U	**0.87 J**	6.4 U	5.5 U	3.8 U	4.1 U	4 U	38 U	4 U	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
Gamma BHC	ug/kg	1.9 UJ	2 UJ	2.1 U	2.1 U	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Gamma-chlordane	ug/kg	1.9 UJ	2 UJ	**6.8 NJ**	**5.5 J**	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	**6.2**	2.8 U	2.1 U	2.6 U	3.1 U
Heptachlor	ug/kg	1.9 UJ	2 UJ	2.1 U	2.1 U	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Heptachlor epoxide	ug/kg	1.9 UJ	2 UJ	2.1 U	2.1 U	3.3 U	2.8 U	2 U	2.1 U	2.1 U	19 U	2 U	2.1 U	2.7 U	2.9 U	2.8 U	2.1 U	2.6 U	3.1 U
Methoxychlor	ug/kg	19 UJ	20 UJ	21 U	21 U	33 U	28 U	20 U	21 U	21 U	190 U	20 U	21 U	27 U	10 U	28 U	21 U	26 U	31 U
P,P'-DDD	ug/kg	3.8 UJ	3.8 UJ	**5 NJ**	**3.4 J**	6.4 U	5.5 U	3.8 U	4.1 U	4 U	**56 J**	4 U	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
P,P'-DDE	ug/kg	3.8 UJ	3.8 UJ	**4.7 NJ**	4.1 U	6.4 U	5.5 U	3.8 U	4.1 U	4 U	**67 J**	4.7 R	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
P,P'-DDT	ug/kg	3.8 UJ	**1 J**	4 U	4.1 U	6.4 U	5.5 U	3.8 U	4.1 U	4 U	**65 J**	4 U	4.1 U	5.2 U	5.6 U	5.4 U	4 U	5.1 U	6.1 U
Toxaphene	ug/kg	190 UJ	200 UJ	210 U	210 U	330 U	280 U	200 U	210 U	210 U	1,900 U	200 U	210 U	270 U	290 U	280 U	210 U	260 U	310 U
Total DDTs	ug/kg	ND	**1**	**9.7**	**3.4**	ND	ND	ND	ND	ND	**188**	**---**	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-44	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
Sample Number:		059-2128	059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174
Sample Depth:		35-40	40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
		Pesticides																	
Aldrin	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 U	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Alpha BHC	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 U	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Alpha endosulfan	ug/kg	2.1 U	2.2 U	**0.29 J**	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 U	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Alpha-chlordane	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 U	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Beta BHC	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 U	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Beta endosulfan	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	**8.7**	**33 J**	**33 J**	**38 J**	4.8 U	5.7 U	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
Delta BHC	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 U	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Dieldrin	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	4.1 U	42 U	44 UJ	50 U	4.8 U	5.7 U	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
Endosulfan sulfate	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	4.1 U	42 U	44 U	50 U	4.8 U	5.7 UJ	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
Endrin	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	4.1 U	42 U	44 UJ	50 U	4.8 U	5.7 UJ	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
Endrin aldehyde	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	4.1 U	42 U	44 U	50 U	4.8 U	5.7 U	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
Endrin ketone	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	4.1 U	42 U	44 U	50 U	4.8 U	5.7 U	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
Gamma BHC	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 UJ	25 U	2.5 U	2.9 UJ	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Gamma-chlordane	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	**6.9**	22 U	22 U	**31 NJ**	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Heptachlor	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 UJ	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Heptachlor epoxide	ug/kg	2.1 U	2.2 U	5.6 U	2.8 U	2.6 U	2.6 U	2.1 U	22 U	22 U	25 U	2.5 U	2.9 U	2.7 U	2.6 U	2.4 U	2.1 U	2.1 U	2.1 U
Methoxychlor	ug/kg	21 U	22 U	56 UJ	28 U	26 U	26 U	**34 J**	220 U	220 U	250 U	25 U	29 UJ	27 U	26 U	24 U	21 U	21 U	21 U
P,P'-DDD	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	4.1 U	42 U	44 U	**34 J**	4.8 U	5.7 U	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
P,P'-DDE	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	4.1 U	42 U	44 U	50 U	4.8 U	5.7 UJ	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
P,P'-DDT	ug/kg	4.2 U	4.2 U	11 U	5.5 U	5.1 U	5.1 U	**25**	**100**	**92**	**94**	4.8 U	5.7 UJ	5.2 U	5.1 U	4.6 U	4.1 U	4.2 U	4 U
Toxaphene	ug/kg	210 U	220 U	560 U	280 U	260 U	260 U	210 U	2,200 U	2,200 U	2,500 U	250 U	290 U	270 U	260 U	240 U	210 U	210 U	210 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND	**25**	**100**	**92**	**128**	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-29A
Pesticide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:	059-2175	059-2176	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239	059-2240
Sample Depth:	45-50	50-55	10-15	15-20	25-30	30-35	36-36.5	40-40.5	45-45.5
Sample Date:	6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**							
Aldrin	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	2.1 UJ	21 U	21 U	21 U	2 U
Alpha BHC	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	**4.4 J**	**45 NJ**	65 R	21 U	2 U
Alpha endosulfan	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	2.1 UJ	21 U	21 U	21 U	2 U
Alpha-chlordane	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	2.1 UJ	21 U	21 U	21 U	2 U
Beta BHC	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	2.1 UJ	21 U	21 U	21 U	2 U
Beta endosulfan	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	4.1 UJ	40 U	41 U	40 U	3.9 U
Delta BHC	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	**2.2 J**	21 U	21 U	**3.2 J**	2 U
Dieldrin	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	4.1 UJ	40 U	41 U	40 U	3.9 U
Endosulfan sulfate	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	11 R	40 U	41 U	40 U	3.9 U
Endrin	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	**5.1 J**	**44 J**	**77**	**20 J**	3.9 U
Endrin aldehyde	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	4.1 UJ	40 U	41 U	40 U	3.9 U
Endrin ketone	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	4.1 UJ	40 U	41 U	40 U	3.9 U
Gamma BHC	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	2.1 UJ	21 U	21 U	21 U	2 U
Gamma-chlordane	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	7 R	82 R	**220 NJ**	21 U	2 U
Heptachlor	ug/kg	1.9 U	1.9 U	2.7 U	2.7 U	2.1 UJ	21 U	21 U	21 U	2 U
Heptachlor epoxide	ug/kg	1.9 U	1.9 U	**1.3 J**	**0.64 J**	**2.5 J**	21 U	**45**	21 U	2 U
Methoxychlor	ug/kg	19 U	19 U	27 U	27 U	**21 J**	210 U	210 U	210 U	20 U
P,P'-DDD	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	4.1 UJ	40 U	41 U	40 U	3.9 U
P,P'-DDE	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	4.1 UJ	40 U	41 U	40 U	3.9 U
P,P'-DDT	ug/kg	3.7 U	3.8 U	5.2 U	5.3 U	**10 J**	**110 NJ**	**180 J**	40 U	3.9 U
Toxaphene	ug/kg	190 U	190 U	270 U	270 U	210 UJ	2,100 U	2,100 U	2,100 U	200 U
Total DDTs	ug/kg	ND	ND	ND	ND	**10**	**110**	**180**	ND	ND

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TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05	GCMW-06	GCMW-07
Sample Number:	SB01A	SB01C	SB01D	SB01D-S-NYC	SB02A	SB02C-S-NYC	059-2072	059-2073	059-2074	059-2076	059-2078	059-2099	059-2100	059-2105	059-2031	059-2032	059-2027	059-2205
Sample Depth:	0-5	10-15	15-20	15-20	0-5	10-15	10-15	15-20	22-22.5	25-30	35-40	5-10	10-15	30-35	5-10	10-15	15-20	0-5
Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010	5/20/2010	6/21/2010
Sample Type:	N	N	N	S	N	S	N	N	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/kg								24 J							0.48 J		
Alpha BHC	ug/kg																	
Alpha endosulfan	ug/kg																	
Alpha-chlordane	ug/kg																	
Beta BHC	ug/kg						3.1											
Beta endosulfan	ug/kg							4.8 J	3.9 J		5							
Delta BHC	ug/kg						1.8 J											
Dieldrin	ug/kg																	
Endosulfan sulfate	ug/kg							0.18 J										
Endrin	ug/kg											0.69 J						
*Endrin aldehyde	ug/kg				4.8				14 NJ		15 J							
*Endrin ketone	ug/kg				5								1.5 J			0.56 J	0.24 J	5.3 NJ
Gamma BHC	ug/kg				3.8 NJ													
*Gamma-chlordane	ug/kg				2.6				13 J		14							
Heptachlor	ug/kg																	
*Heptachlor epoxide	ug/kg								3.2 NJ					0.051 J				
*Methoxychlor	ug/kg								18 J						3 J			
P,P'-DDD	ug/kg				4.1 J													
P,P'-DDE	ug/kg	9.5	4.1			4.7				1.6 J				0.077 J				
P,P'-DDT	ug/kg		3	2.3		5.2		9.9 J	5.1 NJ	1.5 J	11	0.15 J	0.64 J					
*Total DDTs	ug/kg	9.5	7.1	2.3	4.1	9.9		9.9		3.1	11	0.15	0.64	0.077				

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11
Sample Number:		059-2206	059-2207	059-2199	059-2201	059-2202	059-2203	SB09A	DUP03	SB09C	SB09C-S-NYC	SB10A	SB10C-S-NYC	SB10D	SB10E	059-2046	059-2048	059-2051	059-2052
Sample Depth:		20-25	25-30	10-15	20-25	25-30	30-35	0-5	5-10	10-15	10-15	0-5	10-15	15-20	20-25	7-7.5	10-15	25-30	36-36.5
Sample Date:		6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	S	N	S	N	N	N	N	N	N
Parameter	**Units**																		
									Pesticides										
Aldrin	ug/kg																		
Alpha BHC	ug/kg						0.15 J												
Alpha endosulfan	ug/kg																		
Alpha-chlordane	ug/kg							3.7			1.5 J								
Beta BHC	ug/kg																		
Beta endosulfan	ug/kg		28 J																88
Delta BHC	ug/kg																		
Dieldrin	ug/kg		3.8 J					2.7										0.76 J	
Endosulfan sulfate	ug/kg															13			
Endrin	ug/kg						0.11 J										0.7 J		43
*Endrin aldehyde	ug/kg								3.7			19.5	4.5 NJ	6.6	5.1				120 NJ
*Endrin ketone	ug/kg								5.4		5.8	55.6	8.6	10.8	8.6	12 J			
Gamma BHC	ug/kg					0.18 J													
*Gamma-chlordane	ug/kg		59	0.15 J				2.8			1.8 J					7.9 J			160
Heptachlor	ug/kg																		
*Heptachlor epoxide	ug/kg		8.1 J																
*Methoxychlor	ug/kg											43.8						20 J	
P,P'-DDD	ug/kg																0.3 J	6.6 J	
P,P'-DDE	ug/kg				1.4 J											2.8 J			
P,P'-DDT	ug/kg	0.26 J	56					3.6		1.8							0.4 J	19	170
*Total DDTs	ug/kg	0.26	56		1.4			3.6		1.8							0.7	25.6	170

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-13	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16
Sample Number:		059-2053	059-2054	059-2036	059-2039	059-2177	059-2186	059-2188	059-2189	059-2190	059-2089	059-2090	059-2091	059-2092	059-2095	059-2081	059-2083	059-2084	059-2088
Sample Depth:		39-39.5	40-45	5-10	20-20.5	10-15	6-6.5	10-15	15-20	20-25	5-10	10-15	15-20	20-25	35-40	15-20	25-30	30-35	30-35
Sample Date:		5/25/2010	5/25/2010	5/24/2010	5/24/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Parameter	**Units**										**Pesticides**								
Aldrin	ug/kg																		
Alpha BHC	ug/kg	18 J																	
Alpha endosulfan	ug/kg																		
Alpha-chlordane	ug/kg	71 NJ																	
Beta BHC	ug/kg				0.12 J										0.22 J	0.32 J	0.23 J	0.09 J	0.14 J
Beta endosulfan	ug/kg	19 J																	
Delta BHC	ug/kg						4.4 J												
Dieldrin	ug/kg	6.9 J																	
Endosulfan sulfate	ug/kg			0.67 J		1.8 J					9.6 NJ		5.1 J						
Endrin	ug/kg	7.5 J						0.34 J			8.4 NJ		2.2 J						
*Endrin aldehyde	ug/kg																		
*Endrin ketone	ug/kg								0.47 J		8.7 J	4.5 J							
Gamma BHC	ug/kg																		
*Gamma-chlordane	ug/kg	51 J									21 J	7.8 NJ							
Heptachlor	ug/kg																		
*Heptachlor epoxide	ug/kg	6.9 J												0.13 J					
*Methoxychlor	ug/kg	170 J										25 J							3 J
P,P'-DDD	ug/kg	74 NJ									7.8 NJ	6.9 J							
P,P'-DDE	ug/kg	26 J	2 J							0.094 J	7.7 NJ								
P,P'-DDT	ug/kg	44 J	1.3 J								13 J								
*Total DDTs	ug/kg	99	3.3							0.094	28.5	6.9							

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-16	GCMW-16	GCMW-17	GCMW-18	GCMW-18	GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24
	Sample Number:	059-2085	059-2086	SB17C-S-NYC	SB18B	SB18D-S-NYC	SB19C-S-NYC	059-2068	059-2069	059-2070	059-2071	059-2055	GC-MW23I(0-5)	GC-MW23I(20-25)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG	059-2106
	Sample Depth:	40-45	45-50	10-15	5-10	15-20	10-15	10-15	25-30	30-35	35-40	5-10	0-5	20-25	30-35	35-39	35-39	35-39	5-10
	Sample Date:	6/1/2010	6/1/2010	6/2/2010	6/7/2010	6/8/2010	6/3/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010
	Sample Type:	N	N	S	N	S	S	N	N	N	N	N	N	N	N	N	FD	S	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg									27 J				4 J		21 J		3.4	
Alpha BHC	ug/kg																	2.8 NJ	
Alpha endosulfan	ug/kg													2.3 JN		15 J			
Alpha-chlordane	ug/kg									39 NJ		0.52 J		13 J		13 J			
Beta BHC	ug/kg	0.096 J				7	1.9 NJ						49 J	6.2 J		2.9 JN		6.2	
Beta endosulfan	ug/kg								16 J	15 J	4 J			21 J		7.7 J		14	
Delta BHC	ug/kg												14 JN						
Dieldrin	ug/kg													6.2 J		8.6 J			
Endosulfan sulfate	ug/kg													39		20			
Endrin	ug/kg									6.3 NJ				11 J		14 J		10	0.72 J
*Endrin aldehyde	ug/kg									20 NJ				15 JN		28 J		15 NJ	
*Endrin ketone	ug/kg			2.4 J										36 J		12 J		13	
Gamma BHC	ug/kg					1.2 J							9.1 J						
*Gamma-chlordane	ug/kg								17 J		5.2 J			20	3.9 J	9.1 JN	4.1 J	19	
Heptachlor	ug/kg					1.7 J							11 JN						
*Heptachlor epoxide	ug/kg													20		7.2 JN		4.6 J	
*Methoxychlor	ug/kg		0.24 J						39 J		12 J			74 J		27 J			
P,P'-DDD	ug/kg								6.7 J					9.8 J		19 J			
P,P'-DDE	ug/kg							0.48 J	3.6 J	4.9 NJ				6.8 J		4.7 JN		9.6 J	
P,P'-DDT	ug/kg				2.6				37 J	35 J	9.3 J			37 J		27 J			
*Total DDTs	ug/kg				2.6			0.48	47.3		9.3			53.6		50.7			

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27
Sample Number:		059-2107	059-2108	059-2110	059-2111	059-2220	059-2221	059-2222	059-2223	059-2224	059-2227	059-2216	059-2217	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232
Sample Depth:		11-11.5	13.5-14	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35	15-20	20-25	30-35	20-25	25.5-26	29.5-30	30-35	35-40
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010
Sample Type:		N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**										**Pesticides**								
Aldrin	ug/kg																		
Alpha BHC	ug/kg	0.18 J	0.19 J								0.23 J							**130 NJ (Q)**	2.8 NJ
Alpha endosulfan	ug/kg																		
Alpha-chlordane	ug/kg																		
Beta BHC	ug/kg												0.44 J						
Beta endosulfan	ug/kg			27 J														77 NJ	
Delta BHC	ug/kg		0.78 J														24 J		
Dieldrin	ug/kg																	18 J	
Endosulfan sulfate	ug/kg												0.12 J					880 NJ	
Endrin	ug/kg																	**110 (Q)**	
*Endrin aldehyde	ug/kg																		
*Endrin ketone	ug/kg					120 J	2.5 J		0.52 J	0.6 J		0.38 J	0.69 J	0.58 J		190 J			
Gamma BHC	ug/kg				0.21 J														
*Gamma-chlordane	ug/kg			30 NJ													240	390 J	9.6 J
Heptachlor	ug/kg	0.11 J																	
*Heptachlor epoxide	ug/kg						0.78 J											49 J	1.4 J
*Methoxychlor	ug/kg		0.71 J	100 J			3.6 J									350			
P,P'-DDD	ug/kg			27 J										4,900 J	1,200 J		160 J		
P,P'-DDE	ug/kg													**19,000 (Q)**	7,400 NJ		180		
P,P'-DDT	ug/kg	0.21 J		75				4 J				0.12 J					56		3.2 J
*Total DDTs	ug/kg	0.21		102				4				0.12		23,900	8,600		396		3.2

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-27	GCMW-28	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		059-2233	059-2147	059-2160	GC-MW30I(0.2-5)	GC-MW30I(30-35)	GC-MW30I(35-36)	SB-30I-S-NG	GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(40-46)
Sample Depth:		40-45	0-5	5-10	0.2-5	30-35	35-36	35-36	0-6	5-10	30-36	30-36	30-35	0.5-5	10-15	15-20	15-20	20-25	40-46
Sample Date:		6/24/2010	6/14/2010	6/15/2010	6/28/2010	6/30/2010	6/30/2010	6/30/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	S	N	S	N	FD	S	N	N	N	S	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg																		
Alpha BHC	ug/kg												1.8 J						
Alpha endosulfan	ug/kg										2.1 JN								
Alpha-chlordane	ug/kg								2.2 J		2.6 JN	2.7 JN		4.7			120 J		
Beta BHC	ug/kg					2.1 JN	2 J				8.8 J	10 J			25 JN			15 J	
Beta endosulfan	ug/kg										9.2 J	8.4 J							
Delta BHC	ug/kg							1.4 J			4.3 JN	4.9 JN	2 J		16 J			5.7 J	
Dieldrin	ug/kg										8.4 J	8.8 J							
Endosulfan sulfate	ug/kg				4 J					3.4 J	9.1 JN	8.7 JN							
Endrin	ug/kg										6.2 J	6.4 J	7.9						
*Endrin aldehyde	ug/kg										12 J	11 J	7.4 NJ						11
*Endrin ketone	ug/kg	0.66 J									8.1 JN	7.3 J		3.6					
Gamma BHC	ug/kg			0.63 J											3.4 J			2.7 J	
*Gamma-chlordane	ug/kg								2.4 J		13 J	13 J	9.2 NJ	6.1		71	57 NJ		18 J
Heptachlor	ug/kg														2.9 JN		19 NJ		
*Heptachlor epoxide	ug/kg	0.49 J									16 J	27 J							21 J
*Methoxychlor	ug/kg										17 J	15 J					180 J		
P,P'-DDD	ug/kg										17 J	16 J	8.6						15
P,P'-DDE	ug/kg		19 J								9.8 J	9.6	4.3 NJ						
P,P'-DDT	ug/kg										11 J	11 J							
*Total DDTs	ug/kg		19								37.8	36.6							15

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-32	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-39
Sample Number:		SB32II-S-NG-R	059-2020	059-2021	059-2022	059-2024	059-2023	059-2156	059-2157	059-2158	059-2016	059-2017	059-2208	059-2209	059-2212	059-2213	059-2248	059-2246	059-2130
Sample Depth:		40-45	15-20	20-25	25-30	25-30	30-35	15-20	20-25	25-30	25-30	30-35	0-5	5-10	20-25	25-30	19.5-20	30-35	5-10
Sample Date:		6/28/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/9/2010
Sample Type:		S	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/kg																0.063 J		
Alpha BHC	ug/kg											11 J							
Alpha endosulfan	ug/kg																		
Alpha-chlordane	ug/kg																		
Beta BHC	ug/kg																	0.28 J	
Beta endosulfan	ug/kg											5.2 NJ		0.6 J					
Delta BHC	ug/kg		7.5 J			0.88 J													
Dieldrin	ug/kg																		
Endosulfan sulfate	ug/kg																		
Endrin	ug/kg	6.7	5.5 J	3.5 J	3.2 J	3.9 J					2 J			1.7 J					
*Endrin aldehyde	ug/kg	6.1		15 J								12 NJ							
*Endrin ketone	ug/kg	2.4 J	12 J		7.2 J		8.3 NJ												
Gamma BHC	ug/kg																		
*Gamma-chlordane	ug/kg	6.6 NJ	40 J					17 J				19 NJ	12 J			2.2 J			
Heptachlor	ug/kg				0.17 J														
*Heptachlor epoxide	ug/kg					1.9 J													
*Methoxychlor	ug/kg							22 NJ											
P,P'-DDD	ug/kg	5.8 NJ	19 NJ	15 J	5.4 NJ			6.8 J	48	42		9.4 NJ							
P,P'-DDE	ug/kg		7.3 NJ							21 J	3.5 J								
P,P'-DDT	ug/kg		14 J	13 NJ	7.7 J	8 J	12 J	17 J	120	83		6.5 J			0.12 J	2.2 J		5.4	
*Total DDTs	ug/kg		40.3	28	13.1			23.8	168	146	3.5				0.12	2.2		5.4	

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	Station Location:	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-43
		Sample Number:	059-2133	059-2134	059-2135	059-2136	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG	GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW41S(0-5)	GC-MW41I(5-10)	GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	059-2061	059-2064	059-2065	059-2001
		Sample Depth:	20-25	25-30	30-35	36.5-37	0-5	5-10	5-10	10-15	10-15	0-5	5-10	5-10	5-10	10-15	5-10	25-30	30-35	0-5
		Sample Date:	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/17/2010
		Sample Type:	N	N	N	N	N	N	S	N	FD	N	N	FD	S	N	N	N	N	N
Pesticides																				
Aldrin	ug/kg																			
Alpha BHC	ug/kg				12 NJ	8.1 J														
Alpha endosulfan	ug/kg																			
Alpha-chlordane	ug/kg								270 J			120 JN			48 NJ					3.8 NJ
Beta BHC	ug/kg						15 J						5.3 JN	3.4 J		16 J		0.18 J		
Beta endosulfan	ug/kg																			
Delta BHC	ug/kg				13 J	6.6 J			26 J				5.7 J	3.4 J		6.6 J				
Dieldrin	ug/kg																			
Endosulfan sulfate	ug/kg							300 JN		230 J	260 J		11 JN	14 JN						
Endrin	ug/kg			4.6	40	13 J														
*Endrin aldehyde	ug/kg								22 NJ				6.1 J	6.7 J						
*Endrin ketone	ug/kg								43 NJ			77 J	23 J	28 J	17 J		0.2 J	0.23 J		
Gamma BHC	ug/kg														3.8 J	3.6 J	0.18 J			
*Gamma-chlordane	ug/kg				83 J	49 J		200		160	160	39 J	16 J	19 J	9.6 NJ					6.8 NJ
Heptachlor	ug/kg				3.7 NJ				11 J				4.7 JN	4.4 J						
*Heptachlor epoxide	ug/kg								96 J											
*Methoxychlor	ug/kg			18 J																
P,P'-DDD	ug/kg		4.2 J	8.4	25 J	40									16 NJ					5 NJ
P,P'-DDE	ug/kg			7 J	20 J	11 NJ							6.1 JN	7.2 J			1.7 J			4.7 NJ
P,P'-DDT	ug/kg			4.1 NJ	55	19 J							6.5 JN	7.3 JN					1 J	
*Total DDTs	ug/kg		4.2	19.5	100	70							12.6	14.5			1.7		1	9.7

TABLE I-29B
Pesticide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2002	059-2006	059-2007	059-2008	059-2123	059-2114	059-2118	059-2121	059-2119	059-2120	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239
Sample Depth:		5-10	20-25	25-30	30-35	10-15	5-10	25-30	25-30	30-35	35-40	10-15	15-20	25-30	30-35	36-36.5	40-40.5
Sample Date:		5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**															
Aldrin	ug/kg																
Alpha BHC	ug/kg			**72 NJ (Q)**										4.4 J	**45 NJ (Q)**		
Alpha endosulfan	ug/kg						0.29 J										
Alpha-chlordane	ug/kg																
Beta BHC	ug/kg																
Beta endosulfan	ug/kg			49 J				8.7	33 J	33 J	38 J						
Delta BHC	ug/kg													2.2 J			3.2 J
Dieldrin	ug/kg																
Endosulfan sulfate	ug/kg		0.29 J			3.7 J											
Endrin	ug/kg				4.9									5.1 J	44 J	**77 (Q)**	20 J
*Endrin aldehyde	ug/kg			97	4.7 NJ												
*Endrin ketone	ug/kg	0.87 J															
Gamma BHC	ug/kg																
*Gamma-chlordane	ug/kg	5.5 J				6.2		6.9			31 NJ					220 NJ	
Heptachlor	ug/kg																
*Heptachlor epoxide	ug/kg											1.3 J	0.64 J	2.5 J		45	
*Methoxychlor	ug/kg							34 J						21 J			
P,P'-DDD	ug/kg	3.4 J	56 J								34 J						
P,P'-DDE	ug/kg		67 J														
P,P'-DDT	ug/kg		65 J					25	100	92	94			10 J	110 NJ	180 J	
*Total DDTs	ug/kg	3.4	188					25	100	92	128			10	110	180	

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TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
	Sample Number:	SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
	Sample Depth:	0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
	Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
	Sample Type:	N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	15 U	16 U	15 U	16 U	42 U	15 U	14 U	12 U	13 U	39 U	11 U	16 U	18 U	51 U	40 U	13 U	12 U	13 U
Aroclor 1221	ug/kg	28 U	30 U	28 U	29 U	**450**	27 U	25 U	23 U	24 U	39 U	21 U	29 U	33 U	51 U	75 U	24 U	23 U	24 U
Aroclor 1232	ug/kg	14 U	15 U	13 U	14 U	42 U	13 U	12 U	11 U	12 U	39 U	10 U	14 U	16 U	51 U	36 U	12 U	11 U	12 U
Aroclor 1242	ug/kg	15 U	17 U	15 U	16 U	42 U	15 U	14 U	12 U	13 U	39 U	12 U	16 U	18 U	51 U	41 U	13 U	12 U	13 U
Aroclor 1248	ug/kg	8.4 U	9.1 U	8.3 U	8.7 U	42 U	8.2 U	7.5 U	6.8 U	7.2 U	39 U	6.4 U	8.8 U	9.8 U	51 U	22 U	7.1 U	6.9 U	7.3 U
Aroclor 1254	ug/kg	**232**	12 U	11 U	11 U	42 U	10 U	9.6 U	8.6 U	9.1 U	39 U	8.1 U	11 U	12 U	51 U	28 U	9.1 U	8.7 U	9.3 U
Aroclor 1260	ug/kg	16 U	18 U	16 U	17 U	42 U	16 U	15 U	13 U	14 U	39 U	13 U	17 U	19 U	51 U	44 U	14 U	13 U	14 U
Aroclor 1262	ug/kg	8.5 U	9.3 U	8.4 U	8.9 U	42 U	8.3 U	7.7 U	6.9 U	7.3 U	39 U	6.5 U	9 U	10 U	51 U	23 U	7.3 U	7 U	7.4 U
Aroclor 1268	ug/kg	9.5 U	10 U	9.5 U	10 U	42 U	9.3 U	8.6 U	7.7 U	8.2 U	39 U	7.3 U	10 U	11 U	51 U	26 U	8.1 U	7.8 U	8.3 U
Total PCBs	ug/kg	**232**	ND	ND	ND	**450**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
	Sample Number:	SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
	Sample Depth:	30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
	Sample Date:	6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
	Sample Type:	S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	41 U	13 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1221	ug/kg	41 U	23 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1232	ug/kg	41 U	11 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1242	ug/kg	41 U	13 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1248	ug/kg	41 U	7 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1254	ug/kg	41 U	8.9 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1260	ug/kg	41 U	14 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1262	ug/kg	41 U	7.1 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Aroclor 1268	ug/kg	41 U	8 U	61 U	39 U	38 UJ	38 U	40 U	36 U	41 U	36 U	58 U	38 U	40 U	37 U	37 U	37 U	53 U	54 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
	Sample Number:	059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
	Sample Depth:	15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
	Sample Date:	5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1221	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1232	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1242	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1248	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1254	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1260	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1262	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Aroclor 1268	ug/kg	58 U	38 U	38 U	47 UJ	58 UJ	60 UJ	42 UJ	39 UJ	39 UJ	39 U	42 U	380 U	58 U	55 U	57 U	57 U	40 U	42 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	11 U	12 U	12 U	13 U	39 U	13 U	13 U	16 U	17 U	12 U	39 U	12 U	11 U	13 U	40 U	14 U	14 U	13 U
Aroclor 1221	ug/kg	21 U	22 U	22 U	24 U	39 U	25 U	25 U	30 U	32 U	23 U	39 U	21 U	21 U	23 U	40 U	25 U	26 U	24 U
Aroclor 1232	ug/kg	10 U	11 U	11 U	12 U	39 U	12 U	12 U	15 U	16 U	11 U	39 U	10 U	10 U	11 U	40 U	12 U	13 U	12 U
Aroclor 1242	ug/kg	11 U	12 U	12 U	13 U	39 U	13 U	13 U	16 U	17 U	13 U	39 U	12 U	11 U	13 U	40 U	14 U	14 U	13 U
Aroclor 1248	ug/kg	6.2 U	6.6 U	6.7 U	7.3 U	39 U	7.4 U	7.5 U	9 U	9.6 U	6.9 U	39 U	6.4 U	6.4 U	7 U	40 U	7.5 U	7.9 U	7.2 U
Aroclor 1254	ug/kg	7.9 U	8.4 U	8.6 U	9.3 U	39 U	9.3 U	9.5 U	11 U	12 U	8.8 U	39 U	8.2 U	8.1 U	8.9 U	40 U	9.5 U	10 U	9.1 U
Aroclor 1260	ug/kg	12 U	13 U	13 U	14 U	39 U	14 U	15 U	18 U	19 U	14 U	39 U	13 U	12 U	14 U	40 U	15 U	16 U	14 U
Aroclor 1262	ug/kg	6.3 U	6.7 U	6.9 U	7.4 U	39 U	7.5 U	7.6 U	9.1 U	9.8 U	7 U	39 U	6.5 U	6.5 U	7.1 U	40 U	7.6 U	8 U	7.3 U
Aroclor 1268	ug/kg	7.1 U	7.5 U	7.7 U	8.3 U	39 U	8.4 U	8.5 U	10 U	11 U	7.9 U	39 U	7.3 U	7.2 U	8 U	40 U	8.6 U	9 U	8.2 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
	Sample Number:	SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
	Sample Depth:	30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
	Sample Date:	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
	Sample Type:	N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	13 U	13 U	13 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1221	ug/kg	24 U	23 U	24 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1232	ug/kg	12 U	11 U	12 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1242	ug/kg	13 U	13 U	13 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1248	ug/kg	7.2 U	7 U	7.1 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1254	ug/kg	9.1 U	8.9 U	9.1 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1260	ug/kg	14 U	14 U	14 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1262	ug/kg	7.3 U	7.2 U	7.2 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Aroclor 1268	ug/kg	8.1 U	8 U	8.1 U	40 U	39 U	40 U	40 U	41 U	53 U	41 U	42 U	39 U	430 U	42 U	39 U	39 U	40 U	42 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:	059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:	26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1221 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1232 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1242 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1248 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1254 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1260 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1262 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Aroclor 1268 ug/kg	42 U	40 U	42 U	41 U	40 U	41 U	40 U	45 U	44 U	52 U	59 U	44 U	37 U	37 U	38 U	43 U	39 U	42 U
Total PCBs ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
	Sample Number:	059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
	Sample Depth:	15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
	Sample Date:	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
	Sample Type:	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1221	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1232	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1242	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1248	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1254	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1260	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1262	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Aroclor 1268	ug/kg	41 U	45 U	41 U	41 U	43 U	42 U	40 U	38 U	37 U	43 UJ	56 UJ	44 U	41 U	36 U	40 U	38 U	37 U	37 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
	Sample Number:	059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
	Sample Depth:	50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
	Sample Date:	6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	11 U	12 U	15 U	45 UJ	15 U	15 U	13 U
Aroclor 1221	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	21 U	22 U	29 U	45 UJ	28 U	27 U	24 U
Aroclor 1232	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	10 U	11 U	14 U	45 UJ	14 U	13 U	12 U
Aroclor 1242	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	11 U	12 U	16 U	45 UJ	15 U	15 U	13 U
Aroclor 1248	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	6.2 U	6.7 U	8.6 U	45 UJ	8.4 U	8.2 U	7.2 U
Aroclor 1254	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	7.8 U	8.5 U	11 U	45 UJ	11 U	10 U	9.2 U
Aroclor 1260	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	12 U	13 U	17 U	45 UJ	16 U	16 U	14 U
Aroclor 1262	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	6.3 U	6.8 U	8.7 U	45 UJ	8.5 U	8.3 U	7.3 U
Aroclor 1268	ug/kg	38 U	43 U	43 U	41 U	43 U	42 U	42 U	44 U	40 U	43 U	36 U	7 U	7.6 U	9.8 U	45 UJ	9.5 U	9.3 U	8.2 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
	Sample Number:	SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
	Sample Depth:	30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
	Sample Date:	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
	Sample Type:	N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	14 U	14 U	13 U	38 U	11 U	13 U	14 U	13 U	14 U	43 U	13 U	13 U	16 U	13 U	12 U	13 U	13 U	13 U
Aroclor 1221	ug/kg	26 U	25 U	24 U	38 U	21 U	24 U	26 U	25 U	25 U	43 U	25 U	24 U	29 U	25 U	23 U	25 U	25 U	25 U
Aroclor 1232	ug/kg	13 U	12 U	12 U	38 U	10 U	12 U	13 U	12 U	12 U	43 U	12 U	11 U	14 U	12 U	11 U	12 U	12 U	12 U
Aroclor 1242	ug/kg	14 U	14 U	13 U	38 U	11 U	13 U	14 U	13 U	14 U	43 U	13 U	13 U	16 U	13 U	12 U	13 U	13 U	13 U
Aroclor 1248	ug/kg	7.7 U	7.6 U	7.3 U	38 U	6.3 U	7.1 U	7.7 U	7.4 U	7.6 U	43 U	7.4 U	7.1 U	8.8 U	7.4 U	6.8 U	7.4 U	7.5 U	7.4 U
Aroclor 1254	ug/kg	9.8 U	9.7 U	9.3 U	38 U	8 U	9.1 U	9.8 U	9.5 U	9.6 U	43 U	9.4 U	9 U	11 U	9.4 U	8.7 U	9.4 U	9.5 U	9.4 U
Aroclor 1260	ug/kg	15 U	15 U	14 U	38 U	12 U	14 U	15 U	15 U	15 U	43 U	15 U	14 U	17 U	14 U	13 U	14 U	15 U	14 U
Aroclor 1262	ug/kg	7.8 U	7.7 U	7.4 U	38 U	6.4 U	7.3 U	7.9 U	7.6 U	7.7 U	43 U	7.5 U	7.2 U	8.9 U	7.5 U	7 U	7.5 U	7.6 U	7.5 U
Aroclor 1268	ug/kg	8.8 U	8.7 U	8.3 U	38 U	7.2 U	8.1 U	8.8 U	8.5 U	8.6 U	43 U	8.4 U	8.1 U	10 U	8.4 U	7.8 U	8.4 U	8.5 U	8.4 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
	Sample Number:	SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
	Sample Depth:	50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
	Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
	Sample Type:	S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	39 U	39 U	14 U	12 U	11 U	11 U	12 U	37 UJ	12 U	13 U	15 U	14 U	13 U	12 U	13 U	12 U	12 U	40 U
Aroclor 1221	ug/kg	39 U	39 U	26 U	21 U	21 U	21 U	23 U	37 UJ	22 U	24 U	28 U	25 U	24 U	23 U	24 U	22 U	22 U	40 U
Aroclor 1232	ug/kg	39 U	39 U	13 U	10 U	10 U	10 U	11 U	37 UJ	11 U	12 U	14 U	12 U	12 U	11 U	12 U	11 U	11 U	40 U
Aroclor 1242	ug/kg	39 U	39 U	14 U	12 U	11 U	11 U	12 U	37 UJ	12 U	13 U	15 U	14 U	13 U	12 U	13 U	12 U	12 U	40 U
Aroclor 1248	ug/kg	39 U	39 U	7.7 U	6.4 U	6.2 U	6.3 U	6.9 U	37 UJ	6.5 U	7.1 U	8.5 U	7.5 U	7.2 U	6.9 U	7.3 U	6.6 U	6.7 U	40 U
Aroclor 1254	ug/kg	39 U	39 U	9.8 U	8.1 U	7.9 U	8.1 U	8.7 U	37 UJ	8.3 U	9 U	11 U	9.6 U	9.1 U	8.7 U	9.3 U	8.4 U	8.5 U	40 U
Aroclor 1260	ug/kg	39 U	39 U	15 U	13 U	12 U	12 U	13 U	37 UJ	13 U	14 U	17 U	15 U	14 U	13 U	14 U	13 U	13 U	40 U
Aroclor 1262	ug/kg	39 U	39 U	7.8 U	6.5 U	6.3 U	6.4 U	7 U	37 UJ	6.6 U	7.2 U	8.7 U	7.7 U	7.3 U	7 U	7.4 U	6.7 U	6.8 U	40 U
Aroclor 1268	ug/kg	39 U	39 U	8.8 U	7.3 U	7.1 U	7.2 U	7.8 U	37 UJ	7.4 U	8.1 U	9.7 U	8.6 U	8.2 U	7.8 U	8.3 U	7.5 U	7.6 U	40 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:	SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(0-5)	GC-MW23I(5-10)	GC-MW23I(10-15)	SB23IC-S-NG	GC-MW23I(15-20)	GC-MW23I(20-25)
Sample Depth:	60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	10-15	15-20	20-25
Sample Date:	6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	12 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1221 ug/kg	23 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1232 ug/kg	11 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1242 ug/kg	12 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1248 ug/kg	6.9 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1254 ug/kg	8.8 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1260 ug/kg	14 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1262 ug/kg	7 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Aroclor 1268 ug/kg	7.9 U	54 U	51 U	40 U	390 U	40 U	58 U	58 U	41 U	39 U	40 U	41 U	18 U	21 U	46 UJ	65 U	29 U	20 U
Total PCBs ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
	Sample Number:	GC-MW23I(25-30)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
	Sample Depth:	25-30	30-35	35-39	35-39	35-39	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
	Sample Date:	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
	Sample Type:	N	N	N	FD	S	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Aroclor 1221	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Aroclor 1232	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Aroclor 1242	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Aroclor 1248	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Aroclor 1254	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Aroclor 1260	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	**2,300 J**	62 R	140 R	55 U	39 U
Aroclor 1262	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Aroclor 1268	ug/kg	21 U	23 U	20 U	20 UJ	43 U	41 U	55 U	56 U	59 U	38 UR	38 U	38 U	40 U	3,700 U	38 U	48 U	55 U	39 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	---	ND	ND	ND	**2,300**	---	---	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
	Sample Number:	059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
	Sample Depth:	30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
	Sample Date:	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
	Sample Type:	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1221	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1232	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1242	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1248	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1254	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1260	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1262	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Aroclor 1268	ug/kg	39 U	40 U	45 U	38 U	38 U	38 U	38 U	510 U	520 U	480 U	460 U	39 U	36 U	48 U	92 U	58 U	39 U	39 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:	059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(0.2-5)	SB30IB-S-NG	GC-MW30I(6-10)	GC-MW30I(10-15)	GC-MW30I(15-20)	GC-MW30I(20-25)	GC-MW30I(25-30)	GC-MW30I(30-35)	GC-MW30I(35-36)
Sample Depth:	25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	0.2-5	5-10	6-10	10-15	15-20	20-25	25-30	30-35	35-36
Sample Date:	6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:	N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	N
Parameter / **Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1221 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1232 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1242 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1248 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1254 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1260 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1262 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Aroclor 1268 ug/kg	38 U	44 U	56 U	56 U	39 U	40 U	40 U	41 U	39 U	19 U	39 U	20 U	20 U	22 U	20 U	19 U	20 U	20 U
Total PCBs ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-30	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:	SB-30I-S-NG	GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(6-10)	GC-MW31I(10-15)	GC-MW31I(15-20)	GC-MW31I(20-26)	GC-MW31I(26-30)	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(5-10)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(25-30)
Sample Depth:	35-36	0-6	5-10	6-10	10-15	15-20	20-26	26-30	30-36	30-36	30-35	0.5-5	5-10	10-15	15-20	15-20	20-25	25-30
Sample Date:	6/30/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010
Sample Type:	S	N	S	N	N	N	N	N	N	FD	S	N	N	N	N	S	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/kg	37 UJ	20 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1221	ug/kg	37 UJ	20 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1232	ug/kg	37 UJ	20 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1242	ug/kg	37 UJ	**97**	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1248	ug/kg	37 UJ	20 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1254	ug/kg	37 UJ	23 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	**36**	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1260	ug/kg	37 UJ	20 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1262	ug/kg	37 UJ	20 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Aroclor 1268	ug/kg	37 UJ	20 UJ	48 U	27 U	30 U	31 U	23 U	20 U	20 UJ	20 UJ	37 U	18 U	19 U	23 U	24 U	45 UJ	21 U	39 UJ
Total PCBs	ug/kg	ND	**97**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**36**	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
	Sample Number:	GC-MW32I(30-35)	GC-MW32I(35-40)	SB32IH-S-NG	GC-MW32I(40-46)	SB32II-S-NG-R	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022
	Sample Depth:	30-35	35-40	35-40	40-46	40-45	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30
	Sample Date:	6/24/2010	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
	Sample Type:	N	N	S	N	S	N	N	N	N	N	FD	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1221	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1232	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1242	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1248	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1254	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1260	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1262	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Aroclor 1268	ug/kg	23 U	19 U	39 U	21 UJ	40 U	100 U	100 U	40 U	41 U	38 UJ	43 UJ	40 U	43 U	56 U	55 U	40 U	41 U	41 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-34	GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37
	Sample Number:	059-2024	059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211
	Sample Depth:	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20
	Sample Date:	5/19/2010	5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010
	Sample Type:	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1221	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1232	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1242	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1248	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1254	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1260	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1262	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Aroclor 1268	ug/kg	42 U	40 U	180 UJ	59 U	40 U	390 U	400 U	42 U	58 U	57 U	40 U	39 U	38 U	35 U	40 U	39 U	57 U	69 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
	Sample Number:	059-2212	059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135
	Sample Depth:	20-25	25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
	Sample Date:	6/22/2010	6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1221	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1232	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1242	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1248	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1254	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1260	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1262	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Aroclor 1268	ug/kg	38 U	44 U	41 U	40 U	39 U	80 U	130 UJ	120 UJ	41 U	48 U	35 U	38 U	37 U	38 U	38 U	39 U	39 U	39 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-39	GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41
Sample Number:		059-2136	059-2137	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG	GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW40I(15-20)	GC-MW40I(20-25)	GC-MW40I(25-30)	GC-MW40I(30-35)	GC-MW40I(35-40)	GC-MW40I(40-45)	GC-MW40I(45-50)	GC-MW40I(50-55)	GC-MW40I(55-58)	SB40IJ-S-NG	GC-MW41S(0-5)
Sample Depth:		36.5-37	40-40.5	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-58	55-58	0-5
Sample Date:		6/9/2010	6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010
Sample Type:		N	N	N	N	S	N	FD	N	N	N	N	N	N	N	N	N	S	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1221	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1232	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1242	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1248	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1254	ug/kg	40 U	40 U	**36**	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1260	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1262	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Aroclor 1268	ug/kg	40 U	40 U	19 U	19 UR	37 UR	20 UR	21 UR	27 U	25 U	20 U	20 U	21 U	20 U	21 U	20 U	19 U	38 U	19 U
Total PCBs	ug/kg	ND	ND	**36**	---	---	---	---	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42
	Sample Number:	GC-MW41I(5-10)	GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	GC-MW41I(15-20)	GC-MW41I(20-25)	GC-MW41I(25-30)	GC-MW41I(30-35)	GC-MW41I(35-40)	GC-MW41I(40-45)	GC-MW41I(45-50)	GC-MW41I(50-53)	GC-MW41I(53-58)	SB41IL-S-NG	059-2061	059-2062	059-2063	059-2064
	Sample Depth:	5-10	5-10	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-53	53-58	55-58	5-10	15-20	20-25	25-30
	Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
	Sample Type:	N	FD	S	N	N	N	N	N	N	N	N	N	N	S	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Aroclor 1221	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Aroclor 1232	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Aroclor 1242	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Aroclor 1248	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	**69 J**	39 U	40 U	38 U
Aroclor 1254	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Aroclor 1260	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Aroclor 1262	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Aroclor 1268	ug/kg	21 U	21 U	41 U	24 U	30 U	21 U	20 U	21 U	20 U	23 U	21 U	20 U	22 U	40 U	39 U	39 U	40 U	38 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**69**	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-42	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
	Sample Number:	059-2066	059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127
	Sample Depth:	25-30	30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35
	Sample Date:	5/26/2010	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
	Sample Type:	FD	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1221	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1232	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1242	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1248	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1254	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1260	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1262	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Aroclor 1268	ug/kg	38 U	38 U	41 U	41 U	66 U	56 U	39 U	41 U	40 U	380 U	40 U	41 U	52 U	56 U	54 U	40 U	51 U	61 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-44	GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
	Sample Number:	059-2128	059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174
	Sample Depth:	35-40	40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45
	Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1221	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1232	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1242	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1248	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1254	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1260	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1262	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Aroclor 1268	ug/kg	42 U	42 U	110 U	55 U	51 U	51 U	41 U	42 U	44 UR	49 UR	48 U	57 U	52 U	51 U	46 U	41 U	42 U	40 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	---	---	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-30A
PCB Aroclor Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-46	GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2175	059-2176	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239	059-2240
Sample Depth:		45-50	50-55	10-15	15-20	25-30	30-35	36-36.5	40-40.5	45-45.5
Sample Date:		6/15/2010	6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**								
Aroclor 1016	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1221	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1232	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1242	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1248	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1254	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1260	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1262	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Aroclor 1268	ug/kg	37 U	38 U	52 U	53 U	41 U	400 U	410 U	40 U	39 U
Total PCBs	ug/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE I-30B
PCB Aroclor Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-01	GCMW-01	GCMW-25	GCMW-31	GCMW-32	GCMW-40	GCMW-42
	Sample Number:	SB01A	SB01D-S-NYC	059-2220	GC-MW31I(0-6)	GC-MW32I(0.5-5)	GC-MW40D(0-5)	059-2061
	Sample Depth:	0-5	15-20	5-10	0-6	0.5-5	0-5	5-10
	Sample Date:	6/2/2010	6/2/2010	6/23/2010	6/25/2010	6/23/2010	6/29/2010	5/26/2010
	Sample Type:	N	S	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**						
*Aroclor 1221	ug/kg		450					
*Aroclor 1242	ug/kg				97			
*Aroclor 1248	ug/kg							69 J
*Aroclor 1254	ug/kg	232				36	36	
*Aroclor 1260	ug/kg			2,300 J				
Total PCBs	ug/kg	232	450	2,300	97	36	36	69

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TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:		SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:		0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**11,700**	**15,700**	**9,330**	**9,560**	**6,210**	**7,080**	**4,390**	**3,810**	**3,680**	**2,570**	**6,910**	**14,100**	**15,900**	**13,200**	**13,000**	**6,340**	**4,320**	**3,480**
Antimony	mg/kg	0.49 U	0.56 U	0.48 U	0.52 U	7.3 U	0.52 U	0.44 U	0.42 U	0.43 U	5.7 U	0.38 U	0.55 U	0.57 U	10 U	0.99 U	0.43 U	0.41 U	0.43 U
Arsenic	mg/kg	**10.1**	**10.7**	**8.5**	**6.9**	**8.6**	**5.6**	0.26 U	0.25 U	0.26 U	**1.2**	**5.6**	**9.7**	**8.5**	**10.2**	**8.6**	0.26 U	0.24 U	0.26 U
Barium	mg/kg	**81.9**	**81.9**	**176**	**86**	**142**	**81.3**	0.045 U	0.044 U	0.044 U	19 U	**73.7**	**183**	**93.6**	**49.6**	0.31 U	**24.6**	0.042 U	0.044 U
Beryllium	mg/kg	**0.55**	**0.64**	**0.34**	**0.38**	0.61 U	0.025 U	**0.26**	0.021 U	0.021 U	0.47 U	**0.27**	**0.59**	**0.66**	0.83 U	0.026 U	**0.46**	**0.39**	**0.33**
Cadmium	mg/kg	0.031 U	0.035 U	**0.76**	0.032 U	**1.1**	0.033 U	0.028 U	0.027 U	0.027 U	0.47 U	0.024 U	0.034 U	0.036 U	0.83 U	0.14 U	0.027 U	0.026 U	0.027 U
Calcium	mg/kg	**16,700**	**4,280**	**29,100**	**18,800**	**23,800**	**17,900**	0.85 U	**1,790**	**1,520**	**1,300**	**2,900**	**3,250**	**2,770**	**3,170**	**4,300**	0.83 U	**936**	**1,520**
Chromium	mg/kg	**28.5**	**30.3**	**24.1**	**28.7**	**21.6**	**19.6**	**10.6**	**10.3**	**11.3**	**7.3**	**15.8**	**30.3**	**31.8**	**29.4**	**24.1**	**11.2**	**11.2**	**11.1**
Cobalt	mg/kg	**8.4**	**8.9**	0.048 U	0.052 U	6.1 U	0.052 U	0.044 U	0.042 U	0.043 U	4.7 U	**6.5**	0.055 U	**8.2**	8.3 U	0.35 U	0.043 U	0.041 U	0.043 U
Copper	mg/kg	**39.1**	**32**	**474**	**44.1**	524 R	**168**	**6.5**	**7.3**	**8.7**	9.3 R	**27.9**	**25.6**	**28.6**	**23.2**	**14**	**8.6**	**8.3**	**10**
Iron	mg/kg	**29,400**	**23,300**	**21,100**	**22,400**	**25,500**	**19,200**	**8,260**	**10,000**	**9,340**	**7,430**	**12,100**	**27,200**	**27,100**	**30,500**	**23,200**	**9,320**	**8,380**	**7,700**
Lead	mg/kg	**100**	**103**	**370**	**101**	**374**	**281**	**5.2**	**4.8**	**8.6**	**10.9**	**154**	**403**	**87**	**63.8**	**13.6**	**6.8**	**4.8**	**15.5**
Magnesium	mg/kg	**5,280**	**5,250**	**6,140**	**6,260**	**4,780**	**4,440**	**1,480**	**2,290**	**2,460**	**1,990**	**2,050**	**4,600**	**5,450**	**5,120**	**5,830**	**2,020**	**2,640**	**2,170**
Manganese	mg/kg	**373**	**269**	**376**	**300**	**445**	**260**	**46.3**	**148**	**73.5**	**102**	**250**	**257**	**271**	**284**	**203**	**64**	**62.9**	**62.6**
Mercury	mg/kg	**1.5**	**0.49**	**1.4**	**1.2**	**0.94**	**0.29**	0.014 U	0.012 U	0.014 U	0.12 U	**0.4**	**0.31**	**0.16**	**0.21**	**0.12**	0.013 U	0.013 U	0.015 U
Nickel	mg/kg	**28.8**	**35.7**	**27.7**	**25.6**	**23.2**	**19.6**	**8.8**	**13.8**	**13**	**11.6**	**25.2**	**26.9**	**28.4**	**26.9**	**19.2**	**10.2**	**19.5**	**13.6**
Potassium	mg/kg	**2,130**	**2,730**	**1,670**	**2,040**	**1,020**	**1,580**	2.2 U	2.1 U	2.2 U	**457 J**	**1,100**	**2,970**	**3,360**	**2,490**	19 U	**1,210**	2.1 U	2.2 U
Selenium	mg/kg	0.45 U	0.51 U	0.44 U	0.47 U	4.3 UJ	0.47 U	0.4 U	0.39 U	0.4 U	3.3 UJ	0.35 U	0.5 U	0.52 U	5.8 U	1.2 U	0.39 U	0.37 U	0.39 U
Silver	mg/kg	0.076 U	0.086 U	**1.9**	0.08 U	**2.4**	**3.4**	0.068 U	0.065 U	0.067 U	0.95 U	0.058 U	**1.1**	**1.5**	1.7 U	0.14 U	0.047 U	0.045 U	0.048 U
Sodium	mg/kg	2 U	2.3 U	2 U	2.1 U	**697**	2.1 U	1.8 U	1.7 U	1.8 U	474 U	1.5 U	2.2 U	2.3 U	**1,070**	**4,670**	1.7 U	1.7 U	1.7 U
Thallium	mg/kg	0.24 U	0.27 U	0.23 U	0.25 U	3.1 U	0.25 U	0.21 U	0.21 U	0.21 U	2.4 U	0.18 U	0.27 U	0.28 U	4.1 U	1.1 U	0.21 U	0.2 U	0.21 U
Vanadium	mg/kg	**27.9**	**32.1**	**24.6**	**26.8**	**24.2**	**19.4**	**13.3**	**12.9**	**11.5**	**10**	**19.8**	**32.7**	**36.1**	**33.9**	**36.5**	**14.4**	**12.2**	**11.2**
Zinc	mg/kg	**128**	**89.3**	**230**	**146**	**254**	**163**	**23.5**	**23**	**23.3**	**18.3**	**65.3**	**79.1**	**80.9**	**78.8**	**48.8**	**26.2**	**21.7**	**19.6**
Cyanide, Total	mg/kg	**0.46**	0.038 U	**0.63**	0.032 U	3.1 U	0.032 U	0.031 U	0.025 U	0.028 U	2.9 U	0.023 U	0.035 U	0.038 U	3.9 U	0.086 U	0.028 U	0.026 U	0.028 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
Sample Number:		SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
Sample Depth:		30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
Sample Date:		6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**																		
Metals																			
Aluminum	mg/kg	**2,110**	**3,370**	**12,700**	**5,340**	**4,430**	**4,450**	**2,140**	**4,270**	**4,860**	**8,030**	**16,000**	**6,920**	**4,820**	**3,760**	**2,820**	**3,370**	**5,460 J**	**15,400 J**
Antimony	mg/kg	7.2 U	0.43 U	10.6 U	6.7 UJ	6.6 UJ	6.7 UJ	6.6 U	6.4 U	7.7 UJ	**0.45 J**	**0.89 J**	8.3 UJ	7.2 U	7.1 U	6.7 U	6.6 U	10.1 U	**0.74 J**
Arsenic	mg/kg	1.2 U	0.26 U	**7.3**	1.1 U	**0.5 J**	**0.97 J**	1.1 U	**2.2**	**0.78 J**	**3.7**	**8.7**	**2.1**	**1.2 J**	1.2 U	1.1 U	1.1 U	**4.5**	**8.6**
Barium	mg/kg	24 U	0.044 U	**32.3 J**	**12.6 J**	**22.2**	**25.7**	**12.8 J**	**31.3**	**32.6**	**71.3**	**33.9 J**	**36.3**	**35.3**	**26.3**	**32.2**	**34.9**	**81.2 J**	**35.9 J**
Beryllium	mg/kg	0.6 U	**0.3**	**0.69 J**	**0.26 J**	**0.25 J**	**0.31 J**	**0.13 J**	**0.36 J**	**0.28 J**	0.62 U	0.87 U	0.69 U	0.6 U	0.59 U	0.56 U	0.55 U	**0.78 J**	**0.84**
Cadmium	mg/kg	0.6 U	0.027 U	**0.25 J**	0.56 U	0.55 U	0.56 U	0.55 U	**0.11 J**	**0.067 J**	0.62 U	0.87 U	0.69 U	0.6 U	0.59 U	0.56 U	0.55 U	**0.078 J**	**0.19 J**
Calcium	mg/kg	**959**	**1,350**	**2,260**	560 U	546 U	**705**	**592**	**1,470**	**7,710**	**2,460**	**3,170**	**640 J**	**374 J**	**717**	**805 J**	**2,300 J**	**16,100 J**	**3,200 J**
Chromium	mg/kg	**6.5**	**10.5**	**27.5**	**11.3**	**14.3**	**13.2**	**6.5**	**13.5**	**10.9**	**16.8**	**31.7**	**12.7**	**10.2**	**6.9**	**7.5**	**6.5**	**15 J**	**31.7 J**
Cobalt	mg/kg	6 U	0.043 U	**7.7 J**	**3.2 J**	**3.2 J**	**5.1 J**	**2.4 J**	**11**	**5.6 J**	**7.1**	**9.9**	**6 J**	**4.3 J**	**5.7 J**	**5.8**	**3.5 J**	8.4 UJ	**10.1 J**
Copper	mg/kg	6.5 R	**7**	**14.3**	**4**	**8.9**	**15.1**	**6.3**	**24**	**13.6**	**23.1**	**16.4**	**11.6**	**11.7**	**13.3**	**12.7**	**10.5**	**37.8**	**18.5**
Iron	mg/kg	**5,350**	**7,630**	**28,200**	**6,770**	**8,070**	**6,950**	**3,860**	**12,600**	**10,300**	**13,600**	**34,500**	**13,900**	**8,610**	**9,140**	**6,890**	**6,680**	**9,380 J**	**32,900 J**
Lead	mg/kg	**7.2**	**6.9**	**23.3**	**4.8**	**4.7**	**4.8**	**2.4**	**7**	**5**	**75.5**	**16**	**6.5**	**5.4**	**5**	**4.4**	**3.6**	**112**	**24.4**
Magnesium	mg/kg	**1,630**	**2,350**	**5,230**	**1,860**	**1,860**	**2,020**	**1,260**	**17,900**	**6,140**	**4,130**	**6,750**	**2,270**	**1,490**	**3,130**	**12,000 J**	**3,460 J**	**3,750 J**	**6,580 J**
Manganese	mg/kg	**43.3**	**57.6**	**262**	**76.3**	**40.7**	**67.5**	**59.7**	**529**	**262**	**204**	**368**	**61.9**	**57.9**	**99.5345**	**150 J**	**261 J**	**218**	**352**
Mercury	mg/kg	**0.06 J**	0.014 U	0.18 U	0.11 U	0.11 U	0.12 U	0.11 U	0.11 U	0.13 U	**0.16**	0.18 U	0.14 U	0.12 U	0.12 U	0.12 U	0.12 U	**0.93**	**0.12 J**
Nickel	mg/kg	**10.8**	**13.2**	**22.9**	**13.4**	**10.7**	**23.5**	**11.8**	**139**	**30.8**	**30.4**	**26.5**	**13.3**	**12.2**	**25.2**	**88.4**	18.1 R	**22.7 J**	**30.2 J**
Potassium	mg/kg	**360 J**	2.2 U	**2,700**	**655**	**763**	**789**	**389 J**	**910**	**1,310**	**1,880**	**3,570**	**1,100**	**768**	**727**	**689**	**787**	**918**	**3,420**
Selenium	mg/kg	4.2 UJ	0.39 U	**1.1 J**	3.9 U	3.8 U	3.9 U	3.9 U	3.7 U	4.5 U	4.3 U	6.1 U	4.9 U	4.2 U	4.1 U	3.9 U	3.9 U	5.9 U	5.6 U
Silver	mg/kg	1.2 U	0.048 U	1.8 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.3 U	1.2 U	1.7 U	1.4 U	1.2 U	1.2 U	1.1 U	1.1 U	1.7 U	1.6 U
Sodium	mg/kg	600 U	1.8 U	**2,740**	560 U	546 U	561 U	554 U	534 U	643 U	618 U	**1,600**	**824**	602 U	590 U	562 U	552 U	**5,610**	**2,020**
Thallium	mg/kg	3 U	0.21 U	4.4 U	2.8 U	2.7 U	2.8 U	2.8 U	2.7 U	3.2 U	3.1 U	4.3 U	3.5 U	3 U	3 U	2.8 U	2.8 U	4.2 U	4 U
Vanadium	mg/kg	**8.4**	**12.4**	**32.1**	**10.6**	**15.1**	**12.5**	**5.3 J**	**16.9**	**13.7**	**21**	**36.6**	**17.7**	**14.6**	**9.6**	**7**	**8**	**8.5 J**	**37.1 J**
Zinc	mg/kg	**17.2**	**14.4**	**57**	**19.6**	**22.5**	**22.6**	**11.8**	**31.2**	**26.6**	**54.7**	**69.4**	**30.5**	**23.2**	**19.6**	**17.4**	**17.6**	**49.6**	**75**
Cyanide, Total	mg/kg	2.9 U	0.027 U	4.2 U	2.9 U	2.8 U	2.8 U	2.8 U	2.7 U	3.2 U	3 U	4.3 U	3.5 U	3 U	2.9 U	2.8 U	2.8 U	**0.29 J**	3.9 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
Sample Number:		059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
Sample Depth:		15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**										**Metals**								
Aluminum	mg/kg	**14,600 J**	**2,900 J**	**3,340 J**	**7,330 J**	**16,100 J**	**16,700 J**	**8,800 J**	**3,140 J**	**2,400 J**	**6,440**	**10,300**	**4,400**	**14,900**	**13,900**	**13,600**	**12,600**	**5,260**	**3,390**
Antimony	mg/kg	**0.78 J**	6.8 UJ	6.7 UJ	7.7 UJ	**0.64 J**	**1.1 J**	**0.5 J**	6.7 UJ	7.2 UJ	6.8 UJ	9.3 UJ	7.1 UJ	10.9 U	10.6 U	**0.84 J**	**0.71 J**	**0.39 J**	7.1 U
Arsenic	mg/kg	**9.6**	**0.51 J**	**1.2**	**2.9**	**9.1**	**11.3**	**8.2**	**0.89 J**	**0.9 J**	**7.2**	**5.5**	**2.2**	**9.5**	**9.8**	**9.5**	**9.8**	**16.6**	1.2 U
Barium	mg/kg	**38.3 J**	**14.7 J**	**21.1 J**	**31.8 J**	**33.8 J**	**56.2 J**	**54.8 J**	**17.9 J**	**27.8 J**	**34.6**	**38.5**	**44.8**	**29.3 J**	35.3 U	**28.2 J**	**59.7**	**64.3**	**31.7**
Beryllium	mg/kg	**0.81 J**	0.57 U	0.56 U	**0.45 J**	**0.87**	**0.89**	**0.6 J**	**0.22 J**	**0.19 J**	**0.31 J**	**0.44 J**	**0.4 J**	**0.79 J**	**0.73 J**	0.86 U	0.74 U	0.59 U	0.59 U
Cadmium	mg/kg	**0.16 J**	0.57 U	0.56 U	**0.027 J**	**0.12 J**	**0.17 J**	**0.35 J**	0.56 U	0.6 U	**0.84**	**0.48 J**	**0.31 J**	**1.3**	**1.2**	**0.56 J**	**0.45 J**	**0.17 J**	**0.021 J**
Calcium	mg/kg	**2,700 J**	**606 J**	**762 J**	**1,770 J**	**2,140 J**	**3,110 J**	**2,140 J**	558 UJ	604 UJ	**9,160**	**2,680 J**	**909 J**	**6,330 J**	**2,690 J**	**2,330**	**2,160**	**2,980**	**11,500**
Chromium	mg/kg	**32.2 J**	**7.6 J**	**8.8 J**	**13.6 J**	**34.1 J**	**35 J**	**52.7 J**	**11 J**	**6 J**	**11.9**	**19.4**	**10.5**	**32.4 J**	**31.3 J**	**30.4**	**27.6 J**	**14.5**	**7**
Cobalt	mg/kg	**9.3 J**	5.7 UJ	5.6 UJ	6.4 UJ	**10.5 J**	**10.8 J**	8 UJ	5.6 UJ	6 UJ	**3.3 J**	**5.2 J**	**5.3 J**	9.1 U	8.8 U	**9**	**10.4**	**6.9**	**3.6 J**
Copper	mg/kg	**14.5**	**5.1**	**7.8**	**9.9**	**16**	**17**	**14.2**	**4.4**	**3.2**	**29.5**	**17.9**	**9.3**	**17.2**	**16.5**	**18.5**	**19.5**	**11.9**	**9.7**
Iron	mg/kg	**33,800 J**	**5,590 J**	**7,780 J**	**13,000 J**	**37,200 J**	**38,400 J**	**15,800 J**	**5,500 J**	**6,520 J**	**32,100**	**21,700**	**10,300**	**34,500 J**	**32,700 J**	**31,900**	**26,900**	**12,400**	**6,830**
Lead	mg/kg	**14.7**	**3.3**	**3.2**	**8.8**	**15.2**	**15.3**	**7.9**	**3.4**	**2.7**	**47.5**	**14.8**	**5.3**	**14 J**	**12.8 J**	**13.6**	**13**	**6.4**	**3.4**
Magnesium	mg/kg	**6,120 J**	**1,410 J**	**1,960 J**	**2,690 J**	**6,990 J**	**6,920 J**	**3,660 J**	**1,540 J**	**1,190 J**	**2,780 J**	**4,370 J**	**2,190 J**	**6,820 J**	**6,660 J**	**5,730**	**4,840**	**3,200**	**4,750**
Manganese	mg/kg	**310**	**46.5**	**140**	**338**	**384**	**377**	**111**	**38**	**33**	**161**	**258**	**203**	**384**	**384**	**285**	**223**	**145**	**236**
Mercury	mg/kg	0.17 U	0.11 U	0.12 U	0.13 U	0.16 U	0.16 U	0.16 U	0.12 U	0.12 U	**0.13**	0.16 U	0.12 U	0.18 U	0.18 U	0.17 U	0.15 UJ	0.12 U	0.12 U
Nickel	mg/kg	**27.7 J**	**8.9 J**	**17.9 J**	**16.3 J**	**29.3 J**	**30.3 J**	**27.5 J**	**9.2 J**	**7.4 J**	**18.1**	**18.7**	**13.7**	**27.5**	**27.2**	**25**	**24**	**17**	**11**
Potassium	mg/kg	**3,120**	**509 J**	**629**	**1,250**	**3,580**	**3,600**	**1,610**	**565**	**501 J**	**1,070 J**	**2,250 J**	**1,080 J**	**4,050 J**	**3,780 J**	**2,950**	**2,210**	**1,040**	**753**
Selenium	mg/kg	5.9 U	4 U	3.9 U	4.5 U	5.9 U	5.9 U	**5.8**	3.9 U	4.2 U	3.9 U	5.4 U	4.1 U	6.3 U	6.2 U	5.7 U	5.2 U	4.1 U	4.1 U
Silver	mg/kg	1.7 U	1.1 U	1.1 U	1.3 U	1.7 U	1.7 U	1.6 U	1.1 U	1.2 U	1.1 U	1.5 U	1.2 U	1.8 U	1.8 U	1.6 U	1.5 U	1.2 U	1.2 U
Sodium	mg/kg	**2,420**	570 U	562 U	641 U	**2,240**	**3,580**	**3,140**	**839**	**1,040**	**736**	**3,000**	601 U	**2,500**	**2,980**	**3,020**	**1,950**	**589**	590 U
Thallium	mg/kg	4.2 U	2.9 U	2.8 U	3.2 U	4.2 U	4.2 U	4 U	2.8 U	3 U	**0.92 J**	3.9 U	2.9 U	**2.9 J**	**1.4 J**	4.1 U	3.7 U	2.9 U	2.9 U
Vanadium	mg/kg	**34.4 J**	**9.5 J**	**7.7 J**	**20.8 J**	**37.6 J**	**39.5 J**	**27.4 J**	**9.5 J**	**6.8 J**	**16.9**	**24.6**	**17.4**	**35.6**	**33.1**	**32.6**	**30.8**	**21.7**	**8.2**
Zinc	mg/kg	**67.2**	**18.5**	**18**	**30.3**	**74.7**	**85.1**	**60.7**	**20.2**	**18.4**	**48.2 J**	**48.4 J**	**34.2 J**	**77.5 J**	**72.7 J**	**64**	**62**	**33.2**	**16.7**
Cyanide, Total	mg/kg	4.1 U	2.9 U	2.9 U	3.3 U	4.2 U	4.1 U	3.9 U	2.9 U	3 U	2.9 U	3.8 U	3 U	4.6 U	4.5 U	4.2 U	3.8 U	3 U	3 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**																	
Metals																		
Aluminum	mg/kg	**5,370**	**4,200**	**5,110**	**5,500**	**4,090**	**9,080**	**5,870**	**14,000**	**16,800**	**4,730**	**5,210**	**6,370**	**5,570**	**7,470**	**6,320**	**8,340**	**7,330**	**7,020**
Antimony	mg/kg	0.3 U	0.3 U	0.31 U	0.35 U	**0.97 J**	0.36 U	0.35 U	0.42 U	0.44 U	0.32 U	6.8 U	0.3 U	0.29 U	0.33 U	6.4 U	0.34 U	0.38 U	0.34 U
Arsenic	mg/kg	**7.2**	**10.5**	**11.1**	**9.3**	**8.7**	**8**	**4.6**	**9.1**	**14.4**	0.57 U	**2.3**	**6.6**	**7.1**	0.59 U	**2**	0.61 U	0.67 U	0.6 U
Barium	mg/kg	**81.6**	**122**	**119**	**133**	**115**	**134**	**40.3**	**108**	**43.3**	**25.5**	**32.6**	**662**	**214**	**56.4**	**36.8**	**33**	**39.8**	**37.4**
Beryllium	mg/kg	**0.27**	**0.25**	**0.36**	**0.31**	**0.27 J**	**0.54**	**0.38**	**0.65**	**0.79**	**0.26**	**0.3 J**	**0.33**	**0.3**	**0.32**	**0.22 J**	**0.39**	**0.42**	**0.36**
Cadmium	mg/kg	0.043 U	0.044 U	**0.68**	0.05 U	**0.63**	0.052 U	0.05 U	0.061 U	0.064 U	0.046 U	0.57 U	**0.69**	**0.67**	0.048 U	0.53 U	0.05 U	0.054 U	0.049 U
Calcium	mg/kg	**45,200**	**22,000**	**12,900**	**18,500**	**26,900**	**19,800**	**1,920**	**2,630**	**2,440**	5.7 U	**574**	**26,800**	**19,500**	**1,860**	**924**	**1,660**	**1,750**	**1,170**
Chromium	mg/kg	**16.2**	**12.4**	**14.4**	**19.2**	**14.7**	**41.7**	**10.5**	**21.1**	**30.8**	**16.9**	**25.5**	**14.4**	**14.1**	**12.3**	**11.4**	**12.5**	**11.9**	**10.3**
Cobalt	mg/kg	0.1 U	0.11 U	0.11 U	0.12 U	4.8 U	**10.8**	0.12 U	**14.5**	**10.3**	0.11 U	5.7 U	0.1 U	0.1 U	0.12 U	5.3 U	0.12 U	0.13 U	0.12 U
Copper	mg/kg	**29.2**	**30.1**	**33.3**	**48.3**	32 R	**214**	**45.7**	**63.6**	**60.1**	**8.3**	7.5 R	**60.1**	**51.5**	**14**	7.2 R	**15.2**	**14.6**	**13**
Iron	mg/kg	**11,300**	**15,400**	**50,000**	**18,000**	**16,300**	**14,800**	**10,500**	**23,400**	**32,300**	**5,680**	**6,860**	**15,500**	**13,200**	**10,500**	**10,500**	**14,600**	**14,300**	**14,000**
Lead	mg/kg	**84**	**125**	**111**	**143**	**128**	**406**	**113**	**650**	**39.2**	**10.6**	**16**	**666**	**381**	**77.8**	**8**	**35**	**24.2**	**5.5**
Magnesium	mg/kg	**10,900**	**8,820**	**4,070**	**4,670**	**11,100**	**7,750**	**1,140**	**3,620**	**5,540**	**1,300**	**1,470**	**4,650**	**6,300**	**3,200**	**1,970**	**2,900**	**2,930**	**2,700**
Manganese	mg/kg	**161**	**142**	**182**	**144**	**128**	**678**	**61.8**	**291**	**298**	**47.7**	**51.1**	**219**	**224**	**125**	**112**	**149**	**168**	**389**
Mercury	mg/kg	**0.26**	**0.49**	**0.54**	**0.42**	**0.39**	**0.51**	**0.13**	**0.77**	**0.056**	0.014 U	0.12 U	**1.5**	**0.87**	**0.057**	0.12 U	**0.086**	**0.37**	0.014 U
Nickel	mg/kg	**10.4**	**11**	**13.9**	**13.9**	**14.2**	**33.2**	**17**	**35.3**	**24.1**	**9.1**	**10.7**	**15.4**	**14.2**	**13.3**	**14.4**	**14.9**	**14**	**12.9**
Potassium	mg/kg	5.8 U	**1,380**	**1,760**	**1,850**	**1,600**	7 U	6.7 U	**2,280**	**3,290**	6.2 U	**469 J**	5.7 U	5.6 U	6.4 U	**494 J**	6.7 U	7.3 U	6.6 U
Selenium	mg/kg	0.35 U	0.36 U	0.37 U	0.41 U	3.3 UJ	0.43 U	0.41 U	0.5 U	0.53 U	0.38 U	4 UJ	0.35 U	0.34 U	0.39 U	3.7 UJ	0.41 U	0.44 U	0.4 U
Silver	mg/kg	0.043 U	0.044 U	0.045 U	0.05 U	**0.23 J**	0.052 U	0.05 U	0.061 U	0.064 U	0.046 U	**0.068 J**	0.043 U	0.042 U	0.048 U	**0.12 J**	0.05 U	0.054 U	0.049 U
Sodium	mg/kg	13 U	13 U	13 U	15 U	478 U	16 U	15 U	18 U	19 U	14 U	568 U	13 U	13 U	14 U	534 U	15 U	16 U	15 U
Thallium	mg/kg	0.32 U	0.33 U	0.33 U	0.38 U	2.4 U	0.39 U	0.37 U	0.45 U	0.48 U	0.35 U	2.8 U	0.32 U	0.31 U	0.36 U	2.7 U	0.37 U	0.4 U	0.36 U
Vanadium	mg/kg	**17.4**	**16.5**	**17.4**	**21.1**	**18.7**	**18.4**	**12.4**	**24.5**	**35.3**	**10.2**	**11.6**	**17.4**	**16.4**	**16.9**	**12.8**	**16.1**	**13.7**	**13.5**
Zinc	mg/kg	**84.9**	**88.5**	**102**	**122**	**130**	**139**	**62.1**	**236**	**71.4**	**25**	**31.1**	**400**	**291**	**110**	**101**	**52.8**	**43.7**	**32.6**
Cyanide, Total	mg/kg	0.025 U	0.026 U	0.025 U	0.027 U	2.7 U	0.027 U	0.028 U	0.036 U	0.039 U	0.026 U	2.7 U	0.051 U	**0.69**	0.028 U	2.9 U	0.029 U	0.031 U	0.029 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
Sample Depth:		30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**6,470**	**5,160**	**4,360**	**4,580**	**3,590**	**4,550**	**8,370**	**3,830**	**13,300**	**6,040**	**2,100**	**3,770**	**3,340**	**3,090**	**5,200**	**5,850**	**4,920**	**4,590**
Antimony	mg/kg	0.32 U	0.32 U	0.34 U	7.1 U	5.8 U	7 U	7.4 U	7.3 U	**0.54 J**	7.6 U	7.5 U	7 U	7.4 U	7.4 U	7.2 U	7.1 U	7.3 U	6.1 UJ
Arsenic	mg/kg	0.57 U	0.57 U	0.61 U	**1.6**	**1.5**	**3.4**	**3.8**	**2.5**	**10.2**	**3**	**1.1 J**	**0.92 J**	**2.1**	**5.9**	**1.4**	**1.5**	**1.1 J**	**1.8**
Barium	mg/kg	**32.8**	0.1 U	0.11 U	**18.5 J**	**14.5 J**	**41.2**	**45.3**	**16.5 J**	**25.4 J**	**18.3 J**	**21.2 J**	**37.4**	**20.5 J**	**244**	**20.4 J**	**30.1**	**31.1**	**32.4**
Beryllium	mg/kg	**0.33**	**0.24**	**0.27**	**0.23 J**	**0.22 J**	0.58 U	**1.1**	0.61 U	0.8 U	0.64 U	0.62 U	0.58 U	0.61 U	0.63 U	0.6 U	0.59 U	0.6 U	0.51 U
Cadmium	mg/kg	0.046 U	0.047 U	0.049 U	0.59 U	0.48 U	**0.13 J**	**0.14 J**	0.61 U	**0.33 J**	**0.016 J**	0.62 U	0.58 U	0.61 U	**0.075 J**	0.6 U	**0.04 J**	0.61 U	**0.017 J**
Calcium	mg/kg	**2,940**	**983**	6.1 U	**1,750**	**687**	**2,280**	**1,470**	**769**	**1,830**	**800**	621 U	**635**	614 U	**664**	**2,590**	**755**	**711**	**724**
Chromium	mg/kg	**11.3**	**9**	**8.8**	**9.6**	**7.7**	**11.1**	**18.8**	**7.2**	**28.2**	**12.2**	**5.7**	**8.2**	**6.3**	**6.5**	**8.4**	**10.5**	**9.3**	**8.6**
Cobalt	mg/kg	0.11 U	0.11 U	0.12 U	5.9 U	4.8 U	**4.7 J**	**25**	**3.2 J**	**9.3**	**4.5 J**	**3.1 J**	**5.2 J**	**4.4 J**	**5.2 J**	**3.2 J**	**6.3**	**3.8 J**	**4 J**
Copper	mg/kg	**11.9**	**8.1**	**7**	7.7 R	5.8 R	**27.6**	**17.7**	**6.5**	**15.7**	**9.1**	**3.2**	**6.5**	**7.1**	**6.1**	**13.1**	**14.8**	**10**	**10.5**
Iron	mg/kg	**13,800**	**10,700**	**9,570**	**11,200**	**8,790**	**8,400**	**13,400**	**9,400**	**33,600**	**13,900**	**5,540**	**9,130**	**9,410**	**12,500**	**10,600**	**12,300**	**11,000**	**10,200**
Lead	mg/kg	**6**	**3.4**	**4.1**	**4.6**	**4**	**76.2**	**9.2**	**8.2**	**13.6**	**5.6**	**2.8**	**5.4**	**5.8**	**4.7**	**17.6**	**8.7**	**5.9**	**4.5**
Magnesium	mg/kg	**2,420**	**2,160**	**1,580**	**2,070**	**1,520**	**1,880**	**4,130**	**1,480**	**5,650**	**2,710**	**766**	**1,550**	**1,560**	**1,400**	**1,830**	**2,370**	**2,100**	**1,880**
Manganese	mg/kg	**231**	**197**	**95.1**	**187**	**92**	**109**	**209**	**122**	**376**	**138**	**50.4**	**74.8**	**83.8**	**1,120**	**168**	**256**	**124**	**127**
Mercury	mg/kg	0.013 U	0.014 U	0.013 U	0.12 U	0.12 U	**0.14**	0.12 U	0.12 U	0.16 U	0.12 U	0.13 U	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U	0.12 U	0.1 U
Nickel	mg/kg	**12.1**	**10.2**	**8.4**	**11**	**9**	**15.2**	**70.8**	**8.6**	**26.4**	**13.6**	**6.2**	**11.8**	**10.4**	**13.8**	**10.3**	**15.1**	**13**	**12.7**
Potassium	mg/kg	6.2 U	6.3 U	6.6 U	**555 J**	**485**	**862**	**1,650**	**523 J**	**2,710**	**996**	**352 J**	**669**	**460 J**	**419 J**	**646**	**813**	**806**	**726**
Selenium	mg/kg	0.38 U	0.38 U	0.41 U	4.1 UJ	3.4 UJ	4.1 U	4.3 U	4.3 U	5.6 U	4.5 U	4.3 U	4.1 U	4.3 U	4.3 U	4.2 U	4.1 U	4.2 U	3.6 U
Silver	mg/kg	0.046 U	0.047 U	0.049 U	**0.13 J**	**0.1 J**	1.2 U	1.2 U	1.2 U	1.6 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1 U
Sodium	mg/kg	14 U	14 U	15 U	589 U	482 U	582 U	620 U	610 U	**1,390**	637 U	621 U	585 U	614 U	629 U	602 U	591 U	605 U	508 U
Thallium	mg/kg	0.34 U	0.35 U	0.37 U	2.9 U	2.4 U	2.9 U	3.1 U	3.1 U	4 U	3.2 U	3.1 U	2.9 U	3.1 U	3.1 U	3 U	3 U	3 U	2.5 U
Vanadium	mg/kg	**12.7**	**9.6**	**11.9**	**10.4**	**9.2**	**14.2**	**20.2**	**10.5**	**32.5**	**13**	**7.5**	**13.1**	**9.1**	**10**	**10.4**	**10.8**	**9.4**	**8.7**
Zinc	mg/kg	**33.2**	**26.3**	**23**	**35.9**	**24.7**	**68.6**	**186**	**20.5**	**68.8**	**30.5**	**16.9**	**25.7**	**21.5**	**22.2**	**22.5**	**34.9**	**30.5**	**31.2**
Cyanide, Total	mg/kg	0.029 U	0.026 U	0.028 U	2.7 U	2.8 U	2.9 U	3.1 U	3 U	3.9 U	3.1 U	3.1 U	2.9 U	3.1 U	3 U	3 U	2.9 U	3 U	2.5 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:		059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:		26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:		5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**6,700**	**2,800**	**2,540**	**3,180**	**3,370**	**4,140**	**6,000**	**8,370**	**6,470**	**8,910**	**11,900**	**2,730**	**2,560**	**2,330**	**2,620**	**6,000**	**3,850**	**4,530**
Antimony	mg/kg	7.4 U	7.9 U	7.4 U	7 U	7.4 U	7 U	7 UJ	**0.46 J**	**0.4 J**	9.8 U	10.6 U	8.3 UJ	7 UJ	6.9 U	7.3 UJ	7.1 UJ	6.9 U	7.5 UJ
Arsenic	mg/kg	**2.5**	**3.8**	**3.3**	**1.1 J**	**1.3**	**2.8**	**1.3**	**4.7**	**4.4**	**9.6**	**17**	**2.2**	**1.6**	**3.7**	**5.6**	**1.8**	**1.9**	**1.8**
Barium	mg/kg	**35.7**	**16.1 J**	**14.6 J**	**22.1 J**	**15.7 J**	**20.6 J**	**25.4**	**16.2 J**	**13.9 J**	**48.5**	**112**	**52.1**	23.4 U	**27.3**	**33.8**	**41.5**	**24.6**	**13.9 J**
Beryllium	mg/kg	0.62 U	0.66 U	0.62 U	0.58 U	0.62 U	0.59 U	0.58 U	0.69 U	0.64 U	0.82 U	0.88 U	0.69 U	0.59 U	0.57 U	0.61 U	0.59 U	0.57 U	**0.23 J**
Cadmium	mg/kg	**0.063 J**	0.66 U	0.62 U	**0.015 J**	0.62 U	**0.059 J**	**0.12 J**	**0.22 J**	**0.2 J**	**0.88**	**1.3**	0.69 U	0.59 U	0.57 U	0.61 U	0.59 U	0.57 U	0.63 U
Calcium	mg/kg	**1,230**	662 U	621 U	581 U	619 U	**626**	**1,050 J**	**2,250 J**	**1,960 J**	**2,500 J**	**3,050 J**	**1,180 J**	585 UJ	571 UJ	**775 J**	**14,500 J**	**1,250**	**1,760 J**
Chromium	mg/kg	**11**	**8.6**	**7.8**	**6.8**	**11.7**	**8.3**	**12.4**	**16.6**	**13.3**	**21.6 J**	**33.6 J**	**49.5 J**	**9.4 J**	**6 J**	**7 J**	**10.1 J**	**7.2**	**7.9 J**
Cobalt	mg/kg	**5.4 J**	**3.8 J**	**3.5 J**	**4.6 J**	**3.9 J**	**5.1 J**	**5.3 J**	**5.6 J**	**4.3 J**	**4.2 J**	8.8 U	6.9 U	5.9 U	5.7 U	6.1 U	5.9 U	5.7 U	6.3 U
Copper	mg/kg	**15.7**	**4.5**	**4**	**5**	**6.3**	**8.3**	**12.6 J**	**8.8 J**	**7.7 J**	**13.9**	**16.2**	**8.7**	**5.2**	**6.1**	**7.2**	**11.7**	**13**	**6.5**
Iron	mg/kg	**15,800**	**10,200**	**9,070**	**6,390**	**12,900**	**13,200**	**11,500**	**18,100**	**14,300**	**23,300 J**	**32,500 J**	**3,820 J**	**8,170 J**	**11,500 J**	**11,600 J**	**7,960 J**	**7,970 J**	**8,420 J**
Lead	mg/kg	**7.2**	**3.9**	**3.5**	**3.9**	**4.8**	**6.1**	**6.9**	**7.6**	**6.2**	**8.4 J**	**10.6 J**	**2.8 J**	**4.1 J**	**3.4 J**	**3.9 J**	**18.3 J**	**4.6 J**	**4.5 J**
Magnesium	mg/kg	**2,800**	**890**	**820**	**1,100**	**1,600**	**1,780**	**2,580**	**4,000**	**2,750**	**3,490 J**	**4,560 J**	**998 J**	**1,210 J**	**1,420 J**	**1,510 J**	**9,770 J**	**1,760 J**	**2,050 J**
Manganese	mg/kg	**148**	**96.6**	**86.6**	**91.4**	**81.7**	**110**	**111**	**210**	**156**	**185**	**286**	**107**	**151**	**360**	**500**	**352**	**202**	**141**
Mercury	mg/kg	0.12 U	0.13 U	0.13 U	0.12 U	0.13 U	0.12 U	0.12 U	0.14 U	0.13 U	0.16 U	0.18 U	0.14 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**15.2**	**8**	**7.1**	**8.5**	**11.1**	**12.4**	**19.9**	**19.7**	**12.8**	**17**	**21.8**	**8.5**	**7.8**	**8.4**	**8.8**	**14.4**	**13.3**	**11.7**
Potassium	mg/kg	**1,080**	**452 J**	**402 J**	**453 J**	**439 J**	**506 J**	**1,260**	**1,620**	**1,130**	**1,840 J**	**2,450 J**	**310 J**	**403 J**	**337 J**	**355 J**	**1,380 J**	**780 J**	**773 J**
Selenium	mg/kg	4.3 U	4.6 U	4.3 U	4.1 U	4.3 U	4.1 U	4.1 U	4.8 U	4.5 U	5.7 U	**1.2 J**	**2.1 J**	4 U	4 U	4.2 U	4.1 U	4 U	4.4 U
Silver	mg/kg	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.4 U	1.3 U	1.6 U	1.8 U	1.4 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.3 U
Sodium	mg/kg	619 U	662 U	621 U	581 U	619 U	585 U	584 U	692 U	638 U	816 U	879 U	690 U	585 U	571 U	606 U	593 U	574 U	627 U
Thallium	mg/kg	3.1 U	3.3 U	3.1 U	2.9 U	3.1 U	2.9 U	2.9 U	3.5 U	3.2 U	4.1 U	4.4 U	3.5 U	2.9 U	2.9 U	3 U	3 U	2.9 U	**0.47 J**
Vanadium	mg/kg	**13.3**	**11.4**	**10.1**	**11.8**	**12.8**	**11**	**21.9**	**19**	**14.8**	**21.4**	**29.2**	**14.8**	**7.3**	**8.3**	**8.7**	**14.4**	**10.9**	**9.2**
Zinc	mg/kg	**40.6**	**22.9**	**20.4**	**23.6**	**23.4**	**26**	**29**	**40.8**	**29.2**	**45.6 J**	**60.2 J**	**18.8 J**	**18.5 J**	**17.9 J**	**18.6 J**	**29.9 J**	**20.4 J**	**21.8 J**
Cyanide, Total	mg/kg	3.2 U	3.2 U	3.2 U	3 U	3.1 U	2.9 U	2.9 U	3.4 U	3.2 U	4.2 U	4.4 U	3.4 U	2.8 U	2.8 U	3 U	**0.55 J**	**0.23 J**	3.1 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
Sample Number:		059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
Sample Depth:		15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**8,450**	**6,410**	**2,830**	**3,580**	**8,500**	**3,090**	**6,840**	**2,840**	**2,640**	**6,650**	**16,000**	**4,570**	**2,550**	**2,150**	**5,150**	**3,350**	**3,010**	**2,800**
Antimony	mg/kg	7.7 UJ	8 UJ	7 UJ	7.4 UJ	7.3 UJ	7.2 UJ	7.4 UJ	6.9 U	6.9 U	**4.4 J**	**3.6 J**	**0.85 J**	6.8 UJ	6.5 UJ	7.1 UJ	7.2 UJ	6.8 UJ	6.5 UJ
Arsenic	mg/kg	**5**	**4.4**	**2.1**	**4**	**3.3**	**2.8**	**4.4**	**1.6**	**3.4**	**7.4**	**39.3**	**11.1**	**2.1**	**0.91 J**	**2.1**	**1.3**	**1.3**	**1.5**
Barium	mg/kg	**18 J**	26.5 U	**13 J**	**16.4 J**	**44.6**	**11 J**	**30.9**	**13.8 J**	**15.5 J**	**233**	**638**	**45.4**	**15.7 J**	**5.4 J**	**18.4 J**	**24.7**	**11.4 J**	**9 J**
Beryllium	mg/kg	**0.42 J**	0.66 U	**0.19 J**	**0.25 J**	**0.8**	**0.25 J**	**0.62**	**0.3 J**	**0.28 J**	0.6 U	0.71 U	0.6 U	0.57 U	0.55 U	0.59 U	0.6 U	0.56 U	0.55 U
Cadmium	mg/kg	**0.78**	**0.59 J**	0.58 U	0.62 U	0.61 U	0.6 U	0.62 U	0.57 U	0.58 U	**1.6**	**1.8**	0.6 U	0.57 U	0.55 U	0.59 U	0.6 U	0.57 U	0.55 U
Calcium	mg/kg	**932 J**	663 UJ	584 UJ	620 UJ	**898 J**	602 UJ	**1,340 J**	573 UJ	575 UJ	**70,100**	**193,000**	**3,490**	**7,090**	**407 J**	**354 J**	**421 J**	**87.1 J**	**220 J**
Chromium	mg/kg	**17.5 J**	**12.3**	**19.3 J**	**21.2 J**	**24.3 J**	**6.5 J**	**19.5 J**	**5.9 J**	**5.7 J**	**23.1**	**26.9**	**15.4**	**8.8**	**9.2**	**13.4**	**7**	**6.1**	**6.3**
Cobalt	mg/kg	6.4 U	**3 J**	5.8 U	6.2 U	**8.3**	6 U	6.2 U	5.7 U	5.8 U	**5 J**	**7.5**	**7.2**	**3.1 J**	**3 J**	**3.6 J**	**3.8 J**	**5.2 J**	**6.3**
Copper	mg/kg	**11.7**	**9.2**	2.9 U	**3.6**	**16.1**	**7.1**	**12.5**	**6**	**6.1**	**77.7**	**135**	**32.1**	**3.7**	**2.5 J**	**7.1**	**6.2**	**6**	**5.8**
Iron	mg/kg	**21,100 J**	**16,200 J**	**4,310 J**	**6,960 J**	**13,800 J**	**7,900 J**	**19,100 J**	**7,490 J**	**9,490 J**	**22,800 J**	**111,000 J**	**24,400 J**	**7,410 J**	**5,520 J**	**13,300 J**	**8,880 J**	**9,130 J**	**8,880 J**
Lead	mg/kg	**7.4 J**	**5.4 J**	**2.6 J**	**3.4 J**	**10 J**	**4.9 J**	**7.9 J**	**3.9 J**	**3.7 J**	**628**	**611**	**216**	**12.8**	**2.7**	**5.6**	**4.3**	**4.2**	**3.6**
Magnesium	mg/kg	**3,970 J**	**2,690 J**	**872 J**	**1,180 J**	**3,060 J**	**1,400 J**	**2,520 J**	**1,270 J**	**1,110 J**	**11,200 J**	**20,500 J**	**4,290 J**	**5,100 J**	**6,690 J**	**1,830 J**	**1,940 J**	**1,260 J**	**1,230 J**
Manganese	mg/kg	**226**	**153**	**29**	**43.3**	**128**	**235**	**294**	**58.9**	**98.9**	**294**	**694**	**142**	**99.3**	**53.9**	**52.1**	**62**	**69.9**	**68**
Mercury	mg/kg	0.13 U	0.13 U	0.12 U	0.13 U	0.14 U	0.12 U	0.13 U	0.12 U	0.12 U	**0.9**	**0.89**	**0.14**	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U	0.11 U
Nickel	mg/kg	**18.7**	**13.3**	**5.4**	**8.3**	**18**	**12.7**	**14.3**	**10**	**10**	**16.2 J**	**27.9 J**	**38.7 J**	**30.3 J**	**52.9 J**	**9.1 J**	**12.7 J**	**10.1 J**	**11.7 J**
Potassium	mg/kg	**1,940 J**	**1,330 J**	**369 J**	**575 J**	**1,820 J**	**494 J**	**1,520 J**	**512 J**	**440 J**	**891**	**1,330**	**1,570**	**686**	**798**	**1,170**	**695**	**607**	**509 J**
Selenium	mg/kg	4.5 U	4.6 U	4.1 U	4.3 U	4.3 U	4.2 U	4.3 U	4 U	4 U	4.2 UJ	5 U	4.2 UJ	4 UJ	3.8 UJ	4.1 UJ	4.2 UJ	4 UJ	3.8 UJ
Silver	mg/kg	1.3 U	1.3 U	**0.061 J**	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	**0.4 J**	**0.76 J**	1.2 U	1.1 U	1.1 U	1.2 U	1.2 U	1.1 U	1.1 U
Sodium	mg/kg	**799**	663 U	584 U	620 U	**1,370**	602 U	**910**	573 U	575 U	**744**	**858**	**646**	566 U	545 U	**1,370**	**715**	565 U	545 U
Thallium	mg/kg	**0.96 J**	3.3 U	2.9 U	3.1 U	**0.71 J**	3 U	**0.89 J**	2.9 U	**0.68 J**	3 U	3.6 U	3 U	2.8 U	2.7 U	2.9 U	3 U	2.8 U	2.7 U
Vanadium	mg/kg	**19.7**	**15.1**	**7.9**	**9.8**	**36**	**10.2**	**29.3**	**7.7**	**8**	**31.7**	**27**	**16.8**	**9.6**	**8**	**20.8**	**11.6**	**9.6**	**9**
Zinc	mg/kg	**43 J**	**31.5 J**	**15 J**	**18.7 J**	**54.7 J**	**25.5 J**	**45.9 J**	**20.2 J**	**18.8 J**	**358**	**580**	**41.3**	**15.4**	**10**	**25.1**	**20.9**	**20.1**	**17.8**
Cyanide, Total	mg/kg	3.2 U	3.3 U	2.9 U	3.1 U	3.1 U	3 U	3.1 U	2.8 U	2.9 U	**0.28 J**	**0.26 J**	3 U	2.9 U	2.7 U	3 U	3 U	2.7 U	2.8 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
Sample Number:		059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
Sample Depth:		50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**												**Metals**						
Aluminum	mg/kg	**2,570**	**10,100**	**6,280**	**5,800**	**5,840**	**8,290**	**5,400**	**5,080**	**3,070**	**2,640**	**2,800**	**7,610**	**10,000**	**7,460**	**6,340**	**11,800**	**11,400**	**5,970**
Antimony	mg/kg	6.7 UJ	8.7 U	7.6 UJ	**0.35 J**	**0.42 J**	**0.38 J**	7.2 UJ	**0.42 J**	7.2 UJ	6.9 UJ	6.5 U	0.37 U	0.41 U	0.53 U	8 U	0.53 U	0.5 U	0.44 U
Arsenic	mg/kg	**1.2**	**7.1**	**3.8**	**1.2 J**	**2.7**	**4.8**	**2.4**	**2.5**	**0.93 J**	**1.1 J**	**1.2**	**6.5**	**4.8**	**10.2**	**10.3**	**8.1**	**7.2**	**5.5**
Barium	mg/kg	**8.1 J**	**38.5**	**25.3**	**16.7 J**	**24.7**	**47.7**	**18.4 J**	**25.8**	**14.4 J**	**10 J**	**10.7 J**	**49.7**	**77.4**	**338**	**277**	**40.4**	0.052 U	0.045 U
Beryllium	mg/kg	0.56 U	0.73 U	0.63 U	0.62 U	0.6 U	**0.74**	0.6 U	0.63 U	0.6 U	0.57 U	0.54 U	0.018 U	**0.38**	**0.45**	0.66 U	**0.47**	**0.47**	**0.29**
Cadmium	mg/kg	0.56 U	0.73 U	0.63 U	0.62 U	0.6 U	0.61 U	0.6 U	0.63 U	0.6 U	0.57 U	0.54 U	**0.54**	**1.1**	0.033 U	0.66 U	0.033 U	0.032 U	0.028 U
Calcium	mg/kg	**238 J**	**14,200**	**3,910**	**1,030**	**737**	**1,080**	**524 J**	**401 J**	**1,530**	**859**	**253 J**	**46,000**	**35,700**	**21,300**	**27,000**	**2,870**	**5,360**	**1,730**
Chromium	mg/kg	**6.5**	**19**	**12.9**	**9.3**	**11**	**22**	**12**	**11.2**	**6.2**	**6.5**	**6.4**	**20.3**	**17.7**	**17.4**	**16.8**	**22.8**	**20.4**	**11.6**
Cobalt	mg/kg	**5.6 J**	**7.1 J**	**4.9 J**	**4.2 J**	**5.7 J**	**6.3**	**5.5 J**	**5.4 J**	**4.1 J**	**3.5 J**	**3.5 J**	0.037 U	**12.2**	0.053 U	**6.9**	0.053 U	0.05 U	0.044 U
Copper	mg/kg	**4.9**	**22.4**	**8.9**	**12.4**	**11.4**	**13.9**	**7.9**	**7.8**	**5.7**	**4.7**	**4.6**	**55.9**	**59.5**	**49.7**	92.5 R	**13.5**	**12.2**	**7.4**
Iron	mg/kg	**7,400 J**	**19,500 J**	**13,100 J**	**11,700 J**	**13,800 J**	**18,900 J**	**17,400 J**	**17,800 J**	**8,360 J**	**9,250 J**	**9,290 J**	**11,400**	**16,900**	**12,900**	**14,200**	**21,600**	**21,600**	**12,600**
Lead	mg/kg	**3.4**	**55.9**	**26.5**	**5.3**	**5.6**	**9.7**	**5.9**	**5.8**	**5.2**	**4.1**	**3.7**	**76.6**	**102**	**1,170**	**667**	**33.7**	**11**	**8.4**
Magnesium	mg/kg	**1,200 J**	**4,770 J**	**4,450 J**	**2,670 J**	**2,190 J**	**3,250 J**	**1,980 J**	**1,870 J**	**1,300 J**	**1,210 J**	**1,120 J**	**25,800**	**17,700**	**5,960**	**5,260**	**5,090**	**4,380**	**2,410**
Manganese	mg/kg	**57.4**	**303**	**170**	**80.6**	**105**	**254**	**89.1**	**89.4**	**59.1**	**75.9**	**74.3**	**192**	**237**	**277**	**280**	**281**	**236**	**129**
Mercury	mg/kg	0.11 U	**0.82**	**0.078 J**	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	**0.42**	**0.23**	**3.4**	**1.9**	**0.075**	**0.047**	0.014 U
Nickel	mg/kg	**9.9 J**	**25.5 J**	**27.9 J**	**20.9 J**	**18.7 J**	**13.9 J**	**11.1 J**	**9.9 J**	**9.4 J**	**8.5 J**	**8.3 J**	**16.9**	**41**	**21.4**	**22.2**	**26**	**20.3**	**10.8**
Potassium	mg/kg	**491 J**	**2,030**	**1,250**	**1,090**	**1,080**	**1,780**	**1,000**	**971**	**528 J**	**495 J**	**408 J**	**1,760**	2.1 U	2.7 U	**632 J**	**2,690**	**2,380**	**1,340**
Selenium	mg/kg	3.9 UJ	5.1 U	4.4 UJ	4.4 UJ	4.2 UJ	4.3 UJ	4.2 UJ	4.4 UJ	4.2 UJ	4 UJ	3.8 U	0.34 U	0.38 U	0.48 U	4.6 UJ	0.49 U	0.46 U	0.4 U
Silver	mg/kg	1.1 U	1.5 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.1 U	1.1 U	0.058 U	0.064 U	0.081 U	1.3 U	0.082 U	0.077 U	0.068 U
Sodium	mg/kg	562 U	726 U	633 U	**755**	**753**	**842**	602 U	630 U	601 U	574 U	542 U	**1,490**	**1,920**	2.1 U	**1,070**	2.2 U	2.1 U	1.8 U
Thallium	mg/kg	2.8 U	3.6 U	3.2 U	3.1 U	3 U	3.1 U	3 U	3.1 U	3 U	2.9 U	2.7 U	0.18 U	0.2 U	0.26 U	3.3 U	0.26 U	0.24 U	0.21 U
Vanadium	mg/kg	**7.6**	**22.6**	**14.1**	**11.1**	**13.9**	**34.3**	**15.9**	**16.7**	**8.7**	**10.4**	**8.5**	**28.4**	**54.8**	**29**	**32**	**25.8**	**23.5**	**15**
Zinc	mg/kg	**16.9**	**55.7**	**31**	**31.8**	**35.3**	**44.1**	**30.5**	**29.6**	**20.4**	**16.8**	**16.7**	**96.9**	**86.4**	**155**	**142**	**56.3**	**47.5**	**29.2**
Cyanide, Total	mg/kg	2.7 U	3.6 U	3 U	3.1 U	3 U	3.1 U	3 U	3.1 U	3 U	3 U	2.7 U	0.023 U	0.026 U	0.035 U	3 U	0.034 U	0.032 U	0.028 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
Sample Number:		SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
Sample Depth:		30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**																		
												Metals							
Aluminum	mg/kg	**3,640**	**4,270**	**5,650**	**3,260**	**5,770**	**6,630**	**8,580**	**8,740**	**6,950**	**8,050**	**10,700**	**7,440**	**11,500**	**6,570**	**5,980**	**6,300**	**4,350**	**3,250**
Antimony	mg/kg	0.46 U	0.47 U	0.44 U	6 U	0.29 U	0.34 U	0.27 U	0.27 U	0.27 U	**0.7 J**	0.28 U	0.32 U	0.41 U	0.36 U	0.31 U	0.27 U	0.28 U	0.27 U
Arsenic	mg/kg	**3.7**	**4.3**	**3.8**	**3.2**	**3.8**	**2.6**	**8.2**	**8.1**	**4.5**	**7.1**	**5.3**	**5**	**6.7**	**4.8**	**3.5**	**2.7**	0.49 U	0.49 U
Barium	mg/kg	0.047 U	0.049 U	**40.3**	19.8 U	0.09 U	**61.8**	**113**	**101**	**30.5**	**47.9**	**27.3**	**27**	**33.4**	0.11 U	0.098 U	**20.7**	0.087 U	0.087 U
Beryllium	mg/kg	0.022 U	0.023 U	**0.29**	0.5 U	0.0074 U	0.0088 U	**0.44**	**0.43**	**0.3**	**0.42 J**	**0.46**	**0.33**	**0.5**	**0.32**	**0.3**	**0.37**	**0.23**	**0.2**
Cadmium	mg/kg	0.029 U	0.03 U	0.028 U	0.5 U	0.042 U	0.049 U	0.039 U	**0.52**	0.039 U	0.56 U	0.04 U	0.047 U	0.06 U	0.052 U	0.045 U	0.039 U	0.04 U	0.04 U
Calcium	mg/kg	0.89 U	**2,450**	**1,680**	**1,320**	**90,900**	**42,200**	**10,600**	**14,500**	**6,090**	**19,300**	**4,090**	**7,120**	**4,860**	**4,850**	5.6 U	**908**	**966**	4.9 U
Chromium	mg/kg	**7.3**	**9.6**	**21.3**	**8.3**	**5.8**	**13.4**	**16**	**17.1**	**13.9**	**16**	**20.3**	**14.6**	**23**	**12**	**11.7**	**12**	**8.7**	**6.7**
Cobalt	mg/kg	0.046 U	0.047 U	0.044 U	5 U	**5.4**	0.12 U	**6.2**	**6.7**	0.094 U	**5.8**	**6.4**	0.11 U	**7.7**	0.13 U	0.11 U	0.094 U	0.096 U	0.096 U
Copper	mg/kg	**4.5**	**8.7**	**8.8**	5.1 R	**45.9**	**61.5**	**38.8**	**31.7**	**11**	23.1 R	**11.7**	**11**	**15**	**8.8**	**5.7**	**7.3**	**5.8**	**5.3**
Iron	mg/kg	**8,800**	**10,000**	**13,200**	**8,920**	**14,100**	**16,000**	**30,700**	**35,000**	**16,300**	**20,400**	**20,900**	**15,800**	**23,700**	**13,600**	**11,100**	**11,800**	**9,680**	**8,880**
Lead	mg/kg	**6.9**	**10.6**	**121**	**11.9**	**9.3**	**44.3**	**114**	**108**	**21.3**	**48**	**12.5**	**19.5**	**19.4**	**9**	**4**	**5.3**	**4.8**	**3.7**
Magnesium	mg/kg	**1,190**	**2,100**	**2,500**	**1,760**	**48,000**	**18,800**	**4,250**	**4,720**	**3,790**	**6,680**	**4,580**	**4,340**	**5,870**	**2,560**	**1,410**	**2,140**	**1,600**	**1,330**
Manganese	mg/kg	**85.8**	**122**	**146**	**127**	**176**	**322**	**334**	**492**	**241**	**249**	**226**	**185**	**264**	**114**	**56.9**	**79**	**70.5**	**68.2**
Mercury	mg/kg	0.014 U	**0.058**	**0.12**	0.11 U	0.013 U	**0.21**	**0.57**	**0.49**	**0.3**	**0.41**	**0.078**	**0.067**	**0.076**	**0.059**	0.013 U	0.014 U	0.014 U	0.013 U
Nickel	mg/kg	**7**	**8.2**	**12.5**	**8.7**	**7**	**10**	**23.4**	**35.1**	**16.1**	**22.5**	**18.9**	**16.4**	**25.4**	**11.7**	**7.6**	**11.7**	**8.1**	**8.3**
Potassium	mg/kg	2.3 U	2.4 U	2.2 U	**542**	5.6 U	**2,310**	**1,500**	**1,580**	**1,370**	**1,260**	**2,420**	**1,580**	**2,590**	**1,350**	6 U	**1,080**	5.3 U	5.3 U
Selenium	mg/kg	0.42 U	0.43 U	0.4 U	3.5 UJ	1 U	0.4 U	0.32 U	0.32 U	0.32 U	3.9 UJ	0.33 U	0.38 U	0.49 U	0.43 U	0.37 U	0.32 U	0.33 U	0.33 U
Silver	mg/kg	0.071 U	0.073 U	0.068 U	0.99 U	0.042 U	0.049 U	0.039 U	0.039 U	0.039 U	**0.25 J**	0.04 U	0.047 U	0.06 U	0.052 U	0.045 U	0.039 U	0.04 U	0.04 U
Sodium	mg/kg	1.9 U	1.9 U	1.8 U	496 U	12 U	15 U	12 U	12 U	12 U	**923**	**1,130**	14 U	18 U	16 U	14 U	12 U	12 U	12 U
Thallium	mg/kg	0.22 U	0.23 U	0.21 U	2.5 U	0.93 U	0.36 U	0.29 U	0.29 U	0.29 U	2.8 U	0.3 U	0.35 U	0.44 U	0.39 U	0.34 U	0.29 U	0.3 U	0.3 U
Vanadium	mg/kg	**9.4**	**12.5**	**22.9**	**10.6**	**29**	**42.1**	**21.9**	**21.7**	**17**	**21.1**	**23.8**	**17.6**	**27.8**	**16**	**15.6**	**17.1**	**10.8**	**8.6**
Zinc	mg/kg	**20.6**	**27.4**	**37.6**	**23.9**	**33.8**	**61.3**	**87.3**	**105**	**41.9**	**64**	**46.6**	**39.4**	**57.9**	**29.4**	**23.5**	**29**	**22.2**	**19.3**
Cyanide, Total	mg/kg	0.028 U	0.031 U	0.028 U	2.6 U	0.023 U	0.026 U	0.028 U	0.029 U	0.028 U	3.2 U	0.029 U	0.029 U	0.032 U	0.029 U	0.055 U	0.03 U	0.03 U	0.029 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
Sample Number:	SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
Sample Depth:	50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:	S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**										**Metals**							
Aluminum	mg/kg	**2,620**	**2,590**	**3,480**	**1,750**	**1,350**	**3,040**	**3,640**	**2,870**	**5,440**	**3,910**	**13,400**	**3,570**	**5,260**	**3,030**	**2,990**	**3,750**	**2,810**	**2,770**
Antimony	mg/kg	6.1 U	6.3 U	0.27 U	0.29 U	0.29 U	0.31 U	0.34 U	5.4 U	0.3 U	0.32 U	0.4 U	0.34 U	0.32 U	0.31 U	0.34 U	0.3 U	0.31 U	6.5 U
Arsenic	mg/kg	**2.1**	**1.8**	**3.3**	**2.2**	0.52 U	**6.4**	**4.8**	**4.6**	**10.6**	**3.4**	**7.1**	0.61 U	0.58 U	**4.9**	0.61 U	**2.3**	0.55 U	**1.8**
Barium	mg/kg	**11.8 J**	**11.4 J**	**26.9**	0.091 U	0.092 U	0.097 U	0.11 U	**34.6**	**36.1**	0.1 U	**32**	0.11 U	0.1 U	**59**	0.11 U	**34.2**	0.097 U	**23.7**
Beryllium	mg/kg	**0.19 J**	**0.15 J**	**0.21**	0.0075 U	0.0076 U	0.008 U	0.0088 U	0.45 U	**0.26**	0.0083 U	**0.62**	**0.27**	**0.33**	0.008 U	0.0088 U	0.0078 U	0.008 U	**0.21 J**
Cadmium	mg/kg	0.51 U	0.52 U	0.039 U	0.042 U	0.042 U	0.045 U	0.049 U	0.45 U	0.044 U	0.046 U	0.057 U	0.049 U	0.047 U	0.044 U	0.049 U	0.043 U	0.045 U	0.54 U
Calcium	mg/kg	**481 J**	**441 J**	4.8 U	**107,000**	**103,000**	**61,400**	**120,000**	**71,300**	**34,600**	**35,900**	**2,840**	**3,950**	**813**	5.5 U	**2,160**	**3,640**	**6,670**	**3,520**
Chromium	mg/kg	**8.3**	**6.2**	**7.8**	**2.4**	**2.5**	**5.1**	**8.8**	**10.7**	**12.1**	**7.7**	**24.6**	**7.4**	**10.7**	**7.3**	**6.4**	**11.2**	**9.4**	**8.3**
Cobalt	mg/kg	5.1 U	5.2 U	0.094 U	0.1 U	0.1 U	0.11 U	0.12 U	4.5 U	0.1 U	0.11 U	**7.7**	0.12 U	0.11 U	0.11 U	0.12 U	0.1 U	0.11 U	5.4 U
Copper	mg/kg	4.5 R	4.5 R	**6.7**	**16.4**	**14.7**	**21.1**	**13.6**	19.5 R	**14.2**	**31.1**	**14.5**	**4.5**	**6.1**	**6.3**	**5.1**	**7.5**	**6.1**	6.9 R
Iron	mg/kg	**8,530**	**8,030**	**10,400**	**8,820**	**5,710**	**6,810**	**8,250**	**9,440**	**12,900**	**10,700**	**27,600**	**10,000**	**10,800**	**25,700**	**9,140**	**9,590**	**8,910**	**7,260**
Lead	mg/kg	**3.9**	**3.6**	**4.1**	0.13 U	0.13 U	**12.3**	**10**	**20.5**	**34**	**7.1**	**9.2**	**2.8**	**3.8**	**3.1**	**2.6**	**2.2**	**2.7**	**4.1**
Magnesium	mg/kg	**1,230**	**1,170**	**1,480**	**61,300**	**59,200**	**30,300**	**57,000**	**32,800**	**21,200**	**21,300**	**5,170**	**2,920**	**1,940**	**1,250**	**2,140**	**3,180**	**3,750**	**1,860**
Manganese	mg/kg	**68.8**	**61.9**	**140**	**181**	**140**	**111**	**153**	**162**	**127**	**127**	**287**	**56.4**	**90.3**	**353**	**121**	**221**	**200**	**219**
Mercury	mg/kg	0.11 U	0.11 U	0.015 U	0.013 U	0.012 U	0.012 U	**0.04**	0.11 U	**0.076**	0.014 U	0.016 U	0.014 U	0.014 U	0.013 U	0.013 U	0.013 U	0.013 U	0.1 U
Nickel	mg/kg	**8.6**	**8**	**8.6**	0.095 U	**7.4**	0.1 U	**5.7**	**10.9**	**11.7**	**6.9**	**20.9**	**6**	**8.8**	**5.5**	**6.6**	**11.4**	**7.4**	**6.7**
Potassium	mg/kg	**308 J**	**309 J**	5.2 U	5.6 U	5.7 U	6 U	6.6 U	**447**	**1,510**	6.2 U	**2,900**	6.6 U	6.3 U	6 U	6.6 U	**1,140**	6 U	**675**
Selenium	mg/kg	3.5 UJ	3.7 UJ	0.32 U	1 U	1 U	0.37 U	1.2 U	3.1 UJ	0.36 U	0.38 U	0.47 U	0.41 U	0.38 U	0.37 U	0.4 U	0.36 U	0.37 U	3.8 UJ
Silver	mg/kg	**0.092 J**	**0.081 J**	0.039 U	0.042 U	0.042 U	0.045 U	0.049 U	0.89 U	0.044 U	0.046 U	0.057 U	0.049 U	0.047 U	0.044 U	0.049 U	0.043 U	0.045 U	**0.086 J**
Sodium	mg/kg	505 U	524 U	12 U	12 U	13 U	13 U	15 U	446 U	13 U	14 U	17 U	15 U	14 U	13 U	15 U	13 U	13 U	542 U
Thallium	mg/kg	2.5 U	2.6 U	0.29 U	0.93 U	0.95 U	0.66 U	1.1 U	2.2 U	0.32 U	0.34 U	0.42 U	0.37 U	0.35 U	0.33 U	0.37 U	0.32 U	0.33 U	2.7 U
Vanadium	mg/kg	**8.7**	**7.9**	**10.6**	**28**	**38.1**	**18.1**	**18.7**	**17.3**	**19.3**	**15.8**	**28.6**	**11.5**	**13.3**	**8.5**	**7.5**	**12.7**	**11.5**	**10.4**
Zinc	mg/kg	**19.7**	**20.6**	**20.3**	**21**	**17.6**	**18.7**	**28.7**	**36.2**	**35.1**	**22.5**	**59.6**	**19.2**	**24.2**	**18.1**	**18.2**	**19.2**	**17.2**	**21.6**
Cyanide, Total	mg/kg	2.6 U	2.9 U	0.029 U	0.048 U	0.049 U	0.049 U	0.057 U	2.7 U	0.051 U	0.054 U	0.032 U	0.028 U	0.028 U	0.026 U	0.027 U	0.027 U	0.025 U	2.7 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:		SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(0-5)	GC-MW23I(5-10)	GC-MW23I(10-15)	SB23IC-S-NG	GC-MW23I(15-20)	GC-MW23I(20-25)
Sample Depth:		60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	10-15	15-20	20-25
Sample Date:		6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**										**Metals**								
Aluminum	mg/kg	**2,680**	**7,180**	**13,300**	**2,250**	**3,470**	**4,110**	**13,700**	**13,800**	**2,470**	**6,710**	**2,030**	**5,090**	**4,880**	**10,700**	**16,000 J**	**11,000 J**	**12,900**	**3,400**
Antimony	mg/kg	0.42 U	**1.2 J**	**0.5 J**	7.3 UJ	6.9 UJ	7.3 UJ	10.9 U	10.2 U	7.3 UJ	7 UJ	6.9 UJ	7.2 UJ	0.078 UJ	0.09 UJ	0.2 UJ	10.6 UJ	0.13 UJ	0.085 UJ
Arsenic	mg/kg	0.25 U	**46.3**	**9.3**	**2**	**1.6**	**1.6**	**6.8**	**7.6**	**4.3**	**3.5**	**0.7 J**	**2.8**	**6.9**	**5.3 J**	**9.6 J**	**7.7 J**	**7 J**	**3.6 J**
Barium	mg/kg	0.043 U	**147**	**33.9**	**15.4 J**	**21.1 J**	**25.5**	**32 J**	**34.6**	**4.7 J**	**18 J**	**8.2 J**	**26.9**	**87 J**	**151 J**	**38.2 J**	**37 J**	**20.9 J**	**15.7 J**
Beryllium	mg/kg	**0.28**	**1.3**	**0.71 J**	**0.14 J**	**0.26 J**	**0.3 J**	0.91 U	**0.72 J**	**0.33 J**	**0.39 J**	**0.14 J**	**0.39 J**	**0.61 J**	**1.4 J**	**1.2 J**	**0.6 J**	**0.88 J**	**0.44 J**
Cadmium	mg/kg	0.026 U	**0.2 J**	**0.33 J**	0.61 U	0.57 U	**0.015 J**	**0.17 J**	**0.29 J**	0.61 U	**0.017 J**	0.57 U	0.6 U	**0.33 J**	**0.48 J**	**0.26 J**	0.89 UJ	**0.23 J**	0.037 UJ
Calcium	mg/kg	**4,830**	**6,750**	**2,940**	610 U	572 U	**799**	**2,130**	**2,000**	612 U	583 U	575 U	**844**	**5,260 J**	**7,880**	**3,950 J**	**3,260 J**	**1,590**	112 UJ
Chromium	mg/kg	**6.3**	**16.5**	**28.8**	**7.1**	**11.4**	**8.8**	**27.8**	**28.5**	**6.4**	**11.4**	**4.6**	**12.4**	**18.5 J**	**19.4**	**28.2 J**	**22.5 J**	**23.6**	**6.8**
Cobalt	mg/kg	0.042 U	**18.2**	**9**	**1.8 J**	**4.9 J**	**4.9 J**	**8.6 J**	**9.4**	**1.9 J**	**6.2**	**2.1 J**	**5.7 J**	**4.8**	**12**	**10.7 J**	8.9 UJ	**8.2**	**3.3 J**
Copper	mg/kg	**6.1**	**112**	**18.1**	**2.5 J**	**5.4**	**6.8**	**28.1**	**18.1**	**4.9**	**10.3**	**2.4 J**	**8.9**	**44.3 J**	**293**	**18.7 J**	**15.6 J**	**12.5**	**4.7**
Iron	mg/kg	**7,500**	**16,900**	**31,000**	**5,030**	**5,740**	**7,820**	**30,600**	**32,000**	**8,300**	**13,000**	**4,570**	**9,110**	**15,900 J**	**21,600**	**33,600 J**	**23,900 J**	**29,400**	**11,800**
Lead	mg/kg	**2.7**	**533**	**32.6**	**2.3**	**4**	**4.9**	**32.1**	**30.1**	**2.8**	**5.7**	**2.2**	**6.2**	**122**	**222 J**	**50.8 J**	**34.8 J**	**12 J**	**4**
Magnesium	mg/kg	**1,910**	**3,050**	**6,220**	**869**	**1,340**	**1,960**	**5,940**	**6,100**	**610 J**	**2,350**	**801**	**2,410**	**1,420**	**6,550**	**6,420 J**	**4,570 J**	**5,840**	**1,130**
Manganese	mg/kg	**138**	**163**	**361**	**46.6**	**49.4**	**71.5**	**290**	**329**	**52.7**	**66.5**	**32.5**	**79**	**126 J**	**218 J**	**294 J**	**224 J**	**274 J**	**46.4 J**
Mercury	mg/kg	0.014 U	**4.2**	**0.36**	0.12 U	0.11 U	0.12 U	**0.21**	0.17 U	0.13 U	0.12 U	0.12 U	0.12 U	**0.71**	**1.2 J**	**0.064 J**	**0.37 J**	0.024 U	0.016 U
Nickel	mg/kg	**6.4**	**33**	**27.7**	**5.4**	**11.3**	**11.5**	**24.6**	**25.9**	**4.9 J**	**12.3**	**4.7**	**14.9**	**14 J**	**23.8**	**24.7 J**	**20.7 J**	**20.1**	**6**
Potassium	mg/kg	2.1 U	**1,500**	**2,870**	**355 J**	**545 J**	**678**	**3,420**	**3,290**	**475 J**	**1,020**	**319 J**	**1,040**	**728**	**7,540**	**3,110 J**	**2,070 J**	**2,610**	**656**
Selenium	mg/kg	0.38 U	**0.84 J**	5.3 U	4.3 U	4 U	4.2 U	6.4 U	5.9 U	4.3 U	4.1 U	4 U	4.2 U	0.72 UJ	0.14 U	0.32 UJ	6.2 UJ	0.2 U	0.13 U
Silver	mg/kg	0.046 U	**0.13 J**	1.5 U	1.2 U	1.1 U	1.2 U	1.8 U	1.7 U	1.2 U	1.2 U	1.2 U	1.2 U	0.038 UJ	**0.11 J**	0.098 UJ	1.7 UJ	0.063 UJ	0.041 U
Sodium	mg/kg	1.7 U	**1,000**	**1,990**	610 U	572 U	599 U	**2,940**	**2,960**	612 U	583 U	575 U	598 U	164 UJ	**243 J**	**3,000 J**	**1,930 J**	**4,040**	**815**
Thallium	mg/kg	0.2 U	3.2 U	3.8 U	3 U	2.9 U	3 U	4.6 U	4.2 U	3.1 U	2.9 U	2.9 U	3 U	0.042 UJ	0.049 U	0.11 UJ	4.4 UJ	0.07 U	0.046 U
Vanadium	mg/kg	**11.5**	**20.4**	**31.1**	**5 J**	**9.9**	**12.3**	**32.7**	**31.7**	**12.8**	**15.7**	**5.5 J**	**17.6**	**16.3**	**30.1**	**40.4 J**	**31.1 J**	**32**	**13.5**
Zinc	mg/kg	**14.8**	**198**	**70.3**	**12.5**	**21.6**	**25.5**	**79**	**73.5**	**18.4**	**35.7**	**11.7**	**31.5**	**173**	**252 J**	**78 J**	**60.9 J**	**59.2 J**	**23.8 J**
Cyanide, Total	mg/kg	0.028 U	**0.25 J**	3.8 U	3 U	2.9 U	3 U	4.6 U	4.3 U	3.2 U	2.8 U	2.9 U	2.9 U	**4.6**	0.59 U	1.3 UJ	4.8 UJ	0.87 U	0.57 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
Sample Number:	GC-MW23I(25-30)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
Sample Depth:	25-30	30-35	35-39	35-39	35-39	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:	N	N	N	FD	S	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**									**Metals**								
Aluminum	mg/kg	**7,440**	**4,020**	**4,130**	**4,240**	**3,460**	**5,470**	**16,500**	**18,000**	**16,500**	**3,640**	**8,180**	**3,970**	**4,920**	**4,590**	**7,810**	**3,660**	**15,300**	**9,040**
Antimony	mg/kg	0.085 UJ	0.075 UJ	0.081 UJ	0.092 UJ	6.3 U	**2.5 J**	**0.63 J**	**1.2 J**	**0.86 J**	7 UJ	7.1 UJ	6.7 UJ	7.2 UJ	**2,860 J**	**1.6 J**	7.6 UJ	10.1 UJ	7.7 UJ
Arsenic	mg/kg	**4.8 J**	**3.9**	**2.4 J**	**2.8 J**	**2.1 J**	**16.4**	**9.2**	**9.4**	**8.8**	**3.1**	**4.2**	**4.4**	**1.4**	**49.9**	**41.2**	**44.5**	**13.4**	**3.5**
Barium	mg/kg	**36.8 J**	**20 J**	**23.8 J**	**24.6 J**	**21.3**	**276**	**39.2**	**42.8**	**41.4**	**16.6 J**	**33.3**	**57.7**	**40.8**	**2,290**	**95.4**	**228**	**45.6**	25.8 U
Beryllium	mg/kg	**0.65 J**	**0.44 J**	**0.41 J**	**0.51 J**	**0.25 J**	**0.31 J**	**0.63 J**	0.82 U	0.84 U	0.58 U	0.59 U	0.56 U	0.6 U	0.56 U	**0.54 J**	**0.33 J**	**0.85**	**0.48 J**
Cadmium	mg/kg	**0.13 J**	0.09 UJ	**0.12 J**	0.089 UJ	0.52 U	**1.9**	**0.13 J**	**0.083 J**	0.84 U	0.58 U	0.59 U	0.56 U	0.6 U	**29.6**	**1.2**	**1**	**0.73 J**	**0.3 J**
Calcium	mg/kg	**957**	**921 J**	**8,080**	**7,640 J**	**8,230**	**62,900**	**5,230**	**2,710**	**4,060**	584 U	**1,620**	**1,650**	**14,300**	**22,000**	**28,300**	**2,040 J**	**3,800**	**1,220 J**
Chromium	mg/kg	**14.2**	**9.8**	**9.2**	**10.9**	**8.6 J**	**9.1**	**31.1**	**32.7**	**27.4**	**8.6**	**14.9**	**9.2**	**10.7**	**132**	**15.8**	**12.8**	**31.8**	**19.7**
Cobalt	mg/kg	**8.4**	**5.3**	**4.4 J**	**4.9 J**	5.3 U	**9.5**	**13.2**	**12.1**	**8 J**	**4.8 J**	**7.9**	**4.8 J**	**4.7 J**	**8**	5.6 U	6.3 U	8.4 U	6.4 U
Copper	mg/kg	**15.3**	**7.9**	**11.3**	**12.4**	**11.7**	**631**	**22.8**	**39.1**	**13.7**	**4.7**	**15**	**7.3**	**11.7**	**1,660**	**64.6**	**100**	**31.2**	**10.8**
Iron	mg/kg	**15,900**	**12,500**	**11,200**	**11,700**	**9,990**	**21,600**	**32,600**	**44,100**	**38,200**	**9,230**	**16,500**	**8,500**	**11,500**	**135,000**	**36,500**	**40,600**	**32,900**	**16,000**
Lead	mg/kg	**9.4 J**	**5.7 J**	**4.2 J**	**4.3 J**	**4.1**	**1,160**	**30.1**	**21.5**	**13.4**	**4**	**8.1**	**4.5**	**5.1**	**34,700**	**414**	**758**	**76.8**	**6.6**
Magnesium	mg/kg	**3,720**	**2,440 J**	**5,230**	**5,380 J**	**4,790**	**12,800**	**5,660**	**6,950**	**5,660**	**960**	**3,770**	**2,240**	**5,960**	**4,230 J**	**5,730 J**	**1,650 J**	**6,110 J**	**3,090 J**
Manganese	mg/kg	**151 J**	**208 J**	**221 J**	**210 J**	**226**	**3,830**	**320**	**347**	**294**	**40.2**	**161**	**95.7**	**369**	**822**	**203**	**72**	**350**	**142**
Mercury	mg/kg	0.022 U	0.015 U	0.019 U	0.016 U	0.12 U	**0.79**	**0.079 J**	**0.27**	0.18 U	0.11 U	0.12 U	0.12 U	0.13 U	**0.8**	**0.11 J**	**1.9**	**2.8**	0.13 U
Nickel	mg/kg	**17.1**	**14.9**	**15.8**	**19**	**15.7**	**17.7**	**33.7**	**30.2**	**22.3**	**8.1**	**17.2**	**15.3**	**13.9**	**122**	**19**	**10.2**	**30.3**	**18.2**
Potassium	mg/kg	**1,170**	**747**	**1,110**	**1,140**	**844**	**687 J**	**2,970 J**	**3,450 J**	**3,040 J**	**867 J**	**1,500 J**	**880 J**	**1,420 J**	**683 J**	**1,330 J**	**1,930 J**	**3,550 J**	**1,470 J**
Selenium	mg/kg	0.13 U	0.12 U	0.13 U	0.18 UJ	3.7 U	4.3 U	5.4 U	5.8 U	5.9 U	4.1 U	4.2 U	3.9 U	4.2 U	3.9 U	3.9 U	4.4 U	5.9 U	4.5 U
Silver	mg/kg	0.041 UJ	0.036 U	0.039 U	0.044 U	1.1 U	**0.43 J**	1.5 U	1.6 U	1.7 U	1.2 U	1.2 U	1.1 U	1.2 U	**25.3**	1.1 U	**0.3 J**	1.7 U	1.3 U
Sodium	mg/kg	**1,400**	**575**	**1,090**	**910**	**998**	613 U	**1,090**	**1,370**	**2,180**	584 U	**692**	560 U	596 U	**285 J**	**988**	**3,110**	**1,610**	**431 J**
Thallium	mg/kg	0.12 UJ	0.041 U	0.044 U	0.05 U	2.6 U	3.1 U	3.9 U	4.1 U	4.2 U	2.9 U	3 U	2.8 U	3 U	**10.4**	**2.7 J**	**0.84 J**	**0.91 J**	3.2 U
Vanadium	mg/kg	**19.8**	**17.1**	**12.9**	**13.8**	**11.4**	**56.7**	**38.1**	**38.2**	**36.2**	**15.9**	**20.2**	**14.6**	**14.5**	**32.9**	**25.2**	**22.2**	**37.5**	**22.3**
Zinc	mg/kg	**47.4 J**	**27.7**	**23.2 J**	**24.2 J**	**24.6**	**634**	**120**	**69.9**	**54.2**	**21.1**	**43.7**	**30**	**20.7**	**4,860 J**	**115 J**	**71.7 J**	**84 J**	**35.4 J**
Cyanide, Total	mg/kg	0.62 U	0.68 U	0.55 U	0.59 U	2.8 U	**2.5 J**	3.9 U	4.1 U	4.3 U	3 U	3 U	2.8 U	3.1 U	**0.75 J**	2.8 U	3.1 U	4.1 U	3.3 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
Sample Number:	059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
Sample Depth:	30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
Sample Date:	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																	
Metals																		
Aluminum	mg/kg	**4,140**	**3,950**	**3,530**	**6,050**	**3,830**	**3,730**	**2,980**	**7,290**	**6,970**	**4,710**	**6,690**	**3,840**	**4,570**	**3,320**	**11,000**	**15,400**	**8,370**	**4,040**
Antimony	mg/kg	7.2 UJ	6.9 UJ	7.1 UJ	6.9 UJ	**0.76 J**	7 UJ	6.8 UJ	9.4 UJ	9.2 UJ	7.1 UJ	8.7 UJ	6.8 UJ	7.1 UJ	**0.84 J**	**0.58 J**	**1.1 J**	**0.47 J**	7.3 U
Arsenic	mg/kg	**2**	**1.8**	**2.3**	**1.5**	**0.89 J**	**1.5**	**1.2**	**31.3**	**32.1**	**12.7**	**72.9**	**1.5**	1 U	**5.7**	**5.5**	**9.5**	**2.5**	**2.5**
Barium	mg/kg	**11 J**	**10.5 J**	**15.9 J**	23.1 U	22.5 U	23.3 U	22.8 U	**1,170**	**993**	**55.3**	**333**	**39.6**	**31.1**	**106**	**52.8**	**33.1**	**55.3**	**19.6 J**
Beryllium	mg/kg	0.6 U	0.58 U	**0.27 J**	**0.41 J**	**0.27 J**	**0.26 J**	**0.21 J**	**0.6 J**	**0.42 J**	**0.21 J**	**0.45 J**	**0.18 J**	**0.26 J**	0.71 U	0.67 U	0.82 U	0.63 U	0.6 U
Cadmium	mg/kg	**0.27 J**	**0.16 J**	**0.23 J**	**0.19 J**	**0.1 J**	0.096 UJ	**0.092 J**	**9.9**	**8.9**	**0.74**	**4.5**	**0.26 J**	**0.37 J**	**0.33 J**	**0.19 J**	**0.5 J**	**0.1 J**	**0.048 J**
Calcium	mg/kg	**680**	**686**	**739**	**1,390 J**	**771 J**	**742 J**	**806 J**	**6,850**	**8,170**	**8,240**	**30,000**	**1,050**	**1,120**	**9,490**	**1,990**	**2,220**	**762**	**574 J**
Chromium	mg/kg	**14.6**	**14**	**8.6**	**14.5**	**9.9**	**8.5**	**6.9**	**102**	**83.1**	**21.6**	**51.3**	**8.8**	**9.3**	**15.2 J**	**18.3 J**	**31.1**	**14.7 J**	**9.9 J**
Cobalt	mg/kg	**1.9 J**	**1.8 J**	**0.91 J**	5.8 U	5.6 U	5.8 U	5.7 U	**7.6 J**	**6.6 J**	**2.8 J**	**4.4 J**	**3.7 J**	**6.1**	**7.1 J**	**6.7**	**10.7**	**5.9 J**	**5.7 J**
Copper	mg/kg	**10.5**	**9.7**	**7**	**12.1**	**11**	**11.3**	**8**	**985**	**558**	**126**	**614**	**10.3**	**18.4**	**43.3**	**18.9**	**18**	**13.8**	**8.9**
Iron	mg/kg	**10,400**	**9,070**	**7,870**	**9,580**	**7,770**	**6,490**	**5,920**	**27,100**	**25,100**	**10,500**	**18,800**	**7,630**	**10,400**	**11,200**	**19,300**	**34,300**	**15,200**	**8,000**
Lead	mg/kg	**3.2 J**	**2.9 J**	**2.7 J**	**5**	**2.6**	**3**	**2.4**	**1,110 J**	**1,020 J**	**149 J**	**651 J**	**3.1 J**	**3.7 J**	**314**	**89.8**	**25.7**	**8.4**	**5.7**
Magnesium	mg/kg	**1,250 J**	**1,210 J**	**1,550 J**	**2,440 J**	**2,070 J**	**1,840 J**	**1,720 J**	**4,360 J**	**4,090 J**	**2,590 J**	**5,090 J**	**3,100 J**	**3,210 J**	**1,580**	**3,280**	**6,550**	**2,680**	**1,820**
Manganese	mg/kg	**75.6**	**60.3**	**67.1**	**68.3**	**79.8**	**66.1**	**86.1**	**155**	**161**	**147**	**173**	**311**	**287**	**172**	**165**	**400**	**69**	**54**
Mercury	mg/kg	0.12 UJ	0.12 UJ	0.12 UJ	**2.8**	**0.67**	**0.09 J**	**0.066 J**	**4.9 J**	**5.8 J**	**1.9 J**	**9.3 J**	0.11 UJ	0.12 UJ	**34.1 J**	**0.23 J**	**0.14 J**	0.13 UJ	0.12 UJ
Nickel	mg/kg	**14.9**	**13.9**	**12.1**	**15.6**	**15.4**	**15.5**	**14**	**46.7**	**37.5**	**18.2**	**28.2**	**18.6**	**25.2**	**19.6**	**23.4**	**28.8**	**14.5**	**12**
Potassium	mg/kg	**504 J**	**569 J**	**728 J**	**1,310 J**	**1,130 J**	**1,210 J**	**998 J**	**2,000 J**	**1,770 J**	**1,160 J**	**1,760 J**	**2,000 J**	**1,710 J**	**649 J**	**1,500**	**3,360**	**1,420**	**691**
Selenium	mg/kg	4.2 U	4 U	4.2 U	4 U	3.9 U	4.1 U	4 U	5.5 U	5.4 U	4.2 U	5.1 U	4 U	4.1 U	**1 J**	4.7 U	5.7 U	4.4 U	4.2 U
Silver	mg/kg	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.1 U	**11.6**	**10.8**	**0.81 J**	**4.7**	1.1 U	1.2 U	1.4 U	1.3 U	1.6 U	1.3 U	1.2 U
Sodium	mg/kg	604 U	575 U	594 U	**114 J**	**110 J**	**128 J**	**124 J**	**5,780**	**5,040**	**1,080**	**3,920**	567 U	589 U	714 U	**810**	**2,450**	**1,010**	605 U
Thallium	mg/kg	3 U	2.9 U	3 U	2.9 U	2.8 U	2.9 U	2.9 U	**2.9 J**	**0.85 J**	3 U	**2.6 J**	2.8 U	2.9 U	3.6 U	3.3 U	4.1 U	3.2 U	3 U
Vanadium	mg/kg	**26.7**	**24.3**	**13.6**	**15.6**	**12**	**10.6**	**10.6**	**42.7**	**39.6**	**13.8**	**21.7**	**13.9**	**12**	**12.2**	**24.9**	**35.3**	**18.1**	**16.1**
Zinc	mg/kg	**16.5 J**	**15.2 J**	**16 J**	**21.3 J**	**19.5 J**	**16.1 J**	**14.1 J**	**1,760 J**	**1,820 J**	**144 J**	**814 J**	**16.3 J**	**24.7 J**	**124**	**42.4**	**72.9**	**35.1**	**29.1**
Cyanide, Total	mg/kg	3 U	3 U	3.1 U	2.8 U	2.9 U	2.9 U	2.9 U	**0.82 J**	**0.66 J**	3 U	**0.42 J**	2.9 U	2.9 U	**4**	3.4 U	4.2 U	3.2 U	3.1 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:		059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(0.2-5)	SB30IB-S-NG	GC-MW30I(6-10)	GC-MW30I(10-15)	GC-MW30I(15-20)	GC-MW30I(20-25)	GC-MW30I(25-30)	GC-MW30I(30-35)	GC-MW30I(35-36)
Sample Depth:		25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	0.2-5	5-10	6-10	10-15	15-20	20-25	25-30	30-35	35-36
Sample Date:		6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	N
Parameter	**Units**																		
											Metals								
Aluminum	mg/kg	**2,630**	**3,120**	**14,900**	**15,600**	**5,760**	**5,550**	**5,220**	**3,990**	**4,240**	**3,210**	**2,700**	**2,700**	**5,910**	**5,540**	**3,540**	**2,730**	**2,350**	**3,140**
Antimony	mg/kg	**0.34 J**	6.8 U	**0.89 J**	**0.89 J**	6.7 U	7.2 UJ	**0.34 J**	7.5 UJ	7.1 UJ	0.078 UJ	5 U	0.087 UJ	0.076 UJ	0.079 UJ	0.074 UJ	0.075 UJ	0.079 UJ	0.073 UJ
Arsenic	mg/kg	**0.64 J**	1.1 U	**6.9**	**8.6**	**1.1 J**	**0.81 J**	**0.55 J**	1.3 U	**0.71 J**	**58.4**	**66.8 J**	**57.4 J**	**12.5 J**	**6.3 J**	**2.8 J**	**2 J**	**2.3**	**1.9**
Barium	mg/kg	**17.4 J**	**11.8 J**	**49.4**	**31.6 J**	**27.1**	**26.9**	**42.6**	**39.6**	**40.6**	**172 J**	**74.5**	**61.7 J**	**49.2**	**45 J**	**46.4 J**	**31.2 J**	**22.8**	**25.8**
Beryllium	mg/kg	0.58 U	0.57 U	0.81 U	0.84 U	0.56 U	**0.32 J**	**0.26 J**	**0.21 J**	**0.2 J**	**0.63 J**	**0.16 J**	**0.23 J**	**0.58 J**	**0.43 J**	**0.45 J**	**0.34 J**	**0.27 J**	**0.55**
Cadmium	mg/kg	0.58 U	0.57 U	**0.36 J**	**0.56 J**	**0.021 J**	**0.051 J**	**0.063 J**	**0.032 J**	**0.083 J**	**0.43 J**	0.42 U	0.014 U	**0.11 J**	**0.54**	0.091 UJ	0.052 UJ	**0.059 J**	**0.056 J**
Calcium	mg/kg	**462 J**	**868**	**2,350**	**2,530**	**535 J**	**588 J**	**1,090 J**	**5,400 J**	**5,550 J**	**9,990 J**	**1,150**	**725**	**1,560**	**905**	**614**	**645**	**817**	**1,170**
Chromium	mg/kg	**6.6**	**7.1**	**29.4**	**33**	**12.8**	**14.2**	**13.1**	**8.6**	**8.3**	**25.4 J**	**17.4 J**	**13.6 J**	**15.3**	**12.4**	**8 J**	**6.2**	**6**	**7.9**
Cobalt	mg/kg	**2.4 J**	**3 J**	**8.3**	**9.8**	**4.4 J**	**4.3 J**	**4.1 J**	**3.6 J**	**4 J**	**7.7**	4.2 U	**2.4 J**	**5.6**	**10.3**	**2.9 J**	**4.3 J**	**3.1 J**	**4.9 J**
Copper	mg/kg	**5.5**	**8**	**20.2**	**15.7**	**9.1**	**12.9 J**	**12 J**	**8.3 J**	**10.1 J**	**65.8 J**	**53.1**	**33.4**	**55.4**	**44.6**	**22.6**	**11.2**	**11.5**	**43**
Iron	mg/kg	**6,120**	**7,090**	**27,300**	**35,800**	**9,300**	**10,200**	**8,440**	**7,370**	**9,700**	**38,900 J**	**35,200**	**37,400**	**16,000**	**10,900**	**7,690**	**6,030**	**5,760**	**8,040**
Lead	mg/kg	**3.2**	**2.9**	**36.9**	**15.4**	**5**	**5.1**	**4.4**	**3.3**	**3.9**	**308**	**37.8**	**32.6 J**	**88.7 J**	**51.8 J**	**13 J**	**4.9 J**	**5.1 J**	**39.8 J**
Magnesium	mg/kg	**1,210**	**1,960**	**5,370**	**6,740**	**1,940**	**1,970**	**2,210**	**4,470**	**4,120**	**1,800**	**1,620**	**1,330**	**2,190**	**1,950**	**1,500**	**1,470**	**1,470 J**	**2,050 J**
Manganese	mg/kg	**47.3**	**60.6**	**256**	**355**	**54.2**	**52.9**	**49.5**	**139**	**186**	**148 J**	**57.1**	**47.5 J**	**96.8 J**	**92 J**	**87.4 J**	**59.9 J**	**53.9 J**	**85.1 J**
Mercury	mg/kg	0.12 U	0.12 U	**0.079 J**	0.17 U	0.12 U	0.12 U	0.12 U	0.13 U	0.12 U	**0.27**	**0.3**	**0.14 J**	**0.19 J**	**0.21 J**	**0.09 J**	0.016 U	**0.025 J**	0.016 U
Nickel	mg/kg	**10**	**13.4**	**26.8**	**27**	**12.1**	**13.5**	**16.5**	**13.4**	**13.2**	**14.3 J**	**16.7**	**13.4**	**18.2**	**23**	**11.8**	**13.8**	**10.5**	**18.3**
Potassium	mg/kg	**463 J**	**718**	**2,920**	**3,520**	**795**	**746**	**1,340**	**993**	**1,200**	**1,190**	**1,730**	**2,180**	**993**	**753**	**590**	**504**	**469 J**	**614**
Selenium	mg/kg	4 U	4 U	5.6 U	5.9 U	3.9 U	4.2 U	4.2 U	4.4 U	4.2 U	**3.5 J**	**3.9**	0.76 UJ	0.46 UJ	0.57 UJ	0.12 U	0.12 U	0.12 U	0.11 U
Silver	mg/kg	1.2 U	1.1 U	1.6 U	1.7 U	1.1 U	1.2 U	1.2 U	1.3 U	1.2 U	0.038 UJ	**0.99**	0.042 UJ	0.037 UJ	0.038 U	0.036 U	0.036 U	0.038 U	0.035 U
Sodium	mg/kg	578 U	566 U	**1,270**	**2,200**	562 U	597 U	605 U	628 U	594 U	**1,630 J**	**2,640**	**3,020**	**458**	**207 J**	92.5 UJ	88.1 UJ	106 UJ	**152 J**
Thallium	mg/kg	2.9 U	2.8 U	4 U	4.2 U	2.8 U	3 U	3 U	3.1 U	3 U	0.59 UJ	2.1 U	0.31 UJ	0.041 U	0.043 U	0.04 U	0.041 U	0.043 U	0.039 U
Vanadium	mg/kg	**9**	**7.6**	**36.4**	**34.5**	**16.6**	**18.9**	**14.8**	**10.6**	**11**	**19.1**	**14.4**	**12.5**	**19.5**	**16.4**	**13.1**	**8.8**	**8**	**9.4**
Zinc	mg/kg	**17.1**	**15.1**	**57.9**	**72.4**	**22.2**	**21.3**	**21.1**	**16.9**	**19.8**	**358**	**91.7**	**68.1 J**	**145 J**	**85 J**	**22.9 J**	**23.6 J**	**22.2**	**387**
Cyanide, Total	mg/kg	3 U	2.9 U	4 U	4.2 U	2.8 U	2.8 U	3 U	3.1 U	2.9 U	**0.61**	2.8 U	0.57 U	0.55 U	0.62 U	0.55 U	0.54 U	0.55 U	0.58 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:	GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(6-10)	GC-MW31I(10-15)	GC-MW31I(15-20)	GC-MW31I(20-26)	GC-MW31I(26-30)	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(5-10)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(25-30)	GC-MW32I(30-35)
Sample Depth:	0-6	5-10	6-10	10-15	15-20	20-26	26-30	30-36	30-36	30-35	0.5-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35
Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010
Sample Type:	N	S	N	N	N	N	N	N	FD	S	N	N	N	N	S	N	N	N
Parameter	**Units**	**Metals**																
Aluminum	mg/kg	**8,110**	**7,210**	**10,300**	**13,800**	**14,600**	**4,330**	**4,070**	**2,730**	**2,580**	**1,520**	**5,860**	**5,000**	**7,170**	**4,000**	**3,440**	**6,520**	**9,950 J**	**8,470**
Antimony	mg/kg	0.086 UJ	7.4 U	0.099 UJ	0.14 UJ	0.096 UJ	0.083 UJ	0.083 UJ	0.063 UJ	0.071 UJ	4.8 U	0.28 UJ	0.3 UJ	**1.1 J**	0.38 UJ	8.6 U	**0.3 J**	0.61 UJ	0.3 UJ
Arsenic	mg/kg	**7.5**	**9.5 J**	**10.9**	**12.8**	**11.5**	**2.3 J**	**5.2**	**1.1 J**	**1.4**	**1.2 J**	**7.4**	**33**	**21.8**	**17.8**	**22 J**	**4.7**	**5.7 J**	**5**
Barium	mg/kg	**57.6**	**28.4**	**37.2**	**25.5 J**	**26.3**	**16.3 J**	**19.8 J**	**10.3 J**	**12.4 J**	16 U	**95.5**	**222**	**712**	**186**	**338**	**56.7 J**	**35.9 J**	**217 J**
Beryllium	mg/kg	**0.69**	**0.43 J**	**0.81**	**1**	**1**	**0.34 J**	**0.34 J**	**0.24 J**	**0.24 J**	**0.12 J**	**0.49**	**0.53**	**0.75**	**0.49 J**	0.72 U	**0.51**	**0.7 J**	**0.56**
Cadmium	mg/kg	**0.4 J**	0.62 U	0.21 UJ	0.14 UJ	0.17 UJ	0.054 UJ	**0.095 J**	**0.049 J**	**0.044 J**	0.4 U	**0.76**	0.12 UJ	**0.56 J**	0.15 UJ	**1.4**	**0.036 J**	**0.092 J**	0.035 U
Calcium	mg/kg	**13,500**	**3,220**	**3,030**	**2,230**	**2,450**	**628**	757 UJ	973 UJ	769 UJ	**685**	**24,100 J**	**13,300 J**	**9,350 J**	**4,630 J**	**6,410**	**7,300**	**4,360 J**	**1,130**
Chromium	mg/kg	**29.2**	**19.6 J**	**24.3**	**25.7**	**28.9**	**10.1**	**10.5 J**	**7 J**	**6.9 J**	**5.7 J**	**12.9**	**12.9**	**22.4**	**19.1**	**14.1 J**	**12.2**	**18.2 J**	**14**
Cobalt	mg/kg	**9.4**	**7.3**	**8.2**	**8.8**	**9.1**	**3.2 J**	**3.4 J**	**2.5 J**	**2.6 J**	4 U	**4.6 J**	**6**	**7.9**	**8.1**	**7.5**	**5.2**	**4.8 J**	**4.4 J**
Copper	mg/kg	**46.9**	**28.8**	**29.9**	**12.6**	**13.3**	**6**	**7 J**	**5.1 J**	**4.5 J**	**5.6**	**27.4**	**49.2**	**216**	**35.2**	**53**	**15.5**	**10.1 J**	**9**
Iron	mg/kg	**42,800**	**21,900**	**27,900**	**33,900**	**34,900**	**7,910**	**7,670 J**	**6,200 J**	**5,770 J**	**4,490**	**12,800**	**18,700**	**21,100**	**41,700**	**44,700**	**15,300**	**13,700 J**	**10,500**
Lead	mg/kg	**132 J**	**107 J**	**101 J**	**16.4 J**	**15.3 J**	**4.6 J**	**4.3**	**2.7**	**2.5**	**2.3**	**121 J**	**498 J**	**1,190 J**	**318 J**	**436 J**	**96.1 J**	**29.6 J**	**14.1 J**
Magnesium	mg/kg	**5,000**	**3,740**	**4,700**	**6,400**	**6,880**	**1,930**	**2,030**	**1,820**	**1,570**	**1,720**	**7,060**	**2,500**	**1,150**	**2,570**	**1,920**	**2,510**	**3,330 J**	**3,390**
Manganese	mg/kg	**316 J**	**226 J**	**249 J**	**333 J**	**317 J**	**52.9 J**	**50.2 J**	**45.2 J**	**39.1 J**	**35**	**224**	**136**	**146**	**468**	**590 J**	**268**	**73.3 J**	**80.8**
Mercury	mg/kg	**0.21**	**0.48 J**	**0.36**	**0.11**	0.024 U	0.018 U	0.017 U	0.014 U	0.02 U	**0.049 J**	**0.16**	**0.66**	**5.5**	**1.3**	**1.1 J**	**0.19**	**0.081 J**	0.023 U
Nickel	mg/kg	**31.5**	**21.3**	**21.8**	**20.5**	**22.4**	**8**	**9.9 J**	**8.5 J**	**8.9 J**	**11.2**	**21.1**	**20.4**	**19.3**	**27.9**	**35**	**17.4**	**16.1 J**	**18.4**
Potassium	mg/kg	**1,200**	**1,530**	**2,230**	**3,200**	**3,180**	**787**	**684**	**504**	**523**	**240 J**	**1,060**	**913**	**1,240**	**1,010**	**545 J**	**898**	**2,130 J**	**1,360**
Selenium	mg/kg	0.14 U	**2.9 J**	1.5 UJ	0.45 UJ	0.15 U	0.13 U	0.42 UJ	0.099 U	0.26 UJ	**0.43 J**	0.25 UJ	0.26 UJ	**1.1 J**	0.33 UJ	**2.3 J**	0.25 UJ	1.1 UJ	0.26 UJ
Silver	mg/kg	0.042 UJ	1 U	0.048 UJ	0.069 UJ	0.046 UJ	0.04 U	0.04 U	0.03 U	0.034 U	0.83 U	0.1 U	0.11 U	**0.39 J**	0.14 U	1.4 U	0.1 U	0.22 UJ	0.11 U
Sodium	mg/kg	**383 J**	**2,410**	**2,490 J**	**4,180 J**	**3,620 J**	**743 J**	**402 J**	140 UJ	148 UJ	**161 J**	234 UJ	308 UJ	391 UJ	104 UJ	720 U	91.7 UJ	**4,130 J**	**1,030 J**
Thallium	mg/kg	0.047 U	3.1 U	0.054 U	0.077 U	0.052 U	0.045 U	0.13 UJ	0.034 UJ	0.038 UJ	2 U	0.34 U	0.37 U	0.47 U	0.45 U	3.6 U	0.34 U	0.73 UJ	0.36 U
Vanadium	mg/kg	**23.5**	**20.7**	**25.8**	**35.8**	**32.5**	**9.7**	**15**	**7.2**	**7.4**	**5**	**19**	**18.7**	**23.3**	**19.5**	**15.2**	**18.8**	**29.5 J**	**18.7**
Zinc	mg/kg	**164**	**83.5**	**95.7**	**62.6**	**69.3**	**21.2**	**24.4**	**15.1**	**14.3**	**14.3**	**224**	**145**	**665**	**118**	**204**	**52.8**	**40.8 J**	**30.7**
Cyanide, Total	mg/kg	0.58 U	3.6 U	0.77 U	0.9 U	0.9 U	0.64 U	0.59 U	0.57 U	0.58 U	2.8 U	0.51 U	**1.6**	**1.2**	0.68 U	3.4 U	0.59 U	1.2 UJ	0.69 U

TABLE I-31A
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Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
Sample Number:		GC-MW32I(35-40)	SB32IH-S-NG	GC-MW32I(40-46)	SB32II-S-NG-R	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022	059-2024
Sample Depth:		35-40	35-40	40-46	40-45	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30	25-30
Sample Date:		6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
Sample Type:		N	S	N	S	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD
Parameter	**Units**										**Metals**								
Aluminum	mg/kg	**4,310**	**3,290**	**3,790**	**4,240**	**8,240**	**10,200**	**8,850**	**3,650**	**2,930**	**2,950**	**2,900**	**2,290**	**12,600 J**	**15,900 J**	**2,990 J**	**3,670 J**	**2,490 J**	**2,340 J**
Antimony	mg/kg	0.32 UJ	7.1 U	0.08 UJ	6.3 U	7.2 U	10.9 U	10.5 U	7.1 U	7.3 U	7.5 U	6.9 U	7.3 U	**0.69 J**	**0.64 J**	6.8 UJ	7.1 UJ	7 UJ	7.1 UJ
Arsenic	mg/kg	**9.5**	**3.1 J**	**1.7**	1.1 UJ	**2.9**	**2.1**	**5.9**	**4.8**	1.2 U	1.3 U	1.1 U	1.2 U	**10.1**	**9.2**	**0.57 J**	**2.2**	1.2 U	1.2 U
Barium	mg/kg	**49.1 J**	**31.2**	**31.9 J**	**47.5**	**34.5**	**32.5 J**	**39.9**	**14.5 J**	**13.3 J**	**13.8 J**	**27.4**	**18.3 J**	**31.3 J**	**37.6 J**	**13.5 J**	**20.6 J**	**12.9 J**	**12.7 J**
Beryllium	mg/kg	**0.38 J**	0.59 U	**0.42 J**	**0.29 J**	0.6 U	0.91 U	0.88 U	0.59 U	0.61 U	0.63 U	0.57 U	0.61 U	0.79 U	**0.85**	0.57 U	0.59 U	**0.19 J**	**0.2 J**
Cadmium	mg/kg	**0.042 J**	0.59 U	**0.049 J**	0.53 U	0.6 U	0.91 U	0.88 U	0.59 U	0.61 U	0.63 U	0.57 U	0.61 U	**0.09 J**	**0.2 J**	0.57 U	0.59 U	0.59 U	0.59 U
Calcium	mg/kg	**667**	**625**	**3,630 J**	**5,630**	**947**	**1,160**	**2,530**	**608**	**2,910**	**3,510**	**5,200**	**3,720**	**3,180 J**	**2,480 J**	**603 J**	593 UJ	**1,230 J**	**1,380 J**
Chromium	mg/kg	**8.8**	**8.1 J**	**9.4 J**	**12.5 J**	**12.1**	**18.8**	**17.2**	**9.2**	**8**	**7.7**	**6.3**	**5.5**	**29.2 J**	**34.4 J**	**9.4 J**	**15.7 J**	**5.9 J**	**5.3 J**
Cobalt	mg/kg	**4.6 J**	5.9 U	**3.1 J**	**5.8**	**5.6 J**	**5.3 J**	**5.4 J**	**6.7**	**3.1 J**	**3 J**	**3.8 J**	**2.5 J**	**8.2 J**	**9.8 J**	5.7 UJ	5.9 UJ	5.9 UJ	5.9 UJ
Copper	mg/kg	**5.5**	**5.2**	**12.7 J**	**19**	**12.5**	**12**	**10.1**	**8.3**	**7.9**	**8.1**	**10**	**6.3**	**14 J**	**19 J**	**6.9 J**	**4.4 J**	**8.2**	**7.7**
Iron	mg/kg	**10,100**	**5,730**	**8,550 J**	**11,200**	**13,000**	**15,800**	**19,100**	**8,550**	**6,570**	**6,850**	**7,040**	**4,890**	**31,200 J**	**34,800 J**	**6,410 J**	**6,250 J**	**6,390 J**	**5,970 J**
Lead	mg/kg	4 UJ	**3.2**	**9.3**	**7 J**	**16.5**	**14.9**	**7.3**	**4.9**	**3.2**	**3.7**	**3.3**	**2.5**	**16.9**	**31.9**	**3.3**	**3.8**	**2.7**	**3.1**
Magnesium	mg/kg	**1,630**	**1,370**	**3,500**	**5,640**	**2,010**	**2,940**	**4,170**	**1,750**	**3,160**	**3,320**	**4,730**	**2,620**	**5,360 J**	**6,680 J**	**1,830 J**	**1,560 J**	**2,800 J**	**1,940 J**
Manganese	mg/kg	**67**	**66.3**	**111 J**	**183 J**	**212**	**184**	**66.1**	**54.6**	**105**	**131**	**233**	**142**	**308**	**327**	**47.6**	**41.5**	**129**	**120**
Mercury	mg/kg	0.018 U	0.12 U	**0.022 J**	**0.084 J**	0.05 U	0.18 U	0.17 U	0.12 U	0.13 U	0.13 U	0.12 U	0.12 U	0.15 U	**0.075 J**	0.11 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**11.5**	**9.6**	**11 J**	**20**	**15.9**	**20.8**	**12.8**	**12.5**	**12.8**	**12.4**	**20.9**	**11**	**24.1 J**	**29.8 J**	**13.5 J**	**8.8 J**	**20 J**	**11.9 J**
Potassium	mg/kg	**663**	**496 J**	**1,010**	**1,230**	**621**	**1,060**	**1,740**	**586 J**	**701**	**740**	**675**	**472 J**	**2,750**	**3,410**	**582**	**643**	**563 J**	**446 J**
Selenium	mg/kg	0.28 UJ	4.2 U	0.12 U	**0.91 J**	4.2 U	6.3 U	6.2 U	4.2 U	4.3 U	4.4 U	4 U	4.3 U	5.5 U	5.5 U	4 U	**0.66 J**	4.1 U	4.1 U
Silver	mg/kg	0.12 U	**0.093 J**	0.038 U	1.1 U	1.2 U	1.8 U	1.8 U	1.2 U	1.2 U	1.3 U	1.1 U	1.2 U	1.6 U	1.6 U	1.1 U	1.2 U	1.2 U	1.2 U
Sodium	mg/kg	255 UJ	595 U	138 UJ	**217 J**	599 U	**1,240**	**6,080**	**619**	609 U	627 U	574 U	608 U	**1,460**	**2,840**	568 U	593 U	586 U	590 U
Thallium	mg/kg	0.39 U	3 U	0.043 UJ	2.6 U	3 U	4.5 U	4.4 U	3 U	3 U	3.1 U	2.9 U	3 U	3.9 U	4 U	2.8 U	3 U	2.9 U	2.9 U
Vanadium	mg/kg	**12.1**	**9.7**	**12.2**	**17.8**	**17.3**	**25.2**	**24.3**	**15.9**	**10.8**	**11**	**10.6**	**6.8**	**36.6 J**	**35.7 J**	**9.6 J**	**11.5 J**	**9.4 J**	**8.8 J**
Zinc	mg/kg	**26.5**	**22.1**	**19.6**	**30.8**	**24.6**	**26.4**	**24.5**	**26.7**	**14.3**	**14.7**	**14.4**	**10.9**	**59.7**	**72.5**	**20.4**	**17.4**	**17.1**	**14.9**
Cyanide, Total	mg/kg	0.58 U	2.9 U	0.58 U	3 U	3.1 U	4.4 U	4.4 U	2.9 U	3.2 U	3.1 U	2.8 U	3 U	3.9 U	3.9 U	2.9 U	2.9 U	2.9 U	2.8 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37
Sample Number:		059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211	059-2212
Sample Depth:		30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20	20-25
Sample Date:		5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**										**Metals**								
Aluminum	mg/kg	**2,990 J**	**14,700**	**14,800**	**4,120**	**2,930**	**4,150**	**7,070**	**18,400 J**	**15,800 J**	**7,110 J**	**4,180 J**	**2,530 J**	**7,140 J**	**3,570**	**6,180**	**15,100**	**14,200**	**9,180**
Antimony	mg/kg	7.1 UJ	**0.85 J**	**0.81 J**	7.4 UJ	7.1 U	**0.48 J**	**0.46 J**	**1.4 J**	**0.77 J**	6.9 UJ	7.2 UJ	7.4 UJ	**0.39 J**	7.3 UJ	6.9 UJ	9.7 UJ	11 UJ	7.1 UJ
Arsenic	mg/kg	**0.58 J**	**9.1**	**8.1**	**1.2 J**	**2.2**	**5.3**	**1 J**	**18.7**	**10**	**2.5**	**1.8**	1.2 U	**1.3**	**116**	**22.1**	**9.4**	**6.5**	**5.3**
Barium	mg/kg	**25.4 J**	**94.9**	**31.4 J**	**17.9 J**	**12.3 J**	**38.9**	**64.1**	**38.4 J**	**32.6 J**	**36 J**	**28 J**	**38.1 J**	**74.8 J**	**238**	**61.7**	**73.1**	36.6 U	**28.4**
Beryllium	mg/kg	**0.22 J**	0.86 U	0.93 U	0.61 U	0.6 U	0.6 U	0.6 U	**1**	**0.88**	0.57 U	0.6 U	0.62 U	0.55 U	**0.39 J**	**0.4 J**	**0.74 J**	**0.69 J**	**0.47 J**
Cadmium	mg/kg	0.59 U	**0.23 J**	**0.4 J**	0.61 U	**0.13 J**	**0.05 J**	**0.22 J**	**0.35 J**	**0.12 J**	**0.039 J**	0.6 U	0.62 U	0.55 U	**1.7**	**0.56 J**	**0.88**	**0.68 J**	**0.31 J**
Calcium	mg/kg	**2,980 J**	**6,030**	**2,380**	**451 J**	**288 J**	**3,680**	**12,000**	**2,910 J**	**2,830 J**	**967 J**	**784 J**	617 UJ	**2,020 J**	**9,640**	**3,480**	**3,570 J**	**2,110 J**	588 UJ
Chromium	mg/kg	**7.7 J**	**31.4**	**30.9**	**8.1 J**	**6.9**	**11.9**	**16.8 J**	**35.4 J**	**33.2 J**	**13.1 J**	**10.4 J**	**5.7 J**	**10.2 J**	**18.9**	**13.9**	**29.9**	**28**	**14.2**
Cobalt	mg/kg	6 UJ	**7.1 J**	**9.4**	**2.3 J**	**2.9 J**	**6.1**	**7.1**	**13.5 J**	**10.4 J**	**6.8 J**	6 UJ	6.2 UJ	**5.7 J**	**14.5**	**7.2**	**6.5 J**	**5.4 J**	**4.1 J**
Copper	mg/kg	**9.9**	**24.9**	**16.4**	**5.8**	**5.9**	**10.7**	**18**	**34.5 J**	**16.4 J**	**11.8 J**	**7.5 J**	**4.3 J**	**16 J**	**88.6**	**65.6**	**19.9**	**15.6**	**13.2**
Iron	mg/kg	**7,140 J**	**28,800**	**33,800**	**7,650**	**4,670**	**10,600**	**14,500**	**41,200 J**	**37,200 J**	**14,000 J**	**8,430 J**	**4,810 J**	**13,700 J**	**31,300**	**19,300**	**31,900**	**30,100**	**17,000**
Lead	mg/kg	**3.4**	**151**	**25.3**	**4.7**	**3.7**	**4.1**	**6.5**	**23.3**	**15.2**	**7.3**	**4.8**	**2.4**	**5**	**537**	**47.3**	**105**	**11.8**	**7.7**
Magnesium	mg/kg	**4,140 J**	**5,300**	**6,470**	**1,410**	**1,180**	**4,430**	**7,800**	**7,510 J**	**6,830 J**	**2,920 J**	**2,150 J**	**1,530 J**	**3,890 J**	**1,330 J**	**2,070 J**	**6,010 J**	**6,050 J**	**2,560 J**
Manganese	mg/kg	**190**	**219**	**324**	**37.9**	**35.4**	**115**	**317**	**430**	**392**	**102**	**99.8**	**56.7**	**335**	**287**	**213**	**368**	**279**	**281**
Mercury	mg/kg	0.12 U	**0.33**	0.19 U	0.13 UJ	0.12 U	0.12 U	0.13 UJ	0.18 U	0.17 U	0.12 U	0.12 U	0.12 U	0.11 U	**0.36**	**0.14**	**0.11 J**	0.18 U	0.12 U
Nickel	mg/kg	**18.6 J**	**27.1**	**26.7**	**6.5**	**10.3**	**18.1**	**23.4**	**32.1 J**	**29.6 J**	**15.2 J**	**12.7 J**	**9.5 J**	**22.9 J**	**58**	**16.4**	**25.6**	**24.6**	**13.2**
Potassium	mg/kg	**647**	**2,980**	**3,340**	**647**	**521 J**	**1,310**	**2,280**	**4,120**	**3,480**	**1,040**	**750**	**447 J**	**1,610**	**737 J**	**908 J**	**3,680 J**	**3,690 J**	**1,200 J**
Selenium	mg/kg	4.2 U	6 U	6.5 U	4.3 U	4.2 U	4.2 U	4.2 U	**0.97 J**	6 U	4 U	4.2 U	4.3 U	3.8 U	**15.7**	4.1 U	5.6 U	6.4 U	6.4 U
Silver	mg/kg	1.2 U	1.7 U	1.9 U	1.2 U	1.2 U	1.2 U	1.2 U	1.8 U	1.7 U	1.1 U	1.2 U	1.2 U	1.1 U	**0.079 J**	1.2 U	1.6 U	1.8 U	1.2 U
Sodium	mg/kg	595 U	**1,250**	**2,910**	614 U	595 U	596 U	604 U	**2,210**	**2,260**	572 U	602 U	617 U	546 U	610 U	577 U	**1,450**	**4,600**	**1,350**
Thallium	mg/kg	3 U	4.3 U	4.7 U	3.1 U	3 U	3 U	3 U	4.5 U	4.3 U	2.9 U	3 U	3.1 U	2.7 U	3.1 U	2.9 U	**0.59 J**	4.6 U	2.9 U
Vanadium	mg/kg	**9.9 J**	**37.3**	**35.5**	**12**	**12**	**14.9**	**21.2**	**43.5 J**	**36.3 J**	**18 J**	**15.7 J**	6.2 UJ	**12.1 J**	**23.5**	**22.4**	**37.7**	**41.6**	**18.2**
Zinc	mg/kg	**18.3**	**70.7**	**67.8**	**16.4**	**14.2**	**23.8**	**36.8**	**86.9**	**74.8**	**36.9**	**26.2**	**13.4**	**29**	**360 J**	**53.3 J**	**97.1 J**	**57.2 J**	**35 J**
Cyanide, Total	mg/kg	3 U	4.4 U	4.5 U	3.2 U	2.9 U	3 U	3.1 U	4.5 U	4.3 U	2.9 U	3 U	3 U	2.7 U	3.1 U	**0.25 J**	4.2 U	4.6 U	3 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
Sample Number:		059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135	059-2136
Sample Depth:		25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	36.5-37
Sample Date:		6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**10,500**	**4,610**	**4,850**	**6,950**	**18,200**	**11,200 J**	**11,000**	**11,300**	**4,250**	**4,050**	**3,750**	**6,040**	**9,800**	**7,220**	**6,780**	**5,580**	**8,360**	**8,090**
Antimony	mg/kg	7.9 UJ	7.1 UJ	6.9 UJ	**0.91 J**	**0.96 J**	**0.82 J**	11.3 UJ	**0.5 J**	6.7 U	7.1 U	6.7 U	**0.48 J**	7 U	6.7 U	**0.47 J**	**1.9 J**	**0.75 J**	7.2 U
Arsenic	mg/kg	**5**	**3.5**	**1.7**	**8.6**	**11.9**	**5 J**	**5.3**	**1.7**	**2.9**	**1.5**	**1.6**	**4.8**	**2.9**	**2.2**	**3.9**	**12**	**10.6**	**1.9**
Barium	mg/kg	**71.4**	**38.9**	**49.7**	**114**	**60.3**	42.3 UJ	**43.6**	**152**	**35.9**	**32.2**	**38.9**	**346**	**41.6**	**59**	**401**	**1,030**	**123**	**54**
Beryllium	mg/kg	**0.49 J**	**0.31 J**	**0.3 J**	0.63 U	**1.1**	1.1 UJ	**0.6 J**	**0.63**	0.56 U	0.59 U	0.56 U	0.56 U	0.58 U	0.56 U	0.57 U	0.63 U	0.6 U	0.6 U
Cadmium	mg/kg	**0.59 J**	**0.2 J**	**0.28 J**	0.63 U	0.92 U	1.1 UJ	0.94 U	0.61 U	0.56 U	0.59 U	0.56 U	**0.58**	0.58 U	0.56 U	**0.22 J**	**0.76**	**0.55 J**	0.6 U
Calcium	mg/kg	**5,460**	**1,150 J**	**9,150**	**11,400**	**1,730**	**2,740 J**	**2,140**	**1,680**	**5,380**	**12,700**	**7,060**	**35,300**	**3,810**	**3,600**	**15,300**	**28,600**	**2,190**	**5,080**
Chromium	mg/kg	**16.5**	**10.4**	**10.5**	**14.2**	**30.6**	**22.6 J**	**20.3**	**16.7**	**9.3**	**8.1**	**9.4**	**13.3**	**15.3**	**13.7**	**16.1**	**34.3**	**22.6**	**13.7**
Cobalt	mg/kg	**7.6**	**3.2 J**	5.8 U	**6.8**	**16.6**	10.6 UJ	**8 J**	**10.3**	5.6 U	5.9 U	**6.4**	**5 J**	**4.9 J**	**5.7**	**5.5 J**	**15.5**	**8.8**	**9.2**
Copper	mg/kg	**29.8**	**9.6**	**12.1**	**99.5443**	**20.6**	**13.7 J**	**13**	**23.2**	**11.5**	**13**	**14.2**	**39.1**	**14.7**	**20.8**	**49.1**	**121**	**139**	**20.6**
Iron	mg/kg	**26,000**	**10,800**	**10,300**	**14,200**	**36,800**	**24,100 J**	**24,000**	**22,600**	**10,500**	**8,740**	**8,800**	**10,400**	**12,800**	**11,300**	**12,100**	**46,000**	**21,100**	**17,900**
Lead	mg/kg	**10.7**	**6.2**	**4.2**	**246**	**17.8**	**10.4 J**	**10**	**10**	**5.1**	**3.9**	**4.6**	**674**	**18**	**52.5**	**190**	**1,030**	**205**	**10.1**
Magnesium	mg/kg	**6,090 J**	**2,730 J**	**5,060 J**	**3,820**	**6,410**	**5,100 J**	**4,650**	**5,330**	**4,040**	**5,660**	**9,310**	**3,570**	**2,850**	**2,620**	**3,760**	**13,700**	**3,480**	**5,290**
Manganese	mg/kg	**371**	**186**	**264**	**184**	**832**	**238 J**	**272**	**264**	**154**	**211**	**289**	**256**	**144**	**195**	**252**	**272**	**136**	**345**
Mercury	mg/kg	0.13 U	0.12 U	0.11 U	**1.5**	0.2 U	0.21 UJ	0.19 U	0.12 U	0.12 U	0.12 U	0.12 U	**45.2**	0.12 U	**0.59**	**0.93**	**1.6**	**5.9**	0.12 U
Nickel	mg/kg	**23.1**	**14.5**	**17.8**	**22.7**	**27.6**	**20.4 J**	**18.9**	**22.5**	**16.4**	**14.5**	**45.9**	**20.5**	**17**	**22.3**	**24.5**	**112**	**22.1**	**19.5**
Potassium	mg/kg	**2,030 J**	**899 J**	**1,630 J**	**1,450 J**	**3,220 J**	**2,690 J**	**2,410 J**	**2,090 J**	**1,040 J**	**1,080 J**	**1,080 J**	**753**	**955**	**879**	**959**	**890**	**1,600**	**1,500**
Selenium	mg/kg	4.6 U	4.1 U	4 U	4.4 U	6.4 U	**1.7 J**	6.6 U	4.3 U	3.9 U	4.1 U	3.9 U	3.9 U	4.1 U	3.9 U	4 U	4.3 U	4.2 U	4.2 U
Silver	mg/kg	1.3 U	1.2 U	1.2 U	**0.23 J**	1.8 U	2.1 UJ	1.9 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 U	**0.48 J**	**1.5**	1.2 U
Sodium	mg/kg	**1,820**	593 U	**241 J**	634 U	**1,760**	**4,550 J**	**3,660**	607 U	561 U	589 U	560 U	561 U	580 U	557 U	574 U	628 U	**1,870**	**1,400**
Thallium	mg/kg	**0.73 J**	3 U	2.9 U	3.2 U	4.6 U	5.3 UJ	4.7 U	3 U	2.8 U	2.9 U	2.8 U	2.8 U	2.9 U	2.8 U	2.9 U	3 U	3 U	3 U
Vanadium	mg/kg	**20.4**	**15.5**	**14.2**	**22.2**	**39.7**	**48.3 J**	**35.2**	**22**	**13.9**	**11**	**11.7**	**19.4**	**23.5**	**19.3**	**21.2**	**16.4**	**20.8**	**18**
Zinc	mg/kg	**61.3 J**	**30.1 J**	**24.1 J**	**103**	**70.2**	**49.9 J**	**46.1**	**58.7**	**23.3**	**22**	**21**	**413**	**34.6**	**48.9**	**241**	**574**	**302**	**48.2**
Cyanide, Total	mg/kg	3.3 U	3 U	2.9 U	3.3 U	4.7 U	5.1 UJ	4.7 U	2.9 U	2.8 U	2.9 U	2.9 U	2.9 U	2.8 U	2.9 U	2.9 U	3.1 U	3.2 U	3.1 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41	GCMW-41
Sample Number:		059-2137	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG	GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW40I(15-20)	GC-MW40I(20-25)	GC-MW40I(25-30)	GC-MW40I(30-35)	GC-MW40I(35-40)	GC-MW40I(40-45)	GC-MW40I(45-50)	GC-MW40I(50-55)	GC-MW40I(55-58)	SB40IJ-S-NG	GC-MW41S(0-5)	GC-MW41I(5-10)
Sample Depth:		40-40.5	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-58	55-58	0-5	5-10
Sample Date:		6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010	6/25/2010
Sample Type:		N	N	N	S	N	FD	N	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**	**Metals**																	
Aluminum	mg/kg	**3,860**	**4,310**	**7,470**	**6,290**	**5,790**	**5,100**	**12,000**	**11,700**	**4,000**	**4,900**	**4,810**	**3,210**	**2,840**	**2,660**	**2,690**	**2,200**	**4,830**	**6,620**
Antimony	mg/kg	5.8 U	0.082 UJ	0.28 UJ	5.6 U	0.31 UJ	0.3 UJ	0.43 UJ	0.42 UJ	0.26 UJ	0.28 UJ	0.28 UJ	0.25 UJ	0.35 UJ	0.3 UJ	0.3 UJ	5.2 U	0.084 UJ	0.071 UJ
Arsenic	mg/kg	**3.6**	**5.1**	**7**	**6.7 J**	**6.1**	**5.3**	**8.5 J**	**7.6 J**	**3.1**	**2.4**	**2.1**	1.4 U	**3.9**	**7.2**	**3.8**	**3.6 J**	**5.9**	**4.1**
Barium	mg/kg	**22.7**	**39.4**	**43.7**	**38.8**	**24**	**22.2**	**22.9 J**	**25.4 J**	**6.9 J**	**27.3**	**29.5**	**11.7 J**	**14.9 J**	**17.8 J**	**20 J**	17.4 U	**42.1 J**	**16.3 J**
Beryllium	mg/kg	0.48 U	**0.43 J**	**0.59**	0.47 U	**0.41 J**	**0.33 J**	**0.81**	**0.77**	**0.37 J**	**0.47**	**0.43 J**	**0.23 J**	**0.19 J**	**0.23 J**	**0.23 J**	0.44 U	**1 J**	**0.47**
Cadmium	mg/kg	0.48 U	**0.19 J**	0.14 UJ	0.47 U	0.11 UJ	0.11 UJ	0.2 UJ	0.18 UJ	0.055 UJ	0.095 UJ	0.069 UJ	0.11 UJ	**0.33 J**	0.046 UJ	0.058 UJ	0.44 U	**0.73 J**	0.063 UJ
Calcium	mg/kg	**547**	**78,700**	**1,710 J**	**2,180**	**2,000 J**	**1,250 J**	**4,440 J**	**2,910 J**	**344 J**	**538 J**	**586 J**	**313 J**	**291 J**	255 UJ	**291 J**	434 U	**22,600 J**	**4,180**
Chromium	mg/kg	**8.1**	**9.3 J**	**15**	**12.7 J**	**11.5**	**9.7**	**24.8**	**22.9**	**8.5**	**10.8**	**11.1**	**6.5**	**5.5**	**7.4**	**5.8**	**5.7 J**	**7.1 J**	**12.3**
Cobalt	mg/kg	**4.3 J**	**3.8 J**	**7.2**	**5.7**	**4.5 J**	**3.8 J**	**8.3**	**7.9**	**3.3 J**	**4.5 J**	**4.8**	**6.1**	**5.2 J**	**4.3 J**	**3.8 J**	4.4 U	**8.1**	**4.8**
Copper	mg/kg	**6.6**	**25.8**	**16.8**	**14.8**	**10.2**	**7.9**	**10.8**	**10.5**	**6.4**	**6**	**6.4**	**5.1**	**5.9**	**5.2**	**5.1**	**5.5**	**40.8 J**	**7.5**
Iron	mg/kg	**7,710**	**10,300**	**12,900**	**10,900**	**10,900**	**9,570**	**28,200**	**27,000**	**9,510**	**9,590**	**13,000**	**7,740**	**11,100**	**14,700**	**11,100**	**10,800**	**18,900 J**	**14,200**
Lead	mg/kg	**4.7**	**54.9 J**	**55.6 J**	**40.6**	**34.7 J**	**30.2 J**	**11.7 J**	**11.3 J**	3.6 UJ	5.2 UJ	6.2 UJ	4.1 UJ	3.7 UJ	4.7 UJ	3.5 UJ	**2.9**	**38.7**	**10.9 J**
Magnesium	mg/kg	**1,840**	**6,580 J**	**3,010**	**2,160**	**2,530**	**2,060**	**6,390**	**5,690**	**1,210**	**1,550**	**1,800**	**1,430**	**1,270**	**1,230**	**1,400**	**1,110**	**9,460**	**4,130**
Manganese	mg/kg	**69**	**232 J**	**222**	**199**	**184**	**141**	**327**	**294**	**48.8**	**64.4**	**94.1**	**71.8**	**111**	**237**	**187**	**157**	**197 J**	**154 J**
Mercury	mg/kg	0.1 U	**0.28**	**1.9**	**1.7**	**0.81 J**	**0.27 J**	0.021 U	0.022 U	0.017 U	0.015 U	0.016 U	0.016 U	0.018 U	0.019 U	0.015 U	0.1 U	**0.28**	**0.065**
Nickel	mg/kg	**10.2**	**11.1**	**32.8**	**27.8**	**17.6**	**13.5**	**24.7**	**21.9**	**6.7**	**10.2**	**8.1**	**9.1**	**8.8**	**7.8**	**8.3**	**8.3**	**13.9 J**	**23**
Potassium	mg/kg	**549**	**900**	**1,100**	**818**	**897**	**765**	**2,700**	**2,520**	**616**	**815**	**854**	**525**	**523 J**	**431 J**	**488 J**	**353 J**	**696**	**1,160**
Selenium	mg/kg	3.4 U	0.24 UJ	0.24 UJ	**0.76 J**	0.27 UJ	0.26 UJ	0.38 UJ	0.36 UJ	0.23 UJ	0.24 UJ	0.24 UJ	0.21 UJ	0.3 UJ	0.26 UJ	0.26 UJ	**0.57 J**	0.13 U	0.11 U
Silver	mg/kg	0.97 U	0.039 UJ	0.1 U	**0.2 J**	0.11 U	0.11 U	0.16 U	0.15 U	0.097 U	0.1 U	0.1 U	0.09 U	0.13 U	0.11 U	0.11 U	**0.25 J**	0.041 UJ	0.034 UJ
Sodium	mg/kg	485 U	**1,080**	85.2 UJ	467 U	123 UJ	120 UJ	**867**	**859**	78.5 UJ	47.9 UJ	63.7 UJ	88.9 UJ	140 UJ	123 UJ	210 UJ	434 U	**579 J**	**276 J**
Thallium	mg/kg	2.4 U	0.044 U	0.33 U	2.3 U	0.37 U	0.36 U	0.52 U	0.5 U	0.32 U	0.34 U	0.33 U	0.3 U	0.41 U	0.36 U	0.36 U	2.2 U	0.046 UJ	0.039 U
Vanadium	mg/kg	**12.2**	**13.9**	**18.4**	**15.5**	**13.7**	**11**	**26.9**	**25.5**	**12.6**	**16.6**	**17**	**9.8**	**8.1**	**12.2**	**8.3**	**8.5**	**50.2**	**13.8**
Zinc	mg/kg	**20.8**	**47.8**	**50**	**45.4**	**34.3**	**29.6**	**58.5**	**56.2**	**22.6**	**29.2**	**28.6**	**21.9**	**19.5**	**18.7**	**17.3**	**20.1**	**49.9**	**33.1**
Cyanide, Total	mg/kg	2.5 U	0.54 U	**13.3**	**7.6**	**9.4**	**7.5**	0.78 U	0.73 U	0.58 U	0.58 U	0.62 U	0.61 U	0.6 U	0.58 U	0.54 U	2.7 U	0.53 U	0.61 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42	GCMW-42
Sample Number:	GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	GC-MW41I(15-20)	GC-MW41I(20-25)	GC-MW41I(25-30)	GC-MW41I(30-35)	GC-MW41I(35-40)	GC-MW41I(40-45)	GC-MW41I(45-50)	GC-MW41I(50-53)	GC-MW41I(53-58)	SB41IL-S-NG	059-2061	059-2062	059-2063	059-2064	059-2066
Sample Depth:	5-10	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-53	53-58	55-58	5-10	15-20	20-25	25-30	25-30
Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:	FD	S	N	N	N	N	N	N	N	N	N	N	S	N	N	N	N	FD
Parameter	**Units**	**Metals**																
Aluminum	mg/kg	**6,590**	**4,180**	**9,420**	**14,500**	**7,140**	**2,520**	**5,750**	**3,980**	**3,710**	**2,820**	**3,130**	**3,020**	**1,750**	**28,300**	**3,720**	**4,670**	**4,700**	**4,330**
Antimony	mg/kg	0.093 UJ	6.1 U	0.089 UJ	0.13 UJ	0.076 UJ	0.087 UJ	0.085 UJ	0.068 UJ	0.099 UJ	0.086 UJ	0.093 UJ	0.076 UJ	6.1 U	7.1 UJ	7.2 UJ	6.9 UJ	7 UJ	7 UJ
Arsenic	mg/kg	**4**	**3.4 J**	**5.8**	**8.6**	**2.6**	**2.1 J**	**2.5**	**1.2 J**	**1.8 J**	**1.5 J**	**5.1**	**3.3**	**3 J**	**2.9**	**2.4**	**3.4**	**3.4**	**2.8**
Barium	mg/kg	**16.6 J**	20.4 U	**43.5**	**25.7 J**	**13.3 J**	**8.4 J**	**27.7**	**13.3 J**	**13.6 J**	**17.5 J**	**22.8**	**20.6**	20.3 U	**45.8**	**7.3 J**	**17.1 J**	**34**	**27.5**
Beryllium	mg/kg	**0.48 J**	**0.25 J**	**0.7**	**1.1**	**0.52**	**0.33 J**	**0.56**	**0.35 J**	**0.3 J**	**0.27 J**	**0.24 J**	**0.2 J**	**0.12 J**	**0.26 J**	**0.23 J**	**0.42 J**	**0.38 J**	**0.29 J**
Cadmium	mg/kg	0.065 UJ	0.51 U	0.1 UJ	0.21 UJ	0.065 UJ	0.018 UJ	0.065 UJ	0.061 UJ	0.082 UJ	0.029 UJ	0.03 UJ	0.029 UJ	0.51 U	**0.14 J**	0.6 U	0.57 U	**0.069 J**	**0.02 J**
Calcium	mg/kg	**5,750**	**4,760**	**5,900**	**1,920**	**352 J**	**215 J**	**761**	**437**	**332 J**	**199 J**	**247 J**	**219 J**	507 U	**18,500**	601 U	573 U	**922**	**1,240**
Chromium	mg/kg	**12.5**	**9.3 J**	**17.8**	**27.8**	**11.5**	**6.9**	**13**	**8.5**	**7.2**	**5.9**	**5.8**	**5.6**	**4.4 J**	**42.9**	**7.7**	**9.6**	**13.5**	**13.5**
Cobalt	mg/kg	**4.7 J**	5.1 U	**6.6**	**9.1**	**4.6**	**2.3 J**	**5.8**	**4.6**	**6.5**	**4.5 J**	**4.3 J**	**3.4 J**	5.1 U	**7.6**	**3.2 J**	**4.4 J**	**6.9**	**5.2 J**
Copper	mg/kg	**7.3**	**7.2**	**13.3**	**11.8**	**8.7**	**2.7**	**6.9**	**5.7**	**6.4**	**4.5**	**4.7**	**4.5**	**4.2**	**111**	**5.2**	**6.2**	**8.1**	**9.4**
Iron	mg/kg	**13,600**	**9,940**	**18,400**	**34,800**	**13,000**	**7,620**	**10,800**	**9,940**	**9,250**	**9,340**	**12,200**	**10,800**	**8,120**	**13,700**	**8,660**	**11,400**	**8,240**	**10,100**
Lead	mg/kg	**9 J**	**8.8 J**	**53.8 J**	**12.5 J**	**5.4 J**	**2.5 J**	**6.8 J**	**5.1 J**	**5.9 J**	**4.8 J**	**3.6 J**	**3.3 J**	**2.7**	**46.2**	**3.7**	**5**	**5.3**	**5**
Magnesium	mg/kg	**4,110**	**2,680**	**6,310**	**6,600 J**	**2,980**	**730**	**2,260**	**1,920**	**1,850**	**1,310**	**1,530**	**1,430**	**780**	**5,390**	**1,070**	**1,390**	**1,940**	**1,960**
Manganese	mg/kg	**163 J**	**129 J**	**269 J**	**331**	**90.7 J**	**42.1 J**	**109 J**	**86.9 J**	**117 J**	**63.3 J**	**186 J**	**123 J**	**111**	**130**	**61**	**57.6**	**73**	**110**
Mercury	mg/kg	**0.14**	**0.15 J**	**0.16**	0.022 U	0.016 U	0.019 U	0.017 U	0.019 U	0.016 U	0.017 U	0.016 U	0.019 U	**0.061 J**	**0.37**	0.12 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**23.1**	**18.2**	**31.5**	**23.7**	**13.8**	**5.3**	**12**	**10**	**11.9**	**9.1**	**7.5**	**7.1**	**6.4**	**18.8**	**6.2**	**8.6**	**19**	**15**
Potassium	mg/kg	**1,240**	**588**	**1,900**	**3,010**	**939**	**599**	**1,130**	**825**	**770**	**575**	**589**	**593**	**166 J**	**1,540**	**603**	**729**	**778**	**664**
Selenium	mg/kg	0.27 UJ	**0.93 J**	0.14 U	0.2 U	0.12 U	0.22 UJ	0.17 UJ	0.11 U	0.26 UJ	0.37 UJ	0.27 UJ	0.27 UJ	**0.55 J**	4.1 U	4.2 U	4 U	4.1 U	4.1 U
Silver	mg/kg	0.045 U	1 U	0.043 UJ	0.061 UJ	0.037 U	0.042 U	0.041 U	0.033 U	0.048 U	0.041 U	0.045 U	0.037 U	0.98 U	1.2 U	1.2 U	1.1 U	1.2 U	1.2 U
Sodium	mg/kg	**293 J**	**292 J**	**310 J**	**1,200 J**	**262 J**	**53.8 J**	**134 J**	**140 J**	**145 J**	**88.2 J**	**216 J**	**111 J**	**230 J**	**6,120**	601 U	573 U	581 U	585 U
Thallium	mg/kg	0.051 U	2.6 U	0.048 U	0.068 U	0.041 U	0.047 U	0.046 U	0.037 U	0.053 U	0.046 U	0.05 U	0.042 U	2.5 U	2.9 U	3 U	2.9 U	2.9 U	2.9 U
Vanadium	mg/kg	**14**	**10.6**	**20**	**32.9**	**14**	**11.8**	**20.2**	**13.5**	**10.8**	**8.6**	**8.6**	**7**	**6.9**	**44.3**	**10.5**	**17.3**	**16.5**	**13.6**
Zinc	mg/kg	**33.3**	**28.4**	**55.6**	**64.7**	**30**	**19.2**	**33.3**	**26.1**	**26.8**	**18**	**18.9**	**18.5**	**15.7**	**53.3**	**17**	**28**	**31.6**	**24.6**
Cyanide, Total	mg/kg	0.61 U	3 U	0.67 U	0.83 U	0.6 U	0.58 U	0.61 U	0.58 U	0.63 U	0.62 U	0.59 U	0.65 U	2.9 U	2.9 U	3 U	2.8 U	**0.54 J**	**0.61 J**

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
Sample Number:	059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127	059-2128
Sample Depth:	30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40
Sample Date:	5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																
Aluminum	mg/kg	**2,890**	**4,120 J**	**5,180 J**	**18,100 J**	**16,200 J**	**8,090 J**	**4,320 J**	**4,220 J**	**4,870 J**	**5,400 J**	**2,590 J**	**4,840**	**18,100**	**15,000**	**8,320**	**7,020**	**2,370**	**2,750**
Antimony	mg/kg	6.9 UJ	**0.69 J**	**0.71 J**	**0.75 J**	**1 J**	**0.4 J**	**0.4 J**	**0.42 J**	7.1 UJ	6.7 UJ	7.6 UJ	**2.2 J**	**0.87 J**	**0.62 J**	**0.49 J**	**0.45 J**	7.5 U	7.9 U
Arsenic	mg/kg	**2.5**	**6.5**	**7.6**	**8.7**	**9.7**	**1.7**	**3.2**	**2.9**	**1.5**	**1.4**	**0.6 J**	**58.3**	**48.9**	**8.4**	**5**	**10.5**	1.3 U	**0.98 J**
Barium	mg/kg	**12 J**	**79.2 J**	**77.7 J**	**44.3 J**	**34.9 J**	**66.6 J**	**26.1 J**	**24.4 J**	**30.2 J**	**40.6 J**	**14.6 J**	**277**	**117**	**30.8 J**	**20.7 J**	**42.5**	**20.3 J**	**11.8 J**
Beryllium	mg/kg	**0.19 J**	**0.33 J**	**0.35 J**	**0.94 J**	**0.92**	**0.49 J**	0.6 U	0.59 U	**0.31 J**	0.56 U	0.63 U	0.77 U	**0.89**	0.79 U	**0.41 J**	0.68 U	0.63 U	0.66 U
Cadmium	mg/kg	0.57 U	**8.5**	**5.2**	**0.17 J**	**0.19 J**	**0.019 J**	0.6 U	**0.034 J**	0.59 U	0.56 U	0.63 U	**0.26 J**	**0.27 J**	0.79 U	0.66 U	0.68 U	0.63 U	0.66 U
Calcium	mg/kg	572 U	**23,800 J**	**21,300 J**	**3,280 J**	**4,710 J**	**802 J**	**903 J**	**827 J**	**2,400 J**	**3,740 J**	**1,040 J**	**3,880**	**3,200**	**3,410**	**1,570**	**1,660**	626 U	655 U
Chromium	mg/kg	**6.8**	**30 J**	**24.4 J**	**34 J**	**34.4 J**	**14.5 J**	**9.8 J**	**9.3 J**	**9.7 J**	**10.6 J**	**4.8 J**	**25.1**	**58.5**	**29.5**	**16.9**	**18.9**	**21**	**7.7**
Cobalt	mg/kg	**2.8 J**	6.6 UJ	6.3 UJ	**11.3 J**	**10.8 J**	**7.5 J**	6 UJ	5.9 UJ	5.9 UJ	**5.6 J**	6.3 UJ	**7.5 J**	**11.4**	**9.4**	**5.2 J**	**5.5 J**	**2.1 J**	**3.8 J**
Copper	mg/kg	**5.4**	**91.6 J**	**89.2 J**	**20.2 J**	**16.5 J**	**13.2 J**	**7.7 J**	**7.4 J**	**10.9 J**	**12.5 J**	**6.5 J**	**104**	**105**	**13.7**	**8.3**	**9.2**	**2.3 J**	**5.3**
Iron	mg/kg	**6,140**	**11,400 J**	**12,900 J**	**38,400 J**	**37,500 J**	**13,500 J**	**12,800 J**	**12,700 J**	**10,900 J**	**11,900 J**	**5,720 J**	**25,400**	**35,000**	**30,900**	**18,000**	**18,500**	**3,790**	**7,060**
Lead	mg/kg	**3.6**	**166**	**174**	**30.9**	**15.4**	**7.7**	**5.6**	**5.5**	**5.7**	**6.3**	**3.2**	**1,190**	**313**	**12.6**	**7**	**7**	**2.3**	**4.1**
Magnesium	mg/kg	**1,430**	**2,660 J**	**3,260 J**	**6,710 J**	**7,020 J**	**2,600 J**	**2,100 J**	**2,010 J**	**3,470 J**	**4,680 J**	**1,880 J**	**2,100**	**7,770**	**6,630**	**3,180**	**2,770**	**913**	**1,280**
Manganese	mg/kg	**50.5**	**158**	**193**	**400**	**403**	**161**	**134**	**136**	**188**	**147**	**64**	**205**	**365**	**379**	**174**	**150**	**37.6**	**65.9**
Mercury	mg/kg	0.12 U	**0.25**	**0.31**	0.2 U	0.17 U	0.12 U	0.12 U	0.12 U	0.12 U	0.11 U	0.13 U	**8.8**	**5.5**	0.15 U	0.13 U	0.14 U	0.13 U	0.13 U
Nickel	mg/kg	**8.9**	**16.1 J**	**16.6 J**	**31.1 J**	**29.9 J**	**15.6 J**	**12.1 J**	**11.9 J**	**14.8 J**	**16.4 J**	**10.9 J**	**27.4**	**30.6**	**26.7**	**14.4**	**13.5**	**5.9**	**8.5**
Potassium	mg/kg	**508 J**	**565 J**	**972**	**3,920**	**3,810**	**1,200**	**739**	**715**	**1,170**	**1,300**	**562 J**	**693 J**	**3,460 J**	**3,110 J**	**1,750 J**	**1,130**	**238 J**	**369 J**
Selenium	mg/kg	4 U	**1.3 J**	**1.3 J**	6.9 U	5.7 U	4 U	4.2 U	4.2 U	4.1 U	3.9 U	4.4 U	**1.5 J**	5.7 U	5.5 U	4.6 U	4.8 U	**0.94 J**	4.6 U
Silver	mg/kg	1.1 U	1.3 U	**0.14 J**	2 U	1.6 U	1.1 U	1.2 U	1.2 U	1.2 U	1.1 U	1.3 U	**0.55 J**	**0.41 J**	1.6 U	1.3 U	1.4 U	1.3 U	1.3 U
Sodium	mg/kg	572 U	658 U	626 U	**1,560**	**2,420**	**896**	**647**	**626**	589 U	555 U	631 U	**1,050**	**2,150**	**2,100**	**894**	**1,240**	626 U	655 U
Thallium	mg/kg	2.9 U	3.3 U	3.1 U	4.9 U	4.1 U	2.8 U	3 U	3 U	2.9 U	2.8 U	3.2 U	3.8 U	4.1 U	3.9 U	3.3 U	3.4 U	3.1 U	3.3 U
Vanadium	mg/kg	**8.9**	**16.7 J**	**17.2 J**	**43.1 J**	**37.4 J**	**18.7 J**	**15.2 J**	**14 J**	**12.7 J**	**13.2 J**	6.3 UJ	**19.1**	**44.9**	**34.5**	**19.9**	**21.7**	**9.8**	**12.8**
Zinc	mg/kg	**15.5**	**158**	**148**	**78.7**	**82.8**	**41.4**	**29.2**	**31.3**	**25**	**28**	**17.8**	**387**	**197**	**64.1**	**34.9**	**34.8**	**16.7**	**17.8**
Cyanide, Total	mg/kg	**0.22 J**	**2.2 J**	**1.3 J**	4.9 U	4.1 U	2.9 U	3 U	2.9 U	2.9 U	2.8 U	3.1 U	3.8 U	4 U	3.9 U	3.3 U	3.4 U	3.1 U	3.2 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
Sample Number:		059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174	059-2175
Sample Depth:		40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	mg/kg	**2,620**	**5,370**	**17,000**	**16,900**	**12,500**	**5,710**	**5,910**	**2,930**	**8,970**	**8,080**	**18,100**	**13,400**	**12,500**	**7,760**	**3,080**	**3,360**	**2,770**	**2,510**
Antimony	mg/kg	7.5 U	**7.6 J**	**0.62 J**	**0.81 J**	**0.61 J**	7.6 UJ	7.5 UJ	8.8 U	8.8 U	**0.75 J**	**0.72 J**	**0.72 J**	**0.72 J**	8.7 U	7.4 UJ	7.6 UJ	7.4 UJ	6.9 UJ
Arsenic	mg/kg	**0.88 J**	**16.8**	**8.6**	**8.6**	**9.4**	**6.7**	**6.6**	**20.3**	**5.9**	**19.8**	**11.6**	**8.2**	**8**	**10.6**	**0.66 J**	1.3 U	1.2 U	**1.2**
Barium	mg/kg	**10.7 J**	**184**	**42.7**	**40.7**	**53.9**	**34.3**	**32.6**	**28.3 J**	**48.6**	**165**	**58**	**29.4**	**55.6**	**73.9**	**19.7 J**	**19.8 J**	**16.1 J**	**12.4 J**
Beryllium	mg/kg	0.62 U	0.93 U	**0.78**	**0.8**	0.74 U	0.64 U	0.62 U	0.74 U	0.74 U	0.71 U	0.85 U	0.72 U	0.72 U	0.72 U	0.61 U	0.63 U	0.62 U	0.58 U
Cadmium	mg/kg	0.62 U	**0.15 J**	**0.03 J**	0.78 U	0.74 U	0.64 U	0.62 U	0.74 U	0.74 U	**0.31 J**	**0.64 J**	**0.54 J**	**0.56 J**	**0.25 J**	**0.045 J**	**0.033 J**	**0.015 J**	**0.052 J**
Calcium	mg/kg	624 U	**4,290**	**3,990**	**2,720**	**2,270**	**13,300**	**1,010**	**1,470**	**1,570**	**3,460 J**	**2,370 J**	**3,670 J**	**2,340 J**	**2,390 J**	**446 J**	**512 J**	**390 J**	**635 J**
Chromium	mg/kg	**6.9**	**44**	**30**	**33.1**	**27.9**	**12.9**	**13.1**	**14.7**	**18.3**	**12.2**	**32.1**	**27.5**	**26.9**	**23.5**	**7.5**	**6.4**	**5.7**	**7.4**
Cobalt	mg/kg	**3.7 J**	**6.1 J**	**9.9**	**10.2**	**7.8**	**3.6 J**	**3.9 J**	**3.9 J**	**5.9 J**	**6.3 J**	**11**	**8.8**	**8.5**	**6.2 J**	**4 J**	**3.7 J**	**3.8 J**	**3.8 J**
Copper	mg/kg	**4.9**	**211**	**22.9**	**15.8**	**12.4**	**5.7**	**6**	**4.2**	**9.6**	**99.2 J**	**47.4 J**	**15 J**	**14.9 J**	**10.8 J**	**5.8 J**	**6.5 J**	**5.2 J**	**5.2 J**
Iron	mg/kg	**6,720**	**16,200**	**30,600**	**34,000**	**27,600**	**12,900**	**13,500**	**8,210**	**18,600**	**15,400**	**32,500**	**29,700**	**28,200**	**15,300**	**6,620**	**7,490**	**6,580**	**8,260**
Lead	mg/kg	**3.6**	**955**	**40**	**16.4**	**10.8**	**5**	**5.4**	**3.7**	**8.1**	**427**	**148**	**12.6**	**12.1**	**7**	**4.3**	**5.1**	**4.2**	**3.6**
Magnesium	mg/kg	**1,250**	**1,120**	**6,440**	**7,320**	**4,930**	**2,230**	**2,350**	**1,460**	**3,560**	**1,600**	**6,810**	**6,270**	**5,220**	**3,000**	**1,310**	**1,570**	**1,370**	**1,300**
Manganese	mg/kg	**64.7**	**150**	**329**	**399**	**253**	**104**	**108**	**73**	**172**	**297**	**323**	**365**	**316**	**152**	**98.6**	**128**	**132**	**234**
Mercury	mg/kg	0.13 U	**3.9**	**0.2**	0.15 U	0.15 U	0.13 U	0.12 U	0.15 U	0.15 U	**1.7**	**0.98**	0.15 U	0.15 U	0.15 U	0.13 U	0.13 U	0.13 U	0.11 U
Nickel	mg/kg	**7.8**	**14.3**	**28.7**	**30**	**22.3**	**9.9**	**10.3**	**8.2**	**15.9**	**14.2**	**32.5**	**26.6**	**23.8**	**14.2**	**8.7**	**8.5**	**7.9**	**8.3**
Potassium	mg/kg	**344 J**	**716 J**	**3,510 J**	**3,940 J**	**2,560 J**	**1,180 J**	**1,130 J**	**441 J**	**1,690 J**	**787**	**3,380**	**2,980**	**2,290**	**1,040**	**383 J**	**427 J**	**338 J**	**329 J**
Selenium	mg/kg	4.4 U	**2.4 J**	5.1 U	5.5 U	5.2 U	4.4 U	4.4 U	**2.7 J**	5.2 U	5 U	5.9 U	5 U	5 U	5.1 U	4.3 U	4.4 U	4.3 U	4 U
Silver	mg/kg	1.2 U	**0.78 J**	1.5 U	1.6 U	1.5 U	1.3 U	1.2 U	1.5 U	1.5 U	**0.13 J**	1.7 U	1.4 U	1.4 U	1.4 U	1.2 U	1.3 U	1.2 U	1.2 U
Sodium	mg/kg	624 U	**1,300**	**1,740**	**1,870**	**1,310**	635 U	622 U	736 U	736 U	711 U	**1,970**	**1,470**	**929**	722 U	613 U	633 U	621 U	578 U
Thallium	mg/kg	3.1 U	4.7 U	3.7 U	3.9 U	3.7 U	3.2 U	3.1 U	3.7 U	3.7 U	3.6 U	4.2 U	3.6 U	3.6 U	3.6 U	3.1 U	3.2 U	3.1 U	2.9 U
Vanadium	mg/kg	**11.1**	**21.4**	**38.7**	**37.5**	**31.1**	**14.8**	**15.8**	**30.3**	**21.4**	**21.8**	**39.3**	**31.2**	**31.1**	**23.1**	**6.2**	**6.7**	**6.7**	**7.2**
Zinc	mg/kg	**16.7**	**226**	**69.2**	**72.3**	**53.9**	**24**	**25.6**	**17.7**	**39.5**	**91.1**	**104**	**61.3**	**57.9**	**36.8**	**19.9**	**20.7**	**17.6**	**15.9**
Cyanide, Total	mg/kg	3.2 U	4.7 U	3.7 U	3.9 U	3.8 U	3.1 U	3.2 U	3.7 U	3.8 U	3.5 U	4.2 U	3.6 U	3.7 U	3.6 U	3.1 U	3.1 U	3 U	2.8 U

TABLE I-31A
Metal and Cyanide Concentrations in Soils
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GCMW-46**	**GCMW-47**	**GCMW-47**	**GCMW-47**	**GCMW-47**	**GCMW-47**	**GCMW-47**	**GCMW-47**
Sample Number:		**059-2176**	**059-2234**	**059-2235**	**059-2236**	**059-2237**	**059-2238**	**059-2239**	**059-2240**
Sample Depth:		**50-55**	**10-15**	**15-20**	**25-30**	**30-35**	**36-36.5**	**40-40.5**	**45-45.5**
Sample Date:		**6/15/2010**	**6/28/2010**	**6/28/2010**	**6/28/2010**	**6/28/2010**	**6/28/2010**	**6/28/2010**	**6/28/2010**
Sample Type:		**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Parameter	**Units**	**Metals**							
Aluminum	mg/kg	**3,300**	**9,120**	**14,200**	**4,400**	**2,750**	**2,210**	**3,250**	**2,890**
Antimony	mg/kg	**0.51 J**	**0.61 J**	**0.71 J**	7.6 U	7.2 U	7 U	7.1 U	7.3 U
Arsenic	mg/kg	**1.4**	**13.3**	**9.4**	**3.4**	**7.5**	**2.2**	**0.6 J**	**0.72 J**
Barium	mg/kg	**15.9 J**	**50.3**	**33.7**	25.4 U	24.1 U	23.3 U	23.7 U	24.4 U
Beryllium	mg/kg	0.57 U	0.73 U	0.79 U	0.63 U	0.6 U	0.58 U	0.59 U	0.61 U
Cadmium	mg/kg	**0.11 J**	0.73 U	0.79 U	0.63 U	0.6 U	0.58 U	0.59 U	0.61 U
Calcium	mg/kg	**3,890 J**	**3,720**	**3,940**	**661**	601 U	582 U	594 U	609 U
Chromium	mg/kg	**7.8**	**20.7**	**29**	**9**	**6.5**	**7.9**	**5.2**	**5.7**
Cobalt	mg/kg	**5.2 J**	**7 J**	**9.8**	**3 J**	**2.1 J**	5.8 U	5.9 U	6.1 U
Copper	mg/kg	**8.2 J**	**45**	**17.3**	**4.9**	**3.4**	**4.3**	**5.3**	**5.7**
Iron	mg/kg	**10,600**	**22,100**	**32,500**	**10,800**	**6,730**	**4,970**	**7,450**	**6,960**
Lead	mg/kg	**5.1**	**86.6**	**20.5**	**3.5**	**2.9**	**2.3**	**4.5**	**4.4**
Magnesium	mg/kg	**3,500**	**3,980**	**6,490**	**1,870**	**1,110**	**1,090**	**1,560**	**1,400**
Manganese	mg/kg	**240**	**221**	**381**	**103**	**38.5**	**40.3**	**79.3**	**61**
Mercury	mg/kg	0.12 U	**1.2**	**0.47**	0.12 U	0.13 U	0.12 U	0.12 U	0.12 U
Nickel	mg/kg	**12**	**19.2**	**26.3**	**8**	**5**	**5.5**	**8.1**	**7.8**
Potassium	mg/kg	**518 J**	**1,840 J**	**2,950 J**	**740 J**	**502 J**	**269 J**	**415 J**	**363 J**
Selenium	mg/kg	4 U	5.1 U	5.5 U	4.4 U	4.2 U	4.1 U	4.2 U	4.3 U
Silver	mg/kg	1.1 U	**0.14 J**	1.6 U	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U
Sodium	mg/kg	567 U	**821**	**1,860**	**670**	601 U	582 U	594 U	609 U
Thallium	mg/kg	2.8 U	3.7 U	3.9 U	3.2 U	3 U	2.9 U	3 U	3 U
Vanadium	mg/kg	**12.9**	**23.9**	**33.4**	**12.2**	**7.3**	**6.9**	**6.1**	**6.5**
Zinc	mg/kg	**21.6**	**116**	**67.2**	**19.2**	**13**	**13.4**	**20**	**18.5**
Cyanide, Total	mg/kg	2.9 U	**0.24 J**	3.9 U	3.1 U	3.1 U	2.8 U	2.9 U	3 U

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TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-01	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02	GCMW-02
Sample Number:		SB01A	SB01B	SB01C	SB01D	SB01D-S-NYC	SB01E	SB01F	SB01G	SB01H	SB01H-S-NYC	SB02A	SB02B	SB02C	SB02C-S-NYC	SB02D	SB02E	SB02F	SB02G
Sample Depth:		0-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		N	N	N	N	S	N	N	N	N	S	N	N	N	S	N	N	N	N
Parameter	**Units**											**Metals**							
*Aluminum	mg/kg	11,700	15,700	9,330	9,560	6,210	7,080	4,390	3,810	3,680	2,570	6,910	14,100	15,900	13,200	13,000	6,340	4,320	3,480
*Antimony	mg/kg																		
Arsenic	mg/kg	10.1	10.7	8.5	6.9	8.6	5.6				1.2	5.6	9.7	8.5	10.2	8.6			
Barium	mg/kg	81.9	81.9	176	86	142	81.3					73.7	183	93.6	49.6		24.6		
Beryllium	mg/kg	0.55	0.64	0.34	0.38			0.26				0.27	0.59	0.66			0.46	0.39	0.33
Cadmium	mg/kg			0.76		1.1													
*Calcium	mg/kg	16,700	4,280	29,100	18,800	23,800	17,900		1,790	1,520	1,300	2,900	3,250	2,770	3,170	4,300		936	1,520
*Chromium	mg/kg	28.5	30.3	24.1	28.7	21.6	19.6	10.6	10.3	11.3	7.3	15.8	30.3	31.8	29.4	24.1	11.2	11.2	11.1
*Cobalt	mg/kg	8.4	8.9									6.5		8.2					
Copper	mg/kg	39.1	32	474	44.1		168	6.5	7.3	8.7		27.9	25.6	28.6	23.2	14	8.6	8.3	10
*Iron	mg/kg	29,400	23,300	21,100	22,400	25,500	19,200	8,260	10,000	9,340	7,430	12,100	27,200	27,100	30,500	23,200	9,320	8,380	7,700
Lead	mg/kg	100	103	370	101	374	281	5.2	4.8	8.6	10.9	154	403	87	63.8	13.6	6.8	4.8	15.5
*Magnesium	mg/kg	5,280	5,250	6,140	6,260	4,780	4,440	1,480	2,290	2,460	1,990	2,050	4,600	5,450	5,120	5,830	2,020	2,640	2,170
Manganese	mg/kg	373	269	376	300	445	260	46.3	148	73.5	102	250	257	271	284	203	64	62.9	62.6
Mercury	mg/kg	**1.5 (Q)**	0.49	**1.4 (Q)**	**1.2 (Q)**	**0.94 (Q)**	0.29					0.4	0.31	0.16	0.21	0.12			
Nickel	mg/kg	28.8	35.7	27.7	25.6	23.2	19.6	8.8	13.8	13	11.6	25.2	26.9	28.4	26.9	19.2	10.2	19.5	13.6
*Potassium	mg/kg	2,130	2,730	1,670	2,040	1,020	1,580				457 J	1,100	2,970	3,360	2,490		1,210		
Selenium	mg/kg																		
Silver	mg/kg			1.9		2.4	3.4						1.1	1.5					
*Sodium	mg/kg					697									1,070	4,670			
*Thallium	mg/kg																		
*Vanadium	mg/kg	27.9	32.1	24.6	26.8	24.2	19.4	13.3	12.9	11.5	10	19.8	32.7	36.1	33.9	36.5	14.4	12.2	11.2
Zinc	mg/kg	128	89.3	230	146	254	163	23.5	23	23.3	18.3	65.3	79.1	80.9	78.8	48.8	26.2	21.7	19.6
Cyanide, Total	mg/kg	0.46		0.63															

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-02	GCMW-02	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-03	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-04	GCMW-05	GCMW-05
Sample Number:		SB02G-S-NYC	SB02H	059-2072	059-2073	059-2074	059-2075	059-2076	059-2077	059-2078	059-2099	059-2100	059-2101	059-2102	059-2103	059-2104	059-2105	059-2031	059-2032
Sample Depth:		30-35	35-36	10-15	15-20	22-22.5	24.5-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	30-35	5-10	10-15
Sample Date:		6/4/2010	6/4/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	5/27/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	5/21/2010	5/21/2010
Sample Type:		S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N
Parameter	**Units**																		
											Metals								
*Aluminum	mg/kg	2,110	3,370	12,700	5,340	4,430	4,450	2,140	4,270	4,860	8,030	16,000	6,920	4,820	3,760	2,820	3,370	5,460 J	15,400 J
*Antimony	mg/kg										0.45 J	0.89 J							0.74 J
Arsenic	mg/kg			7.3		0.5 J	0.97 J		2.2	0.78 J	3.7	8.7	2.1	1.2 J				4.5	8.6
Barium	mg/kg			32.3 J	12.6 J	22.2	25.7	12.8 J	31.3	32.6	71.3	33.9 J	36.3	35.3	26.3	32.2	34.9	81.2 J	35.9 J
Beryllium	mg/kg		0.3	0.69 J	0.26 J	0.25 J	0.31 J	0.13 J	0.36 J	0.28 J								0.78 J	0.84
Cadmium	mg/kg			0.25 J					0.11 J	0.067 J								0.078 J	0.19 J
*Calcium	mg/kg	959	1,350	2,260			705	592	1,470	7,710	2,460	3,170	640 J	374 J	717	805 J	2,300 J	16,100 J	3,200 J
*Chromium	mg/kg	6.5	10.5	27.5	11.3	14.3	13.2	6.5	13.5	10.9	16.8	31.7	12.7	10.2	6.9	7.5	6.5	15 J	31.7 J
*Cobalt	mg/kg			7.7 J	3.2 J	3.2 J	5.1 J	2.4 J	11	5.6 J	7.1	9.9	6 J	4.3 J	5.7 J	5.8	3.5 J		10.1 J
Copper	mg/kg		7	14.3	4	8.9	15.1	6.3	24	13.6	23.1	16.4	11.6	11.7	13.3	12.7	10.5	37.8	18.5
*Iron	mg/kg	5,350	7,630	28,200	6,770	8,070	6,950	3,860	12,600	10,300	13,600	34,500	13,900	8,610	9,140	6,890	6,680	9,380 J	32,900 J
Lead	mg/kg	7.2	6.9	23.3	4.8	4.7	4.8	2.4	7	5	75.5	16	6.5	5.4	5	4.4	3.6	112	24.4
*Magnesium	mg/kg	1,630	2,350	5,230	1,860	1,860	2,020	1,260	17,900	6,140	4,130	6,750	2,270	1,490	3,130	12,000 J	3,460 J	3,750 J	6,580 J
Manganese	mg/kg	43.3	57.6	262	76.3	40.7	67.5	59.7	529	262	204	368	61.9	57.9	99.5345	150 J	261 J	218	352
Mercury	mg/kg	0.06 J									0.16							**0.93 (Q)**	0.12 J
Nickel	mg/kg	10.8	13.2	22.9	13.4	10.7	23.5	11.8	**139 (Q)**	30.8	30.4	26.5	13.3	12.2	25.2	88.4		22.7 J	30.2 J
*Potassium	mg/kg	360 J		2,700	655	763	789	389 J	910	1,310	1,880	3,570	1,100	768	727	689	787	918	3,420
Selenium	mg/kg			1.1 J															
Silver	mg/kg																		
*Sodium	mg/kg			2,740								1,600	824					5,610	2,020
*Thallium	mg/kg																		
*Vanadium	mg/kg	8.4	12.4	32.1	10.6	15.1	12.5	5.3 J	16.9	13.7	21	36.6	17.7	14.6	9.6	7	8	8.5 J	37.1 J
Zinc	mg/kg	17.2	14.4	57	19.6	22.5	22.6	11.8	31.2	26.6	54.7	69.4	30.5	23.2	19.6	17.4	17.6	49.6	75
Cyanide, Total	mg/kg																	0.29 J	

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-05	GCMW-05	GCMW-05	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-06	GCMW-07	GCMW-07	GCMW-07	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08	GCMW-08
Sample Number:		059-2033	059-2034	059-2035	059-2025	059-2026	059-2027	059-2028	059-2029	059-2030	059-2205	059-2206	059-2207	059-2198	059-2199	059-2200	059-2201	059-2202	059-2203
Sample Depth:		15-20	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	20-25	25-30	5-10	10-15	15-20	20-25	25-30	30-35
Sample Date:		5/21/2010	5/21/2010	5/21/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	5/20/2010	6/21/2010	6/21/2010	6/21/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**										**Metals**								
*Aluminum	mg/kg	14,600 J	2,900 J	3,340 J	7,330 J	16,100 J	16,700 J	8,800 J	3,140 J	2,400 J	6,440	10,300	4,400	14,900	13,900	13,600	12,600	5,260	3,390
*Antimony	mg/kg	0.78 J				0.64 J	1.1 J	0.5 J								0.84 J	0.71 J	0.39 J	
Arsenic	mg/kg	9.6	0.51 J	1.2	2.9	9.1	11.3	8.2	0.89 J	0.9 J	7.2	5.5	2.2	9.5	9.8	9.5	9.8	**16.6 (Q)**	
Barium	mg/kg	38.3 J	14.7 J	21.1 J	31.8 J	33.8 J	56.2 J	54.8 J	17.9 J	27.8 J	34.6	38.5	44.8	29.3 J		28.2 J	59.7	64.3	31.7
Beryllium	mg/kg	0.81 J			0.45 J	0.87	0.89	0.6 J	0.22 J	0.19 J	0.31 J	0.44 J	0.4 J	0.79 J	0.73 J				
Cadmium	mg/kg	0.16 J			0.027 J	0.12 J	0.17 J	0.35 J			0.84	0.48 J	0.31 J	1.3	1.2	0.56 J	0.45 J	0.17 J	0.021 J
*Calcium	mg/kg	2,700 J	606 J	762 J	1,770 J	2,140 J	3,110 J	2,140 J			9,160	2,680 J	909 J	6,330 J	2,690 J	2,330	2,160	2,980	11,500
*Chromium	mg/kg	32.2 J	7.6 J	8.8 J	13.6 J	34.1 J	35 J	52.7 J	11 J	6 J	11.9	19.4	10.5	32.4 J	31.3 J	30.4	27.6 J	14.5	7
*Cobalt	mg/kg	9.3 J				10.5 J	10.8 J				3.3 J	5.2 J	5.3 J			9	10.4	6.9	3.6 J
Copper	mg/kg	14.5	5.1	7.8	9.9	16	17	14.2	4.4	3.2	29.5	17.9	9.3	17.2	16.5	18.5	19.5	11.9	9.7
*Iron	mg/kg	33,800 J	5,590 J	7,780 J	13,000 J	37,200 J	38,400 J	15,800 J	5,500 J	6,520 J	32,100	21,700	10,300	34,500 J	32,700 J	31,900	26,900	12,400	6,830
Lead	mg/kg	14.7	3.3	3.2	8.8	15.2	15.3	7.9	3.4	2.7	47.5	14.8	5.3	14 J	12.8 J	13.6	13	6.4	3.4
*Magnesium	mg/kg	6,120 J	1,410 J	1,960 J	2,690 J	6,990 J	6,920 J	3,660 J	1,540 J	1,190 J	2,780 J	4,370 J	2,190 J	6,820 J	6,660 J	5,730	4,840	3,200	4,750
Manganese	mg/kg	310	46.5	140	338	384	377	111	38	33	161	258	203	384	384	285	223	145	236
Mercury	mg/kg										0.13								
Nickel	mg/kg	27.7 J	8.9 J	17.9 J	16.3 J	29.3 J	30.3 J	27.5 J	9.2 J	7.4 J	18.1	18.7	13.7	27.5	27.2	25	24	17	11
*Potassium	mg/kg	3,120	509 J	629	1,250	3,580	3,600	1,610	565	501 J	1,070 J	2,250 J	1,080 J	4,050 J	3,780 J	2,950	2,210	1,040	753
Selenium	mg/kg							**5.8 (Q)**											
Silver	mg/kg																		
*Sodium	mg/kg	2,420				2,240	3,580	3,140	839	1,040	736	3,000		2,500	2,980	3,020	1,950	589	
*Thallium	mg/kg										0.92 J			2.9 J	1.4 J				
*Vanadium	mg/kg	34.4 J	9.5 J	7.7 J	20.8 J	37.6 J	39.5 J	27.4 J	9.5 J	6.8 J	16.9	24.6	17.4	35.6	33.1	32.6	30.8	21.7	8.2
Zinc	mg/kg	67.2	18.5	18	30.3	74.7	85.1	60.7	20.2	18.4	48.2 J	48.4 J	34.2 J	77.5 J	72.7 J	64	62	33.2	16.7
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-09	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10
Sample Number:	SB09A	SB09B	DUP03	SB09C	SB09C-S-NYC	SB09D	SB09E	SB09F	SB09G	SB09H	SB09H-S-NYC	SB10A	SB10B	SB10C	SB10C-S-NYC	SB10D	SB10E	SB10F
Sample Depth:	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	35-40	0-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010
Sample Type:	N	N	FD	N	S	N	N	N	N	N	S	N	N	N	S	N	N	N
Parameter	**Units**											**Metals**						
*Aluminum	mg/kg	5,370	4,200	5,110	5,500	4,090	9,080	5,870	14,000	16,800	4,730	5,210	6,370	5,570	7,470	6,320	8,340	7,330	7,020
*Antimony	mg/kg					0.97 J													
Arsenic	mg/kg	7.2	10.5	11.1	9.3	8.7	8	4.6	9.1	14.4		2.3	6.6	7.1		2			
Barium	mg/kg	81.6	122	119	133	115	134	40.3	108	43.3	25.5	32.6	662	214	56.4	36.8	33	39.8	37.4
Beryllium	mg/kg	0.27	0.25	0.36	0.31	0.27 J	0.54	0.38	0.65	0.79	0.26	0.3 J	0.33	0.3	0.32	0.22 J	0.39	0.42	0.36
Cadmium	mg/kg			0.68		0.63							0.69	0.67					
*Calcium	mg/kg	45,200	22,000	12,900	18,500	26,900	19,800	1,920	2,630	2,440		574	26,800	19,500	1,860	924	1,660	1,750	1,170
*Chromium	mg/kg	16.2	12.4	14.4	19.2	14.7	41.7	10.5	21.1	30.8	16.9	25.5	14.4	14.1	12.3	11.4	12.5	11.9	10.3
*Cobalt	mg/kg						10.8		14.5	10.3									
Copper	mg/kg	29.2	30.1	33.3	48.3		214	45.7	63.6	60.1	8.3		60.1	51.5	14		15.2	14.6	13
*Iron	mg/kg	11,300	15,400	50,000	18,000	16,300	14,800	10,500	23,400	32,300	5,680	6,860	15,500	13,200	10,500	10,500	14,600	14,300	14,000
Lead	mg/kg	84	125	111	143	128	406	113	**650 (Q)**	39.2	10.6	16	**666 (Q)**	381	77.8	8	35	24.2	5.5
*Magnesium	mg/kg	10,900	8,820	4,070	4,670	11,100	7,750	1,140	3,620	5,540	1,300	1,470	4,650	6,300	3,200	1,970	2,900	2,930	2,700
Manganese	mg/kg	161	142	182	144	128	678	61.8	291	298	47.7	51.1	219	224	125	112	149	168	389
Mercury	mg/kg	0.26	0.49	0.54	0.42	0.39	0.51	0.13	**0.77 (Q)**	0.056			**1.5 (Q)**	**0.87 (Q)**	0.057		0.086	0.37	
Nickel	mg/kg	10.4	11	13.9	13.9	14.2	33.2	17	35.3	24.1	9.1	10.7	15.4	14.2	13.3	14.4	14.9	14	12.9
*Potassium	mg/kg		1,380	1,760	1,850	1,600			2,280	3,290		469 J				494 J			
Selenium	mg/kg																		
Silver	mg/kg					0.23 J						0.068 J				0.12 J			
*Sodium	mg/kg																		
*Thallium	mg/kg																		
*Vanadium	mg/kg	17.4	16.5	17.4	21.1	18.7	18.4	12.4	24.5	35.3	10.2	11.6	17.4	16.4	16.9	12.8	16.1	13.7	13.5
Zinc	mg/kg	84.9	88.5	102	122	130	139	62.1	236	71.4	25	31.1	400	291	110	101	52.8	43.7	32.6
Cyanide, Total	mg/kg													0.69					

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-10	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-11	GCMW-12	GCMW-12	GCMW-12	GCMW-12
Sample Number:		SB10G	SB10H	SB10I	SB10I-S-NYC	D-06072010-S-NYC	059-2046	059-2047	059-2048	059-2049	059-2050	059-2051	059-2052	059-2053	059-2054	059-2036	059-2037	059-2038	059-2039
Sample Depth:		30-35	35-40	40-45	40-45	40-45	7-7.5	10-10.5	10-15	15-20	20-25	25-30	36-36.5	39-39.5	40-45	5-10	10-15	16.5-17	20-20.5
Sample Date:		6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010
Sample Type:		N	N	N	S	SFD	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
										Metals									
*Aluminum	mg/kg	6,470	5,160	4,360	4,580	3,590	4,550	8,370	3,830	13,300	6,040	2,100	3,770	3,340	3,090	5,200	5,850	4,920	4,590
*Antimony	mg/kg									0.54 J									
Arsenic	mg/kg				1.6	1.5	3.4	3.8	2.5	10.2	3	1.1 J	0.92 J	2.1	5.9	1.4	1.5	1.1 J	1.8
Barium	mg/kg	32.8			18.5 J	14.5 J	41.2	45.3	16.5 J	25.4 J	18.3 J	21.2 J	37.4	20.5 J	244	20.4 J	30.1	31.1	32.4
Beryllium	mg/kg	0.33	0.24	0.27	0.23 J	0.22 J		1.1											
Cadmium	mg/kg						0.13 J	0.14 J		0.33 J	0.016 J				0.075 J		0.04 J		0.017 J
*Calcium	mg/kg	2,940	983		1,750	687	2,280	1,470	769	1,830	800		635		664	2,590	755	711	724
*Chromium	mg/kg	11.3	9	8.8	9.6	7.7	11.1	18.8	7.2	28.2	12.2	5.7	8.2	6.3	6.5	8.4	10.5	9.3	8.6
*Cobalt	mg/kg						4.7 J	25	3.2 J	9.3	4.5 J	3.1 J	5.2 J	4.4 J	5.2 J	3.2 J	6.3	3.8 J	4 J
Copper	mg/kg	11.9	8.1	7			27.6	17.7	6.5	15.7	9.1	3.2	6.5	7.1	6.1	13.1	14.8	10	10.5
*Iron	mg/kg	13,800	10,700	9,570	11,200	8,790	8,400	13,400	9,400	33,600	13,900	5,540	9,130	9,410	12,500	10,600	12,300	11,000	10,200
Lead	mg/kg	6	3.4	4.1	4.6	4	76.2	9.2	8.2	13.6	5.6	2.8	5.4	5.8	4.7	17.6	8.7	5.9	4.5
*Magnesium	mg/kg	2,420	2,160	1,580	2,070	1,520	1,880	4,130	1,480	5,650	2,710	766	1,550	1,560	1,400	1,830	2,370	2,100	1,880
Manganese	mg/kg	231	197	95.1	187	92	109	209	122	376	138	50.4	74.8	83.8	1,120	168	256	124	127
Mercury	mg/kg						0.14												
Nickel	mg/kg	12.1	10.2	8.4	11	9	15.2	70.8	8.6	26.4	13.6	6.2	11.8	10.4	13.8	10.3	15.1	13	12.7
*Potassium	mg/kg				555 J	485	862	1,650	523 J	2,710	996	352 J	669	460 J	419 J	646	813	806	726
Selenium	mg/kg																		
Silver	mg/kg				0.13 J	0.1 J													
*Sodium	mg/kg									1,390									
*Thallium	mg/kg																		
*Vanadium	mg/kg	12.7	9.6	11.9	10.4	9.2	14.2	20.2	10.5	32.5	13	7.5	13.1	9.1	10	10.4	10.8	9.4	8.7
Zinc	mg/kg	33.2	26.3	23	35.9	24.7	68.6	186	20.5	68.8	30.5	16.9	25.7	21.5	22.2	22.5	34.9	30.5	31.2
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-12	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-13	GCMW-14	GCMW-14	GCMW-14
Sample Number:	059-2040	059-2041	059-2045	059-2042	059-2043	059-2044	059-2177	059-2178	059-2179	059-2180	059-2181	059-2182	059-2183	059-2184	059-2185	059-2186	059-2187	059-2188
Sample Depth:	26.5-27	29.5-30	29.5-30	30-35	35-40	40-45	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	6-6.5	10-10.5	10-15
Sample Date:	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	5/24/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/16/2010	6/17/2010	6/17/2010	6/17/2010
Sample Type:	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**											**Metals**							
*Aluminum mg/kg	6,700	2,800	2,540	3,180	3,370	4,140	6,000	8,370	6,470	8,910	11,900	2,730	2,560	2,330	2,620	6,000	3,850	4,530
*Antimony mg/kg								0.46 J	0.4 J									
Arsenic mg/kg	2.5	3.8	3.3	1.1 J	1.3	2.8	1.3	4.7	4.4	9.6	**17 (Q)**	2.2	1.6	3.7	5.6	1.8	1.9	1.8
Barium mg/kg	35.7	16.1 J	14.6 J	22.1 J	15.7 J	20.6 J	25.4	16.2 J	13.9 J	48.5	112	52.1		27.3	33.8	41.5	24.6	13.9 J
Beryllium mg/kg																		0.23 J
Cadmium mg/kg	0.063 J			0.015 J		0.059 J	0.12 J	0.22 J	0.2 J	0.88	1.3							
*Calcium mg/kg	1,230					626	1,050 J	2,250 J	1,960 J	2,500 J	3,050 J	1,180 J			775 J	14,500 J	1,250	1,760 J
*Chromium mg/kg	11	8.6	7.8	6.8	11.7	8.3	12.4	16.6	13.3	21.6 J	33.6 J	49.5 J	9.4 J	6 J	7 J	10.1 J	7.2	7.9 J
*Cobalt mg/kg	5.4 J	3.8 J	3.5 J	4.6 J	3.9 J	5.1 J	5.3 J	5.6 J	4.3 J	4.2 J								
Copper mg/kg	15.7	4.5	4	5	6.3	8.3	12.6 J	8.8 J	7.7 J	13.9	16.2	8.7	5.2	6.1	7.2	11.7	13	6.5
*Iron mg/kg	15,800	10,200	9,070	6,390	12,900	13,200	11,500	18,100	14,300	23,300 J	32,500 J	3,820 J	8,170 J	11,500 J	11,600 J	7,960 J	7,970 J	8,420 J
Lead mg/kg	7.2	3.9	3.5	3.9	4.8	6.1	6.9	7.6	6.2	8.4 J	10.6 J	2.8 J	4.1 J	3.4 J	3.9 J	18.3 J	4.6 J	4.5 J
*Magnesium mg/kg	2,800	890	820	1,100	1,600	1,780	2,580	4,000	2,750	3,490 J	4,560 J	998 J	1,210 J	1,420 J	1,510 J	9,770 J	1,760 J	2,050 J
Manganese mg/kg	148	96.6	86.6	91.4	81.7	110	111	210	156	185	286	107	151	360	500	352	202	141
Mercury mg/kg																		
Nickel mg/kg	15.2	8	7.1	8.5	11.1	12.4	19.9	19.7	12.8	17	21.8	8.5	7.8	8.4	8.8	14.4	13.3	11.7
*Potassium mg/kg	1,080	452 J	402 J	453 J	439 J	506 J	1,260	1,620	1,130	1,840 J	2,450 J	310 J	403 J	337 J	355 J	1,380 J	780 J	773 J
Selenium mg/kg											1.2 J	2.1 J						
Silver mg/kg																		
*Sodium mg/kg																		
*Thallium mg/kg																		0.47 J
*Vanadium mg/kg	13.3	11.4	10.1	11.8	12.8	11	21.9	19	14.8	21.4	29.2	14.8	7.3	8.3	8.7	14.4	10.9	9.2
Zinc mg/kg	40.6	22.9	20.4	23.6	23.4	26	29	40.8	29.2	45.6 J	60.2 J	18.8 J	18.5 J	17.9 J	18.6 J	29.9 J	20.4 J	21.8 J
Cyanide, Total mg/kg																0.55 J	0.23 J	

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-14	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15	GCMW-15
Sample Number:		059-2189	059-2190	059-2191	059-2197	059-2192	059-2193	059-2194	059-2195	059-2196	059-2089	059-2090	059-2091	059-2092	059-2093	059-2094	059-2095	059-2096	059-2097
Sample Depth:		15-20	20-25	25-30	25-30	30-35	35-40	40-45	45-50	50-55	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/17/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
											Metals								
*Aluminum	mg/kg	8,450	6,410	2,830	3,580	8,500	3,090	6,840	2,840	2,640	6,650	16,000	4,570	2,550	2,150	5,150	3,350	3,010	2,800
*Antimony	mg/kg										4.4 J	3.6 J	0.85 J						
Arsenic	mg/kg	5	4.4	2.1	4	3.3	2.8	4.4	1.6	3.4	7.4	**39.3 (Q)**	11.1	2.1	0.91 J	2.1	1.3	1.3	1.5
Barium	mg/kg	18 J		13 J	16.4 J	44.6	11 J	30.9	13.8 J	15.5 J	233	638	45.4	15.7 J	5.4 J	18.4 J	24.7	11.4 J	9 J
Beryllium	mg/kg	0.42 J		0.19 J	0.25 J	0.8	0.25 J	0.62	0.3 J	0.28 J									
Cadmium	mg/kg	0.78	0.59 J								1.6	1.8							
*Calcium	mg/kg	932 J				898 J		1,340 J			70,100	193,000	3,490	7,090	407 J	354 J	421 J	87.1 J	220 J
*Chromium	mg/kg	17.5 J	12.3	19.3 J	21.2 J	24.3 J	6.5 J	19.5 J	5.9 J	5.7 J	23.1	26.9	15.4	8.8	9.2	13.4	7	6.1	6.3
*Cobalt	mg/kg		3 J			8.3					5 J	7.5	7.2	3.1 J	3 J	3.6 J	3.8 J	5.2 J	6.3
Copper	mg/kg	11.7	9.2		3.6	16.1	7.1	12.5	6	6.1	77.7	135	32.1	3.7	2.5 J	7.1	6.2	6	5.8
*Iron	mg/kg	21,100 J	16,200 J	4,310 J	6,960 J	13,800 J	7,900 J	19,100 J	7,490 J	9,490 J	22,800 J	111,000 J	24,400 J	7,410 J	5,520 J	13,300 J	8,880 J	9,130 J	8,880 J
Lead	mg/kg	7.4 J	5.4 J	2.6 J	3.4 J	10 J	4.9 J	7.9 J	3.9 J	3.7 J	**628 (Q)**	**611 (Q)**	216	12.8	2.7	5.6	4.3	4.2	3.6
*Magnesium	mg/kg	3,970 J	2,690 J	872 J	1,180 J	3,060 J	1,400 J	2,520 J	1,270 J	1,110 J	11,200 J	20,500 J	4,290 J	5,100 J	6,690 J	1,830 J	1,940 J	1,260 J	1,230 J
Manganese	mg/kg	226	153	29	43.3	128	235	294	58.9	98.9	294	694	142	99.3	53.9	52.1	62	69.9	68
Mercury	mg/kg										**0.9 (Q)**	**0.89 (Q)**	0.14						
Nickel	mg/kg	18.7	13.3	5.4	8.3	18	12.7	14.3	10	10	16.2 J	27.9 J	38.7 J	30.3 J	52.9 J	9.1 J	12.7 J	10.1 J	11.7 J
*Potassium	mg/kg	1,940 J	1,330 J	369 J	575 J	1,820 J	494 J	1,520 J	512 J	440 J	891	1,330	1,570	686	798	1,170	695	607	509 J
Selenium	mg/kg																		
Silver	mg/kg			0.061 J							0.4 J	0.76 J							
*Sodium	mg/kg	799				1,370		910			744	858	646			1,370	715		
*Thallium	mg/kg	0.96 J				0.71 J		0.89 J		0.68 J									
*Vanadium	mg/kg	19.7	15.1	7.9	9.8	36	10.2	29.3	7.7	8	31.7	27	16.8	9.6	8	20.8	11.6	9.6	9
Zinc	mg/kg	43 J	31.5 J	15 J	18.7 J	54.7 J	25.5 J	45.9 J	20.2 J	18.8 J	358	580	41.3	15.4	10	25.1	20.9	20.1	17.8
Cyanide, Total	mg/kg										0.28 J	0.26 J							

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-15	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-16	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-17
Sample Number:		059-2098	059-2079	059-2080	059-2081	059-2082	059-2083	059-2084	059-2088	059-2085	059-2086	059-2087	SB17A	SB17B	SB17C	SB17C-S-NYC	SB17D	SB17E	SB17F
Sample Depth:		50-55	5-10	10-15	15-20	20-25	25-30	30-35	30-35	40-45	45-50	50-55	2-5	5-10	10-15	10-15	15-20	20-25	25-30
Sample Date:		6/2/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/1/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/2/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	S	N	N	N
Parameter	**Units**												**Metals**						
*Aluminum	mg/kg	2,570	10,100	6,280	5,800	5,840	8,290	5,400	5,080	3,070	2,640	2,800	7,610	10,000	7,460	6,340	11,800	11,400	5,970
*Antimony	mg/kg				0.35 J	0.42 J	0.38 J		0.42 J										
Arsenic	mg/kg	1.2	7.1	3.8	1.2 J	2.7	4.8	2.4	2.5	0.93 J	1.1 J	1.2	6.5	4.8	10.2	10.3	8.1	7.2	5.5
Barium	mg/kg	8.1 J	38.5	25.3	16.7 J	24.7	47.7	18.4 J	25.8	14.4 J	10 J	10.7 J	49.7	77.4	338	277	40.4		
Beryllium	mg/kg						0.74							0.38	0.45		0.47	0.47	0.29
Cadmium	mg/kg												0.54	1.1					
*Calcium	mg/kg	238 J	14,200	3,910	1,030	737	1,080	524 J	401 J	1,530	859	253 J	46,000	35,700	21,300	27,000	2,870	5,360	1,730
*Chromium	mg/kg	6.5	19	12.9	9.3	11	22	12	11.2	6.2	6.5	6.4	20.3	17.7	17.4	16.8	22.8	20.4	11.6
*Cobalt	mg/kg	5.6 J	7.1 J	4.9 J	4.2 J	5.7 J	6.3	5.5 J	5.4 J	4.1 J	3.5 J	3.5 J		12.2		6.9			
Copper	mg/kg	4.9	22.4	8.9	12.4	11.4	13.9	7.9	7.8	5.7	4.7	4.6	55.9	59.5	49.7		13.5	12.2	7.4
*Iron	mg/kg	7,400 J	19,500 J	13,100 J	11,700 J	13,800 J	18,900 J	17,400 J	17,800 J	8,360 J	9,250 J	9,290 J	11,400	16,900	12,900	14,200	21,600	21,600	12,600
Lead	mg/kg	3.4	55.9	26.5	5.3	5.6	9.7	5.9	5.8	5.2	4.1	3.7	76.6	102	**1,170 (Q)**	**667 (Q)**	33.7	11	8.4
*Magnesium	mg/kg	1,200 J	4,770 J	4,450 J	2,670 J	2,190 J	3,250 J	1,980 J	1,870 J	1,300 J	1,210 J	1,120 J	25,800	17,700	5,960	5,260	5,090	4,380	2,410
Manganese	mg/kg	57.4	303	170	80.6	105	254	89.1	89.4	59.1	75.9	74.3	192	237	277	280	281	236	129
Mercury	mg/kg		**0.82 (Q)**	0.078 J									0.42	0.23	**3.4 (Q)**	**1.9 (Q)**	0.075	0.047	
Nickel	mg/kg	9.9 J	25.5 J	27.9 J	20.9 J	18.7 J	13.9 J	11.1 J	9.9 J	9.4 J	8.5 J	8.3 J	16.9	41	21.4	22.2	26	20.3	10.8
*Potassium	mg/kg	491 J	2,030	1,250	1,090	1,080	1,780	1,000	971	528 J	495 J	408 J	1,760			632 J	2,690	2,380	1,340
Selenium	mg/kg																		
Silver	mg/kg																		
*Sodium	mg/kg				755	753	842						1,490	1,920		1,070			
*Thallium	mg/kg																		
*Vanadium	mg/kg	7.6	22.6	14.1	11.1	13.9	34.3	15.9	16.7	8.7	10.4	8.5	28.4	54.8	29	32	25.8	23.5	15
Zinc	mg/kg	16.9	55.7	31	31.8	35.3	44.1	30.5	29.6	20.4	16.8	16.7	96.9	86.4	155	142	56.3	47.5	29.2
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-17	GCMW-17	GCMW-17	GCMW-17	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18	GCMW-18
Sample Number:		SB17G	SB17H	SB17I	SB17I-S-NYC	SB18A	SB18B	SB18C	DUP02	SB18D	SB18D-S-NYC	SB18E	DUP04	SB18F	SB18G	SB18H	SB18I	SB18J	SB18K
Sample Depth:		30-35	35-40	40-45	40-45	2-5	5-10	10-15	10-15	15-20	15-20	20-25	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Sample Date:		6/2/2010	6/2/2010	6/2/2010	6/2/2010	6/7/2010	6/7/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	S	N	N	N	FD	N	S	N	FD	N	N	N	N	N	N
Parameter	**Units**										**Metals**								
*Aluminum	mg/kg	3,640	4,270	5,650	3,260	5,770	6,630	8,580	8,740	6,950	8,050	10,700	7,440	11,500	6,570	5,980	6,300	4,350	3,250
*Antimony	mg/kg										0.7 J								
Arsenic	mg/kg	3.7	4.3	3.8	3.2	3.8	2.6	8.2	8.1	4.5	7.1	5.3	5	6.7	4.8	3.5	2.7		
Barium	mg/kg			40.3			61.8	113	101	30.5	47.9	27.3	27	33.4			20.7		
Beryllium	mg/kg			0.29				0.44	0.43	0.3	0.42 J	0.46	0.33	0.5	0.32	0.3	0.37	0.23	0.2
Cadmium	mg/kg								0.52										
*Calcium	mg/kg		2,450	1,680	1,320	90,900	42,200	10,600	14,500	6,090	19,300	4,090	7,120	4,860	4,850		908	966	
*Chromium	mg/kg	7.3	9.6	21.3	8.3	5.8	13.4	16	17.1	13.9	16	20.3	14.6	23	12	11.7	12	8.7	6.7
*Cobalt	mg/kg					5.4		6.2	6.7		5.8	6.4		7.7					
Copper	mg/kg	4.5	8.7	8.8		45.9	61.5	38.8	31.7	11		11.7	11	15	8.8	5.7	7.3	5.8	5.3
*Iron	mg/kg	8,800	10,000	13,200	8,920	14,100	16,000	30,700	35,000	16,300	20,400	20,900	15,800	23,700	13,600	11,100	11,800	9,680	8,880
Lead	mg/kg	6.9	10.6	121	11.9	9.3	44.3	114	108	21.3	48	12.5	19.5	19.4	9	4	5.3	4.8	3.7
*Magnesium	mg/kg	1,190	2,100	2,500	1,760	48,000	18,800	4,250	4,720	3,790	6,680	4,580	4,340	5,870	2,560	1,410	2,140	1,600	1,330
Manganese	mg/kg	85.8	122	146	127	176	322	334	492	241	249	226	185	264	114	56.9	79	70.5	68.2
Mercury	mg/kg		0.058	0.12			0.21	0.57	0.49	0.3	0.41	0.078	0.067	0.076	0.059				
Nickel	mg/kg	7	8.2	12.5	8.7	7	10	23.4	35.1	16.1	22.5	18.9	16.4	25.4	11.7	7.6	11.7	8.1	8.3
*Potassium	mg/kg				542		2,310	1,500	1,580	1,370	1,260	2,420	1,580	2,590	1,350		1,080		
Selenium	mg/kg																		
Silver	mg/kg										0.25 J								
*Sodium	mg/kg										923	1,130							
*Thallium	mg/kg																		
*Vanadium	mg/kg	9.4	12.5	22.9	10.6	29	42.1	21.9	21.7	17	21.1	23.8	17.6	27.8	16	15.6	17.1	10.8	8.6
Zinc	mg/kg	20.6	27.4	37.6	23.9	33.8	61.3	87.3	105	41.9	64	46.6	39.4	57.9	29.4	23.5	29	22.2	19.3
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-18	GCMW-18	GCMW-18	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19	GCMW-19
Sample Number:		SB18K-S-NYC	D-06082010-S-NYC	SB18L	SB19A	DUP01	SB19B	SB19C	SB19C-S-NYC	SB19D	SB19E	SB19F	SB19G	SB19H	SB19I	SB19J	SB19K	SB19L	SB19L-S-NYC
Sample Depth:		50-55	50-55	55-58	2-5	2-5	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	55-60
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/3/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010	6/4/2010
Sample Type:		S	SFD	N	N	FD	N	N	S	N	N	N	N	N	N	N	N	N	S
Parameter	**Units**																		
										Metals									
*Aluminum	mg/kg	2,620	2,590	3,480	1,750	1,350	3,040	3,640	2,870	5,440	3,910	13,400	3,570	5,260	3,030	2,990	3,750	2,810	2,770
*Antimony	mg/kg																		
Arsenic	mg/kg	2.1	1.8	3.3	2.2		6.4	4.8	4.6	10.6	3.4	7.1			4.9		2.3		1.8
Barium	mg/kg	11.8 J	11.4 J	26.9					34.6	36.1		32			59		34.2		23.7
Beryllium	mg/kg	0.19 J	0.15 J	0.21						0.26		0.62	0.27	0.33					0.21 J
Cadmium	mg/kg																		
*Calcium	mg/kg	481 J	441 J		107,000	103,000	61,400	120,000	71,300	34,600	35,900	2,840	3,950	813		2,160	3,640	6,670	3,520
*Chromium	mg/kg	8.3	6.2	7.8	2.4	2.5	5.1	8.8	10.7	12.1	7.7	24.6	7.4	10.7	7.3	6.4	11.2	9.4	8.3
*Cobalt	mg/kg											7.7							
Copper	mg/kg			6.7	16.4	14.7	21.1	13.6		14.2	31.1	14.5	4.5	6.1	6.3	5.1	7.5	6.1	
*Iron	mg/kg	8,530	8,030	10,400	8,820	5,710	6,810	8,250	9,440	12,900	10,700	27,600	10,000	10,800	25,700	9,140	9,590	8,910	7,260
Lead	mg/kg	3.9	3.6	4.1			12.3	10	20.5	34	7.1	9.2	2.8	3.8	3.1	2.6	2.2	2.7	4.1
*Magnesium	mg/kg	1,230	1,170	1,480	61,300	59,200	30,300	57,000	32,800	21,200	21,300	5,170	2,920	1,940	1,250	2,140	3,180	3,750	1,860
Manganese	mg/kg	68.8	61.9	140	181	140	111	153	162	127	127	287	56.4	90.3	353	121	221	200	219
Mercury	mg/kg							0.04		0.076									
Nickel	mg/kg	8.6	8	8.6		7.4		5.7	10.9	11.7	6.9	20.9	6	8.8	5.5	6.6	11.4	7.4	6.7
*Potassium	mg/kg	308 J	309 J						447	1,510		2,900					1,140		675
Selenium	mg/kg																		
Silver	mg/kg	0.092 J	0.081 J																0.086 J
*Sodium	mg/kg																		
*Thallium	mg/kg																		
*Vanadium	mg/kg	8.7	7.9	10.6	28	38.1	18.1	18.7	17.3	19.3	15.8	28.6	11.5	13.3	8.5	7.5	12.7	11.5	10.4
Zinc	mg/kg	19.7	20.6	20.3	21	17.6	18.7	28.7	36.2	35.1	22.5	59.6	19.2	24.2	18.1	18.2	19.2	17.2	21.6
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-19	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-20	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-21	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23
Sample Number:		SB19M	059-2067	059-2068	059-2069	059-2070	059-2071	059-2055	059-2056	059-2057	059-2058	059-2059	059-2060	GC-MW23I(0-5)	GC-MW23I(5-10)	GC-MW23I(10-15)	SB23IC-S-NG	GC-MW23I(15-20)	GC-MW23I(20-25)
Sample Depth:		60-62	5-10	10-15	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	10-15	15-20	20-25
Sample Date:		6/4/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	5/25/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**																		
										Metals									
*Aluminum	mg/kg	2,680	7,180	13,300	2,250	3,470	4,110	13,700	13,800	2,470	6,710	2,030	5,090	4,880	10,700	16,000 J	11,000 J	12,900	3,400
*Antimony	mg/kg		1.2 J	0.5 J															
Arsenic	mg/kg		**46.3 (Q)**	9.3	2	1.6	1.6	6.8	7.6	4.3	3.5	0.7 J	2.8	6.9	5.3 J	9.6 J	7.7 J	7 J	3.6 J
Barium	mg/kg		147	33.9	15.4 J	21.1 J	25.5	32 J	34.6	4.7 J	18 J	8.2 J	26.9	87 J	151 J	38.2 J	37 J	20.9 J	15.7 J
Beryllium	mg/kg	0.28	1.3	0.71 J	0.14 J	0.26 J	0.3 J		0.72 J	0.33 J	0.39 J	0.14 J	0.39 J	0.61 J	1.4 J	1.2 J	0.6 J	0.88 J	0.44 J
Cadmium	mg/kg		0.2 J	0.33 J			0.015 J	0.17 J	0.29 J		0.017 J			0.33 J	0.48 J	0.26 J		0.23 J	
*Calcium	mg/kg	4,830	6,750	2,940			799	2,130	2,000				844	5,260 J	7,880	3,950 J	3,260 J	1,590	
*Chromium	mg/kg	6.3	16.5	28.8	7.1	11.4	8.8	27.8	28.5	6.4	11.4	4.6	12.4	18.5 J	19.4	28.2 J	22.5 J	23.6	6.8
*Cobalt	mg/kg		18.2	9	1.8 J	4.9 J	4.9 J	8.6 J	9.4	1.9 J	6.2	2.1 J	5.7 J	4.8	12	10.7 J		8.2	3.3 J
Copper	mg/kg	6.1	112	18.1	2.5 J	5.4	6.8	28.1	18.1	4.9	10.3	2.4 J	8.9	44.3 J	293	18.7 J	15.6 J	12.5	4.7
*Iron	mg/kg	7,500	16,900	31,000	5,030	5,740	7,820	30,600	32,000	8,300	13,000	4,570	9,110	15,900 J	21,600	33,600 J	23,900 J	29,400	11,800
Lead	mg/kg	2.7	**533 (Q)**	32.6	2.3	4	4.9	32.1	30.1	2.8	5.7	2.2	6.2	122	222 J	50.8 J	34.8 J	12 J	4
*Magnesium	mg/kg	1,910	3,050	6,220	869	1,340	1,960	5,940	6,100	610 J	2,350	801	2,410	1,420	6,550	6,420 J	4,570 J	5,840	1,130
Manganese	mg/kg	138	163	361	46.6	49.4	71.5	290	329	52.7	66.5	32.5	79	126 J	218 J	294 J	224 J	274 J	46.4 J
Mercury	mg/kg		**4.2 (Q)**	0.36				0.21						0.71	**1.2 J (Q)**	0.064 J	0.37 J		
Nickel	mg/kg	6.4	33	27.7	5.4	11.3	11.5	24.6	25.9	4.9 J	12.3	4.7	14.9	14 J	23.8	24.7 J	20.7 J	20.1	6
*Potassium	mg/kg		1,500	2,870	355 J	545 J	678	3,420	3,290	475 J	1,020	319 J	1,040	728	7,540	3,110 J	2,070 J	2,610	656
Selenium	mg/kg		0.84 J																
Silver	mg/kg		0.13 J												0.11 J				
*Sodium	mg/kg		1,000	1,990				2,940	2,960						243 J	3,000 J	1,930 J	4,040	815
*Thallium	mg/kg																		
*Vanadium	mg/kg	11.5	20.4	31.1	5 J	9.9	12.3	32.7	31.7	12.8	15.7	5.5 J	17.6	16.3	30.1	40.4 J	31.1 J	32	13.5
Zinc	mg/kg	14.8	198	70.3	12.5	21.6	25.5	79	73.5	18.4	35.7	11.7	31.5	173	252 J	78 J	60.9 J	59.2 J	23.8 J
Cyanide, Total	mg/kg		0.25 J											4.6					

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-23	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-24	GCMW-25	GCMW-25	GCMW-25	GCMW-25	GCMW-25
Sample Number:		GC-MW23I(25-30)	GC-MW23I(30-35)	GC-MW23I(35-39)	GC-FDXX(0-5)	SB23IH-S-NG	059-2106	059-2107	059-2108	059-2109	059-2110	059-2111	059-2112	059-2113	059-2220	059-2221	059-2222	059-2223	059-2224
Sample Depth:		25-30	30-35	35-39	35-39	35-39	5-10	11-11.5	13.5-14	15-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30
Sample Date:		6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/7/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Sample Type:		N	N	N	FD	S	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
*Aluminum	mg/kg	7,440	4,020	4,130	4,240	3,460	5,470	16,500	18,000	16,500	3,640	8,180	3,970	4,920	4,590	7,810	3,660	15,300	9,040
*Antimony	mg/kg						2.5 J	0.63 J	1.2 J	0.86 J					2,860 J	1.6 J			
Arsenic	mg/kg	4.8 J	3.9	2.4 J	2.8 J	2.1 J	**16.4 (Q)**	9.2	9.4	8.8	3.1	4.2	4.4	1.4	**49.9 (Q)**	**41.2 (Q)**	**44.5 (Q)**	13.4	3.5
Barium	mg/kg	36.8 J	20 J	23.8 J	24.6 J	21.3	276	39.2	42.8	41.4	16.6 J	33.3	57.7	40.8	**2,290 (Q)**	95.4	228	45.6	
Beryllium	mg/kg	0.65 J	0.44 J	0.41 J	0.51 J	0.25 J	0.31 J	0.63 J								0.54 J	0.33 J	0.85	0.48 J
Cadmium	mg/kg	0.13 J		0.12 J			1.9	0.13 J	0.083 J						**29.6 (Q)**	1.2	1	0.73 J	0.3 J
*Calcium	mg/kg	957	921 J	8,080	7,640 J	8,230	62,900	5,230	2,710	4,060		1,620	1,650	14,300	22,000	28,300	2,040 J	3,800	1,220 J
*Chromium	mg/kg	14.2	9.8	9.2	10.9	8.6 J	9.1	31.1	32.7	27.4	8.6	14.9	9.2	10.7	132	15.8	12.8	31.8	19.7
*Cobalt	mg/kg	8.4	5.3	4.4 J	4.9 J		9.5	13.2	12.1	8 J	4.8 J	7.9	4.8 J	4.7 J	8				
Copper	mg/kg	15.3	7.9	11.3	12.4	11.7	631	22.8	39.1	13.7	4.7	15	7.3	11.7	1,660	64.6	100	31.2	10.8
*Iron	mg/kg	15,900	12,500	11,200	11,700	9,990	21,600	32,600	44,100	38,200	9,230	16,500	8,500	11,500	135,000	36,500	40,600	32,900	16,000
Lead	mg/kg	9.4 J	5.7 J	4.2 J	4.3 J	4.1	**1,160 (Q)**	30.1	21.5	13.4	4	8.1	4.5	5.1	**34,700 (Q)**	414	**758 (Q)**	76.8	6.6
*Magnesium	mg/kg	3,720	2,440 J	5,230	5,380 J	4,790	12,800	5,660	6,950	5,660	960	3,770	2,240	5,960	4,230 J	5,730 J	1,650 J	6,110 J	3,090 J
Manganese	mg/kg	151 J	208 J	221 J	210 J	226	**3,830 (Q)**	320	347	294	40.2	161	95.7	369	822	203	72	350	142
Mercury	mg/kg						**0.79 (Q)**	0.079 J	0.27						**0.8 (Q)**	0.11 J	**1.9 (Q)**	**2.8 (Q)**	
Nickel	mg/kg	17.1	14.9	15.8	19	15.7	17.7	33.7	30.2	22.3	8.1	17.2	15.3	13.9	122	19	10.2	30.3	18.2
*Potassium	mg/kg	1,170	747	1,110	1,140	844	687 J	2,970 J	3,450 J	3,040 J	867 J	1,500 J	880 J	1,420 J	683 J	1,330 J	1,930 J	3,550 J	1,470 J
Selenium	mg/kg																		
Silver	mg/kg						0.43 J								**25.3 (Q)**		0.3 J		
*Sodium	mg/kg	1,400	575	1,090	910	998		1,090	1,370	2,180		692			285 J	988	3,110	1,610	431 J
*Thallium	mg/kg														10.4	2.7 J	0.84 J	0.91 J	
*Vanadium	mg/kg	19.8	17.1	12.9	13.8	11.4	56.7	38.1	38.2	36.2	15.9	20.2	14.6	14.5	32.9	25.2	22.2	37.5	22.3
Zinc	mg/kg	47.4 J	27.7	23.2 J	24.2 J	24.6	634	120	69.9	54.2	21.1	43.7	30	20.7	**4,860 J (Q)**	115 J	71.7 J	84 J	35.4 J
Cyanide, Total	mg/kg						2.5 J								0.75 J				

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-25	GCMW-25	GCMW-25	GCMW-26	GCMW-26	GCMW-26	GCMW-26	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-27	GCMW-28	GCMW-28	GCMW-28	GCMW-28	GCMW-28
Sample Number:		059-2225	059-2227	059-2226	059-2216	059-2217	059-2218	059-2219	059-2228	059-2229	059-2230	059-2231	059-2232	059-2233	059-2147	059-2148	059-2149	059-2150	059-2151
Sample Depth:		30-35	30-35	35-40	15-20	20-25	25-30	30-35	20-25	25.5-26	29.5-30	30-35	35-40	40-45	0-5	5-10	10-15	15-20	20-25
Sample Date:		6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Sample Type:		N	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
									Metals										
*Aluminum	mg/kg	4,140	3,950	3,530	6,050	3,830	3,730	2,980	7,290	6,970	4,710	6,690	3,840	4,570	3,320	11,000	15,400	8,370	4,040
*Antimony	mg/kg					0.76 J									0.84 J	0.58 J	1.1 J	0.47 J	
Arsenic	mg/kg	2	1.8	2.3	1.5	0.89 J	1.5	1.2	**31.3 (Q)**	**32.1 (Q)**	12.7	**72.9 (Q)**	1.5		5.7	5.5	9.5	2.5	2.5
Barium	mg/kg	11 J	10.5 J	15.9 J					**1,170 (Q)**	**993 (Q)**	55.3	333	39.6	31.1	106	52.8	33.1	55.3	19.6 J
Beryllium	mg/kg			0.27 J	0.41 J	0.27 J	0.26 J	0.21 J	0.6 J	0.42 J	0.21 J	0.45 J	0.18 J	0.26 J					
Cadmium	mg/kg	0.27 J	0.16 J	0.23 J	0.19 J	0.1 J		0.092 J	**9.9 (Q)**	**8.9 (Q)**	0.74	4.5	0.26 J	0.37 J	0.33 J	0.19 J	0.5 J	0.1 J	0.048 J
*Calcium	mg/kg	680	686	739	1,390 J	771 J	742 J	806 J	6,850	8,170	8,240	30,000	1,050	1,120	9,490	1,990	2,220	762	574 J
*Chromium	mg/kg	14.6	14	8.6	14.5	9.9	8.5	6.9	102	83.1	21.6	51.3	8.8	9.3	15.2 J	18.3 J	31.1	14.7 J	9.9 J
*Cobalt	mg/kg	1.9 J	1.8 J	0.91 J					7.6 J	6.6 J	2.8 J	4.4 J	3.7 J	6.1	7.1 J	6.7	10.7	5.9 J	5.7 J
Copper	mg/kg	10.5	9.7	7	12.1	11	11.3	8	985	558	126	614	10.3	18.4	43.3	18.9	18	13.8	8.9
*Iron	mg/kg	10,400	9,070	7,870	9,580	7,770	6,490	5,920	27,100	25,100	10,500	18,800	7,630	10,400	11,200	19,300	34,300	15,200	8,000
Lead	mg/kg	3.2 J	2.9 J	2.7 J	5	2.6	3	2.4	**1,110 J (Q)**	**1,020 J (Q)**	149 J	**651 J (Q)**	3.1 J	3.7 J	314	89.8	25.7	8.4	5.7
*Magnesium	mg/kg	1,250 J	1,210 J	1,550 J	2,440 J	2,070 J	1,840 J	1,720 J	4,360 J	4,090 J	2,590 J	5,090 J	3,100 J	3,210 J	1,580	3,280	6,550	2,680	1,820
Manganese	mg/kg	75.6	60.3	67.1	68.3	79.8	66.1	86.1	155	161	147	173	311	287	172	165	400	69	54
Mercury	mg/kg				**2.8 (Q)**	0.67	0.09 J	0.066 J	**4.9 J (Q)**	**5.8 J (Q)**	**1.9 J (Q)**	**9.3 J (Q)**			**34.1 J (Q)**	0.23 J	0.14 J		
Nickel	mg/kg	14.9	13.9	12.1	15.6	15.4	15.5	14	46.7	37.5	18.2	28.2	18.6	25.2	19.6	23.4	28.8	14.5	12
*Potassium	mg/kg	504 J	569 J	728 J	1,310 J	1,130 J	1,210 J	998 J	2,000 J	1,770 J	1,160 J	1,760 J	2,000 J	1,710 J	649 J	1,500	3,360	1,420	691
Selenium	mg/kg														1 J				
Silver	mg/kg								**11.6 (Q)**	**10.8 (Q)**	0.81 J	4.7							
*Sodium	mg/kg				114 J	110 J	128 J	124 J	5,780	5,040	1,080	3,920				810	2,450	1,010	
*Thallium	mg/kg								2.9 J	0.85 J		2.6 J							
*Vanadium	mg/kg	26.7	24.3	13.6	15.6	12	10.6	10.6	42.7	39.6	13.8	21.7	13.9	12	12.2	24.9	35.3	18.1	16.1
Zinc	mg/kg	16.5 J	15.2 J	16 J	21.3 J	19.5 J	16.1 J	14.1 J	1,760 J	1,820 J	144 J	814 J	16.3 J	24.7 J	124	42.4	72.9	35.1	29.1
Cyanide, Total	mg/kg								0.82 J	0.66 J		0.42 J			4				

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-28	GCMW-28	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-29	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30	GCMW-30
Sample Number:		059-2152	059-2153	059-2160	059-2161	059-2162	059-2166	059-2163	059-2164	059-2165	GC-MW30I(0.2-5)	SB30IB-S-NG	GC-MW30I(6-10)	GC-MW30I(10-15)	GC-MW30I(15-20)	GC-MW30I(20-25)	GC-MW30I(25-30)	GC-MW30I(30-35)	GC-MW30I(35-36)
Sample Depth:		25-30	30-35	5-10	10-15	15-20	15-20	20-25	25-30	30-35	0.2-5	5-10	6-10	10-15	15-20	20-25	25-30	30-35	35-36
Sample Date:		6/14/2010	6/14/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/28/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	N	S	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
*Aluminum	mg/kg	2,630	3,120	14,900	15,600	5,760	5,550	5,220	3,990	4,240	3,210	2,700	2,700	5,910	5,540	3,540	2,730	2,350	3,140
*Antimony	mg/kg	0.34 J		0.89 J	0.89 J			0.34 J											
Arsenic	mg/kg	0.64 J		6.9	8.6	1.1 J	0.81 J	0.55 J		0.71 J	**58.4 (Q)**	**66.8 J (Q)**	**57.4 J (Q)**	12.5 J	6.3 J	2.8 J	2 J	2.3	1.9
Barium	mg/kg	17.4 J	11.8 J	49.4	31.6 J	27.1	26.9	42.6	39.6	40.6	172 J	74.5	61.7 J	49.2	45 J	46.4 J	31.2 J	22.8	25.8
Beryllium	mg/kg						0.32 J	0.26 J	0.21 J	0.2 J	0.63 J	0.16 J	0.23 J	0.58 J	0.43 J	0.45 J	0.34 J	0.27 J	0.55
Cadmium	mg/kg			0.36 J	0.56 J	0.021 J	0.051 J	0.063 J	0.032 J	0.083 J	0.43 J			0.11 J	0.54			0.059 J	0.056 J
*Calcium	mg/kg	462 J	868	2,350	2,530	535 J	588 J	1,090 J	5,400 J	5,550 J	9,990 J	1,150	725	1,560	905	614	645	817	1,170
*Chromium	mg/kg	6.6	7.1	29.4	33	12.8	14.2	13.1	8.6	8.3	25.4 J	17.4 J	13.6 J	15.3	12.4	8 J	6.2	6	7.9
*Cobalt	mg/kg	2.4 J	3 J	8.3	9.8	4.4 J	4.3 J	4.1 J	3.6 J	4 J	7.7		2.4 J	5.6	10.3	2.9 J	4.3 J	3.1 J	4.9 J
Copper	mg/kg	5.5	8	20.2	15.7	9.1	12.9 J	12 J	8.3 J	10.1 J	65.8 J	53.1	33.4	55.4	44.6	22.6	11.2	11.5	43
*Iron	mg/kg	6,120	7,090	27,300	35,800	9,300	10,200	8,440	7,370	9,700	38,900 J	35,200	37,400	16,000	10,900	7,690	6,030	5,760	8,040
Lead	mg/kg	3.2	2.9	36.9	15.4	5	5.1	4.4	3.3	3.9	308	37.8	32.6 J	88.7 J	51.8 J	13 J	4.9 J	5.1 J	39.8 J
*Magnesium	mg/kg	1,210	1,960	5,370	6,740	1,940	1,970	2,210	4,470	4,120	1,800	1,620	1,330	2,190	1,950	1,500	1,470	1,470 J	2,050 J
Manganese	mg/kg	47.3	60.6	256	355	54.2	52.9	49.5	139	186	148 J	57.1	47.5 J	96.8 J	92 J	87.4 J	59.9 J	53.9 J	85.1 J
Mercury	mg/kg			0.079 J							0.27	0.3	0.14 J	0.19 J	0.21 J	0.09 J		0.025 J	
Nickel	mg/kg	10	13.4	26.8	27	12.1	13.5	16.5	13.4	13.2	14.3 J	16.7	13.4	18.2	23	11.8	13.8	10.5	18.3
*Potassium	mg/kg	463 J	718	2,920	3,520	795	746	1,340	993	1,200	1,190	1,730	2,180	993	753	590	504	469 J	614
Selenium	mg/kg										3.5 J	3.9							
Silver	mg/kg											0.99							
*Sodium	mg/kg			1,270	2,200						1,630 J	2,640	3,020	458	207 J				152 J
*Thallium	mg/kg																		
*Vanadium	mg/kg	9	7.6	36.4	34.5	16.6	18.9	14.8	10.6	11	19.1	14.4	12.5	19.5	16.4	13.1	8.8	8	9.4
Zinc	mg/kg	17.1	15.1	57.9	72.4	22.2	21.3	21.1	16.9	19.8	358	91.7	68.1 J	145 J	85 J	22.9 J	23.6 J	22.2	387
Cyanide, Total	mg/kg										0.61								

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-31	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-32
Sample Number:		GC-MW31I(0-6)	SB31IB-S-NG	GC-MW31I(6-10)	GC-MW31I(10-15)	GC-MW31I(15-20)	GC-MW31I(20-26)	GC-MW31I(26-30)	GC-MW31I(30-36)	GC-MWXX062810	SB31IG-S-NG	GC-MW32I(0.5-5)	GC-MW32I(5-10)	GC-MW32I(10-15)	GC-MW32I(15-20)	SB32ID-S-NG	GC-MW32I(20-25)	GC-MW32I(25-30)	GC-MW32I(30-35)
Sample Depth:		0-6	5-10	6-10	10-15	15-20	20-26	26-30	30-36	30-36	30-35	0.5-5	5-10	10-15	15-20	15-20	20-25	25-30	30-35
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/24/2010	6/24/2010	6/24/2010
Sample Type:		N	S	N	N	N	N	N	N	FD	S	N	N	N	N	S	N	N	N
Parameter	**Units**										**Metals**								
*Aluminum	mg/kg	8,110	7,210	10,300	13,800	14,600	4,330	4,070	2,730	2,580	1,520	5,860	5,000	7,170	4,000	3,440	6,520	9,950 J	8,470
*Antimony	mg/kg													1.1 J			0.3 J		
Arsenic	mg/kg	7.5	9.5 J	10.9	12.8	11.5	2.3 J	5.2	1.1 J	1.4	1.2 J	7.4	**33 (Q)**	**21.8 (Q)**	**17.8 (Q)**	**22 J (Q)**	4.7	5.7 J	5
Barium	mg/kg	57.6	28.4	37.2	25.5 J	26.3	16.3 J	19.8 J	10.3 J	12.4 J		95.5	222	712	186	338	56.7 J	35.9 J	217 J
Beryllium	mg/kg	0.69	0.43 J	0.81	1	1	0.34 J	0.34 J	0.24 J	0.24 J	0.12 J	0.49	0.53	0.75	0.49 J		0.51	0.7 J	0.56
Cadmium	mg/kg	0.4 J						0.095 J	0.049 J	0.044 J		0.76		0.56 J		1.4	0.036 J	0.092 J	
*Calcium	mg/kg	13,500	3,220	3,030	2,230	2,450	628				685	24,100 J	13,300 J	9,350 J	4,630 J	6,410	7,300	4,360 J	1,130
*Chromium	mg/kg	29.2	19.6 J	24.3	25.7	28.9	10.1	10.5 J	7 J	6.9 J	5.7 J	12.9	12.9	22.4	19.1	14.1 J	12.2	18.2 J	14
*Cobalt	mg/kg	9.4	7.3	8.2	8.8	9.1	3.2 J	3.4 J	2.5 J	2.6 J		4.6 J	6	7.9	8.1	7.5	5.2	4.8 J	4.4 J
Copper	mg/kg	46.9	28.8	29.9	12.6	13.3	6	7 J	5.1 J	4.5 J	5.6	27.4	49.2	216	35.2	53	15.5	10.1 J	9
*Iron	mg/kg	42,800	21,900	27,900	33,900	34,900	7,910	7,670 J	6,200 J	5,770 J	4,490	12,800	18,700	21,100	41,700	44,700	15,300	13,700 J	10,500
Lead	mg/kg	132 J	107 J	101 J	16.4 J	15.3 J	4.6 J	4.3	2.7	2.5	2.3	121 J	**498 J (Q)**	**1,190 J (Q)**	318 J	436 J	96.1 J	29.6 J	14.1 J
*Magnesium	mg/kg	5,000	3,740	4,700	6,400	6,880	1,930	2,030	1,820	1,570	1,720	7,060	2,500	1,150	2,570	1,920	2,510	3,330 J	3,390
Manganese	mg/kg	316 J	226 J	249 J	333 J	317 J	52.9 J	50.2 J	45.2 J	39.1 J	35	224	136	146	468	590 J	268	73.3 J	80.8
Mercury	mg/kg	0.21	0.48 J	0.36	0.11						0.049 J	0.16	0.66	**5.5 (Q)**	**1.3 (Q)**	**1.1 J (Q)**	0.19	0.081 J	
Nickel	mg/kg	31.5	21.3	21.8	20.5	22.4	8	9.9 J	8.5 J	8.9 J	11.2	21.1	20.4	19.3	27.9	35	17.4	16.1 J	18.4
*Potassium	mg/kg	1,200	1,530	2,230	3,200	3,180	787	684	504	523	240 J	1,060	913	1,240	1,010	545 J	898	2,130 J	1,360
Selenium	mg/kg		2.9 J								0.43 J			1.1 J		2.3 J			
Silver	mg/kg													0.39 J					
*Sodium	mg/kg	383 J	2,410	2,490 J	4,180 J	3,620 J	743 J	402 J			161 J							4,130 J	1,030 J
*Thallium	mg/kg																		
*Vanadium	mg/kg	23.5	20.7	25.8	35.8	32.5	9.7	15	7.2	7.4	5	19	18.7	23.3	19.5	15.2	18.8	29.5 J	18.7
Zinc	mg/kg	164	83.5	95.7	62.6	69.3	21.2	24.4	15.1	14.3	14.3	224	145	665	118	204	52.8	40.8 J	30.7
Cyanide, Total	mg/kg												1.6	1.2					

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GCMW-32	GCMW-32	GCMW-32	GCMW-32	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-33	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34	GCMW-34
	Sample Number:	GC-MW32I(35-40)	SB32IH-S-NG	GC-MW32I(40-46)	SB32II-S-NG-R	059-2139	059-2140	059-2141	059-2142	059-2143	059-2146	059-2144	059-2145	059-2018	059-2019	059-2020	059-2021	059-2022	059-2024
	Sample Depth:	35-40	35-40	40-46	40-45	5-10	16.5-17	19.5-20	20-25	31-31.5	31-31.5	35-35.5	35-40	5-10	10-15	15-20	20-25	25-30	25-30
	Sample Date:	6/24/2010	6/24/2010	6/28/2010	6/28/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	6/10/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010	5/19/2010
	Sample Type:	N	S	N	S	N	N	N	N	N	FD	N	N	N	N	N	N	N	FD
Parameter	**Units**										**Metals**								
*Aluminum	mg/kg	4,310	3,290	3,790	4,240	8,240	10,200	8,850	3,650	2,930	2,950	2,900	2,290	12,600 J	15,900 J	2,990 J	3,670 J	2,490 J	2,340 J
*Antimony	mg/kg													0.69 J	0.64 J				
Arsenic	mg/kg	9.5	3.1 J	1.7		2.9	2.1	5.9	4.8					10.1	9.2	0.57 J	2.2		
Barium	mg/kg	49.1 J	31.2	31.9 J	47.5	34.5	32.5 J	39.9	14.5 J	13.3 J	13.8 J	27.4	18.3 J	31.3 J	37.6 J	13.5 J	20.6 J	12.9 J	12.7 J
Beryllium	mg/kg	0.38 J		0.42 J	0.29 J										0.85			0.19 J	0.2 J
Cadmium	mg/kg	0.042 J		0.049 J										0.09 J	0.2 J				
*Calcium	mg/kg	667	625	3,630 J	5,630	947	1,160	2,530	608	2,910	3,510	5,200	3,720	3,180 J	2,480 J	603 J		1,230 J	1,380 J
*Chromium	mg/kg	8.8	8.1 J	9.4 J	12.5 J	12.1	18.8	17.2	9.2	8	7.7	6.3	5.5	29.2 J	34.4 J	9.4 J	15.7 J	5.9 J	5.3 J
*Cobalt	mg/kg	4.6 J		3.1 J	5.8	5.6 J	5.3 J	5.4 J	6.7	3.1 J	3 J	3.8 J	2.5 J	8.2 J	9.8 J				
Copper	mg/kg	5.5	5.2	12.7 J	19	12.5	12	10.1	8.3	7.9	8.1	10	6.3	14 J	19 J	6.9 J	4.4 J	8.2	7.7
*Iron	mg/kg	10,100	5,730	8,550 J	11,200	13,000	15,800	19,100	8,550	6,570	6,850	7,040	4,890	31,200 J	34,800 J	6,410 J	6,250 J	6,390 J	5,970 J
Lead	mg/kg		3.2	9.3	7 J	16.5	14.9	7.3	4.9	3.2	3.7	3.3	2.5	16.9	31.9	3.3	3.8	2.7	3.1
*Magnesium	mg/kg	1,630	1,370	3,500	5,640	2,010	2,940	4,170	1,750	3,160	3,320	4,730	2,620	5,360 J	6,680 J	1,830 J	1,560 J	2,800 J	1,940 J
Manganese	mg/kg	67	66.3	111 J	183 J	212	184	66.1	54.6	105	131	233	142	308	327	47.6	41.5	129	120
Mercury	mg/kg			0.022 J	0.084 J										0.075 J				
Nickel	mg/kg	11.5	9.6	11 J	20	15.9	20.8	12.8	12.5	12.8	12.4	20.9	11	24.1 J	29.8 J	13.5 J	8.8 J	20 J	11.9 J
*Potassium	mg/kg	663	496 J	1,010	1,230	621	1,060	1,740	586 J	701	740	675	472 J	2,750	3,410	582	643	563 J	446 J
Selenium	mg/kg				0.91 J												0.66 J		
Silver	mg/kg		0.093 J																
*Sodium	mg/kg				217 J		1,240	6,080	619					1,460	2,840				
*Thallium	mg/kg																		
*Vanadium	mg/kg	12.1	9.7	12.2	17.8	17.3	25.2	24.3	15.9	10.8	11	10.6	6.8	36.6 J	35.7 J	9.6 J	11.5 J	9.4 J	8.8 J
Zinc	mg/kg	26.5	22.1	19.6	30.8	24.6	26.4	24.5	26.7	14.3	14.7	14.4	10.9	59.7	72.5	20.4	17.4	17.1	14.9
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-34	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-35	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-36	GCMW-37	GCMW-37	GCMW-37	GCMW-37	GCMW-37
Sample Number:		059-2023	059-2154	059-2155	059-2156	059-2157	059-2158	059-2159	059-2012	059-2013	059-2014	059-2015	059-2016	059-2017	059-2208	059-2209	059-2210	059-2211	059-2212
Sample Depth:		30-35	5-10	10-15	15-20	20-25	25-30	30-35	5-10	10-15	15-20	20-25	25-30	30-35	0-5	5-10	10-15	15-20	20-25
Sample Date:		5/19/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	5/18/2010	6/21/2010	6/22/2010	6/22/2010	6/22/2010	6/22/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**										**Metals**								
*Aluminum	mg/kg	2,990 J	14,700	14,800	4,120	2,930	4,150	7,070	18,400 J	15,800 J	7,110 J	4,180 J	2,530 J	7,140 J	3,570	6,180	15,100	14,200	9,180
*Antimony	mg/kg		0.85 J	0.81 J			0.48 J	0.46 J	1.4 J	0.77 J				0.39 J					
Arsenic	mg/kg	0.58 J	9.1	8.1	1.2 J	2.2	5.3	1 J	**18.7 (Q)**	10	2.5	1.8		1.3	**116 (Q)**	**22.1 (Q)**	9.4	6.5	5.3
Barium	mg/kg	25.4 J	94.9	31.4 J	17.9 J	12.3 J	38.9	64.1	38.4 J	32.6 J	36 J	28 J	38.1 J	74.8 J	238	61.7	73.1		28.4
Beryllium	mg/kg	0.22 J							1	0.88					0.39 J	0.4 J	0.74 J	0.69 J	0.47 J
Cadmium	mg/kg		0.23 J	0.4 J		0.13 J	0.05 J	0.22 J	0.35 J	0.12 J	0.039 J				1.7	0.56 J	0.88	0.68 J	0.31 J
*Calcium	mg/kg	2,980 J	6,030	2,380	451 J	288 J	3,680	12,000	2,910 J	2,830 J	967 J	784 J		2,020 J	9,640	3,480	3,570 J	2,110 J	
*Chromium	mg/kg	7.7 J	31.4	30.9	8.1 J	6.9	11.9	16.8 J	35.4 J	33.2 J	13.1 J	10.4 J	5.7 J	10.2 J	18.9	13.9	29.9	28	14.2
*Cobalt	mg/kg		7.1 J	9.4	2.3 J	2.9 J	6.1	7.1	13.5 J	10.4 J	6.8 J			5.7 J	14.5	7.2	6.5 J	5.4 J	4.1 J
Copper	mg/kg	9.9	24.9	16.4	5.8	5.9	10.7	18	34.5 J	16.4 J	11.8 J	7.5 J	4.3 J	16 J	88.6	65.6	19.9	15.6	13.2
*Iron	mg/kg	7,140 J	28,800	33,800	7,650	4,670	10,600	14,500	41,200 J	37,200 J	14,000 J	8,430 J	4,810 J	13,700 J	31,300	19,300	31,900	30,100	17,000
Lead	mg/kg	3.4	151	25.3	4.7	3.7	4.1	6.5	23.3	15.2	7.3	4.8	2.4	5	**537 (Q)**	47.3	105	11.8	7.7
*Magnesium	mg/kg	4,140 J	5,300	6,470	1,410	1,180	4,430	7,800	7,510 J	6,830 J	2,920 J	2,150 J	1,530 J	3,890 J	1,330 J	2,070 J	6,010 J	6,050 J	2,560 J
Manganese	mg/kg	190	219	324	37.9	35.4	115	317	430	392	102	99.8	56.7	335	287	213	368	279	281
Mercury	mg/kg		0.33												0.36	0.14	0.11 J		
Nickel	mg/kg	18.6 J	27.1	26.7	6.5	10.3	18.1	23.4	32.1 J	29.6 J	15.2 J	12.7 J	9.5 J	22.9 J	58	16.4	25.6	24.6	13.2
*Potassium	mg/kg	647	2,980	3,340	647	521 J	1,310	2,280	4,120	3,480	1,040	750	447 J	1,610	737 J	908 J	3,680 J	3,690 J	1,200 J
Selenium	mg/kg								0.97 J						**15.7 (Q)**				
Silver	mg/kg														0.079 J				
*Sodium	mg/kg		1,250	2,910					2,210	2,260							1,450	4,600	1,350
*Thallium	mg/kg																0.59 J		
*Vanadium	mg/kg	9.9 J	37.3	35.5	12	12	14.9	21.2	43.5 J	36.3 J	18 J	15.7 J		12.1 J	23.5	22.4	37.7	41.6	18.2
Zinc	mg/kg	18.3	70.7	67.8	16.4	14.2	23.8	36.8	86.9	74.8	36.9	26.2	13.4	29	360 J	53.3 J	97.1 J	57.2 J	35 J
Cyanide, Total	mg/kg															0.25 J			

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-37	GCMW-37	GCMW-37	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-38	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39	GCMW-39
Sample Number:		059-2213	059-2214	059-2215	059-2241	059-2242	059-2243	059-2248	059-2244	059-2245	059-2246	059-2247	059-2130	059-2131	059-2132	059-2133	059-2134	059-2135	059-2136
Sample Depth:		25-30	30-35	35-40	5-10	16-16.5	19.5-20	19.5-20	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	36.5-37
Sample Date:		6/22/2010	6/22/2010	6/22/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/29/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010	6/9/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**												**Metals**						
*Aluminum	mg/kg	10,500	4,610	4,850	6,950	18,200	11,200 J	11,000	11,300	4,250	4,050	3,750	6,040	9,800	7,220	6,780	5,580	8,360	8,090
*Antimony	mg/kg				0.91 J	0.96 J	0.82 J		0.5 J				0.48 J			0.47 J	1.9 J	0.75 J	
Arsenic	mg/kg	5	3.5	1.7	8.6	11.9	5 J	5.3	1.7	2.9	1.5	1.6	4.8	2.9	2.2	3.9	12	10.6	1.9
Barium	mg/kg	71.4	38.9	49.7	114	60.3		43.6	152	35.9	32.2	38.9	346	41.6	59	401	**1,030 (Q)**	123	54
Beryllium	mg/kg	0.49 J	0.31 J	0.3 J		1.1		0.6 J	0.63										
Cadmium	mg/kg	0.59 J	0.2 J	0.28 J									0.58			0.22 J	0.76	0.55 J	
*Calcium	mg/kg	5,460	1,150 J	9,150	11,400	1,730	2,740 J	2,140	1,680	5,380	12,700	7,060	35,300	3,810	3,600	15,300	28,600	2,190	5,080
*Chromium	mg/kg	16.5	10.4	10.5	14.2	30.6	22.6 J	20.3	16.7	9.3	8.1	9.4	13.3	15.3	13.7	16.1	34.3	22.6	13.7
*Cobalt	mg/kg	7.6	3.2 J		6.8	16.6		8 J	10.3			6.4	5 J	4.9 J	5.7	5.5 J	15.5	8.8	9.2
Copper	mg/kg	29.8	9.6	12.1	99.5443	20.6	13.7 J	13	23.2	11.5	13	14.2	39.1	14.7	20.8	49.1	121	139	20.6
*Iron	mg/kg	26,000	10,800	10,300	14,200	36,800	24,100 J	24,000	22,600	10,500	8,740	8,800	10,400	12,800	11,300	12,100	46,000	21,100	17,900
Lead	mg/kg	10.7	6.2	4.2	246	17.8	10.4 J	10	10	5.1	3.9	4.6	**674 (Q)**	18	52.5	190	**1,030 (Q)**	205	10.1
*Magnesium	mg/kg	6,090 J	2,730 J	5,060 J	3,820	6,410	5,100 J	4,650	5,330	4,040	5,660	9,310	3,570	2,850	2,620	3,760	13,700	3,480	5,290
Manganese	mg/kg	371	186	264	184	832	238 J	272	264	154	211	289	256	144	195	252	272	136	345
Mercury	mg/kg				**1.5 (Q)**								**45.2 (Q)**		0.59	**0.93 (Q)**	**1.6 (Q)**	**5.9 (Q)**	
Nickel	mg/kg	23.1	14.5	17.8	22.7	27.6	20.4 J	18.9	22.5	16.4	14.5	45.9	20.5	17	22.3	24.5	112	22.1	19.5
*Potassium	mg/kg	2,030 J	899 J	1,630 J	1,450 J	3,220 J	2,690 J	2,410 J	2,090 J	1,040 J	1,080 J	1,080 J	753	955	879	959	890	1,600	1,500
Selenium	mg/kg						1.7 J												
Silver	mg/kg				0.23 J												0.48 J	1.5	
*Sodium	mg/kg	1,820		241 J		1,760	4,550 J	3,660										1,870	1,400
*Thallium	mg/kg	0.73 J																	
*Vanadium	mg/kg	20.4	15.5	14.2	22.2	39.7	48.3 J	35.2	22	13.9	11	11.7	19.4	23.5	19.3	21.2	16.4	20.8	18
Zinc	mg/kg	61.3 J	30.1 J	24.1 J	103	70.2	49.9 J	46.1	58.7	23.3	22	21	413	34.6	48.9	241	574	302	48.2
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-39	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-40	GCMW-41	GCMW-41
Sample Number:		059-2137	GC-MW40D(0-5)	GC-MW40I(5-10)	SB40IB-S-NG	GC-MW40I(10-15)	GC-MWXX(15-20)	GC-MW40I(15-20)	GC-MW40I(20-25)	GC-MW40I(25-30)	GC-MW40I(30-35)	GC-MW40I(35-40)	GC-MW40I(40-45)	GC-MW40I(45-50)	GC-MW40I(50-55)	GC-MW40I(55-58)	SB40IJ-S-NG	GC-MW41S(0-5)	GC-MW41I(5-10)
Sample Depth:		40-40.5	0-5	5-10	5-10	10-15	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-58	55-58	0-5	5-10
Sample Date:		6/9/2010	6/29/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/28/2010	6/25/2010
Sample Type:		N	N	N	S	N	FD	N	N	N	N	N	N	N	N	N	S	N	N
Parameter	**Units**																		
									Metals										
*Aluminum	mg/kg	3,860	4,310	7,470	6,290	5,790	5,100	12,000	11,700	4,000	4,900	4,810	3,210	2,840	2,660	2,690	2,200	4,830	6,620
*Antimony	mg/kg																		
Arsenic	mg/kg	3.6	5.1	7	6.7 J	6.1	5.3	8.5 J	7.6 J	3.1	2.4	2.1		3.9	7.2	3.8	3.6 J	5.9	4.1
Barium	mg/kg	22.7	39.4	43.7	38.8	24	22.2	22.9 J	25.4 J	6.9 J	27.3	29.5	11.7 J	14.9 J	17.8 J	20 J		42.1 J	16.3 J
Beryllium	mg/kg		0.43 J	0.59		0.41 J	0.33 J	0.81	0.77	0.37 J	0.47	0.43 J	0.23 J	0.19 J	0.23 J	0.23 J		1 J	0.47
Cadmium	mg/kg		0.19 J											0.33 J				0.73 J	
*Calcium	mg/kg	547	78,700	1,710 J	2,180	2,000 J	1,250 J	4,440 J	2,910 J	344 J	538 J	586 J	313 J	291 J		291 J		22,600 J	4,180
*Chromium	mg/kg	8.1	9.3 J	15	12.7 J	11.5	9.7	24.8	22.9	8.5	10.8	11.1	6.5	5.5	7.4	5.8	5.7 J	7.1 J	12.3
*Cobalt	mg/kg	4.3 J	3.8 J	7.2	5.7	4.5 J	3.8 J	8.3	7.9	3.3 J	4.5 J	4.8	6.1	5.2 J	4.3 J	3.8 J		8.1	4.8
Copper	mg/kg	6.6	25.8	16.8	14.8	10.2	7.9	10.8	10.5	6.4	6	6.4	5.1	5.9	5.2	5.1	5.5	40.8 J	7.5
*Iron	mg/kg	7,710	10,300	12,900	10,900	10,900	9,570	28,200	27,000	9,510	9,590	13,000	7,740	11,100	14,700	11,100	10,800	18,900 J	14,200
Lead	mg/kg	4.7	54.9 J	55.6 J	40.6	34.7 J	30.2 J	11.7 J	11.3 J								2.9	38.7	10.9 J
*Magnesium	mg/kg	1,840	6,580 J	3,010	2,160	2,530	2,060	6,390	5,690	1,210	1,550	1,800	1,430	1,270	1,230	1,400	1,110	9,460	4,130
Manganese	mg/kg	69	232 J	222	199	184	141	327	294	48.8	64.4	94.1	71.8	111	237	187	157	197 J	154 J
Mercury	mg/kg		0.28	**1.9 (Q)**	**1.7 (Q)**	**0.81 J (Q)**	0.27 J											0.28	0.065
Nickel	mg/kg	10.2	11.1	32.8	27.8	17.6	13.5	24.7	21.9	6.7	10.2	8.1	9.1	8.8	7.8	8.3	8.3	13.9 J	23
*Potassium	mg/kg	549	900	1,100	818	897	765	2,700	2,520	616	815	854	525	523 J	431 J	488 J	353 J	696	1,160
Selenium	mg/kg				0.76 J												0.57 J		
Silver	mg/kg				0.2 J												0.25 J		
*Sodium	mg/kg		1,080					867	859									579 J	276 J
*Thallium	mg/kg																		
*Vanadium	mg/kg	12.2	13.9	18.4	15.5	13.7	11	26.9	25.5	12.6	16.6	17	9.8	8.1	12.2	8.3	8.5	50.2	13.8
Zinc	mg/kg	20.8	47.8	50	45.4	34.3	29.6	58.5	56.2	22.6	29.2	28.6	21.9	19.5	18.7	17.3	20.1	49.9	33.1
Cyanide, Total	mg/kg			13.3	7.6	9.4	7.5												

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-41	GCMW-42	GCMW-42	GCMW-42	GCMW-42	GCMW-42
Sample Number:		GC-MWXX(0-5)	SB41IB-S-NG	GC-MW41I(10-15)	GC-MW41I(15-20)	GC-MW41I(20-25)	GC-MW41I(25-30)	GC-MW41I(30-35)	GC-MW41I(35-40)	GC-MW41I(40-45)	GC-MW41I(45-50)	GC-MW41I(50-53)	GC-MW41I(53-58)	SB41IL-S-NG	059-2061	059-2062	059-2063	059-2064	059-2066
Sample Depth:		5-10	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-53	53-58	55-58	5-10	15-20	20-25	25-30	25-30
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010	5/26/2010
Sample Type:		FD	S	N	N	N	N	N	N	N	N	N	N	S	N	N	N	N	FD
Parameter	**Units**																		
									Metals										
*Aluminum	mg/kg	6,590	4,180	9,420	14,500	7,140	2,520	5,750	3,980	3,710	2,820	3,130	3,020	1,750	28,300	3,720	4,670	4,700	4,330
*Antimony	mg/kg																		
Arsenic	mg/kg	4	3.4 J	5.8	8.6	2.6	2.1 J	2.5	1.2 J	1.8 J	1.5 J	5.1	3.3	3 J	2.9	2.4	3.4	3.4	2.8
Barium	mg/kg	16.6 J		43.5	25.7 J	13.3 J	8.4 J	27.7	13.3 J	13.6 J	17.5 J	22.8	20.6		45.8	7.3 J	17.1 J	34	27.5
Beryllium	mg/kg	0.48 J	0.25 J	0.7	1.1	0.52	0.33 J	0.56	0.35 J	0.3 J	0.27 J	0.24 J	0.2 J	0.12 J	0.26 J	0.23 J	0.42 J	0.38 J	0.29 J
Cadmium	mg/kg														0.14 J			0.069 J	0.02 J
*Calcium	mg/kg	5,750	4,760	5,900	1,920	352 J	215 J	761	437	332 J	199 J	247 J	219 J		18,500			922	1,240
*Chromium	mg/kg	12.5	9.3 J	17.8	27.8	11.5	6.9	13	8.5	7.2	5.9	5.8	5.6	4.4 J	42.9	7.7	9.6	13.5	13.5
*Cobalt	mg/kg	4.7 J		6.6	9.1	4.6	2.3 J	5.8	4.6	6.5	4.5 J	4.3 J	3.4 J		7.6	3.2 J	4.4 J	6.9	5.2 J
Copper	mg/kg	7.3	7.2	13.3	11.8	8.7	2.7	6.9	5.7	6.4	4.5	4.7	4.5	4.2	111	5.2	6.2	8.1	9.4
*Iron	mg/kg	13,600	9,940	18,400	34,800	13,000	7,620	10,800	9,940	9,250	9,340	12,200	10,800	8,120	13,700	8,660	11,400	8,240	10,100
Lead	mg/kg	9 J	8.8 J	53.8 J	12.5 J	5.4 J	2.5 J	6.8 J	5.1 J	5.9 J	4.8 J	3.6 J	3.3 J	2.7	46.2	3.7	5	5.3	5
*Magnesium	mg/kg	4,110	2,680	6,310	6,600 J	2,980	730	2,260	1,920	1,850	1,310	1,530	1,430	780	5,390	1,070	1,390	1,940	1,960
Manganese	mg/kg	163 J	129 J	269 J	331	90.7 J	42.1 J	109 J	86.9 J	117 J	63.3 J	186 J	123 J	111	130	61	57.6	73	110
Mercury	mg/kg	0.14	0.15 J	0.16										0.061 J	0.37				
Nickel	mg/kg	23.1	18.2	31.5	23.7	13.8	5.3	12	10	11.9	9.1	7.5	7.1	6.4	18.8	6.2	8.6	19	15
*Potassium	mg/kg	1,240	588	1,900	3,010	939	599	1,130	825	770	575	589	593	166 J	1,540	603	729	778	664
Selenium	mg/kg		0.93 J											0.55 J					
Silver	mg/kg																		
*Sodium	mg/kg	293 J	292 J	310 J	1,200 J	262 J	53.8 J	134 J	140 J	145 J	88.2 J	216 J	111 J	230 J	6,120				
*Thallium	mg/kg																		
*Vanadium	mg/kg	14	10.6	20	32.9	14	11.8	20.2	13.5	10.8	8.6	8.6	7	6.9	44.3	10.5	17.3	16.5	13.6
Zinc	mg/kg	33.3	28.4	55.6	64.7	30	19.2	33.3	26.1	26.8	18	18.9	18.5	15.7	53.3	17	28	31.6	24.6
Cyanide, Total	mg/kg																	0.54 J	0.61 J

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-42	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-43	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44	GCMW-44
Sample Number:		059-2065	059-2001	059-2002	059-2003	059-2004	059-2005	059-2006	059-2010	059-2007	059-2008	059-2009	059-2122	059-2123	059-2124	059-2125	059-2126	059-2127	059-2128
Sample Depth:		30-35	0-5	5-10	12-12.5	14.5-15	15-20	20-25	20-25	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40
Sample Date:		5/26/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	5/17/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**												**Metals**						
*Aluminum	mg/kg	2,890	4,120 J	5,180 J	18,100 J	16,200 J	8,090 J	4,320 J	4,220 J	4,870 J	5,400 J	2,590 J	4,840	18,100	15,000	8,320	7,020	2,370	2,750
*Antimony	mg/kg		0.69 J	0.71 J	0.75 J	1 J	0.4 J	0.4 J	0.42 J				2.2 J	0.87 J	0.62 J	0.49 J	0.45 J		
Arsenic	mg/kg	2.5	6.5	7.6	8.7	9.7	1.7	3.2	2.9	1.5	1.4	0.6 J	**58.3 (Q)**	**48.9 (Q)**	8.4	5	10.5		0.98 J
Barium	mg/kg	12 J	79.2 J	77.7 J	44.3 J	34.9 J	66.6 J	26.1 J	24.4 J	30.2 J	40.6 J	14.6 J	277	117	30.8 J	20.7 J	42.5	20.3 J	11.8 J
Beryllium	mg/kg	0.19 J	0.33 J	0.35 J	0.94 J	0.92	0.49 J			0.31 J				0.89		0.41 J			
Cadmium	mg/kg		**8.5 (Q)**	5.2	0.17 J	0.19 J	0.019 J		0.034 J				0.26 J	0.27 J					
*Calcium	mg/kg		23,800 J	21,300 J	3,280 J	4,710 J	802 J	903 J	827 J	2,400 J	3,740 J	1,040 J	3,880	3,200	3,410	1,570	1,660		
*Chromium	mg/kg	6.8	30 J	24.4 J	34 J	34.4 J	14.5 J	9.8 J	9.3 J	9.7 J	10.6 J	4.8 J	25.1	58.5	29.5	16.9	18.9	21	7.7
*Cobalt	mg/kg	2.8 J			11.3 J	10.8 J	7.5 J				5.6 J		7.5 J	11.4	9.4	5.2 J	5.5 J	2.1 J	3.8 J
Copper	mg/kg	5.4	91.6 J	89.2 J	20.2 J	16.5 J	13.2 J	7.7 J	7.4 J	10.9 J	12.5 J	6.5 J	104	105	13.7	8.3	9.2	2.3 J	5.3
*Iron	mg/kg	6,140	11,400 J	12,900 J	38,400 J	37,500 J	13,500 J	12,800 J	12,700 J	10,900 J	11,900 J	5,720 J	25,400	35,000	30,900	18,000	18,500	3,790	7,060
Lead	mg/kg	3.6	166	174	30.9	15.4	7.7	5.6	5.5	5.7	6.3	3.2	**1,190 (Q)**	313	12.6	7	7	2.3	4.1
*Magnesium	mg/kg	1,430	2,660 J	3,260 J	6,710 J	7,020 J	2,600 J	2,100 J	2,010 J	3,470 J	4,680 J	1,880 J	2,100	7,770	6,630	3,180	2,770	913	1,280
Manganese	mg/kg	50.5	158	193	400	403	161	134	136	188	147	64	205	365	379	174	150	37.6	65.9
Mercury	mg/kg		0.25	0.31									**8.8 (Q)**	**5.5 (Q)**					
Nickel	mg/kg	8.9	16.1 J	16.6 J	31.1 J	29.9 J	15.6 J	12.1 J	11.9 J	14.8 J	16.4 J	10.9 J	27.4	30.6	26.7	14.4	13.5	5.9	8.5
*Potassium	mg/kg	508 J	565 J	972	3,920	3,810	1,200	739	715	1,170	1,300	562 J	693 J	3,460 J	3,110 J	1,750 J	1,130	238 J	369 J
Selenium	mg/kg		1.3 J	1.3 J									1.5 J					0.94 J	
Silver	mg/kg			0.14 J									0.55 J	0.41 J					
*Sodium	mg/kg				1,560	2,420	896	647	626				1,050	2,150	2,100	894	1,240		
*Thallium	mg/kg																		
*Vanadium	mg/kg	8.9	16.7 J	17.2 J	43.1 J	37.4 J	18.7 J	15.2 J	14 J	12.7 J	13.2 J		19.1	44.9	34.5	19.9	21.7	9.8	12.8
Zinc	mg/kg	15.5	158	148	78.7	82.8	41.4	29.2	31.3	25	28	17.8	387	197	64.1	34.9	34.8	16.7	17.8
Cyanide, Total	mg/kg	0.22 J	2.2 J	1.3 J															

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-44	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-45	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46	GCMW-46
Sample Number:		059-2129	059-2114	059-2115	059-2116	059-2117	059-2118	059-2121	059-2119	059-2120	059-2167	059-2168	059-2169	059-2170	059-2171	059-2172	059-2173	059-2174	059-2175
Sample Depth:		40-45	5-10	10-15	15-20	20-25	25-30	25-30	30-35	35-40	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Sample Date:		6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/8/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010	6/15/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
*Aluminum	mg/kg	2,620	5,370	17,000	16,900	12,500	5,710	5,910	2,930	8,970	8,080	18,100	13,400	12,500	7,760	3,080	3,360	2,770	2,510
*Antimony	mg/kg		7.6 J	0.62 J	0.81 J	0.61 J					0.75 J	0.72 J	0.72 J	0.72 J					
Arsenic	mg/kg	0.88 J	**16.8 (Q)**	8.6	8.6	9.4	6.7	6.6	**20.3 (Q)**	5.9	**19.8 (Q)**	11.6	8.2	8	10.6	0.66 J			1.2
Barium	mg/kg	10.7 J	184	42.7	40.7	53.9	34.3	32.6	28.3 J	48.6	165	58	29.4	55.6	73.9	19.7 J	19.8 J	16.1 J	12.4 J
Beryllium	mg/kg			0.78	0.8														
Cadmium	mg/kg		0.15 J	0.03 J							0.31 J	0.64 J	0.54 J	0.56 J	0.25 J	0.045 J	0.033 J	0.015 J	0.052 J
*Calcium	mg/kg		4,290	3,990	2,720	2,270	13,300	1,010	1,470	1,570	3,460 J	2,370 J	3,670 J	2,340 J	2,390 J	446 J	512 J	390 J	635 J
*Chromium	mg/kg	6.9	44	30	33.1	27.9	12.9	13.1	14.7	18.3	12.2	32.1	27.5	26.9	23.5	7.5	6.4	5.7	7.4
*Cobalt	mg/kg	3.7 J	6.1 J	9.9	10.2	7.8	3.6 J	3.9 J	3.9 J	5.9 J	6.3 J	11	8.8	8.5	6.2 J	4 J	3.7 J	3.8 J	3.8 J
Copper	mg/kg	4.9	211	22.9	15.8	12.4	5.7	6	4.2	9.6	99.2 J	47.4 J	15 J	14.9 J	10.8 J	5.8 J	6.5 J	5.2 J	5.2 J
*Iron	mg/kg	6,720	16,200	30,600	34,000	27,600	12,900	13,500	8,210	18,600	15,400	32,500	29,700	28,200	15,300	6,620	7,490	6,580	8,260
Lead	mg/kg	3.6	**955 (Q)**	40	16.4	10.8	5	5.4	3.7	8.1	427	148	12.6	12.1	7	4.3	5.1	4.2	3.6
*Magnesium	mg/kg	1,250	1,120	6,440	7,320	4,930	2,230	2,350	1,460	3,560	1,600	6,810	6,270	5,220	3,000	1,310	1,570	1,370	1,300
Manganese	mg/kg	64.7	150	329	399	253	104	108	73	172	297	323	365	316	152	98.6	128	132	234
Mercury	mg/kg		**3.9 (Q)**	0.2							**1.7 (Q)**	**0.98 (Q)**							
Nickel	mg/kg	7.8	14.3	28.7	30	22.3	9.9	10.3	8.2	15.9	14.2	32.5	26.6	23.8	14.2	8.7	8.5	7.9	8.3
*Potassium	mg/kg	344 J	716 J	3,510 J	3,940 J	2,560 J	1,180 J	1,130 J	441 J	1,690 J	787	3,380	2,980	2,290	1,040	383 J	427 J	338 J	329 J
Selenium	mg/kg		2.4 J						2.7 J										
Silver	mg/kg		0.78 J								0.13 J								
*Sodium	mg/kg		1,300	1,740	1,870	1,310						1,970	1,470	929					
*Thallium	mg/kg																		
*Vanadium	mg/kg	11.1	21.4	38.7	37.5	31.1	14.8	15.8	30.3	21.4	21.8	39.3	31.2	31.1	23.1	6.2	6.7	6.7	7.2
Zinc	mg/kg	16.7	226	69.2	72.3	53.9	24	25.6	17.7	39.5	91.1	104	61.3	57.9	36.8	19.9	20.7	17.6	15.9
Cyanide, Total	mg/kg																		

TABLE I-31B
Metal and Cyanide Concentrations in Soils, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GCMW-46	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47	GCMW-47
Sample Number:		059-2176	059-2234	059-2235	059-2236	059-2237	059-2238	059-2239	059-2240
Sample Depth:		50-55	10-15	15-20	25-30	30-35	36-36.5	40-40.5	45-45.5
Sample Date:		6/15/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**							
*Aluminum	mg/kg	3,300	9,120	14,200	4,400	2,750	2,210	3,250	2,890
*Antimony	mg/kg	0.51 J	0.61 J	0.71 J					
Arsenic	mg/kg	1.4	13.3	9.4	3.4	7.5	2.2	0.6 J	0.72 J
Barium	mg/kg	15.9 J	50.3	33.7					
Beryllium	mg/kg								
Cadmium	mg/kg	0.11 J							
*Calcium	mg/kg	3,890 J	3,720	3,940	661				
*Chromium	mg/kg	7.8	20.7	29	9	6.5	7.9	5.2	5.7
*Cobalt	mg/kg	5.2 J	7 J	9.8	3 J	2.1 J			
Copper	mg/kg	8.2 J	45	17.3	4.9	3.4	4.3	5.3	5.7
*Iron	mg/kg	10,600	22,100	32,500	10,800	6,730	4,970	7,450	6,960
Lead	mg/kg	5.1	86.6	20.5	3.5	2.9	2.3	4.5	4.4
*Magnesium	mg/kg	3,500	3,980	6,490	1,870	1,110	1,090	1,560	1,400
Manganese	mg/kg	240	221	381	103	38.5	40.3	79.3	61
Mercury	mg/kg		**1.2 (Q)**	0.47					
Nickel	mg/kg	12	19.2	26.3	8	5	5.5	8.1	7.8
*Potassium	mg/kg	518 J	1,840 J	2,950 J	740 J	502 J	269 J	415 J	363 J
Selenium	mg/kg								
Silver	mg/kg		0.14 J						
*Sodium	mg/kg		821	1,860	670				
*Thallium	mg/kg								
*Vanadium	mg/kg	12.9	23.9	33.4	12.2	7.3	6.9	6.1	6.5
Zinc	mg/kg	21.6	116	67.2	19.2	13	13.4	20	18.5
Cyanide, Total	mg/kg		0.24 J						

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TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.26 U	0.5 U	0.26 U	0.5 U	0.26 U	0.5 U	0.26 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
1,1,2,2-tetrachloroethane	ug/l	0.24 U	0.5 U	0.24 U	0.5 U	0.24 U	0.5 U	0.24 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	13 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.38 U	0.5 U	0.38 U	0.5 U	0.38 U	0.5 U	0.38 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
1,1,2-trichloroethane	ug/l	0.23 U	0.5 U	0.23 U	0.5 U	0.23 U	0.5 U	0.23 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	13 UJ
1,1-dichloroethane	ug/l	0.29 U	0.5 U	0.29 U	0.5 U	0.29 U	0.5 U	0.29 U	**0.08 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,1-dichloroethene	ug/l	0.4 U	0.5 U	0.4 U	0.5 U	0.4 U	0.5 U	0.4 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,2,3-trichlorobenzene	ug/l	0.47 U	0.5 U	0.47 U	0.5 U	0.47 U	0.5 U	0.47 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,2,4-trichlorobenzene	ug/l	0.56 U	0.5 U	0.56 U	0.5 U	0.56 U	0.5 U	0.56 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,2-dibromo-3-chloropropane	ug/l	1.1 U	0.05 U	1.1 U	0.05 U	1.1 U	0.05 U	1.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.39 U	0.05 U	0.39 U	0.05 U	0.39 U	0.05 U	0.39 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.26 U	0.5 U	0.26 U	0.5 U	0.26 U	0.5 U	0.26 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,2-dichloroethane	ug/l	0.33 U	0.5 U	0.33 U	0.5 U	0.33 U	0.5 U	0.33 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
1,2-dichloropropane	ug/l	0.27 U	0.5 U	0.27 U	0.5 U	0.27 U	0.5 U	0.27 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,3-dichlorobenzene	ug/l	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	**0.17 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,4-dichlorobenzene	ug/l	0.28 U	**0.17 J**	0.28 U	**0.23 J**	0.28 U	0.5 U	0.28 U	**0.036 J**	0.5 U	**0.17 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
1,4-dioxane (p-dioxane)	ug/l	94 U		94 U		94 U		94 U											
2-hexanone	ug/l	1.4 U	5 U	1.4 U	5 U	1.4 U	5 U	1.4 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U
Acetone	ug/l	2.9 U	5 U	**465**	**470**	2.9 U	5 U	2.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U
Benzene	ug/l	**1.1**	**0.95**	**5.3**	**3.9**	0.23 U	**0.12 J**	0.23 U	**0.099 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.48 J**	**0.32 J**	0.5 U	0.5 U	**5.4**	**370 J**
Bromochloromethane	ug/l	0.33 U	0.5 U	0.33 U	0.5 U	0.33 U	0.5 U	0.33 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Bromodichloromethane	ug/l	0.22 U	0.5 U	0.22 U	0.5 U	0.22 U	0.5 U	0.22 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Bromoform	ug/l	0.23 U	0.5 U	0.23 U	0.5 U	0.23 U	0.5 U	0.23 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Bromomethane	ug/l	0.3 U	0.5 U	0.3 U	0.5 U	0.3 U	0.5 U	0.3 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	13 UR
Carbon disulfide	ug/l	0.74 U	0.5 U	0.74 U	0.5 U	0.74 U	0.5 U	0.74 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.63**	**0.36 J**	0.5 U	0.5 U	0.5 U	13 U
Carbon tetrachloride	ug/l	0.26 U	0.5 U	0.26 U	0.5 U	0.26 U	0.5 U	0.26 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
Chlorobenzene	ug/l	0.39 U	0.5 U	0.39 U	0.5 U	0.39 U	0.5 U	0.39 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Chloroethane	ug/l	0.37 U	0.5 U	0.37 U	0.5 U	0.37 U	0.5 U	0.37 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Chloroform	ug/l	0.23 U	0.5 U	0.23 U	0.5 U	0.23 U	0.5 U	0.23 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.44 J**	0.5 U	0.5 U	0.5 U	13 U
Chloromethane	ug/l	0.29 U	0.5 U	0.29 U	**0.13 J**	0.29 U	0.5 U	0.29 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
cis-1,2-dichloroethylene	ug/l	0.22 U	0.5 U	**11**	**8.7**	0.22 U	0.5 U	**1.1**	**1.1**	0.5 U	**5**	0.5 U	**17**	**0.29 J**	0.5 U	**0.25 J**	0.5 U	0.5 U	13 U
cis-1,3-dichloropropene	ug/l	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	13 UJ
Cyclohexane	ug/l	**7.8**	**6.1**	**8.3**	**6.4**	1.9 U	0.5 U	1.9 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.8**	0.5 U	**4.4**	0.5 U	0.5 U	13 U
Dibromochloromethane	ug/l	0.22 U	0.5 U	0.22 U	0.5 U	0.22 U	0.5 U	0.22 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Dichlorodifluoromethane	ug/l	0.92 U	0.5 U	0.92 U	0.5 U	0.92 U	0.5 U	0.92 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Ethylbenzene	ug/l	**0.55 J**	0.5 U	**0.89 J**	**0.6**	0.27 U	0.5 U	0.27 U	0.5 U	**3**	0.5 U	0.5 U	0.5 U	**1.2**	0.5 U	0.5 U	0.5 U	**16**	**460 J**
Isopropylbenzene (cumene)	ug/l	**3.4**	**2.5**	**3.5**	**2.5**	0.57 U	0.5 U	0.57 U	0.5 U	**0.13 J**	0.5 U	0.5 U	0.5 U	**4.9**	**0.23 J**	**2.2**	0.5 U	**1.4**	**40**
m, p xylenes	ug/l	**0.83 J**	0.65 U	**2**	**1.6**	0.25 U	0.5 U	0.25 U	0.5 U	**3**	0.5 U	0.5 U	0.5 U	**2.7**	0.5 U	**0.4 J**	0.5 U	**17**	**460 J**

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	1.5 U	0.5 U	1.5 U	0.5 U	1.5 U	0.5 U	1.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
Methyl ethyl ketone (2-butanone)	ug/l	1.6 U	5 U	1.6 U	5 U	1.6 U	5 U	1.6 U	5 U	5 U	5 U	5 U	5 U	**2.8 J**	5 U	5 U	5 U	5 U	130 U
Methyl isobutyl ketone	ug/l	0.86 U	5 U	0.86 U	5 U	0.86 U	5 U	0.86 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U
Methylcyclohexane	ug/l	**13.6**	**13**	**21.6**	**18**	0.35 U	0.5 U	0.35 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**5.1**	0.5 U	**4.7**	0.5 U	0.5 U	13 U
Methylene chloride	ug/l	0.3 U	0.5 U	0.3 U	0.5 U	0.3 U	0.5 U	0.3 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.25 U	0.5 U	**0.51 J**	0.5 U	0.25 U	0.5 U	0.25 U	0.5 U	**0.98**	0.5 U	0.5 U	0.5 U	**1.5**	0.5 U	**0.36 J**	0.5 U	**7.7**	**330**
Styrene	ug/l	0.58 U	0.5 U	0.58 U	0.5 U	0.58 U	0.5 U	0.58 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Tert-butyl methyl ether	ug/l	**14.1**	**11**	**6.8**	**5.9**	0.23 U	**0.24 J**	0.23 U	**0.23 J**	0.5 U	0.5 U	**15**	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
Tetrachloroethylene(PCE)	ug/l	0.27 U	**0.095 J**	0.27 U	0.5 U	0.27 U	**0.053 J**	0.27 U	0.5 U	0.5 U	**0.26 J**	0.5 U	**0.33 J**	**0.45 J**	0.5 U	0.5 U	**1.3**	**0.35 J**	13 U
Toluene	ug/l	0.3 U	0.5 U	**0.47 J**	0.5 U	0.3 U	0.5 U	0.3 U	0.5 U	**1.5**	0.5 U	0.5 U	0.5 U	**0.71**	0.5 U	0.5 U	0.5 U	**1**	**63**
trans-1,2-dichloroethene	ug/l	0.25 U	0.5 U	**1.1**	**0.99**	0.25 U	0.5 U	0.25 U	0.5 U	0.5 U	**0.22 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
trans-1,3-dichloropropene	ug/l	0.21 U	0.5 U	0.21 U	0.5 U	0.21 U	0.5 U	0.21 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	13 UJ
Trichloroethylene (TCE)	ug/l	0.24 U	0.5 U	0.24 U	0.5 U	0.24 U	**0.059 J**	0.24 U	0.5 U	0.5 U	**0.27 J**	0.5 U	**13**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U
Trichlorofluoromethane	ug/l	0.54 U	0.5 U	0.54 U	0.5 U	0.54 U	0.5 U	0.54 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U
Vinyl chloride	ug/l	0.44 U	0.5 U	**31.5**	**24 J**	0.44 U	0.5 U	**2.7**	**2.1**	0.5 U	**5.9 J**	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	13 U

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10S-S-NYC	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	S	N	S	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 UJ	0.5 UJ	0.26 U	0.26 U	0.5 U	2.6 U	6.1 U	0.26 U	0.5 U	0.26 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 UJ	0.5 UJ
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 UJ	0.24 U	0.24 U	0.5 U	2.4 U	6.1 U	0.24 U	0.5 U	0.24 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 UJ	0.5 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 UJ	0.5 UJ	0.38 U	0.38 U	0.5 U	3.8 U	6.1 U	0.38 U	0.5 U	0.38 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 UJ	0.5 UJ
1,1,2-trichloroethane	ug/l	0.5 UJ	0.5 U	0.23 U	0.23 U	0.5 U	2.3 U	6.1 U	0.23 U	0.5 U	0.23 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	**0.11 J**	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.29 U	0.29 U	0.5 U	2.9 U	6.1 U	0.29 U	0.5 U	0.29 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.4 U	0.4 U	0.5 U	4 U	6.1 U	0.4 U	0.5 U	0.4 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.47 U	0.47 U	0.5 U	4.7 U	6.1 U	0.47 U	0.5 U	0.47 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 UJ	0.5 UJ
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.56 U	0.56 U	0.5 U	5.6 U	6.1 U	0.56 U	0.5 U	0.56 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	1.1 U	1.1 U	0.05 U	11 U	6.1 U	1.1 U	0.05 U	1.1 U	0.05 U	0.05 U	0.05 U	1.3 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.39 U	0.39 U	0.05 U	3.9 U	6.1 U	0.39 U	0.05 U	0.39 U	0.05 U	0.05 U	0.05 U	1.3 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.26 U	0.26 U	0.5 U	2.6 U	6.1 U	0.26 U	0.5 U	0.26 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 UJ	0.5 UJ	0.33 U	0.33 U	0.5 U	3.3 U	6.1 U	0.33 U	0.5 U	0.33 U	**0.2 J**	**16**	13 U	**220**	**30 J**	13 U	0.5 UJ	0.5 UJ
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.27 U	0.27 U	0.5 U	2.7 U	6.1 U	0.27 U	0.5 U	0.27 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.25 U	0.25 U	0.5 U	2.5 U	6.1 U	0.25 U	0.5 U	0.25 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.28 U	0.28 U	0.5 U	2.8 U	6.1 U	0.28 U	0.5 U	0.28 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
1,4-dioxane (p-dioxane)	ug/l			94 U	94 U		940 U		94 U		94 U								
2-hexanone	ug/l	5 U	5 U	1.4 U	1.4 U	5 U	14 U	61 U	1.4 U	5 U	1.4 U	5 U	130 U	130 U	130 U	5 U	130 U	5 U	5 U
Acetone	ug/l	5 U	5 U	2.9 U	2.9 U	**15**	29 U	61 U	2.9 U	5 U	2.9 U	5 U	130 U	130 U	130 U	5 U	130 U	5 U	5 U
Benzene	ug/l	0.5 U	**0.58**	**0.32 J**	**0.34 J**	**0.25 J**	**1,730**	**1,800 J**	0.23 U	**0.1 J**	0.23 U	**0.085 J**	**610 J**	**420**	**7,600 J**	0.5 U	**470**	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.33 U	0.33 U	0.5 U	3.3 U	6.1 U	0.33 U	0.5 U	0.33 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.22 U	0.22 U	0.5 U	2.2 U	6.1 U	0.22 U	0.5 U	0.22 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.23 U	0.23 U	0.5 U	2.3 U	6.1 U	0.23 U	0.5 U	0.23 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.3 U	0.3 U	0.5 U	3 U	6.1 U	0.3 U	0.5 U	0.3 U	0.5 U	13 U	13 U	13 U	0.5 U	13 UR	0.5 U	0.5 U
Carbon disulfide	ug/l	**0.89**	**1.4**	0.74 U	0.74 U	0.5 U	7.4 U	6.1 U	0.74 U	0.5 U	0.74 U	0.5 U	13 U	13 U	13 U	**0.15 J**	13 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 UJ	0.5 UJ	0.26 U	0.26 U	0.5 U	2.6 U	6.1 U	0.26 U	0.5 U	0.26 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 UJ	0.5 UJ
Chlorobenzene	ug/l	0.5 U	0.5 U	0.39 U	0.39 U	0.5 U	3.9 U	6.1 U	0.39 U	0.5 U	0.39 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.37 U	0.37 U	0.5 U	3.7 U	6.1 U	0.37 U	0.5 U	0.37 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	**3.3**	0.23 U	0.23 U	0.5 U	2.3 U	6.1 U	0.23 U	0.5 U	**0.75 J**	0.69 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	**0.25 J**
Chloromethane	ug/l	0.5 U	0.5 U	0.29 U	0.29 U	0.5 U	2.9 U	6.1 U	0.29 U	0.5 U	0.29 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	**0.38 J**	0.5 U	0.22 U	0.22 U	0.5 U	2.2 U	6.1 U	0.22 U	0.5 U	0.22 U	**0.068 J**	13 U	**66**	13 U	0.5 U	13 U	**0.99**	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 UJ	0.5 U	0.25 U	0.25 U	0.5 U	2.5 U	6.1 U	0.25 U	0.5 U	0.25 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 U	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	1.9 U	1.9 U	0.5 U	19 U	6.1 U	1.9 U	**0.44 J**	1.9 U	0.5 U	13 U	13 U	**42**	0.5 U	13 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.22 U	0.22 U	0.5 U	2.2 U	6.1 U	0.22 U	0.5 U	0.22 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.92 U	0.92 U	0.5 U	9.2 U	6.1 U	0.92 U	0.5 U	0.92 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	**0.71**	0.27 U	0.27 U	0.5 U	**832**	**870 J**	0.27 U	0.5 U	0.27 U	0.5 U	**560 J**	**690**	**1,600 J**	**0.42 J**	**400 J**	**6.8**	**0.21 J**
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.57 U	0.57 U	0.5 U	**32.1**	**35**	0.57 U	0.5 U	0.57 U	0.5 U	**48**	**65**	**110**	0.5 U	**29**	**1.9**	**0.24 J**
m, p xylenes	ug/l	0.5 U	**0.65**	0.25 U	0.25 U	0.5 U	**232**	**240**	0.25 U	0.5 U	0.25 U	0.5 U	**560 J**	**690**	**1,600 J**	**0.42 J**	**400 J**	**9.6**	**0.26 J**

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10S-S-NYC	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	S	N	S	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	0.5 UJ	0.5 UJ	1.5 U	1.5 U	0.5 U	15 U	6.1 U	1.5 U	0.5 U	1.5 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 UJ	0.5 UJ
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	1.6 U	1.6 U	5 U	16 U	61 U	1.6 U	5 U	1.6 U	5 U	130 U	130 U	130 U	5 U	130 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	0.86 U	0.86 U	5 U	8.6 U	61 U	0.86 U	5 U	0.86 U	5 U	130 U	130 U	130 U	5 U	130 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.35 U	0.35 U	0.5 U	3.5 U	6.1 U	0.35 U	**0.18 J**	0.35 U	0.5 U	13 U	13 U	**22**	**0.15 J**	13 U	0.5 U	0.5 U
Methylene chloride	ug/l	**0.45 J**	**0.38 J**	0.3 U	0.3 U	0.5 U	3 U	6.1 U	0.3 U	0.5 U	0.3 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 UJ	0.5 UJ
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	0.5 U	0.25 U	0.25 U	0.5 U	**186**	**200**	0.25 U	0.5 U	0.25 U	0.5 U	**380**	**460**	**2,600 J**	**0.47 J**	**430**	**3.8**	**0.32 J**
Styrene	ug/l	0.5 U	0.5 U	0.58 U	0.58 U	0.5 U	5.8 U	6.1 U	0.58 U	0.5 U	0.58 U	0.5 U	**52**	**180**	13 U	0.5 U	13 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 UJ	0.5 UJ	0.23 U	0.23 U	**0.23 J**	2.3 U	6.1 U	0.23 U	**0.06 J**	**0.28 J**	**0.33 J**	**42**	13 U	13 U	**14 J**	13 U	0.5 UJ	**5.1 J**
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.27 U	0.27 U	**0.052 J**	2.7 U	6.1 U	0.27 U	0.5 U	0.27 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Toluene	ug/l	0.5 U	**0.53**	0.3 U	0.3 U	0.5 U	**158**	**160**	0.3 U	0.5 U	0.3 U	0.5 U	**120**	**84**	**13,000 J**	**0.6**	**380 J**	**0.84**	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.25 U	0.25 U	0.5 U	2.5 U	6.1 U	0.25 U	0.5 U	0.25 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 UJ	0.5 U	0.21 U	0.21 U	0.5 U	2.1 U	6.1 U	0.21 U	0.5 U	0.21 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 U	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.24 U	0.24 U	**0.14 J**	2.4 U	6.1 U	0.24 U	0.5 U	0.24 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 UJ	0.5 UJ	0.54 U	0.54 U	0.5 U	5.4 U	6.1 U	0.54 U	0.5 U	0.54 U	0.5 U	13 U	13 U	13 U	0.5 UJ	13 U	0.5 UJ	0.5 UJ
Vinyl chloride	ug/l	0.5 UJ	0.5 U	0.44 U	0.44 U	0.5 U	4.4 U	6.1 U	0.44 U	0.5 U	0.44 U	0.5 U	13 U	13 U	13 U	0.5 U	13 U	0.5 UJ	0.5 UJ

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-14	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19
Sample Number:		GC-MW14I	GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate
Sample Date:		7/19/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.26 U	0.5 U	0.26 U	2.6 U	0.26 U	0.5 U	0.26 U	0.6 U	0.26 U	0.5 U	0.26 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.24 U	0.5 U	0.24 U	2.6 U	0.24 U	0.5 U	0.24 U	0.6 U	0.24 U	0.5 U	0.24 U	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.38 U	0.5 U	0.38 U	2.6 U	0.38 U	0.5 U	0.38 U	0.6 U	0.38 U	0.5 U	0.38 U	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.23 U	0.5 U	0.23 U	2.6 U	0.23 U	0.5 U	0.23 U	0.6 U	0.23 U	0.5 U	0.23 U	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.38 J**	**0.37 J**	0.29 U	2.6 U	0.29 U	0.5 U	0.29 U	0.6 U	0.29 U	0.5 U	0.29 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 U	0.5 U	0.4 U	2.6 U	0.4 U	0.5 U	**2.7**	**2.4**	0.4 U	0.5 U	0.4 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.47 U	0.5 U	0.47 U	2.6 U	0.47 U	0.5 U	0.47 U	0.6 U	0.47 U	0.5 U	0.47 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.56 U	0.5 U	0.56 U	2.6 U	0.56 U	0.5 U	0.56 U	0.6 U	0.56 U	0.5 U	0.56 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1.1 U	0.05 U	1.1 U	2.6 U	1.1 U	0.05 U	1.1 U	0.05 U	1.1 U	0.05 U	1.1 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.39 U	0.05 U	0.39 U	2.6 U	0.39 U	0.05 U	0.39 U	0.05 U	0.39 U	0.05 U	0.39 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.26 U	0.5 U	0.26 U	2.6 U	0.26 U	0.5 U	0.26 U	0.6 U	0.26 U	0.5 U	0.26 U	0.5 U
1,2-dichloroethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.33 U	0.5 U	0.33 U	2.6 U	0.33 U	0.5 U	**1.1**	0.6 U	0.33 U	0.5 U	0.33 U	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 U	0.5 U	0.27 U	2.6 U	0.27 U	0.5 U	0.27 U	0.6 U	0.27 U	0.5 U	0.27 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U	2.6 U	0.25 U	0.5 U	0.25 U	0.6 U	0.25 U	0.5 U	0.25 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.28 U	0.5 U	0.28 U	2.6 U	0.28 U	0.5 U	0.28 U	0.6 U	0.28 U	0.5 U	0.28 U	0.5 U
1,4-dioxane (p-dioxane)	ug/l							94 U		94 U		94 U		94 U		94 U		94 U	
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	1.4 U	5 U	1.4 U	26 U	1.4 U	**0.58 J**	1.4 U	6 U	1.4 U	5 U	1.4 U	5 U
Acetone	ug/l	5 U	5 U	5 U	**53**	5 U	5 U	2.9 U	5 U	**9.9 J**	26 U	**21.7**	**31**	2.9 U	6 U	**12.3**	**19**	**32.8**	**53**
Benzene	ug/l	**0.28 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.23 U	0.5 U	**826**	**750 J**	**1.3**	**1.2**	**2.3**	**1.9**	**0.29 J**	0.5 U	0.23 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.33 U	0.5 U	0.33 U	2.6 U	0.33 U	0.5 U	0.33 U	0.6 U	0.33 U	0.5 U	0.33 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.22 U	0.5 U	0.22 U	2.6 U	0.22 U	0.5 U	0.22 U	0.6 U	0.22 U	0.5 U	0.22 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.23 U	0.5 U	0.23 U	2.6 U	0.23 U	0.5 U	0.23 U	0.6 U	0.23 U	0.5 U	0.23 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 UR	0.5 UR	0.5 UR	0.5 UR	0.5 UR	0.3 U	0.5 U	0.3 U	2.6 U	0.3 U	0.5 U	0.3 U	0.6 U	0.3 U	0.5 U	0.3 U	0.5 U
Carbon disulfide	ug/l	**0.32 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.74 U	0.5 U	0.74 U	**0.51 J**	0.74 U	0.5 U	0.74 U	**0.34 J**	0.74 U	0.5 U	0.74 U	0.5 U
Carbon tetrachloride	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.26 U	0.5 U	0.26 U	2.6 U	0.26 U	0.5 U	0.26 U	0.6 U	0.26 U	0.5 U	0.26 U	0.5 U
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.39 U	0.5 U	0.39 U	**0.41 J**	0.39 U	0.5 U	0.39 U	0.6 U	0.39 U	**0.12 J**	0.39 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.37 U	0.5 U	0.37 U	2.6 U	0.37 U	0.5 U	0.37 U	0.6 U	0.37 U	0.5 U	0.37 U	0.5 U
Chloroform	ug/l	**1.2**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.23 U	0.5 U	**0.84 J**	2.6 U	0.23 U	0.5 U	0.23 U	0.6 U	0.23 U	0.5 U	**3.5**	3 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.29 U	0.5 U	0.29 U	2.6 U	0.29 U	0.5 U	0.29 U	0.6 U	0.29 U	0.5 U	0.29 U	0.5 U
cis-1,2-dichloroethylene	ug/l	**0.4 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.22 U	0.5 U	**0.67 J**	**0.76 J**	**0.27 J**	**0.32 J**	**71.5**	**69 J**	0.22 U	0.5 U	**0.24 J**	**0.27 J**
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U	2.6 U	0.25 U	0.5 U	0.25 U	0.6 U	0.25 U	0.5 U	0.25 U	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	**1**	0.5 U	0.5 U	1.9 U	0.5 U	1.9 U	2.6 U	1.9 U	0.5 U	1.9 U	0.6 U	1.9 U	**0.098 J**	1.9 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.22 U	0.5 U	0.22 U	2.6 U	0.22 U	0.5 U	0.22 U	0.6 U	0.22 U	0.5 U	0.22 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.92 U	0.5 U	0.92 U	2.6 U	0.92 U	0.5 U	0.92 U	0.6 U	0.92 U	0.5 U	0.92 U	0.5 U
Ethylbenzene	ug/l	**0.43 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 U	0.5 U	**1.6**	2.6 U	**7.3**	**6.7**	**26.3**	**22**	0.27 U	0.5 U	0.27 U	0.5 U
Isopropylbenzene (cumene)	ug/l	**0.2 J**	0.5 U	0.5 U	**19**	0.5 U	0.5 U	0.57 U	0.5 U	**4.7**	**4.8**	0.57 U	**0.27 J**	**1.4 J**	0.6 U	0.57 U	**0.53**	0.57 U	0.5 U
m, p xylenes	ug/l	**0.56**	0.5 U	0.5 U	**0.22 J**	0.5 U	0.5 U	0.25 U	0.5 U	**1.2**	2.6 U	**10.1**	**9.4**	**36.8**	**32 J**	0.25 U	0.5 U	0.25 U	0.5 U

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-14	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19
Sample Number:		GC-MW14I	GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate
Sample Date:		7/19/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010
Sample Type:		N	N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5 U	0.5 U	1.5 U	2.6 U	1.5 U	0.5 U	1.5 U	0.6 U	1.5 U	0.5 U	1.5 U	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	1.6 U	5 U	1.6 U	26 U	1.6 U	**1.2 J**	1.6 U	6 U	1.6 U	**1.6 J**	1.6 U	**0.92 J**
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	0.86 U	5 U	0.86 U	26 U	0.86 U	5 U	0.86 U	6 U	0.86 U	5 U	0.86 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.35 U	0.5 U	0.35 U	**0.47 J**	0.35 U	0.5 U	0.35 U	0.6 U	0.35 U	**0.16 J**	0.35 U	0.5 U
Methylene chloride	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 U	0.5 U	0.3 U	2.6 U	0.3 U	0.5 U	0.3 U	0.6 U	0.3 U	0.5 U	0.3 U	**0.11 J**
o-xylene (1,2-dimethylbenzene)	ug/l	**0.39 J**	0.5 U	0.5 U	**0.29 J**	0.5 U	0.5 U	0.25 U	0.5 U	**4.8**	**4.8**	**5.1**	**5.2**	**17.6**	**16**	0.25 U	0.5 U	0.25 U	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U	**0.45 J**	0.5 U	0.5 U	0.58 U	0.5 U	0.58 U	2.6 U	0.58 U	**1.2**	0.58 U	**4.1**	0.58 U	0.5 U	0.58 U	0.5 U
Tert-butyl methyl ether	ug/l	**1.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.6**	**1.9**	0.23 U	2.6 U	**1.2**	**1.3**	**0.37 J**	**0.43 J**	**0.84 J**	**1**	0.23 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.27 U	0.5 U	0.27 U	2.6 U	0.27 U	0.5 U	**4.9**	**4**	0.27 U	0.5 U	0.27 U	0.5 U
Toluene	ug/l	0.5 U	0.5 U	0.5 U	**0.37 J**	0.5 U	0.5 U	0.3 U	0.5 U	**0.78 J**	2.6 U	**4.1**	**3.7**	**9.1**	**7.7**	0.3 U	0.5 U	0.3 U	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.25 U	0.5 U	0.25 U	**0.17 J**	0.25 U	0.5 U	**4**	**3.7**	0.25 U	0.5 U	0.25 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.21 U	0.5 U	0.21 U	2.6 U	0.21 U	0.5 U	0.21 U	0.6 U	0.21 U	0.5 U	0.21 U	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.24 U	0.5 U	0.24 U	2.6 U	**0.29 J**	**0.31 J**	**207**	**190 J**	0.24 U	0.5 U	0.24 U	**0.17 J**
Trichlorofluoromethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.54 U	0.5 U	0.54 U	2.6 U	0.54 U	0.5 U	0.54 U	0.6 U	0.54 U	0.5 U	0.54 U	0.5 U
Vinyl chloride	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.44 U	0.5 U	**3.3**	**3**	0.44 U	0.5 U	**1.2**	**0.94**	0.44 U	0.5 U	0.44 U	0.5 U

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-20	MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27
Sample Number:		GC-MW20S	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I
Sample Depth:		Shallow	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010
Sample Type:		N	FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
1,1,2,2-tetrachloroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
1,1,2-trichloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.29 J**	**0.29 J**	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	**6.3**	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	**52 J**	0.5 U	**1.7**	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.011 U	0.011 U	0.05 U	0.01 U	5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.011 U	0.011 U	0.05 U	0.01 U	5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	**1.5**	0.5 U	0.5 U	**0.58**	0.5 U
1,2-dichloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	**0.6**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	**0.59**	**29 J**	**0.95**	**0.7**	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	**1.4**	**15**	**0.73**	**2.4**	0.5 U
1,4-dioxane (p-dioxane)	ug/l						50 R	50 R		2,200 R									
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	220 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	5 U	**1.1 J**	5 U	5 U	5 U	**24 J**	**25 J**	**19**	220 R	50 U	17 U	5 U	5 U	5 U	5 U	5 U	5 U	**2.6 J**
Benzene	ug/l	**0.8**	**0.84**	**350 J**	0.5 U	0.5 U	1 U	1 U	**0.099 J**	**1,600**	**1,600 J**	**3.7**	0.5 U	0.5 U	0.5 U	**0.45 J**	0.5 U	**0.57**	**31 J**
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 UR	0.5 UR	0.5 UR	0.5 UR	0.5 UR	1 UJ	1 UJ	0.5 U	44 UJ	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 UR
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.44 J**	**0.44 J**	0.5 U	44 U	5 U	**2.6 J**	0.5 U	0.5 U	**0.52**	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	**6.6**	0.5 U	**7**	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	**9.4**	0.5 U	0.5 U	**0.53**	0.5 U	**0.62**	0.5 U	**3.7**
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.2**
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	**0.5**	**0.54**	**18**	**14**	0.5 U	**2.2**
cis-1,3-dichloropropene	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	**3.4**	**3.5**	**250 J**	0.5 U	0.5 U	1 U	1 U	**0.083 J**	**1,000**	**1,000 J**	**11**	**1.3**	0.5 U	0.5 U	**0.27 J**	**1.3**	**2.3**	**150 J**
Isopropylbenzene (cumene)	ug/l	**0.52**	**0.53**	**32 J**	0.5 U	0.5 U	1 U	1 U	0.5 U	**39 J**	**33**	**0.97**	0.5 U	0.5 U	0.5 U	0.5 U	**0.34 J**	**0.36 J**	**19**
m, p xylenes	ug/l	**3.4**	**3.5**	**250 J**	0.5 U	0.5 U	**0.28 J**	**0.22 J**	**0.18 J**	**700**	**640 J**	**11**	**1.3**	0.5 U	0.5 U	0.5 U	**0.99**	**2.3**	**150 J**

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-20	MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27
Sample Number:		GC-MW20S	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I
Sample Depth:		Shallow	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010
Sample Type:		N	FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	0.5 UJ	0.5 UJ	**3.6 J**	0.5 U	0.5 U	1 R	1 R	0.5 U	44 R	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	5 R	**4.5 J**	5 U	220 R	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	220 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	**1.5**	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
o-xylene (1,2-dimethylbenzene)	ug/l	**1.9**	**1.9**	**110 J**	0.5 U	0.5 U	**0.23 J**	1 U	**0.16 J**	**380**	**350 J**	**5.9**	**0.35 J**	0.5 U	0.5 U	0.5 U	**0.71**	**1.3**	**94 J**
Styrene	ug/l	0.5 U	0.5 U	**16 J**	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**4.4**
Tert-butyl methyl ether	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	**1.2**	**1.1**	**0.91**	44 U	5 U	**0.55**	0.5 U	**0.72**	**0.5 J**	**77 J**	**36 J**	0.5 U	**17 J**
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.53**	0.5 U	0.5 U
Toluene	ug/l	**0.42 J**	**0.43 J**	**250 J**	0.5 U	0.5 U	**0.21 J**	1 U	0.5 U	**880**	**870 J**	**3**	0.51 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.4**	**66 J**
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.54**	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1**	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 U	**0.5 J**	0.5 UJ	**1.4 J**	0.5 U	0.5 UJ
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	0.5 U	44 U	5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	**3.6 J**	0.5 UJ	0.5 U	0.5 U

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33
Sample Number:		GC-MW28S-A	GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I
Sample Depth:		Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/22/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010
Sample Type:		N	N	FD	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,1,2,2-tetrachloroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	**0.057 J**	160 U	18 U	0.5 U	13 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 UJ
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	**0.068 J**	160 U	18 U	0.5 U	13 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	**0.17 J**	13 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	**0.11 J**	13 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.01 U	6.5 U	140 U	0.011 U	0.05 U	0.011 U	4.3 U	0.01 U	0.05 U	160 U	18 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.01 U	6.5 U	140 U	0.011 U	0.05 U	0.011 U	4.3 U	0.01 U	0.05 U	160 U	18 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,2-dichloroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	**0.21 J**	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	**0.21 J**	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
1,4-dioxane (p-dioxane)	ug/l						2,800 R			50 R		1,800 R		50 R		8,200 R			
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	280 U	65 U	690 U	5 U	5 U	180 U	43 U	5 U	**0.4 J**	820 U	180 U	5 U	130 U
Acetone	ug/l	5 U	5 U	5 U	10 U	5 U	280 R	65 U		5 R	5 U	180 R	43 U	5 R	5 U	820 R	180 U	20 U	130 U
Benzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**19 J**	**2,100**	**2,100 J**	**5,200**	1 U	**0.098 J**	**190**	**180 J**	1 U	0.5 U	160 U	**4.1 J**	**15**	**240 J**
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 UJ	13 U
Bromomethane	ug/l	0.5 UR	0.5 UR	0.5 UR	0.5 UR	0.5 UR	55 UJ	6.5 U	140 U	1 UJ	0.5 U	37 UJ	4.3 U	1 UJ	0.5 U	160 UJ	18 U	0.5 U	13 UJ
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	**0.73**	**0.43 J**	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	**0.61 J**	13 UJ
Carbon tetrachloride	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	**5.5**	13 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 UJ
Chloroform	ug/l	0.5 U	0.5 U	0.5 U	**0.71**	**0.78**	55 U	6.5 U	140 U	**0.29 J**	**0.2 J**	37 U	4.3 U	1 U	0.5 U	160 U	18 U	**0.62**	13 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 UJ
cis-1,2-dichloroethylene	ug/l	0.5 U	**53 J**	**63 J**	0.5 U	**18 J**	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	**16**
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 UJ
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	**3.1 J**	0.5 U	55 U	**1.2 J**	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	**3.5 J**	0.5 U	13 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	**0.26 J**	**0.25 J**	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 UJ
Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**6.4**	**320**	**270 J**	**240**	1 U	0.5 U	**1,400**	**1,400 J**	1 U	0.5 U	**6,300**	**6,200 J**	**12**	**720 J**
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	**3.5**	**0.99**	**68**	**53**	**82 J**	1 U	0.5 U	**68**	**63**	1 U	0.5 U	**170**	**160**	**0.47 J**	**130**
m, p xylenes	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**6.3**	**31 J**	**22**	**47 J**	1 U	0.5 U	**160**	**160**	1 U	**0.042 J**	**3,900**	**3,700 J**	**12**	**720 J**

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33
Sample Number:		GC-MW28S-A	GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I
Sample Depth:		Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/22/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010
Sample Type:		N	N	FD	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 R	6.5 U		1 R	0.5 U	37 R	4.3 U	1 R	0.5 U	160 R	18 U	**1.7**	13 U
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	280 R	65 U		5 R	5 U	180 R	**9.9 J**	5 R	5 U	820 R	180 U	5 U	130 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	280 U	65 U	690 U	5 U	5 U	180 U	43 U	5 U	5 U	820 U	180 U	5 U	130 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	**1.8 J**	**2.1**	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	**3.1 J**
Methylene chloride	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	**0.34 J**	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	**0.8**	13 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**6.4**	**37 J**	**31**	**68 J**	1 U	**0.06 J**	**460**	**430 J**	1 U	0.5 U	**2,000**	**1,800 J**	**4.4**	**210 J**
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**1.5**	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
Tert-butyl methyl ether	ug/l	0.5 U	**2 J**	**1.4 J**	0.5 UJ	0.5 UJ	**46 J**	**34**	**190**	1 U	**0.21 J**	**26 J**	**24**	1 U	0.5 U	**110 J**	**85**	**3.4**	13 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	**5.5**	**5.4**	0.5 U	**0.42 J**	55 U	6.5 U	140 U	1 U	**0.14 J**	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
Toluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**15**	55 U	6.5 U	140 U	1 U	0.5 U	37 U	**5**	1 U	0.5 U	**490**	**540**	0.65 U	21 U
trans-1,2-dichloroethene	ug/l	0.5 U	**1.4**	**1.4**	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 UJ
Trichloroethylene (TCE)	ug/l	0.5 U	**7.1**	**6.9**	0.5 U	0.5 U	55 U	6.5 U	140 U	**0.27 J**	**0.19 J**	37 U	4.3 U	1 U	0.5 U	160 U	18 U	**0.17 J**	**3.8 J**
Trichlorofluoromethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	55 U	6.5 U	140 U	**3.3 J**	**2.9**	**8.7 J**	**8.4**	1 U	0.5 U	160 U	18 U	0.5 U	13 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	55 U	6.5 U	140 U	1 U	0.5 U	37 U	4.3 U	1 U	0.5 U	160 U	18 U	0.5 U	13 U

TABLE I-32A
VOC Concentrations in Groundwater
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Station Location:		MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41
Sample Number:		D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow
Sample Date:		7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010
Sample Type:		FD	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	2.5 U	1 U	3.4 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	13 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	2.5 UJ	1 U	3.4 U	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	2.5 U	1 U	3.4 U	0.5 U
1,1,2-trichloroethane	ug/l	13 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,1-dichloroethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,1-dichloroethene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,2,3-trichlorobenzene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,2,4-trichlorobenzene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1 U	0.01 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1 U	0.01 U	0.05 U
1,2-dichlorobenzene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,2-dichloroethane	ug/l	**430**	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	2.5 U	1 U	3.4 U	0.5 U
1,2-dichloropropane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,3-dichlorobenzene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.36 J**	**0.35 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,4-dichlorobenzene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.36 J**	**0.35 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
1,4-dioxane (p-dioxane)	ug/l																50 R	170 R	
2-hexanone	ug/l	**40 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	17 U	5 U
Acetone	ug/l	130 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 R	17 R	5 U
Benzene	ug/l	**1,100 J**	0.5 U	0.5 U	0.5 U	**1.8**	0.5 U	0.5 U	0.5 U	0.5 U	**0.87**	**0.94**	0.5 U	0.5 U	**14**	**160 J**	**32**	**120**	**110 J**
Bromochloromethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Bromodichloromethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Bromoform	ug/l	13 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Bromomethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 UR	0.5 UR	0.5 UR	0.5 UR	0.5 UR	0.5 U	0.5 U	0.5 UR	2.5 UR	1 U	3.4 UJ	0.5 U
Carbon disulfide	ug/l	13 U	**0.61**	**0.54 J**	0.5 U	0.5 U	**0.27 J**	0.5 U	0.5 U	**0.73**	**0.36 J**	**0.45 J**	**0.83**	**0.33 J**	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Carbon tetrachloride	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	2.5 U	1 U	3.4 U	0.5 U
Chlorobenzene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Chloroethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Chloroform	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.6**	**1.1**	**1.5**	0.5 U	**0.31 J**	**0.79**	**2.5 J**	**3.8**	3.4 U	0.5 U
Chloromethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
cis-1,2-dichloroethylene	ug/l	**490**	0.5 U	**2**	**0.49 J**	**1.9**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.9**	0.5 U	2.5 U	1 U	3.4 U	0.5 U
cis-1,3-dichloropropene	ug/l	13 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Cyclohexane	ug/l	**110**	0.5 U	0.5 U	0.5 U	0.5 U	**1.8**	**1.9**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	**2.6 J**	**2.3**
Dibromochloromethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Dichlorodifluoromethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Ethylbenzene	ug/l	**3,500 J**	**1.5**	**0.64**	**18**	**19**	**0.59**	**0.59**	**3.4 J**	0.5 U	**16**	**17**	0.5 U	**1.1**	**88 J**	**150 J**	**0.65 J**	**92**	**84 J**
Isopropylbenzene (cumene)	ug/l	**3,000 J**	**1.4**	**4.5**	**3**	**2.7**	**4.6**	**4.5**	**2.4 J**	0.5 U	**2.4**	**2.6**	0.5 U	0.5 U	**10**	**10**	1 U	**9.8**	**9.6**
m, p xylenes	ug/l	**3,600 J**	**1.5**	**0.61**	**9.1**	**13**	**0.59**	**0.6**	**3.4 J**	0.5 U	**16**	**17**	0.5 U	0.5 U	**88 J**	**160 J**	**2.3**	**110**	**110 J**

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41
Sample Number:	D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG
Sample Depth:	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow
Sample Date:	7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010
Sample Type:	FD	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S
Parameter	**Units**	**Volatile Organic Compounds**																
Methyl acetate	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	2.5 U	1 R	3.4 R	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	130 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 R	17 R	5 U
Methyl isobutyl ketone	ug/l	**21 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	5 U	17 U	5 U
Methylcyclohexane	ug/l	**86**	0.5 U	**0.69**	0.5 U	**0.14 J**	**1.6**	**1.9**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.36 J**	2.5 U	1 U	**4.1**	**4**
Methylene chloride	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	**0.6 J**	2.5 U	1 U	3.4 U	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	**1,100 J**	**0.72**	**0.32 J**	**6.5**	**7.8**	**1.2**	**1.2**	**1.4 J**	0.5 U	**8.5**	**9.5**	0.5 U	0.5 U	**58 J**	**97**	**1.2**	**58**	**51 J**
Styrene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U	**2.9**	2.5 U	**0.79 J**	**4.4**	0.5 U
Tert-butyl methyl ether	ug/l	**330 J**	**0.86**	**2.6**	**1.7**	**1.8 J**	0.5 UJ	0.5 UJ	0.5 U	**5.6 J**	0.5 UJ	0.5 U	**0.91**	**2.6 J**	0.5 UJ	2.5 U	1 U	**1.3 J**	0.5 U
Tetrachloroethylene(PCE)	ug/l	13 U	**0.24 J**	0.5 U	**0.28 J**	**0.3 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.2**	2.5 U	1 U	3.4 U	0.5 U
Toluene	ug/l	**600 J**	0.5 U	0.5 U	**1.7**	**1.7**	0.5 U	**0.34 J**	0.5 U	0.5 U	**5.3**	**5.8**	0.5 U	0.5 U	**52 J**	**210 J**	**8.5**	**32**	**31 J**
trans-1,2-dichloroethene	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
trans-1,3-dichloropropene	ug/l	13 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Trichloroethylene (TCE)	ug/l	**120**	**0.27 J**	0.5 U	0.5 U	**0.28 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 U	1 U	3.4 U	0.5 U
Trichlorofluoromethane	ug/l	13 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	2.5 U	1 U	3.4 U	0.5 U
Vinyl chloride	ug/l	**60**	0.5 U	**4.1 J**	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	2.5 U	1 U	3.4 U	0.5 U

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**													
1,1,1-trichloroethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U	13 UJ	0.5 U
1,1,2,2-tetrachloroethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U	13 UJ	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U	13 UJ	0.5 U
1,1,2-trichloroethane	ug/l	1 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
1,1-dichloroethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.26 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
1,1-dichloroethene	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.97**	**0.93**	0.5 U	0.5 U	13 U	13 U	0.5 U
1,2,3-trichlorobenzene	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
1,2,4-trichlorobenzene	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.01 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
1,2-dichloroethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U	13 UJ	0.5 U
1,2-dichloropropane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 UJ	0.5 U
1,3-dichlorobenzene	ug/l	1 U	0.5 U	0.5 U	0.5 U	**0.96**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
1,4-dichlorobenzene	ug/l	1 U	0.5 U	0.5 U	0.5 U	**0.95**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
1,4-dioxane (p-dioxane)	ug/l	50 R													
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U	130 U	5 U
Acetone	ug/l	5 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.1 J**	5 U	5 U	130 U	130 U	5 U
Benzene	ug/l	1 U	**0.12 J**	0.5 U	0.5 U	**4.3**	**16**	0.5 U	**6.4**	**6**	0.5 U	**0.72**	**41 J**	**690 J**	**9**
Bromochloromethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Bromodichloromethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 UJ	0.5 U
Bromoform	ug/l	1 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Bromomethane	ug/l	1 UJ	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	13 U	13 U	0.5 UR
Carbon disulfide	ug/l	1 U	0.5 U	0.5 U	0.5 U	**0.17 J**	0.5 U	0.5 U	**0.79**	**0.62 J**	0.5 U	0.5 U	13 U	13 U	0.5 U
Carbon tetrachloride	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U	13 UJ	0.5 U
Chlorobenzene	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Chloroethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Chloroform	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Chloromethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
cis-1,2-dichloroethylene	ug/l	1 U	**0.091 J**	0.5 U	0.5 U	**0.5**	**0.72**	**0.59**	**240 J**	**240 J**	0.5 U	**10**	**500 J**	13 U	**220 J**
cis-1,3-dichloropropene	ug/l	1 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Cyclohexane	ug/l	1 U	0.5 U	0.5 U	0.5 U	**1.8**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 UJ	0.5 U
Dibromochloromethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Dichlorodifluoromethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Ethylbenzene	ug/l	1 U	**0.069 J**	0.5 U	0.5 U	**9.3**	**23 J**	0.5 U	0.5 U	0.5 U	**0.43 J**	**810 J**	**27**	**740 J**	**340 J**
Isopropylbenzene (cumene)	ug/l	1 U	0.5 U	0.5 U	0.5 U	**0.7**	**2.1**	0.5 U	0.5 U	0.5 U	0.5 U	**2**	13 U	**26**	**1.3**
m, p xylenes	ug/l	1 U	**0.14 J**	0.5 U	0.5 U	**9.3**	**23 J**	0.5 U	0.5 U	0.5 U	**0.4 J**	**600 J**	**40**	**590 J**	**290 J**

TABLE I-32A
VOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**													
Methyl acetate	ug/l	1 R	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U	13 UJ	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	5 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U	130 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	130 U	130 U	5 U
Methylcyclohexane	ug/l	1 U	0.5 U	0.5 U	0.5 U	**0.5**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 UJ	0.5 U
Methylene chloride	ug/l	1 U	0.5 U	**0.39 J**	**0.35 J**	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	13 U	13 UJ	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	1 U	**0.048 J**	0.5 U	0.5 U	**8.9**	**14**	0.5 U	0.5 U	0.5 U	0.5 U	**15**	**20**	**390**	**16**
Styrene	ug/l	1 U	0.5 U	0.5 U	0.5 U	**2.9**	**4.6**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	13 U	**110**	**8.5**
Tert-butyl methyl ether	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	**0.91 J**	**1.3 J**	0.5 U	**0.29 J**	**13**	13 UJ	**2**
Tetrachloroethylene(PCE)	ug/l	1 U	0.5 U	**0.54**	0.5 U	0.5 U	0.5 U	**0.35 J**	0.5 U	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Toluene	ug/l	1 U	**0.12 J**	0.5 U	0.5 U	**3.1**	**5.7**	0.5 U	0.5 U	0.5 U	0.5 U	**1.9**	**21**	**640 J**	**220 J**
trans-1,2-dichloroethene	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**33 J**	**33 J**	0.5 U	**0.61**	**160**	13 U	0.5 U
trans-1,3-dichloropropene	ug/l	1 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	13 U	13 U	0.5 U
Trichloroethylene (TCE)	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**4.5**	**4.3**	0.5 U	**5.1**	**30**	13 U	**0.38 J**
Trichlorofluoromethane	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	13 U	13 UJ	0.5 U
Vinyl chloride	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	**1.8**	**1.4**	0.5 U	0.5 U	13 U	13 U	0.5 U

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07	MW-08
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I	GC-MW08S
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	S	N	S	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l																		
1,1,2-trichloroethane	ug/l																		
1,1-dichloroethane	ug/l							0.08 J											
1,1-dichloroethene	ug/l																		
1,2,3-trichlorobenzene	ug/l																		
1,2,4-trichlorobenzene	ug/l																		
1,2-dichlorobenzene	ug/l																		
1,2-dichloroethane	ug/l																		
1,2-dichloropropane	ug/l																		
1,3-dichlorobenzene	ug/l									0.17 J									
1,4-dichlorobenzene	ug/l		0.17 J		0.23 J			0.036 J		0.17 J									
*2-hexanone	ug/l																		
*Acetone	ug/l			465	470														
Benzene	ug/l	**1.1 (O1)**	0.95	**5.3 (O1)**	**3.9 (O1)**	0.12 J		0.099 J					0.48 J	0.32 J			**5.4 (O1)**	**370 J (O1)**	
Carbon disulfide	ug/l												0.63	0.36 J					0.89
Chlorobenzene	ug/l																		
Chloroform	ug/l													0.44 J					
Chloromethane	ug/l				0.13 J														
cis-1,2-dichloroethylene	ug/l			**11 (O1)**	**8.7 (O1)**		1.1	1.1		5		**17 (O1)**	0.29 J		0.25 J				0.38 J
*Cyclohexane	ug/l	7.8	6.1	8.3	6.4								2.8		4.4				
Dichlorodifluoromethane	ug/l																		
Ethylbenzene	ug/l	0.55 J		0.89 J	0.6				3				1.2				**16 (O1)**	**460 J (O1)**	
Isopropylbenzene (cumene)	ug/l	3.4	2.5	3.5	2.5				0.13 J				4.9	0.23 J	2.2		1.4	**40 (O1)**	
*m, p xylenes	ug/l	0.83 J		2	1.6				3				2.7		0.4 J		17	460 J	
*Methyl acetate	ug/l																		
*Methyl ethyl ketone (2-butanone)	ug/l												2.8 J						
*Methyl isobutyl ketone	ug/l																		
*Methylcyclohexane	ug/l	13.6	13	21.6	18								5.1		4.7				
Methylene chloride	ug/l																		0.45 J
o-xylene (1,2-dimethylbenzene)	ug/l			0.51 J					0.98				1.5		0.36 J		**7.7 (O1)**	**330 (O1)**	
Styrene	ug/l																		
*Tert-butyl methyl ether	ug/l	14.1	11	6.8	5.9	0.24 J		0.23 J			15								
Tetrachloroethylene(PCE)	ug/l		0.095 J			0.053 J				0.26 J		0.33 J	0.45 J			1.3	0.35 J		
Toluene	ug/l			0.47 J					1.5				0.71				1	**63 (O1)**	
trans-1,2-dichloroethene	ug/l			1.1	0.99					0.22 J									
Trichloroethylene (TCE)	ug/l					0.059 J				0.27 J		**13 (O1)**							
Trichlorofluoromethane	ug/l																		

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07	MW-08
	Sample Number:	GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I	GC-MW08S
	Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
	Sample Type:	N	S	N	S	S	N	S	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Vinyl chloride	ug/l			31.5 (O1)	24 J (O1)		2.7 (O1)	2.1 (O1)		5.9 J (O1)									

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14	MW-16
Sample Number:		GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S-S-NYC	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I	GC-MW16S
Sample Depth:		Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/22/2010
Sample Type:		N	N	FD	S	N	S	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l																		
1,1,2-trichloroethane	ug/l															0.11 J			
1,1-dichloroethane	ug/l																		
1,1-dichloroethene	ug/l																		
1,2,3-trichlorobenzene	ug/l																		
1,2,4-trichlorobenzene	ug/l																		
1,2-dichlorobenzene	ug/l																		
1,2-dichloroethane	ug/l									0.2 J	**16 (O1)**		**220 (O1)**	**30 J (O1)**					
1,2-dichloropropane	ug/l																		
1,3-dichlorobenzene	ug/l																		
1,4-dichlorobenzene	ug/l																		
*2-hexanone	ug/l																		
*Acetone	ug/l				15														53
Benzene	ug/l	0.58	0.32 J	0.34 J	0.25 J	**1,730 (O1)**	**1,800 J (O1)**	0.1 J		0.085 J	**610 J (O1)**	**420 (O1)**	**7,600 J (O1)**		**470 (O1)**			0.28 J	
Carbon disulfide	ug/l	1.4												0.15 J				0.32 J	
Chlorobenzene	ug/l																		
Chloroform	ug/l	3.3							0.75 J								0.25 J	1.2	
Chloromethane	ug/l																		
cis-1,2-dichloroethylene	ug/l									0.068 J		**66 (O1)**				0.99		0.4 J	
*Cyclohexane	ug/l							0.44 J					42						1
Dichlorodifluoromethane	ug/l																		
Ethylbenzene	ug/l	0.71				**832 (O1)**	**870 J (O1)**				**560 J (O1)**	**690 (O1)**	**1,600 J (O1)**	0.42 J	**400 J (O1)**	**6.8 (O1)**	0.21 J	0.43 J	
Isopropylbenzene (cumene)	ug/l					**32.1 (O1)**	**35 (O1)**				**48 (O1)**	**65 (O1)**	**110 (O1)**		**29 (O1)**	1.9	0.24 J	0.2 J	**19 (O1)**
*m, p xylenes	ug/l	0.65				232	240				560 J	690	1,600 J	0.42 J	400 J	9.6	0.26 J	0.56	0.22 J
*Methyl acetate	ug/l																		
*Methyl ethyl ketone (2-butanone)	ug/l																		
*Methyl isobutyl ketone	ug/l																		
*Methylcyclohexane	ug/l							0.18 J					22	0.15 J					
Methylene chloride	ug/l	0.38 J																	
o-xylene (1,2-dimethylbenzene)	ug/l					**186 (O1)**	**200 (O1)**				**380 (O1)**	**460 (O1)**	**2,600 J (O1)**	0.47 J	**430 (O1)**	3.8	0.32 J	0.39 J	0.29 J
Styrene	ug/l										**52 (O1)**	**180 (O1)**							0.45 J
*Tert-butyl methyl ether	ug/l				0.23 J			0.06 J	0.28 J	0.33 J	42			14 J			5.1 J	1.1 J	
Tetrachloroethylene(PCE)	ug/l				0.052 J														
Toluene	ug/l	0.53				**158 (O1)**	**160 (O1)**				**120 (O1)**	**84 (O1)**	**13,000 J (O1)**	0.6	**380 J (O1)**	0.84			0.37 J
trans-1,2-dichloroethene	ug/l																		
Trichloroethylene (TCE)	ug/l				0.14 J														
Trichlorofluoromethane	ug/l																		

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14	MW-16
	Sample Number:	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S-S-NYC	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I	GC-MW16S
	Sample Depth:	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/22/2010
	Sample Type:	N	N	FD	S	N	S	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Vinyl chloride	ug/l																		

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20	MW-20	MW-20	MW-23	MW-23	MW-23
Sample Number:	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S	D-07232010-01	GC-MW20I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG
Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Shallow
Sample Date:	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010
Sample Type:	N	S	N	S	N	S	N	S	N	S	N	S	N	FD	N	N	FD	S
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l																	
1,1,2-trichloroethane	ug/l																	
1,1-dichloroethane	ug/l	0.38 J	0.37 J															
1,1-dichloroethene	ug/l							2.7	2.4									
1,2,3-trichlorobenzene	ug/l																	
1,2,4-trichlorobenzene	ug/l																	
1,2-dichlorobenzene	ug/l																	
1,2-dichloroethane	ug/l							**1.1 (O1)**										
1,2-dichloropropane	ug/l																	
1,3-dichlorobenzene	ug/l																	
1,4-dichlorobenzene	ug/l																	
*2-hexanone	ug/l						0.58 J											
*Acetone	ug/l			9.9 J		21.7	31			12.3	19	32.8	53		1.1 J		24 J	25 J	19
Benzene	ug/l			**826 (O1)**	**750 J (O1)**	**1.3 (O1)**	**1.2 (O1)**	**2.3 (O1)**	**1.9 (O1)**	0.29 J				0.8	0.84	**350 J (O1)**			0.099 J
Carbon disulfide	ug/l				0.51 J				0.34 J								0.44 J	0.44 J	
Chlorobenzene	ug/l				0.41 J						0.12 J								
Chloroform	ug/l			0.84 J								3.5							
Chloromethane	ug/l																		
cis-1,2-dichloroethylene	ug/l			0.67 J	0.76 J	0.27 J	0.32 J	**71.5 (O1)**	**69 J (O1)**			0.24 J	0.27 J						
*Cyclohexane	ug/l										0.098 J								
Dichlorodifluoromethane	ug/l																		
Ethylbenzene	ug/l			1.6		**7.3 (O1)**	**6.7 (O1)**	**26.3 (O1)**	**22 (O1)**					3.4	3.5	**250 J (O1)**			0.083 J
Isopropylbenzene (cumene)	ug/l			4.7	4.8		0.27 J	1.4 J			0.53			0.52	0.53	**32 J (O1)**			
*m, p xylenes	ug/l			1.2		10.1	9.4	36.8	32 J					3.4	3.5	250 J	0.28 J	0.22 J	0.18 J
*Methyl acetate	ug/l															3.6 J			
*Methyl ethyl ketone (2-butanone)	ug/l						1.2 J				1.6 J		0.92 J					4.5 J	
*Methyl isobutyl ketone	ug/l																		
*Methylcyclohexane	ug/l				0.47 J						0.16 J								
Methylene chloride	ug/l												0.11 J						
o-xylene (1,2-dimethylbenzene)	ug/l			4.8	4.8	**5.1 (O1)**	**5.2 (O1)**	**17.6 (O1)**	**16 (O1)**					1.9	1.9	**110 J (O1)**	0.23 J		0.16 J
Styrene	ug/l						1.2		4.1							**16 J (O1)**			
*Tert-butyl methyl ether	ug/l	1.6	1.9			1.2	1.3	0.37 J	0.43 J	0.84 J	1						1.2	1.1	0.91
Tetrachloroethylene(PCE)	ug/l							4.9	4										
Toluene	ug/l			0.78 J		4.1	3.7	**9.1 (O1)**	**7.7 (O1)**					0.42 J	0.43 J	**250 J (O1)**	0.21 J		
trans-1,2-dichloroethene	ug/l				0.17 J			4	3.7										
Trichloroethylene (TCE)	ug/l					0.29 J	0.31 J	**207 (O1)**	**190 J (O1)**				0.17 J						
Trichlorofluoromethane	ug/l																		

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
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Brooklyn, New York

	Station Location:	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20	MW-20	MW-20	MW-23	MW-23	MW-23
	Sample Number:	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S	D-07232010-01	GC-MW20I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG
	Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Shallow
	Sample Date:	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010
	Sample Type:	N	S	N	S	N	S	N	S	N	S	N	S	N	FD	N	N	FD	S
Parameter	**Units**	**Volatile Organic Compounds**																	
Vinyl chloride	ug/l			**3.3 (O1)**	**3 (O1)**			1.2	0.94										

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31
Sample Number:	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)
Sample Depth:	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow
Sample Date:	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010
Sample Type:	N	S	N	N	N	N	N	N	N	N	N	FD	N	N	N	S	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l																	
1,1,2-trichloroethane	ug/l																	
1,1-dichloroethane	ug/l							0.29 J	0.29 J									
1,1-dichloroethene	ug/l																	
1,2,3-trichlorobenzene	ug/l						**6.3 (O1)**											
1,2,4-trichlorobenzene	ug/l						**52 J (O1)**		1.7									
1,2-dichlorobenzene	ug/l						1.5			0.58								
1,2-dichloroethane	ug/l																	
1,2-dichloropropane	ug/l				0.6													
1,3-dichlorobenzene	ug/l						0.59	**29 J (O1)**	0.95	0.7			0.21 J					
1,4-dichlorobenzene	ug/l						1.4	**15 (O1)**	0.73	2.4			0.21 J					
*2-hexanone	ug/l																	
*Acetone	ug/l										2.6 J							
Benzene	ug/l	**1,600 (O1)**	**1,600 J (O1)**	**3.7 (O1)**				0.45 J		0.57	**31 J (O1)**			**19 J (O1)**	**2,100 (O1)**	**2,100 J (O1)**	**5,200 (O1)**	
Carbon disulfide	ug/l			2.6 J			0.52						0.73	0.43 J				
Chlorobenzene	ug/l							**6.6 (O1)**		**7 (O1)**								
Chloroform	ug/l			**9.4 (O1)**			0.53		0.62		3.7		0.71	0.78				0.29 J
Chloromethane	ug/l										1.2							
cis-1,2-dichloroethylene	ug/l					0.5	0.54	**18 (O1)**	**14 (O1)**		2.2	**53 J (O1)**	**63 J (O1)**	**18 J (O1)**				
*Cyclohexane	ug/l												3.1 J			1.2 J		
Dichlorodifluoromethane	ug/l																	0.26 J
Ethylbenzene	ug/l	**1,000 (O1)**	**1,000 J (O1)**	**11 (O1)**	1.3			0.27 J	1.3	2.3	**150 J (O1)**			**6.4 (O1)**	**320 (O1)**	**270 J (O1)**	**240 (O1)**	
Isopropylbenzene (cumene)	ug/l	**39 J (O1)**	**33 (O1)**	0.97					0.34 J	0.36 J	**19 (O1)**		3.5	0.99	**68 (O1)**	**53 (O1)**	**82 J (O1)**	
*m, p xylenes	ug/l	700	640 J	11	1.3				0.99	2.3	150 J			6.3	31 J	22	47 J	
*Methyl acetate	ug/l																	
*Methyl ethyl ketone (2-butanone)	ug/l																	
*Methyl isobutyl ketone	ug/l																	
*Methylcyclohexane	ug/l												1.8 J	2.1				
Methylene chloride	ug/l			1.5										0.34 J				
o-xylene (1,2-dimethylbenzene)	ug/l	**380 (O1)**	**350 J (O1)**	**5.9 (O1)**	0.35 J				0.71	1.3	**94 J (O1)**			**6.4 (O1)**	**37 J (O1)**	**31 (O1)**	**68 J (O1)**	
Styrene	ug/l										4.4			1.5				
*Tert-butyl methyl ether	ug/l			0.55		0.72	0.5 J	77 J	36 J		17 J	2 J	1.4 J		46 J	34	190	
Tetrachloroethylene(PCE)	ug/l								0.53			**5.5 (O1)**	**5.4 (O1)**	0.42 J				
Toluene	ug/l	**880 (O1)**	**870 J (O1)**	3						1.4	**66 J (O1)**			**15 (O1)**				
trans-1,2-dichloroethene	ug/l							0.54				1.4	1.4					
Trichloroethylene (TCE)	ug/l								1			**7.1 (O1)**	**6.9 (O1)**					0.27 J

TABLE I-32B
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	Station Location:	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31
	Sample Number:	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)
	Sample Depth:	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow
	Sample Date:	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010
	Sample Type:	N	S	N	N	N	N	N	N	N	N	N	FD	N	N	N	S	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Trichlorofluoromethane	ug/l						0.5 J		1.4 J										3.3 J
Vinyl chloride	ug/l							**3.6 J (O1)**											

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
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Station Location:	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37
Sample Number:	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I
Sample Depth:	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate
Sample Date:	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010
Sample Type:	S	N	S	S	N	S	N	N	FD	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l				0.057 J													
1,1,2-trichloroethane	ug/l																	
1,1-dichloroethane	ug/l																	
1,1-dichloroethene	ug/l				0.068 J													
1,2,3-trichlorobenzene	ug/l							0.17 J										
1,2,4-trichlorobenzene	ug/l							0.11 J										
1,2-dichlorobenzene	ug/l																	
1,2-dichloroethane	ug/l									**430 (O1)**								
1,2-dichloropropane	ug/l																	
1,3-dichlorobenzene	ug/l													0.36 J	0.35 J			
1,4-dichlorobenzene	ug/l													0.36 J	0.35 J			
*2-hexanone	ug/l				0.4 J					40 J								
*Acetone	ug/l																	
Benzene	ug/l	0.098 J	**190 (O1)**	**180 J (O1)**			**4.1 J (O1)**	**15 (O1)**	**240 J (O1)**	**1,100 J (O1)**				**1.8 (O1)**				0.87
Carbon disulfide	ug/l							0.61 J			0.61	0.54 J			0.27 J		0.73	0.36 J
Chlorobenzene	ug/l							**5.5 (O1)**										
Chloroform	ug/l	0.2 J						0.62									0.6	1.1
Chloromethane	ug/l																	
cis-1,2-dichloroethylene	ug/l								**16 (O1)**	**490 (O1)**		2	0.49 J	1.9				
*Cyclohexane	ug/l						3.5 J			110					1.8	1.9		
Dichlorodifluoromethane	ug/l	0.25 J																
Ethylbenzene	ug/l		**1,400 (O1)**	**1,400 J (O1)**		**6,300 (O1)**	**6,200 J (O1)**	**12 (O1)**	**720 J (O1)**	**3,500 J (O1)**	1.5	0.64	**18 (O1)**	**19 (O1)**	0.59	0.59	3.4 J		**16 (O1)**
Isopropylbenzene (cumene)	ug/l		**68 (O1)**	**63 (O1)**		**170 (O1)**	**160 (O1)**	0.47 J	**130 (O1)**	**3,000 J (O1)**	1.4	4.5	3	2.7	4.6	4.5	2.4 J		2.4
*m, p xylenes	ug/l		160	160	0.042 J	3,900	3,700 J	12	720 J	3,600 J	1.5	0.61	9.1	13	0.59	0.6	3.4 J		16
*Methyl acetate	ug/l							1.7										
*Methyl ethyl ketone (2-butanone)	ug/l			9.9 J														
*Methyl isobutyl ketone	ug/l									21 J								
*Methylcyclohexane	ug/l								3.1 J	86		0.69		0.14 J	1.6	1.9		
Methylene chloride	ug/l							0.8										
o-xylene (1,2-dimethylbenzene)	ug/l	0.06 J	**460 (O1)**	**430 J (O1)**		**2,000 (O1)**	**1,800 J (O1)**	4.4	**210 J (O1)**	**1,100 J (O1)**	0.72	0.32 J	**6.5 (O1)**	**7.8 (O1)**	1.2	1.2	1.4 J		**8.5 (O1)**
Styrene	ug/l																	
*Tert-butyl methyl ether	ug/l	0.21 J	26 J	24		110 J	85	3.4		330 J	0.86	2.6	1.7	1.8 J			5.6 J	
Tetrachloroethylene(PCE)	ug/l	0.14 J									0.24 J		0.28 J	0.3 J				
Toluene	ug/l			5		**490 (O1)**	**540 (O1)**			**600 J (O1)**			1.7	1.7		0.34 J		**5.3 (O1)**
trans-1,2-dichloroethene	ug/l																	
Trichloroethylene (TCE)	ug/l	0.19 J						0.17 J	3.8 J	**120 (O1)**	0.27 J			0.28 J				

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
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	Station Location:	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37
	Sample Number:	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I
	Sample Depth:	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate
	Sample Date:	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010
	Sample Type:	S	N	S	S	N	S	N	N	FD	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Trichlorofluoromethane	ug/l	2.9	**8.7 J (O1)**	**8.4 (O1)**															
Vinyl chloride	ug/l									**60 (O1)**		**4.1 J (O1)**							

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45
Sample Number:		D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010
Sample Type:		FD	N	N	N	N	N	N	S	S	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l																		
1,1,2-trichloroethane	ug/l																		
1,1-dichloroethane	ug/l													0.26 J					
1,1-dichloroethene	ug/l															0.97	0.93		
1,2,3-trichlorobenzene	ug/l																		
1,2,4-trichlorobenzene	ug/l																		
1,2-dichlorobenzene	ug/l																		
1,2-dichloroethane	ug/l																		
1,2-dichloropropane	ug/l																		
1,3-dichlorobenzene	ug/l												0.96						
1,4-dichlorobenzene	ug/l												0.95						
*2-hexanone	ug/l																		
*Acetone	ug/l																1.1 J		
Benzene	ug/l	0.94			**14 (O1)**	**160 J (O1)**	**32 (O1)**	**120 (O1)**	**110 J (O1)**	0.12 J			**4.3 (O1)**	**16 (O1)**		**6.4 (O1)**	**6 (O1)**		0.72
Carbon disulfide	ug/l	0.45 J	0.83	0.33 J									0.17 J			0.79	0.62 J		
Chlorobenzene	ug/l																		
Chloroform	ug/l	1.5		0.31 J	0.79	2.5 J	3.8												
Chloromethane	ug/l																		
cis-1,2-dichloroethylene	ug/l			0.9						0.091 J			0.5	0.72	0.59	**240 J (O1)**	**240 J (O1)**		**10 (O1)**
*Cyclohexane	ug/l							2.6 J	2.3				1.8						
Dichlorodifluoromethane	ug/l																		
Ethylbenzene	ug/l	**17 (O1)**		1.1	**88 J (O1)**	**150 J (O1)**	0.65 J	**92 (O1)**	**84 J (O1)**	0.069 J			**9.3 (O1)**	**23 J (O1)**				0.43 J	**810 J (O1)**
Isopropylbenzene (cumene)	ug/l	2.6			**10 (O1)**	**10 (O1)**		**9.8 (O1)**	**9.6 (O1)**				0.7	2.1					2
*m, p xylenes	ug/l	17			88 J	160 J	2.3	110	110 J	0.14 J			9.3	23 J				0.4 J	600 J
*Methyl acetate	ug/l																		
*Methyl ethyl ketone (2-butanone)	ug/l																		
*Methyl isobutyl ketone	ug/l																		
*Methylcyclohexane	ug/l				0.36 J			4.1	4				0.5						
Methylene chloride	ug/l				0.6 J						0.39 J	0.35 J							
o-xylene (1,2-dimethylbenzene)	ug/l	**9.5 (O1)**			**58 J (O1)**	**97 (O1)**	1.2	**58 (O1)**	**51 J (O1)**	0.048 J			**8.9 (O1)**	**14 (O1)**					**15 (O1)**
Styrene	ug/l	1.4			2.9		0.79 J	4.4					2.9	4.6					
*Tert-butyl methyl ether	ug/l		0.91	2.6 J				1.3 J								0.91 J	1.3 J		0.29 J
Tetrachloroethylene(PCE)	ug/l				1.2						0.54				0.35 J				
Toluene	ug/l	**5.8 (O1)**			**52 J (O1)**	**210 J (O1)**	**8.5 (O1)**	**32 (O1)**	**31 J (O1)**	0.12 J			3.1	**5.7 (O1)**					1.9
trans-1,2-dichloroethene	ug/l															**33 J (O1)**	**33 J (O1)**		0.61
Trichloroethylene (TCE)	ug/l															4.5	4.3		**5.1 (O1)**
Trichlorofluoromethane	ug/l																		

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45
	Sample Number:	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I
	Sample Depth:	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
	Sample Date:	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010
	Sample Type:	FD	N	N	N	N	N	N	S	S	N	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Vinyl chloride	ug/l															1.8	1.4		

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-46	MW-47	MW-47
Sample Number:	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:	Intermediate	Shallow	Intermediate
Sample Date:	7/19/2010	7/19/2010	7/19/2010
Sample Type:	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**	
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l		
1,1,2-trichloroethane	ug/l		
1,1-dichloroethane	ug/l		
1,1-dichloroethene	ug/l		
1,2,3-trichlorobenzene	ug/l		
1,2,4-trichlorobenzene	ug/l		
1,2-dichlorobenzene	ug/l		
1,2-dichloroethane	ug/l		
1,2-dichloropropane	ug/l		
1,3-dichlorobenzene	ug/l		
1,4-dichlorobenzene	ug/l		
*2-hexanone	ug/l		
*Acetone	ug/l		
Benzene	ug/l	**41 J (O1)**	**690 J (O1)**	**9 (O1)**
Carbon disulfide	ug/l		
Chlorobenzene	ug/l		
Chloroform	ug/l		
Chloromethane	ug/l		
cis-1,2-dichloroethylene	ug/l	**500 J (O1)**		**220 J (O1)**
*Cyclohexane	ug/l		
Dichlorodifluoromethane	ug/l		
Ethylbenzene	ug/l	**27 (O1)**	**740 J (O1)**	**340 J (O1)**
Isopropylbenzene (cumene)	ug/l		**26 (O1)**	1.3
*m, p xylenes	ug/l	40	590 J	290 J
*Methyl acetate	ug/l		
*Methyl ethyl ketone (2-butanone)	ug/l		
*Methyl isobutyl ketone	ug/l		
*Methylcyclohexane	ug/l		
Methylene chloride	ug/l		
o-xylene (1,2-dimethylbenzene)	ug/l	**20 (O1)**	**390 (O1)**	**16 (O1)**
Styrene	ug/l		**110 (O1)**	**8.5 (O1)**
*Tert-butyl methyl ether	ug/l	13		2
Tetrachloroethylene(PCE)	ug/l		
Toluene	ug/l	**21 (O1)**	**640 J (O1)**	**220 J (O1)**
trans-1,2-dichloroethene	ug/l	**160 (O1)**		
Trichloroethylene (TCE)	ug/l	**30 (O1)**		0.38 J
Trichlorofluoromethane	ug/l		

TABLE I-32B
VOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-46	MW-47	MW-47
	Sample Number:	GC-MW46D	GC-MW47S	GC-MW47I
	Sample Depth:	Intermediate	Shallow	Intermediate
	Sample Date:	7/19/2010	7/19/2010	7/19/2010
	Sample Type:	N	N	N
Parameter	Units	Volatile Organic Compounds		
Vinyl chloride	ug/l			

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	0.48 U	5.3 U	0.48 U	5.5 U	0.48 U	5.1 U	0.48 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2,3,4,6-tetrachlorophenol	ug/l	0.81 U	5.3 U	0.81 U	5.5 U	0.81 U	5.1 U	0.81 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2,4,5-trichlorophenol	ug/l	1.3 U	5.3 U	1.3 U	5.5 U	1.3 U	5.1 U	1.3 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2,4,6-trichlorophenol	ug/l	1.2 U	5.3 U	1.2 U	5.5 U	1.2 U	5.1 U	1.2 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2,4-dichlorophenol	ug/l	1.2 U	5.3 U	1.2 U	5.5 U	1.2 U	5.1 U	1.2 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2,4-dimethylphenol	ug/l	1.7 U	5.3 U	1.7 U	5.5 U	1.7 U	5.1 U	1.7 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2,4-dinitrophenol	ug/l	0.74 U	11 U	0.74 U	11 U	0.74 U	10 U	0.74 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
2,4-dinitrotoluene	ug/l	0.22 U	5.3 U	0.22 U	5.5 U	0.22 U	5.1 U	0.22 U	5.2 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	250 UJ
2,6-dinitrotoluene	ug/l	0.33 U	5.3 U	0.33 U	5.5 U	0.33 U	5.1 U	0.33 U	5.2 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 U	250 U
2-chloronaphthalene	ug/l	0.42 U	5.3 U	0.42 U	5.5 U	0.42 U	5.1 U	0.42 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2-chlorophenol	ug/l	1.1 U	5.3 U	1.1 U	5.5 U	1.1 U	5.1 U	1.1 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2-methylnaphthalene	ug/l	0.66 U	0.42 U	0.66 U	**0.15 J**	0.66 U	0.1 U	0.66 U	0.1 U	**7.3 J**	**15**	0.1 U	0.1 U	**4.2 J**	**3.1 J**	**0.57**	**1.5 J**	**50**	**1,100**
2-methylphenol (o-cresol)	ug/l	1.1 U	5.3 U	1.1 U	5.5 U	1.1 U	5.1 U	1.1 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
2-nitroaniline	ug/l	0.24 U	11 U	0.24 U	11 U	0.24 U	10 U	0.24 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
2-nitrophenol	ug/l	1.2 U	5.3 U	1.2 U	5.5 U	1.2 U	5.1 U	1.2 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
3,3'-dichlorobenzidine	ug/l	0.3 U	5.3 U	0.3 U	5.5 U	0.3 U	5.1 U	0.3 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
3-nitroaniline	ug/l	0.29 U	11 U	0.29 U	11 U	0.29 U	10 U	0.29 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
4,6-dinitro-2-methylphenol	ug/l	0.51 U	11 U	0.51 U	11 U	0.51 U	10 U	0.51 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
4-bromophenyl phenyl ether	ug/l	0.35 U	5.3 U	0.35 U	5.5 U	0.35 U	5.1 U	0.35 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
4-chloro-3-methylphenol	ug/l	1.1 U	5.3 U	1.1 U	5.5 U	1.1 U	5.1 U	1.1 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
4-chloroaniline	ug/l	0.25 U	5.3 U	0.25 U	5.5 U	0.25 U	5.1 U	0.25 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
4-chlorophenyl phenyl ether	ug/l	0.35 U	5.3 U	0.35 U	5.5 U	0.35 U	5.1 U	0.35 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
4-methylphenol (p-cresol)	ug/l		5.3 U		5.5 U		5.1 U		5.2 U	5 U	5 U	5 U	5 U	**2.6 J**	**2.7 J**	5 U	5 U	5 U	250 U
4-nitroaniline	ug/l	0.18 U	11 U	0.18 U	11 U	0.18 U	10 U	0.18 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
4-nitrophenol	ug/l	0.83 U	11 U	0.83 U	11 U	0.83 U	10 U	0.83 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	500 U
Acenaphthene	ug/l	**8.7**	**3.5**	**5.6**	**5.4**	0.37 U	0.1 U	**4.8**	**5.2 J**	**3 J**	**51**	**0.18**	0.1 U	**1.1 J**	**0.95 J**	**2.2 J**	**1.1 J**	**25**	**400**
Acenaphthylene	ug/l	0.27 U	**0.15 J**	0.27 U	0.74 U	0.27 U	0.1 U	0.27 U	**0.07 J**	**1.9 J**	**2.3 J**	0.1 U	0.1 U	0.1 U	**0.14**	**0.26**	**0.011 J**	0.1 U	5 U
Acetophenone	ug/l	0.4 U	5.3 U	0.4 U	5.5 U	0.4 U	5.1 U	0.4 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Anthracene	ug/l	0.16 U	0.42 U	**0.42 J**	**0.52 J**	0.16 U	0.1 U	0.16 U	**0.084 J**	**1.7 J**	**6.7 J**	0.1 U	0.1 U	**0.21**	**0.27**	**0.28**	**0.25**	**3.2 J**	**88 J**
Atrazine	ug/l	0.39 U	5.3 U	0.39 U	5.5 U	0.39 U	5.1 U	0.39 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Benzaldehyde	ug/l	0.4 U	5.3 U	0.4 U	5.5 U	0.4 U	5.1 U	0.4 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**6.5**	250 U
Benzo(a)anthracene	ug/l	0.12 U	0.42 U	0.12 U	**0.38 J**	0.12 U	0.1 U	0.12 U	0.1 U	**0.62**	**0.84**	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	**0.28**	**27**
Benzo(a)pyrene	ug/l	0.095 U	0.42 U	0.095 U	0.74 U	0.095 U	0.1 U	0.095 U	**0.1 J**	**0.42**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**11**
Benzo(b)fluoranthene	ug/l	0.25 U	0.42 U	0.25 U	**0.28 J**	0.25 U	0.1 UJ	0.25 U	0.1 UJ	**0.37**	**0.15**	0.1 U	**0.19**	0.1 U	0.1 U	0.1 U	0.1 U	**0.11**	**13**
Benzo(g,h,i)perylene	ug/l	0.12 U	0.42 U	0.12 U	**0.23 J**	0.12 U	0.1 U	0.12 U	0.1 U	**0.58**	0.1 U	0.1 U	**0.24**	0.1 U	0.1 U	0.1 U	0.1 U	**0.15**	**4.1 J**
Benzo(k)fluoranthene	ug/l	0.38 U	0.42 U	0.38 U	**0.24 J**	0.38 U	0.1 U	0.38 U	0.1 U	**0.066 J**	**0.041 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	**3.1 J**
Benzyl butyl phthalate	ug/l	0.25 U	**0.59 J**	0.25 U	5.5 U	0.25 U	5.1 U	0.25 U	5.2 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	250 U

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
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Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	0.42 U	5.3 U	0.42 U	5.5 U	0.42 U	5.1 U	0.42 U	5.2 U	**0.74 J**	**2.9 J**	5 U	5 U	5 UJ	5 U	5 U	5 U	**3.7 J**	**72 J**
Bis(2-chloroethoxy) methane	ug/l	0.25 U	5.3 U	0.25 U	5.5 U	0.25 U	5.1 U	0.25 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Bis(2-chloroethyl) ether	ug/l	0.31 U	5.3 U	0.31 U	5.5 U	0.31 U	5.1 U	0.31 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Bis(2-chloroisopropyl) ether	ug/l		5.3 U		5.5 U		5.1 U		5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Bis(2-ethylhexyl) phthalate	ug/l	0.33 U	5.3 U	0.33 U	5.5 U	0.33 U	5.1 U	0.33 U	5.2 U	5 U	5 U	5 U	**77**	**1.5 J**	**3.1 J**	**2.7 J**	**2.5 J**	**1.2 J**	250 U
Caprolactam	ug/l	0.2 U	**1.7 J**	**14.7**	5.5 U	0.2 U	5.1 U	0.2 U	**22**	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	250 U
Carbazole	ug/l	0.17 U	5.3 U	0.17 U	5.5 U	0.17 U	5.1 U	0.17 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Chrysene	ug/l	0.11 U	0.42 U	0.11 U	**0.36 J**	0.11 U	0.1 U	0.11 U	0.1 U	**0.38**	**0.65 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.17**	**14**
Dibenz(a,h)anthracene	ug/l	0.15 U	0.42 U	0.15 U	0.74 U	0.15 U	0.1 U	0.15 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.099 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	5 UJ
Dibenzofuran	ug/l	**1.4 J**	**0.62 J**	**1.3 J**	**1.2 J**	0.3 U	5.1 U	0.3 U	5.2 U	5 U	**2.8 J**	5 U	5 U	5 U	5 U	**1.2 J**	5 U	5 U	250 U
Diethyl phthalate	ug/l	0.17 U	5.3 U	0.17 U	5.5 U	0.17 U	5.1 U	0.17 U	5.2 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	250 U
Dimethyl phthalate	ug/l	0.23 U	5.3 U	0.23 U	5.5 U	0.23 U	5.1 U	0.23 U	5.2 U	5 U	5 U	5 U	5 U	5 UJ	5 U	**1.4 J**	**1 J**	5 U	250 U
Di-n-butyl phthalate	ug/l	0.19 U	5.3 U	0.19 U	5.5 U	0.19 U	5.1 U	0.19 U	5.2 U	5 U	**0.27 J**	5 U	**0.33 J**	5 UJ	5 U	5 U	5 U	5 U	250 U
Di-n-octylphthalate	ug/l	0.4 U	5.3 U	0.4 U	5.5 U	0.4 U	5.1 U	0.4 U	5.2 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	250 U
Fluoranthene	ug/l	**1.1**	**0.69**	**0.78 J**	**1.5**	0.17 U	0.1 U	0.17 U	**0.035 J**	**2.6 J**	**10 J**	0.1 U	**0.13**	**0.18**	**0.19**	**0.15**	**0.14**	**2.4 J**	**72 J**
Fluorene	ug/l	**1.2**	**0.31 J**	**1.4**	**1.3**	0.27 U	0.1 U	0.27 U	0.1 U	**2.6 J**	**3.9 J**	0.1 U	0.1 U	**0.27 J**	**0.72**	**2.5 J**	**0.15**	**10**	**150 J**
Hexachlorobenzene	ug/l	0.27 U	5.3 U	0.27 U	5.5 U	0.27 U	5.1 U	0.27 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Hexachlorobutadiene	ug/l	0.13 U	5.3 U	0.13 U	5.5 U	0.13 U	5.1 U	0.13 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Hexachlorocyclopentadiene	ug/l	0.24 U	5.3 U	0.24 U	5.5 U	0.24 U	5.1 U	0.24 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Hexachloroethane	ug/l	0.21 U	5.3 U	0.21 U	5.5 U	0.21 U	5.1 U	0.21 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.13 U	0.42 U	0.13 U	**0.21 J**	0.13 U	0.1 U	0.13 U	0.1 U	**0.41**	0.13 U	0.13 U	**0.18**	0.1 U	0.1 U	0.1 U	0.1 U	**0.14**	**7.4**
Isophorone	ug/l	0.25 U	5.3 U	0.25 U	5.5 U	0.25 U	5.1 U	0.25 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Naphthalene	ug/l	**0.85 J**	0.42 U	**1.1**	**0.32 J**	0.43 U	0.1 U	0.43 U	**0.084 J**	**18**	**0.54**	0.1 U	**0.25 J**	**2.1 J**	**2.3 J**	**1.9 J**	**6.9**	**130 J**	**3,500 J**
Nitrobenzene	ug/l	0.25 U	5.3 U	0.25 U	5.5 U	0.25 U	5.1 U	0.25 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
N-nitrosodi-n-propylamine	ug/l	0.44 U	5.3 U	0.44 U	5.5 U	0.44 U	5.1 U	0.44 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
N-nitrosodiphenylamine	ug/l	0.22 U	5.3 U	0.22 U	5.5 U	0.22 U	5.1 U	0.22 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Pentachlorophenol	ug/l	0.8 U	0.84 UJ	0.8 U	1.5 UJ	0.8 U	0.2 U	0.8 U	0.21 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.19 J**	0.2 U	0.2 U	0.2 UJ	0.2 U	10 U
Phenanthrene	ug/l	**0.51 J**	0.42 U	**1.1**	**0.68 J**	0.21 U	0.1 U	0.21 U	**0.075 J**	**5.4**	**19**	0.1 U	**0.13**	**1.5 J**	**1.3 J**	**0.53 J**	**1.3 J**	**14**	**330**
Phenol	ug/l	0.58 U	5.3 U	0.58 U	5.5 U	0.58 U	5.1 U	0.58 U	5.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	250 U
Pyrene	ug/l	**0.72 J**	**0.51**	**0.52 J**	**1.2**	0.16 U	0.1 UJ	**0.5 J**	**0.45 J**	**2.3 J**	**11**	0.1 U	**0.32**	**0.3**	**0.34**	**0.35**	**0.17**	**3.1 J**	**120 J**
Total PAHs	ug/l	**13.08**	**5.16**	**10.92**	**12.77**	ND	ND	**5.3**	**6.098**	**47.646**	**121.121**	**0.18**	**1.539**	**9.86**	**9.31**	**8.74**	**11.521**	**238.55**	**5,840**

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	0.48 U	0.48 U	5.3 U	0.48 U	180 U	0.53 U	0.48 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	0.81 U	0.81 U	5.3 U	0.81 U	180 U	0.89 U	0.81 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	1.3 U	1.3 U	5.3 U	1.3 U	180 U	1.5 U	1.3 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	1.2 U	1.2 U	5.3 U	1.2 U	180 U	1.3 U	1.2 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	1.2 U	1.2 U	5.3 U	1.2 U	180 U	1.3 U	1.2 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	1.7 U	1.7 U	5.3 U	1.7 U	180 U	1.8 U	1.7 U	5.5 U	**330**	50 U	**22 J**	5 U	**490**	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	0.74 U	0.74 U	11 U	0.74 U	350 U	0.81 U	0.74 U	11 U	250 U	100 U	100 U	10 U	200 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	5 UJ	0.22 U	0.22 U	5.3 U	0.22 U	180 U	0.24 U	0.22 U	5.5 U	130 U	50 U	50 U	5 U	**290 J**	5 UJ	5 UJ	5 UJ
2,6-dinitrotoluene	ug/l	5 U	5 U	0.33 U	0.33 U	5.3 U	0.33 U	180 U	0.36 U	0.33 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 UJ	5 UJ
2-chloronaphthalene	ug/l	5 U	5 U	0.42 U	0.42 U	5.3 U	0.42 U	180 U	0.46 U	0.42 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	1.1 U	1.1 U	5.3 U	1.1 U	180 U	1.2 U	1.1 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	**0.11**	0.1 U	0.66 U	0.66 U	**0.61 J**	**148**	**240**	0.72 U	**3.4**	**4.2 J**	**630**	**720 J**	**60**	0.1 U	**470**	**210 J**	**0.27**	**1.1 J**
2-methylphenol (o-cresol)	ug/l	5 U	5 U	1.1 U	1.1 U	5.3 U	1.1 U	180 U	1.2 U	1.1 U	5.5 U	**20 J**	50 U	**31 J**	5 U	100 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	0.24 U	0.24 U	11 U	0.24 U	350 U	0.26 U	0.24 U	11 U	250 U	100 U	100 U	10 U	200 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	1.2 U	1.2 U	5.3 U	1.2 U	180 U	1.4 U	1.2 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	0.3 U	0.3 U	5.3 U	0.3 U	180 U	0.32 U	0.3 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	0.29 U	0.29 U	11 U	0.29 U	350 U	0.32 U	0.29 U	11 U	250 U	100 U	100 U	10 U	200 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	0.51 U	0.51 U	11 U	0.51 U	350 U	0.56 U	0.51 U	11 U	250 U	100 U	100 U	10 U	200 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	0.35 U	0.35 U	5.3 U	0.35 U	180 U	0.38 U	0.35 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	1.1 U	1.1 U	5.3 U	1.1 U	180 U	1.2 U	1.1 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	0.25 U	0.25 U	5.3 U	0.25 U	180 U	0.28 U	0.25 U	5.5 U	130 U	50 U	50 U	5 U	**250**	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	0.35 U	0.35 U	5.3 U	0.35 U	180 U	0.39 U	0.35 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U			**0.57 J**		180 U			5.5 U	**10 J**	50 U	**46 J**	5 U	100 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	0.18 U	0.18 U	11 U	0.18 U	350 U	0.2 U	0.18 U	11 U	250 U	100 U	100 U	10 U	200 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	0.83 U	0.83 U	11 U	0.83 U	350 U	0.91 U	0.83 U	11 U	250 U	100 U	100 U	10 U	200 U	10 U	10 U	10 U
Acenaphthene	ug/l	**0.62 J**	0.1 U	**0.89 J**	**0.83 J**	**0.96 J**	**178**	**250**	0.4 U	**5.3**	**5.5 J**	**160**	**140 J**	**1.4**	0.1 U	**130**	**56**	**2.3 J**	**1.6 J**
Acenaphthylene	ug/l	0.1 U	0.1 U	0.27 U	0.27 U	**0.04 J**	**2.3**	21 U	0.3 U	0.27 U	**0.12**	**40 J**	**140 J**	**0.98 J**	0.1 U	**3**	**1.6 J**	**0.12**	**0.064 J**
Acetophenone	ug/l	5 U	5 U	0.4 U	0.4 U	5.3 U	0.4 U	180 U	0.44 U	0.4 U	5.5 U	130 U	50 U	**56**	5 U	100 U	5 U	5 U	5 U
Anthracene	ug/l	0.1 UJ	0.1 U	**0.49 J**	**0.43 J**	**1.1 J**	**2.3**	21 U	0.18 U	**2.4**	**1 J**	**15**	**21 J**	1 U	0.1 U	**6.6**	**14**	0.1 U	0.1 U
Atrazine	ug/l	5 U	5 U	0.39 U	0.39 U	5.3 U	0.39 U	180 U	0.43 U	0.39 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 UJ	0.4 U	0.4 U	5.3 U	0.4 U	180 U	0.44 U	0.4 U	5.5 U	130 UJ	50 UJ	**460**	5 U	**41 J**	**3.9 J**	5 U	5 U
Benzo(a)anthracene	ug/l	0.1 U	0.1 U	**0.41 J**	0.12 U	**1.8 J**	0.12 U	21 U	0.13 U	**0.76 J**	**1.3 J**	2.5 U	1 U	1 U	0.1 U	2 UJ	**0.22 J**	0.1 UJ	0.1 UJ
Benzo(a)pyrene	ug/l	0.1 U	0.1 U	0.095 U	0.095 U	**1.5 J**	0.095 U	21 U	0.1 U	**0.53 J**	**1.2 J**	2.5 U	1 U	1 U	0.1 U	2 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/l	0.1 U	0.1 U	0.25 U	0.25 U	**1.4 J**	0.25 U	21 UJ	0.27 U	**0.46 J**	**0.82 J**	2.5 U	1 U	1 U	0.1 U	2 U	0.1 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	ug/l	**0.43**	**0.37**	0.12 U	0.12 U	**1.1 J**	0.12 U	21 U	0.13 U	0.12 U	**0.55 J**	2.5 U	1 U	1 U	0.11 U	2 U	0.1 U	0.1 U	0.1 U
Benzo(k)fluoranthene	ug/l	0.1 U	0.1 UJ	0.38 U	0.38 U	**1.2 J**	0.38 U	21 U	0.41 U	**0.47 J**	**0.94 J**	2.5 U	1 U	1 UJ	0.1 U	2 U	0.1 U	0.1 U	0.1 U
Benzyl butyl phthalate	ug/l	5 U	5 U	0.25 U	0.25 U	5.3 U	0.25 U	180 U	0.28 U	0.25 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	5 U	5 U	0.42 U	0.42 U	5.3 U	**21.9**	**29 J**	0.46 U	**0.91 J**	**0.9 J**	**37 J**	**45 J**	50 U	5 U	**64 J**	**28**	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 UJ	0.25 U	0.25 U	5.3 U	0.25 U	180 U	0.27 U	0.25 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 UJ	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 UJ	0.31 U	0.31 U	5.3 U	0.31 U	180 U	0.34 U	0.31 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 UJ	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 UJ			5.3 U		180 U			5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 UJ	5 U
Bis(2-ethylhexyl) phthalate	ug/l	**2.8 J**	**1.7 J**	0.33 U	0.33 U	5.3 U	0.33 U	180 U	0.36 U	0.33 U	**0.77 J**	130 U	50 U	50 U	5 U	100 U	5 U	5 U	**3 J**
Caprolactam	ug/l	5 U	5 U	0.2 U	0.2 U	**7.4**	0.2 U	180 U	0.21 U	0.2 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	**1.8 J**	5 U
Carbazole	ug/l	5 U	5 U	**0.58 J**	**0.49 J**	**0.63 J**	**10**	180 U	0.18 U	**4.5**	**3.7 J**	**15 J**	**22 J**	50 U	5 U	**82 J**	**9.3**	5 U	5 U
Chrysene	ug/l	0.1 U	0.1 U	**0.41 J**	0.11 U	**1.9 J**	0.11 U	21 U	0.12 U	**0.84 J**	**1.4 J**	2.5 U	1 U	1 U	0.1 U	2 U	**0.12**	0.1 U	0.1 U
Dibenz(a,h)anthracene	ug/l	0.1 UJ	0.1 UJ	0.15 U	0.15 U	**0.23 J**	0.15 U	21 U	0.17 U	0.15 U	**0.15**	2.5 U	1 U	1 UJ	0.1 U	2 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	ug/l	5 U	5 U	0.3 U	0.3 U	**0.62 J**	**5.5**	180 U	0.33 U	**2.7 J**	**3 J**	**13 J**	**7.9 J**	50 U	5 U	**70 J**	**39**	**1.3 J**	5 U
Diethyl phthalate	ug/l	5 U	5 U	0.17 U	0.17 U	5.3 U	0.17 U	180 U	0.18 U	0.17 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	0.23 U	0.23 U	5.3 U	0.23 U	180 U	0.25 U	0.23 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Di-n-butyl phthalate	ug/l	5 U	5 U	0.19 U	0.19 U	5.3 U	0.19 U	180 U	0.21 U	**1 J**	**0.98 J**	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Di-n-octylphthalate	ug/l	5 U	5 U	0.4 U	0.4 U	5.3 U	0.4 U	180 U	0.43 U	0.4 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Fluoranthene	ug/l	**0.11**	0.1 U	**1.1**	**0.96 J**	**4 J**	**0.46 J**	21 U	0.19 U	**3.7**	**4.6 J**	**4.8**	**5**	**0.87 J**	0.1 U	**2.1**	**6.2**	**0.11**	0.1 U
Fluorene	ug/l	**0.38**	0.1 U	**0.65 J**	**0.66 J**	**0.98 J**	**22.2**	**30 J**	0.29 U	**3.7**	**4.1 J**	**63 J**	**68 J**	**1.5**	0.1 U	**77 J**	**49**	**0.63**	**0.43**
Hexachlorobenzene	ug/l	5 U	5 U	0.27 U	0.27 U	5.3 U	0.27 U	180 U	0.29 U	0.27 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	0.13 U	0.13 U	5.3 U	0.13 U	180 U	0.14 U	0.13 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	0.24 U	0.24 U	5.3 U	0.24 U	180 U	0.27 U	0.24 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 U	5 U	0.21 U	0.21 U	5.3 U	0.21 U	180 U	0.23 U	0.21 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	**0.25**	**0.23**	0.13 U	0.13 U	**0.82 J**	0.13 U	21 U	0.14 U	0.13 U	**0.42**	2.5 UJ	1 U	1 U	0.14 U	2 U	0.1 U	0.1 U	0.1 U
Isophorone	ug/l	5 U	5 U	0.25 U	0.25 U	5.3 U	0.25 U	180 U	0.27 U	0.25 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Naphthalene	ug/l	**0.17**	**0.11**	**2.2**	**2.2**	**2.1 J**	**2,310**	**2,800**	0.47 U	**21.2**	**22**	**3,500 J**	**49,000 J**	**230**	0.1 U	**680**	**390 J**	**0.94 J**	**1.3 J**
Nitrobenzene	ug/l	5 U	5 U	0.25 U	0.25 U	5.3 U	0.25 U	180 U	0.28 U	0.25 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	0.44 U	0.44 U	5.3 U	0.44 U	180 U	0.48 U	0.44 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	0.22 U	0.22 U	5.3 U	0.22 U	180 U	0.24 U	0.22 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	0.2 U	0.2 U	0.8 U	0.8 U	0.21 UJ	0.8 U	43 U	0.88 U	0.8 U	0.22 U	5 UJ	2 UJ	2 U	0.2 U	4 UJ	0.2 U	0.2 U	0.2 U
Phenanthrene	ug/l	**0.16**	0.1 U	**1.7**	**1.5**	**4.5 J**	**15.7**	**21 J**	0.23 U	**11.1**	**14**	**59 J**	**83 J**	**3.3**	**0.13**	**48 J**	**74 J**	0.1 UJ	**0.1 J**
Phenol	ug/l	5 U	5 UJ	0.58 U	0.58 U	5.3 U	**4.9**	**20 J**	0.63 U	0.58 U	5.5 U	130 U	50 U	50 U	5 U	100 U	5 U	5 U	5 U
Pyrene	ug/l	**0.12**	0.1 U	**0.79 J**	**0.75 J**	**3.8 J**	0.16 U	21 UJ	0.17 U	**2.9**	**4.4 J**	**4.7**	**4.4**	1 U	0.1 U	**1.6 J**	**4.8 J**	0.1 U	0.1 U
Total PAHs	ug/l	**2.35**	**0.71**	**8.64**	**7.33**	**28.04**	**2,679**	**3,341**	ND	**56.76**	**66.7**	**4,477**	**50,181**	**298.05**	**0.13**	**1,418**	**805.94**	**4.37**	**4.594**

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Number:		GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
Sample Date:		7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:		N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	0.5 U	4.7 U	0.48 U	4.9 U	0.48 U	4.7 U	0.52 U	33 U	0.51 U	4.9 U	0.49 U	4.7 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	0.84 U	4.7 U	0.81 U	4.9 U	0.81 U	4.7 U	0.87 U	33 U	0.85 U	4.9 U	0.82 U	4.7 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	1.4 U	4.7 U	1.3 U	4.9 U	1.3 U	4.7 U	1.4 U	33 U	1.4 U	4.9 U	1.3 U	4.7 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	1.3 U	4.7 U	1.2 U	4.9 U	1.2 U	4.7 U	1.3 U	33 U	1.3 U	4.9 U	1.2 U	4.7 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	1.3 U	4.7 U	1.2 U	4.9 U	1.2 U	4.7 U	1.3 U	33 U	1.3 U	4.9 U	1.2 U	4.7 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	1.7 U	4.7 U	1.7 U	4.9 U	1.7 U	4.7 U	1.8 U	33 U	1.7 U	4.9 U	1.7 U	4.7 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	0.77 U	9.5 U	0.74 U	9.8 U	0.74 U	9.5 U	0.79 U	67 U	0.78 U	9.8 U	0.75 U	9.5 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	0.23 U	4.7 U	0.22 U	4.9 U	0.22 U	4.7 U	0.24 U	33 U	0.23 U	4.9 U	0.22 U	4.7 U	5 UJ
2,6-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	0.34 U	4.7 U	0.33 U	4.9 U	0.33 U	4.7 U	0.35 U	33 U	0.34 U	4.9 U	0.33 U	4.7 U	5 U
2-chloronaphthalene	ug/l	5 UJ	5 U	5 U	5 U	5 U	0.43 U	4.7 U	0.42 U	4.9 U	0.42 U	4.7 U	0.45 U	33 U	0.44 U	4.9 U	0.42 U	4.7 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	1.1 U	4.7 U	1.1 U	4.9 U	1.1 U	4.7 U	1.2 U	33 U	1.1 U	4.9 U	1.1 U	4.7 U	5 U
2-methylnaphthalene	ug/l	0.1 U	0.1 U	**0.45**	**0.18**	**0.25**	0.69 U	0.095 U	0.66 U	**0.53 J**	**28.8**	0.64 U	**296**	**260 J**	**0.82 J**	0.32 U	0.67 U	**0.019 J**	**24 J**
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	1.2 U	4.7 U	1.1 U	4.9 U	1.1 U	4.7 U	1.2 U	33 U	1.2 U	4.9 U	1.1 U	4.7 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	0.24 U	9.5 U	0.24 U	9.8 U	0.24 U	9.5 U	0.25 U	67 U	0.25 U	9.8 U	0.24 U	9.5 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	1.3 U	4.7 U	1.2 U	4.9 U	1.2 U	4.7 U	1.3 U	33 U	1.3 U	4.9 U	1.3 U	4.7 U	5 U
3,3'-dichlorobenzidine	ug/l	5 UJ	5 U	5 U	5 U	5 U	0.31 U	4.7 U	0.3 U	4.9 U	0.3 U	4.7 U	0.32 U	33 U	0.31 U	4.9 U	0.3 U	4.7 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	0.3 U	9.5 U	0.29 U	9.8 U	0.29 U	9.5 U	0.31 U	67 U	0.3 U	9.8 U	0.29 U	9.5 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	0.53 U	9.5 U	0.51 U	9.8 U	0.51 U	9.5 U	0.55 U	67 U	0.54 U	9.8 U	0.52 U	9.5 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	0.36 U	4.7 U	0.35 U	4.9 U	0.35 U	4.7 U	0.38 U	33 U	0.37 U	4.9 U	0.36 U	4.7 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	1.1 U	4.7 U	1.1 U	4.9 U	1.1 U	4.7 U	1.1 U	33 U	1.1 U	4.9 U	1.1 U	4.7 U	5 U
4-chloroaniline	ug/l	5 UJ	5 U	5 U	5 U	5 U	0.26 U	4.7 U	0.25 U	4.9 U	0.25 U	4.7 U	0.27 U	33 U	0.27 U	4.9 U	0.26 U	4.7 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	0.37 U	4.7 U	0.35 U	4.9 U	0.35 U	4.7 U	0.38 U	33 U	0.37 U	4.9 U	0.36 U	4.7 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U		4.7 U		4.9 U		4.7 U		33 U		**0.52 J**		4.7 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	0.19 U	9.5 U	0.18 U	9.8 U	0.18 U	9.5 U	0.19 U	67 U	0.19 U	9.8 U	0.18 U	9.5 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	0.86 U	9.5 U	0.83 U	9.8 U	0.83 U	9.5 U	0.89 U	67 U	0.87 U	9.8 U	0.84 U	9.5 U	10 U
Acenaphthene	ug/l	0.1 U	0.1 U	**5.5**	**0.38**	**0.44**	0.38 U	0.095 U	**5.5**	**5.4**	**7.2**	**6.4 J**	**79.5**	**69 J**	**2**	**1.7 J**	0.37 U	0.095 U	**7.2 J**
Acenaphthylene	ug/l	0.1 U	0.1 U	0.1 U	**0.2**	**0.22**	0.29 U	0.095 U	0.27 U	**0.24 J**	**8.5**	**5.3**	**72.7**	**59 J**	0.29 U	**0.078 J**	0.28 U	0.095 U	**6.6 J**
Acetophenone	ug/l	5 U	5 U	**10**	5 U	5 U	0.42 U	4.7 U	0.4 U	4.9 U	0.4 U	4.7 U	0.43 U	33 U	0.42 U	4.9 U	0.41 U	4.7 U	5 U
Anthracene	ug/l	0.1 U	0.1 U	**0.21**	**0.46**	**0.55**	0.17 U	**0.024 J**	0.16 U	0.65 U	**2.4**	**3**	**21.6**	**21**	0.17 U	0.32 U	0.17 U	0.095 U	**3 J**
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	0.41 U	4.7 U	0.39 U	4.9 U	0.39 U	4.7 U	0.42 U	33 U	0.41 U	4.9 U	0.4 U	4.7 U	5 U
Benzaldehyde	ug/l	5 UJ	5 UJ	**4 J**	5 U	5 U	0.42 U	4.7 U	0.4 U	4.9 U	0.4 U	4.7 U	0.43 U	33 U	0.43 U	4.9 U	0.41 U	4.7 U	5 UJ
Benzo(a)anthracene	ug/l	0.1 U	0.1 U	0.1 U	**0.072 J**	**0.088 J**	0.13 U	0.095 U	0.12 U	0.65 U	**0.42 J**	**0.63 J**	**1.8**	**3 J**	0.13 U	0.32 U	0.12 U	0.095 U	**0.36**
Benzo(a)pyrene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.099 U	0.12 U	0.095 U	0.65 U	0.095 U	0.64 U	**1.1**	5 U	0.1 U	0.32 U	0.097 U	0.12 U	0.1 U
Benzo(b)fluoranthene	ug/l	0.1 U	0.1 U	**0.2**	0.1 U	**0.13**	0.26 U	0.095 U	0.25 U	0.65 U	0.25 U	**0.25 J**	**0.48 J**	5 U	0.26 U	0.32 U	0.25 U	0.095 U	0.1 U
Benzo(g,h,i)perylene	ug/l	0.48 U	0.35 U	**0.46**	0.31 U	**0.53**	0.12 U	0.095 U	0.12 U	0.65 U	0.12 U	**0.18 J**	0.13 U	5 U	0.13 U	0.32 U	0.12 U	0.095 U	0.28 UJ
Benzo(k)fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.39 U	0.095 U	0.38 U	0.65 U	0.38 U	**0.25 J**	**0.82 J**	**1.2 J**	0.4 U	0.32 U	0.38 U	0.095 U	0.1 U
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	0.26 U	4.7 U	0.25 U	**0.49 J**	0.25 U	4.7 U	0.27 U	33 U	0.26 U	4.9 U	0.26 U	4.7 U	5 U

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Number:		GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
Sample Date:		7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:		N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	0.44 U	4.7 U	0.42 U	4.9 U	**3**	**0.48 J**	**30.7**	**17 J**	0.44 U	4.9 U	0.43 U	4.7 U	**1.3 J**
Bis(2-chloroethoxy) methane	ug/l	5 UJ	5 U	5 U	5 U	5 U	0.26 U	4.7 U	0.25 U	4.9 U	0.25 U	4.7 U	0.27 U	33 U	0.26 U	4.9 U	0.25 U	4.7 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 UJ	5 U	5 U	5 U	5 U	0.32 U	4.7 U	0.31 U	4.9 U	0.31 U	4.7 U	0.33 U	33 U	0.33 U	4.9 U	0.32 U	4.7 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 UJ	5 U	**3 J**	5 U	5 U		4.7 U		4.9 U		4.7 U		33 U		4.9 U		4.7 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	5 U	5 U	**1.3 J**	**2.3 J**	5 U	0.34 U	4.7 U	0.33 U	4.9 U	0.33 U	4.7 U	0.35 U	33 U	0.34 U	4.9 U	0.33 U	4.7 U	5 U
Caprolactam	ug/l	5 U	5 U	5 U	5 U	5 U	0.2 U	4.7 U	0.2 U	**2.4 J**	0.2 U	**6.1**	0.21 U	33 U	0.21 U	4.9 U	0.2 U	4.7 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	0.17 U	4.7 U	0.17 U	4.9 U	0.17 U	4.7 U	**2.9**	33 U	0.17 U	4.9 U	0.17 U	4.7 U	5 U
Chrysene	ug/l	0.1 U	0.1 U	0.1 U	**0.073 J**	**0.084 J**	0.11 U	**0.02 J**	0.11 U	0.65 U	**0.4 J**	**0.61 J**	**1.8**	**2.7 J**	0.11 U	0.32 U	0.11 U	0.095 U	**0.25**
Dibenz(a,h)anthracene	ug/l	0.1 UJ	0.1 U	0.1 U	0.11 U	**0.14**	0.16 U	0.095 U	0.15 U	0.65 U	0.15 U	0.64 U	0.16 U	5 U	0.16 U	0.32 U	0.16 U	0.095 U	0.1 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	0.32 U	4.7 U	0.3 U	4.9 U	**0.81 J**	4.7 U	**8.7**	**6.8 J**	**0.45 J**	4.9 U	0.31 U	4.7 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	0.17 U	4.7 U	0.17 U	4.9 U	0.17 U	4.7 U	0.18 U	33 U	0.17 U	4.9 U	0.17 U	4.7 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	0.23 U	4.7 U	0.23 U	4.9 U	0.23 U	4.7 U	0.24 U	33 U	0.24 U	4.9 U	0.23 U	4.7 U	**1.2 J**
Di-n-butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	0.2 U	4.7 U	0.19 U	4.9 U	0.19 U	4.7 U	0.21 U	33 U	0.2 U	4.9 U	0.19 U	4.7 U	5 U
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	0.41 U	4.7 U	0.4 U	4.9 U	0.4 U	4.7 U	0.42 U	33 U	0.42 U	4.9 U	0.4 U	4.7 U	5 U
Fluoranthene	ug/l	0.1 U	0.1 U	**0.27**	**0.78 J**	**0.93**	0.18 U	**0.041 J**	0.17 U	**0.15 J**	**1.6**	**2.6**	**9**	**12**	0.18 U	**0.088 J**	0.17 U	**0.035 J**	**2.7 J**
Fluorene	ug/l	0.1 U	0.1 U	**1.4 J**	**0.61**	**0.7**	0.28 U	0.095 U	0.27 U	0.65 U	**6**	**3.6**	**65**	**60**	**1.2**	**0.55 J**	0.27 U	0.095 U	**9.1 J**
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	0.28 U	4.7 U	0.27 U	4.9 U	0.27 U	4.7 U	0.28 U	33 U	0.28 U	4.9 U	0.27 U	4.7 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	0.13 U	4.7 U	0.13 U	4.9 U	0.13 U	4.7 U	0.14 U	33 U	0.13 U	4.9 U	0.13 U	4.7 U	5 U
Hexachlorocyclopentadiene	ug/l	5 UJ	5 U	5 U	5 U	5 U	0.25 U	4.7 U	0.24 U	4.9 U	0.24 U	4.7 U	0.26 U	33 U	0.26 U	4.9 U	0.25 U	4.7 U	5 U
Hexachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	0.22 U	4.7 U	0.21 U	4.9 U	0.21 U	4.7 U	0.22 U	33 U	0.22 U	4.9 U	0.21 U	4.7 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.18 U	0.2 U	**0.3**	0.19 U	**0.25**	0.14 U	0.095 U	0.13 U	0.65 U	0.13 U	**0.18 J**	0.14 U	5 U	0.14 U	0.32 U	0.13 U	0.095 U	0.18 UJ
Isophorone	ug/l	5 U	5 U	5 U	5 U	5 U	0.26 U	4.7 U	0.25 U	4.9 U	0.25 U	4.7 U	0.27 U	33 U	0.26 U	4.9 U	0.25 U	4.7 U	5 U
Naphthalene	ug/l	**0.22**	0.1 U	**0.47**	**0.18**	**0.27**	0.44 U	**0.026 J**	**1.4**	**1.3**	**99.9**	**0.13 J**	**605**	**370**	**1.3**	**0.18 J**	0.44 U	**0.098**	**42 J**
Nitrobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	0.26 U	4.7 U	0.25 U	4.9 U	0.25 U	4.7 U	0.27 U	33 U	0.27 U	4.9 U	0.26 U	4.7 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	5 U	5 U	5 U	0.46 U	4.7 U	0.44 U	4.9 U	0.44 U	4.7 U	0.47 U	33 U	0.46 U	4.9 U	0.45 U	4.7 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	5 U	5 U	5 U	0.22 U	4.7 U	0.22 U	4.9 U	0.22 U	4.7 U	0.23 U	33 U	0.23 U	4.9 U	0.22 U	4.7 U	5 U
Pentachlorophenol	ug/l	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.83 U	0.19 UJ	0.8 U	1.3 UJ	0.8 U	1.3 UJ	0.86 U	10 UJ	0.84 U	0.65 UJ	0.82 U	0.19 UJ	0.2 U
Phenanthrene	ug/l	0.1 U	0.1 UJ	**1.6 J**	**1.4 J**	**1.4 J**	0.22 U	**0.048 J**	0.21 U	**0.2 J**	**9.5**	**1.2**	**87.4**	**81 J**	0.22 U	0.32 U	0.21 U	**0.047 J**	**9.1 J**
Phenol	ug/l	5 UJ	5 U	5 U	5 U	5 U	0.6 U	4.7 U	**4.6**	**13**	0.58 U	4.7 U	0.62 U	33 U	0.61 U	**6.7**	0.59 U	4.7 U	5 U
Pyrene	ug/l	**0.12**	**0.12**	**0.5**	**1.3 J**	**1.4 J**	0.16 U	0.095 U	0.16 U	0.65 U	**2**	**2 J**	**11.6**	**12**	0.16 U	0.32 U	0.16 U	0.095 U	**4.6 J**
Total PAHs	ug/l	**0.34**	**0.12**	**11.36**	**5.635**	**7.382**	ND	**0.159**	**6.9**	**7.82**	**166.72**	**26.33**	**1,254**	**950.9**	**5.32**	**2.596**	ND	**0.199**	**108.91**

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
Sample Number:		D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/21/2010
Sample Type:		FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	**0.64 J**	5 U	5 U	5 U	50 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	50 U	5 U	5 U	24 U	24 U	4.9 U	330 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2,4-dichlorophenol	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2,4-dimethylphenol	ug/l	5 U	50 U	5 U	5 U	**17**	**23**	**22**	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2,4-dinitrophenol	ug/l	10 U	100 U	10 U	10 U	24 U	24 U	9.9 UJ	330 U	21 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	50 UJ	5 UJ	5 UJ	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	50 UJ	5 UJ
2,6-dinitrotoluene	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2-chloronaphthalene	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2-chlorophenol	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2-methylnaphthalene	ug/l	**28 J**	**600**	0.1 U	**0.066 J**	**1**	**0.97**	**1.6 J**	**730**	**120**	0.32 U	0.14 U	0.1 U	**0.19**	**0.31**	**0.39**	**11**	**630**	**0.15**
2-methylphenol (o-cresol)	ug/l	5 U	50 U	5 U	5 U	**3.3 J**	**9.2 J**	**12**	130 U	**3.8 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
2-nitroaniline	ug/l	10 U	100 U	10 U	10 U	24 U	24 U	9.9 U	330 U	21 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U
2-nitrophenol	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
3-nitroaniline	ug/l	10 U	100 U	10 U	10 U	24 U	24 U	9.9 U	330 U	21 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	100 U	10 U	10 U	24 U	24 U	9.9 U	330 U	21 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
4-chloroaniline	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	50 U	5 U	5 U	9.5 U	**2.5 J**	**5.1**	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	**1.6 J**
4-nitroaniline	ug/l	10 U	100 U	10 U	10 U	24 U	24 U	9.9 U	330 U	21 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U
4-nitrophenol	ug/l	10 U	100 U	10 U	10 U			9.9 U		21 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	10 U
Acenaphthene	ug/l	**7 J**	**94**	**1.2 J**	0.1 U	**1.6**	**1.5**	**2.1 J**	**210**	**140**	**1.1 J**	0.1 U	0.1 U	**0.11**	**0.09 J**	**0.19**	**5.9**	**210**	**0.54**
Acenaphthylene	ug/l	**7.1 J**	**81**	0.1 U	0.1 U	**0.39**	**0.35 J**	**0.67 J**	**18**	**13**	**1.5 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.11**	**9.5 J**	0.1 U
Acetophenone	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Anthracene	ug/l	**3 J**	**8.5 J**	**0.6**	0.1 U	**0.51**	**0.56**	**0.83 J**	**13**	**20**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**2 J**	**24 J**	0.1 U
Atrazine	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Benzaldehyde	ug/l	5 UJ	50 UJ	5 UJ	5 UJ	9.5 U	9.7 U	4.9 U	130 U	10 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	50 UJ	5 U
Benzo(a)anthracene	ug/l	**0.39**	1 U	0.1 U	0.1 U	**0.24 J**	**0.25 J**	**0.61 J**	**2**	**5.2 J**	**0.19**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.66 J**	**2.1**	0.1 UJ
Benzo(a)pyrene	ug/l	0.1 U	1 U	0.1 U	0.1 U	**0.24 J**	**0.56 J**	**0.67 J**	**1.4**	**3.6 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.48**	1 U	0.1 U
Benzo(b)fluoranthene	ug/l	**0.21**	1 U	0.1 U	0.1 U	0.39 U	**0.19 J**	**0.37**	**0.76 J**	**1.4 J**	0.1 U	0.1 U	0.1 U	**0.13**	0.1 U	0.1 U	**0.58**	**1.3**	0.1 U
Benzo(g,h,i)perylene	ug/l	0.39 U	1.1 UJ	0.37 U	0.51 U	0.39 U	0.38 U	**0.28**	1.4 U	**1.5 J**	0.1 U	0.1 U	**1.6 J**	**0.41**	**0.17**	**0.45**	**0.66**	1 UJ	0.15 U
Benzo(k)fluoranthene	ug/l	0.1 U	1 U	0.1 U	0.1 U	**0.21 J**	**0.23 J**	**0.33**	**0.92 J**	**1.9 J**	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	**0.12**	**0.29 J**	0.1 U
Benzyl butyl phthalate	ug/l	5 U	50 U	5 U	5 U	**1.9 J**	**1.7 J**	**2 J**	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
Sample Number:		D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/21/2010
Sample Type:		FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	**1.5 J**	**36 J**	5 U	5 U	**0.26 J**	**0.26 J**	4.9 U	**32**	**39**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**41 J**	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	50 U	5 U	5 U	9.5 UJ	9.7 UJ	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	**1 J**	50 U	5 U	5 U	**2.8 J**	**3.8 J**	**3.7 J**	130 U	10 U	**5 J**	**1.2 J**	**5.1**	**1.7 J**	**1.4 J**	**2.1 J**	5 U	50 U	**1.8 J**
Caprolactam	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Carbazole	ug/l	5 U	**16 J**	5 U	5 U	**0.87 J**	**1.1 J**	**1.2 J**	**26 J**	**27**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**9.9 J**	5 U
Chrysene	ug/l	**0.24**	1 U	0.1 U	0.1 U	**0.31 J**	**0.31 J**	**0.64 J**	**2.5**	**5.9 J**	**0.14**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.33**	**1.2**	0.1 U
Dibenz(a,h)anthracene	ug/l	0.1 U	1 U	**0.12**	0.1 U	0.39 U	0.38 U	**0.095 J**	1.4 U	**0.32 J**	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	1 U	0.1 U
Dibenzofuran	ug/l	5 U	**6.8 J**	5 U	5 U	**0.94 J**	**1.1 J**	**0.95 J**	**11 J**	**8.8 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**11 J**	5 U
Diethyl phthalate	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	**0.44 J**	5 U	5 U	5 U	50 U	5 U
Dimethyl phthalate	ug/l	**1.6 J**	50 U	5 U	**2 J**	9.5 U	9.7 U	4.9 U	130 U	10 U	**1.7 J**	**1.3 J**	5 U	**0.93 J**	**1 J**	**1.5 J**	5 U	50 U	5 U
Di-n-butyl phthalate	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	**0.72 J**	130 U	10 U	5 U	5 U	5 U	**0.46 J**	5 U	5 U	5 U	50 U	5 U
Di-n-octylphthalate	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Fluoranthene	ug/l	**3.1 J**	**3.1 J**	**0.6**	0.1 U	**1.1**	**1.2**	**1.9 J**	**6.4**	**12**	**1.4 J**	**0.27 J**	0.1 U	**0.13**	0.1 U	0.1 U	**1.7 J**	**10 J**	0.1 U
Fluorene	ug/l	**8.7 J**	**48 J**	**0.5 J**	0.1 U	**1.2**	**1.1**	**1.5 J**	**41**	**64**	**0.17**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**3.2 J**	**84**	**0.18**
Hexachlorobenzene	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Hexachlorobutadiene	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Hexachloroethane	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.32 U	1.1 UJ	0.2 U	0.19 U	0.39 U	0.38 U	**0.24**	1.4 U	**0.76 J**	0.1 UJ	0.1 U	**0.45**	**0.32**	**0.19**	**0.3**	**0.55**	**0.97 J**	0.13 U
Isophorone	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Naphthalene	ug/l	**50 J**	**3,100 J**	**2.2 J**	**0.19**	**5.1**	**5.1**	**8.8**	1.4 U	**1.2**	**4.5 J**	**8.1 J**	0.1 U	**0.4**	**0.93 J**	**0.8 J**	**17**	**1,700 J**	**1.4 J**
Nitrobenzene	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	4.9 U	130 U	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Pentachlorophenol	ug/l	0.2 U	2 U	0.2 UJ	0.2 UJ			0.2 UR		2.1 UR	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2 U	**0.11 J**
Phenanthrene	ug/l	**9**	**50 J**	**1.5 J**	0.1 UJ	**2.3**	**2.5**	**3.6 J**	**59**	**80**	0.1 U	0.1 U	0.1 U	**0.39**	**0.12**	**0.32**	**8.6**	**110**	**0.14 J**
Phenol	ug/l	5 U	50 U	5 U	5 U	9.5 U	9.7 U	**1.9 J**	130 U	**7.5 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U
Pyrene	ug/l	**4.7 J**	**4.8 J**	**0.43 J**	0.1 U	**0.71**	**0.75**	**1.5 J**	**7.7**	**15**	**2.8 J**	**9.1 J**	0.1 U	**0.24**	0.1 U	**0.16**	**2.9 J**	**16 J**	0.1 U
Total PAHs	ug/l	**121.44**	**3,989**	**7.15**	**0.256**	**14.91**	**15.57**	**25.735**	**1,093**	**485.78**	**11.8**	**17.47**	**2.05**	**2.32**	**1.81**	**2.61**	**55.79**	**2,799**	**2.41**

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33
Sample Number:		GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate
Sample Date:		7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010
Sample Type:		N	FD	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	590 U	95 U	1,600 U	24 U	4.9 U	3,000 U	480 U	24 U	4.7 U	5,200 U	99 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	590 U	190 U	1,600 UJ	24 U	9.8 U	3,000 U	960 U	24 U	9.5 U	5,200 U	200 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	0.1 U	0.1 U	**0.14**	**6.1**	**7.1**	9.5 U	**310**	0.062 UJ	0.32 U	**970 J**	**1,100**	**0.035**	0.13 U	**1,400**	**1,300**	**3.4 J**	**770 J**	**630 J**
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	590 U	190 U	1,600 U	24 U	9.8 U	3,000 U	960 U	24 U	9.5 U	5,200 U	200 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	590 U	190 U	1,600 U	24 U	9.8 U	3,000 U	960 U	24 U	9.5 U	5,200 U	200 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	590 U	190 U	1,600 U	24 U	9.8 U	3,000 U	960 U	24 U	9.5 U	5,200 U	200 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	590 U	190 U	1,600 U	24 U	9.8 U	3,000 U	960 U	24 U	9.5 U	5,200 U	200 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U		190 U			9.8 U		960 U		9.5 U		200 U	10 U	10 U	10 U
Acenaphthene	ug/l	0.1 U	0.1 U	**0.17**	**4.2 J**	**550**	**490**	**180**	**0.3 J**	**0.95 J**	**370**	**350 J**	**1.1 J**	**1 J**	**190**	**180**	**1.9 J**	**250 J**	**190 J**
Acenaphthylene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	**3.2**	9.5 U	**4.2 J**	9.6 U	0.32 U	13 U	48 U	**0.045**	**0.05 J**	**170**	**180**	0.1 U	**1.1 J**	0.1 U
Acetophenone	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Anthracene	ug/l	0.1 U	0.1 U	0.1 U	**0.14**	**20**	**21 J**	**5 J**	**0.057 J**	**0.066 J**	**23**	**19 J**	**0.49**	**0.18**	29 U	**23 J**	0.1 U	**7.7**	**7.2 J**
Atrazine	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 UJ	5 UJ	5 UJ
Benzo(a)anthracene	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 U	3.1 U	9.5 U	7.6 U	9.6 U	0.32 U	13 U	48 U	**0.27**	**0.097 J**	29 U	99 U	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	3.1 U	9.5 U	7.6 U	9.6 U	0.32 U	13 U	48 U	**0.19**	**0.15**	29 U	99 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/l	**0.13**	0.1 U	**0.17**	0.1 U	3.1 U	9.5 U	7.6 U	9.6 U	0.32 U	13 U	48 U	**0.13**	**0.043 J**	29 U	99 U	0.1 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	ug/l	**0.46**	0.19 U	**0.96**	0.14 U	3.1 U	9.5 U	7.6 U	9.6 UJ	0.32 U	13 U	48 U	**0.095**	0.13 U	29 U	99 U	0.1 U	0.1 U	0.1 U
Benzo(k)fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	3.1 U	9.5 U	7.6 U	9.6 U	0.32 U	13 U	48 U	**0.2**	**0.042 J**	29 U	99 U	0.1 U	0.1 U	0.1 U
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33
Sample Number:		GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate
Sample Date:		7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010
Sample Type:		N	FD	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	**48**	**43 J**	**19**	**0.012 J**	4.9 U	**80**	**88 J**	**0.02**	4.7 U	**63**	**62 J**	5 U	**51**	**36**
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U	5 U	5 U	240 UJ	95 U	630 U	9.6 UJ	4.9 U	1,200 UJ	480 U	9.6 UJ	4.7 U	2,100 UJ	99 U	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	**1.1 J**	**3.6 J**	**3.5 J**	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	**1.1 J**	**2.5 J**	**0.62 J**
Caprolactam	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	**38 J**	5 U	**28**	**20**
Chrysene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	3.1 U	9.5 U	7.6 U	9.6 U	0.32 U	13 U	48 U	**0.29**	**0.086 J**	29 U	99 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	ug/l	**0.16**	0.1 U	0.1 U	0.1 U	3.1 U	9.5 U	7.6 U	9.6 U	0.32 U	13 U	48 U	**0.043**	0.13 U	29 U	99 U	0.1 U	0.1 U	0.1 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	**10 J**	5 U	**7.6**	**5.9**
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	**1.5 J**	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	**1.5 J**
Di-n-butyl phthalate	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Fluoranthene	ug/l	0.1 U	0.1 U	**0.18**	**0.1 J**	**12**	**12 J**	7.6 U	**0.06 J**	**0.16 J**	**8.8 J**	48 U	**0.91 J**	**0.73 J**	29 U	**13 J**	0.1 U	**1.8 J**	**1.4 J**
Fluorene	ug/l	0.1 U	0.1 U	**0.17**	**0.67**	**41**	**36 J**	**31**	**0.092 J**	0.32 U	**79**	**95 J**	**0.89**	**0.74**	**55**	**99 J**	**0.36**	**48**	**36**
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	**0.24**	0.17 U	**0.48**	0.14 U	3.1 U	9.5 U	7.6 U	9.6 U	0.32 U	13 U	48 U	**0.1**	0.13 U	29 U	99 U	0.1 UJ	0.1 UJ	0.1 U
Isophorone	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Naphthalene	ug/l	**0.049 J**	0.1 U	**0.17**	**71**	**1,400**	**1,100**	**3,700**	0.36 UJ	**1.8 J**	**6,000**	**6,600**	**0.19**	**0.21**	**14,000**	**12,000**	**20**	**6,900**	**6,900**
Nitrobenzene	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	0.2 U	0.2 UJ	0.2 UJ	**0.16 J**		19 UR			0.64 UR		96 UR		0.27 UR		200 U	0.2 UJ	0.2 UJ	0.2 U
Phenanthrene	ug/l	**0.1 J**	**0.12 J**	**0.37 J**	**0.53 J**	**94**	**85 J**	**28**	**0.28 J**	0.32 U	**120**	**120 J**	**0.89**	**0.29**	**78**	**99 J**	**0.49**	**45**	**33 J**
Phenol	ug/l	5 U	5 U	5 U	5 U	240 U	95 U	630 U	9.6 U	4.9 U	1,200 U	480 U	9.6 U	4.7 U	2,100 U	99 U	**25**	5 U	5 U
Pyrene	ug/l	0.1 U	0.1 U	**0.17**	**0.13**	**15**	**17 J**	**4.3 J**	**0.025 J**	0.32 U	**9.4 J**	48 U	**0.82**	**0.62 J**	29 U	**18 J**	0.1 U	**1.8 J**	**1.5 J**
Total PAHs	ug/l	**1.139**	**0.12**	**2.98**	**82.87**	**2,142**	**1,761**	**4,263**	**0.814**	**2.976**	**7,580**	**8,284**	**6.688**	**4.238**	**15,893**	**13,912**	**26.15**	**8,025**	**7,799**

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41
Sample Number:		GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW-41I(53-58)
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate
Sample Date:		7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
2,3,4,6-tetrachlorophenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
2,4,5-trichlorophenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	64 U	360 U	24 U	24 U
2,4,6-trichlorophenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
2,4-dichlorophenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
2,4-dimethylphenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	**63**	**80 J**	**75**	9.4 U
2,4-dinitrophenol	ug/l	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	200 U	64 UJ	360 U	48 U	24 U
2,4-dinitrotoluene	ug/l	50 U	50 U	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 UJ	**11 J**	5 UJ	50 UJ	100 UJ	26 U	140 U	24 U	9.4 U
2,6-dinitrotoluene	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
2-chloronaphthalene	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
2-chlorophenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
2-methylnaphthalene	ug/l	**3.8**	**400 J**	**100 J**	**110 J**	**18 J**	**31**	**65**	**0.19**	**32**	**30**	**0.16**	**3.1 J**	1 U	**220 J**	**0.88**	**110 J**	**110**	**1.7 J**
2-methylphenol (o-cresol)	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	**67**	**50 J**	**59**	9.4 U
2-nitroaniline	ug/l	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	200 U	64 U	360 U	48 U	24 U
2-nitrophenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
3,3'-dichlorobenzidine	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
3-nitroaniline	ug/l	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	200 U	64 U	360 U	48 U	24 U
4,6-dinitro-2-methylphenol	ug/l	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	200 U	64 U	360 U	48 U	24 U
4-bromophenyl phenyl ether	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
4-chloro-3-methylphenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
4-chloroaniline	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
4-chlorophenyl phenyl ether	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
4-methylphenol (p-cresol)	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	**120**	**81 J**	**110**	9.4 U
4-nitroaniline	ug/l	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	200 U	64 U	360 U	48 U	24 U
4-nitrophenol	ug/l	100 U	100 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	200 U			48 U	
Acenaphthene	ug/l	**100 J**	**310 J**	**79 J**	**75 J**	**69**	**74**	**320**	**1.2 J**	**23**	**23**	**35**	**2.2 J**	**28 J**	**62 J**	**0.41**	**170**	**180**	**4**
Acenaphthylene	ug/l	1 U	**3.3 J**	**21**	**19**	**1.6 J**	**1.7 J**	**28**	0.1 U	**6.3 J**	**7.3 J**	**10**	**2.6 J**	1 U	**5.8 J**	**0.5**	**3.1**	**6.6 J**	**0.21 J**
Acetophenone	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Anthracene	ug/l	**21 J**	**26 J**	**12**	**14**	**4.6 J**	**4.8 J**	**9.7 J**	**0.72**	**5 J**	**5.3**	0.1 U	**1.6 J**	**2.9 J**	**8.1 J**	**1.1**	**22 J**	**24 J**	**2.3**
Atrazine	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Benzaldehyde	ug/l	50 UJ	50 UJ	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Benzo(a)anthracene	ug/l	1 U	1 U	**0.78**	**0.8**	**0.42**	**0.11**	**0.15**	**0.32**	**0.28**	**0.31**	0.1 U	**0.088 J**	**1.4**	2 U	0.13 U	1.9 U	**0.99 J**	0.38 U
Benzo(a)pyrene	ug/l	1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.19**	0.1 U	0.1 U	1 U	2 U	0.13 U	1.9 U	2.7 U	0.38 U
Benzo(b)fluoranthene	ug/l	1 U	1 U	**0.34**	**0.22**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.14**	0.1 U	**0.12**	1 U	2 U	0.13 U	1.9 U	2.7 U	0.38 U
Benzo(g,h,i)perylene	ug/l	1 U	1 U	**0.87**	**0.33**	0.19 U	0.1 U	0.15 U	**0.34**	**0.39**	**0.79**	**0.13**	**0.45**	1 U	2 U	**0.068 J**	1.9 U	2.7 U	0.38 U
Benzo(k)fluoranthene	ug/l	1 U	1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 UJ	1 UJ	2 UJ	**0.07 J**	1.9 U	2.7 U	0.38 U
Benzyl butyl phthalate	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U

TABLE I-33A
SVOC Concentrations in Groundwater
Gowanus Canal Remedial Investigation
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Station Location:		MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41
Sample Number:		GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW-41I(53-58)
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate
Sample Date:		7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	**5.7 J**	**41 J**	**16**	**15**	**2.9 J**	**2.3 J**	**39**	5 U	5 U	5 U	5 U	5 U	50 U	**11 J**	**0.21**	**21 J**	**22 J**	**0.82**
Bis(2-chloroethoxy) methane	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Bis(2-chloroethyl) ether	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Bis(2-chloroisopropyl) ether	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	50 U	100 U	26 U	140 UJ	24 U	9.4 UJ
Bis(2-ethylhexyl) phthalate	ug/l	50 U	50 U	**3.9 J**	**0.99 J**	**5.8**	5 U	**2.9 J**	5 U	5 U	5 U	5 U	**1.1 J**	50 U	100 U	26 U	140 U	24 U	9.4 U
Caprolactam	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	**8.5 J**	140 U	24 U	9.4 U
Carbazole	ug/l	50 U	50 U	**2.3 J**	**1.6 J**	5 U	5 U	**20 J**	5 U	**0.72 J**	5 U	5 U	5 U	**3.9 J**	**8.2 J**	26 U	**77 J**	**56**	**2.4 J**
Chrysene	ug/l	1 U	1 U	**0.44**	**0.64 J**	**0.21**	0.1 U	**0.08 J**	**0.18**	**0.16**	**0.18**	0.1 U	**0.059 J**	**0.97 J**	2 U	**0.074 J**	1.9 U	**0.69 J**	0.38 U
Dibenz(a,h)anthracene	ug/l	1 U	1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	**0.099 J**	0.1 UJ	0.1 UJ	1 U	2 U	0.13 U	1.9 U	2.7 U	0.38 U
Dibenzofuran	ug/l	**2.7 J**	**11 J**	**3.9 J**	**3.7 J**	**19**	**21**	**110**	5 U	**0.94 J**	**1 J**	5 U	5 U	50 U	**4.3 J**	26 U	**90 J**	**89**	**5 J**
Diethyl phthalate	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Dimethyl phthalate	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.3 J**	5 U	**2.1 J**	50 U	100 U	26 U	140 U	24 U	9.4 U
Di-n-butyl phthalate	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	**0.34 J**	**0.44 J**	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Di-n-octylphthalate	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Fluoranthene	ug/l	**5.9 J**	**12 J**	**8.3**	**9.9**	**9.9**	**11**	**8.4 J**	**1.4 J**	**2.8 J**	**2.2 J**	**0.19**	**1.1 J**	**5.2 J**	**2.9**	**1.4**	**23 J**	**23 J**	**1.7**
Fluorene	ug/l	**25 J**	1 U	**38**	**37**	**34**	**36**	**8.5 J**	**0.48**	**13**	**13**	**2.9 J**	**3.9 J**	**7.4 J**	**24 J**	**0.68**	**78 J**	**78**	**3.9**
Hexachlorobenzene	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Hexachlorobutadiene	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Hexachlorocyclopentadiene	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Hexachloroethane	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	**33 J**	26 U	140 U	24 U	9.4 U
Indeno(1,2,3-c,d)pyrene	ug/l	1 UJ	1 U	**0.51**	**0.26**	0.17 U	0.1 U	0.17 U	0.1 U	**0.17**	**0.36**	**0.12**	**0.29**	1 U	2 U	0.13 U	1.9 U	2.7 U	0.38 U
Isophorone	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Naphthalene	ug/l	1 U	**5.1 J**	**210 J**	**340 J**	**5.2**	**12 J**	**1 J**	**0.1**	**0.48**	**0.44**	**0.68**	**2.1 J**	**1**	**990 J**	0.19 U	**940**	**320**	**3 J**
Nitrobenzene	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
N-nitrosodi-n-propylamine	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
N-nitrosodiphenylamine	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	26 U	140 U	24 U	9.4 U
Pentachlorophenol	ug/l	2 UJ	2 UJ	**0.13 J**	0.2 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 U	2 UJ	4 UJ			5.4 UR	
Phenanthrene	ug/l	**60 J**	**96 J**	**81 J**	**98 J**	**36**	**43**	**110**	0.1 U	**3 J**	**7.2**	**0.21**	**9.1**	1 U	**38 J**	**4.2**	**150**	**150**	**14**
Phenol	ug/l	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	100 U	**74**	**33 J**	**64**	9.4 U
Pyrene	ug/l	**9.6**	**8.7**	**13**	**15**	**7.8**	**9.9 J**	**8.3 J**	**2.2 J**	**3.7 J**	**3.9 J**	**0.24**	**1.6 J**	**8.4 J**	**4.7**	**0.8**	**14 J**	**16 J**	**1**
Total PAHs	ug/l	**225.3**	**861.1**	**565.24**	**720.15**	**186.73**	**223.51**	**559.13**	**7.13**	**90.28**	**94.409**	**49.63**	**28.307**	**55.27**	**1,356**	**10.182**	**1,510**	**909.28**	**31.81**

TABLE I-33A
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Station Location:		MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
1,2,4,5-tetrachlorobenzene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2,4,5-trichlorophenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2,4,6-trichlorophenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2,4-dichlorophenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2,4-dimethylphenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2,4-dinitrophenol	ug/l	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	200 U	10 U
2,4-dinitrotoluene	ug/l	4.7 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 U	5 U	**69 J**	25 UJ	5 UJ	100 UJ	**100 J**
2,6-dinitrotoluene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 UJ
2-chloronaphthalene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2-chlorophenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2-methylnaphthalene	ug/l	0.64 U	0.13 U	0.1 U	**28**	**24**	**0.27 J**	**0.86**	**0.53**	**5.9 J**	**900 J**	0.1 U	**390**	**790 J**
2-methylphenol (o-cresol)	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
2-nitroaniline	ug/l	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	200 U	10 U
2-nitrophenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
3,3'-dichlorobenzidine	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
3-nitroaniline	ug/l	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	200 U	10 U
4,6-dinitro-2-methylphenol	ug/l	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	200 U	10 U
4-bromophenyl phenyl ether	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
4-chloro-3-methylphenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
4-chloroaniline	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
4-chlorophenyl phenyl ether	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
4-methylphenol (p-cresol)	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
4-nitroaniline	ug/l	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	200 U	10 U
4-nitrophenol	ug/l	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	50 U	10 U	200 U	10 U
Acenaphthene	ug/l	**6.7**	0.1 U	0.1 U	**8.7**	**7.5**	**0.38 J**	**5.1**	**3.6 J**	**160**	**220**	**11**	**68 J**	**100 J**
Acenaphthylene	ug/l	**0.82**	0.1 U	0.1 U	**13**	**4.3 J**	0.1 U	**0.76**	**0.47**	**1.1 J**	**7.7 J**	**3.3 J**	**110**	**170 J**
Acetophenone	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	**4 J**
Anthracene	ug/l	**3.9**	0.1 U	0.1 U	**9.1**	**6**	0.1 U	**0.4**	**0.27**	**29 J**	**17 J**	0.1 U	**17 J**	**20**
Atrazine	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Benzaldehyde	ug/l	4.7 U	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	25 UJ	**150**	5 U	**44 J**	**76**
Benzo(a)anthracene	ug/l	**0.21 J**	0.1 U	0.1 U	**0.5**	**0.38 J**	0.1 U	0.1 U	0.1 U	**1.3 J**	**2.1 J**	0.1 UJ	**4.5 J**	**0.79 J**
Benzo(a)pyrene	ug/l	0.64 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.18**	**0.85**	**1.3**	0.1 U	**2.1**	**0.35**
Benzo(b)fluoranthene	ug/l	0.64 U	0.1 U	0.1 U	**0.24**	**0.15**	0.1 U	0.14 U	**0.16**	**1**	**1.4**	0.1 U	**2.3**	**0.36**
Benzo(g,h,i)perylene	ug/l	0.64 U	**0.11**	0.1 U	0.32 U	**0.49**	**0.71**	0.1 U	0.19 U	0.5 U	0.5 U	0.1 U	2 U	**0.12**
Benzo(k)fluoranthene	ug/l	0.64 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	**0.29 J**	**0.39 J**	0.1 U	**0.61 J**	**0.086 J**
Benzyl butyl phthalate	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U

TABLE I-33A
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Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**												
Biphenyl (diphenyl)	ug/l	**1.4 J**	5 U	5 U	**1.5 J**	**8.4**	5 U	5 U	5 U	**14 J**	**55**	5 U	**25 J**	**58**
Bis(2-chloroethoxy) methane	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Bis(2-chloroethyl) ether	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	4.7 U	**1.1 J**	**2.4 J**	**2 J**	**1.3 J**	**1.2 J**	5 U	5 U	25 U	**7.2 J**	**1.8 J**	100 U	**2.1 J**
Caprolactam	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	**0.98 J**	100 U	5 U
Carbazole	ug/l	**2.6 J**	5 U	5 U	5 U	**1.5 J**	5 U	5 U	5 U	25 U	**20 J**	5 U	**14 J**	**14**
Chrysene	ug/l	**0.19 J**	0.1 U	0.1 U	**0.27**	**0.23**	0.1 U	0.1 U	0.1 U	**0.84**	**1.2**	0.1 U	**3**	**0.37**
Dibenz(a,h)anthracene	ug/l	0.64 U	**0.12**	0.1 U	0.1 U	0.1 U	0.1 UJ	**0.12 J**	**0.14 J**	0.5 U	0.5 U	0.1 U	2 U	0.1 U
Dibenzofuran	ug/l	**4.6 J**	5 U	5 U	**2.1 J**	**2.3 J**	5 U	5 U	5 U	**7.9 J**	**11 J**	5 U	100 U	5 U
Diethyl phthalate	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Dimethyl phthalate	ug/l	4.7 U	**1.8 J**	**2 J**	**1.6 J**	**1.2 J**	**1.2 J**	5 U	5 U	25 U	25 U	**0.93 J**	100 U	5 U
Di-n-butyl phthalate	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Di-n-octylphthalate	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Fluoranthene	ug/l	**3.5**	**0.16**	0.1 U	**4.5 J**	**2.8 J**	**0.23**	**0.45 J**	**0.33**	**11 J**	**7.6 J**	0.1 U	**14 J**	**4 J**
Fluorene	ug/l	**7.1**	0.1 U	0.1 U	**21**	**16**	**0.14**	**1.2 J**	**0.79**	**80**	**73**	**0.16**	**49 J**	**57 J**
Hexachlorobenzene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Hexachlorobutadiene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Hexachlorocyclopentadiene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Hexachloroethane	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.64 U	**0.16**	0.1 UJ	**0.25**	**0.3**	**0.4**	0.16 U	0.17 U	**0.68**	**0.96**	**0.12**	2 U	**0.24**
Isophorone	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Naphthalene	ug/l	**0.72**	**2.4 J**	**1.3 J**	**0.2**	**0.3**	**0.41**	**0.48**	**0.3**	**0.66 J**	**5,400 J**	**0.33**	**1,800 J**	**2,800 J**
Nitrobenzene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
N-nitrosodi-n-propylamine	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
N-nitrosodiphenylamine	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	25 U	5 U	100 U	5 U
Pentachlorophenol	ug/l	1.3 UR	0.2 U	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U	1 UJ	1 UJ	0.2 U	4 UJ	0.2 U
Phenanthrene	ug/l	**19**	0.1 U	0.1 U	**18**	**21**	**0.52 J**	**1.6 J**	**1.2 J**	**110**	**82**	**0.15 J**	**84 J**	**61 J**
Phenol	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 UJ	25 U	5 U	100 U	5 U
Pyrene	ug/l	**2.4**	0.1 U	0.1 U	**7.8**	**3.8 J**	**0.28**	**0.71**	**0.42**	**14 J**	**12 J**	0.1 U	**26 J**	**10**
Total PAHs	ug/l	**44.54**	**2.95**	**1.3**	**111.56**	**87.25**	**3.34**	**11.68**	**8.39**	**416.62**	**6,727**	**15.06**	**2,571**	**4,014**

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07	MW-08	MW-08
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I	GC-MW08S	GC-MW08I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*1,2,4,5-tetrachlorobenzene	ug/l																		
2,4-dimethylphenol	ug/l																		
2,4-dinitrotoluene	ug/l																		
*2-methylnaphthalene	ug/l				0.15 J			7.3 J	15			4.2 J	3.1 J	0.57	1.5 J	50	1,100	0.11	
*2-methylphenol (o-cresol)	ug/l																		
4-chloroaniline	ug/l																		
*4-methylphenol (p-cresol)	ug/l											2.6 J	2.7 J						
*Acenaphthene	ug/l	8.7	3.5	5.6	5.4	4.8	5.2 J	3 J	51	0.18		1.1 J	0.95 J	2.2 J	1.1 J	25	400	0.62 J	
*Acenaphthylene	ug/l		0.15 J				0.07 J	1.9 J	2.3 J				0.14	0.26	0.011 J				
*Acetophenone	ug/l																		
*Anthracene	ug/l			0.42 J	0.52 J		0.084 J	1.7 J	6.7 J			0.21	0.27	0.28	0.25	3.2 J	88 J		
*Benzaldehyde	ug/l															6.5			
*Benzo(a)anthracene	ug/l				0.38 J			0.62	0.84							0.28	27		
Benzo(a)pyrene	ug/l						0.1 J	**0.42 (N1)**									**11 (N1)**		
*Benzo(b)fluoranthene	ug/l				0.28 J			0.37	0.15		0.19					0.11	13		
*Benzo(g,h,i)perylene	ug/l				0.23 J			0.58			0.24					0.15	4.1 J	0.43	0.37
*Benzo(k)fluoranthene	ug/l				0.24 J			0.066 J	0.041 J								3.1 J		
*Benzyl butyl phthalate	ug/l		0.59 J																
Biphenyl (diphenyl)	ug/l							0.74 J	2.9 J							3.7 J	**72 J (O1)**		
Bis(2-chloroisopropyl) ether	ug/l																		
Bis(2-ethylhexyl) phthalate	ug/l										**77 (O1)**	1.5 J	3.1 J	2.7 J	2.5 J	1.2 J		2.8 J	1.7 J
*Caprolactam	ug/l		1.7 J	14.7			22												
*Carbazole	ug/l																		
*Chrysene	ug/l				0.36 J			0.38	0.65 J							0.17	14		
*Dibenz(a,h)anthracene	ug/l										0.099 J								
*Dibenzofuran	ug/l	1.4 J	0.62 J	1.3 J	1.2 J				2.8 J					1.2 J					
*Diethyl phthalate	ug/l																		
*Dimethyl phthalate	ug/l													1.4 J	1 J				
Di-n-butyl phthalate	ug/l								0.27 J		0.33 J								
*Fluoranthene	ug/l	1.1	0.69	0.78 J	1.5		0.035 J	2.6 J	10 J		0.13	0.18	0.19	0.15	0.14	2.4 J	72 J	0.11	
*Fluorene	ug/l	1.2	0.31 J	1.4	1.3			2.6 J	3.9 J			0.27 J	0.72	2.5 J	0.15	10	150 J	0.38	
Hexachloroethane	ug/l																		
*Indeno(1,2,3-c,d)pyrene	ug/l				0.21 J			0.41			0.18					0.14	7.4	0.25	0.23
*Naphthalene	ug/l	0.85 J		1.1	0.32 J		0.084 J	18	0.54		0.25 J	2.1 J	2.3 J	1.9 J	6.9	130 J	3,500 J	0.17	0.11
Pentachlorophenol	ug/l											0.19 J							
*Phenanthrene	ug/l	0.51 J		1.1	0.68 J		0.075 J	5.4	19		0.13	1.5 J	1.3 J	0.53 J	1.3 J	14	330	0.16	
Phenol	ug/l																		

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07	MW-08	MW-08
	Sample Number:	GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I	GC-MW08S	GC-MW08I
	Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
	Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
	Sample Type:	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*Pyrene	ug/l	0.72 J	0.51	0.52 J	1.2	0.5 J	0.45 J	2.3 J	11		0.32	0.3	0.34	0.35	0.17	3.1 J	120 J	0.12	
*Total PAHs	ug/l	13.08	5.16	10.92	12.77	5.3	6.098	47.646	121.121	0.18	1.539	9.86	9.31	8.74	11.521	238.55	5,840	2.35	0.71

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-16
Sample Number:		GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I	GC-MW15S	GC-MW15I	GC-MW16S
Sample Depth:		Shallow	Shallow	Shallow	Intermediate	Intermediate	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/22/2010	7/22/2010	7/22/2010
Sample Type:		N	FD	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*1,2,4,5-tetrachlorobenzene	ug/l																		
2,4-dimethylphenol	ug/l								**330 (O2)**		**22 J (O2)**		**490 (O2)**						
2,4-dinitrotoluene	ug/l												**290 J (O1)**						
*2-methylnaphthalene	ug/l			0.61 J	148	240	3.4	4.2 J	630	720 J	60		470	210 J	0.27	1.1 J			0.45
*2-methylphenol (o-cresol)	ug/l								20 J		31 J								
4-chloroaniline	ug/l												**250 (O1)**						
*4-methylphenol (p-cresol)	ug/l			0.57 J					10 J		46 J								
*Acenaphthene	ug/l	0.89 J	0.83 J	0.96 J	178	250	5.3	5.5 J	160	140 J	1.4		130	56	2.3 J	1.6 J			5.5
*Acenaphthylene	ug/l			0.04 J	2.3			0.12	40 J	140 J	0.98 J		3	1.6 J	0.12	0.064 J			
*Acetophenone	ug/l										56								10
*Anthracene	ug/l	0.49 J	0.43 J	1.1 J	2.3		2.4	1 J	15	21 J			6.6	14					0.21
*Benzaldehyde	ug/l										460		41 J	3.9 J					4 J
*Benzo(a)anthracene	ug/l	0.41 J		1.8 J			0.76 J	1.3 J						0.22 J					
Benzo(a)pyrene	ug/l			**1.5 J (N1)**			**0.53 J (N1)**	**1.2 J (N1)**											
*Benzo(b)fluoranthene	ug/l			1.4 J			0.46 J	0.82 J											0.2
*Benzo(g,h,i)perylene	ug/l			1.1 J				0.55 J											0.46
*Benzo(k)fluoranthene	ug/l			1.2 J			0.47 J	0.94 J											
*Benzyl butyl phthalate	ug/l																		
Biphenyl (diphenyl)	ug/l				**21.9 (O1)**	**29 J (O1)**	0.91 J	0.9 J	**37 J (O1)**	**45 J (O1)**			**64 J (O1)**	**28 (O1)**					
Bis(2-chloroisopropyl) ether	ug/l																		3 J
Bis(2-ethylhexyl) phthalate	ug/l							0.77 J								3 J			1.3 J
*Caprolactam	ug/l			7.4											1.8 J				
*Carbazole	ug/l	0.58 J	0.49 J	0.63 J	10		4.5	3.7 J	15 J	22 J			82 J	9.3					
*Chrysene	ug/l	0.41 J		1.9 J			0.84 J	1.4 J						0.12					
*Dibenz(a,h)anthracene	ug/l			0.23 J				0.15											
*Dibenzofuran	ug/l			0.62 J	5.5		2.7 J	3 J	13 J	7.9 J			70 J	39	1.3 J				
*Diethyl phthalate	ug/l																		
*Dimethyl phthalate	ug/l																		
Di-n-butyl phthalate	ug/l						1 J	0.98 J											
*Fluoranthene	ug/l	1.1	0.96 J	4 J	0.46 J		3.7	4.6 J	4.8	5	0.87 J		2.1	6.2	0.11				0.27
*Fluorene	ug/l	0.65 J	0.66 J	0.98 J	22.2	30 J	3.7	4.1 J	63 J	68 J	1.5		77 J	49	0.63	0.43			1.4 J
Hexachloroethane	ug/l																		
*Indeno(1,2,3-c,d)pyrene	ug/l			0.82 J				0.42											0.3
*Naphthalene	ug/l	2.2	2.2	2.1 J	2,310	2,800	21.2	22	3,500 J	49,000 J	230		680	390 J	0.94 J	1.3 J	0.22		0.47
Pentachlorophenol	ug/l																		
*Phenanthrene	ug/l	1.7	1.5	4.5 J	15.7	21 J	11.1	14	59 J	83 J	3.3	0.13	48 J	74 J		0.1 J			1.6 J
Phenol	ug/l				**4.9 (O2)**	**20 J (O2)**													

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-16
	Sample Number:	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I	GC-MW15S	GC-MW15I	GC-MW16S
	Sample Depth:	Shallow	Shallow	Shallow	Intermediate	Intermediate	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/22/2010	7/22/2010	7/22/2010
	Sample Type:	N	FD	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*Pyrene	ug/l	0.79 J	0.75 J	3.8 J			2.9	4.4 J	4.7	4.4			1.6 J	4.8 J			0.12	0.12	0.5
*Total PAHs	ug/l	8.64	7.33	28.04	2,679	3,341	56.76	66.7	4,477	50,181	298.05	0.13	1,418	805.94	4.37	4.594	0.34	0.12	11.36

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-16	MW-16	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-20	MW-20	MW-20	MW-21	MW-21	MW-23
Sample Number:		GC-MW16I	D-07222010-01	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I-S-NYC	GC-MW20S	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010
Sample Type:		N	FD	S	N	S	N	S	N	S	N	S	S	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*1,2,4,5-tetrachlorobenzene	ug/l																		
2,4-dimethylphenol	ug/l																		**17 (O2)**
2,4-dinitrotoluene	ug/l																		
*2-methylnaphthalene	ug/l	0.18	0.25			0.53 J	28.8		296	260 J	0.82 J		0.019 J	24 J	28 J	600		0.066 J	1
*2-methylphenol (o-cresol)	ug/l																		3.3 J
4-chloroaniline	ug/l																		
*4-methylphenol (p-cresol)	ug/l											0.52 J							
*Acenaphthene	ug/l	0.38	0.44		5.5	5.4	7.2	6.4 J	79.5	69 J	2	1.7 J		7.2 J	7 J	94	1.2 J		1.6
*Acenaphthylene	ug/l	0.2	0.22			0.24 J	8.5	5.3	72.7	59 J		0.078 J		6.6 J	7.1 J	81			0.39
*Acetophenone	ug/l																		
*Anthracene	ug/l	0.46	0.55	0.024 J			2.4	3	21.6	21				3 J	3 J	8.5 J	0.6		0.51
*Benzaldehyde	ug/l																		
*Benzo(a)anthracene	ug/l	0.072 J	0.088 J				0.42 J	0.63 J	1.8	3 J				0.36	0.39				0.24 J
Benzo(a)pyrene	ug/l								**1.1 (N1)**										**0.24 J (N1)**
*Benzo(b)fluoranthene	ug/l		0.13					0.25 J	0.48 J						0.21				
*Benzo(g,h,i)perylene	ug/l		0.53					0.18 J											
*Benzo(k)fluoranthene	ug/l							0.25 J	0.82 J	1.2 J									0.21 J
*Benzyl butyl phthalate	ug/l					0.49 J													1.9 J
Biphenyl (diphenyl)	ug/l						3	0.48 J	**30.7 (O1)**	**17 J (O1)**				1.3 J	1.5 J	**36 J (O1)**			0.26 J
Bis(2-chloroisopropyl) ether	ug/l																		
Bis(2-ethylhexyl) phthalate	ug/l	2.3 J													1 J				2.8 J
*Caprolactam	ug/l					2.4 J		6.1											
*Carbazole	ug/l								2.9							16 J			0.87 J
*Chrysene	ug/l	0.073 J	0.084 J	0.02 J			0.4 J	0.61 J	1.8	2.7 J				0.25	0.24				0.31 J
*Dibenz(a,h)anthracene	ug/l		0.14														0.12		
*Dibenzofuran	ug/l						0.81 J		8.7	6.8 J	0.45 J					6.8 J			0.94 J
*Diethyl phthalate	ug/l																		
*Dimethyl phthalate	ug/l													1.2 J	1.6 J			2 J	
Di-n-butyl phthalate	ug/l																		
*Fluoranthene	ug/l	0.78 J	0.93	0.041 J		0.15 J	1.6	2.6	9	12		0.088 J	0.035 J	2.7 J	3.1 J	3.1 J	0.6		1.1
*Fluorene	ug/l	0.61	0.7				6	3.6	65	60	1.2	0.55 J		9.1 J	8.7 J	48 J	0.5 J		1.2
Hexachloroethane	ug/l																		
*Indeno(1,2,3-c,d)pyrene	ug/l		0.25					0.18 J											
*Naphthalene	ug/l	0.18	0.27	0.026 J	1.4	1.3	99.9	0.13 J	605	370	1.3	0.18 J	0.098	42 J	50 J	3,100 J	2.2 J	0.19	5.1
Pentachlorophenol	ug/l																		
*Phenanthrene	ug/l	1.4 J	1.4 J	0.048 J		0.2 J	9.5	1.2	87.4	81 J			0.047 J	9.1 J	9	50 J	1.5 J		2.3
Phenol	ug/l				**4.6 (O2)**	**13 (O2)**						**6.7 (O2)**							

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-16	MW-16	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-20	MW-20	MW-20	MW-21	MW-21	MW-23
	Sample Number:	GC-MW16I	D-07222010-01	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I-S-NYC	GC-MW20S	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S
	Sample Depth:	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010
	Sample Type:	N	FD	S	N	S	N	S	N	S	N	S	S	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*Pyrene	ug/l	1.3 J	1.4 J				2	2 J	11.6	12				4.6 J	4.7 J	4.8 J	0.43 J		0.71
*Total PAHs	ug/l	5.635	7.382	0.159	6.9	7.82	166.72	26.33	1,254	950.9	5.32	2.596	0.199	108.91	121.44	3,989	7.15	0.256	14.91

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28	MW-28	MW-28	MW-29	MW-29	MW-30
Sample Number:	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S	GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)
Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow
Sample Date:	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010
Sample Type:	FD	S	N	S	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
*1,2,4,5-tetrachlorobenzene	ug/l							0.64 J										
2,4-dimethylphenol	ug/l	**23 (O2)**	**22 (O2)**															
2,4-dinitrotoluene	ug/l																	
*2-methylnaphthalene	ug/l	0.97	1.6 J	730	120			0.19	0.31	0.39	11	630	0.15			0.14	6.1	7.1
*2-methylphenol (o-cresol)	ug/l	9.2 J	12		3.8 J													
4-chloroaniline	ug/l																	
*4-methylphenol (p-cresol)	ug/l	2.5 J	5.1										1.6 J					
*Acenaphthene	ug/l	1.5	2.1 J	210	140	1.1 J		0.11	0.09 J	0.19	5.9	210	0.54			0.17	4.2 J	550
*Acenaphthylene	ug/l	0.35 J	0.67 J	18	13	1.5 J					0.11	9.5 J						3.2
*Acetophenone	ug/l																	
*Anthracene	ug/l	0.56	0.83 J	13	20						2 J	24 J					0.14	20
*Benzaldehyde	ug/l																	
*Benzo(a)anthracene	ug/l	0.25 J	0.61 J	2	5.2 J	0.19					0.66 J	2.1						
Benzo(a)pyrene	ug/l	**0.56 J (N1)**	**0.67 J (N1)**	**1.4 (N1)**	**3.6 J (N1)**						**0.48 (N1)**							
*Benzo(b)fluoranthene	ug/l	0.19 J	0.37	0.76 J	1.4 J			0.13			0.58	1.3		0.13		0.17		
*Benzo(g,h,i)perylene	ug/l		0.28		1.5 J		1.6 J	0.41	0.17	0.45	0.66			0.46		0.96		
*Benzo(k)fluoranthene	ug/l	0.23 J	0.33	0.92 J	1.9 J						0.12	0.29 J						
*Benzyl butyl phthalate	ug/l	1.7 J	2 J															
Biphenyl (diphenyl)	ug/l	0.26 J		**32 (O1)**	**39 (O1)**							**41 J (O1)**						**48 (O1)**
Bis(2-chloroisopropyl) ether	ug/l																	
Bis(2-ethylhexyl) phthalate	ug/l	3.8 J	3.7 J			5 J	1.2 J	**5.1 (O1)**	1.7 J	1.4 J	2.1 J		1.8 J	1.1 J	3.6 J	3.5 J		
*Caprolactam	ug/l																	
*Carbazole	ug/l	1.1 J	1.2 J	26 J	27							9.9 J						
*Chrysene	ug/l	0.31 J	0.64 J	2.5	5.9 J	0.14					0.33	1.2						
*Dibenz(a,h)anthracene	ug/l		0.095 J		0.32 J									0.16				
*Dibenzofuran	ug/l	1.1 J	0.95 J	11 J	8.8 J							11 J						
*Diethyl phthalate	ug/l							0.44 J										
*Dimethyl phthalate	ug/l					1.7 J	1.3 J	0.93 J	1 J	1.5 J							1.5 J	
Di-n-butyl phthalate	ug/l		0.72 J					0.46 J										
*Fluoranthene	ug/l	1.2	1.9 J	6.4	12	1.4 J	0.27 J	0.13			1.7 J	10 J				0.18	0.1 J	12
*Fluorene	ug/l	1.1	1.5 J	41	64	0.17					3.2 J	84	0.18			0.17	0.67	41
Hexachloroethane	ug/l																	
*Indeno(1,2,3-c,d)pyrene	ug/l		0.24		0.76 J			0.45	0.32	0.19	0.3	0.55	0.97 J		0.24		0.48	
*Naphthalene	ug/l	5.1	8.8		1.2	4.5 J	8.1 J		0.4	0.93 J	0.8 J	17	1,700 J	1.4 J	0.049 J		0.17	71	1,400
Pentachlorophenol	ug/l													0.11 J				0.16 J	
*Phenanthrene	ug/l	2.5	3.6 J	59	80				0.39	0.12	0.32	8.6	110	0.14 J	0.1 J	0.12 J	0.37 J	0.53 J	94

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28	MW-28	MW-28	MW-29	MW-29	MW-30
	Sample Number:	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S	GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)
	Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010
	Sample Type:	FD	S	N	S	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Phenol	ug/l		**1.9 J (O2)**		**7.5 J (O2)**														
*Pyrene	ug/l	0.75	1.5 J	7.7	15	2.8 J	9.1 J		0.24		0.16	2.9 J	16 J				0.17	0.13	15
*Total PAHs	ug/l	15.57	25.735	1,093	485.78	11.8	17.47	2.05	2.32	1.81	2.61	55.79	2,799	2.41	1.139	0.12	2.98	82.87	2,142

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-35	MW-35	MW-36
Sample Number:	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S
Sample Depth:	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010
Sample Type:	S	N	N	S	N	S	N	S	N	S	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
*1,2,4,5-tetrachlorobenzene	ug/l																	
2,4-dimethylphenol	ug/l																	
2,4-dinitrotoluene	ug/l																	
*2-methylnaphthalene	ug/l		310			970 J	1,100	0.035		1,400	1,300	3.4 J	770 J	630 J	3.8	400 J	100 J	110 J	18 J
*2-methylphenol (o-cresol)	ug/l																		
4-chloroaniline	ug/l																		
*4-methylphenol (p-cresol)	ug/l																		
*Acenaphthene	ug/l	490	180	0.3 J	0.95 J	370	350 J	1.1 J	1 J	190	180	1.9 J	250 J	190 J	100 J	310 J	79 J	75 J	69
*Acenaphthylene	ug/l		4.2 J					0.045	0.05 J	170	180		1.1 J			3.3 J	21	19	1.6 J
*Acetophenone	ug/l																		
*Anthracene	ug/l	21 J	5 J	0.057 J	0.066 J	23	19 J	0.49	0.18		23 J		7.7	7.2 J	21 J	26 J	12	14	4.6 J
*Benzaldehyde	ug/l																		
*Benzo(a)anthracene	ug/l							0.27	0.097 J								0.78	0.8	0.42
Benzo(a)pyrene	ug/l							0.19	0.15										
*Benzo(b)fluoranthene	ug/l							0.13	0.043 J								0.34	0.22	
*Benzo(g,h,i)perylene	ug/l							0.095									0.87	0.33	
*Benzo(k)fluoranthene	ug/l							0.2	0.042 J										
*Benzyl butyl phthalate	ug/l																		
Biphenyl (diphenyl)	ug/l	**43 J (O1)**	**19 (O1)**	0.012 J		**80 (O1)**	**88 J (O1)**	0.02		**63 (O1)**	**62 J (O1)**		**51 (O1)**	**36 (O1)**	**5.7 J (O1)**	**41 J (O1)**	**16 (O1)**	**15 (O1)**	2.9 J
Bis(2-chloroisopropyl) ether	ug/l																		
Bis(2-ethylhexyl) phthalate	ug/l											1.1 J	2.5 J	0.62 J			3.9 J	0.99 J	**5.8 (O1)**
*Caprolactam	ug/l																		
*Carbazole	ug/l										38 J		28	20			2.3 J	1.6 J	
*Chrysene	ug/l							0.29	0.086 J								0.44	0.64 J	0.21
*Dibenz(a,h)anthracene	ug/l							0.043											
*Dibenzofuran	ug/l										10 J		7.6	5.9	2.7 J	11 J	3.9 J	3.7 J	19
*Diethyl phthalate	ug/l																		
*Dimethyl phthalate	ug/l													1.5 J					
Di-n-butyl phthalate	ug/l																		
*Fluoranthene	ug/l	12 J		0.06 J	0.16 J	8.8 J		0.91 J	0.73 J		13 J		1.8 J	1.4 J	5.9 J	12 J	8.3	9.9	9.9
*Fluorene	ug/l	36 J	31	0.092 J		79	95 J	0.89	0.74	55	99 J	0.36	48	36	25 J		38	37	34
Hexachloroethane	ug/l																		
*Indeno(1,2,3-c,d)pyrene	ug/l							0.1									0.51	0.26	
*Naphthalene	ug/l	1,100	3,700		1.8 J	6,000	6,600	0.19	0.21	14,000	12,000	20	6,900	6,900		5.1 J	210 J	340 J	5.2
Pentachlorophenol	ug/l																0.13 J		
*Phenanthrene	ug/l	85 J	28	0.28 J		120	120 J	0.89	0.29	78	99 J	0.49	45	33 J	60 J	96 J	81 J	98 J	36

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33	MW-34	MW-34	MW-35	MW-35	MW-36
	Sample Number:	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S
	Sample Depth:	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010
	Sample Type:	S	N	N	S	N	S	N	S	N	S	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Phenol	ug/l											25 (O2)							
*Pyrene	ug/l	17 J	4.3 J	0.025 J		9.4 J		0.82	0.62 J		18 J		1.8 J	1.5 J	9.6	8.7	13	15	7.8
*Total PAHs	ug/l	1,761	4,263	0.814	2.976	7,580	8,284	6.688	4.238	15,893	13,912	26.15	8,025	7,799	225.3	861.1	565.24	720.15	186.73

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41	MW-41	MW-42	MW-42	MW-43	MW-43
Sample Number:		D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010
Sample Type:		FD	N	N	N	FD	N	N	N	N	N	N	S	N	S	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*1,2,4,5-tetrachlorobenzene	ug/l																		
2,4-dimethylphenol	ug/l										**63 (O2)**	**80 J (O2)**	**75 (O2)**						
2,4-dinitrotoluene	ug/l						**11 J (O1)**												
*2-methylnaphthalene	ug/l	31	65	0.19	32	30	0.16	3.1 J		220 J	0.88	110 J	110	1.7 J				28	24
*2-methylphenol (o-cresol)	ug/l										67	50 J	59						
4-chloroaniline	ug/l																		
*4-methylphenol (p-cresol)	ug/l										120	81 J	110						
*Acenaphthene	ug/l	74	320	1.2 J	23	23	35	2.2 J	28 J	62 J	0.41	170	180	4	6.7			8.7	7.5
*Acenaphthylene	ug/l	1.7 J	28		6.3 J	7.3 J	10	2.6 J		5.8 J	0.5	3.1	6.6 J	0.21 J	0.82			13	4.3 J
*Acetophenone	ug/l																		
*Anthracene	ug/l	4.8 J	9.7 J	0.72	5 J	5.3		1.6 J	2.9 J	8.1 J	1.1	22 J	24 J	2.3	3.9			9.1	6
*Benzaldehyde	ug/l																		
*Benzo(a)anthracene	ug/l	0.11	0.15	0.32	0.28	0.31		0.088 J	1.4				0.99 J		0.21 J			0.5	0.38 J
Benzo(a)pyrene	ug/l					0.19													
*Benzo(b)fluoranthene	ug/l					0.14		0.12										0.24	0.15
*Benzo(g,h,i)perylene	ug/l			0.34	0.39	0.79	0.13	0.45			0.068 J					0.11			0.49
*Benzo(k)fluoranthene	ug/l										0.07 J								
*Benzyl butyl phthalate	ug/l																		
Biphenyl (diphenyl)	ug/l	2.3 J	**39 (O1)**							**11 J (O1)**	0.21	**21 J (O1)**	**22 J (O1)**	0.82	1.4 J			1.5 J	**8.4 (O1)**
Bis(2-chloroisopropyl) ether	ug/l																		
Bis(2-ethylhexyl) phthalate	ug/l		2.9 J					1.1 J								1.1 J	2.4 J	2 J	1.3 J
*Caprolactam	ug/l										8.5 J								
*Carbazole	ug/l		20 J		0.72 J				3.9 J	8.2 J		77 J	56	2.4 J	2.6 J				1.5 J
*Chrysene	ug/l		0.08 J	0.18	0.16	0.18		0.059 J	0.97 J		0.074 J		0.69 J		0.19 J			0.27	0.23
*Dibenz(a,h)anthracene	ug/l					0.099 J										0.12			
*Dibenzofuran	ug/l	21	110		0.94 J	1 J				4.3 J		90 J	89	5 J	4.6 J			2.1 J	2.3 J
*Diethyl phthalate	ug/l																		
*Dimethyl phthalate	ug/l					1.3 J		2.1 J								1.8 J	2 J	1.6 J	1.2 J
Di-n-butyl phthalate	ug/l			0.34 J	0.44 J														
*Fluoranthene	ug/l	11	8.4 J	1.4 J	2.8 J	2.2 J	0.19	1.1 J	5.2 J	2.9	1.4	23 J	23 J	1.7	3.5	0.16		4.5 J	2.8 J
*Fluorene	ug/l	36	8.5 J	0.48	13	13	2.9 J	3.9 J	7.4 J	24 J	0.68	78 J	78	3.9	7.1			21	16
Hexachloroethane	ug/l									**33 J (O1)**									
*Indeno(1,2,3-c,d)pyrene	ug/l				0.17	0.36	0.12	0.29								0.16		0.25	0.3
*Naphthalene	ug/l	12 J	1 J	0.1	0.48	0.44	0.68	2.1 J	1	990 J		940	320	3 J	0.72	2.4 J	1.3 J	0.2	0.3
Pentachlorophenol	ug/l																		
*Phenanthrene	ug/l	43	110		3 J	7.2	0.21	9.1		38 J	4.2	150	150	14	19			18	21
Phenol	ug/l										**74 (O2)**	**33 J (O2)**	**64 (O2)**						

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41	MW-41	MW-42	MW-42	MW-43	MW-43
	Sample Number:	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I
	Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate
	Sample Date:	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010
	Sample Type:	FD	N	N	N	FD	N	N	N	N	N	N	S	N	S	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*Pyrene	ug/l	9.9 J	8.3 J	2.2 J	3.7 J	3.9 J	0.24	1.6 J	8.4 J	4.7	0.8	14 J	16 J	1	2.4			7.8	3.8 J
*Total PAHs	ug/l	223.51	559.13	7.13	90.28	94.409	49.63	28.307	55.27	1,356	10.182	1,510	909.28	31.81	44.54	2.95	1.3	111.56	87.25

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:	N	N	FD	N	N	N	N	N

Parameter	Units	Semi-Volatile Organic Compounds							
*1,2,4,5-tetrachlorobenzene	ug/l								
2,4-dimethylphenol	ug/l								
2,4-dinitrotoluene	ug/l				**69 J (O1)**				**100 J (O1)**
*2-methylnaphthalene	ug/l	0.27 J	0.86	0.53	5.9 J	900 J		390	790 J
*2-methylphenol (o-cresol)	ug/l								
4-chloroaniline	ug/l								
*4-methylphenol (p-cresol)	ug/l								
*Acenaphthene	ug/l	0.38 J	5.1	3.6 J	160	220	11	68 J	100 J
*Acenaphthylene	ug/l		0.76	0.47	1.1 J	7.7 J	3.3 J	110	170 J
*Acetophenone	ug/l								4 J
*Anthracene	ug/l		0.4	0.27	29 J	17 J		17 J	20
*Benzaldehyde	ug/l					150		44 J	76
*Benzo(a)anthracene	ug/l				1.3 J	2.1 J		4.5 J	0.79 J
Benzo(a)pyrene	ug/l			0.18	**0.85 (N1)**	**1.3 (N1)**		**2.1 (N1)**	**0.35 (N1)**
*Benzo(b)fluoranthene	ug/l			0.16	1	1.4		2.3	0.36
*Benzo(g,h,i)perylene	ug/l	0.71							0.12
*Benzo(k)fluoranthene	ug/l				0.29 J	0.39 J		0.61 J	0.086 J
*Benzyl butyl phthalate	ug/l								
Biphenyl (diphenyl)	ug/l				**14 J (O1)**	**55 (O1)**		**25 J (O1)**	**58 (O1)**
Bis(2-chloroisopropyl) ether	ug/l								
Bis(2-ethylhexyl) phthalate	ug/l	1.2 J				**7.2 J (O1)**	1.8 J		2.1 J
*Caprolactam	ug/l						0.98 J		
*Carbazole	ug/l					20 J		14 J	14
*Chrysene	ug/l				0.84	1.2		3	0.37
*Dibenz(a,h)anthracene	ug/l		0.12 J	0.14 J					
*Dibenzofuran	ug/l				7.9 J	11 J			
*Diethyl phthalate	ug/l								
*Dimethyl phthalate	ug/l	1.2 J					0.93 J		
Di-n-butyl phthalate	ug/l								
*Fluoranthene	ug/l	0.23	0.45 J	0.33	11 J	7.6 J		14 J	4 J
*Fluorene	ug/l	0.14	1.2 J	0.79	80	73	0.16	49 J	57 J
Hexachloroethane	ug/l								
*Indeno(1,2,3-c,d)pyrene	ug/l	0.4			0.68	0.96	0.12		0.24
*Naphthalene	ug/l	0.41	0.48	0.3	0.66 J	5,400 J	0.33	1,800 J	2,800 J
Pentachlorophenol	ug/l								
*Phenanthrene	ug/l	0.52 J	1.6 J	1.2 J	110	82	0.15 J	84 J	61 J
Phenol	ug/l								

TABLE I-33B
SVOC Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
	Sample Number:	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
	Sample Depth:	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
	Sample Date:	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
	Sample Type:	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**							
*Pyrene	ug/l	0.28	0.71	0.42	14 J	12 J		26 J	10
*Total PAHs	ug/l	3.34	11.68	8.39	416.62	6,727	15.06	2,571	4,014

TABLE I-34A
Pesticide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																		
											Pesticides								
Aldrin	ug/l	0.0091 U	0.056 U	0.0091 U	0.051 UJ	0.009 U	0.05 U	0.01 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Alpha BHC	ug/l	0.0023 U	0.056 U	0.0023 U	0.051 UJ	0.0023 U	0.05 U	0.0026 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.0023 U	0.056 U	0.0023 U	0.051 UJ	0.0023 U	0.05 U	0.0026 U	0.054 U	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 U	0.05 U
Alpha-chlordane	ug/l	0.0031 U	0.056 U	0.0031 U	0.051 UJ	0.003 U	0.05 U	0.0035 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Beta BHC	ug/l	0.0037 U	0.056 U	0.0037 U	0.051 UJ	0.0037 U	0.05 U	0.0041 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Beta endosulfan	ug/l	0.0034 U	0.11 U	0.0034 U	0.1 UJ	0.0033 U	0.1 U	0.0038 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Delta BHC	ug/l	0.0043 U	0.056 U	0.0043 U	0.051 UJ	0.0043 U	0.05 U	0.0048 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Dieldrin	ug/l	0.0014 U	0.11 U	0.0014 U	0.1 UJ	0.0014 U	0.1 U	0.0016 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.0069 U	0.11 U	0.0068 U	0.1 UJ	0.0067 U	0.1 U	0.0076 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Endrin	ug/l	0.0013 U	0.11 U	0.0013 U	0.1 UJ	0.0013 U	0.1 U	0.0015 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.0035 U	0.11 U	0.0035 U	0.1 UJ	0.0035 U	0.1 U	0.0039 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Endrin ketone	ug/l	0.0076 U	0.11 U	0.0075 U	0.1 UJ	0.0074 U	0.1 U	0.0085 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Gamma BHC	ug/l	0.0017 U	0.056 U	0.0017 U	0.051 UJ	0.0017 U	0.05 U	0.0019 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.0024 U	0.056 U	0.0024 U	0.051 UJ	0.0024 U	0.05 U	0.0027 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Heptachlor	ug/l	0.0039 U	0.056 U	0.0038 U	0.051 UJ	0.0038 U	0.05 U	0.0043 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.0025 U	0.056 U	0.0025 U	0.051 UJ	0.0025 U	0.05 U	0.0028 U	0.054 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U
Methoxychlor	ug/l	0.007 U	0.56 U	0.0069 U	0.51 UJ	0.0069 U	0.5 U	0.0078 U	0.54 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U
P,P'-DDD	ug/l	0.0037 U	0.11 U	0.0036 U	0.1 UJ	0.0036 U	0.1 U	0.0041 U	0.11 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
P,P'-DDE	ug/l	0.0022 U	0.11 U	0.0021 U	0.1 UJ	0.0021 U	0.1 U	0.0024 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
P,P'-DDT	ug/l	0.0039 U	0.11 U	0.0038 U	0.1 UJ	0.0038 U	0.1 U	0.0043 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Toxaphene	ug/l	0.26 U	5.6 U	0.25 U	5.1 UJ	0.25 U	5 U	0.28 U	5.4 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U
Total DDTs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND					ND	ND	ND	ND	ND	ND

TABLE I-34A
Pesticide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**											**Pesticides**							
Aldrin	ug/l	0.05 U	0.05 U	0.009 U	0.009 U	0.053 UJ	0.009 U	0.054 UJ	0.0091 U	0.009 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Alpha BHC	ug/l	0.05 U	0.05 U	0.0023 U	0.0023 U	0.053 UJ	0.0023 U	0.054 UJ	0.0023 U	0.0023 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Alpha endosulfan	ug/l	0.05 U	0.05 U	0.0023 U	0.0023 U	0.053 UJ	0.0023 U	0.054 UJ	0.0023 U	0.0023 U	0.055 U	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.003 U	0.003 U	0.053 UJ	0.003 U	0.054 UJ	0.0031 U	0.003 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Beta BHC	ug/l	0.05 U	0.05 U	0.0037 U	0.0037 U	0.053 UJ	0.0037 U	0.063 R	0.0037 U	0.0037 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Beta endosulfan	ug/l	0.1 U	0.1 U	0.0033 U	0.0033 U	0.11 UJ	0.0033 U	0.11 UJ	0.0034 U	0.0033 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Delta BHC	ug/l	0.05 U	0.05 U	0.0043 U	0.0043 U	0.053 UJ	0.0043 U	0.054 UJ	0.0043 U	0.0043 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Dieldrin	ug/l	0.1 U	0.1 U	0.0014 U	0.0014 U	0.11 UJ	0.0014 U	0.11 UJ	0.0014 U	0.0014 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.0067 U	0.0067 U	0.11 UJ	0.0067 U	0.11 UJ	0.0069 U	0.0067 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin	ug/l	0.1 U	0.1 U	0.0013 U	0.0013 U	0.11 UJ	0.0013 U	0.11 UJ	0.0013 U	0.0013 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.0035 U	0.0035 U	0.11 UJ	0.0035 U	0.11 UJ	0.0035 U	0.0035 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Endrin ketone	ug/l	0.1 U	0.1 U	0.0074 U	0.0074 U	0.11 UJ	0.0074 U	0.11 UJ	0.0076 U	0.0074 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Gamma BHC	ug/l	0.05 U	0.05 U	0.0017 U	0.0017 U	0.053 UJ	0.0017 U	0.054 UJ	0.0017 U	0.0017 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.0024 U	0.0024 U	0.053 UJ	0.0024 U	0.054 UJ	0.0024 U	0.0024 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor	ug/l	0.05 U	0.05 U	0.0038 U	0.0038 U	0.053 UJ	0.0038 U	0.054 UJ	0.0039 U	0.0038 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.0025 U	0.0025 U	0.053 UJ	0.0025 U	0.054 UJ	0.0025 U	0.0025 U	0.055 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 UJ
Methoxychlor	ug/l	0.5 U	0.5 U	0.0069 U	0.0069 U	0.53 UJ	0.0069 U	0.54 UJ	0.007 U	0.0069 U	0.55 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ
P,P'-DDD	ug/l	0.1 U	0.1 U	0.0036 U	0.0036 U	0.11 UJ	0.0036 U	0.11 UJ	0.0037 U	0.0036 U	0.11 U	0.1 U	0.1 U	0.1 UR	0.1 UR	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
P,P'-DDE	ug/l	0.1 U	0.1 U	0.0021 U	0.0021 U	0.11 UJ	0.0021 U	0.11 UJ	0.0022 U	0.0021 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
P,P'-DDT	ug/l	0.1 U	0.1 U	0.0038 U	0.0038 U	0.11 UJ	0.0038 U	0.11 UJ	0.0039 U	0.0038 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ
Toxaphene	ug/l	5 U	5 U	0.25 U	0.25 U	5.3 UJ	0.25 U	5.4 UJ	0.26 U	0.25 U	5.5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ
Total DDTs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND

TABLE I-34A
Pesticide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Number:		GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
Sample Date:		7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:		N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0092 U	0.056 U	0.0092 U	0.052 UJ	0.009 U	0.049 UJ	0.009 U	0.047 UJ	0.0095 U	0.049 UJ	0.0097 U	0.05 UJ	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0023 U	0.056 U	0.0023 U	0.052 UJ	0.0023 U	0.049 UJ	0.0023 U	0.047 UJ	0.0024 U	0.049 UJ	0.0024 U	0.05 UJ	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0024 U	0.056 U	0.0024 U	0.052 UJ	**0.15**	**0.046 J**	0.0023 U	0.047 UJ	0.0024 U	0.049 UJ	0.0025 U	0.05 UJ	0.05 U
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0031 U	0.056 U	0.0031 U	0.052 UJ	0.003 U	0.049 UJ	0.003 U	0.047 UJ	0.0032 U	0.049 UJ	0.0033 U	0.05 UJ	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0038 U	0.056 U	0.0038 U	0.052 UJ	0.0037 U	0.049 UJ	0.0037 U	0.047 UJ	0.0039 U	0.049 UJ	0.004 U	0.05 UJ	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0034 U	0.11 U	0.0034 U	0.1 UJ	0.0033 U	0.098 UJ	0.0033 U	0.094 UJ	0.0036 U	0.098 UJ	0.0036 U	0.099 UJ	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0044 U	0.056 U	0.0044 U	0.052 UJ	0.0043 U	0.049 UJ	0.0043 U	0.047 UJ	0.0045 U	0.049 UJ	0.0046 U	0.05 UJ	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0014 U	0.11 U	0.0014 U	0.1 UJ	0.0014 U	0.098 UJ	0.0014 U	0.094 UJ	0.0015 U	0.098 UJ	0.0015 U	0.099 UJ	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0069 U	0.11 U	0.0069 U	0.1 UJ	0.0067 U	0.098 UJ	0.0067 U	0.094 UJ	0.0072 U	0.098 UJ	0.0073 U	0.099 UJ	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0014 U	0.11 U	0.0014 U	0.1 UJ	0.0013 U	0.098 UJ	0.0013 U	0.094 UJ	0.0014 U	0.098 UJ	0.0014 U	0.099 UJ	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0036 U	0.11 U	0.0036 U	0.1 UJ	0.0035 U	0.098 UJ	0.0035 U	0.094 UJ	0.0037 U	0.098 UJ	0.0038 U	0.099 UJ	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0077 U	0.11 U	0.0077 U	0.1 UJ	0.0074 U	0.098 UJ	0.0074 U	0.094 UJ	0.0079 U	0.098 UJ	0.0081 U	0.099 UJ	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0017 U	0.056 U	0.0017 U	0.052 UJ	0.0017 U	0.049 UJ	0.0017 U	0.047 UJ	0.0018 U	0.049 UJ	0.0018 U	0.05 UJ	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0025 U	0.056 U	0.0025 U	0.052 UJ	0.0024 U	0.049 UJ	0.0024 U	0.047 UJ	0.0025 U	0.049 UJ	0.0026 U	0.05 UJ	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0039 U	0.056 U	0.0039 U	0.052 UJ	0.0038 U	0.049 UJ	0.0038 U	0.047 UJ	0.0041 U	0.049 UJ	0.0041 U	0.05 UJ	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.0026 U	0.056 U	0.0026 U	0.052 UJ	0.0025 U	0.049 UJ	0.0025 U	0.047 UJ	0.0026 U	0.049 UJ	0.0027 U	0.05 UJ	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.0071 U	0.56 U	0.0071 U	0.52 UJ	0.0069 U	0.49 UJ	0.0069 U	0.47 UJ	0.0073 U	0.49 UJ	0.0075 U	0.5 UJ	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.0037 U	0.11 U	0.0037 U	0.1 UJ	0.0036 U	0.098 UJ	0.0036 U	0.094 UJ	0.0038 U	0.098 UJ	0.0039 U	0.099 UJ	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0022 U	0.11 U	0.0022 U	0.1 UJ	0.0021 U	0.098 UJ	0.0021 U	0.094 UJ	0.0022 U	0.098 UJ	0.0023 U	0.099 UJ	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0039 U	0.11 U	0.0039 U	0.1 UJ	0.0038 U	0.098 UJ	0.0038 U	0.094 UJ	0.004 U	0.098 UJ	0.0041 U	0.099 UJ	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	0.26 U	5.6 U	0.26 U	5.2 UJ	0.25 U	4.9 UJ	0.25 U	4.7 UJ	0.27 U	4.9 UJ	0.27 U	5 UJ	5 U
Total DDTs	ug/l			ND			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

TABLE I-34A
Pesticide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
Sample Number:	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S-A
Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010
Sample Type:	FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 UR	0.05 UR	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	**0.039 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.049 UJ	0.049 UJ	0.048 UJ	0.056 UJ	0.048 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.49 UJ	0.49 UJ	0.48 UJ	0.56 UJ	0.48 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.097 UJ	0.098 UJ	0.095 UJ	0.11 UJ	0.096 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	4.9 UJ	4.9 UJ	4.8 UJ	5.6 UJ	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		

TABLE I-34A
Pesticide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33
Sample Number:		GC-MW28I	D-07212010-01	GC-MW29S-A	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate
Sample Date:		7/21/2010	7/21/2010	7/22/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010
Sample Type:		N	FD	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N	FD
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	**0.11 J**	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 UR	0.05 UR	0.05 UR
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	**0.098 J**	0.051 U	0.048 U	0.048 U	**0.084 J**	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.047 UJ	0.047 UJ	0.051 U	0.048 U	0.048 U	0.047 UJ	0.052 U	0.05 U	0.052 U	0.05 UJ	0.047 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.47 UJ	0.47 UJ	0.51 U	0.48 U	0.48 U	0.47 UJ	0.52 U	0.5 U	0.52 U	0.5 UJ	0.47 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 U	0.1 U	0.1 UR	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.095 UJ	0.094 UJ	0.1 U	0.096 U	0.096 U	0.094 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ	0.095 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	4.7 UJ	4.7 UJ	5.1 U	4.8 U	4.8 U	4.7 UJ	5.2 U	5 U	5.2 U	5 UJ	4.7 U	5 U	5 U	5 U
Total DDTs	ug/l	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-34A
Pesticide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41
Sample Number:		GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW-41I(53-58)
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate
Sample Date:		7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S	N
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Alpha BHC	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Alpha endosulfan	ug/l	0.05 UR	0.05 UR	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Alpha-chlordane	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Beta BHC	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Beta endosulfan	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
Delta BHC	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Dieldrin	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
Endosulfan sulfate	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
Endrin	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
Endrin aldehyde	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
Endrin ketone	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
Gamma BHC	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Gamma-chlordane	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Heptachlor	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Heptachlor epoxide	ug/l	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.051 UJ	0.05 UJ	0.047 UJ	0.052 U
Methoxychlor	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.51 UJ	0.5 UJ	0.47 UJ	0.52 U
P,P'-DDD	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 U	0.1 UR	0.1 UR	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
P,P'-DDE	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
P,P'-DDT	ug/l	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.099 UJ	0.094 UJ	0.1 U
Toxaphene	ug/l	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	5 U	5.1 UJ	5 UJ	4.7 UJ	5.2 U
Total DDTs	ug/l	ND	ND	ND	ND							ND	ND			ND	ND	ND	ND

TABLE I-34A
Pesticide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**												
Aldrin	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Alpha BHC	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Alpha endosulfan	ug/l	0.047 U	0.05 UR	0.05 UR	0.05 U	0.05 U	0.05 U	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR
Alpha-chlordane	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Beta BHC	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Beta endosulfan	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Delta BHC	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Dieldrin	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endosulfan sulfate	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endrin	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endrin aldehyde	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Endrin ketone	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Gamma BHC	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Gamma-chlordane	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Heptachlor epoxide	ug/l	0.047 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ
Methoxychlor	ug/l	0.47 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ
P,P'-DDD	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UR	0.1 UR	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
P,P'-DDE	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
P,P'-DDT	ug/l	0.094 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 UJ
Toxaphene	ug/l	4.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ
Total DDTs	ug/l	ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND

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TABLE I-34B
Pesticide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-18	MW-18	MW-23	MW-30	MW-31
	Sample Number:	GC-MW18S	GC-MW18S-S-NYC	GC-MW23I-S-NG	GC-MW30S-S-NG	GC-MW31I(30-35)
	Sample Depth:	Shallow	Shallow	Intermediate	Shallow	Intermediate
	Sample Date:	6/28/2010	6/28/2010	7/20/2010	7/21/2010	7/22/2010
	Sample Type:	N	S	S	S	N
Parameter	**Units**	**Pesticides**				
*Alpha endosulfan	ug/l	0.15	0.046 J			0.11 J
Beta BHC	ug/l				**0.098 J (O1)**	**0.084 J (O1)**
Delta BHC	ug/l			0.039 J		

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TABLE I-35A
PCB Aroclor Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	0.31 U	1 U	0.3 U	1.1 U	0.3 U	1.1 U	0.34 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	0.42 U	1 U	0.41 U	1.1 U	0.41 U	1.1 U	0.47 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	0.32 U	1 U	0.31 U	1.1 U	0.31 U	1.1 U	0.35 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	0.28 U	1 U	0.27 U	1.1 U	0.27 U	1.1 U	0.31 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	0.29 U	1 U	0.28 U	1.1 U	0.28 U	1.1 U	0.32 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	0.18 U	1 U	0.18 U	1.1 U	0.18 U	1.1 U	0.2 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	0.14 U	1 U	0.14 U	1.1 U	0.14 U	1.1 U	0.16 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	0.1 U	1 U	0.1 U	1.1 U	0.1 U	1.1 U	0.11 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	0.12 U	1 U	0.12 U	1.1 U	0.12 U	1.1 U	0.14 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-35A
PCB Aroclor Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	0.3 U	0.3 U	1.1 UJ	0.3 U	1.1 UJ	0.31 U	0.3 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	0.41 U	0.41 U	1.1 UJ	0.41 U	1.1 UJ	0.42 U	0.41 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	0.31 U	0.31 U	1.1 UJ	0.31 U	1.1 UJ	0.32 U	0.31 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	0.27 U	0.27 U	1.1 UJ	0.27 U	1.1 UJ	0.28 U	0.27 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	0.28 U	0.28 U	1.1 UJ	0.28 U	1.1 UJ	0.29 U	0.28 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	0.18 U	0.18 U	1.1 UJ	0.18 U	1.1 UJ	0.18 U	0.18 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	0.14 U	0.14 U	1.1 UJ	0.14 U	1.1 UJ	0.14 U	0.14 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	0.1 U	0.1 U	1.1 UJ	0.1 U	1.1 UJ	0.1 U	0.1 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	0.12 U	0.12 U	1.1 UJ	0.12 U	1.1 UJ	0.12 U	0.12 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-35A
PCB Aroclor Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Number:		GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
Sample Date:		7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:		N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	0.31 U	0.94 U	0.31 U	0.95 U	0.3 U	1 U	0.3 U	0.97 U	0.32 U	1 U	0.33 U	0.94 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	0.42 U	0.94 U	0.42 U	0.95 U	0.41 U	1 U	0.41 U	0.97 U	0.44 U	1 U	0.45 U	0.94 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	0.32 U	0.94 U	0.32 U	0.95 U	0.31 U	1 U	0.31 U	0.97 U	0.33 U	1 U	0.34 U	0.94 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	0.28 U	0.94 U	0.28 U	0.95 U	0.27 U	1 U	0.27 U	0.97 U	0.29 U	1 U	0.29 U	0.94 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	0.29 U	0.94 U	0.29 U	0.95 U	0.28 U	1 U	0.28 U	0.97 U	0.3 U	1 U	0.3 U	0.94 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	0.19 U	0.94 U	0.19 U	0.95 U	0.18 U	1 U	0.18 U	0.97 U	0.19 U	1 U	0.2 U	0.94 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	0.14 U	0.94 U	0.14 U	0.95 U	0.14 U	1 U	0.14 U	0.97 U	0.15 U	1 U	0.15 U	0.94 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	0.1 U	0.94 U	0.1 U	0.95 U	0.1 U	1 U	0.1 U	0.97 U	0.11 U	1 U	0.11 U	0.94 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	0.12 U	0.94 U	0.12 U	0.95 U	0.12 U	1 U	0.12 U	0.97 U	0.13 U	1 U	0.13 U	0.94 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-35A
PCB Aroclor Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
Sample Number:	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S-A
Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010
Sample Type:	FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	0.49 U	0.49 U	0.99 U	0.56 U	1.1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-35A
PCB Aroclor Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33	MW-33
Sample Number:		GC-MW28I	D-07212010-01	GC-MW29S	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I	D-07152010-01
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate
Sample Date:		7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/15/2010
Sample Type:		N	FD	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N	FD
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	0.47 U	1 U	0.51 U	0.48 U	0.97 U	0.47 UJ	1 UJ	0.5 U	0.99 U	0.5 U	0.95 UJ	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-35A
PCB Aroclor Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41	MW-41
Sample Number:		GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG	GC-MW-41I(53-58)
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate
Sample Date:		7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010	7/19/2010
Sample Type:		N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.51 U	0.5 UJ	0.95 U	0.52 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-35A
PCB Aroclor Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**												
Aroclor 1016	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	0.99 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	ug/l	**1,190**	**270**	**9,610**	**6,070**	7.8 U	200 U	**1,820**	**1,200**	3,000 U	3,000 U	**1,660 J**	3,000 U	200 U	200 U	200 U	2,000 U	3,000 U	200 U
Aluminum, dissolved	ug/l		200 U		200 U		200 U		200 U	3,000 U	200 U	200 U	**838**	200 U	200 U	200 U	2,000 U	3,000 U	200 U
Antimony	ug/l	2.2 U	2 U	2.2 U	2 U	2.2 U	2 U	2.2 U	2 U	20 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	20 U	2 U
Antimony, dissolved	ug/l		2 U		2 U		2 U		2 U	20 U	2 U	2 U	2 U	2 U	20 U	2 U	20 U	20 U	2 U
Arsenic	ug/l	1.4 U	**2.9**	**21.1**	**20.6**	**4.3**	**4.8**	1.4 U	1 R	**23.9**	0.73 R	**6.1**	**2.1**	**3.5**	**8.2 J**	**2.1**	**44.6**	**13.3 J**	**1.7 J**
Arsenic, dissolved	ug/l		**2.1**		1 U		**1.7**		14.8 R	**5.1 J**	1.8 R	**5.5**	**2.2**	**3.5 J**	**8.4 J**	**1.9 J**	**58.7**	**13.3 J**	**1.3 J**
Barium	ug/l	0.44 U	**180**	0.44 U	123 R	0.44 U	**65.3**	**260**	**267**	59.3 R	**156**	**542**	**176**	**176**	**279**	**83.5**	**1,470**	**156**	**1,090**
Barium, dissolved	ug/l		**166**		222 R		**57**		**52.9**	1,540 R	**5.3 J**	**443**	**179**	**181 J**	**295 J**	**87.8 J**	**1,890 J**	**160**	**970**
Beryllium	ug/l	0.24 U	1 U	**2.1**	1 U	0.24 U	1 U	0.24 U	1 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	10 U	1 U
Beryllium, dissolved	ug/l		1 U		1 U		1 U		1 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	10 U	1 U
Cadmium	ug/l	0.35 U	1 U	0.35 U	**0.3 J**	0.35 U	1 U	0.35 U	1 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	10 U	1 U
Cadmium, dissolved	ug/l		1 U		1 U		1 U		1 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	10 U	1 U
Calcium	ug/l	**182,000**	**191,000**	**88,800**	**93,900**	**56,700**	**55,300**	**43,300**	43,900 R	**310,000**	**72,300 J**	**135,000**	**46,100 J**	**86,000**	**71,300**	**98,600**	**159,000**	**297,000 J**	**92,700 J**
Calcium, dissolved	ug/l		**186,000**		**43,000**		**54,200**		89,500 R	**339,000**	**64,100**	**111,000**	**40,900**	**80,200**	**70,400**	**95,800**	**157,000**	**292,000**	**91,800**
Chromium	ug/l	0.59 U	2 U	**26.5**	**15.2**	0.59 U	2 U	0.59 U	**2.7**	**5 J**	**0.66 J**	**25.8**	2 UR	**3 J**	20 UJ	**2.6 J**	**3.8 J**	**14.8 J**	**15.5 J**
Chromium, dissolved	ug/l		2 U		**4.6**		2 U		2 U	**4.6 J**	**0.53 J**	**12.2**	3.7 R	**0.65 J**	20 UJ	**1.5 J**	20 UJ	**8.7 J**	**7.1 J**
Cobalt	ug/l	0.65 U	1 U	0.65 U	**5.1**	0.65 U	1 U	0.65 U	1 U	10 U	**0.87 J**	**3.6**	**0.38 J**	**0.78 J**	10 U	**0.91 J**	10 U	10 U	**2.9**
Cobalt, dissolved	ug/l		1 U		1 U		1 U		1 U	**9.3 J**	1 U	**3.3**	**1**	**0.82 J**	10 U	**1.2**	10 U	10 U	**2.6**
Copper	ug/l	**30.9**	**2.7**	**54.8**	**34.6**	**23.3**	**2.6**	**36.2**	**5.9**	375 U	375 U	375 U	375 U	25 U	25 U	**5.3 J**	**38 J**	375 U	**28.5**
Copper, dissolved	ug/l		**0.98 J**		**0.9 J**		**2.8**		**0.55 J**	375 U	25 U	25 U	25 U	25 U	25 U	25 U	250 U	375 U	25 U
Iron	ug/l	**3,950**	**1,640**	**19,900**	**16,700**	**5,480**	**4,380**	**4,540**	**3,020**	1,500 U	**930 J**	**20,900**	664 R	**2,400**	**3,450**	**3,630**	**42,300**	1,500 U	**6,290 J**
Iron, dissolved	ug/l		100 U		100 U	**454**	**1,000**	18 U	100 U	1,500 UJ	**817 J**	**13,800 J**	2,170 R	**1,960**	**2,920**	**3,520**	**41,100**	1,500 U	**6,040**
Lead	ug/l	**28.3**	**9.8**	**103**	**107**	**4.4**	**2.3**	**8.1**	**4.2**	**5.9 J**	**1.8**	**11.3**	1 UR	**2.6**	10 U	**1.9**	10 U	10 U	**0.66 J**
Lead, dissolved	ug/l		**2.4**		1 U		1 U		1 U	10 U	1 U	**0.52 J**	2.8 R	1 U	10 U	1 U	10 U	10 U	1 U
Magnesium	ug/l	**116,000**	**121,000**	**55,500**	**57,600**	**11,600**	**10,700**	**42,400**	**43,700 J**	**770,000**	**50,900 J**	**92,200**	**41,500 J**	**15,700**	**66,100**	**6,540**	**371,000**	**845,000 J**	**141,000 J**
Magnesium, dissolved	ug/l		**118,000**		**42,000**		**10,100**		**54,200 J**	**870,000**	**45,700**	**81,500**	**37,500**	**14,900**	**63,900**	**6,560**	**354,000**	**824,000**	**138,000**
Manganese	ug/l	**727**	**708**	**495**	**490**	**366**	**330**	**515**	**500**	34.6 R	**2,070**	**1,230**	**823**	**297**	**2,210**	**355**	**269**	**583**	**929**
Manganese, dissolved	ug/l		**681**		**448**	**381**	**318**	**523**	**350**	21,600 R	**4.2**	**1,140**	**843**	**300 J**	**2,390 J**	**380 J**	**351 J**	**551**	**862**
Mercury	ug/l	0.082 U	0.2 U	**0.61**	**0.48**	0.082 U	0.2 U	0.082 U	0.2 U	**0.078 J**	**0.09 J**	**0.12 J**	**0.077 J**	0.2 U	0.2 U	0.2 U	0.2 U	**0.087 J**	**0.066 J**
Mercury, dissolved	ug/l		0.2 U		0.2 U		0.2 U		0.2 U	**0.062 J**	0.086 U	**0.096 J**	**0.1 J**	0.2 U	0.2 U	0.2 U	0.2 U	**0.077 J**	**0.073 J**
Nickel	ug/l	0.51 U	**4.8**	**23.5**	**18.8**	0.51 U	1.9 R	**15.9**	**5.3**	5.3 R	**1 J**	**30.7 J**	1.6 R	**2.9 J**	**2.2 J**	**1.9 J**	**2 J**	**14.1 J**	**194 J**
Nickel, dissolved	ug/l		**5.6**		**3.2**		8.1 R		**3**	12.1 R	**0.64 J**	**34.7 J**	4.6 R	**3.8 J**	**7.3 J**	**1.6 J**	10 UJ	**9.9 J**	**193 J**
Potassium	ug/l	**39,900**	**41,500**	**14,900**	14,300 R	**22,900**	**21,300**	**23,900**	**24,400**	**254,000**	75,000 U	**42,200 J**	75,000 U	**26,300**	**21,700**	**7,210**	**124,000**	**291,000 J**	**75,100 J**
Potassium, dissolved	ug/l		**40,100**		23,400 R		**20,700**		**13,200**	**292,000**	**10,900**	**41,800**	**12,000**	**26,800**	**21,300**	**7,130**	**120,000**	**283,000**	**75,500**
Selenium	ug/l	1.9 U	**9.4**	1.9 U	**0.56 J**	1.9 U	**0.73 J**	1.9 U	5 U	**51.2 J**	**0.93 J**	**1.6 J**	5 UJ	5 UR	50 UR	5 UR	19.8 R	26.6 R	5 UR
Selenium, dissolved	ug/l		**8.3**		**0.47 J**		**0.97 J**		5 U	50 U	**3.8 J**	**0.97 J**	5 U	5 UR	50 UR	5 UR	14.2 R	24.6 R	5 UR
Silver	ug/l	0.53 U	1 U	0.53 U	1 U	0.53 U	1 U	0.53 U	1 U	10 U	1 U	**0.22 J**	1 U	1 U	10 U	1 U	10 U	10 UJ	1 UJ

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:		GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:		Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:		N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l		1 UJ		1 UJ		1 UJ		1 UJ	10 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	10 UJ	1 UJ
Sodium	ug/l	**629,000**	**763,000**	**89,100**	**92,800**	**116,000**	**106,000**	**55,400**	58,100 R	**5,700,000 J**	**196,000**	**309,000**	**177,000**	**122,000**	**494,000**	**15,500**	**3,020,000**	**6,680,000**	**1,380,000**
Sodium, dissolved	ug/l		**769,000**		**57,200**		**101,000**		92,200 R	**7,130,000 J**	**191,000**	**313,000**	**167,000**	**125,000**	**450,000**	**17,700**	**2,910,000**	**6,270,000**	**1,380,000**
Thallium	ug/l	1.8 U	1 U	1.8 U	1 U	1.8 U	1 U	1.8 U	1 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	10 U	1 U
Thallium, dissolved	ug/l		1 U		1 U		1 U		1 U	10 U	1 U	1 U	1 U	1 U	10 U	1 U	10 U	10 U	1 U
Vanadium	ug/l	0.56 U	5 U	0.56 U	**13.3**	0.56 U	5 U	0.56 U	5 U	50 U	5 U	**4.8 J**	5 U	5 U	50 U	**1.3 J**	50 U	50 U	**3.6 J**
Vanadium, dissolved	ug/l		5 U		5 U		5 U		5 U	50 U	5 U	**1.2 J**	**1.5 J**	5 U	50 U	5 U	50 U	50 U	**3.4 J**
Zinc	ug/l	**25**	54.9 R	**93.1**	135 R	1.4 U	58 R	**61.8**	51.5 R	**42.9 J**	**4.6 J**	**17.3**	2 R	**9.8**	20 U	**26.3**	20 U	**12.3 J**	**20.2 J**
Zinc, dissolved	ug/l		**50.1**		**52.5**		**40.6**		**50.1**	**17.9 J**	2 U	**8.8**	60.3 R	**1.6 J**	20 U	**4.4**	20 U	20 UJ	**32 J**
Cyanide, Total	ug/l	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Aluminum	ug/l	200 U	200 U	**10,400**	**7,530**	**9,020**	**4,350**	**14,500**	7.8 U	**964**	**1,210**	200 U	200 U	2,480 R	200 U	**396**	200 U	200 U	**478**
Aluminum, dissolved	ug/l	200 U	200 U			200 U		200 U			200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Antimony	ug/l	2 U	2 U	2.2 U	2.2 U	**2.9**	2.2 U	2 U	2.2 U	2.2 U	2 U	2 U	2 U	**2.1**	2 U	2 U	2 U	2 U	2 U
Antimony, dissolved	ug/l	2 U	2 U			2 U		2 U			2 U	2 U	2 U	**3**	2 U	2 U	2 U	2 U	2 U
Arsenic	ug/l	**6.8 J**	**8.5 J**	**31.5**	**29.6**	**31.6**	**93.3**	**94.3**	**10.7**	**3.2**	**2.5**	**5 J**	**18.3 J**	**27.8 J**	**10.9 J**	**7.9**	**4.6**	2.2 R	**5.5**
Arsenic, dissolved	ug/l	**6.7 J**	**8.5 J**			**9.3**		**58**			**1.9**	**5.1**	**21.8**	**28.9**	**12.3**	**8.2**	**1.9 J**	4.7 R	**2.9 J**
Barium	ug/l	**201**	**423**	0.44 U	0.44 U	**227**	**450**	**488**	0.44 U	0.44 U	**136**	**428**	**1,050**	**275**	**148**	**264**	**644**	**171**	**423**
Barium, dissolved	ug/l	**194**	**401**			**23.4**		**255**			**133**	**450**	**1,070**	**258**	**154**	**264 J**	**625 J**	**170 J**	**389 J**
Beryllium	ug/l	1 U	1 U	0.21 U	0.21 U	1 U	0.21 U	**1.2**	0.21 U	0.21 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Beryllium, dissolved	ug/l	1 U	1 U			1 U		1 U			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/l	1 U	1 U	0.35 U	0.35 U	**0.68 J**	0.35 U	**0.57 J**	0.35 U	0.35 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium, dissolved	ug/l	1 U	1 U			1 U		1 U			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Calcium	ug/l	**75,300 J**	**96,000 J**	**381,000**	**391,000**	**467,000**	**73,800**	**75,900**	**183,000**	**85,000**	**84,600**	**164,000**	**70,100**	**74,100**	**94,900**	**90,300**	**171,000**	**97,900**	**55,400**
Calcium, dissolved	ug/l	**73,900**	**93,700**			**492,000**		**75,300**			**86,900**	**161,000**	**67,300**	**73,600**	**91,400**	**91,300**	**177,000**	**95,400**	**54,200**
Chromium	ug/l	**5.2 J**	**1.7 J**	**41**	**22.2**	**23.2**	**13.2**	**38.9**	0.56 U	0.59 U	**2.5**	**13 J**	**5 J**	**34.5 J**	**1.5 J**	**17.5 J**	**2.5 J**	**0.56 J**	**2.8 J**
Chromium, dissolved	ug/l	**2.2 J**	**0.91 J**			2 U		2 U			2 U	**4.4**	**0.57 J**	**1.5 J**	**1.7 J**	**1.4 J**	2 UJ	**0.42 J**	2 UJ
Cobalt	ug/l	**0.39 J**	**0.67 J**	0.65 U	0.65 U	**5**	0.65 U	**17.8**	0.65 U	0.65 U	**3.6**	**0.86 J**	**1.6**	**4**	**2**	**1**	**1.3**	**0.68 J**	**0.5 J**
Cobalt, dissolved	ug/l	**0.36 J**	**0.65 J**			**1.1**		1 U			**3**	**1**	**0.52 J**	**2.5**	**2.3**	**0.93 J**	**1.3**	**0.62 J**	**0.33 J**
Copper	ug/l	25 U	**3.9 J**	**107**	**78.2**	**61.9**	**19.2**	**61.5**	2.5 U	2.5 U	**3.7**	25 U	25 U	**308**	25 U	**2.9 J**	25 U	25 U	25 U
Copper, dissolved	ug/l	25 U	25 U			**0.55 J**		**0.35 J**			**0.5 J**	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Iron	ug/l	**5,850 J**	**4,650 J**	**18,500**	**18,400**	**28,700**	**13,700**	**26,100**	**617**	**1,190**	**2,190**	**9,270**	**5,050**	**26,700**	**20,400**	**9,880**	**8,910**	**1,280**	**11,900**
Iron, dissolved	ug/l	**5,600**	**4,300**	18 U	**226**	**3,460**	18 U	**514**			100 U	**9,250**	**4,560**	**19,600**	**18,800**	**6,080**	**8,320**	**1,180**	**9,920**
Lead	ug/l	**0.81 J**	**0.44 J**	**293**	**263**	**395**	**277**	**472**	1.9 U	**19.2**	**14.3**	**0.77 J**	**0.53 J**	**89.4**	**3.1**	**2.2**	1.4 R	1 U	**0.94 J**
Lead, dissolved	ug/l	1 U	1 U			1 U		1 U			1 U	1 U	1 U	**4.3 J**	1 U	1 U	1 U	1 U	1 U
Magnesium	ug/l	**14,800 J**	**58,100 J**	**58,100**	**67,800**	**96,600**	**67,400**	**66,200**	**34,000**	**49,900**	**45,300**	**33,600**	**39,400**	**14,300**	**34,400**	**39,400**	**132,000**	**15,500**	**108,000**
Magnesium, dissolved	ug/l	**14,400**	**55,700**			**112,000**		**67,100**			**46,200**	**33,400**	**38,200**	**13,100**	**33,400**	**39,300**	**137,000**	**14,400**	**107,000**
Manganese	ug/l	**560**	**1,600**	**744**	**830**	**1,020**	**831**	**806**	**2,080**	**2,210**	**2,000**	**1,830 J**	**3,860 J**	**3,880 J**	**2,550 J**	**1,180**	**8,860**	**3,000**	**3,360**
Manganese, dissolved	ug/l	**569**	**1,580**	**614**	**696**	**1,020**	**796**	**728**			**2,150**	**1,970**	**3,920**	**4,140**	**2,700**	**1,230 J**	**8,440 J**	**3,190 J**	**3,450 J**
Mercury	ug/l	**0.09 J**	**0.081 J**	**1.6**	**0.62**	**1.4**	0.082 U	**0.36**	0.082 U	0.082 U	0.2 U	**0.069 J**	**0.093 J**	**0.17 J**	**0.091 J**	0.2 U	0.2 U	0.2 U	0.2 U
Mercury, dissolved	ug/l	**0.084 J**	**0.078 J**			0.2 U		0.2 U			0.2 U	0.2 U	0.2 U	0.2 U	0.082 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**4.9 J**	**1.8 J**	**30.3**	**20.6**	**22.9**	**12.6**	**31**	0.51 U	0.51 U	**4.2**	**12.7 J**	**3.7 J**	**33.6 J**	**2.8 J**	**22.4 J**	**3.5 J**	**6.2 J**	**2.7 J**
Nickel, dissolved	ug/l	**4.3 J**	**1.6 J**			**10.7**		**4.8**			**2.7**	**12.8 J**	**1.5 J**	**4.6 J**	**4.3 J**	**22.2 J**	**3.3 J**	**5.4 J**	**1.2 J**
Potassium	ug/l	**27,400 J**	**24,900 J**	**72,000**	**78,900**	**87,400**	**37,800**	**35,400**	**18,700**	**22,000**	**22,600**	**27,600**	**8,480**	**19,800**	**22,600**	**33,100**	**34,600**	**15,400**	**40,400**
Potassium, dissolved	ug/l	**27,400**	**24,100**			**94,300**		**35,700**			**23,400**	**27,300**	**8,200**	**19,600**	**21,700**	**33,500**	**35,500**	**15,000**	**40,000**
Selenium	ug/l	5 UR	1 R	1.9 U	1.9 U	**14.1**	1.9 U	**5.8**	1.9 U	1.9 U	5 U	**1 J**	5 U	**1.5 J**	**1.1 J**	5 UR	5 UR	5 UR	5 UR
Selenium, dissolved	ug/l	5 UR	2.3 R			**14**		**5.8**			**0.61 J**	**1.3 J**	5 U	**1.4 J**	**1.6 J**	5 UR	5 UR	5 UR	5 UR
Silver	ug/l	1 UJ	1 UJ	0.53 U	0.53 U	1 U	0.53 U	1 U	0.53 U	0.53 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**																		
												Metals							
Silver, dissolved	ug/l	1 UJ	1 UJ			1 UJ		1 UJ			1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Sodium	ug/l	**189,000**	**656,000**	**413,000**	**475,000**	**709,000**	**502,000**	**507,000**	**69,500**	**58,400**	**52,600**	**221,000**	**82,600**	**103,000**	**145,000**	**424,000**	**671,000**	**128,000**	**482,000**
Sodium, dissolved	ug/l	**182,000**	**619,000**			**824,000**		**536,000**			**52,600**	**213,000**	**81,000**	**94,800**	**141,000**	**413,000**	**418,000**	**124,000**	**479,000**
Thallium	ug/l	1 U	1 U	1.8 U	1.8 U	1 U	1.8 U	1 U	1.8 U	1.8 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Thallium, dissolved	ug/l	1 U	1 U			1 U		1 U			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vanadium	ug/l	**1.2 J**	5 U	0.56 U	0.56 U	**24.4**	0.56 U	**31.6**	0.56 U	0.56 U	5 U	**1.1 J**	5 U	**6.4**	5 U	**1.9 J**	5 U	5 U	5 U
Vanadium, dissolved	ug/l	5 U	5 U			5 U		5 U			**0.46 J**	5 U	5 U	5 U	5 U	**1.6 J**	5 U	5 U	5 U
Zinc	ug/l	**2.5 J**	**11.3 J**	**274**	**202**	223 R	**109**	242 R	1.4 U	**21.6**	62.9 R	**14.8 J**	**1.9 J**	**53 J**	**4.7 J**	**10.7**	2 U	8.5 R	**4.1**
Zinc, dissolved	ug/l	**1.9 J**	**7.6 J**			8.7 R		3 R			**11.4**	**10.7 J**	**1.6 J**	**6.9 J**	**5 J**	**8**	2 U	21.2 R	**1.2 J**
Cyanide, Total	ug/l	10 U	10 U	2 U	2 U	10 U	2 U	**3.8 J**	2 U	2 U	**13.3**	**5 J**	10 U	10 U	10 U	**10 J**	**15.5**	**15.8**	**19.2**

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Number:		GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
Sample Date:		7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:		N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**											**Metals**							
Aluminum	ug/l	**1,510**	200 U	**471**	200 U	200 U	7.8 U	**216**	**2,950**	**2,760**	**786**	**438**	**9,480**	**9,250**	**228**	200 U	**1,250**	**1,890**	200 U
Aluminum, dissolved	ug/l	200 U	200 U	200 U	200 U	200 U		200 U		200 U		**9.9 J**		200 U		200 U		**11.4 J**	200 U
Antimony	ug/l	4 U	4 U	2 U	2 U	2 U	2.2 U	2 U	2.2 U	2 U	2.2 U	2 R	2.2 U	2 U	2.2 U	2 U	2.2 U	2 U	4 U
Antimony, dissolved	ug/l	2 U	4 U	2 U	2 U	2 U		2 U		2 U		2 R		2 U		2 U		2 U	2 U
Arsenic	ug/l	**11.2 J**	**11.1 J**	**8.7 J**	**2.8 J**	**3 J**	**4.7**	**5.8**	**22.9**	**24.7**	1.4 U	**1.3**	**10.2**	**9.5**	**10**	**12.3**	1.4 U	**6.9**	**14.5 J**
Arsenic, dissolved	ug/l	**6.7 J**	**11 J**	**7.7 J**	**2.4 J**	**2.6 J**		**4.2**		**8.7**		1 U		**1.9**		**9.9**		**4.9**	**3.7 J**
Barium	ug/l	**138**	**97.5**	**289**	**207**	**202**	0.44 U	**64.4**	**352**	**416**	**211**	**243**	0.44 U	**196**	**263**	**256**	**249**	**307**	**36.9 J**
Barium, dissolved	ug/l	**130**	**102**	**282**	**207**	**202**		**50.1**		**360**		**241**		**101**		**196**		**286**	**59.7 J**
Beryllium	ug/l	2 U	2 U	1 U	1 U	1 U	0.24 U	1 U	0.24 U	1 U	0.24 U	1 U	0.24 U	1 U	0.24 U	1 U	0.24 U	1 U	2 U
Beryllium, dissolved	ug/l	1 U	2 U	1 U	1 U	1 U		1 U		1 U		1 U		1 U		1 U		1 U	1 U
Cadmium	ug/l	2 U	2 U	1 U	1 U	1 U	0.35 U	**0.12 J**	0.35 U	**0.24 J**	0.35 U	1 U	0.35 U	**0.39 J**	0.35 U	1 U	0.35 U	1 U	2 U
Cadmium, dissolved	ug/l	1 U	2 U	1 U	1 U	1 U		1 U		1 U		1 U		1 U		1 U		1 U	1 U
Calcium	ug/l	**77,700**	**96,700**	**154,000**	**46,300**	**47,400**	**119,000**	**115,000**	**54,500**	**62,300**	**113,000**	**128,000**	**59,000**	**65,400**	**93,900**	**94,900**	**94,500**	**111,000**	**176,000**
Calcium, dissolved	ug/l	**69,200**	**90,000**	**166,000**	**51,500**	**52,100**		**116,000**		**60,500**		**130,000**		**61,500**		**93,600**		**104,000**	**143,000**
Chromium	ug/l	**72.6**	**4.4**	**8.6**	**1.9 J**	**0.95 J**	0.59 U	2 U	0.59 U	**10.9**	0.59 U	2 U	**25.8**	**24.3**	0.59 U	2 U	**11.7**	**8.2**	**8.6**
Chromium, dissolved	ug/l	**1.2 J**	**1.4 J**	**1.2 J**	**0.64 J**	**0.54 J**		2 U		2 U		2 U		2 U		2 U		2 U	**1.3 J**
Cobalt	ug/l	**2.4**	**1.1 J**	**1.1**	**0.55 J**	**0.46 J**	0.65 U	**2.1**	0.65 U	**3**	0.65 U	1 U	0.65 U	**8.6**	0.65 U	1 U	0.65 U	**2.2**	**2.6**
Cobalt, dissolved	ug/l	**2.1**	**1 J**	**1.1**	**0.45 J**	**0.44 J**		**1.8**		1 U		1 U		1 U		1 U		1 U	**1.7**
Copper	ug/l	**24.2 J**	**12.3 J**	**6.4 J**	25 U	25 U	2.5 U	**4.8**	**39**	**11.2**	**27.2**	**2.8**	**44.6**	**38.6**	2.5 U	**1.1 J**	**24.3**	**7.8**	**12.8 J**
Copper, dissolved	ug/l	25 U	25 U	25 U	25 U	25 U		**2.5**		**0.96 J**		**1.3 J**		**0.88 J**		**0.98 J**		**1.4 J**	25 U
Iron	ug/l	**3,010**	**1,410**	**25,700**	**1,390**	**1,490**	**482**	**532**	**24,800**	**28,500**	**2,650**	**2,230**	**22,900**	**28,100**	**3,940**	**3,790**	**2,970**	**5,180**	**24,000**
Iron, dissolved	ug/l	**296**	**1,200**	**26,700**	**1,430**	**1,400**		**237**		**7,720**	**102**	**30.6 J**	18 U	**12.6 J**		**83.3 J**		**14.1 J**	**5,330**
Lead	ug/l	**9.8**	**0.53 J**	**6.9**	**0.56 J**	**0.21 J**	**5.1**	**25.2**	**9.3**	**12.3**	**7.3**	**6.4**	**25.3**	**45.4**	1.9 U	1 U	1.9 U	**4.9**	**0.74 J**
Lead, dissolved	ug/l	1 U	2 U	1 U	1 U	1 U		1 U		1 U		1 U		1 U		1 U		1 U	1 U
Magnesium	ug/l	**182,000**	**251,000**	**36,800**	**100,000**	**102,000**	**21,600**	**21,600**	**38,400**	**44,800**	**25,100**	**29,200**	**37,800**	**43,600**	**15,300**	**15,800**	**103,000**	**123,000**	**412,000**
Magnesium, dissolved	ug/l	**162,000**	**236,000**	**42,800**	**116,000**	**118,000**		**21,900**		**43,700**		**29,400**		**39,600**		**15,400**		**118,000**	**327,000**
Manganese	ug/l	**642**	**761**	**2,790**	**606**	**618**	**860**	**823**	**1,740**	**1,910**	**356**	**381**	**1,630**	**1,700**	**344**	**337**	**1,050**	**1,310**	**138**
Manganese, dissolved	ug/l	**570**	**810**	**2,870**	**616**	**604**		**779**		**1,820**	**376**	**398**	**1,570**	**1,500**		**320**		**1,030**	**142**
Mercury	ug/l	**0.095 J**	**0.076 J**	**0.08 J**	**0.054 J**	**0.064 J**	0.082 U	0.2 U	0.082 U	0.2 U	0.082 U	0.2 U	**0.21**	**0.16 J**	0.082 U	0.2 U	0.082 U	0.2 U	**0.074 J**
Mercury, dissolved	ug/l	0.2 U	**0.051 J**	**0.078 J**	**0.048 J**	0.2 U		0.2 U		0.2 U		0.2 U		0.2 U		0.2 U		0.2 U	**0.051 J**
Nickel	ug/l	**51.9 J**	2.6 R	**8.1 J**	**0.97 J**	**0.47 J**	**10**	**9.5**	0.51 U	**7.3**	0.51 U	**3.3 J**	**22.4**	**21.6**	0.51 U	2.2 R	0.51 U	**6.5**	**39.9 J**
Nickel, dissolved	ug/l	**47.1 J**	**1.8 J**	**4 J**	**0.73 J**	**0.72 J**		**10.1**		**3.9**		**4.2 J**		**7.4**		3.7 R		**6**	**49.1 J**
Potassium	ug/l	**111,000**	**136,000**	**29,800**	**60,100**	**61,500**	**20,600**	**17,800**	**14,600**	**12,800**	**27,100**	**26,700**	**17,700**	**16,800**	**29,900**	**25,900**	**74,000**	**74,900**	**186,000**
Potassium, dissolved	ug/l	**99,700**	**125,000**	**31,100**	**64,300**	**64,800**		**17,700**		**11,900**		**25,800**		**14,600**		**25,800**		**70,700**	**146,000**
Selenium	ug/l	**2.5 J**	**4 J**	5 UJ	5 UJ	**1.7 J**	1.9 U	**0.81 J**	1.9 U	**10**	1.9 U	**2 J**	1.9 U	**3.5 J**	1.9 U	**1.1 J**	1.9 U	**25**	10 UJ
Selenium, dissolved	ug/l	5 UJ	**3.2 J**	5 UJ	5 UJ	**1.6 J**		**0.52 J**		**8.1**		**1.6 J**		**3.4 J**		**0.78 J**		**23**	5 UJ
Silver	ug/l	2 UJ	2 UJ	1 UJ	1 UJ	1 UJ	0.53 U	1 U	0.53 U	1 U	0.53 U	1 U	0.53 U	1 U	0.53 U	1 U	0.53 U	1 U	2 UJ

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Number:		GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
Sample Date:		7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:		N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**																		
										Metals									
Silver, dissolved	ug/l	1 U	2 U	1 U	1 U	1 U		1 UJ		0.24 UJ		1 UJ		1 UJ		1 UJ		1 UJ	1 U
Sodium	ug/l	**2,150,000 J**	**2,380,000 J**	**300,000**	**1,220,000**	**1,230,000**	**395,000**	**391,000**	**497,000**	**628,000**	**634,000**	**748,000**	**314,000**	**342,000**	**489,000**	**469,000**	**1,610,000**	**1,820,000**	**2,410,000**
Sodium, dissolved	ug/l	**1,850,000**	**2,180,000**	**332,000**	**1,310,000**	**1,270,000**		**385,000**		**612,000**		**727,000**		**321,000**		**469,000**		**1,720,000**	**2,020,000**
Thallium	ug/l	2 U	2 U	1 U	1 U	1 U	1.8 U	1 U	1.8 U	1 U	1.8 U	1 U	1.8 U	1 U	1.8 U	1 U	1.8 U	1 U	2 U
Thallium, dissolved	ug/l	1 U	2 U	1 U	1 U	1 U		1 U		1 U		1 U		1 U		1 U		1 U	1 U
Vanadium	ug/l	**3.7 J**	10 U	**1.6 J**	5 U	5 U	0.56 U	**2.8 J**	0.56 U	5 U	0.56 U	**10.4**	0.56 U	**27.3**	0.56 U	**3.5 J**	0.56 U	**2.4 J**	**25.2**
Vanadium, dissolved	ug/l	**2 J**	10 U	5 U	5 U	5 U		**1.5 J**		5 U		**7.4**		5 U		**1.4 J**		5 U	**25.5**
Zinc	ug/l	**24.4 J**	**6.3 J**	**13.1**	**2**	**1.1 J**	1.4 U	53.7 R	**24.9**	72.5 R	**22.4**	65.7 R	**59.1**	118 R	1.4 U	50.7 R	1.4 U	54.9 R	**32**
Zinc, dissolved	ug/l	**14.9**	4 U	**7.9**	**4.3**	**1.5 J**		**49.3**		**57.2**		**52.3**		**56.5**		**40.2**		**50.3**	**30.5**
Cyanide, Total	ug/l	**15.1**	**9.1 J**	10 U	**4.5 J**	**9.3 J**	2 U	**9.2 J**	**36**	**72**	2 U	**3.8 J**	2 U	10 U	2 U	**5.4 J**	2 U	10 U	10 U

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
Sample Number:		D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S-B
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/23/2010
Sample Type:		FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Aluminum	ug/l	**210**	**362**	200 U	200 U	**438**	**471**	**176 J**	**364**	**243**	4,630 R	121 R	1,800 U	200 U	200 U	200 U	3,000 U	**201**	**3,710**
Aluminum, dissolved	ug/l	200 U	200 U	200 U	200 U	7.7 UJ	7.6 UJ	200 U	4.2 UJ	200 U	200 U	200 U	1,800 U	200 U	200 U	200 U	3,000 U	200 U	200 U
Antimony	ug/l	4 U	2 U	2 U	2 U	1.8 UJ	1.8 UJ	2 U	0.77 UJ	8 U	**2.7**	2 U	20 U	2 U	2 U	2 U	20 U	2 U	2 U
Antimony, dissolved	ug/l	2 U	2 U	2 U	2 U	1.6 UJ	1.6 UJ	2 U	0.73 UJ	8 U	**2.3**	2 U	20 U	2 U	2 U	2 U	20 U	2 U	2 U
Arsenic	ug/l	**9.7 J**	**1.3 J**	**2.9 J**	**107 J**	**2.3 J**	**2.8 J**	**4.3**	0.11 UJ	**13.7**	**40 J**	**1.5 J**	**9.7 J**	**3.5 J**	**11.2 J**	**4.4 J**	**13.4 J**	0.84 R	**9.8 J**
Arsenic, dissolved	ug/l	**4.5 J**	**0.83 J**	**2.4 J**	**112 J**	**1.4 J**	**1.6 J**	**3.4 J**	0.019 UJ	**16.2**	**26.7**	**1.3**	**11.3 J**	**4.3 J**	**10.8 J**	**4.4 J**	**14 J**	4 R	**5.9 J**
Barium	ug/l	**57.4**	**872**	**158**	**45.1**	**234**	**236**	**241**	**612**	**614**	**583**	**62.1**	**118**	**55.3**	**21.1**	**164**	**87.9 J**	17.1 R	**715**
Barium, dissolved	ug/l	**54.6**	**906**	**165**	**45.8**	**227**	**234**	**226**	**572**	**585**	**368**	**65**	**122**	**53**	**19.6**	**165**	**82.4 J**	323 R	**695**
Beryllium	ug/l	2 U	1 U	1 U	1 U	0.16 UJ	0.16 UJ	1 U	0.13 UJ	4 U	**0.65 J**	1 U	10 U	1 U	1 U	1 U	10 U	1 U	**0.48 J**
Beryllium, dissolved	ug/l	1 U	1 U	1 U	1 U	0.14 UJ	0.15 UJ	1 U	0.1 UJ	**0.37 J**	1 U	1 U	10 U	1 U	1 U	1 U	10 U	1 U	1 U
Cadmium	ug/l	2 U	1 U	1 U	1 U	0.18 UJ	0.19 UJ	1 U	0.013 U	4 U	**0.3 J**	1 U	10 U	1 U	1 U	1 U	10 U	1 U	1 U
Cadmium, dissolved	ug/l	1 U	1 U	1 U	1 U	0.17 UJ	0.18 UJ	1 U	0.013 U	4 U	1 U	1 U	10 U	1 U	1 U	1 U	10 U	1 U	1 U
Calcium	ug/l	**150,000**	**145,000**	**95,400**	**25,200**	**183,000**	**182,000**	**168,000**	**96,100**	**88,300**	**324,000**	**6,610**	**447,000 J**	**98,600 J**	**108,000 J**	**107,000 J**	**300,000 J**	**60,100**	**129,000**
Calcium, dissolved	ug/l	**139,000**	**138,000**	**93,200**	**24,000**	**189,000**	**188,000**	**171,000**	**93,600**	**87,400**	**380,000**	**6,230**	**471,000**	**99,300**	**110,000**	**111,000**	**314,000**	**57,000**	**142,000**
Chromium	ug/l	**18.7**	**41.4**	**1.4 J**	**2.3**	4.1 U	4 UJ	**2**	5.8 U	**2.6 J**	**834 J**	**2.5 J**	**20.7 J**	**2.8 J**	**1.8 J**	**0.86 J**	**193 J**	0.62 R	**36.8**
Chromium, dissolved	ug/l	**1.4 J**	**2.5**	**1.1 J**	**1.6 J**	3.1 UJ	3.2 UJ	**0.88 J**	4 U	8 U	**19.6**	**0.41 J**	**11.4 J**	**1.1 J**	**0.85 J**	**0.38 J**	**72.4 J**	3.3 R	**7.2**
Cobalt	ug/l	**1.9 J**	**11.4**	**0.27 J**	1 U	2.4 UJ	2.3 UJ	**1.1**	0.36 UJ	4 U	**40.8**	**0.23 J**	10 U	**1.2**	**0.4 J**	**1.4**	10 U	**0.22 J**	**3.1**
Cobalt, dissolved	ug/l	**1.6**	**4.1**	**0.23 J**	1 U	2.2 UJ	2.2 UJ	1 U	0.055 UJ	4 U	**0.77 J**	1 U	10 U	**0.95 J**	**0.37 J**	**0.87 J**	10 U	**0.79 J**	**1.7**
Copper	ug/l	**17.1 J**	**31.3**	25 U	25 U	5.1 UJ	6.7 UJ	**4.3**	2.6 UJ	8 U	**59.7**	25 U	225 U	25 U	25 U	25 U	375 U	**5.3 J**	**262**
Copper, dissolved	ug/l	25 U	25 U	25 U	25 U	1.5 UJ	4.2 UJ	2 U	3 UJ	8 U	25 U	25 U	225 U	25 U	25 U	25 U	375 U	25 U	25 U
Iron	ug/l	**5,970**	**20,800**	**3,360**	**1,120**	**8,320 J**	**8,320 J**	**7,410 J**	**5,160 J**	**4,740 J**	**9,840**	**307**	**3,900 J**	100 U	**17,400 J**	**5,930 J**	**6,110 J**	**6,950**	**23,300**
Iron, dissolved	ug/l	**5,920**	**21,600**	**3,390**	**1,010**	**4,770 J**	**4,960 J**	**4,620**	**1,860 J**	**1,680**	100 U	**38.9 J**	**4,270**	100 U	**16,400**	**6,140**	**4,800**	**5,510**	**15,100**
Lead	ug/l	**2.5**	**2.7**	**2.2**	**0.24 J**	**16.4 J**	**22.2 J**	**20.7**	0.66 UJ	4 U	**17.3 J**	1 U	10 U	**0.96 J**	**2**	**0.36 J**	**4.7 J**	1 U	**21.9**
Lead, dissolved	ug/l	1 U	1 U	**0.26 J**	1 U	0.18 UJ	0.26 UJ	**3 J**	0.18 UJ	**2.3 J**	1 U	1 U	10 U	**0.59 J**	1 U	1 U	10 U	1 U	**0.4 J**
Magnesium	ug/l	**348,000**	**122,000**	**27,400**	**23,100**	**21,300**	**21,300**	**19,400**	**207,000**	**199,000**	**341,000**	**7,360**	**544,000 J**	**57,000 J**	**65,300 J**	**73,700 J**	**886,000 J**	**61,000**	**101,000**
Magnesium, dissolved	ug/l	**315,000**	**113,000**	**27,900**	**22,400**	**21,800**	**21,700**	**19,500**	**202,000**	**197,000**	**114,000**	**6,990**	**569,000**	**57,400**	**66,800**	**74,700**	**927,000**	**57,300**	**90,700**
Manganese	ug/l	**170**	**929**	**594**	**211**	**945**	**937**	**943**	**182**	**185**	**860 J**	**44.3 J**	**416**	**388**	**603**	**2,470**	**257**	19 R	**1,570**
Manganese, dissolved	ug/l	**140**	**936**	**601**	**205**	**972**	**972**	**935**	**148**	**151**	**994**	**46.6**	**424**	**415**	**616**	**2,720**	**230**	4,660 R	**1,320**
Mercury	ug/l	**0.089 J**	**0.074 J**	**0.096 J**	**0.086 J**	**0.21**	**0.2 J**	0.2 U	0.1 U	0.2 U	**0.26**	**0.096 J**	**0.076 J**	**0.079 J**	**0.2**	**0.082 J**	**0.092 J**	**0.14 J**	**0.14 J**
Mercury, dissolved	ug/l	**0.055 J**	0.2 U	**0.063 J**	**0.075 J**	0.1 U	0.1 U	0.2 U	0.1 U	0.2 U	0.2 U	0.2 U	**0.092 J**	**0.096 J**	**0.1 J**	**0.1 J**	**0.09 J**	**0.075 J**	**0.05 J**
Nickel	ug/l	**52.3 J**	**24.4 J**	**2.2 J**	**1.3 J**	**2 J**	**2.5 J**	**8.1**	**3.9 J**	**6.5**	**441 J**	1.9 R	**9.3 J**	**2.2 J**	**1.5 J**	**1.2 J**	**59.5 J**	1.1 R	**48.4 J**
Nickel, dissolved	ug/l	**44.1 J**	**14.5 J**	**1.9 J**	**2 J**	**1.3 J**	**1.3 J**	**7.4**	**1.6 J**	**5.2**	**3.2 J**	**0.62 J**	**3.6 J**	**1.9 J**	**1.2 J**	**0.71 J**	**30.4 J**	18.3 R	**30.7 J**
Potassium	ug/l	**152,000**	**61,700**	**36,000**	**31,300**	**27,300**	**27,300**	**25,400**	**78,300**	**75,600**	**107,000**	**13,600**	**185,000 J**	**11,200 J**	**36,200 J**	**22,800 J**	**304,000 J**	**45,700**	**90,200**
Potassium, dissolved	ug/l	**140,000**	**57,800**	**36,500**	**29,300**	**28,100**	**28,200**	**25,600**	**77,800**	**76,100**	**49,600**	**12,600**	**195,000**	**11,500**	**36,500**	**23,600**	**310,000**	**37,300**	**81,200**
Selenium	ug/l	10 UJ	5 UJ	5 UJ	5 UJ	2 UJ	1.6 UJ	3.2 R	**6.5 J**	59.5 R	**4.3 J**	5 U	22.6 R	5 UR	5 UR	5 UR	23.6 R	5 UJ	5 UJ
Selenium, dissolved	ug/l	5 UJ	5 UJ	**0.97 J**	**1.2 J**	2.2 UJ	1.6 UJ	2.3 R	6 UJ	65.6 R	**4.2 J**	5 U	28.8 R	5 UR	5 UR	5 UR	28.8 R	5 UJ	5 UJ
Silver	ug/l	2 UJ	**0.16 J**	1 UJ	1 UJ	0.078 UJ	0.08 UJ	1 U	0.23 UJ	4 U	**1.7 J**	1 UJ	10 UJ	1 UJ	1 UJ	1 UJ	10 UJ	1 UJ	1 UJ

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
Sample Number:		D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S-B
Sample Depth:		Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:		7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/23/2010
Sample Type:		FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l	1 U	1 U	1 U	1 U	0.064 UJ	0.065 UJ	1 U	0.21 UJ	4 U	1 U	1 U	10 UJ	1 UJ	1 UJ	1 UJ	10 UJ	1 U	1 U
Sodium	ug/l	**2,340,000**	**978,000**	**203,000**	**416,000**	**177,000**	**176,000**	**154,000**	**2,520,000**	**2,350,000**	**1,030,000**	**381,000**	**3,940,000**	**78,900**	**150,000**	**155,000**	**7,080,000**	**1,310,000 J**	**896,000**
Sodium, dissolved	ug/l	**1,990,000**	**853,000**	**203,000**	**392,000**	**182,000**	**183,000**	**158,000**	**2,540,000**	**2,330,000**	**578,000**	**356,000**	**3,970,000**	**80,800**	**153,000**	**159,000**	**7,020,000**	**411,000**	**688,000**
Thallium	ug/l	2 U	1 U	1 U	1 U	0.2 UJ	0.12 UJ	1 U	0.2 UJ	4 U	1 U	1 U	10 U	1 U	1 U	1 U	10 U	1 U	1 U
Thallium, dissolved	ug/l	1 U	1 U	1 U	1 U	0.13 UJ	0.12 UJ	1 U	0.19 UJ	4 U	1 U	1 U	10 U	1 U	1 U	1 U	10 U	1 U	1 U
Vanadium	ug/l	**54.9**	**4.3 J**	5 U	5 U	2.1 UJ	2 UJ	2.1 UJ	0.3 UJ	2.2 UJ	**68.9**	5 U	50 U	**5.8**	**1.3 J**	5 U	50 U	5 U	**3.6 J**
Vanadium, dissolved	ug/l	**23**	5 U	5 U	5 U	1.2 UJ	1 UJ	1.1 UJ	0.3 UJ	0.94 UJ	**6.3**	5 U	50 U	**6.1**	5 U	5 U	50 U	5 U	5 U
Zinc	ug/l	**41.5**	**43.4**	**3**	**4.9**	**23**	**24.4**	**59.1**	0.018 UJ	**45**	16.6 R	3.2 R	20 UJ	**12.9 J**	**7.2 J**	**42.1 J**	**10 J**	2 U	**108**
Zinc, dissolved	ug/l	**30.3**	**14.3**	**1.2 J**	**2.5**	1.6 UJ	2.3 UJ	**34.8**	0.018 UJ	**58.4**	2 UJ	2 UJ	20 UJ	**10 J**	**4.3 J**	**1.7 J**	20 UJ	**2.6**	**77.4**
Cyanide, Total	ug/l	10 U	**9.9 J**	10 U	10 U	**148**	**147**	**128**	**16.8**	**16.4**	**11.3**	10 U	10 U	10 U	10 U	10 U	10 U	**32.3**	**42.2**

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33
Sample Number:		GC-MW28I	D-07212010-01	GC-MW29S-A	GC-MW29S-B	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I
Sample Depth:		Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/21/2010	7/21/2010	7/22/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010
Sample Type:		N	FD	N	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N
Parameter	**Units**	**Metals**																	
Aluminum	ug/l	200 U	200 U	**2,680**		200 U	**2,250**	**1,430**	58.4 UJ	**243**	**57.5 J**	**104 J**	**71.6 J**	71.4 UJ	**444**	**1,010**	**382**	1,010 R	200 U
Aluminum, dissolved	ug/l	200 U	200 U		200 U	200 U	6.1 UJ	200 U	4.1 U	10 UJ	**15.9 J**	20.3 UJ	**8.8 J**	5.4 UJ	200 U	4.1 U	**59.4 J**	200 U	200 U
Antimony	ug/l	2 U	2 U	2 U		2 U	0.93 UJ	2 U	0.74 UJ	0.91 UJ	8 U	1.3 UJ	2 U	0.63 UJ	2 U	0.96 UJ	2 U	2 U	2 U
Antimony, dissolved	ug/l	2 U	2 U		2 U	2 U	0.68 UJ	2 U	0.64 UJ	0.79 UJ	8 U	1.3 UJ	2 U	0.62 UJ	2 U	1 UJ	2 U	2 U	2 U
Arsenic	ug/l	**8.1 J**	**8.5 J**	**7.5 J**		**7.3 J**	**3.5 J**	**4.4 J**	0.019 UJ	**1.5 J**	**24.1**	**0.97 J**	**4.2 J**	0.019 UJ	**5 J**	**2.7 J**	**5.8 J**	**12.3 J**	**3.4 J**
Arsenic, dissolved	ug/l	**9.4 J**	**8.7 J**		**4.6 J**	**8.9 J**	0.019 UJ	**0.86 J**	0.019 UJ	**1.4 J**	**13.4**	0.43 UJ	**1.6**	0.019 UJ	1 U	**2.8 J**	**7.6 J**	**12.9**	**3.9**
Barium	ug/l	**108**	**113**	**806**		**869**	**116**	**115 J**	**458**	**199**	**165 J**	**62.2 J**	**61.3**	**456**	**532**	**410**	**415**	**501**	**724**
Barium, dissolved	ug/l	**113**	**113**		**764**	**799**	**95.5 J**	**92.1**	**451**	**184 J**	**176 J**	**63.8 J**	**59.2 J**	**453**	**478**	**394**	**404**	**408**	**773**
Beryllium	ug/l	1 U	1 U	1 U		1 U	0.3 UJ	1 U	0.11 UJ	0.16 UJ	**0.34 J**	0.14 UJ	1 U	0.097 UJ	1 U	0.16 UJ	1 U	1 U	1 U
Beryllium, dissolved	ug/l	1 U	1 U		1 U	1 U	0.13 UJ	1 U	0.12 UJ	0.15 UJ	4 U	0.13 UJ	1 U	0.093 UJ	1 U	0.1 UJ	1 U	1 U	1 U
Cadmium	ug/l	1 U	1 U	1 U		1 U	0.18 UJ	1 U	0.14 UJ	0.013 U	4 U	0.024 UJ	1 U	0.17 UJ	1 U	0.19 UJ	1 U	1 U	1 U
Cadmium, dissolved	ug/l	1 U	1 U		1 U	1 U	0.066 UJ	1 U	0.11 UJ	0.013 U	4 U	0.064 UJ	1 U	0.17 UJ	1 U	0.17 UJ	1 U	1 U	1 U
Calcium	ug/l	**107,000 J**	**103,000 J**	**152,000**		**85,300 J**	**124,000**	**111,000**	**74,600**	**292,000**	**248,000**	**119,000**	**103,000**	**124,000**	**114,000**	**103,000**	**95,500**	**108,000**	**116,000**
Calcium, dissolved	ug/l	**108,000**	**106,000**		**174,000**	**87,100**	**120,000**	**108,000**	**72,900**	**275,000**	**256,000**	**119,000**	**99,800**	**122,000**	**116,000**	**103,000**	**95,600**	**100,000**	**108,000**
Chromium	ug/l	**0.45 J**	**0.47 J**	**95.5**		**0.73 J**	8.9 UJ	**6.9 J**	4.2 U	3 UJ	**0.81 J**	3.8 UJ	**2.1**	4.5 U	**2.8 J**	8.2 U	**3.7 J**	**17.3 J**	**3.1 J**
Chromium, dissolved	ug/l	2 UJ	2 UJ		**5.4**	**0.53 J**	2.7 UJ	**0.62 J**	3.6 UJ	3.1 UJ	**0.75 J**	3.3 UJ	**1.6 J**	4.2 U	**0.67 J**	4.6 U	**1.3 J**	**1.3 J**	**0.7 J**
Cobalt	ug/l	1 U	1 U	**8.1**		**0.21 J**	**3.1 J**	**1.6**	0.075 UJ	1.3 UJ	4 U	1.1 UJ	1 U	0.0055 UJ	1 U	0.9 UJ	1 U	**2.4**	**1.2**
Cobalt, dissolved	ug/l	1 U	1 U		**11.9**	**0.23 J**	0.99 UJ	1 U	0.0055 UJ	1.3 UJ	4 U	0.98 UJ	1 U	0.0055 UJ	1 U	0.19 UJ	1 U	**1.1**	**1.3**
Copper	ug/l	25 U	25 U	**175**		25 U	24.7 UJ	**19.6 J**	2.5 UJ	4.1 UJ	8 U	3.4 UJ	2 U	8.4 UJ	**5.7**	4.7 UJ	**3**	**14.7 J**	25 U
Copper, dissolved	ug/l	25 U	25 U		25 U	25 U	1.6 UJ	2 U	1.6 UJ	4.8 UJ	8 U	1.7 UJ	2 U	1.6 UJ	2 U	4.8 UJ	2 U	25 U	25 U
Iron	ug/l	**11,800 J**	**11,400 J**	**16,500**		**9,530 J**	4,810 UJ	**3,480 J**	**4,000**	**632 J**	**463 J**	**2,740 J**	**2,250 J**	**9,810 J**	**10,000 J**	**4,130 J**	**3,130 J**	**33,900**	**9,990**
Iron, dissolved	ug/l	**11,500**	**11,400**		**6,060**	**9,690**	**72.9 J**	**96.2 J**	**3,750 J**	**508 J**	**507**	**2,480 J**	**2,100**	**9,610 J**	**8,930**	**2,360 J**	**2,330**	**31,600**	**9,120**
Lead	ug/l	**0.26 J**	**0.27 J**	**21**		**0.19 J**	**26.7 J**	**24.8**	**0.96 J**	**0.84 J**	**2.6 J**	**1.3 J**	**3.8 J**	**10 J**	**57.6**	**4.6 J**	**4.5 J**	**6**	**0.36 J**
Lead, dissolved	ug/l	1 U	1 U		**0.93 J**	1 U	0.12 UJ	**3.2 J**	0.26 UJ	0.42 UJ	4 U	0.17 UJ	1 U	0.39 UJ	**4.3 J**	0.23 UJ	**2.6 J**	1 U	1 U
Magnesium	ug/l	**42,100 J**	**40,200 J**	**59,000**		**72,500 J**	**69,200**	**62,500**	**51,300**	**599,000**	**532,000**	**24,700**	**21,200**	**8,370**	**7,790**	**63,500**	**59,400**	**39,200**	**57,700**
Magnesium, dissolved	ug/l	**42,200**	**41,600**		**64,400**	**75,300**	**66,200**	**61,000**	**50,100**	**562,000**	**552,000**	**25,200**	**21,100**	**8,220**	**7,640**	**63,200**	**59,800**	**36,000**	**53,600**
Manganese	ug/l	**3,330**	**3,490**	**1,590**		**583**	**717**	**678**	**1,800**	**1,200**	**916**	**401**	**381**	**600**	**622**	**1,240**	**1,200**	**1,480 J**	**1,650 J**
Manganese, dissolved	ug/l	**3,600**	**3,540**		**1,590**	**541**	**652**	**643**	**1,760**	**1,000**	**1,010**	**409**	**378**	**585**	**604**	**1,210**	**1,190**	**1,510**	**1,720**
Mercury	ug/l	**0.1 J**	**0.097 J**	**0.08 J**		**0.078 J**	**0.14 J**	0.2 U	0.1 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	**0.081 J**	**0.083 J**
Mercury, dissolved	ug/l	**0.095 J**	**0.12 J**		**0.057 J**	**0.095 J**	0.1 U	0.2 U	0.1 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.1 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**4.6 J**	**4.9 J**	**110 J**		**4.7 J**	**5.1 J**	**7.2**	0.0082 U	0.0082 UJ	**4.3**	**2.4 J**	**5.5**	0.0082 U	**3.1**	**5.8 J**	**7.2**	**17 J**	**2.7 J**
Nickel, dissolved	ug/l	**4.8 J**	**4.9 J**		**14.9 J**	**5 J**	0.0082 UJ	**1.6**	0.0082 U	0.0082 UJ	**4.5**	**1.9 J**	**5**	0.0082 U	**1.3**	0.0082 U	**3.5**	**6.9 J**	**1.5 J**
Potassium	ug/l	**20,400 J**	**19,700 J**	**62,500**		**14,800 J**	**9,480**	**8,290**	**12,400**	**198,000**	**179,000**	**31,700**	**27,900**	**5,190**	**4,850 J**	**17,200**	**15,300**	**28,500**	**14,900**
Potassium, dissolved	ug/l	**20,400**	**20,000**		**59,200**	**15,200**	**8,820**	**8,000**	**12,000**	**186,000**	**183,000**	**31,800**	**27,300**	**5,180**	**4,740 J**	**17,000**	**15,500**	**26,300**	**13,700**
Selenium	ug/l	5 UR	5 UR	5 UJ		5 UR	1.3 UJ	2.4 R	2 UJ	**8.1 J**	102 R	1.8 UJ	**5 J**	1.5 UJ	0.3 R	1.9 UJ	0.93 R	5 U	5 U
Selenium, dissolved	ug/l	5 UR	5 UR		5 UJ	1.2 R	1.3 UJ	2.5 R	1.7 UJ	**7.1 J**	61.2 R	1.4 UJ	1.3 R	1.8 UJ	5 U	2 UJ	1 R	**1.2 J**	5 U
Silver	ug/l	1 UJ	1 UJ	**0.46 J**		1 UJ	0.12 UJ	0.38 UJ	0.22 UJ	0.063 UJ	4 U	0.063 UJ	1 U	0.21 UJ	0.42 UJ	0.22 UJ	1 U	1 UJ	1 UJ

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33
Sample Number:		GC-MW28I	D-07212010-01	GC-MW29S-A	GC-MW29S-B	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I
Sample Depth:		Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/21/2010	7/21/2010	7/22/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010
Sample Type:		N	FD	N	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l	1 UJ	1 UJ		1 U	1 UJ	0.059 UJ	0.48 UJ	0.21 UJ	0.066 UJ	**0.44 J**	0.067 UJ	0.34 UJ	0.21 UJ	1 U	0.21 UJ	1 U	1 U	1 U
Sodium	ug/l	**127,000**	**122,000**	**545,000**		**552,000**	**173,000**	**146,000**	**248,000**	**4,900,000**	**4,340,000**	**120,000**	**101,000**	**7,690**	**7,730**	**96,600**	**91,200**	**245,000**	**103,000**
Sodium, dissolved	ug/l	**125,000**	**124,000**		**488,000**	**610,000**	**167,000**	**144,000**	**243,000**	**4,580,000**	**4,540,000**	**122,000**	**100,000**	**7,600**	**7,760**	**97,400**	**92,000**	**223,000**	**96,700**
Thallium	ug/l	1 U	1 U	1 U		1 U	0.2 UJ	1 U	0.27 UJ	0.11 UJ	4 U	0.12 UJ	1 U	0.2 UJ	1 U	0.21 UJ	1 U	1 U	1 U
Thallium, dissolved	ug/l	1 U	1 U		1 U	1 U	0.13 UJ	1 U	0.21 UJ	0.16 UJ	4 U	0.11 UJ	1 U	0.2 UJ	1 U	0.2 UJ	1 U	1 U	1 U
Vanadium	ug/l	5 U	5 U	**2.8 J**		5 U	**7.1 J**	**4.6 J**	0.3 UJ	0.3 U	2.3 UJ	1.4 UJ	2.1 UJ	0.3 UJ	2 UJ	**2.1 J**	2.3 UJ	**1.7 J**	5 U
Vanadium, dissolved	ug/l	5 U	5 U		5 U	5 U	0.75 UJ	1.2 UJ	0.3 UJ	0.3 U	2.4 UJ	1.8 UJ	1.6 UJ	0.3 UJ	0.84 UJ	0.3 UJ	0.95 UJ	5 U	5 U
Zinc	ug/l	**1.9 J**	**1.9 J**	**165**		**3.6 J**	**27.9**	**56.4**	1 UJ	0.018 UJ	**56.6 J**	5.3 UJ	**36.9**	**7.9 J**	**72.3**	5.3 UJ	**34.2**	**14.9 J**	**6.2 J**
Zinc, dissolved	ug/l	2 UJ	2 UJ		**65**	**4.8 J**	0.12 UJ	**28.3 J**	0.78 UJ	0.018 UJ	**54.5**	0.94 UJ	**30.8**	1.5 UJ	**33.1**	0.18 UJ	**23.4**	**7.4 J**	**5 J**
Cyanide, Total	ug/l	10 U	10 U		**4.8 J**	10 U	10 U	10 U	10 U	10 U	10 U	**11.3**	**7.4 J**	10 U	**7.3 J**	10 U	10 U	10 U	10 U

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41
Sample Number:		D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow
Sample Date:		7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010
Sample Type:		FD	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S
Parameter	**Units**										**Metals**								
Aluminum	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	**2,570**	200 U	14.4 UJ	**284**	**73.4 J**
Aluminum, dissolved	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	4.1 U	**204**	200 U
Antimony	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.78 UJ	0.78 UJ	2 U
Antimony, dissolved	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.81 UJ	0.78 UJ	2 U
Arsenic	ug/l	**3.7 J**	**3.3 J**	**0.25 J**	**9 J**	**8.4 J**	**3.8 J**	**3.6 J**	**1.3 J**	**2.9**	**1.6**	**1.6**	**1.7 J**	**14.9 J**	**6.8**	**1.3**	**1.8 J**	**1.3 J**	**7 J**
Arsenic, dissolved	ug/l	**3.9**	**3.1**	**0.28 J**	**8.4 J**	**8.2 J**	**2.5 J**	**2.4 J**	**1.7 J**	**2.7**	**1.6**	**1.4**	**1.4 J**	**15.9 J**	**5.9**	**1.1**	**1.8 J**	**1.2 J**	**4**
Barium	ug/l	**733**	**265**	**93.6**	**246**	**238**	**335**	**335**	**243**	**341**	**350**	**367**	**273**	**159**	**326**	**2,900**	**616**	**132**	**134**
Barium, dissolved	ug/l	**766**	**287**	**98.1**	**240**	**240**	**311**	**309**	**239**	**340**	**384**	**397**	**260**	**161**	**125**	**2,850**	**605**	**127**	**136**
Beryllium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	0.098 UJ	0.11 UJ	1 U
Beryllium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	0.1 UJ	0.095 UJ	1 U
Cadmium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.26 J**	1 U	0.081 UJ	0.11 UJ	1 U
Cadmium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.076 UJ	0.15 UJ	1 U
Calcium	ug/l	**116,000**	**283,000**	**49,700**	**138,000 J**	**147,000 J**	**167,000**	**165,000**	**51,600**	**111,000**	**31,900**	**32,200**	**172,000 J**	**69,600 J**	**75,900**	**162,000**	**75,600**	**223,000**	**207,000**
Calcium, dissolved	ug/l	**111,000**	**271,000**	**49,100**	**143,000**	**148,000**	**178,000**	**178,000**	**57,800**	**119,000**	**33,600**	**34,700**	**170,000**	**68,000**	**77,800**	**176,000**	**72,900**	**218,000**	**215,000**
Chromium	ug/l	**2.5 J**	**7.4 J**	**1 J**	**18 J**	**3.1 J**	**5.9**	**6.6**	**9.3**	**39.7**	**1.5 J**	**1.5 J**	**8.6 J**	**5.3 J**	**29.5**	**16.4**	3.9 UJ	4.4 U	**1.2 J**
Chromium, dissolved	ug/l	**0.64 J**	**3.1**	**0.91 J**	**2.7 J**	**1 J**	**1.4 J**	**1.2 J**	**0.46 J**	**7.6**	**0.55 J**	**0.54 J**	**1.7 J**	**0.72 J**	**0.6 J**	**5**	4 U	4 U	**1.1 J**
Cobalt	ug/l	**1.2**	**0.54 J**	1 U	**1.2**	**0.68 J**	**2**	**2**	**0.38 J**	**1.3**	1 U	1 U	**0.44 J**	**2.1**	**2.2**	**7.4**	**3.5 J**	0.22 UJ	1 U
Cobalt, dissolved	ug/l	**1.3**	**0.53 J**	1 U	**1**	**0.7 J**	**2.6**	**2.6**	**0.47 J**	**0.93 J**	1 U	1 U	**0.37 J**	**1.5**	**0.68 J**	**7.4**	**3.6 J**	0.19 UJ	1 U
Copper	ug/l	25 U	25 U	25 U	**2.9 J**	25 U	25 U	25 U	**4.8 J**	**3.8 J**	25 U	25 U	**2.5 J**	25 U	**22.2 J**	**35.8**	3.9 UJ	2.6 UJ	2 U
Copper, dissolved	ug/l	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	**5 J**	25 U	4.4 UJ	3.2 UJ	2 U
Iron	ug/l	**10,000**	**2,750**	100 U	**11,100 J**	**9,450 J**	**13,000**	**12,500**	**2,000**	**7,880**	**1,470**	**1,480**	**8,100 J**	**655 J**	**6,140**	**10,200**	**824 J**	**7,510 J**	**6,630 J**
Iron, dissolved	ug/l	**9,380**	**1,910**	100 U	**12,100**	**9,280**	**11,500**	**11,200**	**1,130**	**7,720**	**1,510**	**1,540**	**7,670**	**584**	**1,110**	**9,880**	**557 J**	**6,670 J**	**6,650**
Lead	ug/l	**0.29 J**	**0.76 J**	**0.24 J**	**5.4**	**0.45 J**	**0.65 J**	**0.62 J**	**2.1**	**2.4**	**0.24 J**	**0.75 J**	**0.53 J**	**0.6 J**	**110**	**6.8 J**	0.28 UJ	0.66 UJ	**2.9 J**
Lead, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**4.6**	**2.4 J**	0.19 UJ	0.19 UJ	**4.4 J**
Magnesium	ug/l	**57,500**	**113,000**	**47,300**	**19,600 J**	**18,500 J**	**25,600 J**	**25,400 J**	**65,000 J**	**48,300**	**53,000**	**53,600**	**20,900 J**	**49,400 J**	**12,000**	**490,000**	**194,000**	**48,200**	**44,900**
Magnesium, dissolved	ug/l	**55,000**	**112,000**	**47,400**	**22,100**	**18,700**	**31,100 J**	**31,300 J**	**78,400 J**	**49,800**	**56,200**	**57,800**	**20,600**	**47,900**	**11,800**	**538,000**	**195,000**	**47,100**	**46,500**
Manganese	ug/l	**1,680 J**	**1,320 J**	**1,140 J**	**1,190**	**1,240**	**847**	**839**	**1,600**	**856**	**369**	**382**	**1,480**	**1,520**	**754**	**1,710**	**6,340**	**2,060**	**2,040**
Manganese, dissolved	ug/l	**1,720**	**1,400**	**1,190**	**1,140**	**1,290**	**761**	**762**	**1,560**	**935**	**414**	**402 J**	**1,470**	**1,520**	**704**	**1,710**	**6,260**	**2,020**	**2,210**
Mercury	ug/l	**0.075 J**	**0.071 J**	**0.11 J**	**0.098 J**	**0.081 J**	**0.091 J**	**0.061 J**	**0.059 J**	**0.1 J**	**0.1 J**	**0.16 J**	**0.08 J**	**0.077 J**	**0.49**	**0.073 J**	0.1 U	0.1 U	0.2 U
Mercury, dissolved	ug/l	0.2 U	0.2 U	0.2 U	**0.098 J**	**0.096 J**	**0.13 J**	**0.12 J**	**0.15 J**	**0.091 J**	**0.11 J**	**0.11 J**	**0.089 J**	**0.094 J**	**0.11 J**	**0.056 J**	0.1 U	0.1 U	0.2 U
Nickel	ug/l	**2.4 J**	**4.7 J**	**1.2 J**	**19.3 J**	**3.8 J**	**4.6 J**	**5 J**	**6.2 J**	**35.1 J**	**1 J**	**1 J**	**7.2 J**	**3.9 J**	**36.9 J**	**13.9 J**	**7.2 J**	0.0082 U	**3.8**
Nickel, dissolved	ug/l	**1.2 J**	**0.78 J**	**0.94 J**	**12.2 J**	**2.3 J**	**3.3 J**	**3.1 J**	**10.1 J**	**19.3 J**	**0.58 J**	**0.21 J**	**4.7 J**	**2.7 J**	**19.2 J**	**12 J**	**6.6 J**	0.0082 U	**3.9**
Potassium	ug/l	**15,000**	**54,200**	**19,800**	**33,400 J**	**30,700 J**	**26,200**	**25,500**	**24,800**	**44,700**	**29,700**	**30,300**	**22,100 J**	**16,500 J**	**10,700**	**197,000**	**70,600**	**31,500**	**29,800**
Potassium, dissolved	ug/l	**14,200**	**53,200**	**19,800**	**36,700**	**30,900**	**28,000**	**28,100**	**27,800**	**46,800**	**31,200**	**32,100**	**21,800**	**16,200**	**11,400**	**210,000**	**71,800**	**30,800**	**30,900**
Selenium	ug/l	5 U	**3.1 J**	5 U	5 UR	5 UR	5 UJ	5 UJ	5 UJ	**2.4 J**	**2 J**	**1.6 J**	5 UR	5 UR	5 U	5 U	5 UJ	2.3 UJ	1.8 R
Selenium, dissolved	ug/l	5 U	**2.3 J**	5 U	5 UR	5 UR	5 UJ	5 UJ	**2.2 J**	**2.1 J**	**2.1 J**	**1.9 J**	5 UR	5 UR	5 U	5 U	6 UJ	2.2 UJ	1.9 R
Silver	ug/l	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	0.22 UJ	0.21 UJ	1 U

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41
Sample Number:		D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG
Sample Depth:		Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow
Sample Date:		7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010
Sample Type:		FD	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	0.21 UJ	0.21 UJ	**0.38 J**
Sodium	ug/l	**104,000**	**722,000**	**150,000**	**170,000**	**124,000**	**140,000**	**136,000**	**599,000**	**466,000**	**300,000**	**303,000**	**96,100**	**84,400**	**108,000**	**3,760,000**	**1,590,000**	**604,000**	**592,000**
Sodium, dissolved	ug/l	**99,600**	**757,000**	**151,000**	**183,000**	**124,000**	**161,000**	**159,000**	**699,000**	**475,000**	**311,000**	**312,000**	**92,900**	**82,000**	**121,000**	**4,140,000**	**1,620,000**	**577,000**	**599,000**
Thallium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	0.21 UJ	0.2 UJ	1 U
Thallium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	0.2 UJ	0.19 UJ	1 U
Vanadium	ug/l	5 U	5 U	5 U	**1.5 J**	5 U	**1.2 J**	**1.1 J**	5 U	5 U	5 U	5 U	**1.8 J**	5 U	**4.7 J**	**2.5 J**	0.3 UJ	**5.1 J**	**5.2**
Vanadium, dissolved	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.4 J**	5 U	5 U	**2 J**	0.3 UJ	**4.7 J**	**4.6 J**
Zinc	ug/l	**3.1 J**	**3.4 J**	**2.1 J**	**11.5 J**	**7.2 J**	**1.8 J**	**1.5 J**	**6.8**	**14.4**	6.1 R	**26.3**	**10.2 J**	**6.9 J**	**71.2**	**19.9**	0.018 UJ	0.52 UJ	**36.3**
Zinc, dissolved	ug/l	**3.4 J**	2 U	**4.2 J**	**4.8 J**	**3.5 J**	**4.8**	**1.3 J**	**3.2**	**7.1**	**1.8 J**	**1.8 J**	**3.7 J**	**2.1 J**	**11.5**	**16.8**	0.018 UJ	0.26 UJ	**29.6**
Cyanide, Total	ug/l	10 U	10 U	10 U	**32.8**	**31**	**12.2**	**10.3**	10 U	**6.1 J**	10 U	10 U	**8.5 J**	10 U	10 U	**15.4**	**10.2**	**21.8**	**20.1**

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**										**Metals**				
Aluminum	ug/l	11.1 UJ	**20.1 J**	3,000 U	200 U	**204**	200 U	200 U	200 U	200 U	**357**	200 U	**307**	**3,270**	200 U
Aluminum, dissolved	ug/l	4.1 U	200 U	3,000 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Antimony	ug/l	0.71 UJ	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U
Antimony, dissolved	ug/l	0.73 UJ	2 U	20 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U
Arsenic	ug/l	0.3 UJ	**4.3**	1.7 R	**24.1 J**	**8.9 J**	**10.4 J**	**26 J**	**16**	**15.8**	**6.8**	**3.2**	**3.5**	**4.9 J**	**9.2**
Arsenic, dissolved	ug/l	0.76 UJ	**4.4**	14.3 R	**25.7**	**7.8 J**	**10.7 J**	**26.2 J**	**6**	**5.9**	**6.2**	**2.9 J**	**4.7 J**	**5.9 J**	**8.5**
Barium	ug/l	**299**	**300**	**7.5 J**	**74.4**	**339**	**180**	**495**	**301**	**309**	**81.9**	**242**	**188**	**701**	**234**
Barium, dissolved	ug/l	**298**	**297**	**67.8 J**	**75.5**	**225**	**175**	**515**	**255**	**253**	**78.5 J**	**246 J**	**200 J**	**627 J**	**242 J**
Beryllium	ug/l	0.1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Beryllium, dissolved	ug/l	0.11 UJ	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Cadmium	ug/l	0.061 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Cadmium, dissolved	ug/l	0.053 UJ	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Calcium	ug/l	**37,800**	**35,800**	**221,000**	**60,000**	**75,000**	**35,300**	**246,000 J**	**99,900**	**102,000**	**35,700**	**86,400**	**96,300**	**288,000**	**76,900**
Calcium, dissolved	ug/l	**37,100**	**34,700**	**238,000**	**57,400**	**72,100**	**32,900**	**244,000**	**99,100**	**104,000**	**36,600**	**82,600**	**98,800**	**248,000**	**80,100**
Chromium	ug/l	4.4 U	**1.2 J**	**0.68 J**	**1.1 J**	**10.5**	**2.4**	**1.8 J**	**0.59 J**	**0.64 J**	**3.4 J**	**1.8 J**	**8.6 J**	**8.9 J**	**1.4 J**
Chromium, dissolved	ug/l	4.1 U	2 U	**6.6 J**	**0.58 J**	**2.2**	**0.68 J**	**0.9 J**	2 U	2 U	**1.8 J**	**0.6 J**	**0.41 J**	**13 J**	**0.61 J**
Cobalt	ug/l	0.9 UJ	**1.1**	1 U	**1.1**	**2.6**	**0.24 J**	**2.5**	**0.42 J**	**0.33 J**	**0.24 J**	**0.77 J**	**0.48 J**	**3.8 J**	**0.25 J**
Cobalt, dissolved	ug/l	0.87 UJ	**1.1**	10 U	**1.3**	**3.6**	1 U	**2.6**	**0.33 J**	**0.32 J**	1 U	**0.56 J**	1 U	10 U	**0.28 J**
Copper	ug/l	1.8 UJ	**2.2**	375 U	25 U	**9.7 J**	25 U	**10.9 J**	25 U	25 U	25 U	25 U	25 U	**42**	25 U
Copper, dissolved	ug/l	**7.1 J**	**2.6**	375 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Iron	ug/l	**569 J**	**610 J**	1,500 U	**1,960**	**19,600**	**1,390**	**47,700 J**	**11,200**	**11,400**	**1,250**	**3,420**	**7,570**	**25,200**	**14,600**
Iron, dissolved	ug/l	**526 J**	**506**	1,500 U	**1,780**	**11,300**	**1,300**	**47,000**	**2,110**	**2,930**	**443**	**3,140**	**7,780**	**8,520**	**15,100**
Lead	ug/l	0.22 UJ	1 U	1 U	1 U	**2.1**	**0.44 J**	**2.9**	**1.9**	**2**	**5.9**	1 U	**10.7 J**	10 U	1 U
Lead, dissolved	ug/l	0.21 UJ	**2.6 J**	10 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.22 J**	1 U	1 U	10 U	1 U
Magnesium	ug/l	**79,600**	**76,900**	**624,000**	**54,700**	**79,100**	**63,600**	**182,000 J**	**47,300**	**48,300**	**2,720 J**	**36,400**	**36,100**	**269,000**	**37,100**
Magnesium, dissolved	ug/l	**79,300**	**75,800**	**675,000**	**52,400**	**92,700**	**59,000**	**180,000**	**47,300**	**48,900**	**2,740 J**	**34,100**	**36,600**	**173,000**	**38,200**
Manganese	ug/l	**2,100**	**2,120**	11.8 R	**121 J**	**763**	**413**	**2,890**	**658 J**	**676 J**	**108**	**795**	**827**	**1,610**	**857**
Manganese, dissolved	ug/l	**2,090**	**2,090**	125 R	**137**	**803**	**412**	**3,100**	**655**	**629**	**111 J**	**836 J**	**904 J**	**1,630 J**	**909 J**
Mercury	ug/l	0.1 U	0.2 U	**0.071 J**	**0.069 J**	**0.052 J**	**0.075 J**	**0.079 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Mercury, dissolved	ug/l	0.1 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.064 J**	**0.074 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**8.1 J**	**10.7 J**	**0.74 J**	**1.3 J**	10.6 R	**1.7 J**	**1.4 J**	**0.6 J**	**0.69 J**	**3 J**	1.4 R	**10.3 J**	**110 J**	**4.6 J**
Nickel, dissolved	ug/l	**7.6 J**	**9.8 J**	**8.3 J**	**0.86 J**	53.7 R	**1.2 J**	**1.7 J**	**0.64 J**	**0.61 J**	**1.6 J**	**1.5 J**	**2.1 J**	**84.9 J**	**6.2 J**
Potassium	ug/l	**46,400**	**45,000**	**210,000**	**33,100**	**77,800**	**48,800**	**99,000 J**	**13,500**	**13,700**	**10,900**	**7,660**	**8,130**	**85,500**	**7,260**
Potassium, dissolved	ug/l	**46,200**	**44,500**	**222,000**	**32,500**	**81,200**	**45,400**	**100,000**	**13,400**	**13,900**	**11,300**	**7,280**	**8,240**	**63,500**	**7,480**
Selenium	ug/l	4.2 UJ	12.5 R	**3.1 J**	**1.2 J**	**1.3 J**	**1.7 J**	5 UR	5 U	5 U	5 UR	5 UR	5 UR	11.5 R	5 UR
Selenium, dissolved	ug/l	4.3 UJ	12.1 R	**30.2 J**	**1.6 J**	**1.5 J**	**1.9 J**	5 UR	5 U	5 U	5 UR	5 UR	5 UR	9.8 R	5 UR
Silver	ug/l	0.21 UJ	**0.39 J**	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 UJ	1 U	1 U	1 U	10 U	1 U

TABLE I-36A
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:		GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:		Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**														
Metals															
Silver, dissolved	ug/l	0.21 UJ	**0.45 J**	**1.6 J**	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	10 U	1 U
Sodium	ug/l	**1,280,000**	**1,150,000**	**4,690,000**	**540,000**	**765,000 J**	**686,000**	**1,880,000**	**186,000**	**189,000**	**207,000**	**123,000**	**117,000**	**1,900,000**	**130,000**
Sodium, dissolved	ug/l	**1,270,000**	**1,130,000**	**4,990,000**	**520,000**	**939,000 J**	**707,000**	**1,800,000**	**186,000 J**	**190,000 J**	**215,000**	**116,000**	**127,000**	**1,320,000**	**131,000**
Thallium	ug/l	0.2 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Thallium, dissolved	ug/l	0.2 UJ	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U
Vanadium	ug/l	0.3 UJ	0.99 UJ	5 U	5 U	**1.5 J**	5 U	**1.2 J**	5 U	5 U	**3.3 J**	5 U	5 U	50 U	5 U
Vanadium, dissolved	ug/l	0.3 UJ	0.79 UJ	50 U	5 U	**1.5 J**	5 U	5 U	5 U	5 U	**2.7 J**	5 U	5 U	50 U	5 U
Zinc	ug/l	0.018 UJ	**32.4**	**3.4 J**	**2.6 J**	**9.1**	**1.8 J**	**5.7 J**	**3.6 J**	**3.2 J**	**9.1**	3.7 R	12.3 R	**22.8**	**2.1**
Zinc, dissolved	ug/l	2.4 UJ	**25.6**	**14.5 J**	**1.9 J**	**7.2**	2 U	**4.7 J**	**2.7**	**2.7**	**1.6 J**	3.9 R	3.8 R	**13.2 J**	**2.3**
Cyanide, Total	ug/l	10 U	10 U	10 U	**52.4**	**12.8**	**10.4**	**28.7**	**7.4 J**	**6.5 J**	10 U	10 U	10 U	**14.3**	10 U

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
Sample Number:	GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
Sample Type:	N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**																	
											Metals							
*Aluminum	ug/l	1,190	270	9,610	6,070			1,820	1,200			1,660 J							
*Aluminum, dissolved	ug/l												838						
Antimony	ug/l																		
Antimony, dissolved	ug/l																		
Arsenic	ug/l		2.9	**21.1 (N1)**	**20.6 (N1)**	4.3	4.8			**23.9 (N1)**		6.1	2.1	3.5	8.2 J	2.1	**44.6 (O1)**	**13.3 J (N1)**	1.7 J
Arsenic, dissolved	ug/l		2.1				1.7			5.1 J		5.5	2.2	3.5 J	8.4 J	1.9 J	**58.7 (O1)**	**13.3 J (N1)**	1.3 J
Barium	ug/l		180				65.3	260	267		156	542	176	176	279	83.5	**1,470 (O1)**	156	**1,090 (O1)**
Barium, dissolved	ug/l		166				57		52.9		5.3 J	443	179	181 J	295 J	87.8 J	**1,890 J (O1)**	160	970
Beryllium	ug/l			2.1															
Beryllium, dissolved	ug/l																		
Cadmium	ug/l				0.3 J														
*Calcium	ug/l	182,000	191,000	88,800	93,900	56,700	55,300	43,300		310,000	72,300 J	135,000	46,100 J	86,000	71,300	98,600	159,000	297,000 J	92,700 J
*Calcium, dissolved	ug/l		186,000		43,000		54,200			339,000	64,100	111,000	40,900	80,200	70,400	95,800	157,000	292,000	91,800
Chromium	ug/l			26.5	15.2				2.7	5 J	0.66 J	25.8		3 J		2.6 J	3.8 J	14.8 J	15.5 J
Chromium, dissolved	ug/l				4.6					4.6 J	0.53 J	12.2		0.65 J		1.5 J		8.7 J	7.1 J
*Cobalt	ug/l				5.1						0.87 J	3.6	0.38 J	0.78 J		0.91 J			2.9
*Cobalt, dissolved	ug/l									9.3 J		3.3	1	0.82 J		1.2			2.6
Copper	ug/l	30.9	2.7	54.8	34.6	23.3	2.6	36.2	5.9							5.3 J	38 J		28.5
Copper, dissolved	ug/l		0.98 J		0.9 J		2.8		0.55 J										
Iron	ug/l	**3,950 (O2)**	**1,640 (O2)**	**19,900 (O2)**	**16,700 (O2)**	**5,480 (O2)**	**4,380 (O2)**	**4,540 (O2)**	**3,020 (O2)**		**930 J (O2)**	**20,900 (O2)**		**2,400 (O2)**	**3,450 (O2)**	**3,630 (O2)**	**42,300 (O2)**		**6,290 J (O2)**
Iron, dissolved	ug/l					**454 (O2)**	**1,000 (O2)**				**817 J (O2)**	**13,800 J (O2)**		**1,960 (O2)**	**2,920 (O2)**	**3,520 (O2)**	**41,100 (O2)**		**6,040 (O2)**
Lead	ug/l	**28.3 (O1)**	9.8	**103 (O1)**	**107 (O1)**	4.4	2.3	8.1	4.2	5.9 J	1.8	11.3		2.6		1.9			0.66 J
Lead, dissolved	ug/l		2.4									0.52 J							
*Magnesium	ug/l	116,000	121,000	55,500	57,600	11,600	10,700	42,400	43,700 J	770,000	50,900 J	92,200	41,500 J	15,700	66,100	6,540	371,000	845,000 J	141,000 J
*Magnesium, dissolved	ug/l		118,000		42,000		10,100		54,200 J	870,000	45,700	81,500	37,500	14,900	63,900	6,560	354,000	824,000	138,000
Manganese	ug/l	**727 (O2)**	**708 (O2)**	**495 (O2)**	**490 (O2)**	**366 (O2)**	**330 (O2)**	**515 (O2)**	**500 (O2)**		**2,070 (O2)**	**1,230 (O2)**	**823 (O2)**	297	**2,210 (O2)**	**355 (O2)**	269	**583 (O2)**	**929 (O2)**
Manganese, dissolved	ug/l		**681 (O2)**		**448 (O2)**	**381 (O2)**	**318 (O2)**	**523 (O2)**	**350 (O2)**		4.2	**1,140 (O2)**	**843 (O2)**	300 J	**2,390 J (O2)**	**380 J (O2)**	**351 J (O2)**	**551 (O2)**	**862 (O2)**
Mercury	ug/l			0.61	0.48					0.078 J	0.09 J	0.12 J	0.077 J					0.087 J	0.066 J
Mercury, dissolved	ug/l									0.062 J		0.096 J	0.1 J					0.077 J	0.073 J
Nickel	ug/l		4.8	23.5	18.8			15.9	5.3		1 J	30.7 J		2.9 J	2.2 J	1.9 J	2 J	14.1 J	**194 J (O1)**
Nickel, dissolved	ug/l		5.6		3.2				3		0.64 J	34.7 J		3.8 J	7.3 J	1.6 J		9.9 J	**193 J (O1)**
*Potassium	ug/l	39,900	41,500	14,900		22,900	21,300	23,900	24,400	254,000		42,200 J		26,300	21,700	7,210	124,000	291,000 J	75,100 J
*Potassium, dissolved	ug/l		40,100				20,700		13,200	292,000	10,900	41,800	12,000	26,800	21,300	7,130	120,000	283,000	75,500
Selenium	ug/l		9.4		0.56 J		0.73 J			**51.2 J (O1)**	0.93 J	1.6 J							
Selenium, dissolved	ug/l		8.3		0.47 J		0.97 J				3.8 J	0.97 J							
Silver	ug/l											0.22 J							
Silver, dissolved	ug/l																		

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-01	MW-01	MW-01	MW-01	MW-02	MW-02	MW-02	MW-02	MW-03	MW-03	MW-04	MW-04	MW-05	MW-05	MW-06	MW-06	MW-07	MW-07
	Sample Number:	GC-MW01S	GC-MW01S-S-NYC	GC-MW01I	GC-MW01I-S-NYC	GC-MW02S	GC-MW02S-S-NYC	GC-MW02I	GC-MW02I-S-NYC	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I	GC-MW05S	GC-MW05I	GC-MW06S	GC-MW06I	GC-MW07S	GC-MW07I
	Sample Depth:	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
	Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010
	Sample Type:	N	S	N	S	N	S	N	S	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Sodium	ug/l	**629,000 (O1)**	**763,000 (O1)**	**89,100 (O1)**	**92,800 (O1)**	**116,000 (O1)**	**106,000 (O1)**	**55,400 (O1)**		**5,700,000 J (O1)**	**196,000 (O1)**	**309,000 (O1)**	**177,000 (O1)**	**122,000 (O1)**	**494,000 (O1)**	15,500	**3,020,000 (O1)**	**6,680,000 (O1)**	**1,380,000 (O1)**
Sodium, dissolved	ug/l		**769,000 (O1)**		**57,200 (O1)**		**101,000 (O1)**			**7,130,000 J (O1)**	**191,000 (O1)**	**313,000 (O1)**	**167,000 (O1)**	**125,000 (O1)**	**450,000 (O1)**	17,700	**2,910,000 (O1)**	**6,270,000 (O1)**	**1,380,000 (O1)**
*Vanadium	ug/l				13.3							4.8 J				1.3 J			3.6 J
*Vanadium, dissolved	ug/l											1.2 J	1.5 J						3.4 J
*Zinc	ug/l	25		93.1				61.8		42.9 J	4.6 J	17.3		9.8		26.3		12.3 J	20.2 J
*Zinc, dissolved	ug/l		50.1		52.5		40.6		50.1	17.9 J		8.8		1.6 J		4.4			32 J
Cyanide, Total	ug/l																		

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
Sample Number:		GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
Sample Depth:		Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:		7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:		N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
*Aluminum	ug/l			10,400	7,530	9,020	4,350	14,500		964	1,210					396			478
*Aluminum, dissolved	ug/l																		
Antimony	ug/l					2.9								2.1					
Antimony, dissolved	ug/l													3					
Arsenic	ug/l	6.8 J	8.5 J	**31.5 (O1)**	**29.6 (O1)**	**31.6 (O1)**	**93.3 (O1)**	**94.3 (O1)**	**10.7 (N1)**	3.2	2.5	5 J	**18.3 J (N1)**	**27.8 J (O1)**	**10.9 J (N1)**	7.9	4.6		5.5
Arsenic, dissolved	ug/l	6.7 J	8.5 J			9.3		**58 (O1)**			1.9	5.1	**21.8 (N1)**	**28.9 (O1)**	**12.3 (N1)**	8.2	1.9 J		2.9 J
Barium	ug/l	201	423			227	450	488			136	428	**1,050 (O1)**	275	148	264	644	171	423
Barium, dissolved	ug/l	194	401			23.4		255			133	450	**1,070 (O1)**	258	154	264 J	625 J	170 J	389 J
Beryllium	ug/l							1.2											
Beryllium, dissolved	ug/l																		
Cadmium	ug/l					0.68 J		0.57 J											
*Calcium	ug/l	75,300 J	96,000 J	381,000	391,000	467,000	73,800	75,900	183,000	85,000	84,600	164,000	70,100	74,100	94,900	90,300	171,000	97,900	55,400
*Calcium, dissolved	ug/l	73,900	93,700			492,000		75,300			86,900	161,000	67,300	73,600	91,400	91,300	177,000	95,400	54,200
Chromium	ug/l	5.2 J	1.7 J	41	22.2	23.2	13.2	38.9			2.5	13 J	5 J	34.5 J	1.5 J	17.5 J	2.5 J	0.56 J	2.8 J
Chromium, dissolved	ug/l	2.2 J	0.91 J									4.4	0.57 J	1.5 J	1.7 J	1.4 J		0.42 J	
*Cobalt	ug/l	0.39 J	0.67 J			5		17.8			3.6	0.86 J	1.6	4	2	1	1.3	0.68 J	0.5 J
*Cobalt, dissolved	ug/l	0.36 J	0.65 J			1.1					3	1	0.52 J	2.5	2.3	0.93 J	1.3	0.62 J	0.33 J
Copper	ug/l		3.9 J	107	78.2	61.9	19.2	61.5			3.7			308		2.9 J			
Copper, dissolved	ug/l					0.55 J		0.35 J			0.5 J								
Iron	ug/l	**5,850 J (O2)**	**4,650 J (O2)**	**18,500 (O2)**	**18,400 (O2)**	**28,700 (O2)**	**13,700 (O2)**	**26,100 (O2)**	**617 (O2)**	**1,190 (O2)**	**2,190 (O2)**	**9,270 (O2)**	**5,050 (O2)**	**26,700 (O2)**	**20,400 (O2)**	**9,880 (O2)**	**8,910 (O2)**	**1,280 (O2)**	**11,900 (O2)**
Iron, dissolved	ug/l	**5,600 (O2)**	**4,300 (O2)**		226	**3,460 (O2)**		**514 (O2)**				**9,250 (O2)**	**4,560 (O2)**	**19,600 (O2)**	**18,800 (O2)**	**6,080 (O2)**	**8,320 (O2)**	**1,180 (O2)**	**9,920 (O2)**
Lead	ug/l	0.81 J	0.44 J	**293 (O1)**	**263 (O1)**	**395 (O1)**	**277 (O1)**	**472 (O1)**		**19.2 (N1)**	14.3	0.77 J	0.53 J	**89.4 (O1)**	3.1	2.2			0.94 J
Lead, dissolved	ug/l													4.3 J					
*Magnesium	ug/l	14,800 J	58,100 J	58,100	67,800	96,600	67,400	66,200	34,000	49,900	45,300	33,600	39,400	14,300	34,400	39,400	132,000	15,500	108,000
*Magnesium, dissolved	ug/l	14,400	55,700			112,000		67,100			46,200	33,400	38,200	13,100	33,400	39,300	137,000	14,400	107,000
Manganese	ug/l	**560 (O2)**	**1,600 (O2)**	**744 (O2)**	**830 (O2)**	**1,020 (O2)**	**831 (O2)**	**806 (O2)**	**2,080 (O2)**	**2,210 (O2)**	**2,000 (O2)**	**1,830 J (O2)**	**3,860 J (O2)**	**3,880 J (O2)**	**2,550 J (O2)**	**1,180 (O2)**	**8,860 (O2)**	**3,000 (O2)**	**3,360 (O2)**
Manganese, dissolved	ug/l	**569 (O2)**	**1,580 (O2)**	**614 (O2)**	**696 (O2)**	**1,020 (O2)**	**796 (O2)**	**728 (O2)**			**2,150 (O2)**	**1,970 (O2)**	**3,920 (O2)**	**4,140 (O2)**	**2,700 (O2)**	**1,230 J (O2)**	**8,440 J (O2)**	**3,190 J (O2)**	**3,450 J (O2)**
Mercury	ug/l	0.09 J	0.081 J	**1.6 (O1)**	0.62	**1.4 (O1)**		0.36				0.069 J	0.093 J	0.17 J	0.091 J				
Mercury, dissolved	ug/l	0.084 J	0.078 J																
Nickel	ug/l	4.9 J	1.8 J	30.3	20.6	22.9	12.6	31			4.2	12.7 J	3.7 J	33.6 J	2.8 J	22.4 J	3.5 J	6.2 J	2.7 J
Nickel, dissolved	ug/l	4.3 J	1.6 J			10.7		4.8			2.7	12.8 J	1.5 J	4.6 J	4.3 J	22.2 J	3.3 J	5.4 J	1.2 J
*Potassium	ug/l	27,400 J	24,900 J	72,000	78,900	87,400	37,800	35,400	18,700	22,000	22,600	27,600	8,480	19,800	22,600	33,100	34,600	15,400	40,400
*Potassium, dissolved	ug/l	27,400	24,100			94,300		35,700			23,400	27,300	8,200	19,600	21,700	33,500	35,500	15,000	40,000
Selenium	ug/l					**14.1 (O1)**		5.8				1 J		1.5 J	1.1 J				
Selenium, dissolved	ug/l					**14 (O1)**		5.8			0.61 J	1.3 J		1.4 J	1.6 J				
Silver	ug/l																		
Silver, dissolved	ug/l																		

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
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	Station Location:	MW-08	MW-08	MW-09	MW-09	MW-09	MW-09	MW-09	MW-10	MW-10	MW-10	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13	MW-14	MW-14
	Sample Number:	GC-MW08S	GC-MW08I	GC-MW09S	DUP01_6/24/2010	GC-MW09S-S-NYC	GC-MW09I	GC-MW09I-S-NYC	GC-MW10S	GC-MW10I	GC-MW10I-S-NYC	GC-MW11S	GC-MW11I	GC-MW12S	GC-MW12I	GC-MW13S	GC-MW13I	GC-MW14S	GC-MW14I
	Sample Depth:	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
	Sample Date:	7/20/2010	7/20/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	6/24/2010	7/14/2010	7/14/2010	7/13/2010	7/13/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
	Sample Type:	N	N	N	FD	S	N	S	N	N	S	N	N	N	N	N	N	N	N
Parameter	**Units**											**Metals**							
Sodium	ug/l	189,000 (O1)	656,000 (O1)	413,000 (O1)	475,000 (O1)	709,000 (O1)	502,000 (O1)	507,000 (O1)	69,500 (O1)	58,400 (O1)	52,600 (O1)	221,000 (O1)	82,600 (O1)	103,000 (O1)	145,000 (O1)	424,000 (O1)	671,000 (O1)	128,000 (O1)	482,000 (O1)
Sodium, dissolved	ug/l	182,000 (O1)	619,000 (O1)			824,000 (O1)		536,000 (O1)			52,600 (O1)	213,000 (O1)	81,000 (O1)	94,800 (O1)	141,000 (O1)	413,000 (O1)	418,000 (O1)	124,000 (O1)	479,000 (O1)
*Vanadium	ug/l	1.2 J				24.4		31.6				1.1 J		6.4		1.9 J			
*Vanadium, dissolved	ug/l										0.46 J					1.6 J			
*Zinc	ug/l	2.5 J	11.3 J	274	202		109			21.6		14.8 J	1.9 J	53 J	4.7 J	10.7			4.1
*Zinc, dissolved	ug/l	1.9 J	7.6 J								11.4	10.7 J	1.6 J	6.9 J	5 J	8			1.2 J
Cyanide, Total	ug/l							3.8 J			13.3	5 J				10 J	15.5	15.8	19.2

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
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Station Location:	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
Sample Number:	GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
Sample Date:	7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:	N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**										**Metals**							
*Aluminum	ug/l	1,510		471				216	2,950	2,760	786	438	9,480	9,250	228		1,250	1,890	
*Aluminum, dissolved	ug/l											9.9 J						11.4 J	
Antimony	ug/l																		
Antimony, dissolved	ug/l																		
Arsenic	ug/l	**11.2 J (N1)**	**11.1 J (N1)**	8.7 J	2.8 J	3 J	4.7	5.8	**22.9 (N1)**	**24.7 (N1)**		1.3	**10.2 (N1)**	9.5	10	**12.3 (N1)**		6.9	**14.5 J (N1)**
Arsenic, dissolved	ug/l	6.7 J	**11 J (N1)**	7.7 J	2.4 J	2.6 J		4.2		8.7				1.9		9.9		4.9	3.7 J
Barium	ug/l	138	97.5	289	207	202		64.4	352	416	211	243		196	263	256	249	307	36.9 J
Barium, dissolved	ug/l	130	102	282	207	202		50.1		360		241		101		196		286	59.7 J
Beryllium	ug/l																		
Beryllium, dissolved	ug/l																		
Cadmium	ug/l							0.12 J		0.24 J				0.39 J					
*Calcium	ug/l	77,700	96,700	154,000	46,300	47,400	119,000	115,000	54,500	62,300	113,000	128,000	59,000	65,400	93,900	94,900	94,500	111,000	176,000
*Calcium, dissolved	ug/l	69,200	90,000	166,000	51,500	52,100		116,000		60,500		130,000		61,500		93,600		104,000	143,000
Chromium	ug/l	**72.6 (O1)**	4.4	8.6	1.9 J	0.95 J				10.9			25.8	24.3			11.7	8.2	8.6
Chromium, dissolved	ug/l	1.2 J	1.4 J	1.2 J	0.64 J	0.54 J													1.3 J
*Cobalt	ug/l	2.4	1.1 J	1.1	0.55 J	0.46 J		2.1		3				8.6				2.2	2.6
*Cobalt, dissolved	ug/l	2.1	1 J	1.1	0.45 J	0.44 J		1.8											1.7
Copper	ug/l	24.2 J	12.3 J	6.4 J				4.8	39	11.2	27.2	2.8	44.6	38.6		1.1 J	24.3	7.8	12.8 J
Copper, dissolved	ug/l							2.5		0.96 J		1.3 J		0.88 J		0.98 J		1.4 J	
Iron	ug/l	**3,010 (O2)**	**1,410 (O2)**	**25,700 (O2)**	**1,390 (O2)**	**1,490 (O2)**	**482 (O2)**	**532 (O2)**	**24,800 (O2)**	**28,500 (O2)**	**2,650 (O2)**	**2,230 (O2)**	**22,900 (O2)**	**28,100 (O2)**	**3,940 (O2)**	**3,790 (O2)**	**2,970 (O2)**	**5,180 (O2)**	**24,000 (O2)**
Iron, dissolved	ug/l	296	**1,200 (O2)**	**26,700 (O2)**	**1,430 (O2)**	**1,400 (O2)**		237		**7,720 (O2)**	102	30.6 J		12.6 J		83.3 J		14.1 J	**5,330 (O2)**
Lead	ug/l	9.8	0.53 J	6.9	0.56 J	0.21 J	5.1	**25.2 (O1)**	9.3	12.3	7.3	6.4	**25.3 (O1)**	**45.4 (O1)**				4.9	0.74 J
Lead, dissolved	ug/l																		
*Magnesium	ug/l	182,000	251,000	36,800	100,000	102,000	21,600	21,600	38,400	44,800	25,100	29,200	37,800	43,600	15,300	15,800	103,000	123,000	412,000
*Magnesium, dissolved	ug/l	162,000	236,000	42,800	116,000	118,000		21,900		43,700		29,400		39,600		15,400		118,000	327,000
Manganese	ug/l	**642 (O2)**	**761 (O2)**	**2,790 (O2)**	**606 (O2)**	**618 (O2)**	**860 (O2)**	**823 (O2)**	**1,740 (O2)**	**1,910 (O2)**	**356 (O2)**	**381 (O2)**	**1,630 (O2)**	**1,700 (O2)**	**344 (O2)**	**337 (O2)**	**1,050 (O2)**	**1,310 (O2)**	138
Manganese, dissolved	ug/l	**570 (O2)**	**810 (O2)**	**2,870 (O2)**	**616 (O2)**	**604 (O2)**		**779 (O2)**		**1,820 (O2)**	**376 (O2)**	**398 (O2)**	**1,570 (O2)**	**1,500 (O2)**		**320 (O2)**		**1,030 (O2)**	142
Mercury	ug/l	0.095 J	0.076 J	0.08 J	0.054 J	0.064 J							0.21	0.16 J					0.074 J
Mercury, dissolved	ug/l		0.051 J	0.078 J	0.048 J														0.051 J
Nickel	ug/l	51.9 J		8.1 J	0.97 J	0.47 J	10	9.5		7.3		3.3 J	22.4	21.6				6.5	39.9 J
Nickel, dissolved	ug/l	47.1 J	1.8 J	4 J	0.73 J	0.72 J		10.1		3.9		4.2 J		7.4				6	49.1 J
*Potassium	ug/l	111,000	136,000	29,800	60,100	61,500	20,600	17,800	14,600	12,800	27,100	26,700	17,700	16,800	29,900	25,900	74,000	74,900	186,000
*Potassium, dissolved	ug/l	99,700	125,000	31,100	64,300	64,800		17,700		11,900		25,800		14,600		25,800		70,700	146,000
Selenium	ug/l	2.5 J	4 J			1.7 J		0.81 J		10		2 J		3.5 J		1.1 J		**25 (O1)**	
Selenium, dissolved	ug/l		3.2 J			1.6 J		0.52 J		8.1		1.6 J		3.4 J		0.78 J		**23 (O1)**	
Silver	ug/l																		
Silver, dissolved	ug/l																		

TABLE I-36B
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	Station Location:	MW-15	MW-15	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18	MW-18	MW-19	MW-19	MW-19	MW-19	MW-20
	Sample Number:	GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	D-07222010-01	GC-MW17S	GC-MW17S-S-NYC	GC-MW17I	GC-MW17I-S-NYC	GC-MW18S	GC-MW18S-S-NYC	GC-MW18I	GC-MW18I-S-NYC	GC-MW19S	GC-MW19S-S-NYC	GC-MW19I	GC-MW19I-S-NYC	GC-MW20S
	Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow
	Sample Date:	7/22/2010	7/22/2010	7/22/2010	7/22/2010	7/22/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	6/28/2010	7/23/2010
	Sample Type:	N	N	N	N	FD	N	S	N	S	N	S	N	S	N	S	N	S	N
Parameter	**Units**	**Metals**																	
Sodium	ug/l	2,150,000 J (O1)	2,380,000 J (O1)	300,000 (O1)	1,220,000 (O1)	1,230,000 (O1)	395,000 (O1)	391,000 (O1)	497,000 (O1)	628,000 (O1)	634,000 (O1)	748,000 (O1)	314,000 (O1)	342,000 (O1)	489,000 (O1)	469,000 (O1)	1,610,000 (O1)	1,820,000 (O1)	2,410,000 (O1)
Sodium, dissolved	ug/l	1,850,000 (O1)	2,180,000 (O1)	332,000 (O1)	1,310,000 (O1)	1,270,000 (O1)		385,000 (O1)		612,000 (O1)		727,000 (O1)		321,000 (O1)		469,000 (O1)		1,720,000 (O1)	2,020,000 (O1)
*Vanadium	ug/l	3.7 J		1.6 J				2.8 J				10.4		27.3		3.5 J		2.4 J	25.2
*Vanadium, dissolved	ug/l	2 J						1.5 J				7.4				1.4 J			25.5
*Zinc	ug/l	24.4 J	6.3 J	13.1	2	1.1 J			24.9		22.4		59.1						32
*Zinc, dissolved	ug/l	14.9		7.9	4.3	1.5 J		49.3		57.2		52.3		56.5		40.2		50.3	30.5
Cyanide, Total	ug/l	15.1	9.1 J		4.5 J	9.3 J		9.2 J	36	72		3.8 J				5.4 J			

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
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	Station Location:	MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
	Sample Number:	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S-B
	Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/23/2010
	Sample Type:	FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**										**Metals**								
*Aluminum	ug/l	210	362			438	471	176 J	364	243								201	3,710
*Aluminum, dissolved	ug/l																		
Antimony	ug/l										2.7								
Antimony, dissolved	ug/l										2.3								
Arsenic	ug/l	9.7 J	1.3 J	2.9 J	**107 J (O1)**	2.3 J	2.8 J	4.3		**13.7 (N1)**	**40 J (O1)**	1.5 J	9.7 J	3.5 J	**11.2 J (N1)**	4.4 J	**13.4 J (N1)**		9.8 J
Arsenic, dissolved	ug/l	4.5 J	0.83 J	2.4 J	**112 J (O1)**	1.4 J	1.6 J	3.4 J		**16.2 (N1)**	**26.7 (O1)**	1.3	**11.3 J (N1)**	4.3 J	**10.8 J (N1)**	4.4 J	**14 J (N1)**		5.9 J
Barium	ug/l	57.4	872	158	45.1	234	236	241	612	614	583	62.1	118	55.3	21.1	164	87.9 J		715
Barium, dissolved	ug/l	54.6	906	165	45.8	227	234	226	572	585	368	65	122	53	19.6	165	82.4 J		695
Beryllium	ug/l										0.65 J								0.48 J
Beryllium, dissolved	ug/l									0.37 J									
Cadmium	ug/l										0.3 J								
*Calcium	ug/l	150,000	145,000	95,400	25,200	183,000	182,000	168,000	96,100	88,300	324,000	6,610	447,000 J	98,600 J	108,000 J	107,000 J	300,000 J	60,100	129,000
*Calcium, dissolved	ug/l	139,000	138,000	93,200	24,000	189,000	188,000	171,000	93,600	87,400	380,000	6,230	471,000	99,300	110,000	111,000	314,000	57,000	142,000
Chromium	ug/l	18.7	41.4	1.4 J	2.3			2		2.6 J	**834 J (O1)**	2.5 J	20.7 J	2.8 J	1.8 J	0.86 J	**193 J (O1)**		36.8
Chromium, dissolved	ug/l	1.4 J	2.5	1.1 J	1.6 J			0.88 J			19.6	0.41 J	11.4 J	1.1 J	0.85 J	0.38 J	**72.4 J (O1)**		7.2
*Cobalt	ug/l	1.9 J	11.4	0.27 J				1.1			40.8	0.23 J		1.2	0.4 J	1.4		0.22 J	3.1
*Cobalt, dissolved	ug/l	1.6	4.1	0.23 J							0.77 J			0.95 J	0.37 J	0.87 J		0.79 J	1.7
Copper	ug/l	17.1 J	31.3					4.3			59.7							5.3 J	262
Copper, dissolved	ug/l																		
Iron	ug/l	**5,970 (O2)**	**20,800 (O2)**	**3,360 (O2)**	**1,120 (O2)**	**8,320 J (O2)**	**8,320 J (O2)**	**7,410 J (O2)**	**5,160 J (O2)**	**4,740 J (O2)**	**9,840 (O2)**	**307 (O2)**	**3,900 J (O2)**		**17,400 J (O2)**	**5,930 J (O2)**	**6,110 J (O2)**	**6,950 (O2)**	**23,300 (O2)**
Iron, dissolved	ug/l	**5,920 (O2)**	**21,600 (O2)**	**3,390 (O2)**	**1,010 (O2)**	**4,770 J (O2)**	**4,960 J (O2)**	**4,620 (O2)**	**1,860 J (O2)**	**1,680 (O2)**		38.9 J	**4,270 (O2)**		**16,400 (O2)**	**6,140 (O2)**	**4,800 (O2)**	**5,510 (O2)**	**15,100 (O2)**
Lead	ug/l	2.5	2.7	2.2	0.24 J	**16.4 J (N1)**	**22.2 J (N1)**	**20.7 (N1)**			**17.3 J (N1)**			0.96 J	2	0.36 J	4.7 J		**21.9 (N1)**
Lead, dissolved	ug/l			0.26 J				3 J		2.3 J				0.59 J					0.4 J
*Magnesium	ug/l	348,000	122,000	27,400	23,100	21,300	21,300	19,400	207,000	199,000	341,000	7,360	544,000 J	57,000 J	65,300 J	73,700 J	886,000 J	61,000	101,000
*Magnesium, dissolved	ug/l	315,000	113,000	27,900	22,400	21,800	21,700	19,500	202,000	197,000	114,000	6,990	569,000	57,400	66,800	74,700	927,000	57,300	90,700
Manganese	ug/l	170	**929 (O2)**	**594 (O2)**	211	**945 (O2)**	**937 (O2)**	**943 (O2)**	182	185	**860 J (O2)**	44.3 J	**416 (O2)**	**388 (O2)**	**603 (O2)**	**2,470 (O2)**	257		**1,570 (O2)**
Manganese, dissolved	ug/l	140	**936 (O2)**	**601 (O2)**	205	**972 (O2)**	**972 (O2)**	**935 (O2)**	148	151	**994 (O2)**	46.6	**424 (O2)**	**415 (O2)**	**616 (O2)**	**2,720 (O2)**	230		**1,320 (O2)**
Mercury	ug/l	0.089 J	0.074 J	0.096 J	0.086 J	0.21	0.2 J				0.26	0.096 J	0.076 J	0.079 J	0.2	0.082 J	0.092 J	0.14 J	0.14 J
Mercury, dissolved	ug/l	0.055 J		0.063 J	0.075 J								0.092 J	0.096 J	0.1 J	0.1 J	0.09 J	0.075 J	0.05 J
Nickel	ug/l	52.3 J	24.4 J	2.2 J	1.3 J	2 J	2.5 J	8.1	3.9 J	6.5	**441 J (O1)**		9.3 J	2.2 J	1.5 J	1.2 J	59.5 J		48.4 J
Nickel, dissolved	ug/l	44.1 J	14.5 J	1.9 J	2 J	1.3 J	1.3 J	7.4	1.6 J	5.2	3.2 J	0.62 J	3.6 J	1.9 J	1.2 J	0.71 J	30.4 J		30.7 J
*Potassium	ug/l	152,000	61,700	36,000	31,300	27,300	27,300	25,400	78,300	75,600	107,000	13,600	185,000 J	11,200 J	36,200 J	22,800 J	304,000 J	45,700	90,200
*Potassium, dissolved	ug/l	140,000	57,800	36,500	29,300	28,100	28,200	25,600	77,800	76,100	49,600	12,600	195,000	11,500	36,500	23,600	310,000	37,300	81,200
Selenium	ug/l								6.5 J		4.3 J								
Selenium, dissolved	ug/l			0.97 J	1.2 J						4.2 J								
Silver	ug/l		0.16 J								1.7 J								

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
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	Station Location:	MW-20	MW-20	MW-21	MW-21	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-26	MW-26	MW-27	MW-27	MW-28
	Sample Number:	D-07232010-01	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MWXX	GC-MW23S-S-NG	GC-MW-23I(33.75-38.75)	GC-MW23I-S-NG	GC-MW24S	GC-MW24I	GC-MW25S	GC-MW25I	GC-MW26S	GC-MW26I	GC-MW27S	GC-MW27I	GC-MW28S-B
	Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
	Sample Date:	7/23/2010	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/21/2010	7/22/2010	7/23/2010
	Sample Type:	FD	N	N	N	N	FD	S	N	S	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l																		
Sodium	ug/l	2,340,000 (O1)	978,000 (O1)	203,000 (O1)	416,000 (O1)	177,000 (O1)	176,000 (O1)	154,000 (O1)	2,520,000 (O1)	2,350,000 (O1)	1,030,000 (O1)	381,000 (O1)	3,940,000 (O1)	78,900 (O1)	150,000 (O1)	155,000 (O1)	7,080,000 (O1)	1,310,000 J (O1)	896,000 (O1)
Sodium, dissolved	ug/l	1,990,000 (O1)	853,000 (O1)	203,000 (O1)	392,000 (O1)	182,000 (O1)	183,000 (O1)	158,000 (O1)	2,540,000 (O1)	2,330,000 (O1)	578,000 (O1)	356,000 (O1)	3,970,000 (O1)	80,800 (O1)	153,000 (O1)	159,000 (O1)	7,020,000 (O1)	411,000 (O1)	688,000 (O1)
*Vanadium	ug/l	54.9	4.3 J								68.9			5.8	1.3 J				3.6 J
*Vanadium, dissolved	ug/l	23									6.3			6.1					
*Zinc	ug/l	41.5	43.4	3	4.9	23	24.4	59.1		45				12.9 J	7.2 J	42.1 J	10 J		108
*Zinc, dissolved	ug/l	30.3	14.3	1.2 J	2.5			34.8		58.4				10 J	4.3 J	1.7 J		2.6	77.4
Cyanide, Total	ug/l		9.9 J			148	147	128	16.8	16.4	11.3							32.3	42.2

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		MW-28	MW-28	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33
Sample Number:		GC-MW28I	D-07212010-01	GC-MW29S-A	GC-MW29S-B	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I
Sample Depth:		Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:		7/21/2010	7/21/2010	7/22/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010
Sample Type:		N	FD	N	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N
Parameter	**Units**																		
											Metals								
*Aluminum	ug/l			2,680			2,250	1,430		243	57.5 J	104 J	71.6 J		444	1,010	382		
*Aluminum, dissolved	ug/l										15.9 J		8.8 J				59.4 J		
Antimony	ug/l																		
Antimony, dissolved	ug/l																		
Arsenic	ug/l	8.1 J	8.5 J	7.5 J		7.3 J	3.5 J	4.4 J		1.5 J	**24.1 (N1)**	0.97 J	4.2 J		5 J	2.7 J	5.8 J	**12.3 J (N1)**	3.4 J
Arsenic, dissolved	ug/l	9.4 J	8.7 J		4.6 J	8.9 J		0.86 J		1.4 J	**13.4 (N1)**		1.6			2.8 J	7.6 J	**12.9 (N1)**	3.9
Barium	ug/l	108	113	806		869	116	115 J	458	199	165 J	62.2 J	61.3	456	532	410	415	501	724
Barium, dissolved	ug/l	113	113		764	799	95.5 J	92.1	451	184 J	176 J	63.8 J	59.2 J	453	478	394	404	408	773
Beryllium	ug/l										0.34 J								
Beryllium, dissolved	ug/l																		
Cadmium	ug/l																		
*Calcium	ug/l	107,000 J	103,000 J	152,000		85,300 J	124,000	111,000	74,600	292,000	248,000	119,000	103,000	124,000	114,000	103,000	95,500	108,000	116,000
*Calcium, dissolved	ug/l	108,000	106,000		174,000	87,100	120,000	108,000	72,900	275,000	256,000	119,000	99,800	122,000	116,000	103,000	95,600	100,000	108,000
Chromium	ug/l	0.45 J	0.47 J	**95.5 (O1)**		0.73 J		6.9 J			0.81 J		2.1		2.8 J		3.7 J	17.3 J	3.1 J
Chromium, dissolved	ug/l				5.4	0.53 J		0.62 J			0.75 J		1.6 J		0.67 J		1.3 J	1.3 J	0.7 J
*Cobalt	ug/l			8.1		0.21 J	3.1 J	1.6										2.4	1.2
*Cobalt, dissolved	ug/l				11.9	0.23 J												1.1	1.3
Copper	ug/l			175				19.6 J							5.7		3	14.7 J	
Copper, dissolved	ug/l																		
Iron	ug/l	**11,800 J (O2)**	**11,400 J (O2)**	**16,500 (O2)**		**9,530 J (O2)**		**3,480 J (O2)**	**4,000 (O2)**	**632 J (O2)**	**463 J (O2)**	**2,740 J (O2)**	**2,250 J (O2)**	**9,810 J (O2)**	**10,000 J (O2)**	**4,130 J (O2)**	**3,130 J (O2)**	**33,900 (O2)**	**9,990 (O2)**
Iron, dissolved	ug/l	**11,500 (O2)**	**11,400 (O2)**		**6,060 (O2)**	**9,690 (O2)**	72.9 J	96.2 J	**3,750 J (O2)**	**508 J (O2)**	**507 (O2)**	**2,480 J (O2)**	**2,100 (O2)**	**9,610 J (O2)**	**8,930 (O2)**	**2,360 J (O2)**	**2,330 (O2)**	**31,600 (O2)**	**9,120 (O2)**
Lead	ug/l	0.26 J	0.27 J	**21 (N1)**		0.19 J	**26.7 J (O1)**	**24.8 (N1)**	0.96 J	0.84 J	2.6 J	1.3 J	3.8 J	10 J	**57.6 (O1)**	4.6 J	4.5 J	6	0.36 J
Lead, dissolved	ug/l				0.93 J			3.2 J							4.3 J		2.6 J		
*Magnesium	ug/l	42,100 J	40,200 J	59,000		72,500 J	69,200	62,500	51,300	599,000	532,000	24,700	21,200	8,370	7,790	63,500	59,400	39,200	57,700
*Magnesium, dissolved	ug/l	42,200	41,600		64,400	75,300	66,200	61,000	50,100	562,000	552,000	25,200	21,100	8,220	7,640	63,200	59,800	36,000	53,600
Manganese	ug/l	**3,330 (O2)**	**3,490 (O2)**	**1,590 (O2)**		**583 (O2)**	**717 (O2)**	**678 (O2)**	**1,800 (O2)**	**1,200 (O2)**	**916 (O2)**	**401 (O2)**	**381 (O2)**	**600 (O2)**	**622 (O2)**	**1,240 (O2)**	**1,200 (O2)**	**1,480 J (O2)**	**1,650 J (O2)**
Manganese, dissolved	ug/l	**3,600 (O2)**	**3,540 (O2)**		**1,590 (O2)**	**541 (O2)**	**652 (O2)**	**643 (O2)**	**1,760 (O2)**	**1,000 (O2)**	**1,010 (O2)**	**409 (O2)**	**378 (O2)**	**585 (O2)**	**604 (O2)**	**1,210 (O2)**	**1,190 (O2)**	**1,510 (O2)**	**1,720 (O2)**
Mercury	ug/l	0.1 J	0.097 J	0.08 J		0.078 J	0.14 J											0.081 J	0.083 J
Mercury, dissolved	ug/l	0.095 J	0.12 J		0.057 J	0.095 J													
Nickel	ug/l	4.6 J	4.9 J	**110 J (O1)**		4.7 J	5.1 J	7.2			4.3	2.4 J	5.5		3.1	5.8 J	7.2	17 J	2.7 J
Nickel, dissolved	ug/l	4.8 J	4.9 J		14.9 J	5 J		1.6			4.5	1.9 J	5		1.3		3.5	6.9 J	1.5 J
*Potassium	ug/l	20,400 J	19,700 J	62,500		14,800 J	9,480	8,290	12,400	198,000	179,000	31,700	27,900	5,190	4,850 J	17,200	15,300	28,500	14,900
*Potassium, dissolved	ug/l	20,400	20,000		59,200	15,200	8,820	8,000	12,000	186,000	183,000	31,800	27,300	5,180	4,740 J	17,000	15,500	26,300	13,700
Selenium	ug/l									8.1 J			5 J						
Selenium, dissolved	ug/l									7.1 J								1.2 J	
Silver	ug/l			0.46 J															

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
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	Station Location:	MW-28	MW-28	MW-29	MW-29	MW-29	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-32	MW-32	MW-32	MW-32	MW-33	MW-33
	Sample Number:	GC-MW28I	D-07212010-01	GC-MW29S-A	GC-MW29S-B	GC-MW29I	GC-MW30S(7-16)	GC-MW30S-S-NG	GC-MW30I(30-35)	GC-MW31S(6.75-14.6)	GC-MW31S-S-NG	GC-MW31I(30-35)	GC-MW31I-S-NG	GC-MW-32S(12-19)	GC-MW32S-S-NG	GC-MW-32I(40-45)	GC-MW32I-S-NG	GC-MW33S	GC-MW33I
	Sample Depth:	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Shallow	Intermediate	Intermediate	Shallow	Intermediate
	Sample Date:	7/21/2010	7/21/2010	7/22/2010	7/23/2010	7/21/2010	7/21/2010	7/21/2010	7/19/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/20/2010	7/20/2010	7/20/2010	7/20/2010	7/15/2010	7/15/2010
	Sample Type:	N	FD	N	N	N	N	S	N	N	S	N	S	N	S	N	S	N	N
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l										0.44 J								
Sodium	ug/l	127,000 (O1)	122,000 (O1)	545,000 (O1)		552,000 (O1)	173,000 (O1)	146,000 (O1)	248,000 (O1)	4,900,000 (O1)	4,340,000 (O1)	120,000 (O1)	101,000 (O1)	7,690	7,730	96,600 (O1)	91,200 (O1)	245,000 (O1)	103,000 (O1)
Sodium, dissolved	ug/l	125,000 (O1)	124,000 (O1)		488,000 (O1)	610,000 (O1)	167,000 (O1)	144,000 (O1)	243,000 (O1)	4,580,000 (O1)	4,540,000 (O1)	122,000 (O1)	100,000 (O1)	7,600	7,760	97,400 (O1)	92,000 (O1)	223,000 (O1)	96,700 (O1)
*Vanadium	ug/l			2.8 J			7.1 J	4.6 J								2.1 J		1.7 J	
*Vanadium, dissolved	ug/l																		
*Zinc	ug/l	1.9 J	1.9 J	165		3.6 J	27.9	56.4			56.6 J		36.9	7.9 J	72.3		34.2	14.9 J	6.2 J
*Zinc, dissolved	ug/l				65	4.8 J		28.3 J			54.5		30.8		33.1		23.4	7.4 J	5 J
Cyanide, Total	ug/l				4.8 J							11.3	7.4 J		7.3 J				

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
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Station Location:	MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41
Sample Number:	D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG
Sample Depth:	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow
Sample Date:	7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010
Sample Type:	FD	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S
Parameter / **Units**										**Metals**								
*Aluminum ug/l														2,570			284	73.4 J
*Aluminum, dissolved ug/l																	204	
Antimony ug/l																		
Antimony, dissolved ug/l																		
Arsenic ug/l	3.7 J	3.3 J	0.25 J	9 J	8.4 J	3.8 J	3.6 J	1.3 J	2.9	1.6	1.6	1.7 J	**14.9 J (N1)**	6.8	1.3	1.8 J	1.3 J	7 J
Arsenic, dissolved ug/l	3.9	3.1	0.28 J	8.4 J	8.2 J	2.5 J	2.4 J	1.7 J	2.7	1.6	1.4	1.4 J	**15.9 J (N1)**	5.9	1.1	1.8 J	1.2 J	4
Barium ug/l	733	265	93.6	246	238	335	335	243	341	350	367	273	159	326	**2,900 (O1)**	616	132	134
Barium, dissolved ug/l	766	287	98.1	240	240	311	309	239	340	384	397	260	161	125	**2,850 (O1)**	605	127	136
Beryllium ug/l																		
Beryllium, dissolved ug/l																		
Cadmium ug/l														0.26 J				
*Calcium ug/l	116,000	283,000	49,700	138,000 J	147,000 J	167,000	165,000	51,600	111,000	31,900	32,200	172,000 J	69,600 J	75,900	162,000	75,600	223,000	207,000
*Calcium, dissolved ug/l	111,000	271,000	49,100	143,000	148,000	178,000	178,000	57,800	119,000	33,600	34,700	170,000	68,000	77,800	176,000	72,900	218,000	215,000
Chromium ug/l	2.5 J	7.4 J	1 J	18 J	3.1 J	5.9	6.6	9.3	39.7	1.5 J	1.5 J	8.6 J	5.3 J	29.5	16.4			1.2 J
Chromium, dissolved ug/l	0.64 J	3.1	0.91 J	2.7 J	1 J	1.4 J	1.2 J	0.46 J	7.6	0.55 J	0.54 J	1.7 J	0.72 J	0.6 J	5			1.1 J
*Cobalt ug/l	1.2	0.54 J		1.2	0.68 J	2	2	0.38 J	1.3			0.44 J	2.1	2.2	7.4	3.5 J		
*Cobalt, dissolved ug/l	1.3	0.53 J		1	0.7 J	2.6	2.6	0.47 J	0.93 J			0.37 J	1.5	0.68 J	7.4	3.6 J		
Copper ug/l				2.9 J				4.8 J	3.8 J			2.5 J		22.2 J	35.8			
Copper, dissolved ug/l														5 J				
Iron ug/l	**10,000 (O2)**	**2,750 (O2)**		**11,100 J (O2)**	**9,450 J (O2)**	**13,000 (O2)**	**12,500 (O2)**	**2,000 (O2)**	**7,880 (O2)**	**1,470 (O2)**	**1,480 (O2)**	**8,100 J (O2)**	**655 J (O2)**	**6,140 (O2)**	**10,200 (O2)**	**824 J (O2)**	**7,510 J (O2)**	**6,630 J (O2)**
Iron, dissolved ug/l	**9,380 (O2)**	**1,910 (O2)**		**12,100 (O2)**	**9,280 (O2)**	**11,500 (O2)**	**11,200 (O2)**	**1,130 (O2)**	**7,720 (O2)**	**1,510 (O2)**	**1,540 (O2)**	**7,670 (O2)**	**584 (O2)**	**1,110 (O2)**	**9,880 (O2)**	**557 J (O2)**	**6,670 J (O2)**	**6,650 (O2)**
Lead ug/l	0.29 J	0.76 J	0.24 J	5.4	0.45 J	0.65 J	0.62 J	2.1	2.4	0.24 J	0.75 J	0.53 J	0.6 J	**110 (O1)**	6.8 J			2.9 J
Lead, dissolved ug/l														4.6	2.4 J			4.4 J
*Magnesium ug/l	57,500	113,000	47,300	19,600 J	18,500 J	25,600 J	25,400 J	65,000 J	48,300	53,000	53,600	20,900 J	49,400 J	12,000	490,000	194,000	48,200	44,900
*Magnesium, dissolved ug/l	55,000	112,000	47,400	22,100	18,700	31,100 J	31,300 J	78,400 J	49,800	56,200	57,800	20,600	47,900	11,800	538,000	195,000	47,100	46,500
Manganese ug/l	**1,680 J (O2)**	**1,320 J (O2)**	**1,140 J (O2)**	**1,190 (O2)**	**1,240 (O2)**	**847 (O2)**	**839 (O2)**	**1,600 (O2)**	**856 (O2)**	**369 (O2)**	**382 (O2)**	**1,480 (O2)**	**1,520 (O2)**	**754 (O2)**	**1,710 (O2)**	**6,340 (O2)**	**2,060 (O2)**	**2,040 (O2)**
Manganese, dissolved ug/l	**1,720 (O2)**	**1,400 (O2)**	**1,190 (O2)**	**1,140 (O2)**	**1,290 (O2)**	**761 (O2)**	**762 (O2)**	**1,560 (O2)**	**935 (O2)**	**414 (O2)**	**402 J (O2)**	**1,470 (O2)**	**1,520 (O2)**	**704 (O2)**	**1,710 (O2)**	**6,260 (O2)**	**2,020 (O2)**	**2,210 (O2)**
Mercury ug/l	0.075 J	0.071 J	0.11 J	0.098 J	0.081 J	0.091 J	0.061 J	0.059 J	0.1 J	0.1 J	0.16 J	0.08 J	0.077 J	0.49	0.073 J			
Mercury, dissolved ug/l				0.098 J	0.096 J	0.13 J	0.12 J	0.15 J	0.091 J	0.11 J	0.11 J	0.089 J	0.094 J	0.11 J	0.056 J			
Nickel ug/l	2.4 J	4.7 J	1.2 J	19.3 J	3.8 J	4.6 J	5 J	6.2 J	35.1 J	1 J	1 J	7.2 J	3.9 J	36.9 J	13.9 J	7.2 J		3.8
Nickel, dissolved ug/l	1.2 J	0.78 J	0.94 J	12.2 J	2.3 J	3.3 J	3.1 J	10.1 J	19.3 J	0.58 J	0.21 J	4.7 J	2.7 J	19.2 J	12 J	6.6 J		3.9
*Potassium ug/l	15,000	54,200	19,800	33,400 J	30,700 J	26,200	25,500	24,800	44,700	29,700	30,300	22,100 J	16,500 J	10,700	197,000	70,600	31,500	29,800
*Potassium, dissolved ug/l	14,200	53,200	19,800	36,700	30,900	28,000	28,100	27,800	46,800	31,200	32,100	21,800	16,200	11,400	210,000	71,800	30,800	30,900
Selenium ug/l		3.1 J							2.4 J	2 J	1.6 J							
Selenium, dissolved ug/l		2.3 J						2.2 J	2.1 J	2.1 J	1.9 J							
Silver ug/l																		
Silver, dissolved ug/l																		0.38 J

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-33	MW-34	MW-34	MW-35	MW-35	MW-36	MW-36	MW-36	MW-37	MW-37	MW-37	MW-38	MW-38	MW-39	MW-39	MW-40	MW-41	MW-41
	Sample Number:	D-07152010-01	GC-MW34S	GC-MW34I	GC-MW35S	GC-MW35I	GC-MW36S	D-07222010-02	GC-MW36I	GC-MW37S	GC-MW37I	D-07262010-01	GC-MW38S	GC-MW38I	GC-MW39S	GC-MW39I	GC-MW40I	GC-MW-41S(8-13)	GC-MW41S-S-NG
	Sample Depth:	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Shallow
	Sample Date:	7/15/2010	7/16/2010	7/16/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/22/2010	7/26/2010	7/26/2010	7/26/2010	7/20/2010	7/20/2010	7/26/2010	7/26/2010	7/19/2010	7/20/2010	7/20/2010
	Sample Type:	FD	N	N	N	N	N	FD	N	N	N	FD	N	N	N	N	N	N	S
Parameter	**Units**	**Metals**																	
Sodium	ug/l	104,000 (O1)	722,000 (O1)	150,000 (O1)	170,000 (O1)	124,000 (O1)	140,000 (O1)	136,000 (O1)	599,000 (O1)	466,000 (O1)	300,000 (O1)	303,000 (O1)	96,100 (O1)	84,400 (O1)	108,000 (O1)	3,760,000 (O1)	1,590,000 (O1)	604,000 (O1)	592,000 (O1)
Sodium, dissolved	ug/l	99,600 (O1)	757,000 (O1)	151,000 (O1)	183,000 (O1)	124,000 (O1)	161,000 (O1)	159,000 (O1)	699,000 (O1)	475,000 (O1)	311,000 (O1)	312,000 (O1)	92,900 (O1)	82,000 (O1)	121,000 (O1)	4,140,000 (O1)	1,620,000 (O1)	577,000 (O1)	599,000 (O1)
*Vanadium	ug/l				1.5 J		1.2 J	1.1 J					1.8 J		4.7 J	2.5 J		5.1 J	5.2
*Vanadium, dissolved	ug/l												1.4 J			2 J		4.7 J	4.6 J
*Zinc	ug/l	3.1 J	3.4 J	2.1 J	11.5 J	7.2 J	1.8 J	1.5 J	6.8	14.4		26.3	10.2 J	6.9 J	71.2	19.9			36.3
*Zinc, dissolved	ug/l	3.4 J		4.2 J	4.8 J	3.5 J	4.8	1.3 J	3.2	7.1	1.8 J	1.8 J	3.7 J	2.1 J	11.5	16.8			29.6
Cyanide, Total	ug/l				32.8	31	12.2	10.3		6.1 J			8.5 J			15.4	10.2	21.8	20.1

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
Sample Number:	GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
Sample Depth:	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
Sample Date:	7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
Sample Type:	N	S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**													
										Metals				
*Aluminum	ug/l		20.1 J			204				357		307	3,270	
*Aluminum, dissolved	ug/l													
Antimony	ug/l													
Antimony, dissolved	ug/l													
Arsenic	ug/l		4.3		**24.1 J (N1)**	8.9 J	**10.4 J (N1)**	**26 J (O1)**	**16 (N1)**	**15.8 (N1)**	6.8	3.2	3.5	4.9 J	9.2
Arsenic, dissolved	ug/l		4.4		**25.7 (O1)**	7.8 J	**10.7 J (N1)**	**26.2 J (O1)**	6	5.9	6.2	2.9 J	4.7 J	5.9 J	8.5
Barium	ug/l	299	300	7.5 J	74.4	339	180	495	301	309	81.9	242	188	701	234
Barium, dissolved	ug/l	298	297	67.8 J	75.5	225	175	515	255	253	78.5 J	246 J	200 J	627 J	242 J
Beryllium	ug/l														
Beryllium, dissolved	ug/l														
Cadmium	ug/l														
*Calcium	ug/l	37,800	35,800	221,000	60,000	75,000	35,300	246,000 J	99,900	102,000	35,700	86,400	96,300	288,000	76,900
*Calcium, dissolved	ug/l	37,100	34,700	238,000	57,400	72,100	32,900	244,000	99,100	104,000	36,600	82,600	98,800	248,000	80,100
Chromium	ug/l		1.2 J	0.68 J	1.1 J	10.5	2.4	1.8 J	0.59 J	0.64 J	3.4 J	1.8 J	8.6 J	8.9 J	1.4 J
Chromium, dissolved	ug/l			6.6 J	0.58 J	2.2	0.68 J	0.9 J			1.8 J	0.6 J	0.41 J	13 J	0.61 J
*Cobalt	ug/l		1.1		1.1	2.6	0.24 J	2.5	0.42 J	0.33 J	0.24 J	0.77 J	0.48 J	3.8 J	0.25 J
*Cobalt, dissolved	ug/l		1.1		1.3	3.6		2.6	0.33 J	0.32 J		0.56 J			0.28 J
Copper	ug/l		2.2			9.7 J		10.9 J						42	
Copper, dissolved	ug/l	7.1 J	2.6												
Iron	ug/l	**569 J (O2)**	**610 J (O2)**		**1,960 (O2)**	**19,600 (O2)**	**1,390 (O2)**	**47,700 J (O2)**	**11,200 (O2)**	**11,400 (O2)**	**1,250 (O2)**	**3,420 (O2)**	**7,570 (O2)**	**25,200 (O2)**	**14,600 (O2)**
Iron, dissolved	ug/l	**526 J (O2)**	**506 (O2)**		**1,780 (O2)**	**11,300 (O2)**	**1,300 (O2)**	**47,000 (O2)**	**2,110 (O2)**	**2,930 (O2)**	**443 (O2)**	**3,140 (O2)**	**7,780 (O2)**	**8,520 (O2)**	**15,100 (O2)**
Lead	ug/l					2.1	0.44 J	2.9	1.9	2	5.9		10.7 J		
Lead, dissolved	ug/l		2.6 J								0.22 J				
*Magnesium	ug/l	79,600	76,900	624,000	54,700	79,100	63,600	182,000 J	47,300	48,300	2,720 J	36,400	36,100	269,000	37,100
*Magnesium, dissolved	ug/l	79,300	75,800	675,000	52,400	92,700	59,000	180,000	47,300	48,900	2,740 J	34,100	36,600	173,000	38,200
Manganese	ug/l	**2,100 (O2)**	**2,120 (O2)**		121 J	**763 (O2)**	**413 (O2)**	**2,890 (O2)**	**658 J (O2)**	**676 J (O2)**	108	**795 (O2)**	**827 (O2)**	**1,610 (O2)**	**857 (O2)**
Manganese, dissolved	ug/l	**2,090 (O2)**	**2,090 (O2)**		137	**803 (O2)**	**412 (O2)**	**3,100 (O2)**	**655 (O2)**	**629 (O2)**	111 J	**836 J (O2)**	**904 J (O2)**	**1,630 J (O2)**	**909 J (O2)**
Mercury	ug/l			0.071 J	0.069 J	0.052 J	0.075 J	0.079 J							
Mercury, dissolved	ug/l						0.064 J	0.074 J							
Nickel	ug/l	8.1 J	10.7 J	0.74 J	1.3 J		1.7 J	1.4 J	0.6 J	0.69 J	3 J		10.3 J	**110 J (O1)**	4.6 J
Nickel, dissolved	ug/l	7.6 J	9.8 J	8.3 J	0.86 J		1.2 J	1.7 J	0.64 J	0.61 J	1.6 J	1.5 J	2.1 J	84.9 J	6.2 J
*Potassium	ug/l	46,400	45,000	210,000	33,100	77,800	48,800	99,000 J	13,500	13,700	10,900	7,660	8,130	85,500	7,260
*Potassium, dissolved	ug/l	46,200	44,500	222,000	32,500	81,200	45,400	100,000	13,400	13,900	11,300	7,280	8,240	63,500	7,480
Selenium	ug/l			3.1 J	1.2 J	1.3 J	1.7 J								
Selenium, dissolved	ug/l			**30.2 J (O1)**	1.6 J	1.5 J	1.9 J								
Silver	ug/l		0.39 J												
Silver, dissolved	ug/l		0.45 J	1.6 J											

TABLE I-36B
Metal and Cyanide Concentrations in Groundwater, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	MW-41	MW-41	MW-42	MW-42	MW-43	MW-43	MW-44	MW-44	MW-44	MW-45	MW-45	MW-46	MW-47	MW-47
	Sample Number:	GC-MW-41I(53-58)	GC-MW41I-S-NG	GC-MW42S	GC-MW42I	GC-MW43S	GC-MW43I	GC-MW44S	GC-MW44I	D-07082010-01	GC-MW45S	GC-MW45I	GC-MW46D	GC-MW47S	GC-MW47I
	Sample Depth:	Intermediate	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate	Intermediate	Shallow	Intermediate
	Sample Date:	7/19/2010	7/19/2010	7/16/2010	7/16/2010	7/22/2010	7/22/2010	7/20/2010	7/8/2010	7/8/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010	7/19/2010
	Sample Type:	N	S	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**													
Sodium	ug/l	1,280,000 (O1)	1,150,000 (O1)	4,690,000 (O1)	540,000 (O1)	765,000 J (O1)	686,000 (O1)	1,880,000 (O1)	186,000 (O1)	189,000 (O1)	207,000 (O1)	123,000 (O1)	117,000 (O1)	1,900,000 (O1)	130,000 (O1)
Sodium, dissolved	ug/l	1,270,000 (O1)	1,130,000 (O1)	4,990,000 (O1)	520,000 (O1)	939,000 J (O1)	707,000 (O1)	1,800,000 (O1)	186,000 J (O1)	190,000 J (O1)	215,000 (O1)	116,000 (O1)	127,000 (O1)	1,320,000 (O1)	131,000 (O1)
*Vanadium	ug/l					1.5 J		1.2 J			3.3 J				
*Vanadium, dissolved	ug/l					1.5 J					2.7 J				
*Zinc	ug/l		32.4	3.4 J	2.6 J	9.1	1.8 J	5.7 J	3.6 J	3.2 J	9.1			22.8	2.1
*Zinc, dissolved	ug/l		25.6	14.5 J	1.9 J	7.2		4.7 J	2.7	2.7	1.6 J			13.2 J	2.3
Cyanide, Total	ug/l				52.4	12.8	10.4	28.7	7.4 J	6.5 J				14.3	

TABLE I-37

Geochemistry Results in Groundwater

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	MW-1	MW-1	MW-2	MW-2	MW-3	MW-3	MW-4	MW-4
Sample Number:	MW01S	MW01I	MW02S	MW02I	GC-MW03S	GC-MW03I	GC-MW04S	GC-MW04I
Sampling Entity:	NYC	NYC	NYC	NYC	EPA	EPA	EPA	EPA
Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate
Sample Date:	6/25/2010	6/25/2010	6/25/2010	6/25/2010	7/12/2010	7/12/2010	7/12/2010	7/12/2010
Sample Type:	N	N	N	N	N	N	N	N
Geochemistry Parameters								
Alkalinity	NA	NA	310	227	134	272	1110	2 U
Ammonia (as nitrogen)	NA	NA	NA	NA	0.72	0.15	18.9	0.51
Chloride	NA	NA	121	132	13500	341	321	458
Organic Carbon - Dissolved	NA	NA	4.9	1.1	1 UJ	1 UJ	10.8 J	1 UJ
Total Hardness (as Calcium Carbonate)	NA	NA	217	294	4230	394	691	294
Nitrogen, Nitrate	NA	NA	0.11	0.009 U	3.6	0.084 J	0.14	0.1 U
Nitrogen, Nitrate + Nitrite	NA	NA	0.12	0.008 U	NA	NA	NA	NA
Nitrogen, Nitrite	NA	NA	0.011	0.001 U	NA	NA	NA	NA
Total Kjeldahl Nitrogen	NA	NA	2.4	1.1	0.35	0.2 U	19.1	0.33
Total Orthophosphate Phosphorus (As PO4)	NA	NA	0.32	0.65	1 U	0.1 U	0.1 U	0.1 U
Silica (SiO_2)	NA	NA	21.4	20.3	5.4	20	47.2	20.4
Sulfate	NA	NA	33.2	54.3	1810	107	4.8	73.2
Total Dissolved Solids	NA	NA	506	506	23400	1020	1440	774
Organic Carbon - Total	NA	NA	5.5	1.1	1 UJ	1 UJ	9.2 J	1 UJ
Total Suspended Solids	NA	NA	16	77	54	6	125	11
Aluminum	1190	9610	7.8 U	1820	3000 U	3000 U	1660 J	3000 U
Calcium	182000	88800	56700	43300	310000	72300 J	135000	46100 J
Iron - Total	3950	19900	5480	4540	1500 U	930 J	20900	664 R
Magnesium	116000	55500	11600	42400	770000	50900 J	92200	41500 J
Manganese - Total	727	495	366	515	34.6 R	2070	1230	823
Potassium	39900	14900	22900	23900	254000	75000 U	42200 J	75000 U
Sodium	629000	89100	116000	55400	5700000 J	196000	309000	177000
Iron - Dissolved	NA	NA	454	18 U	1500 UJ	817 J	13800 J	2170 R
Manganese - Dissolved	NA	NA	381	523	21600 R	4.2	1140	843
Iron - Ferrous	1.3	1.9	3.25	0.9	0.03	0.69	2.16	0.35

Notes:

All units in ug/l

J - estimated value

NA - Not Analyzed

U - not detected

TABLE I-37

Geochemistry Results in Groundwater

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	MW-9	MW-9	MW-15	MW-15	MW-16	MW-16	MW-18	MW-18	MW-20
Sample Number:	MW09S	MW09I	GC-MW15S	GC-MW15I	GC-MW16S	GC-MW16I	MW18S	MW18I	GC-MW20S
Sampling Entity:	NYC	NYC	EPA	EPA	EPA	EPA	NYC	NYC	EPA
Sample Depth:	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:	6/24/2010	6/24/2010	7/27/2010	7/27/2010	7/27/2010	7/27/2010	6/28/2010	6/28/2010	7/23/2010
Sample Type:	N	N	N	N	N	N	N	N	N
Geochemistry Parameters									
Alkalinity	256	687	532 J	622 J	736 J	588 J	499	482	182
Ammonia (as nitrogen)	NA	NA	2.8	0.89	0.79	1.4	NA	NA	2.1
Chloride	1230	707	3790	2690	408	2180	1150	414	5570
Organic Carbon - Dissolved	9.7	3.7	1 U	1 U	21.6	1 U	16.4	2.6	1
Total Hardness (as Calcium Carbonate)	1430	463	1020	1370	662	636	463	353	2050
Nitrogen, Nitrate	0.009 U	0.009 U	0.1 U	1 U	0.1 U	0.1 U	0.009 U	4.9	1
Nitrogen, Nitrate + Nitrite	0.008 U	0.008 U	NA	NA	NA	NA	0.008 U	4.9	NA
Nitrogen, Nitrite	0.001 U	0.001 U	NA	NA	NA	NA	0.001 U	0.001 U	NA
Total Kjeldahl Nitrogen	9	9.2	2	6.9	7.5	1.7	4.7	2.1	1.3
Total Orthophosphate Phosphorus (As PO4)	1.6	1.4	1 U	1 U	0.1 U	0.1 U	0.61	0.48	1
Silica (SiO_2)	14	18.6	20000 J	16300 J	41600 J	15600 J	19.1	18.6	20
Sulfate	1060	15.5	249	420	11.1	107	122	92.3	950
Total Dissolved Solids	3640	1820	6630	8830	1360	3750	2450	1270	9620
Organic Carbon - Total	14.7	4.7	1 U	1 U	17.4	1 U	18.6	2.7	1
Total Suspended Solids	227	406	100	38	108	14	25	371	71
Aluminum	10400	4350	1510	200 U	200 U	200 U	786	9480	200
Calcium	381000	73800	77700	96700	166000	46300	113000	59000	176000
Iron - Total	18500	13700	3010	1410	26700	1390	2650	22900	24000
Magnesium	58100	67400	182000	251000	42800	100000	25100	37800	412000
Manganese - Total	744	831	642	761	2870	606	356	1630	138
Potassium	72000	37800	111000	136000	31100	60100	27100	17700	186000
Sodium	413000	502000	2150000 J	2380000 J	332000	1220000	634000	314000	2410000
Iron - Dissolved	18 U	18 U	296	1200	25700	1430	102	18 U	5330
Manganese - Dissolved	614	796	570	810	2790	616	376	1570	142
Iron - Ferrous	1.9	3.8	0.22	0.09	3.3	0.04	0.4	0.6	NA

Notes:

All units in ug/l

J - estimated value

NA - Not Analyzed

U - not detected

TABLE I-37

Geochemistry Results in Groundwater

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	MW-20	MW-21	MW-21	MW-23	MW-23	MW-31	MW-31	MW-37
Sample Number:	GC-MW20I	GC-MW21S	GC-MW21I	GC-MW23S	GC-MW-23I(33.75-38.75)	GC-MW31S(6.75-14.6)	GC-MW31I(30-35)	GC-MW37S
Sampling Entity:	EPA	EPA	EPA	National Grid	National Grid	National Grid	National Grid	EPA
Sample Depth:	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow	Intermediate	Shallow
Sample Date:	7/23/2010	7/23/2010	7/23/2010	7/21/2010	7/20/2010	7/21/2010	7/22/2010	7/26/2010
Sample Type:	N	N	N	N	N	N	N	N
Geochemistry Parameters								
Alkalinity	914	418	383	530 J	700 J	320 J	270 J	711 J
Ammonia (as nitrogen)	8.6	4.8	1.5	8.2	5.4	1.8	2.3	7.6
Chloride	1870	288	460	328	5450	9590	135	670
Organic Carbon - Dissolved	U 1 U	5.3	1	13.8	9.7 J	5 J	58.1 J	4.6
Total Hardness (as Calcium Carbonate)	971	404	184	545	1090	3190	399	567
Nitrogen, Nitrate	U 0.18	0.1 U	0.1 U	NA	NA	NA	NA	0.1 U
Nitrogen, Nitrate + Nitrite	NA	NA	NA	0.1 U	0.1 U	0.1 U	0.1 U	NA
Nitrogen, Nitrite	NA	NA	NA	NA	NA	NA	NA	NA
Total Kjeldahl Nitrogen	9.9	1.8	1.2	12.1	6.7	1.5	2.4	5.5
Total Orthophosphate Phosphorus (As PO4)	U 0.1 U	0.1 U	0.1 U	0.14	0.45	0.31	0.81	0.1 U
Silica (SiO_2)	25.5	29.3	20.8	36.2	17.6	19.7	38.7	29300 J
Sulfate	30.3	48.5	156	4	79.8	1080	148	14.5
Total Dissolved Solids	3200	1020	1400	NA	NA	NA	NA	1630
Organic Carbon - Total	U 1 U	1.3	1 U	14.6 J	14.5	5.6	59.8 J	1 U
Total Suspended Solids	65	27	3 J	NA	NA	NA	NA	31
Aluminum	U 200 U	200 U	200 U	438	364	243	104 J	200 U
Calcium	25200	95400	25200	183000	96100	292000	119000	111000
Iron - Total	1120	3360	1120	8320 J	5160 J	632 J	2740 J	7880
Magnesium	23100	27400	23100	21300	207000	599000	24700	48300
Manganese - Total	211	594	211	945	182	1200	401	856
Potassium	31300	36000	31300	27300	78300	198000	31700	44700
Sodium	416000	203000	416000	177000	2520000	4900000	120000	466000
Iron - Dissolved	1010	3390	1010	4770 J	1860 J	508 J	2480 J	7720
Manganese - Dissolved	205	601	205	972	148	1000	409	935
Iron - Ferrous	NA	NA	NA	0.086 J	1.1	0.4	2	NA

Notes:

All units in ug/l

J - estimated value

NA - Not Analyzed

U - not detected

TABLE I-37

Geochemistry Results in Groundwater

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	MW-37	MW-39	MW-39
Sample Number:	GC-MW37I	GC-MW39S	GC-MW39I
Sampling Entity:	EPA	EPA	EPA
Sample Depth:	Intermediate	Shallow	Intermediate
Sample Date:	7/26/2010	7/26/2010	7/26/2010
Sample Type:	N	N	N
Geochemistry Parameters			
Alkalinity	334 J	365 J	2210 J
Ammonia (as nitrogen)	10.4	3.1	88.2
Chloride	455	78.9	7210
Organic Carbon - Dissolved	0.63 J	8.4	3.3
Total Hardness (as Calcium Carbonate)	342	317	2690
Nitrogen, Nitrate	0.1 U	0.044 J	1 U
Nitrogen, Nitrate + Nitrite	NA	NA	NA
Nitrogen, Nitrite	NA	NA	NA
Total Kjeldahl Nitrogen	5.5	1.8	70.3
Total Orthophosphate Phosphorus (As PO4)	0.1 U	1 U	1 U
Silica (SiO_2)	20100 J	17000 J	24800 J
Sulfate	89.6	53.1	14.7
Total Dissolved Solids	1100	601	12000
Organic Carbon - Total	1 U	5.2	4.9
Total Suspended Solids	9	48	74
Aluminum	200 U	2570	200 U
Calcium	31900	75900	162000
Iron - Total	1470	6140	10200
Magnesium	53000	12000	490000
Manganese - Total	369	754	1710
Potassium	29700	10700	197000
Sodium	300000	108000	3760000
Iron - Dissolved	1510	1110	9880
Manganese - Dissolved	414	704	1710
Iron - Ferrous	NA	NA	NA

Notes:

All units in ug/l

J - estimated value

NA - Not Analyzed

U - not detected

TABLE I-38A
VOC Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-29	E-33	E-35	E-63	T1-03	W-01	W-037	W-44	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-029-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-044-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**											
1,1,1-trichloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	**33**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	ug/l	0.5 U	0.5 U	**0.37 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.35 J**	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	**0.36 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	**0.87**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.37 J**	0.5 U	0.5 U	0.5 U	0.5 U	**1.3**
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U	**1.1**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.87**	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	**0.22 J**	0.5 U	0.5 U	0.5 U	0.5 U	**0.32 J**	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	**0.37 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2**	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.85**	0.5 U	0.5 U	0.5 U
Methyl acetate	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U

TABLE I-38A
VOC Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-29	E-33	E-35	E-63	T1-03	W-01	W-037	W-44	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-029-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-044-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**											
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U	5 U	5 U	**33**	5 U	5 U	5 U	5 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2.3**	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	**0.51 J**	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.36 J**	0.5 U	0.5 U	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 UJ	0.5 UJ	**1.4**	**1.7 J**	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.48 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**0.63**	0.5 U	0.5 U	0.5 U	**1.9**	**0.31 J**	0.5 U	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.63**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.66**	0.5 U	0.5 U	0.5 U

TABLE I-38B
VOC Concentrations in Pipe Outfalls, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-33	E-35	E-63	T1-03	W-01	W-037	W-44	W-46	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-044-1	GC-CF-W-046-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**									
Acetone	ug/l	33									
Benzene	ug/l		0.37 J						0.35 J		
Carbon disulfide	ug/l			0.36 J							
Chloroform	ug/l	0.87					0.37 J				1.3
cis-1,2-dichloroethylene	ug/l			1.1							
Cyclohexane	ug/l								0.87		
Ethylbenzene	ug/l			0.22 J					0.32 J		
Isopropylbenzene (cumene)	ug/l		0.37 J						2		
m, p xylenes	ug/l								0.85		
Methyl ethyl ketone (2-butanone)	ug/l					33					
*Methylcyclohexane	ug/l								2.3		
Methylene chloride	ug/l							0.51 J			
o-xylene (1,2-dimethylbenzene)	ug/l								0.36 J		
Tert-butyl methyl ether	ug/l		1.4	1.7 J							
Tetrachloroethylene(PCE)	ug/l						0.48 J				
Toluene	ug/l				0.63				1.9	0.31 J	
Trichloroethylene (TCE)	ug/l						0.63				
Vinyl chloride	ug/l								0.66		

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TABLE I-39A
SVOC Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-29	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-029-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**										
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	0.1 U	0.1 U	**39 J**	**0.73**	0.1 U	0.1 U	**0.14**	**0.14**	**0.18**	0.1 U	0.1 U
Acenaphthylene	ug/l	0.1 U	0.1 U	**0.36**	**0.14**	0.1 U	0.1 U	**0.13**	0.1 U	0.1 U	0.1 U	0.1 U
Acetophenone	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Anthracene	ug/l	0.1 U	0.1 U	**0.35**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Benzo(a)anthracene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.23**	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.72**	0.1 U	0.1 U	0.1 U	**0.2**
Benzo(b)fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	**0.16**	0.1 U	**0.54**	0.1 U	0.1 U	0.1 U	**0.22**
Benzo(g,h,i)perylene	ug/l	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	**0.8**	**0.12 J**	**0.51 J**	0.1 UJ	0.1 UJ	0.1 UJ	**0.93**
Benzo(k)fluoranthene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	**0.078 J**	0.1 U	**0.14**	0.1 U	0.1 U	0.1 U	**0.069 J**
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-39A
SVOC Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-29	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-029-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**										
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-chloroethyl) ether	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-chloroisopropyl) ether	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-ethylhexyl) phthalate	ug/l	**4 J**	5 U	5 U	**0.99 J**	**2.4 J**	5 U	**7**	5 U	**1.6 J**	5 U	5 U
Caprolactam	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.41**	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	ug/l	0.1 UJ	0.1 UJ	0.1 UJ	0.1 UJ	**0.25**	**0.14**	**0.22 J**	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	**6.3**	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	**2 J**	**2.3 J**	**1.8 J**	5 U	**2.2 J**	**2.1 J**	**2.5 J**	**1.3 J**	**1.5 J**	**1.7 J**	**1.8 J**
Di-n-butyl phthalate	ug/l	**0.3 J**	5 U	5 U	5 U	5 U	**5.4**	5 U	5 U	5 U	5 U	5 U
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	0.1 U	0.1 U	**1 J**	**0.12**	0.1 U	0.1 U	**0.5**	0.1 U	0.1 U	**0.1**	0.1 U
Fluorene	ug/l	0.1 U	0.1 U	**2.3 J**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	**0.13**
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	**0.19**	**0.11**	**0.17**	**0.12**	**0.33**	**0.22 J**	**0.54**	**0.19**	**0.13**	0.1 U	**0.52 J**
Isophorone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	0.1 U	0.1 U	**0.17**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nitrobenzene	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U
Pentachlorophenol	ug/l	0.2 U	**0.29**	**0.14 J**	0.2 U	**0.11 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.79**
Phenanthrene	ug/l	0.1 U	0.1 U	**0.83**	0.1 U	0.1 U	0.1 U	**0.28**	0.1 U	0.1 U	0.1 U	0.1 U
Phenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Pyrene	ug/l	0.1 U	0.1 U	**1.6 J**	**0.3**	0.1 U	0.1 U	**0.9 J**	0.1 U	**0.17**	**0.31**	0.1 U
Total PAHs	ug/l	**0.19**	**0.11**	**45.78**	**1.41**	**1.618**	**0.48**	**5.26**	**0.33**	**0.48**	**0.41**	**2.069**

TABLE I-39B
SVOC Concentrations in Pipe Outfalls, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	E-27	E-29	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
Sample Number:	GC-CF-E-027-1	GC-CF-E-029-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:	9/2/2010	9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**									
Acenaphthene	ug/l			39 J	0.73			0.14	0.14	0.18		
Acenaphthylene	ug/l			0.36	0.14			0.13				
Anthracene	ug/l			0.35								
Benzo(a)anthracene	ug/l							**0.23 (T)**				
Benzo(a)pyrene	ug/l							**0.72 (T)**				**0.2 (T)**
Benzo(b)fluoranthene	ug/l					**0.16 (T)**		**0.54 (T)**				**0.22 (T)**
Benzo(g,h,i)perylene	ug/l					0.8	0.12 J	0.51 J				0.93
Benzo(k)fluoranthene	ug/l					**0.078 J (T)**		**0.14 (T)**				**0.069 J (T)**
Bis(2-ethylhexyl) phthalate	ug/l	**4 J (T)**			0.99 J	**2.4 J (T)**		**7 (T)**		1.6 J		
Chrysene	ug/l							**0.41 (T)**				
Dibenz(a,h)anthracene	ug/l					**0.25 (T)**	**0.14 (T)**	**0.22 J (T)**				
Diethyl phthalate	ug/l						**6.3 (S)**					
Dimethyl phthalate	ug/l	2 J	2.3 J	1.8 J		2.2 J	2.1 J	2.5 J	1.3 J	1.5 J	1.7 J	1.8 J
Di-n-butyl phthalate	ug/l	0.3 J					**5.4 (S)**					
Fluoranthene	ug/l			1 J	0.12			0.5			0.1	
Fluorene	ug/l			2.3 J								0.13
Indeno(1,2,3-c,d)pyrene	ug/l	**0.19 (T)**	**0.11 (T)**	**0.17 (T)**	**0.12 (T)**	**0.33 (T)**	**0.22 J (T)**	**0.54 (T)**	**0.19 (T)**	**0.13 (T)**		**0.52 J (T)**
Naphthalene	ug/l			**0.17 (T)**								
Pentachlorophenol	ug/l		0.29	0.14 J		0.11 J						0.79
Phenanthrene	ug/l			0.83				0.28				
Pyrene	ug/l			1.6 J	0.3			0.9 J		0.17	0.31	
*Total PAHs	ug/l	0.19	0.11	45.78	1.41	1.618	0.48	5.26	0.33	0.48	0.41	2.069

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TABLE I-40A
Pesticide Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Pesticides**									
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR	0.05 UR
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U

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TABLE I-41A
PCB Aroclor Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	E-27	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
	Sample Number:	GC-CF-E-027-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
	Sample Date:	9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**									
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE I-42A
Metal and Cyanide Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N
Parameter	**Units**										
Metals											
Aluminum	ug/l	**34.6**	20 U	**5.6 J**	**19.1 J**	**390**	**7.1 J**	**15.9 J**	**120**	20 U	**22.3**
Aluminum, dissolved	ug/l	20 U	20 U	20 U	20 U	**341**	20 U	20 U	20 U	20 U	**20.2**
Antimony	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Antimony, dissolved	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Arsenic	ug/l	**3.1**	**4.2**	**5.1**	**7.8**	**2.5**	**4.3**	**2.5**	**4.2**	**5.3**	**6.6**
Arsenic, dissolved	ug/l	**2.9**	**4.7**	**4.9**	**8.2**	**2.4**	**6.1**	**2.5**	**3.8**	**5.2**	**6.7**
Barium	ug/l	**20.3**	**295**	**90.2**	**176**	**60.1**	**84.7**	**161**	**263**	**131**	**29.1**
Barium, dissolved	ug/l	**16.8**	**285**	**79.2**	**162**	**60**	**86.6**	**116**	**198**	**118**	**28**
Beryllium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Beryllium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/l	1 U	1 U	1 U	1 U	**0.31 J**	1 U	1 U	1 U	1 U	1 U
Cadmium, dissolved	ug/l	1 U	1 U	1 U	1 U	**0.38 J**	1 U	1 U	1 U	1 U	1 U
Calcium	ug/l	**12,500**	**296,000**	**561,000**	**456,000**	**2,780**	**124,000**	**101,000**	**202,000**	**121,000**	**15,600**
Calcium, dissolved	ug/l	**11,100**	**264,000**	**474,000**	**92,800**	**3,190**	**105,000**	**92,100**	**173,000**	**103,000**	**14,300**
Chromium	ug/l	**0.9 J**	2 U	2 U	**0.83 J**	**0.94 J**	**1.5 J**	**0.71 J**	**1.1 J**	**0.66 J**	**0.91 J**
Chromium, dissolved	ug/l	**0.94 J**	2 U	2 U	**0.82 J**	**0.99 J**	**1.8 J**	**0.79 J**	**0.7 J**	**0.76 J**	**1.3 J**
Cobalt	ug/l	1 U	**0.92 J**	**1.3**	**0.46 J**	**1.5**	1 U	1 U	**0.4 J**	1 U	1 U
Cobalt, dissolved	ug/l	1 U	**1**	**0.68 J**	**0.47 J**	**1.5**	**0.41 J**	1 U	**0.5 J**	1 U	1 U
Copper	ug/l	**4.1**	**3.7**	**6.2**	**16**	**2.5 J**	**7.4**	**4.4**	**12**	**5.1**	**5.8**
Copper, dissolved	ug/l	**2.6**	**4.4**	**6.2**	**15**	**3.9 J**	**6.3**	**2.7**	**6.3**	**4.3**	**4.8**
Iron	ug/l	**896**	77 R	**844**	**927**	**846**	**132 J**	**4,910**	**4,620**	**3,620**	**1,090**
Iron, dissolved	ug/l	**525**	797 R	200 U	200 U	**194 J**	200 U	**88.5 J**	200 U	**203**	**696**
Lead	ug/l	**2.8**	1 U	1 U	**0.48 J**	**1.3**	**0.39 J**	**2.5**	**6.5**	1 U	**1.1**
Lead, dissolved	ug/l	**1.1**	1 U	1 U	1 U	**1.2**	1 U	1 U	1 U	1 U	**0.71 J**
Magnesium	ug/l	**3,320**	**35,800**	**92,600**	**173,000**	**688**	**95,100**	**20,200**	**85,400**	**45,900**	**1,240**
Magnesium, dissolved	ug/l	**3,090**	**32,700**	**78,800**	**132,000**	**806**	**81,400**	**18,900**	**73,200**	**44,100**	**1,300**
Manganese	ug/l	**25.8**	**857**	**239**	**314**	**138**	**78.5**	**775**	**299**	**484**	**10**
Manganese, dissolved	ug/l	**22.3**	**893**	**207**	**294**	**141**	**81.8**	**748**	**280**	**484**	**6**
Mercury	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Mercury, dissolved	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**1.2**	**3.6**	**11.5**	**2.2**	**7.2**	**2.9**	**0.63 J**	**1**	**1 J**	**1.1**
Nickel, dissolved	ug/l	**1.4**	**3.6**	**5.9**	**2.6**	**7.7**	**3.2**	**0.81 J**	**1.2**	**1.2**	**1.2**
Potassium	ug/l	**2,120**	**40,100**	**78,300**	**112,000**	**217 J**	**29,400 J**	**23,000**	**50,400**	**29,600**	**11,100**
Potassium, dissolved	ug/l	**1,910**	**35,300**	**65,000**	**54,000 J**	**267 J**	**24,700 J**	**20,600**	**43,000**	**28,200**	**9,880**
Selenium	ug/l	5 U	5 U	**4.9 J**	**8.8**	5 U	**6.3**	5 U	**3.1 J**	**2.9 J**	5 U
Selenium, dissolved	ug/l	5 U	5 U	**4.4 J**	**9.4**	5 U	**6.7**	5 U	**4.8 J**	**2.9 J**	5 U
Silver	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

TABLE I-42A
Metal and Cyanide Concentrations in Pipe Outfalls
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N
Parameter	**Units**										
											Metals
Silver, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Sodium	ug/l	**24,900**	**447,000**	**859,000**	**1,490,000**	295 R	**720,000**	**228,000**	**706,000**	**395,000**	**46,000**
Sodium, dissolved	ug/l	**22,200**	**406,000**	**731,000**	**1,350,000**	941 R	**624,000**	**213,000**	**613,000**	**390,000**	**42,200**
Thallium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Thallium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vanadium	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**2 J**	5 U	5 U
Vanadium, dissolved	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Zinc	ug/l	**22.4**	**3.8 J**	**40.4**	**15.9**	**205**	**3.2**	**3.5**	**9.9**	**9.7**	**11.3**
Zinc, dissolved	ug/l	**15**	**6.2 J**	**4.8**	**6.9**	**209**	**4.1**	**2.7**	**3.8**	**7.3**	**6.7**
Cyanide, Total	ug/l	**4.4 J**	10 U	**8.6 J**	**20.4**	10 U	10 U	10 U	10 U	10 U	10 U

TABLE I-42B
Metal and Cyanide Concentrations in Pipe Outfalls, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		E-27	E-33	E-35	E-63	T1-03	W-01	W-037	W-46	W-48	W-77
Sample Number:		GC-CF-E-027-1	GC-CF-E-033-1	GC-CF-E-035-1	GC-CF-E-063-1	GC-CF-T1-003-1	GC-CF-W-001-1	GC-CF-W-037-1	GC-CF-W-046-1	GC-CF-W-048-1	GC-CF-W-077-1
Sample Date:		9/2/2010	9/2/2010	9/2/2010	9/7/2010	9/2/2010	9/1/2010	9/1/2010	9/1/2010	9/1/2010	9/7/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N
Parameter	**Units**										**Metals**
Aluminum	ug/l	34.6		5.6 J	19.1 J	390	7.1 J	15.9 J	120		22.3
Aluminum, dissolved	ug/l					341					20.2
Arsenic	ug/l	**3.1 (T)**	**4.2 (T)**	**5.1 (T)**	**7.8 (T)**	**2.5 (T)**	**4.3 (T)**	**2.5 (T)**	**4.2 (T)**	**5.3 (T)**	**6.6 (T)**
Arsenic, dissolved	ug/l	**2.9 (T)**	**4.7 (T)**	**4.9 (T)**	**8.2 (T)**	**2.4 (T)**	**6.1 (T)**	**2.5 (T)**	**3.8 (T)**	**5.2 (T)**	**6.7 (T)**
Barium	ug/l	20.3	**295 (S)**	90.2	176	60.1	84.7	161	**263 (S)**	131	29.1
Barium, dissolved	ug/l	16.8	**285 (S)**	79.2	162	60	86.6	116	198	118	28
Cadmium	ug/l					0.31 J					
Cadmium, dissolved	ug/l					0.38 J					
*Calcium	ug/l	12,500	296,000	561,000	456,000	2,780	124,000	101,000	202,000	121,000	15,600
*Calcium, dissolved	ug/l	11,100	264,000	474,000	92,800	3,190	105,000	92,100	173,000	103,000	14,300
Chromium	ug/l	**0.9 J (T)**			**0.83 J (T)**	**0.94 J (T)**	**1.5 J (T)**	**0.71 J (T)**	**1.1 J (T)**	**0.66 J (T)**	**0.91 J (T)**
Chromium, dissolved	ug/l	**0.94 J (T)**			**0.82 J (T)**	**0.99 J (T)**	**1.8 J (T)**	**0.79 J (T)**	**0.7 J (T)**	**0.76 J (T)**	**1.3 J (T)**
Cobalt	ug/l		0.92 J	**1.3 (T,S)**	0.46 J	**1.5 (T,S)**			0.4 J		
Cobalt, dissolved	ug/l		1	0.68 J	0.47 J	**1.5 (T,S)**	0.41 J		0.5 J		
Copper	ug/l	**4.1 (S)**	**3.7 (S)**	**6.2 (S)**	**16 (S)**	2.5 J	**7.4 (S)**	**4.4 (S)**	**12 (S)**	**5.1 (S)**	**5.8 (S)**
Copper, dissolved	ug/l	2.6	**4.4 (S)**	**6.2 (S)**	**15 (S)**	**3.9 J (S)**	**6.3 (S)**	2.7	**6.3 (S)**	**4.3 (S)**	**4.8 (S)**
Iron	ug/l	**896 (S)**		**844 (S)**	**927 (S)**	**846 (S)**	**132 J (S)**	**4,910 (T,S)**	**4,620 (T,S)**	**3,620 (T,S)**	**1,090 (S)**
Iron, dissolved	ug/l	**525 (S)**				**194 J (S)**		**88.5 J (S)**		**203 (S)**	**696 (S)**
Lead	ug/l	2.8			0.48 J	1.3	0.39 J	2.5	6.5		1.1
Lead, dissolved	ug/l	1.1				1.2					0.71 J
*Magnesium	ug/l	3,320	35,800	92,600	173,000	688	95,100	20,200	85,400	45,900	1,240
*Magnesium, dissolved	ug/l	3,090	32,700	78,800	132,000	806	81,400	18,900	73,200	44,100	1,300
Manganese	ug/l	25.8	**857 (T,S)**	**239 (T,S)**	**314 (T,S)**	**138 (T,S)**	78.5	**775 (T,S)**	**299 (T,S)**	**484 (T,S)**	10
Manganese, dissolved	ug/l	22.3	**893 (T,S)**	**207 (T,S)**	**294 (T,S)**	**141 (T,S)**	81.8	**748 (T,S)**	**280 (T,S)**	**484 (T,S)**	6
Nickel	ug/l	1.2	3.6	**11.5 (S)**	2.2	7.2	2.9	0.63 J	1	1 J	1.1
Nickel, dissolved	ug/l	1.4	3.6	5.9	2.6	7.7	3.2	0.81 J	1.2	1.2	1.2
*Potassium	ug/l	2,120	40,100	78,300	112,000	217 J	29,400 J	23,000	50,400	29,600	11,100
*Potassium, dissolved	ug/l	1,910	35,300	65,000	54,000 J	267 J	24,700 J	20,600	43,000	28,200	9,880
Selenium	ug/l			4.9 J	8.8		6.3		3.1 J	2.9 J	
Selenium, dissolved	ug/l			4.4 J	9.4		6.7		4.8 J	2.9 J	
*Sodium	ug/l	24,900	447,000	859,000	1,490,000		720,000	228,000	706,000	395,000	46,000
*Sodium, dissolved	ug/l	22,200	406,000	731,000	1,350,000		624,000	213,000	613,000	390,000	42,200
Vanadium	ug/l								2 J		
Vanadium, dissolved	ug/l										
Zinc	ug/l	22.4	3.8 J	40.4	15.9	**205 (S)**	3.2	3.5	9.9	9.7	11.3
Zinc, dissolved	ug/l	15	6.2 J	4.8	6.9	**209 (S)**	4.1	2.7	3.8	7.3	6.7
Cyanide, Total	ug/l	**4.4 J (S)**		**8.6 J (S)**	**20.4 (S)**						

TABLE I-42B
Metal and Cyanide Concentrations in Pipe Outfalls, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

TABLE I-43A
VOC Concentrations in CSO Sediments, Dry Weather
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
Sample Number:		GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**							
1,1,1-trichloroethane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
1,1,2,2-tetrachloroethane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
1,1,2-trichloroethane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 UJ	6.1 U	6.4 U	6.6 U
1,1-dichloroethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
1,1-dichloroethene	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
1,2,3-trichlorobenzene	ug/kg	6.4 UJ	490 U	7.9 UJ	6.1 UJ	6.5 UJ	6.1 UJ	6.4 UJ	6.6 UR
1,2,4-trichlorobenzene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 UR
1,2-dibromo-3-chloropropane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 UR
1,2-dibromoethane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
1,2-dichlorobenzene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 UR
1,2-dichloroethane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
1,2-dichloropropane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
1,3-dichlorobenzene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 UR
1,4-dichlorobenzene	ug/kg	6.4 U	**870**	**17**	6.1 U	**4.6 J**	6.1 U	6.4 U	6.6 UR
1,4-dioxane (p-dioxane)	ug/kg	130 U	9,900 U	160 U	120 U	130 U	120 U	130 U	130 U
2-hexanone	ug/kg	13 U	990 U	16 U	12 U	13 U	12 U	13 U	13 U
Acetone	ug/kg	**22**	**1,100**	**17**	**37**	13 U	12 U	**42**	13 U
Benzene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Bromochloromethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Bromodichloromethane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Bromoform	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 UR
Bromomethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Carbon disulfide	ug/kg	**3.3 J**	**24 J**	**2.2 J**	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Carbon tetrachloride	ug/kg	6.4 U	490 UJ	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
Chlorobenzene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Chloroethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Chloroform	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Chloromethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
cis-1,2-dichloroethylene	ug/kg	6.4 U	**19**	7.9 U	6.1 U	6.5 U	6.1 U	**6.6**	6.6 U
cis-1,3-dichloropropene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 UJ	6.1 U	6.4 U	6.6 U
Cyclohexane	ug/kg	6.4 U	490 U	7.9 U	**26**	6.5 U	6.1 U	6.4 U	6.6 U
Dibromochloromethane	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Dichlorodifluoromethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Ethylbenzene	ug/kg	6.4 U	**120 J**	7.9 U	**9.6**	6.5 U	6.1 U	6.4 U	6.6 U
Isopropylbenzene (cumene)	ug/kg	6.4 U	490 U	7.9 U	**7.2**	6.5 U	6.1 U	6.4 U	6.6 U

TABLE I-43A
VOC Concentrations in CSO Sediments, Dry Weather
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
Sample Number:		GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N
Parameter	**Units**	**Volatile Organic Compounds**							
m, p xylenes	ug/kg	6.4 U	**460 J**	7.9 U	**2.1 J**	6.5 U	6.1 U	6.4 U	6.6 U
Methyl acetate	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
Methyl ethyl ketone (2-butanone)	ug/kg	13 U	**230**	16 U	12 U	13 U	12 U	**9.7 J**	13 U
Methyl isobutyl ketone	ug/kg	13 U	990 U	16 U	12 U	13 U	12 U	13 U	13 U
Methylcyclohexane	ug/kg	**1.5 J**	**150 J**	7.9 U	**28**	6.5 U	6.1 U	6.4 U	6.6 U
Methylene chloride	ug/kg	6.4 U	**8.2**	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
o-xylene (1,2-dimethylbenzene)	ug/kg	6.4 U	**150 J**	7.9 U	**2 J**	6.5 U	6.1 U	6.4 U	6.6 U
Styrene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
Tert-butyl methyl ether	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
Tetrachloroethylene(PCE)	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	**4.2 J**	**14**
Toluene	ug/kg	**5.3 J**	**380 J**	**25**	**2.8 J**	6.5 U	6.1 U	**19**	6.6 U
trans-1,2-dichloroethene	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U
trans-1,3-dichloropropene	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 UJ	6.1 U	6.4 U	6.6 U
Trichloroethylene (TCE)	ug/kg	6.4 U	490 U	7.9 U	6.1 U	6.5 U	6.1 U	**5.3 J**	**2.5 J**
Trichlorofluoromethane	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 UJ	6.1 UJ	6.4 U	6.6 U
Vinyl chloride	ug/kg	6.4 U	7.3 U	7.9 U	6.1 U	6.5 U	6.1 U	6.4 U	6.6 U

TABLE I-43B
VOC Concentrations in CSO Sediments, Dry Weather, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-007	RH-031	RH-033	RH-035	RH-036	RH-037
Sample Number:	GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	GC-SDRH036-DW-1	GC-SDRH037-DW-1
Sample Depth:	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Sample Date:	6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type:	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**					
1,4-dichlorobenzene	ug/kg		**870 (R)**	17		4.6 J	
Acetone	ug/kg	22	1,100	17	37		42
Carbon disulfide	ug/kg	3.3 J	24 J	2.2 J			
cis-1,2-dichloroethylene	ug/kg		19				6.6
Cyclohexane	ug/kg				26		
Ethylbenzene	ug/kg		120 J		9.6		
Isopropylbenzene (cumene)	ug/kg				7.2		
m, p xylenes	ug/kg		460 J		2.1 J		
Methyl ethyl ketone (2-butanone)	ug/kg		230				9.7 J
*Methylcyclohexane	ug/kg	1.5 J	150 J		28		
Methylene chloride	ug/kg		8.2				
o-xylene (1,2-dimethylbenzene)	ug/kg		150 J		2 J		
Tetrachloroethylene(PCE)	ug/kg						4.2 J 14
Toluene	ug/kg	5.3 J	380 J	25	2.8 J		19
Trichloroethylene (TCE)	ug/kg						5.3 J 2.5 J

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TABLE I-44A
SVOC Concentrations in CSO Sediments, Dry Weather
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
Sample Number:		GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**							
1,2,4,5-tetrachlorobenzene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2,3,4,6-tetrachlorophenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2,4,5-trichlorophenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2,4,6-trichlorophenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2,4-dichlorophenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2,4-dimethylphenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2,4-dinitrophenol	ug/kg	11,000 U	15,000 U	15,000 U	11,000 U	12,000 U	12,000 U	11,000 U	11,000 U
2,4-dinitrotoluene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2,6-dinitrotoluene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2-chloronaphthalene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2-chlorophenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2-methylnaphthalene	ug/kg	**430**	**2,600 J**	**450**	**1,700 J**	120 U	120 U	110 U	110 U
2-methylphenol (o-cresol)	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
2-nitroaniline	ug/kg	11,000 U	15,000 U	15,000 U	11,000 U	12,000 U	12,000 U	11,000 U	11,000 U
2-nitrophenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
3,3'-dichlorobenzidine	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
3-nitroaniline	ug/kg	11,000 U	15,000 U	15,000 U	11,000 U	12,000 U	12,000 U	11,000 U	11,000 U
4,6-dinitro-2-methylphenol	ug/kg	11,000 U	15,000 U	15,000 U	11,000 U	12,000 U	12,000 U	11,000 U	11,000 U
4-bromophenyl phenyl ether	ug/kg	5,500 UJ	7,700 U	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
4-chloro-3-methylphenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
4-chloroaniline	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
4-chlorophenyl phenyl ether	ug/kg	5,500 UJ	7,700 U	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
4-methylphenol (p-cresol)	ug/kg	5,500 U	**3,200 J**	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
4-nitroaniline	ug/kg	11,000 U	15,000 U	15,000 U	11,000 U	12,000 U	12,000 U	11,000 U	11,000 U
4-nitrophenol	ug/kg	11,000 U	15,000 U	15,000 U	11,000 U	12,000 U	12,000 U	11,000 U	11,000 U
Acenaphthene	ug/kg	110 U	**540**	**310**	**1,700 J**	120 U	120 U	110 U	110 U
Acenaphthylene	ug/kg	110 U	150 U	150 U	110 U	120 U	120 U	110 U	110 U
Acetophenone	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Anthracene	ug/kg	110 U	150 U	**310**	**580**	120 U	120 U	110 U	110 U
Atrazine	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Benzaldehyde	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Benzo(a)anthracene	ug/kg	**180**	**440**	**1,300 J**	**150**	**270**	120 U	**110**	**480**
Benzo(a)pyrene	ug/kg	110 U	**870**	**1,300 J**	110 U	**490**	**140**	110 U	**740**
Benzo(b)fluoranthene	ug/kg	**230**	**4,500 J**	**1,300 J**	**280**	**440**	**130**	**240**	**860**
Benzo(g,h,i)perylene	ug/kg	**210**	**550**	**960**	**150**	**340**	**92 J**	**130**	**660**
Benzo(k)fluoranthene	ug/kg	**170**	**1,500**	**1,300**	110 U	**400 J**	120 U	110 U	**480**

TABLE I-44A
SVOC Concentrations in CSO Sediments, Dry Weather
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
Sample Number:		GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
Sample Depth:		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
Sample Date:		6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type:		N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**							
Benzyl butyl phthalate	ug/kg	5,500 UJ	7,700 UJ	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Bis(2-chloroethoxy) methane	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Bis(2-chloroethyl) ether	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Bis(2-chloroisopropyl) ether	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Bis(2-ethylhexyl) phthalate	ug/kg	**2,300 J**	**22,000 J**	**10,000 J**	**2,000 J**	6,200 UJ	6,100 UJ	5,500 UJ	**1,200 J**
Caprolactam	ug/kg	5,500 UJ	7,700 UJ	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Carbazole	ug/kg	5,500 UJ	7,700 U	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Chrysene	ug/kg	**150**	**420**	**1,300**	**140**	**260**	120 U	110 U	**390**
Dibenz(a,h)anthracene	ug/kg	**140 J**	**360 J**	**530 J**	110 UJ	**280**	120 UJ	**110 J**	**280 J**
Dibenzofuran	ug/kg	5,500 UJ	7,700 U	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Diethyl phthalate	ug/kg	5,500 UJ	7,700 UJ	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Dimethyl phthalate	ug/kg	5,500 UJ	7,700 UJ	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Di-n-butyl phthalate	ug/kg	5,500 UJ	7,700 UJ	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Di-n-octylphthalate	ug/kg	5,500 UJ	7,700 UJ	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Fluoranthene	ug/kg	**440**	150 U	**2,500 J**	**750**	**600**	120 U	**170**	**740**
Fluorene	ug/kg	**140**	**830**	**190**	**910**	120 U	120 U	110 U	110 U
Hexachlorobenzene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Hexachlorobutadiene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Hexachlorocyclopentadiene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Hexachloroethane	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**300**	**720**	**1,800 J**	**270**	**460**	**170**	**190**	**970**
Isophorone	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Naphthalene	ug/kg	**110 J**	**520**	**830**	**2,400 J**	**120 J**	120 U	110 U	110 U
Nitrobenzene	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
N-nitrosodi-n-propylamine	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
N-nitrosodiphenylamine	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
PCB 0	ug/kg	5,500 UJ	7,700 UJ	7,500 UJ	5,600 UJ	6,200 UJ	6,100 UJ	5,500 UJ	5,600 UJ
Pentachlorophenol	ug/kg	220 U	310 U	300 U	230 U	250 U	250 U	220 U	220 U
Phenanthrene	ug/kg	**500**	**1,300**	**1,700 J**	**1,700 J**	**370**	120 U	110 U	**470**
Phenol	ug/kg	5,500 U	7,700 U	7,500 U	5,600 U	6,200 U	6,100 U	5,500 U	5,600 U
Pyrene	ug/kg	**380**	**1,400**	**2,200 J**	**740**	**560**	120 U	**160**	**810**
Total PAHs	ug/kg	**3,380**	**16,550**	**18,280**	**11,470**	**4,590**	**532**	**1,110**	**6,880**

TABLE I-44B
SVOC Concentrations in CSO Sediments, Dry Weather, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
Sample Number:	GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
Sample Depth:	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Sample Date:	6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
Sample Type:	N	N	N	N	N	FD	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**						
2-methylnaphthalene	ug/kg	**430 (R)**	**2,600 J (R)**	**450 (R)**	**1,700 J (R)**			
4-methylphenol (p-cresol)	ug/kg		**3,200 J (R)**					
Acenaphthene	ug/kg		**540 (R)**	**310 (R)**	**1,700 J (R)**			
Anthracene	ug/kg			**310 (R)**	**580 (R)**			
Benzo(a)anthracene	ug/kg	**180 (A)**	**440 (A,R)**	**1,300 J (A,R)**	150	**270 (A,R)**	110	**480 (A,R)**
Benzo(a)pyrene	ug/kg		**870 (A,R)**	**1,300 J (A,R)**		**490 (A,R)**	**140 (A)**	**740 (A,R)**
Benzo(b)fluoranthene	ug/kg	**230 (A)**	**4,500 J (A)**	**1,300 J (A)**	**280 (A)**	**440 (A)**	130	**240 (A)**	**860 (A)**
Benzo(g,h,i)perylene	ug/kg	210	550	**960 (R)**	150	340	92 J	130	**660 (R)**
Benzo(k)fluoranthene	ug/kg	170	1,500	1,300		400 J			480
Bis(2-ethylhexyl) phthalate	ug/kg	**2,300 J (R)**	**22,000 J (R)**	**10,000 J (R)**	**2,000 J (R)**				**1,200 J (R)**
Chrysene	ug/kg	150	**420 (R)**	**1,300 (R)**	140	260			**390 (R)**
Dibenz(a,h)anthracene	ug/kg	**140 J (A,R)**	**360 J (A,R)**	**530 J (A,R)**		**280 (A,R)**		**110 J (A,R)**	**280 J (A,R)**
Fluoranthene	ug/kg	440		**2,500 J (R)**	**750 (R)**	600		170	**740 (R)**
Fluorene	ug/kg	**140 (R)**	**830 (R)**	**190 (R)**	**910 (R)**				
Indeno(1,2,3-c,d)pyrene	ug/kg	**300 (A)**	**720 (A,R)**	**1,800 J (A,R)**	**270 (A)**	**460 (A)**	**170 (A)**	**190 (A)**	**970 (A,R)**
Naphthalene	ug/kg	110 J	**520 (R)**	**830 (R)**	**2,400 J (R)**	120 J			
Phenanthrene	ug/kg	**500 (R)**	**1,300 (R)**	**1,700 J (R)**	**1,700 J (R)**	**370 (R)**			**470 (R)**
Pyrene	ug/kg	380	**1,400 (R)**	**2,200 J (R)**	**740 (R)**	560		160	**810 (R)**
Total PAHs	ug/kg	3,380	**16,550 (R)**	**18,280 (R)**	**11,470 (R)**	**4,590 (R)**	532	1,110	**6,880 (R)**

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TABLE I-45A
Pesticide Concentrations in CSO Sediments, Dry Weather
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
	Sample Number:	GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
	Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	Sample Date:	6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
	Sample Type:	N	N	N	N	N	FD	N	N
Parameter	**Units**								**Pesticides**
Aldrin	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Alpha BHC	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Alpha endosulfan	ug/kg	2.2 UR	26 UR	28 U	21 U	2.1 UR	21 U	22 U	25 UR
Alpha-chlordane	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Beta BHC	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Beta endosulfan	ug/kg	4.3 UJ	50 U	55 U	41 U	4.1 U	40 U	43 U	48 U
Delta BHC	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Dieldrin	ug/kg	4.3 UJ	50 U	55 U	**85**	4.1 U	40 U	43 U	48 U
Endosulfan sulfate	ug/kg	4.3 UJ	50 U	55 U	**180 NJ**	4.1 U	40 U	43 U	48 U
Endrin	ug/kg	4.3 UJ	50 U	55 U	41 U	4.1 U	40 U	43 U	48 U
Endrin aldehyde	ug/kg	4.3 UJ	50 U	55 U	**150 J**	4.1 U	40 U	43 U	48 U
Endrin ketone	ug/kg	4.3 UJ	50 U	55 U	41 U	4.1 U	40 U	43 U	48 U
Gamma BHC	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Gamma-chlordane	ug/kg	2.2 UJ	26 U	28 U	**48**	2.1 U	21 U	22 U	25 U
Heptachlor	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Heptachlor epoxide	ug/kg	2.2 UJ	26 U	28 U	21 U	2.1 U	21 U	22 U	25 U
Methoxychlor	ug/kg	22 UJ	260 U	280 U	210 UJ	21 U	210 U	220 U	250 U
P,P'-DDD	ug/kg	4.3 UR	50 UR	55 UR	41 UR	4.1 UR	40 UR	43 UR	48 UR
P,P'-DDE	ug/kg	4.3 UJ	50 U	55 U	41 U	4.1 U	40 U	43 U	48 U
P,P'-DDT	ug/kg	4.3 UJ	50 U	55 U	**210 NJ**	4.1 U	40 U	43 U	48 U
Toxaphene	ug/kg	220 UJ	2,600 U	2,800 U	2,100 U	210 U	2,100 U	2,200 U	2,500 U

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TABLE I-45B
Pesticide Concentrations in CSO Sediments, Dry Weather, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**RH-033**
	Sample Number:	**GC-SDRH033-DW-1**
	Sample Depth:	**0 - 0.5**
	Sample Date:	**6/30/2010**
	Sample Type:	**N**
Parameter	**Units**	**Pesticides**
Dieldrin	ug/kg	**85 (A)**
Endosulfan sulfate	ug/kg	180 NJ
Endrin aldehyde	ug/kg	150 J
Gamma-chlordane	ug/kg	**48 (R)**
P,P'-DDT	ug/kg	**210 NJ (R)**

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TABLE I-46A
PCB Aroclor Concentrations in CSO Sediments, Dry Weather
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
	Sample Number:	GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
	Sample Depth:	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
	Sample Date:	6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
	Sample Type:	N	N	N	N	N	FD	N	N
Parameter	**Units**								**Polychlorinated Biphenyls**
Aroclor 1016	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Aroclor 1221	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Aroclor 1232	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Aroclor 1242	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Aroclor 1248	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Aroclor 1254	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Aroclor 1260	ug/kg	43 U	50 U	55 U	**1,200 J**	41 U	40 U	43 U	**170**
Aroclor 1262	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Aroclor 1268	ug/kg	43 U	50 U	55 U	41 U	41 U	40 U	43 U	48 U
Total PCBs	ug/kg	ND	ND	ND	**1,200**	ND	ND	ND	**170**

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TABLE I-46B
PCB Aroclor Concentrations in CSO Sediments, Dry Weather, Exceedances of Standards and Crite
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	RH-033	RH-037
	Sample Number:	GC-SDRH033-DW-1	GC-SDRH037-DW-1
	Sample Depth:	0 - 0.5	0 - 0.5
	Sample Date:	6/30/2010	6/30/2010
	Sample Type:	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**	
Aroclor 1260	ug/kg	1,200 J (A,R)	170 (R)
Total PCBs	ug/kg	1,200 (A,R)	170 (R)

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TABLE I-47A
Metal and Cyanide Concentrations in CSO Sediments, Dry Weather
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**OH-005**	**OH-007**	**RH-031**	**RH-033**	**RH-035**	**RH-035**	**RH-036**	**RH-037**
	Sample Number:	**GC-SDOH005-DW-1**	**GC-SDOH007-DW-1**	**GC-SDRH031-DW-1**	**GC-SDRH033-DW-1**	**GC-SDRH035-DW-1**	**D-06302010-02**	**GC-SDRH036-DW-1**	**GC-SDRH037-DW-1**
	Sample Depth:	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**	**0-0.5**
	Sample Date:	**6/30/2010**	**7/1/2010**	**6/30/2010**	**6/30/2010**	**6/30/2010**	**6/30/2010**	**6/30/2010**	**6/30/2010**
	Sample Type:	**N**	**N**	**N**	**N**	**N**	**FD**	**N**	**N**
Parameter	**Units**	**Metals**							
Aluminum	mg/kg	**2,380 J**	**5,000**	**6,750**	**1,960 J**	**2,800 J**	**2,300 J**	**2,960 J**	**6,280**
Antimony	mg/kg	7.5 U	10.5 U	10.5 U	7.2 U	7 U	7 U	7.5 U	8.7 U
Arsenic	mg/kg	2.4 R	**5.6**	**5.9**	4 R	1.7 R	2.1 R	2 R	**7.9**
Barium	mg/kg	**75.3**	**103**	**358**	**53**	**28.3**	**50.8**	**39.7**	**367**
Beryllium	mg/kg	0.63 U	0.87 U	**0.32 J**	0.6 U	0.59 U	**0.24 J**	0.63 U	0.72 U
Cadmium	mg/kg	**0.3 J**	**1.1**	**6.8**	**0.45 J**	**0.25 J**	**0.21 J**	**0.55 J**	**4.5**
Calcium	mg/kg	**3,380 J**	**6,010**	**26,600**	**12,000 J**	**5,450 J**	**17,900 J**	**11,600 J**	**24,700**
Chromium	mg/kg	**16.2 J**	**16.2**	**147**	**45.7 J**	**8.4 J**	**10.7 J**	**18.3 J**	**51.6**
Cobalt	mg/kg	**3 J**	**6.8 J**	**10.1**	**5.6 J**	**3.8 J**	**4.1 J**	**3.7 J**	**9.6**
Copper	mg/kg	**113 J**	**4,540**	**614**	**350**	**288**	**361**	**193 J**	**276**
Iron	mg/kg	7,570 R	**11,300**	**30,500**	39,700 R	9,650 R	8,470 R	11,500 R	**24,100**
Lead	mg/kg	**186**	**400**	**260**	**78.6**	**37.5**	**3,320**	**160**	**619**
Magnesium	mg/kg	**1,900 J**	**4,430**	**12,200**	**5,040 J**	**4,210 J**	**10,200 J**	**5,210 J**	**9,180**
Manganese	mg/kg	**40.6 J**	**78.5**	**251**	**462 J**	**49 J**	**65.4 J**	**74 J**	**247**
Mercury	mg/kg	**0.27**	**0.3**	**0.43**	**0.16**	**0.24**	**0.56**	**0.23**	**1**
Nickel	mg/kg	**12 J**	**31.1**	**42.9**	**37.1**	**12.5 J**	**21.6 J**	**13.4 J**	**42.9**
Potassium	mg/kg	**391 J**	**864 J**	**1,090**	**298 J**	**466 J**	**335 J**	**485 J**	**1,040**
Selenium	mg/kg	**0.59 J**	**0.76 J**	**1.1 J**	4.2 U	**0.49 J**	4.1 U	**0.58 J**	5.1 U
Silver	mg/kg	**1.3**	**2.8**	**1.2 J**	1.2 U	**1.1 J**	**0.92 J**	**2.1**	**1.4 J**
Sodium	mg/kg	**342 J**	**171 J**	**3,170**	**167 J**	**149 J**	**177 J**	**220 J**	**356 J**
Thallium	mg/kg	3.1 U	4.4 U	4.4 U	3 U	2.9 U	2.9 U	3.1 U	3.6 U
Vanadium	mg/kg	**9.3 J**	**82.2**	**37.7**	**19.3 J**	**10.6 J**	**11.9 J**	**15.6 J**	**33.1**
Zinc	mg/kg	**362 J**	**1,300**	**1,770**	**184 J**	**284 J**	**451 J**	**264 J**	**877**
Cyanide, Total	mg/kg	**0.31 J**	**1.6 J**	4.4 U	**0.39 J**	2.9 UJ	2.9 UJ	**0.38 J**	**0.52 J**

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TABLE I-47B
Metal and Cyanide Concentrations in CSO Sediments, Dry Weather, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	OH-005	OH-007	RH-031	RH-033	RH-035	RH-035	RH-036	RH-037
	Sample Number:	GC-SDOH005-DW-1	GC-SDOH007-DW-1	GC-SDRH031-DW-1	GC-SDRH033-DW-1	GC-SDRH035-DW-1	D-06302010-02	GC-SDRH036-DW-1	GC-SDRH037-DW-1
	Sample Depth:	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
	Sample Date:	6/30/2010	7/1/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010	6/30/2010
	Sample Type:	N	N	N	N	N	FD	N	N
Parameter	**Units**								**Metals**
Aluminum	mg/kg	2,380 J	5,000	6,750	1,960 J	2,800 J	2,300 J	2,960 J	6,280
Arsenic	mg/kg		**5.6 (A)**	**5.9 (A)**					**7.9 (A)**
Barium	mg/kg	75.3	103	**358 (R)**	53	28.3	50.8	39.7	**367 (R)**
Beryllium	mg/kg			0.32 J			0.24 J		
Cadmium	mg/kg	0.3 J	1.1	**6.8 (R)**	0.45 J	0.25 J	0.21 J	0.55 J	**4.5 (R)**
*Calcium	mg/kg	3,380 J	6,010	26,600	12,000 J	5,450 J	17,900 J	11,600 J	24,700
Chromium	mg/kg	**16.2 J (A)**	**16.2 (A)**	**147 (A,R)**	**45.7 J (A)**	**8.4 J (A)**	**10.7 J (A)**	**18.3 J (A)**	**51.6 (A)**
Cobalt	mg/kg	**3 J (A)**	**6.8 J (A)**	**10.1 (A)**	**5.6 J (A)**	**3.8 J (A)**	**4.1 J (A)**	**3.7 J (A)**	**9.6 (A)**
Copper	mg/kg	**113 J (R)**	**4,540 (A,R)**	**614 (A,R)**	**350 (A,R)**	**288 (R)**	**361 (A,R)**	**193 J (R)**	**276 (R)**
Iron	mg/kg		**11,300 (A)**	**30,500 (A)**					**24,100 (A)**
Lead	mg/kg	**186 (R)**	**400 (R)**	**260 (R)**	**78.6 (R)**	37.5	**3,320 (A,R)**	**160 (R)**	**619 (A,R)**
*Magnesium	mg/kg	1,900 J	4,430	12,200	5,040 J	4,210 J	10,200 J	5,210 J	9,180
Manganese	mg/kg	40.6 J	78.5	**251 (A)**	**462 J (A,R)**	49 J	65.4 J	74 J	**247 (A)**
Mercury	mg/kg	**0.27 (R)**	**0.3 (R)**	**0.43 (R)**	**0.16 (R)**	**0.24 (R)**	**0.56 (R)**	**0.23 (R)**	**1 (R)**
Nickel	mg/kg	12 J	**31.1 (R)**	**42.9 (R)**	**37.1 (R)**	12.5 J	**21.6 J (R)**	13.4 J	**42.9 (R)**
*Potassium	mg/kg	391 J	864 J	1,090	298 J	466 J	335 J	485 J	1,040
Selenium	mg/kg	0.59 J	0.76 J	1.1 J		0.49 J		0.58 J	
Silver	mg/kg	**1.3 (R)**	**2.8 (R)**	**1.2 J (R)**		**1.1 J (R)**	0.92 J	**2.1 (R)**	**1.4 J (R)**
*Sodium	mg/kg	342 J	171 J	3,170	167 J	149 J	177 J	220 J	356 J
Vanadium	mg/kg	9.3 J	**82.2 (A)**	37.7	19.3 J	10.6 J	11.9 J	15.6 J	33.1
Zinc	mg/kg	**362 J (R)**	**1,300 (R)**	**1,770 (R)**	**184 J (R)**	**284 J (R)**	**451 J (R)**	**264 J (R)**	**877 (R)**
Cyanide, Total	mg/kg	0.31 J	1.6 J		0.39 J			0.38 J	0.52 J

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TABLE I-48

CSO Sediment Physical Characteristics

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station ID	Sample ID	Top Depth (ft)	Bottom Depth (ft)	Total Organic Carbon (mg/kg)	% Solids	% Silt	%Clay	%Sand	Total % Fines	Invesitgation
RH-031	GC-SDRH031-DW-1	0.0	0.5	30700	51.8	19.2	1.1	79.8	20.2	USEPA, 2010
RH-033	GC-SDRH033-DW-1	0.0	0.5	26100	67.7	17.4	2.2	80.4	19.6	USEPA, 2010
RH-035	GC-SDRH035-DW-1	0.0	0.5	11800	75.9	49.9	1.7	48.4	51.6	USEPA, 2010
RH-036	GC-SDRH036-DW-1	0.0	0.5	40100	57.8	27.3	4.1	68.6	31.4	USEPA, 2010
RH-037	GC-SDRH037-DW-1	0.0	0.5	45900	69.5	44.5	5.2	50.3	49.7	USEPA, 2010
OH-005	GC-SDOH005-DW-1	0.0	0.5	26400	68.6	49.8	4.2	46.0	54.0	USEPA, 2010
OH-007	GC-SDOH007-DW-1	0.0	0.5	223000	48.0	36.2	6.0	57.8	42.2	USEPA, 2010

Notes:

ft - feet

mg/kg - milligram/kilogram

% - percent

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TABLE I-49A
VOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:		GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW2	GC-SWRH034-WW-3
Weather:		DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:		6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	9/28/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**1.1**	0.05 U	0.05 U	**0.51 J**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.3 J**	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.58**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.36 J**	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	**0.52**	0.5 U	0.5 U	0.5 U	**0.56**	0.5 U	0.5 U	**0.62**	**0.73**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.35 J**	0.5 U	0.5 U
2-hexanone	ug/l	**0.75 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**6.7**	5 U	5 U	5 U	5 U	5 U	5 U	**5.1**	5 U
Acetone	ug/l	**95**	**47**	**5.4**	**13**	**6**	**50**	**47**	**33**	**120**	**61**	**4.9 J**	**1,600 J**	12 U	13 U	**5.5**	**67**	**60**	**75**
Benzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**3**	**1.5**	0.5 U	**91 J**	0.5 U	**3.6**	**9.1 J**	**1.5**	**0.94**	**1.3**
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	**0.57**	**0.36 J**	0.5 U	**0.69**	0.5 U	**0.28 J**	0.5 U	0.5 U	**0.5 J**	**0.35 J**	0.5 U	**0.35 J**	0.5 U	0.5 U	0.5 U	**0.26 J**	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.59 J**	0.5 U	0.5 U	**0.37 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/l	0.5 U	**0.23 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.16 J**	0.5 U	0.5 U	**0.73**	**1.4**	**0.52**	**0.52**	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	**8.2**	**5**	0.5 U	**9.9**	0.5 U	**4.6**	**1.5**	**1.5**	**8.2**	**3**	0.5 U	**6**	**0.84**	**0.76**	**0.72**	**7**	**2.3**	**2.4**
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U	**3.9**	0.5 U	0.5 U	0.5 U	0.5 U	**2.3**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.7**	**1.2 J**	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.6**	0.5 U	**0.27 J**	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	**0.92**	**0.31 J**	**0.81**	0.5 U	**0.24 J**	**0.67**	**0.37 J**	**0.74**	**11**	**0.22 J**	**0.81**	**2**	**0.25 J**	**0.25 J**	**0.46 J**
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	**0.11 J**	0.5 U	0.5 U	**0.52**	**0.45 J**	**0.14 J**	0.5 U	**5.1**	**2.4**	**0.12 J**	**0.27 J**	**0.35 J**	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	**0.14 J**	0.5 U	0.5 U	**0.86**	**0.32 J**	**0.8**	**0.24 J**	**0.22 J**	**0.62**	**0.43 J**	**0.72**	**11**	**0.21 J**	**0.81**	**2**	**0.25 J**	**0.49 J**	**0.43 J**

TABLE I-49A
VOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW2	GC-SWRH034-WW-3
Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	9/28/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
Methyl acetate	ug/l	0.5 U	0.5 UJ	0.5 U	**0.53**	0.5 U	**8.5**	0.5 U	0.5 U	**4.7**	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	**1.5**	0.5 U	**2.3**
Methyl ethyl ketone (2-butanone)	ug/l	**3.3 J**	5 U	5 U	**1 J**	5 U	**3.6 J**	**3.8 J**	5 U	**2.4 J**	**4.7 J**	5 U	**2 J**	0.5 U	5 U	5 U	**1.8 J**	**7.7**	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**3 J**
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.4**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	**1.3**	0.5 U	0.5 U	**6.7**	0.5 U	**0.49 J**	**0.64**	**0.52**	**4.5**	0.5 U	**0.79**	0.5 UJ	0.5 U	0.5 U	**1.9**	**3.5**	**1.7**	**0.73**
o-xylene (1,2-dimethylbenzene)	ug/l	**0.31 J**	**0.36 J**	0.5 U	**0.65**	**0.41 J**	**0.97**	**0.34 J**	**0.28 J**	**0.36 J**	0.5 U	**0.51**	**1.4**	0.5 U	**0.24 J**	**0.59**	**0.18 J**	0.5 U	**0.4 J**
Styrene	ug/l	**1.7**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.14 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.59 J**	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	**0.35 J**	**0.42 J**	0.5 U	0.5 U	0.5 U	0.5 U	**3.3**	**2.9**	**31 J**	**1.2**	0.5 U	0.5 U	0.5 U	**0.3 J**	**4.5**	**11**	**0.67**	**0.84**
Toluene	ug/l	**13**	**3**	**0.48 J**	**7.9**	**2.1**	**2.3**	**2.9**	**2.3**	**4.2**	**3.3**	**0.64**	**1.1**	**2**	**2.4**	**2.3 J**	**1.9**	**1.1**	**11**
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**3.3**	**0.25 J**	0.5 U	0.5 U	0.5 U	0.5 U	**3.3 J**	**1.4**	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	**0.44 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-49A
VOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:		GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:		DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:		6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**												
1,1,1-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	**0.19 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,1,2-trichloroethane	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	**0.19**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.39**	**0.48**	0.05 U	0.05 U	**2 J**	0.05 U	0.05 U
1,2-dibromoethane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	**0.56**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	**0.64**	**0.41 J**	**0.55**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-hexanone	ug/l	5 U	**4.9 J**	**0.75 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	**150**	**35**	**8.8**	**9.3**	**24**	**4.9 J**	**13**	**16**	12 U	**6.8**	**19**	**22**	**19**
Benzene	ug/l	**1.6**	**0.56**	0.5 U	0.5 U	0.5 U	0.5 U	**9.6**	**5.4**	**5.6**	**2.8**	**110 J**	**30 J**	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	**0.51**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.5 J**	**0.52**	0.5 U	0.5 U	**0.24 J**	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Chlorobenzene	ug/l	**0.21 J**	0.5 U	**0.14 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.4**
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	**9.8**	**2.3**	**0.54**	**1.8**	**2**	0.5 U	**5.5**	**5.3**	**1**	**0.47 J**	**82 J**	**11**	**6.1**
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	**1.7**	0.5 U	0.5 U	**3.3**	**1.8**	0.5 U	**11**	**5.1**	**12**	**1.9**	**3.8**	**9**	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	**0.33 J**	0.5 U	**0.28 J**	0.5 U	0.5 U	0.5 U	**2.7**	**2**	**8.7**	**1.7**	**11**	**4.5**	0.5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.88**	**0.72**	**1.5**	**0.51**	**1.3**	**0.92**	0.5 U
m, p xylenes	ug/l	**0.32 J**	0.5 U	**0.27 J**	0.5 U	0.5 U	0.5 U	**2.7**	**1.9**	**8.7**	**1.6**	**11**	**4.5**	0.5 U

TABLE I-49A
VOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:	GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**											
Methyl acetate	ug/l	**6.1**	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**1.9**	0.5 UJ	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	**2.5 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**3 J**	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.7 J**	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.16 J**	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	**0.73**	**2.1**	**0.52**	0.5 U	0.5 U	**0.5 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	**0.18 J**	0.5 U	**0.12 J**	0.5 U	0.5 U	0.5 U	**1.3**	**0.65**	**2.2**	**1**	**3**	**1.5**	**0.33 J**
Styrene	ug/l	**0.21 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.53**	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 U	0.5 U	0.5 U	**0.62**	**0.38 J**	0.5 U	**3.8**	**1.6**	0.5 U	0.5 U	**3**	**3.6 J**	0.5 U
Tetrachloroethylene(PCE)	ug/l	**19**	**0.46 J**	**3.9**	**34 J**	**20**	**1.7**	**17**	**9**	**3.4**	**3.2**	**12**	**13**	0.5 U
Toluene	ug/l	**4**	**4**	**3.4**	**0.76**	**0.17 J**	0.5 U	**0.55**	**0.31 J**	**3.5**	**23 J**	**1.1**	**1.5**	**0.27 J**
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U
Trichloroethylene (TCE)	ug/l	**2.3**	0.5 U	0.5 U	**2.6**	**4.1**	0.5 U	**5.8**	**1.7**	**1.6**	**3.1**	**2.1**	**19**	0.5 U
Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**12**	**8.3**	**26 J**	**1.9**	**0.65**	0.5 U	0.5 U

TABLE I-49B
VOC Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW2	GC-SWRH034-WW-3
Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	9/28/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																
1,1,1-trichloroethane	ug/l																	
1,2-dibromo-3-chloropropane	ug/l						**1.1 (T)**			**0.51 J (T)**								
1,2-dichloroethane	ug/l											1.3 J						
1,3-dichlorobenzene	ug/l						0.58									0.36 J		
1,4-dichlorobenzene	ug/l		0.52				0.56			0.62	0.73					0.35 J		
2-hexanone	ug/l	0.75 J									**6.7 (T)**						**5.1 (T)**	
Acetone	ug/l	95	47	5.4	13	6	50	47	33	120	61	4.9 J	1,600 J			5.5	67	60	75
Benzene	ug/l									3	1.5		**91 J (T)**		3.6	9.1 J	1.5	0.94	1.3
Bromodichloromethane	ug/l	0.57	0.36 J		0.69		0.28 J			0.5 J	0.35 J		0.35 J				0.26 J		
Carbon disulfide	ug/l						0.59 J			0.37 J									
Chlorobenzene	ug/l		0.23 J							0.16 J			0.73	1.4	0.52	0.52			
Chloroform	ug/l	8.2	5		9.9		4.6	1.5	1.5	8.2	3		6	0.84	0.76	0.72	7	2.3	2.4
cis-1,2-dichloroethylene	ug/l				3.9					2.3						1.7	1.2 J		
Cyclohexane	ug/l												1.6		0.27 J				
Ethylbenzene	ug/l				0.92	0.31 J	0.81		0.24 J	0.67	0.37 J	0.74	**11 (T)**	0.22 J	0.81	**2 (T)**	0.25 J	0.25 J	0.46 J
Isopropylbenzene (cumene)	ug/l				0.11 J			0.52	0.45 J	0.14 J		5.1	2.4	0.12 J	0.27 J	0.35 J			
m, p xylenes	ug/l	0.14 J			0.86	0.32 J	0.8	0.24 J	0.22 J	0.62	0.43 J	0.72	11	0.21 J	0.81	2	0.25 J	0.49 J	0.43 J
Methyl acetate	ug/l				0.53		8.5			4.7							1.5		2.3
Methyl ethyl ketone (2-butanone)	ug/l	3.3 J			1 J		3.6 J	3.8 J		2.4 J	4.7 J		2 J				1.8 J	7.7	
Methyl isobutyl ketone	ug/l																		3 J
*Methylcyclohexane	ug/l												1.4						
Methylene chloride	ug/l	1.3			6.7		0.49 J	0.64	0.52	4.5		0.79				1.9	3.5	1.7	0.73
o-xylene (1,2-dimethylbenzene)	ug/l	0.31 J	0.36 J		0.65	0.41 J	0.97	0.34 J	0.28 J	0.36 J		0.51	1.4		0.24 J	0.59	0.18 J		0.4 J
Styrene	ug/l	1.7								0.14 J									
Tert-butyl methyl ether	ug/l												0.59 J						
Tetrachloroethylene(PCE)	ug/l	0.35 J	0.42 J					3.3	2.9	**31 J (T)**	1.2				0.3 J	**4.5 (T)**	**11 (T)**	0.67	0.84
Toluene	ug/l	13	3	0.48 J	7.9	2.1	2.3	2.9	2.3	4.2	3.3	0.64	1.1	2	2.4	2.3 J	1.9	1.1	11
Trichloroethylene (TCE)	ug/l									3.3	0.25 J					3.3 J	1.4		
Vinyl chloride	ug/l				0.44 J														

TABLE I-49B
VOC Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:	GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**											
1,1,1-trichloroethane	ug/l					0.19 J							
1,2-dibromo-3-chloropropane	ug/l	**0.19 (T)**						**0.39 (T)**	**0.48 (T)**			**2 J (T)**		
1,2-dichloroethane	ug/l												
1,3-dichlorobenzene	ug/l			0.56									
1,4-dichlorobenzene	ug/l	0.64	0.41 J	0.55									
2-hexanone	ug/l		**4.9 J (T)**	0.75 J									
Acetone	ug/l	150	35	8.8	9.3	24	4.9 J	13	16		6.8	19	22	19
Benzene	ug/l	1.6	0.56					9.6	5.4	5.6	2.8	**110 J (T)**	**30 J (T)**	
Bromodichloromethane	ug/l	0.51						0.5 J	0.52			0.24 J		
Carbon disulfide	ug/l													
Chlorobenzene	ug/l	0.21 J		0.14 J										1.4
Chloroform	ug/l	9.8	2.3	0.54	1.8	2		5.5	5.3	1	0.47 J	82 J	11	6.1
cis-1,2-dichloroethylene	ug/l	1.7			3.3	1.8		11	5.1	12	1.9	3.8	9	
Cyclohexane	ug/l													
Ethylbenzene	ug/l	0.33 J		0.28 J				**2.7 (T)**	**2 (T)**	**8.7 (T)**	**1.7 (T)**	**11 (T)**	**4.5 (T)**	
Isopropylbenzene (cumene)	ug/l							0.88	0.72	1.5	0.51	1.3	0.92	
m, p xylenes	ug/l	0.32 J		0.27 J				2.7	1.9	8.7	1.6	11	4.5	
Methyl acetate	ug/l	6.1										1.9		
Methyl ethyl ketone (2-butanone)	ug/l	2.5 J										3 J		
Methyl isobutyl ketone	ug/l										1.7 J			
*Methylcyclohexane	ug/l									0.16 J				
Methylene chloride	ug/l	0.73	2.1	0.52			0.5 J							
o-xylene (1,2-dimethylbenzene)	ug/l	0.18 J		0.12 J				1.3	0.65	2.2	1	3	1.5	0.33 J
Styrene	ug/l	0.21 J										0.53		
Tert-butyl methyl ether	ug/l				0.62	0.38 J		3.8	1.6			3	3.6 J	
Tetrachloroethylene(PCE)	ug/l	**19 (T)**	0.46 J	**3.9 (T)**	**34 J (T)**	**20 (T)**	1.7	**17 (T)**	**9 (T)**	**3.4 (T)**	3.2	**12 (T)**	**13 (T)**	
Toluene	ug/l	4	4	3.4	0.76	0.17 J		0.55	0.31 J	3.5	23 J	1.1	1.5	0.27 J
Trichloroethylene (TCE)	ug/l	2.3			2.6	4.1		5.8	1.7	1.6	3.1	2.1	19	
Vinyl chloride	ug/l							**12 (T)**	**8.3 (T)**	**26 J (T)**	1.9	0.65		

TABLE I-50A
SVOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:		GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW-1	GC-SWRH034-WW2
Weather:		DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:		6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	7/14/2010	9/28/2010
Sample Type:		N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 UJ	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 UJ	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2,4,5-trichlorophenol	ug/l	5 UJ	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2,4,6-trichlorophenol	ug/l	5 UJ	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2,4-dichlorophenol	ug/l	5 UJ	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2,4-dimethylphenol	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2,4-dinitrophenol	ug/l	10 U	100 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U	100 U	10 U	10 U	100 U	10 U
2,4-dinitrotoluene	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2,6-dinitrotoluene	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2-chloronaphthalene	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2-chlorophenol	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
2-methylnaphthalene	ug/l	**0.72 J**	1 U	**0.14**	1 U	1 U	**6 J**	**0.26**	**0.2**	1 U	**1.4 J**	**0.31**	**10**	**2.1 J**	1 U	**0.82**	**0.25**	1 U	0.1 UJ
2-methylphenol (o-cresol)	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	**9.6**	5 U	**60**	5 U	50 U	5 U	5 U	50 U	5 U
2-nitroaniline	ug/l	10 U	100 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U	100 U	10 U	10 U	100 U	10 U
2-nitrophenol	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
3-nitroaniline	ug/l	10 U	100 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U	100 U	10 U	10 U	100 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	100 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U	100 U	10 U	10 U	100 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
4-chloro-3-methylphenol	ug/l	5 UJ	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
4-chloroaniline	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
4-methylphenol (p-cresol)	ug/l	**65**	50 U	5 U	**29 J**	50 U	**38**	5 U	**6.7**	**78**	**21**	5 U	**54**	5 U	50 U	5 U	**15**	**76**	**3.6 J**
4-nitroaniline	ug/l	10 U	100 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U	100 U	10 U	10 U	100 U	10 U
4-nitrophenol	ug/l	10 U	100 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	100 U	10 U	100 U	10 U	10 U	100 U	10 U
Acenaphthene	ug/l	0.1 U	1 U	0.1 U	1 U	1 U	**0.45**	**0.19**	**0.21**	1 U	**0.67 J**	**0.46**	**6.6**	**1.7 J**	**1.1**	**0.14**	**0.24**	1 U	**0.15 J**
Acenaphthylene	ug/l	**1.2 J**	1 U	0.1 U	1 U	1 U	0.1 U	0.1 U	0.1 U	1 U	**0.25 J**	0.1 U	1 U	0.1 U	1 U	0.1 U	**1.6 J**	1 U	0.1 UJ
Acetophenone	ug/l	5 U	50 U	5 U	50 U	50 U	**0.55 J**	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Anthracene	ug/l	0.1 U	1 U	0.1 U	1 U	1 U	0.1 U	**0.15 J**	0.1 U	1 U	0.1 UJ	**0.26**	1 U	**0.16**	1 U	0.1 U	0.1 U	1 U	0.1 UJ
Atrazine	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Benzaldehyde	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Benzo(a)anthracene	ug/l	0.1 U	1 U	**0.14**	**0.18 J**	1 U	0.1 U	**0.15**	**0.096 J**	1 U	**0.22 J**	**0.35**	1 UJ	**0.19**	1 U	**0.11**	0.1 U	1 U	0.1 UJ
Benzo(a)pyrene	ug/l	0.1 U	1 U	**0.28**	1 U	1 U	0.1 U	0.1 U	0.1 U	1 U	**0.16 J**	**0.59**	1 U	0.1 U	1 U	0.1 U	0.1 U	1 U	0.1 UJ
Benzo(b)fluoranthene	ug/l	**0.13**	1 U	**0.3**	**0.62 J**	1 U	**0.16**	**0.29**	**0.21**	**0.61 J**	**0.17 J**	**0.8**	1 U	**0.39**	1 U	0.1 U	**0.22**	**0.85 J**	**0.17 J**
Benzo(g,h,i)perylene	ug/l	0.1 U	1 U	0.54 U	**0.41 J**	1 U	**0.12**	0.46 U	0.59 U	1 U	0.31 U	0.9 U	1 U	**0.42**	1 U	0.3 U	**0.33**	1 U	0.31 U
Benzo(k)fluoranthene	ug/l	0.1 U	1 UJ	**0.26**	1 U	1 U	0.1 U	**0.25**	**0.15**	1 U	**0.1 J**	**0.31**	1 U	**0.066 J**	1 U	0.1 U	**0.11**	**0.26 J**	**0.15 J**

TABLE I-50A
SVOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW-1	GC-SWRH034-WW2
Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	7/14/2010	9/28/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																
Benzyl butyl phthalate	ug/l	5 U	50 U	5 U	**2.6 J**	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	**3.4 J**	5 U
Biphenyl (diphenyl)	ug/l	5 U	50 U	5 U	50 U	50 U	**0.38 J**	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	50 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	50 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	50 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	**4.8 J**	50 U	5 U	**5.3 J**	50 U	**8.7**	5 U	5 U	**6.6 J**	**17**	5 U	50 U	5 U	50 U	5 U	**45**	50 U	**76**
Caprolactam	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Carbazole	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Chrysene	ug/l	0.1 U	1 U	**0.25**	**0.17 J**	1 U	0.1 U	**0.19**	**0.12**	1 U	**0.2 J**	**0.32**	1 U	**0.13**	1 U	**0.16**	0.1 U	1 U	0.1 UJ
Dibenz(a,h)anthracene	ug/l	0.1 U	1 UJ	**0.15**	1 U	1 U	**0.12**	**0.16**	**0.11**	1 U	0.1 UJ	**0.45**	1 U	0.1 U	1 UJ	0.1 U	**0.2**	1 U	**0.14 J**
Dibenzofuran	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Diethyl phthalate	ug/l	**1.6 J**	50 U	5 U	50 U	50 U	**1.3 J**	5 U	5 U	**5.5 J**	5 U	5 U	50 U	5 U	50 U	5 U	**3.8 J**	50 U	**5.7**
Dimethyl phthalate	ug/l	**2.3 J**	50 U	5 U	50 U	50 U	**1.8 J**	5 U	5 U	**4.1 J**	5 U	5 U	50 U	5 U	50 U	5 U	**2.5 J**	50 U	5 U
Di-n-butyl phthalate	ug/l	**1.6 J**	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Di-n-octylphthalate	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	**0.28 J**
Fluoranthene	ug/l	0.1 U	1 U	**0.41**	1 U	1 U	0.1 U	0.1 U	0.1 U	1 U	**0.24 J**	**0.88**	1 U	**0.44**	1 U	0.1 U	0.1 U	**1.1**	0.1 UJ
Fluorene	ug/l	**0.18**	1 U	0.1 U	1 U	1 U	**0.66**	**0.21**	**0.14**	1 U	**0.17 J**	**0.43**	**1.7**	**0.33**	1 U	**0.24**	0.1 U	1 U	**0.12 J**
Hexachlorobenzene	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Hexachlorobutadiene	ug/l	5 UJ	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Hexachloroethane	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.1 U	1 U	0.32 U	**0.95 J**	**1.3**	**0.13**	0.3 U	0.28 U	1 U	0.33 U	0.63 U	1 U	**0.39**	1 U	0.21 U	**0.99**	**0.95 J**	0.32 U
Isophorone	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Naphthalene	ug/l	**0.16 J**	1 U	**0.12**	**0.53 J**	1 U	**0.95**	**0.35**	**0.23**	**3.4 J**	**3.3 J**	**3.4 J**	**63**	**10**	1 U	**0.56**	**1.1 J**	**0.55 J**	**1.4 J**
Nitrobenzene	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	50 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	50 U	5 U	50 U	5 U	5 U	50 U	5 U
Pentachlorophenol	ug/l	0.2 U	2 U	**0.84**	2 U	2 U	0.2 U	**0.84**	**0.4**	2 U	**0.14 J**	**0.19 J**	100 U	**0.16 J**	2 U	0.2 U	0.2 U	2 U	**0.47 J**
Phenanthrene	ug/l	0.1 U	1 U	**0.3 J**	**0.38 J**	1 U	**0.9**	**0.35 J**	**0.27 J**	1 U	**0.85 J**	**0.98 J**	**1.6**	**0.89**	1 U	**0.58 J**	**0.31**	1 U	**0.19 J**
Phenol	ug/l	**23**	50 U	5 U	**12 J**	50 U	**18**	5 U	5 U	**110**	**24**	5 U	**12 J**	5 U	50 U	5 U	**6.5**	50 U	5 U
Pyrene	ug/l	0.1 U	1 U	**0.36**	1 U	**0.31 J**	0.1 U	0.1 U	**0.3**	1 U	**0.48 J**	**0.83**	1 U	**0.41**	1 U	**0.4**	0.1 U	1 U	0.1 UJ
Total PAHs	ug/l	**2.39**	ND	**2.71**	**3.24**	**1.61**	**9.49**	**2.55**	**2.036**	**4.01**	**8.21**	**10.37**	**82.9**	**17.616**	**1.1**	**3.01**	**5.35**	**3.71**	**2.32**

TABLE I-50A
SVOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		RH-034	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:		GC-SWRH034-WW-3	GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:		WET	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:		10/1/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 UJ	5 UJ
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 U	5 UJ	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 U	5 UJ	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 UJ	5 UJ	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	0.1 UJ	0.1 U	0.1 UJ	**0.17**	1 U	1 U	0.1 U	0.1 U	0.1 U	**2.4**	0.1 U	**3.5 J**	**3.4 J**	**1.3 J**
2-methylphenol (o-cresol)	ug/l	5 U	5 U	**11**	5 U	50 U	**6 J**	5 U	5 U	5 U	50 U	5 U	5 U	5 UJ	5 UJ
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 UJ	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 UJ	5 UJ
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 UJ	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 UJ	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 UJ	5 UJ
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 UJ	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	**12**	5 U	50 U	**5.6 J**	5 U	5 U	5 U	50 U	5 U	**25**	**1.7 J**	5 UJ
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	**5.6 J**	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	100 U	100 U	10 U	10 U	10 U	100 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	**0.18 J**	**0.1**	**0.23 J**	**0.12**	1 U	1 U	0.1 U	**3.2 J**	**2.8 J**	**2.2**	**1.4 J**	**2.4 J**	**2.7 J**	**0.87**
Acenaphthylene	ug/l	0.1 UJ	0.1 U	**0.2 J**	0.1 U	1 U	1 U	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acetophenone	ug/l	5 U	5 UJ	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Anthracene	ug/l	0.1 UJ	0.1 U	0.1 UJ	0.1 U	1 U	1 U	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	**0.18**	0.1 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 U	**1.1 J**	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	ug/l	**0.14**	0.1 U	0.1 UJ	**0.19**	1 U	1 U	0.1 U	0.1 UJ	0.1 UJ	1 U	**0.11**	0.1 U	**0.19**	**0.11**
Benzo(a)pyrene	ug/l	0.1 U	0.1 U	**0.15 J**	**0.16**	1 U	1 U	0.1 U	0.1 U	0.1 U	1 U	**0.29**	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/l	**0.18**	0.1 U	**0.17 J**	**0.16**	1 U	1 U	**0.11**	**0.13**	**0.19**	1 U	**0.37**	**0.18**	**0.26**	**0.21**
Benzo(g,h,i)perylene	ug/l	0.53 U	0.11 U	0.21 U	0.19 U	1 U	1 U	0.5 U	0.14 U	**0.51**	1 U	**1.5 J**	**0.1**	**0.24**	0.78 U
Benzo(k)fluoranthene	ug/l	**0.14**	0.1 U	**0.11 J**	**0.11**	1 U	1 UJ	0.1 U	0.1 U	0.1 U	1 U	**0.14**	0.1 U	0.1 U	**0.16**

TABLE I-50A
SVOC Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		RH-034	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:		GC-SWRH034-WW-3	GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:		WET	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:		10/1/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	**19**	5 U	**35**	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	**4.7 J**	5 U	5 U
Caprolactam	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 UJ	5 U	5 U
Chrysene	ug/l	**0.15 J**	0.1 U	0.1 UJ	**0.18 J**	1 U	1 U	**0.12**	0.1 U	0.1 U	1 U	**0.11**	0.1 U	**0.11**	**0.14**
Dibenz(a,h)anthracene	ug/l	**0.19**	0.1 U	0.1 UJ	**0.097 J**	1 U	1 UJ	0.1 U	**0.1 J**	0.1 U	1 UJ	**0.28**	**0.13**	0.1 UJ	**0.095 J**
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 UJ	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	**2.5 J**	**5.4**	5 U
Di-n-butyl phthalate	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 UJ	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	0.1 U	0.1 U	0.1 UJ	**0.3**	1 U	1 U	**0.19**	0.1 U	**0.14**	1 U	**0.16**	**0.12**	0.1 U	**0.21**
Fluorene	ug/l	**0.13 J**	0.1 U	**0.13 J**	0.1 U	1 U	1 U	0.1 U	**0.36**	**0.37**	1 U	0.1 U	**0.48**	**0.54 J**	**0.29**
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 UJ	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 UJ	5 UJ
Hexachloroethane	ug/l	5 U	5 UJ	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.41 U	0.1 U	0.32 U	0.25 U	1 U	1 U	0.24 U	**0.1**	**0.29**	1 U	0.56 U	**0.2**	**0.27**	0.36 U
Isophorone	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	**0.098 J**	0.1 U	**1.7 J**	**0.57**	1 U	1 U	0.1 U	0.12 U	0.11 U	**29 J**	0.1 U	**23 J**	**22**	**4.7 J**
Nitrobenzene	ug/l	5 U	5 UJ	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 UJ	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 UJ	5 U	5 UJ	50 U	50 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	**0.17 J**	10 U	**0.25 J**	0.2 U	2 U	2 U	**0.15 J**	10 U	10 U	2 UJ	**0.16 J**	0.2 U	0.2 UJ	**0.12 J**
Phenanthrene	ug/l	**0.23 J**	0.1 U	**0.47 J**	**0.25**	1 U	1 U	0.1 U	0.1 U	0.1 U	1 U	**0.11 J**	**0.64**	**1.1 J**	**0.34 J**
Phenol	ug/l	5 U	5 U	**4.3 J**	5 U	50 U	50 U	5 U	5 U	5 U	50 U	5 U	**35**	5 U	5 U
Pyrene	ug/l	**0.22**	0.1 U	**0.4 J**	**0.41**	1 U	1 U	**0.27**	0.1 U	0.1 U	1 U	**0.22**	**0.25**	**0.46**	**0.41**
Total PAHs	ug/l	**1.658**	**0.1**	**3.56**	**2.717**	ND	ND	**0.69**	**3.89**	**4.3**	**33.6**	**4.69**	**31**	**31.45**	**8.835**

TABLE I-50B
SVOC Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034	RH-034
Sample Number:		GC-SWOH005-DW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW-1	GC-SWRH034-WW2	GC-SWRH034-WW-3
Weather:		DRY	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET	WET
Sample Date:		6/30/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	7/14/2010	9/28/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
2-methylnaphthalene	ug/l	0.72 J	0.14			6 J	0.26	0.2		1.4 J	0.31	10	2.1 J		0.82	0.25			
2-methylphenol (o-cresol)	ug/l									9.6		60							
4-methylphenol (p-cresol)	ug/l	**65 (T)**		**29 J (T)**		**38 (T)**		6.7	**78 (T)**	**21 (T)**		**54 (T)**				15	**76 (T)**	3.6 J	
4-nitroaniline	ug/l																		
Acenaphthene	ug/l					0.45	0.19	0.21		0.67 J	0.46	6.6	1.7 J	1.1	0.14	0.24		0.15 J	0.18 J
Acenaphthylene	ug/l	1.2 J								0.25 J						1.6 J			
Acetophenone	ug/l					0.55 J													
Anthracene	ug/l						0.15 J				0.26		0.16						
Benzaldehyde	ug/l																		
Benzo(a)anthracene	ug/l		**0.14 (T)**	**0.18 J (T)**			**0.15 (T)**	**0.096 J (T)**		**0.22 J (T)**	**0.35 (T)**		**0.19 (T)**		**0.11 (T)**				**0.14 (T)**
Benzo(a)pyrene	ug/l		**0.28 (T)**							**0.16 J (T)**	**0.59 (T)**								
Benzo(b)fluoranthene	ug/l	**0.13 (T)**	**0.3 (T)**	**0.62 J (T)**		**0.16 (T)**	**0.29 (T)**	**0.21 (T)**	**0.61 J (T)**	**0.17 J (T)**	**0.8 (T)**		**0.39 (T)**			**0.22 (T)**	**0.85 J (T)**	**0.17 J (T)**	**0.18 (T)**
Benzo(g,h,i)perylene	ug/l			0.41 J		0.12							0.42			0.33			
Benzo(k)fluoranthene	ug/l		**0.26 (T)**				**0.25 (T)**	**0.15 (T)**		**0.1 J (T)**	**0.31 (T)**		**0.066 J (T)**			**0.11 (T)**	**0.26 J (T)**	**0.15 J (T)**	**0.14 (T)**
Benzyl butyl phthalate	ug/l			2.6 J													3.4 J		
Biphenyl (diphenyl)	ug/l					0.38 J													
Bis(2-ethylhexyl) phthalate	ug/l	**4.8 J (T)**		**5.3 J (T)**		**8.7 (T)**			**6.6 J (T)**	**17 (T)**						**45 (T)**		**76 (T)**	**19 (T)**
Chrysene	ug/l		**0.25 (T)**	**0.17 J (T)**			**0.19 (T)**	**0.12 (T)**		**0.2 J (T)**	**0.32 (T)**		**0.13 (T)**		**0.16 (T)**				**0.15 J (T)**
Dibenz(a,h)anthracene	ug/l		**0.15 (T)**			**0.12 (T)**	**0.16 (T)**	**0.11 (T)**			**0.45 (T)**					**0.2 (T)**		**0.14 J (T)**	**0.19 (T)**
Diethyl phthalate	ug/l	1.6 J				1.3 J			**5.5 J (S)**							**3.8 J (S)**		**5.7 (S)**	
Dimethyl phthalate	ug/l	2.3 J				1.8 J			**4.1 J (S)**							2.5 J			
Di-n-butyl phthalate	ug/l	1.6 J																	
Di-n-octylphthalate	ug/l																	0.28 J	
Fluoranthene	ug/l		0.41							0.24 J	0.88		0.44				1.1		
Fluorene	ug/l	0.18				0.66	0.21	0.14		0.17 J	0.43	1.7	0.33		0.24			0.12 J	0.13 J
Indeno(1,2,3-c,d)pyrene	ug/l			**0.95 J (T)**	**1.3 (T)**	**0.13 (T)**							**0.39 (T)**			**0.99 (T)**	**0.95 J (T)**		
Naphthalene	ug/l	**0.16 J (T)**	0.12	**0.53 J (T)**		**0.95 (T)**	**0.35 (T)**	**0.23 (T)**	**3.4 J (T,S)**	**3.3 J (T,S)**	**3.4 J (T,S)**	**63 (T,S)**	**10 (T,S)**		**0.56 (T)**	**1.1 J (T)**	**0.55 J (T)**	**1.4 J (T)**	0.098 J
Pentachlorophenol	ug/l		0.84				0.84	0.4		0.14 J	0.19 J		0.16 J					0.47 J	0.17 J
Phenanthrene	ug/l		0.3 J	0.38 J		0.9	0.35 J	0.27 J		0.85 J	0.98 J	1.6	0.89		0.58 J	0.31		0.19 J	0.23 J
Phenol	ug/l	23		12 J		18			110	24		12 J				6.5			
Pyrene	ug/l		0.36		0.31 J			0.3		0.48 J	0.83		0.41		0.4				0.22
*Total PAHs	ug/l	2.39	2.71	3.24	1.61	9.49	2.55	2.036	4.01	8.21	10.37	82.9	17.616	1.1	3.01	5.35	3.71	2.32	1.658

TABLE I-50B
SVOC Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		RH-035	RH-035	RH-035	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:		GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:		DRY	WET	WET	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:		6/30/2010	9/28/2010	10/1/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**											
2-methylnaphthalene	ug/l			0.17					2.4		3.5 J	3.4 J	1.3 J
2-methylphenol (o-cresol)	ug/l		11		6 J								
4-methylphenol (p-cresol)	ug/l		12		5.6 J						**25 (T)**	1.7 J	
4-nitroaniline	ug/l										**5.6 J (T)**		
Acenaphthene	ug/l	0.1	0.23 J	0.12			3.2 J	2.8 J	2.2	1.4 J	2.4 J	2.7 J	0.87
Acenaphthylene	ug/l		0.2 J										
Acetophenone	ug/l												
Anthracene	ug/l											0.18	
Benzaldehyde	ug/l		1.1 J										
Benzo(a)anthracene	ug/l			**0.19 (T)**						**0.11 (T)**		**0.19 (T)**	**0.11 (T)**
Benzo(a)pyrene	ug/l		**0.15 J (T)**	**0.16 (T)**						**0.29 (T)**			
Benzo(b)fluoranthene	ug/l		**0.17 J (T)**	**0.16 (T)**		**0.11 (T)**	**0.13 (T)**	**0.19 (T)**		**0.37 (T)**	**0.18 (T)**	**0.26 (T)**	**0.21 (T)**
Benzo(g,h,i)perylene	ug/l							0.51		1.5 J	0.1	0.24	
Benzo(k)fluoranthene	ug/l		**0.11 J (T)**	**0.11 (T)**						**0.14 (T)**			**0.16 (T)**
Benzyl butyl phthalate	ug/l												
Biphenyl (diphenyl)	ug/l												
Bis(2-ethylhexyl) phthalate	ug/l		**35 (T)**								**4.7 J (T)**		
Chrysene	ug/l			**0.18 J (T)**		**0.12 (T)**				**0.11 (T)**		**0.11 (T)**	**0.14 (T)**
Dibenz(a,h)anthracene	ug/l			**0.097 J (T)**			**0.1 J (T)**			**0.28 (T)**	**0.13 (T)**		**0.095 J (T)**
Diethyl phthalate	ug/l												
Dimethyl phthalate	ug/l										2.5 J	**5.4 (S)**	
Di-n-butyl phthalate	ug/l												
Di-n-octylphthalate	ug/l												
Fluoranthene	ug/l			0.3		0.19		0.14		0.16	0.12		0.21
Fluorene	ug/l		0.13 J				0.36	0.37			0.48	0.54 J	0.29
Indeno(1,2,3-c,d)pyrene	ug/l						**0.1 (T)**	**0.29 (T)**			**0.2 (T)**	**0.27 (T)**	
Naphthalene	ug/l		**1.7 J (T,S)**	**0.57 (T)**					**29 J (T,S)**		**23 J (T,S)**	**22 (T,S)**	**4.7 J (T,S)**
Pentachlorophenol	ug/l		0.25 J			0.15 J				0.16 J			0.12 J
Phenanthrene	ug/l		0.47 J	0.25						0.11 J	0.64	1.1 J	0.34 J
Phenol	ug/l		4.3 J								35		
Pyrene	ug/l		0.4 J	0.41		0.27				0.22	0.25	0.46	0.41
*Total PAHs	ug/l	0.1	3.56	2.717		0.69	3.89	4.3	33.6	4.69	31	31.45	8.835

TABLE I-51A
Pesticide Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW2	GC-SWRH034-WW-3
Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	9/28/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Pesticides**																
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 UR	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 UR
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.069 J**	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 U	0.1 UR	1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE I-51A
Pesticide Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:	GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Pesticides**											
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 UR	0.05 UR	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 U	0.05 UR	0.05 U	0.05 U	0.05 UR	0.05 U
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Total DDTs	ug/l	---	---	---	---	ND	---	---	---	---	---	---	---	---

TABLE I-51B
Pesticide Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**RH-034**
	Sample Number:	**GC-SWRH034-DW-1**
	Weather:	**DRY**
	Sample Date:	**7/1/2010**
	Sample Type:	**N**
Parameter	**Units**	**Pesticides**
Alpha-chlordane	ug/l	**0.069 J (S)**

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TABLE I-52A
PCB Aroclor Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
	Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09302010-01	GC-SWRH031-DW-1	GC-SWRH031-WW2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW2	GC-SWRH034-WW-3
	Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
	Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	9/28/2010	10/1/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	**0.57 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	**0.57**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-52A
PCB Aroclor Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:	GC-SWRH035-DW-1	GC-SWRH035-WW2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Polychlorinated Biphenyls**											
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total PCBs	ug/l	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-52B
PCB Aroclor Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**OH-006**
	Sample Number:	**GC-SWOH006-WW-3**
	Weather:	**WET**
	Sample Date:	**9/30/2010**
	Sample Type:	**N**
Parameter	**Units**	**Polychlorinated Biphenyls**
Aroclor 1260	ug/l	**0.57 J (T,S)**
Total PCBs	ug/l	**0.57 (T,S)**

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TABLE I-53A
Metal, Cyanide, and TSS Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09301010-01	GC-SWRH031-DW-1	GC-SWRH031-WW-2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW-1	GC-SWRH034-WW-2
Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	7/14/2010	9/28/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**										**Metals**							
Aluminum	ug/l	**1,280**	**874**	**168 J**	**1,940**	**1,140**	**116 J**	200 U	**137 J**	**343**	**781**	**426**	200 U	**331**	**1,620 J**	**117 J**	**171 J**	**422**	**1,900**
Aluminum, dissolved	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	3,000 U	**226**	200 U	200 U	200 U
Antimony	ug/l	2 U	2 U	2 U	**3**	2 U	**2**	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U
Antimony, dissolved	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U	2 U
Arsenic	ug/l	**1.5**	**7.2**	**7.5**	**4.3**	**2.6**	**2.9**	**3.9**	**3.6**	**1.7**	**3.4 J**	**2.3**	**1.4 J**	**2.5**	**4.4 J**	**1.8**	**1**	**2.4**	**4.2 J**
Arsenic, dissolved	ug/l	**1**	**5.2**	**6.2**	**0.95 J**	**2.2**	**2.5**	**4**	**3.5**	**2.1**	**3 J**	**2.1**	**0.88 J**	**1.6**	10 UJ	**2.5**	**1**	**2.4**	**2.8 J**
Barium	ug/l	**85.8**	**63.7**	18.7 R	**199**	**62**	**77.4**	**37.7**	**32.2**	**39.3**	**56.1 J**	**68.7**	**214**	**65.5**	**116**	**7.3 J**	**27.7**	**66.2**	**109 J**
Barium, dissolved	ug/l	**18.3**	**23.7**	170 R	**44.6**	**12.5**	**46.4**	**16.2**	**16.1**	**26.7**	**17.3 J**	**12.2**	**101**	**50.7**	**57.6 J**	**9.6 J**	**18.1**	**14.9**	**12.3 J**
Beryllium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U
Beryllium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U
Cadmium	ug/l	**0.67 J**	**1.6**	1 U	**3**	1 U	1 U	1 U	1 U	**0.2 J**	**0.42 J**	**2.3**	1 U	**1.2**	**2.7 J**	1 U	1 U	**1.2**	**0.96 J**
Cadmium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.57 J**	10 U	1 U	1 U	1 U	1 U
Calcium	ug/l	**25,800**	**27,900**	**15,700**	**53,000**	**17,600**	**60,500**	**21,100**	**19,700**	**29,100**	**29,300**	**5,560**	**137,000**	**34,700**	**53,100 J**	**3,250 J**	**21,700**	**12,700**	**35,800**
Calcium, dissolved	ug/l	**11,800**	**22,300**	**14,400**	**38,200**	**12,400**	**57,900**	**18,700**	**19,600**	**25,000**	**20,000**	**3,730 J**	**134,000**	**33,600**	**40,200 J**	**8,140**	**19,800**	**11,800**	**14,900**
Chromium	ug/l	**6.4**	**4.7 J**	**2.2**	**16**	**6.6**	**6**	**3.3**	**2.3**	**2.1**	**4**	**2.4**	**1.3 J**	**1.8 J**	**8.4 J**	1.2 R	**1.1 J**	**1.8 J**	**12.1**
Chromium, dissolved	ug/l	**0.62 J**	**0.72 J**	**1.6 J**	2 U	**1.6 J**	**1.1 J**	**1.6 J**	**1.4 J**	**1.4 J**	**1.4 J**	**1.1 J**	**0.44 J**	**0.61 J**	20 UJ	3.8 R	**0.72 J**	**1.2 J**	**1.4 J**
Cobalt	ug/l	**1.9**	**1.4**	**0.57 J**	**2.6**	**1.4**	**0.77 J**	**0.9 J**	**0.77 J**	**3.4**	**1.6**	**1**	**0.75 J**	**0.91 J**	**3.7 J**	**0.76 J**	**2.3**	**1**	**3.2**
Cobalt, dissolved	ug/l	**0.65 J**	**0.57 J**	1 U	1 U	1 U	**0.64 J**	**0.5 J**	**0.47 J**	**2.7**	**0.65 J**	1 U	**0.52 J**	**0.67 J**	10 U	1 U	**2.3**	**1.4**	**0.65 J**
Copper	ug/l	**88.6**	**53.7**	**16.6**	**140**	**42**	**81.7**	**37.4**	**32.3**	**72.5**	**92.2**	**18.6**	**33.5**	**25.2**	375 U	22.4 R	**58.8**	**33.2**	**160**
Copper, dissolved	ug/l	**23.5 J**	**15.9 J**	**7.3 J**	25 U	**2.5 J**	25 U	**11.2 J**	**9.3 J**	**23.5 J**	**16.9**	**2.5 J**	25 U	**9.9 J**	375 U	74 R	**35.4**	**13.7 J**	**25**
Iron	ug/l	**4,990**	**3,890**	**461 J**	**14,200**	**3,320 J**	**2,420**	**1,180 J**	**858 J**	**1,140**	**2,490 J**	**1,110 J**	7,250 R	**2,220**	**8,800**	**227 J**	**787**	**991**	**7,330 J**
Iron, dissolved	ug/l	**577**	**357**	**52.8 J**	**342**	**113 J**	**334**	**272 J**	**243 J**	**448**	**403 J**	**47 J**	321 R	**625**	1,500 UJ	**175 J**	**300**	**201**	**219 J**
Lead	ug/l	**74.6**	**188**	**51.2**	**88.6**	**58.3**	**11.3**	**56.4**	**50.6**	**18.2**	**71.3**	**41.3**	**4.2**	**21.6**	**103**	**6.8**	**5.8**	**21.9**	**146**
Lead, dissolved	ug/l	**1.6**	**5.5**	**3.5**	**0.3 J**	**1.6**	**0.5 J**	**6.8**	**6.6**	**2.1**	**1.5**	**1.5**	1 U	**2**	10 U	**4.3**	**1.5**	**5.7**	**2**
Magnesium	ug/l	**8,260**	**5,730**	**2,700 J**	**10,500**	**3,440 J**	**70,500**	**2,910 J**	**2,680 J**	**41,200**	**25,000**	5,000 U	**26,900**	**5,790**	75,000 U	5,000 U	**24,100**	**6,920**	**19,300**
Magnesium, dissolved	ug/l	**5,110**	**4,200 J**	**2,240 J**	**6,350**	5,000 U	**67,900**	**2,410 J**	**2,500 J**	**38,700**	**22,900**	5,000 U	**26,600**	**5,310**	**25,500 J**	5,000 U	**23,000**	**6,500**	**13,900**
Manganese	ug/l	**111 J**	**112**	**20.5**	**673 J**	**116**	**343 J**	**71.3**	**64.8**	**70.3 J**	**99.8 J**	**38**	**785**	**169**	**251**	**11.7 J**	**55.1 J**	**170**	**170 J**
Manganese, dissolved	ug/l	**63.9**	**51.1**	**11.9 J**	**493**	**37.3**	**331**	**49.1**	**54.5**	**66**	**58.2 J**	**8 J**	**693**	**151**	**172**	**13.1**	**46.6**	**32.7**	**38.7 J**
Mercury	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.19 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.16 J**	0.2 U	0.2 U	0.2 U	0.2 U
Mercury, dissolved	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.067 J**	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**11.8 J**	**9.1 J**	**2**	**11.7 J**	**5.1**	**7.1 J**	**5.5**	**4.8**	**2.8 J**	**5.5**	**2.2**	**2.9**	**5.5 J**	**15.8 J**	1.3 R	**2.1 J**	**5.7 J**	**17.6**
Nickel, dissolved	ug/l	**3.7 J**	**4.1 J**	**1.3 J**	**1.3 J**	**1.3 J**	**6.3 J**	**4 J**	**4.2 J**	**2.2 J**	**2.5**	1 UJ	**1.9**	**4.5 J**	**4.5 J**	4.9 R	**1.9 J**	**2.7 J**	**2.4**
Potassium	ug/l	**11,600**	**8,160**	5,000 U	**13,100**	5,000 U	**35,000**	**5,260**	**4,940 J**	**25,300**	**14,000**	5,000 U	**22,500**	**5,510**	75,000 U	5,000 U	**16,800**	**6,000**	**12,100**
Potassium, dissolved	ug/l	**11,700**	**8,190**	5,000 U	**10,100**	**2,050 J**	**34,100**	**5,080**	**5,020**	**23,300**	**13,400**	5,000 U	**21,300**	**5,430**	75,000 U	**6,210**	**16,100**	**5,600**	**10,300**
Selenium	ug/l	5 U	5 U	5 U	5 U	5 U	**3.3 J**	5 U	5 U	**2.4 J**	5 U	5 U	5 U	**1.2 J**	50 U	5 U	5 U	**1.1 J**	5 U
Selenium, dissolved	ug/l	5 U	5 U	5 UJ	5 U	5 UJ	**2.9 J**	5 UJ	5 UJ	**2.6 J**	5 U	5 UJ	5 UJ	**0.93 J**	50 UR	5 UJ	**1.2 J**	5 U	5 U

TABLE I-53A
Metal, Cyanide, and TSS Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
	Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09301010-01	GC-SWRH031-DW-1	GC-SWRH031-WW-2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW-1	GC-SWRH034-WW-2
	Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
	Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	7/14/2010	9/28/2010	
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**											**Metals**							
Silver	ug/l	1 UJ	1 U	1 U	**0.22 J**	1 U	1 U	1 U	1 U	**0.45 J**	1 U	1 U	1 U	1 U	10 UJ	1 U	**0.81 J**	1 U	1 U
Silver, dissolved	ug/l	1 UJ	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 U	**0.23 J**	1 U	1 U	1 U	1 UJ	10 UJ	1 U	**0.52 J**	1 UJ	1 U
Sodium	ug/l	**59,100**	**41,600**	**7,590**	**170,000**	**22,600**	**657,000**	**26,300**	**24,700**	**353,000**	**187,000**	**5,050**	**164,000**	**37,600**	**66,700 J**	22,400 R	**217,000**	**66,800**	**121,000**
Sodium, dissolved	ug/l	**58,500 J**	**42,100**	**7,360**	**157,000 J**	**19,200**	**619,000 J**	**26,100**	**25,900**	**335,000 J**	**197,000**	**5,140**	**163,000 J**	**37,000**	**198,000**	267,000 R	**207,000 J**	**63,600**	**114,000**
Thallium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U
Thallium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	**0.36 J**	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U
Vanadium	ug/l	**4.3 J**	**9.7**	5 U	**8.9**	**4.4 J**	5 U	**2.5 J**	5 U	5 U	**2.8 J**	**2.7 J**	5 U	**2.7 J**	50 U	5 U	5 U	**2.6 J**	**6.9**
Vanadium, dissolved	ug/l	5 U	**1.6 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.1 J**	50 U	5 U	5 U	**1.8 J**	5 U
Zinc	ug/l	**278 J**	**194**	**91.5**	**430 J**	**237**	**105 J**	**148**	**142**	**101 J**	**282**	**111**	**41.1**	**90.7**	**259**	**40.1**	**70.9 J**	**91.3**	**705**
Zinc, dissolved	ug/l	**21.4**	**43.6**	**49.6 J**	**5.4**	**16.1 J**	**10.5**	**44.6 J**	**56.4 J**	**20.2**	**30.9**	**13 J**	**5.9**	**55.4**	**63.4**	**52.3 J**	**31.7**	**71.1**	**39.4**
Cyanide, Total	ug/l	**9.8 J**	10 U	10 U	**4.8 J**	10 U	**9.1 J**	10 U	10 U	10 U	10 U	10 U	**5 J**	10 U	10 U	10 U	10 U	---	10 U
Total suspended solids	mg/l	**171**	**46**	**19**	**78**	**132**	**66**	**40**	**---**	**161**	**377**	**56**	**71**	**24 J**	**---**	**66**	**123**	**38**	**70**

TABLE I-53A
Metal, Cyanide, and TSS Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		RH-034	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:		GC-SWRH034-WW-3	GC-SWRH035-DW-1	GC-SWRH035-WW-2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:		WET	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:		10/1/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**	**Metals**													
Aluminum	ug/l	**227**	**353**	**988**	**397**	**141 J**	**2,150**	**121 J**	**373**	**75.8 J**	**419**	**466**	**159 J**	**541**	**253**
Aluminum, dissolved	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	3,000 U	200 U	**127 J**	200 U	200 U
Antimony	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Antimony, dissolved	ug/l	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Arsenic	ug/l	**2.2**	**1.1 J**	**2.2 J**	**2.6**	**1.4 J**	**2.9**	**2.9**	**1.6 J**	**1.4 J**	**2.2**	**2.4**	**5.2**	**2.5**	**2.7**
Arsenic, dissolved	ug/l	**2.3**	**0.63 J**	**2.1 J**	**2.1**	**0.57 J**	**0.77 J**	**3.1**	**1**	**1.3**	**2**	**2.1**	**4.4**	**1.6**	**2.5**
Barium	ug/l	**31.3**	**30.9**	**68.3 J**	**31.6**	**49.2**	**112**	**11.2 J**	**78.6**	**61.6**	**69.7**	**61.5**	**74.1**	**83.8**	**29.5**
Barium, dissolved	ug/l	**13.1**	**38.1**	**9.5 J**	**5.4 J**	**33.8**	**35.2**	**20.4 J**	**43.9**	**60.1**	**42.5**	**14.5**	**55.7**	**41.1**	**15.5**
Beryllium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Beryllium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/l	1 U	1 U	**0.36 J**	1 U	1 U	**1.7**	1 U	**0.28 J**	1 U	**0.88 J**	1 U	1 U	**0.33 J**	1 U
Cadmium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Calcium	ug/l	**17,300**	19,900 R	**25,200**	**6,700**	**66,100**	**69,700**	**7,130**	**54,700**	**50,200**	35,800 R	**15,400**	**102,000**	**50,000**	**18,700**
Calcium, dissolved	ug/l	**15,300**	56,500 R	**9,140**	**5,720**	**52,200**	**51,400**	**6,530**	**45,800**	**58,500**	504,000 R	**16,400**	**94,100**	**42,500**	**19,400**
Chromium	ug/l	**2.4**	**1.8 J**	**3.8**	**2.8**	**3.1**	**14.6 J**	**1.6 J**	**2.9**	**0.95 J**	**1.2 J**	**3.1**	**2.3**	**2.6 J**	**2.1**
Chromium, dissolved	ug/l	**0.94 J**	**0.38 J**	**1.1 J**	**1.3 J**	2 U	**1.9 J**	**1.2 J**	**0.36 J**	2 U	**0.96 J**	**1.1 J**	**1.5 J**	**0.81 J**	**1.4 J**
Cobalt	ug/l	**0.55 J**	**2.1**	**3.6**	**0.92 J**	**1**	**2.3**	1 U	**0.73 J**	**0.4 J**	**0.66 J**	**0.67 J**	**0.7 J**	**0.77 J**	**0.6 J**
Cobalt, dissolved	ug/l	1 U	**0.4 J**	**1.9**	1 U	**0.34 J**	**0.45 J**	1 U	**0.28 J**	**0.33 J**	**0.74 J**	1 U	**0.59 J**	**0.44 J**	1 U
Copper	ug/l	**45.4**	**70.1**	**92.7**	**32.7**	**34.4**	**127**	**12.1**	**47**	**19.5 J**	**51.3**	**33.2**	**51.6**	**42.3**	**20.5**
Copper, dissolved	ug/l	**19.3 J**	**25.5**	**13**	**3.7 J**	**16.1 J**	25 U	**4 J**	**10.7 J**	25 U	**217 J**	**5.5 J**	**21.7 J**	**13.9 J**	**7 J**
Iron	ug/l	**920 J**	1,040 R	**2,820 J**	**1,270 J**	2,090 R	**13,600**	**314 J**	2,260 R	1,120 R	2,200 R	**1,730 J**	**1,320**	**2,590**	**777 J**
Iron, dissolved	ug/l	**312 J**	426 R	**396 J**	**75 J**	67.9 R	**471**	100 R	284 R	93.9 R	12,800 R	**73.5 J**	100 U	**446**	**102 J**
Lead	ug/l	**14.6**	**13**	**73.5**	**53.4**	**48.6**	**420**	**12.8**	**39.7**	**7.1**	**15.2**	**51.9**	**11.3**	**38.3**	**26.1**
Lead, dissolved	ug/l	**1.3**	**1.8**	**0.92 J**	**0.88 J**	**0.49 J**	**2**	**0.72 J**	**0.24 J**	1 U	**3.1**	**2.2**	1 U	**1.6**	**1.8**
Magnesium	ug/l	**6,420**	**18,000**	**5,150**	**2,350 J**	**20,300**	**17,700**	5,000 U	**26,600**	**24,400 J**	**7,060**	**2,990 J**	**202,000**	**15,500**	**5,280**
Magnesium, dissolved	ug/l	**6,160**	**16,800**	**3,150 J**	**3,300 J**	**16,200**	**13,900**	5,000 U	**20,900**	**29,700 J**	**107,000**	**3,080 J**	**176,000**	**12,700**	**5,500**
Manganese	ug/l	**69.1**	**56.6**	**96.1 J**	**38.4**	**46.8**	**136**	**10 J**	**324**	**356**	**367**	**66.4**	**179 J**	**159**	**62**
Manganese, dissolved	ug/l	**50.2**	**61.9**	**36 J**	**20.2**	**30.3**	**50.1**	**4.2 J**	**281**	**302**	**348**	**38.4**	**113**	**83.9**	**31.9**
Mercury	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Mercury, dissolved	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	**4.3**	**2.4**	**6.9**	**3.2**	**2.9**	**10.4 J**	1 U	**6.6**	**3.6**	**5 J**	**4.1**	**4.2 J**	**4.3 J**	**2.6**
Nickel, dissolved	ug/l	**2 J**	**3.1**	**2.4**	**1.4 J**	**1.6**	**3.3 J**	1 UJ	**3.5**	**3.1**	**5.3 J**	**1.7 J**	**3.6 J**	**2.5 J**	**1.8 J**
Potassium	ug/l	**7,280**	**16,800**	**7,700**	5,000 U	**12,800**	**8,780**	5,000 U	**8,170**	**7,680**	12,000 R	**3,150 J**	**88,000**	**7,090**	**3,100 J**
Potassium, dissolved	ug/l	**7,070**	**10,600**	**7,130**	**2,320 J**	**10,100**	**9,320**	5,000 U	**9,220**	**7,970**	171,000 R	**2,730 J**	**80,100**	**6,970**	**3,290 J**
Selenium	ug/l	5 U	**1.1 J**	5 U	5 U	**2.2 J**	**2.1 J**	5 U	5 U	5 U	5 U	5 U	**6.8**	**1.4 J**	5 U
Selenium, dissolved	ug/l	5 UJ	**1.2 J**	5 U	5 UJ	**1.6 J**	**1.5 J**	5 UJ	5 UJ	**0.92 J**	5 U	5 UJ	**7**	5 U	5 UJ

TABLE I-53A
Metal, Cyanide, and TSS Concentrations in CSO Water
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		RH-034	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:		GC-SWRH034-WW-3	GC-SWRH035-DW-1	GC-SWRH035-WW-2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:		WET	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:		10/1/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**														
Metals															
Silver	ug/l	1 U	**0.44 J**	1 U	1 U	**0.17 J**	1 U	1 U	**1.6**	**1.1**	1 U	1 U	1 U	1 U	1 U
Silver, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	**0.28 J**	1 U	1 UJ	1 U	1 UJ	1 UJ	1 U
Sodium	ug/l	**47,800**	**171,000**	**25,200**	13,800 R	**61,800**	**55,800 J**	**4,940 J**	**88,300**	**88,500**	59,200 R	**10,000**	**1,440,000**	**103,000**	**42,900**
Sodium, dissolved	ug/l	**48,500**	**73,400 J**	**25,400**	27,900 R	**50,900 J**	**78,300 J**	**5,080**	**77,400 J**	**102,000 J**	780,000 R	**12,100**	**1,320,000 J**	**104,000**	**31,800**
Thallium	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Thallium, dissolved	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vanadium	ug/l	5 U	5 U	**3.6 J**	5 U	**1.6 J**	**19.3**	5 U	5 U	5 U	**1.7 J**	**2 J**	**1.4 J**	**3.2 J**	5 U
Vanadium, dissolved	ug/l	5 U	5 U	5 U	5 U	5 U	**1.2 J**	5 U	5 U	5 U	**1.3 J**	5 U	5 U	**1.9 J**	5 U
Zinc	ug/l	**102**	**97.2**	**403**	**139**	**55.8**	**483**	**50.4**	**78.9**	**41.4**	**55.7**	**152**	**48.2 J**	**108**	**78.9**
Zinc, dissolved	ug/l	**31.1 J**	**80.2**	**28**	**17.1 J**	**10.1**	**27.4**	**21.8 J**	**10.2**	**8.7**	**23.1**	**39.4 J**	**10.1**	**110**	**18.3 J**
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**4.2 J**	10 U	10 U
Total suspended solids	mg/l	---	**220**	**989**	**126**	**100**	**45**	**18**	**20**	**56**	**102**	**91**	**467**	**186**	**35**

TABLE I-53B
Metal and Cyanide Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09301010-01	GC-SWRH031-DW-1	GC-SWRH031-WW-2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW-1	GC-SWRH034-WW-2
Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	7/14/2010	9/28/2010
Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**										**Metals**							
Aluminum	ug/l	1,280	874	168 J	1,940	1,140	116 J		137 J	343	781	426		331	1,620 J	117 J	171 J	422	1,900
Aluminum, dissolved	ug/l															226			
Antimony	ug/l				3		2												
Arsenic	ug/l	**1.5 (T)**	**7.2 (T)**	**7.5 (T)**	**4.3 (T)**	**2.6 (T)**	**2.9 (T)**	**3.9 (T)**	**3.6 (T)**	**1.7 (T)**	**3.4 J (T)**	**2.3 (T)**	**1.4 J (T)**	**2.5 (T)**	**4.4 J (T)**	**1.8 (T)**	**1 (T)**	**2.4 (T)**	**4.2 J (T)**
Arsenic, dissolved	ug/l	**1 (T)**	**5.2 (T)**	**6.2 (T)**	**0.95 J (T)**	**2.2 (T)**	**2.5 (T)**	**4 (T)**	**3.5 (T)**	**2.1 (T)**	**3 J (T)**	**2.1 (T)**	**0.88 J (T)**	**1.6 (T)**		**2.5 (T)**	**1 (T)**	**2.4 (T)**	**2.8 J (T)**
Barium	ug/l	85.8	63.7		199	62	77.4	37.7	32.2	39.3	56.1 J	68.7	**214 (S)**	65.5	116	7.3 J	27.7	66.2	109 J
Barium, dissolved	ug/l	18.3	23.7		44.6	12.5	46.4	16.2	16.1	26.7	17.3 J	12.2	101	50.7	57.6 J	9.6 J	18.1	14.9	12.3 J
Cadmium	ug/l	0.67 J	1.6		**3 (T)**					0.2 J	0.42 J	**2.3 (T)**		1.2	**2.7 J (T)**			1.2	0.96 J
Cadmium, dissolved	ug/l													0.57 J					
*Calcium	ug/l	25,800	27,900	15,700	53,000	17,600	60,500	21,100	19,700	29,100	29,300	5,560	137,000	34,700	53,100 J	3,250 J	21,700	12,700	35,800
*Calcium, dissolved	ug/l	11,800	22,300	14,400	38,200	12,400	57,900	18,700	19,600	25,000	20,000	3,730 J	134,000	33,600	40,200 J	8,140	19,800	11,800	14,900
Chromium	ug/l	**6.4 (T)**	**4.7 J (T)**	**2.2 (T)**	**16 (T)**	**6.6 (T)**	**6 (T)**	**3.3 (T)**	**2.3 (T)**	**2.1 (T)**	**4 (T)**	**2.4 (T)**	**1.3 J (T)**	**1.8 J (T)**	**8.4 J (T)**		**1.1 J (T)**	**1.8 J (T)**	**12.1 (T)**
Chromium, dissolved	ug/l	**0.62 J (T)**	**0.72 J (T)**	**1.6 J (T)**		**1.6 J (T)**	**1.1 J (T)**	**1.6 J (T)**	**1.4 J (T)**	**1.4 J (T)**	**1.4 J (T)**	**1.1 J (T)**	**0.44 J (T)**	**0.61 J (T)**			**0.72 J (T)**	**1.2 J (T)**	**1.4 J (T)**
Cobalt	ug/l	**1.9 (T,S)**	**1.4 (T,S)**	0.57 J	**2.6 (T,S)**	**1.4 (T,S)**	0.77 J	0.9 J	0.77 J	**3.4 (T,S)**	**1.6 (T,S)**	1	0.75 J	0.91 J	**3.7 J (T,S)**	0.76 J	**2.3 (T,S)**	1	**3.2 (T,S)**
Cobalt, dissolved	ug/l	0.65 J	0.57 J				0.64 J	0.5 J	0.47 J	**2.7 (T,S)**	0.65 J		0.52 J	0.67 J			**2.3 (T,S)**	**1.4 (T,S)**	0.65 J
Copper	ug/l	**88.6 (S)**	**53.7 (S)**	**16.6 (S)**	**140 (S)**	**42 (S)**	**81.7 (S)**	**37.4 (S)**	**32.3 (S)**	**72.5 (S)**	**92.2 (S)**	**18.6 (S)**	**33.5 (S)**	**25.2 (S)**			**58.8 (S)**	**33.2 (S)**	**160 (T,S)**
Copper, dissolved	ug/l	**23.5 J (S)**	**15.9 J (S)**	**7.3 J (S)**		2.5 J		**11.2 J (S)**	**9.3 J (S)**	**23.5 J (S)**	**16.9 (S)**	2.5 J		**9.9 J (S)**			**35.4 (S)**	**13.7 J (S)**	**25 (S)**
Iron	ug/l	**4,990 (T,S)**	**3,890 (T,S)**	**461 J (S)**	**14,200 (T,S)**	**3,320 J (T,S)**	**2,420 (S)**	**1,180 J (S)**	**858 J (S)**	**1,140 (S)**	**2,490 J (S)**	**1,110 J (S)**		**2,220 (S)**	**8,800 (T,S)**	**227 J (S)**	**787 (S)**	**991 (S)**	**7,330 J (T,S)**
Iron, dissolved	ug/l	**577 (S)**	**357 (S)**	**52.8 J (S)**	**342 (S)**	**113 J (S)**	**334 (S)**	**272 J (S)**	**243 J (S)**	**448 (S)**	**403 J (S)**	47 J		**625 (S)**		**175 J (S)**	**300 (S)**	**201 (S)**	**219 J (S)**
Lead	ug/l	**74.6 (T,S)**	**188 (T,S)**	**51.2 (T,S)**	**88.6 (T,S)**	**58.3 (T,S)**	**11.3 (S)**	**56.4 (T,S)**	**50.6 (T,S)**	**18.2 (T,S)**	**71.3 (T,S)**	**41.3 (T,S)**	4.2	**21.6 (T,S)**	**103 (T,S)**	6.8	5.8	**21.9 (T,S)**	**146 (T,S)**
Lead, dissolved	ug/l	1.6	5.5	3.5	0.3 J	1.6	0.5 J	6.8	6.6	2.1	1.5	1.5		2		4.3	1.5	5.7	2
*Magnesium	ug/l	8,260	5,730	2,700 J	10,500	3,440 J	70,500	2,910 J	2,680 J	41,200	25,000		26,900	5,790			24,100	6,920	19,300
*Magnesium, dissolved	ug/l	5,110	4,200 J	2,240 J	6,350		67,900	2,410 J	2,500 J	38,700	22,900		26,600	5,310	25,500 J		23,000	6,500	13,900
Manganese	ug/l	**111 J (T,S)**	**112 (T,S)**	20.5	**673 J (T,S)**	**116 (T,S)**	**343 J (T,S)**	71.3	64.8	70.3 J	99.8 J	38	**785 (T,S)**	**169 (T,S)**	**251 (T,S)**	11.7 J	55.1 J	**170 (T,S)**	**170 J (T,S)**
Manganese, dissolved	ug/l	63.9	51.1	11.9 J	**493 (T,S)**	37.3	**331 (T,S)**	49.1	54.5	66	58.2 J	8 J	**693 (T,S)**	**151 (T,S)**	**172 (T,S)**	13.1	46.6	32.7	38.7 J
Mercury	ug/l							**0.19 J (T)**							**0.16 J (T)**				
Mercury, dissolved	ug/l															**0.067 J (T)**			
Nickel	ug/l	**11.8 J (S)**	**9.1 J (S)**	2	**11.7 J (S)**	5.1	7.1 J	5.5	4.8	2.8 J	5.5	2.2	2.9	5.5 J	**15.8 J (S)**		2.1 J	5.7 J	**17.6 (S)**
Nickel, dissolved	ug/l	3.7 J	4.1 J	1.3 J	1.3 J	1.3 J	6.3 J	4 J	4.2 J	2.2 J	2.5		1.9	4.5 J	4.5 J		1.9 J	2.7 J	2.4
*Potassium	ug/l	11,600	8,160		13,100		35,000	5,260	4,940 J	25,300	14,000		22,500	5,510			16,800	6,000	12,100
*Potassium, dissolved	ug/l	11,700	8,190		10,100	2,050 J	34,100	5,080	5,020	23,300	13,400		21,300	5,430		6,210	16,100	5,600	10,300
Selenium	ug/l						3.3 J			2.4 J				1.2 J				1.1 J	
Selenium, dissolved	ug/l						2.9 J			2.6 J				0.93 J			1.2 J		
Silver	ug/l				0.22 J					0.45 J							0.81 J		
Silver, dissolved	ug/l									0.23 J							0.52 J		
*Sodium	ug/l	59,100	41,600	7,590	170,000	22,600	657,000	26,300	24,700	353,000	187,000	5,050	164,000	37,600	66,700 J		217,000	66,800	121,000

TABLE I-53B
Metal and Cyanide Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	OH-005	OH-005	OH-005	OH-006	OH-006	OH-007	OH-007	OH-007	RH-031	RH-031	RH-031	RH-033	RH-033	RH-033	RH-033	RH-034	RH-034	RH-034
	Sample Number:	GC-SWOH005-DW-1	GC-SWOH005-WW-1	GC-SWOH005-WW-3	GC-SWOH006-DW-1	GC-SWOH006-WW-3	GC-SWOH007-DW-1	GC-SWOH007-WW-3	D-09301010-01	GC-SWRH031-DW-1	GC-SWRH031-WW-2	GC-SWRH031-WW-3	GC-SWRH033-DW-1	GC-SWRH033-WW-1	D-07132010-05	GC-SWRH033-WW-3	GC-SWRH034-DW-1	GC-SWRH034-WW-1	GC-SWRH034-WW-2
	Weather:	DRY	WET	WET	DRY	WET	DRY	WET	WET	DRY	WET	WET	DRY	WET	WET	WET	DRY	WET	WET
	Sample Date:	6/30/2010	7/13/2010	10/1/2010	6/30/2010	9/30/2010	7/1/2010	9/30/2010	9/30/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	7/13/2010	10/1/2010	7/1/2010	7/14/2010	9/28/2010
	Sample Type:	N	N	N	N	N	N	N	FD	N	N	N	N	N	FD	N	N	N	N
Parameter	**Units**											**Metals**							
*Sodium, dissolved	ug/l	58,500 J	42,100	7,360	157,000 J	19,200	619,000 J	26,100	25,900	335,000 J	197,000	5,140	163,000 J	37,000	198,000		207,000 J	63,600	114,000
Thallium, dissolved	ug/l									0.36 J									
Vanadium	ug/l	4.3 J	9.7		8.9	4.4 J		2.5 J			2.8 J	2.7 J		2.7 J				2.6 J	6.9
Vanadium, dissolved	ug/l		1.6 J											1.1 J				1.8 J	
Zinc	ug/l	**278 J (S)**	**194 (S)**	**91.5 (S)**	**430 J (S)**	**237 (S)**	**105 J (S)**	**148 (S)**	**142 (S)**	**101 J (S)**	**282 (S)**	**111 (S)**	41.1	**90.7 (S)**	**259 (S)**	40.1	70.9 J	**91.3 (S)**	**705 (S)**
Zinc, dissolved	ug/l	21.4	43.6	49.6 J	5.4	16.1 J	10.5	44.6 J	56.4 J	20.2	30.9	13 J	5.9	55.4	63.4	52.3 J	31.7	71.1	39.4
Cyanide, Total	ug/l	**9.8 J (S)**			**4.8 J (S)**		**9.1 J (S)**						**5 J (S)**						

TABLE I-53B
Metal and Cyanide Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		RH-034	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:		GC-SWRH034-WW-3	GC-SWRH035-DW-1	GC-SWRH035-WW-2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:		WET	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:		10/1/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:		N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**														
											Metals				
Aluminum	ug/l	227	353	988	397	141 J	2,150	121 J	373	75.8 J	419	466	159 J	541	253
Aluminum, dissolved	ug/l												127 J		
Antimony	ug/l														
Arsenic	ug/l	**2.2 (T)**	**1.1 J (T)**	**2.2 J (T)**	**2.6 (T)**	**1.4 J (T)**	**2.9 (T)**	**2.9 (T)**	**1.6 J (T)**	**1.4 J (T)**	**2.2 (T)**	**2.4 (T)**	**5.2 (T)**	**2.5 (T)**	**2.7 (T)**
Arsenic, dissolved	ug/l	**2.3 (T)**	**0.63 J (T)**	**2.1 J (T)**	**2.1 (T)**	**0.57 J (T)**	**0.77 J (T)**	**3.1 (T)**	**1 (T)**	**1.3 (T)**	**2 (T)**	**2.1 (T)**	**4.4 (T)**	**1.6 (T)**	**2.5 (T)**
Barium	ug/l	31.3	30.9	68.3 J	31.6	49.2	112	11.2 J	78.6	61.6	69.7	61.5	74.1	83.8	29.5
Barium, dissolved	ug/l	13.1	38.1	9.5 J	5.4 J	33.8	35.2	20.4 J	43.9	60.1	42.5	14.5	55.7	41.1	15.5
Cadmium	ug/l			0.36 J			1.7		0.28 J		0.88 J			0.33 J	
Cadmium, dissolved	ug/l														
*Calcium	ug/l	17,300		25,200	6,700	66,100	69,700	7,130	54,700	50,200		15,400	102,000	50,000	18,700
*Calcium, dissolved	ug/l	15,300		9,140	5,720	52,200	51,400	6,530	45,800	58,500		16,400	94,100	42,500	19,400
Chromium	ug/l	**2.4 (T)**	**1.8 J (T)**	**3.8 (T)**	**2.8 (T)**	**3.1 (T)**	**14.6 J (T)**	**1.6 J (T)**	**2.9 (T)**	**0.95 J (T)**	**1.2 J (T)**	**3.1 (T)**	**2.3 (T)**	**2.6 J (T)**	**2.1 (T)**
Chromium, dissolved	ug/l	**0.94 J (T)**	**0.38 J (T)**	**1.1 J (T)**	**1.3 J (T)**		**1.9 J (T)**	**1.2 J (T)**	**0.36 J (T)**		**0.96 J (T)**	**1.1 J (T)**	**1.5 J (T)**	**0.81 J (T)**	**1.4 J (T)**
Cobalt	ug/l	0.55 J	**2.1 (T,S)**	**3.6 (T,S)**	0.92 J	1	**2.3 (T,S)**		0.73 J	0.4 J	0.66 J	0.67 J	0.7 J	0.77 J	0.6 J
Cobalt, dissolved	ug/l		0.4 J	**1.9 (T,S)**		0.34 J	0.45 J		0.28 J	0.33 J	0.74 J		0.59 J	0.44 J	
Copper	ug/l	**45.4 (S)**	**70.1 (S)**	**92.7 (S)**	**32.7 (S)**	**34.4 (S)**	**127 (S)**	**12.1 (S)**	**47 (S)**	**19.5 J (S)**	**51.3 (S)**	**33.2 (S)**	**51.6 (S)**	**42.3 (S)**	**20.5 (S)**
Copper, dissolved	ug/l	**19.3 J (S)**	**25.5 (S)**	**13 (S)**	**3.7 J (S)**	**16.1 J (S)**		**4 J (S)**	**10.7 J (S)**		**217 J (T,S)**	**5.5 J (S)**	**21.7 J (S)**	**13.9 J (S)**	**7 J (S)**
Iron	ug/l	**920 J (S)**		**2,820 J (T,S)**	**1,270 J (S)**		**13,600 (T,S)**	**314 J (S)**				**1,730 J (S)**	**1,320 (S)**	**2,590 (S)**	**777 J (S)**
Iron, dissolved	ug/l	**312 J (S)**		**396 J (S)**	**75 J (S)**		**471 (S)**					**73.5 J (S)**		**446 (S)**	**102 J (S)**
Lead	ug/l	**14.6 (S)**	**13 (S)**	**73.5 (T,S)**	**53.4 (T,S)**	**48.6 (T,S)**	**420 (T,S)**	**12.8 (S)**	**39.7 (T,S)**	7.1	**15.2 (T,S)**	**51.9 (T,S)**	**11.3 (S)**	**38.3 (T,S)**	**26.1 (T,S)**
Lead, dissolved	ug/l	1.3	1.8	0.92 J	0.88 J	0.49 J	2	0.72 J	0.24 J		3.1	2.2		1.6	1.8
*Magnesium	ug/l	6,420	18,000	5,150	2,350 J	20,300	17,700		26,600	24,400 J	7,060	2,990 J	202,000	15,500	5,280
*Magnesium, dissolved	ug/l	6,160	16,800	3,150 J	3,300 J	16,200	13,900		20,900	29,700 J	107,000	3,080 J	176,000	12,700	5,500
Manganese	ug/l	69.1	56.6	96.1 J	38.4	46.8	**136 (T,S)**	10 J	**324 (T,S)**	**356 (T,S)**	**367 (T,S)**	66.4	**179 J (T,S)**	**159 (T,S)**	62
Manganese, dissolved	ug/l	50.2	61.9	36 J	20.2	30.3	50.1	4.2 J	**281 (T,S)**	**302 (T,S)**	**348 (T,S)**	38.4	**113 (T,S)**	83.9	31.9
Mercury	ug/l														
Mercury, dissolved	ug/l														
Nickel	ug/l	4.3	2.4	6.9	3.2	2.9	**10.4 J (S)**		6.6	3.6	5 J	4.1	4.2 J	4.3 J	2.6
Nickel, dissolved	ug/l	2 J	3.1	2.4	1.4 J	1.6	3.3 J		3.5	3.1	5.3 J	1.7 J	3.6 J	2.5 J	1.8 J
*Potassium	ug/l	7,280	16,800	7,700		12,800	8,780		8,170	7,680		3,150 J	88,000	7,090	3,100 J
*Potassium, dissolved	ug/l	7,070	10,600	7,130	2,320 J	10,100	9,320		9,220	7,970		2,730 J	80,100	6,970	3,290 J
Selenium	ug/l		1.1 J			2.2 J	2.1 J						6.8	1.4 J	
Selenium, dissolved	ug/l		1.2 J			1.6 J	1.5 J			0.92 J			7		
Silver	ug/l		0.44 J			0.17 J			1.6	1.1					
Silver, dissolved	ug/l								0.28 J						
*Sodium	ug/l	47,800	171,000	25,200		61,800	55,800 J	4,940 J	88,300	88,500		10,000	1,440,000	103,000	42,900

TABLE I-53B
Metal and Cyanide Concentrations in CSO Water, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	RH-034	RH-035	RH-035	RH-035	RH-036	RH-036	RH-036	RH-037	RH-037	RH-037	RH-037	RH-038	RH-038	RH-038
Sample Number:	GC-SWRH034-WW-3	GC-SWRH035-DW-1	GC-SWRH035-WW-2	GC-SWRH035-WW-3	GC-SWRH036-DW-1	GC-SWRH036-WW-1	GC-SWRH036-WW-3	GC-SWRH037-DW-1	D-06302010-01	GC-SWRH037-WW-1	GC-SWRH037-WW-3	GC-SWRH038-DW-1	GC-SWRH038-WW-1	GC-SWRH038-WW-3
Weather:	WET	DRY	WET	WET	DRY	WET	WET	DRY	DRY	WET	WET	DRY	WET	WET
Sample Date:	10/1/2010	6/30/2010	9/28/2010	10/1/2010	6/30/2010	7/13/2010	10/1/2010	6/30/2010	6/30/2010	7/13/2010	10/1/2010	7/1/2010	7/13/2010	10/1/2010
Sample Type:	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parameter	**Units**													
Metals														
*Sodium, dissolved	ug/l	48,500	73,400 J	25,400		50,900 J	78,300 J	5,080	77,400 J	102,000 J		12,100	1,320,000 J	104,000	31,800
Thallium, dissolved	ug/l														
Vanadium	ug/l			3.6 J		1.6 J	**19.3 (T)**				1.7 J	2 J	1.4 J	3.2 J	
Vanadium, dissolved	ug/l						1.2 J				1.3 J			1.9 J	
Zinc	ug/l	**102 (S)**	**97.2 (S)**	**403 (S)**	**139 (S)**	55.8	**483 (S)**	50.4	78.9	41.4	55.7	**152 (S)**	48.2 J	**108 (S)**	78.9
Zinc, dissolved	ug/l	31.1 J	80.2	28	17.1 J	10.1	27.4	21.8 J	10.2	8.7	23.1	39.4 J	10.1	**110 (S)**	18.3 J
Cyanide, Total	ug/l												**4.2 J (S)**		

Table I-54

Concentrations of Other Parameters Measured in CSO Water, Wet and Dry Weather

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station ID	Sample ID	Ammonia - Nitrogen (mg/l)	Total Kjeldahl Nitrogen (mg/l)	Silica (ug/l)	Total Organic Compounds (mg/l)	Dissolved Organic Compounds (mg/l)	Hardness (mg/l)	Nitrate (mg/l)	Chloride (mg/l)	Total Orthopho-sphate Phosphorus (mg/l)	Sulfate (mg/l)	Alkalinity (mg/l)	Total Suspended Solids (mg/l)	Total Dissolved Solids (mg/l)
RH-034	GC-SWRH034-DW-1	25.2	50.2	5600	37.9	47.1	122	0.16	261	0.4	39.5	103	123	613
RH-034	GC-SWRH034-WW-2	7 DB	12.3 D	9290 B	55.7 D	37 D	121	0.25	249	0.099 J	42.3	83.0 B	70	551
OH-007	GC-SWOH007-DW-1	22.5	23.3	6600	36.6	24.7	62.3	0.036 J	35.4	0.1 U	25.9	86.9	40	189
OH-007	GC-SWOH007-WW-3	5.7DB	6.1D	5980 B	18.1D	17.3D	482	0.1 U	1410	0.1 U	159	196	66	2360

Notes:

B - analyte observed in blank associated with sample and in sample

D - value reported from dilution run

J - estimated value

U - constituent not detected above reporting limit

mg/l - milligram/liter

ug/l - microgram/liter

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TABLE I-55A
VOC Concentrations in Air
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		501	501	501	501	502	502	502	502	503	503	503	503	504	504	504	504	505	505
Sample Number:		GC-AS501-C-2	GC-AS501-C-1	GC-AS501-S-1	GC-AS501-S-2	GC-AS502-C-1	GC-AS502-C-2	GC-AS502-S-1	GC-AS502-S-2	GC-AS503-C-1	GC-AS503-C-2	GC-AS503-S-1	GC-AS503-S-2	GC-AS504-C-2	GC-AS504-C-1	GC-AS504-S-1	GC-AS504-S-2	GC-AS505-C-1	GC-AS505-C-2
Sample Depth:		Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe
Sample Date:		7/29/2010	7/8/2010	7/9/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/29/2010	7/8/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Acetone	ug/m3	**110**	**28**	**25**	**38**	**25**	**36**	**39**	**84**	**38**	**32**	**33**	**55**	**53**	**45**	**39**	**43**	**22**	**24**
Benzene	ug/m3	**1.7**	**1.1**	**2.3**	**0.88**	**0.76**	**0.9**	**1**	**1**	**0.93**	**1.1**	**1.1**	**0.82**	**1.3**	**0.73**	**0.7**	**0.97**	**0.69**	**0.94**
Bromodichloromethane	ug/m3	0.13 U	0.067 U	0.34 U	0.067 U	0.13 U	0.067 U	0.34 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.34 U	0.067 U	0.067 U	0.067 U
Bromoform	ug/m3	0.21 U	0.1 U	0.52 U	0.1 U	0.21 U	0.1 U	0.52 U	0.1 U	0.1 U	0.1 U	**0.37**	0.1 U	0.1 U	0.1 U	0.52 U	0.1 U	**0.12**	0.1 U
Carbon disulfide	ug/m3	3.1 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	**3.3**	1.6 U	1.6 U	1.6 U	1.6 U	**3.8**	1.6 U	1.6 U	1.6 U
Chlorobenzene	ug/m3	1.8 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Chloroform	ug/m3	**0.2**	**0.28**	**0.39**	**0.16**	**0.17**	**0.21**	0.24 U	**0.2**	**0.21**	**0.24**	**0.2**	**0.22**	**0.19**	**0.16**	0.24 U	**0.18**	**0.17**	**0.2**
Chloromethane	ug/m3	**2.1**	**1.8**	**2.6**	**1.6**	**2.1**	**1.8**	**3**	**2.5**	**1.7**	**1.7**	**2.5**	**2.1**	**2.1**	**3.1**	**2.8**	**1.8**	**1.7**	**1.5**
Dibromochloromethane	ug/m3	0.17 U	0.085 U	0.43 U	0.085 U	0.17 U	0.085 U	0.43 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.43 U	0.085 U	0.085 U	0.085 U
Ethylbenzene	ug/m3	**1.1**	**1.6**	**1.7**	**0.63**	**0.7**	**0.87**	**0.82**	**0.91**	**0.92**	**0.85**	**0.86**	**0.68**	**1.4**	**0.76**	**0.62**	**1.1**	**0.62**	**0.86**
Methyl ethyl ketone (2-butanone)	ug/m3	**3.6**	**2.6**	**2.4**	**2.3**	**2**	**3.4**	**3**	**5.3**	**1.7**	**4.2**	**2**	**3.8**	**4.2**	**4.3**	**2.6**	**4**	**2.1**	**2.7**
Methylene chloride	ug/m3	3.5 U	**4.5 J**	**5.1 J**	1.7 U	**3.9 J**	1.7 U	**4.5 J**	1.7 U	1.7 U	1.7 U	**3.2 J**	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Styrene	ug/m3	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Tert-butyl methyl ether	ug/m3	1.4 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Toluene	ug/m3	**6.3**	**5.8**	**6.2**	3.7 U	**4.3**	**5**	**5.9**	**5.7**	**2.9**	**5.2**	**3.1**	4.6 U	**8.3**	**3.8**	**3.5**	**7.5**	**2.7**	**6.3**
Trichloroethylene (TCE)	ug/m3	**0.14**	**0.069**	0.27 U	**0.12**	**0.22**	**0.13**	0.27 U	**0.6**	**0.13**	**0.16**	0.054 U	**0.16**	**0.15**	**0.079**	**0.35**	**0.14**	**0.057**	**0.2**
Xylene, total	ug/m3	**6.2**	**4.9**	**6.8**	**2.6**	**3.1**	**2.9**	**4**	**3.2**	**2.7**	**2.9**	**2**	**2.5**	**5.7**	**3**	**2.6**	**4.9**	**1.8**	**3.2**

TABLE I-55A
VOC Concentrations in Air
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		505	505	505	505	506	506	506	506	506	506	507	507	507	507	508	508	508	508
Sample Number:		D-07082010-01-VOC	D-07292010-01	GC-AS505-S-1	GC-AS505-S-2	GC-AS506-C-2	GC-AS506-C-1	D-07082010-02-VOC	D-07292010-02-VOC	GC-AS506-S-1	GC-AS506-S-2	GC-AS507-C-1	GC-AS507-C-2	GC-AS507-S-1	GC-AS507-S-2	GC-AS508-C-1	GC-AS508-C-2	GC-AS508-S-1	GC-AS508-S-2
Sample Depth:		Canoe	Canoe	Street	Street	Canoe	Canoe	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street
Sample Date:		7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/29/2010	7/8/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
Sample Type:		FD	FD	N	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**																	
Acetone	ug/m3	**20**	**24**	**33**	**25**	**53**	**45**	**60**	**29**	**37**	**23**	**38**	**150**	**52**	**460**	**24**	**29**	**25**	**30**
Benzene	ug/m3	**0.62**	**0.53**	**0.64**	**0.89**	**0.75**	**0.95**	**0.39**	**0.52**	**0.79**	**0.79**	**0.9**	**1.4**	**0.82**	**1.3**	**0.8**	**1.3**	**0.61**	**1.1**
Bromodichloromethane	ug/m3	0.067 U	0.067 U	0.27 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.067 U	0.13 U	0.067 U	0.34 U	0.27 U	0.067 U	0.27 U	0.067 U
Bromoform	ug/m3	0.1 U	0.1 U	0.41 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.21 U	0.1 U	0.52 U	0.41 U	0.1 U	0.41 U	0.1 U
Carbon disulfide	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	3.1 U	1.6 U	7.8 U	**2.7**	1.6 U	1.6 U	1.6 U
Chlorobenzene	ug/m3	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	1.8 U	0.92 U	4.6 U	0.92 U	0.92 U	0.92 U	0.92 U
Chloroform	ug/m3	**0.17**	**0.11**	0.2 U	**0.45**	**0.16**	**0.25**	**0.12**	**0.12**	**0.22**	**0.18**	**0.23**	**0.17**	**0.17**	0.24 U	0.2 U	**0.2**	0.2 U	**0.22**
Chloromethane	ug/m3	**1.6**	**1.6**	**2**	**1.9**	**2.2**	**2.2**	**1.9**	**1.6**	**1.8**	**1.4**	**1.9**	2.1 U	**2.5**	5.2 U	**2.2**	**1.7**	**2.2**	**1.7**
Dibromochloromethane	ug/m3	0.085 U	0.085 U	0.34 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U	0.17 U	0.085 U	0.43 U	0.34 U	0.085 U	0.34 U	0.085 U
Ethylbenzene	ug/m3	**0.53**	**0.58**	**0.56**	**0.9**	**0.88**	**0.96**	**0.4**	**0.5**	**1**	**0.56**	**1.5**	**1.7**	**1.1**	**1.6**	**5.1**	**1.5**	**0.62**	**0.81**
Methyl ethyl ketone (2-butanone)	ug/m3	**1.8**	**2.4**	**4.2**	**3.4**	**4.4**	**2**	**2.3**	**3.2**	**3.9**	**2.6**	**2.5**	**10**	**2.3**	**30**	**2.3**	**3.1**	**1.9**	**2.6**
Methylene chloride	ug/m3	1.7 U	**1.9 J**	1.7 U	1.7 U	**1.9 J**	1.7 U	**2.3 J**	**2 J**	1.7 U	**2 J**	**1.9 J**	3.5 U	**1.7 J**	8.7 U	**1.8 J**	1.7 U	1.7 U	1.7 U
Styrene	ug/m3	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U
Tert-butyl methyl ether	ug/m3	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	1.4 U	0.72 U	3.6 U	0.72 U	0.72 U	0.72 U	0.72 U
Toluene	ug/m3	**2.5**	**7.1**	**3**	**7.5**	**12**	**3.6**	**2.5**	**6.3**	**3.5**	**5**	**8.5**	**5**	**5**	**6.7**	**4.4**	**5.2**	**3.6**	4.1 U
Trichloroethylene (TCE)	ug/m3	**0.075**	**0.11**	0.21 U	**0.31**	**0.12**	**0.16**	**0.054**	**0.12**	**0.14**	**0.17**	**0.9**	0.11 U	**0.74**	0.27 U	0.21 U	**0.096**	0.21 U	**0.078**
Xylene, total	ug/m3	**1.5**	**3.4**	**2.4**	**3.5**	**6**	**2.7**	**1.8**	**2.9**	**2.3**	**2.4**	**3**	**5**	**2.9**	**7**	**16**	**5.3**	**2.9**	**2.8**

TABLE I-55A
VOC Concentrations in Air
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		509	509	509	509	510	510	510	510	511	512	513
Sample Number:		GC-AS509-C-2	GC-AS509-C-1	GC-AS509-S-1	GC-AS509-S-2	GC-AS510-C-1	GC-AS510-C-2	GC-AS510-S-1	GC-AS510-S-2	GC-AS511-S-1	GC-AS512-S-1	GC-AS513-S-1
Sample Depth:		Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Street	Street	Street
Sample Date:		7/29/2010	7/8/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/8/2010	7/8/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**										
Acetone	ug/m3	**300**	**52**	**26**	**220**	**34**	**43**	**53**	**36**	**21**	**21**	**31**
Benzene	ug/m3	**0.64**	**0.79**	**0.74**	**0.67**	**0.76**	**3.8**	**0.78**	**1.4**	**0.68**	**0.91**	**0.67**
Bromodichloromethane	ug/m3	0.34 U	0.34 U	0.067 U	0.2 U	0.34 U	0.13 U	0.067 U	0.067 U	0.27 U	0.27 U	0.13 U
Bromoform	ug/m3	0.52 U	0.52 U	0.1 U	0.31 U	0.52 U	0.21 U	0.1 U	0.1 U	0.41 U	0.41 U	0.21 U
Carbon disulfide	ug/m3	7.8 U	1.6 U	1.6 U	4.7 U	1.6 U	1.6 U	**2.6**	1.6 U	1.6 U	1.6 U	1.6 U
Chlorobenzene	ug/m3	4.6 U	0.92 U	0.92 U	2.8 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Chloroform	ug/m3	0.24 U	0.24 U	**0.21**	**0.16**	0.24 U	0.098 U	**0.17**	**0.17**	0.2 U	**0.29**	**0.16**
Chloromethane	ug/m3	5.2 U	**2.5**	**2**	3.1 U	**2**	**2.2**	**2.7**	**1.9**	**1.7**	**2.2**	**1.5**
Dibromochloromethane	ug/m3	0.43 U	0.43 U	0.085 U	0.25 U	0.43 U	0.17 U	0.085 U	0.085 U	0.34 U	0.34 U	0.17 U
Ethylbenzene	ug/m3	**0.41**	**0.72**	**0.91**	**0.57**	**0.48**	**4.4**	**0.75**	**1.8**	**0.71**	**0.83**	**1.2**
Methyl ethyl ketone (2-butanone)	ug/m3	**18**	**2.5**	**2.3**	**13**	**2.3**	**3.4**	**11**	**3**	**2.4**	**1.9**	1.5 U
Methylene chloride	ug/m3	8.7 U	**2.2 J**	**1.8 J**	5.3 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	**5.4 J**	**3.1 J**
Styrene	ug/m3	4.3 U	0.85 U	0.85 U	2.6 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Tert-butyl methyl ether	ug/m3	3.6 U	0.72 U	0.72 U	2.2 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Toluene	ug/m3	3.8 U	**4.8**	**4.4**	4.8 U	**3.7**	**25**	**3.6**	**7.1**	**3.3**	**4.8**	**16**
Trichloroethylene (TCE)	ug/m3	0.27 U	0.27 U	**0.06**	0.16 U	0.27 U	**0.12**	**0.11**	**0.06**	0.21 U	0.21 U	0.11 U
Xylene, total	ug/m3	4.3 U	**3.4**	**2.6**	**3.2**	**2.4**	**28**	**2.5**	**7.6**	**3.5**	**3.5**	**4.6**

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TABLE I-55B
VOC Concentrations in Air, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	501	501	501	501	502	502	502	502	503	503	503	503	504	504	504	504	505	505
Sample Number:	GC-AS501-C-1	GC-AS501-C-2	GC-AS501-S-1	GC-AS501-S-2	GC-AS502-C-1	GC-AS502-C-2	GC-AS502-S-1	GC-AS502-S-2	GC-AS503-C-1	GC-AS503-C-2	GC-AS503-S-1	GC-AS503-S-2	GC-AS504-C-1	GC-AS504-C-2	GC-AS504-S-1	GC-AS504-S-2	GC-AS505-C-1	GC-AS505-C-2
Sample Depth:	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe
Sample Date:	7/8/2010	7/29/2010	7/9/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Volatile Organic Compounds**																	
Acetone ug/m3	28	110	25	38	25	36	39	84	38	32	33	55	45	53	39	43	22	24
Benzene ug/m3	**1.1 (P)**	**1.7 (P)**	**2.3 (P)**	**0.88 (P)**	**0.76 (P)**	**0.9 (P)**	**1 (P)**	**1 (P)**	**0.93 (P)**	**1.1 (P)**	**1.1 (P)**	**0.82 (P)**	**0.73 (P)**	**1.3 (P)**	**0.7 (P)**	**0.97 (P)**	**0.69 (P)**	**0.94 (P)**
Bromoform ug/m3											0.37						0.12	
Carbon disulfide ug/m3										3.3					3.8			
Chloroform ug/m3	**0.28 (P)**	**0.2 (P)**	**0.39 (P)**	**0.16 (P)**	**0.17 (P)**	**0.21 (P)**		**0.2 (P)**	**0.21 (P)**	**0.24 (P)**	**0.2 (P)**	**0.22 (P)**	**0.16 (P)**	**0.19 (P)**		**0.18 (P)**	**0.17 (P)**	**0.2 (P)**
Chloromethane ug/m3	1.8	2.1	2.6	1.6	2.1	1.8	3	2.5	1.7	1.7	2.5	2.1	3.1	2.1	2.8	1.8	1.7	1.5
Ethylbenzene ug/m3	**1.6 (P)**	**1.1 (P)**	**1.7 (P)**	0.63	0.7	0.87	0.82	0.91	0.92	0.85	0.86	0.68	0.76	**1.4 (P)**	0.62	**1.1 (P)**	0.62	0.86
Methyl ethyl ketone (2-butanone) ug/m3	2.6	3.6	2.4	2.3	2	3.4	3	5.3	1.7	4.2	2	3.8	4.3	4.2	2.6	4	2.1	2.7
Methylene chloride ug/m3	4.5 J		5.1 J		3.9 J		4.5 J				3.2 J							
Toluene ug/m3	5.8	6.3	6.2		4.3	5	5.9	5.7	2.9	5.2	3.1		3.8	8.3	3.5	7.5	2.7	6.3
Trichloroethylene (TCE) ug/m3	0.069	0.14		0.12	0.22	0.13		0.6	0.13	0.16		0.16	0.079	0.15	0.35	0.14	0.057	0.2
Xylene, total ug/m3	4.9	6.2	6.8	2.6	3.1	2.9	4	3.2	2.7	2.9	2	2.5	3	5.7	2.6	4.9	1.8	3.2

TABLE I-55B
VOC Concentrations in Air, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	505	505	505	505	506	506	506	506	506	506	507	507	507	507	508	508	508	508
Sample Number:	D-07082010-01-VOC	D-07292010-01	GC-AS505-S-1	GC-AS505-S-2	GC-AS506-C-1	GC-AS506-C-2	D-07082010-02-VOC	D-07292010-02-VOC	GC-AS506-S-1	GC-AS506-S-2	GC-AS507-C-1	GC-AS507-C-2	GC-AS507-S-1	GC-AS507-S-2	GC-AS508-C-1	GC-AS508-C-2	GC-AS508-S-1	GC-AS508-S-2
Sample Depth:	Canoe	Canoe	Street	Street	Canoe	Canoe	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street
Sample Date:	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
Sample Type:	FD	FD	N	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N
Parameter / **Units**	**Volatile Organic Compounds**																	
Acetone ug/m3	20	24	33	25	45	53	60	29	37	23	38	150	52	460	24	29	25	30
Benzene ug/m3	**0.62 (P)**	**0.53 (P)**	**0.64 (P)**	**0.89 (P)**	**0.95 (P)**	**0.75 (P)**	**0.39 (P)**	**0.52 (P)**	**0.79 (P)**	**0.79 (P)**	**0.9 (P)**	**1.4 (P)**	**0.82 (P)**	**1.3 (P)**	**0.8 (P)**	**1.3 (P)**	**0.61 (P)**	**1.1 (P)**
Bromoform ug/m3																		
Carbon disulfide ug/m3															2.7			
Chloroform ug/m3	**0.17 (P)**	0.11		**0.45 (P)**	**0.25 (P)**	**0.16 (P)**	**0.12 (P)**	**0.12 (P)**	**0.22 (P)**	**0.18 (P)**	**0.23 (P)**	**0.17 (P)**	**0.17 (P)**			**0.2 (P)**		**0.22 (P)**
Chloromethane ug/m3	1.6	1.6	2	1.9	2.2	2.2	1.9	1.6	1.8	1.4	1.9		2.5		2.2	1.7	2.2	1.7
Ethylbenzene ug/m3	0.53	0.58	0.56	0.9	0.96	0.88	0.4	0.5	**1 (P)**	0.56	**1.5 (P)**	**1.7 (P)**	**1.1 (P)**	**1.6 (P)**	**5.1 (P)**	**1.5 (P)**	0.62	0.81
Methyl ethyl ketone (2-butanone) ug/m3	1.8	2.4	4.2	3.4	2	4.4	2.3	3.2	3.9	2.6	2.5	10	2.3	30	2.3	3.1	1.9	2.6
Methylene chloride ug/m3		1.9 J				1.9 J	2.3 J	2 J		2 J	1.9 J		1.7 J		1.8 J			
Toluene ug/m3	2.5	7.1	3	7.5	3.6	12	2.5	6.3	3.5	5	8.5	5	5	6.7	4.4	5.2	3.6	
Trichloroethylene (TCE) ug/m3	0.075	0.11		0.31	0.16	0.12	0.054	0.12	0.14	0.17	0.9		0.74			0.096		0.078
Xylene, total ug/m3	1.5	3.4	2.4	3.5	2.7	6	1.8	2.9	2.3	2.4	3	5	2.9	7	**16 (P)**	5.3	2.9	2.8

TABLE I-55B
VOC Concentrations in Air, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		509	509	509	509	510	510	510	510	511	512	513
Sample Number:		GC-AS509-C-1	GC-AS509-C-2	GC-AS509-S-1	GC-AS509-S-2	GC-AS510-C-1	GC-AS510-C-2	GC-AS510-S-1	GC-AS510-S-2	GC-AS511-S-1	GC-AS512-S-1	GC-AS513-S-1
Sample Depth:		Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Street	Street	Street
Sample Date:		7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/8/2010	7/8/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Volatile Organic Compounds**										
Acetone	ug/m3	52	300	26	220	34	43	53	36	21	21	31
Benzene	ug/m3	**0.79 (P)**	**0.64 (P)**	**0.74 (P)**	**0.67 (P)**	**0.76 (P)**	**3.8 (P)**	**0.78 (P)**	**1.4 (P)**	**0.68 (P)**	**0.91 (P)**	**0.67 (P)**
Bromoform	ug/m3											
Carbon disulfide	ug/m3							2.6				
Chloroform	ug/m3			**0.21 (P)**	**0.16 (P)**			**0.17 (P)**	**0.17 (P)**		**0.29 (P)**	**0.16 (P)**
Chloromethane	ug/m3	2.5		2		2	2.2	2.7	1.9	1.7	2.2	1.5
Ethylbenzene	ug/m3	0.72	0.41	0.91	0.57	0.48	**4.4 (P)**	0.75	**1.8 (P)**	0.71	0.83	**1.2 (P)**
Methyl ethyl ketone (2-butanone)	ug/m3	2.5	18	2.3	13	2.3	3.4	11	3	2.4	1.9	
Methylene chloride	ug/m3	2.2 J		1.8 J							**5.4 J (P)**	3.1 J
Toluene	ug/m3	4.8		4.4		3.7	25	3.6	7.1	3.3	4.8	16
Trichloroethylene (TCE)	ug/m3			0.06			0.12	0.11	0.06			
Xylene, total	ug/m3	3.4		2.6	3.2	2.4	**28 (P)**	2.5	7.6	3.5	3.5	4.6

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TABLE I-56A
PAHs Concentrations in Air
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	501	501	501	501	502	502	502	502	503	503	503	503	504	504	504	504	504	504
	Sample Number:	GC-AS501-C-2	GC-AS501-C-1	GC-AS501-S-1	GC-AS501-S-2	GC-AS502-C-1	GC-AS502-C-2	GC-AS502-S-1	GC-AS502-S-2	GC-AS503-C-1	GC-AS503-C-2	GC-AS503-S-1	GC-AS503-S-2	GC-AS504-C-2	GC-AS504-C-1	GC-AS504-S-1	GC-AS504-S-2	D-07082010-01-PAH	D-07292010-02-PAH
	Sample Depth:	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Street	Street
	Sample Date:	7/29/2010	7/8/2010	7/9/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/29/2010	7/8/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Acenaphthene	ug/m3	**0.33 J**	**0.37**	**0.072**	**0.15 J**	**5.7**	**3.3 J**	**0.21**	**0.72 J**	**0.93**	**0.52 J**	**0.26**	**0.36 J**	---	**0.057 J**	**0.049 J**	**0.11 J**	**0.043 J**	**0.12**
Acenaphthene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**0.92 J**	---	---	---	---	---
Acenaphthylene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**0.032 J**	---	---	---	---	---
Acenaphthylene	ug/m3	**0.016 J**	**0.027 J**	**0.0061 J**	**0.0071 J**	**0.049 J**	**0.04 J**	**0.0028 J**	**0.02 J**	**0.008 J**	**0.0087 J**	**0.0033 J**	**0.0081 J**	---	**0.0014 J**	**0.0018 J**	**0.0077 J**	**0.0014 J**	**0.003 J**
Anthracene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**0.041 J**	---	---	---	---	---
Anthracene	ug/m3	**0.023 J**	**0.038 J**	**0.0072 J**	**0.01 J**	**0.37**	**0.15 J**	**0.011 J**	**0.032 J**	**0.083**	**0.044 J**	**0.026 J**	**0.025 J**	---	**0.0042 J**	**0.0033 J**	**0.0088 J**	**0.0032 J**	**0.0062 J**
Benzo(a)anthracene	ug/m3	0.071 UJ	**0.0023 J**	0.067 U	0.071 UJ	0.069 U	**0.0024 J**	0.069 U	0.071 UJ	**0.002 J**	0.071 UJ	0.07 U	0.071 UJ	---	0.069 U	0.069 U	0.072 UJ	0.069 U	0.089 U
Benzo(a)anthracene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 UJ	---	---	---	---	---
Benzo(a)pyrene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 UJ	---	---	---	---	---
Benzo(a)pyrene	ug/m3	0.071 UJ	0.068 U	0.067 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.07 U	0.071 UJ	---	0.069 U	0.069 U	0.072 UJ	0.069 U	0.089 U
Benzo(b)fluoranthene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 UJ	---	---	---	---	---
Benzo(b)fluoranthene	ug/m3	0.071 UJ	**0.0025 J**	0.067 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.07 U	0.071 UJ	---	0.069 U	0.069 U	0.072 UJ	0.069 U	0.089 U
Benzo(g,h,i)perylene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 UJ	---	---	---	---	---
Benzo(g,h,i)perylene	ug/m3	0.071 UJ	0.068 U	0.067 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.07 U	0.071 UJ	---	0.069 U	0.069 U	0.072 UJ	0.069 U	0.089 U
Benzo(k)fluoranthene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 UJ	---	---	---	---	---
Benzo(k)fluoranthene	ug/m3	0.071 UJ	0.068 U	0.067 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.07 U	0.071 UJ	---	0.069 U	0.069 U	0.072 UJ	0.069 U	0.089 U
Chrysene	ug/m3	0.071 U	0.068 U	0.067 U	0.071 U	**0.0088 J**	0.071 U	0.069 U	0.071 U	0.069 U	0.071 U	0.07 U	0.071 U	---	0.069 U	0.069 U	0.072 U	0.069 U	0.089 U
Chrysene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 U	---	---	---	---	---
Dibenz(a,h)anthracene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 UJ	---	---	---	---	---
Dibenz(a,h)anthracene	ug/m3	0.071 UJ	0.068 U	0.067 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.07 U	0.071 UJ	---	0.069 U	0.069 U	0.072 UJ	0.069 U	0.089 U
Fluoranthene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**0.094 J**	---	---	---	---	---
Fluoranthene	ug/m3	**0.041 J**	**0.046 J**	**0.012 J**	**0.021 J**	**1**	**0.45 J**	**0.049 J**	**0.12 J**	**0.21**	**0.082 J**	**0.06 J**	**0.041 J**	---	**0.019 J**	**0.017 J**	**0.027 J**	**0.016 J**	**0.027 J**
Fluorene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**0.53 J**	---	---	---	---	---
Fluorene	ug/m3	**0.12 J**	**0.23**	**0.051 J**	**0.064 J**	**4.7**	**2.3 J**	**0.17**	**0.47 J**	**0.91**	**0.41 J**	**0.28**	**0.29 J**	---	**0.034 J**	**0.035 J**	**0.062 J**	**0.032 J**	**0.066 J**
Indeno(1,2,3-c,d)pyrene	ug	---	---	---	---	---	---	---	---	---	---	---	---	0.5 UJ	---	---	---	---	---
Indeno(1,2,3-c,d)pyrene	ug/m3	0.071 UJ	0.068 U	0.067 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.069 U	0.071 UJ	0.07 U	0.071 UJ	---	0.069 U	0.069 U	0.072 UJ	0.069 U	0.089 U
Naphthalene	ug/m3	**0.47 J**	**1**	**0.32**	**0.3 J**	**2.1**	**2.3 J**	**0.23**	**0.68 J**	**3.4**	**2.6 J**	**1.3**	**2.5 J**	---	**0.19**	**0.15**	**0.26 J**	**0.12 J**	**0.25**
Naphthalene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**1 J**	---	---	---	---	---
Phenanthrene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**0.71 J**	---	---	---	---	---
Phenanthrene	ug/m3	**0.22 J**	**0.46**	**0.11**	**0.11 J**	**6.5**	**3 J**	**0.29**	**0.62 J**	**1.4**	**0.55 J**	**0.44**	**0.37 J**	---	**0.084**	**0.081**	**0.12 J**	**0.08**	**0.12**
Pyrene	ug	---	---	---	---	---	---	---	---	---	---	---	---	**0.068 J**	---	---	---	---	---
Pyrene	ug/m3	**0.028 J**	**0.039 J**	**0.0095 J**	**0.015 J**	**0.55**	**0.23 J**	**0.024 J**	**0.061 J**	**0.13**	**0.052 J**	**0.035 J**	**0.022 J**	---	**0.014 J**	**0.01 J**	**0.018 J**	**0.01 J**	**0.017 J**
Total PAHs	ug/m3	**1.248**	**2.2148**	**0.5878**	**0.6771**	**20.9778**	**11.7724**	**0.9868**	**2.723**	**7.073**	**4.2667**	**2.4043**	**3.6161**	---	**0.4036**	**0.3471**	**0.6135**	**0.3056**	**0.6092**
Total PAHs	ug	---	---	---	---	---	---	---	---	---	---	---	---	**3.395**	---	---	---	---	---

TABLE I-56A
PAHs Concentrations in Air
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		505	505	505	505	505	505	506	506	506	506	507	507	507	507	508	508	508	508
Sample Number:		GC-AS505-C-1	GC-AS505-C-2	D-07082010-02-PAH	D-07292010-01	GC-AS505-S-2	GC-AS505-S-1	GC-AS506-C-1	GC-AS506-C-2	GC-AS506-S-1	GC-AS506-S-2	GC-AS507-C-1	GC-AS507-C-2	GC-AS507-S-1	GC-AS507-S-2	GC-AS508-C-1	GC-AS508-C-2	GC-AS508-S-1	GC-AS508-S-2
Sample Depth:		Canoe	Canoe	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street
Sample Date:		7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/29/2010	7/8/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
Sample Type:		N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Acenaphthene	ug/m3	**0.51**	**1.1 J**	**0.53**	**0.99**	**0.64**	**0.61**	**0.24**	**0.31**	**0.056 J**	**0.16**	**0.58**	**---**	**0.35**	**1.3**	**0.18**	**0.26**	**0.037 J**	**0.21**
Acenaphthene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**4**	**---**	**---**	**---**	**---**	**---**	**---**
Acenaphthylene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.26 J**	**---**	**---**	**---**	**---**	**---**	**---**
Acenaphthylene	ug/m3	**0.0045 J**	**0.017 J**	**0.0051 J**	**0.019 J**	**0.016 J**	**0.0055 J**	**0.0039 J**	**0.024 J**	**0.0032 J**	**0.018 J**	**0.027 J**	**---**	**0.018 J**	**0.14**	**0.0088 J**	**0.013 J**	**0.0017 J**	**0.0084 J**
Anthracene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.49 J**	**---**	**---**	**---**	**---**	**---**	**---**
Anthracene	ug/m3	**0.034 J**	**0.071 J**	**0.039 J**	**0.072**	**0.043 J**	**0.027 J**	**0.012 J**	**0.033 J**	**0.0029 J**	**0.019 J**	**0.071**	**---**	**0.043 J**	**0.11**	**0.07**	**0.033 J**	**0.0099 J**	**0.019 J**
Benzo(a)anthracene	ug/m3	0.069 U	0.071 U	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	**0.0029 J**	0.069 U	0.07 U
Benzo(a)anthracene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Benzo(a)pyrene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Benzo(a)pyrene	ug/m3	0.069 U	0.071 UJ	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	0.07 U	0.069 U	0.07 U
Benzo(b)fluoranthene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Benzo(b)fluoranthene	ug/m3	0.069 U	0.071 UJ	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	0.07 U	0.069 U	0.07 U
Benzo(g,h,i)perylene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Benzo(g,h,i)perylene	ug/m3	0.069 U	0.071 UJ	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	0.07 U	0.069 U	0.07 U
Benzo(k)fluoranthene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Benzo(k)fluoranthene	ug/m3	0.069 U	0.071 UJ	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	0.07 U	0.069 U	0.07 U
Chrysene	ug/m3	0.069 U	**0.0043 J**	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	0.07 U	0.069 U	0.07 U
Chrysene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Dibenz(a,h)anthracene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Dibenz(a,h)anthracene	ug/m3	0.069 U	0.071 UJ	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	0.07 U	0.069 U	0.07 U
Fluoranthene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.42 J**	**---**	**---**	**---**	**---**	**---**	**---**
Fluoranthene	ug/m3	**0.099**	**0.17 J**	**0.1**	**0.17**	**0.11**	**0.094**	**0.044 J**	**0.042 J**	**0.012 J**	**0.022 J**	**0.041 J**	**---**	**0.032 J**	**0.075**	**0.072**	**0.081**	**0.049 J**	**0.059 J**
Fluorene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**2**	**---**	**---**	**---**	**---**	**---**	**---**
Fluorene	ug/m3	**0.29**	**0.58 J**	**0.3**	**0.53**	**0.35**	**0.31**	**0.12**	**0.16**	**0.03 J**	**0.085**	**0.33**	**---**	**0.23**	**0.63**	**0.17**	**0.14**	**0.036 J**	**0.13**
Indeno(1,2,3-c,d)pyrene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	0.5 U	**---**	**---**	**---**	**---**	**---**	**---**
Indeno(1,2,3-c,d)pyrene	ug/m3	0.069 U	0.071 UJ	0.094 U	0.071 U	0.071 U	0.069 U	0.069 U	0.071 U	0.069 U	0.071 U	0.069 U	**---**	0.069 U	0.07 U	0.069 U	0.07 U	0.069 U	0.07 U
Naphthalene	ug/m3	**0.97**	**2.2 J**	**1.1**	**2.1**	**1.7**	**1.3**	**0.5**	**0.87**	**0.26**	**0.57**	**2**	**---**	**1.2**	**4.4**	**0.22**	**0.56**	**0.1 J**	**0.43**
Naphthalene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**11**	**---**	**---**	**---**	**---**	**---**	**---**
Phenanthrene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**3.6**	**---**	**---**	**---**	**---**	**---**	**---**
Phenanthrene	ug/m3	**0.52**	**0.94 J**	**0.54**	**0.88**	**0.6**	**0.52**	**0.22**	**0.27**	**0.059 J**	**0.15**	**0.54**	**---**	**0.42**	**0.82**	**0.59**	**0.32**	**0.14**	**0.25**
Pyrene	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**0.39 J**	**---**	**---**	**---**	**---**	**---**	**---**
Pyrene	ug/m3	**0.071**	**0.11 J**	**0.076 J**	**0.11**	**0.069 J**	**0.06 J**	**0.027 J**	**0.03 J**	**0.0088 J**	**0.016 J**	**0.039 J**	**---**	**0.029 J**	**0.068 J**	**0.062 J**	**0.063 J**	**0.027 J**	**0.042 J**
Total PAHs	ug/m3	**2.4985**	**5.1923**	**2.6901**	**4.871**	**3.528**	**2.9265**	**1.1669**	**1.739**	**0.4319**	**1.04**	**3.628**	**---**	**2.322**	**7.543**	**1.3728**	**1.4729**	**0.4006**	**1.1484**
Total PAHs	ug	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**22.16**	**---**	**---**	**---**	**---**	**---**	**---**

TABLE I-56A
PAHs Concentrations in Air
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		509	509	509	509	510	510	510	510	511	512	513
Sample Number:		GC-AS509-C-2	GC-AS509-C-1	GC-AS509-S-1	GC-AS509-S-2	GC-AS510-C-1	GC-AS510-C-2	GC-AS510-S-1	GC-AS510-S-2	GC-AS511-S-1	GC-AS512-S-1	GC-AS513-S-1
Sample Depth:		Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Street	Street	Street
Sample Date:		7/29/2010	7/8/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/8/2010	7/8/2010
Sample Type:		N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**										
Acenaphthene	ug/m3	**0.85**	**0.46**	**0.33**	**0.71**	**0.072**	**0.084**	**0.063 J**	**0.079**	**0.0091 J**	**0.0071 J**	**0.023 J**
Acenaphthene	ug	---	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	ug	---	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	ug/m3	**0.0085 J**	**0.0056 J**	**0.0043 J**	**0.007 J**	**0.0023 J**	**0.0043 J**	**0.0016 J**	**0.0019 J**	0.066 U	**0.0015 J**	0.081 U
Anthracene	ug	---	---	---	---	---	---	---	---	---	---	---
Anthracene	ug/m3	**0.053 J**	**0.053 J**	**0.03 J**	**0.038 J**	**0.0093 J**	**0.0054 J**	**0.0059 J**	**0.004 J**	0.066 U	0.07 U	**0.0021 J**
Benzo(a)anthracene	ug/m3	**0.0033 J**	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Benzo(a)anthracene	ug	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)pyrene	ug	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)pyrene	ug/m3	0.071 U	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Benzo(b)fluoranthene	ug	---	---	---	---	---	---	---	---	---	---	---
Benzo(b)fluoranthene	ug/m3	0.071 U	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Benzo(g,h,i)perylene	ug	---	---	---	---	---	---	---	---	---	---	---
Benzo(g,h,i)perylene	ug/m3	0.071 U	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Benzo(k)fluoranthene	ug	---	---	---	---	---	---	---	---	---	---	---
Benzo(k)fluoranthene	ug/m3	0.071 U	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Chrysene	ug/m3	0.071 U	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Chrysene	ug	---	---	---	---	---	---	---	---	---	---	---
Dibenz(a,h)anthracene	ug	---	---	---	---	---	---	---	---	---	---	---
Dibenz(a,h)anthracene	ug/m3	0.071 U	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Fluoranthene	ug	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	ug/m3	**0.27**	**0.12**	**0.09**	**0.2**	**0.025 J**	**0.021 J**	**0.02 J**	**0.018 J**	**0.0046 J**	0.07 U	**0.0064 J**
Fluorene	ug	---	---	---	---	---	---	---	---	---	---	---
Fluorene	ug/m3	**0.53**	**0.29**	**0.24**	**0.45**	**0.049 J**	**0.056 J**	**0.044 J**	**0.057 J**	**0.0097 J**	**0.0051 J**	**0.019 J**
Indeno(1,2,3-c,d)pyrene	ug	---	---	---	---	---	---	---	---	---	---	---
Indeno(1,2,3-c,d)pyrene	ug/m3	0.071 U	0.068 U	0.069 U	0.07 U	0.068 U	0.071 U	0.071 U	0.071 U	0.066 U	0.07 U	0.081 U
Naphthalene	ug/m3	**0.74**	**0.39**	**0.27**	**0.6**	**0.21**	**0.62**	**0.2**	**0.41**	**0.11 J**	**0.17**	**0.12 J**
Naphthalene	ug	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	ug	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	ug/m3	**1**	**0.66**	**0.55**	**0.87**	**0.12**	**0.098**	**0.11**	**0.099**	**0.029 J**	**0.0037 J**	**0.045 J**
Pyrene	ug	---	---	---	---	---	---	---	---	---	---	---
Pyrene	ug/m3	**0.15**	**0.078**	**0.054 J**	**0.11**	**0.019 J**	**0.014 J**	**0.014 J**	**0.0093 J**	**0.0023 J**	0.07 U	**0.0046 J**
Total PAHs	ug/m3	**3.6048**	**2.0566**	**1.5683**	**2.985**	**0.5066**	**0.9027**	**0.4585**	**0.6782**	**0.1647**	**0.1874**	**0.2201**
Total PAHs	ug	---	---	---	---	---	---	---	---	---	---	---

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TABLE I-56B
PAHs Concentrations in Air, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	501	501	501	501	502	502	502	502	503	503	503	503	504	504	504	504	504	504
	Sample Number:	GC-AS501-C-1	GC-AS501-C-2	GC-AS501-S-1	GC-AS501-S-2	GC-AS502-C-1	GC-AS502-C-2	GC-AS502-S-1	GC-AS502-S-2	GC-AS503-C-1	GC-AS503-C-2	GC-AS503-S-1	GC-AS503-S-2	GC-AS504-C-1	GC-AS504-C-2	GC-AS504-S-1	GC-AS504-S-2	D-07082010-01-PAH	D-07292010-02-PAH
	Sample Depth:	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Street	Street
	Sample Date:	7/8/2010	7/29/2010	7/9/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	FD
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*Acenaphthene	ug														0.92 J				
*Acenaphthene	ug/m3	0.37	0.33 J	0.072	0.15 J	5.7	3.3 J	0.21	0.72 J	0.93	0.52 J	0.26	0.36 J	0.057 J		0.049 J	0.11 J	0.043 J	0.12
*Acenaphthylene	ug														0.032 J				
*Acenaphthylene	ug/m3	0.027 J	0.016 J	0.0061 J	0.0071 J	0.049 J	0.04 J	0.0028 J	0.02 J	0.008 J	0.0087 J	0.0033 J	0.0081 J	0.0014 J		0.0018 J	0.0077 J	0.0014 J	0.003 J
*Anthracene	ug														0.041 J				
*Anthracene	ug/m3	0.038 J	0.023 J	0.0072 J	0.01 J	0.37	0.15 J	0.011 J	0.032 J	0.083	0.044 J	0.026 J	0.025 J	0.0042 J		0.0033 J	0.0088 J	0.0032 J	0.0062 J
Benzo(a)anthracene	ug/m3	0.0023 J					0.0024 J			0.002 J									
Benzo(b)fluoranthene	ug/m3	0.0025 J																	
Chrysene	ug/m3					0.0088 J													
*Fluoranthene	ug														0.094 J				
*Fluoranthene	ug/m3	0.046 J	0.041 J	0.012 J	0.021 J	1	0.45 J	0.049 J	0.12 J	0.21	0.082 J	0.06 J	0.041 J	0.019 J		0.017 J	0.027 J	0.016 J	0.027 J
*Fluorene	ug														0.53 J				
*Fluorene	ug/m3	0.23	0.12 J	0.051 J	0.064 J	4.7	2.3 J	0.17	0.47 J	0.91	0.41 J	0.28	0.29 J	0.034 J		0.035 J	0.062 J	0.032 J	0.066 J
*Naphthalene	ug														1 J				
Naphthalene	ug/m3	**1 (P)**	**0.47 J (P)**	**0.32 (P)**	**0.3 J (P)**	**2.1 (P)**	**2.3 J (P)**	**0.23 (P)**	**0.68 J (P)**	**3.4 (P)**	**2.6 J (P)**	**1.3 (P)**	**2.5 J (P)**	**0.19 (P)**		**0.15 (P)**	**0.26 J (P)**	**0.12 J (P)**	**0.25 (P)**
*Phenanthrene	ug														0.71 J				
*Phenanthrene	ug/m3	0.46	0.22 J	0.11	0.11 J	6.5	3 J	0.29	0.62 J	1.4	0.55 J	0.44	0.37 J	0.084		0.081	0.12 J	0.08	0.12
*Pyrene	ug														0.068 J				
*Pyrene	ug/m3	0.039 J	0.028 J	0.0095 J	0.015 J	0.55	0.23 J	0.024 J	0.061 J	0.13	0.052 J	0.035 J	0.022 J	0.014 J		0.01 J	0.018 J	0.01 J	0.017 J
*Total PAHs	ug														3.395				
*Total PAHs	ug/m3	2.2148	1.248	0.5878	0.6771	20.9778	11.7724	0.9868	2.723	7.073	4.2667	2.4043	3.6161	0.4036		0.3471	0.6135	0.3056	0.6092

TABLE I-56B
PAHs Concentrations in Air, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	505	505	505	505	505	505	506	506	506	506	507	507	507	507	508	508	508	508
	Sample Number:	GC-AS505-C-1	GC-AS505-C-2	D-07082010-02-PAH	D-07292010-01	GC-AS505-S-1	GC-AS505-S-2	GC-AS506-C-1	GC-AS506-C-2	GC-AS506-S-1	GC-AS506-S-2	GC-AS507-C-1	GC-AS507-C-2	GC-AS507-S-1	GC-AS507-S-2	GC-AS508-C-1	GC-AS508-C-2	GC-AS508-S-1	GC-AS508-S-2
	Sample Depth:	Canoe	Canoe	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street
	Sample Date:	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010
	Sample Type:	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
*Acenaphthene	ug												4						
*Acenaphthene	ug/m3	0.51	1.1 J	0.53	0.99	0.61	0.64	0.24	0.31	0.056 J	0.16	0.58		0.35	1.3	0.18	0.26	0.037 J	0.21
*Acenaphthylene	ug												0.26 J						
*Acenaphthylene	ug/m3	0.0045 J	0.017 J	0.0051 J	0.019 J	0.0055 J	0.016 J	0.0039 J	0.024 J	0.0032 J	0.018 J	0.027 J		0.018 J	0.14	0.0088 J	0.013 J	0.0017 J	0.0084 J
*Anthracene	ug												0.49 J						
*Anthracene	ug/m3	0.034 J	0.071 J	0.039 J	0.072	0.027 J	0.043 J	0.012 J	0.033 J	0.0029 J	0.019 J	0.071		0.043 J	0.11	0.07	0.033 J	0.0099 J	0.019 J
Benzo(a)anthracene	ug/m3																0.0029 J		
Benzo(b)fluoranthene	ug/m3																		
Chrysene	ug/m3		0.0043 J																
*Fluoranthene	ug												0.42 J						
*Fluoranthene	ug/m3	0.099	0.17 J	0.1	0.17	0.094	0.11	0.044 J	0.042 J	0.012 J	0.022 J	0.041 J		0.032 J	0.075	0.072	0.081	0.049 J	0.059 J
*Fluorene	ug												2						
*Fluorene	ug/m3	0.29	0.58 J	0.3	0.53	0.31	0.35	0.12	0.16	0.03 J	0.085	0.33		0.23	0.63	0.17	0.14	0.036 J	0.13
*Naphthalene	ug												11						
Naphthalene	ug/m3	**0.97 (P)**	**2.2 J (P)**	**1.1 (P)**	**2.1 (P)**	**1.3 (P)**	**1.7 (P)**	**0.5 (P)**	**0.87 (P)**	**0.26 (P)**	**0.57 (P)**	**2 (P)**		**1.2 (P)**	**4.4 (P)**	**0.22 (P)**	**0.56 (P)**	**0.1 J (P)**	**0.43 (P)**
*Phenanthrene	ug												3.6						
*Phenanthrene	ug/m3	0.52	0.94 J	0.54	0.88	0.52	0.6	0.22	0.27	0.059 J	0.15	0.54		0.42	0.82	0.59	0.32	0.14	0.25
*Pyrene	ug												0.39 J						
*Pyrene	ug/m3	0.071	0.11 J	0.076 J	0.11	0.06 J	0.069 J	0.027 J	0.03 J	0.0088 J	0.016 J	0.039 J		0.029 J	0.068 J	0.062 J	0.063 J	0.027 J	0.042 J
*Total PAHs	ug												22.16						
*Total PAHs	ug/m3	2.4985	5.1923	2.6901	4.871	2.9265	3.528	1.1669	1.739	0.4319	1.04	3.628		2.322	7.543	1.3728	1.4729	0.4006	1.1484

TABLE I-56B
PAHs Concentrations in Air, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	509	509	509	509	510	510	510	510	511	512	513
	Sample Number:	GC-AS509-C-1	GC-AS509-C-2	GC-AS509-S-1	GC-AS509-S-2	GC-AS510-C-1	GC-AS510-C-2	GC-AS510-S-1	GC-AS510-S-2	GC-AS511-S-1	GC-AS512-S-1	GC-AS513-S-1
	Sample Depth:	Canoe	Canoe	Street	Street	Canoe	Canoe	Street	Street	Street	Street	Street
	Sample Date:	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/29/2010	7/8/2010	7/8/2010	7/8/2010
	Sample Type:	N	N	N	N	N	N	N	N	N	N	N
Parameter	**Units**	**Semi-Volatile Organic Compounds**										
*Acenaphthene	ug											
*Acenaphthene	ug/m3	0.46	0.85	0.33	0.71	0.072	0.084	0.063 J	0.079	0.0091 J	0.0071 J	0.023 J
*Acenaphthylene	ug											
*Acenaphthylene	ug/m3	0.0056 J	0.0085 J	0.0043 J	0.007 J	0.0023 J	0.0043 J	0.0016 J	0.0019 J		0.0015 J	
*Anthracene	ug											
*Anthracene	ug/m3	0.053 J	0.053 J	0.03 J	0.038 J	0.0093 J	0.0054 J	0.0059 J	0.004 J			0.0021 J
Benzo(a)anthracene	ug/m3		0.0033 J									
Benzo(b)fluoranthene	ug/m3											
Chrysene	ug/m3											
*Fluoranthene	ug											
*Fluoranthene	ug/m3	0.12	0.27	0.09	0.2	0.025 J	0.021 J	0.02 J	0.018 J	0.0046 J		0.0064 J
*Fluorene	ug											
*Fluorene	ug/m3	0.29	0.53	0.24	0.45	0.049 J	0.056 J	0.044 J	0.057 J	0.0097 J	0.0051 J	0.019 J
*Naphthalene	ug											
Naphthalene	ug/m3	**0.39 (P)**	**0.74 (P)**	**0.27 (P)**	**0.6 (P)**	**0.21 (P)**	**0.62 (P)**	**0.2 (P)**	**0.41 (P)**	**0.11 J (P)**	**0.17 (P)**	**0.12 J (P)**
*Phenanthrene	ug											
*Phenanthrene	ug/m3	0.66	1	0.55	0.87	0.12	0.098	0.11	0.099	0.029 J	0.0037 J	0.045 J
*Pyrene	ug											
*Pyrene	ug/m3	0.078	0.15	0.054 J	0.11	0.019 J	0.014 J	0.014 J	0.0093 J	0.0023 J		0.0046 J
*Total PAHs	ug											
*Total PAHs	ug/m3	2.0566	3.6048	1.5683	2.985	0.5066	0.9027	0.4585	0.6782	0.1647	0.1874	0.2201

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TABLE I-57A
PCB Aroclor Concentrations in Air
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	506	506
	Sample Number:	GC-AS506-S-1	D-07082010-03
	Sample Depth:	Street	Street
	Sample Date:	7/8/2010	7/8/2010
	Sample Type:	N	FD
Parameter	**Units**	**PCBs**	
Aroclor 1016	ug/m3	0.0021 U	0.0021 U
Aroclor 1221	ug/m3	0.0021 U	0.0021 U
Aroclor 1232	ug/m3	0.0021 U	0.0021 U
Aroclor 1242	ug/m3	0.0021 U	0.0021 U
Aroclor 1248	ug/m3	0.0021 U	0.0021 U
Aroclor 1254	ug/m3	0.0021 U	0.0021 U
Aroclor 1260	ug/m3	0.0021 U	0.0021 U
Total PCBs	ug	ND	ND

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TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-030310-01	EB-030410-01	EB-030510-01	EB-030810-01	EB-030910-01	EB-031010-01	EB-031110-01	EB-031210-01	EB-031510-01	EB-031610-01	EB-031710-01	EB-031810-01	EB-031910-01	EB-032210-01	EB-032310-01	EB-032410-01	EB-032510-01	EB-032910-01
Sample Date:		3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010	3/29/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-tetrachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-trichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-dichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-dichloroethene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-trichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-trichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dibromo-3-chloropropane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dibromoethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dichloropropane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-dioxane (p-dioxane)	ug/l	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR
2-hexanone	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/l	10 U	10 U	**4.3 J**	**3.6 J**	10 U	10 U	10 U	10 U	10 U	10 U	**3.9 J**	**4.9 J**	**5.9 J**	**5.1 J**	**7.8 J**	**5.8 J**	**4.4 J**	**3.9 J**
Benzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.3 J**	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**3.9 J**	**3.4 J**	5 U	5 U	5 U	**2.8 J**
Chloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.2 J**	**1.3 J**	5 U	5 U	**1.1 J**	5 U
cis-1,2-dichloroethylene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cyclohexane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene (cumene)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m, p xylenes	ug/l	**0.61 J**	**0.46 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:	EB-030310-01	EB-030410-01	EB-030510-01	EB-030810-01	EB-030910-01	EB-031010-01	EB-031110-01	EB-031210-01	EB-031510-01	EB-031610-01	EB-031710-01	EB-031810-01	EB-031910-01	EB-032210-01	EB-032310-01	EB-032410-01	EB-032510-01	EB-032910-01
Sample Date:	3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010	3/29/2010
Sample Type:	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Volatile Organic Compounds**																
Methyl acetate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-butanone)	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl isobutyl ketone	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylcyclohexane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**4.2 J**
o-xylene (1,2-dimethylbenzene)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tert-butyl methyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethylene(PCE)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/l	**1.1 J**	**1 J**	**0.8 J**	**0.58 J**	**0.67 J**	**0.64 J**	**0.6 J**	**0.5 J**	**0.38 J**	5 U	**0.65 J**	**0.5 J**	**0.45 J**	**0.36 J**	**0.38 J**	**0.42 J**	5 U	**0.59 J**
trans-1,2-dichloroethene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethylene (TCE)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichlorofluoromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	ug/l	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-033110-01	EB-040110-01	EB-040210-01	EB-040510-01	EB-040610-01	EB-040710-01	EB-040810-01	EB-040910-01	EB-041210-01	EB-041310-01	EB-041410-01	EB-041510-01	EB-06082010-01	EB-061910-01	EB-070810-01	EB-071310-01	EB-071410-01	EB-071510-01
Sample Date:		3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	7/8/2010	7/13/2010	7/14/2010	7/15/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,1-dichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U
1,2-dibromoethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloropropane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dioxane (p-dioxane)	ug/l	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR					
2-hexanone	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	**5.4 J**	**5.4 J**	**5.3 J**	**5.5 J**	**6.6 J**	**13**	**7.1 J**	**6.4 J**	**9.6 J**	**5.4 J**	**9.1 J**	**9.1 J**	**9.5 J**	5 U	5 U	5 U	**14**	**19**
Benzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
Bromomethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	5 U	**0.82 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	**1.4 J**	5 U	5 U	5 U	5 U	**1.3 J**	5 U	**1.7 J**	5 U	**0.88 J**	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Cyclohexane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-033110-01	EB-040110-01	EB-040210-01	EB-040510-01	EB-040610-01	EB-040710-01	EB-040810-01	EB-040910-01	EB-041210-01	EB-041310-01	EB-041410-01	EB-041510-01	EB-06082010-01	EB-061910-01	EB-070810-01	EB-071310-01	EB-071410-01	EB-071510-01
Sample Date:		3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	7/8/2010	7/13/2010	7/14/2010	7/15/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	**2 J**	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	**2 J**	**2.8 J**
Methyl isobutyl ketone	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	5 U	**1.9 J**	5 U	5 U	**1.5 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.79**	**0.6**	**0.45 J**	**0.36 J**	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/l	5 U	**0.51 J**	5 U	**0.51 J**	5 U	5 U	5 U	5 U	5 U	**0.43 J**	**0.68 J**	**0.81 J**	5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.14 J**
trans-1,2-dichloroethene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Trichloroethylene (TCE)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	EB-092810-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01	FB-072210-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	9/28/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010	7/22/2010
Sample Type:		EB	EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,2-dibromoethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	**0.37 J**	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	**0.28 J**	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dioxane (p-dioxane)	ug/l						100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR						
2-hexanone	ug/l	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 UR	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	5 U	**9.5**	**22**	**19**	5 U	10 U	10 U	10 U	**5.8 J**	10 U	**9.8 J**	**6.1 J**	**1.6 J**	**1.6 J**	5 U	5 U	**21**	5 U
Benzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.31 J**	0.5 U	**0.27 J**	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 UR	0.5 UR	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	**1.3 J**	5 U	**9.6 J**	**10**	**8.4**	0.5 U	0.5 U	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.1 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	EB-092810-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01	FB-072210-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	9/28/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010	7/22/2010
Sample Type:		EB	EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	**2.7 J**	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 UR	5 U	5 U	5 U	**2.9 J**	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	5 U	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 UR	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.41 J**	**0.48 J**	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.7 J**	**0.41 J**	5 U	5 U	**0.37 J**	**0.58 J**	5 U	**0.84 J**	**0.96**	**0.61**	0.5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U
Vinyl chloride	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-FB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:		FB-072610-01	TB-030310-01	TB-030410-01	TB-030510-01	TB-030810-01	TB-030910-01	TB-031010-01	TB-031110-01	TB-031210-01	TB-031510-01	TB-031610-01	TB-031710-01	TB-031810-01	TB-031910-01	TB-032210-01	TB-032310-01	TB-032410-01	TB-032510-01
Sample Date:		7/26/2010	3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010
Sample Type:		FB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-trichloroethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-dichloroethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-dichloroethene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dibromo-3-chloropropane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dibromoethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dichlorobenzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dichloroethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-dichloropropane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-dichlorobenzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-dichlorobenzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-dioxane (p-dioxane)	ug/l		100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR
2-hexanone	ug/l	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/l	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**3.9 J**	10 U	**4.8 J**	10 U	**5.5 J**	10 U	**4.4 J**	**6.7 J**	**4.3 J**	10 U
Benzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	ug/l	0.5 UR	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	ug/l	0.5 U	**2.6 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**4.4 J**	**4 J**	5 U	5 U	5 U
Chloromethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1.1 J**	5 U	**1.3 J**	**1.1 J**	5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-dichloropropene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cyclohexane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
m, p xylenes	ug/l	0.5 U	**0.61 J**	**0.49 J**	**0.4 J**	**0.35 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	CH2M-FB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:	FB-072610-01	TB-030310-01	TB-030410-01	TB-030510-01	TB-030810-01	TB-030910-01	TB-031010-01	TB-031110-01	TB-031210-01	TB-031510-01	TB-031610-01	TB-031710-01	TB-031810-01	TB-031910-01	TB-032210-01	TB-032310-01	TB-032410-01	TB-032510-01
Sample Date:	7/26/2010	3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010
Sample Type:	FB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
Parameter	**Units**	**Volatile Organic Compounds**																
Methyl acetate	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-butanone)	ug/l	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl isobutyl ketone	ug/l	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylcyclohexane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tert-butyl methyl ether	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	ug/l	0.5 U	**1.2 J**	**1.2 J**	**1.1 J**	**1.3 J**	**1 J**	**0.97 J**	**0.81 J**	**0.82 J**	**0.71 J**	**0.86 J**	**0.86 J**	**0.57 J**	**0.52 J**	**0.38 J**	**0.44 J**	**0.4 J**	**0.34 J**
trans-1,2-dichloroethene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-dichloropropene	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethylene (TCE)	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichlorofluoromethane	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	ug/l	0.5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:		TB-032910-01	TB-033110-01	TB-040110-01	TB-040210-01	TB-040510-01	TB-040610-01	TB-040710-01	TB-040810-01	TB-040910-01	TB-041210-01	TB-041310-01	TB-041410-01	TB-041510-01	TB-06010-01	TB-061910-01	TB-090710-01	TB-062410-01	TB-062510-01
Sample Date:		3/29/2010	3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	6/19/2010	6/24/2010	6/25/2010
Sample Type:		TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UJ	0.5 U	0.5 U	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U
1,2-dibromoethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloropropane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U
1,4-dioxane (p-dioxane)	ug/l	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR	100 UR				
2-hexanone	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	5 U
Acetone	ug/l	**3.6 J**	**5.6 J**	10 U	**5.8 J**	**4.6 J**	**5.3 J**	10 U	10 U	**6.3 J**	**7.9 J**	**4.6 J**	**4.3 J**	10 U	**5.3 J**	5 U	**22**	**2.7 J**	**3.5 J**
Benzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	**0.54**	**0.47 J**
Bromoform	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 UR	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon disulfide	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	**0.062 J**
Carbon tetrachloride	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**2.3 J**	5 U	**1.7 J**	**2 J**	**1.5 J**	5 U	5 U	0.5 U	0.5 U	**12**	**11**
Chloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Cyclohexane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	**0.059 J**	0.5 U
Dichlorodifluoromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	**0.29 J**	**0.19 J**
Isopropylbenzene (cumene)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	**0.091 J**	**0.074 J**
m, p xylenes	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	**2.1**	**1.4**

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:		TB-032910-01	TB-033110-01	TB-040110-01	TB-040210-01	TB-040510-01	TB-040610-01	TB-040710-01	TB-040810-01	TB-040910-01	TB-041210-01	TB-041310-01	TB-041410-01	TB-041510-01	TB-06010-01	TB-061910-01	TB-090710-01	TB-062410-01	TB-062510-01
Sample Date:		3/29/2010	3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	6/19/2010	6/24/2010	6/25/2010
Sample Type:		TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl acetate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl ethyl ketone (2-butanone)	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	**3 J**	**0.76 J**	5 U
Methyl isobutyl ketone	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	**1.3 J**	5 U	**2.5 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.74**	0.5 U	**0.074 J**	**0.069 J**
o-xylene (1,2-dimethylbenzene)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	**1.6**	**1.2**
Styrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/l	**0.51 J**	5 U	**0.39 J**	**0.54 J**	5 U	**0.72 J**	**0.36 J**	**0.38 J**	5 U	5 U	5 U	5 U	**0.64 J**	5 U	0.5 U	0.5 U	**0.99**	**0.82**
trans-1,2-dichloroethene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethylene (TCE)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chloride	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:		**TB-062810-01**	**TB-062910-01**	**TB-070110-01**	**TB-070110-02**	**TB-070910-01**	**TB-071310-01**	**TB-071410-01**	**TB-071510-01**	**TB-071910-01**	**TB-072010-01**	**TB-072010-02**	**TB-072110-01**	**TB-072110-02**	**TB-072210-01**	**TB-072210-02**	**TB-072310-01**	**TB-072310-02**	**TB-072310-03**
Sample Date:		**6/28/2010**	**6/29/2010**	**7/1/2010**	**7/1/2010**	**7/9/2010**	**7/13/2010**	**7/14/2010**	**7/15/2010**	**7/19/2010**	**7/20/2010**	**7/20/2010**	**7/21/2010**	**7/21/2010**	**7/22/2010**	**7/22/2010**	**7/23/2010**	**7/23/2010**	**7/23/2010**
Sample Type:		**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**	**TB**
Parameter	**Units**	**Volatile Organic Compounds**																	
1,1,1-trichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
1,1,2,2-tetrachloroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U	0.5 U	0.5 U	**0.12 J**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
1,1,2-trichloroethane	ug/l	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	**0.057 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	**0.076 J**	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.069 J**	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.5 U	0.5 UJ	0.5 UJ	**0.051 J**	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
1,2-dibromoethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U	**0.079 J**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U	**0.55**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.048 J**	0.5 U	0.5 U	0.5 U	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U	**0.11 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	ug/l	**3.4 J**	**2.2 J**	**13**	**14 J**	5 U	**12**	**15**	**8.3**	5 U	5 U	**24**	**30**	**16**	**29**	**26**	5 U	5 U	**25**
Benzene	ug/l	**0.074 J**	0.5 U	0.5 U	**0.011 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	**0.39 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UR	0.5 UR	0.5 UR	0.5 UR
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U	**0.029 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.065 J**	0.5 U	**0.15 J**	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	**8.9**	**11**	0.5 U	**0.24 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.049 J**	0.5 U	0.5 U	0.5 U	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U	**0.23 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.015 J**	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 UJ	**0.19 J**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	**0.11 J**	0.5 U	0.5 U	**0.021 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.35 J**	**1.1**	0.5 U	**0.26 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.24 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	**0.62**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.62**	0.5 U	**0.24 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methyl acetate	ug/l	0.5 U	0.5 U	0.5 U	**0.025 J**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:		TB-062810-01	TB-062910-01	TB-070110-01	TB-070110-02	TB-070910-01	TB-071310-01	TB-071410-01	TB-071510-01	TB-071910-01	TB-072010-01	TB-072010-02	TB-072110-01	TB-072110-02	TB-072210-01	TB-072210-02	TB-072310-01	TB-072310-02	TB-072310-03
Sample Date:		6/28/2010	6/29/2010	7/1/2010	7/1/2010	7/9/2010	7/13/2010	7/14/2010	7/15/2010	7/19/2010	7/20/2010	7/20/2010	7/21/2010	7/21/2010	7/22/2010	7/22/2010	7/23/2010	7/23/2010	7/23/2010
Sample Type:		TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB	TB
Parameter	**Units**	**Volatile Organic Compounds**																	
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	**1.6 J**	**1.5 J**	5 U	**1.6 J**	**2.1 J**	**1.6 J**	5 U	5 U	5 U	**4.6 J**	5 U	**5.5**	**3 J**	5 U	5 U	**2.9 J**
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U	**0.051 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	0.5 U	0.5 U	0.5 U	**0.34 J**	0.5 U	**0.34 J**	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	**0.14 J**	0.5 UJ	**0.11 J**	0.5 UJ	0.5 U	0.5 U	0.5 UJ
o-xylene (1,2-dimethylbenzene)	ug/l	**0.57**	**0.47 J**	0.5 U	**0.029 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.46 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U	**0.053 J**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/l	**0.87**	**0.94**	0.5 U	**0.32 J**	0.5 U	0.5 U	0.5 U	**0.18 J**	**0.24 J**	**0.29 J**	**0.2 J**	**0.089 J**	**0.34 J**	**0.095 J**	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**0.026 J**	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U	0.5 UJ	0.5 UJ	**0.11 J**	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:		TB-072610-01	TB-092810-01	TB-100410-01
Sample Date:		7/26/2010	9/28/2010	10/4/2010
Sample Type:		TB	TB	TB
Parameter	**Units**	**Volatile Organic Compounds**		
1,1,1-trichloroethane	ug/l	0.5 UJ	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 UJ	0.5 U	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 UJ	0.5 U	0.5 U
1,1,2-trichloroethane	ug/l	0.5 UJ	0.5 UJ	0.5 U
1,1-dichloroethane	ug/l	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.5 UJ	0.5 U	0.5 U
1,2-dibromoethane	ug/l	0.5 UJ	0.5 U	0.5 U
1,2-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U
1,2-dichloroethane	ug/l	0.5 UJ	0.5 U	0.5 U
1,2-dichloropropane	ug/l	0.5 U	0.5 U	0.5 U
1,3-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	ug/l	0.5 U	0.5 U	0.5 U
2-hexanone	ug/l	5 U	5 U	5 U
Acetone	ug/l	**15**	5 U	5 U
Benzene	ug/l	0.5 U	0.5 U	0.5 U
Bromochloromethane	ug/l	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/l	0.5 U	0.5 U	0.5 U
Bromoform	ug/l	0.5 U	0.5 U	0.5 U
Bromomethane	ug/l	0.5 UR	0.5 U	0.5 U
Carbon disulfide	ug/l	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/l	0.5 UJ	0.5 U	0.5 U
Chlorobenzene	ug/l	0.5 U	0.5 U	0.5 U
Chloroethane	ug/l	0.5 U	0.5 U	0.5 U
Chloroform	ug/l	0.5 U	0.5 U	0.5 U
Chloromethane	ug/l	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethylene	ug/l	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	ug/l	0.5 UJ	0.5 UJ	0.5 U
Cyclohexane	ug/l	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/l	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/l	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	ug/l	0.5 U	0.5 U	0.5 U
m, p xylenes	ug/l	0.5 U	0.5 U	0.5 U
Methyl acetate	ug/l	0.5 UJ	0.5 U	0.5 U

TABLE I-58A
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-TB	CH2M-TB	CH2M-TB
Sample Number:		TB-072610-01	TB-092810-01	TB-100410-01
Sample Date:		7/26/2010	9/28/2010	10/4/2010
Sample Type:		TB	TB	TB
Parameter	**Units**	**Volatile Organic Compounds**		
Methyl ethyl ketone (2-butanone)	ug/l	5 U	5 U	5 U
Methyl isobutyl ketone	ug/l	5 U	5 U	5 U
Methylcyclohexane	ug/l	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/l	0.5 UJ	0.5 U	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U	0.5 U	0.5 U
Styrene	ug/l	0.5 U	0.5 U	0.5 U
Tert-butyl methyl ether	ug/l	0.5 UJ	0.5 U	0.5 U
Tetrachloroethylene(PCE)	ug/l	0.5 U	0.5 U	0.5 U
Toluene	ug/l	0.5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 UJ	0.5 UJ	0.5 U
Trichloroethylene (TCE)	ug/l	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	ug/l	0.5 UJ	0.5 U	0.5 U
Vinyl chloride	ug/l	0.5 U	0.5 U	0.5 U

TABLE I-58B
VOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**FB**	**FB**
Sample Number:		**FB-07292010-01**	**FB-07082010-01**
Sample Date:		**7/29/2010**	**7/8/2010**
Sample Type:		**FB**	**FB**
Parameter	**Units**	**Volatile Organic Compounds**	
Acetone	ug/m3	12 U	12 U
Benzene	ug/m3	**0.042**	0.032 U
Bromodichloromethane	ug/m3	0.067 U	0.067 U
Bromoform	ug/m3	0.1 U	0.1 U
Carbon disulfide	ug/m3	1.6 U	1.6 U
Chlorobenzene	ug/m3	0.92 U	0.92 U
Chloroform	ug/m3	0.049 U	0.049 U
Chloromethane	ug/m3	1 U	1 U
Dibromochloromethane	ug/m3	0.085 U	0.085 U
Ethylbenzene	ug/m3	0.043 U	0.043 U
Methyl ethyl ketone (2-butanone)	ug/m3	1.5 U	1.5 U
Methylene chloride	ug/m3	1.7 U	1.7 U
Styrene	ug/m3	0.85 U	0.85 U
Tert-butyl methyl ether	ug/m3	0.72 U	0.72 U
Toluene	ug/m3	**1**	0.75 U
Trichloroethylene (TCE)	ug/m3	0.054 U	0.054 U
Xylene, total	ug/m3	0.87 U	0.87 U

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TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-030310-01	EB-030410-01	EB-030510-01	EB-030810-01	EB-030910-01	EB-031010-01	EB-031110-01	EB-031210-01	EB-031510-01	EB-031610-01	EB-031710-01	EB-031810-01	EB-031910-01	EB-032210-01	EB-032310-01	EB-032410-01	EB-032510-01	EB-032910-01
Sample Date:		3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010	3/29/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	4.8 R	4.8 R	4.8 R	5 R	**5**	4.8 R	4.9 R	4.9 R	4.8 R	5 R	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	9.5 U	9.5 U	9.5 U	10 U	10 U	9.5 U	9.8 U	9.8 U	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylphenol (o-cresol)	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	9.5 U	9.5 U	9.5 U	10 U	10 U	9.5 U	9.8 U	9.8 U	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	9.5 U	9.5 U	9.5 U	10 U	10 U	9.5 U	9.8 U	9.8 U	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	9.5 U	9.5 U	9.5 U	10 U	10 U	9.5 U	9.8 U	9.8 U	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	9.5 U	9.5 U	9.5 U	10 U	10 U	9.5 U	9.8 U	9.8 U	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	9.5 U	9.5 U	9.5 U	10 U	10 U	9.5 U	9.8 U	9.8 U	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.23 J**
Anthracene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Atrazine	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.27 J**
Benzo(a)anthracene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzyl butyl phthalate	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-030310-01	EB-030410-01	EB-030510-01	EB-030810-01	EB-030910-01	EB-031010-01	EB-031110-01	EB-031210-01	EB-031510-01	EB-031610-01	EB-031710-01	EB-031810-01	EB-031910-01	EB-032210-01	EB-032310-01	EB-032410-01	EB-032510-01	EB-032910-01
Sample Date:		3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010	3/29/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	4.8 U	4.8 U	4.8 U	**5.2**	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.43 J**	**0.37 J**
Caprolactam	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	**0.33 J**	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenz(a,h)anthracene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	**0.33 J**	**0.46 J**	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butyl phthalate	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.26 J**
Di-n-octylphthalate	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isophorone	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	**0.28 J**	**0.52 J**	5 U	**0.34 J**	**0.18 J**	**0.23 J**	**0.28 J**
Nitrobenzene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	9.5 U	9.5 U	9.5 U	10 U	10 U	9.5 U	9.8 U	9.8 U	9.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	ug/l	4.8 U	4.8 U	4.8 U	5 U	5 U	4.8 U	4.9 U	4.9 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-033110-01	EB-040110-01	EB-040210-01	EB-040510-01	EB-040610-01	EB-040710-01	EB-040810-01	EB-040910-01	EB-041210-01	EB-041310-01	EB-041410-01	EB-041510-01	EB-06082010-01	EB-061910-01	EB-070810-01	EB-071310-01	EB-071410-01	EB-071510-01
Sample Date:		3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	7/8/2010	7/13/2010	7/14/2010	7/15/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	**0.17 J**	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 UJ
2-methylnaphthalene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	4.8 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
Acenaphthylene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
Acetophenone	ug/l	**0.26 J**	5 U	**0.16 J**	**0.39 J**	5 U	5 U	5 U	5 U	**0.21 J**	**0.35 J**	**0.24 J**	**0.26 J**	4.8 U	5 U	5 U	5 U	5 U	5 U
Anthracene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	**0.38 J**	5 U	**0.17 J**	**0.54 J**	5 U	5 U	**0.26 J**	5 U	**0.47 J**	**0.5 J**	**0.36 J**	5 U	4.8 U	5 U	5 U	5 U	5 U	5 UJ
Benzo(a)anthracene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.26 J**	5 U	**0.32 J**	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.23 J**	5 U	**0.21 J**	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.28 J**	5 U	**0.22 J**	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.23 J**	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U

TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-033110-01	EB-040110-01	EB-040210-01	EB-040510-01	EB-040610-01	EB-040710-01	EB-040810-01	EB-040910-01	EB-041210-01	EB-041310-01	EB-041410-01	EB-041510-01	EB-06082010-01	EB-061910-01	EB-070810-01	EB-071310-01	EB-071410-01	EB-071510-01
Sample Date:		3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	7/8/2010	7/13/2010	7/14/2010	7/15/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-chloroethyl) ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 UJ	5 UJ	5 UJ	4.8 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 UJ
Bis(2-ethylhexyl) phthalate	ug/l	**4.4 J**	**2 J**	**2.4 J**	5 U	5 U	5 U	5 U	5 U	**0.8 J**	**0.92 J**	**1.2 J**	**0.89 J**	4.8 U	5 U	**1.5 J**	**7.9**	**3.5 J**	**9.9**
Caprolactam	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.56 J**	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
Chrysene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Dibenz(a,h)anthracene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.16 J**	**0.19 J**	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	**1.4 J**	**1.5 J**	**1.2 J**	5 U
Di-n-butyl phthalate	ug/l	**0.28 J**	**0.26 J**	**0.23 J**	5 U	5 U	5 U	5 U	5 U	**0.46 J**	**0.46 J**	**0.42 J**	**0.43 J**	4.8 U	5 U	**0.44 J**	5 U	5 U	**0.23 J**
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Fluorene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Isophorone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	**0.24 J**	**0.17 J**	**0.18 J**	**0.37 J**	5 U	**0.45 J**	**0.22 J**	5 U	**0.35 J**	**0.26 J**	**0.25 J**	**0.31 J**	4.8 U	5 UJ	5 U	5 U	5 U	5 U
Nitrobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.5 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ
Phenanthrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Phenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U
Pyrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U

TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	EB-092810-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-061810-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	9/28/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/18/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010
Sample Type:		EB	EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 R	5 R	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2,6-dinitrotoluene	ug/l	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylnaphthalene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 U	10 U	10 U	10 U	10 U	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 U	**0.12 J**	10 U	10 U	10 U	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 U	10 U	10 U	10 U	10 U	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetophenone	ug/l	5 U	5 U	5 U	5 U	**1.4 J**	5 U	5 U	5 U	**0.15 J**	**0.44 J**	5 U	4.8 U	5 U	5 U	5 U	5 U	**0.42 J**	5 U
Anthracene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Atrazine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzaldehyde	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.2 J**	**0.57 J**	**0.43 J**	4.8 U	5 U	5 U	5 U	5 U	5 U	5 UJ
Benzo(a)anthracene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.4 J**	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.31 J**	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.41 J**	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzyl butyl phthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	EB-092810-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-061810-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	9/28/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/18/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010
Sample Type:		EB	EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**	**Semi-Volatile Organic Compounds**																	
Biphenyl (diphenyl)	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	5 U	5 U	**1.2 J**	**0.92 J**	**3.5 J**	5 U	5 U	5 U	**2 J**	5 U	**0.87 J**	4.8 U	**3.7 J**	**1.1 J**	5 U	**30**	**0.6 J**	**3.1 J**
Caprolactam	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenz(a,h)anthracene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzofuran	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U	5 U	5 U	**0.78 J**	5 U	5 U	5 U	5 U	5 U	**0.16 J**	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Dimethyl phthalate	ug/l	5 U	5 U	5 U	5 U	**1.2 J**	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	**2 J**	**4.1 J**	**3.1 J**	6 U	**1.6 J**	5 U
Di-n-butyl phthalate	ug/l	5 U	5 U	5 U	5 U	**1.1 J**	5 U	5 U	5 U	**0.23 J**	**0.44 J**	**0.41 J**	4.8 U	5 U	5 U	5 U	5 U	**0.43 J**	**0.25 J**
Di-n-octylphthalate	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**0.23 J**	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 UJ	5 U	5 U	5 U	5 U	5 U
Isophorone	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	ug/l	**1.1 J**	5 U	5 U	5 U	5 U	5 U	5 U	**0.31 J**	**0.18 J**	5 U	**0.25 J**	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Nitrobenzene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Pentachlorophenol	ug/l	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	9.7 U	10 U	10 U	10 U	10 U	10 UJ	2 UJ
Phenanthrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenol	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.8 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	CH2M-FB	CH2M-FB
Sample Number:	FB-072210-01	FB-072610-01
Sample Date:	7/22/2010	7/26/2010
Sample Type:	FB	FB

Parameter	Units	Semi-Volatile Organic Compounds	
1,2,4,5-tetrachlorobenzene	ug/l	5 U	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U	5 U
2,4,5-trichlorophenol	ug/l	5 U	5 U
2,4,6-trichlorophenol	ug/l	5 U	5 U
2,4-dichlorophenol	ug/l	5 U	5 U
2,4-dimethylphenol	ug/l	5 U	5 U
2,4-dinitrophenol	ug/l	10 U	10 U
2,4-dinitrotoluene	ug/l	5 UJ	5 UJ
2,6-dinitrotoluene	ug/l	5 U	5 U
2-chloronaphthalene	ug/l	5 U	5 U
2-chlorophenol	ug/l	5 U	5 U
2-methylnaphthalene	ug/l	5 U	5 U
2-methylphenol (o-cresol)	ug/l	5 U	5 U
2-nitroaniline	ug/l	10 U	10 U
2-nitrophenol	ug/l	5 U	5 U
3,3'-dichlorobenzidine	ug/l	5 U	5 U
3-nitroaniline	ug/l	10 U	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U	10 U
4-bromophenyl phenyl ether	ug/l	5 U	5 U
4-chloro-3-methylphenol	ug/l	5 U	5 U
4-chloroaniline	ug/l	5 U	5 U
4-chlorophenyl phenyl ether	ug/l	5 U	5 U
4-methylphenol (p-cresol)	ug/l	5 U	5 U
4-nitroaniline	ug/l	10 U	10 U
4-nitrophenol	ug/l	10 U	10 U
Acenaphthene	ug/l	5 U	5 U
Acenaphthylene	ug/l	5 U	5 U
Acetophenone	ug/l	5 U	5 U
Anthracene	ug/l	5 U	5 U
Atrazine	ug/l	5 U	5 U
Benzaldehyde	ug/l	5 UJ	5 U
Benzo(a)anthracene	ug/l	5 U	5 U
Benzo(a)pyrene	ug/l	5 U	5 U
Benzo(b)fluoranthene	ug/l	5 U	5 U
Benzo(g,h,i)perylene	ug/l	5 U	**1.3 J**
Benzo(k)fluoranthene	ug/l	5 U	5 U
Benzyl butyl phthalate	ug/l	5 U	5 U

TABLE I-59A
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	CH2M-FB	CH2M-FB
Sample Number:	FB-072210-01	FB-072610-01
Sample Date:	7/22/2010	7/26/2010
Sample Type:	FB	FB
Parameter	**Units**	**Semi-Volatile Organic Compounds**
Biphenyl (diphenyl)	ug/l	5 U	5 U
Bis(2-chloroethoxy) methane	ug/l	5 U	5 U
Bis(2-chloroethyl) ether	ug/l	5 U	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U	5 U
Bis(2-ethylhexyl) phthalate	ug/l	**1.2 J**	**5.6**
Caprolactam	ug/l	5 U	5 U
Carbazole	ug/l	5 U	5 U
Chrysene	ug/l	5 U	5 U
Dibenz(a,h)anthracene	ug/l	5 U	5 U
Dibenzofuran	ug/l	5 U	5 U
Diethyl phthalate	ug/l	5 U	5 U
Dimethyl phthalate	ug/l	5 U	**2.1 J**
Di-n-butyl phthalate	ug/l	5 U	5 U
Di-n-octylphthalate	ug/l	5 U	5 U
Fluoranthene	ug/l	5 U	5 U
Fluorene	ug/l	5 U	5 U
Hexachlorobenzene	ug/l	5 U	5 U
Hexachlorobutadiene	ug/l	5 U	5 U
Hexachlorocyclopentadiene	ug/l	5 U	5 U
Hexachloroethane	ug/l	5 U	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	5 U	5 UJ
Isophorone	ug/l	5 U	5 U
Naphthalene	ug/l	5 U	5 U
Nitrobenzene	ug/l	5 U	5 U
N-nitrosodi-n-propylamine	ug/l	5 U	5 U
N-nitrosodiphenylamine	ug/l	5 U	5 U
Pentachlorophenol	ug/l	10 UJ	10 UJ
Phenanthrene	ug/l	5 U	5 U
Phenol	ug/l	5 U	5 U
Pyrene	ug/l	5 U	5 U

TABLE I-59B
SVOC Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**FB**	**FB**
Sample Number:		**FB-07292010-01**	**FB-07082010-01**
Sample Date:		**7/29/2010**	**7/8/2010**
Sample Type:		**FB**	**FB**
Parameter	**Units**	**Semi-Volatile Organic Compounds**	
Acenaphthene	ug	0.5 U	0.5 U
Acenaphthylene	ug	0.5 U	0.5 U
Anthracene	ug	0.5 U	0.5 U
Benzo(a)anthracene	ug	0.5 U	0.5 U
Benzo(a)pyrene	ug	0.5 U	0.5 U
Benzo(b)fluoranthene	ug	0.5 U	0.5 U
Benzo(g,h,i)perylene	ug	0.5 U	0.5 U
Benzo(k)fluoranthene	ug	0.5 U	0.5 U
Chrysene	ug	0.5 U	0.5 U
Dibenz(a,h)anthracene	ug	0.5 U	0.5 U
Fluoranthene	ug	0.5 U	0.5 U
Fluorene	ug	0.5 U	0.5 U
Indeno(1,2,3-c,d)pyrene	ug	0.5 U	0.5 U
Naphthalene	ug	1 U	1 U
Phenanthrene	ug	0.5 U	0.5 U
Pyrene	ug	0.5 U	0.5 U

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TABLE I-60
Pesticide Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-030310-01	EB-030410-01	EB-030510-01	EB-030810-01	EB-030910-01	EB-031010-01	EB-031110-01	EB-031210-01	EB-031510-01	EB-031610-01	EB-031710-01	EB-031810-01	EB-031910-01	EB-032210-01	EB-032310-01	EB-032410-01	EB-032510-01	EB-032910-01
Sample Date:		3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010	3/29/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	**0.027 J**	0.05 U	**0.052 J**	**0.039 J**	0.05 UJ	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.048**
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 UJ	0.5 UJ	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDE	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UR	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 UJ	0.1 UJ	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 U	5 U	5 U	5 U	5 U	5 U

TABLE I-60
Pesticide Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		**EB-033110-01**	**EB-040110-01**	**EB-040210-01**	**EB-040510-01**	**EB-040610-01**	**EB-040710-01**	**EB-040810-01**	**EB-040910-01**	**EB-041210-01**	**EB-041310-01**	**EB-041410-01**	**EB-041510-01**	**EB-06082010-01**	**EB-061910-01**	**EB-070810-01**	**EB-071310-01**	**EB-071410-01**	**EB-071510-01**
Sample Date:		**3/31/2010**	**4/1/2010**	**4/2/2010**	**4/5/2010**	**4/6/2010**	**4/7/2010**	**4/8/2010**	**4/9/2010**	**4/12/2010**	**4/13/2010**	**4/14/2010**	**4/15/2010**	**6/8/2010**	**6/19/2010**	**7/8/2010**	**7/13/2010**	**7/14/2010**	**7/15/2010**
Sample Type:		**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Alpha endosulfan	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UR	0.05 UR	0.05 UR	0.05 UR
Alpha-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Beta endosulfan	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Delta BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan sulfate	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin aldehyde	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin ketone	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma BHC	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-chlordane	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.049 J**	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.51 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
P,P'-DDD	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 U
P,P'-DDE	ug/l	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P,P'-DDT	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5.1 U	5 U	5 U	5 U	5 U	5 U

TABLE I-60
Pesticide Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	EB-092810-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-061810-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	9/28/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/18/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010
Sample Type:		EB	EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**	**Pesticides**																	
Aldrin	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Alpha BHC	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Alpha endosulfan	ug/l	0.05 UR	0.05 U	0.05 U	0.05 UJ	0.05 R	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UR	0.05 UR
Alpha-chlordane	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Beta BHC	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Beta endosulfan	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Delta BHC	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Dieldrin	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Endosulfan sulfate	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Endrin	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Endrin aldehyde	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Endrin ketone	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Gamma BHC	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Gamma-chlordane	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Heptachlor	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Heptachlor epoxide	ug/l	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.051 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 UJ
Methoxychlor	ug/l	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.51 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ
P,P'-DDD	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UR	0.1 R	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UJ
P,P'-DDE	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 UR	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
P,P'-DDT	ug/l	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 UJ
Toxaphene	ug/l	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5.1 U	5 U	5 UJ	5 U	5 U	5 U	5 UJ

TABLE I-60
Pesticide Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	CH2M-FB	CH2M-FB
Sample Number:	FB-072210-01	FB-072610-01
Sample Date:	7/22/2010	7/26/2010
Sample Type:	FB	FB

Parameter	Units	Pesticides	
Aldrin	ug/l	0.05 U	0.05 UJ
Alpha BHC	ug/l	0.05 U	0.05 UJ
Alpha endosulfan	ug/l	0.05 U	0.05 UJ
Alpha-chlordane	ug/l	0.05 U	0.05 UJ
Beta BHC	ug/l	0.05 U	0.05 UJ
Beta endosulfan	ug/l	0.1 U	0.1 UJ
Delta BHC	ug/l	0.05 U	0.05 UJ
Dieldrin	ug/l	0.1 U	0.1 UJ
Endosulfan sulfate	ug/l	0.1 U	0.1 UJ
Endrin	ug/l	0.1 U	0.1 UJ
Endrin aldehyde	ug/l	0.1 U	0.1 UJ
Endrin ketone	ug/l	0.1 U	0.1 UJ
Gamma BHC	ug/l	0.05 U	0.05 UJ
Gamma-chlordane	ug/l	0.05 U	0.05 UJ
Heptachlor	ug/l	0.05 U	0.05 UJ
Heptachlor epoxide	ug/l	0.05 U	0.05 UJ
Methoxychlor	ug/l	0.5 U	0.5 UJ
P,P'-DDD	ug/l	0.1 UR	0.1 UR
P,P'-DDE	ug/l	0.1 U	0.1 UJ
P,P'-DDT	ug/l	0.1 U	0.1 UJ
Toxaphene	ug/l	5 U	5 UJ

TABLE I-61A
PCB Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-030310-01	EB-030410-01	EB-030510-01	EB-030810-01	EB-030910-01	EB-031010-01	EB-031110-01	EB-031210-01	EB-031510-01	EB-031610-01	EB-031710-01	EB-031810-01	EB-031910-01	EB-032210-01	EB-032310-01	EB-032410-01	EB-032510-01	EB-032910-01
Sample Date:		3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010	3/29/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U

TABLE I-61A
PCB Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-033110-01	EB-040110-01	EB-040210-01	EB-040510-01	EB-040610-01	EB-040710-01	EB-040810-01	EB-040910-01	EB-041210-01	EB-041310-01	EB-041410-01	EB-041510-01	EB-06082010-01	EB-061910-01	EB-070810-01	EB-071310-01	EB-071410-01	EB-071510-01
Sample Date:		3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	7/8/2010	7/13/2010	7/14/2010	7/15/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U

TABLE I-61A
PCB Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	EB-092810-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-061810-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	9/28/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/18/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010
Sample Type:		EB	EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**	**Polychlorinated Biphenyls**																	
Aroclor 1016	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U

TABLE I-61A
PCB Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	CH2M-FB	CH2M-FB
Sample Number:	FB-072210-01	FB-072610-01
Sample Date:	7/22/2010	7/26/2010
Sample Type:	FB	FB
Parameter	**Units**	**Polychlorinated Biphenyls**
Aroclor 1016	ug/l	1 U	1 U
Aroclor 1221	ug/l	1 U	1 U
Aroclor 1232	ug/l	1 U	1 U
Aroclor 1242	ug/l	1 U	1 U
Aroclor 1248	ug/l	1 U	1 U
Aroclor 1254	ug/l	1 U	1 U
Aroclor 1260	ug/l	1 U	1 U
Aroclor 1262	ug/l	1 U	1 U
Aroclor 1268	ug/l	1 U	1 U

TABLE I-61B
PCB Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**FB**
Sample Number:		**FB-07082010-02**
Sample Date:		**7/8/2010**
Sample Type:		**FB**
Parameter	**Units**	**PCBs**
Aroclor 1016	ug	0.75 U
Aroclor 1221	ug	0.75 U
Aroclor 1232	ug	0.75 U
Aroclor 1242	ug	0.75 U
Aroclor 1248	ug	0.75 U
Aroclor 1254	ug	0.75 U
Aroclor 1260	ug	0.75 U

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TABLE I-62
Metal Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-030310-01	EB-030410-01	EB-030510-01	EB-030810-01	EB-030910-01	EB-031010-01	EB-031110-01	EB-031210-01	EB-031510-01	EB-031610-01	EB-031710-01	EB-031810-01	EB-031910-01	EB-032210-01	EB-032310-01	EB-032410-01	EB-032510-01	EB-032910-01
Sample Date:		3/3/2010	3/4/2010	3/5/2010	3/8/2010	3/9/2010	3/10/2010	3/11/2010	3/12/2010	3/15/2010	3/16/2010	3/17/2010	3/18/2010	3/19/2010	3/22/2010	3/23/2010	3/24/2010	3/25/2010	3/29/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**											**Metals**							
Aluminum	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Antimony	ug/l	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U
Arsenic	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Barium	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Beryllium	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Calcium	ug/l	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Chromium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Cobalt	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Copper	ug/l	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Iron	ug/l	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Lead	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	**1.8 J**	10 U	10 U	**1.5 J**	10 U	**1.7 J**	10 U	10 U	**3.4 J**	10 U	**2.6 J**	**1.6 J**
Magnesium	ug/l	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Manganese	ug/l	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U
Mercury	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.09 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	ug/l	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U
Potassium	ug/l	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/l	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U
Silver	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	ug/l	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Thallium	ug/l	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	**0.67 J**	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	ug/l	60 U	60 U	60 U	60 U	60 U	60 U	**4.3 J**	**4.2 J**	60 U	**2.4 J**	60 U	60 U	60 U	60 U	60 U	60 U	60 U	**2.4 J**
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

TABLE I-62
Metal Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB
Sample Number:		EB-033110-01	EB-040110-01	EB-040210-01	EB-040510-01	EB-040610-01	EB-040710-01	EB-040810-01	EB-040910-01	EB-041210-01	EB-041310-01	EB-041410-01	EB-041510-01	EB-06082010-01	EB-061910-01	EB-070810-01	EB-071310-01	EB-071410-01	EB-071510-01
Sample Date:		3/31/2010	4/1/2010	4/2/2010	4/5/2010	4/6/2010	4/7/2010	4/8/2010	4/9/2010	4/12/2010	4/13/2010	4/14/2010	4/15/2010	6/8/2010	6/19/2010	7/8/2010	7/13/2010	7/14/2010	7/15/2010
Sample Type:		EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB	EB
Parameter	**Units**											**Metals**							
Aluminum	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	**43.1 J**	200 U	200 U	200 U	200 U	200 U	200 U	200 U
Aluminum, dissolved	ug/l														200 U	200 U	3,000 U	200 U	200 U
Antimony	ug/l	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	20 U	2 U	2 U	2 U	**0.48 J**
Antimony, dissolved	ug/l														20 U	2 U		2 U	2 U
Arsenic	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	1 U	1 U	1 U
Arsenic, dissolved	ug/l														10 U	1 U		1 UJ	1 U
Barium	ug/l	200 U	200 U	**1.4 J**	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	100 U	10 U	10 U	10 U	10 U
Barium, dissolved	ug/l														100 U	10 U		10 U	10 U
Beryllium	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	**1 J**	5 U	5 U	10 U	1 U	1 U	1 U	1 U
Beryllium, dissolved	ug/l														10 U	1 U		1 U	1 U
Cadmium	ug/l	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	1 U	1 U	1 U	1 U
Cadmium, dissolved	ug/l														10 U	1 U		1 U	1 U
Calcium	ug/l	5,000 U	5,000 U	5,000 U	379 UJ	373 UJ	376 UJ	380 UJ	373 UJ	**375 J**	**374 J**	**378 J**	**376 J**	**98.1 J**	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Calcium, dissolved	ug/l														5,000 U	5,000 U	75,000 U	5,000 U	5,000 U
Chromium	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20 U	2 U	2 UJ	2 UJ	**0.88 J**
Chromium, dissolved	ug/l														20 U	2 U		2 UJ	2 U
Cobalt	ug/l	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	1 U	1 U	1 U	1 U
Cobalt, dissolved	ug/l														10 U	1 U		1 U	1 U
Copper	ug/l	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	**12.7 J**
Copper, dissolved	ug/l														25 U	25 U	375 U	25 U	25 U
Iron	ug/l	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 UR	100 U	100 U	100 U	**145**
Iron, dissolved	ug/l														100 UR	100 U	1,500 UJ	100 UJ	100 U
Lead	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	**9.2**	1 U	1 U	**3.3**
Lead, dissolved	ug/l														10 U	1 U		1 U	1 U
Magnesium	ug/l	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Magnesium, dissolved	ug/l														5,000 U	5,000 U	75,000 U	5,000 U	5,000 U
Manganese	ug/l	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	**1.2 J**	**5.2 J**	**1.2 J**	**1.6**	**0.75 J**	**2.1 J**
Manganese, dissolved	ug/l														10 U	**1.9**		1 U	**2.7**
Mercury	ug/l	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.1 J**	**0.067 J**	**0.1 J**
Mercury, dissolved	ug/l														0.2 U	0.2 U	**0.072 J**	0.2 U	0.2 U
Nickel	ug/l	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	**0.73 J**	10 U	**0.27 J**	1 UJ	**0.23 J**	**3.2 J**
Nickel, dissolved	ug/l														10 U	1 UJ		1 UJ	**0.44 J**
Potassium	ug/l	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Potassium, dissolved	ug/l														5,000 U	5,000 U	75,000 U	5,000 U	5,000 U
Selenium	ug/l	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	50 U	5 U	5 UJ	5 U	5 U
Selenium, dissolved	ug/l														50 UJ	5 U		5 UR	5 U
Silver	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	1 U	1 UJ	1 UJ

TABLE I-62
Metal Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**	**CH2M-EB**
	Sample Number:	**EB-033110-01**	**EB-040110-01**	**EB-040210-01**	**EB-040510-01**	**EB-040610-01**	**EB-040710-01**	**EB-040810-01**	**EB-040910-01**	**EB-041210-01**	**EB-041310-01**	**EB-041410-01**	**EB-041510-01**	**EB-06082010-01**	**EB-061910-01**	**EB-070810-01**	**EB-071310-01**	**EB-071410-01**	**EB-071510-01**
	Sample Date:	**3/31/2010**	**4/1/2010**	**4/2/2010**	**4/5/2010**	**4/6/2010**	**4/7/2010**	**4/8/2010**	**4/9/2010**	**4/12/2010**	**4/13/2010**	**4/14/2010**	**4/15/2010**	**6/8/2010**	**6/19/2010**	**7/8/2010**	**7/13/2010**	**7/14/2010**	**7/15/2010**
	Sample Type:	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**	**EB**
Parameter	**Units**	**Metals**																	
Silver, dissolved	ug/l														10 U	1 UJ		1 UJ	1 U
Sodium	ug/l	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	**1,350 J**	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Sodium, dissolved	ug/l														**2,640 J**	5,000 U	75,000 U	5,000 U	5,000 U
Thallium	ug/l	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	10 U	1 U	1 U	1 U	1 U
Thallium, dissolved	ug/l														10 U	1 U		1 U	1 U
Vanadium	ug/l	50 U	50 U	50 U	50 U	50 U	0.48 UJ	50 U	0.56 UJ	50 U	50 U	50 U	50 U	50 U	50 U	5 U	5 U	5 U	5 U
Vanadium, dissolved	ug/l														50 U	5 U		5 U	5 U
Zinc	ug/l	60 U	60 U	**2 J**	**2.4 J**	60 U	60 U	60 U	60 U	60 U	60 U	60 U	**24.9 J**	60 U	20 U	**4.9 J**	**5.5 J**	2 U	**33.1 J**
Zinc, dissolved	ug/l														20 U	**5.2**		2 U	**4.4 J**
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	**2 J**	10 U	10 U	10 U	10 U	10 U	10 U	10 U		10 U	10 U	10 U	10 U

TABLE I-62
Metal Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-061810-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01	FB-072210-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/18/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010	7/22/2010
Sample Type:		EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**											**Metals**							
Aluminum	ug/l	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	**53.9 J**	200 U	200 U			200 U	200 U	200 U	200 U
Aluminum, dissolved	ug/l	200 U	200 U	200 U	200 U									200 U	200 U	200 U	200 U	200 U	200 U
Antimony	ug/l	2 U	2 U	2 U	2 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	**0.59 J**			2 U	2 U	**0.58 J**	2 U
Antimony, dissolved	ug/l	2 U	2 U	2 U	2 U									2 U	2 U	2 U	2 U	2 U	2 U
Arsenic	ug/l	1 U	1 U	1 U	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U			1 U	1 U	1 U	1 U
Arsenic, dissolved	ug/l	1 UJ	1 U	1 U	1 U									1 U	1 U	1 U	1 U	1 U	1 U
Barium	ug/l	10 U	10 U	10 U	**16.2**	200 U	200 U	200 U	200 U	200 U	200 U	200 U	10 U			10 U	10 U	10 U	10 U
Barium, dissolved	ug/l	10 U	10 U	10 U	10 U									10 U	10 U	10 U	10 U	10 U	10 U
Beryllium	ug/l	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	**1.3 J**	5 U	1 U			1 U	1 U	1 U	1 U
Beryllium, dissolved	ug/l	1 U	1 U	1 U	1 U									1 U	1 U	1 U	1 U	1 U	1 U
Cadmium	ug/l	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U			1 U	1 U	1 U	1 U
Cadmium, dissolved	ug/l	1 U	1 U	1 U	1 U									1 U	1 U	1 U	1 U	1 U	1 U
Calcium	ug/l	5,000 U	5,000 U	**596 J**	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	377 UJ	**375 J**	**114 J**	5,000 U			5,000 U	5,000 U	5,000 U	5,000 U
Calcium, dissolved	ug/l	5,000 U	5,000 U	5,000 U	5,000 U									5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Chromium	ug/l	**0.47 J**	**0.85 J**	2 U	**5.6**	10 U	10 U	10 U	10 U	**27.4**	10 U	10 U	2 U			2 U	2 U	2 UJ	2 U
Chromium, dissolved	ug/l	2 UJ	2 UJ	2 U	2 U									2 U	2 U	2 U	2 U	2 U	2 U
Cobalt	ug/l	1 U	1 U	1 U	1 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	1 U			1 U	1 U	1 U	1 U
Cobalt, dissolved	ug/l	1 U	1 U	1 U	1 U									1 U	1 U	1 U	1 U	1 U	1 U
Copper	ug/l	**4 J**	25 U	25 U	**4.2 J**	25 U	25 U	25 U	25 U	6.3 UJ	25 U	25 U	2 U			25 U	25 U	25 U	25 U
Copper, dissolved	ug/l	25 U	25 U	25 U	25 U									25 U	25 U	25 U	25 U	25 U	25 U
Iron	ug/l	100 U	100 U	**18.7 J**	**600**	100 U	100 U	100 U	100 U	**89.3 J**	100 U	100 U	100 U			86.6 R	100 U	100 U	100 U
Iron, dissolved	ug/l	100 U	100 U	100 U	**16.6 J**									100 UR	100 UR	100 UR	100 U	100 U	100 U
Lead	ug/l	**3.7**	**3.2**	1 U	**1**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U			1 U	1 U	1 U	1 U
Lead, dissolved	ug/l	**0.7 J**	1 U	1 U	1 U									1 U	1 U	1 U	1 U	1 U	1 U
Magnesium	ug/l	5,000 U	5,000 U	**901 J**	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	**45.6 J**	5,000 U			5,000 U	5,000 U	5,000 U	5,000 U
Magnesium, dissolved	ug/l	5,000 U	5,000 U	5,000 U	5,000 U									5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Manganese	ug/l	1 U	**1.3**	**0.93 J**	**2.3**	15 U	15 U	15 U	15 U	2.4 UJ	15 U	15 U	1 U			1 U	1 U	0.39 R	0.59 R
Manganese, dissolved	ug/l	**1.3 J**	1 U	**1.8 J**	1 U									1 U	1 U	1 U	**5.8**	2 R	6.3 R
Mercury	ug/l	0.2 U	**0.08 J**	**0.087 J**	**0.1 J**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U			0.2 U	0.2 U	**0.08 J**	**0.08 J**
Mercury, dissolved	ug/l	0.2 U	**0.089 J**	**0.15 J**	**0.12 J**									0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.053 J**
Nickel	ug/l	**2.1 J**	**4.2 J**	**6.1 J**	**9.1 J**	40 U	40 U	40 U	40 U	**12.8 J**	40 U	**1.6 J**	1 UJ			1 U	1 UJ	**0.38 J**	1 UJ
Nickel, dissolved	ug/l	**0.75 J**	**0.32 J**	1 UJ	1 UJ									1 U	1 U	1 U	1 UJ	1 UJ	1 UJ
Potassium	ug/l	5,000 U	5,000 U	**609 J**	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U			5,000 U	5,000 U	5,000 U	5,000 U
Potassium, dissolved	ug/l	5,000 U	5,000 U	5,000 U	5,000 U									5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
Selenium	ug/l	5 UR	5 UR	5 UJ	5 U	35 U	35 U	35 U	35 U	35 U	35 U	35 U	5 U			5 U	5 U	5 U	5 UJ
Selenium, dissolved	ug/l	5 UR	5 UR	5 UJ	5 U									5 UJ	5 UJ	5 UJ	5 U	5 U	5 UJ
Silver	ug/l	1 U	1 UJ	1 UJ	1 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U			1 U	1 U	1 UJ	1 UJ

TABLE I-62
Metal Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		CH2M-EB	CH2M-EB	CH2M-EB	CH2M-EB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB	CH2M-FB
Sample Number:		EB-071910-01	EB-072010-01	EB-072210-01	EB-072610-01	FB-030810-01	FB-031510-01	FB-032210-01	FB-033110-01	FB-040510-01	FB-041210-01	FB-06082010-01	FB-061810-01	FB-062510-01	FB-062910-01	FB-063010-01	FB-070810-01	FB-071610-01	FB-072210-01
Sample Date:		7/19/2010	7/20/2010	7/22/2010	7/26/2010	3/8/2010	3/15/2010	3/22/2010	3/31/2010	4/5/2010	4/12/2010	6/8/2010	6/18/2010	6/25/2010	6/29/2010	6/30/2010	7/8/2010	7/16/2010	7/22/2010
Sample Type:		EB	EB	EB	EB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB	FB
Parameter	**Units**											**Metals**							
Silver, dissolved	ug/l	1 U	1 UJ	1 U	1 UJ									1 U	1 U	1 U	1 UJ	1 U	1 U
Sodium	ug/l	5,000 U	**495 J**	**791,000**	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	**1,260 J**	5,000 U			5,000 U	5,000 U	5,000 U	5,000 U
Sodium, dissolved	ug/l	**455 J**	5,000 U	**473 J**	5,000 U									5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	**566 J**
Thallium	ug/l	1 U	1 U	1 U	1 U	25 U	25 U	25 U	25 U	25 U	**5 J**	25 U	1 U			1 U	1 U	1 U	1 U
Thallium, dissolved	ug/l	1 U	1 U	1 U	1 U									1 U	1 U	1 U	1 U	1 U	1 U
Vanadium	ug/l	5 U	5 U	5 U	5 U	50 U	50 U	50 U	50 U	0.49 UJ	50 U	50 U	5 U			5 U	5 U	5 U	5 U
Vanadium, dissolved	ug/l	5 U	5 U	5 U	5 U									5 U	5 U	5 U	5 U	5 U	5 U
Zinc	ug/l	**24**	**15.9 J**	**3.1**	**10.7**	60 U	60 U	60 U	**2.1 J**	60 U	60 U	60 U	2 U			2 U	**1.6 J**	2 U	2 U
Zinc, dissolved	ug/l	**5.1**	2 UJ	2 U	2 U									**2.1**	**3.2**	2 U	**5.4**	**0.99 J**	2 U
Cyanide, Total	ug/l	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U			10 U	10 U	10 U	10 U
Cyanide, Total, dissolved	ug/l													10 U	**5.9 J**				

TABLE I-62
Metal Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**CH2M-FB**
Sample Number:		**FB-072610-01**
Sample Date:		**7/26/2010**
Sample Type:		**FB**
Parameter	**Units**	**Metals**
Aluminum	ug/l	200 U
Aluminum, dissolved	ug/l	200 U
Antimony	ug/l	2 U
Antimony, dissolved	ug/l	2 U
Arsenic	ug/l	1 U
Arsenic, dissolved	ug/l	1 U
Barium	ug/l	10 U
Barium, dissolved	ug/l	10 U
Beryllium	ug/l	1 U
Beryllium, dissolved	ug/l	1 U
Cadmium	ug/l	1 U
Cadmium, dissolved	ug/l	1 U
Calcium	ug/l	5,000 U
Calcium, dissolved	ug/l	5,000 U
Chromium	ug/l	2 U
Chromium, dissolved	ug/l	2 U
Cobalt	ug/l	1 U
Cobalt, dissolved	ug/l	1 U
Copper	ug/l	25 U
Copper, dissolved	ug/l	25 U
Iron	ug/l	**33.7 J**
Iron, dissolved	ug/l	100 U
Lead	ug/l	1 U
Lead, dissolved	ug/l	1 U
Magnesium	ug/l	5,000 U
Magnesium, dissolved	ug/l	5,000 U
Manganese	ug/l	1 U
Manganese, dissolved	ug/l	**27.6**
Mercury	ug/l	**0.13 J**
Mercury, dissolved	ug/l	**0.14 J**
Nickel	ug/l	**0.21 J**
Nickel, dissolved	ug/l	**0.21 J**
Potassium	ug/l	5,000 U
Potassium, dissolved	ug/l	5,000 U
Selenium	ug/l	5 U
Selenium, dissolved	ug/l	5 U
Silver	ug/l	1 U

TABLE I-74
Metal Concentrations in Blanks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**CH2M-FB**
Sample Number:		**FB-072610-01**
Sample Date:		**7/26/2010**
Sample Type:		**FB**
Parameter	**Units**	**Metals**
Silver, dissolved	ug/l	1 UJ
Sodium	ug/l	**697 J**
Sodium, dissolved	ug/l	5,000 U
Thallium	ug/l	1 U
Thallium, dissolved	ug/l	1 U
Vanadium	ug/l	5 U
Vanadium, dissolved	ug/l	5 U
Zinc	ug/l	2 R
Zinc, dissolved	ug/l	**7**
Cyanide, Total	ug/l	10 U

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TABLE I-63A
VOC Concentrations at Target Location near MW-3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Volatile Organic Compounds
1,1,1-trichloroethane	ug/l	0.5 U
1,1,2,2-tetrachloroethane	ug/l	0.5 U
1,1,2-trichloro-1,2,2-trifluoroethane	ug/l	0.5 U
1,1,2-trichloroethane	ug/l	0.5 U
1,1-dichloroethane	ug/l	0.5 U
1,1-dichloroethene	ug/l	0.5 U
1,2,3-trichlorobenzene	ug/l	0.5 U
1,2,4-trichlorobenzene	ug/l	0.5 U
1,2-dibromo-3-chloropropane	ug/l	0.05 U
1,2-dibromoethane	ug/l	0.05 U
1,2-dichlorobenzene	ug/l	0.5 U
1,2-dichloroethane	ug/l	0.5 U
1,2-dichloropropane	ug/l	0.5 U
1,3-dichlorobenzene	ug/l	**0.19 J**
1,4-dichlorobenzene	ug/l	**0.4 J**
2-hexanone	ug/l	5 U
Acetone	ug/l	5 U
Benzene	ug/l	**2.9**
Bromochloromethane	ug/l	0.5 U
Bromodichloromethane	ug/l	0.5 U
Bromoform	ug/l	0.5 U
Bromomethane	ug/l	0.5 UR
Carbon disulfide	ug/l	0.5 U
Carbon tetrachloride	ug/l	0.5 U
Chlorobenzene	ug/l	0.5 U
Chloroethane	ug/l	0.5 U
Chloroform	ug/l	**0.73**
Chloromethane	ug/l	0.5 U
cis-1,2-dichloroethylene	ug/l	**0.3 J**
cis-1,3-dichloropropene	ug/l	0.5 U
Cyclohexane	ug/l	0.5 U
Dibromochloromethane	ug/l	0.5 U
Dichlorodifluoromethane	ug/l	0.5 U
Ethylbenzene	ug/l	**0.7**
Isopropylbenzene (cumene)	ug/l	**0.47 J**
m, p xylenes	ug/l	**0.7**
Methyl acetate	ug/l	0.5 U

TABLE I-63A
VOC Concentrations at Target Location near MW-3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Volatile Organic Compounds
Methyl ethyl ketone (2-butanone)	ug/l	5 U
Methyl isobutyl ketone	ug/l	5 U
Methylcyclohexane	ug/l	0.5 U
Methylene chloride	ug/l	0.5 U
o-xylene (1,2-dimethylbenzene)	ug/l	0.5 U
Styrene	ug/l	0.5 U
Tert-butyl methyl ether	ug/l	**0.72**
Tetrachloroethylene(PCE)	ug/l	**2.9**
Toluene	ug/l	0.5 U
trans-1,2-dichloroethene	ug/l	0.5 U
trans-1,3-dichloropropene	ug/l	0.5 U
Trichloroethylene (TCE)	ug/l	**0.28 J**
Trichlorofluoromethane	ug/l	0.5 U
Vinyl chloride	ug/l	0.5 U

TABLE I-63B
VOC Concentrations at Target Location near MW-3, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**SWMW-03**
Sample Number:		**GC-SWMW3-2**
Sample Date:		**7/26/2010**
Sample Type:		**N**
Parameter	**Units**	**Volatile Organic Compounds**
1,3-dichlorobenzene	ug/l	0.19 J
1,4-dichlorobenzene	ug/l	0.4 J
Benzene	ug/l	2.9
Chloroform	ug/l	0.73
cis-1,2-dichloroethylene	ug/l	0.3 J
Ethylbenzene	ug/l	0.7
Isopropylbenzene (cumene)	ug/l	0.47 J
m, p xylenes	ug/l	0.7
Tert-butyl methyl ether	ug/l	0.72
Tetrachloroethylene(PCE)	ug/l	2.9
Trichloroethylene (TCE)	ug/l	0.28 J

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TABLE I-64A
SVOC Concentrations at Target Location near MW-3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Semi-Volatile Organic Compounds
1,2,4,5-tetrachlorobenzene	ug/l	5 U
2,3,4,6-tetrachlorophenol	ug/l	5 U
2,4,5-trichlorophenol	ug/l	5 U
2,4,6-trichlorophenol	ug/l	5 U
2,4-dichlorophenol	ug/l	5 U
2,4-dimethylphenol	ug/l	5 U
2,4-dinitrophenol	ug/l	10 U
2,4-dinitrotoluene	ug/l	5 U
2,6-dinitrotoluene	ug/l	5 U
2-chloronaphthalene	ug/l	5 U
2-chlorophenol	ug/l	5 U
2-methylnaphthalene	ug/l	0.1 U
2-methylphenol (o-cresol)	ug/l	5 U
2-nitroaniline	ug/l	10 U
2-nitrophenol	ug/l	5 U
3,3'-dichlorobenzidine	ug/l	5 U
3-nitroaniline	ug/l	10 U
4,6-dinitro-2-methylphenol	ug/l	10 U
4-bromophenyl phenyl ether	ug/l	5 U
4-chloro-3-methylphenol	ug/l	5 U
4-chloroaniline	ug/l	5 U
4-chlorophenyl phenyl ether	ug/l	5 U
4-methylphenol (p-cresol)	ug/l	5 U
4-nitroaniline	ug/l	10 U
4-nitrophenol	ug/l	10 U
Acenaphthene	ug/l	**0.8 J**
Acenaphthylene	ug/l	0.1 U
Acetophenone	ug/l	5 U
Anthracene	ug/l	**0.22**
Atrazine	ug/l	5 U
Benzaldehyde	ug/l	5 U
Benzo(a)anthracene	ug/l	**0.15**
Benzo(a)pyrene	ug/l	0.1 U
Benzo(b)fluoranthene	ug/l	0.1 U
Benzo(g,h,i)perylene	ug/l	**0.15**
Benzo(k)fluoranthene	ug/l	0.1 UJ
Benzyl butyl phthalate	ug/l	5 U

TABLE I-64A
SVOC Concentrations at Target Location near MW-3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Semi-Volatile Organic Compounds
Bis(2-chloroethoxy) methane	ug/l	5 U
Bis(2-chloroethyl) ether	ug/l	5 U
Bis(2-chloroisopropyl) ether	ug/l	5 U
Bis(2-ethylhexyl) phthalate	ug/l	5 U
Caprolactam	ug/l	5 U
Carbazole	ug/l	5 U
Chrysene	ug/l	**0.12**
Dibenz(a,h)anthracene	ug/l	0.1 U
Dibenzofuran	ug/l	5 U
Diethyl phthalate	ug/l	5 U
Dimethyl phthalate	ug/l	5 U
Di-n-butyl phthalate	ug/l	**0.34 J**
Di-n-octylphthalate	ug/l	5 U
Fluoranthene	ug/l	**0.79 J**
Fluorene	ug/l	0.1 U
Hexachlorobenzene	ug/l	5 U
Hexachlorobutadiene	ug/l	5 U
Hexachlorocyclopentadiene	ug/l	5 U
Hexachloroethane	ug/l	5 U
Indeno(1,2,3-c,d)pyrene	ug/l	0.1 U
Isophorone	ug/l	5 U
Naphthalene	ug/l	0.1 U
Nitrobenzene	ug/l	5 U
N-nitrosodi-n-propylamine	ug/l	5 U
N-nitrosodiphenylamine	ug/l	5 U
PCB 0	ug/l	5 U
Pentachlorophenol	ug/l	0.2 UJ
Phenanthrene	ug/l	**0.33 J**
Phenol	ug/l	5 U
Pyrene	ug/l	**0.89 J**
Total PAHs	ug/l	**3.45**

TABLE I-64B

SVOC Concentrations at Target Location near MW-3, Exceedances of Standards and Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**SWMW-03**
Sample Number:		**GC-SWMW3-2**
Sample Date:		**7/26/2010**
Sample Type:		**N**
Parameter	**Units**	**Semi-Volatile Organic Compounds**
Acenaphthene	ug/l	0.8 J
Anthracene	ug/l	0.22
Benzo(a)anthracene	ug/l	**0.15 (T)**
Benzo(g,h,i)perylene	ug/l	0.15
Chrysene	ug/l	**0.12 (T)**
Di-n-butyl phthalate	ug/l	0.34 J
Fluoranthene	ug/l	0.79 J
Phenanthrene	ug/l	0.33 J
Pyrene	ug/l	0.89 J
*Total PAHs	ug/l	3.45

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TABLE I-65A
Pesticide Concentrations at Target Location near MW-3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Pesticides
Aldrin	ug/l	0.05 UJ
Alpha BHC	ug/l	0.05 UJ
Alpha endosulfan	ug/l	0.05 UJ
Alpha-chlordane	ug/l	0.05 UJ
Beta BHC	ug/l	0.05 UJ
Beta endosulfan	ug/l	0.1 UJ
Delta BHC	ug/l	0.05 UJ
Dieldrin	ug/l	0.1 UJ
Endosulfan sulfate	ug/l	0.1 UJ
Endrin	ug/l	0.1 UJ
Endrin aldehyde	ug/l	0.1 UJ
Endrin ketone	ug/l	0.1 UJ
Gamma BHC	ug/l	0.05 UJ
Gamma-chlordane	ug/l	0.05 UJ
Heptachlor	ug/l	0.05 UJ
Heptachlor epoxide	ug/l	0.05 UJ
Methoxychlor	ug/l	0.5 UJ
P,P'-DDD	ug/l	0.1 UR
P,P'-DDE	ug/l	0.1 UJ
P,P'-DDT	ug/l	0.1 UJ
Toxaphene	ug/l	5 UJ

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TABLE I-66A

PCB Aroclor Concentrations at Target Location near MW-3

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Polychlorinated Biphenyls
Aroclor 1016	ug/l	1 U
Aroclor 1221	ug/l	1 U
Aroclor 1232	ug/l	1 U
Aroclor 1242	ug/l	1 U
Aroclor 1248	ug/l	1 U
Aroclor 1254	ug/l	1 U
Aroclor 1260	ug/l	1 U
Aroclor 1262	ug/l	1 U
Aroclor 1268	ug/l	1 U
Total PCBs	ug/l	ND

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TABLE I-67A

Metal and Cyanide Concentrations at Target Location near MW-3

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Metals
Aluminum	ug/l	200 U
Aluminum, dissolved	ug/l	200 U
Antimony	ug/l	20 U
Antimony, dissolved	ug/l	20 U
Arsenic	ug/l	**17.8**
Arsenic, dissolved	ug/l	**15**
Barium	ug/l	100 U
Barium, dissolved	ug/l	**49.2 J**
Beryllium	ug/l	10 U
Beryllium, dissolved	ug/l	10 U
Cadmium	ug/l	10 U
Cadmium, dissolved	ug/l	10 U
Calcium	ug/l	**18,600**
Calcium, dissolved	ug/l	**19,600**
Chromium	ug/l	20 U
Chromium, dissolved	ug/l	20 U
Cobalt	ug/l	10 U
Cobalt, dissolved	ug/l	10 U
Copper	ug/l	25 U
Copper, dissolved	ug/l	25 U
Iron	ug/l	100 U
Iron, dissolved	ug/l	100 U
Lead	ug/l	10 U
Lead, dissolved	ug/l	**1.9 J**
Magnesium	ug/l	**53,900**
Magnesium, dissolved	ug/l	**56,500**
Manganese	ug/l	**200**
Manganese, dissolved	ug/l	**205**
Mercury	ug/l	**0.09 J**
Mercury, dissolved	ug/l	**0.092 J**
Nickel	ug/l	10 UJ
Nickel, dissolved	ug/l	**2.4 J**
Potassium	ug/l	**18,600**
Potassium, dissolved	ug/l	**19,400**
Selenium	ug/l	**30.7 J**
Selenium, dissolved	ug/l	**41.3 J**
Silver	ug/l	10 U

TABLE I-67A
Metal and Cyanide Concentrations at Target Location near MW-3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	**SWMW-03**
Sample Number:	**GC-SWMW3-2**
Sample Date:	**7/26/2010**
Sample Type:	**N**

Parameter	Units	Metals
Silver, dissolved	ug/l	10 UJ
Sodium	ug/l	**408,000**
Sodium, dissolved	ug/l	**403,000**
Thallium	ug/l	10 U
Thallium, dissolved	ug/l	10 U
Vanadium	ug/l	50 U
Vanadium, dissolved	ug/l	50 U
Zinc	ug/l	**43 J**
Zinc, dissolved	ug/l	**42.2**
Cyanide, Total	ug/l	10 U

TABLE I-67B

Metal and Cyanide Concentrations at Target Location near MW-3, Exceedances of Standards and
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**SWMW-03**
Sample Number:		**GC-SWMW3-2**
Sample Date:		**7/26/2010**
Sample Type:		**N**
Parameter	**Units**	**Metals**
Arsenic	ug/l	**17.8 (T)**
Arsenic, dissolved	ug/l	**15 (T)**
Barium	ug/l	
Barium, dissolved	ug/l	49.2 J
*Calcium	ug/l	18,600
*Calcium, dissolved	ug/l	19,600
Lead	ug/l	
Lead, dissolved	ug/l	1.9 J
*Magnesium	ug/l	53,900
*Magnesium, dissolved	ug/l	56,500
Manganese	ug/l	**200 (T,S)**
Manganese, dissolved	ug/l	**205 (T,S)**
Mercury	ug/l	**0.09 J (T)**
Mercury, dissolved	ug/l	**0.092 J (T)**
Nickel	ug/l	
Nickel, dissolved	ug/l	2.4 J
*Potassium	ug/l	18,600
*Potassium, dissolved	ug/l	19,400
Selenium	ug/l	30.7 J
Selenium, dissolved	ug/l	41.3 J
*Sodium	ug/l	408,000
*Sodium, dissolved	ug/l	403,000
Zinc	ug/l	43 J
Zinc, dissolved	ug/l	42.2

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TABLE I-68A
Pesticide Concentrations in Small Prey Fish – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-XATC**	**GC-TI403-XATC**	**GC-TI405-XATC**	**GC-TI406-XATC**	**GC-TI402-MCG**	**GC-TI403-MCG**	**GC-TI404-MCG**	**GC-TI405-MCG**	**GC-TI-INNER-XATC**	**GC-TI332-XHK**
Sample Number:		**GC-TI401-XATC-WB-1**	**GC-TI403-XATC-WB-1**	**GC-TI405-XATC-WB-1**	**GC-TI406-XATC-WB-1**	**GC-TI402-MCG-WB-1**	**GC-TI403-MCG-WB-1**	**GC-TI404-MCG-WB-1**	**GC-TI405-MCG-WB-1**	**GC-TI-INNER-XATC-WB-1**	**GC-TI332-XHK-WB-1**
Sample Date:		**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/18/2010**	**10/23/2010**
Sample Species:		**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Mummichog**	**Mummichog**	**Mummichog**	**Mummichog**	**Atlantic Tomcod**	**Hake**
Sample Type:		**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**
Sample Weight:		**62.11**	**68.50**	**898.03**	**186.60**	**59.92**	**1114.00**	**566.37**	**895.93**	**34.00**	**46.00**
Parameter	**Units**						**Pesticides**				
Aldrin	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Alpha BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Alpha-chlordane	ug/kg	**3.8**	**1.8**	**2.8**	1.7 U	1.7 U	1.7 U	1.7 U	**4.2 NJ**	1.7 U	1.7 U
Beta BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Beta endosulfan	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Delta BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dieldrin	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Endosulfan sulfate	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Endrin	ug/kg	**2.7 J**	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Endrin aldehyde	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Endrin ketone	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Gamma BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Gamma-chlordane	ug/kg	1.7 R	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	**5.4 J**	1.7 U	1.7 U
Heptachlor	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Heptachlor epoxide	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Methoxychlor	ug/kg	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U
P,P'-DDD	ug/kg	4.7 R	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	**13 NJ**
P,P'-DDE	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	**3.5 NJ**	3.3 U	31 R
P,P'-DDT	ug/kg	**8.5 J**	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Total DDTs	ug/kg	**---**	ND	ND	ND	ND	ND	ND	**3.5**	ND	**---**

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TABLE I-68B
Pesticide Concentrations in Small Prey Fish – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-XATC**	**GC-TI403-XATC**	**GC-TI405-XATC**	**GC-TI406-XATC**	**GC-TI402-MCG**	**GC-TI403-MCG**	**GC-TI404-MCG**	**GC-TI405-MCG**	**GC-TI-INNER-XATC**	**GC-TI332-XHK**
Sample Number:		**GC-TI401-XATC-WB-1**	**GC-TI403-XATC-WB-1**	**GC-TI405-XATC-WB-1**	**GC-TI406-XATC-WB-1**	**GC-TI402-MCG-WB-1**	**GC-TI403-MCG-WB-1**	**GC-TI404-MCG-WB-1**	**GC-TI405-MCG-WB-1**	**GC-TI-INNER-XATC-WB-1**	**GC-TI332-XHK-WB-1**
Sample Date:		**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/18/2010**	**10/23/2010**
Sample Species:		**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Mummichog**	**Mummichog**	**Mummichog**	**Mummichog**	**Atlantic Tomcod**	**Hake**
Sample Type:		**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**
Sample Weight:		**62.11**	**68.50**	**898.03**	**186.60**	**59.92**	**1114.00**	**566.37**	**895.93**	**34.00**	**46.00**
Parameter	**Units**						**Pesticides**				
Aldrin	ug/kg	11.8 U	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	7.39 U	32.1 U	10.1 U
Alpha BHC	ug/kg	11.8 U	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	7.39 U	32.1 U	10.1 U
Alpha-chlordane	ug/kg	**26.4**	**22**	**21.5**	9.71 U	17.9 U	6.85 U	7.56 U	**18.3 NJ**	32.1 U	10.1 U
Beta BHC	ug/kg	11.8 U	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	7.39 U	32.1 U	10.1 U
Beta endosulfan	ug/kg	22.9 U	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	19.6 U
Delta BHC	ug/kg	11.8 U	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	7.39 U	32.1 U	10.1 U
Dieldrin	ug/kg	22.9 U	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	19.6 U
Endosulfan sulfate	ug/kg	22.9 U	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	19.6 U
Endrin	ug/kg	**18.8 J**	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	19.6 U
Endrin aldehyde	ug/kg	22.9 U	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	19.6 U
Endrin ketone	ug/kg	22.9 U	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	19.6 U
Gamma BHC	ug/kg	11.8 U	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	7.39 U	32.1 U	10.1 U
Gamma-chlordane	ug/kg	11.8 R	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	**23.5 J**	32.1 U	10.1 U
Heptachlor	ug/kg	11.8 U	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	7.39 U	32.1 U	10.1 U
Heptachlor epoxide	ug/kg	11.8 U	20.7 U	13.1 U	9.71 U	17.9 U	6.85 U	7.56 U	7.39 U	32.1 U	10.1 U
Methoxychlor	ug/kg	118 U	207 U	131 U	97.1 U	179 U	68.5 U	75.6 U	73.9 U	321 U	101 U
P,P'-DDD	ug/kg	32.6 R	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	**77.4 NJ**
P,P'-DDE	ug/kg	22.9 U	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	**15.2 NJ**	62.3 U	185 R
P,P'-DDT	ug/kg	**59 J**	40.2 U	25.4 U	18.9 U	34.7 U	13.3 U	14.7 U	14.3 U	62.3 U	19.6 U
Total DDTs	ug/kg	**---**	ND	ND	ND	ND	ND	ND	**15.2**	ND	**---**

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TABLE I-69A
PCB Congener Concentrations in Small Prey Fish – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 1	ng/kg	**27**	**10.7**	**9.44**	**6.03**	**9.76**	**11.4**	**48**	**24.3**	**6.58**	**3.02**
PCB 2	ng/kg	**2.36**	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	**2.72**	2.62 U	2.43 U
PCB 3	ng/kg	**7.8**	**3.08**	**4.08**	2.44 U	4.25 R	**3.28**	**7.67**	**10.2**	2.62 U	2.43 U
PCB 4	ng/kg	**547**	**159**	**233**	**320**	**100**	**216**	**1,690**	**490**	**200**	**28.1**
PCB 5	ng/kg	**8.23**	**3.01**	**6.4**	**5.71**	**2.53**	**2.65**	**21.7**	**11.5**	2.62 U	2.43 U
PCB 6	ng/kg	**147**	**55.2**	**70.7**	**53.7**	**33.9**	**57.5**	**717**	**141**	**44.6**	**4.53**
PCB 7	ng/kg	**21.7**	**8.91**	**13.6**	**10.2**	**7.88**	**4.59**	**35.5**	**18.8**	**6.02**	2.43 U
PCB 8	ng/kg	**615**	**225**	**394**	**368**	**208**	**234**	**2,490**	**782**	**181**	**7.43**
PCB 9	ng/kg	**31.8**	**11.7**	**21.1**	**15.3**	**7.54**	**6.54**	**59.6**	**28.2**	**8.49**	2.43 U
PCB 10	ng/kg	**60.3**	**17.8**	**17.4**	**31.7**	**6.67**	**10.8**	**52.6**	**24.6**	**20.5**	**5.15**
PCB 11	ng/kg	**110**	**42.1**	**26.7**	**57.1**	**17.8**	**31.6**	**32.6**	**36.8**	**39**	**8.34**
PCB 12/13	ng/kg	**30.4**	**11.7**	**14.3**	**17.2**	**9**	**10.9**	**75**	**17.9**	12 R	4.86 U
PCB 14	ng/kg	2.32 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	2.35 U	2.62 U	2.43 U
PCB 15	ng/kg	**370**	**166**	**175**	**258**	**55.2**	**64.9**	**289**	**143**	**116**	**13.7**
PCB 16	ng/kg	**779**	**279**	**456**	**638**	**97.7**	**210**	**1,850**	**723**	**345**	**19**
PCB 17	ng/kg	**1,900**	**701**	**963**	**1,450**	**314**	**601**	**5,330**	**1,740**	**796**	**17.3**
PCB 18/30	ng/kg	**2,720**	**959**	**1,440**	**2,140**	**231**	**674**	**8,090**	**2,320**	**1,240**	**319**
PCB 19	ng/kg	**463**	**137**	**177**	**269**	**54.6**	**121**	**790**	**291**	**169**	**66.2**
PCB 20/28	ng/kg	**9,410**	**3,690**	**5,580**	**7,970**	**2,160**	**4,930**	**38,900**	**12,500**	**5,360**	**3,160**
PCB 21/33	ng/kg	**1,420**	**555**	**966**	**923**	**146**	**130**	**907**	**628**	**511**	4.86 U
PCB 22	ng/kg	**1,690**	**669**	**965**	**1,340**	**399**	**728**	**5,000**	**2,160**	**729**	**30.4**
PCB 23	ng/kg	**5.7**	2.55 U	**3.91**	**3.95**	2.31 U	2.35 U	**15.1**	**7.1**	2.62 U	2.43 U
PCB 24	ng/kg	**39.7**	**14.3**	**22**	**32.3**	**2.74**	**5.72**	**49.7**	**16.4**	**17.1**	**5.19**
PCB 25	ng/kg	**625**	**252**	**246**	**482**	**119**	**222**	**1,880**	**402**	**313**	**24.3**
PCB 26/29	ng/kg	**1,320**	**481**	**616**	**1,020**	**189**	**447**	**4,830**	**1,110**	**731**	**127**
PCB 27	ng/kg	**464**	**159**	**182**	**313**	**62**	**122**	**971**	**304**	**197**	**10.4**
PCB 31	ng/kg	**5,980**	**2,410**	**3,500**	**5,000**	**1,580**	**2,610**	**18,800**	**7,560**	**3,160**	**536**
PCB 32	ng/kg	**1,750**	**626**	**855**	**1,280**	**304**	**881**	**6,360**	**1,610**	**761**	**13.6**
PCB 34	ng/kg	**50.1**	**19.3**	**23**	**31.8**	**7.75**	**10.8**	**97.9**	**31.9**	**26.8**	**5.48**
PCB 35	ng/kg	2.32 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	2.35 U	2.62 U	2.43 U
PCB 36	ng/kg	2.32 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	2.35 U	2.62 U	2.43 U
PCB 37	ng/kg	**475**	**198**	**238**	**300**	**85**	**85.4**	**382**	**239**	**137**	**30.6**
PCB 38	ng/kg	**12.7**	**4.3**	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	2.35 U	2.62 U	2.43 U
PCB 39	ng/kg	**68**	**27.9**	3.32 U	2.44 U	4.5 R	2.35 U	2.63 U	2.35 U	2.62 U	2.43 U
PCB 40/41/71	ng/kg	**4,140**	**1,540**	**2,180**	**3,060**	**984**	**1,730**	**10,100**	**4,590**	**1,980**	**294**
PCB 42	ng/kg	**1,560**	**644**	**860**	**1,280**	**596**	**828**	**5,900**	**2,330**	**951**	**309**

TABLE I-69A
PCB Congener Concentrations in Small Prey Fish – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**GC-TI401-XATC**	**GC-TI403-XATC**	**GC-TI405-XATC**	**GC-TI406-XATC**	**GC-TI402-MCG**	**GC-TI403-MCG**	**GC-TI404-MCG**	**GC-TI405-MCG**	**GC-TI-INNER-XATC**	**GC-TI332-XHK**
	Sample Number:	**GC-TI401-XATC-WB-1**	**GC-TI403-XATC-WB-1**	**GC-TI405-XATC-WB-1**	**GC-TI406-XATC-WB-1**	**GC-TI402-MCG-WB-1**	**GC-TI403-MCG-WB-1**	**GC-TI404-MCG-WB-1**	**GC-TI405-MCG-WB-1**	**GC-TI-INNER-XATC-WB-1**	**GC-TI332-XHK-WB-1**
	Sample Date:	**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/18/2010**	**10/23/2010**
	Sample Species:	**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Mummichog**	**Mummichog**	**Mummichog**	**Mummichog**	**Atlantic Tomcod**	**Hake**
	Sample Type:	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**
	Sample Weight:	**62.11**	**68.50**	**898.03**	**186.60**	**59.92**	**1114.00**	**566.37**	**895.93**	**34.00**	**46.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 43	ng/kg	**390**	**146**	**208**	**262**	**63.1**	**124**	**1,030**	**423**	**206**	**107**
PCB 44/47/65	ng/kg	**10,500**	**4,250**	**5,530**	**7,670**	**2,990**	**4,910**	**28,400**	**11,200**	**7,120**	**7,160**
PCB 45/51	ng/kg	**989**	**373**	**524**	**726**	**235**	**508**	**3,030**	**1,170**	**498**	**148**
PCB 46	ng/kg	**131**	**47.3**	**80.4**	**104**	**33.5**	**59.4**	**383**	**166**	**59**	**14.4**
PCB 48	ng/kg	**1,540**	**671**	**933**	**1,170**	**158**	**148**	**1,240**	**884**	**689**	**11.4**
PCB 49/69	ng/kg	**7,360**	**3,100**	**3,810**	**5,500**	**3,300**	**4,290**	**26,700**	**10,500**	**4,870**	**3,140**
PCB 50/53	ng/kg	**759**	**277**	**369**	**578**	**263**	**478**	**3,080**	**1,080**	**331**	**204**
PCB 52	ng/kg	**9,280**	**3,480**	**4,860**	**7,490**	**3,190**	**4,890**	**30,000**	**12,600**	**6,840**	**8,020**
PCB 54	ng/kg	**20.2**	**6.54**	**9.15**	**14.6**	**4.42**	**8.05**	**29.6**	**18.4**	**16.2**	**12**
PCB 55	ng/kg	**62.1**	**30.6**	**76.3**	**77.4**	**13.2**	**37**	**147**	**61.3**	**65.6**	2.43 U
PCB 56	ng/kg	**1,850**	**763**	**1,030**	**1,790**	**281**	**362**	**1,770**	**1,020**	**950**	**14.6**
PCB 57	ng/kg	**74.5**	**30.3**	**37.4**	**65.9**	**7.32**	**14.7**	**72.2**	**27.9**	**49**	**7.96**
PCB 58	ng/kg	**56.1**	**21.6**	**26.4**	**42.9**	**6.85**	**8.51**	**35.1**	**15**	**36.6**	2.43 U
PCB 59/62/75	ng/kg	**880**	**346**	**470**	**673**	**210**	**395**	**2,970**	**1,090**	**546**	**531**
PCB 60	ng/kg	**1,930**	**807**	**1,580**	**1,990**	**573**	**1,020**	**7,130**	**4,040**	**1,220**	**1,290**
PCB 61/70/74/76	ng/kg	**10,600**	**4,560**	**6,690**	**9,830**	**3,380**	**5,520**	**37,200**	**17,900**	**6,450**	**5,560**
PCB 63	ng/kg	**479**	**195**	**276**	**477**	**164**	**288**	**2,110**	**913**	**445**	**596**
PCB 64	ng/kg	**2,910**	**1,100**	**1,630**	**2,170**	**1,290**	**2,080**	**14,900**	**5,790**	**1,400**	**1,340**
PCB 66	ng/kg	**9,120**	**3,920**	**6,670**	**9,460**	**2,820**	**4,860**	**33,700**	**14,600**	**6,210**	**2,170**
PCB 67	ng/kg	**169**	**76.8**	**73.8**	**124**	**19.7**	**21.1**	**127**	**74.9**	**85.4**	2.43 U
PCB 68	ng/kg	**165**	**69**	**93.2**	**144**	**56.9**	**89.5**	**324**	**164**	**160**	**120**
PCB 72	ng/kg	**229**	**89**	**110**	**186**	**62.9**	**104**	**409**	**193**	**206**	**203**
PCB 73	ng/kg	**49**	**18.1**	3.32 U	**36.9**	**14.9**	**25.8**	2.63 U	**46.5**	**31.4**	2.43 U
PCB 77	ng/kg	**361**	**151**	**184**	**269**	**73.9**	**122**	**779**	**374**	**165**	**210**
PCB 78	ng/kg	5.47 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.83 U	2.35 U	2.62 U	2.43 U
PCB 79	ng/kg	**97.6**	**41.1**	**44.1**	**68.8**	**29.1**	**40.1**	**184**	**91.9**	**62.9**	**43.1**
PCB 80	ng/kg	4.86 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	2.35 U	2.62 U	2.43 U
PCB 81	ng/kg	28.5 R	11.7 R	17.5 R	**23.2**	**4.49**	13.1 R	**127**	**46**	17.2 R	5 R
PCB 82	ng/kg	**199**	**72.9**	**126**	**180**	**207**	**231**	**1,070**	**668**	**119**	**175**
PCB 83/99	ng/kg	**12,000**	**5,600**	**8,270**	**10,200**	**3,690**	**8,520**	**23,700**	**17,200**	**9,240**	**11,300**
PCB 84	ng/kg	**352**	**98.8**	**189**	**206**	**390**	**470**	**1,880**	**969**	**108**	**326**
PCB 85/116/117	ng/kg	**2,470**	**1,120**	**1,660**	**2,260**	**990**	**1,380**	**6,380**	**3,250**	**1,800**	**2,380**
PCB 86/87/97/108/119/125	ng/kg	**4,300**	**1,790**	**---**	**---**	**2,820**	**---**	**---**	**---**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**---**	**---**	**2,580**	**2,360**	**---**	**3,760**	**13,900**	**7,990**	**2,540**	**3,260**
PCB 88/91	ng/kg	**1,130**	**409**	**590**	**699**	**1,000**	**1,640**	**4,880**	**2,930**	**412**	**504**
PCB 89	ng/kg	**38.3**	**13.4**	**30.6**	**29.9**	**21.8**	**36.8**	**239**	**94.5**	**13.7**	2.43 U

TABLE I-69A
PCB Congener Concentrations in Small Prey Fish – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-XATC**	**GC-TI403-XATC**	**GC-TI405-XATC**	**GC-TI406-XATC**	**GC-TI402-MCG**	**GC-TI403-MCG**	**GC-TI404-MCG**	**GC-TI405-MCG**	**GC-TI-INNER-XATC**	**GC-TI332-XHK**
Sample Number:		**GC-TI401-XATC-WB-1**	**GC-TI403-XATC-WB-1**	**GC-TI405-XATC-WB-1**	**GC-TI406-XATC-WB-1**	**GC-TI402-MCG-WB-1**	**GC-TI403-MCG-WB-1**	**GC-TI404-MCG-WB-1**	**GC-TI405-MCG-WB-1**	**GC-TI-INNER-XATC-WB-1**	**GC-TI332-XHK-WB-1**
Sample Date:		**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/18/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/19/2010**	**10/18/2010**	**10/23/2010**
Sample Species:		**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Atlantic Tomcod**	**Mummichog**	**Mummichog**	**Mummichog**	**Mummichog**	**Atlantic Tomcod**	**Hake**
Sample Type:		**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**	**Whole**
Sample Weight:		**62.11**	**68.50**	**898.03**	**186.60**	**59.92**	**1114.00**	**566.37**	**895.93**	**34.00**	**46.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 90/101/113	ng/kg	**11,300**	**4,720**	**6,010**	**7,410**	**5,080**	**9,290**	**28,100**	**20,700**	**6,200**	**9,550**
PCB 92	ng/kg	**2,210**	**862**	**1,260**	**1,930**	**1,030**	**1,700**	**4,830**	**2,820**	**1,580**	**2,570**
PCB 93/95/98/100/102	ng/kg	**2,920**	**1,000**	**1,520**	**1,130**	**3,510**	**5,810**	**16,400**	**9,950**	**1,120**	**4,930**
PCB 94	ng/kg	**36.7**	**11.6**	**19.2**	**21.8**	**15.1**	**21.5**	**77.3**	**48.5**	**10.6**	**7.84**
PCB 96	ng/kg	**12**	**4.08**	**6.9**	**8.45**	**10.5**	**14.9**	**70.8**	**35.6**	**5.51**	**11**
PCB 103	ng/kg	**337**	**146**	**167**	**222**	**109**	**295**	**486**	**518**	**171**	**93**
PCB 104	ng/kg	**7.31**	**2.67**	**3.38**	**4.76**	**3.71**	**5.75**	**12.6**	**10.3**	**6.31**	2.43 U
PCB 105	ng/kg	**3,830**	**1,840**	**2,620**	**3,590**	**1,400**	**2,300**	**10,100**	**5,590**	**2,580**	**4,210**
PCB 106	ng/kg	9.58 U	3.8 U	3.32 U	2.44 U	2.47 U	2.35 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 107	ng/kg	**---**	**---**	**386**	**696**	**---**	**514**	**1,960**	**1,220**	**646**	**1,340**
PCB 107/124	ng/kg	**296**	**145**	**---**	**---**	**69.3**	**---**	**---**	**---**	**---**	**---**
PCB 108/124	ng/kg	**---**	**---**	**176**	**262**	**---**	**119**	**498**	**289**	**172**	**76.3**
PCB 109	ng/kg	**684**	**279**	**---**	**---**	**309**	**---**	**---**	**---**	**---**	**---**
PCB 110/115	ng/kg	**7,240**	**2,460**	**3,630**	**4,950**	**4,900**	**7,720**	**26,700**	**15,000**	**2,480**	**5,730**
PCB 111	ng/kg	**23.7**	**8.04**	**15.9**	**20.2**	**7.27**	**12.8**	**20**	23.5 U	**27**	**33.2**
PCB 112	ng/kg	2.43 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 114	ng/kg	**248**	**126**	**188**	**264**	**99.9**	**158**	**869**	**460**	**195**	**361**
PCB 118	ng/kg	**10,800**	**5,300**	**7,460**	**10,200**	**4,080**	**7,350**	**28,200**	**17,000**	**8,170**	**15,700**
PCB 120	ng/kg	**107**	**47**	**72**	**97.9**	**33.9**	**78**	**125**	**131**	**110**	**140**
PCB 121	ng/kg	**12.8**	**5.11**	**8.29**	**12**	**3.99**	**6.96**	**8.67**	23.5 U	**15.1**	**15**
PCB 122	ng/kg	**80**	**37**	**43.2**	**61.8**	**6.77**	**12.1**	**33.8**	23.5 U	**33.5**	2.43 U
PCB 123	ng/kg	**199**	**109**	**163**	**234**	**91.3**	**155**	**665**	**396**	**166**	29 R
PCB 126	ng/kg	**30.8**	**16.3**	**19.9**	**28.3**	**9.38**	**22.4**	**71.5**	**45.8**	**21.7**	**40.7**
PCB 127	ng/kg	**28.7**	**15.6**	3.32 U	2.44 U	**6.47**	2.35 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 128/166	ng/kg	**2,270**	**1,140**	**1,310**	**1,630**	**1,140**	**1,650**	**3,310**	**3,020**	**1,450**	**1,800**
PCB 129/138/160/163	ng/kg	**18,900**	**9,760**	**9,940**	**12,800**	**9,220**	**19,100**	**27,300**	**32,400**	**10,500**	**16,800**
PCB 130	ng/kg	**192**	**51.7**	**61.7**	**126**	**455**	**763**	**1,430**	**1,380**	**83.2**	**973**
PCB 131	ng/kg	**24.3**	**8.24**	**12.9**	**14.4**	**24**	**33.3**	**79.4**	**63.8**	**8.04**	**44.4**
PCB 132	ng/kg	**1,090**	**390**	**515**	**525**	**1,650**	**2,900**	**5,050**	**4,420**	**205**	**1,100**
PCB 133	ng/kg	**402**	**188**	**223**	**328**	**156**	**305**	**422**	**493**	**358**	**545**
PCB 134/143	ng/kg	**198**	**62.1**	**88.5**	**112**	**183**	**337**	**611**	**507**	**60.9**	**195**
PCB 135/151/154	ng/kg	**5,060**	**2,300**	**2,530**	**3,320**	**3,020**	**6,220**	**7,560**	**9,690**	**2,310**	**5,080**
PCB 136	ng/kg	**307**	**111**	**138**	**146**	**407**	**859**	**1,120**	**1,190**	**68.2**	**283**
PCB 137	ng/kg	**634**	**368**	**472**	**614**	**262**	**513**	**1,410**	**1,220**	**540**	**913**
PCB 139/140	ng/kg	**348**	**180**	**220**	**254**	**115**	**264**	**573**	**563**	**216**	**204**
PCB 141	ng/kg	**2,310**	**1,160**	**1,060**	**1,440**	**1,310**	**3,330**	**4,360**	**4,800**	**875**	**1,770**

TABLE I-69A
PCB Congener Concentrations in Small Prey Fish – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 142	ng/kg	4.92 U	2.55 U	3.32 U	2.44 U	2.31 U	2.47 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 144	ng/kg	**500**	**255**	**228**	**278**	**325**	**755**	**1,000**	**1,310**	**156**	**415**
PCB 145	ng/kg	2.32 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	**5.13**	23.5 U	2.62 U	2.43 U
PCB 146	ng/kg	**3,210**	**1,470**	**1,740**	**2,930**	**1,760**	**3,900**	**5,620**	**6,030**	**2,650**	**5,440**
PCB 147/149	ng/kg	**5,030**	**1,620**	**2,060**	**2,340**	**6,220**	**14,800**	**19,600**	**24,900**	**950**	**6,530**
PCB 148	ng/kg	**94.9**	**43.4**	**56.1**	**69.7**	**21**	**73**	**96.6**	**144**	**69**	**65.4**
PCB 150	ng/kg	**24.2**	**8.18**	**12.4**	**10.8**	**22.7**	**101**	**135**	**187**	**6.63**	**6.75**
PCB 152	ng/kg	**11.7**	**4.87**	**5.41**	**7.59**	2.31 U	**2.46**	**5.08**	23.5 U	**5.3**	**3.78**
PCB 153/168	ng/kg	**27,900**	**15,300**	**15,300**	**19,000**	**9,840**	**27,800**	**34,500**	**52,000**	**14,900**	**21,400**
PCB 155	ng/kg	**45.3**	**19.9**	**28.9**	**33.8**	**8.75**	**31.4**	**38**	**61.6**	**32.4**	**48.4**
PCB 156/157	ng/kg	**1,270**	**670**	**861**	**1,110**	**608**	**1,180**	**2,450**	**2,160**	**956**	**2,080**
PCB 158	ng/kg	**1,810**	**991**	**961**	**1,180**	**811**	**1,650**	**2,620**	**2,950**	**813**	**1,120**
PCB 159	ng/kg	**50.8**	**14.5**	**15.2**	**17.4**	**63.1**	**151**	**148**	**149**	**6.65**	**55.9**
PCB 161	ng/kg	3.58 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 162	ng/kg	**60.4**	**29.6**	**33.2**	**46.3**	**20.7**	**39.1**	**75.7**	**63.6**	**41.8**	**82.9**
PCB 164	ng/kg	**820**	**343**	**359**	**480**	**499**	**1,010**	**1,460**	**1,530**	**222**	**436**
PCB 165	ng/kg	**20.7**	**8.04**	**14.9**	**19.4**	**6.54**	**10.8**	**14.9**	23.5 U	**28.7**	**32.9**
PCB 167	ng/kg	**535**	**272**	**339**	**468**	**322**	**656**	**1,050**	**1,110**	**379**	**807**
PCB 169	ng/kg	7.08 U	3.12 U	3.32 U	3.93 U	2.31 U	10.1 U	11.1 U	23.5 U	4.7 U	10.2 U
PCB 170	ng/kg	**3,360**	**1,910**	**1,790**	**2,120**	**2,080**	**4,460**	**4,040**	**6,210**	**1,650**	**2,920**
PCB 171/173	ng/kg	**1,290**	**732**	**652**	**752**	**564**	**1,400**	**1,280**	**1,860**	**551**	**870**
PCB 172	ng/kg	**584**	**291**	**255**	**364**	**338**	**827**	**748**	**1,090**	**297**	**567**
PCB 174	ng/kg	**832**	**253**	**326**	**290**	**1,290**	**3,120**	**2,850**	**3,290**	**95**	**973**
PCB 175	ng/kg	**192**	**98.8**	**83.5**	**115**	**92.1**	**227**	**211**	**343**	**93.3**	**191**
PCB 176	ng/kg	**77.9**	**28**	**32.5**	**28.7**	**158**	**387**	**370**	**557**	**10.2**	**87.2**
PCB 177	ng/kg	**340**	**89.2**	**102**	**145**	**1,790**	**2,630**	**2,290**	**3,160**	**82.3**	**1,570**
PCB 178	ng/kg	**1,010**	**505**	**456**	**676**	**516**	**1,160**	**1,060**	**1,580**	**612**	**1,320**
PCB 179	ng/kg	**501**	**188**	**225**	**240**	**280**	**796**	**723**	**1,080**	**124**	**754**
PCB 180/193	ng/kg	**9,850**	**5,450**	**5,110**	**6,520**	**4,630**	**12,500**	**11,900**	**16,800**	**5,210**	**10,200**
PCB 181	ng/kg	**36.9**	**20.7**	**21.4**	**23.8**	**15.6**	**39.9**	**57**	**73.7**	**24.4**	**30.5**
PCB 182	ng/kg	**31.6**	**15.4**	**18.3**	**23.1**	**11.8**	**23.7**	**28.6**	**47.5**	**30.3**	**37.6**
PCB 183/185	ng/kg	**3,810**	**2,180**	**1,940**	**2,210**	**2,040**	**4,670**	**4,280**	**6,490**	**1,650**	**2,780**
PCB 184	ng/kg	**13.4**	**7.06**	**8.8**	**10.3**	**4.58**	**8.05**	**11**	23.5 U	**11.7**	**12.9**
PCB 186	ng/kg	2.32 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 187	ng/kg	**4,840**	**2,010**	**1,780**	**2,950**	**3,520**	**9,490**	**6,740**	**13,700**	**2,350**	**6,220**
PCB 188	ng/kg	**46.6**	**23**	**29.2**	**34**	**8.79**	**42.4**	**56.5**	**88.2**	**30.6**	**28.3**

TABLE I-69A
PCB Congener Concentrations in Small Prey Fish – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 189	ng/kg	**89.2**	**48**	**57.9**	**70.5**	**61.2**	**141**	**144**	**242**	**59.4**	**119**
PCB 190	ng/kg	**718**	**382**	**395**	**477**	**436**	**929**	**853**	**1,480**	**369**	**620**
PCB 191	ng/kg	**157**	**83.5**	**89.5**	**114**	**85.5**	**217**	**202**	**348**	**83.5**	**154**
PCB 192	ng/kg	2.32 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 194	ng/kg	**878**	**486**	**528**	**636**	**695**	**1,600**	**1,440**	**2,440**	**583**	**1,270**
PCB 195	ng/kg	**403**	**226**	**259**	**273**	**240**	**668**	**573**	**1,050**	**217**	**362**
PCB 196	ng/kg	**670**	**379**	**379**	**423**	**335**	**928**	**827**	**1,530**	**402**	**711**
PCB 197/200	ng/kg	**89.2**	**49.2**	**51.3**	**53.8**	**71.8**	**186**	**191**	**281**	**51.2**	**117**
PCB 198/199	ng/kg	**955**	**422**	**373**	**544**	**806**	**1,680**	**1,560**	**2,650**	**532**	**1,690**
PCB 201	ng/kg	**200**	**103**	**106**	**133**	**102**	**227**	**225**	**367**	**133**	**273**
PCB 202	ng/kg	**476**	**224**	**263**	**365**	**264**	**447**	**451**	**761**	**425**	**1,000**
PCB 203	ng/kg	**1,070**	**584**	**596**	**665**	**514**	**1,270**	**1,180**	**2,190**	**743**	**1,370**
PCB 204	ng/kg	2.32 U	2.55 U	3.32 U	2.44 U	2.31 U	2.35 U	2.63 U	23.5 U	2.62 U	2.43 U
PCB 205	ng/kg	**38.5**	**20.4**	**25.5**	**28.4**	**27.9**	**61.2**	**55.2**	**106**	**28.9**	**47.2**
PCB 206	ng/kg	**380**	**184**	**264**	**312**	**228**	**369**	**405**	**671**	**437**	**783**
PCB 207	ng/kg	**60.5**	**30.3**	**40.3**	**44.7**	**37.6**	**59.2**	**66.9**	**116**	**60.7**	**92**
PCB 208	ng/kg	**136**	**54**	**66.6**	**102**	**101**	**133**	**165**	**237**	**135**	**399**
PCB 209	ng/kg	**147**	**73.7**	**114**	**152**	**92.1**	**106**	**131**	**208**	**202**	**361**
Dichlorobiphenyl	ng/kg	**1,940**	**700**	**972**	**1,140**	**449**	**639**	**5,460**	**1,690**	**616**	**67.3**
Heptachlorobiphenyl	ng/kg	**27,800**	**14,300**	**13,400**	**17,200**	**9,770**	**30,600**	**19,200**	**58,200**	**13,300**	**16,400**
Hexachlorobiphenyl	ng/kg	**73,100**	**36,800**	**23,300**	**31,800**	**25,300**	**61,700**	**81,400**	**152,000**	**23,000**	**38,200**
Monochlorobiphenyl	ng/kg	**37.2**	**13.8**	**13.5**	**6.03**	**9.76**	**14.7**	**55.7**	**37.2**	**6.58**	**3.02**
Nonachlorobiphenyl	ng/kg	**577**	**268**	**371**	**459**	**367**	**561**	**637**	**1,020**	**633**	**1,270**
Octachlorobiphenyl	ng/kg	**4,780**	**2,490**	**2,580**	**3,120**	**3,060**	**7,070**	**6,500**	**11,300**	**3,120**	**6,840**
Pentachlorobiphenyl	ng/kg	**60,900**	**26,200**	**29,800**	**27,800**	**17,800**	**32,900**	**153,000**	**107,000**	**20,500**	**42,300**
Tetrachlorobiphenyl	ng/kg	**65,700**	**26,800**	**31,400**	**34,500**	**14,600**	**33,000**	**188,000**	**72,600**	**29,000**	**17,900**
Trichlorobiphenyl	ng/kg	**29,200**	**11,200**	**16,200**	**15,200**	**5,750**	**11,800**	**72,200**	**20,100**	**14,500**	**4,360**
Total PCB (Lab)	ng/kg	**264,000**	**119,000**	**118,000**	**102,000**	**59,500**	**129,000**	**514,000**	**422,000**	**105,000**	**110,000**

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TABLE I-69B
PCB Congener Concentrations in Small Prey Fish – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 1	ng/kg	**188**	**130**	**72.6**	**34.5**	**103**	**46**	**213**	**106**	**124**	**18**
PCB 2	ng/kg	**16.4**	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	**11.8**	49.4 U	14.5 U
PCB 3	ng/kg	**54.2**	**37.6**	**31.4**	13.9 U	44.7 R	**13.2**	**34.1**	**44.3**	49.4 U	14.5 U
PCB 4	ng/kg	**3,800**	**1,940**	**1,790**	**1,830**	**1,050**	**871**	**7,510**	**2,130**	**3,770**	**167**
PCB 5	ng/kg	**57.2**	**36.7**	**49.2**	**32.6**	**26.6**	**10.7**	**96.4**	**50**	49.4 U	14.5 U
PCB 6	ng/kg	**1,020**	**673**	**544**	**307**	**357**	**232**	**3,190**	**613**	**842**	**27**
PCB 7	ng/kg	**151**	**109**	**105**	**58.3**	**82.9**	**18.5**	**158**	**81.7**	**114**	14.5 U
PCB 8	ng/kg	**4,270**	**2,740**	**3,030**	**2,100**	**2,190**	**944**	**11,100**	**3,400**	**3,420**	**44.2**
PCB 9	ng/kg	**221**	**143**	**162**	**87.4**	**79.4**	**26.4**	**265**	**123**	**160**	14.5 U
PCB 10	ng/kg	**419**	**217**	**134**	**181**	**70.2**	**43.5**	**234**	**107**	**387**	**30.7**
PCB 11	ng/kg	**764**	**513**	**205**	**326**	**187**	**127**	**145**	**160**	**736**	**49.6**
PCB 12/13	ng/kg	**211**	**143**	**110**	**98.3**	**94.7**	**44**	**333**	**77.8**	226 R	28.9 U
PCB 14	ng/kg	16.1 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	10.2 U	49.4 U	14.5 U
PCB 15	ng/kg	**2,570**	**2,020**	**1,350**	**1,470**	**581**	**262**	**1,280**	**622**	**2,190**	**81.5**
PCB 16	ng/kg	**5,410**	**3,400**	**3,510**	**3,650**	**1,030**	**847**	**8,220**	**3,140**	**6,510**	**113**
PCB 17	ng/kg	**13,200**	**8,550**	**7,410**	**8,290**	**3,310**	**2,420**	**23,700**	**7,570**	**15,000**	**103**
PCB 18/30	ng/kg	**18,900**	**11,700**	**11,100**	**12,200**	**2,430**	**2,720**	**36,000**	**10,100**	**23,400**	**1,900**
PCB 19	ng/kg	**3,220**	**1,670**	**1,360**	**1,540**	**575**	**488**	**3,510**	**1,270**	**3,190**	**394**
PCB 20/28	ng/kg	**65,300**	**45,000**	**42,900**	**45,500**	**22,700**	**19,900**	**173,000**	**54,300**	**101,000**	**18,800**
PCB 21/33	ng/kg	**9,860**	**6,770**	**7,430**	**5,270**	**1,540**	**524**	**4,030**	**2,730**	**9,640**	28.9 U
PCB 22	ng/kg	**11,700**	**8,160**	**7,420**	**7,660**	**4,200**	**2,940**	**22,200**	**9,390**	**13,800**	**181**
PCB 23	ng/kg	**39.6**	31.1 U	**30.1**	**22.6**	24.3 U	9.48 U	**67.1**	**30.9**	49.4 U	14.5 U
PCB 24	ng/kg	**276**	**174**	**169**	**185**	**28.8**	**23.1**	**221**	**71.3**	**323**	**30.9**
PCB 25	ng/kg	**4,340**	**3,070**	**1,890**	**2,750**	**1,250**	**895**	**8,360**	**1,750**	**5,910**	**145**
PCB 26/29	ng/kg	**9,170**	**5,870**	**4,740**	**5,830**	**1,990**	**1,800**	**21,500**	**4,830**	**13,800**	**756**
PCB 27	ng/kg	**3,220**	**1,940**	**1,400**	**1,790**	**653**	**492**	**4,320**	**1,320**	**3,720**	**61.9**
PCB 31	ng/kg	**41,500**	**29,400**	**26,900**	**28,600**	**16,600**	**10,500**	**83,600**	**32,900**	**59,600**	**3,190**
PCB 32	ng/kg	**12,200**	**7,630**	**6,580**	**7,310**	**3,200**	**3,550**	**28,300**	**7,000**	**14,400**	**81**
PCB 34	ng/kg	**348**	**235**	**177**	**182**	**81.6**	**43.5**	**435**	**139**	**506**	**32.6**
PCB 35	ng/kg	16.1 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	10.2 U	49.4 U	14.5 U
PCB 36	ng/kg	16.1 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	10.2 U	49.4 U	14.5 U
PCB 37	ng/kg	**3,300**	**2,410**	**1,830**	**1,710**	**895**	**344**	**1,700**	**1,040**	**2,580**	**182**
PCB 38	ng/kg	**88.2**	**52.4**	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	10.2 U	49.4 U	14.5 U
PCB 39	ng/kg	**472**	**340**	25.5 U	13.9 U	47.4 R	9.48 U	11.7 U	10.2 U	49.4 U	14.5 U
PCB 40/41/71	ng/kg	**28,800**	**18,800**	**16,800**	**17,500**	**10,400**	**6,980**	**44,900**	**20,000**	**37,400**	**1,750**
PCB 42	ng/kg	**10,800**	**7,850**	**6,620**	**7,310**	**6,270**	**3,340**	**26,200**	**10,100**	**17,900**	**1,840**

TABLE I-69B
PCB Congener Concentrations in Small Prey Fish – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 43	ng/kg	**2,710**	**1,780**	**1,600**	**1,500**	**664**	**500**	**4,580**	**1,840**	**3,890**	**637**
PCB 44/47/65	ng/kg	**72,900**	**51,800**	**42,500**	**43,800**	**31,500**	**19,800**	**126,000**	**48,700**	**134,000**	**42,600**
PCB 45/51	ng/kg	**6,870**	**4,550**	**4,030**	**4,150**	**2,470**	**2,050**	**13,500**	**5,090**	**9,400**	**881**
PCB 46	ng/kg	**910**	**577**	**618**	**594**	**353**	**240**	**1,700**	**722**	**1,110**	**85.7**
PCB 48	ng/kg	**10,700**	**8,180**	**7,180**	**6,690**	**1,660**	**597**	**5,510**	**3,840**	**13,000**	**67.9**
PCB 49/69	ng/kg	**51,100**	**37,800**	**29,300**	**31,400**	**34,700**	**17,300**	**119,000**	**45,700**	**91,900**	**18,700**
PCB 50/53	ng/kg	**5,270**	**3,380**	**2,840**	**3,300**	**2,770**	**1,930**	**13,700**	**4,700**	**6,250**	**1,210**
PCB 52	ng/kg	**64,400**	**42,400**	**37,400**	**42,800**	**33,600**	**19,700**	**133,000**	**54,800**	**129,000**	**47,700**
PCB 54	ng/kg	**140**	**79.8**	**70.4**	**83.4**	**46.5**	**32.5**	**132**	**80**	**306**	**71.4**
PCB 55	ng/kg	**431**	**373**	**587**	**442**	**139**	**149**	**653**	**267**	**1,240**	14.5 U
PCB 56	ng/kg	**12,800**	**9,300**	**7,920**	**10,200**	**2,960**	**1,460**	**7,870**	**4,430**	**17,900**	**86.9**
PCB 57	ng/kg	**517**	**370**	**288**	**377**	**77.1**	**59.3**	**321**	**121**	**925**	**47.4**
PCB 58	ng/kg	**390**	**263**	**203**	**245**	**72.1**	**34.3**	**156**	**65.2**	**691**	14.5 U
PCB 59/62/75	ng/kg	**6,110**	**4,220**	**3,620**	**3,850**	**2,210**	**1,590**	**13,200**	**4,740**	**10,300**	**3,160**
PCB 60	ng/kg	**13,400**	**9,840**	**12,200**	**11,400**	**6,030**	**4,110**	**31,700**	**17,600**	**23,000**	**7,680**
PCB 61/70/74/76	ng/kg	**73,600**	**55,600**	**51,500**	**56,200**	**35,600**	**22,300**	**165,000**	**77,800**	**122,000**	**33,100**
PCB 63	ng/kg	**3,330**	**2,380**	**2,120**	**2,730**	**1,730**	**1,160**	**9,380**	**3,970**	**8,400**	**3,550**
PCB 64	ng/kg	**20,200**	**13,400**	**12,500**	**12,400**	**13,600**	**8,390**	**66,200**	**25,200**	**26,400**	**7,980**
PCB 66	ng/kg	**63,300**	**47,800**	**51,300**	**54,100**	**29,700**	**19,600**	**150,000**	**63,500**	**117,000**	**12,900**
PCB 67	ng/kg	**1,170**	**937**	**568**	**709**	**207**	**85.1**	**564**	**326**	**1,610**	14.5 U
PCB 68	ng/kg	**1,150**	**841**	**717**	**823**	**599**	**361**	**1,440**	**713**	**3,020**	**714**
PCB 72	ng/kg	**1,590**	**1,090**	**846**	**1,060**	**662**	**419**	**1,820**	**839**	**3,890**	**1,210**
PCB 73	ng/kg	**340**	**221**	25.5 U	**211**	**157**	**104**	11.7 U	**202**	**592**	14.5 U
PCB 77	ng/kg	**2,510**	**1,840**	**1,420**	**1,540**	**778**	**492**	**3,460**	**1,630**	**3,110**	**1,250**
PCB 78	ng/kg	38 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	12.6 U	10.2 U	49.4 U	14.5 U
PCB 79	ng/kg	**678**	**501**	**339**	**393**	**306**	**162**	**818**	**400**	**1,190**	**257**
PCB 80	ng/kg	33.8 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	10.2 U	49.4 U	14.5 U
PCB 81	ng/kg	198 R	143 R	135 R	**133**	**47.3**	52.8 R	**564**	**200**	325 R	29.8 R
PCB 82	ng/kg	**1,380**	**889**	**969**	**1,030**	**2,180**	**931**	**4,760**	**2,900**	**2,250**	**1,040**
PCB 83/99	ng/kg	**83,300**	**68,300**	**63,600**	**58,300**	**38,800**	**34,400**	**105,000**	**74,800**	**174,000**	**67,300**
PCB 84	ng/kg	**2,440**	**1,200**	**1,450**	**1,180**	**4,110**	**1,900**	**8,360**	**4,210**	**2,040**	**1,940**
PCB 85/116/117	ng/kg	**17,200**	**13,700**	**12,800**	**12,900**	**10,400**	**5,560**	**28,400**	**14,100**	**34,000**	**14,200**
PCB 86/87/97/108/119/125	ng/kg	**29,900**	**21,800**	**---**	**---**	**29,700**	**---**	**---**	**---**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**---**	**---**	**19,800**	**13,500**	**---**	**15,200**	**61,800**	**34,700**	**47,900**	**19,400**
PCB 88/91	ng/kg	**7,850**	**4,990**	**4,540**	**3,990**	**10,500**	**6,610**	**21,700**	**12,700**	**7,770**	**3,000**
PCB 89	ng/kg	**266**	**163**	**235**	**171**	**229**	**148**	**1,060**	**411**	**258**	14.5 U

TABLE I-69B
PCB Congener Concentrations in Small Prey Fish – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
Sample Number:		GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
Sample Date:		10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
Sample Species:		Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
Sample Type:		Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
Sample Weight:		62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 90/101/113	ng/kg	**78,500**	**57,600**	**46,200**	**42,300**	**53,500**	**37,500**	**125,000**	**90,000**	**117,000**	**56,800**
PCB 92	ng/kg	**15,300**	**10,500**	**9,690**	**11,000**	**10,800**	**6,850**	**21,500**	**12,300**	**29,800**	**15,300**
PCB 93/95/98/100/102	ng/kg	**20,300**	**12,200**	**11,700**	**6,460**	**36,900**	**23,400**	**72,900**	**43,300**	**21,100**	**29,300**
PCB 94	ng/kg	**255**	**141**	**148**	**125**	**159**	**86.7**	**344**	**211**	**200**	**46.7**
PCB 96	ng/kg	**83.3**	**49.8**	**53.1**	**48.3**	**111**	**60.1**	**315**	**155**	**104**	**65.5**
PCB 103	ng/kg	**2,340**	**1,780**	**1,280**	**1,270**	**1,150**	**1,190**	**2,160**	**2,250**	**3,230**	**554**
PCB 104	ng/kg	**50.8**	**32.6**	**26**	**27.2**	**39.1**	**23.2**	**56**	**44.8**	**119**	14.5 U
PCB 105	ng/kg	**26,600**	**22,400**	**20,200**	**20,500**	**14,700**	**9,270**	**44,900**	**24,300**	**48,700**	**25,100**
PCB 106	ng/kg	66.5 U	46.3 U	25.5 U	13.9 U	26 U	9.48 U	11.7 U	102 U	49.4 U	14.5 U
PCB 107	ng/kg	**---**	**---**	**2,970**	**3,980**	**---**	**2,070**	**8,710**	**5,300**	**12,200**	**7,980**
PCB 107/124	ng/kg	**2,060**	**1,770**	**---**	**---**	**729**	**---**	**---**	**---**	**---**	**---**
PCB 108/124	ng/kg	**---**	**---**	**1,350**	**1,500**	**---**	**480**	**2,210**	**1,260**	**3,250**	**454**
PCB 109	ng/kg	**4,750**	**3,400**	**---**	**---**	**3,250**	**---**	**---**	**---**	**---**	**---**
PCB 110/115	ng/kg	**50,300**	**30,000**	**27,900**	**28,300**	**51,600**	**31,100**	**119,000**	**65,200**	**46,800**	**34,100**
PCB 111	ng/kg	**165**	**98**	**122**	**115**	**76.5**	**51.6**	**88.9**	102 U	**509**	**198**
PCB 112	ng/kg	16.9 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	102 U	49.4 U	14.5 U
PCB 114	ng/kg	**1,720**	**1,540**	**1,450**	**1,510**	**1,050**	**637**	**3,860**	**2,000**	**3,680**	**2,150**
PCB 118	ng/kg	**75,000**	**64,600**	**57,400**	**58,300**	**42,900**	**29,600**	**125,000**	**73,900**	**154,000**	**93,500**
PCB 120	ng/kg	**743**	**573**	**554**	**559**	**357**	**315**	**556**	**570**	**2,080**	**833**
PCB 121	ng/kg	**88.9**	**62.3**	**63.8**	**68.6**	**42**	**28.1**	**38.5**	102 U	**285**	**89.3**
PCB 122	ng/kg	**556**	**451**	**332**	**353**	**71.3**	**48.8**	**150**	102 U	**632**	14.5 U
PCB 123	ng/kg	**1,380**	**1,330**	**1,250**	**1,340**	**961**	**625**	**2,960**	**1,720**	**3,130**	173 R
PCB 126	ng/kg	**214**	**199**	**153**	**162**	**98.7**	**90.3**	**318**	**199**	**409**	**242**
PCB 127	ng/kg	**199**	**190**	25.5 U	13.9 U	**68.1**	9.48 U	11.7 U	102 U	49.4 U	14.5 U
PCB 128/166	ng/kg	**15,800**	**13,900**	**10,100**	**9,310**	**12,000**	**6,650**	**14,700**	**13,100**	**27,400**	**10,700**
PCB 129/138/160/163	ng/kg	**131,000**	**119,000**	**76,500**	**73,100**	**97,100**	**77,000**	**121,000**	**141,000**	**198,000**	**100,000**
PCB 130	ng/kg	**1,330**	**630**	**475**	**720**	**4,790**	**3,080**	**6,360**	**6,000**	**1,570**	**5,790**
PCB 131	ng/kg	**169**	**100**	**99.2**	**82.3**	**253**	**134**	**353**	**277**	**152**	**264**
PCB 132	ng/kg	**7,570**	**4,760**	**3,960**	**3,000**	**17,400**	**11,700**	**22,400**	**19,200**	**3,870**	**6,550**
PCB 133	ng/kg	**2,790**	**2,290**	**1,720**	**1,870**	**1,640**	**1,230**	**1,880**	**2,140**	**6,750**	**3,240**
PCB 134/143	ng/kg	**1,380**	**757**	**681**	**640**	**1,930**	**1,360**	**2,720**	**2,200**	**1,150**	**1,160**
PCB 135/151/154	ng/kg	**35,100**	**28,000**	**19,500**	**19,000**	**31,800**	**25,100**	**33,600**	**42,100**	**43,600**	**30,200**
PCB 136	ng/kg	**2,130**	**1,350**	**1,060**	**834**	**4,280**	**3,460**	**4,980**	**5,170**	**1,290**	**1,680**
PCB 137	ng/kg	**4,400**	**4,490**	**3,630**	**3,510**	**2,760**	**2,070**	**6,270**	**5,300**	**10,200**	**5,430**
PCB 139/140	ng/kg	**2,420**	**2,200**	**1,690**	**1,450**	**1,210**	**1,060**	**2,550**	**2,450**	**4,080**	**1,210**
PCB 141	ng/kg	**16,000**	**14,100**	**8,150**	**8,230**	**13,800**	**13,400**	**19,400**	**20,900**	**16,500**	**10,500**

TABLE I-69B
PCB Congener Concentrations in Small Prey Fish – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 142	ng/kg	34.2 U	31.1 U	25.5 U	13.9 U	24.3 U	9.96 U	11.7 U	102 U	49.4 U	14.5 U
PCB 144	ng/kg	**3,470**	**3,110**	**1,750**	**1,590**	**3,420**	**3,040**	**4,440**	**5,700**	**2,940**	**2,470**
PCB 145	ng/kg	16.1 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	**22.8**	102 U	49.4 U	14.5 U
PCB 146	ng/kg	**22,300**	**17,900**	**13,400**	**16,700**	**18,500**	**15,700**	**25,000**	**26,200**	**50,000**	**32,400**
PCB 147/149	ng/kg	**34,900**	**19,800**	**15,800**	**13,400**	**65,500**	**59,700**	**87,100**	**108,000**	**17,900**	**38,900**
PCB 148	ng/kg	**659**	**529**	**432**	**398**	**221**	**294**	**429**	**626**	**1,300**	**389**
PCB 150	ng/kg	**168**	**99.8**	**95.4**	**61.7**	**239**	**407**	**600**	**813**	**125**	**40.2**
PCB 152	ng/kg	**81.3**	**59.4**	**41.6**	**43.4**	24.3 U	**9.92**	**22.6**	102 U	**100**	**22.5**
PCB 153/168	ng/kg	**194,000**	**187,000**	**118,000**	**109,000**	**104,000**	**112,000**	**153,000**	**226,000**	**281,000**	**127,000**
PCB 155	ng/kg	**315**	**243**	**222**	**193**	**92.1**	**127**	**169**	**268**	**611**	**288**
PCB 156/157	ng/kg	**8,820**	**8,170**	**6,620**	**6,340**	**6,400**	**4,760**	**10,900**	**9,390**	**18,000**	**12,400**
PCB 158	ng/kg	**12,600**	**12,100**	**7,390**	**6,740**	**8,540**	**6,650**	**11,600**	**12,800**	**15,300**	**6,670**
PCB 159	ng/kg	**353**	**177**	**117**	**99.4**	**664**	**609**	**658**	**648**	**125**	**333**
PCB 161	ng/kg	24.9 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	102 U	49.4 U	14.5 U
PCB 162	ng/kg	**419**	**361**	**255**	**265**	**218**	**158**	**336**	**277**	**789**	**493**
PCB 164	ng/kg	**5,690**	**4,180**	**2,760**	**2,740**	**5,250**	**4,070**	**6,490**	**6,650**	**4,190**	**2,600**
PCB 165	ng/kg	**144**	**98**	**115**	**111**	**68.8**	**43.5**	**66.2**	102 U	**542**	**196**
PCB 167	ng/kg	**3,720**	**3,320**	**2,610**	**2,670**	**3,390**	**2,650**	**4,670**	**4,830**	**7,150**	**4,800**
PCB 169	ng/kg	49.2 U	38 U	25.5 U	22.5 U	24.3 U	40.7 U	49.3 U	102 U	88.7 U	60.7 U
PCB 170	ng/kg	**23,300**	**23,300**	**13,800**	**12,100**	**21,900**	**18,000**	**18,000**	**27,000**	**31,100**	**17,400**
PCB 171/173	ng/kg	**8,960**	**8,930**	**5,020**	**4,300**	**5,940**	**5,650**	**5,690**	**8,090**	**10,400**	**5,180**
PCB 172	ng/kg	**4,060**	**3,550**	**1,960**	**2,080**	**3,560**	**3,330**	**3,320**	**4,740**	**5,600**	**3,380**
PCB 174	ng/kg	**5,780**	**3,090**	**2,510**	**1,660**	**13,600**	**12,600**	**12,700**	**14,300**	**1,790**	**5,790**
PCB 175	ng/kg	**1,330**	**1,200**	**642**	**657**	**969**	**915**	**938**	**1,490**	**1,760**	**1,140**
PCB 176	ng/kg	**541**	**341**	**250**	**164**	**1,660**	**1,560**	**1,640**	**2,420**	**192**	**519**
PCB 177	ng/kg	**2,360**	**1,090**	**785**	**829**	**18,800**	**10,600**	**10,200**	**13,700**	**1,550**	**9,350**
PCB 178	ng/kg	**7,010**	**6,160**	**3,510**	**3,860**	**5,430**	**4,680**	**4,710**	**6,870**	**11,500**	**7,860**
PCB 179	ng/kg	**3,480**	**2,290**	**1,730**	**1,370**	**2,950**	**3,210**	**3,210**	**4,700**	**2,340**	**4,490**
PCB 180/193	ng/kg	**68,400**	**66,500**	**39,300**	**37,300**	**48,700**	**50,400**	**52,900**	**73,000**	**98,300**	**60,700**
PCB 181	ng/kg	**256**	**252**	**165**	**136**	**164**	**161**	**253**	**320**	**460**	**182**
PCB 182	ng/kg	**219**	**188**	**141**	**132**	**124**	**95.6**	**127**	**207**	**572**	**224**
PCB 183/185	ng/kg	**26,500**	**26,600**	**14,900**	**12,600**	**21,500**	**18,800**	**19,000**	**28,200**	**31,100**	**16,500**
PCB 184	ng/kg	**93.1**	**86.1**	**67.7**	**58.9**	**48.2**	**32.5**	**48.9**	102 U	**221**	**76.8**
PCB 186	ng/kg	16.1 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	102 U	49.4 U	14.5 U
PCB 187	ng/kg	**33,600**	**24,500**	**13,700**	**16,900**	**37,100**	**38,300**	**30,000**	**59,600**	**44,300**	**37,000**
PCB 188	ng/kg	**324**	**280**	**225**	**194**	**92.5**	**171**	**251**	**383**	**577**	**168**

TABLE I-69B
PCB Congener Concentrations in Small Prey Fish – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
Sample Number:		GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
Sample Date:		10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
Sample Species:		Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
Sample Type:		Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
Sample Weight:		62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**									
PCB 189	ng/kg	**619**	**585**	**445**	**403**	**644**	**569**	**640**	**1,050**	**1,120**	**708**
PCB 190	ng/kg	**4,990**	**4,660**	**3,040**	**2,730**	**4,590**	**3,750**	**3,790**	**6,430**	**6,960**	**3,690**
PCB 191	ng/kg	**1,090**	**1,020**	**688**	**651**	**900**	**875**	**898**	**1,510**	**1,580**	**917**
PCB 192	ng/kg	16.1 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	102 U	49.4 U	14.5 U
PCB 194	ng/kg	**6,100**	**5,930**	**4,060**	**3,630**	**7,320**	**6,450**	**6,400**	**10,600**	**11,000**	**7,560**
PCB 195	ng/kg	**2,800**	**2,760**	**1,990**	**1,560**	**2,530**	**2,690**	**2,550**	**4,570**	**4,090**	**2,150**
PCB 196	ng/kg	**4,650**	**4,620**	**2,920**	**2,420**	**3,530**	**3,740**	**3,680**	**6,650**	**7,580**	**4,230**
PCB 197/200	ng/kg	**619**	**600**	**395**	**307**	**756**	**750**	**849**	**1,220**	**966**	**696**
PCB 198/199	ng/kg	**6,630**	**5,150**	**2,870**	**3,110**	**8,480**	**6,770**	**6,930**	**11,500**	**10,000**	**10,100**
PCB 201	ng/kg	**1,390**	**1,260**	**815**	**760**	**1,070**	**915**	**1,000**	**1,600**	**2,510**	**1,630**
PCB 202	ng/kg	**3,310**	**2,730**	**2,020**	**2,090**	**2,780**	**1,800**	**2,000**	**3,310**	**8,020**	**5,950**
PCB 203	ng/kg	**7,430**	**7,120**	**4,580**	**3,800**	**5,410**	**5,120**	**5,240**	**9,520**	**14,000**	**8,150**
PCB 204	ng/kg	16.1 U	31.1 U	25.5 U	13.9 U	24.3 U	9.48 U	11.7 U	102 U	49.4 U	14.5 U
PCB 205	ng/kg	**267**	**249**	**196**	**162**	**294**	**247**	**245**	**461**	**545**	**281**
PCB 206	ng/kg	**2,640**	**2,240**	**2,030**	**1,780**	**2,400**	**1,490**	**1,800**	**2,920**	**8,250**	**4,660**
PCB 207	ng/kg	**420**	**370**	**310**	**255**	**396**	**239**	**297**	**504**	**1,150**	**548**
PCB 208	ng/kg	**944**	**659**	**512**	**583**	**1,060**	**536**	**733**	**1,030**	**2,550**	**2,380**
PCB 209	ng/kg	**1,020**	**899**	**877**	**869**	**969**	**427**	**582**	**904**	**3,810**	**2,150**
Dichlorobiphenyl	ng/kg	**13,500**	**8,540**	**7,480**	**6,510**	**4,730**	**2,580**	**24,300**	**7,350**	**11,600**	**401**
Heptachlorobiphenyl	ng/kg	**193,000**	**174,000**	**103,000**	**98,300**	**103,000**	**123,000**	**85,300**	**253,000**	**251,000**	**97,600**
Hexachlorobiphenyl	ng/kg	**508,000**	**449,000**	**179,000**	**182,000**	**266,000**	**249,000**	**362,000**	**661,000**	**434,000**	**227,000**
Monochlorobiphenyl	ng/kg	**258**	**168**	**104**	**34.5**	**103**	**59.3**	**248**	**162**	**124**	**18**
Nonachlorobiphenyl	ng/kg	**4,010**	**3,270**	**2,850**	**2,620**	**3,860**	**2,260**	**2,830**	**4,430**	**11,900**	**7,560**
Octachlorobiphenyl	ng/kg	**33,200**	**30,400**	**19,800**	**17,800**	**32,200**	**28,500**	**28,900**	**49,100**	**58,900**	**40,700**
Pentachlorobiphenyl	ng/kg	**423,000**	**320,000**	**229,000**	**159,000**	**187,000**	**133,000**	**680,000**	**465,000**	**387,000**	**252,000**
Tetrachlorobiphenyl	ng/kg	**456,000**	**327,000**	**242,000**	**197,000**	**154,000**	**133,000**	**836,000**	**316,000**	**547,000**	**107,000**
Trichlorobiphenyl	ng/kg	**203,000**	**137,000**	**125,000**	**86,900**	**60,500**	**47,600**	**321,000**	**87,400**	**274,000**	**26,000**
Total PCB (Lab)	ng/kg	**1,830,000**	**1,450,000**	**908,000**	**583,000**	**626,000**	**520,000**	**2,280,000**	**1,830,000**	**1,980,000**	**655,000**

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TABLE I-70A
Metal and Lipid Concentrations in Small Prey Fish – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**						**Metals**				
Aluminum	mg/kg	20 U	19.4 U	**30.3**	19.4 U	19.4 U	20 U	19.6 U	19.4 U	19.6 U	20 U
Antimony	mg/kg	6 U	5.8 U	5.9 U	5.8 U	5.8 U	6 U	5.9 U	5.8 U	5.9 U	6 U
Arsenic	mg/kg	1 U	0.97 U	0.98 U	0.97 U	0.97 U	1 U	0.98 U	0.97 U	0.98 U	**1.2**
Barium	mg/kg	20 U	19.4 U	19.6 U	19.4 U	19.4 U	20 U	19.6 U	19.4 U	19.6 U	20 U
Beryllium	mg/kg	0.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.49 U	0.5 U
Cadmium	mg/kg	0.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.49 U	0.5 U
Calcium	mg/kg	**5,250**	**2,910**	**6,250**	**8,700**	**3,100**	**9,300**	**11,600**	**9,800**	**2,490**	**2,170**
Chromium	mg/kg	1 U	0.97 U	**0.4 J**	0.97 U	0.97 U	1 U	**0.33 J**	0.97 U	0.98 U	1 U
Cobalt	mg/kg	5 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.9 U	5 U
Copper	mg/kg	2.5 U	2.4 U	**1.3 J**	**0.84 J**	**1.3 J**	**4.5**	**3.7**	**3.5**	2.5 U	**1 J**
Iron	mg/kg	**16.2**	**20**	**77.6**	**28.1**	**25.5**	**25.3**	**33.2**	**24.9**	**10.7**	**12.3**
Lead	mg/kg	1 U	0.97 U	**0.69 J**	0.97 U	0.97 U	1 U	0.98 U	0.97 U	0.98 U	1 U
Magnesium	mg/kg	**381 J**	**229 J**	**313 J**	**405 J**	**187 J**	**453 J**	**517**	**400 J**	**180 J**	**253 J**
Manganese	mg/kg	**1.6**	**0.92 J**	**2.1**	**2.2**	**1.3 J**	**3.3**	**4.3**	**2.7**	**0.88 J**	**1.8**
Mercury	mg/kg	**0.1**	**0.08 J**	**0.091 J**	**0.091 J**	**0.072 J**	**0.1**	**0.085 J**	**0.074 J**	**0.089 J**	**0.076 J**
Nickel	mg/kg	4 U	3.9 U	3.9 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	3.9 U	4 U
Potassium	mg/kg	**2,690**	**1,480**	**2,010**	**2,510**	**1,290**	**2,500**	**2,730**	**2,520**	**1,300**	**3,230**
Selenium	mg/kg	3.5 U	3.4 U	3.4 U	3.4 U	3.4 U	**1.3 J**	**1.2 J**	**1.3 J**	3.4 U	3.5 U
Silver	mg/kg	1 U	0.97 U	0.98 U	0.97 U	0.97 U	1 U	0.98 U	0.97 U	0.98 U	1 U
Sodium	mg/kg	**1,910**	**1,080**	**1,250**	**1,500**	**588**	**1,460**	**1,700**	**1,380**	**664**	**1,200**
Thallium	mg/kg	2.5 U	2.4 U	2.5 U	2.4 U	2.4 U	2.5 U	2.5 U	2.4 U	2.5 U	2.5 U
Vanadium	mg/kg	5 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.9 U	5 U
Zinc	mg/kg	**14.8**	**7.2**	**13**	**14.9**	**13.3**	**42.3**	**34.6**	**35**	**8.8**	**4.9 J**
Cyanide, Total	mg/kg	**0.24 J**	**0.39 J**	2.5 U	**0.44 J**	2.5 U	2.5 U	2.5 U	2.4 U	**0.87 J**	2.5 U
Percent Lipids	%	**2.52**	**0.94**	**1.09**	**1.66**	**1.12**	**1.7**	**1.72**	**2.23**	**1.14**	**1.4**

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TABLE I-70B
Metal and Lipid Concentrations in Small Prey Fish – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-XATC	GC-TI403-XATC	GC-TI405-XATC	GC-TI406-XATC	GC-TI402-MCG	GC-TI403-MCG	GC-TI404-MCG	GC-TI405-MCG	GC-TI-INNER-XATC	GC-TI332-XHK
	Sample Number:	GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1	GC-TI-INNER-XATC-WB-1	GC-TI332-XHK-WB-1
	Sample Date:	10/18/2010	10/18/2010	10/18/2010	10/18/2010	10/19/2010	10/19/2010	10/19/2010	10/19/2010	10/18/2010	10/23/2010
	Sample Species:	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Atlantic Tomcod	Mummichog	Mummichog	Mummichog	Mummichog	Atlantic Tomcod	Hake
	Sample Type:	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole	Whole
	Sample Weight:	62.11	68.50	898.03	186.60	59.92	1114.00	566.37	895.93	34.00	46.00
Parameter	**Units**						**Metals**				
Aluminum	mg/kg	139 U	237 U	**233**	111 U	204 U	80.6 U	87.1 U	84.3 U	370 U	119 U
Antimony	mg/kg	41.7 U	70.7 U	45.4 U	33.1 U	61.1 U	24.2 U	26.2 U	25.2 U	111 U	35.7 U
Arsenic	mg/kg	6.94 U	11.8 U	7.54 U	5.54 U	10.2 U	4.03 U	4.36 U	4.22 U	18.5 U	**7.14**
Barium	mg/kg	139 U	237 U	151 U	111 U	204 U	80.6 U	87.1 U	84.3 U	370 U	119 U
Beryllium	mg/kg	3.47 U	5.98 U	3.77 U	2.8 U	5.16 U	2.02 U	2.18 U	2.13 U	9.25 U	2.98 U
Cadmium	mg/kg	3.47 U	5.98 U	3.77 U	2.8 U	5.16 U	2.02 U	2.18 U	2.13 U	9.25 U	2.98 U
Calcium	mg/kg	**36,500**	**35,500**	**48,100**	**49,700**	**32,600**	**37,500**	**51,600**	**42,600**	**47,000**	**12,900**
Chromium	mg/kg	6.94 U	11.8 U	**3.08 J**	5.54 U	10.2 U	4.03 U	**1.47 J**	4.22 U	18.5 U	5.95 U
Cobalt	mg/kg	34.7 U	59.8 U	37.7 U	28 U	51.6 U	20.2 U	21.8 U	21.3 U	92.5 U	29.8 U
Copper	mg/kg	17.4 U	29.3 U	**10 J**	**4.8 J**	**13.7 J**	**18.1**	**16.4**	**15.2**	47.2 U	**5.95 J**
Iron	mg/kg	**113**	**244**	**597**	**161**	**268**	**102**	**148**	**108**	**202**	**73.2**
Lead	mg/kg	6.94 U	11.8 U	**5.31 J**	5.54 U	10.2 U	4.03 U	4.36 U	4.22 U	18.5 U	5.95 U
Magnesium	mg/kg	**2,650 J**	**2,790 J**	**2,410 J**	**2,310 J**	**1,970 J**	**1,830 J**	**2,300**	**1,740 J**	**3,400 J**	**1,510 J**
Manganese	mg/kg	**11.1**	**11.2 J**	**16.2**	**12.6**	**13.7 J**	**13.3**	**19.1**	**11.7**	**16.6 J**	**10.7**
Mercury	mg/kg	**0.694**	**0.976 J**	**0.7 J**	**0.52 J**	**0.758 J**	**0.403**	**0.378 J**	**0.322 J**	**1.68 J**	**0.452 J**
Nickel	mg/kg	27.8 U	47.6 U	30 U	22.3 U	41.1 U	16.1 U	17.3 U	17 U	73.6 U	23.8 U
Potassium	mg/kg	**18,700**	**18,000**	**15,500**	**14,300**	**13,600**	**10,100**	**12,100**	**11,000**	**24,500**	**19,200**
Selenium	mg/kg	24.3 U	41.5 U	26.2 U	19.4 U	35.8 U	**5.24 J**	**5.33 J**	**5.65 J**	64.2 U	20.8 U
Silver	mg/kg	6.94 U	11.8 U	7.54 U	5.54 U	10.2 U	4.03 U	4.36 U	4.22 U	18.5 U	5.95 U
Sodium	mg/kg	**13,300**	**13,200**	**9,620**	**8,570**	**6,190**	**5,890**	**7,560**	**6,000**	**12,500**	**7,140**
Thallium	mg/kg	17.4 U	29.3 U	19.2 U	13.7 U	25.3 U	10.1 U	11.1 U	10.4 U	47.2 U	14.9 U
Vanadium	mg/kg	34.7 U	59.8 U	37.7 U	28 U	51.6 U	20.2 U	21.8 U	21.3 U	92.5 U	29.8 U
Zinc	mg/kg	**103**	**87.8**	**100**	**85.1**	**140**	**171**	**154**	**152**	**166**	**29.2 J**
Cyanide, Total	mg/kg	**1.67 J**	**4.76 J**	19.2 U	**2.51 J**	26.3 U	10.1 U	11.1 U	10.4 U	**16.4 J**	14.9 U
Percent Lipids	%	**2.52**	**0.94**	**1.09**	**1.66**	**1.12**	**1.7**	**1.72**	**2.23**	**1.14**	**1.4**

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TABLE I-71A
SVOC Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Acenaphthene	ug/kg	**79.4 J**	**19**	**22.1**	**11**	**11.6**	**24.4**	**42.9**	**28.6**	**26.9**	**19.1**	**13.1**	**9.91**	3.29 U	**4.65**
Acenaphthylene	ug/kg	**16.4**	3.23 U	3.32 U	**14.9**	3.31 U	3.31 U	**9.38**	**5.09**	**4.3**	**2.7 J**	3.26 U	3.37 U	3.29 U	3.23 U
Anthracene	ug/kg	**12.7 J**	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	**8.59 J**	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Benzo(a)anthracene	ug/kg	**6.8**	3.23 U	3.32 U	**21**	3.31 U	3.31 U	**5.09**	**3.02 J**	**2.86 J**	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Benzo(a)pyrene	ug/kg	**10.4**	**3.61**	**5.37**	**22.8**	3.31 U	**3.83**	**6.84**	**5.72**	**4.48**	**4.25**	**4.42**	**4.49**	**4.21**	**4.44**
Benzo(b)fluoranthene	ug/kg	**7.56**	3.23 U	**4.42**	**11.4**	3.31 U	**3.65**	**4.77**	**4.29**	**3.58**	**3.86**	3.26 U	**3.93**	**3.66**	**4.24**
Benzo(g,h,i)perylene	ug/kg	**32.1**	**11**	**22.1**	**15.6**	**8.46**	**14.1**	**17.5**	**15.1**	**11.1**	**12.9**	**16.7**	**20.6**	**18.3**	**22.2**
Benzo(k)fluoranthene	ug/kg	**5.86**	3.23 U	**3.63**	**10.9**	3.31 U	**2.61 J**	**3.98**	**3.66**	**2.86 J**	**2.9 J**	3.26 U	3.37 U	3.29 U	**3.23 J**
Chrysene	ug/kg	**7.18**	3.23 U	**3.63**	**17.5**	**3.68**	3.31 U	**5.57**	**3.5**	**3.94**	**3.28 J**	3.26 U	3.37 U	3.29 U	3.23 U
Dibenz(a,h)anthracene	ug/kg	**3.97**	**3.23 J**	**3.16 J**	**5.78**	3.31 U	**3.65**	**3.98**	**3.66**	3.22 U	**3.47**	**3.07 J**	3.37 U	3.29 U	**3.43**
Fluoranthene	ug/kg	**16.3**	3.23 U	**9.8**	**19.3**	**4.42**	**5.92**	**12.4**	**8.43**	**8.59**	**6.76**	**3.65**	**3.55**	3.29 U	3.23 U
Fluorene	ug/kg	**28.4**	**5.51**	**8.69**	**6.13**	**4.97**	**5.74**	**28.6**	**9.7**	**9.31**	**5.79**	3.26 U	3.37 U	3.29 U	**2.42 J**
Indeno(1,2,3-c,d)pyrene	ug/kg	**11.7**	**6.65**	**8.53**	**13.7**	**5.89**	**7.83**	**8.43**	**9.22**	**6.98**	**8.11**	**8.45**	**9.54**	**8.78**	**9.09**
Phenanthrene	ug/kg	**43.5**	**12**	**19**	**12.3**	**10.1**	**11.3**	**28.6**	**17.5**	**12.4**	**10.4**	**3.26 J**	**9.54**	3.29 U	3.23 U
Pyrene	ug/kg	**26.5 J**	**5.13**	**9.16**	**21**	**4.78**	**7.31**	**14.3**	**12.4**	**10.6**	**8.69**	**3.84**	**3.55**	3.29 U	3.23 U
Total PAHs	ug/kg	**309**	**66.1**	**120**	**203**	**53.9**	**90.3**	**201**	**130**	**108**	**92.3**	**56.4**	**65.1**	**35**	**53.7**

TABLE I-71A
SVOC Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-ED-1**	**GC-TIMIDDLE-BC-ED-2**	**GC-TIMIDDLE-BC-ED-3**	**GC-TI-OUTER-BC-ED-1**	**GC-TI-OUTER-BC-ED-2**	**GC-TI-OUTER-BC-ED-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**
Sample Weight:		**111.55**	**113.27**	**107.58**	**105.72**	**261.60**	**110.76**
Parameter	**Units**	**Semi-Volatile Organic Compounds**					
Acenaphthene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	**2.8 J**	3.3 U
Acenaphthylene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	3.3 U	3.3 U
Anthracene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	3.3 U	3.3 U
Benzo(a)anthracene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	3.3 U	3.3 U
Benzo(a)pyrene	ug/kg	**3.25 J**	**5**	**4.69**	**4.4**	**3.7**	3.3 U
Benzo(b)fluoranthene	ug/kg	3.25 U	**4.26**	**4.05**	**3.6**	**4.6**	3.3 U
Benzo(g,h,i)perylene	ug/kg	**14.2**	**29.6**	**25.6**	**20**	**19**	**14**
Benzo(k)fluoranthene	ug/kg	3.25 U	**3.33**	**3.62**	3.4 U	**3.7**	3.3 U
Chrysene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	3.3 U	3.3 U
Dibenz(a,h)anthracene	ug/kg	**3.45**	**3.52**	**3.41 J**	**3.2 J**	**4.6**	**3.7**
Fluoranthene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	**3.9**	3.3 U
Fluorene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	3.3 U	3.3 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**7.71**	**12.4**	**11.1**	**9**	**10**	**6.8**
Phenanthrene	ug/kg	3.25 U	**4.44**	**3.83**	**5**	**5.6**	**3.8**
Pyrene	ug/kg	3.25 U	3.33 U	3.41 U	3.4 U	**5.3 J**	3.3 U
Total PAHs	ug/kg	**28.6**	**62.5**	**56.2**	**45.2**	**63.2**	**28.3**

TABLE I-71B
SVOC Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Acenaphthene	ug/kg	**420 J**	**100**	**140**	**63**	**63**	**140**	**270**	**180**	**150**	**99**	**68**	**53**	18 U	**23**
Acenaphthylene	ug/kg	**87**	17 U	21 U	**85**	18 U	19 U	**59**	**32**	**24**	**14 J**	17 U	18 U	18 U	16 U
Anthracene	ug/kg	**67 J**	17 U	21 U	19 U	18 U	19 U	**54 J**	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Benzo(a)anthracene	ug/kg	**36**	17 U	21 U	**120**	18 U	19 U	**32**	**19 J**	**16 J**	17 U	17 U	18 U	18 U	16 U
Benzo(a)pyrene	ug/kg	**55**	**19**	**34**	**130**	18 U	**22**	**43**	**36**	**25**	**22**	**23**	**24**	**23**	**22**
Benzo(b)fluoranthene	ug/kg	**40**	17 U	**28**	**65**	18 U	**21**	**30**	**27**	**20**	**20**	17 U	**21**	**20**	**21**
Benzo(g,h,i)perylene	ug/kg	**170**	**58**	**140**	**89**	**46**	**81**	**110**	**95**	**62**	**67**	**87**	**110**	**100**	**110**
Benzo(k)fluoranthene	ug/kg	**31**	17 U	**23**	**62**	18 U	**15 J**	**25**	**23**	**16 J**	**15 J**	17 U	18 U	18 U	**16 J**
Chrysene	ug/kg	**38**	17 U	**23**	**100**	**20**	19 U	**35**	**22**	**22**	**17 J**	17 U	18 U	18 U	16 U
Dibenz(a,h)anthracene	ug/kg	**21**	**17 J**	**20 J**	**33**	18 U	**21**	**25**	**23**	18 U	**18**	**16 J**	18 U	18 U	**17**
Fluoranthene	ug/kg	**86**	17 U	**62**	**110**	**24**	**34**	**78**	**53**	**48**	**35**	**19**	**19**	18 U	16 U
Fluorene	ug/kg	**150**	**29**	**55**	**35**	**27**	**33**	**180**	**61**	**52**	**30**	17 U	18 U	18 U	**12 J**
Indeno(1,2,3-c,d)pyrene	ug/kg	**62**	**35**	**54**	**78**	**32**	**45**	**53**	**58**	**39**	**42**	**44**	**51**	**48**	**45**
Phenanthrene	ug/kg	**230**	**63**	**120**	**70**	**55**	**65**	**180**	**110**	**69**	**54**	**17 J**	**51**	18 U	16 U
Pyrene	ug/kg	**140 J**	**27**	**58**	**120**	**26**	**42**	**90**	**78**	**59**	**45**	**20**	**19**	18 U	16 U
Total PAHs	ug/kg	**1,633**	**348**	**757**	**1,160**	**293**	**519**	**1,264**	**817**	**602**	**478**	**294**	**348**	**191**	**266**

TABLE I-71B
SVOC Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-ED-1**	**GC-TIMIDDLE-BC-ED-2**	**GC-TIMIDDLE-BC-ED-3**	**GC-TI-OUTER-BC-ED-1**	**GC-TI-OUTER-BC-ED-2**	**GC-TI-OUTER-BC-ED-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**
Sample Weight:		**111.55**	**113.27**	**107.58**	**105.72**	**261.60**	**110.76**
Parameter	**Units**	**Semi-Volatile Organic Compounds**					
Acenaphthene	ug/kg	16 U	18 U	16 U	17 U	**196 J**	295 U
Acenaphthylene	ug/kg	16 U	18 U	16 U	17 U	231 U	295 U
Anthracene	ug/kg	16 U	18 U	16 U	17 U	231 U	295 U
Benzo(a)anthracene	ug/kg	16 U	18 U	16 U	17 U	231 U	295 U
Benzo(a)pyrene	ug/kg	**16 J**	**27**	**22**	**22**	**259**	295 U
Benzo(b)fluoranthene	ug/kg	16 U	**23**	**19**	**18**	**322**	295 U
Benzo(g,h,i)perylene	ug/kg	**70**	**160**	**120**	**100**	**1,330**	**1,250**
Benzo(k)fluoranthene	ug/kg	16 U	**18**	**17**	17 U	**259**	295 U
Chrysene	ug/kg	16 U	18 U	16 U	17 U	231 U	295 U
Dibenz(a,h)anthracene	ug/kg	**17**	**19**	**16 J**	**16 J**	**322**	**330**
Fluoranthene	ug/kg	16 U	18 U	16 U	17 U	**273**	295 U
Fluorene	ug/kg	16 U	18 U	16 U	17 U	231 U	295 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**38**	**67**	**52**	**45**	**699**	**607**
Phenanthrene	ug/kg	16 U	**24**	**18**	**25**	**392**	**339**
Pyrene	ug/kg	16 U	18 U	16 U	17 U	**371 J**	295 U
Total PAHs	ug/kg	**141**	**338**	**264**	**226**	**4,420**	**2,530**

TABLE I-72A
Pesticide Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**								**Pesticides**						
Aldrin	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Alpha BHC	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Alpha endosulfan	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Alpha-chlordane	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Beta BHC	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Beta endosulfan	ug/kg	3.21 U	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Delta BHC	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Dieldrin	ug/kg	3.21 U	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Endosulfan sulfate	ug/kg	3.21 U	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Endrin	ug/kg	3.21 UJ	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Endrin aldehyde	ug/kg	3.21 U	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Endrin ketone	ug/kg	3.21 U	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Gamma BHC	ug/kg	1.7 UJ	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Gamma-chlordane	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Heptachlor	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Heptachlor epoxide	ug/kg	1.7 U	1.69 U	1.74 U	1.68 U	1.69 U	1.71 U	1.75 U	1.75 U	1.7 U	1.68 U	1.69 U	1.68 U	1.68 U	1.7 U
Methoxychlor	ug/kg	17 U	16.9 U	17.4 U	16.8 U	16.9 U	17.1 U	17.5 U	17.5 U	17 U	16.8 U	16.9 U	16.8 U	16.8 U	17 U
P,P'-DDD	ug/kg	3.21 U	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
P,P'-DDE	ug/kg	3.21 U	3.23 U	**1.9 J**	**2.28 J**	**1.14 J**	**1.91 J**	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	**1.76 J**
P,P'-DDT	ug/kg	3.21 U	3.23 U	3.32 U	3.33 U	3.31 U	3.31 U	3.34 U	3.34 U	3.22 U	3.28 U	3.26 U	3.37 U	3.29 U	3.23 U
Toxaphene	ug/kg	170 U	169 U	174 U	168 U	169 U	171 U	175 U	175 U	170 U	168 U	169 U	168 U	168 U	170 U
Total DDTs	ug/kg	ND	ND	**1.9**	**2.28**	**1.14**	**1.91**	ND	ND	ND	ND	ND	ND	ND	**1.76**

TABLE I-72A
Pesticide Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
Sample Number:		GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
Sample Date:		8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
Sample Species:		Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
Sample Type:		Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
Sample Weight:		111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Pesticides**					
Aldrin	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Alpha BHC	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Alpha endosulfan	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Alpha-chlordane	ug/kg	1.71 U	3.33 U	1.68 U	3.2 U	1.7 U	1.7 U
Beta BHC	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Beta endosulfan	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
Delta BHC	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Dieldrin	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
Endosulfan sulfate	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
Endrin	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
Endrin aldehyde	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
Endrin ketone	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
Gamma BHC	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Gamma-chlordane	ug/kg	1.71 U	3.33 U	1.68 U	3.2 U	1.7 U	1.7 U
Heptachlor	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Heptachlor epoxide	ug/kg	1.71 U	1.7 U	1.68 U	1.7 U	1.7 U	1.7 U
Methoxychlor	ug/kg	17.1 U	17 U	16.8 U	17 U	17 U	17 U
P,P'-DDD	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
P,P'-DDE	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
P,P'-DDT	ug/kg	3.25 U	3.33 U	3.2 U	3.2 U	3.3 U	3.3 U
Toxaphene	ug/kg	171 U	170 U	168 U	170 U	170 U	170 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND

TABLE I-72B
Pesticide Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Pesticides**													
Aldrin	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Alpha BHC	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Alpha endosulfan	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Alpha-chlordane	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Beta BHC	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Beta endosulfan	ug/kg	17 U	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Delta BHC	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Dieldrin	ug/kg	17 U	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Endosulfan sulfate	ug/kg	17 U	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Endrin	ug/kg	17 UJ	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Endrin aldehyde	ug/kg	17 U	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Endrin ketone	ug/kg	17 U	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Gamma BHC	ug/kg	9 UJ	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Gamma-chlordane	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Heptachlor	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Heptachlor epoxide	ug/kg	9 U	8.9 U	11 U	9.6 U	9.2 U	9.8 U	11 U	11 U	9.5 U	8.7 U	8.8 U	9 U	9.2 U	8.4 U
Methoxychlor	ug/kg	90 U	89 U	110 U	96 U	92 U	98 U	110 U	110 U	95 U	87 U	88 U	90 U	92 U	84 U
P,P'-DDD	ug/kg	17 U	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
P,P'-DDE	ug/kg	17 U	17 U	**12 J**	**13 J**	**6.2 J**	**11 J**	21 U	21 U	18 U	17 U	17 U	18 U	18 U	**8.7 J**
P,P'-DDT	ug/kg	17 U	17 U	21 U	19 U	18 U	19 U	21 U	21 U	18 U	17 U	17 U	18 U	18 U	16 U
Toxaphene	ug/kg	900 U	890 U	1,100 U	960 U	920 U	980 U	1,100 U	1,100 U	950 U	870 U	880 U	900 U	920 U	840 U
Total DDTs	ug/kg	ND	ND	**12**	**13**	**6.2**	**11**	ND	ND	ND	ND	ND	ND	ND	**8.7**

TABLE I-72B
Pesticide Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
Sample Number:		GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
Sample Date:		8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
Sample Species:		Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
Sample Type:		Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
Sample Weight:		111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Pesticides**					
Aldrin	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Alpha BHC	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Alpha endosulfan	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Alpha-chlordane	ug/kg	8.4 U	18 U	7.9 U	16 U	119 U	152 U
Beta BHC	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Beta endosulfan	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
Delta BHC	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Dieldrin	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
Endosulfan sulfate	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
Endrin	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
Endrin aldehyde	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
Endrin ketone	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
Gamma BHC	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Gamma-chlordane	ug/kg	8.4 U	18 U	7.9 U	16 U	119 U	152 U
Heptachlor	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Heptachlor epoxide	ug/kg	8.4 U	9.2 U	7.9 U	8.5 U	119 U	152 U
Methoxychlor	ug/kg	84 U	92 U	79 U	85 U	1,190 U	1,520 U
P,P'-DDD	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
P,P'-DDE	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
P,P'-DDT	ug/kg	16 U	18 U	15 U	16 U	231 U	295 U
Toxaphene	ug/kg	840 U	920 U	790 U	850 U	11,900 U	15,200 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**5.94**	**4.33**	2.31 U	**3.4**	**3.05**	2.3 U	2.3 U	2.31 U	**2.37**	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 2	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 3	ng/kg	**5.89**	**4.02**	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 4	ng/kg	**21.3**	**16.8**	**6**	**16.4**	**12.7**	**12.2**	**15.4**	**17.3**	**19.2**	**9.98**	**12.1**	**9.56**	**12**	**9.98**
PCB 5	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 6	ng/kg	**9.29**	**7.6**	**3.37**	**5.8**	**5.07**	**6.59**	**14.4**	**13.8**	**13**	**5.12**	**3.59**	**3.16**	**5.69**	**3.04**
PCB 7	ng/kg	**3.61**	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 8	ng/kg	**35.6**	**30.1**	**11.7**	**19**	**17.9**	**20.4**	**40.2**	**33.4**	**63.5**	**19.2**	**18.5**	**17.4**	**22.7**	**7.53**
PCB 9	ng/kg	**2.5**	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 10	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 11	ng/kg	**38.6**	**57.7**	**21**	**47.8**	**60.2**	**50.1**	**60.5**	**36.5**	**68.7**	**58.7**	**56.7**	**44.6**	**91.6**	**40**
PCB 12/13	ng/kg	**7.34**	**10.9**	**7.67**	**8.23**	**11.3**	**19.2**	**24.1**	**24**	**23.8**	**16.6**	**15.1**	**14.3**	**22.8**	**6.93**
PCB 14	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 15	ng/kg	**275**	**437**	**443**	**677**	**597**	**928**	**506**	**439**	**869**	**671**	**634**	**561**	**539**	**366**
PCB 16	ng/kg	**8.5**	**6.34**	**2.6**	**7.33**	**4.63**	**5.68**	**7.44**	**7.68**	**13.9**	**3.14**	**6.31**	**5.52**	**6.97**	**4.7**
PCB 17	ng/kg	**20.5**	**21**	**10.2**	**20.3**	**16.1**	**24.1**	**48.4**	**41.8**	**45.9**	**20.4**	**22.2**	**20.1**	**48.6**	**22.4**
PCB 18/30	ng/kg	**24.2**	**24.1**	**10.7**	**31.7**	**17**	**33**	**65.9**	**44.4**	**60.3**	**20.3**	**29.2**	**35**	**75.6**	**34.5**
PCB 19	ng/kg	**4.32**	**3.34**	2.31 U	**5.35**	**3.36**	**3.24**	**3.99**	**6.46**	**5.28**	2.42 R	**3.69**	2.27 U	**3.47**	**4.09**
PCB 20/28	ng/kg	**4,010**	**5,410**	**4,910**	**7,380**	**5,930**	**7,400**	**4,580**	**4,430**	**9,420**	**7,810**	**6,820**	**5,180**	**6,530**	**4,910**
PCB 21/33	ng/kg	**26.8**	**29.7**	**27.3**	**29.1**	**31.4**	36.6 R	**51.6**	**44.9**	**99.6**	**39.2**	**44.5**	**21.9**	**36.5**	**18.6**
PCB 22	ng/kg	**24.1**	**36.1**	**18.5**	**23**	**26.1**	**40.8**	**83.2**	**56.1**	**83.3**	**32**	**44**	**59.5**	**100**	**22.2**
PCB 23	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 24	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 25	ng/kg	**13.2**	**14.9**	**8.8**	**12.7**	**10.1**	**20.2**	**39.7**	**31.3**	**23.7**	**16**	**18.7**	**26.3**	**48.6**	**15.5**
PCB 26/29	ng/kg	**18.4**	**19.3**	**9.35**	**22.3**	**13.3**	**27.3**	**62.1**	**39.9**	**34.4**	**23.6**	**26.3**	**38.4**	**77.8**	**30.7**
PCB 27	ng/kg	**3.99**	**5.88**	**2.4**	**5.41**	**4.08**	**6.7**	**16**	**11.1**	**9.22**	**5.63**	**6.78**	**6.66**	**18.5**	**7.35**
PCB 31	ng/kg	**81.5**	**72.3**	**37.9**	**68.7**	**51.1**	**117**	**216**	**125**	**163**	**83.7**	**99.7**	**177**	**295**	**93.8**
PCB 32	ng/kg	**19.7**	**30.4**	**19.6**	**22.7**	**19.8**	**32**	**79.1**	**56.3**	**52.9**	**31.7**	**35.2**	**32.2**	**74**	**24.8**
PCB 34	ng/kg	2.28 U	**3.63**	2.31 U	2.29 U	**2.94**	**2.96**	**6.48**	**4.06**	**5.4**	**4.99**	**3.74**	**2.48**	**6.18**	2.28 U
PCB 35	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	**2.7**	**5.06**	**2.82**	**4.41**	**3.24**	3.02 R	**3.09**	**6.86**	**2.72**
PCB 36	ng/kg	2.28 U	**5.46**	2.31 U	2.29 U	**3.7**	**3.38**	**4.64**	2.31 U	**9.09**	**6.54**	**5.37**	**3.69**	**6.87**	**2.79**
PCB 37	ng/kg	**585**	**827**	**945**	**1,240**	**986**	**1,390**	**834**	**776**	**1,690**	**1,440**	**1,300**	**877**	**822**	**749**
PCB 38	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	**4.74**	2.28 U
PCB 39	ng/kg	**4.29**	**5.59**	**2.42**	**5.24**	**4.38**	**4.71**	**7.01**	**3.38**	**7.42**	**7.22**	**6.39**	**5.38**	**9.37**	**5.91**
PCB 40/41/71	ng/kg	**50**	**139**	**92.6**	**63.7**	**80.8**	**112**	**287**	**153**	**133**	**185**	**194**	**123**	**390**	**141**
PCB 42	ng/kg	**27.2**	**26.3**	**13.8**	**24.7**	**20.3**	**35.6**	**70.1**	**42.3**	**35.7**	**30.9**	**35.5**	**37.2**	**119**	**42.5**

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	**2.66**	**5.93**	**5.38**	**8.34**	**4.58**	**7.05**	**17.8**	**12.4**	**5.92**	**7.76**	**9.9**	4.88 R	**20.7**	**13.1**
PCB 44/47/65	ng/kg	**4,740**	**5,270**	**3,490**	**6,260**	**5,250**	**6,180**	**3,270**	**3,040**	**6,380**	**5,210**	**5,310**	**3,450**	**5,630**	**5,570**
PCB 45/51	ng/kg	**5.14**	**5.78**	4.62 U	**10.8**	**4.86**	**8.9**	**22.2**	**12.6**	**9.89**	**6.91**	**8.96**	5.22 R	**21.7**	**13.3**
PCB 46	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	**2.81**	**3.14**	**2.82**	2.32 U	2.2 U	2.27 U	**4.31**	**2.36**
PCB 48	ng/kg	**6.81**	**8.88**	**5.59**	**12.5**	**6.33**	**14.8**	**34.7**	**20.4**	**21**	**10.3**	**14.4**	**11.5**	**41**	**23.1**
PCB 49/69	ng/kg	**80.1**	**46.3**	**18.6**	**47.7**	**26**	**67.6**	**182**	**66.7**	**58.3**	**42.5**	**67.1**	**101**	**285**	**75**
PCB 50/53	ng/kg	4.55 U	4.63 U	4.62 U	**8.26**	4.63 U	**8.49**	**20.7**	**11.1**	**8.64**	**5.06**	**7.61**	**7.61**	**29.9**	**13.1**
PCB 52	ng/kg	**48.3**	**42.3**	**19.8**	**65.8**	**28.9**	**78.5**	**220**	**78.1**	**64.2**	**55.6**	**88**	**115**	**341**	**114**
PCB 54	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 55	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.78 U	5.89 U	2.28 U
PCB 56	ng/kg	**30.7**	**42.3**	**20.2**	**28.1**	**22.9**	**41.2**	**123**	**64.5**	**57.7**	**36.4**	**54.1**	**62.7**	**199**	**49.1**
PCB 57	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	**4.81**	**2.47**	2.32 U	**3.05**	**3.52**	2.46 U	**7.45**	2.28 U
PCB 58	ng/kg	**3.07**	**3.83**	2.31 U	2.29 U	2.32 U	2.3 U	**5.32**	2.31 U	**11.3**	**2.85**	**4.84**	4.02 R	5.16 U	2.28 U
PCB 59/62/75	ng/kg	**335**	**332**	**213**	**412**	**332**	**363**	**201**	**193**	**420**	**355**	**373**	**248**	**413**	**363**
PCB 60	ng/kg	**1,050**	**1,480**	**1,540**	**2,020**	**1,560**	**1,990**	**1,110**	**1,020**	**2,810**	**2,090**	**1,850**	**1,300**	**1,720**	**1,200**
PCB 61/70/74/76	ng/kg	**3,280**	**4,370**	**3,450**	**5,260**	**4,160**	**5,200**	**3,130**	**2,760**	**6,660**	**5,770**	**5,030**	**3,590**	**5,250**	**4,270**
PCB 63	ng/kg	**53.3**	**49.5**	**23.3**	**44.4**	**40.5**	**51.1**	**72.6**	**36.7**	**55.3**	**79.9**	**67.6**	**59.5**	**93.5**	**47.5**
PCB 64	ng/kg	**54**	**39.6**	**23.7**	**46.4**	**25**	**60.5**	**134**	**65.7**	**55.1**	**44.6**	**65**	**99.2**	**220**	**70.8**
PCB 66	ng/kg	**4,710**	**6,780**	**5,510**	**8,500**	**6,740**	**8,050**	**5,180**	**4,420**	**11,600**	**9,980**	**8,970**	**5,370**	**8,620**	**6,520**
PCB 67	ng/kg	**6.81**	**6.6**	**2.57**	**6.58**	2.32 U	**10.1**	**15.6**	**8.19**	**6.67**	**7.9**	**10.1**	2.27 U	4.55 U	2.28 U
PCB 68	ng/kg	**34.9**	**37.5**	**16.3**	**30.7**	**31.5**	**35.2**	**38.4**	**17.8**	**45.3**	**49.3**	**44.2**	**29.9**	**53.1**	**33**
PCB 72	ng/kg	**13.7**	**15.3**	**5.71**	**10.3**	**9.84**	**14.5**	**25.3**	**9.19**	**13.9**	**23.1**	**21.2**	**15.7**	**42.2**	**16.8**
PCB 73	ng/kg	**3.86**	**9.75**	**2.47**	**2.77**	**4.37**	**2.65**	**12.2**	**3.52**	**20.6**	**7.88**	**8.96**	**6.36**	**8.54**	2.28 U
PCB 77	ng/kg	**335**	**514**	**464**	**629**	**544**	**701**	432 R	360 R	890 R	779 R	752 R	**451**	**640**	**517**
PCB 78	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.62 U	5.54 U	2.28 U
PCB 79	ng/kg	**17.3**	**20.4**	**12.8**	**21.5**	**17.6**	**21.5**	**18.4**	**12.1**	**26.3**	**22.7**	**24.8**	**12.1**	**29.3**	**21.1**
PCB 80	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.41 U	5.11 U	2.28 U
PCB 81	ng/kg	**19.6**	**26.6**	**27.5**	**32.6**	**26.7**	**38.7**	**23.8**	**20.4**	**50.1**	**40.9**	**36.7**	**22.7**	**28.7**	**24.9**
PCB 82	ng/kg	**6.99**	**6.1**	**4.2**	**8.63**	**7.91**	**11**	**11.1**	**7.76**	**10.9**	**8.38**	**9.96**	**5.5**	**18.6**	**10.1**
PCB 83/99	ng/kg	**8,900**	**9,700**	**6,650**	**10,500**	**10,600**	**11,200**	**6,660**	**5,670**	**14,400**	**10,900**	**11,100**	**6,070**	**10,900**	**10,600**
PCB 84	ng/kg	**8.99**	**12.1**	**11.5**	**18.1**	**8.33**	**13.2**	**29**	**25.5**	**15.4**	**22**	**22.8**	**10.1**	**29**	**32.6**
PCB 85/116/117	ng/kg	**1,370**	**1,530**	**1,140**	**1,800**	**1,550**	**1,880**	**1,180**	**920**	**2,300**	**1,810**	**1,890**	**1,020**	**1,870**	**1,670**
PCB 86/87/97/109/119/125	ng/kg	**678**	**722**	**488**	**798**	**734**	**796**	**554**	**468**	**978**	**829**	**862**	**498**	**934**	**871**
PCB 88/91	ng/kg	**32.3**	**30.8**	**17.5**	**39.3**	**18**	**42.9**	**105**	**37.6**	**22.2**	**52.2**	**56.3**	**58.6**	**136**	**56.8**
PCB 89	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 90/101/113	ng/kg	**353**	**257**	**102**	**240**	**152**	**276**	**553**	**191**	**219**	**325**	**348**	**404**	**891**	**352**

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 92	ng/kg	**40.1**	**30.7**	**11.7**	**31.5**	**8.9**	**32.8**	**98**	**35.8**	**14.5**	**40.5**	**58.4**	**61.8**	**169**	**62.9**
PCB 93/95/98/100/102	ng/kg	**353**	**440**	**328**	**592**	**538**	**610**	**481**	**369**	**658**	**618**	**636**	**330**	**545**	**545**
PCB 94	ng/kg	**4.28**	**14.3**	**5.08**	**6.2**	**9.39**	**8.55**	**19.8**	**6.7**	**14.5**	**18.5**	**15.4**	**8.03**	**21.1**	**8.4**
PCB 96	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 103	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	**2.65**	**10.1**	2.31 U	2.32 U	2.32 U	**2.37**	**5.02**	**10.4**	**3.77**
PCB 104	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 105	ng/kg	**2,600**	**3,200**	**2,370**	**3,780**	**3,330**	**4,120**	**2,540**	**1,920**	**4,690**	**3,840**	**3,950**	**2,240**	**4,280**	**3,360**
PCB 106	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	4.46 U	3.7 U
PCB 107	ng/kg	**275**	**330**	**187**	**300**	**276**	**342**	**336**	**176**	**471**	**438**	**412**	**266**	**460**	**326**
PCB 108/124	ng/kg	**6.89**	**8.39**	4.62 U	**6.13**	4.63 U	**8.57**	**20.5**	**6.55**	**6.9**	**12.9**	**13.2**	**13**	**33.4**	**11.5**
PCB 110/115	ng/kg	**355**	**304**	**222**	**364**	**258**	**374**	**506**	**264**	**390**	**391**	**411**	**338**	**837**	**388**
PCB 111	ng/kg	**21.6**	**16.7**	**11.3**	**21**	**19.6**	**20.5**	**13.6**	**11**	**21.1**	**20**	**23.1**	**13.9**	**22.5**	**25.7**
PCB 112	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 114	ng/kg	**194**	**215**	**179**	**260**	**223**	**279**	**176**	**137**	**326**	**266**	**267**	**157**	**276**	**234**
PCB 118	ng/kg	**8,380**	**9,730**	**6,980**	**10,700**	**10,100**	**12,000**	**7,390**	**5,450**	**14,300**	**12,200**	**12,400**	**6,760**	**13,800**	**10,900**
PCB 120	ng/kg	**101**	**101**	**65.4**	**102**	**110**	**116**	**75.2**	**60.1**	**131**	**114**	**125**	**70.6**	**128**	**128**
PCB 121	ng/kg	**11.2**	**11.1**	**6.49**	**12.4**	**10.3**	**11.5**	**7.11**	**6.27**	**11.8**	**12.2**	**15.5**	**8.15**	**12.5**	**13.4**
PCB 122	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.37 U	**10.7**	4.29 U
PCB 123	ng/kg	**181**	**213**	**175**	**237**	**231**	**263**	**151**	**132**	**314**	**253**	**271**	**140**	**261**	**242**
PCB 126	ng/kg	**19.6**	**27.6**	**24.7**	**31.5**	**30**	**37.8**	**20.8**	**16.5**	**38.4**	**38.6**	**37.9**	**22.6**	**38.4**	**33.3**
PCB 127	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	**8.36**	**15.5**	**20.3**
PCB 128/166	ng/kg	**1,290**	**1,430**	**1,040**	**1,560**	**1,540**	**1,900**	**1,090**	**873**	**2,070**	**1,460**	**1,820**	**929**	**1,650**	**1,690**
PCB 129/138/160/163	ng/kg	**10,100**	**11,100**	**7,530**	**12,200**	**11,800**	**13,600**	**8,670**	**6,960**	**16,800**	**11,600**	**12,700**	**7,190**	**11,300**	**10,400**
PCB 130	ng/kg	**123**	**110**	**44.2**	**84.3**	**78.8**	**91.3**	**129**	**60.8**	**108**	**146**	**113**	**81.9**	**172**	**78.2**
PCB 131	ng/kg	**2.72**	**4.23**	**2.49**	**3.61**	**2.98**	**4.6**	**5.81**	**2.69**	**4.53**	**6.84**	**6.43**	**3.55**	**8.12**	**3.46**
PCB 132	ng/kg	**9.2**	**4.3**	**2.68**	**8.6**	**3.1**	**9.88**	**14.2**	**7.05**	**4.94**	**6.27**	**10.2**	**8.02**	**36.9**	**11.6**
PCB 133	ng/kg	**312**	**246**	**168**	**316**	**328**	**364**	**214**	**177**	**393**	**339**	**361**	**192**	**348**	**345**
PCB 134/143	ng/kg	4.55 U	4.63 U	4.62 U	4.57 U	4.63 U	4.59 U	**7.77**	4.62 U	4.64 U	4.63 U	4.39 U	4.54 U	**11.4**	4.56 U
PCB 135/151/154	ng/kg	**737**	**891**	**686**	**945**	**1,180**	**1,250**	**732**	**700**	**1,510**	**1,140**	**1,110**	**688**	**852**	**938**
PCB 136	ng/kg	**4.52**	**4.36**	**3.43**	**9.86**	**3.04**	**6.41**	**13.5**	**8.79**	**4.25**	**7.86**	**8.35**	**3.14**	**10.2**	**12.7**
PCB 137	ng/kg	**579**	**515**	**414**	**612**	**617**	**773**	**408**	**345**	**732**	**582**	**613**	**348**	**516**	**582**
PCB 139/140	ng/kg	**238**	**251**	**189**	**281**	**299**	**338**	**184**	**165**	**393**	**278**	**298**	**176**	**270**	**279**
PCB 141	ng/kg	**42.6**	**17**	**11.9**	**21.7**	2.32 U	**29.2**	**50**	**15.8**	**24.3**	**27.6**	**35.4**	**34.9**	**29.6**	**22.6**
PCB 142	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 144	ng/kg	**12.3**	**10.9**	**7.08**	**12.8**	**7.56**	**14.3**	**25.1**	**9.32**	**10.6**	**19**	**16.5**	**14.6**	**32.2**	**15.9**
PCB 145	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 146	ng/kg	**2,330**	**2,360**	**1,430**	**2,230**	**2,180**	**2,680**	**1,780**	**1,320**	**3,030**	**2,560**	**2,720**	**1,400**	**2,730**	**2,280**
PCB 147/149	ng/kg	**413**	**350**	**163**	**351**	**196**	**379**	**765**	**283**	**269**	**563**	**445**	**440**	**950**	**402**
PCB 148	ng/kg	**71.1**	**73.1**	**52.8**	**80.2**	**90.8**	**95.6**	**54.2**	**53.5**	**102**	**88.9**	**90**	**48.4**	**69.2**	**80.6**
PCB 150	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 152	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 153/168	ng/kg	**18,300**	**21,100**	**14,200**	**19,500**	**24,900**	**26,300**	**15,000**	**12,100**	**31,800**	**24,200**	**24,000**	**11,600**	**21,600**	**20,700**
PCB 155	ng/kg	**26.5**	**39.4**	**26.3**	**57.7**	**42.1**	**44.5**	**25.4**	**23.3**	**49.1**	**44.2**	**48.3**	**23.1**	**58.5**	**44.8**
PCB 156/157	ng/kg	**1,140**	**1,200**	**917**	**1,290**	**1,350**	**1,650**	**931**	**702**	**1,660**	**1,450**	**1,490**	**777**	**1,450**	**1,310**
PCB 158	ng/kg	**1,100**	**1,240**	**986**	**1,400**	**1,450**	**1,830**	**920**	**795**	**1,920**	**1,390**	**1,450**	**795**	**1,280**	**1,200**
PCB 159	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 161	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 162	ng/kg	**34.3**	**38**	**26.5**	**38.8**	**35.1**	**42.9**	**31.2**	**22.7**	**49.9**	**41.5**	**42.8**	**25.6**	**48.3**	**40.3**
PCB 164	ng/kg	**25.6**	**11**	**3.27**	**6.22**	**5.65**	**9.59**	**26.6**	**9.69**	**7.5**	**19.4**	**15.3**	2.27 U	**21.3**	2.28 U
PCB 165	ng/kg	**19.3**	**14.1**	**8.71**	**17.3**	**17.6**	**18**	**13.1**	**9.52**	**19.2**	**19.7**	**20.8**	**11.8**	**22.2**	**23.8**
PCB 167	ng/kg	**523**	**604**	**434**	**600**	**660**	**745**	**457**	**346**	**839**	**706**	**720**	**381**	**738**	**643**
PCB 169	ng/kg	6.03 U	6.63 U	5.18 U	5.37 U	6.84 U	8.24 U	4.46 U	3.69 U	6.96 U	6.67 U	6.2 U	3.78 U	6.45 U	6.38 U
PCB 170	ng/kg	**1,170**	**1,310**	**1,200**	**1,630**	**1,690**	**1,810**	**1,060**	**984**	**2,000**	**1,260**	**1,470**	**728**	**679**	**1,090**
PCB 171/173	ng/kg	**581**	**730**	**583**	**803**	**838**	**954**	**538**	**463**	**1,150**	**741**	**842**	**428**	**622**	**687**
PCB 172	ng/kg	**267**	**222**	**199**	**314**	**280**	**363**	**210**	**201**	**371**	**303**	**265**	**145**	**160**	**195**
PCB 174	ng/kg	**22.7**	**9.65**	**5.93**	**14.2**	**6.01**	**9.9**	**31.7**	**11.4**	**9.87**	**15.3**	**15.3**	**22.8**	**14.7**	**10.3**
PCB 175	ng/kg	**88.1**	**98.5**	**70.3**	**108**	**102**	**141**	**80.4**	**73.1**	**156**	**127**	**134**	**73**	**112**	**102**
PCB 176	ng/kg	**5.43**	**4.72**	**3.09**	**6.36**	2.32 U	**4.55**	**12.4**	**4.61**	**3.02**	**8.02**	**5.66**	**4.62**	**14.7**	**7.58**
PCB 177	ng/kg	**282**	**270**	**117**	**209**	**189**	**229**	**340**	**165**	**273**	**354**	**255**	**183**	**366**	**152**
PCB 178	ng/kg	**709**	**654**	**467**	**783**	**807**	**923**	**600**	**487**	**1,180**	**979**	**966**	**506**	**923**	**824**
PCB 179	ng/kg	**6.83**	**2.81**	2.31 U	**4.11**	2.32 U	**5.8**	**10.7**	**4.69**	2.32 U	**4.03**	**6.08**	**6.18**	**23.3**	**8.67**
PCB 180/193	ng/kg	**5,340**	**6,390**	**4,680**	**6,640**	**7,230**	**7,930**	**4,650**	**4,050**	**8,760**	**6,380**	**6,800**	**3,380**	**5,230**	**5,740**
PCB 181	ng/kg	**28**	**26.4**	**21.6**	**33.2**	**34**	**38.1**	**19.1**	**19.9**	**40.2**	**28**	**27.2**	**14.8**	**19.3**	**24.5**
PCB 182	ng/kg	**28.3**	**22**	**15.4**	**26.4**	**23.8**	**28.6**	**15.1**	**14.3**	**22.5**	**19.8**	**22.8**	**11.5**	**18.4**	**26.1**
PCB 183/185	ng/kg	**2,100**	**2,590**	**1,810**	**2,580**	**2,800**	**3,300**	**1,800**	**1,540**	**3,940**	**2,780**	**3,020**	**1,540**	**2,540**	**2,500**
PCB 184	ng/kg	**12.6**	**14.6**	**8.92**	**16.2**	**12.1**	**14.2**	**10.1**	**7.08**	**16.5**	**14.4**	**16.9**	**9.58**	**21.6**	**17.3**
PCB 186	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 187	ng/kg	**4,410**	**5,150**	**2,820**	**4,440**	**4,060**	**5,500**	**3,720**	**2,840**	**5,510**	**4,590**	**4,620**	**3,060**	**4,670**	**4,660**
PCB 188	ng/kg	**34.1**	**44**	**32.5**	**45.9**	**50.2**	**45.9**	**32.9**	**29.4**	**59.3**	**50.2**	**50.1**	**27**	**39.1**	**42.6**
PCB 189	ng/kg	**76.9**	**91.4**	**68**	**90.8**	**101**	**109**	**65.5**	**56.3**	**134**	**106**	**104**	**56.5**	**87.4**	**84.4**
PCB 190	ng/kg	**376**	**435**	**345**	**492**	**522**	**595**	**315**	**285**	**602**	**443**	**463**	**241**	**290**	**341**
PCB 191	ng/kg	**87.3**	**105**	**85.7**	**122**	**136**	**159**	**78.3**	**74.3**	**166**	**122**	**121**	**62.6**	**76.9**	**87.8**

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 192	ng/kg	2.28 U	2.32 U	2.31 U	2.29 U	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	2.28 U
PCB 194	ng/kg	**629**	**647**	**520**	**686**	**794**	**759**	**439**	**408**	**793**	**630**	**716**	**343**	**423**	**560**
PCB 195	ng/kg	**157**	**160**	**167**	**228**	**224**	**232**	**136**	**136**	**226**	**145**	**178**	**94.3**	**72.3**	**134**
PCB 196	ng/kg	**477**	**467**	**368**	**567**	**551**	**648**	**307**	**319**	**557**	**429**	**508**	**264**	**353**	**482**
PCB 197/200	ng/kg	**73.4**	**79.3**	**47.9**	**82**	**59.7**	**77.4**	**53.4**	**41.5**	**87.5**	**65.5**	**78.8**	**51.8**	**90.7**	**94.8**
PCB 198/199	ng/kg	**842**	**680**	**634**	**862**	**689**	**919**	**594**	**508**	**737**	**705**	**747**	**441**	**570**	**733**
PCB 201	ng/kg	**143**	**167**	**104**	**150**	**132**	**154**	**129**	**87.6**	**200**	**176**	**197**	**121**	**212**	**198**
PCB 202	ng/kg	**486**	**446**	**314**	**418**	**441**	**456**	**426**	**250**	**582**	**552**	**626**	**349**	**745**	**632**
PCB 203	ng/kg	**546**	**520**	**426**	**615**	**500**	**708**	**371**	**340**	**525**	**491**	**598**	**328**	**293**	**472**
PCB 204	ng/kg	**2.48**	2.32 U	2.31 U	**2.72**	2.32 U	2.3 U	2.3 U	2.31 U	2.32 U	2.32 U	2.2 U	2.27 U	2.29 U	**2.42**
PCB 205	ng/kg	**11.6**	**11.7**	**13**	**18.4**	**14.4**	**13.4**	**11.1**	**9.51**	**15.5**	**13**	**13.3**	**8.51**	**4.61**	**9.39**
PCB 206	ng/kg	**260**	**238**	**303**	**314**	**247**	**265**	**213**	**156**	**209**	**200**	**290**	**159**	**149**	**268**
PCB 207	ng/kg	**66.8**	**52.4**	**45.5**	**71.1**	**54.6**	**57**	**42.4**	**32.5**	**40.1**	**38.3**	**56.6**	**30.4**	**42.4**	**71.9**
PCB 208	ng/kg	**227**	**150**	**183**	**208**	**179**	**162**	**158**	**107**	**120**	**123**	**168**	**97.4**	**157**	**260**
PCB 209	ng/kg	**215**	**184**	**185**	**225**	**187**	**144**	**158**	**105**	**145**	**121**	**169**	**104**	**159**	**271**
Dichlorobiphenyl	ng/kg	**393**	**560**	**493**	**774**	**704**	**1,040**	**661**	**564**	**1,060**	**781**	**740**	**650**	**694**	**433**
Heptachlorobiphenyl	ng/kg	**10,300**	**11,800**	**7,850**	**18,400**	**11,700**	**14,200**	**13,600**	**11,300**	**14,300**	**11,000**	**11,400**	**10,500**	**11,200**	**16,600**
Hexachlorobiphenyl	ng/kg	**28,400**	**32,200**	**21,700**	**22,100**	**36,700**	**39,900**	**23,700**	**12,900**	**48,600**	**35,800**	**36,700**	**13,600**	**32,900**	**31,100**
Monochlorobiphenyl	ng/kg	**11.8**	**8.35**	ND	**3.4**	**3.05**	ND	ND	ND	**2.37**	ND	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	**554**	**440**	**532**	**593**	**481**	**484**	**413**	**296**	**369**	**361**	**515**	**287**	**348**	**600**
Octachlorobiphenyl	ng/kg	**3,370**	**3,180**	**2,590**	**3,630**	**3,410**	**3,970**	**2,470**	**2,100**	**3,720**	**3,210**	**3,660**	**2,000**	**2,760**	**3,320**
Pentachlorobiphenyl	ng/kg	**17,300**	**19,400**	**16,000**	**21,200**	**20,700**	**23,200**	**14,100**	**11,100**	**33,400**	**26,900**	**27,500**	**12,800**	**29,000**	**21,500**
Tetrachlorobiphenyl	ng/kg	**9,450**	**12,500**	**8,960**	**15,000**	**12,200**	**15,000**	**9,040**	**7,650**	**24,600**	**21,000**	**19,300**	**9,740**	**13,900**	**12,600**
Trichlorobiphenyl	ng/kg	**4,010**	**5,410**	**4,910**	**7,380**	**5,930**	**7,400**	**4,580**	**4,430**	**9,420**	**7,810**	**6,820**	**5,180**	**6,530**	**4,910**
Total PCB (Lab)	ng/kg	**64,500**	**70,200**	**56,300**	**70,900**	**77,300**	**86,500**	**47,500**	**41,300**	**130,000**	**102,000**	**102,000**	**43,800**	**87,000**	**64,000**

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 1	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 2	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 3	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 4	ng/kg	**5.76**	**4.94**	**8.34**	**5.09**	**7.99**	**8.12**
PCB 5	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 6	ng/kg	**2.33**	2.28 U	**3.48**	2.29 U	**2.76**	2.29 U
PCB 7	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 8	ng/kg	**12.1**	**10.5**	**17.2**	**13.4**	**17.6**	**14**
PCB 9	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 10	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 11	ng/kg	**48.5**	**42**	**66.8**	**51.7**	**58.7**	**57.4**
PCB 12/13	ng/kg	**6.39**	**5.59**	**8.25**	**6.9**	**8.04**	**7.29**
PCB 14	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 15	ng/kg	**232**	**210**	**232**	**173**	**179**	**209**
PCB 16	ng/kg	**3.35**	**3.04**	**5.88**	**3.29**	**4.73**	**4.42**
PCB 17	ng/kg	**21.3**	**14.6**	**28.2**	**24.2**	**29.2**	**26.2**
PCB 18/30	ng/kg	**15.9**	**13.9**	**22.8**	**15.4**	**21.9**	**21.4**
PCB 19	ng/kg	**2.48**	2.28 U	**2.61**	2.29 U	**3.08**	**3.79**
PCB 20/28	ng/kg	**3,220**	**2,880**	**3,260**	**2,540**	**2,330**	**3,050**
PCB 21/33	ng/kg	**21.2**	**14.7**	**24.1**	**20.9**	**24.9**	**25.9**
PCB 22	ng/kg	**35.2**	**33.1**	**43.6**	**52.3**	**57.4**	**47.3**
PCB 23	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 24	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 25	ng/kg	**22.7**	**42**	**25.6**	**29.7**	**32.3**	**27.4**
PCB 26/29	ng/kg	**25.2**	**21.3**	**31.6**	**26.3**	**34.8**	**31.1**
PCB 27	ng/kg	**3.61**	**3.61**	**5.85**	**3.85**	**5.03**	**5.21**
PCB 31	ng/kg	**127**	**153**	**146**	**170**	**210**	**169**
PCB 32	ng/kg	**30.3**	**22.4**	**37.5**	**29.5**	**41.4**	**37.4**
PCB 34	ng/kg	2.29 U	2.28 U	**2.99**	2.29 U	2.25 U	2.29 U
PCB 35	ng/kg	**2.85**	2.28 U	**3.42**	**2.9**	**3.44**	**3.17**
PCB 36	ng/kg	**4.26**	**3.79**	**4.62**	**5.34**	**5.44**	**6.19**
PCB 37	ng/kg	**367**	**285**	**349**	**213**	**209**	**259**
PCB 38	ng/kg	2.29 U	**2.29**	2.3 U	2.29 U	2.25 U	2.29 U
PCB 39	ng/kg	**5.68**	**5.04**	**6.19**	**5.56**	**5.8**	**4.93**
PCB 40/41/71	ng/kg	**135**	**121**	**167**	**126**	**162**	**141**
PCB 42	ng/kg	**60.9**	**45.3**	**60.5**	**76.3**	**93.2**	**76.9**

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 43	ng/kg	2.29 U	**4.27**	**5.78**	4.16 R	**5.02**	**5.12**
PCB 44/47/65	ng/kg	**4,050**	**2,730**	**3,610**	**2,760**	**2,600**	**4,380**
PCB 45/51	ng/kg	**9.1**	**6.73**	**10.7**	**11.9**	**13.9**	**12.8**
PCB 46	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	**2.84**	**2.38**
PCB 48	ng/kg	**16.7**	**11.3**	**18.7**	**17.2**	**23.1**	**19.6**
PCB 49/69	ng/kg	**134**	**105**	**135**	**172**	**239**	**186**
PCB 50/53	ng/kg	**8.21**	**6.52**	**9.56**	**8.88**	**12.7**	**11.3**
PCB 52	ng/kg	**86.3**	**67.1**	**100**	**84.8**	**141**	**116**
PCB 54	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 55	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.47 U	2.87 U
PCB 56	ng/kg	**94.7**	**60**	**93**	**116**	**141**	**114**
PCB 57	ng/kg	2.29 U	**2.32**	**2.75**	2.29 U	**2.88**	2.63 U
PCB 58	ng/kg	2.29 U	**2.94**	5.51 R	**5.35**	6.29 R	**5.27**
PCB 59/62/75	ng/kg	**279**	**189**	**256**	**197**	**180**	**287**
PCB 60	ng/kg	**711**	**500**	**719**	**478**	**434**	**519**
PCB 61/70/74/76	ng/kg	**2,720**	**1,830**	**2,530**	**1,730**	**1,650**	**2,250**
PCB 63	ng/kg	**62.6**	**60.6**	**76.7**	**66.3**	**69.5**	**59.6**
PCB 64	ng/kg	**102**	**99**	**101**	**126**	**162**	**126**
PCB 66	ng/kg	**3,840**	**2,980**	**3,500**	**2,560**	**2,340**	**3,500**
PCB 67	ng/kg	2.29 U	**17.9**	**18.3**	**17.9**	18.9 R	**19.5**
PCB 68	ng/kg	**40**	**44.7**	**45.3**	**36**	**35.6**	**36.7**
PCB 72	ng/kg	**14.7**	**16.4**	**19.1**	**12**	**15.6**	**13.4**
PCB 73	ng/kg	**2.62**	**3.04**	**4.84**	**3**	**2.91**	**2.65**
PCB 77	ng/kg	**271**	**203**	**263**	**157**	**150**	**198**
PCB 78	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.37 U	2.76 U
PCB 79	ng/kg	**19.6**	**13.9**	**18**	**14.9**	**16.8**	**19.2**
PCB 80	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.44 U
PCB 81	ng/kg	**15.1**	**10.5**	**13.7**	**8.21**	6.53 R	**10.1**
PCB 82	ng/kg	**14.2**	**8.83**	**13.8**	**15.7**	**21.6**	**19.1**
PCB 83/99	ng/kg	**7,300**	**5,050**	**6,120**	**4,720**	**4,730**	**6,390**
PCB 84	ng/kg	**19.6**	**12.1**	**18.9**	**19.2**	**26.2**	**22.1**
PCB 85/116/117	ng/kg	**1,230**	**804**	**1,160**	**795**	**796**	**1,060**
PCB 86/87/97/109/119/125	ng/kg	**679**	**463**	**638**	**512**	**556**	**668**
PCB 88/91	ng/kg	**64.7**	**53.3**	**64**	**65.8**	**88.2**	**66.2**
PCB 89	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 90/101/113	ng/kg	**457**	**402**	**548**	**488**	**677**	**516**

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 92	ng/kg	**55.6**	**49.6**	**62.8**	**47**	**76.8**	**56.8**
PCB 93/95/98/100/102	ng/kg	**319**	**224**	**293**	**242**	**252**	**305**
PCB 94	ng/kg	**4.98**	**6.96**	**8.32**	**4.63**	**4.78**	**4.1**
PCB 96	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 103	ng/kg	**4.88**	**3.77**	**4.57**	**5.78**	**8.13**	**5.96**
PCB 104	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 105	ng/kg	**2,140**	**1,500**	**2,010**	**1,250**	**1,200**	**1,600**
PCB 106	ng/kg	3.24 U	2.42 U	2.97 U	2.29 U	2.25 U	2.82 U
PCB 107	ng/kg	**336**	**266**	**326**	**255**	**269**	**327**
PCB 108/124	ng/kg	**23.3**	**14.6**	**20.1**	**17.8**	**25.7**	**19**
PCB 110/115	ng/kg	**479**	**338**	**442**	**469**	**612**	**503**
PCB 111	ng/kg	**14.4**	**10.5**	**14.4**	**8.03**	**7.79**	**15.6**
PCB 112	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 114	ng/kg	**150**	**99.5**	**138**	**79.6**	**77.9**	**114**
PCB 118	ng/kg	**6,950**	**4,700**	**6,070**	**4,060**	**3,690**	**5,250**
PCB 120	ng/kg	**96.6**	**64.6**	**86**	**62.6**	**62**	**85.3**
PCB 121	ng/kg	**9.95**	**6.58**	**9.12**	**6.92**	**6.58**	**9.4**
PCB 122	ng/kg	**7.21**	2.69 U	**8.32**	**7.95**	**10.7**	**9.11**
PCB 123	ng/kg	**141**	**91.5**	**139**	**82.7**	**74.7**	**101**
PCB 126	ng/kg	**16.8**	**12.4**	**17.3**	**9.2**	**9.16**	12.4 R
PCB 127	ng/kg	**14.6**	**8.73**	**13.7**	**8.54**	**9.34**	**15**
PCB 128/166	ng/kg	**1,470**	**909**	**1,360**	**983**	**999**	**1,210**
PCB 129/138/160/163	ng/kg	**9,180**	**6,550**	**8,480**	**6,990**	**6,990**	**8,120**
PCB 130	ng/kg	**128**	**111**	**171**	**133**	**147**	**130**
PCB 131	ng/kg	3.55 R	**3.87**	**4.55**	**4.6**	**4.96**	**4.58**
PCB 132	ng/kg	**35.8**	**21.3**	**29.7**	**48.1**	**70.5**	**50**
PCB 133	ng/kg	**182**	**135**	**195**	**89.6**	**91.6**	**205**
PCB 134/143	ng/kg	**7.98**	4.55 U	**7.85**	**8.62**	**13.9**	**9.73**
PCB 135/151/154	ng/kg	**719**	**444**	**629**	**545**	**548**	**594**
PCB 136	ng/kg	**10.3**	**6.26 J**	**9.26**	**10.9**	**15.5**	**11.6**
PCB 137	ng/kg	**429**	**256**	**369**	**269**	**266**	**349**
PCB 139/140	ng/kg	**213**	**124**	**184**	**143**	**132**	**181**
PCB 141	ng/kg	**31.1**	**18.6**	**34.1**	**20.8**	**37.7**	**29.6**
PCB 142	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 144	ng/kg	**15**	**12.2**	**15.5**	**14.4**	**17.3**	**13.9**
PCB 145	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 146	ng/kg	**2,220**	**1,610**	**2,130**	**1,570**	**1,610**	**2,090**
PCB 147/149	ng/kg	**550**	**457**	**594**	**582**	**707**	**554**
PCB 148	ng/kg	**57.3**	**36.1**	**51.8**	**38.6**	**36.6**	**57.2**
PCB 150	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	**2.34**	2.29 U
PCB 152	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 153/168	ng/kg	**14,600**	**9,580**	**12,600**	**8,670**	**8,590**	**11,200**
PCB 155	ng/kg	**30.8**	**20.2**	**28**	**20.1**	**20.5**	**30.5**
PCB 156/157	ng/kg	**964**	**600**	**872**	**550**	**582**	**715**
PCB 158	ng/kg	**758**	**483**	**699**	**471**	**424**	**567**
PCB 159	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	**3.01**	2.29 U
PCB 161	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 162	ng/kg	**34.4**	**22.6**	**33.4**	**24.9**	**24**	**31.5**
PCB 164	ng/kg	**30.3**	18.9 R	25.4 R	**27.4**	**40.1**	**31.1**
PCB 165	ng/kg	**13.2**	**9.91**	**13**	**6.4**	**6.87**	**15.7**
PCB 167	ng/kg	**459**	**303**	**423**	**259**	**275**	**347**
PCB 169	ng/kg	6.44 U	4.41 U	5.65 U	3.38 U	4.54 U	5.61 U
PCB 170	ng/kg	**888**	**559**	**796**	**535**	**610**	**672**
PCB 171/173	ng/kg	**521**	**320**	**476**	**345**	**320**	**395**
PCB 172	ng/kg	**166**	**108**	**146**	**92.4**	**110**	**156**
PCB 174	ng/kg	**32.4**	**20.8**	**30.4**	**24.5**	**40.3**	**32.4**
PCB 175	ng/kg	**73.4**	**55**	**74.1**	**47.1**	**48.5**	**62.7**
PCB 176	ng/kg	**13.1**	**8**	**10.8**	**13.5**	**15.3**	**11.6**
PCB 177	ng/kg	**326**	**249**	**440**	**320**	**367**	**346**
PCB 178	ng/kg	**458**	**343**	**469**	**203**	**229**	**450**
PCB 179	ng/kg	**23.8**	**13.3**	**18.6**	**24.3**	**37.7**	**26.5**
PCB 180/193	ng/kg	**4,380**	**2,880**	**4,360**	**2,810**	**3,090**	**3,390**
PCB 181	ng/kg	**17.6**	**10.8**	**14.6**	**11.5**	**12**	**15.2**
PCB 182	ng/kg	**23.4**	**13.7**	**19.3**	**15.4**	**17.5**	**22**
PCB 183/185	ng/kg	**2,080**	**1,300**	**1,930**	**1,370**	**1,330**	**1,450**
PCB 184	ng/kg	**14.9**	**10.6**	**13.5**	**10.6**	**10.3**	**13.7**
PCB 186	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 187	ng/kg	**4,880**	**3,510**	**4,740**	**3,750**	**3,740**	**4,190**
PCB 188	ng/kg	**32.1**	**20.3**	**27.1**	**21.1**	**21.7**	**32.8**
PCB 189	ng/kg	**64.9**	**39.8**	**56.6**	**39.1**	**43.3**	**46.5**
PCB 190	ng/kg	**246**	**154**	**217**	**158**	**166**	**188**
PCB 191	ng/kg	**61.1**	**39.2**	**59**	**39.3**	**39.7**	**44.3**

TABLE I-73A
PCB Congener Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 192	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 194	ng/kg	**548**	**313**	**423**	**308**	**392**	**380**
PCB 195	ng/kg	**109**	**64.6**	**86.1**	**66.9**	**78**	**84.7**
PCB 196	ng/kg	**366**	**210**	**296**	**216**	**243**	**281**
PCB 197/200	ng/kg	**76.9**	**54.1**	**67.7**	**55.1**	**54.2**	**67.2**
PCB 198/199	ng/kg	**809**	**471**	**655**	**462**	**587**	**656**
PCB 201	ng/kg	**181**	**122**	**172**	**128**	**131**	**150**
PCB 202	ng/kg	**448**	**335**	**458**	**265**	**305**	**443**
PCB 203	ng/kg	**505**	**287**	**412**	**333**	**375**	**355**
PCB 204	ng/kg	2.29 U	2.28 U	2.3 U	2.29 U	2.25 U	2.29 U
PCB 205	ng/kg	**10.8**	**6.42**	**8.82**	**6.9**	**7.79**	**7.39**
PCB 206	ng/kg	**322**	**176**	**240**	**184**	**226**	**263**
PCB 207	ng/kg	**58.3**	**31.5**	**40.8**	**31.6**	**37.3**	**57.1**
PCB 208	ng/kg	**194**	**106**	**147**	**96.2**	**115**	**202**
PCB 209	ng/kg	**219**	**129**	**161**	**118**	**136**	**203**
Dichlorobiphenyl	ng/kg	**307**	**273**	**336**	**250**	**274**	**296**
Heptachlorobiphenyl	ng/kg	**9,920**	**9,650**	**13,900**	**9,830**	**10,200**	**11,500**
Hexachlorobiphenyl	ng/kg	**23,800**	**12,100**	**21,100**	**12,800**	**13,100**	**15,300**
Monochlorobiphenyl	ng/kg	ND	ND	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	**574**	**314**	**428**	**312**	**378**	**522**
Octachlorobiphenyl	ng/kg	**3,050**	**1,860**	**2,580**	**1,840**	**2,170**	**2,420**
Pentachlorobiphenyl	ng/kg	**14,300**	**9,490**	**12,200**	**13,200**	**9,600**	**11,600**
Tetrachlorobiphenyl	ng/kg	**8,830**	**9,130**	**8,280**	**8,780**	**8,490**	**12,100**
Trichlorobiphenyl	ng/kg	**3,910**	**3,500**	**4,000**	**3,140**	**3,020**	**3,720**
Total PCB (Lab)	ng/kg	**46,300**	**46,500**	**43,600**	**50,300**	**47,400**	**51,700**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**31.4**	**22.8**	14.6 U	**19.4**	**16.6**	13.2 U	14.5 U	14.5 U	**13.2**	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 2	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 3	ng/kg	**31.2**	**21.2**	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 4	ng/kg	**113**	**88.4**	**38**	**93.7**	**69**	**70.1**	**96.9**	**109**	**107**	**51.7**	**63**	**51.1**	**65.6**	**49.4**
PCB 5	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 6	ng/kg	**49.2**	**40**	**21.3**	**33.1**	**27.6**	**37.9**	**90.6**	**86.8**	**72.6**	**26.5**	**18.7**	**16.9**	**31.1**	**15**
PCB 7	ng/kg	**19.1**	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 8	ng/kg	**188**	**158**	**74.1**	**109**	**97.3**	**117**	**253**	**210**	**355**	**99.5**	**96.4**	**93**	**124**	**37.3**
PCB 9	ng/kg	**13.2**	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 10	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 11	ng/kg	**204**	**304**	**133**	**273**	**327**	**288**	**381**	**230**	**384**	**304**	**295**	**239**	**501**	**198**
PCB 12/13	ng/kg	**38.8**	**57.4**	**48.5**	**47**	**61.4**	**110**	**152**	**151**	**133**	**86**	**78.6**	**76.5**	**125**	**34.3**
PCB 14	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 15	ng/kg	**1,460**	**2,300**	**2,800**	**3,870**	**3,240**	**5,330**	**3,180**	**2,760**	**4,850**	**3,480**	**3,300**	**3,000**	**2,950**	**1,810**
PCB 16	ng/kg	**45**	**33.4**	**16.5**	**41.9**	**25.2**	**32.6**	**46.8**	**48.3**	**77.7**	**16.3**	**32.9**	**29.5**	**38.1**	**23.3**
PCB 17	ng/kg	**108**	**111**	**64.6**	**116**	**87.5**	**139**	**304**	**263**	**256**	**106**	**116**	**107**	**266**	**111**
PCB 18/30	ng/kg	**128**	**127**	**67.7**	**181**	**92.4**	**190**	**414**	**279**	**337**	**105**	**152**	**187**	**413**	**171**
PCB 19	ng/kg	**22.9**	**17.6**	14.6 U	**30.6**	**18.3**	**18.6**	**25.1**	**40.6**	**29.5**	12.5 R	**19.2**	12.1 U	**19**	**20.2**
PCB 20/28	ng/kg	**21,200**	**28,500**	**31,100**	**42,200**	**32,200**	**42,500**	**28,800**	**27,900**	**52,600**	**40,500**	**35,500**	**27,700**	**35,700**	**24,300**
PCB 21/33	ng/kg	**142**	**156**	**173**	**166**	**171**	210 R	**325**	**282**	**556**	**203**	**232**	**117**	**199**	**92.1**
PCB 22	ng/kg	**128**	**190**	**117**	**131**	**142**	**234**	**523**	**353**	**465**	**166**	**229**	**318**	**546**	**110**
PCB 23	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 24	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 25	ng/kg	**69.8**	**78.4**	**55.7**	**72.6**	**54.9**	**116**	**250**	**197**	**132**	**82.9**	**97.4**	**141**	**266**	**76.7**
PCB 26/29	ng/kg	**97.4**	**102**	**59.2**	**127**	**72.3**	**157**	**391**	**251**	**192**	**122**	**137**	**205**	**425**	**152**
PCB 27	ng/kg	**21.1**	**30.9**	**15.2**	**30.9**	**22.2**	**38.5**	**101**	**69.8**	**51.5**	**29.2**	**35.3**	**35.6**	**101**	**36.4**
PCB 31	ng/kg	**431**	**381**	**240**	**393**	**278**	**672**	**1,360**	**786**	**911**	**434**	**519**	**947**	**1,610**	**464**
PCB 32	ng/kg	**104**	**160**	**124**	**130**	**108**	**184**	**497**	**354**	**296**	**164**	**183**	**172**	**404**	**123**
PCB 34	ng/kg	12.1 U	**19.1**	14.6 U	13.1 U	**16**	**17**	**40.8**	**25.5**	**30.2**	**25.9**	**19.5**	**13.3**	**33.8**	11.3 U
PCB 35	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	**15.5**	**31.8**	**17.7**	**24.6**	**16.8**	15.7 R	**16.5**	**37.5**	**13.5**
PCB 36	ng/kg	12.1 U	**28.7**	14.6 U	13.1 U	**20.1**	**19.4**	**29.2**	14.5 U	**50.8**	**33.9**	**28**	**19.7**	**37.5**	**13.8**
PCB 37	ng/kg	**3,100**	**4,350**	**5,980**	**7,090**	**5,360**	**7,990**	**5,250**	**4,880**	**9,440**	**7,460**	**6,770**	**4,690**	**4,490**	**3,710**
PCB 38	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	**25.9**	11.3 U
PCB 39	ng/kg	**22.7**	**29.4**	**15.3**	**29.9**	**23.8**	**27.1**	**44.1**	**21.3**	**41.5**	**37.4**	**33.3**	**28.8**	**51.2**	**29.3**
PCB 40/41/71	ng/kg	**265**	**732**	**586**	**364**	**439**	**644**	**1,810**	**962**	**743**	**959**	**1,010**	**658**	**2,130**	**698**
PCB 42	ng/kg	**144**	**138**	**87.3**	**141**	**110**	**205**	**441**	**266**	**199**	**160**	**185**	**199**	**650**	**210**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	**14.1**	**31.2**	**34.1**	**47.7**	**24.9**	**40.5**	**112**	**78**	**33.1**	**40.2**	**51.6**	26.1 R	**113**	**64.9**
PCB 44/47/65	ng/kg	**25,100**	**27,700**	**22,100**	**35,800**	**28,500**	**35,500**	**20,600**	**19,100**	**35,600**	**27,000**	**27,700**	**18,400**	**30,800**	**27,600**
PCB 45/51	ng/kg	**27.2**	**30.4**	29.2 U	**61.7**	**26.4**	**51.1**	**140**	**79.2**	**55.3**	**35.8**	**46.7**	27.9 R	**119**	**65.8**
PCB 46	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	**17.7**	**19.7**	**15.8**	12 U	11.5 U	12.1 U	**23.6**	**11.7**
PCB 48	ng/kg	**36**	**46.7**	**35.4**	**71.4**	**34.4**	**85.1**	**218**	**128**	**117**	**53.4**	**75**	**61.5**	**224**	**114**
PCB 49/69	ng/kg	**424**	**244**	**118**	**273**	**141**	**389**	**1,140**	**419**	**326**	**220**	**349**	**540**	**1,560**	**371**
PCB 50/53	ng/kg	24.1 U	24.4 U	29.2 U	**47.2**	25.2 U	**48.8**	**130**	**69.8**	**48.3**	**26.2**	**39.6**	**40.7**	**163**	**64.9**
PCB 52	ng/kg	**256**	**223**	**125**	**376**	**157**	**451**	**1,380**	**491**	**359**	**288**	**458**	**615**	**1,860**	**564**
PCB 54	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 55	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	14.9 U	32.2 U	11.3 U
PCB 56	ng/kg	**162**	**223**	**128**	**161**	**124**	**237**	**774**	**406**	**322**	**189**	**282**	**335**	**1,090**	**243**
PCB 57	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	**30.3**	**15.5**	13 U	**15.8**	**18.3**	13.2 U	**40.7**	11.3 U
PCB 58	ng/kg	**16.2**	**20.2**	14.6 U	13.1 U	12.6 U	13.2 U	**33.5**	14.5 U	**63.1**	**14.8**	**25.2**	21.5 R	28.2 U	11.3 U
PCB 59/62/75	ng/kg	**1,770**	**1,750**	**1,350**	**2,350**	**1,800**	**2,090**	**1,260**	**1,210**	**2,350**	**1,840**	**1,940**	**1,330**	**2,260**	**1,800**
PCB 60	ng/kg	**5,560**	**7,790**	**9,750**	**11,500**	**8,480**	**11,400**	**6,980**	**6,420**	**15,700**	**10,800**	**9,640**	**6,950**	**9,400**	**5,940**
PCB 61/70/74/76	ng/kg	**17,400**	**23,000**	**21,800**	**30,100**	**22,600**	**29,900**	**19,700**	**17,400**	**37,200**	**29,900**	**26,200**	**19,200**	**28,700**	**21,100**
PCB 63	ng/kg	**282**	**261**	**147**	**254**	**220**	**294**	**457**	**231**	**309**	**414**	**352**	**318**	**511**	**235**
PCB 64	ng/kg	**286**	**208**	**150**	**265**	**136**	**348**	**843**	**413**	**308**	**231**	**339**	**530**	**1,200**	**350**
PCB 66	ng/kg	**24,900**	**35,700**	**34,900**	**48,600**	**36,600**	**46,300**	**32,600**	**27,800**	**64,800**	**51,700**	**46,700**	**28,700**	**47,100**	**32,300**
PCB 67	ng/kg	**36**	**34.7**	**16.3**	**37.6**	12.6 U	**58**	**98.1**	**51.5**	**37.3**	**40.9**	**52.6**	12.1 U	24.9 U	11.3 U
PCB 68	ng/kg	**185**	**197**	**103**	**175**	**171**	**202**	**242**	**112**	**253**	**255**	**230**	**160**	**290**	**163**
PCB 72	ng/kg	**72.5**	**80.5**	**36.1**	**58.9**	**53.5**	**83.3**	**159**	**57.8**	**77.7**	**120**	**110**	**84**	**231**	**83.2**
PCB 73	ng/kg	**20.4**	**51.3**	**15.6**	**15.8**	**23.8**	**15.2**	**76.7**	**22.1**	**115**	**40.8**	**46.7**	**34**	**46.7**	11.3 U
PCB 77	ng/kg	**1,770**	**2,710**	**2,940**	**3,590**	**2,960**	**4,030**	2,720 R	2,260 R	4,970 R	4,040 R	3,920 R	**2,410**	**3,500**	**2,560**
PCB 78	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	14 U	30.3 U	11.3 U
PCB 79	ng/kg	**91.5**	**107**	**81**	**123**	**95.7**	**124**	**116**	**76.1**	**147**	**118**	**129**	**64.7**	**160**	**104**
PCB 80	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.9 U	27.9 U	11.3 U
PCB 81	ng/kg	**104**	**140**	**174**	**186**	**145**	**222**	**150**	**128**	**280**	**212**	**191**	**121**	**157**	**123**
PCB 82	ng/kg	**37**	**32.1**	**26.6**	**49.3**	**43**	**63.2**	**69.8**	**48.8**	**60.9**	**43.4**	**51.9**	**29.4**	**102**	**50**
PCB 83/99	ng/kg	**47,100**	**51,100**	**42,100**	**60,000**	**57,600**	**64,400**	**41,900**	**35,700**	**80,400**	**56,500**	**57,800**	**32,500**	**59,600**	**52,500**
PCB 84	ng/kg	**47.6**	**63.7**	**72.8**	**103**	**45.3**	**75.9**	**182**	**160**	**86**	**114**	**119**	**54**	**158**	**161**
PCB 85/116/117	ng/kg	**7,250**	**8,050**	**7,220**	**10,300**	**8,420**	**10,800**	**7,420**	**5,790**	**12,800**	**9,380**	**9,840**	**5,450**	**10,200**	**8,270**
PCB 86/87/97/109/119/125	ng/kg	**3,590**	**3,800**	**3,090**	**4,560**	**3,990**	**4,570**	**3,480**	**2,940**	**5,460**	**4,300**	**4,490**	**2,660**	**5,100**	**4,310**
PCB 88/91	ng/kg	**171**	**162**	**111**	**225**	**97.8**	**247**	**660**	**236**	**124**	**270**	**293**	**313**	**743**	**281**
PCB 89	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 90/101/113	ng/kg	**1,870**	**1,350**	**646**	**1,370**	**826**	**1,590**	**3,480**	**1,200**	**1,220**	**1,680**	**1,810**	**2,160**	**4,870**	**1,740**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 92	ng/kg	**212**	**162**	**74.1**	**180**	**48.4**	**189**	**616**	**225**	**81**	**210**	**304**	**330**	**923**	**311**
PCB 93/95/98/100/102	ng/kg	**1,870**	**2,320**	**2,080**	**3,380**	**2,920**	**3,510**	**3,030**	**2,320**	**3,680**	**3,200**	**3,310**	**1,760**	**2,980**	**2,700**
PCB 94	ng/kg	**22.6**	**75.3**	**32.2**	**35.4**	**51**	**49.1**	**125**	**42.1**	**81**	**95.9**	**80.2**	**42.9**	**115**	**41.6**
PCB 96	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 103	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	**15.2**	**63.5**	14.5 U	13 U	12 U	**12.3**	**26.8**	**56.8**	**18.7**
PCB 104	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 105	ng/kg	**13,800**	**16,800**	**15,000**	**21,600**	**18,100**	**23,700**	**16,000**	**12,100**	**26,200**	**19,900**	**20,600**	**12,000**	**23,400**	**16,600**
PCB 106	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	24.4 U	18.3 U
PCB 107	ng/kg	**1,460**	**1,740**	**1,180**	**1,710**	**1,500**	**1,970**	**2,110**	**1,110**	**2,630**	**2,270**	**2,150**	**1,420**	**2,510**	**1,610**
PCB 108/124	ng/kg	**36.5**	**44.2**	29.2 U	**35**	25.2 U	**49.3**	**129**	**41.2**	**38.5**	**66.8**	**68.8**	**69.5**	**183**	**56.9**
PCB 110/115	ng/kg	**1,880**	**1,600**	**1,410**	**2,080**	**1,400**	**2,150**	**3,180**	**1,660**	**2,180**	**2,030**	**2,140**	**1,810**	**4,570**	**1,920**
PCB 111	ng/kg	**114**	**87.9**	**71.5**	**120**	**107**	**118**	**85.5**	**69.2**	**118**	**104**	**120**	**74.3**	**123**	**127**
PCB 112	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 114	ng/kg	**1,030**	**1,130**	**1,130**	**1,490**	**1,210**	**1,600**	**1,110**	**862**	**1,820**	**1,380**	**1,390**	**840**	**1,510**	**1,160**
PCB 118	ng/kg	**44,300**	**51,200**	**44,200**	**61,100**	**54,900**	**69,000**	**46,500**	**34,300**	**79,900**	**63,200**	**64,600**	**36,100**	**75,400**	**54,000**
PCB 120	ng/kg	**534**	**532**	**414**	**583**	**598**	**667**	**473**	**378**	**732**	**591**	**651**	**378**	**699**	**634**
PCB 121	ng/kg	**59.3**	**58.4**	**41.1**	**70.9**	**56**	**66.1**	**44.7**	**39.4**	**65.9**	**63.2**	**80.7**	**43.6**	**68.3**	**66.3**
PCB 122	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.7 U	**58.5**	21.2 U
PCB 123	ng/kg	**958**	**1,120**	**1,110**	**1,350**	**1,260**	**1,510**	**950**	**830**	**1,750**	**1,310**	**1,410**	**749**	**1,430**	**1,200**
PCB 126	ng/kg	**104**	**145**	**156**	**180**	**163**	**217**	**131**	**104**	**215**	**200**	**197**	**121**	**210**	**165**
PCB 127	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	**44.7**	**84.7**	**100**
PCB 128/166	ng/kg	**6,830**	**7,530**	**6,580**	**8,910**	**8,370**	**10,900**	**6,860**	**5,490**	**11,600**	**7,560**	**9,480**	**4,970**	**9,020**	**8,370**
PCB 129/138/160/163	ng/kg	**53,400**	**58,400**	**47,700**	**69,700**	**64,100**	**78,200**	**54,500**	**43,800**	**93,900**	**60,100**	**66,100**	**38,400**	**61,700**	**51,500**
PCB 130	ng/kg	**651**	**579**	**280**	**482**	**428**	**525**	**811**	**382**	**603**	**756**	**589**	**438**	**940**	**387**
PCB 131	ng/kg	**14.4**	**22.3**	**15.8**	**20.6**	**16.2**	**26.4**	**36.5**	**16.9**	**25.3**	**35.4**	**33.5**	**19**	**44.4**	**17.1**
PCB 132	ng/kg	**48.7**	**22.6**	**17**	**49.1**	**16.8**	**56.8**	**89.3**	**44.3**	**27.6**	**32.5**	**53.1**	**42.9**	**202**	**57.4**
PCB 133	ng/kg	**1,650**	**1,290**	**1,060**	**1,810**	**1,780**	**2,090**	**1,350**	**1,110**	**2,200**	**1,760**	**1,880**	**1,030**	**1,900**	**1,710**
PCB 134/143	ng/kg	24.1 U	24.4 U	29.2 U	26.1 U	25.2 U	26.4 U	**48.9**	29.1 U	25.9 U	24 U	22.9 U	24.3 U	**62.3**	22.6 U
PCB 135/151/154	ng/kg	**3,900**	**4,690**	**4,340**	**5,400**	**6,410**	**7,180**	**4,600**	**4,400**	**8,440**	**5,910**	**5,780**	**3,680**	**4,660**	**4,640**
PCB 136	ng/kg	**23.9**	**22.9**	**21.7**	**56.3**	**16.5**	**36.8**	**84.9**	**55.3**	**23.7**	**40.7**	**43.5**	**16.8**	**55.7**	**62.9**
PCB 137	ng/kg	**3,060**	**2,710**	**2,620**	**3,500**	**3,350**	**4,440**	**2,570**	**2,170**	**4,090**	**3,020**	**3,190**	**1,860**	**2,820**	**2,880**
PCB 139/140	ng/kg	**1,260**	**1,320**	**1,200**	**1,610**	**1,630**	**1,940**	**1,160**	**1,040**	**2,200**	**1,440**	**1,550**	**941**	**1,480**	**1,380**
PCB 141	ng/kg	**225**	**89.5**	**75.3**	**124**	12.6 U	**168**	**314**	**99.4**	**136**	**143**	**184**	**187**	**162**	**112**
PCB 142	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 144	ng/kg	**65.1**	**57.4**	**44.8**	**73.1**	**41.1**	**82.2**	**158**	**58.6**	**59.2**	**98.4**	**85.9**	**78.1**	**176**	**78.7**
PCB 145	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 146	ng/kg	**12,300**	**12,400**	**9,050**	**12,700**	**11,800**	**15,400**	**11,200**	**8,300**	**16,900**	**13,300**	**14,200**	**7,490**	**14,900**	**11,300**
PCB 147/149	ng/kg	**2,190**	**1,840**	**1,030**	**2,010**	**1,070**	**2,180**	**4,810**	**1,780**	**1,500**	**2,920**	**2,320**	**2,350**	**5,190**	**1,990**
PCB 148	ng/kg	**376**	**385**	**334**	**458**	**493**	**549**	**341**	**336**	**570**	**461**	**469**	**259**	**378**	**399**
PCB 150	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 152	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 153/168	ng/kg	**96,800**	**111,000**	**89,900**	**111,000**	**135,000**	**151,000**	**94,300**	**76,100**	**178,000**	**125,000**	**125,000**	**62,000**	**118,000**	**102,000**
PCB 155	ng/kg	**140**	**207**	**166**	**330**	**229**	**256**	**160**	**147**	**274**	**229**	**252**	**124**	**320**	**222**
PCB 156/157	ng/kg	**6,030**	**6,320**	**5,800**	**7,370**	**7,340**	**9,480**	**5,860**	**4,420**	**9,270**	**7,510**	**7,760**	**4,160**	**7,920**	**6,490**
PCB 158	ng/kg	**5,820**	**6,530**	**6,240**	**8,000**	**7,880**	**10,500**	**5,790**	**5,000**	**10,700**	**7,200**	**7,550**	**4,250**	**6,990**	**5,940**
PCB 159	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 161	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 162	ng/kg	**181**	**200**	**168**	**222**	**191**	**247**	**196**	**143**	**279**	**215**	**223**	**137**	**264**	**200**
PCB 164	ng/kg	**135**	**57.9**	**20.7**	**35.5**	**30.7**	**55.1**	**167**	**60.9**	**41.9**	**101**	**79.7**	12.1 U	**116**	11.3 U
PCB 165	ng/kg	**102**	**74.2**	**55.1**	**98.9**	**95.7**	**103**	**82.4**	**59.9**	**107**	**102**	**108**	**63.1**	**121**	**118**
PCB 167	ng/kg	**2,770**	**3,180**	**2,750**	**3,430**	**3,590**	**4,280**	**2,870**	**2,180**	**4,690**	**3,660**	**3,750**	**2,040**	**4,030**	**3,180**
PCB 169	ng/kg	31.9 U	34.9 U	32.8 U	30.7 U	37.2 U	47.4 U	28.1 U	23.2 U	38.9 U	34.6 U	32.3 U	20.2 U	35.2 U	31.6 U
PCB 170	ng/kg	**6,190**	**6,890**	**7,590**	**9,310**	**9,180**	**10,400**	**6,670**	**6,190**	**11,200**	**6,530**	**7,660**	**3,890**	**3,710**	**5,400**
PCB 171/173	ng/kg	**3,070**	**3,840**	**3,690**	**4,590**	**4,550**	**5,480**	**3,380**	**2,910**	**6,420**	**3,840**	**4,390**	**2,290**	**3,400**	**3,400**
PCB 172	ng/kg	**1,410**	**1,170**	**1,260**	**1,790**	**1,520**	**2,090**	**1,320**	**1,260**	**2,070**	**1,570**	**1,380**	**775**	**874**	**965**
PCB 174	ng/kg	**120**	**50.8**	**37.5**	**81.1**	**32.7**	**56.9**	**199**	**71.7**	**55.1**	**79.3**	**79.7**	**122**	**80.3**	**51**
PCB 175	ng/kg	**466**	**518**	**445**	**617**	**554**	**810**	**506**	**460**	**872**	**658**	**698**	**390**	**612**	**505**
PCB 176	ng/kg	**28.7**	**24.8**	**19.6**	**36.3**	12.6 U	**26.1**	**78**	**29**	**16.9**	**41.6**	**29.5**	**24.7**	**80.3**	**37.5**
PCB 177	ng/kg	**1,490**	**1,420**	**741**	**1,190**	**1,030**	**1,320**	**2,140**	**1,040**	**1,530**	**1,830**	**1,330**	**979**	**2,000**	**752**
PCB 178	ng/kg	**3,750**	**3,440**	**2,960**	**4,470**	**4,390**	**5,300**	**3,770**	**3,060**	**6,590**	**5,070**	**5,030**	**2,710**	**5,040**	**4,080**
PCB 179	ng/kg	**36.1**	**14.8**	14.6 U	**23.5**	12.6 U	**33.3**	**67.3**	**29.5**	13 U	**20.9**	**31.7**	**33**	**127**	**42.9**
PCB 180/193	ng/kg	**28,300**	**33,600**	**29,600**	**37,900**	**39,300**	**45,600**	**29,200**	**25,500**	**48,900**	**33,100**	**35,400**	**18,100**	**28,600**	**28,400**
PCB 181	ng/kg	**148**	**139**	**137**	**190**	**185**	**219**	**120**	**125**	**225**	**145**	**142**	**79.1**	**105**	**121**
PCB 182	ng/kg	**150**	**116**	**97.5**	**151**	**129**	**164**	**95**	**89.9**	**126**	**103**	**119**	**61.5**	**101**	**129**
PCB 183/185	ng/kg	**11,100**	**13,600**	**11,500**	**14,700**	**15,200**	**19,000**	**11,300**	**9,690**	**22,000**	**14,400**	**15,700**	**8,240**	**13,900**	**12,400**
PCB 184	ng/kg	**66.7**	**76.8**	**56.5**	**92.6**	**65.8**	**81.6**	**63.5**	**44.5**	**92.2**	**74.6**	**88**	**51.2**	**118**	**85.6**
PCB 186	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 187	ng/kg	**23,300**	**27,100**	**17,800**	**25,400**	**22,100**	**31,600**	**23,400**	**17,900**	**30,800**	**23,800**	**24,100**	**16,400**	**25,500**	**23,100**
PCB 188	ng/kg	**180**	**232**	**206**	**262**	**273**	**264**	**207**	**185**	**331**	**260**	**261**	**144**	**214**	**211**
PCB 189	ng/kg	**407**	**481**	**430**	**519**	**549**	**626**	**412**	**354**	**749**	**549**	**542**	**302**	**478**	**418**
PCB 190	ng/kg	**1,990**	**2,290**	**2,180**	**2,810**	**2,840**	**3,420**	**1,980**	**1,790**	**3,360**	**2,300**	**2,410**	**1,290**	**1,580**	**1,690**
PCB 191	ng/kg	**462**	**553**	**542**	**697**	**739**	**914**	**492**	**467**	**927**	**632**	**630**	**335**	**420**	**435**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 192	ng/kg	12.1 U	12.2 U	14.6 U	13.1 U	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	11.3 U
PCB 194	ng/kg	**3,330**	**3,410**	**3,290**	**3,920**	**4,320**	**4,360**	**2,760**	**2,570**	**4,430**	**3,260**	**3,730**	**1,830**	**2,310**	**2,770**
PCB 195	ng/kg	**831**	**842**	**1,060**	**1,300**	**1,220**	**1,330**	**855**	**855**	**1,260**	**751**	**927**	**504**	**395**	**663**
PCB 196	ng/kg	**2,520**	**2,460**	**2,330**	**3,240**	**2,990**	**3,720**	**1,930**	**2,010**	**3,110**	**2,220**	**2,650**	**1,410**	**1,930**	**2,390**
PCB 197/200	ng/kg	**388**	**417**	**303**	**469**	**324**	**445**	**336**	**261**	**489**	**339**	**410**	**277**	**496**	**469**
PCB 198/199	ng/kg	**4,460**	**3,580**	**4,010**	**4,930**	**3,740**	**5,280**	**3,740**	**3,190**	**4,120**	**3,650**	**3,890**	**2,360**	**3,110**	**3,630**
PCB 201	ng/kg	**757**	**879**	**658**	**857**	**717**	**885**	**811**	**551**	**1,120**	**912**	**1,030**	**647**	**1,160**	**980**
PCB 202	ng/kg	**2,570**	**2,350**	**1,990**	**2,390**	**2,400**	**2,620**	**2,680**	**1,570**	**3,250**	**2,860**	**3,260**	**1,870**	**4,070**	**3,130**
PCB 203	ng/kg	**2,890**	**2,740**	**2,700**	**3,510**	**2,720**	**4,070**	**2,330**	**2,140**	**2,930**	**2,540**	**3,110**	**1,750**	**1,600**	**2,340**
PCB 204	ng/kg	**13.1**	12.2 U	14.6 U	**15.5**	12.6 U	13.2 U	14.5 U	14.5 U	13 U	12 U	11.5 U	12.1 U	12.5 U	**12**
PCB 205	ng/kg	**61.4**	**61.6**	**82.3**	**105**	**78.3**	**77**	**69.8**	**59.8**	**86.6**	**67.4**	**69.3**	**45.5**	**25.2**	**46.5**
PCB 206	ng/kg	**1,380**	**1,250**	**1,920**	**1,790**	**1,340**	**1,520**	**1,340**	**981**	**1,170**	**1,040**	**1,510**	**850**	**814**	**1,330**
PCB 207	ng/kg	**353**	**276**	**288**	**406**	**297**	**328**	**267**	**204**	**224**	**198**	**295**	**163**	**232**	**356**
PCB 208	ng/kg	**1,200**	**789**	**1,160**	**1,190**	**973**	**931**	**994**	**673**	**670**	**637**	**875**	**521**	**858**	**1,290**
PCB 209	ng/kg	**1,140**	**968**	**1,170**	**1,290**	**1,020**	**828**	**994**	**660**	**810**	**627**	**880**	**556**	**869**	**1,340**
Dichlorobiphenyl	ng/kg	**2,080**	**2,950**	**3,120**	**4,420**	**3,830**	**5,980**	**4,160**	**3,550**	**5,920**	**4,050**	**3,850**	**3,480**	**3,790**	**2,140**
Heptachlorobiphenyl	ng/kg	**54,500**	**62,100**	**49,700**	**105,000**	**63,600**	**81,600**	**85,500**	**71,100**	**79,900**	**57,000**	**59,400**	**56,100**	**61,200**	**82,200**
Hexachlorobiphenyl	ng/kg	**150,000**	**169,000**	**137,000**	**126,000**	**199,000**	**229,000**	**149,000**	**81,100**	**272,000**	**185,000**	**191,000**	**72,700**	**180,000**	**154,000**
Monochlorobiphenyl	ng/kg	**62.4**	**43.9**	ND	**19.4**	**16.6**	ND	ND	ND	**13.2**	ND	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	**2,930**	**2,320**	**3,370**	**3,390**	**2,610**	**2,780**	**2,600**	**1,860**	**2,060**	**1,870**	**2,680**	**1,530**	**1,900**	**2,970**
Octachlorobiphenyl	ng/kg	**17,800**	**16,700**	**16,400**	**20,700**	**18,500**	**22,800**	**15,500**	**13,200**	**20,800**	**16,600**	**19,100**	**10,700**	**15,100**	**16,400**
Pentachlorobiphenyl	ng/kg	**91,500**	**102,000**	**101,000**	**121,000**	**113,000**	**133,000**	**88,700**	**69,800**	**187,000**	**139,000**	**143,000**	**68,400**	**158,000**	**106,000**
Tetrachlorobiphenyl	ng/kg	**50,000**	**65,800**	**56,700**	**85,700**	**66,300**	**86,200**	**56,900**	**48,100**	**137,000**	**109,000**	**101,000**	**52,100**	**76,000**	**62,400**
Trichlorobiphenyl	ng/kg	**21,200**	**28,500**	**31,100**	**42,200**	**32,200**	**42,500**	**28,800**	**27,900**	**52,600**	**40,500**	**35,500**	**27,700**	**35,700**	**24,300**
Total PCB (Lab)	ng/kg	**341,000**	**369,000**	**356,000**	**405,000**	**420,000**	**497,000**	**299,000**	**260,000**	**726,000**	**528,000**	**531,000**	**234,000**	**475,000**	**317,000**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 1	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 2	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 3	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 4	ng/kg	**28.4**	**26.7**	**39.2**	**25.5**	**559**	**725**
PCB 5	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 6	ng/kg	**11.5**	12.3 U	**16.3**	11.5 U	**193**	204 U
PCB 7	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 8	ng/kg	**59.6**	**56.8**	**80.8**	**67**	**1,230**	**1,250**
PCB 9	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 10	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 11	ng/kg	**239**	**227**	**314**	**259**	**4,100**	**5,120**
PCB 12/13	ng/kg	**31.5**	**30.2**	**38.7**	**34.5**	**562**	**651**
PCB 14	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 15	ng/kg	**1,140**	**1,140**	**1,090**	**865**	**12,500**	**18,700**
PCB 16	ng/kg	**16.5**	**16.4**	**27.6**	**16.5**	**331**	**395**
PCB 17	ng/kg	**105**	**78.9**	**132**	**121**	**2,040**	**2,340**
PCB 18/30	ng/kg	**78.3**	**75.1**	**107**	**77**	**1,530**	**1,910**
PCB 19	ng/kg	**12.2**	12.3 U	**12.3**	11.5 U	**215**	**338**
PCB 20/28	ng/kg	**15,900**	**15,600**	**15,300**	**12,700**	**163,000**	**272,000**
PCB 21/33	ng/kg	**104**	**79.5**	**113**	**105**	**1,740**	**2,310**
PCB 22	ng/kg	**173**	**179**	**205**	**262**	**4,010**	**4,220**
PCB 23	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 24	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 25	ng/kg	**112**	**227**	**120**	**149**	**2,260**	**2,450**
PCB 26/29	ng/kg	**124**	**115**	**148**	**132**	**2,430**	**2,780**
PCB 27	ng/kg	**17.8**	**19.5**	**27.5**	**19.3**	**352**	**465**
PCB 31	ng/kg	**626**	**827**	**685**	**850**	**14,700**	**15,100**
PCB 32	ng/kg	**149**	**121**	**176**	**148**	**2,900**	**3,340**
PCB 34	ng/kg	11.3 U	12.3 U	**14**	11.5 U	157 U	204 U
PCB 35	ng/kg	**14**	12.3 U	**16.1**	**14.5**	**241**	**283**
PCB 36	ng/kg	**21**	**20.5**	**21.7**	**26.7**	**380**	**553**
PCB 37	ng/kg	**1,810**	**1,540**	**1,640**	**1,070**	**14,600**	**23,100**
PCB 38	ng/kg	11.3 U	**12.4**	10.8 U	11.5 U	157 U	204 U
PCB 39	ng/kg	**28**	**27.2**	**29.1**	**27.8**	**406**	**440**
PCB 40/41/71	ng/kg	**665**	**654**	**784**	**630**	**11,300**	**12,600**
PCB 42	ng/kg	**300**	**245**	**284**	**382**	**6,520**	**6,870**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 43	ng/kg	11.3 U	**23.1**	**27.1**	20.8 R	**351**	**457**
PCB 44/47/65	ng/kg	**20,000**	**14,800**	**16,900**	**13,800**	**182,000**	**391,000**
PCB 45/51	ng/kg	**44.8**	**36.4**	**50.2**	**59.5**	**972**	**1,140**
PCB 46	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	**199**	**212**
PCB 48	ng/kg	**82.3**	**61.1**	**87.8**	**86**	**1,620**	**1,750**
PCB 49/69	ng/kg	**660**	**568**	**634**	**860**	**16,700**	**16,600**
PCB 50/53	ng/kg	**40.4**	**35.2**	**44.9**	**44.4**	**888**	**1,010**
PCB 52	ng/kg	**425**	**363**	**469**	**424**	**9,860**	**10,400**
PCB 54	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 55	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	173 U	256 U
PCB 56	ng/kg	**467**	**324**	**437**	**580**	**9,860**	**10,200**
PCB 57	ng/kg	11.3 U	**12.5**	**12.9**	11.5 U	**201**	235 U
PCB 58	ng/kg	11.3 U	**15.9**	25.9 R	**26.8**	440 R	**471**
PCB 59/62/75	ng/kg	**1,370**	**1,020**	**1,200**	**985**	**12,600**	**25,600**
PCB 60	ng/kg	**3,500**	**2,700**	**3,380**	**2,390**	**30,300**	**46,300**
PCB 61/70/74/76	ng/kg	**13,400**	**9,890**	**11,900**	**8,650**	**115,000**	**201,000**
PCB 63	ng/kg	**308**	**328**	**360**	**332**	**4,860**	**5,320**
PCB 64	ng/kg	**502**	**535**	**474**	**630**	**11,300**	**11,200**
PCB 66	ng/kg	**18,900**	**16,100**	**16,400**	**12,800**	**164,000**	**312,000**
PCB 67	ng/kg	11.3 U	**96.8**	**85.9**	**89.5**	1,320 R	**1,740**
PCB 68	ng/kg	**197**	**242**	**213**	**180**	**2,490**	**3,280**
PCB 72	ng/kg	**72.4**	**88.6**	**89.7**	**60**	**1,090**	**1,200**
PCB 73	ng/kg	**12.9**	**16.4**	**22.7**	**15**	**203**	**237**
PCB 77	ng/kg	**1,330**	**1,100**	**1,230**	**785**	**10,500**	**17,700**
PCB 78	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	166 U	246 U
PCB 79	ng/kg	**96.6**	**75.1**	**84.5**	**74.5**	**1,170**	**1,710**
PCB 80	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	218 U
PCB 81	ng/kg	**74.4**	**56.8**	**64.3**	**41.1**	457 R	**902**
PCB 82	ng/kg	**70**	**47.7**	**64.8**	**78.5**	**1,510**	**1,710**
PCB 83/99	ng/kg	**36,000**	**27,300**	**28,700**	**23,600**	**331,000**	**571,000**
PCB 84	ng/kg	**96.6**	**65.4**	**88.7**	**96**	**1,830**	**1,970**
PCB 85/116/117	ng/kg	**6,060**	**4,350**	**5,450**	**3,980**	**55,700**	**94,600**
PCB 86/87/97/109/119/125	ng/kg	**3,340**	**2,500**	**3,000**	**2,560**	**38,900**	**59,600**
PCB 88/91	ng/kg	**319**	**288**	**300**	**329**	**6,170**	**5,910**
PCB 89	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 90/101/113	ng/kg	**2,250**	**2,170**	**2,570**	**2,440**	**47,300**	**46,100**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-ED-1**	**GC-TIMIDDLE-BC-ED-2**	**GC-TIMIDDLE-BC-ED-3**	**GC-TI-OUTER-BC-ED-1**	**GC-TI-OUTER-BC-ED-2**	**GC-TI-OUTER-BC-ED-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**
Sample Weight:		**111.55**	**113.27**	**107.58**	**105.72**	**261.60**	**110.76**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 92	ng/kg	**274**	**268**	**295**	**235**	**5,370**	**5,070**
PCB 93/95/98/100/102	ng/kg	**1,570**	**1,210**	**1,380**	**1,210**	**17,600**	**27,200**
PCB 94	ng/kg	**24.5**	**37.6**	**39.1**	**23.2**	**334**	**366**
PCB 96	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 103	ng/kg	**24**	**20.4**	**21.5**	**28.9**	**569**	**532**
PCB 104	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 105	ng/kg	**10,500**	**8,110**	**9,440**	**6,250**	**83,900**	**143,000**
PCB 106	ng/kg	16 U	13.1 U	13.9 U	11.5 U	157 U	252 U
PCB 107	ng/kg	**1,660**	**1,440**	**1,530**	**1,280**	**18,800**	**29,200**
PCB 108/124	ng/kg	**115**	**78.9**	**94.4**	**89**	**1,800**	**1,700**
PCB 110/115	ng/kg	**2,360**	**1,830**	**2,080**	**2,350**	**42,800**	**44,900**
PCB 111	ng/kg	**70.9**	**56.8**	**67.6**	**40.2**	**545**	**1,390**
PCB 112	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 114	ng/kg	**739**	**538**	**648**	**398**	**5,450**	**10,200**
PCB 118	ng/kg	**34,200**	**25,400**	**28,500**	**20,300**	**258,000**	**469,000**
PCB 120	ng/kg	**476**	**349**	**404**	**313**	**4,340**	**7,620**
PCB 121	ng/kg	**49**	**35.6**	**42.8**	**34.6**	**460**	**839**
PCB 122	ng/kg	**35.5**	14.5 U	**39.1**	**39.8**	**748**	**813**
PCB 123	ng/kg	**695**	**495**	**653**	**414**	**5,220**	**9,020**
PCB 126	ng/kg	**82.8**	**67**	**81.2**	**46**	**641**	1,110 R
PCB 127	ng/kg	**71.9**	**47.2**	**64.3**	**42.7**	**653**	**1,340**
PCB 128/166	ng/kg	**7,240**	**4,910**	**6,380**	**4,920**	**69,900**	**108,000**
PCB 129/138/160/163	ng/kg	**45,200**	**35,400**	**39,800**	**35,000**	**489,000**	**725,000**
PCB 130	ng/kg	**631**	**600**	**803**	**665**	**10,300**	**11,600**
PCB 131	ng/kg	17.5 R	**20.9**	**21.4**	**23**	**347**	**409**
PCB 132	ng/kg	**176**	**115**	**139**	**241**	**4,930**	**4,460**
PCB 133	ng/kg	**897**	**730**	**915**	**448**	**6,410**	**18,300**
PCB 134/143	ng/kg	**39.3**	24.6 U	**36.9**	**43.1**	**972**	**869**
PCB 135/151/154	ng/kg	**3,540**	**2,400**	**2,950**	**2,730**	**38,300**	**53,000**
PCB 136	ng/kg	**50.7**	**33.8 J**	**43.5**	**54.5**	**1,080**	**1,040**
PCB 137	ng/kg	**2,110**	**1,380**	**1,730**	**1,350**	**18,600**	**31,200**
PCB 139/140	ng/kg	**1,050**	**670**	**864**	**715**	**9,230**	**16,200**
PCB 141	ng/kg	**153**	**101**	**160**	**104**	**2,640**	**2,640**
PCB 142	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 144	ng/kg	**73.9**	**65.9**	**72.8**	**72**	**1,210**	**1,240**
PCB 145	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 146	ng/kg	**10,900**	**8,700**	**10,000**	**7,850**	**113,000**	**187,000**
PCB 147/149	ng/kg	**2,710**	**2,470**	**2,790**	**2,910**	**49,400**	**49,500**
PCB 148	ng/kg	**282**	**195**	**243**	**193**	**2,560**	**5,110**
PCB 150	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	**164**	204 U
PCB 152	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 153/168	ng/kg	**71,900**	**51,800**	**59,200**	**43,400**	**601,000**	**1,000,000**
PCB 155	ng/kg	**152**	**109**	**131**	**101**	**1,430**	**2,720**
PCB 156/157	ng/kg	**4,750**	**3,240**	**4,090**	**2,750**	**40,700**	**63,800**
PCB 158	ng/kg	**3,730**	**2,610**	**3,280**	**2,360**	**29,700**	**50,600**
PCB 159	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	**210**	204 U
PCB 161	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 162	ng/kg	**169**	**122**	**157**	**125**	**1,680**	**2,810**
PCB 164	ng/kg	**149**	102 R	119 R	**137**	**2,800**	**2,780**
PCB 165	ng/kg	**65**	**53.6**	**61**	**32**	**480**	**1,400**
PCB 167	ng/kg	**2,260**	**1,640**	**1,990**	**1,300**	**19,200**	**31,000**
PCB 169	ng/kg	31.7 U	23.8 U	26.5 U	16.9 U	317 U	501 U
PCB 170	ng/kg	**4,370**	**3,020**	**3,740**	**2,680**	**42,700**	**60,000**
PCB 171/173	ng/kg	**2,570**	**1,730**	**2,230**	**1,730**	**22,400**	**35,300**
PCB 172	ng/kg	**818**	**584**	**685**	**462**	**7,690**	**13,900**
PCB 174	ng/kg	**160**	**112**	**143**	**123**	**2,820**	**2,890**
PCB 175	ng/kg	**362**	**297**	**348**	**236**	**3,390**	**5,600**
PCB 176	ng/kg	**64.5**	**43.2**	**50.7**	**67.5**	**1,070**	**1,040**
PCB 177	ng/kg	**1,610**	**1,350**	**2,070**	**1,600**	**25,700**	**30,900**
PCB 178	ng/kg	**2,260**	**1,850**	**2,200**	**1,020**	**16,000**	**40,200**
PCB 179	ng/kg	**117**	**71.9**	**87.3**	**122**	**2,640**	**2,370**
PCB 180/193	ng/kg	**21,600**	**15,600**	**20,500**	**14,100**	**216,000**	**303,000**
PCB 181	ng/kg	**86.7**	**58.4**	**68.5**	**57.5**	**839**	**1,360**
PCB 182	ng/kg	**115**	**74.1**	**90.6**	**77**	**1,220**	**1,960**
PCB 183/185	ng/kg	**10,200**	**7,030**	**9,060**	**6,850**	**93,000**	**129,000**
PCB 184	ng/kg	**73.4**	**57.3**	**63.4**	**53**	**720**	**1,220**
PCB 186	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 187	ng/kg	**24,000**	**19,000**	**22,300**	**18,800**	**262,000**	**374,000**
PCB 188	ng/kg	**158**	**110**	**127**	**106**	**1,520**	**2,930**
PCB 189	ng/kg	**320**	**215**	**266**	**196**	**3,030**	**4,150**
PCB 190	ng/kg	**1,210**	**832**	**1,020**	**790**	**11,600**	**16,800**
PCB 191	ng/kg	**301**	**212**	**277**	**197**	**2,780**	**3,960**

TABLE I-73B
PCB Congener Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-ED-1	GC-TIMIDDLE-BC-ED-2	GC-TIMIDDLE-BC-ED-3	GC-TI-OUTER-BC-ED-1	GC-TI-OUTER-BC-ED-2	GC-TI-OUTER-BC-ED-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.55	113.27	107.58	105.72	261.60	110.76
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 192	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 194	ng/kg	**2,700**	**1,690**	**1,990**	**1,540**	**27,400**	**33,900**
PCB 195	ng/kg	**537**	**349**	**404**	**335**	**5,450**	**7,560**
PCB 196	ng/kg	**1,800**	**1,140**	**1,390**	**1,080**	**17,000**	**25,100**
PCB 197/200	ng/kg	**379**	**292**	**318**	**276**	**3,790**	**6,000**
PCB 198/199	ng/kg	**3,990**	**2,550**	**3,080**	**2,310**	**41,000**	**58,600**
PCB 201	ng/kg	**892**	**659**	**808**	**640**	**9,160**	**13,400**
PCB 202	ng/kg	**2,210**	**1,810**	**2,150**	**1,330**	**21,300**	**39,600**
PCB 203	ng/kg	**2,490**	**1,550**	**1,930**	**1,670**	**26,200**	**31,700**
PCB 204	ng/kg	11.3 U	12.3 U	10.8 U	11.5 U	157 U	204 U
PCB 205	ng/kg	**53.2**	**34.7**	**41.4**	**34.5**	**545**	**660**
PCB 206	ng/kg	**1,590**	**951**	**1,130**	**920**	**15,800**	**23,500**
PCB 207	ng/kg	**287**	**170**	**192**	**158**	**2,610**	**5,100**
PCB 208	ng/kg	**956**	**573**	**690**	**481**	**8,040**	**18,000**
PCB 209	ng/kg	**1,080**	**697**	**756**	**590**	**9,510**	**18,100**
Dichlorobiphenyl	ng/kg	**1,510**	**1,480**	**1,580**	**1,250**	**19,200**	**26,400**
Heptachlorobiphenyl	ng/kg	**48,900**	**52,200**	**65,300**	**49,200**	**713,000**	**1,030,000**
Hexachlorobiphenyl	ng/kg	**117,000**	**65,400**	**99,100**	**64,000**	**916,000**	**1,370,000**
Monochlorobiphenyl	ng/kg	ND	ND	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	**2,830**	**1,700**	**2,010**	**1,560**	**26,400**	**46,600**
Octachlorobiphenyl	ng/kg	**15,000**	**10,100**	**12,100**	**9,200**	**152,000**	**216,000**
Pentachlorobiphenyl	ng/kg	**70,400**	**51,300**	**57,300**	**66,000**	**671,000**	**1,040,000**
Tetrachlorobiphenyl	ng/kg	**43,500**	**49,400**	**38,900**	**43,900**	**594,000**	**1,080,000**
Trichlorobiphenyl	ng/kg	**19,300**	**18,900**	**18,800**	**15,700**	**211,000**	**332,000**
Total PCB (Lab)	ng/kg	**228,000**	**251,000**	**205,000**	**252,000**	**3,310,000**	**4,620,000**

TABLE I-74A
Metal and Lipid Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**								**Metals**						
Aluminum	mg/kg	19.8 U	19.6 U	19.4 U	19.6 U	19.2 U	19.4 U	19.6 U	19.8 U	19.4 U	19.6 U	19.8 U	19.4 U	19.6 U	19.6 U
Antimony	mg/kg	5.9 U	5.9 U	5.8 U	5.9 U	5.8 U	5.8 U	5.9 U	5.9 U	5.8 U	5.9 U	5.9 U	5.8 U	5.9 U	5.9 U
Arsenic	mg/kg	**1.6**	**1.8**	**0.89 J**	**1.2**	**1.4**	**1.3**	**1.8**	**1.1**	**1.2**	**1.5**	**1.6**	**1.2**	**2**	**1.7**
Barium	mg/kg	19.8 U	19.6 U	19.4 U	19.6 U	19.2 U	19.4 U	19.6 U	19.8 U	19.4 U	19.6 U	19.8 U	19.4 U	19.6 U	19.6 U
Beryllium	mg/kg	0.5 U	0.49 U	0.49 U	0.49 U	0.48 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.49 U
Cadmium	mg/kg	0.5 U	0.49 U	0.49 U	0.49 U	0.48 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	**0.17 J**
Calcium	mg/kg	**1,630**	**1,330**	**1,170**	**1,270**	**1,270**	**1,080**	**850**	**943**	**1,650**	**1,970**	**1,840**	**1,900**	**1,110**	**2,250**
Chromium	mg/kg	0.99 U	0.98 U	0.97 U	0.98 U	0.96 U	0.97 U	0.98 U	0.99 U	0.97 U	0.98 U	0.99 U	0.97 U	0.98 U	0.98 U
Cobalt	mg/kg	5 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.9 U
Copper	mg/kg	**12.9**	**14.1**	**9.7**	**9.7**	**10.2**	**11.7**	**10.3**	**9.1**	**11.5**	**12.2**	**13.1**	**11.5**	**15.5**	**14.1**
Iron	mg/kg	**11.2**	9.8 U	9.7 U	**10.1**	9.6 U	9.7 U	9.8 U	9.9 U	**7.5 J**	**7.9 J**	**13.3**	**5.6 J**	**7 J**	**11**
Lead	mg/kg	0.99 U	0.98 U	0.97 U	0.98 U	0.96 U	0.97 U	0.98 U	0.99 U	0.97 U	0.98 U	0.99 U	0.97 U	0.98 U	0.98 U
Magnesium	mg/kg	**447 J**	**453 J**	**384 J**	**385 J**	**427 J**	**342 J**	**354 J**	**353 J**	**395 J**	**401 J**	**427 J**	**367 J**	**313 J**	**429 J**
Manganese	mg/kg	**0.95 J**	**0.66 J**	1.5 U	**1.7**	1.4 U	1.5 U	1.5 U	1.5 U	**0.87 J**	**1.7**	**1.3 J**	**1.7**	**1.7**	**3.4**
Mercury	mg/kg	**0.17**	**0.13**	**0.15**	**0.2**	**0.14**	**0.16**	**0.19**	**0.13**	**0.1**	**0.15**	**0.14**	**0.18**	**0.2**	**0.099**
Nickel	mg/kg	4 U	3.9 U	3.9 U	3.9 U	3.8 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	3.9 U
Potassium	mg/kg	**2,810**	**2,750**	**2,360**	**2,620**	**2,870**	**2,480**	**2,580**	**2,500**	**2,580**	**2,680**	**2,710**	**2,530**	**2,690**	**2,820**
Selenium	mg/kg	3.5 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.5 U	3.4 U	3.4 U	3.5 U	3.4 U	3.4 U	3.4 U
Silver	mg/kg	0.99 UJ	**0.44 J**	0.97 UJ	0.98 UJ	0.96 UJ	0.97 UJ	0.98 UJ	0.99 UJ	0.97 UJ	0.98 UJ	**0.4 J**	0.97 UJ	**0.62 J**	**0.61 J**
Sodium	mg/kg	**3,700**	**4,060**	**4,100**	**3,520**	**3,810**	**2,900**	**2,900**	**3,030**	**3,470**	**2,900**	**3,330**	**2,660**	**2,230**	**2,590**
Thallium	mg/kg	2.5 U	2.5 U	2.4 U	2.5 U	2.4 U	2.4 U	2.5 U	2.5 U	2.4 U	2.5 U	2.5 U	2.4 U	2.5 U	2.5 U
Vanadium	mg/kg	5 U	4.9 U	4.9 U	4.9 U	4.8 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.9 U
Zinc	mg/kg	**26.1**	**26.8**	**20.9**	**21.9**	**24.2**	**20.3**	**22.1**	**19.8**	**21.5**	**23.9**	**25.8**	**22.2**	**24.2**	**27.2**
Cyanide, Total	mg/kg	**0.59 J**	**0.4 J**	**0.29 J**	**0.46 J**	2.5 U	2.4 U	**0.28 J**	**0.29 J**	**0.36 J**	**0.51 J**	**0.33 J**	**0.35 J**	**0.34 J**	**0.59 J**
Percent Lipids	%	**1.33**	**1.43**	**0.88**	**1.2**	**0.98**	**0.5**	**0.91**	**0.8**	**1.41**	**1.62**	**1.64**	**1.15**	**1.17**	**1.65**

TABLE I-74A
Metal and Lipid Concentrations in Crab Edible Tissue – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-ED-1**	**GC-TIMIDDLE-BC-ED-2**	**GC-TIMIDDLE-BC-ED-3**	**GC-TI-OUTER-BC-ED-1**	**GC-TI-OUTER-BC-ED-2**	**GC-TI-OUTER-BC-ED-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**
Sample Weight:		**111.55**	**113.27**	**107.58**	**105.72**	**261.60**	**110.76**
Parameter	**Units**	**Metals**					
Aluminum	mg/kg	19.4 U	19.2 U	19.6 U	19.8 U	20 U	20 U
Antimony	mg/kg	5.8 U	5.8 U	5.9 U	5.9 U	6 U	6 U
Arsenic	mg/kg	**1.4**	**1**	**1.6**	**1.1**	**1.3**	**1.1**
Barium	mg/kg	19.4 U	19.2 U	19.6 U	19.8 U	20 U	20 U
Beryllium	mg/kg	0.49 U	0.48 U	0.49 U	0.5 U	0.5 U	0.5 U
Cadmium	mg/kg	0.49 U	0.48 U	**0.17 J**	**0.16 J**	**0.23 J**	0.5 U
Calcium	mg/kg	**1,240**	**697**	**1,290**	**979**	**1,240**	**1,140**
Chromium	mg/kg	0.97 U	0.96 U	0.98 U	0.99 U	1 U	1 U
Cobalt	mg/kg	4.9 U	4.8 U	4.9 U	5 U	5 U	5 U
Copper	mg/kg	**17.4**	**14.2**	**18.4**	**15.2**	**19.7**	**13.9**
Iron	mg/kg	**7.3 J**	**6 J**	**8.2 J**	**6.3 J**	**11.9**	10 U
Lead	mg/kg	0.97 U	0.96 U	0.98 U	0.99 U	1 U	1 U
Magnesium	mg/kg	**360 J**	**321 J**	**375 J**	**387 J**	**460 J**	**366 J**
Manganese	mg/kg	**2.1**	**1 J**	**2.1**	**1.3 J**	**1.8**	**1.4 J**
Mercury	mg/kg	**0.14**	**0.15**	**0.19**	**0.22**	**0.36**	**0.3**
Nickel	mg/kg	3.9 U	3.8 U	3.9 U	4 U	4 U	4 U
Potassium	mg/kg	**2,900**	**2,560**	**3,150**	**2,920**	**3,060**	**2,780**
Selenium	mg/kg	3.4 U	3.4 U	**1.3 J**	**1.2 J**	**1.4 J**	3.5 U
Silver	mg/kg	**0.75 J**	**0.64 J**	**0.9 J**	**0.75 J**	**0.71 J**	**0.46 J**
Sodium	mg/kg	**2,360**	**2,280**	**2,480**	**2,080**	**2,520**	**2,550**
Thallium	mg/kg	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U
Vanadium	mg/kg	4.9 U	4.8 U	4.9 U	5 U	5 U	5 U
Zinc	mg/kg	**27.7**	**24.9**	**31.6**	**30.7**	**31.6**	**28.1**
Cyanide, Total	mg/kg	**0.38 J**	**0.31 J**	**0.25 J**	**0.26 J**	2.5 U	2.5 U
Percent Lipids	%	**2.64**	**1.11**	**1.37**	**1.29**	**1.43**	**1.12**

TABLE I-74B
Metal and Lipid Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-ED-1	GC-TI401-BC-ED-2	GC-TI402-BC-ED-1	GC-TI402-BC-ED-2	GC-TI403-BC-ED-1	GC-TI403-BC-ED-2	GC-TI404-BC-ED-1	GC-TI404-BC-ED-2	GC-TI405-BC-ED-1	GC-TI405-BC-ED-2	GC-TI406-BC-ED-1	GC-TI406-BC-ED-2	GC-TI-INNER-BC-ED-1	GC-TI-INNER-BC-ED-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue	Edible Tissue
	Sample Weight:	111.06	115.54	107.15	111.07	114.90	119.16	113.69	108.14	99.41	103.62	258.86	118.91	124.54	107.96
Parameter	**Units**	**Metals**													
Aluminum	mg/kg	105 U	103 U	123 U	112 U	104 U	111 U	123 U	125 U	108 U	102 U	103 U	104 U	107 U	97 U
Antimony	mg/kg	31.2 U	31.1 U	36.7 U	33.7 U	31.5 U	33.3 U	37.1 U	37.1 U	32.4 U	30.6 U	30.7 U	31 U	32.2 U	29.2 U
Arsenic	mg/kg	**8.47**	**9.47**	**5.63 J**	**6.86**	**7.61**	**7.47**	**11.3**	**6.92**	**6.7**	**7.77**	**8.33**	**6.42**	**10.9**	**8.42**
Barium	mg/kg	105 U	103 U	123 U	112 U	104 U	111 U	123 U	125 U	108 U	102 U	103 U	104 U	107 U	97 U
Beryllium	mg/kg	2.65 U	2.58 U	3.1 U	2.8 U	2.61 U	2.82 U	3.08 U	3.14 U	2.74 U	2.54 U	2.6 U	2.62 U	2.68 U	2.43 U
Cadmium	mg/kg	2.65 U	2.58 U	3.1 U	2.8 U	2.61 U	2.82 U	3.08 U	3.14 U	2.74 U	2.54 U	2.6 U	2.62 U	2.68 U	**0.842 J**
Calcium	mg/kg	**8,620**	**7,000**	**7,410**	**7,260**	**6,900**	**6,210**	**5,350**	**5,930**	**9,220**	**10,200**	**9,580**	**10,200**	**6,070**	**11,100**
Chromium	mg/kg	5.24 U	5.16 U	6.14 U	5.6 U	5.22 U	5.57 U	6.16 U	6.23 U	5.42 U	5.08 U	5.16 U	5.19 U	5.36 U	4.85 U
Cobalt	mg/kg	26.5 U	25.8 U	31 U	28 U	26.1 U	28.2 U	30.8 U	31.4 U	27.4 U	25.4 U	26 U	26.2 U	26.8 U	24.3 U
Copper	mg/kg	**68.3**	**74.2**	**61.4**	**55.4**	**55.4**	**67.2**	**64.8**	**57.2**	**64.2**	**63.2**	**68.2**	**61.5**	**84.7**	**69.8**
Iron	mg/kg	**59.3**	51.6 U	61.4 U	**57.7**	52.2 U	55.7 U	61.6 U	62.3 U	**41.9 J**	**40.9 J**	**69.3**	**29.9 J**	**38.3 J**	**54.5**
Lead	mg/kg	5.24 U	5.16 U	6.14 U	5.6 U	5.22 U	5.57 U	6.16 U	6.23 U	5.42 U	5.08 U	5.16 U	5.19 U	5.36 U	4.85 U
Magnesium	mg/kg	**2,370 J**	**2,380 J**	**2,430 J**	**2,200 J**	**2,320 J**	**1,970 J**	**2,230 J**	**2,220 J**	**2,210 J**	**2,080 J**	**2,220 J**	**1,960 J**	**1,710 J**	**2,120 J**
Manganese	mg/kg	**5.03 J**	**3.47 J**	9.49 U	**9.71**	7.61 U	8.62 U	9.43 U	9.43 U	**4.86 J**	**8.81**	**6.77 J**	**9.09**	**9.29**	**16.8**
Mercury	mg/kg	**0.899**	**0.684**	**0.949**	**1.14**	**0.761**	**0.92**	**1.19**	**0.818**	**0.559**	**0.777**	**0.729**	**0.963**	**1.09**	**0.49**
Nickel	mg/kg	21.2 U	20.5 U	24.7 U	22.3 U	20.7 U	22.4 U	24.5 U	25.2 U	21.8 U	20.2 U	20.8 U	20.9 U	21.3 U	19.3 U
Potassium	mg/kg	**14,900**	**14,500**	**14,900**	**15,000**	**15,600**	**14,300**	**16,200**	**15,700**	**14,400**	**13,900**	**14,100**	**13,500**	**14,700**	**14,000**
Selenium	mg/kg	18.5 U	17.9 U	21.5 U	19.4 U	18.5 U	19.5 U	21.4 U	22 U	19 U	17.6 U	18.2 U	18.2 U	18.6 U	16.8 U
Silver	mg/kg	5.24 UJ	**2.32 J**	6.14 UJ	5.6 UJ	5.22 UJ	5.57 UJ	6.16 UJ	6.23 UJ	5.42 UJ	5.08 UJ	**2.08 J**	5.19 UJ	**3.39 J**	**3.02 J**
Sodium	mg/kg	**19,600**	**21,400**	**25,900**	**20,100**	**20,700**	**16,700**	**18,200**	**19,100**	**19,400**	**15,000**	**17,300**	**14,200**	**12,200**	**12,800**
Thallium	mg/kg	13.2 U	13.2 U	15.2 U	14.3 U	13 U	13.8 U	15.7 U	15.7 U	13.4 U	13 U	13 U	12.8 U	13.7 U	12.4 U
Vanadium	mg/kg	26.5 U	25.8 U	31 U	28 U	26.1 U	28.2 U	30.8 U	31.4 U	27.4 U	25.4 U	26 U	26.2 U	26.8 U	24.3 U
Zinc	mg/kg	**138**	**141**	**132**	**125**	**132**	**117**	**139**	**125**	**120**	**124**	**134**	**119**	**132**	**135**
Cyanide, Total	mg/kg	**3.12 J**	**2.11 J**	**1.84 J**	**2.63 J**	13.6 U	13.8 U	**1.76 J**	**1.82 J**	**2.01 J**	**2.64 J**	**1.72 J**	**1.87 J**	**1.86 J**	**2.92 J**
Percent Lipids	%	**1.33**	**1.43**	**0.88**	**1.2**	**0.98**	**0.5**	**0.91**	**0.8**	**1.41**	**1.62**	**1.64**	**1.15**	**1.17**	**1.65**

TABLE I-74B
Metal and Lipid Concentrations in Crab Edible Tissue – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-ED-1**	**GC-TIMIDDLE-BC-ED-2**	**GC-TIMIDDLE-BC-ED-3**	**GC-TI-OUTER-BC-ED-1**	**GC-TI-OUTER-BC-ED-2**	**GC-TI-OUTER-BC-ED-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**	**Edible Tissue**
Sample Weight:		**111.55**	**113.27**	**107.58**	**105.72**	**261.60**	**110.76**
Parameter	**Units**	**Metals**					
Aluminum	mg/kg	95.6 U	104 U	92 U	99 U	1,400 U	1,790 U
Antimony	mg/kg	28.6 U	31.4 U	27.7 U	29.5 U	420 U	536 U
Arsenic	mg/kg	**6.9**	**5.41**	**7.51**	**5.5**	**90.9**	**98.2**
Barium	mg/kg	95.6 U	104 U	92 U	99 U	1,400 U	1,790 U
Beryllium	mg/kg	2.41 U	2.59 U	2.3 U	2.5 U	35 U	44.6 U
Cadmium	mg/kg	2.41 U	2.59 U	**0.798 J**	**0.8 J**	**16.1 J**	44.6 U
Calcium	mg/kg	**6,110**	**3,770**	**6,060**	**4,900**	**86,700**	**102,000**
Chromium	mg/kg	4.78 U	5.19 U	4.6 U	4.95 U	69.9 U	89.3 U
Cobalt	mg/kg	24.1 U	25.9 U	23 U	25 U	350 U	446 U
Copper	mg/kg	**85.7**	**76.8**	**86.4**	**76**	**1,380**	**1,240**
Iron	mg/kg	**36 J**	**32.4 J**	**38.5 J**	**31.5 J**	**832**	893 U
Lead	mg/kg	4.78 U	5.19 U	4.6 U	4.95 U	69.9 U	89.3 U
Magnesium	mg/kg	**1,770 J**	**1,740 J**	**1,760 J**	**1,940 J**	**32,200 J**	**32,700 J**
Manganese	mg/kg	**10.3**	**5.41 J**	**9.86**	**6.5 J**	**126**	**125 J**
Mercury	mg/kg	**0.69**	**0.811**	**0.892**	**1.1**	**25.2**	**26.8**
Nickel	mg/kg	19.2 U	20.5 U	18.3 U	20 U	280 U	357 U
Potassium	mg/kg	**14,300**	**13,800**	**14,800**	**14,600**	**214,000**	**248,000**
Selenium	mg/kg	16.7 U	18.4 U	**6.1 J**	**6 J**	**97.9 J**	312 U
Silver	mg/kg	**3.69 J**	**3.46 J**	**4.23 J**	**3.75 J**	**49.7 J**	**41.1 J**
Sodium	mg/kg	**11,600**	**12,300**	**11,600**	**10,400**	**176,000**	**228,000**
Thallium	mg/kg	11.8 U	13 U	11.7 U	12.5 U	175 U	223 U
Vanadium	mg/kg	24.1 U	25.9 U	23 U	25 U	350 U	446 U
Zinc	mg/kg	**136**	**135**	**148**	**154**	**2,210**	**2,510**
Cyanide, Total	mg/kg	**1.87 J**	**1.68 J**	**1.17 J**	**1.3 J**	175 U	223 U
Percent Lipids	%	**2.64**	**1.11**	**1.37**	**1.29**	**1.43**	**1.12**

TABLE I-75A
SVOC Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Semi-Volatile Organic Compounds**		
Acenaphthene	ug/kg	**63**	**14**	3.3 U
Acenaphthylene	ug/kg	**11**	3.3 U	3.3 U
Anthracene	ug/kg	**12 J**	3.3 U	3.3 U
Benzo(a)anthracene	ug/kg	**7.4**	3.3 U	3.3 U
Benzo(a)pyrene	ug/kg	**9.2**	3.3 U	3.3 U
Benzo(b)fluoranthene	ug/kg	**6.8**	3.3 U	3.3 U
Benzo(g,h,i)perylene	ug/kg	**22**	**12**	**14**
Benzo(k)fluoranthene	ug/kg	**5.4**	3.3 U	3.3 U
Chrysene	ug/kg	**7.6**	3.3 U	3.3 U
Dibenz(a,h)anthracene	ug/kg	**4.1**	**3.7**	**3.4**
Fluoranthene	ug/kg	**26**	**5.6**	3.3 U
Fluorene	ug/kg	**24**	**5**	3.3 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**10**	**7**	**6.7**
Phenanthrene	ug/kg	**45**	**13**	**4.2**
Pyrene	ug/kg	**32**	**6.1**	**4.1**
Total PAHs	ug/kg	**285.5**	**66.4**	**32.4**

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TABLE I-75B
SVOC Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Semi-Volatile Organic Compounds**		
Acenaphthene	ug/kg	**2,850**	**1,090**	216 U
Acenaphthylene	ug/kg	**498**	258 U	216 U
Anthracene	ug/kg	**543 J**	258 U	216 U
Benzo(a)anthracene	ug/kg	**335**	258 U	216 U
Benzo(a)pyrene	ug/kg	**416**	258 U	216 U
Benzo(b)fluoranthene	ug/kg	**308**	258 U	216 U
Benzo(g,h,i)perylene	ug/kg	**995**	**938**	**915**
Benzo(k)fluoranthene	ug/kg	**244**	258 U	216 U
Chrysene	ug/kg	**344**	258 U	216 U
Dibenz(a,h)anthracene	ug/kg	**186**	**289**	**222**
Fluoranthene	ug/kg	**1,180**	**438**	216 U
Fluorene	ug/kg	**1,090**	**391**	216 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**452**	**547**	**438**
Phenanthrene	ug/kg	**2,040**	**1,020**	**275**
Pyrene	ug/kg	**1,450**	**477**	**268**
Total PAHs	ug/kg	**12,900**	**5,190**	**2,120**

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TABLE I-76A
Pesticide Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-TI401-402-BC	GC-TI403-THRU-406-BC	GC-TI-IN-MID-OUT-BC
Sample Number:	GC-TI401-402-BC-HP-1	GC-TI403-404-405-406-BC-HP-2	GC-TI-INNER-MIDDLE-OUTER-BC-HP-1
Sample Date:	8/24/2010	8/25/2010	8/25/2010
Sample Species:	Blue Crab	Blue Crab	Blue Crab
Sample Type:	Hepatopancreas	Hepatopancreas	Hepatopancreas
Sample Weight:	70.70	63.38	43.59
Parameter	**Units**	**Pesticides**	
Aldrin	ug/kg	1.7 U	1.7 U	1.7 U
Alpha BHC	ug/kg	1.7 U	1.7 U	1.7 U
Alpha endosulfan	ug/kg	1.7 U	1.7 U	1.7 U
Alpha-chlordane	ug/kg	1.7 U	1.7 U	1.7 U
Beta BHC	ug/kg	1.7 U	1.7 U	1.7 U
Beta endosulfan	ug/kg	3.3 U	3.3 U	3.3 U
Delta BHC	ug/kg	1.7 U	1.7 U	1.7 U
Dieldrin	ug/kg	3.3 U	3.3 U	3.3 U
Endosulfan sulfate	ug/kg	3.3 U	3.3 U	3.3 U
Endrin	ug/kg	3.3 U	3.3 U	3.3 U
Endrin aldehyde	ug/kg	3.3 U	3.3 U	3.3 U
Endrin ketone	ug/kg	3.3 U	3.3 U	3.3 U
Gamma BHC	ug/kg	1.7 U	1.7 U	1.7 U
Gamma-chlordane	ug/kg	1.7 U	1.7 U	1.7 U
Heptachlor	ug/kg	1.7 U	1.7 U	1.7 U
Heptachlor epoxide	ug/kg	1.7 U	1.7 U	1.7 U
Methoxychlor	ug/kg	17 U	17 U	17 U
P,P'-DDD	ug/kg	3.3 U	3.3 U	3.3 U
P,P'-DDE	ug/kg	**3.6 NJ**	3.3 U	3.3 U
P,P'-DDT	ug/kg	3.3 U	3.3 U	3.3 U
Toxaphene	ug/kg	170 U	170 U	170 U
Total DDTs	ug/kg	**3.6**	ND	ND

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TABLE I-76B
Pesticide Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Pesticides**		
Aldrin	ug/kg	76.9 U	133 U	111 U
Alpha BHC	ug/kg	76.9 U	133 U	111 U
Alpha endosulfan	ug/kg	76.9 U	133 U	111 U
Alpha-chlordane	ug/kg	76.9 U	133 U	111 U
Beta BHC	ug/kg	76.9 U	133 U	111 U
Beta endosulfan	ug/kg	149 U	258 U	216 U
Delta BHC	ug/kg	76.9 U	133 U	111 U
Dieldrin	ug/kg	149 U	258 U	216 U
Endosulfan sulfate	ug/kg	149 U	258 U	216 U
Endrin	ug/kg	149 U	258 U	216 U
Endrin aldehyde	ug/kg	149 U	258 U	216 U
Endrin ketone	ug/kg	149 U	258 U	216 U
Gamma BHC	ug/kg	76.9 U	133 U	111 U
Gamma-chlordane	ug/kg	76.9 U	133 U	111 U
Heptachlor	ug/kg	76.9 U	133 U	111 U
Heptachlor epoxide	ug/kg	76.9 U	133 U	111 U
Methoxychlor	ug/kg	769 U	1,330 U	1,110 U
P,P'-DDD	ug/kg	149 U	258 U	216 U
P,P'-DDE	ug/kg	**163 NJ**	258 U	216 U
P,P'-DDT	ug/kg	149 U	258 U	216 U
Toxaphene	ug/kg	7,690 U	13,300 U	11,100 U
Total DDTs	ug/kg	**163**	ND	ND

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TABLE I-77A
PCB Congener Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 1	ng/kg	**11.9**	4.62 U	4.47 U
PCB 2	ng/kg	4.59 U	4.62 U	4.47 U
PCB 3	ng/kg	**14**	4.62 U	4.47 U
PCB 4	ng/kg	**40.9**	**12.8**	**9.91**
PCB 5	ng/kg	4.59 U	4.62 U	4.47 U
PCB 6	ng/kg	**17.7**	**11.3**	**7.72**
PCB 7	ng/kg	**7.32**	4.62 U	4.47 U
PCB 8	ng/kg	**78.6**	**34.2**	**17.9**
PCB 9	ng/kg	**5.6**	4.62 U	4.47 U
PCB 10	ng/kg	4.59 U	4.62 U	4.47 U
PCB 11	ng/kg	**87.6**	**63.1**	**82.8**
PCB 12/13	ng/kg	**15**	**15.4**	**9.57**
PCB 14	ng/kg	4.59 U	4.62 U	4.47 U
PCB 15	ng/kg	**670**	**312**	**239**
PCB 16	ng/kg	**21.3**	**12**	**9.65**
PCB 17	ng/kg	**40.8**	**29.9**	**29.9**
PCB 18/30	ng/kg	**62.6**	**81.9**	**76.9**
PCB 19	ng/kg	**8.38**	4.62 U	4.47 U
PCB 20/28	ng/kg	**8,320**	**3,390**	**3,360**
PCB 21/33	ng/kg	**63.3**	**70.6**	**51**
PCB 22	ng/kg	**59.8**	**51.8**	**43.3**
PCB 23	ng/kg	4.59 U	4.62 U	4.47 U
PCB 24	ng/kg	4.59 U	4.62 U	4.47 U
PCB 25	ng/kg	**35.2**	**27.1**	**38.9**
PCB 26/29	ng/kg	**50.7**	**74**	**99.3**
PCB 27	ng/kg	**9.19**	**18.6**	**23.8**
PCB 31	ng/kg	**231**	**170**	**185**
PCB 32	ng/kg	**40.7**	**61.1**	**55.7**
PCB 34	ng/kg	4.59 U	**6.94**	**8.48**
PCB 35	ng/kg	4.59 U	4.93 R	**5.13**
PCB 36	ng/kg	4.59 U	4.62 U	4.47 U
PCB 37	ng/kg	**1,560**	**673**	**460**
PCB 38	ng/kg	4.59 U	4.62 U	4.47 U
PCB 39	ng/kg	**7.61**	**4.71**	**6.67**
PCB 40/41/71	ng/kg	**217**	**496**	**598**

TABLE I-77A
PCB Congener Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-402-BC	GC-TI403-THRU-406-BC	GC-TI-IN-MID-OUT-BC
	Sample Number:	GC-TI401-402-BC-HP-1	GC-TI403-404-405-406-BC-HP-2	GC-TI-INNER-MIDDLE-OUTER-BC-HP-1
	Sample Date:	8/24/2010	8/25/2010	8/25/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Hepatopancreas	Hepatopancreas	Hepatopancreas
	Sample Weight:	70.70	63.38	43.59
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 42	ng/kg	**58.2**	**32.3**	**50.5**
PCB 43	ng/kg	**9.78**	**24.2**	**30.4**
PCB 44/47/65	ng/kg	**7,790**	**2,540**	**3,620**
PCB 45/51	ng/kg	**10.3**	**9.38**	**13.9**
PCB 46	ng/kg	4.59 U	4.62 U	4.47 U
PCB 48	ng/kg	**21.7**	**32.9**	**41.9**
PCB 49/69	ng/kg	**220**	**132**	**187**
PCB 50/53	ng/kg	**11**	**20.6**	**29.3**
PCB 52	ng/kg	**144**	**266**	**323**
PCB 54	ng/kg	4.59 U	4.62 U	4.47 U
PCB 55	ng/kg	4.59 U	4.62 U	4.47 U
PCB 56	ng/kg	**113**	**122**	**150**
PCB 57	ng/kg	**5.63**	**16.6**	**21.1**
PCB 58	ng/kg	**7.99**	**10.9**	7.87 R
PCB 59/62/75	ng/kg	**470**	**173**	**262**
PCB 60	ng/kg	4.59 U	**987**	**850**
PCB 61/70/74/76	ng/kg	**7,530**	**2,960**	**3,910**
PCB 63	ng/kg	**117**	**44.3**	**63.1**
PCB 64	ng/kg	**108**	**89.6**	**114**
PCB 66	ng/kg	**11,000**	**4,160**	**5,260**
PCB 67	ng/kg	4.59 U	**21.6**	4.47 U
PCB 68	ng/kg	**66**	**28.1**	**48.5**
PCB 72	ng/kg	**31**	**34.3**	**53.3**
PCB 73	ng/kg	**7.06**	**13.9**	**11.1**
PCB 77	ng/kg	**1,010**	**378**	**359**
PCB 78	ng/kg	4.59 U	4.62 U	4.47 U
PCB 79	ng/kg	**22.6**	**15**	**24**
PCB 80	ng/kg	4.59 U	4.62 U	4.47 U
PCB 81	ng/kg	**45.8**	**21.5**	**24.9**
PCB 82	ng/kg	**14.6**	**13.4**	**18.9**
PCB 83/99	ng/kg	**16,300**	**5,510**	**7,500**
PCB 84	ng/kg	**16.1**	**16.5**	**25.6**
PCB 85/116/117	ng/kg	**2,450**	**868**	**1,190**
PCB 86/87/97/109/119/125	ng/kg	**1,230**	**545**	**780**
PCB 88/91	ng/kg	**63.1**	**36**	**62.7**

TABLE I-77A
PCB Congener Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TI401-402-BC	GC-TI403-THRU-406-BC	GC-TI-IN-MID-OUT-BC
Sample Number:		GC-TI401-402-BC-HP-1	GC-TI403-404-405-406-BC-HP-2	GC-TI-INNER-MIDDLE-OUTER-BC-HP-1
Sample Date:		8/24/2010	8/25/2010	8/25/2010
Sample Species:		Blue Crab	Blue Crab	Blue Crab
Sample Type:		Hepatopancreas	Hepatopancreas	Hepatopancreas
Sample Weight:		70.70	63.38	43.59
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 89	ng/kg	4.59 U	4.62 U	4.47 U
PCB 90/101/113	ng/kg	**907**	**498**	**603**
PCB 92	ng/kg	**132**	**235**	**292**
PCB 93/95/98/100/102	ng/kg	**744**	**407**	**460**
PCB 94	ng/kg	**8.16**	**17.3**	**22**
PCB 96	ng/kg	4.59 U	4.62 U	4.47 U
PCB 103	ng/kg	4.59 U	4.62 U	**4.98**
PCB 104	ng/kg	4.59 U	4.62 U	4.47 U
PCB 105	ng/kg	**6,150**	**2,240**	**3,060**
PCB 106	ng/kg	5.16 U	4.62 U	4.47 U
PCB 107	ng/kg	**633**	**386**	**686**
PCB 108/124	ng/kg	**31.2**	**33.8**	**43.3**
PCB 110/115	ng/kg	**813**	**554**	**693**
PCB 111	ng/kg	**45.3**	**37.9**	**105**
PCB 112	ng/kg	4.59 U	4.62 U	4.47 U
PCB 114	ng/kg	**466**	**153**	**239**
PCB 118	ng/kg	**20,300**	**6,410**	**10,100**
PCB 120	ng/kg	**175**	**87**	**196**
PCB 121	ng/kg	**20.2**	**9.09**	**14.3**
PCB 122	ng/kg	5.99 U	**8.43**	**10**
PCB 123	ng/kg	**410**	**139**	**232**
PCB 126	ng/kg	**60**	**22**	**31.8**
PCB 127	ng/kg	**27.7**	12.2 R	**15.7**
PCB 128/166	ng/kg	**2,450**	**821**	**1,500**
PCB 129/138/160/163	ng/kg	**22,200**	**7,520**	**11,400**
PCB 130	ng/kg	**313**	**105**	**162**
PCB 131	ng/kg	4.59 U	4.62 U	4.47 U
PCB 132	ng/kg	**28.9**	**21.6**	**35.6**
PCB 133	ng/kg	**553**	**420**	**1,100**
PCB 134/143	ng/kg	9.19 U	9.23 U	8.93 U
PCB 135/151/154	ng/kg	**1,640**	**639**	**742**
PCB 136	ng/kg	**7.54**	**5.5**	**6.79**
PCB 137	ng/kg	**1,150**	**359**	**527**
PCB 139/140	ng/kg	**449**	**135**	**180**
PCB 141	ng/kg	**86.3**	**68.9**	**60.5**

TABLE I-77A
PCB Congener Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-402-BC	GC-TI403-THRU-406-BC	GC-TI-IN-MID-OUT-BC
	Sample Number:	GC-TI401-402-BC-HP-1	GC-TI403-404-405-406-BC-HP-2	GC-TI-INNER-MIDDLE-OUTER-BC-HP-1
	Sample Date:	8/24/2010	8/25/2010	8/25/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Hepatopancreas	Hepatopancreas	Hepatopancreas
	Sample Weight:	70.70	63.38	43.59
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 142	ng/kg	4.59 U	4.62 U	4.47 U
PCB 144	ng/kg	**32**	**19.4**	**27.5**
PCB 145	ng/kg	4.59 U	4.62 U	4.47 U
PCB 146	ng/kg	**4,690**	**1,680**	**3,600**
PCB 147/149	ng/kg	**1,040**	**386**	**574**
PCB 148	ng/kg	**117**	**45.8**	**65.5**
PCB 150	ng/kg	4.59 U	4.62 U	4.47 U
PCB 152	ng/kg	4.59 U	4.62 U	4.47 U
PCB 153/168	ng/kg	**40,900**	**11,600**	**18,400**
PCB 155	ng/kg	**48.7**	**19.4**	**27.9**
PCB 156/157	ng/kg	**2,750**	**928**	**1,580**
PCB 158	ng/kg	**2,720**	**822**	**1,150**
PCB 159	ng/kg	4.59 U	4.62 U	**8.5**
PCB 161	ng/kg	4.59 U	4.62 U	4.47 U
PCB 162	ng/kg	**84.2**	**59.9**	**120**
PCB 164	ng/kg	4.59 U	**35.7**	**34.3**
PCB 165	ng/kg	**30.3**	**24.5**	**71.2**
PCB 167	ng/kg	**1,330**	**471**	**827**
PCB 169	ng/kg	12.1 U	6 U	6.39 U
PCB 170	ng/kg	**4,130**	**924**	**979**
PCB 171/173	ng/kg	**1,480**	**366**	**426**
PCB 172	ng/kg	**807**	**312**	**486**
PCB 174	ng/kg	**55.3**	**26.1**	**24.1**
PCB 175	ng/kg	**209**	**64.9**	**106**
PCB 176	ng/kg	**12**	4.62 U	**5.89**
PCB 177	ng/kg	**1,260**	**167**	**226**
PCB 178	ng/kg	**1,330**	**735**	**1,610**
PCB 179	ng/kg	**17.8**	**5.99**	**10.3**
PCB 180/193	ng/kg	**14,900**	**3,990**	**5,680**
PCB 181	ng/kg	**54.2**	**14.2**	**14**
PCB 182	ng/kg	**37.8**	**11.8**	**18**
PCB 183/185	ng/kg	**5,200**	**1,280**	**1,880**
PCB 184	ng/kg	**16.1**	**6.37**	**11.5**
PCB 186	ng/kg	4.59 U	4.62 U	4.47 U
PCB 187	ng/kg	**9,810**	**2,860**	**5,860**

TABLE I-77A
PCB Congener Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 188	ng/kg	**60.4**	**22**	**26.7**
PCB 189	ng/kg	**219**	**71.1**	**114**
PCB 190	ng/kg	**1,190**	**288**	**330**
PCB 191	ng/kg	**261**	**85.9**	**113**
PCB 192	ng/kg	4.59 U	4.62 U	4.47 U
PCB 194	ng/kg	**1,760**	**391**	**577**
PCB 195	ng/kg	**571**	**105**	**73.9**
PCB 196	ng/kg	**1,170**	**264**	**324**
PCB 197/200	ng/kg	**144**	**34.4**	**54**
PCB 198/199	ng/kg	**2,210**	**609**	**1,150**
PCB 201	ng/kg	**312**	**83**	**138**
PCB 202	ng/kg	**728**	**283**	**568**
PCB 203	ng/kg	**1,390**	**275**	**326**
PCB 204	ng/kg	4.59 U	4.62 U	4.47 U
PCB 205	ng/kg	**38.7**	**10.9**	**9.48**
PCB 206	ng/kg	**472**	**134**	**192**
PCB 207	ng/kg	**90.8**	**24**	**32.3**
PCB 208	ng/kg	**248**	**97.2**	**192**
PCB 209	ng/kg	**222**	**80.5**	**130**
Dichlorobiphenyl	ng/kg	**923**	**449**	**367**
Heptachlorobiphenyl	ng/kg	**24,700**	**11,200**	**17,900**
Hexachlorobiphenyl	ng/kg	**63,100**	**26,200**	**42,200**
Monochlorobiphenyl	ng/kg	**25.9**	ND	ND
Nonachlorobiphenyl	ng/kg	**811**	**255**	**416**
Octachlorobiphenyl	ng/kg	**8,320**	**2,060**	**3,220**
Pentachlorobiphenyl	ng/kg	**42,800**	**18,200**	**26,400**
Tetrachlorobiphenyl	ng/kg	**18,500**	**12,600**	**16,000**
Trichlorobiphenyl	ng/kg	**8,320**	**4,670**	**4,450**
Total PCB (Lab)	ng/kg	**157,000**	**75,800**	**111,000**

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TABLE I-77B
PCB Congener Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 1	ng/kg	**538**	361 U	292 U
PCB 2	ng/kg	208 U	361 U	292 U
PCB 3	ng/kg	**633**	361 U	292 U
PCB 4	ng/kg	**1,850**	**1,000**	**648**
PCB 5	ng/kg	208 U	361 U	292 U
PCB 6	ng/kg	**801**	**883**	**505**
PCB 7	ng/kg	**331**	361 U	292 U
PCB 8	ng/kg	**3,560**	**2,670**	**1,170**
PCB 9	ng/kg	**253**	361 U	292 U
PCB 10	ng/kg	208 U	361 U	292 U
PCB 11	ng/kg	**3,960**	**4,930**	**5,410**
PCB 12/13	ng/kg	**679**	**1,200**	**625**
PCB 14	ng/kg	208 U	361 U	292 U
PCB 15	ng/kg	**30,300**	**24,400**	**15,600**
PCB 16	ng/kg	**964**	**938**	**631**
PCB 17	ng/kg	**1,850**	**2,340**	**1,950**
PCB 18/30	ng/kg	**2,830**	**6,400**	**5,030**
PCB 19	ng/kg	**379**	361 U	292 U
PCB 20/28	ng/kg	**376,000**	**265,000**	**220,000**
PCB 21/33	ng/kg	**2,860**	**5,520**	**3,330**
PCB 22	ng/kg	**2,710**	**4,050**	**2,830**
PCB 23	ng/kg	208 U	361 U	292 U
PCB 24	ng/kg	208 U	361 U	292 U
PCB 25	ng/kg	**1,590**	**2,120**	**2,540**
PCB 26/29	ng/kg	**2,290**	**5,780**	**6,490**
PCB 27	ng/kg	**416**	**1,450**	**1,560**
PCB 31	ng/kg	**10,500**	**13,300**	**12,100**
PCB 32	ng/kg	**1,840**	**4,770**	**3,640**
PCB 34	ng/kg	208 U	**542**	**554**
PCB 35	ng/kg	208 U	385 R	**335**
PCB 36	ng/kg	208 U	361 U	292 U
PCB 37	ng/kg	**70,600**	**52,600**	**30,100**
PCB 38	ng/kg	208 U	361 U	292 U
PCB 39	ng/kg	**344**	**368**	**436**
PCB 40/41/71	ng/kg	**9,820**	**38,800**	**39,100**

TABLE I-77B
PCB Congener Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 42	ng/kg	**2,630**	**2,520**	**3,300**
PCB 43	ng/kg	**443**	**1,890**	**1,990**
PCB 44/47/65	ng/kg	**352,000**	**198,000**	**237,000**
PCB 45/51	ng/kg	**466**	**733**	**908**
PCB 46	ng/kg	208 U	361 U	292 U
PCB 48	ng/kg	**982**	**2,570**	**2,740**
PCB 49/69	ng/kg	**9,950**	**10,300**	**12,200**
PCB 50/53	ng/kg	**498**	**1,610**	**1,920**
PCB 52	ng/kg	**6,520**	**20,800**	**21,100**
PCB 54	ng/kg	208 U	361 U	292 U
PCB 55	ng/kg	208 U	361 U	292 U
PCB 56	ng/kg	**5,110**	**9,530**	**9,800**
PCB 57	ng/kg	**255**	**1,300**	**1,380**
PCB 58	ng/kg	**362**	**852**	514 R
PCB 59/62/75	ng/kg	**21,300**	**13,500**	**17,100**
PCB 60	ng/kg	208 U	**77,100**	**55,600**
PCB 61/70/74/76	ng/kg	**341,000**	**231,000**	**256,000**
PCB 63	ng/kg	**5,290**	**3,460**	**4,120**
PCB 64	ng/kg	**4,890**	**7,000**	**7,450**
PCB 66	ng/kg	**498,000**	**325,000**	**344,000**
PCB 67	ng/kg	208 U	**1,690**	292 U
PCB 68	ng/kg	**2,990**	**2,200**	**3,170**
PCB 72	ng/kg	**1,400**	**2,680**	**3,480**
PCB 73	ng/kg	**319**	**1,090**	**725**
PCB 77	ng/kg	**45,700**	**29,500**	**23,500**
PCB 78	ng/kg	208 U	361 U	292 U
PCB 79	ng/kg	**1,020**	**1,170**	**1,570**
PCB 80	ng/kg	208 U	361 U	292 U
PCB 81	ng/kg	**2,070**	**1,680**	**1,630**
PCB 82	ng/kg	**661**	**1,050**	**1,240**
PCB 83/99	ng/kg	**738,000**	**430,000**	**490,000**
PCB 84	ng/kg	**729**	**1,290**	**1,670**
PCB 85/116/117	ng/kg	**111,000**	**67,800**	**77,800**
PCB 86/87/97/109/119/125	ng/kg	**55,700**	**42,600**	**51,000**
PCB 88/91	ng/kg	**2,860**	**2,810**	**4,100**

TABLE I-77B
PCB Congener Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-402-BC	GC-TI403-THRU-406-BC	GC-TI-IN-MID-OUT-BC
	Sample Number:	GC-TI401-402-BC-HP-1	GC-TI403-404-405-406-BC-HP-2	GC-TI-INNER-MIDDLE-OUTER-BC-HP-1
	Sample Date:	8/24/2010	8/25/2010	8/25/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Hepatopancreas	Hepatopancreas	Hepatopancreas
	Sample Weight:	70.70	63.38	43.59
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 89	ng/kg	208 U	361 U	292 U
PCB 90/101/113	ng/kg	**41,000**	**38,900**	**39,400**
PCB 92	ng/kg	**5,970**	**18,400**	**19,100**
PCB 93/95/98/100/102	ng/kg	**33,700**	**31,800**	**30,100**
PCB 94	ng/kg	**369**	**1,350**	**1,440**
PCB 96	ng/kg	208 U	361 U	292 U
PCB 103	ng/kg	208 U	361 U	**325**
PCB 104	ng/kg	208 U	361 U	292 U
PCB 105	ng/kg	**278,000**	**175,000**	**200,000**
PCB 106	ng/kg	233 U	361 U	292 U
PCB 107	ng/kg	**28,600**	**30,200**	**44,800**
PCB 108/124	ng/kg	**1,410**	**2,640**	**2,830**
PCB 110/115	ng/kg	**36,800**	**43,300**	**45,300**
PCB 111	ng/kg	**2,050**	**2,960**	**6,860**
PCB 112	ng/kg	208 U	361 U	292 U
PCB 114	ng/kg	**21,100**	**12,000**	**15,600**
PCB 118	ng/kg	**919,000**	**501,000**	**660,000**
PCB 120	ng/kg	**7,920**	**6,800**	**12,800**
PCB 121	ng/kg	**914**	**710**	**935**
PCB 122	ng/kg	271 U	**659**	**654**
PCB 123	ng/kg	**18,600**	**10,900**	**15,200**
PCB 126	ng/kg	**2,710**	**1,720**	**2,080**
PCB 127	ng/kg	**1,250**	953 R	**1,030**
PCB 128/166	ng/kg	**111,000**	**64,100**	**98,000**
PCB 129/138/160/163	ng/kg	**1,000,000**	**588,000**	**745,000**
PCB 130	ng/kg	**14,200**	**8,200**	**10,600**
PCB 131	ng/kg	208 U	361 U	292 U
PCB 132	ng/kg	**1,310**	**1,690**	**2,330**
PCB 133	ng/kg	**25,000**	**32,800**	**71,900**
PCB 134/143	ng/kg	416 U	721 U	584 U
PCB 135/151/154	ng/kg	**74,200**	**49,900**	**48,500**
PCB 136	ng/kg	**341**	**430**	**444**
PCB 137	ng/kg	**52,000**	**28,000**	**34,400**
PCB 139/140	ng/kg	**20,300**	**10,500**	**11,800**
PCB 141	ng/kg	**3,900**	**5,380**	**3,950**

TABLE I-77B
PCB Congener Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 142	ng/kg	208 U	361 U	292 U
PCB 144	ng/kg	**1,450**	**1,520**	**1,800**
PCB 145	ng/kg	208 U	361 U	292 U
PCB 146	ng/kg	**212,000**	**131,000**	**235,000**
PCB 147/149	ng/kg	**47,100**	**30,200**	**37,500**
PCB 148	ng/kg	**5,290**	**3,580**	**4,280**
PCB 150	ng/kg	208 U	361 U	292 U
PCB 152	ng/kg	208 U	361 U	292 U
PCB 153/168	ng/kg	**1,850,000**	**906,000**	**1,200,000**
PCB 155	ng/kg	**2,200**	**1,520**	**1,820**
PCB 156/157	ng/kg	**124,000**	**72,500**	**103,000**
PCB 158	ng/kg	**123,000**	**64,200**	**75,200**
PCB 159	ng/kg	208 U	361 U	**556**
PCB 161	ng/kg	208 U	361 U	292 U
PCB 162	ng/kg	**3,810**	**4,680**	**7,840**
PCB 164	ng/kg	208 U	**2,790**	**2,240**
PCB 165	ng/kg	**1,370**	**1,910**	**4,650**
PCB 167	ng/kg	**60,200**	**36,800**	**54,100**
PCB 169	ng/kg	548 U	469 U	418 U
PCB 170	ng/kg	**187,000**	**72,200**	**64,000**
PCB 171/173	ng/kg	**67,000**	**28,600**	**27,800**
PCB 172	ng/kg	**36,500**	**24,400**	**31,800**
PCB 174	ng/kg	**2,500**	**2,040**	**1,580**
PCB 175	ng/kg	**9,460**	**5,070**	**6,930**
PCB 176	ng/kg	**543**	361 U	**385**
PCB 177	ng/kg	**57,000**	**13,000**	**14,800**
PCB 178	ng/kg	**60,200**	**57,400**	**105,000**
PCB 179	ng/kg	**805**	**468**	**673**
PCB 180/193	ng/kg	**674,000**	**312,000**	**371,000**
PCB 181	ng/kg	**2,450**	**1,110**	**915**
PCB 182	ng/kg	**1,710**	**922**	**1,180**
PCB 183/185	ng/kg	**235,000**	**100,000**	**123,000**
PCB 184	ng/kg	**729**	**498**	**752**
PCB 186	ng/kg	208 U	361 U	292 U
PCB 187	ng/kg	**444,000**	**223,000**	**383,000**

TABLE I-77B
PCB Congener Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**		
PCB 188	ng/kg	**2,730**	**1,720**	**1,750**
PCB 189	ng/kg	**9,910**	**5,550**	**7,450**
PCB 190	ng/kg	**53,800**	**22,500**	**21,600**
PCB 191	ng/kg	**11,800**	**6,710**	**7,390**
PCB 192	ng/kg	208 U	361 U	292 U
PCB 194	ng/kg	**79,600**	**30,500**	**37,700**
PCB 195	ng/kg	**25,800**	**8,200**	**4,830**
PCB 196	ng/kg	**52,900**	**20,600**	**21,200**
PCB 197/200	ng/kg	**6,520**	**2,690**	**3,530**
PCB 198/199	ng/kg	**100,000**	**47,600**	**75,200**
PCB 201	ng/kg	**14,100**	**6,480**	**9,020**
PCB 202	ng/kg	**32,900**	**22,100**	**37,100**
PCB 203	ng/kg	**62,900**	**21,500**	**21,300**
PCB 204	ng/kg	208 U	361 U	292 U
PCB 205	ng/kg	**1,750**	**852**	**620**
PCB 206	ng/kg	**21,400**	**10,500**	**12,500**
PCB 207	ng/kg	**4,110**	**1,880**	**2,110**
PCB 208	ng/kg	**11,200**	**7,590**	**12,500**
PCB 209	ng/kg	**10,000**	**6,290**	**8,500**
Dichlorobiphenyl	ng/kg	**41,800**	**35,100**	**24,000**
Heptachlorobiphenyl	ng/kg	**1,120,000**	**875,000**	**1,170,000**
Hexachlorobiphenyl	ng/kg	**2,860,000**	**2,050,000**	**2,760,000**
Monochlorobiphenyl	ng/kg	**1,170**	ND	ND
Nonachlorobiphenyl	ng/kg	**36,700**	**19,900**	**27,200**
Octachlorobiphenyl	ng/kg	**376,000**	**161,000**	**210,000**
Pentachlorobiphenyl	ng/kg	**1,940,000**	**1,420,000**	**1,730,000**
Tetrachlorobiphenyl	ng/kg	**837,000**	**984,000**	**1,050,000**
Trichlorobiphenyl	ng/kg	**376,000**	**365,000**	**291,000**
Total PCB (Lab)	ng/kg	**7,100,000**	**5,920,000**	**7,250,000**

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TABLE I-78A
Metal and Lipid Concentrations in Crab Hepatopancreas – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TI401-402-BC	GC-TI403-THRU-406-BC	GC-TI-IN-MID-OUT-BC
Sample Number:		GC-TI401-402-BC-HP-1	GC-TI403-404-405-406-BC-HP-2	GC-TI-INNER-MIDDLE-OUTER-BC-HP-1
Sample Date:		8/24/2010	8/25/2010	8/25/2010
Sample Species:		Blue Crab	Blue Crab	Blue Crab
Sample Type:		Hepatopancreas	Hepatopancreas	Hepatopancreas
Sample Weight:		70.70	63.38	43.59
Parameter	**Units**	**Metals**		
Aluminum	mg/kg	20 U	20 U	20 U
Antimony	mg/kg	6 U	6 U	6 U
Arsenic	mg/kg	**0.72 J**	**0.92 J**	**1.3**
Barium	mg/kg	20 U	20 U	20 U
Beryllium	mg/kg	0.5 U	0.5 U	0.5 U
Cadmium	mg/kg	0.5 U	0.5 U	0.5 U
Calcium	mg/kg	**1,360**	**1,220**	**1,180**
Chromium	mg/kg	1 U	1 U	1 U
Cobalt	mg/kg	5 U	5 U	5 U
Copper	mg/kg	**6.2**	**6.8**	**14.3**
Iron	mg/kg	10 U	**13.2**	10 U
Lead	mg/kg	1 U	1 U	1 U
Magnesium	mg/kg	**273 J**	**278 J**	**267 J**
Manganese	mg/kg	**3.4**	**5.5**	**7**
Mercury	mg/kg	0.1 U	0.1 U	0.1 U
Nickel	mg/kg	4 U	4 U	4 U
Potassium	mg/kg	**909**	**1,230**	**1,510**
Selenium	mg/kg	3.5 U	3.5 U	**1.3 J**
Silver	mg/kg	1 U	1 U	**1.2**
Sodium	mg/kg	**2,020**	**2,570**	**2,870**
Thallium	mg/kg	2.5 U	2.5 U	2.5 U
Vanadium	mg/kg	5 U	5 U	5 U
Zinc	mg/kg	**17.4**	**13.2**	**17.2**
Cyanide, Total	mg/kg	2.5 U	2.5 U	2.5 U
Percent Lipids	%	**2.21**	**1.28**	**1.53**

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TABLE I-78B
Metal and Lipid Concentrations in Crab Hepatopancreas – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI401-402-BC**	**GC-TI403-THRU-406-BC**	**GC-TI-IN-MID-OUT-BC**
Sample Number:		**GC-TI401-402-BC-HP-1**	**GC-TI403-404-405-406-BC-HP-2**	**GC-TI-INNER-MIDDLE-OUTER-BC-HP-1**
Sample Date:		**8/24/2010**	**8/25/2010**	**8/25/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Hepatopancreas**	**Hepatopancreas**	**Hepatopancreas**
Sample Weight:		**70.70**	**63.38**	**43.59**
Parameter	**Units**	**Metals**		
Aluminum	mg/kg	905 U	1,560 U	1,310 U
Antimony	mg/kg	271 U	469 U	392 U
Arsenic	mg/kg	**32.6 J**	**71.9 J**	**85**
Barium	mg/kg	905 U	1,560 U	1,310 U
Beryllium	mg/kg	22.6 U	39.1 U	32.7 U
Cadmium	mg/kg	22.6 U	39.1 U	32.7 U
Calcium	mg/kg	**61,500**	**95,300**	**77,100**
Chromium	mg/kg	45.2 U	78.1 U	65.4 U
Cobalt	mg/kg	226 U	391 U	327 U
Copper	mg/kg	**281**	**531**	**935**
Iron	mg/kg	452 U	**1,030**	654 U
Lead	mg/kg	45.2 U	78.1 U	65.4 U
Magnesium	mg/kg	**12,400 J**	**21,700 J**	**17,500 J**
Manganese	mg/kg	**154**	**430**	**458**
Mercury	mg/kg	4.52 U	7.81 U	6.54 U
Nickel	mg/kg	181 U	313 U	261 U
Potassium	mg/kg	**41,100**	**96,100**	**98,700**
Selenium	mg/kg	158 U	273 U	**85 J**
Silver	mg/kg	45.2 U	78.1 U	**78.4**
Sodium	mg/kg	**91,400**	**201,000**	**188,000**
Thallium	mg/kg	113 U	195 U	163 U
Vanadium	mg/kg	226 U	391 U	327 U
Zinc	mg/kg	**787**	**1,030**	**1,120**
Cyanide, Total	mg/kg	113 U	195 U	163 U
Percent Lipids	%	**2.21**	**1.28**	**1.53**

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TABLE I-79A
Pesticide Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-FI-1	GC-TI402-XAE-FI-2	GC-TI403-XAE-FI-1	GC-TI403-XAE-FI-2	GC-TI403-XAE-FI-3	GC-TI406-XAE-FI-1	GC-TI401-SB-FI-1	GC-TI401-SB-FI-2	GC-TI403-SB-FI-1	GC-TI406-SB-FI-1	GC-TI406-SB-FI-2	GC-TI401-WP-FI-1	GC-TI401-WP-FI-2	GC-TI327-XAE-FI-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/21/2010	10/21/2010	10/22/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/19/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	130.10	101.05	198.00	123.00	161.00	115.30	180.00	146.91	142.00	151.71	112.37	135.54	120.33	267.00
Parameter	**Units**	**Pesticides**													
Aldrin	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 UJ
Alpha BHC	ug/kg	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ
Alpha-chlordane	ug/kg	**10 J**	**22 J**	**21 NJ**	8.5 R	25 R	1.7 UJ	1.7 U	1.7 U	5.1 R	**8.2 J**	**5.1 J**	1.7 UJ	1.7 UJ	1.7 UJ
Beta BHC	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 UJ
Beta endosulfan	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 UJ
Delta BHC	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 UJ
Dieldrin	ug/kg	**8.8 NJ**	**17 J**	**7 NJ**	**5 NJ**	**6.1 NJ**	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	**4.9 J**
Endosulfan sulfate	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 UJ
Endrin	ug/kg	3.3 U	3.3 U	3.3 UJ	5.6 R	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 UJ
Endrin aldehyde	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 UJ
Endrin ketone	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 UJ
Gamma BHC	ug/kg	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ
Gamma-chlordane	ug/kg	**9.9 J**	9.6 R	**13 J**	5.6 R	8 R	1.7 UJ	1.7 U	1.7 U	**3.5 J**	1.7 U	1.7 U	**5 J**	1.7 UJ	1.7 UJ
Heptachlor	ug/kg	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ
Heptachlor epoxide	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 UJ
Methoxychlor	ug/kg	17 U	17 U	**39 J**	17 U	**34 J**	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 UJ
P,P'-DDD	ug/kg	**28 NJ**	**30 NJ**	**38 NJ**	**13 NJ**	23 R	3.3 R	**4.8 NJ**	**5.5 NJ**	5 R	3.3 U	**5.6 J**	4.1 R	3.3 R	**14 NJ**
P,P'-DDE	ug/kg	**18 NJ**	34 R	**25 J**	**16 J**	**21 NJ**	3.3 UJ	**4.8 NJ**	**6.6 NJ**	**11 J**	**7.9 J**	**12 NJ**	**7 NJ**	**6 NJ**	12 R
P,P'-DDT	ug/kg	3.3 U	3.3 U	**30 NJ**	4.5 R	9.1 R	**47 J**	3.3 U	3.3 U	**9.6 NJ**	3.3 U	3.3 U	3.3 U	3.3 U	**9.2 NJ**
Total DDTs	ug/kg	**46**	**---**	**93**	**---**	**---**	**---**	**9.6**	**12.1**	**---**	**7.9**	**17.6**	**---**	**---**	**---**

TABLE I-79A
Pesticide Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-FI-1**	**GC-TI332-XSCUP-FI-2**	**GC-TI332-XSCUP-FI-3**	**GC-TI332-XW-FI-1**
Sample Date:		**10/23/2010**	**10/24/2010**	**10/24/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Fillet**	**Fillet**	**Fillet**	**Fillet**
Sample Weight:		**109.00**	**125.00**	**110.00**	**130.00**
Parameter	**Units**	**Pesticides**			
Aldrin	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Alpha BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Alpha-chlordane	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Beta BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Beta endosulfan	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Delta BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Dieldrin	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endosulfan sulfate	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endrin	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endrin aldehyde	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endrin ketone	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Gamma BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Gamma-chlordane	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Heptachlor	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Heptachlor epoxide	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Methoxychlor	ug/kg	17 U	17 U	17 U	17 U
P,P'-DDD	ug/kg	3.3 R	3.3 R	3.3 R	3.3 R
P,P'-DDE	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
P,P'-DDT	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Total DDTs	ug/kg	---	---	---	---

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-FI-1	GC-TI402-XAE-FI-2	GC-TI403-XAE-FI-1	GC-TI403-XAE-FI-2	GC-TI403-XAE-FI-3	GC-TI406-XAE-FI-1	GC-TI401-SB-FI-1	GC-TI401-SB-FI-2	GC-TI403-SB-FI-1	GC-TI406-SB-FI-1	GC-TI406-SB-FI-2	GC-TI401-WP-FI-1	GC-TI401-WP-FI-2	GC-TI327-XAE-FI-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/21/2010	10/21/2010	10/22/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/19/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	130.10	101.05	198.00	123.00	161.00	115.30	180.00	146.91	142.00	151.71	112.37	135.54	120.33	267.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**9.41**	**4.79**	**12.8**	**9.06**	**9.54**	**3.03**	**32.2**	**16.9**	**21.9**	**6.63 J**	**4.84**	**8.14**	**17.6**	**4.12**
PCB 2	ng/kg	2.28 U	2.32 U	2.29 U	2.3 U	2.26 U	2.28 U	2.27 U	2.27 U	2.31 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 3	ng/kg	**3.32**	2.32 U	2.44 R	**2.46**	2.26 U	2.28 U	**5.44**	**3.22**	**4.38**	**2.46 J**	2.32 U	**2.65**	**4.19**	2.29 U
PCB 4	ng/kg	**90.3**	**65.8**	**159**	**88**	**92.2**	**129**	**913**	**443**	**418**	**340 J**	**196**	**325**	**465**	**78.3**
PCB 5	ng/kg	2.28 U	2.32 U	2.29 U	2.3 U	2.26 U	2.28 U	**5.67**	**4.56**	**4.94**	4.23 R	2.69 R	**2.39**	**5.9**	2.29 U
PCB 6	ng/kg	**10.5**	**5.33**	**10.8**	**6.55**	**7.8**	**5.28**	**154**	**98.7**	**91.3**	**60.4 J**	**56.7**	**71.3**	**104**	**4.93**
PCB 7	ng/kg	2.28 U	2.32 U	2.29 U	2.3 U	2.26 U	2.28 U	**22.4**	**11.7**	**12**	**8.59 J**	**6.48**	**10.1**	**15.7**	2.29 U
PCB 8	ng/kg	**34.9**	**17.1**	**34.1**	**18.6**	**23.7**	**34.1**	**459**	**306**	**306**	**281 J**	**194**	**210**	**323**	**17.5**
PCB 9	ng/kg	**3.46**	2.32 U	**3.25**	2.3 U	**2.93**	**2.57**	**37.2**	**20.8**	**19.4**	**14.4 J**	**11.5**	**15.2**	**24.5**	2.29 U
PCB 10	ng/kg	**8.38**	**7.78**	45.7 U	**6.72**	**9.35**	**10.7**	**113**	**43.5**	**40.7**	**34.8 J**	**18.3**	**39**	**50.7**	**8.25**
PCB 11	ng/kg	**35.9**	**47.3**	**61.6**	**40.1**	**38.8**	**47.4**	**146**	**69.6**	**104**	**39.1 J**	**24**	**70.3**	**106**	**44.1**
PCB 12/13	ng/kg	**8.88**	**8.56**	**12.3**	**8.71**	**8.6**	**12.2**	**36.1**	**20.4**	**23.5**	**15.4 J**	10.3 R	**20.5**	**30.3**	**7.35**
PCB 14	ng/kg	2.28 U	2.32 U	2.29 U	2.3 U	2.26 U	2.28 U	2.27 U	2.27 U	2.31 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 15	ng/kg	**80.4**	**105**	**123**	**79.7**	**102**	**160**	**248**	**132**	**171**	**104 J**	**66**	**101**	**161**	**94.6**
PCB 16	ng/kg	**28.2**	**21.3**	**59.6**	**24.5**	33.9 U	**63.2**	**651**	**507**	**429**	**576 J**	**306**	**399**	**652**	**32.3**
PCB 17	ng/kg	**71.8**	**69.8**	**174**	**87.9**	**82.9**	**139**	**2,530**	**1,410**	**1,260**	**1,360 J**	**816**	**1,460**	**2,230**	**85.6**
PCB 18/30	ng/kg	**222**	**197**	**606**	**392**	**344**	**449**	**3,690**	**2,080**	**1,830**	**2,110 J**	**1,410**	**1,850**	**2,830**	**245**
PCB 19	ng/kg	**82.7**	**77.6**	**218**	**131**	**116**	**167**	**929**	**423**	**433**	**349 J**	**200**	**404**	**570**	**91.8**
PCB 20/28	ng/kg	**5,100**	**9,010**	**8,510**	**5,270**	**5,810**	**10,200**	**11,000**	**6,970**	**6,310**	**6,550 J**	**4,410**	**6,220**	**8,260**	**10,300**
PCB 21/33	ng/kg	**69.6**	**26.9**	91.4 U	**18.6**	67.8 U	**46.1**	**699**	**727**	**639**	**693 J**	**407**	**602**	**987**	4.58 U
PCB 22	ng/kg	**209**	**287**	**795**	**407**	**323**	**359**	**1,850**	**1,280**	**1,160**	**1,230 J**	**880**	**1,140**	**1,560**	**152**
PCB 23	ng/kg	2.28 U	2.32 U	45.7 U	2.3 U	33.9 U	2.28 U	**7.65**	**4.44**	**5.24**	**3.98 J**	**3.34**	**4.52**	**8.33**	2.29 U
PCB 24	ng/kg	**5.1**	**4.91**	45.7 U	**8.28**	33.9 U	**11.6**	**41.9**	**27.4**	**23.9**	**29.8 J**	**19.9**	**24**	**36**	**6.03**
PCB 25	ng/kg	**65.6**	**74.9**	**213**	**101**	**119**	**72.3**	**1,000**	**597**	**570**	**477 J**	**374**	**640**	**943**	**64.5**
PCB 26/29	ng/kg	**747**	**1,520**	**1,190**	**660**	**882**	**1,280**	**2,320**	**1,320**	**1,370**	**1,130 J**	**833**	**1,430**	**2,270**	**1,590**
PCB 27	ng/kg	**36.5**	**30**	**107**	**58.1**	**61.2**	**61.3**	**657**	**356**	**365**	**356 J**	**218**	**417**	**637**	**45**
PCB 31	ng/kg	**2,150**	**5,010**	**3,030**	**1,630**	**2,250**	**3,780**	**7,030**	**4,510**	**4,550**	**3,670 J**	**2,300**	**4,490**	**6,210**	**4,220**
PCB 32	ng/kg	**190**	**250**	**543**	**270**	**306**	**301**	**1,790**	**1,100**	**1,130**	**1,140 J**	**722**	**1,090**	**1,890**	**186**
PCB 34	ng/kg	**14.9**	**20.8**	45.7 U	**21.7**	33.9 U	**10.4**	**89.6**	**46.9**	**67.6**	**39.8 J**	**36.5**	**57.3**	**106**	**11.6**
PCB 35	ng/kg	2.28 U	2.32 U	45.7 U	2.3 U	33.9 U	2.28 U	2.27 U	2.27 U	2.31 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 36	ng/kg	2.28 U	2.32 U	45.7 U	2.3 U	33.9 U	2.28 U	2.92 R	2.27 U	2.31 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 37	ng/kg	2.28 U	66.3 R	**230**	**134**	**223**	**288**	**788**	**376**	**467**	**306 J**	**273**	**334**	**409**	**42.1**
PCB 38	ng/kg	**74.7**	**33**	**64.8**	**24.6**	**59.2**	**61.2**	**15.8**	**10.6**	**22.6**	**12.4 J**	**16.8**	2.03 U	3.93 U	**26.3**
PCB 39	ng/kg	2.28 U	2.32 U	45.7 U	**3.38**	33.9 U	2.28 U	**63**	**41.3**	**50.7**	**44.3 J**	**40.6**	**47.5**	3.93 U	2.29 U
PCB 40/41/71	ng/kg	**820**	**981**	**2,060**	**1,310**	**1,410**	**1,810**	**4,960**	**3,620**	**5,580**	**3,790 J**	**4,430**	**4,790**	**9,780**	**916**
PCB 42	ng/kg	**1,490**	**2,380**	**3,490**	**2,770**	**1,970**	**2,840**	**3,070**	**2,100**	**2,560**	**1,820 J**	**1,780**	**2,570**	**4,400**	**1,490**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-FI-1	GC-TI402-XAE-FI-2	GC-TI403-XAE-FI-1	GC-TI403-XAE-FI-2	GC-TI403-XAE-FI-3	GC-TI406-XAE-FI-1	GC-TI401-SB-FI-1	GC-TI401-SB-FI-2	GC-TI403-SB-FI-1	GC-TI406-SB-FI-1	GC-TI406-SB-FI-2	GC-TI401-WP-FI-1	GC-TI401-WP-FI-2	GC-TI327-XAE-FI-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/21/2010	10/21/2010	10/22/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/19/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	130.10	101.05	198.00	123.00	161.00	115.30	180.00	146.91	142.00	151.71	112.37	135.54	120.33	267.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	2.28 U	**30.1**	**156**	**67.5**	**200**	**38.3**	**542**	**347**	**460**	**333 J**	**344**	**394**	**664**	**63.3**
PCB 44/47/65	ng/kg	**27,100**	**19,000**	**26,700**	**24,700**	**21,900**	**38,700**	**15,500**	**9,500**	**15,300**	**10,100 J**	**10,300**	**10,800**	**22,300**	**16,900**
PCB 45/51	ng/kg	**330**	**332**	**535**	**649**	**589**	**438**	**1,890**	**1,160**	**1,460**	**1,080 J**	**937**	**1,360**	**2,770**	**333**
PCB 46	ng/kg	**27.1**	**23**	**89.9**	**50**	**48.5**	**63.4**	**345**	**235**	**258**	**214 J**	**146**	**305**	**624**	**37.7**
PCB 48	ng/kg	**39.6**	**41.1**	**142**	**94.6**	**67.9**	**61.7**	**1,630**	**1,190**	**1,110**	**1,120 J**	**1,010**	**1,310**	**2,100**	**38.1**
PCB 49/69	ng/kg	**3,760**	**6,380**	**7,200**	**6,900**	**5,250**	**4,360**	**12,900**	**7,590**	**13,100**	**7,500 J**	**9,010**	**9,020**	**20,800**	**3,340**
PCB 50/53	ng/kg	**370**	**181**	**1,200**	**768**	**688**	**394**	**1,940**	**1,050**	**1,520**	**1,000 J**	**900**	**1,300**	**2,870**	**278**
PCB 52	ng/kg	**57,900**	**30,100**	**43,900**	**36,300**	**38,500**	**39,800**	**17,100**	**11,200**	**17,100**	**11,200 J**	**11,200**	**11,800**	**24,100**	**23,600**
PCB 54	ng/kg	**6.86**	**8.68**	**15**	**11.6**	**8.48**	**13.9**	**55**	**39**	**34.4**	**27.4 J**	**16.7**	**32.6**	**55.3**	**8.87**
PCB 55	ng/kg	5.54 U	**18.6**	2.29 U	12.8 R	2.26 U	**32.7**	2.47 U	3.15 U	2.54 U	2.29 U	2.32 U	**99.7**	**143**	2.29 U
PCB 56	ng/kg	**74.1**	**82.6**	**246**	**160**	**99.9**	**81.4**	**2,870**	**2,210**	**2,040**	**1,620 J**	**1,700**	**2,530**	**4,320**	**53.7**
PCB 57	ng/kg	**27.6**	**62.3**	**83.4**	**47.6**	**63.4**	**57.5**	**102**	**62**	**145**	**75.3 J**	**122**	**86.7**	**166**	**76.4**
PCB 58	ng/kg	**136**	**96.4**	**161**	**92.6**	**137**	**156**	**579**	**379**	**88.6**	**40 J**	**70.2**	**59.9**	**110**	**83.9**
PCB 59/62/75	ng/kg	**4,950**	**2,290**	**3,500**	**2,640**	**2,950**	**4,340**	**1,430**	**923**	**1,470**	**967 J**	**1,010**	**1,090**	**1,940**	**2,160**
PCB 60	ng/kg	**7,030**	**2,600**	**4,370**	**2,620**	**3,540**	**6,520**	**1,890**	**1,650**	**1,530**	**2,090 J**	**1,370**	**1,500**	**1,950**	**2,650**
PCB 61/70/74/76	ng/kg	**12,500**	**9,290**	**7,680**	**5,740**	**7,300**	**22,100**	**14,400**	**12,600**	**11,100**	**11,300 J**	**9,860**	**13,000**	**19,000**	**11,000**
PCB 63	ng/kg	**1,360**	**1,010**	**1,660**	**942**	**1,400**	**1,440**	**888**	**597**	**1,030**	**668 J**	**824**	**685**	**1,100**	**857**
PCB 64	ng/kg	**34,900**	**9,850**	**13,600**	**12,300**	**12,000**	**20,200**	**5,070**	**3,340**	**4,860**	**3,220 J**	**3,150**	**3,890**	**6,720**	**7,240**
PCB 66	ng/kg	**23,900**	**12,400**	**12,600**	**10,000**	**11,300**	**27,700**	**10,900**	**9,070**	**8,090**	**9,570 J**	**7,960**	**9,060**	**12,000**	**13,100**
PCB 67	ng/kg	**52.4**	**102**	**137**	**88.9**	**104**	**102**	**320**	**215**	**278**	**199 J**	**229**	**281**	**403**	**59.1**
PCB 68	ng/kg	**182**	**261**	**398**	**239**	**331**	**284**	**289**	**165**	**397**	**195 J**	**310**	**229**	**406**	**238**
PCB 72	ng/kg	**336**	**442**	**440**	**289**	**447**	**522**	**380**	**223**	**599**	**277 J**	**485**	**321**	**641**	**449**
PCB 73	ng/kg	2.28 U	**46.1**	2.29 U	**59.6**	**171**	**26.7**	**111**	2.27 U	**131**	2.29 U	2.32 U	**85.2**	**210**	**65.2**
PCB 77	ng/kg	20.9 R	**28.4**	**32.9**	**33.6**	**31.1**	**50.8**	**532**	**391**	**312**	**301 J**	**287**	**440**	**631**	**33**
PCB 78	ng/kg	**35.5**	8.07 U	**50.2**	5.54 U	**50.5**	**48.4**	2.45 U	3.12 U	**29.4**	**12.9 J**	**19.8**	2.03 U	3.93 U	**19.1**
PCB 79	ng/kg	**145**	**142**	**379**	**175**	**203**	**129**	**195**	**154**	**214**	**133 J**	**187**	**177**	**249**	**65.4**
PCB 80	ng/kg	5.28 U	7.13 U	2.29 U	4.9 U	2.26 U	6.81 U	**170**	**138**	2.42 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 81	ng/kg	5 U	7.74 U	2.29 U	5.25 U	2.26 U	8.95 R	26.5 R	24.6 R	2.33 U	28.2 R	17.1 R	**26.6**	33 R	8.72 R
PCB 82	ng/kg	**771**	**615**	**1,220**	**860**	**806**	**1,280**	**792**	**783**	**959**	**620 J**	**794**	**892**	**1,340**	**447**
PCB 83/99	ng/kg	**24,400**	**17,300**	**33,200**	**31,700**	**31,800**	**58,500**	**14,900**	**10,500**	**18,600**	**16,100 J**	**17,500**	**13,200**	**20,400**	**24,000**
PCB 84	ng/kg	**4,090**	**3,240**	**5,620**	**3,610**	**4,600**	**3,130**	**2,440**	**1,470**	**2,760**	**1,320 J**	**1,660**	**2,260**	**4,460**	**1,950**
PCB 85/116/117	ng/kg	**8,510**	**5,800**	**10,400**	**8,440**	**8,910**	**13,300**	**3,510**	**2,830**	**4,430**	**3,360 J**	**3,840**	**2,970**	**4,390**	**4,730**
PCB 86/87/97/108/119/125	ng/kg	**---**	**8,130**	**---**	**9,860**	**---**	**9,190**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**8,800**	**---**	**14,200**	**---**	**9,180**	**---**	**8,320**	**6,880**	**8,920**	**7,030 J**	**8,290**	**7,720**	**11,700**	**4,710**
PCB 88/91	ng/kg	**4,070**	**3,190**	**5,400**	**4,310**	**4,230**	**3,580**	**3,380**	**1,990**	**4,520**	**2,040 J**	**3,360**	**2,620**	**5,350**	**1,500**
PCB 89	ng/kg	**4.94**	**4.84**	**10.7**	**8.92**	10.2 R	**7.9**	**60.8**	**55.1**	**63.7**	**48.9 J**	**55.1**	**89.5**	**163**	2.29 U

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-FI-1	GC-TI402-XAE-FI-2	GC-TI403-XAE-FI-1	GC-TI403-XAE-FI-2	GC-TI403-XAE-FI-3	GC-TI406-XAE-FI-1	GC-TI401-SB-FI-1	GC-TI401-SB-FI-2	GC-TI403-SB-FI-1	GC-TI406-SB-FI-1	GC-TI406-SB-FI-2	GC-TI401-WP-FI-1	GC-TI401-WP-FI-2	GC-TI327-XAE-FI-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/21/2010	10/21/2010	10/22/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/19/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	130.10	101.05	198.00	123.00	161.00	115.30	180.00	146.91	142.00	151.71	112.37	135.54	120.33	267.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 90/101/113	ng/kg	**25,100**	**21,000**	**43,900**	**30,200**	**35,600**	**30,600**	**19,100**	**14,100**	**21,600**	**14,500 J**	**19,800**	**16,500**	**24,800**	**15,900**
PCB 92	ng/kg	**7,350**	**6,400**	**7,850**	**7,200**	**8,060**	**7,430**	**3,630**	**2,760**	**5,800**	**3,370 J**	**4,990**	**3,410**	**5,740**	**4,530**
PCB 93/95/98/100/102	ng/kg	**14,500**	**11,900**	**26,300**	**16,700**	**20,800**	**10,700**	**11,900**	**7,000**	**12,600**	**7,430 J**	**9,140**	**9,730**	**18,800**	**6,790**
PCB 94	ng/kg	**40.5**	**38.3**	**98.3**	**104**	**134**	**31**	**121**	**62**	**124**	**47.8 J**	**55.3**	**136**	**341**	**22.8**
PCB 96	ng/kg	**21.8**	**11.8**	**46.1**	**36.5**	**29.7**	**21.3**	**88.2**	**56.9**	**101**	**49.5 J**	**74.8**	**70.5**	**169**	**12.9**
PCB 103	ng/kg	**59.9**	**24.9**	**108**	**80.2**	**40.3**	**20**	**458**	**252**	**540**	**366 J**	**540**	**326**	**597**	**9.34**
PCB 104	ng/kg	2.28 U	2.32 U	**3.06**	2.3 U	2.26 U	2.28 U	**19.3**	**13.1**	**16.6**	**10.8 J**	**16.7**	**15.2**	**27.8**	2.29 U
PCB 105	ng/kg	**20,200**	**9,860**	**22,200**	**14,100**	**17,300**	**33,400**	**4,410**	**3,940**	**5,460**	**4,990 J**	**4,670**	**4,200**	**4,780**	**10,300**
PCB 106	ng/kg	2.28 U	14.8 U	2.74 U	19.4 U	2.26 U	42.8 U	2.27 U	4.36 U	2.31 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 107	ng/kg	**527**	**---**	**1,350**	**---**	**1,010**	**---**	**1,300**	**1,070**	**1,590**	**1,290 J**	**1,720**	**1,380**	**1,600**	**985**
PCB 107/124	ng/kg	**---**	**170**	**---**	**118**	**---**	**178**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
PCB 108/124	ng/kg	**104**	**---**	**248**	**---**	**181**	**---**	**304**	**342**	**319**	**338 J**	**348**	**402**	**515**	**150**
PCB 109	ng/kg	**---**	**678**	**---**	**771**	**---**	**1,190**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
PCB 110/115	ng/kg	**40,700**	**25,400**	**43,700**	**33,100**	**38,600**	**36,100**	**13,300**	**10,500**	**17,100**	**9,630 J**	**14,100**	**12,500**	**20,700**	**14,600**
PCB 111	ng/kg	**59.6**	**67.4**	**88**	**85.8**	**85.5**	**181**	35.5 R	**21**	**73.3**	**34.8 J**	**61.9**	**32.8**	**57.2**	**77.2**
PCB 112	ng/kg	2.28 U	2.32 U	2.29 U	2.3 U	2.26 U	2.28 U	2.27 U	2.27 U	3.08 U	2.29 U	2.32 U	3.96 U	3.93 U	2.29 U
PCB 114	ng/kg	**762**	**488**	**1,190**	**827**	**1,030**	**1,970**	**325**	**312**	**394**	**412 J**	**375**	**327**	**352**	**616**
PCB 118	ng/kg	**34,100**	**24,400**	**35,800**	**34,600**	**32,500**	**73,800**	**13,500**	**12,300**	**15,500**	**15,700 J**	**14,600**	**14,200**	**16,100**	**33,500**
PCB 120	ng/kg	**202**	**219**	**348**	**292**	**326**	**736**	**149**	**90.4**	**260**	**175 J**	**249**	**143**	**205**	**342**
PCB 121	ng/kg	**31.1**	**30**	**52.4**	**43.6**	**49.6**	**96.6**	**19.6**	**11**	**34.3**	**19.1 J**	**30**	**16.6**	**31**	**35.2**
PCB 122	ng/kg	**99.6**	**58.4**	**150**	**111**	**116**	**129**	**66.5**	**84.3**	**94.7**	**71 J**	**77.5**	**109**	**159**	**58.1**
PCB 123	ng/kg	**811**	**410**	**1,110**	**816**	**901**	**1,840**	**260**	**231**	**256**	**315 J**	**248**	**265**	**322**	**619**
PCB 126	ng/kg	**42.8**	**35.4**	**88.7**	**51.7**	**72.7**	**101**	**24.6**	**24.3**	**26.6**	**35.4 J**	**21.1**	**37.6**	**42.9**	**56.5**
PCB 127	ng/kg	**42.5**	**53.4**	**154**	**51.6**	2.26 U	**189**	**30.4**	**21.3**	**48.4**	**36.1 J**	**54.5**	2.03 U	3.93 U	2.29 U
PCB 128/166	ng/kg	**9,020**	**6,600**	**14,100**	**9,390**	**12,600**	**18,000**	**2,870**	**2,060**	**4,910**	**3,250 J**	**4,210**	**2,360**	**2,990**	**5,820**
PCB 129/138/160/163	ng/kg	**68,300**	**48,500**	**111,000**	**77,600**	**92,700**	**141,000**	**21,400**	**14,800**	**33,600**	**24,600 J**	**29,800**	**20,600**	**22,800**	**43,700**
PCB 130	ng/kg	**2,970**	**2,250**	**4,730**	**3,630**	**3,940**	**5,280**	**1,030**	**752**	**1,900**	**874 J**	**1,360**	**933**	**1,260**	**1,540**
PCB 131	ng/kg	**129**	**119**	**344**	**172**	**226**	**96.3**	**136**	**101**	**154**	**82.5 J**	**129**	**133**	**163**	**40.9**
PCB 132	ng/kg	**5,950**	**5,010**	**8,440**	**5,310**	**7,920**	**3,930**	**3,350**	**2,440**	**4,460**	**2,210 J**	**3,380**	**3,380**	**4,790**	**1,870**
PCB 133	ng/kg	**1,120**	**972**	**1,720**	**1,430**	**1,470**	**2,870**	**445**	**293**	**987**	**485 J**	**789**	**501**	**721**	**1,130**
PCB 134/143	ng/kg	**1,680**	**1,300**	**2,670**	**1,810**	**2,240**	**1,700**	**1,620**	**956**	**897**	**401 J**	**604**	**1,460**	**944**	**516**
PCB 135/151/154	ng/kg	**9,170**	**6,620**	**22,000**	**9,250**	**23,300**	**10,100**	**6,460**	**4,500**	**8,340**	**7,030 J**	**8,770**	**6,450**	**8,390**	**4,120**
PCB 136	ng/kg	**2,450**	**1,750**	**4,660**	**2,580**	**3,730**	**1,570**	**1,620**	**899**	**1,870**	**1,050 J**	**1,560**	**1,320**	**2,130**	**613**
PCB 137	ng/kg	**1,680**	**1,190**	**4,150**	**2,350**	**3,340**	**5,220**	**790**	**653**	**1,440**	**1,110 J**	**1,330**	**819**	**949**	**1,490**
PCB 139/140	ng/kg	**923**	**766**	**1,530**	**1,060**	**1,260**	**1,790**	**382**	**276**	**610**	**443 J**	**587**	**366**	**477**	**605**
PCB 141	ng/kg	**6,200**	**4,070**	**7,890**	**4,360**	**6,850**	**9,490**	**1,670**	**1,810**	**2,800**	**2,290 J**	**2,780**	**2,150**	**2,470**	**2,080**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-FI-1	GC-TI402-XAE-FI-2	GC-TI403-XAE-FI-1	GC-TI403-XAE-FI-2	GC-TI403-XAE-FI-3	GC-TI406-XAE-FI-1	GC-TI401-SB-FI-1	GC-TI401-SB-FI-2	GC-TI403-SB-FI-1	GC-TI406-SB-FI-1	GC-TI406-SB-FI-2	GC-TI401-WP-FI-1	GC-TI401-WP-FI-2	GC-TI327-XAE-FI-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/21/2010	10/21/2010	10/22/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/19/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	130.10	101.05	198.00	123.00	161.00	115.30	180.00	146.91	142.00	151.71	112.37	135.54	120.33	267.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 142	ng/kg	2.28 U	3.45 U	2.29 U	3.59 U	2.26 U	4.92 U	2.27 U	2.27 U	2.31 U	2.29 U	2.32 U	2.03 U	**5.82**	2.63 U
PCB 144	ng/kg	**529**	**419**	**1,170**	**667**	**789**	**346**	**744**	**553**	**719**	**653 J**	**770**	**700**	**695**	**228**
PCB 145	ng/kg	2.28 U	2.32 U	2.29 U	2.3 U	2.26 U	2.28 U	**3.6**	**2.83**	**4.69**	2.29 U	**3.1**	3.27 R	**5.17**	2.29 U
PCB 146	ng/kg	**10,600**	**9,790**	**17,100**	**14,100**	**14,400**	**29,700**	**4,410**	**3,170**	**9,030**	**5,260 J**	**8,360**	**5,080**	**5,860**	**10,100**
PCB 147/149	ng/kg	**38,900**	**27,800**	**70,000**	**41,400**	**59,100**	**34,300**	**15,500**	**10,200**	**19,600**	**12,300 J**	**16,300**	**13,400**	**17,300**	**10,400**
PCB 148	ng/kg	**192**	**167**	**327**	**249**	**305**	**508**	**115**	**62.6**	**207**	**127 J**	**208**	**100**	**155**	**191**
PCB 150	ng/kg	**25.9**	**11.2**	**41.1**	**29.6**	**19.8**	**8.04**	**105**	**53.9**	**109**	**97.9 J**	**154**	**77.2**	**120**	2.29 U
PCB 152	ng/kg	**6.89**	**3.1**	**7**	**8.81**	**11.1**	**2.64**	**21.8**	**13.4**	**23.6**	**12.9 J**	**24.3**	**18.8**	**33.7**	2.29 U
PCB 153/168	ng/kg	**73,700**	**52,900**	**116,000**	**89,100**	**105,000**	**219,000**	**25,000**	**17,500**	**41,100**	**36,200 J**	**37,000**	**25,100**	**26,400**	**71,300**
PCB 155	ng/kg	**76**	**102**	**126**	**397**	**123**	**413**	**50.2**	**48.5**	**60.5**	**64.7 J**	**80.9**	**84.7**	**90.5**	**114**
PCB 156/157	ng/kg	**3,710**	**2,840**	**8,430**	**5,090**	**6,770**	**13,800**	**1,340**	**1,170**	**2,480**	**2,050 J**	**2,050**	**1,680**	**1,730**	**4,130**
PCB 158	ng/kg	**6,440**	**4,870**	**9,310**	**6,600**	**8,260**	**11,800**	**1,710**	**1,320**	**2,380**	**2,030 J**	**2,010**	**1,690**	**1,540**	**3,430**
PCB 159	ng/kg	**191**	**124**	**224**	**42.9**	**209**	**196**	**61.7**	**55.6**	**114**	**69.4 J**	**100**	**78.5**	**104**	**54.1**
PCB 161	ng/kg	2.28 U	2.47 U	2.29 U	2.57 U	2.26 U	3.58 U	2.27 U	2.27 U	2.31 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 162	ng/kg	**89.3**	**67.7**	**213**	**92.3**	**140**	**305**	**54.5**	47.2 R	**99.2**	**79.9 J**	**104**	98.7 R	122 R	**125**
PCB 164	ng/kg	**2,040**	**1,530**	**2,370**	**1,360**	**1,950**	**2,930**	**582**	**578**	**1,120**	**650 J**	**1,060**	**818**	**1,160**	**687**
PCB 165	ng/kg	**58.1**	**69.5**	**83.3**	**76.2**	**74.4**	**189**	**36.3**	**19.3**	**83.9**	**36.9 J**	**70.4**	**32.3**	**58**	**83.7**
PCB 167	ng/kg	**1,970**	**1,510**	**3,620**	**2,130**	**2,850**	**7,080**	**578**	**497**	**1,120**	**914 J**	**937**	**760**	**756**	**2,180**
PCB 169	ng/kg	51.3 U	21.6 U	76 U	21.3 U	55.6 U	70.7 U	11.8 U	12.8 U	22.9 U	19.5 U	20.6 U	12.2 U	11.3 U	19.9 U
PCB 170	ng/kg	**9,430**	**5,380**	**14,800**	**8,330**	**12,000**	**27,200**	**2,200**	**1,770**	**3,900**	**4,060 J**	**4,130**	**2,820**	**2,800**	**5,240**
PCB 171/173	ng/kg	**3,990**	**2,890**	**6,550**	**3,850**	**5,360**	**8,160**	**1,100**	**725**	**1,560**	**1,420 J**	**1,550**	**1,110**	**1,040**	**2,110**
PCB 172	ng/kg	**1,630**	**958**	**2,400**	**1,590**	**1,900**	**5,190**	**388**	**334**	**806**	**669 J**	**882**	**567**	**647**	**962**
PCB 174	ng/kg	**3,590**	**2,390**	**4,150**	**1,700**	**3,700**	**4,490**	**1,120**	**1,010**	**1,870**	**1,170 J**	**1,700**	**1,380**	**1,850**	**994**
PCB 175	ng/kg	**612**	**429**	**919**	**626**	**757**	**1,450**	**193**	**137**	**287**	**242 J**	**291**	**216**	**194**	**395**
PCB 176	ng/kg	**371**	**273**	**850**	**470**	**585**	**225**	**365**	**212**	**341**	**261 J**	**317**	**282**	**324**	**78.3**
PCB 177	ng/kg	**7,220**	**5,160**	**9,830**	**7,250**	**8,750**	**11,900**	**1,900**	**1,220**	**2,720**	**1,570 J**	**2,010**	**1,330**	**1,840**	**2,420**
PCB 178	ng/kg	**3,280**	**2,490**	**4,360**	**3,970**	**3,500**	**8,320**	**1,110**	**730**	**1,920**	**1,310 J**	**1,710**	**1,310**	**1,370**	**2,850**
PCB 179	ng/kg	**1,930**	**1,490**	**3,130**	**2,370**	**3,010**	**2,480**	**1,240**	**801**	**1,260**	**1,120 J**	**1,270**	**1,190**	**1,430**	**910**
PCB 180/193	ng/kg	**26,200**	**16,800**	**39,600**	**24,800**	**33,200**	**99,800**	**7,480**	**5,860**	**12,600**	**12,300 J**	**12,200**	**8,940**	**8,500**	**19,000**
PCB 181	ng/kg	**108**	**90.1**	**193**	**98.5**	**155**	**324**	**39.1**	**27.4**	**66.5**	**54.2 J**	**68.8**	**41**	**54.4**	**64.9**
PCB 182	ng/kg	**74.9**	**68.4**	**126**	**77.1**	**107**	**204**	**41**	**27.3**	**78.2**	**48.9 J**	**82.1**	**42.4**	**58.8**	**61.3**
PCB 183/185	ng/kg	**11,900**	**8,470**	**18,000**	**11,800**	**15,200**	**28,200**	**3,590**	**2,320**	**4,990**	**4,740 J**	**4,850**	**3,790**	**3,210**	**7,510**
PCB 184	ng/kg	**41.1**	**50.3**	**77.2**	**90.2**	**66.1**	**129**	**22.8**	**11.7**	**28.6**	**20.6 J**	**27.4**	**29.2**	**29.7**	**55.4**
PCB 186	ng/kg	2.28 U	2.32 U	2.29 U	2.3 U	2.26 U	2.28 U	2.27 U	2.27 U	2.31 U	2.29 U	2.32 U	2.03 U	3.93 U	2.29 U
PCB 187	ng/kg	**22,900**	**17,500**	**35,900**	**25,900**	**29,500**	**67,800**	**8,580**	**5,570**	**12,200**	**8,870 J**	**11,400**	**8,360**	**9,080**	**16,900**
PCB 188	ng/kg	**66.6**	**79.8**	**117**	**113**	**110**	**397**	**51.2**	**26**	**65.6**	**71.8 J**	**84.2**	**43**	**53.3**	**89.1**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-FI-1	GC-TI402-XAE-FI-2	GC-TI403-XAE-FI-1	GC-TI403-XAE-FI-2	GC-TI403-XAE-FI-3	GC-TI406-XAE-FI-1	GC-TI401-SB-FI-1	GC-TI401-SB-FI-2	GC-TI403-SB-FI-1	GC-TI406-SB-FI-1	GC-TI406-SB-FI-2	GC-TI401-WP-FI-1	GC-TI401-WP-FI-2	GC-TI327-XAE-FI-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/21/2010	10/21/2010	10/22/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/19/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	130.10	101.05	198.00	123.00	161.00	115.30	180.00	146.91	142.00	151.71	112.37	135.54	120.33	267.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 189	ng/kg	**305**	**187**	**485**	**346**	**388**	**1,200**	**71.5**	**61.8**	**164**	**136 J**	**136**	**119**	**116**	**297**
PCB 190	ng/kg	**2,590**	**1,900**	**4,470**	**2,810**	**3,810**	**6,320**	**650**	**463**	**1,010**	**984 J**	**949**	**691**	**657**	**1,310**
PCB 191	ng/kg	**527**	**342**	**866**	**561**	**734**	**1,560**	**129**	**100**	**193**	**210 J**	**195**	**150**	**125**	**298**
PCB 192	ng/kg	2.28 U	2.32 U	2.29 U	**3.08**	2.26 U	2.28 U	2.27 U	2.27 U	2.31 U	2.29 U	2.32 U	**5.43**	**4.01**	2.29 U
PCB 194	ng/kg	**2,820**	**1,890**	**4,270**	**3,840**	**3,980**	**12,100**	**742**	**825**	**1,960**	**1,570 J**	**1,590**	**1,360**	**1,360**	**2,770**
PCB 195	ng/kg	**1,590**	**1,050**	**2,690**	**1,700**	**2,180**	**3,640**	**382**	**308**	**640**	**602 J**	**648**	**471**	**461**	**733**
PCB 196	ng/kg	**2,200**	**1,590**	**3,630**	**2,840**	2.26 U	**8,040**	**628**	**495**	**1,080**	**978 J**	**1,090**	**789**	**767**	**1,490**
PCB 197/200	ng/kg	**337**	**334**	**635**	**538**	**525**	**975**	**155**	**105**	**246**	**167 J**	**244**	**155**	**174**	**341**
PCB 198/199	ng/kg	**3,880**	**3,200**	**5,910**	**5,550**	**5,110**	**17,000**	**1,290**	**1,080**	**2,720**	**1,720 J**	**2,560**	**1,720**	**1,960**	**3,570**
PCB 201	ng/kg	**579**	**519**	**937**	**1,130**	**730**	**2,390**	**270**	**188**	**460**	**329 J**	**436**	**309**	**300**	**713**
PCB 202	ng/kg	**1,220**	**1,390**	**1,460**	**2,820**	**1,460**	**6,790**	**700**	**511**	**1,420**	**862 J**	**1,250**	**922**	**960**	**2,470**
PCB 203	ng/kg	**3,560**	**3,280**	**6,250**	**5,000**	**5,300**	**13,600**	**1,230**	**887**	**2,200**	**1,660 J**	**2,100**	**1,460**	**1,530**	**2,840**
PCB 204	ng/kg	**4.58**	**5.59**	**7.84**	**8.75**	**6.27**	**19.3**	2.6 R	2.27 U	**4.9**	**2.9 J**	**5.42**	**5.18**	**6.73**	**5.93**
PCB 205	ng/kg	**190**	**133**	**345**	**242**	**278**	**539**	**51.4**	**38.6**	**95.3**	**76 J**	**81.2**	**66.2**	**66.6**	**111**
PCB 206	ng/kg	**1,400**	**1,610**	**2,420**	**2,730**	**2,180**	**6,190**	**611**	**521**	**1,300**	**845 J**	**1,040**	**816**	**1,200**	**1,800**
PCB 207	ng/kg	**207**	**236**	**338**	**394**	**318**	**844**	**96.1**	**75.8**	**186**	**127 J**	**167**	**125**	**165**	**219**
PCB 208	ng/kg	**473**	**576**	**754**	**987**	**688**	**2,870**	**272**	**234**	**598**	**344 J**	**504**	**287**	**431**	**847**
PCB 209	ng/kg	**496**	**759**	**764**	**1,280**	**637**	**2,950**	**286**	**264**	**585**	**396 J**	**470**	**448**	**606**	**869**
Dichlorobiphenyl	ng/kg	**273**	**257**	**404**	**248**	**285**	**401**	**2,130**	**1,150**	**1,190**	**898 J**	**573**	**865**	**1,290**	**255**
Heptachlorobiphenyl	ng/kg	**61,000**	**42,800**	**118,000**	**78,100**	**89,900**	**158,000**	**30,300**	**21,400**	**24,800**	**21,200 J**	**23,600**	**17,300**	**33,400**	**43,400**
Hexachlorobiphenyl	ng/kg	**192,000**	**129,000**	**360,000**	**247,000**	**295,000**	**360,000**	**61,900**	**32,500**	**94,300**	**60,800 J**	**83,100**	**59,100**	**66,500**	**136,000**
Monochlorobiphenyl	ng/kg	**12.7**	**4.79**	**12.8**	**11.5**	**9.54**	**3.03**	**37.6**	**20.1**	**26.3**	**9.09 J**	**4.84**	**10.8**	**21.8**	**4.12**
Nonachlorobiphenyl	ng/kg	**2,080**	**2,420**	**3,510**	**2,730**	**3,190**	**7,030**	**979**	**831**	**2,080**	**1,320 J**	**1,710**	**1,230**	**1,800**	**2,870**
Octachlorobiphenyl	ng/kg	**16,400**	**13,400**	**14,000**	**14,800**	**19,600**	**61,200**	**5,450**	**4,440**	**10,800**	**7,970 J**	**10,000**	**7,260**	**7,590**	**15,000**
Pentachlorobiphenyl	ng/kg	**184,000**	**118,000**	**249,000**	**190,000**	**195,000**	**199,000**	**81,000**	**61,300**	**94,300**	**63,400 J**	**83,400**	**73,900**	**113,000**	**105,000**
Tetrachlorobiphenyl	ng/kg	**163,000**	**80,600**	**112,000**	**95,900**	**91,000**	**164,000**	**70,800**	**50,000**	**64,700**	**49,700 J**	**48,300**	**53,700**	**98,200**	**71,800**
Trichlorobiphenyl	ng/kg	**9,070**	**9,010**	**15,500**	**5,270**	**10,400**	**14,000**	**18,000**	**14,800**	**20,700**	**20,100 J**	**13,300**	**14,400**	**21,300**	**10,300**
Total PCB (Lab)	ng/kg	**599,000**	**380,000**	**866,000**	**629,000**	**680,000**	**737,000**	**232,000**	**151,000**	**278,000**	**195,000 J**	**238,000**	**210,000**	**285,000**	**366,000**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-FI-1**	**GC-TI332-XSCUP-FI-2**	**GC-TI332-XSCUP-FI-3**	**GC-TI332-XW-FI-1**
Sample Date:		**10/23/2010**	**10/24/2010**	**10/24/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Fillet**	**Fillet**	**Fillet**	**Fillet**
Sample Weight:		**109.00**	**125.00**	**110.00**	**130.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 1	ng/kg	**2.74**	**2.42**	**2.72**	**2.84**
PCB 2	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 3	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 4	ng/kg	**72.4**	**58.7 J**	**58**	**48.5**
PCB 5	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 6	ng/kg	**11**	**8.09**	**8.03**	**10.8**
PCB 7	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 8	ng/kg	**21.7**	**15.1**	**15.6**	**23**
PCB 9	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 10	ng/kg	**8.3**	**6.3**	**5.96**	**6.62**
PCB 11	ng/kg	**10.4**	**7.41**	**9.85**	**11.1**
PCB 12/13	ng/kg	4.65 U	4.28 U	4.68 U	4.93 U
PCB 14	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 15	ng/kg	**8.18**	**5.75**	**5.63**	**4.51**
PCB 16	ng/kg	**49.8**	**37.5**	**33.1**	**54.4**
PCB 17	ng/kg	**180**	**112**	**103**	**183**
PCB 18/30	ng/kg	**278**	**220**	**205**	**301**
PCB 19	ng/kg	**57.6**	**45.6**	**44.5**	**59.8**
PCB 20/28	ng/kg	**985**	**837**	**911**	**1,210**
PCB 21/33	ng/kg	**41.1**	**30.8**	**30.7**	**66.9**
PCB 22	ng/kg	**114**	**91.1**	**96.3**	**132**
PCB 23	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 24	ng/kg	**5.33**	**4.23**	**3.95**	**4.62**
PCB 25	ng/kg	**71.6**	**55.9**	**59.2**	**98.6**
PCB 26/29	ng/kg	**207**	**170**	**185**	**315**
PCB 27	ng/kg	**38.3**	**27.2**	**24.3**	**77.7**
PCB 31	ng/kg	**259**	**191**	**191**	**770**
PCB 32	ng/kg	**53.5**	**40.6**	**36**	**175**
PCB 34	ng/kg	**5.15**	**3.71**	**3.88**	**11.1**
PCB 35	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 36	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 37	ng/kg	**14.1**	**11.9**	**6.87**	**9.74**
PCB 38	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 39	ng/kg	**2.86**	2.14 U	2.34 U	2.47 U
PCB 40/41/71	ng/kg	**292**	**215**	**208**	**943**
PCB 42	ng/kg	**290**	**249**	**274**	**438**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-FI-1	GC-TI332-XSCUP-FI-2	GC-TI332-XSCUP-FI-3	GC-TI332-XW-FI-1
	Sample Date:	10/23/2010	10/24/2010	10/24/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	109.00	125.00	110.00	130.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 43	ng/kg	**37**	**31.6**	**30.1**	**76**
PCB 44/47/65	ng/kg	**1,670**	**1,420**	**1,620**	**3,450**
PCB 45/51	ng/kg	**141**	**108**	**101**	**203**
PCB 46	ng/kg	**22.9**	**18.5**	**16.9**	**45.7**
PCB 48	ng/kg	**91.7**	**62.6**	**55.9**	**159**
PCB 49/69	ng/kg	**1,340**	**1,140**	**1,310**	**2,560**
PCB 50/53	ng/kg	**95.7**	**66.5**	**57.3**	**154**
PCB 52	ng/kg	**1,880**	**1,660**	**1,870**	**4,040**
PCB 54	ng/kg	**6.34**	**5.44**	**5.34**	**9.74**
PCB 55	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 56	ng/kg	**236**	**186**	**215**	**225**
PCB 57	ng/kg	**11.2**	**8.91**	**10.4**	**20.5**
PCB 58	ng/kg	**10.6**	**7.92**	**9.16**	**15.6**
PCB 59/62/75	ng/kg	**154**	**132**	**148**	**329**
PCB 60	ng/kg	**190**	**170**	**203**	**368**
PCB 61/70/74/76	ng/kg	**1,030**	**854**	**978**	**3,020**
PCB 63	ng/kg	**84.7**	**74.6**	**85**	**182**
PCB 64	ng/kg	**454**	**364**	**410**	**899**
PCB 66	ng/kg	**1,280**	**1,150**	**1,320**	**2,490**
PCB 67	ng/kg	**28.2**	**22.6**	**25.5**	**31.1**
PCB 68	ng/kg	**32**	**26.8**	**31.5**	**80**
PCB 72	ng/kg	**45.1**	**40.4**	**45.3**	**124**
PCB 73	ng/kg	**12.9**	**11.4**	**13.5**	**30.1**
PCB 77	ng/kg	**44.8**	**35.5**	**37.4**	**37**
PCB 78	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 79	ng/kg	**24.5**	**21.4**	**24**	**51.1**
PCB 80	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 81	ng/kg	2.51 R	2.5 R	2.47 R	3.41 R
PCB 82	ng/kg	**112**	**104**	**112**	**229**
PCB 83/99	ng/kg	**2,060**	**1,750**	**1,890**	**5,690**
PCB 84	ng/kg	**241**	**194**	**201**	**616**
PCB 85/116/117	ng/kg	**443**	**400**	**426**	**1,190**
PCB 86/87/97/108/119/125	ng/kg	**---**	**---**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**1,070**	**952**	**1,080**	**2,570**
PCB 88/91	ng/kg	**337**	**294**	**325**	**634**
PCB 89	ng/kg	**7.09**	**5.73**	**4.3**	**10.9**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-FI-1**	**GC-TI332-XSCUP-FI-2**	**GC-TI332-XSCUP-FI-3**	**GC-TI332-XW-FI-1**
Sample Date:		**10/23/2010**	**10/24/2010**	**10/24/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Fillet**	**Fillet**	**Fillet**	**Fillet**
Sample Weight:		**109.00**	**125.00**	**110.00**	**130.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 90/101/113	ng/kg	**2,400**	**2,280**	**2,400**	**6,150**
PCB 92	ng/kg	**443**	**406**	**436**	**1,440**
PCB 93/95/98/100/102	ng/kg	**1,210**	**1,050**	**1,160**	**2,000**
PCB 94	ng/kg	5.95 R	**4.66**	**3.97**	**15.2**
PCB 96	ng/kg	**9.42**	**8.22**	**7.97**	**20.4**
PCB 103	ng/kg	**39.8**	**35.3**	**39.7**	**128**
PCB 104	ng/kg	2.32 U	2.14 U	2.34 U	**5.1**
PCB 105	ng/kg	**634 J**	**566 J**	**596 J**	**1,650**
PCB 106	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 107	ng/kg	**233**	**208**	**210**	**615**
PCB 107/124	ng/kg	**---**	**---**	**---**	**---**
PCB 108/124	ng/kg	**37**	**32.5**	**34.5**	**83.9**
PCB 109	ng/kg	**---**	**---**	**---**	**---**
PCB 110/115	ng/kg	**1,380**	**1,170**	**1,290**	**4,500**
PCB 111	ng/kg	**7.47**	6.28 R	**6.18**	**22.5**
PCB 112	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 114	ng/kg	**38**	**34.8**	**36.9**	**114**
PCB 118	ng/kg	**2,240 J**	**2,000 J**	**2,000 J**	**5,730**
PCB 120	ng/kg	**38**	**30.4**	**30.3**	**83.2**
PCB 121	ng/kg	2.32 U	**2.25**	**2.56**	**8.07**
PCB 122	ng/kg	**15.1**	**14.6**	**14.6**	2.47 U
PCB 123	ng/kg	**37.4**	**33.8**	**33.7**	66.7 R
PCB 126	ng/kg	**7.33**	**5.44**	**5.54**	6.26 R
PCB 127	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 128/166	ng/kg	**467**	**402**	**418**	**1,190**
PCB 129/138/160/163	ng/kg	**3,430**	**3,170**	**3,110**	**9,580**
PCB 130	ng/kg	**185**	**169**	**174**	**419**
PCB 131	ng/kg	**16.2**	**14.8**	**16.9**	**36.7**
PCB 132	ng/kg	**447**	**381**	**406**	**1,170**
PCB 133	ng/kg	**67.6**	**66.2**	**65.4**	**297**
PCB 134/143	ng/kg	**82.9**	**72.5**	**74.1**	**239**
PCB 135/151/154	ng/kg	**826**	**721**	**749**	**2,020**
PCB 136	ng/kg	**153**	**133**	**147**	**330**
PCB 137	ng/kg	**104**	**95.1**	**97.6**	**336**
PCB 139/140	ng/kg	**53.5**	**46.5**	**48.8**	**166**
PCB 141	ng/kg	**225**	**221**	**213**	**776**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-FI-1**	**GC-TI332-XSCUP-FI-2**	**GC-TI332-XSCUP-FI-3**	**GC-TI332-XW-FI-1**
Sample Date:		**10/23/2010**	**10/24/2010**	**10/24/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Fillet**	**Fillet**	**Fillet**	**Fillet**
Sample Weight:		**109.00**	**125.00**	**110.00**	**130.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 142	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 144	ng/kg	**87.4**	**81.7**	**82.3**	**204**
PCB 145	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 146	ng/kg	**900**	**772**	**772**	**1,830**
PCB 147/149	ng/kg	**1,900**	**1,680**	**1,820**	**3,100**
PCB 148	ng/kg	**19.3**	**18**	**17**	**59**
PCB 150	ng/kg	**9.9**	**9.59**	**9.82**	**30.6**
PCB 152	ng/kg	2.32 U	2.14 U	2.34 U	**4.18**
PCB 153/168	ng/kg	**4,270**	**3,700**	**3,680**	**10,300**
PCB 155	ng/kg	**8.2**	**8.21**	**8.36**	**35.2**
PCB 156/157	ng/kg	**272**	**249**	**237**	**712**
PCB 158	ng/kg	**209**	**196**	**193**	**565**
PCB 159	ng/kg	**10.7**	**10.5**	**10.9**	**31.3**
PCB 161	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 162	ng/kg	**14.1**	**13.6**	**12.9**	**41.8**
PCB 164	ng/kg	**91.2**	**74.9**	**84.4**	**305**
PCB 165	ng/kg	**8.04**	**7.63**	**7.35**	**25.2**
PCB 167	ng/kg	**145**	**132**	**124**	**264**
PCB 169	ng/kg	2.32 U	2.24 U	2.34 U	5.18 U
PCB 170	ng/kg	**396**	**444**	**356**	**1,070**
PCB 171/173	ng/kg	**177**	**181**	**161**	**413**
PCB 172	ng/kg	**77.6**	**82.7**	**69.5**	**237**
PCB 174	ng/kg	**192**	**183**	**180**	**501**
PCB 175	ng/kg	**39**	**38.8**	**34.3**	**85.6**
PCB 176	ng/kg	**59.9**	**57.4**	**55.9**	**88.4**
PCB 177	ng/kg	**384**	**347**	**316**	**577**
PCB 178	ng/kg	**191**	**199**	**187**	**675**
PCB 179	ng/kg	**210**	**187**	**190**	**340**
PCB 180/193	ng/kg	**1,230**	**1,390**	**1,150**	**3,640**
PCB 181	ng/kg	**4.62**	**4.58**	**4.41**	**13.4**
PCB 182	ng/kg	**8.75**	**9.41**	**8.77**	**25.5**
PCB 183/185	ng/kg	**536**	**529**	**486**	**1,270**
PCB 184	ng/kg	**5.06**	**4.46**	**4.75**	**10.4**
PCB 186	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 187	ng/kg	**1,710**	**1,590**	**1,520**	**2,690**
PCB 188	ng/kg	**14.3**	**13.9**	**12.1**	**39.2**

TABLE I-80A
PCB Congener Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-FI-1	GC-TI332-XSCUP-FI-2	GC-TI332-XSCUP-FI-3	GC-TI332-XW-FI-1
	Sample Date:	10/23/2010	10/24/2010	10/24/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	109.00	125.00	110.00	130.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 189	ng/kg	**20.2**	**20.7**	**18.2**	**41.5**
PCB 190	ng/kg	**94.2**	**103**	**85**	**235**
PCB 191	ng/kg	**19.1**	**22**	**17.7**	**55.4**
PCB 192	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 194	ng/kg	**220**	**266**	**218**	**540**
PCB 195	ng/kg	**73.9**	**91**	**68.6**	**163**
PCB 196	ng/kg	**134**	**151**	**121**	**326**
PCB 197/200	ng/kg	**43.2**	**38.6**	**37.4**	**75.3**
PCB 198/199	ng/kg	**317**	**335**	**286**	**811**
PCB 201	ng/kg	**90**	**87.2**	**80.9**	**177**
PCB 202	ng/kg	**238**	**248**	**227**	**608**
PCB 203	ng/kg	**227**	**234**	**208**	**559**
PCB 204	ng/kg	2.32 U	2.14 U	2.34 U	2.47 U
PCB 205	ng/kg	**11.9**	**11.8**	**10.2**	**22.6**
PCB 206	ng/kg	**207**	**204**	**177**	**417**
PCB 207	ng/kg	**32.5**	**29.4**	**26.7**	**70.5**
PCB 208	ng/kg	**106**	**99.2**	**85.5**	**263**
PCB 209	ng/kg	**125**	**123**	**104**	**260**
Dichlorobiphenyl	ng/kg	**132**	**101 J**	**103**	**105**
Heptachlorobiphenyl	ng/kg	**5,370**	**5,410**	**4,860**	**12,000**
Hexachlorobiphenyl	ng/kg	**14,000**	**12,400**	**12,600**	**23,800**
Monochlorobiphenyl	ng/kg	**2.74**	**2.42**	**2.72**	**2.84**
Nonachlorobiphenyl	ng/kg	**346**	**333**	**289**	**751**
Octachlorobiphenyl	ng/kg	**1,360**	**1,460**	**1,260**	**3,280**
Pentachlorobiphenyl	ng/kg	**13,000 J**	**11,600 J**	**12,300 J**	**27,800**
Tetrachlorobiphenyl	ng/kg	**9,500**	**8,080**	**9,100**	**20,000**
Trichlorobiphenyl	ng/kg	**2,360**	**1,880**	**1,930**	**3,470**
Total PCB (Lab)	ng/kg	**46,200**	**41,400**	**42,600**	**91,400**

TABLE I-81A
Metal and Lipid Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-FI-1	GC-TI402-XAE-FI-2	GC-TI403-XAE-FI-1	GC-TI403-XAE-FI-2	GC-TI403-XAE-FI-3	GC-TI406-XAE-FI-1	GC-TI401-SB-FI-1	GC-TI401-SB-FI-2	GC-TI403-SB-FI-1	GC-TI406-SB-FI-1	GC-TI406-SB-FI-2	GC-TI401-WP-FI-1	GC-TI401-WP-FI-2	GC-TI327-XAE-FI-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/21/2010	10/21/2010	10/22/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/19/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	130.10	101.05	198.00	123.00	161.00	115.30	180.00	146.91	142.00	151.71	112.37	135.54	120.33	267.00
Parameter	**Units**	**Metals**													
Aluminum	mg/kg	19.4 U	19.4 U	19.4 U	19.6 U	19.4 U	19.4 U	19.6 U	19.6 U	19.6 U	19.4 U	19.8 U	19.4 U	19.4 U	19.2 U
Antimony	mg/kg	5.8 U	5.8 U	5.8 U	5.9 U	5.8 U	5.8 U	5.9 U	5.9 U	5.9 U	5.8 U	5.9 U	5.8 U	5.8 U	5.8 U
Arsenic	mg/kg	0.97 U	**0.5 J**	0.97 U	0.98 U	0.97 U	0.97 U	0.98 U	0.98 U	**0.68 J**	**0.45 J**	**0.54 J**	0.97 U	0.97 U	0.96 U
Barium	mg/kg	19.4 U	19.4 U	19.4 U	19.6 U	19.4 U	19.4 U	19.6 U	19.6 U	19.6 U	19.4 U	19.8 U	19.4 U	19.4 U	19.2 U
Beryllium	mg/kg	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.48 U
Cadmium	mg/kg	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.48 U
Calcium	mg/kg	**295 J**	**207 J**	485 U	**198 J**	485 U	485 U	**197 J**	**427 J**	**541 J**	**219 J**	**231 J**	**318 J**	**4,220 J**	**169 J**
Chromium	mg/kg	0.97 U	**0.67 J**	0.97 U	**0.53 J**	0.97 U	0.97 U	0.98 U	0.98 U	0.98 U	0.97 U	0.99 U	0.97 U	0.97 U	0.96 U
Cobalt	mg/kg	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.8 U
Copper	mg/kg	**0.86 J**	**7.4**	2.4 U	**0.87 J**	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U	2.4 U	2.5 U	**1.3 J**	**0.9 J**	2.4 U
Iron	mg/kg	9.7 U	**12.7**	9.7 U	9.8 U	9.7 U	9.7 U	9.8 U	9.8 U	9.8 U	9.7 U	9.9 U	9.7 U	9.7 U	9.6 U
Lead	mg/kg	0.97 U	0.97 U	0.97 U	0.98 U	0.97 U	0.97 U	0.98 U	0.98 U	0.98 U	0.97 U	0.99 U	0.97 U	0.97 U	0.96 U
Magnesium	mg/kg	**266 J**	**192 J**	485 U	**278 J**	**169 J**	485 U	**190 J**	**343 J**	**322 J**	**274 J**	**325 J**	**245 J**	**362 J**	481 U
Manganese	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	**5.2**	1.4 U
Mercury	mg/kg	**0.057 J**	**0.058 J**	**0.06 J**	**0.097**	**0.056 J**	**0.26**	0.48 U	**0.15**	**0.18**	**0.2**	**0.2**	**0.19**	**0.16**	**0.16**
Nickel	mg/kg	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	3.8 U
Potassium	mg/kg	**2,770**	**2,720**	**1,960**	**3,570**	**2,410**	**2,360**	**2,070**	**2,640**	**3,800**	**3,710**	**3,970**	**2,590**	**2,550**	**1,870**
Selenium	mg/kg	3.4 U	3.4 U	3.4 U	**1.4 J**	**1.2 J**	3.4 U	3.4 U	3.4 U	**1.2 J**	**1.2 J**	3.5 U	**1.4 J**	3.4 U	3.4 U
Silver	mg/kg	0.97 U	0.97 U	0.97 U	0.98 U	0.97 U	0.97 U	0.98 U	0.98 U	0.98 U	0.97 U	0.99 U	0.97 U	0.97 U	0.96 U
Sodium	mg/kg	**707**	**910**	**524**	**944**	**559**	**673**	**468 J**	**578**	**1,060**	**663**	**790**	**628**	**823**	**501**
Thallium	mg/kg	2.4 U	2.4 U	2.4 U	2.5 U	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U	2.4 U	2.5 U	2.4 U	2.4 U	2.4 U
Vanadium	mg/kg	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.8 U
Zinc	mg/kg	**11.6**	**14**	**13.3**	**29.7**	**11.5**	**25.6**	**3.9 J**	**5.7 J**	**16.4**	**5.8 J**	**6.1**	**5.1 J**	**9.5**	**20.5**
Cyanide, Total	mg/kg	**0.37 J**	**0.6 J**	**0.3 J**	**3.1**	**0.51 J**	**2.6**	**0.6 J**	**0.63 J**	**0.28 J**	2.5 U	2.4 U	**0.22 J**	**0.91 J**	2.5 U
Percent Lipids	%	**8.99**	**13.4**	**23.1**	**11.1**	**17.1**	**25**	**3.11**	**1.77**	**2.34**	**1.41**	**0.74**	**1.49**	**2.26**	**20.9**

TABLE I-81A
Metal and Lipid Concentrations in Larger Fish Species – Fillet – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-FI-1	GC-TI332-XSCUP-FI-2	GC-TI332-XSCUP-FI-3	GC-TI332-XW-FI-1
	Sample Date:	10/23/2010	10/24/2010	10/24/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Fillet	Fillet	Fillet	Fillet
	Sample Weight:	109.00	125.00	110.00	130.00
Parameter	**Units**	**Metals**			
Aluminum	mg/kg	19.6 U	19.6 U	19.4 U	19.6 U
Antimony	mg/kg	5.9 U	5.9 U	5.8 U	5.9 U
Arsenic	mg/kg	**0.45 J**	**0.46 J**	**0.55 J**	0.98 U
Barium	mg/kg	19.6 U	19.6 U	19.4 U	19.6 U
Beryllium	mg/kg	0.49 U	0.49 U	0.49 U	0.49 U
Cadmium	mg/kg	0.49 U	0.49 U	0.49 U	0.49 U
Calcium	mg/kg	**1,390**	**1,470**	**1,800**	**460 J**
Chromium	mg/kg	0.98 U	0.98 U	0.97 U	0.98 U
Cobalt	mg/kg	4.9 U	4.9 U	4.9 U	4.9 U
Copper	mg/kg	2.5 U	2.5 U	2.4 U	2.5 U
Iron	mg/kg	9.8 U	9.8 U	9.7 U	9.8 U
Lead	mg/kg	0.98 U	0.98 U	0.97 U	0.98 U
Magnesium	mg/kg	**281 J**	**255 J**	**310 J**	**262 J**
Manganese	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U
Mercury	mg/kg	**0.097 J**	**0.074 J**	0.45 U	**0.19**
Nickel	mg/kg	3.9 U	3.9 U	3.9 U	3.9 U
Potassium	mg/kg	**3,490**	**2,660**	**2,960**	**3,310**
Selenium	mg/kg	**1.3 J**	3.4 U	**1.2 J**	3.4 U
Silver	mg/kg	0.98 U	0.98 U	0.97 U	0.98 U
Sodium	mg/kg	**748**	**633**	**803**	**636**
Thallium	mg/kg	2.5 U	2.5 U	2.4 U	2.5 U
Vanadium	mg/kg	4.9 U	4.9 U	4.9 U	4.9 U
Zinc	mg/kg	**4 J**	**4.2 J**	**4 J**	**4.2 J**
Cyanide, Total	mg/kg	2.5 U	**10**	**3.5**	2.4 U
Percent Lipids	%	**1.03**	**0.78**	**0.91**	**0.91**

TABLE I-82A
Pesticide Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-CA-1	GC-TI402-XAE-CA-2	GC-TI403-XAE-CA-1	GC-TI403-XAE-CA-2	GC-TI403-XAE-CA-3	GC-TI406-XAE-CA-1	GC-TI401-SB-CA-1	GC-TI401-SB-CA-2	GC-TI403-SB-CA-1	GC-TI406-SB-CA-1	GC-TI406-SB-CA-2	GC-TI401-WP-CA-1	GC-TI401-WP-CA-2	GC-TI327-XAE-CA-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	144.30	135.65	394.00	320.00	425.00	233.00	281.86	223.00	237.00	573.25	300.85	372.00	259.00	673.00
Parameter	**Units**	**Pesticides**													
Aldrin	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 U	1.7 UJ	1.7 UJ	1.7 U
Alpha BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U
Alpha-chlordane	ug/kg	1.7 UJ	**17 J**	**30 J**	**17 J**	**17 NJ**	1.7 UJ	1.7 U	**12 J**	10 R	1.7 UJ	**4 J**	**12 J**	**12 J**	**4**
Beta BHC	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 U	1.7 UJ	1.7 UJ	1.7 U
Beta endosulfan	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 U	3.3 UJ	3.3 UJ	3.3 U
Delta BHC	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 U	1.7 UJ	1.7 UJ	1.7 U
Dieldrin	ug/kg	**6.3 NJ**	6.1 R	**17 NJ**	5.7 R	5.1 R	3.3 U	3.3 U	3.3 U	6.7 R	3.3 UJ	3.3 U	3.3 U	3.3 U	3.3 U
Endosulfan sulfate	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 U	3.3 UJ	3.3 UJ	3.3 U
Endrin	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 U	3.3 U	3.3 U	3.3 U
Endrin aldehyde	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 U	3.3 UJ	3.3 UJ	3.3 U
Endrin ketone	ug/kg	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 UJ	3.3 U	3.3 U	3.3 UJ	3.3 UJ	3.3 U	3.3 UJ	3.3 UJ	3.3 U
Gamma BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U
Gamma-chlordane	ug/kg	1.7 UJ	**14 J**	1.7 UJ	**14 J**	**6.6 NJ**	1.7 UJ	1.7 U	1.7 U	**6.9 J**	1.7 UJ	1.7 U	6 R	**11 J**	1.7 U
Heptachlor	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 UJ	1.7 U	1.7 U	1.7 U	1.7 U
Heptachlor epoxide	ug/kg	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ	1.7 U	1.7 U	1.7 UJ	1.7 UJ	1.7 U	1.7 UJ	1.7 UJ	1.7 U
Methoxychlor	ug/kg	**18 NJ**	17 U	17 U	17 U	17 U	17 U	17 U	17 U	17 UJ	17 UJ	17 U	**33 J**	17 UJ	17 U
P,P'-DDD	ug/kg	**20 NJ**	**26 NJ**	**38 NJ**	**27 NJ**	**22 NJ**	14 R	**21 NJ**	**39 NJ**	**9.2 NJ**	**21 NJ**	**8**	**20 NJ**	3.3 R	**8 NJ**
P,P'-DDE	ug/kg	11 R	14 R	26 R	19 R	14 R	**19 NJ**	12 R	18 R	**24 J**	3.3 UJ	14 R	15 R	23 R	7.9 R
P,P'-DDT	ug/kg	16 R	3.3 U	**46 NJ**	**26 NJ**	3.3 U	16 R	3.3 UJ	3.3 U	**15 NJ**	**14 J**	3.3 U	12 R	**21 NJ**	8.9 R
Total DDTs	ug/kg	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**48.2**	**35**	**---**	**---**	**---**	**---**

TABLE I-82A
Pesticide Concentrations in Larger Fish Species – Carcass – Wet Weight TABLEI-82A_Wet_Pesticides_TALargerFishSpecies
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-CA-1**	**GC-TI332-XSCUP-CA-2**	**GC-TI332-XSCUP-CA-3**	**GC-TI332-XW-CA-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Carcass**	**Carcass**	**Carcass**	**Carcass**
Sample Weight:		**180.00**	**220.00**	**238.00**	**275.00**
Parameter	**Units**	**Pesticides**			
Aldrin	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Alpha BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Alpha-chlordane	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Beta BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Beta endosulfan	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Delta BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Dieldrin	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endosulfan sulfate	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endrin	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endrin aldehyde	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Endrin ketone	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Gamma BHC	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Gamma-chlordane	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Heptachlor	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Heptachlor epoxide	ug/kg	1.7 U	1.7 U	1.7 U	1.7 U
Methoxychlor	ug/kg	17 U	17 U	17 U	17 U
P,P'-DDD	ug/kg	3.3 R	3.3 R	3.3 R	3.3 R
P,P'-DDE	ug/kg	3.3 U	3.3 U	3.3 U	**10 NJ**
P,P'-DDT	ug/kg	3.3 U	3.3 U	3.3 U	3.3 U
Total DDTs	ug/kg	---	---	---	---

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-CA-1	GC-TI402-XAE-CA-2	GC-TI403-XAE-CA-1	GC-TI403-XAE-CA-2	GC-TI403-XAE-CA-3	GC-TI406-XAE-CA-1	GC-TI401-SB-CA-1	GC-TI401-SB-CA-2	GC-TI403-SB-CA-1	GC-TI406-SB-CA-1	GC-TI406-SB-CA-2	GC-TI401-WP-CA-1	GC-TI401-WP-CA-2	GC-TI327-XAE-CA-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	144.30	135.65	394.00	320.00	425.00	233.00	281.86	223.00	237.00	573.25	300.85	372.00	259.00	673.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**14.2**	**4.51**	**10.9**	**8.96**	**13.8**	**3.94**	**112**	**83.7**	**72.1**	**13.1**	**14.3**	**20.7**	**34.7**	**3.53**
PCB 2	ng/kg	2.28 U	2.35 U	2.31 U	2.32 U	2.28 U	2.33 U	**7.43**	**5.01**	**4.86**	2.3 U	2.26 U	2.58 U	**3.23**	2.26 U
PCB 3	ng/kg	**4.81**	2.35 U	**2.5**	2.32 U	**4.56**	2.33 U	**17.4**	**13.9**	**14.4**	**2.79**	**3.29**	**4.66**	**8.12**	2.26 U
PCB 4	ng/kg	**128**	**61.6**	**129**	**89.1**	**120**	**75.7**	**3,230**	**2,190**	**1,380**	**682**	**511**	**830**	**1,110**	**73.7**
PCB 5	ng/kg	2.28 U	2.35 U	2.31 U	2.32 U	2.28 U	2.33 U	**18.7**	**21**	**17.8**	**8.56**	**7.79**	**5.73**	**12.4**	2.26 U
PCB 6	ng/kg	**15.3**	**5.15**	**9.51**	**6.95**	**14.5**	**5.73**	**550**	**497**	**321**	**115**	**149**	**176**	**244**	**5.14**
PCB 7	ng/kg	**2.61**	2.35 U	2.31 U	2.32 U	2.28 U	2.33 U	**79.1**	**60.4**	**42.5**	**16.2**	**18.4**	**22.1**	**34.3**	2.26 U
PCB 8	ng/kg	**48.7**	**17.3**	**29.7**	**20.4**	**36.3**	**26.9**	**1,650**	**1,500**	**1,090**	**555**	**512**	**521**	**723**	**18.3**
PCB 9	ng/kg	**4.88**	2.35 U	**2.82**	2.32 U	**3.57**	2.33 U	**133**	**106**	**69.4**	**27.3**	**29.8**	**33.9**	**52.5**	2.26 U
PCB 10	ng/kg	**10.3**	**6.38**	**11**	**6.87**	**11.5**	**6.77**	**384**	**228**	**127**	**58.6**	**48.2**	**92**	**118**	**7.55**
PCB 11	ng/kg	**51.7**	**42.7**	**53.8**	**42.6**	**75**	**31.8**	**513**	**322**	**285**	**85.5**	**74.3**	**151**	**257**	**44.8**
PCB 12/13	ng/kg	**11.8**	**7.61**	**10.7**	**9.09**	**18.7**	**10.5**	**117**	**85.2**	**60.3**	**27.5**	**26.8**	**41.5**	**76.2**	**6.65**
PCB 14	ng/kg	2.28 U	2.35 U	2.31 U	2.32 U	2.28 U	2.33 U	2.27 U	2.26 U	2.29 U	2.3 U	2.26 U	2.58 U	2.48 U	2.26 U
PCB 15	ng/kg	**116**	**98.7**	**110**	**83.5**	**219**	**114**	**858**	**664**	**542**	**203**	**208**	**237**	**424**	**90.3**
PCB 16	ng/kg	**37.9**	**19.7**	**45.5**	**25.3**	**36.4**	**39.2**	**2,470**	**2,570**	**1,400**	**1,090**	**826**	**1,130**	**1,680**	**32.1**
PCB 17	ng/kg	**97.2**	**61.2**	**138**	**84.7**	**138**	**83.1**	**9,870**	**8,240**	**3,590**	**2,630**	**2,420**	**3,890**	**5,640**	**86.4**
PCB 18/30	ng/kg	**312**	**177**	**477**	**392**	**548**	**266**	**13,400**	**12,000**	**5,720**	**4,100**	**4,150**	**4,860**	**7,470**	**234**
PCB 19	ng/kg	**127**	**69.9**	**178**	**135**	**161**	**100**	**3,310**	**2,160**	**1,290**	**713**	**561**	**1,060**	**1,320**	**92.9**
PCB 20/28	ng/kg	**7,170**	**8,210**	**6,570**	**5,280**	**6,990**	**5,920**	**41,200**	**35,600**	**15,400**	**13,300**	**13,000**	**18,000**	**25,000**	**9,520**
PCB 21/33	ng/kg	**36.4**	**21.5**	69.3 U	**23.6**	**40**	**41.4**	**2,430**	**3,100**	**1,830**	**1,210**	**928**	**1,500**	**2,330**	**33.1**
PCB 22	ng/kg	**264**	**250**	**621**	**428**	**428**	**237**	**7,150**	**6,400**	**3,480**	**2,200**	**2,230**	**2,930**	**3,960**	**140**
PCB 23	ng/kg	2.28 U	2.35 U	34.6 U	2.32 U	2.28 U	2.33 U	**28.4**	**24**	**11.5**	**7.74**	**8.74**	**12**	**19.6**	2.26 U
PCB 24	ng/kg	**6.45**	**4.01**	34.6 U	**8.22**	**10.4**	**6.29**	**121**	**114**	**69.4**	**51.3**	**48.2**	**53.7**	**87.4**	**4.81**
PCB 25	ng/kg	**77.7**	**63.6**	**162**	**108**	**127**	**52.3**	**3,830**	**3,260**	**1,510**	**914**	**1,050**	**1,610**	**2,540**	**54**
PCB 26/29	ng/kg	**1,010**	**1,310**	**934**	**685**	**972**	**757**	**8,300**	**6,690**	**3,120**	**2,280**	**2,520**	**3,670**	**5,610**	**1,410**
PCB 27	ng/kg	**50.2**	**26.9**	**85.6**	**57.8**	**81.2**	**36.5**	**2,500**	**1,970**	**968**	**653**	**621**	**1,020**	**1,560**	**42.2**
PCB 31	ng/kg	**2,980**	**4,440**	**2,360**	**1,710**	**2,450**	**2,230**	**26,300**	**23,500**	**11,000**	**7,290**	**6,900**	**11,000**	**15,400**	**4,060**
PCB 32	ng/kg	**192**	**195**	**434**	**320**	**425**	**206**	**7,260**	**6,300**	**3,160**	**2,120**	**1,980**	**3,110**	**3,400**	**169**
PCB 34	ng/kg	**19.7**	**17.5**	34.6 U	**23.1**	**21.2**	**6.6**	**352**	**266**	**143**	**75.7**	**121**	**142**	**267**	**9.99**
PCB 35	ng/kg	2.28 U	2.35 U	34.6 U	2.32 U	**4.62**	2.33 U	**6.14**	2.98 U	2.5 U	2.3 U	2.26 U	2.58 U	**5.35**	2.26 U
PCB 36	ng/kg	2.28 U	2.35 U	34.6 U	2.32 U	2.28 U	2.33 U	13.1 R	4.65 R	2.29 U	2.3 U	2.26 U	2.58 U	**3.69**	2.26 U
PCB 37	ng/kg	167 R	**159**	**184**	**190**	**262**	**222**	**2,760**	**1,990**	**1,440**	**632**	**859**	**874**	**1,030**	**125**
PCB 38	ng/kg	**90.8**	**26.4**	**50.2**	**42**	**39**	**37.8**	**61.3**	**43.3**	**32.6**	**26.5**	**49.6**	**45.8**	**67.2**	**25.5**
PCB 39	ng/kg	**3.8**	2.35 U	34.6 U	**5.05**	**7.82**	2.33 U	**226**	**197**	**119**	**78.6**	**111**	**154**	**195**	2.26 U
PCB 40/41/71	ng/kg	**1,170**	**880**	**1,640**	**1,310**	**1,290**	**1,040**	**15,700**	**16,600**	**10,700**	**7,570**	**15,100**	**14,500**	**25,900**	**863**
PCB 42	ng/kg	**2,330**	**2,150**	**2,760**	**2,700**	**2,370**	**1,590**	**10,200**	**11,500**	**5,950**	**3,900**	**6,720**	**8,590**	**12,700**	**1,390**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-CA-1	GC-TI402-XAE-CA-2	GC-TI403-XAE-CA-1	GC-TI403-XAE-CA-2	GC-TI403-XAE-CA-3	GC-TI406-XAE-CA-1	GC-TI401-SB-CA-1	GC-TI401-SB-CA-2	GC-TI403-SB-CA-1	GC-TI406-SB-CA-1	GC-TI406-SB-CA-2	GC-TI401-WP-CA-1	GC-TI401-WP-CA-2	GC-TI327-XAE-CA-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	144.30	135.65	394.00	320.00	425.00	233.00	281.86	223.00	237.00	573.25	300.85	372.00	259.00	673.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	**52.5**	**29.6**	**121**	**113**	**106**	**27.5**	**2,140**	**1,730**	**975**	**607**	**1,240**	**1,200**	**2,060**	**36.7**
PCB 44/47/65	ng/kg	**42,300**	**17,800**	**21,400**	**23,600**	**22,100**	**20,500**	**59,400**	**54,000**	**32,900**	**21,500**	**44,500**	**38,200**	**62,400**	**16,700**
PCB 45/51	ng/kg	**498**	**295**	**724**	**627**	**622**	**259**	**6,700**	**6,520**	**3,570**	**2,140**	**3,380**	**4,400**	**7,400**	**315**
PCB 46	ng/kg	**40.5**	**20.9**	**73.4**	**48.6**	**58.9**	**39.3**	**1,390**	**1,280**	**656**	**416**	**472**	**882**	**1,630**	**36.5**
PCB 48	ng/kg	**54.9**	**38.5**	**109**	**93.2**	**121**	**46.7**	**6,510**	**6,340**	**3,010**	**2,220**	**3,630**	**4,730**	**5,870**	**39.8**
PCB 49/69	ng/kg	**5,070**	**5,230**	**5,760**	**6,390**	**5,850**	**2,610**	**51,100**	**45,800**	**31,700**	**16,400**	**41,500**	**32,400**	**55,900**	**3,080**
PCB 50/53	ng/kg	**562**	**162**	**995**	**743**	**823**	**244**	**7,000**	**6,160**	**3,440**	**1,970**	**3,280**	**3,990**	**7,050**	**272**
PCB 52	ng/kg	**81,900**	**28,700**	**35,400**	**34,300**	**37,900**	**20,600**	**66,800**	**58,900**	**34,200**	**23,900**	**45,100**	**43,200**	**69,800**	**23,200**
PCB 54	ng/kg	**10.5**	**7.72**	**12**	**12.5**	**11.3**	**8.46**	**197**	**186**	**92.2**	**57.6**	**49.5**	**97.8**	**128**	**8.62**
PCB 55	ng/kg	**27.3**	**19.3**	2.31 U	**16**	**18.8**	**19.7**	352 R	**372**	**190**	**103**	**116**	**169**	**340**	**18.8**
PCB 56	ng/kg	**103**	**75.6**	**211**	**179**	**256**	**72.5**	**9,580**	**8,650**	**5,030**	**3,310**	**5,400**	**7,870**	**10,900**	**50.2**
PCB 57	ng/kg	**47.5**	**55.7**	**68.6**	**46.3**	**67.2**	**34.8**	**418**	**346**	**354**	**148**	**531**	**257**	**460**	**67.3**
PCB 58	ng/kg	**175**	**91.3**	**123**	**114**	**115**	**88.8**	**302**	**1,760**	**203**	**92.1**	**268**	**176**	**298**	**80.3**
PCB 59/62/75	ng/kg	**6,900**	**2,050**	**2,750**	**2,600**	**2,770**	**2,440**	**5,490**	**4,870**	**2,990**	**1,880**	**3,960**	**3,580**	**5,590**	**1,960**
PCB 60	ng/kg	**10,100**	**2,310**	**3,470**	**2,770**	**3,160**	**3,830**	**6,730**	**6,820**	**3,460**	**4,370**	**4,370**	**5,570**	**5,590**	**2,390**
PCB 61/70/74/76	ng/kg	**19,400**	**8,770**	**6,210**	**5,860**	**6,940**	**12,200**	**54,400**	**59,900**	**28,700**	**25,100**	**39,600**	**50,200**	**55,200**	**10,900**
PCB 63	ng/kg	**1,840**	**893**	**1,330**	**992**	**1,250**	**868**	**3,570**	**3,250**	**2,540**	**1,410**	**3,410**	**2,210**	**3,290**	**746**
PCB 64	ng/kg	**54,500**	**9,370**	**11,000**	**12,000**	**11,700**	**10,600**	**17,000**	**16,600**	**8,360**	**6,780**	**10,600**	**12,800**	**17,700**	**7,210**
PCB 66	ng/kg	**38,900**	**11,600**	**10,500**	**10,500**	**11,100**	**16,000**	**40,600**	**41,300**	**18,300**	**20,300**	**30,300**	**37,900**	**36,500**	**13,100**
PCB 67	ng/kg	**96.8**	**88.9**	**110**	**97.6**	**119**	**67**	**1,250**	**1,150**	**736**	**385**	**769**	**937**	**1,280**	**67.3**
PCB 68	ng/kg	**249**	**238**	**320**	**237**	**324**	**169**	**1,210**	**966**	**1,040**	**407**	**1,440**	**698**	**1,170**	**222**
PCB 72	ng/kg	**458**	**392**	**350**	**306**	**380**	**307**	**1,550**	**1,280**	**1,450**	**567**	**2,240**	**962**	**1,880**	**396**
PCB 73	ng/kg	**69.5**	**47.2**	2.31 U	**84.9**	**90.6**	**27.5**	**365**	**268**	**211**	**92.2**	**251**	**187**	**430**	**27.3**
PCB 77	ng/kg	**44.4**	**32.8**	**26.8**	**29.1**	**59.5**	**36.4**	**1,970**	**1,870**	**990**	**670**	**1,060**	**1,260**	**1,730**	**22.4**
PCB 78	ng/kg	13.6 U	5.23 U	**39.6**	5.56 U	5.15 U	5.83 U	7.35 U	5.58 U	**56.1**	4.82 U	**33.2**	15.5 U	2.55 U	**12.2**
PCB 79	ng/kg	**173**	**128**	**283**	**234**	**200**	**71**	**662**	**649**	**536**	**225**	**663**	**510**	**689**	**56.3**
PCB 80	ng/kg	12 U	4.63 U	2.31 U	4.91 U	4.55 U	5.15 U	**644**	**640**	3.38 U	4.3 U	11.5 U	13.8 U	2.48 U	2.76 U
PCB 81	ng/kg	12 U	4.97 U	2.31 U	5.26 R	5.1 R	6.14 R	98.7 R	114 R	54.9 R	54.8 R	64.8 R	84.3 R	92.5 R	3.87 R
PCB 82	ng/kg	**1,090**	**575**	**945**	**811**	**758**	**602**	**2,810**	**3,660**	**2,360**	**1,160**	**3,130**	**3,450**	**4,230**	**415**
PCB 83/99	ng/kg	**32,400**	**17,100**	**27,500**	**32,000**	**26,600**	**32,900**	**58,500**	**57,300**	**46,900**	**30,100**	**71,100**	**42,900**	**62,500**	**20,900**
PCB 84	ng/kg	**5,360**	**2,990**	**4,780**	**3,640**	**4,260**	**1,580**	**8,860**	**7,910**	**6,000**	**2,470**	**5,980**	**7,210**	**13,000**	**1,870**
PCB 85/116/117	ng/kg	**12,000**	**4,980**	**8,750**	**8,650**	**7,760**	**7,120**	**12,500**	**12,700**	**9,620**	**6,780**	**15,300**	**9,860**	**14,000**	**4,000**
PCB 86/87/97/108/119/125	ng/kg	**12,100**	**7,630**	**---**	**9,720**	**9,360**	**5,450**	**---**	**---**	**---**	**12,300**	**33,100**	**27,000**	**---**	**4,010**
PCB 86/87/97/109/119/125	ng/kg	**---**	**---**	**11,400**	**---**	**---**	**---**	**29,500**	**35,100**	**23,300**	**---**	**---**	**---**	**35,100**	**---**
PCB 88/91	ng/kg	**5,160**	**2,970**	**4,540**	**4,260**	**4,160**	**1,780**	**11,900**	**10,700**	**10,900**	**4,110**	**12,400**	**8,270**	**16,300**	**1,470**
PCB 89	ng/kg	**8.1**	15.6 U	2.65 U	**8.98**	**10.7**	**5.86**	**212**	**253**	**152**	**84.7**	**198**	**378**	**462**	**4.34**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-CA-1	GC-TI402-XAE-CA-2	GC-TI403-XAE-CA-1	GC-TI403-XAE-CA-2	GC-TI403-XAE-CA-3	GC-TI406-XAE-CA-1	GC-TI401-SB-CA-1	GC-TI401-SB-CA-2	GC-TI403-SB-CA-1	GC-TI406-SB-CA-1	GC-TI406-SB-CA-2	GC-TI401-WP-CA-1	GC-TI401-WP-CA-2	GC-TI327-XAE-CA-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	144.30	135.65	394.00	320.00	425.00	233.00	281.86	223.00	237.00	573.25	300.85	372.00	259.00	673.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 90/101/113	ng/kg	**33,300**	**19,800**	**35,600**	**29,600**	**31,500**	**16,700**	**75,700**	**80,300**	**57,800**	**27,600**	**82,300**	**55,200**	**73,100**	**13,600**
PCB 92	ng/kg	**9,790**	**5,200**	**6,420**	**7,160**	**6,550**	**4,560**	**13,400**	**13,900**	**13,600**	**6,360**	**19,500**	**10,500**	**18,300**	**3,840**
PCB 93/95/98/100/102	ng/kg	**20,000**	**10,900**	**22,000**	**15,400**	**21,000**	**6,340**	**44,900**	**40,500**	**30,800**	**14,000**	**36,500**	**33,700**	**54,400**	**6,320**
PCB 94	ng/kg	**61.6**	**35.4**	**78.1**	**97.6**	**111**	**15.1**	**460**	**336**	**246**	**90.5**	**221**	**477**	**1,070**	**21**
PCB 96	ng/kg	**32.5**	47 U	**38.3**	**34.2**	**33.8**	**11.1**	**349**	**287**	**233**	**90**	**336**	**266**	**490**	**12.5**
PCB 103	ng/kg	**88.7**	**25.7**	**91.4**	**73.3**	**87.2**	**12.4**	**1,910**	**1,440**	**1,570**	**719**	**2,480**	**1,210**	**1,780**	**10.8**
PCB 104	ng/kg	2.28 U	47 U	**2.81**	2.34 R	**3.4**	2.33 U	**71.3**	**61.9**	**43.5**	**24.6**	**70.4**	**80.3**	**80.1**	2.26 U
PCB 105	ng/kg	**27,100**	**9,140**	**18,300**	**15,600**	**15,300**	**18,100**	**15,600**	**19,200**	**9,620**	**9,040**	**15,900**	**14,800**	**14,700**	**8,910**
PCB 106	ng/kg	17.6 U	11.7 U	3.4 U	19.6 U	19.4 U	22.7 U	2.27 U	12.4 U	3.4 U	21.2 U	39.3 U	27.4 U	2.48 U	14.1 U
PCB 107	ng/kg	---	---	**1,090**	---	---	---	**4,910**	**5,000**	**4,400**	---	---	---	**5,580**	---
PCB 107/124	ng/kg	**175**	**154**	---	**133**	**186**	**94.1**	---	---	---	**686**	**1,420**	**1,450**	---	**139**
PCB 108/124	ng/kg	---	---	**197**	---	---	---	**1,120**	**1,530**	**876**	---	---	---	**1,550**	---
PCB 109	ng/kg	**746**	**624**	---	**827**	**1,010**	**611**	---	---	---	**2,560**	**7,510**	**4,850**	---	**971**
PCB 110/115	ng/kg	**47,500**	**24,000**	**35,700**	**33,600**	**34,900**	**19,300**	**49,200**	**57,100**	**39,800**	**18,500**	**54,700**	**42,900**	**61,100**	**12,700**
PCB 111	ng/kg	**83**	**63.9**	**75**	**84.4**	**77.7**	**87.5**	**130**	**106**	**186**	**70.8**	**299**	**108**	**190**	**75.4**
PCB 112	ng/kg	2.28 U	11.4 U	2.31 U	2.32 U	2.28 U	2.33 U	3.61 U	2.26 U	2.29 U	3.3 U	**291**	7.87 U	2.48 U	2.26 U
PCB 114	ng/kg	**1,110**	**453**	**961**	**903**	**869**	**1,070**	**1,240**	**1,430**	**890**	**852**	**1,560**	**1,290**	**1,100**	**597**
PCB 118	ng/kg	**41,300**	**22,200**	**30,600**	**37,500**	**29,400**	**49,700**	**50,200**	**62,700**	**33,900**	**31,000**	**51,800**	**51,400**	**47,900**	**29,400**
PCB 120	ng/kg	**320**	**218**	**286**	**313**	**324**	**394**	**578**	**497**	**670**	**360**	**1,230**	**480**	**703**	**328**
PCB 121	ng/kg	**43.4**	**27.8**	**40.7**	**43.9**	**45.1**	**48.7**	**75.9**	**61.9**	**85.1**	**38**	**142**	**63.1**	**97.5**	**34.4**
PCB 122	ng/kg	**135**	**55.1**	**129**	**109**	**107**	**67.8**	**235**	**319**	**230**	**117**	**261**	**353**	**493**	**44**
PCB 123	ng/kg	**1,200**	**385**	**854**	**863**	**820**	**1,040**	**962**	**979**	**597**	**645**	922 R	**1,000**	**939**	**562**
PCB 126	ng/kg	**65.9**	**32.9**	**69.8**	**57.5**	**79.1**	**60.9**	**106**	**123**	**56.1**	**76.2**	**116**	**158**	**125**	**53.7**
PCB 127	ng/kg	18.2 U	**41.7**	160 R	**85.2**	**88**	**91.6**	**100**	**115**	**96.5**	**64.4**	40.5 U	**98.3**	2.48 U	**46**
PCB 128/166	ng/kg	**10,400**	**6,120**	**12,100**	**10,200**	**10,600**	**10,500**	**10,100**	**9,670**	**10,500**	**6,480**	**15,500**	**7,340**	**10,400**	**5,200**
PCB 129/138/160/163	ng/kg	**93,700**	**46,500**	**93,900**	**83,600**	**84,600**	**76,700**	**84,300**	**79,500**	**75,500**	**50,300**	**140,000**	**69,900**	**79,200**	**38,600**
PCB 130	ng/kg	**4,020**	**2,120**	**3,770**	**3,980**	**3,580**	**2,890**	**4,170**	**4,110**	**4,500**	**1,820**	**6,100**	**3,140**	**4,240**	**1,370**
PCB 131	ng/kg	**168**	**111**	**275**	**176**	**213**	**51.9**	**527**	**525**	**418**	**166**	**515**	**447**	**482**	**37**
PCB 132	ng/kg	**7,280**	**4,610**	**6,790**	**5,980**	**6,930**	**2,240**	**11,700**	**12,000**	**11,800**	**4,590**	**12,700**	**10,100**	**14,100**	**1,690**
PCB 133	ng/kg	**1,550**	**926**	**1,360**	**1,580**	**1,350**	**1,570**	**1,810**	**1,660**	**2,320**	**1,040**	**4,020**	**1,580**	**2,610**	**1,010**
PCB 134/143	ng/kg	**2,260**	**1,230**	**2,120**	**1,990**	**2,000**	**904**	**6,110**	**5,120**	**2,000**	**813**	**2,580**	**2,040**	**3,030**	**457**
PCB 135/151/154	ng/kg	**11,100**	**6,510**	**18,700**	**9,870**	**12,300**	**7,290**	**39,300**	**21,700**	**32,700**	**14,900**	**31,700**	**17,900**	**27,600**	**3,940**
PCB 136	ng/kg	**3,450**	**1,570**	**3,710**	**2,670**	**3,520**	**886**	**6,900**	**5,070**	**5,000**	**2,040**	**6,840**	**5,090**	**6,670**	**593**
PCB 137	ng/kg	**2,040**	**1,130**	**3,360**	**2,530**	**2,610**	**2,630**	**3,220**	**3,460**	**3,480**	**2,140**	**5,700**	**2,870**	**3,230**	**1,320**
PCB 139/140	ng/kg	**1,260**	**721**	**1,230**	**1,180**	**1,090**	**1,010**	**1,530**	**1,460**	**1,450**	**910**	**2,650**	**1,160**	**1,620**	**528**
PCB 141	ng/kg	**8,220**	**3,820**	**6,340**	**4,950**	**6,240**	**5,460**	**6,600**	**9,080**	**7,380**	**4,820**	**11,800**	**7,400**	**8,860**	**1,830**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-CA-1	GC-TI402-XAE-CA-2	GC-TI403-XAE-CA-1	GC-TI403-XAE-CA-2	GC-TI403-XAE-CA-3	GC-TI406-XAE-CA-1	GC-TI401-SB-CA-1	GC-TI401-SB-CA-2	GC-TI403-SB-CA-1	GC-TI406-SB-CA-1	GC-TI406-SB-CA-2	GC-TI401-WP-CA-1	GC-TI401-WP-CA-2	GC-TI327-XAE-CA-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	144.30	135.65	394.00	320.00	425.00	233.00	281.86	223.00	237.00	573.25	300.85	372.00	259.00	673.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 142	ng/kg	4.11 U	3.84 U	2.31 U	6.64 U	4.24 U	4.49 U	4.1 U	9.36 U	3.14 R	5.25 U	34 U	**26.2**	2.48 U	2.39 U
PCB 144	ng/kg	**698**	**394**	**933**	**635**	**774**	**217**	**3,000**	**3,020**	**1,990**	**1,300**	**3,180**	**2,510**	**2,190**	**215**
PCB 145	ng/kg	2.28 U	2.35 U	2.31 U	2.32 U	2.28 U	2.33 U	**14.7**	**12.3**	**11.5**	**3.6**	**15.1**	**12.4**	**15.3**	2.26 U
PCB 146	ng/kg	**14,600**	**8,200**	**14,600**	**15,000**	**13,700**	**16,100**	**16,300**	**12,200**	**17,800**	**11,200**	**31,500**	**14,000**	**19,700**	**8,870**
PCB 147/149	ng/kg	**51,700**	**26,500**	**59,300**	**41,300**	**54,800**	**19,800**	**61,900**	**50,900**	**50,300**	**21,600**	**63,600**	**42,300**	**57,600**	**9,160**
PCB 148	ng/kg	**268**	**167**	**262**	**253**	**271**	**275**	**486**	**384**	**544**	**256**	**1,020**	**321**	**560**	**177**
PCB 150	ng/kg	**33.2**	**10.5**	**33.5**	**31.7**	**32.8**	**5.72**	**438**	**304**	**345**	**192**	**572**	**283**	**364**	2.26 U
PCB 152	ng/kg	**9.74**	**2.85**	**5.88**	**10.3**	**9.24**	2.33 U	**79.8**	**68.4**	**65.8**	**25.3**	**104**	**72.9**	**110**	2.26 U
PCB 153/168	ng/kg	**108,000**	**51,600**	**97,400**	**96,300**	**92,700**	**126,000**	**104,000**	**95,900**	**90,500**	**72,800**	**178,000**	**84,900**	**92,400**	**61,200**
PCB 155	ng/kg	**121**	**100**	**103**	**465**	**126**	**226**	**185**	**208**	**123**	**147**	**379**	**466**	**326**	**112**
PCB 156/157	ng/kg	**5,550**	**2,820**	**6,770**	**6,260**	**5,860**	**7,270**	**5,270**	**5,940**	**5,150**	**4,610**	**9,630**	**6,300**	**5,800**	**3,910**
PCB 158	ng/kg	**8,460**	**4,680**	**7,870**	**7,110**	**7,450**	**7,020**	**6,750**	**7,050**	**4,680**	**4,380**	**8,010**	**5,410**	**5,260**	**3,060**
PCB 159	ng/kg	**248**	**113**	**181**	**109**	**179**	**113**	**209**	**265**	**305**	**127**	**368**	**281**	**321**	**52.6**
PCB 161	ng/kg	2.94 U	2.75 U	2.31 U	4.75 U	3.03 U	3.21 U	2.99 U	6.81 U	2.29 U	3.73 U	24.4 U	15.5 U	2.48 U	2.26 U
PCB 162	ng/kg	**126**	**68.2**	**150**	**137**	**151**	**160**	**194**	**240**	**255**	**178**	**508**	495 R	440 R	**130**
PCB 164	ng/kg	**3,070**	**1,430**	**1,860**	**1,470**	**2,210**	**1,760**	**2,150**	**3,100**	**2,880**	**1,430**	**4,850**	**2,920**	**4,040**	**635**
PCB 165	ng/kg	**81.1**	**66.4**	**65.2**	**80.1**	**67.5**	**104**	**139**	**114**	**209**	**73.1**	**357**	**91.2**	**202**	**75**
PCB 167	ng/kg	**3,020**	**1,490**	**2,920**	**2,970**	**2,660**	**3,720**	**2,260**	**2,610**	**2,310**	**2,180**	**4,440**	**2,920**	**2,550**	**2,050**
PCB 169	ng/kg	30.8 U	14.6 U	52.8 U	37.5 U	36.5 U	37.7 U	49.7 U	36.7 U	46.2 U	20.9 U	45.3 U	25.1 U	33.1 U	19.4 U
PCB 170	ng/kg	**15,800**	**5,300**	**11,800**	**10,400**	**12,900**	**13,100**	**8,650**	**8,730**	**9,100**	**9,220**	**20,600**	**12,200**	**10,400**	**4,850**
PCB 171/173	ng/kg	**6,360**	**2,770**	**5,200**	**5,140**	**5,490**	**4,490**	**4,430**	**4,080**	**3,440**	**2,990**	**6,650**	**4,120**	**3,750**	**2,100**
PCB 172	ng/kg	**2,470**	**930**	**1,900**	**1,790**	**2,040**	**2,660**	**1,560**	**1,850**	**2,190**	**1,370**	**4,110**	**2,340**	**2,360**	**970**
PCB 174	ng/kg	**5,600**	**2,230**	**3,250**	**2,380**	**4,220**	**2,230**	**4,530**	**5,810**	**6,030**	**2,610**	**8,130**	**6,010**	**6,750**	**981**
PCB 175	ng/kg	**855**	**435**	**717**	**748**	**762**	**752**	**771**	**734**	**661**	**458**	**1,170**	**790**	**720**	**400**
PCB 176	ng/kg	**483**	**248**	**672**	**472**	**671**	**127**	**1,510**	**1,240**	**1,020**	**553**	**1,340**	**1,060**	**1,040**	**74.1**
PCB 177	ng/kg	**10,800**	**4,940**	**7,770**	**8,760**	**8,500**	**6,930**	**7,010**	**7,120**	**6,400**	**3,550**	**9,520**	**5,150**	**5,640**	**2,490**
PCB 178	ng/kg	**4,730**	**2,420**	**3,380**	**4,690**	**3,570**	**4,810**	**4,590**	**4,340**	**4,600**	**2,860**	**8,340**	**4,890**	**5,430**	**2,710**
PCB 179	ng/kg	**2,650**	**1,390**	**2,440**	**2,620**	**2,870**	**1,260**	**4,620**	**4,680**	**3,590**	**2,390**	**5,040**	**3,790**	**4,890**	**856**
PCB 180/193	ng/kg	**45,000**	**17,600**	**31,200**	**32,100**	**34,800**	**45,600**	**28,600**	**31,800**	**29,500**	**27,600**	**67,500**	**39,300**	**32,500**	**18,500**
PCB 181	ng/kg	**154**	**84.8**	**144**	**138**	**155**	**164**	**149**	**143**	**174**	**119**	**312**	**161**	**188**	**64.8**
PCB 182	ng/kg	**108**	**65.7**	**107**	**96**	**115**	**122**	**154**	**142**	**214**	**90.1**	**341**	**132**	**201**	**59.2**
PCB 183/185	ng/kg	**18,900**	**8,830**	**14,300**	**14,200**	**14,800**	**14,200**	**13,800**	**12,900**	**10,800**	**10,400**	**21,900**	**13,000**	**11,800**	**7,190**
PCB 184	ng/kg	**57.4**	**48.4**	**60.8**	**101**	**66.5**	**68.8**	**88.8**	**70.7**	**60.5**	**42.6**	**122**	**106**	**102**	**51.3**
PCB 186	ng/kg	2.28 U	2.35 U	2.31 U	2.32 U	2.28 U	2.33 U	2.27 U	2.26 U	2.29 U	2.3 U	2.26 U	2.58 U	2.48 U	2.26 U
PCB 187	ng/kg	**36,200**	**18,100**	**28,800**	**31,700**	**29,400**	**33,200**	**30,200**	**22,600**	**27,300**	**18,400**	**54,900**	**31,500**	**32,600**	**15,400**
PCB 188	ng/kg	**106**	**76.3**	**97.4**	**128**	**114**	**212**	**192**	**146**	**160**	**159**	**387**	**154**	**182**	**89.6**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-CA-1	GC-TI402-XAE-CA-2	GC-TI403-XAE-CA-1	GC-TI403-XAE-CA-2	GC-TI403-XAE-CA-3	GC-TI406-XAE-CA-1	GC-TI401-SB-CA-1	GC-TI401-SB-CA-2	GC-TI403-SB-CA-1	GC-TI406-SB-CA-1	GC-TI406-SB-CA-2	GC-TI401-WP-CA-1	GC-TI401-WP-CA-2	GC-TI327-XAE-CA-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	144.30	135.65	394.00	320.00	425.00	233.00	281.86	223.00	237.00	573.25	300.85	372.00	259.00	673.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 189	ng/kg	472	190	397	406	392	649	288	317	335	308	656	472	422	284
PCB 190	ng/kg	4,000	1,950	3,690	3,230	3,660	3,400	2,480	2,480	2,250	2,170	4,200	2,950	2,400	1,390
PCB 191	ng/kg	788	326	717	614	732	769	481	490	392	417	763	547	440	299
PCB 192	ng/kg	2.28 U	2.35 U	2.31 U	3.81	2.28 U	2.33 U	2.27 U	2.26 U	2.29 U	2.3 U	5.02	34	13.9	2.26 U
PCB 194	ng/kg	4,340	2,100	3,780	4,390	4,040	6,940	2,810	3,600	4,180	3,770	7,590	5,380	5,140	2,720
PCB 195	ng/kg	2,370	1,100	2,290	2,030	2,080	2,040	1,440	1,500	1,440	1,310	2,700	1,900	1,710	702
PCB 196	ng/kg	3,360	1,640	3,050	3,260	3,260	4,150	2,430	2,490	2,530	2,100	4,980	3,200	2,880	1,720
PCB 197/200	ng/kg	454	313	519	525	557	488	622	565	567	368	765	529	582	265
PCB 198/199	ng/kg	5,770	3,180	5,070	6,810	6,280	9,190	5,220	5,950	7,600	3,910	13,900	7,400	7,880	3,670
PCB 201	ng/kg	820	535	749	1,160	870	1,200	1,080	1,050	1,080	694	1,900	1,110	1,140	712
PCB 202	ng/kg	1,970	1,440	1,170	3,320	1,700	3,410	2,640	2,640	3,100	1,950	6,670	3,520	3,860	2,400
PCB 203	ng/kg	5,780	3,340	5,240	6,430	6,160	6,970	4,820	4,850	5,430	3,800	11,200	6,250	6,020	3,250
PCB 204	ng/kg	6.07	5.42	6.02	9.95	6.72	9.85	10.6	8.82	14.8	6.44	23.6	25	22	5.94
PCB 205	ng/kg	288	139	288	291	276	298	192	189	200	169	327	282	231	107
PCB 206	ng/kg	2,190	1,710	2,040	3,510	2,860	4,020	1,880	1,940	2,590	1,920	4,280	2,880	3,010	1,900
PCB 207	ng/kg	326	246	287	459	387	517	304	308	382	269	721	465	456	230
PCB 208	ng/kg	770	596	631	1,210	876	1,620	956	1,090	1,550	772	2,680	1,160	1,320	879
PCB 209	ng/kg	833	796	653	1,690	831	1,870	861	973	1,140	799	2,250	1,910	1,620	993
Dichlorobiphenyl	ng/kg	389	239	357	259	499	271	7,530	5,670	3,940	1,780	1,590	2,110	3,050	246
Heptachlorobiphenyl	ng/kg	139,000	44,500	93,900	97,200	100,000	106,000	92,900	76,000	76,700	46,000	196,000	99,800	87,300	45,900
Hexachlorobiphenyl	ng/kg	205,000	133,000	304,000	254,000	282,000	126,000	328,000	282,000	267,000	145,000	318,000	266,000	291,000	118,000
Monochlorobiphenyl	ng/kg	19	4.51	13.4	8.96	18.4	3.94	137	103	91.4	15.9	17.6	25.4	46.1	3.53
Nonachlorobiphenyl	ng/kg	3,290	2,550	2,960	5,180	4,120	6,160	3,140	3,340	4,520	2,960	4,280	2,880	4,790	3,010
Octachlorobiphenyl	ng/kg	20,800	13,800	22,200	28,200	15,000	27,800	21,300	22,800	26,100	18,100	39,400	19,000	29,500	12,600
Pentachlorobiphenyl	ng/kg	157,000	121,000	196,000	189,000	191,000	144,000	375,000	402,000	281,000	143,000	272,000	309,000	416,000	104,000
Tetrachlorobiphenyl	ng/kg	177,000	81,500	90,300	92,700	95,600	79,900	351,000	320,000	170,000	107,000	247,000	251,000	354,000	71,100
Trichlorobiphenyl	ng/kg	10,200	12,700	12,100	5,280	7,960	5,920	113,000	98,700	29,600	20,600	19,900	35,800	53,500	13,600
Total PCB (Lab)	ng/kg	693,000	392,000	696,000	638,000	687,000	455,000	1,260,000	1,180,000	824,000	461,000	967,000	983,000	1,200,000	355,000

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-CA-1**	**GC-TI332-XSCUP-CA-2**	**GC-TI332-XSCUP-CA-3**	**GC-TI332-XW-CA-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Carcass**	**Carcass**	**Carcass**	**Carcass**
Sample Weight:		**180.00**	**220.00**	**238.00**	**275.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 1	ng/kg	**8.19**	**6.32**	**5.4**	**5.6**
PCB 2	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 3	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 4	ng/kg	**225**	**169**	**145**	**215**
PCB 5	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 6	ng/kg	**40.5**	**26.3**	**22.4**	**43.8**
PCB 7	ng/kg	**6.49**	3.03 U	2.32 U	**3.53**
PCB 8	ng/kg	**75.7**	**53**	**43.9**	**96.7**
PCB 9	ng/kg	**7.47**	**5.35**	**4.57**	**5.92**
PCB 10	ng/kg	**28.9**	**18.7**	**15.2**	**25.1**
PCB 11	ng/kg	**33.8**	**23.7**	**18.7**	**57.9**
PCB 12/13	ng/kg	7.83 U	6.06 U	**5.6**	**11.9**
PCB 14	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 15	ng/kg	**35.1**	**32.8**	**27.4**	**33.4**
PCB 16	ng/kg	**153**	**114**	**94.9**	**188**
PCB 17	ng/kg	**496**	**372**	**335**	**694**
PCB 18/30	ng/kg	**901**	**696**	**628**	**1,300**
PCB 19	ng/kg	**193**	**155**	**126**	**292**
PCB 20/28	ng/kg	**3,620**	**2,820**	**3,110**	**5,830**
PCB 21/33	ng/kg	**105**	**80**	**87.4**	**281**
PCB 22	ng/kg	**402**	**301**	**291**	**567**
PCB 23	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 24	ng/kg	**15.6**	**12.2**	**10.2**	**18.4**
PCB 25	ng/kg	**242**	**182**	**182**	**431**
PCB 26/29	ng/kg	**711**	**568**	**572**	**1,300**
PCB 27	ng/kg	**119**	**84.2**	**72.1**	**288**
PCB 31	ng/kg	**996**	**719**	**630**	**3,620**
PCB 32	ng/kg	**186**	**123**	**107**	**667**
PCB 34	ng/kg	**15.8**	**11.9**	**11.2**	**42.5**
PCB 35	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 36	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 37	ng/kg	**75.2**	**71.8**	**33.5**	**47.7**
PCB 38	ng/kg	**5.72**	**6.56**	2.32 U	2.47 U
PCB 39	ng/kg	**6.27**	**7.06**	2.32 U	2.47 U
PCB 40/41/71	ng/kg	**939**	**669**	**616**	**3,470**
PCB 42	ng/kg	**968**	**799**	**739**	**1,780**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-CA-1	GC-TI332-XSCUP-CA-2	GC-TI332-XSCUP-CA-3	GC-TI332-XW-CA-1
	Sample Date:	10/23/2010	10/23/2010	10/23/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	180.00	220.00	238.00	275.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 43	ng/kg	**99.2**	**74.3**	**87.6**	**258**
PCB 44/47/65	ng/kg	**5,850**	**4,670**	**5,030**	**13,100**
PCB 45/51	ng/kg	**429**	**325**	**307**	**765**
PCB 46	ng/kg	**73.7**	**55.4**	**48.3**	**163**
PCB 48	ng/kg	**253**	**184**	**179**	**566**
PCB 49/69	ng/kg	**4,610**	**3,810**	**4,130**	**9,570**
PCB 50/53	ng/kg	**280**	**209**	**188**	**613**
PCB 52	ng/kg	**6,460**	**5,360**	**5,730**	**14,300**
PCB 54	ng/kg	**19.4**	**17.2**	**16.1**	**39.2**
PCB 55	ng/kg	**21.8**	**22.3**	2.32 U	3.29 U
PCB 56	ng/kg	**857**	**683**	**630**	**1,090**
PCB 57	ng/kg	**36.7**	**30**	**33**	**89.4**
PCB 58	ng/kg	**29.2**	**26.3**	**29**	**61.5**
PCB 59/62/75	ng/kg	**477**	**390**	**427**	**1,150**
PCB 60	ng/kg	**657**	**615**	**635**	**1,600**
PCB 61/70/74/76	ng/kg	**3,920**	**3,250**	**3,230**	**11,500**
PCB 63	ng/kg	**275**	**251**	**270**	**776**
PCB 64	ng/kg	**1,550**	**1,160**	**1,260**	**3,500**
PCB 66	ng/kg	**4,520**	**3,990**	**4,350**	**9,190**
PCB 67	ng/kg	**88.8**	**74.9**	**75.7**	**124**
PCB 68	ng/kg	**109**	**93.9**	**97.6**	**314**
PCB 72	ng/kg	**146**	**129**	**139**	**480**
PCB 73	ng/kg	**20.8**	**19.3**	**28**	**90.1**
PCB 77	ng/kg	**158**	**142**	**129**	**172**
PCB 78	ng/kg	3.91 U	3.03 U	2.32 U	3.57 U
PCB 79	ng/kg	**61.3**	**69.4**	**61.5**	**189**
PCB 80	ng/kg	3.91 U	3.03 U	2.32 U	3.11 U
PCB 81	ng/kg	8.37 R	7.5 R	7.39 R	8.56 R
PCB 82	ng/kg	**356**	**310**	**292**	**797**
PCB 83/99	ng/kg	**6,640**	**5,770**	**5,880**	**20,600**
PCB 84	ng/kg	**775**	**626**	**581**	**2,220**
PCB 85/116/117	ng/kg	**1,410**	**1,330**	**1,370**	**4,380**
PCB 86/87/97/108/119/125	ng/kg	**3,520**	**3,110**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**---**	**---**	**3,290**	**8,920**
PCB 88/91	ng/kg	**1,100**	**969**	**987**	**2,490**
PCB 89	ng/kg	**20.5**	**18.2**	**14.1**	**40.3**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-CA-1**	**GC-TI332-XSCUP-CA-2**	**GC-TI332-XSCUP-CA-3**	**GC-TI332-XW-CA-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Carcass**	**Carcass**	**Carcass**	**Carcass**
Sample Weight:		**180.00**	**220.00**	**238.00**	**275.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 90/101/113	ng/kg	**7,140**	**7,490**	**7,260**	**21,100**
PCB 92	ng/kg	**1,430**	**1,330**	**1,360**	**5,510**
PCB 93/95/98/100/102	ng/kg	**3,820**	**3,260**	**3,500**	**7,910**
PCB 94	ng/kg	**18.6**	**14.6**	**12.8**	**57.8**
PCB 96	ng/kg	**28.6**	**23.3**	**23.4**	**62.4**
PCB 103	ng/kg	**122**	**108**	**112**	**394**
PCB 104	ng/kg	**6.57**	**6.21**	**5.56**	**17.5**
PCB 105	ng/kg	**1,940**	**1,950**	**1,900 J**	**5,950**
PCB 106	ng/kg	3.94 U	5.43 U	2.32 U	2.47 U
PCB 107	ng/kg	**---**	**---**	**644**	**2,380**
PCB 107/124	ng/kg	**127**	**108**	**---**	**---**
PCB 108/124	ng/kg	**---**	**---**	**105**	**276**
PCB 109	ng/kg	**778**	**732**	**---**	**---**
PCB 110/115	ng/kg	**4,660**	**3,780**	**3,980**	**16,200**
PCB 111	ng/kg	**23.7**	**21.3**	**20.1**	**75.4**
PCB 112	ng/kg	3.91 U	3.03 U	2.33 U	2.47 U
PCB 114	ng/kg	**118**	**122**	**116**	**409**
PCB 118	ng/kg	**7,530**	**6,370**	**6,280**	**21,800**
PCB 120	ng/kg	**115**	**98.4**	**92.9**	**306**
PCB 121	ng/kg	**8.2**	**7.49**	**7.62**	**26.2**
PCB 122	ng/kg	**44**	**39.7**	**41.3**	2.47 U
PCB 123	ng/kg	**113**	**113**	**116**	245 R
PCB 126	ng/kg	**23**	**21.9**	**20**	26.4 R
PCB 127	ng/kg	**8.41**	**13.1**	2.32 U	2.47 U
PCB 128/166	ng/kg	**1,460**	**1,290**	**1,270**	**4,390**
PCB 129/138/160/163	ng/kg	**12,000**	**10,500**	**9,630**	**33,800**
PCB 130	ng/kg	**563**	**515**	**499**	**1,600**
PCB 131	ng/kg	**48**	**45.2**	**43.6**	**116**
PCB 132	ng/kg	**1,390**	**1,140**	**1,170**	**4,230**
PCB 133	ng/kg	**207**	**195**	**184**	**1,060**
PCB 134/143	ng/kg	**235**	**200**	**204**	**846**
PCB 135/151/154	ng/kg	**2,670**	**2,260**	**2,330**	**7,550**
PCB 136	ng/kg	**504**	**434**	**465**	**1,210**
PCB 137	ng/kg	**312**	**293**	**273**	**1,180**
PCB 139/140	ng/kg	**155**	**137**	**138**	**521**
PCB 141	ng/kg	**636**	**627**	**604**	**2,730**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-CA-1	GC-TI332-XSCUP-CA-2	GC-TI332-XSCUP-CA-3	GC-TI332-XW-CA-1
	Sample Date:	10/23/2010	10/23/2010	10/23/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	180.00	220.00	238.00	275.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 142	ng/kg	3.91 U	3.03 U	2.32 U	3.66 U
PCB 144	ng/kg	**254**	**249**	**245**	**655**
PCB 145	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 146	ng/kg	**2,750**	**2,340**	**2,300**	**7,490**
PCB 147/149	ng/kg	**6,160**	**5,260**	**5,450**	**11,200**
PCB 148	ng/kg	**64.2**	**56.5**	**53.6**	**187**
PCB 150	ng/kg	**32**	**28.3**	**28.5**	**96.1**
PCB 152	ng/kg	**7.47**	**5.99**	**6.27**	**14.8**
PCB 153/168	ng/kg	**14,800**	**12,700**	**11,700**	**39,300**
PCB 155	ng/kg	**29.1**	**27.5**	**22.7**	**120**
PCB 156/157	ng/kg	**904**	**791**	**750**	**2,550**
PCB 158	ng/kg	**637**	**595**	**582**	**1,990**
PCB 159	ng/kg	**26.7**	**29.6**	**24.3**	**101**
PCB 161	ng/kg	3.91 U	3.03 U	2.32 U	2.56 U
PCB 162	ng/kg	**47.3**	**42.7**	**35.7**	**147**
PCB 164	ng/kg	**262**	**215**	**238**	**1,110**
PCB 165	ng/kg	**25.9**	**23.9**	**21.8**	**82.6**
PCB 167	ng/kg	**495**	**421**	**389**	**1,010**
PCB 169	ng/kg	3.91 U	3.87 U	4.26 U	14.4 U
PCB 170	ng/kg	**1,220**	**1,530**	**1,040**	**4,310**
PCB 171/173	ng/kg	**509**	**548**	**446**	**1,480**
PCB 172	ng/kg	**213**	**253**	**191**	**911**
PCB 174	ng/kg	**524**	**531**	**467**	**1,940**
PCB 175	ng/kg	**106**	**116**	**92**	**281**
PCB 176	ng/kg	**167**	**161**	**146**	**314**
PCB 177	ng/kg	**1,040**	**979**	**936**	**2,350**
PCB 178	ng/kg	**578**	**564**	**507**	**2,430**
PCB 179	ng/kg	**607**	**543**	**547**	**1,300**
PCB 180/193	ng/kg	**3,730**	**4,490**	**3,370**	**13,900**
PCB 181	ng/kg	**13.2**	**12.5**	**11**	**49.7**
PCB 182	ng/kg	**23.8**	**24.3**	**21.5**	**81.2**
PCB 183/185	ng/kg	**1,560**	**1,660**	**1,370**	**4,650**
PCB 184	ng/kg	**15.2**	**13.6**	**12.8**	**35.1**
PCB 186	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 187	ng/kg	**4,880**	**5,100**	**4,170**	**7,560**
PCB 188	ng/kg	**46.4**	**44.4**	**33.3**	**140**

TABLE I-83A
PCB Congener Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-CA-1	GC-TI332-XSCUP-CA-2	GC-TI332-XSCUP-CA-3	GC-TI332-XW-CA-1
	Sample Date:	10/23/2010	10/23/2010	10/23/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	180.00	220.00	238.00	275.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 189	ng/kg	**57**	**64.8**	**53.1**	**152**
PCB 190	ng/kg	**251**	**336**	**237**	**874**
PCB 191	ng/kg	**53.4**	**61**	**49.7**	**191**
PCB 192	ng/kg	3.91 U	3.03 U	2.32 U	2.47 U
PCB 194	ng/kg	**576**	**767**	**550**	**1,980**
PCB 195	ng/kg	**176**	**240**	**167**	**582**
PCB 196	ng/kg	**361**	**442**	**294**	**1,140**
PCB 197/200	ng/kg	**109**	**98.8**	**85.3**	**246**
PCB 198/199	ng/kg	**881**	**927**	**699**	**3,040**
PCB 201	ng/kg	**243**	**239**	**188**	**577**
PCB 202	ng/kg	**770**	**686**	**571**	**2,110**
PCB 203	ng/kg	**581**	**689**	**492**	**2,030**
PCB 204	ng/kg	3.91 U	3.03 U	2.32 U	**6.81**
PCB 205	ng/kg	**28.5**	**35.5**	**26**	**75.1**
PCB 206	ng/kg	**520**	**508**	**394**	**1,370**
PCB 207	ng/kg	**76.2**	**73.8**	**58.5**	**210**
PCB 208	ng/kg	**269**	**262**	**194**	**874**
PCB 209	ng/kg	**304**	**297**	**217**	**716**
Dichlorobiphenyl	ng/kg	**453**	**329**	**283**	**493**
Heptachlorobiphenyl	ng/kg	**15,600**	**17,000**	**13,700**	**21,500**
Hexachlorobiphenyl	ng/kg	**26,800**	**27,700**	**21,300**	**84,300**
Monochlorobiphenyl	ng/kg	**8.19**	**6.32**	**5.4**	**5.6**
Nonachlorobiphenyl	ng/kg	**865**	**844**	**647**	**2,450**
Octachlorobiphenyl	ng/kg	**3,730**	**4,120**	**3,070**	**11,800**
Pentachlorobiphenyl	ng/kg	**21,300**	**31,400**	**19,400**	**102,000**
Tetrachlorobiphenyl	ng/kg	**32,900**	**27,100**	**22,700**	**57,700**
Trichlorobiphenyl	ng/kg	**8,240**	**6,320**	**6,290**	**15,600**
Total PCB (Lab)	ng/kg	**103,000**	**115,000**	**82,900**	**266,000**

TABLE I-84A
Metal and Lipid Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-CA-1	GC-TI402-XAE-CA-2	GC-TI403-XAE-CA-1	GC-TI403-XAE-CA-2	GC-TI403-XAE-CA-3	GC-TI406-XAE-CA-1	GC-TI401-SB-CA-1	GC-TI401-SB-CA-2	GC-TI403-SB-CA-1	GC-TI406-SB-CA-1	GC-TI406-SB-CA-2	GC-TI401-WP-CA-1	GC-TI401-WP-CA-2	GC-TI327-XAE-CA-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass	Carcass
	Sample Weight:	144.30	135.65	394.00	320.00	425.00	233.00	281.86	223.00	237.00	573.25	300.85	372.00	259.00	673.00
Parameter	**Units**								**Metals**						
Aluminum	mg/kg	19.6 U	19.4 U	19.4 U	19.4 U	19.4 U	**21.8**	20 U	19.4 U	19.6 U	19.4 U	19.4 U	19.6 U	19.8 U	19.4 U
Antimony	mg/kg	5.9 U	5.8 U	5.8 U	5.8 U	5.8 U	5.9 U	6 U	5.8 U	5.9 U	5.8 U	5.8 U	5.9 U	5.9 U	5.8 U
Arsenic	mg/kg	0.98 U	0.97 U	0.97 U	0.97 U	0.97 U	0.98 U	**0.42 J**	0.97 U	0.98 U	**0.6 J**	**0.56 J**	0.98 U	0.99 U	0.97 U
Barium	mg/kg	19.6 U	19.4 U	19.4 U	19.4 U	19.4 U	19.6 U	20 U	19.4 U	19.6 U	19.4 U	19.4 U	19.6 U	19.8 U	19.4 U
Beryllium	mg/kg	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U
Cadmium	mg/kg	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.5 U	0.49 U
Calcium	mg/kg	**5,040 J**	**10,700 J**	**559 J**	**2,120 J**	**1,070 J**	**2,470**	**14,300 J**	**11,200 J**	**7,170 J**	**6,230**	**6,300**	**7,800 J**	**12,600 J**	**2,810**
Chromium	mg/kg	**0.37 J**	**0.82 J**	0.97 U	0.97 U	0.97 U	**0.95 J**	**0.4 J**	**0.44 J**	0.98 U	0.97 U	0.97 U	0.98 U	0.99 U	0.97 U
Cobalt	mg/kg	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U
Copper	mg/kg	**4.4**	**7.6**	2.4 U	2.4 U	2.4 U	**2.9**	**1.3 J**	**1.2 J**	**1 J**	2.4 U	**0.8 J**	**24.3**	**8.9**	2.4 U
Iron	mg/kg	**32.8**	**44.9**	**21.4**	**21.4**	**30.4**	**147**	**33.1**	**37.5**	**43.3**	**18.8**	**21.3**	**17.7**	**17.5**	**21.3**
Lead	mg/kg	0.98 U	0.97 U	0.97 U	0.97 U	0.97 U	**0.66 J**	1 U	0.97 U	0.98 U	0.97 U	0.97 U	0.98 U	0.99 U	0.97 U
Magnesium	mg/kg	**246 J**	**393 J**	485 U	**237 J**	**219 J**	**214 J**	**465 J**	**466 J**	**396 J**	**356 J**	**365 J**	**273 J**	**375 J**	**215 J**
Manganese	mg/kg	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	**2**	**1.9**	**2.2**	**2**	1.5 U	1.5 U	**1 J**	**3.9**	1.5 U
Mercury	mg/kg	0.48 U	0.5 U	**0.067 J**	**0.1**	**0.068 J**	**0.29**	0.5 U	**0.12**	**0.1**	**0.15**	**0.18**	**0.14**	**0.14**	**0.12**
Nickel	mg/kg	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	4 U	3.9 U	3.9 U	3.9 U	3.9 U	3.9 U	4 U	3.9 U
Potassium	mg/kg	**2,100**	**2,380**	**2,020**	**2,450**	**2,460**	**1,980**	**2,710**	**2,910**	**2,860**	**3,390**	**3,000**	**1,550**	**1,750**	**2,120**
Selenium	mg/kg	**1.3 J**	**1.5 J**	**1.2 J**	**1.2 J**	**1.2 J**	**1.3 J**	**1.4 J**	**1.3 J**	**1.4 J**	**1.7 J**	**1.3 J**	**1.5 J**	**1.2 J**	3.4 U
Silver	mg/kg	0.98 U	0.97 U	0.97 U	0.97 U	0.97 U	0.98 U	1 U	0.97 U	0.98 U	0.97 U	0.97 U	**0.39 J**	0.99 U	0.97 U
Sodium	mg/kg	**819**	**1,070**	**792**	**880**	**1,100**	**988**	**1,520**	**1,640**	**1,600**	**1,120**	**1,690**	**870**	**1,210**	**873**
Thallium	mg/kg	2.5 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U	2.5 U	2.4 U	2.5 U	2.4 U	2.4 U	2.5 U	2.5 U	2.4 U
Vanadium	mg/kg	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	5 U	4.9 U
Zinc	mg/kg	**16.9**	**25.5**	**11.8**	**19.7**	**17.8**	**26.6**	**13.1**	**19.2**	**16.8**	**11.4**	**14.7**	**14.5**	**20.2**	**18.8**
Cyanide, Total	mg/kg	2.5 U	2.5 U	**0.23 J**	2.5 U	2.4 U	2.4 U	**0.65 J**	**3**	2.4 U	2.4 U	2.4 U	**0.54 J**	**0.97 J**	2.4 U
Percent Lipids	%	**12.9**	**12.6**	**19.1**	**11.5**	**17.3**	**13.5**	**11.6**	**8.76**	**5.62**	**2.56**	**1.9**	**4.12**	**5.03**	**20.1**

TABLE I-84A
Metal and Lipid Concentrations in Larger Fish Species – Carcass – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-CA-1**	**GC-TI332-XSCUP-CA-2**	**GC-TI332-XSCUP-CA-3**	**GC-TI332-XW-CA-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Carcass**	**Carcass**	**Carcass**	**Carcass**
Sample Weight:		**180.00**	**220.00**	**238.00**	**275.00**
Parameter	**Units**	**Metals**			
Aluminum	mg/kg	19.6 U	19.4 U	19.8 U	19.6 U
Antimony	mg/kg	5.9 U	5.8 U	5.9 U	5.9 U
Arsenic	mg/kg	**0.59 J**	**0.71 J**	**0.63 J**	0.98 U
Barium	mg/kg	19.6 U	19.4 U	19.8 U	19.6 U
Beryllium	mg/kg	0.49 U	0.49 U	0.5 U	0.49 U
Cadmium	mg/kg	0.49 U	0.49 U	0.5 U	0.49 U
Calcium	mg/kg	**10,700**	**21,000**	**14,500**	**7,850**
Chromium	mg/kg	0.98 U	**0.46 J**	**0.35 J**	0.98 U
Cobalt	mg/kg	4.9 U	4.9 U	5 U	4.9 U
Copper	mg/kg	2.5 U	**0.86 J**	2.5 U	**0.9 J**
Iron	mg/kg	**44.8**	**51.3**	**37.3**	**22**
Lead	mg/kg	0.98 U	**0.75 J**	0.99 U	0.98 U
Magnesium	mg/kg	**342 J**	**508**	**431 J**	**421 J**
Manganese	mg/kg	**3.3**	**6.2**	**4.3**	**3.6**
Mercury	mg/kg	**0.076 J**	**0.075 J**	**0.074 J**	**0.14**
Nickel	mg/kg	3.9 U	3.9 U	4 U	3.9 U
Potassium	mg/kg	**2,120**	**2,410**	**2,440**	**2,800**
Selenium	mg/kg	**1.4 J**	**1.6 J**	**1.4 J**	3.4 U
Silver	mg/kg	0.98 U	0.97 U	0.99 U	0.98 U
Sodium	mg/kg	**985**	**1,170**	**1,230**	**1,580**
Thallium	mg/kg	2.5 U	2.4 U	2.5 U	2.5 U
Vanadium	mg/kg	4.9 U	4.9 U	5 U	4.9 U
Zinc	mg/kg	**10.4**	**15.7**	**12.3**	**20.8**
Cyanide, Total	mg/kg	2.5 U	2.5 U	**3.3**	2.5 U
Percent Lipids	%	**3.58**	**2.65**	**2.15**	**2.66**

TABLE I-85A
PAH Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Acenaphthene	ug/kg	**73**	**35.7**	**38.4**	**31.2**	**31.2**	**38.8**	**50.6**	**42.2**	**41.9**	**36.9**	**23.8**	**29.7**	1.65 U	**3.79**
Acenaphthylene	ug/kg	**14.3**	5.18 U	5.37 U	**13.4**	5.21 U	5.13 U	**10**	**7.43**	**7.08**	**6.07**	3.64 U	5.16 U	1.65 U	1.63 U
Anthracene	ug/kg	**12.4**	**5.56**	**5.77**	**5.68**	**5.6**	**5.51**	**9.9**	**5.75**	**5.93**	**5.84**	**3.85**	**5.53**	1.65 U	1.63 U
Benzo(a)anthracene	ug/kg	**7.03**	3.81 U	3.94 U	**15.7**	3.84 U	3.79 U	**5.98**	**4.75**	**4.75**	3.98 U	2.87 U	3.82 U	1.65 U	1.63 U
Benzo(a)pyrene	ug/kg	**9.93**	**5.73**	**6.89**	**17.5**	4.53 U	**5.83**	**7.74**	**7.1**	**6.44**	**6.26**	**5.45**	**6.25**	**3.55**	**3.64**
Benzo(b)fluoranthene	ug/kg	**7.26**	3.58 U	**5.37**	**9.61**	3.61 U	**4.82**	**5.55**	**5.28**	**4.92**	**5.05**	2.74 U	**5**	**3.14**	**3.5**
Benzo(g,h,i)perylene	ug/kg	**28.2**	**15.2**	**22.1**	**18.1**	**13.6**	**17**	**19.2**	**17.8**	**15.6**	**16.6**	**17.8**	**21.1**	**17.2**	**19.8**
Benzo(k)fluoranthene	ug/kg	**5.68**	3.05 U	**4.33**	**8.76**	3.08 U	**3.65**	**4.52**	**4.35**	**3.92**	**3.91**	2.44 U	3.07 U	1.65 U	**2.78**
Chrysene	ug/kg	**7.34**	3.89 U	**5.21**	**13.6**	**5.17**	3.87 U	**6.35**	**5.12**	**5.46**	**5.03**	2.91 U	3.89 U	1.65 U	1.63 U
Dibenz(a,h)anthracene	ug/kg	**4.02**	**3.56**	**3.53**	**5.13**	**2.59**	**3.82**	**4.03**	**3.83**	**2.64**	**3.73**	**3.29**	**2.59**	**2.1**	**3.42**
Fluoranthene	ug/kg	**20.1**	**10.9**	**16.2**	**21.9**	**12.6**	**13.4**	**17.6**	**15.4**	**15.8**	**14.6**	**8.44**	**11.9**	1.65 U	1.63 U
Fluorene	ug/kg	**26.7**	**12.5**	**14.8**	**13.1**	**12.2**	**12.5**	**26.8**	**15.4**	**15.4**	**13.2**	**6.43**	**10**	1.65 U	**2.2**
Indeno(1,2,3-c,d)pyrene	ug/kg	**11**	**7.92**	**9.11**	**12.3**	**7.46**	**8.64**	**9.03**	**9.53**	**8.24**	**8.88**	**8.78**	**9.71**	**8.24**	**8.4**
Phenanthrene	ug/kg	**44.1**	**24.5**	**29.3**	**25**	**23.4**	**23.8**	**34.9**	**28.4**	**25.9**	**24.4**	**12.2**	**22.8**	**2.31**	**2.36**
Pyrene	ug/kg	**28.6**	**15.3**	**18.2**	**25.3**	**15.1**	**16.5**	**21.1**	**20.1**	**19.5**	**18.1**	**9.88**	**14.2**	**2.28**	**2.33**
Total PAHs	ug/kg	**300**	**149**	**186**	**235**	**142**	**163**	**233**	**191**	**182**	**171**	**106**	**147**	**34.3**	**47.6**

TABLE I-85A
PAH Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-WB-1	GC-TIMIDDLE-BC-WB-2	GC-TIMIDDLE-BC-WB-3	GC-TI-OUTER-BC-WB-1	GC-TI-OUTER-BC-WB-2	GC-TI-OUTER-BC-WB-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	155.14	156.86	151.17	149.31	305.19	154.35
Parameter	**Units**	**Semi-Volatile Organic Compounds**					
Acenaphthene	ug/kg	1.63 U	1.66 U	1.69 U	1.69 U	**2.64**	1.65 U
Acenaphthylene	ug/kg	1.63 U	1.66 U	1.69 U	1.69 U	1.65 U	1.65 U
Anthracene	ug/kg	1.63 U	1.66 U	1.69 U	1.69 U	1.65 U	1.65 U
Benzo(a)anthracene	ug/kg	1.63 U	1.66 U	1.69 U	1.69 U	1.65 U	1.65 U
Benzo(a)pyrene	ug/kg	**2.8**	**4.07**	**3.81**	**3.6**	**3.41**	1.65 U
Benzo(b)fluoranthene	ug/kg	1.63 U	**3.53**	**3.36**	**3.03**	**4.18**	1.65 U
Benzo(g,h,i)perylene	ug/kg	**14.1**	**25.3**	**22.3**	**18.2**	**18.3**	**14**
Benzo(k)fluoranthene	ug/kg	1.63 U	**2.86**	**3.05**	1.69 U	**3.41**	1.65 U
Chrysene	ug/kg	1.63 U	1.66 U	1.69 U	1.69 U	1.65 U	1.65 U
Dibenz(a,h)anthracene	ug/kg	**3.44**	**3.49**	**3.41**	**3.26**	**4.43**	**3.62**
Fluoranthene	ug/kg	1.63 U	1.66 U	1.69 U	1.69 U	**3.58**	1.65 U
Fluorene	ug/kg	1.63 U	1.66 U	1.69 U	1.69 U	1.65 U	1.65 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**7.43**	**10.8**	**9.83**	**8.33**	**9.53**	**6.77**
Phenanthrene	ug/kg	**2.35**	**4.37**	**3.94**	**4.77**	**5.4**	**3.91**
Pyrene	ug/kg	**2.32**	**2.34**	**2.4**	**2.4**	**5.13**	**2.34**
Total PAHs	ug/kg	**29.7**	**54.1**	**49.3**	**41.5**	**58.8**	**29.5**

TABLE I-85B
PAH Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Semi-Volatile Organic Compounds**													
Acenaphthene	ug/kg	**1,370**	**1,140**	**1,220**	**1,150**	**1,120**	**1,150**	**1,260**	**1,240**	**1,270**	**1,210**	**665**	**1,100**	34.7 U	**47.4**
Acenaphthylene	ug/kg	**247**	194 U	204 U	**246**	195 U	191 U	**227**	**216**	**221**	**210**	114 U	191 U	34.7 U	36.8 U
Anthracene	ug/kg	**252**	**211**	**222**	**217**	**212**	**208**	**241**	**221**	**231**	**225**	**123**	**208**	34.7 U	36.8 U
Benzo(a)anthracene	ug/kg	**152**	132 U	139 U	**204**	133 U	131 U	**148**	**144**	**149**	141 U	78.5 U	131 U	34.7 U	36.8 U
Benzo(a)pyrene	ug/kg	**195**	**170**	**186**	**241**	164 U	**169**	**186**	**186**	**188**	**182**	**107**	**170**	**45**	**46.7**
Benzo(b)fluoranthene	ug/kg	**144**	122 U	**139**	**160**	123 U	**128**	**137**	**138**	**140**	**137**	72.8 U	**128**	**42.8**	**46**
Benzo(g,h,i)perylene	ug/kg	**491**	**414**	**480**	**441**	**407**	**421**	**449**	**451**	**450**	**443**	**282**	**440**	**311**	**342**
Benzo(k)fluoranthene	ug/kg	**114**	97.9 U	**111**	**133**	98.5 U	**100**	**109**	**110**	**111**	**108**	59 U	96.6 U	34.7 U	**42.5**
Chrysene	ug/kg	**157**	136 U	**151**	**195**	**143**	134 U	**153**	**149**	**156**	**150**	80.5 U	134 U	34.7 U	36.8 U
Dibenz(a,h)anthracene	ug/kg	**125**	**120**	**127**	**133**	**116**	**121**	**126**	**128**	**125**	**128**	**74.6**	**113**	**64.2**	**76**
Fluoranthene	ug/kg	**512**	**453**	**506**	**526**	**464**	**461**	**501**	**499**	**518**	**499**	**268**	**452**	34.7 U	36.8 U
Fluorene	ug/kg	**516**	**432**	**466**	**445**	**432**	**427**	**529**	**468**	**483**	**460**	**241**	**412**	34.7 U	**39.6**
Indeno(1,2,3-c,d)pyrene	ug/kg	**251**	**229**	**250**	**260**	**228**	**232**	**242**	**251**	**250**	**247**	**152**	**236**	**149**	**158**
Phenanthrene	ug/kg	**934**	**814**	**883**	**836**	**811**	**800**	**893**	**873**	**888**	**859**	**451**	**793**	**78**	**84.8**
Pyrene	ug/kg	**650**	**567**	**611**	**637**	**568**	**566**	**611**	**620**	**637**	**615**	**327**	**553**	**76.1**	**82.8**
Total PAHs	ug/kg	**6,020**	**5,110**	**5,580**	**5,730**	**5,100**	**5,130**	**5,730**	**5,590**	**5,710**	**5,520**	**3,000**	**5,030**	**691**	**799**

TABLE I-85B
PAH Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Semi-Volatile Organic Compounds**					
Acenaphthene	ug/kg	36.1 U	36.5 U	36.8 U	37.5 U	**183**	136 U
Acenaphthylene	ug/kg	36.1 U	36.5 U	36.8 U	37.5 U	114 U	136 U
Anthracene	ug/kg	36.1 U	36.5 U	36.8 U	37.5 U	114 U	136 U
Benzo(a)anthracene	ug/kg	36.1 U	36.5 U	36.8 U	37.5 U	114 U	136 U
Benzo(a)pyrene	ug/kg	**41.8**	**49.5**	**46.8**	**47.1**	**237**	136 U
Benzo(b)fluoranthene	ug/kg	36.1 U	**46.6**	**44.7**	**44.3**	**291**	136 U
Benzo(g,h,i)perylene	ug/kg	**307**	**370**	**349**	**338**	**1,270**	**1,160**
Benzo(k)fluoranthene	ug/kg	36.1 U	**43**	**43.2**	37.5 U	**237**	136 U
Chrysene	ug/kg	36.1 U	36.5 U	36.8 U	37.5 U	114 U	136 U
Dibenz(a,h)anthracene	ug/kg	**74.6**	**75.4**	**75.4**	**76.1**	**308**	**299**
Fluoranthene	ug/kg	36.1 U	36.5 U	36.8 U	37.5 U	**249**	136 U
Fluorene	ug/kg	36.1 U	36.5 U	36.8 U	37.5 U	114 U	136 U
Indeno(1,2,3-c,d)pyrene	ug/kg	**150**	**170**	**163**	**160**	**662**	**559**
Phenanthrene	ug/kg	**83**	**93.8**	**92.1**	**98**	**375**	**321**
Pyrene	ug/kg	**81.1**	**81**	**83**	**84.3**	**356**	**182**
Total PAHs	ug/kg	**697**	**833**	**799**	**779**	**4,090**	**2,410**

TABLE I-86A
Pesticide Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Pesticides**													
Aldrin	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Alpha BHC	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Alpha endosulfan	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Alpha-chlordane	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Beta BHC	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Beta endosulfan	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
Delta BHC	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Dieldrin	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
Endosulfan sulfate	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
Endrin	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
Endrin aldehyde	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
Endrin ketone	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
Gamma BHC	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Gamma-chlordane	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Heptachlor	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Heptachlor epoxide	ug/kg	0.85 U	0.847 U	0.862 U	0.844 U	0.847 U	0.853 U	0.865 U	0.865 U	0.85 U	0.844 U	0.846 U	0.844 U	0.843 U	0.85 U
Methoxychlor	ug/kg	8.5 U	8.47 U	8.62 U	8.44 U	8.47 U	8.53 U	8.65 U	8.65 U	8.5 U	8.44 U	8.46 U	8.44 U	8.43 U	8.5 U
P,P'-DDD	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
P,P'-DDE	ug/kg	**2.38**	**2.37**	**2.58**	**2.79**	**2.08**	**2.54**	**2.41**	**2.43**	**2.44**	**2.43**	**2.05**	**2.4**	1.65 U	**1.73**
P,P'-DDT	ug/kg	1.62 U	1.63 U	1.66 U	1.66 U	1.65 U	1.65 U	1.66 U	1.66 U	1.63 U	1.64 U	1.63 U	1.67 U	1.65 U	1.63 U
Toxaphene	ug/kg	85 U	84.7 U	86.2 U	84.4 U	84.7 U	85.3 U	86.5 U	86.5 U	85 U	84.4 U	84.6 U	84.4 U	84.3 U	85 U
Total DDTs	ug/kg	1.4 U	1.37 U	**2.58**	**2.79**	**2.08**	**2.54**	1.38 U	1.42 U	1.5 U	1.46 U	0.772 U	1.34 U	ND	**1.25**

TABLE I-86A
Pesticide Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Pesticides**					
Aldrin	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Alpha BHC	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Alpha endosulfan	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Alpha-chlordane	ug/kg	0.854 U	1.44 U	0.843 U	1.38 U	0.85 U	0.85 U
Beta BHC	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Beta endosulfan	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
Delta BHC	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Dieldrin	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
Endosulfan sulfate	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
Endrin	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
Endrin aldehyde	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
Endrin ketone	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
Gamma BHC	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Gamma-chlordane	ug/kg	0.854 U	1.44 U	0.843 U	1.38 U	0.85 U	0.85 U
Heptachlor	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Heptachlor epoxide	ug/kg	0.854 U	0.85 U	0.843 U	0.85 U	0.85 U	0.85 U
Methoxychlor	ug/kg	8.54 U	8.5 U	8.43 U	8.5 U	8.5 U	8.5 U
P,P'-DDD	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
P,P'-DDE	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
P,P'-DDT	ug/kg	1.63 U	1.66 U	1.61 U	1.61 U	1.65 U	1.65 U
Toxaphene	ug/kg	85.4 U	85 U	84.3 U	85 U	85 U	85 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND

TABLE I-86B
Pesticide Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**								**Pesticides**						
Aldrin	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Alpha BHC	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Alpha endosulfan	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Alpha-chlordane	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Beta BHC	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Beta endosulfan	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
Delta BHC	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Dieldrin	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
Endosulfan sulfate	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
Endrin	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
Endrin aldehyde	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
Endrin ketone	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
Gamma BHC	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Gamma-chlordane	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Heptachlor	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Heptachlor epoxide	ug/kg	28.6 U	28 U	29.7 U	28.8 U	28.2 U	27.8 U	28.9 U	29.6 U	30.4 U	29.6 U	17.7 U	27.6 U	17.8 U	19 U
Methoxychlor	ug/kg	286 U	280 U	297 U	288 U	282 U	278 U	289 U	296 U	304 U	296 U	177 U	276 U	178 U	190 U
P,P'-DDD	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
P,P'-DDE	ug/kg	**68.6**	**67.2**	**72**	**71.3**	**65.9**	**67.6**	**69**	**70.8**	**73**	**71.2**	**41.6**	**66.4**	34.7 U	**37.3**
P,P'-DDT	ug/kg	55.4 U	54.2 U	57.6 U	56 U	54.7 U	54 U	55.9 U	57.3 U	58.9 U	57.4 U	34.4 U	53.7 U	34.7 U	36.8 U
Toxaphene	ug/kg	2,860 U	2,800 U	2,970 U	2,880 U	2,820 U	2,780 U	2,890 U	2,960 U	3,040 U	2,960 U	1,770 U	2,760 U	1,780 U	1,900 U
Total DDTs	ug/kg	63.4 U	61.9 U	**72**	**71.3**	**65.9**	**67.6**	62.5 U	64.4 U	67.7 U	66.1 U	35 U	60.8 U	ND	**6.2**

TABLE I-86B
Pesticide Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Pesticides**					
Aldrin	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Alpha BHC	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Alpha endosulfan	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Alpha-chlordane	ug/kg	18.6 U	21.9 U	18.8 U	21.9 U	58.9 U	70.2 U
Beta BHC	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Beta endosulfan	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
Delta BHC	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Dieldrin	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
Endosulfan sulfate	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
Endrin	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
Endrin aldehyde	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
Endrin ketone	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
Gamma BHC	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Gamma-chlordane	ug/kg	18.6 U	21.9 U	18.8 U	21.9 U	58.9 U	70.2 U
Heptachlor	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Heptachlor epoxide	ug/kg	18.6 U	18.7 U	18.8 U	19.2 U	58.9 U	70.2 U
Methoxychlor	ug/kg	186 U	187 U	188 U	192 U	589 U	702 U
P,P'-DDD	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
P,P'-DDE	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
P,P'-DDT	ug/kg	36.1 U	36.5 U	36.5 U	37.2 U	114 U	136 U
Toxaphene	ug/kg	1,860 U	1,870 U	1,880 U	1,920 U	5,890 U	7,020 U
Total DDTs	ug/kg	ND	ND	ND	ND	ND	ND

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**8.26**	**7.2**	4.73 U	**6.71**	**6.42**	4.43 U	4.56 U	4.7 U	**6.33**	4.83 U	2.55 U	4.44 U	ND	ND
PCB 2	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 3	ng/kg	**9.04**	**7.81**	5.57 U	5.45 U	5.33 U	5.21 U	5.37 U	5.53 U	5.82 U	5.68 U	3 U	5.22 U	ND	ND
PCB 4	ng/kg	**28.9**	**25.9**	**19.9**	**25.9**	**23.4**	**22.9**	**25.2**	**26.6**	**28.2**	**22.5**	**18.3**	**21.2**	**11.5**	**9.96**
PCB 5	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 6	ng/kg	**12.6**	**11.4**	**9.07**	**10.4**	**9.88**	**10.7**	**15.7**	**15.3**	**15**	**10.2**	**6.62**	**8.58**	**6.22**	**4.39**
PCB 7	ng/kg	**5.05**	2.78 U	2.91 U	2.85 U	2.79 U	2.73 U	2.81 U	2.89 U	3.04 U	2.97 U	1.57 U	2.73 U	ND	ND
PCB 8	ng/kg	**52.3**	**48.5**	**38.3**	**42.2**	**41**	**42.1**	**54.9**	**51.3**	**69.8**	**43.3**	**31.4**	**40.2**	**21.5**	**10.5**
PCB 9	ng/kg	**3.71**	2.13 U	2.23 U	2.18 U	2.13 U	2.09 U	2.15 U	2.21 U	2.33 U	2.27 U	1.2 U	2.09 U	ND	ND
PCB 10	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 11	ng/kg	**57.7**	**69.1**	**47.5**	**63.3**	**70.6**	**64.1**	**70.9**	**56.7**	**76.6**	**70.4**	**63.3**	**60.6**	**89.3**	**52.3**
PCB 12/13	ng/kg	**10.5**	**12.6**	**10.7**	**11**	**12.9**	**17.8**	**20.8**	**20.6**	**20.3**	**16.1**	**15.2**	**14.7**	**19.4**	**7.69**
PCB 14	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 15	ng/kg	**429**	**525**	**533**	**674**	**625**	**832**	**569**	**530**	**786**	**671**	**642**	**602**	**461**	**329**
PCB 16	ng/kg	**13.5**	**12**	**10**	**12.8**	**11**	**11.5**	**12.8**	**13.1**	**17**	**10.5**	**9.53**	**11.4**	**7.66**	**6.12**
PCB 17	ng/kg	**28.4**	**28.5**	**22.4**	**28.3**	**25.5**	**30.3**	**45.5**	**41.4**	**43.8**	**28.7**	**26.2**	**27.8**	**43.8**	**24.6**
PCB 18/30	ng/kg	**46.6**	**46**	**39**	**51.2**	**41.7**	**51.2**	**72**	**59.2**	**69.3**	**45.3**	**40.5**	**52.5**	**75.9**	**46.7**
PCB 19	ng/kg	**5.9**	**5.25**	3.33 U	**6.53**	**5.27**	**5.15**	**5.67**	**7.22**	**6.57**	3.4 R	**4.7**	3.12 U	**2.57**	**2.91**
PCB 20/28	ng/kg	**5,690**	**6,510**	**6,270**	**7,750**	**6,840**	**7,740**	**6,010**	**5,970**	**8,960**	**8,020**	**7,140**	**6,350**	**5,710**	**4,460**
PCB 21/33	ng/kg	**43.8**	**45.2**	**44.5**	**45.2**	**46.3**	26.3 R	**58.9**	**55.1**	**87.5**	**51.9**	**50.1**	**40.1**	**40.3**	**27.9**
PCB 22	ng/kg	**38**	**45.1**	**34.9**	**37.3**	**38.9**	**47.9**	**74.2**	**57.6**	**73.5**	**43.3**	**47.4**	**59.6**	**85.3**	**28.3**
PCB 23	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 24	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 25	ng/kg	**21.8**	**22.6**	**19.3**	**21.5**	**19.7**	**25.8**	**38**	**32.8**	**28.5**	**23.8**	**22.2**	**29.6**	**46.1**	**22.2**
PCB 26/29	ng/kg	**40**	**40.1**	**35.1**	**42.4**	**36.4**	**44.7**	**66.7**	**53.4**	**50.9**	**44**	**36.5**	**51.7**	**83.4**	**50.4**
PCB 27	ng/kg	**9.67**	**10.7**	**8.84**	**10.5**	**9.61**	**11.1**	**17**	**14.1**	**13.1**	**10.9**	**9.32**	**11.1**	**19.9**	**12.1**
PCB 31	ng/kg	**140**	**133**	**115**	**132**	**120**	**159**	**222**	**167**	**191**	**143**	**128**	**197**	**266**	**120**
PCB 32	ng/kg	**35.8**	**42.1**	**36.1**	**37.6**	**35.5**	**42.8**	**72.2**	**58.2**	**56.3**	**43.6**	**40.8**	**43**	**69.3**	**33.7**
PCB 34	ng/kg	2.7 U	**4.89**	2.76 U	2.7 U	**4.46**	**4.44**	**6.66**	**5.2**	**6.04**	**5.78**	**4.43**	**4.14**	**6.78**	**2.44**
PCB 35	ng/kg	0 R	0 R	0 R	0 R	0 R	1.69 R	3.12 R	1.71 R	2.58 R	1.93 R	0 R	1.94 R	**6.41**	**3.41**
PCB 36	ng/kg	ND	**3.39**	ND	ND	**2.29**	**2.12**	**2.86**	ND	**5.31**	**3.89**	**4.22**	**2.31**	**5.09**	**1.99**
PCB 37	ng/kg	**964**	**1,110**	**1,190**	**1,360**	**1,200**	**1,450**	**1,110**	**1,090**	**1,640**	**1,490**	**1,360**	**1,130**	**728**	**666**
PCB 38	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.51**	ND
PCB 39	ng/kg	**5.58**	**6.36**	**4.48**	**6.16**	**5.61**	**5.79**	**7.24**	**5.05**	**7.5**	**7.38**	**6.65**	**6.21**	**8.67**	**6.13**
PCB 40/41/71	ng/kg	**223**	**275**	**253**	**232**	**239**	**255**	**367**	**289**	**284**	**311**	**259**	**262**	**444**	**272**
PCB 42	ng/kg	**39.3**	**38.4**	**31.5**	**37.7**	**34.7**	**44**	**65.5**	**48.6**	**45.1**	**42**	**40.4**	**45**	**101**	**44.8**

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	**11**	**12.9**	**12.9**	**14.5**	**12.1**	**13.4**	**20.3**	**17.1**	**13.5**	**14.4**	**13**	9.02 R	**23.2**	**18.1**
PCB 44/47/65	ng/kg	**5,930**	**6,230**	**5,200**	**6,860**	**6,220**	**6,780**	**5,000**	**4,920**	**6,970**	**6,260**	**5,840**	**5,070**	**5,110**	**5,010**
PCB 45/51	ng/kg	**7.15**	**7.5**	**4.09**	**10.6**	**6.93**	**9.42**	**17.6**	**11.7**	**10.1**	**8.28**	**9.25**	3.84 R	**19.7**	**13.5**
PCB 46	ng/kg	ND	ND	ND	ND	ND	ND	**1.73**	**1.9**	**1.65**	ND	ND	ND	**3.19**	**1.68**
PCB 48	ng/kg	**17**	**18**	**16.4**	**20.4**	**16.5**	**21.5**	**34**	**25.3**	**25.9**	**19.5**	**18.4**	**19.5**	**41.2**	**28.5**
PCB 49/69	ng/kg	**135**	**112**	**98.7**	**115**	**99.9**	**124**	**197**	**127**	**126**	**114**	**99.9**	**145**	**260**	**107**
PCB 50/53	ng/kg	**8.01**	**7.82**	**8.19**	**13.1**	**7.85**	**13**	**20.7**	**14.9**	**13.6**	**11.4**	**10.4**	**12.5**	**29.7**	**17.8**
PCB 52	ng/kg	**133**	**127**	**118**	**144**	**119**	**148**	**238**	**152**	**148**	**141**	**126**	**171**	**336**	**174**
PCB 54	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 55	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 56	ng/kg	**66.2**	**72.6**	**60.7**	**64.6**	**60.6**	**71.3**	**123**	**87.2**	**84.4**	**71.1**	**68.7**	**84.8**	**186**	**78.1**
PCB 57	ng/kg	**6.46**	**6.3**	**6.6**	**6.46**	**6.32**	**6.18**	**9.33**	**8.06**	**6.9**	**8.55**	**6.33**	**6.19**	**11**	**6.07**
PCB 58	ng/kg	**6.12**	**6.51**	**4.33**	**4.24**	**4.15**	**4.06**	**7.46**	**4.31**	**11.1**	**6.11**	**6.14**	4.06 R	0 R	0 R
PCB 59/62/75	ng/kg	**388**	**384**	**315**	**435**	**385**	**403**	**304**	**303**	**441**	**402**	**394**	**331**	**374**	**334**
PCB 60	ng/kg	**1,030**	**1,290**	**1,320**	**1,620**	**1,340**	**1,620**	**1,060**	**1,010**	**2,050**	**1,640**	**1,660**	**1,180**	**1,490**	**1,100**
PCB 61/70/74/76	ng/kg	**4,930**	**5,570**	**5,070**	**6,140**	**5,440**	**6,070**	**4,820**	**4,650**	**7,020**	**6,480**	**5,570**	**5,060**	**4,900**	**4,170**
PCB 63	ng/kg	**78.1**	**75.1**	**60.5**	**72.6**	**69.6**	**75.6**	**89.6**	**68.4**	**80.9**	**94.9**	**78.2**	**80.9**	**85.6**	**52**
PCB 64	ng/kg	**75**	**65.6**	**57.2**	**70.4**	**56.6**	**78.2**	**124**	**82.4**	**77.1**	**70.3**	**74.2**	**102**	**193**	**83.2**
PCB 66	ng/kg	**7,160**	**8,380**	**7,690**	**9,470**	**8,360**	**9,150**	**7,410**	**7,020**	**11,400**	**10,400**	**9,410**	**7,470**	**7,750**	**6,160**
PCB 67	ng/kg	**12.6**	**12.3**	**10.1**	**12.4**	8.23 U	**14.4**	**17.9**	**13.5**	**12.9**	**13.5**	**12.6**	8.05 U	ND	ND
PCB 68	ng/kg	**47**	**48.3**	**36.1**	**44.4**	**44.6**	**46.7**	**49**	**36.9**	**53.9**	**56.1**	**48.9**	**43.4**	**51.9**	**37.5**
PCB 72	ng/kg	**21.7**	**22.5**	**17.1**	**19.6**	**19.2**	**21.9**	**28.8**	**19.1**	**22.4**	**27.6**	**24**	**22.6**	**45.1**	**27.3**
PCB 73	ng/kg	**7.77**	**11.3**	**7.01**	**7.1**	**8**	**6.84**	**12.9**	**7.62**	**17.8**	**10.3**	**10**	**9.17**	**9.2**	**3.19**
PCB 77	ng/kg	**598**	**702**	**681**	**777**	**722**	**816**	387 R	399 R	420 R	410 R	217 R	**659**	**567**	**472**
PCB 78	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 79	ng/kg	**19.4**	**21.2**	**16.7**	**21.9**	**19.5**	**21.9**	**20**	**16.3**	**24.8**	**22.7**	**24.3**	**16**	**27.9**	**21.9**
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	**29.8**	**33.9**	**34.8**	**37.7**	**34**	**41.3**	**32.2**	**30.4**	**48.3**	**42.9**	**38.7**	**31.3**	**27.7**	**24.9**
PCB 82	ng/kg	**9.95**	**9.33**	**8.33**	**11**	**10.5**	**12.3**	**12.4**	**10.5**	**12.4**	**10.9**	**11**	**8.89**	**18.7**	**12.6**
PCB 83/99	ng/kg	**11,800**	**12,200**	**10,500**	**12,800**	**12,800**	**13,100**	**10,400**	**9,870**	**15,200**	**13,100**	**12,200**	**9,880**	**10,000**	**9,710**
PCB 84	ng/kg	**11.9**	**13.8**	**13.5**	**17.5**	**11.4**	**14.4**	**24.2**	**21.9**	**15.9**	**19.8**	**21.4**	**12.5**	**28.1**	**30.6**
PCB 85/116/117	ng/kg	**1,790**	**1,880**	**1,660**	**2,050**	**1,890**	**2,090**	**1,670**	**1,520**	**2,360**	**2,070**	**2,010**	**1,550**	**1,690**	**1,530**
PCB 86/87/97/109/119/125	ng/kg	**893**	**915**	**783**	**966**	**923**	**958**	**813**	**769**	**1,080**	**992**	**941**	**771**	**894**	**845**
PCB 88/91	ng/kg	**44.3**	**43.1**	**35.6**	**48.6**	**35.2**	**50.4**	**88.9**	**47.7**	**39.2**	**56.6**	**57.8**	**60.3**	**117**	**58.5**
PCB 89	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 90/101/113	ng/kg	**568**	**504**	**422**	**499**	**440**	**511**	**689**	**474**	**505**	**561**	**468**	**592**	**816**	**424**

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 92	ng/kg	**116**	**108**	**100**	**111**	**95**	**108**	**151**	**115**	**106**	**119**	**96.3**	**126**	**201**	**129**
PCB 93/95/98/100/102	ng/kg	**505**	**555**	**493**	**651**	**616**	**660**	**582**	**517**	**694**	**669**	**659**	**484**	**523**	**521**
PCB 94	ng/kg	**9.34**	**15.4**	**9.94**	**10.5**	**12.4**	**11.8**	**18.8**	**10.9**	**15.7**	**18**	**15.8**	**11.5**	**21.3**	**12.3**
PCB 96	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 103	ng/kg	ND	ND	ND	ND	ND	**1.66**	**6.23**	ND	ND	ND	**1.86**	**3.15**	**8.99**	**4.12**
PCB 104	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 105	ng/kg	**3,980**	**4,320**	**3,870**	**4,700**	**4,400**	**4,880**	**3,920**	**3,590**	**5,300**	**4,780**	**4,420**	**3,700**	**3,960**	**3,270**
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	**414**	**445**	**364**	**430**	**412**	**450**	**450**	**357**	**538**	**517**	**459**	**403**	**519**	**430**
PCB 108/124	ng/kg	**17.4**	**18**	**13.4**	**16.9**	**12.9**	**18**	**25.6**	**17.3**	**18.1**	**21.4**	**17.6**	**20.8**	**36**	**20.6**
PCB 110/115	ng/kg	**533**	**497**	**457**	**539**	**469**	**537**	**624**	**481**	**566**	**562**	**497**	**515**	**800**	**476**
PCB 111	ng/kg	**30.8**	**27.6**	**24.8**	**30.5**	**29.4**	**29.7**	**25.8**	**24.6**	**31.2**	**30.3**	**27.9**	**25.6**	**43.9**	**48.5**
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 114	ng/kg	**300**	**310**	**293**	**340**	**316**	**349**	**287**	**267**	**384**	**347**	**310**	**272**	**266**	**235**
PCB 118	ng/kg	**13,000**	**13,700**	**12,300**	**14,400**	**14,000**	**15,100**	**12,300**	**11,300**	**16,800**	**15,500**	**14,100**	**11,800**	**12,800**	**10,700**
PCB 120	ng/kg	**130**	**129**	**109**	**130**	**135**	**138**	**113**	**106**	**149**	**139**	**136**	**110**	**146**	**148**
PCB 121	ng/kg	**14.7**	**14.6**	**11.9**	**15.4**	**14.1**	**14.7**	**12.1**	**11.8**	**15.3**	**15.4**	**16.5**	**12.6**	**13**	**13.7**
PCB 122	ng/kg	3.28 U	3.2 U	3.35 U	3.28 U	3.21 U	3.14 U	3.23 U	3.33 U	3.5 U	3.42 U	1.81 U	3.14 U	**10.5**	**2.88**
PCB 123	ng/kg	**270**	**288**	**268**	**304**	**299**	**318**	**250**	**242**	**354**	**317**	**301**	**241**	**253**	**239**
PCB 126	ng/kg	**35.3**	**39.9**	**38.7**	**42.6**	**41.4**	**46.1**	**35.8**	**33.7**	**47.4**	**47.3**	**42.6**	**36.5**	**36.7**	**32.9**
PCB 127	ng/kg	10.8 R	10.5 R	11 R	10.8 R	10.6 R	10.3 R	10.6 R	11 R	11.5 R	11.2 R	5.94 R	15.6 R	**15.6**	**19**
PCB 128/166	ng/kg	**1,740**	**1,820**	**1,600**	**1,910**	**1,890**	**2,100**	**1,610**	**1,500**	**2,230**	**1,860**	**1,960**	**1,500**	**1,610**	**1,640**
PCB 129/138/160/163	ng/kg	**14,800**	**15,300**	**13,400**	**16,100**	**15,800**	**16,800**	**13,900**	**13,000**	**19,000**	**15,900**	**14,700**	**12,800**	**11,300**	**10,700**
PCB 130	ng/kg	**197**	**187**	**151**	**173**	**168**	**174**	**200**	**161**	**193**	**214**	**156**	**168**	**169**	**102**
PCB 131	ng/kg	**1.66**	**2.62**	**1.5**	**2.21**	**1.84**	**2.89**	**3.58**	**1.63**	**2.65**	**4.07**	**5.05**	**2.23**	**6.01**	**2.46**
PCB 132	ng/kg	**16.9**	**13.6**	**13.1**	**16.5**	**12.9**	**17**	**19.8**	**15.7**	**14.9**	**15.4**	**14.2**	**15.8**	**36.6**	**18.5**
PCB 133	ng/kg	**406**	**363**	**321**	**408**	**414**	**434**	**344**	**326**	**459**	**426**	**402**	**327**	**543**	**562**
PCB 134/143	ng/kg	ND	ND	ND	ND	ND	ND	**4.79**	ND	ND	ND	ND	ND	**8.44**	ND
PCB 135/151/154	ng/kg	**1,090**	**1,180**	**1,070**	**1,220**	**1,360**	**1,400**	**1,080**	**1,070**	**1,560**	**1,340**	**1,220**	**1,040**	**823**	**882**
PCB 136	ng/kg	**5.69**	**5.57**	**5.06**	**8.96**	**4.75**	**6.83**	**11.2**	**8.3**	**5.62**	**7.73**	**8.18**	**4.78**	**9.32**	**11**
PCB 137	ng/kg	**801**	**756**	**707**	**821**	**820**	**913**	**693**	**663**	**906**	**812**	**728**	**647**	**519**	**566**
PCB 139/140	ng/kg	**320**	**326**	**292**	**346**	**356**	**379**	**286**	**277**	**416**	**347**	**330**	**278**	**247**	**251**
PCB 141	ng/kg	**59.6**	**43.3**	**41.5**	**46.8**	**32.9**	**50.5**	**63.9**	**43.7**	**50.1**	**51.4**	**46.3**	**54.1**	**37.6**	**33.5**
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 144	ng/kg	**20**	**18.9**	**17**	**20.3**	**16.9**	**20.9**	**27.7**	**18.3**	**19.5**	**24.3**	**19.8**	**21.1**	**31**	**19.2**
PCB 145	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 146	ng/kg	3,250	3,240	2,730	3,190	3,140	3,430	2,900	2,650	3,720	3,420	3,140	2,630	2,960	2,660
PCB 147/149	ng/kg	657	612	512	619	518	625	870	582	589	756	573	664	853	451
PCB 148	ng/kg	89	89.8	78.3	94.5	101	104	78.3	78.6	108	100	95.8	74	68.2	76.3
PCB 150	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 152	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 153/168	ng/kg	27,100	28,600	24,800	27,800	31,000	31,700	24,900	23,500	35,600	31,000	27,600	22,500	20,800	20,000
PCB 155	ng/kg	35.1	42.9	35.2	54.2	44.6	46.1	34.3	33.3	48.9	46	48.4	32.6	50.6	39.9
PCB 156/157	ng/kg	1,770	1,790	1,650	1,860	1,880	2,060	1,630	1,510	2,110	1,980	1,760	1,510	1,480	1,390
PCB 158	ng/kg	1,730	1,800	1,680	1,910	1,930	2,160	1,610	1,560	2,250	1,930	1,720	1,510	1,250	1,190
PCB 159	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.2	2.44
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	53.7	55.5	49.4	56.5	53.8	58.3	51.5	47	64.2	58.8	51.7	47.5	66.9	63.2
PCB 164	ng/kg	29.5	20.4	16.2	17.7	17.1	19.3	30.1	20	19.2	26	19.7	13.3 U	24.7	9.87
PCB 165	ng/kg	23.6	20.2	17.3	22.4	22.4	22.6	19.7	17.7	23.8	24	22.8	18.7	34.9	37.4
PCB 167	ng/kg	837	880	790	884	915	963	792	735	1,040	959	851	735	761	696
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	2,320	2,380	2,360	2,600	2,620	2,670	2,240	2,230	2,890	2,420	2,040	2,000	757	1,060
PCB 171/173	ng/kg	931	1,010	940	1,070	1,080	1,150	899	865	1,290	1,040	979	820	571	612
PCB 172	ng/kg	477	444	441	506	481	528	439	441	552	507	381	392	245	279
PCB 174	ng/kg	35.4	27	25.6	30.2	24.8	26.8	40.7	28.8	28.8	31.5	23.9	34.9	17.1	14.3
PCB 175	ng/kg	135	140	125	147	143	166	130	127	178	160	150	124	110	103
PCB 176	ng/kg	7.99	7.48	6.63	8.55	4.57 U	7.32	12.2	7.53	6.75	9.63	7.02	7.37	12.4	7.09
PCB 177	ng/kg	662	646	571	618	597	613	693	598	683	721	471	585	330	173
PCB 178	ng/kg	951	911	810	996	1,010	1,070	880	820	1,240	1,120	1,040	813	1,100	1,050
PCB 179	ng/kg	11.1	8.5	7.08	9.43	6.78	10.3	13.4	9.87	7.4	9.61	8.59	10.5	19.9	9.14
PCB 180/193	ng/kg	9,060	9,620	8,740	9,850	10,200	10,500	8,580	8,340	11,300	9,840	8,540	7,680	5,350	5,720
PCB 181	ng/kg	38.2	37	34.6	41.4	41.7	44.1	32.6	33.5	46	38.6	33	29.5	17.9	21.5
PCB 182	ng/kg	32	28	24.3	30.8	29.1	32	23.8	23.6	28.9	27.1	26	21.3	18.3	23.8
PCB 183/185	ng/kg	3,310	3,580	3,160	3,600	3,710	4,010	3,100	2,990	4,460	3,760	3,490	2,900	2,370	2,320
PCB 184	ng/kg	14	15.2	11.8	16.2	13.6	14.9	12.4	10.6	16.3	15.1	16.7	12	19	15.6
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	6,510	6,920	5,600	6,530	6,250	7,100	6,060	5,600	7,300	6,710	5,730	5,580	4,980	5,010
PCB 188	ng/kg	44.3	50.2	43.6	51.5	54.1	51.3	43.4	41.7	59.8	54.3	52.3	39.5	35.9	38
PCB 189	ng/kg	132	140	128	141	146	150	124	121	169	152	129	117	94.3	92.9
PCB 190	ng/kg	693	722	681	763	776	817	650	643	846	746	619	595	300	338
PCB 191	ng/kg	155	164	155	176	184	197	148	148	205	178	151	137	86.3	95

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 192	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 194	ng/kg	**1,070**	**1,070**	**1,010**	**1,100**	**1,160**	**1,130**	**946**	**942**	**1,190**	**1,090**	**940**	**871**	**463**	**565**
PCB 195	ng/kg	**318**	**316**	**328**	**361**	**356**	**358**	**303**	**308**	**369**	**318**	**262**	**272**	**72.7**	**117**
PCB 196	ng/kg	**747**	**734**	**687**	**802**	**787**	**842**	**638**	**655**	**812**	**730**	**650**	**602**	**345**	**437**
PCB 197/200	ng/kg	**101**	**104**	**86.1**	**106**	**91.8**	**102**	**88.1**	**82**	**111**	**97.3**	**92.8**	**86.2**	**81.2**	**83.1**
PCB 198/199	ng/kg	**1,370**	**1,260**	**1,260**	**1,390**	**1,270**	**1,400**	**1,210**	**1,180**	**1,350**	**1,320**	**1,060**	**1,100**	**720**	**853**
PCB 201	ng/kg	**209**	**222**	**187**	**213**	**201**	**213**	**199**	**176**	**247**	**231**	**222**	**192**	**193**	**181**
PCB 202	ng/kg	**580**	**553**	**479**	**539**	**550**	**557**	**542**	**439**	**643**	**623**	**648**	**490**	**699**	**614**
PCB 203	ng/kg	**874**	**850**	**809**	**916**	**839**	**962**	**762**	**755**	**885**	**856**	**768**	**724**	**302**	**430**
PCB 204	ng/kg	**1.52**	ND	ND	**1.66**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.72**
PCB 205	ng/kg	**22.1**	**21.9**	**23.2**	**26.3**	**23.7**	**22.8**	**21.7**	**21**	**25.1**	**23.4**	**18.7**	**19.8**	**5.87**	**9.42**
PCB 206	ng/kg	**342**	**327**	**370**	**375**	**333**	**342**	**312**	**281**	**318**	**310**	**329**	**276**	**160**	**246**
PCB 207	ng/kg	**76.1**	**67**	**63.5**	**78.8**	**68.4**	**69.6**	**61**	**55.5**	**61.2**	**59.6**	**63.9**	**52.9**	**39.8**	**60.5**
PCB 208	ng/kg	**235**	**187**	**209**	**224**	**205**	**194**	**193**	**163**	**173**	**174**	**185**	**154**	**166**	**240**
PCB 209	ng/kg	**218**	**198**	**200**	**224**	**200**	**173**	**183**	**151**	**177**	**162**	**180**	**148**	**151**	**230**
Dichlorobiphenyl	ng/kg	**599**	**698**	**664**	**832**	**787**	**996**	**761**	**706**	**1,000**	**839**	**779**	**752**	**609**	**414**
Heptachlorobiphenyl	ng/kg	**15,900**	**16,700**	**14,500**	**20,900**	**16,700**	**18,100**	**17,900**	**16,600**	**18,600**	**16,600**	**14,300**	**15,800**	**12,900**	**17,000**
Hexachlorobiphenyl	ng/kg	**41,900**	**43,900**	**38,200**	**38,000**	**46,800**	**48,500**	**38,800**	**32,700**	**54,600**	**46,900**	**42,400**	**32,100**	**35,300**	**34,300**
Monochlorobiphenyl	ng/kg	**17.3**	**15**	10.3 U	**12.2**	**11.8**	9.64 U	9.93 U	10.2 U	**12.1**	10.5 U	5.56 U	9.66 U	ND	ND
Nonachlorobiphenyl	ng/kg	**654**	**581**	**643**	**678**	**607**	**606**	**566**	**500**	**553**	**544**	**579**	**482**	**366**	**547**
Octachlorobiphenyl	ng/kg	**5,300**	**5,130**	**4,870**	**5,450**	**5,280**	**5,590**	**4,710**	**4,560**	**5,630**	**5,280**	**4,660**	**4,360**	**2,880**	**3,290**
Pentachlorobiphenyl	ng/kg	**27,200**	**28,300**	**26,700**	**29,600**	**29,100**	**30,500**	**25,100**	**23,600**	**37,300**	**33,300**	**30,800**	**24,000**	**28,300**	**22,900**
Tetrachlorobiphenyl	ng/kg	**13,000**	**14,800**	**12,800**	**16,400**	**14,600**	**16,300**	**12,700**	**11,900**	**22,100**	**20,000**	**19,100**	**13,000**	**14,400**	**13,600**
Trichlorobiphenyl	ng/kg	**5,690**	**6,510**	**6,270**	**7,750**	**6,840**	**7,740**	**6,010**	**5,970**	**8,960**	**8,020**	**7,140**	**6,350**	**5,990**	**4,780**
Total PCB (Lab)	ng/kg	**100,000**	**103,000**	**96,300**	**104,000**	**108,000**	**113,000**	**89,500**	**87,000**	**141,000**	**124,000**	**114,000**	**86,000**	**93,200**	**77,500**

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 1	ng/kg	ND	ND	ND	ND	ND	ND
PCB 2	ng/kg	ND	ND	ND	ND	ND	ND
PCB 3	ng/kg	ND	ND	ND	ND	ND	ND
PCB 4	ng/kg	**6.93**	**6.32**	**8.79**	**6.5**	**8.26**	**8.63**
PCB 5	ng/kg	ND	ND	ND	ND	ND	ND
PCB 6	ng/kg	**3.84**	**2.15**	**4.7**	**2.25**	**3.47**	**2.18**
PCB 7	ng/kg	ND	ND	ND	ND	ND	ND
PCB 8	ng/kg	**13.7**	**12.6**	**17.4**	**14.7**	**17.6**	**15.1**
PCB 9	ng/kg	ND	ND	ND	ND	ND	ND
PCB 10	ng/kg	ND	ND	ND	ND	ND	ND
PCB 11	ng/kg	**58.1**	**53.3**	**71.4**	**60.8**	**62.1**	**64.6**
PCB 12/13	ng/kg	**7.28**	**6.7**	**8.63**	**7.68**	**8.26**	**7.93**
PCB 14	ng/kg	ND	ND	ND	ND	ND	ND
PCB 15	ng/kg	**234**	**218**	**234**	**192**	**188**	**217**
PCB 16	ng/kg	**5.12**	**4.88**	**6.97**	**5.15**	**5.43**	**5.9**
PCB 17	ng/kg	**23.7**	**18.9**	**28.7**	**25.9**	**29.3**	**27.2**
PCB 18/30	ng/kg	**33**	**31.4**	**38.4**	**33.4**	**29.8**	**37.1**
PCB 19	ng/kg	**1.78**	ND	**1.86**	ND	**2.64**	**2.72**
PCB 20/28	ng/kg	**3,260**	**3,010**	**3,290**	**2,780**	**2,480**	**3,140**
PCB 21/33	ng/kg	**29.6**	**24.8**	**31.9**	**29.7**	**28.6**	**33**
PCB 22	ng/kg	**37.5**	**35.9**	**43.5**	**49.7**	**55.4**	**46.2**
PCB 23	ng/kg	ND	ND	ND	ND	ND	ND
PCB 24	ng/kg	ND	ND	ND	ND	ND	ND
PCB 25	ng/kg	**27.3**	**41.1**	**29.4**	**32.4**	**33.2**	**30.6**
PCB 26/29	ng/kg	**46**	**43**	**51.1**	**47.6**	**44**	**50.4**
PCB 27	ng/kg	**9.28**	**9.22**	**11**	**9.67**	**7.71**	**10.5**
PCB 31	ng/kg	**143**	**162**	**157**	**174**	**206**	**174**
PCB 32	ng/kg	**37.4**	**31.7**	**42.7**	**37.1**	**43.4**	**42.6**
PCB 34	ng/kg	**2.38**	**2.36**	**4.57**	**2.48**	**1.21**	**2.39**
PCB 35	ng/kg	**3.49**	**1.43**	**3.91**	**3.55**	**3.68**	**3.72**
PCB 36	ng/kg	**3.06**	**2.74**	**3.29**	**3.78**	**4.66**	**4.44**
PCB 37	ng/kg	**393**	**334**	**381**	**285**	**245**	**316**
PCB 38	ng/kg	ND	**1.65**	ND	ND	ND	ND
PCB 39	ng/kg	**5.96**	**5.49**	**6.33**	**5.88**	**5.92**	**5.42**
PCB 40/41/71	ng/kg	**265**	**254**	**291**	**264**	**224**	**270**
PCB 42	ng/kg	**58**	**46.7**	**57.6**	**68.8**	**87.1**	**69.4**

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 43	ng/kg	**8.54**	**11.5**	**12.9**	8.88 R	**8.65**	**12.3**
PCB 44/47/65	ng/kg	**3,930**	**2,980**	**3,610**	**3,010**	**2,750**	**4,170**
PCB 45/51	ng/kg	**10.4**	**8.72**	**11.6**	**12.5**	**13.9**	**13.1**
PCB 46	ng/kg	ND	ND	ND	ND	**2.43**	**1.71**
PCB 48	ng/kg	**23.8**	**19.8**	**25.4**	**24.4**	**25.8**	**25.9**
PCB 49/69	ng/kg	**149**	**128**	**150**	**176**	**232**	**186**
PCB 50/53	ng/kg	**14.1**	**12.9**	**15.3**	**14.8**	**15.1**	**16.4**
PCB 52	ng/kg	**153**	**138**	**164**	**154**	**167**	**174**
PCB 54	ng/kg	ND	ND	ND	ND	ND	ND
PCB 55	ng/kg	ND	ND	ND	ND	ND	ND
PCB 56	ng/kg	**110**	**85**	**109**	**126**	**142**	**124**
PCB 57	ng/kg	**5.93**	**7.54**	**8.04**	**6.16**	**5.48**	**5.96**
PCB 58	ng/kg	0 R	2.12 R	0 R	3.79 R	0 R	3.78 R
PCB 59/62/75	ng/kg	**274**	**209**	**258**	**216**	**192**	**280**
PCB 60	ng/kg	**750**	**597**	**757**	**587**	**493**	**612**
PCB 61/70/74/76	ng/kg	**3,050**	**2,410**	**2,930**	**2,370**	**1,970**	**2,720**
PCB 63	ng/kg	**62.7**	**61.3**	**72.8**	**65.4**	**68.6**	**60.6**
PCB 64	ng/kg	**105**	**103**	**105**	**122**	**155**	**123**
PCB 66	ng/kg	**4,240**	**3,610**	**4,010**	**3,350**	**2,760**	**4,000**
PCB 67	ng/kg	ND	**12.9**	**13**	**12.7**	0 R	**14**
PCB 68	ng/kg	**42.4**	**45.8**	**46.2**	**39.6**	**37.4**	**40**
PCB 72	ng/kg	**25.5**	**26.7**	**29**	**24.1**	**21**	**24.7**
PCB 73	ng/kg	**5**	**5.28**	**6.65**	**5.36**	**4.08**	**5.04**
PCB 77	ng/kg	**296**	**246**	**291**	**216**	**180**	**243**
PCB 78	ng/kg	ND	ND	ND	ND	ND	ND
PCB 79	ng/kg	**20.8**	**16.7**	**19.7**	**17.6**	**17.8**	**20.6**
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	**17.9**	**14.5**	**16.9**	**13.1**	3.56 R	**14.3**
PCB 82	ng/kg	**15.5**	**11.6**	**15.3**	**16.6**	**21.2**	**19**
PCB 83/99	ng/kg	**7,360**	**5,730**	**6,520**	**5,530**	**5,130**	**6,700**
PCB 84	ng/kg	**21.3**	**15.9**	**20.8**	**21.1**	**26.1**	**23.1**
PCB 85/116/117	ng/kg	**1,220**	**911**	**1,170**	**910**	**852**	**1,100**
PCB 86/87/97/109/119/125	ng/kg	**707**	**551**	**679**	**590**	**588**	**700**
PCB 88/91	ng/kg	**64.1**	**55.9**	**63.6**	**64.9**	**84.6**	**65.2**
PCB 89	ng/kg	ND	ND	ND	ND	ND	ND
PCB 90/101/113	ng/kg	**498**	**458**	**564**	**522**	**666**	**541**

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
Sample Number:		GC-TIMIDDLE-BC-WB-1	GC-TIMIDDLE-BC-WB-2	GC-TIMIDDLE-BC-WB-3	GC-TI-OUTER-BC-WB-1	GC-TI-OUTER-BC-WB-2	GC-TI-OUTER-BC-WB-3
Sample Date:		8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
Sample Species:		Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
Sample Type:		Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
Sample Weight:		155.14	156.86	151.17	149.31	305.19	154.35
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 92	ng/kg	**122**	**117**	**129**	**119**	**108**	**123**
PCB 93/95/98/100/102	ng/kg	**359**	**290**	**341**	**306**	**282**	**349**
PCB 94	ng/kg	**9.76**	**11.1**	**12.3**	**9.7**	**7.24**	**9.16**
PCB 96	ng/kg	ND	ND	ND	ND	ND	ND
PCB 103	ng/kg	**4.91**	**4.11**	**4.69**	**5.55**	**7.68**	**5.68**
PCB 104	ng/kg	ND	ND	ND	ND	ND	ND
PCB 105	ng/kg	**2,400**	**1,930**	**2,310**	**1,780**	**1,470**	**2,010**
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	**434**	**383**	**430**	**381**	**329**	**428**
PCB 108/124	ng/kg	**28.9**	**22.6**	**26.8**	**25.2**	**28.2**	**25.9**
PCB 110/115	ng/kg	**539**	**437**	**514**	**534**	**624**	**557**
PCB 111	ng/kg	**39.9**	**36.8**	**40.5**	**36.3**	**21.7**	**40.8**
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND
PCB 114	ng/kg	**175**	**138**	**167**	**126**	**101**	**149**
PCB 118	ng/kg	**7,840**	**6,200**	**7,230**	**5,820**	**4,610**	**6,620**
PCB 120	ng/kg	**125**	**101**	**118**	**102**	**81.1**	**117**
PCB 121	ng/kg	**11.2**	**8.73**	**10.6**	**9.07**	**7.68**	**10.8**
PCB 122	ng/kg	**7.99**	**2.78**	**8.8**	**8.55**	**10.6**	**9.36**
PCB 123	ng/kg	**167**	**131**	**166**	**126**	**97.2**	**138**
PCB 126	ng/kg	**21**	**17.8**	**21.5**	**15.8**	**12.4**	8.98 R
PCB 127	ng/kg	**14.9**	**10.7**	**14.3**	**10.6**	**10.2**	**15.2**
PCB 128/166	ng/kg	**1,480**	**1,070**	**1,400**	**1,130**	**1,070**	**1,290**
PCB 129/138/160/163	ng/kg	**9,800**	**7,900**	**9,320**	**8,280**	**7,620**	**9,050**
PCB 130	ng/kg	**138**	**125**	**168**	**141**	**149**	**139**
PCB 131	ng/kg	0 R	**2.79**	**3.24**	**3.26**	**4.25**	**3.29**
PCB 132	ng/kg	**35.7**	**25.3**	**31.4**	**44.5**	**65.5**	**45.9**
PCB 133	ng/kg	**440**	**403**	**456**	**385**	**236**	**458**
PCB 134/143	ng/kg	**5.74**	ND	**5.59**	**6.1**	**11.9**	**6.98**
PCB 135/151/154	ng/kg	**725**	**527**	**662**	**603**	**576**	**636**
PCB 136	ng/kg	**9.31**	**6.41**	**8.55**	**9.7**	**14.3**	**10.2**
PCB 137	ng/kg	**457**	**331**	**415**	**344**	**303**	**399**
PCB 139/140	ng/kg	**204**	**140**	**183**	**154**	**139**	**181**
PCB 141	ng/kg	**39.4**	**30.2**	**41.7**	**32.4**	**41**	**38.3**
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND
PCB 144	ng/kg	**18.5**	**16.5**	**19**	**18.2**	**18.8**	**17.7**
PCB 145	ng/kg	ND	ND	ND	ND	ND	ND

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 146	ng/kg	**2,610**	**2,160**	**2,550**	**2,160**	**1,890**	**2,520**
PCB 147/149	ng/kg	**557**	**490**	**588**	**580**	**688**	**560**
PCB 148	ng/kg	**59.6**	**44.3**	**55.8**	**46.5**	**40.7**	**59.5**
PCB 150	ng/kg	ND	ND	ND	ND	**2.01**	ND
PCB 152	ng/kg	ND	ND	ND	ND	ND	ND
PCB 153/168	ng/kg	**15,700**	**12,000**	**14,300**	**11,500**	**9,990**	**13,200**
PCB 155	ng/kg	**30**	**22.3**	**28**	**22.4**	**21.6**	**29.8**
PCB 156/157	ng/kg	**1,140**	**872**	**1,080**	**851**	**725**	**959**
PCB 158	ng/kg	**868**	**668**	**829**	**669**	**528**	**732**
PCB 159	ng/kg	**2.39**	**2.36**	**2.45**	**2.48**	**3.79**	**2.4**
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	**58.5**	**49.7**	**58.4**	**52.7**	**37.7**	**56.5**
PCB 164	ng/kg	**31.4**	9.53 R	9.89 R	**29.4**	**39.3**	**32**
PCB 165	ng/kg	**29.5**	**26.9**	**29.8**	**25.3**	**16.1**	**31.4**
PCB 167	ng/kg	**562**	**449**	**539**	**425**	**354**	**483**
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	**914**	**676**	**849**	**665**	**663**	**759**
PCB 171/173	ng/kg	**494**	**349**	**462**	**369**	**335**	**404**
PCB 172	ng/kg	**256**	**213**	**244**	**207**	**164**	**249**
PCB 174	ng/kg	**30.1**	**21.7**	**28.6**	**24.4**	**38**	**30.1**
PCB 175	ng/kg	**82.6**	**69.2**	**83.3**	**64.3**	**56.7**	**74.9**
PCB 176	ng/kg	**11.1**	**7.41**	**9.38**	**11.3**	**14**	**9.99**
PCB 177	ng/kg	**298**	**243**	**378**	**293**	**347**	**312**
PCB 178	ng/kg	**782**	**695**	**798**	**614**	**426**	**778**
PCB 179	ng/kg	**20**	**12.5**	**16.2**	**20.2**	**33.8**	**21.9**
PCB 180/193	ng/kg	**4,750**	**3,660**	**4,740**	**3,650**	**3,460**	**4,040**
PCB 181	ng/kg	**16.6**	**11.7**	**14.4**	**12.2**	**12.3**	**14.9**
PCB 182	ng/kg	**21.9**	**14.9**	**18.9**	**16.2**	**17.6**	**20.9**
PCB 183/185	ng/kg	**2,020**	**1,460**	**1,920**	**1,520**	**1,410**	**1,570**
PCB 184	ng/kg	**13.9**	**10.9**	**12.9**	**10.9**	**10.5**	**13.1**
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	**5,160**	**4,160**	**5,060**	**4,370**	**4,040**	**4,660**
PCB 188	ng/kg	**30.6**	**22.1**	**27**	**22.7**	**22.4**	**31.1**
PCB 189	ng/kg	**78.7**	**60.4**	**73.2**	**61**	**53.4**	**65.6**
PCB 190	ng/kg	**270**	**203**	**250**	**208**	**189**	**228**
PCB 191	ng/kg	**75.7**	**59.7**	**74.6**	**60.8**	**50.2**	**63.7**

TABLE I-87A
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
	Sample Number:	**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
	Sample Date:	**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
	Sample Species:	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
	Sample Type:	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
	Sample Weight:	**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 192	ng/kg	ND	ND	ND	ND	ND	ND
PCB 194	ng/kg	**556**	**386**	**467**	**387**	**418**	**436**
PCB 195	ng/kg	**99.1**	**67.2**	**82.6**	**68.9**	**77.4**	**81.6**
PCB 196	ng/kg	**354**	**242**	**304**	**248**	**255**	**293**
PCB 197/200	ng/kg	**70.5**	**54.1**	**63.7**	**54.8**	**54.2**	**63.5**
PCB 198/199	ng/kg	**905**	**660**	**798**	**663**	**667**	**796**
PCB 201	ng/kg	**169**	**126**	**162**	**131**	**132**	**147**
PCB 202	ng/kg	**482**	**400**	**490**	**353**	**343**	**478**
PCB 203	ng/kg	**455**	**298**	**387**	**331**	**368**	**347**
PCB 204	ng/kg	ND	ND	ND	ND	ND	ND
PCB 205	ng/kg	**10.4**	**7.27**	**9.01**	**7.65**	**8.03**	**7.98**
PCB 206	ng/kg	**285**	**180**	**226**	**186**	**221**	**243**
PCB 207	ng/kg	**51**	**31.7**	**38.3**	**31.8**	**36.6**	**50.1**
PCB 208	ng/kg	**193**	**130**	**160**	**124**	**126**	**199**
PCB 209	ng/kg	**194**	**129**	**152**	**122**	**135**	**182**
Dichlorobiphenyl	ng/kg	**324**	**299**	**345**	**284**	**287**	**316**
Heptachlorobiphenyl	ng/kg	**12,200**	**11,900**	**15,100**	**12,200**	**11,300**	**13,300**
Hexachlorobiphenyl	ng/kg	**29,000**	**20,500**	**27,200**	**21,400**	**17,300**	**22,900**
Monochlorobiphenyl	ng/kg	ND	ND	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	**530**	**342**	**425**	**342**	**383**	**492**
Octachlorobiphenyl	ng/kg	**3,100**	**2,240**	**2,760**	**2,240**	**2,320**	**2,650**
Pentachlorobiphenyl	ng/kg	**17,700**	**14,200**	**16,300**	**17,100**	**12,000**	**15,800**
Tetrachlorobiphenyl	ng/kg	**10,800**	**11,000**	**10,500**	**10,900**	**9,560**	**13,200**
Trichlorobiphenyl	ng/kg	**4,060**	**3,760**	**4,130**	**3,520**	**3,220**	**3,930**
Total PCB (Lab)	ng/kg	**64,500**	**64,400**	**63,000**	**68,000**	**56,500**	**68,400**

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**228**	**218**	214 U	**221**	**215**	200 U	206 U	213 U	**231**	218 U	115 U	201 U	ND	ND
PCB 2	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 3	ng/kg	**265**	**253**	252 U	246 U	241 U	236 U	243 U	250 U	263 U	257 U	136 U	236 U	ND	ND
PCB 4	ng/kg	**789**	**757**	**758**	**777**	**747**	**733**	**769**	**797**	**831**	**781**	**446**	**722**	**217**	**222**
PCB 5	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 6	ng/kg	**374**	**360**	**364**	**364**	**353**	**353**	**394**	**402**	**409**	**374**	**204**	**340**	**154**	**156**
PCB 7	ng/kg	**140**	126 U	132 U	129 U	126 U	123 U	127 U	131 U	138 U	134 U	71 U	123 U	ND	ND
PCB 8	ng/kg	**1,500**	**1,450**	**1,460**	**1,450**	**1,420**	**1,400**	**1,520**	**1,530**	**1,690**	**1,500**	**839**	**1,390**	**395**	**363**
PCB 9	ng/kg	**106**	96 U	101 U	98.4 U	96.4 U	94.2 U	97 U	100 U	105 U	103 U	54.3 U	94.3 U	ND	ND
PCB 10	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 11	ng/kg	**2,040**	**2,060**	**2,040**	**2,080**	**2,080**	**2,020**	**2,130**	**2,090**	**2,270**	**2,180**	**1,290**	**1,990**	**1,770**	**1,700**
PCB 12/13	ng/kg	**490**	**491**	**506**	**495**	**495**	**516**	**554**	**566**	**576**	**538**	**319**	**495**	**255**	**204**
PCB 14	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 15	ng/kg	**12,700**	**12,900**	**13,700**	**14,200**	**13,500**	**14,600**	**13,600**	**13,600**	**15,400**	**14,400**	**9,090**	**13,200**	**6,230**	**5,780**
PCB 16	ng/kg	**402**	**387**	**393**	**401**	**383**	**379**	**398**	**410**	**446**	**401**	**233**	**378**	**192**	**198**
PCB 17	ng/kg	**976**	**957**	**969**	**981**	**946**	**959**	**1,080**	**1,080**	**1,120**	**1,010**	**593**	**940**	**703**	**640**
PCB 18/30	ng/kg	**2,570**	**2,510**	**2,580**	**2,600**	**2,500**	**2,500**	**2,710**	**2,700**	**2,860**	**2,660**	**1,490**	**2,500**	**1,610**	**1,570**
PCB 19	ng/kg	**161**	**155**	151 U	**166**	**156**	**153**	**161**	**174**	**175**	154 R	**96.4**	141 U	**14.1**	**14.4**
PCB 20/28	ng/kg	**159,000**	**160,000**	**168,000**	**172,000**	**163,000**	**167,000**	**162,000**	**166,000**	**187,000**	**177,000**	**109,000**	**158,000**	**83,500**	**80,600**
PCB 21/33	ng/kg	**2,230**	**2,190**	**2,300**	**2,250**	**2,210**	2,060 R	**2,320**	**2,350**	**2,620**	**2,360**	**1,370**	**2,130**	**1,010**	**1,020**
PCB 22	ng/kg	**1,650**	**1,660**	**1,680**	**1,660**	**1,630**	**1,660**	**1,880**	**1,810**	**1,950**	**1,740**	**1,050**	**1,710**	**1,140**	**892**
PCB 23	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 24	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 25	ng/kg	**867**	**853**	**876**	**869**	**842**	**862**	**967**	**957**	**958**	**909**	**531**	**879**	**856**	**785**
PCB 26/29	ng/kg	**2,310**	**2,260**	**2,330**	**2,330**	**2,250**	**2,250**	**2,460**	**2,440**	**2,510**	**2,420**	**1,350**	**2,280**	**2,000**	**1,970**
PCB 27	ng/kg	**577**	**570**	**586**	**583**	**566**	**564**	**618**	**615**	**633**	**605**	**339**	**563**	**479**	**475**
PCB 31	ng/kg	**5,440**	**5,290**	**5,430**	**5,410**	**5,240**	**5,370**	**5,940**	**5,730**	**6,060**	**5,650**	**3,260**	**5,550**	**4,330**	**3,810**
PCB 32	ng/kg	**1,920**	**1,910**	**1,970**	**1,930**	**1,880**	**1,890**	**2,140**	**2,100**	**2,160**	**2,030**	**1,170**	**1,890**	**1,240**	**1,130**
PCB 34	ng/kg	211 U	**218**	215 U	211 U	**216**	**212**	**233**	**230**	**243**	**235**	**132**	**210**	**169**	**159**
PCB 35	ng/kg	0 R	0 R	0 R	0 R	0 R	9.73 R	19.6 R	10.7 R	14.4 R	9.99 R	0 R	10.3 R	**115**	**106**
PCB 36	ng/kg	ND	**17.8**	ND	ND	**12.4**	**12.2**	**18**	ND	**29.7**	**20.2**	**22**	**12.4**	**27.8**	**9.83**
PCB 37	ng/kg	**29,400**	**29,500**	**31,700**	**31,800**	**30,200**	**31,300**	**30,300**	**30,900**	**34,900**	**33,100**	**20,500**	**29,300**	**11,100**	**11,300**
PCB 38	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**19.2**	ND
PCB 39	ng/kg	**157**	**158**	**156**	**161**	**155**	**154**	**168**	**158**	**177**	**171**	**105**	**155**	**151**	**146**
PCB 40/41/71	ng/kg	**15,300**	**15,200**	**15,800**	**15,300**	**15,100**	**14,900**	**16,000**	**15,900**	**16,600**	**16,300**	**9,120**	**14,900**	**11,700**	**11,700**
PCB 42	ng/kg	**1,110**	**1,080**	**1,100**	**1,110**	**1,070**	**1,110**	**1,280**	**1,200**	**1,210**	**1,160**	**710**	**1,110**	**1,340**	**1,100**

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	**744**	**737**	**772**	**764**	**735**	**729**	**794**	**794**	**805**	**790**	**446**	705 R	**600**	**619**
PCB 44/47/65	ng/kg	**152,000**	**151,000**	**153,000**	**159,000**	**152,000**	**153,000**	**148,000**	**151,000**	**167,000**	**159,000**	**97,300**	**143,000**	**84,300**	**87,800**
PCB 45/51	ng/kg	**302**	**297**	**291**	**323**	**296**	**305**	**367**	**338**	**337**	**319**	**194**	273 R	**324**	**308**
PCB 46	ng/kg	ND	ND	ND	ND	ND	ND	**10.9**	**11.9**	**9.23**	ND	ND	ND	**17.5**	**8.33**
PCB 48	ng/kg	**1,020**	**1,000**	**1,040**	**1,040**	**1,000**	**1,010**	**1,120**	**1,090**	**1,140**	**1,070**	**610**	**997**	**876**	**869**
PCB 49/69	ng/kg	**4,270**	**4,060**	**4,170**	**4,170**	**4,010**	**4,080**	**4,650**	**4,330**	**4,470**	**4,310**	**2,480**	**4,180**	**4,320**	**3,770**
PCB 50/53	ng/kg	**626**	**611**	**640**	**655**	**613**	**630**	**697**	**679**	**697**	**669**	**376**	**626**	**619**	**598**
PCB 52	ng/kg	**8,250**	**8,030**	**8,340**	**8,320**	**8,020**	**8,030**	**8,830**	**8,520**	**8,850**	**8,610**	**4,820**	**8,140**	**6,850**	**6,470**
PCB 54	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 55	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 56	ng/kg	**3,810**	**3,760**	**3,870**	**3,810**	**3,710**	**3,700**	**4,130**	**4,010**	**4,150**	**3,980**	**2,270**	**3,760**	**3,350**	**2,990**
PCB 57	ng/kg	**506**	**494**	**517**	**506**	**495**	**484**	**517**	**523**	**540**	**537**	**293**	**485**	**388**	**397**
PCB 58	ng/kg	**341**	**336**	**339**	**331**	**325**	**317**	**347**	**337**	**391**	**354**	**203**	318 R	0 R	0 R
PCB 59/62/75	ng/kg	**9,370**	**9,170**	**9,280**	**9,720**	**9,230**	**9,240**	**8,940**	**9,150**	**10,200**	**9,730**	**6,090**	**8,780**	**6,110**	**6,200**
PCB 60	ng/kg	**33,400**	**34,100**	**36,500**	**37,000**	**34,600**	**35,900**	**33,900**	**34,400**	**41,200**	**37,700**	**24,100**	**33,100**	**21,400**	**20,200**
PCB 61/70/74/76	ng/kg	**143,000**	**144,000**	**149,000**	**151,000**	**144,000**	**146,000**	**143,000**	**145,000**	**163,000**	**156,000**	**93,700**	**139,000**	**87,600**	**88,700**
PCB 63	ng/kg	**2,230**	**2,170**	**2,190**	**2,210**	**2,150**	**2,150**	**2,310**	**2,230**	**2,380**	**2,390**	**1,410**	**2,170**	**1,450**	**1,350**
PCB 64	ng/kg	**2,900**	**2,790**	**2,870**	**2,880**	**2,750**	**2,830**	**3,200**	**3,020**	**3,090**	**2,980**	**1,770**	**2,940**	**2,820**	**2,390**
PCB 66	ng/kg	**209,000**	**211,000**	**219,000**	**223,000**	**212,000**	**215,000**	**211,000**	**214,000**	**245,000**	**233,000**	**144,000**	**204,000**	**124,000**	**122,000**
PCB 67	ng/kg	**679**	**663**	**682**	**680**	644 U	**666**	**708**	**699**	**724**	**710**	**404**	630 U	ND	ND
PCB 68	ng/kg	**1,280**	**1,260**	**1,250**	**1,270**	**1,240**	**1,240**	**1,300**	**1,250**	**1,390**	**1,360**	**822**	**1,220**	**1,040**	**1,030**
PCB 72	ng/kg	**1,090**	**1,070**	**1,090**	**1,080**	**1,050**	**1,050**	**1,130**	**1,090**	**1,160**	**1,160**	**661**	**1,050**	**1,070**	**1,060**
PCB 73	ng/kg	**436**	**446**	**443**	**434**	**430**	**415**	**465**	**444**	**520**	**466**	**271**	**428**	**223**	**209**
PCB 77	ng/kg	**18,900**	**19,000**	**19,900**	**20,000**	**19,200**	**19,500**	17,500 R	18,100 R	19,000 R	18,500 R	9,800 R	**18,600**	**8,690**	**8,580**
PCB 78	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 79	ng/kg	**511**	**511**	**514**	**530**	**505**	**514**	**520**	**509**	**572**	**545**	**352**	**477**	**526**	**526**
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	**869**	**873**	**928**	**919**	**878**	**910**	**886**	**896**	**1,020**	**966**	**594**	**848**	**539**	**556**
PCB 82	ng/kg	**431**	**419**	**433**	**439**	**427**	**431**	**446**	**445**	**472**	**452**	**266**	**410**	**397**	**392**
PCB 83/99	ng/kg	**316,000**	**312,000**	**319,000**	**324,000**	**317,000**	**315,000**	**309,000**	**313,000**	**354,000**	**333,000**	**204,000**	**296,000**	**171,000**	**178,000**
PCB 84	ng/kg	**531**	**529**	**557**	**565**	**519**	**528**	**607**	**607**	**586**	**591**	**370**	**515**	**550**	**595**
PCB 85/116/117	ng/kg	**47,600**	**47,100**	**48,500**	**49,500**	**47,500**	**48,100**	**47,100**	**47,400**	**53,600**	**50,600**	**31,500**	**44,800**	**27,700**	**28,300**
PCB 86/87/97/109/119/125	ng/kg	**23,900**	**23,500**	**24,000**	**24,500**	**23,700**	**23,600**	**23,500**	**23,800**	**26,300**	**25,100**	**15,500**	**22,400**	**17,000**	**17,700**
PCB 88/91	ng/kg	**1,220**	**1,190**	**1,200**	**1,250**	**1,150**	**1,220**	**1,500**	**1,270**	**1,260**	**1,320**	**844**	**1,260**	**1,610**	**1,380**
PCB 89	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 90/101/113	ng/kg	**17,100**	**16,400**	**16,700**	**16,800**	**16,100**	**16,300**	**17,900**	**16,900**	**17,800**	**17,600**	**10,200**	**16,600**	**13,800**	**12,600**

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 92	ng/kg	**7,290**	**7,090**	**7,360**	**7,270**	**7,040**	**6,970**	**7,430**	**7,410**	**7,690**	**7,590**	**4,190**	**7,070**	**5,640**	**5,720**
PCB 93/95/98/100/102	ng/kg	**14,300**	**14,200**	**14,600**	**15,200**	**14,600**	**14,800**	**14,800**	**14,700**	**16,200**	**15,600**	**9,830**	**13,700**	**10,000**	**10,600**
PCB 94	ng/kg	**539**	**559**	**556**	**547**	**546**	**534**	**595**	**559**	**608**	**605**	**353**	**530**	**459**	**444**
PCB 96	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 103	ng/kg	ND	ND	ND	ND	ND	**9.54**	**39.2**	ND	ND	ND	**9.66**	**16.8**	**126**	**107**
PCB 104	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 105	ng/kg	**117,000**	**116,000**	**120,000**	**121,000**	**117,000**	**118,000**	**116,000**	**117,000**	**131,000**	**125,000**	**75,800**	**111,000**	**69,200**	**69,400**
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	**12,600**	**12,500**	**12,700**	**12,800**	**12,400**	**12,500**	**12,900**	**12,600**	**14,100**	**13,600**	**8,170**	**12,200**	**13,500**	**14,000**
PCB 108/124	ng/kg	**1,050**	**1,030**	**1,050**	**1,050**	**1,010**	**1,010**	**1,090**	**1,070**	**1,120**	**1,110**	**620**	**1,030**	**869**	**855**
PCB 110/115	ng/kg	**18,000**	**17,400**	**18,100**	**18,100**	**17,400**	**17,500**	**18,600**	**18,100**	**19,300**	**18,800**	**11,000**	**17,300**	**15,100**	**14,400**
PCB 111	ng/kg	**1,220**	**1,180**	**1,220**	**1,220**	**1,190**	**1,180**	**1,190**	**1,210**	**1,300**	**1,260**	**729**	**1,150**	**1,870**	**2,060**
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 114	ng/kg	**8,840**	**8,710**	**9,070**	**9,120**	**8,790**	**8,860**	**8,770**	**8,860**	**9,830**	**9,380**	**5,620**	**8,390**	**5,160**	**5,310**
PCB 118	ng/kg	**385,000**	**381,000**	**392,000**	**395,000**	**384,000**	**386,000**	**381,000**	**384,000**	**429,000**	**410,000**	**248,000**	**365,000**	**227,000**	**228,000**
PCB 120	ng/kg	**3,410**	**3,340**	**3,400**	**3,440**	**3,390**	**3,370**	**3,330**	**3,360**	**3,720**	**3,560**	**2,210**	**3,190**	**3,840**	**4,130**
PCB 121	ng/kg	**392**	**383**	**388**	**399**	**383**	**382**	**378**	**385**	**418**	**408**	**259**	**368**	**293**	**316**
PCB 122	ng/kg	256 U	250 U	262 U	256 U	251 U	245 U	253 U	261 U	274 U	267 U	141 U	246 U	**213**	**188**
PCB 123	ng/kg	**7,820**	**7,760**	**8,060**	**8,060**	**7,870**	**7,870**	**7,720**	**7,850**	**8,750**	**8,320**	**5,100**	**7,410**	**5,000**	**5,230**
PCB 126	ng/kg	**1,120**	**1,120**	**1,170**	**1,160**	**1,130**	**1,150**	**1,120**	**1,130**	**1,250**	**1,220**	**736**	**1,090**	**695**	**716**
PCB 127	ng/kg	486 R	475 R	497 R	486 R	476 R	465 R	479 R	494 R	520 R	507 R	268 R	494 R	**330**	**367**
PCB 128/166	ng/kg	**47,300**	**46,800**	**48,100**	**48,600**	**47,500**	**48,200**	**46,800**	**47,200**	**52,900**	**49,500**	**31,300**	**44,500**	**32,100**	**34,200**
PCB 129/138/160/163	ng/kg	**422,000**	**416,000**	**426,000**	**432,000**	**421,000**	**421,000**	**417,000**	**422,000**	**470,000**	**441,000**	**266,000**	**397,000**	**239,000**	**251,000**
PCB 130	ng/kg	**5,920**	**5,750**	**5,810**	**5,820**	**5,670**	**5,620**	**5,940**	**5,840**	**6,250**	**6,210**	**3,510**	**5,570**	**3,440**	**3,320**
PCB 131	ng/kg	**8.8**	**13.8**	**9.52**	**12.6**	**10**	**16.6**	**22.5**	**10.2**	**14.8**	**21**	**26.3**	**11.9**	**32.9**	**12.2**
PCB 132	ng/kg	**687**	**656**	**682**	**687**	**654**	**665**	**703**	**695**	**719**	**705**	**404**	**657**	**754**	**711**
PCB 133	ng/kg	**13,800**	**13,300**	**13,700**	**13,900**	**13,600**	**13,500**	**13,400**	**13,600**	**14,900**	**14,300**	**8,510**	**12,900**	**20,000**	**21,900**
PCB 134/143	ng/kg	ND	ND	ND	ND	ND	ND	**30.2**	ND	ND	ND	ND	ND	**46.1**	ND
PCB 135/151/154	ng/kg	**31,200**	**31,100**	**32,100**	**32,200**	**32,200**	**32,100**	**31,300**	**32,000**	**35,800**	**33,600**	**20,500**	**30,000**	**16,000**	**17,300**
PCB 136	ng/kg	**182**	**177**	**184**	**202**	**174**	**183**	**217**	**203**	**193**	**199**	**126**	**171**	**156**	**173**
PCB 137	ng/kg	**22,100**	**21,400**	**22,200**	**22,400**	**21,900**	**22,200**	**21,500**	**21,900**	**24,000**	**22,900**	**13,700**	**20,600**	**11,000**	**11,900**
PCB 139/140	ng/kg	**8,670**	**8,530**	**8,790**	**8,880**	**8,740**	**8,780**	**8,500**	**8,650**	**9,720**	**9,090**	**5,570**	**8,160**	**4,160**	**4,380**
PCB 141	ng/kg	**2,230**	**2,100**	**2,180**	**2,170**	**2,050**	**2,110**	**2,260**	**2,190**	**2,320**	**2,270**	**1,300**	**2,120**	**1,140**	**1,220**
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 144	ng/kg	**631**	**613**	**631**	**636**	**604**	**618**	**680**	**636**	**666**	**675**	**394**	**616**	**597**	**574**
PCB 145	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 146	ng/kg	90,000	88,200	89,700	90,200	88,100	88,600	88,200	88,800	98,000	93,900	56,600	83,700	72,000	75,600
PCB 147/149	ng/kg	19,700	19,000	19,300	19,500	18,600	18,900	21,000	19,700	20,500	20,800	11,900	19,000	13,600	12,200
PCB 148	ng/kg	2,290	2,250	2,300	2,340	2,320	2,310	2,240	2,290	2,530	2,420	1,500	2,130	1,390	1,520
PCB 150	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 152	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 153/168	ng/kg	779,000	771,000	790,000	787,000	788,000	784,000	767,000	777,000	873,000	825,000	495,000	729,000	399,000	418,000
PCB 155	ng/kg	941	964	975	1,060	980	980	942	959	1,070	1,030	670	898	709	682
PCB 156/157	ng/kg	51,900	51,000	52,800	52,700	51,800	52,100	51,200	51,700	57,000	54,800	32,700	48,800	32,600	34,200
PCB 158	ng/kg	51,400	50,700	52,700	52,700	51,700	52,400	50,700	51,600	57,400	54,200	32,300	48,500	24,700	25,900
PCB 159	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	144	160
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	1,930	1,900	1,960	1,960	1,900	1,900	1,920	1,940	2,110	2,030	1,180	1,830	2,230	2,400
PCB 164	ng/kg	1,170	1,100	1,120	1,110	1,080	1,070	1,170	1,140	1,180	1,190	661	1,040 U	667	644
PCB 165	ng/kg	805	771	792	803	787	776	783	791	856	835	495	752	1,300	1,420
PCB 167	ng/kg	25,100	24,800	25,600	25,500	25,200	25,100	24,900	25,100	27,800	26,600	15,900	23,700	17,000	17,800
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	76,500	75,300	78,900	78,400	76,900	76,200	75,800	77,700	84,300	79,700	46,100	72,200	19,300	22,300
PCB 171/173	ng/kg	27,900	27,800	28,900	28,900	28,300	28,400	27,800	28,200	31,600	29,500	17,800	26,400	9,730	10,400
PCB 172	ng/kg	15,100	14,600	15,300	15,300	14,800	14,900	14,800	15,200	16,400	15,700	8,910	14,100	8,890	9,830
PCB 174	ng/kg	1,050	981	1,020	1,020	973	967	1,080	1,030	1,070	1,060	599	1,010	469	491
PCB 175	ng/kg	3,960	3,910	4,030	4,060	3,950	4,030	3,940	4,020	4,440	4,230	2,580	3,770	2,250	2,350
PCB 176	ng/kg	229	222	228	233	207 U	219	256	232	236	245	140	218	159	137
PCB 177	ng/kg	23,100	22,500	23,100	22,900	22,400	22,100	23,200	23,200	24,600	24,200	13,300	21,900	5,320	4,790
PCB 178	ng/kg	25,700	25,000	25,700	26,100	25,600	25,700	25,400	25,600	28,900	27,400	16,900	24,100	31,000	33,100
PCB 179	ng/kg	335	315	320	327	307	321	350	336	335	339	198	321	269	224
PCB 180/193	ng/kg	279,000	277,000	286,000	285,000	281,000	280,000	276,000	282,000	309,000	293,000	172,000	263,000	117,000	127,000
PCB 181	ng/kg	1,040	1,020	1,060	1,070	1,050	1,050	1,010	1,040	1,150	1,080	637	963	315	349
PCB 182	ng/kg	757	721	739	757	731	740	714	730	784	755	460	676	381	431
PCB 183/185	ng/kg	98,200	97,600	100,000	100,000	98,900	99,400	97,100	98,800	111,000	104,000	62,700	92,800	42,200	44,200
PCB 184	ng/kg	324	324	324	340	318	323	319	315	357	340	226	304	282	277
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	187,000	185,000	187,000	188,000	183,000	185,000	185,000	186,000	203,000	194,000	114,000	176,000	118,000	127,000
PCB 188	ng/kg	1,170	1,180	1,210	1,220	1,210	1,180	1,170	1,190	1,330	1,260	791	1,110	612	654
PCB 189	ng/kg	4,100	4,060	4,200	4,170	4,110	4,080	4,050	4,130	4,560	4,350	2,550	3,880	2,290	2,440
PCB 190	ng/kg	22,100	21,800	22,700	22,600	22,300	22,200	21,800	22,400	24,300	23,200	13,400	20,900	6,770	7,420
PCB 191	ng/kg	4,870	4,820	5,020	5,020	4,950	4,970	4,830	4,950	5,450	5,160	3,030	4,610	2,230	2,440

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 192	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 194	ng/kg	**33,000**	**32,300**	**33,600**	**33,400**	**33,000**	**32,400**	**32,200**	**33,000**	**35,700**	**34,200**	**20,000**	**30,800**	**11,500**	**12,800**
PCB 195	ng/kg	**10,500**	**10,300**	**10,900**	**10,800**	**10,600**	**10,400**	**10,400**	**10,700**	**11,500**	**10,900**	**6,260**	**9,940**	**1,540**	**1,860**
PCB 196	ng/kg	**22,100**	**21,600**	**22,400**	**22,600**	**22,000**	**22,000**	**21,500**	**22,100**	**23,800**	**22,800**	**13,400**	**20,600**	**6,930**	**7,800**
PCB 197/200	ng/kg	**2,770**	**2,730**	**2,770**	**2,820**	**2,680**	**2,710**	**2,710**	**2,740**	**3,000**	**2,850**	**1,720**	**2,600**	**1,280**	**1,350**
PCB 198/199	ng/kg	**41,600**	**40,200**	**42,200**	**41,900**	**40,400**	**40,600**	**40,600**	**41,500**	**44,000**	**42,700**	**24,500**	**38,800**	**21,800**	**24,200**
PCB 201	ng/kg	**5,950**	**5,900**	**6,000**	**6,010**	**5,810**	**5,810**	**5,910**	**5,910**	**6,510**	**6,260**	**3,830**	**5,660**	**3,200**	**3,290**
PCB 202	ng/kg	**14,400**	**13,900**	**14,300**	**14,300**	**14,000**	**13,900**	**14,300**	**14,000**	**15,600**	**15,000**	**9,620**	**13,400**	**12,600**	**12,900**
PCB 203	ng/kg	**26,200**	**25,600**	**26,600**	**26,600**	**25,600**	**26,000**	**25,600**	**26,200**	**27,900**	**27,000**	**15,900**	**24,600**	**6,710**	**7,790**
PCB 204	ng/kg	**8**	ND	ND	**9.47**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8.55**
PCB 205	ng/kg	**718**	**703**	**745**	**745**	**715**	**700**	**714**	**728**	**778**	**750**	**430**	**681**	**179**	**211**
PCB 206	ng/kg	**9,170**	**8,900**	**9,660**	**9,420**	**8,980**	**8,920**	**9,030**	**9,050**	**9,580**	**9,300**	**5,780**	**8,510**	**3,840**	**4,540**
PCB 207	ng/kg	**1,810**	**1,730**	**1,810**	**1,850**	**1,750**	**1,740**	**1,740**	**1,750**	**1,840**	**1,780**	**1,110**	**1,630**	**719**	**860**
PCB 208	ng/kg	**5,090**	**4,740**	**5,150**	**5,080**	**4,870**	**4,750**	**4,910**	**4,830**	**5,050**	**4,920**	**3,090**	**4,500**	**3,880**	**4,510**
PCB 209	ng/kg	**4,590**	**4,400**	**4,680**	**4,680**	**4,440**	**4,240**	**4,450**	**4,350**	**4,630**	**4,430**	**2,840**	**4,080**	**2,850**	**3,400**
Dichlorobiphenyl	ng/kg	**17,500**	**17,700**	**18,500**	**19,000**	**18,300**	**19,300**	**18,600**	**18,700**	**20,800**	**19,400**	**12,000**	**17,800**	**9,030**	**8,430**
Heptachlorobiphenyl	ng/kg	**469,000**	**464,000**	**475,000**	**500,000**	**466,000**	**468,000**	**482,000**	**486,000**	**512,000**	**488,000**	**287,000**	**453,000**	**349,000**	**395,000**
Hexachlorobiphenyl	ng/kg	**1,200,000**	**1,190,000**	**1,220,000**	**1,190,000**	**1,210,000**	**1,210,000**	**1,190,000**	**1,180,000**	**1,350,000**	**1,270,000**	**764,000**	**1,110,000**	**849,000**	**904,000**
Monochlorobiphenyl	ng/kg	**493**	**471**	465 U	**467**	**456**	436 U	449 U	463 U	**494**	475 U	251 U	436 U	ND	ND
Nonachlorobiphenyl	ng/kg	**16,100**	**15,400**	**16,600**	**16,300**	**15,600**	**15,400**	**15,700**	**15,600**	**16,500**	**16,000**	**9,980**	**14,600**	**8,460**	**9,940**
Octachlorobiphenyl	ng/kg	**157,000**	**153,000**	**159,000**	**159,000**	**155,000**	**154,000**	**154,000**	**157,000**	**168,000**	**162,000**	**95,700**	**147,000**	**65,600**	**72,100**
Pentachlorobiphenyl	ng/kg	**811,000**	**800,000**	**832,000**	**829,000**	**809,000**	**806,000**	**799,000**	**809,000**	**916,000**	**869,000**	**529,000**	**766,000**	**566,000**	**573,000**
Tetrachlorobiphenyl	ng/kg	**413,000**	**414,000**	**425,000**	**435,000**	**416,000**	**421,000**	**412,000**	**418,000**	**489,000**	**464,000**	**290,000**	**400,000**	**329,000**	**346,000**
Trichlorobiphenyl	ng/kg	**159,000**	**160,000**	**168,000**	**172,000**	**163,000**	**167,000**	**162,000**	**166,000**	**187,000**	**177,000**	**109,000**	**158,000**	**102,000**	**101,000**
Total PCB (Lab)	ng/kg	**2,970,000**	**2,920,000**	**3,040,000**	**3,010,000**	**2,960,000**	**2,960,000**	**2,910,000**	**2,960,000**	**3,380,000**	**3,190,000**	**1,940,000**	**2,790,000**	**2,230,000**	**2,310,000**

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 1	ng/kg	ND	ND	ND	ND	ND	ND
PCB 2	ng/kg	ND	ND	ND	ND	ND	ND
PCB 3	ng/kg	ND	ND	ND	ND	ND	ND
PCB 4	ng/kg	**202**	**199**	**215**	**207**	**572**	**703**
PCB 5	ng/kg	ND	ND	ND	ND	ND	ND
PCB 6	ng/kg	**150**	**140**	**157**	**147**	**238**	**143**
PCB 7	ng/kg	ND	ND	ND	ND	ND	ND
PCB 8	ng/kg	**372**	**366**	**395**	**389**	**1,220**	**1,230**
PCB 9	ng/kg	ND	ND	ND	ND	ND	ND
PCB 10	ng/kg	ND	ND	ND	ND	ND	ND
PCB 11	ng/kg	**1,690**	**1,670**	**1,780**	**1,760**	**4,290**	**5,200**
PCB 12/13	ng/kg	**198**	**195**	**208**	**207**	**571**	**644**
PCB 14	ng/kg	ND	ND	ND	ND	ND	ND
PCB 15	ng/kg	**5,200**	**5,160**	**5,270**	**5,170**	**12,900**	**17,800**
PCB 16	ng/kg	**189**	**187**	**202**	**196**	**374**	**462**
PCB 17	ng/kg	**623**	**599**	**656**	**655**	**2,030**	**2,230**
PCB 18/30	ng/kg	**1,470**	**1,450**	**1,530**	**1,520**	**2,030**	**2,790**
PCB 19	ng/kg	**8.77**	ND	**8.75**	ND	**184**	**243**
PCB 20/28	ng/kg	**73,200**	**72,400**	**74,300**	**73,200**	**171,000**	**257,000**
PCB 21/33	ng/kg	**1,010**	**983**	**1,040**	**1,050**	**1,970**	**2,600**
PCB 22	ng/kg	**920**	**916**	**962**	**1,010**	**3,840**	**3,830**
PCB 23	ng/kg	ND	ND	ND	ND	ND	ND
PCB 24	ng/kg	ND	ND	ND	ND	ND	ND
PCB 25	ng/kg	**794**	**870**	**818**	**847**	**2,300**	**2,480**
PCB 26/29	ng/kg	**1,910**	**1,890**	**1,980**	**1,990**	**3,010**	**3,830**
PCB 27	ng/kg	**451**	**448**	**469**	**469**	**525**	**774**
PCB 31	ng/kg	**3,850**	**3,960**	**3,980**	**4,130**	**14,300**	**14,300**
PCB 32	ng/kg	**1,130**	**1,100**	**1,170**	**1,170**	**3,010**	**3,420**
PCB 34	ng/kg	**156**	**154**	**170**	**162**	**79.1**	**156**
PCB 35	ng/kg	**104**	**93.1**	**108**	**108**	**254**	**298**
PCB 36	ng/kg	**15.1**	**14.8**	**15.4**	**18.9**	**326**	**397**
PCB 37	ng/kg	**9,760**	**9,480**	**9,850**	**9,550**	**16,800**	**25,100**
PCB 38	ng/kg	ND	**8.95**	ND	ND	ND	ND
PCB 39	ng/kg	**143**	**141**	**146**	**147**	**410**	**439**
PCB 40/41/71	ng/kg	**11,500**	**11,300**	**11,800**	**11,900**	**15,300**	**20,100**
PCB 42	ng/kg	**1,140**	**1,090**	**1,150**	**1,230**	**6,060**	**5,860**

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-WB-1	GC-TIMIDDLE-BC-WB-2	GC-TIMIDDLE-BC-WB-3	GC-TI-OUTER-BC-WB-1	GC-TI-OUTER-BC-WB-2	GC-TI-OUTER-BC-WB-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	155.14	156.86	151.17	149.31	305.19	154.35
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 43	ng/kg	**559**	**570**	**593**	581 R	**585**	**890**
PCB 44/47/65	ng/kg	**81,000**	**76,500**	**80,400**	**79,000**	**190,000**	**348,000**
PCB 45/51	ng/kg	**287**	**279**	**298**	**307**	**963**	**1,070**
PCB 46	ng/kg	ND	ND	ND	ND	**171**	**152**
PCB 48	ng/kg	**829**	**806**	**853**	**861**	**1,780**	**2,030**
PCB 49/69	ng/kg	**3,900**	**3,800**	**3,970**	**4,170**	**16,100**	**15,400**
PCB 50/53	ng/kg	**569**	**559**	**586**	**592**	**1,040**	**1,270**
PCB 52	ng/kg	**6,230**	**6,130**	**6,420**	**6,460**	**11,500**	**13,400**
PCB 54	ng/kg	ND	ND	ND	ND	ND	ND
PCB 55	ng/kg	ND	ND	ND	ND	ND	ND
PCB 56	ng/kg	**3,090**	**2,960**	**3,140**	**3,270**	**9,850**	**10,100**
PCB 57	ng/kg	**388**	**393**	**407**	**403**	**369**	**390**
PCB 58	ng/kg	0 R	11.5 R	0 R	19 R	0 R	338 R
PCB 59/62/75	ng/kg	**5,790**	**5,490**	**5,780**	**5,690**	**13,200**	**23,200**
PCB 60	ng/kg	**18,100**	**17,400**	**18,400**	**17,900**	**33,900**	**48,900**
PCB 61/70/74/76	ng/kg	**81,600**	**78,300**	**82,300**	**80,900**	**135,000**	**217,000**
PCB 63	ng/kg	**1,380**	**1,380**	**1,440**	**1,440**	**4,750**	**4,980**
PCB 64	ng/kg	**2,450**	**2,460**	**2,490**	**2,620**	**10,800**	**10,100**
PCB 66	ng/kg	**110,000**	**107,000**	**111,000**	**109,000**	**190,000**	**321,000**
PCB 67	ng/kg	ND	**69.9**	**61.1**	**63.4**	0 R	**1,250**
PCB 68	ng/kg	**1,030**	**1,060**	**1,070**	**1,050**	**2,590**	**3,250**
PCB 72	ng/kg	**1,030**	**1,030**	**1,070**	**1,060**	**1,430**	**1,840**
PCB 73	ng/kg	**213**	**213**	**225**	**222**	**278**	**375**
PCB 77	ng/kg	**7,560**	**7,320**	**7,650**	**7,420**	**12,400**	**19,300**
PCB 78	ng/kg	ND	ND	ND	ND	ND	ND
PCB 79	ng/kg	**511**	**491**	**513**	**511**	**1,230**	**1,670**
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	**511**	**494**	**516**	**505**	233 R	**1,110**
PCB 82	ng/kg	**399**	**379**	**404**	**418**	**1,470**	**1,580**
PCB 83/99	ng/kg	**164,000**	**156,000**	**162,000**	**160,000**	**354,000**	**548,000**
PCB 84	ng/kg	**539**	**511**	**545**	**556**	**1,810**	**1,890**
PCB 85/116/117	ng/kg	**26,200**	**24,800**	**26,300**	**25,500**	**58,900**	**89,900**
PCB 86/87/97/109/119/125	ng/kg	**16,700**	**16,000**	**16,800**	**16,700**	**40,600**	**57,200**
PCB 88/91	ng/kg	**1,380**	**1,350**	**1,400**	**1,430**	**5,870**	**5,400**
PCB 89	ng/kg	ND	ND	ND	ND	ND	ND
PCB 90/101/113	ng/kg	**12,700**	**12,500**	**13,200**	**13,200**	**46,200**	**44,200**

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
Sample Number:	GC-TIMIDDLE-BC-WB-1	GC-TIMIDDLE-BC-WB-2	GC-TIMIDDLE-BC-WB-3	GC-TI-OUTER-BC-WB-1	GC-TI-OUTER-BC-WB-2	GC-TI-OUTER-BC-WB-3
Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
Sample Weight:	155.14	156.86	151.17	149.31	305.19	154.35
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**				
PCB 92	ng/kg	**5,560**	**5,500**	**5,720**	**5,740**	**7,330**	**9,030**
PCB 93/95/98/100/102	ng/kg	**9,590**	**9,240**	**9,660**	**9,640**	**19,400**	**28,000**
PCB 94	ng/kg	**422**	**427**	**443**	**437**	**492**	**669**
PCB 96	ng/kg	ND	ND	ND	ND	ND	ND
PCB 103	ng/kg	**109**	**105**	**109**	**115**	**534**	**474**
PCB 104	ng/kg	ND	ND	ND	ND	ND	ND
PCB 105	ng/kg	**63,700**	**61,400**	**64,400**	**62,800**	**100,000**	**159,000**
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	**13,800**	**13,500**	**14,000**	**14,000**	**22,500**	**33,600**
PCB 108/124	ng/kg	**878**	**843**	**883**	**889**	**1,950**	**2,020**
PCB 110/115	ng/kg	**14,400**	**13,900**	**14,500**	**14,900**	**43,200**	**45,000**
PCB 111	ng/kg	**1,980**	**1,950**	**2,030**	**2,030**	**1,450**	**2,930**
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND
PCB 114	ng/kg	**4,910**	**4,720**	**4,960**	**4,840**	**6,900**	**11,700**
PCB 118	ng/kg	**210,000**	**202,000**	**211,000**	**207,000**	**315,000**	**523,000**
PCB 120	ng/kg	**3,940**	**3,810**	**3,980**	**3,960**	**5,550**	**9,080**
PCB 121	ng/kg	**298**	**286**	**300**	**297**	**528**	**866**
PCB 122	ng/kg	**209**	**182**	**216**	**219**	**735**	**768**
PCB 123	ng/kg	**4,770**	**4,580**	**4,850**	**4,730**	**6,650**	**10,800**
PCB 126	ng/kg	**644**	**626**	**658**	**640**	**847**	587 R
PCB 127	ng/kg	**341**	**320**	**343**	**331**	**707**	**1,250**
PCB 128/166	ng/kg	**32,700**	**30,800**	**32,800**	**32,100**	**73,900**	**105,000**
PCB 129/138/160/163	ng/kg	**242,000**	**233,000**	**243,000**	**242,000**	**526,000**	**731,000**
PCB 130	ng/kg	**3,430**	**3,380**	**3,630**	**3,570**	**10,300**	**11,300**
PCB 131	ng/kg	0 R	**15.1**	**15.2**	**16.3**	**297**	**293**
PCB 132	ng/kg	**781**	**731**	**771**	**851**	**4,560**	**3,860**
PCB 133	ng/kg	**20,800**	**20,500**	**21,400**	**21,300**	**15,800**	**33,400**
PCB 134/143	ng/kg	**28.3**	ND	**26.3**	**30.5**	**833**	**624**
PCB 135/151/154	ng/kg	**16,200**	**15,200**	**16,100**	**16,100**	**39,800**	**51,700**
PCB 136	ng/kg	**161**	**148**	**159**	**168**	**989**	**872**
PCB 137	ng/kg	**11,200**	**10,600**	**11,200**	**11,000**	**20,900**	**32,100**
PCB 139/140	ng/kg	**4,070**	**3,760**	**4,020**	**3,950**	**9,600**	**15,000**
PCB 141	ng/kg	**1,220**	**1,170**	**1,250**	**1,230**	**2,830**	**3,010**
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND
PCB 144	ng/kg	**559**	**548**	**571**	**576**	**1,290**	**1,400**
PCB 145	ng/kg	ND	ND	ND	ND	ND	ND

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TIMIDDLE-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC	GC-TI-OUTER-BC
	Sample Number:	GC-TIMIDDLE-BC-WB-1	GC-TIMIDDLE-BC-WB-2	GC-TIMIDDLE-BC-WB-3	GC-TI-OUTER-BC-WB-1	GC-TI-OUTER-BC-WB-2	GC-TI-OUTER-BC-WB-3
	Sample Date:	8/20/2010	8/23/2010	8/23/2010	8/23/2010	8/24/2010	8/24/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	155.14	156.86	151.17	149.31	305.19	154.35
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 146	ng/kg	**73,900**	**71,600**	**74,900**	**74,200**	**130,000**	**201,000**
PCB 147/149	ng/kg	**12,500**	**12,200**	**12,800**	**13,000**	**47,700**	**46,100**
PCB 148	ng/kg	**1,410**	**1,330**	**1,410**	**1,390**	**2,810**	**4,880**
PCB 150	ng/kg	ND	ND	ND	ND	**141**	ND
PCB 152	ng/kg	ND	ND	ND	ND	ND	ND
PCB 153/168	ng/kg	**389,000**	**371,000**	**388,000**	**381,000**	**687,000**	**1,060,000**
PCB 155	ng/kg	**621**	**584**	**618**	**603**	**1,490**	**2,470**
PCB 156/157	ng/kg	**32,400**	**31,000**	**32,600**	**32,000**	**49,600**	**74,900**
PCB 158	ng/kg	**23,800**	**22,800**	**24,000**	**23,600**	**36,200**	**57,500**
PCB 159	ng/kg	**156**	**155**	**160**	**162**	**259**	**157**
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	**2,320**	**2,270**	**2,370**	**2,380**	**2,560**	**4,230**
PCB 164	ng/kg	**737**	622 R	646 R	**751**	**2,720**	**2,630**
PCB 165	ng/kg	**1,350**	**1,330**	**1,380**	**1,380**	**1,080**	**2,320**
PCB 167	ng/kg	**16,800**	**16,200**	**17,000**	**16,700**	**24,200**	**37,500**
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	**21,100**	**20,000**	**21,100**	**20,600**	**45,700**	**61,100**
PCB 171/173	ng/kg	**9,660**	**8,970**	**9,600**	**9,340**	**23,200**	**33,200**
PCB 172	ng/kg	**9,520**	**9,260**	**9,660**	**9,610**	**11,100**	**19,000**
PCB 174	ng/kg	**559**	**520**	**557**	**548**	**2,640**	**2,520**
PCB 175	ng/kg	**2,210**	**2,140**	**2,250**	**2,190**	**3,900**	**5,980**
PCB 176	ng/kg	**155**	**138**	**147**	**160**	**972**	**855**
PCB 177	ng/kg	**5,320**	**5,090**	**5,740**	**5,450**	**24,100**	**26,400**
PCB 178	ng/kg	**31,100**	**30,500**	**31,800**	**31,400**	**28,700**	**58,500**
PCB 179	ng/kg	**273**	**239**	**256**	**283**	**2,360**	**1,890**
PCB 180/193	ng/kg	**120,000**	**114,000**	**122,000**	**118,000**	**238,000**	**322,000**
PCB 181	ng/kg	**319**	**296**	**313**	**308**	**850**	**1,230**
PCB 182	ng/kg	**414**	**381**	**405**	**399**	**1,210**	**1,740**
PCB 183/185	ng/kg	**41,900**	**39,300**	**41,900**	**40,800**	**97,300**	**127,000**
PCB 184	ng/kg	**264**	**250**	**262**	**257**	**725**	**1,090**
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	**125,000**	**120,000**	**126,000**	**125,000**	**279,000**	**377,000**
PCB 188	ng/kg	**605**	**566**	**595**	**586**	**1,550**	**2,600**
PCB 189	ng/kg	**2,320**	**2,230**	**2,340**	**2,310**	**3,660**	**5,080**
PCB 190	ng/kg	**6,940**	**6,600**	**6,950**	**6,870**	**13,000**	**18,200**
PCB 191	ng/kg	**2,290**	**2,210**	**2,330**	**2,300**	**3,440**	**4,930**

TABLE I-87B
PCB Congener Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**					
PCB 192	ng/kg	ND	ND	ND	ND	ND	ND
PCB 194	ng/kg	**12,500**	**11,700**	**12,300**	**12,100**	**28,900**	**35,000**
PCB 195	ng/kg	**1,740**	**1,590**	**1,680**	**1,650**	**5,360**	**6,790**
PCB 196	ng/kg	**7,250**	**6,710**	**7,100**	**6,950**	**17,600**	**24,000**
PCB 197/200	ng/kg	**1,260**	**1,190**	**1,240**	**1,230**	**3,750**	**5,300**
PCB 198/199	ng/kg	**24,000**	**22,700**	**23,900**	**23,600**	**45,900**	**63,300**
PCB 201	ng/kg	**3,180**	**2,980**	**3,180**	**3,090**	**9,140**	**12,200**
PCB 202	ng/kg	**12,000**	**11,600**	**12,200**	**11,800**	**23,600**	**38,900**
PCB 203	ng/kg	**7,780**	**7,040**	**7,520**	**7,400**	**25,500**	**28,800**
PCB 204	ng/kg	ND	ND	ND	ND	ND	ND
PCB 205	ng/kg	**212**	**197**	**208**	**205**	**556**	**649**
PCB 206	ng/kg	**4,660**	**4,160**	**4,410**	**4,300**	**15,300**	**20,400**
PCB 207	ng/kg	**799**	**709**	**745**	**728**	**2,540**	**4,260**
PCB 208	ng/kg	**4,200**	**3,890**	**4,100**	**3,990**	**8,680**	**16,400**
PCB 209	ng/kg	**3,160**	**2,870**	**2,990**	**2,900**	**9,370**	**15,400**
Dichlorobiphenyl	ng/kg	**7,830**	**7,740**	**8,040**	**7,890**	**19,900**	**25,700**
Heptachlorobiphenyl	ng/kg	**364,000**	**363,000**	**384,000**	**376,000**	**778,000**	**1,070,000**
Hexachlorobiphenyl	ng/kg	**860,000**	**814,000**	**866,000**	**851,000**	**1,180,000**	**1,760,000**
Monochlorobiphenyl	ng/kg	ND	ND	ND	ND	ND	ND
Nonachlorobiphenyl	ng/kg	**9,680**	**8,790**	**9,270**	**9,050**	**26,500**	**41,100**
Octachlorobiphenyl	ng/kg	**69,800**	**65,700**	**69,200**	**67,800**	**160,000**	**214,000**
Pentachlorobiphenyl	ng/kg	**537,000**	**518,000**	**540,000**	**552,000**	**822,000**	**1,230,000**
Tetrachlorobiphenyl	ng/kg	**326,000**	**327,000**	**330,000**	**338,000**	**659,000**	**1,070,000**
Trichlorobiphenyl	ng/kg	**95,600**	**94,500**	**97,300**	**96,100**	**222,000**	**320,000**
Total PCB (Lab)	ng/kg	**2,200,000**	**2,200,000**	**2,240,000**	**2,300,000**	**3,870,000**	**5,360,000**

TABLE I-88A
Metal and Lipid Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**							**Metals**							
Aluminum	mg/kg	9.94 U	9.88 U	9.82 U	9.88 U	9.75 U	9.81 U	9.88 U	9.94 U	9.82 U	9.88 U	9.92 U	9.81 U	9.85 U	9.86 U
Antimony	mg/kg	2.97 U	2.97 U	2.94 U	2.97 U	2.94 U	2.94 U	2.97 U	2.97 U	2.94 U	2.97 U	2.96 U	2.94 U	2.96 U	2.96 U
Arsenic	mg/kg	**1.34**	**1.47**	**0.902**	**1.09**	**1.22**	**1.16**	**1.46**	**1.03**	**1.08**	**1.26**	**1.45**	**1.1**	**1.82**	**1.58**
Barium	mg/kg	9.94 U	9.88 U	9.82 U	9.88 U	9.75 U	9.81 U	9.88 U	9.94 U	9.82 U	9.88 U	9.92 U	9.81 U	9.85 U	9.86 U
Beryllium	mg/kg	0.25 U	0.247 U	0.247 U	0.247 U	0.244 U	0.247 U	0.247 U	0.25 U	0.247 U	0.247 U	0.25 U	0.247 U	0.246 U	0.246 U
Cadmium	mg/kg	0.25 U	0.247 U	0.247 U	0.247 U	0.244 U	0.247 U	0.247 U	0.25 U	0.247 U	0.247 U	0.25 U	0.247 U	0.246 U	**0.193**
Calcium	mg/kg	**1,520**	**1,340**	**1,250**	**1,310**	**1,300**	**1,180**	**1,050**	**1,110**	**1,530**	**1,720**	**1,740**	**1,700**	**1,130**	**1,940**
Chromium	mg/kg	0.497 U	0.494 U	0.491 U	0.494 U	0.488 U	0.491 U	0.494 U	0.497 U	0.491 U	0.494 U	0.496 U	0.491 U	0.493 U	0.493 U
Cobalt	mg/kg	2.5 U	2.47 U	2.47 U	2.47 U	2.44 U	2.47 U	2.47 U	2.5 U	2.47 U	2.47 U	2.5 U	2.47 U	2.46 U	2.46 U
Copper	mg/kg	**10.5**	**11.3**	**8.55**	**8.57**	**8.9**	**9.88**	**8.96**	**8.19**	**9.55**	**10**	**11.7**	**9.75**	**15.2**	**14.2**
Iron	mg/kg	**12**	8.05 U	8.17 U	**11.3**	8 U	7.96 U	8.08 U	8.21 U	**9.87**	**10**	**13.3**	**8.43**	**6.48**	**9.27**
Lead	mg/kg	0.497 U	0.494 U	0.491 U	0.494 U	0.488 U	0.491 U	0.494 U	0.497 U	0.491 U	0.494 U	0.496 U	0.491 U	0.493 U	0.493 U
Magnesium	mg/kg	**381**	**387**	**342**	**343**	**370**	**318**	**325**	**323**	**346**	**351**	**395**	**334**	**301**	**382**
Manganese	mg/kg	**2.72**	**2.5**	**2.64**	**3.18**	**2.53**	**2.52**	**2.57**	**2.63**	**2.79**	**3.24**	**2.2**	**3.12**	**3.07**	**4.44**
Mercury	mg/kg	**0.123**	**0.0996**	**0.11**	**0.142**	**0.106**	**0.119**	**0.136**	**0.0984**	**0.0792**	**0.109**	**0.121**	**0.132**	**0.161**	**0.0849**
Nickel	mg/kg	2 U	1.97 U	1.97 U	1.97 U	1.94 U	1.97 U	1.97 U	2 U	1.97 U	1.97 U	2 U	1.97 U	1.96 U	1.96 U
Potassium	mg/kg	**2,200**	**2,170**	**1,910**	**2,080**	**2,250**	**2,010**	**2,060**	**2,000**	**2,020**	**2,090**	**2,390**	**2,050**	**2,380**	**2,440**
Selenium	mg/kg	1.75 U	1.72 U	1.72 U	1.72 U	1.72 U	1.72 U	1.72 U	1.75 U	1.72 U	1.72 U	1.75 U	1.72 U	**1.6**	**1.58**
Silver	mg/kg	0.497 U	**0.463**	0.491 U	0.494 U	0.488 U	0.491 U	0.494 U	0.497 U	0.491 U	0.494 U	**0.421**	0.491 U	**0.77**	**0.78**
Sodium	mg/kg	**3,260**	**3,490**	**3,490**	**3,150**	**3,340**	**2,780**	**2,770**	**2,850**	**3,100**	**2,770**	**3,170**	**2,630**	**2,400**	**2,670**
Thallium	mg/kg	1.25 U	1.25 U	1.22 U	1.25 U	1.22 U	1.22 U	1.25 U	1.25 U	1.22 U	1.25 U	1.25 U	1.22 U	1.25 U	1.25 U
Vanadium	mg/kg	2.5 U	2.47 U	2.47 U	2.47 U	2.44 U	2.47 U	2.47 U	2.5 U	2.47 U	2.47 U	2.5 U	2.47 U	2.46 U	2.46 U
Zinc	mg/kg	**22.7**	**23.2**	**19.5**	**20.1**	**21.6**	**19.2**	**20.3**	**18.9**	**19.8**	**21.3**	**24**	**20.4**	**22.4**	**24.3**
Cyanide, Total	mg/kg	**0.847**	**0.723**	**0.672**	**0.767**	1.25 U	1.22 U	**0.652**	**0.67**	**0.73**	**0.81**	**0.527**	**0.686**	**0.576**	**0.78**
Percent Lipids	%	**1.67**	**1.73**	**1.41**	**1.59**	**1.45**	**1.14**	**1.41**	**1.36**	**1.74**	**1.86**	**1.76**	**1.55**	**1.26**	**1.62**

TABLE I-88A
Metal and Lipid Concentrations in Whole Body Crab Tissue – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Metals**					
Aluminum	mg/kg	9.78 U	9.71 U	9.86 U	9.93 U	10 U	10 U
Antimony	mg/kg	2.93 U	2.93 U	2.96 U	2.96 U	3 U	3 U
Arsenic	mg/kg	**1.37**	**1.08**	**1.51**	**1.16**	**1.3**	**1.16**
Barium	mg/kg	9.78 U	9.71 U	9.86 U	9.93 U	10 U	10 U
Beryllium	mg/kg	0.246 U	0.243 U	0.246 U	0.25 U	0.25 U	0.25 U
Cadmium	mg/kg	0.246 U	0.243 U	**0.193**	**0.186**	**0.233**	0.25 U
Calcium	mg/kg	**1,220**	**831**	**1,260**	**1,040**	**1,230**	**1,150**
Chromium	mg/kg	0.489 U	0.486 U	0.493 U	0.496 U	0.5 U	0.5 U
Cobalt	mg/kg	2.46 U	2.43 U	2.46 U	2.5 U	2.5 U	2.5 U
Copper	mg/kg	**16.5**	**14.2**	**17.2**	**14.9**	**18.9**	**14**
Iron	mg/kg	**6.65**	**5.72**	**7.28**	**5.92**	**10.9**	5 U
Lead	mg/kg	0.489 U	0.486 U	0.493 U	0.496 U	0.5 U	0.5 U
Magnesium	mg/kg	**334**	**306**	**344**	**352**	**432**	**338**
Manganese	mg/kg	**3.48**	**2.67**	**3.51**	**2.96**	**2.54**	**2.98**
Mercury	mg/kg	**0.115**	**0.122**	**0.15**	**0.17**	**0.316**	**0.229**
Nickel	mg/kg	1.96 U	1.93 U	1.96 U	2 U	2 U	2 U
Potassium	mg/kg	**2,510**	**2,270**	**2,680**	**2,510**	**2,840**	**2,420**
Selenium	mg/kg	**1.59**	**1.59**	**1.3**	**1.23**	**1.39**	**1.62**
Silver	mg/kg	**0.876**	**0.796**	**0.987**	**0.881**	**0.78**	**0.669**
Sodium	mg/kg	**2,500**	**2,440**	**2,590**	**2,310**	**2,570**	**2,640**
Thallium	mg/kg	1.21 U	1.21 U	1.25 U	1.25 U	1.25 U	1.25 U
Vanadium	mg/kg	2.46 U	2.43 U	2.46 U	2.5 U	2.5 U	2.5 U
Zinc	mg/kg	**24.7**	**22.8**	**27.4**	**26.8**	**29.5**	**25**
Cyanide, Total	mg/kg	**0.624**	**0.571**	**0.538**	**0.549**	1.25 U	1.25 U
Percent Lipids	%	**2.33**	**1.23**	**1.42**	**1.36**	**1.44**	**1.24**

TABLE I-88B
Metal and Lipid Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI401-BC	GC-TI401-BC	GC-TI402-BC	GC-TI402-BC	GC-TI403-BC	GC-TI403-BC	GC-TI404-BC	GC-TI404-BC	GC-TI405-BC	GC-TI405-BC	GC-TI406-BC	GC-TI406-BC	GC-TI-INNER-BC	GC-TI-INNER-BC
	Sample Number:	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI402-BC-WB-1	GC-TI402-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2	GC-TI-INNER-BC-WB-1	GC-TI-INNER-BC-WB-2
	Sample Date:	8/16/2010	8/16/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010	8/18/2010	8/18/2010	8/19/2010	8/19/2010	8/19/2010	8/20/2010	8/20/2010	8/20/2010
	Sample Species:	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab	Blue Crab
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	181.76	186.24	177.85	181.77	185.60	189.86	184.39	178.84	170.11	174.32	329.56	189.61	168.13	151.55
Parameter	**Units**	**Metals**													
Aluminum	mg/kg	335 U	328 U	347 U	338 U	329 U	325 U	337 U	346 U	356 U	347 U	208 U	323 U	209 U	223 U
Antimony	mg/kg	101 U	98.7 U	104 U	102 U	99.1 U	97.8 U	101 U	104 U	107 U	104 U	62.4 U	97.2 U	62.7 U	66.8 U
Arsenic	mg/kg	**33.1**	**33.2**	**32**	**32.2**	**32.1**	**31.5**	**34.5**	**32.6**	**33.8**	**33.8**	**22**	**30.8**	**30.1**	**30.4**
Barium	mg/kg	335 U	328 U	347 U	338 U	329 U	325 U	337 U	346 U	356 U	347 U	208 U	323 U	209 U	223 U
Beryllium	mg/kg	8.41 U	8.22 U	8.71 U	8.46 U	8.26 U	8.16 U	8.45 U	8.68 U	8.93 U	8.68 U	5.22 U	8.11 U	5.23 U	5.57 U
Cadmium	mg/kg	8.41 U	8.22 U	8.71 U	8.46 U	8.26 U	8.16 U	8.45 U	8.68 U	8.93 U	8.68 U	5.22 U	8.11 U	5.23 U	**5.3**
Calcium	mg/kg	**42,300**	**40,500**	**42,300**	**41,500**	**40,600**	**39,400**	**39,800**	**41,300**	**45,000**	**44,700**	**28,000**	**41,900**	**24,500**	**30,100**
Chromium	mg/kg	16.8 U	16.4 U	17.4 U	16.9 U	16.5 U	16.3 U	16.9 U	17.3 U	17.8 U	17.3 U	10.4 U	16.2 U	10.5 U	11.1 U
Cobalt	mg/kg	84.1 U	82.2 U	87.1 U	84.6 U	82.6 U	81.6 U	84.5 U	86.8 U	89.3 U	86.8 U	52.2 U	81.1 U	52.3 U	55.7 U
Copper	mg/kg	**248**	**248**	**248**	**240**	**237**	**240**	**244**	**245**	**258**	**253**	**167**	**237**	**305**	**319**
Iron	mg/kg	**437**	407 U	428 U	**436**	409 U	401 U	414 U	426 U	**453**	**442**	**275**	**403**	**113**	**133**
Lead	mg/kg	16.8 U	16.4 U	17.4 U	16.9 U	16.5 U	16.3 U	16.9 U	17.3 U	17.8 U	17.3 U	10.4 U	16.2 U	10.5 U	11.1 U
Magnesium	mg/kg	**9,890**	**9,710**	**10,100**	**9,780**	**9,700**	**9,320**	**9,700**	**9,920**	**10,300**	**10,000**	**6,400**	**9,320**	**5,800**	**6,540**
Manganese	mg/kg	**170**	**165**	**174**	**173**	**166**	**163**	**168**	**173**	**182**	**180**	**97.6**	**166**	**126**	**144**
Mercury	mg/kg	**2.07**	**1.91**	**2.12**	**2.22**	**1.96**	**2.03**	**2.23**	**2.04**	**1.95**	**2.05**	**1.41**	**2.06**	**1.66**	**1.29**
Nickel	mg/kg	67.4 U	65.8 U	69.7 U	67.7 U	66 U	65.3 U	67.6 U	69.5 U	71.4 U	69.5 U	41.7 U	64.9 U	41.7 U	44.4 U
Potassium	mg/kg	**46,500**	**45,500**	**47,200**	**46,500**	**46,300**	**44,800**	**46,800**	**47,500**	**48,400**	**47,200**	**31,700**	**44,300**	**36,500**	**38,400**
Selenium	mg/kg	58.7 U	57.4 U	60.7 U	59 U	57.7 U	56.9 U	58.9 U	60.6 U	62.3 U	60.6 U	36.4 U	56.6 U	**28.9**	**30.4**
Silver	mg/kg	16.8 U	**16.3**	17.4 U	16.9 U	16.5 U	16.3 U	16.9 U	17.3 U	17.8 U	17.3 U	**10**	16.2 U	**22.8**	**24.7**
Sodium	mg/kg	**90,200**	**89,600**	**95,500**	**90,500**	**89,400**	**85,300**	**88,300**	**91,000**	**94,900**	**90,400**	**56,700**	**83,900**	**57,800**	**63,200**
Thallium	mg/kg	42 U	41.1 U	43.3 U	42.3 U	41.2 U	40.6 U	42.2 U	43.3 U	44.4 U	43.4 U	26 U	40.4 U	26.2 U	27.9 U
Vanadium	mg/kg	84.1 U	82.2 U	87.1 U	84.6 U	82.6 U	81.6 U	84.5 U	86.8 U	89.3 U	86.8 U	52.2 U	81.1 U	52.3 U	55.7 U
Zinc	mg/kg	**485**	**478**	**489**	**477**	**474**	**457**	**481**	**483**	**498**	**491**	**326**	**459**	**388**	**418**
Cyanide, Total	mg/kg	**39.8**	**38.3**	**39.9**	**39.5**	41.4 U	40.6 U	**38.5**	**39.6**	**41.7**	**41.1**	**22.3**	**37.5**	**22.5**	**25.5**
Percent Lipids	%	**1.67**	**1.73**	**1.41**	**1.59**	**1.45**	**1.14**	**1.41**	**1.36**	**1.74**	**1.86**	**1.76**	**1.55**	**1.26**	**1.62**

TABLE I-88B
Metal and Lipid Concentrations in Whole Body Crab Tissue – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TIMIDDLE-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**	**GC-TI-OUTER-BC**
Sample Number:		**GC-TIMIDDLE-BC-WB-1**	**GC-TIMIDDLE-BC-WB-2**	**GC-TIMIDDLE-BC-WB-3**	**GC-TI-OUTER-BC-WB-1**	**GC-TI-OUTER-BC-WB-2**	**GC-TI-OUTER-BC-WB-3**
Sample Date:		**8/20/2010**	**8/23/2010**	**8/23/2010**	**8/23/2010**	**8/24/2010**	**8/24/2010**
Sample Species:		**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**	**Blue Crab**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**155.14**	**156.86**	**151.17**	**149.31**	**305.19**	**154.35**
Parameter	**Units**	**Metals**					
Aluminum	mg/kg	218 U	220 U	222 U	226 U	694 U	827 U
Antimony	mg/kg	65.4 U	65.8 U	66.4 U	67.7 U	208 U	248 U
Arsenic	mg/kg	**28.8**	**27.5**	**29.9**	**28.7**	**90.1**	**94.5**
Barium	mg/kg	218 U	220 U	222 U	226 U	694 U	827 U
Beryllium	mg/kg	5.46 U	5.48 U	5.53 U	5.66 U	17.3 U	20.6 U
Cadmium	mg/kg	5.46 U	5.48 U	**5.28**	**5.34**	**16.1**	20.6 U
Calcium	mg/kg	**26,100**	**24,100**	**26,500**	**26,000**	**85,300**	**95,000**
Chromium	mg/kg	10.9 U	11 U	11.1 U	11.3 U	34.6 U	41.3 U
Cobalt	mg/kg	54.6 U	54.8 U	55.3 U	56.6 U	173 U	206 U
Copper	mg/kg	**324**	**315**	**331**	**327**	**1,320**	**1,150**
Iron	mg/kg	**118**	**114**	**122**	**118**	**760**	413 U
Lead	mg/kg	10.9 U	11 U	11.1 U	11.3 U	34.6 U	41.3 U
Magnesium	mg/kg	**6,190**	**6,120**	**6,300**	**6,480**	**30,100**	**28,400**
Manganese	mg/kg	**136**	**131**	**139**	**138**	**173**	**219**
Mercury	mg/kg	**1.41**	**1.49**	**1.58**	**1.73**	**22.1**	**20.2**
Nickel	mg/kg	43.6 U	43.7 U	44.1 U	45.2 U	139 U	165 U
Potassium	mg/kg	**38,000**	**37,400**	**39,000**	**39,200**	**198,000**	**206,000**
Selenium	mg/kg	**29.9**	**30.3**	**28.9**	**29.1**	**96.1**	**136**
Silver	mg/kg	**24.7**	**24.3**	**25.6**	**25.5**	**53.8**	**51.6**
Sodium	mg/kg	**61,200**	**61,100**	**62,500**	**62,200**	**178,000**	**217,000**
Thallium	mg/kg	27.1 U	27.3 U	27.7 U	28.2 U	86.6 U	103 U
Vanadium	mg/kg	54.6 U	54.8 U	55.3 U	56.6 U	173 U	206 U
Zinc	mg/kg	**412**	**409**	**428**	**436**	**2,050**	**2,120**
Cyanide, Total	mg/kg	**24.2**	**23.9**	**24.3**	**24.7**	86.6 U	103 U
Percent Lipids	%	**2.33**	**1.23**	**1.42**	**1.36**	**1.44**	**1.24**

TABLE I-89A
Pesticide Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**								**Pesticides**						
Aldrin	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Alpha BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Alpha-chlordane	ug/kg	**5.19**	**19.1**	**27**	12.3 R	12.3 R	0.85 U	0.85 U	**7.57**	ND	**2.39**	**4.3**	**9.02**	**8.46**	**3.11**
Beta BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Beta endosulfan	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U
Delta BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Dieldrin	ug/kg	**7.49**	7.26 R	**13.7**	1.39 R	1.68 R	1.65 U	1.65 U	1.65 U	0.618 R	1.65 U	1.65 U	1.65 U	1.65 U	**2.57**
Endosulfan sulfate	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U
Endrin	ug/kg	1.65 U	1.65 U	1.65 U	1.19 R	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U
Endrin aldehyde	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U
Endrin ketone	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U	1.65 U
Gamma BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Gamma-chlordane	ug/kg	**5.14**	8.02 R	**4.91**	10.1 R	4.79 R	0.85 U	0.85 U	0.85 U	**5.63**	0.85 U	0.85 U	1.34 R	**7.78**	0.85 U
Heptachlor	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Heptachlor epoxide	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Methoxychlor	ug/kg	**13.5**	8.5 U	**18.7**	8.5 U	**15.5**	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	8.5 U	**26.5**	8.5 U	8.5 U
P,P'-DDD	ug/kg	**23.8**	**27.7**	**38**	**23.1**	16 R	ND	**14.7**	**25.7**	5.75 R	**17**	**7.35**	14.7 R	ND	**9.7**
P,P'-DDE	ug/kg	8.53 R	ND	8.36 R	4.44 R	5.77 R	**13.3**	1.87 R	2.62 R	**19.1**	**2.96**	3.26 R	1.87 R	1.9 R	ND
P,P'-DDT	ug/kg	0.782 R	1.65 U	**40.6**	18.8 R	1.2 R	15.6 R	1.65 U	1.65 U	**13**	**11.4**	1.65 U	0.441 R	**14.9**	2.61 R
Total DDTs	ug/kg	---	---	---	---	---	---	---	---	---	**29.3**	---	---	---	---

TABLE I-89A
Pesticide Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Pesticides**			
Aldrin	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Alpha BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Alpha-chlordane	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Beta BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Beta endosulfan	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U
Delta BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Dieldrin	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U
Endosulfan sulfate	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U
Endrin	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U
Endrin aldehyde	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U
Endrin ketone	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U
Gamma BHC	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Gamma-chlordane	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Heptachlor	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Heptachlor epoxide	ug/kg	0.85 U	0.85 U	0.85 U	0.85 U
Methoxychlor	ug/kg	8.5 U	8.5 U	8.5 U	8.5 U
P,P'-DDD	ug/kg	ND	ND	ND	ND
P,P'-DDE	ug/kg	1.65 U	1.65 U	1.65 U	**7.32**
P,P'-DDT	ug/kg	1.65 U	1.65 U	1.65 U	1.65 U
Total DDTs	ug/kg	---	---	---	---

TABLE I-89B
Pesticide Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Pesticides**													
Aldrin	ug/kg	2.93 U	2.65 U	2.12 U	2.66 U	2.49 U	2.39 U	3.74 U	3.72 U	3.31 U	3.72 U	3.59 U	5.23 U	4.33 U	1.91 U
Alpha BHC	ug/kg	2.93 U	2.65 U	2.12 U	2.66 U	2.49 U	2.39 U	3.74 U	3.72 U	3.31 U	3.72 U	3.59 U	5.23 U	4.33 U	1.91 U
Alpha-chlordane	ug/kg	**19.7**	**60.2**	**67.6**	37.4 R	32.6 R	2.39 U	3.74 U	**26.2**	0 R	**10.8**	**18.4**	**50.9**	**39.7**	**7.1**
Beta BHC	ug/kg	2.93 U	2.65 U	2.12 U	2.66 U	2.49 U	2.39 U	3.74 U	3.72 U	3.31 U	3.72 U	3.59 U	5.23 U	4.33 U	1.91 U
Beta endosulfan	ug/kg	5.69 U	5.14 U	4.12 U	5.19 U	4.83 U	4.64 U	7.26 U	7.21 U	6.41 U	7.2 U	6.97 U	10.1 U	8.4 U	3.71 U
Delta BHC	ug/kg	2.93 U	2.65 U	2.12 U	2.66 U	2.49 U	2.39 U	3.74 U	3.72 U	3.31 U	3.72 U	3.59 U	5.23 U	4.33 U	1.91 U
Dieldrin	ug/kg	**26.3**	24.7 R	**34.3**	4.66 R	6.15 R	4.64 U	7.26 U	7.21 U	2.75 R	7.2 U	6.97 U	10.1 U	8.4 U	**5.67**
Endosulfan sulfate	ug/kg	5.69 U	5.14 U	4.12 U	5.19 U	4.83 U	4.64 U	7.26 U	7.21 U	6.41 U	7.2 U	6.97 U	10.1 U	8.4 U	3.71 U
Endrin	ug/kg	5.69 U	5.14 U	4.12 U	3.65 R	4.83 U	4.64 U	7.26 U	7.21 U	6.41 U	7.2 U	6.97 U	10.1 U	8.4 U	3.71 U
Endrin aldehyde	ug/kg	5.69 U	5.14 U	4.12 U	5.19 U	4.83 U	4.64 U	7.26 U	7.21 U	6.41 U	7.2 U	6.97 U	10.1 U	8.4 U	3.71 U
Endrin ketone	ug/kg	5.69 U	5.14 U	4.12 U	5.19 U	4.83 U	4.64 U	7.26 U	7.21 U	6.41 U	7.2 U	6.97 U	10.1 U	8.4 U	3.71 U
Gamma BHC	ug/kg	2.93 U	2.65 U	2.12 U	2.66 U	2.49 U	2.39 U	3.74 U	3.72 U	3.31 U	3.72 U	3.59 U	5.23 U	4.33 U	1.91 U
Gamma-chlordane	ug/kg	**19.5**	23.3 R	**11.9**	30.8 R	12.7 R	2.39 U	3.74 U	3.72 U	**21.2**	3.72 U	3.59 U	10.3 R	**36.6**	1.91 U
Heptachlor	ug/kg	2.93 U	2.65 U	2.12 U	2.66 U	2.49 U	2.39 U	3.74 U	3.72 U	3.31 U	3.72 U	3.59 U	5.23 U	4.33 U	1.91 U
Heptachlor epoxide	ug/kg	2.93 U	2.65 U	2.12 U	2.66 U	2.49 U	2.39 U	3.74 U	3.72 U	3.31 U	3.72 U	3.59 U	5.23 U	4.33 U	1.91 U
Methoxychlor	ug/kg	**44.7**	26.5 U	**45.8**	26.6 U	**50.7**	23.9 U	37.4 U	37.2 U	33.1 U	37.2 U	35.9 U	**152**	43.3 U	19.1 U
P,P'-DDD	ug/kg	**83.5**	**86.9**	**94.8**	**71.6**	42.2 R	0 R	**52.7**	**91.4**	20.4 R	**73.2**	**30.6**	82.1 R	0 R	**21.6**
P,P'-DDE	ug/kg	33 R	0 R	20.1 R	15 R	21.2 R	**36.8**	11.8 R	15.6 R	**71.8**	**13.2**	16 R	14.4 R	11.5 R	0 R
P,P'-DDT	ug/kg	3.01 R	5.14 U	**102**	57.3 R	3.17 R	45 R	7.26 U	7.21 U	**49.5**	**49.3**	6.97 U	3.39 R	**69.9**	5.54 R
Total DDTs	ug/kg	---	---	---	---	---	---	---	---	---	**127**	---	---	---	---

TABLE I-89B
Pesticide Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Pesticides**			
Aldrin	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Alpha BHC	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Alpha-chlordane	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Beta BHC	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Beta endosulfan	ug/kg	8.46 U	8.58 U	9.22 U	7.96 U
Delta BHC	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Dieldrin	ug/kg	8.46 U	8.58 U	9.22 U	7.96 U
Endosulfan sulfate	ug/kg	8.46 U	8.58 U	9.22 U	7.96 U
Endrin	ug/kg	8.46 U	8.58 U	9.22 U	7.96 U
Endrin aldehyde	ug/kg	8.46 U	8.58 U	9.22 U	7.96 U
Endrin ketone	ug/kg	8.46 U	8.58 U	9.22 U	7.96 U
Gamma BHC	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Gamma-chlordane	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Heptachlor	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Heptachlor epoxide	ug/kg	4.36 U	4.42 U	4.76 U	4.11 U
Methoxychlor	ug/kg	43.6 U	44.2 U	47.6 U	41.1 U
P,P'-DDD	ug/kg	0 R	0 R	0 R	0 R
P,P'-DDE	ug/kg	8.46 U	8.58 U	9.22 U	**33.3**
P,P'-DDT	ug/kg	8.46 U	8.58 U	9.22 U	7.96 U
Total DDTs	ug/kg	---	---	---	---

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**11.9**	**4.63**	**11.5**	**8.99**	**12.6**	**3.64**	**80.9**	**57.2**	**53.3**	**11.7**	**11.7**	**17.3**	**29.3**	**3.7**
PCB 2	ng/kg	ND	ND	ND	ND	ND	ND	**4.53**	**3.02**	**3.04**	ND	ND	ND	**2.21**	ND
PCB 3	ng/kg	**4.1**	ND	1.66 R	**0.683**	**3.31**	ND	**12.7**	**9.66**	**10.6**	**2.72**	**2.4**	**4.12**	**6.87**	ND
PCB 4	ng/kg	**110**	**63.4**	**139**	**88.8**	**112**	**93.3**	**2,330**	**1,500**	**1,020**	**610**	**425**	**695**	**905**	**75**
PCB 5	ng/kg	ND	ND	ND	ND	ND	ND	**13.6**	**14.5**	**13**	6.77 R	5.67 R	**4.84**	**10.3**	ND
PCB 6	ng/kg	**13**	**5.23**	**9.94**	**6.84**	**12.7**	**5.58**	**396**	**339**	**235**	**104**	**124**	**148**	**200**	**5.08**
PCB 7	ng/kg	**1.37**	ND	ND	ND	ND	ND	**57**	**41.1**	**31.1**	**14.6**	**15.2**	**18.9**	**28.4**	ND
PCB 8	ng/kg	**42.2**	**17.2**	**31.2**	**19.9**	**32.8**	**29.3**	**1,190**	**1,030**	**796**	**498**	**426**	**438**	**596**	**18.1**
PCB 9	ng/kg	**4.21**	ND	**2.96**	ND	**3.39**	**0.851**	**95.7**	**72.2**	**50.7**	**24.6**	**24.8**	**28.9**	**43.6**	ND
PCB 10	ng/kg	**9.39**	**6.98**	**7.32**	**6.83**	**10.9**	**8.07**	**278**	**155**	**94.7**	**53.6**	**40.1**	**77.8**	**96.7**	**7.75**
PCB 11	ng/kg	**44.2**	**44.7**	**56.4**	**41.9**	**65.1**	**37**	**370**	**222**	**217**	**75.8**	**60.6**	**129**	**209**	**44.6**
PCB 12/13	ng/kg	**10.4**	**8.02**	**11.2**	**8.98**	**15.9**	**11.1**	**85.5**	**59.5**	**46.5**	**25**	19.5 R	**35.9**	**61.6**	**6.85**
PCB 14	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 15	ng/kg	**99.1**	**101**	**114**	**82.4**	**187**	**129**	**620**	**453**	**403**	**182**	**169**	**201**	**341**	**91.5**
PCB 16	ng/kg	**33.3**	**20.4**	**50.2**	**25.1**	**26.4**	**47.1**	**1,760**	**1,750**	**1,040**	**982**	**685**	**935**	**1,350**	**32.2**
PCB 17	ng/kg	**85.2**	**64.9**	**150**	**85.6**	**123**	**102**	**7,010**	**5,530**	**2,720**	**2,360**	**1,980**	**3,240**	**4,560**	**86.2**
PCB 18/30	ng/kg	**269**	**186**	**520**	**392**	**492**	**327**	**9,620**	**8,060**	**4,260**	**3,680**	**3,400**	**4,060**	**6,000**	**237**
PCB 19	ng/kg	**106**	**73.2**	**191**	**134**	**149**	**122**	**2,380**	**1,470**	**969**	**637**	**463**	**885**	**1,080**	**92.6**
PCB 20/28	ng/kg	**6,190**	**8,550**	**7,220**	**5,280**	**6,670**	**7,340**	**29,400**	**24,200**	**12,000**	**11,900**	**10,700**	**14,900**	**19,700**	**9,740**
PCB 21/33	ng/kg	**52.1**	**23.8**	ND	**22.2**	**29**	**43**	**1,760**	**2,160**	**1,380**	**1,100**	**786**	**1,260**	**1,900**	**23.7**
PCB 22	ng/kg	**238**	**266**	**679**	**422**	**399**	**277**	**5,080**	**4,370**	**2,610**	**2,000**	**1,860**	**2,450**	**3,200**	**143**
PCB 23	ng/kg	ND	ND	ND	ND	ND	ND	**20.3**	**16.2**	**9.15**	**6.95**	**7.27**	**10**	**16**	ND
PCB 24	ng/kg	**5.81**	**4.39**	ND	**8.24**	**7.54**	**8.05**	**90.2**	**79.6**	**52.4**	**46.8**	**40.5**	**45.8**	**71.1**	**5.16**
PCB 25	ng/kg	**72**	**68.4**	**179**	**106**	**125**	**58.9**	**2,730**	**2,200**	**1,160**	**823**	**866**	**1,350**	**2,030**	**57**
PCB 26/29	ng/kg	**885**	**1,400**	**1,020**	**678**	**947**	**930**	**5,970**	**4,560**	**2,460**	**2,040**	**2,060**	**3,070**	**4,550**	**1,460**
PCB 27	ng/kg	**43.7**	**28.2**	**92.8**	**57.9**	**75.7**	**44.7**	**1,780**	**1,330**	**742**	**591**	**511**	**859**	**1,270**	**43**
PCB 31	ng/kg	**2,590**	**4,680**	**2,580**	**1,690**	**2,400**	**2,740**	**18,800**	**16,000**	**8,580**	**6,530**	**5,650**	**9,260**	**12,500**	**4,110**
PCB 32	ng/kg	**191**	**218**	**470**	**306**	**392**	**237**	**5,130**	**4,230**	**2,400**	**1,910**	**1,640**	**2,570**	**2,920**	**174**
PCB 34	ng/kg	**17.4**	**18.9**	ND	**22.7**	**15.4**	**7.86**	**250**	**179**	**115**	**68.2**	**98**	**119**	**216**	**10.4**
PCB 35	ng/kg	ND	ND	ND	ND	**3.35**	ND	**3.75**	ND	ND	ND	ND	ND	**3.65**	ND
PCB 36	ng/kg	ND	ND	ND	ND	ND	ND	0 R	0 R	ND	ND	ND	ND	**2.52**	ND
PCB 37	ng/kg	0 R	91.1 R	**199**	**174**	**251**	**244**	**1,990**	**1,350**	**1,080**	**564**	**700**	**730**	**833**	**101**
PCB 38	ng/kg	**83.2**	**29.2**	**55.1**	**37.2**	**44.5**	**45.5**	**43.6**	**30.3**	**28.9**	**23.5**	**40.7**	**33.6**	**45.9**	**25.7**
PCB 39	ng/kg	**2**	ND	ND	**4.59**	**5.67**	ND	**162**	**135**	**93.4**	**71.4**	**91.9**	**126**	**133**	ND
PCB 40/41/71	ng/kg	**1,000**	**923**	**1,780**	**1,310**	**1,320**	**1,290**	**11,500**	**11,400**	**8,780**	**6,780**	**12,200**	**11,900**	**20,800**	**878**
PCB 42	ng/kg	**1,930**	**2,250**	**3,000**	**2,720**	**2,260**	**2,000**	**7,420**	**7,770**	**4,680**	**3,460**	**5,380**	**6,980**	**10,100**	**1,420**

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	27.6	29.8	133	100	132	31.1	1,520	1,180	782	550	996	985	1,620	44.3
PCB 44/47/65	ng/kg	35,100	18,300	23,200	23,900	22,000	26,500	42,300	36,300	26,300	19,100	35,200	30,900	49,700	16,800
PCB 45/51	ng/kg	418	311	661	633	613	318	4,830	4,390	2,780	1,920	2,720	3,590	5,930	320
PCB 46	ng/kg	34.1	21.8	78.9	49	56	47.3	983	865	507	374	383	728	1,310	36.8
PCB 48	ng/kg	47.6	39.6	120	93.6	106	51.7	4,610	4,290	2,300	1,990	2,920	3,820	4,670	39.3
PCB 49/69	ng/kg	4,450	5,720	6,240	6,530	5,690	3,190	36,200	30,600	24,700	14,500	32,700	26,200	44,800	3,150
PCB 50/53	ng/kg	471	170	1,060	750	786	294	5,030	4,130	2,720	1,770	2,630	3,270	5,720	274
PCB 52	ng/kg	70,500	29,300	38,200	34,900	38,100	27,000	47,400	40,000	27,800	21,200	35,900	34,800	55,300	23,300
PCB 54	ng/kg	8.77	8.13	13	12.3	10.5	10.3	142	128	70.5	51.3	40.6	80.4	105	8.69
PCB 55	ng/kg	14.4	19	ND	11.6 R	13.6	24	0 R	224	119	81.4	84.5	150	278	13.5
PCB 56	ng/kg	89.3	78.6	223	174	213	75.4	6,960	6,090	3,910	2,960	4,390	6,440	8,810	51.2
PCB 57	ng/kg	38.1	58.5	73.5	46.7	66.2	42.3	295	233	276	133	420	212	367	69.9
PCB 58	ng/kg	157	93.5	136	108	121	111	410	1,210	160	81.2	214	145	238	81.3
PCB 59/62/75	ng/kg	5,980	2,150	3,000	2,610	2,820	3,070	3,910	3,300	2,420	1,690	3,160	2,920	4,430	2,020
PCB 60	ng/kg	8,640	2,430	3,770	2,730	3,260	4,720	4,840	4,770	2,740	3,890	3,550	4,480	4,440	2,460
PCB 61/70/74/76	ng/kg	16,100	8,990	6,700	5,830	7,040	15,500	38,800	41,100	22,100	22,200	31,500	40,300	43,700	10,900
PCB 63	ng/kg	1,610	943	1,440	978	1,290	1,060	2,520	2,200	1,970	1,250	2,710	1,800	2,600	778
PCB 64	ng/kg	45,200	9,570	11,900	12,100	11,800	13,800	12,400	11,300	7,050	6,040	8,570	10,400	14,200	7,220
PCB 66	ng/kg	31,800	11,900	11,200	10,400	11,200	19,900	29,000	28,500	14,500	18,100	24,200	30,200	28,700	13,100
PCB 67	ng/kg	75.7	94.5	119	95.2	115	78.6	888	779	564	346	622	762	1,000	65
PCB 68	ng/kg	217	248	346	238	326	207	851	648	799	363	1,130	573	928	227
PCB 72	ng/kg	400	413	380	301	398	378	1,090	860	1,130	506	1,760	791	1,490	411
PCB 73	ng/kg	36.5	46.7	ND	77.9	113	27.2	266	162	181	72.9	183	160	360	38.1
PCB 77	ng/kg	23.3 R	30.9	28.8	30.3	51.7	41.2	1,410	1,280	736	593	850	1,040	1,380	25.4
PCB 78	ng/kg	16.8	ND	43.1	ND	13.9	16	ND	ND	46.1	2.7	29.6	ND	ND	14.2
PCB 79	ng/kg	160	134	315	218	201	90.2	480	452	415	206	534	421	549	58.9
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND	459	441	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	ND	ND	ND	0 R	0 R	0 R	0 R	0 R	0 R	0 R	0 R	7.1 R	0 R	0 R
PCB 82	ng/kg	939	592	1,040	825	771	826	2,020	2,520	1,840	1,050	2,490	2,770	3,310	424
PCB 83/99	ng/kg	28,600	17,200	29,400	31,900	28,000	41,400	41,500	38,700	36,300	27,200	56,500	35,000	49,100	21,800
PCB 84	ng/kg	4,760	3,100	5,060	3,630	4,350	2,090	6,360	5,350	4,790	2,230	4,810	5,890	10,300	1,890
PCB 85/116/117	ng/kg	10,300	5,330	9,300	8,590	8,080	9,170	9,000	8,780	7,680	6,060	12,200	8,020	11,000	4,210
PCB 86/87/97/108/119/125	ng/kg	---	7,840	---	9,760	---	6,690	---	---	---	---	---	---	---	---
PCB 86/87/97/109/119/125	ng/kg	---	---	12,300	---	---	---	21,200	23,900	17,900	---	---	---	27,700	---
PCB 88/91	ng/kg	4,640	3,060	4,830	4,270	4,180	2,380	8,580	7,240	8,510	3,680	9,940	6,760	12,800	1,480
PCB 89	ng/kg	6.6	2.07	3.58	8.96	7.76 R	6.54	153	174	119	77.2	159	301	367	3.11

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 90/101/113	ng/kg	29,400	20,300	38,400	29,800	32,600	21,300	53,600	54,000	44,200	24,900	65,300	44,900	57,800	14,300
PCB 92	ng/kg	8,630	5,710	6,900	7,170	6,960	5,510	9,590	9,480	10,700	5,730	15,600	8,610	14,300	4,040
PCB 93/95/98/100/102	ng/kg	17,400	11,300	23,400	15,800	20,900	7,780	32,000	27,200	24,000	12,600	29,100	27,300	43,100	6,450
PCB 94	ng/kg	51.6	36.6	84.9	99.4	117	20.4	328	227	200	81.6	176	386	839	21.5
PCB 96	ng/kg	27.4	5.04	40.9	34.8	32.7	14.5	247	196	184	81.5	265	214	388	12.6
PCB 103	ng/kg	75	25.4	97	75.2	74.3	14.9	1,340	968	1,180	645	1,950	974	1,400	10.4
PCB 104	ng/kg	ND	ND	2.89	0 R	2.47	ND	51	42.5	33.4	21.7	55.8	62.9	63.5	ND
PCB 105	ng/kg	23,800	9,450	19,600	15,200	15,800	23,200	11,200	13,100	8,060	8,190	12,800	12,000	11,600	9,300
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	---	---	1,180	---	---	---	3,500	3,440	3,350	---	---	---	4,320	---
PCB 107/124	ng/kg	---	161	---	129	---	122	---	---	---	---	---	---	---	---
PCB 108/124	ng/kg	---	---	214	---	---	---	802	1,060	667	---	---	---	1,220	---
PCB 109	ng/kg	---	647	---	811	---	803	---	---	---	---	---	---	---	---
PCB 110/115	ng/kg	44,300	24,600	38,400	33,500	35,900	24,900	35,200	38,600	31,300	16,600	43,700	34,800	48,300	13,200
PCB 111	ng/kg	71.9	65.4	79.3	84.8	79.8	118	79.3 R	72.2	144	63.3	235	87.9	148	75.9
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	212	ND	ND	ND
PCB 114	ng/kg	945	468	1,040	882	913	1,370	883	986	704	760	1,240	1,030	863	602
PCB 118	ng/kg	37,900	23,100	32,300	36,700	30,300	57,700	35,900	42,700	27,000	27,800	41,700	41,500	37,800	30,600
PCB 120	ng/kg	264	218	307	307	325	507	411	336	516	321	963	390	545	332
PCB 121	ng/kg	37.6	28.7	44.6	43.8	46.3	64.6	54	41.7	66.1	34	112	50.7	76.4	34.6
PCB 122	ng/kg	118	56.5	136	110	109	88.1	169	226	179	107	211	288	387	48
PCB 123	ng/kg	1,020	396	940	850	842	1,300	688	682	469	576	67.4 R	804	743	578
PCB 126	ng/kg	54.9	34	76.1	55.9	77.3	74.2	74.3	83.8	45	67.7	90.2	126	99	54.5
PCB 127	ng/kg	20.2	46.7	51.5 R	75.9	63.8	124	72.9	77.8	78.5	58.5	14.8	72	ND	32.9
PCB 128/166	ng/kg	9,750	6,320	12,800	9,980	11,100	13,000	7,280	6,650	8,410	5,800	12,400	6,010	8,050	5,380
PCB 129/138/160/163	ng/kg	81,700	47,400	99,600	81,900	86,800	98,000	59,800	53,800	59,800	44,900	110,000	56,700	61,300	40,000
PCB 130	ng/kg	3,520	2,180	4,090	3,880	3,680	3,680	2,950	2,780	3,530	1,620	4,810	2,550	3,290	1,420
PCB 131	ng/kg	150	114	298	175	217	66.6	375	357	319	149	410	363	381	38.1
PCB 132	ng/kg	6,650	4,780	7,340	5,790	7,200	2,800	8,450	8,200	9,050	4,090	10,200	8,310	11,100	1,740
PCB 133	ng/kg	1,350	946	1,480	1,540	1,380	2,000	1,280	1,120	1,820	924	3,140	1,290	2,010	1,040
PCB 134/143	ng/kg	1,990	1,260	2,300	1,940	2,070	1,170	4,360	3,470	1,590	727	2,040	1,890	2,370	474
PCB 135/151/154	ng/kg	10,200	6,560	19,800	9,700	15,300	8,220	26,500	14,900	23,600	13,300	25,500	14,800	21,500	3,990
PCB 136	ng/kg	2,980	1,650	4,030	2,650	3,580	1,110	4,840	3,410	3,830	1,830	5,400	4,080	5,230	599
PCB 137	ng/kg	1,870	1,160	3,620	2,480	2,810	3,490	2,270	2,350	2,720	1,920	4,510	2,320	2,510	1,370
PCB 139/140	ng/kg	1,100	740	1,330	1,150	1,140	1,270	1,080	990	1,140	812	2,090	948	1,260	550
PCB 141	ng/kg	7,260	3,930	6,860	4,790	6,410	6,790	4,680	6,190	5,660	4,290	9,350	6,000	6,830	1,900

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	0 R	ND	ND	**19.2**	**1.85**	ND
PCB 144	ng/kg	**618**	**405**	**1,010**	**644**	**778**	**260**	**2,120**	**2,040**	**1,510**	**1,160**	**2,520**	**2,030**	**1,720**	**219**
PCB 145	ng/kg	ND	ND	ND	ND	ND	ND	**10.4**	**8.54**	**8.95**	**2.85**	**11.8**	9.09 R	**12.1**	ND
PCB 146	ng/kg	**12,700**	**8,880**	**15,400**	**14,800**	**13,900**	**20,600**	**11,700**	**8,610**	**14,500**	**9,960**	**25,200**	**11,600**	**15,300**	**9,220**
PCB 147/149	ng/kg	**45,600**	**27,100**	**62,900**	**41,300**	**56,000**	**24,600**	**43,800**	**34,700**	**38,800**	**19,700**	**50,700**	**34,600**	**44,800**	**9,510**
PCB 148	ng/kg	**232**	**167**	**284**	**252**	**280**	**352**	**341**	**256**	**418**	**229**	**799**	**262**	**432**	**181**
PCB 150	ng/kg	**29.7**	**10.8**	**36**	**31.1**	**29.2**	**6.49**	**308**	**205**	**257**	**172**	**458**	**228**	**287**	ND
PCB 152	ng/kg	**8.39**	**2.96**	**6.25**	**9.89**	**9.75**	**0.874**	**57.2**	**46.6**	**50**	**22.7**	**82.3**	**58.5**	**85.8**	ND
PCB 153/168	ng/kg	**91,700**	**52,200**	**104,000**	**94,300**	**96,100**	**157,000**	**73,200**	**64,800**	**72,000**	**65,100**	**140,000**	**68,900**	**71,500**	**64,100**
PCB 155	ng/kg	**99.7**	**101**	**111**	**446**	**125**	**288**	**132**	**145**	**99.6**	**130**	**298**	**364**	**251**	**113**
PCB 156/157	ng/kg	**4,680**	**2,830**	**7,330**	**5,940**	**6,110**	**9,430**	**3,740**	**4,050**	**4,150**	**4,070**	**7,570**	**5,070**	**4,510**	**3,970**
PCB 158	ng/kg	**7,500**	**4,760**	**8,350**	**6,970**	**7,670**	**8,600**	**4,790**	**4,770**	**3,820**	**3,890**	**6,380**	**4,420**	**4,080**	**3,170**
PCB 159	ng/kg	**221**	**118**	**195**	**90.6**	**187**	**140**	**152**	**182**	**233**	**115**	**295**	**227**	**252**	**53**
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	**109**	**68**	**171**	**125**	**148**	**208**	**140**	145 R	**197**	**157**	**398**	0 R	0 R	**129**
PCB 164	ng/kg	**2,580**	**1,470**	**2,030**	**1,440**	**2,140**	**2,150**	**1,540**	**2,100**	**2,220**	**1,270**	**3,820**	**2,360**	**3,130**	**650**
PCB 165	ng/kg	**70.2**	**67.7**	**71.3**	**79**	**69.4**	**132**	**99**	**76.4**	**162**	**65.5**	**279**	**75.5**	**156**	**77.5**
PCB 167	ng/kg	**2,520**	**1,500**	**3,150**	**2,740**	**2,710**	**4,830**	**1,600**	**1,770**	**1,860**	**1,920**	**3,490**	**2,340**	**1,980**	**2,090**
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	**12,800**	**5,330**	**12,800**	**9,830**	**12,700**	**17,800**	**6,140**	**5,970**	**7,150**	**8,140**	**16,100**	**9,700**	**7,990**	**4,960**
PCB 171/173	ng/kg	**5,240**	**2,820**	**5,650**	**4,780**	**5,450**	**5,700**	**3,130**	**2,750**	**2,740**	**2,660**	**5,260**	**3,320**	**2,890**	**2,100**
PCB 172	ng/kg	**2,070**	**942**	**2,070**	**1,730**	**2,000**	**3,500**	**1,100**	**1,250**	**1,670**	**1,220**	**3,230**	**1,870**	**1,820**	**968**
PCB 174	ng/kg	**4,650**	**2,300**	**3,550**	**2,190**	**4,080**	**2,980**	**3,200**	**3,900**	**4,470**	**2,310**	**6,380**	**4,770**	**5,200**	**985**
PCB 175	ng/kg	**740**	**432**	**785**	**714**	**761**	**983**	**546**	**497**	**521**	**413**	**931**	**637**	**553**	**399**
PCB 176	ng/kg	**430**	**259**	**732**	**471**	**647**	**159**	**1,060**	**832**	**766**	**492**	**1,060**	**852**	**813**	**75.3**
PCB 177	ng/kg	**9,100**	**5,030**	**8,460**	**8,340**	**8,570**	**8,580**	**5,020**	**4,780**	**5,020**	**3,140**	**7,480**	**4,130**	**4,430**	**2,470**
PCB 178	ng/kg	**4,040**	**2,450**	**3,710**	**4,490**	**3,550**	**5,970**	**3,230**	**2,910**	**3,600**	**2,540**	**6,540**	**3,930**	**4,140**	**2,750**
PCB 179	ng/kg	**2,310**	**1,430**	**2,670**	**2,550**	**2,910**	**1,660**	**3,300**	**3,140**	**2,720**	**2,120**	**4,010**	**3,100**	**3,790**	**871**
PCB 180/193	ng/kg	**36,100**	**17,300**	**34,000**	**30,100**	**34,400**	**63,500**	**20,400**	**21,500**	**23,200**	**24,400**	**52,500**	**31,200**	**24,900**	**18,600**
PCB 181	ng/kg	**132**	**87.1**	**160**	**127**	**155**	**217**	**106**	**97.1**	**134**	**105**	**246**	**129**	**146**	**64.8**
PCB 182	ng/kg	**92.3**	**66.9**	**113**	**90.8**	**113**	**149**	**110**	**96.4**	**163**	**81.5**	**271**	**108**	**156**	**59.8**
PCB 183/185	ng/kg	**15,600**	**8,680**	**15,500**	**13,500**	**14,900**	**18,800**	**9,820**	**8,700**	**8,620**	**9,220**	**17,300**	**10,500**	**9,080**	**7,280**
PCB 184	ng/kg	**49.7**	**49.2**	**66.3**	**98**	**66.4**	**88.7**	**63.1**	**47.3**	**48.5**	**38**	**96.3**	**85.5**	**79.1**	**52.5**
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	**29,900**	**17,800**	**31,200**	**30,100**	**29,400**	**44,700**	**21,800**	**15,800**	**21,600**	**16,400**	**43,100**	**25,300**	**25,100**	**15,800**
PCB 188	ng/kg	**87.3**	**77.8**	**104**	**124**	**113**	**273**	**137**	**98.3**	**125**	**141**	**305**	**124**	**141**	**89.5**

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 189	ng/kg	**393**	**189**	**426**	**389**	**391**	**831**	**204**	**216**	**271**	**272**	**515**	**378**	**325**	**288**
PCB 190	ng/kg	**3,330**	**1,930**	**3,950**	**3,110**	**3,700**	**4,370**	**1,770**	**1,680**	**1,790**	**1,920**	**3,320**	**2,350**	**1,850**	**1,370**
PCB 191	ng/kg	**664**	**333**	**767**	**599**	**733**	**1,030**	**344**	**335**	**317**	**374**	**609**	**441**	**340**	**299**
PCB 192	ng/kg	ND	ND	ND	**3.61**	ND	ND	ND	ND	ND	ND	**3.65**	**26.4**	**10.8**	ND
PCB 194	ng/kg	**3,620**	**2,010**	**3,940**	**4,240**	**4,020**	**8,650**	**2,000**	**2,500**	**3,350**	**3,310**	**5,960**	**4,310**	**3,940**	**2,730**
PCB 195	ng/kg	**2,000**	**1,080**	**2,420**	**1,940**	**2,110**	**2,570**	**1,030**	**1,030**	**1,140**	**1,160**	**2,140**	**1,520**	**1,310**	**711**
PCB 196	ng/kg	**2,810**	**1,620**	**3,240**	**3,140**	**2,360**	**5,440**	**1,730**	**1,700**	**1,990**	**1,870**	**3,920**	**2,560**	**2,210**	**1,650**
PCB 197/200	ng/kg	**399**	**322**	**558**	**529**	**548**	**649**	**440**	**382**	**447**	**326**	**623**	**429**	**453**	**287**
PCB 198/199	ng/kg	**4,870**	**3,190**	**5,350**	**6,460**	**5,960**	**11,800**	**3,690**	**4,020**	**5,770**	**3,450**	**10,800**	**5,880**	**6,000**	**3,640**
PCB 201	ng/kg	**706**	**528**	**812**	**1,150**	**832**	**1,590**	**764**	**708**	**848**	**618**	**1,500**	**896**	**874**	**712**
PCB 202	ng/kg	**1,610**	**1,420**	**1,270**	**3,180**	**1,630**	**4,530**	**1,880**	**1,790**	**2,470**	**1,720**	**5,200**	**2,830**	**2,940**	**2,420**
PCB 203	ng/kg	**4,730**	**3,310**	**5,580**	**6,030**	**5,920**	**9,160**	**3,420**	**3,280**	**4,220**	**3,350**	**8,730**	**4,970**	**4,600**	**3,130**
PCB 204	ng/kg	**5.36**	**5.49**	**6.63**	**9.62**	**6.6**	**13**	6.47 R	**5.32**	**11.1**	**5.7**	**18.7**	**19.7**	**17.2**	**5.94**
PCB 205	ng/kg	**242**	**136**	**307**	**277**	**277**	**378**	**137**	**129**	**161**	**150**	**260**	**224**	**179**	**108**
PCB 206	ng/kg	**1,820**	**1,670**	**2,170**	**3,290**	**2,670**	**4,740**	**1,390**	**1,380**	**2,110**	**1,700**	**3,400**	**2,330**	**2,440**	**1,870**
PCB 207	ng/kg	**270**	**242**	**304**	**441**	**368**	**625**	**223**	**216**	**309**	**239**	**570**	**374**	**364**	**227**
PCB 208	ng/kg	**629**	**587**	**672**	**1,150**	**824**	**2,030**	**689**	**750**	**1,190**	**682**	**2,090**	**927**	**1,040**	**870**
PCB 209	ng/kg	**673**	**780**	**690**	**1,580**	**778**	**2,230**	**637**	**691**	**932**	**715**	**1,770**	**1,520**	**1,300**	**958**
Dichlorobiphenyl	ng/kg	**334**	**247**	**373**	**256**	**440**	**314**	**5,430**	**3,870**	**2,910**	**1,600**	**1,310**	**1,780**	**2,490**	**249**
Heptachlorobiphenyl	ng/kg	**102,000**	**43,800**	**102,000**	**91,900**	**97,200**	**123,000**	**68,500**	**54,300**	**57,300**	**40,800**	**149,000**	**77,800**	**70,200**	**45,200**
Hexachlorobiphenyl	ng/kg	**199,000**	**131,000**	**323,000**	**252,000**	**286,000**	**203,000**	**224,000**	**183,000**	**202,000**	**127,000**	**254,000**	**211,000**	**220,000**	**123,000**
Monochlorobiphenyl	ng/kg	**16**	**4.63**	**13.2**	**9.67**	**16**	**3.64**	**98.3**	**70.1**	**67**	**14.5**	**14.1**	**21.5**	**38.4**	**3.7**
Nonachlorobiphenyl	ng/kg	**2,720**	**2,490**	**3,140**	**4,500**	**3,860**	**6,450**	**2,300**	**2,340**	**3,610**	**2,620**	**3,580**	**2,440**	**3,840**	**2,970**
Octachlorobiphenyl	ng/kg	**18,700**	**13,600**	**19,500**	**24,500**	**16,300**	**38,900**	**15,100**	**15,500**	**20,400**	**16,000**	**31,400**	**15,900**	**22,500**	**13,300**
Pentachlorobiphenyl	ng/kg	**170,000**	**120,000**	**214,000**	**189,000**	**192,000**	**162,000**	**260,000**	**267,000**	**211,000**	**126,000**	**221,000**	**246,000**	**320,000**	**104,000**
Tetrachlorobiphenyl	ng/kg	**170,000**	**81,100**	**97,600**	**93,600**	**94,300**	**108,000**	**242,000**	**213,000**	**131,000**	**95,000**	**193,000**	**198,000**	**273,000**	**71,300**
Trichlorobiphenyl	ng/kg	**9,660**	**11,100**	**13,200**	**5,280**	**8,630**	**8,590**	**76,000**	**65,400**	**26,300**	**20,500**	**18,100**	**30,100**	**43,300**	**12,700**
Total PCB (Lab)	ng/kg	**648,000**	**387,000**	**753,000**	**636,000**	**685,000**	**548,000**	**859,000**	**771,000**	**619,000**	**405,000**	**769,000**	**777,000**	**910,000**	**358,000**

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-WB-1	GC-TI332-XSCUP-WB-2	GC-TI332-XSCUP-WB-3	GC-TI332-XW-WB-1
	Sample Date:	10/23/2010	10/23/2010	10/23/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	289.00	345.00	348.00	405.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 1	ng/kg	**6.13**	**4.91**	**4.55**	**4.71**
PCB 2	ng/kg	ND	ND	ND	ND
PCB 3	ng/kg	ND	ND	ND	ND
PCB 4	ng/kg	**167**	**129**	**117**	**162**
PCB 5	ng/kg	ND	ND	ND	ND
PCB 6	ng/kg	**29.4**	**19.7**	**17.9**	**33.2**
PCB 7	ng/kg	**4.04**	ND	ND	**2.4**
PCB 8	ng/kg	**55.3**	**39.3**	**35**	**73**
PCB 9	ng/kg	**4.65**	**3.41**	**3.13**	**4.02**
PCB 10	ng/kg	**21.1**	**14.2**	**12.3**	**19.2**
PCB 11	ng/kg	**25**	**17.8**	**15.9**	**42.9**
PCB 12/13	ng/kg	ND	ND	**3.83**	**8.08**
PCB 14	ng/kg	ND	ND	ND	ND
PCB 15	ng/kg	**24.9**	**23**	**20.5**	**24.1**
PCB 16	ng/kg	**114**	**86.3**	**75.4**	**145**
PCB 17	ng/kg	**377**	**278**	**262**	**530**
PCB 18/30	ng/kg	**666**	**524**	**494**	**979**
PCB 19	ng/kg	**142**	**115**	**100**	**217**
PCB 20/28	ng/kg	**2,630**	**2,100**	**2,410**	**4,350**
PCB 21/33	ng/kg	**80.9**	**62.2**	**69.5**	**212**
PCB 22	ng/kg	**293**	**225**	**229**	**427**
PCB 23	ng/kg	ND	ND	ND	ND
PCB 24	ng/kg	**11.7**	**9.31**	**8.22**	**14**
PCB 25	ng/kg	**178**	**136**	**143**	**324**
PCB 26/29	ng/kg	**521**	**424**	**450**	**984**
PCB 27	ng/kg	**88.6**	**63.5**	**57**	**220**
PCB 31	ng/kg	**718**	**528**	**491**	**2,710**
PCB 32	ng/kg	**136**	**93.1**	**84.6**	**509**
PCB 34	ng/kg	**11.8**	**8.93**	**8.89**	**32.4**
PCB 35	ng/kg	ND	ND	ND	ND
PCB 36	ng/kg	ND	ND	ND	ND
PCB 37	ng/kg	**52.2**	**50.1**	**25.1**	**35.5**
PCB 38	ng/kg	**3.56**	**4.18**	ND	ND
PCB 39	ng/kg	**4.98**	**4.5**	ND	ND
PCB 40/41/71	ng/kg	**695**	**505**	**487**	**2,660**
PCB 42	ng/kg	**712**	**600**	**592**	**1,350**

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-WB-1	GC-TI332-XSCUP-WB-2	GC-TI332-XSCUP-WB-3	GC-TI332-XW-WB-1
	Sample Date:	10/23/2010	10/23/2010	10/23/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	289.00	345.00	348.00	405.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 43	ng/kg	**75.7**	**58.8**	**69.4**	**200**
PCB 44/47/65	ng/kg	**4,270**	**3,490**	**3,950**	**10,000**
PCB 45/51	ng/kg	**320**	**246**	**242**	**585**
PCB 46	ng/kg	**54.5**	**42**	**38.4**	**125**
PCB 48	ng/kg	**192**	**140**	**140**	**435**
PCB 49/69	ng/kg	**3,380**	**2,840**	**3,240**	**7,320**
PCB 50/53	ng/kg	**210**	**157**	**147**	**466**
PCB 52	ng/kg	**4,730**	**4,020**	**4,510**	**11,000**
PCB 54	ng/kg	**14.5**	**12.9**	**12.7**	**29.7**
PCB 55	ng/kg	**13.6**	**14.2**	ND	ND
PCB 56	ng/kg	**623**	**503**	**499**	**812**
PCB 57	ng/kg	**27.1**	**22.4**	**25.9**	**67.3**
PCB 58	ng/kg	**22.2**	**19.6**	**22.7**	**46.8**
PCB 59/62/75	ng/kg	**355**	**297**	**339**	**886**
PCB 60	ng/kg	**481**	**454**	**498**	**1,200**
PCB 61/70/74/76	ng/kg	**2,830**	**2,380**	**2,520**	**8,780**
PCB 63	ng/kg	**203**	**187**	**212**	**585**
PCB 64	ng/kg	**1,140**	**872**	**991**	**2,670**
PCB 66	ng/kg	**3,300**	**2,960**	**3,390**	**7,040**
PCB 67	ng/kg	**65.9**	**56**	**59.8**	**94.2**
PCB 68	ng/kg	**80**	**69.6**	**76.7**	**239**
PCB 72	ng/kg	**108**	**96.9**	**109**	**366**
PCB 73	ng/kg	**17.8**	**16.4**	**23.4**	**70.8**
PCB 77	ng/kg	**115**	**103**	**100**	**129**
PCB 78	ng/kg	ND	ND	ND	ND
PCB 79	ng/kg	**47.4**	**52**	**49.6**	**145**
PCB 80	ng/kg	ND	ND	ND	ND
PCB 81	ng/kg	0 R	0 R	0 R	0 R
PCB 82	ng/kg	**264**	**235**	**235**	**615**
PCB 83/99	ng/kg	**4,910**	**4,310**	**4,620**	**15,800**
PCB 84	ng/kg	**574**	**469**	**461**	**1,710**
PCB 85/116/117	ng/kg	**1,050**	**993**	**1,070**	**3,360**
PCB 86/87/97/108/119/125	ng/kg	**---**	**---**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**---**	**---**	**2,590**	**6,880**
PCB 88/91	ng/kg	**812**	**724**	**778**	**1,890**
PCB 89	ng/kg	**15.4**	**13.7**	**11**	**30.9**

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
Sample Number:	GC-TI332-XSCUP-WB-1	GC-TI332-XSCUP-WB-2	GC-TI332-XSCUP-WB-3	GC-TI332-XW-WB-1
Sample Date:	10/23/2010	10/23/2010	10/23/2010	10/24/2010
Sample Species:	Scup	Scup	Scup	Weakfish
Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body
Sample Weight:	289.00	345.00	348.00	405.00

Parameter	Units	Polychlorinated Biphenyl Congeners			
PCB 90/101/113	ng/kg	**5,350**	**5,600**	**5,720**	**16,300**
PCB 92	ng/kg	**1,060**	**995**	**1,070**	**4,200**
PCB 93/95/98/100/102	ng/kg	**2,840**	**2,460**	**2,760**	**6,010**
PCB 94	ng/kg	11.6 R	**11**	**10**	**44.1**
PCB 96	ng/kg	**21.4**	**17.8**	**18.5**	**48.9**
PCB 103	ng/kg	**91**	**81.7**	**89.1**	**309**
PCB 104	ng/kg	**4.09**	**3.96**	**3.8**	**13.5**
PCB 105	ng/kg	**1,450**	**1,450**	**1,490**	**4,570**
PCB 106	ng/kg	ND	ND	ND	ND
PCB 107	ng/kg	---	---	**507**	**1,810**
PCB 107/124	ng/kg	---	---	---	---
PCB 108/124	ng/kg	---	---	**82.7**	**214**
PCB 109	ng/kg	---	---	---	---
PCB 110/115	ng/kg	**3,420**	**2,830**	**3,130**	**12,400**
PCB 111	ng/kg	**17.6**	13.6 R	**15.7**	**58.4**
PCB 112	ng/kg	ND	ND	ND	ND
PCB 114	ng/kg	**87.8**	**90.4**	**91**	**314**
PCB 118	ng/kg	**5,530**	**4,790**	**4,930**	**16,600**
PCB 120	ng/kg	**86**	**73.8**	**73.1**	**234**
PCB 121	ng/kg	**5.11**	**5.59**	**6.02**	**20.4**
PCB 122	ng/kg	**33.1**	**30.6**	**32.9**	ND
PCB 123	ng/kg	**84.5**	**84.3**	**90**	0 R
PCB 126	ng/kg	**17.1**	**15.9**	**15.4**	0 R
PCB 127	ng/kg	**5.24**	**8.35**	ND	ND
PCB 128/166	ng/kg	**1,090**	**968**	**1,000**	**3,360**
PCB 129/138/160/163	ng/kg	**8,770**	**7,840**	**7,570**	**26,000**
PCB 130	ng/kg	**420**	**390**	**396**	**1,220**
PCB 131	ng/kg	**36**	**34.2**	**35.2**	**90.5**
PCB 132	ng/kg	**1,030**	**865**	**929**	**3,250**
PCB 133	ng/kg	**154**	**148**	**147**	**815**
PCB 134/143	ng/kg	**178**	**154**	**163**	**651**
PCB 135/151/154	ng/kg	**1,970**	**1,700**	**1,830**	**5,770**
PCB 136	ng/kg	**372**	**325**	**364**	**928**
PCB 137	ng/kg	**234**	**221**	**218**	**909**
PCB 139/140	ng/kg	**117**	**104**	**110**	**407**
PCB 141	ng/kg	**481**	**480**	**480**	**2,100**

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
	Sample Number:	GC-TI332-XSCUP-WB-1	GC-TI332-XSCUP-WB-2	GC-TI332-XSCUP-WB-3	GC-TI332-XW-WB-1
	Sample Date:	10/23/2010	10/23/2010	10/23/2010	10/24/2010
	Sample Species:	Scup	Scup	Scup	Weakfish
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	289.00	345.00	348.00	405.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 142	ng/kg	ND	ND	ND	ND
PCB 144	ng/kg	**191**	**188**	**194**	**510**
PCB 145	ng/kg	ND	ND	ND	ND
PCB 146	ng/kg	**2,050**	**1,770**	**1,820**	**5,670**
PCB 147/149	ng/kg	**4,550**	**3,960**	**4,300**	**8,600**
PCB 148	ng/kg	**47.3**	**42.6**	**42**	**146**
PCB 150	ng/kg	**23.7**	**21.5**	**22.6**	**75.1**
PCB 152	ng/kg	**4.65**	**3.82**	**4.29**	**11.4**
PCB 153/168	ng/kg	**10,800**	**9,440**	**9,160**	**30,000**
PCB 155	ng/kg	**21.2**	**20.5**	**18.2**	**92.8**
PCB 156/157	ng/kg	**666**	**595**	**588**	**1,960**
PCB 158	ng/kg	**476**	**450**	**459**	**1,530**
PCB 159	ng/kg	**20.7**	**22.7**	**20.1**	**78.6**
PCB 161	ng/kg	ND	ND	ND	ND
PCB 162	ng/kg	**34.8**	**32.2**	**28.5**	**113**
PCB 164	ng/kg	**198**	**164**	**189**	**852**
PCB 165	ng/kg	**19.2**	**18**	**17.2**	**64.2**
PCB 167	ng/kg	**363**	**316**	**305**	**771**
PCB 169	ng/kg	ND	ND	ND	ND
PCB 170	ng/kg	**909**	**1,140**	**824**	**3,270**
PCB 171/173	ng/kg	**384**	**415**	**356**	**1,140**
PCB 172	ng/kg	**162**	**191**	**153**	**695**
PCB 174	ng/kg	**399**	**405**	**376**	**1,480**
PCB 175	ng/kg	**80.7**	**88**	**73.8**	**218**
PCB 176	ng/kg	**127**	**123**	**118**	**242**
PCB 177	ng/kg	**793**	**750**	**740**	**1,780**
PCB 178	ng/kg	**432**	**432**	**406**	**1,870**
PCB 179	ng/kg	**457**	**414**	**434**	**992**
PCB 180/193	ng/kg	**2,790**	**3,370**	**2,670**	**10,600**
PCB 181	ng/kg	**9.96**	**9.63**	**8.92**	**38**
PCB 182	ng/kg	**18.1**	**18.9**	**17.5**	**63.3**
PCB 183/185	ng/kg	**1,170**	**1,250**	**1,090**	**3,570**
PCB 184	ng/kg	**11.4**	**10.3**	**10.3**	**27.2**
PCB 186	ng/kg	ND	ND	ND	ND
PCB 187	ng/kg	**3,680**	**3,830**	**3,330**	**6,000**
PCB 188	ng/kg	**34.3**	**33.3**	**26.6**	**108**

TABLE I-90A
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 189	ng/kg	**43.1**	**48.8**	**42.1**	**117**
PCB 190	ng/kg	**192**	**252**	**189**	**669**
PCB 191	ng/kg	**40.5**	**46.9**	**39.6**	**147**
PCB 192	ng/kg	ND	ND	ND	ND
PCB 194	ng/kg	**442**	**585**	**445**	**1,520**
PCB 195	ng/kg	**137**	**186**	**136**	**448**
PCB 196	ng/kg	**275**	**337**	**239**	**879**
PCB 197/200	ng/kg	**84.2**	**77**	**70.2**	**191**
PCB 198/199	ng/kg	**668**	**713**	**568**	**2,320**
PCB 201	ng/kg	**185**	**184**	**154**	**449**
PCB 202	ng/kg	**569**	**527**	**462**	**1,630**
PCB 203	ng/kg	**447**	**524**	**402**	**1,560**
PCB 204	ng/kg	ND	ND	ND	**4.62**
PCB 205	ng/kg	**22.2**	**26.9**	**21**	**58.2**
PCB 206	ng/kg	**402**	**398**	**325**	**1,060**
PCB 207	ng/kg	**59.7**	**57.7**	**48.4**	**165**
PCB 208	ng/kg	**208**	**203**	**160**	**678**
PCB 209	ng/kg	**236**	**234**	**181**	**570**
Dichlorobiphenyl	ng/kg	**332**	**246**	**226**	**368**
Heptachlorobiphenyl	ng/kg	**11,700**	**12,800**	**10,900**	**18,500**
Hexachlorobiphenyl	ng/kg	**22,000**	**22,200**	**18,500**	**64,900**
Monochlorobiphenyl	ng/kg	**6.13**	**4.91**	**4.55**	**4.71**
Nonachlorobiphenyl	ng/kg	**669**	**659**	**534**	**1,900**
Octachlorobiphenyl	ng/kg	**2,840**	**3,160**	**2,500**	**9,070**
Pentachlorobiphenyl	ng/kg	**18,200**	**24,200**	**17,200**	**78,200**
Tetrachlorobiphenyl	ng/kg	**24,100**	**20,200**	**18,400**	**45,600**
Trichlorobiphenyl	ng/kg	**6,020**	**4,710**	**4,910**	**11,700**
Total PCB (Lab)	ng/kg	**81,600**	**88,300**	**70,200**	**210,000**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 1	ng/kg	**40.2**	**14.5**	**28.7**	**28.2**	**36.1**	**10.2**	**298**	**209**	**197**	**51.1**	**47.7**	**102**	**144**	**8.29**
PCB 2	ng/kg	ND	ND	ND	ND	ND	ND	**14.5**	**10.1**	**10.8**	ND	ND	ND	**10.2**	ND
PCB 3	ng/kg	**13.9**	ND	4.23 R	**2.3**	**8.78**	ND	**47.3**	**35.7**	**39.4**	**11.9**	**9.54**	**24.5**	**33.9**	ND
PCB 4	ng/kg	**373**	**198**	**346**	**279**	**323**	**264**	**8,520**	**5,460**	**3,770**	**2,650**	**1,740**	**4,070**	**4,420**	**168**
PCB 5	ng/kg	ND	ND	ND	ND	ND	ND	**50.3**	**53.1**	**47.9**	29.2 R	22.5 R	**28.4**	**50.8**	ND
PCB 6	ng/kg	**44**	**16.3**	**24.7**	**21.4**	**35.7**	**15.7**	**1,450**	**1,230**	**866**	**450**	**506**	**867**	**971**	**11.4**
PCB 7	ng/kg	**4.22**	ND	ND	ND	ND	ND	**209**	**149**	**115**	**63.5**	**61.8**	**111**	**139**	ND
PCB 8	ng/kg	**143**	**53.7**	**77.7**	**62.3**	**93.6**	**82.5**	**4,340**	**3,750**	**2,940**	**2,160**	**1,740**	**2,570**	**2,920**	**40.7**
PCB 9	ng/kg	**14.2**	ND	**7.38**	ND	**9.81**	**2.46**	**351**	**263**	**187**	**107**	**101**	**170**	**214**	ND
PCB 10	ng/kg	**32**	**21.9**	**18.6**	**21.4**	**31.5**	**22.8**	**1,030**	**563**	**351**	**234**	**163**	**457**	**472**	**17.4**
PCB 11	ng/kg	**150**	**140**	**141**	**131**	**183**	**104**	**1,360**	**815**	**805**	**329**	**247**	**763**	**1,020**	**100**
PCB 12/13	ng/kg	**35.4**	**25.1**	**28**	**28.1**	**44.6**	**31.2**	**317**	**220**	**174**	**109**	77.2 R	**212**	**300**	**15.4**
PCB 14	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 15	ng/kg	**335**	**317**	**285**	**259**	**523**	**364**	**2,280**	**1,650**	**1,490**	**792**	**689**	**1,170**	**1,650**	**206**
PCB 16	ng/kg	**113**	**63.7**	**125**	**78.6**	**69.8**	**133**	**6,410**	**6,380**	**3,830**	**4,270**	**2,800**	**5,440**	**6,590**	**72.3**
PCB 17	ng/kg	**289**	**203**	**373**	**269**	**349**	**287**	**25,400**	**20,000**	**10,100**	**10,200**	**8,080**	**18,900**	**22,200**	**194**
PCB 18/30	ng/kg	**911**	**581**	**1,290**	**1,230**	**1,400**	**923**	**35,200**	**29,100**	**15,800**	**16,000**	**13,900**	**23,700**	**29,100**	**533**
PCB 19	ng/kg	**357**	**229**	**476**	**420**	**426**	**345**	**8,740**	**5,350**	**3,590**	**2,760**	**1,890**	**5,170**	**5,290**	**208**
PCB 20/28	ng/kg	**21,000**	**26,800**	**18,000**	**16,500**	**19,300**	**20,700**	**108,000**	**88,200**	**44,800**	**51,600**	**43,400**	**86,800**	**95,100**	**21,900**
PCB 21/33	ng/kg	**186**	**74.9**	ND	**69.4**	**76.9**	**121**	**6,450**	**7,990**	**5,140**	**4,800**	**3,220**	**7,380**	**9,270**	**54.5**
PCB 22	ng/kg	**810**	**833**	**1,690**	**1,320**	**1,150**	**784**	**18,400**	**15,900**	**9,690**	**8,680**	**7,620**	**14,400**	**15,600**	**322**
PCB 23	ng/kg	ND	ND	ND	ND	ND	ND	**74.1**	**58.9**	**34.3**	**30.2**	**29.7**	**58.4**	**78.3**	ND
PCB 24	ng/kg	**19.8**	**13.8**	ND	**25.9**	**19.9**	**22.7**	**339**	**294**	**195**	**203**	**166**	**269**	**347**	**11.6**
PCB 25	ng/kg	**246**	**215**	**445**	**332**	**364**	**166**	**9,900**	**7,980**	**4,310**	**3,580**	**3,530**	**7,900**	**9,870**	**128**
PCB 26/29	ng/kg	**3,000**	**4,390**	**2,540**	**2,130**	**2,750**	**2,630**	**21,900**	**16,600**	**9,230**	**8,860**	**8,390**	**18,000**	**22,200**	**3,280**
PCB 27	ng/kg	**148**	**88.4**	**231**	**182**	**218**	**126**	**6,490**	**4,810**	**2,760**	**2,570**	**2,080**	**5,040**	**6,180**	**96.5**
PCB 31	ng/kg	**8,760**	**14,700**	**6,430**	**5,290**	**6,970**	**7,740**	**68,500**	**58,000**	**32,100**	**28,400**	**23,000**	**54,300**	**60,800**	**9,220**
PCB 32	ng/kg	**659**	**688**	**1,170**	**957**	**1,120**	**670**	**18,600**	**15,300**	**8,890**	**8,330**	**6,690**	**15,000**	**14,400**	**390**
PCB 34	ng/kg	**59.1**	**59.4**	ND	**71.1**	**40.7**	**22.2**	**903**	**647**	**431**	**296**	**398**	**699**	**1,050**	**23.5**
PCB 35	ng/kg	ND	ND	ND	ND	**8.85**	ND	**12**	ND	ND	ND	ND	ND	**17**	ND
PCB 36	ng/kg	ND	ND	ND	ND	ND	ND	0 R	0 R	ND	ND	ND	ND	**11.7**	ND
PCB 37	ng/kg	0 R	265 R	**496**	**543**	**728**	**687**	**7,320**	**4,900**	**3,980**	**2,450**	**2,850**	**4,260**	**4,060**	**231**
PCB 38	ng/kg	**283**	**91.8**	**137**	**115**	**135**	**129**	**158**	**112**	**110**	**102**	**166**	**188**	**214**	**57.8**
PCB 39	ng/kg	**6.15**	ND	ND	**14.3**	**15**	ND	**595**	**495**	**349**	**311**	**374**	**728**	**619**	ND
PCB 40/41/71	ng/kg	**3,400**	**2,890**	**4,430**	**4,110**	**3,900**	**3,660**	**42,800**	**42,000**	**33,200**	**29,400**	**49,500**	**69,200**	**101,000**	**1,970**
PCB 42	ng/kg	**6,500**	**7,040**	**7,480**	**8,540**	**6,540**	**5,660**	**27,400**	**28,200**	**17,500**	**15,000**	**21,800**	**40,500**	**48,800**	**3,190**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 43	ng/kg	**85.2**	**92.8**	**330**	**312**	**405**	**87.7**	**5,500**	**4,310**	**2,940**	**2,390**	**4,040**	**5,720**	**7,820**	**98.5**
PCB 44/47/65	ng/kg	**118,000**	**57,200**	**57,600**	**75,100**	**64,500**	**75,100**	**154,000**	**132,000**	**98,800**	**83,000**	**143,000**	**178,000**	**241,000**	**37,700**
PCB 45/51	ng/kg	**1,410**	**974**	**1,660**	**1,990**	**1,790**	**900**	**17,700**	**15,900**	**10,400**	**8,330**	**11,000**	**20,800**	**28,800**	**719**
PCB 46	ng/kg	**116**	**68.2**	**196**	**154**	**162**	**133**	**3,560**	**3,140**	**1,890**	**1,620**	**1,560**	**4,240**	**6,370**	**82.8**
PCB 48	ng/kg	**161**	**124**	**299**	**294**	**301**	**145**	**16,700**	**15,600**	**8,550**	**8,650**	**11,800**	**22,000**	**22,700**	**88.4**
PCB 49/69	ng/kg	**15,100**	**18,000**	**15,500**	**20,500**	**16,500**	**9,010**	**131,000**	**110,000**	**92,600**	**63,100**	**132,000**	**151,000**	**217,000**	**7,080**
PCB 50/53	ng/kg	**1,590**	**533**	**2,650**	**2,360**	**2,280**	**830**	**18,400**	**14,900**	**10,200**	**7,680**	**10,700**	**19,000**	**27,900**	**615**
PCB 52	ng/kg	**239,000**	**91,300**	**95,200**	**110,000**	**112,000**	**76,300**	**172,000**	**145,000**	**105,000**	**92,200**	**145,000**	**201,000**	**268,000**	**52,400**
PCB 54	ng/kg	**29.6**	**25.4**	**32.4**	**38.4**	**30.3**	**29**	**519**	**467**	**263**	**222**	**165**	**467**	**513**	**19.5**
PCB 55	ng/kg	**44.2**	**59.2**	ND	35.3 R	**36**	**67.8**	0 R	**748**	**423**	**351**	**335**	**897**	**1,350**	**30.9**
PCB 56	ng/kg	**302**	**246**	**555**	**544**	**592**	**212**	**25,700**	**22,700**	**14,600**	**12,900**	**17,800**	**37,500**	**42,900**	**115**
PCB 57	ng/kg	**128**	**183**	**183**	**146**	**193**	**119**	**1,070**	**846**	**1,030**	**577**	**1,700**	**1,230**	**1,780**	**157**
PCB 58	ng/kg	**532**	**292**	**337**	**338**	**359**	**314**	**2,010**	**4,450**	**600**	**352**	**865**	**844**	**1,160**	**183**
PCB 59/62/75	ng/kg	**20,200**	**6,740**	**7,460**	**8,200**	**8,280**	**8,660**	**14,200**	**12,000**	**9,090**	**7,340**	**12,800**	**16,900**	**21,500**	**4,530**
PCB 60	ng/kg	**29,200**	**7,630**	**9,380**	**8,550**	**9,630**	**13,300**	**17,800**	**17,600**	**10,300**	**16,900**	**14,400**	**25,900**	**21,500**	**5,520**
PCB 61/70/74/76	ng/kg	**54,300**	**28,100**	**16,700**	**18,300**	**20,700**	**43,800**	**141,000**	**150,000**	**82,400**	**96,300**	**127,000**	**232,000**	**212,000**	**24,600**
PCB 63	ng/kg	**5,470**	**2,960**	**3,590**	**3,060**	**3,820**	**2,980**	**9,130**	**7,980**	**7,380**	**5,450**	**10,900**	**10,400**	**12,600**	**1,740**
PCB 64	ng/kg	**152,000**	**29,900**	**29,500**	**37,900**	**34,600**	**39,000**	**45,600**	**41,400**	**26,800**	**26,200**	**34,800**	**60,400**	**69,100**	**16,200**
PCB 66	ng/kg	**107,000**	**37,300**	**27,900**	**32,500**	**32,700**	**56,200**	**106,000**	**105,000**	**54,200**	**78,400**	**98,000**	**174,000**	**139,000**	**29,400**
PCB 67	ng/kg	**252**	**296**	**296**	**298**	**333**	**222**	**3,220**	**2,830**	**2,100**	**1,500**	**2,530**	**4,410**	**4,840**	**146**
PCB 68	ng/kg	**736**	**776**	**861**	**746**	**957**	**585**	**3,070**	**2,340**	**2,980**	**1,570**	**4,570**	**3,330**	**4,490**	**508**
PCB 72	ng/kg	**1,360**	**1,290**	**946**	**944**	**1,180**	**1,070**	**3,950**	**3,110**	**4,230**	**2,200**	**7,120**	**4,600**	**7,200**	**922**
PCB 73	ng/kg	**113**	**146**	ND	**243**	**347**	**76.5**	**986**	**540**	**689**	**314**	**725**	**937**	**1,770**	**84.2**
PCB 77	ng/kg	72 R	**95.9**	**71.8**	**95.4**	**145**	**116**	**5,140**	**4,690**	**2,720**	**2,580**	**3,450**	**6,060**	**6,710**	**56.7**
PCB 78	ng/kg	**65**	ND	**108**	ND	**51.1**	**46.3**	ND	ND	**174**	**12.4**	**123**	ND	ND	**31.6**
PCB 79	ng/kg	**545**	**419**	**783**	**679**	**589**	**255**	**1,770**	**1,670**	**1,550**	**895**	**2,160**	**2,450**	**2,660**	**132**
PCB 80	ng/kg	ND	ND	ND	ND	ND	ND	**1,670**	**1,620**	ND	ND	ND	ND	ND	ND
PCB 81	ng/kg	ND	ND	ND	0 R	0 R	0 R	0 R	0 R	0 R	0 R	0 R	54.7 R	0 R	0 R
PCB 82	ng/kg	**3,170**	**1,850**	**2,580**	**2,590**	**2,270**	**2,340**	**7,420**	**9,210**	**6,860**	**4,550**	**10,100**	**16,000**	**16,000**	**952**
PCB 83/99	ng/kg	**97,100**	**53,600**	**73,200**	**100,000**	**83,200**	**117,000**	**151,000**	**141,000**	**136,000**	**118,000**	**229,000**	**203,000**	**238,000**	**48,800**
PCB 84	ng/kg	**16,200**	**9,680**	**12,600**	**11,400**	**12,800**	**5,930**	**23,200**	**19,500**	**18,000**	**9,650**	**19,500**	**34,200**	**49,900**	**4,250**
PCB 85/116/117	ng/kg	**35,000**	**16,700**	**23,200**	**27,000**	**23,900**	**25,900**	**33,000**	**32,300**	**28,800**	**26,300**	**49,300**	**46,500**	**52,900**	**9,430**
PCB 86/87/97/108/119/125	ng/kg	**---**	**24,500**	**---**	**30,600**	**---**	**18,900**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**---**	**---**	**30,700**	**---**	**---**	**---**	**77,900**	**86,800**	**66,800**	**---**	**---**	**---**	**134,000**	**---**
PCB 88/91	ng/kg	**15,800**	**9,600**	**12,000**	**13,400**	**12,300**	**6,710**	**31,500**	**26,300**	**31,800**	**16,000**	**40,300**	**39,300**	**62,000**	**3,320**
PCB 89	ng/kg	**22.2**	**7.04**	**8.63**	**28.1**	20.5 R	**18.4**	**562**	**640**	**445**	**336**	**646**	**1,730**	**1,780**	**7.15**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 90/101/113	ng/kg	99,600	63,500	95,600	93,500	96,400	60,200	194,000	195,000	165,000	108,000	264,000	260,000	280,000	32,000
PCB 92	ng/kg	29,300	18,000	17,200	22,500	20,700	15,500	35,000	34,500	40,000	24,900	63,000	50,000	69,100	9,050
PCB 93/95/98/100/102	ng/kg	58,900	35,500	58,300	49,600	61,300	22,000	116,000	97,900	89,900	54,800	118,000	158,000	209,000	14,500
PCB 94	ng/kg	174	115	211	312	349	57.6	1,190	822	755	354	712	2,230	4,060	48.3
PCB 96	ng/kg	92.5	17.1	102	109	94.8	40.9	900	713	687	355	1,070	1,240	1,880	28.3
PCB 103	ng/kg	253	79	241	236	208	42.1	4,850	3,500	4,400	2,800	7,880	5,630	6,800	23.4
PCB 104	ng/kg	ND	ND	7.21	0 R	6.52	ND	186	156	125	94.2	225	360	308	ND
PCB 105	ng/kg	80,800	29,500	48,800	47,600	46,800	65,500	41,200	48,000	30,500	35,700	52,200	69,200	55,900	20,900
PCB 106	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 107	ng/kg	---	---	2,930	---	---	---	12,800	12,600	12,500	---	---	---	20,800	---
PCB 107/124	ng/kg	---	503	---	403	---	345	---	---	---	---	---	---	---	---
PCB 108/124	ng/kg	---	---	533	---	---	---	2,930	3,900	2,480	---	---	---	5,910	---
PCB 109	ng/kg	---	2,020	---	2,540	---	2,270	---	---	---	---	---	---	---	---
PCB 110/115	ng/kg	151,000	76,900	95,400	104,000	106,000	70,200	128,000	140,000	117,000	72,300	177,000	202,000	234,000	29,700
PCB 111	ng/kg	243	204	197	266	236	335	253 R	264	536	275	949	509	714	170
PCB 112	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	837	ND	ND	ND
PCB 114	ng/kg	3,190	1,470	2,580	2,760	2,710	3,860	3,210	3,620	2,640	3,300	5,010	5,960	4,170	1,350
PCB 118	ng/kg	129,000	72,400	80,600	115,000	89,100	163,000	131,000	156,000	102,000	121,000	169,000	239,000	183,000	68,600
PCB 120	ng/kg	888	681	764	962	951	1,430	1,490	1,210	1,920	1,390	3,880	2,260	2,630	746
PCB 121	ng/kg	127	89.9	111	138	136	183	196	151	247	148	450	293	369	77.8
PCB 122	ng/kg	401	177	338	344	322	249	621	844	671	467	861	1,670	1,870	107
PCB 123	ng/kg	3,420	1,240	2,340	2,660	2,480	3,690	2,510	2,520	1,750	2,500	332 R	4,640	3,600	1,300
PCB 126	ng/kg	185	106	189	175	225	210	267	305	170	293	363	724	479	122
PCB 127	ng/kg	77.8	147	124 R	236	169	351	269	283	295	255	72.6	402	ND	75.9
PCB 128/166	ng/kg	33,300	19,800	31,800	31,200	33,000	36,700	26,800	24,400	31,600	25,200	50,400	34,900	38,800	12,100
PCB 129/138/160/163	ng/kg	277,000	148,000	248,000	257,000	256,000	277,000	217,000	195,000	224,000	195,000	445,000	329,000	295,000	89,800
PCB 130	ng/kg	12,000	6,800	10,200	12,100	10,900	10,400	10,600	10,000	13,200	7,040	19,400	14,700	15,900	3,180
PCB 131	ng/kg	508	358	742	549	637	188	1,360	1,300	1,190	646	1,660	2,100	1,840	85.6
PCB 132	ng/kg	22,700	14,900	18,200	18,100	21,300	7,920	31,000	29,900	33,700	17,800	41,200	48,300	54,000	3,910
PCB 133	ng/kg	4,560	2,950	3,680	4,820	4,070	5,650	4,620	4,040	6,820	4,010	12,700	7,500	9,650	2,340
PCB 134/143	ng/kg	6,730	3,940	5,730	6,080	6,100	3,300	15,900	12,600	5,950	3,150	8,230	11,300	11,400	1,060
PCB 135/151/154	ng/kg	34,800	20,400	49,300	30,400	47,100	23,200	92,700	54,400	86,500	57,500	103,000	86,500	104,000	8,970
PCB 136	ng/kg	10,100	5,150	10,000	8,290	10,500	3,140	17,400	12,400	14,300	7,960	21,800	23,500	25,300	1,340
PCB 137	ng/kg	6,380	3,610	9,020	7,770	8,380	9,880	8,220	8,540	10,200	8,360	18,200	13,400	12,100	3,070
PCB 139/140	ng/kg	3,730	2,320	3,310	3,590	3,360	3,580	3,920	3,590	4,250	3,530	8,430	5,500	6,060	1,230
PCB 141	ng/kg	24,600	12,300	17,100	15,000	18,900	19,200	17,000	22,600	21,100	18,700	37,800	34,700	32,900	4,270

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 142	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	0 R	ND	ND	**107**	**11.2**	ND
PCB 144	ng/kg	**2,100**	**1,270**	**2,520**	**2,030**	**2,280**	**733**	**7,670**	**7,400**	**5,630**	**5,060**	**10,200**	**11,700**	**8,300**	**491**
PCB 145	ng/kg	ND	ND	ND	ND	ND	ND	**37.5**	**31.4**	**33.4**	**12.3**	**47.7**	50.8 R	**58.5**	ND
PCB 146	ng/kg	**43,000**	**27,900**	**38,500**	**46,200**	**40,800**	**58,200**	**42,600**	**32,100**	**54,700**	**43,300**	**102,000**	**67,800**	**73,800**	**20,700**
PCB 147/149	ng/kg	**155,000**	**84,500**	**157,000**	**130,000**	**165,000**	**69,500**	**159,000**	**127,000**	**145,000**	**85,500**	**205,000**	**200,000**	**216,000**	**21,400**
PCB 148	ng/kg	**785**	**520**	**706**	**790**	**828**	**996**	**1,230**	**920**	**1,560**	**992**	**3,230**	**1,520**	**2,070**	**406**
PCB 150	ng/kg	**101**	**33.7**	**89.7**	**97.5**	**83**	**18.2**	**1,110**	**742**	**952**	**749**	**1,860**	**1,320**	**1,380**	ND
PCB 152	ng/kg	**28.4**	**9.23**	**15.6**	**30.9**	**28.9**	**2.53**	**209**	**170**	**186**	**98.6**	**333**	**337**	**414**	ND
PCB 153/168	ng/kg	**310,000**	**163,000**	**258,000**	**296,000**	**284,000**	**443,000**	**264,000**	**235,000**	**270,000**	**283,000**	**563,000**	**399,000**	**344,000**	**144,000**
PCB 155	ng/kg	**335**	**315**	**275**	**1,400**	**366**	**813**	**484**	**534**	**375**	**564**	**1,200**	**2,080**	**1,210**	**253**
PCB 156/157	ng/kg	**15,800**	**8,820**	**18,200**	**18,500**	**18,100**	**26,700**	**13,500**	**14,800**	**15,600**	**17,700**	**30,500**	**29,200**	**21,800**	**8,920**
PCB 158	ng/kg	**25,500**	**14,900**	**20,800**	**21,800**	**22,600**	**24,300**	**17,400**	**17,300**	**14,400**	**16,900**	**25,800**	**25,600**	**19,700**	**7,100**
PCB 159	ng/kg	**751**	**368**	**486**	**280**	**555**	**397**	**559**	**666**	**872**	**499**	**1,200**	**1,310**	**1,220**	**119**
PCB 161	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 162	ng/kg	**368**	**212**	**425**	**388**	**431**	**588**	**512**	484 R	**733**	**684**	**1,610**	0 R	0 R	**289**
PCB 164	ng/kg	**8,710**	**4,600**	**5,050**	**4,510**	**6,210**	**6,070**	**5,620**	**7,640**	**8,250**	**5,500**	**15,400**	**13,600**	**15,100**	**1,460**
PCB 165	ng/kg	**238**	**211**	**177**	**248**	**205**	**373**	**360**	**275**	**606**	**285**	**1,130**	**439**	**753**	**173**
PCB 167	ng/kg	**8,490**	**4,680**	**7,850**	**8,530**	**7,990**	**13,700**	**5,820**	**6,440**	**7,010**	**8,310**	**14,100**	**13,500**	**9,580**	**4,680**
PCB 169	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 170	ng/kg	**42,800**	**16,600**	**31,800**	**30,700**	**36,800**	**50,300**	**22,200**	**21,800**	**26,800**	**35,300**	**65,000**	**55,800**	**38,400**	**11,100**
PCB 171/173	ng/kg	**17,600**	**8,810**	**14,100**	**15,000**	**15,900**	**16,100**	**11,400**	**9,910**	**10,200**	**11,600**	**21,300**	**19,100**	**13,900**	**4,730**
PCB 172	ng/kg	**6,980**	**2,940**	**5,140**	**5,430**	**5,840**	**9,900**	**3,990**	**4,520**	**6,220**	**5,320**	**13,000**	**10,800**	**8,750**	**2,180**
PCB 174	ng/kg	**15,600**	**7,180**	**8,840**	**6,830**	**11,900**	**8,440**	**11,600**	**14,100**	**16,600**	**10,100**	**25,800**	**27,500**	**25,000**	**2,220**
PCB 175	ng/kg	**2,500**	**1,350**	**1,950**	**2,230**	**2,230**	**2,780**	**1,970**	**1,800**	**1,950**	**1,790**	**3,770**	**3,680**	**2,660**	**896**
PCB 176	ng/kg	**1,460**	**810**	**1,820**	**1,480**	**1,880**	**451**	**3,840**	**3,000**	**2,840**	**2,130**	**4,290**	**4,920**	**3,930**	**169**
PCB 177	ng/kg	**30,700**	**15,800**	**21,000**	**26,100**	**25,200**	**24,200**	**18,300**	**17,200**	**18,800**	**13,600**	**30,200**	**23,800**	**21,400**	**5,550**
PCB 178	ng/kg	**13,700**	**7,640**	**9,220**	**14,100**	**10,400**	**16,800**	**11,700**	**10,500**	**13,500**	**11,000**	**26,400**	**22,700**	**19,900**	**6,180**
PCB 179	ng/kg	**7,820**	**4,480**	**6,640**	**7,990**	**8,550**	**4,710**	**12,100**	**11,400**	**10,100**	**9,220**	**16,300**	**18,000**	**18,200**	**1,960**
PCB 180/193	ng/kg	**120,000**	**53,700**	**84,600**	**93,900**	**100,000**	**180,000**	**74,100**	**77,800**	**86,800**	**106,000**	**211,000**	**180,000**	**119,000**	**41,900**
PCB 181	ng/kg	**447**	**272**	**398**	**396**	**454**	**614**	**386**	**353**	**498**	**458**	**994**	**743**	**701**	**146**
PCB 182	ng/kg	**312**	**209**	**283**	**284**	**328**	**421**	**401**	**351**	**607**	**354**	**1,090**	**627**	**751**	**134**
PCB 183/185	ng/kg	**52,400**	**27,000**	**38,700**	**42,300**	**43,800**	**53,300**	**35,700**	**31,500**	**32,400**	**40,000**	**69,700**	**61,000**	**43,700**	**16,300**
PCB 184	ng/kg	**168**	**154**	**165**	**307**	**194**	**251**	**229**	**170**	**182**	**165**	**389**	**494**	**381**	**118**
PCB 186	ng/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 187	ng/kg	**100,000**	**55,500**	**77,600**	**94,000**	**86,100**	**126,000**	**79,900**	**58,800**	**81,200**	**71,300**	**174,000**	**146,000**	**121,000**	**35,500**
PCB 188	ng/kg	**293**	**243**	**259**	**387**	**330**	**773**	**500**	**356**	**466**	**611**	**1,230**	**719**	**681**	**201**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**													
PCB 189	ng/kg	1,320	588	1,060	1,220	1,150	2,350	737	785	1,020	1,180	2,070	2,180	1,560	646
PCB 190	ng/kg	11,200	6,010	9,850	9,740	10,900	12,400	6,430	6,090	6,700	8,340	13,400	13,500	8,910	3,080
PCB 191	ng/kg	2,240	1,040	1,910	1,880	2,150	2,920	1,260	1,220	1,200	1,630	2,470	2,550	1,640	671
PCB 192	ng/kg	ND	ND	ND	11.3	ND	ND	ND	ND	ND	ND	14.5	150	51.9	ND
PCB 194	ng/kg	12,200	6,240	9,830	13,300	11,800	24,400	7,300	9,180	12,600	14,400	24,000	24,900	18,900	6,140
PCB 195	ng/kg	6,740	3,360	6,030	6,060	6,190	7,260	3,740	3,750	4,270	5,050	8,660	8,740	6,310	1,590
PCB 196	ng/kg	9,440	5,040	8,080	9,830	6,250	15,400	6,280	6,190	7,430	8,100	15,900	14,700	10,600	3,730
PCB 197/200	ng/kg	1,350	1,010	1,390	1,660	1,600	1,840	1,590	1,390	1,680	1,420	2,540	2,490	2,180	641
PCB 198/199	ng/kg	16,500	9,950	13,300	20,200	17,200	33,300	13,400	14,600	21,400	15,000	43,600	33,800	28,800	8,190
PCB 201	ng/kg	2,390	1,650	2,020	3,610	2,400	4,510	2,770	2,560	3,170	2,680	6,070	5,180	4,200	1,600
PCB 202	ng/kg	5,420	4,420	3,150	9,930	4,740	12,800	6,860	6,530	9,250	7,480	21,000	16,300	14,100	5,440
PCB 203	ng/kg	15,900	10,300	13,900	18,800	17,200	25,900	12,400	11,900	15,700	14,600	35,100	28,600	22,100	7,060
PCB 204	ng/kg	18.2	17.2	16.5	30.1	19.3	36.7	20.7 R	17.8	41.2	24.8	75.5	113	82.6	13.4
PCB 205	ng/kg	814	424	764	867	810	1,070	500	472	604	649	1,050	1,290	859	243
PCB 206	ng/kg	6,110	5,190	5,400	10,300	7,690	13,400	5,160	5,140	7,940	7,360	13,800	13,500	11,900	4,210
PCB 207	ng/kg	905	753	757	1,380	1,060	1,760	828	800	1,160	1,040	2,300	2,160	1,760	511
PCB 208	ng/kg	2,110	1,830	1,670	3,590	2,380	5,750	2,530	2,750	4,450	2,970	8,390	5,340	5,020	1,950
PCB 209	ng/kg	2,260	2,430	1,720	4,920	2,240	6,290	2,380	2,580	3,520	3,100	7,130	8,760	6,310	2,160
Dichlorobiphenyl	ng/kg	1,130	771	928	802	1,250	886	19,900	14,200	10,700	6,930	5,360	10,400	12,200	559
Heptachlorobiphenyl	ng/kg	337,000	136,000	253,000	287,000	283,000	348,000	256,000	204,000	212,000	177,000	598,000	445,000	341,000	102,000
Hexachlorobiphenyl	ng/kg	683,000	409,000	804,000	790,000	838,000	578,000	792,000	645,000	752,000	553,000	1,030,000	1,210,000	1,050,000	276,000
Monochlorobiphenyl	ng/kg	54	14.5	32.9	30.5	45	10.2	359	255	247	62.9	57.3	126	188	8.29
Nonachlorobiphenyl	ng/kg	9,120	7,760	7,830	14,000	11,100	18,200	8,500	8,720	13,500	11,400	14,700	14,300	18,700	6,680
Octachlorobiphenyl	ng/kg	63,700	42,400	48,700	75,900	48,600	110,000	54,900	56,500	76,200	69,400	127,000	92,600	108,000	29,800
Pentachlorobiphenyl	ng/kg	591,000	373,000	531,000	594,000	563,000	457,000	931,000	953,000	783,000	548,000	898,000	1,420,000	1,540,000	234,000
Tetrachlorobiphenyl	ng/kg	585,000	253,000	243,000	294,000	276,000	305,000	857,000	763,000	487,000	412,000	778,000	1,140,000	1,320,000	160,000
Trichlorobiphenyl	ng/kg	33,100	34,200	32,900	16,500	25,800	24,400	264,000	234,000	100,000	89,600	75,200	176,000	211,000	28,600
Total PCB (Lab)	ng/kg	2,220,000	1,200,000	1,880,000	2,000,000	2,010,000	1,550,000	3,030,000	2,740,000	2,300,000	1,760,000	3,110,000	4,460,000	4,360,000	804,000

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 1	ng/kg	**31.1**	**24.5**	**25.5**	**22.1**
PCB 2	ng/kg	ND	ND	ND	ND
PCB 3	ng/kg	ND	ND	ND	ND
PCB 4	ng/kg	**850**	**643**	**659**	**739**
PCB 5	ng/kg	ND	ND	ND	ND
PCB 6	ng/kg	**149**	**97.6**	**100**	**153**
PCB 7	ng/kg	**20.2**	ND	ND	**10.7**
PCB 8	ng/kg	**280**	**195**	**196**	**335**
PCB 9	ng/kg	**23.3**	**16.4**	**17.6**	**17.9**
PCB 10	ng/kg	**107**	**70.8**	**68.9**	**88**
PCB 11	ng/kg	**126**	**88.5**	**89.1**	**195**
PCB 12/13	ng/kg	ND	ND	**21.5**	**36.1**
PCB 14	ng/kg	ND	ND	ND	ND
PCB 15	ng/kg	**126**	**113**	**115**	**109**
PCB 16	ng/kg	**577**	**430**	**423**	**668**
PCB 17	ng/kg	**1,910**	**1,380**	**1,470**	**2,440**
PCB 18/30	ng/kg	**3,370**	**2,600**	**2,770**	**4,480**
PCB 19	ng/kg	**717**	**572**	**562**	**991**
PCB 20/28	ng/kg	**13,300**	**10,500**	**13,600**	**19,800**
PCB 21/33	ng/kg	**410**	**311**	**390**	**969**
PCB 22	ng/kg	**1,480**	**1,120**	**1,280**	**1,960**
PCB 23	ng/kg	ND	ND	ND	ND
PCB 24	ng/kg	**59.3**	**46.5**	**46.1**	**64.1**
PCB 25	ng/kg	**898**	**677**	**802**	**1,480**
PCB 26/29	ng/kg	**2,640**	**2,100**	**2,520**	**4,510**
PCB 27	ng/kg	**448**	**316**	**320**	**1,020**
PCB 31	ng/kg	**3,630**	**2,610**	**2,760**	**12,400**
PCB 32	ng/kg	**687**	**463**	**474**	**2,340**
PCB 34	ng/kg	**59.6**	**44.4**	**49.8**	**149**
PCB 35	ng/kg	ND	ND	ND	ND
PCB 36	ng/kg	ND	ND	ND	ND
PCB 37	ng/kg	**263**	**245**	**141**	**162**
PCB 38	ng/kg	**17.8**	**20.1**	ND	ND
PCB 39	ng/kg	**25.3**	**21.6**	ND	ND
PCB 40/41/71	ng/kg	**3,520**	**2,510**	**2,730**	**12,200**
PCB 42	ng/kg	**3,600**	**2,980**	**3,320**	**6,190**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
Sample Number:		GC-TI332-XSCUP-WB-1	GC-TI332-XSCUP-WB-2	GC-TI332-XSCUP-WB-3	GC-TI332-XW-WB-1
Sample Date:		10/23/2010	10/23/2010	10/23/2010	10/24/2010
Sample Species:		Scup	Scup	Scup	Weakfish
Sample Type:		Whole Body	Whole Body	Whole Body	Whole Body
Sample Weight:		289.00	345.00	348.00	405.00
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 43	ng/kg	**384**	**295**	**389**	**918**
PCB 44/47/65	ng/kg	**21,600**	**17,400**	**22,200**	**45,900**
PCB 45/51	ng/kg	**1,620**	**1,220**	**1,350**	**2,690**
PCB 46	ng/kg	**276**	**209**	**215**	**577**
PCB 48	ng/kg	**976**	**698**	**789**	**2,000**
PCB 49/69	ng/kg	**17,100**	**14,100**	**18,200**	**33,600**
PCB 50/53	ng/kg	**1,070**	**779**	**825**	**2,140**
PCB 52	ng/kg	**23,900**	**20,000**	**25,300**	**50,600**
PCB 54	ng/kg	**73.2**	**64.3**	**71.2**	**136**
PCB 55	ng/kg	**67.9**	**68.2**	ND	ND
PCB 56	ng/kg	**3,150**	**2,490**	**2,800**	**3,710**
PCB 57	ng/kg	**137**	**111**	**145**	**308**
PCB 58	ng/kg	**112**	**97.2**	**128**	**215**
PCB 59/62/75	ng/kg	**1,800**	**1,480**	**1,900**	**4,080**
PCB 60	ng/kg	**2,430**	**2,250**	**2,800**	**5,510**
PCB 61/70/74/76	ng/kg	**14,300**	**11,800**	**14,100**	**40,300**
PCB 63	ng/kg	**1,030**	**931**	**1,190**	**2,680**
PCB 64	ng/kg	**5,740**	**4,330**	**5,560**	**12,200**
PCB 66	ng/kg	**16,700**	**14,700**	**19,000**	**32,300**
PCB 67	ng/kg	**333**	**278**	**336**	**432**
PCB 68	ng/kg	**404**	**345**	**430**	**1,090**
PCB 72	ng/kg	**546**	**482**	**614**	**1,680**
PCB 73	ng/kg	**90.8**	**83.5**	**131**	**327**
PCB 77	ng/kg	**583**	**511**	**562**	**588**
PCB 78	ng/kg	ND	ND	ND	ND
PCB 79	ng/kg	**241**	**259**	**279**	**665**
PCB 80	ng/kg	ND	ND	ND	ND
PCB 81	ng/kg	0 R	0 R	0 R	0 R
PCB 82	ng/kg	**1,330**	**1,170**	**1,320**	**2,830**
PCB 83/99	ng/kg	**24,800**	**21,400**	**25,900**	**72,700**
PCB 84	ng/kg	**2,900**	**2,330**	**2,580**	**7,840**
PCB 85/116/117	ng/kg	**5,280**	**4,930**	**6,020**	**15,500**
PCB 86/87/97/108/119/125	ng/kg	**---**	**---**	**---**	**---**
PCB 86/87/97/109/119/125	ng/kg	**---**	**---**	**14,500**	**31,600**
PCB 88/91	ng/kg	**4,100**	**3,600**	**4,360**	**8,680**
PCB 89	ng/kg	**78.4**	**68**	**61.7**	**142**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 90/101/113	ng/kg	**27,100**	**27,800**	**32,100**	**75,100**
PCB 92	ng/kg	**5,350**	**4,940**	**5,990**	**19,300**
PCB 93/95/98/100/102	ng/kg	**14,300**	**12,300**	**15,500**	**27,600**
PCB 94	ng/kg	57.9 R	**54.7**	**56.2**	**203**
PCB 96	ng/kg	**108**	**89**	**104**	**226**
PCB 103	ng/kg	**460**	**406**	**500**	**1,430**
PCB 104	ng/kg	**20.5**	**19.1**	**21.3**	**62.2**
PCB 105	ng/kg	**7,320**	**7,190**	**8,360**	**21,000**
PCB 106	ng/kg	ND	ND	ND	ND
PCB 107	ng/kg	---	---	**2,850**	**8,310**
PCB 107/124	ng/kg	---	---	---	---
PCB 108/124	ng/kg	---	---	**464**	**986**
PCB 109	ng/kg	---	---	---	---
PCB 110/115	ng/kg	**17,300**	**14,100**	**17,600**	**57,200**
PCB 111	ng/kg	**89.2**	65 R	**88.1**	**269**
PCB 112	ng/kg	ND	ND	ND	ND
PCB 114	ng/kg	**444**	**449**	**511**	**1,450**
PCB 118	ng/kg	**28,000**	**23,800**	**27,700**	**76,400**
PCB 120	ng/kg	**435**	**366**	**410**	**1,080**
PCB 121	ng/kg	**25.5**	**27.7**	**33.8**	**94**
PCB 122	ng/kg	**167**	**153**	**184**	ND
PCB 123	ng/kg	**427**	**418**	**505**	0 R
PCB 126	ng/kg	**86.4**	**78.6**	**86.3**	0 R
PCB 127	ng/kg	**26.2**	**40.2**	ND	ND
PCB 128/166	ng/kg	**5,490**	**4,810**	**5,610**	**15,500**
PCB 129/138/160/163	ng/kg	**44,300**	**38,900**	**42,500**	**120,000**
PCB 130	ng/kg	**2,130**	**1,940**	**2,220**	**5,600**
PCB 131	ng/kg	**182**	**170**	**197**	**418**
PCB 132	ng/kg	**5,230**	**4,310**	**5,210**	**14,900**
PCB 133	ng/kg	**784**	**739**	**819**	**3,750**
PCB 134/143	ng/kg	**902**	**768**	**917**	**3,000**
PCB 135/151/154	ng/kg	**10,000**	**8,490**	**10,300**	**26,500**
PCB 136	ng/kg	**1,880**	**1,620**	**2,040**	**4,260**
PCB 137	ng/kg	**1,180**	**1,100**	**1,220**	**4,190**
PCB 139/140	ng/kg	**591**	**520**	**616**	**1,880**
PCB 141	ng/kg	**2,430**	**2,390**	**2,690**	**9,680**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 142	ng/kg	ND	ND	ND	ND
PCB 144	ng/kg	**967**	**939**	**1,090**	**2,350**
PCB 145	ng/kg	ND	ND	ND	ND
PCB 146	ng/kg	**10,400**	**8,850**	**10,200**	**26,000**
PCB 147/149	ng/kg	**23,000**	**19,700**	**24,100**	**39,500**
PCB 148	ng/kg	**239**	**212**	**236**	**673**
PCB 150	ng/kg	**120**	**107**	**127**	**347**
PCB 152	ng/kg	**23.3**	**18.4**	**24.1**	**52.4**
PCB 153/168	ng/kg	**54,700**	**46,900**	**51,400**	**137,000**
PCB 155	ng/kg	**107**	**102**	**102**	**428**
PCB 156/157	ng/kg	**3,360**	**2,950**	**3,300**	**9,020**
PCB 158	ng/kg	**2,410**	**2,240**	**2,570**	**7,050**
PCB 159	ng/kg	**105**	**113**	**113**	**363**
PCB 161	ng/kg	ND	ND	ND	ND
PCB 162	ng/kg	**176**	**160**	**160**	**521**
PCB 164	ng/kg	**1,000**	**817**	**1,060**	**3,920**
PCB 165	ng/kg	**97.2**	**89.6**	**96.3**	**296**
PCB 167	ng/kg	**1,840**	**1,570**	**1,720**	**3,540**
PCB 169	ng/kg	ND	ND	ND	ND
PCB 170	ng/kg	**4,600**	**5,640**	**4,620**	**15,000**
PCB 171/173	ng/kg	**1,950**	**2,060**	**2,000**	**5,230**
PCB 172	ng/kg	**823**	**954**	**854**	**3,190**
PCB 174	ng/kg	**2,020**	**2,020**	**2,110**	**6,780**
PCB 175	ng/kg	**409**	**438**	**414**	**1,000**
PCB 176	ng/kg	**641**	**616**	**659**	**1,110**
PCB 177	ng/kg	**4,010**	**3,740**	**4,150**	**8,170**
PCB 178	ng/kg	**2,180**	**2,150**	**2,280**	**8,550**
PCB 179	ng/kg	**2,320**	**2,060**	**2,430**	**4,550**
PCB 180/193	ng/kg	**14,100**	**16,700**	**14,900**	**48,700**
PCB 181	ng/kg	**50.4**	**48.1**	**50**	**175**
PCB 182	ng/kg	**91.8**	**94.7**	**98.1**	**292**
PCB 183/185	ng/kg	**5,940**	**6,220**	**6,120**	**16,400**
PCB 184	ng/kg	**57.6**	**51.2**	**57.5**	**125**
PCB 186	ng/kg	ND	ND	ND	ND
PCB 187	ng/kg	**18,600**	**19,000**	**18,700**	**27,800**
PCB 188	ng/kg	**173**	**165**	**149**	**495**

TABLE I-90B
PCB Congener Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Polychlorinated Biphenyl Congeners**			
PCB 189	ng/kg	**218**	**243**	**236**	**536**
PCB 190	ng/kg	**975**	**1,250**	**1,060**	**3,070**
PCB 191	ng/kg	**205**	**234**	**222**	**679**
PCB 192	ng/kg	ND	ND	ND	ND
PCB 194	ng/kg	**2,240**	**2,920**	**2,500**	**6,980**
PCB 195	ng/kg	**697**	**927**	**762**	**2,060**
PCB 196	ng/kg	**1,400**	**1,680**	**1,340**	**4,040**
PCB 197/200	ng/kg	**427**	**385**	**393**	**883**
PCB 198/199	ng/kg	**3,390**	**3,560**	**3,190**	**10,700**
PCB 201	ng/kg	**941**	**919**	**867**	**2,070**
PCB 202	ng/kg	**2,880**	**2,630**	**2,590**	**7,490**
PCB 203	ng/kg	**2,270**	**2,610**	**2,250**	**7,160**
PCB 204	ng/kg	ND	ND	ND	**20.6**
PCB 205	ng/kg	**113**	**134**	**118**	**268**
PCB 206	ng/kg	**2,040**	**1,990**	**1,820**	**4,910**
PCB 207	ng/kg	**303**	**289**	**272**	**764**
PCB 208	ng/kg	**1,050**	**1,020**	**896**	**3,120**
PCB 209	ng/kg	**1,200**	**1,170**	**1,020**	**2,640**
Dichlorobiphenyl	ng/kg	**1,680**	**1,220**	**1,270**	**1,680**
Heptachlorobiphenyl	ng/kg	**59,400**	**63,600**	**61,200**	**86,800**
Hexachlorobiphenyl	ng/kg	**112,000**	**111,000**	**104,000**	**298,000**
Monochlorobiphenyl	ng/kg	**31.1**	**24.5**	**25.5**	**22.1**
Nonachlorobiphenyl	ng/kg	**3,390**	**3,300**	**2,990**	**8,760**
Octachlorobiphenyl	ng/kg	**14,400**	**15,700**	**14,000**	**41,700**
Pentachlorobiphenyl	ng/kg	**92,900**	**121,000**	**96,100**	**359,000**
Tetrachlorobiphenyl	ng/kg	**122,000**	**100,000**	**104,000**	**211,000**
Trichlorobiphenyl	ng/kg	**30,400**	**23,400**	**27,500**	**53,500**
Total PCB (Lab)	ng/kg	**414,000**	**441,000**	**394,000**	**973,000**

TABLE I-91A
Metal and Lipid Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Metals**													
Aluminum	mg/kg	9.75 U	9.7 U	9.7 U	9.73 U	9.7 U	**17.8**	9.92 U	9.74 U	9.8 U	9.7 U	9.75 U	9.77 U	9.84 U	9.67 U
Antimony	mg/kg	2.93 U	2.9 U	2.9 U	2.91 U	2.9 U	2.93 U	2.98 U	2.92 U	2.95 U	2.9 U	2.91 U	2.94 U	2.93 U	2.9 U
Arsenic	mg/kg	0.488 U	**0.491**	0.485 U	0.486 U	0.485 U	0.488 U	**0.447**	0.487 U	**0.561**	**0.569**	**0.555**	0.489 U	0.492 U	0.484 U
Barium	mg/kg	9.75 U	9.7 U	9.7 U	9.73 U	9.7 U	9.77 U	9.92 U	9.74 U	9.8 U	9.7 U	9.75 U	9.77 U	9.84 U	9.67 U
Beryllium	mg/kg	0.245 U	0.245 U	0.245 U	0.245 U	0.245 U	0.245 U	0.248 U	0.245 U	0.245 U	0.245 U	0.246 U	0.245 U	0.248 U	0.244 U
Cadmium	mg/kg	0.245 U	0.245 U	0.245 U	0.245 U	0.245 U	0.245 U	0.248 U	0.245 U	0.245 U	0.245 U	0.246 U	0.245 U	0.248 U	0.244 U
Calcium	mg/kg	**2,790**	**6,220**	**453**	**1,590**	**843**	**1,730**	**8,800**	**6,920**	**4,690**	**4,970**	**4,650**	**5,800**	**9,940**	**2,060**
Chromium	mg/kg	**0.425**	**0.756**	0.485 U	**0.497**	0.485 U	**0.796**	**0.435**	**0.46**	0.49 U	0.485 U	0.488 U	0.489 U	0.492 U	0.484 U
Cobalt	mg/kg	2.45 U	2.45 U	2.45 U	2.45 U	2.45 U	2.45 U	2.48 U	2.45 U	2.45 U	2.45 U	2.46 U	2.45 U	2.48 U	2.44 U
Copper	mg/kg	**2.72**	**7.51**	1.2 U	**1.11**	1.2 U	**2.34**	**1.28**	**1.22**	**1.09**	1.2 U	**0.922**	**18.2**	**6.36**	1.2 U
Iron	mg/kg	**19.5**	**31.2**	**15.9**	**16.8**	**23.4**	**99.9**	**22.1**	**24.6**	**28.9**	**15.9**	**16.9**	**14.3**	**13.5**	**16.6**
Lead	mg/kg	0.488 U	0.485 U	0.485 U	0.486 U	0.485 U	**0.602**	0.496 U	0.487 U	0.49 U	0.485 U	0.488 U	0.489 U	0.492 U	0.484 U
Magnesium	mg/kg	**255**	**307**	242 U	**248**	**205**	**223**	**358**	**417**	**368**	**339**	**354**	**266**	**371**	**222**
Manganese	mg/kg	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	**1.59**	**1.45**	**1.62**	**1.53**	0.75 U	0.75 U	**0.933**	**4.31**	0.736 U
Mercury	mg/kg	**0.153**	**0.168**	**0.0647**	**0.0992**	**0.0647**	**0.28**	0.246 U	**0.132**	**0.13**	**0.16**	**0.185**	**0.153**	**0.146**	**0.131**
Nickel	mg/kg	1.95 U	1.95 U	1.95 U	1.95 U	1.95 U	1.95 U	1.98 U	1.95 U	1.95 U	1.95 U	1.96 U	1.95 U	1.98 U	1.94 U
Potassium	mg/kg	**2,420**	**2,530**	**2,000**	**2,760**	**2,450**	**2,110**	**2,460**	**2,800**	**3,210**	**3,460**	**3,260**	**1,830**	**2,000**	**2,050**
Selenium	mg/kg	**1.49**	**1.59**	**1.37**	**1.26**	**1.2**	**1.43**	**1.52**	**1.46**	**1.33**	**1.6**	**1.42**	**1.47**	**1.36**	1.7 U
Silver	mg/kg	0.488 U	0.485 U	0.485 U	0.486 U	0.485 U	0.488 U	0.496 U	0.487 U	0.49 U	0.485 U	0.488 U	**0.415**	0.492 U	0.484 U
Sodium	mg/kg	**766**	**1,000**	**702**	**898**	**951**	**884**	**1,110**	**1,220**	**1,400**	**1,020**	**1,450**	**805**	**1,090**	**767**
Thallium	mg/kg	1.23 U	1.2 U	1.2 U	1.21 U	1.2 U	1.23 U	1.25 U	1.22 U	1.25 U	1.2 U	1.21 U	1.24 U	1.23 U	1.2 U
Vanadium	mg/kg	2.45 U	2.45 U	2.45 U	2.45 U	2.45 U	2.45 U	2.48 U	2.45 U	2.45 U	2.45 U	2.46 U	2.45 U	2.48 U	2.44 U
Zinc	mg/kg	**14.4**	**20.6**	**12.3**	**22.5**	**16.1**	**26.3**	**9.51**	**13.8**	**16.7**	**10.2**	**12.4**	**12**	**16.8**	**19.3**
Cyanide, Total	mg/kg	**0.833**	**0.973**	**0.253**	**1.76**	**1.01**	**1.66**	**0.631**	**2.06**	**0.855**	1.21 U	1.2 U	**0.455**	**0.951**	1.21 U
Percent Lipids	%	**11**	**12.9**	**20.4**	**11.4**	**17.2**	**17.3**	**8.29**	**5.98**	**4.39**	**2.32**	**1.58**	**3.42**	**4.15**	**20.3**

TABLE I-91A
Metal and Lipid Concentrations in Whole Body Larger Fish Species – Calculated Values – Wet Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XSCUP	GC-TI332-XW
Sample Number:		GC-TI332-XSCUP-WB-1	GC-TI332-XSCUP-WB-2	GC-TI332-XSCUP-WB-3	GC-TI332-XW-WB-1
Sample Date:		10/23/2010	10/23/2010	10/23/2010	10/24/2010
Sample Species:		Scup	Scup	Scup	Weakfish
Sample Type:		Whole Body	Whole Body	Whole Body	Whole Body
Sample Weight:		289.00	345.00	348.00	405.00
Parameter	**Units**	**Metals**			
Aluminum	mg/kg	9.8 U	9.74 U	9.84 U	9.8 U
Antimony	mg/kg	2.95 U	2.92 U	2.93 U	2.95 U
Arsenic	mg/kg	**0.537**	**0.619**	**0.605**	0.49 U
Barium	mg/kg	9.8 U	9.74 U	9.84 U	9.8 U
Beryllium	mg/kg	0.245 U	0.245 U	0.248 U	0.245 U
Cadmium	mg/kg	0.245 U	0.245 U	0.248 U	0.245 U
Calcium	mg/kg	**7,190**	**13,900**	**10,500**	**5,480**
Chromium	mg/kg	0.49 U	**0.471**	**0.393**	0.49 U
Cobalt	mg/kg	2.45 U	2.45 U	2.48 U	2.45 U
Copper	mg/kg	1.25 U	**1**	1.23 U	**1.01**
Iron	mg/kg	**29.8**	**34.5**	**27**	**16.5**
Lead	mg/kg	0.49 U	**0.656**	0.492 U	0.49 U
Magnesium	mg/kg	**319**	**416**	**393**	**370**
Manganese	mg/kg	**2.34**	**4.23**	**3.18**	**2.69**
Mercury	mg/kg	**0.0839**	**0.0746**	**0.122**	**0.156**
Nickel	mg/kg	1.95 U	1.95 U	1.98 U	1.95 U
Potassium	mg/kg	**2,640**	**2,500**	**2,600**	**2,960**
Selenium	mg/kg	**1.36**	**1.64**	**1.34**	1.7 U
Silver	mg/kg	0.49 U	0.487 U	0.492 U	0.49 U
Sodium	mg/kg	**896**	**975**	**1,100**	**1,280**
Thallium	mg/kg	1.25 U	1.22 U	1.23 U	1.25 U
Vanadium	mg/kg	2.45 U	2.45 U	2.48 U	2.45 U
Zinc	mg/kg	**7.99**	**11.5**	**9.68**	**15.5**
Cyanide, Total	mg/kg	1.25 U	**4.42**	**3.36**	1.23 U
Percent Lipids	%	**2.62**	**1.97**	**1.76**	**2.1**

TABLE I-91B
Metal and Lipid Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Station Location:	GC-TI402-XAE	GC-TI402-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI403-XAE	GC-TI406-XAE	GC-TI401-SB	GC-TI401-SB	GC-TI403-SB	GC-TI406-SB	GC-TI406-SB	GC-TI401-WP	GC-TI401-WP	GC-TI327-XAE
	Sample Number:	GC-TI402-XAE-WB-1	GC-TI402-XAE-WB-2	GC-TI403-XAE-WB-1	GC-TI403-XAE-WB-2	GC-TI403-XAE-WB-3	GC-TI406-XAE-WB-1	GC-TI401-SB-WB-1	GC-TI401-SB-WB-2	GC-TI403-SB-WB-1	GC-TI406-SB-WB-1	GC-TI406-SB-WB-2	GC-TI401-WP-WB-1	GC-TI401-WP-WB-2	GC-TI327-XAE-WB-1
	Sample Date:	10/19/2010	10/19/2010	10/20/2010	10/20/2010	10/20/2010	10/21/2010	10/18/2010	10/18/2010	10/21/2010	10/22/2010	10/22/2010	10/18/2010	10/18/2010	10/23/2010
	Sample Species:	American Eel	American Eel	American Eel	American Eel	American Eel	American Eel	Striped Bass	Striped Bass	Striped Bass	Striped Bass	Striped Bass	White Perch	White Perch	American Eel
	Sample Type:	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body	Whole Body
	Sample Weight:	274.40	236.70	592.00	443.00	586.00	348.30	461.86	369.91	379.00	724.96	413.22	507.54	379.33	940.00
Parameter	**Units**	**Metals**													
Aluminum	mg/kg	33.6 U	30.2 U	24.2 U	30.5 U	28.4 U	**49.7**	43.5 U	42.8 U	38.2 U	42.4 U	41.2 U	59.8 U	50.2 U	21.7 U
Antimony	mg/kg	10.1 U	9.05 U	7.23 U	9.16 U	8.47 U	8.23 U	13.1 U	12.8 U	11.5 U	12.7 U	12.3 U	18 U	14.9 U	6.51 U
Arsenic	mg/kg	1.68 U	**1.53**	1.21 U	1.53 U	1.42 U	1.37 U	**2.02**	2.13 U	**2.23**	**2.48**	**2.34**	3 U	2.5 U	1.09 U
Barium	mg/kg	33.6 U	30.2 U	24.2 U	30.5 U	28.4 U	27.4 U	43.5 U	42.8 U	38.2 U	42.4 U	41.2 U	59.8 U	50.2 U	21.7 U
Beryllium	mg/kg	0.845 U	0.763 U	0.61 U	0.767 U	0.719 U	0.69 U	1.09 U	1.07 U	0.954 U	1.07 U	1.04 U	1.51 U	1.27 U	0.549 U
Cadmium	mg/kg	0.845 U	0.763 U	0.61 U	0.767 U	0.719 U	0.69 U	1.09 U	1.07 U	0.954 U	1.07 U	1.04 U	1.51 U	1.27 U	0.549 U
Calcium	mg/kg	**8,690**	**18,100**	**1,140**	**4,850**	**2,300**	**4,810**	**28,400**	**23,600**	**16,900**	**21,500**	**18,500**	**32,600**	**48,100**	**4,730**
Chromium	mg/kg	**1.49**	**2.34**	1.21 U	**1.56**	1.42 U	**2.22**	**1.98**	**2.04**	1.91 U	2.12 U	2.06 U	3 U	2.5 U	1.09 U
Cobalt	mg/kg	8.45 U	7.63 U	6.1 U	7.67 U	7.19 U	6.9 U	10.9 U	10.7 U	9.54 U	10.7 U	10.4 U	15.1 U	12.7 U	5.49 U
Copper	mg/kg	**8.67**	**23.4**	2.99 U	**3.46**	3.51 U	**6.52**	**5.59**	**5.38**	**4.32**	5.23 U	**3.98**	**102**	**30**	2.7 U
Iron	mg/kg	**62**	**93.5**	**40.1**	**51.7**	**63.2**	**277**	**76.7**	**86.9**	**105**	**68.7**	**68.1**	**82.4**	**64.9**	**38**
Lead	mg/kg	1.68 U	1.51 U	1.21 U	1.53 U	1.42 U	**1.69**	2.17 U	2.13 U	1.91 U	2.12 U	2.06 U	3 U	2.5 U	1.09 U
Magnesium	mg/kg	**886**	**932**	605 U	**782**	**591**	**628**	**1,370**	**1,750**	**1,420**	**1,470**	**1,490**	**1,620**	**1,880**	**499**
Manganese	mg/kg	2.59 U	2.34 U	1.87 U	2.35 U	2.2 U	**4.42**	**5.54**	**6.21**	**5.71**	3.28 U	3.17 U	**5.63**	**22.4**	1.66 U
Mercury	mg/kg	**0.493**	**0.5**	**0.162**	**0.311**	**0.187**	**0.786**	1.08 U	**0.596**	**0.524**	**0.705**	**0.786**	**0.963**	**0.752**	**0.294**
Nickel	mg/kg	6.73 U	6.08 U	4.87 U	6.12 U	5.7 U	5.48 U	8.68 U	8.53 U	7.61 U	8.53 U	8.31 U	12 U	10.1 U	4.35 U
Potassium	mg/kg	**8,470**	**7,910**	**4,990**	**8,730**	**7,160**	**5,920**	**10,400**	**12,100**	**12,700**	**15,100**	**14,000**	**11,700**	**10,500**	**4,610**
Selenium	mg/kg	**5.21**	**4.97**	**3.4**	**3.95**	**3.51**	**4.04**	**6.9**	**6.63**	**5.12**	**6.95**	**6.1**	**9.03**	**7.08**	3.82 U
Silver	mg/kg	1.68 U	1.51 U	1.21 U	1.53 U	1.42 U	1.37 U	2.17 U	2.13 U	1.91 U	2.12 U	2.06 U	**2.59**	2.5 U	1.09 U
Sodium	mg/kg	**2,620**	**3,110**	**1,760**	**2,820**	**2,680**	**2,480**	**4,110**	**4,670**	**5,330**	**4,460**	**5,940**	**4,850**	**5,430**	**1,740**
Thallium	mg/kg	4.22 U	3.74 U	2.99 U	3.81 U	3.51 U	3.47 U	5.5 U	5.38 U	4.88 U	5.23 U	5.14 U	7.6 U	6.26 U	2.7 U
Vanadium	mg/kg	8.45 U	7.63 U	6.1 U	7.67 U	7.19 U	6.9 U	10.9 U	10.7 U	9.54 U	10.7 U	10.4 U	15.1 U	12.7 U	5.49 U
Zinc	mg/kg	**48.6**	**62.8**	**30.6**	**71.2**	**45.8**	**73.8**	**35.1**	**52.2**	**64.8**	**44.4**	**50.6**	**69.8**	**82.5**	**43.3**
Cyanide, Total	mg/kg	**2.7**	**2.95**	**0.63**	**5.64**	**2.82**	**4.71**	**2.74**	**7.52**	**3.14**	5.28 U	5.07 U	**2.66**	**4.83**	2.73 U
Percent Lipids	%	**11**	**12.9**	**20.4**	**11.4**	**17.2**	**17.3**	**8.29**	**5.98**	**4.39**	**2.32**	**1.58**	**3.42**	**4.15**	**20.3**

TABLE I-91B
Metal and Lipid Concentrations in Whole Body Larger Fish Species – Calculated Values – Dry Weight
Gowanus Canal Remedial Investigation
Brooklyn, New York

Station Location:		**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XSCUP**	**GC-TI332-XW**
Sample Number:		**GC-TI332-XSCUP-WB-1**	**GC-TI332-XSCUP-WB-2**	**GC-TI332-XSCUP-WB-3**	**GC-TI332-XW-WB-1**
Sample Date:		**10/23/2010**	**10/23/2010**	**10/23/2010**	**10/24/2010**
Sample Species:		**Scup**	**Scup**	**Scup**	**Weakfish**
Sample Type:		**Whole Body**	**Whole Body**	**Whole Body**	**Whole Body**
Sample Weight:		**289.00**	**345.00**	**348.00**	**405.00**
Parameter	**Units**	**Metals**			
Aluminum	mg/kg	50.3 U	50.6 U	55 U	47.4 U
Antimony	mg/kg	15.1 U	15.2 U	16.4 U	14.2 U
Arsenic	mg/kg	**2.75**	**3.16**	**3.39**	2.37 U
Barium	mg/kg	50.3 U	50.6 U	55 U	47.4 U
Beryllium	mg/kg	1.26 U	1.27 U	1.39 U	1.18 U
Cadmium	mg/kg	1.26 U	1.27 U	1.39 U	1.18 U
Calcium	mg/kg	**36,100**	**67,500**	**58,900**	**24,600**
Chromium	mg/kg	2.51 U	**2.45**	**2.2**	2.37 U
Cobalt	mg/kg	12.6 U	12.7 U	13.9 U	11.8 U
Copper	mg/kg	6.42 U	**5.3**	6.89 U	**4.98**
Iron	mg/kg	**149**	**168**	**152**	**75.5**
Lead	mg/kg	2.51 U	**3.35**	2.75 U	2.37 U
Magnesium	mg/kg	**1,630**	**2,100**	**2,200**	**1,750**
Manganese	mg/kg	**11.8**	**20.6**	**17.9**	**12.3**
Mercury	mg/kg	**0.432**	**0.388**	**0.68**	**0.768**
Nickel	mg/kg	10 U	10.1 U	11.1 U	9.42 U
Potassium	mg/kg	**13,700**	**13,000**	**14,600**	**14,500**
Selenium	mg/kg	**6.98**	**8.53**	**7.49**	8.23 U
Silver	mg/kg	2.51 U	2.53 U	2.75 U	2.37 U
Sodium	mg/kg	**4,580**	**4,940**	**6,140**	**5,930**
Thallium	mg/kg	6.42 U	6.33 U	6.89 U	6.05 U
Vanadium	mg/kg	12.6 U	12.7 U	13.9 U	11.8 U
Zinc	mg/kg	**40.5**	**57.1**	**54.3**	**70.7**
Cyanide, Total	mg/kg	6.42 U	**25.1**	**18.8**	5.97 U
Percent Lipids	%	**2.62**	**1.97**	**1.76**	**2.1**

Appendix J
Statistical Summaries

Contents

Probability Plots

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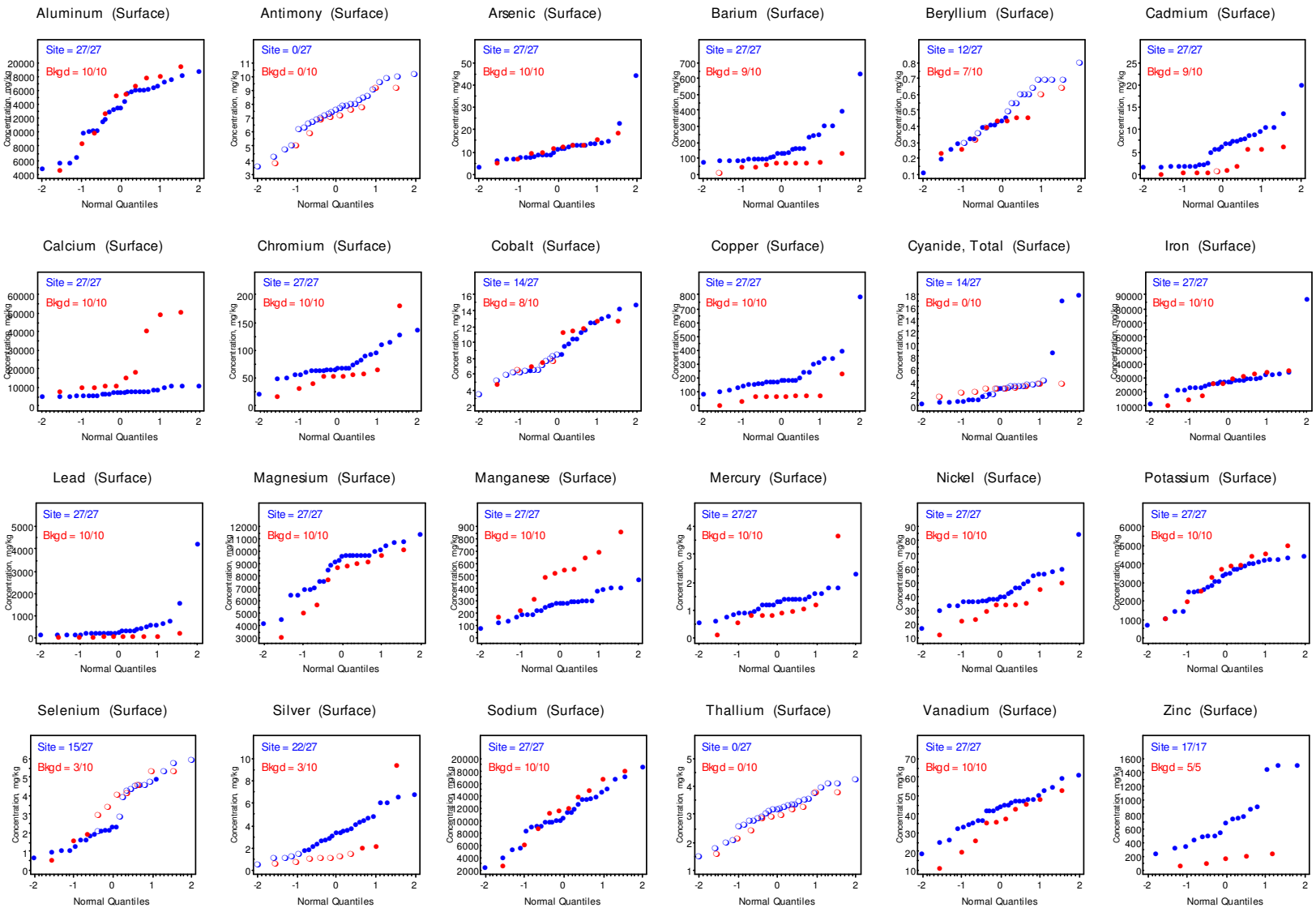
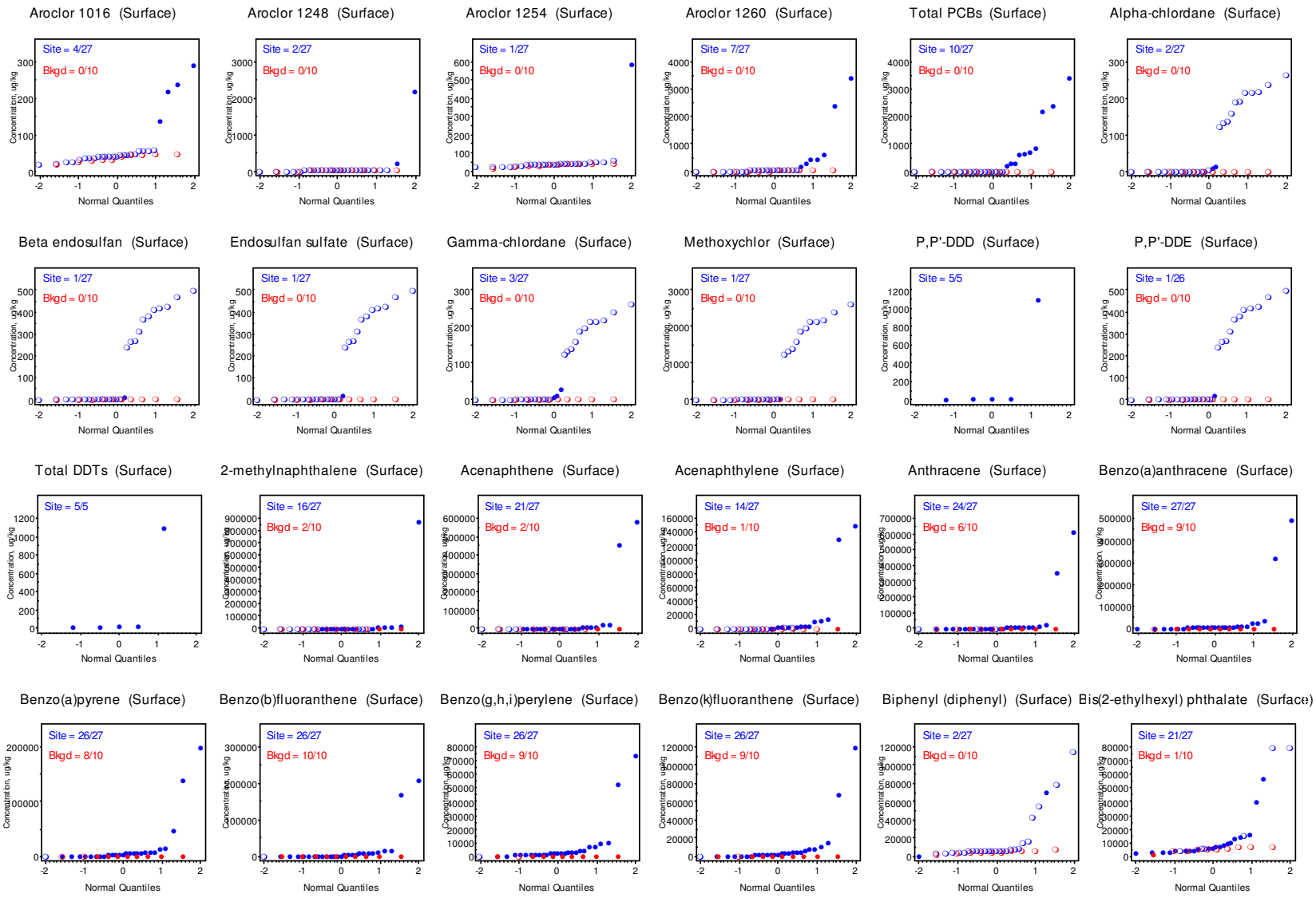
Figure 1: Probability Plot Comparisons of Site Versus Background for Inorganic Constituents in Sediment



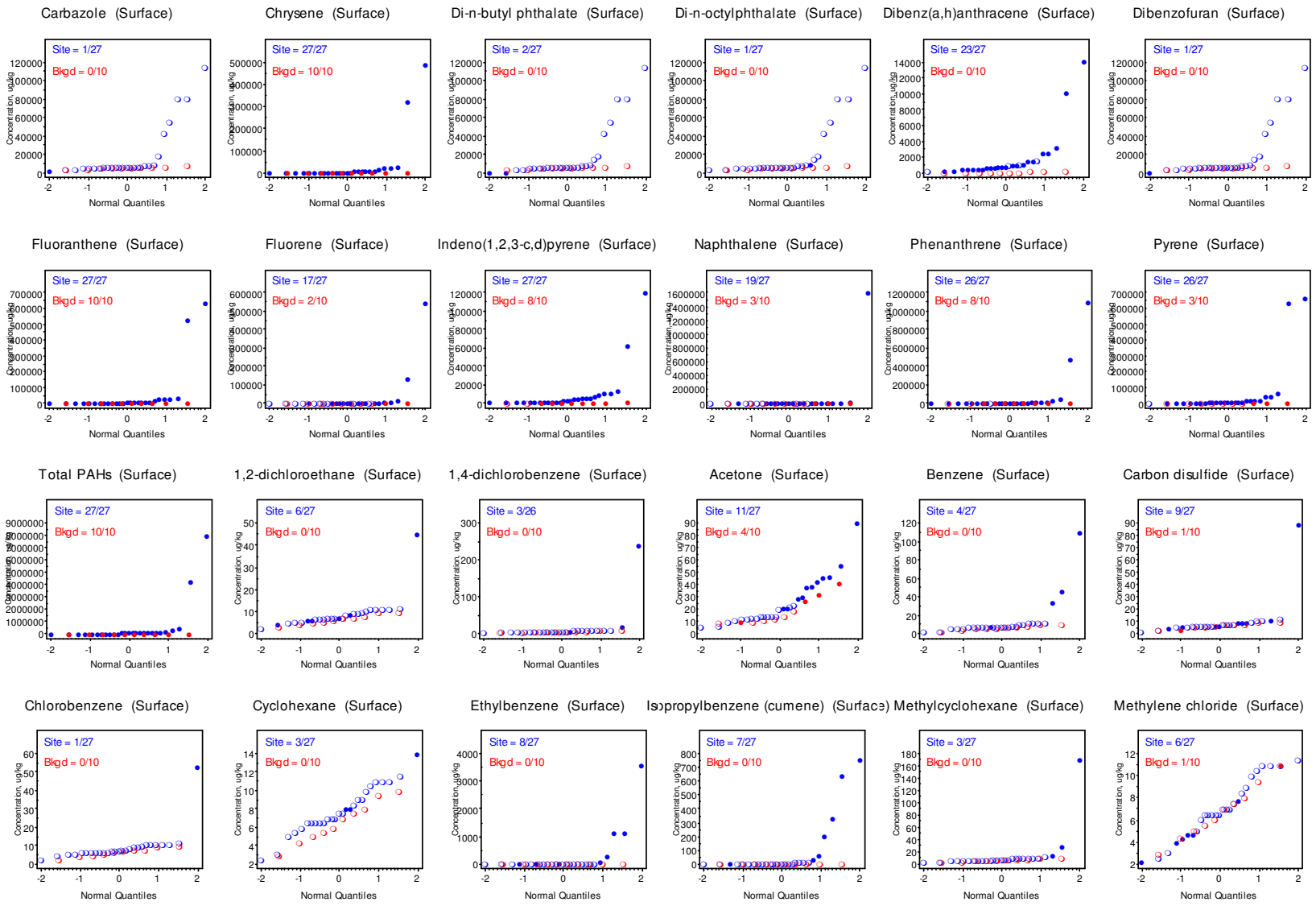
Open Symbol Represents Nondetected Value (1/2 DL); Closed Symbol Represents Detected Value

Figure 2: Probability Plot Comparisons of Site Versus Background for Organic Constituents in Sediment



Open Symbol Represents Nondetected Value (1/2 DL): Closed Symbol Represents Detected Value

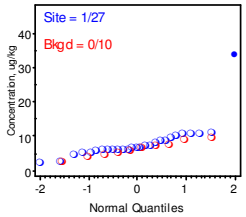
Figure 2: Probability Plot Comparisons of Site Versus Background for Organic Constituents in Sediment



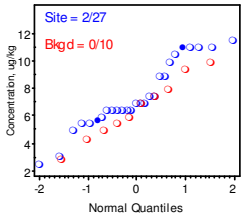
Open Symbol Represents Nondetected Value (1/2 DL); Closed Symbol Represents Detected Value

Figure 2: Probability Plot Comparisons of Site Versus Background for Organic Constituents in Sediment

Tert-butyl methyl ether (Surface)



Tetrachloroethylene(PCE) (Surface)



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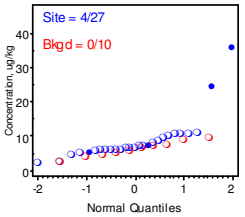

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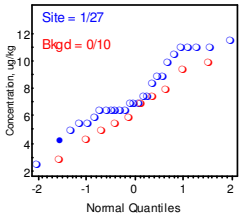

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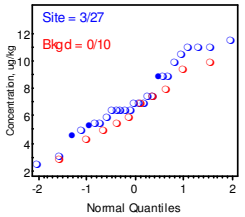
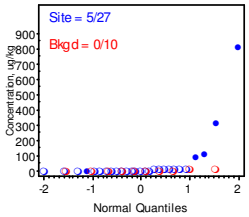
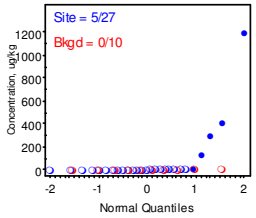


m, p xylenes (Surface)

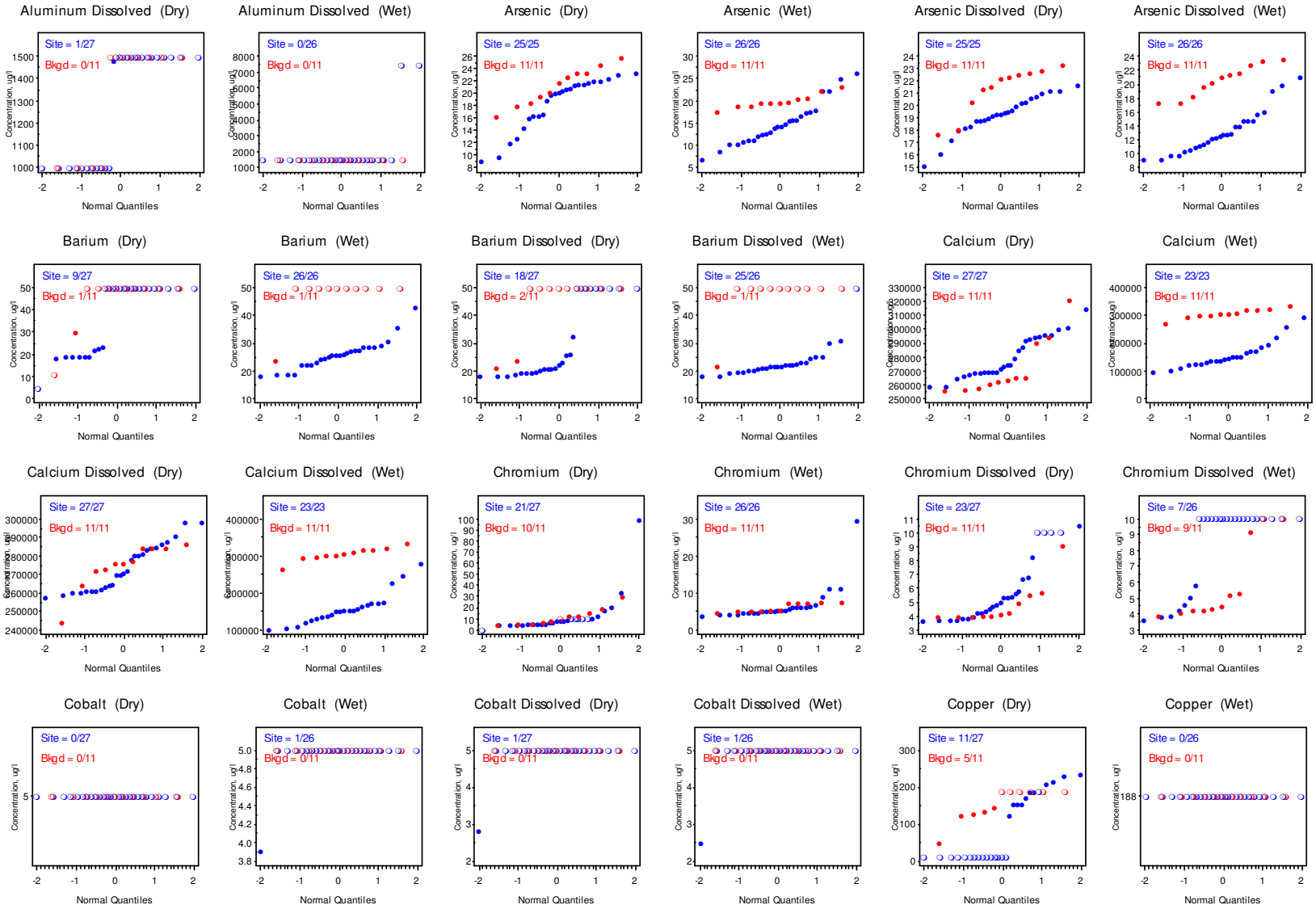


o-xylene (1,2-dimethylbenzen (Surface)



Open Symbol Represents Nondetected Value (1/2 DL): Closed Symbol Represents Detected Value

Figure 3: Probability Plot Comparisons of Site Versus Background for Inorganic Constituents in Surface Water



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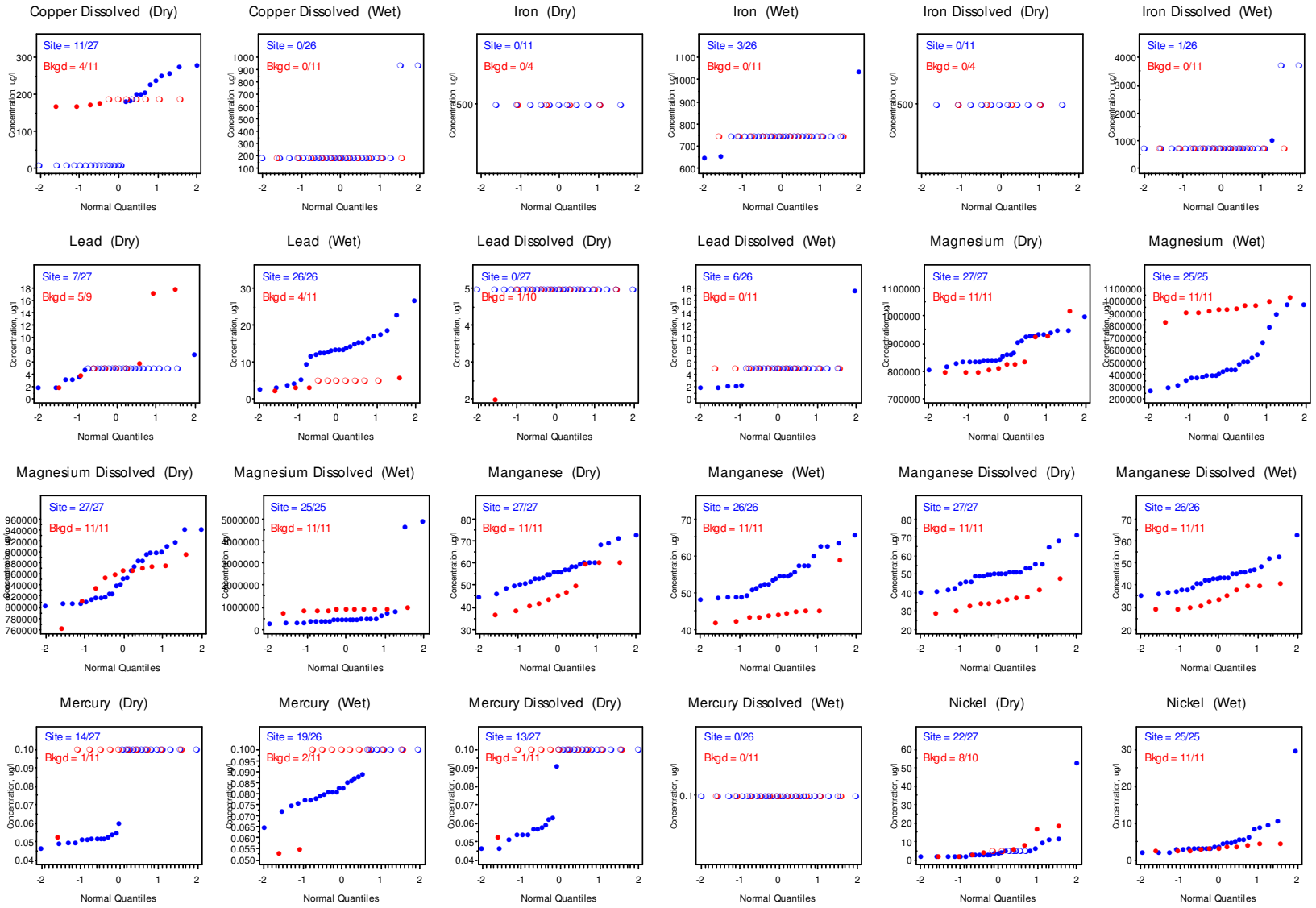

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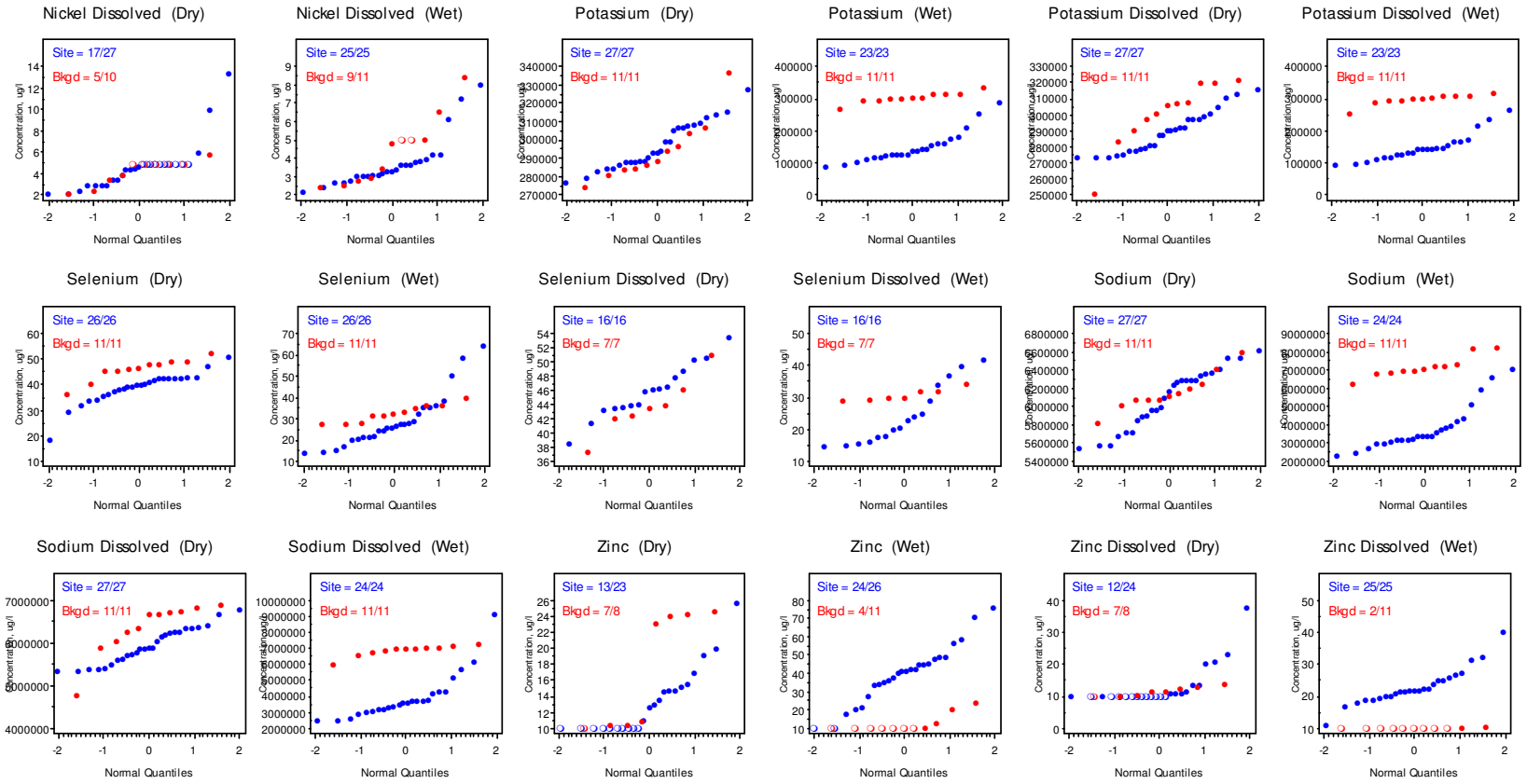
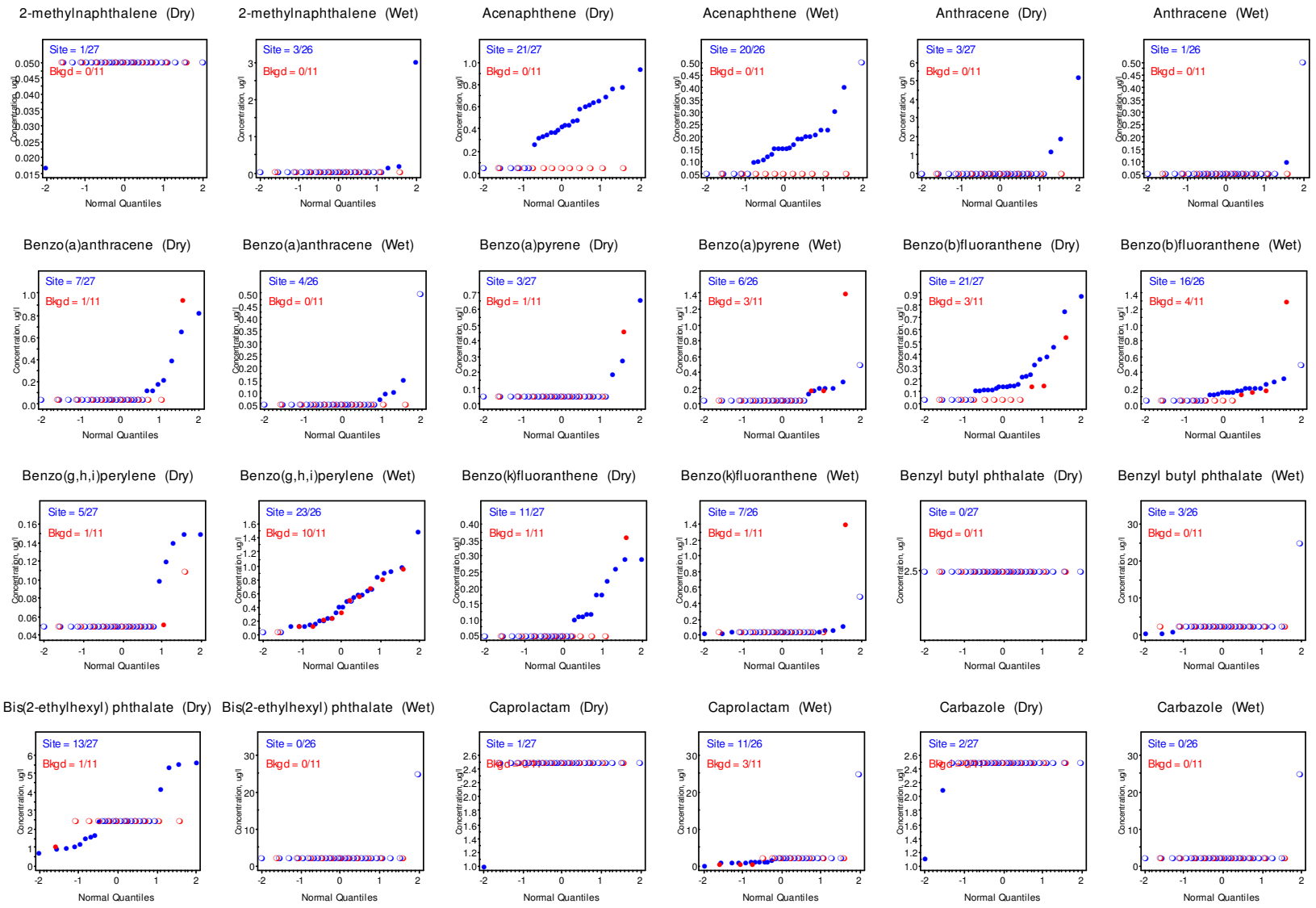


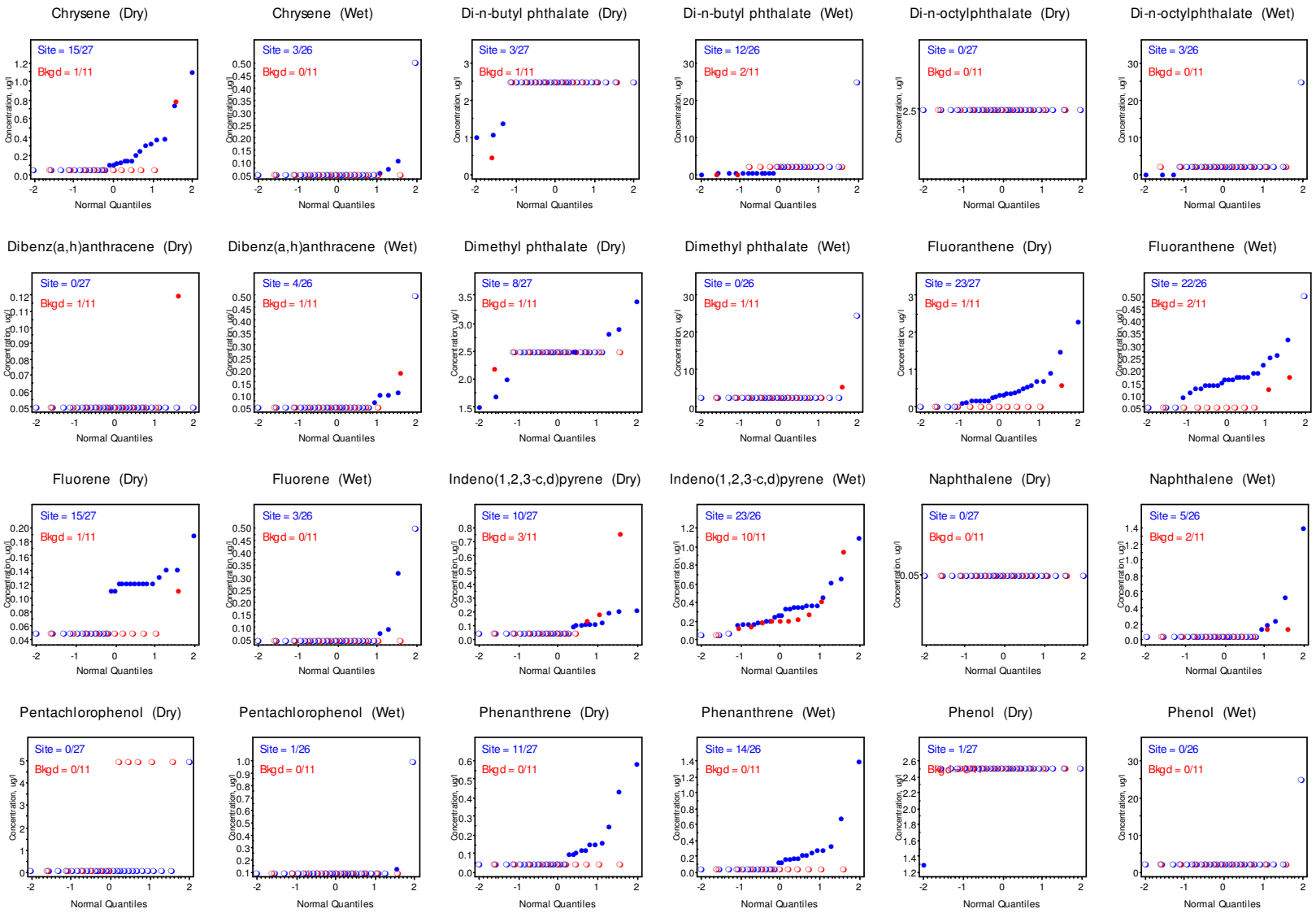
Open Symbol Represents Nondetected Value (1/2 DL); Closed Symbol Represents Detected Value

Figure 4: Probability Plot Comparisons of Site Versus Background for Organic Constituents in Surface Water



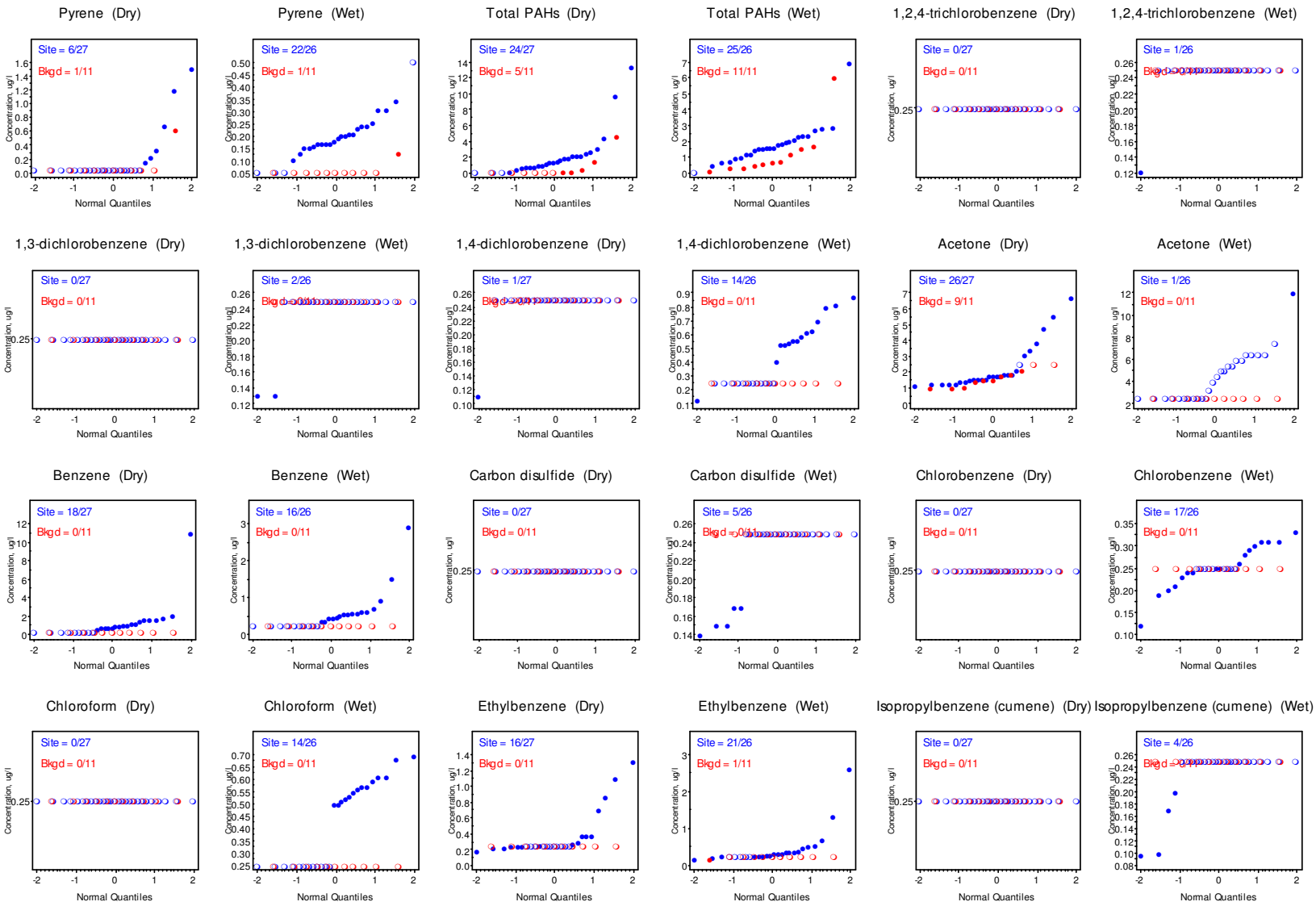
Open Symbol Represents Nondetected Value (1/2 DL); Closed Symbol Represents Detected Value

Figure 4: Probability Plot Comparisons of Site Versus Background for Organic Constituents in Surface Water



Open Symbol Represents Nondetected Value (1/2 DL); Closed Symbol Represents Detected Value

Figure 4: Probability Plot Comparisons of Site Versus Background for Organic Constituents in Surface Water



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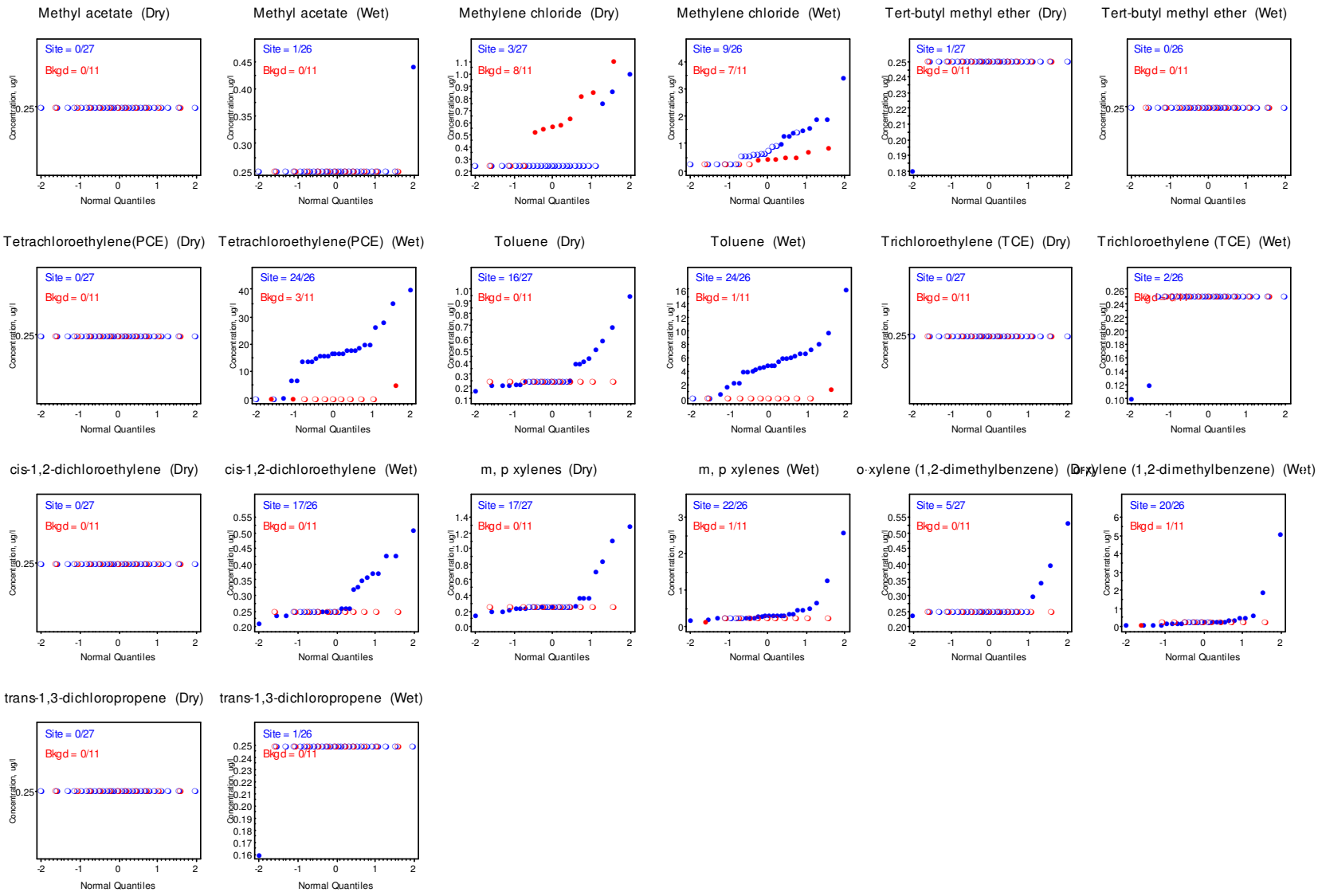

Open Symbol Represents Nondetected Value (1/2 DL); Closed Symbol Represents Detected Value

Figure 3: Probability Plot Comparisons of Site Versus Background for Inorganic Constituents in Surface Water

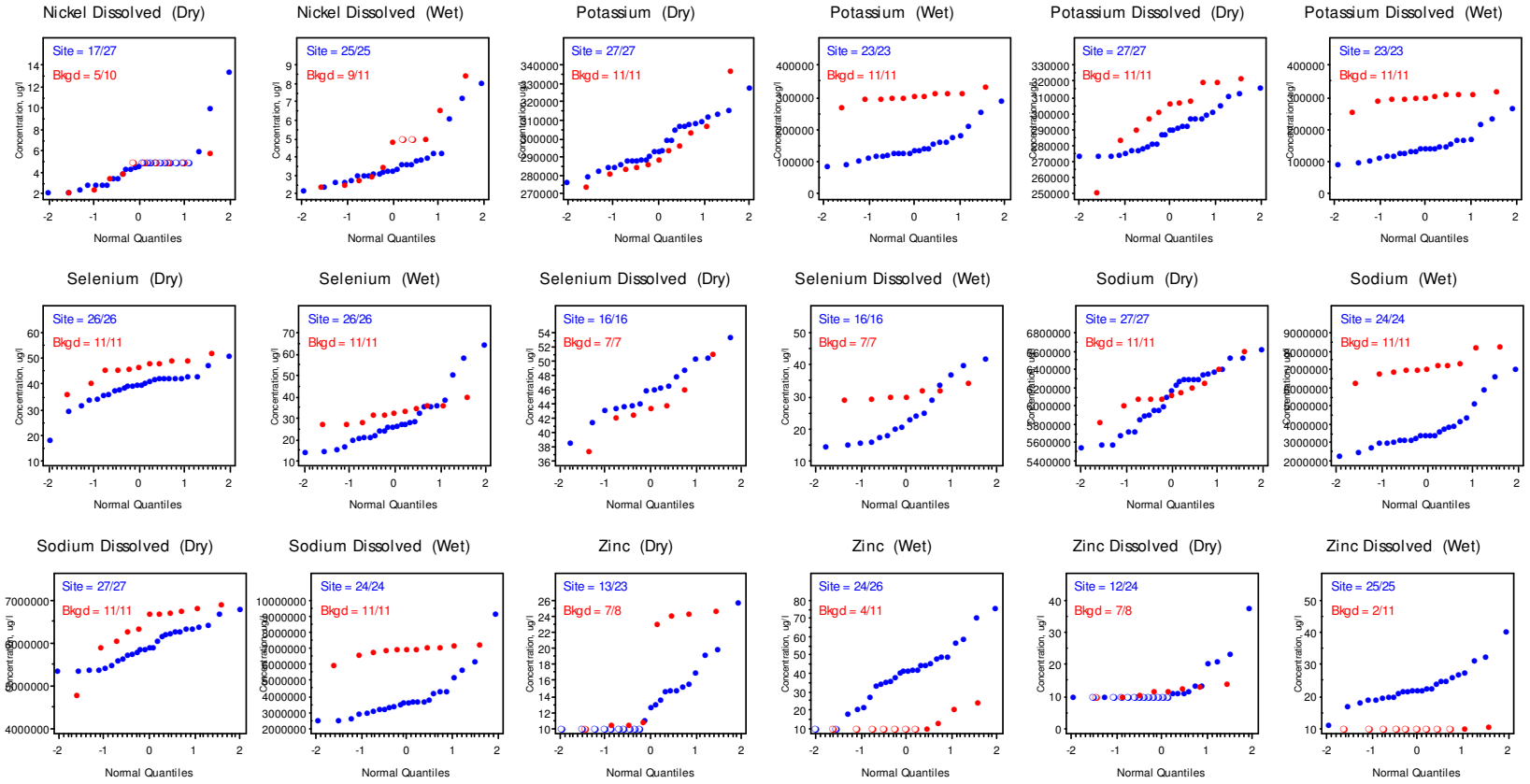

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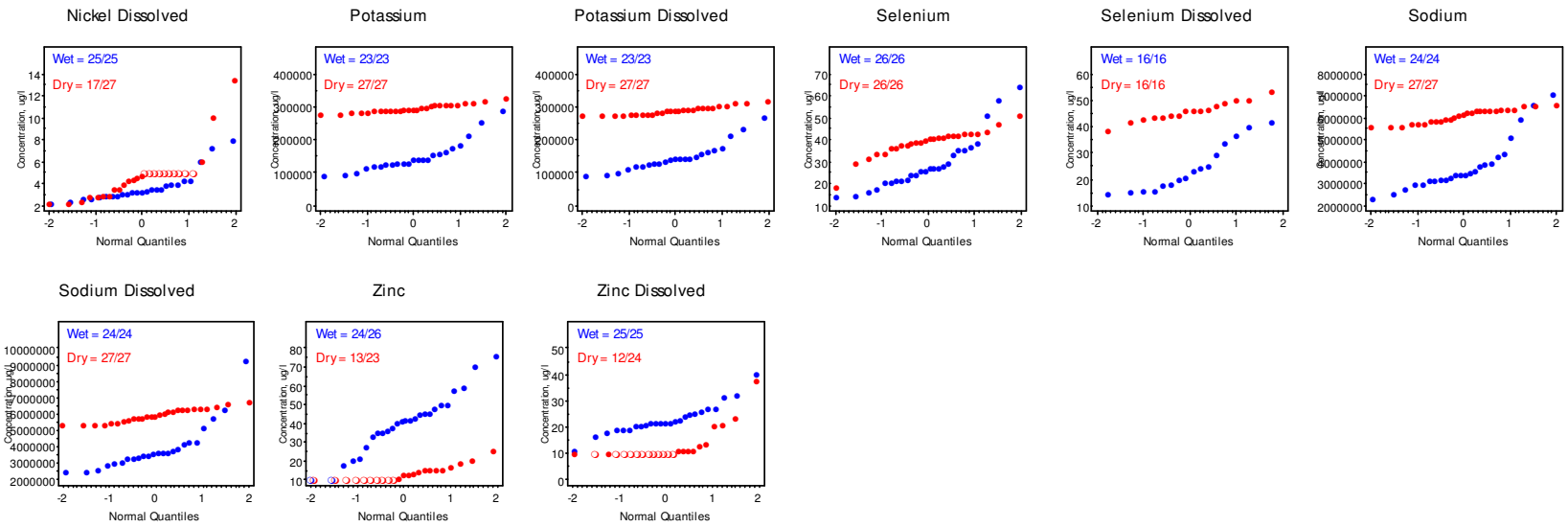
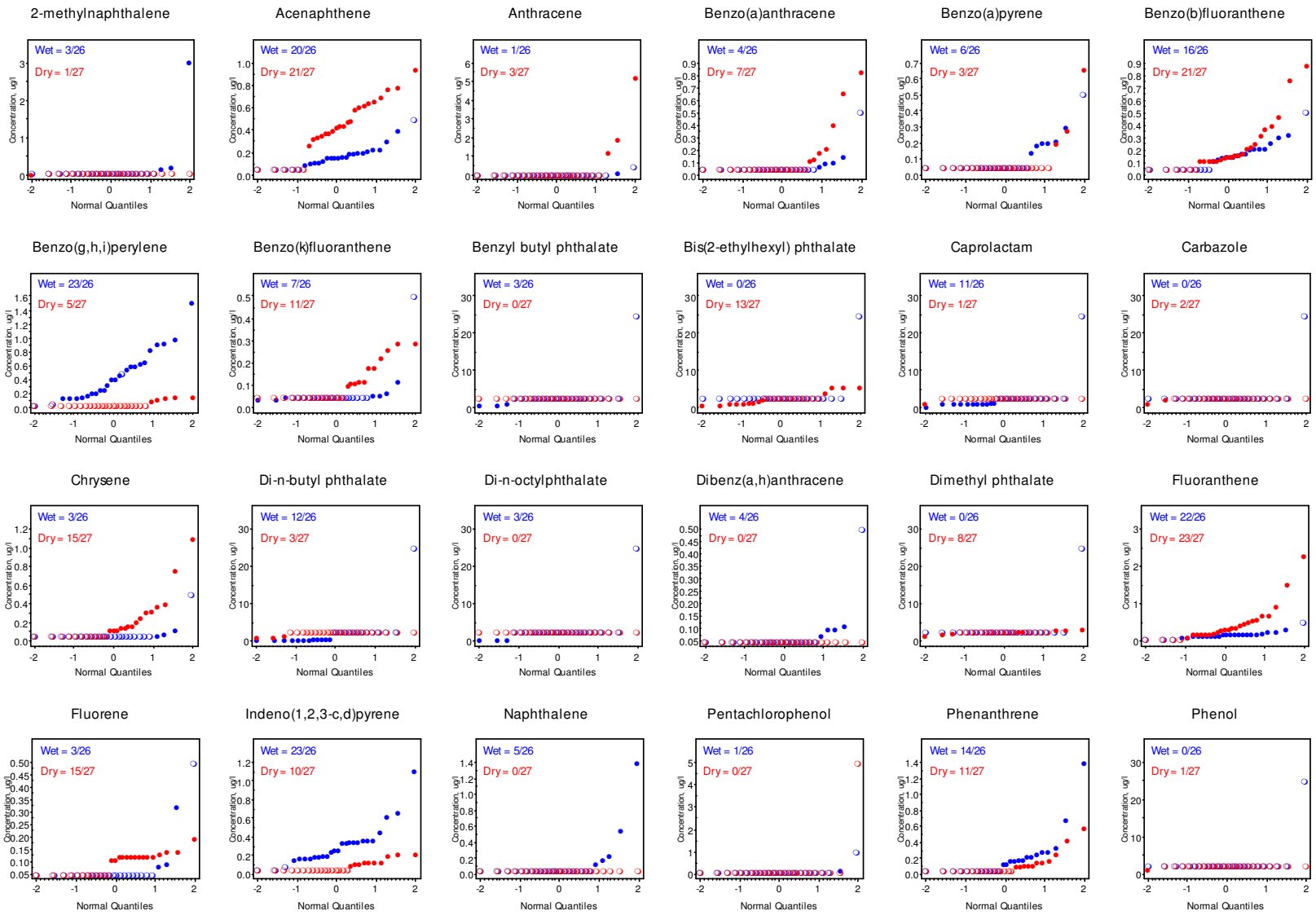
Figure 5: Probability Plot Comparisons of Dry Weather Versus Wet Weather for Inorganic Constituents in Canal Surface Water



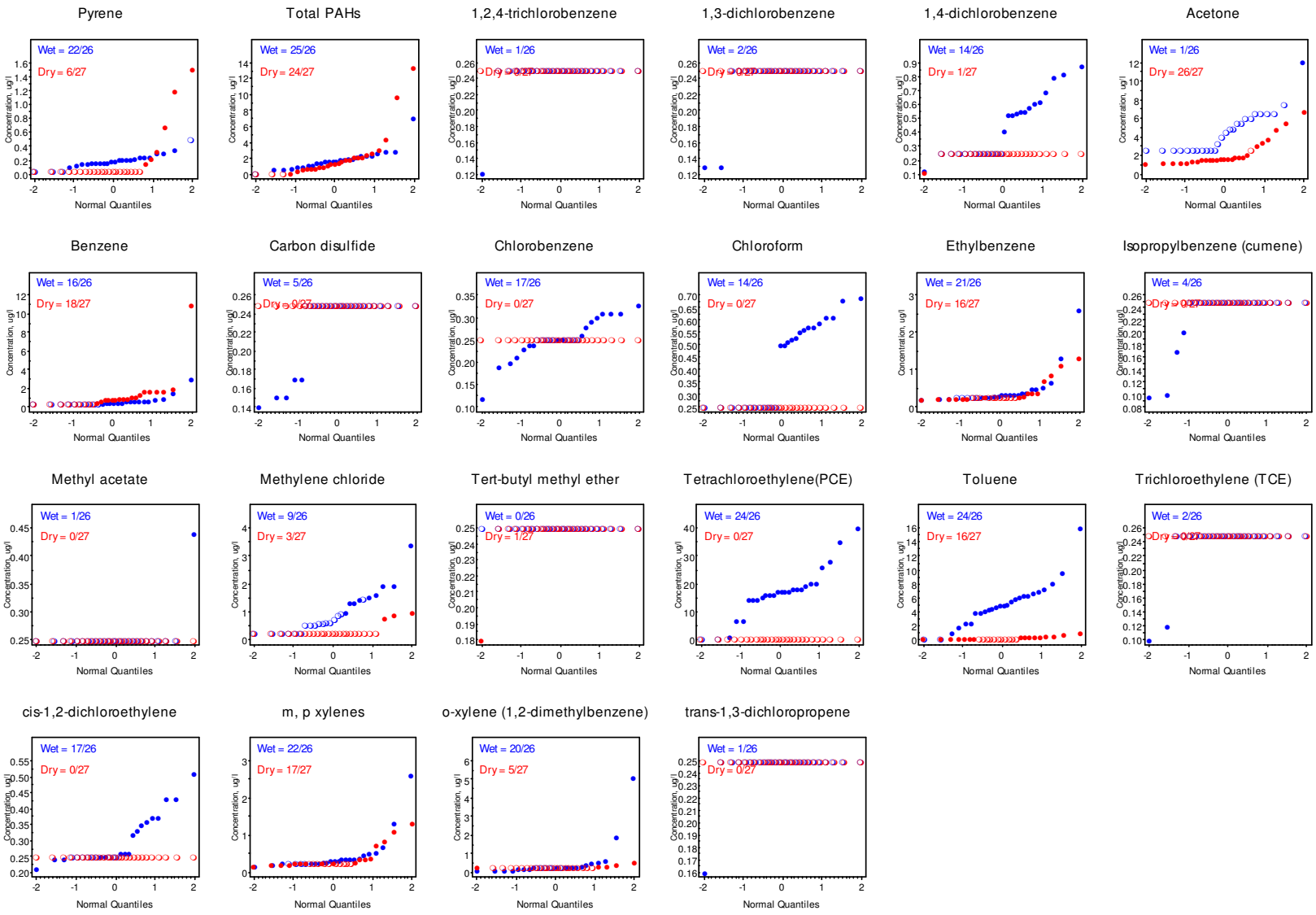
Open Symbol Represents Nondetected Value (1/2 DL): Closed Symbol Represents Detected Value

Figure 6: Probability Plot Comparisons of Dry Weather Versus Wet Weather for Organic Constituents in Canal Surface Water



Open Symbol Represents Nondetected Value (1/2 DL): Closed Symbol Represents Detected Value

Figure 6: Probability Plot Comparisons of Dry Weather Versus Wet Weather for Organic Constituents in Canal Surface Water



Open Symbol Represents Nondetected Value (1/2 DL); Closed Symbol Represents Detected Value

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TOXICOLOGICAL EVALUATION OF SEDIMENT SAMPLES

Gowanus Canal Superfund Site
Brooklyn, New York
Phase 3 Investigation - Bioassay Testing
Agreement Number 0000092848

28 Day *Nereis virens*
Survival and Growth Toxicity Tests

Prepared For:

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July 2010
Reference 19830-10-07

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TOXICOLOGICAL EVALUATION
OF SEDIMENT SAMPLES

Gowanus Canal Superfund Site
Brooklyn, New York
Phase 3 Investigation - Bioassay Testing
Agreement Number 0000092848

28 Day *Nereis virens*
Survival and Growth Toxicity Tests

1.0 INTRODUCTION

This report presents the results of toxicity tests carried out on sediment samples collected from the Gowanus Canal Superfund Site in Brooklyn, New York. Samples were provided by CH2M Hill, Chantilly, Virginia. Biological testing was based on programs and protocols developed by the US EPA (2001) and ASTM (2009). Potential toxicological impacts of the sediment were determined by conducting 28 day toxicity tests with the marine poychaete worm, *Nereis virens*. All testing, toxicological and analytical, was performed at EnviroSystems, Incorporated (ESI), Hampton, New Hampshire.

Toxicity tests expose groups of organisms to environmental samples, a laboratory control and field reference sites for a specified period to assess potential impacts on a variety of endpoints, such as survival, growth or reproduction. Analysis of variance techniques are used to determine the relative toxicity of the samples as compared to the laboratory control and/or field reference sites. Endpoints for this study were survival and growth (measured as wet weight).

2.0 MATERIALS AND METHODS

2.1 General Methods, Biological Evaluations

Toxicological and analytical protocols used in this program follow procedures established by the U.S. EPA and U.S. Army Corps of Engineers (U.S. ACE) for testing of dredged material, as well as procedures outlined in *Standard Guide for Conducting Sediment Toxicity Test with Polychaetous Annelids* (ASTM 2009). These protocols provide standard approaches for physical and chemical analyses and for the evaluation of toxicological effects of sediments on aquatic invertebrates.

2.2 Test Species

Adult *N. virens* were obtained from ARO. Worms were collected in the field from the Damariscotta River in Boothbay Harbor, Maine and shipped to ARO. Damaged and inactive worms were not used in the assay.

2.3 Test Samples

Sediment samples collected from the Gowanus Canal Superfund Site were received at ESI under chain of custody. Once received, samples were inspected to determine integrity, given unique sample numbers and logged into the laboratory sample management database. Once logged in, the samples were placed in a secure refrigerated, 2 - 4 °C, storage area. A listing of sample sites, sample collection, and receipt information is summarized in Table 4.

Control sediment used in the worm assay was a natural marine sediment collected from Hampton Estuary in Hampton, NH, which was sieved to remove large debris and allow for inspection for other living organisms.

Overyling seawater was also obtained from the Hampton Estuary. Water from the estuary has been used for the culture and maintenance of test organisms at ESI since 1978. Seawater is obtained through a filter system located on the bottom of the estuary at a point approximately 1 mile from the open ocean. The water is classified as SA-1.

2.4 *N. virens* 28 Day Survival and Growth Toxicity Tests

The 28 day worm sediment tests were conducted according to the methods provided in ASTM (2009) and US EPA (2001). Endpoints measured at the completion of the assay were survival and growth. Growth was measured as wet weight and wet biomass.

Test vessels were 10 liter glass aquaria containing 1.5 liters of sediment and approximately 3.8 liters of overlying water. Aquaria were fitted with overflow spouts to allow for renewal of the overlying water. Static renewal of the overlying water provided approximately 5 volume additions of water/day to each aquarium. Test chambers were randomly placed after addition of test sediments. Placement locations for test chambers were generated by the CETIS® software program. The randomization work sheets are included in the data appendix. Vessels were maintained at 13±3°C in a temperature controlled room during the test. Temperature was recorded hourly using a temperature logger placed in a surrogate vessel. Salinity limits were established at 30±2‰. The photoperiod in the test chamber was set at 16:8 hour light:dark. Lighting was supplied by cool white fluorescent bulbs.

A total of 10 worms were randomly selected from the pool of organisms and added to each tank. Eight replicates were used for each treatment. Sediment and overlying water were added to the test vessels at least 24 hours prior to the addition of test organisms.

A daily observation record was maintained for test chambers. Mortalities and unusual behavior were recorded. If mortalities were observed the body was removed from the test chamber. The dissolved oxygen, pH, salinity, specific conductivity and temperature in the overlying water was measured in all tanks daily. Organisms were fed chopped clam on day 7 and chopped algae on days 14 and 21.

After 28 days exposure, the organisms were recovered from the sediments and counted. All living organisms were transferred to clean test vessels and maintained in clean seawater for 24 hours to allow for removal of sediment from the animals' digestive tract. After the depuration period, organisms were then weighed to the nearest 0.01 mg. The mean wet weight of surviving organisms was determined to assess growth. Organisms were then transferred to plastic bags and frozen. Frozen tissue samples are being held by ESI for 12 months at the request of the client.

2.5 Statistical Analysis

Survival and growth data were analyzed using CETIS® software to determine significant differences between the test sediments and both the associated laboratory control and reference sediments. Data sets were evaluated to determine normality of distribution and homogeneity of sample variance. Data sets were subsequently evaluated using the appropriate parametric or non-parametric Analysis of Variance (ANOVA) statistic. End of assay, Day-28, endpoints for statistical analysis were; survival and growth. Growth was measured as both wet weight and wet biomass. Pair-wise comparisons were made using the appropriate statistical evaluation. Statistical difference was evaluated at α=0.05.

2.6 Reference Toxicant Evaluation

As part of the laboratory quality control program, reference toxicant evaluations are conducted by ESI on a regular basis for each test species. These results provide relative health and response data while allowing for comparison with historic data sets. Results are summarized in Table 2.

2.7 Protocol Deviations

Review of the toxicity testing procedures and resulting data indicate that the salinity deviated from the recommended protocol limits of 30±2‰ during the assay. The maximum salinity range during the assay was 25.79 to 32.43‰. Review of the data documented that out of the 4,176 total readings, 250 of them were greater than 32‰ and only 3 were less than 28‰. These values, while exceeding the specifications in ESI's SOP, are within the acceptability criteria stated in the ASTM method protocol. It is the opinion of the study director that the observed excursions had no significant impact on the outcome of the assay.

Table 1. Sample Collection and Receipt Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

		Sediment	Sample Collected		Sample Received	
Sample ID	ESI Code	Type	Date	Time	Date	Time
GC-SD303-0.0-0.5	19830-001	site	06/17/10	1425	06/19/10	1300
GC-SD307A-0.0-0.5	19830-002	site	06/17/10	1650	06/19/10	1300
GC-SD326-0.0-0.5	19830-003	Reference	06/17/10	1338	06/19/10	1300
GC-SD309-0.0-0.5	19830-004	site	06/18/10	1015	06/19/10	1300
GC-SD313-0.0-0.5	19830-005	site	06/18/10	1030	06/19/10	1300
GC-SD314-0.0-0.5	19830-006	site	06/18/10	1315	06/19/10	1300
GC-SD315-0.0-0.5	19830-007	site	06/18/10	1240	06/19/10	1300
GC-SD328-0.0-0.5	19830-008	Reference	06/18/10	0948	06/19/10	1300
GC-SD330-0.0-0.5	19830-009	Reference	06/18/10	1252	06/19/10	1300
GC-SD333-0.0-0.5	19830-010	Reference	06/18/10	1121	06/19/10	1300
GC-SD307B-0.0-0.5	19830-011	site	06/18/10	1555	06/19/10	1300
GC-SD329-0.0-0.5	19830-012	Reference	06/18/10	1516	06/19/10	1300
GC-SD324-0.0-0.5	19830-013	site	06/21/10	1250	06/22/10	1500
GC-SD321-0.0-0.5	19830-014	site	06/21/10	1405	06/22/10	1500
					06/23/10	0930
GC-SD319-0.0-0.5	19830-015	site	06/22/10	1040	06/23/10	0930
GC-SD318-0.0-0.5	19830-016	site	06/22/10	1435	06/23/10	0930
GC-SD310-0.0-0.5	19830-017	site	06/24/10	0950	06/25/10	0930

Table 2. Reference Toxicant Evaluation. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Date	Endpoint		Value	Historic Mean/ Central Tendency	Acceptable Range	Reference Toxicant
Nereis virens						
08/07/10	Survival	LC-50	1.81	1.23	0.198 - 2.252	Copper (mg/L)

3.0 RESULTS AND DISCUSSION

3.1 Laboratory Control and Project Reference Site Performance

Review of the laboratory control data indicates that worm performance for all endpoints exceeded the minimum acceptability criteria specified by protocol. At the end of the assay, mean control survival was 97.5% with a coefficient of variation (CV) of 4.75%. The mean wet weight of surviving worms was 2.908 g/organism. The mean wet weight of 5 replicates of 10 randomly selected worms at the start of the assay was 2.82 g/organism. Minimum acceptable performance for the laboratory control is specified as $\geq$90% survival on day 28, with no individual replicates below 80% survival. The method does not specify limits for growth.

During daily water quality observations the temperature recorded for the assay had a mean value of12.71°C with a range of 11.34 to 15.46°C. Confirmation temperature data collected in a surrogate replicate documented a mean temperature of 11.5°C with a range of 10.4 to 13.5°C. Test acceptability criteria requires a mean temperature of 13±2°C, with maximum temporary fluctuations of 13±3°C.

Table 3. Summary of Acceptable Endpoints and Measurements. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Endpoint / Measurement	Protocol Criteria		Study 19825
Survival	lab mean ≥ 90% and no replicates <80%	Mean Survival %	97.5%
		Minimum Survival %	90.0%
		Protocol Met	Yes
Mean Temperature	13 ±2°C	daily / hourly	12.71 / 11.5
		Protocol Met	Yes / Yes
Minimum Temperature	10°C	daily / hourly	11.34 / 10.4
		Protocol Met	Yes / Yes
Maximum Temperature	16°C	daily / hourly	15.46 / 13.5
		Protocol Met	Yes / Yes
Salinity	30 ±2‰	Mean Salinity	31.12
		Minimum Salinity	25.79
		Maximum Salinity	32.43
		Protocol Met	Limits exceeded*

*See section 2.7 Protocol Deviations for a discussion.

Table 4. Summary of Project Reference Site Performance. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Reference Site	ESI Code	Mean Survival (%)	Mean Wet Weight (g)	Mean Wet Biomass (g)
GC-SD326-0.0-0.5	19830-003	85.0%	3.291	2.772
GC-SD328-0.0-0.5	19830-008	85.0%	3.052	2.582
GC-SD330-0.0-0.5	19830-009	87.5%	3.056	2.689
GC-SD333-0.0-0.5	19830-010	85.0%	3.259	2.756
GC-SD329-0.0-0.5	19830-012	85.0%	2.647	2.251

3.2 Summary

This program utilized protocols developed by the U.S. EPA and ASTM to assess the potential toxicological impacts that exposure to sediments from the Gowanus Canal Superfund Site would have on invertebrates. Table 5 provides a summary of sample sites that demonstrated a negative effect, based on the finding of statistically significant reduction in an endpoint as compared to the laboratory control or reference site. Tables 6 through 9 provide summaries of assay endpoints and detailed statistical results for each sample location. Laboratory bench sheets, detailed summaries of survival, wet weights and associated statistical support data are included in Appendix A.

4.0 LITERATURE CITED

ASTM. 2009. *Standard Guide for Conducting Sediment Toxicity Test with Polychaetous Annelids.* Method E 1611-00 (Reapproved 2007). ASTM Annual Book of Standards, Volume 11.06.

U.S. EPA, U.S. ACE. 1998. *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. - Testing Manual (Draft)*. EPA-823-B-94-002, May 1998, 172 pages, plus appendices.

U.S. EPA, U.S. ACE. 1991. *Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual.* EPA-503/8-91/001, February 1991, 204 pages.

U.S. EPA 1994.Test Methods for Evaluating Solid Waste Physical/Chemical Methods, US EPA SW 846, Final Update: Method 8081A and 8082.

Table 5. Summary of Significant Endpoints. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

		Laboratory Control 19825-000			GC-SD326 19830-003			GC-SD328 19830-008			GC-SD330 19830-009			GC-SD333 19830-010			GC-SD329 19830-012		
		survival	growth		survival	growth		survival	growth		survival	growth		survival	growth		survival	growth	
Field ID	ESI Code		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass
GC-SD326-0.0-0.5	19830-003	Yes																	
GC-SD328-0.0-0.5	19830-008	Yes				Yes													
GC-SD330-0.0-0.5	19830-009	Yes																	
GC-SD333-0.0-0.5	19830-010	Yes																	
GC-SD329-0.0-0.5	19830-012	Yes		Yes		Yes	Yes					Yes			Yes	Yes			
GC-SD303-0.0-0.5	19830-001	Yes																	
GC-SD307A-0.0-0.5	19830-002																		
GC-SD309-0.0-0.5	19830-004	Yes																	
GC-SD313-0.0-0.5	19830-005	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes			
GC-SD314-0.0-0.5	19830-006	Yes		Yes			Yes				Yes					Yes			
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
GC-SD307B-0.0-0.5	19830-011	Yes																	
GC-SD324-0.0-0.5	19830-013	Yes																	
GC-SD321-0.0-0.5	19830-014														Yes				
GC-SD319-0.0-0.5	19830-015					Yes									Yes				
GC-SD318-0.0-0.5	19830-016	Yes				Yes									Yes				
GC-SD310-0.0-0.5	19830-017	Yes																	

Table 6. *N. virens* Day 28 Survival Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Survival Summary

Sample ID	ESI Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19825-000	8	97.50%	90%	100%	4.75%
GC-SD326-0.0-0.5	19830-003	8	85.00%	60%	100%	14.06%
GC-SD328-0.0-0.5	19830-008	8	85.00%	70%	100%	14.06%
GC-SD330-0.0-0.5	19830-009	8	87.50%	70%	100%	13.31%
GC-SD333-0.0-0.5	19830-010	8	85.00%	70%	100%	10.89%
GC-SD329-0.0-0.5	19830-012	8	85.00%	70%	100%	12.58%
GC-SD303-0.0-0.5	19830-001	8	87.50%	70%	100%	11.83%
GC-SD307A-0.0-0.5	19830-002	8	93.75%	80%	100%	9.77%
GC-SD309-0.0-0.5	19830-004	8	85.00%	50%	100%	20.86%
GC-SD313-0.0-0.5	19830-005	8	61.25%	40%	90%	31.99%
GC-SD314-0.0-0.5	19830-006	8	75.00%	50%	90%	17.46%
GC-SD315-0.0-0.5	19830-007	8	71.25%	50%	90%	23.05%
GC-SD307B-0.0-0.5	19830-011	8	87.50%	60%	100%	15.87%
GC-SD324-0.0-0.5	19830-013	8	87.50%	70%	100%	11.83%
GC-SD321-0.0-0.5	19830-014	8	92.50%	80%	100%	9.58%
GC-SD319-0.0-0.5	19830-015	8	97.50%	80%	100%	7.25%
GC-SD318-0.0-0.5	19830-016	8	86.25%	80%	100%	10.62%
GC-SD310-0.0-0.5	19830-017	8	83.75%	80%	90%	6.18%

Table 6. *N. virens* Day 28 Survival Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Survival Analysis			Statistically Significant Difference, "<" as Compared to:											
			Lab Control 19830-000		GC-SD326 19830-003		GC-SD328 19830-008		GC-SD330 19830-009		GC-SD333 19830-010		GC-SD329 19830-012	
Sample ID	ESI Code	Mean	p Value		p Value		p Value		p Value		p Value		p Value	
Laboratory Control	19825-000	97.50%	-	-	-	-	-	-	-	-	-	-	-	-
GC-SD326-0.0-0.5	19830-003	85.00%	0.0048	Yes	-	-	-	-	-	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	85.00%	0.0072	Yes	0.5061	No	-	-	-	-	-	-	-	-
GC-SD330-0.0-0.5	19830-009	87.50%	0.0219	Yes	0.6715	No	0.6603	No	-	-	-	-	-	-
GC-SD333-0.0-0.5	19830-010	85.00%	0.0017	Yes	0.4749	No	0.4695	No	0.2963	No	-	-	-	-
GC-SD329-0.0-0.5	19830-012	85.00%	0.0033	Yes	0.4929	No	0.4869	No	0.3181	No	0.5183	No	-	-
GC-SD303-0.0-0.5	19830-001	87.50%	0.0116	Yes	0.6670	No	0.6547	No	0.4826	No	0.7029	No	0.6786	No
GC-SD307A-0.0-0.5	19830-002	93.75%	0.2869	No	0.9456	No	0.9363	No	0.8649	No	0.9635	No	0.9526	No
GC-SD309-0.0-0.5	19830-004	85.00%	0.0414	Yes	0.5582	No	0.5518	No	0.4136	No	0.5801	No	0.5648	No
GC-SD313-0.0-0.5	19830-005	61.25%	<0.0001	Yes	0.0053	Yes	0.0061	Yes	0.0030	Yes	0.0043	Yes	0.0048	Yes
GC-SD314-0.0-0.5	19830-006	75.00%	0.0001	Yes	0.0579	No	0.0633	No	0.0298	Yes	0.0508	No	0.0545	No
GC-SD315-0.0-0.5	19830-007	71.25%	0.0001	Yes	0.0358	Yes	0.0391	Yes	0.0192	Yes	0.0314	Yes	0.0337	Yes
GC-SD307B-0.0-0.5	19830-011	87.50%	0.0333	Yes	0.6778	No	0.6673	No	0.5160	No	0.7076	No	0.6875	No
GC-SD324-0.0-0.5	19830-013	87.50%	0.0116	Yes	0.6670	No	0.6547	No	0.4826	No	0.7029	No	0.6786	No
GC-SD321-0.0-0.5	19830-014	92.50%	0.0985	No	0.9186	No	0.9069	No	0.8125	No	0.9424	No	0.9276	No
GC-SD319-0.0-0.5	19830-015	97.50%	0.6008 *0.7683	No No	0.9897	No	0.9896	No	0.9715	No	0.9966	No	0.9926	No
GC-SD318-0.0-0.5	19830-016	86.25%	0.0141	Yes	0.5662	No	0.5569	No	0.4392	No	0.5984	No	0.5759	No
GC-SD310-0.0-0.5	19830-017	83.75%	<0.0001	Yes	0.3249	No	0.3284	No	0.1690	No	0.3314	No	0.3246	No

Note: In cases where a statistical outlier was detected statistical comparisons were made with and without the outlier. Instances where the p Value was calculated without the outlier are identified by "*".

Table 7. *N. virens* Day 28 Wet Weight Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Wet Weight (grams/organism) Summary

Sample ID	ESI Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19825-000	8	2.908	2.289	3.615	13.43%
GC-SD326-0.0-0.5	19830-003	8	3.291	2.753	4.094	14.95%
GC-SD328-0.0-0.5	19830-008	8	3.052	2.276	4.534	21.96%
GC-SD330-0.0-0.5	19830-009	8	3.056	2.431	3.687	15.06%
GC-SD333-0.0-0.5	19830-010	8	3.259	2.757	3.683	10.11%
GC-SD329-0.0-0.5	19830-012	8	2.647	1.974	3.112	13.34%
GC-SD303-0.0-0.5	19830-001	8	3.102	1.970	4.356	23.68%
GC-SD307A-0.0-0.5	19830-002	8	3.439	2.760	4.408	15.52%
GC-SD309-0.0-0.5	19830-004	8	3.092	2.494	3.993	17.15%
GC-SD313-0.0-0.5	19830-005	8	3.066	1.970	3.586	18.14%
GC-SD314-0.0-0.5	19830-006	8	2.997	2.439	3.434	10.04%
GC-SD315-0.0-0.5	19830-007	8	2.532	2.030	2.860	10.07%
GC-SD307B-0.0-0.5	19830-011	8	2.999	2.006	3.687	19.83%
GC-SD324-0.0-0.5	19830-013	8	3.234	2.443	4.186	15.87%
GC-SD321-0.0-0.5	19830-014	8	2.891	2.174	3.514	15.74%
GC-SD319-0.0-0.5	19830-015	8	2.836	2.096	3.205	12.97%
GC-SD318-0.0-0.5	19830-016	8	2.936	2.419	3.240	8.83%
GC-SD310-0.0-0.5	19830-017	8	3.184	2.574	4.244	18.68%

Table 7. *N. virens* Day 28 Wet Weight Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Wet Weight Analysis			Statistically Significant Difference, "<" as Compared to:											
			Lab Control 19830-000		GC-SD326 19830-003		GC-SD328 19830-008		GC-SD330 19830-009		GC-SD333 19830-010		GC-SD329 19830-012	
Sample ID	ESI Code	Mean	p Value		p Value		p Value		p Value		p Value		p Value	
Laboratory Control	19825-000	2.908	-	-	-	-	-	-	-	-	-	-	-	-
GC-SD326-0.0-0.5	19830-003	3.291	0.9470	No	-	-	-	-	-	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	3.052	0.6961 *0.3616	No No	0.2141 *0.0299	No Yes	-	-	-	-	-	-	-	-
GC-SD330-0.0-0.5	19830-009	3.056	0.7517	No	0.1705	No	0.5068 *0.8409	No No	-	-	-	-	-	-
GC-SD333-0.0-0.5	19830-010	3.259	0.9640	No	0.4398	No	0.7775 *0.9861	No No	0.8357	No	-	-	-	-
GC-SD329-0.0-0.5	19830-012	2.647	0.0915	No	0.0047	Yes	0.0765 *0.1465	No No	0.0328	Yes	0.0015	Yes	-	-
GC-SD303-0.0-0.5	19830-001	3.102	0.7403	No	0.2772	No	0.5560	No	0.5579	No	0.2949	No	0.9317	No
GC-SD307A-0.0-0.5	19830-002	3.439	0.9803	No	0.7126	No	0.8891	No	0.9264	No	0.7843	No	0.9982	No
GC-SD309-0.0-0.5	19830-004	3.092	0.7797	No	0.2247	No	0.5528	No	0.5564	No	0.2313	No	0.9660	No
GC-SD313-0.0-0.5	19830-005	3.066	0.7397	No	0.2025	No	0.5183	No	0.5144	No	0.2061	No	0.9532	No
GC-SD314-0.0-0.5	19830-006	2.997	0.6916	No	0.0853	No	0.4180 *0.8256	No No	0.3816	No	0.0593	No	0.9745	No
GC-SD315-0.0-0.5	19830-007	2.532	0.0194	Yes	0.0008	Yes	0.0297 *0.0300	Yes Yes	0.0068	Yes	0.0001	Yes	0.2335	No
GC-SD307B-0.0-0.5	19830-011	2.999	0.6395	No	0.1512	No	0.4356	No	0.4163	No	0.1490	No	0.9143	No
GC-SD324-0.0-0.5	19830-013	3.234	0.9128	No	0.4112	No	0.7245	No	0.7605	No	0.4543	No	0.9908	No
GC-SD321-0.0-0.5	19830-014	2.891	0.4700	No	0.0567	No	0.2923 *0.5963	No No	0.2411	No	0.0427	Yes	0.8751	No
GC-SD319-0.0-0.5	19830-015	2.836	0.3569	No	0.0275	Yes	0.2198 *0.4929	No No	0.1545	No	0.0149	Yes	0.8447	No
GC-SD318-0.0-0.5	19830-016	2.936	0.5672	No	0.0462	Yes	0.3282 *0.7331	No No	0.2648	No	0.0235	Yes	0.9586	No
GC-SD310-0.0-0.5	19830-017	3.184	0.8548	No	0.3500	No	0.6589	No	0.6805	No	0.3797	No	0.9773	No

Note: In cases where a statistical outlier was detected statistical comparisons were made with and without the outlier. Instances where the p Value was calculated without the outlier are identified by "*".

Table 8. *N. virens* Day 28 Biomass Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Biomass (grams/organism) Summary

Sample ID	ESI Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19825-000	8	2.837	2.289	3.615	14.95%
GC-SD326-0.0-0.5	19830-003	8	2.772	2.005	3.275	14.41%
GC-SD328-0.0-0.5	19830-008	8	2.582	1.836	3.627	22.91%
GC-SD330-0.0-0.5	19830-009	8	2.689	1.945	3.666	23.23%
GC-SD333-0.0-0.5	19830-010	8	2.756	2.381	3.143	10.50%
GC-SD329-0.0-0.5	19830-012	8	2.251	1.745	2.801	19.10%
GC-SD303-0.0-0.5	19830-001	8	2.668	1.773	3.115	16.76%
GC-SD307A-0.0-0.5	19830-002	8	3.212	2.747	4.408	16.80%
GC-SD309-0.0-0.5	19830-004	8	2.646	1.247	3.594	27.84%
GC-SD313-0.0-0.5	19830-005	8	1.879	1.182	2.869	38.70%
GC-SD314-0.0-0.5	19830-006	8	2.235	1.707	2.789	17.30%
GC-SD315-0.0-0.5	19830-007	8	1.787	1.327	2.246	20.95%
GC-SD307B-0.0-0.5	19830-011	8	2.575	2.006	3.271	16.78%
GC-SD324-0.0-0.5	19830-013	8	2.815	1.984	3.349	15.78%
GC-SD321-0.0-0.5	19830-014	8	2.660	2.174	3.514	15.69%
GC-SD319-0.0-0.5	19830-015	8	2.762	2.096	3.205	14.24%
GC-SD318-0.0-0.5	19830-016	8	2.534	1.935	3.175	14.27%
GC-SD310-0.0-0.5	19830-017	8	2.668	2.134	3.395	19.96%

Table 8. *N. virens* Day 28 Biomass Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Biomass Analysis			Statistically Significant Difference, "<" as Compared to:											
			Lab Control 19830-000		GC-SD326 19830-003		GC-SD328 19830-008		GC-SD330 19830-009		GC-SD333 19830-010		GC-SD329 19830-012	
Sample ID	ESI Code	Mean	p Value		p Value		p Value		p Value		p Value		p Value	
Laboratory Control	19825-000	2.837	-	-	-	-	-	-	-	-	-	-	-	-
GC-SD326-0.0-0.5	19830-003	2.772	0.3794	No	-	-	-	-	-	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	2.582	0.1696	No	0.2318	No	-	-	-	-	-	-	-	-
GC-SD330-0.0-0.5	19830-009	2.689	0.2943	No	0.3777	No	0.6346	No	-	-	-	-	-	-
GC-SD333-0.0-0.5	19830-010	2.756	0.3327	No	0.4647	No	0.7669	No	0.6073	No	-	-	-	-
GC-SD329-0.0-0.5	19830-012	2.251	0.0079	Yes	0.0124	Yes	0.1105	No	0.0623	No	0.0077	Yes	-	-
GC-SD303-0.0-0.5	19830-001	2.668	0.2263	No	0.3159	No	0.6265	No	0.4704	No	0.3236	No	0.9611	No
GC-SD307A-0.0-0.5	19830-002	3.212	0.9281	No	0.9576 *0.9240	No No	0.9786	No	0.9528	No	0.9731 *0.9663	No No	0.9993	No
GC-SD309-0.0-0.5	19830-004	2.646	0.2684	No	0.3387	No	0.5749	No	0.4514	No	0.3500 *0.6618	No No	0.8946	No
GC-SD313-0.0-0.5	19830-005	1.879	0.0031	Yes	0.0044	Yes	0.0262	Yes	0.0415	Yes	0.0034	Yes	0.1171	No
GC-SD314-0.0-0.5	19830-006	2.235	0.0051	Yes	0.0081	Yes	0.0931	No	0.0511	No	0.0043	Yes	0.4689	No
GC-SD315-0.0-0.5	19830-007	1.787	0.0001	Yes	0.0001	Yes	0.0031	Yes	0.0018	Yes	<0.0001	Yes	0.0185	Yes
GC-SD307B-0.0-0.5	19830-011	2.575	0.1207	No	0.1794	No	0.4890	No	0.3388	No	0.1700	No	0.9224	No
GC-SD324-0.0-0.5	19830-013	2.815	0.4604	No	0.5783	No	0.8056	No	0.6752	No	0.6197	No	0.9891	No
GC-SD321-0.0-0.5	19830-014	2.660	0.2076	No	0.2957	No	0.6174	No	0.4575	No	0.2999	No	0.9630	No
GC-SD319-0.0-0.5	19830-015	2.762	0.3601	No	0.4797	No	0.7572	No	0.6082	No	0.5125	No	0.9868	No
GC-SD318-0.0-0.5	19830-016	2.534	0.0736	No	0.1160	No	0.4240	No	0.2771	No	0.0981	No	0.9121	No
GC-SD310-0.0-0.5	19830-017	2.668	0.2482	No	0.3332	No	0.6184	No	0.4726	No	0.3440	No	0.9468	No

Note: In cases where a statistical outlier was detected statistical comparisons were made with and without the outlier. Instances where the p Value was calculated without the outlier are identified by "*".

Table 9. Summary of Water Qualities. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

	Temp	DO Conc	pH	SpCond	Salinity
	C	mg/L	SU	uS/cm	ppt
Minimum:	11.34	3.05	7.06	40372	25.79
Mean:	12.71	7.76	-	47845	31.12
Maximum:	15.46	9.77	8.33	49668	32.43

APPENDIX A
RAW DATA AND STATISTICAL SUPPORT

Contents	Number of Pages
N. virens Daily Observation Record	10
N. virens Daily Water Quality Measurements	79
CETIS Worksheet	3
N. virens Recovery Bench Sheets	4
N. virens Mean Wet Weight at Start of Assay	1
N. virens Organism History	1
N. virens Survival Statistical Analysis	93
N. virens Mean Wet Weight Statistical Analysis	97
N. virens Mean Biomass Statistical Analysis	90
28 Day Temperature Profile	1
Chain of Custody and Sample Receipt Condition Documentation	32
E-mail Communications: Reference Site Identification	1
Total Appendix Pages	412

Nereis virens 28 Day Study # 19830

HDR Engineering, Inc. - Gowanus Canal Superfund Site

Day	Date	Water Qualities and Flow	Initial	Day	Date	Water Qualities and Flow	Initial
0	7/8/10	✓/✓	AM	15	7/23/10	✓/✓	AM/JTP
1	7/9/10	✓/✓	AM	16	7/24/10	✓/✓	JTP
2	7/10/10	✓/✓	JE	17	7/25/10	✓/✓	JTP
3	7-11	✓/✓	DM	18 *	7/26/10	✓/✓	JTP/AM
4	7/12/10	✓/✓	JTP/AM	19	7/27/10	✓/✓	AM
5	7/13/10	✓/✓	AM/JTP	20	7/28/10	✓/✓	AM/JTP
6	7/14/10	✓/✓	AM	21	7/29/10	✓/✓	AM/JTP
7	7/15/10	✓/✓	JTP/AM	22	7/30/10	✓/✓	AM/AM
8	7/16/10	✓/✓	JTP/JEB	23	7-31-10	✓/✓	DM
9	7/17/10	✓/✓	JTP	24	8/1/10	✓/✓	AM
10	7/18/10	✓/✓	AM	25	8/2/10	✓/✓	AM
11	7/19/10	✓/✓	JTP/AM	26	8/3/10	✓/✓	AM/JTP
12	7/20/10	✓/✓	AM	27	8/4/10	✓/✓	AM/JL
13	7/21/10	✓/✓	JTP/JEB	28	8/5/10	✓/-	AM/JL
14	7/22/10	✓/✓	JTP/AM				

Notes: Refresh Twice Daily, ≈ 30 minutes each time.

* DO Low in position 13b, added more air lines as corrective action 7/26 JTP

Fed on 7/15/10 AM/JTP (3-5g Clams)

Fed on 7/22/10 AM/JTP (3-5g Green Algae)

Fed on 7/29/10 AM/JTP (3-5g Green Algae)

On day 21 7/29/10 positions # 16, 17, 53, +62 were not feed due to left over algae from last feeding on 7/30/10

Test Notes

Study#:	Client:	Species:
19875 ~~19830~~	HDR Engineering, Inc.	Nereis virens ~~*Leptocheirus plumulosus*~~

DO was low for position #'s 6, 23, 65, 85, 86, & 113. More air lines were added. 7/9 JTP

Temps were low in test vessels across from climate control units. Room temp was adjusted.

Pos # 47 experienced Low DO on 7/14/10 am

Pos # 48 experienced Low DO on 7/15/10 am

Pos # 20 experienced Low DO on 7/16/10. When DO has been low, more air lines have been added. This was the corrective action taken on 7/16

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-002	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	1	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	1	3	N	N	N	N	N	1S	N	N	N	N	N	N	N	N
19830-017	1	4	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	1	5	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	1	6	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	1	7	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	1	8	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	1	9	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	1	10	N	N	N	N	1S	N	N	N	N	N	N	N	N	N
19830-008	1	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	1	12	7S	7S	5S	4S	4S	1S	2S	3S	3S	1S	1S	1S	N	1S
19830-004	1	13	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-013	1	14	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	1	15	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	1	16	N	N	1S	2S	N	N	2S	2D 4S N	3D 7/16 1D	N	N	N	N	N
19830-007	1	17	8S	7S	7S	4S	6S	3S	5S	2D 4S JTP	3S	3S	4S	4S	1S	1S
19830-003	1	18	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	2	19	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	2	20	N	N	N	N	N	N	N	N	1S	N	N	N	N	N
19830-007	2	21	7S	7S	8S	8S	8S	6S	4S	5S	6S	10 1S	3S	6S	2S	1S
19830-015	2	22	N	N	1S	N	1S	N	N	N	1S	1S	1S	1S	N	N
19830-008	2	23	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	2	24	N	N	N	N	N	N	N	N	N	N	1S	N	N	N
19830-012	2	25	N	N	N	N	N	N	N	N	1S	N	N	1S	N	N
19830-004	2	26	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	2	27	N	N	N	N	N	N	N	N	1S	N	N	1S	N	N
19830-003	2	28	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-011	2	29	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	2	30	N	N	1S	N	N	N	N	N	N	N	N	N	N	N
19830-014	2	31	N	N	N	N	N	N	N	N	N	N	N	N	N	1S
19830-001	2	32	N	N	N	N	N	N	N	N	N	N	N	2S	N	N
19830-013	2	33	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-010	2	34	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	2	35	6S	6S	8S	1D 6S	1D 2S	2S	1S	1D	1S	1S	1S	N	N	N
19830-005	2	36	5S	6S	2S	2S	2S	2S	2S	1S	1S	1S	2S	1S	1S	N
		Initials	AM 7/1	KL 7/10	DM 7-4	JTP 7/12	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	JEB 7/21	JTP 7/22

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-013	3	37	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	3	38	N	N	N	N	1S	N	N	N	1S	N	N	1S	N	N
19830-017	3	39	N	N	N	2S	N	N	N	N	N	N	N	N	N	N
19830-016	3	40	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-000	3	41	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	3	42	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	3	43	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	3	44	N	N	N	1S	N	N	N	N	1S	N	N	N	N	N
19830-004	3	45	N	N	N	N	N	N	N	N	N	N	N	2S	N	N
19830-006	3	46	6S	6S	6S	4S	4S	4S	(10)3S	2S	2S	2S	4S	2S	2S	N
19830-005	3	47	6S	6S	4S	5S	4S	3S	3S	2S	1S	1S	1S	1S	1S	N
19830-011	3	48	N	N	N	N	N	N	N	N	1S	N	N	N	N	N
19830-002	3	49	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	3	50	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	3	51	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-003	3	52	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-007	3	53	10S	10S	8S	6S	10S	10S	10S	10S	9S	8S	7S	8S	2S	3S
19830-015	3	54	N	N	1S	1S	N	N	N	N	N	N	N	N	N	N
19830-006	4	55	8S	8S	7S	2S	3S	3S	3S	(10)3S	(2D)	N	N	1S	N	N
19830-011	4	56	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	4	57	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	4	58	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-015	4	59	1S	N	1S	N	1S	1S	N	N	N	N	N	N	N	N
19830-009	4	60	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	4	61	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-016	4	62	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	4	63	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	4	64	N	N	N	N	1S	N	1S	N	N	N	N	N	N	N
19830-007	4	65	7S	5S	8S	10S	7S	8S	6S	4S	3S	4S	4S	4S	6S	3S
19830-014	4	66	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	4	67	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	4	68	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	4	69	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	4	70	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	4	71	8S	8S	6S	5S	4S	2S	1S	2S	3S	1S	N	N	N	N
19830-003	4	72	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Initials			AM 7/12	VL 7/10	CM 7/11	JTP 7/12	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	JEB 7/21	JTP 7/22

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-016	5	73	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	5	74	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	5	75	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	5	76	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	5	77	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	5	78	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	5	79	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	5	80	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	5	81	7S	7S	6S	5S	5S	4S	3S	N	N	4S	(1D)1S	1S	N	N
19830-011	5	82	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	5	83	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	5	84	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	5	85	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	5	86	9S	9S	9S	8S	7S	4S	4S	1S	1S	2S	3S	2S	1S	1S
19830-008	5	87	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	5	88	10S	9S	7S	8S	7S	8S	4S	3S	(1D)4S	4S	4S	3S	3S	3S
19830-014	5	89	N	N	N	N	N	N	N	N	N	N	N	2S	N	N
19830-015	5	90	2S	2S	1S	1S	1S	1S	N	N	N	N	N	N	N	N
19830-005	6	91	5S	6S	4S	3S	3S	2S	2S	2S	(1D)1S	2S	N	N	N	N
19830-007	6	92	10S	9S	10S	9S	10S	10S	10S	9S	7S	(1D)5S	3S	5S	6S	4S
19830-002	6	93	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	6	94	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	6	95	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	6	96	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	6	97	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	6	98	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	6	99	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	6	100	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	6	101	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	6	102	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	6	103	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-001	6	104	N	N	N	N	N	N	N	N	N	1S	N	N	N	N
19830-017	6	105	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	6	106	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	6	107	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	6	108	8S	8S	8S	7S	6S	4S	3S	3S	3S	3S	2S	2S	N	N
Initials			AM 7/12	MC 7/10	CM 7/11	JTP 7/12	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	JTP 7/21	JTP 7/22

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Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-015	7	109	N	N	N	1S	N	N	N	N	1S	N	N	N	N	N
19830-017	7	110	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	7	111	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	7	112	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	7	113	7S	7S	8S	4S	4S	3S	3S	2S	1S	N	N	N	N	N
19830-012	7	114	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	7	115	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	7	116	N	N	N	N	N	N	N	N	1S	N	N	N	N	N
19830-014	7	117	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	7	118	9S	9S	7S	3S	3S	3S	(10)1S	2S	2S	1S	1S	1S	1S	1S
19830-001	7	119	N	N	N	N	N	N	N	1S	1S	N	N	1S	1S	N
19830-000	7	120	N	N	N	N	N	N	1S	1S	4S	1S	3S	N	1S	2S
19830-009	7	121	N	N	N	N	N	N	N	N	3S	1S	N	N	N	N
19830-010	7	122	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-007	7	123	N	N	7S	7S	7S	4S	5S	5S	(20)4S	5S(10)	3S	2S	N	N
19830-002	7	124	N	N	N	N	N	N	N	1S	N	N	N	N	N	2S
19830-013	7	125	N	N	N	N	N	N	1S	N	N	N	N	1S	N	N
19830-016	7	126	N	N	N	N	N	N	N	N	N	N	1S	N	N	N
19830-017	8	127	N	N	1S	N	N	N	N	N	1S	N	N	2S	N	1S
19830-013	8	128	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	8	129	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	8	130	10S	10S	8S	6S	2S	3S	2S	2S	3S	2S	1S	(10)1S	N	N
19830-011	8	131	~~1S~~N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	8	132	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	8	133	N	N	N	N	N	N	N	N	2S	N	N	1S	N	N
19830-003	8	134	N	N	N	N	N	N	N	1S	3S	N	N	3S	1S	N
19830-005	8	135	10S	9S	10S	9S	7S	4S	2S	5S	(10)3S	4S	1S	2S	N	1S
19830-012	8	136	N	N	N	N	N	N	1S	N	2S	1S	N	N	N	N
19830-006	8	137	7S	7S	5S	4S	4S	4S	3S	2S	3S	2S	N	N	1S	1S
19830-001	8	138	N	N	N	N	N	N	N	1S	N	N	N	N	N	N
19830-014	8	139	N	N	N	N	N	N	N	1S	2S	N	N	N	N	N
19830-000	8	140	N	N	N	N	N	N	N	1S	4S	N	N	N	1S	1S
19830-009	8	141	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	8	142	N	N	N	N	N	N	N	N	2S	N	N	N	1S	N
19830-015	8	143	N	N	N	N	N	N	N	N	N	N	N	N	N	1S
19830-016	8	144	N	N	N	N	N	N	N	N	1S	N	N	1S	N	N
Initials			AM 7/10	MC 7/10	DM 7-11	JTP 7/13	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	SEB 7/21	JTP 7/22

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Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-002	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	1	2	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	1	3	N	N	N	N	N	N	N	N	N	IS	N	N	N
19830-017	1	4	N	N	N	IS	IS	N	N	N	N	N	N	N	N
19830-001	1	5	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	1	6	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	1	7	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	1	8	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	1	9	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	1	10	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	1	11	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	1	12	IS	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	1	13	N	N	N	IS	N	N	N	N	N	N	N	N	N
19830-013	1	14	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	1	15	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	1	16	N	N	N	N	N	N	N	N	N	N	IS	N	N
19830-007	1	17	5S	4S	IS	2S	IS	2S	N	IS	N	IS	(10)	N	2S
19830-003	1	18	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	2	19	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	2	20	N	N	N	N	N	N	IS	N	N	N	N	N	N
19830-007	2	21	3S	(10)2S	3S	2S	3S	IS	N	N	N	N	N	3S	IS
19830-015	2	22	IS	2S	N	N	N	N	N	IS	N	N	N	N	N
19830-008	2	23	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	2	24	N	N	N	N	N	N	N	N	N	N	N	N	IS
19830-012	2	25	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	2	26	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	2	27	N	2S	N	N	N	N	N	N	N	N	N	N	N
19830-003	2	28	N	N	N	N	N	N	N	N	N	IS	N	N	N
19830-011	2	29	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	2	30	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	2	31	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	2	32	N	N	N	N	N	N	N	N	N	IS	N	N	N
19830-013	2	33	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	2	34	N	N	N	N	N	N	N	N	N	N	N	IS	N
19830-006	2	35	IS	N	N	N	N	N	2S	N	N	N	N	N	N
19830-005	2	36	2S	IS	2S	N	N	N	N	IS	N	N	N	N	N
Initials			JTP 7/23	JTP 7/24	DM 7.25	JTP 7/26	AM 7/27	JTP 7/28	# NB F 7/29	AM 7/30	DM 7.31	AM 8/1/16	JTP 8/2	JTP 8/3	JTP 8/4

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Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-013	3	37	2S	N	N	N	N	N	N	N	N	N	2S	N	N
19830-009	3	38	1S	N	N	1S	2S	N	N	N	N	N	N	N	1S
19830-017	3	39	N	1S	N	N	N	N	N	N	N	N	N	N	2S
19830-016	3	40	N	N	N	N	N	N	N	N	2S	1S	N	N	2S
19830-000	3	41	2S	1S	N	1S	N	3S	N	N	N	N	2S	2S	2S
19830-010	3	42	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	3	43	N	N	N	N	N	N	1S	1S	N	N	N	N	1S
19830-014	3	44	N	N	N	N	N	N	N	1S	N	1S	1S	2S	1S
19830-004	3	45	3S	N	N	N	N	N	N	N	N	N	N	N	1S
19830-006	3	46	2S	N	N	N	N	N	1S	N	N	N	N	N	N
19830-005	3	47	1S	1S	N	N	N	N	N	N	N	1S	N	1S	1S
19830-011	3	48	N	N	N	N	N	N	N	N	N	2S	N	N	1S
19830-002	3	49	1S	N	N	N	1S	N	N	N	N	N	N	N	N
19830-012	3	50	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	3	51	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	3	52	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	3	53	2S	3S	N	1S	N	2S	N	(1D)	1S	2S	N	N	N
19830-015	3	54	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	4	55	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	4	56	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	4	57	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	4	58	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	4	59	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	4	60	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	4	61	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	4	62	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	4	63	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	4	64	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	4	65	4S	4S	5S	2S	2S	(1D)2S	2S	2S	4S	N	1S	4S	1D 1S
19830-014	4	66	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	4	67	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-017	4	68	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	4	69	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	4	70	N	N	N	N	N	N	N	N	N	N	N	N	1S
19830-005	4	71	N	N	N	2S	1S	1S	N	N	N	N	N	N	N
19830-003	4	72	N	N	N	N	N	N	N	N	N	N	N	N	N
Initials			JSP 7/23	JSP 7/24	DM 7.25	JSP 7/26	AM 7/27	JSP 7/28	NBE 7/29	AM 7/30	DM 7.31	AM 8/1/10	JSP 8/2/10	JSP 8/3/10	JSP 8/4/10

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-016	5	73	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	5	74	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	5	75	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	5	76	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	5	77	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	5	78	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	5	79	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	5	80	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	5	81	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	5	82	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	5	83	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	5	84	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	5	85	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	5	86	N	N	N	15	N	N	15	N	N	N	N	N	N
19830-008	5	87	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	5	88	N	45	35	N	15	15	N	N	N	25	15	15	N
19830-014	5	89	N	N	N	N	N	N	N	15	N	N	N	N	N
19830-015	5	90	N	N	N	N	N	N	15	N	N	N	N	N	N
19830-005	6	91	N	15	N	N	N	N	N	N	N	15	N	N	N
19830-007	6	92	25	25	N	N	N	15	N	N	35	N	25	N	45
19830-002	6	93	N	N	N	N	N	15	N	N	N	N	N	N	15
19830-009	6	94	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	6	95	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	6	96	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	6	97	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	6	98	N	N	N	15	N	N	N	N	N	N	N	N	N
19830-014	6	99	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	6	100	N	N	15	N	N	N	N	N	N	N	N	N	N
19830-010	6	101	N	N	N	25	N	N	15	N	N	N	15	N	N
19830-000	6	102	N	15	N	N	N	N	N	N	N	N	N	N	N
19830-016	6	103	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	6	104	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	6	105	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	6	106	N	N	N	N	N	N	N	N	N	15	N	N	N
19830-011	6	107	N	N	N	N	N	15	N	N	N	N	N	N	N
19830-006	6	108	N	N	N	N	N	15	N	N	N	N	N	N	N
		Initials	AM 7/23	JTP 7/24	AM 7/25	JTP 7/26	AM 7/27	JTP 7/28	NR 7/29	AM 7/30	DM 7-31	AM 8/1/10	JTP 8/2/10	JTP 8/3/10	JL 8/4/10

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-015	7	109													
19830-017	7	110													
19830-003	7	111													
19830-008	7	112													
19830-006	7	113													
19830-012	7	114													
19830-004	7	115													
19830-011	7	116													
19830-014	7	117													
19830-005	7	118													
19830-001	7	119													
19830-000	7	120													
19830-009	7	121													
19830-010	7	122													
19830-007	7	123													
19830-002	7	124													
19830-013	7	125													
19830-016	7	126													
19830-017	8	127													
19830-013	8	128													
19830-010	8	129													
19830-007	8	130													
19830-011	8	131													
19830-002	8	132													
19830-004	8	133													
19830-003	8	134													
19830-005	8	135													
19830-012	8	136													
19830-006	8	137													
19830-001	8	138													
19830-014	8	139													
19830-000	8	140													
19830-009	8	141													
19830-008	8	142													
19830-015	8	143													
19830-016	8	144													
		Initials	AMC 7/23/10	JTP 7/24	DAM 7.25	JTP 7/26	AMC 7/27	JTP 7/28	MBF 7/29	AMC 7/30	DAM 7.31	AMC 8/1/10	JTP 8/2/10	JTP 8/3/10	JTP 8/4/10

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

STUDY: 19875
CLIENT: HDR Engineering, Inc.
PROJECT: Gowanus Canal Superfund Site
ASSAY: 28 Day Nereis virens
TASK: Daily Overlying Water Qualities

	Temp	DO Conc	pH	SpCond	Salinity
Minimum:	11.34	3.05	7.06	40372	25.79
Mean:	12.71	7.76		47845	31.12
Maximum:	15.46	9.77	8.33	49668	32.43

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	1	1	0	07/08/10 09:18:10	12.18	9.02	7.83	47262	30.68
19830-016	1	2	0	07/08/10 09:19:01	12.19	8.90	8.33	45636	29.51
19830-015	1	3	0	07/08/10 09:19:15	12.15	8.87	8.29	46911	30.43
19830-017	1	4	0	07/08/10 09:19:32	12.07	8.82	8.19	46264	29.96
19830-001	1	5	0	07/08/10 09:20:30	12.05	8.69	7.81	47159	30.60
19830-011	1	6	0	07/08/10 09:20:53	12.67	7.23	7.93	47070	30.56
19830-014	1	7	0	07/08/10 09:22:06	12.29	8.15	8.26	47469	30.84
19830-009	1	8	0	07/08/10 09:29:21	14.38	8.33	7.82	47176	30.69
19830-012	1	9	0	07/08/10 09:29:54	14.15	8.50	7.81	47278	30.76
19830-010	1	10	0	07/08/10 09:30:18	13.88	8.61	7.83	47131	30.65
19830-008	1	11	0	07/08/10 09:30:30	14.05	8.60	8.01	47111	30.64
19830-006	1	12	0	07/08/10 09:30:40	14.20	8.61	7.91	46000	29.84
19830-004	1	13	0	07/08/10 09:31:05	13.59	8.65	7.97	47053	30.58
19830-013	1	14	0	07/08/10 09:31:21	13.66	8.59	8.00	47201	30.69
19830-000	1	15	0	07/08/10 09:31:35	13.77	8.53	7.87	47259	30.74
19830-005	1	16	0	07/08/10 09:31:51	14.04	8.66	7.77	45186	29.25
19830-007	1	17	0	07/08/10 09:32:15	13.82	8.63	7.74	47254	30.73
19830-003	1	18	0	07/08/10 09:32:33	13.94	8.61	7.81	47370	30.82
19830-009	2	19	0	07/08/10 09:35:41	15.22	8.35	7.80	47012	30.59
19830-016	2	20	0	07/08/10 09:36:07	14.89	6.98	7.85	46914	30.52
19830-007	2	21	0	07/08/10 09:36:19	15.13	6.67	7.77	47011	30.59
19830-015	2	22	0	07/08/10 09:36:41	14.94	7.89	8.08	46725	30.38
19830-008	2	23	0	07/08/10 09:37:02	14.72	7.55	7.64	46967	30.55
19830-002	2	24	0	07/08/10 09:37:27	14.98	7.59	7.71	46912	30.52
19830-012	2	25	0	07/08/10 09:37:43	14.98	7.98	7.85	46912	30.52
19830-004	2	26	0	07/08/10 09:37:59	15.02	8.13	7.84	47082	30.64
19830-000	2	27	0	07/08/10 09:38:35	13.20	8.72	7.80	47056	30.57
19830-003	2	28	0	07/08/10 09:38:56	14.66	8.27	7.74	47075	30.63
19830-011	2	29	0	07/08/10 09:39:18	14.71	8.22	7.96	46988	30.57
19830-017	2	30	0	07/08/10 09:39:41	14.72	8.39	7.93	46871	30.48
19830-014	2	31	0	07/08/10 09:39:59	14.56	8.45	8.06	46989	30.56
19830-001	2	32	0	07/08/10 09:40:20	14.61	8.44	7.72	47114	30.65
19830-013	2	33	0	07/08/10 09:40:36	14.44	8.45	7.95	47074	30.62
19830-010	2	34	0	07/08/10 09:40:58	14.73	8.45	7.88	47085	30.64
19830-006	2	35	0	07/08/10 09:41:22	14.83	8.46	7.79	47173	30.70
19830-005	2	36	0	07/08/10 09:41:50	15.06	8.26	7.72	47085	30.64
19830-013	3	37	0	07/08/10 09:42:10	15.39	8.19	7.97	47162	30.71
19830-009	3	38	0	07/08/10 09:42:26	15.44	8.21	7.83	47022	30.61
19830-017	3	39	0	07/08/10 09:42:45	15.46	8.23	7.91	46990	30.58
19830-016	3	40	0	07/08/10 09:43:08	14.98	8.31	8.07	47056	30.62
19830-000	3	41	0	07/08/10 09:43:27	15.31	8.25	7.82	47082	30.65
19830-010	3	42	0	07/08/10 09:43:43	15.19	8.30	7.77	46956	30.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	3	43	0	07/08/10 09:44:08	14.47	8.49	7.77	47046	30.60
19830-014	3	44	0	07/08/10 09:44:26	15.25	8.24	7.97	47253	30.77
19830-004	3	45	0	07/08/10 09:44:42	15.15	8.13	7.92	47001	30.58
19830-006	3	46	0	07/08/10 09:44:57	15.07	8.20	7.80	46972	30.56
19830-005	3	47	0	07/08/10 09:45:15	15.29	8.22	7.73	47086	30.65
19830-011	3	48	0	07/08/10 09:45:27	15.24	8.20	7.76	47081	30.64
19830-002	3	49	0	07/08/10 09:45:43	14.68	8.27	7.85	46859	30.47
19830-012	3	50	0	07/08/10 09:46:00	14.96	8.07	7.88	47033	30.60
19830-001	3	51	0	07/08/10 09:46:43	12.13	8.89	7.85	47455	30.82
19830-003	3	52	0	07/08/10 09:46:56	12.07	8.90	7.89	47478	30.83
19830-007	3	53	0	07/08/10 09:47:20	12.01	8.98	7.74	46627	30.22
19830-015	3	54	0	07/08/10 09:47:37	12.10	8.92	8.19	46272	29.97
19830-006	4	55	0	07/08/10 09:47:56	12.13	8.89	7.88	47346	30.74
19830-011	4	56	0	07/08/10 09:48:19	11.94	8.92	7.91	47410	30.78
19830-012	4	57	0	07/08/10 09:48:43	11.94	8.92	7.97	47386	30.76
19830-010	4	58	0	07/08/10 09:48:57	11.93	8.95	7.93	47574	30.90
19830-015	4	59	0	07/08/10 09:49:12	11.74	9.01	8.12	47713	30.99
19830-009	4	60	0	07/08/10 09:49:25	11.69	9.11	7.97	47655	30.94
19830-001	4	61	0	07/08/10 09:49:39	11.86	9.12	8.00	47779	31.04
19830-016	4	62	0	07/08/10 09:49:55	11.98	9.03	8.25	47433	30.80
19830-008	4	63	0	07/08/10 09:50:10	11.91	8.97	8.07	47456	30.81
19830-004	4	64	0	07/08/10 09:50:24	12.02	8.97	8.06	47515	30.86
19830-007	4	65	0	07/08/10 09:50:39	12.19	8.92	7.73	47502	30.86
19830-014	4	66	0	07/08/10 09:50:55	12.34	8.17	8.06	47352	30.75
19830-000	4	67	0	07/08/10 09:51:15	12.22	8.60	7.82	47320	30.73
19830-017	4	68	0	07/08/10 09:51:31	12.26	8.75	7.98	47275	30.69
19830-013	4	69	0	07/08/10 09:51:46	12.43	8.64	8.11	47364	30.77
19830-002	4	70	0	07/08/10 09:52:03	12.40	8.68	8.01	47143	30.61
19830-005	4	71	0	07/08/10 09:52:20	12.28	8.50	7.70	47235	30.67
19830-003	4	72	0	07/08/10 09:52:39	12.38	8.51	7.83	47337	30.74
19830-016	5	73	0	07/08/10 09:52:56	12.27	8.79	8.21	47252	30.68
19830-003	5	74	0	07/08/10 09:53:16	12.23	8.66	7.89	47241	30.67
19830-000	5	75	0	07/08/10 09:53:29	12.38	8.49	7.84	47362	30.76
19830-013	5	76	0	07/08/10 09:53:41	12.49	8.70	8.05	47365	30.77
19830-001	5	77	0	07/08/10 09:53:55	12.61	8.74	8.10	47234	30.68
19830-002	5	78	0	07/08/10 09:54:08	12.47	8.62	8.11	47115	30.59
19830-004	5	79	0	07/08/10 09:54:20	12.43	8.45	8.06	47274	30.70
19830-012	5	80	0	07/08/10 09:54:38	12.59	8.69	8.02	47293	30.72
19830-005	5	81	0	07/08/10 09:55:53	12.66	8.61	7.72	47021	30.53
19830-011	5	82	0	07/08/10 09:56:12	12.71	8.66	7.93	46629	30.25
19830-010	5	83	0	07/08/10 09:56:27	12.93	8.58	8.04	47341	30.77
19830-017	5	84	0	07/08/10 09:56:46	13.18	8.48	8.03	47297	30.75
19830-009	5	85	0	07/08/10 09:57:14	14.97	8.10	7.71	47044	30.61
19830-006	5	86	0	07/08/10 09:58:08	13.30	8.01	7.64	47285	30.74
19830-008	5	87	0	07/08/10 09:58:30	13.01	8.41	7.96	47188	30.66
19830-007	5	88	0	07/08/10 09:58:44	12.97	8.61	7.82	47170	30.65
19830-014	5	89	0	07/08/10 09:59:10	12.30	8.83	8.20	47324	30.73
19830-015	5	90	0	07/08/10 09:59:36	12.60	8.74	8.18	47390	30.79
19830-005	6	91	0	07/08/10 10:00:02	12.86	8.71	7.81	47259	30.71
19830-007	6	92	0	07/08/10 10:00:23	12.87	8.72	7.78	47242	30.70
19830-002	6	93	0	07/08/10 10:00:40	12.93	8.68	7.89	47244	30.70
19830-009	6	94	0	07/08/10 10:00:58	13.02	8.62	7.82	47252	30.71
19830-013	6	95	0	07/08/10 10:01:14	13.06	8.61	8.10	47251	30.71
19830-004	6	96	0	07/08/10 10:01:31	12.98	8.68	8.00	47214	30.68

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	6	97	0	07/08/10 10:02:06	12.18	8.92	8.03	47842	31.10
19830-015	6	98	0	07/08/10 10:02:28	12.08	8.87	8.16	47481	30.84
19830-014	6	99	0	07/08/10 10:02:44	12.01	8.82	8.28	47505	30.85
19830-003	6	100	0	07/08/10 10:02:57	12.03	8.82	8.03	47653	30.96
19830-010	6	101	0	07/08/10 10:03:10	12.03	8.86	7.98	47595	30.92
19830-000	6	102	0	07/08/10 10:03:23	12.04	8.93	7.89	47573	30.90
19830-016	6	103	0	07/08/10 10:03:34	12.02	8.95	8.11	47530	30.87
19830-001	6	104	0	07/08/10 10:03:53	12.04	8.86	7.85	47463	30.82
19830-017	6	105	0	07/08/10 10:04:06	11.94	8.86	7.95	47512	30.85
19830-008	6	106	0	07/08/10 10:04:15	11.92	8.92	7.89	47436	30.80
19830-011	6	107	0	07/08/10 10:04:27	11.90	8.77	7.87	47605	30.92
19830-006	6	108	0	07/08/10 10:04:43	12.01	8.78	7.84	47609	30.93
19830-015	7	109	0	07/08/10 10:04:58	12.02	8.96	8.03	48195	31.35
19830-017	7	110	0	07/08/10 10:05:17	12.00	8.90	8.22	48006	31.21
19830-003	7	111	0	07/08/10 10:05:32	11.95	8.94	8.00	47649	30.95
19830-008	7	112	0	07/08/10 10:05:52	12.04	9.02	8.05	46702	30.27
19830-006	7	113	0	07/08/10 10:06:25	12.75	8.77	7.86	47054	30.55
19830-012	7	114	0	07/08/10 10:06:55	12.59	8.73	7.98	46319	30.02
19830-004	7	115	0	07/08/10 10:07:05	12.57	8.65	7.99	47168	30.63
19830-011	7	116	0	07/08/10 10:07:25	12.66	8.62	8.15	47172	30.64
19830-014	7	117	0	07/08/10 10:07:38	12.65	8.61	8.20	47210	30.66
19830-005	7	118	0	07/08/10 10:07:51	12.58	8.67	7.94	47154	30.62
19830-001	7	119	0	07/08/10 10:08:15	12.15	8.82	7.75	47129	30.58
19830-000	7	120	0	07/08/10 10:08:29	12.43	8.75	7.80	47294	30.72
19830-009	7	121	0	07/08/10 10:08:45	12.27	8.85	7.76	47166	30.62
19830-010	7	122	0	07/08/10 10:08:58	12.21	8.72	7.88	47266	30.69
19830-007	7	123	0	07/08/10 10:09:16	12.28	8.38	7.65	47329	30.73
19830-002	7	124	0	07/08/10 10:09:33	12.28	8.25	7.67	47303	30.72
19830-013	7	125	0	07/08/10 10:09:49	12.27	8.46	7.95	47526	30.88
19830-016	7	126	0	07/08/10 10:10:05	12.44	8.64	8.17	47469	30.84
19830-017	8	127	0	07/08/10 10:10:21	12.52	8.73	7.96	47325	30.74
19830-013	8	128	0	07/08/10 10:10:35	12.74	8.73	8.01	47252	30.70
19830-010	8	129	0	07/08/10 10:10:55	12.70	8.72	8.07	47161	30.63
19830-007	8	130	0	07/08/10 10:11:11	12.81	8.74	7.86	47206	30.67
19830-011	8	131	0	07/08/10 10:11:24	12.92	8.65	8.13	47234	30.69
19830-002	8	132	0	07/08/10 10:11:41	12.87	8.60	8.01	46870	30.43
19830-004	8	133	0	07/08/10 10:11:56	12.91	8.58	8.00	47216	30.68
19830-003	8	134	0	07/08/10 10:12:13	12.97	8.63	7.97	47247	30.70
19830-005	8	135	0	07/08/10 10:12:43	12.84	8.60	7.75	47109	30.60
19830-012	8	136	0	07/08/10 10:13:48	12.65	8.35	8.05	44944	29.03
19830-006	8	137	0	07/08/10 10:14:18	12.60	8.65	7.87	47349	30.76
19830-001	8	138	0	07/08/10 10:14:30	12.53	8.80	7.88	47264	30.70
19830-014	8	139	0	07/08/10 10:14:47	12.51	8.77	8.20	46440	30.10
19830-000	8	140	0	07/08/10 10:15:05	12.84	8.67	7.95	47328	30.76
19830-009	8	141	0	07/08/10 10:15:22	12.93	8.73	7.89	47288	30.73
19830-008	8	142	0	07/08/10 10:15:41	12.67	8.77	8.05	47248	30.69
19830-015	8	143	0	07/08/10 10:16:03	12.76	8.64	8.22	47336	30.76
19830-016	8	144	0	07/08/10 10:16:18	12.82	8.50	8.32	47229	30.68
19830-002	1	1	1	07/09/10 09:11:58	11.62	7.94	7.50	47539	30.86
19830-016	1	2	1	07/09/10 09:12:41	11.60	7.84	7.93	45183	29.16
19830-015	1	3	1	07/09/10 09:13:01	11.57	7.66	7.58	47007	30.47
19830-017	1	4	1	07/09/10 09:13:16	11.56	7.23	7.51	47030	30.49
19830-001	1	5	1	07/09/10 09:13:28	11.57	6.79	7.55	47500	30.83

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	1	6	1	07/09/10 09:14:13	11.62	5.02	7.42	47594	30.90
19830-014	1	7	1	07/09/10 09:15:47	11.70	7.33	7.67	47790	31.04
19830-009	1	8	1	07/09/10 09:16:08	11.71	7.51	7.69	47517	30.85
19830-012	1	9	1	07/09/10 09:16:25	11.81	7.60	7.66	47886	31.12
19830-010	1	10	1	07/09/10 09:16:52	12.11	7.71	7.66	47633	30.95
19830-008	1	11	1	07/09/10 09:17:07	12.15	7.74	7.84	47604	30.93
19830-006	1	12	1	07/09/10 09:17:43	12.26	6.59	7.30	47640	30.96
19830-004	1	13	1	07/09/10 09:18:14	12.34	7.13	7.52	47538	30.89
19830-013	1	14	1	07/09/10 09:18:36	12.35	7.37	7.71	47593	30.93
19830-000	1	15	1	07/09/10 09:20:19	12.38	8.15	7.62	47807	31.08
19830-005	1	16	1	07/09/10 09:20:43	12.43	7.92	7.51	47838	31.11
19830-007	1	17	1	07/09/10 09:21:00	12.48	7.71	7.43	47912	31.16
19830-003	1	18	1	07/09/10 09:21:31	12.72	6.79	7.27	47802	31.09
19830-009	2	19	1	07/09/10 09:35:20	11.50	7.08	7.52	47587	30.89
19830-016	2	20	1	07/09/10 09:35:39	11.47	7.11	7.95	47575	30.88
19830-007	2	21	1	07/09/10 09:36:12	11.58	6.92	7.38	47241	30.64
19830-015	2	22	1	07/09/10 09:36:38	11.63	6.85	7.65	47266	30.66
19830-008	2	23	1	07/09/10 09:37:06	11.69	5.72	7.29	47256	30.66
19830-002	2	24	1	07/09/10 09:37:50	11.71	6.97	7.47	47273	30.67
19830-012	2	25	1	07/09/10 09:38:13	11.74	7.23	7.57	47493	30.83
19830-004	2	26	1	07/09/10 09:38:38	11.87	7.27	7.50	47586	30.90
19830-000	2	27	1	07/09/10 09:39:07	12.19	7.73	7.56	47714	31.01
19830-003	2	28	1	07/09/10 09:39:44	12.26	7.12	7.38	47234	30.66
19830-011	2	29	1	07/09/10 09:40:13	12.32	7.26	7.82	47475	30.84
19830-017	2	30	1	07/09/10 09:40:56	12.37	7.30	7.60	47456	30.83
19830-014	2	31	1	07/09/10 09:42:27	12.32	7.11	7.77	47620	30.95
19830-001	2	32	1	07/09/10 09:42:55	12.22	7.08	7.51	47587	30.92
19830-013	2	33	1	07/09/10 09:43:15	12.24	7.14	7.77	47664	30.97
19830-010	2	34	1	07/09/10 09:43:39	12.43	7.36	7.67	47630	30.96
19830-006	2	35	1	07/09/10 09:44:17	11.48	7.34	7.41	47655	30.93
19830-005	2	36	1	07/09/10 09:44:37	11.41	7.31	7.40	47729	30.98
19830-013	3	37	1	07/09/10 09:45:09	11.41	7.40	7.75	47770	31.01
19830-009	3	38	1	07/09/10 09:45:44	11.48	7.65	7.61	47619	30.91
19830-017	3	39	1	07/09/10 09:46:05	11.53	7.62	7.67	47400	30.75
19830-016	3	40	1	07/09/10 09:46:24	11.56	7.65	7.85	47784	31.03
19830-000	3	41	1	07/09/10 09:46:50	11.69	8.18	7.65	47675	30.96
19830-010	3	42	1	07/09/10 09:47:17	11.77	8.21	7.61	47649	30.94
19830-008	3	43	1	07/09/10 09:47:46	12.02	7.73	7.60	47690	30.98
19830-014	3	44	1	07/09/10 09:48:12	12.09	7.26	7.58	47561	30.89
19830-004	3	45	1	07/09/10 09:48:43	12.02	7.36	7.53	47674	30.97
19830-006	3	46	1	07/09/10 09:48:59	12.20	7.32	7.38	47626	30.95
19830-005	3	47	1	07/09/10 09:49:18	12.25	6.93	7.37	47602	30.93
19830-011	3	48	1	07/09/10 09:49:50	11.91	7.25	7.65	47806	31.06
19830-002	3	49	1	07/09/10 09:50:15	12.23	7.13	7.60	47519	30.87
19830-012	3	50	1	07/09/10 09:50:42	12.34	6.98	7.66	47478	30.84
19830-001	3	51	1	07/09/10 09:51:00	12.39	7.19	7.67	48108	31.30
19830-003	3	52	1	07/09/10 09:51:38	12.50	7.62	7.64	48010	31.24
19830-007	3	53	1	07/09/10 09:52:08	12.52	6.47	7.25	47792	31.08
19830-015	3	54	1	07/09/10 09:52:31	12.51	6.78	7.86	47826	31.10
19830-006	4	55	1	07/09/10 09:53:09	12.44	6.59	7.33	47737	31.04
19830-011	4	56	1	07/09/10 09:53:39	12.35	7.02	7.72	47726	31.02
19830-012	4	57	1	07/09/10 09:53:57	12.30	7.38	7.76	47815	31.09
19830-010	4	58	1	07/09/10 09:54:12	12.27	7.64	7.68	48177	31.35
19830-015	4	59	1	07/09/10 10:01:52	12.24	7.84	7.80	48068	31.27

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	4	60	1	07/09/10 10:02:19	12.05	7.64	7.68	47976	31.19
19830-001	4	61	1	07/09/10 10:02:39	12.04	7.49	7.78	48029	31.23
19830-016	4	62	1	07/09/10 10:02:52	12.05	7.35	7.86	47968	31.19
19830-008	4	63	1	07/09/10 10:03:13	12.01	7.34	7.68	47962	31.18
19830-004	4	64	1	07/09/10 10:03:37	11.92	7.26	7.55	47879	31.12
19830-007	4	65	1	07/09/10 10:04:25	12.10	5.31	7.12	47759	31.04
19830-014	4	66	1	07/09/10 10:05:03	12.10	6.65	7.62	47796	31.06
19830-000	4	67	1	07/09/10 10:05:34	12.06	7.41	7.52	47827	31.08
19830-017	4	68	1	07/09/10 10:06:05	12.05	6.79	7.65	47550	30.88
19830-013	4	69	1	07/09/10 10:06:42	12.05	7.47	7.74	47754	31.03
19830-002	4	70	1	07/09/10 10:06:58	12.05	7.53	7.71	47628	30.94
19830-005	4	71	1	07/09/10 10:07:26	12.01	6.98	7.33	47711	31.00
19830-003	4	72	1	07/09/10 10:07:56	12.05	7.37	7.61	47765	31.04
19830-016	5	73	1	07/09/10 10:08:19	12.03	7.52	7.82	47741	31.02
19830-003	5	74	1	07/09/10 10:08:55	12.03	6.66	7.43	47665	30.97
19830-000	5	75	1	07/09/10 10:09:25	12.06	7.37	7.54	47760	31.04
19830-013	5	76	1	07/09/10 10:09:35	12.06	7.61	7.57	47685	30.98
19830-001	5	77	1	07/09/10 10:09:48	12.04	7.49	7.65	47562	30.89
19830-002	5	78	1	07/09/10 10:10:16	12.01	7.14	7.67	47593	30.91
19830-004	5	79	1	07/09/10 10:10:35	11.98	7.05	7.55	47650	30.95
19830-012	5	80	1	07/09/10 10:10:46	11.91	7.21	7.65	47712	30.99
19830-005	5	81	1	07/09/10 10:11:42	12.03	6.91	7.33	47747	31.03
19830-011	5	82	1	07/09/10 10:12:13	11.96	7.22	7.77	47755	31.03
19830-010	5	83	1	07/09/10 10:12:32	11.91	7.41	7.74	47731	31.01
19830-017	5	84	1	07/09/10 10:12:50	11.91	7.46	7.61	47510	30.85
19830-009	5	85	1	07/09/10 10:13:26	11.88	6.15	7.42	47563	30.89
19830-006	5	86	1	07/09/10 10:13:52	11.86	5.59	7.24	47663	30.96
19830-008	5	87	1	07/09/10 10:14:30	11.84	7.58	7.72	47715	30.99
19830-007	5	88	1	07/09/10 10:15:04	11.81	7.45	7.36	47343	30.72
19830-014	5	89	1	07/09/10 10:15:30	11.88	7.62	7.67	47874	31.11
19830-015	5	90	1	07/09/10 10:15:46	11.83	7.73	7.81	47807	31.06
19830-005	6	91	1	07/09/10 10:16:04	11.80	7.80	7.57	47735	31.01
19830-007	6	92	1	07/09/10 10:16:33	11.75	7.56	7.37	47746	31.01
19830-002	6	93	1	07/09/10 10:16:53	11.73	7.52	7.63	47638	30.93
19830-009	6	94	1	07/09/10 10:17:28	11.69	6.93	7.53	47635	30.93
19830-013	6	95	1	07/09/10 10:17:47	11.63	7.05	7.79	47510	30.84
19830-004	6	96	1	07/09/10 10:18:02	11.60	7.42	7.69	47704	30.97
19830-012	6	97	1	07/09/10 10:18:44	12.02	7.81	7.74	48005	31.21
19830-015	6	98	1	07/09/10 10:18:59	11.95	7.76	7.71	47924	31.15
19830-014	6	99	1	07/09/10 10:19:11	11.91	7.57	7.76	47876	31.11
19830-003	6	100	1	07/09/10 10:19:23	11.92	7.49	7.67	47965	31.18
19830-010	6	101	1	07/09/10 10:19:48	11.93	7.59	7.69	48110	31.28
19830-000	6	102	1	07/09/10 10:20:10	11.91	7.92	7.66	48048	31.24
19830-016	6	103	1	07/09/10 10:20:29	11.93	8.01	7.86	48004	31.21
19830-001	6	104	1	07/09/10 10:20:48	11.99	7.73	7.69	47907	31.14
19830-017	6	105	1	07/09/10 10:21:10	12.06	7.88	7.79	47915	31.15
19830-008	6	106	1	07/09/10 10:21:23	12.04	7.77	7.62	47837	31.09
19830-011	6	107	1	07/09/10 10:21:38	12.02	7.24	7.62	48024	31.23
19830-006	6	108	1	07/09/10 10:22:00	11.94	7.15	7.48	47997	31.20
19830-015	7	109	1	07/09/10 10:22:22	11.86	7.29	7.80	48263	31.39
19830-017	7	110	1	07/09/10 10:22:44	11.79	7.70	7.85	47739	31.01
19830-003	7	111	1	07/09/10 10:23:00	11.67	7.83	7.69	47942	31.15
19830-008	7	112	1	07/09/10 10:23:18	11.49	7.88	7.76	48084	31.24
19830-006	7	113	1	07/09/10 10:24:14	12.35	5.92	7.30	47513	30.87

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	7	114	1	07/09/10 10:24:51	12.31	7.44	7.71	47606	30.94
19830-004	7	115	1	07/09/10 10:25:11	12.30	7.74	7.65	47613	30.94
19830-011	7	116	1	07/09/10 10:25:27	12.29	7.77	7.80	47536	30.88
19830-014	7	117	1	07/09/10 10:25:52	12.23	7.83	7.86	47688	30.99
19830-005	7	118	1	07/09/10 10:26:20	12.22	7.40	7.44	47642	30.96
19830-001	7	119	1	07/09/10 10:26:37	12.18	7.31	7.54	47461	30.83
19830-000	7	120	1	07/09/10 10:26:59	12.20	7.83	7.59	47635	30.95
19830-009	7	121	1	07/09/10 10:27:27	11.89	7.85	7.58	47663	30.96
19830-010	7	122	1	07/09/10 10:27:40	11.79	7.67	7.55	47712	30.99
19830-007	7	123	1	07/09/10 10:27:56	11.70	7.24	7.37	47776	31.03
19830-002	7	124	1	07/09/10 10:28:10	11.65	6.94	7.43	47696	30.97
19830-013	7	125	1	07/09/10 10:28:26	11.57	7.37	7.63	47929	31.14
19830-016	7	126	1	07/09/10 10:28:39	11.56	7.63	7.75	47885	31.10
19830-017	8	127	1	07/09/10 10:28:57	11.51	7.53	7.72	47745	31.00
19830-013	8	128	1	07/09/10 10:29:15	11.45	7.72	7.69	47500	30.82
19830-010	8	129	1	07/09/10 10:29:39	12.18	7.73	7.75	47699	31.00
19830-007	8	130	1	07/09/10 10:30:01	12.23	7.65	7.44	47536	30.88
19830-011	8	131	1	07/09/10 10:30:27	12.12	7.01	7.79	47614	30.93
19830-002	8	132	1	07/09/10 10:30:44	12.14	6.74	7.67	47459	30.82
19830-004	8	133	1	07/09/10 10:31:02	12.10	6.89	7.57	47625	30.94
19830-003	8	134	1	07/09/10 10:31:24	12.02	7.64	7.66	47679	30.98
19830-005	8	135	1	07/09/10 10:31:59	11.95	7.01	7.36	47617	30.93
19830-012	8	136	1	07/09/10 10:32:22	11.87	7.15	7.67	47694	30.98
19830-006	8	137	1	07/09/10 10:32:48	11.69	7.17	7.47	47849	31.08
19830-001	8	138	1	07/09/10 10:33:14	11.59	7.28	7.63	47728	30.99
19830-014	8	139	1	07/09/10 10:33:36	11.55	7.71	7.77	47804	31.04
19830-000	8	140	1	07/09/10 10:33:52	11.55	7.99	7.67	47802	31.04
19830-009	8	141	1	07/09/10 10:34:26	11.52	7.78	7.68	47640	30.92
19830-008	8	142	1	07/09/10 10:34:46	11.48	7.88	7.85	47780	31.02
19830-015	8	143	1	07/09/10 10:35:03	11.47	8.12	7.85	47806	31.04
19830-016	8	144	1	07/09/10 10:35:23	11.50	7.64	7.73	47643	30.93
19830-002	1	1	2	07/10/10 13:24:56	13.26	7.94	7.57	47439	30.85
19830-016	1	2	2	07/10/10 13:25:27	13.13	7.55	7.70	45587	29.51
19830-015	1	3	2	07/10/10 13:25:45	13.09	7.28	7.60	47548	30.92
19830-017	1	4	2	07/10/10 13:26:01	13.09	7.05	7.48	47306	30.75
19830-001	1	5	2	07/10/10 13:26:13	13.12	6.45	7.46	47409	30.82
19830-011	1	6	2	07/10/10 13:26:31	13.18	6.36	7.65	47570	30.94
19830-014	1	7	2	07/10/10 13:26:52	13.26	6.88	7.59	47671	31.02
19830-009	1	8	2	07/10/10 13:27:10	13.29	6.72	7.56	47317	30.76
19830-012	1	9	2	07/10/10 13:27:32	13.41	6.67	7.57	47604	30.97
19830-010	1	10	2	07/10/10 13:27:54	13.53	7.04	7.64	47687	31.04
19830-008	1	11	2	07/10/10 13:28:11	13.55	7.39	7.76	47586	30.97
19830-006	1	12	2	07/10/10 13:28:36	13.63	6.54	7.36	47541	30.94
19830-004	1	13	2	07/10/10 13:28:58	13.72	6.58	7.43	47609	30.99
19830-013	1	14	2	07/10/10 13:29:23	13.79	6.85	7.68	47527	30.93
19830-000	1	15	2	07/10/10 13:29:48	13.77	7.29	7.59	47687	31.05
19830-005	1	16	2	07/10/10 13:30:12	13.78	7.59	7.51	47743	31.09
19830-007	1	17	2	07/10/10 13:30:30	13.79	7.45	7.41	47830	31.15
19830-003	1	18	2	07/10/10 13:30:50	13.95	7.19	7.46	47813	31.14
19830-009	2	19	2	07/10/10 13:31:22	13.12	7.39	7.53	47470	30.87
19830-016	2	20	2	07/10/10 13:31:42	13.03	6.94	7.55	47555	30.93
19830-007	2	21	2	07/10/10 13:32:04	13.09	6.08	7.25	47328	30.76
19830-015	2	22	2	07/10/10 13:32:27	13.07	6.18	7.39	47523	30.91

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	2	23	2	07/10/10 13:32:45	13.06	6.66	7.60	47491	30.88
19830-002	2	24	2	07/10/10 13:33:03	13.06	7.05	7.58	47426	30.83
19830-012	2	25	2	07/10/10 13:33:21	13.11	6.94	7.61	47443	30.85
19830-004	2	26	2	07/10/10 13:33:36	13.27	6.75	7.51	47620	30.98
19830-000	2	27	2	07/10/10 13:34:04	13.64	7.44	7.56	47615	30.99
19830-003	2	28	2	07/10/10 13:34:20	13.64	7.63	7.55	47328	30.78
19830-011	2	29	2	07/10/10 13:34:39	13.71	7.27	7.67	47563	30.96
19830-017	2	30	2	07/10/10 13:35:01	13.77	6.98	7.57	47525	30.93
19830-014	2	31	2	07/10/10 13:35:29	13.69	6.82	7.63	47596	30.98
19830-001	2	32	2	07/10/10 13:35:50	13.64	6.70	7.44	47483	30.90
19830-013	2	33	2	07/10/10 13:36:07	13.67	6.66	7.64	47608	30.99
19830-010	2	34	2	07/10/10 13:36:26	13.87	6.97	7.62	47625	31.00
19830-006	2	35	2	07/10/10 13:36:57	13.08	6.89	7.29	47568	30.94
19830-005	2	36	2	07/10/10 13:37:33	12.97	6.55	7.32	47458	30.85
19830-013	3	37	2	07/10/10 13:37:49	12.95	6.51	7.47	47693	31.02
19830-009	3	38	2	07/10/10 13:38:08	13.03	6.43	7.52	47602	30.96
19830-017	3	39	2	07/10/10 13:38:25	13.08	6.84	7.45	47462	30.86
19830-016	3	40	2	07/10/10 13:38:50	13.12	6.78	7.79	47674	31.02
19830-000	3	41	2	07/10/10 13:39:10	13.22	7.41	7.68	47568	30.94
19830-010	3	42	2	07/10/10 13:39:28	13.28	7.73	7.57	47565	30.94
19830-008	3	43	2	07/10/10 13:39:49	13.48	7.44	7.53	47607	30.98
19830-014	3	44	2	07/10/10 13:40:04	13.52	7.17	7.57	47571	30.95
19830-004	3	45	2	07/10/10 13:40:31	13.47	6.96	7.53	47616	30.99
19830-006	3	46	2	07/10/10 13:40:59	13.66	6.45	7.25	47536	30.93
19830-005	3	47	2	07/10/10 13:41:21	13.69	5.96	7.20	47551	30.95
19830-011	3	48	2	07/10/10 13:41:39	13.42	5.63	7.57	47801	31.12
19830-002	3	49	2	07/10/10 13:41:59	13.60	6.38	7.63	47536	30.93
19830-012	3	50	2	07/10/10 13:42:17	13.79	6.74	7.68	47580	30.97
19830-001	3	51	2	07/10/10 13:42:46	14.01	6.95	7.67	47655	31.03
19830-003	3	52	2	07/10/10 13:43:07	14.01	7.20	7.65	47696	31.06
19830-007	3	53	2	07/10/10 13:43:37	14.00	6.45	7.23	47678	31.05
19830-015	3	54	2	07/10/10 13:43:54	14.00	6.02	7.47	47716	31.07
19830-006	4	55	2	07/10/10 13:44:13	13.92	6.76	7.37	47691	31.05
19830-011	4	56	2	07/10/10 13:44:34	13.81	6.83	7.67	47607	30.99
19830-012	4	57	2	07/10/10 13:45:02	13.74	7.13	7.76	47723	31.07
19830-010	4	58	2	07/10/10 13:45:28	13.76	7.13	7.65	47826	31.15
19830-015	4	59	2	07/10/10 13:45:48	13.69	7.01	7.56	47915	31.21
19830-009	4	60	2	07/10/10 13:46:11	13.54	6.99	7.53	47876	31.18
19830-001	4	61	2	07/10/10 13:46:41	13.56	6.56	7.64	47839	31.15
19830-016	4	62	2	07/10/10 13:47:05	13.58	6.51	7.68	47841	31.15
19830-008	4	63	2	07/10/10 13:47:22	13.52	6.59	7.55	47752	31.09
19830-004	4	64	2	07/10/10 13:47:36	13.45	6.62	7.47	47710	31.05
19830-007	4	65	2	07/10/10 13:48:03	13.61	6.36	7.25	47768	31.10
19830-014	4	66	2	07/10/10 13:48:20	13.59	5.84	7.40	47741	31.08
19830-000	4	67	2	07/10/10 13:48:39	13.53	6.35	7.44	47696	31.05
19830-017	4	68	2	07/10/10 13:49:03	13.49	6.35	7.56	47596	30.97
19830-013	4	69	2	07/10/10 13:49:17	13.49	6.02	7.67	47685	31.04
19830-002	4	70	2	07/10/10 13:49:34	13.47	6.73	7.73	47597	30.97
19830-005	4	71	2	07/10/10 13:49:52	13.44	6.88	7.46	47626	30.99
19830-003	4	72	2	07/10/10 13:50:17	13.51	6.86	7.50	47660	31.02
19830-016	5	73	2	07/10/10 13:50:33	13.48	6.99	7.60	47698	31.05
19830-003	5	74	2	07/10/10 13:50:49	13.45	6.73	7.49	47623	30.99
19830-000	5	75	2	07/10/10 13:51:01	13.48	6.47	7.44	47666	31.02
19830-013	5	76	2	07/10/10 13:51:15	13.48	6.56	7.50	47641	31.00

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	5	77	2	07/10/10 13:51:31	13.43	6.51	7.61	47552	30.94
19830-002	5	78	2	07/10/10 13:51:50	13.41	6.85	7.70	47536	30.93
19830-004	5	79	2	07/10/10 13:52:12	13.39	6.75	7.49	47569	30.95
19830-012	5	80	2	07/10/10 13:52:41	13.39	7.18	7.75	47606	30.98
19830-005	5	81	2	07/10/10 13:53:03	13.53	7.29	7.49	47748	31.08
19830-011	5	82	2	07/10/10 13:53:27	13.46	6.17	7.43	47631	31.00
19830-010	5	83	2	07/10/10 13:53:46	13.39	6.12	7.66	47694	31.04
19830-017	5	84	2	07/10/10 13:54:01	13.36	6.63	7.52	47615	30.98
19830-009	5	85	2	07/10/10 13:54:19	13.32	5.85	7.49	47553	30.93
19830-006	5	86	2	07/10/10 13:54:41	13.29	5.74	7.26	47626	30.99
19830-008	5	87	2	07/10/10 13:54:56	13.27	5.33	7.46	47604	30.97
19830-007	5	88	2	07/10/10 13:55:14	13.27	6.62	7.46	47724	31.06
19830-014	5	89	2	07/10/10 13:55:37	13.42	6.96	7.64	47742	31.07
19830-015	5	90	2	07/10/10 13:55:56	13.34	7.16	7.64	47718	31.06
19830-005	6	91	2	07/10/10 13:56:14	13.28	7.31	7.53	47672	31.02
19830-007	6	92	2	07/10/10 13:56:39	13.23	7.41	7.46	47683	31.03
19830-002	6	93	2	07/10/10 13:57:01	13.20	7.25	7.68	47606	30.97
19830-009	6	94	2	07/10/10 13:57:28	13.17	6.89	7.52	47603	30.97
19830-013	6	95	2	07/10/10 13:57:47	13.12	6.73	7.74	47513	30.90
19830-004	6	96	2	07/10/10 13:58:06	13.14	7.18	7.62	47630	30.98
19830-012	6	97	2	07/10/10 13:58:47	13.72	7.30	7.69	47639	31.01
19830-015	6	98	2	07/10/10 13:59:04	13.63	7.11	7.63	47786	31.11
19830-014	6	99	2	07/10/10 13:59:22	13.56	6.87	7.71	47796	31.12
19830-003	6	100	2	07/10/10 13:59:45	13.56	7.15	7.58	47848	31.16
19830-010	6	101	2	07/10/10 13:59:58	13.56	7.30	7.67	47948	31.23
19830-000	6	102	2	07/10/10 14:00:33	13.52	7.80	7.66	47438	30.86
19830-016	6	103	2	07/10/10 14:00:52	13.54	7.64	7.78	47887	31.18
19830-001	6	104	2	07/10/10 14:01:08	13.63	7.31	7.74	47897	31.19
19830-017	6	105	2	07/10/10 14:01:24	13.72	7.45	7.68	47847	31.16
19830-008	6	106	2	07/10/10 14:01:41	13.70	7.28	7.70	47999	31.27
19830-011	6	107	2	07/10/10 14:02:06	13.68	7.00	7.67	47784	31.11
19830-006	6	108	2	07/10/10 14:02:27	13.61	6.82	7.46	47832	31.15
19830-015	7	109	2	07/10/10 14:02:43	13.53	6.85	7.64	47849	31.16
19830-017	7	110	2	07/10/10 14:02:57	13.46	6.99	7.73	47504	30.90
19830-003	7	111	2	07/10/10 14:03:18	13.30	7.29	7.59	47748	31.08
19830-008	7	112	2	07/10/10 14:03:39	13.15	7.47	7.73	47801	31.11
19830-006	7	113	2	07/10/10 14:04:20	13.90	7.01	7.43	47495	30.91
19830-012	7	114	2	07/10/10 14:04:48	13.76	7.17	7.75	47529	30.93
19830-004	7	115	2	07/10/10 14:05:08	13.71	7.42	7.67	47522	30.93
19830-011	7	116	2	07/10/10 14:05:31	13.67	7.35	7.77	47503	30.91
19830-014	7	117	2	07/10/10 14:05:50	13.63	7.37	7.85	47631	31.00
19830-005	7	118	2	07/10/10 14:06:08	13.62	7.45	7.51	47529	30.93
19830-001	7	119	2	07/10/10 14:06:29	13.60	7.21	7.59	47458	30.88
19830-000	7	120	2	07/10/10 14:07:04	13.72	7.76	7.63	45778	29.67
19830-009	7	121	2	07/10/10 14:07:24	13.47	7.68	7.59	47607	30.98
19830-010	7	122	2	07/10/10 14:07:43	13.28	7.24	7.57	47680	31.03
19830-007	7	123	2	07/10/10 14:08:03	13.22	7.03	7.43	47685	31.03
19830-002	7	124	2	07/10/10 14:08:24	13.19	7.12	7.54	46679	30.30
19830-013	7	125	2	07/10/10 14:08:47	13.11	7.30	7.70	47773	31.09
19830-016	7	126	2	07/10/10 14:09:08	13.13	7.17	7.70	47695	31.03
19830-017	8	127	2	07/10/10 14:09:25	13.09	7.01	7.68	47637	30.99
19830-013	8	128	2	07/10/10 14:09:41	13.05	7.16	7.70	47520	30.90
19830-010	8	129	2	07/10/10 14:10:15	13.69	7.43	7.75	47525	30.93
19830-007	8	130	2	07/10/10 14:10:35	13.65	7.42	7.52	47512	30.92

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	8	131	2	07/10/10 14:11:02	13.52	6.70	7.59	47534	30.93
19830-002	8	132	2	07/10/10 14:11:22	13.51	6.17	7.55	47439	30.86
19830-004	8	133	2	07/10/10 14:11:37	13.44	6.33	7.57	47553	30.94
19830-003	8	134	2	07/10/10 14:11:54	13.38	7.12	7.66	47556	30.94
19830-005	8	135	2	07/10/10 14:12:15	13.34	7.12	7.41	47592	30.96
19830-012	8	136	2	07/10/10 14:12:35	13.33	6.88	7.60	47638	31.00
19830-006	8	137	2	07/10/10 14:12:58	13.21	6.80	7.35	47737	31.06
19830-001	8	138	2	07/10/10 14:13:12	13.10	6.62	7.56	47621	30.98
19830-014	8	139	2	07/10/10 14:13:22	13.02	6.95	7.70	47708	31.04
19830-000	8	140	2	07/10/10 14:13:34	13.00	7.24	7.69	47740	31.06
19830-009	8	141	2	07/10/10 14:13:50	12.99	7.71	7.74	47516	30.90
19830-008	8	142	2	07/10/10 14:14:14	12.98	7.77	7.87	47713	31.04
19830-015	8	143	2	07/10/10 14:14:37	12.98	7.54	7.72	47498	30.88
19830-016	8	144	2	07/10/10 14:14:51	13.01	7.29	7.66	47754	31.07
19830-002	1	1	3	07/11/10 12:57:05	12.98	7.99	7.65	47712	31.04
19830-016	1	2	3	07/11/10 12:57:50	12.89	7.75	7.71	45551	29.48
19830-015	1	3	3	07/11/10 13:00:31	12.89	6.68	7.48	47619	30.97
19830-017	1	4	3	07/11/10 13:00:48	12.90	7.01	7.48	47504	30.89
19830-001	1	5	3	07/11/10 13:01:05	12.96	6.70	7.48	47495	30.88
19830-011	1	6	3	07/11/10 13:01:29	13.03	6.79	7.68	47638	30.99
19830-014	1	7	3	07/11/10 13:01:49	13.11	6.96	7.62	47722	31.05
19830-009	1	8	3	07/11/10 13:02:05	13.15	6.83	7.60	47429	30.84
19830-012	1	9	3	07/11/10 13:02:28	13.29	6.71	7.65	47692	31.03
19830-010	1	10	3	07/11/10 13:02:45	13.39	7.00	7.67	47775	31.10
19830-008	1	11	3	07/11/10 13:03:07	13.42	7.35	7.82	47687	31.04
19830-006	1	12	3	07/11/10 13:03:41	13.49	6.25	7.35	47666	31.02
19830-004	1	13	3	07/11/10 13:04:52	13.61	6.71	7.56	47468	30.88
19830-013	1	14	3	07/11/10 13:05:48	13.65	6.69	7.75	47419	30.85
19830-000	1	15	3	07/11/10 13:06:27	13.66	7.79	7.60	47751	31.09
19830-005	1	16	3	07/11/10 13:07:34	13.81	8.09	7.50	47796	31.13
19830-007	1	17	3	07/11/10 13:08:13	13.88	7.87	7.44	47885	31.19
19830-003	1	18	3	07/11/10 13:08:40	14.10	7.59	7.53	47807	31.14
19830-009	2	19	3	07/11/10 13:09:15	13.31	7.67	7.61	47554	30.94
19830-016	2	20	3	07/11/10 13:09:43	13.13	6.93	7.54	47514	30.90
19830-007	2	21	3	07/11/10 13:10:07	13.26	6.53	7.32	47346	30.78
19830-015	2	22	3	07/11/10 13:10:44	13.21	3.05	7.06	47558	30.94
19830-008	2	23	3	07/11/10 13:11:31	13.24	6.83	7.57	47567	30.94
19830-002	2	24	3	07/11/10 13:11:59	13.33	7.20	7.62	47472	30.88
19830-012	2	25	3	07/11/10 13:12:22	13.47	7.44	7.74	47379	30.81
19830-004	2	26	3	07/11/10 13:13:20	13.96	6.93	7.52	47393	30.84
19830-000	2	27	3	07/11/10 13:13:46	13.95	7.77	7.62	47610	31.00
19830-003	2	28	3	07/11/10 13:14:02	14.08	7.98	7.60	47456	30.89
19830-011	2	29	3	07/11/10 13:14:31	14.15	7.55	7.76	47599	30.99
19830-017	2	30	3	07/11/10 13:14:51	14.12	7.52	7.66	47617	31.01
19830-014	2	31	3	07/11/10 13:15:19	14.08	7.21	7.66	47647	31.03
19830-001	2	32	3	07/11/10 13:15:45	14.11	7.04	7.52	47551	30.96
19830-013	2	33	3	07/11/10 13:16:12	14.03	7.43	7.81	47673	31.04
19830-010	2	34	3	07/11/10 13:16:47	14.28	7.33	7.69	47584	30.99
19830-006	2	35	3	07/11/10 13:17:36	13.68	7.46	7.44	47534	30.93
19830-005	2	36	3	07/11/10 13:17:56	13.66	7.43	7.43	47634	31.00
19830-013	3	37	3	07/11/10 13:18:29	13.82	7.18	7.61	47686	31.05
19830-009	3	38	3	07/11/10 13:18:44	13.91	7.23	7.62	47605	30.99
19830-017	3	39	3	07/11/10 13:19:26	13.92	6.86	7.55	47459	30.89

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	3	40	3	07/11/10 13:19:50	13.92	7.35	7.82	47660	31.03
19830-000	3	41	3	07/11/10 13:20:24	13.99	8.26	7.69	47576	30.97
19830-010	3	42	3	07/11/10 13:21:06	14.04	7.98	7.54	47530	30.94
19830-008	3	43	3	07/11/10 13:21:36	13.92	7.77	7.62	47560	30.96
19830-014	3	44	3	07/11/10 13:21:59	14.19	7.64	7.66	47650	31.03
19830-004	3	45	3	07/11/10 13:22:15	14.25	7.60	7.64	47639	31.03
19830-006	3	46	3	07/11/10 13:22:40	14.54	7.21	7.47	47514	30.94
19830-005	3	47	3	07/11/10 13:23:03	14.68	6.73	7.42	47567	30.98
19830-011	3	48	3	07/11/10 13:23:37	14.61	7.25	7.71	47779	31.14
19830-002	3	49	3	07/11/10 13:24:07	14.59	7.41	7.68	47562	30.98
19830-012	3	50	3	07/11/10 13:24:34	14.96	7.49	7.73	47587	31.01
19830-001	3	51	3	07/11/10 13:27:34	14.03	7.05	7.81	47757	31.10
19830-003	3	52	3	07/11/10 13:27:54	14.02	7.66	7.72	47726	31.08
19830-007	3	53	3	07/11/10 13:29:07	13.98	5.64	7.31	47704	31.07
19830-015	3	54	3	07/11/10 13:29:39	14.02	7.14	7.52	47770	31.11
19830-006	4	55	3	07/11/10 13:30:13	13.97	6.65	7.37	47774	31.11
19830-011	4	56	3	07/11/10 13:30:32	13.87	6.85	7.76	47528	30.93
19830-012	4	57	3	07/11/10 13:30:53	13.81	7.47	7.82	47806	31.13
19830-010	4	58	3	07/11/10 13:31:17	13.78	7.72	7.74	47903	31.20
19830-015	4	59	3	07/11/10 13:32:00	13.73	7.22	7.55	48001	31.27
19830-009	4	60	3	07/11/10 13:32:26	13.67	7.24	7.58	47956	31.24
19830-001	4	61	3	07/11/10 13:33:03	13.78	6.73	7.70	46987	30.54
19830-016	4	62	3	07/11/10 13:33:21	13.81	6.80	7.72	47895	31.20
19830-008	4	63	3	07/11/10 13:33:46	13.69	7.11	7.61	47840	31.15
19830-004	4	64	3	07/11/10 13:34:18	13.70	6.84	7.46	47799	31.13
19830-007	4	65	3	07/11/10 13:35:08	14.15	6.54	7.37	47508	30.93
19830-014	4	66	3	07/11/10 13:35:33	14.01	6.65	7.53	47768	31.11
19830-000	4	67	3	07/11/10 13:35:56	13.92	7.13	7.53	47742	31.09
19830-017	4	68	3	07/11/10 13:36:17	13.95	7.16	7.66	47709	31.07
19830-013	4	69	3	07/11/10 13:36:44	14.03	7.32	7.77	47724	31.08
19830-002	4	70	3	07/11/10 13:37:06	13.97	7.46	7.80	47677	31.05
19830-005	4	71	3	07/11/10 13:37:31	13.91	7.34	7.53	47698	31.06
19830-003	4	72	3	07/11/10 13:39:01	14.05	6.68	7.59	46517	30.21
19830-016	5	73	3	07/11/10 13:39:22	13.94	7.14	7.69	47703	31.06
19830-003	5	74	3	07/11/10 13:39:51	13.90	6.97	7.52	47678	31.04
19830-000	5	75	3	07/11/10 13:40:32	13.97	7.42	7.55	47652	31.03
19830-013	5	76	3	07/11/10 13:41:01	13.96	7.27	7.67	47664	31.04
19830-001	5	77	3	07/11/10 13:41:29	13.97	7.44	7.73	47610	31.00
19830-002	5	78	3	07/11/10 13:42:06	13.80	7.09	7.74	47615	31.00
19830-004	5	79	3	07/11/10 13:42:27	13.80	7.09	7.57	47618	31.00
19830-012	5	80	3	07/11/10 13:42:56	13.80	7.68	7.85	47654	31.02
19830-005	5	81	3	07/11/10 13:43:54	14.24	6.33	7.43	47712	31.08
19830-011	5	82	3	07/11/10 13:44:27	14.22	6.56	7.58	47671	31.05
19830-010	5	83	3	07/11/10 13:44:58	14.20	7.31	7.77	47734	31.09
19830-017	5	84	3	07/11/10 13:45:36	14.30	6.44	7.57	47630	31.02
19830-009	5	85	3	07/11/10 13:45:58	14.15	6.95	7.61	47651	31.03
19830-006	5	86	3	07/11/10 13:46:38	14.24	6.10	7.36	47458	30.89
19830-008	5	87	3	07/11/10 13:47:06	14.11	7.38	7.71	47667	31.04
19830-007	5	88	3	07/11/10 13:47:35	14.16	7.50	7.54	47711	31.07
19830-014	5	89	3	07/11/10 13:48:22	13.85	7.60	7.79	47625	31.00
19830-015	5	90	3	07/11/10 13:48:36	13.97	7.57	7.73	47814	31.14
19830-005	6	91	3	07/11/10 13:48:52	14.23	7.73	7.64	47693	31.06
19830-007	6	92	3	07/11/10 13:49:11	14.17	7.74	7.55	47680	31.05
19830-002	6	93	3	07/11/10 13:49:24	14.24	7.54	7.67	47697	31.07

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	6	94	3	07/11/10 13:49:36	14.52	7.48	7.67	47717	31.09
19830-013	6	95	3	07/11/10 13:49:52	14.47	7.54	7.78	47578	30.99
19830-004	6	96	3	07/11/10 13:50:11	14.53	7.74	7.69	47639	31.03
19830-012	6	97	3	07/11/10 13:56:22	14.04	7.32	7.75	47729	31.08
19830-015	6	98	3	07/11/10 13:56:40	13.97	7.42	7.65	47782	31.12
19830-014	6	99	3	07/11/10 13:56:59	13.89	7.42	7.80	47829	31.15
19830-003	6	100	3	07/11/10 13:57:13	13.91	7.50	7.71	47856	31.17
19830-010	6	101	3	07/11/10 13:57:35	13.87	7.80	7.77	46781	30.39
19830-000	6	102	3	07/11/10 13:58:16	13.90	7.75	7.73	47651	31.02
19830-016	6	103	3	07/11/10 13:58:39	13.90	7.62	7.72	47695	31.06
19830-001	6	104	3	07/11/10 14:00:17	13.89	6.81	7.86	47888	31.20
19830-017	6	105	3	07/11/10 14:01:50	14.00	7.39	7.85	47455	30.88
19830-008	6	106	3	07/11/10 14:02:41	13.99	7.12	7.80	47826	31.15
19830-011	6	107	3	07/11/10 14:02:52	13.97	7.17	7.77	47843	31.17
19830-006	6	108	3	07/11/10 14:03:06	13.92	7.39	7.79	47794	31.13
19830-015	7	109	3	07/11/10 14:03:52	13.83	6.87	7.55	47826	31.15
19830-017	7	110	3	07/11/10 14:04:11	13.68	7.36	7.66	47913	31.21
19830-003	7	111	3	07/11/10 14:04:22	13.68	7.53	7.75	47646	31.01
19830-008	7	112	3	07/11/10 14:04:35	13.64	7.66	7.70	47769	31.10
19830-006	7	113	3	07/11/10 14:04:55	13.46	7.90	7.82	47806	31.12
19830-012	7	114	3	07/11/10 14:05:31	14.42	7.33	7.55	47541	30.96
19830-004	7	115	3	07/11/10 14:05:53	14.27	7.42	7.76	47596	30.99
19830-011	7	116	3	07/11/10 14:06:08	14.26	7.54	7.76	47609	31.00
19830-014	7	117	3	07/11/10 14:06:19	14.26	7.70	7.81	47581	30.98
19830-005	7	118	3	07/11/10 14:06:37	14.23	7.69	7.90	47675	31.05
19830-001	7	119	3	07/11/10 14:07:20	14.24	7.20	7.53	47589	30.99
19830-000	7	120	3	07/11/10 14:07:47	13.98	7.51	7.72	47576	30.97
19830-009	7	121	3	07/11/10 14:08:09	14.17	7.90	7.69	47614	31.01
19830-010	7	122	3	07/11/10 14:08:43	14.05	7.45	7.68	47590	30.98
19830-007	7	123	3	07/11/10 14:08:55	13.91	7.42	7.67	47672	31.04
19830-002	7	124	3	07/11/10 14:09:13	13.99	7.52	7.58	47743	31.09
19830-013	7	125	3	07/11/10 14:09:30	13.93	7.51	7.67	47699	31.06
19830-016	7	126	3	07/11/10 14:09:48	13.75	7.62	7.76	47739	31.08
19830-017	8	127	3	07/11/10 14:10:04	13.77	7.59	7.73	47705	31.06
19830-013	8	128	3	07/11/10 14:10:20	13.75	7.33	7.68	47666	31.03
19830-010	8	129	3	07/11/10 14:10:41	13.80	7.41	7.70	47620	31.00
19830-007	8	130	3	07/11/10 14:11:18	14.39	7.73	7.78	47597	31.00
19830-011	8	131	3	07/11/10 14:11:33	14.58	7.59	7.65	47673	31.06
19830-002	8	132	3	07/11/10 14:12:08	14.41	6.91	7.71	47616	31.01
19830-004	8	133	3	07/11/10 14:12:26	14.46	6.88	7.65	47575	30.98
19830-003	8	134	3	07/11/10 14:12:42	14.53	7.02	7.68	47606	31.01
19830-005	8	135	3	07/11/10 14:13:05	14.56	7.55	7.74	47629	31.03
19830-012	8	136	3	07/11/10 14:13:50	14.44	6.83	7.47	47636	31.03
19830-006	8	137	3	07/11/10 14:14:15	14.27	7.23	7.73	47648	31.03
19830-001	8	138	3	07/11/10 14:18:04	14.23	6.58	7.50	47708	31.07
19830-014	8	139	3	07/11/10 14:18:27	14.06	7.37	7.75	47678	31.05
19830-000	8	140	3	07/11/10 14:18:43	14.11	7.51	7.77	47725	31.08
19830-009	8	141	3	07/11/10 14:19:02	14.25	7.62	7.74	47675	31.05
19830-008	8	142	3	07/11/10 14:19:16	14.33	7.81	7.73	47621	31.01
19830-015	8	143	3	07/11/10 14:19:37	14.04	7.91	7.87	47679	31.05
19830-016	8	144	3	07/11/10 14:19:52	14.13	7.87	7.75	47719	31.08
				07/11/10 14:20:17	14.10	7.44	7.72	47661	31.04
19830-002	1	1	4	07/12/10 09:24:48	13.21	8.23	7.76	46219	29.97
19830-016	1	2	4	07/12/10 09:25:30	13.32	7.79	7.81	45609	29.53

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	1	3	4	07/12/10 09:25:55	13.35	7.61	7.60	46225	29.98
19830-017	1	4	4	07/12/10 09:26:08	13.29	7.54	7.60	46154	29.92
19830-001	1	5	4	07/12/10 09:26:28	13.08	7.23	7.60	46134	29.90
19830-011	1	6	4	07/12/10 09:26:45	13.17	7.01	7.68	46279	30.01
19830-014	1	7	4	07/12/10 09:27:09	13.33	7.17	7.59	46288	30.02
19830-009	1	8	4	07/12/10 09:27:25	13.26	7.14	7.65	46151	29.92
19830-012	1	9	4	07/12/10 09:27:40	13.20	7.25	7.73	46247	29.99
19830-010	1	10	4	07/12/10 09:29:59	13.45	7.66	7.67	46233	29.99
19830-008	1	11	4	07/12/10 09:30:28	13.60	7.40	7.80	46244	30.00
19830-006	1	12	4	07/12/10 09:30:54	13.65	6.94	7.53	46230	29.99
19830-004	1	13	4	07/12/10 09:31:14	13.39	7.13	7.63	46199	29.96
19830-013	1	14	4	07/12/10 09:31:40	13.43	7.39	7.76	46253	30.00
19830-000	1	15	4	07/12/10 09:32:05	13.44	7.71	7.68	46274	30.02
19830-005	1	16	4	07/12/10 09:32:19	13.39	7.90	7.64	46315	30.04
19830-007	1	17	4	07/12/10 09:32:33	13.33	7.92	7.59	46353	30.07
19830-003	1	18	4	07/12/10 09:32:54	13.41	7.85	7.63	46317	30.05
19830-009	2	19	4	07/12/10 09:33:25	13.27	7.74	7.64	46192	29.95
19830-016	2	20	4	07/12/10 09:33:46	13.28	7.53	7.69	46204	29.96
19830-007	2	21	4	07/12/10 09:34:14	13.63	6.07	7.26	46139	29.92
19830-015	2	22	4	07/12/10 09:36:45	13.52	6.57	7.60	46149	29.93
19830-008	2	23	4	07/12/10 09:37:05	13.53	6.84	7.56	46192	29.96
19830-002	2	24	4	07/12/10 09:37:22	13.61	6.87	7.68	46189	29.96
19830-012	2	25	4	07/12/10 09:37:35	13.62	7.10	7.72	46127	29.92
19830-004	2	26	4	07/12/10 09:37:52	13.61	7.37	7.46	46047	29.86
19830-000	2	27	4	07/12/10 09:38:17	13.31	7.87	7.64	46192	29.95
19830-003	2	28	4	07/12/10 09:38:35	13.70	7.88	7.65	46190	29.96
19830-011	2	29	4	07/12/10 09:38:46	13.73	7.74	7.71	46196	29.97
19830-017	2	30	4	07/12/10 09:39:03	13.78	7.55	7.67	46202	29.97
19830-014	2	31	4	07/12/10 09:39:16	13.72	7.42	7.68	46195	29.97
19830-001	2	32	4	07/12/10 09:39:29	13.63	7.26	7.58	46021	29.84
19830-013	2	33	4	07/12/10 09:39:42	13.51	7.23	7.73	46205	29.97
19830-010	2	34	4	07/12/10 09:39:55	13.57	7.42	7.69	46245	30.00
19830-006	2	35	4	07/12/10 09:40:15	13.33	7.55	7.54	46205	29.96
19830-005	2	36	4	07/12/10 09:40:39	13.47	7.24	7.48	46230	29.98
19830-013	3	37	4	07/12/10 09:40:57	13.48	7.05	7.58	46247	30.00
19830-009	3	38	4	07/12/10 09:41:14	13.56	7.06	7.59	46125	29.91
19830-017	3	39	4	07/12/10 09:41:31	13.61	7.33	7.59	46191	29.96
19830-016	3	40	4	07/12/10 09:41:55	13.49	7.33	7.76	46222	29.98
19830-000	3	41	4	07/12/10 09:42:23	13.74	8.03	7.72	46194	29.97
19830-010	3	42	4	07/12/10 09:42:47	13.62	7.96	7.64	46162	29.94
19830-008	3	43	4	07/12/10 09:43:14	13.36	7.79	7.65	46191	29.95
19830-014	3	44	4	07/12/10 09:43:33	13.71	7.60	7.70	46249	30.01
19830-004	3	45	4	07/12/10 09:43:49	13.63	7.52	7.66	46201	29.97
19830-006	3	46	4	07/12/10 09:44:15	13.78	7.00	7.47	46179	29.96
19830-005	3	47	4	07/12/10 09:44:42	13.85	6.28	7.42	46181	29.96
19830-011	3	48	4	07/12/10 09:44:59	13.35	6.36	7.63	46211	29.97
19830-002	3	49	4	07/12/10 09:45:15	13.53	6.89	7.72	46260	30.01
19830-012	3	50	4	07/12/10 09:45:29	13.61	7.16	7.76	46182	29.95
19830-001	3	51	4	07/12/10 09:45:49	13.12	7.60	7.75	46223	29.97
19830-003	3	52	4	07/12/10 09:46:04	13.15	7.66	7.71	46320	30.04
19830-007	3	53	4	07/12/10 09:46:19	13.16	7.95	7.52	46397	30.10
19830-015	3	54	4	07/12/10 09:46:48	13.34	7.46	7.57	46307	30.04
19830-006	4	55	4	07/12/10 09:47:01	13.29	7.54	7.54	46290	30.02
19830-011	4	56	4	07/12/10 09:47:19	13.25	7.44	7.73	46301	30.03

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	4	57	4	07/12/10 09:47:38	13.25	7.61	7.79	46337	30.06
19830-010	4	58	4	07/12/10 09:48:00	13.00	7.90	7.72	46345	30.05
19830-015	4	59	4	07/12/10 09:48:26	12.70	7.68	7.61	46424	30.10
19830-009	4	60	4	07/12/10 09:48:45	12.61	7.60	7.64	46431	30.10
19830-001	4	61	4	07/12/10 09:48:59	12.61	7.67	7.71	46425	30.10
19830-016	4	62	4	07/12/10 09:49:14	12.88	7.40	7.77	46511	30.17
19830-008	4	63	4	07/12/10 09:49:30	12.88	7.40	7.69	46363	30.06
19830-004	4	64	4	07/12/10 09:49:49	12.98	7.43	7.58	46374	30.07
19830-007	4	65	4	07/12/10 09:50:27	13.05	7.46	7.48	46324	30.04
19830-014	4	66	4	07/12/10 09:51:53	13.26	6.98	7.63	46309	30.04
19830-000	4	67	4	07/12/10 09:52:18	13.22	7.37	7.60	46292	30.02
19830-017	4	68	4	07/12/10 09:52:43	13.29	7.32	7.66	46289	30.02
19830-013	4	69	4	07/12/10 09:53:00	13.40	7.26	7.74	46295	30.03
19830-002	4	70	4	07/12/10 09:53:36	13.39	7.47	7.79	46249	30.00
19830-005	4	71	4	07/12/10 09:53:57	13.35	7.47	7.58	46239	29.99
19830-003	4	72	4	07/12/10 09:54:11	13.21	7.50	7.62	46201	29.96
19830-016	5	73	4	07/12/10 09:54:35	13.18	7.50	7.74	46295	30.02
19830-003	5	74	4	07/12/10 09:55:02	13.30	7.07	7.56	46259	30.00
19830-000	5	75	4	07/12/10 09:55:18	13.46	7.05	7.60	46295	30.03
19830-013	5	76	4	07/12/10 09:55:35	13.51	7.44	7.65	46260	30.01
19830-001	5	77	4	07/12/10 09:55:56	13.54	7.54	7.76	46190	29.96
19830-002	5	78	4	07/12/10 09:56:08	13.50	7.67	7.76	46227	29.98
19830-004	5	79	4	07/12/10 09:56:20	13.46	7.48	7.64	46181	29.95
19830-012	5	80	4	07/12/10 09:56:46	13.31	7.77	7.77	46223	29.98
19830-005	5	81	4	07/12/10 09:57:25	13.06	7.65	7.54	46327	30.04
19830-011	5	82	4	07/12/10 09:57:43	13.32	6.94	7.60	46313	30.04
19830-010	5	83	4	07/12/10 09:57:56	13.33	6.78	7.66	46276	30.01
19830-017	5	84	4	07/12/10 09:58:16	13.51	6.72	7.60	46255	30.00
19830-009	5	85	4	07/12/10 09:58:29	13.41	6.53	7.63	46179	29.95
19830-006	5	86	4	07/12/10 09:58:50	13.60	6.42	7.42	46241	30.00
19830-008	5	87	4	07/12/10 09:59:16	13.57	6.94	7.69	46224	29.98
19830-007	5	88	4	07/12/10 09:59:30	13.34	7.51	7.61	46149	29.92
19830-014	5	89	4	07/12/10 09:59:46	13.11	7.79	7.67	46283	30.01
19830-015	5	90	4	07/12/10 09:59:58	13.14	7.75	7.69	46325	30.04
19830-005	6	91	4	07/12/10 10:00:08	13.23	7.73	7.68	46349	30.06
19830-007	6	92	4	07/12/10 10:00:19	13.30	7.78	7.60	46281	30.02
19830-002	6	93	4	07/12/10 10:00:30	13.33	7.74	7.67	46302	30.03
19830-009	6	94	4	07/12/10 10:00:48	13.37	7.58	7.68	46258	30.00
19830-013	6	95	4	07/12/10 10:01:04	13.30	7.49	7.75	46218	29.97
19830-004	6	96	4	07/12/10 10:01:16	13.18	7.65	7.72	46194	29.95
19830-012	6	97	4	07/12/10 10:02:07	12.84	8.17	7.72	46367	30.06
19830-015	6	98	4	07/12/10 10:02:26	12.91	7.83	7.72	46387	30.08
19830-014	6	99	4	07/12/10 10:02:47	12.78	7.64	7.77	46366	30.06
19830-003	6	100	4	07/12/10 10:03:10	12.72	7.76	7.69	46373	30.06
19830-010	6	101	4	07/12/10 10:03:25	12.66	7.97	7.73	46473	30.13
19830-000	6	102	4	07/12/10 10:03:39	12.76	8.14	7.72	46491	30.15
19830-016	6	103	4	07/12/10 10:04:05	12.78	7.77	7.81	46427	30.10
19830-001	6	104	4	07/12/10 10:04:25	12.57	7.76	7.83	46376	30.06
19830-017	6	105	4	07/12/10 10:04:41	12.44	8.08	7.78	46407	30.08
19830-008	6	106	4	07/12/10 10:04:56	12.51	8.00	7.74	46433	30.10
19830-011	6	107	4	07/12/10 10:05:15	12.60	7.78	7.80	46412	30.09
19830-006	6	108	4	07/12/10 10:05:31	12.65	7.60	7.61	46419	30.09
19830-015	7	109	4	07/12/10 10:05:42	12.67	7.58	7.59	46449	30.12
19830-017	7	110	4	07/12/10 10:05:57	12.74	7.62	7.74	46356	30.05

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-003	7	111	4	07/12/10 10:06:15	12.86	7.82	7.69	46364	30.06
19830-008	7	112	4	07/12/10 10:06:35	12.76	7.99	7.78	46364	30.06
19830-006	7	113	4	07/12/10 10:07:04	13.63	7.91	7.63	46265	30.02
19830-012	7	114	4	07/12/10 10:07:30	13.80	7.71	7.74	46197	29.97
19830-004	7	115	4	07/12/10 10:07:49	13.83	7.77	7.73	46203	29.98
19830-011	7	116	4	07/12/10 10:08:05	13.89	7.74	7.76	46182	29.96
19830-014	7	117	4	07/12/10 10:08:21	13.78	7.62	7.81	46195	29.97
19830-005	7	118	4	07/12/10 10:08:34	13.72	7.82	7.68	46168	29.95
19830-001	7	119	4	07/12/10 10:08:48	13.39	7.75	7.66	46074	29.87
19830-000	7	120	4	07/12/10 10:09:17	13.40	8.02	7.69	46210	29.97
19830-009	7	121	4	07/12/10 10:09:38	13.03	8.08	7.71	46243	29.98
19830-010	7	122	4	07/12/10 10:09:50	13.03	7.87	7.70	46346	30.05
19830-007	7	123	4	07/12/10 10:10:00	13.04	7.78	7.63	46293	30.02
19830-002	7	124	4	07/12/10 10:10:13	13.03	7.64	7.65	46317	30.03
19830-013	7	125	4	07/12/10 10:10:23	12.98	7.58	7.71	46324	30.04
19830-016	7	126	4	07/12/10 10:10:34	13.09	7.61	7.75	46393	30.09
19830-017	8	127	4	07/12/10 10:10:50	13.21	7.50	7.70	46292	30.02
19830-013	8	128	4	07/12/10 10:11:02	13.19	7.60	7.71	46191	29.95
19830-010	8	129	4	07/12/10 10:11:17	13.35	7.76	7.77	46429	30.12
19830-007	8	130	4	07/12/10 10:11:33	13.72	7.83	7.62	46291	30.04
19830-011	8	131	4	07/12/10 10:11:51	13.59	7.47	7.65	46210	29.97
19830-002	8	132	4	07/12/10 10:12:06	13.64	6.95	7.66	46226	29.99
19830-004	8	133	4	07/12/10 10:12:27	13.78	7.10	7.67	46219	29.99
19830-003	8	134	4	07/12/10 10:12:42	13.75	7.47	7.72	46206	29.98
19830-005	8	135	4	07/12/10 10:13:01	13.62	7.48	7.53	46198	29.97
19830-012	8	136	4	07/12/10 10:13:16	13.35	7.29	7.68	46151	29.92
19830-006	8	137	4	07/12/10 10:13:29	13.17	7.43	7.60	46208	29.96
19830-001	8	138	4	07/12/10 10:13:43	13.09	7.48	7.70	46264	30.00
19830-014	8	139	4	07/12/10 10:13:58	13.19	7.69	7.77	46337	30.05
19830-000	8	140	4	07/12/10 10:14:14	13.34	7.71	7.73	46306	30.04
19830-009	8	141	4	07/12/10 10:14:27	13.28	8.01	7.75	46227	29.98
19830-008	8	142	4	07/12/10 10:14:41	13.16	8.05	7.83	46244	29.99
19830-015	8	143	4	07/12/10 10:14:54	13.18	8.06	7.73	46302	30.03
19830-016	8	144	4	07/12/10 10:15:07	13.17	7.77	7.69	46241	29.98
19830-002	1	1	5	07/13/10 09:49:00	13.41	7.74	7.56	48579	31.68
19830-016	1	2	5	07/13/10 09:50:01	13.41	7.49	7.66	47022	30.55
19830-015	1	3	5	07/13/10 09:50:26	13.37	7.40	7.39	48556	31.66
19830-017	1	4	5	07/13/10 09:51:19	13.29	7.31	7.45	48530	31.64
19830-001	1	5	5	07/13/10 09:52:10	13.08	7.03	7.38	48498	31.61
19830-011	1	6	5	07/13/10 09:52:48	13.12	6.97	7.54	48603	31.69
19830-014	1	7	5	07/13/10 09:53:31	13.06	6.58	7.35	48616	31.70
19830-009	1	8	5	07/13/10 09:54:23	12.92	6.92	7.55	48467	31.58
19830-012	1	9	5	07/13/10 09:55:41	12.82	6.39	7.57	48624	31.69
19830-010	1	10	5	07/13/10 09:56:24	12.70	7.29	7.51	48645	31.70
19830-008	1	11	5	07/13/10 09:57:15	12.77	6.99	7.74	48619	31.69
19830-006	1	12	5	07/13/10 09:58:06	12.79	6.79	7.40	48567	31.65
19830-004	1	13	5	07/13/10 09:58:54	12.52	7.54	7.44	48620	31.68
19830-013	1	14	5	07/13/10 10:00:29	12.57	6.99	7.69	48638	31.69
19830-000	1	15	5	07/13/10 10:01:18	12.58	7.98	7.52	48632	31.69
19830-005	1	16	5	07/13/10 10:02:01	12.51	7.99	7.51	48695	31.73
19830-007	1	17	5	07/13/10 10:02:50	12.44	7.86	7.43	48719	31.75
19830-003	1	18	5	07/13/10 10:03:43	12.54	7.89	7.51	48697	31.73
19830-009	2	19	5	07/13/10 10:04:45	13.40	6.46	7.42	48567	31.67

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	2	20	5	07/13/10 10:05:22	13.38	6.66	7.36	48542	31.65
19830-007	2	21	5	07/13/10 10:06:09	13.59	5.65	7.13	48246	31.45
19830-015	2	22	5	07/13/10 10:07:04	13.39	7.08	7.43	48501	31.62
19830-008	2	23	5	07/13/10 10:07:51	13.30	7.14	7.53	48514	31.63
19830-002	2	24	5	07/13/10 10:08:28	13.32	7.08	7.62	48493	31.62
19830-012	2	25	5	07/13/10 10:08:56	13.19	7.26	7.62	48454	31.58
19830-004	2	26	5	07/13/10 10:09:55	13.05	7.46	7.49	48553	31.65
19830-000	2	27	5	07/13/10 10:10:54	12.54	8.21	7.57	48597	31.66
19830-003	2	28	5	07/13/10 10:12:22	12.85	7.74	7.50	48323	31.48
19830-011	2	29	5	07/13/10 10:12:54	12.81	7.64	7.71	48568	31.65
19830-017	2	30	5	07/13/10 10:13:24	12.87	7.59	7.55	48480	31.59
19830-014	2	31	5	07/13/10 10:14:25	12.73	6.80	7.52	48458	31.57
19830-001	2	32	5	07/13/10 10:15:02	12.66	7.12	7.47	48503	31.60
19830-013	2	33	5	07/13/10 10:15:46	12.59	7.70	7.73	48658	31.71
19830-010	2	34	5	07/13/10 10:16:13	12.74	7.64	7.56	48587	31.66
19830-006	2	35	5	07/13/10 10:16:54	13.20	7.39	7.40	48621	31.70
19830-005	2	36	5	07/13/10 10:17:48	13.34	6.52	7.30	48559	31.66
19830-013	3	37	5	07/13/10 10:18:16	13.31	6.59	7.44	48614	31.70
19830-009	3	38	5	07/13/10 10:19:01	13.39	7.51	7.55	48539	31.65
19830-017	3	39	5	07/13/10 10:20:06	13.34	6.47	7.40	48507	31.63
19830-016	3	40	5	07/13/10 10:20:57	13.18	7.64	7.69	48606	31.69
19830-000	3	41	5	07/13/10 10:21:44	13.30	8.16	7.62	48504	31.62
19830-010	3	42	5	07/13/10 10:22:21	13.14	7.85	7.51	48496	31.61
19830-008	3	43	5	07/13/10 10:22:55	12.57	7.92	7.57	48588	31.66
19830-014	3	44	5	07/13/10 10:23:43	12.97	7.32	7.61	48546	31.64
19830-004	3	45	5	07/13/10 10:24:36	12.74	7.70	7.59	48589	31.66
19830-006	3	46	5	07/13/10 10:25:25	12.91	6.89	7.30	48513	31.62
19830-005	3	47	5	07/13/10 10:26:42	12.98	5.95	7.21	48441	31.57
19830-011	3	48	5	07/13/10 10:27:22	12.41	7.10	7.73	48897	31.87
19830-002	3	49	5	07/13/10 10:27:52	12.68	7.33	7.65	48549	31.63
19830-012	3	50	5	07/13/10 10:28:24	12.79	7.22	7.72	48523	31.62
19830-001	3	51	5	07/13/10 10:29:04	12.15	7.77	7.74	48721	31.73
19830-003	3	52	5	07/13/10 10:29:37	12.19	7.95	7.62	48684	31.71
19830-007	3	53	5	07/13/10 10:30:39	12.24	6.51	7.24	48665	31.70
19830-015	3	54	5	07/13/10 10:31:24	12.38	7.45	7.45	48657	31.70
19830-006	4	55	5	07/13/10 10:32:26	12.24	6.87	7.35	48661	31.70
19830-011	4	56	5	07/13/10 10:33:05	12.18	7.43	7.74	48685	31.71
19830-012	4	57	5	07/13/10 10:33:50	12.13	8.01	7.75	48716	31.73
19830-010	4	58	5	07/13/10 10:34:50	11.96	7.86	7.66	48793	31.78
19830-015	4	59	5	07/13/10 10:35:38	11.65	7.62	7.49	48855	31.81
19830-009	4	60	5	07/13/10 10:36:17	11.64	7.88	7.56	48866	31.82
19830-001	4	61	5	07/13/10 10:37:03	11.79	7.33	7.59	48812	31.78
19830-016	4	62	5	07/13/10 10:37:43	12.20	7.12	7.68	48743	31.75
19830-008	4	63	5	07/13/10 10:38:17	12.30	7.62	7.61	48745	31.76
19830-004	4	64	5	07/13/10 10:38:58	12.53	7.22	7.54	48730	31.76
19830-007	4	65	5	07/13/10 10:39:57	12.26	7.05	7.31	48707	31.73
19830-014	4	66	5	07/13/10 10:41:00	12.32	6.79	7.45	48725	31.75
19830-000	4	67	5	07/13/10 10:41:51	12.26	7.46	7.44	48693	31.72
19830-017	4	68	5	07/13/10 10:42:33	12.33	6.89	7.59	48678	31.71
19830-013	4	69	5	07/13/10 10:43:24	12.43	7.60	7.72	48662	31.70
19830-002	4	70	5	07/13/10 10:44:01	12.39	7.51	7.73	48659	31.70
19830-005	4	71	5	07/13/10 10:44:41	12.32	7.58	7.45	48589	31.65
19830-003	4	72	5	07/13/10 10:45:18	12.24	7.48	7.59	48633	31.68
19830-016	5	73	5	07/13/10 10:45:57	12.28	7.42	7.67	48667	31.70

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-003	5	74	5	07/13/10 10:46:38	12.40	7.05	7.49	48605	31.66
19830-000	5	75	5	07/13/10 10:47:23	12.59	7.62	7.54	48569	31.64
19830-013	5	76	5	07/13/10 10:48:03	12.69	7.33	7.59	48598	31.67
19830-001	5	77	5	07/13/10 10:48:46	12.80	7.71	7.66	48533	31.63
19830-002	5	78	5	07/13/10 10:49:32	12.85	7.16	7.68	48565	31.65
19830-004	5	79	5	07/13/10 10:50:08	12.88	7.23	7.50	48566	31.65
19830-012	5	80	5	07/13/10 10:50:46	12.93	7.72	7.68	48603	31.68
19830-005	5	81	5	07/13/10 10:53:30	12.33	3.66	7.09	48645	31.69
19830-011	5	82	5	07/13/10 10:54:21	12.44	3.14	7.13	48647	31.69
19830-010	5	83	5	07/13/10 10:55:49	12.40	7.12	7.66	48684	31.72
19830-017	5	84	5	07/13/10 10:56:54	12.55	5.00	7.40	48529	31.61
19830-009	5	85	5	07/13/10 10:57:34	12.43	5.57	7.42	48648	31.69
19830-006	5	86	5	07/13/10 10:58:25	12.63	5.49	7.18	48511	31.60
19830-008	5	87	5	07/13/10 10:59:26	12.61	7.68	7.66	48634	31.69
19830-007	5	88	5	07/13/10 10:59:48	12.41	7.76	7.48	48652	31.70
19830-014	5	89	5	07/13/10 11:00:29	12.27	7.62	7.60	48714	31.74
19830-015	5	90	5	07/13/10 11:00:57	12.38	7.67	7.61	48699	31.73
19830-005	6	91	5	07/13/10 11:01:27	12.54	7.86	7.55	48652	31.70
19830-007	6	92	5	07/13/10 11:02:07	12.69	7.56	7.41	48622	31.69
19830-002	6	93	5	07/13/10 11:02:35	12.76	7.49	7.66	48657	31.71
19830-009	6	94	5	07/13/10 11:03:15	12.84	6.81	7.51	48616	31.69
19830-013	6	95	5	07/13/10 11:04:01	12.80	7.61	7.75	48674	31.73
19830-004	6	96	5	07/13/10 11:04:36	12.70	7.57	7.58	48694	31.74
19830-012	6	97	5	07/13/10 11:05:47	12.14	7.82	7.63	48745	31.75
19830-015	6	98	5	07/13/10 11:06:29	12.05	7.58	7.62	48736	31.74
19830-014	6	99	5	07/13/10 11:07:01	11.93	7.27	7.71	48553	31.60
19830-003	6	100	5	07/13/10 11:07:42	11.92	7.85	7.58	48820	31.80
19830-010	6	101	5	07/13/10 11:08:39	11.87	8.09	7.65	48902	31.85
19830-000	6	102	5	07/13/10 11:09:06	11.94	8.15	7.61	48846	31.82
19830-016	6	103	5	07/13/10 11:09:37	11.87	7.81	7.76	48863	31.83
19830-001	6	104	5	07/13/10 11:10:06	11.74	7.86	7.75	48854	31.81
19830-017	6	105	5	07/13/10 11:10:37	11.55	7.90	7.65	48878	31.82
19830-008	6	106	5	07/13/10 11:11:02	11.63	7.86	7.66	48840	31.80
19830-011	6	107	5	07/13/10 11:11:48	11.86	7.44	7.74	48797	31.78
19830-006	6	108	5	07/13/10 11:12:28	12.14	7.60	7.45	48798	31.79
19830-015	7	109	5	07/13/10 11:12:55	12.36	7.52	7.47	48878	31.86
19830-017	7	110	5	07/13/10 11:13:34	12.63	7.51	7.70	48786	31.80
19830-003	7	111	5	07/13/10 11:14:18	12.81	7.62	7.59	48799	31.82
19830-008	7	112	5	07/13/10 11:14:50	12.89	7.77	7.71	48850	31.86
19830-006	7	113	5	07/13/10 11:15:42	12.79	7.52	7.50	48510	31.61
19830-012	7	114	5	07/13/10 11:16:23	12.76	7.59	7.68	48551	31.64
19830-004	7	115	5	07/13/10 11:16:57	12.72	7.71	7.65	48571	31.65
19830-011	7	116	5	07/13/10 11:17:39	12.73	7.15	7.72	48541	31.63
19830-014	7	117	5	07/13/10 11:18:16	12.62	8.01	7.78	48651	31.70
19830-005	7	118	5	07/13/10 11:19:14	12.54	7.16	7.47	48551	31.63
19830-001	7	119	5	07/13/10 11:20:05	12.20	7.87	7.63	48611	31.66
19830-000	7	120	5	07/13/10 11:20:47	12.33	8.20	7.59	48548	31.62
19830-009	7	121	5	07/13/10 11:21:31	12.07	7.72	7.62	48690	31.71
19830-010	7	122	5	07/13/10 11:22:21	12.14	7.65	7.61	48669	31.70
19830-007	7	123	5	07/13/10 11:23:11	12.21	7.28	7.37	48716	31.73
19830-002	7	124	5	07/13/10 11:24:07	12.42	7.44	7.66	48744	31.76
19830-013	7	125	5	07/13/10 11:24:37	12.50	7.60	7.66	48814	31.82
19830-016	7	126	5	07/13/10 11:25:31	12.84	7.13	7.74	48668	31.73
19830-017	8	127	5	07/13/10 11:26:06	13.06	7.33	7.58	48626	31.70

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	8	128	5	07/13/10 11:27:05	13.12	7.56	7.60	48619	31.70
19830-010	8	129	5	07/13/10 11:28:04	12.72	8.05	7.71	48601	31.67
19830-007	8	130	5	07/13/10 11:28:37	12.83	7.74	7.45	48584	31.66
19830-011	8	131	5	07/13/10 11:29:25	12.61	6.67	7.54	48645	31.70
19830-002	8	132	5	07/13/10 11:29:57	12.77	6.47	7.60	48548	31.64
19830-004	8	133	5	07/13/10 11:30:39	12.84	7.64	7.58	48523	31.62
19830-003	8	134	5	07/13/10 11:31:07	12.78	7.84	7.66	48588	31.66
19830-005	8	135	5	07/13/10 11:31:56	12.66	6.83	7.31	48574	31.65
19830-012	8	136	5	07/13/10 11:32:31	12.42	7.19	7.62	48629	31.68
19830-006	8	137	5	07/13/10 11:33:10	12.28	7.22	7.35	48650	31.69
19830-001	8	138	5	07/13/10 11:33:39	12.32	7.62	7.59	48674	31.71
19830-014	8	139	5	07/13/10 11:34:22	12.50	7.55	7.76	48684	31.72
19830-000	8	140	5	07/13/10 11:34:53	12.70	7.97	7.62	48640	31.70
19830-009	8	141	5	07/13/10 11:35:22	12.75	7.99	7.77	48653	31.71
19830-008	8	142	5	07/13/10 11:36:08	12.71	8.10	7.83	48680	31.73
19830-015	8	143	5	07/13/10 11:36:53	12.92	7.41	7.62	48642	31.71
19830-016	8	144	5	07/13/10 11:37:32	13.04	7.35	7.65	48672	31.74
19830-002	1	1	6	07/14/10 09:35:24	12.41	7.58	7.69	48914	31.89
19830-016	1	2	6	07/14/10 09:36:04	12.28	7.98	7.76	48230	31.39
19830-015	1	3	6	07/14/10 09:36:18	12.24	7.92	7.56	48889	31.86
19830-017	1	4	6	07/14/10 09:36:39	12.22	7.49	7.46	48860	31.84
19830-001	1	5	6	07/14/10 09:36:52	12.22	7.05	7.47	48821	31.81
19830-011	1	6	6	07/14/10 09:37:09	12.20	6.95	7.46	48887	31.86
19830-014	1	7	6	07/14/10 09:37:32	12.22	7.32	7.59	48919	31.88
19830-009	1	8	6	07/14/10 09:37:57	12.19	6.87	7.51	48858	31.84
19830-012	1	9	6	07/14/10 09:38:20	12.23	6.25	7.64	48945	31.90
19830-010	1	10	6	07/14/10 09:38:53	12.10	7.80	7.65	48947	31.90
19830-008	1	11	6	07/14/10 09:39:14	12.04	8.27	7.84	48948	31.89
19830-006	1	12	6	07/14/10 09:39:40	12.03	7.49	7.45	48860	31.83
19830-004	1	13	6	07/14/10 09:39:53	12.02	7.19	7.45	48931	31.88
19830-013	1	14	6	07/14/10 09:40:09	12.04	7.65	7.73	48930	31.88
19830-000	1	15	6	07/14/10 09:40:25	12.02	7.97	7.67	48922	31.87
19830-005	1	16	6	07/14/10 09:40:41	11.99	8.55	7.58	48965	31.90
19830-007	1	17	6	07/14/10 09:40:51	11.98	8.69	7.53	48984	31.92
19830-003	1	18	6	07/14/10 09:41:05	12.04	8.64	7.54	49056	31.97
19830-009	2	19	6	07/14/10 09:42:00	12.21	7.29	7.58	48824	31.81
19830-016	2	20	6	07/14/10 09:42:19	12.21	7.04	7.45	48889	31.86
19830-007	2	21	6	07/14/10 09:42:57	12.22	6.14	7.20	48718	31.74
19830-015	2	22	6	07/14/10 09:43:30	12.23	7.32	7.45	48076	31.27
19830-008	2	23	6	07/14/10 09:43:50	12.28	7.70	7.53	48826	31.82
19830-002	2	24	6	07/14/10 09:44:03	12.28	7.62	7.60	48836	31.82
19830-012	2	25	6	07/14/10 09:44:24	12.23	7.69	7.66	48545	31.61
19830-004	2	26	6	07/14/10 09:44:40	12.21	7.80	7.53	48668	31.70
19830-000	2	27	6	07/14/10 09:45:10	12.07	8.61	7.58	48861	31.83
19830-003	2	28	6	07/14/10 09:45:23	12.04	8.82	7.56	48820	31.80
19830-011	2	29	6	07/14/10 09:45:39	12.05	8.54	7.61	48878	31.84
19830-017	2	30	6	07/14/10 09:45:57	12.05	8.15	7.56	48868	31.84
19830-014	2	31	6	07/14/10 09:46:24	12.00	7.47	7.52	48925	31.88
19830-001	2	32	6	07/14/10 09:46:41	11.95	7.24	7.48	48815	31.79
19830-013	2	33	6	07/14/10 09:46:56	11.95	7.29	7.57	48964	31.90
19830-010	2	34	6	07/14/10 09:47:14	12.05	7.56	7.59	48905	31.86
19830-006	2	35	6	07/14/10 09:47:35	12.19	8.01	7.46	48952	31.90
19830-005	2	36	6	07/14/10 09:47:58	12.20	7.70	7.35	48894	31.86

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	3	37	6	07/14/10 09:48:14	12.18	7.29	7.40	48979	31.92
19830-009	3	38	6	07/14/10 09:48:42	12.27	7.58	7.56	48903	31.87
19830-017	3	39	6	07/14/10 09:48:57	12.32	7.85	7.49	48851	31.84
19830-016	3	40	6	07/14/10 09:49:31	12.26	8.08	7.61	48918	31.88
19830-000	3	41	6	07/14/10 09:49:59	12.25	8.79	7.65	48833	31.82
19830-010	3	42	6	07/14/10 09:50:25	12.23	8.60	7.50	48787	31.79
19830-008	3	43	6	07/14/10 09:50:42	12.18	8.39	7.53	48843	31.82
19830-014	3	44	6	07/14/10 09:51:00	12.15	8.24	7.62	48850	31.83
19830-004	3	45	6	07/14/10 09:51:14	12.05	8.09	7.58	48893	31.86
19830-006	3	46	6	07/14/10 09:51:45	12.12	7.56	7.32	48817	31.80
19830-005	3	47	6	07/14/10 09:52:09	12.09	5.33	7.12	48810	31.80
19830-011	3	48	6	07/14/10 09:53:13	11.82	7.35	7.65	49099	31.99
19830-002	3	49	6	07/14/10 09:53:36	12.00	7.53	7.57	48906	31.86
19830-012	3	50	6	07/14/10 09:53:50	12.07	7.61	7.64	48895	31.86
19830-001	3	51	6	07/14/10 09:54:19	11.81	8.19	7.83	49012	31.93
19830-003	3	52	6	07/14/10 09:54:37	11.80	8.58	7.76	48973	31.90
19830-007	3	53	6	07/14/10 09:55:19	11.84	7.41	7.33	48903	31.85
19830-015	3	54	6	07/14/10 09:55:47	11.82	8.13	7.54	48959	31.89
19830-006	4	55	6	07/14/10 09:56:06	11.78	8.47	7.45	48914	31.86
19830-011	4	56	6	07/14/10 09:56:25	11.71	8.37	7.75	48989	31.91
19830-012	4	57	6	07/14/10 09:56:48	11.65	8.82	7.85	49049	31.95
19830-010	4	58	6	07/14/10 09:57:06	11.61	9.08	7.79	49058	31.95
19830-015	4	59	6	07/14/10 09:57:19	11.53	9.05	7.67	49036	31.93
19830-009	4	60	6	07/14/10 09:57:37	11.43	8.83	7.66	49110	31.98
19830-001	4	61	6	07/14/10 09:57:52	11.47	8.89	7.70	49179	32.03
19830-016	4	62	6	07/14/10 09:58:08	11.63	8.48	7.68	49105	31.99
19830-008	4	63	6	07/14/10 09:58:22	11.79	8.33	7.69	49070	31.97
19830-004	4	64	6	07/14/10 09:58:40	11.96	8.53	7.65	49048	31.96
19830-007	4	65	6	07/14/10 09:59:03	11.80	8.42	7.44	48949	31.88
19830-014	4	66	6	07/14/10 09:59:18	11.76	8.16	7.49	48989	31.91
19830-000	4	67	6	07/14/10 10:00:24	11.73	8.68	7.56	48962	31.89
19830-017	4	68	6	07/14/10 10:00:37	11.72	8.64	7.60	48969	31.89
19830-013	4	69	6	07/14/10 10:00:51	11.72	8.29	7.72	48986	31.91
19830-002	4	70	6	07/14/10 10:01:04	11.73	8.49	7.81	48976	31.90
19830-005	4	71	6	07/14/10 10:01:20	11.75	8.53	7.58	48901	31.85
19830-003	4	72	6	07/14/10 10:01:38	11.78	8.46	7.58	48938	31.87
19830-016	5	73	6	07/14/10 10:02:22	11.73	8.16	7.67	48958	31.89
19830-003	5	74	6	07/14/10 10:03:11	11.73	8.07	7.54	48934	31.87
19830-000	5	75	6	07/14/10 10:03:30	11.78	8.23	7.57	48902	31.85
19830-013	5	76	6	07/14/10 10:03:46	11.82	8.53	7.62	48924	31.87
19830-001	5	77	6	07/14/10 10:04:12	11.87	8.65	7.65	48568	31.61
19830-002	5	78	6	07/14/10 10:04:32	11.95	8.61	7.69	48911	31.86
19830-004	5	79	6	07/14/10 10:04:51	12.01	8.29	7.59	48899	31.86
19830-012	5	80	6	07/14/10 10:05:36	12.10	8.90	7.81	48910	31.87
19830-005	5	81	6	07/14/10 10:06:18	11.82	8.74	7.56	48953	31.89
19830-011	5	82	6	07/14/10 10:06:38	11.75	8.43	7.69	48957	31.89
19830-010	5	83	6	07/14/10 10:07:07	11.71	7.73	7.66	49010	31.92
19830-017	5	84	6	07/14/10 10:07:28	11.72	7.56	7.59	48954	31.88
19830-009	5	85	6	07/14/10 10:07:45	11.73	7.71	7.62	49003	31.92
19830-006	5	86	6	07/14/10 10:08:02	11.77	7.86	7.53	48900	31.85
19830-008	5	87	6	07/14/10 10:08:14	11.79	8.14	7.62	48978	31.90
19830-007	5	88	6	07/14/10 10:08:28	11.80	8.61	7.62	48958	31.89
19830-014	5	89	6	07/14/10 10:08:41	11.75	8.78	7.67	49004	31.92
19830-015	5	90	6	07/14/10 10:08:54	11.74	8.76	7.71	49006	31.92

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	6	91	6	07/14/10 10:09:08	11.75	8.71	7.65	48949	31.88
19830-007	6	92	6	07/14/10 10:09:23	11.79	8.82	7.53	48930	31.87
19830-002	6	93	6	07/14/10 10:09:45	11.84	8.63	7.70	48922	31.87
19830-009	6	94	6	07/14/10 10:10:03	11.86	8.49	7.67	48983	31.91
19830-013	6	95	6	07/14/10 10:10:14	11.88	8.33	7.80	49034	31.95
19830-004	6	96	6	07/14/10 10:10:26	11.93	8.48	7.67	49031	31.95
19830-012	6	97	6	07/14/10 10:10:51	11.80	8.76	7.70	49003	31.92
19830-015	6	98	6	07/14/10 10:11:01	11.75	8.88	7.72	48970	31.90
19830-014	6	99	6	07/14/10 10:11:10	11.69	8.83	7.78	48861	31.81
19830-003	6	100	6	07/14/10 10:11:19	11.65	8.71	7.79	49074	31.97
19830-010	6	101	6	07/14/10 10:11:33	11.66	8.81	7.74	49166	32.03
19830-000	6	102	6	07/14/10 10:11:42	11.65	8.98	7.72	49085	31.98
19830-016	6	103	6	07/14/10 10:11:52	11.64	9.12	7.75	49123	32.00
19830-001	6	104	6	07/14/10 10:12:05	11.63	9.00	7.83	49120	32.00
19830-017	6	105	6	07/14/10 10:12:21	11.58	8.97	7.76	49044	31.94
19830-008	6	106	6	07/14/10 10:12:33	11.56	8.99	7.77	49028	31.93
19830-011	6	107	6	07/14/10 10:12:49	11.62	8.98	7.81	49048	31.95
19830-006	6	108	6	07/14/10 10:13:04	11.70	8.65	7.65	49080	31.97
19830-015	7	109	6	07/14/10 10:13:14	11.81	8.56	7.59	49168	32.04
19830-017	7	110	6	07/14/10 10:13:28	11.98	8.55	7.69	49147	32.04
19830-003	7	111	6	07/14/10 10:13:38	12.07	8.63	7.72	49137	32.03
19830-008	7	112	6	07/14/10 10:13:57	12.20	8.87	7.79	49127	32.03
19830-006	7	113	6	07/14/10 10:14:12	12.13	9.08	7.69	48790	31.78
19830-012	7	114	6	07/14/10 10:14:25	12.08	8.97	7.70	48846	31.82
19830-004	7	115	6	07/14/10 10:14:39	12.05	8.90	7.75	48842	31.82
19830-011	7	116	6	07/14/10 10:14:51	12.00	8.95	7.78	48831	31.81
19830-014	7	117	6	07/14/10 10:15:08	11.92	8.80	7.85	48963	31.90
19830-005	7	118	6	07/14/10 10:15:18	11.91	8.96	7.74	48806	31.79
19830-001	7	119	6	07/14/10 10:15:27	11.87	8.94	7.69	48855	31.82
19830-000	7	120	6	07/14/10 10:15:38	11.86	8.91	7.71	48825	31.80
19830-009	7	121	6	07/14/10 10:15:51	11.73	9.18	7.74	48906	31.85
19830-010	7	122	6	07/14/10 10:16:04	11.64	9.14	7.74	48945	31.87
19830-007	7	123	6	07/14/10 10:16:19	11.64	8.92	7.57	48968	31.89
19830-002	7	124	6	07/14/10 10:16:35	11.72	8.60	7.73	49053	31.96
19830-013	7	125	6	07/14/10 10:16:48	11.78	8.56	7.77	49102	31.99
19830-016	7	126	6	07/14/10 10:16:59	11.89	8.69	7.78	49071	31.98
19830-017	8	127	6	07/14/10 10:17:09	12.02	8.64	7.73	49035	31.96
19830-013	8	128	6	07/14/10 10:17:19	12.13	8.57	7.68	49057	31.98
19830-010	8	129	6	07/14/10 10:17:41	12.14	8.77	7.79	48889	31.86
19830-007	8	130	6	07/14/10 10:17:55	12.10	8.99	7.64	48831	31.81
19830-011	8	131	6	07/14/10 10:18:20	11.99	8.27	7.52	48742	31.74
19830-002	8	132	6	07/14/10 10:18:33	12.01	7.83	7.58	48920	31.87
19830-004	8	133	6	07/14/10 10:18:47	12.04	7.59	7.64	48868	31.84
19830-003	8	134	6	07/14/10 10:19:10	11.96	8.63	7.77	48885	31.85
19830-005	8	135	6	07/14/10 10:19:23	11.91	8.87	7.59	48872	31.83
19830-012	8	136	6	07/14/10 10:19:38	11.85	8.55	7.65	48911	31.86
19830-006	8	137	6	07/14/10 10:19:56	11.77	8.46	7.51	48925	31.86
19830-001	8	138	6	07/14/10 10:20:16	11.74	8.40	7.73	48981	31.90
19830-014	8	139	6	07/14/10 10:20:30	11.76	8.64	7.82	49056	31.96
19830-000	8	140	6	07/14/10 10:20:40	11.82	8.66	7.81	49016	31.93
19830-009	8	141	6	07/14/10 10:20:55	11.89	8.96	7.87	49052	31.96
19830-008	8	142	6	07/14/10 10:21:16	11.99	9.06	7.94	48996	31.93
19830-015	8	143	6	07/14/10 10:21:32	12.09	8.90	7.76	48990	31.93
19830-016	8	144	6	07/14/10 10:21:47	12.22	8.29	7.74	49025	31.96

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	1	1	7	07/15/10 10:01:15	12.41	8.55	7.74	48900	31.88
19830-016	1	2	7	07/15/10 10:02:09	12.30	8.07	7.74	47879	31.13
19830-015	1	3	7	07/15/10 10:02:22	12.25	7.93	7.59	48866	31.84
19830-017	1	4	7	07/15/10 10:02:33	12.23	7.89	7.51	48821	31.81
19830-001	1	5	7	07/15/10 10:02:44	12.21	7.71	7.51	48849	31.83
19830-011	1	6	7	07/15/10 10:02:57	12.21	7.39	7.56	48845	31.83
19830-014	1	7	7	07/15/10 10:03:18	12.21	7.73	7.59	48902	31.87
19830-009	1	8	7	07/15/10 10:03:31	12.17	7.64	7.59	48804	31.80
19830-012	1	9	7	07/15/10 10:03:43	12.19	7.40	7.63	48914	31.88
19830-010	1	10	7	07/15/10 10:04:13	12.08	7.92	7.66	48914	31.87
19830-008	1	11	7	07/15/10 10:04:30	12.04	8.18	7.78	48911	31.87
19830-006	1	12	7	07/15/10 10:04:41	12.04	8.00	7.65	48856	31.83
19830-004	1	13	7	07/15/10 10:04:52	12.05	7.65	7.51	48879	31.84
19830-013	1	14	7	07/15/10 10:05:05	12.04	7.73	7.65	48896	31.86
19830-000	1	15	7	07/15/10 10:05:16	12.01	7.90	7.64	48884	31.85
19830-005	1	16	7	07/15/10 10:05:30	11.98	8.24	7.55	48955	31.90
19830-007	1	17	7	07/15/10 10:05:40	11.95	8.34	7.50	49001	31.93
19830-003	1	18	7	07/15/10 10:05:51	12.00	8.29	7.50	49061	31.97
19830-009	2	19	7	07/15/10 10:06:07	12.16	8.31	7.52	48933	31.89
19830-016	2	20	7	07/15/10 10:06:30	12.26	6.94	7.43	48846	31.83
19830-007	2	21	7	07/15/10 10:06:43	12.28	6.08	7.33	48603	31.66
19830-015	2	22	7	07/15/10 10:07:07	12.25	7.07	7.41	48664	31.70
19830-008	2	23	7	07/15/10 10:07:21	12.24	7.62	7.55	48845	31.83
19830-002	2	24	7	07/15/10 10:07:40	12.24	7.77	7.63	48821	31.81
19830-012	2	25	7	07/15/10 10:07:58	12.19	7.58	7.49	48105	31.29
19830-004	2	26	7	07/15/10 10:08:07	12.19	7.47	7.49	48808	31.80
19830-000	2	27	7	07/15/10 10:08:31	12.06	8.14	7.55	48828	31.81
19830-003	2	28	7	07/15/10 10:08:42	12.03	8.43	7.55	48590	31.63
19830-011	2	29	7	07/15/10 10:08:52	12.03	8.44	7.56	48766	31.76
19830-017	2	30	7	07/15/10 10:09:02	12.04	8.22	7.56	48830	31.81
19830-014	2	31	7	07/15/10 10:09:21	11.99	7.82	7.58	48886	31.85
19830-001	2	32	7	07/15/10 10:09:31	11.94	7.57	7.57	48819	31.80
19830-013	2	33	7	07/15/10 10:09:41	11.92	7.50	7.62	48934	31.88
19830-010	2	34	7	07/15/10 10:09:52	11.99	7.73	7.61	48922	31.87
19830-006	2	35	7	07/15/10 10:10:07	12.14	7.99	7.53	48985	31.93
19830-005	2	36	7	07/15/10 10:10:21	12.21	7.97	7.43	48868	31.84
19830-013	3	37	7	07/15/10 10:10:35	12.19	7.62	7.40	48910	31.87
19830-009	3	38	7	07/15/10 10:10:48	12.24	7.22	7.51	48895	31.87
19830-017	3	39	7	07/15/10 10:11:04	12.30	7.63	7.49	48759	31.77
19830-016	3	40	7	07/15/10 10:11:15	12.26	7.47	7.56	48853	31.84
19830-000	3	41	7	07/15/10 10:11:32	12.23	7.99	7.63	48809	31.80
19830-010	3	42	7	07/15/10 10:12:14	12.21	8.19	7.49	48799	31.79
19830-008	3	43	7	07/15/10 10:12:40	12.12	8.52	7.52	48878	31.85
19830-014	3	44	7	07/15/10 10:12:51	12.14	8.36	7.56	48840	31.82
19830-004	3	45	7	07/15/10 10:13:03	12.05	8.13	7.58	48876	31.84
19830-006	3	46	7	07/15/10 10:13:16	12.11	8.00	7.47	48841	31.82
19830-005	3	47	7	07/15/10 10:13:29	12.12	7.64	7.34	48766	31.77
19830-011	3	48	7	07/15/10 10:14:16	11.77	5.30	7.43	49108	32.00
19830-002	3	49	7	07/15/10 10:14:42	11.98	6.44	7.61	48865	31.83
19830-012	3	50	7	07/15/10 10:14:55	12.04	7.17	7.64	48872	31.84
19830-001	3	51	7	07/15/10 10:15:20	11.77	7.85	7.74	48987	31.91
19830-003	3	52	7	07/15/10 10:15:30	11.74	7.98	7.72	48983	31.91
19830-007	3	53	7	07/15/10 10:15:41	11.75	8.19	7.54	48997	31.92

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	3	54	7	07/15/10 10:15:55	11.76	7.92	7.46	48968	31.90
19830-006	4	55	7	07/15/10 10:16:07	11.72	8.04	7.43	48926	31.86
19830-011	4	56	7	07/15/10 10:16:18	11.66	7.94	7.55	48993	31.91
19830-012	4	57	7	07/15/10 10:16:32	11.60	8.11	7.75	48999	31.91
19830-010	4	58	7	07/15/10 10:16:42	11.56	8.39	7.75	48993	31.90
19830-015	4	59	7	07/15/10 10:16:52	11.45	8.58	7.65	49013	31.91
19830-009	4	60	7	07/15/10 10:17:01	11.38	8.46	7.60	49031	31.92
19830-001	4	61	7	07/15/10 10:17:12	11.39	8.42	7.59	49101	31.97
19830-016	4	62	7	07/15/10 10:17:28	11.56	8.09	7.54	49091	31.97
19830-008	4	63	7	07/15/10 10:17:38	11.70	7.86	7.60	49089	31.98
19830-004	4	64	7	07/15/10 10:17:53	11.89	8.03	7.59	49049	31.96
19830-007	4	65	7	07/15/10 10:18:05	11.80	8.06	7.51	48896	31.85
19830-014	4	66	7	07/15/10 10:18:17	11.72	8.00	7.49	48978	31.90
19830-000	4	67	7	07/15/10 10:18:27	11.70	7.80	7.52	48923	31.86
19830-017	4	68	7	07/15/10 10:18:37	11.68	7.84	7.49	48939	31.87
19830-013	4	69	7	07/15/10 10:18:46	11.68	7.76	7.57	48959	31.89
19830-002	4	70	7	07/15/10 10:18:57	11.68	7.85	7.68	48968	31.89
19830-005	4	71	7	07/15/10 10:19:09	11.70	7.98	7.55	48882	31.83
19830-003	4	72	7	07/15/10 10:19:19	11.71	7.97	7.51	48926	31.86
19830-016	5	73	7	07/15/10 10:19:32	11.67	8.10	7.56	48952	31.88
19830-003	5	74	7	07/15/10 10:19:44	11.68	8.06	7.52	48915	31.85
19830-000	5	75	7	07/15/10 10:20:03	11.73	8.02	7.52	48892	31.84
19830-013	5	76	7	07/15/10 10:20:13	11.77	8.21	7.54	48923	31.86
19830-001	5	77	7	07/15/10 10:20:30	11.84	8.21	7.53	48838	31.81
19830-002	5	78	7	07/15/10 10:20:41	11.89	8.25	7.52	48961	31.90
19830-004	5	79	7	07/15/10 10:20:54	11.98	8.03	7.53	48922	31.87
19830-012	5	80	7	07/15/10 10:21:11	12.06	8.05	7.67	48917	31.87
19830-005	5	81	7	07/15/10 10:21:33	11.80	8.26	7.49	48890	31.84
19830-011	5	82	7	07/15/10 10:21:45	11.73	7.92	7.53	48904	31.85
19830-010	5	83	7	07/15/10 10:21:57	11.67	7.89	7.55	48986	31.90
19830-017	5	84	7	07/15/10 10:22:14	11.68	7.27	7.48	48847	31.80
19830-009	5	85	7	07/15/10 10:22:33	11.69	7.27	7.57	48969	31.89
19830-006	5	86	7	07/15/10 10:22:58	11.74	7.71	7.39	48898	31.84
19830-008	5	87	7	07/15/10 10:23:24	11.76	8.10	7.68	48945	31.88
19830-007	5	88	7	07/15/10 10:23:41	11.76	8.26	7.51	48935	31.87
19830-014	5	89	7	07/15/10 10:23:55	11.71	8.14	7.53	48958	31.89
19830-015	5	90	7	07/15/10 10:24:03	11.70	8.17	7.58	48967	31.89
19830-005	6	91	7	07/15/10 10:24:12	11.70	8.18	7.56	48949	31.88
19830-007	6	92	7	07/15/10 10:24:23	11.74	8.22	7.48	48944	31.88
19830-002	6	93	7	07/15/10 10:24:34	11.78	8.16	7.54	49014	31.93
19830-009	6	94	7	07/15/10 10:24:45	11.84	8.06	7.57	48964	31.90
19830-013	6	95	7	07/15/10 10:24:57	11.88	7.93	7.67	49016	31.94
19830-004	6	96	7	07/15/10 10:25:05	11.91	7.98	7.66	49053	31.96
19830-012	6	97	7	07/15/10 10:25:27	11.79	8.42	7.61	48991	31.91
19830-015	6	98	7	07/15/10 10:25:39	11.71	8.46	7.62	48974	31.90
19830-014	6	99	7	07/15/10 10:25:49	11.64	8.32	7.67	48819	31.78
19830-003	6	100	7	07/15/10 10:26:00	11.62	8.08	7.65	49063	31.96
19830-010	6	101	7	07/15/10 10:26:11	11.62	8.17	7.64	49139	32.01
19830-000	6	102	7	07/15/10 10:26:21	11.61	8.39	7.63	49046	31.95
19830-016	6	103	7	07/15/10 10:26:30	11.60	8.56	7.64	49090	31.98
19830-001	6	104	7	07/15/10 10:26:38	11.59	8.55	7.69	49077	31.97
19830-017	6	105	7	07/15/10 10:26:52	11.53	8.46	7.69	48991	31.90
19830-008	6	106	7	07/15/10 10:27:00	11.50	8.46	7.70	49007	31.91
19830-011	6	107	7	07/15/10 10:27:11	11.55	8.49	7.67	49062	31.95

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-006	6	108	7	07/15/10 10:27:24	11.67	8.29	7.57	49075	31.97
19830-015	7	109	7	07/15/10 10:27:38	11.83	8.17	7.53	49127	32.01
19830-017	7	110	7	07/15/10 10:27:53	12.01	8.10	7.64	49084	31.99
19830-003	7	111	7	07/15/10 10:28:11	12.13	8.25	7.66	49064	31.98
19830-008	7	112	7	07/15/10 10:28:40	12.25	8.50	7.72	49077	32.00
19830-006	7	113	7	07/15/10 10:28:59	12.10	8.60	7.59	48614	31.66
19830-012	7	114	7	07/15/10 10:29:08	12.05	8.45	7.60	48831	31.81
19830-004	7	115	7	07/15/10 10:29:15	12.03	8.39	7.64	48811	31.79
19830-011	7	116	7	07/15/10 10:29:29	11.96	8.38	7.67	48806	31.79
19830-014	7	117	7	07/15/10 10:29:41	11.90	8.22	7.70	48888	31.84
19830-005	7	118	7	07/15/10 10:29:51	11.86	8.29	7.64	48788	31.77
19830-001	7	119	7	07/15/10 10:30:01	11.82	8.32	7.60	48838	31.80
19830-000	7	120	7	07/15/10 10:30:09	11.80	8.34	7.62	48820	31.79
19830-009	7	121	7	07/15/10 10:30:22	11.69	8.53	7.65	48876	31.83
19830-010	7	122	7	07/15/10 10:30:34	11.60	8.50	7.63	48931	31.86
19830-007	7	123	7	07/15/10 10:30:44	11.60	8.37	7.53	48968	31.89
19830-002	7	124	7	07/15/10 10:30:53	11.67	8.19	7.55	49085	31.98
19830-013	7	125	7	07/15/10 10:31:06	11.74	8.03	7.64	49129	32.01
19830-016	7	126	7	07/15/10 10:31:16	11.88	8.08	7.66	49065	31.97
19830-017	8	127	7	07/15/10 10:31:26	12.02	8.01	7.63	49026	31.95
19830-013	8	128	7	07/15/10 10:31:35	12.15	7.99	7.62	49008	31.94
19830-010	8	129	7	07/15/10 10:31:49	12.09	8.17	7.67	48868	31.84
19830-007	8	130	7	07/15/10 10:32:04	12.03	8.41	7.57	48315	31.44
19830-011	8	131	7	07/15/10 10:32:14	11.98	8.34	7.53	48848	31.82
19830-002	8	132	7	07/15/10 10:32:28	11.98	7.79	7.59	48881	31.84
19830-004	8	133	7	07/15/10 10:32:40	11.99	7.37	7.57	48847	31.82
19830-003	8	134	7	07/15/10 10:32:53	11.93	7.75	7.66	48815	31.79
19830-005	8	135	7	07/15/10 10:33:04	11.89	8.10	7.55	48824	31.80
19830-012	8	136	7	07/15/10 10:33:13	11.84	7.95	7.56	48844	31.81
19830-006	8	137	7	07/15/10 10:33:26	11.75	7.87	7.48	48914	31.86
19830-001	8	138	7	07/15/10 10:33:35	11.73	7.77	7.50	48958	31.89
19830-014	8	139	7	07/15/10 10:33:54	11.77	8.09	7.74	49001	31.92
19830-000	8	140	7	07/15/10 10:34:05	11.83	8.12	7.69	48972	31.90
19830-009	8	141	7	07/15/10 10:34:19	11.90	8.36	7.74	49002	31.93
19830-008	8	142	7	07/15/10 10:34:35	11.98	8.44	7.81	48995	31.93
19830-015	8	143	7	07/15/10 10:34:50	12.08	8.41	7.70	48967	31.91
19830-016	8	144	7	07/15/10 10:35:02	12.21	8.10	7.63	48992	31.93
19830-002	1	1	8	07/16/10 09:51:43	14.48	7.98	7.75	48377	31.57
19830-016	1	2	8	07/16/10 09:53:02	14.57	7.78	7.74	48209	31.45
19830-015	1	3	8	07/16/10 09:53:31	14.60	7.83	7.69	48360	31.56
19830-017	1	4	8	07/16/10 09:53:43	14.56	7.82	7.68	48361	31.56
19830-001	1	5	8	07/16/10 09:53:57	14.36	7.81	7.67	48319	31.52
19830-011	1	6	8	07/16/10 09:54:15	14.51	7.73	7.69	48423	31.60
19830-014	1	7	8	07/16/10 09:54:38	14.42	7.96	7.70	48525	31.67
19830-009	1	8	8	07/16/10 09:54:51	14.40	7.90	7.69	48402	31.58
19830-012	1	9	8	07/16/10 09:55:47	13.24	8.23	7.49	49485	32.33
19830-010	1	10	8	07/16/10 09:56:33	14.31	7.72	7.69	48385	31.57
19830-008	1	11	8	07/16/10 09:56:49	14.35	7.59	7.72	48440	31.61
19830-006	1	12	8	07/16/10 09:57:07	14.54	7.63	7.68	48419	31.60
19830-004	1	13	8	07/16/10 09:57:29	14.17	7.74	7.66	48372	31.55
19830-013	1	14	8	07/16/10 09:57:52	14.27	7.69	7.70	48414	31.59
19830-000	1	15	8	07/16/10 09:58:19	14.30	7.84	7.68	48396	31.58
19830-005	1	16	8	07/16/10 09:58:41	14.33	7.87	7.69	48385	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	1	17	8	07/16/10 09:58:56	14.27	7.78	7.66	48383	31.57
19830-003	1	18	8	07/16/10 09:59:12	14.19	7.63	7.67	48374	31.56
19830-009	2	19	8	07/16/10 09:59:48	14.55	7.76	7.72	48354	31.55
19830-016	2	20	8	07/16/10 10:00:13	14.47	7.69	7.64	48535	31.68
19830-007	2	21	8	07/16/10 10:00:33	14.75	7.51	7.62	48355	31.56
19830-015	2	22	8	07/16/10 10:00:52	14.63	7.50	7.66	48221	31.46
19830-008	2	23	8	07/16/10 10:01:15	14.44	7.68	7.70	48394	31.58
19830-002	2	24	8	07/16/10 10:01:29	14.54	7.52	7.72	48432	31.61
19830-012	2	25	8	07/16/10 10:01:49	14.61	7.59	7.72	48274	31.50
19830-004	2	26	8	07/16/10 10:02:02	14.56	7.55	7.71	48332	31.54
19830-000	2	27	8	07/16/10 10:02:26	14.11	7.83	7.68	48357	31.54
19830-003	2	28	8	07/16/10 10:02:43	14.41	7.73	7.69	48354	31.55
19830-011	2	29	8	07/16/10 10:02:58	14.47	7.63	7.70	48331	31.53
19830-017	2	30	8	07/16/10 10:03:11	14.48	7.69	7.69	48354	31.55
19830-014	2	31	8	07/16/10 10:03:24	14.42	7.68	7.69	48348	31.54
19830-001	2	32	8	07/16/10 10:03:41	14.34	7.63	7.70	48354	31.55
19830-013	2	33	8	07/16/10 10:03:57	14.23	7.61	7.73	48289	31.50
19830-010	2	34	8	07/16/10 10:04:20	14.31	7.87	7.70	48440	31.61
19830-006	2	35	8	07/16/10 10:04:54	14.45	7.71	7.67	48353	31.55
19830-005	2	36	8	07/16/10 10:05:23	14.64	7.62	7.68	48341	31.54
19830-013	3	37	8	07/16/10 10:05:44	14.60	7.50	7.69	48345	31.55
19830-009	3	38	8	07/16/10 10:06:07	14.63	7.60	7.71	48325	31.53
19830-017	3	39	8	07/16/10 10:06:32	14.63	7.46	7.63	48332	31.54
19830-016	3	40	8	07/16/10 10:06:51	14.50	7.45	7.67	48337	31.54
19830-000	3	41	8	07/16/10 10:07:21	14.79	7.83	7.73	48322	31.53
19830-010	3	42	8	07/16/10 10:07:58	14.63	7.76	7.71	48308	31.52
19830-008	3	43	8	07/16/10 10:08:18	14.01	7.89	7.66	48329	31.52
19830-014	3	44	8	07/16/10 10:08:33	14.31	7.64	7.69	48518	31.66
19830-004	3	45	8	07/16/10 10:08:46	14.38	7.66	7.70	48352	31.55
19830-006	3	46	8	07/16/10 10:09:01	14.51	7.63	7.68	48383	31.57
19830-005	3	47	8	07/16/10 10:09:18	14.57	7.59	7.67	48342	31.54
19830-011	3	48	8	07/16/10 10:09:36	14.32	7.62	7.69	48341	31.54
19830-002	3	49	8	07/16/10 10:10:00	14.32	7.53	7.70	48368	31.56
19830-012	3	50	8	07/16/10 10:10:18	14.35	7.52	7.71	48366	31.56
19830-001	3	51	8	07/16/10 10:10:39	13.81	7.75	7.72	48341	31.52
19830-003	3	52	8	07/16/10 10:10:52	13.80	7.66	7.72	48444	31.60
19830-007	3	53	8	07/16/10 10:11:15	13.92	7.54	7.60	48438	31.60
19830-015	3	54	8	07/16/10 10:11:34	14.12	7.36	7.64	48420	31.59
19830-006	4	55	8	07/16/10 10:11:49	14.08	7.57	7.66	48375	31.55
19830-011	4	56	8	07/16/10 10:12:03	13.96	7.60	7.69	48389	31.56
19830-012	4	57	8	07/16/10 10:12:15	13.95	7.59	7.72	48394	31.56
19830-010	4	58	8	07/16/10 10:12:31	13.86	7.74	7.73	48338	31.52
19830-015	4	59	8	07/16/10 10:12:45	13.67	7.82	7.69	48384	31.55
19830-009	4	60	8	07/16/10 10:13:01	13.54	7.64	7.69	48420	31.57
19830-001	4	61	8	07/16/10 10:13:16	13.50	7.71	7.67	48464	31.60
19830-016	4	62	8	07/16/10 10:13:36	13.83	7.55	7.68	48463	31.61
19830-008	4	63	8	07/16/10 10:13:50	13.75	7.62	7.69	48400	31.56
19830-004	4	64	8	07/16/10 10:14:11	13.92	7.66	7.68	48455	31.61
19830-007	4	65	8	07/16/10 10:14:43	14.05	7.55	7.66	48397	31.57
19830-014	4	66	8	07/16/10 10:14:57	14.05	7.47	7.66	48387	31.56
19830-000	4	67	8	07/16/10 10:15:12	14.01	7.47	7.66	48401	31.57
19830-017	4	68	8	07/16/10 10:15:27	14.12	7.65	7.67	48476	31.63
19830-013	4	69	8	07/16/10 10:15:45	14.31	7.62	7.70	48387	31.57
19830-002	4	70	8	07/16/10 10:16:01	14.21	7.65	7.72	48346	31.54

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	4	71	8	07/16/10 10:16:13	14.17	7.52	7.69	48349	31.54
19830-003	4	72	8	07/16/10 10:16:33	13.97	7.64	7.67	48371	31.55
19830-016	5	73	8	07/16/10 10:16:50	13.99	7.69	7.68	48397	31.57
19830-003	5	74	8	07/16/10 10:17:03	13.95	7.58	7.68	48440	31.60
19830-000	5	75	8	07/16/10 10:17:25	14.26	7.69	7.68	48415	31.59
19830-013	5	76	8	07/16/10 10:17:42	14.31	7.70	7.67	48350	31.54
19830-001	5	77	8	07/16/10 10:17:53	14.29	7.57	7.67	48320	31.52
19830-002	5	78	8	07/16/10 10:18:07	14.24	7.58	7.69	48343	31.54
19830-004	5	79	8	07/16/10 10:18:21	14.23	7.47	7.68	48355	31.54
19830-012	5	80	8	07/16/10 10:18:35	14.21	7.43	7.71	48322	31.52
19830-005	5	81	8	07/16/10 10:19:05	14.00	7.88	7.69	47830	31.16
19830-011	5	82	8	07/16/10 10:19:25	14.22	7.64	7.71	48337	31.53
19830-010	5	83	8	07/16/10 10:19:41	14.18	7.55	7.69	48342	31.53
19830-017	5	84	8	07/16/10 10:20:04	14.36	7.23	7.64	48188	31.43
19830-009	5	85	8	07/16/10 10:20:27	14.06	7.34	7.64	48377	31.56
19830-006	5	86	8	07/16/10 10:20:46	14.36	7.40	7.64	48411	31.59
19830-008	5	87	8	07/16/10 10:21:02	14.38	7.44	7.68	48332	31.53
19830-007	5	88	8	07/16/10 10:21:21	14.18	7.59	7.64	48318	31.52
19830-014	5	89	8	07/16/10 10:21:40	14.04	7.62	7.68	48393	31.57
19830-015	5	90	8	07/16/10 10:21:56	14.06	7.61	7.69	48415	31.58
19830-005	6	91	8	07/16/10 10:22:44	14.19	7.44	7.68	48379	31.56
19830-007	6	92	8	07/16/10 10:22:58	14.23	7.55	7.66	48385	31.57
19830-002	6	93	8	07/16/10 10:23:13	14.29	7.45	7.69	48363	31.55
19830-009	6	94	8	07/16/10 10:23:34	14.21	7.61	7.70	48409	31.58
19830-013	6	95	8	07/16/10 10:23:49	14.18	7.70	7.73	48366	31.55
19830-004	6	96	8	07/16/10 10:24:07	14.10	7.67	7.72	48367	31.55
19830-012	6	97	8	07/16/10 10:24:34	13.63	7.86	7.70	48405	31.56
19830-015	6	98	8	07/16/10 10:24:52	13.77	7.74	7.70	48435	31.59
19830-014	6	99	8	07/16/10 10:25:14	13.59	7.54	7.72	48369	31.54
19830-003	6	100	8	07/16/10 10:25:26	13.54	7.47	7.70	48394	31.55
19830-010	6	101	8	07/16/10 10:25:46	13.48	7.77	7.70	48470	31.60
19830-000	6	102	8	07/16/10 10:26:02	13.63	7.87	7.70	48509	31.64
19830-016	6	103	8	07/16/10 10:26:18	13.58	7.80	7.72	48450	31.59
19830-001	6	104	8	07/16/10 10:26:37	13.42	7.66	7.74	48419	31.57
19830-017	6	105	8	07/16/10 10:26:51	13.29	7.74	7.73	48448	31.58
19830-008	6	106	8	07/16/10 10:27:06	13.32	7.81	7.72	48487	31.61
19830-011	6	107	8	07/16/10 10:27:18	13.31	7.81	7.71	48490	31.61
19830-006	6	108	8	07/16/10 10:27:31	13.36	7.72	7.67	48569	31.67
19830-015	7	109	8	07/16/10 10:27:48	13.46	7.63	7.64	48553	31.66
19830-017	7	110	8	07/16/10 10:28:04	13.58	7.57	7.68	48549	31.67
19830-003	7	111	8	07/16/10 10:28:20	13.78	7.61	7.69	48489	31.63
19830-008	7	112	8	07/16/10 10:28:40	13.80	7.72	7.72	48504	31.64
19830-006	7	113	8	07/16/10 10:29:02	14.13	7.81	7.71	48483	31.63
19830-012	7	114	8	07/16/10 10:29:20	14.27	7.69	7.73	48349	31.54
19830-004	7	115	8	07/16/10 10:29:34	14.28	7.77	7.74	48360	31.55
19830-011	7	116	8	07/16/10 10:29:48	14.39	7.81	7.74	48388	31.57
19830-014	7	117	8	07/16/10 10:30:01	14.37	7.67	7.73	48313	31.52
19830-005	7	118	8	07/16/10 10:30:14	14.31	7.78	7.70	48342	31.54
19830-001	7	119	8	07/16/10 10:30:32	13.88	7.79	7.70	48280	31.48
19830-000	7	120	8	07/16/10 10:30:53	14.09	7.89	7.71	48396	31.57
19830-009	7	121	8	07/16/10 10:31:11	13.82	8.03	7.70	48306	31.50
19830-010	7	122	8	07/16/10 10:31:26	13.83	7.78	7.69	48464	31.61
19830-007	7	123	8	07/16/10 10:31:38	13.86	7.72	7.66	48390	31.56
19830-002	7	124	8	07/16/10 10:31:50	13.89	7.64	7.67	48433	31.59

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	7	125	8	07/16/10 10:32:05	13.79	7.61	7.72	48439	31.59
19830-016	7	126	8	07/16/10 10:32:21	13.96	7.70	7.71	48489	31.63
19830-017	8	127	8	07/16/10 10:32:36	14.13	7.57	7.69	48444	31.61
19830-013	8	128	8	07/16/10 10:32:49	14.16	7.57	7.69	48364	31.55
19830-010	8	129	8	07/16/10 10:33:14	14.10	7.81	7.72	48405	31.58
19830-007	8	130	8	07/16/10 10:33:30	14.35	7.84	7.68	48427	31.60
19830-011	8	131	8	07/16/10 10:33:42	14.13	7.81	7.66	48224	31.45
19830-002	8	132	8	07/16/10 10:33:56	14.15	7.49	7.68	48409	31.58
19830-004	8	133	8	07/16/10 10:34:10	14.32	7.39	7.68	48431	31.60
19830-003	8	134	8	07/16/10 10:34:26	14.33	7.58	7.71	48354	31.55
19830-005	8	135	8	07/16/10 10:34:41	14.28	7.65	7.65	48347	31.54
19830-012	8	136	8	07/16/10 10:34:54	14.12	7.44	7.69	48246	31.46
19830-006	8	137	8	07/16/10 10:35:07	13.86	7.85	7.70	48356	31.53
19830-001	8	138	8	07/16/10 10:35:20	13.79	7.71	7.70	48383	31.55
19830-014	8	139	8	07/16/10 10:35:28	13.83	7.72	7.73	48591	31.70
19830-000	8	140	8	07/16/10 10:35:35	13.97	7.69	7.75	48587	31.70
19830-009	8	141	8	07/16/10 10:35:44	14.05	7.80	7.75	48402	31.57
19830-008	8	142	8	07/16/10 10:35:52	14.02	7.90	7.76	48406	31.57
19830-015	8	143	8	07/16/10 10:36:05	14.03	7.94	7.79	48420	31.59
19830-016	8	144	8	07/16/10 10:36:15	14.06	7.76	7.74	48412	31.58
19830-002	1	1	9	07/17/10 10:59:06	12.42	8.12	7.63	48466	31.56
19830-016	1	2	9	07/17/10 10:59:42	12.35	7.94	7.65	46215	29.94
19830-015	1	3	9	07/17/10 11:00:07	12.26	7.62	7.44	48403	31.51
19830-017	1	4	9	07/17/10 11:00:25	12.25	7.46	7.47	48398	31.51
19830-001	1	5	9	07/17/10 11:00:40	12.24	7.29	7.52	48409	31.51
19830-011	1	6	9	07/17/10 11:01:06	12.21	7.03	7.46	48414	31.52
19830-014	1	7	9	07/17/10 11:01:19	12.20	6.85	7.46	48468	31.55
19830-009	1	8	9	07/17/10 11:01:32	12.19	6.79	7.48	48385	31.49
19830-012	1	9	9	07/17/10 11:01:50	12.22	6.41	7.57	48491	31.57
19830-010	1	10	9	07/17/10 11:02:33	12.07	6.97	7.53	48447	31.53
19830-008	1	11	9	07/17/10 11:02:50	12.03	7.15	7.69	48457	31.54
19830-006	1	12	9	07/17/10 11:03:06	12.01	7.32	7.57	48393	31.49
19830-004	1	13	9	07/17/10 11:03:26	12.01	7.27	7.48	48459	31.54
19830-013	1	14	9	07/17/10 11:03:40	12.02	7.38	7.54	48457	31.54
19830-000	1	15	9	07/17/10 11:03:54	12.00	7.29	7.55	48420	31.51
19830-005	1	16	9	07/17/10 11:04:15	11.95	7.74	7.54	48505	31.57
19830-007	1	17	9	07/17/10 11:04:30	11.92	7.88	7.50	48543	31.60
19830-003	1	18	9	07/17/10 11:04:46	12.01	7.90	7.51	48580	31.63
19830-009	2	19	9	07/17/10 11:05:26	12.27	7.47	7.55	48376	31.49
19830-016	2	20	9	07/17/10 11:05:43	12.28	7.04	7.40	48347	31.47
19830-007	2	21	9	07/17/10 11:06:03	12.33	5.91	7.28	48020	31.24
19830-015	2	22	9	07/17/10 11:06:46	12.31	7.35	7.47	48295	31.43
19830-008	2	23	9	07/17/10 11:07:05	12.31	7.53	7.64	48355	31.48
19830-002	2	24	9	07/17/10 11:07:20	12.26	7.59	7.69	48385	31.50
19830-012	2	25	9	07/17/10 11:07:42	12.18	7.45	7.62	48027	31.23
19830-004	2	26	9	07/17/10 11:08:00	12.18	7.46	7.51	48144	31.32
19830-000	2	27	9	07/17/10 11:08:32	12.06	7.96	7.57	48369	31.48
19830-003	2	28	9	07/17/10 11:08:45	12.04	8.10	7.55	48019	31.22
19830-011	2	29	9	07/17/10 11:09:15	12.04	7.61	7.49	48390	31.49
19830-017	2	30	9	07/17/10 11:09:29	12.06	7.49	7.47	48372	31.48
19830-014	2	31	9	07/17/10 11:09:47	12.02	7.40	7.55	48418	31.51
19830-001	2	32	9	07/17/10 11:10:02	11.96	7.14	7.57	48390	31.49
19830-013	2	33	9	07/17/10 11:10:13	11.95	7.08	7.60	48500	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-010	2	34	9	07/17/10 11:10:33	12.02	7.43	7.56	48432	31.52
19830-006	2	35	9	07/17/10 11:10:54	12.19	7.51	7.48	48479	31.56
19830-005	2	36	9	07/17/10 11:11:07	12.20	7.41	7.45	48455	31.54
19830-013	3	37	9	07/17/10 11:11:57	12.21	6.04	7.42	48473	31.56
19830-009	3	38	9	07/17/10 11:12:41	12.31	7.57	7.61	48396	31.51
19830-017	3	39	9	07/17/10 11:12:52	12.34	7.66	7.53	48347	31.47
19830-016	3	40	9	07/17/10 11:13:11	12.25	7.02	7.57	48439	31.53
19830-000	3	41	9	07/17/10 11:13:48	12.24	8.22	7.66	48355	31.47
19830-010	3	42	9	07/17/10 11:14:03	12.22	8.32	7.61	48346	31.47
19830-008	3	43	9	07/17/10 11:14:19	12.12	8.17	7.58	48367	31.48
19830-014	3	44	9	07/17/10 11:14:53	12.11	7.53	7.63	48365	31.48
19830-004	3	45	9	07/17/10 11:15:06	12.03	7.48	7.57	48400	31.50
19830-006	3	46	9	07/17/10 11:15:45	12.11	6.71	7.38	48336	31.45
19830-005	3	47	9	07/17/10 11:16:27	12.09	7.67	7.51	48318	31.44
19830-011	3	48	9	07/17/10 11:17:17	11.77	6.33	7.49	48605	31.63
19830-002	3	49	9	07/17/10 11:17:31	11.90	6.26	7.57	48498	31.56
19830-012	3	50	9	07/17/10 11:17:52	12.06	6.85	7.63	48440	31.53
19830-001	3	51	9	07/17/10 11:18:26	11.76	7.48	7.75	48585	31.62
19830-003	3	52	9	07/17/10 11:19:28	11.76	7.92	7.68	48505	31.56
19830-007	3	53	9	07/17/10 11:19:49	11.77	7.64	7.44	48462	31.53
19830-015	3	54	9	07/17/10 11:20:22	11.76	7.77	7.57	48490	31.55
19830-006	4	55	9	07/17/10 11:20:48	11.70	7.83	7.50	48482	31.54
19830-011	4	56	9	07/17/10 11:21:10	11.64	7.73	7.62	48560	31.59
19830-012	4	57	9	07/17/10 11:21:40	11.58	8.04	7.82	48570	31.60
19830-010	4	58	9	07/17/10 11:22:09	11.52	8.07	7.70	48579	31.60
19830-015	4	59	9	07/17/10 11:22:26	11.42	8.05	7.64	48605	31.62
19830-009	4	60	9	07/17/10 11:22:43	11.34	7.87	7.65	48624	31.63
19830-001	4	61	9	07/17/10 11:23:00	11.39	7.94	7.61	48707	31.69
19830-016	4	62	9	07/17/10 11:23:24	11.58	7.53	7.56	48577	31.60
19830-008	4	63	9	07/17/10 11:23:55	11.76	7.73	7.66	48543	31.59
19830-004	4	64	9	07/17/10 11:24:34	11.94	7.21	7.55	48531	31.59
19830-007	4	65	9	07/17/10 11:25:06	11.74	7.60	7.46	48498	31.55
19830-014	4	66	9	07/17/10 11:25:49	11.71	6.82	7.49	48530	31.58
19830-000	4	67	9	07/17/10 11:26:31	11.68	7.70	7.53	48474	31.53
19830-017	4	68	9	07/17/10 11:27:15	11.67	6.89	7.47	48497	31.55
19830-013	4	69	9	07/17/10 11:27:56	11.68	7.72	7.68	48505	31.56
19830-002	4	70	9	07/17/10 11:28:42	11.69	7.59	7.72	48511	31.56
19830-005	4	71	9	07/17/10 11:29:22	11.70	7.54	7.50	48452	31.52
19830-003	4	72	9	07/17/10 11:29:47	11.72	7.68	7.59	48485	31.54
19830-016	5	73	9	07/17/10 11:30:02	11.68	7.84	7.59	48486	31.54
19830-003	5	74	9	07/17/10 11:30:24	11.67	7.47	7.52	48493	31.55
19830-000	5	75	9	07/17/10 11:30:52	11.73	7.63	7.56	48407	31.49
19830-013	5	76	9	07/17/10 11:31:07	11.76	7.78	7.56	48457	31.53
19830-001	5	77	9	07/17/10 11:31:23	11.80	7.65	7.52	48405	31.49
19830-002	5	78	9	07/17/10 11:31:43	11.91	7.69	7.61	48465	31.54
19830-004	5	79	9	07/17/10 11:32:02	11.99	7.46	7.52	48448	31.53
19830-012	5	80	9	07/17/10 11:32:18	12.06	7.44	7.67	48492	31.57
19830-005	5	81	9	07/17/10 11:32:39	11.79	7.87	7.56	48450	31.52
19830-011	5	82	9	07/17/10 11:32:56	11.70	7.59	7.58	48497	31.55
19830-010	5	83	9	07/17/10 11:33:07	11.66	7.58	7.51	48482	31.54
19830-017	5	84	9	07/17/10 11:33:29	11.69	6.07	7.44	48413	31.49
19830-009	5	85	9	07/17/10 11:33:55	11.69	6.51	7.53	48544	31.59
19830-006	5	86	9	07/17/10 11:34:15	11.73	6.97	7.50	48446	31.52
19830-008	5	87	9	07/17/10 11:34:46	11.76	7.87	7.66	48512	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	5	88	9	07/17/10 11:35:39	11.77	7.92	7.52	48390	31.48
19830-014	5	89	9	07/17/10 11:35:54	11.69	7.95	7.58	48508	31.56
19830-015	5	90	9	07/17/10 11:36:09	11.66	7.92	7.65	48549	31.59
19830-005	6	91	9	07/17/10 11:36:20	11.68	7.93	7.64	48502	31.55
19830-007	6	92	9	07/17/10 11:36:36	11.72	7.93	7.53	48473	31.54
19830-002	6	93	9	07/17/10 11:36:48	11.77	7.86	7.57	48564	31.60
19830-009	6	94	9	07/17/10 11:37:13	11.84	7.52	7.63	48509	31.57
19830-013	6	95	9	07/17/10 11:37:28	11.87	7.47	7.58	48408	31.50
19830-004	6	96	9	07/17/10 11:37:44	11.92	7.65	7.60	48604	31.64
19830-012	6	97	9	07/17/10 11:38:12	11.79	8.11	7.65	48542	31.59
19830-015	6	98	9	07/17/10 11:38:43	11.63	7.74	7.72	48554	31.59
19830-014	6	99	9	07/17/10 11:38:59	11.61	7.71	7.74	48550	31.59
19830-003	6	100	9	07/17/10 11:39:13	11.60	7.75	7.70	48635	31.65
19830-010	6	101	9	07/17/10 11:39:45	11.59	8.23	7.72	47251	30.65
19830-000	6	102	9	07/17/10 11:40:05	11.58	8.29	7.68	48603	31.62
19830-016	6	103	9	07/17/10 11:40:36	11.56	7.91	7.76	48657	31.66
19830-001	6	104	9	07/17/10 11:41:01	11.57	7.91	7.81	48686	31.68
19830-017	6	105	9	07/17/10 11:41:27	11.48	8.15	7.71	48574	31.60
19830-008	6	106	9	07/17/10 11:41:40	11.46	8.18	7.73	48590	31.61
19830-011	6	107	9	07/17/10 11:42:18	11.56	7.64	7.73	48572	31.60
19830-006	6	108	9	07/17/10 11:42:58	11.68	8.04	7.62	48588	31.62
19830-015	7	109	9	07/17/10 11:43:44	11.85	7.87	7.64	48507	31.57
19830-017	7	110	9	07/17/10 11:44:03	11.99	7.90	7.70	48637	31.67
19830-003	7	111	9	07/17/10 11:44:23	12.10	7.86	7.67	48650	31.68
19830-008	7	112	9	07/17/10 11:44:40	12.21	7.79	7.74	48684	31.71
19830-006	7	113	9	07/17/10 11:45:02	12.10	8.18	7.69	48333	31.45
19830-012	7	114	9	07/17/10 11:45:19	12.03	8.14	7.73	48361	31.47
19830-004	7	115	9	07/17/10 11:45:35	11.98	8.13	7.77	48379	31.48
19830-011	7	116	9	07/17/10 11:46:11	11.93	7.64	7.70	48364	31.47
19830-014	7	117	9	07/17/10 11:46:44	11.85	8.08	7.78	48469	31.54
19830-005	7	118	9	07/17/10 11:47:01	11.83	8.18	7.64	48357	31.46
19830-001	7	119	9	07/17/10 11:47:22	11.78	8.06	7.67	48453	31.52
19830-000	7	120	9	07/17/10 11:47:36	11.79	8.09	7.70	48357	31.46
19830-009	7	121	9	07/17/10 11:47:54	11.65	8.32	7.74	48458	31.52
19830-010	7	122	9	07/17/10 11:48:13	11.56	7.99	7.65	48493	31.54
19830-007	7	123	9	07/17/10 11:48:36	11.59	7.79	7.52	48508	31.55
19830-002	7	124	9	07/17/10 11:48:57	11.70	7.69	7.69	48561	31.60
19830-013	7	125	9	07/17/10 11:49:32	11.78	7.94	7.78	48603	31.63
19830-016	7	126	9	07/17/10 11:50:01	11.96	7.82	7.71	48483	31.55
19830-017	8	127	9	07/17/10 11:50:20	12.09	7.68	7.64	48486	31.56
19830-013	8	128	9	07/17/10 11:50:34	12.19	7.65	7.66	48551	31.61
19830-010	8	129	9	07/17/10 11:51:02	12.12	8.09	7.76	48272	31.41
19830-007	8	130	9	07/17/10 11:51:17	12.05	8.20	7.68	48375	31.48
19830-011	8	131	9	07/17/10 11:52:04	11.92	6.83	7.46	48464	31.54
19830-002	8	132	9	07/17/10 11:52:24	11.95	6.85	7.50	48457	31.53
19830-004	8	133	9	07/17/10 11:53:06	11.99	7.77	7.63	48363	31.47
19830-003	8	134	9	07/17/10 11:53:23	11.92	7.96	7.73	48412	31.50
19830-005	8	135	9	07/17/10 11:53:36	11.87	8.10	7.61	48393	31.48
19830-012	8	136	9	07/17/10 11:54:05	11.79	7.69	7.72	48444	31.52
19830-006	8	137	9	07/17/10 11:54:22	11.73	7.69	7.58	48506	31.56
19830-001	8	138	9	07/17/10 11:54:38	11.71	7.61	7.69	48553	31.59
19830-014	8	139	9	07/17/10 11:54:52	11.74	7.86	7.76	48557	31.60
19830-000	8	140	9	07/17/10 11:55:13	11.84	8.12	7.75	48501	31.56
19830-009	8	141	9	07/17/10 11:55:29	11.89	8.37	7.84	48585	31.62

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	8	142	9	07/17/10 11:55:42	11.96	8.30	7.89	48577	31.62
19830-015	8	143	9	07/17/10 11:55:59	12.09	8.22	7.75	48552	31.61
19830-016	8	144	9	07/17/10 11:56:14	12.22	7.94	7.71	48571	31.63
19830-002	1	1	10	07/18/10 10:51:17	13.18	7.71	7.77	47854	31.15
19830-016	1	2	10	07/18/10 10:52:03	13.29	7.23	7.75	47348	30.79
19830-015	1	3	10	07/18/10 10:52:20	13.23	7.25	7.67	47805	31.11
19830-017	1	4	10	07/18/10 10:52:42	13.14	7.20	7.65	47800	31.11
19830-001	1	5	10	07/18/10 10:53:02	12.87	7.20	7.68	47800	31.10
19830-011	1	6	10	07/18/10 10:53:21	12.94	7.14	7.64	47854	31.14
19830-014	1	7	10	07/18/10 10:53:47	13.02	6.86	7.67	47851	31.14
19830-009	1	8	10	07/18/10 10:54:02	12.91	6.73	7.67	47809	31.11
19830-012	1	9	10	07/18/10 10:54:20	12.85	6.86	7.64	47803	31.10
19830-010	1	10	10	07/18/10 10:54:44	12.85	6.93	7.69	47841	31.13
19830-008	1	11	10	07/18/10 10:55:08	12.94	7.26	7.80	47847	31.13
19830-006	1	12	10	07/18/10 10:55:26	12.99	7.15	7.65	47815	31.11
19830-004	1	13	10	07/18/10 10:55:42	12.84	7.07	7.59	47791	31.09
19830-013	1	14	10	07/18/10 10:55:57	12.78	7.31	7.70	47858	31.14
19830-000	1	15	10	07/18/10 10:56:13	12.76	7.41	7.69	47825	31.11
19830-005	1	16	10	07/18/10 10:56:26	12.67	7.72	7.68	47853	31.13
19830-007	1	17	10	07/18/10 10:56:40	12.61	7.85	7.62	47871	31.14
19830-003	1	18	10	07/18/10 10:56:58	12.60	7.87	7.64	47893	31.15
19830-009	2	19	10	07/18/10 10:57:28	13.09	7.45	7.68	47845	31.14
19830-016	2	20	10	07/18/10 10:58:05	13.21	5.56	7.55	47788	31.10
19830-007	2	21	10	07/18/10 10:58:48	13.34	6.21	7.42	47738	31.07
19830-015	2	22	10	07/18/10 11:00:01	13.31	6.96	7.47	47740	31.07
19830-008	2	23	10	07/18/10 11:00:16	13.31	7.29	7.66	47793	31.11
19830-002	2	24	10	07/18/10 11:00:29	13.34	7.56	7.73	47841	31.14
19830-012	2	25	10	07/18/10 11:00:46	13.27	7.45	7.73	47691	31.03
19830-004	2	26	10	07/18/10 11:01:08	13.14	7.46	7.62	47732	31.06
19830-000	2	27	10	07/18/10 11:01:26	13.09	7.61	7.63	47801	31.11
19830-003	2	28	10	07/18/10 11:01:42	13.19	7.81	7.63	47763	31.08
19830-011	2	29	10	07/18/10 11:02:02	13.08	7.63	7.63	47768	31.08
19830-017	2	30	10	07/18/10 11:02:16	13.13	7.51	7.63	47812	31.12
19830-014	2	31	10	07/18/10 11:02:29	13.10	7.49	7.67	47786	31.10
19830-001	2	32	10	07/18/10 11:02:51	12.96	7.10	7.70	47781	31.09
19830-013	2	33	10	07/18/10 11:03:10	12.89	7.25	7.74	47849	31.13
19830-010	2	34	10	07/18/10 11:03:24	12.95	7.56	7.70	47832	31.12
19830-006	2	35	10	07/18/10 11:03:59	13.04	7.45	7.55	47834	31.13
19830-005	2	36	10	07/18/10 11:04:16	13.15	7.21	7.54	47831	31.13
19830-013	3	37	10	07/18/10 11:04:34	13.18	7.00	7.59	47823	31.13
19830-009	3	38	10	07/18/10 11:04:57	13.24	7.12	7.64	47784	31.10
19830-017	3	39	10	07/18/10 11:05:15	13.27	7.15	7.55	47803	31.11
19830-016	3	40	10	07/18/10 11:05:37	13.19	6.98	7.64	47804	31.11
19830-000	3	41	10	07/18/10 11:06:00	13.22	7.81	7.71	47787	31.10
19830-010	3	42	10	07/18/10 11:06:13	13.15	8.08	7.62	47652	31.00
19830-008	3	43	10	07/18/10 11:06:38	12.82	7.79	7.65	47829	31.12
19830-014	3	44	10	07/18/10 11:06:55	13.07	7.56	7.71	47899	31.18
19830-004	3	45	10	07/18/10 11:07:09	13.06	7.49	7.67	47800	31.10
19830-006	3	46	10	07/18/10 11:07:21	13.12	7.41	7.61	47824	31.12
19830-005	3	47	10	07/18/10 11:07:36	13.17	7.27	7.58	47767	31.08
19830-011	3	48	10	07/18/10 11:07:54	12.74	7.49	7.64	47801	31.09
19830-002	3	49	10	07/18/10 11:08:09	13.01	7.20	7.68	47936	31.20
19830-012	3	50	10	07/18/10 11:08:23	13.02	6.90	7.68	47742	31.06

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	3	51	10	07/18/10 11:08:50	12.25	7.57	7.73	47881	31.13
19830-003	3	52	10	07/18/10 11:09:14	12.35	7.96	7.72	47921	31.16
19830-007	3	53	10	07/18/10 11:09:53	12.51	6.69	7.41	47866	31.13
19830-015	3	54	10	07/18/10 11:10:28	12.58	7.57	7.61	47858	31.13
19830-006	4	55	10	07/18/10 11:10:46	12.49	7.79	7.63	47836	31.11
19830-011	4	56	10	07/18/10 11:11:06	12.51	7.76	7.67	47918	31.17
19830-012	4	57	10	07/18/10 11:11:23	12.51	7.81	7.78	47909	31.16
19830-010	4	58	10	07/18/10 11:11:40	12.29	8.08	7.75	47852	31.11
19830-015	4	59	10	07/18/10 11:11:58	11.95	8.03	7.68	47894	31.13
19830-009	4	60	10	07/18/10 11:12:17	11.91	7.93	7.69	47983	31.19
19830-001	4	61	10	07/18/10 11:12:34	11.92	8.02	7.66	48009	31.21
19830-016	4	62	10	07/18/10 11:12:54	12.26	7.66	7.65	47994	31.21
19830-008	4	63	10	07/18/10 11:13:14	12.36	7.70	7.73	47968	31.20
19830-004	4	64	10	07/18/10 11:13:28	12.51	7.80	7.68	47968	31.21
19830-007	4	65	10	07/18/10 11:13:42	12.36	7.68	7.59	47852	31.12
19830-014	4	66	10	07/18/10 11:13:57	12.53	7.51	7.58	47938	31.18
19830-000	4	67	10	07/18/10 11:14:13	12.60	7.26	7.60	47873	31.14
19830-017	4	68	10	07/18/10 11:14:26	12.68	7.44	7.59	47902	31.16
19830-013	4	69	10	07/18/10 11:14:39	12.76	7.31	7.66	47877	31.15
19830-002	4	70	10	07/18/10 11:14:53	12.78	7.55	7.70	47844	31.13
19830-005	4	71	10	07/18/10 11:15:05	12.74	7.59	7.64	47804	31.10
19830-003	4	72	10	07/18/10 11:15:27	12.50	7.72	7.66	47817	31.10
19830-016	5	73	10	07/18/10 11:15:48	12.54	7.70	7.65	47870	31.14
19830-003	5	74	10	07/18/10 11:16:13	12.73	7.23	7.59	47847	31.13
19830-000	5	75	10	07/18/10 11:16:41	12.96	7.51	7.66	47808	31.11
19830-013	5	76	10	07/18/10 11:16:59	13.03	7.58	7.62	47809	31.11
19830-001	5	77	10	07/18/10 11:17:23	13.07	7.56	7.56	47729	31.05
19830-002	5	78	10	07/18/10 11:17:48	13.20	7.20	7.62	47816	31.12
19830-004	5	79	10	07/18/10 11:18:07	13.11	7.09	7.61	47783	31.09
19830-012	5	80	10	07/18/10 11:18:24	12.99	7.45	7.72	47808	31.11
19830-005	5	81	10	07/18/10 11:18:45	12.48	7.86	7.63	47780	31.07
19830-011	5	82	10	07/18/10 11:19:02	12.61	7.47	7.67	47894	31.16
19830-010	5	83	10	07/18/10 11:19:31	12.68	5.60	7.52	47849	31.13
19830-017	5	84	10	07/18/10 11:20:50	12.79	6.63	7.58	47800	31.09
19830-009	5	85	10	07/18/10 11:21:11	12.73	6.86	7.66	47850	31.13
19830-006	5	86	10	07/18/10 11:21:33	12.92	7.28	7.55	47829	31.12
19830-008	5	87	10	07/18/10 11:21:51	12.91	7.47	7.67	47839	31.13
19830-007	5	88	10	07/18/10 11:22:09	12.59	7.85	7.61	47771	31.07
19830-014	5	89	10	07/18/10 11:22:28	12.40	7.97	7.66	47851	31.12
19830-015	5	90	10	07/18/10 11:22:43	12.50	7.83	7.67	47934	31.18
19830-005	6	91	10	07/18/10 11:23:00	12.68	7.83	7.67	47876	31.15
19830-007	6	92	10	07/18/10 11:23:18	12.78	7.78	7.56	47835	31.12
19830-002	6	93	10	07/18/10 11:23:46	12.90	7.49	7.65	47830	31.12
19830-009	6	94	10	07/18/10 11:23:59	12.91	7.46	7.68	47826	31.12
19830-013	6	95	10	07/18/10 11:24:14	12.92	7.45	7.73	47837	31.13
19830-004	6	96	10	07/18/10 11:24:36	12.77	7.63	7.70	47862	31.14
19830-012	6	97	10	07/18/10 11:25:19	12.31	8.04	7.71	47895	31.14
19830-015	6	98	10	07/18/10 11:25:42	12.25	7.91	7.74	47901	31.15
19830-014	6	99	10	07/18/10 11:26:01	12.19	7.76	7.72	47933	31.17
19830-003	6	100	10	07/18/10 11:26:20	12.11	7.84	7.70	47924	31.16
19830-010	6	101	10	07/18/10 11:26:34	12.09	8.04	7.71	47984	31.20
19830-000	6	102	10	07/18/10 11:26:56	12.17	8.21	7.70	47960	31.19
19830-016	6	103	10	07/18/10 11:27:14	12.13	8.14	7.74	47956	31.18
19830-001	6	104	10	07/18/10 11:27:27	11.96	8.02	7.78	47870	31.11

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	6	105	10	07/18/10 11:27:46	11.72	8.19	7.72	47942	31.15
19830-008	6	106	10	07/18/10 11:28:03	11.72	8.24	7.74	47999	31.19
19830-011	6	107	10	07/18/10 11:28:24	11.89	8.05	7.75	48004	31.20
19830-006	6	108	10	07/18/10 11:28:49	12.07	7.90	7.65	48007	31.22
19830-015	7	109	10	07/18/10 11:29:09	12.24	7.94	7.66	48044	31.25
19830-017	7	110	10	07/18/10 11:29:26	12.45	7.91	7.72	48019	31.24
19830-003	7	111	10	07/18/10 11:29:43	12.61	7.94	7.69	47976	31.22
19830-008	7	112	10	07/18/10 11:29:59	12.67	7.93	7.75	47981	31.22
19830-006	7	113	10	07/18/10 11:30:27	13.01	8.03	7.67	47816	31.11
19830-012	7	114	10	07/18/10 11:30:37	13.13	7.94	7.69	47877	31.16
19830-004	7	115	10	07/18/10 11:30:51	13.22	7.94	7.76	47813	31.12
19830-011	7	116	10	07/18/10 11:31:04	13.26	7.97	7.74	47790	31.10
19830-014	7	117	10	07/18/10 11:31:14	13.20	7.76	7.76	47735	31.06
19830-005	7	118	10	07/18/10 11:31:25	13.12	7.84	7.70	47725	31.05
19830-001	7	119	10	07/18/10 11:31:35	12.95	7.88	7.67	47652	30.99
19830-000	7	120	10	07/18/10 11:31:54	12.78	8.08	7.71	47759	31.06
19830-009	7	121	10	07/18/10 11:32:09	12.43	8.33	7.75	47738	31.04
19830-010	7	122	10	07/18/10 11:32:27	12.49	7.99	7.69	47918	31.17
19830-007	7	123	10	07/18/10 11:32:38	12.52	7.87	7.63	47861	31.13
19830-002	7	124	10	07/18/10 11:32:51	12.54	7.77	7.68	47915	31.17
19830-013	7	125	10	07/18/10 11:33:07	12.60	7.76	7.76	47948	31.19
19830-016	7	126	10	07/18/10 11:33:26	12.85	7.81	7.71	47898	31.17
19830-017	8	127	10	07/18/10 11:33:39	12.97	7.63	7.68	47899	31.17
19830-013	8	128	10	07/18/10 11:33:50	13.01	7.60	7.68	47847	31.14
19830-010	8	129	10	07/18/10 11:34:10	12.98	7.84	7.78	47841	31.13
19830-007	8	130	10	07/18/10 11:34:32	13.18	7.98	7.67	47806	31.11
19830-011	8	131	10	07/18/10 11:34:48	13.01	7.80	7.62	47774	31.08
19830-002	8	132	10	07/18/10 11:35:00	13.06	7.32	7.69	47866	31.15
19830-004	8	133	10	07/18/10 11:35:10	13.18	7.08	7.70	47890	31.17
19830-003	8	134	10	07/18/10 11:35:32	13.15	7.68	7.75	47783	31.10
19830-005	8	135	10	07/18/10 11:35:45	13.02	7.87	7.63	47751	31.07
19830-012	8	136	10	07/18/10 11:36:12	12.65	7.57	7.68	47782	31.08
19830-006	8	137	10	07/18/10 11:36:27	12.53	7.58	7.62	47811	31.09
19830-001	8	138	10	07/18/10 11:36:45	12.59	7.58	7.71	47904	31.16
19830-014	8	139	10	07/18/10 11:36:53	12.69	7.77	7.75	47990	31.23
19830-000	8	140	10	07/18/10 11:37:09	12.84	7.93	7.75	47861	31.14
19830-009	8	141	10	07/18/10 11:37:21	12.84	8.13	7.77	47843	31.13
19830-008	8	142	10	07/18/10 11:37:35	12.83	8.14	7.82	47885	31.16
19830-015	8	143	10	07/18/10 11:37:49	12.94	8.17	7.73	47831	31.12
19830-016	8	144	10	07/18/10 11:37:59	13.00	7.95	7.67	47879	31.16
19830-002	1	1	11	07/19/10 09:57:20	13.86	8.07	7.82	47995	31.27
19830-016	1	2	11	07/19/10 09:57:58	13.90	7.84	7.79	47929	31.23
19830-015	1	3	11	07/19/10 09:58:13	13.94	7.80	7.72	47996	31.28
19830-017	1	4	11	07/19/10 09:58:29	13.88	7.70	7.70	47956	31.24
19830-001	1	5	11	07/19/10 09:58:58	13.55	7.57	7.73	47996	31.26
19830-011	1	6	11	07/19/10 09:59:12	13.72	7.52	7.69	48091	31.34
19830-014	1	7	11	07/19/10 09:59:30	13.80	7.52	7.70	48041	31.30
19830-009	1	8	11	07/19/10 09:59:49	13.60	7.27	7.70	47971	31.25
19830-012	1	9	11	07/19/10 10:00:06	13.58	7.10	7.72	48021	31.28
19830-010	1	10	11	07/19/10 10:00:18	13.56	6.95	7.74	47989	31.26
19830-008	1	11	11	07/19/10 10:00:35	13.66	7.48	7.80	48025	31.29
19830-006	1	12	11	07/19/10 10:00:46	13.69	7.59	7.73	48032	31.29
19830-004	1	13	11	07/19/10 10:01:09	13.46	7.62	7.67	47992	31.26

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	1	14	11	07/19/10 10:01:20	13.45	7.70	7.70	48050	31.30
19830-000	1	15	11	07/19/10 10:01:32	13.47	7.75	7.73	48039	31.29
19830-005	1	16	11	07/19/10 10:01:45	13.35	8.01	7.72	47985	31.25
19830-007	1	17	11	07/19/10 10:01:58	13.26	8.09	7.68	48033	31.28
19830-003	1	18	11	07/19/10 10:02:10	13.20	8.11	7.68	48025	31.27
19830-009	2	19	11	07/19/10 10:02:35	13.80	7.81	7.72	48070	31.32
19830-016	2	20	11	07/19/10 10:03:06	13.99	6.93	7.74	47944	31.24
19830-007	2	21	11	07/19/10 10:03:17	14.12	6.81	7.66	48067	31.33
19830-015	2	22	11	07/19/10 10:03:34	14.19	7.18	7.66	47968	31.26
19830-008	2	23	11	07/19/10 10:03:49	14.15	7.54	7.74	47964	31.26
19830-002	2	24	11	07/19/10 10:04:06	14.17	7.66	7.78	47978	31.27
19830-012	2	25	11	07/19/10 10:04:21	14.06	7.53	7.69	47814	31.15
19830-004	2	26	11	07/19/10 10:04:32	13.96	7.61	7.68	47773	31.11
19830-000	2	27	11	07/19/10 10:04:45	13.83	7.69	7.68	47910	31.21
19830-003	2	28	11	07/19/10 10:04:54	13.83	7.90	7.69	47981	31.26
19830-011	2	29	11	07/19/10 10:05:08	13.76	7.93	7.67	47931	31.22
19830-017	2	30	11	07/19/10 10:05:24	13.85	7.72	7.65	47997	31.27
19830-014	2	31	11	07/19/10 10:05:39	13.77	7.56	7.68	47948	31.24
19830-001	2	32	11	07/19/10 10:05:51	13.65	7.38	7.70	47888	31.19
19830-013	2	33	11	07/19/10 10:06:01	13.57	7.34	7.74	47961	31.24
19830-010	2	34	11	07/19/10 10:06:14	13.60	7.63	7.72	48009	31.27
19830-006	2	35	11	07/19/10 10:06:30	13.61	7.77	7.67	48184	31.40
19830-005	2	36	11	07/19/10 10:06:43	13.86	7.66	7.61	48085	31.34
19830-013	3	37	11	07/19/10 10:07:00	13.93	7.45	7.65	48006	31.28
19830-009	3	38	11	07/19/10 10:07:12	14.00	7.34	7.68	48038	31.31
19830-017	3	39	11	07/19/10 10:07:23	14.05	7.53	7.64	48012	31.29
19830-016	3	40	11	07/19/10 10:07:35	13.94	7.38	7.65	47923	31.22
19830-000	3	41	11	07/19/10 10:07:46	14.07	7.45	7.70	48093	31.35
19830-010	3	42	11	07/19/10 10:08:01	14.05	7.94	7.71	47911	31.22
19830-008	3	43	11	07/19/10 10:08:21	13.34	8.04	7.66	47931	31.21
19830-014	3	44	11	07/19/10 10:08:39	13.76	7.72	7.75	48104	31.35
19830-004	3	45	11	07/19/10 10:08:55	13.78	7.62	7.68	47834	31.15
19830-006	3	46	11	07/19/10 10:09:14	13.82	7.47	7.63	47960	31.25
19830-005	3	47	11	07/19/10 10:09:26	13.81	7.33	7.61	47946	31.24
19830-011	3	48	11	07/19/10 10:09:46	13.45	7.57	7.72	47979	31.25
19830-002	3	49	11	07/19/10 10:10:01	13.70	7.49	7.73	48079	31.33
19830-012	3	50	11	07/19/10 10:10:16	13.64	7.25	7.72	47897	31.19
19830-001	3	51	11	07/19/10 10:10:45	12.91	7.73	7.74	48003	31.25
19830-003	3	52	11	07/19/10 10:11:02	13.02	7.87	7.74	48097	31.32
19830-007	3	53	11	07/19/10 10:11:15	13.18	8.02	7.61	48107	31.33
19830-015	3	54	11	07/19/10 10:11:29	13.32	7.75	7.64	48088	31.32
19830-006	4	55	11	07/19/10 10:11:44	13.24	7.92	7.66	47990	31.25
19830-011	4	56	11	07/19/10 10:12:16	13.25	7.85	7.71	48051	31.29
19830-012	4	57	11	07/19/10 10:12:36	13.26	8.04	7.80	48036	31.28
19830-010	4	58	11	07/19/10 10:12:49	13.08	8.28	7.77	47943	31.21
19830-015	4	59	11	07/19/10 10:13:12	12.71	8.12	7.70	48054	31.28
19830-009	4	60	11	07/19/10 10:13:33	12.69	8.08	7.77	48110	31.32
19830-001	4	61	11	07/19/10 10:13:46	12.68	8.22	7.71	48108	31.31
19830-016	4	62	11	07/19/10 10:14:02	13.09	7.84	7.68	48186	31.39
19830-008	4	63	11	07/19/10 10:14:17	13.17	7.76	7.72	48091	31.32
19830-004	4	64	11	07/19/10 10:14:36	13.29	7.78	7.69	48062	31.30
19830-007	4	65	11	07/19/10 10:15:03	13.04	7.68	7.60	48027	31.27
19830-014	4	66	11	07/19/10 10:15:18	13.25	7.57	7.66	48125	31.35
19830-000	4	67	11	07/19/10 10:15:37	13.38	7.55	7.68	48021	31.28

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	4	68	11	07/19/10 10:15:54	13.46	7.69	7.66	48029	31.28
19830-013	4	69	11	07/19/10 10:16:12	13.56	7.59	7.72	48011	31.27
19830-002	4	70	11	07/19/10 10:16:27	13.54	7.72	7.65	47897	31.19
19830-005	4	71	11	07/19/10 10:16:43	13.47	7.69	7.66	47972	31.24
19830-003	4	72	11	07/19/10 10:16:54	13.27	7.76	7.68	47886	31.17
19830-016	5	73	11	07/19/10 10:17:16	13.31	7.79	7.68	48024	31.28
19830-003	5	74	11	07/19/10 10:17:29	13.37	7.65	7.65	48044	31.29
19830-000	5	75	11	07/19/10 10:17:48	13.68	7.62	7.70	48031	31.29
19830-013	5	76	11	07/19/10 10:18:03	13.75	7.81	7.67	47987	31.26
19830-001	5	77	11	07/19/10 10:18:13	13.75	7.71	7.63	47960	31.24
19830-002	5	78	11	07/19/10 10:18:23	13.75	7.78	7.67	48042	31.30
19830-004	5	79	11	07/19/10 10:18:37	13.78	7.54	7.67	47979	31.26
19830-012	5	80	11	07/19/10 10:18:49	13.72	7.54	7.72	47942	31.23
19830-005	5	81	11	07/19/10 10:19:29	13.01	8.06	7.68	48101	31.32
19830-011	5	82	11	07/19/10 10:19:46	13.37	7.63	7.70	47889	31.18
19830-010	5	83	11	07/19/10 10:19:56	13.38	7.66	7.71	47990	31.25
19830-017	5	84	11	07/19/10 10:20:25	13.54	7.29	7.67	47991	31.26
19830-009	5	85	11	07/19/10 10:20:48	13.37	7.36	7.68	48010	31.27
19830-006	5	86	11	07/19/10 10:21:04	13.46	7.54	7.60	48051	31.30
19830-008	5	87	11	07/19/10 10:21:22	13.61	7.71	7.71	48027	31.29
19830-007	5	88	11	07/19/10 10:21:44	13.27	8.02	7.62	47964	31.23
19830-014	5	89	11	07/19/10 10:22:08	13.13	8.13	7.72	48042	31.28
19830-015	5	90	11	07/19/10 10:22:29	13.27	7.93	7.72	48052	31.29
19830-005	6	91	11	07/19/10 10:22:45	13.43	7.91	7.72	48052	31.30
19830-007	6	92	11	07/19/10 10:22:55	13.46	7.95	7.66	48000	31.26
19830-002	6	93	11	07/19/10 10:23:12	13.56	7.85	7.69	48016	31.28
19830-009	6	94	11	07/19/10 10:23:26	13.58	7.71	7.72	48019	31.28
19830-013	6	95	11	07/19/10 10:23:37	13.58	7.61	7.73	48007	31.27
19830-004	6	96	11	07/19/10 10:23:59	13.47	7.76	7.75	47997	31.26
19830-012	6	97	11	07/19/10 10:24:45	12.96	8.14	7.73	48063	31.29
19830-015	6	98	11	07/19/10 10:25:16	12.99	7.93	7.75	48059	31.29
19830-014	6	99	11	07/19/10 10:25:38	12.91	7.81	7.73	48063	31.29
19830-003	6	100	11	07/19/10 10:25:59	12.78	7.91	7.70	48062	31.28
19830-010	6	101	11	07/19/10 10:26:18	12.76	8.20	7.74	48113	31.32
19830-000	6	102	11	07/19/10 10:26:43	12.91	8.32	7.73	48094	31.31
19830-016	6	103	11	07/19/10 10:27:08	12.83	8.17	7.76	48092	31.31
19830-001	6	104	11	07/19/10 10:27:29	12.55	8.21	7.79	48070	31.28
19830-017	6	105	11	07/19/10 10:27:47	12.36	8.38	7.74	48067	31.27
19830-008	6	106	11	07/19/10 10:28:05	12.37	8.43	7.78	48120	31.31
19830-011	6	107	11	07/19/10 10:28:27	12.54	8.16	7.77	48132	31.33
19830-006	6	108	11	07/19/10 10:28:48	12.73	7.97	7.65	48139	31.34
19830-015	7	109	11	07/19/10 10:29:08	12.89	8.04	7.70	48161	31.36
19830-017	7	110	11	07/19/10 10:29:28	13.08	8.04	7.71	48139	31.35
19830-003	7	111	11	07/19/10 10:29:48	13.25	8.07	7.73	48092	31.32
19830-008	7	112	11	07/19/10 10:30:10	13.26	8.24	7.79	48088	31.32
19830-006	7	113	11	07/19/10 10:30:39	13.65	8.20	7.68	47946	31.23
19830-012	7	114	11	07/19/10 10:31:08	13.79	8.16	7.76	48007	31.28
19830-004	7	115	11	07/19/10 10:31:25	13.86	8.11	7.77	47981	31.26
19830-011	7	116	11	07/19/10 10:31:41	13.93	8.06	7.73	47978	31.26
19830-014	7	117	11	07/19/10 10:32:19	13.84	8.12	7.79	47732	31.08
19830-005	7	118	11	07/19/10 10:32:37	13.75	8.11	7.69	47945	31.23
19830-001	7	119	11	07/19/10 10:32:53	13.43	8.05	7.70	47926	31.21
19830-000	7	120	11	07/19/10 10:33:09	13.44	8.15	7.73	47991	31.26
19830-009	7	121	11	07/19/10 10:33:32	13.05	8.25	7.78	48000	31.25

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-010	7	122	11	07/19/10 10:33:48	13.23	7.98	7.72	48087	31.32
19830-007	7	123	11	07/19/10 10:34:02	13.25	7.87	7.67	48012	31.27
19830-002	7	124	11	07/19/10 10:34:16	13.26	7.75	7.72	48055	31.30
19830-013	7	125	11	07/19/10 10:34:35	13.25	7.91	7.77	48089	31.32
19830-016	7	126	11	07/19/10 10:34:47	13.46	8.04	7.74	48137	31.36
19830-017	8	127	11	07/19/10 10:35:05	13.67	7.85	7.72	48035	31.30
19830-013	8	128	11	07/19/10 10:35:21	13.66	7.85	7.72	47991	31.26
19830-010	8	129	11	07/19/10 10:35:59	13.58	8.15	7.81	48009	31.27
19830-007	8	130	11	07/19/10 10:36:20	13.83	8.11	7.68	47772	31.11
19830-011	8	131	11	07/19/10 10:36:44	13.59	7.64	7.67	47984	31.26
19830-002	8	132	11	07/19/10 10:37:06	13.67	7.20	7.75	48000	31.27
19830-004	8	133	11	07/19/10 10:37:24	13.85	7.29	7.74	47998	31.27
19830-003	8	134	11	07/19/10 10:37:52	13.76	7.93	7.75	47897	31.20
19830-005	8	135	11	07/19/10 10:38:11	13.55	7.86	7.59	47961	31.24
19830-012	8	136	11	07/19/10 10:38:33	13.24	7.59	7.73	47978	31.24
19830-006	8	137	11	07/19/10 10:38:59	13.07	7.70	7.60	48032	31.27
19830-001	8	138	11	07/19/10 10:39:28	13.18	7.98	7.72	48029	31.28
19830-014	8	139	11	07/19/10 10:39:53	13.41	7.93	7.79	48034	31.29
19830-000	8	140	11	07/19/10 10:40:12	13.49	8.04	7.79	48019	31.28
19830-009	8	141	11	07/19/10 10:40:29	13.44	8.30	7.72	47878	31.17
19830-008	8	142	11	07/19/10 10:40:41	13.42	8.25	7.79	48015	31.27
19830-015	8	143	11	07/19/10 10:40:59	13.48	8.17	7.71	47992	31.26
19830-016	8	144	11	07/19/10 10:41:22	13.55	7.92	7.66	47966	31.24
19830-002	1	1	12	07/20/10 14:41:56	13.78	8.76	7.82	48074	31.33
19830-016	1	2	12	07/20/10 14:42:37	13.91	8.19	7.81	47631	31.01
19830-015	1	3	12	07/20/10 14:42:46	13.89	8.04	7.78	48055	31.32
19830-017	1	4	12	07/20/10 14:42:59	13.81	8.02	7.73	48012	31.28
19830-001	1	5	12	07/20/10 14:43:14	13.52	8.00	7.79	47984	31.25
19830-011	1	6	12	07/20/10 14:43:26	13.56	7.96	7.77	48162	31.38
19830-014	1	7	12	07/20/10 14:43:35	13.60	7.90	7.77	48174	31.39
19830-009	1	8	12	07/20/10 14:43:52	13.45	7.55	7.75	48014	31.27
19830-012	1	9	12	07/20/10 14:44:05	13.46	7.20	7.76	48080	31.32
19830-010	1	10	12	07/20/10 14:44:19	13.43	7.04	7.76	48085	31.32
19830-008	1	11	12	07/20/10 14:44:31	13.53	7.33	7.85	48106	31.34
19830-006	1	12	12	07/20/10 14:44:42	13.60	7.49	7.80	48059	31.31
19830-004	1	13	12	07/20/10 14:44:57	13.37	7.44	7.73	48006	31.26
19830-013	1	14	12	07/20/10 14:45:10	13.30	7.67	7.77	48091	31.32
19830-000	1	15	12	07/20/10 14:45:23	13.29	7.77	7.76	48080	31.32
19830-005	1	16	12	07/20/10 14:45:35	13.18	8.02	7.77	48014	31.26
19830-007	1	17	12	07/20/10 14:45:48	13.08	8.09	7.73	48076	31.31
19830-003	1	18	12	07/20/10 14:45:59	13.02	8.18	7.70	48104	31.32
19830-009	2	19	12	07/20/10 14:46:30	13.66	7.40	7.79	48072	31.32
19830-016	2	20	12	07/20/10 14:46:46	13.79	7.04	7.76	48089	31.34
19830-007	2	21	12	07/20/10 14:46:58	13.94	6.75	7.66	48047	31.31
19830-015	2	22	12	07/20/10 14:47:10	13.95	6.78	7.65	48011	31.29
19830-008	2	23	12	07/20/10 14:47:32	14.02	7.46	7.82	48020	31.30
19830-002	2	24	12	07/20/10 14:47:41	14.08	7.59	7.81	48106	31.36
19830-012	2	25	12	07/20/10 14:47:51	14.01	7.36	7.76	47912	31.22
19830-004	2	26	12	07/20/10 14:47:59	13.89	7.26	7.74	47820	31.15
19830-000	2	27	12	07/20/10 14:48:10	13.67	7.40	7.73	47951	31.23
19830-003	2	28	12	07/20/10 14:48:24	13.67	7.81	7.72	47990	31.26
19830-011	2	29	12	07/20/10 14:48:36	13.60	7.91	7.71	47983	31.26
19830-017	2	30	12	07/20/10 14:48:47	13.64	7.79	7.70	48123	31.36

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-014	2	31	12	07/20/10 14:48:57	13.63	7.69	7.73	48021	31.28
19830-001	2	32	12	07/20/10 14:49:10	13.49	7.47	7.74	47967	31.24
19830-013	2	33	12	07/20/10 14:49:30	13.37	7.43	7.77	48062	31.30
19830-010	2	34	12	07/20/10 14:49:45	13.41	7.56	7.77	48051	31.30
19830-006	2	35	12	07/20/10 14:49:59	13.32	7.79	7.75	48426	31.57
19830-005	2	36	12	07/20/10 14:50:14	13.73	7.62	7.65	48177	31.40
19830-013	3	37	12	07/20/10 14:50:25	13.77	7.29	7.65	48076	31.33
19830-009	3	38	12	07/20/10 14:50:34	13.80	7.12	7.71	48063	31.32
19830-017	3	39	12	07/20/10 14:50:46	13.88	7.27	7.68	48079	31.33
19830-016	3	40	12	07/20/10 14:51:06	13.72	7.26	7.68	48038	31.30
19830-000	3	41	12	07/20/10 14:51:20	13.90	7.63	7.74	48068	31.33
19830-010	3	42	12	07/20/10 14:51:32	13.83	7.97	7.73	47911	31.21
19830-008	3	43	12	07/20/10 14:51:46	13.35	8.05	7.72	47970	31.24
19830-014	3	44	12	07/20/10 14:51:59	13.56	7.80	7.75	48198	31.41
19830-004	3	45	12	07/20/10 14:52:13	13.58	7.61	7.72	48032	31.29
19830-006	3	46	12	07/20/10 14:52:29	13.64	7.40	7.66	48034	31.29
19830-005	3	47	12	07/20/10 14:52:38	13.64	7.26	7.64	47999	31.27
19830-011	3	48	12	07/20/10 14:52:52	13.26	7.49	7.71	47991	31.25
19830-002	3	49	12	07/20/10 14:53:06	13.48	7.47	7.75	48181	31.40
19830-012	3	50	12	07/20/10 14:53:20	13.45	7.30	7.74	47993	31.26
19830-001	3	51	12	07/20/10 14:53:36	12.87	7.37	7.76	47914	31.18
19830-003	3	52	12	07/20/10 14:53:46	12.79	7.65	7.79	48190	31.38
19830-007	3	53	12	07/20/10 14:53:58	12.94	7.91	7.67	48210	31.40
19830-015	3	54	12	07/20/10 14:54:09	13.05	7.69	7.68	48159	31.36
19830-006	4	55	12	07/20/10 14:54:16	13.01	7.75	7.69	48030	31.27
19830-011	4	56	12	07/20/10 14:54:27	13.01	7.84	7.72	48190	31.39
19830-012	4	57	12	07/20/10 14:54:36	13.04	7.82	7.77	48126	31.34
19830-010	4	58	12	07/20/10 14:54:47	12.90	8.01	7.78	47977	31.23
19830-015	4	59	12	07/20/10 14:54:58	12.58	8.14	7.75	47939	31.19
19830-009	4	60	12	07/20/10 14:55:09	12.44	8.04	7.76	48184	31.36
19830-001	4	61	12	07/20/10 14:55:18	12.44	8.07	7.73	48220	31.38
19830-016	4	62	12	07/20/10 14:55:33	12.85	7.83	7.68	48312	31.47
19830-008	4	63	12	07/20/10 14:55:46	13.02	7.65	7.74	48211	31.40
19830-004	4	64	12	07/20/10 14:55:55	13.08	7.71	7.73	48241	31.42
19830-007	4	65	12	07/20/10 14:56:11	12.84	7.66	7.63	47991	31.23
19830-014	4	66	12	07/20/10 14:56:25	13.01	7.52	7.63	48204	31.40
19830-000	4	67	12	07/20/10 14:56:36	13.10	7.18	7.65	48198	31.39
19830-017	4	68	12	07/20/10 14:56:48	13.21	7.30	7.65	48152	31.37
19830-013	4	69	12	07/20/10 14:57:04	13.36	7.31	7.70	48096	31.33
19830-002	4	70	12	07/20/10 14:57:13	13.35	7.42	7.72	48053	31.30
19830-005	4	71	12	07/20/10 14:57:26	13.30	7.52	7.71	48029	31.28
19830-003	4	72	12	07/20/10 14:57:42	13.02	7.70	7.71	48001	31.25
19830-016	5	73	12	07/20/10 14:57:57	13.01	7.80	7.68	48114	31.33
19830-003	5	74	12	07/20/10 14:58:10	13.16	7.61	7.66	48165	31.37
19830-000	5	75	12	07/20/10 14:58:22	13.43	7.42	7.68	48185	31.40
19830-013	5	76	12	07/20/10 14:58:33	13.56	7.51	7.68	48106	31.34
19830-001	5	77	12	07/20/10 14:58:46	13.61	7.50	7.64	48078	31.32
19830-002	5	78	12	07/20/10 14:58:58	13.69	7.61	7.66	48112	31.35
19830-004	5	79	12	07/20/10 14:59:08	13.68	7.37	7.65	48004	31.27
19830-012	5	80	12	07/20/10 14:59:25	13.52	7.46	7.76	48005	31.27
19830-005	5	81	12	07/20/10 14:59:44	12.90	7.90	7.74	47998	31.24
19830-011	5	82	12	07/20/10 14:59:56	13.01	7.60	7.73	48234	31.42
19830-010	5	83	12	07/20/10 15:00:04	13.06	7.53	7.75	48130	31.34
19830-017	5	84	12	07/20/10 15:00:15	13.21	7.57	7.71	48165	31.37

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	5	85	12	07/20/10 15:00:28	13.24	7.27	7.65	48052	31.29
19830-006	5	86	12	07/20/10 15:00:42	13.27	7.35	7.60	48122	31.35
19830-008	5	87	12	07/20/10 15:00:55	13.37	7.41	7.67	48118	31.35
19830-007	5	88	12	07/20/10 15:01:07	13.11	7.73	7.68	47911	31.19
19830-014	5	89	12	07/20/10 15:01:22	12.86	7.99	7.70	48078	31.30
19830-015	5	90	12	07/20/10 15:01:30	12.92	7.91	7.70	48253	31.43
19830-005	6	91	12	07/20/10 15:01:39	13.08	7.84	7.72	48298	31.47
19830-007	6	92	12	07/20/10 15:01:51	13.25	7.81	7.69	48102	31.33
19830-002	6	93	12	07/20/10 15:02:03	13.35	7.75	7.69	48124	31.35
19830-009	6	94	12	07/20/10 15:02:14	13.39	7.62	7.73	48072	31.31
19830-013	6	95	12	07/20/10 15:02:24	13.40	7.43	7.75	48090	31.33
19830-004	6	96	12	07/20/10 15:02:36	13.29	7.58	7.75	48024	31.27
19830-012	6	97	12	07/20/10 15:03:12	12.73	8.03	7.75	47977	31.22
19830-015	6	98	12	07/20/10 15:03:19	12.72	7.98	7.74	48133	31.33
19830-014	6	99	12	07/20/10 15:03:28	12.68	7.93	7.73	48105	31.31
19830-003	6	100	12	07/20/10 15:03:38	12.57	7.88	7.71	48088	31.29
19830-010	6	101	12	07/20/10 15:03:46	12.53	7.92	7.73	48205	31.38
19830-000	6	102	12	07/20/10 15:03:58	12.61	8.10	7.75	48235	31.40
19830-016	6	103	12	07/20/10 15:04:09	12.60	8.21	7.75	48165	31.35
19830-001	6	104	12	07/20/10 15:04:21	12.39	8.17	7.77	48028	31.24
19830-017	6	105	12	07/20/10 15:04:33	12.13	8.27	7.75	48115	31.30
19830-008	6	106	12	07/20/10 15:04:41	12.09	8.27	7.78	48209	31.36
19830-011	6	107	12	07/20/10 15:04:51	12.18	8.29	7.80	48395	31.50
19830-006	6	108	12	07/20/10 15:05:00	12.36	8.11	7.76	48406	31.52
19830-015	7	109	12	07/20/10 15:05:07	12.51	8.00	7.72	48472	31.57
19830-017	7	110	12	07/20/10 15:05:16	12.71	7.95	7.72	48433	31.55
19830-003	7	111	12	07/20/10 15:05:29	13.00	7.95	7.74	48277	31.45
19830-008	7	112	12	07/20/10 15:05:41	13.08	7.97	7.77	48204	31.40
19830-006	7	113	12	07/20/10 15:05:59	13.41	8.10	7.74	48169	31.38
19830-012	7	114	12	07/20/10 15:06:11	13.66	8.00	7.72	48152	31.38
19830-004	7	115	12	07/20/10 15:06:20	13.77	7.92	7.74	48053	31.31
19830-011	7	116	12	07/20/10 15:06:36	13.89	7.79	7.72	48021	31.29
19830-014	7	117	12	07/20/10 15:06:53	13.79	7.62	7.78	48004	31.28
19830-005	7	118	12	07/20/10 15:07:03	13.71	7.80	7.75	47919	31.21
19830-001	7	119	12	07/20/10 15:07:13	13.47	7.89	7.72	47884	31.18
19830-000	7	120	12	07/20/10 15:07:33	13.30	8.06	7.74	47995	31.25
19830-009	7	121	12	07/20/10 15:07:45	12.96	8.26	7.79	47928	31.19
19830-010	7	122	12	07/20/10 15:07:54	12.96	8.11	7.79	48229	31.41
19830-007	7	123	12	07/20/10 15:08:06	13.03	7.92	7.69	48098	31.32
19830-002	7	124	12	07/20/10 15:08:18	13.06	7.67	7.72	48165	31.37
19830-013	7	125	12	07/20/10 15:08:29	13.08	7.59	7.75	48217	31.41
19830-016	7	126	12	07/20/10 15:08:42	13.31	7.73	7.72	48220	31.42
19830-017	8	127	12	07/20/10 15:08:58	13.53	7.69	7.73	48132	31.36
19830-013	8	128	12	07/20/10 15:09:08	13.54	7.66	7.72	48048	31.30
19830-010	8	129	12	07/20/10 15:09:28	13.46	7.89	7.82	48083	31.32
19830-007	8	130	12	07/20/10 15:09:40	13.64	7.96	7.74	48128	31.36
19830-011	8	131	12	07/20/10 15:10:00	13.47	7.55	7.67	48040	31.29
19830-002	8	132	12	07/20/10 15:10:11	13.50	7.14	7.72	48155	31.38
19830-004	8	133	12	07/20/10 15:10:20	13.65	6.98	7.76	48190	31.41
19830-003	8	134	12	07/20/10 15:10:31	13.67	7.28	7.77	48023	31.29
19830-005	8	135	12	07/20/10 15:10:42	13.50	7.64	7.70	47871	31.17
19830-012	8	136	12	07/20/10 15:10:57	13.08	7.55	7.72	47950	31.21
19830-006	8	137	12	07/20/10 15:11:09	12.89	7.44	7.70	48023	31.26
19830-001	8	138	12	07/20/10 15:11:22	12.96	7.53	7.70	48163	31.36

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-014	8	139	12	07/20/10 15:11:36	13.14	7.70	7.77	48198	31.40
19830-000	8	140	12	07/20/10 15:11:48	13.26	7.69	7.78	48156	31.37
19830-009	8	141	12	07/20/10 15:11:58	13.29	7.92	7.78	48084	31.32
19830-008	8	142	12	07/20/10 15:12:06	13.27	8.02	7.81	48098	31.33
19830-015	8	143	12	07/20/10 15:12:16	13.27	8.07	7.81	48212	31.41
19830-016	8	144	12	07/20/10 15:12:24	13.35	8.01	7.75	48188	31.40
19830-002	1	1	13	07/21/10 12:15:00	12.45	8.51	7.75	46782	30.35
19830-016	1	2	13	07/21/10 12:15:49	12.41	8.10	7.70	43172	27.76
19830-015	1	3	13	07/21/10 12:16:10	12.27	7.93	7.60	46719	30.29
19830-017	1	4	13	07/21/10 12:16:40	12.27	7.73	7.51	46755	30.32
19830-001	1	5	13	07/21/10 12:17:09	12.30	7.53	7.72	46788	30.35
19830-011	1	6	13	07/21/10 12:17:20	12.29	7.54	7.70	46754	30.32
19830-014	1	7	13	07/21/10 12:18:02	12.25	6.89	7.53	46786	30.34
19830-009	1	8	13	07/21/10 12:18:32	12.16	6.90	7.60	46863	30.39
19830-012	1	9	13	07/21/10 12:19:20	12.22	5.50	7.73	46835	30.38
19830-010	1	10	13	07/21/10 12:20:10	12.07	8.23	7.77	46814	30.35
19830-008	1	11	13	07/21/10 12:20:27	12.01	8.31	7.87	46764	30.32
19830-006	1	12	13	07/21/10 12:21:03	12.01	7.42	7.55	46761	30.31
19830-004	1	13	13	07/21/10 12:21:33	12.03	7.67	7.60	46820	30.36
19830-013	1	14	13	07/21/10 12:21:49	12.01	7.87	7.67	46810	30.35
19830-000	1	15	13	07/21/10 12:22:22	11.97	8.37	7.69	46774	30.32
19830-005	1	16	13	07/21/10 12:22:37	11.93	8.50	7.71	46889	30.40
19830-007	1	17	13	07/21/10 12:22:55	11.92	8.26	7.61	46899	30.41
19830-003	1	18	13	07/21/10 12:23:21	12.04	8.32	7.60	46908	30.42
19830-009	2	19	13	07/21/10 12:24:06	12.22	7.23	7.67	46748	30.31
19830-016	2	20	13	07/21/10 12:24:43	12.24	6.32	7.66	46749	30.31
19830-007	2	21	13	07/21/10 12:25:09	12.28	6.47	7.39	46502	30.14
19830-015	2	22	13	07/21/10 12:25:48	12.24	7.77	7.61	46723	30.30
19830-008	2	23	13	07/21/10 12:26:06	12.26	8.01	7.81	46671	30.26
19830-002	2	24	13	07/21/10 12:26:18	12.25	8.11	7.81	46733	30.30
19830-012	2	25	13	07/21/10 12:26:36	12.19	7.75	7.70	46088	29.84
19830-004	2	26	13	07/21/10 12:26:48	12.18	7.67	7.62	46644	30.24
19830-000	2	27	13	07/21/10 12:27:23	12.03	8.36	7.67	46605	30.20
19830-003	2	28	13	07/21/10 12:27:37	12.00	8.46	7.65	46174	29.89
19830-011	2	29	13	07/21/10 12:27:55	11.99	8.22	7.65	46743	30.30
19830-017	2	30	13	07/21/10 12:28:11	11.99	7.97	7.58	46675	30.25
19830-014	2	31	13	07/21/10 12:28:27	11.95	7.85	7.65	46790	30.33
19830-001	2	32	13	07/21/10 12:28:45	11.90	7.45	7.63	46739	30.29
19830-013	2	33	13	07/21/10 12:29:03	11.90	7.41	7.67	46861	30.38
19830-010	2	34	13	07/21/10 12:29:22	11.96	7.76	7.72	46790	30.33
19830-006	2	35	13	07/21/10 12:29:49	12.24	7.84	7.58	46783	30.34
19830-005	2	36	13	07/21/10 12:30:10	12.22	7.52	7.51	46771	30.33
19830-013	3	37	13	07/21/10 12:30:31	12.20	7.17	7.52	46852	30.39
19830-009	3	38	13	07/21/10 12:31:09	12.30	7.84	7.70	46768	30.33
19830-017	3	39	13	07/21/10 12:31:54	12.34	6.54	7.33	46635	30.24
19830-016	3	40	13	07/21/10 12:32:40	12.21	7.86	7.60	46810	30.36
19830-000	3	41	13	07/21/10 12:33:06	12.20	8.34	7.71	46686	30.27
19830-010	3	42	13	07/21/10 12:33:30	12.19	8.29	7.63	46697	30.28
19830-008	3	43	13	07/21/10 12:33:51	12.12	8.08	7.69	46747	30.31
19830-014	3	44	13	07/21/10 12:34:05	12.10	8.01	7.68	46713	30.28
19830-004	3	45	13	07/21/10 12:34:18	12.00	7.84	7.63	46503	30.13
19830-006	3	46	13	07/21/10 12:34:31	12.04	7.71	7.54	46725	30.29
19830-005	3	47	13	07/21/10 12:35:04	12.05	7.73	7.65	46705	30.28

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	3	48	13	07/21/10 12:35:23	11.77	7.98	7.71	46981	30.46
19830-002	3	49	13	07/21/10 12:35:40	11.90	7.95	7.70	46757	30.31
19830-012	3	50	13	07/21/10 12:36:25	12.04	6.59	7.60	46719	30.29
19830-001	3	51	13	07/21/10 12:37:05	11.82	7.82	7.78	46810	30.34
19830-003	3	52	13	07/21/10 12:37:25	11.83	8.21	7.78	46766	30.31
19830-007	3	53	13	07/21/10 12:38:10	11.87	7.30	7.43	46706	30.27
19830-015	3	54	13	07/21/10 12:38:49	11.89	8.16	7.72	46702	30.27
19830-006	4	55	13	07/21/10 12:39:15	11.82	8.09	7.63	46707	30.27
19830-011	4	56	13	07/21/10 12:39:39	11.78	8.02	7.76	46796	30.33
19830-012	4	57	13	07/21/10 12:40:00	11.73	8.31	7.87	46801	30.33
19830-010	4	58	13	07/21/10 12:40:23	11.64	8.50	7.82	46807	30.33
19830-015	4	59	13	07/21/10 12:40:45	11.49	8.36	7.72	46820	30.33
19830-009	4	60	13	07/21/10 12:41:07	11.45	8.29	7.83	46866	30.36
19830-001	4	61	13	07/21/10 12:41:29	11.51	8.25	7.66	46927	30.41
19830-016	4	62	13	07/21/10 12:41:53	11.73	7.84	7.58	46720	30.27
19830-008	4	63	13	07/21/10 12:42:18	11.90	8.06	7.84	46805	30.34
19830-004	4	64	13	07/21/10 12:42:42	12.05	8.09	7.71	46791	30.34
19830-007	4	65	13	07/21/10 12:43:03	11.84	8.03	7.56	46690	30.26
19830-014	4	66	13	07/21/10 12:43:27	11.81	7.52	7.59	46742	30.29
19830-000	4	67	13	07/21/10 12:43:50	11.79	7.67	7.62	46708	30.27
19830-017	4	68	13	07/21/10 12:44:15	11.79	7.63	7.49	46733	30.28
19830-013	4	69	13	07/21/10 12:44:39	11.82	7.73	7.61	46712	30.27
19830-002	4	70	13	07/21/10 12:45:01	11.82	7.95	7.68	46733	30.29
19830-005	4	71	13	07/21/10 12:45:20	11.83	7.89	7.64	46689	30.25
19830-003	4	72	13	07/21/10 12:45:33	11.82	7.90	7.65	46675	30.24
19830-016	5	73	13	07/21/10 12:45:48	11.79	8.04	7.64	46697	30.26
19830-003	5	74	13	07/21/10 12:46:27	11.83	7.03	7.50	46712	30.27
19830-000	5	75	13	07/21/10 12:47:07	11.92	8.13	7.69	46624	30.21
19830-013	5	76	13	07/21/10 12:47:29	11.97	7.99	7.60	46664	30.24
19830-001	5	77	13	07/21/10 12:47:50	12.03	7.88	7.57	46427	30.07
19830-002	5	78	13	07/21/10 12:48:10	12.13	7.85	7.66	46681	30.26
19830-004	5	79	13	07/21/10 12:48:29	12.18	7.64	7.64	46670	30.26
19830-012	5	80	13	07/21/10 12:48:52	12.21	7.97	7.77	46676	30.26
19830-005	5	81	13	07/21/10 12:49:08	11.93	8.29	7.73	46601	30.20
19830-011	5	82	13	07/21/10 12:49:26	11.82	7.95	7.69	46696	30.26
19830-010	5	83	13	07/21/10 12:49:38	11.79	7.98	7.74	46755	30.30
19830-017	5	84	13	07/21/10 12:50:09	11.85	7.38	7.56	46612	30.20
19830-009	5	85	13	07/21/10 12:50:31	11.81	7.43	7.68	46761	30.31
19830-006	5	86	13	07/21/10 12:50:58	11.82	7.72	7.51	46794	30.33
19830-008	5	87	13	07/21/10 12:51:11	11.86	7.73	7.61	46734	30.29
19830-007	5	88	13	07/21/10 12:51:30	11.85	8.14	7.62	46705	30.27
19830-014	5	89	13	07/21/10 12:51:47	11.79	8.24	7.66	46716	30.27
19830-015	5	90	13	07/21/10 12:52:03	11.79	8.16	7.70	46733	30.28
19830-005	6	91	13	07/21/10 12:52:18	11.83	8.11	7.73	46709	30.27
19830-007	6	92	13	07/21/10 12:52:32	11.87	8.12	7.66	46726	30.28
19830-002	6	93	13	07/21/10 12:52:46	11.95	8.12	7.65	46753	30.31
19830-009	6	94	13	07/21/10 12:53:01	12.02	7.92	7.72	46712	30.28
19830-013	6	95	13	07/21/10 12:53:14	12.04	7.74	7.75	46748	30.31
19830-004	6	96	13	07/21/10 12:53:29	12.08	7.93	7.73	46777	30.33
19830-012	6	97	13	07/21/10 12:53:55	11.78	8.40	7.74	46906	30.41
19830-015	6	98	13	07/21/10 12:54:07	11.67	8.41	7.74	46850	30.36
19830-014	6	99	13	07/21/10 12:54:23	11.60	8.18	7.75	46966	30.44
19830-003	6	100	13	07/21/10 12:54:34	11.57	8.12	7.75	47071	30.52
19830-010	6	101	13	07/21/10 12:54:45	11.58	8.23	7.76	47030	30.49

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-000	6	102	13	07/21/10 12:55:00	11.56	8.48	7.77	46959	30.44
19830-016	6	103	13	07/21/10 12:55:11	11.55	8.60	7.74	47017	30.48
19830-001	6	104	13	07/21/10 12:55:27	11.55	8.39	7.77	47028	30.49
19830-017	6	105	13	07/21/10 12:55:41	11.49	8.46	7.77	46925	30.41
19830-008	6	106	13	07/21/10 12:55:53	11.48	8.57	7.83	46948	30.42
19830-011	6	107	13	07/21/10 12:56:08	11.55	8.55	7.81	46983	30.45
19830-006	6	108	13	07/21/10 12:56:24	11.71	8.23	7.72	46999	30.47
19830-015	7	109	13	07/21/10 12:56:38	11.85	8.23	7.70	47065	30.53
19830-017	7	110	13	07/21/10 12:56:50	12.00	8.16	7.72	47089	30.55
19830-003	7	111	13	07/21/10 12:57:02	12.11	8.18	7.73	47071	30.54
19830-008	7	112	13	07/21/10 12:57:14	12.23	8.21	7.79	47067	30.54
19830-006	7	113	13	07/21/10 12:57:31	12.08	8.48	7.76	46667	30.25
19830-012	7	114	13	07/21/10 12:57:42	12.03	8.47	7.75	46682	30.26
19830-004	7	115	13	07/21/10 12:57:55	11.95	8.45	7.76	46725	30.29
19830-011	7	116	13	07/21/10 12:58:10	11.90	8.39	7.71	46685	30.25
19830-014	7	117	13	07/21/10 12:58:25	11.84	8.43	7.75	41051	26.24
19830-005	7	118	13	07/21/10 12:58:40	11.82	8.37	7.67	46675	30.24
19830-001	7	119	13	07/21/10 12:58:57	11.78	8.27	7.68	46735	30.29
19830-000	7	120	13	07/21/10 12:59:15	11.78	8.43	7.75	46672	30.24
19830-009	7	121	13	07/21/10 12:59:33	11.59	8.59	7.82	46821	30.34
19830-010	7	122	13	07/21/10 12:59:51	11.56	8.34	7.76	46855	30.36
19830-007	7	123	13	07/21/10 13:00:09	11.61	8.18	7.59	46831	30.35
19830-002	7	124	13	07/21/10 13:00:28	11.70	7.85	7.72	46894	30.40
19830-013	7	125	13	07/21/10 13:00:46	11.76	7.96	7.76	46947	30.44
19830-016	7	126	13	07/21/10 13:01:05	11.94	8.14	7.68	46865	30.39
19830-017	8	127	13	07/21/10 13:01:23	12.07	8.07	7.67	46828	30.36
19830-013	8	128	13	07/21/10 13:01:39	12.22	8.03	7.64	46864	30.40
19830-010	8	129	13	07/21/10 13:02:00	12.09	8.30	7.81	45893	29.69
19830-007	8	130	13	07/21/10 13:02:19	12.05	8.39	7.70	46658	30.24
19830-011	8	131	13	07/21/10 13:02:39	11.93	7.96	7.62	46778	30.32
19830-002	8	132	13	07/21/10 13:02:59	11.93	7.37	7.71	46401	30.05
19830-004	8	133	13	07/21/10 13:03:20	11.96	7.61	7.69	46720	30.28
19830-003	8	134	13	07/21/10 13:03:41	11.89	8.15	7.80	46755	30.30
19830-005	8	135	13	07/21/10 13:04:02	11.82	8.01	7.55	46744	30.29
19830-012	8	136	13	07/21/10 13:04:23	11.74	7.69	7.67	46810	30.34
19830-006	8	137	13	07/21/10 13:04:44	11.73	7.76	7.58	46845	30.36
19830-001	8	138	13	07/21/10 13:05:03	11.71	7.89	7.67	46931	30.42
19830-014	8	139	13	07/21/10 13:05:21	11.76	8.11	7.77	46880	30.39
19830-000	8	140	13	07/21/10 13:05:40	11.83	8.25	7.77	46840	30.36
19830-009	8	141	13	07/21/10 13:05:58	11.89	8.50	7.82	46915	30.42
19830-008	8	142	13	07/21/10 13:06:17	11.97	8.42	7.89	46863	30.39
19830-015	8	143	13	07/21/10 13:06:36	12.07	8.32	7.78	46877	30.40
19830-016	8	144	13	07/21/10 13:06:55	12.25	8.08	7.60	46861	30.40
19830-002	1	1	14	07/22/10 09:38:21	12.49	8.29	7.64	47694	31.01
19830-016	1	2	14	07/22/10 09:39:08	12.33	8.44	7.60	44452	28.67
19830-015	1	3	14	07/22/10 09:39:24	12.28	8.23	7.54	47648	30.97
19830-017	1	4	14	07/22/10 09:39:35	12.29	8.19	7.48	47674	30.98
19830-001	1	5	14	07/22/10 09:39:58	12.31	7.91	7.64	47724	31.02
19830-011	1	6	14	07/22/10 09:40:18	12.29	8.00	7.59	47620	30.94
19830-014	1	7	14	07/22/10 09:40:49	12.25	7.62	7.50	47686	30.99
19830-009	1	8	14	07/22/10 09:41:06	12.18	7.25	7.54	47733	31.02
19830-012	1	9	14	07/22/10 09:41:25	12.21	7.01	7.64	47761	31.04
19830-010	1	10	14	07/22/10 09:41:58	12.09	7.69	7.63	47739	31.02

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	1	11	14	07/22/10 09:42:12	12.03	8.02	7.73	47691	30.98
19830-006	1	12	14	07/22/10 09:42:51	12.02	6.56	7.23	47630	30.94
19830-004	1	13	14	07/22/10 09:43:15	12.03	7.21	7.46	47738	31.02
19830-013	1	14	14	07/22/10 09:43:31	12.02	7.89	7.55	47730	31.01
19830-000	1	15	14	07/22/10 09:43:42	11.98	8.06	7.58	47685	30.98
19830-005	1	16	14	07/22/10 09:43:57	11.94	8.12	7.61	47751	31.02
19830-007	1	17	14	07/22/10 09:44:12	11.93	8.39	7.55	47768	31.04
19830-003	1	18	14	07/22/10 09:44:38	12.03	8.49	7.54	47800	31.06
19830-009	2	19	14	07/22/10 09:45:02	12.27	6.65	7.42	47724	31.02
19830-016	2	20	14	07/22/10 09:46:55	12.36	6.60	7.60	47594	30.93
19830-007	2	21	14	07/22/10 09:47:14	12.36	7.04	7.41	47339	30.74
19830-015	2	22	14	07/22/10 09:47:33	12.31	7.51	7.50	47598	30.93
19830-008	2	23	14	07/22/10 09:47:49	12.27	8.04	7.68	47630	30.95
19830-002	2	24	14	07/22/10 09:48:03	12.24	8.19	7.70	47678	30.98
19830-012	2	25	14	07/22/10 09:48:15	12.18	7.94	7.65	47574	30.91
19830-004	2	26	14	07/22/10 09:48:29	12.20	7.91	7.54	47670	30.98
19830-000	2	27	14	07/22/10 09:48:47	12.06	8.15	7.56	47587	30.91
19830-003	2	28	14	07/22/10 09:49:00	12.01	8.52	7.57	47311	30.71
19830-011	2	29	14	07/22/10 09:49:14	11.99	8.52	7.57	47696	30.99
19830-017	2	30	14	07/22/10 09:49:26	12.01	8.31	7.53	47643	30.95
19830-014	2	31	14	07/22/10 09:49:39	11.96	8.21	7.49	47713	31.00
19830-001	2	32	14	07/22/10 09:49:54	11.90	7.87	7.56	47735	31.01
19830-013	2	33	14	07/22/10 09:50:05	11.90	7.69	7.56	47781	31.04
19830-010	2	34	14	07/22/10 09:50:21	11.97	7.89	7.62	47690	30.98
19830-006	2	35	14	07/22/10 09:50:40	12.24	8.02	7.54	47812	31.08
19830-005	2	36	14	07/22/10 09:51:00	12.32	7.66	7.42	47670	30.98
19830-013	3	37	14	07/22/10 09:51:15	12.28	7.30	7.38	47727	31.02
19830-009	3	38	14	07/22/10 09:51:32	12.36	7.17	7.54	47676	30.99
19830-017	3	39	14	07/22/10 09:51:46	12.35	7.66	7.42	47601	30.93
19830-016	3	40	14	07/22/10 09:51:59	12.25	7.37	7.39	47714	31.01
19830-000	3	41	14	07/22/10 09:52:07	12.24	7.58	7.47	47654	30.97
19830-010	3	42	14	07/22/10 09:52:24	12.28	8.22	7.53	47619	30.94
19830-008	3	43	14	07/22/10 09:52:40	12.17	8.35	7.58	47695	30.99
19830-014	3	44	14	07/22/10 09:52:52	12.12	8.32	7.61	47642	30.95
19830-004	3	45	14	07/22/10 09:53:08	12.02	8.19	7.55	47605	30.92
19830-006	3	46	14	07/22/10 09:53:25	12.07	7.98	7.45	47644	30.95
19830-005	3	47	14	07/22/10 09:53:36	12.07	7.61	7.48	47603	30.92
19830-011	3	48	14	07/22/10 09:53:49	11.86	7.87	7.58	47755	31.02
19830-002	3	49	14	07/22/10 09:54:01	11.88	8.08	7.59	47699	30.98
19830-012	3	50	14	07/22/10 09:54:13	11.98	7.99	7.52	47685	30.98
19830-001	3	51	14	07/22/10 09:54:40	11.85	7.55	7.53	47763	31.03
19830-003	3	52	14	07/22/10 09:55:00	11.78	8.35	7.66	47781	31.04
19830-007	3	53	14	07/22/10 09:55:13	11.80	8.64	7.54	47728	31.00
19830-015	3	54	14	07/22/10 09:55:27	11.78	8.22	7.55	47730	31.00
19830-006	4	55	14	07/22/10 09:55:40	11.75	8.39	7.57	47693	30.97
19830-011	4	56	14	07/22/10 09:55:54	11.68	8.49	7.60	47805	31.05
19830-012	4	57	14	07/22/10 09:56:08	11.61	8.59	7.73	47813	31.05
19830-010	4	58	14	07/22/10 09:56:21	11.57	8.79	7.75	47812	31.05
19830-015	4	59	14	07/22/10 09:56:35	11.48	8.81	7.64	47785	31.03
19830-009	4	60	14	07/22/10 09:56:48	11.40	8.63	7.68	47883	31.09
19830-001	4	61	14	07/22/10 09:57:00	11.45	8.70	7.63	47981	31.17
19830-016	4	62	14	07/22/10 09:57:11	11.61	8.43	7.53	47877	31.10
19830-008	4	63	14	07/22/10 09:57:23	11.77	8.21	7.64	47932	31.15
19830-004	4	64	14	07/22/10 09:57:37	11.94	8.45	7.69	47883	31.12

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	4	65	14	07/22/10 09:57:57	11.79	8.35	7.48	47705	30.98
19830-014	4	66	14	07/22/10 09:58:13	11.74	8.03	7.45	47725	31.00
19830-000	4	67	14	07/22/10 09:58:22	11.72	7.84	7.47	47684	30.97
19830-017	4	68	14	07/22/10 09:58:33	11.70	7.93	7.43	47721	30.99
19830-013	4	69	14	07/22/10 09:58:44	11.69	7.88	7.45	47722	30.99
19830-002	4	70	14	07/22/10 09:58:53	11.69	7.99	7.53	47743	31.01
19830-005	4	71	14	07/22/10 09:59:06	11.69	8.18	7.57	47719	30.99
19830-003	4	72	14	07/22/10 09:59:15	11.71	8.19	7.58	47746	31.01
19830-016	5	73	14	07/22/10 09:59:26	11.71	8.30	7.55	47716	30.99
19830-003	5	74	14	07/22/10 09:59:39	11.69	8.23	7.48	47758	31.02
19830-000	5	75	14	07/22/10 09:59:49	11.72	8.04	7.50	47714	30.99
19830-013	5	76	14	07/22/10 10:00:01	11.80	8.16	7.50	47696	30.98
19830-001	5	77	14	07/22/10 10:00:13	11.84	8.21	7.49	47742	31.01
19830-002	5	78	14	07/22/10 10:00:28	11.96	8.25	7.52	47722	31.00
19830-004	5	79	14	07/22/10 10:00:42	12.03	7.97	7.51	47726	31.01
19830-012	5	80	14	07/22/10 10:00:55	12.11	7.97	7.60	47735	31.02
19830-005	5	81	14	07/22/10 10:01:10	11.87	8.37	7.61	47638	30.94
19830-011	5	82	14	07/22/10 10:01:21	11.76	8.20	7.58	47668	30.96
19830-010	5	83	14	07/22/10 10:01:34	11.68	8.16	7.64	47782	31.03
19830-017	5	84	14	07/22/10 10:01:44	11.67	8.28	7.59	47703	30.98
19830-009	5	85	14	07/22/10 10:01:53	11.69	8.04	7.53	47791	31.04
19830-006	5	86	14	07/22/10 10:02:05	11.73	7.84	7.49	47765	31.02
19830-008	5	87	14	07/22/10 10:02:17	11.75	7.94	7.55	47713	30.99
19830-007	5	88	14	07/22/10 10:02:28	11.76	8.20	7.56	47717	30.99
19830-014	5	89	14	07/22/10 10:02:42	11.73	8.43	7.55	47753	31.02
19830-015	5	90	14	07/22/10 10:02:52	11.73	8.41	7.57	47747	31.01
19830-005	6	91	14	07/22/10 10:03:00	11.74	8.37	7.59	47722	30.99
19830-007	6	92	14	07/22/10 10:03:10	11.77	8.38	7.57	47724	31.00
19830-002	6	93	14	07/22/10 10:03:26	11.85	8.32	7.52	47760	31.03
19830-009	6	94	14	07/22/10 10:03:50	11.92	7.98	7.62	47723	31.00
19830-013	6	95	14	07/22/10 10:04:00	11.91	7.92	7.64	47840	31.09
19830-004	6	96	14	07/22/10 10:04:09	11.98	8.04	7.63	47858	31.10
19830-012	6	97	14	07/22/10 10:04:27	11.85	8.37	7.63	47764	31.03
19830-015	6	98	14	07/22/10 10:04:40	11.73	8.55	7.65	47716	30.99
19830-014	6	99	14	07/22/10 10:04:51	11.67	8.45	7.63	47811	31.06
19830-003	6	100	14	07/22/10 10:05:04	11.64	8.40	7.62	47917	31.13
19830-010	6	101	14	07/22/10 10:05:14	11.65	8.50	7.65	47905	31.12
19830-000	6	102	14	07/22/10 10:05:25	11.64	8.67	7.68	47811	31.05
19830-016	6	103	14	07/22/10 10:05:34	11.62	8.81	7.65	47887	31.11
19830-001	6	104	14	07/22/10 10:05:42	11.62	8.76	7.65	47904	31.12
19830-017	6	105	14	07/22/10 10:05:52	11.57	8.69	7.66	47801	31.04
19830-008	6	106	14	07/22/10 10:06:00	11.56	8.73	7.71	47829	31.06
19830-011	6	107	14	07/22/10 10:06:10	11.59	8.82	7.72	47939	31.14
19830-006	6	108	14	07/22/10 10:06:18	11.68	8.73	7.66	48062	31.24
19830-015	7	109	14	07/22/10 10:06:28	11.87	8.58	7.64	48045	31.23
19830-017	7	110	14	07/22/10 10:06:37	12.02	8.50	7.64	48024	31.23
19830-003	7	111	14	07/22/10 10:06:46	12.15	8.49	7.64	47952	31.18
19830-008	7	112	14	07/22/10 10:06:59	12.28	8.54	7.69	47939	31.17
19830-006	7	113	14	07/22/10 10:07:12	12.14	8.76	7.69	47551	30.89
19830-012	7	114	14	07/22/10 10:07:22	12.05	8.77	7.65	47593	30.91
19830-004	7	115	14	07/22/10 10:07:34	11.97	8.75	7.66	47609	30.92
19830-011	7	116	14	07/22/10 10:07:42	11.94	8.74	7.65	47573	30.90
19830-014	7	117	14	07/22/10 10:08:04	11.85	8.66	7.67	47314	30.71
19830-005	7	118	14	07/22/10 10:08:13	11.85	8.69	7.61	47580	30.90

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	7	119	14	07/22/10 10:08:23	11.85	8.62	7.58	47686	30.97
19830-000	7	120	14	07/22/10 10:08:32	11.84	8.55	7.61	47568	30.89
19830-009	7	121	14	07/22/10 10:08:43	11.70	8.69	7.67	47666	30.95
19830-010	7	122	14	07/22/10 10:08:53	11.63	8.72	7.68	47720	30.99
19830-007	7	123	14	07/22/10 10:09:03	11.65	8.62	7.59	47746	31.01
19830-002	7	124	14	07/22/10 10:09:15	11.70	8.41	7.57	47865	31.10
19830-013	7	125	14	07/22/10 10:09:31	11.79	8.30	7.61	47890	31.12
19830-016	7	126	14	07/22/10 10:09:42	11.91	8.45	7.57	47874	31.11
19830-017	8	127	14	07/22/10 10:09:53	12.07	8.43	7.55	47803	31.07
19830-013	8	128	14	07/22/10 10:10:06	12.23	8.36	7.58	47823	31.09
19830-010	8	129	14	07/22/10 10:10:24	12.13	8.46	7.68	47144	30.59
19830-007	8	130	14	07/22/10 10:10:34	12.09	8.58	7.62	47525	30.87
19830-011	8	131	14	07/22/10 10:10:47	11.96	8.46	7.54	47638	30.94
19830-002	8	132	14	07/22/10 10:10:59	11.91	8.02	7.59	47706	30.99
19830-004	8	133	14	07/22/10 10:11:10	11.93	7.75	7.58	47684	30.98
19830-003	8	134	14	07/22/10 10:11:21	11.93	7.91	7.61	47671	30.97
19830-005	8	135	14	07/22/10 10:11:33	11.89	8.24	7.52	47602	30.91
19830-012	8	136	14	07/22/10 10:11:47	11.83	7.66	7.44	47676	30.96
19830-006	8	137	14	07/22/10 10:12:01	11.76	7.35	7.48	47762	31.02
19830-001	8	138	14	07/22/10 10:12:14	11.75	7.68	7.53	47788	31.04
19830-014	8	139	14	07/22/10 10:12:24	11.77	7.95	7.58	47787	31.04
19830-000	8	140	14	07/22/10 10:12:34	11.83	7.97	7.61	47752	31.02
19830-009	8	141	14	07/22/10 10:12:47	11.90	8.35	7.66	47829	31.08
19830-008	8	142	14	07/22/10 10:12:57	11.97	8.47	7.70	47822	31.08
19830-015	8	143	14	07/22/10 10:13:10	12.07	8.56	7.68	47798	31.06
19830-016	8	144	14	07/22/10 10:13:22	12.24	8.39	7.52	47835	31.10
19830-002	1	1	15	07/23/10 11:42:02	13.40	7.60	7.60	45640	29.56
19830-016	1	2	15	07/23/10 11:43:00	13.32	7.73	7.63	45528	29.48
19830-015	1	3	15	07/23/10 11:43:19	13.32	7.81	7.60	45631	29.55
19830-017	1	4	15	07/23/10 11:43:46	13.34	7.50	7.52	45619	29.54
19830-001	1	5	15	07/23/10 11:44:07	13.24	7.40	7.60	45662	29.57
19830-011	1	6	15	07/23/10 11:44:33	13.29	7.49	7.60	45635	29.55
19830-014	1	7	15	07/23/10 11:44:50	13.29	7.67	7.56	45632	29.55
19830-009	1	8	15	07/23/10 11:45:15	13.16	7.27	7.58	45641	29.55
19830-012	1	9	15	07/23/10 11:45:46	13.20	7.88	7.59	45593	29.52
19830-010	1	10	15	07/23/10 11:46:01	13.17	8.15	7.60	45655	29.56
19830-008	1	11	15	07/23/10 11:46:25	13.21	7.73	7.73	45624	29.54
19830-006	1	12	15	07/23/10 11:46:39	13.22	7.63	7.66	45615	29.53
19830-004	1	13	15	07/23/10 11:47:04	13.13	7.72	7.61	45648	29.56
19830-013	1	14	15	07/23/10 11:47:19	13.11	7.71	7.61	45667	29.57
19830-000	1	15	15	07/23/10 11:47:33	13.10	7.62	7.58	45653	29.56
19830-005	1	16	15	07/23/10 11:48:07	13.02	8.11	7.65	45652	29.56
19830-007	1	17	15	07/23/10 11:48:36	13.00	8.15	7.58	45671	29.57
19830-003	1	18	15	07/23/10 11:49:03	13.04	8.10	7.58	45670	29.57
19830-009	2	19	15	07/23/10 11:49:43	13.26	7.44	7.64	45618	29.54
19830-016	2	20	15	07/23/10 11:49:56	13.30	7.33	7.65	45650	29.56
19830-007	2	21	15	07/23/10 11:50:18	13.39	7.31	7.50	45581	29.52
19830-015	2	22	15	07/23/10 11:50:36	13.37	7.38	7.55	45614	29.54
19830-008	2	23	15	07/23/10 11:50:54	13.35	7.73	7.69	45632	29.55
19830-002	2	24	15	07/23/10 11:51:13	13.38	7.68	7.65	45628	29.55
19830-012	2	25	15	07/23/10 11:51:26	13.35	7.45	7.61	45596	29.53
19830-004	2	26	15	07/23/10 11:51:40	13.29	7.50	7.58	45601	29.53
19830-000	2	27	15	07/23/10 11:52:19	13.12	8.09	7.56	45641	29.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-003	2	28	15	07/23/10 11:52:34	13.18	8.13	7.56	45608	29.53
19830-011	2	29	15	07/23/10 11:52:57	13.18	7.89	7.59	45629	29.54
19830-017	2	30	15	07/23/10 11:53:19	13.25	7.82	7.56	45617	29.54
19830-014	2	31	15	07/23/10 11:53:54	13.17	7.20	7.59	45629	29.54
19830-001	2	32	15	07/23/10 11:54:06	13.11	7.12	7.59	45627	29.54
19830-013	2	33	15	07/23/10 11:54:29	13.06	7.33	7.57	45659	29.56
19830-010	2	34	15	07/23/10 11:54:53	13.13	7.54	7.59	45627	29.54
19830-006	2	35	15	07/23/10 11:55:33	13.22	7.65	7.49	45649	29.56
19830-005	2	36	15	07/23/10 11:56:02	13.30	7.14	7.47	45627	29.55
19830-013	3	37	15	07/23/10 11:56:16	13.27	7.03	7.49	45634	29.55
19830-009	3	38	15	07/23/10 11:56:40	13.35	7.53	7.60	45619	29.54
19830-017	3	39	15	07/23/10 11:57:05	13.40	7.22	7.46	45601	29.53
19830-016	3	40	15	07/23/10 11:57:18	13.29	6.99	7.47	45612	29.53
19830-000	3	41	15	07/23/10 11:57:58	13.47	8.24	7.61	45566	29.51
19830-010	3	42	15	07/23/10 11:58:13	13.40	8.24	7.60	45561	29.50
19830-008	3	43	15	07/23/10 11:58:40	13.12	8.01	7.59	45708	29.60
19830-014	3	44	15	07/23/10 11:59:00	13.28	7.74	7.63	45632	29.55
19830-004	3	45	15	07/23/10 11:59:21	13.26	7.70	7.60	45557	29.49
19830-006	3	46	15	07/23/10 11:59:46	13.27	7.49	7.51	45603	29.53
19830-005	3	47	15	07/23/10 12:00:10	13.27	7.66	7.59	45601	29.53
19830-011	3	48	15	07/23/10 12:00:32	13.01	7.88	7.61	45631	29.54
19830-002	3	49	15	07/23/10 12:00:52	13.16	7.55	7.62	45678	29.58
19830-012	3	50	15	07/23/10 12:01:14	13.16	7.46	7.61	45622	29.54
19830-001	3	51	15	07/23/10 12:01:58	12.80	8.04	7.68	45716	29.59
19830-003	3	52	15	07/23/10 12:02:28	12.87	8.29	7.69	45677	29.57
19830-007	3	53	15	07/23/10 12:03:05	12.94	7.78	7.49	45662	29.56
19830-015	3	54	15	07/23/10 12:03:36	12.98	8.06	7.65	45648	29.55
19830-006	4	55	15	07/23/10 12:04:13	12.90	8.11	7.60	45654	29.55
19830-011	4	56	15	07/23/10 12:04:52	12.89	8.11	7.67	45656	29.55
19830-012	4	57	15	07/23/10 12:05:15	12.88	8.26	7.73	45674	29.57
19830-010	4	58	15	07/23/10 12:05:45	12.75	8.32	7.70	45674	29.56
19830-015	4	59	15	07/23/10 12:06:23	12.57	8.01	7.60	45702	29.58
19830-009	4	60	15	07/23/10 12:06:51	12.57	8.20	7.70	45719	29.59
19830-001	4	61	15	07/23/10 12:07:30	12.60	7.92	7.60	45738	29.60
19830-016	4	62	15	07/23/10 12:08:10	12.87	7.85	7.56	45677	29.57
19830-008	4	63	15	07/23/10 12:08:40	12.92	8.00	7.68	45738	29.61
19830-004	4	64	15	07/23/10 12:09:20	13.03	7.59	7.62	45673	29.57
19830-007	4	65	15	07/23/10 12:09:47	12.82	7.88	7.52	45638	29.54
19830-014	4	66	15	07/23/10 12:10:28	12.91	7.26	7.54	45662	29.56
19830-000	4	67	15	07/23/10 12:11:13	12.91	7.71	7.52	45658	29.56
19830-017	4	68	15	07/23/10 12:12:04	12.91	7.39	7.48	45667	29.56
19830-013	4	69	15	07/23/10 12:12:39	12.97	7.76	7.58	45647	29.55
19830-002	4	70	15	07/23/10 12:13:07	12.95	7.82	7.65	45654	29.55
19830-005	4	71	15	07/23/10 12:13:40	12.94	7.94	7.60	45622	29.53
19830-003	4	72	15	07/23/10 12:14:21	12.84	8.01	7.59	45633	29.54
19830-016	5	73	15	07/23/10 12:14:48	12.87	7.90	7.57	45664	29.56
19830-003	5	74	15	07/23/10 12:15:20	12.92	7.69	7.53	45652	29.55
19830-000	5	75	15	07/23/10 12:16:01	13.07	8.00	7.57	45619	29.53
19830-013	5	76	15	07/23/10 12:16:38	13.11	7.63	7.52	45632	29.54
19830-001	5	77	15	07/23/10 12:17:15	13.09	8.07	7.49	45609	29.53
19830-002	5	78	15	07/23/10 12:18:04	13.16	7.45	7.57	45657	29.56
19830-004	5	79	15	07/23/10 12:18:36	13.16	7.48	7.54	45641	29.55
19830-012	5	80	15	07/23/10 12:19:15	13.13	8.01	7.67	45634	29.55
19830-005	5	81	15	07/23/10 12:20:08	12.80	7.41	7.56	45650	29.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	5	82	15	07/23/10 12:20:45	12.88	7.79	7.61	45654	29.55
19830-010	5	83	15	07/23/10 12:21:15	12.85	7.96	7.68	45667	29.56
19830-017	5	84	15	07/23/10 12:21:59	12.92	6.93	7.46	45651	29.55
19830-009	5	85	15	07/23/10 12:22:31	12.87	7.25	7.60	45643	29.54
19830-006	5	86	15	07/23/10 12:23:11	12.79	7.81	7.51	45747	29.62
19830-008	5	87	15	07/23/10 12:23:42	12.99	8.05	7.64	45633	29.54
19830-007	5	88	15	07/23/10 12:26:04	12.84	8.35	7.53	45342	29.33
19830-014	5	89	15	07/23/10 12:26:55	12.76	8.02	7.61	45647	29.54
19830-015	5	90	15	07/23/10 12:27:18	12.81	8.04	7.65	45664	29.56
19830-005	6	91	15	07/23/10 12:27:41	12.89	8.00	7.63	45650	29.55
19830-007	6	92	15	07/23/10 12:28:02	12.91	8.01	7.58	45651	29.55
19830-002	6	93	15	07/23/10 12:28:20	12.95	7.97	7.59	45680	29.57
19830-009	6	94	15	07/23/10 12:28:53	13.01	7.47	7.64	45638	29.54
19830-013	6	95	15	07/23/10 12:29:25	12.99	7.88	7.67	45656	29.56
19830-004	6	96	15	07/23/10 12:29:43	12.96	7.94	7.68	45678	29.57
19830-012	6	97	15	07/23/10 12:30:14	12.75	8.24	7.67	45683	29.57
19830-015	6	98	15	07/23/10 12:30:27	12.70	8.18	7.66	45656	29.55
19830-014	6	99	15	07/23/10 12:30:46	12.64	8.12	7.67	45725	29.59
19830-003	6	100	15	07/23/10 12:31:09	12.59	8.17	7.64	45718	29.59
19830-010	6	101	15	07/23/10 12:32:08	12.58	8.55	7.72	45733	29.60
19830-000	6	102	15	07/23/10 12:32:34	12.66	8.45	7.65	45711	29.58
19830-016	6	103	15	07/23/10 12:32:57	12.60	8.29	7.67	45733	29.60
19830-001	6	104	15	07/23/10 12:33:16	12.51	8.30	7.71	45714	29.58
19830-017	6	105	15	07/23/10 12:33:39	12.40	8.51	7.69	45717	29.58
19830-008	6	106	15	07/23/10 12:33:57	12.39	8.57	7.74	45756	29.61
19830-011	6	107	15	07/23/10 12:34:34	12.51	8.20	7.70	45759	29.61
19830-006	6	108	15	07/23/10 12:34:52	12.60	8.17	7.64	45802	29.65
19830-015	7	109	15	07/23/10 12:35:07	12.70	8.24	7.64	45860	29.69
19830-017	7	110	15	07/23/10 12:35:30	12.85	8.25	7.67	45781	29.64
19830-003	7	111	15	07/23/10 12:35:51	12.95	8.20	7.63	45727	29.61
19830-008	7	112	15	07/23/10 12:36:24	12.98	8.39	7.70	45735	29.61
19830-006	7	113	15	07/23/10 12:36:57	13.13	8.35	7.61	45600	29.52
19830-012	7	114	15	07/23/10 12:37:17	13.17	8.26	7.65	45623	29.54
19830-004	7	115	15	07/23/10 12:37:44	13.17	8.26	7.69	45622	29.54
19830-011	7	116	15	07/23/10 12:38:20	13.19	7.96	7.66	45602	29.52
19830-014	7	117	15	07/23/10 12:40:39	13.09	8.58	7.72	45579	29.50
19830-005	7	118	15	07/23/10 12:41:11	13.09	8.31	7.60	45599	29.52
19830-001	7	119	15	07/23/10 12:41:53	12.95	8.21	7.72	45637	29.54
19830-000	7	120	15	07/23/10 12:42:21	12.94	8.42	7.66	45609	29.52
19830-009	7	121	15	07/23/10 12:43:08	12.65	7.96	7.71	45698	29.58
19830-010	7	122	15	07/23/10 12:43:35	12.75	7.96	7.63	45687	29.57
19830-007	7	123	15	07/23/10 12:43:56	12.76	7.90	7.54	45656	29.55
19830-002	7	124	15	07/23/10 12:44:18	12.77	7.78	7.63	45718	29.59
19830-013	7	125	15	07/23/10 12:44:40	12.79	7.96	7.64	45752	29.62
19830-016	7	126	15	07/23/10 12:45:00	12.95	8.08	7.59	45710	29.59
19830-017	8	127	15	07/23/10 12:45:18	13.05	7.97	7.59	45679	29.58
19830-013	8	128	15	07/23/10 12:45:37	13.07	7.96	7.61	45663	29.56
19830-010	8	129	15	07/23/10 12:46:02	13.09	8.28	7.70	45660	29.56
19830-007	8	130	15	07/23/10 12:46:31	13.18	8.07	7.57	45592	29.52
19830-011	8	131	15	07/23/10 12:47:11	12.98	7.10	7.60	45671	29.57
19830-002	8	132	15	07/23/10 12:47:35	13.07	7.17	7.66	45633	29.54
19830-004	8	133	15	07/23/10 12:48:03	13.18	7.57	7.61	45620	29.54
19830-003	8	134	15	07/23/10 12:48:23	13.15	7.77	7.61	45600	29.52
19830-005	8	135	15	07/23/10 12:49:03	12.96	6.90	7.40	45623	29.53

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	8	136	15	07/23/10 12:49:31	12.84	6.79	7.52	45624	29.53
19830-006	8	137	15	07/23/10 12:50:12	12.68	7.80	7.53	45367	29.34
19830-001	8	138	15	07/23/10 12:50:27	12.71	7.92	7.62	45732	29.60
19830-014	8	139	15	07/23/10 12:50:41	12.79	7.82	7.64	45736	29.61
19830-000	8	140	15	07/23/10 12:50:55	12.87	7.66	7.63	45680	29.57
19830-009	8	141	15	07/23/10 12:51:10	12.88	8.11	7.69	45689	29.58
19830-008	8	142	15	07/23/10 12:51:24	12.89	8.22	7.71	45692	29.58
19830-015	8	143	15	07/23/10 12:51:36	12.92	8.28	7.69	45734	29.61
19830-016	8	144	15	07/23/10 12:51:52	13.01	8.15	7.59	45717	29.60
19830-002	1	1	16	07/24/10 09:45:00	13.00	7.84	7.55	47414	30.82
19830-016	1	2	16	07/24/10 09:45:38	12.88	7.66	7.56	46350	30.05
19830-015	1	3	16	07/24/10 09:45:52	12.84	7.70	7.53	46824	30.39
19830-017	1	4	16	07/24/10 09:46:08	12.85	7.53	7.43	47325	30.75
19830-001	1	5	16	07/24/10 09:46:23	12.85	7.07	7.54	47456	30.85
19830-011	1	6	16	07/24/10 09:46:40	12.84	7.22	7.57	47387	30.80
19830-014	1	7	16	07/24/10 09:46:51	12.79	7.36	7.54	47408	30.81
19830-009	1	8	16	07/24/10 09:47:26	12.71	6.25	7.57	47325	30.75
19830-012	1	9	16	07/24/10 09:48:39	12.79	6.15	7.60	46921	30.46
19830-010	1	10	16	07/24/10 09:49:04	12.65	6.98	7.60	47377	30.78
19830-008	1	11	16	07/24/10 09:49:22	12.58	7.10	7.81	47402	30.80
19830-006	1	12	16	07/24/10 09:49:57	12.55	7.74	7.63	47401	30.80
19830-004	1	13	16	07/24/10 09:50:13	12.56	7.90	7.60	47455	30.84
19830-013	1	14	16	07/24/10 09:50:30	12.57	7.52	7.59	47454	30.84
19830-000	1	15	16	07/24/10 09:50:46	12.54	7.17	7.49	47407	30.80
19830-005	1	16	16	07/24/10 09:51:00	12.51	6.76	7.57	47476	30.85
19830-007	1	17	16	07/24/10 09:51:25	12.49	7.81	7.53	47494	30.86
19830-003	1	18	16	07/24/10 09:51:44	12.59	7.92	7.54	47527	30.89
19830-009	2	19	16	07/24/10 09:52:02	12.74	7.94	7.64	47517	30.89
19830-016	2	20	16	07/24/10 09:52:35	12.81	7.15	7.64	47385	30.80
19830-007	2	21	16	07/24/10 09:52:54	12.82	6.89	7.43	47271	30.71
19830-015	2	22	16	07/24/10 09:53:09	12.79	6.78	7.48	47316	30.75
19830-008	2	23	16	07/24/10 09:53:30	12.78	7.46	7.76	47364	30.78
19830-002	2	24	16	07/24/10 09:53:48	12.76	7.45	7.66	47361	30.78
19830-012	2	25	16	07/24/10 09:54:04	12.71	7.16	7.59	47320	30.74
19830-004	2	26	16	07/24/10 09:54:16	12.72	7.06	7.53	47396	30.80
19830-000	2	27	16	07/24/10 09:54:45	12.61	7.62	7.49	47333	30.75
19830-003	2	28	16	07/24/10 09:55:03	12.56	7.85	7.50	47056	30.55
19830-011	2	29	16	07/24/10 09:55:17	12.56	7.76	7.56	47389	30.79
19830-017	2	30	16	07/24/10 09:55:36	12.56	7.52	7.52	47361	30.77
19830-014	2	31	16	07/24/10 09:55:58	12.51	7.18	7.53	47400	30.80
19830-001	2	32	16	07/24/10 09:56:18	12.44	6.66	7.54	47444	30.82
19830-013	2	33	16	07/24/10 09:56:39	12.47	6.73	7.54	47465	30.84
19830-010	2	34	16	07/24/10 09:57:00	12.54	7.15	7.59	47402	30.80
19830-006	2	35	16	07/24/10 09:57:25	12.79	7.44	7.51	47463	30.85
19830-005	2	36	16	07/24/10 09:57:44	12.81	7.25	7.42	47406	30.81
19830-013	3	37	16	07/24/10 09:58:07	12.78	6.36	7.43	47426	30.82
19830-009	3	38	16	07/24/10 09:58:35	12.86	6.98	7.52	47208	30.67
19830-017	3	39	16	07/24/10 09:58:50	12.83	7.20	7.43	47334	30.76
19830-016	3	40	16	07/24/10 09:59:15	12.73	6.99	7.48	47423	30.82
19830-000	3	41	16	07/24/10 09:59:39	12.82	7.81	7.58	47278	30.72
19830-010	3	42	16	07/24/10 10:00:02	12.80	7.79	7.53	47324	30.75
19830-008	3	43	16	07/24/10 10:00:28	12.69	7.44	7.55	47417	30.81
19830-014	3	44	16	07/24/10 10:00:49	12.66	7.25	7.66	47346	30.76

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	3	45	16	07/24/10 10:01:07	12.60	7.27	7.56	47369	30.78
19830-006	3	46	16	07/24/10 10:01:29	12.63	7.08	7.43	47350	30.76
19830-005	3	47	16	07/24/10 10:01:53	12.61	7.15	7.53	47349	30.76
19830-011	3	48	16	07/24/10 10:02:19	12.34	7.38	7.60	47523	30.88
19830-002	3	49	16	07/24/10 10:02:41	12.48	7.24	7.64	47382	30.78
19830-012	3	50	16	07/24/10 10:03:03	12.58	6.91	7.57	47383	30.79
19830-001	3	51	16	07/24/10 10:03:33	12.36	7.40	7.72	47536	30.89
19830-003	3	52	16	07/24/10 10:03:57	12.36	8.01	7.73	47492	30.86
19830-007	3	53	16	07/24/10 10:04:22	12.38	7.85	7.46	47390	30.78
19830-015	3	54	16	07/24/10 10:04:48	12.37	7.84	7.64	47425	30.81
19830-006	4	55	16	07/24/10 10:05:11	12.30	8.02	7.58	47453	30.82
19830-011	4	56	16	07/24/10 10:05:26	12.25	7.98	7.64	47486	30.85
19830-012	4	57	16	07/24/10 10:05:37	12.18	8.04	7.73	47507	30.86
19830-010	4	58	16	07/24/10 10:05:54	12.13	8.19	7.77	47520	30.87
19830-015	4	59	16	07/24/10 10:06:20	12.01	7.99	7.60	47516	30.86
19830-009	4	60	16	07/24/10 10:06:47	11.97	8.03	7.81	47584	30.91
19830-001	4	61	16	07/24/10 10:07:15	12.07	7.72	7.63	47625	30.94
19830-016	4	62	16	07/24/10 10:07:38	12.24	7.52	7.52	47497	30.85
19830-008	4	63	16	07/24/10 10:08:05	12.41	7.83	7.76	47499	30.86
19830-004	4	64	16	07/24/10 10:08:31	12.55	7.62	7.62	47487	30.86
19830-007	4	65	16	07/24/10 10:08:55	12.32	7.67	7.48	47454	30.83
19830-014	4	66	16	07/24/10 10:09:16	12.28	7.50	7.47	47439	30.81
19830-000	4	67	16	07/24/10 10:09:32	12.25	7.19	7.44	47398	30.78
19830-017	4	68	16	07/24/10 10:09:43	12.23	7.27	7.41	47422	30.80
19830-013	4	69	16	07/24/10 10:09:54	12.23	7.22	7.45	47429	30.80
19830-002	4	70	16	07/24/10 10:10:10	12.23	7.52	7.60	47444	30.81
19830-005	4	71	16	07/24/10 10:10:23	12.24	7.67	7.63	47415	30.80
19830-003	4	72	16	07/24/10 10:10:32	12.25	7.76	7.61	47456	30.82
19830-016	5	73	16	07/24/10 10:10:44	12.25	7.82	7.56	47428	30.80
19830-003	5	74	16	07/24/10 10:10:57	12.25	7.68	7.50	47438	30.81
19830-000	5	75	16	07/24/10 10:11:11	12.28	7.45	7.49	47402	30.79
19830-013	5	76	16	07/24/10 10:11:32	12.36	7.58	7.47	47392	30.78
19830-001	5	77	16	07/24/10 10:11:51	12.39	7.61	7.49	47479	30.85
19830-002	5	78	16	07/24/10 10:12:05	12.48	7.75	7.51	47416	30.81
19830-004	5	79	16	07/24/10 10:12:20	12.56	7.53	7.52	47410	30.80
19830-012	5	80	16	07/24/10 10:12:33	12.63	7.41	7.60	47455	30.84
19830-005	5	81	16	07/24/10 10:12:51	12.38	7.80	7.57	47405	30.79
19830-011	5	82	16	07/24/10 10:13:05	12.26	7.44	7.60	47446	30.82
19830-010	5	83	16	07/24/10 10:13:17	12.21	7.59	7.66	47526	30.87
19830-017	5	84	16	07/24/10 10:13:28	12.20	7.79	7.62	47428	30.80
19830-009	5	85	16	07/24/10 10:13:48	12.23	7.15	7.59	47491	30.85
19830-006	5	86	16	07/24/10 10:14:10	12.25	7.44	7.47	47492	30.85
19830-008	5	87	16	07/24/10 10:14:29	12.26	7.80	7.63	47436	30.81
19830-007	5	88	16	07/24/10 10:15:14	12.28	7.99	7.49	46892	30.42
19830-014	5	89	16	07/24/10 10:15:32	12.27	8.00	7.56	47486	30.85
19830-015	5	90	16	07/24/10 10:15:46	12.27	7.94	7.60	47485	30.85
19830-005	6	91	16	07/24/10 10:16:00	12.29	7.94	7.63	47445	30.82
19830-007	6	92	16	07/24/10 10:16:18	12.34	7.93	7.56	47436	30.81
19830-002	6	93	16	07/24/10 10:16:34	12.38	7.99	7.56	47493	30.86
19830-009	6	94	16	07/24/10 10:16:58	12.44	7.49	7.65	47459	30.83
19830-013	6	95	16	07/24/10 10:17:15	12.45	7.43	7.65	47520	30.88
19830-004	6	96	16	07/24/10 10:17:34	12.53	7.69	7.67	47547	30.90
19830-012	6	97	16	07/24/10 10:18:05	12.37	7.98	7.68	47503	30.86
19830-015	6	98	16	07/24/10 10:18:21	12.23	7.93	7.66	47482	30.84

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-014	6	99	16	07/24/10 10:18:38	12.20	7.82	7.67	47556	30.90
19830-003	6	100	16	07/24/10 10:18:56	12.20	7.81	7.62	47604	30.93
19830-010	6	101	16	07/24/10 10:19:14	12.20	8.07	7.70	47635	30.95
19830-000	6	102	16	07/24/10 10:19:28	12.19	8.27	7.67	47524	30.87
19830-016	6	103	16	07/24/10 10:19:38	12.18	8.24	7.65	47569	30.90
19830-001	6	104	16	07/24/10 10:19:51	12.18	8.12	7.73	47583	30.91
19830-017	6	105	16	07/24/10 10:20:08	12.14	8.19	7.69	47418	30.79
19830-008	6	106	16	07/24/10 10:20:23	12.13	8.20	7.77	47541	30.88
19830-011	6	107	16	07/24/10 10:20:37	12.19	8.27	7.75	47576	30.91
19830-006	6	108	16	07/24/10 10:21:00	12.36	8.07	7.63	47584	30.92
19830-015	7	109	16	07/24/10 10:21:16	12.50	8.09	7.65	47637	30.97
19830-017	7	110	16	07/24/10 10:21:30	12.61	8.00	7.67	47639	30.97
19830-003	7	111	16	07/24/10 10:21:45	12.70	8.04	7.63	47649	30.98
19830-008	7	112	16	07/24/10 10:21:58	12.78	7.99	7.69	47627	30.97
19830-006	7	113	16	07/24/10 10:22:17	12.62	8.29	7.67	47310	30.73
19830-012	7	114	16	07/24/10 10:22:30	12.52	8.27	7.67	47332	30.75
19830-004	7	115	16	07/24/10 10:22:43	12.45	8.19	7.70	47329	30.74
19830-011	7	116	16	07/24/10 10:22:52	12.42	8.19	7.70	47295	30.72
19830-014	7	117	16	07/24/10 10:23:05	12.35	8.09	7.72	47380	30.77
19830-005	7	118	16	07/24/10 10:23:16	12.34	8.23	7.67	47324	30.73
19830-001	7	119	16	07/24/10 10:23:25	12.34	8.26	7.67	47394	30.78
19830-000	7	120	16	07/24/10 10:23:36	12.34	8.22	7.69	47315	30.73
19830-009	7	121	16	07/24/10 10:23:49	12.23	8.30	7.70	47398	30.78
19830-010	7	122	16	07/24/10 10:24:04	12.16	8.04	7.65	47452	30.82
19830-007	7	123	16	07/24/10 10:24:16	12.19	7.86	7.54	47461	30.83
19830-002	7	124	16	07/24/10 10:24:30	12.26	7.73	7.55	47542	30.89
19830-013	7	125	16	07/24/10 10:24:45	12.34	7.72	7.61	47562	30.90
19830-016	7	126	16	07/24/10 10:25:00	12.49	7.89	7.57	47492	30.86
19830-017	8	127	16	07/24/10 10:25:15	12.61	7.84	7.55	47476	30.85
19830-013	8	128	16	07/24/10 10:25:30	12.76	7.80	7.61	47505	30.88
19830-010	8	129	16	07/24/10 10:25:47	12.66	8.01	7.69	47203	30.66
19830-007	8	130	16	07/24/10 10:25:59	12.58	8.11	7.65	47300	30.73
19830-011	8	131	16	07/24/10 10:26:31	12.42	6.79	7.61	47436	30.82
19830-002	8	132	16	07/24/10 10:26:50	12.45	6.50	7.67	47249	30.68
19830-004	8	133	16	07/24/10 10:27:22	12.47	7.33	7.57	47334	30.75
19830-003	8	134	16	07/24/10 10:27:37	12.43	7.54	7.59	47370	30.77
19830-005	8	135	16	07/24/10 10:27:50	12.37	7.76	7.51	47376	30.77
19830-012	8	136	16	07/24/10 10:28:19	12.33	6.00	7.47	47441	30.82
19830-006	8	137	16	07/24/10 10:29:00	12.28	7.40	7.42	45639	29.52
19830-001	8	138	16	07/24/10 10:29:38	12.27	7.81	7.68	45062	29.10
19830-014	8	139	16	07/24/10 10:29:52	12.29	7.71	7.66	47478	30.84
19830-000	8	140	16	07/24/10 10:30:07	12.35	7.39	7.63	47447	30.82
19830-009	8	141	16	07/24/10 10:30:21	12.40	7.85	7.71	47542	30.89
19830-008	8	142	16	07/24/10 10:30:35	12.46	8.01	7.77	47533	30.89
19830-015	8	143	16	07/24/10 10:30:48	12.55	8.09	7.70	47543	30.90
19830-016	8	144	16	07/24/10 10:31:02	12.71	7.95	7.57	47545	30.91
19830-002	1	1	17	07/25/10 15:18:55	13.14	8.03	7.59	46956	30.50
19830-016	1	2	17	07/25/10 15:19:41	13.00	7.90	7.59	44655	28.84
19830-015	1	3	17	07/25/10 15:19:54	12.96	7.89	7.58	46878	30.44
19830-017	1	4	17	07/25/10 15:20:32	12.99	7.04	7.44	46922	30.47
19830-001	1	5	17	07/25/10 15:20:50	12.96	7.01	7.57	46973	30.50
19830-011	1	6	17	07/25/10 15:21:11	12.93	7.25	7.57	46951	30.49
19830-014	1	7	17	07/25/10 15:22:16	12.90	6.05	7.49	46946	30.48

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	1	8	17	07/25/10 15:22:51	12.81	6.00	7.51	46973	30.50
19830-012	1	9	17	07/25/10 15:23:33	12.86	6.90	7.68	46963	30.49
19830-010	1	10	17	07/25/10 15:23:59	12.77	7.15	7.62	46966	30.49
19830-008	1	11	17	07/25/10 15:24:10	12.75	7.14	7.67	46940	30.47
19830-006	1	12	17	07/25/10 15:24:23	12.71	7.22	7.69	46973	30.49
19830-004	1	13	17	07/25/10 15:24:40	12.71	7.70	7.62	46967	30.49
19830-013	1	14	17	07/25/10 15:24:58	12.69	7.66	7.59	46977	30.50
19830-000	1	15	17	07/25/10 15:25:14	12.65	7.68	7.58	46959	30.48
19830-005	1	16	17	07/25/10 15:25:29	12.61	7.93	7.66	46980	30.50
19830-007	1	17	17	07/25/10 15:25:48	12.58	8.14	7.59	47016	30.52
19830-003	1	18	17	07/25/10 15:26:05	12.66	8.06	7.57	47033	30.54
19830-009	2	19	17	07/25/10 15:26:41	12.97	7.79	7.65	46951	30.49
19830-016	2	20	17	07/25/10 15:26:58	12.99	7.66	7.70	46932	30.48
19830-007	2	21	17	07/25/10 15:27:44	12.99	6.39	7.30	46894	30.45
19830-015	2	22	17	07/25/10 15:28:25	12.96	7.44	7.58	46915	30.46
19830-008	2	23	17	07/25/10 15:28:37	12.96	7.54	7.67	46916	30.46
19830-002	2	24	17	07/25/10 15:28:50	12.95	7.59	7.65	46925	30.47
19830-012	2	25	17	07/25/10 15:29:09	12.90	7.33	7.57	46915	30.46
19830-004	2	26	17	07/25/10 15:29:37	12.87	7.12	7.40	46882	30.44
19830-000	2	27	17	07/25/10 15:30:08	12.75	7.66	7.48	46926	30.46
19830-003	2	28	17	07/25/10 15:30:20	12.74	7.79	7.51	46740	30.33
19830-011	2	29	17	07/25/10 15:30:30	12.73	7.83	7.54	46938	30.47
19830-017	2	30	17	07/25/10 15:30:59	12.74	7.76	7.55	46927	30.46
19830-014	2	31	17	07/25/10 15:31:37	12.71	6.87	7.49	46956	30.48
19830-001	2	32	17	07/25/10 15:31:52	12.66	6.74	7.53	46944	30.47
19830-013	2	33	17	07/25/10 15:32:28	12.63	7.35	7.56	46984	30.50
19830-010	2	34	17	07/25/10 15:32:41	12.66	7.43	7.58	46978	30.50
19830-006	2	35	17	07/25/10 15:33:07	12.93	7.59	7.52	46986	30.51
19830-005	2	36	17	07/25/10 15:33:40	12.97	7.04	7.49	46942	30.48
19830-013	3	37	17	07/25/10 15:33:52	12.91	6.92	7.47	46965	30.50
19830-009	3	38	17	07/25/10 15:34:32	13.00	7.58	7.57	46925	30.47
19830-017	3	39	17	07/25/10 15:34:44	13.00	7.67	7.51	46909	30.46
19830-016	3	40	17	07/25/10 15:35:01	12.90	7.24	7.51	46931	30.47
19830-000	3	41	17	07/25/10 15:35:40	12.95	8.21	7.64	46898	30.45
19830-010	3	42	17	07/25/10 15:35:51	12.90	8.30	7.60	46918	30.46
19830-008	3	43	17	07/25/10 15:36:23	12.79	7.73	7.62	46959	30.49
19830-014	3	44	17	07/25/10 15:36:53	12.84	7.46	7.60	46928	30.47
19830-004	3	45	17	07/25/10 15:37:16	12.82	7.23	7.49	46912	30.45
19830-006	3	46	17	07/25/10 15:37:27	12.82	7.12	7.49	46926	30.47
19830-005	3	47	17	07/25/10 15:38:00	12.79	7.53	7.61	46931	30.47
19830-011	3	48	17	07/25/10 15:38:36	12.48	7.28	7.58	47032	30.53
19830-002	3	49	17	07/25/10 15:38:56	12.68	7.12	7.55	46988	30.50
19830-012	3	50	17	07/25/10 15:39:24	12.75	7.03	7.55	46947	30.48
19830-001	3	51	17	07/25/10 15:39:57	12.44	7.77	7.74	47013	30.51
19830-003	3	52	17	07/25/10 15:40:23	12.45	8.20	7.73	47020	30.52
19830-007	3	53	17	07/25/10 15:41:02	12.52	7.64	7.44	46972	30.49
19830-015	3	54	17	07/25/10 15:41:38	12.50	8.06	7.71	46976	30.49
19830-006	4	55	17	07/25/10 15:41:51	12.44	8.16	7.65	46982	30.49
19830-011	4	56	17	07/25/10 15:42:06	12.39	8.02	7.68	47030	30.52
19830-012	4	57	17	07/25/10 15:42:18	12.34	8.09	7.74	47029	30.52
19830-010	4	58	17	07/25/10 15:42:39	12.26	8.32	7.78	47011	30.50
19830-015	4	59	17	07/25/10 15:42:53	12.15	8.32	7.72	46978	30.48
19830-009	4	60	17	07/25/10 15:43:08	12.09	8.15	7.73	47058	30.53
19830-001	4	61	17	07/25/10 15:43:42	12.18	7.92	7.69	47081	30.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	4	62	17	07/25/10 15:43:59	12.36	7.79	7.61	47059	30.54
19830-008	4	63	17	07/25/10 15:44:16	12.52	7.73	7.72	47065	30.55
19830-004	4	64	17	07/25/10 15:44:37	12.66	7.78	7.64	47029	30.53
19830-007	4	65	17	07/25/10 15:45:07	12.41	7.70	7.48	46988	30.49
19830-014	4	66	17	07/25/10 15:45:45	12.43	7.22	7.51	46989	30.50
19830-000	4	67	17	07/25/10 15:46:20	12.43	7.39	7.49	46969	30.48
19830-017	4	68	17	07/25/10 15:46:51	12.42	7.34	7.44	46983	30.49
19830-013	4	69	17	07/25/10 15:47:21	12.44	7.63	7.59	46983	30.49
19830-002	4	70	17	07/25/10 15:47:40	12.45	7.77	7.67	46985	30.49
19830-005	4	71	17	07/25/10 15:48:02	12.47	7.87	7.66	46960	30.48
19830-003	4	72	17	07/25/10 15:48:16	12.43	7.93	7.62	46936	30.46
19830-016	5	73	17	07/25/10 15:48:48	12.41	7.69	7.52	46971	30.48
19830-003	5	74	17	07/25/10 15:49:16	12.47	7.41	7.51	46983	30.49
19830-000	5	75	17	07/25/10 15:49:49	12.56	7.76	7.57	46942	30.47
19830-013	5	76	17	07/25/10 15:50:12	12.62	7.74	7.52	46947	30.47
19830-001	5	77	17	07/25/10 15:50:27	12.65	7.71	7.51	46908	30.45
19830-002	5	78	17	07/25/10 15:50:44	12.73	7.82	7.55	46974	30.50
19830-004	5	79	17	07/25/10 15:51:01	12.78	7.55	7.54	46948	30.48
19830-012	5	80	17	07/25/10 15:51:15	12.79	7.53	7.62	46983	30.50
19830-005	5	81	17	07/25/10 15:51:41	12.45	7.82	7.64	46968	30.48
19830-011	5	82	17	07/25/10 15:51:55	12.40	7.62	7.66	47004	30.51
19830-010	5	83	17	07/25/10 15:52:11	12.39	7.83	7.69	47014	30.51
19830-017	5	84	17	07/25/10 15:52:51	12.44	6.88	7.45	46941	30.46
19830-009	5	85	17	07/25/10 15:53:12	12.43	7.10	7.58	47012	30.51
19830-006	5	86	17	07/25/10 15:53:30	12.45	7.45	7.55	47043	30.54
19830-008	5	87	17	07/25/10 15:53:49	12.48	7.87	7.67	46990	30.50
19830-007	5	88	17	07/25/10 15:54:04	12.45	8.04	7.58	46929	30.45
19830-014	5	89	17	07/25/10 15:54:20	12.38	8.11	7.61	46996	30.50
19830-015	5	90	17	07/25/10 15:54:40	12.40	8.10	7.65	47005	30.51
19830-005	6	91	17	07/25/10 15:54:57	12.45	8.13	7.69	46994	30.50
19830-007	6	92	17	07/25/10 15:55:12	12.49	8.13	7.61	46989	30.50
19830-002	6	93	17	07/25/10 15:55:31	12.55	8.04	7.59	46999	30.51
19830-009	6	94	17	07/25/10 15:55:52	12.60	7.75	7.66	46983	30.50
19830-013	6	95	17	07/25/10 15:56:07	12.62	7.61	7.62	47006	30.52
19830-004	6	96	17	07/25/10 15:56:24	12.65	7.74	7.62	47015	30.52
19830-012	6	97	17	07/25/10 15:56:54	12.46	8.20	7.68	47005	30.51
19830-015	6	98	17	07/25/10 15:57:22	12.31	7.89	7.68	46995	30.50
19830-014	6	99	17	07/25/10 15:57:40	12.29	7.79	7.67	47056	30.54
19830-003	6	100	17	07/25/10 15:57:52	12.29	7.76	7.66	47050	30.53
19830-010	6	101	17	07/25/10 15:58:09	12.29	8.07	7.68	47074	30.55
19830-000	6	102	17	07/25/10 15:58:27	12.29	8.24	7.67	47041	30.53
19830-016	6	103	17	07/25/10 15:58:47	12.27	8.21	7.68	47068	30.55
19830-001	6	104	17	07/25/10 15:59:07	12.24	8.14	7.77	47062	30.54
19830-017	6	105	17	07/25/10 15:59:26	12.15	8.30	7.69	47039	30.52
19830-008	6	106	17	07/25/10 15:59:45	12.15	8.34	7.79	47040	30.52
19830-011	6	107	17	07/25/10 16:00:05	12.24	8.27	7.69	47063	30.54
19830-006	6	108	17	07/25/10 16:00:21	12.36	8.09	7.67	47113	30.58
19830-015	7	109	17	07/25/10 16:00:42	12.55	8.15	7.69	47088	30.57
19830-017	7	110	17	07/25/10 16:01:03	12.69	8.10	7.69	47078	30.57
19830-003	7	111	17	07/25/10 16:01:20	12.78	8.10	7.65	47060	30.56
19830-008	7	112	17	07/25/10 16:02:03	12.86	8.25	7.74	47056	30.56
19830-006	7	113	17	07/25/10 16:02:26	12.78	8.32	7.66	46928	30.46
19830-012	7	114	17	07/25/10 16:03:14	12.78	8.06	7.67	46925	30.46
19830-004	7	115	17	07/25/10 16:03:32	12.73	8.07	7.69	46921	30.46

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	7	116	17	07/25/10 16:03:49	12.71	8.05	7.69	46916	30.45
19830-014	7	117	17	07/25/10 16:04:09	12.64	8.01	7.72	46942	30.47
19830-005	7	118	17	07/25/10 16:04:29	12.63	8.23	7.64	46922	30.45
19830-001	7	119	17	07/25/10 16:04:48	12.61	8.19	7.73	46941	30.47
19830-000	7	120	17	07/25/10 16:05:06	12.54	8.23	7.70	46903	30.44
19830-009	7	121	17	07/25/10 16:05:24	12.32	8.28	7.65	46977	30.48
19830-010	7	122	17	07/25/10 16:05:42	12.33	7.95	7.68	47010	30.51
19830-007	7	123	17	07/25/10 16:05:57	12.37	7.86	7.58	47001	30.50
19830-002	7	124	17	07/25/10 16:06:13	12.43	7.74	7.61	47031	30.53
19830-013	7	125	17	07/25/10 16:06:33	12.49	7.86	7.65	47042	30.54
19830-016	7	126	17	07/25/10 16:06:48	12.64	8.00	7.63	47029	30.53
19830-017	8	127	17	07/25/10 16:07:00	12.74	7.93	7.61	47021	30.53
19830-013	8	128	17	07/25/10 16:07:14	12.85	7.86	7.62	47024	30.54
19830-010	8	129	17	07/25/10 16:07:34	12.80	8.03	7.71	46945	30.48
19830-007	8	130	17	07/25/10 16:07:46	12.78	8.09	7.66	46906	30.45
19830-011	8	131	17	07/25/10 16:07:55	12.70	8.11	7.64	46907	30.45
19830-002	8	132	17	07/25/10 16:08:17	12.69	7.08	7.69	46964	30.49
19830-004	8	133	17	07/25/10 16:08:41	12.74	7.21	7.63	46925	30.46
19830-003	8	134	17	07/25/10 16:09:01	12.71	7.64	7.63	46934	30.47
19830-005	8	135	17	07/25/10 16:09:16	12.61	7.89	7.54	46932	30.46
19830-012	8	136	17	07/25/10 16:10:29	12.48	4.75	7.51	46976	30.49
19830-006	8	137	17	07/25/10 16:11:19	12.39	8.08	7.55	47030	30.52
19830-001	8	138	17	07/25/10 16:11:36	12.43	8.11	7.63	47026	30.52
19830-014	8	139	17	07/25/10 16:11:49	12.47	7.79	7.68	47044	30.54
19830-000	8	140	17	07/25/10 16:12:06	12.54	7.51	7.66	46989	30.50
19830-009	8	141	17	07/25/10 16:12:24	12.59	7.97	7.71	47012	30.52
19830-008	8	142	17	07/25/10 16:12:38	12.62	8.02	7.76	47041	30.54
19830-015	8	143	17	07/25/10 16:12:49	12.68	8.05	7.73	47066	30.56
19830-016	8	144	17	07/25/10 16:13:06	12.85	7.87	7.63	47019	30.53
19830-002	1	1	18	07/26/10 09:40:06	12.98	8.03	7.56	47109	30.60
19830-016	1	2	18	07/26/10 09:40:50	12.87	7.78	7.52	46630	30.25
19830-015	1	3	18	07/26/10 09:41:09	12.84	7.68	7.53	47090	30.58
19830-017	1	4	18	07/26/10 09:41:29	12.86	7.34	7.41	47079	30.58
19830-001	1	5	18	07/26/10 09:41:47	12.87	7.21	7.51	47120	30.61
19830-011	1	6	18	07/26/10 09:42:07	12.83	7.34	7.49	47114	30.60
19830-014	1	7	18	07/26/10 09:42:19	12.78	7.26	7.45	47107	30.59
19830-009	1	8	18	07/26/10 09:42:37	12.72	6.59	7.43	47154	30.63
19830-012	1	9	18	07/26/10 09:42:49	12.72	6.39	7.48	47184	30.65
19830-010	1	10	18	07/26/10 09:43:13	12.66	6.96	7.56	47129	30.60
19830-008	1	11	18	07/26/10 09:43:28	12.60	7.30	7.71	47120	30.60
19830-006	1	12	18	07/26/10 09:43:44	12.59	7.49	7.64	47122	30.60
19830-004	1	13	18	07/26/10 09:44:04	12.61	7.87	7.57	47120	30.60
19830-013	1	14	18	07/26/10 09:44:16	12.59	7.88	7.55	47140	30.61
19830-000	1	15	18	07/26/10 09:44:26	12.56	7.83	7.55	47115	30.59
19830-005	1	16	18	07/26/10 09:44:36	12.52	7.93	7.61	47204	30.65
19830-007	1	17	18	07/26/10 09:44:47	12.52	8.11	7.60	47209	30.66
19830-003	1	18	18	07/26/10 09:44:56	12.53	8.16	7.56	47310	30.73
19830-009	2	19	18	07/26/10 09:45:11	12.70	8.16	7.57	47239	30.69
19830-016	2	20	18	07/26/10 09:45:24	12.80	8.01	7.64	47114	30.60
19830-007	2	21	18	07/26/10 09:45:42	12.81	7.52	7.40	47047	30.55
19830-015	2	22	18	07/26/10 09:45:52	12.80	7.08	7.39	47051	30.55
19830-008	2	23	18	07/26/10 09:46:12	12.77	7.61	7.71	47065	30.56
19830-002	2	24	18	07/26/10 09:46:22	12.74	7.82	7.67	47053	30.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	2	25	18	07/26/10 09:46:36	12.68	7.61	7.57	47049	30.55
19830-004	2	26	18	07/26/10 09:46:48	12.69	7.49	7.51	47080	30.57
19830-000	2	27	18	07/26/10 09:47:06	12.61	7.62	7.45	47064	30.56
19830-003	2	28	18	07/26/10 09:47:16	12.58	7.77	7.45	46815	30.38
19830-011	2	29	18	07/26/10 09:47:27	12.54	7.87	7.52	47122	30.60
19830-017	2	30	18	07/26/10 09:47:36	12.54	7.87	7.53	47110	30.59
19830-014	2	31	18	07/26/10 09:47:45	12.54	7.84	7.49	47094	30.58
19830-001	2	32	18	07/26/10 09:47:57	12.48	7.45	7.48	47113	30.59
19830-013	2	33	18	07/26/10 09:48:19	12.49	6.97	7.45	47167	30.63
19830-010	2	34	18	07/26/10 09:48:34	12.53	7.36	7.53	47137	30.61
19830-006	2	35	18	07/26/10 09:49:02	12.75	7.81	7.49	47158	30.63
19830-005	2	36	18	07/26/10 09:49:15	12.76	7.55	7.45	47131	30.61
19830-013	3	37	18	07/26/10 09:49:33	12.73	7.00	7.38	47132	30.61
19830-009	3	38	18	07/26/10 09:49:54	12.82	6.87	7.47	47092	30.58
19830-017	3	39	18	07/26/10 09:50:04	12.84	7.29	7.43	47036	30.55
19830-016	3	40	18	07/26/10 09:50:21	12.73	7.20	7.42	47095	30.58
19830-000	3	41	18	07/26/10 09:50:34	12.71	7.59	7.53	47062	30.56
19830-010	3	42	18	07/26/10 09:50:49	12.73	8.04	7.50	47052	30.55
19830-008	3	43	18	07/26/10 09:51:04	12.65	8.00	7.53	47120	30.60
19830-014	3	44	18	07/26/10 09:51:17	12.67	7.95	7.54	47074	30.57
19830-004	3	45	18	07/26/10 09:51:29	12.64	7.73	7.47	47088	30.57
19830-006	3	46	18	07/26/10 09:51:42	12.65	7.34	7.43	47078	30.57
19830-005	3	47	18	07/26/10 09:51:56	12.62	7.19	7.50	47099	30.58
19830-011	3	48	18	07/26/10 09:52:09	12.44	7.44	7.51	47136	30.60
19830-002	3	49	18	07/26/10 09:52:25	12.50	7.24	7.48	47131	30.60
19830-012	3	50	18	07/26/10 09:52:42	12.58	7.05	7.41	47138	30.61
19830-001	3	51	18	07/26/10 09:53:17	12.37	7.59	7.62	47238	30.67
19830-003	3	52	18	07/26/10 09:53:31	12.36	7.84	7.67	47213	30.65
19830-007	3	53	18	07/26/10 09:53:43	12.39	8.11	7.57	47174	30.63
19830-015	3	54	18	07/26/10 09:53:54	12.40	7.92	7.56	47159	30.62
19830-006	4	55	18	07/26/10 09:54:03	12.35	7.99	7.62	47156	30.61
19830-011	4	56	18	07/26/10 09:54:13	12.29	8.10	7.65	47189	30.63
19830-012	4	57	18	07/26/10 09:54:22	12.25	8.13	7.71	47160	30.61
19830-010	4	58	18	07/26/10 09:54:31	12.19	8.26	7.74	47200	30.64
19830-015	4	59	18	07/26/10 09:54:55	12.07	8.19	7.62	47220	30.65
19830-009	4	60	18	07/26/10 09:55:04	12.03	8.07	7.67	47259	30.67
19830-001	4	61	18	07/26/10 09:55:15	12.05	8.11	7.69	47378	30.76
19830-016	4	62	18	07/26/10 09:55:31	12.24	7.91	7.54	47182	30.63
19830-008	4	63	18	07/26/10 09:55:45	12.40	7.77	7.65	47248	30.68
19830-004	4	64	18	07/26/10 09:55:59	12.54	7.90	7.62	47250	30.69
19830-007	4	65	18	07/26/10 09:56:14	12.42	7.75	7.49	47109	30.58
19830-014	4	66	18	07/26/10 09:56:24	12.34	7.79	7.45	47140	30.60
19830-000	4	67	18	07/26/10 09:56:35	12.31	7.60	7.43	47105	30.57
19830-017	4	68	18	07/26/10 09:56:46	12.29	7.56	7.40	47122	30.59
19830-013	4	69	18	07/26/10 09:56:55	12.28	7.53	7.41	47142	30.60
19830-002	4	70	18	07/26/10 09:57:03	12.29	7.61	7.49	47151	30.61
19830-005	4	71	18	07/26/10 09:57:11	12.29	7.71	7.57	47154	30.61
19830-003	4	72	18	07/26/10 09:57:20	12.31	7.83	7.58	47150	30.61
19830-016	5	73	18	07/26/10 09:57:31	12.31	7.96	7.54	47131	30.59
19830-003	5	74	18	07/26/10 09:57:46	12.31	7.87	7.46	47155	30.61
19830-000	5	75	18	07/26/10 09:58:05	12.38	7.70	7.51	47084	30.56
19830-013	5	76	18	07/26/10 09:58:16	12.43	7.89	7.49	47110	30.58
19830-001	5	77	18	07/26/10 09:58:26	12.48	7.86	7.48	47167	30.63
19830-002	5	78	18	07/26/10 09:58:48	12.60	7.74	7.51	47106	30.59

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	5	79	18	07/26/10 09:59:03	12.65	7.54	7.49	47104	30.59
19830-012	5	80	18	07/26/10 09:59:16	12.68	7.64	7.56	47175	30.64
19830-005	5	81	18	07/26/10 09:59:30	12.49	7.98	7.62	47047	30.54
19830-011	5	82	18	07/26/10 09:59:39	12.36	7.93	7.63	47095	30.57
19830-010	5	83	18	07/26/10 09:59:51	12.30	7.89	7.65	47185	30.63
19830-017	5	84	18	07/26/10 10:00:01	12.30	7.91	7.56	47100	30.57
19830-009	5	85	18	07/26/10 10:00:10	12.29	7.66	7.51	47210	30.65
19830-006	5	86	18	07/26/10 10:00:23	12.33	7.55	7.52	47173	30.62
19830-008	5	87	18	07/26/10 10:00:33	12.35	7.69	7.57	47148	30.61
19830-007	5	88	18	07/26/10 10:00:45	12.34	7.96	7.58	47194	30.64
19830-014	5	89	18	07/26/10 10:00:57	12.31	8.09	7.56	47194	30.64
19830-015	5	90	18	07/26/10 10:01:05	12.32	8.13	7.58	47177	30.63
19830-005	6	91	18	07/26/10 10:01:16	12.34	8.11	7.62	47167	30.62
19830-007	6	92	18	07/26/10 10:01:27	12.38	8.10	7.59	47186	30.64
19830-002	6	93	18	07/26/10 10:01:39	12.44	8.07	7.53	47178	30.63
19830-009	6	94	18	07/26/10 10:01:50	12.49	7.93	7.56	47184	30.64
19830-013	6	95	18	07/26/10 10:02:01	12.53	7.72	7.57	47179	30.64
19830-004	6	96	18	07/26/10 10:02:08	12.56	7.74	7.55	47275	30.71
19830-012	6	97	18	07/26/10 10:02:29	12.44	8.07	7.61	47160	30.62
19830-015	6	98	18	07/26/10 10:02:46	12.31	8.14	7.63	47169	30.62
19830-014	6	99	18	07/26/10 10:02:59	12.27	7.90	7.61	47233	30.66
19830-003	6	100	18	07/26/10 10:03:14	12.26	7.89	7.59	47276	30.70
19830-010	6	101	18	07/26/10 10:03:26	12.26	8.08	7.62	47276	30.70
19830-000	6	102	18	07/26/10 10:03:38	12.23	8.27	7.63	47247	30.67
19830-016	6	103	18	07/26/10 10:03:52	12.23	8.34	7.63	47260	30.68
19830-001	6	104	18	07/26/10 10:04:03	12.22	8.22	7.69	47322	30.73
19830-017	6	105	18	07/26/10 10:04:22	12.19	8.30	7.64	47200	30.64
19830-008	6	106	18	07/26/10 10:04:36	12.17	8.39	7.74	47247	30.67
19830-011	6	107	18	07/26/10 10:04:48	12.23	8.44	7.71	47247	30.67
19830-006	6	108	18	07/26/10 10:05:00	12.32	8.24	7.64	47342	30.75
19830-015	7	109	18	07/26/10 10:05:08	12.41	8.26	7.64	47426	30.81
19830-017	7	110	18	07/26/10 10:05:23	12.61	8.19	7.64	47314	30.74
19830-003	7	111	18	07/26/10 10:05:43	12.74	8.10	7.58	47280	30.72
19830-008	7	112	18	07/26/10 10:05:55	12.79	8.00	7.62	47325	30.75
19830-006	7	113	18	07/26/10 10:06:23	12.65	8.25	7.59	47057	30.55
19830-012	7	114	18	07/26/10 10:06:33	12.62	8.20	7.59	47015	30.52
19830-004	7	115	18	07/26/10 10:06:45	12.56	8.15	7.61	47051	30.55
19830-011	7	116	18	07/26/10 10:06:59	12.50	8.14	7.62	47036	30.53
19830-014	7	117	18	07/26/10 10:07:13	12.45	8.07	7.67	47093	30.57
19830-005	7	118	18	07/26/10 10:07:25	12.44	8.24	7.64	47054	30.54
19830-001	7	119	18	07/26/10 10:07:37	12.44	8.28	7.64	47060	30.55
19830-000	7	120	18	07/26/10 10:07:55	12.43	8.30	7.63	47033	30.53
19830-009	7	121	18	07/26/10 10:08:07	12.29	8.46	7.61	47123	30.59
19830-010	7	122	18	07/26/10 10:08:18	12.22	8.25	7.60	47061	30.54
19830-007	7	123	18	07/26/10 10:08:25	12.24	8.10	7.58	47212	30.65
19830-002	7	124	18	07/26/10 10:08:49	12.35	7.77	7.55	47167	30.62
19830-013	7	125	18	07/26/10 10:08:57	12.37	7.71	7.56	47259	30.69
19830-016	7	126	18	07/26/10 10:09:07	12.48	7.81	7.54	47272	30.70
19830-017	8	127	18	07/26/10 10:09:17	12.62	7.88	7.54	47218	30.67
19830-013	8	128	18	07/26/10 10:09:27	12.74	7.86	7.54	47257	30.70
19830-010	8	129	18	07/26/10 10:09:40	12.72	7.97	7.62	47061	30.56
19830-007	8	130	18	07/26/10 10:09:53	12.67	8.09	7.58	47039	30.54
19830-011	8	131	18	07/26/10 10:10:03	12.59	8.05	7.56	47053	30.55
19830-002	8	132	18	07/26/10 10:10:17	12.55	7.36	7.57	47112	30.59

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	8	133	18	07/26/10 10:10:28	12.56	7.09	7.55	47066	30.56
19830-003	8	134	18	07/26/10 10:10:37	12.55	7.25	7.55	47068	30.56
19830-005	8	135	18	07/26/10 10:10:50	12.49	7.67	7.47	47056	30.55
19830-012	8	136	18	07/26/10 10:10:58	12.44	7.60	7.48	47087	30.57
19830-006	8	137	18	07/26/10 10:11:15	12.36	7.70	7.53	47221	30.66
19830-001	8	138	18	07/26/10 10:11:26	12.34	7.77	7.56	47249	30.68
19830-014	8	139	18	07/26/10 10:11:38	12.39	7.72	7.61	47195	30.64
19830-000	8	140	18	07/26/10 10:11:47	12.42	7.48	7.61	47190	30.64
19830-009	8	141	18	07/26/10 10:11:57	12.48	7.64	7.65	47245	30.68
19830-008	8	142	18	07/26/10 10:12:07	12.53	7.94	7.70	47251	30.69
19830-015	8	143	18	07/26/10 10:12:17	12.59	8.10	7.70	47287	30.72
19830-016	8	144	18	07/26/10 10:12:28	12.72	8.05	7.61	47284	30.72
19830-002	1	1	19	07/27/10 09:40:50	12.94	8.64	7.59	46105	29.88
19830-016	1	2	19	07/27/10 09:41:29	12.84	8.24	7.54	45987	29.79
19830-015	1	3	19	07/27/10 09:41:53	12.80	8.08	7.56	46098	29.87
19830-017	1	4	19	07/27/10 09:42:13	12.82	7.76	7.47	46072	29.85
19830-001	1	5	19	07/27/10 09:42:30	12.84	7.50	7.51	46146	29.90
19830-011	1	6	19	07/27/10 09:42:44	12.83	7.45	7.53	46113	29.88
19830-014	1	7	19	07/27/10 09:42:57	12.80	7.65	7.47	46097	29.87
19830-009	1	8	19	07/27/10 09:43:15	12.74	7.11	7.48	46150	29.90
19830-012	1	9	19	07/27/10 09:43:31	12.76	6.96	7.58	46151	29.90
19830-010	1	10	19	07/27/10 09:43:45	12.67	7.10	7.65	46103	29.87
19830-008	1	11	19	07/27/10 09:44:01	12.59	7.75	7.80	46124	29.88
19830-006	1	12	19	07/27/10 09:44:12	12.58	7.94	7.76	46114	29.87
19830-004	1	13	19	07/27/10 09:44:25	12.60	8.16	7.65	46120	29.88
19830-013	1	14	19	07/27/10 09:44:40	12.59	8.18	7.63	46112	29.87
19830-000	1	15	19	07/27/10 09:44:50	12.55	8.16	7.61	46108	29.87
19830-005	1	16	19	07/27/10 09:45:02	12.51	8.26	7.68	46185	29.92
19830-007	1	17	19	07/27/10 09:45:13	12.47	8.43	7.65	46242	29.96
19830-003	1	18	19	07/27/10 09:45:22	12.52	8.46	7.59	46259	29.97
19830-009	2	19	19	07/27/10 09:45:38	12.68	8.40	7.59	46234	29.96
19830-016	2	20	19	07/27/10 09:45:52	12.76	8.26	7.63	46119	29.88
19830-007	2	21	19	07/27/10 09:46:14	12.78	7.71	7.44	46036	29.82
19830-015	2	22	19	07/27/10 09:46:27	12.77	7.39	7.46	46056	29.84
19830-008	2	23	19	07/27/10 09:46:38	12.77	7.57	7.63	46066	29.84
19830-002	2	24	19	07/27/10 09:46:50	12.75	7.89	7.63	46043	29.83
19830-012	2	25	19	07/27/10 09:47:00	12.70	7.79	7.57	46056	29.83
19830-004	2	26	19	07/27/10 09:47:11	12.71	7.68	7.52	46065	29.84
19830-000	2	27	19	07/27/10 09:47:21	12.63	7.69	7.48	46014	29.80
19830-003	2	28	19	07/27/10 09:47:32	12.55	7.98	7.51	46061	29.83
19830-011	2	29	19	07/27/10 09:47:41	12.55	8.13	7.57	46090	29.85
19830-017	2	30	19	07/27/10 09:47:52	12.56	8.14	7.58	46056	29.83
19830-014	2	31	19	07/27/10 09:48:08	12.52	7.93	7.49	46080	29.84
19830-001	2	32	19	07/27/10 09:48:23	12.47	7.31	7.52	46112	29.87
19830-013	2	33	19	07/27/10 09:48:35	12.47	6.91	7.50	46169	29.91
19830-010	2	34	19	07/27/10 09:48:50	12.55	7.32	7.56	46111	29.87
19830-006	2	35	19	07/27/10 09:49:14	12.74	7.78	7.48	46158	29.91
19830-005	2	36	19	07/27/10 09:49:26	12.74	7.63	7.45	46126	29.89
19830-013	3	37	19	07/27/10 09:49:39	12.73	7.30	7.38	46120	29.88
19830-009	3	38	19	07/27/10 09:49:50	12.76	6.93	7.40	46144	29.90
19830-017	3	39	19	07/27/10 09:50:01	12.80	7.22	7.39	46067	29.85
19830-016	3	40	19	07/27/10 09:50:13	12.77	7.00	7.37	46065	29.84
19830-000	3	41	19	07/27/10 09:50:21	12.76	7.04	7.44	46018	29.81

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-010	3	42	19	07/27/10 09:50:35	12.74	7.75	7.51	46051	29.83
19830-008	3	43	19	07/27/10 09:50:46	12.69	7.98	7.56	46064	29.84
19830-014	3	44	19	07/27/10 09:50:55	12.67	8.05	7.59	46032	29.82
19830-004	3	45	19	07/27/10 09:51:06	12.64	7.99	7.53	46040	29.82
19830-006	3	46	19	07/27/10 09:51:16	12.64	7.73	7.46	46056	29.83
19830-005	3	47	19	07/27/10 09:51:25	12.63	7.52	7.53	46046	29.82
19830-011	3	48	19	07/27/10 09:51:36	12.46	7.61	7.56	46104	29.86
19830-002	3	49	19	07/27/10 09:51:52	12.47	7.64	7.52	46111	29.87
19830-012	3	50	19	07/27/10 09:52:05	12.56	7.42	7.47	46131	29.88
19830-001	3	51	19	07/27/10 09:52:25	12.40	7.62	7.59	46203	29.93
19830-003	3	52	19	07/27/10 09:52:43	12.38	8.20	7.70	46204	29.93
19830-007	3	53	19	07/27/10 09:52:55	12.39	8.49	7.61	46161	29.90
19830-015	3	54	19	07/27/10 09:53:08	12.40	8.21	7.63	46133	29.88
19830-006	4	55	19	07/27/10 09:53:20	12.35	8.33	7.69	46156	29.89
19830-011	4	56	19	07/27/10 09:53:33	12.31	8.47	7.73	46015	29.79
19830-012	4	57	19	07/27/10 09:53:44	12.24	8.45	7.79	46183	29.91
19830-010	4	58	19	07/27/10 09:53:53	12.19	8.56	7.81	46208	29.92
19830-015	4	59	19	07/27/10 09:54:07	12.11	8.65	7.70	46196	29.91
19830-009	4	60	19	07/27/10 09:54:18	12.04	8.54	7.75	46257	29.95
19830-001	4	61	19	07/27/10 09:54:30	12.07	8.49	7.75	46361	30.03
19830-016	4	62	19	07/27/10 09:54:43	12.22	8.31	7.62	46235	29.94
19830-008	4	63	19	07/27/10 09:54:58	12.39	8.10	7.71	46239	29.95
19830-004	4	64	19	07/27/10 09:55:07	12.47	8.18	7.70	46304	30.00
19830-007	4	65	19	07/27/10 09:55:24	12.39	8.11	7.53	46140	29.88
19830-014	4	66	19	07/27/10 09:55:34	12.35	8.03	7.49	46119	29.87
19830-000	4	67	19	07/27/10 09:55:46	12.29	7.70	7.45	46117	29.86
19830-017	4	68	19	07/27/10 09:55:56	12.28	7.66	7.42	46117	29.86
19830-013	4	69	19	07/27/10 09:56:05	12.28	7.68	7.43	46131	29.87
19830-002	4	70	19	07/27/10 09:56:15	12.26	7.81	7.52	46177	29.90
19830-005	4	71	19	07/27/10 09:56:25	12.29	7.96	7.60	46137	29.88
19830-003	4	72	19	07/27/10 09:56:38	12.30	8.11	7.62	46161	29.89
19830-016	5	73	19	07/27/10 09:56:49	12.28	8.23	7.57	46146	29.88
19830-003	5	74	19	07/27/10 09:57:02	12.29	8.14	7.51	46143	29.88
19830-000	5	75	19	07/27/10 09:57:14	12.33	7.85	7.50	46089	29.84
19830-013	5	76	19	07/27/10 09:57:25	12.37	7.94	7.49	46092	29.85
19830-001	5	77	19	07/27/10 09:57:38	12.42	8.00	7.52	46111	29.86
19830-002	5	78	19	07/27/10 09:57:52	12.49	8.15	7.53	46132	29.88
19830-004	5	79	19	07/27/10 09:58:04	12.57	7.90	7.50	46109	29.87
19830-012	5	80	19	07/27/10 09:58:17	12.65	7.88	7.58	46138	29.89
19830-005	5	81	19	07/27/10 09:58:28	12.49	8.17	7.67	46066	29.83
19830-011	5	82	19	07/27/10 09:58:37	12.37	8.17	7.67	46065	29.83
19830-010	5	83	19	07/27/10 09:58:47	12.31	8.11	7.66	46159	29.89
19830-017	5	84	19	07/27/10 09:58:57	12.30	8.13	7.59	46095	29.85
19830-009	5	85	19	07/27/10 09:59:07	12.28	7.88	7.53	46192	29.92
19830-006	5	86	19	07/27/10 09:59:17	12.31	7.68	7.55	46190	29.92
19830-008	5	87	19	07/27/10 09:59:30	12.33	7.86	7.64	46155	29.89
19830-007	5	88	19	07/27/10 09:59:41	12.35	8.08	7.64	46186	29.91
19830-014	5	89	19	07/27/10 09:59:56	12.31	8.29	7.63	46172	29.90
19830-015	5	90	19	07/27/10 10:00:07	12.31	8.30	7.64	46161	29.89
19830-005	6	91	19	07/27/10 10:00:18	12.32	8.26	7.69	46149	29.89
19830-007	6	92	19	07/27/10 10:00:30	12.35	8.29	7.64	46164	29.90
19830-002	6	93	19	07/27/10 10:00:40	12.40	8.29	7.57	46181	29.91
19830-009	6	94	19	07/27/10 10:00:52	12.45	8.16	7.59	46171	29.91
19830-013	6	95	19	07/27/10 10:01:04	12.49	7.95	7.59	46173	29.91

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	6	96	19	07/27/10 10:01:15	12.54	8.04	7.59	46245	29.96
19830-012	6	97	19	07/27/10 10:01:33	12.44	8.26	7.65	46166	29.90
19830-015	6	98	19	07/27/10 10:01:41	12.37	8.38	7.65	46122	29.87
19830-014	6	99	19	07/27/10 10:01:54	12.29	8.24	7.64	46208	29.93
19830-003	6	100	19	07/27/10 10:02:04	12.27	8.18	7.64	46270	29.97
19830-010	6	101	19	07/27/10 10:02:15	12.27	8.28	7.67	46282	29.98
19830-000	6	102	19	07/27/10 10:02:22	12.24	8.43	7.68	46248	29.95
19830-016	6	103	19	07/27/10 10:02:32	12.24	8.54	7.65	46263	29.97
19830-001	6	104	19	07/27/10 10:02:41	12.25	8.46	7.68	46304	30.00
19830-017	6	105	19	07/27/10 10:02:50	12.20	8.43	7.70	46225	29.94
19830-008	6	106	19	07/27/10 10:03:01	12.17	8.51	7.76	46255	29.96
19830-011	6	107	19	07/27/10 10:03:11	12.20	8.62	7.78	46289	29.98
19830-006	6	108	19	07/27/10 10:03:21	12.31	8.53	7.70	46343	30.03
19830-015	7	109	19	07/27/10 10:03:31	12.44	8.46	7.66	46370	30.05
19830-017	7	110	19	07/27/10 10:03:39	12.55	8.37	7.65	46376	30.06
19830-003	7	111	19	07/27/10 10:03:49	12.67	8.29	7.64	46349	30.04
19830-008	7	112	19	07/27/10 10:03:59	12.76	8.23	7.67	46370	30.06
19830-006	7	113	19	07/27/10 10:04:09	12.69	8.35	7.67	46005	29.80
19830-012	7	114	19	07/27/10 10:04:21	12.59	8.44	7.64	45957	29.76
19830-004	7	115	19	07/27/10 10:04:29	12.51	8.42	7.62	46056	29.83
19830-011	7	116	19	07/27/10 10:04:37	12.47	8.41	7.62	46002	29.79
19830-014	7	117	19	07/27/10 10:04:47	12.41	8.34	7.66	46080	29.84
19830-005	7	118	19	07/27/10 10:04:55	12.40	8.37	7.67	46028	29.80
19830-001	7	119	19	07/27/10 10:05:04	12.40	8.42	7.67	45999	29.78
19830-000	7	120	19	07/27/10 10:05:12	12.41	8.42	7.66	46027	29.80
19830-009	7	121	19	07/27/10 10:05:22	12.30	8.50	7.64	46094	29.85
19830-010	7	122	19	07/27/10 10:05:33	12.23	8.37	7.62	46103	29.85
19830-007	7	123	19	07/27/10 10:05:43	12.24	8.18	7.55	46184	29.91
19830-002	7	124	19	07/27/10 10:05:55	12.30	8.01	7.52	46186	29.91
19830-013	7	125	19	07/27/10 10:06:05	12.34	7.94	7.55	46247	29.96
19830-016	7	126	19	07/27/10 10:06:15	12.46	8.02	7.56	46220	29.94
19830-017	8	127	19	07/27/10 10:06:27	12.59	8.02	7.53	46191	29.93
19830-013	8	128	19	07/27/10 10:06:38	12.72	7.95	7.55	46243	29.97
19830-010	8	129	19	07/27/10 10:06:52	12.68	8.09	7.65	46084	29.85
19830-007	8	130	19	07/27/10 10:07:03	12.65	8.28	7.63	46006	29.80
19830-011	8	131	19	07/27/10 10:07:19	12.56	7.90	7.51	46073	29.84
19830-002	8	132	19	07/27/10 10:07:29	12.51	7.15	7.52	46061	29.83
19830-004	8	133	19	07/27/10 10:07:39	12.50	6.90	7.53	46061	29.83
19830-003	8	134	19	07/27/10 10:07:47	12.51	7.08	7.53	46063	29.83
19830-005	8	135	19	07/27/10 10:07:56	12.48	7.49	7.49	46043	29.82
19830-012	8	136	19	07/27/10 10:08:05	12.44	7.55	7.49	46090	29.85
19830-006	8	137	19	07/27/10 10:08:14	12.39	7.58	7.55	46153	29.89
19830-001	8	138	19	07/27/10 10:08:22	12.34	7.75	7.57	46232	29.95
19830-014	8	139	19	07/27/10 10:08:30	12.36	7.81	7.59	46187	29.92
19830-000	8	140	19	07/27/10 10:08:40	12.40	7.66	7.58	46177	29.91
19830-009	8	141	19	07/27/10 10:08:48	12.45	7.74	7.59	46261	29.97
19830-008	8	142	19	07/27/10 10:08:57	12.51	7.94	7.64	46230	29.95
19830-015	8	143	19	07/27/10 10:09:05	12.58	8.08	7.68	46248	29.97
19830-016	8	144	19	07/27/10 10:09:14	12.70	8.10	7.63	46262	29.98
19830-002	1	1	20	07/28/10 16:05:35	13.22	8.25	7.69	47618	30.98
19830-016	1	2	20	07/28/10 16:06:15	13.20	8.12	7.66	47776	31.09
19830-015	1	3	20	07/28/10 16:06:25	13.18	8.10	7.67	47781	31.10
19830-017	1	4	20	07/28/10 16:06:38	13.18	8.06	7.65	47805	31.11

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	1	5	20	07/28/10 16:06:53	13.14	7.94	7.64	47763	31.08
19830-011	1	6	20	07/28/10 16:07:07	13.16	7.85	7.67	47808	31.11
19830-014	1	7	20	07/28/10 16:07:19	13.16	7.85	7.65	47798	31.11
19830-009	1	8	20	07/28/10 16:07:33	13.09	7.68	7.66	47791	31.10
19830-012	1	9	20	07/28/10 16:07:44	13.08	7.66	7.69	47834	31.13
19830-010	1	10	20	07/28/10 16:07:58	13.06	7.79	7.70	47812	31.11
19830-008	1	11	20	07/28/10 16:08:06	13.06	7.91	7.71	47812	31.11
19830-006	1	12	20	07/28/10 16:08:16	13.08	8.00	7.72	47819	31.12
19830-004	1	13	20	07/28/10 16:08:28	13.02	8.09	7.70	47786	31.09
19830-013	1	14	20	07/28/10 16:08:36	13.00	8.11	7.69	47837	31.13
19830-000	1	15	20	07/28/10 16:08:46	13.02	8.09	7.68	47809	31.11
19830-005	1	16	20	07/28/10 16:08:56	12.99	8.19	7.71	47784	31.09
19830-007	1	17	20	07/28/10 16:09:08	12.94	8.29	7.70	47811	31.11
19830-003	1	18	20	07/28/10 16:09:23	12.98	8.29	7.67	47820	31.12
19830-009	2	19	20	07/28/10 16:09:43	13.08	8.27	7.68	47868	31.15
19830-016	2	20	20	07/28/10 16:09:57	13.15	8.10	7.70	47802	31.11
19830-007	2	21	20	07/28/10 16:10:11	13.19	7.93	7.63	47805	31.11
19830-015	2	22	20	07/28/10 16:10:22	13.20	7.71	7.62	47787	31.10
19830-008	2	23	20	07/28/10 16:10:31	13.19	7.71	7.68	47771	31.09
19830-002	2	24	20	07/28/10 16:10:41	13.19	7.84	7.68	47787	31.10
19830-012	2	25	20	07/28/10 16:10:52	13.16	7.80	7.65	47798	31.11
19830-004	2	26	20	07/28/10 16:11:01	13.16	7.77	7.64	47775	31.09
19830-000	2	27	20	07/28/10 16:11:12	13.09	7.81	7.65	47780	31.09
19830-003	2	28	20	07/28/10 16:11:22	13.08	8.00	7.67	47778	31.09
19830-011	2	29	20	07/28/10 16:11:30	13.07	8.10	7.68	47779	31.09
19830-017	2	30	20	07/28/10 16:11:42	13.09	8.06	7.66	47802	31.11
19830-014	2	31	20	07/28/10 16:11:57	13.05	7.94	7.63	47774	31.09
19830-001	2	32	20	07/28/10 16:12:10	13.00	7.67	7.60	47758	31.07
19830-013	2	33	20	07/28/10 16:12:18	12.99	7.50	7.63	47806	31.11
19830-010	2	34	20	07/28/10 16:12:31	13.02	7.67	7.67	47814	31.11
19830-006	2	35	20	07/28/10 16:12:54	13.10	7.93	7.63	47833	31.13
19830-005	2	36	20	07/28/10 16:13:09	13.17	7.74	7.63	47816	31.12
19830-013	3	37	20	07/28/10 16:13:21	13.15	7.56	7.62	47824	31.13
19830-009	3	38	20	07/28/10 16:13:29	13.17	7.49	7.62	47823	31.13
19830-017	3	39	20	07/28/10 16:13:38	13.21	7.56	7.61	47816	31.12
19830-016	3	40	20	07/28/10 16:13:52	13.15	7.67	7.61	47754	31.07
19830-000	3	41	20	07/28/10 16:14:03	13.18	7.76	7.64	47834	31.13
19830-010	3	42	20	07/28/10 16:14:12	13.19	7.95	7.64	47768	31.09
19830-008	3	43	20	07/28/10 16:14:29	13.04	8.01	7.66	47748	31.07
19830-014	3	44	20	07/28/10 16:14:39	13.06	7.98	7.67	47873	31.16
19830-004	3	45	20	07/28/10 16:14:50	13.12	7.88	7.65	47808	31.11
19830-006	3	46	20	07/28/10 16:14:59	13.13	7.77	7.62	47795	31.10
19830-005	3	47	20	07/28/10 16:15:11	13.12	7.42	7.64	47788	31.10
19830-011	3	48	20	07/28/10 16:15:18	13.03	7.49	7.68	47632	30.98
19830-002	3	49	20	07/28/10 16:15:26	12.98	7.68	7.69	47846	31.14
19830-012	3	50	20	07/28/10 16:15:35	12.99	7.78	7.66	47850	31.14
19830-001	3	51	20	07/28/10 16:15:47	12.84	7.74	7.68	47713	31.03
19830-003	3	52	20	07/28/10 16:15:56	12.79	7.90	7.72	47828	31.11
19830-007	3	53	20	07/28/10 16:16:08	12.81	8.11	7.66	47817	31.11
19830-015	3	54	20	07/28/10 16:16:20	12.84	8.01	7.70	47885	31.16
19830-006	4	55	20	07/28/10 16:16:32	12.82	8.17	7.74	47833	31.12
19830-011	4	56	20	07/28/10 16:16:45	12.79	8.25	7.76	47842	31.13
19830-012	4	57	20	07/28/10 16:16:56	12.78	8.20	7.77	47828	31.11
19830-010	4	58	20	07/28/10 16:17:08	12.71	8.34	7.78	47819	31.11

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	4	59	20	07/28/10 16:17:28	12.57	8.39	7.75	47830	31.11
19830-009	4	60	20	07/28/10 16:17:38	12.55	8.25	7.74	47854	31.12
19830-001	4	61	20	07/28/10 16:17:47	12.55	8.22	7.75	47876	31.14
19830-016	4	62	20	07/28/10 16:18:02	12.71	8.11	7.68	47891	31.16
19830-008	4	63	20	07/28/10 16:18:15	12.77	7.98	7.72	47862	31.14
19830-004	4	64	20	07/28/10 16:18:31	12.88	8.04	7.71	47868	31.15
19830-007	4	65	20	07/28/10 16:18:41	12.78	8.04	7.67	47848	31.13
19830-014	4	66	20	07/28/10 16:18:55	12.84	7.91	7.63	47845	31.13
19830-000	4	67	20	07/28/10 16:19:09	12.84	7.69	7.61	47830	31.12
19830-017	4	68	20	07/28/10 16:19:16	12.85	7.73	7.61	47846	31.13
19830-013	4	69	20	07/28/10 16:19:29	12.90	7.80	7.65	47833	31.12
19830-002	4	70	20	07/28/10 16:19:37	12.90	7.86	7.67	47807	31.10
19830-005	4	71	20	07/28/10 16:19:45	12.90	7.91	7.70	47820	31.11
19830-003	4	72	20	07/28/10 16:20:02	12.81	8.03	7.70	47788	31.09
19830-016	5	73	20	07/28/10 16:20:20	12.80	8.09	7.67	47831	31.12
19830-003	5	74	20	07/28/10 16:20:36	12.82	7.97	7.65	47836	31.12
19830-000	5	75	20	07/28/10 16:20:53	12.95	7.85	7.65	47848	31.14
19830-013	5	76	20	07/28/10 16:21:02	12.98	7.95	7.66	47820	31.12
19830-001	5	77	20	07/28/10 16:21:11	12.99	7.97	7.67	47636	30.98
19830-002	5	78	20	07/28/10 16:21:22	13.02	8.01	7.66	47814	31.11
19830-004	5	79	20	07/28/10 16:21:33	13.02	7.89	7.63	47829	31.12
19830-012	5	80	20	07/28/10 16:21:40	13.03	7.84	7.64	47795	31.10
19830-005	5	81	20	07/28/10 16:21:58	12.84	8.03	7.72	47793	31.09
19830-011	5	82	20	07/28/10 16:22:16	12.86	7.88	7.71	47844	31.13
19830-010	5	83	20	07/28/10 16:22:26	12.85	7.85	7.72	47815	31.11
19830-017	5	84	20	07/28/10 16:22:37	12.88	7.88	7.68	47901	31.17
19830-009	5	85	20	07/28/10 16:22:48	12.87	7.77	7.66	47828	31.12
19830-006	5	86	20	07/28/10 16:22:58	12.81	7.74	7.66	47765	31.07
19830-008	5	87	20	07/28/10 16:23:08	12.88	7.78	7.68	47803	31.10
19830-007	5	88	20	07/28/10 16:23:18	12.88	7.95	7.68	47802	31.10
19830-014	5	89	20	07/28/10 16:23:29	12.79	8.07	7.67	47817	31.11
19830-015	5	90	20	07/28/10 16:23:40	12.79	8.06	7.69	47846	31.13
19830-005	6	91	20	07/28/10 16:23:53	12.85	8.08	7.75	47847	31.13
19830-007	6	92	20	07/28/10 16:24:02	12.87	8.06	7.72	47840	31.13
19830-002	6	93	20	07/28/10 16:24:14	12.91	8.04	7.68	47846	31.13
19830-009	6	94	20	07/28/10 16:24:22	12.94	8.00	7.69	47835	31.13
19830-013	6	95	20	07/28/10 16:24:31	12.95	7.91	7.68	47822	31.12
19830-004	6	96	20	07/28/10 16:24:40	12.94	7.92	7.68	47822	31.12
19830-012	6	97	20	07/28/10 16:25:01	12.71	8.25	7.73	47884	31.15
19830-015	6	98	20	07/28/10 16:25:10	12.71	8.28	7.73	47824	31.11
19830-014	6	99	20	07/28/10 16:25:21	12.67	8.22	7.72	47814	31.10
19830-003	6	100	20	07/28/10 16:25:32	12.63	8.08	7.71	47828	31.11
19830-010	6	101	20	07/28/10 16:25:42	12.62	8.16	7.72	47866	31.14
19830-000	6	102	20	07/28/10 16:25:49	12.64	8.24	7.73	47920	31.18
19830-016	6	103	20	07/28/10 16:25:56	12.65	8.32	7.72	47836	31.12
19830-001	6	104	20	07/28/10 16:26:03	12.62	8.35	7.72	47787	31.08
19830-017	6	105	20	07/28/10 16:26:16	12.47	8.34	7.71	47791	31.08
19830-008	6	106	20	07/28/10 16:26:25	12.45	8.31	7.73	47875	31.14
19830-011	6	107	20	07/28/10 16:26:33	12.49	8.35	7.76	47916	31.17
19830-006	6	108	20	07/28/10 16:26:40	12.54	8.37	7.74	48001	31.23
19830-015	7	109	20	07/28/10 16:26:51	12.68	8.29	7.71	47934	31.19
19830-017	7	110	20	07/28/10 16:27:02	12.79	8.21	7.70	47913	31.18
19830-003	7	111	20	07/28/10 16:27:13	12.87	8.20	7.70	47946	31.20
19830-008	7	112	20	07/28/10 16:27:24	12.95	8.15	7.72	47891	31.17

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-006	7	113	20	07/28/10 16:27:38	13.01	8.25	7.70	47869	31.15
19830-012	7	114	20	07/28/10 16:27:47	13.05	8.23	7.70	47791	31.10
19830-004	7	115	20	07/28/10 16:27:55	13.05	8.19	7.70	47776	31.09
19830-011	7	116	20	07/28/10 16:28:05	13.04	8.21	7.71	47857	31.15
19830-014	7	117	20	07/28/10 16:28:14	13.05	8.14	7.71	47779	31.09
19830-005	7	118	20	07/28/10 16:28:22	13.03	8.15	7.71	47780	31.09
19830-001	7	119	20	07/28/10 16:28:31	12.97	8.18	7.70	47708	31.04
19830-000	7	120	20	07/28/10 16:28:40	12.94	8.15	7.71	47802	31.10
19830-009	7	121	20	07/28/10 16:28:50	12.82	8.26	7.72	47692	31.02
19830-010	7	122	20	07/28/10 16:28:57	12.77	8.24	7.71	47835	31.12
19830-007	7	123	20	07/28/10 16:29:04	12.76	8.16	7.69	47835	31.12
19830-002	7	124	20	07/28/10 16:29:13	12.75	8.05	7.66	47886	31.16
19830-013	7	125	20	07/28/10 16:29:21	12.78	7.95	7.66	47871	31.15
19830-016	7	126	20	07/28/10 16:29:31	12.88	7.91	7.66	47918	31.18
19830-017	8	127	20	07/28/10 16:29:41	12.99	7.93	7.65	47874	31.16
19830-013	8	128	20	07/28/10 16:29:48	13.03	7.91	7.67	47852	31.14
19830-010	8	129	20	07/28/10 16:30:02	13.05	8.04	7.73	47882	31.16
19830-007	8	130	20	07/28/10 16:30:12	13.11	8.16	7.72	47832	31.13
19830-011	8	131	20	07/28/10 16:30:22	13.08	8.15	7.68	47728	31.05
19830-002	8	132	20	07/28/10 16:30:34	13.00	7.78	7.68	47769	31.08
19830-004	8	133	20	07/28/10 16:30:45	13.04	7.55	7.67	47845	31.14
19830-003	8	134	20	07/28/10 16:30:53	13.06	7.65	7.67	47792	31.10
19830-005	8	135	20	07/28/10 16:31:04	13.01	7.81	7.64	47766	31.08
19830-012	8	136	20	07/28/10 16:31:15	12.89	7.65	7.65	47747	31.06
19830-006	8	137	20	07/28/10 16:31:26	12.77	7.82	7.67	47822	31.11
19830-001	8	138	20	07/28/10 16:31:35	12.73	7.85	7.68	47876	31.15
19830-014	8	139	20	07/28/10 16:31:48	12.78	7.81	7.69	47855	31.13
19830-000	8	140	20	07/28/10 16:31:58	12.84	7.64	7.70	47874	31.15
19830-009	8	141	20	07/28/10 16:32:10	12.85	7.85	7.70	47875	31.15
19830-008	8	142	20	07/28/10 16:32:23	12.89	8.00	7.74	47849	31.13
19830-015	8	143	20	07/28/10 16:32:36	12.96	8.09	7.74	47863	31.15
19830-016	8	144	20	07/28/10 16:32:47	13.03	8.00	7.69	47850	31.14
19830-002	1	1	21	07/29/10 14:26:32	12.83	9.09	7.55	47611	30.96
19830-016	1	2	21	07/29/10 14:27:12	12.75	9.00	7.49	45239	29.25
19830-015	1	3	21	07/29/10 14:27:28	12.68	8.77	7.54	47619	30.96
19830-017	1	4	21	07/29/10 14:27:50	12.73	8.33	7.46	47525	30.89
19830-001	1	5	21	07/29/10 14:28:09	12.71	8.12	7.49	47597	30.95
19830-011	1	6	21	07/29/10 14:28:32	12.69	8.32	7.53	47586	30.94
19830-014	1	7	21	07/29/10 14:29:30	12.69	7.02	7.33	47591	30.94
19830-009	1	8	21	07/29/10 14:29:58	12.62	7.15	7.48	47584	30.93
19830-012	1	9	21	07/29/10 14:30:20	12.66	7.29	7.52	47619	30.96
19830-010	1	10	21	07/29/10 14:31:11	12.58	8.36	7.68	47619	30.96
19830-008	1	11	21	07/29/10 14:31:31	12.51	8.51	7.74	47604	30.94
19830-006	1	12	21	07/29/10 14:31:53	12.51	8.40	7.64	47646	30.97
19830-004	1	13	21	07/29/10 14:32:09	12.52	8.46	7.53	47608	30.95
19830-013	1	14	21	07/29/10 14:32:24	12.54	8.33	7.52	47607	30.95
19830-000	1	15	21	07/29/10 14:32:42	12.52	8.33	7.52	47632	30.96
19830-005	1	16	21	07/29/10 14:33:04	12.51	8.57	7.64	47753	31.05
19830-007	1	17	21	07/29/10 14:33:29	12.52	8.60	7.52	47790	31.08
19830-003	1	18	21	07/29/10 14:34:00	12.67	8.55	7.53	47696	31.02
19830-009	2	19	21	07/29/10 14:34:36	12.65	8.34	7.54	47630	30.97
19830-016	2	20	21	07/29/10 14:34:55	12.66	8.19	7.53	47596	30.94
19830-007	2	21	21	07/29/10 14:35:43	12.66	7.24	7.25	47587	30.94

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	2	22	21	07/29/10 14:36:22	12.66	7.81	7.52	47556	30.91
19830-008	2	23	21	07/29/10 14:37:07	12.67	8.36	7.73	47375	30.78
19830-002	2	24	21	07/29/10 14:37:46	12.64	7.80	7.44	47550	30.91
19830-012	2	25	21	07/29/10 14:38:07	12.61	7.78	7.48	47527	30.89
19830-004	2	26	21	07/29/10 14:38:29	12.63	7.85	7.42	47536	30.90
19830-000	2	27	21	07/29/10 14:39:11	12.51	8.61	7.54	47563	30.91
19830-003	2	28	21	07/29/10 14:39:48	12.47	8.44	7.47	47295	30.72
19830-011	2	29	21	07/29/10 14:40:11	12.49	8.28	7.52	47582	30.93
19830-017	2	30	21	07/29/10 14:40:37	12.51	8.16	7.42	47555	30.91
19830-014	2	31	21	07/29/10 14:41:25	12.45	7.34	7.38	47586	30.93
19830-001	2	32	21	07/29/10 14:42:10	12.41	6.74	7.35	47553	30.90
19830-013	2	33	21	07/29/10 14:42:57	12.45	7.60	7.37	47604	30.94
19830-010	2	34	21	07/29/10 14:44:00	12.54	8.08	7.54	47574	30.92
19830-006	2	35	21	07/29/10 14:44:59	12.65	7.12	7.28	47636	30.97
19830-005	2	36	21	07/29/10 14:46:44	12.61	7.02	7.39	47626	30.96
19830-013	3	37	21	07/29/10 14:47:15	12.57	7.31	7.29	47648	30.98
19830-009	3	38	21	07/29/10 14:47:28	12.63	6.91	7.36	47623	30.96
19830-017	3	39	21	07/29/10 14:47:37	12.68	7.28	7.35	47545	30.91
19830-016	3	40	21	07/29/10 14:47:51	12.63	7.12	7.34	47581	30.93
19830-000	3	41	21	07/29/10 14:48:03	12.62	7.49	7.45	47577	30.93
19830-010	3	42	21	07/29/10 14:48:15	12.63	8.14	7.47	47548	30.91
19830-008	3	43	21	07/29/10 14:48:26	12.56	8.21	7.50	47554	30.91
19830-014	3	44	21	07/29/10 14:48:34	12.55	8.18	7.53	47551	30.91
19830-004	3	45	21	07/29/10 14:48:42	12.55	8.10	7.51	47508	30.87
19830-006	3	46	21	07/29/10 14:48:50	12.55	7.92	7.39	47593	30.94
19830-005	3	47	21	07/29/10 14:49:03	12.54	7.06	7.43	47592	30.94
19830-011	3	48	21	07/29/10 14:49:12	12.40	7.33	7.49	47601	30.94
19830-002	3	49	21	07/29/10 14:49:21	12.37	7.76	7.46	47628	30.95
19830-012	3	50	21	07/29/10 14:49:31	12.45	7.55	7.33	47633	30.96
19830-001	3	51	21	07/29/10 14:49:57	12.33	6.74	7.57	47731	31.03
19830-003	3	52	21	07/29/10 14:50:14	12.32	8.15	7.67	47687	30.99
19830-007	3	53	21	07/29/10 14:50:24	12.33	8.58	7.59	47688	31.00
19830-015	3	54	21	07/29/10 14:50:32	12.33	8.54	7.57	47680	30.99
19830-006	4	55	21	07/29/10 14:50:42	12.28	8.51	7.68	47695	31.00
19830-011	4	56	21	07/29/10 14:50:57	12.21	8.66	7.70	47670	30.98
19830-012	4	57	21	07/29/10 14:51:09	12.16	8.63	7.73	47668	30.97
19830-010	4	58	21	07/29/10 14:51:18	12.13	8.76	7.74	47714	31.01
19830-015	4	59	21	07/29/10 14:51:33	12.03	8.82	7.67	47744	31.02
19830-009	4	60	21	07/29/10 14:51:41	11.98	8.72	7.68	47728	31.01
19830-001	4	61	21	07/29/10 14:51:52	11.98	8.66	7.70	47854	31.10
19830-016	4	62	21	07/29/10 14:52:06	12.11	8.41	7.53	47750	31.03
19830-008	4	63	21	07/29/10 14:52:28	12.27	8.36	7.66	47690	30.99
19830-004	4	64	21	07/29/10 14:52:53	12.42	8.17	7.55	47680	30.99
19830-007	4	65	21	07/29/10 14:53:22	12.25	8.08	7.41	47749	31.04
19830-014	4	66	21	07/29/10 14:53:36	12.21	7.97	7.38	47680	30.99
19830-000	4	67	21	07/29/10 14:53:48	12.19	7.66	7.36	47642	30.96
19830-017	4	68	21	07/29/10 14:54:01	12.18	7.81	7.34	47636	30.95
19830-013	4	69	21	07/29/10 14:54:08	12.17	7.82	7.36	47648	30.96
19830-002	4	70	21	07/29/10 14:54:24	12.18	8.05	7.50	47660	30.97
19830-005	4	71	21	07/29/10 14:54:36	12.20	8.17	7.59	47650	30.96
19830-003	4	72	21	07/29/10 14:54:49	12.20	8.26	7.56	47641	30.96
19830-016	5	73	21	07/29/10 14:55:01	12.18	8.34	7.50	47638	30.95
19830-003	5	74	21	07/29/10 14:55:27	12.17	8.00	7.44	47621	30.94
19830-000	5	75	21	07/29/10 14:55:47	12.22	8.09	7.48	47623	30.94

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	5	76	21	07/29/10 14:56:03	12.26	8.34	7.44	47592	30.92
19830-001	5	77	21	07/29/10 14:56:18	12.30	8.29	7.51	46090	29.84
19830-002	5	78	21	07/29/10 14:56:32	12.36	8.29	7.48	47633	30.96
19830-004	5	79	21	07/29/10 14:56:40	12.41	8.14	7.44	47614	30.95
19830-012	5	80	21	07/29/10 14:56:52	12.48	8.03	7.50	47655	30.98
19830-005	5	81	21	07/29/10 14:57:08	12.33	8.34	7.60	47647	30.97
19830-011	5	82	21	07/29/10 14:57:19	12.24	8.24	7.60	47615	30.94
19830-010	5	83	21	07/29/10 14:57:29	12.19	8.19	7.58	47666	30.97
19830-017	5	84	21	07/29/10 14:57:40	12.19	8.26	7.49	47551	30.89
19830-009	5	85	21	07/29/10 14:57:51	12.18	7.93	7.45	47677	30.98
19830-006	5	86	21	07/29/10 14:58:04	12.23	7.82	7.49	47647	30.96
19830-008	5	87	21	07/29/10 14:58:15	12.23	8.06	7.59	47682	30.99
19830-007	5	88	21	07/29/10 14:58:29	12.24	8.39	7.55	47747	31.03
19830-014	5	89	21	07/29/10 14:58:59	12.17	8.40	7.56	47703	31.00
19830-015	5	90	21	07/29/10 14:59:10	12.16	8.35	7.56	47703	31.00
19830-005	6	91	21	07/29/10 14:59:20	12.17	8.37	7.63	47715	31.01
19830-007	6	92	21	07/29/10 14:59:31	12.19	8.40	7.60	47735	31.02
19830-002	6	93	21	07/29/10 15:00:01	12.27	8.26	7.49	47682	30.99
19830-009	6	94	21	07/29/10 15:00:10	12.29	8.17	7.51	47681	30.99
19830-013	6	95	21	07/29/10 15:00:18	12.28	8.09	7.53	47743	31.03
19830-004	6	96	21	07/29/10 15:00:27	12.34	8.09	7.51	47773	31.06
19830-012	6	97	21	07/29/10 15:00:40	12.28	8.26	7.54	47701	31.00
19830-015	6	98	21	07/29/10 15:00:51	12.21	8.55	7.61	47680	30.98
19830-014	6	99	21	07/29/10 15:01:01	12.14	8.43	7.58	47718	31.01
19830-003	6	100	21	07/29/10 15:01:09	12.12	8.35	7.58	47790	31.06
19830-010	6	101	21	07/29/10 15:01:26	12.13	8.60	7.63	47826	31.09
19830-000	6	102	21	07/29/10 15:01:39	12.11	8.80	7.64	47794	31.06
19830-016	6	103	21	07/29/10 15:01:49	12.08	8.89	7.62	47810	31.07
19830-001	6	104	21	07/29/10 15:02:00	12.09	8.77	7.65	47880	31.12
19830-017	6	105	21	07/29/10 15:02:11	12.07	8.72	7.63	47736	31.02
19830-008	6	106	21	07/29/10 15:02:19	12.07	8.73	7.67	47762	31.04
19830-011	6	107	21	07/29/10 15:02:30	12.07	8.85	7.71	47762	31.04
19830-006	6	108	21	07/29/10 15:02:38	12.12	8.78	7.66	47864	31.11
19830-015	7	109	21	07/29/10 15:02:47	12.21	8.69	7.62	47809	31.08
19830-017	7	110	21	07/29/10 15:02:57	12.30	8.61	7.61	47839	31.10
19830-003	7	111	21	07/29/10 15:03:05	12.35	8.57	7.60	47870	31.13
19830-008	7	112	21	07/29/10 15:03:14	12.38	8.56	7.63	47927	31.17
19830-006	7	113	21	07/29/10 15:03:30	12.47	8.69	7.58	47656	30.98
19830-012	7	114	21	07/29/10 15:03:38	12.50	8.66	7.57	47483	30.85
19830-004	7	115	21	07/29/10 15:03:46	12.45	8.64	7.58	47405	30.80
19830-011	7	116	21	07/29/10 15:03:53	12.40	8.65	7.57	47483	30.85
19830-014	7	117	21	07/29/10 15:04:02	12.35	8.60	7.59	47584	30.92
19830-005	7	118	21	07/29/10 15:04:09	12.33	8.56	7.59	47565	30.91
19830-001	7	119	21	07/29/10 15:04:16	12.32	8.56	7.58	47499	30.86
19830-000	7	120	21	07/29/10 15:04:23	12.31	8.54	7.60	47548	30.89
19830-009	7	121	21	07/29/10 15:04:30	12.25	8.59	7.61	47502	30.86
19830-010	7	122	21	07/29/10 15:04:41	12.11	8.60	7.56	47622	30.94
19830-007	7	123	21	07/29/10 15:04:50	12.10	8.38	7.50	47725	31.01
19830-002	7	124	21	07/29/10 15:05:00	12.10	8.25	7.47	47791	31.06
19830-013	7	125	21	07/29/10 15:05:10	12.15	8.19	7.47	47775	31.05
19830-016	7	126	21	07/29/10 15:05:19	12.24	8.25	7.48	47770	31.05
19830-017	8	127	21	07/29/10 15:05:28	12.36	8.28	7.44	47740	31.03
19830-013	8	128	21	07/29/10 15:05:36	12.43	8.20	7.46	47735	31.03
19830-010	8	129	21	07/29/10 15:05:51	12.60	8.28	7.62	47641	30.97

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	8	130	21	07/29/10 15:06:01	12.61	8.46	7.58	47542	30.90
19830-011	8	131	21	07/29/10 15:06:10	12.55	8.44	7.51	47473	30.85
19830-002	8	132	21	07/29/10 15:06:20	12.43	7.94	7.48	47567	30.91
19830-004	8	133	21	07/29/10 15:06:30	12.42	7.42	7.46	47569	30.91
19830-003	8	134	21	07/29/10 15:06:38	12.43	7.47	7.47	47549	30.90
19830-005	8	135	21	07/29/10 15:06:46	12.36	7.80	7.45	47589	30.93
19830-012	8	136	21	07/29/10 15:06:58	12.27	7.87	7.50	47633	30.95
19830-006	8	137	21	07/29/10 15:07:09	12.22	7.98	7.50	47712	31.01
19830-001	8	138	21	07/29/10 15:07:19	12.19	8.04	7.51	47701	31.00
19830-014	8	139	21	07/29/10 15:07:28	12.20	8.04	7.52	47681	30.99
19830-000	8	140	21	07/29/10 15:07:36	12.22	7.90	7.51	47720	31.01
19830-009	8	141	21	07/29/10 15:07:45	12.26	7.98	7.54	47742	31.03
19830-008	8	142	21	07/29/10 15:07:55	12.31	8.23	7.60	47740	31.03
19830-015	8	143	21	07/29/10 15:08:04	12.37	8.40	7.64	47841	31.11
19830-016	8	144	21	07/29/10 15:08:17	12.50	8.34	7.52	47668	30.99
19830-002	1	1	22	07/30/10 11:23:15	12.97	8.13	7.60	48221	31.41
19830-016	1	2	22	07/30/10 11:23:53	12.87	7.83	7.55	48023	31.26
19830-015	1	3	22	07/30/10 11:24:01	12.84	7.77	7.54	48220	31.40
19830-017	1	4	22	07/30/10 11:24:15	12.85	7.46	7.47	48209	31.39
19830-001	1	5	22	07/30/10 11:24:29	12.86	6.87	7.50	48218	31.40
19830-011	1	6	22	07/30/10 11:24:40	12.84	6.78	7.55	48235	31.41
19830-014	1	7	22	07/30/10 11:24:51	12.80	6.96	7.50	48211	31.39
19830-009	1	8	22	07/30/10 11:25:08	12.72	6.12	7.50	48259	31.42
19830-012	1	9	22	07/30/10 11:25:19	12.75	5.90	7.53	48257	31.42
19830-010	1	10	22	07/30/10 11:25:34	12.69	6.11	7.57	48213	31.39
19830-008	1	11	22	07/30/10 11:25:49	12.62	6.75	7.68	48255	31.42
19830-006	1	12	22	07/30/10 11:25:59	12.59	6.93	7.70	48274	31.43
19830-004	1	13	22	07/30/10 11:26:13	12.61	7.57	7.61	48218	31.39
19830-013	1	14	22	07/30/10 11:26:25	12.60	7.58	7.51	48232	31.40
19830-000	1	15	22	07/30/10 11:26:36	12.57	7.41	7.48	48281	31.43
19830-005	1	16	22	07/30/10 11:26:50	12.52	7.56	7.64	48346	31.48
19830-007	1	17	22	07/30/10 11:27:04	12.48	8.10	7.66	48410	31.52
19830-003	1	18	22	07/30/10 11:27:14	12.52	8.29	7.61	48428	31.54
19830-009	2	19	22	07/30/10 11:27:32	12.74	8.14	7.66	48333	31.48
19830-016	2	20	22	07/30/10 11:27:47	12.77	7.95	7.63	48255	31.42
19830-007	2	21	22	07/30/10 11:27:58	12.77	7.76	7.50	48267	31.43
19830-015	2	22	22	07/30/10 11:28:08	12.78	7.48	7.46	48209	31.39
19830-008	2	23	22	07/30/10 11:28:16	12.78	7.42	7.58	48186	31.37
19830-002	2	24	22	07/30/10 11:28:26	12.74	7.61	7.65	48218	31.40
19830-012	2	25	22	07/30/10 11:28:38	12.69	7.53	7.54	48186	31.37
19830-004	2	26	22	07/30/10 11:28:48	12.69	7.26	7.47	48199	31.38
19830-000	2	27	22	07/30/10 11:29:01	12.61	7.27	7.48	48210	31.38
19830-003	2	28	22	07/30/10 11:29:11	12.57	7.64	7.47	48104	31.31
19830-011	2	29	22	07/30/10 11:29:19	12.55	7.76	7.49	48199	31.37
19830-017	2	30	22	07/30/10 11:29:27	12.55	7.79	7.51	48194	31.37
19830-014	2	31	22	07/30/10 11:29:37	12.50	7.78	7.43	48165	31.35
19830-001	2	32	22	07/30/10 11:29:51	12.48	6.54	7.36	48195	31.37
19830-013	2	33	22	07/30/10 11:30:14	12.51	6.36	7.43	48253	31.41
19830-010	2	34	22	07/30/10 11:30:22	12.54	6.76	7.46	48277	31.43
19830-006	2	35	22	07/30/10 11:30:37	12.70	7.25	7.38	48329	31.47
19830-005	2	36	22	07/30/10 11:30:58	12.75	6.70	7.38	48252	31.42
19830-013	3	37	22	07/30/10 11:31:43	12.73	4.91	7.16	47897	31.16
19830-009	3	38	22	07/30/10 11:32:16	12.82	6.61	7.37	48022	31.26

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	3	39	22	07/30/10 11:32:26	12.83	7.00	7.37	48179	31.37
19830-016	3	40	22	07/30/10 11:32:38	12.75	6.54	7.35	48216	31.39
19830-000	3	41	22	07/30/10 11:32:51	12.74	6.87	7.44	48223	31.40
19830-010	3	42	22	07/30/10 11:33:04	12.74	7.56	7.49	48216	31.39
19830-008	3	43	22	07/30/10 11:33:15	12.68	7.71	7.51	48175	31.36
19830-014	3	44	22	07/30/10 11:33:23	12.64	7.68	7.53	48237	31.41
19830-004	3	45	22	07/30/10 11:33:38	12.64	7.33	7.46	48187	31.37
19830-006	3	46	22	07/30/10 11:33:54	12.64	6.38	7.26	48225	31.40
19830-005	3	47	22	07/30/10 11:34:41	12.61	7.04	7.55	48262	31.42
19830-011	3	48	22	07/30/10 11:34:51	12.45	7.55	7.59	48293	31.44
19830-002	3	49	22	07/30/10 11:34:59	12.42	7.76	7.59	48316	31.45
19830-012	3	50	22	07/30/10 11:35:13	12.55	6.75	7.36	48278	31.43
19830-001	3	51	22	07/30/10 11:36:06	12.36	8.78	7.47	48375	31.49
19830-003	3	52	22	07/30/10 11:36:21	12.39	8.25	7.65	48321	31.46
19830-007	3	53	22	07/30/10 11:36:35	12.41	8.18	7.56	48297	31.44
19830-015	3	54	22	07/30/10 11:36:45	12.40	7.89	7.61	48348	31.48
19830-006	4	55	22	07/30/10 11:36:56	12.37	7.96	7.75	48322	31.46
19830-011	4	56	22	07/30/10 11:37:07	12.31	8.29	7.80	48289	31.43
19830-012	4	57	22	07/30/10 11:37:16	12.25	8.27	7.81	48322	31.45
19830-010	4	58	22	07/30/10 11:37:24	12.23	8.27	7.80	48319	31.45
19830-015	4	59	22	07/30/10 11:37:34	12.14	8.35	7.74	48338	31.46
19830-009	4	60	22	07/30/10 11:37:44	12.08	8.23	7.74	48373	31.48
19830-001	4	61	22	07/30/10 11:37:53	12.07	8.20	7.78	48502	31.57
19830-016	4	62	22	07/30/10 11:38:08	12.26	8.05	7.64	47996	31.22
19830-008	4	63	22	07/30/10 11:38:17	12.35	7.97	7.61	48443	31.54
19830-004	4	64	22	07/30/10 11:38:31	12.56	7.83	7.62	48357	31.49
19830-007	4	65	22	07/30/10 11:38:47	12.40	7.66	7.54	48334	31.47
19830-014	4	66	22	07/30/10 11:38:58	12.36	7.78	7.49	48277	31.42
19830-000	4	67	22	07/30/10 11:39:10	12.31	7.45	7.45	48263	31.41
19830-017	4	68	22	07/30/10 11:39:19	12.30	7.31	7.40	48276	31.42
19830-013	4	69	22	07/30/10 11:39:28	12.27	7.27	7.43	48336	31.46
19830-002	4	70	22	07/30/10 11:39:38	12.29	7.44	7.54	48313	31.45
19830-005	4	71	22	07/30/10 11:39:46	12.30	7.63	7.59	48317	31.45
19830-003	4	72	22	07/30/10 11:39:55	12.32	7.79	7.59	48287	31.43
19830-016	5	73	22	07/30/10 11:40:05	12.30	7.92	7.55	48296	31.43
19830-003	5	74	22	07/30/10 11:40:17	12.30	7.79	7.48	48262	31.41
19830-000	5	75	22	07/30/10 11:40:26	12.34	7.50	7.45	48293	31.43
19830-013	5	76	22	07/30/10 11:40:37	12.40	7.48	7.47	48270	31.42
19830-001	5	77	22	07/30/10 11:40:46	12.45	7.59	7.52	47393	30.79
19830-002	5	78	22	07/30/10 11:40:56	12.50	7.76	7.54	48321	31.46
19830-004	5	79	22	07/30/10 11:41:08	12.60	7.63	7.46	48240	31.41
19830-012	5	80	22	07/30/10 11:41:19	12.66	7.31	7.51	48285	31.44
19830-005	5	81	22	07/30/10 11:41:34	12.48	7.86	7.62	48194	31.37
19830-011	5	82	22	07/30/10 11:41:43	12.38	7.87	7.62	48231	31.39
19830-010	5	83	22	07/30/10 11:41:52	12.30	7.80	7.63	48329	31.46
19830-017	5	84	22	07/30/10 11:41:59	12.30	7.83	7.61	48231	31.39
19830-009	5	85	22	07/30/10 11:42:07	12.30	7.66	7.54	48322	31.45
19830-006	5	86	22	07/30/10 11:42:16	12.31	7.26	7.55	48277	31.42
19830-008	5	87	22	07/30/10 11:42:24	12.35	7.31	7.56	48338	31.47
19830-007	5	88	22	07/30/10 11:42:35	12.37	7.66	7.57	48349	31.48
19830-014	5	89	22	07/30/10 11:42:45	12.33	7.84	7.57	48364	31.48
19830-015	5	90	22	07/30/10 11:42:54	12.34	7.98	7.59	48346	31.47
19830-005	6	91	22	07/30/10 11:43:01	12.35	8.01	7.62	48352	31.48
19830-007	6	92	22	07/30/10 11:43:12	12.37	8.05	7.62	48362	31.48

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	6	93	22	07/30/10 11:43:20	12.40	8.12	7.58	48316	31.45
19830-009	6	94	22	07/30/10 11:43:30	12.45	8.02	7.58	48340	31.47
19830-013	6	95	22	07/30/10 11:43:40	12.49	7.60	7.59	48327	31.46
19830-004	6	96	22	07/30/10 11:43:47	12.54	7.60	7.57	48434	31.54
19830-012	6	97	22	07/30/10 11:44:22	12.29	8.01	7.64	48476	31.56
19830-015	6	98	22	07/30/10 11:44:31	12.33	8.09	7.66	48355	31.48
19830-014	6	99	22	07/30/10 11:44:44	12.28	7.95	7.60	48308	31.44
19830-003	6	100	22	07/30/10 11:44:55	12.27	7.78	7.59	48406	31.51
19830-010	6	101	22	07/30/10 11:45:03	12.27	7.89	7.61	48402	31.51
19830-000	6	102	22	07/30/10 11:45:12	12.26	8.14	7.65	48423	31.52
19830-016	6	103	22	07/30/10 11:45:21	12.26	8.28	7.64	48387	31.50
19830-001	6	104	22	07/30/10 11:45:28	12.26	8.25	7.69	48438	31.53
19830-017	6	105	22	07/30/10 11:45:44	12.18	8.32	7.65	48262	31.40
19830-008	6	106	22	07/30/10 11:45:56	12.17	8.30	7.72	48413	31.51
19830-011	6	107	22	07/30/10 11:46:09	12.25	8.40	7.73	48359	31.48
19830-006	6	108	22	07/30/10 11:46:17	12.32	8.31	7.70	48449	31.55
19830-015	7	109	22	07/30/10 11:46:26	12.45	8.26	7.67	48504	31.59
19830-017	7	110	22	07/30/10 11:46:35	12.57	8.21	7.64	48461	31.56
19830-003	7	111	22	07/30/10 11:46:46	12.71	8.16	7.60	48454	31.56
19830-008	7	112	22	07/30/10 11:46:58	12.79	8.00	7.66	48504	31.60
19830-006	7	113	22	07/30/10 11:47:08	12.74	8.16	7.69	48125	31.33
19830-012	7	114	22	07/30/10 11:47:16	12.66	8.34	7.65	48090	31.30
19830-004	7	115	22	07/30/10 11:47:25	12.56	8.31	7.65	48095	31.30
19830-011	7	116	22	07/30/10 11:47:35	12.49	8.21	7.63	48115	31.31
19830-014	7	117	22	07/30/10 11:47:44	12.44	8.04	7.66	48212	31.38
19830-005	7	118	22	07/30/10 11:47:50	12.43	8.03	7.68	48214	31.38
19830-001	7	119	22	07/30/10 11:47:58	12.42	8.12	7.66	48156	31.34
19830-000	7	120	22	07/30/10 11:48:04	12.42	8.15	7.65	48218	31.38
19830-009	7	121	22	07/30/10 11:48:13	12.33	8.21	7.62	48222	31.38
19830-010	7	122	22	07/30/10 11:48:21	12.26	8.17	7.60	48279	31.42
19830-007	7	123	22	07/30/10 11:48:29	12.26	7.94	7.54	48358	31.48
19830-002	7	124	22	07/30/10 11:48:39	12.29	7.81	7.52	48438	31.54
19830-013	7	125	22	07/30/10 11:48:46	12.34	7.76	7.53	48411	31.52
19830-016	7	126	22	07/30/10 11:48:54	12.44	7.77	7.52	48454	31.55
19830-017	8	127	22	07/30/10 11:49:01	12.56	7.80	7.49	48421	31.53
19830-013	8	128	22	07/30/10 11:49:08	12.66	7.77	7.49	48470	31.57
19830-010	8	129	22	07/30/10 11:49:17	12.69	7.80	7.57	48320	31.47
19830-007	8	130	22	07/30/10 11:49:24	12.71	7.86	7.62	48196	31.38
19830-011	8	131	22	07/30/10 11:49:34	12.61	7.93	7.55	48141	31.33
19830-002	8	132	22	07/30/10 11:49:45	12.52	7.18	7.50	48240	31.40
19830-004	8	133	22	07/30/10 11:49:56	12.49	6.61	7.48	48270	31.42
19830-003	8	134	22	07/30/10 11:50:04	12.50	6.72	7.49	48182	31.36
19830-005	8	135	22	07/30/10 11:50:13	12.47	7.11	7.47	48202	31.37
19830-012	8	136	22	07/30/10 11:50:20	12.44	7.17	7.43	48232	31.39
19830-006	8	137	22	07/30/10 11:50:27	12.38	7.11	7.48	48354	31.48
19830-001	8	138	22	07/30/10 11:50:34	12.33	7.19	7.53	48362	31.48
19830-014	8	139	22	07/30/10 11:50:42	12.32	7.40	7.57	48389	31.50
19830-000	8	140	22	07/30/10 11:50:48	12.36	7.40	7.54	48415	31.52
19830-009	8	141	22	07/30/10 11:50:55	12.42	7.32	7.55	48432	31.54
19830-008	8	142	22	07/30/10 11:51:04	12.49	7.54	7.62	48428	31.54
19830-015	8	143	22	07/30/10 11:51:12	12.55	7.77	7.66	48495	31.59
19830-016	8	144	22	07/30/10 11:51:19	12.66	7.89	7.65	48436	31.55
19830-002	1	1	23	07/31/10 12:07:35	14.10	8.59	7.71	48826	31.88

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	1	2	23	07/31/10 12:08:23	14.18	7.91	7.70	48818	31.88
19830-015	1	3	23	07/31/10 12:08:46	14.18	7.80	7.73	48809	31.87
19830-017	1	4	23	07/31/10 12:09:14	14.16	7.48	7.67	48615	31.73
19830-001	1	5	23	07/31/10 12:09:40	14.00	7.36	7.70	48800	31.86
19830-011	1	6	23	07/31/10 12:10:12	14.09	7.39	7.67	48804	31.87
19830-014	1	7	23	07/31/10 12:10:31	14.10	7.37	7.67	48809	31.87
19830-009	1	8	23	07/31/10 12:10:53	13.98	7.26	7.69	48775	31.84
19830-012	1	9	23	07/31/10 12:11:15	14.01	7.29	7.69	48812	31.87
19830-010	1	10	23	07/31/10 12:11:33	14.01	7.54	7.70	48800	31.86
19830-008	1	11	23	07/31/10 12:12:06	14.06	7.52	7.72	48768	31.84
19830-006	1	12	23	07/31/10 12:12:35	14.10	7.71	7.71	48799	31.86
19830-004	1	13	23	07/31/10 12:12:56	13.91	7.74	7.67	48711	31.79
19830-013	1	14	23	07/31/10 12:13:25	13.89	7.46	7.65	48795	31.85
19830-000	1	15	23	07/31/10 12:13:50	13.95	7.60	7.65	48820	31.87
19830-005	1	16	23	07/31/10 12:14:19	13.87	7.88	7.72	48782	31.84
19830-007	1	17	23	07/31/10 12:14:45	13.81	8.08	7.68	48768	31.83
19830-003	1	18	23	07/31/10 12:15:19	13.79	7.90	7.64	48835	31.88
19830-009	2	19	23	07/31/10 12:15:49	14.03	7.79	7.69	48680	31.77
19830-016	2	20	23	07/31/10 12:16:08	14.12	7.66	7.70	48649	31.75
19830-007	2	21	23	07/31/10 12:16:24	14.19	7.58	7.64	48817	31.88
19830-015	2	22	23	07/31/10 12:16:41	14.17	7.40	7.67	48806	31.87
19830-008	2	23	23	07/31/10 12:17:03	14.17	7.52	7.71	48808	31.87
19830-002	2	24	23	07/31/10 12:17:20	14.22	7.41	7.69	48809	31.87
19830-012	2	25	23	07/31/10 12:17:46	14.18	7.32	7.66	48708	31.80
19830-004	2	26	23	07/31/10 12:17:59	14.10	7.31	7.65	48780	31.85
19830-000	2	27	23	07/31/10 12:18:27	14.07	7.56	7.66	48810	31.87
19830-003	2	28	23	07/31/10 12:18:48	14.08	7.58	7.64	48793	31.86
19830-011	2	29	23	07/31/10 12:19:06	14.02	7.56	7.68	48804	31.86
19830-017	2	30	23	07/31/10 12:19:28	14.08	7.54	7.65	48806	31.87
19830-014	2	31	23	07/31/10 12:19:50	14.01	7.31	7.66	48794	31.86
19830-001	2	32	23	07/31/10 12:20:09	13.90	6.99	7.66	48755	31.83
19830-013	2	33	23	07/31/10 12:20:37	13.91	7.14	7.66	48754	31.82
19830-010	2	34	23	07/31/10 12:21:09	13.96	7.33	7.66	48809	31.87
19830-006	2	35	23	07/31/10 12:22:05	13.99	7.14	7.59	48499	31.64
19830-005	2	36	23	07/31/10 12:22:33	14.12	7.23	7.65	48804	31.87
19830-013	3	37	23	07/31/10 12:22:58	14.13	7.27	7.65	48803	31.87
19830-009	3	38	23	07/31/10 12:23:20	14.10	7.31	7.64	48797	31.86
19830-017	3	39	23	07/31/10 12:23:44	14.16	7.17	7.60	48805	31.87
19830-016	3	40	23	07/31/10 12:24:04	14.00	7.11	7.61	48767	31.84
19830-000	3	41	23	07/31/10 12:24:34	14.18	7.63	7.66	48773	31.85
19830-010	3	42	23	07/31/10 12:24:56	14.14	7.42	7.61	48793	31.86
19830-008	3	43	23	07/31/10 12:25:23	13.85	7.37	7.64	48805	31.86
19830-014	3	44	23	07/31/10 12:25:45	14.04	7.23	7.67	48778	31.85
19830-004	3	45	23	07/31/10 12:26:06	14.07	7.12	7.64	48792	31.86
19830-006	3	46	23	07/31/10 12:26:34	14.01	7.13	7.66	48801	31.86
19830-005	3	47	23	07/31/10 12:26:56	14.05	7.36	7.68	48813	31.87
19830-011	3	48	23	07/31/10 12:27:18	13.78	7.55	7.70	48814	31.86
19830-002	3	49	23	07/31/10 12:27:37	13.92	7.39	7.67	48844	31.89
19830-012	3	50	23	07/31/10 12:27:57	13.87	7.35	7.68	48796	31.85
19830-001	3	51	23	07/31/10 12:28:44	12.83	7.75	7.72	48115	31.32
19830-003	3	52	23	07/31/10 12:29:09	12.90	7.96	7.71	48638	31.71
19830-007	3	53	23	07/31/10 12:29:27	12.97	7.82	7.61	48522	31.62
19830-015	3	54	23	07/31/10 12:29:48	13.03	7.74	7.72	48382	31.52
19830-006	4	55	23	07/31/10 12:30:09	12.94	8.06	7.77	48872	31.88

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	4	56	23	07/31/10 12:30:44	12.93	7.84	7.80	48885	31.89
19830-012	4	57	23	07/31/10 12:31:02	12.91	7.92	7.78	48909	31.90
19830-010	4	58	23	07/31/10 12:31:24	12.80	8.13	7.76	48885	31.88
19830-015	4	59	23	07/31/10 12:31:59	12.59	7.84	7.63	48816	31.82
19830-009	4	60	23	07/31/10 12:32:33	12.59	8.18	7.75	48294	31.44
19830-001	4	61	23	07/31/10 12:32:52	12.67	7.91	7.76	47128	30.61
19830-016	4	62	23	07/31/10 12:33:11	12.88	7.61	7.66	48890	31.89
19830-008	4	63	23	07/31/10 12:33:37	13.00	7.61	7.69	48889	31.89
19830-004	4	64	23	07/31/10 12:33:56	13.07	7.41	7.65	48694	31.75
19830-007	4	65	23	07/31/10 12:49:34	12.78	8.05	7.55	47626	30.97
19830-014	4	66	23	07/31/10 12:49:57	12.91	7.75	7.58	48909	31.90
19830-000	4	67	23	07/31/10 12:50:13	12.93	7.52	7.58	48892	31.89
19830-017	4	68	23	07/31/10 12:50:40	13.00	7.94	7.54	48881	31.89
19830-013	4	69	23	07/31/10 12:50:57	13.02	7.61	7.60	48896	31.90
19830-002	4	70	23	07/31/10 12:51:14	13.02	7.64	7.65	48884	31.89
19830-005	4	71	23	07/31/10 12:51:27	13.01	7.65	7.68	48856	31.87
19830-003	4	72	23	07/31/10 12:51:40	12.91	7.82	7.65	48818	31.84
19830-016	5	73	23	07/31/10 12:52:07	12.87	7.55	7.61	48892	31.89
19830-003	5	74	23	07/31/10 12:52:31	12.98	7.15	7.56	48863	31.87
19830-000	5	75	23	07/31/10 12:53:03	13.12	7.30	7.58	48866	31.88
19830-013	5	76	23	07/31/10 12:53:24	13.16	7.34	7.58	48858	31.88
19830-001	5	77	23	07/31/10 12:53:50	13.18	7.51	7.67	48846	31.87
19830-002	5	78	23	07/31/10 12:54:12	13.24	7.53	7.59	48871	31.89
19830-004	5	79	23	07/31/10 12:54:33	13.21	7.28	7.57	48851	31.87
19830-012	5	80	23	07/31/10 12:54:56	13.15	7.58	7.66	48742	31.79
19830-005	5	81	23	07/31/10 12:56:31	13.03	7.79	7.71	48884	31.89
19830-011	5	82	23	07/31/10 12:57:01	13.16	7.76	7.70	48882	31.89
19830-010	5	83	23	07/31/10 12:57:17	13.16	7.71	7.71	48885	31.89
19830-017	5	84	23	07/31/10 12:57:36	13.48	7.32	7.62	48882	31.90
19830-009	5	85	23	07/31/10 12:57:59	13.47	7.06	7.66	48842	31.87
19830-006	5	86	23	07/31/10 12:58:24	13.23	7.43	7.61	48819	31.85
19830-008	5	87	23	07/31/10 12:58:42	13.49	7.56	7.67	48905	31.92
19830-007	5	88	23	07/31/10 12:59:03	13.49	7.67	7.63	48858	31.89
19830-014	5	89	23	07/31/10 12:59:30	13.45	7.61	7.69	48839	31.87
19830-015	5	90	23	07/31/10 12:59:43	13.52	7.60	7.69	48884	31.91
19830-005	6	91	23	07/31/10 12:59:59	13.61	7.80	7.73	48842	31.88
19830-007	6	92	23	07/31/10 13:00:10	13.65	7.89	7.70	48891	31.92
19830-002	6	93	23	07/31/10 13:00:27	13.77	7.87	7.69	48832	31.88
19830-009	6	94	23	07/31/10 13:00:41	13.89	7.71	7.70	48803	31.86
19830-013	6	95	23	07/31/10 13:01:00	13.88	7.74	7.70	48801	31.86
19830-004	6	96	23	07/31/10 13:01:18	13.86	7.86	7.70	48791	31.85
19830-012	6	97	23	07/31/10 13:11:35	12.70	7.49	7.75	48967	31.94
19830-015	6	98	23	07/31/10 13:11:53	12.67	7.78	7.73	48931	31.91
19830-014	6	99	23	07/31/10 13:12:10	12.61	7.74	7.73	48917	31.90
19830-003	6	100	23	07/31/10 13:12:21	12.58	7.71	7.70	48881	31.87
19830-010	6	101	23	07/31/10 13:12:44	12.55	8.16	7.75	48961	31.93
19830-000	6	102	23	07/31/10 13:13:14	12.60	8.06	7.69	48814	31.82
19830-016	6	103	23	07/31/10 13:13:41	12.57	7.90	7.71	48864	31.86
19830-001	6	104	23	07/31/10 13:14:09	12.46	8.00	7.79	48724	31.75
19830-017	6	105	23	07/31/10 13:14:31	12.34	8.11	7.72	48934	31.90
19830-008	6	106	23	07/31/10 13:14:49	12.34	8.16	7.81	48963	31.92
19830-011	6	107	23	07/31/10 13:15:03	12.44	8.13	7.78	48969	31.93
19830-006	6	108	23	07/31/10 13:15:20	12.57	7.97	7.73	48983	31.94
19830-015	7	109	23	07/31/10 13:15:39	12.71	7.99	7.72	48969	31.94

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	7	110	23	07/31/10 13:15:52	12.81	7.88	7.70	48938	31.92
19830-003	7	111	23	07/31/10 13:16:07	12.90	7.87	7.66	48928	31.92
19830-008	7	112	23	07/31/10 13:16:30	12.96	7.88	7.71	48934	31.92
19830-006	7	113	23	07/31/10 13:16:53	13.07	8.03	7.68	48787	31.82
19830-012	7	114	23	07/31/10 13:17:09	13.16	7.87	7.67	48866	31.88
19830-004	7	115	23	07/31/10 13:17:26	13.14	7.78	7.68	48851	31.87
19830-011	7	116	23	07/31/10 13:17:43	13.14	7.71	7.71	48863	31.88
19830-014	7	117	23	07/31/10 13:18:01	13.08	7.65	7.75	48867	31.88
19830-005	7	118	23	07/31/10 13:18:18	13.05	7.91	7.71	48815	31.84
19830-001	7	119	23	07/31/10 13:18:32	13.00	7.83	7.72	48830	31.85
19830-000	7	120	23	07/31/10 13:18:49	12.92	7.88	7.68	48869	31.87
19830-009	7	121	23	07/31/10 13:19:06	12.69	7.90	7.66	48830	31.84
19830-010	7	122	23	07/31/10 13:19:22	12.73	7.55	7.64	48931	31.91
19830-007	7	123	23	07/31/10 13:19:35	12.74	7.40	7.60	48905	31.89
19830-002	7	124	23	07/31/10 13:19:51	12.77	7.46	7.62	48931	31.91
19830-013	7	125	23	07/31/10 13:20:14	12.83	7.59	7.63	48804	31.82
19830-016	7	126	23	07/31/10 13:20:28	12.94	7.65	7.61	48971	31.95
19830-017	8	127	23	07/31/10 13:20:43	13.07	7.50	7.59	48915	31.91
19830-013	8	128	23	07/31/10 13:21:08	13.10	7.49	7.63	48884	31.89
19830-010	8	129	23	07/31/10 13:21:34	13.14	7.81	7.70	48893	31.90
19830-007	8	130	23	07/31/10 13:21:48	13.21	7.73	7.65	48803	31.84
19830-011	8	131	23	07/31/10 13:22:23	13.22	6.30	7.65	48840	31.86
19830-002	8	132	23	07/31/10 13:22:57	13.20	6.51	7.65	48917	31.92
19830-004	8	133	23	07/31/10 13:23:26	13.50	7.20	7.61	48844	31.88
19830-003	8	134	23	07/31/10 13:23:40	13.62	7.27	7.63	48853	31.89
19830-005	8	135	23	07/31/10 13:23:58	13.52	7.33	7.58	48808	31.85
19830-012	8	136	23	07/31/10 13:24:22	13.51	7.28	7.68	48835	31.87
19830-006	8	137	23	07/31/10 13:24:45	13.38	7.57	7.66	48862	31.89
19830-001	8	138	23	07/31/10 13:25:02	13.48	7.66	7.72	48828	31.86
19830-014	8	139	23	07/31/10 13:25:18	13.42	7.63	7.68	48910	31.92
19830-000	8	140	23	07/31/10 13:25:39	13.70	7.58	7.67	48870	31.90
19830-009	8	141	23	07/31/10 13:25:56	13.89	7.81	7.70	48855	31.90
19830-008	8	142	23	07/31/10 13:26:16	13.70	7.95	7.73	48786	31.84
19830-015	8	143	23	07/31/10 13:26:39	13.83	7.93	7.73	48702	31.78
19830-016	8	144	23	07/31/10 13:27:12	13.88	7.75	7.67	48817	31.87
19830-002	1	1	24	08/01/10 13:14:34	13.20	8.18	7.56	48237	31.43
19830-016	1	2	24	08/01/10 13:15:03	13.10	7.98	7.55	48277	31.45
19830-015	1	3	24	08/01/10 13:15:15	13.04	7.97	7.58	48309	31.47
19830-017	1	4	24	08/01/10 13:15:29	13.07	7.66	7.52	48314	31.48
19830-001	1	5	24	08/01/10 13:16:14	13.02	7.33	7.58	47752	31.07
19830-011	1	6	24	08/01/10 13:16:29	12.99	7.11	7.55	48315	31.48
19830-014	1	7	24	08/01/10 13:16:40	12.99	7.34	7.52	48314	31.47
19830-009	1	8	24	08/01/10 13:16:57	12.92	6.78	7.53	48297	31.46
19830-012	1	9	24	08/01/10 13:17:14	12.93	6.65	7.58	48309	31.47
19830-010	1	10	24	08/01/10 13:17:52	12.87	7.42	7.62	48304	31.46
19830-008	1	11	24	08/01/10 13:18:02	12.84	7.51	7.65	48326	31.48
19830-006	1	12	24	08/01/10 13:18:13	12.84	7.53	7.67	48296	31.46
19830-004	1	13	24	08/01/10 13:18:25	12.81	7.82	7.59	48309	31.46
19830-013	1	14	24	08/01/10 13:18:35	12.78	7.81	7.51	48323	31.47
19830-000	1	15	24	08/01/10 13:18:46	12.75	7.70	7.49	48319	31.47
19830-005	1	16	24	08/01/10 13:18:57	12.70	7.73	7.60	48301	31.45
19830-007	1	17	24	08/01/10 13:19:09	12.66	8.07	7.64	48346	31.49
19830-003	1	18	24	08/01/10 13:19:22	12.70	8.26	7.57	48360	31.50

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	2	19	24	08/01/10 13:19:35	12.82	8.13	7.55	48487	31.59
19830-016	2	20	24	08/01/10 13:19:44	12.94	8.08	7.57	48367	31.51
19830-007	2	21	24	08/01/10 13:19:58	12.98	7.85	7.46	48282	31.45
19830-015	2	22	24	08/01/10 13:20:27	13.03	7.45	7.55	48281	31.45
19830-008	2	23	24	08/01/10 13:20:41	13.06	7.46	7.61	48291	31.46
19830-002	2	24	24	08/01/10 13:20:48	13.07	7.56	7.60	48281	31.45
19830-012	2	25	24	08/01/10 13:20:56	13.05	7.58	7.55	48224	31.41
19830-004	2	26	24	08/01/10 13:21:08	12.98	7.47	7.48	48233	31.42
19830-000	2	27	24	08/01/10 13:21:17	12.91	7.31	7.46	48243	31.42
19830-003	2	28	24	08/01/10 13:21:28	12.88	7.56	7.47	48254	31.43
19830-011	2	29	24	08/01/10 13:21:37	12.87	7.75	7.49	48264	31.43
19830-017	2	30	24	08/01/10 13:21:45	12.86	7.79	7.52	48278	31.44
19830-014	2	31	24	08/01/10 13:21:54	12.84	7.78	7.47	48262	31.43
19830-001	2	32	24	08/01/10 13:22:07	12.78	7.12	7.43	47064	30.56
19830-013	2	33	24	08/01/10 13:22:32	12.75	7.00	7.48	48296	31.45
19830-010	2	34	24	08/01/10 13:22:40	12.77	7.31	7.49	48318	31.47
19830-006	2	35	24	08/01/10 13:22:55	12.86	7.51	7.43	48408	31.54
19830-005	2	36	24	08/01/10 13:23:07	12.91	7.37	7.47	48351	31.50
19830-013	3	37	24	08/01/10 13:23:17	12.90	7.45	7.49	48328	31.48
19830-009	3	38	24	08/01/10 13:23:28	12.94	7.28	7.49	48341	31.49
19830-017	3	39	24	08/01/10 13:23:39	13.01	7.31	7.41	48257	31.43
19830-016	3	40	24	08/01/10 13:23:51	12.92	6.86	7.37	48248	31.42
19830-000	3	41	24	08/01/10 13:24:05	12.92	7.19	7.47	48298	31.46
19830-010	3	42	24	08/01/10 13:24:16	12.96	7.66	7.40	48304	31.47
19830-008	3	43	24	08/01/10 13:24:29	12.91	6.79	7.40	48272	31.44
19830-014	3	44	24	08/01/10 13:24:44	12.92	7.03	7.46	48284	31.45
19830-004	3	45	24	08/01/10 13:24:51	12.92	7.12	7.45	48269	31.44
19830-006	3	46	24	08/01/10 13:25:02	12.90	7.12	7.42	48047	31.28
19830-005	3	47	24	08/01/10 13:25:15	12.88	7.13	7.50	48290	31.45
19830-011	3	48	24	08/01/10 13:25:23	12.75	7.41	7.53	48154	31.35
19830-002	3	49	24	08/01/10 13:25:30	12.71	7.67	7.54	48425	31.54
19830-012	3	50	24	08/01/10 13:25:43	12.78	7.50	7.52	48281	31.44
19830-001	3	51	24	08/01/10 13:26:09	12.55	8.03	7.66	48334	31.47
19830-003	3	52	24	08/01/10 13:26:25	12.57	8.10	7.65	48343	31.48
19830-007	3	53	24	08/01/10 13:26:35	12.60	8.23	7.57	48388	31.51
19830-015	3	54	24	08/01/10 13:26:44	12.60	8.08	7.57	48382	31.51
19830-006	4	55	24	08/01/10 13:26:53	12.57	8.08	7.68	48332	31.47
19830-011	4	56	24	08/01/10 13:27:04	12.55	8.32	7.76	48327	31.47
19830-012	4	57	24	08/01/10 13:27:13	12.50	8.39	7.76	48356	31.49
19830-010	4	58	24	08/01/10 13:27:21	12.43	8.44	7.74	48308	31.45
19830-015	4	59	24	08/01/10 13:27:29	12.31	8.51	7.71	48297	31.44
19830-009	4	60	24	08/01/10 13:27:38	12.26	8.46	7.70	48375	31.49
19830-001	4	61	24	08/01/10 13:27:46	12.27	8.37	7.70	48457	31.55
19830-016	4	62	24	08/01/10 13:27:56	12.43	8.16	7.64	48493	31.58
19830-008	4	63	24	08/01/10 13:28:04	12.53	8.05	7.60	48547	31.63
19830-004	4	64	24	08/01/10 13:28:12	12.66	7.97	7.58	48484	31.59
19830-007	4	65	24	08/01/10 13:28:24	12.58	7.78	7.50	48250	31.41
19830-014	4	66	24	08/01/10 13:28:31	12.52	7.81	7.48	48407	31.52
19830-000	4	67	24	08/01/10 13:28:42	12.56	7.73	7.47	48358	31.49
19830-017	4	68	24	08/01/10 13:28:50	12.57	7.66	7.46	48348	31.48
19830-013	4	69	24	08/01/10 13:28:58	12.59	7.56	7.45	48337	31.48
19830-002	4	70	24	08/01/10 13:29:06	12.60	7.55	7.49	48331	31.47
19830-005	4	71	24	08/01/10 13:29:14	12.60	7.70	7.56	48295	31.45
19830-003	4	72	24	08/01/10 13:29:22	12.58	7.85	7.57	48259	31.42

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	5	73	24	08/01/10 13:29:32	12.53	8.00	7.56	48360	31.49
19830-003	5	74	24	08/01/10 13:29:42	12.58	7.93	7.52	48355	31.49
19830-000	5	75	24	08/01/10 13:29:51	12.67	7.67	7.47	48366	31.50
19830-013	5	76	24	08/01/10 13:30:01	12.74	7.59	7.48	48336	31.48
19830-001	5	77	24	08/01/10 13:30:09	12.78	7.58	7.51	47718	31.04
19830-002	5	78	24	08/01/10 13:30:20	12.85	7.64	7.50	48342	31.49
19830-004	5	79	24	08/01/10 13:30:27	12.88	7.63	7.45	48304	31.46
19830-012	5	80	24	08/01/10 13:30:34	12.89	7.56	7.48	48293	31.46
19830-005	5	81	24	08/01/10 13:30:46	12.67	7.86	7.58	48149	31.34
19830-011	5	82	24	08/01/10 13:30:53	12.59	7.98	7.59	48269	31.43
19830-010	5	83	24	08/01/10 13:31:01	12.55	7.96	7.60	48314	31.46
19830-017	5	84	24	08/01/10 13:31:08	12.55	7.95	7.57	48356	31.49
19830-009	5	85	24	08/01/10 13:31:16	12.57	7.85	7.52	48334	31.47
19830-006	5	86	24	08/01/10 13:31:27	12.57	7.50	7.50	48381	31.51
19830-008	5	87	24	08/01/10 13:31:36	12.61	7.51	7.54	48352	31.49
19830-007	5	88	24	08/01/10 13:31:43	12.60	7.67	7.57	48272	31.43
19830-014	5	89	24	08/01/10 13:31:52	12.51	7.87	7.54	48340	31.47
19830-015	5	90	24	08/01/10 13:32:00	12.52	8.02	7.55	48374	31.50
19830-005	6	91	24	08/01/10 13:32:09	12.57	8.07	7.61	48376	31.50
19830-007	6	92	24	08/01/10 13:32:18	12.62	8.14	7.61	48342	31.48
19830-002	6	93	24	08/01/10 13:32:28	12.66	8.14	7.56	48348	31.49
19830-009	6	94	24	08/01/10 13:32:39	12.71	7.95	7.54	48337	31.48
19830-013	6	95	24	08/01/10 13:32:49	12.74	7.58	7.54	48331	31.48
19830-004	6	96	24	08/01/10 13:32:56	12.76	7.55	7.53	48358	31.50
19830-012	6	97	24	08/01/10 13:33:14	12.58	7.94	7.57	48274	31.43
19830-015	6	98	24	08/01/10 13:33:22	12.51	7.99	7.60	48295	31.44
19830-014	6	99	24	08/01/10 13:33:31	12.46	7.96	7.62	48330	31.46
19830-003	6	100	24	08/01/10 13:33:39	12.41	8.00	7.62	48400	31.51
19830-010	6	101	24	08/01/10 13:33:47	12.38	8.08	7.62	48464	31.56
19830-000	6	102	24	08/01/10 13:33:53	12.40	8.17	7.62	48412	31.52
19830-016	6	103	24	08/01/10 13:34:01	12.40	8.27	7.62	48385	31.50
19830-001	6	104	24	08/01/10 13:34:07	12.39	8.32	7.64	48336	31.47
19830-017	6	105	24	08/01/10 13:34:16	12.30	8.35	7.66	48333	31.46
19830-008	6	106	24	08/01/10 13:34:24	12.27	8.42	7.67	48425	31.53
19830-011	6	107	24	08/01/10 13:34:32	12.28	8.47	7.70	48527	31.60
19830-006	6	108	24	08/01/10 13:34:40	12.40	8.41	7.68	48557	31.63
19830-015	7	109	24	08/01/10 13:34:50	12.58	8.35	7.65	48544	31.62
19830-017	7	110	24	08/01/10 13:34:59	12.71	8.26	7.63	48502	31.60
19830-003	7	111	24	08/01/10 13:35:07	12.79	8.22	7.60	48468	31.58
19830-008	7	112	24	08/01/10 13:35:14	12.86	8.20	7.60	48472	31.58
19830-006	7	113	24	08/01/10 13:35:26	12.84	8.28	7.63	48326	31.48
19830-012	7	114	24	08/01/10 13:35:34	12.88	8.32	7.61	48291	31.45
19830-004	7	115	24	08/01/10 13:35:41	12.88	8.28	7.60	48242	31.42
19830-011	7	116	24	08/01/10 13:35:48	12.86	8.23	7.61	48243	31.42
19830-014	7	117	24	08/01/10 13:35:57	12.82	8.10	7.64	48238	31.41
19830-005	7	118	24	08/01/10 13:36:05	12.79	8.12	7.65	48234	31.41
19830-001	7	119	24	08/01/10 13:36:13	12.76	8.21	7.62	48228	31.40
19830-000	7	120	24	08/01/10 13:36:20	12.72	8.20	7.62	48215	31.39
19830-009	7	121	24	08/01/10 13:36:29	12.59	8.21	7.58	48170	31.36
19830-010	7	122	24	08/01/10 13:36:37	12.46	8.21	7.56	48408	31.52
19830-007	7	123	24	08/01/10 13:36:45	12.50	8.12	7.53	48350	31.48
19830-002	7	124	24	08/01/10 13:36:54	12.52	8.00	7.51	48409	31.52
19830-013	7	125	24	08/01/10 13:37:02	12.57	7.95	7.51	48441	31.55
19830-016	7	126	24	08/01/10 13:37:12	12.69	7.95	7.51	48460	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	8	127	24	08/01/10 13:37:22	12.83	7.89	7.49	48415	31.54
19830-013	8	128	24	08/01/10 13:37:31	12.92	7.79	7.50	48379	31.52
19830-010	8	129	24	08/01/10 13:37:45	12.92	7.95	7.58	48314	31.47
19830-007	8	130	24	08/01/10 13:37:51	12.93	8.01	7.61	48253	31.43
19830-011	8	131	24	08/01/10 13:37:59	12.89	8.03	7.55	48212	31.40
19830-002	8	132	24	08/01/10 13:38:06	12.83	7.79	7.50	48193	31.38
19830-004	8	133	24	08/01/10 13:38:17	12.82	7.16	7.49	48310	31.47
19830-003	8	134	24	08/01/10 13:38:25	12.80	7.14	7.49	48287	31.45
19830-005	8	135	24	08/01/10 13:38:35	12.76	7.36	7.46	48221	31.40
19830-012	8	136	24	08/01/10 13:38:43	12.65	7.34	7.45	48245	31.41
19830-006	8	137	24	08/01/10 13:38:52	12.56	7.31	7.50	48296	31.45
19830-001	8	138	24	08/01/10 13:39:00	12.54	7.46	7.53	48343	31.48
19830-014	8	139	24	08/01/10 13:39:08	12.52	7.61	7.55	48454	31.56
19830-000	8	140	24	08/01/10 13:39:15	12.58	7.56	7.52	48386	31.51
19830-009	8	141	24	08/01/10 13:39:23	12.63	7.51	7.54	48371	31.50
19830-008	8	142	24	08/01/10 13:39:32	12.68	7.72	7.58	48396	31.52
19830-015	8	143	24	08/01/10 13:39:41	12.74	7.88	7.61	48443	31.56
19830-016	8	144	24	08/01/10 13:39:49	12.83	7.95	7.58	48428	31.55
19830-002	1	1	25	08/02/10 11:02:25	12.95	8.59	7.48	48664	31.73
19830-016	1	2	25	08/02/10 11:02:59	12.86	8.07	7.47	48616	31.69
19830-015	1	3	25	08/02/10 11:03:12	12.80	8.01	7.48	48660	31.72
19830-017	1	4	25	08/02/10 11:03:28	12.84	7.87	7.52	48645	31.71
19830-001	1	5	25	08/02/10 11:03:40	12.83	8.00	7.59	48672	31.73
19830-011	1	6	25	08/02/10 11:03:50	12.79	8.01	7.57	48660	31.72
19830-014	1	7	25	08/02/10 11:04:04	12.75	7.71	7.40	48647	31.71
19830-009	1	8	25	08/02/10 11:04:22	12.68	6.56	7.42	48660	31.71
19830-012	1	9	25	08/02/10 11:04:38	12.72	6.55	7.49	48661	31.72
19830-010	1	10	25	08/02/10 11:04:51	12.65	6.70	7.53	48639	31.70
19830-008	1	11	25	08/02/10 11:05:02	12.59	7.06	7.61	48613	31.68
19830-006	1	12	25	08/02/10 11:05:12	12.55	7.25	7.65	48619	31.68
19830-004	1	13	25	08/02/10 11:05:23	12.56	7.61	7.54	48665	31.71
19830-013	1	14	25	08/02/10 11:05:33	12.56	7.66	7.44	48662	31.71
19830-000	1	15	25	08/02/10 11:05:44	12.53	7.56	7.40	48651	31.70
19830-005	1	16	25	08/02/10 11:05:55	12.50	7.62	7.53	48705	31.74
19830-007	1	17	25	08/02/10 11:06:06	12.48	7.90	7.58	48778	31.79
19830-003	1	18	25	08/02/10 11:06:20	12.57	8.03	7.51	48772	31.79
19830-009	2	19	25	08/02/10 11:06:33	12.61	7.92	7.48	48804	31.82
19830-016	2	20	25	08/02/10 11:06:44	12.69	7.77	7.49	48664	31.72
19830-007	2	21	25	08/02/10 11:06:56	12.70	7.74	7.42	48447	31.56
19830-015	2	22	25	08/02/10 11:07:09	12.70	7.44	7.44	48607	31.68
19830-008	2	23	25	08/02/10 11:07:19	12.70	7.40	7.55	48615	31.68
19830-002	2	24	25	08/02/10 11:07:29	12.68	7.54	7.54	48569	31.65
19830-012	2	25	25	08/02/10 11:07:38	12.62	7.40	7.48	48571	31.65
19830-004	2	26	25	08/02/10 11:07:49	12.65	7.24	7.39	48590	31.66
19830-000	2	27	25	08/02/10 11:07:59	12.59	7.13	7.41	48561	31.64
19830-003	2	28	25	08/02/10 11:08:09	12.53	7.45	7.43	48329	31.47
19830-011	2	29	25	08/02/10 11:08:19	12.51	7.67	7.44	48592	31.66
19830-017	2	30	25	08/02/10 11:08:30	12.48	7.69	7.43	48612	31.67
19830-014	2	31	25	08/02/10 11:08:41	12.47	7.60	7.36	48606	31.67
19830-001	2	32	25	08/02/10 11:08:58	12.43	6.73	7.33	48551	31.62
19830-013	2	33	25	08/02/10 11:09:09	12.44	6.41	7.42	48704	31.73
19830-010	2	34	25	08/02/10 11:09:23	12.51	7.05	7.42	48634	31.69
19830-006	2	35	25	08/02/10 11:09:40	12.65	7.29	7.38	48688	31.73

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	2	36	25	08/02/10 11:09:51	12.68	7.16	7.44	48612	31.68
19830-013	3	37	25	08/02/10 11:10:03	12.64	7.22	7.43	48659	31.71
19830-009	3	38	25	08/02/10 11:10:12	12.67	7.11	7.41	48689	31.73
19830-017	3	39	25	08/02/10 11:10:21	12.73	7.09	7.36	48577	31.66
19830-016	3	40	25	08/02/10 11:10:31	12.65	6.63	7.28	48601	31.67
19830-000	3	41	25	08/02/10 11:10:40	12.59	6.54	7.35	48568	31.64
19830-010	3	42	25	08/02/10 11:10:52	12.63	7.01	7.27	48608	31.67
19830-008	3	43	25	08/02/10 11:11:16	12.63	6.02	7.38	48646	31.70
19830-014	3	44	25	08/02/10 11:11:27	12.61	6.43	7.41	48569	31.64
19830-004	3	45	25	08/02/10 11:11:38	12.59	6.73	7.35	48558	31.64
19830-006	3	46	25	08/02/10 11:11:47	12.58	6.66	7.33	48580	31.65
19830-005	3	47	25	08/02/10 11:11:57	12.57	6.81	7.42	48567	31.64
19830-011	3	48	25	08/02/10 11:12:13	12.35	7.37	7.52	48750	31.76
19830-002	3	49	25	08/02/10 11:12:23	12.39	7.64	7.47	48707	31.74
19830-012	3	50	25	08/02/10 11:12:34	12.49	7.46	7.43	48665	31.71
19830-001	3	51	25	08/02/10 11:12:47	12.41	7.30	7.51	48687	31.72
19830-003	3	52	25	08/02/10 11:12:58	12.34	7.55	7.59	48705	31.73
19830-007	3	53	25	08/02/10 11:13:07	12.35	7.78	7.55	48689	31.72
19830-015	3	54	25	08/02/10 11:13:18	12.34	7.86	7.59	48712	31.74
19830-006	4	55	25	08/02/10 11:13:31	12.29	8.04	7.76	48675	31.71
19830-011	4	56	25	08/02/10 11:13:41	12.25	8.22	7.80	48698	31.72
19830-012	4	57	25	08/02/10 11:13:51	12.17	8.23	7.77	48724	31.74
19830-010	4	58	25	08/02/10 11:14:00	12.14	8.23	7.74	48717	31.73
19830-015	4	59	25	08/02/10 11:14:09	12.06	8.31	7.71	48720	31.73
19830-009	4	60	25	08/02/10 11:14:17	12.00	8.30	7.69	48762	31.76
19830-001	4	61	25	08/02/10 11:14:28	12.03	8.22	7.66	48894	31.85
19830-016	4	62	25	08/02/10 11:14:37	12.12	8.03	7.60	48935	31.89
19830-008	4	63	25	08/02/10 11:14:46	12.29	7.84	7.55	48906	31.88
19830-004	4	64	25	08/02/10 11:14:56	12.47	7.74	7.49	48840	31.84
19830-007	4	65	25	08/02/10 11:15:12	12.36	7.49	7.39	48622	31.67
19830-014	4	66	25	08/02/10 11:15:22	12.29	7.52	7.38	48647	31.69
19830-000	4	67	25	08/02/10 11:15:34	12.23	7.29	7.36	48688	31.72
19830-017	4	68	25	08/02/10 11:15:45	12.21	7.19	7.33	48696	31.72
19830-013	4	69	25	08/02/10 11:15:53	12.22	7.11	7.34	48667	31.70
19830-002	4	70	25	08/02/10 11:16:02	12.23	7.23	7.43	48688	31.71
19830-005	4	71	25	08/02/10 11:16:12	12.23	7.47	7.50	48640	31.68
19830-003	4	72	25	08/02/10 11:16:22	12.25	7.64	7.52	48670	31.70
19830-016	5	73	25	08/02/10 11:16:31	12.23	7.77	7.49	48719	31.74
19830-003	5	74	25	08/02/10 11:16:41	12.23	7.72	7.43	48676	31.71
19830-000	5	75	25	08/02/10 11:16:51	12.29	7.49	7.41	48642	31.68
19830-013	5	76	25	08/02/10 11:16:59	12.34	7.42	7.40	48656	31.70
19830-001	5	77	25	08/02/10 11:17:19	12.43	7.52	7.55	47742	31.04
19830-002	5	78	25	08/02/10 11:17:27	12.47	7.57	7.52	48673	31.71
19830-004	5	79	25	08/02/10 11:17:35	12.54	7.54	7.45	48668	31.71
19830-012	5	80	25	08/02/10 11:17:47	12.63	7.45	7.51	48694	31.74
19830-005	5	81	25	08/02/10 11:18:00	12.43	7.77	7.56	48549	31.62
19830-011	5	82	25	08/02/10 11:18:10	12.30	7.77	7.53	48596	31.65
19830-010	5	83	25	08/02/10 11:18:19	12.25	7.67	7.48	48675	31.71
19830-017	5	84	25	08/02/10 11:18:27	12.23	7.69	7.46	48621	31.67
19830-009	5	85	25	08/02/10 11:18:38	12.22	7.45	7.44	48718	31.74
19830-006	5	86	25	08/02/10 11:18:46	12.25	7.21	7.46	48773	31.78
19830-008	5	87	25	08/02/10 11:18:54	12.28	7.17	7.51	48678	31.71
19830-007	5	88	25	08/02/10 11:19:02	12.29	7.36	7.54	48692	31.72
19830-014	5	89	25	08/02/10 11:19:14	12.27	7.64	7.49	48732	31.75

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	5	90	25	08/02/10 11:19:21	12.28	7.68	7.49	48720	31.74
19830-005	6	91	25	08/02/10 11:19:30	12.29	7.70	7.58	48680	31.71
19830-007	6	92	25	08/02/10 11:19:37	12.31	7.77	7.60	48698	31.73
19830-002	6	93	25	08/02/10 11:19:46	12.36	7.84	7.54	48734	31.75
19830-009	6	94	25	08/02/10 11:19:56	12.42	7.76	7.50	48698	31.73
19830-013	6	95	25	08/02/10 11:20:04	12.45	7.49	7.49	48718	31.75
19830-004	6	96	25	08/02/10 11:20:12	12.52	7.35	7.48	48822	31.82
19830-012	6	97	25	08/02/10 11:20:30	12.33	7.72	7.53	48718	31.74
19830-015	6	98	25	08/02/10 11:20:38	12.28	7.90	7.57	48689	31.72
19830-014	6	99	25	08/02/10 11:20:48	12.20	7.89	7.60	48779	31.78
19830-003	6	100	25	08/02/10 11:20:58	12.20	7.91	7.59	48803	31.80
19830-010	6	101	25	08/02/10 11:21:06	12.20	7.92	7.58	48893	31.86
19830-000	6	102	25	08/02/10 11:21:15	12.19	8.02	7.58	48782	31.78
19830-016	6	103	25	08/02/10 11:21:23	12.18	8.08	7.58	48804	31.80
19830-001	6	104	25	08/02/10 11:21:30	12.17	8.09	7.63	48822	31.81
19830-017	6	105	25	08/02/10 11:21:39	12.14	8.11	7.65	48711	31.73
19830-008	6	106	25	08/02/10 11:21:47	12.11	8.16	7.67	48833	31.81
19830-011	6	107	25	08/02/10 11:21:54	12.14	8.22	7.72	48878	31.85
19830-006	6	108	25	08/02/10 11:22:05	12.28	8.14	7.65	48930	31.89
19830-015	7	109	25	08/02/10 11:22:13	12.40	8.08	7.61	49017	31.96
19830-017	7	110	25	08/02/10 11:22:21	12.54	8.02	7.60	48974	31.93
19830-003	7	111	25	08/02/10 11:22:30	12.67	7.96	7.56	48895	31.88
19830-008	7	112	25	08/02/10 11:22:41	12.75	7.91	7.60	48973	31.94
19830-006	7	113	25	08/02/10 11:22:56	12.64	8.09	7.60	48471	31.57
19830-012	7	114	25	08/02/10 11:23:06	12.56	8.09	7.57	48463	31.57
19830-004	7	115	25	08/02/10 11:23:18	12.45	8.02	7.55	48517	31.60
19830-011	7	116	25	08/02/10 11:23:27	12.39	8.01	7.55	48511	31.59
19830-014	7	117	25	08/02/10 11:23:35	12.36	7.90	7.60	48569	31.63
19830-005	7	118	25	08/02/10 11:23:43	12.34	7.87	7.60	48509	31.59
19830-001	7	119	25	08/02/10 11:23:51	12.31	7.94	7.57	48610	31.66
19830-000	7	120	25	08/02/10 11:23:59	12.33	7.94	7.56	48556	31.62
19830-009	7	121	25	08/02/10 11:24:10	12.24	8.01	7.53	48632	31.67
19830-010	7	122	25	08/02/10 11:24:17	12.19	7.98	7.49	48657	31.69
19830-007	7	123	25	08/02/10 11:24:25	12.21	7.78	7.46	48702	31.72
19830-002	7	124	25	08/02/10 11:24:33	12.25	7.65	7.45	48807	31.80
19830-013	7	125	25	08/02/10 11:24:40	12.28	7.62	7.43	48908	31.88
19830-016	7	126	25	08/02/10 11:24:49	12.42	7.59	7.44	48841	31.83
19830-017	8	127	25	08/02/10 11:25:01	12.61	7.55	7.43	48733	31.76
19830-013	8	128	25	08/02/10 11:25:09	12.70	7.48	7.44	48798	31.81
19830-010	8	129	25	08/02/10 11:25:24	12.67	7.70	7.57	48583	31.66
19830-007	8	130	25	08/02/10 11:25:33	12.64	7.77	7.57	48443	31.55
19830-011	8	131	25	08/02/10 11:25:43	12.55	7.73	7.47	48518	31.60
19830-002	8	132	25	08/02/10 11:25:52	12.46	7.27	7.40	48584	31.65
19830-004	8	133	25	08/02/10 11:26:02	12.44	6.69	7.39	48576	31.64
19830-003	8	134	25	08/02/10 11:26:10	12.44	6.72	7.42	48532	31.61
19830-005	8	135	25	08/02/10 11:26:20	12.40	7.07	7.40	48547	31.62
19830-012	8	136	25	08/02/10 11:26:29	12.36	7.04	7.40	48591	31.65
19830-006	8	137	25	08/02/10 11:26:37	12.30	7.00	7.44	48738	31.75
19830-001	8	138	25	08/02/10 11:26:44	12.29	7.10	7.50	48746	31.76
19830-014	8	139	25	08/02/10 11:26:52	12.30	7.27	7.49	48731	31.75
19830-000	8	140	25	08/02/10 11:27:01	12.36	7.19	7.45	48699	31.73
19830-009	8	141	25	08/02/10 11:27:09	12.41	7.22	7.49	48758	31.77
19830-008	8	142	25	08/02/10 11:27:18	12.46	7.48	7.56	48814	31.82
19830-015	8	143	25	08/02/10 11:27:27	12.55	7.67	7.60	48804	31.81

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	8	144	25	08/02/10 11:27:38	12.71	7.72	7.56	48797	31.81
19830-002	1	1	26	08/03/10 11:02:10	13.25	7.92	7.54	48340	31.50
19830-016	1	2	26	08/03/10 11:03:03	13.21	7.85	7.57	48225	31.42
19830-015	1	3	26	08/03/10 11:03:18	13.16	7.93	7.61	48319	31.48
19830-017	1	4	26	08/03/10 11:03:29	13.18	7.80	7.61	48324	31.49
19830-001	1	5	26	08/03/10 11:03:42	13.12	7.87	7.68	48293	31.46
19830-011	1	6	26	08/03/10 11:03:55	13.10	7.92	7.66	48339	31.50
19830-014	1	7	26	08/03/10 11:04:09	13.11	7.78	7.56	48353	31.51
19830-009	1	8	26	08/03/10 11:04:24	13.05	7.15	7.55	48285	31.46
19830-012	1	9	26	08/03/10 11:04:36	13.03	7.01	7.60	48359	31.51
19830-010	1	10	26	08/03/10 11:04:45	13.02	7.07	7.64	48321	31.48
19830-008	1	11	26	08/03/10 11:04:58	13.00	7.57	7.67	48335	31.49
19830-006	1	12	26	08/03/10 11:05:07	13.01	7.62	7.67	48315	31.48
19830-004	1	13	26	08/03/10 11:05:18	12.94	7.83	7.61	48312	31.47
19830-013	1	14	26	08/03/10 11:05:27	12.91	7.90	7.56	48328	31.48
19830-000	1	15	26	08/03/10 11:05:38	12.88	7.86	7.56	48330	31.48
19830-005	1	16	26	08/03/10 11:05:47	12.81	7.88	7.62	48318	31.47
19830-007	1	17	26	08/03/10 11:05:59	12.76	8.12	7.66	48347	31.49
19830-003	1	18	26	08/03/10 11:06:07	12.76	8.27	7.64	48412	31.54
19830-009	2	19	26	08/03/10 11:06:24	13.00	8.21	7.62	48437	31.56
19830-016	2	20	26	08/03/10 11:06:40	13.12	7.86	7.60	48341	31.50
19830-007	2	21	26	08/03/10 11:06:55	13.17	7.76	7.52	48291	31.46
19830-015	2	22	26	08/03/10 11:07:03	13.17	7.62	7.51	48396	31.54
19830-008	2	23	26	08/03/10 11:07:15	13.23	7.55	7.62	48292	31.47
19830-002	2	24	26	08/03/10 11:07:28	13.27	7.73	7.60	48298	31.47
19830-012	2	25	26	08/03/10 11:07:38	13.24	7.59	7.57	48233	31.43
19830-004	2	26	26	08/03/10 11:07:51	13.17	7.63	7.51	48246	31.43
19830-000	2	27	26	08/03/10 11:08:04	13.06	7.47	7.50	48260	31.44
19830-003	2	28	26	08/03/10 11:08:15	13.05	7.81	7.53	48208	31.40
19830-011	2	29	26	08/03/10 11:08:25	13.04	7.92	7.52	48287	31.46
19830-017	2	30	26	08/03/10 11:08:33	13.03	7.90	7.50	48300	31.47
19830-014	2	31	26	08/03/10 11:08:42	13.02	7.88	7.47	48298	31.46
19830-001	2	32	26	08/03/10 11:08:58	12.95	7.27	7.52	48297	31.46
19830-013	2	33	26	08/03/10 11:09:09	12.93	7.05	7.56	48324	31.48
19830-010	2	34	26	08/03/10 11:09:22	12.95	7.51	7.54	48314	31.47
19830-006	2	35	26	08/03/10 11:09:38	13.01	7.65	7.47	48404	31.54
19830-005	2	36	26	08/03/10 11:09:52	13.13	7.47	7.53	48346	31.50
19830-013	3	37	26	08/03/10 11:10:01	13.13	7.51	7.53	48309	31.48
19830-009	3	38	26	08/03/10 11:10:10	13.15	7.44	7.52	48359	31.51
19830-017	3	39	26	08/03/10 11:10:22	13.21	7.52	7.47	48325	31.49
19830-016	3	40	26	08/03/10 11:10:31	13.09	7.23	7.43	47953	31.22
19830-000	3	41	26	08/03/10 11:10:40	13.07	7.14	7.48	48352	31.50
19830-010	3	42	26	08/03/10 11:10:52	13.15	7.47	7.44	48304	31.47
19830-008	3	43	26	08/03/10 11:11:08	13.01	6.95	7.47	48312	31.47
19830-014	3	44	26	08/03/10 11:11:21	13.09	7.13	7.53	48338	31.50
19830-004	3	45	26	08/03/10 11:11:30	13.12	7.22	7.52	48302	31.47
19830-006	3	46	26	08/03/10 11:11:43	13.09	7.27	7.53	48267	31.44
19830-005	3	47	26	08/03/10 11:11:55	13.09	7.54	7.54	48261	31.44
19830-011	3	48	26	08/03/10 11:12:05	12.91	7.71	7.57	48178	31.37
19830-002	3	49	26	08/03/10 11:12:17	12.94	7.88	7.55	48393	31.53
19830-012	3	50	26	08/03/10 11:12:28	12.98	7.71	7.56	48279	31.45
19830-001	3	51	26	08/03/10 11:12:42	12.68	7.93	7.63	48248	31.41
19830-003	3	52	26	08/03/10 11:12:53	12.61	8.06	7.64	48396	31.52

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	3	53	26	08/03/10 11:13:04	12.65	8.18	7.62	48424	31.54
19830-015	3	54	26	08/03/10 11:13:13	12.67	8.15	7.61	48421	31.54
19830-006	4	55	26	08/03/10 11:13:27	12.64	8.25	7.75	48315	31.46
19830-011	4	56	26	08/03/10 11:14:12	12.59	8.13	7.76	48390	31.51
19830-012	4	57	26	08/03/10 11:14:19	12.58	8.02	7.75	48356	31.49
19830-010	4	58	26	08/03/10 11:14:29	12.50	8.11	7.74	48305	31.45
19830-015	4	59	26	08/03/10 11:14:43	12.31	8.37	7.72	48345	31.47
19830-009	4	60	26	08/03/10 11:14:52	12.28	8.32	7.72	48422	31.52
19830-001	4	61	26	08/03/10 11:15:04	12.32	8.27	7.71	48471	31.56
19830-016	4	62	26	08/03/10 11:15:15	12.48	8.13	7.65	48340	31.47
19830-008	4	63	26	08/03/10 11:15:24	12.62	8.06	7.63	48570	31.65
19830-004	4	64	26	08/03/10 11:15:38	12.81	7.91	7.56	48431	31.55
19830-007	4	65	26	08/03/10 11:15:49	12.68	7.68	7.52	48205	31.38
19830-014	4	66	26	08/03/10 11:15:57	12.64	7.75	7.53	48391	31.52
19830-000	4	67	26	08/03/10 11:16:09	12.65	7.67	7.53	48380	31.51
19830-017	4	68	26	08/03/10 11:16:18	12.68	7.69	7.52	48377	31.51
19830-013	4	69	26	08/03/10 11:16:30	12.74	7.65	7.53	48363	31.50
19830-002	4	70	26	08/03/10 11:16:36	12.75	7.72	7.57	48356	31.50
19830-005	4	71	26	08/03/10 11:16:44	12.75	7.82	7.60	48318	31.47
19830-003	4	72	26	08/03/10 11:16:54	12.66	7.97	7.60	48290	31.44
19830-016	5	73	26	08/03/10 11:17:03	12.63	8.11	7.57	48366	31.50
19830-003	5	74	26	08/03/10 11:17:13	12.69	7.95	7.50	48244	31.41
19830-000	5	75	26	08/03/10 11:17:23	12.80	7.73	7.49	48404	31.53
19830-013	5	76	26	08/03/10 11:17:33	12.89	7.71	7.52	48370	31.51
19830-001	5	77	26	08/03/10 11:17:43	12.94	7.73	7.55	47342	30.77
19830-002	5	78	26	08/03/10 11:17:55	13.00	7.80	7.54	48379	31.52
19830-004	5	79	26	08/03/10 11:18:05	13.03	7.69	7.52	48312	31.47
19830-012	5	80	26	08/03/10 11:18:13	13.02	7.67	7.55	48304	31.47
19830-005	5	81	26	08/03/10 11:18:26	12.75	7.98	7.62	48173	31.36
19830-011	5	82	26	08/03/10 11:18:34	12.69	7.99	7.60	48350	31.49
19830-010	5	83	26	08/03/10 11:18:43	12.65	7.92	7.59	48389	31.52
19830-017	5	84	26	08/03/10 11:18:53	12.72	7.93	7.55	48401	31.53
19830-009	5	85	26	08/03/10 11:19:01	12.74	7.76	7.50	48330	31.48
19830-006	5	86	26	08/03/10 11:19:13	12.70	7.33	7.48	48314	31.46
19830-008	5	87	26	08/03/10 11:19:22	12.74	7.41	7.55	48409	31.53
19830-007	5	88	26	08/03/10 11:19:33	12.71	7.75	7.57	48295	31.45
19830-014	5	89	26	08/03/10 11:19:43	12.62	7.90	7.56	48327	31.47
19830-015	5	90	26	08/03/10 11:19:50	12.62	7.97	7.59	48405	31.53
19830-005	6	91	26	08/03/10 11:19:56	12.67	8.01	7.62	48441	31.55
19830-007	6	92	26	08/03/10 11:20:03	12.72	8.05	7.65	48386	31.52
19830-002	6	93	26	08/03/10 11:20:09	12.77	8.08	7.62	48427	31.55
19830-009	6	94	26	08/03/10 11:20:16	12.83	8.08	7.60	48397	31.53
19830-013	6	95	26	08/03/10 11:20:25	12.88	7.89	7.55	48368	31.51
19830-004	6	96	26	08/03/10 11:20:34	12.89	7.79	7.54	48364	31.51
19830-012	6	97	26	08/03/10 11:20:47	12.66	7.91	7.57	48284	31.44
19830-015	6	98	26	08/03/10 11:20:56	12.56	8.11	7.60	48298	31.45
19830-014	6	99	26	08/03/10 11:21:06	12.47	8.13	7.63	48399	31.52
19830-003	6	100	26	08/03/10 11:21:18	12.45	8.15	7.64	48392	31.51
19830-010	6	101	26	08/03/10 11:21:26	12.40	8.22	7.63	48492	31.58
19830-000	6	102	26	08/03/10 11:21:35	12.43	8.31	7.65	48444	31.55
19830-016	6	103	26	08/03/10 11:21:46	12.43	8.38	7.64	48417	31.53
19830-001	6	104	26	08/03/10 11:21:54	12.40	8.36	7.67	48354	31.48
19830-017	6	105	26	08/03/10 11:22:03	12.30	8.38	7.68	48306	31.44
19830-008	6	106	26	08/03/10 11:22:10	12.25	8.41	7.68	48412	31.52

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	6	107	26	08/03/10 11:22:18	12.27	8.45	7.71	48540	31.61
19830-006	6	108	26	08/03/10 11:22:26	12.40	8.42	7.69	48607	31.66
19830-015	7	109	26	08/03/10 11:22:33	12.52	8.37	7.67	48681	31.72
19830-017	7	110	26	08/03/10 11:22:40	12.67	8.33	7.66	48642	31.70
19830-003	7	111	26	08/03/10 11:22:47	12.83	8.26	7.63	48540	31.63
19830-008	7	112	26	08/03/10 11:22:55	12.89	8.23	7.64	48559	31.65
19830-006	7	113	26	08/03/10 11:23:07	12.92	8.31	7.68	48093	31.31
19830-012	7	114	26	08/03/10 11:23:15	13.02	8.30	7.63	48366	31.51
19830-004	7	115	26	08/03/10 11:23:23	13.05	8.24	7.63	48285	31.46
19830-011	7	116	26	08/03/10 11:23:30	13.05	8.20	7.64	48300	31.47
19830-014	7	117	26	08/03/10 11:23:37	13.04	8.12	7.66	48240	31.42
19830-005	7	118	26	08/03/10 11:23:46	13.00	8.08	7.66	48230	31.41
19830-001	7	119	26	08/03/10 11:23:55	12.93	8.11	7.62	48174	31.37
19830-000	7	120	26	08/03/10 11:24:03	12.86	8.08	7.57	48217	31.40
19830-009	7	121	26	08/03/10 11:24:14	12.65	8.17	7.58	48206	31.38
19830-010	7	122	26	08/03/10 11:24:23	12.59	8.16	7.57	48380	31.51
19830-007	7	123	26	08/03/10 11:24:32	12.61	8.01	7.56	48347	31.48
19830-002	7	124	26	08/03/10 11:24:42	12.62	7.93	7.53	48432	31.55
19830-013	7	125	26	08/03/10 11:24:52	12.66	7.85	7.55	48456	31.57
19830-016	7	126	26	08/03/10 11:25:03	12.81	7.92	7.54	48475	31.58
19830-017	8	127	26	08/03/10 11:25:11	12.93	7.89	7.53	48455	31.57
19830-013	8	128	26	08/03/10 11:25:20	13.03	7.85	7.55	48402	31.54
19830-010	8	129	26	08/03/10 11:25:31	13.00	8.00	7.59	48425	31.56
19830-007	8	130	26	08/03/10 11:25:39	13.08	8.09	7.60	48175	31.38
19830-011	8	131	26	08/03/10 11:25:48	13.05	8.01	7.54	48239	31.42
19830-002	8	132	26	08/03/10 11:25:59	12.94	7.43	7.50	48264	31.44
19830-004	8	133	26	08/03/10 11:26:08	12.98	7.04	7.49	48399	31.54
19830-003	8	134	26	08/03/10 11:26:19	13.00	7.13	7.52	48318	31.48
19830-005	8	135	26	08/03/10 11:26:28	12.94	7.48	7.50	48220	31.40
19830-012	8	136	26	08/03/10 11:26:38	12.82	7.42	7.51	48184	31.37
19830-006	8	137	26	08/03/10 11:26:47	12.67	7.55	7.57	48302	31.45
19830-001	8	138	26	08/03/10 11:26:55	12.65	7.64	7.58	48394	31.52
19830-014	8	139	26	08/03/10 11:27:04	12.70	7.74	7.57	48420	31.54
19830-000	8	140	26	08/03/10 11:27:14	12.77	7.51	7.54	48367	31.50
19830-009	8	141	26	08/03/10 11:27:24	12.80	7.60	7.56	48375	31.51
19830-008	8	142	26	08/03/10 11:27:32	12.81	7.82	7.60	48410	31.54
19830-015	8	143	26	08/03/10 11:27:42	12.87	7.97	7.65	48444	31.56
19830-016	8	144	26	08/03/10 11:27:51	12.96	7.99	7.64	48442	31.57
19830-002	1	1	27	08/04/10 08:17:05	12.94	8.56	7.47	49304	32.19
19830-016	1	2	27	08/04/10 08:17:40	12.86	8.34	7.49	47492	30.87
19830-015	1	3	27	08/04/10 08:17:56	12.78	8.45	7.51	49306	32.19
19830-017	1	4	27	08/04/10 08:18:08	12.79	8.30	7.53	49313	32.19
19830-001	1	5	27	08/04/10 08:18:20	12.81	8.21	7.64	49360	32.23
19830-011	1	6	27	08/04/10 08:18:30	12.81	8.23	7.64	49215	32.12
19830-014	1	7	27	08/04/10 08:18:38	12.78	8.24	7.53	49268	32.16
19830-009	1	8	27	08/04/10 08:18:47	12.71	7.86	7.47	49305	32.18
19830-012	1	9	27	08/04/10 08:18:58	12.71	7.38	7.51	49388	32.24
19830-010	1	10	27	08/04/10 08:19:11	12.65	7.34	7.56	49297	32.17
19830-008	1	11	27	08/04/10 08:19:24	12.55	7.69	7.62	49316	32.18
19830-006	1	12	27	08/04/10 08:19:33	12.53	7.76	7.65	49310	32.18
19830-004	1	13	27	08/04/10 08:19:45	12.52	8.08	7.56	49340	32.20
19830-013	1	14	27	08/04/10 08:19:54	12.53	8.17	7.47	49313	32.18
19830-000	1	15	27	08/04/10 08:20:05	12.49	8.15	7.45	49313	32.18

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	1	16	27	08/04/10 08:20:14	12.47	8.18	7.56	49380	32.23
19830-007	1	17	27	08/04/10 08:20:24	12.45	8.36	7.61	49432	32.26
19830-003	1	18	27	08/04/10 08:20:33	12.48	8.52	7.56	49534	32.34
19830-009	2	19	27	08/04/10 08:20:59	12.70	8.25	7.55	49358	32.22
19830-016	2	20	27	08/04/10 08:21:07	12.71	8.11	7.53	49296	32.18
19830-007	2	21	27	08/04/10 08:21:15	12.72	8.04	7.49	49283	32.17
19830-015	2	22	27	08/04/10 08:21:22	12.73	7.96	7.46	49280	32.17
19830-008	2	23	27	08/04/10 08:21:33	12.74	7.86	7.58	49225	32.13
19830-002	2	24	27	08/04/10 08:21:41	12.73	7.97	7.60	49232	32.13
19830-012	2	25	27	08/04/10 08:21:51	12.69	8.00	7.53	49159	32.08
19830-004	2	26	27	08/04/10 08:22:01	12.68	7.98	7.46	49251	32.14
19830-000	2	27	27	08/04/10 08:22:12	12.62	7.79	7.43	49149	32.07
19830-003	2	28	27	08/04/10 08:22:22	12.54	7.98	7.47	48848	31.84
19830-011	2	29	27	08/04/10 08:22:30	12.52	8.16	7.49	49287	32.16
19830-017	2	30	27	08/04/10 08:22:37	12.52	8.21	7.45	49227	32.12
19830-014	2	31	27	08/04/10 08:22:43	12.50	8.20	7.41	49218	32.11
19830-001	2	32	27	08/04/10 08:22:51	12.45	8.03	7.38	49275	32.15
19830-013	2	33	27	08/04/10 08:23:02	12.44	7.49	7.42	49362	32.21
19830-010	2	34	27	08/04/10 08:23:11	12.48	7.62	7.45	49346	32.20
19830-006	2	35	27	08/04/10 08:23:27	12.57	8.09	7.41	49469	32.30
19830-005	2	36	27	08/04/10 08:23:37	12.62	7.98	7.43	49370	32.23
19830-013	3	37	27	08/04/10 08:23:47	12.60	7.83	7.44	49357	32.22
19830-009	3	38	27	08/04/10 08:23:58	12.66	7.60	7.44	49339	32.20
19830-017	3	39	27	08/04/10 08:24:15	12.73	7.27	7.28	49237	32.13
19830-016	3	40	27	08/04/10 08:24:31	12.62	6.27	7.25	49313	32.18
19830-000	3	41	27	08/04/10 08:24:45	12.57	6.83	7.43	49275	32.15
19830-010	3	42	27	08/04/10 08:24:55	12.59	7.66	7.42	49341	32.20
19830-008	3	43	27	08/04/10 08:25:08	12.59	7.60	7.37	49297	32.17
19830-014	3	44	27	08/04/10 08:25:19	12.59	7.39	7.40	49243	32.13
19830-004	3	45	27	08/04/10 08:25:30	12.57	7.35	7.35	49163	32.07
19830-006	3	46	27	08/04/10 08:25:40	12.56	7.32	7.35	49255	32.14
19830-005	3	47	27	08/04/10 08:25:50	12.56	7.51	7.43	49259	32.14
19830-011	3	48	27	08/04/10 08:25:58	12.45	7.74	7.48	49297	32.17
19830-002	3	49	27	08/04/10 08:26:06	12.40	7.92	7.48	49320	32.18
19830-012	3	50	27	08/04/10 08:26:13	12.46	7.95	7.43	49303	32.17
19830-001	3	51	27	08/04/10 08:27:39	12.85	8.41	7.65	48820	31.84
19830-003	3	52	27	08/04/10 08:27:51	12.42	8.46	7.67	49243	32.13
19830-007	3	53	27	08/04/10 08:28:00	12.34	8.59	7.61	49322	32.18
19830-015	3	54	27	08/04/10 08:28:09	12.31	8.61	7.62	49386	32.22
19830-006	4	55	27	08/04/10 08:28:18	12.28	8.62	7.74	49318	32.17
19830-011	4	56	27	08/04/10 08:28:27	12.19	8.75	7.78	49381	32.22
19830-012	4	57	27	08/04/10 08:28:35	12.11	8.80	7.75	49402	32.23
19830-010	4	58	27	08/04/10 08:28:45	12.06	8.80	7.75	49443	32.25
19830-015	4	59	27	08/04/10 08:28:53	12.02	8.81	7.73	49367	32.20
19830-009	4	60	27	08/04/10 08:29:01	11.95	8.78	7.71	49373	32.20
19830-001	4	61	27	08/04/10 08:29:09	11.95	8.73	7.70	49599	32.36
19830-016	4	62	27	08/04/10 08:29:17	12.03	8.65	7.65	49582	32.35
19830-008	4	63	27	08/04/10 08:29:29	12.25	8.45	7.60	49516	32.32
19830-004	4	64	27	08/04/10 08:29:40	12.42	8.34	7.52	49485	32.30
19830-007	4	65	27	08/04/10 08:29:54	12.30	8.10	7.45	49364	32.21
19830-014	4	66	27	08/04/10 08:30:12	12.22	8.06	7.45	49335	32.18
19830-000	4	67	27	08/04/10 08:30:20	12.20	7.93	7.45	49295	32.15
19830-017	4	68	27	08/04/10 08:30:28	12.18	7.93	7.43	49329	32.18
19830-013	4	69	27	08/04/10 08:30:35	12.17	7.92	7.41	49339	32.18

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	4	70	27	08/04/10 08:30:42	12.17	7.91	7.46	49369	32.21
19830-005	4	71	27	08/04/10 08:30:47	12.17	7.98	7.49	49333	32.18
19830-003	4	72	27	08/04/10 08:30:52	12.18	8.08	7.54	49386	32.22
19830-016	5	73	27	08/04/10 08:31:00	12.19	8.20	7.54	49332	32.18
19830-003	5	74	27	08/04/10 08:31:08	12.19	8.28	7.47	49315	32.17
19830-000	5	75	27	08/04/10 08:31:17	12.22	8.16	7.45	49313	32.17
19830-013	5	76	27	08/04/10 08:31:26	12.28	8.12	7.44	49327	32.18
19830-001	5	77	27	08/04/10 08:31:36	12.34	8.14	7.52	48160	31.34
19830-002	5	78	27	08/04/10 08:31:47	12.42	8.13	7.51	49168	32.07
19830-004	5	79	27	08/04/10 08:31:54	12.48	8.08	7.47	49348	32.20
19830-012	5	80	27	08/04/10 08:32:03	12.55	8.02	7.52	49413	32.25
19830-005	5	81	27	08/04/10 08:32:15	12.40	8.30	7.57	49231	32.12
19830-011	5	82	27	08/04/10 08:32:24	12.25	8.37	7.54	49291	32.15
19830-010	5	83	27	08/04/10 08:32:34	12.18	8.25	7.53	49362	32.20
19830-017	5	84	27	08/04/10 08:32:43	12.14	8.30	7.50	49332	32.18
19830-009	5	85	27	08/04/10 08:32:52	12.16	8.10	7.39	49392	32.22
19830-006	5	86	27	08/04/10 08:33:05	12.21	7.49	7.40	49393	32.22
19830-008	5	87	27	08/04/10 08:33:14	12.23	7.60	7.51	49352	32.20
19830-007	5	88	27	08/04/10 08:33:21	12.24	7.85	7.56	49420	32.25
19830-014	5	89	27	08/04/10 08:33:29	12.23	8.09	7.53	49398	32.23
19830-015	5	90	27	08/04/10 08:33:36	12.22	8.22	7.54	49381	32.22
19830-005	6	91	27	08/04/10 08:33:42	12.22	8.31	7.58	49384	32.22
19830-007	6	92	27	08/04/10 08:33:49	12.24	8.38	7.62	49402	32.23
19830-002	6	93	27	08/04/10 08:33:56	12.28	8.43	7.57	49456	32.27
19830-009	6	94	27	08/04/10 08:34:03	12.33	8.42	7.55	49431	32.26
19830-013	6	95	27	08/04/10 08:34:10	12.37	8.30	7.51	49426	32.26
19830-004	6	96	27	08/04/10 08:34:15	12.41	8.15	7.50	49567	32.36
19830-012	6	97	27	08/04/10 08:39:25	12.35	8.50	7.61	49280	32.15
19830-015	6	98	27	08/04/10 08:39:32	12.30	8.43	7.61	49286	32.15
19830-014	6	99	27	08/04/10 08:39:41	12.19	8.38	7.64	49393	32.22
19830-003	6	100	27	08/04/10 08:39:53	12.15	8.46	7.64	49492	32.29
19830-010	6	101	27	08/04/10 08:40:13	12.15	8.73	7.73	49178	32.07
19830-000	6	102	27	08/04/10 08:40:20	12.14	8.85	7.70	49449	32.26
19830-016	6	103	27	08/04/10 08:40:29	12.10	8.88	7.65	49531	32.32
19830-001	6	104	27	08/04/10 08:40:37	12.12	8.75	7.70	49546	32.33
19830-017	6	105	27	08/04/10 08:40:46	12.09	8.70	7.70	49405	32.23
19830-008	6	106	27	08/04/10 08:40:55	12.07	8.72	7.73	49456	32.26
19830-011	6	107	27	08/04/10 08:41:02	12.09	8.77	7.75	49497	32.29
19830-006	6	108	27	08/04/10 08:41:10	12.19	8.76	7.71	49595	32.37
19830-015	7	109	27	08/04/10 08:41:19	12.33	8.70	7.67	49640	32.41
19830-017	7	110	27	08/04/10 08:41:25	12.42	8.64	7.64	49668	32.43
19830-003	7	111	27	08/04/10 08:41:33	12.54	8.53	7.60	49627	32.41
19830-008	7	112	27	08/04/10 08:41:42	12.66	8.46	7.65	49614	32.41
19830-006	7	113	27	08/04/10 08:41:52	12.57	8.59	7.68	49245	32.13
19830-012	7	114	27	08/04/10 08:42:00	12.52	8.67	7.63	49152	32.06
19830-004	7	115	27	08/04/10 08:42:12	12.41	8.64	7.62	49191	32.09
19830-011	7	116	27	08/04/10 08:42:27	12.33	8.52	7.62	49218	32.10
19830-014	7	117	27	08/04/10 08:42:42	12.29	8.34	7.67	47856	31.12
19830-005	7	118	27	08/04/10 08:42:52	12.28	8.47	7.65	49231	32.11
19830-001	7	119	27	08/04/10 08:43:00	12.28	8.52	7.62	49214	32.10
19830-000	7	120	27	08/04/10 08:43:06	12.28	8.50	7.61	49232	32.11
19830-009	7	121	27	08/04/10 08:43:14	12.19	8.57	7.60	49277	32.14
19830-010	7	122	27	08/04/10 08:43:21	12.13	8.62	7.57	49316	32.17
19830-007	7	123	27	08/04/10 08:43:30	12.13	8.47	7.51	49394	32.22

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	7	124	27	08/04/10 08:43:40	12.18	8.33	7.49	49474	32.28
19830-013	7	125	27	08/04/10 08:43:48	12.23	8.23	7.50	49499	32.30
19830-016	7	126	27	08/04/10 08:43:57	12.36	8.23	7.51	49497	32.31
19830-017	8	127	27	08/04/10 08:44:06	12.50	8.18	7.48	49439	32.27
19830-013	8	128	27	08/04/10 08:44:14	12.60	8.09	7.49	49498	32.32
19830-010	8	129	27	08/04/10 08:44:24	12.62	8.18	7.57	48507	31.60
19830-007	8	130	27	08/04/10 08:44:33	12.60	8.29	7.53	49151	32.07
19830-011	8	131	27	08/04/10 08:44:40	12.53	8.22	7.45	49162	32.07
19830-002	8	132	27	08/04/10 08:44:54	12.38	7.53	7.40	49319	32.18
19830-004	8	133	27	08/04/10 08:45:02	12.38	7.21	7.40	49277	32.15
19830-003	8	134	27	08/04/10 08:45:10	12.38	7.22	7.41	49248	32.13
19830-005	8	135	27	08/04/10 08:45:18	12.36	7.53	7.42	49247	32.13
19830-012	8	136	27	08/04/10 08:45:27	12.29	7.60	7.44	49352	32.20
19830-006	8	137	27	08/04/10 08:45:34	12.24	7.61	7.51	49440	32.26
19830-001	8	138	27	08/04/10 08:45:41	12.23	7.75	7.54	49437	32.26
19830-014	8	139	27	08/04/10 08:45:47	12.23	7.86	7.56	49391	32.22
19830-000	8	140	27	08/04/10 08:45:52	12.26	7.92	7.51	49419	32.25
19830-009	8	141	27	08/04/10 08:45:59	12.30	7.89	7.52	49505	32.31
19830-008	8	142	27	08/04/10 08:46:07	12.38	8.02	7.58	49509	32.32
19830-015	8	143	27	08/04/10 08:46:14	12.44	8.17	7.63	49567	32.36
19830-016	8	144	27	08/04/10 08:46:23	12.59	8.30	7.61	49505	32.32
19830-002	1	1	28	08/05/10 08:26:06	13.09	9.77	7.49	48932	31.93
19830-016	1	2	28	08/05/10 08:27:24	12.95	9.07	7.52	40372	25.79
19830-015	1	3	28	08/05/10 08:28:03	12.86	8.02	7.57	49061	32.01
19830-017	1	4	28	08/05/10 08:28:21	12.88	7.88	7.55	49063	32.01
19830-001	1	5	28	08/05/10 08:28:38	12.88	7.92	7.64	49103	32.04
19830-011	1	6	28	08/05/10 08:29:14	12.86	7.78	7.52	48947	31.93
19830-014	1	7	28	08/05/10 08:30:12	12.82	5.56	7.23	49077	32.02
19830-009	1	8	28	08/05/10 08:30:54	12.74	6.50	7.40	48543	31.63
19830-012	1	9	28	08/05/10 08:31:16	12.76	6.71	7.41	49022	31.98
19830-010	1	10	28	08/05/10 08:31:38	12.65	7.16	7.46	48983	31.95
19830-008	1	11	28	08/05/10 08:31:55	12.56	7.45	7.56	49099	32.03
19830-006	1	12	28	08/05/10 08:32:22	12.51	7.95	7.62	49098	32.02
19830-004	1	13	28	08/05/10 08:32:48	12.53	7.91	7.43	49082	32.01
19830-013	1	14	28	08/05/10 08:33:09	12.54	7.59	7.40	49077	32.01
19830-000	1	15	28	08/05/10 08:33:26	12.53	7.68	7.42	49091	32.02
19830-005	1	16	28	08/05/10 08:34:00	12.50	8.21	7.69	49154	32.06
19830-007	1	17	28	08/05/10 08:34:15	12.49	8.31	7.64	49228	32.12
19830-003	1	18	28	08/05/10 08:34:42	12.60	8.10	7.52	49177	32.09
19830-009	2	19	28	08/05/10 08:35:49	12.88	7.72	7.56	49052	32.01
19830-016	2	20	28	08/05/10 08:36:13	12.83	7.58	7.53	49058	32.01
19830-007	2	21	28	08/05/10 08:36:33	12.84	7.45	7.45	49048	32.00
19830-015	2	22	28	08/05/10 08:36:51	12.84	7.39	7.46	49042	32.00
19830-008	2	23	28	08/05/10 08:37:15	12.82	7.62	7.69	48825	31.84
19830-002	2	24	28	08/05/10 08:37:40	12.78	7.52	7.49	49038	31.99
19830-012	2	25	28	08/05/10 08:37:57	12.72	7.30	7.45	49006	31.97
19830-004	2	26	28	08/05/10 08:38:14	12.73	7.25	7.42	49042	31.99
19830-000	2	27	28	08/05/10 08:38:41	12.59	7.77	7.52	49025	31.97
19830-003	2	28	28	08/05/10 08:39:03	12.54	8.02	7.51	48565	31.64
19830-011	2	29	28	08/05/10 08:39:33	12.58	7.72	7.51	49061	32.00
19830-017	2	30	28	08/05/10 08:39:55	12.55	7.60	7.42	49044	31.99
19830-014	2	31	28	08/05/10 08:40:23	12.49	7.00	7.34	49064	32.00
19830-001	2	32	28	08/05/10 08:40:55	12.46	6.42	7.47	49084	32.01

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	2	33	28	08/05/10 08:41:34	12.48	7.67	7.51	49122	32.04
19830-010	2	34	28	08/05/10 08:41:55	12.55	7.77	7.48	49072	32.01
19830-006	2	35	28	08/05/10 08:42:48	12.81	6.77	7.37	49092	32.03
19830-005	2	36	28	08/05/10 08:43:10	12.79	6.99	7.53	49092	32.03
19830-013	3	37	28	08/05/10 08:43:29	12.71	7.27	7.46	49094	32.03
19830-009	3	38	28	08/05/10 08:43:49	12.77	7.28	7.49	49075	32.02
19830-017	3	39	28	08/05/10 08:44:13	12.83	6.71	7.29	49021	31.98
19830-016	3	40	28	08/05/10 08:44:40	12.64	6.47	7.28	49149	32.07
19830-000	3	41	28	08/05/10 08:45:06	12.65	7.61	7.53	49086	32.02
19830-010	3	42	28	08/05/10 08:45:33	12.73	7.35	7.41	49041	31.99
19830-008	3	43	28	08/05/10 08:46:32	12.68	6.78	7.44	48986	31.95
19830-014	3	44	28	08/05/10 08:46:57	12.65	7.01	7.49	49044	31.99
19830-004	3	45	28	08/05/10 08:47:17	12.63	7.18	7.38	48988	31.95
19830-006	3	46	28	08/05/10 08:47:38	12.63	7.13	7.45	49070	32.01
19830-005	3	47	28	08/05/10 08:47:57	12.61	7.48	7.53	49077	32.01
19830-011	3	48	28	08/05/10 08:48:41	12.33	7.97	7.59	49293	32.16
19830-002	3	49	28	08/05/10 08:48:56	12.43	8.01	7.50	49141	32.05
19830-012	3	50	28	08/05/10 08:49:14	12.59	7.59	7.50	48876	31.87
19830-001	3	51	28	08/05/10 08:49:49	12.30	8.18	7.60	49209	32.10
19830-003	3	52	28	08/05/10 08:50:06	12.29	8.10	7.61	49158	32.06
19830-007	3	53	28	08/05/10 08:50:30	12.31	8.05	7.49	49111	32.02
19830-015	3	54	28	08/05/10 08:50:46	12.29	7.89	7.58	49157	32.06
19830-006	4	55	28	08/05/10 08:51:13	12.22	8.20	7.66	49139	32.04
19830-011	4	56	28	08/05/10 08:51:37	12.13	8.14	7.63	49159	32.05
19830-012	4	57	28	08/05/10 08:52:12	12.08	8.44	7.68	49155	32.05
19830-010	4	58	28	08/05/10 08:52:30	12.04	8.48	7.68	49212	32.09
19830-015	4	59	28	08/05/10 08:52:46	11.97	8.44	7.65	49212	32.08
19830-009	4	60	28	08/05/10 08:53:07	11.92	8.23	7.65	49234	32.10
19830-001	4	61	28	08/05/10 08:53:35	12.00	7.93	7.57	49268	32.13
19830-016	4	62	28	08/05/10 08:53:59	12.19	7.67	7.45	49177	32.07
19830-008	4	63	28	08/05/10 08:54:25	12.36	7.58	7.53	49163	32.06
19830-004	4	64	28	08/05/10 08:54:56	12.50	7.03	7.32	49153	32.06
19830-007	4	65	28	08/05/10 08:57:02	12.31	7.76	7.46	49154	32.06
19830-014	4	66	28	08/05/10 08:57:26	12.25	7.38	7.39	49131	32.04
19830-000	4	67	28	08/05/10 08:57:51	12.23	7.38	7.45	49110	32.02
19830-017	4	68	28	08/05/10 08:58:16	12.21	7.41	7.37	49124	32.03
19830-013	4	69	28	08/05/10 08:58:45	12.22	7.56	7.52	49120	32.03
19830-002	4	70	28	08/05/10 08:59:06	12.22	7.84	7.58	49150	32.05
19830-005	4	71	28	08/05/10 08:59:23	12.23	7.88	7.59	49110	32.02
19830-003	4	72	28	08/05/10 08:59:46	12.24	7.87	7.57	49111	32.02
19830-016	5	73	28	08/05/10 09:00:04	12.23	7.92	7.51	49129	32.03
19830-003	5	74	28	08/05/10 09:00:27	12.23	7.52	7.44	49098	32.01
19830-000	5	75	28	08/05/10 09:00:53	12.29	7.48	7.47	49079	32.00
19830-013	5	76	28	08/05/10 09:01:26	12.34	7.53	7.42	49066	31.99
19830-001	5	77	28	08/05/10 09:02:04	12.39	7.93	7.67	48744	31.76
19830-002	5	78	28	08/05/10 09:02:32	12.47	7.54	7.43	49053	31.99
19830-004	5	79	28	08/05/10 09:03:02	12.53	7.46	7.46	49056	31.99
19830-012	5	80	28	08/05/10 09:03:28	12.60	7.90	7.65	49123	32.05
19830-005	5	81	28	08/05/10 09:03:59	12.32	8.02	7.61	49147	32.05
19830-011	5	82	28	08/05/10 09:04:26	12.23	7.66	7.52	49136	32.04
19830-010	5	83	28	08/05/10 09:04:47	12.20	7.83	7.61	49202	32.09
19830-017	5	84	28	08/05/10 09:05:04	12.20	7.86	7.49	49008	31.95
19830-009	5	85	28	08/05/10 09:05:28	12.23	6.95	7.40	49151	32.05
19830-006	5	86	28	08/05/10 09:05:58	12.28	7.25	7.49	49136	32.04

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	5	87	28	08/05/10 09:06:17	12.29	7.74	7.64	49141	32.05
19830-007	5	88	28	08/05/10 09:06:38	12.29	7.89	7.55	49072	32.00
19830-014	5	89	28	08/05/10 09:07:03	12.22	8.17	7.57	49201	32.09
19830-015	5	90	28	08/05/10 09:07:21	12.23	8.12	7.59	49198	32.08
19830-005	6	91	28	08/05/10 09:07:36	12.26	8.04	7.70	49172	32.07
19830-007	6	92	28	08/05/10 09:07:54	12.30	8.07	7.62	49177	32.07
19830-002	6	93	28	08/05/10 09:08:15	12.36	7.87	7.59	49169	32.07
19830-009	6	94	28	08/05/10 09:08:42	12.41	7.50	7.51	49132	32.04
19830-013	6	95	28	08/05/10 09:09:03	12.45	7.44	7.44	49080	32.01
19830-004	6	96	28	08/05/10 09:09:25	12.50	7.65	7.49	49221	32.11
19830-012	6	97	28	08/05/10 09:09:50	12.33	7.92	7.56	48827	31.82
19830-015	6	98	28	08/05/10 09:10:09	12.19	7.93	7.61	49201	32.09
19830-014	6	99	28	08/05/10 09:10:28	12.15	7.92	7.63	49228	32.10
19830-003	6	100	28	08/05/10 09:10:41	12.15	8.03	7.63	49246	32.12
19830-010	6	101	28	08/05/10 09:10:56	12.13	8.17	7.67	49330	32.18
19830-000	6	102	28	08/05/10 09:11:13	12.13	8.38	7.62	49244	32.11
19830-016	6	103	28	08/05/10 09:11:30	12.11	8.29	7.60	49261	32.12
19830-001	6	104	28	08/05/10 09:11:42	12.13	8.18	7.65	49296	32.15
19830-017	6	105	28	08/05/10 09:12:02	12.08	8.25	7.60	49178	32.06
19830-008	6	106	28	08/05/10 09:12:15	12.07	8.31	7.64	49241	32.11
19830-011	6	107	28	08/05/10 09:12:27	12.12	8.34	7.64	49252	32.12
19830-006	6	108	28	08/05/10 09:12:41	12.26	8.17	7.64	49309	32.17
19830-015	7	109	28	08/05/10 09:13:07	12.46	8.03	7.62	49264	32.14
19830-017	7	110	28	08/05/10 09:13:23	12.56	7.90	7.60	49270	32.15
19830-003	7	111	28	08/05/10 09:13:40	12.65	8.00	7.58	49274	32.16
19830-008	7	112	28	08/05/10 09:13:52	12.71	7.92	7.64	49331	32.20
19830-006	7	113	28	08/05/10 09:16:15	12.67	8.42	7.66	48861	31.86
19830-012	7	114	28	08/05/10 09:16:31	12.53	8.22	7.65	48981	31.94
19830-004	7	115	28	08/05/10 09:16:47	12.43	8.17	7.62	49040	31.98
19830-011	7	116	28	08/05/10 09:17:08	12.38	7.99	7.58	49034	31.97
19830-014	7	117	28	08/05/10 09:17:48	12.33	8.26	7.68	48785	31.79
19830-005	7	118	28	08/05/10 09:18:02	12.33	8.29	7.64	49013	31.95
19830-001	7	119	28	08/05/10 09:18:13	12.32	8.13	7.62	48992	31.94
19830-000	7	120	28	08/05/10 09:18:27	12.32	8.04	7.64	49045	31.98
19830-009	7	121	28	08/05/10 09:18:48	12.18	8.19	7.59	49138	32.04
19830-010	7	122	28	08/05/10 09:19:03	12.14	7.97	7.57	49164	32.06
19830-007	7	123	28	08/05/10 09:19:22	12.19	7.72	7.51	49173	32.06
19830-002	7	124	28	08/05/10 09:19:42	12.25	7.60	7.50	49192	32.08
19830-013	7	125	28	08/05/10 09:20:03	12.32	7.74	7.54	49247	32.12
19830-016	7	126	28	08/05/10 09:20:20	12.45	7.85	7.55	49168	32.07
19830-017	8	127	28	08/05/10 09:20:38	12.59	7.68	7.50	49153	32.07
19830-013	8	128	28	08/05/10 09:20:50	12.69	7.61	7.55	49199	32.10
19830-010	8	129	28	08/05/10 09:21:11	12.69	7.86	7.62	49082	32.02
19830-007	8	130	28	08/05/10 09:21:26	12.64	7.67	7.52	48993	31.95
19830-011	8	131	28	08/05/10 09:21:42	12.54	7.08	7.39	49023	31.97
19830-002	8	132	28	08/05/10 09:21:56	12.44	6.58	7.41	49096	32.02
19830-004	8	133	28	08/05/10 09:22:11	12.43	6.60	7.44	49087	32.01
19830-003	8	134	28	08/05/10 09:22:27	12.43	7.24	7.53	49083	32.01
19830-005	8	135	28	08/05/10 09:22:41	12.39	7.56	7.45	49083	32.01
19830-012	8	136	28	08/05/10 09:22:52	12.36	7.04	7.50	49109	32.03
19830-006	8	137	28	08/05/10 09:23:07	12.28	7.32	7.54	49204	32.09
19830-001	8	138	28	08/05/10 09:23:21	12.26	7.48	7.60	49237	32.11
19830-014	8	139	28	08/05/10 09:23:38	12.28	7.60	7.51	49174	32.07
19830-000	8	140	28	08/05/10 09:23:53	12.34	7.15	7.55	49156	32.06

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	8	141	28	08/05/10 09:24:16	12.40	7.94	7.62	49181	32.08
19830-008	8	142	28	08/05/10 09:24:35	12.45	8.05	7.66	49238	32.12
19830-015	8	143	28	08/05/10 09:24:46	12.50	8.08	7.69	49285	32.16
19830-016	8	144	28	08/05/10 09:25:03	12.68	7.92	7.64	49186	32.10

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Start Date: 01 Jul-10 12:00 **Species:** Nereis virens **Sample Code:** 19830-000
End Date: **Protocol:** ASTM E 1688 (2000a) **Sample Source:** Gowanus Canal Superfund Site
Sample Date: 25 Jun-10 12:00 **Material:** Marine Sediment **Sample Station:** Laboratory Control; 19830-000

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm
19830-009	1	1	10	10	25.64	0	10	
19830-001	1	2	10	10	27.12	0	10	
19830-017	1	3	10	8	22.84	0	8	
19830-007	1	4	10	5	13.27	0	5	
19830-002	1	5	10	10	27.6	0	10	
19830-006	1	6	10	9	24.73	0	9	
19830-000	1	7	10	10	26.37	0	10	
19830-004	1	8	11	11	27.9	0	11	
19830-016	1	9	10	8	19.35	0	8	
19830-003	1	10	10	9	27.15	0	9	
19830-010	1	11	10	9	24.81	0	9	
19830-014	1	12	10	10	21.74	0	10	
19830-011	1	13	10	10	23.53	0	10	
19830-012	1	14	10	9	22.82	0	9	
19830-005	1	15	10	4	14.31	0	4	
19830-013	1	16	10	9	29.29	0	9	
19830-008	1	17	10	10	30.04	0	10	
19830-015	1	18	10	10	20.96	0	10	
19830-003	2	19	10	8	32.75	0	8	
19830-013	2	20	10	10	24.43	0	10	
19830-012	2	21	10	9	27.18	0	9	
19830-005	2	22	10	8	26.82	0	8	
19830-002	2	23	10	8	31.8	0	8	
19830-017	2	24	10	8	33.95	0	8	
19830-008	2	25	10	8	26.08	0	8	
19830-009	2	26	10	8	19.45	0	8	
19830-000	2	27	10	10	36.15	0	10	
19830-016	2	28	10	10	27.81	0	10	
19830-015	2	29	10	10	30.94	0	10	
19830-014	2	30	10	8	24.28	0	8	
19830-010	2	31	10	9	30.7	0	9	
19830-004	2	32	10	9	29.4	0	9	
19830-007	2	33	10	8	20	0	8	
19830-011	2	34	10	9	26.53	0	9	
19830-006	2	35	10	5	17.17	0	5	
19830-001	2	36	10	7	30.49	0	7	
19830-013	3	37	10	8	26.65	0	8	
19830-009	3	38	11	11	34.93	0	11	
19830-011	3	39	10	8	29.43	0	8	
19830-000	3	40	10	9	26.97	0	9	
19830-004	3	41	10	10	33.9	0	10	
19830-006	3	42	10	8	23.4	0	8	
19830-015	3	43	10	10	31.8	0	10	
19830-012	3	44	10	9	17.77	0	9	
19830-001	3	45	10	9	27.82	0	9	
19830-003	3	46	10	9	24.78	0	9	
19830-016	3	47	10	8	23.4	0	8	

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm
19830-007	3	48	10	9	21.31	0	9	
19830-017	3	49	10	9	33.85	0	9	
19830-005	3	50	10	8	28.69	0	8	
19830-008	3	51	10	9	27.47	0	9	
19830-014	3	52	10	8	26.73	0	8	
19830-002	3	53	10	10	44.08	0	10	
19830-010	3	54	10	7	25.78	0	7	
19830-006	4	55	10	7	17.07	0	7	
19830-004	4	56	10	8	27.49	0	8	
19830-014	4	57	10	10	35.14	0	10	
19830-017	4	58	10	8	26.32	0	8	
19830-010	4	59	10	9	31.43	0	9	
19830-005	4	60	10	4	13.95	0	4	
19830-008	4	61	10	8	36.27	0	8	
19830-012	4	62	10	10	26.64	0	10	
19830-011	4	63	10	10	32.71	0	10	
19830-000	4	64	10	10	30.86	0	10	
19830-013	4	65	10	9	28.53	0	9	
19830-007	4	66	10	9	22.46	0	9	
19830-015	4	67	10	10	32.05	0	10	
19830-001	4	68	10	8	31.15	0	8	
19830-009	4	69	10	10	36.66	0	10	
19830-002	4	70	10	10	30.92	0	10	
19830-016	4	71	10	8	24.84	0	8	
19830-003	4	72	10	9	28.31	0	9	
19830-017	5	73	10	9	30.35	0	9	
19830-001	5	74	10	9	24.62	0	9	
19830-005	5	75	10	6	11.82	0	6	
19830-006	5	76	10	9	27.89	0	9	
19830-011	5	77	10	9	28.77	0	9	
19830-003	5	78	10	8	31.81	0	8	
19830-008	5	79	10	10	27.38	0	10	
19830-010	5	80	10	8	28.47	0	8	
19830-004	5	81	10	9	35.94	0	9	
19830-000	5	82	10	10	29.2	0	10	
19830-015	5	83	10	10	27.8	0	10	
19830-009	5	84	10	9	33.18	0	9	
19830-007	5	85	10	7	14.21	0	7	
19830-012	5	86	10	9	28.01	0	9	
19830-016	5	87	10	8	25.92	0	8	
19830-014	5	88	10	9	28.09	0	9	
19830-002	5	89	10	10	33.8	0	10	
19830-013	5	90	10	8	33.49	0	8	
19830-011	6	91	10	8	22.83	0	8	
19830-010	6	92	10	8	25.74	0	8	
19830-015	6	93	10	10	27.14	0	10	
19830-002	6	94	10	10	32.93	0	10	
19830-004	6	95	10	7	21.19	0	7	
19830-001	6	96	10	9	17.73	0	9	
19830-000	6	97	10	9	24.08	0	9	
19830-012	6	98	10	7	19.6	0	7	
19830-008	6	99	10	7	20.48	0	7	

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm
19830-006	6	100	10	7	21.69	0	7	
19830-016	6	101	10	10	31.75	0	10	
19830-007	6	102	10	8	20.78	0	8	
19830-013	6	103	10	7	19.84	0	7	
19830-017	6	104	10	9	23.17	0	9	
19830-014	6	105	12	12	34.47	0	12	
19830-005	6	106	10	5	13.81	0	5	
19830-009	6	107	10	8	22.47	0	8	
19830-003	6	108	10	10	28.9	0	10	
19830-014	7	109	10	9	23.7	0	9	
19830-004	7	110	10	5	12.47	0	5	
19830-002	7	111	10	9	27.47	0	9	
19830-016	7	112	10	9	26.18	0	9	
19830-012	7	113	10	7	17.45	0	7	
19830-006	7	114	10	7	21.2	0	7	
19830-011	7	115	10	10	20.06	0	10	
19830-015	7	116	10	10	26.38	0	10	
19830-000	7	117	11	11	33.45	0	11	
19830-007	7	118	10	5	13.74	0	5	
19830-009	7	119	10	7	21.05	0	7	
19830-008	7	120	10	9	20.48	0	9	
19830-005	7	121	10	5	13.95	0	5	
19830-003	7	122	10	9	28.02	0	9	
19830-001	7	123	10	10	30.35	0	10	
19830-010	7	124	10	10	29.77	0	10	
19830-017	7	125	10	8	21.66	0	8	
19830-013	7	126	10	10	30.79	0	10	
19830-015	8	127	10	8	23.88	0	8	
19830-012	8	128	10	8	20.6	0	8	
19830-010	8	129	10	8	23.81	0	8	
19830-014	8	130	10	10	24.39	0	10	
19830-016	8	131	10	8	23.48	0	8	
19830-007	8	132	10	6	17.16	0	6	
19830-005	8	133	10	9	27.01	0	9	
19830-009	8	134	10	8	24.9	0	8	
19830-004	8	135	10	10	25.95	0	10	
19830-000	8	136	10	10	22.89	0	10	
19830-002	8	137	10	8	28.4	0	8	
19830-001	8	138	10	8	24.18	0	8	
19830-006	8	139	10	8	25.62	0	8	
19830-003	8	140	10	6	20.05	0	6	
19830-011	8	141	10	6	22.12	0	6	
19830-013	8	142	10	9	32.15	0	9	
19830-008	8	143	10	7	18.36	0	7	
19830-017	8	144	10	8	21.34	0	8	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-002	1	1	10	10	27.60	JTP
19830-016	1	2	8	8	19.35	
19830-015	1	3	10	10	20.96	
19830-017	1	4	8	8	22.84	
19830-001	1	5	10	10	27.12	
19830-011	1	6	10	10	23.53	
19830-014	1	7	10	10	21.74	
19830-009	1	8	10	10	25.64	
19830-012	1	9	9	9	22.82	
19830-010	1	10	9	9	24.81	
19830-008	1	11	10	10	30.04	
19830-006	1	12	9	9	24.73	
19830-004	1	13	11	11	27.90	
19830-013	1	14	9	9	29.29	
19830-000	1	15	10	10	26.37	
19830-005	1	16	4	4	14.31	
19830-007	1	17	5	5	13.27	
19830-003	1	18	9	9	27.15	
19830-009	2	19	8	8	19.45	
19830-016	2	20	10	10	27.81	
19830-007	2	21	8	8	20.00	
19830-015	2	22	10	10	30.94	
19830-008	2	23	8	8	26.08	
19830-002	2	24	8	8	31.80	
19830-012	2	25	9	9	27.18	
19830-004	2	26	9	9	29.40	
19830-000	2	27	10	10	36.15	
19830-003	2	28	8	8	32.75	
19830-011	2	29	9	9	26.53	
19830-017	2	30	8	8	33.95	
19830-014	2	31	8	8	24.28	
19830-001	2	32	7	7	30.49	
19830-013	2	33	10	10	24.43	
19830-010	2	34	9	9	30.70	
19830-006	2	35	5	5	17.17	
19830-005	2	36	8	8	26.82	
19830-013	3	37	8	8	26.65	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-009	3	38	11	11	34.93	JTP
19830-017	3	39	9	9	33.85	
19830-016	3	40	8	8	23.40	
19830-000	3	41	9	9	26.97	
19830-010	3	42	7	7	25.78	
19830-008	3	43	9	9	27.47	
19830-014	3	44	8	8	26.73	
19830-004	3	45	10	10	33.90	
19830-006	3	46	8	8	23.40	
19830-005	3	47	8	8	28.69	
19830-011	3	48	8	8	29.43	
19830-002	3	49	10	10	44.08	
19830-012	3	50	9	9	17.77	
19830-001	3	51	9	9	27.82	
19830-003	3	52	9	9	24.78	
19830-007	3	53	9	9	21.31	
19830-015	3	54	10	10	31.80	
19830-006	4	55	7	7	17.07	
19830-011	4	56	10	10	32.71	
19830-012	4	57	10	10	26.64	
19830-010	4	58	9	9	31.43	
19830-015	4	59	10	10	32.05	
19830-009	4	60	10	10	36.66	
19830-001	4	61	8	8	31.15	
19830-016	4	62	8	8	24.84	
19830-008	4	63	8	8	36.27	
19830-004	4	64	8	8	27.49	
19830-007	4	65	9	9	22.46	
19830-014	4	66	10	10	35.14	
19830-000	4	67	10	10	30.86	
19830-017	4	68	8	8	26.32	
19830-013	4	69	9	9	28.53	
19830-002	4	70	10	10	30.92	
19830-005	4	71	4	4	13.95	
19830-003	4	72	9	9	28.31	
19830-016	5	73	8	8	25.92	
19830-003	5	74	8	8	31.81	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-000	5	75	10	10	29.20	JTP
19830-013	5	76	8	8	33.49	
19830-001	5	77	9	9	24.62	
19830-002	5	78	10	10	33.80	
19830-004	5	79	9	9	35.94	
19830-012	5	80	9	9	28.01	
19830-005	5	81	6	6	11.82	
19830-011	5	82	9	9	28.77	
19830-010	5	83	8	8	28.47	
19830-017	5	84	9	9	30.35	
19830-009	5	85	9	9	33.18	
19830-006	5	86	9	9	27.89	
19830-008	5	87	10	10	27.38	
19830-007	5	88	7	7	14.21	
19830-014	5	89	9	9	28.09	
19830-015	5	90	10	10	27.80	
19830-005	6	91	5	5	13.81	
19830-007	6	92	8	8	20.78	
19830-002	6	93	10	10	32.93	
19830-009	6	94	8	8	22.47	
19830-013	6	95	7	7	19.84	
19830-004	6	96	7	7	21.19	
19830-012	6	97	7	7	19.60	
19830-015	6	98	10	10	27.14	
19830-014	6	99	12	12	34.47	
19830-003	6	100	10	10	28.90	
19830-010	6	101	8	8	25.74	
19830-000	6	102	9	9	24.08	
19830-016	6	103	10	10	31.75	
19830-001	6	104	9	9	17.73	
19830-017	6	105	9	9	23.17	
19830-008	6	106	7	7	20.48	
19830-011	6	107	8	8	22.83	
19830-006	6	108	7	7	21.69	
19830-015	7	109	10	10	26.38	
19830-017	7	110	8	8	21.66	
19830-003	7	111	9	9	28.02	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-008	7	112	9	9	20.48	JTP
19830-006	7	113	7	7	21.20	
19830-012	7	114	7	7	17.45	
19830-004	7	115	5	5	12.47	
19830-011	7	116	10	10	20.06	
19830-014	7	117	9	9	23.70	
19830-005	7	118	5	5	13.95	
19830-001	7	119	10	10	30.35	
19830-000	7	120	11	11	33.45	
19830-009	7	121	7	7	21.05	
19830-010	7	122	10	10	29.77	
19830-007	7	123	5	5	13.74	
19830-002	7	124	9	9	27.47	
19830-013	7	125	10	10	30.79	
19830-016	7	126	9	9	26.18	
19830-017	8	127	8	8	21.34	
19830-013	8	128	9	9	32.15	
19830-010	8	129	8	8	23.81	
19830-007	8	130	6	6	17.16	
19830-011	8	131	6	6	22.12	
19830-002	8	132	8	8	28.40	
19830-004	8	133	10	10	25.95	
19830-003	8	134	6	6	20.05	
19830-005	8	135	9	9	27.01	
19830-012	8	136	8	8	20.60	
19830-006	8	137	8	8	25.62	
19830-001	8	138	8	8	24.18	
19830-014	8	139	10	10	24.39	
19830-000	8	140	10	10	22.89	
19830-009	8	141	8	8	24.90	
19830-008	8	142	7	7	18.36	
19830-015	8	143	8	8	23.88	
19830-016	8	144	8	8	23.48	

Nereis virens 28 Day Assay

Study Number: 19830

Client: HDR Engineering, Inc.

Project: Gowanus Canal Superfund Site

ESI SAMPLE ID	REP	WET WEIGHT (G)
Start Worms	A	22
	B	30.1
	C	32.5
	D	26.4
	E	30.0
RECORDED BY: DM		
DATE: 7-8-10 1240		

NOTES:

Number Worms per Replicate: 10

Average wet weight per worm: 2.82 Grams

Average wet weight per replicate: 28.2 Grams

Balance: AccuSeries Model 225D Serial#: 17008376

Alternate Balance: ID: Serial #:



Aquatic Research Organisms

DATA SHEET

CHAIN OF CUSTODY

I. Organism History

Species: Neries virens

Source: Lab reared_____ Hatchery reared_____ Field collected X

Collection date 7/7/10 Receipt date 7/7/10

Lot number 070710 Strain Wild

Brood Origination Damariscotta River, Boothbay Harbor, Maine

II. Water Quality

Temperature 15 °C Salinity 28-32 ppt DO Saturated

pH 7.8-8.2 Hardness N.A. ppm

III. Culture Conditions

System: Held at 4°C on moist seaweed

Diet: Flake Food_____ Phytoplankton_____ Trout Chow_____

Brine Shrimp_____ Rotifers_____ Other Not feed

Prophylactic Treatments:_____

Comments: Shipped on moistened seaweed, gel ice packs to keep cool.

IV. Shipping Information

Client: ESI # of Organisms: 2000

Carrier: PICK UP Date Shipped: 7/8/10

Tracking # n/a # of cartons_____

RELEASED BY: Stan Latsko DATE: TIME:

RECEIVED BY:_____ DATE: TIME:

1 - 800 - 927 - 1650

PO Box 1271 • One Lafayette Road • Hampton, NH 03842 • (603) 926-1650

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
19830-000	14-3755-5415	25 Jun-10 12:00	25 Jun-10 12:00	6d 0h	HDR Engineering, Inc.	Ecological Risk Assessme
19830-003	01-9996-7487	17 Jun-10 13:38	19 Jun-10 13:00	13d 22h		
19830-008	03-2283-8752	18 Jun-10 09:48	19 Jun-10 13:00	13d 2h		
19830-009	12-1069-2908	18 Jun-10 12:52	19 Jun-10 13:00	12d 23h		
19830-010	00-6363-3797	18 Jun-10 11:21	19 Jun-10 13:00	13d 1h		
19830-012	01-9941-3387	18 Jun-10 15:16	19 Jun-10 13:00	12d 21h		
19830-001	10-6412-9845	17 Jun-10 14:25	19 Jun-10 13:00	13d 22h		
19830-002	14-2377-4629	17 Jun-10 16:50	19 Jun-10 13:00	13d 19h		
19830-004	02-9429-9959	18 Jun-10 10:15	19 Jun-10 13:00	13d 2h		
19830-005	09-3345-3845	18 Jun-10 10:30	19 Jun-10 13:00	13d 2h		
19830-006	05-3627-1272	18 Jun-10 13:15	19 Jun-10 13:00	12d 23h		
19830-007	20-4940-8825	18 Jun-10 12:40	19 Jun-10 13:00	12d 23h		
19830-011	15-0121-6600	18 Jun-10 15:55	19 Jun-10 13:00	12d 20h		
19830-013	12-2297-1777	21 Jun-10 12:50	22 Jun-10 15:00	9d 23h		
19830-014	07-7862-4227	21 Jun-10 14:05	22 Jun-10 15:00	9d 22h		
19830-015	19-3475-1966	22 Jun-10 10:40	23 Jun-10 09:30	9d 1h		
19830-016	00-4606-7422	22 Jun-10 14:35	23 Jun-10 09:30	8d 21h		
19830-017	19-8907-5507	24 Jun-10 09:50	25 Jun-10 09:30	7d 2h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
19830-000	Marine Sediment	Gowanus Canal Superfund Site	Laboratory Control; 19830-000		
19830-003	Marine Sediment	Gowanus Canal Superfund Site	GC-SD326-0.0-0.5; 19830-003		
19830-008	Marine Sediment	Gowanus Canal Superfund Site	GC-SD328-0.0-0.5; 19830-008		
19830-009	Marine Sediment	Gowanus Canal Superfund Site	GC-SD330-0.0-0.5; 19830-009		
19830-010	Marine Sediment	Gowanus Canal Superfund Site	GC-SD333-0.0-0.5; 19830-010		
19830-012	Marine Sediment	Gowanus Canal Superfund Site	GC-SD329-0.0-0.5; 19830-012		
19830-001	Marine Sediment	Gowanus Canal Superfund Site	GC-SD303-0.0-0.5; 19830-001		
19830-002	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307A-0.0-0.5; 19830-002		
19830-004	Marine Sediment	Gowanus Canal Superfund Site	GC-SD309-0.0-0.5; 19830-004		
19830-005	Marine Sediment	Gowanus Canal Superfund Site	GC-SD313-0.0-0.5; 19830-005		
19830-006	Marine Sediment	Gowanus Canal Superfund Site	GC-SD314-0.0-0.5; 19830-006		
19830-007	Marine Sediment	Gowanus Canal Superfund Site	GC-SD315-0.0-0.5; 19830-007		
19830-011	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307B-0.0-0.5; 19830-011		
19830-013	Marine Sediment	Gowanus Canal Superfund Site	GC-SD324-0.0-0.5; 19830-013		
19830-014	Marine Sediment	Gowanus Canal Superfund Site	GC-SD321-0.0-0.5; 19830-014		
19830-015	Marine Sediment	Gowanus Canal Superfund Site	GC-SD319-0.0-0.5; 19830-015		
19830-016	Marine Sediment	Gowanus Canal Superfund Site	GC-SD318-0.0-0.5; 19830-016		
19830-017	Marine Sediment	Gowanus Canal Superfund Site	GC-SD310-0.0-0.5; 19830-017		

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9577	0.9923	0.9	1	0.008452	0.04629	4.75%	0.0%
19830-003	8	0.85	0.8054	0.8946	0.6	1	0.02182	0.1195	14.06%	12.82%
19830-008	8	0.85	0.8054	0.8946	0.7	1	0.02182	0.1195	14.06%	12.82%
19830-009	8	0.875	0.8315	0.9185	0.7	1	0.02127	0.1165	13.31%	10.26%
19830-010	8	0.85	0.8154	0.8846	0.7	1	0.0169	0.09258	10.89%	12.82%
19830-012	8	0.85	0.8101	0.8899	0.7	1	0.01952	0.1069	12.58%	12.82%
19830-001	8	0.875	0.8363	0.9137	0.7	1	0.0189	0.1035	11.83%	10.26%
19830-002	8	0.9375	0.9033	0.9717	0.8	1	0.01673	0.09161	9.77%	3.85%
19830-004	8	0.85	0.7838	0.9162	0.5	1	0.03237	0.1773	20.86%	12.82%

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-005	8	0.6125	0.5393	0.6857	0.4	0.9	0.03577	0.1959	31.99%	37.18%
19830-006	8	0.75	0.7011	0.7989	0.5	0.9	0.0239	0.1309	17.46%	23.08%
19830-007	8	0.7125	0.6512	0.7738	0.5	0.9	0.02998	0.1642	23.05%	26.92%
19830-011	8	0.875	0.8231	0.9269	0.6	1	0.02535	0.1389	15.87%	10.26%
19830-013	8	0.875	0.8363	0.9137	0.7	1	0.0189	0.1035	11.83%	10.26%
19830-014	8	0.925	0.8919	0.9581	0.8	1	0.01618	0.08864	9.58%	5.13%
19830-015	8	0.975	0.9486	1	0.8	1	0.01291	0.07071	7.25%	0.0%
19830-016	8	0.8625	0.8283	0.8967	0.8	1	0.01673	0.09161	10.62%	11.54%
19830-017	8	0.8375	0.8182	0.8568	0.8	0.9	0.009449	0.05175	6.18%	14.1%

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.678	2.995	2.289	3.615	0.07745	0.4242	14.95%	0.0%
19830-003	8	2.772	2.623	2.921	2.005	3.275	0.07292	0.3994	14.41%	2.27%
19830-008	8	2.582	2.361	2.803	1.836	3.627	0.108	0.5915	22.91%	8.98%
19830-009	8	2.689	2.456	2.922	1.945	3.666	0.1141	0.6247	23.23%	5.21%
19830-010	8	2.756	2.648	2.864	2.381	3.143	0.05285	0.2895	10.5%	2.83%
19830-012	8	2.251	2.09	2.411	1.745	2.801	0.0785	0.4299	19.1%	20.65%
19830-001	8	2.668	2.501	2.835	1.773	3.115	0.08167	0.4473	16.76%	5.94%
19830-002	8	3.212	3.011	3.414	2.747	4.408	0.09855	0.5398	16.8%	-13.25%
19830-004	8	2.646	2.371	2.921	1.247	3.594	0.1345	0.7367	27.84%	6.71%
19830-005	8	1.879	1.608	2.151	1.182	2.869	0.1328	0.7274	38.7%	33.74%
19830-006	8	2.235	2.09	2.379	1.707	2.789	0.07058	0.3866	17.3%	21.22%
19830-007	8	1.787	1.647	1.926	1.327	2.246	0.06832	0.3742	20.95%	37.02%
19830-011	8	2.575	2.413	2.736	2.006	3.271	0.0789	0.4321	16.78%	9.23%
19830-013	8	2.815	2.649	2.98	1.984	3.349	0.08109	0.4441	15.78%	0.78%
19830-014	8	2.66	2.504	2.816	2.174	3.514	0.07621	0.4174	15.69%	6.23%
19830-015	8	2.762	2.615	2.909	2.096	3.205	0.0718	0.3933	14.24%	2.64%
19830-016	8	2.534	2.399	2.669	1.935	3.175	0.06604	0.3617	14.27%	10.66%
19830-017	8	2.668	2.47	2.867	2.134	3.395	0.09726	0.5327	19.96%	5.93%

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.762	3.053	2.289	3.615	0.07131	0.3906	13.43%	0.0%
19830-003	8	3.291	3.108	3.475	2.753	4.094	0.08983	0.492	14.95%	-13.2%
19830-008	8	3.052	2.801	3.302	2.276	4.534	0.1223	0.67	21.96%	-4.95%
19830-009	8	3.056	2.885	3.228	2.431	3.687	0.08404	0.4603	15.06%	-5.12%
19830-010	8	3.259	3.136	3.382	2.757	3.683	0.06018	0.3296	10.11%	-12.09%
19830-012	8	2.647	2.515	2.779	1.974	3.112	0.06447	0.3531	13.34%	8.97%
19830-001	8	3.102	2.828	3.376	1.97	4.356	0.1341	0.7346	23.68%	-6.69%
19830-002	8	3.439	3.239	3.638	2.76	4.408	0.09745	0.5338	15.52%	-18.27%
19830-004	8	3.092	2.894	3.29	2.494	3.993	0.0968	0.5302	17.15%	-6.36%
19830-005	8	3.066	2.858	3.274	1.97	3.586	0.1016	0.5563	18.14%	-5.45%
19830-006	8	2.997	2.884	3.109	2.439	3.434	0.05495	0.301	10.04%	-3.07%
19830-007	8	2.532	2.436	2.627	2.03	2.86	0.04653	0.2549	10.07%	12.93%
19830-011	8	2.999	2.777	3.221	2.006	3.687	0.1086	0.5946	19.83%	-3.15%
19830-013	8	3.234	3.042	3.425	2.443	4.186	0.09372	0.5133	15.87%	-11.22%
19830-014	8	2.891	2.721	3.061	2.174	3.514	0.08309	0.4551	15.74%	0.56%
19830-015	8	2.836	2.699	2.974	2.096	3.205	0.06719	0.368	12.97%	2.44%
19830-016	8	2.936	2.839	3.033	2.419	3.24	0.04734	0.2593	8.83%	-0.98%
19830-017	8	3.184	2.962	3.406	2.574	4.244	0.1086	0.5948	18.68%	-9.51%

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	1	1	0.9	1	1	0.9	1	1
19830-003	0.9	0.8	0.9	0.9	0.8	1	0.9	0.6
19830-008	1	0.8	0.9	0.8	1	0.7	0.9	0.7
19830-009	1	0.8	1	1	0.9	0.8	0.7	0.8
19830-010	0.9	0.9	0.7	0.9	0.8	0.8	1	0.8
19830-012	0.9	0.9	0.9	1	0.9	0.7	0.7	0.8
19830-001	1	0.7	0.9	0.8	0.9	0.9	1	0.8
19830-002	1	0.8	1	1	1	1	0.9	0.8
19830-004	1	0.9	1	0.8	0.9	0.7	0.5	1
19830-005	0.4	0.8	0.8	0.4	0.6	0.5	0.5	0.9
19830-006	0.9	0.5	0.8	0.7	0.9	0.7	0.7	0.8
19830-007	0.5	0.8	0.9	0.9	0.7	0.8	0.5	0.6
19830-011	1	0.9	0.8	1	0.9	0.8	1	0.6
19830-013	0.9	1	0.8	0.9	0.8	0.7	1	0.9
19830-014	1	0.8	0.8	1	0.9	1	0.9	1
19830-015	1	1	1	1	1	1	1	0.8
19830-016	0.8	1	0.8	0.8	0.8	1	0.9	0.8
19830-017	0.8	0.8	0.9	0.8	0.9	0.9	0.8	0.8

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.112
19830-010	2.757	3.411	3.683	3.492	3.559	3.217	2.977	2.976
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595
19830-005	3.578	3.352	3.586	3.487	1.97	2.762	2.79	3.001
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.707	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7047-9657	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-017	0.4648	1.761	0.1017	0.3246	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.014	2.586	0.5107	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002883158	0.002883158	1	0.216	0.6492	Non-Significant Effect
Error	0.1868688	0.01334777	14			
Total	0.189752	0.01623093	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.95	8.885	0.0904	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9166		0.1489	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	2.26%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-5575-3935	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-016	-0.1949	1.761	0.1255	0.5759	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.632	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.000772291	0.000772291	1	0.038	0.8482	Non-Significant Effect
Error	0.2845204	0.02032288	14			
Total	0.2852927	0.02109518	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.101	8.885	0.9020	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8919		0.0596	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-1.17%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7229-4220	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.06%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-012		19830-015	91		2	0.9926	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.152	2.586	0.3214	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1394276	0.1394276	1	8.471	0.0114	Significant Effect
Error	0.2304422	0.01646016	14			
Total	0.3698699	0.1558878	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.834	8.885	0.4423	Equal Variances
Distribution	Shapiro-Wilk Normality	0.7997		0.0027	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-15.73%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-4420-4727	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-014	-1.544	1.761	0.125	0.9276	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.639	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04804086	0.04804086	1	2.384	0.1449	Non-Significant Effect
Error	0.282117	0.02015121	14			
Total	0.3301578	0.06819208	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.121	8.885	0.8839	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8915		0.0589	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-9.23%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-6941-3255	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-013	-0.4739	1.761	0.1296	0.6786	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.624	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004863754	0.004863754	1	0.2246	0.6429	Non-Significant Effect
Error	0.3031931	0.02165665	14			
Total	0.3080568	0.0265204	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.033	8.885	0.9667	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9295		0.2394	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-1507-6766	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.63%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-011	-0.4997	1.761	0.1484	0.6875	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.108	2.586	0.3749	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.007091886	0.007091886	1	0.2497	0.6251	Non-Significant Effect
Error	0.3976953	0.0284068	14			
Total	0.4047872	0.03549869	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.667	8.885	0.5163	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9374		0.3188	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.55%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-4800-2112	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.63%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-007	1.983	1.761	0.1485	0.0337	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.44	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1117635	0.1117635	1	3.931	0.0674	Non-Significant Effect
Error	0.3980732	0.0284338	14			
Total	0.5098367	0.1401973	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.67	8.885	0.5151	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9031		0.0901	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	14.08%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-8321-2532	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-006	1.712	1.761	0.132	0.0545	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.888	2.586	0.7478	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0658441	0.0658441	1	2.93	0.1090	Non-Significant Effect
Error	0.3146536	0.02247526	14			
Total	0.3804977	0.08831935	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.11	8.885	0.8939	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9381		0.3266	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	10.81%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-1042-5715	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.05%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-005	2.997	1.761	0.1622	0.0048	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.899	2.586	0.7259	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3047056	0.3047056	1	8.982	0.0096	Significant Effect
Error	0.4749182	0.03392272	14			
Total	0.7796238	0.3386284	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.185	8.885	0.3242	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9305		0.2484	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.25%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-7101-3472	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-004	-0.1662	1.761	0.1691	0.5648	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.252	2.586	0.2221	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001018086	0.001018086	1	0.02762	0.8704	Non-Significant Effect
Error	0.5160447	0.03686034	14			
Total	0.5170628	0.03787842	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.461	8.885	0.2578	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9085		0.1100	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.34%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-4388-9437	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.36%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-002	-1.791	1.761	0.1261	0.9526	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.625	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06576182	0.06576182	1	3.209	0.0949	Non-Significant Effect
Error	0.2869296	0.02049497	14			
Total	0.3526914	0.08625679	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.082	8.885	0.9199	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8427		0.0106	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-10.8%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-1346-4255	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-001	-0.4739	1.761	0.1296	0.6786	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.624	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004863754	0.004863754	1	0.2246	0.6429	Non-Significant Effect
Error	0.3031931	0.02165665	14			
Total	0.3080568	0.0265204	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.033	8.885	0.9667	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9295		0.2394	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-0848-4553	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-017	0.4454	1.761	0.09336	0.3314	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.227	2.586	0.2449	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002229617	0.002229617	1	0.1984	0.6628	Non-Significant Effect
Error	0.1573438	0.01123885	14			
Total	0.1595735	0.01346846	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.168	8.885	0.1512	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9037		0.0921	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	1.99%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-7726-6261	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-016	-0.2539	1.761	0.1189	0.5984	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.749	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001174183	0.001174183	1	0.06447	0.8033	Non-Significant Effect
Error	0.2549954	0.01821395	14			
Total	0.2561696	0.01938814	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.132	8.885	0.8741	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8559		0.0167	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-1.45%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-1582-0124	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-015	-3.171	1.761	0.1055	0.9966	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.305	2.586	0.1806	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.144306	0.144306	1	10.06	0.0068	Significant Effect
Error	0.2009172	0.01435123	14			
Total	0.3452233	0.1586573	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.471	8.885	0.6236	Equal Variances
Distribution	Shapiro-Wilk Normality	0.857		0.0173	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-16.04%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-7258-7097	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-014	-1.68	1.761	0.1183	0.9424	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.757	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05092176	0.05092176	1	2.822	0.1151	Non-Significant Effect
Error	0.252592	0.01804228	14			
Total	0.3035138	0.06896404	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.112	8.885	0.8921	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9225		0.1852	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-9.53%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-9114-6882	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.39%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-013	-0.5451	1.761	0.1231	0.7029	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.71	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005809008	0.005809008	1	0.2972	0.5942	Non-Significant Effect
Error	0.2736681	0.01954772	14			
Total	0.2794771	0.02535673	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.288	8.885	0.7467	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9531		0.5398	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-3.22%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8953-4048	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.38%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-011	-0.5592	1.761	0.1428	0.7076	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.191	2.586	0.2797	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.008224598	0.008224598	1	0.3127	0.5848	Non-Significant Effect
Error	0.3681703	0.02629788	14			
Total	0.3763949	0.03452247	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.079	8.885	0.3553	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9506		0.4986	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.83%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-1769-3888	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.39%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-007	2.021	1.761	0.1429	0.0314	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.497	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1074753	0.1074753	1	4.083	0.0629	Non-Significant Effect
Error	0.3685482	0.02632487	14			
Total	0.4760235	0.1338002	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.082	8.885	0.3543	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9259		0.2097	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	13.84%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-0304-9043	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-006	1.753	1.761	0.1257	0.0508	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.984	2.586	0.5618	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06256242	0.06256242	1	3.072	0.1015	Non-Significant Effect
Error	0.2851286	0.02036633	14			
Total	0.3476911	0.08292875	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.384	8.885	0.6787	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9392		0.3389	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	10.56%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-5964-5729	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.86%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-005	3.058	1.761	0.1571	0.0043	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.961	2.586	0.6035	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2975978	0.2975978	1	9.354	0.0085	Significant Effect
Error	0.4453932	0.0318138	14			
Total	0.742991	0.3294116	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.724	8.885	0.2095	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9386		0.3325	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.04%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-6274-8868	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	-0.2059	1.761	0.1642	0.5801	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.32	2.586	0.1702	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001473308	0.001473308	1	0.0424	0.8398	Non-Significant Effect
Error	0.4865198	0.03475141	14			
Total	0.4879931	0.03622472	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.068	8.885	0.1623	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9254		0.2060	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.62%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-3875-1637	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-1.939	1.761	0.1194	0.9635	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.741	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06912529	0.06912529	1	3.76	0.0729	Non-Significant Effect
Error	0.2574046	0.01838604	14			
Total	0.3265299	0.08751134	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.152	8.885	0.8564	Equal Variances
Distribution	Shapiro-Wilk Normality	0.887		0.0499	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-11.1%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-1332-6941	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.39%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-001	-0.5451	1.761	0.1231	0.7029	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.71	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005809008	0.005809008	1	0.2972	0.5942	Non-Significant Effect
Error	0.2736681	0.01954772	14			
Total	0.2794771	0.02535673	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.288	8.885	0.7467	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9531		0.5398	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-3.22%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-2438-8054	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-012	-0.04675	1.761	0.122	0.5183	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.704	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	4.194157E-05	4.194157E-05	1	0.002185	0.9634	Non-Significant Effect
Error	0.2687073	0.01919338	14			
Total	0.2687492	0.01923532	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.247	8.885	0.7784	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8892		0.0541	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	-0.27%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-4568-4767	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-017	0.9922	1.761	0.1159	0.1690	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.844	2.586	0.8476	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01704745	0.01704745	1	0.9844	0.3380	Non-Significant Effect
Error	0.2424433	0.01731738	14			
Total	0.2594907	0.03436483	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	5.422	8.885	0.0403	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9236		0.1927	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	4.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	5.33%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-6081-5464	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.31%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-009		19830-016	66		3	0.4392	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.557	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002408916	0.002408916	1	0.09916	0.7575	Non-Significant Effect
Error	0.3400948	0.02429249	14			
Total	0.3425037	0.0267014	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.512	8.885	0.5991	Equal Variances
Distribution	Shapiro-Wilk Normality	0.836		0.0085	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	1.43%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	2.0%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-3353-5412	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-015	-2.075	1.761	0.1259	0.9715	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.932	2.586	0.6582	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08792961	0.08792961	1	4.304	0.0569	Non-Significant Effect
Error	0.2860167	0.02042976	14			
Total	0.3739463	0.1083594	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.517	8.885	0.2464	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8835		0.0441	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-11.43%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-12.1%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-3591-5638	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-014	-0.9163	1.761	0.1368	0.8125	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.563	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02025254	0.02025254	1	0.8396	0.3750	Non-Significant Effect
Error	0.3376915	0.02412082	14			
Total	0.357944	0.04437336	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.539	8.885	0.5834	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9005		0.0820	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-5.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-5.81%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-4633-4394	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-013	0.04454	1.761	0.141	0.4826	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.516	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	5.083998E-05	5.083998E-05	1	0.001984	0.9651	Non-Significant Effect
Error	0.3587675	0.02562625	14			
Total	0.3588184	0.02567709	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.328	8.885	0.7173	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8704		0.0276	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	0.29%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-9646-9507	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-011	-0.04081	1.761	0.1585	0.5160	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.975	2.586	0.5782	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	5.391236E-05	5.391236E-05	1	0.001665	0.9680	Non-Significant Effect
Error	0.4532697	0.03237641	14			
Total	0.4533236	0.03243032	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.214	8.885	0.8043	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8736		0.0308	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-0.3%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-5403-0334	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.34%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-007	2.284	1.761	0.1585	0.0192	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.349	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1690701	0.1690701	1	5.218	0.0385	Significant Effect
Error	0.4536476	0.0324034	14			
Total	0.6227177	0.2014735	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.216	8.885	0.8028	Equal Variances
Distribution	Shapiro-Wilk Normality	0.889		0.0538	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	18.57%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	16.77%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-9524-2248	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.87%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-006	2.051	1.761	0.1432	0.0298	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.741	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1112035	0.1112035	1	4.205	0.0595	Non-Significant Effect
Error	0.3702281	0.02644486	14			
Total	0.4814315	0.1376484	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.237	8.885	0.7866	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9005		0.0818	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	14.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	13.6%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-1617-5162	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-005	3.231	1.761	0.1714	0.0030	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.796	2.586	0.9673	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3954804	0.3954804	1	10.44	0.0060	Significant Effect
Error	0.5304926	0.03789233	14			
Total	0.9259731	0.4333728	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.592	8.885	0.5546	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8791		0.0375	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	30.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	25.65%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2466-4452	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-004	0.2225	1.761	0.1779	0.4136	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.14	2.586	0.3355	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002021705	0.002021705	1	0.04952	0.8271	Non-Significant Effect
Error	0.5716192	0.04082994	14			
Total	0.5736409	0.04285165	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.793	8.885	0.4592	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8987		0.0766	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	2.86%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	1.83%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-8664-4429	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.36%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-002	-1.148	1.761	0.1377	0.8649	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.552	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03224533	0.03224533	1	1.318	0.2702	Non-Significant Effect
Error	0.342504	0.02446457	14			
Total	0.3747494	0.0567099	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.485	8.885	0.6146	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8878		0.0514	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-7.14%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-7.33%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-7075-1045	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-001	0.04454	1.761	0.141	0.4826	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.516	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	5.083998E-05	5.083998E-05	1	0.001984	0.9651	Non-Significant Effect
Error	0.3587675	0.02562625	14			
Total	0.3588184	0.02567709	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.328	8.885	0.7173	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8704		0.0276	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	0.29%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-3665-5263	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.57%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-012	0.4836	1.761	0.14	0.3181	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.527	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005909125	0.005909125	1	0.2338	0.6362	Non-Significant Effect
Error	0.3538067	0.02527191	14			
Total	0.3597158	0.03118103	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.373	8.885	0.6865	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9163		0.1471	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	2.86%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	3.14%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-5668-7823	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-010	0.5476	1.761	0.134	0.2963	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.595	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006946733	0.006946733	1	0.2999	0.5926	Non-Significant Effect
Error	0.3242817	0.02316298	14			
Total	0.3312285	0.03010971	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.712	8.885	0.4951	Equal Variances
Distribution	Shapiro-Wilk Normality	0.927		0.2181	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	2.86%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	3.4%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-0966-0171	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-017	0.454	1.761	0.1144	0.3284	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.771	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.003476679	0.003476679	1	0.2061	0.6568	Non-Significant Effect
Error	0.2361137	0.01686526	14			
Total	0.2395904	0.02034194	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	5.254	8.885	0.0438	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9209		0.1744	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	2.48%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-3200-9860	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.09%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	-0.1459	1.761	0.136	0.5569	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.489	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0005072316	0.0005072316	1	0.02128	0.8861	Non-Significant Effect
Error	0.3337652	0.02384037	14			
Total	0.3342724	0.02434761	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.465	8.885	0.6269	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8519		0.0145	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-0.95%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-5356-2607	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	-2.605	1.761	0.1245	0.9896	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.954	2.586	0.6165	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.135521	0.135521	1	6.784	0.0208	Significant Effect
Error	0.2796871	0.01997765	14			
Total	0.4152081	0.1554987	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.439	8.885	0.2623	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8786		0.0369	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-15.47%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-3147-7395	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	-1.39	1.761	0.1355	0.9069	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.495	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04575917	0.04575917	1	1.933	0.1861	Non-Significant Effect
Error	0.3313619	0.0236687	14			
Total	0.377121	0.06942788	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.491	8.885	0.6110	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9054		0.0983	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-8.99%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-6038-7362	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-013	-0.4063	1.761	0.1397	0.6547	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.506	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004156677	0.004156677	1	0.1651	0.6906	Non-Significant Effect
Error	0.3524379	0.02517414	14			
Total	0.3565946	0.02933081	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.287	8.885	0.7474	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9237		0.1937	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.71%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-0631-6523	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-011	-0.4418	1.761	0.1573	0.6673	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.988	2.586	0.5538	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006232316	0.006232316	1	0.1952	0.6654	Non-Significant Effect
Error	0.4469401	0.0319243	14			
Total	0.4531724	0.03815661	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.253	8.885	0.7735	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9349		0.2907	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.32%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-9804-8579	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	1.9	1.761	0.1574	0.0391	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.359	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1153138	0.1153138	1	3.609	0.0783	Non-Significant Effect
Error	0.447318	0.03195129	14			
Total	0.5626318	0.1472651	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.255	8.885	0.7720	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8982		0.0752	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	14.27%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-0972-1197	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	1.624	1.761	0.142	0.0633	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.756	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06857557	0.06857557	1	2.638	0.1266	Non-Significant Effect
Error	0.3638985	0.02599275	14			
Total	0.432474	0.09456831	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.198	8.885	0.8175	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9322		0.2641	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	11.0%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-5732-7985	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-005	2.88	1.761	0.1704	0.0061	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.807	2.586	0.9393	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3105496	0.3105496	1	8.295	0.0121	Significant Effect
Error	0.524163	0.03744021	14			
Total	0.8347126	0.3479899	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.642	8.885	0.5284	Equal Variances
Distribution	Shapiro-Wilk Normality	0.909		0.1120	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.42%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-5221-7470	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					15.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-004	-0.1326	1.761	0.177	0.5518	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.152	2.586	0.3216	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0007096436	0.0007096436	1	0.01758	0.8964	Non-Significant Effect
Error	0.5652896	0.04037783	14			
Total	0.5659993	0.04108747	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.85	8.885	0.4358	Equal Variances
Distribution	Shapiro-Wilk Normality	0.909		0.1120	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.12%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-6330-9625	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.14%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-002	-1.621	1.761	0.1365	0.9363	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.484	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06308755	0.06308755	1	2.627	0.1273	Non-Significant Effect
Error	0.3361744	0.02401246	14			
Total	0.399262	0.08710001	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.439	8.885	0.6429	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8824		0.0423	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-10.55%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-1054-1993	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-001	-0.4063	1.761	0.1397	0.6547	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.506	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004156677	0.004156677	1	0.1651	0.6906	Non-Significant Effect
Error	0.3524379	0.02517414	14			
Total	0.3565946	0.02933081	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.287	8.885	0.7474	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9237		0.1937	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.71%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-2861-6550	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.37%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	0.03344	1.761	0.1387	0.4869	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.477	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.775521E-05	2.775521E-05	1	0.001118	0.9738	Non-Significant Effect
Error	0.3474771	0.0248198	14			
Total	0.3475049	0.02484755	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.33	8.885	0.7161	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8764		0.0341	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.22%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-6340-8642	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.76%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	0.07793	1.761	0.1327	0.4695	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.566	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0001379345	0.0001379345	1	0.006074	0.9390	Non-Significant Effect
Error	0.3179521	0.02271087	14			
Total	0.3180901	0.0228488	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.659	8.885	0.5204	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8963		0.0702	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.49%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-6438-7016	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-0.422	1.761	0.1494	0.6603	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.43	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.00512692	0.00512692	1	0.1781	0.6794	Non-Significant Effect
Error	0.4030516	0.0287894	14			
Total	0.4081785	0.03391632	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.032	8.885	0.9680	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8929		0.0619	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	-3.01%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-009								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-6178-5348	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.35%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-017	0.4639	1.761	0.1071	0.3249	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.575	2.586	0.0530	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.003183579	0.003183579	1	0.2152	0.6498	Non-Significant Effect
Error	0.2070709	0.01479078	14			
Total	0.2102545	0.01797436	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.485	8.885	0.0659	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8893		0.0544	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	2.37%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-5389-8074	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.61%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-016	-0.1699	1.761	0.1299	0.5662	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.122	2.586	0.3568	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0006281016	0.0006281016	1	0.02886	0.8675	Non-Significant Effect
Error	0.3047225	0.02176589	14			
Total	0.3053506	0.02239399	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.25	8.885	0.7756	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8936		0.0636	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-1.05%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-4941-7239	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.4%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-003		19830-015	90.5		2	0.9897	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.34	2.586	0.1565	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1373977	0.1373977	1	7.674	0.0150	Significant Effect
Error	0.2506444	0.01790317	14			
Total	0.388042	0.1553008	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.082	8.885	0.3543	Equal Variances
Distribution	Shapiro-Wilk Normality	0.7729		0.0012	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-15.59%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-4273-0085	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.55%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-014	-1.473	1.761	0.1294	0.9186	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.131	2.586	0.3465	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04685238	0.04685238	1	2.17	0.1629	Non-Significant Effect
Error	0.3023191	0.02159422	14			
Total	0.3491715	0.0684466	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.273	8.885	0.7582	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9345		0.2871	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-9.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-7821-1651	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-013	-0.4409	1.761	0.1338	0.6670	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.06	2.586	0.4401	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004490668	0.004490668	1	0.1944	0.6660	Non-Significant Effect
Error	0.3233952	0.02309966	14			
Total	0.3278858	0.02759032	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.099	8.885	0.9042	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9424		0.3794	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.82%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-4780-6414	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.87%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-011	-0.4716	1.761	0.1522	0.6778	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.056	2.586	0.4456	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006639833	0.006639833	1	0.2224	0.6445	Non-Significant Effect
Error	0.4178974	0.02984981	14			
Total	0.4245372	0.03648965	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.468	8.885	0.6250	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9204		0.1710	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.43%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-5381-5415	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-007	1.95	1.761	0.1522	0.0358	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.811	2.586	0.9286	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1135951	0.1135951	1	3.802	0.0715	Non-Significant Effect
Error	0.4182753	0.0298768	14			
Total	0.5318704	0.1434719	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.47	8.885	0.6237	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9295		0.2391	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	14.18%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-0939-3637	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-006	1.677	1.761	0.1362	0.0579	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.025	2.586	0.4940	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06725165	0.06725165	1	2.812	0.1158	Non-Significant Effect
Error	0.3348557	0.02391826	14			
Total	0.4021074	0.09116991	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.023	8.885	0.9770	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9151		0.1406	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	10.91%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-4587-7128	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-005	2.95	1.761	0.1656	0.0053	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.86	2.586	0.8123	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.307725	0.307725	1	8.701	0.0106	Significant Effect
Error	0.4951203	0.03536573	14			
Total	0.8028452	0.3430907	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.924	8.885	0.4074	Equal Variances
Distribution	Shapiro-Wilk Normality	0.967		0.7886	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.34%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-3665-4403	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-004	-0.1491	1.761	0.1724	0.5582	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.209	2.586	0.2611	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.000851431	0.000851431	1	0.02223	0.8836	Non-Significant Effect
Error	0.5362468	0.03830335	14			
Total	0.5370983	0.03915478	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.167	8.885	0.3291	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9034		0.0912	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.23%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-7121-4847	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-1.713	1.761	0.1304	0.9456	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.114	2.586	0.3672	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06437004	0.06437004	1	2.934	0.1088	Non-Significant Effect
Error	0.3071317	0.02193798	14			
Total	0.3715017	0.08630801	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.229	8.885	0.7929	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8794		0.0380	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-10.67%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-9037-6977	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-001	-0.4409	1.761	0.1338	0.6670	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.06	2.586	0.4401	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004490668	0.004490668	1	0.1944	0.6660	Non-Significant Effect
Error	0.3233952	0.02309966	14			
Total	0.3278858	0.02759032	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.099	8.885	0.9042	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9424		0.3794	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.82%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-1493-1723	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-012	0.01809	1.761	0.1328	0.4929	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.076	2.586	0.4174	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	7.442896E-06	7.442896E-06	1	0.0003272	0.9858	Non-Significant Effect
Error	0.3184344	0.02274531	14			
Total	0.3184418	0.02275275	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.135	8.885	0.8712	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8903		0.0564	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-4738-2330	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.26%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-010	0.06407	1.761	0.1265	0.4749	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.18	2.586	0.2913	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	8.472094E-05	8.472094E-05	1	0.004105	0.9498	Non-Significant Effect
Error	0.2889094	0.02063638	14			
Total	0.2889941	0.0207211	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.416	8.885	0.6579	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9114		0.1227	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.39%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-4450-3094	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.03%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-009	-0.4536	1.761	0.1439	0.6715	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.916	2.586	0.6906	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005497135	0.005497135	1	0.2058	0.6571	Non-Significant Effect
Error	0.3740088	0.02671492	14			
Total	0.3795059	0.03221205	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.209	8.885	0.8088	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9375		0.3196	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	-3.12%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-009								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-1114-0547	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	-0.01567	1.761	0.1427	0.5061	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.932	2.586	0.6577	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	6.452383E-06	6.452383E-06	1	0.0002457	0.9877	Non-Significant Effect
Error	0.3676792	0.0262628	14			
Total	0.3676857	0.02626925	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.172	8.885	0.8399	Equal Variances
Distribution	Shapiro-Wilk Normality	0.92		0.1685	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	-0.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-008								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-4957-2853	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	-0.01567	1.761	0.1427	0.5061	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.932	2.586	0.6577	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	6.452383E-06	6.452383E-06	1	0.0002457	0.9877	Non-Significant Effect
Error	0.3676792	0.0262628	14			
Total	0.3676857	0.02626925	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.172	8.885	0.8399	Equal Variances
Distribution	Shapiro-Wilk Normality	0.92		0.1685	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	-0.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-008								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-3750-5435	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					4.44%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-017	5.667	1.761	0.06584	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.705	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1795121	0.1795121	1	32.12	<0.0001	Significant Effect
Error	0.0782471	0.005589079	14			
Total	0.2577592	0.1851012	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.073	8.885	0.9287	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8667		0.0243	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	14.1%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	15.44%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-2109-4195	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.24%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-016	47		2	0.0141	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.948	2.586	0.6276	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1171033	0.1171033	1	9.32	0.0086	Significant Effect
Error	0.1758986	0.01256419	14			
Total	0.2930019	0.1296675	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.344	8.885	0.1338	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8331		0.0078	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	11.54%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	12.47%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-1499-6490	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					5.31%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-015	71		1	0.6008	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.96	2.586	0.0044	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.160374E-05	1.160374E-05	1	0.001334	0.9714	Non-Significant Effect
Error	0.1218205	0.008701465	14			
Total	0.1218321	0.008713068	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.008	8.885	0.3779	Equal Variances
Distribution	Shapiro-Wilk Normality	0.5304		<0.0001	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-0.12%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-4214-8079	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					3.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-015	63		1	0.7683	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005917208	0.005917208	1	1.9	0.1914	Non-Significant Effect
Error	0.0404944	0.003114954	13			
Total	0.0464116	0.009032162	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.558E+13	10.79	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk Normality	0.6969		0.0002	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-015	7	1	1	1	1	1	0	0	0.0%	-2.56%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-015	7	1.412	1.412	1.412	1.412	1.412	0	0	0.0%	-2.9%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-0124-8235	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-014	1.355	1.761	0.09804	0.0985	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.763	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02274408	0.02274408	1	1.835	0.1970	Non-Significant Effect
Error	0.1734953	0.01239252	14			
Total	0.1962394	0.0351366	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.284	8.885	0.1394	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8783		0.0365	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	5.13%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	5.5%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-1581-8707	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-013	2.547	1.761	0.1038	0.0116	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.028	2.586	0.4893	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0901519	0.0901519	1	6.487	0.0233	Significant Effect
Error	0.1945713	0.01389795	14			
Total	0.2847232	0.1040499	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.805	8.885	0.0989	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8788		0.0371	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	10.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-7053-0248	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-011	1.989	1.761	0.1265	0.0333	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.472	2.586	0.0874	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0816704	0.0816704	1	3.955	0.0666	Non-Significant Effect
Error	0.2890735	0.02064811	14			
Total	0.3707439	0.1023185	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.139	8.885	0.0288	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8756		0.0332	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	10.41%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-0598-7460	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-007	4.898	1.761	0.1266	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.689	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4960444	0.4960444	1	23.99	0.0002	Significant Effect
Error	0.2894514	0.0206751	14			
Total	0.7854958	0.5167195	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.148	8.885	0.0286	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9167		0.1493	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	26.92%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	25.66%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-7077-4019	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-006	5.165	1.761	0.1068	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.334	2.586	0.1607	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.392621	0.392621	1	26.68	0.0001	Significant Effect
Error	0.2060319	0.01471656	14			
Total	0.5986528	0.4073375	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.088	8.885	0.0831	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9004		0.0815	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	23.08%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	22.83%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-6162-8464	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-005	5.7	1.761	0.1424	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.162	2.586	0.3105	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8500751	0.8500751	1	32.49	<0.0001	Significant Effect
Error	0.3662964	0.02616403	14			
Total	1.216372	0.8762392	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	8.046	8.885	0.0134	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9273		0.2210	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	37.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	33.6%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-0573-7968	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.98%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-004	1.982	1.86	0.1586	0.0414	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.535	2.586	0.0647	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1143023	0.1143023	1	3.928	0.0675	Non-Significant Effect
Error	0.407423	0.02910164	14			
Total	0.5217253	0.1434039	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	9.061	8.885	0.0094	Unequal Variances
Distribution	Shapiro-Wilk Normality	0.8745		0.0319	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	12.32%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-8299-8686	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.28%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-002	62		2	0.2869	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.91	2.586	0.7015	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01289428	0.01289428	1	1.012	0.3314	Non-Significant Effect
Error	0.1783078	0.01273627	14			
Total	0.1912021	0.02563056	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.403	8.885	0.1285	Equal Variances
Distribution	Shapiro-Wilk Normality	0.7962		0.0024	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	3.85%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	4.14%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-8398-5100	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-001	2.547	1.761	0.1038	0.0116	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.028	2.586	0.4893	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0901519	0.0901519	1	6.487	0.0233	Significant Effect
Error	0.1945713	0.01389795	14			
Total	0.2847232	0.1040499	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.805	8.885	0.0989	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8788		0.0371	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	10.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-0485-1071	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-012	3.179	1.761	0.1025	0.0033	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2	2.586	0.5349	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1368953	0.1368953	1	10.11	0.0067	Significant Effect
Error	0.1896105	0.01354361	14			
Total	0.3265058	0.1504389	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.682	8.885	0.1069	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8499		0.0136	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	13.48%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-1375-8803	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					5.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-010	3.521	1.761	0.09417	0.0017	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.207	2.586	0.2631	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1417296	0.1417296	1	12.39	0.0034	Significant Effect
Error	0.1600855	0.01143468	14			
Total	0.3018151	0.1531643	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.953	8.885	0.1764	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8989		0.0773	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	13.72%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-1122-7627	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-009	2.215	1.761	0.1165	0.0219	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.834	2.586	0.8725	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.085921	0.085921	1	4.906	0.0439	Significant Effect
Error	0.245185	0.01751321	14			
Total	0.331106	0.1034342	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	5.055	8.885	0.0485	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8946		0.0658	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	10.68%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-009								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-6920-4810	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	2.792	1.761	0.115	0.0072	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.761	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1330246	0.1330246	1	7.797	0.0144	Significant Effect
Error	0.2388554	0.0170611	14			
Total	0.37188	0.1500857	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.898	8.885	0.0526	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9006		0.0822	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	13.29%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-008								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-0298-8266	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-003	3	1.761	0.1078	0.0048	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.558	2.586	0.0577	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.134884	0.134884	1	9	0.0096	Significant Effect
Error	0.2098126	0.01498662	14			
Total	0.3446966	0.1498706	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.181	8.885	0.0786	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8463		0.0120	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	13.38%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-003								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-9606-6772	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-017	-2.197	1.761	0.4307	0.9773	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.243	2.586	0.2304	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.154254	1.154254	1	4.825	0.0454	Significant Effect
Error	3.349367	0.2392405	14			
Total	4.503621	1.393494	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.837	8.885	0.1923	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9661		0.7716	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-20.3%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-4716-0880	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.31%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-016	-1.868	1.761	0.2728	0.9586	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.246	2.586	0.2272	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.334824	0.334824	1	3.489	0.0828	Non-Significant Effect
Error	1.34348	0.09596289	14			
Total	1.678304	0.4307869	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.855	8.885	0.4336	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9442		0.4036	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	-10.93%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-9946-7078	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-015	-1.052	1.761	0.3176	0.8447	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.125	2.586	0.3532	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1440051	0.1440051	1	1.107	0.3105	Non-Significant Effect
Error	1.821037	0.1300741	14			
Total	1.965042	0.2740791	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.086	8.885	0.9161	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9129		0.1298	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	-7.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-8380-0810	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.55%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-014	-1.201	1.761	0.3587	0.8751	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.823	2.586	0.9001	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2391492	0.2391492	1	1.442	0.2498	Non-Significant Effect
Error	2.322621	0.1659015	14			
Total	2.56177	0.4050506	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.661	8.885	0.5194	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9652		0.7566	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	-9.24%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-1557-2928	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-013	-2.665	1.761	0.388	0.9908	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.238	2.586	0.2349	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.378495	1.378495	1	7.102	0.0185	Significant Effect
Error	2.717577	0.1941126	14			
Total	4.096072	1.572608	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.113	8.885	0.3448	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9642		0.7378	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-22.18%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-5510-8509	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-011	-1.441	1.761	0.4307	0.9143	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.102	2.586	0.3822	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.49686	0.49686	1	2.078	0.1715	Non-Significant Effect
Error	3.34804	0.2391457	14			
Total	3.8449	0.7360057	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.835	8.885	0.1925	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9496		0.4833	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	-13.32%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-4255-8365	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-007	0.7479	1.761	0.2712	0.2335	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.26	2.586	0.2158	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05304343	0.05304343	1	0.5593	0.4669	Non-Significant Effect
Error	1.327691	0.09483507	14			
Total	1.380734	0.1478785	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.92	8.885	0.4090	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9514		0.5118	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	4.35%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7964-1710	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.92%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-006	-2.133	1.761	0.2889	0.9745	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.121	2.586	0.3583	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4899306	0.4899306	1	4.551	0.0511	Non-Significant Effect
Error	1.506985	0.1076418	14			
Total	1.996915	0.5975724	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.377	8.885	0.6837	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9488		0.4717	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	-13.22%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-4743-7033	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-005	-1.799	1.761	0.4103	0.9532	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.435	2.586	0.1040	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7025715	0.7025715	1	3.237	0.0936	Non-Significant Effect
Error	3.039008	0.217072	14			
Total	3.74158	0.9196435	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.481	8.885	0.2535	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9147		0.1386	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-15.83%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-5972-1852	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-004	-1.978	1.761	0.3967	0.9660	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.07	2.586	0.4255	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7941826	0.7941826	1	3.914	0.0679	Non-Significant Effect
Error	2.840725	0.2029089	14			
Total	3.634908	0.9970915	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.254	8.885	0.3057	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9605		0.6703	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-16.84%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-8895-7335	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.06%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-002	-3.5	1.761	0.3986	0.9982	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.217	2.586	0.2541	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.509169	2.509169	1	12.25	0.0035	Significant Effect
Error	2.867374	0.2048125	14			
Total	5.376543	2.713981	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.285	8.885	0.2979	Equal Variances
Distribution	Shapiro-Wilk Normality	0.965		0.7526	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-29.92%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-0054-5933	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.18%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-001	-1.58	1.761	0.5076	0.9317	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.252	2.586	0.2226	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8288062	0.8288062	1	2.495	0.1365	Non-Significant Effect
Error	4.650354	0.3321681	14			
Total	5.47916	1.160974	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.327	8.885	0.0722	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9561		0.5921	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-17.2%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-4068-3817	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-017	0.3124	1.761	0.4235	0.3797	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.281	2.586	0.1984	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02256224	0.02256224	1	0.09758	0.7594	Non-Significant Effect
Error	3.236982	0.231213	14			
Total	3.259545	0.2537753	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.256	8.885	0.1421	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9409		0.3600	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	2.3%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-5181-8152	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					8.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-016	2.178	1.761	0.2611	0.0235	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.806	2.586	0.9431	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4172251	0.4172251	1	4.745	0.0470	Significant Effect
Error	1.231096	0.0879354	14			
Total	1.648321	0.5051605	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.616	8.885	0.5417	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9426		0.3815	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	9.91%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-3662-4184	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.44%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-015	2.419	1.761	0.3077	0.0149	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.194	2.586	0.2764	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7141761	0.7141761	1	5.852	0.0298	Significant Effect
Error	1.708652	0.1220466	14			
Total	2.422828	0.8362226	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.247	8.885	0.7787	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9348		0.2901	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	12.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-4436-1207	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.74%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-014	1.851	1.761	0.3499	0.0427	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.869	2.586	0.7917	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.54102	0.54102	1	3.427	0.0854	Non-Significant Effect
Error	2.210236	0.157874	14			
Total	2.751256	0.698894	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.906	8.885	0.4141	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9683		0.8095	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	11.28%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-5221-8633	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-013	0.117	1.761	0.3799	0.4543	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.285	2.586	0.1952	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002547828	0.002547828	1	0.01369	0.9085	Non-Significant Effect
Error	2.605191	0.1860851	14			
Total	2.607739	0.1886329	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.425	8.885	0.2653	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9843		0.9884	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	0.77%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-4846-6775	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-011	1.081	1.761	0.4234	0.1490	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.138	2.586	0.3373	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.270074	0.270074	1	1.169	0.2980	Non-Significant Effect
Error	3.235656	0.2311182	14			
Total	3.50573	0.5011923	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.254	8.885	0.1423	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9674		0.7953	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	7.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-8352-4081	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					7.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-007	4.938	1.761	0.2595	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.765	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.116679	2.116679	1	24.38	0.0002	Significant Effect
Error	1.215306	0.08680758	14			
Total	3.331985	2.203486	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.673	8.885	0.5136	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9491		0.4749	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	22.32%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-1702-1375	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					8.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-006	1.662	1.761	0.278	0.0593	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.831	2.586	0.8810	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2752251	0.2752251	1	2.763	0.1187	Non-Significant Effect
Error	1.3946	0.09961428	14			
Total	1.669825	0.3748394	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.2	8.885	0.8164	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9534		0.5450	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	8.05%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-1089-5629	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.35%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-005	0.8451	1.761	0.4026	0.2061	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.481	2.586	0.0840	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1492849	0.1492849	1	0.7141	0.4123	Non-Significant Effect
Error	2.926624	0.2090445	14			
Total	3.075908	0.3583294	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.848	8.885	0.1907	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9114		0.1224	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	5.93%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-2835-1368	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	0.7552	1.761	0.3888	0.2313	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.113	2.586	0.3690	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1111557	0.1111557	1	0.5704	0.4626	Non-Significant Effect
Error	2.72834	0.1948815	14			
Total	2.839496	0.3060371	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.587	8.885	0.2330	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9408		0.3591	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	5.12%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0994-9704	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-0.8103	1.761	0.3907	0.7843	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.262	2.586	0.2143	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1292159	0.1292159	1	0.6566	0.4313	Non-Significant Effect
Error	2.75499	0.196785	14			
Total	2.884206	0.3260009	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.622	8.885	0.2267	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9745		0.9053	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-5.52%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-9583-8274	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.38%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-001	0.5518	1.761	0.5014	0.2949	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.279	2.586	0.1999	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.09871	0.09871	1	0.3045	0.5898	Non-Significant Effect
Error	4.537969	0.3241406	14			
Total	4.636679	0.4228506	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.967	8.885	0.0507	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9619		0.6973	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	4.82%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-0280-1664	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.23%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-012	3.585	1.761	0.3008	0.0015	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.037	2.586	0.4742	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.49957	1.49957	1	12.85	0.0030	Significant Effect
Error	1.633521	0.1166801	14			
Total	3.133091	1.61625	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.148	8.885	0.8604	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9646		0.7454	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	18.79%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-7656-2432	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.32%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-017	-0.4794	1.761	0.4683	0.6805	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.063	2.586	0.4363	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06499491	0.06499491	1	0.2298	0.6391	Non-Significant Effect
Error	3.959611	0.2828293	14			
Total	4.024606	0.3478242	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.67	8.885	0.5150	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9265		0.2141	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-4.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-0189-4922	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.76%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-016	0.6445	1.761	0.329	0.2648	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.746	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05797564	0.05797564	1	0.4154	0.5296	Non-Significant Effect
Error	1.953724	0.1395517	14			
Total	2.011699	0.1975273	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.152	8.885	0.1528	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9601		0.6634	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	3.94%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2877-1459	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-015	1.056	1.761	0.367	0.1545	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.839	2.586	0.8599	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1935481	0.1935481	1	1.115	0.3090	Non-Significant Effect
Error	2.43128	0.1736629	14			
Total	2.624829	0.367211	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.564	8.885	0.5693	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9713		0.8596	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	7.2%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-8847-6780	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.19%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-014	0.7219	1.761	0.4031	0.2411	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.622	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1091591	0.1091591	1	0.5211	0.4823	Non-Significant Effect
Error	2.932864	0.2094903	14			
Total	3.042023	0.3186494	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.023	8.885	0.9767	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9463		0.4335	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	5.41%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-4993-3994	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.05%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-013	-0.7275	1.761	0.4294	0.7605	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.022	2.586	0.4979	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1257924	0.1257924	1	0.5292	0.4789	Non-Significant Effect
Error	3.32782	0.2377014	14			
Total	3.453613	0.3634939	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.244	8.885	0.7809	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9759		0.9229	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-5.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-0447-9171	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.32%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-011	0.2154	1.761	0.4683	0.4163	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.933	2.586	0.6551	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01311898	0.01311898	1	0.0464	0.8326	Non-Significant Effect
Error	3.958284	0.2827346	14			
Total	3.971403	0.2958536	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.669	8.885	0.5155	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9486		0.4684	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	1.87%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-8389-5177	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.72%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-007	2.821	1.761	0.3277	0.0068	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.753	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.101939	1.101939	1	7.961	0.0136	Significant Effect
Error	1.937935	0.1384239	14			
Total	3.039873	1.240363	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.262	8.885	0.1416	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9591		0.6461	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	17.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-2794-3815	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-006	0.3072	1.761	0.3425	0.3816	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.677	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01427324	0.01427324	1	0.09438	0.7632	Non-Significant Effect
Error	2.117228	0.1512306	14			
Total	2.131501	0.1655038	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.339	8.885	0.2847	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9543		0.5608	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	1.95%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-6399-3047	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-005	-0.03677	1.761	0.4496	0.5144	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.222	2.586	0.2494	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0003524744	0.0003524744	1	0.001352	0.9712	Non-Significant Effect
Error	3.649252	0.2606609	14			
Total	3.649604	0.2610133	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.46	8.885	0.6297	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9481		0.4600	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-0.31%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-1581-4952	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.31%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-004	-0.1445	1.761	0.4372	0.5564	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.878	2.586	0.7697	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005147795	0.005147795	1	0.02088	0.8872	Non-Significant Effect
Error	3.450969	0.2464978	14			
Total	3.456116	0.2516456	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.327	8.885	0.7186	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9415		0.3673	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-1.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-0180-9784	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.36%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-002	-1.534	1.761	0.4389	0.9264	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.013	2.586	0.5127	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5846354	0.5846354	1	2.354	0.1473	Non-Significant Effect
Error	3.477618	0.2484013	14			
Total	4.062253	0.8330367	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.345	8.885	0.7059	Equal Variances
Distribution	Shapiro-Wilk Normality	0.951		0.5057	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-12.51%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-1550-1209	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-001	-0.1484	1.761	0.5398	0.5579	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.117	2.586	0.3633	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.008274968	0.008274968	1	0.02202	0.8841	Non-Significant Effect
Error	5.260597	0.3757569	14			
Total	5.268872	0.3840319	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.547	8.885	0.2406	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9661		0.7722	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-1.49%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-2394-8840	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.82%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-012	1.997	1.761	0.3613	0.0328	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.696	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6714509	0.6714509	1	3.99	0.0656	Non-Significant Effect
Error	2.356149	0.1682964	14			
Total	3.0276	0.8397473	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.699	8.885	0.5010	Equal Variances
Distribution	Shapiro-Wilk Normality	0.959		0.6429	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	13.4%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-4239-5846	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-010	-1.012	1.761	0.3526	0.8357	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.629	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1641452	0.1641452	1	1.024	0.3287	Non-Significant Effect
Error	2.243764	0.1602689	14			
Total	2.40791	0.3244141	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.95	8.885	0.3980	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9646		0.7453	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-6.63%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-9175-4620	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-017	-0.4181	1.761	0.5579	0.6589	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.422	2.586	0.1102	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.07014926	0.07014926	1	0.1748	0.6822	Non-Significant Effect
Error	5.619137	0.4013669	14			
Total	5.689287	0.4715162	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.269	8.885	0.7612	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9032		0.0904	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-4.34%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-4116-7878	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	0.4544	1.761	0.4474	0.3282	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	3.02	2.586	0.0027	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05329876	0.05329876	1	0.2065	0.6565	Non-Significant Effect
Error	3.61325	0.2580893	14			
Total	3.666549	0.3113881	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.679	8.885	0.0228	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8418		0.0104	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	3.78%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-8672-9488	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	-0.6391	1.771	0.2669	0.7331	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.034633	0.034633	1	0.4084	0.5339	Non-Significant Effect
Error	1.102361	0.08479699	13			
Total	1.136994	0.11943	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.567	9.155	0.5683	Equal Variances
Distribution	Shapiro-Wilk Normality	0.942		0.4082	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	-3.39%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-1641-3271	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	0.7955	1.761	0.476	0.2198	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.838	2.586	0.0110	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1849215	0.1849215	1	0.6329	0.4396	Non-Significant Effect
Error	4.090807	0.2922005	14			
Total	4.275728	0.4771219	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.315	8.885	0.1365	Equal Variances
Distribution	Shapiro-Wilk Normality	0.888		0.0519	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	7.05%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-6040-7223	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	0.01809	1.771	0.3195	0.4929	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.978016E-05	3.978016E-05	1	0.0003273	0.9858	Non-Significant Effect
Error	1.579917	0.1215321	13			
Total	1.579957	0.1215719	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.286	10.79	0.7749	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9257		0.2349	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	0.11%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-2327-5027	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	0.5596	1.761	0.5044	0.2923	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.679	2.586	0.0300	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.102705	0.102705	1	0.3131	0.5846	Non-Significant Effect
Error	4.592391	0.3280279	14			
Total	4.695096	0.4307329	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.168	8.885	0.3289	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9257		0.2082	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	5.25%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-6150-2893	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	-0.2487	1.771	0.3668	0.5963	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.009905622	0.009905622	1	0.06187	0.8075	Non-Significant Effect
Error	2.081501	0.1601155	13			
Total	2.091407	0.1700211	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.967	10.79	0.4280	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9731		0.9014	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	-1.81%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-2567-4632	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.23%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-013	-0.6108	1.761	0.5256	0.7245	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.571	2.586	0.0541	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1329247	0.1329247	1	0.3731	0.5511	Non-Significant Effect
Error	4.987346	0.356239	14			
Total	5.120271	0.4891637	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.704	8.885	0.4988	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8964		0.0705	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-5.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-8654-1325	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-011	0.1652	1.761	0.5579	0.4356	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.422	2.586	0.1100	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01094578	0.01094578	1	0.02728	0.8712	Non-Significant Effect
Error	5.61781	0.4012721	14			
Total	5.628756	0.4122179	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.27	8.885	0.7607	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9586		0.6357	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	1.71%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-9143-3953	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.63%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	2.051	1.761	0.4464	0.0297	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	3.027	2.586	0.0025	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.081219	1.081219	1	4.208	0.0594	Non-Significant Effect
Error	3.597461	0.2569615	14			
Total	4.678679	1.33818	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.911	8.885	0.0207	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8438		0.0111	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	17.04%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-8569-4580	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	2.06	1.771	0.265	0.0300	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3545272	0.3545272	1	4.242	0.0601	Non-Significant Effect
Error	1.086571	0.08358242	13			
Total	1.441098	0.4381096	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.621	9.155	0.5404	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9487		0.5047	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	10.85%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8727-5164	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	0.2109	1.761	0.4574	0.4180	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.954	2.586	0.0047	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01200221	0.01200221	1	0.04449	0.8360	Non-Significant Effect
Error	3.776755	0.2697682	14			
Total	3.788757	0.2817704	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.957	8.885	0.0510	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8688		0.0261	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	1.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-7363-8845	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.07%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	-0.972	1.771	0.286	0.8256	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.09198886	0.09198886	1	0.9447	0.3488	Non-Significant Effect
Error	1.265865	0.09737424	13			
Total	1.357854	0.1893631	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.163	9.155	0.8375	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9355		0.3288	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	-5.53%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-8806-1512	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-005	-0.04659	1.761	0.5423	0.5183	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.492	2.586	0.0799	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0008231372	0.0008231372	1	0.002171	0.9635	Non-Significant Effect
Error	5.308778	0.3791985	14			
Total	5.309601	0.3800216	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.451	8.885	0.6356	Equal Variances
Distribution	Shapiro-Wilk Normality	0.955		0.5728	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-0.47%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-2820-6909	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.44%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-004	-0.1352	1.761	0.5321	0.5528	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.539	2.586	0.0633	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006669042	0.006669042	1	0.01827	0.8944	Non-Significant Effect
Error	5.110495	0.3650354	14			
Total	5.117164	0.3717044	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.597	8.885	0.5518	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9175		0.1535	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-1.34%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-1446-8354	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-002	-1.279	1.761	0.5335	0.8891	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.533	2.586	0.0654	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5998976	0.5998976	1	1.635	0.2218	Non-Significant Effect
Error	5.137145	0.3669389	14			
Total	5.737042	0.9668365	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.576	8.885	0.5632	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8979		0.0745	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-12.69%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-4194-3293	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					20.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-001	-0.1435	1.761	0.6192	0.5560	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.182	2.586	0.2886	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01017736	0.01017736	1	0.02059	0.8879	Non-Significant Effect
Error	6.920124	0.4942946	14			
Total	6.930301	0.5044719	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.202	8.885	0.8145	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9045		0.0949	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-1.65%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-8916-7454	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	1.511	1.761	0.4717	0.0765	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.865	2.586	0.0091	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6552984	0.6552984	1	2.285	0.1529	Non-Significant Effect
Error	4.015676	0.286834	14			
Total	4.670974	0.9421324	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.6	8.885	0.1127	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8852		0.0468	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	13.26%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-5807-1902	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	1.096	1.771	0.3118	0.1465	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1390691	0.1390691	1	1.201	0.2929	Non-Significant Effect
Error	1.504786	0.1157528	13			
Total	1.643855	0.2548219	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.184	10.79	0.8527	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9476		0.4869	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	6.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-3279-4497	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	-0.7861	1.761	0.465	0.7775	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.906	2.586	0.0068	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1722784	0.1722784	1	0.6179	0.4449	Non-Significant Effect
Error	3.903291	0.2788065	14			
Total	4.07557	0.4510849	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.132	8.885	0.0809	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8849		0.0463	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-6.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-9311-7307	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	-2.475	1.771	0.3	0.9861	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6563054	0.6563054	1	6.128	0.0279	Significant Effect
Error	1.392401	0.1071078	13			
Total	2.048707	0.7634132	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.032	10.79	0.9859	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9432		0.4238	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-14.76%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-2683-2598	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-0.01725	1.761	0.5062	0.5068	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.669	2.586	0.0317	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	9.832839E-05	9.832839E-05	1	0.0002976	0.9865	Non-Significant Effect
Error	4.625919	0.3304228	14			
Total	4.626018	0.3305211	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.119	8.885	0.3431	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9144		0.1371	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	-0.16%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-0706-3834	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.02%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-1.038	1.771	0.3697	0.8409	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1753233	0.1753233	1	1.078	0.3182	Non-Significant Effect
Error	2.11503	0.1626946	13			
Total	2.290353	0.3380179	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.012	10.79	0.4126	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9609		0.7076	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	-7.63%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-2490-8350	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-017	0.3935	1.761	0.4807	0.3500	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.01	2.586	0.5178	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0461205	0.0461205	1	0.1548	0.6999	Non-Significant Effect
Error	4.17082	0.2979158	14			
Total	4.216941	0.3440363	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.462	8.885	0.6291	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9034		0.0910	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	3.26%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-3380-5865	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.52%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-016	1.807	1.761	0.3463	0.0462	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.112	2.586	0.3695	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5047806	0.5047806	1	3.264	0.0923	Non-Significant Effect
Error	2.164934	0.1546381	14			
Total	2.669714	0.6594187	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.601	8.885	0.1127	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9453		0.4184	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	10.79%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-9028-5518	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.62%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-015	2.094	1.761	0.3826	0.0275	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.912	2.586	0.6985	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8274429	0.8274429	1	4.384	0.0550	Non-Significant Effect
Error	2.64249	0.1887493	14			
Total	3.469933	1.016192	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.787	8.885	0.4615	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9788		0.9534	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	13.82%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-6958-5979	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.68%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-014	1.688	1.761	0.4173	0.0567	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.753	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6401442	0.6401442	1	2.85	0.1135	Non-Significant Effect
Error	3.144074	0.2245767	14			
Total	3.784218	0.8647209	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.169	8.885	0.8422	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9587		0.6383	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	12.15%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-2428-6642	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.45%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-013	0.2288	1.761	0.4428	0.4112	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.961	2.586	0.6030	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01323087	0.01323087	1	0.05234	0.8223	Non-Significant Effect
Error	3.53903	0.2527878	14			
Total	3.55226	0.2660187	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.089	8.885	0.9137	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9443		0.4050	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	1.75%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-5889-5385	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-011	1.071	1.761	0.4806	0.1512	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.884	2.586	0.7578	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3413317	0.3413317	1	1.146	0.3025	Non-Significant Effect
Error	4.169494	0.297821	14			
Total	4.510825	0.6391526	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.461	8.885	0.6295	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9543		0.5606	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	8.88%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-2491-2592	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-007	3.878	1.761	0.345	0.0008	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.12	2.586	0.3598	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.308669	2.308669	1	15.04	0.0017	Significant Effect
Error	2.149144	0.1535103	14			
Total	4.457813	2.462179	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.726	8.885	0.1039	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9457		0.4253	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	23.08%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-5091-9226	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-006	1.445	1.761	0.3591	0.0853	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.037	2.586	0.4751	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3471195	0.3471195	1	2.087	0.1706	Non-Significant Effect
Error	2.328438	0.166317	14			
Total	2.675558	0.5134365	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.672	8.885	0.2180	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9503		0.4942	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	8.95%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-2654-0136	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.05%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-005	0.8587	1.761	0.4624	0.2025	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.16	2.586	0.3125	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.203332	0.203332	1	0.7374	0.4050	Non-Significant Effect
Error	3.860462	0.2757473	14			
Total	4.063794	0.4790793	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.278	8.885	0.7542	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9601		0.6635	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	6.85%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-7586-4603	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.68%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-004	0.7781	1.761	0.4504	0.2247	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.823	2.586	0.8985	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.158364	0.158364	1	0.6054	0.4495	Non-Significant Effect
Error	3.662178	0.2615842	14			
Total	3.820542	0.4199481	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.161	8.885	0.8486	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9222		0.1832	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	6.05%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-0320-3835	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.73%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-0.5745	1.761	0.452	0.7126	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.954	2.586	0.6148	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08697585	0.08697585	1	0.3301	0.5747	Non-Significant Effect
Error	3.688828	0.2634877	14			
Total	3.775804	0.3504635	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.177	8.885	0.8352	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9108		0.1199	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-4.48%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-4074-5507	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.73%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-001	0.6058	1.761	0.5506	0.2772	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.076	2.586	0.4178	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1434372	0.1434372	1	0.367	0.5543	Non-Significant Effect
Error	5.471807	0.3908434	14			
Total	5.615244	0.5342805	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.229	8.885	0.3121	Equal Variances
Distribution	Shapiro-Wilk Normality	0.926		0.2107	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	5.75%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-4269-8935	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-012	3.01	1.761	0.3771	0.0047	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.94	2.586	0.6431	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.661828	1.661828	1	9.062	0.0094	Significant Effect
Error	2.567359	0.1833828	14			
Total	4.229187	1.84521	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.941	8.885	0.4013	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9614		0.6871	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	19.58%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-3826-0406	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-010	0.1541	1.761	0.3688	0.4398	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.983	2.586	0.5624	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004166638	0.004166638	1	0.02376	0.8797	Non-Significant Effect
Error	2.454974	0.1753553	14			
Total	2.459141	0.1795219	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.228	8.885	0.3125	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9442		0.4033	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.98%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-1082-3691	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-009	0.9859	1.761	0.4196	0.1705	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.743	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2206161	0.2206161	1	0.972	0.3409	Non-Significant Effect
Error	3.177603	0.2269716	14			
Total	3.398219	0.4475877	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.142	8.885	0.8651	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9159		0.1451	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	7.14%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-7708-7093	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.73%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	0.8159	1.761	0.5176	0.2141	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.61	2.586	0.0439	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2300295	0.2300295	1	0.6658	0.4282	Non-Significant Effect
Error	4.837129	0.3455092	14			
Total	5.067159	0.5755387	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.855	8.885	0.4338	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8859		0.0481	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	7.29%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-0532-3900	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.78%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	2.063	1.771	0.3877	0.0299	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7612345	0.7612345	1	4.254	0.0597	Non-Significant Effect
Error	2.326239	0.1789415	13			
Total	3.087474	0.940176	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.299	10.79	0.3301	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9518		0.5524	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	13.72%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-3816-2803	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-017	-1.099	1.761	0.4431	0.8548	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.18	2.586	0.2906	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3056421	0.3056421	1	1.207	0.2904	Non-Significant Effect
Error	3.544249	0.2531606	14			
Total	3.849891	0.5588027	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.319	8.885	0.2895	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9367		0.3102	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-9.51%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-3573-8527	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-016	-0.1723	1.761	0.2919	0.5672	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.209	2.586	0.2614	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.003263467	0.003263467	1	0.0297	0.8656	Non-Significant Effect
Error	1.538362	0.109883	14			
Total	1.541625	0.1131465	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.269	8.885	0.3018	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9643		0.7397	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	-0.98%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-2095-7945	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.49%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-015	0.3743	1.761	0.3342	0.3569	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.02	2.586	0.5014	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02017337	0.02017337	1	0.1401	0.7138	Non-Significant Effect
Error	2.015918	0.1439942	14			
Total	2.036092	0.1641675	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.126	8.885	0.8793	Equal Variances
Distribution	Shapiro-Wilk Normality	0.974		0.8979	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	2.44%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-5589-3489	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.84%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-014	0.0766	1.761	0.3734	0.4700	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.751	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001055225	0.001055225	1	0.005868	0.9400	Non-Significant Effect
Error	2.517502	0.1798216	14			
Total	2.518558	0.1808768	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.358	8.885	0.6969	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9725		0.8779	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	0.56%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-9662-2077	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.81%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-013	-1.431	1.761	0.4017	0.9128	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.161	2.586	0.3109	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4258612	0.4258612	1	2.047	0.1744	Non-Significant Effect
Error	2.912458	0.2080327	14			
Total	3.338319	0.6338938	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.727	8.885	0.4878	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9672		0.7917	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-11.22%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-4492-1276	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-011	-0.3645	1.761	0.443	0.6395	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.044	2.586	0.4645	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03362453	0.03362453	1	0.1329	0.7209	Non-Significant Effect
Error	3.542922	0.2530659	14			
Total	3.576546	0.2866904	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.318	8.885	0.2898	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9536		0.5485	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	-3.15%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-7413-8820	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-007	2.28	1.761	0.2904	0.0194	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.221	2.586	0.2505	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5652403	0.5652403	1	5.197	0.0388	Significant Effect
Error	1.522573	0.1087552	14			
Total	2.087813	0.6739954	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.348	8.885	0.2826	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9665		0.7793	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	12.93%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-7865-7192	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-006	-0.5118	1.761	0.307	0.6916	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.1	2.586	0.3847	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03183991	0.03183991	1	0.2619	0.6168	Non-Significant Effect
Error	1.701866	0.1215619	14			
Total	1.733706	0.1534018	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.684	8.885	0.5080	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9595		0.6521	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	-3.07%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-5031-3971	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-005	-0.6589	1.761	0.4233	0.7397	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.36	2.586	0.1439	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1002877	0.1002877	1	0.4342	0.5206	Non-Significant Effect
Error	3.23389	0.2309921	14			
Total	3.334178	0.3312799	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.028	8.885	0.3713	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9606		0.6732	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-5.45%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-5389-8097	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-004	-0.7939	1.761	0.4101	0.7797	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.003	2.586	0.5294	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1366457	0.1366457	1	0.6302	0.4405	Non-Significant Effect
Error	3.035607	0.216829	14			
Total	3.172252	0.3534747	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.843	8.885	0.4386	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9499		0.4882	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-6.36%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-2065-6487	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.17%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-002	-2.272	1.761	0.4119	0.9803	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.145	2.586	0.3295	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.128954	1.128954	1	5.161	0.0394	Significant Effect
Error	3.062256	0.2187326	14			
Total	4.19121	1.347687	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.868	8.885	0.4287	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9575		0.6167	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-18.27%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-5380-8744	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.82%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-001	-0.661	1.761	0.5181	0.7403	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.206	2.586	0.2645	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1512237	0.1512237	1	0.437	0.5193	Non-Significant Effect
Error	4.845235	0.3460882	14			
Total	4.996459	0.4973119	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.537	8.885	0.1175	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9539		0.5531	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-6.69%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-0742-2906	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-012	1.401	1.761	0.3279	0.0915	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.967	2.586	0.5920	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2719758	0.2719758	1	1.962	0.1831	Non-Significant Effect
Error	1.940787	0.1386277	14			
Total	2.212763	0.4106035	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.223	8.885	0.7972	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9741		0.8994	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	8.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-6433-2365	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-010	-1.945	1.761	0.3183	0.9640	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.026	2.586	0.4911	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4942883	0.4942883	1	3.785	0.0721	Non-Significant Effect
Error	1.828403	0.1306002	14			
Total	2.322691	0.6248885	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.404	8.885	0.6656	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9784		0.9496	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-12.09%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-0698-5959	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-009	-0.6979	1.761	0.3759	0.7517	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.716	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08874922	0.08874922	1	0.4871	0.4967	Non-Significant Effect
Error	2.551031	0.1822165	14			
Total	2.63978	0.2709657	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.389	8.885	0.6755	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9405		0.3553	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	-5.12%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-0049-4557	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.61%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	-0.5251	1.761	0.483	0.6961	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.798	2.586	0.0145	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08293939	0.08293939	1	0.2758	0.6077	Non-Significant Effect
Error	4.210557	0.3007541	14			
Total	4.293497	0.3836935	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.943	8.885	0.1777	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8885		0.0527	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	-4.95%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0444-5030	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	0.362	1.771	0.3314	0.3616	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01713736	0.01713736	1	0.1311	0.7231	Non-Significant Effect
Error	1.699668	0.1307437	13			
Total	1.716805	0.147881	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.449	10.79	0.6676	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9665		0.8033	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	2.33%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-4367-3499	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.45%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-003	-1.728	1.761	0.3912	0.9470	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.87	2.586	0.7887	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5892188	0.5892188	1	2.986	0.1060	Non-Significant Effect
Error	2.762241	0.1973029	14			
Total	3.35146	0.7865217	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.587	8.885	0.5573	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9236		0.1926	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	-13.2%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-5969-7919	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.94%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-017	-1.726	1.761	0.4263	0.9468	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.554	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6976423	0.6976423	1	2.977	0.1064	Non-Significant Effect
Error	3.280411	0.2343151	14			
Total	3.978053	0.9319573	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.535	8.885	0.5856	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8783		0.0364	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	-18.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-5209-7575	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.54%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-016	-1.426	1.761	0.3499	0.9121	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.67	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3209221	0.3209221	1	2.033	0.1758	Non-Significant Effect
Error	2.209836	0.1578454	14			
Total	2.530758	0.4787675	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.413	8.885	0.6598	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9587		0.6389	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	-12.58%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8916-7474	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.12%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-015	-2.48	1.761	0.3628	0.9868	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.673	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.044484	1.044484	1	6.153	0.0264	Significant Effect
Error	2.376626	0.169759	14			
Total	3.421109	1.214243	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.195	8.885	0.8200	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9274		0.2216	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-22.7%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-9343-6454	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.58%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-014	-1.931	1.761	0.3732	0.9630	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.086	2.586	0.4035	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6693284	0.6693284	1	3.728	0.0740	Non-Significant Effect
Error	2.513796	0.1795568	14			
Total	3.183124	0.8488852	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.061	8.885	0.9399	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9338		0.2799	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	-18.17%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-2090-9758	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-013	-2.58	1.761	0.3849	0.9891	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.967	2.586	0.5917	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.271256	1.271256	1	6.654	0.0218	Significant Effect
Error	2.674729	0.1910521	14			
Total	3.945986	1.462309	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.067	8.885	0.9340	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9468		0.4403	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-25.05%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8872-5457	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.86%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-011	-1.503	1.761	0.3796	0.9224	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.672	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4195801	0.4195801	1	2.258	0.1551	Non-Significant Effect
Error	2.601198	0.1857999	14			
Total	3.020778	0.60538	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.01	8.885	0.9897	Equal Variances
Distribution	Shapiro-Wilk Normality	0.926		0.2105	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	-14.39%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-1372-1718	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-007	2.304	1.761	0.3549	0.0185	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.413	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8621125	0.8621125	1	5.307	0.0371	Significant Effect
Error	2.274225	0.1624446	14			
Total	3.136337	1.024557	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.32	8.885	0.7234	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8898		0.0554	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	20.63%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-3964-6922	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-006	0.07949	1.761	0.3601	0.4689	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.404	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.00105625	0.00105625	1	0.006319	0.9378	Non-Significant Effect
Error	2.340195	0.1671568	14			
Total	2.341251	0.168213	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.237	8.885	0.7863	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9148		0.1392	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	0.72%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-6877-3116	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					23.38%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-005	1.243	1.761	0.5262	0.1171	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.714	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5516778	0.5516778	1	1.545	0.2342	Non-Significant Effect
Error	4.997612	0.3569723	14			
Total	5.54929	0.9086501	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.862	8.885	0.1887	Equal Variances
Distribution	Shapiro-Wilk Normality	0.862		0.0206	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	16.5%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-1114-3390	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					23.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-004	-1.311	1.761	0.5312	0.8946	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.401	2.586	0.1205	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6254292	0.6254292	1	1.719	0.2109	Non-Significant Effect
Error	5.092828	0.3637734	14			
Total	5.718257	0.9892026	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.936	8.885	0.1787	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9662		0.7747	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	-17.57%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-8662-1128	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.09%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-002	-3.941	1.761	0.4297	0.9993	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.536	2.586	0.0644	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.69889	3.69889	1	15.53	0.0015	Significant Effect
Error	3.333529	0.2381092	14			
Total	7.032418	3.936999	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.576	8.885	0.5630	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8982		0.0753	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-42.72%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-2509-4126	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.16%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-001	-1.903	1.761	0.3864	0.9611	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.112	2.586	0.3694	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6968076	0.6968076	1	3.62	0.0778	Non-Significant Effect
Error	2.694544	0.1924675	14			
Total	3.391352	0.8892751	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.082	8.885	0.9195	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9344		0.2857	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	-18.54%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-1031-7338	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-017	0.41	1.761	0.3775	0.3440	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.754	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03088811	0.03088811	1	0.1681	0.6880	Non-Significant Effect
Error	2.572962	0.183783	14			
Total	2.60385	0.2146711	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.387	8.885	0.1299	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9243		0.1979	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	3.19%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-7848-3174	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-016	1.357	1.761	0.2885	0.0981	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.025	2.586	0.4933	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1975803	0.1975803	1	1.841	0.1963	Non-Significant Effect
Error	1.502387	0.1073133	14			
Total	1.699967	0.3048936	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.561	8.885	0.5710	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9837		0.9860	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	8.06%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-3942-1204	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.03%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-015	-0.03186	1.761	0.3041	0.5125	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.996	2.586	0.5406	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0001209982	0.0001209982	1	0.001015	0.9750	Non-Significant Effect
Error	1.669177	0.1192269	14			
Total	1.669298	0.1193479	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.846	8.885	0.4374	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9469		0.4417	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-0.2%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-2341-6440	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-014	0.537	1.761	0.3163	0.2999	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.461	2.586	0.0921	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03720077	0.03720077	1	0.2883	0.5997	Non-Significant Effect
Error	1.806347	0.1290248	14			
Total	1.843548	0.1662256	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.08	8.885	0.3550	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9328		0.2700	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	3.5%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-1455-7970	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-013	-0.3108	1.761	0.3301	0.6197	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.294	2.586	0.1890	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01357228	0.01357228	1	0.09659	0.7605	Non-Significant Effect
Error	1.96728	0.14052	14			
Total	1.980853	0.1540923	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.354	8.885	0.2813	Equal Variances
Distribution	Shapiro-Wilk Normality	0.957		0.6086	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-2.11%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7940-1094	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-011	0.9877	1.761	0.3239	0.1700	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.96	2.586	0.6054	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1319505	0.1319505	1	0.9755	0.3401	Non-Significant Effect
Error	1.893749	0.1352678	14			
Total	2.0257	0.2672183	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.229	8.885	0.3123	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9499		0.4887	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	6.59%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-5210-5069	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.69%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-007	5.798	1.761	0.2946	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.422	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.761661	3.761661	1	33.61	<0.0001	Significant Effect
Error	1.566776	0.1119126	14			
Total	5.328436	3.873573	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.671	8.885	0.5143	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9034		0.0911	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	35.18%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-4522-2818	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-006	3.056	1.761	0.3007	0.0043	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.68	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.088892	1.088892	1	9.337	0.0086	Significant Effect
Error	1.632746	0.1166247	14			
Total	2.721638	1.205517	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.784	8.885	0.4630	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9617		0.6934	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	18.93%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-9668-6577	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.69%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-005	3.168	1.761	0.4875	0.0034	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.85	2.586	0.8339	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.075639	3.075639	1	10.04	0.0068	Significant Effect
Error	4.290164	0.3064403	14			
Total	7.365803	3.38208	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.314	8.885	0.0266	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9069		0.1038	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	31.81%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-7360-8550	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	0.3934	1.761	0.4929	0.3500	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.588	2.586	0.0494	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04847004	0.04847004	1	0.1547	0.7000	Non-Significant Effect
Error	4.38538	0.3132414	14			
Total	4.43385	0.3617114	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.477	8.885	0.0248	Equal Variances
Distribution	Shapiro-Wilk Normality	0.945		0.4143	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	3.99%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-4471-8737	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.52%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	-0.427	1.771	0.3725	0.6618	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03011902	0.03011902	1	0.1823	0.6764	Non-Significant Effect
Error	2.147634	0.1652026	13			
Total	2.177752	0.1953216	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.105	9.155	0.1641	Equal Variances
Distribution	Shapiro-Wilk Normality	0.976		0.9347	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-004	7	2.846	2.652	3.04	2.119	3.594	0.09472	0.5101	17.92%	-3.26%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	Outlier	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0403-7458	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.84%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-2.106	1.761	0.3814	0.9731	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.857	2.586	0.0096	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8321998	0.8321998	1	4.437	0.0537	Non-Significant Effect
Error	2.62608	0.1875772	14			
Total	3.45828	1.019777	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.477	8.885	0.1223	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8719		0.0291	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-16.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-4474-9669	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.19%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-1.995	1.771	0.2533	0.9663	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3039623	0.3039623	1	3.981	0.0674	Non-Significant Effect
Error	0.9926854	0.07636042	13			
Total	1.296648	0.3803227	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.238	10.79	0.8107	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9019		0.1019	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-002	7	3.042	2.943	3.141	2.747	3.38	0.04831	0.2602	8.55%	-10.35%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-002	2.76	3.18	Outlier	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-2428-3989	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-001	0.4678	1.761	0.3318	0.3236	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.46	2.586	0.0928	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03106404	0.03106404	1	0.2189	0.6471	Non-Significant Effect
Error	1.987096	0.1419354	14			
Total	2.01816	0.1729994	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.388	8.885	0.2735	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9148		0.1393	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	3.2%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-0297-8204	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-012	2.759	1.761	0.3228	0.0077	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.554	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.022121	1.022121	1	7.609	0.0154	Significant Effect
Error	1.880537	0.1343241	14			
Total	2.902658	1.156445	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.206	8.885	0.3183	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9274		0.2216	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	18.34%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-7558-3069	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-017	0.06996	1.761	0.5113	0.4726	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.742	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001649476	0.001649476	1	0.004894	0.9452	Non-Significant Effect
Error	4.718408	0.3370291	14			
Total	4.720057	0.3386786	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.375	8.885	0.6847	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9046		0.0954	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	0.76%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-0457-1469	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.72%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-016	0.6061	1.761	0.4495	0.2771	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.982	2.586	0.5657	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.09570587	0.09570587	1	0.3673	0.5542	Non-Significant Effect
Error	3.647832	0.2605594	14			
Total	3.743538	0.3562653	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.983	8.885	0.1726	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9608		0.6768	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	5.75%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-0170-1840	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-015	-0.28	1.761	0.4597	0.6082	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.938	2.586	0.6466	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02135582	0.02135582	1	0.07838	0.7836	Non-Significant Effect
Error	3.814622	0.272473	14			
Total	3.835978	0.2938288	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.523	8.885	0.2451	Equal Variances
Distribution	Shapiro-Wilk Normality	0.962		0.6986	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-2.72%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-5287-3182	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-014	0.1087	1.761	0.4679	0.4575	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.904	2.586	0.7150	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.00333375	0.00333375	1	0.01181	0.9150	Non-Significant Effect
Error	3.951793	0.2822709	14			
Total	3.955127	0.2856047	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.24	8.885	0.3094	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9433		0.3913	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	1.07%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-2798-0497	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-013	-0.4643	1.761	0.4773	0.6752	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.866	2.586	0.7970	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06332094	0.06332094	1	0.2155	0.6496	Non-Significant Effect
Error	4.112726	0.2937661	14			
Total	4.176047	0.3570871	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.979	8.885	0.3880	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9773		0.9387	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-4.68%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-0038-4432	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-011	0.4247	1.761	0.473	0.3388	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.883	2.586	0.7594	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05203577	0.05203577	1	0.1804	0.6775	Non-Significant Effect
Error	4.039195	0.2885139	14			
Total	4.091231	0.3405497	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.09	8.885	0.3518	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9492		0.4764	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	4.24%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-7507-6455	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.87%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-007	3.504	1.761	0.4535	0.0018	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.964	2.586	0.5966	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.255728	3.255728	1	12.28	0.0035	Significant Effect
Error	3.712221	0.2651587	14			
Total	6.96795	3.520887	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.787	8.885	0.1997	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9559		0.5883	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	33.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-3081-1232	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-006	1.749	1.761	0.4575	0.0511	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.947	2.586	0.6287	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8251243	0.8251243	1	3.057	0.1022	Non-Significant Effect
Error	3.778192	0.2698708	14			
Total	4.603316	1.094995	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.611	8.885	0.2286	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9621		0.7000	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	16.89%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-7592-2379	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.21%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-009		19830-005	51		0	0.0415	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.511	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.61991	2.61991	1	5.699	0.0316	Significant Effect
Error	6.435609	0.4596864	14			
Total	9.055519	3.079597	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.356	8.885	0.6982	Equal Variances
Distribution	Shapiro-Wilk Normality	0.834		0.0080	Non-normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	30.1%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-8949-5886	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.37%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-004	0.1245	1.761	0.6015	0.4514	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.121	2.586	0.3589	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.007228862	0.007228862	1	0.0155	0.9027	Non-Significant Effect
Error	6.530825	0.4664875	14			
Total	6.538054	0.4737163	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.391	8.885	0.6745	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9689		0.8210	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	1.58%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-2000-9056	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.12%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-002	-1.794	1.761	0.5141	0.9528	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.12	2.586	0.3601	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.097018	1.097018	1	3.219	0.0944	Non-Significant Effect
Error	4.771526	0.3408233	14			
Total	5.868544	1.437841	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.34	8.885	0.7095	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9206		0.1728	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-19.48%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-5874-4103	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.79%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-001	0.07567	1.761	0.4785	0.4704	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.862	2.586	0.8072	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001690322	0.001690322	1	0.005726	0.9408	Non-Significant Effect
Error	4.132541	0.2951815	14			
Total	4.134232	0.2968718	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.951	8.885	0.3978	Equal Variances
Distribution	Shapiro-Wilk Normality	0.979		0.9553	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	0.76%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-8423-3562	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-012	1.633	1.761	0.4723	0.0623	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.886	2.586	0.7526	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.767137	0.767137	1	2.668	0.1247	Non-Significant Effect
Error	4.025982	0.2875702	14			
Total	4.793119	1.054707	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.111	8.885	0.3453	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9338		0.2803	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	16.29%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-4676-1063	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-010	-0.2776	1.761	0.4288	0.6073	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.078	2.586	0.4154	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01826185	0.01826185	1	0.07704	0.7854	Non-Significant Effect
Error	3.318534	0.2370381	14			
Total	3.336796	0.2553	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.658	8.885	0.0599	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9717		0.8656	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	-2.51%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-3436-0348	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-017	-0.3074	1.761	0.4957	0.6184	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.922	2.586	0.6784	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02992896	0.02992896	1	0.09446	0.7631	Non-Significant Effect
Error	4.435592	0.316828	14			
Total	4.465521	0.346757	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.233	8.885	0.7894	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9321		0.2628	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	-3.35%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-1066-2475	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.72%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	0.1953	1.761	0.4318	0.4240	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.206	2.586	0.2642	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.009168069	0.009168069	1	0.03814	0.8480	Non-Significant Effect
Error	3.365017	0.2403584	14			
Total	3.374185	0.2495264	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.674	8.885	0.2177	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9638		0.7301	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	1.85%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-7892-3761	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.13%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	-0.7163	1.761	0.4423	0.7572	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.154	2.586	0.3198	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.12942	0.12942	1	0.513	0.4856	Non-Significant Effect
Error	3.531807	0.252272	14			
Total	3.661227	0.381692	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.262	8.885	0.3036	Equal Variances
Distribution	Shapiro-Wilk Normality	0.958		0.6261	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-6.97%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-7171-6067	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	-0.3045	1.761	0.4508	0.6174	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.113	2.586	0.3685	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02429701	0.02429701	1	0.09271	0.7652	Non-Significant Effect
Error	3.668978	0.2620698	14			
Total	3.693275	0.2863668	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.008	8.885	0.3781	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9488		0.4713	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	-3.02%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-3142-4583	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.84%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-013	-0.8895	1.761	0.4606	0.8056	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.068	2.586	0.4287	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2164577	0.2164577	1	0.7912	0.3888	Non-Significant Effect
Error	3.829911	0.2735651	14			
Total	4.046369	0.4900228	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.774	8.885	0.4673	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9672		0.7915	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-9.01%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8143-1016	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.67%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-011	0.02799	1.761	0.4562	0.4890	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.088	2.586	0.4008	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0002102463	0.0002102463	1	0.0007836	0.9781	Non-Significant Effect
Error	3.75638	0.2683128	14			
Total	3.75659	0.2685231	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.874	8.885	0.4264	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9644		0.7420	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	0.28%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-1704-6787	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	3.214	1.761	0.4359	0.0031	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.186	2.586	0.2852	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.530486	2.530486	1	10.33	0.0062	Significant Effect
Error	3.429406	0.2449576	14			
Total	5.959892	2.775443	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.499	8.885	0.2500	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9509		0.5044	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	30.8%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2724-6171	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	1.39	1.761	0.44	0.0931	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.165	2.586	0.3073	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4826775	0.4826775	1	1.933	0.1861	Non-Significant Effect
Error	3.495376	0.2496697	14			
Total	3.978054	0.7323472	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.341	8.885	0.2843	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9504		0.4953	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	13.45%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-8955-7817	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.61%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-005	2.119	1.761	0.5838	0.0262	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.632	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.974025	1.974025	1	4.492	0.0524	Non-Significant Effect
Error	6.152794	0.4394853	14			
Total	8.12682	2.41351	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.512	8.885	0.5988	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8653		0.0230	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	27.21%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8450-3383	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.79%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-004	-0.1925	1.761	0.5883	0.5749	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.168	2.586	0.3037	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01653562	0.01653562	1	0.03705	0.8501	Non-Significant Effect
Error	6.24801	0.4462864	14			
Total	6.264546	0.462822	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.551	8.885	0.5767	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9692		0.8258	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	-2.49%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-0338-3988	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.31%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-002	-2.227	1.761	0.4987	0.9786	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.185	2.586	0.2853	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.590121	1.590121	1	4.959	0.0429	Significant Effect
Error	4.48871	0.3206222	14			
Total	6.078831	1.910743	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.201	8.885	0.8154	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9096		0.1148	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-24.42%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-5988-8310	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.89%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-001	-0.329	1.761	0.4618	0.6265	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.063	2.586	0.4363	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02975629	0.02975629	1	0.1082	0.7471	Non-Significant Effect
Error	3.849726	0.2749804	14			
Total	3.879482	0.3047367	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.749	8.885	0.4783	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9651		0.7536	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	-3.34%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-0839-8909	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	1.281	1.761	0.4554	0.1105	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.092	2.586	0.3959	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.438575	0.438575	1	1.64	0.2211	Non-Significant Effect
Error	3.743167	0.2673691	14			
Total	4.181742	0.7059441	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.893	8.885	0.4191	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9537		0.5498	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	12.82%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-1113-6838	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	-0.7489	1.761	0.4101	0.7669	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.323	2.586	0.1679	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1216266	0.1216266	1	0.5609	0.4663	Non-Significant Effect
Error	3.035719	0.216837	14			
Total	3.157345	0.3384636	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.176	8.885	0.0788	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9672		0.7907	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	-6.75%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-6372-2429	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					20.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-0.3511	1.761	0.5357	0.6346	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.778	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04563078	0.04563078	1	0.1233	0.7307	Non-Significant Effect
Error	5.181164	0.3700832	14			
Total	5.226795	0.4157139	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.115	8.885	0.8891	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9333		0.2747	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	-4.14%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-3510-6271	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-017	0.4402	1.761	0.4146	0.3332	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.687	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04295259	0.04295259	1	0.1938	0.6665	Non-Significant Effect
Error	3.102987	0.2216419	14			
Total	3.145939	0.2645945	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.779	8.885	0.4650	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9618		0.6952	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	3.74%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-4447-3952	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-016	1.249	1.761	0.3355	0.1160	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.084	2.586	0.4065	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.226576	0.226576	1	1.561	0.2320	Non-Significant Effect
Error	2.032412	0.1451723	14			
Total	2.258988	0.3717483	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.219	8.885	0.8004	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9677		0.8008	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	8.59%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8216-2714	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-015	0.05172	1.761	0.349	0.4797	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.003	2.586	0.5283	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0004202502	0.0004202502	1	0.002675	0.9595	Non-Significant Effect
Error	2.199202	0.1570858	14			
Total	2.199622	0.1575061	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.031	8.885	0.9686	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9339		0.2810	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	0.37%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-9829-3234	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-014	0.5492	1.761	0.3598	0.2957	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.164	2.586	0.3081	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05034412	0.05034412	1	0.3017	0.5915	Non-Significant Effect
Error	2.336372	0.1668837	14			
Total	2.386716	0.2172278	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.092	8.885	0.9101	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9838		0.9867	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	4.05%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-6836-7880	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.42%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-013	-0.2013	1.761	0.3719	0.5783	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.036	2.586	0.4766	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.007225037	0.007225037	1	0.0405	0.8434	Non-Significant Effect
Error	2.497305	0.178379	14			
Total	2.50453	0.185604	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.237	8.885	0.7865	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9281		0.2276	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-1.53%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-6019-4967	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.22%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-011	0.9487	1.761	0.3664	0.1794	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.908	2.586	0.7056	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1558274	0.1558274	1	0.9001	0.3589	Non-Significant Effect
Error	2.423774	0.1731267	14			
Total	2.579602	0.3289542	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.171	8.885	0.8406	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9838		0.9866	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	7.12%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-5165-5638	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-007	5.093	1.761	0.3408	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.052	2.586	0.4523	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.884841	3.884841	1	25.94	0.0002	Significant Effect
Error	2.096801	0.1497715	14			
Total	5.981642	4.034613	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.139	8.885	0.8680	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9528		0.5351	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	35.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-2597-6864	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.49%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-006	2.735	1.761	0.3461	0.0081	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.02	2.586	0.5009	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.155625	1.155625	1	7.481	0.0161	Significant Effect
Error	2.162771	0.1544836	14			
Total	3.318396	1.310108	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.067	8.885	0.9338	Equal Variances
Distribution	Shapiro-Wilk Normality	0.96		0.6617	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	19.39%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-1639-9410	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-005	3.043	1.761	0.5167	0.0044	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.746	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.187118	3.187118	1	9.257	0.0088	Significant Effect
Error	4.820189	0.3442992	14			
Total	8.007307	3.531417	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.317	8.885	0.1363	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9291		0.2359	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	32.2%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-0047-9610	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.82%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-004	0.4247	1.761	0.5218	0.3387	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.444	2.586	0.0995	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06333227	0.06333227	1	0.1804	0.6775	Non-Significant Effect
Error	4.915404	0.3511003	14			
Total	4.978736	0.4144326	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.402	8.885	0.1286	Equal Variances
Distribution	Shapiro-Wilk Normality	0.954		0.5557	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	4.54%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-3460-4049	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.08%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-1.855	1.761	0.4181	0.9576	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.606	2.586	0.0449	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7757205	0.7757205	1	3.441	0.0848	Non-Significant Effect
Error	3.156105	0.2254361	14			
Total	3.931826	1.001157	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.827	8.885	0.4451	Equal Variances
Distribution	Shapiro-Wilk Normality	0.938		0.3256	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-15.89%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-5471-5822	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.32%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-1.522	1.771	0.3137	0.9240	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2713326	0.2713326	1	2.316	0.1520	Non-Significant Effect
Error	1.52271	0.1171316	13			
Total	1.794043	0.3884641	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.356	10.79	0.3161	Equal Variances
Distribution	Shapiro-Wilk Normality	0.957		0.6410	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-002	7	3.042	2.943	3.141	2.747	3.38	0.04831	0.2602	8.55%	-9.73%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-002	2.76	3.18	Outlier	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-5990-2850	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-001	0.49	1.761	0.3734	0.3159	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.185	2.586	0.2852	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04316	0.04316	1	0.2401	0.6318	Non-Significant Effect
Error	2.517121	0.1797943	14			
Total	2.560281	0.2229543	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.254	8.885	0.7726	Equal Variances
Distribution	Shapiro-Wilk Normality	0.908		0.1079	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	3.75%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-9196-3466	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.18%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-012	2.512	1.761	0.3654	0.0124	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.914	2.586	0.6948	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.086806	1.086806	1	6.312	0.0249	Significant Effect
Error	2.410562	0.172183	14			
Total	3.497368	1.258989	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.159	8.885	0.8507	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9476		0.4531	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	18.8%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8554-4427	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.08%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-010	0.09031	1.761	0.3072	0.4647	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.277	2.586	0.2021	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0009922452	0.0009922452	1	0.008156	0.9293	Non-Significant Effect
Error	1.703113	0.1216509	14			
Total	1.704105	0.1226432	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.904	8.885	0.4150	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9671		0.7895	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.57%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-6118-3712	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-009	0.3178	1.761	0.4617	0.3777	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.929	2.586	0.6634	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02776766	0.02776766	1	0.101	0.7553	Non-Significant Effect
Error	3.848559	0.274897	14			
Total	3.876326	0.3026647	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.447	8.885	0.2607	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9717		0.8653	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	3.01%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-2890-9796	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.03%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	0.7535	1.761	0.4444	0.2318	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.143	2.586	0.3316	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.14459	0.14459	1	0.5677	0.4637	Non-Significant Effect
Error	3.565743	0.254696	14			
Total	3.710333	0.399286	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.193	8.885	0.3218	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9544		0.5630	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	6.86%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-0138-7878	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-017	0.6983	1.761	0.4241	0.2482	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.673	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1130489	0.1130489	1	0.4876	0.4965	Non-Significant Effect
Error	3.246115	0.2318653	14			
Total	3.359164	0.3449143	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.577	8.885	0.5625	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9041		0.0935	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	5.93%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-0688-6949	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-016	1.535	1.761	0.3472	0.0736	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.044	2.586	0.4642	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3659976	0.3659976	1	2.355	0.1471	Non-Significant Effect
Error	2.17554	0.1553957	14			
Total	2.541537	0.5213934	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.375	8.885	0.6846	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9602		0.6652	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	10.66%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-9935-2213	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-015	0.3654	1.761	0.3602	0.3601	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.97	2.586	0.5867	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0223435	0.0223435	1	0.1335	0.7202	Non-Significant Effect
Error	2.34233	0.1673093	14			
Total	2.364673	0.1896528	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.164	8.885	0.8467	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9859		0.9936	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	2.64%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2341-3763	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.07%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-014	0.8396	1.761	0.3706	0.2076	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.101	2.586	0.3843	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1248579	0.1248579	1	0.705	0.4152	Non-Significant Effect
Error	2.4795	0.1771072	14			
Total	2.604358	0.3019651	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.033	8.885	0.9672	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9237		0.1933	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	6.23%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-3963-7471	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-013	0.1013	1.761	0.3825	0.4604	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.98	2.586	0.5689	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001933994	0.001933994	1	0.01025	0.9208	Non-Significant Effect
Error	2.640433	0.1886024	14			
Total	2.642367	0.1905364	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.096	8.885	0.9068	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9919		0.9998	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	0.78%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-1078-2809	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-011	1.223	1.761	0.3771	0.1207	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.882	2.586	0.7626	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2742902	0.2742902	1	1.496	0.2415	Non-Significant Effect
Error	2.566902	0.1833502	14			
Total	2.841193	0.4576404	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.038	8.885	0.9623	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9512		0.5085	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	9.23%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-0729-2990	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.42%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-007	5.25	1.761	0.3523	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.014	2.586	0.5105	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	4.409905	4.409905	1	27.56	0.0001	Significant Effect
Error	2.239929	0.1599949	14			
Total	6.649834	4.5699	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.285	8.885	0.7491	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9492		0.4774	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	37.02%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-6452-7444	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-006	2.967	1.761	0.3574	0.0051	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.985	2.586	0.5593	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.449561	1.449561	1	8.801	0.0102	Significant Effect
Error	2.305899	0.1647071	14			
Total	3.75546	1.614268	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.204	8.885	0.8127	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9562		0.5929	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	21.22%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-2537-2415	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.49%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-005	3.215	1.761	0.5244	0.0031	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.72	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.664267	3.664267	1	10.34	0.0062	Significant Effect
Error	4.963317	0.3545226	14			
Total	8.627584	4.018789	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.94	8.885	0.1781	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8713		0.0285	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	33.74%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-5871-5802	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-004	0.6332	1.761	0.5294	0.2684	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.41	2.586	0.1163	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1448841	0.1448841	1	0.401	0.5368	Non-Significant Effect
Error	5.058533	0.3613237	14			
Total	5.203417	0.5062078	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.016	8.885	0.1685	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9551		0.5743	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	6.71%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-9547-9562	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.07%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-002	-1.549	1.761	0.4275	0.9281	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.549	2.586	0.0603	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5651619	0.5651619	1	2.398	0.1438	Non-Significant Effect
Error	3.299233	0.2356595	14			
Total	3.864395	0.8008214	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.619	8.885	0.5403	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8882		0.0521	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-13.25%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-4087-7373	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-001	0.7725	1.761	0.3839	0.2263	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.126	2.586	0.3525	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1133852	0.1133852	1	0.5967	0.4527	Non-Significant Effect
Error	2.660249	0.1900178	14			
Total	2.773634	0.303403	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.112	8.885	0.8924	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9858		0.9933	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	5.94%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-5854-1335	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.26%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-012	2.743	1.761	0.3761	0.0079	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.887	2.586	0.7520	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.372359	1.372359	1	7.524	0.0159	Significant Effect
Error	2.55369	0.1824064	14			
Total	3.926049	1.554765	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.027	8.885	0.9726	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9489		0.4728	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	20.65%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-7796-1410	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-010	0.4419	1.761	0.3198	0.3327	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.219	2.586	0.2523	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02575298	0.02575298	1	0.1953	0.6653	Non-Significant Effect
Error	1.846241	0.1318744	14			
Total	1.871994	0.1576273	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.148	8.885	0.3347	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9641		0.7359	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	2.83%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0762-9377	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.58%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-009	0.5536	1.761	0.4702	0.2943	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.894	2.586	0.7352	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08738748	0.08738748	1	0.3065	0.5886	Non-Significant Effect
Error	3.991687	0.2851205	14			
Total	4.079074	0.372508	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.169	8.885	0.3287	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9533		0.5439	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	5.21%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-5134-7819	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	0.9894	1.761	0.4533	0.1696	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.102	2.586	0.3831	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2593125	0.2593125	1	0.9788	0.3393	Non-Significant Effect
Error	3.708872	0.2649194	14			
Total	3.968184	0.5242319	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.944	8.885	0.4001	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9547		0.5671	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	8.98%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-0935-9786	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.79%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-003	0.3131	1.761	0.3628	0.3794	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.956	2.586	0.6126	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01663517	0.01663517	1	0.09801	0.7588	Non-Significant Effect
Error	2.376266	0.1697333	14			
Total	2.392901	0.1863685	15			

ANOVA Assumptions

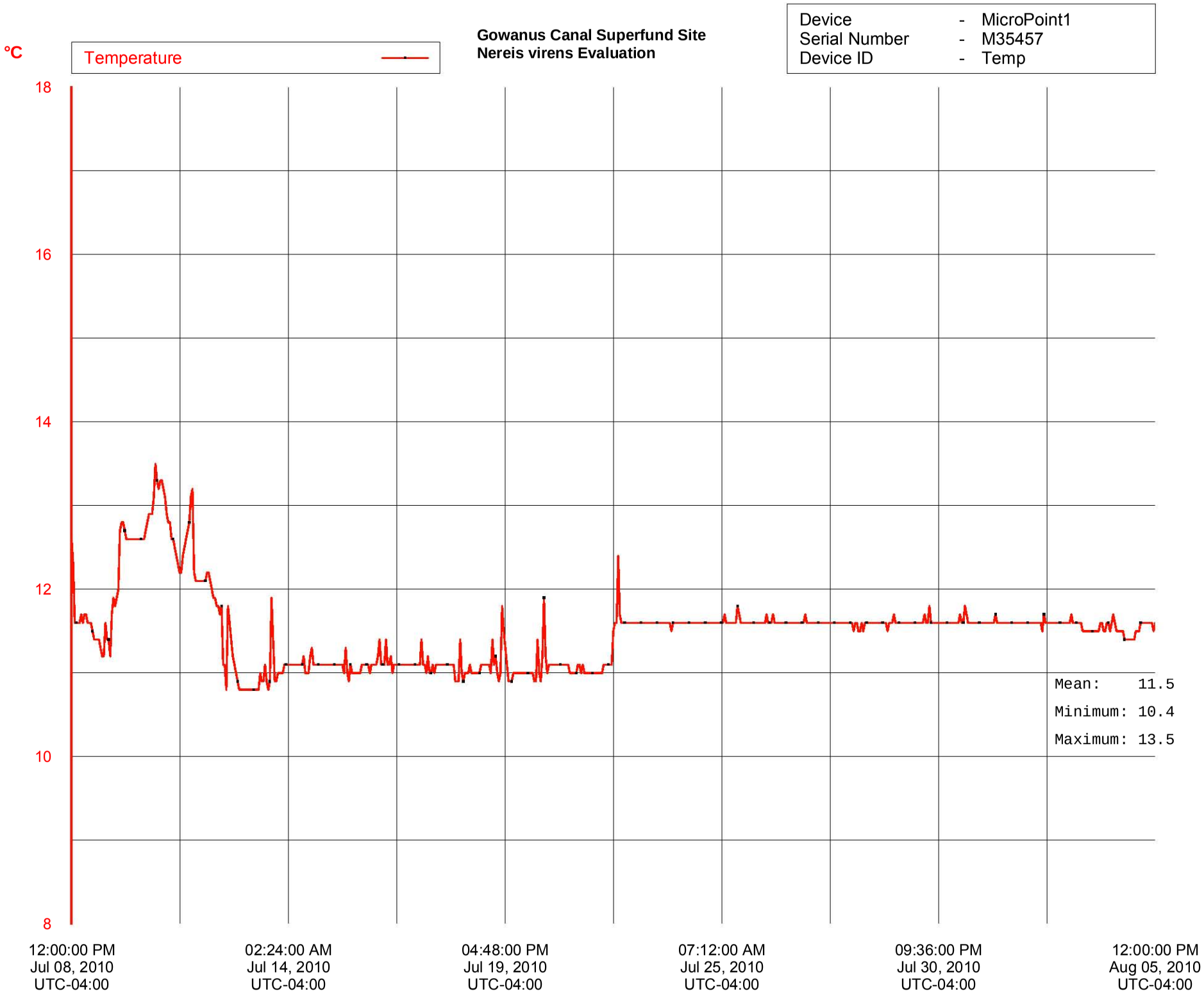
Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.128	8.885	0.8777	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9939		1.0000	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	2.27%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005


°C
Temperature
Gowanus Canal Superfund Site
Nereis virens Evaluation
Device - MicroPoint1
Serial Number - M35457
Device ID - Temp
18
16
14
12
10
8
Mean: 11.5
Minimum: 10.4
Maximum: 13.5
12:00:00 PM
Jul 08, 2010
UTC-04:00
02:24:00 AM
Jul 14, 2010
UTC-04:00
04:48:00 PM
Jul 19, 2010
UTC-04:00
07:12:00 AM
Jul 25, 2010
UTC-04:00
09:36:00 PM
Jul 30, 2010
UTC-04:00
12:00:00 PM
Aug 05, 2010
UTC-04:00

TOXICOLOGICAL EVALUATION
OF SEDIMENT SAMPLES

Gowanus Canal Superfund Site
Brooklyn, New York
Phase 3 Investigation - Bioassay Testing
Agreement Number 0000092848

28 Day *Leptocheirus plumulosus*
Survival, Growth and Reproduction Toxicity Tests

Prepared For:

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TOXICOLOGICAL EVALUATION
OF SEDIMENT SAMPLES

Gowanus Canal Superfund Site
Brooklyn, New York
Phase 3 Investigation - Bioassay Testing
Agreement Number 0000092848

28 Day *Leptocheirus plumulosus*
Survival, Growth and Reproduction Toxicity Tests

1.0 INTRODUCTION

This report presents the results of toxicity tests carried out on sediment samples collected from the Gowanus Canal Superfund Site in Brooklyn, New York. Samples were provided by CH2M Hill, Chantilly, Virginia. Biological testing was based on programs and protocols developed by the U.S. Environmental Protection Agency, (U.S. EPA 2001) and ASTM (2009). Potential toxicological impacts of the samples were determined by conducting 28 day toxicity tests with the estuarine amphipod, *Leptocheirus plumulosus*. All testing, toxicological and analytical, was performed at EnviroSystems, Incorporated (ESI), Hampton, New Hampshire.

Toxicity tests expose groups of organisms to environmental samples, a laboratory control and field reference sites for a specified period to assess potential impacts on a variety of endpoints, such as survival, growth or reproduction. Analysis of variance techniques are used to determine the relative toxicity of the samples as compared to the laboratory control and/or field reference sites. Endpoints for this study were survival, growth (measured as dry weight and dry biomass), and reproduction (measured as juveniles produced per surviving amphipods and juveniles produced per surviving female amphipods).

2.0 MATERIALS AND METHODS

2.1 General Methods, Biological Evaluations

Toxicological and analytical protocols used in this program follow procedures outlined in *Standard Test Method for Measuring the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Invertebrates* (ASTM 2009), *Methods for Assessing the Chronic Toxicity of Marine and Estuarine Sediment-associated Contaminants with the Amphipod, Leptocheirus plumulosus* (U.S. EPA 2001), *Methods for Assessing the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Amphipods* (U.S. EPA 1994), and *Standard Methods for the Examination of Water and Wastewater*, 20th Edition (APHA 1998). These protocols provide standard approaches for physical and chemical analyses and for the evaluation of toxicological effects of sediments on aquatic invertebrates.

2.2 Test Species

Leptocheirus plumulosus were obtained from cultures maintained by Aquatic Research Organism, Inc. (ARO) of Hampton, New Hampshire. Amphipods used in the assay were approximately ≤24 hours old or selected from those that pass through a 600µm sieve and are retained by a 250 µm screen at the start of the test.

2.3 Test Samples

Sediment samples collected from the Gowanus Canal Superfund Site were received at ESI under chain of custody. Once received, samples were inspected to determine integrity, given unique sample numbers and logged into the laboratory sample management database. Once logged in, the samples were placed in a secure refrigerated, 2 - 4 °C, storage area. A listing of sample sites, sample collection, and receipt information is summarized in Table 4.

Sediment for the laboratory control treatment was collected from the Hampton Estuary, Hampton, New Hampshire. The area is not known to receive any direct industrial inputs and has been used as a laboratory reference sediment in the testing of marine sediments for over 25 years. Overlying seawater was obtained from the Hampton Estuary. Water from the estuary has been used for the culture and maintenance of test organisms at ESI since 1978. Seawater is obtained through a filter system located on the bottom of the estuary at a point approximately 1 mile from the open ocean. The water is classified as SA-1.

2.4 *L. plumulosus* 28 Day Survival, Growth and Reproduction Toxicity Tests

The 28 day amphipod sediment tests were conducted according to the methods provided in ASTM (2009) and US EPA (2001). Endpoints measured at the completion of the assay were survival, growth and reproduction. Growth was measured as dry weight and dry biomass. Reproduction was measured as juvenile production per surviving amphipod and juvenile production per surviving female amphipod.

Prior to testing samples, the salinity of the pore water was measured in order to determine the appropriate salinity for the overlying water to be used during the test. Then the samples were press sieved through a 2-mm stainless steel screen to remove large stones, sticks, roots, man-made material and any indigenous organisms. Once sieved, the sediment was homogenized and placed in test chambers. Overlying water was added immediately and then the chambers were allowed to stabilize. During this period, the chambers received one volume addition daily and the pore water was measured for ammonia. Once the pore water ammonia levels were acceptable, the assay was allowed to proceed.

Test vessels were 1000 mL glass beakers containing 175 mL of sediment and approximately 725 mL of overlying water. Test vessels were drilled at a consistent height, approximately 3 cm below the lip, and the drilled hole covered with Nitex® screen to facilitate water exchange without the loss of test organisms. Vessels were maintained in a water bath during the test. Depth of the water in the bath was set below the drain hole in the test vessel to eliminate flow of water from the bath into the test vessel. The water bath was maintained in a limited access, temperature controlled room. Temperatures in the room and water bath were independently set at a temperature of 25°C. Temperature was recorded on an hourly frequency using a temperature logger placed in a surrogate vessel. The photoperiod in the test chamber was set at 16:8 hour light:dark. Lighting was supplied by cool white florescent bulbs.

A total of 20 amphipods were randomly selected from the pool of organisms and added to each treatment. Each treatment group included five replicates and a surrogate test chamber that was used to obtain water qualities during the assay without disturbing the test animals. The surrogate chamber was treated the same as actual test chambers with the addition of animals and food, but was not used to determine endpoint data. Organisms were added once the pore water ammonia levels had reached acceptable levels.

Each day during the test, chambers received approximately 1 volume addition daily of seawater having similar salinity and temperature. Water temperature was maintained at 25±2°C, and the salinity was established at 20±3 ‰. Water exchanges were facilitated by use of a distribution system designed to provide equal, regulated, flow to each chamber. The system was activated manually by the addition of water during the test. Salinity, pH, dissolved oxygen, and temperature were measured daily in a surrogate chamber for each treatment. Test chambers were aerated in order to maintain dissolved oxygen levels at ≥60% saturation. Water quality measurements were completed prior to overlying water renewals. Pore water and overlying water ammonia concentrations were measured on days 0, 7, 14, 21 and 28.

Test chambers were observed daily and any organisms found floating on the surface were noted on the data sheets. Dead amphipods were removed from the test chambers and live amphipods were countersunk. Organisms were fed three times weekly with a mixture of Tetramin® flake fish food, dried alfalfa leaves, wheat grass powder and shrimp maturation feed. Each vessel was fed 20 mg of the mixture during the first 14 days of the assay and 40 mg during the last 14 days.

After 28 days exposure, the organisms were recovered from the sediments. Each test chamber was gently swirled to loosen the sediments and the test material was dumped into stacked 8" stainless steel sieves with 750 and 350 µm mesh screens. The sediments were washed through the sieve using water and material

left on the screen was sorted to recover all adults and juveniles. This process was continued until the entire sample was evaluated. Adult organisms were differentiated from juveniles based on a visual inspection of size. Juvenile *L. plumulosus* were discarded once they were counted. Adult *L. plumulosus* were preserved with formalin solution and sexed. Adults were then placed on tared weighing pans and dried overnight at 104°C to obtain dry weight to the nearest 0.01 mg. The mean weight of surviving adult organisms was determined to assess growth.

2.5 Statistical Analysis

Survival, growth and reproduction data were analyzed using CETIS® software to determine significant differences between the test sediments and the associated reference sediments, as well as the laboratory control. Data sets were evaluated to determine normality of distribution and homogeneity of sample variance. Data sets were subsequently evaluated using the appropriate parametric or non-parametric Analysis of Variance (ANOVA) statistic. Statistical comparisons were made for the following endpoints: survival, dry weight, dry biomass, juvenile production per surviving amphipod and juvenile production per surviving female amphipod. Pair-wise comparisons were made using the appropriate statistical evaluation. Statistical difference was evaluated at α=0.05.

2.6 Reference Toxicant Evaluation

As part of the laboratory quality control program, reference toxicant evaluations are conducted by ESI on a regular basis for each test species. These results provide relative health and response data while allowing for comparison with historic data sets. Results are summarized in Table 2.

2.7 Protocol Deviations

Review of data collected during this assay documented these protocol deviations.

First, there were two replicates that had 21 animals added to test vessels at the assay start.

The second protocol deviation relates to temperature monitoring during the assay. Due to a mechanical failure of the data logger assigned to the assay, the hourly temperature record was not able to be recovered. According to ESI's SOP and the method described in the ASTM (2009), temperature should be monitored hourly during the assay. Since this is described as a "should" statement and not a "must" statement, the data remains valid. Additionally all daily temperature observations during the assay were within acceptance limits.

The final protocol deviation relates to the salinity maintained during the assay. In one instance the salinity was greater than the limit specified by the protocol, which states that the daily limits are 20±3 ‰ with an overall 28 day mean of 20±2 ‰. On Day 5 the laboratory control beaker had a salinity of 23.72‰. All other recorded salinity measurements were within acceptance limits. This was most likely the result of evaporation since this beaker was closest to an air vent located in the incubator. The observed salinities are within the natural limits for this species and this deviation should not have impacted the outcome of the assay.

It is the opinion of ESI's study director that these deviations did not adversely affect the outcome of the assay.

Table 1. Sample Collection and Receipt Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Sample ID	Receipt Code	Sediment Designation	Sample Number	Sample Collected		Sample Received	
				Date	Time	Date	Time
GC-SD303-0.0-0.5	19830-001	Test	006	06/17/10	1425	06/19/10	1300
GC-SD307A-0.0-0.5	19830-002	Test	007	06/17/10	1650	06/19/10	1300
GC-SD326-0.0-0.5	19830-003	Reference	001	06/17/10	1338	06/19/10	1300
GC-SD309-0.0-0.5	19830-004	Test	008	06/18/10	1015	06/19/10	1300
GC-SD313-0.0-0.5	19830-005	Test	009	06/18/10	1030	06/19/10	1300
GC-SD314-0.0-0.5	19830-006	Test	010	06/18/10	1315	06/19/10	1300
GC-SD315-0.0-0.5	19830-007	Test	011	06/18/10	1240	06/19/10	1300
GC-SD328-0.0-0.5	19830-008	Reference	002	06/18/10	0948	06/19/10	1300
GC-SD330-0.0-0.5	19830-009	Reference	003	06/18/10	1252	06/19/10	1300
GC-SD333-0.0-0.5	19830-010	Reference	004	06/18/10	1121	06/19/10	1300
GC-SD307B-0.0-0.5	19830-011	Test	012	06/18/10	1555	06/19/10	1300
GC-SD329-0.0-0.5	19830-012	Reference	005	06/18/10	1516	06/19/10	1300
GC-SD324-0.0-0.5	19830-013	Test	013	06/21/10	1250	06/22/10	1500
GC-SD321-0.0-0.5	19830-014	Test	014	06/21/10	1405	06/22/10	1500
						06/23/10	0930
GC-SD319-0.0-0.5	19830-015	Test	015	06/22/10	1040	06/23/10	0930
GC-SD318-0.0-0.5	19830-016	Test	016	06/22/10	1435	06/23/10	0930
GC-SD310-0.0-0.5	19830-017	Test	017	06/24/10	0950	06/25/10	0930

Table 2. Reference Toxicant Evaluation. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Date	Endpoint		Value	Historic Mean/ Central Tendency	Acceptable Range	Reference Toxicant
Leptocheirus plumulosus						
10/20/10	Survival	LC-50	0.59	1.16	0.0 - 2.79	Cadmium (mg/L)

3.0 RESULTS AND DISCUSSION

3.1 Laboratory Control and Project Reference Site Performance

Review of the laboratory control data indicated that amphipod performance met all of the minimum acceptability criteria specified by protocol (ASTM, U.S. EPA). Mean control survival was 81.25% with an inter-replicate survival range of 70 to 100%. The coefficient of variation (CV) was computed to be 14.62%. At the end of the assay, the mean dry weight of surviving amphipods was 1.292 mg/organism. The mean dry weight of 80 randomly selected amphipods at the start of the assay was 0.098 mg/organism. The overall mean juvenile production was calculated to be 2.21 juveniles/amphipod. Minimum acceptable performance for the laboratory control is specified as 80% survival on day 28, with no individual replicate having less than 60% survival, and organisms must show some evidence of growth and reproduction.

Mean temperature collected during daily observations was 24.96°C, with a range of 23.03 to 26.77°C. Acceptable criteria are a mean temperature value of 25±1°C with maximum temporary fluctuations of 25±3°C. Protocol specified mean salinity values of 20±1‰ with temporary fluctuations of 20±3‰ and daily water quality observations demonstrated a salinity range of 18.05 to 23.72‰ with a mean value of 20.17‰.

Table 3. Summary of Acceptable Endpoints and Measurements. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Endpoint / Measurement	Protocol Criteria		Study 20201	Protocol Met
Survival	lab mean ≥ 80% and no replicates <60%	Mean Survival % Minimum Survival %	81.25% 70.00%	Yes Yes
Growth	Measured Growth	start dry wt. (mg) end dry wt. (mg)	0.098 1.292	Yes Yes
Reproduction	Juvenile Production	Overall Mean Reproduction	2.21	Yes
Temperature	Mean: 25 ±1°C Minimum: 22°C Maximum: 28°C	daily daily daily	24.96 23.03 26.77	Yes Yes Yes
Salinity	Mean: 20 ±1‰ Minimum: 17‰ Maximum: 23‰	Mean Salinity Minimum Salinity Maximum Salinity	20.17 18.05 23.72	Yes Yes No*

* For a discussion of the salinity deviation see Section 2.7 Protocol Deviations.

Table 4. Summary of Project Reference Site Performance. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Reference Site	Sample Number	Mean Survival (%)	Mean Dry Weight (mg)	Mean Dry Biomass (mg)	Mean Juvenile Production per Surviving Amphipod	Mean Juvenile Production per Surviving Female
GC-SD326-0.0-0.5	001	70.63%	0.668	0.475	0.27	0.51
GC-SD328-0.0-0.5	002	75.00%	1.011	0.797	1.81	3.56
GC-SD330-0.0-0.5	003	91.88%	1.193	1.096	2.69	5.24
GC-SD333-0.0-0.5	004	76.87%	0.850	0.673	1.45	2.45
GC-SD329-0.0-0.5	005	90.62%	0.877	0.791	1.25	2.12

3.2 Summary

This program utilized protocols developed by the U.S. EPA and ASTM to assess the potential toxicological impacts that exposure to sediments from the Gowanus Canal Superfund Site would have on marine invertebrates. Table 5 provides a summary of sample sites that demonstrated a negative effect, based on the finding of statistically significant reduction in an endpoint as compared to the laboratory control or reference site. Tables 6 through 10 provide summaries of assay endpoints and detailed statistical results for each sample location. Laboratory bench sheets, detailed summaries of survival, dry weights and associated statistical support data are included in Appendix A.

Table 5. Summary of Significant Endpoints. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

		Laboratory Control 19830-000					GC-SD326 19830-003					GC-SD328 19830-008					GC-SD330 19830-009					GC-SD333 19830-010					GC-SD329 19830-012				
		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving	
Field ID	Receipt Code		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀
GC-SD326-0.0-0.5	19830-003		X	X	X	X																								
GC-SD328-0.0-0.5	19830-008		X																											
GC-SD330-0.0-0.5	19830-009																													
GC-SD333-0.0-0.5	19830-010		X	X		X											X	X	X		X									
GC-SD329-0.0-0.5	19830-012		X	X	X	X												X	X	X	X									
GC-SD303-0.0-0.5	19830-001		X		X	X									X	X	X		X	X	X				X					
GC-SD307A-0.0-0.5	19830-002		X	X	X	X							X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X
GC-SD309-0.0-0.5	19830-004		X	X	X	X							X		X	X		X	X	X	X				X	X					X
GC-SD313-0.0-0.5	19830-005	X	X	X			X		X			X		X			X	X	X			X		X			X	X	X		
GC-SD314-0.0-0.5	19830-006	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA
GC-SD315-0.0-0.5	19830-007	X	X	X	NA	NA	X	X	X	X	X	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA
GC-SD307B-0.0-0.5	19830-011		X	X	X	X											X	X	X	X	X						X				
GC-SD324-0.0-0.5	19830-013		X	X	X	X							X	X	X	X		X	X	X	X				X	X				X	X
GC-SD321-0.0-0.5	19830-014		X	X	X	X							X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
GC-SD319-0.0-0.5	19830-015	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GC-SD318-0.0-0.5	19830-016	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GC-SD310-0.0-0.5	19830-017	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NA - Not Applicable for statistical analysis.

4.0 LITERATURE CITED

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ASTM. 2009. *Standard Test Method for Measuring the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Invertebrates*. Method E 1367-03, re-approved 2008. ASTM Annual Book of Standards, Volume 11.06.

U.S. EPA. 1994. *Methods for Assessing the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Amphipods*. EPA 600/R-94/025.

U.S. EPA. 2001. *Methods for Assessing the Chronic Toxicity of Marine and Estuarine Sediment- associated Contaminants with the Amphipod, Leptocheirus plumulosus.* EPA 600/R-01/020.

Table 6. *L. plumulosus* Day 28 Survival Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Day 28 Survival Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	81.25%	70.0%	100.0%	14.62%
GC-SD326-0.0-0.5	19830-003	8	70.63%	0.0%	95.0%	44.69%
GC-SD328-0.0-0.5	19830-008	8	75.00%	15.0%	100.0%	38.05%
GC-SD330-0.0-0.5	19830-009	8	91.88%	80.0%	100.0%	7.09%
GC-SD333-0.0-0.5	19830-010	8	76.87%	35.0%	100.0%	25.53%
GC-SD329-0.0-0.5	19830-012	8	90.62%	70.0%	100.0%	11.21%
GC-SD303-0.0-0.5	19830-001	8	81.25%	60.0%	95.0%	16.03%
GC-SD307A-0.0-0.5	19830-002	8	79.38%	70.0%	90.0%	10.34%
GC-SD309-0.0-0.5	19830-004	8	86.25%	75.0%	100.0%	10.62%
GC-SD313-0.0-0.5	19830-005	8	0.63%	0.0%	5.0%	282.80%
GC-SD314-0.0-0.5	19830-006	8	0.00%	0.0%	0.0%	0.00%
GC-SD315-0.0-0.5	19830-007	8	0.00%	0.0%	0.0%	0.00%
GC-SD307B-0.0-0.5	19830-011	8	70.00%	5.0%	100.0%	41.82%
GC-SD324-0.0-0.5	19830-013	8	85.63%	65.0%	95.0%	11.44%
GC-SD321-0.0-0.5	19830-014	8	68.75%	15.0%	90.0%	33.83%
GC-SD319-0.0-0.5	19830-015	8	53.75%	25.0%	85.0%	36.11%
GC-SD318-0.0-0.5	19830-016	8	35.62%	5.0%	55.0%	46.51%
GC-SD310-0.0-0.5	19830-017	8	27.50%	0.0%	65.0%	96.70%

Day 28 Survival Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	No[a]	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No[a]	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No[a]	No[a]	-	-	-
GC-SD333-0.0-0.5	19830-010	No	No[a]	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	No	No[a]	No[a]	No	No	-
GC-SD303-0.0-0.5	19830-001	No	No[a]	No[a]	Yes	No	No
GC-SD307A-0.0-0.5	19830-002	No	No[a]	No[a]	Yes	No	Yes
GC-SD309-0.0-0.5	19830-004	No	No[a]	No[a]	No	No	No
GC-SD313-0.0-0.5	19830-005	Yes	Yes[a]	Yes[a]	Yes	Yes	Yes[a]
GC-SD314-0.0-0.5	19830-006	Yes	Yes[a]	Yes	Yes	Yes[a]	Yes[a]
GC-SD315-0.0-0.5	19830-007	Yes	Yes[a]	Yes[a]	Yes	Yes[a]	Yes[a]
GC-SD307B-0.0-0.5	19830-011	No	No	No	Yes	[a]No	Yes No*
GC-SD324-0.0-0.5	19830-013	No	No[a]	No[a]	No	No	No
GC-SD321-0.0-0.5	19830-014	No[a]	No[a]	No	Yes[a]	No	Yes[a]
GC-SD319-0.0-0.5	19830-015	Yes	No Yes*	Yes	Yes	Yes	Yes
GC-SD318-0.0-0.5	19830-016	Yes	Yes[a]	Yes	Yes	Yes	Yes
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes	Yes	Yes	Yes

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 7. *L. plumulosus* Mean Dry Weight Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Mean Dry Weight (mg) Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	1.292	0.807	1.603	19.79%
GC-SD326-0.0-0.5	19830-003	8	0.668	0.519	0.894	20.16%
GC-SD328-0.0-0.5	19830-008	8	1.011	0.457	1.446	30.67%
GC-SD330-0.0-0.5	19830-009	8	1.193	0.907	1.403	16.27%
GC-SD333-0.0-0.5	19830-010	8	0.850	0.536	1.169	26.12%
GC-SD329-0.0-0.5	19830-012	8	0.877	0.617	1.186	20.51%
GC-SD303-0.0-0.5	19830-001	8	1.072	0.674	1.357	20.93%
GC-SD307A-0.0-0.5	19830-002	8	0.725	0.439	1.128	28.78%
GC-SD309-0.0-0.5	19830-004	8	0.746	0.477	1.196	31.75%
GC-SD313-0.0-0.5	19830-005	8	0.440	0.440	0.440	0.00%
GC-SD314-0.0-0.5	19830-006	8	NS	NS	NS	NS
GC-SD315-0.0-0.5	19830-007	8	NS	NS	NS	NS
GC-SD307B-0.0-0.5	19830-011	8	0.861	0.360	1.139	27.67%
GC-SD324-0.0-0.5	19830-013	8	0.768	0.572	1.014	20.34%
GC-SD321-0.0-0.5	19830-014	8	0.583	0.353	0.840	26.18%
GC-SD319-0.0-0.5	19830-015	8	0.316	0.216	0.460	26.29%
GC-SD318-0.0-0.5	19830-016	8	0.297	0.168	0.450	36.35%
GC-SD310-0.0-0.5	19830-017	8	0.414	0.207	0.701	44.16%

Mean Dry Weight Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	Yes	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No	-	-	-
GC-SD333-0.0-0.5	19830-010	Yes	No	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No	No	Yes	No	-
GC-SD303-0.0-0.5	19830-001	Yes	No	No	No	No	No
GC-SD307A-0.0-0.5	19830-002	Yes	No	Yes	Yes	No	No
GC-SD309-0.0-0.5	19830-004	Yes	No	Yes	Yes	No	No
GC-SD313-0.0-0.5	19830-005	Yes	No	No	Yes	No	Yes
GC-SD314-0.0-0.5	19830-006	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD307B-0.0-0.5	19830-011	Yes	No[a]	No	Yes	No	No
GC-SD324-0.0-0.5	19830-013	Yes	No	Yes	Yes	No	No
GC-SD321-0.0-0.5	19830-014	Yes	No	Yes	Yes	Yes	Yes
GC-SD319-0.0-0.5	19830-015	[a]Yes	Yes	Yes	Yes	Yes	Yes
GC-SD318-0.0-0.5	19830-016	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes	Yes	Yes	Yes

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 8. *L. plumulosus* Day 28 Mean Dry Biomass Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Mean Dry Biomass (mg) Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	1.058	0.565	1.362	26.89%
GC-SD326-0.0-0.5	19830-003	8	0.475	0.000	0.742	50.68%
GC-SD328-0.0-0.5	19830-008	8	0.797	0.069	1.157	45.36%
GC-SD330-0.0-0.5	19830-009	8	1.096	0.726	1.332	17.12%
GC-SD333-0.0-0.5	19830-010	8	0.673	0.188	0.932	38.69%
GC-SD329-0.0-0.5	19830-012	8	0.791	0.587	1.126	21.71%
GC-SD303-0.0-0.5	19830-001	8	0.886	0.472	1.171	30.51%
GC-SD307A-0.0-0.5	19830-002	8	0.576	0.330	0.790	28.79%
GC-SD309-0.0-0.5	19830-004	8	0.643	0.358	0.957	32.21%
GC-SD313-0.0-0.5	19830-005	8	0.003	0.000	0.022	282.80%
GC-SD314-0.0-0.5	19830-006	8	0.000	0.000	0.000	0.00%
GC-SD315-0.0-0.5	19830-007	8	0.000	0.000	0.000	0.00%
GC-SD307B-0.0-0.5	19830-011	8	0.645	0.018	1.018	44.44%
GC-SD324-0.0-0.5	19830-013	8	0.666	0.398	0.963	28.79%
GC-SD321-0.0-0.5	19830-014	8	0.418	0.053	0.630	43.02%
GC-SD319-0.0-0.5	19830-015	8	0.175	0.063	0.303	48.13%
GC-SD318-0.0-0.5	19830-016	8	0.105	0.023	0.202	62.09%
GC-SD310-0.0-0.5	19830-017	8	0.130	0.000	0.386	121.20%

Mean Dry Biomass Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No[a]	-	-	-
GC-SD333-0.0-0.5	19830-010	Yes	No	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No	No[a]	Yes	No	-
GC-SD303-0.0-0.5	19830-001	No	No	No	Yes	No	No
GC-SD307A-0.0-0.5	19830-002	Yes	No	No Yes*	Yes	No	Yes
GC-SD309-0.0-0.5	19830-004	Yes	No	No	Yes	No	No
GC-SD313-0.0-0.5	19830-005	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes[a]
GC-SD314-0.0-0.5	19830-006	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes[a]
GC-SD315-0.0-0.5	19830-007	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes[a]
GC-SD307B-0.0-0.5	19830-011	Yes	No	No	Yes[a]	No	No[a]
GC-SD324-0.0-0.5	19830-013	Yes	No	No Yes*	Yes	No	No
GC-SD321-0.0-0.5	19830-014	Yes	No	Yes[a]	Yes	Yes	Yes
GC-SD319-0.0-0.5	19830-015	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes
GC-SD318-0.0-0.5	19830-016	Yes	Yes[a]	Yes	Yes[a]	Yes[a]	Yes[a]
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes[a]	Yes	Yes	Yes

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 9. *L. plumulosus* Juveniles per Surviving Amphipod Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Juveniles per Surviving Amphipod Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	2.21	0.29	4.14	54.02%
GC-SD326-0.0-0.5	19830-003	8	0.27	0.00	0.64	89.78%
GC-SD328-0.0-0.5	19830-008	8	1.81	0.00	3.24	76.91%
GC-SD330-0.0-0.5	19830-009	8	2.69	0.38	5.84	69.35%
GC-SD333-0.0-0.5	19830-010	8	1.45	0.57	2.61	55.67%
GC-SD329-0.0-0.5	19830-012	8	1.25	0.26	3.36	76.72%
GC-SD303-0.0-0.5	19830-001	8	0.81	0.00	1.74	71.10%
GC-SD307A-0.0-0.5	19830-002	8	0.52	0.00	1.36	89.84%
GC-SD309-0.0-0.5	19830-004	8	0.61	0.13	1.31	66.17%
GC-SD313-0.0-0.5	19830-005	8	0.00	0.00	0.00	0.00%
GC-SD314-0.0-0.5	19830-006	8	NS	NS	NS	NS
GC-SD315-0.0-0.5	19830-007	8	NS	NS	NS	NS
GC-SD307B-0.0-0.5	19830-011	8	1.27	0.00	2.00	46.60%
GC-SD324-0.0-0.5	19830-013	8	0.51	0.00	1.11	79.54%
GC-SD321-0.0-0.5	19830-014	8	0.33	0.00	0.87	98.63%
GC-SD319-0.0-0.5	19830-015	8	0.00	0.00	0.00	0.00%
GC-SD318-0.0-0.5	19830-016	8	0.00	0.00	0.00	0.00%
GC-SD310-0.0-0.5	19830-017	8	0.00	0.00	0.00	0.00%

Juveniles per Surviving Amphipod Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No	-	-	-
GC-SD333-0.0-0.5	19830-010	No	No	No	No	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No[a]	No	Yes	No	-
GC-SD303-0.0-0.5	19830-001	Yes	No	Yes	Yes	Yes	No
GC-SD307A-0.0-0.5	19830-002	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD309-0.0-0.5	19830-004	Yes	No	Yes	Yes	Yes	No[a]
GC-SD313-0.0-0.5	19830-005	No	No	No	No	No	No[a]
GC-SD314-0.0-0.5	19830-006	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD307B-0.0-0.5	19830-011	Yes	No[a]	No	Yes	No	No[a]
GC-SD324-0.0-0.5	19830-013	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD321-0.0-0.5	19830-014	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD319-0.0-0.5	19830-015	Yes	Yes	Yes	Yes	Yes	Yes[a]
GC-SD318-0.0-0.5	19830-016	Yes	Yes	Yes	Yes	Yes	Yes[a]
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes	Yes	Yes	Yes[a]

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 10. ***L. plumulosus*** **Juveniles Produced per Female Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.**

Juveniles Produced per Female Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	4.86	0.57	10.00	58.92%
GC-SD326-0.0-0.5	19830-003	8	0.51	0.00	1.50	103.20%
GC-SD328-0.0-0.5	19830-008	8	3.56	0.00	6.43	79.04%
GC-SD330-0.0-0.5	19830-009	8	5.24	0.75	11.10	72.89%
GC-SD333-0.0-0.5	19830-010	8	2.45	1.00	4.75	60.29%
GC-SD329-0.0-0.5	19830-012	8	2.12	0.42	5.22	70.57%
GC-SD303-0.0-0.5	19830-001	8	1.58	0.00	4.71	93.52%
GC-SD307A-0.0-0.5	19830-002	8	0.87	0.00	2.71	101.30%
GC-SD309-0.0-0.5	19830-004	8	0.96	0.21	1.91	61.32%
GC-SD313-0.0-0.5	19830-005	8	0.00	0.00	0.00	0.00%
GC-SD314-0.0-0.5	19830-006	8	NS	NS	NS	NS
GC-SD315-0.0-0.5	19830-007	8	NS	NS	NS	NS
GC-SD307B-0.0-0.5	19830-011	8	2.20	0.00	3.71	52.52%
GC-SD324-0.0-0.5	19830-013	8	0.88	0.00	1.91	82.28%
GC-SD321-0.0-0.5	19830-014	8	0.47	0.00	1.44	108.40%
GC-SD319-0.0-0.5	19830-015	8	0.00	0.00	0.00	0.00%
GC-SD318-0.0-0.5	19830-016	8	0.00	0.00	0.00	0.00%
GC-SD310-0.0-0.5	19830-017	8	0.00	0.00	0.00	0.00%

Juveniles Produced per Female Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No	-	-	-
GC-SD333-0.0-0.5	19830-010	Yes	No	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No	No	Yes	No	-
GC-SD303-0.0-0.5	19830-001	Yes	No[a]	Yes	Yes	No	No
GC-SD307A-0.0-0.5	19830-002	Yes	No[a]	Yes	Yes	Yes	Yes[a]
GC-SD309-0.0-0.5	19830-004	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD313-0.0-0.5	19830-005	No	No	No	No	No	No
GC-SD314-0.0-0.5	19830-006	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD307B-0.0-0.5	19830-011	Yes	No	No	Yes	No	No
GC-SD324-0.0-0.5	19830-013	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD321-0.0-0.5	19830-014	Yes[a]	No	Yes	Yes	Yes	Yes[a]
GC-SD319-0.0-0.5	19830-015	Yes[a]	Yes[a]	Yes	Yes	Yes	Yes
GC-SD318-0.0-0.5	19830-016	Yes[a]	Yes[a]	Yes	Yes	Yes	Yes[a]
GC-SD310-0.0-0.5	19830-017	Yes	Yes[a]	Yes	Yes	Yes	Yes[a]

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 11. Summary of Water Qualities. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Sample ID	Receipt Code	Sample Number	Day	Overlying Water			Pore Water	
				Salinity (‰)	Ammonia (mg/L)	Unionized Ammonia (mg/L)	Ammonia (mg/L)	Unionized Ammonia (mg/L)
Laboratory Control	19830-000	000	0	20.08	<0.1	<0.002	9.4	0.0150
GC-SD326-0.0-0.5	19830-003	001	0	19.25	<0.1	<0.002	0.52	0.0015
GC-SD328-0.0-0.5	19830-008	002	0	19.07	<0.1	<0.003	0.7	0.0035
GC-SD330-0.0-0.5	19830-009	003	0	19.03	<0.1	<0.003	8.4	0.0532
GC-SD333-0.0-0.5	19830-010	004	0	18.05	<0.1	<0.004	0.24	0.0005
GC-SD329-0.0-0.5	19830-012	005	0	20.29	<0.1	<0.004	0.26	0.0010
GC-SD303-0.0-0.5	19830-001	006	0	20.04	<0.1	<0.003	2.3	0.0205
GC-SD307A-0.0-0.5	19830-002	007	0	20.00	<0.1	<0.003	4.3	0.0552
GC-SD309-0.0-0.5	19830-004	008	0	19.57	<0.1	<0.003	<0.1	<0.0005
GC-SD313-0.0-0.5	19830-005	009	0	18.35	<0.1	<0.003	<0.1	<0.0012
GC-SD314-0.0-0.5	19830-006	010	0	19.09	<0.1	<0.002	0.17	0.0027
GC-SD315-0.0-0.5	19830-007	011	0	19.07	<0.1	<0.001	<0.1	<0.0011
GC-SD307B-0.0-0.5	19830-011	012	0	19.10	<0.1	<0.001	4	0.0845
GC-SD324-0.0-0.5	19830-013	013	0	19.23	<0.1	<0.002	<0.1	<0.0003
GC-SD321-0.0-0.5	19830-014	014	0	18.95	<0.1	<0.002	1.3	0.0069
GC-SD319-0.0-0.5	19830-015	015	0	19.05	<0.1	<0.003	0.41	0.0049
GC-SD318-0.0-0.5	19830-016	016	0	18.34	<0.1	<0.003	0.57	0.0086
GC-SD310-0.0-0.5	19830-017	017	0	18.70	<0.1	<0.003	0.52	0.0039
Laboratory Control	19830-000	000	7	22.61	<0.1	<0.002	3.5	0.0074
GC-SD326-0.0-0.5	19830-003	001	7	22.11	<0.1	<0.002	0.51	0.0028
GC-SD328-0.0-0.5	19830-008	002	7	21.33	<0.1	<0.004	0.15	0.0018
GC-SD330-0.0-0.5	19830-009	003	7	20.78	0.22	0.014	4.3	0.0334
GC-SD333-0.0-0.5	19830-010	004	7	20.41	<0.1	<0.003	<0.1	<0.0001
GC-SD329-0.0-0.5	19830-012	005	7	21.31	<0.1	<0.003	<0.1	<0.0003
GC-SD303-0.0-0.5	19830-001	006	7	20.92	<0.1	<0.003	1.1	0.0075
GC-SD307A-0.0-0.5	19830-002	007	7	20.58	<0.1	<0.003	<0.1	<0.0007
GC-SD309-0.0-0.5	19830-004	008	7	20.8	<0.1	<0.003	<0.1	<0.0004
GC-SD313-0.0-0.5	19830-005	009	7	20.27	<0.1	<0.004	<0.1	<0.0007
GC-SD314-0.0-0.5	19830-006	010	7	20.42	0.19	0.007	0.29	0.0041
GC-SD315-0.0-0.5	19830-007	011	7	20.3	<0.1	<0.001	0.11	0.0020
GC-SD307B-0.0-0.5	19830-011	012	7	20.38	<0.1	<0.002	0.93	0.0137
GC-SD324-0.0-0.5	19830-013	013	7	20.3	<0.1	<0.002	0.11	0.0011
GC-SD321-0.0-0.5	19830-014	014	7	20.22	<0.1	<0.003	0.61	0.0040
GC-SD319-0.0-0.5	19830-015	015	7	20.34	<0.1	<0.003	0.79	0.0089
GC-SD318-0.0-0.5	19830-016	016	7	20.17	<0.1	<0.003	0.35	0.0048
GC-SD310-0.0-0.5	19830-017	017	7	20.17	<0.1	<0.003	<0.1	<0.0005
Laboratory Control	19830-000	000	14	22.96	<0.1	<0.002	2.7	0.0073
GC-SD326-0.0-0.5	19830-003	001	14	22.29	<0.1	<0.003	0.38	0.0012
GC-SD328-0.0-0.5	19830-008	002	14	21.85	<0.1	<0.003	0.64	0.0067
GC-SD330-0.0-0.5	19830-009	003	14	21.49	<0.1	<0.003	4.2	0.0272
GC-SD333-0.0-0.5	19830-010	004	14	21.11	<0.1	<0.003	0.16	0.0008
GC-SD329-0.0-0.5	19830-012	005	14	21.35	<0.1	<0.003	<0.1	<0.0007
GC-SD303-0.0-0.5	19830-001	006	14	21.09	<0.1	<0.003	0.93	0.0071
GC-SD307A-0.0-0.5	19830-002	007	14	20.8	<0.1	<0.002	0.27	0.0029
GC-SD309-0.0-0.5	19830-004	008	14	20.58	<0.1	<0.003	<0.1	<0.0003

Sample ID	Receipt Code	Sample Number	Day	Overlying Water			Pore Water	
				Salinity (‰)	Ammonia (mg/L)	Unionized Ammonia (mg/L)	Ammonia (mg/L)	Unionized Ammonia (mg/L)
GC-SD313-0.0-0.5	19830-005	009	14	20.46	<0.1	<0.003	<0.1	<0.0006
GC-SD314-0.0-0.5	19830-006	010	14	20.65	<0.1	<0.002	<0.1	<0.0006
GC-SD315-0.0-0.5	19830-007	011	14	20.45	<0.1	<0.002	<0.1	<0.0007
GC-SD307B-0.0-0.5	19830-011	012	14	20.45	<0.1	<0.002	<0.1	<0.0008
GC-SD324-0.0-0.5	19830-013	013	14	20.45	<0.1	<0.003	<0.1	<0.0008
GC-SD321-0.0-0.5	19830-014	014	14	20.38	<0.1	<0.003	0.48	0.0036
GC-SD319-0.0-0.5	19830-015	015	14	20.38	<0.1	<0.003	0.77	0.0113
GC-SD318-0.0-0.5	19830-016	016	14	20.11	<0.1	<0.004	0.38	0.0047
GC-SD310-0.0-0.5	19830-017	017	14	20.16	<0.1	<0.003	0.42	0.0031
Laboratory Control	19830-000	000	21	22.36	<0.1	<0.002	2.3	0.0076
GC-SD326-0.0-0.5	19830-003	001	21	22.08	<0.1	<0.002	0.34	0.0011
GC-SD328-0.0-0.5	19830-008	002	21	21.52	<0.1	<0.003	<0.1	<0.0005
GC-SD330-0.0-0.5	19830-009	003	21	21.40	<0.1	<0.002	4.3	0.0311
GC-SD333-0.0-0.5	19830-010	004	21	20.56	<0.1	<0.002	<0.1	<0.0003
GC-SD329-0.0-0.5	19830-012	005	21	21.55	<0.1	<0.001	<0.1	<0.0009
GC-SD303-0.0-0.5	19830-001	006	21	20.88	<0.1	<0.003	0.58	0.0046
GC-SD307A-0.0-0.5	19830-002	007	21	20.65	<0.1	<0.002	<0.1	<0.0005
GC-SD309-0.0-0.5	19830-004	008	21	20.31	<0.1	<0.002	0.67	0.0021
GC-SD313-0.0-0.5	19830-005	009	21	19.99	<0.1	<0.002	<0.1	<0.0005
GC-SD314-0.0-0.5	19830-006	010	21	19.95	<0.1	<0.002	<0.1	<0.0007
GC-SD315-0.0-0.5	19830-007	011	21	19.88	<0.1	<0.002	<0.1	<0.0008
GC-SD307B-0.0-0.5	19830-011	012	21	19.87	<0.1	<0.002	0.46	0.0050
GC-SD324-0.0-0.5	19830-013	013	21	19.93	<0.1	<0.002	<0.1	<0.0005
GC-SD321-0.0-0.5	19830-014	014	21	19.72	<0.1	<0.002	0.54	0.0036
GC-SD319-0.0-0.5	19830-015	015	21	20.08	<0.1	<0.002	0.73	0.0065
GC-SD318-0.0-0.5	19830-016	016	21	20.08	<0.1	<0.002	0.14	0.0008
GC-SD310-0.0-0.5	19830-017	017	21	20.13	<0.1	<0.002	0.47	0.0033
Laboratory Control	19830-000	000	28	21.98	<0.1	<0.001	3.5	0.0127
GC-SD326-0.0-0.5	19830-003	001	28	21.72	<0.1	<0.002	0.23	0.0012
GC-SD328-0.0-0.5	19830-008	002	28	21.52	<0.1	<0.002	0.1	0.0007
GC-SD330-0.0-0.5	19830-009	003	28	21.39	<0.1	<0.002	4.4	0.0247
GC-SD333-0.0-0.5	19830-010	004	28	20.47	<0.1	<0.002	0.2	0.0015
GC-SD329-0.0-0.5	19830-012	005	28	20.67	<0.1	<0.002	0.8	0.0062
GC-SD303-0.0-0.5	19830-001	006	28	20.12	<0.1	<0.002	0.79	0.0053
GC-SD307A-0.0-0.5	19830-002	007	28	19.96	<0.1	<0.002	<0.1	<0.0004
GC-SD309-0.0-0.5	19830-004	008	28	19.84	<0.1	<0.002	0.8	0.0032
GC-SD313-0.0-0.5	19830-005	009	28	19.31	<0.1	<0.002	<0.1	<0.0005
GC-SD314-0.0-0.5	19830-006	010	28	19.13	<0.1	<0.002	<0.1	<0.0006
GC-SD315-0.0-0.5	19830-007	011	28	18.96	<0.1	<0.001	<0.1	<0.0006
GC-SD307B-0.0-0.5	19830-011	012	28	18.87	<0.1	<0.001	0.45	0.0033
GC-SD324-0.0-0.5	19830-013	013	28	19.05	<0.1	<0.002	0.18	0.0011
GC-SD321-0.0-0.5	19830-014	014	28	18.81	<0.1	<0.002	0.47	0.0032
GC-SD319-0.0-0.5	19830-015	015	28	19.49	<0.1	<0.002	0.69	0.0052
GC-SD318-0.0-0.5	19830-016	016	28	19.45	<0.1	<0.002	0.36	0.0024
GC-SD310-0.0-0.5	19830-017	017	28	19.52	<0.1	<0.002	0.27	0.0014

Additional water quality and analytical support data provided in Appendix A.

APPENDIX A
RAW DATA AND STATISTICAL SUPPORT

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Leptocheirus plumulosus 28 Day Sediment Evaluation

Study: 20201	Client: HDR Engineering, Inc.	Project: Gowanus Canal Superfund Site

Day	Date	Renew	Fed		Initial	Notes
0	10/14/10	✓	1mL	✓	AM/JTP	
1	10/15/10	✓	1mL	✓	JTP/JEB	
2	10/16/10	✓	1mL	–	AM	
3	10/17/10	✓	1mL	–	JTP	
4	10/18/10	✓	1mL	✓	JTP	
5	10/19/10	✓	1mL	–	JTP/AM	
6	10/20/10	✓	1mL	✓	JTP/AM	
7	10/21/10	✓	1mL	–	JTP	
8	10/22/10	✓	1mL	✓	JTP/AM	
9	10/23/10	✓	1mL	–	MC	
10	10.24.10	✓	1mL	–	DM/JL	
11	10/25/10	✓	1mL	✓	AM	
12	10/26/10	✓	1mL	–	AM	
13	10/27/10	✓	1mL	✓	AM/JTP	
14	10/28/10	✓	1mL	–	JTP/AM	
15	10/29/10	✓	2mL	✓	AM	
16	10/30/10	✓	2mL	–	MC	
17	10.31.10	✓	2mL	–	DM	
18	11/1/10	✓	2mL	✓	JTP/AM	
19	11/2/10	✓	2mL	–	JTP	
20	11/3/10	✓	2mL	✓	JTP	
21	11/4/10	✓	2mL	–	JTP/AM	
22	11/5/10	✓	2mL	✓	JTP/AM	
23	11/6/10	✓	2mL	–	JTP	
24	11/7/10	✓	2mL	–	AM	
25	11/8/10	✓	2mL	✓	JTP	
26	11/9/10	✓	2mL	–	JTP/AM	
27	11/10/10	✓	2mL	✓	AM/JTP	
28	11/11/10	✓	2mL	–	AM/JTP	

Pore Water collected for pH and Ammonia		
	Day 0	Initial: AM/JTP
	Day 7	Initial: JTP
	Day 14	Initial: JTP/AM
	Day 21	Initial: JTP/AM
	Day 28	Initial: AM

Feed on Monday/Wednesday/Friday	Overlying Salinity: 20ppt	Temperature: 25°C

YSI 556 MPS Sample Reading Order

Study Number: 20201

Client: HDR Engineering, Inc.

Project: Gowanus Canal Superfund Site

Reading Number	Field ID	Receipt Number	Sample Number
0	Laboratory Control	20050-000	000
1	GC-SD326-0.0-0.5	19830-003	001
2	GC-SD328-0.0-0.5	19830-008	002
3	GC-SD330-0.0-0.5	19830-009	003
4	GC-SD333-0.0-0.5	19830-010	004
5	GC-SD329-0.0-0.5	19830-012	005
6	GC-SD303-0.0-0.5	19830-001	006
7	GC-SD307A-0.0-0.5	19830-002	007
8	GC-SD309-0.0-0.5	19830-004	008
9	GC-SD313-0.0-0.5	19830-005	009
10	GC-SD314-0.0-0.5	19830-006	010
11	GC-SD315-0.0-0.5	19830-007	011
12	GC-SD307B-0.0-0.5	19830-011	012
13	GC-SD324-0.0-0.5	19830-013	013
14	GC-SD321-0.0-0.5	19830-014	014
15	GC-SD319-0.0-0.5	19830-015	015
16	GC-SD318-0.0-0.5	19830-016	016
17	GC-SD310-0.0-0.5	19830-017	017

STUDY: 20201
CLIENT: HDR Engineering, Inc.
PROJECT: Gowanus Canal
ASSAY: Leptocheirus plumulosus 28 Day Assay
TASK: Daily Overlying Water Qualities

	Temp	DO Conc	pH	SpCond	Salinity
Minimum:	23.03	6.00	7.64	29214	18.05
Mean:	24.96	6.89		32326	20.17
Maximum:	26.77	7.50	8.26	37430	23.72

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
Laboratory Control	000	00	10/14/10 11:28:16	24.29	7.24	7.78	32193	20.08
GC-SD326-0.0-0.5	001	00	10/14/10 11:28:59	24.31	7.20	7.96	30973	19.25
GC-SD328-0.0-0.5	002	00	10/14/10 11:29:12	24.19	7.36	8.05	30704	19.07
GC-SD330-0.0-0.5	003	00	10/14/10 11:31:39	23.91	7.15	8.04	30646	19.03
GC-SD333-0.0-0.5	004	00	10/14/10 11:31:56	24.24	7.21	8.21	29214	18.05
GC-SD329-0.0-0.5	005	00	10/14/10 11:32:06	24.31	7.17	8.17	32487	20.29
GC-SD303-0.0-0.5	006	00	10/14/10 11:32:19	24.29	7.28	8.05	32128	20.04
GC-SD307A-0.0-0.5	007	00	10/14/10 11:32:30	24.33	7.29	8.06	32065	20.00
GC-SD309-0.0-0.5	008	00	10/14/10 11:32:47	24.40	7.32	8.08	31447	19.57
GC-SD313-0.0-0.5	009	00	10/14/10 11:32:57	24.32	7.41	8.01	29651	18.35
GC-SD314-0.0-0.5	010	00	10/14/10 11:33:10	24.14	7.35	7.82	30736	19.09
GC-SD315-0.0-0.5	011	00	10/14/10 11:33:25	24.21	7.13	7.73	30718	19.07
GC-SD307B-0.0-0.5	012	00	10/14/10 11:33:34	24.22	7.09	7.76	30757	19.10
GC-SD324-0.0-0.5	013	00	10/14/10 11:33:43	24.22	7.08	7.84	30949	19.23
GC-SD321-0.0-0.5	014	00	10/14/10 11:33:54	24.26	7.18	7.96	30538	18.95
GC-SD319-0.0-0.5	015	00	10/14/10 11:34:06	24.32	7.15	8.09	30684	19.05
GC-SD318-0.0-0.5	016	00	10/14/10 11:34:22	24.33	7.12	8.08	29649	18.34
GC-SD310-0.0-0.5	017	00	10/14/10 11:34:32	24.32	7.05	8.06	30168	18.70
Laboratory Control	000	01	10/15/10 09:10:33	26.53	6.55	7.64	33773	21.13
GC-SD326-0.0-0.5	001	01	10/15/10 09:11:12	26.56	6.59	7.90	32935	20.55
GC-SD328-0.0-0.5	002	01	10/15/10 09:11:24	26.62	6.68	7.98	32789	20.45
GC-SD330-0.0-0.5	003	01	10/15/10 09:11:38	26.58	6.66	7.92	31939	19.87
GC-SD333-0.0-0.5	004	01	10/15/10 09:11:59	26.63	6.66	8.06	30812	19.10
GC-SD329-0.0-0.5	005	01	10/15/10 09:12:17	26.65	6.69	7.99	32433	20.21
GC-SD303-0.0-0.5	006	01	10/15/10 09:12:31	26.65	6.76	7.90	31791	19.77
GC-SD307A-0.0-0.5	007	01	10/15/10 09:12:43	26.71	6.71	7.88	31809	19.78
GC-SD309-0.0-0.5	008	01	10/15/10 09:12:58	26.77	6.72	7.96	31357	19.47
GC-SD313-0.0-0.5	009	01	10/15/10 09:13:13	26.76	6.79	7.94	30245	18.71
GC-SD314-0.0-0.5	010	01	10/15/10 09:13:26	26.70	6.64	7.82	30942	19.18
GC-SD315-0.0-0.5	011	01	10/15/10 09:13:36	26.67	6.56	7.74	30690	19.01
GC-SD307B-0.0-0.5	012	01	10/15/10 09:13:57	26.63	6.55	7.71	30894	19.15
GC-SD324-0.0-0.5	013	01	10/15/10 09:14:09	26.64	6.56	7.75	30901	19.16
GC-SD321-0.0-0.5	014	01	10/15/10 09:14:25	26.69	6.68	7.91	30690	19.01
GC-SD319-0.0-0.5	015	01	10/15/10 09:14:38	26.71	6.66	7.98	30980	19.21
GC-SD318-0.0-0.5	016	01	10/15/10 09:14:52	26.66	6.48	7.93	30507	18.89
GC-SD310-0.0-0.5	017	01	10/15/10 09:15:09	26.72	6.48	7.95	30727	19.04
Laboratory Control	000	02	10/16/10 09:54:19	25.26	6.67	7.71	34601	21.73
GC-SD326-0.0-0.5	001	02	10/16/10 09:54:48	25.25	6.46	7.84	34873	21.92
GC-SD328-0.0-0.5	002	02	10/16/10 09:55:03	25.31	6.71	8.00	34105	21.39
GC-SD330-0.0-0.5	003	02	10/16/10 09:55:15	25.24	6.73	8.02	33281	20.82

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD333-0.0-0.5	004	02	10/16/10 09:55:27	25.26	6.68	8.06	32297	20.14
GC-SD329-0.0-0.5	005	02	10/16/10 09:55:40	25.32	6.74	8.02	33286	20.82
GC-SD303-0.0-0.5	006	02	10/16/10 09:55:50	25.35	6.81	7.93	32596	20.34
GC-SD307A-0.0-0.5	007	02	10/16/10 09:56:07	25.41	6.80	7.95	32358	20.18
GC-SD309-0.0-0.5	008	02	10/16/10 09:56:22	25.46	6.83	8.02	32017	19.94
GC-SD313-0.0-0.5	009	02	10/16/10 09:56:34	25.46	6.91	8.03	31173	19.36
GC-SD314-0.0-0.5	010	02	10/16/10 09:56:51	25.37	6.78	7.83	31454	19.56
GC-SD315-0.0-0.5	011	02	10/16/10 09:57:08	25.37	6.71	7.71	31245	19.42
GC-SD307B-0.0-0.5	012	02	10/16/10 09:57:22	25.34	6.77	7.69	31356	19.49
GC-SD324-0.0-0.5	013	02	10/16/10 09:57:39	25.27	6.83	7.75	31440	19.55
GC-SD321-0.0-0.5	014	02	10/16/10 09:57:53	25.36	6.81	7.88	31147	19.35
GC-SD319-0.0-0.5	015	02	10/16/10 09:58:06	25.38	6.79	7.97	31414	19.53
GC-SD318-0.0-0.5	016	02	10/16/10 09:58:17	25.34	6.65	7.96	31051	19.28
GC-SD310-0.0-0.5	017	02	10/16/10 09:58:29	25.37	6.56	7.95	31318	19.47
Laboratory Control	000	03	10/17/10 09:20:06	25.26	6.45	7.73	36216	22.86
GC-SD326-0.0-0.5	001	03	10/17/10 09:20:36	25.32	6.38	7.97	35740	22.52
GC-SD328-0.0-0.5	002	03	10/17/10 09:20:52	25.41	6.57	8.14	34614	21.74
GC-SD330-0.0-0.5	003	03	10/17/10 09:21:10	25.34	6.49	8.11	33890	21.24
GC-SD333-0.0-0.5	004	03	10/17/10 09:21:28	25.37	6.51	8.21	33106	20.69
GC-SD329-0.0-0.5	005	03	10/17/10 09:21:46	25.44	6.66	8.13	33218	20.77
GC-SD303-0.0-0.5	006	03	10/17/10 09:22:04	25.43	6.73	7.99	32572	20.33
GC-SD307A-0.0-0.5	007	03	10/17/10 09:22:19	25.48	6.73	8.03	32268	20.12
GC-SD309-0.0-0.5	008	03	10/17/10 09:22:36	25.54	6.74	8.14	32021	19.95
GC-SD313-0.0-0.5	009	03	10/17/10 09:22:49	25.51	6.78	8.12	31297	19.45
GC-SD314-0.0-0.5	010	03	10/17/10 09:23:05	25.44	6.67	7.92	31126	19.33
GC-SD315-0.0-0.5	011	03	10/17/10 09:23:25	25.46	6.57	7.80	30957	19.22
GC-SD307B-0.0-0.5	012	03	10/17/10 09:23:45	25.42	6.58	7.81	30980	19.23
GC-SD324-0.0-0.5	013	03	10/17/10 09:24:05	25.46	6.63	7.91	31048	19.28
GC-SD321-0.0-0.5	014	03	10/17/10 09:24:21	25.49	6.69	8.06	30713	19.05
GC-SD319-0.0-0.5	015	03	10/17/10 09:24:36	25.52	6.66	8.14	31571	19.64
GC-SD318-0.0-0.5	016	03	10/17/10 09:24:51	25.51	6.48	8.03	31255	19.42
GC-SD310-0.0-0.5	017	03	10/17/10 09:25:04	25.54	6.32	8.05	31470	19.57
Laboratory Control	000	04	10/18/10 08:35:33	24.95	6.89	7.93	34270	21.51
GC-SD326-0.0-0.5	001	04	10/18/10 08:36:07	25.21	6.69	8.06	33129	20.71
GC-SD328-0.0-0.5	002	04	10/18/10 08:36:23	25.31	6.83	8.18	32764	20.46
GC-SD330-0.0-0.5	003	04	10/18/10 08:36:36	25.29	6.81	8.12	31978	19.92
GC-SD333-0.0-0.5	004	04	10/18/10 08:36:48	25.31	6.74	8.15	31364	19.50
GC-SD329-0.0-0.5	005	04	10/18/10 08:37:01	25.34	6.84	8.15	31699	19.73
GC-SD303-0.0-0.5	006	04	10/18/10 08:37:12	25.30	7.01	8.09	31166	19.36
GC-SD307A-0.0-0.5	007	04	10/18/10 08:37:21	25.29	7.07	8.07	31017	19.26
GC-SD309-0.0-0.5	008	04	10/18/10 08:37:34	25.29	7.08	8.16	30894	19.18
GC-SD313-0.0-0.5	009	04	10/18/10 08:37:45	25.26	7.13	8.20	30423	18.86
GC-SD314-0.0-0.5	010	04	10/18/10 08:37:55	25.19	7.07	8.09	30368	18.82
GC-SD315-0.0-0.5	011	04	10/18/10 08:38:06	25.19	6.98	7.93	30176	18.69
GC-SD307B-0.0-0.5	012	04	10/18/10 08:38:17	25.14	6.95	7.87	30251	18.74
GC-SD324-0.0-0.5	013	04	10/18/10 08:38:28	25.16	6.92	7.90	30296	18.77
GC-SD321-0.0-0.5	014	04	10/18/10 08:38:38	25.18	6.91	8.05	30010	18.58
GC-SD319-0.0-0.5	015	04	10/18/10 08:38:49	25.21	6.94	8.17	30676	19.03
GC-SD318-0.0-0.5	016	04	10/18/10 08:39:02	25.22	6.85	8.09	30345	18.80
GC-SD310-0.0-0.5	017	04	10/18/10 08:39:23	25.25	6.78	8.14	30535	18.93
Laboratory Control	000	05	10/19/10 08:24:08	24.47	6.49	7.77	37430	23.72

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD326-0.0-0.5	001	05	10/19/10 08:24:32	24.42	6.44	7.98	35669	22.49
GC-SD328-0.0-0.5	002	05	10/19/10 08:24:51	24.54	6.58	8.18	34685	21.80
GC-SD330-0.0-0.5	003	05	10/19/10 08:25:13	24.49	6.51	8.07	33896	21.26
GC-SD333-0.0-0.5	004	05	10/19/10 08:25:35	24.54	6.55	8.18	33322	20.86
GC-SD329-0.0-0.5	005	05	10/19/10 08:25:56	24.61	6.70	8.14	33383	20.90
GC-SD303-0.0-0.5	006	05	10/19/10 08:26:15	24.62	6.70	8.00	32845	20.53
GC-SD307A-0.0-0.5	007	05	10/19/10 08:26:40	24.69	6.66	8.03	32522	20.30
GC-SD309-0.0-0.5	008	05	10/19/10 08:27:03	24.75	6.71	8.16	32412	20.23
GC-SD313-0.0-0.5	009	05	10/19/10 08:27:27	24.74	6.66	8.23	31981	19.93
GC-SD314-0.0-0.5	010	05	10/19/10 08:27:43	24.67	6.70	7.99	31775	19.79
GC-SD315-0.0-0.5	011	05	10/19/10 08:28:01	24.70	6.57	7.82	31628	19.69
GC-SD307B-0.0-0.5	012	05	10/19/10 08:28:24	24.63	6.54	7.82	31724	19.76
GC-SD324-0.0-0.5	013	05	10/19/10 08:28:46	24.70	6.55	7.92	31603	19.67
GC-SD321-0.0-0.5	014	05	10/19/10 08:29:04	24.73	6.60	8.08	31451	19.57
GC-SD319-0.0-0.5	015	05	10/19/10 08:29:28	24.74	6.60	8.10	31911	19.88
GC-SD318-0.0-0.5	016	05	10/19/10 08:29:57	24.73	6.03	7.86	31671	19.72
GC-SD310-0.0-0.5	017	05	10/19/10 08:30:32	24.80	6.45	8.13	31851	19.84
Laboratory Control	000	06	10/20/10 08:01:03	24.82	6.62	7.76	34239	21.49
GC-SD326-0.0-0.5	001	06	10/20/10 08:01:44	24.76	6.74	8.06	33085	20.69
GC-SD328-0.0-0.5	002	06	10/20/10 08:02:16	24.85	6.79	8.21	32481	20.27
GC-SD330-0.0-0.5	003	06	10/20/10 08:02:34	24.75	6.77	8.06	31558	19.64
GC-SD333-0.0-0.5	004	06	10/20/10 08:02:58	24.79	6.85	8.11	30986	19.25
GC-SD329-0.0-0.5	005	06	10/20/10 08:03:16	24.86	6.84	8.09	33463	20.95
GC-SD303-0.0-0.5	006	06	10/20/10 08:03:37	24.88	6.89	7.97	32895	20.56
GC-SD307A-0.0-0.5	007	06	10/20/10 08:04:14	24.92	6.85	8.02	32474	20.27
GC-SD309-0.0-0.5	008	06	10/20/10 08:04:46	24.98	6.84	8.16	32422	20.23
GC-SD313-0.0-0.5	009	06	10/20/10 08:05:11	24.95	6.81	8.24	31994	19.94
GC-SD314-0.0-0.5	010	06	10/20/10 08:05:38	24.86	6.71	7.87	31967	19.92
GC-SD315-0.0-0.5	011	06	10/20/10 08:06:02	24.88	6.62	7.77	31811	19.81
GC-SD307B-0.0-0.5	012	06	10/20/10 08:06:29	24.82	6.70	7.81	31925	19.89
GC-SD324-0.0-0.5	013	06	10/20/10 08:06:54	24.88	6.72	7.94	31776	19.79
GC-SD321-0.0-0.5	014	06	10/20/10 08:07:52	24.94	6.76	8.11	31652	19.70
GC-SD319-0.0-0.5	015	06	10/20/10 08:08:07	24.95	6.81	8.10	31768	19.78
GC-SD318-0.0-0.5	016	06	10/20/10 08:08:46	24.89	6.00	7.84	31502	19.60
GC-SD310-0.0-0.5	017	06	10/20/10 08:09:27	24.99	6.65	8.13	31628	19.68
Laboratory Control	000	07	10/21/10 08:45:43	25.10	6.55	7.76	35862	22.61
GC-SD326-0.0-0.5	001	07	10/21/10 08:46:25	25.09	6.60	7.94	35143	22.11
GC-SD328-0.0-0.5	002	07	10/21/10 08:46:54	25.18	6.67	8.14	34018	21.33
GC-SD330-0.0-0.5	003	07	10/21/10 08:47:18	25.08	6.67	8.06	33218	20.78
GC-SD333-0.0-0.5	004	07	10/21/10 08:47:36	25.13	6.70	8.09	32683	20.41
GC-SD329-0.0-0.5	005	07	10/21/10 08:47:57	25.19	6.74	8.02	33989	21.31
GC-SD303-0.0-0.5	006	07	10/21/10 08:48:20	25.22	6.83	7.97	33426	20.92
GC-SD307A-0.0-0.5	007	07	10/21/10 08:48:43	25.26	6.78	7.97	32944	20.58
GC-SD309-0.0-0.5	008	07	10/21/10 08:49:07	25.30	6.78	8.11	33255	20.80
GC-SD313-0.0-0.5	009	07	10/21/10 08:49:43	25.29	6.73	8.18	32494	20.27
GC-SD314-0.0-0.5	010	07	10/21/10 08:50:16	25.20	6.62	7.82	32697	20.42
GC-SD315-0.0-0.5	011	07	10/21/10 08:50:43	25.24	6.61	7.72	32527	20.30
GC-SD307B-0.0-0.5	012	07	10/21/10 08:51:12	25.19	6.65	7.78	32647	20.38
GC-SD324-0.0-0.5	013	07	10/21/10 08:51:34	25.23	6.64	7.89	32527	20.30
GC-SD321-0.0-0.5	014	07	10/21/10 08:51:57	25.27	6.76	8.03	32414	20.22
GC-SD319-0.0-0.5	015	07	10/21/10 08:52:22	25.28	6.69	8.03	32591	20.34
GC-SD318-0.0-0.5	016	07	10/21/10 08:52:45	25.26	6.60	8.07	32348	20.17

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD310-0.0-0.5	017	07	10/21/10 08:53:15	25.34	6.63	8.10	32342	20.17
Laboratory Control	000	08	10/22/10 08:26:35	24.77	6.68	7.75	35388	22.29
GC-SD326-0.0-0.5	001	08	10/22/10 08:27:12	25.03	6.66	7.93	34135	21.41
GC-SD328-0.0-0.5	002	08	10/22/10 08:27:24	25.11	6.74	8.04	33504	20.97
GC-SD330-0.0-0.5	003	08	10/22/10 08:27:34	25.09	6.78	8.04	32656	20.39
GC-SD333-0.0-0.5	004	08	10/22/10 08:27:49	25.13	6.78	7.99	32211	20.08
GC-SD329-0.0-0.5	005	08	10/22/10 08:28:02	25.14	6.77	7.97	33218	20.78
GC-SD303-0.0-0.5	006	08	10/22/10 08:28:13	25.13	6.81	7.93	32718	20.43
GC-SD307A-0.0-0.5	007	08	10/22/10 08:28:23	25.11	6.84	7.89	32437	20.24
GC-SD309-0.0-0.5	008	08	10/22/10 08:28:37	25.09	6.88	8.03	32635	20.38
GC-SD313-0.0-0.5	009	08	10/22/10 08:28:49	25.08	6.91	8.13	32134	20.03
GC-SD314-0.0-0.5	010	08	10/22/10 08:29:00	25.05	6.89	8.08	32630	20.37
GC-SD315-0.0-0.5	011	08	10/22/10 08:29:08	25.04	6.86	7.93	32388	20.21
GC-SD307B-0.0-0.5	012	08	10/22/10 08:29:21	25.04	6.86	7.82	32453	20.25
GC-SD324-0.0-0.5	013	08	10/22/10 08:29:34	25.10	6.83	7.88	32424	20.23
GC-SD321-0.0-0.5	014	08	10/22/10 08:29:42	25.10	6.86	7.96	32243	20.11
GC-SD319-0.0-0.5	015	08	10/22/10 08:29:51	25.09	6.86	7.99	32563	20.33
GC-SD318-0.0-0.5	016	08	10/22/10 08:30:02	25.12	6.95	8.05	32290	20.14
GC-SD310-0.0-0.5	017	08	10/22/10 08:30:15	25.12	6.93	8.11	32360	20.19
Laboratory Control	000	09	10/23/10 09:34:09	24.28	6.85	7.81	35036	22.05
GC-SD326-0.0-0.5	001	09	10/23/10 09:34:37	24.37	6.91	7.99	33113	20.72
GC-SD328-0.0-0.5	002	09	10/23/10 09:35:07	24.49	6.94	8.13	32262	20.13
GC-SD330-0.0-0.5	003	09	10/23/10 09:35:31	24.32	7.00	8.12	31603	19.68
GC-SD333-0.0-0.5	004	09	10/23/10 09:36:04	24.40	6.97	8.03	31042	19.29
GC-SD329-0.0-0.5	005	09	10/23/10 09:36:27	24.46	6.97	8.01	31863	19.86
GC-SD303-0.0-0.5	006	09	10/23/10 09:36:54	24.50	7.03	7.99	31264	19.44
GC-SD307A-0.0-0.5	007	09	10/23/10 09:37:17	24.50	7.01	7.98	30960	19.24
GC-SD309-0.0-0.5	008	09	10/23/10 09:37:36	24.58	7.00	8.08	30909	19.20
GC-SD313-0.0-0.5	009	09	10/23/10 09:37:57	24.60	7.10	8.14	30476	18.90
GC-SD314-0.0-0.5	010	09	10/23/10 09:38:22	24.58	6.98	7.92	30872	19.17
GC-SD315-0.0-0.5	011	09	10/23/10 09:38:45	24.57	6.97	7.79	30589	18.98
GC-SD307B-0.0-0.5	012	09	10/23/10 09:39:04	24.56	6.94	7.81	30563	18.96
GC-SD324-0.0-0.5	013	09	10/23/10 09:39:17	24.61	6.96	7.91	30632	19.01
GC-SD321-0.0-0.5	014	09	10/23/10 09:39:38	24.61	7.05	8.02	30357	18.82
GC-SD319-0.0-0.5	015	09	10/23/10 09:39:59	24.61	7.01	8.02	30546	18.95
GC-SD318-0.0-0.5	016	09	10/23/10 09:40:22	24.61	6.96	8.11	30154	18.68
GC-SD310-0.0-0.5	017	09	10/23/10 09:40:44	24.63	6.93	8.11	30294	18.78
Laboratory Control	000	10	10/24/10 12:31:04	24.45	6.58	7.98	35920	22.66
GC-SD326-0.0-0.5	001	10	10/24/10 12:32:04	24.60	6.63	8.11	35147	22.12
GC-SD328-0.0-0.5	002	10	10/24/10 12:32:26	24.74	6.65	8.20	33901	21.26
GC-SD330-0.0-0.5	003	10	10/24/10 12:32:53	24.59	6.75	8.20	33286	20.83
GC-SD333-0.0-0.5	004	10	10/24/10 12:33:12	24.66	6.77	8.14	32669	20.41
GC-SD329-0.0-0.5	005	10	10/24/10 12:33:26	24.72	6.80	8.11	33527	21.00
GC-SD303-0.0-0.5	006	10	10/24/10 12:33:48	24.77	6.92	8.09	32693	20.42
GC-SD307A-0.0-0.5	007	10	10/24/10 12:34:03	24.78	6.86	8.09	32353	20.19
GC-SD309-0.0-0.5	008	10	10/24/10 12:34:24	24.85	6.91	8.19	32179	20.07
GC-SD313-0.0-0.5	009	10	10/24/10 12:34:43	24.86	6.86	8.18	31908	19.88
GC-SD314-0.0-0.5	010	10	10/24/10 12:35:00	24.84	6.84	8.03	32175	20.06
GC-SD315-0.0-0.5	011	10	10/24/10 12:35:23	24.81	6.79	7.85	31795	19.80
GC-SD307B-0.0-0.5	012	10	10/24/10 12:35:43	24.82	6.83	7.90	31827	19.82
GC-SD324-0.0-0.5	013	10	10/24/10 12:35:59	24.87	6.86	8.01	31883	19.86

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD321-0.0-0.5	014	10	10/24/10 12:36:21	24.89	6.91	8.09	31576	19.65
GC-SD319-0.0-0.5	015	10	10/24/10 12:36:39	24.90	6.88	8.09	31636	19.69
GC-SD318-0.0-0.5	016	10	10/24/10 12:37:10	24.90	6.65	8.20	31169	19.37
GC-SD310-0.0-0.5	017	10	10/24/10 12:37:35	24.91	6.72	8.17	31362	19.50
Laboratory Control	000	11	10/25/10 10:53:25	24.71	6.64	8.02	33685	21.11
GC-SD326-0.0-0.5	001	11	10/25/10 10:54:40	24.94	6.75	8.19	33908	21.26
GC-SD328-0.0-0.5	002	11	10/25/10 10:55:00	25.28	6.71	8.17	34272	21.50
GC-SD330-0.0-0.5	003	11	10/25/10 10:55:11	25.26	6.75	8.14	33774	21.16
GC-SD333-0.0-0.5	004	11	10/25/10 10:55:23	25.29	6.76	8.11	33581	21.02
GC-SD329-0.0-0.5	005	11	10/25/10 10:55:37	25.37	6.80	8.11	33768	21.15
GC-SD303-0.0-0.5	006	11	10/25/10 10:55:45	25.36	6.86	8.13	33535	20.99
GC-SD307A-0.0-0.5	007	11	10/25/10 10:55:55	25.41	6.87	8.14	33245	20.79
GC-SD309-0.0-0.5	008	11	10/25/10 10:56:02	25.45	6.85	8.18	33094	20.68
GC-SD313-0.0-0.5	009	11	10/25/10 10:56:11	25.49	6.88	8.21	32948	20.58
GC-SD314-0.0-0.5	010	11	10/25/10 10:56:20	25.46	6.90	8.09	32888	20.54
GC-SD315-0.0-0.5	011	11	10/25/10 10:56:30	25.41	6.89	7.94	32585	20.34
GC-SD307B-0.0-0.5	012	11	10/25/10 10:56:37	25.39	6.86	7.89	32688	20.41
GC-SD324-0.0-0.5	013	11	10/25/10 10:56:48	25.41	6.95	8.02	32692	20.41
GC-SD321-0.0-0.5	014	11	10/25/10 10:56:58	25.39	6.96	8.14	32551	20.31
GC-SD319-0.0-0.5	015	11	10/25/10 10:57:05	25.41	6.95	8.16	32549	20.31
GC-SD318-0.0-0.5	016	11	10/25/10 10:57:12	25.42	6.94	8.17	32221	20.08
GC-SD310-0.0-0.5	017	11	10/25/10 10:57:19	25.43	6.92	8.17	32398	20.21
Laboratory Control	000	12	10/26/10 08:28:27	25.75	6.55	7.75	33295	20.82
GC-SD326-0.0-0.5	001	12	10/26/10 08:28:53	25.90	6.51	7.89	32769	20.45
GC-SD328-0.0-0.5	002	12	10/26/10 08:29:07	26.02	6.59	8.00	32489	20.26
GC-SD330-0.0-0.5	003	12	10/26/10 08:29:19	25.97	6.60	8.03	32128	20.01
GC-SD333-0.0-0.5	004	12	10/26/10 08:29:39	26.01	6.68	7.98	29927	18.50
GC-SD329-0.0-0.5	005	12	10/26/10 08:29:48	26.01	6.68	7.96	31913	19.86
GC-SD303-0.0-0.5	006	12	10/26/10 08:29:57	26.04	6.72	7.97	31591	19.64
GC-SD307A-0.0-0.5	007	12	10/26/10 08:30:10	26.11	6.70	7.95	31211	19.38
GC-SD309-0.0-0.5	008	12	10/26/10 08:30:20	26.18	6.67	7.98	31028	19.25
GC-SD313-0.0-0.5	009	12	10/26/10 08:30:29	26.22	6.72	8.02	30911	19.17
GC-SD314-0.0-0.5	010	12	10/26/10 08:30:40	26.21	6.74	7.96	31292	19.43
GC-SD315-0.0-0.5	011	12	10/26/10 08:30:48	26.20	6.71	7.88	31226	19.39
GC-SD307B-0.0-0.5	012	12	10/26/10 08:30:59	26.16	6.67	7.83	31366	19.48
GC-SD324-0.0-0.5	013	12	10/26/10 08:31:08	26.17	6.70	7.89	31227	19.39
GC-SD321-0.0-0.5	014	12	10/26/10 08:31:19	26.15	6.72	7.97	31264	19.41
GC-SD319-0.0-0.5	015	12	10/26/10 08:31:28	26.15	6.75	8.00	30054	18.59
GC-SD318-0.0-0.5	016	12	10/26/10 08:31:37	26.11	6.77	8.05	29681	18.34
GC-SD310-0.0-0.5	017	12	10/26/10 08:31:46	26.12	6.73	8.08	29803	18.42
Laboratory Control	000	13	10/27/10 09:37:01	26.33	6.88	7.92	35154	22.09
GC-SD326-0.0-0.5	001	13	10/27/10 09:37:29	26.35	6.83	8.02	33849	21.19
GC-SD328-0.0-0.5	002	13	10/27/10 09:37:52	26.42	7.00	8.13	33430	20.90
GC-SD330-0.0-0.5	003	13	10/27/10 09:38:23	26.32	6.82	8.09	32898	20.53
GC-SD333-0.0-0.5	004	13	10/27/10 09:38:51	26.41	6.88	8.06	32193	20.05
GC-SD329-0.0-0.5	005	13	10/27/10 09:39:11	26.41	6.99	8.02	32812	20.47
GC-SD303-0.0-0.5	006	13	10/27/10 09:39:38	26.44	7.01	8.06	32001	19.91
GC-SD307A-0.0-0.5	007	13	10/27/10 09:39:55	26.47	6.94	7.97	31787	19.77
GC-SD309-0.0-0.5	008	13	10/27/10 09:40:15	26.54	6.94	8.12	31378	19.49
GC-SD313-0.0-0.5	009	13	10/27/10 09:40:35	26.55	7.00	8.07	31098	19.29
GC-SD314-0.0-0.5	010	13	10/27/10 09:40:51	26.56	6.97	7.95	31735	19.73

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD315-0.0-0.5	011	13	10/27/10 09:41:07	26.55	6.94	7.85	31279	19.42
GC-SD307B-0.0-0.5	012	13	10/27/10 09:41:29	26.52	6.99	7.90	31170	19.34
GC-SD324-0.0-0.5	013	13	10/27/10 09:41:50	26.55	6.96	8.03	31334	19.46
GC-SD321-0.0-0.5	014	13	10/27/10 09:42:05	26.53	6.96	8.05	30951	19.19
GC-SD319-0.0-0.5	015	13	10/27/10 09:42:25	26.52	6.98	8.07	30892	19.15
GC-SD318-0.0-0.5	016	13	10/27/10 09:42:42	26.48	6.95	8.15	30279	18.74
GC-SD310-0.0-0.5	017	13	10/27/10 09:42:57	26.49	6.91	8.12	30338	18.78
Laboratory Control	000	14	10/28/10 07:43:09	26.21	6.65	7.85	36393	22.96
GC-SD326-0.0-0.5	001	14	10/28/10 07:43:37	26.22	6.55	7.96	35433	22.29
GC-SD328-0.0-0.5	002	14	10/28/10 07:43:57	26.31	6.60	8.05	34805	21.85
GC-SD330-0.0-0.5	003	14	10/28/10 07:44:20	26.22	6.57	8.04	34284	21.49
GC-SD333-0.0-0.5	004	14	10/28/10 07:44:43	26.32	6.71	8.01	33738	21.11
GC-SD329-0.0-0.5	005	14	10/28/10 07:45:14	26.33	6.78	7.93	34087	21.35
GC-SD303-0.0-0.5	006	14	10/28/10 07:45:34	26.34	6.73	7.98	33701	21.09
GC-SD307A-0.0-0.5	007	14	10/28/10 07:46:09	26.40	6.52	7.84	33289	20.80
GC-SD309-0.0-0.5	008	14	10/28/10 07:46:36	26.49	6.75	8.07	32975	20.58
GC-SD313-0.0-0.5	009	14	10/28/10 07:46:57	26.48	6.82	7.99	32791	20.46
GC-SD314-0.0-0.5	010	14	10/28/10 07:47:32	26.49	6.77	7.84	33070	20.65
GC-SD315-0.0-0.5	011	14	10/28/10 07:47:58	26.47	6.62	7.79	32783	20.45
GC-SD307B-0.0-0.5	012	14	10/28/10 07:48:15	26.45	6.60	7.83	32788	20.45
GC-SD324-0.0-0.5	013	14	10/28/10 07:48:30	26.47	6.65	7.93	32786	20.45
GC-SD321-0.0-0.5	014	14	10/28/10 07:48:48	26.44	6.71	8.00	32679	20.38
GC-SD319-0.0-0.5	015	14	10/28/10 07:49:06	26.41	6.73	8.01	32680	20.38
GC-SD318-0.0-0.5	016	14	10/28/10 07:49:25	26.40	6.68	8.11	32290	20.11
GC-SD310-0.0-0.5	017	14	10/28/10 07:49:45	26.41	6.63	8.05	32364	20.16
Laboratory Control	000	15	10/29/10 10:52:10	24.41	6.81	8.00	34440	21.63
GC-SD326-0.0-0.5	001	15	10/29/10 10:52:33	24.51	6.68	8.05	34827	21.90
GC-SD328-0.0-0.5	002	15	10/29/10 10:52:54	24.63	6.79	8.15	34413	21.61
GC-SD330-0.0-0.5	003	15	10/29/10 10:53:09	24.53	6.82	8.15	33903	21.26
GC-SD333-0.0-0.5	004	15	10/29/10 10:53:29	24.57	6.89	8.13	33676	21.10
GC-SD329-0.0-0.5	005	15	10/29/10 10:54:22	24.59	6.94	8.10	34056	21.36
GC-SD303-0.0-0.5	006	15	10/29/10 10:54:35	24.60	6.98	8.13	33443	20.94
GC-SD307A-0.0-0.5	007	15	10/29/10 10:54:47	24.63	6.95	8.05	33128	20.72
GC-SD309-0.0-0.5	008	15	10/29/10 10:55:05	24.73	6.94	8.14	32779	20.48
GC-SD313-0.0-0.5	009	15	10/29/10 10:55:20	24.78	6.99	8.10	32446	20.25
GC-SD314-0.0-0.5	010	15	10/29/10 10:55:31	24.75	6.99	8.05	32535	20.31
GC-SD315-0.0-0.5	011	15	10/29/10 10:55:42	24.74	6.98	7.98	32282	20.14
GC-SD307B-0.0-0.5	012	15	10/29/10 10:55:52	24.74	6.92	7.97	32223	20.10
GC-SD324-0.0-0.5	013	15	10/29/10 10:56:03	24.74	6.94	8.07	32269	20.13
GC-SD321-0.0-0.5	014	15	10/29/10 10:56:14	24.74	7.00	8.13	32020	19.96
GC-SD319-0.0-0.5	015	15	10/29/10 10:56:24	24.71	7.02	8.13	32166	20.06
GC-SD318-0.0-0.5	016	15	10/29/10 10:56:40	24.75	6.95	8.26	31829	19.83
GC-SD310-0.0-0.5	017	15	10/29/10 10:56:49	24.76	6.90	8.26	31926	19.89
Laboratory Control	000	16	10/30/10 09:09:08	23.81	7.04	7.65	33649	21.10
GC-SD326-0.0-0.5	001	16	10/30/10 09:09:32	23.89	7.01	7.86	33468	20.97
GC-SD328-0.0-0.5	002	16	10/30/10 09:10:05	23.98	7.00	7.99	32842	20.54
GC-SD330-0.0-0.5	003	16	10/30/10 09:10:25	23.86	7.00	7.98	32415	20.24
GC-SD333-0.0-0.5	004	16	10/30/10 09:10:45	23.92	7.02	7.92	31865	19.87
GC-SD329-0.0-0.5	005	16	10/30/10 09:12:40	23.96	7.28	7.91	32312	20.17
GC-SD303-0.0-0.5	006	16	10/30/10 09:13:04	23.97	7.26	7.97	31522	19.63
GC-SD307A-0.0-0.5	007	16	10/30/10 09:13:21	24.00	7.25	7.88	31279	19.46

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD309-0.0-0.5	008	16	10/30/10 09:13:59	24.09	7.17	7.95	30911	19.21
GC-SD313-0.0-0.5	009	16	10/30/10 09:14:24	24.12	7.19	7.86	30527	18.95
GC-SD314-0.0-0.5	010	16	10/30/10 09:14:40	24.07	7.19	7.83	30676	19.05
GC-SD315-0.0-0.5	011	16	10/30/10 09:15:00	24.05	7.15	7.74	30467	18.91
GC-SD307B-0.0-0.5	012	16	10/30/10 09:15:20	24.03	7.12	7.76	30335	18.82
GC-SD324-0.0-0.5	013	16	10/30/10 09:15:56	24.06	7.11	7.90	30437	18.89
GC-SD321-0.0-0.5	014	16	10/30/10 09:16:32	24.06	7.22	7.87	30227	18.74
GC-SD319-0.0-0.5	015	16	10/30/10 09:16:52	24.01	7.19	7.86	30168	18.70
GC-SD318-0.0-0.5	016	16	10/30/10 09:17:14	24.01	7.18	7.96	29900	18.52
GC-SD310-0.0-0.5	017	16	10/30/10 09:17:35	24.03	7.17	7.93	30061	18.63
Laboratory Control	000	17	10/31/10 11:43:03	24.28	6.67	7.82	34738	21.84
GC-SD326-0.0-0.5	001	17	10/31/10 11:43:41	24.30	6.64	7.95	34616	21.76
GC-SD328-0.0-0.5	002	17	10/31/10 11:44:01	24.37	6.71	8.05	33755	21.16
GC-SD330-0.0-0.5	003	17	10/31/10 11:44:23	24.23	6.69	8.03	33359	20.89
GC-SD333-0.0-0.5	004	17	10/31/10 11:44:44	24.31	6.87	7.99	32640	20.39
GC-SD329-0.0-0.5	005	17	10/31/10 11:45:02	24.34	6.99	7.99	33246	20.81
GC-SD303-0.0-0.5	006	17	10/31/10 11:45:20	24.34	7.00	8.03	32502	20.30
GC-SD307A-0.0-0.5	007	17	10/31/10 11:45:48	24.40	6.80	7.87	32219	20.10
GC-SD309-0.0-0.5	008	17	10/31/10 11:47:06	24.47	6.79	7.97	31830	19.83
GC-SD313-0.0-0.5	009	17	10/31/10 11:47:23	24.49	6.96	7.94	31380	19.52
GC-SD314-0.0-0.5	010	17	10/31/10 11:47:41	24.45	6.99	7.90	31507	19.61
GC-SD315-0.0-0.5	011	17	10/31/10 11:48:06	24.46	6.90	7.77	31236	19.43
GC-SD307B-0.0-0.5	012	17	10/31/10 11:48:28	24.42	6.97	7.84	31169	19.38
GC-SD324-0.0-0.5	013	17	10/31/10 11:48:53	24.49	6.88	7.93	31201	19.40
GC-SD321-0.0-0.5	014	17	10/31/10 11:49:11	24.50	6.90	7.97	30975	19.25
GC-SD319-0.0-0.5	015	17	10/31/10 11:49:32	24.47	6.98	7.96	31045	19.29
GC-SD318-0.0-0.5	016	17	10/31/10 11:49:59	24.50	6.84	8.06	30832	19.15
GC-SD310-0.0-0.5	017	17	10/31/10 11:50:23	24.49	6.88	8.00	30989	19.26
Laboratory Control	000	18	11/01/10 10:25:41	23.07	7.42	8.09	34550	21.73
GC-SD326-0.0-0.5	001	18	11/01/10 10:26:31	23.08	7.30	8.18	34736	21.86
GC-SD328-0.0-0.5	002	18	11/01/10 10:26:48	23.14	7.34	8.25	34242	21.52
GC-SD330-0.0-0.5	003	18	11/01/10 10:27:03	23.03	7.37	8.22	33979	21.34
GC-SD333-0.0-0.5	004	18	11/01/10 10:27:16	23.05	7.37	8.18	33350	20.90
GC-SD329-0.0-0.5	005	18	11/01/10 10:27:31	23.08	7.42	8.17	34267	21.54
GC-SD303-0.0-0.5	006	18	11/01/10 10:27:41	23.08	7.50	8.20	33526	21.02
GC-SD307A-0.0-0.5	007	18	11/01/10 10:27:54	23.10	7.47	8.13	33124	20.74
GC-SD309-0.0-0.5	008	18	11/01/10 10:28:07	23.18	7.41	8.15	32716	20.46
GC-SD313-0.0-0.5	009	18	11/01/10 10:28:22	23.21	7.47	8.13	32178	20.09
GC-SD314-0.0-0.5	010	18	11/01/10 10:28:32	23.18	7.49	8.10	32319	20.19
GC-SD315-0.0-0.5	011	18	11/01/10 10:28:43	23.18	7.50	8.05	32090	20.03
GC-SD307B-0.0-0.5	012	18	11/01/10 10:28:53	23.15	7.46	8.04	32058	20.01
GC-SD324-0.0-0.5	013	18	11/01/10 10:29:07	23.20	7.48	8.13	32038	19.99
GC-SD321-0.0-0.5	014	18	11/01/10 10:29:19	23.23	7.48	8.19	31840	19.86
GC-SD319-0.0-0.5	015	18	11/01/10 10:29:31	23.21	7.47	8.19	32292	20.17
GC-SD318-0.0-0.5	016	18	11/01/10 10:29:42	23.21	7.46	8.23	32218	20.12
GC-SD310-0.0-0.5	017	18	11/01/10 10:30:04	23.23	7.43	8.22	32301	20.18
Laboratory Control	000	19	11/02/10 08:39:56	23.57	7.10	7.92	35394	22.31
GC-SD326-0.0-0.5	001	19	11/02/10 08:40:27	23.54	7.05	8.07	34866	21.94
GC-SD328-0.0-0.5	002	19	11/02/10 08:40:48	23.61	7.10	8.15	34156	21.45
GC-SD330-0.0-0.5	003	19	11/02/10 08:41:12	23.43	7.05	8.05	33844	21.24
GC-SD333-0.0-0.5	004	19	11/02/10 08:41:36	23.51	7.11	8.01	32990	20.65

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD329-0.0-0.5	005	19	11/02/10 08:42:06	23.53	7.03	7.92	34355	21.59
GC-SD303-0.0-0.5	006	19	11/02/10 08:42:33	23.54	7.12	8.06	33371	20.91
GC-SD307A-0.0-0.5	007	19	11/02/10 08:43:00	23.56	7.04	7.95	32935	20.61
GC-SD309-0.0-0.5	008	19	11/02/10 08:43:27	23.66	6.62	7.82	32461	20.28
GC-SD313-0.0-0.5	009	19	11/02/10 08:43:54	23.60	6.96	7.92	31983	19.95
GC-SD314-0.0-0.5	010	19	11/02/10 08:44:22	23.52	7.20	7.90	31959	19.94
GC-SD315-0.0-0.5	011	19	11/02/10 08:44:39	23.53	7.18	7.84	31731	19.78
GC-SD307B-0.0-0.5	012	19	11/02/10 08:44:53	23.53	7.18	7.86	31644	19.72
GC-SD324-0.0-0.5	013	19	11/02/10 08:45:14	23.63	7.18	7.97	31719	19.77
GC-SD321-0.0-0.5	014	19	11/02/10 08:45:34	23.63	7.13	7.99	31429	19.57
GC-SD319-0.0-0.5	015	19	11/02/10 08:46:05	23.57	7.07	7.90	32427	20.26
GC-SD318-0.0-0.5	016	19	11/02/10 08:46:30	23.56	6.99	8.01	32416	20.25
GC-SD310-0.0-0.5	017	19	11/02/10 08:46:44	23.56	6.98	7.98	32500	20.31
Laboratory Control	000	20	11/03/10 08:35:55	23.43	7.42	7.82	34565	21.74
GC-SD326-0.0-0.5	001	20	11/03/10 08:36:22	23.50	7.18	7.89	34894	21.96
GC-SD328-0.0-0.5	002	20	11/03/10 08:36:32	23.60	7.20	7.99	34124	21.43
GC-SD330-0.0-0.5	003	20	11/03/10 08:36:42	23.54	7.23	7.99	33864	21.25
GC-SD333-0.0-0.5	004	20	11/03/10 08:36:53	23.53	7.21	7.96	32857	20.55
GC-SD329-0.0-0.5	005	20	11/03/10 08:37:04	23.54	7.18	7.88	34204	21.48
GC-SD303-0.0-0.5	006	20	11/03/10 08:37:14	23.56	7.11	7.89	33334	20.88
GC-SD307A-0.0-0.5	007	20	11/03/10 08:37:24	23.57	7.17	7.92	32877	20.57
GC-SD309-0.0-0.5	008	20	11/03/10 08:37:33	23.63	7.19	7.93	32516	20.32
GC-SD313-0.0-0.5	009	20	11/03/10 08:37:42	23.65	7.24	7.94	31880	19.88
GC-SD314-0.0-0.5	010	20	11/03/10 08:37:54	23.60	7.28	7.90	31528	19.64
GC-SD315-0.0-0.5	011	20	11/03/10 08:38:03	23.59	7.31	7.85	31390	19.54
GC-SD307B-0.0-0.5	012	20	11/03/10 08:38:13	23.56	7.39	7.83	31372	19.53
GC-SD324-0.0-0.5	013	20	11/03/10 08:38:24	23.61	7.42	7.89	31524	19.64
GC-SD321-0.0-0.5	014	20	11/03/10 08:38:34	23.64	7.40	7.93	31134	19.37
GC-SD319-0.0-0.5	015	20	11/03/10 08:38:46	23.64	7.31	7.91	32180	20.09
GC-SD318-0.0-0.5	016	20	11/03/10 08:38:55	23.60	7.38	7.92	32109	20.04
GC-SD310-0.0-0.5	017	20	11/03/10 08:39:09	23.65	7.38	7.95	32235	20.12
Laboratory Control	000	21	11/04/10 08:34:32	24.41	6.90	7.80	35486	22.36
GC-SD326-0.0-0.5	001	21	11/04/10 08:35:14	24.47	6.87	7.95	35078	22.08
GC-SD328-0.0-0.5	002	21	11/04/10 08:35:44	24.66	6.90	8.05	34285	21.52
GC-SD330-0.0-0.5	003	21	11/04/10 08:36:14	24.49	6.76	7.96	34109	21.40
GC-SD333-0.0-0.5	004	21	11/04/10 08:36:42	24.55	6.78	7.84	32884	20.56
GC-SD329-0.0-0.5	005	21	11/04/10 08:37:08	24.58	6.55	7.68	34321	21.55
GC-SD303-0.0-0.5	006	21	11/04/10 08:37:52	24.60	6.94	7.98	33361	20.88
GC-SD307A-0.0-0.5	007	21	11/04/10 08:38:19	24.63	6.91	7.90	33027	20.65
GC-SD309-0.0-0.5	008	21	11/04/10 08:38:49	24.80	7.01	7.96	32532	20.31
GC-SD313-0.0-0.5	009	21	11/04/10 08:39:18	24.81	7.04	7.86	32065	19.99
GC-SD314-0.0-0.5	010	21	11/04/10 08:39:35	24.75	7.10	7.83	32007	19.95
GC-SD315-0.0-0.5	011	21	11/04/10 08:40:03	24.71	6.97	7.75	31908	19.88
GC-SD307B-0.0-0.5	012	21	11/04/10 08:40:23	24.58	6.96	7.81	31888	19.87
GC-SD324-0.0-0.5	013	21	11/04/10 08:40:49	24.66	6.99	7.97	31977	19.93
GC-SD321-0.0-0.5	014	21	11/04/10 08:41:14	24.64	7.03	7.93	31665	19.72
GC-SD319-0.0-0.5	015	21	11/04/10 08:41:34	24.61	7.01	7.88	32190	20.08
GC-SD318-0.0-0.5	016	21	11/04/10 08:41:56	24.59	6.95	7.98	32193	20.08
GC-SD310-0.0-0.5	017	21	11/04/10 08:42:20	24.65	6.95	7.96	32274	20.13
Laboratory Control	000	22	11/05/10 08:07:09	25.26	6.65	7.78	34354	21.56
GC-SD326-0.0-0.5	001	22	11/05/10 08:07:43	25.30	6.47	7.85	34620	21.74

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD328-0.0-0.5	002	22	11/05/10 08:08:01	25.39	6.73	8.03	34074	21.36
GC-SD330-0.0-0.5	003	22	11/05/10 08:08:16	25.31	6.76	7.98	33731	21.13
GC-SD333-0.0-0.5	004	22	11/05/10 08:08:28	25.32	6.77	7.92	32801	20.48
GC-SD329-0.0-0.5	005	22	11/05/10 08:08:47	25.35	6.69	7.76	33670	21.08
GC-SD303-0.0-0.5	006	22	11/05/10 08:08:58	25.39	6.70	7.83	32831	20.50
GC-SD307A-0.0-0.5	007	22	11/05/10 08:09:10	25.39	6.84	7.91	32568	20.32
GC-SD309-0.0-0.5	008	22	11/05/10 08:09:29	25.49	6.92	7.98	32239	20.10
GC-SD313-0.0-0.5	009	22	11/05/10 08:09:46	25.56	6.96	7.89	31686	19.71
GC-SD314-0.0-0.5	010	22	11/05/10 08:09:59	25.52	6.99	7.85	31558	19.63
GC-SD315-0.0-0.5	011	22	11/05/10 08:10:12	25.51	6.96	7.79	31365	19.50
GC-SD307B-0.0-0.5	012	22	11/05/10 08:10:25	25.46	6.89	7.77	31304	19.45
GC-SD324-0.0-0.5	013	22	11/05/10 08:10:38	25.48	6.94	7.87	31430	19.54
GC-SD321-0.0-0.5	014	22	11/05/10 08:10:52	25.48	6.98	7.93	31086	19.31
GC-SD319-0.0-0.5	015	22	11/05/10 08:11:04	25.46	6.97	7.90	31663	19.70
GC-SD318-0.0-0.5	016	22	11/05/10 08:11:18	25.41	6.95	8.00	31579	19.64
GC-SD310-0.0-0.5	017	22	11/05/10 08:11:30	25.42	6.95	8.03	31604	19.66
Laboratory Control	000	23	11/06/10 07:43:28	25.00	6.69	7.79	34715	21.81
GC-SD326-0.0-0.5	001	23	11/06/10 07:43:49	25.02	6.64	7.86	34508	21.67
GC-SD328-0.0-0.5	002	23	11/06/10 07:44:04	25.10	6.71	7.99	33870	21.23
GC-SD330-0.0-0.5	003	23	11/06/10 07:44:18	25.01	6.71	7.96	33607	21.05
GC-SD333-0.0-0.5	004	23	11/06/10 07:44:34	25.02	6.73	7.91	32740	20.45
GC-SD329-0.0-0.5	005	23	11/06/10 07:44:50	25.06	6.69	7.81	33410	20.91
GC-SD303-0.0-0.5	006	23	11/06/10 07:45:07	25.13	6.68	7.88	32587	20.34
GC-SD307A-0.0-0.5	007	23	11/06/10 07:45:25	25.12	6.83	7.89	32330	20.16
GC-SD309-0.0-0.5	008	23	11/06/10 07:45:39	25.19	6.82	7.94	32083	19.99
GC-SD313-0.0-0.5	009	23	11/06/10 07:45:57	25.28	6.86	7.88	31502	19.59
GC-SD314-0.0-0.5	010	23	11/06/10 07:46:14	25.24	6.86	7.80	31293	19.45
GC-SD315-0.0-0.5	011	23	11/06/10 07:46:28	25.21	6.84	7.74	31075	19.30
GC-SD307B-0.0-0.5	012	23	11/06/10 07:46:42	25.18	6.76	7.74	31069	19.30
GC-SD324-0.0-0.5	013	23	11/06/10 07:46:57	25.21	6.81	7.84	31190	19.38
GC-SD321-0.0-0.5	014	23	11/06/10 07:47:13	25.21	6.89	7.91	30899	19.18
GC-SD319-0.0-0.5	015	23	11/06/10 07:47:29	25.15	6.90	7.86	31205	19.39
GC-SD318-0.0-0.5	016	23	11/06/10 07:47:46	25.13	6.92	7.97	31109	19.33
GC-SD310-0.0-0.5	017	23	11/06/10 07:48:02	25.17	6.99	7.99	31072	19.30
Laboratory Control	000	24	11/07/10 11:27:05	24.55	7.06	7.83	34562	21.72
GC-SD326-0.0-0.5	001	24	11/07/10 11:27:31	24.68	7.08	7.94	34653	21.78
GC-SD328-0.0-0.5	002	24	11/07/10 11:27:53	24.80	7.17	8.12	33969	21.30
GC-SD330-0.0-0.5	003	24	11/07/10 11:28:08	24.70	7.13	8.04	33834	21.21
GC-SD333-0.0-0.5	004	24	11/07/10 11:28:23	24.72	7.13	8.01	33126	20.72
GC-SD329-0.0-0.5	005	24	11/07/10 11:28:33	24.72	7.20	7.96	33817	21.20
GC-SD303-0.0-0.5	006	24	11/07/10 11:28:46	24.79	7.24	7.99	32914	20.57
GC-SD307A-0.0-0.5	007	24	11/07/10 11:28:55	24.80	7.25	8.02	32666	20.40
GC-SD309-0.0-0.5	008	24	11/07/10 11:29:08	24.87	7.27	8.03	32410	20.22
GC-SD313-0.0-0.5	009	24	11/07/10 11:29:17	24.93	7.29	8.00	31758	19.78
GC-SD314-0.0-0.5	010	24	11/07/10 11:29:28	24.91	7.30	7.93	31668	19.71
GC-SD315-0.0-0.5	011	24	11/07/10 11:29:40	24.89	7.27	7.85	31378	19.52
GC-SD307B-0.0-0.5	012	24	11/07/10 11:29:47	24.90	7.20	7.81	31395	19.53
GC-SD324-0.0-0.5	013	24	11/07/10 11:29:58	24.91	7.20	7.89	31446	19.56
GC-SD321-0.0-0.5	014	24	11/07/10 11:30:06	24.92	7.25	7.97	31178	19.38
GC-SD319-0.0-0.5	015	24	11/07/10 11:30:18	24.91	7.28	7.98	31329	19.48
GC-SD318-0.0-0.5	016	24	11/07/10 11:30:28	24.88	7.30	8.03	31220	19.41
GC-SD310-0.0-0.5	017	24	11/07/10 11:30:37	24.89	7.29	8.07	31260	19.43

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
Laboratory Control	000	25	11/08/10 10:57:00	25.37	6.94	7.99	35295	22.21
GC-SD326-0.0-0.5	001	25	11/08/10 10:57:37	25.36	6.85	8.10	35057	22.05
GC-SD328-0.0-0.5	002	25	11/08/10 10:58:05	25.47	6.88	8.23	34299	21.52
GC-SD330-0.0-0.5	003	25	11/08/10 10:58:44	25.34	6.62	8.06	34242	21.48
GC-SD333-0.0-0.5	004	25	11/08/10 10:59:10	25.41	6.86	8.09	33118	20.70
GC-SD329-0.0-0.5	005	25	11/08/10 10:59:47	25.44	6.95	8.01	33364	20.87
GC-SD303-0.0-0.5	006	25	11/08/10 11:00:05	25.46	6.87	8.06	33221	20.77
GC-SD307A-0.0-0.5	007	25	11/08/10 11:00:26	25.46	6.92	8.16	32885	20.54
GC-SD309-0.0-0.5	008	25	11/08/10 11:00:43	25.53	6.93	8.13	32640	20.37
GC-SD313-0.0-0.5	009	25	11/08/10 11:01:06	25.60	6.92	8.01	31875	19.84
GC-SD314-0.0-0.5	010	25	11/08/10 11:01:24	25.56	6.93	7.98	31831	19.81
GC-SD315-0.0-0.5	011	25	11/08/10 11:01:45	25.55	6.77	7.89	31526	19.60
GC-SD307B-0.0-0.5	012	25	11/08/10 11:02:04	25.53	6.78	7.89	31571	19.64
GC-SD324-0.0-0.5	013	25	11/08/10 11:02:24	25.56	6.89	8.08	31586	19.65
GC-SD321-0.0-0.5	014	25	11/08/10 11:02:39	25.54	6.92	8.15	31371	19.50
GC-SD319-0.0-0.5	015	25	11/08/10 11:03:00	25.52	6.93	8.10	31418	19.53
GC-SD318-0.0-0.5	016	25	11/08/10 11:03:25	25.49	6.92	8.17	31279	19.44
GC-SD310-0.0-0.5	017	25	11/08/10 11:03:41	25.50	6.91	8.14	31324	19.47
Laboratory Control	000	26	11/09/10 08:42:53	25.27	6.79	7.80	33468	20.95
GC-SD326-0.0-0.5	001	26	11/09/10 08:43:28	25.29	6.50	7.87	34658	21.77
GC-SD328-0.0-0.5	002	26	11/09/10 08:43:58	25.43	6.52	8.07	33693	21.10
GC-SD330-0.0-0.5	003	26	11/09/10 08:44:09	25.35	6.45	8.03	33911	21.25
GC-SD333-0.0-0.5	004	26	11/09/10 08:44:20	25.35	6.52	7.99	32787	20.47
GC-SD329-0.0-0.5	005	26	11/09/10 08:44:33	25.38	6.76	7.91	33490	20.96
GC-SD303-0.0-0.5	006	26	11/09/10 08:44:52	25.42	6.80	7.92	32877	20.54
GC-SD307A-0.0-0.5	007	26	11/09/10 08:45:04	25.44	6.84	7.96	32586	20.34
GC-SD309-0.0-0.5	008	26	11/09/10 08:45:18	25.46	6.88	7.97	32358	20.18
GC-SD313-0.0-0.5	009	26	11/09/10 08:45:29	25.49	6.88	7.93	31669	19.70
GC-SD314-0.0-0.5	010	26	11/09/10 08:45:41	25.53	6.91	7.87	30947	19.21
GC-SD315-0.0-0.5	011	26	11/09/10 08:45:52	25.55	6.90	7.82	30669	19.02
GC-SD307B-0.0-0.5	012	26	11/09/10 08:46:06	25.52	6.86	7.78	30654	19.01
GC-SD324-0.0-0.5	013	26	11/09/10 08:46:18	25.55	6.88	7.87	30777	19.09
GC-SD321-0.0-0.5	014	26	11/09/10 08:46:30	25.53	6.95	7.95	30450	18.87
GC-SD319-0.0-0.5	015	26	11/09/10 08:46:41	25.51	6.92	7.93	31121	19.33
GC-SD318-0.0-0.5	016	26	11/09/10 08:46:52	25.49	6.90	7.91	31032	19.27
GC-SD310-0.0-0.5	017	26	11/09/10 08:47:05	25.47	7.00	7.91	31024	19.26
Laboratory Control	000	27	11/10/10 08:23:19	25.15	6.74	7.86	34848	21.90
GC-SD326-0.0-0.5	001	27	11/10/10 08:24:12	25.26	6.75	8.00	34378	21.58
GC-SD328-0.0-0.5	002	27	11/10/10 08:24:35	25.32	6.82	8.10	34240	21.48
GC-SD330-0.0-0.5	003	27	11/10/10 08:24:52	25.22	6.75	8.01	34206	21.46
GC-SD333-0.0-0.5	004	27	11/10/10 08:25:15	25.27	6.83	8.00	33146	20.72
GC-SD329-0.0-0.5	005	27	11/10/10 08:25:28	25.28	6.92	7.95	33546	21.00
GC-SD303-0.0-0.5	006	27	11/10/10 08:25:48	25.32	6.93	7.96	32779	20.47
GC-SD307A-0.0-0.5	007	27	11/10/10 08:26:02	25.33	6.97	8.02	32546	20.31
GC-SD309-0.0-0.5	008	27	11/10/10 08:26:14	25.34	7.00	8.02	32341	20.17
GC-SD313-0.0-0.5	009	27	11/10/10 08:26:24	25.38	7.00	7.98	31579	19.64
GC-SD314-0.0-0.5	010	27	11/10/10 08:26:37	25.39	7.04	7.94	31469	19.57
GC-SD315-0.0-0.5	011	27	11/10/10 08:26:55	25.43	6.93	7.84	31161	19.36
GC-SD307B-0.0-0.5	012	27	11/10/10 08:27:07	25.41	6.87	7.84	31182	19.37
GC-SD324-0.0-0.5	013	27	11/10/10 08:27:20	25.42	6.95	7.94	31256	19.42
GC-SD321-0.0-0.5	014	27	11/10/10 08:27:32	25.40	7.01	8.02	31033	19.27

Field ID	Sample Number	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
GC-SD319-0.0-0.5	015	27	11/10/10 08:27:43	25.36	7.01	7.99	31233	19.41
GC-SD318-0.0-0.5	016	27	11/10/10 08:27:52	25.33	7.01	7.97	31149	19.35
GC-SD310-0.0-0.5	017	27	11/10/10 08:28:03	25.35	7.03	7.97	31128	19.34
Laboratory Control	000	28	11/11/10 06:28:01	23.82	6.97	7.74	34918	21.98
GC-SD326-0.0-0.5	001	28	11/11/10 06:29:08	23.80	6.96	7.89	34548	21.72
GC-SD328-0.0-0.5	002	28	11/11/10 06:29:23	23.94	6.97	7.98	34265	21.52
GC-SD330-0.0-0.5	003	28	11/11/10 06:29:42	23.84	6.87	7.91	34081	21.39
GC-SD333-0.0-0.5	004	28	11/11/10 06:30:22	23.89	7.09	7.87	32739	20.47
GC-SD329-0.0-0.5	005	28	11/11/10 06:30:40	23.95	7.02	7.78	33041	20.67
GC-SD303-0.0-0.5	006	28	11/11/10 06:31:02	23.97	7.04	7.82	32236	20.12
GC-SD307A-0.0-0.5	007	28	11/11/10 06:31:30	24.00	7.08	7.93	32005	19.96
GC-SD309-0.0-0.5	008	28	11/11/10 06:31:46	23.99	7.08	7.91	31835	19.84
GC-SD313-0.0-0.5	009	28	11/11/10 06:32:03	24.06	7.08	7.84	31066	19.31
GC-SD314-0.0-0.5	010	28	11/11/10 06:32:27	24.04	7.11	7.81	30791	19.13
GC-SD315-0.0-0.5	011	28	11/11/10 06:32:50	24.11	6.96	7.75	30552	18.96
GC-SD307B-0.0-0.5	012	28	11/11/10 06:33:06	24.12	6.93	7.72	30411	18.87
GC-SD324-0.0-0.5	013	28	11/11/10 06:33:31	24.08	7.00	7.83	30675	19.05
GC-SD321-0.0-0.5	014	28	11/11/10 06:34:00	24.01	7.05	7.87	30318	18.81
GC-SD319-0.0-0.5	015	28	11/11/10 06:34:20	23.94	6.99	7.78	31317	19.49
GC-SD318-0.0-0.5	016	28	11/11/10 06:34:45	23.93	7.02	7.77	31267	19.45
GC-SD310-0.0-0.5	017	28	11/11/10 06:35:03	23.94	7.04	7.77	31362	19.52

Leptocheirus plumulosus 28 Day Assay

STUDY NUMBER: 20201 **PROJECT: Gowanus Canal Superfund Site**

DATE: 11/11/10 **CLIENT: HDR Engineering, Inc.**

Sample Number	Rep	Survived	Juveniles	Females	Males	Initials
000	1	14	4	7	7	AM
000	2	15	40	4	11	
000	3	20	43	8	12	
000	4	19	27	7	12	
000	5	17	24	12	5	
000	6	17	40	8	9	
000	7	14	58	9	5	
000	8	14	45	8	6	
001	1	19	4	11	8	
001	2	16	4	9	7	
001	3	14	9	10	4	
001	4	16	9	6	10	
001	5	18	0	13	5	
001	6	19	1	8	11	
001	7	11	2	9	2	
001	8	0	-	-	-	
002	1	16	45	7	9	
002	2	17	55	9	8	
002	3	18	58	11	7	
002	4	17	16	10	7	
002	5	19	27	10	9	
002	6	3	0	2	1	
002	7	10	0	5	5	
002	8	20	57	9	11	
003	1	21	56	13	8	
003	2	18	26	9	9	
003	3	18	38	8	10	
003	4	19	111	10	9	
003	5	20	19	14	6	
003	6	18	66	10	8	
003	7	16	6	8	8	
003	8	18	81	8	10	
004	1	21	26	15	6	
004	2	18	47	11	7	
004	3	15	11	8	7	
004	4	18	20	12	6	
004	5	14	12	9	5	
004	6	16	31	9	7	
004	7	7	4	4	3	
004	8	15	38	8	7	

Leptocheirus plumulosus 28 Day Assay

STUDY NUMBER: 20201 **PROJECT: Gowanus Canal Superfund Site**

DATE: 11/11/10 **CLIENT: HDR Engineering, Inc.**

Sample Number	Rep	Survived	Juveniles	Females	Males	Initials
005	1	19	14	11	8	JTP
005	2	19	23	12	7	
005	3	14	47	9	5	
005	4	20	11	10	10	
005	5	20	32	10	10	
005	6	17	15	9	8	
005	7	17	24	11	6	
005	8	19	5	12	7	
006	1	19	33	7	12	
006	2	14	0	8	6	
006	3	15	2	9	6	
006	4	12	6	8	4	
006	5	18	21	10	8	
006	6	15	13	8	7	
006	7	18	20	11	7	
006	8	19	18	13	6	
007	1	17	13	12	5	
007	2	18	11	11	7	
007	3	16	4	10	6	
007	4	14	19	7	7	
007	5	15	0	12	3	
007	6	18	6	11	7	
007	7	15	12	10	5	
007	8	14	0	10	4	
008	1	15	2	8	7	
008	2	15	14	9	6	
008	3	17	7	9	8	
008	4	18	8	10	8	
008	5	16	21	11	5	
008	6	18	13	13	5	
008	7	19	15	13	6	
008	8	20	3	14	6	
009	1	1	0	1	0	DM
009	2	0	-	-	-	
009	3		-	-	-	
009	4		-	-	-	
009	5		-	-	-	
009	6		-	-	-	
009	7		-	-	-	
009	8		-	-	-	

Leptocheirus plumulosus 28 Day Assay

STUDY NUMBER: 20201 **PROJECT: Gowanus Canal Superfund Site**

DATE: 11/11/10 **CLIENT: HDR Engineering, Inc.**

Sample Number	Rep	Survived	Juveniles	Females	Males	Initials
010	1	0	-	-	-	JTP
010	2	0	-	-	-	
010	3	0	-	-	-	
010	4	0	-	-	-	
010	5	0	-	-	-	
010	6	0	-	-	-	
010	7	0	-	-	-	
010	8	0	-	-	-	
011	1	0	-	-	-	
011	2	0	-	-	-	
011	3	0	-	-	-	
011	4	0	-	-	-	
011	5	0	-	-	-	
011	6	0	-	-	-	
011	7	0	-	-	-	
011	8	0	-	-	-	
012	1	16	17	9	7	
012	2	16	20	10	6	
012	3	13	26	7	6	
012	4	1	0	1	0	
012	5	20	29	11	9	
012	6	13	16	10	3	
012	7	14	24	7	7	
012	8	19	28	12	7	
013	1	19	16	13	6	
013	2	13	1	7	6	
013	3	17	4	10	7	
013	4	18	0	12	6	
013	5	16	5	11	5	
013	6	18	15	9	9	
013	7	17	12	10	7	
013	8	19	21	11	8	
014	1	3	0	1	2	
014	2	14	0	10	4	
014	3	16	9	12	4	
014	4	18	4	14	4	
014	5	17	0	11	6	
014	6	13	6	11	2	
014	7	15	13	9	6	
014	8	14	7	10	4	

Leptocheirus plumulosus 28 Day Assay

STUDY NUMBER: 20201 **PROJECT:** Gowanus Canal Superfund Site

DATE: 11/11/10 **CLIENT:** HDR Engineering, Inc.

Sample Number	Rep	Survived	Juveniles	Females	Males	Initials
015	1	9	0	4	5	JTP
015	2	17	0	10	7	
015	3	11	0	8	3	
015	4	5	0	3	2	
015	5	15	0	10	5	
015	6	8	0	8	0	
015	7	9	0	7	2	
015	8	12	0	9	3	
016	1	9	0	6	3	
016	2	11	0	8	3	
016	3	10	0	6	4	
016	4	8	0	4	4	
016	5	4	0	3	1	
016	6	1	0	1	0	
016	7	8	0	5	3	
016	8	6	0	3	3	↓
017	1	13	0	8	5	DM
017	2	11	0	6	5	
017	3	11	0	9	2	
017	4	0	-	-	-	
017	5	3	0	2	1	
017	6	0	-	-	-	
017	7	2	0	2	0	
017	8	4	0	3	1	↓

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
19830-000	14-3755-5415	25 Jun-10 12:00	25 Jun-10 12:00	111d 0h	HDR Engineering, Inc.	Ecological Risk Asse
19830-003	01-9996-7487	17 Jun-10 13:38	19 Jun-10 13:00	118d 22h		
19830-008	03-2283-8752	18 Jun-10 09:48	19 Jun-10 13:00	118d 2h		
19830-009	12-1069-2908	18 Jun-10 12:52	19 Jun-10 13:00	117d 23h		
19830-010	00-6363-3797	18 Jun-10 11:21	19 Jun-10 13:00	118d 1h		
19830-012	01-9941-3387	18 Jun-10 15:16	19 Jun-10 13:00	117d 21h		
19830-001	10-6412-9845	17 Jun-10 14:25	19 Jun-10 13:00	118d 22h		
19830-002	14-2377-4629	17 Jun-10 16:50	19 Jun-10 13:00	118d 19h		
19830-004	02-9429-9959	18 Jun-10 10:15	19 Jun-10 13:00	118d 2h		
19830-005	09-3345-3845	18 Jun-10 10:30	19 Jun-10 13:00	118d 2h		
19830-006	05-3627-1272	18 Jun-10 13:15	19 Jun-10 13:00	117d 23h		
19830-007	20-4940-8825	18 Jun-10 12:40	19 Jun-10 13:00	117d 23h		
19830-011	15-0121-6600	18 Jun-10 15:55	19 Jun-10 13:00	117d 20h		
19830-013	12-2297-1777	21 Jun-10 12:50	22 Jun-10 15:00	114d 23h		
19830-014	07-7862-4227	21 Jun-10 14:05	22 Jun-10 15:00	114d 22h		
19830-015	19-3475-1966	22 Jun-10 10:40	23 Jun-10 09:30	114d 1h		
19830-016	00-4606-7422	22 Jun-10 14:35	23 Jun-10 09:30	113d 21h		
19830-017	19-8907-5507	24 Jun-10 09:50	25 Jun-10 09:30	112d 2h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
19830-000	Marine Sediment	Gowanus Canal Superfund Site	Laboratory Control; 19830-000		
19830-003	Marine Sediment	Gowanus Canal Superfund Site	GC-SD326-0.0-0.5; 19830-003		
19830-008	Marine Sediment	Gowanus Canal Superfund Site	GC-SD328-0.0-0.5; 19830-008		
19830-009	Marine Sediment	Gowanus Canal Superfund Site	GC-SD330-0.0-0.5; 19830-009		
19830-010	Marine Sediment	Gowanus Canal Superfund Site	GC-SD333-0.0-0.5; 19830-010		
19830-012	Marine Sediment	Gowanus Canal Superfund Site	GC-SD329-0.0-0.5; 19830-012		
19830-001	Marine Sediment	Gowanus Canal Superfund Site	GC-SD303-0.0-0.5; 19830-001		
19830-002	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307A-0.0-0.5; 19830-002		
19830-004	Marine Sediment	Gowanus Canal Superfund Site	GC-SD309-0.0-0.5; 19830-004		
19830-005	Marine Sediment	Gowanus Canal Superfund Site	GC-SD313-0.0-0.5; 19830-005		
19830-006	Marine Sediment	Gowanus Canal Superfund Site	GC-SD314-0.0-0.5; 19830-006		
19830-007	Marine Sediment	Gowanus Canal Superfund Site	GC-SD315-0.0-0.5; 19830-007		
19830-011	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307B-0.0-0.5; 19830-011		
19830-013	Marine Sediment	Gowanus Canal Superfund Site	GC-SD324-0.0-0.5; 19830-013		
19830-014	Marine Sediment	Gowanus Canal Superfund Site	GC-SD321-0.0-0.5; 19830-014		
19830-015	Marine Sediment	Gowanus Canal Superfund Site	GC-SD319-0.0-0.5; 19830-015		
19830-016	Marine Sediment	Gowanus Canal Superfund Site	GC-SD318-0.0-0.5; 19830-016		
19830-017	Marine Sediment	Gowanus Canal Superfund Site	GC-SD310-0.0-0.5; 19830-017		

Sample Code	vs	Sample Code	P-Value	Alpha	Decision	Analysis ID	Method
19830-000		19830-003	0.0003	0.05	Significant Effect	13-6489-0745	Equal Variance t Two-Sample Test
		19830-003	<0.0001	0.05	Significant Effect	11-2101-6111	Equal Variance t Two-Sample Test
		19830-003	0.4740	0.05	Non-Significant Effect	20-0285-7907	Equal Variance t Two-Sample Test

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
20-0285-7907	Proportion Survived	Control Resp	0.8125	0.8 - NL	Yes	Passes Acceptibility Criteria

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test **EnviroSystems, Inc.**

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9514	1.164	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-003	8	0.4752	0.3853	0.5652	0	0.7415	0.08516	0.2409	50.68%	55.06%
19830-008	8	0.7972	0.6622	0.9322	0.0685	1.157	0.1279	0.3616	45.36%	24.62%
19830-009	8	1.096	1.026	1.166	0.7255	1.332	0.06635	0.1877	17.12%	-3.67%
19830-010	8	0.6734	0.5761	0.7707	0.1875	0.9315	0.09211	0.2605	38.69%	36.32%
19830-012	8	0.7908	0.7267	0.8549	0.5865	1.126	0.06069	0.1716	21.71%	25.22%
19830-001	8	0.8858	0.7849	0.9866	0.4715	1.171	0.09553	0.2702	30.51%	16.25%
19830-002	8	0.5755	0.5136	0.6374	0.3295	0.7895	0.05857	0.1657	28.79%	45.58%
19830-004	8	0.6434	0.566	0.7208	0.3575	0.957	0.07327	0.2072	32.21%	39.16%
19830-005	8	0.00275	-0.000154	0.005654	0	0.022	0.00275	0.007778	282.8%	99.74%
19830-006	8	0	0	0	0	0	0	0		100.0%
19830-007	8	0	0	0	0	0	0	0		100.0%
19830-011	8	0.6449	0.5379	0.7519	0.018	1.018	0.1013	0.2866	44.44%	39.02%
19830-013	8	0.6661	0.5945	0.7377	0.398	0.963	0.0678	0.1918	28.79%	37.02%
19830-014	8	0.4183	0.3511	0.4855	0.053	0.63	0.06363	0.18	43.02%	60.45%
19830-015	8	0.1751	0.1436	0.2065	0.0625	0.303	0.02979	0.08426	48.13%	83.45%
19830-016	8	0.1047	0.08046	0.129	0.0225	0.2015	0.02299	0.06504	62.09%	90.1%
19830-017	8	0.1297	0.07101	0.1884	0	0.3855	0.05556	0.1571	121.2%	87.74%

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.196	1.387	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-003	7	0.6678	0.6175	0.7181	0.5194	0.8944	0.05088	0.1346	20.16%	48.3%
19830-008	8	1.011	0.8949	1.126	0.4567	1.446	0.1096	0.31	30.67%	21.76%
19830-009	8	1.193	1.121	1.266	0.9069	1.403	0.06862	0.1941	16.27%	7.63%
19830-010	8	0.8495	0.7667	0.9323	0.5357	1.169	0.07844	0.2219	26.12%	34.24%
19830-012	8	0.8768	0.8096	0.9439	0.6174	1.186	0.06357	0.1798	20.51%	32.13%
19830-001	8	1.072	0.9885	1.156	0.6736	1.357	0.07934	0.2244	20.93%	16.99%
19830-002	8	0.7245	0.6466	0.8024	0.4393	1.128	0.07372	0.2085	28.78%	43.91%
19830-004	8	0.7462	0.6577	0.8346	0.4767	1.196	0.08375	0.2369	31.75%	42.24%
19830-005	1	0.44			0.44	0.44	0	0	0.0%	65.94%
19830-011	8	0.8609	0.772	0.9498	0.36	1.139	0.08421	0.2382	27.67%	33.35%
19830-013	8	0.7676	0.7093	0.8259	0.5718	1.014	0.05519	0.1561	20.34%	40.58%
19830-014	8	0.5834	0.5263	0.6404	0.3533	0.84	0.054	0.1527	26.18%	54.84%
19830-015	8	0.3157	0.2847	0.3467	0.2162	0.46	0.02935	0.083	26.29%	75.56%
19830-016	8	0.2971	0.2568	0.3374	0.1683	0.45	0.03818	0.108	36.35%	77.0%
19830-017	6	0.4144	0.3461	0.4828	0.2067	0.7009	0.07471	0.183	44.16%	67.92%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test **EnviroSystems, Inc.**

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7681	0.8569	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-003	8	0.7063	0.5884	0.8241	0	0.95	0.1116	0.3156	44.69%	13.08%
19830-008	8	0.75	0.6434	0.8566	0.15	1	0.1009	0.2854	38.05%	7.69%
19830-009	8	0.9188	0.8944	0.9431	0.8	1	0.02302	0.06512	7.09%	-13.08%
19830-010	8	0.7687	0.6955	0.842	0.35	1	0.0694	0.1963	25.53%	5.39%
19830-012	8	0.9062	0.8683	0.9442	0.7	1	0.0359	0.1016	11.21%	-11.54%
19830-001	8	0.8125	0.7639	0.8611	0.6	0.95	0.04605	0.1302	16.03%	0.0%
19830-002	8	0.7938	0.7631	0.8244	0.7	0.9	0.02903	0.0821	10.34%	2.31%
19830-004	8	0.8625	0.8283	0.8967	0.75	1	0.03239	0.09161	10.62%	-6.15%
19830-005	8	0.00625	0	0.01285	0	0.05	0.00625	0.01768	282.8%	99.23%
19830-006	8	0	0	0	0	0	0	0		100.0%
19830-007	8	0	0	0	0	0	0	0		100.0%
19830-011	8	0.7	0.5907	0.8093	0.05	1	0.1035	0.2928	41.82%	13.85%
19830-013	8	0.8563	0.8197	0.8928	0.65	0.95	0.03464	0.09797	11.44%	-5.39%
19830-014	8	0.6875	0.6006	0.7744	0.15	0.9	0.08224	0.2326	33.83%	15.38%
19830-015	8	0.5375	0.465	0.61	0.25	0.85	0.06863	0.1941	36.11%	33.85%
19830-016	8	0.3562	0.2944	0.4181	0.05	0.55	0.05858	0.1657	46.51%	56.15%
19830-017	8	0.275	0.1757	0.3743	0	0.65	0.09402	0.2659	96.7%	66.15%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test **EnviroSystems, Inc.**

Mean Dry Biomass-mg Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	0.565	1.101	1.321	1.36	0.9	1.362	0.992	0.8595
19830-003	0.612	0.4845	0.4865	0.7155	0.4675	0.7415	0.2945	0
19830-008	1.157	1.09	0.8435	0.6675	0.8545	0.0685	0.582	1.115
19830-009	0.9857	1.114	1.185	1.332	1.015	1.237	0.7255	1.176
19830-010	0.8129	0.9315	0.737	0.861	0.438	0.543	0.1875	0.8765
19830-012	1.126	0.791	0.7035	0.8065	0.8705	0.839	0.603	0.5865
19830-001	1.091	0.4715	0.749	0.5175	1.171	1.018	1.025	1.044
19830-002	0.7315	0.686	0.5305	0.7895	0.3295	0.64	0.522	0.375
19830-004	0.3575	0.565	0.61	0.57	0.957	0.4965	0.937	0.654
19830-005	0.022	0	0	0	0	0	0	0
19830-006	0	0	0	0	0	0	0	0
19830-007	0	0	0	0	0	0	0	0
19830-011	0.692	0.712	0.6695	0.018	1.018	0.55	0.797	0.7025
19830-013	0.8125	0.398	0.486	0.6095	0.583	0.8455	0.631	0.963
19830-014	0.053	0.3245	0.5395	0.5705	0.388	0.3995	0.63	0.4415
19830-015	0.207	0.303	0.157	0.0625	0.236	0.0865	0.112	0.2365
19830-016	0.2015	0.1725	0.1305	0.1215	0.034	0.0225	0.105	0.0505
19830-017	0.3585	0.3855	0.1485	0	0.031	0	0.0375	0.0765

Mean Dry Weight-mg Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	0.8071	1.469	1.321	1.431	1.059	1.603	1.417	1.228
19830-003	0.6442	0.6056	0.695	0.8944	0.5194	0.7805	0.5355	
19830-008	1.446	1.282	0.9372	0.7853	0.8995	0.4567	1.164	1.115
19830-009	0.9857	1.238	1.316	1.403	1.015	1.375	0.9069	1.307
19830-010	0.8129	1.035	0.9827	0.9567	0.6257	0.6788	0.5357	1.169
19830-012	1.186	0.8326	1.005	0.8065	0.8705	0.9871	0.7094	0.6174
19830-001	1.148	0.6736	0.9987	0.8625	1.301	1.357	1.138	1.099
19830-002	0.8606	0.7622	0.6631	1.128	0.4393	0.7111	0.696	0.5357
19830-004	0.4767	0.7533	0.7176	0.6333	1.196	0.5517	0.9863	0.654
19830-005	0.44							
19830-011	0.865	0.89	1.03	0.36	1.018	0.8462	1.139	0.7395
19830-013	0.8553	0.6123	0.5718	0.6772	0.7288	0.9394	0.7424	1.014
19830-014	0.3533	0.4636	0.6744	0.6339	0.4565	0.6146	0.84	0.6307
19830-015	0.46	0.3565	0.2855	0.25	0.3147	0.2162	0.2489	0.3942
19830-016	0.4478	0.3136	0.261	0.3038	0.17	0.45	0.2625	0.1683
19830-017	0.5515	0.7009	0.27	0.2067	0.375	0.3825		

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test **EnviroSystems, Inc.**

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	0.7	0.75	1	0.95	0.85	0.85	0.7	0.7
19830-003	0.95	0.8	0.7	0.8	0.9	0.95	0.55	0
19830-008	0.8	0.85	0.9	0.85	0.95	0.15	0.5	1
19830-009	1	0.9	0.9	0.95	1	0.9	0.8	0.9
19830-010	1	0.9	0.75	0.9	0.7	0.8	0.35	0.75
19830-012	0.95	0.95	0.7	1	1	0.85	0.85	0.95
19830-001	0.95	0.7	0.75	0.6	0.9	0.75	0.9	0.95
19830-002	0.85	0.9	0.8	0.7	0.75	0.9	0.75	0.7
19830-004	0.75	0.75	0.85	0.9	0.8	0.9	0.95	1
19830-005	0.05	0	0	0	0	0	0	0
19830-006	0	0	0	0	0	0	0	0
19830-007	0	0	0	0	0	0	0	0
19830-011	0.8	0.8	0.65	0.05	1	0.65	0.7	0.95
19830-013	0.95	0.65	0.85	0.9	0.8	0.9	0.85	0.95
19830-014	0.15	0.7	0.8	0.9	0.85	0.65	0.75	0.7
19830-015	0.45	0.85	0.55	0.25	0.75	0.4	0.45	0.6
19830-016	0.45	0.55	0.5	0.4	0.2	0.05	0.4	0.3
19830-017	0.65	0.55	0.55	0	0.15	0	0.1	0.2

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
19830-000	14-3755-5415	25 Jun-10 12:00	25 Jun-10 12:00	111d 0h	HDR Engineering, Inc.	Ecological Risk Asse
19830-003	01-9996-7487	17 Jun-10 13:38	19 Jun-10 13:00	118d 22h		
19830-008	03-2283-8752	18 Jun-10 09:48	19 Jun-10 13:00	118d 2h		
19830-009	12-1069-2908	18 Jun-10 12:52	19 Jun-10 13:00	117d 23h		
19830-010	00-6363-3797	18 Jun-10 11:21	19 Jun-10 13:00	118d 1h		
19830-012	01-9941-3387	18 Jun-10 15:16	19 Jun-10 13:00	117d 21h		
19830-001	10-6412-9845	17 Jun-10 14:25	19 Jun-10 13:00	118d 22h		
19830-002	14-2377-4629	17 Jun-10 16:50	19 Jun-10 13:00	118d 19h		
19830-004	02-9429-9959	18 Jun-10 10:15	19 Jun-10 13:00	118d 2h		
19830-005	09-3345-3845	18 Jun-10 10:30	19 Jun-10 13:00	118d 2h		
19830-006	05-3627-1272	18 Jun-10 13:15	19 Jun-10 13:00	117d 23h		
19830-007	20-4940-8825	18 Jun-10 12:40	19 Jun-10 13:00	117d 23h		
19830-011	15-0121-6600	18 Jun-10 15:55	19 Jun-10 13:00	117d 20h		
19830-013	12-2297-1777	21 Jun-10 12:50	22 Jun-10 15:00	114d 23h		
19830-014	07-7862-4227	21 Jun-10 14:05	22 Jun-10 15:00	114d 22h		
19830-015	19-3475-1966	22 Jun-10 10:40	23 Jun-10 09:30	114d 1h		
19830-016	00-4606-7422	22 Jun-10 14:35	23 Jun-10 09:30	113d 21h		
19830-017	19-8907-5507	24 Jun-10 09:50	25 Jun-10 09:30	112d 2h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
19830-000	Marine Sediment	Gowanus Canal Superfund Site	Laboratory Control; 19830-000		
19830-003	Marine Sediment	Gowanus Canal Superfund Site	GC-SD326-0.0-0.5; 19830-003		
19830-008	Marine Sediment	Gowanus Canal Superfund Site	GC-SD328-0.0-0.5; 19830-008		
19830-009	Marine Sediment	Gowanus Canal Superfund Site	GC-SD330-0.0-0.5; 19830-009		
19830-010	Marine Sediment	Gowanus Canal Superfund Site	GC-SD333-0.0-0.5; 19830-010		
19830-012	Marine Sediment	Gowanus Canal Superfund Site	GC-SD329-0.0-0.5; 19830-012		
19830-001	Marine Sediment	Gowanus Canal Superfund Site	GC-SD303-0.0-0.5; 19830-001		
19830-002	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307A-0.0-0.5; 19830-002		
19830-004	Marine Sediment	Gowanus Canal Superfund Site	GC-SD309-0.0-0.5; 19830-004		
19830-005	Marine Sediment	Gowanus Canal Superfund Site	GC-SD313-0.0-0.5; 19830-005		
19830-006	Marine Sediment	Gowanus Canal Superfund Site	GC-SD314-0.0-0.5; 19830-006		
19830-007	Marine Sediment	Gowanus Canal Superfund Site	GC-SD315-0.0-0.5; 19830-007		
19830-011	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307B-0.0-0.5; 19830-011		
19830-013	Marine Sediment	Gowanus Canal Superfund Site	GC-SD324-0.0-0.5; 19830-013		
19830-014	Marine Sediment	Gowanus Canal Superfund Site	GC-SD321-0.0-0.5; 19830-014		
19830-015	Marine Sediment	Gowanus Canal Superfund Site	GC-SD319-0.0-0.5; 19830-015		
19830-016	Marine Sediment	Gowanus Canal Superfund Site	GC-SD318-0.0-0.5; 19830-016		
19830-017	Marine Sediment	Gowanus Canal Superfund Site	GC-SD310-0.0-0.5; 19830-017		

Sample Code	vs	Sample Code	P-Value	Alpha	Decision	Analysis ID	Method
19830-000		19830-008	0.1869	0.05	Non-Significant Effect	10-9955-5793	Equal Variance t Two-Sample Test

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test **EnviroSystems, Inc.**

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.79	5.928	0.5714	10	1.012	2.863	58.92%	0.0%
19830-003	7	0.5079	0.3121	0.7037	0	1.5	0.1981	0.5243	103.2%	89.55%
19830-008	8	3.556	2.506	4.605	0	6.429	0.9936	2.81	79.04%	26.82%
19830-009	8	5.235	3.81	6.66	0.75	11.1	1.349	3.816	72.89%	-7.73%
19830-010	8	2.447	1.896	2.998	1	4.75	0.5216	1.475	60.29%	49.64%
19830-012	8	2.122	1.563	2.681	0.4167	5.222	0.5295	1.498	70.57%	56.33%
19830-001	8	1.577	1.026	2.127	0	4.714	0.5213	1.475	93.52%	67.55%
19830-002	8	0.8679	0.5395	1.196	0	2.714	0.3109	0.8793	101.3%	82.14%
19830-004	8	0.9576	0.7383	1.177	0.2143	1.909	0.2076	0.5872	61.32%	80.29%
19830-005	1	0			0	0	0	0		100.0%
19830-011	8	2.2	1.769	2.632	0	3.714	0.4086	1.156	52.52%	54.72%
19830-013	8	0.8755	0.6065	1.144	0	1.909	0.2547	0.7204	82.28%	81.98%
19830-014	8	0.4657	0.2772	0.6542	0	1.444	0.1784	0.5047	108.4%	90.42%
19830-015	8	0	0	0	0	0	0	0		100.0%
19830-016	8	0	0	0	0	0	0	0		100.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Offspring/Surviving Female Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	0.5714	10	5.375	3.857	2	5	6.444	5.625
19830-003	0.3636	0.4444	0.9	1.5	0	0.125	0.2222	
19830-008	6.429	6.111	5.273	1.6	2.7	0	0	6.333
19830-009	4.308	2.889	4.75	11.1	1.357	6.6	0.75	10.13
19830-010	1.733	4.273	1.375	1.667	1.333	3.444	1	4.75
19830-012	1.273	1.917	5.222	1.1	3.2	1.667	2.182	0.4167
19830-001	4.714	0	0.2222	0.75	2.1	1.625	1.818	1.385
19830-002	1.083	1	0.4	2.714	0	0.5455	1.2	0
19830-004	0.25	1.556	0.7778	0.8	1.909	1	1.154	0.2143
19830-005	0							
19830-011	1.889	2	3.714	0	2.636	1.6	3.429	2.333
19830-013	1.231	0.1429	0.4	0	0.4545	1.667	1.2	1.909
19830-014	0	0	0.75	0.2857	0	0.5455	1.444	0.7
19830-015	0	0	0	0	0	0	0	0
19830-016	0	0	0	0	0	0	0	0
19830-017	0	0	0	0	0	0		

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-4822-6263	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	18.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	1.909	1.761	14	0.2515	0.0385	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.858	2.586	0.0096	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2970845	0.2970845	1	3.644	0.0770	Non-Significant Effect
Error	1.141435	0.08153107	14			
Total	1.438519	0.3786156	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.249	8.885	0.0439	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8824	0.8408	0.0424	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-011	8	0.7	0.5886	0.8114	0.05	1	0.1035	0.2928	41.82%	22.76%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-4351-1630	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	10.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	1.696	1.771	13	0.1669	0.0568	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09546966	0.09546966	1	2.878	0.1136	Non-Significant Effect
Error	0.4312463	0.03317279	13			
Total	0.5267159	0.1286425	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.588	9.155	0.5573	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9726	0.8328	0.8943	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-011	7	0.7929	0.7397	0.846	0.65	1	0.05281	0.1397	17.62%	12.51%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-0898-1467	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	7.61%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-013	1.197	1.761	14	0.1307	0.1255	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.058	2.586	0.4427	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03159259	0.03159259	1	1.434	0.2510	Non-Significant Effect
Error	0.3084812	0.02203437	14			
Total	0.3400738	0.05362696	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.452	8.885	0.6351	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9106	0.8408	0.1189	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	5.52%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-1525-6644	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	2.772	1.761	14	0.1903	0.0075	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.822	2.586	0.0123	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3589419	0.3589419	1	7.687	0.0150	Significant Effect
Error	0.6537554	0.04669682	14			
Total	1.012697	0.4056388	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.579	8.885	0.2345	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8597	0.8408	0.0190	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-014	8	0.6875	0.599	0.776	0.15	0.9	0.08224	0.2326	33.83%	24.14%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-4714-5015	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	7.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	2.959	1.771	13	0.1289	0.0055	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.173223	0.173223	1	8.757	0.0111	Significant Effect
Error	0.2571647	0.0197819	13			
Total	0.4303878	0.1930049	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.101	10.79	0.3843	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9377	0.8328	0.3546	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-014	7	0.7643	0.7301	0.7985	0.65	0.9	0.03401	0.08997	11.77%	15.67%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-2241-2851	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	10.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-015	4.936	1.761	14	0.1637	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.924	2.586	0.6734	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8417678	0.8417678	1	24.37	0.0002	Significant Effect
Error	0.4835983	0.03454273	14			
Total	1.325366	0.8763105	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.648	8.885	0.5259	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.964	0.8408	0.7346	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-015	8	0.5375	0.4637	0.6113	0.25	0.85	0.06863	0.1941	36.11%	40.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-2131-6485	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	10.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-016	7.307	1.761	14	0.1596	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.278	2.586	0.2010	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.753163	1.753163	1	53.4	<0.0001	Significant Effect
Error	0.4596705	0.03283361	14			
Total	2.212834	1.785997	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.517	8.885	0.5963	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8981	0.8408	0.0750	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-016	8	0.3563	0.2932	0.4193	0.05	0.55	0.05858	0.1657	46.51%	60.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-3167-5987	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	16.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-017	6.041	1.761	14	0.2287	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.737	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.460847	2.460847	1	36.5	<0.0001	Significant Effect
Error	0.9439347	0.06742391	14			
Total	3.404782	2.528271	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.168	8.885	0.0792	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9613	0.8408	0.6854	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-017	8	0.275	0.1738	0.3762	0	0.65	0.09402	0.2659	96.7%	69.66%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-2319-6690	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.02%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-001	1.684	1.761	14	0.1478	0.0572	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.82	2.586	0.9060	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.07986705	0.07986705	1	2.835	0.1144	Non-Significant Effect
Error	0.3943775	0.02816982	14			
Total	0.4742445	0.1080369	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.159	8.885	0.8506	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9138	0.8408	0.1338	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	10.34%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-7951-6753	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	6.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-002	2.627	1.761	14	0.1203	0.0100	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.236	2.586	0.2363	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.128822	0.128822	1	6.9	0.0199	Significant Effect
Error	0.2613752	0.01866966	14			
Total	0.3901972	0.1474916	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.321	8.885	0.2892	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9255	0.8408	0.2068	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	12.41%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-6292-5050	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	7.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-004	0.9984	1.761	14	0.1354	0.1675	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.988	2.586	0.5552	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02355785	0.02355785	1	0.9969	0.3350	Non-Significant Effect
Error	0.3308401	0.02363144	14			
Total	0.354398	0.04718929	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.233	8.885	0.7896	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9643	0.8408	0.7401	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	4.83%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-7274-2660	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	6.07%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-005	19.71	1.895	7	0.1115	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.596	2.586	0.0473	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.38349	5.38349	1	388.6	<0.0001	Significant Effect
Error	0.1939276	0.01385197	14			
Total	5.577418	5.397342	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	16.21	8.885	0.0016	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8928	0.8408	0.0617	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.31%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-3573-5834	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	3.73%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-005	27.27	1.771	13	0.07808	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.396506	5.396506	1	743.6	<0.0001	Significant Effect
Error	0.09434704	0.007257465	13			
Total	5.490853	5.403764	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.603	9.155	0.0120	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8467	0.8328	0.0156	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9357	0.9119	0.9596	0.85	1	0.02369	0.06268	6.7%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-9672-4068	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	5.22%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-006	20.56	1.761	14	0.1006	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.675	2.586	0.0307	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.51594	5.51594	1	422.8	<0.0001	Significant Effect
Error	0.1826604	0.01304718	14			
Total	5.698601	5.528987	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	7.248	8.862	0.0175	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8489	0.8408	0.0131	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-0197-1471	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	3.42%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-006	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.524592	5.524592	1	864.5	<0.0001	Significant Effect
Error	0.08307989	0.006390761	13			
Total	5.607672	5.530983	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.17	9.33	0.0045	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7598	0.8328	0.0012	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9357	0.9119	0.9596	0.85	1	0.02369	0.06268	6.7%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-1530-9598	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	5.22%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-007	20.56	1.761	14	0.1006	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.675	2.586	0.0307	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.51594	5.51594	1	422.8	<0.0001	Significant Effect
Error	0.1826604	0.01304718	14			
Total	5.698601	5.528987	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	7.248	8.862	0.0175	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8489	0.8408	0.0131	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-0575-0084	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	3.42%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-007	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.524592	5.524592	1	864.5	<0.0001	Significant Effect
Error	0.08307989	0.006390761	13			
Total	5.607672	5.530983	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.17	9.33	0.0045	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7598	0.8328	0.0012	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9357	0.9119	0.9596	0.85	1	0.02369	0.06268	6.7%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-0955-0066	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	20.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-015	2.4	1.761	14	0.1985	0.0154	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.136	2.586	0.3408	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2928198	0.2928198	1	5.762	0.0308	Significant Effect
Error	0.7115152	0.05082252	14			
Total	1.004335	0.3436424	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.364	8.885	0.6922	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9661	0.8408	0.7715	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-015	8	0.5375	0.4637	0.6113	0.25	0.85	0.06863	0.1941	36.11%	30.08%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-6220-7061	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	19.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-016	4.276	1.761	14	0.1952	0.0004	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.172	2.586	0.2990	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8981732	0.8981732	1	18.29	0.0008	Significant Effect
Error	0.6875875	0.04911339	14			
Total	1.585761	0.9472865	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.482	8.885	0.6165	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9389	0.8408	0.3362	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-016	8	0.3563	0.2932	0.4193	0.05	0.55	0.05858	0.1657	46.51%	53.66%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-2353-6993	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	27.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-017	4.121	1.761	14	0.2548	0.0005	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.664	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.421718	1.421718	1	16.99	0.0010	Significant Effect
Error	1.171852	0.0837037	14			
Total	2.59357	1.505422	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.854	8.885	0.4340	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9444	0.8408	0.4063	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-017	8	0.275	0.1738	0.3762	0	0.65	0.09402	0.2659	96.7%	64.23%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-0185-8983	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	23.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-014	0.8877	1.761	14	0.221	0.1949	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.43	2.586	0.1063	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04962508	0.04962508	1	0.788	0.3897	Non-Significant Effect
Error	0.8816724	0.0629766	14			
Total	0.9312975	0.1126017	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.147	8.885	0.8607	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8858	0.8408	0.0479	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-014	8	0.6875	0.599	0.776	0.15	0.9	0.08224	0.2326	33.83%	10.57%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-8871-0114	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	10.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-005	16.24	1.943	6	0.1243	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.025455	4.025455	1	299.7	<0.0001	Significant Effect
Error	0.1746109	0.01343161	13			
Total	4.200066	4.038887	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	16.91	9.155	0.0015	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8747	0.8328	0.0396	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.8286	0.7877	0.8694	0.7	1	0.04062	0.1075	12.97%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.25%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-0537-6804	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	21.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-011	-0.2425	1.771	13	0.2064	0.5939	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.002982004	0.002982004	1	0.05881	0.8122	Non-Significant Effect
Error	0.6591633	0.05070487	13			
Total	0.6621453	0.05368687	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.416	10.79	0.6878	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9609	0.8328	0.7079	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-011	7	0.7929	0.7397	0.846	0.65	1	0.05281	0.1397	17.62%	-3.14%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-1609-0284	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	30.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-011	0.5394	1.761	14	0.2754	0.2990	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.609	2.586	0.0442	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.028461	0.028461	1	0.291	0.5981	Non-Significant Effect
Error	1.369352	0.09781086	14			
Total	1.397813	0.1262719	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.335	8.885	0.2857	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8954	0.8408	0.0678	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-011	8	0.7	0.5886	0.8114	0.05	1	0.1035	0.2928	41.82%	8.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-0802-3031	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	14.3%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-010		19830-006	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.811	2.586	0.0132	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.889782	3.889782	1	132.6	<0.0001	Significant Effect
Error	0.4105775	0.02932696	14			
Total	4.30036	3.919109	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.507	8.862	0.0113	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7807	0.8408	0.0015	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-5996-9064	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.88%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-006	16.88	1.943	6	0.1212	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.136183	4.136183	1	329.2	<0.0001	Significant Effect
Error	0.1633437	0.0125649	13			
Total	4.299527	4.148748	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	14.76	9.33	0.0023	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8383	0.8328	0.0119	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.8286	0.7877	0.8694	0.7	1	0.04062	0.1075	12.97%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-1542-2004	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	14.3%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-010		19830-007	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.811	2.586	0.0132	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.889782	3.889782	1	132.6	<0.0001	Significant Effect
Error	0.4105775	0.02932696	14			
Total	4.30036	3.919109	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.507	8.862	0.0113	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7807	0.8408	0.0015	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-3992-1698	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.88%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-007	16.88	1.943	6	0.1212	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.136183	4.136183	1	329.2	<0.0001	Significant Effect
Error	0.1633437	0.0125649	13			
Total	4.299527	4.148748	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	14.76	9.33	0.0023	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8383	0.8328	0.0119	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.8286	0.7877	0.8694	0.7	1	0.04062	0.1075	12.97%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-1744-5062	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	16.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-013	-1.015	1.761	14	0.1724	0.8363	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.46	2.586	0.0928	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03944503	0.03944503	1	1.03	0.3275	Non-Significant Effect
Error	0.5363983	0.03831416	14			
Total	0.5758433	0.07775919	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.263	8.885	0.1414	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9382	0.8408	0.3278	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	-11.38%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-8365-0149	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	18.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-012	-1.828	1.761	14	0.1813	0.9556	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.339	2.586	0.1573	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1416399	0.1416399	1	3.343	0.0889	Non-Significant Effect
Error	0.5932379	0.04237414	14			
Total	0.7348778	0.184014	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.248	8.885	0.3073	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9529	0.8408	0.5366	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	-17.89%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-7638-0316	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	18.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-001	-0.4446	1.761	14	0.1857	0.6683	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.284	2.586	0.1967	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.008787782	0.008787782	1	0.1977	0.6634	Non-Significant Effect
Error	0.6222945	0.04444961	14			
Total	0.6310823	0.05323739	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.939	8.885	0.4019	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9674	0.8408	0.7952	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	-5.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-5977-8847	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	16.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-002	-0.09325	1.761	14	0.1646	0.5365	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.575	2.586	0.0528	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0003039089	0.0003039089	1	0.008696	0.9270	Non-Significant Effect
Error	0.4892922	0.03494944	14			
Total	0.4895961	0.03525335	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.216	8.885	0.0446	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9133	0.8408	0.1317	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	-3.25%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-1909-6162	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	17.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-004	-1.116	1.761	14	0.1759	0.8583	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.41	2.586	0.1161	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04966885	0.04966885	1	1.244	0.2834	Non-Significant Effect
Error	0.5587572	0.03991123	14			
Total	0.608426	0.08958007	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.771	8.885	0.2022	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9617	0.8408	0.6932	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	-12.2%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-6963-8247	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.0%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-009		19830-014	40.5		14	2	0.0009	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.017	2.586	0.0027	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3827269	0.3827269	1	9.369	0.0085	Significant Effect
Error	0.5718779	0.04084842	14			
Total	0.9546049	0.4235754	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.674	8.885	0.0594	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8311	0.8408	0.0073	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-014	8	0.6875	0.599	0.776	0.15	0.9	0.08224	0.2326	33.83%	25.17%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-2727-8214	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	6.22%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-014	3.747	1.771	13	0.1064	0.0012	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.189286	0.189286	1	14.04	0.0024	Significant Effect
Error	0.1752872	0.01348363	13			
Total	0.3645732	0.2027696	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.159	10.79	0.8729	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.93	0.8328	0.2730	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-014	7	0.7643	0.7301	0.7985	0.65	0.9	0.03401	0.08997	11.77%	16.81%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-5435-5546	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.57%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-015	5.532	1.761	14	0.1492	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.111	2.586	0.3707	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8779891	0.8779891	1	30.6	<0.0001	Significant Effect
Error	0.4017208	0.02869434	14			
Total	1.27971	0.9066834	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.986	8.885	0.1722	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9714	0.8408	0.8614	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-015	8	0.5375	0.4637	0.6113	0.25	0.85	0.06863	0.1941	36.11%	41.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-1458-2384	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-016	8.179	1.761	14	0.1447	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.513	2.586	0.0721	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.805267	1.805267	1	66.9	<0.0001	Significant Effect
Error	0.377793	0.02698521	14			
Total	2.18306	1.832253	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.749	8.885	0.2056	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9174	0.8408	0.1532	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-016	8	0.3563	0.2932	0.4193	0.05	0.55	0.05858	0.1657	46.51%	61.22%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-1768-8887	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	15.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-017	6.4	1.761	14	0.2185	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.818	2.586	0.9129	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.522508	2.522508	1	40.97	<0.0001	Significant Effect
Error	0.8620572	0.06157551	14			
Total	3.384565	2.584083	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	7.554	8.885	0.0161	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.946	0.8408	0.4289	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-017	8	0.275	0.1738	0.3762	0	0.65	0.09402	0.2659	96.7%	70.07%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-4211-5285	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	4.51%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-005	26.15	1.86	8	0.08318	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.186	2.586	0.2844	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.474507	5.474507	1	684	<0.0001	Significant Effect
Error	0.1120501	0.008003579	14			
Total	5.586557	5.482511	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.945	8.885	0.0098	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8491	0.8408	0.0132	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.32%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-4099-2465	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	3.91%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-009		19830-006	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.305	2.586	0.1804	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.608066	5.608066	1	779	<0.0001	Significant Effect
Error	0.1007829	0.007198782	14			
Total	5.708848	5.615264	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	5.96	8.862	0.0285	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8251	0.8408	0.0060	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-9366-5649	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	3.91%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-009		19830-007	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.305	2.586	0.1804	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.608066	5.608066	1	779	<0.0001	Significant Effect
Error	0.1007829	0.007198782	14			
Total	5.708848	5.615264	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	5.96	8.862	0.0285	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8251	0.8408	0.0060	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-9542-5598	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	17.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-009		19830-011	49.5		14	4	0.0249	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.966	2.586	0.0042	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3187577	0.3187577	1	4.212	0.0593	Non-Significant Effect
Error	1.059557	0.07568267	14			
Total	1.378315	0.3944404	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	9.513	8.885	0.0082	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8386	0.8408	0.0093	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-011	8	0.7	0.5886	0.8114	0.05	1	0.1035	0.2928	41.82%	23.81%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-8543-6114	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	6.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-013	1.551	1.761	14	0.112	0.0717	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.113	2.586	0.3683	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0389173	0.0389173	1	2.404	0.1433	Non-Significant Effect
Error	0.2266037	0.01618598	14			
Total	0.265521	0.05510328	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.248	8.885	0.7772	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9271	0.8408	0.2193	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	6.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-1694-8974	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	7.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-012	0.1373	1.761	14	0.1253	0.4464	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.147	2.586	0.3269	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0003814854	0.0003814854	1	0.01884	0.8928	Non-Significant Effect
Error	0.2834434	0.02024596	14			
Total	0.2838249	0.02062744	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.812	8.885	0.4509	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9293	0.8408	0.2376	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	1.36%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-4033-8180	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	11.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-010	2.071	1.761	14	0.1683	0.0286	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.519	2.586	0.0700	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1567229	0.1567229	1	4.291	0.0573	Non-Significant Effect
Error	0.5113604	0.03652574	14			
Total	0.6680833	0.1932486	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.074	8.885	0.0838	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.917	0.8408	0.1507	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	16.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-6501-1418	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	8.15%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-001	2.022	1.761	14	0.1316	0.0313	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.794	2.586	0.9735	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09128812	0.09128812	1	4.09	0.0627	Non-Significant Effect
Error	0.3125	0.02232143	14			
Total	0.4037881	0.1136095	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.101	8.885	0.3485	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9377	0.8408	0.3221	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	11.56%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-4645-0557	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	5.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-002	3.342	1.761	14	0.09972	0.0024	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.727	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.143224	0.143224	1	11.17	0.0048	Significant Effect
Error	0.1794977	0.01282127	14			
Total	0.3227217	0.1560452	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.28	8.885	0.7527	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9164	0.8408	0.1474	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	13.61%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-1747-8866	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	7.05%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-004	1.297	1.761	14	0.1174	0.1077	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.934	2.586	0.6539	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02993499	0.02993499	1	1.683	0.2155	Non-Significant Effect
Error	0.2489626	0.01778305	14			
Total	0.2788976	0.04771804	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.47	8.885	0.6237	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9463	0.8408	0.4338	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	6.12%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-5128-0127	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	35.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-011	0.407	1.761	14	0.3132	0.3451	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.294	2.586	0.1887	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0209547	0.0209547	1	0.1656	0.6902	Non-Significant Effect
Error	1.771273	0.1265195	14			
Total	1.792228	0.1474742	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.18	8.885	0.8327	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8788	0.8408	0.0372	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-011	8	0.7	0.5886	0.8114	0.05	1	0.1035	0.2928	41.82%	6.67%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-8805-5460	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	23.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-013	-0.8597	1.761	14	0.228	0.7978	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.753	2.586	0.0193	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04953039	0.04953039	1	0.739	0.4045	Non-Significant Effect
Error	0.9383193	0.06702281	14			
Total	0.9878497	0.1165532	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.458	8.885	0.0250	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8891	0.8408	0.0540	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	-14.17%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-2704-1250	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-013	-0.1429	1.771	13	0.1601	0.5557	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0006233061	0.0006233061	1	0.02043	0.8885	Non-Significant Effect
Error	0.3965815	0.03050627	13			
Total	0.3972048	0.03112957	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.511	9.155	0.2540	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9351	0.8328	0.3248	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	-2.46%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-6210-5352	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	28.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-014	0.6566	1.761	14	0.2667	0.2610	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.354	2.586	0.1479	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03952954	0.03952954	1	0.4311	0.5221	Non-Significant Effect
Error	1.283593	0.09168524	14			
Total	1.323123	0.1312148	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.725	8.885	0.4891	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8466	0.8408	0.0121	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-014	8	0.6875	0.599	0.776	0.15	0.9	0.08224	0.2326	33.83%	8.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-3066-0525	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	26.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-015	1.834	1.761	14	0.2484	0.0440	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.527	2.586	0.0673	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.267477	0.267477	1	3.363	0.0880	Non-Significant Effect
Error	1.113436	0.07953116	14			
Total	1.380913	0.3470082	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.7	8.885	0.2134	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9379	0.8408	0.3244	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-015	8	0.5375	0.4637	0.6113	0.25	0.85	0.06863	0.1941	36.11%	28.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-6006-7468	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	26.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-016	3.311	1.761	14	0.2457	0.0026	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.555	2.586	0.0586	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8533574	0.8533574	1	10.97	0.0051	Significant Effect
Error	1.089509	0.07782204	14			
Total	1.942866	0.9311795	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.933	8.885	0.1790	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8916	0.8408	0.0591	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-016	8	0.3563	0.2932	0.4193	0.05	0.55	0.05858	0.1657	46.51%	52.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-4926-8967	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	32.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-017	3.485	1.761	14	0.2953	0.0018	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.126	2.586	0.3528	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.365186	1.365186	1	12.14	0.0036	Significant Effect
Error	1.573773	0.1124123	14			
Total	2.938958	1.477598	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.067	8.885	0.9338	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9516	0.8408	0.5153	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-017	8	0.275	0.1738	0.3762	0	0.65	0.09402	0.2659	96.7%	63.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-7876-5210	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	21.6%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-007	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.958	2.586	0.0045	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.795899	3.795899	1	65.41	<0.0001	Significant Effect
Error	0.8124985	0.0580356	14			
Total	4.608397	3.853934	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	5.613	8.862	0.0327	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7748	0.8408	0.0013	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-3873-9496	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.73%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-007	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.294364	4.294364	1	206.2	<0.0001	Significant Effect
Error	0.2707607	0.02082774	13			
Total	4.565125	4.315192	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	10.21	9.33	0.0077	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7367	0.8328	0.0006	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-8853-0212	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	21.6%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-006	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.958	2.586	0.0045	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.795899	3.795899	1	65.41	<0.0001	Significant Effect
Error	0.8124985	0.0580356	14			
Total	4.608397	3.853934	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	5.613	8.862	0.0327	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7748	0.8408	0.0013	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-1157-4876	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	21.8%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-005	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.938	2.586	0.0053	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.686161	3.686161	1	62.65	<0.0001	Significant Effect
Error	0.8237656	0.0588404	14			
Total	4.509926	3.745001	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	72.11	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.805	0.8408	0.0032	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.17%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-2486-7589	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	10.0%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-005	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.181525	4.181525	1	192.7	<0.0001	Significant Effect
Error	0.2820278	0.02169445	13			
Total	4.463552	4.203219	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	28.04	9.155	0.0003	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7806	0.8328	0.0021	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.25%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-8499-5395	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	24.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-004	-0.9422	1.761	14	0.2307	0.8190	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.721	2.586	0.0235	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06091597	0.06091597	1	0.8877	0.3621	Non-Significant Effect
Error	0.9606782	0.06861987	14			
Total	1.021594	0.1295358	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.483	8.885	0.0391	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9164	0.8408	0.1477	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	-15.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-7939-0142	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	13.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-004	-0.2696	1.771	13	0.1645	0.6042	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.002342651	0.002342651	1	0.07269	0.7917	Non-Significant Effect
Error	0.4189404	0.03222618	13			
Total	0.421283	0.03456884	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.132	9.155	0.3448	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9664	0.8328	0.8009	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	-3.21%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-4626-3407	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	24.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-002	-0.164	1.86	8	0.2346	0.5631	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.825	2.586	0.0121	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.001712262	0.001712262	1	0.0269	0.8721	Non-Significant Effect
Error	0.8912132	0.06365809	14			
Total	0.8929255	0.06537035	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	10.32	8.885	0.0064	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8908	0.8408	0.0573	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	-5.83%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-0478-5536	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	11.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-002	0.9153	1.771	13	0.1503	0.1884	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0225196	0.0225196	1	0.8377	0.3767	Non-Significant Effect
Error	0.3494754	0.02688273	13			
Total	0.371995	0.04940233	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.013	9.155	0.0915	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9369	0.8328	0.3452	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	5.02%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-6262-9495	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	25.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-001	-0.4351	1.761	14	0.2382	0.6649	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.635	2.586	0.0384	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01385086	0.01385086	1	0.1893	0.6701	Non-Significant Effect
Error	1.024215	0.07315825	14			
Total	1.038066	0.08700911	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.838	8.885	0.0969	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.915	0.8408	0.1399	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	-8.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-8943-6797	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	14.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-001	0.3963	1.771	13	0.1766	0.3492	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.005828206	0.005828206	1	0.157	0.6983	Non-Significant Effect
Error	0.4824777	0.03711367	13			
Total	0.4883059	0.04294188	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.492	9.155	0.6095	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9643	0.8328	0.7672	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	2.78%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-5850-0330	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	24.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-012	-1.501	1.761	14	0.2348	0.9223	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.673	2.586	0.0311	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1602379	0.1602379	1	2.254	0.1555	Non-Significant Effect
Error	0.9951589	0.07108278	14			
Total	1.155397	0.2313207	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.448	8.885	0.0673	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.892	0.8408	0.0599	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	-20.83%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-7924-6146	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	13.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-012	-1.053	1.771	13	0.1712	0.8443	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03868388	0.03868388	1	1.109	0.3115	Non-Significant Effect
Error	0.4534211	0.03487855	13			
Total	0.492105	0.07356243	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.729	9.155	0.4895	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9392	0.8328	0.3727	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	-8.44%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-8298-3991	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	27.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-010	-0.08102	1.761	14	0.2603	0.5317	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.411	2.586	0.1155	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0005734351	0.0005734351	1	0.006564	0.9366	Non-Significant Effect
Error	1.223076	0.08736257	14			
Total	1.223649	0.087936	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.979	8.885	0.3879	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9151	0.8408	0.1409	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	-2.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-7146-7401	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	23.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-009	-1.644	1.761	14	0.2249	0.9388	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.79	2.586	0.0152	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1762563	0.1762563	1	2.702	0.1225	Non-Significant Effect
Error	0.9132814	0.06523439	14			
Total	1.089538	0.2414907	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.062	8.885	0.0133	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.893	0.8408	0.0621	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	0.0%
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	-22.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-0603-6110	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-009	-1.275	1.771	13	0.1549	0.8877	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04646247	0.04646247	1	1.626	0.2246	Non-Significant Effect
Error	0.3715436	0.02858028	13			
Total	0.4180061	0.07504275	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.134	9.155	0.1608	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9304	0.8328	0.2770	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	0.0%
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	-9.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-0995-2713	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	43.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-017	2.767	1.761	14	0.3244	0.0076	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.528	2.586	0.0670	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.03872	1.03872	1	7.657	0.0151	Significant Effect
Error	1.89925	0.1356607	14			
Total	2.93797	1.174381	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.495	8.885	0.6090	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9084	0.8408	0.1098	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-017	8	0.275	0.1738	0.3762	0	0.65	0.09402	0.2659	96.7%	61.06%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-5776-8952	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	36.8%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-016	44.5		14	1	0.0052	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.929	2.586	0.0057	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5999089	0.5999089	1	5.936	0.0288	Significant Effect
Error	1.414986	0.1010704	14			
Total	2.014895	0.7009794	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.108	8.885	0.0821	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8346	0.8408	0.0082	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-016	8	0.3563	0.2932	0.4193	0.05	0.55	0.05858	0.1657	46.51%	49.56%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-2653-6868	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	16.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-016	5.132	1.771	13	0.178	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9931519	0.9931519	1	26.34	0.0002	Significant Effect
Error	0.4902272	0.03770978	13			
Total	1.483379	1.030862	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.114	10.79	0.9117	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9152	0.8328	0.1625	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-016	8	0.3563	0.2932	0.4193	0.05	0.55	0.05858	0.1657	46.51%	55.86%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-0412-2814	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	37.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-015	1.148	1.761	14	0.2823	0.1352	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.904	2.586	0.0068	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1353844	0.1353844	1	1.317	0.2703	Non-Significant Effect
Error	1.438914	0.1027796	14			
Total	1.574298	0.238164	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.781	8.885	0.1004	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8616	0.8408	0.0203	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-015	8	0.5375	0.4637	0.6113	0.25	0.85	0.06863	0.1941	36.11%	23.89%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-3539-9144	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	17.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-015	3.036	1.771	13	0.1823	0.0048	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3645324	0.3645324	1	9.217	0.0096	Significant Effect
Error	0.514155	0.03955038	13			
Total	0.8786874	0.4040828	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.21	10.79	0.8324	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9638	0.8328	0.7577	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-015	8	0.5375	0.4637	0.6113	0.25	0.85	0.06863	0.1941	36.11%	33.41%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-2986-3252	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	39.4%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-014	61.5		14	3	0.2527	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.746	2.586	0.0201	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.00245865	0.00245865	1	0.02139	0.8858	Non-Significant Effect
Error	1.609071	0.1149336	14			
Total	1.61153	0.1173923	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.416	8.885	0.2674	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8091	0.8408	0.0036	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-014	8	0.6875	0.599	0.776	0.15	0.9	0.08224	0.2326	33.83%	2.66%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-1077-6625	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	20.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-014	1.291	1.771	13	0.2103	0.1096	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.08773375	0.08773375	1	1.667	0.2192	Non-Significant Effect
Error	0.6843121	0.05263939	13			
Total	0.7720459	0.1403731	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.894	10.79	0.4543	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8782	0.8328	0.0446	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-014	8	0.6875	0.599	0.776	0.15	0.9	0.08224	0.2326	33.83%	14.82%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-1851-2027	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	34.6%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-013	77		14	4	0.8089	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.099	2.586	0.0013	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1382277	0.1382277	1	1.531	0.2363	Non-Significant Effect
Error	1.263797	0.09027121	14			
Total	1.402025	0.2284989	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	9.044	8.885	0.0095	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8121	0.8408	0.0040	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	-21.24%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-1637-9377	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	13.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-013	-0.6866	1.771	13	0.148	0.7478	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01229608	0.01229608	1	0.4715	0.5044	Non-Significant Effect
Error	0.339038	0.02607984	13			
Total	0.351334	0.03837593	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.977	9.155	0.3933	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9415	0.8328	0.4015	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	-6.08%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-8904-8744	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	45.3%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-011	66.5		14	4	0.4392	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.406	2.586	0.1181	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.005441E-05	2.005441E-05	1	0.0001339	0.9909	Non-Significant Effect
Error	2.096751	0.1497679	14			
Total	2.096771	0.149788	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.187	8.885	0.8269	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.832	0.8408	0.0075	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-011	8	0.7	0.5886	0.8114	0.05	1	0.1035	0.2928	41.82%	0.89%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-5186-3161	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	32.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-007	40		14	1	0.0009	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.266	2.586	0.0002	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.236656	3.236656	1	39.82	<0.0001	Significant Effect
Error	1.137976	0.08128401	14			
Total	4.374633	3.31794	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	4.93	8.862	0.0434	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.694	0.8408	0.0001	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-4669-0274	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.74%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-007	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.945638	3.945638	1	240.6	<0.0001	Significant Effect
Error	0.2132172	0.01640132	13			
Total	4.158855	3.96204	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	22.15	9.33	0.0005	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8322	0.8328	0.0098	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-2458-1687	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	32.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-006	40		14	1	0.0009	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.266	2.586	0.0002	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.236656	3.236656	1	39.82	<0.0001	Significant Effect
Error	1.137976	0.08128401	14			
Total	4.374633	3.31794	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	4.93	8.862	0.0434	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.694	0.8408	0.0001	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-4551-1292	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	9.74%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-006	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.945638	3.945638	1	240.6	<0.0001	Significant Effect
Error	0.2132172	0.01640132	13			
Total	4.158855	3.96204	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	22.15	9.33	0.0005	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8322	0.8328	0.0098	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-5437-0654	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	32.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-005	40.5		14	1	0.0009	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.25	2.586	0.0002	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.135386	3.135386	1	38.2	<0.0001	Significant Effect
Error	1.149243	0.08208881	14			
Total	4.284629	3.217474	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	101	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7131	0.8408	0.0002	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.12%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-3716-6953	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.4%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-005	13.96	1.943	6	0.1412	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.837509	3.837509	1	222.2	<0.0001	Significant Effect
Error	0.2244843	0.01726802	13			
Total	4.061993	3.854777	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	22.08	9.155	0.0006	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.862	0.8328	0.0258	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.23%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-2730-0261	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	35.0%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-004	77		14	4	0.8089	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.072	2.586	0.0017	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1568534	0.1568534	1	1.707	0.2124	Non-Significant Effect
Error	1.286156	0.09186827	14			
Total	1.443009	0.2487217	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	7.68	8.885	0.0153	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8203	0.8408	0.0051	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	-22.12%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-2265-0235	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	13.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-004	-0.8056	1.771	13	0.1528	0.7825	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01804255	0.01804255	1	0.649	0.4350	Non-Significant Effect
Error	0.3613968	0.02779976	13			
Total	0.3794394	0.0458423	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.679	9.155	0.5125	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9642	0.8328	0.7643	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	-6.86%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-8056-7136	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	33.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-002	67		14	3	0.4796	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.158	2.586	0.0007	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0363341	0.0363341	1	0.4181	0.5284	Non-Significant Effect
Error	1.216691	0.08690649	14			
Total	1.253025	0.1232406	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	14.46	8.885	0.0023	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7947	0.8408	0.0023	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	-12.39%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-1744-4166	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-002	0.428	1.771	13	0.1373	0.3378	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.004114418	0.004114418	1	0.1832	0.6756	Non-Significant Effect
Error	0.2919319	0.0224563	13			
Total	0.2960463	0.02657072	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.16	9.155	0.1579	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9541	0.8328	0.5916	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	1.66%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-7005-4598	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	35.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-001	71.5		14	4	0.6008	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.999	2.586	0.0032	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0712491	0.0712491	1	0.739	0.4044	Non-Significant Effect
Error	1.349693	0.09640665	14			
Total	1.420942	0.1676558	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.375	8.885	0.0412	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8361	0.8408	0.0086	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	-15.04%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-2007-7465	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	15.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-001	-0.05298	1.771	13	0.1657	0.5207	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	9.17556E-05	9.17556E-05	1	0.002807	0.9586	Non-Significant Effect
Error	0.4249342	0.03268724	13			
Total	0.4250259	0.032779	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.175	9.155	0.8274	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9095	0.8328	0.1329	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	-0.66%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-4878-8758	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	35.5%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-012	85.5		14	3	0.9585	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.032	2.586	0.0024	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3019863	0.3019863	1	3.201	0.0952	Non-Significant Effect
Error	1.320637	0.09433118	14			
Total	1.622623	0.3963175	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.23	8.885	0.0276	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8274	0.8408	0.0064	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	-28.32%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-9547-4030	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	14.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-012	-1.619	1.771	13	0.1599	0.9353	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0798649	0.0798649	1	2.623	0.1293	Non-Significant Effect
Error	0.3958776	0.03045212	13			
Total	0.4757425	0.110317	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.362	9.155	0.6899	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9215	0.8328	0.2032	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	-12.28%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-6580-2892	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	38.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-010	-0.5207	1.761	14	0.2929	0.6947	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.8	2.586	0.0143	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02999204	0.02999204	1	0.2711	0.6107	Non-Significant Effect
Error	1.548554	0.110611	14			
Total	1.578546	0.140603	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.772	8.885	0.2020	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8611	0.8408	0.0199	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	-8.85%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-4779-7995	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	19.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-010	0.3697	1.771	13	0.2008	0.3588	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.006558666	0.006558666	1	0.1367	0.7176	Non-Significant Effect
Error	0.6237946	0.0479842	13			
Total	0.6303533	0.05454287	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.651	10.79	0.5582	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9634	0.8328	0.7504	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	4.76%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-1921-1976	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	34.3%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-009	85		14	4	0.9585	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.13	2.586	0.0009	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3238344	0.3238344	1	3.66	0.0764	Non-Significant Effect
Error	1.238759	0.08848279	14			
Total	1.562593	0.4123172	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	11.29	8.885	0.0049	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7999	0.8408	0.0027	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	-30.09%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-5074-3802	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-009	-1.94	1.771	13	0.1424	0.9628	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09088606	0.09088606	1	3.763	0.0744	Non-Significant Effect
Error	0.3140001	0.02415385	13			
Total	0.4048862	0.1150399	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.468	9.155	0.2625	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9316	0.8328	0.2882	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.0%
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	-13.83%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-1904-0441	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	43.6%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-008	72.5		14	4	0.6395	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.495	2.586	0.0788	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02227126	0.02227126	1	0.1599	0.6953	Non-Significant Effect
Error	1.950475	0.1393196	14			
Total	1.972746	0.1615909	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.401	8.885	0.6678	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.835	0.8408	0.0083	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	0.0%
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	-6.2%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-7609-2289	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	22.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-017	4.866	1.761	14	0.2332	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.703	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.66089	1.66089	1	23.68	0.0002	Significant Effect
Error	0.9819647	0.07014034	14			
Total	2.642855	1.731031	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.45	8.885	0.1246	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9273	0.8408	0.2206	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-017	8	0.275	0.1738	0.3762	0	0.65	0.09402	0.2659	96.7%	66.15%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-2837-8962	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	15.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-016	5.538	1.761	14	0.166	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.189	2.586	0.2813	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.090181	1.090181	1	30.67	<0.0001	Significant Effect
Error	0.4977005	0.03555004	14			
Total	1.587881	1.125731	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.255	8.885	0.7719	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9658	0.8408	0.7664	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-016	8	0.3563	0.2932	0.4193	0.05	0.55	0.05858	0.1657	46.51%	56.15%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-8188-5555	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	15.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-015	3.303	1.761	14	0.17	0.0026	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.853	2.586	0.8281	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4064389	0.4064389	1	10.91	0.0052	Significant Effect
Error	0.5216283	0.03725917	14			
Total	0.9280672	0.443698	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.364	8.885	0.6927	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9292	0.8408	0.2369	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-015	8	0.5375	0.4637	0.6113	0.25	0.85	0.06863	0.1941	36.11%	33.85%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-7107-8336	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	18.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-014	1.436	1.761	14	0.1958	0.0865	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.743	2.586	0.0205	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1018658	0.1018658	1	2.062	0.1730	Non-Significant Effect
Error	0.6917855	0.04941325	14			
Total	0.7936512	0.151279	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.135	8.885	0.3384	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9094	0.8408	0.1137	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-014	8	0.6875	0.599	0.776	0.15	0.9	0.08224	0.2326	33.83%	15.38%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-7137-0784	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	11.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-014	0.9672	1.771	13	0.1381	0.1756	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02124014	0.02124014	1	0.9354	0.3511	Non-Significant Effect
Error	0.2951948	0.02270729	13			
Total	0.3164349	0.04394744	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.539	10.79	0.2766	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9074	0.8328	0.1235	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-014	7	0.7643	0.7301	0.7985	0.65	0.9	0.03401	0.08997	11.77%	5.93%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-8410-0106	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-013	-0.6497	1.761	14	0.1385	0.7368	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.055	2.586	0.4471	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01044697	0.01044697	1	0.4221	0.5264	Non-Significant Effect
Error	0.3465113	0.02475081	14			
Total	0.3569583	0.03519778	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.754	8.885	0.4759	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9743	0.8408	0.9019	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-013	8	0.8562	0.819	0.8935	0.65	0.95	0.03464	0.09797	11.44%	-5.39%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-9602-0547	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	25.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-011	0.9133	1.761	14	0.2556	0.1883	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.811	2.586	0.0132	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.07027864	0.07027864	1	0.8342	0.3765	Non-Significant Effect
Error	1.179465	0.0842475	14			
Total	1.249744	0.1545261	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.344	8.885	0.0714	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8857	0.8408	0.0477	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-011	8	0.7	0.5886	0.8114	0.05	1	0.1035	0.2928	41.82%	13.85%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-4096-0065	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	8.92%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-000		19830-007	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.575	2.586	0.0527	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.279315	4.279315	1	271.5	<0.0001	Significant Effect
Error	0.2206905	0.01576361	14			
Total	4.500005	4.295078	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	15.57	8.862	0.0015	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8117	0.8408	0.0039	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-0504-2244	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	8.92%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-000		19830-006	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.575	2.586	0.0527	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.279315	4.279315	1	271.5	<0.0001	Significant Effect
Error	0.2206905	0.01576361	14			
Total	4.500005	4.295078	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	15.57	8.862	0.0015	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8117	0.8408	0.0039	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-6072-6010	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	10.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-005	15.85	1.895	7	0.1219	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.512	2.586	0.0724	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.162748	4.162748	1	251.2	<0.0001	Significant Effect
Error	0.2319576	0.0165684	14			
Total	4.394706	4.179317	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	19.59	8.885	0.0009	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.863	0.8408	0.0213	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-005	8	0.00625	0	0.01297	0	0.05	0.00625	0.01768	282.8%	99.23%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-4615-4469	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	12.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-004	-0.7791	1.761	14	0.1429	0.7756	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.992	2.586	0.5475	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0159941	0.0159941	1	0.607	0.4489	Non-Significant Effect
Error	0.3688702	0.02634787	14			
Total	0.3848643	0.04234197	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.489	8.885	0.6122	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8879	0.8408	0.0515	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-004	8	0.8625	0.8277	0.8973	0.75	1	0.03239	0.09161	10.62%	-6.15%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-7862-1453	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	10.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-002	0.54	1.761	14	0.1288	0.2989	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.211	2.586	0.2595	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.006235364	0.006235364	1	0.2916	0.5977	Non-Significant Effect
Error	0.2994052	0.02138609	14			
Total	0.3056406	0.02762145	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.804	8.885	0.1972	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9142	0.8408	0.1362	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-002	8	0.7937	0.7625	0.825	0.7	0.9	0.02903	0.0821	10.34%	2.31%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-5350-3924	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	13.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-001	0.0151	1.761	14	0.1548	0.4941	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.84	2.586	0.8583	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	7.044432E-06	7.044432E-06	1	0.0002281	0.9882	Non-Significant Effect
Error	0.4324075	0.03088625	14			
Total	0.4324145	0.03089329	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.042	8.885	0.9577	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9227	0.8408	0.1867	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-001	8	0.8125	0.763	0.862	0.6	0.95	0.04605	0.1302	16.03%	0.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-8229-1256	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	13.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-012	-1.649	1.761	14	0.1495	0.9393	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.905	2.586	0.7125	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.07837393	0.07837393	1	2.72	0.1213	Non-Significant Effect
Error	0.4033509	0.02881078	14			
Total	0.4817249	0.1071847	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.208	8.885	0.8093	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9574	0.8408	0.6146	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-012	8	0.9063	0.8676	0.9449	0.7	1	0.0359	0.1016	11.21%	-11.54%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-3759-5221	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	17.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-010	0.454	1.761	14	0.187	0.3284	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.267	2.586	0.2097	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.00929244	0.00929244	1	0.2061	0.6568	Non-Significant Effect
Error	0.631268	0.04509057	14			
Total	0.6405604	0.05438301	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.86	8.885	0.4316	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9566	0.8408	0.6010	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-010	8	0.7687	0.6941	0.8434	0.35	1	0.0694	0.1963	25.53%	5.39%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-1293-6571	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	11.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-009	-1.976	1.761	14	0.1334	0.9659	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.134	2.586	0.3427	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.08969133	0.08969133	1	3.906	0.0682	Non-Significant Effect
Error	0.3214734	0.02296239	14			
Total	0.4111648	0.1126537	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.19	8.885	0.3228	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9262	0.8408	0.2124	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-009	8	0.9187	0.894	0.9435	0.8	1	0.02302	0.06512	7.09%	-13.08%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-8079-5024	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	23.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-008	0.443	1.761	14	0.2392	0.3323	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.623	2.586	0.0409	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01448263	0.01448263	1	0.1962	0.6645	Non-Significant Effect
Error	1.033189	0.07379921	14			
Total	1.047672	0.08828184	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.682	8.885	0.1070	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9296	0.8408	0.2402	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-008	8	0.75	0.6415	0.8585	0.15	1	0.1009	0.2854	38.05%	7.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-6225-7317	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	16.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-008	-0.3795	1.771	13	0.1782	0.6448	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.005443274	0.005443274	1	0.144	0.7105	Non-Significant Effect
Error	0.4914511	0.03780394	13			
Total	0.4968944	0.04324721	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.431	9.155	0.6455	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9661	0.8328	0.7972	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-008	7	0.8357	0.7739	0.8976	0.5	1	0.06145	0.1626	19.45%	-2.86%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-3277-2560	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	27.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-000		19830-003	64.5		14	2	0.3605	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.989	2.586	0.0035	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.07267305	0.07267305	1	0.7488	0.4014	Non-Significant Effect
Error	1.358667	0.09704762	14			
Total	1.43134	0.1697207	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.156	8.885	0.0460	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8316	0.8408	0.0074	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-003	8	0.7062	0.5862	0.8263	0	0.95	0.1116	0.3156	44.69%	13.08%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-0285-7907	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Angular (Corrected)	0	C > T	Not Run	Sample passes proportion survived endpoint	15.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-003	0.06647	1.771	13	0.1674	0.4740	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0001474537	0.0001474537	1	0.004418	0.9480	Non-Significant Effect
Error	0.4339076	0.03337751	13			
Total	0.4340551	0.03352496	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.127	9.155	0.8673	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9496	0.8328	0.5179	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	0.8125	0.7673	0.8577	0.7	1	0.04199	0.1188	14.62%	0.0%
19830-003	7	0.8071	0.7518	0.8625	0.55	0.95	0.05502	0.1456	18.04%	0.66%

Leptocheirus plumulosus Sediment Evaluation

STUDY NUMBER: 20101 **CLIENT:** HDR Engineering, Inc.

PROJECT: Gowanus Canal **START DATE:** 10/14/10

	REP	TARE WEIGHT (mg)	*L. Plumulosus* + FOIL (mg)	NET WEIGHT (mg)	# *L. Plumulosus*	MEAN DRY WEIGHT PER Individual (mg)
START ORGANISMS	A	208.86	210.42	1.56	20 ~~10~~	0.078
	B	208.58	210.74	2.16	20 ~~10~~	0.108
	C	209.39	211.55	2.16	20 ~~10~~	0.108
	D	206.29	208.27	1.98	20 ~~10~~	0.099
RECORDED BY:		AM	AM	Overall Mean Dry Weight Per Individual:		
DATE:		10/14/10	10/18/10	0.0983		

NOTES:

STUDY: 20201
CLIENT: HDR Engineering, Inc.
PROJECT: Gowanus Canal
ASSAY: Leptocheirus plumulosus 28 Day
TASK: Dry Weight Data - AccuSeries Balance Output File
BALANCE: AccuSeries Model 225D
SERIAL #: 17008376

Sample	Date/Init:	11/15/10 AM	11/8/10 JTP	Duplicates	
Number	Rep.	Total Wt (mg)	Tare Wt (mg)	Total Wt (mg)	Tare Wt (mg)
000	1	218.51	207.21		
000	2	228.54	206.51		
000	3	233.02	206.61		
000	4	235.46	208.27		
000	5	222.11	204.11		
000	6	232.82	205.57		
000	7	226.07	206.23		
000	8	221.70	204.51		
001	1	219.77	207.53		
001	2	219.76	210.07		
001	3	214.62	204.89		
001	4	221.55	207.24		
001	5	217.60	208.25		
001	6	223.15	208.32		
001	7	212.40	206.51		
001	8		207.97		
002	1	229.83	206.70		
002	2	227.57	205.78		
002	3	223.75	206.88		
002	4	220.68	207.33	220.71	207.34
002	5	225.59	208.50		
002	6	209.35	207.98		
002	7	219.55	207.91		
002	8	230.80	208.49		
003	1	229.93	209.23		
003	2	229.14	206.86		
003	3	230.77	207.08		
003	4	232.48	205.83		
003	5	227.34	207.04		
003	6	231.42	206.67		
003	7	222.18	207.67		
003	8	230.52	207.00		
004	1	224.61	207.54		
004	2	226.67	208.04		
004	3	224.38	209.64		
004	4	225.40	208.18		
004	5	217.89	209.13		
004	6	215.08	204.22		
004	7	212.14	208.39		
004	8	225.75	208.22	225.74	208.23
005	1	228.38	205.85		
005	2	222.94	207.12		
005	3	220.72	206.65		
005	4	222.46	206.33		

Sample Number	Date/Init: Rep.	11/15/10 AM Total Wt (mg)	11/8/10 JTP Tare Wt (mg)	Duplicates Total Wt (mg)	Duplicates Tare Wt (mg)
005	5	225.17	207.76		
005	6	223.46	206.68		
005	7	220.29	208.23		
005	8	220.77	209.04		
006	1	228.99	207.17		
006	2	216.35	206.92		
006	3	223.29	208.31		
006	4	219.21	208.86		
006	5	232.16	208.74		
006	6	227.91	207.56		
006	7	227.69	207.20		
006	8	229.75	208.87		
007	1	221.23	206.60		
007	2	220.37	206.65		
007	3	218.60	207.99		
007	4	223.45	207.66	223.45	207.67
007	5	215.22	208.63		
007	6	220.79	207.99		
007	7	218.19	207.75		
007	8	215.44	207.94		
008	1	213.50	206.35		
008	2	220.35	209.05		
008	3	218.21	206.01		
008	4	217.97	206.57		
008	5	226.13	206.99		
008	6	214.09	204.16		
008	7	228.07	209.33		
008	8	222.32	209.24		
009	1	208.05	207.61		
009	2		206.85		
009	3		207.17		
009	4		208.14		
009	5		207.81		
009	6		207.73		
009	7		208.42		
009	8		205.61		205.62
010	1		209.21		
010	2		208.23		
010	3		206.17		
010	4		205.39		
010	5		207.66		
010	6		209.47		
010	7		209.33		
010	8		209.32		
011	1		208.51		
011	2		210.75		
011	3		209.09		
011	4		205.84		
011	5		209.96		
011	6		209.94		
011	7		211.72		
011	8		210.52		
012	1	219.69	205.85	219.69	

Sample	Date/Init:	11/15/10 AM	11/8/10 JTP	Duplicates	
Number	Rep.	Total Wt (mg)	Tare Wt (mg)	Total Wt (mg)	Tare Wt (mg)
012	2	222.36	208.12		
012	3	221.76	208.37		
012	4	210.11	209.75	210.12	209.75
012	5	227.00	206.64		
012	6	219.97	208.97		
012	7	226.00	210.06		
012	8	222.09	208.04		
013	1	227.69	211.44		
013	2	215.38	207.42		
013	3	221.14	211.42		
013	4	221.02	208.83		
013	5	220.30	208.64		
013	6	223.67	206.76		
013	7	217.90	205.28		
013	8	228.93	209.67		
014	1	208.84	207.78		
014	2	215.67	209.18		
014	3	216.91	206.12		
014	4	217.75	206.34		
014	5	214.40	206.64		
014	6	217.10	209.11		
014	7	220.75	208.15		
014	8	219.07	210.24	219.08	210.25
015	1	211.07	206.93		
015	2	216.29	210.23		
015	3	208.88	205.74		
015	4	210.61	209.36		
015	5	213.48	208.76		
015	6	210.37	208.64		
015	7	208.32	206.08		
015	8	213.97	209.24		
016	1	210.02	205.99		
016	2	212.76	209.31		
016	3	213.25	210.64		
016	4	212.13	209.70		
016	5	210.65	209.97		
016	6	209.37	208.92		
016	7	211.49	209.39		
016	8	211.92	210.91		
017	1	215.68	208.51		
017	2	216.27	208.56		
017	3	209.00	206.03		
017	4		208.10		208.10
017	5	211.29	210.67	211.30	
017	6		212.06		
017	7	212.77	212.02		
017	8	211.78	210.25		

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-7153-3161	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	21.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	0.1505	1.761	14	0.1858	0.4412	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.457	2.586	0.0939	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.001009057	0.001009057	1	0.02266	0.8825	Non-Significant Effect
Error	0.6234252	0.04453038	14			
Total	0.6244343	0.04553943	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.755	8.885	0.4757	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9563	0.8408	0.5957	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-011	8	0.8609	0.7703	0.9515	0.36	1.139	0.08421	0.2382	27.67%	1.81%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-7774-4212	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-013	1.297	1.761	14	0.1483	0.1078	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.9	2.586	0.7237	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04768465	0.04768465	1	1.682	0.2156	Non-Significant Effect
Error	0.3968775	0.02834839	14			
Total	0.4445621	0.07603304	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.327	8.885	0.7184	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9708	0.8408	0.8515	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-013	8	0.7676	0.7082	0.827	0.5718	1.014	0.05519	0.1561	20.34%	12.45%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-9087-1130	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	3.518	1.761	14	0.1469	0.0017	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.917	2.586	0.6872	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3443615	0.3443615	1	12.37	0.0034	Significant Effect
Error	0.3896064	0.02782903	14			
Total	0.7339679	0.3721905	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.386	8.885	0.6775	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9768	0.8408	0.9329	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-014	8	0.5834	0.5253	0.6415	0.3533	0.84	0.054	0.1527	26.18%	33.46%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-4380-9718	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	14.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-015	8.013	1.761	14	0.1233	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.284	2.586	0.1963	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.259088	1.259088	1	64.2	<0.0001	Significant Effect
Error	0.2745515	0.01961082	14			
Total	1.53364	1.278699	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.693	8.885	0.0588	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.974	0.8408	0.8979	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-015	8	0.3157	0.2842	0.3473	0.2162	0.46	0.02935	0.083	26.29%	63.99%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-6805-1406	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	14.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-016	7.817	1.761	14	0.1306	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.157	2.586	0.3164	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.344017	1.344017	1	61.1	<0.0001	Significant Effect
Error	0.3079581	0.02199701	14			
Total	1.651975	1.366014	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.772	8.885	0.2019	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9752	0.8408	0.9142	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-016	8	0.2971	0.256	0.3382	0.1683	0.45	0.03818	0.108	36.35%	66.11%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-9037-3393	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	19.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-017	4.726	1.782	12	0.1744	0.0002	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.775	2.507	0.8658	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7329088	0.7329088	1	22.33	0.0005	Significant Effect
Error	0.3937927	0.03281606	12			
Total	1.126702	0.7657249	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.036	9.522	0.9300	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9506	0.8239	0.5696	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-017	6	0.4144	0.3448	0.4841	0.2067	0.7009	0.07471	0.183	44.16%	52.73%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-5946-8398	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	20.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-001	-1.923	1.761	14	0.1791	0.9625	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.03	2.586	0.4860	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1528726	0.1528726	1	3.697	0.0751	Non-Significant Effect
Error	0.5788288	0.04134491	14			
Total	0.7317014	0.1942175	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.558	8.885	0.5731	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9799	0.8408	0.9630	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-001	8	1.072	0.9869	1.158	0.6736	1.357	0.07934	0.2244	20.93%	-22.3%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-4689-2080	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	19.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-002	1.564	1.761	14	0.1715	0.0700	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.144	2.586	0.3302	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09276793	0.09276793	1	2.447	0.1400	Non-Significant Effect
Error	0.5306809	0.03790578	14			
Total	0.6234488	0.1306737	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.345	8.885	0.7058	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9581	0.8408	0.6272	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-002	8	0.7245	0.6452	0.8038	0.4393	1.128	0.07372	0.2085	28.78%	17.37%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-0842-1401	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	21.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-004	1.242	1.761	14	0.1852	0.1173	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.215	2.586	0.2554	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06825805	0.06825805	1	1.543	0.2345	Non-Significant Effect
Error	0.6191213	0.04422295	14			
Total	0.6873794	0.112481	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.736	8.885	0.4842	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.943	0.8408	0.3878	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-004	8	0.7462	0.656	0.8363	0.4767	1.196	0.08375	0.2369	31.75%	14.9%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-1151-0452	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	41.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-005	2.29	1.895	7	0.3613	0.0279	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.837	2.215	0.3610	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1695797	0.1695797	1	5.245	0.0558	Non-Significant Effect
Error	0.2263229	0.03233184	7			
Total	0.3959026	0.2019115	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9779	0.7007	0.9525	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	0.0%
19830-005	1	0.44			0.44	0.44	0	0	0.0%	49.82%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-1103-3495	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	17.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-015	6.374	1.761	14	0.1475	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.972	2.586	0.5820	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.13963	1.13963	1	40.62	<0.0001	Significant Effect
Error	0.3927643	0.02805459	14			
Total	1.532394	1.167684	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	7.144	8.885	0.0188	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9916	0.8408	0.9998	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-015	8	0.3157	0.2842	0.3473	0.2162	0.46	0.02935	0.083	26.29%	62.83%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-8969-7582	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	18.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-016	6.332	1.761	14	0.1537	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.893	2.586	0.7369	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.220496	1.220496	1	40.09	<0.0001	Significant Effect
Error	0.4261709	0.03044078	14			
Total	1.646667	1.250937	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.22	8.885	0.0768	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9808	0.8408	0.9696	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-016	8	0.2971	0.256	0.3382	0.1683	0.45	0.03818	0.108	36.35%	65.02%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-1771-9990	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-017	3.9	1.782	12	0.1988	0.0011	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.608	2.507	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.6489775	0.6489775	1	15.21	0.0021	Significant Effect
Error	0.5120056	0.04266714	12			
Total	1.160983	0.6916446	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.47	14.2	0.6943	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9545	0.8239	0.6326	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-017	6	0.4144	0.3448	0.4841	0.2067	0.7009	0.07471	0.183	44.16%	51.21%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-1058-7699	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	19.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-014	2.795	1.761	14	0.1677	0.0072	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.735	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2833078	0.2833078	1	7.81	0.0143	Significant Effect
Error	0.5078193	0.03627281	14			
Total	0.7911271	0.3195806	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.11	8.885	0.3457	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9727	0.8408	0.8795	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-014	8	0.5834	0.5253	0.6415	0.3533	0.84	0.054	0.1527	26.18%	31.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-9515-7749	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	52.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-005	1.74	1.895	7	0.4458	0.0627	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.538	2.215	0.9361	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1490595	0.1490595	1	3.028	0.1254	Non-Significant Effect
Error	0.3445358	0.0492194	7			
Total	0.4935953	0.1982789	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9738	0.7007	0.9249	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-005	1	0.44			0.44	0.44	0	0	0.0%	48.2%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-0678-6353	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-011	-0.09902	1.761	14	0.2027	0.5387	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.253	2.586	0.2218	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0005194256	0.0005194256	1	0.009805	0.9225	Non-Significant Effect
Error	0.7416381	0.05297415	14			
Total	0.7421576	0.05349358	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.153	8.885	0.8562	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9592	0.8408	0.6478	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-011	8	0.8609	0.7703	0.9515	0.36	1.139	0.08421	0.2382	27.67%	-1.34%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-5519-0602	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	19.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-013	0.854	1.761	14	0.1689	0.2037	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.722	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02683424	0.02683424	1	0.7293	0.4075	Non-Significant Effect
Error	0.5150903	0.03679217	14			
Total	0.5419246	0.06362641	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.02	8.885	0.3740	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9691	0.8408	0.8241	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-013	8	0.7676	0.7082	0.827	0.5718	1.014	0.05519	0.1561	20.34%	9.64%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-3544-8771	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	20.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-012	-0.2702	1.761	14	0.1778	0.6045	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.636	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.002976419	0.002976419	1	0.073	0.7910	Non-Significant Effect
Error	0.5708587	0.04077562	14			
Total	0.5738351	0.04375204	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.522	8.885	0.5929	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9585	0.8408	0.6340	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	-3.21%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-8858-4571	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-001	-1.997	1.761	14	0.1965	0.9672	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.85	2.586	0.8355	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1985111	0.1985111	1	3.987	0.0657	Non-Significant Effect
Error	0.6970416	0.04978869	14			
Total	0.8955527	0.2482998	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.023	8.885	0.9767	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.965	0.8408	0.7528	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-001	8	1.072	0.9869	1.158	0.6736	1.357	0.07934	0.2244	20.93%	-26.22%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-7871-8373	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	22.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-002	1.161	1.761	14	0.1896	0.1325	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.939	2.586	0.6436	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06251086	0.06251086	1	1.349	0.2649	Non-Significant Effect
Error	0.6488938	0.04634956	14			
Total	0.7114046	0.1088604	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.132	8.885	0.8743	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9698	0.8408	0.8353	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-002	8	0.7245	0.6452	0.8038	0.4393	1.128	0.07372	0.2085	28.78%	14.72%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-8124-8864	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-004	0.9007	1.761	14	0.2021	0.1915	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.03	2.586	0.4853	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04272731	0.04272731	1	0.8113	0.3830	Non-Significant Effect
Error	0.7373342	0.05266673	14			
Total	0.7800615	0.09539404	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.14	8.885	0.8671	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9631	0.8408	0.7187	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	0.0%
19830-004	8	0.7462	0.656	0.8363	0.4767	1.196	0.08375	0.2369	31.75%	12.17%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-1741-2422	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	12.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-014	6.984	1.761	14	0.1538	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.697	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.487672	1.487672	1	48.78	<0.0001	Significant Effect
Error	0.4269531	0.03049665	14			
Total	1.914625	1.518168	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.615	8.885	0.5425	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9379	0.8408	0.3239	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-014	8	0.5834	0.5253	0.6415	0.3533	0.84	0.054	0.1527	26.18%	51.11%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-5203-5163	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	11.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-015	11.76	1.761	14	0.1314	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.986	2.586	0.5584	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.079917	3.079917	1	138.2	<0.0001	Significant Effect
Error	0.3118981	0.02227844	14			
Total	3.391815	3.102196	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.467	8.885	0.0394	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9663	0.8408	0.7763	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-015	8	0.3157	0.2842	0.3473	0.2162	0.46	0.02935	0.083	26.29%	73.54%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-2902-7424	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	11.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-016	11.41	1.761	14	0.1383	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.887	2.586	0.7503	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.211966	3.211966	1	130.2	<0.0001	Significant Effect
Error	0.3453047	0.02466462	14			
Total	3.55727	3.23663	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.23	8.885	0.1447	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9492	0.8408	0.4767	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-016	8	0.2971	0.256	0.3382	0.1683	0.45	0.03818	0.108	36.35%	75.1%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-0080-3122	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	15.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-017	7.608	1.782	12	0.1824	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.573	2.507	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.079458	2.079458	1	57.88	<0.0001	Significant Effect
Error	0.4311394	0.03592828	12			
Total	2.510597	2.115386	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.125	14.2	0.9294	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9438	0.8239	0.4685	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-017	6	0.4144	0.3448	0.4841	0.2067	0.7009	0.07471	0.183	44.16%	65.27%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-3191-4083	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	32.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-005	3.659	1.895	7	0.39	0.0040	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.577	2.215	0.8408	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.504302	0.504302	1	13.39	0.0081	Significant Effect
Error	0.2636696	0.03766708	7			
Total	0.7679715	0.5419691	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9052	0.7007	0.2834	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-005	1	0.44			0.44	0.44	0	0	0.0%	63.12%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-8385-9379	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-011	3.059	1.761	14	0.1913	0.0042	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.387	2.586	0.1286	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4417516	0.4417516	1	9.36	0.0085	Significant Effect
Error	0.6607719	0.04719799	14			
Total	1.102524	0.4889496	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.506	8.885	0.6023	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9283	0.8408	0.2288	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-011	8	0.8609	0.7703	0.9515	0.36	1.139	0.08421	0.2382	27.67%	27.85%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-9199-2800	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	13.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-013	4.834	1.761	14	0.1551	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.683	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7246206	0.7246206	1	23.36	0.0003	Significant Effect
Error	0.4342241	0.03101601	14			
Total	1.158845	0.7556366	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.546	8.885	0.5795	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9405	0.8408	0.3556	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-013	8	0.7676	0.7082	0.827	0.5718	1.014	0.05519	0.1561	20.34%	35.67%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-1306-2206	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	13.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-012	3.383	1.761	14	0.1648	0.0022	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.71	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.400535	0.400535	1	11.44	0.0045	Significant Effect
Error	0.4899925	0.03499946	14			
Total	0.8905275	0.4355344	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.165	8.885	0.8455	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9533	0.8408	0.5443	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	26.52%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-1630-6786	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	15.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-010	3.298	1.761	14	0.1836	0.0026	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.585	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4725667	0.4725667	1	10.88	0.0053	Significant Effect
Error	0.6082053	0.04344324	14			
Total	1.080772	0.51601	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.307	8.885	0.7331	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9163	0.8408	0.1473	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	28.81%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-7179-3286	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	15.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-001	1.153	1.761	14	0.1848	0.1341	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.967	2.586	0.5914	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.05851033	0.05851033	1	1.329	0.2682	Non-Significant Effect
Error	0.6161754	0.04401253	14			
Total	0.6746857	0.1025229	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.337	8.885	0.7113	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9418	0.8408	0.3713	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-001	8	1.072	0.9869	1.158	0.6736	1.357	0.07934	0.2244	20.93%	10.14%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-6755-3077	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	14.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-002	4.654	1.761	14	0.1774	0.0002	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.073	2.586	0.4221	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8788249	0.8788249	1	21.66	0.0004	Significant Effect
Error	0.5680276	0.0405734	14			
Total	1.446852	0.9193984	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.154	8.885	0.8547	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9616	0.8408	0.6913	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-002	8	0.7245	0.6452	0.8038	0.4393	1.128	0.07372	0.2085	28.78%	39.28%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-1203-1000	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-004	4.129	1.761	14	0.1907	0.0005	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.152	2.586	0.3222	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7994877	0.7994877	1	17.05	0.0010	Significant Effect
Error	0.6564679	0.04689057	14			
Total	1.455956	0.8463783	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.49	8.885	0.6120	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9585	0.8408	0.6348	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	0.0%
19830-004	8	0.7462	0.656	0.8363	0.4767	1.196	0.08375	0.2369	31.75%	37.47%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-4064-1238	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	24.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-011	1.084	1.761	14	0.2434	0.1484	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.075	2.586	0.4195	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.08975258	0.08975258	1	1.175	0.2968	Non-Significant Effect
Error	1.06975	0.07641072	14			
Total	1.159503	0.1661633	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.694	8.885	0.5034	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9479	0.8408	0.4565	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-011	8	0.8609	0.7703	0.9515	0.36	1.139	0.08421	0.2382	27.67%	14.82%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-3958-5927	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	21.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-013	1.981	1.761	14	0.2161	0.0338	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.337	2.586	0.1587	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2363806	0.2363806	1	3.925	0.0676	Non-Significant Effect
Error	0.8432023	0.06022874	14			
Total	1.079583	0.2966093	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.944	8.885	0.0907	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9733	0.8408	0.8887	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-013	8	0.7676	0.7082	0.827	0.5718	1.014	0.05519	0.1561	20.34%	24.05%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-0909-0589	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	21.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-014	3.498	1.761	14	0.2152	0.0018	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.347	2.586	0.1521	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7304179	0.7304179	1	12.23	0.0036	Significant Effect
Error	0.8359313	0.05970938	14			
Total	1.566349	0.7901273	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.12	8.885	0.0815	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9716	0.8408	0.8632	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-014	8	0.5834	0.5253	0.6415	0.3533	0.84	0.054	0.1527	26.18%	42.28%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-4981-0175	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	21.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-015	6.125	1.895	7	0.215	0.0002	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.527	2.586	0.0672	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.931857	1.931857	1	37.52	<0.0001	Significant Effect
Error	0.7208763	0.05149116	14			
Total	2.652734	1.983348	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	13.95	8.885	0.0025	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9434	0.8408	0.3933	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-015	8	0.3157	0.2842	0.3473	0.2162	0.46	0.02935	0.083	26.29%	68.76%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-0979-3735	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	20.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-016	6.148	1.761	14	0.2044	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.471	2.586	0.0882	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.036726	2.036726	1	37.8	<0.0001	Significant Effect
Error	0.754283	0.05387735	14			
Total	2.791009	2.090603	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.24	8.885	0.0125	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9547	0.8408	0.5677	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-016	8	0.2971	0.256	0.3382	0.1683	0.45	0.03818	0.108	36.35%	70.6%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-5578-9911	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	25.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-017	4.173	1.782	12	0.2547	0.0006	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.179	2.507	0.2288	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.218939	1.218939	1	17.41	0.0013	Significant Effect
Error	0.8401176	0.0700098	12			
Total	2.059057	1.288949	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.869	14.2	0.2638	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9737	0.8239	0.9218	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-017	6	0.4144	0.3448	0.4841	0.2067	0.7009	0.07471	0.183	44.16%	58.99%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-9564-6135	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	61.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-005	1.736	1.895	7	0.6229	0.0631	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.911	2.215	0.2689	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2895009	0.2895009	1	3.013	0.1262	Non-Significant Effect
Error	0.6726478	0.09609254	7			
Total	0.9621487	0.3855934	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9815	0.7007	0.9716	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-005	1	0.44			0.44	0.44	0	0	0.0%	56.47%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-2997-8582	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	24.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-004	1.918	1.761	14	0.2429	0.0379	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.079	2.586	0.4137	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.27993	0.27993	1	3.678	0.0758	Non-Significant Effect
Error	1.065446	0.0761033	14			
Total	1.345376	0.3560333	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.712	8.885	0.4947	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9687	0.8408	0.8173	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-004	8	0.7462	0.656	0.8363	0.4767	1.196	0.08375	0.2369	31.75%	26.17%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-2683-3232	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-002	2.167	1.761	14	0.2326	0.0240	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.171	2.586	0.3007	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3276418	0.3276418	1	4.695	0.0480	Significant Effect
Error	0.9770057	0.06978612	14			
Total	1.304647	0.3974279	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.21	8.885	0.3173	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9789	0.8408	0.9542	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-002	8	0.7245	0.6452	0.8038	0.4393	1.128	0.07372	0.2085	28.78%	28.32%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-5982-0733	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-001	-0.4552	1.761	14	0.2383	0.6720	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.119	2.586	0.3606	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01517025	0.01517025	1	0.2072	0.6560	Non-Significant Effect
Error	1.025154	0.07322526	14			
Total	1.040324	0.08839551	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.908	8.885	0.4133	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9771	0.8408	0.9368	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-001	8	1.072	0.9869	1.158	0.6736	1.357	0.07934	0.2244	20.93%	-6.09%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-5717-3470	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	22.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-012	1.057	1.761	14	0.2232	0.1542	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.263	2.586	0.2131	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.07172847	0.07172847	1	1.117	0.3085	Non-Significant Effect
Error	0.8989707	0.06421219	14			
Total	0.9706991	0.1359407	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.972	8.885	0.1740	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.98	0.8408	0.9635	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	13.25%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-7202-3414	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-010	1.196	1.761	14	0.2374	0.1258	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.128	2.586	0.3504	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1039277	0.1039277	1	1.43	0.2516	Non-Significant Effect
Error	1.017184	0.07265597	14			
Total	1.121111	0.1765837	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.952	8.885	0.3972	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9787	0.8408	0.9527	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	15.95%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-9246-8617	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	22.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-009	-1.412	1.761	14	0.2277	0.9100	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.217	2.586	0.2535	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1332663	0.1332663	1	1.993	0.1799	Non-Significant Effect
Error	0.9363173	0.06687981	14			
Total	1.069584	0.2001462	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.551	8.885	0.2398	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9686	0.8408	0.8156	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	0.0%
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	-18.06%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-1470-9800	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-017	2.874	1.796	11	0.1583	0.0076	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.888	2.462	0.5609	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2074027	0.2074027	1	8.26	0.0151	Significant Effect
Error	0.2761998	0.02510907	11			
Total	0.4836025	0.2325118	12			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.848	11.46	0.4758	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9414	0.8138	0.4758	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-017	6	0.4144	0.3448	0.4841	0.2067	0.7009	0.07471	0.183	44.16%	37.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-2065-5262	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-016	5.919	1.771	13	0.1109	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.943	2.548	0.5817	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5129759	0.5129759	1	35.03	<0.0001	Significant Effect
Error	0.1903651	0.01464347	13			
Total	0.703341	0.5276194	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.554	9.155	0.5751	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9294	0.8328	0.2677	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-016	8	0.2971	0.256	0.3382	0.1683	0.45	0.03818	0.108	36.35%	55.51%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-0227-0977	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	15.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-015	6.191	1.771	13	0.1007	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.14	2.548	0.3012	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4627526	0.4627526	1	38.33	<0.0001	Significant Effect
Error	0.1569585	0.01207373	13			
Total	0.6197111	0.4748263	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.63	9.155	0.2317	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9607	0.8328	0.7044	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-015	8	0.3157	0.2842	0.3473	0.2162	0.46	0.02935	0.083	26.29%	52.72%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-4178-6730	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	19.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-014	1.128	1.771	13	0.1326	0.1399	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.841	2.548	0.7871	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02661512	0.02661512	1	1.272	0.2798	Non-Significant Effect
Error	0.2720135	0.02092411	13			
Total	0.2986286	0.04753923	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.287	10.79	0.7742	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9628	0.8328	0.7412	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-014	8	0.5834	0.5253	0.6415	0.3533	0.84	0.054	0.1527	26.18%	12.64%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-8018-1749	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	20.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-013	-1.316	1.771	13	0.1343	0.8945	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.742	2.548	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03717955	0.03717955	1	1.731	0.2111	Non-Significant Effect
Error	0.2792845	0.02148342	13			
Total	0.316464	0.05866297	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.345	10.79	0.7342	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.94	0.8328	0.3821	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-013	8	0.7676	0.7082	0.827	0.5718	1.014	0.05519	0.1561	20.34%	-14.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-1732-8635	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	27.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-011	-1.891	1.771	13	0.1808	0.9595	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.635	2.548	0.0307	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1392	0.1392	1	3.577	0.0811	Non-Significant Effect
Error	0.5058323	0.03891018	13			
Total	0.6450322	0.1781102	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.13	10.79	0.1856	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.921	0.8328	0.1997	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-011	8	0.8609	0.7703	0.9515	0.36	1.139	0.08421	0.2382	27.67%	-28.91%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-9952-7513	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	19.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-011	-3.664	1.782	12	0.1287	0.9984	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2451426	0.2451426	1	13.43	0.0032	Significant Effect
Error	0.2190892	0.01825743	12			
Total	0.4642318	0.2634	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.015	11.07	0.9861	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9544	0.8239	0.6301	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-011	7	0.9325	0.8809	0.984	0.7395	1.139	0.05126	0.1356	14.54%	-39.63%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-0873-3449	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	41.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-005	1.583	1.943	6	0.2796	0.0823	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.818	2.127	0.3036	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04540722	0.04540722	1	2.506	0.1645	Non-Significant Effect
Error	0.1087299	0.01812166	6			
Total	0.1541372	0.06352888	7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9498	0.6451	0.7090	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-005	1	0.44			0.44	0.44	0	0	0.0%	34.11%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-9028-2976	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	27.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-004	-0.7707	1.771	13	0.18	0.7727	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.378	2.548	0.1152	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02291596	0.02291596	1	0.594	0.4547	Non-Significant Effect
Error	0.5015283	0.0385791	13			
Total	0.5244443	0.06149507	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.097	10.79	0.1897	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9306	0.8328	0.2790	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-004	8	0.7462	0.656	0.8363	0.4767	1.196	0.08375	0.2369	31.75%	-11.73%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-6775-6177	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	24.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-002	-0.6145	1.771	13	0.1634	0.7252	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.348	2.548	0.1315	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0119975	0.0119975	1	0.3776	0.5495	Non-Significant Effect
Error	0.4130879	0.031776	13			
Total	0.4250854	0.04377349	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.399	10.79	0.3062	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9635	0.8328	0.7526	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-002	8	0.7245	0.6452	0.8038	0.4393	1.128	0.07372	0.2085	28.78%	-8.49%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-9381-5736	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	25.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-001	-4.149	1.771	13	0.1726	0.9994	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.197	2.548	0.2439	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.610766	0.610766	1	17.21	0.0011	Significant Effect
Error	0.4612358	0.03547968	13			
Total	1.072002	0.6462457	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.779	10.79	0.2339	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9736	0.8328	0.9068	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-001	8	1.072	0.9869	1.158	0.6736	1.357	0.07934	0.2244	20.93%	-60.57%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-3605-1814	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	22.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-012	-2.515	1.771	13	0.1471	0.9871	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.997	2.548	0.4900	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1630412	0.1630412	1	6.326	0.0258	Significant Effect
Error	0.3350528	0.0257733	13			
Total	0.4980941	0.1888146	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.784	10.79	0.4978	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9764	0.8328	0.9392	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	-31.29%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-8210-0696	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	25.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-010	-1.88	1.771	13	0.1711	0.9587	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.774	2.548	0.9492	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1232551	0.1232551	1	3.535	0.0827	Non-Significant Effect
Error	0.4532657	0.03486659	13			
Total	0.5765208	0.1581217	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.716	10.79	0.2442	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9829	0.8328	0.9856	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	-27.21%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-8961-0544	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	23.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-009	-5.998	1.771	13	0.1551	1.0000	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.756	2.548	0.9965	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.030636	1.030636	1	35.98	<0.0001	Significant Effect
Error	0.3723995	0.02864611	13			
Total	1.403035	1.059282	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.079	10.79	0.3913	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9487	0.8328	0.5038	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	-78.68%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-9956-3778	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	33.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-008	-2.702	1.771	13	0.2247	0.9909	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.345	2.548	0.1333	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4389381	0.4389381	1	7.303	0.0181	Significant Effect
Error	0.7813777	0.06010598	13			
Total	1.220316	0.4990441	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.303	10.79	0.0592	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9699	0.8328	0.8559	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	0.0%
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	-51.35%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-6708-5671	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	17.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-017	7.12	1.782	12	0.2196	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.211	2.507	0.2020	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.639001	2.639001	1	50.69	<0.0001	Significant Effect
Error	0.6247466	0.05206222	12			
Total	3.263748	2.691063	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.95	14.2	0.4797	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9597	0.8239	0.7179	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-017	6	0.4144	0.3448	0.4841	0.2067	0.7009	0.07471	0.183	44.16%	67.92%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-0121-7640	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	13.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-016	10.14	1.761	14	0.1728	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.557	2.586	0.0580	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.957249	3.957249	1	102.8	<0.0001	Significant Effect
Error	0.5389119	0.03849371	14			
Total	4.496161	3.995743	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.601	8.885	0.0369	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9399	0.8408	0.3475	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-016	8	0.2971	0.256	0.3382	0.1683	0.45	0.03818	0.108	36.35%	77.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-4520-7520	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	13.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-015	10.27	1.86	8	0.1767	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.64	2.586	0.0374	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.810527	3.810527	1	105.5	<0.0001	Significant Effect
Error	0.5055053	0.03610752	14			
Total	4.316032	3.846635	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	9.481	8.885	0.0082	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9294	0.8408	0.2387	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-015	8	0.3157	0.2842	0.3473	0.2162	0.46	0.02935	0.083	26.29%	75.56%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-3355-1980	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	9.09%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-015	14.95	1.771	13	0.1238	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.078927	4.078927	1	223.7	<0.0001	Significant Effect
Error	0.2370934	0.01823796	13			
Total	4.31602	4.097165	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.569	9.155	0.0667	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9753	0.8328	0.9276	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	7	1.361	1.294	1.428	1.059	1.603	0.06706	0.1774	13.04%	0.0%
19830-015	8	0.3157	0.2842	0.3473	0.2162	0.46	0.02935	0.083	26.29%	76.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-9969-4987	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	14.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-014	6.729	1.761	14	0.1854	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.383	2.586	0.1308	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.007292	2.007292	1	45.29	<0.0001	Significant Effect
Error	0.6205603	0.04432574	14			
Total	2.627852	2.051618	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.801	8.885	0.1977	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9561	0.8408	0.5926	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-014	8	0.5834	0.5253	0.6415	0.3533	0.84	0.054	0.1527	26.18%	54.84%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-2310-9696	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	14.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-013	4.95	1.761	14	0.1865	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.369	2.586	0.1387	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.099005	1.099005	1	24.51	0.0002	Significant Effect
Error	0.6278313	0.04484509	14			
Total	1.726836	1.14385	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.681	8.885	0.2166	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9646	0.8408	0.7454	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-013	8	0.7676	0.7082	0.827	0.5718	1.014	0.05519	0.1561	20.34%	40.58%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-4567-9262	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-011	3.488	1.761	14	0.2176	0.0018	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.099	2.586	0.3868	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7425817	0.7425817	1	12.17	0.0036	Significant Effect
Error	0.8543791	0.06102708	14			
Total	1.596961	0.8036088	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.152	8.885	0.8571	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8978	0.8408	0.0742	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-011	8	0.8609	0.7703	0.9515	0.36	1.139	0.08421	0.2382	27.67%	33.35%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-1900-4179	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	39.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-005	3.142	1.895	7	0.5136	0.0082	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.027	2.215	0.1570	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.6448898	0.6448898	1	9.872	0.0163	Significant Effect
Error	0.4572768	0.06532525	7			
Total	1.102167	0.710215	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9341	0.7007	0.5212	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-005	1	0.44			0.44	0.44	0	0	0.0%	65.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-5941-5601	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-004	4.428	1.761	14	0.217	0.0003	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.036	2.586	0.4766	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.19078	1.19078	1	19.61	0.0006	Significant Effect
Error	0.8500751	0.06071965	14			
Total	2.040855	1.251499	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.164	8.885	0.8462	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9945	0.8408	1.0000	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-004	8	0.7462	0.656	0.8363	0.4767	1.196	0.08375	0.2369	31.75%	42.24%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-0486-3295	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	15.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-002	4.864	1.761	14	0.2054	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.151	2.586	0.3231	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.287191	1.287191	1	23.66	0.0003	Significant Effect
Error	0.7616348	0.05440248	14			
Total	2.048826	1.341594	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.502	8.885	0.6045	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9815	0.8408	0.9744	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-002	8	0.7245	0.6452	0.8038	0.4393	1.128	0.07372	0.2085	28.78%	43.91%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-6366-2466	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-001	1.825	1.761	14	0.2118	0.0447	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.086	2.586	0.4041	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1927007	0.1927007	1	3.332	0.0894	Non-Significant Effect
Error	0.8097826	0.05784161	14			
Total	1.002483	0.2505423	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.297	8.885	0.7401	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9391	0.8408	0.3379	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-001	8	1.072	0.9869	1.158	0.6736	1.357	0.07934	0.2244	20.93%	16.99%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-9205-4315	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	15.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-012	3.756	1.761	14	0.1946	0.0011	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.27	2.586	0.2073	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.6888438	0.6888438	1	14.11	0.0021	Significant Effect
Error	0.6835997	0.04882855	14			
Total	1.372443	0.7376724	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.02	8.885	0.3739	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9593	0.8408	0.6487	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-012	8	0.8768	0.8084	0.9452	0.6174	1.186	0.06357	0.1798	20.51%	32.13%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-6477-7622	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	16.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-010	3.696	1.761	14	0.2108	0.0012	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.096	2.586	0.3903	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7823805	0.7823805	1	13.66	0.0024	Significant Effect
Error	0.8018125	0.05727233	14			
Total	1.584193	0.8396528	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.327	8.885	0.7182	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9464	0.8408	0.4343	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-010	8	0.8495	0.7651	0.9339	0.5357	1.169	0.07844	0.2219	26.12%	34.24%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-6294-5517	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	15.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-009	0.8685	1.761	14	0.1998	0.1999	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.211	2.586	0.2601	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03884361	0.03884361	1	0.7543	0.3998	Non-Significant Effect
Error	0.7209463	0.05149617	14			
Total	0.7597899	0.09033978	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.734	8.885	0.4847	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9247	0.8408	0.2004	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-009	8	1.193	1.119	1.267	0.9069	1.403	0.06862	0.1941	16.27%	7.63%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-2918-9181	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	19.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-008	1.979	1.761	14	0.2502	0.0339	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.019	2.586	0.5036	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3160064	0.3160064	1	3.915	0.0679	Non-Significant Effect
Error	1.129925	0.08070889	14			
Total	1.445931	0.3967153	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.471	8.885	0.6233	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9561	0.8408	0.5920	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-008	8	1.011	0.8928	1.129	0.4567	1.446	0.1096	0.31	30.67%	21.76%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-2101-6111	**Endpoint:**	Mean Dry Weight-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry weight-mg endpoint	14.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-003	5.778	1.771	13	0.1912	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.41	2.548	0.0995	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.453489	1.453489	1	33.38	<0.0001	Significant Effect
Error	0.5660067	0.04353898	13			
Total	2.019495	1.497028	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.605	10.79	0.1392	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9602	0.8328	0.6965	Normal Distribution

Mean Dry Weight-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.292	1.195	1.389	0.8071	1.603	0.09036	0.2556	19.79%	0.0%
19830-003	7	0.6678	0.6166	0.719	0.5194	0.8944	0.05088	0.1346	20.16%	48.3%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-7752-5348	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	26.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	1.236	1.761	14	0.208	0.1185	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.747	2.586	0.0200	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.08519129	0.08519129	1	1.527	0.2369	Non-Significant Effect
Error	0.7812362	0.05580258	14			
Total	0.8664275	0.1409939	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.788	8.885	0.1995	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8889	0.8408	0.0535	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-011	8	0.6449	0.5359	0.7539	0.018	1.018	0.1013	0.2866	44.44%	18.45%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-5571-8295	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	0.6816	1.771	13	0.1465	0.2537	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01186891	0.01186891	1	0.4646	0.5075	Non-Significant Effect
Error	0.332125	0.02554808	13			
Total	0.3439939	0.03741699	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.404	10.79	0.6950	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9103	0.8328	0.1366	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-011	7	0.7344	0.6793	0.7895	0.55	1.018	0.05475	0.1448	19.72%	7.13%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-2676-3295	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-013	1.371	1.761	14	0.1603	0.0960	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.909	2.586	0.7036	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06225049	0.06225049	1	1.88	0.1920	Non-Significant Effect
Error	0.4636661	0.03311901	14			
Total	0.5259166	0.0953695	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.248	8.885	0.7774	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9636	0.8408	0.7270	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-013	8	0.6661	0.5931	0.739	0.398	0.963	0.0678	0.1918	28.79%	15.77%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-2515-7721	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	4.236	1.761	14	0.1549	0.0004	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.15	2.586	0.3236	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5550254	0.5550254	1	17.95	0.0008	Significant Effect
Error	0.4329686	0.03092633	14			
Total	0.987994	0.5859517	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.099	8.885	0.9038	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9865	0.8408	0.9949	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-014	8	0.4183	0.3499	0.4868	0.053	0.63	0.06363	0.18	43.02%	47.1%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-5772-2887	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	15.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-015	9.108	1.761	14	0.1191	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.57	2.586	0.0543	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.516593	1.516593	1	82.96	<0.0001	Significant Effect
Error	0.2559375	0.01828125	14			
Total	1.772531	1.534875	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.15	8.885	0.0800	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9397	0.8408	0.3453	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	77.86%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-9333-7098	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	14.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-016	10.57	1.761	14	0.1143	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.677	2.586	0.0303	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.882729	1.882729	1	111.8	<0.0001	Significant Effect
Error	0.2358529	0.01684663	14			
Total	2.118582	1.899575	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.966	8.885	0.0202	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9144	0.8408	0.1373	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	86.75%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-2850-9353	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	11.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-016	13.59	1.771	13	0.08318	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.520143	1.520143	1	184.6	<0.0001	Significant Effect
Error	0.107069	0.00823608	13			
Total	1.627212	1.528379	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.052	9.155	0.1702	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9551	0.8328	0.6076	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.7429	0.6996	0.7861	0.5865	0.8705	0.04295	0.1136	15.3%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	85.9%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-5220-6610	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-017	8.035	1.761	14	0.1449	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.112	2.586	0.3703	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.748347	1.748347	1	64.57	<0.0001	Significant Effect
Error	0.3790984	0.02707846	14			
Total	2.127445	1.775425	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.193	8.885	0.8217	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9168	0.8408	0.1495	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-017	8	0.1297	0.06991	0.1895	0	0.3855	0.05556	0.1571	121.2%	83.6%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-8532-5216	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	25.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-001	-0.8388	1.761	14	0.1993	0.7922	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.894	2.586	0.7351	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03605244	0.03605244	1	0.7037	0.4157	Non-Significant Effect
Error	0.7173041	0.05123601	14			
Total	0.7533566	0.08728845	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.478	8.885	0.2542	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9647	0.8408	0.7471	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-001	8	0.8858	0.783	0.9885	0.4715	1.171	0.09553	0.2702	30.51%	-12.01%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-1761-8558	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-002	2.553	1.761	14	0.1486	0.0115	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.06	2.586	0.4405	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1854387	0.1854387	1	6.517	0.0230	Significant Effect
Error	0.3983505	0.02845361	14			
Total	0.5837892	0.2138923	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.074	8.885	0.9278	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.969	0.8408	0.8222	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-002	8	0.5755	0.5125	0.6385	0.3295	0.7895	0.05857	0.1657	28.79%	27.23%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-4255-4090	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	21.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-004	1.55	1.761	14	0.1676	0.0718	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.826	2.586	0.8919	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.08695157	0.08695157	1	2.402	0.1435	Non-Significant Effect
Error	0.5068715	0.03620511	14			
Total	0.5938231	0.1231567	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.458	8.885	0.6315	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9247	0.8408	0.2006	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-004	8	0.6434	0.5645	0.7222	0.3575	0.957	0.07327	0.2072	32.21%	18.64%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-1925-5126	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	13.5%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-005	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.86	2.586	0.0095	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.484172	2.484172	1	168.3	<0.0001	Significant Effect
Error	0.2066683	0.01476202	14			
Total	2.69084	2.498934	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	487	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7837	0.8408	0.0017	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.65%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-9315-4274	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	11.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-005	17.2	1.943	6	0.08362	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.044967	2.044967	1	341.3	<0.0001	Significant Effect
Error	0.07788446	0.005991112	13			
Total	2.122852	2.050958	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	213.4	9.155	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8849	0.8328	0.0563	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.7429	0.6996	0.7861	0.5865	0.8705	0.04295	0.1136	15.3%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.63%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-4388-3830	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	13.5%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-006	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.863	2.586	0.0093	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.501539	2.501539	1	169.8	<0.0001	Significant Effect
Error	0.2062448	0.01473177	14			
Total	2.707784	2.516271	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.747	8.862	0.0104	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7691	0.8408	0.0011	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-5873-2344	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	11.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-006	17.3	1.943	6	0.08345	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.060192	2.060192	1	345.8	<0.0001	Significant Effect
Error	0.07746095	0.005958535	13			
Total	2.137653	2.066151	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	15.3	9.33	0.0021	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8662	0.8328	0.0297	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.7429	0.6996	0.7861	0.5865	0.8705	0.04295	0.1136	15.3%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-7878-7960	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	13.5%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-007	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.863	2.586	0.0093	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.501539	2.501539	1	169.8	<0.0001	Significant Effect
Error	0.2062448	0.01473177	14			
Total	2.707784	2.516271	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.747	8.862	0.0104	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7691	0.8408	0.0011	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-2902-9170	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	11.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-007	17.3	1.943	6	0.08345	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.060192	2.060192	1	345.8	<0.0001	Significant Effect
Error	0.07746095	0.005958535	13			
Total	2.137653	2.066151	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	15.3	9.33	0.0021	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8662	0.8328	0.0297	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.7429	0.6996	0.7861	0.5865	0.8705	0.04295	0.1136	15.3%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-7269-2993	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	26.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-015	5.148	1.86	8	0.18	0.0004	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.598	2.586	0.0469	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9934394	0.9934394	1	26.5	0.0001	Significant Effect
Error	0.5247615	0.03748296	14			
Total	1.518201	1.030922	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	9.56	8.885	0.0080	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9307	0.8408	0.2497	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	74.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-3171-4868	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	17.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-015	7.834	1.771	13	0.1283	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.203506	1.203506	1	61.38	<0.0001	Significant Effect
Error	0.2549123	0.01960864	13			
Total	1.458418	1.223114	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.818	9.155	0.0584	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9463	0.8328	0.4688	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.7428	0.6725	0.8132	0.438	0.9315	0.0699	0.1849	24.9%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	76.43%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-9682-0213	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	26.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-016	5.99	1.895	7	0.1799	0.0003	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.649	2.586	0.0355	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.293541	1.293541	1	35.88	<0.0001	Significant Effect
Error	0.5046768	0.03604835	14			
Total	1.798218	1.329589	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	16.05	8.885	0.0016	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9272	0.8408	0.2197	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	84.45%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-1723-5768	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	16.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-016	9.173	1.771	13	0.1232	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.520045	1.520045	1	84.15	<0.0001	Significant Effect
Error	0.2348277	0.01806367	13			
Total	1.754873	1.538108	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.086	9.155	0.0143	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9419	0.8328	0.4067	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.7428	0.6725	0.8132	0.438	0.9315	0.0699	0.1849	24.9%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	85.9%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-5573-5395	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	28.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-017	5.055	1.761	14	0.1895	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.338	2.586	0.1578	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.182579	1.182579	1	25.55	0.0002	Significant Effect
Error	0.6479224	0.04628017	14			
Total	1.830501	1.228859	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.748	8.885	0.2056	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9233	0.8408	0.1903	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-017	8	0.1297	0.06991	0.1895	0	0.3855	0.05556	0.1571	121.2%	80.74%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-0564-3470	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	29.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-014	2.279	1.761	14	0.1972	0.0194	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.246	2.586	0.2271	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2603185	0.2603185	1	5.193	0.0389	Significant Effect
Error	0.7017925	0.05012804	14			
Total	0.9621111	0.3104466	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.095	8.885	0.3502	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9119	0.8408	0.1251	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-014	8	0.4183	0.3499	0.4868	0.053	0.63	0.06363	0.18	43.02%	37.88%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-4284-9305	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	25.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-005	7.278	1.895	7	0.1746	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.729	2.586	0.0223	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.799191	1.799191	1	52.97	<0.0001	Significant Effect
Error	0.4754923	0.03396373	14			
Total	2.274684	1.833155	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1122	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8613	0.8408	0.0201	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.59%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-0219-3894	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	15.5%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-010		19830-005	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.044853	2.044853	1	129.3	<0.0001	Significant Effect
Error	0.2056431	0.0158187	13			
Total	2.250496	2.060672	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	565.3	9.155	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8255	0.8328	0.0080	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.7428	0.6725	0.8132	0.438	0.9315	0.0699	0.1849	24.9%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.63%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-9270-7500	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	24.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-006	7.311	1.761	14	0.1622	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.73	2.586	0.0221	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.813977	1.813977	1	53.46	<0.0001	Significant Effect
Error	0.4750687	0.03393348	14			
Total	2.289045	1.84791	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.807	8.862	0.0102	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8537	0.8408	0.0154	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-2244-2030	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	35.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-011	0.2085	1.761	14	0.2412	0.4189	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.369	2.586	0.1384	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.003259196	0.003259196	1	0.04345	0.8379	Non-Significant Effect
Error	1.05006	0.07500429	14			
Total	1.053319	0.07826349	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.21	8.885	0.8076	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8984	0.8408	0.0756	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-011	8	0.6449	0.5359	0.7539	0.018	1.018	0.1013	0.2866	44.44%	4.24%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-1015-4703	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	15.5%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-010		19830-006	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.060078	2.060078	1	130.5	<0.0001	Significant Effect
Error	0.2052196	0.01578613	13			
Total	2.265297	2.075864	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	11.64	9.33	0.0052	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8132	0.8328	0.0055	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.7428	0.6725	0.8132	0.438	0.9315	0.0699	0.1849	24.9%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-1593-7671	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	24.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-007	7.311	1.761	14	0.1622	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.73	2.586	0.0221	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.813977	1.813977	1	53.46	<0.0001	Significant Effect
Error	0.4750687	0.03393348	14			
Total	2.289045	1.84791	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.807	8.862	0.0102	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8537	0.8408	0.0154	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-1594-1932	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	15.5%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-010		19830-007	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.060078	2.060078	1	130.5	<0.0001	Significant Effect
Error	0.2052196	0.01578613	13			
Total	2.265297	2.075864	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	11.64	9.33	0.0052	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8132	0.8328	0.0055	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	7	0.7428	0.6725	0.8132	0.438	0.9315	0.0699	0.1849	24.9%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-6672-6523	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	29.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-013	0.06433	1.761	14	0.2014	0.4748	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.199	2.586	0.2715	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0002165131	0.0002165131	1	0.004138	0.9496	Non-Significant Effect
Error	0.7324901	0.05232072	14			
Total	0.7327066	0.05253724	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.845	8.885	0.4375	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9456	0.8408	0.4231	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-013	8	0.6661	0.5931	0.739	0.398	0.963	0.0678	0.1918	28.79%	1.09%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-5962-9777	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	28.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-012	-1.064	1.761	14	0.1943	0.8474	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.28	2.586	0.1994	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.05512451	0.05512451	1	1.133	0.3052	Non-Significant Effect
Error	0.6813135	0.04866525	14			
Total	0.736438	0.1037898	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.303	8.885	0.2933	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9713	0.8408	0.8596	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	-17.43%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-0389-8972	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	34.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-001	-1.6	1.761	14	0.2337	0.9341	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.895	2.586	0.7334	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1803369	0.1803369	1	2.56	0.1319	Non-Significant Effect
Error	0.9861281	0.07043772	14			
Total	1.166465	0.2507746	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.076	8.885	0.9257	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8607	0.8408	0.0197	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-001	8	0.8858	0.783	0.9885	0.4715	1.171	0.09553	0.2702	30.51%	-31.53%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-1345-6078	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	28.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-002	0.8971	1.761	14	0.1922	0.1924	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.304	2.586	0.1813	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03835323	0.03835323	1	0.8048	0.3848	Non-Significant Effect
Error	0.6671745	0.04765532	14			
Total	0.7055277	0.08600855	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.473	8.885	0.2552	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9198	0.8408	0.1674	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-002	8	0.5755	0.5125	0.6385	0.3295	0.7895	0.05857	0.1657	28.79%	14.54%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-8190-1632	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	30.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-004	0.2553	1.761	14	0.2073	0.4011	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.137	2.586	0.3393	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.003610739	0.003610739	1	0.06517	0.8022	Non-Significant Effect
Error	0.7756955	0.05540682	14			
Total	0.7793062	0.05901756	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.58	8.885	0.5607	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9625	0.8408	0.7081	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	0.0%
19830-004	8	0.6434	0.5645	0.7222	0.3575	0.957	0.07327	0.2072	32.21%	4.46%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-9702-9365	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	14.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-014	7.376	1.761	14	0.1619	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.088	2.586	0.4013	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.83888	1.83888	1	54.4	<0.0001	Significant Effect
Error	0.4732279	0.033802	14			
Total	2.312108	1.872682	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.087	8.885	0.9150	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9089	0.8408	0.1119	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-014	8	0.4183	0.3499	0.4868	0.053	0.63	0.06363	0.18	43.02%	61.84%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-2792-0269	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	11.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-015	12.67	1.761	14	0.1281	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.639	2.586	0.0376	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.395003	3.395003	1	160.5	<0.0001	Significant Effect
Error	0.2961968	0.02115692	14			
Total	3.6912	3.41616	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.961	8.885	0.0509	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9325	0.8408	0.2672	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	84.03%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-5514-1367	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	8.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-015	18.2	1.771	13	0.09478	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.543569	3.543569	1	331.3	<0.0001	Significant Effect
Error	0.1390289	0.01069453	13			
Total	3.682598	3.554264	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.097	9.155	0.3549	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9779	0.8328	0.9530	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	7	1.149	1.103	1.196	0.9857	1.332	0.04612	0.122	10.62%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	84.77%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-3856-8672	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	11.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-016	14.12	1.761	14	0.1237	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.733	2.586	0.0218	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.932997	3.932997	1	199.4	<0.0001	Significant Effect
Error	0.2761122	0.0197223	14			
Total	4.209109	3.952719	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.326	8.885	0.0121	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9175	0.8408	0.1536	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	90.45%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-0383-2455	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	7.63%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-016	21.1	1.771	13	0.08767	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.073511	4.073511	1	445.2	<0.0001	Significant Effect
Error	0.1189443	0.009149562	13			
Total	4.192455	4.08266	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.52	9.155	0.1242	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9845	0.8328	0.9912	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	7	1.149	1.103	1.196	0.9857	1.332	0.04612	0.122	10.62%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	90.89%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-3756-9785	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	13.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-017	11.17	1.761	14	0.1524	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.218	2.586	0.2531	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.737662	3.737662	1	124.8	<0.0001	Significant Effect
Error	0.4193578	0.02995413	14			
Total	4.15702	3.767617	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.426	8.885	0.6513	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9405	0.8408	0.3554	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-017	8	0.1297	0.06991	0.1895	0	0.3855	0.05556	0.1571	121.2%	88.17%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-5419-1666	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	10.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-009		19830-005	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.89	2.586	0.0076	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.78375	4.78375	1	271.2	<0.0001	Significant Effect
Error	0.2469276	0.01763769	14			
Total	5.030677	4.801387	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	582.1	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8335	0.8408	0.0079	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.75%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-9344-1735	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	7.81%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-005	24.82	1.943	6	0.08978	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.907893	4.907893	1	710.8	<0.0001	Significant Effect
Error	0.08975971	0.006904594	13			
Total	4.997653	4.914798	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	246.1	9.155	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8627	0.8328	0.0264	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	7	1.149	1.103	1.196	0.9857	1.332	0.04612	0.122	10.62%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.76%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-3168-0603	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	10.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-009		19830-006	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.893	2.586	0.0075	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.807839	4.807839	1	273.1	<0.0001	Significant Effect
Error	0.2465041	0.01760744	14			
Total	5.054343	4.825446	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.901	8.862	0.0099	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8232	0.8408	0.0056	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-2826-6424	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	7.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-006	24.92	1.943	6	0.08962	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.931465	4.931465	1	717.6	<0.0001	Significant Effect
Error	0.08933622	0.006872016	13			
Total	5.020801	4.938337	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	17.92	9.33	0.0012	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8452	0.8328	0.0148	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	7	1.149	1.103	1.196	0.9857	1.332	0.04612	0.122	10.62%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-3369-6491	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	10.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-009		19830-007	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.893	2.586	0.0075	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.807839	4.807839	1	273.1	<0.0001	Significant Effect
Error	0.2465041	0.01760744	14			
Total	5.054343	4.825446	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.901	8.862	0.0099	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8232	0.8408	0.0056	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-7980-3003	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	7.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-007	24.92	1.943	6	0.08962	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.931465	4.931465	1	717.6	<0.0001	Significant Effect
Error	0.08933622	0.006872016	13			
Total	5.020801	4.938337	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	17.92	9.33	0.0012	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8452	0.8328	0.0148	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	7	1.149	1.103	1.196	0.9857	1.332	0.04612	0.122	10.62%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-8082-9296	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-011	3.727	1.761	14	0.2133	0.0011	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.679	2.586	0.0301	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8152797	0.8152797	1	13.89	0.0023	Significant Effect
Error	0.8214955	0.05867825	14			
Total	1.636775	0.873958	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.333	8.885	0.2863	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8814	0.8408	0.0408	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-011	8	0.6449	0.5359	0.7539	0.018	1.018	0.1013	0.2866	44.44%	41.18%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-3101-1486	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	14.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-011	4.132	1.771	13	0.1551	0.0006	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4889894	0.4889894	1	17.07	0.0012	Significant Effect
Error	0.3723844	0.02864495	13			
Total	0.8613738	0.5176344	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.678	10.79	0.5448	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9723	0.8328	0.8903	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-011	7	0.7344	0.6793	0.7895	0.55	1.018	0.05475	0.1448	19.72%	33.01%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-9632-3466	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	15.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-013	4.536	1.761	14	0.1671	0.0002	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.023	2.586	0.4961	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7405522	0.7405522	1	20.57	0.0005	Significant Effect
Error	0.5039255	0.03599468	14			
Total	1.244478	0.7765468	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.044	8.885	0.9559	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9797	0.8408	0.9613	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-013	8	0.6661	0.5931	0.739	0.398	0.963	0.0678	0.1918	28.79%	39.25%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-0303-3094	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	14.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-012	3.398	1.761	14	0.1584	0.0022	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.135	2.586	0.3420	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3733857	0.3733857	1	11.55	0.0043	Significant Effect
Error	0.4527489	0.03233921	14			
Total	0.8261346	0.4057249	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.195	8.885	0.8200	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9823	0.8408	0.9790	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	27.87%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-5299-6593	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-010	3.726	1.761	14	0.1999	0.0011	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.215	2.586	0.2554	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7154437	0.7154437	1	13.88	0.0023	Significant Effect
Error	0.7215729	0.05154092	14			
Total	1.437016	0.7669846	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.927	8.885	0.4063	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9121	0.8408	0.1257	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	38.58%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-0761-2841	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-001	1.811	1.761	14	0.2049	0.0459	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.843	2.586	0.8503	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.177391	0.177391	1	3.278	0.0917	Non-Significant Effect
Error	0.7575635	0.05411167	14			
Total	0.9349545	0.2315027	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.073	8.885	0.3570	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8889	0.8408	0.0535	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-001	8	0.8858	0.783	0.9885	0.4715	1.171	0.09553	0.2702	30.51%	19.21%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-6862-2253	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	14.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-002	5.885	1.761	14	0.1559	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.169	2.586	0.3031	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.085095	1.085095	1	34.64	<0.0001	Significant Effect
Error	0.4386098	0.03132927	14			
Total	1.523705	1.116424	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.283	8.885	0.7506	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9552	0.8408	0.5762	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-002	8	0.5755	0.5125	0.6385	0.3295	0.7895	0.05857	0.1657	28.79%	47.51%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-8140-3941	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	15.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-004	4.583	1.761	14	0.1741	0.0002	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.942	2.586	0.6390	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8207064	0.8207064	1	21	0.0004	Significant Effect
Error	0.5471309	0.03908078	14			
Total	1.367837	0.8597872	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.22	8.885	0.8001	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9709	0.8408	0.8528	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	0.0%
19830-004	8	0.6434	0.5645	0.7222	0.3575	0.957	0.07327	0.2072	32.21%	41.32%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-3979-0435	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	36.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-011	0.9336	1.761	14	0.2873	0.1832	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.312	2.586	0.1758	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09279636	0.09279636	1	0.8717	0.3663	Non-Significant Effect
Error	1.490406	0.1064575	14			
Total	1.583202	0.1992539	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.592	8.885	0.5544	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8702	0.8408	0.0274	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-011	8	0.6449	0.5359	0.7539	0.018	1.018	0.1013	0.2866	44.44%	19.11%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-0897-3965	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	32.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-013	0.9061	1.761	14	0.2549	0.1901	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.606	2.586	0.0449	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06877504	0.06877504	1	0.821	0.3802	Non-Significant Effect
Error	1.172835	0.08377396	14			
Total	1.241611	0.152549	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.556	8.885	0.1160	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.922	0.8408	0.1813	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-013	8	0.6661	0.5931	0.739	0.398	0.963	0.0678	0.1918	28.79%	16.45%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-8973-7238	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	21.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-013	2.178	1.771	13	0.1912	0.0242	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.206565	0.206565	1	4.744	0.0484	Significant Effect
Error	0.5659958	0.04353814	13			
Total	0.7725608	0.2501032	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.398	9.155	0.6660	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9305	0.8328	0.2780	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-013	8	0.6661	0.5931	0.739	0.398	0.963	0.0678	0.1918	28.79%	26.1%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-6820-2125	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-014	2.653	1.761	14	0.2515	0.0095	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.641	2.586	0.0372	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5741847	0.5741847	1	7.038	0.0189	Significant Effect
Error	1.142138	0.08158128	14			
Total	1.716323	0.655766	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.038	8.885	0.0856	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9198	0.8408	0.1674	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-014	8	0.4183	0.3499	0.4868	0.053	0.63	0.06363	0.18	43.02%	47.53%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-5312-8729	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-014	4.599	1.771	13	0.186	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8708483	0.8708483	1	21.15	0.0005	Significant Effect
Error	0.5352982	0.04117679	13			
Total	1.406147	0.9120251	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.588	9.155	0.5572	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.93	0.8328	0.2730	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-014	8	0.4183	0.3499	0.4868	0.053	0.63	0.06363	0.18	43.02%	53.59%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-8595-0124	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-015	4.739	1.895	7	0.2487	0.0011	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.873	2.586	0.0086	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.548158	1.548158	1	22.46	0.0003	Significant Effect
Error	0.9651068	0.06893621	14			
Total	2.513265	1.617094	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	18.42	8.885	0.0010	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8723	0.8408	0.0295	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	78.04%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-7051-1225	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	16.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-015	8.453	1.771	13	0.1522	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.96896	1.96896	1	71.45	<0.0001	Significant Effect
Error	0.3582672	0.02755901	13			
Total	2.327227	1.996519	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	7.245	9.155	0.0196	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.973	0.8328	0.8996	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	80.58%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-0595-2971	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	30.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-016	5.33	1.895	7	0.2461	0.0005	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.903	2.586	0.0069	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.917879	1.917879	1	28.41	0.0001	Significant Effect
Error	0.9450222	0.06750159	14			
Total	2.862901	1.985381	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	30.92	8.885	0.0002	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8588	0.8408	0.0184	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	86.86%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-5939-2883	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	30.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-017	4.788	1.761	14	0.2455	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.705	2.586	0.0257	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.782225	1.782225	1	22.93	0.0003	Significant Effect
Error	1.088268	0.07773341	14			
Total	2.870493	1.859959	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.296	8.885	0.0429	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8897	0.8408	0.0550	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-017	8	0.1297	0.06991	0.1895	0	0.3855	0.05556	0.1571	121.2%	83.73%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-5615-1912	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-017	7.747	1.771	13	0.1764	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.222691	2.222691	1	60.02	<0.0001	Significant Effect
Error	0.4814281	0.03703293	13			
Total	2.704119	2.259724	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.083	9.155	0.3594	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9075	0.8328	0.1240	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-017	8	0.1297	0.06991	0.1895	0	0.3855	0.05556	0.1571	121.2%	85.61%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-8766-3870	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	28.2%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-007	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.95	2.586	0.0048	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.542032	2.542032	1	38.88	<0.0001	Significant Effect
Error	0.9154141	0.06538672	14			
Total	3.457446	2.607419	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	9.024	8.862	0.0095	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7888	0.8408	0.0019	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-3022-2007	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-007	10.51	1.943	6	0.1666	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.032646	3.032646	1	127.8	<0.0001	Significant Effect
Error	0.3085744	0.02373649	13			
Total	3.34122	3.056382	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	33.01	9.33	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8566	0.8328	0.0216	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-1056-0081	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	28.2%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-006	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.95	2.586	0.0048	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.542032	2.542032	1	38.88	<0.0001	Significant Effect
Error	0.9154141	0.06538672	14			
Total	3.457446	2.607419	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	9.024	8.862	0.0095	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7888	0.8408	0.0019	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-3439-5477	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-006	10.51	1.943	6	0.1666	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.032646	3.032646	1	127.8	<0.0001	Significant Effect
Error	0.3085744	0.02373649	13			
Total	3.34122	3.056382	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	33.01	9.33	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8566	0.8328	0.0216	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-7144-9523	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	28.3%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-008		19830-005	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.949	2.586	0.0048	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.524524	2.524524	1	38.59	<0.0001	Significant Effect
Error	0.9158376	0.06541698	14			
Total	3.440361	2.589941	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2162	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7943	0.8408	0.0023	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.66%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-0198-8434	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-005	10.48	1.943	6	0.1666	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.014168	3.014168	1	126.8	<0.0001	Significant Effect
Error	0.3089979	0.02376907	13			
Total	3.323165	3.037937	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	850.1	9.155	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8675	0.8328	0.0310	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-7511-5356	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	32.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-004	1.044	1.761	14	0.2595	0.1571	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.559	2.586	0.0573	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09463314	0.09463314	1	1.089	0.3143	Non-Significant Effect
Error	1.216041	0.08686006	14			
Total	1.310674	0.1814932	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.045	8.885	0.1650	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9071	0.8408	0.1044	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-004	8	0.6434	0.5645	0.7222	0.3575	0.957	0.07327	0.2072	32.21%	19.29%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-7651-8844	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-002	1.576	1.761	14	0.2477	0.0686	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.682	2.586	0.0295	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1965817	0.1965817	1	2.485	0.1373	Non-Significant Effect
Error	1.10752	0.07910856	14			
Total	1.304102	0.2756903	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.765	8.885	0.0565	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9185	0.8408	0.1593	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-002	8	0.5755	0.5125	0.6385	0.3295	0.7895	0.05857	0.1657	28.79%	27.81%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-6870-1476	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-002	3.208	1.771	13	0.1799	0.0034	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3962426	0.3962426	1	10.29	0.0069	Significant Effect
Error	0.5006801	0.03851385	13			
Total	0.8969227	0.4347565	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.874	9.155	0.4302	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.926	0.8328	0.2378	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-002	8	0.5755	0.5125	0.6385	0.3295	0.7895	0.05857	0.1657	28.79%	36.15%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-6039-6846	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	35.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-001	-0.5549	1.761	14	0.2811	0.7061	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.363	2.586	0.1422	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.03137339	0.03137339	1	0.3079	0.5877	Non-Significant Effect
Error	1.426473	0.101891	14			
Total	1.457847	0.1332643	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.791	8.885	0.4598	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9111	0.8408	0.1212	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-001	8	0.8858	0.783	0.9885	0.4715	1.171	0.09553	0.2702	30.51%	-11.11%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-2769-1585	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-012	0.04504	1.761	14	0.2493	0.4824	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.665	2.586	0.0325	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0001625492	0.0001625492	1	0.002029	0.9647	Non-Significant Effect
Error	1.121659	0.08011849	14			
Total	1.121822	0.08028104	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.438	8.885	0.0677	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8994	0.8408	0.0786	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	0.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-4430-7069	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-012	1.073	1.771	13	0.1824	0.1515	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04556256	0.04556256	1	1.151	0.3029	Non-Significant Effect
Error	0.5148192	0.03960148	13			
Total	0.5603818	0.08516404	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.746	9.155	0.4824	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9754	0.8328	0.9286	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	12.26%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-6471-0280	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	34.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-010	0.7855	1.761	14	0.2775	0.2226	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.393	2.586	0.1248	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06127386	0.06127386	1	0.6169	0.4453	Non-Significant Effect
Error	1.390483	0.0993202	14			
Total	1.451757	0.1605941	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.927	8.885	0.4064	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9108	0.8408	0.1200	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	15.53%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-4935-2722	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-009	-2.077	1.761	14	0.2537	0.9716	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.618	2.586	0.0421	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.357967	0.357967	1	4.313	0.0567	Non-Significant Effect
Error	1.161918	0.08299416	14			
Total	1.519885	0.4409612	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.714	8.885	0.1048	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9185	0.8408	0.1598	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	0.0%
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	-37.53%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-9981-6798	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	21.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-009	-1.824	1.771	13	0.1894	0.9544	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.142038	0.142038	1	3.327	0.0912	Non-Significant Effect
Error	0.5550786	0.04269835	13			
Total	0.6971166	0.1847364	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.46	9.155	0.6279	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9401	0.8328	0.3842	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	7	0.9013	0.815	0.9875	0.582	1.157	0.08571	0.2268	25.16%	0.0%
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	-21.64%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-2167-7153	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	37.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-017	3.399	1.761	14	0.1791	0.0022	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.419	2.586	0.1115	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4776534	0.4776534	1	11.55	0.0043	Significant Effect
Error	0.5789683	0.04135488	14			
Total	1.056622	0.5190083	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.349	8.885	0.2823	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9221	0.8408	0.1826	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-017	8	0.1297	0.06991	0.1895	0	0.3855	0.05556	0.1571	121.2%	72.71%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-4625-2741	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	34.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-016	4.2	1.86	8	0.164	0.0015	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.788	2.586	0.0154	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5490807	0.5490807	1	17.64	0.0009	Significant Effect
Error	0.4357227	0.03112305	14			
Total	0.9848034	0.5802037	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	13.72	8.885	0.0027	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8913	0.8408	0.0585	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	77.96%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-2590-4671	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-016	7.247	1.771	13	0.1071	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7175026	0.7175026	1	52.52	<0.0001	Significant Effect
Error	0.1775942	0.01366109	13			
Total	0.8950968	0.7311637	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.831	9.155	0.0355	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9515	0.8328	0.5482	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5431	0.4834	0.6029	0.2945	0.7415	0.05936	0.157	28.91%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	80.71%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-5674-3852	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	33.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-015	3.327	1.761	14	0.1589	0.0025	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.726	2.586	0.0227	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3604496	0.3604496	1	11.07	0.0050	Significant Effect
Error	0.4558074	0.03255767	14			
Total	0.816257	0.3930073	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.173	8.885	0.0128	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9174	0.8408	0.1529	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	63.16%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-5717-6436	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-015	5.767	1.771	13	0.113	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5058032	0.5058032	1	33.26	<0.0001	Significant Effect
Error	0.1976789	0.01520607	13			
Total	0.703482	0.5210092	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.474	9.155	0.1280	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9651	0.8328	0.7802	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5431	0.4834	0.6029	0.2945	0.7415	0.05936	0.157	28.91%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	67.77%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-3502-3907	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	39.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-014	0.5356	1.761	14	0.1872	0.3003	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.314	2.586	0.1743	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01296739	0.01296739	1	0.2869	0.6006	Non-Significant Effect
Error	0.6328384	0.04520275	14			
Total	0.6458058	0.05817013	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.791	8.885	0.4598	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.915	0.8408	0.1399	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-014	8	0.4183	0.3499	0.4868	0.053	0.63	0.06363	0.18	43.02%	11.98%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-0173-1802	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	40.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-013	-1.753	1.761	14	0.1917	0.9493	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.26	2.586	0.2160	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1456379	0.1456379	1	3.073	0.1015	Non-Significant Effect
Error	0.663536	0.04739543	14			
Total	0.8091739	0.1930333	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.578	8.885	0.5622	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9592	0.8408	0.6471	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-013	8	0.6661	0.5931	0.739	0.398	0.963	0.0678	0.1918	28.79%	-40.15%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-2605-4216	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	49.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-011	-1.282	1.761	14	0.2331	0.8896	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.451	2.586	0.0965	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1150908	0.1150908	1	1.642	0.2208	Non-Significant Effect
Error	0.981106	0.07007901	14			
Total	1.096197	0.1851698	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.416	8.885	0.6579	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8883	0.8408	0.0525	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-011	8	0.6449	0.5359	0.7539	0.018	1.018	0.1013	0.2866	44.44%	-35.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-4462-7543	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.6%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-007	40		14	1	0.0009	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.888	2.586	0.0077	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9034497	0.9034497	1	31.14	<0.0001	Significant Effect
Error	0.4061146	0.02900819	14			
Total	1.309564	0.9324579	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	7.778	8.862	0.0145	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7542	0.8408	0.0007	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-3617-7577	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	21.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-007	9.15	1.943	6	0.1153	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.101348	1.101348	1	96.75	<0.0001	Significant Effect
Error	0.1479861	0.01138355	13			
Total	1.249334	1.112732	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	13.4	9.33	0.0033	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8499	0.8328	0.0173	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5431	0.4834	0.6029	0.2945	0.7415	0.05936	0.157	28.91%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-1227-4551	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.6%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-006	40		14	1	0.0009	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.888	2.586	0.0077	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9034497	0.9034497	1	31.14	<0.0001	Significant Effect
Error	0.4061146	0.02900819	14			
Total	1.309564	0.9324579	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	7.778	8.862	0.0145	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7542	0.8408	0.0007	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-8322-5177	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	21.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-006	9.15	1.943	6	0.1153	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.101348	1.101348	1	96.75	<0.0001	Significant Effect
Error	0.1479861	0.01138355	13			
Total	1.249334	1.112732	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	13.4	9.33	0.0033	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8499	0.8328	0.0173	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5431	0.4834	0.6029	0.2945	0.7415	0.05936	0.157	28.91%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-3847-9913	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	31.6%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-005	40.5		14	1	0.0009	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.887	2.586	0.0078	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8930244	0.8930244	1	30.75	<0.0001	Significant Effect
Error	0.4065382	0.02903844	14			
Total	1.299563	0.9220628	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	958.9	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7643	0.8408	0.0010	Non-normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.42%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-6915-0997	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	21.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-005	9.094	1.943	6	0.1155	<0.0001	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.090224	1.090224	1	95.5	<0.0001	Significant Effect
Error	0.1484096	0.01141613	13			
Total	1.238634	1.10164	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	407.7	9.155	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8648	0.8328	0.0283	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5431	0.4834	0.6029	0.2945	0.7415	0.05936	0.157	28.91%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.49%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-9652-5425	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	41.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-004	-1.497	1.761	14	0.1979	0.9216	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.189	2.586	0.2811	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1130643	0.1130643	1	2.24	0.1567	Non-Significant Effect
Error	0.7067414	0.05048153	14			
Total	0.8198057	0.1635458	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.351	8.885	0.7015	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.951	0.8408	0.5062	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-004	8	0.6434	0.5645	0.7222	0.3575	0.957	0.07327	0.2072	32.21%	-35.38%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-3395-2804	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	38.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-002	-0.9699	1.761	14	0.182	0.8257	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.38	2.586	0.1324	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04020022	0.04020022	1	0.9408	0.3485	Non-Significant Effect
Error	0.5982203	0.04273002	14			
Total	0.6384206	0.08293024	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.114	8.885	0.3445	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9457	0.8408	0.4243	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-002	8	0.5755	0.5125	0.6385	0.3295	0.7895	0.05857	0.1657	28.79%	-21.09%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-5814-5396	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	47.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-001	-3.208	1.761	14	0.2254	0.9968	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.922	2.586	0.6779	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.674042	0.674042	1	10.29	0.0063	Significant Effect
Error	0.917174	0.06551243	14			
Total	1.591216	0.7395545	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.258	8.885	0.7694	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8909	0.8408	0.0576	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-001	8	0.8858	0.783	0.9885	0.4715	1.171	0.09553	0.2702	30.51%	-86.38%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-9999-0386	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	38.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-012	-3.018	1.761	14	0.1842	0.9954	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.352	2.586	0.1488	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3983198	0.3983198	1	9.107	0.0092	Significant Effect
Error	0.6123594	0.04373996	14			
Total	1.010679	0.4420598	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.969	8.885	0.3913	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9557	0.8408	0.5845	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	-66.4%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-3956-4256	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	46.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-010	-1.58	1.761	14	0.2209	0.9318	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.005	2.586	0.5260	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1570852	0.1570852	1	2.496	0.1365	Non-Significant Effect
Error	0.8811834	0.06294167	14			
Total	1.038269	0.2200269	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.17	8.885	0.8414	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8896	0.8408	0.0549	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	-41.7%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-9844-4476	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	40.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-009	-5.753	1.761	14	0.1901	1.0000	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.278	2.586	0.2007	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.543008	1.543008	1	33.1	<0.0001	Significant Effect
Error	0.6526188	0.04661563	14			
Total	2.195627	1.589624	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.647	8.885	0.5259	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9213	0.8408	0.1771	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	-130.7%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-8421-2395	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	56.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-008	-2.096	1.761	14	0.2706	0.9726	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.455	2.586	0.0948	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4145754	0.4145754	1	4.392	0.0548	Non-Significant Effect
Error	1.321529	0.09439491	14			
Total	1.736104	0.5089703	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.254	8.885	0.3057	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9114	0.8408	0.1225	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	0.0%
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	-67.74%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-0539-0129	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-017	8.077	1.761	14	0.2023	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.219	2.586	0.2520	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.443808	3.443808	1	65.24	<0.0001	Significant Effect
Error	0.739045	0.05278893	14			
Total	4.182853	3.496597	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.276	8.885	0.1402	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9132	0.8408	0.1311	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-017	8	0.1297	0.06991	0.1895	0	0.3855	0.05556	0.1571	121.2%	87.74%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-2626-9655	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-016	9.237	1.895	7	0.1954	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.471	2.586	0.0878	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.631407	3.631407	1	85.33	<0.0001	Significant Effect
Error	0.5957994	0.0425571	14			
Total	4.227206	3.673964	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	19.12	8.885	0.0009	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9304	0.8408	0.2473	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-016	8	0.1047	0.08001	0.1295	0.0225	0.2015	0.02299	0.06504	62.09%	90.1%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-4434-3507	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.4%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-015	8.415	1.86	8	0.195	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.431	2.586	0.1058	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.115225	3.115225	1	70.81	<0.0001	Significant Effect
Error	0.6158841	0.04399172	14			
Total	3.731109	3.159217	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	11.39	8.885	0.0047	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.943	0.8408	0.3876	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-015	8	0.1751	0.143	0.2071	0.0625	0.303	0.02979	0.08426	48.13%	83.45%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-9808-2302	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-014	5.372	1.761	14	0.2096	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.142	2.586	0.3327	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.634562	1.634562	1	28.86	<0.0001	Significant Effect
Error	0.7929152	0.0566368	14			
Total	2.427477	1.691198	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.497	8.885	0.2503	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.955	0.8408	0.5734	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-014	8	0.4183	0.3499	0.4868	0.053	0.63	0.06363	0.18	43.02%	60.45%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-2610-2722	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-013	3.228	1.761	14	0.2136	0.0030	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.102	2.586	0.3825	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.613089	0.613089	1	10.42	0.0061	Significant Effect
Error	0.8236127	0.05882948	14			
Total	1.436702	0.6719185	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.199	8.885	0.3202	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9407	0.8408	0.3571	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-013	8	0.6661	0.5931	0.739	0.398	0.963	0.0678	0.1918	28.79%	37.02%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-3684-2746	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	23.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-011	2.891	1.761	14	0.2514	0.0059	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.273	2.586	0.2052	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.6812438	0.6812438	1	8.357	0.0119	Significant Effect
Error	1.141183	0.08151305	14			
Total	1.822427	0.7627569	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.016	8.885	0.9843	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9238	0.8408	0.1938	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-011	8	0.6449	0.5359	0.7539	0.018	1.018	0.1013	0.2866	44.44%	39.02%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-0207-6423	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-007	10.52	1.895	7	0.1905	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.535	2.586	0.0646	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.473754	4.473754	1	110.6	<0.0001	Significant Effect
Error	0.5661913	0.04044224	14			
Total	5.039945	4.514196	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	19.53	8.862	0.0006	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8529	0.8408	0.0150	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-007	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-6328-4991	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-006	10.52	1.895	7	0.1905	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.535	2.586	0.0646	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.473754	4.473754	1	110.6	<0.0001	Significant Effect
Error	0.5661913	0.04044224	14			
Total	5.039945	4.514196	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	19.53	8.862	0.0006	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8529	0.8408	0.0150	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-006	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-9722-7311	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	18.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-005	10.49	1.895	7	0.1906	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.534	2.586	0.0649	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.450518	4.450518	1	110	<0.0001	Significant Effect
Error	0.5666149	0.04047249	14			
Total	5.017133	4.49099	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1337	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8601	0.8408	0.0192	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-005	8	0.00275	-0.000209	0.005709	0	0.022	0.00275	0.007778	282.8%	99.74%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-1800-0410	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-004	3.329	1.761	14	0.2191	0.0025	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.049	2.586	0.4565	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.6862052	0.6862052	1	11.08	0.0050	Significant Effect
Error	0.8668181	0.06191558	14			
Total	1.553023	0.7481208	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.883	8.885	0.4227	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9194	0.8408	0.1651	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-004	8	0.6434	0.5645	0.7222	0.3575	0.957	0.07327	0.2072	32.21%	39.16%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-9616-2643	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-002	4.143	1.761	14	0.205	0.0005	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.191	2.586	0.2798	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9295378	0.9295378	1	17.16	0.0010	Significant Effect
Error	0.758297	0.05416407	14			
Total	1.687835	0.9837019	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.947	8.885	0.1772	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9574	0.8408	0.6145	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-002	8	0.5755	0.5125	0.6385	0.3295	0.7895	0.05857	0.1657	28.79%	45.58%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-6374-5659	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	23.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-001	1.239	1.761	14	0.2443	0.1179	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.838	2.586	0.8629	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1180779	0.1180779	1	1.535	0.2358	Non-Significant Effect
Error	1.077251	0.07694647	14			
Total	1.195328	0.1950244	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.108	8.885	0.8960	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9079	0.8408	0.1077	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-001	8	0.8858	0.783	0.9885	0.4715	1.171	0.09553	0.2702	30.51%	16.25%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-4275-8254	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	19.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-012	2.271	1.761	14	0.2069	0.0197	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.171	2.586	0.3010	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2846217	0.2846217	1	5.159	0.0394	Significant Effect
Error	0.7724361	0.05517401	14			
Total	1.057058	0.3397957	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.745	8.885	0.2061	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9452	0.8408	0.4173	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-012	8	0.7908	0.7255	0.8561	0.5865	1.126	0.06069	0.1716	21.71%	25.22%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-2164-6172	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	22.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-010	2.817	1.761	14	0.2402	0.0069	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.87	2.586	0.7896	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5902628	0.5902628	1	7.936	0.0137	Significant Effect
Error	1.04126	0.07437572	14			
Total	1.631523	0.6646385	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.192	8.885	0.8229	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9098	0.8408	0.1157	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-010	8	0.6734	0.5743	0.7725	0.1875	0.9315	0.09211	0.2605	38.69%	36.32%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-2022-3940	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	20.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-009	-0.3219	1.761	14	0.2122	0.6239	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.116	2.586	0.3645	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.006014536	0.006014536	1	0.1036	0.7523	Non-Significant Effect
Error	0.8126954	0.05804968	14			
Total	0.81871	0.06406421	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.297	8.885	0.2949	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9524	0.8408	0.5287	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-009	8	1.096	1.025	1.168	0.7255	1.332	0.06635	0.1877	17.12%	-3.67%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-5827-3669	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	27.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-008	1.601	1.761	14	0.2865	0.0659	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.319	2.586	0.1709	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2711806	0.2711806	1	2.562	0.1317	Non-Significant Effect
Error	1.481605	0.105829	14			
Total	1.752786	0.3770096	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.617	8.885	0.5415	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9035	0.8408	0.0914	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-008	8	0.7972	0.6596	0.9347	0.0685	1.157	0.1279	0.3616	45.36%	24.62%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-6489-0745	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes mean dry biomass-mg endpoint	21.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-003	4.419	1.761	14	0.2321	0.0003	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.935	2.586	0.6527	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.356352	1.356352	1	19.53	0.0006	Significant Effect
Error	0.972306	0.06945042	14			
Total	2.328658	1.425803	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.394	8.885	0.6721	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9148	0.8408	0.1391	Normal Distribution

Mean Dry Biomass-mg Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	1.058	0.9494	1.166	0.565	1.362	0.1006	0.2844	26.89%	0.0%
19830-003	8	0.4752	0.3836	0.5669	0	0.7415	0.08516	0.2409	50.68%	55.06%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-4055-1807	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	56.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	-0.05309	1.761	14	0.7027	0.5208	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.731	2.586	0.0220	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.001794631	0.001794631	1	0.002818	0.9584	Non-Significant Effect
Error	8.914628	0.6367592	14			
Total	8.916423	0.6385538	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.621	8.885	0.2269	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9188	0.8408	0.1615	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-011	8	1.273	1.047	1.498	0	2	0.2097	0.5931	46.6%	-1.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-4059-9018	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	52.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	-1.144	1.771	13	0.4986	0.8633	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3870664	0.3870664	1	1.308	0.2734	Non-Significant Effect
Error	3.847378	0.2959521	13			
Total	4.234445	0.6830186	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.523	10.79	0.6243	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9452	0.8328	0.4523	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-011	8	1.273	1.047	1.498	0	2	0.2097	0.5931	46.6%	-33.87%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-4292-5600	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	51.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-013	1.999	1.761	14	0.6498	0.0327	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.954	2.586	0.0047	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.175983	2.175983	1	3.997	0.0654	Non-Significant Effect
Error	7.622161	0.5444401	14			
Total	9.798144	2.720423	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.517	8.885	0.0384	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8637	0.8408	0.0218	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-013	8	0.5139	0.3584	0.6694	0	1.105	0.1445	0.4088	79.54%	58.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-0004-3817	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	42.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-013	1.904	1.771	13	0.4063	0.0397	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7121379	0.7121379	1	3.624	0.0793	Non-Significant Effect
Error	2.554911	0.1965316	13			
Total	3.267049	0.9086696	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.382	9.155	0.6767	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9459	0.8328	0.4629	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-013	8	0.5139	0.3584	0.6694	0	1.105	0.1445	0.4088	79.54%	45.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-6498-7848	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	53.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	2.583	1.86	8	0.6658	0.0162	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.044	2.586	0.0022	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.421445	3.421445	1	6.672	0.0217	Significant Effect
Error	7.179107	0.5127933	14			
Total	10.60055	3.934238	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.882	8.885	0.0100	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8414	0.8408	0.0102	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-014	8	0.3266	0.2041	0.4492	0	0.8667	0.1139	0.3222	98.63%	73.9%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-0558-6780	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	38.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	2.992	1.771	13	0.3694	0.0052	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.453892	1.453892	1	8.95	0.0104	Significant Effect
Error	2.111856	0.1624505	13			
Total	3.565748	1.616342	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.225	9.155	0.3192	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.964	0.8328	0.7606	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-014	8	0.3266	0.2041	0.4492	0	0.8667	0.1139	0.3222	98.63%	65.64%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-0883-1299	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.8%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-015	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.21	2.586	0.0004	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.264742	6.264742	1	13.59	0.0024	Significant Effect
Error	6.452612	0.4609009	14			
Total	12.71735	6.725643	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.666	8.862	0.0217	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7213	0.8408	0.0003	Non-normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-2959-1043	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.1%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-015	5.234	1.943	6	0.3529	0.0010	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.374041	3.374041	1	31.66	<0.0001	Significant Effect
Error	1.385362	0.1065663	13			
Total	4.759403	3.480607	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	35.82	9.33	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8804	0.8328	0.0480	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-5754-8886	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.8%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-016	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.21	2.586	0.0004	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.264742	6.264742	1	13.59	0.0024	Significant Effect
Error	6.452612	0.4609009	14			
Total	12.71735	6.725643	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.666	8.862	0.0217	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7213	0.8408	0.0003	Non-normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-6183-0767	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.1%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-016	5.234	1.943	6	0.3529	0.0010	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.374041	3.374041	1	31.66	<0.0001	Significant Effect
Error	1.385362	0.1065663	13			
Total	4.759403	3.480607	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	35.82	9.33	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8804	0.8328	0.0480	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-7360-8970	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	84.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-017	2.183	1.833	9	1.051	0.0284	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.621	2.355	0.0056	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.417132	3.417132	1	4.766	0.0569	Non-Significant Effect
Error	6.452612	0.7169569	9			
Total	9.869744	4.134089	10			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.524	11.26	0.2521	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8121	0.7725	0.0136	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-017	3	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-6055-0134	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	56.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-017	3.311	1.86	8	0.534	0.0053	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.897898	1.897898	1	10.96	0.0107	Significant Effect
Error	1.385362	0.1731703	8			
Total	3.28326	2.071068	9			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	7.836	13.75	0.0312	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9719	0.7411	0.9082	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-017	3	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-9372-7114	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	55.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-001	1.122	1.761	14	0.6967	0.1404	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.755	2.586	0.0190	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7875668	0.7875668	1	1.258	0.2808	Non-Significant Effect
Error	8.761646	0.6258318	14			
Total	9.549213	1.413399	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.795	8.885	0.1986	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8959	0.8408	0.0692	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-001	8	0.8077	0.5893	1.026	0	1.737	0.2031	0.5743	71.1%	35.46%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-4650-5266	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	53.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-002	1.956	1.761	14	0.6636	0.0354	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.893	2.586	0.0075	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.172303	2.172303	1	3.826	0.0707	Non-Significant Effect
Error	7.948308	0.5677363	14			
Total	10.12061	2.740039	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.314	8.885	0.0727	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8725	0.8408	0.0297	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-002	8	0.5145	0.3387	0.6904	0	1.357	0.1634	0.4622	89.84%	58.89%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-5479-1748	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	45.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-002	1.79	1.771	13	0.4315	0.0484	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7101045	0.7101045	1	3.204	0.0968	Non-Significant Effect
Error	2.881058	0.2216198	13			
Total	3.591162	0.9317244	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.081	9.155	0.9081	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9668	0.8328	0.8079	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-002	8	0.5145	0.3387	0.6904	0	1.357	0.1634	0.4622	89.84%	45.88%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-2292-2893	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	51.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-004	1.735	1.761	14	0.6489	0.0523	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.958	2.586	0.0045	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.635019	1.635019	1	3.012	0.1046	Non-Significant Effect
Error	7.600948	0.5429249	14			
Total	9.235968	2.177944	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.619	8.885	0.0366	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8657	0.8408	0.0233	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-004	8	0.6121	0.4581	0.7662	0.1333	1.313	0.1432	0.405	66.17%	51.09%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-3885-9782	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	42.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-004	1.482	1.771	13	0.4046	0.0811	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4278482	0.4278482	1	2.195	0.1623	Non-Significant Effect
Error	2.533698	0.1948998	13			
Total	2.961546	0.622748	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.407	9.155	0.6604	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9643	0.8328	0.7659	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-004	8	0.6121	0.4581	0.7662	0.1333	1.313	0.1432	0.405	66.17%	35.61%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-1931-4927	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	154.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-005	1.229	1.895	7	1.929	0.1294	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.345	2.215	0.0161	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.392165	1.392165	1	1.51	0.2588	Non-Significant Effect
Error	6.452612	0.9218017	7			
Total	7.844777	2.313967	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.8418	0.7007	0.0605	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-5259-1683	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	105.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-005	1.851	1.943	6	0.9982	0.0568	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7907909	0.7907909	1	3.425	0.1137	Non-Significant Effect
Error	1.385362	0.2308937	6			
Total	2.176153	1.021685	7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9852	0.6451	0.9839	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-6325-0688	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-015	5.08	1.895	7	0.5404	0.0007	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.108	2.586	0.3744	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.399934	8.399934	1	25.81	0.0002	Significant Effect
Error	4.556168	0.3254406	14			
Total	12.9561	8.725374	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	11.29	8.862	0.0047	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8709	0.8408	0.0281	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-5605-5125	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-016	5.08	1.895	7	0.5404	0.0007	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.108	2.586	0.3744	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.399934	8.399934	1	25.81	0.0002	Significant Effect
Error	4.556168	0.3254406	14			
Total	12.9561	8.725374	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	11.29	8.862	0.0047	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8709	0.8408	0.0281	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-4954-7912	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	60.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-017	3.008	1.833	9	0.883	0.0074	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.721	2.355	0.7324	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.581782	4.581782	1	9.051	0.0148	Significant Effect
Error	4.556168	0.5062409	9			
Total	9.13795	5.088023	10			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	2.579	11.26	0.1469	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9191	0.7725	0.3108	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-017	3	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-8045-3363	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-014	3.655	1.761	14	0.541	0.0013	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.958	2.586	0.6082	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.040169	5.040169	1	13.36	0.0026	Significant Effect
Error	5.282662	0.377333	14			
Total	10.32283	5.417502	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.271	8.885	0.0271	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9417	0.8408	0.3709	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-014	8	0.3266	0.2041	0.4492	0	0.8667	0.1139	0.3222	98.63%	77.46%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-5874-2437	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	112.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-005	1.693	1.895	7	1.621	0.0671	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.54	2.215	0.9317	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.866652	1.866652	1	2.868	0.1342	Non-Significant Effect
Error	4.556168	0.6508812	7			
Total	6.42282	2.517533	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.905	0.7007	0.2826	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-5805-6478	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	43.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-011	0.4985	1.761	14	0.6235	0.3129	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.861	2.586	0.8099	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1245766	0.1245766	1	0.2485	0.6259	Non-Significant Effect
Error	7.018184	0.5012988	14			
Total	7.142761	0.6258755	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.851	8.885	0.4354	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9836	0.8408	0.9858	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-011	8	1.273	1.047	1.498	0	2	0.2097	0.5931	46.6%	12.18%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-9640-8377	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	38.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-013	2.925	1.761	14	0.5632	0.0055	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.881	2.586	0.7646	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.49854	3.49854	1	8.554	0.0111	Significant Effect
Error	5.725717	0.4089798	14			
Total	9.224257	3.90752	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.896	8.885	0.0934	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9411	0.8408	0.3625	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-013	8	0.5139	0.3584	0.6694	0	1.105	0.1445	0.4088	79.54%	64.54%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-9288-1203	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	53.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-012	0.4458	1.761	14	0.7809	0.3313	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.458	2.586	0.0935	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1562757	0.1562757	1	0.1987	0.6626	Non-Significant Effect
Error	11.00878	0.7863415	14			
Total	11.16506	0.9426172	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.416	8.885	0.6576	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8989	0.8408	0.0771	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	13.64%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-7563-8467	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	42.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-001	1.832	1.761	14	0.6167	0.0442	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.718	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.645491	1.645491	1	3.356	0.0883	Non-Significant Effect
Error	6.865202	0.4903716	14			
Total	8.510693	2.135862	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.973	8.885	0.3899	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9307	0.8408	0.2503	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-001	8	0.8077	0.5893	1.026	0	1.737	0.2031	0.5743	71.1%	44.26%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-3810-8029	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	40.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-002	2.843	1.761	14	0.579	0.0065	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.829	2.586	0.8840	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.493873	3.493873	1	8.083	0.0130	Significant Effect
Error	6.051864	0.432276	14			
Total	9.545737	3.926149	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.046	8.885	0.1649	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9333	0.8408	0.2745	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-002	8	0.5145	0.3387	0.6904	0	1.357	0.1634	0.4622	89.84%	64.49%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-2171-1690	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	38.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-004	2.622	1.761	14	0.5621	0.0100	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.884	2.586	0.7569	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.802263	2.802263	1	6.877	0.0201	Significant Effect
Error	5.704504	0.4074646	14			
Total	8.506766	3.209727	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.968	8.885	0.0894	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.945	0.8408	0.4147	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	0.0%
19830-004	8	0.6121	0.4581	0.7662	0.1333	1.313	0.1432	0.405	66.17%	57.76%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-0113-7143	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.1%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-014	3.532	1.895	7	1.27	0.0048	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.43	2.586	0.1061	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	22.42749	22.42749	1	12.48	0.0033	Significant Effect
Error	25.16597	1.797569	14			
Total	47.59345	24.22506	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	33.64	8.885	0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9428	0.8408	0.3847	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-014	8	0.3266	0.2041	0.4492	0	0.8667	0.1139	0.3222	98.63%	87.88%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-9077-1860	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	46.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-015	4.079	1.895	7	1.252	0.0023	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.466	2.586	0.0901	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	29.04131	29.04131	1	16.64	0.0011	Significant Effect
Error	24.43947	1.745677	14			
Total	53.48078	30.78698	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	15.61	8.862	0.0014	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8694	0.8408	0.0266	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-2284-6246	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	46.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-016	4.079	1.895	7	1.252	0.0023	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.466	2.586	0.0901	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	29.04131	29.04131	1	16.64	0.0011	Significant Effect
Error	24.43947	1.745677	14			
Total	53.48078	30.78698	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	15.61	8.862	0.0014	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8694	0.8408	0.0266	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-6524-9127	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	75.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-017	2.415	1.833	9	2.045	0.0195	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.013	2.355	0.2722	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	15.84071	15.84071	1	5.833	0.0389	Significant Effect
Error	24.43947	2.715497	9			
Total	40.28019	18.55621	10			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	3.569	11.26	0.0956	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9531	0.7725	0.6838	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-017	3	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-2466-7355	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	139.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-005	1.36	1.895	7	3.755	0.1081	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.801	2.215	0.4132	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.453623	6.453623	1	1.848	0.2161	Non-Significant Effect
Error	24.43947	3.491354	7			
Total	30.8931	9.944977	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9686	0.7007	0.8823	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-8634-1529	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-011	2.051	1.86	8	1.289	0.0372	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.35	2.586	0.1499	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.086566	8.086566	1	4.208	0.0594	Non-Significant Effect
Error	26.90149	1.921535	14			
Total	34.98806	10.0081	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	9.927	8.885	0.0072	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.961	0.8408	0.6795	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-011	8	1.273	1.047	1.498	0	2	0.2097	0.5931	46.6%	52.77%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-3150-1681	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-013	3.225	1.895	7	1.281	0.0073	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.409	2.586	0.1166	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	19.01983	19.01983	1	10.4	0.0061	Significant Effect
Error	25.60902	1.829216	14			
Total	44.62885	20.84905	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	20.9	8.885	0.0007	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9567	0.8408	0.6019	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-013	8	0.5139	0.3584	0.6694	0	1.105	0.1445	0.4088	79.54%	80.93%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-9997-3427	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-010	1.731	1.761	14	1.267	0.0527	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.264	2.586	0.2124	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.203759	6.203759	1	2.995	0.1055	Non-Significant Effect
Error	28.99564	2.071117	14			
Total	35.1994	8.274877	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.364	8.885	0.0414	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9722	0.8408	0.8722	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	46.22%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-0594-9490	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	48.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-012	1.943	1.761	14	1.308	0.0362	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.193	2.586	0.2772	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.329295	8.329295	1	3.775	0.0724	Non-Significant Effect
Error	30.89209	2.206578	14			
Total	39.22138	10.53587	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.788	8.885	0.1000	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9591	0.8408	0.6458	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	53.55%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-9007-3471	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-001	2.73	1.86	8	1.285	0.0129	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.357	2.586	0.1458	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	14.23931	14.23931	1	7.453	0.0163	Significant Effect
Error	26.74851	1.910608	14			
Total	40.98782	16.14992	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	10.58	8.885	0.0059	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.971	0.8408	0.8547	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-001	8	0.8077	0.5893	1.026	0	1.737	0.2031	0.5743	71.1%	70.02%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-7958-4198	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-002	3.203	1.895	7	1.289	0.0075	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.394	2.586	0.1246	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	19.00895	19.00895	1	10.26	0.0064	Significant Effect
Error	25.93517	1.852512	14			
Total	44.94411	20.86146	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	16.34	8.885	0.0015	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9586	0.8408	0.6371	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-002	8	0.5145	0.3387	0.6904	0	1.357	0.1634	0.4622	89.84%	80.9%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-6466-6582	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	47.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-004	3.081	1.895	7	1.281	0.0089	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.41	2.586	0.1161	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	17.34498	17.34498	1	9.49	0.0081	Significant Effect
Error	25.58781	1.827701	14			
Total	42.93279	19.17268	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	21.28	8.885	0.0007	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9548	0.8408	0.5691	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	0.0%
19830-004	8	0.6121	0.4581	0.7662	0.1333	1.313	0.1432	0.405	66.17%	77.28%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-8422-2449	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	52.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-011	1.005	1.761	14	0.9424	0.1660	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.751	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.156166	1.156166	1	1.01	0.3321	Non-Significant Effect
Error	16.03279	1.145199	14			
Total	17.18896	2.301365	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.512	8.885	0.0385	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9425	0.8408	0.3805	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-011	8	1.273	1.047	1.498	0	2	0.2097	0.5931	46.6%	29.7%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-7191-9676	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	52.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-013	2.527	1.86	8	0.954	0.0177	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.826	2.586	0.8918	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.72228	6.72228	1	6.385	0.0242	Significant Effect
Error	14.74032	1.05288	14			
Total	21.4626	7.77516	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	11.6	8.885	0.0045	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9467	0.8408	0.4396	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-013	8	0.5139	0.3584	0.6694	0	1.105	0.1445	0.4088	79.54%	71.61%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-7657-3563	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	52.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-014	2.936	1.895	7	0.9573	0.0109	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.854	2.586	0.8246	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.805044	8.805044	1	8.622	0.0108	Significant Effect
Error	14.29727	1.021234	14			
Total	23.10231	9.826278	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	18.68	8.885	0.0010	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9388	0.8408	0.3343	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-014	8	0.3266	0.2041	0.4492	0	0.8667	0.1139	0.3222	98.63%	81.96%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-6206-7474	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	51.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-015	3.677	1.895	7	0.9327	0.0039	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.903	2.586	0.7163	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	13.10846	13.10846	1	13.52	0.0025	Significant Effect
Error	13.57078	0.969341	14			
Total	26.67924	14.07781	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	34.42	8.862	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8756	0.8408	0.0331	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-4586-8221	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	51.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-016	3.677	1.895	7	0.9327	0.0039	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.903	2.586	0.7163	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	13.10846	13.10846	1	13.52	0.0025	Significant Effect
Error	13.57078	0.969341	14			
Total	26.67924	14.07781	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	34.42	8.862	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8756	0.8408	0.0331	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-0358-7781	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	84.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-017	2.178	1.833	9	1.524	0.0287	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.554	2.355	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	7.150072	7.150072	1	4.742	0.0574	Non-Significant Effect
Error	13.57078	1.507864	9			
Total	20.72085	8.657935	10			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	7.867	11.26	0.0230	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9083	0.7725	0.2325	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-017	3	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-2987-0508	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	155.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-005	1.226	1.895	7	2.798	0.1300	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.39	2.215	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.912992	2.912992	1	1.503	0.2599	Non-Significant Effect
Error	13.57078	1.938682	7			
Total	16.48377	4.851674	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.8822	0.7007	0.1655	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-5601-9508	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	52.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-004	2.337	1.86	8	0.9534	0.0238	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.827	2.586	0.8886	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.742222	5.742222	1	5.462	0.0348	Significant Effect
Error	14.71911	1.051365	14			
Total	20.46133	6.793587	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	11.82	8.885	0.0042	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9463	0.8408	0.4340	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-004	8	0.6121	0.4581	0.7662	0.1333	1.313	0.1432	0.405	66.17%	66.19%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-3194-6202	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	53.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-002	2.498	1.86	8	0.9645	0.0185	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.806	2.586	0.9418	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.71581	6.71581	1	6.24	0.0256	Significant Effect
Error	15.06647	1.076177	14			
Total	21.78228	7.791987	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	9.073	8.885	0.0094	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9443	0.8408	0.4047	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-002	8	0.5145	0.3387	0.6904	0	1.357	0.1634	0.4622	89.84%	71.58%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-1963-2139	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	51.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-001	1.883	1.761	14	0.9379	0.0403	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.759	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.020283	4.020283	1	3.544	0.0807	Non-Significant Effect
Error	15.87981	1.134272	14			
Total	19.90009	5.154555	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.877	8.885	0.0324	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9449	0.8408	0.4136	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-001	8	0.8077	0.5893	1.026	0	1.737	0.2031	0.5743	71.1%	55.38%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-0151-6110	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	58.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-012	0.9345	1.761	14	1.053	0.1829	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.822	2.586	0.9009	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.249063	1.249063	1	0.8733	0.3659	Non-Significant Effect
Error	20.02339	1.430242	14			
Total	21.27245	2.679305	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.103	8.885	0.3478	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9634	0.8408	0.7237	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	30.87%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-4948-3096	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	55.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-010	0.6348	1.761	14	1.002	0.2679	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.647	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5217136	0.5217136	1	0.4029	0.5358	Non-Significant Effect
Error	18.12694	1.294782	14			
Total	18.64866	1.816495	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.979	8.885	0.1732	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9086	0.8408	0.1104	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	19.95%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-9098-1469	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	80.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-009	-1.073	1.761	14	1.451	0.8493	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.977	2.586	0.5732	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.12737	3.12737	1	1.152	0.3013	Non-Significant Effect
Error	38.01025	2.715018	14			
Total	41.13762	5.842388	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.801	8.885	0.4557	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9472	0.8408	0.4470	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	0.0%
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	-48.84%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-2393-9547	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	99.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-017	1.864	1.86	8	0.2709	0.0497	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.866	2.29	0.3954	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1547686	0.1547686	1	3.474	0.0993	Non-Significant Effect
Error	0.3564256	0.0445532	8			
Total	0.5111942	0.1993218	9			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	2.781	13.75	0.1464	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8928	0.7411	0.1824	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-017	3	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-2586-3877	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	55.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-016	40		13	1	0.0019	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.328	2.548	0.1438	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2751441	0.2751441	1	10.04	0.0074	Significant Effect
Error	0.3564256	0.02741736	13			
Total	0.6315697	0.3025615	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.71	9.33	0.0039	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8074	0.8328	0.0046	Non-normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-3402-9989	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	55.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-015	40		13	1	0.0019	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.328	2.548	0.1438	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2751441	0.2751441	1	10.04	0.0074	Significant Effect
Error	0.3564256	0.02741736	13			
Total	0.6315697	0.3025615	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.71	9.33	0.0039	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8074	0.8328	0.0046	Non-normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-5727-1122	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	97.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-014	-0.3691	1.771	13	0.2645	0.6410	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.942	2.548	0.5839	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01135079	0.01135079	1	0.1363	0.7180	Non-Significant Effect
Error	1.08292	0.08330152	13			
Total	1.094271	0.09465232	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.747	10.79	0.5137	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9301	0.8328	0.2735	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-014	8	0.3266	0.2041	0.4492	0	0.8667	0.1139	0.3222	98.63%	-20.31%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-0636-2275	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	116.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-013	-1.367	1.771	13	0.314	0.9026	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.791	2.548	0.9052	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2194283	0.2194283	1	1.869	0.1947	Non-Significant Effect
Error	1.525975	0.1173827	13			
Total	1.745403	0.336811	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.813	10.79	0.2286	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9523	0.8328	0.5620	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-013	8	0.5139	0.3584	0.6694	0	1.105	0.1445	0.4088	79.54%	-89.3%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-2753-3797	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	157.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-011	-4.155	1.771	13	0.4268	0.9994	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.836	2.548	0.0080	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.74214	3.74214	1	17.26	0.0011	Significant Effect
Error	2.818442	0.2168032	13			
Total	6.560581	3.958943	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.921	10.79	0.0456	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8727	0.8328	0.0369	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-011	8	1.273	1.047	1.498	0	2	0.2097	0.5931	46.6%	-368.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-5324-8147	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	99.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-011	-7.795	1.782	12	0.2705	1.0000	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.8981	4.8981	1	60.76	<0.0001	Significant Effect
Error	0.9674125	0.0806177	12			
Total	5.865513	4.978718	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.714	11.07	0.5289	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9394	0.8239	0.4102	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-011	7	1.454	1.333	1.576	1.063	2	0.1206	0.3191	21.94%	-435.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-6284-6895	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	187.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-005	1.042	1.943	6	0.5063	0.1688	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.646	2.127	0.5756	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0644869	0.0644869	1	1.086	0.3376	Non-Significant Effect
Error	0.3564256	0.05940427	6			
Total	0.4209125	0.1238912	7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9057	0.6451	0.3248	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-2926-7483	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	115.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-004	-1.935	1.771	13	0.3118	0.9625	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.136	2.548	0.3051	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4332449	0.4332449	1	3.743	0.0751	Non-Significant Effect
Error	1.504761	0.1157509	13			
Total	1.938006	0.5489957	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.762	10.79	0.2367	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.965	0.8328	0.7786	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-004	8	0.6121	0.4581	0.7662	0.1333	1.313	0.1432	0.405	66.17%	-125.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-9396-8133	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	127.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-002	-1.244	1.771	13	0.346	0.8823	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.317	2.548	0.1506	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2205593	0.2205593	1	1.548	0.2354	Non-Significant Effect
Error	1.852122	0.1424709	13			
Total	2.072681	0.3630303	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.597	10.79	0.1399	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.95	0.8328	0.5237	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-002	8	0.5145	0.3387	0.6904	0	1.357	0.1634	0.4622	89.84%	-89.53%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-1494-0340	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	153.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-001	-2.288	1.771	13	0.415	0.9802	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.129	2.548	0.3129	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.073662	1.073662	1	5.236	0.0395	Significant Effect
Error	2.665459	0.2050353	13			
Total	3.739121	1.278697	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.553	10.79	0.0531	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9712	0.8328	0.8761	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-001	8	0.8077	0.5893	1.026	0	1.737	0.2031	0.5743	71.1%	-197.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-5672-6238	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	244.0%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-012	88		13	0	0.9981	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.019	2.548	0.0016	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.585473	3.585473	1	6.845	0.0213	Significant Effect
Error	6.809038	0.5237722	13			
Total	10.39451	4.109245	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	15.52	10.79	0.0037	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8216	0.8328	0.0071	Non-normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	-361.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-6924-8467	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	134.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-012	-3.335	1.782	12	0.363	0.9970	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.614534	1.614534	1	11.12	0.0059	Significant Effect
Error	1.741788	0.145149	12			
Total	3.356321	1.759683	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.887	11.07	0.1231	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9729	0.8239	0.9127	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-012	7	0.9507	0.7679	1.133	0.2632	1.6	0.1816	0.4805	50.55%	-250.2%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-2735-8198	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	205.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-010	-3.929	1.86	8	0.5574	0.9978	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.962	2.548	0.5491	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.17766	5.17766	1	13.7	0.0027	Significant Effect
Error	4.912594	0.3778918	13			
Total	10.09025	5.555552	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	10.96	10.79	0.0096	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9396	0.8328	0.3769	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	-433.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-6361-6706	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	465.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-009	-3.633	1.895	7	1.264	0.9958	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.365	2.548	0.1220	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	21.91855	21.91855	1	11.49	0.0048	Significant Effect
Error	24.7959	1.907377	13			
Total	46.71445	23.82593	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	58.77	10.79	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9366	0.8328	0.3413	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	-892.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-2331-6047	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	350.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-008	-3.073	1.895	7	0.9488	0.9910	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.815	2.548	0.8473	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.840232	8.840232	1	8.252	0.0131	Significant Effect
Error	13.9272	1.071323	13			
Total	22.76743	9.911555	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	32.64	10.79	0.0005	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9326	0.8328	0.2986	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	0.0%
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	-566.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-3163-2616	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	59.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-017	3.1	1.833	9	1.304	0.0064	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.943	2.355	0.3555	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	10.61441	10.61441	1	9.611	0.0127	Significant Effect
Error	9.939445	1.104383	9			
Total	20.55385	11.71879	10			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	2.776	11.26	0.1343	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9471	0.7725	0.6077	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-017	3	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-7890-9731	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	36.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-016	5.235	1.895	7	0.7982	0.0006	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.38	2.586	0.1324	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	19.45975	19.45975	1	27.41	0.0001	Significant Effect
Error	9.939445	0.7099604	14			
Total	29.39919	20.16971	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.14	8.862	0.0036	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8441	0.8408	0.0112	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-3435-1216	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	36.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-015	5.235	1.895	7	0.7982	0.0006	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.38	2.586	0.1324	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	19.45975	19.45975	1	27.41	0.0001	Significant Effect
Error	9.939445	0.7099604	14			
Total	29.39919	20.16971	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.14	8.862	0.0036	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8441	0.8408	0.0112	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-9305-5892	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	36.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-014	4.306	1.86	8	0.8115	0.0013	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.297	2.586	0.1862	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	14.12323	14.12323	1	18.54	0.0007	Significant Effect
Error	10.66594	0.7618529	14			
Total	24.78917	14.88508	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	13.68	8.885	0.0027	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9483	0.8408	0.4625	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-014	8	0.3266	0.2041	0.4492	0	0.8667	0.1139	0.3222	98.63%	85.19%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-7410-0130	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	35.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-013	3.798	1.761	14	0.7845	0.0010	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.251	2.586	0.2232	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	11.44804	11.44804	1	14.43	0.0020	Significant Effect
Error	11.10899	0.7934996	14			
Total	22.55703	12.24154	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.499	8.885	0.0114	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9669	0.8408	0.7858	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-013	8	0.5139	0.3584	0.6694	0	1.105	0.1445	0.4088	79.54%	76.7%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-7578-3482	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-011	1.983	1.761	14	0.8289	0.0337	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.131	2.586	0.3468	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.481996	3.481996	1	3.931	0.0674	Non-Significant Effect
Error	12.40146	0.8858187	14			
Total	15.88346	4.367815	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.037	8.885	0.0857	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9666	0.8408	0.7814	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-011	8	1.273	1.047	1.498	0	2	0.2097	0.5931	46.6%	42.3%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-4088-0521	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	109.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-005	1.745	1.895	7	2.395	0.0622	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.738	2.215	0.5146	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.324389	4.324389	1	3.046	0.1245	Non-Significant Effect
Error	9.939445	1.419921	7			
Total	14.26383	5.744309	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9801	0.7007	0.9650	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-6695-4200	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	35.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-004	3.581	1.761	14	0.7837	0.0015	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.253	2.586	0.2214	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	10.1573	10.1573	1	12.83	0.0030	Significant Effect
Error	11.08778	0.7919844	14			
Total	21.24509	10.94929	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.656	8.885	0.0108	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9662	0.8408	0.7733	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-004	8	0.6121	0.4581	0.7662	0.1333	1.313	0.1432	0.405	66.17%	72.25%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-1718-8532	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	36.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-002	3.742	1.761	14	0.7959	0.0011	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.219	2.586	0.2523	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	11.4396	11.4396	1	14.01	0.0022	Significant Effect
Error	11.43514	0.8167958	14			
Total	22.87474	12.25639	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.645	8.885	0.0231	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9711	0.8408	0.8569	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-002	8	0.5145	0.3387	0.6904	0	1.357	0.1634	0.4622	89.84%	76.67%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-2032-2119	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-001	2.989	1.761	14	0.8237	0.0049	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.144	2.586	0.3311	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	7.816629	7.816629	1	8.934	0.0098	Significant Effect
Error	12.24848	0.8748914	14			
Total	20.06511	8.691521	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.305	8.885	0.0731	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9707	0.8408	0.8495	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-001	8	0.8077	0.5893	1.026	0	1.737	0.2031	0.5743	71.1%	63.38%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-1653-8037	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	43.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-012	1.764	1.761	14	0.9529	0.0498	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.014	2.586	0.5105	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.641891	3.641891	1	3.11	0.0996	Non-Significant Effect
Error	16.39206	1.170861	14			
Total	20.03395	4.812752	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.54	8.885	0.5827	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9494	0.8408	0.4795	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-012	8	1.251	0.8863	1.617	0.2632	3.357	0.3394	0.9601	76.72%	43.26%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-0766-0114	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	40.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-010	1.487	1.761	14	0.8961	0.0796	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.971	2.586	0.5852	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.28934	2.28934	1	2.211	0.1592	Non-Significant Effect
Error	14.49561	1.035401	14			
Total	16.78495	3.324741	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.182	8.885	0.3251	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9724	0.8408	0.8751	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-010	8	1.449	1.142	1.756	0.5714	2.611	0.2852	0.8068	55.67%	34.3%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-7378-2377	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	62.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-009	-0.6239	1.761	14	1.38	0.7286	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.079	2.586	0.4133	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9558542	0.9558542	1	0.3892	0.5427	Non-Significant Effect
Error	34.37892	2.455637	14			
Total	35.33477	3.411491	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.459	8.885	0.2582	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9753	0.8408	0.9156	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-009	8	2.694	1.984	3.405	0.375	5.842	0.6606	1.869	69.35%	-22.16%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-3883-9238	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	51.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-008	0.6102	1.761	14	1.141	0.2757	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.547	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.6253002	0.6253002	1	0.3724	0.5515	Non-Significant Effect
Error	23.51022	1.679302	14			
Total	24.13552	2.304602	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.365	8.885	0.6915	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9363	0.8408	0.3062	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-008	8	1.81	1.281	2.34	0	3.235	0.4923	1.392	76.91%	17.93%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-5423-3343	**Endpoint:**	Reproduction	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes reproduction endpoint	37.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-003	4.485	1.895	7	0.817	0.0014	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.259	2.548	0.1911	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	13.96665	13.96665	1	17.63	0.0010	Significant Effect
Error	10.29587	0.7919901	13			
Total	24.26253	14.75865	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	23.9	10.79	0.0011	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9366	0.8328	0.3418	Normal Distribution

Reproduction Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	2.206	1.752	2.659	0.2857	4.143	0.4213	1.192	54.02%	0.0%
19830-003	7	0.2715	0.1788	0.3642	0	0.6429	0.09212	0.2437	89.78%	87.69%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-0690-3308	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	55.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-011	-0.1168	1.761	14	1.178	0.5456	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.399	2.586	0.1218	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0243887	0.0243887	1	0.01363	0.9087	Non-Significant Effect
Error	25.04787	1.789134	14			
Total	25.07226	1.813522	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.68	8.885	0.5102	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9631	0.8408	0.7175	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-011	8	2.2	1.761	2.64	0	3.714	0.4086	1.156	52.52%	-3.68%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-4710-4479	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	48.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-013	2.122	1.761	14	1.035	0.0261	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.731	2.586	0.0221	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.216094	6.216094	1	4.501	0.0522	Non-Significant Effect
Error	19.33278	1.380913	14			
Total	25.54887	7.597007	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.322	8.885	0.0724	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9092	0.8408	0.1129	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-013	8	0.8755	0.6015	1.149	0	1.909	0.2547	0.7204	82.28%	58.74%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-1620-8762	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	46.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-013	1.938	1.771	13	0.7345	0.0373	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.411664	2.411664	1	3.755	0.0747	Non-Significant Effect
Error	8.349029	0.642233	13			
Total	10.76069	3.053896	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.515	9.155	0.5965	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9756	0.8328	0.9304	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	1.679	1.342	2.016	0.4167	3.2	0.3351	0.8866	52.8%	0.0%
19830-013	8	0.8755	0.6015	1.149	0	1.909	0.2547	0.7204	82.28%	47.86%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-4937-3888	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	46.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	2.964	1.761	14	0.9841	0.0051	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.872	2.586	0.0087	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	10.97457	10.97457	1	8.788	0.0102	Significant Effect
Error	17.48349	1.248821	14			
Total	28.45806	12.22339	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.805	8.885	0.0103	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8762	0.8408	0.0339	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	78.05%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-9227-7768	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	38.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-014	3.316	1.771	13	0.6481	0.0028	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.497814	5.497814	1	11	0.0056	Significant Effect
Error	6.499737	0.4999798	13			
Total	11.99755	5.997794	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.086	9.155	0.1662	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9569	0.8328	0.6389	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	1.679	1.342	2.016	0.4167	3.2	0.3351	0.8866	52.8%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	72.27%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	16-2932-5852	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	43.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-015	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.03	2.586	0.0024	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	18.01316	18.01316	1	16.06	0.0013	Significant Effect
Error	15.70044	1.12146	14			
Total	33.7136	19.13462	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.739	8.862	0.0211	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7661	0.8408	0.0010	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-8706-2561	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:27	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	43.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-016	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		3.03	2.586	0.0024	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	18.01316	18.01316	1	16.06	0.0013	Significant Effect
Error	15.70044	1.12146	14			
Total	33.7136	19.13462	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.739	8.862	0.0211	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7661	0.8408	0.0010	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-2578-0496	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	32.9%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-016	36		13	0	0.0002	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	10.52719	10.52719	1	29.01	0.0001	Significant Effect
Error	4.716688	0.3628222	13			
Total	15.24388	10.89001	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	17.48	9.33	0.0013	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8095	0.8328	0.0049	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	1.679	1.342	2.016	0.4167	3.2	0.3351	0.8866	52.8%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-7256-6396	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	5.1%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-012		19830-017	21		12	0	0.0003	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.821	2.507	0.0059	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	15.43986	15.43986	1	11.8	0.0049	Significant Effect
Error	15.70044	1.30837	12			
Total	31.1403	16.74823	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	4.951	9.33	0.0460	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8032	0.8239	0.0055	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-7901-5166	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:26	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	38.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-017	5.011	1.943	6	0.6512	0.0012	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	9.110066	9.110066	1	21.25	0.0008	Significant Effect
Error	4.716688	0.4287899	11			
Total	13.82675	9.538857	12			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.75	10.04	0.0051	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8552	0.8138	0.0333	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	1.679	1.342	2.016	0.4167	3.2	0.3351	0.8866	52.8%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-4699-4655	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	6.17%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-001	0.7339	1.761	14	1.309	0.2376	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.185	2.586	0.2854	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.189443	1.189443	1	0.5386	0.4751	Non-Significant Effect
Error	30.9203	2.208593	14			
Total	32.10974	3.398035	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.032	8.885	0.9683	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8671	0.8408	0.0246	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-001	8	1.577	1.016	2.138	0	4.714	0.5213	1.475	93.52%	25.7%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-5458-9599	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	5.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-002	2.043	1.761	14	1.081	0.0302	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.613	2.586	0.0433	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.292189	6.292189	1	4.172	0.0604	Non-Significant Effect
Error	21.11313	1.508081	14			
Total	27.40532	7.80027	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.901	8.885	0.1834	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8938	0.8408	0.0640	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-002	8	0.8679	0.5334	1.202	0	2.714	0.3109	0.8793	101.3%	59.1%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-5075-0441	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	48.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-002	1.776	1.771	13	0.809	0.0496	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.45753	2.45753	1	3.154	0.0991	Non-Significant Effect
Error	10.12938	0.7791833	13			
Total	12.58691	3.236714	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.017	9.155	0.9675	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9329	0.8328	0.3014	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	1.679	1.342	2.016	0.4167	3.2	0.3351	0.8866	52.8%	0.0%
19830-002	8	0.8679	0.5334	1.202	0	2.714	0.3109	0.8793	101.3%	48.32%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-3191-0746	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	47.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-004	2.048	1.761	14	1.002	0.0299	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.821	2.586	0.0124	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.424488	5.424488	1	4.192	0.0598	Non-Significant Effect
Error	18.11402	1.293859	14			
Total	23.53851	6.718347	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.505	8.885	0.0245	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8976	0.8408	0.0736	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-004	8	0.9576	0.7342	1.181	0.2143	1.909	0.2076	0.5872	61.32%	54.88%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-0215-8556	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	40.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-004	1.883	1.771	13	0.6788	0.0412	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.944247	1.944247	1	3.545	0.0823	Non-Significant Effect
Error	7.130272	0.5484825	13			
Total	9.074519	2.49273	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.28	9.155	0.3051	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.986	0.8328	0.9951	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	7	1.679	1.342	2.016	0.4167	3.2	0.3351	0.8866	52.8%	0.0%
19830-004	8	0.9576	0.7342	1.181	0.2143	1.909	0.2076	0.5872	61.32%	42.98%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-2843-9759	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:25	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	142.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-012		19830-005	1.336	1.895	7	3.01	0.1117	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.213	2.215	0.0508	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.002925	4.002925	1	1.785	0.2234	Non-Significant Effect
Error	15.70044	2.24292	7			
Total	19.70337	6.245845	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.8877	0.7007	0.1890	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-0827-8779	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	37.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-015	4.692	1.761	14	0.9186	0.0002	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.285	2.586	0.1953	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	23.95003	23.95003	1	22.01	0.0003	Significant Effect
Error	15.23347	1.088105	14			
Total	39.18349	25.03813	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.842	8.862	0.0203	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8694	0.8408	0.0267	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-2032-9808	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:24	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	37.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-016	4.692	1.761	14	0.9186	0.0002	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.285	2.586	0.1953	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	23.95003	23.95003	1	22.01	0.0003	Significant Effect
Error	15.23347	1.088105	14			
Total	39.18349	25.03813	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.842	8.862	0.0203	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8694	0.8408	0.0267	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-8048-6085	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	44.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-017	4.021	1.782	12	1.085	0.0008	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.128	2.507	0.2789	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	20.52859	20.52859	1	16.17	0.0017	Significant Effect
Error	15.23347	1.269456	12			
Total	35.76206	21.79805	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	5.027	9.33	0.0446	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8901	0.8239	0.0810	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-9505-8306	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	39.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-014	3.594	1.761	14	0.9709	0.0015	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.162	2.586	0.3100	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	15.70119	15.70119	1	12.92	0.0029	Significant Effect
Error	17.01652	1.215466	14			
Total	32.71771	16.91666	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	8.543	8.885	0.0112	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9303	0.8408	0.2465	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	80.97%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-0832-0164	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	12.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-005	1.564	1.895	7	2.964	0.0809	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.669	2.215	0.6425	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.322228	5.322228	1	2.446	0.1618	Non-Significant Effect
Error	15.23347	2.17621	7			
Total	20.5557	7.498438	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.8722	0.7007	0.1296	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	18-6982-9315	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:23	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	47.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-011	0.3724	1.761	14	1.167	0.3576	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.799	2.586	0.9605	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2435576	0.2435576	1	0.1387	0.7151	Non-Significant Effect
Error	24.5809	1.755779	14			
Total	24.82446	1.999336	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.63	8.885	0.5349	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9691	0.8408	0.8237	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-011	8	2.2	1.761	2.64	0	3.714	0.4086	1.156	52.52%	10.08%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-0891-4810	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	41.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-013	2.707	1.761	14	1.022	0.0085	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.054	2.586	0.4497	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	9.877782	9.877782	1	7.33	0.0170	Significant Effect
Error	18.86581	1.347558	14			
Total	28.74359	11.22534	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.194	8.885	0.0780	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9159	0.8408	0.1448	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-013	8	0.8755	0.6015	1.149	0	1.909	0.2547	0.7204	82.28%	64.22%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-2660-3028	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	50.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-012	0.4371	1.761	14	1.309	0.3344	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.159	2.586	0.3140	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4220898	0.4220898	1	0.191	0.6687	Non-Significant Effect
Error	30.93391	2.209565	14			
Total	31.356	2.631655	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.031	8.885	0.9693	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8891	0.8408	0.0538	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	13.28%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-8541-3336	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:22	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	50.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-001	1.18	1.761	14	1.299	0.1288	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.202	2.586	0.2685	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.028644	3.028644	1	1.392	0.2577	Non-Significant Effect
Error	30.45333	2.175238	14			
Total	33.48197	5.203882	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.001	8.885	0.9991	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8968	0.8408	0.0714	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-001	8	1.577	1.016	2.138	0	4.714	0.5213	1.475	93.52%	35.56%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-8501-5618	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	46.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-002	2.601	1.761	14	1.069	0.0105	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.963	2.586	0.5989	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	9.973645	9.973645	1	6.763	0.0210	Significant Effect
Error	20.64617	1.474726	14			
Total	30.61981	11.44837	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.814	8.885	0.1956	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8908	0.8408	0.0574	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-002	8	0.8679	0.5334	1.202	0	2.714	0.3109	0.8793	101.3%	64.53%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-8121-9257	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:21	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	40.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-010		19830-004	2.653	1.761	14	0.9887	0.0095	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.123	2.586	0.3556	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.872875	8.872875	1	7.039	0.0189	Significant Effect
Error	17.64705	1.260504	14			
Total	26.51993	10.13338	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.312	8.885	0.0266	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9301	0.8408	0.2445	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	0.0%
19830-004	8	0.9576	0.7342	1.181	0.2143	1.909	0.2076	0.5872	61.32%	60.87%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-8541-6541	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	49.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-014	3.504	1.895	7	2.578	0.0050	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.231	2.586	0.2413	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	90.97874	90.97874	1	12.28	0.0035	Significant Effect
Error	103.709	7.407783	14			
Total	194.6877	98.38653	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	57.16	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8968	0.8408	0.0714	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	91.1%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-4011-4215	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	48.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-015	3.88	1.895	7	2.556	0.0030	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.25	2.586	0.2241	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	109.6142	109.6142	1	15.06	0.0017	Significant Effect
Error	101.9259	7.280422	14			
Total	211.5401	116.8946	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.4	8.862	0.0034	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8494	0.8408	0.0133	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-5685-8802	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	48.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-016	3.88	1.895	7	2.556	0.0030	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.25	2.586	0.2241	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	109.6142	109.6142	1	15.06	0.0017	Significant Effect
Error	101.9259	7.280422	14			
Total	211.5401	116.8946	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	12.4	8.862	0.0034	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8494	0.8408	0.0133	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	21-3820-5346	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:18	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	50.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-017	3.326	1.782	12	2.805	0.0030	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.095	2.507	0.3148	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	93.95505	93.95505	1	11.06	0.0060	Significant Effect
Error	101.9259	8.493826	12			
Total	195.881	102.4489	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	9.109	9.33	0.0107	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8824	0.8239	0.0629	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-9006-8180	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	148.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-005	1.293	1.895	7	7.668	0.1185	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.643	2.215	0.6950	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	24.35872	24.35872	1	1.673	0.2369	Non-Significant Effect
Error	101.9259	14.56084	7			
Total	126.2846	38.91956	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.9345	0.7007	0.5252	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-7649-4896	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	50.1%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-011	2.153	1.86	8	2.621	0.0317	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.153	2.586	0.3200	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	36.83665	36.83665	1	4.635	0.0493	Significant Effect
Error	111.2733	7.948096	14			
Total	148.11	44.78474	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	10.9	8.885	0.0054	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9421	0.8408	0.3756	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-011	8	2.2	1.761	2.64	0	3.714	0.4086	1.156	52.52%	57.97%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-7994-2990	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:17	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	49.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-013	3.175	1.895	7	2.601	0.0078	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.211	2.586	0.2597	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	76.01571	76.01571	1	10.08	0.0067	Significant Effect
Error	105.5583	7.539875	14			
Total	181.574	83.55559	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	28.06	8.885	0.0003	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9163	0.8408	0.1471	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-013	8	0.8755	0.6015	1.149	0	1.909	0.2547	0.7204	82.28%	83.28%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-7012-2034	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	48.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-012	2.148	1.761	14	2.553	0.0249	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.094	2.586	0.3925	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	38.75671	38.75671	1	4.613	0.0497	Significant Effect
Error	117.6264	8.401882	14			
Total	156.3831	47.1586	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.492	8.885	0.0246	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9424	0.8408	0.3792	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	59.46%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-7436-4061	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	48.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-010	1.927	1.761	14	2.548	0.0372	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.099	2.586	0.3870	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	31.0896	31.0896	1	3.715	0.0745	Non-Significant Effect
Error	117.1594	8.368527	14			
Total	148.249	39.45813	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.691	8.885	0.0226	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9446	0.8408	0.4091	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	53.26%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-2833-2719	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	48.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-001	2.529	1.761	14	2.547	0.0120	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.099	2.586	0.3868	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	53.52539	53.52539	1	6.397	0.0241	Significant Effect
Error	117.1458	8.367555	14			
Total	170.6712	61.89294	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.697	8.885	0.0226	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9444	0.8408	0.4058	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-001	8	1.577	1.016	2.138	0	4.714	0.5213	1.475	93.52%	69.88%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-9505-7930	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	50.1%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-002	3.154	1.895	7	2.623	0.0080	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.193	2.586	0.2779	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	76.28123	76.28123	1	9.949	0.0070	Significant Effect
Error	107.3386	7.667043	14			
Total	183.6198	83.94827	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	18.83	8.885	0.0010	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9209	0.8408	0.1746	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-002	8	0.8679	0.5334	1.202	0	2.714	0.3109	0.8793	101.3%	83.42%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-1958-1819	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	49.4%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-009		19830-004	3.134	1.895	7	2.586	0.0083	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.224	2.586	0.2475	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	73.18019	73.18019	1	9.819	0.0073	Significant Effect
Error	104.3395	7.452821	14			
Total	177.5197	80.63301	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	42.23	8.885	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9084	0.8408	0.1098	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	0.0%
19830-004	8	0.9576	0.7342	1.181	0.2143	1.909	0.2076	0.5872	61.32%	81.71%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-5959-0690	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	56.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-011	1.262	1.761	14	1.892	0.1138	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.713	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	7.349928	7.349928	1	1.592	0.2277	Non-Significant Effect
Error	64.63737	4.616955	14			
Total	71.9873	11.96688	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	5.915	8.885	0.0318	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9468	0.8408	0.4404	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-011	8	2.2	1.761	2.64	0	3.714	0.4086	1.156	52.52%	38.12%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	19-2267-6505	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	54.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-013	2.613	1.895	7	1.943	0.0174	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.794	2.586	0.9737	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	28.73446	28.73446	1	6.827	0.0205	Significant Effect
Error	58.92228	4.208734	14			
Total	87.65674	32.9432	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	15.22	8.885	0.0019	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9457	0.8408	0.4247	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-013	8	0.8755	0.6015	1.149	0	1.909	0.2547	0.7204	82.28%	75.38%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-1363-6284	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	50.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-014	3.061	1.895	7	1.913	0.0092	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.823	2.586	0.8999	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	38.1928	38.1928	1	9.369	0.0085	Significant Effect
Error	57.07298	4.076642	14			
Total	95.26579	42.26944	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	31.01	8.885	0.0002	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.934	0.8408	0.2822	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	86.9%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-8408-6145	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	52.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-015	3.578	1.895	7	1.883	0.0045	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.852	2.586	0.8297	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	50.57252	50.57252	1	12.81	0.0030	Significant Effect
Error	55.28994	3.949281	14			
Total	105.8625	54.5218	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	45.69	8.862	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8786	0.8408	0.0369	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-7909-8440	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	52.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-016	3.578	1.895	7	1.883	0.0045	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.852	2.586	0.8297	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	50.57252	50.57252	1	12.81	0.0030	Significant Effect
Error	55.28994	3.949281	14			
Total	105.8625	54.5218	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	45.69	8.862	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8786	0.8408	0.0369	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-1303-1940	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	52.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-017	3.578	1.895	7	1.883	0.0045	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.724	2.507	0.9954	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	43.34787	43.34787	1	9.408	0.0098	Significant Effect
Error	55.28994	4.607495	12			
Total	98.63781	47.95537	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	33.57	9.33	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8988	0.8239	0.1084	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-6178-6447	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	159.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-005	1.193	1.895	7	5.648	0.1359	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.353	2.215	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	11.23834	11.23834	1	1.423	0.2718	Non-Significant Effect
Error	55.28994	7.898562	7			
Total	66.52827	19.1369	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.8803	0.7007	0.1583	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-2877-2401	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	54.1%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-004	2.56	1.895	7	1.923	0.0188	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.813	2.586	0.9250	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	27.0015	27.0015	1	6.551	0.0227	Significant Effect
Error	57.70352	4.12168	14			
Total	84.70502	31.12318	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	22.91	8.885	0.0005	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9421	0.8408	0.3753	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-004	8	0.9576	0.7342	1.181	0.2143	1.909	0.2076	0.5872	61.32%	73.07%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-3301-5243	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:13	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	54.4%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-002	2.582	1.86	8	1.936	0.0163	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.768	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	28.8978	28.8978	1	6.665	0.0217	Significant Effect
Error	60.70263	4.335902	14			
Total	89.60043	33.2337	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	10.21	8.885	0.0066	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9368	0.8408	0.3112	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-002	8	0.8679	0.5334	1.202	0	2.714	0.3109	0.8793	101.3%	75.59%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-4597-8905	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	55.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-001	1.764	1.761	14	1.976	0.0498	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.64	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	15.66465	15.66465	1	3.11	0.0996	Non-Significant Effect
Error	70.50979	5.036414	14			
Total	86.17444	20.70107	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.633	8.885	0.1104	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9409	0.8408	0.3602	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-001	8	1.577	1.016	2.138	0	4.714	0.5213	1.475	93.52%	55.65%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-9457-4533	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	55.8%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-012	1.273	1.761	14	1.983	0.1118	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.634	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.221087	8.221087	1	1.621	0.2237	Non-Significant Effect
Error	70.99038	5.070741	14			
Total	79.21146	13.29183	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.522	8.885	0.1187	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9356	0.8408	0.2981	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	40.32%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-2678-6754	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	55.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-010	0.988	1.761	14	1.977	0.1700	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.64	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.91757	4.91757	1	0.9762	0.3399	Non-Significant Effect
Error	70.52341	5.037386	14			
Total	75.44098	9.954956	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.63	8.885	0.1106	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9111	0.8408	0.1214	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	31.18%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-8371-0549	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	83.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-008		19830-009	-1.002	1.761	14	2.951	0.8334	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.812	2.586	0.9281	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	11.27781	11.27781	1	1.004	0.3333	Non-Significant Effect
Error	157.2159	11.2297	14			
Total	168.4937	22.50751	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.843	8.885	0.4383	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.945	0.8408	0.4148	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	0.0%
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	-47.22%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-8216-8574	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	76.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-017	2.358	1.796	11	0.3869	0.0190	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.676	2.462	0.0120	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.8334184	0.8334184	1	5.559	0.0380	Significant Effect
Error	1.64903	0.1499118	11			
Total	2.482449	0.9833302	12			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.88	10.04	0.0255	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8188	0.8138	0.0115	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-2874-6347	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	68.4%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-017	24		10	1	0.0076	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3520226	0.3520226	1	7.03	0.0243	Significant Effect
Error	0.5007249	0.05007249	10			
Total	0.8527474	0.402095	11			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	7.461	10.04	0.0211	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7979	0.8025	0.0089	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	6	0.3426	0.2222	0.4629	0	0.9	0.1292	0.3165	92.38%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	03-4642-6004	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	64.3%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-016	40		13	1	0.0019	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.891	2.548	0.0052	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9630613	0.9630613	1	7.592	0.0164	Significant Effect
Error	1.64903	0.1268485	13			
Total	2.612092	1.08991	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	9.435	9.33	0.0097	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7822	0.8328	0.0022	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-6798-7789	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	57.4%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-016	40		12	1	0.0040	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4023115	0.4023115	1	9.641	0.0091	Significant Effect
Error	0.5007249	0.04172707	12			
Total	0.9030364	0.4440385	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	10.23	9.33	0.0076	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7512	0.8239	0.0013	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	6	0.3426	0.2222	0.4629	0	0.9	0.1292	0.3165	92.38%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-9373-3916	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	64.3%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-015	40		13	1	0.0019	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.891	2.548	0.0052	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.9630613	0.9630613	1	7.592	0.0164	Significant Effect
Error	1.64903	0.1268485	13			
Total	2.612092	1.08991	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	9.435	9.33	0.0097	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7822	0.8328	0.0022	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-6496-5832	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:11	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	57.4%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-003		19830-015	40		12	1	0.0040	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4023115	0.4023115	1	9.641	0.0091	Significant Effect
Error	0.5007249	0.04172707	12			
Total	0.9030364	0.4440385	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	10.23	9.33	0.0076	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.7512	0.8239	0.0013	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	6	0.3426	0.2222	0.4629	0	0.9	0.1292	0.3165	92.38%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-6384-1169	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	92.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-014	0.1587	1.771	13	0.4709	0.4382	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.004	2.548	0.4801	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.006648083	0.006648083	1	0.02518	0.8764	Non-Significant Effect
Error	3.432079	0.264006	13			
Total	3.438727	0.2706541	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.079	9.155	0.9096	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8678	0.8328	0.0314	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	8.31%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	08-6816-3466	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	15.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-013	-1.114	1.771	13	0.5842	0.8573	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.683	2.548	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.504459	0.504459	1	1.242	0.2853	Non-Significant Effect
Error	5.28137	0.4062592	13			
Total	5.785829	0.9107183	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.888	10.79	0.4564	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9311	0.8328	0.2830	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-013	8	0.8755	0.6015	1.149	0	1.909	0.2547	0.7204	82.28%	-72.37%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-6382-6357	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	166.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-011	-3.555	1.771	13	0.843	0.9982	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.483	2.548	0.0702	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	10.69156	10.69156	1	12.64	0.0035	Significant Effect
Error	10.99646	0.8458815	13			
Total	21.68802	11.53744	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	4.859	10.79	0.0724	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9215	0.8328	0.2034	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-011	8	2.2	1.761	2.64	0	3.714	0.4086	1.156	52.52%	-333.2%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-9901-2907	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	21.4.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-005	0.9062	1.943	6	1.089	0.1999	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.044	2.127	0.0922	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2257175	0.2257175	1	0.8213	0.3997	Non-Significant Effect
Error	1.64903	0.2748383	6			
Total	1.874748	0.5005558	7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.8839	0.6451	0.2052	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	14-8178-4620	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	101.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-004	-1.554	1.771	13	0.5124	0.9279	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.842	2.548	0.7858	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.7548885	0.7548885	1	2.416	0.1441	Non-Significant Effect
Error	4.062614	0.3125088	13			
Total	4.817502	1.067397	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.255	10.79	0.7981	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9385	0.8328	0.3636	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-004	8	0.9576	0.7342	1.181	0.2143	1.909	0.2076	0.5872	61.32%	-88.53%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-9404-3972	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	103.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-002	-0.9437	1.771	13	0.6755	0.8187	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.6	2.548	0.0377	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4837964	0.4837964	1	0.8906	0.3625	Non-Significant Effect
Error	7.061725	0.5432096	13			
Total	7.545521	1.027006	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.813	10.79	0.2285	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8982	0.8328	0.0892	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-002	8	0.8679	0.5334	1.202	0	2.714	0.3109	0.8793	101.3%	-70.88%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-3832-3069	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	9.13%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-002	-0.3505	1.782	12	0.4893	0.6340	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0323987	0.0323987	1	0.1228	0.7321	Non-Significant Effect
Error	3.165498	0.2637915	12			
Total	3.197897	0.2961902	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.087	11.07	0.9216	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9302	0.8239	0.3074	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-002	7	0.6041	0.4129	0.7953	0	1.2	0.19	0.5027	83.22%	-18.94%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-6603-7788	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	206.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-001	-1.813	1.771	13	1.044	0.9535	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.858	2.548	0.0067	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.265411	4.265411	1	3.287	0.0930	Non-Significant Effect
Error	16.86889	1.297607	13			
Total	21.1343	5.563018	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	7.911	10.79	0.0223	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8692	0.8328	0.0328	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-001	8	1.577	1.016	2.138	0	4.714	0.5213	1.475	93.52%	-210.5%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	02-9921-8616	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	128.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-001	-1.697	1.782	12	0.6519	0.9423	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.348326	1.348326	1	2.88	0.1155	Non-Significant Effect
Error	5.618724	0.468227	12			
Total	6.96705	1.816553	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.407	11.07	0.3091	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9634	0.8239	0.7783	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-001	7	1.129	0.8192	1.438	0	2.1	0.3074	0.8134	72.07%	-122.2%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-7264-6122	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	107.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-012	-3.009	1.782	12	0.6939	0.9946	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.80197	4.80197	1	9.052	0.0109	Significant Effect
Error	6.365718	0.5304765	12			
Total	11.16769	5.332446	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	2.86	11.07	0.2266	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9615	0.8239	0.7481	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-012	7	1.679	1.342	2.016	0.4167	3.2	0.3351	0.8866	52.8%	-230.6%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	17-7204-4556	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	206.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-010	-3.288	1.771	13	1.044	0.9971	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.097	2.548	0.3505	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	14.03684	14.03684	1	10.81	0.0059	Significant Effect
Error	16.8825	1.298654	13			
Total	30.91934	15.33549	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	7.918	10.79	0.0223	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9248	0.8328	0.2282	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	-381.8%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	09-9011-7593	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	509.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-009	-3.467	1.895	7	2.583	0.9948	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.156	2.548	0.2836	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	83.41746	83.41746	1	10.47	0.0065	Significant Effect
Error	103.5749	7.967303	13			
Total	186.9924	91.38476	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	52.98	10.79	0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9057	0.8328	0.1163	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	-930.7%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-7485-8671	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	37.8.0%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-003		19830-008	-3.008	1.895	7	1.92	0.9901	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.763	2.548	0.9768	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	34.67965	34.67965	1	7.918	0.0146	Significant Effect
Error	56.93896	4.37992	13			
Total	91.61861	39.05957	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	28.74	10.79	0.0007	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9344	0.8328	0.3168	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	0.0%
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	-600.1%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-0876-9480	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	43.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-017	4.115	1.782	12	2.105	0.0007	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.447	2.507	0.0689	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	80.95239	80.95239	1	16.93	0.0014	Significant Effect
Error	57.37727	4.78144	12			
Total	138.3297	85.73383	13			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	6.299	9.33	0.0274	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8468	0.8239	0.0201	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-017	6	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	13-2667-7509	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	36.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-000		19830-016	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.629	2.586	0.0398	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	94.44446	94.44446	1	23.04	0.0003	Significant Effect
Error	57.37727	4.098377	14			
Total	151.8217	98.54283	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.574	8.862	0.0110	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.805	0.8408	0.0032	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	05-8293-1973	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	37.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-016	5.128	1.943	6	1.563	0.0011	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	63.51627	63.51627	1	30.39	0.0001	Significant Effect
Error	27.17319	2.090245	13			
Total	90.68946	65.60651	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	11.27	9.33	0.0057	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.836	0.8328	0.0111	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	7	4.125	3.315	4.934	0.5714	6.444	0.8044	2.128	51.59%	0.0%
19830-016	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-9408-7952	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	36.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	Ties	P-Value	Decision(α:5%)
19830-000		19830-015	36		14	0	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.629	2.586	0.0398	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	94.44446	94.44446	1	23.04	0.0003	Significant Effect
Error	57.37727	4.098377	14			
Total	151.8217	98.54283	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	8.574	8.862	0.0110	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.805	0.8408	0.0032	Non-normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-6794-6686	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	37.9%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-015	5.128	1.943	6	1.563	0.0011	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	63.51627	63.51627	1	30.39	0.0001	Significant Effect
Error	27.17319	2.090245	13			
Total	90.68946	65.60651	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	11.27	9.33	0.0057	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.836	0.8328	0.0111	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	7	4.125	3.315	4.934	0.5714	6.444	0.8044	2.128	51.59%	0.0%
19830-015	8	0	0	0	0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	12-9478-0203	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	40.1%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-014	4.274	1.895	7	1.947	0.0018	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.589	2.586	0.0492	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	77.20875	77.20875	1	18.27	0.0008	Significant Effect
Error	59.16032	4.225738	14			
Total	136.3691	81.43449	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	32.18	8.885	0.0002	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8791	0.8408	0.0375	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	90.42%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	00-2533-3950	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:06	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	38.8%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-014	4.441	1.943	6	1.601	0.0022	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	49.98332	49.98332	1	22.44	0.0004	Significant Effect
Error	28.95624	2.227403	13			
Total	78.93956	52.21072	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	17.78	9.155	0.0013	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9234	0.8328	0.2172	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	7	4.125	3.315	4.934	0.5714	6.444	0.8044	2.128	51.59%	0.0%
19830-014	8	0.4657	0.2737	0.6577	0	1.444	0.1784	0.5047	108.4%	88.71%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	06-5455-4619	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	40.7%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-013	3.817	1.895	7	1.978	0.0033	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.549	2.586	0.0603	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	63.47742	63.47742	1	14.57	0.0019	Significant Effect
Error	61.00962	4.35783	14			
Total	124.487	67.83524	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	15.8	8.885	0.0017	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9055	0.8408	0.0986	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-013	8	0.8755	0.6015	1.149	0	1.909	0.2547	0.7204	82.28%	81.98%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	15-5034-2964	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	39.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-011	2.436	1.761	14	1.923	0.0144	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.437	2.586	0.1027	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	28.27999	28.27999	1	5.934	0.0288	Significant Effect
Error	66.72471	4.76605	14			
Total	95.0047	33.04604	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	6.138	8.885	0.0288	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9393	0.8408	0.3403	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-011	8	2.2	1.761	2.64	0	3.714	0.4086	1.156	52.52%	54.72%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-5908-6370	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:05	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	118.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-005	1.6	1.895	7	5.753	0.0768	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.92	2.215	0.2588	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	20.98766	20.98766	1	2.56	0.1536	Non-Significant Effect
Error	57.37727	8.196754	7			
Total	78.36493	29.18441	8			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Distribution	Shapiro-Wilk W Normality	0.952	0.7007	0.7125	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-005	1	0			0	0	0	0		100.0%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	11-0145-0696	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	40.3%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-004	3.776	1.895	7	1.958	0.0035	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.575	2.586	0.0529	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	60.8886	60.8886	1	14.26	0.0020	Significant Effect
Error	59.79086	4.270776	14			
Total	120.6795	65.15938	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	23.77	8.885	0.0005	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8906	0.8408	0.0568	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-004	8	0.9576	0.7342	1.181	0.2143	1.909	0.2076	0.5872	61.32%	80.29%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-7567-4590	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	40.5%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-002	3.769	1.86	8	1.969	0.0027	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.513	2.586	0.0722	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	63.72008	63.72008	1	14.21	0.0021	Significant Effect
Error	62.78997	4.484998	14			
Total	126.51	68.20508	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	10.6	8.885	0.0059	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9193	0.8408	0.1644	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-002	8	0.8679	0.5334	1.202	0	2.714	0.3109	0.8793	101.3%	82.14%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-8813-8025	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	41.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-001	2.883	1.761	14	2.005	0.0060	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.337	2.586	0.1586	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	43.09499	43.09499	1	8.311	0.0120	Significant Effect
Error	72.59713	5.185509	14			
Total	115.6921	48.2805	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.77	8.885	0.1011	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9564	0.8408	0.5967	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-001	8	1.577	1.016	2.138	0	4.714	0.5213	1.475	93.52%	67.55%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	07-8640-9555	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:04	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	41.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-012	2.396	1.761	14	2.012	0.0156	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.329	2.586	0.1637	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	29.96535	29.96535	1	5.741	0.0311	Significant Effect
Error	73.07771	5.219837	14			
Total	103.0431	35.18519	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.655	8.885	0.1088	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9653	0.8408	0.7582	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-012	8	2.122	1.552	2.692	0.4167	5.222	0.5295	1.498	70.57%	56.33%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	01-2179-5567	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	41.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-010	2.118	1.761	14	2.006	0.0263	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.337	2.586	0.1588	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	23.27462	23.27462	1	4.488	0.0525	Non-Significant Effect
Error	72.61075	5.186482	14			
Total	95.88537	28.4611	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	3.767	8.885	0.1013	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9684	0.8408	0.8115	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-010	8	2.447	1.886	3.008	1	4.75	0.5216	1.475	60.29%	49.64%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	04-8551-5433	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	6.11%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-009	-0.2228	1.761	14	2.971	0.5865	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.8	2.586	0.9587	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5646426	0.5646426	1	0.04962	0.8269	Non-Significant Effect
Error	159.3032	11.3788	14			
Total	159.8678	11.94344	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.776	8.885	0.4661	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9372	0.8408	0.3164	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-009	8	5.235	3.783	6.686	0.75	11.1	1.349	3.816	72.89%	-7.73%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	10-9955-5793	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	5.14%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-008	0.9189	1.761	14	2.498	0.1869	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		1.876	2.586	0.7755	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.795501	6.795501	1	0.8444	0.3737	Non-Significant Effect
Error	112.6672	8.047658	14			
Total	119.4627	14.84316	15			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	1.038	8.885	0.9623	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9643	0.8408	0.7398	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-008	8	3.556	2.487	4.625	0	6.429	0.9936	2.81	79.04%	26.82%

Leptocheirus 28-d Survival, Growth and Reproduction Sediment Test — **EnviroSystems, Inc.**

Analysis ID:	20-7947-0030	**Endpoint:**	Offspring/Surviving Female	**CETIS Version:**	CETISv1.8.0
Analyzed:	15 Nov-10 11:03	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	05-8536-2148	**Test Type:**	Leptocheirus (28-d)	**Analyst:**	
Start Date:	14 Oct-10 12:00	**Protocol:**	EPA/600/R-01/020 (2001)	**Diluent:**	Not Applicable
Ending Date:	11 Nov-10 12:00	**Species:**	Leptocheirus plumulosus	**Brine:**	Not Applicable
Duration:	28d 0h	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	MC Trials	Test Result	PMSD
Untransformed	0	C > T	Not Run	Sample passes offspring/surviving female endpoint	40.2%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	DF	MSD	P-Value	Decision(α:5%)
19830-000		19830-003	4.219	1.895	7	1.954	0.0020	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:5%)
Extreme Value		2.504	2.548	0.0631	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	70.68385	70.68385	1	15.57	0.0017	Significant Effect
Error	59.02631	4.540485	13			
Total	129.7101	75.22433	14			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Variance Ratio F	29.82	10.79	0.0006	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8919	0.8328	0.0717	Normal Distribution

Offspring/Surviving Female Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
19830-000	8	4.859	3.77	5.948	0.5714	10	1.012	2.863	58.92%	0.0%
19830-003	7	0.5079	0.3085	0.7073	0	1.5	0.1981	0.5243	103.2%	89.55%

CLIENT: HDR Engineering, Inc.
PROJECT: Gowanus Canal Superfund Site
ASSAY: Leptocheirus plumulosus Evaluation
TASK: Overlying Water Ammonia Summary
METHOD: SM 4500-NH3 G

	Sample			AMMONIA					
Field ID	Number	Day	LAB ID	TOTAL	UNIONIZED	QLIMIT	UNITS	SAMPLED	ANALYZED
Laboratory Control	000	0	20201-100	ND	0.002	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD326-0.0-0.5	001	0	20201-101	ND	0.002	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD328-0.0-0.5	002	0	20201-102	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD330-0.0-0.5	003	0	20201-103	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD333-0.0-0.5	004	0	20201-104	ND	0.004	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD329-0.0-0.5	005	0	20201-105	ND	0.004	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD303-0.0-0.5	006	0	20201-106	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD307A-0.0-0.5	007	0	20201-107	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD309-0.0-0.5	008	0	20201-108	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD313-0.0-0.5	009	0	20201-109	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD314-0.0-0.5	010	0	20201-110	ND	0.002	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD315-0.0-0.5	011	0	20201-111	ND	0.001	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD307B-0.0-0.5	012	0	20201-112	ND	0.001	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD324-0.0-0.5	013	0	20201-113	ND	0.002	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD321-0.0-0.5	014	0	20201-114	ND	0.002	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD319-0.0-0.5	015	0	20201-115	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD318-0.0-0.5	016	0	20201-116	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD310-0.0-0.5	017	0	20201-117	ND	0.003	0.1	mg/L as N	10/14/10 1100	10/15/10
Laboratory Control	000	7	20201-200	ND	0.002	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD326-0.0-0.5	001	7	20201-201	ND	0.002	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD328-0.0-0.5	002	7	20201-202	ND	0.004	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD330-0.0-0.5	003	7	20201-203	0.22	0.014	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD333-0.0-0.5	004	7	20201-204	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD329-0.0-0.5	005	7	20201-205	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD303-0.0-0.5	006	7	20201-206	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD307A-0.0-0.5	007	7	20201-207	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD309-0.0-0.5	008	7	20201-208	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD313-0.0-0.5	009	7	20201-209	ND	0.004	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD314-0.0-0.5	010	7	20201-210	0.19	0.007	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD315-0.0-0.5	011	7	20201-211	ND	0.001	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD307B-0.0-0.5	012	7	20201-212	ND	0.002	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD324-0.0-0.5	013	7	20201-213	ND	0.002	0.1	mg/L as N	10/21/10 1030	10/27/10

TASK: Overlying Water Ammonia Summary
METHOD: SM 4500-NH3 G

Field ID	Sample Number	Day	LAB ID	AMMONIA TOTAL	AMMONIA UNIONIZED	QLIMIT	UNITS	SAMPLED	ANALYZED
GC-SD321-0.0-0.5	014	7	20201-214	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD319-0.0-0.5	015	7	20201-215	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD318-0.0-0.5	016	7	20201-216	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD310-0.0-0.5	017	7	20201-217	ND	0.003	0.1	mg/L as N	10/21/10 1030	10/27/10
Laboratory Control	000	14	20201-300	ND	0.002	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD326-0.0-0.5	001	14	20201-301	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD328-0.0-0.5	002	14	20201-302	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD330-0.0-0.5	003	14	20201-303	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD333-0.0-0.5	004	14	20201-304	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD329-0.0-0.5	005	14	20201-305	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD303-0.0-0.5	006	14	20201-306	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD307A-0.0-0.5	007	14	20201-307	ND	0.002	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD309-0.0-0.5	008	14	20201-308	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD313-0.0-0.5	009	14	20201-309	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD314-0.0-0.5	010	14	20201-310	ND	0.002	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD315-0.0-0.5	011	14	20201-311	ND	0.002	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD307B-0.0-0.5	012	14	20201-312	ND	0.002	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD324-0.0-0.5	013	14	20201-313	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD321-0.0-0.5	014	14	20201-314	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD319-0.0-0.5	015	14	20201-315	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD318-0.0-0.5	016	14	20201-316	ND	0.004	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD310-0.0-0.5	017	14	20201-317	ND	0.003	0.1	mg/L as N	10/28/10 1000	11/01/10
Laboratory Control	000	21	20201-400	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD326-0.0-0.5	001	21	20201-401	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD328-0.0-0.5	002	21	20201-402	ND	0.003	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD330-0.0-0.5	003	21	20201-403	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD333-0.0-0.5	004	21	20201-404	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD329-0.0-0.5	005	21	20201-405	ND	0.001	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD303-0.0-0.5	006	21	20201-406	ND	0.003	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD307A-0.0-0.5	007	21	20201-407	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD309-0.0-0.5	008	21	20201-408	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD313-0.0-0.5	009	21	20201-409	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD314-0.0-0.5	010	21	20201-410	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD315-0.0-0.5	011	21	20201-411	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10

TASK: Overlying Water Ammonia Summary
METHOD: SM 4500-NH3 G

Field ID	Sample Number	Day	LAB ID	AMMONIA TOTAL	AMMONIA UNIONIZED	QLIMIT	UNITS	SAMPLED	ANALYZED
GC-SD307B-0.0-0.5	012	21	20201-412	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD324-0.0-0.5	013	21	20201-413	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD321-0.0-0.5	014	21	20201-414	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD319-0.0-0.5	015	21	20201-415	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD318-0.0-0.5	016	21	20201-416	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD310-0.0-0.5	017	21	20201-417	ND	0.002	0.1	mg/L as N	11/04/10 1000	11/09/10
Laboratory Control	000	28	20201-500	ND	0.001	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD326-0.0-0.5	001	28	20201-501	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD328-0.0-0.5	002	28	20201-502	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD330-0.0-0.5	003	28	20201-503	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD333-0.0-0.5	004	28	20201-504	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD329-0.0-0.5	005	28	20201-505	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD303-0.0-0.5	006	28	20201-506	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD307A-0.0-0.5	007	28	20201-507	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD309-0.0-0.5	008	28	20201-508	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD313-0.0-0.5	009	28	20201-509	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD314-0.0-0.5	010	28	20201-510	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD315-0.0-0.5	011	28	20201-511	ND	0.001	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD307B-0.0-0.5	012	28	20201-512	ND	0.001	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD324-0.0-0.5	013	28	20201-513	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD321-0.0-0.5	014	28	20201-514	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD319-0.0-0.5	015	28	20201-515	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD318-0.0-0.5	016	28	20201-516	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD310-0.0-0.5	017	28	20201-517	ND	0.002	0.1	mg/L as N	11/11/10 0715	11/12/10

CLIENT: HDR Engineering, Inc.
PROJECT: Gowanus Canal Superfund Site
ASSAY: Leptocheirus plumulosus Evaluation
TASK: Pore Water Ammonia Summary
METHOD: SM 4500-NH3 G

	Sample			AMMONIA					
Field ID	Number	Day	LAB ID	TOTAL	UNIONIZED	QLIMIT	UNITS	SAMPLED	ANALYZED
Laboratory Control	000	0	20201-119	9.4	0.0150	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD326-0.0-0.5	001	0	20201-120	0.52	0.0015	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD328-0.0-0.5	002	0	20201-121	0.7	0.0035	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD330-0.0-0.5	003	0	20201-122	8.4	0.0532	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD333-0.0-0.5	004	0	20201-123	0.24	0.0005	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD329-0.0-0.5	005	0	20201-124	0.26	0.0010	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD303-0.0-0.5	006	0	20201-125	2.3	0.0205	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD307A-0.0-0.5	007	0	20201-126	4.3	0.0552	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD309-0.0-0.5	008	0	20201-127	ND	0.0005	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD313-0.0-0.5	009	0	20201-128	ND	0.0012	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD314-0.0-0.5	010	0	20201-129	0.17	0.0027	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD315-0.0-0.5	011	0	20201-130	ND	0.0011	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD307B-0.0-0.5	012	0	20201-131	4	0.0845	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD324-0.0-0.5	013	0	20201-132	ND	0.0003	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD321-0.0-0.5	014	0	20201-133	1.3	0.0069	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD319-0.0-0.5	015	0	20201-134	0.41	0.0049	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD318-0.0-0.5	016	0	20201-135	0.57	0.0086	0.1	mg/L as N	10/14/10 1100	10/15/10
GC-SD310-0.0-0.5	017	0	20201-136	0.52	0.0039	0.1	mg/L as N	10/14/10 1100	10/15/10
Laboratory Control	000	7	20201-219	3.5	0.0074	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD326-0.0-0.5	001	7	20201-220	0.51	0.0028	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD328-0.0-0.5	002	7	20201-221	0.15	0.0018	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD330-0.0-0.5	003	7	20201-222	4.3	0.0334	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD333-0.0-0.5	004	7	20201-223	ND	0.0001	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD329-0.0-0.5	005	7	20201-224	ND	0.0003	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD303-0.0-0.5	006	7	20201-225	1.1	0.0075	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD307A-0.0-0.5	007	7	20201-226	ND	0.0007	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD309-0.0-0.5	008	7	20201-227	ND	0.0004	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD313-0.0-0.5	009	7	20201-228	ND	0.0007	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD314-0.0-0.5	010	7	20201-229	0.29	0.0041	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD315-0.0-0.5	011	7	20201-230	0.11	0.0020	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD307B-0.0-0.5	012	7	20201-231	0.93	0.0137	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD324-0.0-0.5	013	7	20201-232	0.11	0.0011	0.1	mg/L as N	10/21/10 1030	10/27/10

TASK: Pore Water Ammonia Summary
METHOD: SM 4500-NH3 G

Field ID	Sample Number	Day	LAB ID	AMMONIA TOTAL	AMMONIA UNIONIZED	QLIMIT	UNITS	SAMPLED	ANALYZED
GC-SD321-0.0-0.5	014	7	20201-233	0.61	0.0040	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD319-0.0-0.5	015	7	20201-234	0.79	0.0089	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD318-0.0-0.5	016	7	20201-235	0.35	0.0048	0.1	mg/L as N	10/21/10 1030	10/27/10
GC-SD310-0.0-0.5	017	7	20201-236	ND	0.0005	0.1	mg/L as N	10/21/10 1030	10/27/10
Laboratory Control	000	14	20201-319	2.7	0.0073	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD326-0.0-0.5	001	14	20201-320	0.38	0.0012	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD328-0.0-0.5	002	14	20201-321	0.64	0.0067	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD330-0.0-0.5	003	14	20201-322	4.2	0.0272	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD333-0.0-0.5	004	14	20201-323	0.16	0.0008	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD329-0.0-0.5	005	14	20201-324	ND	0.0007	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD303-0.0-0.5	006	14	20201-325	0.93	0.0071	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD307A-0.0-0.5	007	14	20201-326	0.27	0.0029	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD309-0.0-0.5	008	14	20201-327	ND	0.0003	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD313-0.0-0.5	009	14	20201-328	ND	0.0006	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD314-0.0-0.5	010	14	20201-329	ND	0.0006	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD315-0.0-0.5	011	14	20201-330	ND	0.0007	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD307B-0.0-0.5	012	14	20201-331	ND	0.0008	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD324-0.0-0.5	013	14	20201-332	ND	0.0008	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD321-0.0-0.5	014	14	20201-333	0.48	0.0036	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD319-0.0-0.5	015	14	20201-334	0.77	0.0113	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD318-0.0-0.5	016	14	20201-335	0.38	0.0047	0.1	mg/L as N	10/28/10 1000	11/01/10
GC-SD310-0.0-0.5	017	14	20201-336	0.42	0.0031	0.1	mg/L as N	10/28/10 1000	11/01/10
Laboratory Control	000	21	20201-419	2.3	0.0076	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD326-0.0-0.5	001	21	20201-420	0.34	0.0011	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD328-0.0-0.5	002	21	20201-421	ND	0.0005	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD330-0.0-0.5	003	21	20201-422	4.3	0.0311	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD333-0.0-0.5	004	21	20201-423	ND	0.0003	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD329-0.0-0.5	005	21	20201-424	ND	0.0009	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD303-0.0-0.5	006	21	20201-425	0.58	0.0046	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD307A-0.0-0.5	007	21	20201-426	ND	0.0005	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD309-0.0-0.5	008	21	20201-427	0.67	0.0021	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD313-0.0-0.5	009	21	20201-428	ND	0.0005	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD314-0.0-0.5	010	21	20201-429	ND	0.0007	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD315-0.0-0.5	011	21	20201-430	ND	0.0008	0.1	mg/L as N	11/04/10 1000	11/09/10

TASK: Pore Water Ammonia Summary
METHOD: SM 4500-NH3 G

Field ID	Sample Number	Day	LAB ID	AMMONIA TOTAL	AMMONIA UNIONIZED	QLIMIT	UNITS	SAMPLED	ANALYZED
GC-SD307B-0.0-0.5	012	21	20201-431	0.46	0.0050	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD324-0.0-0.5	013	21	20201-432	ND	0.0005	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD321-0.0-0.5	014	21	20201-433	0.54	0.0036	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD319-0.0-0.5	015	21	20201-434	0.73	0.0065	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD318-0.0-0.5	016	21	20201-435	0.14	0.0008	0.1	mg/L as N	11/04/10 1000	11/09/10
GC-SD310-0.0-0.5	017	21	20201-436	0.47	0.0033	0.1	mg/L as N	11/04/10 1000	11/09/10
Laboratory Control	000	28	20201-519	3.5	0.0127	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD326-0.0-0.5	001	28	20201-520	0.23	0.0012	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD328-0.0-0.5	002	28	20201-521	0.1	0.0007	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD330-0.0-0.5	003	28	20201-522	4.4	0.0247	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD333-0.0-0.5	004	28	20201-523	0.2	0.0015	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD329-0.0-0.5	005	28	20201-524	0.8	0.0062	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD303-0.0-0.5	006	28	20201-525	0.79	0.0053	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD307A-0.0-0.5	007	28	20201-526	ND	0.0004	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD309-0.0-0.5	008	28	20201-527	0.8	0.0032	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD313-0.0-0.5	009	28	20201-528	ND	0.0005	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD314-0.0-0.5	010	28	20201-529	ND	0.0006	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD315-0.0-0.5	011	28	20201-530	ND	0.0006	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD307B-0.0-0.5	012	28	20201-531	0.45	0.0033	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD324-0.0-0.5	013	28	20201-532	0.18	0.0011	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD321-0.0-0.5	014	28	20201-533	0.47	0.0032	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD319-0.0-0.5	015	28	20201-534	0.69	0.0052	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD318-0.0-0.5	016	28	20201-535	0.36	0.0024	0.1	mg/L as N	11/11/10 0715	11/12/10
GC-SD310-0.0-0.5	017	28	20201-536	0.27	0.0014	0.1	mg/L as N	11/11/10 0715	11/12/10

Day 0 Pore Water Quality

Study Number:	Client:	Project:
20201	HDR Engineering, Inc.	Gowanus Canal Superfund Site

Sample Number	Temperature	pH value
-000 (A)	26° C	6.42
-001		6.67
-002		6.92
-003		7.02
-004		6.55
-005		6.79
-006		7.17
-007		7.33
-008		7.19
-009		7.60
-010		7.43
-011		7.56
-012		7.55
-013		7.03
-014		6.94
-015		7.30
-016		7.40
-017		7.09

Date: 10/14/10 pH Meter ID: AB-15

Initial: JTP

-000 (B) 26° C 6.94

Day 7 Pore Water Quality

Study Number:	Client:	Project:
20201	HDR Engineering, Inc.	Gowanus Canal Superfund Site

Sample Number	Temperature	pH value
-000A	26°C	6.54
-001		6.95
-002		7.30
-003		7.11
-004		6.65
-005		7.04
-006		7.05
-007		7.34
-008		7.11
-009		7.38
-010		7.37
-011		7.48
-012		7.39
-013		7.21
-014		7.03
-015		7.27
-016		7.36
-017		7.20
Date: 10/21/10	pH Meter ID: AB-15	
Initial: JTP		
-000B	26°C	7.15

Day 14 Pore Water Quality

Study Number:	Client:	Project:
20201	HDR Engineering, Inc.	Gowanus Canal Superfund Site

Sample Number	Temperature	pH value
-000 A	26° C	6.65
-001		6.72
-002		7.24
-003		7.03
-004		6.92
-005		7.37
-006		7.10
-007		7.25
-008		6.96
-009		7.29
-010		7.33
-011		7.35
-012		7.40
-013		7.40
-014		7.10
-015		7.39
-016		7.31
-017	↓	7.09

Date: 10/28/10 pH Meter ID: AB-15

Initial: JTP

-000B 26° C 7.25

Day 21 Pore Water Quality

Study Number:	Client:	Project:
20201	HDR Engineering, Inc.	Gowanus Canal Superfund Site

Sample Number	Temperature	pH value
-000	24	6.80
-001	↓	6.78
-002		7.27
-003		7.14
-004		7.08
-005		7.54
-006		7.18
-007		7.27
-008		6.77
-009		7.31
-010		7.42
-011		7.46
-012		7.32
-013		7.25
-014		7.10
-015		7.23
-016		7.05
-017	↓	7.12

Date: 11/04/10 pH Meter ID: AB-15

Initial: AM

Day 28 Pore Water Quality

Study Number:	Client:	Project:
20201	HDR Engineering, Inc.	Gowanus Canal Superfund Site

Sample Number	Temperature	pH value
-000 A	23	6.87
-001		7.03
-002		7.13
-003		7.06
-004		7.19
-005		7.20
-006		7.14
-007		7.25
-008		6.91
-009		7.32
-010		7.37
-011		7.38
-012		7.18
-013		7.08
-014		7.15
-015		7.19
-016		7.13
-017		7.02

Date: 11/1/10 pH Meter ID: AB-15, T-239

Initial: AM

Lab QC 23 7.22

1300 Blue Spruce Drive, Suite C
Fort Collins, Colorado 80524

Toll Free: 800/331-5916
Tel: 970/484-5091 Fax:970/484-2514

Rec'd 10/13/10

ORGANISM HISTORY

DATE: 10/12/10

SPECIES: *Leptocheirus plumulosus*

AGE: 2-3 week

LIFE STAGE: Juvenile

HATCH DATE: Variable

BEGAN FEEDING: Immediately

FOOD: Flake Slurry

Water Chemistry Record:	Current	Range
TEMPERATURE:	25°C	21-24°C
SALINITY/CONDUCTIVITY:	21 ppt	16-21 ppt
TOTAL HARDNESS (as $CaCO_3$):	--	--
TOTAL ALKALINITY (as $CaCO_3$):	105 mg/l	95-180 mg/l
pH:	8.17	7.40-8.45

Comments:

Facility Supervisor

Pre-Assay Monitoring
Leptocheirus plumulosus
28 Day Sediment Assay

Study: 20201	Client: HDR Engineering, Inc.		Project: Gowanus Canal Superfund Site	
Day	**Date**	**Renewed**	**Initial**	**Pore water NH3 Measured**
1	9/25/10	✓	KC	—
2	9.26.10	✓	DM	—
3	9/27/10	✓	AM/JTP	—
4	9/28/10	✓	AM/JTP	—
5	9/29/10	✓	AM/JTP	—
6	9/30/10	✓	AM/JTP	—
7	10/1/10	✓	AM	—
8	10/2/10	✓	KC	—
9	10.3	✓	DM	—
10	10/4/10	✓	JTP/AM	—
11	10/5/10	✓	AM	—
12	10/6/10	✓	JTP	✓
13	10/7/10	✓	JTP	—
14	10/8/10	✓	JTP	—
Notes:	25 °C	20 ppt	One volume addition daily	

Pre-Assay Monitoring
Leptocheirus plumulosus
28 Day Sediment Assay

Study: 20201	Client: HDR Engineering, Inc.		Project: Gowanus Canal Superfund Site	
Day	**Date**	**Renewed**	**Initial**	**Pore water NH3 Measured**
15	10/9/10	✓	MC	—
16	10/10/10	✓	JC	—
17	10/11/10	✓	JTP	—
18	10/12/10	✓	JTP/AM	—
19	10/13/10	✓	JTP	—
20				
21				
22				
23				
24				
25				
26				
27				
28				
Notes:	25 °C	20 ppt	One volume addition daily	

Appendix K
Ecological Risk Assessment

Contents

Combined Screening-Level and Baseline Ecological Risk Assessments, Gowanus Canal

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SECTION 1

Introduction

This report presents the results of a combined Screening-Level Ecological Risk Assessment (SLERA) and Baseline Ecological Risk Assessment (BERA) for the Gowanus Canal Superfund Site, Brooklyn, New York. The assessments were conducted consistent with USEPA (1992, 1997, 1998) guidance.

The objectives of the SLERA are to

- Conduct a preliminary problem formulation that…
  - Describes the environmental setting at the site with an emphasis on ecological receptors
  - Describes the fate and transport pathways present at the site
  - Develops an ecological conceptual site model (CSM) for exposure pathways for ecological receptors
  - Identifies preliminary assessment and measurement endpoints
- Conservatively assess risks to ecological receptors from identified contaminants detected in environmental media through contaminant identification, exposure assessment, toxicity assessment, and risk characterization
- Identify contaminants of potential concern (COPCs) that exist as a result of historical operations and that may require further, more detailed evaluation

Based on the outcome of the SLERA, the problem formulation was refined and the BERA then evaluated additional data and conducted additional analyses to refine estimates of risk to ecological receptors at the site.

The combined SLERA and BERA completes Steps 1 and 7 of the eight-step Ecological Risk Assessment (ERA) process as provided by USEPA (1997) Ecological Risk Assessment Guidance for Superfund (ERAGS) and its updates.

Results of the ERA will be used to determine if chemicals present from historical site operations represent a risk to ecological receptors and to provide information that is necessary to make risk management decisions for the site, which completes Step 8 of the ERA process.

This report comprises the following sections:

- **Section 2—Preliminary Problem Formulation.** Provides an overview of the site activities, setting, and the habitats; develops a preliminary conceptual site model; identifies specific groups of organisms and endpoints for evaluation in the ERA; and summarizes the data that are used in the ERA to evaluate the potential for adverse effects to ecological receptors.

- **Section 3—Screening-Level Assessment.** Establishes chemical exposure levels (screening values) for the potential ecological receptors identified for evaluation in the SLERA**.** Identifies the analytical data available for ecologically relevant media, data groupings, and exposure models that are used to estimate the potential exposure of ecological receptors to site-related chemicals.
- **Section 4—Screening-Level Risk Outcomes.** Characterizes potential risk using conservative evaluation assumptions, consistent with the objectives of the SLERA. The outcome of this step is an initial list of COPCs for each medium-pathway-receptor combination identified for evaluation in the SLERA.
- **Section 5—Baseline Ecological Risk Assessment: Approach to Refining Risks.** Summarizes the additional data and refinements that are used to further evaluate and refine estimates of risk to ecological receptors potentially occurring at the site.
- **Section 6—Baseline Ecological Risk Assessment: Refined Risk Evaluation.** Evaluates additional site-specific data along with revised risk model calculations and additional site-specific considerations to provide a more refined and realistic estimate of risk to ecological receptors. The outcome of this step is a final list of constituents of concern (COCs) for each medium-pathway-receptor combination evaluated in the ERA.
- **Section 7—Uncertainties.** Identifies key uncertainties associated with the evaluation of ecological risk at the site and the potential impact of those uncertainties on the risk estimate.
- **Section 8—Risk Summary and Conclusions.** Provides a final summary and conclusion of risks to ecological receptors at the site.

SECTION 2

Preliminary Problem Formulation

The products of the preliminary problem formulation are (1) the preliminary CSM and (2) the assessment and measurement endpoints. The preliminary problem formulation is broken into three sections. Section 2.1 presents information pertaining to the environmental setting being assessed, including an overview of the site, surrounding land use, and onsite habitats and biota. Section 2.2 develops a preliminary CSM, discussing the potential sources of chemicals and the pathways and routes by which ecological receptors could be exposed to chemicals. Section 2.3 identifies specific groups of organisms (receptors) and the endpoints that are evaluated in this ERA. Endpoints for evaluation are then selected on the basis of the key receptors and complete exposure pathways identified in the CSM. Assessment endpoints are identified that define the ecological attributes that are the focus of the ERA while measurement endpoints characterize how they are assessed.

2.1 Environmental Setting

The following summarizes the environmental setting of the Gowanus Canal and surrounding area. A more detailed description of the site and historic investigations can be found in the remedial investigation (RI) (Sections 1.3 and 1.4, respectively).

2.1.1 Location and Background

The Gowanus Canal is located in the New York City borough of Brooklyn, Kings County, New York. The Gowanus Canal is 100 feet wide, 1.8 miles long, and is connected to the Gowanus Bay in the Upper New York Bay. The canal study area is shown in Figure 1-1 of the RI. The canal is bordered by several residential neighborhoods, including Park Slope, Cobble Hill, Carroll Gardens, and Red Hook. The adjacent waterfront is primarily commercial and industrial, and facilities bordering the canal include concrete plants, warehouses, and parking lots. An active scrap metal recycling facility is located between 9th Street and the Gowanus Expressway/Hamilton Avenue, where barges are loaded with recyclable metals and shipped out of the canal. A sand-and-gravel business also operates just below the Gowanus Expressway/Hamilton Avenue ridge. Five east–west bridges cross the canal, at Union Street, Carroll Street, Third Street, Ninth Street, and Hamilton Avenue. The Gowanus Expressway and an aboveground section of the subway system pass overhead at the Hamilton Avenue bridge crossing, near the mouth of the canal.

The Gowanus Canal was completed in the 1860s and was originally built to allow water access for industrial needs. The canal was constructed by bulkheading and dredging a tidal creek and wetland, and it quickly became one of the nation's busiest industrial waterways and a home to heavy industry. Throughout its history, the Gowanus Canal has supported the activities of numerous industries, including gas works, coal yards, cement makers, soap makers, tanneries, paint and ink factories, machine shops, chemical plants, and oil refineries. The canal has also received discharges of untreated industrial wastes, raw sewage, and surface water runoff for many decades. Although much of the industrial activity along the

canal has stopped, the canal still annually receives 377 million gallons of discharge during storm events from 11 combined sewer overflow (CSO) pipes (CNYDEP, 2008).

2.1.2 Onsite Habitats and Biota

The Gowanus Canal is part of the New York–New Jersey Estuary, which the USEPA has designated as an Estuary of National Significance. Habitats in the Gowanus Canal have been significantly influenced by surrounding industries and historic development activities. No areas of natural shoreline, wetlands, or natural upland areas are located within or adjacent to the water body (CNYDEP, 2008). The entire length of the Gowanus Canal is bordered by wooden piers, bulkheads, concrete walls, and large boulders used for bank stabilization. The adjacent upland and areas bordering the canal thus provide minimal habitat for wildlife.

The City built a "flushing tunnel" in 1911 to pump fresh water from the Buttermilk Channel into the upper reaches of the Gowanus Canal. The purpose of the tunnel is to replace stagnant canal water with fresh, oxygen-rich water to improve water quality. The tunnel was in operation until the 1960s, when a mechanical failure caused it to be shut down, and the canal became stagnant once again. The New York City Department of Environmental Protection (NYCDEP) restored water flow through the tunnel in 1999. The flushing tunnel was taken offline again on July 19, 2010, and will be shut down for several years for repairs. The NYCDEP installed a system to oxygenate surface waters while the flushing tunnel is being repaired.

There are no significant colonies of rooted aquatic vegetation within the Gowanus Canal (CNYDEP, 2008). Rooted plants were not observed in the canal in 2010 during the Phase 3 sampling event. These observations are consistent with the NYSDEC tidal wetlands maps, which designate the entire water body as a littoral zone, which is a shallow-water habitat that does not include coastal fresh marsh, intertidal marsh, or other types of vegetative wetland designation and are also consistent with what is expected in this water body given the large tidal fluctuations and high degree of turbidity, which would prevent sunlight penetration.

The most abundant invertebrates in Gowanus Canal are annelid worms (polychaetes and oligochaetes), followed by amphipods and small mollusks (CNYDEP, 2008). Several other studies (Sunset Energy Fleet, 2002; USACE, 1998; Hazen and Sawyer, 2001) have similarly shown the dominance of polychaetes and oligochaetes in the Gowanus Canal and/or Upper New York Bay. A variety of epibenthic organisms (i.e., organisms attached to underwater structures and surfaces) occurs in the Gowanus Bay and has also been found in Gowanus Canal including "sea grapes" (*Molgula manhattensis*), barnacles (*Balanus sp.*), blue mussels (*Mytilus edulis*), clam worms (*Nereis succinea*), amphipods (*Leptocheirus pinguis*), blue crab (*Callinectes sapidus*), and spider crab (*Libinia emarginata*) (CNYDEP, 2008).

The reactivation of the flushing tunnel in 1999 improved the diversity and abundance of zooplankton and other planktonic organisms in the water column (CNYDEP, 2008). Prior to reactivation, over 92 percent of all organisms collected in the canal were copepods (*Acartia spp.*), whereas following reactivation, less than 45 percent of all organisms were copepods (CNYDEP, 2008). There was a greater diversity of organisms and a more even distribution of those organisms within the canal.

The most frequently caught fish species from a NYCDEP trawl survey conducted in 2001 within the Gowanus Canal and the adjacent Gowanus Bay were Atlantic menhaden, blueback herring (*Alosa aestivalis*), bay anchovy, bluefish (*Pomatomus saltatrix*), striped bass (*Morone saxatilis*), winter flounder, weakfish (*Cynoscion regalis*), and scup (*Stenotomus chrysops*) (CNYDEP, 2008). Smaller bodied species caught in ichthyoplankton tows, included blennies (*Blennidae*), rock gunnel (*Pholis gunnelus*), mackerel (*Scomberomorus sp*.), killies (*Cyprinodontidae*), and silver perch (*Bairdiella chrysoura*). Some species (blueback herring, scup, winter flounder, and windowpane flounder) use these water bodies in spring, whereas the young-of-the-year of these species and others are abundant during summer (CNYDEP, 2008).

Fish species collected from the Gowanus Canal in fall 2010 during the Phase 3 study area consist of smaller bodied fish species including Atlantic tomcod (*Microgadus tomcod*), mummichog (*Fundulus heteroclitus*), three-spined stickleback (*Gasterosteus aculeatus*), and rock gunnel (*Pholis gunnellus*), larger fish species including American eel (*Anguilla rostrata*), striped bass (*Morone saxatilis*), tautog (*Tautoga onitis*), white perch (*morone americana*), and winter flounder (*Pseudopleuronectes americanus*). Although the objective of the Phase 3 study was to collect fish tissue for chemical residue analysis and not to conduct a quantitative population survey, the collection of these species provides additional information about the fish species that were present in the canal and the immediately surrounding area in fall 2010.

Fourteen taxa of fish eggs and/or larvae were identified in Gowanus Canal and Bay during NYCDEP's Harbor-Wide Ichthyoplankton Field Sampling Analysis Program (FSAP) in 2001 (CNYDEP, 2008). The most commonly found species were winter flounder (*Pseudopleuronectes americanus*) larvae, windowpane flounder (*Scophthalmus aquosus*) eggs and larvae, wrasse (*Labridae*) family eggs and larvae, bay anchovy (*Anchoa mitchelli*), menhaden (*Brevoortia sp*.) eggs, and naked goby (*Gobiosoma bosc*) eggs and larvae. Ichthyoplankton sampling results in Gowanus Canal near Hamilton Avenue from March 2001 showed results similar to those of NYCDEP's harbor-wide study.

Among the fish species found in New York Harbor, many are migratory, seasonally transient or moving daily as part of their normal behavior in pursuit of food (CNYDEP, 2008). The Gowanus Canal has very limited physical habitat diversity and is not expected to support a diverse fish community. Many species may occur in the canal as they pass through as part of their movement patterns, but few are likely to remain in substantial numbers.

The Gowanus Canal would not support mammalian wildlife species that forage in or otherwise utilize aquatic habitats. This is due to a lack of usable bank habitat and the precipitous drop off from piers, bulkheads, docks or concrete walls along the canal, which would negate any access by mammals (CNYDEP, 2008). Consistent with this conclusion is that no mammalian wildlife was observed in fall 2010 during the Phase 3 study.

Based on the lack of shoreline habitat, the highly urbanized nature of the surrounding area, and the limited prey within this aquatic habitat, a very limited diversity and abundance of avian wildlife would make use of the canal habitat. A few swimming birds, including the double crested cormorant *(Phalacrocorax auritus)* and dabbling ducks, including the black duck (*Anas rubripes),* were observed in the canal during the Phase 3 sample event. These

species are able to use the canal because they can access the water directly and do not rely on shoreline or shallow water habitat. A black crowned night heron (*Nycticorax nycticorax*) and a great blue heron *(Ardea herodias*) were also observed during the Phase 3 sampling event. The great blue heron was observed standing in a very shallow, depositional area of the canal, though the water depth throughout most of the canal is too great to support such wading species. Avian species such as shorebirds and species that are not adapted to highly urbanized habitats or to water bodies lacking shoreline/marsh habitats would not be expected to occur frequently within the Gowanus Canal.

2.1.3 Endangered Species, Threatened Species, and Species of Special Concern

Federal and state-listed species of special concern potentially occurring in the vicinity of the Gowanus Canal were identified by searching online databases and resources available through the U.S. Fish and Wildlife Service, New York State Department of Environmental Conservation (NYSDEC), and the New York Natural Heritage Program. The results of these searches are provided in Attachment A.

The results of the initial search were reviewed to identify only federal and state-listed species of special concern that occur in brackish water habitats in the New York Harbor Estuary and that could occur in aquatic habitats within the vicinity of the Gowanus Canal (Table 2-1). Among the aquatic species identified by this search, the federal and state-listed endangered shortnose sturgeon (*Acipenser brevirostrum*) is the only threatened or endangered fish species with potential to occur in the Gowanus Canal (Table 2-1). However, while this anadromous fish can be found throughout the Hudson River system, if present, it is likely to only occur for a brief period at the mouth of the Gowanus Canal while migrating to or from its preferred spawning, nursery, and overwintering areas in the Hudson River. The shortnose sturgeon is not expected to spend any significant time in the Gowanus Canal.

Five reptile species were identified as potentially occurring in brackish water habitats in and around the New York Harbor Estuary. Four species of marine turtles, all state and federally listed, are found in the waters surrounding New York City: loggerhead (*Caretta caretta*), green (*Chelonia mydas*), leatherback (*Dermochelys coriacea*), and Atlantic (Kemps) ridley (*Lepidochelys kempii*) (Table 2-1). Juvenile Atlantic ridley and adult loggerhead turtles regularly enter the New York Harbor and bays in the summer and fall. The other two turtle species may enter the higher salinity areas of the New York Harbor Estuary (USFWS, 1997). However, these four turtle species mostly inhabit Long Island Sound and Peconic and Southern Bay and do not nest in the New York Harbor Estuary, nor reside there year-round. Based on their distribution and the limited habitat available, it is highly unlikely these sea turtle species would enter the Gowanus Canal. The northern diamondback terrapin (*Malaclemys t. terrapin*), an estuarine species that feeds and nests in salt marshes and adjacent upland, has been observed in the wetlands of Jamaica Bay (USFWS, 1997). This species would not be present in the Gowanus Canal due to the lack of salt marshes and natural shorelines and the limited resources available within the canal.

Eight avian species with federal or state endangered, threatened, or species of concern status were identified as potentially occurring in the aquatic habitats near the Gowanus Canal (Table 2-1). However, these species typically either reside in areas with sandy and/or marsh shoreline habitat [common tern (*Sterna hirundo*), least bittern (*Ixobrychus exilis*), least tern

(*Sterna antillarum*), pied-billed grebe (*Podilymbus podiceps*), roseate tern (*Sterna dougallii*), and upland sandpiper (*Bartramia longicauda*)] or forage in more open water areas [bald eagle (*Haliaeetus leucocephalus*), osprey (*Pandion haliaetus*), and peregrine falcon (*Falco peregrinus*)]. Peregrine falcons are known to occur in New York City, and could forage in areas around the Gowanus Canal, but none of these avian species would be expected to forage regularly in the habitat provided by the canal.

2.2 Conceptual Site Model

Available facility information and observations made by the Phase 3 field team during site visits in March–August 2010 were used along with historic site information for the development of the CSM. The following sections develop each component of the CSM consistent with USEPA guidance.

2.2.1 Source Areas

Chemicals have entered the Gowanus Canal from a variety of sources and pathways. Many of these pathways are associated with past industrial activities along the canal and include the following:

- Historic direct discharge of materials to surface water via industrial outfalls
- Direct release of materials to surface water from boats/barges and as a result of barge loading/offloading activities
- Leaching and runoff from surface soils and paved areas during storm events
- Leaching from contaminated subsurface soils and transport and discharge from contaminated groundwater

Industrial releases to the canal as a result of ongoing activities have been greatly reduced over the past several decades as a result of state and federal regulation, the City's Industrial Pretreatment Program, and a reduction in the level of industrial activity in the area surrounding the canal. However, there remains the potential for the continued release of chemicals to the canal as a result of historic site activities surrounding the canal and as a result of some continued industrial operations (e.g., barge/shipping activities). There remain 11 CSOs that continue to discharge untreated waste materials directly to the Canal during significant (at least 1/10 inch of rainfall) storm events. Finally, there is the potential for the continued release of chemicals into the Gowanus Canal from the adjacent Gowanus Bay as a result of tidal flux and from the Buttermilk Channel during operation of the flushing tunnel.

2.2.2 Contaminant Fate and Transport

Once released to surface water, the fate of the chemicals will be affected by a variety of environmental and physiochemical influences, including the mass of the chemical, the distance from the source, chemical fate properties (e.g., biodegradability, solubility, and hydrophobicity), sediment type, and water velocity. Most chemicals would be diluted immediately following release to surface water. Volatile chemicals (e.g., volatile organic chemicals) would largely partition into the overlying air, while many soluble chemicals would remain in surface water as a dissolved fraction. Chemicals would also adsorb/absorb

to smaller particulates and remain suspended in surface water. A portion of the chemicals present in the water column may be transported from the canal and into the Upper Gowanus Bay.

Sediments represent a depositional "sink" and the highest concentrations of chemicals that have been released to the canal are likely to be present in sediment. Recalcitrant hydrophobic organic chemicals (e.g., polycyclic aromatic hydrocarbons, or PAHs), which tend to adhere/adsorb to organic materials, and metals precipitates are examples of the historically released chemicals that would be expected to be present at the highest concentrations in canal sediment. Based on the overall low energy of this aquatic environment, the Gowanus Canal is expected to be a depositional environment, where sediments will accrete and be buried over time. Following deposition, there is the potential for some chemicals in shallow sediments to partition back into surface water. There is also the potential for shallow sediments and associated chemicals to be remobilized to surface water by physical events, such as heavy storms, tidal fluctuations, and propeller wash. During this remobilization, a portion of the total chemical load may be re-exposed and/or move to upstream or downstream locations.

2.2.3 Exposure Pathways/Routes

Because of its highly urbanized location, the Gowanus Canal will provide habitat for a limited community of aquatic invertebrates, fish, and avian life. These receptors could be exposed to site-related chemicals via several exposure routes. Lower-trophic-level species, such as benthic macroinvertebrates, would have their greatest exposure through direct contact with chemicals in surficial sediment and sediment pore water. Fish and other water-column-dwelling aquatic life could be exposed to chemicals from direct exposure in surface water, from direct exposure to and ingestion of sediment, and from the ingestion of food items. Avian wildlife could be exposed to chemicals via several exposure routes, including the direct ingestion of chemicals in sediment, the ingestion of chemicals in prey, and the ingestion of surface water. The relative importance of these exposure routes depends on the specific receptor and chemical being evaluated. Dabbling ducks, for example, ingest a substantial amount of sediment while foraging, while sit-and-wait predators, such as heron, ingest only minimal amounts of sediment. For chemicals having the potential to bioaccumulate, the greatest exposure for wildlife is expected to be from the ingestion of prey. Although these receptors will intake water through incidental ingestion, water ingestion is expected to be minimal and to not represent an important exposure pathway due to the high salinity of this water body, which negates its use as a drinking water source. Figure 2-1 depicts the potentially complete exposure pathways and identifies specific receptor groups identified for evaluation in the ERA.

2.3 Receptors and Endpoints

The conclusion of the problem formulation stage includes the selection of assessment and measurement endpoints for evaluation. Endpoints define ecological attributes that are to be protected (assessment endpoints) and measurable characteristics of those attributes (measurement endpoints) that are used to gauge the degree of impact that has or could occur. Assessment endpoints relate to attributes of biological populations or communities and are intended to focus the risk assessment on particular components of the ecosystem that could be adversely affected by contaminants from the site (USEPA, 1997). Assessment

endpoints contain an entity, which is often represented by a guild in the site ecosystem (e.g., avian omnivores) and ecologically relevant attributes of that entity (e.g., survival rate and/or reproduction).

Because of the complexity of natural systems, it is generally not possible to directly assess potential impacts to all ecological receptors present within an area. Therefore, receptor species (e.g., heron) or species groups (e.g., benthic macroinvertebrates) were selected as surrogates to represent the broader components of the ecological community (e.g., guilds such as avian omnivores) identified in the assessment endpoints. Species selected as surrogates typically have the following characteristics:

- Are known to occur, or are likely to occur, at the site
- Have a particular ecological, economic, or aesthetic value
- Are representative of taxonomic groups, life history traits, and/or trophic levels in the habitats present at the site for which complete exposure pathways are likely to exist
- Can be expected, because of toxicological sensitivity or potential exposure magnitude, to represent potentially sensitive populations at the site

Based on information available about the habitat and ecological species and chemicals present at the Gowanus Canal, the following assessment point/receptor combinations were selected for evaluation in the ERA:

- **Survival and reproduction of benthic macroinvertebrate communities.** Benthic macroinvertebrates serve as a forage base for many aquatic and semiaquatic species. Benthic macroinvertebrates also play an important role in the processing and breakdown of organic matter in aquatic systems. Sediment-dwelling benthic invertebrates have potential to be exposed to chemicals in sediment because they have direct contact with sediment particulates and surrounding pore water, and many species ingest a significant amount of sediment. A population of benthic macroinvertebrates that is limited by chemical concentrations at the site would support lower populations of fish, aquatic birds, and mammals that forage on these invertebrates.

  Given the broad-based nature of benthic macroinvertebrate community and the available toxicity screening values, coupled with the objective of evaluating the condition of the overall benthic community, no specific benthic macroinvertebrate species was selected for evaluation. Instead, the benthic macroinvertebrate community was identified as the surrogate for evaluation.

- **Survival and reproduction of water-column-dwelling aquatic life communities.** Water-column-dwelling aquatic life would be exposed to chemicals in surface water by direct contact, respiration, and ingestion of surface water.

  Given the broad-based nature of the toxicity screening values for water-column-dwelling aquatic life and the objective of evaluating the condition of this community, no specific water-column-dwelling aquatic species was selected for evaluation. Instead, the water-column-dwelling aquatic community as a whole was identified as the surrogate for evaluation.

- **Survival and reproduction of avian aquatic herbivores.** Although rooted aquatic vegetation was not observed in the Gowanus Canal, there is algal growth on the canal walls and in the sediments along shallower portions of the canal. Herbivorous avian species could be exposed to chemicals via the ingestion of plant materials that have accumulated these chemicals. Black duck (*Anas rubripes*) was chosen to represent the avian aquatic herbivore. Although the black duck ingests food items (e.g., insects, worms) in addition to plant materials, it was selected as the representative herbivore because a large proportion of its diet is composed of plant materials, and it has been observed foraging in the canal.
- **Survival and reproduction of avian aquatic omnivores.** These receptors could be exposed to chemicals that have bioaccumulated in both fish and aquatic invertebrate tissues. Green heron (*Butorides virescens*) was chosen to represent this endpoint because they have been observed in the canal and have potential to prey upon aquatic invertebrates (e.g., crabs), in addition to fish.
- **Survival and reproduction of avian aquatic piscivores.** These receptors are top-level consumers and could be exposed to bioaccumulative chemicals, especially those that could biomagnify through the aquatic food web. The double-crested cormorant (*Phalacrocorax auritus*) was chosen to represent this endpoint, based on the expectation that it could occur at the site and ingests primarily fish.

The following measurement endpoints were identified based on the assessment endpoints selected for evaluation:

- **Survival and reproduction of benthic macroinvertebrate communities.** Assessed by comparing medium-specific site concentrations to sediment benchmarks, evaluating site-specific chronic sediment bioassay outcomes, and comparing benthic invertebrate (crab) site tissue concentrations to applicable tissue residue benchmarks.
- **Survival and reproduction of water-column-dwelling aquatic life communities.** Assessed by comparing medium-specific site concentrations to surface water benchmarks and comparing fish site tissue concentrations to applicable tissue residue benchmarks.
- **Survival and reproduction of wildlife (avian aquatic herbivores, omnivores, and piscivores).** Assessed by comparing modeled exposure doses to dose-based ecological screening values.

Table 2-2 summarizes the receptor-specific exposure pathways, assessment endpoints, and measurement endpoints selected for evaluation in the ERA. The assessment endpoint for most receptor groups references an impact on survival and/or reproduction, as these represent ecologically relevant endpoints for these groups.

TABLE 2-1

Species of Special Concern Potentially Occurring in Aquatic Habitats Near the Gowanus Canal

Gowanus Canal Remedial Investigation

Brooklyn, New York

Common Name	Species Name	FE	FT	FS	SE	ST	SC	Notes
Fish								
Atlantic sturgeon	*Acipenser brevirostrum*	X			X			
Reptiles								
Atlantic (Kemp's) ridley sea turtle	*Lepidochelys kempii*	X			X			
Atlantic hawksbill sea turtle	*Eretmochelys imbricata*				X			
Diamondback terrapin	*Maclemys t. terrapin*			X				
Leatherback sea turtle	*Dermochelys coriacea*				X			
Loggerhead sea turtle	*Caretta caretta*		X			X		
Birds								
Bald eagle	*Haliaeetus leucocephalus*					X		
Common tern	*Sterna hirundo*					X		
Least bittern	*Ixobrychus exilis*						X	
Least tern	*Sterna antillarum*				X			
Osprey	*Pandion haliaetus*					X		
Peregrine falcon	*Falco peregrinus*	X			X			
Pied-billed grebe	*Podilymbus podiceps*					X		Recently confirmed
Roseate tern	*Sterna dougallii*	X			X			
Upland sandpiper	*Bartramia longicauda*						X	

Notes:

FE = Federal endangered
SE = State endangered
FT = Federal threatened
ST = State threatened
FS = Federal species of concern
SC = State species of concern

Sources:

USFWS. Species by County Report. Online search for Kings County on November 16, 2010.

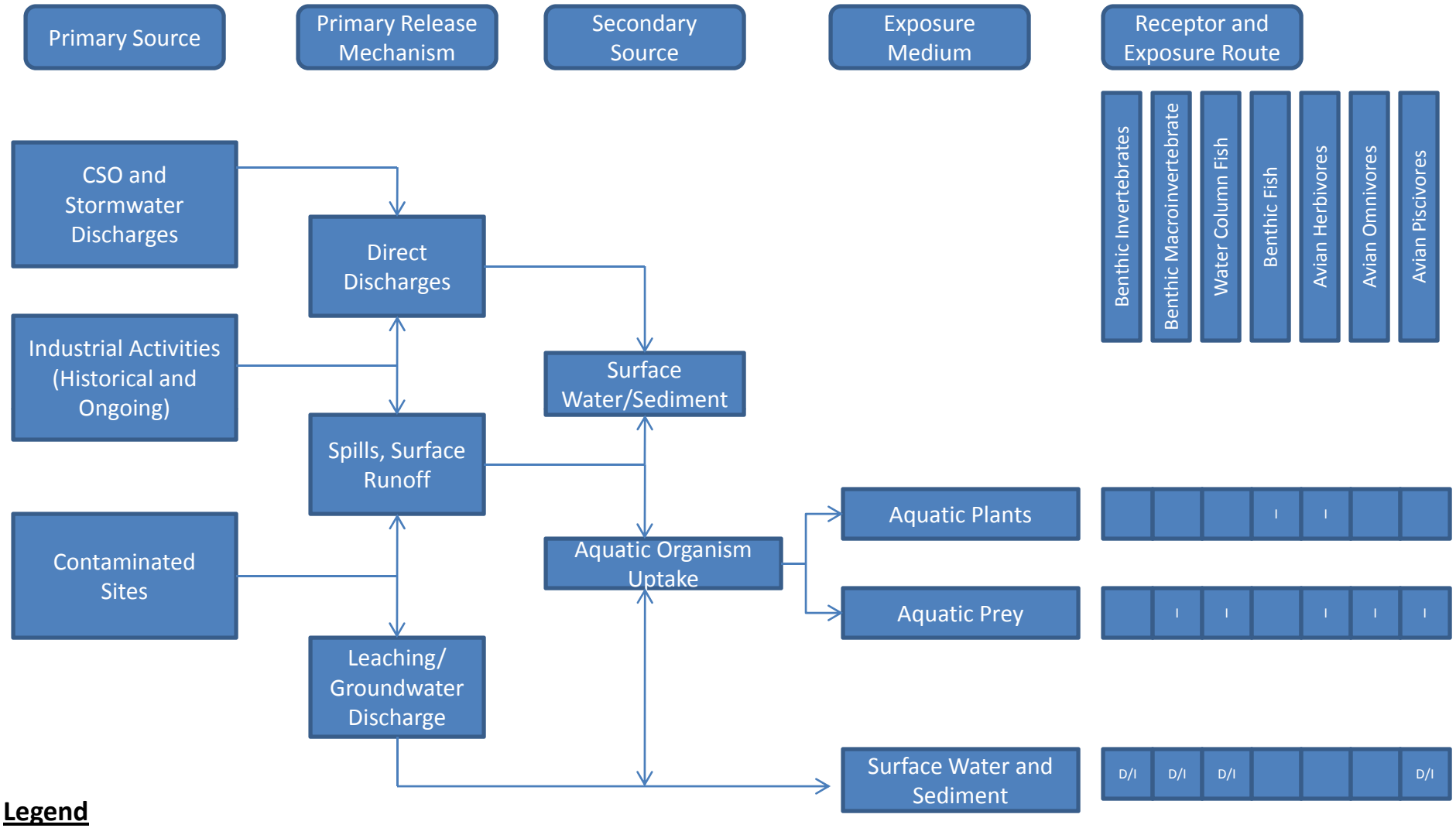
New York Heritage Program. New York Nature Explorer. Online search for Kings County on November 15, 2010.

NYDEC. List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State (http://www.dec.ny.gov/animals/7494.html)

USFWS. 1997. Significant Habitats and Habitat Complexes of the New York Bight Watershed, Jamaica Bay and Breezy Point.

TABLE 2-2
Exposure Pathways and Receptors Selected for Evaluation
Gowanus Canal Remedial Investigation
Brooklyn, New York

Receptor	Assessment Endpoint	Surrogate Organism	Pathway/Route Selected for Evaluation	Measurement Endpoint(s)
Aquatic Receptors				
Benthic macroinvertebrates	Survival and reproduction of benthic macroinvertebrate communities	Benthic macroinvertebrates - general	Direct exposure to chemicals in sediment	1. Comparison of the ratio of medium-specific site concentrations and ecological screening values for benthic macroinvertebrates to a reference hazard quotient of 1. 2. Evaluation of chronic sediment bioassay outcomes conducted with *L . plumulosus* and *N. virens* .
Water column-dwelling aquatic life	Survival and reproduction of water column-dwelling aquatic life communities	Aquatic life - multiple species	Direct exposure to constituents in surface water	1. Comparison of the ratio of medium-specific site concentrations and ecological screening values for water column-dwelling aquatic species to a reference hazard quotient of 1. 2. Comparison of the ratio of fish and crab tissue residue concentrations and ecological screening values for fish and decapod tissue concentrations to a reference hazard quotient of 1.
Avian aquatic herbivores	Growth, survival, and reproduction of avian aquatic herbivores	Black duck	Exposure to chemicals from the ingestion of chemicals accumulated in plant/food base (from surface water and sediment) and from the direct ingestion of chemicals in sediment	Comparison of the ratio of modeled exposure doses and dose-based ecological screening values for black duck to a reference hazard quotient of 1.
Avian aquatic omnivores	Survival and reproduction of avian aquatic omnivores	Green heron	Exposure to chemicals from the ingestion of chemicals accumulated in prey (from surface water and sediment) and from the direct ingestion of chemicals in sediment	Comparison of the ratio of modeled exposure doses and dose-based ecological screening values for green heron to a reference hazard quotient of 1.
Avian aquatic piscivores	Survival and reproduction of avian aquatic piscivores	Double-crested cormorant	Exposure to chemicals from the ingestion of chemicals accumulated in prey (from surface water and sediment) and from the direct ingestion of chemicals in sediment	Comparison of the ratio of modeled exposure doses and dose-based ecological screening values for double-crested cormorant to a reference hazard quotient of 1.



Legend

I = Ingestion

D = Direct Contact

Complete exposure pathways are indicated with a D and/or I shown in the receptor boxes. All other pathways were not evaluated due to lack of significance or adequate habitat. Empty boxes indicate incomplete pathways.

FIGURE 2-1

Conceptual Site Model for Pathways to Ecological Receptors

Gowanus Canal Remedial Investigation

Brooklyn, New York

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SECTION 3

Screening-Level Assessment

The following section discusses the approach for conducting the SLERA for Gowanus Canal. The SLERA represents a first evaluation of potential risks in the eight-step ERA process, the objective of which is to determine if there is a potential risk to ecological receptors under highly conservative assumptions. As discussed in Section 2.2, the SLERA evaluated potential risks to benthic macroinvertebrates and water-column-dwelling aquatic life using sediment and surface water chemical analytical data collected during the Phase 3 investigation. If a SLERA indicates no unacceptable potential for adverse effects to those receptors, the ERA process can be terminated at the end of the SLERA for those receptors, according to USEPA (1997) ERAGs. Otherwise, the evaluation of those receptors continues in the BERA. The remaining wildlife assessment endpoints were not considered in the SLERA, but were instead carried forward and directly evaluated in the BERA.

In this evaluation, potential risks were indicated in the SLERA for both benthic macroinvertebrates and water-column-dwelling aquatic life. The results of the SLERA are accordingly used to provide information about the chemicals indicating risks to those receptors. This information can be used, along with additional site-specific analyses, to further evaluate the potential for adverse effects to those receptors in the BERA.

3.1 Screening-Level Exposure Estimates

The screening-level exposure estimate summarizes the analytical data to be considered for use in the SLERA, the data groupings, and the exposure models and input parameters that are used to estimate the potential exposure of ecological receptors to chemicals at the site. As is consistent with the objectives of the SLERA, conservative assumptions were used in models estimating the potential exposure of ecological receptors to chemicals in the environment. Direct exposure of ecological receptors to chemicals in sediment and surface water is evaluated in the SLERA. The primary objective of the SLERA screening is to determine if these media represent a potential source of chemicals to the environment and the results of these screens can be used to further characterize potential chemical fate and transport pathways associated with the conceptual site model for the ERA.

3.1.1 Evaluated Analytical Data

Table 3-1 summarizes the site-specific Phase 3 sample data that were evaluated in the SLERA, along with the data groupings used for this evaluation. Given the CSM and receptors identified for evaluation, the SLERA focused on the evaluation of surface sediment (0 to 6 inches) and surface water chemistry data in the Gowanus Canal. The following subsections summarize the sediment and surface water data evaluated in the SLERA.

Sediment Chemistry

Surficial (0 to 6 inches) sediment samples collected from a total of 27 sample locations along the length of Gowanus Canal were placed into a single grouping for analysis. The locations

from which these samples were taken are shown in Figures 2a, 2b, and 2c of the RI. A detailed description of this sample event is presented in Section 2.3 of the RI. Subsurface sediments were not evaluated because the exposure of ecological receptors to subsurface sediment is expected to be minimal in this water body.

Surface Water Chemistry

Surface water collected from a 27 sample locations along the length of Gowanus Canal under different water flow conditions was placed into the following two groupings for analysis:

- Dry-weather event—sampling occurred at least 2 to 3 days after the previous storm event. The objective of the dry-weather event was to collect samples when there was no direct CSO input to the Gowanus Canal.
- Wet-weather event—sampling occurred after at least 1/10 inch rain fell with low-tide conditions, with samples collected between 3 to 6 hours after the start of the rainfall. The objective of the wet-weather event was to collect samples while the CSOs are active and discharging water to the Gowanus Canal.

3.1.2 Exposure Estimation

The following guidelines were used in the SLERA to estimate the potential direct exposure of ecological receptors:

- For each data group, the maximum detected chemical concentrations were used to conservatively estimate potential direct chemical exposures.
- For samples with duplicate analyses, the higher of the two concentrations was used to estimate exposure if both values are detects. In cases where one result is a detected concentration and the other a nondetect, the detected value was used in the screening.
- Nondetected chemicals were not screened in the SLERA, but were instead considered in the uncertainty section of the ERA (Section 7).

A summary of the maximum detected chemical concentrations detected in Gowanus Canal surface sediment (0 to 6 inches) is presented in Table 3-2. Summaries of the maximum detected chemical concentrations detected in Gowanus Canal surface water under dry and wet event sample conditions are presented in Tables 3-3 and 3-4, respectively.

3.2 Screening-Level Effects Evaluation

The purpose of the screening-level effects evaluation is to establish chemical exposure levels (screening values) that represent conservative thresholds for adverse ecological effects. Screening levels in this SLERA were developed to be protective of the selected ecological receptors from direct exposure to chemicals in sediment and surface water.

Media-specific screening values are designed to identify chemical concentrations that are protective of ecological receptors from direct exposure to chemicals in that media. Two categories of media-specific screening values were used in the SLERA to evaluate potential direct exposure risks to ecological receptors:

- Sediment screening benchmarks—used to screen the potential for adverse effects to benthic invertebrates from exposure to chemicals in sediment
- Water screening benchmarks—used to screen the potential for adverse effects to water-column-dwelling aquatic life from exposure to chemicals in surface water

The following subsections summarize the process used to select benchmarks for these media.

3.2.1 Sediment Screening Benchmarks

Several sources were considered when selecting sediment screening benchmarks for the evaluation of potential impacts to benthic macroinvertebrates. NYSDEC (1999) sediment criteria were used for screening, when available. Some of the organic chemical screening benchmarks selected from this guidance for use in the ERA were based on equilibrium partitioning, which required the organic carbon content of the sediment to be estimated to derive the ecological screening benchmark. For the purposes of this evaluation, a sediment total organic carbon content of 2 percent was conservatively assumed. The measured organic carbon concentrations in the Phase 3 surface sediment samples were higher (range: 0.2 percent to 14 percent; mean: 5.4 percent), and use of the 2 percent sediment total organic carbon content therefore would result in a conservative screening value.

In the absence of applicable values from the NYSDEC, a broader range of sources was reviewed to identify additional screening values. Values from the following additional sources were used for screening:

- Effects Range—Low (ER-L) values from Long and Morgan (1991);
- Threshold Effects Level (TEL) values from MacDonald (1994); and
- Marine Sediment Quality Standards from the Washington Department of Ecology (WDOE, 1995).

The lowest available value from the above sources was generally used for screening when a value was not available from NYSDEC (1999). A summary of the sediment screening benchmarks selected for use in the SLERA is presented in Table 3-5.

3.2.2 Surface Water Screening Benchmarks

National Recommended Water Quality Criteria (USEPA, 2009) saltwater chronic values were used when available as screening benchmarks to evaluate the potential for impacts to water-column-dwelling aquatic life. In the absence of these values, marine surface water chronic values reported in Buchman (2008) were used for screening. A summary of the surface water screening benchmarks selected for use in the SLERA is presented in Table 3-5.

3.3 Screening-Level Risk Calculation

Maximum detected chemical concentrations (Section 3.1) were compared to the medium-specific screening values (Section 3.2) using a hazard quotient (HQ) approach to identify chemicals of potential concern (COPCs). HQs were calculated for each parameter by dividing the maximum detected concentration by the screening value. HQs greater than 1 were interpreted as indicating the potential for risk to ecological receptors, since the chemical exposure concentration exceeds a toxicity threshold represented by the screening

value. Chemicals were identified as COPCs if they were detected at concentrations exceeding screening values. Consistent with the conservative screening approach used in the SLERA, chemicals were also identified as COPCs if they were detected but lacked screening values. These chemicals were further discussed within the uncertainty section of the ERA (Section 7).

TABLE 3-1
Summary of Sample Data Evaluated in the ERA
Gowanus Canal Remedial Investigation
Brooklyn, New York

Sample ID	Location Code	Sample Date	Sampe Type	Depth (feet)	General Chemistry	Metals, Dissolved	Metals, Total	Metals, SEM	PCB Congeners	PCBs	Pesticides	SVOCs	VOCs
Sediment (Canal)													
GC-SD301-0.0-0.5	301	06/23/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD302-0.0-0.5	302	06/17/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD303-0.0-0.5	303	06/17/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD304-0.0-0.5	304	06/17/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD305-0.0-0.5	305	06/17/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD306-0.0-0.5	306	06/17/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD307A-0.0-0.5	307A	06/17/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD307B-0.0-0.5	307B	06/18/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD308A-0.0-0.5	308A	06/23/10	N	0 - 0.5			x	x	x	x	x	x	x
D-062310-01	308A	06/23/10	FD	0 - 0.5			x		x	x	x	x	x
GC-SD308B-0.0-0.5	308B	06/24/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD309-0.0-0.5	309	06/18/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD310-0.0-0.5	310	06/24/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD311-0.0-0.5	311	06/23/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD312-0.0-0.5	312	06/23/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD313-0.0-0.5	313	06/18/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD314-0.0-0.5	314	06/18/10	N	0 - 0.5			x	x	x	x	x	x	x
D-06182010-01	314	06/18/10	FD	0 - 0.5			x		x	x	x	x	
D-06242010-01	314	06/18/10	FD	0 - 0.5									x
GC-SD315-0.0-0.5	315	06/18/10	N	0 - 0.5			x	x	x	x	x	x	x
D-06182010-02	315	06/18/10	FD	0 - 0.5			x		x	x	x	x	
GC-SD316-0.0-0.5	316	06/21/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD317-0.0-0.5	317	06/22/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD318-0.0-0.5	318	06/22/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD319-0.0-0.5	319	06/22/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD320-0.0-0.5	320	06/22/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD321-0.0-0.5	321	06/21/10	N	0 - 0.5			x	x	x	x	x	x	x
GC-SD322-0.0-0.5	322	06/22/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD323-0.0-0.5	323	06/22/10	N	0 - 0.5			x	x		x	x	x	x
GC-SD324-0.0-0.5	324	06/21/10	N	0 - 0.5			x	x	x	x	x	x	x
D-06212010-01	324	06/21/10	FD	0 - 0.5			x		x	x	x	x	x
GC-SD325-0.0-0.5	325	06/21/10	N	0 - 0.5			x	x	x	x	x	x	x
Surface Water, Canal (Dry Event)													
GC-SW301-0.5-DW	301	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW302-0.5-DW	302	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW303-0.5-DW	303	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW304-0.5-DW	304	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW305-0.5-DW	305	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW306-0.5-DW	306	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x

TABLE 3-1
Summary of Sample Data Evaluated in the ERA
Gowanus Canal Remedial Investigation
Brooklyn, New York

Sample ID	Location Code	Sample Date	Sampe Type	Depth (feet)	General Chemistry	Metals, Dissolved	Metals, Total	Metals, SEM	PCB Congeners	PCBs	Pesticides	SVOCs	VOCs
GC-SW307A-0.5-DW	307A	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW307B-0.5-DW	307B	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW308A-0.5-DW	308A	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW308B-0.5-DW	308B	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW309-0.5-DW	309	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW310-0.5-DW	310	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW311-0.5-DW	311	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW312-0.5-DW	312	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
D-06192010-02	312	06/19/10	FD	0.5 - 0.5		x	x			x	x	x	x
GC-SW313-0.5-DW	313	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW314-0.5-DW	314	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW315-0.5-DW	315	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW316-0.5-DW	316	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
D-06192010-03	316	06/19/10	FD	0.5 - 0.5		x	x			x	x	x	x
GC-SW317-0.5-DW	317	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW318-0.5-DW	318	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
D-06192010-04	318	06/19/10	FD	0.5 - 0.5		x	x			x	x	x	x
GC-SW319-0.5-DW	319	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW320-0.5-DW	320	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW321-0.5-DW	321	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW322-0.5-DW	322	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW323-0.5-DW	323	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW324-0.5-DW	324	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW325-0.5-DW	325	06/19/10	N	0.5 - 0.5	x	x	x			x	x	x	x
Surface Water, Canal (Wet Event)													
GC-SW301-0.5-WW	301	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW302-0.5-WW	302	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW303-0.5-WW	303	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
D-07132010-01	303	07/13/10	FD	0.5 - 0.5		x	x			x	x	x	x
GC-SW304-0.5-WW	304	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW305-0.5-WW	305	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW306-0.5-WW	306	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW307A-0.5-WW	307A	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW307B-0.5-WW	307B	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW308A-0.5-WW	308A	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW308B-0.5-WW	308B	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW309-0.5-WW	309	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW310-0.5-WW	310	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
D-07132010-02	310	07/13/10	FD	0.5 - 0.5		x	x			x	x	x	x
GC-SW311-0.5-WW	311	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW312-0.5-WW	312	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x

TABLE 3-1
Summary of Sample Data Evaluated in the ERA
Gowanus Canal Remedial Investigation
Brooklyn, New York

Sample ID	Location Code	Sample Date	Sampe Type	Depth (feet)	General Chemistry	Metals, Dissolved	Metals, Total	Metals, SEM	PCB Congeners	PCBs	Pesticides	SVOCs	VOCs
GC-SW313-0.5-WW	313	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW314-0.5-WW	314	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW315-0.5-WW	315	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW316-0.5-WW	316	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW317-0.5-WW	317	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW318-0.5-WW	318	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW319-0.5-WW	319	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
D-07132010-03	319	07/13/10	FD	0.5 - 0.5		x	x			x	x	x	x
GC-SW320-0.5-WW	320	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW321-0.5-WW	321	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW322-0.5-WW	322	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW323-0.5-WW	323	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
GC-SW324-0.5-WW	324	07/13/10	N	0.5 - 0.5	x	x	x			x	x	x	x
D-07132010-04	324	07/13/10	FD	0.5 - 0.5		x	x			x	x	x	x

Notes:
Sampe Type: N - Normal, environmental sample; FD - Field Duplicate
PCB - Polychlorinated Biphenyls
SVOC - Semivolatile Organic Compounds
VOC - Volatile Organic Compounds

TABLE 3-2
Screening Statistics - Gowanus Canal Surface Sediment (0-6") - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Volatile Organic Compounds (ug/kg)									
1,2-dichloroethane	6 / 27 (22.2%)	5.00 - 23.0	3.90 - 45.0	323	9.10	NSV	0 / 27	NSV	NSV
1,4-dichlorobenzene	3 / 26 (11.5%)	5.00 - 23.0	7.60 - 240	301	16.8	240	0 / 26	1.0	No
Acetone	11 / 27 (40.7%)	9.90 - 46.0	21.0 - 90.0	314	25.0	NSV	0 / 27	NSV	NSV
Benzene	4 / 27 (14.8%)	5.00 - 23.0	6.80 - 110	304	13.7	520	0 / 27	0.21	No
Carbon disulfide	9 / 27 (33.3%)	5.00 - 23.0	4.70 - 89.0	314	10.2	NSV	0 / 27	NSV	NSV
Chlorobenzene	1 / 27 (3.7%)	5.00 - 23.0	53.0 - 53.0	301	9.44	70	0 / 27	0.76	No
Cyclohexane	3 / 27 (11.1%)	5.00 - 23.0	8.00 - 14.0	304	7.86	NSV	0 / 27	NSV	NSV
Ethylbenzene	8 / 27 (29.6%)	5.00 - 23.0	5.30 - 3600	315	233	128	4 / 27	28	YES
Isopropylbenzene (cumene)	7 / 27 (25.9%)	5.00 - 23.0	4.60 - 760	315	81.0	NSV	0 / 27	NSV	NSV
m, p xylenes	5 / 27 (18.5%)	5.00 - 23.0	5.40 - 810	315	55.7	540	1 / 27	1.5	YES
Methylcyclohexane	3 / 27 (11.1%)	5.00 - 23.0	15.0 - 170	314	14.6	NSV	0 / 27	NSV	NSV
Methylene chloride	6 / 27 (22.2%)	5.00 - 23.0	2.20 - 7.70	306	6.95	NSV	0 / 27	NSV	NSV
o-xylene (1,2-dimethylbenzene)	5 / 27 (18.5%)	5.00 - 23.0	19.0 - 1200	315	82.8	540	1 / 27	2.2	YES
Tert-butyl methyl ether	1 / 27 (3.7%)	5.00 - 23.0	34.0 - 34.0	304	8.45	NSV	0 / 27	NSV	NSV
Tetrachloroethylene(PCE)	2 / 27 (7.4%)	5.00 - 23.0	5.80 - 11.0	302	7.50	NSV	0 / 27	NSV	NSV
Toluene	4 / 27 (14.8%)	5.00 - 23.0	5.80 - 36.0	314	9.17	900	0 / 27	0.04	No
Trichloroethylene (TCE)	1 / 27 (3.7%)	5.00 - 23.0	4.20 - 4.20	301	7.64	NSV	0 / 27	NSV	NSV
Trichlorofluoromethane	3 / 27 (11.1%)	5.00 - 23.0	4.60 - 8.90	302	7.33	NSV	0 / 27	NSV	NSV
Semi-Volatile Organic Compounds (ug/kg)									
2-methylnaphthalene	16 / 27 (59.3%)	120 - 3100	190 - 870000	315	33700	70	16 / 27	12000	YES
Acenaphthene	21 / 27 (77.8%)	160 - 3100	160 - 580000	315	41200	16	21 / 27	36000	YES
Acenaphthylene	14 / 27 (51.9%)	160 - 3100	270 - 150000	314	12400	44	14 / 27	3400	YES
Anthracene	24 / 27 (88.9%)	250 - 3100	330 - 610000	315	38800	85.3	24 / 27	7200	YES
Benzo(a)anthracene	27 / 27 (100%)	---	1100 - 490000	315	36500	261	27 / 27	1900	YES
Benzo(a)pyrene	26 / 27 (96.3%)	250 - 250	1200 - 200000	314	18700	430	26 / 27	470	YES
Benzo(b)fluoranthene	26 / 27 (96.3%)	250 - 250	1000 - 210000	314	19400	4600	13 / 27	46	YES
Benzo(g,h,i)perylene	26 / 27 (96.3%)	260 - 260	610 - 74000	314	7620	620	25 / 27	120	YES
Benzo(k)fluoranthene	26 / 27 (96.3%)	250 - 250	820 - 120000	314	10600	4600	9 / 27	26	YES
Biphenyl (diphenyl)	2 / 27 (7.4%)	6200 - 230000	650 - 71000	315	19200	NSV	0 / 27	NSV	NSV
Bis(2-ethylhexyl) phthalate	21 / 27 (77.8%)	8100 - 160000	2600 - 57000	314	15600	182	21 / 27	310	YES

TABLE 3-2
Screening Statistics - Gowanus Canal Surface Sediment (0-6") - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Semi-Volatile Organic Compounds (ug/kg)									
Carbazole	1 / 27 (3.7%)	6200 - 230000	1400 - 1400	308A	19100	NSV	0 / 27	NSV	NSV
Chrysene	27 / 27 (100%)	---	730 - 490000	315	35600	384	27 / 27	1300	YES
Dibenz(a,h)anthracene	23 / 27 (85.2%)	320 - 3100	200 - 14000	314	1780	63.4	23 / 27	220	YES
Dibenzofuran	1 / 27 (3.7%)	6200 - 230000	1100 - 1100	319	19500	300	1 / 27	3.7	YES
Di-n-butyl phthalate	2 / 27 (7.4%)	6200 - 230000	510 - 550	318	19200	4400	0 / 27	0.13	No
Di-n-octylphthalate	1 / 27 (3.7%)	6200 - 230000	9300 - 9300	307A	19800	1160	1 / 27	8.0	YES
Fluoranthene	27 / 27 (100%)	---	1200 - 630000	314	51200	600	27 / 27	1100	YES
Fluorene	17 / 27 (63.0%)	160 - 3100	130 - 540000	315	26400	19	17 / 27	28000	YES
Indeno(1,2,3-c,d)pyrene	27 / 27 (100%)	---	1000 - 120000	314	10600	680	27 / 27	180	YES
Naphthalene	19 / 27 (70.4%)	160 - 3100	120 - 1600000	315	61600	160	18 / 27	10000	YES
Phenanthrene	26 / 27 (96.3%)	3100 - 3100	510 - 1100000	315	64800	240	26 / 27	4600	YES
Pyrene	26 / 27 (96.3%)	230 - 230	1400 - 670000	314	60200	665	26 / 27	1000	YES
Total PAHs	27 / 27 (100%)	---	10900 - 8000000	315	527000	4022	27 / 27	2000	YES
Pesticides (ug/kg)									
Alpha-chlordane	2 / 27 (7.4%)	2.70 - 530	6.70 - 14.0	308A	79.7	0.04	2 / 27	350	YES
Beta endosulfan	1 / 27 (3.7%)	5.30 - 1000	13.0 - 13.0	308A	154	0.08	1 / 27	160	YES
Endosulfan sulfate	1 / 27 (3.7%)	5.30 - 1000	21.0 - 21.0	308A	154	NSV	0 / 27	NSV	NSV
Gamma-chlordane	3 / 27 (11.1%)	2.70 - 530	5.90 - 29.0	308A	80.6	0.04	3 / 27	730	YES
Methoxychlor	1 / 27 (3.7%)	27.0 - 5300	33.0 - 33.0	308A	792	NSV	0 / 27	NSV	NSV
P,P'-DDD	5 / 5 (100%)	---	7.90 - 1100	315	232	1.22	5 / 5	900	YES
P,P'-DDE	1 / 26 (3.8%)	5.30 - 1000	16.0 - 16.0	308A	160	2.2	1 / 26	7.3	YES
Total DDTs	5 / 5 (100%)	---	7.90 - 1100	315	235	1.58	5 / 5	700	YES
Polychlorinated Biphenyls (ug/kg)									
Aroclor 1016	4 / 27 (14.8%)	41.0 - 120	140 - 290	318	68.5	22.7	4 / 27	13	YES
Aroclor 1248	2 / 27 (7.4%)	41.0 - 120	230 - 2200	316	128	22.7	2 / 27	97	YES
Aroclor 1254	1 / 27 (3.7%)	48.0 - 120	590 - 590	308A	61.9	22.7	1 / 27	26	YES
Aroclor 1260	7 / 27 (25.9%)	41.0 - 120	150 - 3400	314	318	22.7	7 / 27	150	YES
Total PCBs	10 / 27 (37.0%)	---	230 - 3400	314	432	22.7	10 / 27	150	YES
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	19 / 19 (100%)	---	99500 - 15100000	314	2810000	59800	19 / 19	250	YES

TABLE 3-2
Screening Statistics - Gowanus Canal Surface Sediment (0-6") - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Metals (mg/kg)									
Aluminum	27 / 27 (100%)	---	4870 - 18900	310	13200	NSV	0 / 27	NSV	NSV
Arsenic	27 / 27 (100%)	---	3.40 - 44.7	308A	12.1	8.2	19 / 27	5.5	YES
Barium	27 / 27 (100%)	---	83.1 - 631	317	175	130.1	15 / 27	4.9	YES
Beryllium	12 / 27 (44.4%)	0.60 - 1.60	0.11 - 0.46	309	0.474	NSV	0 / 27	NSV	NSV
Cadmium	27 / 27 (100%)	---	1.50 - 20.2	308A	6.30	1.2	27 / 27	17	YES
Calcium	27 / 27 (100%)	---	4890 - 11300	313	7640	NSV	0 / 27	NSV	NSV
Chromium	27 / 27 (100%)	---	22.7 - 139	314	76.0	81	8 / 27	1.7	YES
Cobalt	14 / 27 (51.9%)	7.30 - 17.1	6.50 - 14.8	318	9.13	NSV	0 / 27	NSV	NSV
Copper	27 / 27 (100%)	---	85.8 - 790	308A	226	34	27 / 27	23	YES
Iron	27 / 27 (100%)	---	12400 - 87000	308A	29200	NSV	0 / 27	NSV	NSV
Lead	27 / 27 (100%)	---	146 - 4220	308A	533	46.7	27 / 27	90	YES
Magnesium	27 / 27 (100%)	---	4210 - 11400	318	8740	NSV	0 / 27	NSV	NSV
Manganese	27 / 27 (100%)	---	89.1 - 480	308A	276	460	1 / 27	1.0	No
Mercury	27 / 27 (100%)	---	0.59 - 2.30	313	1.27	0.15	27 / 27	15	YES
Nickel	27 / 27 (100%)	---	18.1 - 84.5	314	43.8	20.9	26 / 27	4.0	YES
Potassium	27 / 27 (100%)	---	730 - 4410	310	3200	NSV	0 / 27	NSV	NSV
Selenium	15 / 27 (55.6%)	4.20 - 12.0	0.74 - 4.90	310	3.04	NSV	0 / 27	NSV	NSV
Silver	22 / 27 (81.5%)	1.20 - 3.20	1.80 - 6.80	310	3.40	1	22 / 27	6.8	YES
Sodium	27 / 27 (100%)	---	2610 - 18700	322	11100	NSV	0 / 27	NSV	NSV
Vanadium	27 / 27 (100%)	---	19.4 - 61.2	316	42.6	NSV	0 / 27	NSV	NSV
Zinc	17 / 17 (100%)	---	240 - 1520	308A	744	150	17 / 17	10	YES
Cyanide, Total	14 / 27 (51.9%)	3.60 - 8.30	0.54 - 18.0	302	3.65	NSV	0 / 27	NSV	NSV

TABLE 3-3
Screening Statistics - Gowanus Canal Surface Water (Dry Event Sampling) - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Volatile Organic Compounds (ug/l)									
1,4-dichlorobenzene	1 / 27 (3.7%)	0.50 - 0.50	0.11 - 0.11	320	0.245	129	0 / 27	0.00085	No
Acetone	26 / 27 (96.3%)	5.00 - 5.00	1.10 - 6.70	317	2.24	NSV	0 / 27	NSV	NSV
Benzene	18 / 27 (66.7%)	0.50 - 0.50	0.50 - 11.0	304	1.20	110	0 / 27	0.1	No
Ethylbenzene	16 / 27 (59.3%)	0.50 - 0.50	0.19 - 1.30	320	0.37	25	0 / 27	0.052	No
m, p xylenes	17 / 27 (63.0%)	0.50 - 0.50	0.16 - 1.30	320	0.364	NSV	0 / 27	NSV	NSV
Methylene chloride	3 / 27 (11.1%)	0.50 - 0.50	0.76 - 1.00	310	0.319	6400	0 / 27	0.00016	No
o-xylene (1,2-dimethylbenzene)	5 / 27 (18.5%)	0.50 - 0.50	0.24 - 0.53	320	0.271	NSV	0 / 27	NSV	NSV
Tert-butyl methyl ether	1 / 27 (3.7%)	0.50 - 0.50	0.18 - 0.18	304	0.247	5000	0 / 27	0.000036	No
Toluene	16 / 27 (59.3%)	0.50 - 0.50	0.17 - 0.95	308B	0.327	215	0 / 27	0.0044	No
Semi-Volatile Organic Compounds (ug/l)									
2-methylnaphthalene	1 / 27 (3.7%)	0.10 - 0.10	0.017 - 0.017	315	0.0488	NSV	0 / 27	NSV	NSV
Acenaphthene	21 / 27 (77.8%)	0.10 - 0.10	0.26 - 0.94	319	0.417	40	0 / 27	0.024	No
Anthracene	3 / 27 (11.1%)	0.10 - 0.10	1.20 - 5.20	325	0.352	NSV	0 / 27	NSV	NSV
Benzo(a)anthracene	7 / 27 (25.9%)	0.10 - 0.10	0.12 - 0.83	325	0.131	NSV	0 / 27	NSV	NSV
Benzo(a)pyrene	3 / 27 (11.1%)	0.10 - 0.10	0.19 - 0.66	319	0.0863	NSV	0 / 27	NSV	NSV
Benzo(b)fluoranthene	21 / 27 (77.8%)	0.10 - 0.10	0.11 - 0.88	319	0.216	NSV	0 / 27	NSV	NSV
Benzo(g,h,i)perylene	5 / 27 (18.5%)	0.10 - 0.10	0.099 - 0.15	302, 307A	0.0651	NSV	0 / 27	NSV	NSV
Benzo(k)fluoranthene	11 / 27 (40.7%)	0.10 - 0.10	0.10 - 0.29	319, 325	0.103	NSV	0 / 27	NSV	NSV
Bis(2-ethylhexyl) phthalate	13 / 27 (48.1%)	5.00 - 5.00	0.71 - 5.60	321	2.51	360	0 / 27	0.016	No
Caprolactam	1 / 27 (3.7%)	5.00 - 5.00	1.00 - 1.00	312	2.44	NSV	0 / 27	NSV	NSV
Carbazole	2 / 27 (7.4%)	5.00 - 5.00	1.10 - 2.10	325	2.43	NSV	0 / 27	NSV	NSV
Chrysene	15 / 27 (55.6%)	0.10 - 0.10	0.11 - 1.10	325	0.195	NSV	0 / 27	NSV	NSV
Dimethyl phthalate	8 / 27 (29.6%)	5.00 - 5.00	1.50 - 3.40	324	2.47	3.4	0 / 27	1.0	No
Di-n-butyl phthalate	3 / 27 (11.1%)	5.00 - 5.00	1.00 - 1.40	301	2.35	3.4	0 / 27	0.41	No
Fluoranthene	23 / 27 (85.2%)	0.10 - 0.10	0.095 - 2.30	325	0.443	11	0 / 27	0.21	No
Fluorene	15 / 27 (55.6%)	0.10 - 0.10	0.11 - 0.19	325	0.0926	NSV	0 / 27	NSV	NSV
Indeno(1,2,3-c,d)pyrene	10 / 27 (37.0%)	0.10 - 0.10	0.097 - 0.22	319	0.0847	NSV	0 / 27	NSV	NSV
Phenanthrene	11 / 27 (40.7%)	0.10 - 0.10	0.10 - 0.58	325	0.114	4.6	0 / 27	0.13	No
Phenol	1 / 27 (3.7%)	5.00 - 5.00	1.30 - 1.30	314	2.46	400	0 / 27	0.0033	No
Pyrene	6 / 27 (22.2%)	0.10 - 0.10	0.15 - 1.50	325	0.19	NSV	0 / 27	NSV	NSV

TABLE 3-3
Screening Statistics - Gowanus Canal Surface Water (Dry Event Sampling) - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Semi-Volatile Organic Compounds (ug/l)									
Total PAHs	24 / 27 (88.9%)	---	0.11 - 13.3	325	2.12	NSV	0 / 27	NSV	NSV
Metals (ug/l)									
Aluminum Dissolved	1 / 27 (3.7%)	2000 - 3000	1480 - 1480	324	1300	NSV	0 / 27	NSV	NSV
Arsenic	25 / 25 (100%)	---	9.10 - 23.4	309	18.5	36	0 / 25	0.65	No
Arsenic Dissolved	25 / 25 (100%)	---	15.1 - 21.6	323	19.1	36	0 / 25	0.6	No
Barium	9 / 27 (33.3%)	10.0 - 100	18.4 - 23.0	312	38.4	200	0 / 27	0.12	No
Barium Dissolved	18 / 27 (66.7%)	100 - 100	18.0 - 32.5	304	30.9	200	0 / 27	0.16	No
Calcium	27 / 27 (100%)	---	259000 - 315000	312	280000	NSV	0 / 27	NSV	NSV
Calcium Dissolved	27 / 27 (100%)	---	257000 - 298000	306, 308A	274000	NSV	0 / 27	NSV	NSV
Chromium	21 / 27 (77.8%)	2.00 - 20.0	4.00 - 99.7	323	12.4	NSV	0 / 27	NSV	NSV
Chromium Dissolved	23 / 27 (85.2%)	20.0 - 20.0	3.60 - 10.5	310	5.84	NSV	0 / 27	NSV	NSV
Cobalt Dissolved	1 / 27 (3.7%)	10.0 - 10.0	2.80 - 2.80	304	4.92	1	1 / 27	2.8	YES
Copper	11 / 27 (40.7%)	25.0 - 375	123 - 232	308B	88.1	3.1	11 / 27	75	YES
Copper Dissolved	11 / 27 (40.7%)	25.0 - 375	181 - 282	303	107	3.1	11 / 27	91	YES
Lead	7 / 27 (25.9%)	10.0 - 10.0	1.90 - 7.30	304	4.68	8.1	0 / 27	0.9	No
Magnesium	27 / 27 (100%)	---	809000 - 998000	312	880000	NSV	0 / 27	NSV	NSV
Magnesium Dissolved	27 / 27 (100%)	---	803000 - 942000	306, 308A	858000	NSV	0 / 27	NSV	NSV
Manganese	27 / 27 (100%)	---	45.0 - 72.9	310	56.9	100	0 / 27	0.73	No
Manganese Dissolved	27 / 27 (100%)	---	40.0 - 71.5	323	51.1	100	0 / 27	0.72	No
Mercury	14 / 27 (51.9%)	0.20 - 0.20	0.047 - 0.06	324	0.0751	0.94	0 / 27	0.064	No
Mercury Dissolved	13 / 27 (48.1%)	0.20 - 0.20	0.047 - 0.091	323	0.0798	0.94	0 / 27	0.097	No
Nickel	22 / 27 (81.5%)	10.0 - 10.0	2.00 - 52.3	323	6.35	8.2	4 / 27	6.4	YES
Nickel Dissolved	17 / 27 (63.0%)	10.0 - 10.0	2.20 - 13.4	310	4.68	8.2	2 / 27	1.6	YES
Potassium	27 / 27 (100%)	---	277000 - 328000	312	297000	NSV	0 / 27	NSV	NSV
Potassium Dissolved	27 / 27 (100%)	---	274000 - 316000	322	289000	NSV	0 / 27	NSV	NSV
Selenium	26 / 26 (100%)	---	18.7 - 50.9	322	39.0	71	0 / 26	0.72	No
Selenium Dissolved	16 / 16 (100%)	---	38.6 - 53.5	323	45.8	71	0 / 16	0.75	No
Sodium	27 / 27 (100%)	---	5550000 - 6620000	307B	6100000	NSV	0 / 27	NSV	NSV
Sodium Dissolved	27 / 27 (100%)	---	5330000 - 6790000	322	5950000	NSV	0 / 27	NSV	NSV
Thallium	1 / 27 (3.7%)	10.0 - 10.0	2.10 - 2.10	318	4.89	17	0 / 27	0.12	No

TABLE 3-3
Screening Statistics - Gowanus Canal Surface Water (Dry Event Sampling) - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Metals (ug/l)									
Zinc	13 / 23 (56.5%)	20.0 - 20.0	11.0 - 25.7	321	13.4	81	0 / 23	0.32	No
Zinc Dissolved	12 / 24 (50.0%)	20.0 - 20.0	9.90 - 37.9	321	13.1	81	0 / 24	0.47	No
General Chemistry (mg/l)									
Total suspended solids	27 / 27 (100%)	---	52.0 - 106	309	80.1	NSV	0 / 27	NSV	NSV

TABLE 3-4
Screening Statistics - Gowanus Canal Surface Water (Wet Event Sampling) - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Volatile Organic Compounds (ug/l)									
1,2,4-trichlorobenzene	1 / 26 (3.8%)	0.50 - 0.50	0.12 - 0.12	305	0.245	5.4	0 / 26	0.022	No
1,3-dichlorobenzene	2 / 26 (7.7%)	0.50 - 0.50	0.13 - 0.13	303, 305	0.241	NSV	0 / 26	NSV	NSV
1,4-dichlorobenzene	14 / 26 (53.8%)	0.50 - 0.50	0.12 - 0.87	306	0.431	129	0 / 26	0.0067	No
Acetone	1 / 26 (3.8%)	5.00 - 15.0	12.0 - 12.0	307B	4.53	NSV	0 / 26	NSV	NSV
Benzene	16 / 26 (61.5%)	0.50 - 0.50	0.36 - 2.90	316	0.563	110	0 / 26	0.026	No
Carbon disulfide	5 / 26 (19.2%)	0.50 - 0.50	0.14 - 0.17	308B, 313	0.232	NSV	0 / 26	NSV	NSV
Chlorobenzene	17 / 26 (65.4%)	0.50 - 0.50	0.12 - 0.33	306	0.253	25	0 / 26	0.013	No
Chloroform	14 / 26 (53.8%)	0.50 - 0.50	0.50 - 0.69	321	0.423	NSV	0 / 26	NSV	NSV
cis-1,2-dichloroethylene	17 / 26 (65.4%)	0.50 - 0.50	0.21 - 0.51	319	0.296	NSV	0 / 26	NSV	NSV
Ethylbenzene	21 / 26 (80.8%)	0.50 - 0.50	0.18 - 2.60	316	0.451	25	0 / 26	0.1	No
Isopropylbenzene (cumene)	4 / 26 (15.4%)	0.50 - 0.50	0.096 - 0.20	316	0.233	NSV	0 / 26	NSV	NSV
m, p xylenes	22 / 26 (84.6%)	0.50 - 0.50	0.18 - 2.60	316	0.451	NSV	0 / 26	NSV	NSV
Methyl acetate	1 / 26 (3.8%)	0.50 - 0.50	0.44 - 0.44	317	0.257	NSV	0 / 26	NSV	NSV
Methylene chloride	9 / 26 (34.6%)	0.50 - 2.90	0.99 - 3.40	321	0.961	6400	0 / 26	0.00053	No
o-xylene (1,2-dimethylbenzene)	20 / 26 (76.9%)	0.50 - 0.50	0.13 - 5.10	316	0.521	NSV	0 / 26	NSV	NSV
Tetrachloroethylene(PCE)	24 / 26 (92.3%)	0.50 - 0.50	0.70 - 40.0	319	16.5	450	0 / 26	0.089	No
Toluene	24 / 26 (92.3%)	0.50 - 0.50	0.85 - 16.0	316	5.11	215	0 / 26	0.074	No
trans-1,3-dichloropropene	1 / 26 (3.8%)	0.50 - 0.50	0.16 - 0.16	306	0.247	NSV	0 / 26	NSV	NSV
Trichloroethylene (TCE)	2 / 26 (7.7%)	0.50 - 0.50	0.10 - 0.12	320	0.239	200	0 / 26	0.0006	No
Semi-Volatile Organic Compounds (ug/l)									
2-methylnaphthalene	3 / 26 (11.5%)	0.10 - 0.10	0.17 - 3.00	316	0.174	NSV	0 / 26	NSV	NSV
Acenaphthene	20 / 26 (76.9%)	0.10 - 1.00	0.095 - 0.40	313	0.169	40	0 / 26	0.01	No
Anthracene	1 / 26 (3.8%)	0.10 - 1.00	0.095 - 0.095	302	0.069	NSV	0 / 26	NSV	NSV
Benzo(a)anthracene	4 / 26 (15.4%)	0.10 - 1.00	0.074 - 0.15	302	0.0758	NSV	0 / 26	NSV	NSV
Benzo(a)pyrene	6 / 26 (23.1%)	0.10 - 1.00	0.14 - 0.30	309	0.103	NSV	0 / 26	NSV	NSV
Benzo(b)fluoranthene	16 / 26 (61.5%)	0.10 - 1.00	0.12 - 0.33	319	0.154	NSV	0 / 26	NSV	NSV
Benzo(g,h,i)perylene	23 / 26 (88.5%)	0.10 - 1.00	0.13 - 1.50	308A	0.466	NSV	0 / 26	NSV	NSV
Benzo(k)fluoranthene	7 / 26 (26.9%)	0.10 - 1.00	0.037 - 0.12	319	0.07	NSV	0 / 26	NSV	NSV
Benzyl butyl phthalate	3 / 26 (11.5%)	5.00 - 50.0	0.73 - 1.10	307A	3.18	3.4	0 / 26	0.32	No
Caprolactam	11 / 26 (42.3%)	5.00 - 50.0	0.33 - 1.50	320	2.78	NSV	0 / 26	NSV	NSV

TABLE 3-4
Screening Statistics - Gowanus Canal Surface Water (Wet Event Sampling) - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Semi-Volatile Organic Compounds (ug/l)									
Chrysene	3 / 26 (11.5%)	0.10 - 1.00	0.057 - 0.11	302	0.0709	NSV	0 / 26	NSV	NSV
Dibenz(a,h)anthracene	4 / 26 (15.4%)	0.10 - 1.00	0.071 - 0.11	303	0.0742	NSV	0 / 26	NSV	NSV
Di-n-butyl phthalate	12 / 26 (46.2%)	5.00 - 50.0	0.28 - 0.62	320	2.42	3.4	0 / 26	0.18	No
Di-n-octylphthalate	3 / 26 (11.5%)	5.00 - 50.0	0.23 - 0.28	318	3.11	3.4	0 / 26	0.082	No
Fluoranthene	22 / 26 (84.6%)	0.10 - 1.00	0.089 - 0.32	313	0.17	11	0 / 26	0.029	No
Fluorene	3 / 26 (11.5%)	0.10 - 1.00	0.079 - 0.32	313	0.0804	NSV	0 / 26	NSV	NSV
Indeno(1,2,3-c,d)pyrene	23 / 26 (88.5%)	0.10 - 0.15	0.16 - 1.10	316	0.309	NSV	0 / 26	NSV	NSV
Naphthalene	5 / 26 (19.2%)	0.10 - 0.10	0.13 - 1.40	316	0.136	1.4	0 / 26	1.0	No
Pentachlorophenol	1 / 26 (3.8%)	0.20 - 2.00	0.13 - 0.13	311	0.136	7.9	0 / 26	0.016	No
Phenanthrene	14 / 26 (53.8%)	0.10 - 0.10	0.13 - 1.40	316	0.202	4.6	0 / 26	0.3	No
Pyrene	22 / 26 (84.6%)	0.10 - 1.00	0.10 - 0.34	313	0.197	NSV	0 / 26	NSV	NSV
Total PAHs	25 / 26 (96.2%)	---	0.49 - 6.90	316	1.81	NSV	0 / 26	NSV	NSV
Metals (ug/l)									
Arsenic	26 / 26 (100%)	---	6.90 - 26.2	302	14.9	36	0 / 26	0.73	No
Arsenic Dissolved	26 / 26 (100%)	---	9.10 - 21.0	322	13.2	36	0 / 26	0.58	No
Barium	26 / 26 (100%)	---	18.4 - 42.8	307A	25.9	200	0 / 26	0.21	No
Barium Dissolved	25 / 26 (96.2%)	100 - 100	18.4 - 31.1	322	23.4	200	0 / 26	0.16	No
Calcium	24 / 24 (100%)	---	97200 - 296000	324	164000	NSV	0 / 24	NSV	NSV
Calcium Dissolved	24 / 24 (100%)	---	100000 - 304000	303	164000	NSV	0 / 24	NSV	NSV
Chromium	26 / 26 (100%)	---	3.90 - 29.3	308B	6.72	NSV	0 / 26	NSV	NSV
Chromium Dissolved	7 / 26 (26.9%)	20.0 - 20.0	3.60 - 5.80	314	8.50	NSV	0 / 26	NSV	NSV
Cobalt	1 / 26 (3.8%)	10.0 - 10.0	3.90 - 3.90	307A	4.96	1	1 / 26	3.9	YES
Cobalt Dissolved	1 / 26 (3.8%)	10.0 - 10.0	2.50 - 2.50	315	4.90	1	1 / 26	2.5	YES
Iron	3 / 26 (11.5%)	1500 - 1500	651 - 1040	317	754	50	3 / 26	21	YES
Iron Dissolved	1 / 26 (3.8%)	1500 - 7500	1020 - 1020	310	991	50	1 / 26	20	YES
Lead	26 / 26 (100%)	---	2.90 - 26.8	317	13.0	8.1	21 / 26	3.3	YES
Lead Dissolved	6 / 26 (23.1%)	10.0 - 10.0	1.90 - 17.7	314	4.93	8.1	1 / 26	2.2	YES
Magnesium	25 / 25 (100%)	---	276000 - 972000	303	505000	NSV	0 / 25	NSV	NSV
Magnesium Dissolved	25 / 25 (100%)	---	286000 - 4880000	301	805000	NSV	0 / 25	NSV	NSV
Manganese	26 / 26 (100%)	---	48.4 - 65.6	307A	54.7	100	0 / 26	0.66	No

TABLE 3-4
Screening Statistics - Gowanus Canal Surface Water (Wet Event Sampling) - Step 2
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value	Frequency of Exceedance	Maximum Hazard Quotient	COPC?
Metals (ug/l)									
Manganese Dissolved	26 / 26 (100%)	---	35.6 - 63.0	322	43.9	100	0 / 26	0.63	No
Mercury	19 / 26 (73.1%)	0.20 - 0.20	0.065 - 0.089	302	0.0855	0.94	0 / 26	0.095	No
Nickel	25 / 25 (100%)	---	2.10 - 29.8	308B	5.76	8.2	5 / 25	3.6	YES
Nickel Dissolved	25 / 25 (100%)	---	2.20 - 8.00	315	3.74	8.2	0 / 25	0.98	No
Potassium	24 / 24 (100%)	---	88700 - 290000	324	155000	NSV	0 / 24	NSV	NSV
Potassium Dissolved	24 / 24 (100%)	---	92300 - 292000	303	154000	NSV	0 / 24	NSV	NSV
Selenium	26 / 26 (100%)	---	13.9 - 64.6	301	29.3	71	0 / 26	0.91	No
Selenium Dissolved	16 / 16 (100%)	---	14.7 - 41.9	303	24.5	71	0 / 16	0.59	No
Sodium	25 / 25 (100%)	---	2340000 - 7090000	301	3940000	NSV	0 / 25	NSV	NSV
Sodium Dissolved	25 / 25 (100%)	---	2480000 - 9180000	301	4050000	NSV	0 / 25	NSV	NSV
Zinc	24 / 26 (92.3%)	20.0 - 20.0	17.7 - 75.7	318	39.9	81	0 / 26	0.93	No
Zinc Dissolved	25 / 26 (96.2%)	20.0 - 20.0	11.0 - 40.2	314	22.6	81	0 / 26	0.5	No
General Chemistry (mg/l)									
Total suspended solids	26 / 26 (100%)	---	33.0 - 93.0	302	52.8	NSV	0 / 26	NSV	NSV

TABLE 3-5

Medium-Specific SLERA Screening Values—Sediment and Surface Water

Gowanus Canal Remedial Investigation

Brooklyn, New York

Chemical	Screening Value	Source
SEDIMENT		
Volatile Organic Compounds (ug/kg)		
1,2-dichloroethane	NSV	
1,4-dichlorobenzene	240	NYSDEC (1999)[1]
Acetone	NSV	
Benzene	520	NYSDEC (1999)[1]
Carbon disulfide	NSV	
Chlorobenzene	70	NYSDEC (1999)[1]
Cyclohexane	NSV	
Ethylbenzene	128	NYSDEC (1999)[1]
Isopropylbenzene (cumene)	NSV	
m, p xylenes	540	NYSDEC (1999)[1]
Methylcyclohexane	NSV	
Methylene chloride	NSV	
o-xylene (1,2-dimethylbenzene)	540	NYSDEC (1999)[1]
Tert-butyl methyl ether	NSV	
Tetrachloroethylene(PCE)	NSV	
Toluene	900	NYSDEC (1999)[1]
Trichloroethylene (TCE)	NSV	
Trichlorofluoromethane	NSV	
Semi-Volatile Organic Compounds (ug/kg)		
2-methylnaphthalene	70	NYSDEC (1999)[2]
Acenaphthene	16	NYSDEC (1999)[2]
Acenaphthylene	44	NYSDEC (1999)[2]
Anthracene	85.3	NYSDEC (1999)[2]
Benzo(a)anthracene	261	NYSDEC (1999)[2]
Benzo(a)pyrene	430	NYSDEC (1999)[2]
Benzo(b)fluoranthene	4600	WDOE (1995)[1]
Benzo(g,h,i)perylene	620	WDOE (1995)[1]
Benzo(k)fluoranthene	4600	WDOE (1995)[1]
Biphenyl (diphenyl)	NSV	
Bis(2-ethylhexyl) phthalate	182	MacDonald et al. (1996)
Carbazole	NSV	
Chrysene	384	NYSDEC (1999)[2]
Dibenz(a,h)anthracene	63.4	NYSDEC (1999)[2]
Dibenzofuran	300	WDOE (1995)[1]
Di-n-butyl phthalate	4400	WDOE (1995)[1]
Di-n-octylphthalate	1160	WDOE (1995)[1]
Fluoranthene	600	NYSDEC (1999)[2]
Fluorene	19	NYSDEC (1999)[2]
Indeno(1,2,3-c,d)pyrene	680	WDOE (1995)[1]
Naphthalene	160	NYSDEC (1999)[2]
Phenanthrene	240	NYSDEC (1999)[2]
Pyrene	665	NYSDEC (1999)[2]
Total PAHs	4022	NYSDEC (1999)[2]
Pesticides (ug/kg)		
Alpha-chlordane	0.04	NYSDEC (1999)[1]
Beta endosulfan	0.08	NYSDEC (1999)[1]
Endosulfan sulfate	NSV	
Gamma-chlordane	0.04	NYSDEC (1999)[1]
Methoxychlor	NSV	
P,P'-DDD	1.22	MacDonald et al. (1996)
P,P'-DDE	2.2	NYSDEC (1999)[2]
Total DDTs	1.58	NYSDEC (1999)[2]
Polychlorinated Biphenyls (ug/kg)		
Aroclor 1016	22.7	NYSDEC (1999)[2]
Aroclor 1248	22.7	NYSDEC (1999)[2]
Aroclor 1254	22.7	NYSDEC (1999)[2]
Aroclor 1260	22.7	NYSDEC (1999)[2]
Total PCBs	22.7	NYSDEC (1999)[2]

TABLE 3-5

Medium-Specific SLERA Screening Values—Sediment and Surface Water

Gowanus Canal Remedial Investigation

Brooklyn, New York

Chemical	Screening Value	Source
Polychlorinated Biphenyl Congeners (ng/kg)		
Total PCB Congeners	59800	MacDonald et al. (2000)
Metals (mg/kg)		
Aluminum		
Arsenic	8.2	NYSDEC (1999)[2]
Barium	130.1	MacDonald et al. (1996)
Beryllium		
Cadmium	1.2	NYSDEC (1999)[2]
Calcium	NSV	
Chromium	81	NYSDEC (1999)[2]
Cobalt	NSV	
Copper	34	NYSDEC (1999)[2]
Iron	NSV	
Lead	46.7	NYSDEC (1999)[2]
Magnesium	NSV	
Manganese	NSV	
Mercury	0.15	NYSDEC (1999)[2]
Nickel	20.9	NYSDEC (1999)[2]
Potassium	NSV	
Selenium	NSV	
Silver	1	NYSDEC (1999)[2]
Sodium	NSV	
Vanadium	NSV	
Zinc	150	NYSDEC (1999)[2]
Cyanide	NSV	
SURFACE WATER		
Volatile Organic Compounds (ug/l)		
1,2,4-trichlorobenzene	5.4	Buchman (2008)
1,3-dichlorobenzene	NSV	
1,4-dichlorobenzene	129	Buchman (2008)
Acetone	NSV	
Benzene	110	Buchman (2008)
Carbon disulfide	NSV	
Chlorobenzene	25	Buchman (2008)
Chloroform	NSV	
cis-1,2-dichloroethylene	NSV	
Ethylbenzene	25	Buchman (2008)
Isopropylbenzene (cumene)	NSV	
m, p xylenes	NSV	
Methyl acetate	NSV	
Methylene chloride	6400	Buchman (2008)
o-xylene (1,2-dimethylbenzene)	NSV	
Tert-butyl methyl ether	5000	Buchman (2008)
Tetrachloroethylene(PCE)	450	Buchman (2008)
Toluene	215	Buchman (2008)
trans-1,3-dichloropropene	NSV	
Trichloroethylene (TCE)	200	Buchman (2008)
Semi-Volatile Organic Compounds (ug/l)		
2-methylnaphthalene	NSV	
Acenaphthene	40	Buchman (2008)
Anthracene	NSV	
Benzo(a)anthracene	NSV	
Benzo(a)pyrene	NSV	
Benzo(b)fluoranthene	NSV	
Benzo(g,h,i)perylene	NSV	
Benzo(k)fluoranthene	NSV	
Benzyl butyl phthalate	3.4	Buchman (2008)
Bis(2-ethylhexyl) phthalate	360	Buchman (2008)
Caprolactam	NSV	
Carbazole	NSV	

TABLE 3-5

Medium-Specific SLERA Screening Values—Sediment and Surface Water

Gowanus Canal Remedial Investigation

Brooklyn, New York

Chemical	Screening Value	Source
Chrysene	NSV	
Dibenz(a,h)anthracene	NSV	
Dimethyl phthalate	3.4	Buchman (2008)
Di-n-butyl phthalate	3.4	Buchman (2008)
Di-n-octylphthalate	3.4	Buchman (2008)
Fluoranthene	11	Buchman (2008)
Fluorene	NSV	
Indeno(1,2,3-c,d)pyrene	NSV	
Naphthalene	1.4	USEPA (2009)
Pentachlorophenol	7.9	USEPA (2009)
Phenanthrene	4.6	Buchman (2008)
Phenol	400	Buchman (2008)
Pyrene	NSV	
Total PAHs	NSV	
Metals (ug/l)		
Arsenic	36	USEPA (2009)
Arsenic Dissolved	36	USEPA (2009)
Barium	200	Buchman (2008)
Barium Dissolved	200	Buchman (2008)
Calcium	NSV	
Calcium Dissolved	NSV	
Chromium	NSV	
Chromium Dissolved	NSV	
Cobalt	1	Buchman (2008)
Cobalt Dissolved	1	Buchman (2008)
Copper	3.1	USEPA (2009)
Copper Dissolved	3.1	USEPA (2009)
Iron	50	Buchman (2008)
Iron Dissolved	50	Buchman (2008)
Lead	8.1	USEPA (2009)
Lead Dissolved	8.1	USEPA (2009)
Magnesium	NSV	
Magnesium Dissolved	NSV	
Manganese	100	Buchman (2008)
Manganese Dissolved	100	Buchman (2008)
Mercury	0.94	USEPA (2009)
Mercury Dissolved	0.94	USEPA (2009)
Nickel	8.2	USEPA (2009)
Nickel Dissolved	8.2	USEPA (2009)
Potassium	NSV	
Potassium Dissolved	NSV	
Selenium	71	USEPA (2009)
Selenium Dissolved	71	USEPA (2009)
Sodium	NSV	
Sodium Dissolved	NSV	
Zinc	81	USEPA (2009)
Zinc Dissolved	81	USEPA (2009)

1-Value represents equilibrium-based screening value (assuming 2% total organic carbon).

2-Value represents ER-L, selected according to guidance presented in Appendix 4 of NYSDEC (1999).

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SECTION 4

Screening-Level Risk Outcomes

The screening-level risk calculation is the final step (Step 2) of the SLERA. In this step, maximum exposure concentrations in Gowanus Canal surface sediment and surface water (dry and wet) are compared to corresponding screening values to derive screening risk estimates. The outcome of this step is a list of COPCs for each medium-pathway-receptor combination evaluated or the elimination of chemicals from further consideration based on the conclusion that they are unlikely to adversely affect the ecological receptors of concern.

4.1 Selection of COPCs

In the following sections, the maximum detected chemical concentrations for sediment and surface water (dry and wet) are compared to the medium-specific screening values to identify COPCs for further evaluation in the ERA. The following sections provide the results of these comparisons. As discussed in Section 3.3, chemicals were identified as COPCs in this section if they were detected at concentrations exceeding screening values (HQs greater than 1) or were detected but lacked screening values. Chemicals that were detected, but did not have ecological screening values are further discussed within the uncertainty section of the ERA (Section 7).

4.1.1 Sediment

The sediment comparison outcomes are summarized in Table 3-2 and indicate the following:

- The maximum detected chemical concentrations of three volatile organics, 21 semivolatile organics, five pesticides, three Aroclors (PCBs), PCB congeners, and 11 metals had HQs exceeding 1 and were identified as COPCs.
- Semivolatile organics generally had the highest maximum HQs, particularly PAHs.
- The highest concentrations of PAHs were located primarily in the middle of the Gowanus Canal (Stations 314 and 315).
- Metals generally had the highest frequency of exceedance, with cadmium, copper, lead, mercury, and zinc concentrations exceeding their screening values in all samples.

4.1.2 Surface Water

Dry Event

The dry event surface water comparison outcomes are summarized in Table 3-3 and indicate the following:

- The maximum detected chemical concentrations of two total metals (copper and nickel) and one dissolved metal (copper) had maximum HQs exceeding 1 and were identified as COPCs.

- Total copper and dissolved copper had the highest HQs (74.8 and 91.0, respectively) and concentrations exceeded their screening values in 11 of the 27 samples, while nickel concentrations exceeded their screening values in four of the 27 samples.
- No volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) or PCBs had HQs greater than 1.

Wet Event

The wet event surface water comparison outcomes are summarized in Table 3-4 and indicate the following:

- The maximum detected chemical concentrations of four total metals (cobalt, iron, lead, and nickel) and three dissolved metals (cobalt, iron, and lead) had maximum HQs exceeding 1 and were identified as COPCs.
- Total iron and dissolved iron had the highest HQs (20.8 and 20.4, respectively), while total lead had the highest frequency of exceedance, with 21 of 26 sample concentrations exceeding the screening value.
- No VOCs, SVOCs, or PCBs had HQs greater than 1.

4.2 Summary of COPCs

Chemicals identified as COPCs for benthic macroinvertebrates from direct exposure to chemicals in sediment and for water-column-dwelling aquatic life from direct exposure to chemicals in surface water (dry and wet events) are summarized in Table 4-1.

TABLE 4-1

Summary of COPCs for Surface Sediment and Surface Water (Dry and Wet) - Step 2

Gowanus Canal Remedial Investigation

Brooklyn, New York

COPCs	Surface Sediments		Surface Water (Dry)		Surface Water (Wet)	
	HQ>1	NSV	HQ>1	NSV	HQ>1	NSV
Volatile Organic Compounds (ug/kg)						
1,2,4-trichlorobenzene						
1,2-dichloroethane		NSV				
1,3-dichlorobenzene						NSV
1,4-dichlorobenzene						
Acetone		NSV		NSV		NSV
Benzene						
Carbon disulfide		NSV				NSV
Chlorobenzene						
Chloroform						NSV
cis-1,2-dichloroethylene						NSV
Cyclohexane		NSV				
Ethylbenzene	X					
Isopropylbenzene (cumene)		NSV				NSV
m, p xylenes	X			NSV		NSV
Methyl acetate						NSV
Methylcyclohexane		NSV				
Methylene chloride		NSV				
o-xylene (1,2-dimethylbenzene)	X			NSV		NSV
Tert-butyl methyl ether		NSV				
Tetrachloroethylene(PCE)		NSV				
Toluene						
trans-1,3-dichloropropene						NSV
Trichloroethylene (TCE)		NSV				
Trichlorofluoromethane		NSV				
Semi-Volatile Organic Compounds (ug/kg)						
2-methylnaphthalene	X			NSV		NSV
Acenaphthene	X					

TABLE 4-1

Summary of COPCs for Surface Sediment and Surface Water (Dry and Wet) - Step 2

Gowanus Canal Remedial Investigation

Brooklyn, New York

COPCs	Surface Sediments		Surface Water (Dry)		Surface Water (Wet)	
	HQ>1	NSV	HQ>1	NSV	HQ>1	NSV
Acenaphthylene	X					
Anthracene	X			NSV		NSV
Benzo(a)anthracene	X			NSV		NSV
Benzo(a)pyrene	X			NSV		NSV
Benzo(b)fluoranthene	X			NSV		NSV
Benzo(g,h,i)perylene	X			NSV		NSV
Benzo(k)fluoranthene	X			NSV		NSV
Benzyl butyl phthalate						
Biphenyl (diphenyl)		NSV				
Bis(2-ethylhexyl) phthalate	X					
Caprolactam				NSV		NSV
Carbazole		NSV		NSV		
Chrysene	X			NSV		NSV
Dibenz(a,h)anthracene	X					NSV
Dibenzofuran	X					
Dimethyl phthalate						
Di-n-butyl phthalate						
Di-n-octylphthalate	X					
Fluoranthene	X					
Fluorene	X			NSV		NSV
Indeno(1,2,3-c,d)pyrene	X			NSV		NSV
Naphthalene	X					
Pentachlorophenol						
Phenanthrene	X					
Phenol						
Pyrene	X			NSV		NSV
Total PAHs	X			NSV		NSV
Pesticides (ug/kg)						

TABLE 4-1

Summary of COPCs for Surface Sediment and Surface Water (Dry and Wet) - Step 2

Gowanus Canal Remedial Investigation

Brooklyn, New York

COPCs	Surface Sediments		Surface Water (Dry)		Surface Water (Wet)	
	HQ>1	NSV	HQ>1	NSV	HQ>1	NSV
Alpha-chlordane	X					
Beta endosulfan	X					
Endosulfan sulfate		NSV				
Gamma-chlordane	X					
Methoxychlor		NSV				
P,P'-DDD	X					
P,P'-DDE	X					
Total DDTs	X					
Polychlorinated Biphenyls (ug/kg)						
Aroclor 1016	X					
Aroclor 1248	X					
Aroclor 1254	X					
Aroclor 1260	X					
Total PCBs	X					
Metals (ug/l)						
Aluminum		NSV				
Arsenic	X					
Arsenic Dissolved						
Barium	X					
Barium Dissolved						
Beryllium		NSV				
Cadmium	X					
Calcium		NSV		NSV		NSV
Calcium Dissolved				NSV		NSV
Chromium	X			NSV		NSV
Chromium Dissolved				NSV		NSV
Cobalt		NSV			X	
Cobalt Dissolved					X	

TABLE 4-1

Summary of COPCs for Surface Sediment and Surface Water (Dry and Wet) - Step 2

Gowanus Canal Remedial Investigation

Brooklyn, New York

COPCs	Surface Sediments		Surface Water (Dry)		Surface Water (Wet)	
	HQ>1	NSV	HQ>1	NSV	HQ>1	NSV
Copper	X		X			
Copper Dissolved			X			
Cyanide, Total		NSV				
Iron		NSV			X	
Iron Dissolved					X	
Lead	X				X	
Lead Dissolved					X	
Magnesium		NSV		NSV		NSV
Magnesium Dissolved				NSV		NSV
Manganese	X	NSV				
Manganese Dissolved						
Mercury	X					
Mercury Dissolved						
Nickel	X		X		X	
Nickel Dissolved						
Potassium		NSV		NSV		NSV
Potassium Dissolved				NSV		NSV
Selenium		NSV				
Selenium Dissolved						
Silver	X					
Sodium		NSV		NSV		NSV
Sodium Dissolved				NSV		NSV
Thallium						
Vanadium		NSV				
Zinc	X					
Zinc Dissolved						

SECTION 5

Baseline Ecological Risk Assessment: Approach to Refining Risks

The following section discusses refinements to the problem formulation and analysis approaches for the BERA evaluation for the Gowanus Canal. The BERA refines the SLERA risk estimate by refining the highly conservative assumptions made in the SLERA and by incorporating the evaluation of additional site-collected data to characterize risks for all assessment endpoints identified for evaluation in the ERA. The following sections discuss the data (Section 5.1) and approach (Section 5.2) for conducting the BERA for each of the assessment endpoints selected for evaluation at this site.

5.1 Evaluated Analytical Data

5.1.1 Sediment and Surface Water Chemistry

The surficial sediment (0 to 6 inches) and surface water (dry and wet) chemical analytical data and data groupings used in the SLERA were also used for the evaluation of risks in the BERA. Surficial sediment data were used to further evaluate potential risks to benthic macroinvertebrates via direct exposure and were additionally used in the BERA to evaluate the potential for adverse effects to avian wildlife from ingestion. Surface water data were used in the BERA to further evaluate potential risks to water-column-dwelling aquatic life. A detailed description of these data and their groupings is discussed in Section 3.1.1.

5.1.2 AVS/SEM Analysis

Acid volatile sulfide/simultaneously extractable metal (AVS/SEM) analysis was performed on the 27 surficial (0 to 6 inches) sediment samples collected from the Gowanus Canal. The purpose of the AVS/SEM analysis is to assess whether divalent metals (cadmium, copper, lead, nickel, silver, and zinc) in sediment are bioavailable and have potential to be toxic. These data were used in conjunction with the sediment chemical analytical and bioassay data to evaluate the overall potential for adverse effects to benthic macroinvertebrates.

5.1.3 Crab and Fish Tissue Chemical Residue

Crab and fish tissue collected from the Gowanus Canal were used in the BERA to evaluate potential risks to multiple receptors. A detailed description of the tissue collected during the Phase 3 sample effort and used in the ERA is presented in Section 2.5 of the RI. Whole-body crab and fish tissue chemical residue concentrations were used as follows in the BERA:

- **Crab.** Whole-body crab tissue residue concentrations were used in the BERA to estimate chemical concentrations in prey, in order to evaluate potential risks to avian predators.
- **Small prey fish.** Whole-body small prey fish tissue residue concentrations were used in the BERA to estimate chemical concentrations in prey, in order to evaluate potential risks to avian predators.

The following two subsections discuss the approach used to estimate tissue residue exposure concentrations for aquatic macroinvertebrates and small prey fish.

In addition to evaluating risks to wildlife predators, whole-body crab and fish tissue residue concentrations were used in the ERA to directly screen the potential for risk to crabs, small prey fish, and larger fish species. Larger fish species are considered unlikely to represent prey for avian wildlife and were not evaluated in the avian food web models. The procedure used for directly screening risks to crab and fish (smaller prey fish and larger fish species) and the resulting risk outcomes are presented in Attachment E of the ERA, and not within the main body of the ERA document.

Aquatic Macroinvertebrates (Crab)

Whole-body tissue concentrations in aquatic invertebrates were based on tissue chemical residue concentrations that were measured in blue crab (*Callinectes sapides*) collected from the Gowanus Canal. Crab tissue samples were used as a surrogate to estimate tissue concentrations for all aquatic invertebrates. Edible and hepatopancreas tissues were mathematically "recombined" to estimate whole-body crab tissue residue concentrations for evaluation in the ERA. This recombining of the hepatopancreas with other tissues is based on the need to have whole-body tissue concentrations for the evaluation of potential impacts to avian predators, based on the assumption that most predators would indiscriminately consume all soft tissues while foraging on crabs. Chemical residue concentrations in organs other than the hepatopancreas were not measured. However, for the purposes of this evaluation, chemical concentrations in hepatopancreas tissue were assumed to be representative of all organ tissue concentrations.

Whole-body tissue residue concentrations were estimated for each composite crab sample by taking a weighted average of the chemical residue concentrations measured in the edible and hepatopancreas tissue samples. A total of 12 composite edible tissue samples were created with the crabs collected from the Gowanus Canal (Table 2-5 of the RI). However, based on the small weight of the hepatopancreas and the tissue mass required for residue analysis, only two composite hepatopancreas samples could be created (Appendix I of the RI). Therefore, the maximum of each chemical concentration measured in the two hepatopancreas samples was used to estimate the whole body tissue residue concentrations for each of the 12 composite crab tissue residue samples.

The wet weight, weighted average whole-body crab tissue residue concentration of each chemical was estimated for each of the 12 crab samples using the following lab-measured data:

- Measured chemical concentrations detected in each edible tissue sample;
- Measured maximum chemical concentrations detected in hepatopancreas samples (maximum concentration of each chemical detected in the two hepatopancreas samples were used in the whole-body calculation to provide a conservative concentration estimate);
- Total wet weight mass of the edible tissue sample; and

- Total wet weight mass of the hepatopancreas tissue sample (mass used in the calculation represents the maximum weight of the two hepatopancreas tissue samples measured at the time the edible tissue samples were extracted from the shell).

For each of the 12 crab samples, a wet weight, weighted average whole-body concentration was calculated for each chemical by taking the weighted average concentration of the chemical detected in the edible and hepatopancreas tissues using the following equation:

$$CWBTC_x = \frac{[[(ETC_x)(ETW)] + [(HC_x)(HW)]]}{TW}$$

Where:

$CWBTC_x$ = Weighted average crab whole body tissue concentration for constituent *x* (wet weight)
ETC_x = Edible tissue concentration for constituent *x* (wet weight)
ETW = Edible tissue weight (wet weight)
HC_x = Hepatopancreas tissue concentration for constituent *x* (wet weight)
HW = Hepatopancreas tissue weight (wet weight)
TW = Total weight of edible and hepatopancreas tissues (wet weight)

The chemical concentrations determined for each of the 12 crab samples were then combined to estimate the maximum and mean wet weight chemical concentrations for blue crabs within the Gowanus Canal. Table 5-1 summarizes the maximum and mean wet weight tissue residue concentrations for the combined crab tissue samples.

Wet weight tissue concentrations were converted to dry weight concentrations for use in the food web models. Dry weight concentrations were determined using the percent moisture measured in each of the samples, and this conversion was done by first calculating a weighted average whole body water content using the following additional lab-measured data:

- Percent moisture of the edible tissue sample
- Percent moisture of the hepatopancreas tissue (minimum percent water of the two hepatopancreas samples was used to conservatively estimate percent water composition)

Wet weight tissue concentrations of the edible tissue and hepatopancreas sample components were first converted to dry weight concentrations by dividing the wet weight concentration of a chemical within a sample by the fraction dry weight of that sample. The fraction dry weight component of a sample was determined by subtracting the wet weight fraction of that sample (reported in Appendix I of the RI) from one. For each of the 12 crab samples, a weighted average whole-body concentration was calculated for each chemical by taking the dry weight, weighted average concentration of the chemical detected in the edible tissue and hepatopancreas tissues. The chemical concentrations determined for each of the 12 crab samples were then combined to estimate the maximum and mean dry weight chemical concentrations for blue crab in the Gowanus Canal. Table 5-2 summarizes the maximum and mean dry weight concentrations for blue crab. These whole-body dry weight

concentrations are used as described in Section 5.2.3 to model potential risks to avian wildlife predators.

Small Prey Fish

Small prey fish tissue concentration estimates were based on whole-body concentrations measured with four Atlantic tomcod and four mummichog samples (eight total small prey fish samples) collected from the Gowanus Canal (Table 2-5 of the RI). Although separate chemical analysis was conducted on the Atlantic tomcod and mummichog samples, the resulting chemical concentration data determined for the eight small prey fish samples were combined to estimate the maximum and mean wet weight chemical concentrations for small prey fish in the Gowanus Canal. Table 5-3 summarizes the maximum and mean wet weight concentrations for the combined small prey fish samples.

Wet weight tissue concentrations were converted to dry weight concentrations for use in the food web models. Wet weight tissue concentrations were converted to dry weight concentrations by dividing the wet weight concentration of a chemical within a sample by the fraction dry weight of that sample. The fraction dry weight was determined by subtracting the wet weight fraction of the sample (reported in Appendix I of the RI) from 1. The chemical concentrations determined in each of the eight small prey fish samples were then combined to estimate the maximum and mean dry weight chemical concentrations for small prey fish in the Gowanus Canal. Table 5-4 summarizes the maximum and mean dry weight concentrations for the small prey fish samples, which are composed of the combined chemical analytical data from the Atlantic tomcod and mummichog samples. These whole body dry weight concentrations are used as described in Section 5.2.3 to model potential risks to avian wildlife predators.

5.1.4 Sediment Bioassays

Sediment bioassays were used in the BERA along with chemical analytical data and crab tissue residue concentrations to evaluate the potential for adverse effects to benthic macroinvertebrates. Twenty-eight-day chronic bioassays were performed with the amphipod *Leptocheirus plumulosus* and the polychaete *Nereis virens* with splits of the surface sediment (0 to 6 inches) samples collected from Gowanus Canal for chemical and physical analysis. Splits of the following samples were used for bioassay analysis: 303, 307A, 309, 310, 313, 314, 315, 318, 319, 321, and 324. The locations of these samples are shown in Figures 2a, 2b, and 2c of the RI. The measured endpoints for the *L. plumulosus* bioassay were survival, growth, and reproduction, while the measured endpoints for the *N. virens* bioassay were survival and growth. The laboratory reports for these bioassays are presented in Attachment B.

5.2 Approach to Baseline Risk Evaluation

5.2.1 Benthic Macroinvertebrates

The BERA further evaluated sediment chemical concentrations and sediment bioassay outcomes into the BERA to refine the estimate of risk for benthic macroinvertebrates. These data were considered both individually and as part of a weight-of-evidence approach to evaluate the overall potential for adverse effects to benthic-dwelling organisms in the

Gowanus Canal. The following three sections present the approach used to summarize and evaluate the bioassay, sediment chemical analytical, and AVS/SEM data in the BERA.

Sediment Bioassays

Chronic polychaete (*N. virens*) and amphipod (*L. plumulosus*) toxicity tests were conducted with splits of each canal and reference surface sediment (0 to 6 inches) sample. Both toxicity tests were performed by EnviroSystems, Inc. (ESI), in Hampton, New Hampshire.[1] A detailed description of the bioassay tests along with all results are provided in Attachment B.

Following completion of the bioassays, each measured test endpoint was statistically analyzed to determine significant differences between field (canal or reference) and laboratory control samples. Pairwise statistical comparisons were conducted with each possible sample combination using either parametric or nonparametric Analysis of Variance (ANOVA) statistics, depending on normality of distribution and homogeneity of sample variance. The statistical significance was tested at an=0.05 level. A detailed description of the statistical approach is provided in Attachment B.

For the growth endpoints for both polychaetes and amphipods, only the biomass results were used in the risk evaluation because these measures are believed to represent overall impacts to the tested population of organisms. That is, the final biomass results reflect the difference, or remaining biomass of worm or amphipod following exposure, whereas the growth results in weight reflect only the organism's survival at the end of the test. Additionally, for amphipods, only the reproduction results in numbers of juveniles per surviving female were used for the risk evaluation, and the results per surviving adult were not considered. It is believed that the juvenile counts per female better reflect the impact of exposure since the organisms introduced at the beginning of the test are not sexed. Therefore, a lack or excess of surviving females could skew reproduction results in juvenile counts per adult, whereas the results normalized to females adjusts the results to make the sample-by-sample comparisons more consistent.

The outcomes of the pair-wise statistical comparisons between the field (canal and reference) and laboratory control samples were first evaluated to identify toxic samples. For each organism and measured endpoint, a response was considered to indicate toxicity if the measured response in the field sample was significantly reduced as compared to the laboratory control.

Once toxic responses were identified, the outcomes between the canal and reference samples were then compared to determine if toxic responses in the canal samples were different than responses in the reference area (New York Harbor). This step helped evaluate whether or not toxic responses in the canal samples were due to site-specific or ambient regional conditions. Since the land surrounding the site and the reference area is highly urbanized, with multiple contaminant influences and reduced habitat/sediment quality, reference area samples were considered reflective of the regional conditions. Therefore, a baseline of conditions in the reference area was established using a "reference envelope"

[1] The amphipod (*L. plumulosus*) tests were run three times. The control survival was below test acceptability criteria for the first two attempts, suggesting the health of the test organisms was compromised. Therefore, those test results were invalid. The survival, and all other test acceptability criteria, was met on the third attempt, and the results discussed in this report reflect the third and final execution of the amphipod tests.

approach (Ingersoll et al., 2009) to differentiate between site- and non-site-related toxic responses. Site-specific toxicity was established by comparing the responses of polychaetes (survival and growth) and amphipods (survival, growth, and reproduction) exposed to canal sediments to corresponding endpoint results in organisms exposed to reference samples. A reference envelope represents the variance in reference endpoint response, which can be established in a number of ways depending on the number of reference samples and endpoints (e.g., maximum or 5th percentile of responses). In this case, the lowest endpoint result for the reference samples was selected as the envelope value for comparison to canal, following the elimination of any reference sample outliers.

Analysis and elimination of reference sample outliers was performed by evaluating the reference sample responses and the concentrations of constituents detected in the split sediment sample (i.e., occurrence and magnitude of detected constituents) on a sample-by-sample basis. This was done to determine if any specific observed response should be considered indicative of the reference area, given the level of contamination and responses for all other reference samples. The potential influence of detected constituents in all five reference samples was evaluated by comparing detected constituent concentrations to NYSDEC (1999) sediment criteria for marine and estuarine sediments. For each chemical, these criteria consisted of the lowest effect level (exceedance indicates moderate impacts) and severe effect level (exceedance indicates severe impact) criteria, where available. Results of these comparisons and the test endpoint responses were used to justify elimination of a reference sample before reference envelope values were established (lowest endpoint result for included reference samples). Once the reference envelope endpoint values were established, endpoint-specific responses for canal samples were compared to reference envelope values on a sample-by-sample basis to determine if the responses were below the envelope. If a measured endpoint parameter was lower than the corresponding reference envelope value, then it was concluded the response indicated a potential site-related impact. If the measured parameter was higher than the corresponding reference envelope value, then the observed response was assumed to be from a variable unrelated to the site.

Finally, the occurrence and magnitude of constituent detections in samples colocated with impacted toxicity test samples were considered after site-specific impacts were established, to identify possible causes of observed toxicity. It was assumed that the detected constituents measured in these samples were the variables most likely responsible for the observed ecotoxicological impact(s).

Sediment Chemistry

Using the surface sediment (0 to 6 inches) chemical analytical data discussed in Section 5.1.1, the following guidelines were used in the BERA to evaluate potential risks from the exposure of benthic macroinvertebrates to chemicals in sediment:

- Ninety-five percent upper confidence limit (95% UCL) chemical concentrations were calculated using Pro UCL version 4.00.05 and compared to the medium-specific screening values used in the SLERA.
- For samples with duplicate analyses, the higher of the two detected concentrations was used if both values are detects. In cases where one result is a detected concentration and the other a nondetect, the detected value was used for evaluation of the 95% UCL.

- Nondetected chemicals were not evaluated in the BERA but were instead considered in the uncertainty section of the ERA (Section 7).

A summary of the 95% UCL chemical concentrations in Gowanus Canal surface sediment (0 to 6 inches) is presented in Table 5-5.

The sediment screening benchmarks that were used in the SLERA were compared to the 95% UCL concentration to first screen the potential for adverse effects to benthic invertebrates from exposure to chemicals in sediment in the BERA. A detailed description of the sediment screening benchmarks selected for use in the BERA is presented in Section 3.2.1. HQs were calculated for each chemical by dividing the 95% UCL by the screening value. Chemicals were identified as COCs if they were detected at 95% UCL concentrations exceeding screening values.

The concentrations of chemicals that were identified as COCs with this initial screen were further evaluated in the BERA. Less conservative, but still protective, sediment criteria (NYSDEC, 1999) were used, when needed, for the further evaluation of potential risk. For the screening benchmarks that were based on equilibrium partitioning, the mean of the total organic carbon concentration that was measured in the Phase 3 surface sediment samples (5.4 percent) was used to derive the screening value, instead of the more conservative total organic carbon concentration (2 percent) that was used in the initial screening. Similarly, the less conservative Effects Range—Median (ER-M) values reported in NYSDEC (1999) were used instead of the more conservative ER-L values that were used in the initial screening.

In the absence of applicable values in NYSDEC (1999), a broader range of sources was reviewed to identify additional screening values. Values from the following additional sources were used for this evaluation:

- Probable Effects Level (PEL) values from MacDonald (1994) and
- Probable Effects Concentrations (PEC) values from MacDonald (2000).

Additional sediment benchmarks identified for use for this further evaluation in the BERA are summarized in Table 5-6.

AVS/SEM Analysis

The AVS/SEM method is based on the concept that many toxic divalent metals (specifically cadmium, copper, lead, nickel, silver, and zinc) readily precipitate as insoluble metal sulfide minerals when exposed to reactive (volatile) sulfides. Volatile sulfides are operationally defined as metastable iron sulfide minerals that, when exposed to hydrochloric acid, form H_2S, which can be subsequently collected and analyzed. When the AVS concentration in sediments exceeds that of the metals under consideration, the metals are unlikely to be toxic.

Based on equilibrium partitioning theory, AVS in sediments will bind cationic metals, primarily the SEM metals cadmium, copper, lead, nickel, silver, and zinc. An excess of AVS relative to SEM on a molar basis indicates that the bioavailability of the metals should be minimal, while SEM in excess of the AVS indicates that the metals may be biologically available. The sum of the SEM concentrations should be compared with the AVS concentration on a molar basis (using [Ag]/2 because it is monovalent).

The organic carbon content of the sediment must also be considered when evaluating SEM/AVS data because the organic carbon fraction is an important partitioning phase in sediments. The use of organic carbon-normalized excess SEM [$(\sum SEM\text{-}AVS)/f_{OC}$] as a correction factor for excess SEM is based on the theoretical foundation of equilibrium partitioning and can be used to identify sediments that are likely to be toxic, are of uncertain toxicity, or are nontoxic.

Uncertainty bounds were used when estimating the toxicity of the selected metals, as the use of uncertainty bounds has been reported to improve the predictability of toxicity (USEPA, 2005a). The uncertainty bounds presented in USEPA (2005a) state that toxicity is likely when the $(\sum SEM\text{-}AVS)/f_{OC}$ is >3,000 µmol/g_{OC}, uncertain when the concentration is between 130 and 3,000 µmol/g_{OC}, and not likely when the concentration is <130 µmol/g_{OC}. The carbon-normalized $(\sum SEM\text{-}AVS)/f_{OC}$ values for each sample location are presented in Table 5-7.

5.2.2 Water-Column-Dwelling Aquatic Life

The BERA further evaluated surface water chemical concentrations to refine the estimate of risk for water column-dwelling aquatic life. These data outcomes were considered both individually and as part of a weight-of-evidence approach to evaluate the overall potential for adverse effects to water-column-dwelling aquatic life in the Gowanus Canal.

With the surface water chemical analytical data (wet and dry events) discussed in Section 5.1.1, the following guidelines were used in the BERA to estimate potential direct exposure of water-column-dwelling aquatic life for both the dry and wet sample events:

- For each data group, 95% UCL chemical concentrations were calculated using Pro UCL version 4.00.05 and compared to the medium-specific screening values used in the SLERA.
- For samples with duplicate analyses, the higher of the two detected concentrations was used if both values were detects. In cases where one result was a detected concentration and the other a nondetect, the detected value was used for evaluation of the 95% UCL.
- Nondetected chemicals were not evaluated in the BERA, but were instead considered in the uncertainty section of the ERA (Section 7).

A summary of the 95% UCL chemical concentrations in Gowanus Canal surface water under dry and wet event sample conditions is presented in Tables 5-8 and 5-9, respectively.

The surface water screening benchmarks that were used in the SLERA were also used in the BERA to evaluate the potential for adverse effects to water-column-dwelling aquatic life from exposure to chemicals in surface water. A detailed description of the surface water screening benchmarks selected for use in the BERA is presented in Section 3.2.

HQs were derived in the BERA to evaluate risks and were calculated for each parameter by dividing the 95% UCL by the screening value. Chemicals were identified as COCs if they were detected at 95% UCL concentrations exceeding screening values.

5.2.3 Avian Wildlife

This section presents the assessment of food web exposure risks for upper-trophic-level receptors (wildlife) potentially foraging in the canal. This assessment was conducted to be consistent with the food web evaluation approaches and assumptions employed during a BERA, per the USEPA's ERA guidance for the Superfund Program (USEPA, 1997).

Due to the urbanized setting and structure of the canal and surrounding area, only a limited number of upper-trophic-level receptors is expected to utilize this aquatic habitat. As discussed for the CSM (Section 2.1), only avian wildlife is expected to utilize this habitat. Species that represent the range of potential feeding groups using the canal include the green heron (omnivore), double-crested cormorant (piscivore), and black duck (herbivore). Therefore, these species were selected as indicator species at the focus of this food web assessment. At the BERA level of assessment, a food web scenario is considered that provides the most representative and realistic estimate of potential exposures and risks to these upper-trophic-level receptor populations (the focus of the assessment endpoints, as opposed to individuals). This is accomplished by using central tendency estimates of constituent exposure concentrations, bioaccumulation, and receptor-specific exposure parameters (e.g., body weight and food ingestion weight). This approach is appropriate; since upper-trophic-level species are highly mobile, they would be expected to effectively average their exposure over time as they forage within the area defining their home range (which will extend to offsite areas).

This section presents the components of the food web model that was used to estimate potential risks for upper trophic level receptors. Included in this section is a summary of the bioaccumulative chemicals at the focus of this portion of the assessment, the selection of ingestion screening values, identification of exposure point concentrations (EPCs), and the approach used to estimate the dietary exposure dose of selected receptor species.

Bioaccumulative Constituents Selected for Evaluation

Only constituents detected in sediment and/or wildlife prey-item tissue (fish and benthic invertebrates/crabs) at the site with the greatest potential to bioaccumulate were evaluated for exposures via the food web assessment. These consist of constituents listed in *Bioaccumulation Testing and Interpretation for the Purpose of Sediment Quality Assessment* (USEPA, 2000, Table 4-2).

For the DDT family of chemicals (4,4'-DDT, 4,4'-DDE, and 4,4'-DDD), PAHs, and PCBs, a total, or cumulative, concentration was evaluated instead of individual compounds, congeners, and/or Aroclor mixtures. For these constituents, a cumulative concentration is more appropriate since the constituents in these groups occur in close association (i.e., are detected simultaneously), and the ecotoxicological basis for the toxicity reference values (TRVs) for these groups reflects a potential additive, or cumulative exposure risks.

It should be noted that for PCBs and the heron and cormorant exposure estimates, all fish and invertebrate tissue samples were analyzed only for 209 PCB congeners (not Aroclor mixtures). However, all sediment samples were analyzed for Aroclor mixtures and only a subset of samples was analyzed for PCB congeners. Since the most comprehensive data set is Aroclor-based, these data were used in the food web assessment for estimating black duck exposure via consumption of aquatic plants (bioaccumulation estimated from sediment) and

incidental ingestion of sediment. However, the congener- versus Aroclor-based total PCB concentrations is evaluated in the uncertainty section as a means to evaluate the differences between these methods of analysis and potential impact on the risk assessment results.

Dioxin-like PCB congeners in tissue were also assessed using toxicity equivalents (TEQs) for the heron and cormorant exposure estimates. The method for calculating TEQs is discussed below. Due to the limited congener data available for sediment, TEQs were not calculated for sediment. Therefore TEQs could not be estimated for aquatic plants, and black duck exposure was not evaluated for this constituent. The lack of black duck/TEQ evaluation is considered in the discussion of uncertainty.

Ingestion Screening Values

Ingestion screening values, TRVs, for avian receptors were identified from the scientific literature. For the purpose of this assessment a TRV is defined as a threshold concentration of a particular chemical that represents some level of protectiveness (i.e., is the minimum concentration associated with adverse effects or the maximum concentration not associated with adverse effects) for the avian receptors selected for evaluation.

Studies that relate dietary concentrations of bioaccumulative constituents to adverse effects in birds were identified from a search of electronic databases and from a review of original studies identified in the following review sources:

- Agency for Toxic Substances and Disease Registry (ATSDR)
- ECOTOX database (EPA electronic database)
- BIOSIS electronic database
- TOXNET database (National Library of Medicine)
- Integrated Risk Information System (IRIS) database (EPA electronic database)
- U.S. Fish and Wildlife Service (USFWS) Contaminant Review series electronic database
- Oak Ridge National Laboratory database (Sample et al., 1996)

Consistent with the assessment endpoints identified for evaluation, only dietary studies with survival, growth, and reproduction as the measured endpoints were considered for use in the food web assessment. The TRVs identified for evaluation represent both concentrations below which adverse effects are not expected (i.e., no-observed-adverse-effect level [NOAEL]) and/or above which adverse effects are expected (i.e., lowest-observed-adverse-effect level [LOAEL]). NOAELs or LOAELs could be identified for only some constituents (e.g., mercury or methoxychlor). The selection of TRVs based on the available reviewed literature was prioritized using the following guidelines:

- The preferred exposure duration was subchronic or chronic, or conducted during a critical life stage such as reproduction, gestation, or development. Acute studies were considered but not preferred.

- Only studies with mortality, growth, or reproductive effect endpoints were used for birds and mammals.

- Doses received via food ingestion were preferred over administration of the dose using drinking water, gavage, oral intubation, or injection because the exposure route in nondietary studies were not preferred because the exposure route cannot be directly related to environmental exposure to the bird or mammal.

- Preferred TRVs were based on results that were evaluated statistically to identify significant differences from control values. Studies were not considered if negative control groups were not included.
- Studies using field-collected prey were reviewed and compared to the results of the laboratory studies. In general, laboratory studies were preferred as a source of TRVs because controlled test conditions provide greater certainty that the observed response can be related to the chemical dose. The presence of multiple chemicals and other environmental factors may result in adverse effects that complicate the interpretation of field study results.

The TRVs are expressed as daily dose in milligrams per kilogram body weight per day (mg/kg bw/d). Some literature sources express the TRVs as a food concentration, in which case a daily exposure dose was derived from the food concentration using the animal's body weight (kg) and ingestion rate (kg/d) as reported in the study or using values published elsewhere. The selected avian TRVs used for this assessment are presented in Table 5-10. Since the actual dose that is protective of an individual receptor falls between the NOAEL and the LOAEL, a constituent will be identified as a food web COPC if the estimated dose for at least one of the avian receptors exceeds both the NOAEL and LOAEL, when both are available. For constituents where only one endpoint has been identified, the exceedances will be evaluated on a constituent-by-constituent basis in consideration with other key information (frequency of detection, magnitude of exceedance, etc.).

Exposure Point Concentrations

An exposure point concentration (EPC) is the estimation of a constituent concentration in applicable media to which receptors might be exposed. For food web/upper-trophic-level receptors, the estimated EPCs for each ingested item (e.g., food, sediment) are used as the basis for estimating the total dietary dose for each constituent.

Medium-specific EPCs are calculated as a particular point on the distribution of concentrations from sets of site-specific data representing these media. Section 5.1 discusses the available analytical data collected at the site and the criteria used to select these sets of data (validation status, sampling date, sample depth and location, etc.). The EPCs established for this assessment varied by medium due to the number and types of samples collected at the site. The EPCs are briefly discussed by medium in the subsections below.

DDT family chemicals, PAH compounds, and PCB congeners/Aroclors were assessed on a total-concentration basis. The approach for calculating total DDT, PCBs, and PAHs is explained in Table 4-21 of the RI and in the following sections. Surface-water-based constituents were not considered for any receptors via the food web exposure assessment since the brackish conditions in the canal would not make it a suitable drinking water source for wildlife. Additionally, all EPCs used for the food web assessment are reported on a dry weight basis. Section 5.1.3 discusses how tissue how data that were reported on a wet weight basis were converted to dry weight for use here.

Sediment. The 95% UCL concentration of bioaccumulative chemicals detected within the surface sediment (0 to 6 inches) was used as the EPC for chemicals for this medium, unless the 95% UCL was greater than the maximum detected concentration. In these situations, the detected maximum concentration was used as the EPC. For conservatism, when a

constituent was undetected in sediment but was detected in fish and/or crab tissue, the maximum reporting limit was used as a surrogate sediment EPC. A summary of the EPCs for sediment is presented in Table 5-5.

Fish and Benthic Invertebrate Tissue. For fish and aquatic invertebrate tissue, concentrations from crab small prey fish collected during the Phase 3 investigation were used as the basis for the EPCs. For crab EPCs, the mean concentration of whole-body crabs, as estimated by combining results of the hepatopancreas and edible tissue samples, was used (Section 5.1.3). For the fish tissue EPCs, the weighted mean concentration of whole-body small prey fish (combined grouping of tomcod and mummichog chemical analytical outcomes) was used (Section 5.1.3). Tables 5-2 and 5-4 present these EPCs for crab and fish tissues, respectively. For conservatism, when a constituent was undetected in either crab or fish tissue samples, the maximum reporting limit was used as a surrogate EPC.

The EPCs for dioxin-like PCB congeners (PCBs 77, 81, 105, 114, 118, 123, 126, 156, 157, 167, 169, and 189) measured in tissue samples were also evaluated using the TEQ approach. This approach was used to adjust all dioxin-like PCB congener concentrations in terms of 2,3,7,8-TCDD using a two-step process. First, a dioxin (2,3,7,8-TCDD) equivalent concentration was calculated for each of the 12 dioxin-like PCB congeners by multiplying the detected concentrations by their respective receptor-specific toxicity equivalency factor (TEF). Second, a total TEQ value was calculated for each sample by summing all congener-specific TEQs. The bird TEFs from Van den Berg et al. (1998) were used to calculate TEQs (Table 5-11). Attachment C contains the full TEQ calculation worksheets from raw data for birds.

Aquatic Plants. The concentrations in the above-sediment vegetative portion of plants were estimated for all bioaccumulative constituents, except PAHs, by multiplying sediment EPCs by chemical-specific sediment-to-plant bioconcentration factors (BCFs). These BCFs were based on central tendency estimates (e.g., median or mean) from the literature. These BCFs are listed in Table 5-12.

These BCFs were based upon root uptake from soil (and were extrapolated to sediment) and upon the ratio between dry-weight soil and dry-weight plant tissue. Literature values based upon the ratio between dry-weight soil and wet-weight plant tissue were converted to a dry-weight basis by dividing the wet-weight BCF by an estimated solids content for terrestrial plants (15 percent [0.15]; Sample et al., 1997). The aquatic plant tissue EPCs have not been summarized previously and are presented in the food web risk results table in subsequent section.

For the total PAH, aquatic plant tissue EPCs were estimated from sediment using an approach that incorporated the uptake differences between low-molecular-weight (LMW) and high-molecular-weight (HMW) PAH compounds. As with other constituents, the uptake was estimated from soil and extrapolated to sediment using the approach from the PAH-specific ecological soil screening levels (Eco-SSL) document (USEPA, 2007). Attachment D presents the detailed EPC approach and calculations used for the aquatic plant tissue.

Dietary Intakes

For receptor species used in food-web modeling, the dietary intake (i.e., dose) of each constituent (in milligrams of chemical per kilogram of body weight per day) was calculated

by using species-specific life history information, where available, and the following formula (modified from USEPA, 1993):

$$DI_x = \frac{[[\sum_i (FIR)(FC_{xi})(PDF_i)] + [(FIR)(SC_x)(PDS)]]}{BW}(AUF)$$

Where:

DI_x = Dietary intake for constituent *x* (mg constituent/kg body weight/day)
FIR = Food ingestion rate (kg/day, dry weight)
FC_{xi} = Concentration of constituent *x* in food item *i* (mg/kg, dry weight)
PDF_i = Proportion of diet composed of food item *i* (dry weight basis)
SC_x = Concentration of constituent *x* in sediment (mg/kg, dry weight)
PDS = Proportion of diet composed of sediment (dry-weight basis)
BW = Body weight (kg)
AUF = Area use factor; percent (decimal) of habitat used by receptor relative to the size of the site

Receptor-specific values used as inputs to this equation are provided in Table 5-13. It was assumed that constituents were 100 percent bioavailable to the receptor and it was also assumed that each receptor spent 100 percent of its time at the site (i.e., AUF of 1.0 was assumed). Central tendency estimates (e.g., mean, median, or midpoint) for body weight and ingestion rate were used to develop exposure estimates for upper trophic level receptors. Central tendency estimates for these exposure parameters are more relevant for a BERA because they better represent the characteristics of a greater proportion of the individuals in the population.

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TABLE 5-1
Summary Statistics – Gowanus Blue Crab Tissue – Maximum and Mean Wet Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Semi-Volatile Organic Compounds (ug/kg)					
Acenaphthene	12 / 12 (100%)	23.8 - 73.0	GC-TI401-BC	73.0	39.5
Acenaphthylene	6 / 12 (50.0%)	6.07 - 14.3	GC-TI401-BC	14.3	9.71
Anthracene	12 / 12 (100%)	3.85 - 12.4	GC-TI401-BC	12.4	6.44
Benzo(a)anthracene	5 / 12 (41.7%)	4.75 - 15.7	GC-TI402-BC	15.7	7.64
Benzo(a)pyrene	11 / 12 (91.7%)	5.45 - 17.5	GC-TI402-BC	17.5	7.74
Benzo(b)fluoranthene	9 / 12 (75.0%)	4.82 - 9.61	GC-TI402-BC	9.61	5.87
Benzo(g,h,i)perylene	12 / 12 (100%)	13.6 - 28.2	GC-TI401-BC	28.2	18.5
Benzo(k)fluoranthene	8 / 12 (66.7%)	3.65 - 8.76	GC-TI402-BC	8.76	4.89
Chrysene	8 / 12 (66.7%)	5.03 - 13.6	GC-TI402-BC	13.6	6.66
Dibenz(a,h)anthracene	12 / 12 (100%)	2.59 - 5.13	GC-TI402-BC	5.13	3.56
Fluoranthene	12 / 12 (100%)	8.44 - 21.9	GC-TI402-BC	21.9	14.9
Fluorene	12 / 12 (100%)	6.43 - 26.8	GC-TI404-BC	26.8	14.9
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	7.46 - 12.3	GC-TI402-BC	12.3	9.22
Phenanthrene	12 / 12 (100%)	12.2 - 44.1	GC-TI401-BC	44.1	26.6
Pyrene	12 / 12 (100%)	9.88 - 28.6	GC-TI401-BC	28.6	18.5
Total PAHs	12 / 12 (100%)	106 - 300	GC-TI401-BC	300	184
Pesticides (ug/kg)					
P,P'-DDE	12 / 12 (100%)	2.05 - 2.79	GC-TI402-BC	2.79	2.41
Total DDTs	4 / 12 (33.3%)	2.08 - 2.79	GC-TI402-BC	2.79	2.50
Polychlorinated Biphenyl Congeners (ng/kg)					
Total PCB Congeners	12 / 12 (100%)	133000 - 194000	GC-TI405-BC	194000	157000
Metals (mg/kg)					
Arsenic	12 / 12 (100%)	0.902 - 1.47	GC-TI401-BC	1.47	1.21
Calcium	12 / 12 (100%)	1050 - 1740	GC-TI406-BC	1740	1400
Copper	12 / 12 (100%)	8.19 - 11.7	GC-TI406-BC	11.7	9.65
Iron	6 / 12 (50.0%)	8.43 - 13.3	GC-TI406-BC	13.3	10.8
Magnesium	12 / 12 (100%)	318 - 395	GC-TI406-BC	395	351
Manganese	12 / 12 (100%)	2.20 - 3.24	GC-TI405-BC	3.24	2.72
Mercury	12 / 12 (100%)	0.0792 - 0.142	GC-TI402-BC	0.142	0.115
Potassium	12 / 12 (100%)	1910 - 2390	GC-TI406-BC	2390	2100

TABLE 5-1
Summary Statistics – Gowanus Blue Crab Tissue – Maximum and Mean Wet Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Metals (mg/kg)					
Silver	2 / 12 (16.7%)	0.421 - 0.463	GC-TI401-BC	0.463	0.442
Sodium	12 / 12 (100%)	2630 - 3490	GC-TI401-BC, GC-TI402-BC	3490	3070
Zinc	12 / 12 (100%)	18.9 - 24.0	GC-TI406-BC	24.0	20.9
Cyanide, Total	10 / 12 (83.3%)	0.527 - 0.847	GC-TI401-BC	0.847	0.708

TABLE 5-2
Summary Statistics – Gowanus Blue Crab Tissue – Maximum and Mean Dry Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Semi-Volatile Organic Compounds (ug/kg)					
Acenaphthene	12 / 12 (100%)	665 - 1370	GC-TI401-BC	1370	1160
Acenaphthylene	6 / 12 (50.0%)	210 - 247	GC-TI401-BC	247	228
Anthracene	12 / 12 (100%)	123 - 252	GC-TI401-BC	252	214
Benzo(a)anthracene	5 / 12 (41.7%)	144 - 204	GC-TI402-BC	204	159
Benzo(a)pyrene	11 / 12 (91.7%)	107 - 241	GC-TI402-BC	241	180
Benzo(b)fluoranthene	9 / 12 (75.0%)	128 - 160	GC-TI402-BC	160	139
Benzo(g,h,i)perylene	12 / 12 (100%)	282 - 491	GC-TI401-BC	491	431
Benzo(k)fluoranthene	8 / 12 (66.7%)	100 - 133	GC-TI402-BC	133	112
Chrysene	8 / 12 (66.7%)	143 - 195	GC-TI402-BC	195	157
Dibenz(a,h)anthracene	12 / 12 (100%)	74.6 - 133	GC-TI402-BC	133	120
Fluoranthene	12 / 12 (100%)	268 - 526	GC-TI402-BC	526	472
Fluorene	12 / 12 (100%)	241 - 529	GC-TI404-BC	529	443
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	152 - 260	GC-TI402-BC	260	236
Phenanthrene	12 / 12 (100%)	451 - 934	GC-TI401-BC	934	820
Pyrene	12 / 12 (100%)	327 - 650	GC-TI401-BC	650	580
Total PAHs	12 / 12 (100%)	3000 - 6020	GC-TI401-BC	6020	5270
Pesticides (ug/kg)					
P,P'-DDE	12 / 12 (100%)	41.6 - 73.0	GC-TI405-BC	73.0	67.1
Total DDTs	4 / 12 (33.3%)	65.9 - 72.0	GC-TI402-BC	72.0	69.2
Polychlorinated Biphenyl Congeners (ng/kg)					
Total PCB Congeners	12 / 12 (100%)	2770000 - 4840000	GC-TI405-BC	4840000	4270000
Metals (mg/kg)					
Arsenic	12 / 12 (100%)	22.0 - 34.5	GC-TI404-BC	34.5	31.8
Calcium	12 / 12 (100%)	28000 - 45000	GC-TI405-BC	45000	40600
Copper	12 / 12 (100%)	167 - 258	GC-TI405-BC	258	239
Iron	6 / 12 (50.0%)	275 - 453	GC-TI405-BC	453	408
Magnesium	12 / 12 (100%)	6400 - 10300	GC-TI405-BC	10300	9510
Manganese	12 / 12 (100%)	97.6 - 182	GC-TI405-BC	182	165
Mercury	12 / 12 (100%)	1.41 - 2.23	GC-TI404-BC	2.23	2.00
Potassium	12 / 12 (100%)	31700 - 48400	GC-TI405-BC	48400	45200

TABLE 5-2
Summary Statistics – Gowanus Blue Crab Tissue – Maximum and Mean Dry Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Metals (mg/kg)					
Silver	2 / 12 (16.7%)	10.0 - 16.3	GC-TI401-BC	16.3	13.2
Sodium	12 / 12 (100%)	56700 - 95500	GC-TI402-BC	95500	87100
Zinc	12 / 12 (100%)	326 - 498	GC-TI405-BC	498	467
Cyanide, Total	10 / 12 (83.3%)	22.3 - 41.7	GC-TI405-BC	41.7	37.8

TABLE 5-3
Summary Statistics – Gowanus Small Prey Fish – Maximum and Mean Wet Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Pesticides (ug/kg)					
Alpha-chlordane	4 / 8 (50.0%)	1.80 - 4.20	GC-TI405-MCG	4.20	3.15
Endrin	1 / 8 (12.5%)	2.70 - 2.70	GC-TI401-XATC	2.70	---
Gamma-chlordane	1 / 7 (14.3%)	5.40 - 5.40	GC-TI405-MCG	5.40	---
P,P'-DDE	1 / 8 (12.5%)	3.50 - 3.50	GC-TI405-MCG	3.50	---
P,P'-DDT	1 / 8 (12.5%)	8.50 - 8.50	GC-TI401-XATC	8.50	---
Polychlorinated Biphenyl Congeners (ng/kg)					
Total PCB Congeners	8 / 8 (100%)	117000 - 650000	GC-TI404-MCG	650000	273000
Metals (mg/kg)					
Aluminum	1 / 8 (12.5%)	30.3 - 30.3	GC-TI405-XATC	30.3	---
Calcium	8 / 8 (100%)	2910 - 11600	GC-TI404-MCG	11600	7110
Chromium	2 / 8 (25.0%)	0.33 - 0.40	GC-TI405-XATC	0.40	0.365
Copper	6 / 8 (75.0%)	0.84 - 4.50	GC-TI403-MCG	4.50	2.52
Iron	8 / 8 (100%)	16.2 - 77.6	GC-TI405-XATC	77.6	31.4
Lead	1 / 8 (12.5%)	0.69 - 0.69	GC-TI405-XATC	0.69	---
Magnesium	8 / 8 (100%)	187 - 517	GC-TI404-MCG	517	361
Manganese	8 / 8 (100%)	0.92 - 4.30	GC-TI404-MCG	4.30	2.30
Mercury	8 / 8 (100%)	0.072 - 0.10	GC-TI401-XATC, GC-TI403-MCG	0.10	0.0866
Potassium	8 / 8 (100%)	1290 - 2730	GC-TI404-MCG	2730	2220
Selenium	3 / 8 (37.5%)	1.20 - 1.30	GC-TI403-MCG, GC-TI405-MCG	1.30	1.27
Sodium	8 / 8 (100%)	588 - 1910	GC-TI401-XATC	1910	1360
Zinc	8 / 8 (100%)	7.20 - 42.3	GC-TI403-MCG	42.3	21.9
Cyanide, Total	3 / 8 (37.5%)	0.24 - 0.44	GC-TI406-XATC	0.44	0.357

TABLE 5-4
Summary Statistics – Gowanus Small Prey Fish – Maximum and Mean Dry Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Pesticides (ug/kg)					
Alpha-chlordane	4 / 8 (50.0%)	18.3 - 26.4	GC-TI401-XATC	26.4	22.1
Endrin	1 / 8 (12.5%)	18.8 - 18.8	GC-TI401-XATC	18.8	---
Gamma-chlordane	1 / 7 (14.3%)	23.5 - 23.5	GC-TI405-MCG	23.5	---
P,P'-DDE	1 / 8 (12.5%)	15.2 - 15.2	GC-TI405-MCG	15.2	---
P,P'-DDT	1 / 8 (12.5%)	59.0 - 59.0	GC-TI401-XATC	59.0	---
Polychlorinated Biphenyl Congeners (ng/kg)					
Total PCB Congeners	8 / 8 (100%)	953000 - 2890000	GC-TI404-MCG	2890000	1580000
Metals (mg/kg)					
Aluminum	1 / 8 (12.5%)	233 - 233	GC-TI405-XATC	233	---
Calcium	8 / 8 (100%)	32600 - 51600	GC-TI404-MCG	51600	41800
Chromium	2 / 8 (25.0%)	1.47 - 3.08	GC-TI405-XATC	3.08	2.28
Copper	6 / 8 (75.0%)	4.80 - 18.1	GC-TI403-MCG	18.1	13.0
Iron	8 / 8 (100%)	102 - 597	GC-TI405-XATC	597	218
Lead	1 / 8 (12.5%)	5.31 - 5.31	GC-TI405-XATC	5.31	---
Magnesium	8 / 8 (100%)	1740 - 2790	GC-TI403-XATC	2790	2250
Manganese	8 / 8 (100%)	11.1 - 19.1	GC-TI404-MCG	19.1	13.6
Mercury	8 / 8 (100%)	0.322 - 0.976	GC-TI403-XATC	0.976	0.594
Potassium	8 / 8 (100%)	10100 - 18700	GC-TI401-XATC	18700	14200
Selenium	3 / 8 (37.5%)	5.24 - 5.65	GC-TI405-MCG	5.65	5.41
Sodium	8 / 8 (100%)	5890 - 13300	GC-TI401-XATC	13300	8790
Zinc	8 / 8 (100%)	85.1 - 171	GC-TI403-MCG	171	124
Cyanide, Total	3 / 8 (37.5%)	1.67 - 4.76	GC-TI403-XATC	4.76	2.98

TABLE 5-5
Screening Statistics - Gowanus Canal Surface Sediment (0-6") - Step 3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Volatile Organic Compounds (ug/kg)									
1,2-dichloroethane	6 / 27 (22.2%)	5.00 - 23.0	3.90 - 45.0	323	NSV	10.2	95% KM (% Bootstrap)	NSV	NSV
1,4-dichlorobenzene	3 / 26 (11.5%)	5.00 - 23.0	7.60 - 240	301	240	240	95% KM (Percentile Bootstrap)	1.0	No
Acetone	11 / 27 (40.7%)	9.90 - 46.0	21.0 - 90.0	314	NSV	34.7	95% KM (t)	NSV	NSV
Benzene	4 / 27 (14.8%)	5.00 - 23.0	6.80 - 110	304	520	53.1	95% KM (Percentile Bootstrap)	0.1	No
Carbon disulfide	9 / 27 (33.3%)	5.00 - 23.0	4.70 - 89.0	314	NSV	15	95% KM (% Bootstrap)	NSV	NSV
Chlorobenzene	1 / 27 (3.7%)	5.00 - 23.0	53.0 - 53.0	301	70	53	Max	0.76	No
Cyclohexane	3 / 27 (11.1%)	5.00 - 23.0	8.00 - 14.0	304	NSV	14	95% KM (% Bootstrap)	NSV	NSV
Ethylbenzene	8 / 27 (29.6%)	5.00 - 23.0	5.30 - 3600	315	128	484	95% KM (t)	3.8	YES
Isopropylbenzene (cumene)	7 / 27 (25.9%)	5.00 - 23.0	4.60 - 760	315	NSV	198	95% KM (Percentile Bootstrap)	NSV	NSV
m, p xylenes	5 / 27 (18.5%)	5.00 - 23.0	5.40 - 810	315	540	197	95% KM (Percentile Bootstrap)	0.36	No
Methylcyclohexane	3 / 27 (11.1%)	5.00 - 23.0	15.0 - 170	314	NSV	33	95% KM (t)	NSV	NSV
Methylene chloride	6 / 27 (22.2%)	5.00 - 23.0	2.20 - 7.70	306	NSV	4.82	95% KM (Percentile Bootstrap)	NSV	NSV
o-xylene (1,2-dimethylbenzene)	5 / 27 (18.5%)	5.00 - 23.0	19.0 - 1200	315	540	367	95% KM (Percentile Bootstrap)	0.68	No
Tert-butyl methyl ether	1 / 27 (3.7%)	5.00 - 23.0	34.0 - 34.0	304	NSV	34	Max	NSV	NSV
Tetrachloroethylene(PCE)	2 / 27 (7.4%)	5.00 - 23.0	5.80 - 11.0	302	NSV	11	95% KM (% Bootstrap)	NSV	NSV
Toluene	4 / 27 (14.8%)	5.00 - 23.0	5.80 - 36.0	314	900	25.8	95% KM (Percentile Bootstrap)	0.029	No
Trichloroethylene (TCE)	1 / 27 (3.7%)	5.00 - 23.0	4.20 - 4.20	301	NSV	4.2	Max	NSV	NSV
Trichlorofluoromethane	3 / 27 (11.1%)	5.00 - 23.0	4.60 - 8.90	302	NSV	8.9	95% KM (Percentile Bootstrap)	NSV	NSV
Semi-Volatile Organic Compounds (ug/kg)									
2-methylnaphthalene	16 / 27 (59.3%)	120 - 3100	190 - 870000	315	70	358000	99% KM (Chebyshev)	5100	YES
Acenaphthene	21 / 27 (77.8%)	160 - 3100	160 - 580000	315	16	309000	99% KM (Chebyshev)	19000	YES
Acenaphthylene	14 / 27 (51.9%)	160 - 3100	270 - 150000	314	44	84700	99% KM (Chebyshev)	1900	YES
Anthracene	24 / 27 (88.9%)	250 - 3100	330 - 610000	315	85.3	293000	99% KM (Chebyshev)	3400	YES
Benzo(a)anthracene	27 / 27 (100%)	---	1100 - 490000	315	261	128000	95% Chebyshev (Mean, Sd)	490	YES
Benzo(a)pyrene	26 / 27 (96.3%)	250 - 250	1200 - 200000	314	430	73200	97.5% KM (Chebyshev)	170	YES
Benzo(b)fluoranthene	26 / 27 (96.3%)	250 - 250	1000 - 210000	314	4600	79200	97.5% KM (Chebyshev)	17	YES
Benzo(g,h,i)perylene	26 / 27 (96.3%)	260 - 260	610 - 74000	314	620	27600	97.5% KM (Chebyshev)	45	YES
Benzo(k)fluoranthene	26 / 27 (96.3%)	250 - 250	820 - 120000	314	4600	41000	97.5% KM (Chebyshev)	8.9	YES
Biphenyl (diphenyl)	2 / 27 (7.4%)	6200 - 230000	650 - 71000	315	NSV	42300	99% KM (Chebyshev)	NSV	NSV
Bis(2-ethylhexyl) phthalate	21 / 27 (77.8%)	8100 - 160000	2600 - 57000	314	182	14600	95% KM (BCA)	80	YES

TABLE 5-5
Screening Statistics - Gowanus Canal Surface Sediment (0-6") - Step 3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Semi-Volatile Organic Compounds (ug/kg)									
Carbazole	1 / 27 (3.7%)	6200 - 230000	1400 - 1400	308A	NSV	1400	Max	NSV	NSV
Chrysene	27 / 27 (100%)	---	730 - 490000	315	384	127000	95% Chebyshev (Mean, Sd)	330	YES
Dibenz(a,h)anthracene	23 / 27 (85.2%)	320 - 3100	200 - 14000	314	63.4	5460	97.5% KM (Chebyshev)	86	YES
Dibenzofuran	1 / 27 (3.7%)	6200 - 230000	1100 - 1100	319	300	1100	Max	3.7	YES
Di-n-butyl phthalate	2 / 27 (7.4%)	6200 - 230000	510 - 550	318	4400	550	Max	0.13	No
Di-n-octylphthalate	1 / 27 (3.7%)	6200 - 230000	9300 - 9300	307A	1160	9300	Max	8.0	YES
Fluoranthene	27 / 27 (100%)	---	1200 - 630000	314	600	180000	95% Chebyshev (Mean, Sd)	300	YES
Fluorene	17 / 27 (63.0%)	160 - 3100	130 - 540000	315	19	231000	99% KM (Chebyshev)	12000	YES
Indeno(1,2,3-c,d)pyrene	27 / 27 (100%)	---	1000 - 120000	314	680	31400	95% Chebyshev (Mean, Sd)	46	YES
Naphthalene	19 / 27 (70.4%)	160 - 3100	120 - 1600000	315	160	655000	99% KM (Chebyshev)	4100	YES
Phenanthrene	26 / 27 (96.3%)	3100 - 3100	510 - 1100000	315	240	497000	99% KM (Chebyshev)	2100	YES
Pyrene	26 / 27 (96.3%)	230 - 230	1400 - 670000	314	665	387000	99% KM (Chebyshev)	580	YES
Total PAHs	27 / 27 (100%)	---	10900 - 8000000	315	4022	1950000	95% Chebyshev (Mean, Sd)	480	YES
Pesticides (ug/kg)									
Alpha-chlordane	2 / 27 (7.4%)	2.70 - 530	6.70 - 14.0	308A	0.04	14	95% KM (% Bootstrap)	350	YES
Beta endosulfan	1 / 27 (3.7%)	5.30 - 1000	13.0 - 13.0	308A	0.08	13	Max	160	YES
Endosulfan sulfate	1 / 27 (3.7%)	5.30 - 1000	21.0 - 21.0	308A	NSV	21	Max	NSV	NSV
Gamma-chlordane	3 / 27 (11.1%)	2.70 - 530	5.90 - 29.0	308A	0.04	29	95% KM (Percentile Bootstrap)	730	YES
Methoxychlor	1 / 27 (3.7%)	27.0 - 5300	33.0 - 33.0	308A	NSV	33	Max	NSV	NSV
P,P'-DDD	5 / 5 (100%)	---	7.90 - 1100	315	1.22	1100	Max	900	YES
P,P'-DDE	1 / 26 (3.8%)	5.30 - 1000	16.0 - 16.0	308A	2.2	16	Max	7.3	YES
Total DDTs	5 / 5 (100%)	---	7.90 - 1100	315	1.58	1100	Max	700	YES
Polychlorinated Biphenyls (ug/kg)									
Aroclor 1016	4 / 27 (14.8%)	41.0 - 120	140 - 290	318	22.7	246	95% KM (Percentile Bootstrap)	11	YES
Aroclor 1248	2 / 27 (7.4%)	41.0 - 120	230 - 2200	316	22.7	935	97.5% KM (Chebyshev)	41	YES
Aroclor 1254	1 / 27 (3.7%)	48.0 - 120	590 - 590	308A	22.7	590	Max	26	YES
Aroclor 1260	7 / 27 (25.9%)	41.0 - 120	150 - 3400	314	22.7	657	95% KM (t)	29	YES
Total PCBs	10 / 27 (37.0%)	---	230 - 3400	314	22.7	846	95% KM (t)	37	YES
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	19 / 19 (100%)	---	99500 - 15100000	314	59800	6630000	95% Chebyshev (Mean, Sd) UCL	110	YES

TABLE 5-5
Screening Statistics - Gowanus Canal Surface Sediment (0-6") - Step 3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Metals (mg/kg)									
Aluminum	27 / 27 (100%)	---	4870 - 18900	310	NSV	14600	95% Student's-t	NSV	NSV
Arsenic	27 / 27 (100%)	---	3.40 - 44.7	308A	8.2	14.7	95% Modified-t	1.8	YES
Barium	27 / 27 (100%)	---	83.1 - 631	317	130.1	277	95% Chebyshev (Mean, Sd)	2.1	YES
Beryllium	12 / 27 (44.4%)	0.60 - 1.60	0.11 - 0.46	309	NSV	0.371	95% KM (t)	NSV	NSV
Cadmium	27 / 27 (100%)	---	1.50 - 20.2	308A	1.2	9.99	95% Chebyshev (Mean, Sd)	8.3	YES
Calcium	27 / 27 (100%)	---	4890 - 11300	313	NSV	8230	95% Student's-t	NSV	NSV
Chromium	27 / 27 (100%)	---	22.7 - 139	314	81	84.5	95% Modified-t	1.0	No
Cobalt	14 / 27 (51.9%)	7.30 - 17.1	6.50 - 14.8	318	NSV	11	95% KM (Percentile Bootstrap)	NSV	NSV
Copper	27 / 27 (100%)	---	85.8 - 790	308A	34	274	95% Modified-t	8.1	YES
Iron	27 / 27 (100%)	---	12400 - 87000	308A	NSV	33600	95% Modified-t	NSV	NSV
Lead	27 / 27 (100%)	---	146 - 4220	308A	46.7	1200	95% Chebyshev (Mean, Sd)	26	YES
Magnesium	27 / 27 (100%)	---	4210 - 11400	318	NSV	9350	95% Student's-t	NSV	NSV
Manganese	27 / 27 (100%)	---	89.1 - 480	308A	460	306	95% Student's-t	0.67	No
Mercury	27 / 27 (100%)	---	0.59 - 2.30	313	0.15	1.39	95% Student's-t	9.3	YES
Nickel	27 / 27 (100%)	---	18.1 - 84.5	314	20.9	48.1	95% Approximate Gamma	2.3	YES
Potassium	27 / 27 (100%)	---	730 - 4410	310	NSV	3670	95% Approximate Gamma	NSV	NSV
Selenium	15 / 27 (55.6%)	4.20 - 12.0	0.74 - 4.90	310	NSV	2.13	95% KM (t)	NSV	NSV
Silver	22 / 27 (81.5%)	1.20 - 3.20	1.80 - 6.80	310	1	4.04	95% KM (Percentile Bootstrap)	4.0	YES
Sodium	27 / 27 (100%)	---	2610 - 18700	322	NSV	12400	95% Student's-t	NSV	NSV
Vanadium	27 / 27 (100%)	---	19.4 - 61.2	316	NSV	45.9	95% Student's-t	NSV	NSV
Zinc	17 / 17 (100%)	---	240 - 1520	308A	150	944	95% Approximate Gamma	6.3	YES
Cyanide, Total	14 / 27 (51.9%)	3.60 - 8.30	0.54 - 18.0	302	NSV	8.3	97.5% KM (Chebyshev)	NSV	NSV

TABLE 5-6

Medium-Specific BERA Screening Values - Sediment

Gowanus Canal Remedial Investigation

Brooklyn, New York

Chemical	Screening Value	Source
Volatile Organic Compounds (ug/kg)		
Ethylbenzene	346	NYSDEC (1999)[1]
Semi-Volatile Organic Compounds (ug/kg)		
2-methylnaphthalene	670	NYSDEC (1999)[2]
Acenaphthene	500	NYSDEC (1999)[2]
Acenaphthylene	640	NYSDEC (1999)[2]
Anthracene	1100	NYSDEC (1999)[2]
Benzo(a)anthracene	1600	NYSDEC (1999)[2]
Benzo(a)pyrene	1600	NYSDEC (1999)[2]
Benzo(b)fluoranthene	12420	WDOE (1995)[1]
Benzo(k)fluoranthene	12420	WDOE (1995)[1]
Benzo(g,h,i)perylene	1674	WDOE (1995)[1]
Bis(2-ethylhexyl) phthalate	2647	MacDonald et al. (1996)
Chrysene	2800	NYSDEC (1999)[2]
Dibenz(a,h)anthracene	260	NYSDEC (1999)[2]
Dibenzofuran	810	WDOE (1995)[1]
Di-n-octylphthalate	3132	WDOE (1995)[1]
Fluoranthene	5100	NYSDEC (1999)[2]
Fluorene	540	NYSDEC (1999)[2]
Indeno(1,2,3-cd)pyrene	1836	WDOE (1995)[1]
Naphthalene	2100	NYSDEC (1999)[2]
Phenanthrene	1500	NYSDEC (1999)[2]
Pyrene	2600	NYSDEC (1999)[2]
Total PAHs	44792	NYSDEC (1999)[2]
Pesticides (ug/kg)		
Alpha-chlordane	0.11	NYSDEC (1999)[1]
Beta endosulfan	0.22	NYSDEC (1999)[1]
Gamma-chlordane	0.11	NYSDEC (1999)[1]
P,P'-DDD	7.81	MacDonald et al. (1996)
P,P'-DDE	27	NYSDEC (1999)[2]
Total DDTs	46.1	NYSDEC (1999)[2]
Polychlorinated Biphenyls (ug/kg)		
Aroclor 1016	180	NYSDEC (1999)[2]
Aroclor 1248	180	NYSDEC (1999)[2]
Aroclor 1254	180	NYSDEC (1999)[2]
Aroclor 1260	180	NYSDEC (1999)[2]
Total PCBs	180	NYSDEC (1999)[2]
Polychlorinated Biphenyl Congeners (ng/kg)		
Total PCB Congeners	676000	MacDonald et al. (2000)
Metals (mg/kg)		
Arsenic	70	NYSDEC (1999)[2]
Barium	NA	
Cadmium	9.6	NYSDEC (1999)[2]
Copper	270	NYSDEC (1999)[2]
Lead	218	NYSDEC (1999)[2]
Mercury	0.71	NYSDEC (1999)[2]
Nickel	51.6	NYSDEC (1999)[2]
Silver	3.7	NYSDEC (1999)[2]
Zinc	410	NYSDEC (1999)[2]

1-Value represents equilibrium-based screening value (assuming 5.4% total organic carbon).

2-Value represents ER-M, selected according to guidance presented in Appendix 4 of NYSDEC (1999).

TABLE 5-7

Surface Sediment (0-6") AVS/SEM Data Outcomes

Gowanus Canal Remedial Investigation

Brooklyn, New York

Station	SEM/AVS	(Sum SEM -AVS)/foc
Gowanus Canal Sample Locations		
GC-SD301-0.0-0.5	<0.1	-2359
GC-SD302-0.0-0.5	<0.1	-2161.1
GC-SD303-0.0-0.5	<0.1	-2595.6
GC-SD304-0.0-0.5	<0.1	-2153.8
GC-SD305-0.0-0.5	<0.1	-2564.7
GC-SD306-0.0-0.5	17.1	835.8
GC-SD307A-0.0-0.5	<0.1	-2636
GC-SD307B-0.0-0.5	<0.1	-1564.6
GC-SD308A-0.0-0.5	6.6	237.9
GC-SD308B-0.0-0.5	<0.1	-654.8
GC-SD309-0.0-0.5	<0.1	-570.1
GC-SD310-0.0-0.5	9.6	371.6
GC-SD311-0.0-0.5	<0.1	-886
GC-SD312-0.0-0.5	0.1	-1056.6
GC-SD313-0.0-0.5	<0.1	-1955.8
GC-SD314-0.0-0.5	<0.1	-483.1
GC-SD315-0.0-0.5	<0.1	-1773.8
GC-SD316-0.0-0.5	0.1	-504.9
GC-SD317-0.0-0.5	<0.1	-2025.3
GC-SD318-0.0-0.5	0.1	-1274.3
GC-SD319-0.0-0.5	<0.1	-1368.2
GC-SD320-0.0-0.5	0.1	-1759.7
GC-SD321-0.0-0.5	<0.1	-3070.4
GC-SD322-0.0-0.5	<0.1	-3720
GC-SD323-0.0-0.5	<0.1	-2219.9
GC-SD324-0.0-0.5	<0.1	-2837.9
GC-SD325-0.0-0.5	<0.1	-2149.4

Notes:

Toxicity unlikely for values <130

Toxicity uncertain for values >130 and <3000

Toxicity likely for values >3000

TABLE 5-8

Screening Statistics - Gowanus Canal Surface Water (Dry Event Sampling) - Step 3

Gowanus Canal Remedial Investigation

Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Volatile Organic Compounds (ug/l)									
1,4-dichlorobenzene	1 / 27 (3.7%)	0.50 - 0.50	0.11 - 0.11	320	129	0.11	Max	0.00085	No
Acetone	26 / 27 (96.3%)	5.00 - 5.00	1.10 - 6.70	317	NSV	3.41	95% KM (Chebyshev)	NSV	NSV
Benzene	18 / 27 (66.7%)	0.50 - 0.50	0.50 - 11.0	304	110	2.24	95% KM (BCA)	0.02	No
Ethylbenzene	16 / 27 (59.3%)	0.50 - 0.50	0.19 - 1.30	320	25	0.455	95% KM (% Bootstrap)	0.018	No
m, p xylenes	17 / 27 (63.0%)	0.50 - 0.50	0.16 - 1.30	320	NSV	0.453	95% KM (BCA)	NSV	NSV
Methylene chloride	3 / 27 (11.1%)	0.50 - 0.50	0.76 - 1.00	310	6400	1	95% KM (Percentile Bootstrap)	0.00016	No
o-xylene (1,2-dimethylbenzene)	5 / 27 (18.5%)	0.50 - 0.50	0.24 - 0.53	320	NSV	0.359	95% KM (Percentile Bootstrap)	NSV	NSV
Tert-butyl methyl ether	1 / 27 (3.7%)	0.50 - 0.50	0.18 - 0.18	304	5000	0.18	Max	0.000036	No
Toluene	16 / 27 (59.3%)	0.50 - 0.50	0.17 - 0.95	308B	215	0.374	95% KM (t)	0.0017	No
Semi-Volatile Organic Compounds (ug/l)									
2-methylnaphthalene	1 / 27 (3.7%)	0.10 - 0.10	0.017 - 0.017	315	NSV	0.017	Max	NSV	NSV
Acenaphthene	21 / 27 (77.8%)	0.10 - 0.10	0.26 - 0.94	319	40	0.534	95% KM (Percentile Bootstrap)	0.013	No
Anthracene	3 / 27 (11.1%)	0.10 - 0.10	1.20 - 5.20	325	NSV	5.2	95% KM (Percentile Bootstrap)	NSV	NSV
Benzo(a)anthracene	7 / 27 (25.9%)	0.10 - 0.10	0.12 - 0.83	325	NSV	0.266	95% KM (Percentile Bootstrap)	NSV	NSV
Benzo(a)pyrene	3 / 27 (11.1%)	0.10 - 0.10	0.19 - 0.66	319	NSV	0.66	95% KM (Percentile Bootstrap)	NSV	NSV
Benzo(b)fluoranthene	21 / 27 (77.8%)	0.10 - 0.10	0.11 - 0.88	319	NSV	0.299	95% KM (BCA)	NSV	NSV
Benzo(g,h,i)perylene	5 / 27 (18.5%)	0.10 - 0.10	0.099 - 0.15	302, 307A	NSV	0.141	95% KM (Percentile Bootstrap)	NSV	NSV
Benzo(k)fluoranthene	11 / 27 (40.7%)	0.10 - 0.10	0.10 - 0.29	319, 325	NSV	0.156	95% KM (Percentile Bootstrap)	NSV	NSV
Bis(2-ethylhexyl) phthalate	13 / 27 (48.1%)	5.00 - 5.00	0.71 - 5.60	321	360	2.45	95% KM (t)	0.0068	No
Caprolactam	1 / 27 (3.7%)	5.00 - 5.00	1.00 - 1.00	312	NSV	1	Max	NSV	NSV
Carbazole	2 / 27 (7.4%)	5.00 - 5.00	1.10 - 2.10	325	NSV	2.1	Max	NSV	NSV
Chrysene	15 / 27 (55.6%)	0.10 - 0.10	0.11 - 1.10	325	NSV	0.297	95% KM (t)	NSV	NSV
Dimethyl phthalate	8 / 27 (29.6%)	5.00 - 5.00	1.50 - 3.40	324	3.4	2.26	95% KM (Percentile Bootstrap)	0.66	No
Di-n-butyl phthalate	3 / 27 (11.1%)	5.00 - 5.00	1.00 - 1.40	301	3.4	1.4	95% KM (Percentile Bootstrap)	0.41	No
Fluoranthene	23 / 27 (85.2%)	0.10 - 0.10	0.095 - 2.30	325	11	0.626	95% KM (BCA)	0.057	No
Fluorene	15 / 27 (55.6%)	0.10 - 0.10	0.11 - 0.19	325	NSV	0.126	95% KM (% Bootstrap)	NSV	NSV
Indeno(1,2,3-c,d)pyrene	10 / 27 (37.0%)	0.10 - 0.10	0.097 - 0.22	319	NSV	0.132	95% KM (% Bootstrap)	NSV	NSV
Phenanthrene	11 / 27 (40.7%)	0.10 - 0.10	0.10 - 0.58	325	4.6	0.183	95% KM (% Bootstrap)	0.04	No
Phenol	1 / 27 (3.7%)	5.00 - 5.00	1.30 - 1.30	314	400	1.3	Max	0.0033	No
Pyrene	6 / 27 (22.2%)	0.10 - 0.10	0.15 - 1.50	325	NSV	0.49	95% KM (Percentile Bootstrap)	NSV	NSV

TABLE 5-8
Screening Statistics - Gowanus Canal Surface Water (Dry Event Sampling) - Step 3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Semi-Volatile Organic Compounds (ug/l)									
Total PAHs	24 / 27 (88.9%)	---	0.11 - 13.3	325	NSV	3.2	95% KM (BCA)	NSV	NSV
Metals (ug/l)									
Aluminum Dissolved	1 / 27 (3.7%)	2000 - 3000	1480 - 1480	324	NSV	1480	Max	NSV	NSV
Arsenic	25 / 25 (100%)	---	9.10 - 23.4	309	36	19.9	95% KM (Percentile Bootstrap)	0.55	No
Arsenic Dissolved	25 / 25 (100%)	---	15.1 - 21.6	323	36	19.7	95% KM (Percentile Bootstrap)	0.55	No
Barium	9 / 27 (33.3%)	10.0 - 100	18.4 - 23.0	312	200	20.9	95% KM (Percentile Bootstrap)	0.1	No
Barium Dissolved	18 / 27 (66.7%)	100 - 100	18.0 - 32.5	304	200	32.5	Max	0.16	No
Calcium	27 / 27 (100%)	---	259000 - 315000	312	NSV	285000	95% KM (Percentile Bootstrap)	NSV	NSV
Calcium Dissolved	27 / 27 (100%)	---	257000 - 298000	306, 308A	NSV	278000	95% KM (Percentile Bootstrap)	NSV	NSV
Chromium	21 / 27 (77.8%)	2.00 - 20.0	4.00 - 99.7	323	NSV	18.9	95% KM (% Bootstrap)	NSV	NSV
Chromium Dissolved	23 / 27 (85.2%)	20.0 - 20.0	3.60 - 10.5	310	NSV	10.5	Max	NSV	NSV
Cobalt Dissolved	1 / 27 (3.7%)	10.0 - 10.0	2.80 - 2.80	304	1	2.8	Max	2.8	YES
Copper	11 / 27 (40.7%)	25.0 - 375	123 - 232	308B	3.1	172	95% KM (Percentile Bootstrap)	55	YES
Copper Dissolved	11 / 27 (40.7%)	25.0 - 375	181 - 282	303	3.1	220	95% KM (Percentile Bootstrap)	71	YES
Lead	7 / 27 (25.9%)	10.0 - 10.0	1.90 - 7.30	304	8.1	4.13	95% KM (Percentile Bootstrap)	0.51	No
Magnesium	27 / 27 (100%)	---	809000 - 998000	312	NSV	897000	95% Modified-t	NSV	NSV
Magnesium Dissolved	27 / 27 (100%)	---	803000 - 942000	306, 308A	NSV	873000	95% Modified-t	NSV	NSV
Manganese	27 / 27 (100%)	---	45.0 - 72.9	310	100	59.3	95% Student's-t	0.59	No
Manganese Dissolved	27 / 27 (100%)	---	40.0 - 71.5	323	100	53.6	95% Modified-t	0.54	No
Mercury	14 / 27 (51.9%)	0.20 - 0.20	0.047 - 0.06	324	0.94	0.0534	95% KM (Percentile Bootstrap)	0.057	No
Mercury Dissolved	13 / 27 (48.1%)	0.20 - 0.20	0.047 - 0.091	323	0.94	0.0632	95% KM (t)	0.067	No
Nickel	22 / 27 (81.5%)	10.0 - 10.0	2.00 - 52.3	323	8.2	14.1	95% KM (% Bootstrap)	1.7	YES
Nickel Dissolved	17 / 27 (63.0%)	10.0 - 10.0	2.20 - 13.4	310	8.2	13.4	Max	1.6	YES
Potassium	27 / 27 (100%)	---	277000 - 328000	312	NSV	301000	95% KM (Percentile Bootstrap)	NSV	NSV
Potassium Dissolved	27 / 27 (100%)	---	274000 - 316000	322	NSV	294000	95% KM (Percentile Bootstrap)	NSV	NSV
Selenium	26 / 26 (100%)	---	18.7 - 50.9	322	71	41	95% KM (Percentile Bootstrap)	0.58	No
Selenium Dissolved	16 / 16 (100%)	---	38.6 - 53.5	323	71	53.5	Max	0.75	No
Sodium	27 / 27 (100%)	---	5550000 - 6620000	307B	NSV	6200000	95% Student's-t	NSV	NSV
Sodium Dissolved	27 / 27 (100%)	---	5330000 - 6790000	322	NSV	6090000	95% Student's-t	NSV	NSV
Thallium	1 / 27 (3.7%)	10.0 - 10.0	2.10 - 2.10	318	17	2.1	Max	0.12	No

TABLE 5-8

Screening Statistics - Gowanus Canal Surface Water (Dry Event Sampling) - Step 3

Gowanus Canal Remedial Investigation

Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Metals (ug/l)									
Zinc	13 / 23 (56.5%)	20.0 - 20.0	11.0 - 25.7	321	81	15.7	95% KM (t)	0.19	No
Zinc Dissolved	12 / 24 (50.0%)	20.0 - 20.0	9.90 - 37.9	321	81	37.9	Max	0.47	No

TABLE 5-9

Screening Statistics - Gowanus Canal Surface Water (Wet Event Sampling) - Step 3

Gowanus Canal Remedial Investigation

Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Volatile Organic Compounds (ug/l)									
1,2,4-trichlorobenzene	1 / 26 (3.8%)	0.50 - 0.50	0.12 - 0.12	305	5.4	0.12	Max	0.022	No
1,3-dichlorobenzene	2 / 26 (7.7%)	0.50 - 0.50	0.13 - 0.13	303, 305	NSV	0.13	Max	NSV	NSV
1,4-dichlorobenzene	14 / 26 (53.8%)	0.50 - 0.50	0.12 - 0.87	306	129	0.59	95% KM (Percentile Bootstrap)	0.0046	No
Acetone	1 / 26 (3.8%)	5.00 - 15.0	12.0 - 12.0	307B	NSV	12	Max	NSV	NSV
Benzene	16 / 26 (61.5%)	0.50 - 0.50	0.36 - 2.90	316	110	0.835	95% KM (BCA)	0.0076	No
Carbon disulfide	5 / 26 (19.2%)	0.50 - 0.50	0.14 - 0.17	308B, 313	NSV	0.166	95% KM (t)	NSV	NSV
Chlorobenzene	17 / 26 (65.4%)	0.50 - 0.50	0.12 - 0.33	306	25	0.259	95% KM (t)	0.01	No
Chloroform	14 / 26 (53.8%)	0.50 - 0.50	0.50 - 0.69	321	NSV	0.559	95% KM (Percentile Bootstrap)	NSV	NSV
cis-1,2-dichloroethylene	17 / 26 (65.4%)	0.50 - 0.50	0.21 - 0.51	319	NSV	0.317	95% KM (t)	NSV	NSV
Ethylbenzene	21 / 26 (80.8%)	0.50 - 0.50	0.18 - 2.60	316	25	0.868	95% KM (Chebyshev)	0.035	No
Isopropylbenzene (cumene)	4 / 26 (15.4%)	0.50 - 0.50	0.096 - 0.20	316	NSV	0.186	95% KM (t)	NSV	NSV
m, p xylenes	22 / 26 (84.6%)	0.50 - 0.50	0.18 - 2.60	316	NSV	0.868	95% KM (Chebyshev)	NSV	NSV
Methyl acetate	1 / 26 (3.8%)	0.50 - 0.50	0.44 - 0.44	317	NSV	0.44	Max	NSV	NSV
Methylene chloride	9 / 26 (34.6%)	0.50 - 2.90	0.99 - 3.40	321	6400	1.42	95% KM (t)	0.00022	No
o-xylene (1,2-dimethylbenzene)	20 / 26 (76.9%)	0.50 - 0.50	0.13 - 5.10	316	NSV	0.873	95% KM (BCA)	NSV	NSV
Tetrachloroethylene(PCE)	24 / 26 (92.3%)	0.50 - 0.50	0.70 - 40.0	319	450	24.4	95% KM (Chebyshev)	0.054	No
Toluene	24 / 26 (92.3%)	0.50 - 0.50	0.85 - 16.0	316	215	6.35	95% KM (BCA)	0.03	No
trans-1,3-dichloropropene	1 / 26 (3.8%)	0.50 - 0.50	0.16 - 0.16	306	NSV	0.16	Max	NSV	NSV
Trichloroethylene (TCE)	2 / 26 (7.7%)	0.50 - 0.50	0.10 - 0.12	320	200	0.12	Max	0.0006	No
Semi-Volatile Organic Compounds (ug/l)									
2-methylnaphthalene	3 / 26 (11.5%)	0.10 - 0.10	0.17 - 3.00	316	NSV	1.1	97.5% KM (Chebyshev)	NSV	NSV
Acenaphthene	20 / 26 (76.9%)	0.10 - 1.00	0.095 - 0.40	313	40	0.191	95% KM (Percentile Bootstrap)	0.0048	No
Anthracene	1 / 26 (3.8%)	0.10 - 1.00	0.095 - 0.095	302	NSV	0.095	Max	NSV	NSV
Benzo(a)anthracene	4 / 26 (15.4%)	0.10 - 1.00	0.074 - 0.15	302	NSV	0.104	95% KM (Percentile Bootstrap)	NSV	NSV
Benzo(a)pyrene	6 / 26 (23.1%)	0.10 - 1.00	0.14 - 0.30	309	NSV	0.205	95% KM (Percentile Bootstrap)	NSV	NSV
Benzo(b)fluoranthene	16 / 26 (61.5%)	0.10 - 1.00	0.12 - 0.33	319	NSV	0.189	95% KM (Percentile Bootstrap)	NSV	NSV
Benzo(g,h,i)perylene	23 / 26 (88.5%)	0.10 - 1.00	0.13 - 1.50	308A	NSV	0.585	95% KM (BCA)	NSV	NSV
Benzo(k)fluoranthene	7 / 26 (26.9%)	0.10 - 1.00	0.037 - 0.12	319	NSV	0.0535	95% KM (t)	NSV	NSV
Benzyl butyl phthalate	3 / 26 (11.5%)	5.00 - 50.0	0.73 - 1.10	307A	3.4	1.06	95% KM (t)	0.31	No
Caprolactam	11 / 26 (42.3%)	5.00 - 50.0	0.33 - 1.50	320	NSV	1.28	95% KM (t)	NSV	NSV

TABLE 5-9
Screening Statistics - Gowanus Canal Surface Water (Wet Event Sampling) - Step 3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Semi-Volatile Organic Compounds (ug/l)									
Chrysene	3 / 26 (11.5%)	0.10 - 1.00	0.057 - 0.11	302	NSV	0.11	95% KM (Percentile Bootstrap)	NSV	NSV
Dibenz(a,h)anthracene	4 / 26 (15.4%)	0.10 - 1.00	0.071 - 0.11	303	NSV	0.101	95% KM (Percentile Bootstrap)	NSV	NSV
Di-n-butyl phthalate	12 / 26 (46.2%)	5.00 - 50.0	0.28 - 0.62	320	3.4	0.5	95% KM (t)	0.15	No
Di-n-octylphthalate	3 / 26 (11.5%)	5.00 - 50.0	0.23 - 0.28	318	3.4	0.275	95% KM (t)	0.081	No
Fluoranthene	22 / 26 (84.6%)	0.10 - 1.00	0.089 - 0.32	313	11	0.185	95% KM (BCA)	0.017	No
Fluorene	3 / 26 (11.5%)	0.10 - 1.00	0.079 - 0.32	313	NSV	0.32	95% KM (Percentile Bootstrap)	NSV	NSV
Indeno(1,2,3-c,d)pyrene	23 / 26 (88.5%)	0.10 - 0.15	0.16 - 1.10	316	NSV	0.5	95% KM (Chebyshev)	NSV	NSV
Naphthalene	5 / 26 (19.2%)	0.10 - 0.10	0.13 - 1.40	316	1.4	0.364	95% KM (Percentile Bootstrap)	0.26	No
Pentachlorophenol	1 / 26 (3.8%)	0.20 - 2.00	0.13 - 0.13	311	7.9	0.13	Max	0.016	No
Phenanthrene	14 / 26 (53.8%)	0.10 - 0.10	0.13 - 1.40	316	4.6	0.336	95% KM (% Bootstrap)	0.073	No
Pyrene	22 / 26 (84.6%)	0.10 - 1.00	0.10 - 0.34	313	NSV	0.215	95% KM (Percentile Bootstrap)	NSV	NSV
Total PAHs	25 / 26 (96.2%)	---	0.49 - 6.90	316	NSV	2.31	95% KM (BCA)	NSV	NSV
Metals (ug/l)									
Arsenic	26 / 26 (100%)	---	6.90 - 26.2	302	36	16.6	95% Student's-t	0.46	No
Arsenic Dissolved	26 / 26 (100%)	---	9.10 - 21.0	322	36	14.3	95% Approximate Gamma	0.4	No
Barium	26 / 26 (100%)	---	18.4 - 42.8	307A	200	27.7	95% Approximate Gamma	0.14	No
Barium Dissolved	25 / 26 (96.2%)	100 - 100	18.4 - 31.1	322	200	23.4	95% KM (BCA)	0.12	No
Calcium	24 / 24 (100%)	---	97200 - 296000	324	NSV	183000	95% Approximate Gamma	NSV	NSV
Calcium Dissolved	24 / 24 (100%)	---	100000 - 304000	303	NSV	182000	95% Modified-t	NSV	NSV
Chromium	26 / 26 (100%)	---	3.90 - 29.3	308B	NSV	8.53	95% Modified-t	NSV	NSV
Chromium Dissolved	7 / 26 (26.9%)	20.0 - 20.0	3.60 - 5.80	314	NSV	4.92	95% KM (t)	NSV	NSV
Cobalt	1 / 26 (3.8%)	10.0 - 10.0	3.90 - 3.90	307A	1	3.9	Max	3.9	YES
Cobalt Dissolved	1 / 26 (3.8%)	10.0 - 10.0	2.50 - 2.50	315	1	2.5	Max	2.5	YES
Iron	3 / 26 (11.5%)	1500 - 1500	651 - 1040	317	50	1040	95% KM (% Bootstrap)	21	YES
Iron Dissolved	1 / 26 (3.8%)	1500 - 7500	1020 - 1020	310	50	1020	Max	20	YES
Lead	26 / 26 (100%)	---	2.90 - 26.8	317	8.1	14.9	95% Student's-t	1.8	YES
Lead Dissolved	6 / 26 (23.1%)	10.0 - 10.0	1.90 - 17.7	314	8.1	3.88	95% KM (% Bootstrap)	0.48	No
Magnesium	25 / 25 (100%)	---	276000 - 972000	303	NSV	575000	95% Modified-t	NSV	NSV
Magnesium Dissolved	25 / 25 (100%)	---	286000 - 4880000	301	NSV	1850000	95% Chebyshev (Mean, Sd)	NSV	NSV
Manganese	26 / 26 (100%)	---	48.4 - 65.6	307A	100	56.4	95% Approximate Gamma	0.56	No

TABLE 5-9
Screening Statistics - Gowanus Canal Surface Water (Wet Event Sampling) - Step 3
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Screening Value	95 % UCL	UCL Type	Hazard Quotient (95% UCL)	95% UCL COC?
Metals (ug/l)									
Manganese Dissolved	26 / 26 (100%)	---	35.6 - 63.0	322	100	45.9	95% Approximate Gamma	0.46	No
Mercury	19 / 26 (73.1%)	0.20 - 0.20	0.065 - 0.089	302	0.94	0.0825	95% KM (t)	0.088	No
Nickel	25 / 25 (100%)	---	2.10 - 29.8	308B	8.2	10.6	95% Chebyshev (Mean, Sd)	1.3	YES
Nickel Dissolved	25 / 25 (100%)	---	2.20 - 8.00	315	8.2	4.24	95% Modified-t	0.52	No
Potassium	24 / 24 (100%)	---	88700 - 290000	324	NSV	175000	95% Modified-t	NSV	NSV
Potassium Dissolved	24 / 24 (100%)	---	92300 - 292000	303	NSV	172000	95% Approximate Gamma	NSV	NSV
Selenium	26 / 26 (100%)	---	13.9 - 64.6	301	71	33.6	95% Approximate Gamma	0.47	No
Selenium Dissolved	16 / 16 (100%)	---	14.7 - 41.9	303	71	29	95% Approximate Gamma	0.41	No
Sodium	25 / 25 (100%)	---	2340000 - 7090000	301	NSV	4410000	95% Modified-t	NSV	NSV
Sodium Dissolved	25 / 25 (100%)	---	2480000 - 9180000	301	NSV	4580000	95% Modified-t	NSV	NSV
Zinc	24 / 26 (92.3%)	20.0 - 20.0	17.7 - 75.7	318	81	45.6	95% KM (t)	0.56	No
Zinc Dissolved	25 / 26 (96.2%)	20.0 - 20.0	11.0 - 40.2	314	81	24.9	95% KM (BCA)	0.31	No

TABLE 5-10
Ingestion Screening Values for Birds
Gowanus Canal Remedial Investigation
Brooklyn, New York

Analyte	NOAEL (mg/kg bw/d)	LOAEL (mg/kg bw/d)	Source	Endpoint	Test Species	Chemical Form	Exposure Mode	FI (kg dw or L/day)	Wet or Dry?	Food Ingestion Default?	Nagy bird guild	Body Weight (kg)	Body Weight Default ?	% Moisture	NEC wet (ppm)	NEC dry (ppm)	LEC wet (ppm)	LEC dry (ppm)	Exposure Duration	Effect Endpoint	Notes
2,3,7,8-TCDD	0.000014	0.00014286	Nosek et al. 1992b	growth, mortality, reproduction	Ring-necked pheasant	2,3,7,8-TCDD	weekly ip injection					1.1				0.0001		0.001	10 wks- 1/wk	body weight loss, adult mortality, egg production and embryo survival	
1,4-Dichlorobenzene	32.2	160.8	TERRETOX 2002	survival	Northern bobwhite		oral					0.19							14 days		
PCBs, total	0.29	0.58	Britton and Huston 1973	reproduction	White leghorn chickens	Aroclor 1242	food	0.0997	W	3		1.71	C		5		10		6 weeks + 5 weeks untreated	hatchability	significant effects on hatchability
Arsenic	2.3	6.8	USFWS 1969 as cited in Sample et al. 1996	mortality	Brown-headed cowbird	Copper acetoarsenite (As^{+3})	food	0.0090	D	1	2	0.049		10%	11.085	12.317	33.255	36.95	7 months	20% mortality @ LOAEL; 0% mortality @ NOAEL and control	Original paper could not be located; updated Nagy 2001 equation- Sample NOAEL=2.5 and LOAEL=7.4
Cadmium	7.3	29	Leach et al. 1979	reproduction	Leghorn hen	$CdSO_4*8H_2O$	food	1.019	W	3		1.70	C		12.22		48.22		48 wks	egg production, shell thickness	
Chromium	1.0	5.0	Haseltine et al. unpub as cited in Sample 1996	reproduction	Black duck	Cr 3+ as $CrK(SO_4)_2$	food	0.1250	W	2		1.25	B		10		50		10 months (and critical lifestage)	duckling survival	Original paper could not be located
Copper	47	62	Mehring et al. 1960	growth/ mortality	Chicks	Copper oxide	food	0.044	W	5		0.534	F		570		749		10 weeks	Growth, mortality	
Lead	2.0	20	Edens et al. 1976	reproduction	Japanese quail	Lead acetate	food	0.031	W	6		0.155	G		10		100		12 weeks	Egg hatchability	
Mercury		0.050	Heinz 1979	reproduction, behavior	Mallard	Methylmercury	food	0.1082	W	2		1.082	B				0.5		3 generations	egg and young production, eggshell thinning, duckling response to maternal call, duckling avoidance behavior	only one dose used
Nickel		107	Cain and Pafford 1981	mortality, growth	Mallard	nickel sulfate	food	0.0178	W	2		0.178		10%			1069	1187.78	90 days	mortality, bw; bill length	no stats for mortality; statistically significant growth effects at LOAEL
Nickel	77		Cain and Pafford 1981	mortality, growth	Mallard	nickel sulfate	food	0.0561	W	2		0.561		10%	774	860			90 days	mortality, bw; bill length	no stats for mortality; statistically significant growth effects at LOAEL
Selenium		0.82	Heinz et al. 1989	reproduction	Mallard	selenomethionine	food	0.1145	W	2		1.145		11%			8.15		~100 d	offspring growth/survival	statistically significant effects at LOAEL
Selenium	0.42		Heinz et al. 1989	reproduction	Mallard	selenomethionine	food	0.1158	W	2		1.158		11%	4.15				~100 d	offspring growth/survival	statistically evaluated
Silver	35.60	178	USEPA 1999	survival	Mallard		food	0.1100				1.100							14 days		
Zinc	82	124	Roberson and Schaible 1960	growth	White rock chicks	Zinc oxide, zinc sulfate, or zinc carbonate	food	0.044	W	5		0.534	F		1000		1500		5 weeks	Growth	domestic species
PAHs		1.4	Hough et al. 1993	reproduction	pigeons	benzo(a)pyrene	weekly im injection												5 mos	fertility, ovarian appearance	Weekly intramuscular injection
Chlordane	0.6		Ludke 1976	growth, mortality	Bobwhite Quail	tech chlordane	food	0.0082	D	1	3	0.1613		11%	10	11.236			10 wks	body weight, adult mortality	one test conc.; no stats for mortality- 0% mort
Chlordane		1.5	Kreitzer and Heinz 1974	behavior	Japanese quail	Chlordane	food	0.0048	D	1	3	0.09	B	10%			25	27.8	8 days treated + 6 days untreated	avoidance response (depressed response to stimuli)	statistically significant effect; only one dose used
gamma-chlordane	0.8	4.0	Wiemeyer 1996	reproduction	Mallard		food					1.0							not specified		
Total DDT	0.18		Davison and Sell 1974	reproduction	Mallard	tech DDT	food	0.1110	W			1.22			2				11 mos	eggshell weight and thickness	statistically evaluated
Total DDT		1.8	Davison and Sell 1974	reproduction	Mallard	tech DDT	food	0.1040	W			1.17333					20		11 mos	eggshell weight and thickness	statistically significant effects
Endosulfan	10		Abiola 1992	reproduction	Gray partridge	endosulfan	food	0.0183	D	1	3	0.4		10%	125	222.22			4 wks- during critical lifestage	number of eggs; egg fertility, embryo and chick mortality; eggs hatched	Sample NOAEL=10 (ww to dw conversion not made?)
Endrin		0.06	DeWitt 1956	reproduction	Quail	endrin	food	0.0048	D	1	3	0.09	B	10%			1	1.11	reprod period	chick survival - 64% vs. 83% control	no stats
Methoxychlor	831		Hill et al. 1975b; Heath et al. 1972	Mortality	Bobwhites (juvenile), Japanese quail, Ringed-necked pheasant, mallard (young)	technical methoxychlor	food	0.0150	D	1	1	0.1	A	10%	5000	5555.6			5 d	mortality	0% mortality

NC = TRV not calculated in database because more preferable studies were available for TRV selection (see notes)
FI = food ingestion rate
NEC = No effect concentration in exposure medium
LEC = Low effect concentration in exposure medium
W = wet weight basis
D = dry weight basis

Default ingestion rates:
1 - Nagy 2001
2 - Heinz et al. 1987
3 - NRC 1984
4 - NRC 1994
5 - EPA 1993
6 - Edens and Garlich 1983
7 - Kushlan 1978

Nagy bird group allometric equation
1- all birds: FI (kg/d dw) = [0.638*((bw(g))^0.685)]/1000
2- Passerines: FI = [0.630*((bw(g))^0.683)]/1000
3- Galliformes: FI = [0.088*((bw(g))^0.891)]/1000
4- Omnivorous birds: FI = [0.670*((bw(g))^0.627)]/1000
5- Carnivorous birds: FI = [0.849*((bw(g))^0.663)]/1000
6- Eurasian Kestrel: FI =(22.1/211)*bw(kg)

Default body weight:
A - NRC 1994
B - Dunning 1993
C - NRC 1984
D - Peakall et al. 1975
E - Sample et al. 1996
F - EPA 1993
G - Edens and Garlich 1983

TABLE 5-11
Toxicity Equivalents Factors for Dioxin-like PCB Congeners
Gowanus Canal Remedial Investigation
Brooklyn, New York

Congener Group	Constituent/Congener	Bird TEF[1]
Non-ortho PCBs	3,3',4,4'-TCB (77)	0.05
	3,4,4',5-TCB (81)	0.1
	3,3',4,4',5-PeCB (126)	0.1
	3,3',4,4',5,5'-HxCB (169)	0.001
Mono-ortho PCBs	2,3,3',4,4'-PeCB (105)	0.0001
	2,3,4,4',5-PeCB (114)	0.0001
	2,3',4,4',5-PeCB (118)	0.0001
	2',3,4,4',5-PeCB (123)	0.00001
	2,3,3',4,4',5-HxCB (156)	0.0001
	2,3,3',4,4',5'-HxCB (157)	0.0001
	2,3',4,4',5,5'-HxCB (167)	0.00001
	2,3,3',4,4',5,5'-HeCB (189)	0.00001

Source:

[1]Van den Berg, M; Birnbaum, L; Bosveld, ATC; Brunstrom, B; Cook, P; Feeley, M; Giesy, JP; Hanberg, A; Hasegawa, R; Kennedy, SW; Kubiak, T; Larsen, JC; van Leeuwen, FX; Liem, AK; Nolt, C; Peterson, RE; Poellinger, L; Safe, S; Schrenk, D; Tillitt, D; Tysklind, M; Younes, M; Waern, F; Zacharewski, T. (1998) Toxic equivalency factors (TEFs) for PCBs, PCDDs, PCDFs for humans and wildlife. Environ Health Perspect 106(12):775-792.

TABLE 5-12

Sediment-to-Plant Bioaccumulation Factors For Chemcials Detected in Sediment

Gowanus Canal Remedial Investigation

Brooklyn, New York

Chemical	Sediment-Plant BCF (dry weight)	
	Value	Reference
Inorganics		
Arsenic	0.037	Bechtel Jacobs 1998a
Cadmium	0.514	Bechtel Jacobs 1998a
Chromium	0.048	Bechtel Jacobs 1998a
Copper	0.123	Bechtel Jacobs 1998a
Lead	0.038	Bechtel Jacobs 1998a
Mercury	0.344	Bechtel Jacobs 1998a
Nickel	0.034	Bechtel Jacobs 1998a
Selenium	0.567	Bechtel Jacobs 1998a
Silver	0.013	Bechtel Jacobs 1998a
Zinc	0.358	Bechtel Jacobs 1998a
Pesticides/PCBs		
DDT, total[1]	0.4234	USEPA 2005
alpha-Chlordane	0.3771	USEPA 2005
Endosulfan II	0.9741	USEPA 2005
Endrin	0.7328	USEPA 2005
gamma-Chlordane	0.3771	USEPA 2005
Methoxychlor	0.7251	USEPA 2005
Semivolatile Organics		
PAHs, total[2]	--	--
Volatile Organics		
1,4-Dichlorobenzene	1.7399	USEPA 2005
Dioxin/Furans		
2,3,7,8-TCDD	0.3375	USEPA 2005

Notes:

1 - maximum BCF of 4,4'-DDD, 4,4'-DDE and 4,4'-DDT

2 - No BCF used; PAH bioaccummulation determiend on a LMW and HMW basis using methods described in the text

TABLE 5-13
Exposure Parameters for Avian Receptors
Gowanus Canal Remedial Investigation
Brooklyn, New York

Receptor	Body Weight (kg)		Food Ingestion Rate (kg/day - dry)		Dietary Composition (decimal percent)				Sediment Ingestion (decimal percent)	
	Value	Reference	Value	Reference	Fish	Aquatic Plants	Benthic Invertebrates	Reference	Value	Reference
Double-crested cormorant	2.33	Glahn and McCoy 1995	0.0925	Bivings et al. 1989	1.0	0	0	Bivings et al. 1989	0	Assumed based on diet
Green heron	0.21	Dunning 1993	0.0250	Nagy 2001; allometric equation below	0.71	0	0.29	USEPA 1993a; Quinney and Smith 1980	0	Sample et al. 1997
Black duck	1.18	Bellrose 1980	0.0564	Nagy 2001; allometric equation below	0	0.867	0.10	Palmer 1976	0.033	Beyer et al. 1994

Allometric equations:

Equation	*Group (Receptor)*	*a*	*b*
dry matter kg/day = (**a***(body weight*1000)^{b})/1000	Piscivores (heron)	0.638	0.685
	Omnivore (duck)	0.67	0.627

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SECTION 6

Baseline Ecological Risk Assessment: Refined Risk Evaluation

The following sections present a final evaluation of risks to benthic macroinvertebrates (Section 6.1), water-column-dwelling aquatic life (Section 6.2), and avian wildlife (Section 6.3) using the data and approach discussed in Section 5. The outcome of this step is a final list of COCs for each medium-pathway-receptor combination identified for evaluation. Because risk to each receptor is being evaluated using multiple data inputs, conclusions about the potential for adverse effects to each receptor will be based on a weight-of-evidence analysis of the available data. The results of this evaluation should be used, along with consideration of the uncertainties (Section 7) in the ERA, to draw conclusions about the overall potential for adverse effects to ecological receptors in the Gowanus Canal.

6.1 Benthic Macroinvertebrates

6.1.1 Sediment Bioassays

Laboratory Control Comparison

The results of the comparison to laboratory control by stations for all endpoints are shown in Figure 6-1. The results by endpoint are discussed below.

Survival (Polychaete and Amphipod). Figure 6-2 summarizes the mean survival results for both test organisms. For the polychaete (*N. virens*), survival was significantly reduced for nine of 12 canal samples and all five reference samples. However, survival was most reduced for three canal samples (Stations 313, 314, and 315), where mean survival was 61.3 percent, 75.0 percent and 71.3 percent, respectively. The mean survival for all other samples (both canal and reference) was $\geq$83.7 percent.

For the amphipod, survival effects were most severe following exposure to canal sediments (Figure 6-2). Survival was significantly reduced for five of 12 canal samples, with none of the reference samples yielding a statistically significant reduction in survival. As with the polychaete, the lowest survival was observed for Stations 313, 314, and 315, with survival at or near 0 percent. The range of mean survival for all other canal samples was between 27.5 percent (Station 310) and 86.25 percent (Station 309). Mean survival in the reference samples ranged from 70.63 percent (Station 326) to 91.88 percent (Station 330).

Growth (Polychaete and Amphipod). Figure 6-3 presents the polychaete growth results in mean wet biomass (g/organism). Growth was significantly reduced for three canal sediment samples (Stations 313, 314, and 315) and one reference sample (Station 329).

Figure 6-4 presents the amphipod growth results in mean dry biomass (mg/organism). Growth was significantly reduced for all of the statistically tested samples, with the exception of one canal sample (Station 303) and two reference samples (Stations 328 and

330). Growth was not statistically tested for samples from Stations 314 and 315, because none of the amphipods survived following exposure to these samples.

Reproduction (Amphipod Only). Figure 6-5 presents the amphipod reproduction results in mean number of juveniles per surviving female. Reproduction was significantly reduced for all of the statistically tested canal samples, and for three reference samples (Stations 326, 329, and 333). As noted for the growth endpoint, growth was not statistically tested in samples from Stations 314 and 315, because none of the amphipods survived in these samples. Additionally, the results for the canal sample from Station 313 were not statistically significant, even though there was no measurable reproduction for this treatment. Regardless of this statistical outcome, the lack of reproduction is considered biologically significant and indicative of an impact.

Reference Envelope Comparison

The first step of the reference envelope approach is to evaluate all reference sample data and eliminate outlier samples before envelope values (i.e., lowest endpoint result) are established. Based on this evaluation, the reference sample from Station 326 was eliminated prior to establishing the reference envelope values. This reference samples was eliminated from consideration based on the following:

- **Bioassay results.** The sample from Station 326 yielded more severe impacts, particularly for amphipods, than other reference samples. This sample yielded the lowest amphipod survival (Figure 6-1), growth (Figure 6-3), and reproduction (Figure 6-4) observed for any reference samples.
- **Screening results.** As shown in Table 6-1, the sample from Station 326 also yielded the highest frequency of metal NYSDEC criteria exceedances and was the only reference sample for which chromium, lead, and silver also exceeded severe effect levels (SELs).
- **Location**. The sample from Station 326 is the reference sample collected closest to the canal (Figure 2-3c), and the increased constituent concentrations are more likely to have been influenced by the canal, relative to other reference sample locations.

Therefore, Station 326 results were not included when establishing the reference envelope values (i.e., lowest endpoint result for other reference samples).

Table 6-2 summarizes all toxicity test results for the canal sediment samples and includes a comparison to the reference envelope values. According to this comparison, polychaete survival was below the envelope in four of the canal samples (Stations 310, 313, 314, and 315). Polychaete growth was also below the envelope in three of these four samples (Stations 313, 314, and 315). However, each incidence of polychaete endpoint result below the envelope also corresponded to an incidence of identified impacts relative to control (Figure 6-1; also bolded results in Table 6-2).

For amphipods, survival was below the reference envelope for eight samples (Stations 307B, 310, 313, 314, 315, 318, 319, and 321). Two of these samples (Stations 307B and 321) were not identified as significantly reduced compared to control. However, all samples exhibited significantly impacted growth as compared to control, and all samples but one (Station 370B) yielded levels of reproduction below the envelope.

Following evaluation of the bioassay results, it was determined that impacts were indicated at all tested sample locations, with the only variable being the magnitude of the observed effect. Most samples fit into one of three categories across a range of severity of toxicity, or impact. These categories of impacts were defined as follows:

- **Severe.** Impacts to polychaetes and/or amphipods; all endpoints (lethal and sublethal) for amphipod or some endpoints for both organisms were reduced relative to reference envelope
- **Moderate.** Impacts to only amphipods; all lethal and sublethal or both sublethal amphipod endpoints were reduced relative to reference envelope
- **Limited.** Impacts to only amphipods; only one sublethal endpoint reduction

The following subsections discuss the outcomes for samples in these categories and concentrations of detected constituents in these samples. Figure 6-6 shows the spatial relationship of the impacted stations.

Severe Impacts. Based on all toxicity test results, the most severe impacts to polychaetes and amphipods were in canal samples from Stations 313, 314, and 315. These were the only samples that exhibited impacts for both organisms and to all endpoints relative to the control and reference envelope. While polychaete survival in these samples was 61.3 percent to 75.0 percent, amphipod survival was less than 1 percent for all three samples (Table 6-2). These samples were collected from the central portion of the canal, in close proximity to each other (Figure 2-3b). Table 6-3 summarizes the concentrations of detected constituents in all canal samples. Samples from Stations 314 and 315 yielded the highest total PAH and total PCB concentrations (greater than 4,243,600 and 2,400 µg/kg, respectively), which were greater than SELs. While PCBs were undetected in the sample from Station 313, and PAHs were much lower than observed in samples from Stations 314 and 315 (i.e., between the LEL and SEL), all three of these samples exhibited concentrations of copper, lead, mercury, nickel, and/or silver greater than SELs.

The sample from Station 310 also exhibited significant reduction in the survival of both organisms and in growth and reproduction for amphipods. Therefore, this sample was also considered severely impacted. This station is located in a branch of the canal approximately 1,500 feet upstream (northeast) of the sample from Station 313 (Figure 6-6) and yielded concentrations of total PAHs and six metals (copper, lead, mercury, nickel, silver, and zinc) that exceeded SELs (Table 6-3).

Finally, severe toxicity was also observed for organisms exposed to sediment samples from Stations 318 and 319, but mostly for amphipods. These were the only other samples that yielded statistically significant reductions for all three amphipod endpoints (survival, growth and reproduction; Table 6-3) as compared to the control *and* responses below the reference envelope. There was also significantly reduced polychaete survival at Station 318, as compared to control. These two samples are located just down gradient of the other severely impacted stations noted above (Stations 310, 313, 314, and 315; Figure 6-6). As with these other stations, detected concentrations of total PAHs, total PCBs and up to six metals (copper, lead, mercury, nickel, silver, and/or zinc) were also above SELs in these samples.

Moderate Impacts. Moderate impacts were observed for five stations (Stations 307A, 307B, 309, 321, and 324). These samples yielded some of the higher amphipod growth and reproduction responses (i.e., least degraded) relative to other canal stations (Figure 6-1 and Table 6-2). Even though these reductions in growth and reproduction were observed, only samples from Stations 307B and 321 exhibited notable reductions in amphipod survival. However, amphipod survival at Stations 307B (70 percent) and 321 (68.8 percent) was not considered severely degraded because they were below the reference envelope, but not significantly reduced when compared to control. Stations 307A, 307B, and 309 are located up gradient, and north of the severely/moderately impact samples, while samples from Stations 321 and 324 are down gradient of these samples near the mouth of the canal (Figure 6-6). The contaminant results for these samples support the toxicity findings. Total PAHs were detected in all of these samples, with each concentration exceeding the LEL but not exceeding the SEL as observed for the moderately and severely impacts samples (Table 6-3). PCBs were undetected in all five of these samples and there was a lower incidence of metal contamination than severely impacted samples. Only three metals (lead, mercury, and zinc) were detected in these samples at concentrations above the SEL.

Limited Impacts. Although still indicating impact, Station 303 was the only station resulting in a lower level of toxicity based on a minimal amphipod reproduction reduction (Table 6-2). All other endpoints were above the reference envelope. Even though polychaete survival at this station was significantly reduced compared to control, it was not below the reference envelope. Therefore, it was not indicative of canal impacts. Chemical analytical results support these observations, with relatively low contamination compared to other stations (Table 6-3), and Station 303 is located above the zone of the canal where moderately/severely impacted stations are located.

Summary. All tested sample locations indicated impacts to benthic macroinvertebrates, with primarily the magnitude of potential impact varying between the sample locations. Four samples in a central area of the canal (Stations 310, 313, 314, and 315) were identified as the most severely impacted based on *both* amphipod and polychaete bioassay responses (Table 6-2). However, responses for two other samples (Stations 318 and 319) also suggest severe impacts as well, based on amphipod responses. Based on detected constituents in all six of these samples, the occurrence of total PAHs, total PCBs and some metals (copper, lead, mercury, nickel, silver, and/or zinc) are the most likely cause of these impacts based on exceedances of the NYSDEC SELs (Table 6-3). These samples were collected from an area within the central portion of the canal that is approximately 2,200 feet long (0.4 miles; Figure 6-6). Station 303 was the only location with limited impacts, due to only sublethal amphipod toxicity, relatively low chemical contamination, and the location of this station north of moderately/severely impacted stations.

6.1.2 Sediment Chemical Concentration Analysis

The 95% UCL chemical concentration of one volatile organic, 21 semivolatile organics, five pesticides, two PCBs, PCB congeners, and nine metals had HQs exceeding 1 and were identified as COCs (Table 5-5).

PAHs had the highest overall HQs (up to 19,000). The highest concentrations of these PAHs were detected in the middle of the Gowanus Canal in samples from Stations 314 and 315 (Figure 6-7). PCB parameters (total PCBs and PCB congeners) also exceeded their screening

values, indicating a potential for adverse effect. The highest total concentrations of PCBs were detected in the sample collected from Station 314.

Of the 22 metals analyzed in sediment, nine exceeded their screening values, while 12 did not have screening values. Arsenic, barium, cadmium, copper, lead, mercury, nickel, silver, and zinc concentrations exceeded their screening values, but had HQs (1.8 to 26) that were generally lower than the exceedances for PAHs and pesticides. The highest concentrations of these metals were detected in samples collected from the middle of the Gowanus Canal, from Stations 308A, 310, 313, 314, and 317 (Figure 6-8).

6.1.3 AVS/SEM Analysis

The carbon-normalized $(\sum SEM\text{-}AVS)/f_{OC}$ value for each station is presented in Table 5-7. As discussed in Section 5.2.1, divalent metals (cadmium, copper, lead, nickel, silver, and zinc) are considered bioavailable, and toxicity is considered likely when the $(\sum SEM\text{-}AVS)/f_{OC}$ is >3,000 $\mu mol/g_{OC}$, uncertain when the concentration is between 130 and 3,000 $\mu mol/g_{OC}$, and not likely when the concentration is <130 $\mu mol/g_{OC}$. Thirty-four of the samples had excess carbon-normalized SEM values <130 $\mu mol/g_{OC}$, indicating that toxicity from metals would not be likely in these samples. SEM values in three of the samples (GC-SD306-0.0-0.5, GC-SD308A-0.0-0.5, and GC-SD310-0.0-0.5) fall in the lower end of the uncertain toxicity range of 130 to 3,000 $\mu mol/g_{OC}$, indicating that toxicity from metals is uncertain in these samples (Figure 6-9). None of the samples had excess carbon-normalized SEM values greater than 3,000 $\mu mol/g_{OC}$, which would indicate that toxicity is likely a result of divalent metals. Therefore, SEM metals appear to represent only a potential risk in three of Gowanus Canal samples (GC-SD306-0.0-0.5, GC-SD308A-0.0-0.5, GC-SD310-0.0-0.5).

6.1.4 Evaluation of Risks to Benthic Macroinvertebrates

Results of the sediment bioassays with both the amphipod and polychaete indicate a site-related potential for adverse effects to benthic communities throughout the length of the Gowanus Canal from the presence of chemicals in sediment (Section 6.1.1). Both bioassays suggest the greatest adverse effects to the benthic community will occur in the central portion of the canal (Stations 310, 313, 314, 315, 318, and 319). Several of the samples from these locations exhibited impacts for both organisms and to all measured test endpoints relative to both the laboratory control and reference samples. The bioassay results suggest there is also the potential for less severe, but still site-related, effects to the benthic community at other locations in the Gowanus Canal.

Chemical analysis indicates the presence of organic chemicals (primarily PAHs and PCBs) and metals in sediments at concentrations that are likely to be causing the outcomes observed in the sediment bioassays. The highest concentrations of PAHs, PCBs, and metals exceeding their ecological screening benchmarks were generally detected within the central portion of the canal, which is also the location where the most severe effects were observed in the bioassay test organisms.

PAHs were consistently detected at the highest concentrations relative to their ecological screening benchmarks (Table 5-5), were generally detected at concentrations above those detected in the Gowanus Bay reference sediments (Table 5-4 of the RI), and are considered to represent the greatest site-related risk to the benthic community. Other chemicals, such as PCBs and metals (barium, cadmium, copper, lead, mercury, nickel, and silver), were also

detected at concentrations above their ecological screening benchmarks and at concentrations above those detected in the Gowanus Bay reference sediments, and are also likely to represent a potential risk to the benthic community. However, AVS/SEM analysis (Section 6.1.3) suggests that many of the metals with concentrations exceeding their ecological screening values are bound to sediment, have limited bioavailability, and are likely to represent a lesser potential risk to the benthic community.

6.2 Water-Column-Dwelling Aquatic Life

6.2.1 Surface Water Concentration Analysis

Dry Event

The 95% UCL chemical concentrations of only two total metals (copper and nickel) and one dissolved metal (copper) had HQs exceeding 1 and were identified as COCs (Table 5-8). No VOCs, SVOCs, or PCBs had HQs greater than 1. No chemicals initially identified as COPCs in the SLERA (Section 4.1.2) were thus eliminated in the BERA using the 95% UCL comparison.

Total and dissolved copper had the highest HQs (55.0 and 71.0, respectively). The 95% UCL concentrations of both total and dissolved copper exceeded the copper screening value in 11 of the 27 samples. The nickel 95 percent UCL concentration exceeded the screening value in four of the 27 samples. No spatial trend was evident for these chemicals.

Wet Event

A few more metals were detected at concentrations exceeding surface water screening values during the wet sample event, when compared to the dry sample event. The 95% UCL chemical concentration of four total metals (cobalt, iron, lead, and nickel) and two dissolved metals (cobalt and iron) had HQs exceeding 1 and were identified as COCs (Table 5-9). No other chemicals had HQs greater than 1.

Total and dissolved iron had the highest HQs (21 and 20, respectively). Total lead had the highest frequency of exceedance, with 21 of 25 sample concentrations exceeding its screening value. Dissolved lead was not identified as a COC. Total iron and nickel had three and five concentrations greater than their screening values, respectively, and total cobalt and dissolved iron each had one concentration greater than its screening value. The highest detected concentrations of these metals were in the middle of the Gowanus Canal (Stations 308B, 310, 315, and 317).

6.2.2 Evaluation of Risks to Water-Column-Dwelling Aquatic Life

Results of the evaluation of chemical concentrations in surface water indicate a site-related potential for adverse effects to water-column-dwelling aquatic life from the presence of a few chemicals in surface water. Surface water samples collected both during dry and wet (storm) events do not indicate the presence of organic chemicals at concentrations that could adversely affect aquatic life. Some VOCs and PAHs were detected in surface water during both sample events (Tables 5-8 and 5-9), but the detected concentrations of those chemicals did not exceed the available ecological screening benchmarks, indicating these chemicals do not represent a risk to aquatic life.

Results of the surface water samples collected during both the dry and wet events similarly indicate the potential for a few metals to cause site-related adverse effects. In surface water samples collected during the dry event, for example, copper (total and dissolved) and nickel (total) were detected at concentrations exceeding their ecological screening benchmarks (Table 5-8). However, neither chemical was detected in canal surface water at concentrations statistically exceeding those detected in the Gowanus Bay reference samples (Table 4-11 of the RI), indicating that onsite concentrations do not exceed those detected in non-site-impacted areas.

A few additional chemicals were detected at concentrations exceeding their ecological screening values when samples were collected during the wet event. Cobalt and iron (total and dissolved) and lead and nickel (total only) exceeded ecological screening benchmarks in the wet event samples. However, only lead was detected in the canal surface water at concentrations exceeding those detected in the Gowanus Bay reference samples (Table 4-11 of the RI), indicating it is the only chemical representing a site-related risk.

6.3 Avian Wildlife

Table 6-4 summarizes the bioaccumulative constituents that were detected in sediment and/or wildlife prey-item tissue samples (fish and benthic invertebrates/crabs). Only constituents that were detected in one or more of these media were quantitatively evaluated in the food web models. There were three instances were no tissue data were available for a chemical or chemical group, and these could not be evaluated for avian wildlife risks. First, total DDT was not calculated for small prey fish tissue samples, because data for 4,4'-DDD in sample GC-TI401-XATC-WB-1 was rejected (Appendix I of the RI). Second, PAHs were not analyzed in fish tissue samples. PAHs were not analyzed in fish tissue because they are typically metabolized by fish and do not bioaccumulate. However, PAHs were present in elevated concentrations in sediment, and it is possible that some PAHs may be present in fish tissues prior to metabolism, in which case risks could have been underestimated. Finally, VOCs were not analyzed in either fish or invertebrate samples, so tissue concentrations of 1,4-dichlorobenzene could not be included even though it was detected in sediment. The implications of these data limitations on the risk estimates are further discussed as an uncertainty (Section 7) of the ERA. The following subsections present and discuss the food web results.

6.3.1 Avian Wildlife Food Web Model Outcomes

Table 6-5 summarizes the food web model outcomes for avian wildlife. The estimated dietary intake (i.e., dose) of these constituents was estimated for green heron (representative of avian aquatic omnivores), double-crested cormorant (representative of avian aquatic piscivores), and black duck (representative of avian aquatic herbivores) and compared to ingestion screening values to estimate the potential for risk.

The estimated dose of two constituents for heron (mercury and selenium) and one constituent group for duck (total PAHs) yielded LOAEL-based HQs greater than 1.0, indicating a potential for risk. For cormorant, no HQs exceeded 1.0 for any constituent, suggesting no risks are expected for avian piscivores. For heron, the LOAEL-based HQ was 3.2 for both mercury and selenium. For duck, the LOAEL-based HQ for total PAHs was 75.6.

6.3.2 Evaluation of Risks to Avian Wildlife

Results of the food web models indicate a potential risk to heron from exposure to mercury and selenium and to duck from exposure to PAHs. The heron exposure was estimated through the consumption of constituents in fish and crab. Mercury was detected in all samples of both prey items. Selenium, meanwhile, was detected only in three of eight fish samples and was not detected in crab tissue. Furthermore, mercury was detected in the canal sediments at concentrations exceeding those detected in Gowanus Bay reference sediments (Table 4-5 of the RI), while selenium was not detected at concentrations above reference in either sediment or surface water. These data suggest that only mercury represents a potential site-related risk to avian aquatic omnivores.

Risks to ducks resulted from the presence of PAHs in sediment. Because PAHs were detected in canal sediments at concentrations exceeding those detected in Gowanus Bay reference sediments (Table 4-5 of the RI), it is concluded that PAHs represent a potential site-related risk to avian aquatic omnivores.

TABLE 6-1
Comparison of Detected Constituents in Reference Sediment Samples to Criteria
Gowanus Canal Remedial Investigation
Brooklyn, New York

Constituent	Sediment Criteria[1]		326			328			329			330			333		
	Lowest Effect Level	Severe Effect Level	Values	Exceedances LEL	Exceedances SEL	Values	Exceedances LEL	Exceedances SEL	Values	Exceedances LEL	Exceedances SEL	Values	Exceedances LEL	Exceedances SEL	Values	Exceedances LEL	Exceedances SEL
SVOCs (ug/kg)																	
Total PAHs	4,022	44,792	1,890			7,840	X		3,430			4,210	X		4,410	X	
Pesticides/PCBs (ug/kg)																	
None detected																	
Volatile Organic Compounds (ug/kg)																	
Acetone	*NSV*		32 J	--	--	17 U	--	--	20 U	--	--	22 U	--	--	9.6 J	--	--
Carbon disulfide	*NSV*		16 U	--	--	3.2 J	--	--	10 U	--	--	11 U	--	--	5.9 U	--	--
Metals (mg/kg)																	
Aluminum	*NSV*		17,900 J	--	--	9,890	--	--	15,500 J	--	--	18,000 J	--	--	16,800 J	--	--
Arsenic	8.2	70.0	19 J	X		9.3	X		13.3 J	X		15.7 J	X		11.9 J	X	
Barium	*NSV*		133 J	--	--	45.8	--	--	67.2 J	--	--	69 J	--	--	76.1 J	--	--
Beryllium	*NSV*		0.4 J	--	--	0.26 J	--	--	1.3 UJ	--	--	0.44 J	--	--	0.46 J	--	--
Cadmium	1.2	9.6	5.7 J	X		0.38 J			6.3 J	X		0.4 J			0.32 J		
Chromium	81.0	370.0	181 J	X	X	41			60.1 J			58 J			55.6 J		
Cobalt	*NSV*		13.2 UJ	--	--	7.6 J	--	--	12.7 J	--	--	12.8 J	--	--	11.9 J	--	--
Copper	34.0	270.0	242 J	X		80.2	X		65.2 J	X		70.7 J	X		76.9 J	X	
Iron	2.0%	4.0%	34,400 J	X		18,200			31,600 J	X		33,300 J	X		29,900 J	X	
Lead	46.7	218.0	244 J	X	X	61.7	X		90 J	X		93.5 J	X		87.5 J	X	
Manganese	460.0	1,100.0	554 J	X		323			559 J	X		866 J	X		503 J	X	
Mercury	0.15	0.7	3.7 J	X	X	0.85	X	X	1.2 J	X	X	0.91 J	X	X	1 J	X	X
Nickel	20.9	51.6	45.2 J	X		23.8	X		34.9 J	X		34.6 J	X		34.2 J	X	
Selenium	*NSV*		9.2 UJ	--	--	6.9 U	--	--	2 J	--	--	10.8 UJ	--	--	8.3 UJ	--	--
Silver	1.0	3.7	9.5 J	X	X	2 U	--	--	2.6 UJ	--	--	3.1 U	--	--	2.4 UJ	--	--
Vanadium	*NSV*		53.6 J	--	--	25.6	--	--	42.8 J	--	--	45.6 J	--	--	38.1 J	--	--
Zinc	150.0	410.0	378 R	--	--	160	X		200 J	X		193 R	--	--	185 R	--	--
Cyanide, Total	*NSV*		6.6 UJ	--	--	4.9 U	--	--	6.4 UJ	--	--	7.7 UJ	--	--	5.9 UJ	--	--

Notes:
1 - Criteria for marine and estaurine sediment from *New York State Department of Environmental Conservation Technical Guidance for Screening Contaminated Sediments* (NYSDEC 1999)
Shaded concentrations indicate detections
An "X" indicates exceedances of noted benchmark(s)

TABLE 6-2

Comparison of Canal Sample Toxicity Test Results to the Reference Envelope

Gowanus Canal Remedial Investigation

Brooklyn, New York

Area	Sediment Sample	Polychaete		Amphipod			Reference Envelope Response Category
		Survival (%)	Growth (Wet Biomass - g/organism)	Survival (%)	Growth (Dry Biomass - mg/organism)	Reproduction (# of juveniles/ female)	
Laboratory	Control	97.5	2.837	81.3	1.058	4.86	NA
Canal	303	**87.5**	2.668	81.3	0.886	**1.58**	Limited
	307A	93.8	3.21	79.4	**0.576**	**0.87**	Moderate
	307B	**87.5**	2.58	70.0	**0.645**	**2.20**	Moderate
	309	**85.0**	2.65	86.3	**0.643**	**0.96**	Moderate
	310	**83.8**	2.67	**27.5**	**0.130**	**0.00**	Severe
	313	**61.3**	**1.88**	**0.6**	**0.003**	0.00	Severe
	314	**75.0**	**2.24**	**0.0**	*None Surviving*		Severe
	315	**71.3**	**1.79**	**0.0**			Severe
	318	**86.3**	2.53	**35.6**	**0.105**	**0.00**	Severe
	319	97.5	2.76	**53.8**	**0.175**	**0.00**	Severe
	321	92.5	2.66	68.8	**0.418**	**0.47**	Moderate
	324	**87.5**	2.82	85.6	**0.666**	**0.88**	Moderate
Reference Envelope							
Reference	Lowest Response[1]	85.0	2.25	75.0	0.673	2.12	
	Sample ID of Lowest Response	328, 329	329	328	333	329	

Notes:

Bolded values represent significantly reduced responses compared to control

Shaded values represent responses below the reference envelope

1 - values represent the lowest response result for reference samples 328, 329, 330 and 333 (Sample 326 excluded based on observed toxicity and and benchmark exceedances

TABLE 6-3
Detected Constituents in Surficial Canal Sediment Samples
Gowanus Canal Remedial Investigation
Brooklyn, New York

		SVOCs (ug/kg)						PCBs (ug/kg)			Volatile Organic Compounds (ug/kg)																Pesticides (ug/kg)	
Sample ID	Sample Type	Biphenyl (diphenyl)	Bis(2-ethylhexyl) phthalate	Dibenzofuran	Di-n-butyl phthalate	Di-n-octylphthalate	Total PAHs	Aroclor 1016	Aroclor 1260	Total PCBs	1,2-dichloroethane	1,4-dichlorobenzene	Acetone	Benzene	Carbon disulfide	Chlorobenzene	Cyclohexane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methylcyclohexane	Methylene chloride	o-xylene (1,2-dimethylbenzene)	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	Trichloroethylene (TCE)	Trichlorofluoromethane	P,P'-DDD	Total DDTs
303	Normal		3,400 J				39,370			--			39		4.7 J										5.8 J			5.4 J		--
307A	Normal		6,400 J			9,300 J	29,090			--			42		5.2 J							4.7 J								--
307B	Normal		4,500 J				28,690			--	8.5 J	7.6 J	21 J															4.6 J	7.9 NJ	7.9
309	Normal		2,600 J				13,750			--	5.8 J		21 J																	--
310	Normal		16,000 J				66,900			--																			13 NJ	13
313	Normal						13,070			--			29	6.8 J	6.7 J		8 J	1,100 J	200	310		3.9 J					7.8 J				--
314	Field Duplicate						2,874,500		2,800 J	2,800																				--
314	Normal		57,000 J				4,243,600		3,400 J	3,400			90	46 J	89			1,100 J	640 J	120 J	170 J		290 J			36 J				--
315	Field Duplicate	53,000 J					5,338,200		1,200 J	1,200										Not analyzed									1,000 NJ	1,000
315	Normal	71,000 J					8,001,000		2,400 J	2,400				34 J	8.5 J		8 J	3,600 J	760 J	810 J	15	4.7 J	1,200 J			25			1,100 NJ	1,100
318	Normal		14,000		550 J		235,500	290	440	730																				--
319	Normal	650 J	7,700 J	1,100 J			289,300	220 J	440	660								61	65	5.4 J	27		19							--
321	Normal		4,000 J				33,890			--																				--
324	Field Duplicate						9,840			--												4.3 J								--
324	Normal						16,350			--					11 J															--

TABLE 6-3
Detected Constituents in Surficial Canal S
Gowanus Canal Remedial Investigation
Brooklyn, New York

		Metals (mg/kg)																		
Sample ID	Sample Type	Aluminum	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Vanadium	Zinc	Cyanide, Total
303	Normal	16,200 J	8.2 J	94.8 J	0.43 J	1.6 J	62 J		168 J	29,600 J	201 J	287 J	1.2 J	36.1 J		2.7 J	45.1 J		
307A	Normal	15,900 J	7.7 J	134 J	0.4 J	2.2 J	65.6 J		192 J	27,700 J	776 J	283 J	1.4 J	37.1 J		3.4 J	42.6 J		
307B	Normal	18,200 J	9.9 J	103 J	0.44 J	1.5 J	69.8 J	12.5 J	191 J	28,800 J	216 J	314 J	1.2 J	40.8 J		1.9 J	50.4 J		
309	Normal	17,200 J	9.1 J	98.2 J	0.46 J	2.1 J	69.1 J	12.5 J	149 J	29,500 J	184 J	305 J	1.2 J	38.9 J		3.2 J	42.2 J		
310	Normal	18,900 J	13.2 J	248 J	0.33 J	5.6 J	96.8 J	14.2 J	314 J	32,600 J	600 J	303 J	1.6 J	56.3 J	4.9 J	6.8 J	60.1 J	773 J	
313	Normal	10,200 J	8.8 J	166 J	0.2 J	5.1 J	95 J	8.6 J	246 J	24,200 J	355 J	199 J	2.3 J	55.7 J		4.5 J	42 J		1 J
314	Field Duplicate	10,300 J	12.2 J	301 J	0.24 J	7.6 J	133 J	9.6 J	323 J	25,200 J	531 J	166 J	1.6 J	79.8 J		4.5 J	47.7 J		1 J
314	Normal	10,100 J	10.8 J	304 J	0.26 J	8.1 J	139 J	10 J	349 J	26,400 J	488 J	173 J	0.95 J	84.5 J		6.1 J	47.7 J		1.2 J
315	Field Duplicate	5,560	11.4	134	0.11 J	2.4	50.9	6.5 J	181	21,700	387	145	0.77	36.5		1.8	25.2	378	1.2 J
315	Normal	5,550	13.6	232	0.11 J	2.3	48.8	5.9 J	151	21,900	1,600	140	1	32.7		1.3 J	24	1,510	1.5 J
318	Normal	15,800 J	23.2 J	308 J		13.6 J	117 J	14.8 J	349 J	33,400 J	669 J	301 J	1.8 J	60.1 J	2.3 J	4.1 J	54.5 J	1,460 J	
319	Normal	10,000 J	11.9 J	163 J		7.6 J	73.7 J		178 J	24,200 J	376 J	203 J	0.92 J	42.4 J	1.3 J	2.8 J	32.6 J	914 J	0.54 J
321	Normal	13,000 J	12.8 J	90.8 J		7 J	64.2 J	11.7 J	110 J	27,600 J	146 J	392 J	0.9 J	36 J	0.99 J		35.7 J	318 J	1.1 J
324	Field Duplicate	16,900 J	13.6 J	141 J		9.5 J	83.4 J		176 J	33,700 J	239 J	361 J	1.3 J	42.2 J	1.7 J	3.7 J	47.9 J	535 J	1.1 J
324	Normal	17,600 J	15.1 J	127 J		9.7 J	84.7 J	13.4 J	167 J	34,500 J	216 J	399 J	1.4 J	43 J	2.2 J		46.9 J	432 J	

TABLE 6-4
Detected Bioaccumulative Constituents
Gowanus Canal Remedial Investigation
Brooklyn, New York

Bioaccumulative Constituents[1]	Sediment[2]	Prey Item Tissue[3]	
		Fish	Benthic Invertebrates
Inorganics			
Arsenic	x	--	x
Cadmium	x	--	--
Chromium	x	x	--
Copper	x	x	x
Lead	x	x	--
Mercury	x	x	x
Nickel	x	--	--
Selenium	x	x	--
Silver	x	--	x
Zinc	x	x	x
Pesticides			
DDT, total	x	*see note 4*	x
Aldrin	--	--	--
alpha-BHC	--	--	--
alpha-Chlordane	x	x	--
beta-BHC	--	--	--
delta-BHC	--	--	--
Dieldrin	--	--	--
Endosulfan I	--	--	--
Endosulfan II	x	--	--
Endrin	--	x	--
gamma-BHC (Lindane)	--	--	--
gamma-Chlordane	x	x	--
Heptachlor	--	--	--
Heptachlor epoxide	--	--	--
Methoxychlor	x	--	--
Toxaphene	--	--	--
Polychlorinated Biphenyls			
PCBs, total	x	x	x
Semivolatile Organics			
4-Bromophenyl-phenylether	--	--	--
4-Chlorophenyl-phenylether	--	--	--
Hexachlorobenzene	--	--	--
Hexachlorobutadiene	--	--	--
Hexachlorocyclopentadiene	--	--	--
Hexachloroethane	--	--	--
PAHs, total	x	*NA*	x
Pentachlorophenol	--	--	--
Volatile Organics			
1,1,2,2-Tetrachloroethane	--	--	--
1,2,4-Trichlorobenzene	--	--	--
1,2-Dichlorobenzene	--	--	--
1,3-Dichlorobenzene	--	--	--
1,4-Dichlorobenzene	x	*NA*	*NA*

Notes:

A shaded "x" indicates a detection
An "--" indicates a nondetect
"NA" not analyzed in medium noted
1 - Constituents with the greatest potential to bioaccumulate (Table 4-2 of USEPA, 2000)
2 - Detected constituent concentrations in sediment are summarized in Table 5-5
3 - Detected constituent concentrations in tissue are summarized in Tables 5-2 (crab) or 5-4 (small prey fish)
4 - Total DDT not calculated because data for 4,4'-DDD in sample GC-TI401-XATC-WB-1 was rejected

TABLE 6-5
Food Web Risk Calculations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Constituent	Sediment (mg/kg dw)[1]	Prey Item Tissue[2]				Avian TRVs (mg/kg/day)		Green Heron			Double-Crested Cormorant			Black Duck		
			Benthic Invertebrates (mg/kg dw)	Aquatic Plants					Hazard Quotients			Hazard Quotients			Hazard Quotients	
		Fish (mg/kg dw)		BCF	mg/kg dw	NOAEL	LOAEL	Dietary Intake (mg/kg/day)	NOAEL	LOAEL	Dietary Intake (mg/kg/day)	NOAEL	LOAEL	Dietary Intake (mg/kg/day)	NOAEL	LOAEL
Inorganics																
Arsenic	14.70	11.8	34.5	0.037	0.545	2.30	6.78	2.170	0.9	0.3	0.468	0.2	0.1	0.211	0.1	0.0
Cadmium	9.99	5.98	8.93	0.514	5.132	7.32	28.87	0.807	0.1	0.0	0.237	0.0	0.0	0.272	0.0	0.0
Chromium	84.50	3.08	17.8	0.048	4.018	1.00	5.00	0.867	0.9	0.2	0.122	0.1	0.0	0.386	0.4	0.1
Copper	274.00	18.1	258	0.123	33.721	46.97	61.72	10.349	0.2	0.2	0.719	0.0	0.0	3.072	0.1	0.0
Lead	1200.00	5.31	17.8	0.038	45.244	2.00	20.00	1.054	0.5	0.1	0.211	0.1	0.0	3.864	**1.9**	0.2
Mercury	1.39	0.976	2.2	0.344	0.478	NTRV	0.05	0.158	--	**3.2**	0.039	--	0.8	0.033	--	0.7
Nickel	48.10	47.6	71.4	0.034	1.646	77.40	106.90	6.433	0.1	0.1	1.890	0.0	0.0	0.487	0.0	0.0
Selenium	2.13	5.650	62.3	0.567	1.208	0.42	0.82	2.606	**6.3**	**3.2**	0.224	0.5	0.3	0.352	0.8	0.4
Silver	4.04	11.8	16.3	0.013	0.051	35.6	178.0	1.547	0.0	0.0	0.468	0.0	0.0	0.087	0.0	0.0
Zinc	944.00	171	498	0.358	337.689	82.40	123.60	31.378	0.4	0.3	6.789	0.1	0.1	17.916	0.2	0.1
Pesticides																
DDT, total	1.10	*see note 3*	0.072	0.423	0.466	0.18	1.77	0.002	0.0	0.0	--	--	--	0.021	0.1	0.0
alpha-Chlordane	0.014	0.026	0.030	0.377	0.005	0.57	1.50	0.003	0.0	0.0	0.001	0.0	0.0	0.000	0.0	0.0
Endosulfan II	0.013	0.0402	0.059	0.974	0.013	10.18	NTRV	0.005	0.0	--	0.002	0.0	--	0.001	0.0	--
Endrin	1.00	0.0188	0.059	0.733	0.733	NTRV	0.06	0.004	--	0.1	0.001	--	0.0	0.032	--	0.5
gamma-Chlordane	0.029	0.0235	0.030	0.377	0.011	0.80	4.00	0.003	0.0	0.0	0.001	0.0	0.0	0.001	0.0	0.0
Methoxychlor	0.033	0.207	0.304	0.725	0.024	830.9	NTRV	0.028	0.0	--	0.008	0.0	--	0.003	0.0	--
Polychlorinated Biphenyls																
PCBs, total	0.85	2.89	4.84	0.34	0.29	0.29	0.58	0.408	**1.4**	0.7	0.115	0.4	0.2	0.037	0.1	0.1
Semivolatile Organics																
PAHs, total	1950.3	*see note 4*	6.020	*see note 5*	2,522	NTRV	1.43	0.206	--	0.1	--	--	--	107.933	--	**75.6**
Volatile Organics																
1,4-Dichlorobenzene	0.24	*see note 6*		1.740	0.418	32.16	160.80	--	--	--	--	--	--	0.018	0.0	0.0
Dioxins/Furans																
TEQ (total)[7]	*see note 8*	0.00028	0.00124	0.338	--	0.000014	0.000143	0.0000659	**4.6**	0.5	0.000	0.8	0.1	--	--	--

Dietary Intake Equation[9] Component	Heron	Cormorant	Duck	Description
DI	*Chemical-specific*			Dietary intake for chemical (see above)
FIR	0.0250	0.0925	0.0564	Food ingestion rate (kg/day dry weight)
FCx_{fish}	*Chemical-specific*			Concentration of chemical x in fish (see above)
PDF_{fish}	0.71	1.0	0	Proportion of diet composed of fish (percent)
FCx_{invert}	*Chemical-specific*			Concentration of chemical x in benthic invertebrates (see above)
PDF_{invert}	0.29	0	0.10	Proportion of diet composed of benthic invertebrates (percent)
FCx_{plant}	*Chemical-specific*			Concentration of chemical x in aquatic plants (see above)
PDF_{plant}	0	0	0.867	Proportion of diet composed aquatic plants (percent)
SCx	*Chemical-specific*			Concentration of chemical x in sediment (see above)
$PD_{sediment}$	0	0	0.033	Proportion of diet composed of sediment (percent)
BW	0.21	2.33	1.18	Body weight (kg wet weight)
AUF	1.0	1.0	1.0	Area Use Factor (Site Size/Home Range; Max. is 1.0)

Notes:

Shaded concentrations indicate detections (from tables cited below); unshaded concentrations are maximum reporting limits (RI Appendix I)

NTRV - no TRV available

Bolded Hazard Quotients are > 1.0

1 - Lower of the 95% upper confidence limits (UCL) of the mean or the maximum concentration (Table 5-5)

2 - Maximum detected concentration; fish are small prey fish (atlantic tomcod and mummichog; Table 5-4); Invertebrates are blue crab (Table 5-2)

3 - Total DDT not calculated because data for 4,4'-DDD in one sample (GC-TI401-XATC-WB-1) was rejected

4 - PAHs not analyzed in small prey fish tisse samples

5 - Aquatic plant concentration calculated based on bioaccummulation from Low Molecular Weight (LMW) and High Molecular Weight (HWM) PAHs (see text and Attachment F)

6 - VOCs not analyzed in fish or crab tissue samples

7 - Toxicity Equivalents (TEQ) for dioxin-like PCB congeners (see text and Attachment E)

8 - TEQs not calculated since congener data only available for subset of samples

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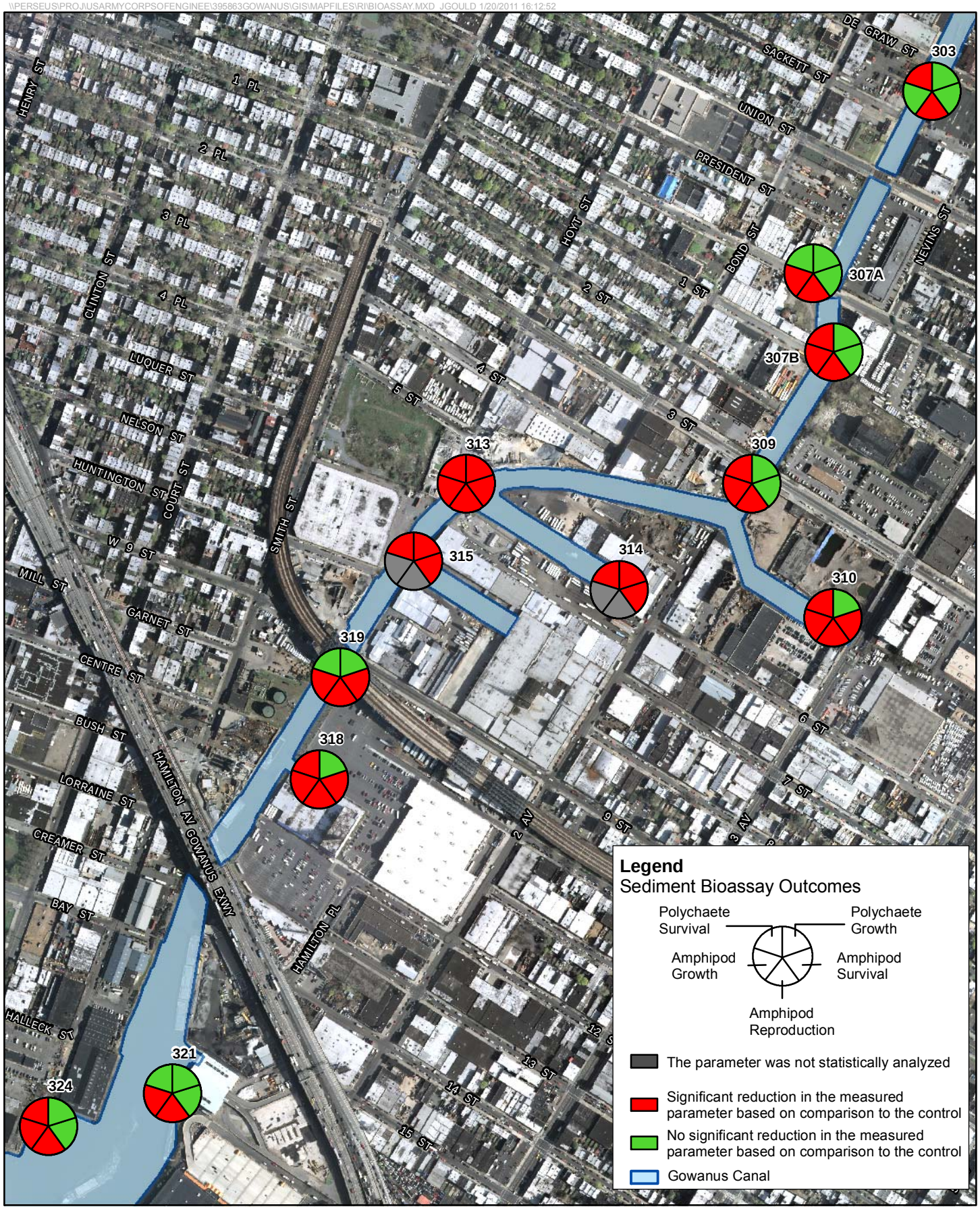

FIGURE 6-1
Summary of Sediment Bioassay Outcomes
Gowanus Canal Remedial Investigation
Brooklyn, New York

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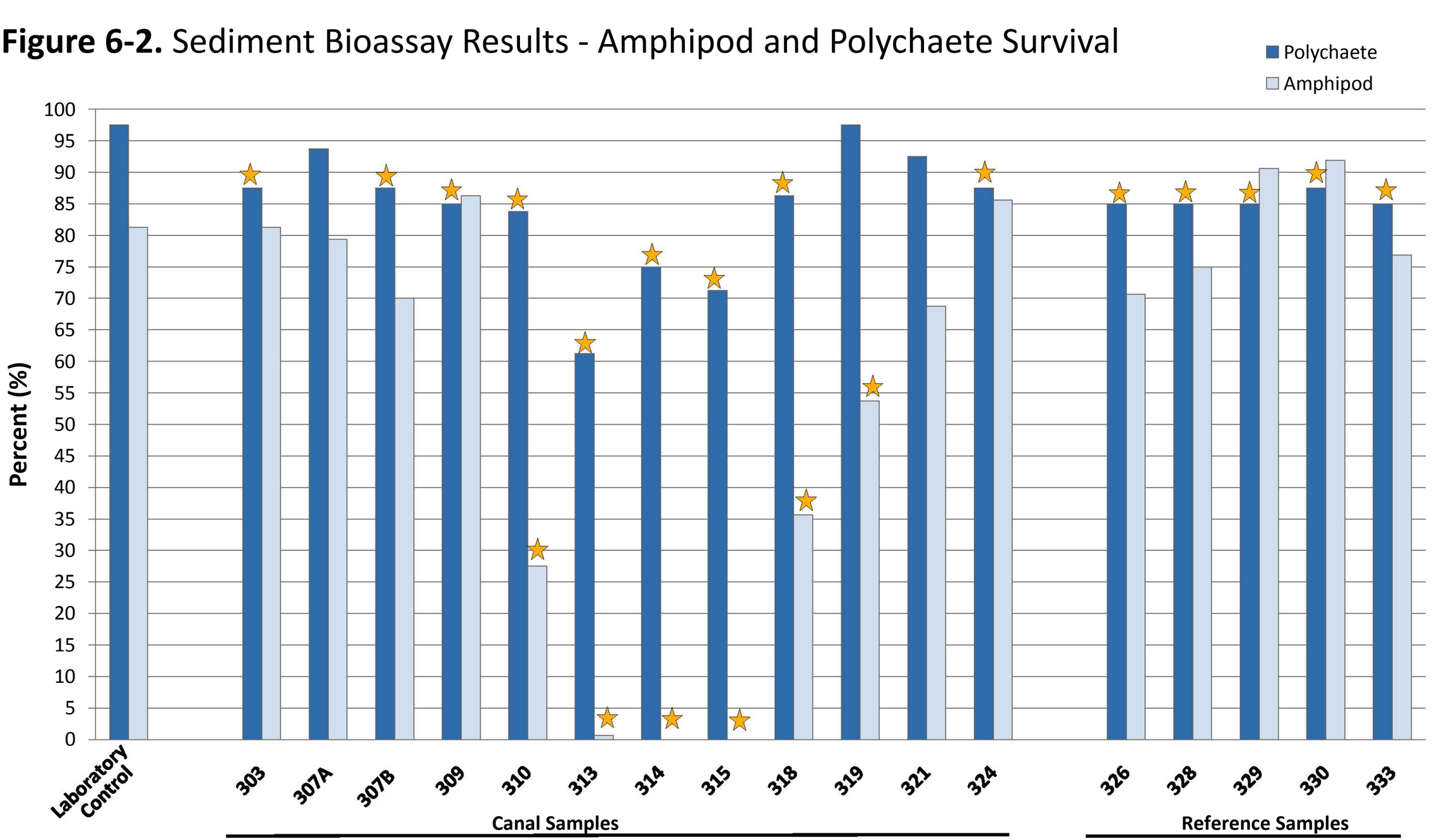
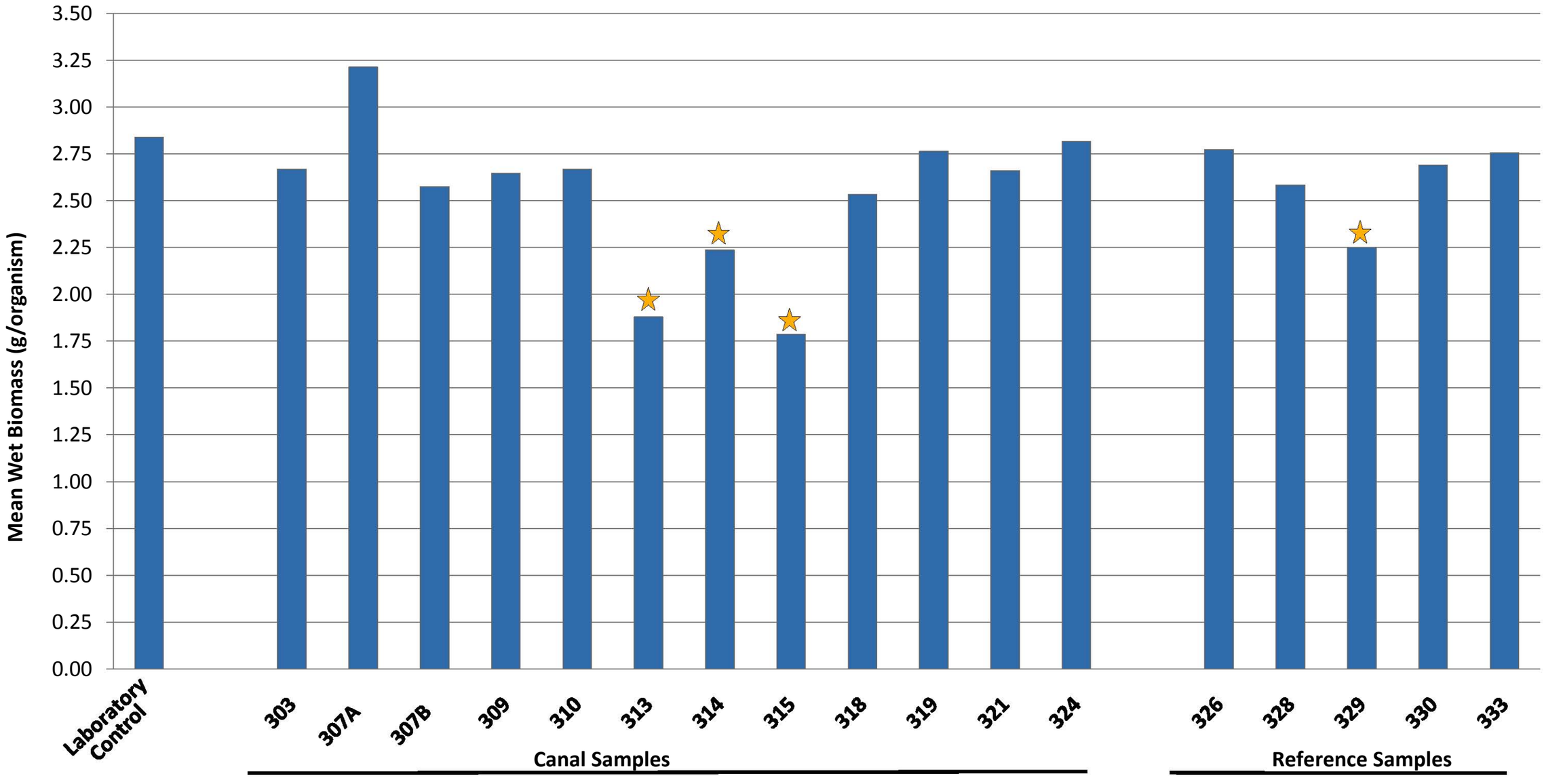
Figure 6-2. Sediment Bioassay Results - Amphipod and Polychaete Survival



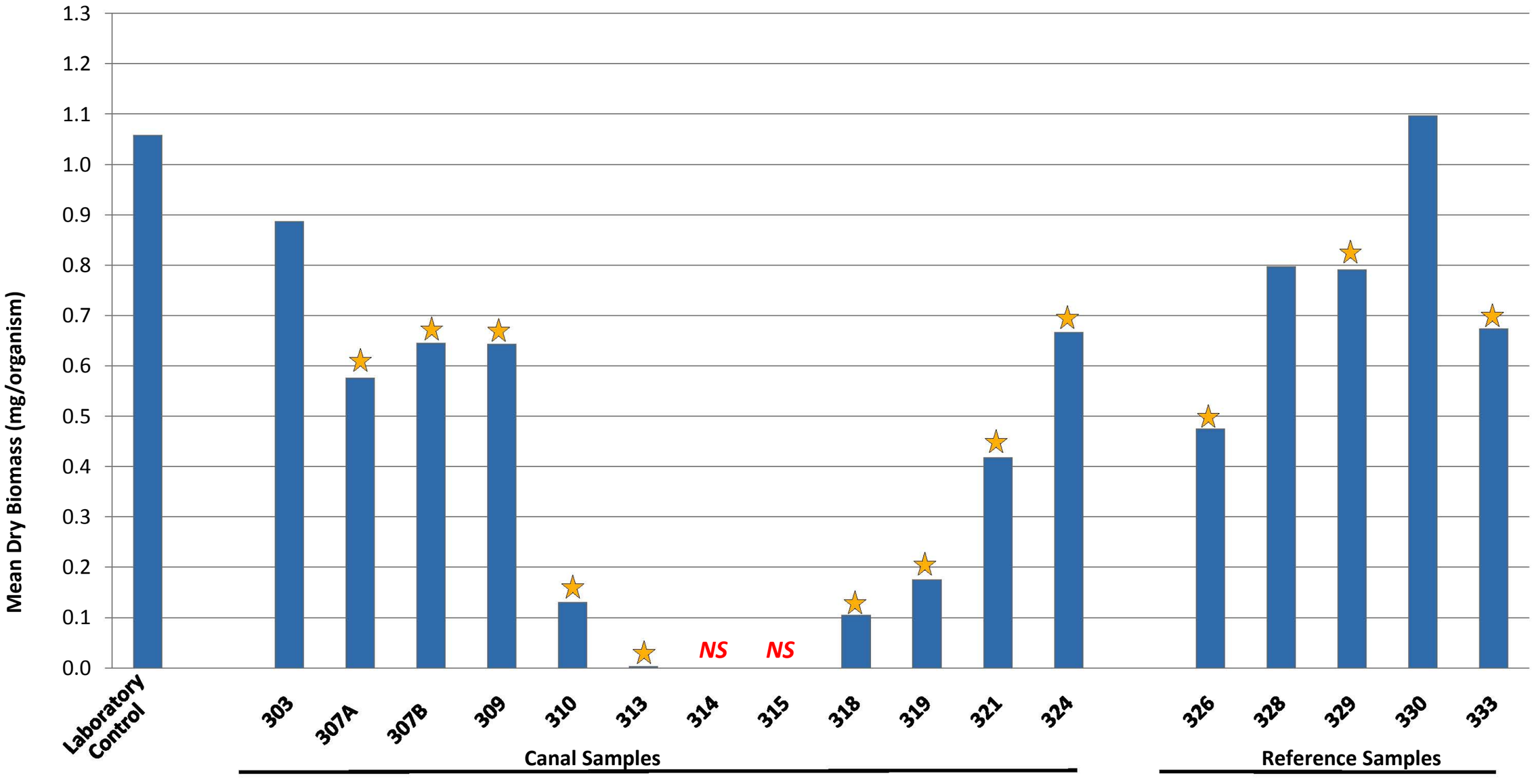
★ - *indicates a negative effect based on the finding of statistically significant reduction as compared to the control*

Figure 6-3. Sediment Bioassay Results - Polycheate Growth



★ - *indicates a negative effect based on the finding of statistically significant reduction as compared to the control*

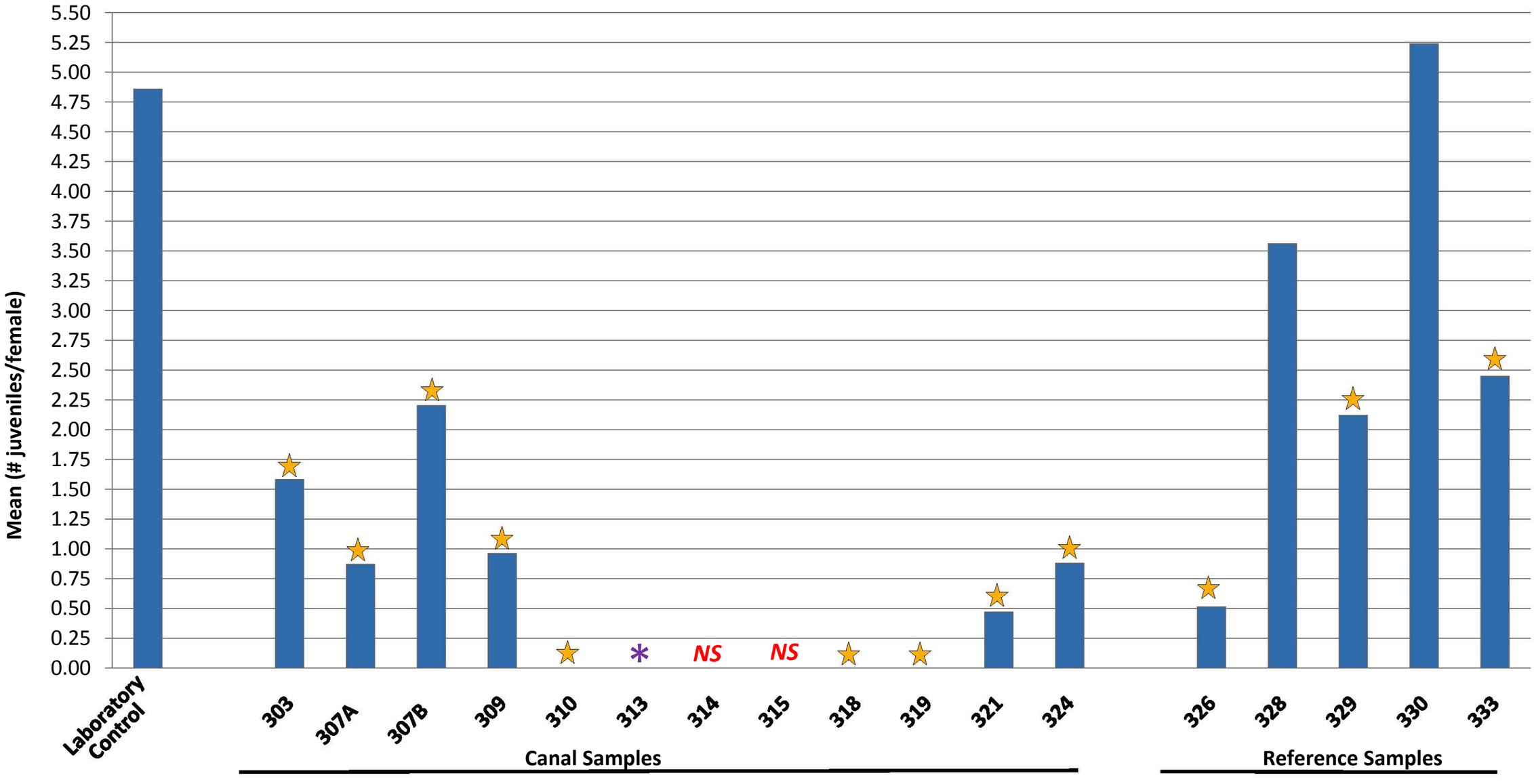
Figure 6-4. Sediment Bioassay Results - Amphipod Growth



★ - *indicates a negative effect based on the finding of statistically significant reduction as compared to the control*

NS - *none surviving; no reproduction measures possible*

Figure 6-5. Sediment Bioassay Results - Amphipod Reproduction



★ - *indicates a negative effect based on the finding of statistically significant reduction as compared to the control*

NS *- none surviving; no reproduction measures possible* ✱ *- neither endpoint yeilded statistically signficant impact, but results considered signficant biological impact*

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FIGURE 6-6
Summary of Reference Envelope Evaluation Outcomes
Gowanus Canal Remedial Investigation
Brooklyn, New York

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SECTION 7

Uncertainties

Uncertainties are present in all ERAs because of the limitations in the available data and the need to make certain assumptions and extrapolations based upon incomplete information. In addition, each of various models (for example, uptake and food web exposures) carries with it some associated uncertainty as to how well the model reflects actual conditions. This ERA considered multiple lines of evidence when evaluating the potential for adverse effects to the assessment endpoints identified for evaluation. For example, risks to the benthic-dwelling community were evaluated using the results of two sediment bioassays along with chemical analytical data. Although using multiple lines of evidence does not eliminate the uncertainties inherent to the evaluation of ecological risk, the use of multiple measures helps to substantiate the general outcomes and conclusions of the ERA. General agreement in the different lines of evidence evaluated for each of the ecological receptors increases the level of confidence in the final conclusions made in this ERA.

This section presents and discusses the primary uncertainties in this ERA and the implications of those uncertainties on the risks estimated in this ERA.

7.1 Site-Specific Media Data

7.1.1 Constituent Mixtures and Cumulative Concentrations

Information on the ecotoxicological effects of constituent interactions is generally lacking, which requires (as is standard for ERAs) that the constituents be evaluated on an individual basis during the comparison to screening values. This could result in an underestimation of risk (if there are additive or synergistic effects among constituents) or an overestimation of risks (if there are antagonistic effects among constituents).

For sediment and tissue, total PCBs, DDTs, and PAHs (as well as consideration of LMW and HMW PAHs) concentrations were calculated and evaluated in lieu of addressing individual compounds from these groups. Assuming a cumulative concentration for these groups could either overestimate risk (assuming additivity) or result in the possibility of overlooking the impacts from individual compounds. However, the uncertainty associated with combining concentrations is considered low because more ecotoxicological data are available for the grouped (totaled) constituents relative to individual constituents.

7.1.2 Detection Limits

The instrument detection limit for some non-detected chemicals in analyzed media exceeded applicable screening values. This occurred most frequently for organic chemicals in sediment. It cannot be determined if these chemicals are present, and if present, if they are occurring at concentrations above their applicable screening values, in which case there is the potential for these chemicals to represent a risk to ecological receptors. The potential for risks associated with these chemicals cannot be fully evaluated and risks associated with these chemicals may be underestimated. The frequency of this occurrence and potential

uncertainty associated with these elevated reporting limits is discussed in Appendix H of the RI.

7.1.3 Evaluation of Sediments

The evaluation of chemical contamination in sediments was restricted to the 0-to-6-inch depth range. Although few ecological receptors would be expected to burrow to greater depths within the Gowanus Canal habitat, there is the potential for somewhat deeper sediments to be remobilized, primarily due to physical activities such as boating activities (e.g., propeller wash), dredging, and remobilization during storm events. The Gowanus Canal is generally considered to be a low-energy environment, and the overall potential for sediment remobilization during storm events is considered to be low. There is the potential for disturbance as a result of boating and/or dredging activities. However, the potential for this disturbance would be primarily at the mouth of the canal, where most boating activity occurs. The potential for sediments to be remobilized throughout much of the remaining canal is considered to be minimal and will have very little effect on the overall estimate of risk.

7.1.4 Tissue Residue Concentrations

There is some uncertainty associated with the site relatedness of chemical concentration in fish and crab tissues. Many of the fish species sampled and blue crabs represent transient populations that are only seasonally present in the Gowanus Canal. The body burden of these species is therefore likely to reflect chemical concentrations accumulated both from the Gowanus Canal and from non-site-impacted locations. Although this uncertainty cannot be completely eliminated, reference samples were collected from surrounding areas in order to establish a non-site-impacted baseline of the chemical concentrations within non-site-impacted fish species. An evaluation of chemical concentrations in the fish collected from non-site-impacted areas was conducted in Attachment E. Furthermore, the concentrations measured in the fish and crab tissue provide a realistic estimate of the total concentrations to which a receptor would be exposed. Finally, mummichog, which are the major component of the small prey fish grouping, are resident species, have very limited mobility, and are expected to provide an accurate estimate of tissue concentrations that would be accumulated directly from the canal.

7.2 Bioassays

7.2.1 Endpoint Selection

There are some uncertainties associated with the selection of available representative growth and reproduction endpoints to use for interpretation of bioassay results and the evaluation of impacts from exposure to canal sediments. For the growth endpoints for both polychaetes and amphipods, the *biomass* results were used in the risk evaluation instead of *weights*, because biomass measures are believed to represent overall impacts to the tested population of organisms. That is, the final biomass results reflect the difference, or remaining, biomass of the worm or amphipod following exposure, whereas the growth results in weight only reflects the organisms surviving at the end of the test. Additionally, for amphipods, only the reproduction results in numbers of juveniles *per surviving female* was used for the risk evaluation, and the results *per surviving adult* were ignored. It is believed that the juvenile counts per female better reflects the impact of exposure since the

organisms introduced at the beginning of the test are not sexed. Therefore, a lack or excess of surviving females could skew reproduction results in juvenile counts per adult, whereas the results normalized to females adjusts the results to make the sample-by-sample comparisons more consistent. Given this rationale, the uncertainty associated with the endpoint selection is not considered significant. The assumption of low uncertainty is also bolstered by the fact that results for multiple endpoints and test organisms were assessed, offering a higher of confidence that the selected endpoints would not result in either overlooking or underestimating impacts.

7.2.2 Reference Envelope

There is some uncertainty with establishing the reference envelope values used to for the final interpretation of site-specific impacts following exposure to canal sediments. This uncertainty is related to the elimination of reference sample data from Station 326 prior to establishing the reference envelope values. After reviewing all reference sample results, the elimination of Sample 326 was determined to be appropriate based on it exhibiting the following characteristics:

- Poor bioassay results—more severe impacts, particularly for amphipods, than other reference samples
- Screening value exceedances—highest frequency of NYSDEC metal criteria exceedances, including the only reference sample occurrence with some SEL exceedances
- Location relative to canal—closest reference sample to the canal, with highest likelihood of canal contamination influences

Based on these factors, there is most likely less uncertainty with the reference envelope values that there would be with the inclusion of Sample 326.

7.2.3 Test Failures

The amphipod (*L. plumulosus*) tests were run three times. The control survival was below test acceptability criteria for the first two attempts, suggesting the health of the test organisms might have been compromised. Therefore, data from the first two test runs were considered invalid and were not used in the ERA. Control survival and all other test acceptability criteria for the control were met with the third test run, and the results discussed in this report reflect the third and final execution of the amphipod test. Since a completely new and different test organism population was used to perform the third test run, and the control results meet the test acceptability criteria as dictated by the protocol, there is low uncertainty associated with the outcome of the final amphipod bioassay. The viability of the test outcomes is further substantiated by the outcome of the polychaete test, whose results were in general agreement with the results of the amphipod tests.

7.3 Food Web Model

7.3.1 Total PCBs

For sediment-associated PCBs, not all sediment samples were analyzed for PCB congeners, but all samples were analyzed for Aroclors. Therefore, the more comprehensive Aroclor-based data set was used in the food web assessment for estimating black duck total PCB

exposures. There is some uncertainty associated with the derivation of exposure point concentrations from Aroclors and not congeners. There are 209 individual PCB congeners (compounds), but there are nine Aroclors (Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, 1262, and 1268). Aroclor names reflect the percent chlorine (by weight) of the mixture (e.g., Aroclor 1242 is 42 percent chlorine by weight), with the more chlorinated mixtures generally being the most persistent and toxic. Aroclors consist of a mixture of PCB congeners. Since not all congeners are represented in Aroclor mixtures, congener-specific data offers a more comprehensive representation of the total PCB concentrations in a medium. However, not all congeners represent a significant risk to ecological receptors. The Aroclor mixtures that were analyzed include the most persistent and toxic. Therefore, an Aroclor-based EPC estimate is considered adequate and appropriate for assessing potential exposures and risks. Therefore, this uncertainty is considered low.

7.3.2 Aquatic Plant Bioaccumulation

Constituent concentrations in aquatic food items (aquatic plants) were estimated via multiplying measured sediment concentrations by BCFs and were not directly measured in actual tissue (food). Therefore, the use of generic, literature-derived BCFs introduces some uncertainty into the resulting estimates. The values selected and methodology employed was intended to provide a reasonable estimate of potential food web exposure concentrations with a potential for over and not under estimation. Therefore, this uncertainty is considered low.

7.3.3 Receptor Selection and Assumptions

There is some uncertainty associated with the receptors selected for the food web exposure assessment. Due to the urbanized setting and structure of the canal and surrounding area, only a limited number of upper trophic level receptors are expected to utilize this aquatic habitat. Therefore, it was assumed that the species most representative of the range of potential feeding groups using the canal included the green heron (omnivore), double-crested cormorant (piscivore), and black duck (herbivore). There is some uncertainty associated with the exclusion of mammalian receptors, and it may be possible for a mammalian receptor to opportunistically forage within the canal. However, because of limitations in habitat and access to the site, the potential for mammalian receptors to be exposed to this site is considered low.

7.3.4 Area Use Factors

AUFs were assumed to equal 1. This is a conservative assumption since a significant percentage of each upper trophic level receptor species' time is expected to be spent foraging outside the canal system unimpacted areas, where constituent concentrations could be significantly lower. Therefore, assuming 100 percent of food and potential exposure is derived from the canal in the ERA, though providing a baseline estimate of risk, is likely to overestimate actual risk.

7.3.5 Black Duck and Sediment TEQs

2,3,7,8-TCDD TEQs were calculated for all dioxin-like PCB congeners in tissue samples (fish and crab) and the heron and cormorant exposure estimates. However, TEQs were not calculated for black duck because of the lack of congener data for some sediment samples and the decision to use Aroclor-based data for assessment of PCB exposures from sediment,

and because additional bioaccumulation information (e.g., dioxin-like congener-specific biota-sediment accumulation factors [BSAFs]) would have been needed to estimate accumulation in tissue. The BSAFs would add another layer of uncertainty. Black duck exposure to total PCBs, which included dioxin-like congeners, is being evaluated via incidental sediment ingestion and plant consumption. Furthermore, PCB uptake into herbivorous black duck is less significant than that for heron and cormorant, which eat organisms that are mobile (exposed to more areas of contamination) and interact more with sediment (live and forage within it). Therefore, the inclusion of a TEQ and total PCB food web exposure assessment is most appropriate for heron and cormorant. Based on this information, the lack of the TEQs analysis for black duck is considered a low uncertainty.

7.3.6 Wildlife Toxicity Reference Value Selection

Data on the toxicity of some constituents to the upper-trophic-level receptor species were sparse or lacking, requiring the extrapolation of data from other wildlife species or from laboratory studies with nonwildlife species. This is a typical limitation and extrapolation for ERAs because so few wildlife species have been tested directly for most constituents. The uncertainties associated with toxicity extrapolation were minimized by selecting the most appropriate test species for which suitable toxicity data were available. The factors considered in selecting a test species to represent a receptor species included taxonomic relatedness, trophic level, foraging method, and similarity of diet.

A second uncertainty related to the derivation of TRVs applies to metals. Most of the toxicological studies on which the ingestion screening values for metals were based used forms of the metal (such as salts) that have high water solubility and high bioavailability to receptors. Because the analytical data on which site-specific exposure estimates were based were for total metals, regardless of form, and the highly bioavailable forms are expected to compose only a fraction of the total metal concentrations, this is likely to result in an overestimation of potential risks for these constituents.

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SECTION 8

Risk Summary and Conclusions

This report presents the results of a combined Screening-Level Ecological Risk Assessment (SLERA) and Baseline Ecological Risk Assessment (BERA) for the Gowanus Canal Superfund Site, Brooklyn, New York. The combined SLERA and BERA completes Steps 1 and 7 of the eight-step Ecological Risk Assessment (ERA) process as described in the USEPA (1997) ERAGS and its updates. All steps of the ERA were conducted in accordance with applicable USEPA (1997) guidance.

Based on consideration of onsite habitat and biota, site-related and non-site-related chemical sources, chemical fate and transport, and ecological receptor exposure pathways, the survival and reproduction of following receptor groups were selected for evaluation in the ERA:

- Benthic (sediment)-dwelling macroinvertebrate communities;
- Water-column-dwelling aquatic life communities; and
- Avian wildlife (aquatic herbivores, aquatic omnivores, and aquatic piscivores).

The following summarizes the key investigation methods and findings and conclusions for each receptor group.

8.1 Benthic Macroinvertebrate Communities

Risks to benthic macroinvertebrate communities were evaluated primarily through the use of laboratory-based sediment bioassays, which were conducted with two sediment-dwelling invertebrates (amphipods and polychaetes), and through the comparison of sediment chemical concentrations to literature-based screening benchmarks. The overall spatial patterns of risk are shown in Figure 6-6. The analyses indicate the following:

- Sediment bioassays indicate a site-related potential for adverse effects to benthic communities from the presence of chemicals in sediment throughout the length of the canal, with the greatest potential for adverse effects occurring in the central portion of the canal. The bioassay results also indicate the potential for less severe, but site-related, adverse effects to the benthic community at several other locations scattered throughout the canal.

- Chemical analysis indicates the presence of organic chemicals (primarily PAHs and PCBs) and metals in sediment at concentrations that are likely to be causing the adverse effects observed in the sediment bioassays. The highest concentrations of those chemicals were detected primarily in the central portion of the canal, which coincides with the locations where the most severe effects to the sediment bioassay organisms were also observed.

- PAHs were consistently detected in sediment at the highest concentrations relative to their ecological screening benchmarks and are considered to represent the greatest site-related risk to the benthic community. Other chemicals, most notably PCBs and several

metals (barium, cadmium, copper, lead, mercury, nickel, and silver), were also detected at concentrations above their ecological screening benchmarks and at concentrations above those detected in offsite sediments, and are also considered to represent a potential site-related risk to the benthic community.

8.2 Water-Column-Dwelling Aquatic Life Communities

Risks to water-column-dwelling aquatic life communities were evaluated primarily through the comparison of surface water chemical concentrations, which were sampled both during dry-weather and wet-weather (while CSO outfalls were discharging) periods, to literature-based screening benchmarks. Chemical concentrations in surface water indicate very little site-related potential for adverse effects to water-column-dwelling aquatic life. The analyses indicate the following:

- In surface water collected during the dry period, no chemicals were detected at concentrations that could adversely affect aquatic life.
- In surface water collected during the wet period, only lead was detected at a concentration exceeding its ecological screening benchmark and at a concentration above that detected in offsite surface water, indicating it represents a site-related risk to aquatic life.

8.3 Wildlife (Avian Aquatic Herbivores, Omnivores, and Piscivores)

Risks to avian aquatic wildlife were evaluated by modeling the potential exposure of these receptors to chemicals ingested in prey (fish and crabs) and via the ingestion of sediment. The analyses indicate the following:

- There is a potential risk to aquatic herbivores (represented by black duck) from exposure to PAHs. PAHs were detected onsite (in sediments) at concentrations above those detected in offsite locations and represent a site-related risk to aquatic herbivores.
- There is a potential risk to avian omnivores (represented by heron) from exposure to mercury and selenium. However, mercury was the only metal that was frequently detected at elevated concentrations in fish and crab tissues, and that was also detected onsite (in sediments) at concentrations above those detected in offsite locations, and thus represents a site-related risk to avian omnivores.
- There is no potential risk indicated to avian piscivores (represented by double-crested cormorant) from the ingestion of fish in the canal.

SECTION 9

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Appendix K
Ecological Risk Assessment

Attachment A: Species of Special Concern Search Outcomes

- New York State Department of Environment Conservation

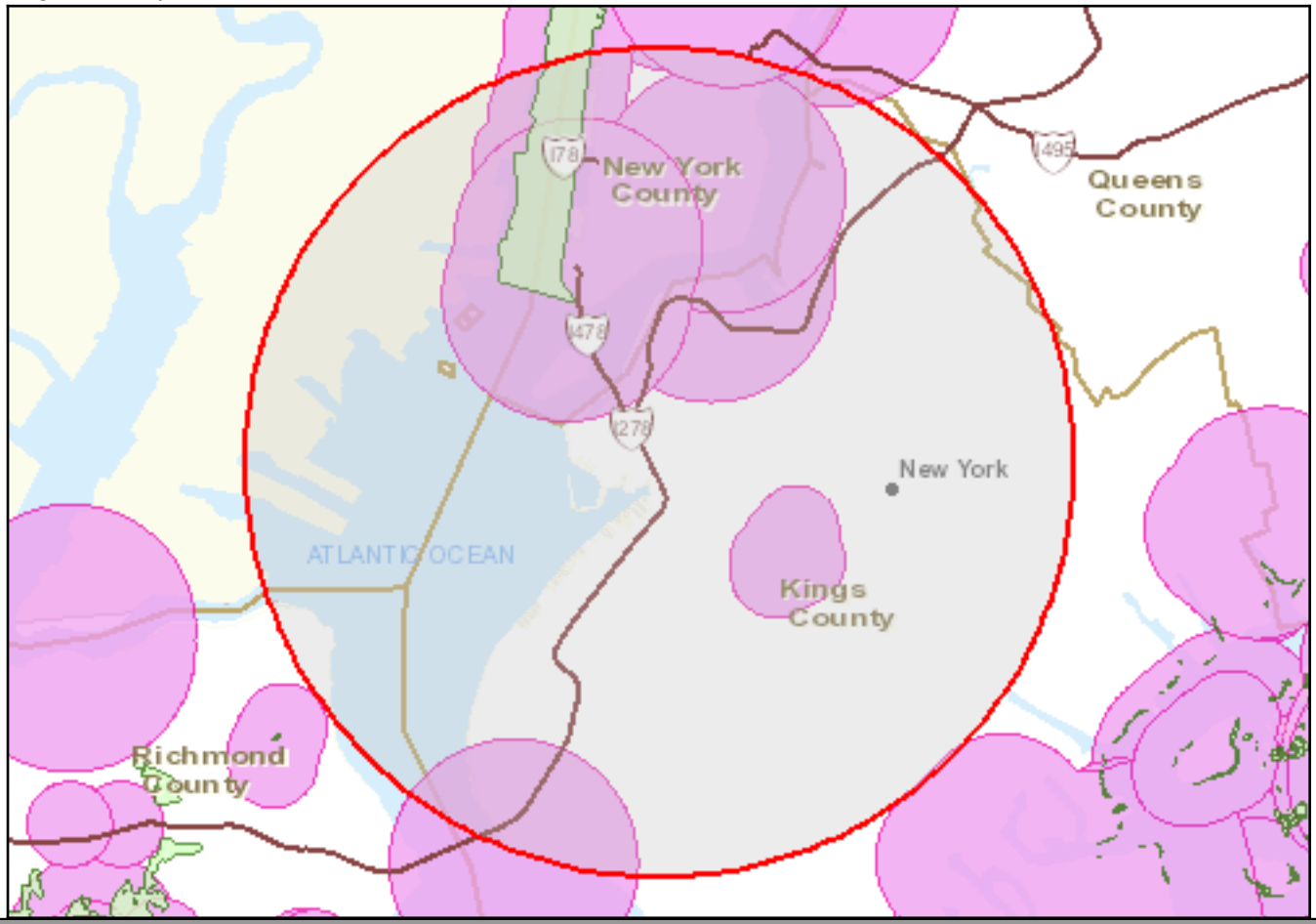
New York Nature Explorer

Gowanus Canal Threatened and Endangered Species

Gowanus Canal Superfund Site

5-mile radius from the center of the Gowanus Canal

Criteria: State Protection Status: Endangered, Threatened, Special Concern, Protected, Game with no open season, Game with open season, Rare, Exploitably Vulnerable; Federal Protection Status: Endangered, Threatened, Proposed Endangered, Proposed Threatened, Candidate



Common Name	Subgroup	Distribution Status	Year Last Documented	Protection Status		Conservation Rank	
				State	Federal	State	Global

Note: Restricted plants and animals may also have also been documented in one or more of the Towns or Cities in which your user-defined area is located, but are not listed in these results. This application does not provide information at the level of Town or City on state-listed animals and on other sensitive animals and plants. A list of the restricted animals and plants documented at the corresponding county level can be obtained via the County link(s) on the original User Defined Search Results page. Any individual plant or animal on this county's restricted list may or may not occur in this particular user-defined area.

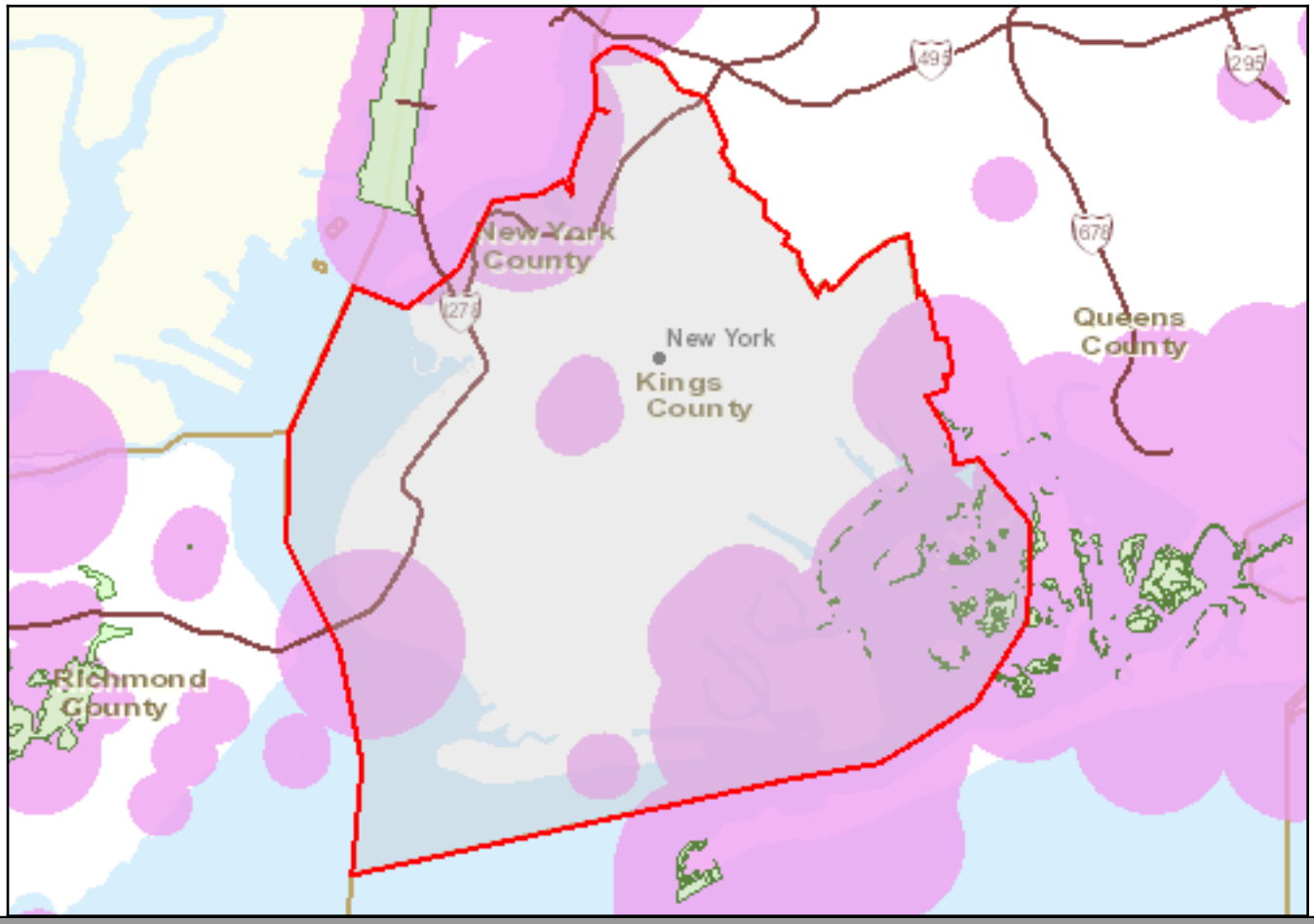
This list only includes records of rare species and significant natural communities from the databases of the NY Natural Heritage Program. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities. For most areas, comprehensive field surveys have not been conducted, and this list should not be considered a substitute for on-site surveys.

New York Nature Explorer

Threatened and Endangered Species in Kings County

Gowanus Canal Superfund Site

Federal and State and Threatened and Endangered Species
Criteria: County: Kings



Common Name	Subgroup	Distribution Status	Year Last Documented	Protection Status		Conservation Rank	
				State	Federal	State	Global
County: Kings							
Animal: Birds							
Common Tern *Sterna hirundo*	Gulls, Terns, Plovers, Shorebirds	Recently Confirmed	2000-2005	Threatened		S3B	G5
Least Bittern *Ixobrychus exilis*	Herons, Bitterns, Egrets, Ibises	Recently Confirmed	2004	Threatened		S3B,S1N	G5
Northern Harrier *Circus cyaneus*	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2000-2005	Threatened		S3B,S3N	G5

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documented	Protection Status		Conservation Rank	
				State	Federal	State	Global
Peregrine Falcon *Falco peregrinus*	Hawks, Falcons, Eagles, Vultures	Recently Confirmed	2009	Endangered		S3B	G4
Pied-billed Grebe *Podilymbus podiceps*	Grebes	Recently Confirmed	2002	Threatened		S3B,S1N	G5
Piping Plover *Charadrius melodus*	Gulls, Terns, Plovers, Shorebirds	Recently Confirmed	2000-2005	Endangered	Endangered/Threatened	S3B	G3
Short-eared Owl *Asio flammeus*	Owls	Recently Confirmed	2005	Endangered		S2	G5

Animal: Reptiles

Fence Lizard *Sceloporus undulatus*	Lizards	Recently Confirmed	1990-1999	Threatened		S1	G5

Animal: Butterflies and Moths

Karner Blue *Plebejus melissa samuelis*	Butterflies and Skippers	Historically Confirmed		Endangered	Endangered	S1	G5T2

Plant: Flowering Plants

Dragon's Mouth Orchid *Arethusa bulbosa*	Orchids	Possible but not Confirmed		Threatened		S2	G4
Large Twayblade *Liparis liliifolia*	Orchids	Possible but not Confirmed		Endangered		S1	G5
Orange Fringed Orchid *Platanthera ciliaris*	Orchids	Extirpated	1895	Endangered		S1	G5

This list only includes records from the databases of the NY Natural Heritage Program, the second NYS Breeding Bird Atlas Project, and the NY Amphibian and Reptile Atlas Project. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities.

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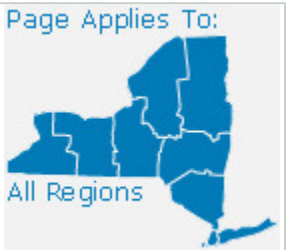
List of Endangered, Threatened and Special Concern Fish & Wildlife Species of New York State

Endangered

Those endangered species which meet one or both of the criteria specified in section 182.2(g) of 6NYCRR Part 182 and which are found, have been found, or may be expected to be found in New York State include:

	Common Name	Scientific Name
Molluscs	[1]Dwarf Wedgemussel	*Alasmidonta heterodon*
	[1]Pink mucket	*Lampsilis abrupta*
	[1]Clubshell	*Pleurobema clava*
	[1]Fat pocketbook	*Potamilus capax*



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Contact for this Page:
Endangered Species Unit
NYSDEC
625 Broadway

		Rayed Bean	*Villosa fabalis*
		[2]Chittenango Ovate Amber Snail	*Novisuccinea chittenangoensis*
	Insects	Tomah Mayfly	*Siphlonisca aerodromia*
		[1,3]American Burying Beetle	*Nicrophorus americanus*
		Hessel's Hairstreak	*Callophrys hesseli*
		[1]Karner Blue Butterfly	*Lycaeides melissa samuelis*
		Regal Fritillary	*Speyeria idalia*
		Persius Duskywing	*Erynnis persius*
		Grizzled Skipper	*Pyrgus centaureae wyandot*
		Arogos Skipper	*Atrytone arogos arogos*
		Bog Buckmoth	*Hemileuca species 1*
		Pine Pinion Moth	*Lithophane lepida lepida*
	Fishes	[1]Shortnose Sturgeon	*Acipenser brevirostrum*
		[3]Silver Chub	*Macrhybopsis storeriana*
		Pugnose Shiner	*Notropis anogenus*
		Round Whitefish	*Prosopium cylindraceum*
		Bluebreast Darter	*Etheostoma camurum*

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	[3]Gilt Darter	*Percina evides*
	[3]Spoonhead Sculpin	*Cottus ricei*
	Deepwater Sculpin	*Myoxocephalus thompsoni*
Amphibians	Tiger Salamander	*Ambystoma tigrinum*
	Northern Cricket Frog	*Acris crepitans*
Reptiles	Mud Turtle	*Kinosternon subrubrum*
	[2]Bog Turtle	*Clemmys muhlenbergii*
	[1]Atlantic Hawksbill Sea Turtle	*Eretmochelys imbricata*
	[1]Atlantic Ridley Sea Turtle	*Lepidochelys kempii*
	[1]Leatherback Sea Turtle	*Dermochelys coriacea*
	Queen Snake	*Regina septemvittata*
	Massasauga	*Sistrurus catenatus*
Birds	Spruce Grouse	*Falcipennis canadensis*
	[3]Golden Eagle	*Aquila chrysaetos*
	Peregrine Falcon	*Falco peregrinus*
	Black Rail	*Laterallus jamaicensis*
	[1,2,4]Piping Plover	*Charadrius melodus*
	[1,3]Eskimo Curlew	*Numenius borealis*

	[1]Roseate Tern	*Sterna dougallii dougallii*
	Black Tern	*Chlidonias niger*
	Short-eared Owl	*Asio flammeus*
	Loggerhead Shrike	*Lanius ludovicianus*
Mammals	[1]Indiana Bat	*Myotis sodalis*
	[3]Allegheny Woodrat	*Neotoma magister*
	[1]Sperm Whale	*Physeter catodon*
	[1]Sei Whale	*Balaenoptera borealis*
	[1]Blue Whale	*Balaenoptera musculus*
	[1]Finback Whale	*Balaenoptera physalus*
	[1]Humpback Whale	*Megaptera novaeangliae*
	[1]Right Whale	*Eubalaena glacialis*
	[1,3]Gray Wolf	*Canis lupus*
	[1,3]Cougar	*Felis concolor*

Threatened

Those threatened species which meet one or both of the criteria specified in section 182.2(h) of 6NYCRR Part 182 and which are found, have been found, or may be expected to be found in New York State include:

	Common Name	Scientific Name
Molluscs	Brook Floater	*Alasmidonta varicosa*
	Wavy-rayed Lampmussel	*Lampsilis fasciola*
	Green Floater	*Lasmigona subviridis*
Insects	Pine Barrens Bluet	*Enallagma recurvatum*
	Scarlet Bluet	*Enallagma pictum*
	Little Bluet	*Enallagma minisculum*
	[2,3]Northeastern Beach Tiger Beetle	*Cicindela dorsalis dorsalis*
	Frosted Elfin	*Callophrys irus*
Fishes	Lake Sturgeon	*Acipenser fulvescens*
	Mooneye	*Hiodon tergisus*
	[3]Lake Chubsucker	*Erimyzon sucetta*
	Gravel Chub	*Erimystax x-punctata*
	[3]Mud Sunfish	*Acantharchus pomotis*
	Banded Sunfish	*Enneacanthus obesus*
	Longear Sunfish	*Lepomis megalotis*
	Longhead Darter	*Percina macrocephala*
	Eastern Sand Darter	*Ammocrypta pellucida*

	Swamp Darter	*Etheostoma fusiforme*
	Spotted Darter	*Etheostoma maculatum*
Amphibians	None Listed	---
Reptiles	Blanding's Turtle	*Emydoidea blandingii*
	[2]Green Sea Turtle	*Chelonia mydas*
	[2]Loggerhead Sea Turtle	*Caretta caretta*
	Fence Lizard	*Sceloporus undulatus*
	Timber Rattlesnake	*Crotalus horridus*
Birds	Pied-billed Grebe	*Podilymbus podiceps*
	Least Bittern	*Ixobrychus exilis*
	Bald Eagle	*Haliaeetus leucocephalus*
	Northern Harrier	*Circus cyaneus*
	King Rail	*Rallus elegans*
	Upland Sandpiper	*Bartramia longicauda*
	Common Tern	*Sterna hirundo*
	Least Tern	*Sterna antillarum*
	Sedge Wren	*Cistothorus platensis*
	Henslow's Sparrow	*Ammodramus henslowii*

Mammals	[2,3]Canada Lynx	*Lynx canadensis*

Special Concern

The following are designated as species of special concern as defined in Section 182.2(i) of 6NYCRR Part 182. Species of special concern warrant attention and consideration but current information, collected by the department, does not justify listing these species as either endangered or threatened.

	Common Name	Scientific Name
Molluscs	Buffalo Pebble Snail	*Gillia altilis*
	Fringed Valvata	*Valvata lewisi*
	Mossy Valvata	*Valvata sincera*
Insects	Unnamed Dragonfly Species	*Gomphus spec. nov.*
	Southern Sprite	*Nehalennia integricollis*
	Extra Striped Snaketail	*Ophiogomphus anomalus*
	Pygmy Snaketail	*Ophiogomphus howei*
	Common Sanddragon	*Progomphus obscurus*
	Gray Petaltail	*Tachopteryx thoreyi*
	Checkered White	*Pontia protodice*
	Olympia Marble	*Euchloe olympia*

	Henry's Elfin	*Callophrys henrici*
	Tawny Crescent	*Phyciodes batesii*
	Mottled Duskywing	*Erynnis martialis*
	Barrens Buckmoth	*Hemileuca maia*
	Herodias Underwing	*Catocala herodias gerhardi*
	Jair Underwing	*Catocala jair*
	A Noctuid Moth	*Heterocampa varia*
Fishes	Mountain Brook Lamprey	*Ichthyomyzon greeleyi*
	Black Redhorse	*Moxostoma duquesnei*
	Streamline Chub	*Erymystax dissimilis*
	Redfin Shiner	*Lythrurus umbratilis*
	Ironcolor Shiner	*Notropis chalybaeus*
Amphibians	Hellbender	*Cryptobranchus alleganiensis*
	Marbled Salamander	*Ambystoma opacum*
	Jefferson Salamander	*Ambystoma jeffersonianum*
	Blue-spotted Salamander	*Ambystoma laterale*
	Longtail Salamander	*Eurycea longicauda*
	Eastern Spadefoot Toad	*Scaphiopus holbrookii*
	Southern Leopard Frog	*Rana sphenocephala utricularius*

Reptiles	Spotted Turtle	*Clemmys guttata*
	Wood Turtle	*Clemmys insculpta*
	Eastern Box Turtle	*Terrapene carolina*
	Eastern Spiny Softshell	*Apalone spinifera*
	Eastern Hognose Snake	*Heterodon platyrhinos*
	Worm Snake	*Carphophis amoenus*
Birds	Common Loon	*Gavia immer*
	American Bittern	*Botaurus lentiginosus*
	Osprey	*Pandion haliaetus*
	Sharp-shinned Hawk	*Accipiter striatus*
	Cooper's Hawk	*Accipiter cooperii*
	Northern Goshawk	*Accipiter gentilis*
	Red-shouldered Hawk	*Buteo lineatus*
	Black Skimmer	*Rynchops niger*
	Common Nighthawk	*Chordeiles minor*
	Whip-poor-will	*Caprimulgus vociferus*
	Red-headed Woodpecker	*Melanerpes erythrocephalus*
	Horned Lark	*Eremophila alpestris*
	Bicknell's Thrush	*Catharus bicknelli*

	Golden-winged Warbler	*Vermivora chrysoptera*
	Cerulean Warbler	*Dendroica cerulea*
	Yellow-breasted Chat	*Icteria virens*
	Vesper Sparrow	*Pooecetes gramineus*
	Grasshopper Sparrow	*Ammodramus savannarum*
	Seaside Sparrow	*Ammodramus maritimus*
Mammals	Small-footed Bat	*Myotis leibii*
	New England Cottontail	*Sylvilagus transitionalis*
	Harbor Porpoise	*Phocoena phocoena*

[1]Currently listed as "endangered" by the U. S. Department of the Interior.

[2]Currently listed as "threatened" by the U. S. Department of the Interior.

[3]Species is extirpated from New York State.

[4]Piping Plover is listed as federally endangered in the Great Lakes Region, and as federally threatened in the Atlantic Coastal Region.

Definitions

Extinct - Species is no longer living or existing.

Extirpated - Species is not extinct, but no longer occurring in a wild state within New York, or no longer exhibiting patterns of use traditional for that species in New York (e.g. historical breeders no longer breeding here).

Endangered - Any native species in imminent danger of extirpation or extinction in New York State.

Threatened - Any native species likely to become an endangered species within the foreseeable future in New York State.

Special Concern - Any native species for which a welfare concern or risk of endangerment has been documented in New York State.

Authority

Environmental Conservation Law of New York, Section 11-0535 and 6 NYCRR (New York Code of Rules and Regulations) Part 182 - effective (last promulgated in state regulation) December 4, 1999.

Revision History

Effective April 24, 2000 - Canada Lynx (*Lynx canadensis*) was added to the Threatened list.
Effective August 8, 2007 - Bald Eagle (*Haliaeetus leucocephalus*) was removed from the Endangered Species List by the U. S. Department of the Interior.
A previous version of this document erroneously indicated that the Gray Wolf (*Canis lupus*) was federally Threatened.

Appendix K
Ecological Risk Assessment

Attachment A: Species of Special Concern Search Outcomes

- United States Fish and Wildlife Service

Jamaica Bay and Breezy Point List of Species of Special Emphasis

Species of Special Emphasis Occurring in the Jamaica Bay and Breezy Point (Complex #16)

Scientific Name	Common Name (s)	Global	Federal	NY Rank	NY Stat.	NJ Rank	NJ Stat.	BW # Rank	UC Rank	Jam. Bay
ANIMALS										+
INVERTEBRATES										+
MOLLUSCA										+
Mercenaria mercenaria	northern quahog							BW5	S	+
Mulinia lateralis	dwarf surfclam							BW5?		+
Mya arenaria	softshell clam							BW4	D	+
Mytilus edulis	blue mussel							BW5	S	+
Spisula solidissima	Atlantic surfclam							BW5		+
ARTHROPODA										+
INSECTA										+
Butterflies and Skippers:										+
Asterocampa clyton	tawny emperor	G5		S3	U	S4		BW3BW4	D	+
Celastrina neglectamajor	Appalachian azure	G4		S3	U	SU		BW3BW4	D	+
Panoquina panoquin	salt marsh skipper	G5		SU	U	S5		BW3?	D	+
Parrhasius m-album	white m hairstreak	G5		SU	U	C?		BW2?	D	+
Pieris protodice	checkered white	G5		SU	U	SH		BW2?	R	+
CRUSTACEA										+
Callinectes sapidus	blue crab							BW5	S	+
Homarus americanus	American lobster							BW4	D	+
MEROSTOMATA										+
Limulus polyphemus	horseshoe crab							BW5	S	+
VERTEBRATES										+
FISH										+

Mustelus canis	smooth dogfish (A)	G?		SA	U			BW5	S	+
Raja eglanteria	clearnose skate (A)							BW5	U	+
Raja erinacea	little skate (A)							BW5	S	+
Squalus acanthias	spiny dogfish (A)							BW5	D	+
Acipenser oxyrinchus	Atlantic sturgeon (A-F/AN)	G3		S1	P	S3		BW1	D	+
Ammodytes americanus	American sandlance (A)	G?		SN	U			BW4	**S**	+
Anguilla rostrata	American eel (A-F/CA)	G5		S5	U	S5		BW4	S	+
Menidia beryllina	inland silverside (A-F)	G5		S2S3	U	S4S5		BW4	S	+
Menidia menidia	Atlantic silverside (A)	G5		S2S3	U			BW4	**S**	+
Opsanus tau	oyster toadfish (A)							BW4	S	+
Strongylura marina	Atlantic needlefish (A-F)	G5		S2S3	U			BW4	S	+
Paralichthys dentatus	summer flounder (A)	G?		SN	P			BW4	**S**	+
Scophthalmus aquosus	windowpane (A)	G?		SN	U			BW5	**S**	+
Alosa aestivalis	blueback herring (A-F/AN)	G5		S3	U	S5		BW4	**S**	+
Alosa pseudoharengus	alewife (A-F/AN)	G5		S5	U	S5		BW4	**S**	+
Alosa sapidissima	American shad (A-F/AN)	G5		S4	U	S3S4	W	BW4	**S**	+
Brevoortia tyrannus	Atlantic menhaden (A)	G?		SN	U			BW5	**S**	+
Clupea harengus	Atlantic herring (A)	G?		SN	U			BW4	**S**	+

Myoxcephalus aenaeus	grubby sculpin (A)	G?		S3	U			BW4	S	+
Fundulus diaphanus	banded killifish (F)	G5		S5	U	S5		BW3	S	+
Fundulus heteroclitus	mummichog (A-F)	G5		S3	U	S5		BW4	S	+
Fundulus luciae	spotfin killifish (A-F)	G3G4		S1	U	S3		BW3	**S**	+
Anchoa mitchilli	bay anchovy (A-F)	G5		S3	U			BW3	S	+
Gadus morhua	Atlantic cod (A)	G?		SN	P			BW4	D	+
Merluccius bilinearis	silver hake (A)	G?		SN	U			BW5	S	+
Microgadus tomcod	Atlantic tomcod (A)	G5		S3	U	S3		BW3	S	+
Urophycis chuss	red hake (A)	G?		SN	U			BW4	D	+
Urophycis tenuis	white hake (A)							BW4	D	+
Apeltes quadracus	fourspine stickleback (A-F)	G5		S4	U	S4			S	+
Gobiosoma bosci	naked goby (A-F)	G5		S2S3	U			BW3?	D	+
Gobiosoma ginsburgi	seaboard goby (A)	G?		S2S3	U			BW3?	D	+
Tautoga onitis	tautog (A)	G?		SN	P			BW4	D	+
Tautogolabrus adspersus	cunner (A)	G?		SN	U			BW3	S	+
Mugil cephalus	striped mullet (A-F)	G5		SN	U			BW4	D	+
Morone americana	white perch (A-F)	G5		S4	U	S5		BW4	S	+
Morone saxatilis	striped bass (A-F/AN)	G5		S4	P	S4	W	BW4	S	+
Pleuronectes americanus	winter flounder (A)	G5?		S3?	P			BW4	D	+
Pomatomus saltatrix	bluefish (A)	G?		SN	P			BW5	S	+
Cynoscion regalis	weakfish (A)	G?		SN	P			BW4	D	+

Leiostomas xanthurus	spot (A)	G5		SN	U			BW4	D	+
Menticirrhus saxatilis	northern kingfish (A)	G?		SA	U			BW4?	D	+
Centropristis striata	black sea bass (A)	G?		SN	P			BW5	S	+
Trinectes maculatus	hogchoker (A-F)	G5		S3	U			BW3	S	+
Stenotomus chrysops	scup (A)	G?		SN	U			BW4	S	+
Peprilus triacanthus	butterfish (A)	G?		SN	U			BW5	S	+
Syngnathus fuscus	northern pipefish (A)	G?		S3	U			BW4	S	+
Prionotus carolinus	northern searobin (A)	G?		SN	U			BW3	S	+
Prionotus evolans	striped searobin (A)	G?		SN	U			BW3	S	+
AMPHIBIANS										+
Scaphiopus h. holbrookii	eastern spadefoot	G5		S3	U (SC)	S4	D	BW3	R	I
Ambystoma maculatum	spotted salamander	G5		S5	U/SC	S3	D	BW4	R	I
REPTILES										+
Caretta caretta	loggerhead sea turtle	G3	T	SZN	T	SN	E	BW2	R	M
Lepidochelys kempii	Atlantic (=Kemp's) ridley sea turtle	G1	E	S1N	E	SN	E	BW1	R	M
Malaclemys t. terrapin	northern diamondback terrapin	G5T5	C2	S4	U/SC	SU		BW3	S	+
Terrapene c. carolina	eastern box turtle	G5		S4	G (SC)	S5	S	BW4	RD	I
BIRDS										+
Gavia immer	common loon	G5		S3	P/SC	SN	S	BW2	R/S	M
Podiceps auritus	horned grebe	G5		SN	P	SN	S	BW2?	D	MW

Podilymbus podiceps	pied-billed grebe	G5		S3	P (T)	S1	E/S	BW2	R/D	BM
Phalacrocorax auritus	double-crested cormorant	G5		S3	P	SN	INC	BW3	S/S	SMW
Phalacrocorax carbo	great cormorant	G5		SN	P	S1	S	BW3?	S	M/W
Ardea herodias	great blue heron	G5		S5	P	S2	T/S	BW2BW3	R/S	M
Botaurus lentiginosus	American bittern	G4		S4	P (SC)	S3	T/S	BW1	R/D	M
Bubulcus ibis	cattle egret	G5		S2	P	S3	INC/INC	BW3	S/S	BM
Casmerodius albus	great egret	G5		S2	P	S3	S/S	BW3	S/S	BM
Egretta caerulea	little blue heron	G5		S2	P	S3	T/S	BW2	R/D	SM
Egretta thula	snowy egret	G5		S2S3	P	S3	S/S	BW3	D/D	BM
Egretta tricolor	tricolored heron	G5		S2	P	S3	INC/S	BW3	R/D	BM
Ixobrychus exilis	least bittern	G5		S3	P/SC (T)	S3	D/S	BW2	D/D	B
Nycticorax violaceus	yellow-crowned night-heron	G5		S2	P	S2	T/T	BW2	RD/RD	BM
Nycticorax nycticorax	black-crowned night-heron	G5		S3	P	S3	D/S	BW3	S/S	BM
Plegadis falcinellus	glossy ibis	G5		S2	P	S3	D/S	BW3	S/S	BM
Branta canadensis	Canada goose	G5		S5	G	S5		BW5	S/S	BMW
Branta bernicla	brant	G5		SN	G	SN		BW4	S	MW
Chen caerulescens	snow goose	G5		SN	G	SN		BW3	D	MW
Anas acuta	northern pintail	G5		S2	G	SN		BW2	R	MW
Anas americana	American wigeon	G5		S3	G	SN		BW3	S	MW
Anas clypeata	northern shoveler	G5		S2	G	SN		BW2	R/DS	BM
Anas crecca	green-winged teal	G5		S3	G	SN		BW2BW3	R/S	MW
Anas discors	blue-winged teal	G5		S5	G	S5		BW4	R/D	M
Anas platyrhynchos	mallard	G5		S5	G	S5		BW5	S/S	BMW
Anas rubripes	American black duck	G4		S4	G	S4		BW4	D/S	BMW

Anas strepera	gadwall	G5		S3	G	S5		BW3	R/D	BMW
Aythya valisineria	canvasback	G5		SN	G	SN		BW3	S	MW
Aythya americana	redhead	G5		SE	G	SN		BW1?	U/D	BI
Aythya marila	greater scaup	G5		SN	G	SN		BW4	S	SMW
Aythya affinis	lesser scaup	G5		SA	G	SN		BW4	S	MW
Bucephala clangula	common goldeneye	G5		S2	G	SN		BW3	DS	MW
Bucephala albeola	bufflehead	G5		SN	G	SN		BW4	S	MW
Lophodytes cucullatus	hooded merganser	G5		S4	G	SN		BW2	RD	M
Mergus serrator	red-breasted merganser	G5		S1S2	G	SN		BW4	S	MW
Oxyura jamaicensis	ruddy duck	G5		S1	G	SN		BW2	R?/S	BW
Accipiter cooperii	Cooper's hawk	G4		S4	P/SC	S2	E	BW2	R	MW
Accipter striatus	sharp-shinned hawk	G5		S4	P (SC)	S1	U/U	BW2	R	MW
Buteo lineatus	red-shouldered hawk	G5		S4	T (SC)	S2	E/T	BW1	R?/S	M
Buteo lagopus	rough-legged hawk	G5		SN	P	SN	S	BW2?	R	M/W
Circus cyaneus	northern harrier	G5		S3	T (SC)	S2	E/U	BW1	R/D	BMW
Falco columbarius	merlin	G4		SN	P	SN	S	BW2	D	M
Falco peregrinus	peregrine falcon	G3	E (SA)	S2	E	S1	E	BW2	RD/D	BM
Pandion haliaetus	osprey	G5		S4	T (SC)	S3	T/T	BW2	R/S	BM
Fulica americana	American coot	G5		S3	G	S1	D	BW2	R/D	BM
Gallinula chloropus	common moorhen	G5		S4	P	S4		BW3	R?/R	BM
Porzana carolina	sora	G5		S4	G	S4		BW3	R/R	M
Rallus limicola	Virginia rail	G5		S4	G	S4		BW3	R/R	M
Rallus longirostris	clapper rail	G5		S3	P	S5		BW4	S/D	BM
Charadrius melodus	piping plover	G3	T	S2B	E	S1	E	BW2	R/R	B

Charadrius semipalmatus	semipalmated plover	G5		SN	P	S?	S	BW3BW4	S	M
Pluvialis dominica	lesser golden-plover	G5		SN	P	SN	S/S	BW2?	D	M
Pluvialis squatarola	black-bellied plover	G5		SN	P	SN	S/S	BW3BW4	S	M/W
Haematopus palliatus	American oystercatcher	G5		S3	P	S4	INC/S	BW3	D?/R	BM
Arenaria interpres	ruddy turnstone	G5		SN	P	SN	S	BW3?	S	M
Bartramia longicauda	upland sandpiper	G5		S4	P/SC (T)	S1	E	BW2	R	B?
Calidris alba	sanderling	G5		SN	P	SN	D	BW3?	S	M
Calidris alpina	dunlin	G5		SN	P	SN	INC	BW3?	S	M
Calidris canutus	red knot	G5		SN	P	SN	D	BW3?	S	M
Calidris fuscicollis	white-rumped sandpiper	G5		SN	P	SN	S	BW2?	D	M
Calidris minutilla	least sandpiper	G5		SN	P	SN	S	BW3?	S	M
Calidris pusilla	semipalmated sandpiper	G5		SN	P	SN	S	BW3?	S	M
Catoptrophorus semipalmatus	willet	G5		S3	P	S4	INC/S	BW3	S/S	BM
Larus philadelphia	Bonaparte's gull	G5		SN	P	SN	S	BW3?	S	M
Rynchops niger	black skimmer	G5		S2	P (SC)	S2	E	BW3	R/D	BM
Sterna antillarum	least tern	G4		S3B	E (T)	S2	E	BW1	R/D	SM
Sterna dougallii	roseate tern	G5	E	S1B	E	S1	E	BW1	R/R	BM
Sterna forsteri	Forster's tern	G5		S1	P	S3	INC/S	BW3	R/S	M
Sterna hirundo	common tern	G5		S3B	T	S3	D/S	BW3	R/S	B
Sterna nilotica	gull-billed tern	G5		S1	P	S3	S	BW2	R/R	B
Coccyzus americanus	yellow-billed cuckoo	G5		S5	P	S4	S/S	BW4	D/S	B
	black-billed	G5						BW3	D/D	B

Coccyzus erthropthalmus	cuckoo			S5	P	S4	S/S			
Asio flammeus	short-eared owl	G5		S2	P/SC (E)	S1	E/U	BW2	H/D	BMW
Asio otus	long-eared owl	G5		S3	P	S3	T/T	BW2	R?/D	M
Tyto alba	common barn-owl	G5		S3	P/SC (P)	S4	S/S	BW3	D/D	B
Archilochus colubris	ruby-throated hummingbird	G5		S5	P	S4	D/S	BW4	D/S	M
Chaetura pelagica	chimney swift	G5		S5	P	S5	S/S	BW4BW5	S/S	B/M
Contopus virens	eastern wood-pewee	G5		S5	P	S4	S/S	BW4	S/S	M
Empidonax minimus	least flycatcher	G5		S5	P	S4	S/S	BW3BW4	R/D?	M
Empidonax traillii	willow flycatcher	G5		S5	P	S4	INC/S	BW4	S/S	B
Myiarchus crinitus	great crested flycatcher	G5		S5	P	S4	S/S	BW4BW5	S/S	M
Tyrannus tyrannus	eastern kingbird	G5		S5	P	S5	D/D	BW4BW5	S/S	BM
Eremophila alpestris	horned lark	G5		S5	P (SC)	S3	D/S	BW3BW4	R/D	BMW
Cistothorus palustris	marsh wren	G5		S5	P	S4	D/S	BW4	S/S	BM
Catharus fuscescens	veery	G5		S5	P	S4	S/S	BW4	D/S	M
Catharus guttatus	hermit thrush	G5		S5	P	S4	S/S	BW3	R?/S	M/W
Catharus ustulatus	Swainson's thrush	G5		S5	P	SN	S	BW1	S	M
Hylocichla mustelina	wood thrush	G5		S5	P	S5	S/S	BW4	S/S	M
Polioptila caerulea	blue-gray gnatcatcher	G5		S5	P	S4	INC/S	BW4	D/S	M
Dumetella carolinensis	gray catbird	G5		S5	P	S5	S/S	BW5	S/S	BM
Vireo griseus	white-eyed vireo	G5		S4	P	S4	D/S	BW4	D?/S	B
Dendroica caerulescens	black-throated blue warbler	G5		S5	P	S4	S/S	BW3	R/S	M
Dendroica coronata	yellow-rumped warbler	G5		S5	P	S4	S/S	BW2BW3	S	M/W

Dendroica discolor	prairie warbler	G5		S5	P	S5	S/S	BW4BW5	RD/S	M
Dendroica fusca	blackburnian warbler	G5		S5	P	S4	S/S	BW3	S	M
Dendroica magnolia	magnolia warbler	G5		S5	P	S4	S/S	BW3	S	M
Dendroica palmarum	palm warbler	G5		S1	P	SN	S	BW1	S	M
Dendroica pensylvanica	chestnut-sided warbler	G5		S5	P	S4	S/S	BW4	RD/S	M
Dendroica striata	blackpoll warbler	G5		S3	P	SN	S	BW1	S	M
Dendroica virens	black-throated green warbler	G5		S5	P	SN	S	BW3	R?/S	M
Mniotilta varia	black-and-white warbler	G5		S5	P	S4	S/S	BW4	D/S	M
Parula americana	northern parula	G5		S3S4	P	S3	P/S	BW1	R/S	M
Seiurus aurocapillus	ovenbird	G5		S5	P	S5	S/S	BW4	S/S	M
Seiurus noveboracensis	northern waterthrush	G5		S5	P	S4	S/S	BW3	R?/S	M
Setophaga ruticilla	American redstart	G5		S5	P	S5	S/S	BW4BW5	DS/S	B?M
Wilsonia canadensis	Canada warbler	G5		S5	P	S4	S/S	BW3	S	M
Piranga olivacea	scarlet tanager	G5		S5	P	S4	S	BW4	S/S	M
Pheucticus ludovicianus	rose-breasted grosbeak	G5		S5	P	S4	S/S	BW4	S/S	M
Ammodramus caudacutus	sharp-tailed sparrow	G5		S3	P	S4	S/S	BW3	D/D?	BM
Ammodramus maritimus	seaside sparrow	G4		S2S3	P (SC)	S4	S/S	BW3	S/S	BM
Ammodramus savannarum	grasshopper sparrow	G4		S4	P/SC	S2	T/T	BW2	R/R	BM
Junco hyemalis	dark-eyed junco	G5		S5	P	S4	S/S	BW3BW4	S	M/W
Melospiza georgiana	swamp sparrow	G5		S5	P	S4	S/S	BW3BW4	S/S	M/W
Passerculus sandwichensis	savannah sparrow	G5		S5	P	S2	T/T	BW3	D/S	BM
Pipilo erythrophthalmus	rufous-sided	G5		S5	P	S5	S/S	BW4	S/S	B/M

	towhee									
Zonotrichia albicollis	white-throated sparrow	G5		S5	P	SN	S/S	BW2	S	M/W
Dolichonyx oryzivorus	bobolink	G5		S5	P	S2	T/T	BW3	R/S	M
Icterus spurius	northern oriole	G5		S5	P	S5	S/S	BW4BW5	S/S	M
Sturnella magna	eastern meadowlark	G5		S5	P	S4	D/S	BW3BW4	H?/S	M
Carpodacus purpureus	purple finch	G5		S5	P	S4	S/S	BW3	R/S	M
MAMMALS										+
Physeter catodon	sperm whale	G2	E	SN	E	SA	E	BW1?	R	?
Tursiops truncatus	bottle-nosed dolphin	G5		S3	U	SN	S	BW4	R	?
Phoca vitulina	harbor seal	G5		S3	P	SN	S	BW4	D	W
VASCULAR PLANTS										+
Thuja occidentalis	northern white cedar	G5		C		S1	E	BW4	R?	I?
Pinus virginiana	Virginia pine	G5		S1	E	S5		BW3	R	?
Cyperus houghtonii	Houghton's umbrella-sedge	G4?		S3	R	SRF		BW2	R	+
Cyperus retorsus	retrorse flatsedge	G5		S1	U	C		BW3?	R?	+
Cyperus schweinitzii	Schweinitz's flatsedge	G5		S2	R	SE		BW1	R	+
Eleocharis obtusa var. *ovata*	blunt spikerush	G5T4Q		S1S2	R	C		BW2	R	+
Scirpus torreyi	Torrey's bulrush	G5?		C		S1	E	BW1	R	+
Amaranthus pumilus	seabeach amaranth	G2	T	S1	U	SH	E	BW1	R	+
Asclepias purpurascens	purple milkweed	G4G5		S3	T	S4		BW3BW4	R	?
Artemisia campestris ssp. caudata	beach wormwood	G5T4		S4	U	S2		BW3	R	+
Bidens laevis	smooth bur-marigold	G5		S2	R	C		BW3BW4	H	?
Solidago elliottii	coastal goldenrod	G5		S2	U	S3		BW2BW3	U	?

Arabis hirsuta	hairy rock-cress	G5		C		S2		BW3	D?	?
Honckenya peploides	seabeach sandwort	G5		C		S2		BW3BW4	R	?
Chenopodium rubrum	red goosefoot	G5		S1	U	S1	E	BW1	R	+
Suaeda rolandii	Roland sea-blite	G1G2Q	C2	S1	U	SU	E	BW1	R	+
Cuscuta pentagona	field-dodder	G5		S2S3	R	S4		BW3	D?	+
Cuscuta polygonorum	smartweed dodder	G5		S1	R	S2		BW2	R	+
Quercus phellos	willow oak	G5		S1	E	S5		BW5	R	+(I?)
Lythrum lineare	saltmarsh loosestrife	G5		S1	E	S4		BW3	U	?
Plantago maritima ssp. juncoides	seaside plantain	G5T5		S2	U	S2		BW2	U	?
Polygonum glaucum	seabeach knotweed	G3		S3	U	S1	E	BW3	R	+
Rumex hastatulus	heart-winged sorrell	G5		S1	T	SX.1		BW1	U	?
Potentilla anserina ssp. pacifica (= P. a. ssp. egedii)	silverweed	G5		S2	R	NA		BW2	U	?
COMMUNITIES and ECOSYSTEMS										+
Marine Intertidal Mudflats		G5		S4	U			BW2?	D	+
Marine Intertidal Gravel/Sand Beach		G5		S5	U	SU		BW5	S	+
Low Salt Marsh		G5		S3S4		S5		BW5	D	+
High Salt Marsh		G5		S4S4		S5		BW5	D	+
Salt Panne		G5		S3		S5		BW4	D	+
ANIMAL CONCENTRATION AREAS										+
Coastal Heron Rookery		GU				S3		BW3		+
Migratory Shorebird Concentration Site		G?				S?		BW2		+
Waterfowl Concentration Area				S3S4				BW4		+
See Appendix I for definition of federal, global, state, and bight watershed (BW) ranks and status										

See Urban Core chapter for detailed explanation of urban core (UC) ranks, summarized here:										
R = rare, D = uncommon or declining, S = apparently secure, H = historical, U = unknown										
Jam. Bay column contains codes indicating the status of a species population within the Jamaica Bay habitat complex :										
+ = known to occur in the area; seasonal use not specified; B = breeds in the area; S = regular non-breeding use in the summer										
M = migrates through the area and has identifiable migratory stopover or staging areas within the area; W = overwinters in the area										
P = primarily pelagic; ? = unconfirmed or questionable occurrence or seasonal use; H = occurred historically in the area; I = introduced										

Definitions of ranks used in list

Return to Jamaica Bay and Breezy Point habitat complex narrative

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Arctic peregrine Falcon (Falco		Recovery	Fairbanks Fish And Wildlife		
Reptiles	Hawksbill sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for the Hawksbill	Final Revision 1
Reptiles	Hawksbill sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Leatherback sea turtle		Endangered	Jacksonville Ecological Services	Recovery Plan for Leatherback	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S.	Final Revision 1
Reptiles	Green sea turtle (Chelonia	except where endangered	Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for U.S. Pacific	Final Revision 1
Reptiles	Loggerhead sea turtle (Caretta		Threatened	Jacksonville Ecological Services	Recovery Plan for the Northwest	Final Revision 2

Species Reports

Environmental Conservation Online System

(http://www.fws.gov)

Listings and occurrences for New York

Notes:

- This report shows the listed species associated in some way with this state.
- This list does not include experimental populations and similarity of appearance listings.
- This list includes non-nesting sea turtles and whales in State/Territory coastal waters.
- This list includes species or populations under the sole jurisdiction of the National Marine Fisheries Service.
- Click on the highlighted scientific names below to view a Species Profile for each listing.

Summary of Animals listings

Animal species listed in this state and that occur in this state (18 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
E	Bat, Indiana (***Myotis sodalis*** (/speciesProfile/profile/speciesProfile.action?spcode=A000))
E	Butterfly, Karner blue (***Lycaeides melissa samuelis*** (/speciesProfile/profile/speciesProfile.action?spcode=I00F))
T	Lynx, Canada (Contiguous U.S. DPS) (***Lynx canadensis*** (/speciesProfile/profile/speciesProfile.action?spcode=A073))
E	Plover, piping Great Lakes watershed (***Charadrius melodus*** (/speciesProfile/profile/speciesProfile.action?spcode=B079))
T	Plover, piping except Great Lakes watershed (***Charadrius melodus*** (/speciesProfile/profile/speciesProfile.action?spcode=B079))
T	Sea turtle, green except where endangered (***Chelonia mydas*** (/speciesProfile/profile/speciesProfile.action?spcode=C00S))
E	Sea turtle, hawksbill (***Eretmochelys imbricata*** (/speciesProfile/profile/speciesProfile.action?spcode=C00E))
E	Sea turtle, Kemp's ridley (***Lepidochelys kempii*** (/speciesProfile/profile/speciesProfile.action?spcode=C00O))
E	Sea turtle, leatherback (***Dermochelys coriacea*** (/speciesProfile/profile/speciesProfile.action?spcode=C00F))
T	Sea turtle, loggerhead (***Caretta caretta*** (/speciesProfile/profile/speciesProfile.action?spcode=C00U))
T	Snail, Chittenango ovate amber (***Succinea chittenangoensis***

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
E	Sturgeon, shortnose (***Acipenser brevirostrum*** (/speciesProfile/profile/speciesProfile.action?spcode=E00B))
E	Tern, roseate northeast U.S. nesting pop. (***Sterna dougallii dougallii*** (/speciesProfile/profile/speciesProfile.action?spcode=B07O))
T	Turtle, bog (=Muhlenberg) northern (***Clemmys muhlenbergii*** (/speciesProfile/profile/speciesProfile.action?spcode=C048))
E	Wedgemussel, dwarf (***Alasmidonta heterodon*** (/speciesProfile/profile/speciesProfile.action?spcode=F029))
E	Whale, finback (***Balaenoptera physalus*** (/speciesProfile/profile/speciesProfile.action?spcode=A02O))
E	Whale, humpback (***Megaptera novaeangliae*** (/speciesProfile/profile/speciesProfile.action?spcode=A02Q))
E	Whale, right (***Balaena glacialis (incl. australis)*** (/speciesProfile/profile/speciesProfile.action?spcode=A02R))

Animal species listed in this state that do not occur in this state (4 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
E	Beetle, American burying (***Nicrophorus americanus*** (/speciesProfile/profile/speciesProfile.action?spcode=I028))
E	Puma (=cougar), eastern (***Puma (=Felis) concolor couguar*** (/speciesProfile/profile/speciesProfile.action?spcode=A046))
T	Tiger beetle, northeastern beach (***Cicindela dorsalis dorsalis*** (/speciesProfile/profile/speciesProfile.action?spcode=I02C))
E	Wolf, gray Lower 48 States, except MN and where EXPN. Mexico. (***Canis lupus*** (/speciesProfile/profile/speciesProfile.action?spcode=A00D))

Animal listed species occurring in this state that are not listed in this state (1 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
E	Clubshell Entire Range; Except where listed as Experimental Populations (***Pleurobema clava*** (/speciesProfile/profile/speciesProfile.action?spcode=F01D))

Summary of Plant listings

Plant species listed in this state and that occur in this state (7 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
T	Amaranth, seabeach (***Amaranthus pumilus*** (/speciesProfile/profile/speciesProfile.action?spcode=Q2MZ))
E	Bulrush, Northeastern (***Scirpus ancistrochaetus*** (/speciesProfile/profile/speciesProfile.action?spcode=Q21H))
T	Fern, American hart's-tongue (***Asplenium scolopendrium var. americanum*** (/speciesProfile/profile/speciesProfile.action?spcode=S00O))
E	Gerardia, sandplain (***Agalinis acuta*** (/speciesProfile/profile/speciesProfile.action?spcode=Q24K))
T	Monkshood, northern wild (***Aconitum noveboracense*** (/speciesProfile/profile/speciesProfile.action?spcode=Q1SN))
T	Pogonia, small whorled (***Isotria medeoloides*** (/speciesProfile/profile/speciesProfile.action?spcode=Q1XL))
T	roseroot, Leedy's (***Rhodiola integrifolium ssp. leedyi*** (/speciesProfile/profile/speciesProfile.action?spcode=Q392))

Plant species listed in this state that do not occur in this state (3 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
E	Chaffseed, American (***Schwalbea americana*** (/speciesProfile/profile/speciesProfile.action?spcode=Q2I4))
T	Orchid, eastern prairie fringed (***Platanthera leucophaea*** (/speciesProfile/profile/speciesProfile.action?spcode=Q2GG))
T	Pink, swamp (***Helonias bullata*** (/speciesProfile/profile/speciesProfile.action?spcode=Q2B8))

Plant listed species occurring in this state that are not listed in this state (1 species)

Status (javascript:launch ('/tess_public/html/db-status.html');)	Species
T	Goldenrod, Houghton's (***Solidago houghtonii*** (/speciesProfile/profile/speciesProfile.action?spcode=Q2J5))

Last updated: November 23, 2010

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Appendix K
Ecological Risk Assessment

Attachment B: Sediment Bioassay Test Results

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TOXICOLOGICAL EVALUATION
OF SEDIMENT SAMPLES

Gowanus Canal Superfund Site
Brooklyn, New York
Phase 3 Investigation - Bioassay Testing
Agreement Number 0000092848

28 Day *Leptocheirus plumulosus*
Survival, Growth and Reproduction Toxicity Tests

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TOXICOLOGICAL EVALUATION
OF SEDIMENT SAMPLES

Gowanus Canal Superfund Site
Brooklyn, New York
Phase 3 Investigation - Bioassay Testing
Agreement Number 0000092848

28 Day *Leptocheirus plumulosus*
Survival, Growth and Reproduction Toxicity Tests

1.0 INTRODUCTION

This report presents the results of toxicity tests carried out on sediment samples collected from the Gowanus Canal Superfund Site in Brooklyn, New York. Samples were provided by CH2M Hill, Chantilly, Virginia. Biological testing was based on programs and protocols developed by the U.S. Environmental Protection Agency, (U.S. EPA 2001) and ASTM (2009). Potential toxicological impacts of the samples were determined by conducting 28 day toxicity tests with the estuarine amphipod, *Leptocheirus plumulosus*. All testing, toxicological and analytical, was performed at EnviroSystems, Incorporated (ESI), Hampton, New Hampshire.

Toxicity tests expose groups of organisms to environmental samples, a laboratory control and field reference sites for a specified period to assess potential impacts on a variety of endpoints, such as survival, growth or reproduction. Analysis of variance techniques are used to determine the relative toxicity of the samples as compared to the laboratory control and/or field reference sites. Endpoints for this study were survival, growth (measured as dry weight and dry biomass), and reproduction (measured as juveniles produced per surviving amphipods and juveniles produced per surviving female amphipods).

2.0 MATERIALS AND METHODS

2.1 General Methods, Biological Evaluations

Toxicological and analytical protocols used in this program follow procedures outlined in *Standard Test Method for Measuring the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Invertebrates* (ASTM 2009), *Methods for Assessing the Chronic Toxicity of Marine and Estuarine Sediment-associated Contaminants with the Amphipod, Leptocheirus plumulosus* (U.S. EPA 2001), *Methods for Assessing the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Amphipods* (U.S. EPA 1994), and *Standard Methods for the Examination of Water and Wastewater*, 20th Edition (APHA 1998). These protocols provide standard approaches for physical and chemical analyses and for the evaluation of toxicological effects of sediments on aquatic invertebrates.

2.2 Test Species

Leptocheirus plumulosus were obtained from cultures maintained by Aquatic Research Organism, Inc. (ARO) of Hampton, New Hampshire. Amphipods used in the assay were approximately ≤24 hours old or selected from those that pass through a 600µm sieve and are retained by a 250 µm screen at the start of the test.

2.3 Test Samples

Sediment samples collected from the Gowanus Canal Superfund Site were received at ESI under chain of custody. Once received, samples were inspected to determine integrity, given unique sample numbers and logged into the laboratory sample management database. Once logged in, the samples were placed in a secure refrigerated, 2 - 4 °C, storage area. A listing of sample sites, sample collection, and receipt information is summarized in Table 4.

Sediment for the laboratory control treatment was collected from the Hampton Estuary, Hampton, New Hampshire. The area is not known to receive any direct industrial inputs and has been used as a laboratory reference sediment in the testing of marine sediments for over 25 years. Overlying seawater was obtained from the Hampton Estuary. Water from the estuary has been used for the culture and maintenance of test organisms at ESI since 1978. Seawater is obtained through a filter system located on the bottom of the estuary at a point approximately 1 mile from the open ocean. The water is classified as SA-1.

2.4 *L. plumulosus* 28 Day Survival, Growth and Reproduction Toxicity Tests

The 28 day amphipod sediment tests were conducted according to the methods provided in ASTM (2009) and US EPA (2001). Endpoints measured at the completion of the assay were survival, growth and reproduction. Growth was measured as dry weight and dry biomass. Reproduction was measured as juvenile production per surviving amphipod and juvenile production per surviving female amphipod.

Prior to testing samples, the salinity of the pore water was measured in order to determine the appropriate salinity for the overlying water to be used during the test. Then the samples were press sieved through a 2-mm stainless steel screen to remove large stones, sticks, roots, man-made material and any indigenous organisms. Once sieved, the sediment was homogenized and placed in test chambers. Overlying water was added immediately and then the chambers were allowed to stabilize. During this period, the chambers received one volume addition daily and the pore water was measured for ammonia. Once the pore water ammonia levels were acceptable, the assay was allowed to proceed.

Test vessels were 1000 mL glass beakers containing 175 mL of sediment and approximately 725 mL of overlying water. Test vessels were drilled at a consistent height, approximately 3 cm below the lip, and the drilled hole covered with Nitex® screen to facilitate water exchange without the loss of test organisms. Vessels were maintained in a water bath during the test. Depth of the water in the bath was set below the drain hole in the test vessel to eliminate flow of water from the bath into the test vessel. The water bath was maintained in a limited access, temperature controlled room. Temperatures in the room and water bath were independently set at a temperature of 25°C. Temperature was recorded on an hourly frequency using a temperature logger placed in a surrogate vessel. The photoperiod in the test chamber was set at 16:8 hour light:dark. Lighting was supplied by cool white florescent bulbs.

A total of 20 amphipods were randomly selected from the pool of organisms and added to each treatment. Each treatment group included five replicates and a surrogate test chamber that was used to obtain water qualities during the assay without disturbing the test animals. The surrogate chamber was treated the same as actual test chambers with the addition of animals and food, but was not used to determine endpoint data. Organisms were added once the pore water ammonia levels had reached acceptable levels.

Each day during the test, chambers received approximately 1 volume addition daily of seawater having similar salinity and temperature. Water temperature was maintained at 25±2°C, and the salinity was established at 20±3 ‰. Water exchanges were facilitated by use of a distribution system designed to provide equal, regulated, flow to each chamber. The system was activated manually by the addition of water during the test. Salinity, pH, dissolved oxygen, and temperature were measured daily in a surrogate chamber for each treatment. Test chambers were aerated in order to maintain dissolved oxygen levels at ≥60% saturation. Water quality measurements were completed prior to overlying water renewals. Pore water and overlying water ammonia concentrations were measured on days 0, 7, 14, 21 and 28.

Test chambers were observed daily and any organisms found floating on the surface were noted on the data sheets. Dead amphipods were removed from the test chambers and live amphipods were countersunk. Organisms were fed three times weekly with a mixture of Tetramin® flake fish food, dried alfalfa leaves, wheat grass powder and shrimp maturation feed. Each vessel was fed 20 mg of the mixture during the first 14 days of the assay and 40 mg during the last 14 days.

After 28 days exposure, the organisms were recovered from the sediments. Each test chamber was gently swirled to loosen the sediments and the test material was dumped into stacked 8" stainless steel sieves with 750 and 350 µm mesh screens. The sediments were washed through the sieve using water and material

left on the screen was sorted to recover all adults and juveniles. This process was continued until the entire sample was evaluated. Adult organisms were differentiated from juveniles based on a visual inspection of size. Juvenile *L. plumulosus* were discarded once they were counted. Adult *L. plumulosus* were preserved with formalin solution and sexed. Adults were then placed on tared weighing pans and dried overnight at 104°C to obtain dry weight to the nearest 0.01 mg. The mean weight of surviving adult organisms was determined to assess growth.

2.5 Statistical Analysis

Survival, growth and reproduction data were analyzed using CETIS® software to determine significant differences between the test sediments and the associated reference sediments, as well as the laboratory control. Data sets were evaluated to determine normality of distribution and homogeneity of sample variance. Data sets were subsequently evaluated using the appropriate parametric or non-parametric Analysis of Variance (ANOVA) statistic. Statistical comparisons were made for the following endpoints: survival, dry weight, dry biomass, juvenile production per surviving amphipod and juvenile production per surviving female amphipod. Pair-wise comparisons were made using the appropriate statistical evaluation. Statistical difference was evaluated at α=0.05.

2.6 Reference Toxicant Evaluation

As part of the laboratory quality control program, reference toxicant evaluations are conducted by ESI on a regular basis for each test species. These results provide relative health and response data while allowing for comparison with historic data sets. Results are summarized in Table 2.

2.7 Protocol Deviations

Review of data collected during this assay documented these protocol deviations.

First, there were two replicates that had 21 animals added to test vessels at the assay start.

The second protocol deviation relates to temperature monitoring during the assay. Due to a mechanical failure of the data logger assigned to the assay, the hourly temperature record was not able to be recovered. According to ESI's SOP and the method described in the ASTM (2009), temperature should be monitored hourly during the assay. Since this is described as a "should" statement and not a "must" statement, the data remains valid. Additionally all daily temperature observations during the assay were within acceptance limits.

The final protocol deviation relates to the salinity maintained during the assay. In one instance the salinity was greater than the limit specified by the protocol, which states that the daily limits are 20±3 ‰ with an overall 28 day mean of 20±2 ‰. On Day 5 the laboratory control beaker had a salinity of 23.72‰. All other recorded salinity measurements were within acceptance limits. This was most likely the result of evaporation since this beaker was closest to an air vent located in the incubator. The observed salinities are within the natural limits for this species and this deviation should not have impacted the outcome of the assay.

It is the opinion of ESI's study director that these deviations did not adversely affect the outcome of the assay.

Table 1. Sample Collection and Receipt Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Sample ID	Receipt Code	Sediment Designation	Sample Number	Sample Collected		Sample Received	
				Date	Time	Date	Time
GC-SD303-0.0-0.5	19830-001	Test	006	06/17/10	1425	06/19/10	1300
GC-SD307A-0.0-0.5	19830-002	Test	007	06/17/10	1650	06/19/10	1300
GC-SD326-0.0-0.5	19830-003	Reference	001	06/17/10	1338	06/19/10	1300
GC-SD309-0.0-0.5	19830-004	Test	008	06/18/10	1015	06/19/10	1300
GC-SD313-0.0-0.5	19830-005	Test	009	06/18/10	1030	06/19/10	1300
GC-SD314-0.0-0.5	19830-006	Test	010	06/18/10	1315	06/19/10	1300
GC-SD315-0.0-0.5	19830-007	Test	011	06/18/10	1240	06/19/10	1300
GC-SD328-0.0-0.5	19830-008	Reference	002	06/18/10	0948	06/19/10	1300
GC-SD330-0.0-0.5	19830-009	Reference	003	06/18/10	1252	06/19/10	1300
GC-SD333-0.0-0.5	19830-010	Reference	004	06/18/10	1121	06/19/10	1300
GC-SD307B-0.0-0.5	19830-011	Test	012	06/18/10	1555	06/19/10	1300
GC-SD329-0.0-0.5	19830-012	Reference	005	06/18/10	1516	06/19/10	1300
GC-SD324-0.0-0.5	19830-013	Test	013	06/21/10	1250	06/22/10	1500
GC-SD321-0.0-0.5	19830-014	Test	014	06/21/10	1405	06/22/10	1500
						06/23/10	0930
GC-SD319-0.0-0.5	19830-015	Test	015	06/22/10	1040	06/23/10	0930
GC-SD318-0.0-0.5	19830-016	Test	016	06/22/10	1435	06/23/10	0930
GC-SD310-0.0-0.5	19830-017	Test	017	06/24/10	0950	06/25/10	0930

Table 2. Reference Toxicant Evaluation. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Date	Endpoint		Value	Historic Mean/ Central Tendency	Acceptable Range	Reference Toxicant
Leptocheirus plumulosus						
10/20/10	Survival	LC-50	0.59	1.16	0.0 - 2.79	Cadmium (mg/L)

3.0 RESULTS AND DISCUSSION

3.1 Laboratory Control and Project Reference Site Performance

Review of the laboratory control data indicated that amphipod performance met all of the minimum acceptability criteria specified by protocol (ASTM, U.S. EPA). Mean control survival was 81.25% with an inter-replicate survival range of 70 to 100%. The coefficient of variation (CV) was computed to be 14.62%. At the end of the assay, the mean dry weight of surviving amphipods was 1.292 mg/organism. The mean dry weight of 80 randomly selected amphipods at the start of the assay was 0.098 mg/organism. The overall mean juvenile production was calculated to be 2.21 juveniles/amphipod. Minimum acceptable performance for the laboratory control is specified as 80% survival on day 28, with no individual replicate having less than 60% survival, and organisms must show some evidence of growth and reproduction.

Mean temperature collected during daily observations was 24.96°C, with a range of 23.03 to 26.77°C. Acceptable criteria are a mean temperature value of 25±1°C with maximum temporary fluctuations of 25±3°C. Protocol specified mean salinity values of 20±1‰ with temporary fluctuations of 20±3‰ and daily water quality observations demonstrated a salinity range of 18.05 to 23.72‰ with a mean value of 20.17‰.

Table 3. Summary of Acceptable Endpoints and Measurements. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Endpoint / Measurement	Protocol Criteria		Study 20201	Protocol Met
Survival	lab mean ≥ 80% and no replicates <60%	Mean Survival %	81.25%	Yes
		Minimum Survival %	70.00%	Yes
Growth	Measured Growth	start dry wt. (mg)	0.098	Yes
		end dry wt. (mg)	1.292	Yes
Reproduction	Juvenile Production	Overall Mean Reproduction	2.21	Yes
Temperature	Mean: 25 ±1°C	daily	24.96	Yes
	Minimum: 22°C	daily	23.03	Yes
	Maximum: 28°C	daily	26.77	Yes
Salinity	Mean: 20 ±1‰	Mean Salinity	20.17	Yes
	Minimum: 17‰	Minimum Salinity	18.05	Yes
	Maximum: 23‰	Maximum Salinity	23.72	No*

* For a discussion of the salinity deviation see Section 2.7 Protocol Deviations.

Table 4. Summary of Project Reference Site Performance. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Reference Site	Sample Number	Mean Survival (%)	Mean Dry Weight (mg)	Mean Dry Biomass (mg)	Mean Juvenile Production per Surviving Amphipod	Mean Juvenile Production per Surviving Female
GC-SD326-0.0-0.5	001	70.63%	0.668	0.475	0.27	0.51
GC-SD328-0.0-0.5	002	75.00%	1.011	0.797	1.81	3.56
GC-SD330-0.0-0.5	003	91.88%	1.193	1.096	2.69	5.24
GC-SD333-0.0-0.5	004	76.87%	0.850	0.673	1.45	2.45
GC-SD329-0.0-0.5	005	90.62%	0.877	0.791	1.25	2.12

3.2 Summary

This program utilized protocols developed by the U.S. EPA and ASTM to assess the potential toxicological impacts that exposure to sediments from the Gowanus Canal Superfund Site would have on marine invertebrates. Table 5 provides a summary of sample sites that demonstrated a negative effect, based on the finding of statistically significant reduction in an endpoint as compared to the laboratory control or reference site. Tables 6 through 10 provide summaries of assay endpoints and detailed statistical results for each sample location. Laboratory bench sheets, detailed summaries of survival, dry weights and associated statistical support data are included in Appendix A.

Table 5. Summary of Significant Endpoints. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

		Laboratory Control 19830-000					GC-SD326 19830-003					GC-SD328 19830-008					GC-SD330 19830-009					GC-SD333 19830-010					GC-SD329 19830-012				
		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving		survival	growth		juveniles produced / surviving	
Field ID	Receipt Code		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀		wt	bio	♂♀	♀
GC-SD326-0.0-0.5	19830-003		X	X	X	X																								
GC-SD328-0.0-0.5	19830-008		X																											
GC-SD330-0.0-0.5	19830-009																													
GC-SD333-0.0-0.5	19830-010		X	X		X											X	X	X		X									
GC-SD329-0.0-0.5	19830-012		X	X	X	X												X	X	X	X									
GC-SD303-0.0-0.5	19830-001		X		X	X									X	X	X		X	X	X				X					
GC-SD307A-0.0-0.5	19830-002		X	X	X	X							X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X
GC-SD309-0.0-0.5	19830-004		X	X	X	X							X		X	X		X	X	X	X				X	X					X
GC-SD313-0.0-0.5	19830-005	X	X	X			X		X			X		X			X	X	X			X		X			X	X	X		
GC-SD314-0.0-0.5	19830-006	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA
GC-SD315-0.0-0.5	19830-007	X	X	X	NA	NA	X	X	X	X	X	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA	X	X	X	NA	NA
GC-SD307B-0.0-0.5	19830-011		X	X	X	X											X	X	X	X	X						X				
GC-SD324-0.0-0.5	19830-013		X	X	X	X							X	X	X	X		X	X	X	X				X	X				X	X
GC-SD321-0.0-0.5	19830-014		X	X	X	X							X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
GC-SD319-0.0-0.5	19830-015	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GC-SD318-0.0-0.5	19830-016	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GC-SD310-0.0-0.5	19830-017	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NA - Not Applicable for statistical analysis.

4.0 LITERATURE CITED

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U.S. EPA. 2001. *Methods for Assessing the Chronic Toxicity of Marine and Estuarine Sediment- associated Contaminants with the Amphipod, Leptocheirus plumulosus.* EPA 600/R-01/020.

Table 6. *L. plumulosus* Day 28 Survival Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Day 28 Survival Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	81.25%	70.0%	100.0%	14.62%
GC-SD326-0.0-0.5	19830-003	8	70.63%	0.0%	95.0%	44.69%
GC-SD328-0.0-0.5	19830-008	8	75.00%	15.0%	100.0%	38.05%
GC-SD330-0.0-0.5	19830-009	8	91.88%	80.0%	100.0%	7.09%
GC-SD333-0.0-0.5	19830-010	8	76.87%	35.0%	100.0%	25.53%
GC-SD329-0.0-0.5	19830-012	8	90.62%	70.0%	100.0%	11.21%
GC-SD303-0.0-0.5	19830-001	8	81.25%	60.0%	95.0%	16.03%
GC-SD307A-0.0-0.5	19830-002	8	79.38%	70.0%	90.0%	10.34%
GC-SD309-0.0-0.5	19830-004	8	86.25%	75.0%	100.0%	10.62%
GC-SD313-0.0-0.5	19830-005	8	0.63%	0.0%	5.0%	282.80%
GC-SD314-0.0-0.5	19830-006	8	0.00%	0.0%	0.0%	0.00%
GC-SD315-0.0-0.5	19830-007	8	0.00%	0.0%	0.0%	0.00%
GC-SD307B-0.0-0.5	19830-011	8	70.00%	5.0%	100.0%	41.82%
GC-SD324-0.0-0.5	19830-013	8	85.63%	65.0%	95.0%	11.44%
GC-SD321-0.0-0.5	19830-014	8	68.75%	15.0%	90.0%	33.83%
GC-SD319-0.0-0.5	19830-015	8	53.75%	25.0%	85.0%	36.11%
GC-SD318-0.0-0.5	19830-016	8	35.62%	5.0%	55.0%	46.51%
GC-SD310-0.0-0.5	19830-017	8	27.50%	0.0%	65.0%	96.70%

Day 28 Survival Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	No[a]	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No[a]	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No[a]	No[a]	-	-	-
GC-SD333-0.0-0.5	19830-010	No	No[a]	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	No	No[a]	No[a]	No	No	-
GC-SD303-0.0-0.5	19830-001	No	No[a]	No[a]	Yes	No	No
GC-SD307A-0.0-0.5	19830-002	No	No[a]	No[a]	Yes	No	Yes
GC-SD309-0.0-0.5	19830-004	No	No[a]	No[a]	No	No	No
GC-SD313-0.0-0.5	19830-005	Yes	Yes[a]	Yes[a]	Yes	Yes	Yes[a]
GC-SD314-0.0-0.5	19830-006	Yes	Yes[a]	Yes	Yes	Yes[a]	Yes[a]
GC-SD315-0.0-0.5	19830-007	Yes	Yes[a]	Yes[a]	Yes	Yes[a]	Yes[a]
GC-SD307B-0.0-0.5	19830-011	No	No	No	Yes	[a]No	Yes No*
GC-SD324-0.0-0.5	19830-013	No	No[a]	No[a]	No	No	No
GC-SD321-0.0-0.5	19830-014	No[a]	No[a]	No	Yes[a]	No	Yes[a]
GC-SD319-0.0-0.5	19830-015	Yes	No Yes*	Yes	Yes	Yes	Yes
GC-SD318-0.0-0.5	19830-016	Yes	Yes[a]	Yes	Yes	Yes	Yes
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes	Yes	Yes	Yes

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 7. *L. plumulosus* Mean Dry Weight Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Mean Dry Weight (mg) Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	1.292	0.807	1.603	19.79%
GC-SD326-0.0-0.5	19830-003	8	0.668	0.519	0.894	20.16%
GC-SD328-0.0-0.5	19830-008	8	1.011	0.457	1.446	30.67%
GC-SD330-0.0-0.5	19830-009	8	1.193	0.907	1.403	16.27%
GC-SD333-0.0-0.5	19830-010	8	0.850	0.536	1.169	26.12%
GC-SD329-0.0-0.5	19830-012	8	0.877	0.617	1.186	20.51%
GC-SD303-0.0-0.5	19830-001	8	1.072	0.674	1.357	20.93%
GC-SD307A-0.0-0.5	19830-002	8	0.725	0.439	1.128	28.78%
GC-SD309-0.0-0.5	19830-004	8	0.746	0.477	1.196	31.75%
GC-SD313-0.0-0.5	19830-005	8	0.440	0.440	0.440	0.00%
GC-SD314-0.0-0.5	19830-006	8	NS	NS	NS	NS
GC-SD315-0.0-0.5	19830-007	8	NS	NS	NS	NS
GC-SD307B-0.0-0.5	19830-011	8	0.861	0.360	1.139	27.67%
GC-SD324-0.0-0.5	19830-013	8	0.768	0.572	1.014	20.34%
GC-SD321-0.0-0.5	19830-014	8	0.583	0.353	0.840	26.18%
GC-SD319-0.0-0.5	19830-015	8	0.316	0.216	0.460	26.29%
GC-SD318-0.0-0.5	19830-016	8	0.297	0.168	0.450	36.35%
GC-SD310-0.0-0.5	19830-017	8	0.414	0.207	0.701	44.16%

Mean Dry Weight Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	Yes	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No	-	-	-
GC-SD333-0.0-0.5	19830-010	Yes	No	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No	No	Yes	No	-
GC-SD303-0.0-0.5	19830-001	Yes	No	No	No	No	No
GC-SD307A-0.0-0.5	19830-002	Yes	No	Yes	Yes	No	No
GC-SD309-0.0-0.5	19830-004	Yes	No	Yes	Yes	No	No
GC-SD313-0.0-0.5	19830-005	Yes	No	No	Yes	No	Yes
GC-SD314-0.0-0.5	19830-006	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD307B-0.0-0.5	19830-011	Yes	No[a]	No	Yes	No	No
GC-SD324-0.0-0.5	19830-013	Yes	No	Yes	Yes	No	No
GC-SD321-0.0-0.5	19830-014	Yes	No	Yes	Yes	Yes	Yes
GC-SD319-0.0-0.5	19830-015	[a]Yes	Yes	Yes	Yes	Yes	Yes
GC-SD318-0.0-0.5	19830-016	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes	Yes	Yes	Yes

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 8. *L. plumulosus* Day 28 Mean Dry Biomass Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Mean Dry Biomass (mg) Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	1.058	0.565	1.362	26.89%
GC-SD326-0.0-0.5	19830-003	8	0.475	0.000	0.742	50.68%
GC-SD328-0.0-0.5	19830-008	8	0.797	0.069	1.157	45.36%
GC-SD330-0.0-0.5	19830-009	8	1.096	0.726	1.332	17.12%
GC-SD333-0.0-0.5	19830-010	8	0.673	0.188	0.932	38.69%
GC-SD329-0.0-0.5	19830-012	8	0.791	0.587	1.126	21.71%
GC-SD303-0.0-0.5	19830-001	8	0.886	0.472	1.171	30.51%
GC-SD307A-0.0-0.5	19830-002	8	0.576	0.330	0.790	28.79%
GC-SD309-0.0-0.5	19830-004	8	0.643	0.358	0.957	32.21%
GC-SD313-0.0-0.5	19830-005	8	0.003	0.000	0.022	282.80%
GC-SD314-0.0-0.5	19830-006	8	0.000	0.000	0.000	0.00%
GC-SD315-0.0-0.5	19830-007	8	0.000	0.000	0.000	0.00%
GC-SD307B-0.0-0.5	19830-011	8	0.645	0.018	1.018	44.44%
GC-SD324-0.0-0.5	19830-013	8	0.666	0.398	0.963	28.79%
GC-SD321-0.0-0.5	19830-014	8	0.418	0.053	0.630	43.02%
GC-SD319-0.0-0.5	19830-015	8	0.175	0.063	0.303	48.13%
GC-SD318-0.0-0.5	19830-016	8	0.105	0.023	0.202	62.09%
GC-SD310-0.0-0.5	19830-017	8	0.130	0.000	0.386	121.20%

Mean Dry Biomass Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No[a]	-	-	-
GC-SD333-0.0-0.5	19830-010	Yes	No	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No	No[a]	Yes	No	-
GC-SD303-0.0-0.5	19830-001	No	No	No	Yes	No	No
GC-SD307A-0.0-0.5	19830-002	Yes	No	No Yes*	Yes	No	Yes
GC-SD309-0.0-0.5	19830-004	Yes	No	No	Yes	No	No
GC-SD313-0.0-0.5	19830-005	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes[a]
GC-SD314-0.0-0.5	19830-006	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes[a]
GC-SD315-0.0-0.5	19830-007	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes[a]
GC-SD307B-0.0-0.5	19830-011	Yes	No	No	Yes[a]	No	No[a]
GC-SD324-0.0-0.5	19830-013	Yes	No	No Yes*	Yes	No	No
GC-SD321-0.0-0.5	19830-014	Yes	No	Yes[a]	Yes	Yes	Yes
GC-SD319-0.0-0.5	19830-015	Yes	Yes[a]	Yes[a]	Yes[a]	Yes[a]	Yes
GC-SD318-0.0-0.5	19830-016	Yes	Yes[a]	Yes	Yes[a]	Yes[a]	Yes[a]
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes[a]	Yes	Yes	Yes

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 9. *L. plumulosus* Juveniles per Surviving Amphipod Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Juveniles per Surviving Amphipod Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	2.21	0.29	4.14	54.02%
GC-SD326-0.0-0.5	19830-003	8	0.27	0.00	0.64	89.78%
GC-SD328-0.0-0.5	19830-008	8	1.81	0.00	3.24	76.91%
GC-SD330-0.0-0.5	19830-009	8	2.69	0.38	5.84	69.35%
GC-SD333-0.0-0.5	19830-010	8	1.45	0.57	2.61	55.67%
GC-SD329-0.0-0.5	19830-012	8	1.25	0.26	3.36	76.72%
GC-SD303-0.0-0.5	19830-001	8	0.81	0.00	1.74	71.10%
GC-SD307A-0.0-0.5	19830-002	8	0.52	0.00	1.36	89.84%
GC-SD309-0.0-0.5	19830-004	8	0.61	0.13	1.31	66.17%
GC-SD313-0.0-0.5	19830-005	8	0.00	0.00	0.00	0.00%
GC-SD314-0.0-0.5	19830-006	8	NS	NS	NS	NS
GC-SD315-0.0-0.5	19830-007	8	NS	NS	NS	NS
GC-SD307B-0.0-0.5	19830-011	8	1.27	0.00	2.00	46.60%
GC-SD324-0.0-0.5	19830-013	8	0.51	0.00	1.11	79.54%
GC-SD321-0.0-0.5	19830-014	8	0.33	0.00	0.87	98.63%
GC-SD319-0.0-0.5	19830-015	8	0.00	0.00	0.00	0.00%
GC-SD318-0.0-0.5	19830-016	8	0.00	0.00	0.00	0.00%
GC-SD310-0.0-0.5	19830-017	8	0.00	0.00	0.00	0.00%

Juveniles per Surviving Amphipod Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No	-	-	-
GC-SD333-0.0-0.5	19830-010	No	No	No	No	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No[a]	No	Yes	No	-
GC-SD303-0.0-0.5	19830-001	Yes	No	Yes	Yes	Yes	No
GC-SD307A-0.0-0.5	19830-002	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD309-0.0-0.5	19830-004	Yes	No	Yes	Yes	Yes	No[a]
GC-SD313-0.0-0.5	19830-005	No	No	No	No	No	No[a]
GC-SD314-0.0-0.5	19830-006	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD307B-0.0-0.5	19830-011	Yes	No[a]	No	Yes	No	No[a]
GC-SD324-0.0-0.5	19830-013	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD321-0.0-0.5	19830-014	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD319-0.0-0.5	19830-015	Yes	Yes	Yes	Yes	Yes	Yes[a]
GC-SD318-0.0-0.5	19830-016	Yes	Yes	Yes	Yes	Yes	Yes[a]
GC-SD310-0.0-0.5	19830-017	Yes	Yes	Yes	Yes	Yes	Yes[a]

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 10. *L. plumulosus* Juveniles Produced per Female Summary. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Juveniles Produced per Female Summary

Sample ID	Receipt Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19830-000	8	4.86	0.57	10.00	58.92%
GC-SD326-0.0-0.5	19830-003	8	0.51	0.00	1.50	103.20%
GC-SD328-0.0-0.5	19830-008	8	3.56	0.00	6.43	79.04%
GC-SD330-0.0-0.5	19830-009	8	5.24	0.75	11.10	72.89%
GC-SD333-0.0-0.5	19830-010	8	2.45	1.00	4.75	60.29%
GC-SD329-0.0-0.5	19830-012	8	2.12	0.42	5.22	70.57%
GC-SD303-0.0-0.5	19830-001	8	1.58	0.00	4.71	93.52%
GC-SD307A-0.0-0.5	19830-002	8	0.87	0.00	2.71	101.30%
GC-SD309-0.0-0.5	19830-004	8	0.96	0.21	1.91	61.32%
GC-SD313-0.0-0.5	19830-005	8	0.00	0.00	0.00	0.00%
GC-SD314-0.0-0.5	19830-006	8	NS	NS	NS	NS
GC-SD315-0.0-0.5	19830-007	8	NS	NS	NS	NS
GC-SD307B-0.0-0.5	19830-011	8	2.20	0.00	3.71	52.52%
GC-SD324-0.0-0.5	19830-013	8	0.88	0.00	1.91	82.28%
GC-SD321-0.0-0.5	19830-014	8	0.47	0.00	1.44	108.40%
GC-SD319-0.0-0.5	19830-015	8	0.00	0.00	0.00	0.00%
GC-SD318-0.0-0.5	19830-016	8	0.00	0.00	0.00	0.00%
GC-SD310-0.0-0.5	19830-017	8	0.00	0.00	0.00	0.00%

Juveniles Produced per Female Analysis — Statistically Significant Difference, "<" as Compared to:

Sample ID	Receipt Code	Lab Control 19830-000 reject	GC-SD326 19830-003 reject	GC-SD328 19830-008 reject	GC-SD330 19830-009 reject	GC-SD333 19830-010 reject	GC-SD329 19830-012 reject
GC-SD326-0.0-0.5	19830-003	Yes	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	No	No	-	-	-	-
GC-SD330-0.0-0.5	19830-009	No	No	No	-	-	-
GC-SD333-0.0-0.5	19830-010	Yes	No	No	Yes	-	-
GC-SD329-0.0-0.5	19830-012	Yes	No	No	Yes	No	-
GC-SD303-0.0-0.5	19830-001	Yes	No[a]	Yes	Yes	No	No
GC-SD307A-0.0-0.5	19830-002	Yes	No[a]	Yes	Yes	Yes	Yes[a]
GC-SD309-0.0-0.5	19830-004	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD313-0.0-0.5	19830-005	No	No	No	No	No	No
GC-SD314-0.0-0.5	19830-006	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes
GC-SD307B-0.0-0.5	19830-011	Yes	No	No	Yes	No	No
GC-SD324-0.0-0.5	19830-013	Yes	No	Yes	Yes	Yes	Yes[a]
GC-SD321-0.0-0.5	19830-014	Yes[a]	No	Yes	Yes	Yes	Yes[a]
GC-SD319-0.0-0.5	19830-015	Yes[a]	Yes[a]	Yes	Yes	Yes	Yes
GC-SD318-0.0-0.5	19830-016	Yes[a]	Yes[a]	Yes	Yes	Yes	Yes[a]
GC-SD310-0.0-0.5	19830-017	Yes	Yes[a]	Yes	Yes	Yes	Yes[a]

Note: "*" Indicates that the analysis excluded an outlier.
"a" Indicates the presence of an outlier, however the significance of the analysis does not change when the outlier is excluded.

Table 11. Summary of Water Qualities. Gowanus Canal Superfund Site, Brooklyn, New York. October 2010.

Sample ID	Receipt Code	Sample Number	Day	Overlying Water			Pore Water	
				Salinity (‰)	Ammonia (mg/L)	Unionized Ammonia (mg/L)	Ammonia (mg/L)	Unionized Ammonia (mg/L)
Laboratory Control	19830-000	000	0	20.08	<0.1	<0.002	9.4	0.0150
GC-SD326-0.0-0.5	19830-003	001	0	19.25	<0.1	<0.002	0.52	0.0015
GC-SD328-0.0-0.5	19830-008	002	0	19.07	<0.1	<0.003	0.7	0.0035
GC-SD330-0.0-0.5	19830-009	003	0	19.03	<0.1	<0.003	8.4	0.0532
GC-SD333-0.0-0.5	19830-010	004	0	18.05	<0.1	<0.004	0.24	0.0005
GC-SD329-0.0-0.5	19830-012	005	0	20.29	<0.1	<0.004	0.26	0.0010
GC-SD303-0.0-0.5	19830-001	006	0	20.04	<0.1	<0.003	2.3	0.0205
GC-SD307A-0.0-0.5	19830-002	007	0	20.00	<0.1	<0.003	4.3	0.0552
GC-SD309-0.0-0.5	19830-004	008	0	19.57	<0.1	<0.003	<0.1	<0.0005
GC-SD313-0.0-0.5	19830-005	009	0	18.35	<0.1	<0.003	<0.1	<0.0012
GC-SD314-0.0-0.5	19830-006	010	0	19.09	<0.1	<0.002	0.17	0.0027
GC-SD315-0.0-0.5	19830-007	011	0	19.07	<0.1	<0.001	<0.1	<0.0011
GC-SD307B-0.0-0.5	19830-011	012	0	19.10	<0.1	<0.001	4	0.0845
GC-SD324-0.0-0.5	19830-013	013	0	19.23	<0.1	<0.002	<0.1	<0.0003
GC-SD321-0.0-0.5	19830-014	014	0	18.95	<0.1	<0.002	1.3	0.0069
GC-SD319-0.0-0.5	19830-015	015	0	19.05	<0.1	<0.003	0.41	0.0049
GC-SD318-0.0-0.5	19830-016	016	0	18.34	<0.1	<0.003	0.57	0.0086
GC-SD310-0.0-0.5	19830-017	017	0	18.70	<0.1	<0.003	0.52	0.0039
Laboratory Control	19830-000	000	7	22.61	<0.1	<0.002	3.5	0.0074
GC-SD326-0.0-0.5	19830-003	001	7	22.11	<0.1	<0.002	0.51	0.0028
GC-SD328-0.0-0.5	19830-008	002	7	21.33	<0.1	<0.004	0.15	0.0018
GC-SD330-0.0-0.5	19830-009	003	7	20.78	0.22	0.014	4.3	0.0334
GC-SD333-0.0-0.5	19830-010	004	7	20.41	<0.1	<0.003	<0.1	<0.0001
GC-SD329-0.0-0.5	19830-012	005	7	21.31	<0.1	<0.003	<0.1	<0.0003
GC-SD303-0.0-0.5	19830-001	006	7	20.92	<0.1	<0.003	1.1	0.0075
GC-SD307A-0.0-0.5	19830-002	007	7	20.58	<0.1	<0.003	<0.1	<0.0007
GC-SD309-0.0-0.5	19830-004	008	7	20.8	<0.1	<0.003	<0.1	<0.0004
GC-SD313-0.0-0.5	19830-005	009	7	20.27	<0.1	<0.004	<0.1	<0.0007
GC-SD314-0.0-0.5	19830-006	010	7	20.42	0.19	0.007	0.29	0.0041
GC-SD315-0.0-0.5	19830-007	011	7	20.3	<0.1	<0.001	0.11	0.0020
GC-SD307B-0.0-0.5	19830-011	012	7	20.38	<0.1	<0.002	0.93	0.0137
GC-SD324-0.0-0.5	19830-013	013	7	20.3	<0.1	<0.002	0.11	0.0011
GC-SD321-0.0-0.5	19830-014	014	7	20.22	<0.1	<0.003	0.61	0.0040
GC-SD319-0.0-0.5	19830-015	015	7	20.34	<0.1	<0.003	0.79	0.0089
GC-SD318-0.0-0.5	19830-016	016	7	20.17	<0.1	<0.003	0.35	0.0048
GC-SD310-0.0-0.5	19830-017	017	7	20.17	<0.1	<0.003	<0.1	<0.0005
Laboratory Control	19830-000	000	14	22.96	<0.1	<0.002	2.7	0.0073
GC-SD326-0.0-0.5	19830-003	001	14	22.29	<0.1	<0.003	0.38	0.0012
GC-SD328-0.0-0.5	19830-008	002	14	21.85	<0.1	<0.003	0.64	0.0067
GC-SD330-0.0-0.5	19830-009	003	14	21.49	<0.1	<0.003	4.2	0.0272
GC-SD333-0.0-0.5	19830-010	004	14	21.11	<0.1	<0.003	0.16	0.0008
GC-SD329-0.0-0.5	19830-012	005	14	21.35	<0.1	<0.003	<0.1	<0.0007
GC-SD303-0.0-0.5	19830-001	006	14	21.09	<0.1	<0.003	0.93	0.0071
GC-SD307A-0.0-0.5	19830-002	007	14	20.8	<0.1	<0.002	0.27	0.0029
GC-SD309-0.0-0.5	19830-004	008	14	20.58	<0.1	<0.003	<0.1	<0.0003

Sample ID	Receipt Code	Sample Number	Day	Overlying Water			Pore Water	
				Salinity (‰)	Ammonia (mg/L)	Unionized Ammonia (mg/L)	Ammonia (mg/L)	Unionized Ammonia (mg/L)
GC-SD313-0.0-0.5	19830-005	009	14	20.46	<0.1	<0.003	<0.1	<0.0006
GC-SD314-0.0-0.5	19830-006	010	14	20.65	<0.1	<0.002	<0.1	<0.0006
GC-SD315-0.0-0.5	19830-007	011	14	20.45	<0.1	<0.002	<0.1	<0.0007
GC-SD307B-0.0-0.5	19830-011	012	14	20.45	<0.1	<0.002	<0.1	<0.0008
GC-SD324-0.0-0.5	19830-013	013	14	20.45	<0.1	<0.003	<0.1	<0.0008
GC-SD321-0.0-0.5	19830-014	014	14	20.38	<0.1	<0.003	0.48	0.0036
GC-SD319-0.0-0.5	19830-015	015	14	20.38	<0.1	<0.003	0.77	0.0113
GC-SD318-0.0-0.5	19830-016	016	14	20.11	<0.1	<0.004	0.38	0.0047
GC-SD310-0.0-0.5	19830-017	017	14	20.16	<0.1	<0.003	0.42	0.0031
Laboratory Control	19830-000	000	21	22.36	<0.1	<0.002	2.3	0.0076
GC-SD326-0.0-0.5	19830-003	001	21	22.08	<0.1	<0.002	0.34	0.0011
GC-SD328-0.0-0.5	19830-008	002	21	21.52	<0.1	<0.003	<0.1	<0.0005
GC-SD330-0.0-0.5	19830-009	003	21	21.40	<0.1	<0.002	4.3	0.0311
GC-SD333-0.0-0.5	19830-010	004	21	20.56	<0.1	<0.002	<0.1	<0.0003
GC-SD329-0.0-0.5	19830-012	005	21	21.55	<0.1	<0.001	<0.1	<0.0009
GC-SD303-0.0-0.5	19830-001	006	21	20.88	<0.1	<0.003	0.58	0.0046
GC-SD307A-0.0-0.5	19830-002	007	21	20.65	<0.1	<0.002	<0.1	<0.0005
GC-SD309-0.0-0.5	19830-004	008	21	20.31	<0.1	<0.002	0.67	0.0021
GC-SD313-0.0-0.5	19830-005	009	21	19.99	<0.1	<0.002	<0.1	<0.0005
GC-SD314-0.0-0.5	19830-006	010	21	19.95	<0.1	<0.002	<0.1	<0.0007
GC-SD315-0.0-0.5	19830-007	011	21	19.88	<0.1	<0.002	<0.1	<0.0008
GC-SD307B-0.0-0.5	19830-011	012	21	19.87	<0.1	<0.002	0.46	0.0050
GC-SD324-0.0-0.5	19830-013	013	21	19.93	<0.1	<0.002	<0.1	<0.0005
GC-SD321-0.0-0.5	19830-014	014	21	19.72	<0.1	<0.002	0.54	0.0036
GC-SD319-0.0-0.5	19830-015	015	21	20.08	<0.1	<0.002	0.73	0.0065
GC-SD318-0.0-0.5	19830-016	016	21	20.08	<0.1	<0.002	0.14	0.0008
GC-SD310-0.0-0.5	19830-017	017	21	20.13	<0.1	<0.002	0.47	0.0033
Laboratory Control	19830-000	000	28	21.98	<0.1	<0.001	3.5	0.0127
GC-SD326-0.0-0.5	19830-003	001	28	21.72	<0.1	<0.002	0.23	0.0012
GC-SD328-0.0-0.5	19830-008	002	28	21.52	<0.1	<0.002	0.1	0.0007
GC-SD330-0.0-0.5	19830-009	003	28	21.39	<0.1	<0.002	4.4	0.0247
GC-SD333-0.0-0.5	19830-010	004	28	20.47	<0.1	<0.002	0.2	0.0015
GC-SD329-0.0-0.5	19830-012	005	28	20.67	<0.1	<0.002	0.8	0.0062
GC-SD303-0.0-0.5	19830-001	006	28	20.12	<0.1	<0.002	0.79	0.0053
GC-SD307A-0.0-0.5	19830-002	007	28	19.96	<0.1	<0.002	<0.1	<0.0004
GC-SD309-0.0-0.5	19830-004	008	28	19.84	<0.1	<0.002	0.8	0.0032
GC-SD313-0.0-0.5	19830-005	009	28	19.31	<0.1	<0.002	<0.1	<0.0005
GC-SD314-0.0-0.5	19830-006	010	28	19.13	<0.1	<0.002	<0.1	<0.0006
GC-SD315-0.0-0.5	19830-007	011	28	18.96	<0.1	<0.001	<0.1	<0.0006
GC-SD307B-0.0-0.5	19830-011	012	28	18.87	<0.1	<0.001	0.45	0.0033
GC-SD324-0.0-0.5	19830-013	013	28	19.05	<0.1	<0.002	0.18	0.0011
GC-SD321-0.0-0.5	19830-014	014	28	18.81	<0.1	<0.002	0.47	0.0032
GC-SD319-0.0-0.5	19830-015	015	28	19.49	<0.1	<0.002	0.69	0.0052
GC-SD318-0.0-0.5	19830-016	016	28	19.45	<0.1	<0.002	0.36	0.0024
GC-SD310-0.0-0.5	19830-017	017	28	19.52	<0.1	<0.002	0.27	0.0014

Additional water quality and analytical support data provided in Appendix A.

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RAW DATA AND STATISTICAL SUPPORT

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TOXICOLOGICAL EVALUATION OF SEDIMENT SAMPLES

Gowanus Canal Superfund Site
Brooklyn, New York
Phase 3 Investigation - Bioassay Testing
Agreement Number 0000092848

28 Day *Nereis virens*
Survival and Growth Toxicity Tests

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July 2010
Reference 19830-10-07

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TOXICOLOGICAL EVALUATION
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Phase 3 Investigation - Bioassay Testing
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28 Day *Nereis virens*
Survival and Growth Toxicity Tests

1.0 INTRODUCTION

This report presents the results of toxicity tests carried out on sediment samples collected from the Gowanus Canal Superfund Site in Brooklyn, New York. Samples were provided by CH2M Hill, Chantilly, Virginia. Biological testing was based on programs and protocols developed by the US EPA (2001) and ASTM (2009). Potential toxicological impacts of the sediment were determined by conducting 28 day toxicity tests with the marine poychaete worm, *Nereis virens*. All testing, toxicological and analytical, was performed at EnviroSystems, Incorporated (ESI), Hampton, New Hampshire.

Toxicity tests expose groups of organisms to environmental samples, a laboratory control and field reference sites for a specified period to assess potential impacts on a variety of endpoints, such as survival, growth or reproduction. Analysis of variance techniques are used to determine the relative toxicity of the samples as compared to the laboratory control and/or field reference sites. Endpoints for this study were survival and growth (measured as wet weight).

2.0 MATERIALS AND METHODS

2.1 General Methods, Biological Evaluations

Toxicological and analytical protocols used in this program follow procedures established by the U.S. EPA and U.S. Army Corps of Engineers (U.S. ACE) for testing of dredged material, as well as procedures outlined in *Standard Guide for Conducting Sediment Toxicity Test with Polychaetous Annelids* (ASTM 2009). These protocols provide standard approaches for physical and chemical analyses and for the evaluation of toxicological effects of sediments on aquatic invertebrates.

2.2 Test Species

Adult *N. virens* were obtained from ARO. Worms were collected in the field from the Damariscotta River in Boothbay Harbor, Maine and shipped to ARO. Damaged and inactive worms were not used in the assay.

2.3 Test Samples

Sediment samples collected from the Gowanus Canal Superfund Site were received at ESI under chain of custody. Once received, samples were inspected to determine integrity, given unique sample numbers and logged into the laboratory sample management database. Once logged in, the samples were placed in a secure refrigerated, 2 - 4 °C, storage area. A listing of sample sites, sample collection, and receipt information is summarized in Table 4.

Control sediment used in the worm assay was a natural marine sediment collected from Hampton Estuary in Hampton, NH, which was sieved to remove large debris and allow for inspection for other living organisms.

Overyling seawater was also obtained from the Hampton Estuary. Water from the estuary has been used for the culture and maintenance of test organisms at ESI since 1978. Seawater is obtained through a filter system located on the bottom of the estuary at a point approximately 1 mile from the open ocean. The water is classified as SA-1.

2.4 *N. virens* 28 Day Survival and Growth Toxicity Tests

The 28 day worm sediment tests were conducted according to the methods provided in ASTM (2009) and US EPA (2001). Endpoints measured at the completion of the assay were survival and growth. Growth was measured as wet weight and wet biomass.

Test vessels were 10 liter glass aquaria containing 1.5 liters of sediment and approximately 3.8 liters of overlying water. Aquaria were fitted with overflow spouts to allow for renewal of the overlying water. Static renewal of the overlying water provided approximately 5 volume additions of water/day to each aquarium. Test chambers were randomly placed after addition of test sediments. Placement locations for test chambers were generated by the CETIS® software program. The randomization work sheets are included in the data appendix. Vessels were maintained at 13±3°C in a temperature controlled room during the test. Temperature was recorded hourly using a temperature logger placed in a surrogate vessel. Salinity limits were established at 30±2‰. The photoperiod in the test chamber was set at 16:8 hour light:dark. Lighting was supplied by cool white fluorescent bulbs.

A total of 10 worms were randomly selected from the pool of organisms and added to each tank. Eight replicates were used for each treatment. Sediment and overlying water were added to the test vessels at least 24 hours prior to the addition of test organisms.

A daily observation record was maintained for test chambers. Mortalities and unusual behavior were recorded. If mortalities were observed the body was removed from the test chamber. The dissolved oxygen, pH, salinity, specific conductivity and temperature in the overlying water was measured in all tanks daily. Organisms were fed chopped clam on day 7 and chopped algae on days 14 and 21.

After 28 days exposure, the organisms were recovered from the sediments and counted. All living organisms were transferred to clean test vessels and maintained in clean seawater for 24 hours to allow for removal of sediment from the animals' digestive tract. After the depuration period, organisms were then weighed to the nearest 0.01 mg. The mean wet weight of surviving organisms was determined to assess growth. Organisms were then transferred to plastic bags and frozen. Frozen tissue samples are being held by ESI for 12 months at the request of the client.

2.5 Statistical Analysis

Survival and growth data were analyzed using CETIS® software to determine significant differences between the test sediments and both the associated laboratory control and reference sediments. Data sets were evaluated to determine normality of distribution and homogeneity of sample variance. Data sets were subsequently evaluated using the appropriate parametric or non-parametric Analysis of Variance (ANOVA) statistic. End of assay, Day-28, endpoints for statistical analysis were; survival and growth. Growth was measured as both wet weight and wet biomass. Pair-wise comparisons were made using the appropriate statistical evaluation. Statistical difference was evaluated at α=0.05.

2.6 Reference Toxicant Evaluation

As part of the laboratory quality control program, reference toxicant evaluations are conducted by ESI on a regular basis for each test species. These results provide relative health and response data while allowing for comparison with historic data sets. Results are summarized in Table 2.

2.7 Protocol Deviations

Review of the toxicity testing procedures and resulting data indicate that the salinity deviated from the recommended protocol limits of 30±2‰ during the assay. The maximum salinity range during the assay was 25.79 to 32.43‰. Review of the data documented that out of the 4,176 total readings, 250 of them were greater than 32‰ and only 3 were less than 28‰. These values, while exceeding the specifications in ESI's SOP, are within the acceptability criteria stated in the ASTM method protocol. It is the opinion of the study director that the observed excursions had no significant impact on the outcome of the assay.

Table 1. Sample Collection and Receipt Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

		Sediment	Sample Collected		Sample Received	
Sample ID	ESI Code	Type	Date	Time	Date	Time
GC-SD303-0.0-0.5	19830-001	site	06/17/10	1425	06/19/10	1300
GC-SD307A-0.0-0.5	19830-002	site	06/17/10	1650	06/19/10	1300
GC-SD326-0.0-0.5	19830-003	Reference	06/17/10	1338	06/19/10	1300
GC-SD309-0.0-0.5	19830-004	site	06/18/10	1015	06/19/10	1300
GC-SD313-0.0-0.5	19830-005	site	06/18/10	1030	06/19/10	1300
GC-SD314-0.0-0.5	19830-006	site	06/18/10	1315	06/19/10	1300
GC-SD315-0.0-0.5	19830-007	site	06/18/10	1240	06/19/10	1300
GC-SD328-0.0-0.5	19830-008	Reference	06/18/10	0948	06/19/10	1300
GC-SD330-0.0-0.5	19830-009	Reference	06/18/10	1252	06/19/10	1300
GC-SD333-0.0-0.5	19830-010	Reference	06/18/10	1121	06/19/10	1300
GC-SD307B-0.0-0.5	19830-011	site	06/18/10	1555	06/19/10	1300
GC-SD329-0.0-0.5	19830-012	Reference	06/18/10	1516	06/19/10	1300
GC-SD324-0.0-0.5	19830-013	site	06/21/10	1250	06/22/10	1500
GC-SD321-0.0-0.5	19830-014	site	06/21/10	1405	06/22/10	1500
					06/23/10	0930
GC-SD319-0.0-0.5	19830-015	site	06/22/10	1040	06/23/10	0930
GC-SD318-0.0-0.5	19830-016	site	06/22/10	1435	06/23/10	0930
GC-SD310-0.0-0.5	19830-017	site	06/24/10	0950	06/25/10	0930

Table 2. Reference Toxicant Evaluation. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Date	Endpoint		Value	Historic Mean/ Central Tendency	Acceptable Range	Reference Toxicant
Nereis virens						
08/07/10	Survival	LC-50	1.81	1.23	0.198 - 2.252	Copper (mg/L)

3.0 RESULTS AND DISCUSSION

3.1 Laboratory Control and Project Reference Site Performance

Review of the laboratory control data indicates that worm performance for all endpoints exceeded the minimum acceptability criteria specified by protocol. At the end of the assay, mean control survival was 97.5% with a coefficient of variation (CV) of 4.75%. The mean wet weight of surviving worms was 2.908 g/organism. The mean wet weight of 5 replicates of 10 randomly selected worms at the start of the assay was 2.82 g/organism. Minimum acceptable performance for the laboratory control is specified as $\geq$90% survival on day 28, with no individual replicates below 80% survival. The method does not specify limits for growth.

During daily water quality observations the temperature recorded for the assay had a mean value of12.71°C with a range of 11.34 to 15.46°C. Confirmation temperature data collected in a surrogate replicate documented a mean temperature of 11.5°C with a range of 10.4 to 13.5°C. Test acceptability criteria requires a mean temperature of 13±2°C, with maximum temporary fluctuations of 13±3°C.

Table 3. Summary of Acceptable Endpoints and Measurements. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Endpoint / Measurement	Protocol Criteria		Study 19825
Survival	lab mean ≥ 90% and no replicates <80%	Mean Survival %	97.5%
		Minimum Survival %	90.0%
		Protocol Met	Yes
Mean Temperature	13 ±2°C	daily / hourly	12.71 / 11.5
		Protocol Met	Yes / Yes
Minimum Temperature	10°C	daily / hourly	11.34 / 10.4
		Protocol Met	Yes / Yes
Maximum Temperature	16°C	daily / hourly	15.46 / 13.5
		Protocol Met	Yes / Yes
Salinity	30 ±2‰	Mean Salinity	31.12
		Minimum Salinity	25.79
		Maximum Salinity	32.43
		Protocol Met	Limits exceeded*

*See section 2.7 Protocol Deviations for a discussion.

Table 4. Summary of Project Reference Site Performance. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Reference Site	ESI Code	Mean Survival (%)	Mean Wet Weight (mg)	Mean Wet Biomass (mg)
GC-SD326-0.0-0.5	19830-003	85.0%	3.291	2.772
GC-SD328-0.0-0.5	19830-008	85.0%	3.052	2.582
GC-SD330-0.0-0.5	19830-009	87.5%	3.056	2.689
GC-SD333-0.0-0.5	19830-010	85.0%	3.259	2.756
GC-SD329-0.0-0.5	19830-012	85.0%	2.647	2.251

3.2 Summary

This program utilized protocols developed by the U.S. EPA and ASTM to assess the potential toxicological impacts that exposure to sediments from the Gowanus Canal Superfund Site would have on invertebrates. Table 5 provides a summary of sample sites that demonstrated a negative effect, based on the finding of statistically significant reduction in an endpoint as compared to the laboratory control or reference site. Tables 6 through 9 provide summaries of assay endpoints and detailed statistical results for each sample location. Laboratory bench sheets, detailed summaries of survival, wet weights and associated statistical support data are included in Appendix A.

4.0 LITERATURE CITED

ASTM. 2009. *Standard Guide for Conducting Sediment Toxicity Test with Polychaetous Annelids.* Method E 1611-00 (Reapproved 2007). ASTM Annual Book of Standards, Volume 11.06.

U.S. EPA, U.S. ACE. 1998. *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. - Testing Manual (Draft)*. EPA-823-B-94-002, May 1998, 172 pages, plus appendices.

U.S. EPA, U.S. ACE. 1991. *Evaluation of Dredged Material Proposed for Ocean Disposal - Testing Manual.* EPA-503/8-91/001, February 1991, 204 pages.

U.S. EPA 1994.Test Methods for Evaluating Solid Waste Physical/Chemical Methods, US EPA SW 846, Final Update: Method 8081A and 8082.

Table 5. Summary of Significant Endpoints. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

		Laboratory Control 19825-000			GC-SD326 19830-003			GC-SD328 19830-008			GC-SD330 19830-009			GC-SD333 19830-010			GC-SD329 19830-012		
		survival	growth		survival	growth		survival	growth		survival	growth		survival	growth		survival	growth	
Field ID	ESI Code		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass		wet weight	wet biomass
GC-SD326-0.0-0.5	19830-003	Yes																	
GC-SD328-0.0-0.5	19830-008	Yes				Yes													
GC-SD330-0.0-0.5	19830-009	Yes																	
GC-SD333-0.0-0.5	19830-010	Yes																	
GC-SD329-0.0-0.5	19830-012	Yes		Yes		Yes	Yes					Yes			Yes	Yes			
GC-SD303-0.0-0.5	19830-001	Yes																	
GC-SD307A-0.0-0.5	19830-002																		
GC-SD309-0.0-0.5	19830-004	Yes																	
GC-SD313-0.0-0.5	19830-005	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes			
GC-SD314-0.0-0.5	19830-006	Yes		Yes			Yes				Yes					Yes			
GC-SD315-0.0-0.5	19830-007	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
GC-SD307B-0.0-0.5	19830-011	Yes																	
GC-SD324-0.0-0.5	19830-013	Yes																	
GC-SD321-0.0-0.5	19830-014														Yes				
GC-SD319-0.0-0.5	19830-015					Yes									Yes				
GC-SD318-0.0-0.5	19830-016	Yes				Yes									Yes				
GC-SD310-0.0-0.5	19830-017	Yes																	

Table 6. *N. virens* Day 28 Survival Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Survival Summary

Sample ID	ESI Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19825-000	8	97.50%	90%	100%	4.75%
GC-SD326-0.0-0.5	19830-003	8	85.00%	60%	100%	14.06%
GC-SD328-0.0-0.5	19830-008	8	85.00%	70%	100%	14.06%
GC-SD330-0.0-0.5	19830-009	8	87.50%	70%	100%	13.31%
GC-SD333-0.0-0.5	19830-010	8	85.00%	70%	100%	10.89%
GC-SD329-0.0-0.5	19830-012	8	85.00%	70%	100%	12.58%
GC-SD303-0.0-0.5	19830-001	8	87.50%	70%	100%	11.83%
GC-SD307A-0.0-0.5	19830-002	8	93.75%	80%	100%	9.77%
GC-SD309-0.0-0.5	19830-004	8	85.00%	50%	100%	20.86%
GC-SD313-0.0-0.5	19830-005	8	61.25%	40%	90%	31.99%
GC-SD314-0.0-0.5	19830-006	8	75.00%	50%	90%	17.46%
GC-SD315-0.0-0.5	19830-007	8	71.25%	50%	90%	23.05%
GC-SD307B-0.0-0.5	19830-011	8	87.50%	60%	100%	15.87%
GC-SD324-0.0-0.5	19830-013	8	87.50%	70%	100%	11.83%
GC-SD321-0.0-0.5	19830-014	8	92.50%	80%	100%	9.58%
GC-SD319-0.0-0.5	19830-015	8	97.50%	80%	100%	7.25%
GC-SD318-0.0-0.5	19830-016	8	86.25%	80%	100%	10.62%
GC-SD310-0.0-0.5	19830-017	8	83.75%	80%	90%	6.18%

Table 6. *N. virens* Day 28 Survival Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Survival Analysis			Statistically Significant Difference, "<" as Compared to:											
			Lab Control 19830-000		GC-SD326 19830-003		GC-SD328 19830-008		GC-SD330 19830-009		GC-SD333 19830-010		GC-SD329 19830-012	
Sample ID	ESI Code	Mean	p Value		p Value		p Value		p Value		p Value		p Value	
Laboratory Control	19825-000	97.50%	-	-	-	-	-	-	-	-	-	-	-	-
GC-SD326-0.0-0.5	19830-003	85.00%	0.0048	Yes	-	-	-	-	-	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	85.00%	0.0072	Yes	0.5061	No	-	-	-	-	-	-	-	-
GC-SD330-0.0-0.5	19830-009	87.50%	0.0219	Yes	0.6715	No	0.6603	No	-	-	-	-	-	-
GC-SD333-0.0-0.5	19830-010	85.00%	0.0017	Yes	0.4749	No	0.4695	No	0.2963	No	-	-	-	-
GC-SD329-0.0-0.5	19830-012	85.00%	0.0033	Yes	0.4929	No	0.4869	No	0.3181	No	0.5183	No	-	-
GC-SD303-0.0-0.5	19830-001	87.50%	0.0116	Yes	0.6670	No	0.6547	No	0.4826	No	0.7029	No	0.6786	No
GC-SD307A-0.0-0.5	19830-002	93.75%	0.2869	No	0.9456	No	0.9363	No	0.8649	No	0.9635	No	0.9526	No
GC-SD309-0.0-0.5	19830-004	85.00%	0.0414	Yes	0.5582	No	0.5518	No	0.4136	No	0.5801	No	0.5648	No
GC-SD313-0.0-0.5	19830-005	61.25%	<0.0001	Yes	0.0053	Yes	0.0061	Yes	0.0030	Yes	0.0043	Yes	0.0048	Yes
GC-SD314-0.0-0.5	19830-006	75.00%	0.0001	Yes	0.0579	No	0.0633	No	0.0298	Yes	0.0508	No	0.0545	No
GC-SD315-0.0-0.5	19830-007	71.25%	0.0001	Yes	0.0358	Yes	0.0391	Yes	0.0192	Yes	0.0314	Yes	0.0337	Yes
GC-SD307B-0.0-0.5	19830-011	87.50%	0.0333	Yes	0.6778	No	0.6673	No	0.5160	No	0.7076	No	0.6875	No
GC-SD324-0.0-0.5	19830-013	87.50%	0.0116	Yes	0.6670	No	0.6547	No	0.4826	No	0.7029	No	0.6786	No
GC-SD321-0.0-0.5	19830-014	92.50%	0.0985	No	0.9186	No	0.9069	No	0.8125	No	0.9424	No	0.9276	No
GC-SD319-0.0-0.5	19830-015	97.50%	0.6008 *0.7683	No No	0.9897	No	0.9896	No	0.9715	No	0.9966	No	0.9926	No
GC-SD318-0.0-0.5	19830-016	86.25%	0.0141	Yes	0.5662	No	0.5569	No	0.4392	No	0.5984	No	0.5759	No
GC-SD310-0.0-0.5	19830-017	83.75%	<0.0001	Yes	0.3249	No	0.3284	No	0.1690	No	0.3314	No	0.3246	No

Note: In cases where a statistical outlier was detected statistical comparisons were made with and without the outlier. Instances where the p Value was calculated without the outlier are identified by "*".

Table 7. *N. virens* Day 28 Wet Weight Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Wet Weight Summary

Sample ID	ESI Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19825-000	8	2.908	2.289	3.615	13.43%
GC-SD326-0.0-0.5	19830-003	8	3.291	2.753	4.094	14.95%
GC-SD328-0.0-0.5	19830-008	8	3.052	2.276	4.534	21.96%
GC-SD330-0.0-0.5	19830-009	8	3.056	2.431	3.687	15.06%
GC-SD333-0.0-0.5	19830-010	8	3.259	2.757	3.683	10.11%
GC-SD329-0.0-0.5	19830-012	8	2.647	1.974	3.112	13.34%
GC-SD303-0.0-0.5	19830-001	8	3.102	1.970	4.356	23.68%
GC-SD307A-0.0-0.5	19830-002	8	3.439	2.760	4.408	15.52%
GC-SD309-0.0-0.5	19830-004	8	3.092	2.494	3.993	17.15%
GC-SD313-0.0-0.5	19830-005	8	3.066	1.970	3.586	18.14%
GC-SD314-0.0-0.5	19830-006	8	2.997	2.439	3.434	10.04%
GC-SD315-0.0-0.5	19830-007	8	2.532	2.030	2.860	10.07%
GC-SD307B-0.0-0.5	19830-011	8	2.999	2.006	3.687	19.83%
GC-SD324-0.0-0.5	19830-013	8	3.234	2.443	4.186	15.87%
GC-SD321-0.0-0.5	19830-014	8	2.891	2.174	3.514	15.74%
GC-SD319-0.0-0.5	19830-015	8	2.836	2.096	3.205	12.97%
GC-SD318-0.0-0.5	19830-016	8	2.936	2.419	3.240	8.83%
GC-SD310-0.0-0.5	19830-017	8	3.184	2.574	4.244	18.68%

Table 7. *N. virens* Day 28 Wet Weight Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Wet Weight Analysis			Statistically Significant Difference, "<" as Compared to:											
			Lab Control 19830-000		GC-SD326 19830-003		GC-SD328 19830-008		GC-SD330 19830-009		GC-SD333 19830-010		GC-SD329 19830-012	
Sample ID	ESI Code	Mean	p Value		p Value		p Value		p Value		p Value		p Value	
Laboratory Control	19825-000	2.908	-	-	-	-	-	-	-	-	-	-	-	-
GC-SD326-0.0-0.5	19830-003	3.291	0.9470	No	-	-	-	-	-	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	3.052	0.6961 *0.3616	No No	0.2141 *0.0299	No Yes	-	-	-	-	-	-	-	-
GC-SD330-0.0-0.5	19830-009	3.056	0.7517	No	0.1705	No	0.5068 *0.8409	No No	-	-	-	-	-	-
GC-SD333-0.0-0.5	19830-010	3.259	0.9640	No	0.4398	No	0.7775 *0.9861	No No	0.8357	No	-	-	-	-
GC-SD329-0.0-0.5	19830-012	2.647	0.0915	No	0.0047	Yes	0.0765 *0.1465	No No	0.0328	Yes	0.0015	Yes	-	-
GC-SD303-0.0-0.5	19830-001	3.102	0.7403	No	0.2772	No	0.5560	No	0.5579	No	0.2949	No	0.9317	No
GC-SD307A-0.0-0.5	19830-002	3.439	0.9803	No	0.7126	No	0.8891	No	0.9264	No	0.7843	No	0.9982	No
GC-SD309-0.0-0.5	19830-004	3.092	0.7797	No	0.2247	No	0.5528	No	0.5564	No	0.2313	No	0.9660	No
GC-SD313-0.0-0.5	19830-005	3.066	0.7397	No	0.2025	No	0.5183	No	0.5144	No	0.2061	No	0.9532	No
GC-SD314-0.0-0.5	19830-006	2.997	0.6916	No	0.0853	No	0.4180 *0.8256	No No	0.3816	No	0.0593	No	0.9745	No
GC-SD315-0.0-0.5	19830-007	2.532	0.0194	Yes	0.0008	Yes	0.0297 *0.0300	Yes Yes	0.0068	Yes	0.0001	Yes	0.2335	No
GC-SD307B-0.0-0.5	19830-011	2.999	0.6395	No	0.1512	No	0.4356	No	0.4163	No	0.1490	No	0.9143	No
GC-SD324-0.0-0.5	19830-013	3.234	0.9128	No	0.4112	No	0.7245	No	0.7605	No	0.4543	No	0.9908	No
GC-SD321-0.0-0.5	19830-014	2.891	0.4700	No	0.0567	No	0.2923 *0.5963	No No	0.2411	No	0.0427	Yes	0.8751	No
GC-SD319-0.0-0.5	19830-015	2.836	0.3569	No	0.0275	Yes	0.2198 *0.4929	No No	0.1545	No	0.0149	Yes	0.8447	No
GC-SD318-0.0-0.5	19830-016	2.936	0.5672	No	0.0462	Yes	0.3282 *0.7331	No No	0.2648	No	0.0235	Yes	0.9586	No
GC-SD310-0.0-0.5	19830-017	3.184	0.8548	No	0.3500	No	0.6589	No	0.6805	No	0.3797	No	0.9773	No

Note: In cases where a statistical outlier was detected statistical comparisons were made with and without the outlier. Instances where the p Value was calculated without the outlier are identified by "*".

Table 8. *N. virens* Day 28 Biomass Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Biomass Summary

Sample ID	ESI Code	Reps	Mean	Minimum	Maximum	CV
Laboratory Control	19825-000	8	2.837	2.289	3.615	14.95%
GC-SD326-0.0-0.5	19830-003	8	2.772	2.005	3.275	14.41%
GC-SD328-0.0-0.5	19830-008	8	2.582	1.836	3.627	22.91%
GC-SD330-0.0-0.5	19830-009	8	2.689	1.945	3.666	23.23%
GC-SD333-0.0-0.5	19830-010	8	2.756	2.381	3.143	10.50%
GC-SD329-0.0-0.5	19830-012	8	2.251	1.745	2.801	19.10%
GC-SD303-0.0-0.5	19830-001	8	2.668	1.773	3.115	16.76%
GC-SD307A-0.0-0.5	19830-002	8	3.212	2.747	4.408	16.80%
GC-SD309-0.0-0.5	19830-004	8	2.646	1.247	3.594	27.84%
GC-SD313-0.0-0.5	19830-005	8	1.879	1.182	2.869	38.70%
GC-SD314-0.0-0.5	19830-006	8	2.235	1.707	2.789	17.30%
GC-SD315-0.0-0.5	19830-007	8	1.787	1.327	2.246	20.95%
GC-SD307B-0.0-0.5	19830-011	8	2.575	2.006	3.271	16.78%
GC-SD324-0.0-0.5	19830-013	8	2.815	1.984	3.349	15.78%
GC-SD321-0.0-0.5	19830-014	8	2.660	2.174	3.514	15.69%
GC-SD319-0.0-0.5	19830-015	8	2.762	2.096	3.205	14.24%
GC-SD318-0.0-0.5	19830-016	8	2.534	1.935	3.175	14.27%
GC-SD310-0.0-0.5	19830-017	8	2.668	2.134	3.395	19.96%

Table 8. *N. virens* Day 28 Biomass Summary. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

Day 28 Biomass Analysis			Statistically Significant Difference, "<" as Compared to:											
			Lab Control 19830-000		GC-SD326 19830-003		GC-SD328 19830-008		GC-SD330 19830-009		GC-SD333 19830-010		GC-SD329 19830-012	
Sample ID	ESI Code	Mean	p Value		p Value		p Value		p Value		p Value		p Value	
Laboratory Control	19825-000	2.837	-	-	-	-	-	-	-	-	-	-	-	-
GC-SD326-0.0-0.5	19830-003	2.772	0.3794	No	-	-	-	-	-	-	-	-	-	-
GC-SD328-0.0-0.5	19830-008	2.582	0.1696	No	0.2318	No	-	-	-	-	-	-	-	-
GC-SD330-0.0-0.5	19830-009	2.689	0.2943	No	0.3777	No	0.6346	No	-	-	-	-	-	-
GC-SD333-0.0-0.5	19830-010	2.756	0.3327	No	0.4647	No	0.7669	No	0.6073	No	-	-	-	-
GC-SD329-0.0-0.5	19830-012	2.251	0.0079	Yes	0.0124	Yes	0.1105	No	0.0623	No	0.0077	Yes	-	-
GC-SD303-0.0-0.5	19830-001	2.668	0.2263	No	0.3159	No	0.6265	No	0.4704	No	0.3236	No	0.9611	No
GC-SD307A-0.0-0.5	19830-002	3.212	0.9281	No	0.9576 *0.9240	No No	0.9786	No	0.9528	No	0.9731 *0.9663	No No	0.9993	No
GC-SD309-0.0-0.5	19830-004	2.646	0.2684	No	0.3387	No	0.5749	No	0.4514	No	0.3500 *0.6618	No No	0.8946	No
GC-SD313-0.0-0.5	19830-005	1.879	0.0031	Yes	0.0044	Yes	0.0262	Yes	0.0415	Yes	0.0034	Yes	0.1171	No
GC-SD314-0.0-0.5	19830-006	2.235	0.0051	Yes	0.0081	Yes	0.0931	No	0.0511	No	0.0043	Yes	0.4689	No
GC-SD315-0.0-0.5	19830-007	1.787	0.0001	Yes	0.0001	Yes	0.0031	Yes	0.0018	Yes	<0.0001	Yes	0.0185	Yes
GC-SD307B-0.0-0.5	19830-011	2.575	0.1207	No	0.1794	No	0.4890	No	0.3388	No	0.1700	No	0.9224	No
GC-SD324-0.0-0.5	19830-013	2.815	0.4604	No	0.5783	No	0.8056	No	0.6752	No	0.6197	No	0.9891	No
GC-SD321-0.0-0.5	19830-014	2.660	0.2076	No	0.2957	No	0.6174	No	0.4575	No	0.2999	No	0.9630	No
GC-SD319-0.0-0.5	19830-015	2.762	0.3601	No	0.4797	No	0.7572	No	0.6082	No	0.5125	No	0.9868	No
GC-SD318-0.0-0.5	19830-016	2.534	0.0736	No	0.1160	No	0.4240	No	0.2771	No	0.0981	No	0.9121	No
GC-SD310-0.0-0.5	19830-017	2.668	0.2482	No	0.3332	No	0.6184	No	0.4726	No	0.3440	No	0.9468	No

Note: In cases where a statistical outlier was detected statistical comparisons were made with and without the outlier. Instances where the p Value was calculated without the outlier are identified by "*".

Table 9. Summary of Water Qualities. Gowanus Canal Superfund Site, Brooklyn, New York. July 2010.

	Temp	DO Conc	pH	SpCond	Salinity
	C	mg/L	SU	uS/cm	ppt
Minimum:	11.34	3.05	7.06	40372	25.79
Mean:	12.71	7.76	-	47845	31.12
Maximum:	15.46	9.77	8.33	49668	32.43

APPENDIX A
RAW DATA AND STATISTICAL SUPPORT

Contents	Number of Pages
N. virens Daily Observation Record	10
N. virens Daily Water Quality Measurements	79
CETIS Worksheet	3
N. virens Recovery Bench Sheets	4
N. virens Mean Wet Weight at Start of Assay	1
N. virens Organism History	1
N. virens Survival Statistical Analysis	93
N. virens Mean Wet Weight Statistical Analysis	97
N. virens Mean Biomass Statistical Analysis	90
28 Day Temperature Profile	1
Chain of Custody and Sample Receipt Condition Documentation	32
E-mail Communications: Reference Site Identification	1
Total Appendix Pages	412

Nereis virens 28 Day Study # 19830

HDR Engineering, Inc. - Gowanus Canal Superfund Site

Day	Date	Water Qualities and Flow	Initial	Day	Date	Water Qualities and Flow	Initial
0	7/8/10	✓/✓	AM	15	7/23/10	✓/✓	AM/JTP
1	7/9/10	✓/✓	AM	16	7/24/10	✓/✓	JTP
2	7/10/10	✓/✓	JE	17	7/25/10	✓/✓	JTP
3	7-11	✓/✓	DM	18 *	7/26/10	✓/✓	JTP/AM
4	7/12/10	✓/✓	JTP/AM	19	7/27/10	✓/✓	AM
5	7/13/10	✓/✓	AM/JTP	20	7/28/10	✓/✓	AM/JTP
6	7/14/10	✓/✓	AM	21	7/29/10	✓/✓	AM/JTP
7	7/15/10	✓/✓	JTP/AM	22	7/30/10	✓/✓	AM/AM
8	7/16/10	✓/✓	JTP/JEB	23	7-31-10	✓/✓	DM
9	7/17/10	✓/✓	JTP	24	8/1/10	✓/✓	AM
10	7/18/10	✓/✓	AM	25	8/2/10	✓/✓	AM
11	7/19/10	✓/✓	JTP/AM	26	8/3/10	✓/✓	AM/JTP
12	7/20/10	✓/✓	AM	27	8/4/10	✓/✓	AM/JL
13	7/21/10	✓/✓	JTP/JEB	28	8/5/10	✓/-	AM/JL
14	7/22/10	✓/✓	JTP/AM				

Notes: Refresh Twice Daily, ≈ 30 minutes each time.

* DO Low in position 13b, added more air lines as corrective action 7/26 JTP

Fed on 7/15/10 AM/JTP (3-5g Clams)

Fed on 7/22/10 AM/JTP (3-5g Green Algae)

Fed on 7/29/10 AM/JTP (3-5g Green Algae)

On day 21 7/29/10 positions # 16, 17, 53, +62 were not feed due to left over algae from last feeding on 7/30/10

Test Notes

Study#:	Client:	Species:
19875 ~~19830~~	HDR Engineering, Inc.	Nereis virens ~~*Leptocheirus plumulosus*~~

DO was low for position #'s 6, 23, 65, 85, 86, & 113. More air lines were added. 7/9 JTP

Temps were low in test vessels across from climate control units. Room temp was adjusted.

Pos # 47 experienced Low DO on 7/14/10 am

Pos # 48 experienced Low DO on 7/15/10 am

Pos # 20 experienced Low DO on 7/16/10. When DO has been low, more air lines have been added. This was the corrective action taken on 7/16

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-002	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	1	2	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	1	3	N	N	N	N	N	1S	N	N	N	N	N	N	N	N
19830-017	1	4	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	1	5	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	1	6	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	1	7	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	1	8	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	1	9	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	1	10	N	N	N	N	1S	N	N	N	N	N	N	N	N	N
19830-008	1	11	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	1	12	7S	7S	5S	4S	4S	1S	2S	3S	3S	1S	1S	1S	N	1S
19830-004	1	13	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-013	1	14	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	1	15	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	1	16	N	N	1S	2S	N	N	2S	2D 4S N	3D 7/16 1D	N	N	N	N	N
19830-007	1	17	8S	7S	7S	4S	6S	3S	5S	2D 4S JTP	3S	3S	4S	4S	1S	1S
19830-003	1	18	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	2	19	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	2	20	N	N	N	N	N	N	N	N	1S	N	N	N	N	N
19830-007	2	21	7S	7S	8S	8S	8S	6S	4S	5S	6S	10 1S	3S	6S	2S	1S
19830-015	2	22	N	N	1S	N	1S	N	N	N	1S	1S	1S	1S	N	N
19830-008	2	23	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	2	24	N	N	N	N	N	N	N	N	N	N	1S	N	N	N
19830-012	2	25	N	N	N	N	N	N	N	N	1S	N	N	1S	N	N
19830-004	2	26	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	2	27	N	N	N	N	N	N	N	N	1S	N	N	1S	N	N
19830-003	2	28	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-011	2	29	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	2	30	N	N	1S	N	N	N	N	N	N	N	N	N	N	N
19830-014	2	31	N	N	N	N	N	N	N	N	N	N	N	N	N	1S
19830-001	2	32	N	N	N	N	N	N	N	N	N	N	N	2S	N	N
19830-013	2	33	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-010	2	34	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	2	35	6S	6S	8S	1D 6S	1D 2S	2S	1S	1D	1S	1S	1S	N	N	N
19830-005	2	36	5S	6S	2S	2S	2S	2S	2S	1S	1S	1S	2S	1S	1S	N
		Initials	AM 7/1	KL 7/10	DM 7-4	JTP 7/12	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	JEB 7/21	JTP 7/22

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-013	3	37	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	3	38	N	N	N	N	1S	N	N	N	1S	N	N	1S	N	N
19830-017	3	39	N	N	N	2S	N	N	N	N	N	N	N	N	N	N
19830-016	3	40	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-000	3	41	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	3	42	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	3	43	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	3	44	N	N	N	1S	N	N	N	N	1S	N	N	N	N	N
19830-004	3	45	N	N	N	N	N	N	N	N	N	N	N	2S	N	N
19830-006	3	46	6S	6S	6S	4S	4S	4S	(10)3S	2S	2S	2S	4S	2S	2S	N
19830-005	3	47	6S	6S	4S	5S	4S	3S	3S	2S	1S	1S	1S	1S	1S	N
19830-011	3	48	N	N	N	N	N	N	N	N	1S	N	N	N	N	N
19830-002	3	49	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	3	50	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	3	51	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-003	3	52	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-007	3	53	10S	10S	8S	6S	10S	10S	10S	10S	9S	8S	7S	8S	2S	3S
19830-015	3	54	N	N	1S	1S	N	N	N	N	N	N	N	N	N	N
19830-006	4	55	8S	8S	7S	2S	3S	3S	3S	(10)3S	(2D)	N	N	1S	N	N
19830-011	4	56	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	4	57	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	4	58	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-015	4	59	1S	N	1S	N	1S	1S	N	N	N	N	N	N	N	N
19830-009	4	60	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	4	61	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-016	4	62	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	4	63	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	4	64	N	N	N	N	1S	N	1S	N	N	N	N	N	N	N
19830-007	4	65	7S	5S	8S	10S	7S	8S	6S	4S	3S	4S	4S	4S	6S	3S
19830-014	4	66	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	4	67	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	4	68	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	4	69	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	4	70	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	4	71	8S	8S	6S	5S	4S	2S	1S	2S	3S	1S	N	N	N	N
19830-003	4	72	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Initials			AM 7/12	VL 7/10	CM 7/11	JTP 7/12	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	JEB 7/21	JTP 7/22

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-016	5	73	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	5	74	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	5	75	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	5	76	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	5	77	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	5	78	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	5	79	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	5	80	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	5	81	7S	7S	6S	5S	5S	4S	3S	N	N	4S	(1D)1S	1S	N	N
19830-011	5	82	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	5	83	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	5	84	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	5	85	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	5	86	9S	9S	9S	8S	7S	4S	4S	1S	1S	2S	3S	2S	1S	1S
19830-008	5	87	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	5	88	10S	9S	7S	8S	7S	8S	4S	3S	(1D)4S	4S	4S	3S	3S	3S
19830-014	5	89	N	N	N	N	N	N	N	N	N	N	N	2S	N	N
19830-015	5	90	2S	2S	1S	1S	1S	1S	N	N	N	N	N	N	N	N
19830-005	6	91	5S	6S	4S	3S	3S	2S	2S	2S	(1D)1S	2S	N	N	N	N
19830-007	6	92	10S	9S	10S	9S	10S	10S	10S	9S	7S	(1D)5S	3S	5S	6S	4S
19830-002	6	93	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	6	94	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	6	95	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	6	96	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	6	97	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	6	98	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	6	99	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	6	100	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	6	101	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	6	102	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	6	103	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-001	6	104	N	N	N	N	N	N	N	N	N	1S	N	N	N	N
19830-017	6	105	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	6	106	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	6	107	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	6	108	8S	8S	8S	7S	6S	4S	3S	3S	3S	3S	2S	2S	N	N
Initials			AM 7/12	MC 7/10	CM 7/11	JTP 7/12	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	JTP 7/21	JTP 7/22

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY													
Sample	Rep	Pos	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19830-015	7	109	N	N	N	1S	N	N	N	N	1S	N	N	N	N	N
19830-017	7	110	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	7	111	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	7	112	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	7	113	7S	7S	8S	4S	4S	3S	3S	2S	1S	N	N	N	N	N
19830-012	7	114	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	7	115	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	7	116	N	N	N	N	N	N	N	N	1S	N	N	N	N	N
19830-014	7	117	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	7	118	9S	9S	7S	3S	3S	3S	(10)1S	2S	2S	1S	1S	1S	1S	1S
19830-001	7	119	N	N	N	N	N	N	N	1S	1S	N	N	1S	1S	N
19830-000	7	120	N	N	N	N	N	N	1S	1S	4S	1S	3S	N	1S	2S
19830-009	7	121	N	N	N	N	N	N	N	N	3S	1S	N	N	N	N
19830-010	7	122	N	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-007	7	123	N	N	7S	7S	7S	4S	5S	5S	(20)4S	5S(10)	3S	2S	N	N
19830-002	7	124	N	N	N	N	N	N	N	1S	N	N	N	N	N	2S
19830-013	7	125	N	N	N	N	N	N	1S	N	N	N	N	1S	N	N
19830-016	7	126	N	N	N	N	N	N	N	N	N	N	1S	N	N	N
19830-017	8	127	N	N	1S	N	N	N	N	N	1S	N	N	2S	N	1S
19830-013	8	128	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	8	129	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	8	130	10S	10S	8S	6S	2S	3S	2S	2S	3S	2S	1S	(10)1S	N	N
19830-011	8	131	~~1S~~N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	8	132	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	8	133	N	N	N	N	N	N	N	N	2S	N	N	1S	N	N
19830-003	8	134	N	N	N	N	N	N	N	1S	3S	N	N	3S	1S	N
19830-005	8	135	10S	9S	10S	9S	7S	4S	2S	5S	(10)3S	4S	1S	2S	N	1S
19830-012	8	136	N	N	N	N	N	N	1S	N	2S	1S	N	N	N	N
19830-006	8	137	7S	7S	5S	4S	4S	4S	3S	2S	3S	2S	N	N	1S	1S
19830-001	8	138	N	N	N	N	N	N	N	1S	N	N	N	N	N	N
19830-014	8	139	N	N	N	N	N	N	N	1S	2S	N	N	N	N	N
19830-000	8	140	N	N	N	N	N	N	N	1S	4S	N	N	N	1S	1S
19830-009	8	141	N	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	8	142	N	N	N	N	N	N	N	N	2S	N	N	N	1S	N
19830-015	8	143	N	N	N	N	N	N	N	N	N	N	N	N	N	1S
19830-016	8	144	N	N	N	N	N	N	N	N	1S	N	N	1S	N	N
Initials			AM 7/10	MC 7/10	DM 7-11	JTP 7/13	AM 7/13	AM 7/14	JTP 7/15	JTP 7/16	JTP 7/17	AM 7/18	JTP 7/19	JTP 7/20	SEB 7/21	JTP 7/22

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-002	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	1	2	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	1	3	N	N	N	N	N	N	N	N	N	IS	N	N	N
19830-017	1	4	N	N	N	IS	IS	N	N	N	N	N	N	N	N
19830-001	1	5	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	1	6	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	1	7	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	1	8	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	1	9	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	1	10	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	1	11	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	1	12	IS	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	1	13	N	N	N	IS	N	N	N	N	N	N	N	N	N
19830-013	1	14	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	1	15	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	1	16	N	N	N	N	N	N	N	N	N	N	IS	N	N
19830-007	1	17	5S	4S	IS	2S	IS	2S	N	IS	N	IS	(10)	N	2S
19830-003	1	18	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	2	19	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	2	20	N	N	N	N	N	N	IS	N	N	N	N	N	N
19830-007	2	21	3S	(10)2S	3S	2S	3S	IS	N	N	N	N	N	3S	IS
19830-015	2	22	IS	2S	N	N	N	N	N	IS	N	N	N	N	N
19830-008	2	23	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	2	24	N	N	N	N	N	N	N	N	N	N	N	N	IS
19830-012	2	25	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	2	26	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	2	27	N	2S	N	N	N	N	N	N	N	N	N	N	N
19830-003	2	28	N	N	N	N	N	N	N	N	N	IS	N	N	N
19830-011	2	29	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	2	30	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-014	2	31	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	2	32	N	N	N	N	N	N	N	N	N	IS	N	N	N
19830-013	2	33	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	2	34	N	N	N	N	N	N	N	N	N	N	N	IS	N
19830-006	2	35	IS	N	N	N	N	N	2S	N	N	N	N	N	N
19830-005	2	36	2S	IS	2S	N	N	N	N	IS	N	N	N	N	N
Initials			JTP 7/23	JTP 7/24	DM 7.25	JTP 7/26	AM 7/27	JTP 7/28	# NB F 7/29	AM 7/30	DM 7.31	AM 8/1/16	JTP 8/2	JTP 8/3	JTP 8/4

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-013	3	37	2S	N	N	N	N	N	N	N	N	N	2S	N	N
19830-009	3	38	1S	N	N	1S	2S	N	N	N	N	N	N	N	1S
19830-017	3	39	N	1S	N	N	N	N	N	N	N	N	N	N	2S
19830-016	3	40	N	N	N	N	N	N	N	N	2S	1S	N	N	2S
19830-000	3	41	2S	1S	N	1S	N	3S	N	N	N	N	2S	2S	2S
19830-010	3	42	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	3	43	N	N	N	N	N	N	1S	1S	N	N	N	N	1S
19830-014	3	44	N	N	N	N	N	N	N	1S	N	1S	1S	2S	1S
19830-004	3	45	3S	N	N	N	N	N	N	N	N	N	N	N	1S
19830-006	3	46	2S	N	N	N	N	N	1S	N	N	N	N	N	N
19830-005	3	47	1S	1S	N	N	N	N	N	N	N	1S	N	1S	1S
19830-011	3	48	N	N	N	N	N	N	N	N	N	2S	N	N	1S
19830-002	3	49	1S	N	N	N	1S	N	N	N	N	N	N	N	N
19830-012	3	50	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	3	51	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	3	52	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	3	53	2S	3S	N	1S	N	2S	N	(1D)	1S	2S	N	N	N
19830-015	3	54	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	4	55	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	4	56	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	4	57	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	4	58	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	4	59	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	4	60	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	4	61	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-016	4	62	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	4	63	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	4	64	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	4	65	4S	4S	5S	2S	2S	(1D)2S	2S	2S	4S	N	1S	4S	1D 1S
19830-014	4	66	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	4	67	N	N	N	N	N	N	N	N	N	N	1S	N	N
19830-017	4	68	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	4	69	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	4	70	N	N	N	N	N	N	N	N	N	N	N	N	1S
19830-005	4	71	N	N	N	2S	1S	1S	N	N	N	N	N	N	N
19830-003	4	72	N	N	N	N	N	N	N	N	N	N	N	N	N
Initials			JSP 7/23	JSP 7/24	DM 7.25	JSP 7/26	AM 7/27	JSP 7/28	NBE 7/29	AM 7/30	DM 7.31	AM 8/1/10	JSP 8/2/10	JSP 8/3/10	JSP 8/4/10

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-016	5	73	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	5	74	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-000	5	75	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	5	76	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	5	77	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-002	5	78	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	5	79	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	5	80	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-005	5	81	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-011	5	82	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-010	5	83	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	5	84	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-009	5	85	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-006	5	86	N	N	N	15	N	N	15	N	N	N	N	N	N
19830-008	5	87	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-007	5	88	N	45	35	N	15	15	N	N	N	25	15	15	N
19830-014	5	89	N	N	N	N	N	N	N	15	N	N	N	N	N
19830-015	5	90	N	N	N	N	N	N	15	N	N	N	N	N	N
19830-005	6	91	N	15	N	N	N	N	N	N	N	15	N	N	N
19830-007	6	92	25	25	N	N	N	15	N	N	35	N	25	N	45
19830-002	6	93	N	N	N	N	N	15	N	N	N	N	N	N	15
19830-009	6	94	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-013	6	95	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-004	6	96	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-012	6	97	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-015	6	98	N	N	N	15	N	N	N	N	N	N	N	N	N
19830-014	6	99	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-003	6	100	N	N	15	N	N	N	N	N	N	N	N	N	N
19830-010	6	101	N	N	N	25	N	N	15	N	N	N	15	N	N
19830-000	6	102	N	15	N	N	N	N	N	N	N	N	N	N	N
19830-016	6	103	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-001	6	104	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-017	6	105	N	N	N	N	N	N	N	N	N	N	N	N	N
19830-008	6	106	N	N	N	N	N	N	N	N	N	15	N	N	N
19830-011	6	107	N	N	N	N	N	15	N	N	N	N	N	N	N
19830-006	6	108	N	N	N	N	N	15	N	N	N	N	N	N	N
		Initials	AM 7/23	JTP 7/24	AM 7/25	JTP 7/26	AM 7/27	JTP 7/28	NR 7/29	AM 7/30	DM 7-31	AM 8/1/10	JTP 8/2/10	JTP 8/3/10	JL 8/4/10

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

Daily Observations for *Nereis virens* Study # 19830

Gowanus Canal Superfund Site

			DAY												
Sample	Rep	Pos	15	16	17	18	19	20	21	22	23	24	25	26	27
19830-015	7	109													
19830-017	7	110													
19830-003	7	111													
19830-008	7	112													
19830-006	7	113													
19830-012	7	114													
19830-004	7	115													
19830-011	7	116													
19830-014	7	117													
19830-005	7	118													
19830-001	7	119													
19830-000	7	120													
19830-009	7	121													
19830-010	7	122													
19830-007	7	123													
19830-002	7	124													
19830-013	7	125													
19830-016	7	126													
19830-017	8	127													
19830-013	8	128													
19830-010	8	129													
19830-007	8	130													
19830-011	8	131													
19830-002	8	132													
19830-004	8	133													
19830-003	8	134													
19830-005	8	135													
19830-012	8	136													
19830-006	8	137													
19830-001	8	138													
19830-014	8	139													
19830-000	8	140													
19830-009	8	141													
19830-008	8	142													
19830-015	8	143													
19830-016	8	144													
		Initials	AMC 7/23/10	JTP 7/24	DAM 7.25	JTP 7/26	AMC 7/27	JTP 7/28	MBF 7/29	AMC 7/30	DAM 7.31	AMC 8/1/10	JTP 8/2/10	JTP 8/3/10	JTP 8/4/10

Enter **R** for ones replaced during the first 24 hours, **S** for animals observed on the surface, **D** for dead animals.

STUDY: 19875
CLIENT: HDR Engineering, Inc.
PROJECT: Gowanus Canal Superfund Site
ASSAY: 28 Day Nereis virens
TASK: Daily Overlying Water Qualities

	Temp	DO Conc	pH	SpCond	Salinity
Minimum:	11.34	3.05	7.06	40372	25.79
Mean:	12.71	7.76		47845	31.12
Maximum:	15.46	9.77	8.33	49668	32.43

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	1	1	0	07/08/10 09:18:10	12.18	9.02	7.83	47262	30.68
19830-016	1	2	0	07/08/10 09:19:01	12.19	8.90	8.33	45636	29.51
19830-015	1	3	0	07/08/10 09:19:15	12.15	8.87	8.29	46911	30.43
19830-017	1	4	0	07/08/10 09:19:32	12.07	8.82	8.19	46264	29.96
19830-001	1	5	0	07/08/10 09:20:30	12.05	8.69	7.81	47159	30.60
19830-011	1	6	0	07/08/10 09:20:53	12.67	7.23	7.93	47070	30.56
19830-014	1	7	0	07/08/10 09:22:06	12.29	8.15	8.26	47469	30.84
19830-009	1	8	0	07/08/10 09:29:21	14.38	8.33	7.82	47176	30.69
19830-012	1	9	0	07/08/10 09:29:54	14.15	8.50	7.81	47278	30.76
19830-010	1	10	0	07/08/10 09:30:18	13.88	8.61	7.83	47131	30.65
19830-008	1	11	0	07/08/10 09:30:30	14.05	8.60	8.01	47111	30.64
19830-006	1	12	0	07/08/10 09:30:40	14.20	8.61	7.91	46000	29.84
19830-004	1	13	0	07/08/10 09:31:05	13.59	8.65	7.97	47053	30.58
19830-013	1	14	0	07/08/10 09:31:21	13.66	8.59	8.00	47201	30.69
19830-000	1	15	0	07/08/10 09:31:35	13.77	8.53	7.87	47259	30.74
19830-005	1	16	0	07/08/10 09:31:51	14.04	8.66	7.77	45186	29.25
19830-007	1	17	0	07/08/10 09:32:15	13.82	8.63	7.74	47254	30.73
19830-003	1	18	0	07/08/10 09:32:33	13.94	8.61	7.81	47370	30.82
19830-009	2	19	0	07/08/10 09:35:41	15.22	8.35	7.80	47012	30.59
19830-016	2	20	0	07/08/10 09:36:07	14.89	6.98	7.85	46914	30.52
19830-007	2	21	0	07/08/10 09:36:19	15.13	6.67	7.77	47011	30.59
19830-015	2	22	0	07/08/10 09:36:41	14.94	7.89	8.08	46725	30.38
19830-008	2	23	0	07/08/10 09:37:02	14.72	7.55	7.64	46967	30.55
19830-002	2	24	0	07/08/10 09:37:27	14.98	7.59	7.71	46912	30.52
19830-012	2	25	0	07/08/10 09:37:43	14.98	7.98	7.85	46912	30.52
19830-004	2	26	0	07/08/10 09:37:59	15.02	8.13	7.84	47082	30.64
19830-000	2	27	0	07/08/10 09:38:35	13.20	8.72	7.80	47056	30.57
19830-003	2	28	0	07/08/10 09:38:56	14.66	8.27	7.74	47075	30.63
19830-011	2	29	0	07/08/10 09:39:18	14.71	8.22	7.96	46988	30.57
19830-017	2	30	0	07/08/10 09:39:41	14.72	8.39	7.93	46871	30.48
19830-014	2	31	0	07/08/10 09:39:59	14.56	8.45	8.06	46989	30.56
19830-001	2	32	0	07/08/10 09:40:20	14.61	8.44	7.72	47114	30.65
19830-013	2	33	0	07/08/10 09:40:36	14.44	8.45	7.95	47074	30.62
19830-010	2	34	0	07/08/10 09:40:58	14.73	8.45	7.88	47085	30.64
19830-006	2	35	0	07/08/10 09:41:22	14.83	8.46	7.79	47173	30.70
19830-005	2	36	0	07/08/10 09:41:50	15.06	8.26	7.72	47085	30.64
19830-013	3	37	0	07/08/10 09:42:10	15.39	8.19	7.97	47162	30.71
19830-009	3	38	0	07/08/10 09:42:26	15.44	8.21	7.83	47022	30.61
19830-017	3	39	0	07/08/10 09:42:45	15.46	8.23	7.91	46990	30.58
19830-016	3	40	0	07/08/10 09:43:08	14.98	8.31	8.07	47056	30.62
19830-000	3	41	0	07/08/10 09:43:27	15.31	8.25	7.82	47082	30.65
19830-010	3	42	0	07/08/10 09:43:43	15.19	8.30	7.77	46956	30.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	3	43	0	07/08/10 09:44:08	14.47	8.49	7.77	47046	30.60
19830-014	3	44	0	07/08/10 09:44:26	15.25	8.24	7.97	47253	30.77
19830-004	3	45	0	07/08/10 09:44:42	15.15	8.13	7.92	47001	30.58
19830-006	3	46	0	07/08/10 09:44:57	15.07	8.20	7.80	46972	30.56
19830-005	3	47	0	07/08/10 09:45:15	15.29	8.22	7.73	47086	30.65
19830-011	3	48	0	07/08/10 09:45:27	15.24	8.20	7.76	47081	30.64
19830-002	3	49	0	07/08/10 09:45:43	14.68	8.27	7.85	46859	30.47
19830-012	3	50	0	07/08/10 09:46:00	14.96	8.07	7.88	47033	30.60
19830-001	3	51	0	07/08/10 09:46:43	12.13	8.89	7.85	47455	30.82
19830-003	3	52	0	07/08/10 09:46:56	12.07	8.90	7.89	47478	30.83
19830-007	3	53	0	07/08/10 09:47:20	12.01	8.98	7.74	46627	30.22
19830-015	3	54	0	07/08/10 09:47:37	12.10	8.92	8.19	46272	29.97
19830-006	4	55	0	07/08/10 09:47:56	12.13	8.89	7.88	47346	30.74
19830-011	4	56	0	07/08/10 09:48:19	11.94	8.92	7.91	47410	30.78
19830-012	4	57	0	07/08/10 09:48:43	11.94	8.92	7.97	47386	30.76
19830-010	4	58	0	07/08/10 09:48:57	11.93	8.95	7.93	47574	30.90
19830-015	4	59	0	07/08/10 09:49:12	11.74	9.01	8.12	47713	30.99
19830-009	4	60	0	07/08/10 09:49:25	11.69	9.11	7.97	47655	30.94
19830-001	4	61	0	07/08/10 09:49:39	11.86	9.12	8.00	47779	31.04
19830-016	4	62	0	07/08/10 09:49:55	11.98	9.03	8.25	47433	30.80
19830-008	4	63	0	07/08/10 09:50:10	11.91	8.97	8.07	47456	30.81
19830-004	4	64	0	07/08/10 09:50:24	12.02	8.97	8.06	47515	30.86
19830-007	4	65	0	07/08/10 09:50:39	12.19	8.92	7.73	47502	30.86
19830-014	4	66	0	07/08/10 09:50:55	12.34	8.17	8.06	47352	30.75
19830-000	4	67	0	07/08/10 09:51:15	12.22	8.60	7.82	47320	30.73
19830-017	4	68	0	07/08/10 09:51:31	12.26	8.75	7.98	47275	30.69
19830-013	4	69	0	07/08/10 09:51:46	12.43	8.64	8.11	47364	30.77
19830-002	4	70	0	07/08/10 09:52:03	12.40	8.68	8.01	47143	30.61
19830-005	4	71	0	07/08/10 09:52:20	12.28	8.50	7.70	47235	30.67
19830-003	4	72	0	07/08/10 09:52:39	12.38	8.51	7.83	47337	30.74
19830-016	5	73	0	07/08/10 09:52:56	12.27	8.79	8.21	47252	30.68
19830-003	5	74	0	07/08/10 09:53:16	12.23	8.66	7.89	47241	30.67
19830-000	5	75	0	07/08/10 09:53:29	12.38	8.49	7.84	47362	30.76
19830-013	5	76	0	07/08/10 09:53:41	12.49	8.70	8.05	47365	30.77
19830-001	5	77	0	07/08/10 09:53:55	12.61	8.74	8.10	47234	30.68
19830-002	5	78	0	07/08/10 09:54:08	12.47	8.62	8.11	47115	30.59
19830-004	5	79	0	07/08/10 09:54:20	12.43	8.45	8.06	47274	30.70
19830-012	5	80	0	07/08/10 09:54:38	12.59	8.69	8.02	47293	30.72
19830-005	5	81	0	07/08/10 09:55:53	12.66	8.61	7.72	47021	30.53
19830-011	5	82	0	07/08/10 09:56:12	12.71	8.66	7.93	46629	30.25
19830-010	5	83	0	07/08/10 09:56:27	12.93	8.58	8.04	47341	30.77
19830-017	5	84	0	07/08/10 09:56:46	13.18	8.48	8.03	47297	30.75
19830-009	5	85	0	07/08/10 09:57:14	14.97	8.10	7.71	47044	30.61
19830-006	5	86	0	07/08/10 09:58:08	13.30	8.01	7.64	47285	30.74
19830-008	5	87	0	07/08/10 09:58:30	13.01	8.41	7.96	47188	30.66
19830-007	5	88	0	07/08/10 09:58:44	12.97	8.61	7.82	47170	30.65
19830-014	5	89	0	07/08/10 09:59:10	12.30	8.83	8.20	47324	30.73
19830-015	5	90	0	07/08/10 09:59:36	12.60	8.74	8.18	47390	30.79
19830-005	6	91	0	07/08/10 10:00:02	12.86	8.71	7.81	47259	30.71
19830-007	6	92	0	07/08/10 10:00:23	12.87	8.72	7.78	47242	30.70
19830-002	6	93	0	07/08/10 10:00:40	12.93	8.68	7.89	47244	30.70
19830-009	6	94	0	07/08/10 10:00:58	13.02	8.62	7.82	47252	30.71
19830-013	6	95	0	07/08/10 10:01:14	13.06	8.61	8.10	47251	30.71
19830-004	6	96	0	07/08/10 10:01:31	12.98	8.68	8.00	47214	30.68

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	6	97	0	07/08/10 10:02:06	12.18	8.92	8.03	47842	31.10
19830-015	6	98	0	07/08/10 10:02:28	12.08	8.87	8.16	47481	30.84
19830-014	6	99	0	07/08/10 10:02:44	12.01	8.82	8.28	47505	30.85
19830-003	6	100	0	07/08/10 10:02:57	12.03	8.82	8.03	47653	30.96
19830-010	6	101	0	07/08/10 10:03:10	12.03	8.86	7.98	47595	30.92
19830-000	6	102	0	07/08/10 10:03:23	12.04	8.93	7.89	47573	30.90
19830-016	6	103	0	07/08/10 10:03:34	12.02	8.95	8.11	47530	30.87
19830-001	6	104	0	07/08/10 10:03:53	12.04	8.86	7.85	47463	30.82
19830-017	6	105	0	07/08/10 10:04:06	11.94	8.86	7.95	47512	30.85
19830-008	6	106	0	07/08/10 10:04:15	11.92	8.92	7.89	47436	30.80
19830-011	6	107	0	07/08/10 10:04:27	11.90	8.77	7.87	47605	30.92
19830-006	6	108	0	07/08/10 10:04:43	12.01	8.78	7.84	47609	30.93
19830-015	7	109	0	07/08/10 10:04:58	12.02	8.96	8.03	48195	31.35
19830-017	7	110	0	07/08/10 10:05:17	12.00	8.90	8.22	48006	31.21
19830-003	7	111	0	07/08/10 10:05:32	11.95	8.94	8.00	47649	30.95
19830-008	7	112	0	07/08/10 10:05:52	12.04	9.02	8.05	46702	30.27
19830-006	7	113	0	07/08/10 10:06:25	12.75	8.77	7.86	47054	30.55
19830-012	7	114	0	07/08/10 10:06:55	12.59	8.73	7.98	46319	30.02
19830-004	7	115	0	07/08/10 10:07:05	12.57	8.65	7.99	47168	30.63
19830-011	7	116	0	07/08/10 10:07:25	12.66	8.62	8.15	47172	30.64
19830-014	7	117	0	07/08/10 10:07:38	12.65	8.61	8.20	47210	30.66
19830-005	7	118	0	07/08/10 10:07:51	12.58	8.67	7.94	47154	30.62
19830-001	7	119	0	07/08/10 10:08:15	12.15	8.82	7.75	47129	30.58
19830-000	7	120	0	07/08/10 10:08:29	12.43	8.75	7.80	47294	30.72
19830-009	7	121	0	07/08/10 10:08:45	12.27	8.85	7.76	47166	30.62
19830-010	7	122	0	07/08/10 10:08:58	12.21	8.72	7.88	47266	30.69
19830-007	7	123	0	07/08/10 10:09:16	12.28	8.38	7.65	47329	30.73
19830-002	7	124	0	07/08/10 10:09:33	12.28	8.25	7.67	47303	30.72
19830-013	7	125	0	07/08/10 10:09:49	12.27	8.46	7.95	47526	30.88
19830-016	7	126	0	07/08/10 10:10:05	12.44	8.64	8.17	47469	30.84
19830-017	8	127	0	07/08/10 10:10:21	12.52	8.73	7.96	47325	30.74
19830-013	8	128	0	07/08/10 10:10:35	12.74	8.73	8.01	47252	30.70
19830-010	8	129	0	07/08/10 10:10:55	12.70	8.72	8.07	47161	30.63
19830-007	8	130	0	07/08/10 10:11:11	12.81	8.74	7.86	47206	30.67
19830-011	8	131	0	07/08/10 10:11:24	12.92	8.65	8.13	47234	30.69
19830-002	8	132	0	07/08/10 10:11:41	12.87	8.60	8.01	46870	30.43
19830-004	8	133	0	07/08/10 10:11:56	12.91	8.58	8.00	47216	30.68
19830-003	8	134	0	07/08/10 10:12:13	12.97	8.63	7.97	47247	30.70
19830-005	8	135	0	07/08/10 10:12:43	12.84	8.60	7.75	47109	30.60
19830-012	8	136	0	07/08/10 10:13:48	12.65	8.35	8.05	44944	29.03
19830-006	8	137	0	07/08/10 10:14:18	12.60	8.65	7.87	47349	30.76
19830-001	8	138	0	07/08/10 10:14:30	12.53	8.80	7.88	47264	30.70
19830-014	8	139	0	07/08/10 10:14:47	12.51	8.77	8.20	46440	30.10
19830-000	8	140	0	07/08/10 10:15:05	12.84	8.67	7.95	47328	30.76
19830-009	8	141	0	07/08/10 10:15:22	12.93	8.73	7.89	47288	30.73
19830-008	8	142	0	07/08/10 10:15:41	12.67	8.77	8.05	47248	30.69
19830-015	8	143	0	07/08/10 10:16:03	12.76	8.64	8.22	47336	30.76
19830-016	8	144	0	07/08/10 10:16:18	12.82	8.50	8.32	47229	30.68
19830-002	1	1	1	07/09/10 09:11:58	11.62	7.94	7.50	47539	30.86
19830-016	1	2	1	07/09/10 09:12:41	11.60	7.84	7.93	45183	29.16
19830-015	1	3	1	07/09/10 09:13:01	11.57	7.66	7.58	47007	30.47
19830-017	1	4	1	07/09/10 09:13:16	11.56	7.23	7.51	47030	30.49
19830-001	1	5	1	07/09/10 09:13:28	11.57	6.79	7.55	47500	30.83

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	1	6	1	07/09/10 09:14:13	11.62	5.02	7.42	47594	30.90
19830-014	1	7	1	07/09/10 09:15:47	11.70	7.33	7.67	47790	31.04
19830-009	1	8	1	07/09/10 09:16:08	11.71	7.51	7.69	47517	30.85
19830-012	1	9	1	07/09/10 09:16:25	11.81	7.60	7.66	47886	31.12
19830-010	1	10	1	07/09/10 09:16:52	12.11	7.71	7.66	47633	30.95
19830-008	1	11	1	07/09/10 09:17:07	12.15	7.74	7.84	47604	30.93
19830-006	1	12	1	07/09/10 09:17:43	12.26	6.59	7.30	47640	30.96
19830-004	1	13	1	07/09/10 09:18:14	12.34	7.13	7.52	47538	30.89
19830-013	1	14	1	07/09/10 09:18:36	12.35	7.37	7.71	47593	30.93
19830-000	1	15	1	07/09/10 09:20:19	12.38	8.15	7.62	47807	31.08
19830-005	1	16	1	07/09/10 09:20:43	12.43	7.92	7.51	47838	31.11
19830-007	1	17	1	07/09/10 09:21:00	12.48	7.71	7.43	47912	31.16
19830-003	1	18	1	07/09/10 09:21:31	12.72	6.79	7.27	47802	31.09
19830-009	2	19	1	07/09/10 09:35:20	11.50	7.08	7.52	47587	30.89
19830-016	2	20	1	07/09/10 09:35:39	11.47	7.11	7.95	47575	30.88
19830-007	2	21	1	07/09/10 09:36:12	11.58	6.92	7.38	47241	30.64
19830-015	2	22	1	07/09/10 09:36:38	11.63	6.85	7.65	47266	30.66
19830-008	2	23	1	07/09/10 09:37:06	11.69	5.72	7.29	47256	30.66
19830-002	2	24	1	07/09/10 09:37:50	11.71	6.97	7.47	47273	30.67
19830-012	2	25	1	07/09/10 09:38:13	11.74	7.23	7.57	47493	30.83
19830-004	2	26	1	07/09/10 09:38:38	11.87	7.27	7.50	47586	30.90
19830-000	2	27	1	07/09/10 09:39:07	12.19	7.73	7.56	47714	31.01
19830-003	2	28	1	07/09/10 09:39:44	12.26	7.12	7.38	47234	30.66
19830-011	2	29	1	07/09/10 09:40:13	12.32	7.26	7.82	47475	30.84
19830-017	2	30	1	07/09/10 09:40:56	12.37	7.30	7.60	47456	30.83
19830-014	2	31	1	07/09/10 09:42:27	12.32	7.11	7.77	47620	30.95
19830-001	2	32	1	07/09/10 09:42:55	12.22	7.08	7.51	47587	30.92
19830-013	2	33	1	07/09/10 09:43:15	12.24	7.14	7.77	47664	30.97
19830-010	2	34	1	07/09/10 09:43:39	12.43	7.36	7.67	47630	30.96
19830-006	2	35	1	07/09/10 09:44:17	11.48	7.34	7.41	47655	30.93
19830-005	2	36	1	07/09/10 09:44:37	11.41	7.31	7.40	47729	30.98
19830-013	3	37	1	07/09/10 09:45:09	11.41	7.40	7.75	47770	31.01
19830-009	3	38	1	07/09/10 09:45:44	11.48	7.65	7.61	47619	30.91
19830-017	3	39	1	07/09/10 09:46:05	11.53	7.62	7.67	47400	30.75
19830-016	3	40	1	07/09/10 09:46:24	11.56	7.65	7.85	47784	31.03
19830-000	3	41	1	07/09/10 09:46:50	11.69	8.18	7.65	47675	30.96
19830-010	3	42	1	07/09/10 09:47:17	11.77	8.21	7.61	47649	30.94
19830-008	3	43	1	07/09/10 09:47:46	12.02	7.73	7.60	47690	30.98
19830-014	3	44	1	07/09/10 09:48:12	12.09	7.26	7.58	47561	30.89
19830-004	3	45	1	07/09/10 09:48:43	12.02	7.36	7.53	47674	30.97
19830-006	3	46	1	07/09/10 09:48:59	12.20	7.32	7.38	47626	30.95
19830-005	3	47	1	07/09/10 09:49:18	12.25	6.93	7.37	47602	30.93
19830-011	3	48	1	07/09/10 09:49:50	11.91	7.25	7.65	47806	31.06
19830-002	3	49	1	07/09/10 09:50:15	12.23	7.13	7.60	47519	30.87
19830-012	3	50	1	07/09/10 09:50:42	12.34	6.98	7.66	47478	30.84
19830-001	3	51	1	07/09/10 09:51:00	12.39	7.19	7.67	48108	31.30
19830-003	3	52	1	07/09/10 09:51:38	12.50	7.62	7.64	48010	31.24
19830-007	3	53	1	07/09/10 09:52:08	12.52	6.47	7.25	47792	31.08
19830-015	3	54	1	07/09/10 09:52:31	12.51	6.78	7.86	47826	31.10
19830-006	4	55	1	07/09/10 09:53:09	12.44	6.59	7.33	47737	31.04
19830-011	4	56	1	07/09/10 09:53:39	12.35	7.02	7.72	47726	31.02
19830-012	4	57	1	07/09/10 09:53:57	12.30	7.38	7.76	47815	31.09
19830-010	4	58	1	07/09/10 09:54:12	12.27	7.64	7.68	48177	31.35
19830-015	4	59	1	07/09/10 10:01:52	12.24	7.84	7.80	48068	31.27

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	4	60	1	07/09/10 10:02:19	12.05	7.64	7.68	47976	31.19
19830-001	4	61	1	07/09/10 10:02:39	12.04	7.49	7.78	48029	31.23
19830-016	4	62	1	07/09/10 10:02:52	12.05	7.35	7.86	47968	31.19
19830-008	4	63	1	07/09/10 10:03:13	12.01	7.34	7.68	47962	31.18
19830-004	4	64	1	07/09/10 10:03:37	11.92	7.26	7.55	47879	31.12
19830-007	4	65	1	07/09/10 10:04:25	12.10	5.31	7.12	47759	31.04
19830-014	4	66	1	07/09/10 10:05:03	12.10	6.65	7.62	47796	31.06
19830-000	4	67	1	07/09/10 10:05:34	12.06	7.41	7.52	47827	31.08
19830-017	4	68	1	07/09/10 10:06:05	12.05	6.79	7.65	47550	30.88
19830-013	4	69	1	07/09/10 10:06:42	12.05	7.47	7.74	47754	31.03
19830-002	4	70	1	07/09/10 10:06:58	12.05	7.53	7.71	47628	30.94
19830-005	4	71	1	07/09/10 10:07:26	12.01	6.98	7.33	47711	31.00
19830-003	4	72	1	07/09/10 10:07:56	12.05	7.37	7.61	47765	31.04
19830-016	5	73	1	07/09/10 10:08:19	12.03	7.52	7.82	47741	31.02
19830-003	5	74	1	07/09/10 10:08:55	12.03	6.66	7.43	47665	30.97
19830-000	5	75	1	07/09/10 10:09:25	12.06	7.37	7.54	47760	31.04
19830-013	5	76	1	07/09/10 10:09:35	12.06	7.61	7.57	47685	30.98
19830-001	5	77	1	07/09/10 10:09:48	12.04	7.49	7.65	47562	30.89
19830-002	5	78	1	07/09/10 10:10:16	12.01	7.14	7.67	47593	30.91
19830-004	5	79	1	07/09/10 10:10:35	11.98	7.05	7.55	47650	30.95
19830-012	5	80	1	07/09/10 10:10:46	11.91	7.21	7.65	47712	30.99
19830-005	5	81	1	07/09/10 10:11:42	12.03	6.91	7.33	47747	31.03
19830-011	5	82	1	07/09/10 10:12:13	11.96	7.22	7.77	47755	31.03
19830-010	5	83	1	07/09/10 10:12:32	11.91	7.41	7.74	47731	31.01
19830-017	5	84	1	07/09/10 10:12:50	11.91	7.46	7.61	47510	30.85
19830-009	5	85	1	07/09/10 10:13:26	11.88	6.15	7.42	47563	30.89
19830-006	5	86	1	07/09/10 10:13:52	11.86	5.59	7.24	47663	30.96
19830-008	5	87	1	07/09/10 10:14:30	11.84	7.58	7.72	47715	30.99
19830-007	5	88	1	07/09/10 10:15:04	11.81	7.45	7.36	47343	30.72
19830-014	5	89	1	07/09/10 10:15:30	11.88	7.62	7.67	47874	31.11
19830-015	5	90	1	07/09/10 10:15:46	11.83	7.73	7.81	47807	31.06
19830-005	6	91	1	07/09/10 10:16:04	11.80	7.80	7.57	47735	31.01
19830-007	6	92	1	07/09/10 10:16:33	11.75	7.56	7.37	47746	31.01
19830-002	6	93	1	07/09/10 10:16:53	11.73	7.52	7.63	47638	30.93
19830-009	6	94	1	07/09/10 10:17:28	11.69	6.93	7.53	47635	30.93
19830-013	6	95	1	07/09/10 10:17:47	11.63	7.05	7.79	47510	30.84
19830-004	6	96	1	07/09/10 10:18:02	11.60	7.42	7.69	47704	30.97
19830-012	6	97	1	07/09/10 10:18:44	12.02	7.81	7.74	48005	31.21
19830-015	6	98	1	07/09/10 10:18:59	11.95	7.76	7.71	47924	31.15
19830-014	6	99	1	07/09/10 10:19:11	11.91	7.57	7.76	47876	31.11
19830-003	6	100	1	07/09/10 10:19:23	11.92	7.49	7.67	47965	31.18
19830-010	6	101	1	07/09/10 10:19:48	11.93	7.59	7.69	48110	31.28
19830-000	6	102	1	07/09/10 10:20:10	11.91	7.92	7.66	48048	31.24
19830-016	6	103	1	07/09/10 10:20:29	11.93	8.01	7.86	48004	31.21
19830-001	6	104	1	07/09/10 10:20:48	11.99	7.73	7.69	47907	31.14
19830-017	6	105	1	07/09/10 10:21:10	12.06	7.88	7.79	47915	31.15
19830-008	6	106	1	07/09/10 10:21:23	12.04	7.77	7.62	47837	31.09
19830-011	6	107	1	07/09/10 10:21:38	12.02	7.24	7.62	48024	31.23
19830-006	6	108	1	07/09/10 10:22:00	11.94	7.15	7.48	47997	31.20
19830-015	7	109	1	07/09/10 10:22:22	11.86	7.29	7.80	48263	31.39
19830-017	7	110	1	07/09/10 10:22:44	11.79	7.70	7.85	47739	31.01
19830-003	7	111	1	07/09/10 10:23:00	11.67	7.83	7.69	47942	31.15
19830-008	7	112	1	07/09/10 10:23:18	11.49	7.88	7.76	48084	31.24
19830-006	7	113	1	07/09/10 10:24:14	12.35	5.92	7.30	47513	30.87

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	7	114	1	07/09/10 10:24:51	12.31	7.44	7.71	47606	30.94
19830-004	7	115	1	07/09/10 10:25:11	12.30	7.74	7.65	47613	30.94
19830-011	7	116	1	07/09/10 10:25:27	12.29	7.77	7.80	47536	30.88
19830-014	7	117	1	07/09/10 10:25:52	12.23	7.83	7.86	47688	30.99
19830-005	7	118	1	07/09/10 10:26:20	12.22	7.40	7.44	47642	30.96
19830-001	7	119	1	07/09/10 10:26:37	12.18	7.31	7.54	47461	30.83
19830-000	7	120	1	07/09/10 10:26:59	12.20	7.83	7.59	47635	30.95
19830-009	7	121	1	07/09/10 10:27:27	11.89	7.85	7.58	47663	30.96
19830-010	7	122	1	07/09/10 10:27:40	11.79	7.67	7.55	47712	30.99
19830-007	7	123	1	07/09/10 10:27:56	11.70	7.24	7.37	47776	31.03
19830-002	7	124	1	07/09/10 10:28:10	11.65	6.94	7.43	47696	30.97
19830-013	7	125	1	07/09/10 10:28:26	11.57	7.37	7.63	47929	31.14
19830-016	7	126	1	07/09/10 10:28:39	11.56	7.63	7.75	47885	31.10
19830-017	8	127	1	07/09/10 10:28:57	11.51	7.53	7.72	47745	31.00
19830-013	8	128	1	07/09/10 10:29:15	11.45	7.72	7.69	47500	30.82
19830-010	8	129	1	07/09/10 10:29:39	12.18	7.73	7.75	47699	31.00
19830-007	8	130	1	07/09/10 10:30:01	12.23	7.65	7.44	47536	30.88
19830-011	8	131	1	07/09/10 10:30:27	12.12	7.01	7.79	47614	30.93
19830-002	8	132	1	07/09/10 10:30:44	12.14	6.74	7.67	47459	30.82
19830-004	8	133	1	07/09/10 10:31:02	12.10	6.89	7.57	47625	30.94
19830-003	8	134	1	07/09/10 10:31:24	12.02	7.64	7.66	47679	30.98
19830-005	8	135	1	07/09/10 10:31:59	11.95	7.01	7.36	47617	30.93
19830-012	8	136	1	07/09/10 10:32:22	11.87	7.15	7.67	47694	30.98
19830-006	8	137	1	07/09/10 10:32:48	11.69	7.17	7.47	47849	31.08
19830-001	8	138	1	07/09/10 10:33:14	11.59	7.28	7.63	47728	30.99
19830-014	8	139	1	07/09/10 10:33:36	11.55	7.71	7.77	47804	31.04
19830-000	8	140	1	07/09/10 10:33:52	11.55	7.99	7.67	47802	31.04
19830-009	8	141	1	07/09/10 10:34:26	11.52	7.78	7.68	47640	30.92
19830-008	8	142	1	07/09/10 10:34:46	11.48	7.88	7.85	47780	31.02
19830-015	8	143	1	07/09/10 10:35:03	11.47	8.12	7.85	47806	31.04
19830-016	8	144	1	07/09/10 10:35:23	11.50	7.64	7.73	47643	30.93
19830-002	1	1	2	07/10/10 13:24:56	13.26	7.94	7.57	47439	30.85
19830-016	1	2	2	07/10/10 13:25:27	13.13	7.55	7.70	45587	29.51
19830-015	1	3	2	07/10/10 13:25:45	13.09	7.28	7.60	47548	30.92
19830-017	1	4	2	07/10/10 13:26:01	13.09	7.05	7.48	47306	30.75
19830-001	1	5	2	07/10/10 13:26:13	13.12	6.45	7.46	47409	30.82
19830-011	1	6	2	07/10/10 13:26:31	13.18	6.36	7.65	47570	30.94
19830-014	1	7	2	07/10/10 13:26:52	13.26	6.88	7.59	47671	31.02
19830-009	1	8	2	07/10/10 13:27:10	13.29	6.72	7.56	47317	30.76
19830-012	1	9	2	07/10/10 13:27:32	13.41	6.67	7.57	47604	30.97
19830-010	1	10	2	07/10/10 13:27:54	13.53	7.04	7.64	47687	31.04
19830-008	1	11	2	07/10/10 13:28:11	13.55	7.39	7.76	47586	30.97
19830-006	1	12	2	07/10/10 13:28:36	13.63	6.54	7.36	47541	30.94
19830-004	1	13	2	07/10/10 13:28:58	13.72	6.58	7.43	47609	30.99
19830-013	1	14	2	07/10/10 13:29:23	13.79	6.85	7.68	47527	30.93
19830-000	1	15	2	07/10/10 13:29:48	13.77	7.29	7.59	47687	31.05
19830-005	1	16	2	07/10/10 13:30:12	13.78	7.59	7.51	47743	31.09
19830-007	1	17	2	07/10/10 13:30:30	13.79	7.45	7.41	47830	31.15
19830-003	1	18	2	07/10/10 13:30:50	13.95	7.19	7.46	47813	31.14
19830-009	2	19	2	07/10/10 13:31:22	13.12	7.39	7.53	47470	30.87
19830-016	2	20	2	07/10/10 13:31:42	13.03	6.94	7.55	47555	30.93
19830-007	2	21	2	07/10/10 13:32:04	13.09	6.08	7.25	47328	30.76
19830-015	2	22	2	07/10/10 13:32:27	13.07	6.18	7.39	47523	30.91

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	2	23	2	07/10/10 13:32:45	13.06	6.66	7.60	47491	30.88
19830-002	2	24	2	07/10/10 13:33:03	13.06	7.05	7.58	47426	30.83
19830-012	2	25	2	07/10/10 13:33:21	13.11	6.94	7.61	47443	30.85
19830-004	2	26	2	07/10/10 13:33:36	13.27	6.75	7.51	47620	30.98
19830-000	2	27	2	07/10/10 13:34:04	13.64	7.44	7.56	47615	30.99
19830-003	2	28	2	07/10/10 13:34:20	13.64	7.63	7.55	47328	30.78
19830-011	2	29	2	07/10/10 13:34:39	13.71	7.27	7.67	47563	30.96
19830-017	2	30	2	07/10/10 13:35:01	13.77	6.98	7.57	47525	30.93
19830-014	2	31	2	07/10/10 13:35:29	13.69	6.82	7.63	47596	30.98
19830-001	2	32	2	07/10/10 13:35:50	13.64	6.70	7.44	47483	30.90
19830-013	2	33	2	07/10/10 13:36:07	13.67	6.66	7.64	47608	30.99
19830-010	2	34	2	07/10/10 13:36:26	13.87	6.97	7.62	47625	31.00
19830-006	2	35	2	07/10/10 13:36:57	13.08	6.89	7.29	47568	30.94
19830-005	2	36	2	07/10/10 13:37:33	12.97	6.55	7.32	47458	30.85
19830-013	3	37	2	07/10/10 13:37:49	12.95	6.51	7.47	47693	31.02
19830-009	3	38	2	07/10/10 13:38:08	13.03	6.43	7.52	47602	30.96
19830-017	3	39	2	07/10/10 13:38:25	13.08	6.84	7.45	47462	30.86
19830-016	3	40	2	07/10/10 13:38:50	13.12	6.78	7.79	47674	31.02
19830-000	3	41	2	07/10/10 13:39:10	13.22	7.41	7.68	47568	30.94
19830-010	3	42	2	07/10/10 13:39:28	13.28	7.73	7.57	47565	30.94
19830-008	3	43	2	07/10/10 13:39:49	13.48	7.44	7.53	47607	30.98
19830-014	3	44	2	07/10/10 13:40:04	13.52	7.17	7.57	47571	30.95
19830-004	3	45	2	07/10/10 13:40:31	13.47	6.96	7.53	47616	30.99
19830-006	3	46	2	07/10/10 13:40:59	13.66	6.45	7.25	47536	30.93
19830-005	3	47	2	07/10/10 13:41:21	13.69	5.96	7.20	47551	30.95
19830-011	3	48	2	07/10/10 13:41:39	13.42	5.63	7.57	47801	31.12
19830-002	3	49	2	07/10/10 13:41:59	13.60	6.38	7.63	47536	30.93
19830-012	3	50	2	07/10/10 13:42:17	13.79	6.74	7.68	47580	30.97
19830-001	3	51	2	07/10/10 13:42:46	14.01	6.95	7.67	47655	31.03
19830-003	3	52	2	07/10/10 13:43:07	14.01	7.20	7.65	47696	31.06
19830-007	3	53	2	07/10/10 13:43:37	14.00	6.45	7.23	47678	31.05
19830-015	3	54	2	07/10/10 13:43:54	14.00	6.02	7.47	47716	31.07
19830-006	4	55	2	07/10/10 13:44:13	13.92	6.76	7.37	47691	31.05
19830-011	4	56	2	07/10/10 13:44:34	13.81	6.83	7.67	47607	30.99
19830-012	4	57	2	07/10/10 13:45:02	13.74	7.13	7.76	47723	31.07
19830-010	4	58	2	07/10/10 13:45:28	13.76	7.13	7.65	47826	31.15
19830-015	4	59	2	07/10/10 13:45:48	13.69	7.01	7.56	47915	31.21
19830-009	4	60	2	07/10/10 13:46:11	13.54	6.99	7.53	47876	31.18
19830-001	4	61	2	07/10/10 13:46:41	13.56	6.56	7.64	47839	31.15
19830-016	4	62	2	07/10/10 13:47:05	13.58	6.51	7.68	47841	31.15
19830-008	4	63	2	07/10/10 13:47:22	13.52	6.59	7.55	47752	31.09
19830-004	4	64	2	07/10/10 13:47:36	13.45	6.62	7.47	47710	31.05
19830-007	4	65	2	07/10/10 13:48:03	13.61	6.36	7.25	47768	31.10
19830-014	4	66	2	07/10/10 13:48:20	13.59	5.84	7.40	47741	31.08
19830-000	4	67	2	07/10/10 13:48:39	13.53	6.35	7.44	47696	31.05
19830-017	4	68	2	07/10/10 13:49:03	13.49	6.35	7.56	47596	30.97
19830-013	4	69	2	07/10/10 13:49:17	13.49	6.02	7.67	47685	31.04
19830-002	4	70	2	07/10/10 13:49:34	13.47	6.73	7.73	47597	30.97
19830-005	4	71	2	07/10/10 13:49:52	13.44	6.88	7.46	47626	30.99
19830-003	4	72	2	07/10/10 13:50:17	13.51	6.86	7.50	47660	31.02
19830-016	5	73	2	07/10/10 13:50:33	13.48	6.99	7.60	47698	31.05
19830-003	5	74	2	07/10/10 13:50:49	13.45	6.73	7.49	47623	30.99
19830-000	5	75	2	07/10/10 13:51:01	13.48	6.47	7.44	47666	31.02
19830-013	5	76	2	07/10/10 13:51:15	13.48	6.56	7.50	47641	31.00

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	5	77	2	07/10/10 13:51:31	13.43	6.51	7.61	47552	30.94
19830-002	5	78	2	07/10/10 13:51:50	13.41	6.85	7.70	47536	30.93
19830-004	5	79	2	07/10/10 13:52:12	13.39	6.75	7.49	47569	30.95
19830-012	5	80	2	07/10/10 13:52:41	13.39	7.18	7.75	47606	30.98
19830-005	5	81	2	07/10/10 13:53:03	13.53	7.29	7.49	47748	31.08
19830-011	5	82	2	07/10/10 13:53:27	13.46	6.17	7.43	47631	31.00
19830-010	5	83	2	07/10/10 13:53:46	13.39	6.12	7.66	47694	31.04
19830-017	5	84	2	07/10/10 13:54:01	13.36	6.63	7.52	47615	30.98
19830-009	5	85	2	07/10/10 13:54:19	13.32	5.85	7.49	47553	30.93
19830-006	5	86	2	07/10/10 13:54:41	13.29	5.74	7.26	47626	30.99
19830-008	5	87	2	07/10/10 13:54:56	13.27	5.33	7.46	47604	30.97
19830-007	5	88	2	07/10/10 13:55:14	13.27	6.62	7.46	47724	31.06
19830-014	5	89	2	07/10/10 13:55:37	13.42	6.96	7.64	47742	31.07
19830-015	5	90	2	07/10/10 13:55:56	13.34	7.16	7.64	47718	31.06
19830-005	6	91	2	07/10/10 13:56:14	13.28	7.31	7.53	47672	31.02
19830-007	6	92	2	07/10/10 13:56:39	13.23	7.41	7.46	47683	31.03
19830-002	6	93	2	07/10/10 13:57:01	13.20	7.25	7.68	47606	30.97
19830-009	6	94	2	07/10/10 13:57:28	13.17	6.89	7.52	47603	30.97
19830-013	6	95	2	07/10/10 13:57:47	13.12	6.73	7.74	47513	30.90
19830-004	6	96	2	07/10/10 13:58:06	13.14	7.18	7.62	47630	30.98
19830-012	6	97	2	07/10/10 13:58:47	13.72	7.30	7.69	47639	31.01
19830-015	6	98	2	07/10/10 13:59:04	13.63	7.11	7.63	47786	31.11
19830-014	6	99	2	07/10/10 13:59:22	13.56	6.87	7.71	47796	31.12
19830-003	6	100	2	07/10/10 13:59:45	13.56	7.15	7.58	47848	31.16
19830-010	6	101	2	07/10/10 13:59:58	13.56	7.30	7.67	47948	31.23
19830-000	6	102	2	07/10/10 14:00:33	13.52	7.80	7.66	47438	30.86
19830-016	6	103	2	07/10/10 14:00:52	13.54	7.64	7.78	47887	31.18
19830-001	6	104	2	07/10/10 14:01:08	13.63	7.31	7.74	47897	31.19
19830-017	6	105	2	07/10/10 14:01:24	13.72	7.45	7.68	47847	31.16
19830-008	6	106	2	07/10/10 14:01:41	13.70	7.28	7.70	47999	31.27
19830-011	6	107	2	07/10/10 14:02:06	13.68	7.00	7.67	47784	31.11
19830-006	6	108	2	07/10/10 14:02:27	13.61	6.82	7.46	47832	31.15
19830-015	7	109	2	07/10/10 14:02:43	13.53	6.85	7.64	47849	31.16
19830-017	7	110	2	07/10/10 14:02:57	13.46	6.99	7.73	47504	30.90
19830-003	7	111	2	07/10/10 14:03:18	13.30	7.29	7.59	47748	31.08
19830-008	7	112	2	07/10/10 14:03:39	13.15	7.47	7.73	47801	31.11
19830-006	7	113	2	07/10/10 14:04:20	13.90	7.01	7.43	47495	30.91
19830-012	7	114	2	07/10/10 14:04:48	13.76	7.17	7.75	47529	30.93
19830-004	7	115	2	07/10/10 14:05:08	13.71	7.42	7.67	47522	30.93
19830-011	7	116	2	07/10/10 14:05:31	13.67	7.35	7.77	47503	30.91
19830-014	7	117	2	07/10/10 14:05:50	13.63	7.37	7.85	47631	31.00
19830-005	7	118	2	07/10/10 14:06:08	13.62	7.45	7.51	47529	30.93
19830-001	7	119	2	07/10/10 14:06:29	13.60	7.21	7.59	47458	30.88
19830-000	7	120	2	07/10/10 14:07:04	13.72	7.76	7.63	45778	29.67
19830-009	7	121	2	07/10/10 14:07:24	13.47	7.68	7.59	47607	30.98
19830-010	7	122	2	07/10/10 14:07:43	13.28	7.24	7.57	47680	31.03
19830-007	7	123	2	07/10/10 14:08:03	13.22	7.03	7.43	47685	31.03
19830-002	7	124	2	07/10/10 14:08:24	13.19	7.12	7.54	46679	30.30
19830-013	7	125	2	07/10/10 14:08:47	13.11	7.30	7.70	47773	31.09
19830-016	7	126	2	07/10/10 14:09:08	13.13	7.17	7.70	47695	31.03
19830-017	8	127	2	07/10/10 14:09:25	13.09	7.01	7.68	47637	30.99
19830-013	8	128	2	07/10/10 14:09:41	13.05	7.16	7.70	47520	30.90
19830-010	8	129	2	07/10/10 14:10:15	13.69	7.43	7.75	47525	30.93
19830-007	8	130	2	07/10/10 14:10:35	13.65	7.42	7.52	47512	30.92

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	8	131	2	07/10/10 14:11:02	13.52	6.70	7.59	47534	30.93
19830-002	8	132	2	07/10/10 14:11:22	13.51	6.17	7.55	47439	30.86
19830-004	8	133	2	07/10/10 14:11:37	13.44	6.33	7.57	47553	30.94
19830-003	8	134	2	07/10/10 14:11:54	13.38	7.12	7.66	47556	30.94
19830-005	8	135	2	07/10/10 14:12:15	13.34	7.12	7.41	47592	30.96
19830-012	8	136	2	07/10/10 14:12:35	13.33	6.88	7.60	47638	31.00
19830-006	8	137	2	07/10/10 14:12:58	13.21	6.80	7.35	47737	31.06
19830-001	8	138	2	07/10/10 14:13:12	13.10	6.62	7.56	47621	30.98
19830-014	8	139	2	07/10/10 14:13:22	13.02	6.95	7.70	47708	31.04
19830-000	8	140	2	07/10/10 14:13:34	13.00	7.24	7.69	47740	31.06
19830-009	8	141	2	07/10/10 14:13:50	12.99	7.71	7.74	47516	30.90
19830-008	8	142	2	07/10/10 14:14:14	12.98	7.77	7.87	47713	31.04
19830-015	8	143	2	07/10/10 14:14:37	12.98	7.54	7.72	47498	30.88
19830-016	8	144	2	07/10/10 14:14:51	13.01	7.29	7.66	47754	31.07
19830-002	1	1	3	07/11/10 12:57:05	12.98	7.99	7.65	47712	31.04
19830-016	1	2	3	07/11/10 12:57:50	12.89	7.75	7.71	45551	29.48
19830-015	1	3	3	07/11/10 13:00:31	12.89	6.68	7.48	47619	30.97
19830-017	1	4	3	07/11/10 13:00:48	12.90	7.01	7.48	47504	30.89
19830-001	1	5	3	07/11/10 13:01:05	12.96	6.70	7.48	47495	30.88
19830-011	1	6	3	07/11/10 13:01:29	13.03	6.79	7.68	47638	30.99
19830-014	1	7	3	07/11/10 13:01:49	13.11	6.96	7.62	47722	31.05
19830-009	1	8	3	07/11/10 13:02:05	13.15	6.83	7.60	47429	30.84
19830-012	1	9	3	07/11/10 13:02:28	13.29	6.71	7.65	47692	31.03
19830-010	1	10	3	07/11/10 13:02:45	13.39	7.00	7.67	47775	31.10
19830-008	1	11	3	07/11/10 13:03:07	13.42	7.35	7.82	47687	31.04
19830-006	1	12	3	07/11/10 13:03:41	13.49	6.25	7.35	47666	31.02
19830-004	1	13	3	07/11/10 13:04:52	13.61	6.71	7.56	47468	30.88
19830-013	1	14	3	07/11/10 13:05:48	13.65	6.69	7.75	47419	30.85
19830-000	1	15	3	07/11/10 13:06:27	13.66	7.79	7.60	47751	31.09
19830-005	1	16	3	07/11/10 13:07:34	13.81	8.09	7.50	47796	31.13
19830-007	1	17	3	07/11/10 13:08:13	13.88	7.87	7.44	47885	31.19
19830-003	1	18	3	07/11/10 13:08:40	14.10	7.59	7.53	47807	31.14
19830-009	2	19	3	07/11/10 13:09:15	13.31	7.67	7.61	47554	30.94
19830-016	2	20	3	07/11/10 13:09:43	13.13	6.93	7.54	47514	30.90
19830-007	2	21	3	07/11/10 13:10:07	13.26	6.53	7.32	47346	30.78
19830-015	2	22	3	07/11/10 13:10:44	13.21	3.05	7.06	47558	30.94
19830-008	2	23	3	07/11/10 13:11:31	13.24	6.83	7.57	47567	30.94
19830-002	2	24	3	07/11/10 13:11:59	13.33	7.20	7.62	47472	30.88
19830-012	2	25	3	07/11/10 13:12:22	13.47	7.44	7.74	47379	30.81
19830-004	2	26	3	07/11/10 13:13:20	13.96	6.93	7.52	47393	30.84
19830-000	2	27	3	07/11/10 13:13:46	13.95	7.77	7.62	47610	31.00
19830-003	2	28	3	07/11/10 13:14:02	14.08	7.98	7.60	47456	30.89
19830-011	2	29	3	07/11/10 13:14:31	14.15	7.55	7.76	47599	30.99
19830-017	2	30	3	07/11/10 13:14:51	14.12	7.52	7.66	47617	31.01
19830-014	2	31	3	07/11/10 13:15:19	14.08	7.21	7.66	47647	31.03
19830-001	2	32	3	07/11/10 13:15:45	14.11	7.04	7.52	47551	30.96
19830-013	2	33	3	07/11/10 13:16:12	14.03	7.43	7.81	47673	31.04
19830-010	2	34	3	07/11/10 13:16:47	14.28	7.33	7.69	47584	30.99
19830-006	2	35	3	07/11/10 13:17:36	13.68	7.46	7.44	47534	30.93
19830-005	2	36	3	07/11/10 13:17:56	13.66	7.43	7.43	47634	31.00
19830-013	3	37	3	07/11/10 13:18:29	13.82	7.18	7.61	47686	31.05
19830-009	3	38	3	07/11/10 13:18:44	13.91	7.23	7.62	47605	30.99
19830-017	3	39	3	07/11/10 13:19:26	13.92	6.86	7.55	47459	30.89

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	3	40	3	07/11/10 13:19:50	13.92	7.35	7.82	47660	31.03
19830-000	3	41	3	07/11/10 13:20:24	13.99	8.26	7.69	47576	30.97
19830-010	3	42	3	07/11/10 13:21:06	14.04	7.98	7.54	47530	30.94
19830-008	3	43	3	07/11/10 13:21:36	13.92	7.77	7.62	47560	30.96
19830-014	3	44	3	07/11/10 13:21:59	14.19	7.64	7.66	47650	31.03
19830-004	3	45	3	07/11/10 13:22:15	14.25	7.60	7.64	47639	31.03
19830-006	3	46	3	07/11/10 13:22:40	14.54	7.21	7.47	47514	30.94
19830-005	3	47	3	07/11/10 13:23:03	14.68	6.73	7.42	47567	30.98
19830-011	3	48	3	07/11/10 13:23:37	14.61	7.25	7.71	47779	31.14
19830-002	3	49	3	07/11/10 13:24:07	14.59	7.41	7.68	47562	30.98
19830-012	3	50	3	07/11/10 13:24:34	14.96	7.49	7.73	47587	31.01
19830-001	3	51	3	07/11/10 13:27:34	14.03	7.05	7.81	47757	31.10
19830-003	3	52	3	07/11/10 13:27:54	14.02	7.66	7.72	47726	31.08
19830-007	3	53	3	07/11/10 13:29:07	13.98	5.64	7.31	47704	31.07
19830-015	3	54	3	07/11/10 13:29:39	14.02	7.14	7.52	47770	31.11
19830-006	4	55	3	07/11/10 13:30:13	13.97	6.65	7.37	47774	31.11
19830-011	4	56	3	07/11/10 13:30:32	13.87	6.85	7.76	47528	30.93
19830-012	4	57	3	07/11/10 13:30:53	13.81	7.47	7.82	47806	31.13
19830-010	4	58	3	07/11/10 13:31:17	13.78	7.72	7.74	47903	31.20
19830-015	4	59	3	07/11/10 13:32:00	13.73	7.22	7.55	48001	31.27
19830-009	4	60	3	07/11/10 13:32:26	13.67	7.24	7.58	47956	31.24
19830-001	4	61	3	07/11/10 13:33:03	13.78	6.73	7.70	46987	30.54
19830-016	4	62	3	07/11/10 13:33:21	13.81	6.80	7.72	47895	31.20
19830-008	4	63	3	07/11/10 13:33:46	13.69	7.11	7.61	47840	31.15
19830-004	4	64	3	07/11/10 13:34:18	13.70	6.84	7.46	47799	31.13
19830-007	4	65	3	07/11/10 13:35:08	14.15	6.54	7.37	47508	30.93
19830-014	4	66	3	07/11/10 13:35:33	14.01	6.65	7.53	47768	31.11
19830-000	4	67	3	07/11/10 13:35:56	13.92	7.13	7.53	47742	31.09
19830-017	4	68	3	07/11/10 13:36:17	13.95	7.16	7.66	47709	31.07
19830-013	4	69	3	07/11/10 13:36:44	14.03	7.32	7.77	47724	31.08
19830-002	4	70	3	07/11/10 13:37:06	13.97	7.46	7.80	47677	31.05
19830-005	4	71	3	07/11/10 13:37:31	13.91	7.34	7.53	47698	31.06
19830-003	4	72	3	07/11/10 13:39:01	14.05	6.68	7.59	46517	30.21
19830-016	5	73	3	07/11/10 13:39:22	13.94	7.14	7.69	47703	31.06
19830-003	5	74	3	07/11/10 13:39:51	13.90	6.97	7.52	47678	31.04
19830-000	5	75	3	07/11/10 13:40:32	13.97	7.42	7.55	47652	31.03
19830-013	5	76	3	07/11/10 13:41:01	13.96	7.27	7.67	47664	31.04
19830-001	5	77	3	07/11/10 13:41:29	13.97	7.44	7.73	47610	31.00
19830-002	5	78	3	07/11/10 13:42:06	13.80	7.09	7.74	47615	31.00
19830-004	5	79	3	07/11/10 13:42:27	13.80	7.09	7.57	47618	31.00
19830-012	5	80	3	07/11/10 13:42:56	13.80	7.68	7.85	47654	31.02
19830-005	5	81	3	07/11/10 13:43:54	14.24	6.33	7.43	47712	31.08
19830-011	5	82	3	07/11/10 13:44:27	14.22	6.56	7.58	47671	31.05
19830-010	5	83	3	07/11/10 13:44:58	14.20	7.31	7.77	47734	31.09
19830-017	5	84	3	07/11/10 13:45:36	14.30	6.44	7.57	47630	31.02
19830-009	5	85	3	07/11/10 13:45:58	14.15	6.95	7.61	47651	31.03
19830-006	5	86	3	07/11/10 13:46:38	14.24	6.10	7.36	47458	30.89
19830-008	5	87	3	07/11/10 13:47:06	14.11	7.38	7.71	47667	31.04
19830-007	5	88	3	07/11/10 13:47:35	14.16	7.50	7.54	47711	31.07
19830-014	5	89	3	07/11/10 13:48:22	13.85	7.60	7.79	47625	31.00
19830-015	5	90	3	07/11/10 13:48:36	13.97	7.57	7.73	47814	31.14
19830-005	6	91	3	07/11/10 13:48:52	14.23	7.73	7.64	47693	31.06
19830-007	6	92	3	07/11/10 13:49:11	14.17	7.74	7.55	47680	31.05
19830-002	6	93	3	07/11/10 13:49:24	14.24	7.54	7.67	47697	31.07

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	6	94	3	07/11/10 13:49:36	14.52	7.48	7.67	47717	31.09
19830-013	6	95	3	07/11/10 13:49:52	14.47	7.54	7.78	47578	30.99
19830-004	6	96	3	07/11/10 13:50:11	14.53	7.74	7.69	47639	31.03
19830-012	6	97	3	07/11/10 13:56:22	14.04	7.32	7.75	47729	31.08
19830-015	6	98	3	07/11/10 13:56:40	13.97	7.42	7.65	47782	31.12
19830-014	6	99	3	07/11/10 13:56:59	13.89	7.42	7.80	47829	31.15
19830-003	6	100	3	07/11/10 13:57:13	13.91	7.50	7.71	47856	31.17
19830-010	6	101	3	07/11/10 13:57:35	13.87	7.80	7.77	46781	30.39
19830-000	6	102	3	07/11/10 13:58:16	13.90	7.75	7.73	47651	31.02
19830-016	6	103	3	07/11/10 13:58:39	13.90	7.62	7.72	47695	31.06
19830-001	6	104	3	07/11/10 14:00:17	13.89	6.81	7.86	47888	31.20
19830-017	6	105	3	07/11/10 14:01:50	14.00	7.39	7.85	47455	30.88
19830-008	6	106	3	07/11/10 14:02:41	13.99	7.12	7.80	47826	31.15
19830-011	6	107	3	07/11/10 14:02:52	13.97	7.17	7.77	47843	31.17
19830-006	6	108	3	07/11/10 14:03:06	13.92	7.39	7.79	47794	31.13
19830-015	7	109	3	07/11/10 14:03:52	13.83	6.87	7.55	47826	31.15
19830-017	7	110	3	07/11/10 14:04:11	13.68	7.36	7.66	47913	31.21
19830-003	7	111	3	07/11/10 14:04:22	13.68	7.53	7.75	47646	31.01
19830-008	7	112	3	07/11/10 14:04:35	13.64	7.66	7.70	47769	31.10
19830-006	7	113	3	07/11/10 14:04:55	13.46	7.90	7.82	47806	31.12
19830-012	7	114	3	07/11/10 14:05:31	14.42	7.33	7.55	47541	30.96
19830-004	7	115	3	07/11/10 14:05:53	14.27	7.42	7.76	47596	30.99
19830-011	7	116	3	07/11/10 14:06:08	14.26	7.54	7.76	47609	31.00
19830-014	7	117	3	07/11/10 14:06:19	14.26	7.70	7.81	47581	30.98
19830-005	7	118	3	07/11/10 14:06:37	14.23	7.69	7.90	47675	31.05
19830-001	7	119	3	07/11/10 14:07:20	14.24	7.20	7.53	47589	30.99
19830-000	7	120	3	07/11/10 14:07:47	13.98	7.51	7.72	47576	30.97
19830-009	7	121	3	07/11/10 14:08:09	14.17	7.90	7.69	47614	31.01
19830-010	7	122	3	07/11/10 14:08:43	14.05	7.45	7.68	47590	30.98
19830-007	7	123	3	07/11/10 14:08:55	13.91	7.42	7.67	47672	31.04
19830-002	7	124	3	07/11/10 14:09:13	13.99	7.52	7.58	47743	31.09
19830-013	7	125	3	07/11/10 14:09:30	13.93	7.51	7.67	47699	31.06
19830-016	7	126	3	07/11/10 14:09:48	13.75	7.62	7.76	47739	31.08
19830-017	8	127	3	07/11/10 14:10:04	13.77	7.59	7.73	47705	31.06
19830-013	8	128	3	07/11/10 14:10:20	13.75	7.33	7.68	47666	31.03
19830-010	8	129	3	07/11/10 14:10:41	13.80	7.41	7.70	47620	31.00
19830-007	8	130	3	07/11/10 14:11:18	14.39	7.73	7.78	47597	31.00
19830-011	8	131	3	07/11/10 14:11:33	14.58	7.59	7.65	47673	31.06
19830-002	8	132	3	07/11/10 14:12:08	14.41	6.91	7.71	47616	31.01
19830-004	8	133	3	07/11/10 14:12:26	14.46	6.88	7.65	47575	30.98
19830-003	8	134	3	07/11/10 14:12:42	14.53	7.02	7.68	47606	31.01
19830-005	8	135	3	07/11/10 14:13:05	14.56	7.55	7.74	47629	31.03
19830-012	8	136	3	07/11/10 14:13:50	14.44	6.83	7.47	47636	31.03
19830-006	8	137	3	07/11/10 14:14:15	14.27	7.23	7.73	47648	31.03
19830-001	8	138	3	07/11/10 14:18:04	14.23	6.58	7.50	47708	31.07
19830-014	8	139	3	07/11/10 14:18:27	14.06	7.37	7.75	47678	31.05
19830-000	8	140	3	07/11/10 14:18:43	14.11	7.51	7.77	47725	31.08
19830-009	8	141	3	07/11/10 14:19:02	14.25	7.62	7.74	47675	31.05
19830-008	8	142	3	07/11/10 14:19:16	14.33	7.81	7.73	47621	31.01
19830-015	8	143	3	07/11/10 14:19:37	14.04	7.91	7.87	47679	31.05
19830-016	8	144	3	07/11/10 14:19:52	14.13	7.87	7.75	47719	31.08
				07/11/10 14:20:17	14.10	7.44	7.72	47661	31.04
19830-002	1	1	4	07/12/10 09:24:48	13.21	8.23	7.76	46219	29.97
19830-016	1	2	4	07/12/10 09:25:30	13.32	7.79	7.81	45609	29.53

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	1	3	4	07/12/10 09:25:55	13.35	7.61	7.60	46225	29.98
19830-017	1	4	4	07/12/10 09:26:08	13.29	7.54	7.60	46154	29.92
19830-001	1	5	4	07/12/10 09:26:28	13.08	7.23	7.60	46134	29.90
19830-011	1	6	4	07/12/10 09:26:45	13.17	7.01	7.68	46279	30.01
19830-014	1	7	4	07/12/10 09:27:09	13.33	7.17	7.59	46288	30.02
19830-009	1	8	4	07/12/10 09:27:25	13.26	7.14	7.65	46151	29.92
19830-012	1	9	4	07/12/10 09:27:40	13.20	7.25	7.73	46247	29.99
19830-010	1	10	4	07/12/10 09:29:59	13.45	7.66	7.67	46233	29.99
19830-008	1	11	4	07/12/10 09:30:28	13.60	7.40	7.80	46244	30.00
19830-006	1	12	4	07/12/10 09:30:54	13.65	6.94	7.53	46230	29.99
19830-004	1	13	4	07/12/10 09:31:14	13.39	7.13	7.63	46199	29.96
19830-013	1	14	4	07/12/10 09:31:40	13.43	7.39	7.76	46253	30.00
19830-000	1	15	4	07/12/10 09:32:05	13.44	7.71	7.68	46274	30.02
19830-005	1	16	4	07/12/10 09:32:19	13.39	7.90	7.64	46315	30.04
19830-007	1	17	4	07/12/10 09:32:33	13.33	7.92	7.59	46353	30.07
19830-003	1	18	4	07/12/10 09:32:54	13.41	7.85	7.63	46317	30.05
19830-009	2	19	4	07/12/10 09:33:25	13.27	7.74	7.64	46192	29.95
19830-016	2	20	4	07/12/10 09:33:46	13.28	7.53	7.69	46204	29.96
19830-007	2	21	4	07/12/10 09:34:14	13.63	6.07	7.26	46139	29.92
19830-015	2	22	4	07/12/10 09:36:45	13.52	6.57	7.60	46149	29.93
19830-008	2	23	4	07/12/10 09:37:05	13.53	6.84	7.56	46192	29.96
19830-002	2	24	4	07/12/10 09:37:22	13.61	6.87	7.68	46189	29.96
19830-012	2	25	4	07/12/10 09:37:35	13.62	7.10	7.72	46127	29.92
19830-004	2	26	4	07/12/10 09:37:52	13.61	7.37	7.46	46047	29.86
19830-000	2	27	4	07/12/10 09:38:17	13.31	7.87	7.64	46192	29.95
19830-003	2	28	4	07/12/10 09:38:35	13.70	7.88	7.65	46190	29.96
19830-011	2	29	4	07/12/10 09:38:46	13.73	7.74	7.71	46196	29.97
19830-017	2	30	4	07/12/10 09:39:03	13.78	7.55	7.67	46202	29.97
19830-014	2	31	4	07/12/10 09:39:16	13.72	7.42	7.68	46195	29.97
19830-001	2	32	4	07/12/10 09:39:29	13.63	7.26	7.58	46021	29.84
19830-013	2	33	4	07/12/10 09:39:42	13.51	7.23	7.73	46205	29.97
19830-010	2	34	4	07/12/10 09:39:55	13.57	7.42	7.69	46245	30.00
19830-006	2	35	4	07/12/10 09:40:15	13.33	7.55	7.54	46205	29.96
19830-005	2	36	4	07/12/10 09:40:39	13.47	7.24	7.48	46230	29.98
19830-013	3	37	4	07/12/10 09:40:57	13.48	7.05	7.58	46247	30.00
19830-009	3	38	4	07/12/10 09:41:14	13.56	7.06	7.59	46125	29.91
19830-017	3	39	4	07/12/10 09:41:31	13.61	7.33	7.59	46191	29.96
19830-016	3	40	4	07/12/10 09:41:55	13.49	7.33	7.76	46222	29.98
19830-000	3	41	4	07/12/10 09:42:23	13.74	8.03	7.72	46194	29.97
19830-010	3	42	4	07/12/10 09:42:47	13.62	7.96	7.64	46162	29.94
19830-008	3	43	4	07/12/10 09:43:14	13.36	7.79	7.65	46191	29.95
19830-014	3	44	4	07/12/10 09:43:33	13.71	7.60	7.70	46249	30.01
19830-004	3	45	4	07/12/10 09:43:49	13.63	7.52	7.66	46201	29.97
19830-006	3	46	4	07/12/10 09:44:15	13.78	7.00	7.47	46179	29.96
19830-005	3	47	4	07/12/10 09:44:42	13.85	6.28	7.42	46181	29.96
19830-011	3	48	4	07/12/10 09:44:59	13.35	6.36	7.63	46211	29.97
19830-002	3	49	4	07/12/10 09:45:15	13.53	6.89	7.72	46260	30.01
19830-012	3	50	4	07/12/10 09:45:29	13.61	7.16	7.76	46182	29.95
19830-001	3	51	4	07/12/10 09:45:49	13.12	7.60	7.75	46223	29.97
19830-003	3	52	4	07/12/10 09:46:04	13.15	7.66	7.71	46320	30.04
19830-007	3	53	4	07/12/10 09:46:19	13.16	7.95	7.52	46397	30.10
19830-015	3	54	4	07/12/10 09:46:48	13.34	7.46	7.57	46307	30.04
19830-006	4	55	4	07/12/10 09:47:01	13.29	7.54	7.54	46290	30.02
19830-011	4	56	4	07/12/10 09:47:19	13.25	7.44	7.73	46301	30.03

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	4	57	4	07/12/10 09:47:38	13.25	7.61	7.79	46337	30.06
19830-010	4	58	4	07/12/10 09:48:00	13.00	7.90	7.72	46345	30.05
19830-015	4	59	4	07/12/10 09:48:26	12.70	7.68	7.61	46424	30.10
19830-009	4	60	4	07/12/10 09:48:45	12.61	7.60	7.64	46431	30.10
19830-001	4	61	4	07/12/10 09:48:59	12.61	7.67	7.71	46425	30.10
19830-016	4	62	4	07/12/10 09:49:14	12.88	7.40	7.77	46511	30.17
19830-008	4	63	4	07/12/10 09:49:30	12.88	7.40	7.69	46363	30.06
19830-004	4	64	4	07/12/10 09:49:49	12.98	7.43	7.58	46374	30.07
19830-007	4	65	4	07/12/10 09:50:27	13.05	7.46	7.48	46324	30.04
19830-014	4	66	4	07/12/10 09:51:53	13.26	6.98	7.63	46309	30.04
19830-000	4	67	4	07/12/10 09:52:18	13.22	7.37	7.60	46292	30.02
19830-017	4	68	4	07/12/10 09:52:43	13.29	7.32	7.66	46289	30.02
19830-013	4	69	4	07/12/10 09:53:00	13.40	7.26	7.74	46295	30.03
19830-002	4	70	4	07/12/10 09:53:36	13.39	7.47	7.79	46249	30.00
19830-005	4	71	4	07/12/10 09:53:57	13.35	7.47	7.58	46239	29.99
19830-003	4	72	4	07/12/10 09:54:11	13.21	7.50	7.62	46201	29.96
19830-016	5	73	4	07/12/10 09:54:35	13.18	7.50	7.74	46295	30.02
19830-003	5	74	4	07/12/10 09:55:02	13.30	7.07	7.56	46259	30.00
19830-000	5	75	4	07/12/10 09:55:18	13.46	7.05	7.60	46295	30.03
19830-013	5	76	4	07/12/10 09:55:35	13.51	7.44	7.65	46260	30.01
19830-001	5	77	4	07/12/10 09:55:56	13.54	7.54	7.76	46190	29.96
19830-002	5	78	4	07/12/10 09:56:08	13.50	7.67	7.76	46227	29.98
19830-004	5	79	4	07/12/10 09:56:20	13.46	7.48	7.64	46181	29.95
19830-012	5	80	4	07/12/10 09:56:46	13.31	7.77	7.77	46223	29.98
19830-005	5	81	4	07/12/10 09:57:25	13.06	7.65	7.54	46327	30.04
19830-011	5	82	4	07/12/10 09:57:43	13.32	6.94	7.60	46313	30.04
19830-010	5	83	4	07/12/10 09:57:56	13.33	6.78	7.66	46276	30.01
19830-017	5	84	4	07/12/10 09:58:16	13.51	6.72	7.60	46255	30.00
19830-009	5	85	4	07/12/10 09:58:29	13.41	6.53	7.63	46179	29.95
19830-006	5	86	4	07/12/10 09:58:50	13.60	6.42	7.42	46241	30.00
19830-008	5	87	4	07/12/10 09:59:16	13.57	6.94	7.69	46224	29.98
19830-007	5	88	4	07/12/10 09:59:30	13.34	7.51	7.61	46149	29.92
19830-014	5	89	4	07/12/10 09:59:46	13.11	7.79	7.67	46283	30.01
19830-015	5	90	4	07/12/10 09:59:58	13.14	7.75	7.69	46325	30.04
19830-005	6	91	4	07/12/10 10:00:08	13.23	7.73	7.68	46349	30.06
19830-007	6	92	4	07/12/10 10:00:19	13.30	7.78	7.60	46281	30.02
19830-002	6	93	4	07/12/10 10:00:30	13.33	7.74	7.67	46302	30.03
19830-009	6	94	4	07/12/10 10:00:48	13.37	7.58	7.68	46258	30.00
19830-013	6	95	4	07/12/10 10:01:04	13.30	7.49	7.75	46218	29.97
19830-004	6	96	4	07/12/10 10:01:16	13.18	7.65	7.72	46194	29.95
19830-012	6	97	4	07/12/10 10:02:07	12.84	8.17	7.72	46367	30.06
19830-015	6	98	4	07/12/10 10:02:26	12.91	7.83	7.72	46387	30.08
19830-014	6	99	4	07/12/10 10:02:47	12.78	7.64	7.77	46366	30.06
19830-003	6	100	4	07/12/10 10:03:10	12.72	7.76	7.69	46373	30.06
19830-010	6	101	4	07/12/10 10:03:25	12.66	7.97	7.73	46473	30.13
19830-000	6	102	4	07/12/10 10:03:39	12.76	8.14	7.72	46491	30.15
19830-016	6	103	4	07/12/10 10:04:05	12.78	7.77	7.81	46427	30.10
19830-001	6	104	4	07/12/10 10:04:25	12.57	7.76	7.83	46376	30.06
19830-017	6	105	4	07/12/10 10:04:41	12.44	8.08	7.78	46407	30.08
19830-008	6	106	4	07/12/10 10:04:56	12.51	8.00	7.74	46433	30.10
19830-011	6	107	4	07/12/10 10:05:15	12.60	7.78	7.80	46412	30.09
19830-006	6	108	4	07/12/10 10:05:31	12.65	7.60	7.61	46419	30.09
19830-015	7	109	4	07/12/10 10:05:42	12.67	7.58	7.59	46449	30.12
19830-017	7	110	4	07/12/10 10:05:57	12.74	7.62	7.74	46356	30.05

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-003	7	111	4	07/12/10 10:06:15	12.86	7.82	7.69	46364	30.06
19830-008	7	112	4	07/12/10 10:06:35	12.76	7.99	7.78	46364	30.06
19830-006	7	113	4	07/12/10 10:07:04	13.63	7.91	7.63	46265	30.02
19830-012	7	114	4	07/12/10 10:07:30	13.80	7.71	7.74	46197	29.97
19830-004	7	115	4	07/12/10 10:07:49	13.83	7.77	7.73	46203	29.98
19830-011	7	116	4	07/12/10 10:08:05	13.89	7.74	7.76	46182	29.96
19830-014	7	117	4	07/12/10 10:08:21	13.78	7.62	7.81	46195	29.97
19830-005	7	118	4	07/12/10 10:08:34	13.72	7.82	7.68	46168	29.95
19830-001	7	119	4	07/12/10 10:08:48	13.39	7.75	7.66	46074	29.87
19830-000	7	120	4	07/12/10 10:09:17	13.40	8.02	7.69	46210	29.97
19830-009	7	121	4	07/12/10 10:09:38	13.03	8.08	7.71	46243	29.98
19830-010	7	122	4	07/12/10 10:09:50	13.03	7.87	7.70	46346	30.05
19830-007	7	123	4	07/12/10 10:10:00	13.04	7.78	7.63	46293	30.02
19830-002	7	124	4	07/12/10 10:10:13	13.03	7.64	7.65	46317	30.03
19830-013	7	125	4	07/12/10 10:10:23	12.98	7.58	7.71	46324	30.04
19830-016	7	126	4	07/12/10 10:10:34	13.09	7.61	7.75	46393	30.09
19830-017	8	127	4	07/12/10 10:10:50	13.21	7.50	7.70	46292	30.02
19830-013	8	128	4	07/12/10 10:11:02	13.19	7.60	7.71	46191	29.95
19830-010	8	129	4	07/12/10 10:11:17	13.35	7.76	7.77	46429	30.12
19830-007	8	130	4	07/12/10 10:11:33	13.72	7.83	7.62	46291	30.04
19830-011	8	131	4	07/12/10 10:11:51	13.59	7.47	7.65	46210	29.97
19830-002	8	132	4	07/12/10 10:12:06	13.64	6.95	7.66	46226	29.99
19830-004	8	133	4	07/12/10 10:12:27	13.78	7.10	7.67	46219	29.99
19830-003	8	134	4	07/12/10 10:12:42	13.75	7.47	7.72	46206	29.98
19830-005	8	135	4	07/12/10 10:13:01	13.62	7.48	7.53	46198	29.97
19830-012	8	136	4	07/12/10 10:13:16	13.35	7.29	7.68	46151	29.92
19830-006	8	137	4	07/12/10 10:13:29	13.17	7.43	7.60	46208	29.96
19830-001	8	138	4	07/12/10 10:13:43	13.09	7.48	7.70	46264	30.00
19830-014	8	139	4	07/12/10 10:13:58	13.19	7.69	7.77	46337	30.05
19830-000	8	140	4	07/12/10 10:14:14	13.34	7.71	7.73	46306	30.04
19830-009	8	141	4	07/12/10 10:14:27	13.28	8.01	7.75	46227	29.98
19830-008	8	142	4	07/12/10 10:14:41	13.16	8.05	7.83	46244	29.99
19830-015	8	143	4	07/12/10 10:14:54	13.18	8.06	7.73	46302	30.03
19830-016	8	144	4	07/12/10 10:15:07	13.17	7.77	7.69	46241	29.98
19830-002	1	1	5	07/13/10 09:49:00	13.41	7.74	7.56	48579	31.68
19830-016	1	2	5	07/13/10 09:50:01	13.41	7.49	7.66	47022	30.55
19830-015	1	3	5	07/13/10 09:50:26	13.37	7.40	7.39	48556	31.66
19830-017	1	4	5	07/13/10 09:51:19	13.29	7.31	7.45	48530	31.64
19830-001	1	5	5	07/13/10 09:52:10	13.08	7.03	7.38	48498	31.61
19830-011	1	6	5	07/13/10 09:52:48	13.12	6.97	7.54	48603	31.69
19830-014	1	7	5	07/13/10 09:53:31	13.06	6.58	7.35	48616	31.70
19830-009	1	8	5	07/13/10 09:54:23	12.92	6.92	7.55	48467	31.58
19830-012	1	9	5	07/13/10 09:55:41	12.82	6.39	7.57	48624	31.69
19830-010	1	10	5	07/13/10 09:56:24	12.70	7.29	7.51	48645	31.70
19830-008	1	11	5	07/13/10 09:57:15	12.77	6.99	7.74	48619	31.69
19830-006	1	12	5	07/13/10 09:58:06	12.79	6.79	7.40	48567	31.65
19830-004	1	13	5	07/13/10 09:58:54	12.52	7.54	7.44	48620	31.68
19830-013	1	14	5	07/13/10 10:00:29	12.57	6.99	7.69	48638	31.69
19830-000	1	15	5	07/13/10 10:01:18	12.58	7.98	7.52	48632	31.69
19830-005	1	16	5	07/13/10 10:02:01	12.51	7.99	7.51	48695	31.73
19830-007	1	17	5	07/13/10 10:02:50	12.44	7.86	7.43	48719	31.75
19830-003	1	18	5	07/13/10 10:03:43	12.54	7.89	7.51	48697	31.73
19830-009	2	19	5	07/13/10 10:04:45	13.40	6.46	7.42	48567	31.67

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	2	20	5	07/13/10 10:05:22	13.38	6.66	7.36	48542	31.65
19830-007	2	21	5	07/13/10 10:06:09	13.59	5.65	7.13	48246	31.45
19830-015	2	22	5	07/13/10 10:07:04	13.39	7.08	7.43	48501	31.62
19830-008	2	23	5	07/13/10 10:07:51	13.30	7.14	7.53	48514	31.63
19830-002	2	24	5	07/13/10 10:08:28	13.32	7.08	7.62	48493	31.62
19830-012	2	25	5	07/13/10 10:08:56	13.19	7.26	7.62	48454	31.58
19830-004	2	26	5	07/13/10 10:09:55	13.05	7.46	7.49	48553	31.65
19830-000	2	27	5	07/13/10 10:10:54	12.54	8.21	7.57	48597	31.66
19830-003	2	28	5	07/13/10 10:12:22	12.85	7.74	7.50	48323	31.48
19830-011	2	29	5	07/13/10 10:12:54	12.81	7.64	7.71	48568	31.65
19830-017	2	30	5	07/13/10 10:13:24	12.87	7.59	7.55	48480	31.59
19830-014	2	31	5	07/13/10 10:14:25	12.73	6.80	7.52	48458	31.57
19830-001	2	32	5	07/13/10 10:15:02	12.66	7.12	7.47	48503	31.60
19830-013	2	33	5	07/13/10 10:15:46	12.59	7.70	7.73	48658	31.71
19830-010	2	34	5	07/13/10 10:16:13	12.74	7.64	7.56	48587	31.66
19830-006	2	35	5	07/13/10 10:16:54	13.20	7.39	7.40	48621	31.70
19830-005	2	36	5	07/13/10 10:17:48	13.34	6.52	7.30	48559	31.66
19830-013	3	37	5	07/13/10 10:18:16	13.31	6.59	7.44	48614	31.70
19830-009	3	38	5	07/13/10 10:19:01	13.39	7.51	7.55	48539	31.65
19830-017	3	39	5	07/13/10 10:20:06	13.34	6.47	7.40	48507	31.63
19830-016	3	40	5	07/13/10 10:20:57	13.18	7.64	7.69	48606	31.69
19830-000	3	41	5	07/13/10 10:21:44	13.30	8.16	7.62	48504	31.62
19830-010	3	42	5	07/13/10 10:22:21	13.14	7.85	7.51	48496	31.61
19830-008	3	43	5	07/13/10 10:22:55	12.57	7.92	7.57	48588	31.66
19830-014	3	44	5	07/13/10 10:23:43	12.97	7.32	7.61	48546	31.64
19830-004	3	45	5	07/13/10 10:24:36	12.74	7.70	7.59	48589	31.66
19830-006	3	46	5	07/13/10 10:25:25	12.91	6.89	7.30	48513	31.62
19830-005	3	47	5	07/13/10 10:26:42	12.98	5.95	7.21	48441	31.57
19830-011	3	48	5	07/13/10 10:27:22	12.41	7.10	7.73	48897	31.87
19830-002	3	49	5	07/13/10 10:27:52	12.68	7.33	7.65	48549	31.63
19830-012	3	50	5	07/13/10 10:28:24	12.79	7.22	7.72	48523	31.62
19830-001	3	51	5	07/13/10 10:29:04	12.15	7.77	7.74	48721	31.73
19830-003	3	52	5	07/13/10 10:29:37	12.19	7.95	7.62	48684	31.71
19830-007	3	53	5	07/13/10 10:30:39	12.24	6.51	7.24	48665	31.70
19830-015	3	54	5	07/13/10 10:31:24	12.38	7.45	7.45	48657	31.70
19830-006	4	55	5	07/13/10 10:32:26	12.24	6.87	7.35	48661	31.70
19830-011	4	56	5	07/13/10 10:33:05	12.18	7.43	7.74	48685	31.71
19830-012	4	57	5	07/13/10 10:33:50	12.13	8.01	7.75	48716	31.73
19830-010	4	58	5	07/13/10 10:34:50	11.96	7.86	7.66	48793	31.78
19830-015	4	59	5	07/13/10 10:35:38	11.65	7.62	7.49	48855	31.81
19830-009	4	60	5	07/13/10 10:36:17	11.64	7.88	7.56	48866	31.82
19830-001	4	61	5	07/13/10 10:37:03	11.79	7.33	7.59	48812	31.78
19830-016	4	62	5	07/13/10 10:37:43	12.20	7.12	7.68	48743	31.75
19830-008	4	63	5	07/13/10 10:38:17	12.30	7.62	7.61	48745	31.76
19830-004	4	64	5	07/13/10 10:38:58	12.53	7.22	7.54	48730	31.76
19830-007	4	65	5	07/13/10 10:39:57	12.26	7.05	7.31	48707	31.73
19830-014	4	66	5	07/13/10 10:41:00	12.32	6.79	7.45	48725	31.75
19830-000	4	67	5	07/13/10 10:41:51	12.26	7.46	7.44	48693	31.72
19830-017	4	68	5	07/13/10 10:42:33	12.33	6.89	7.59	48678	31.71
19830-013	4	69	5	07/13/10 10:43:24	12.43	7.60	7.72	48662	31.70
19830-002	4	70	5	07/13/10 10:44:01	12.39	7.51	7.73	48659	31.70
19830-005	4	71	5	07/13/10 10:44:41	12.32	7.58	7.45	48589	31.65
19830-003	4	72	5	07/13/10 10:45:18	12.24	7.48	7.59	48633	31.68
19830-016	5	73	5	07/13/10 10:45:57	12.28	7.42	7.67	48667	31.70

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-003	5	74	5	07/13/10 10:46:38	12.40	7.05	7.49	48605	31.66
19830-000	5	75	5	07/13/10 10:47:23	12.59	7.62	7.54	48569	31.64
19830-013	5	76	5	07/13/10 10:48:03	12.69	7.33	7.59	48598	31.67
19830-001	5	77	5	07/13/10 10:48:46	12.80	7.71	7.66	48533	31.63
19830-002	5	78	5	07/13/10 10:49:32	12.85	7.16	7.68	48565	31.65
19830-004	5	79	5	07/13/10 10:50:08	12.88	7.23	7.50	48566	31.65
19830-012	5	80	5	07/13/10 10:50:46	12.93	7.72	7.68	48603	31.68
19830-005	5	81	5	07/13/10 10:53:30	12.33	3.66	7.09	48645	31.69
19830-011	5	82	5	07/13/10 10:54:21	12.44	3.14	7.13	48647	31.69
19830-010	5	83	5	07/13/10 10:55:49	12.40	7.12	7.66	48684	31.72
19830-017	5	84	5	07/13/10 10:56:54	12.55	5.00	7.40	48529	31.61
19830-009	5	85	5	07/13/10 10:57:34	12.43	5.57	7.42	48648	31.69
19830-006	5	86	5	07/13/10 10:58:25	12.63	5.49	7.18	48511	31.60
19830-008	5	87	5	07/13/10 10:59:26	12.61	7.68	7.66	48634	31.69
19830-007	5	88	5	07/13/10 10:59:48	12.41	7.76	7.48	48652	31.70
19830-014	5	89	5	07/13/10 11:00:29	12.27	7.62	7.60	48714	31.74
19830-015	5	90	5	07/13/10 11:00:57	12.38	7.67	7.61	48699	31.73
19830-005	6	91	5	07/13/10 11:01:27	12.54	7.86	7.55	48652	31.70
19830-007	6	92	5	07/13/10 11:02:07	12.69	7.56	7.41	48622	31.69
19830-002	6	93	5	07/13/10 11:02:35	12.76	7.49	7.66	48657	31.71
19830-009	6	94	5	07/13/10 11:03:15	12.84	6.81	7.51	48616	31.69
19830-013	6	95	5	07/13/10 11:04:01	12.80	7.61	7.75	48674	31.73
19830-004	6	96	5	07/13/10 11:04:36	12.70	7.57	7.58	48694	31.74
19830-012	6	97	5	07/13/10 11:05:47	12.14	7.82	7.63	48745	31.75
19830-015	6	98	5	07/13/10 11:06:29	12.05	7.58	7.62	48736	31.74
19830-014	6	99	5	07/13/10 11:07:01	11.93	7.27	7.71	48553	31.60
19830-003	6	100	5	07/13/10 11:07:42	11.92	7.85	7.58	48820	31.80
19830-010	6	101	5	07/13/10 11:08:39	11.87	8.09	7.65	48902	31.85
19830-000	6	102	5	07/13/10 11:09:06	11.94	8.15	7.61	48846	31.82
19830-016	6	103	5	07/13/10 11:09:37	11.87	7.81	7.76	48863	31.83
19830-001	6	104	5	07/13/10 11:10:06	11.74	7.86	7.75	48854	31.81
19830-017	6	105	5	07/13/10 11:10:37	11.55	7.90	7.65	48878	31.82
19830-008	6	106	5	07/13/10 11:11:02	11.63	7.86	7.66	48840	31.80
19830-011	6	107	5	07/13/10 11:11:48	11.86	7.44	7.74	48797	31.78
19830-006	6	108	5	07/13/10 11:12:28	12.14	7.60	7.45	48798	31.79
19830-015	7	109	5	07/13/10 11:12:55	12.36	7.52	7.47	48878	31.86
19830-017	7	110	5	07/13/10 11:13:34	12.63	7.51	7.70	48786	31.80
19830-003	7	111	5	07/13/10 11:14:18	12.81	7.62	7.59	48799	31.82
19830-008	7	112	5	07/13/10 11:14:50	12.89	7.77	7.71	48850	31.86
19830-006	7	113	5	07/13/10 11:15:42	12.79	7.52	7.50	48510	31.61
19830-012	7	114	5	07/13/10 11:16:23	12.76	7.59	7.68	48551	31.64
19830-004	7	115	5	07/13/10 11:16:57	12.72	7.71	7.65	48571	31.65
19830-011	7	116	5	07/13/10 11:17:39	12.73	7.15	7.72	48541	31.63
19830-014	7	117	5	07/13/10 11:18:16	12.62	8.01	7.78	48651	31.70
19830-005	7	118	5	07/13/10 11:19:14	12.54	7.16	7.47	48551	31.63
19830-001	7	119	5	07/13/10 11:20:05	12.20	7.87	7.63	48611	31.66
19830-000	7	120	5	07/13/10 11:20:47	12.33	8.20	7.59	48548	31.62
19830-009	7	121	5	07/13/10 11:21:31	12.07	7.72	7.62	48690	31.71
19830-010	7	122	5	07/13/10 11:22:21	12.14	7.65	7.61	48669	31.70
19830-007	7	123	5	07/13/10 11:23:11	12.21	7.28	7.37	48716	31.73
19830-002	7	124	5	07/13/10 11:24:07	12.42	7.44	7.66	48744	31.76
19830-013	7	125	5	07/13/10 11:24:37	12.50	7.60	7.66	48814	31.82
19830-016	7	126	5	07/13/10 11:25:31	12.84	7.13	7.74	48668	31.73
19830-017	8	127	5	07/13/10 11:26:06	13.06	7.33	7.58	48626	31.70

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	8	128	5	07/13/10 11:27:05	13.12	7.56	7.60	48619	31.70
19830-010	8	129	5	07/13/10 11:28:04	12.72	8.05	7.71	48601	31.67
19830-007	8	130	5	07/13/10 11:28:37	12.83	7.74	7.45	48584	31.66
19830-011	8	131	5	07/13/10 11:29:25	12.61	6.67	7.54	48645	31.70
19830-002	8	132	5	07/13/10 11:29:57	12.77	6.47	7.60	48548	31.64
19830-004	8	133	5	07/13/10 11:30:39	12.84	7.64	7.58	48523	31.62
19830-003	8	134	5	07/13/10 11:31:07	12.78	7.84	7.66	48588	31.66
19830-005	8	135	5	07/13/10 11:31:56	12.66	6.83	7.31	48574	31.65
19830-012	8	136	5	07/13/10 11:32:31	12.42	7.19	7.62	48629	31.68
19830-006	8	137	5	07/13/10 11:33:10	12.28	7.22	7.35	48650	31.69
19830-001	8	138	5	07/13/10 11:33:39	12.32	7.62	7.59	48674	31.71
19830-014	8	139	5	07/13/10 11:34:22	12.50	7.55	7.76	48684	31.72
19830-000	8	140	5	07/13/10 11:34:53	12.70	7.97	7.62	48640	31.70
19830-009	8	141	5	07/13/10 11:35:22	12.75	7.99	7.77	48653	31.71
19830-008	8	142	5	07/13/10 11:36:08	12.71	8.10	7.83	48680	31.73
19830-015	8	143	5	07/13/10 11:36:53	12.92	7.41	7.62	48642	31.71
19830-016	8	144	5	07/13/10 11:37:32	13.04	7.35	7.65	48672	31.74
19830-002	1	1	6	07/14/10 09:35:24	12.41	7.58	7.69	48914	31.89
19830-016	1	2	6	07/14/10 09:36:04	12.28	7.98	7.76	48230	31.39
19830-015	1	3	6	07/14/10 09:36:18	12.24	7.92	7.56	48889	31.86
19830-017	1	4	6	07/14/10 09:36:39	12.22	7.49	7.46	48860	31.84
19830-001	1	5	6	07/14/10 09:36:52	12.22	7.05	7.47	48821	31.81
19830-011	1	6	6	07/14/10 09:37:09	12.20	6.95	7.46	48887	31.86
19830-014	1	7	6	07/14/10 09:37:32	12.22	7.32	7.59	48919	31.88
19830-009	1	8	6	07/14/10 09:37:57	12.19	6.87	7.51	48858	31.84
19830-012	1	9	6	07/14/10 09:38:20	12.23	6.25	7.64	48945	31.90
19830-010	1	10	6	07/14/10 09:38:53	12.10	7.80	7.65	48947	31.90
19830-008	1	11	6	07/14/10 09:39:14	12.04	8.27	7.84	48948	31.89
19830-006	1	12	6	07/14/10 09:39:40	12.03	7.49	7.45	48860	31.83
19830-004	1	13	6	07/14/10 09:39:53	12.02	7.19	7.45	48931	31.88
19830-013	1	14	6	07/14/10 09:40:09	12.04	7.65	7.73	48930	31.88
19830-000	1	15	6	07/14/10 09:40:25	12.02	7.97	7.67	48922	31.87
19830-005	1	16	6	07/14/10 09:40:41	11.99	8.55	7.58	48965	31.90
19830-007	1	17	6	07/14/10 09:40:51	11.98	8.69	7.53	48984	31.92
19830-003	1	18	6	07/14/10 09:41:05	12.04	8.64	7.54	49056	31.97
19830-009	2	19	6	07/14/10 09:42:00	12.21	7.29	7.58	48824	31.81
19830-016	2	20	6	07/14/10 09:42:19	12.21	7.04	7.45	48889	31.86
19830-007	2	21	6	07/14/10 09:42:57	12.22	6.14	7.20	48718	31.74
19830-015	2	22	6	07/14/10 09:43:30	12.23	7.32	7.45	48076	31.27
19830-008	2	23	6	07/14/10 09:43:50	12.28	7.70	7.53	48826	31.82
19830-002	2	24	6	07/14/10 09:44:03	12.28	7.62	7.60	48836	31.82
19830-012	2	25	6	07/14/10 09:44:24	12.23	7.69	7.66	48545	31.61
19830-004	2	26	6	07/14/10 09:44:40	12.21	7.80	7.53	48668	31.70
19830-000	2	27	6	07/14/10 09:45:10	12.07	8.61	7.58	48861	31.83
19830-003	2	28	6	07/14/10 09:45:23	12.04	8.82	7.56	48820	31.80
19830-011	2	29	6	07/14/10 09:45:39	12.05	8.54	7.61	48878	31.84
19830-017	2	30	6	07/14/10 09:45:57	12.05	8.15	7.56	48868	31.84
19830-014	2	31	6	07/14/10 09:46:24	12.00	7.47	7.52	48925	31.88
19830-001	2	32	6	07/14/10 09:46:41	11.95	7.24	7.48	48815	31.79
19830-013	2	33	6	07/14/10 09:46:56	11.95	7.29	7.57	48964	31.90
19830-010	2	34	6	07/14/10 09:47:14	12.05	7.56	7.59	48905	31.86
19830-006	2	35	6	07/14/10 09:47:35	12.19	8.01	7.46	48952	31.90
19830-005	2	36	6	07/14/10 09:47:58	12.20	7.70	7.35	48894	31.86

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	3	37	6	07/14/10 09:48:14	12.18	7.29	7.40	48979	31.92
19830-009	3	38	6	07/14/10 09:48:42	12.27	7.58	7.56	48903	31.87
19830-017	3	39	6	07/14/10 09:48:57	12.32	7.85	7.49	48851	31.84
19830-016	3	40	6	07/14/10 09:49:31	12.26	8.08	7.61	48918	31.88
19830-000	3	41	6	07/14/10 09:49:59	12.25	8.79	7.65	48833	31.82
19830-010	3	42	6	07/14/10 09:50:25	12.23	8.60	7.50	48787	31.79
19830-008	3	43	6	07/14/10 09:50:42	12.18	8.39	7.53	48843	31.82
19830-014	3	44	6	07/14/10 09:51:00	12.15	8.24	7.62	48850	31.83
19830-004	3	45	6	07/14/10 09:51:14	12.05	8.09	7.58	48893	31.86
19830-006	3	46	6	07/14/10 09:51:45	12.12	7.56	7.32	48817	31.80
19830-005	3	47	6	07/14/10 09:52:09	12.09	5.33	7.12	48810	31.80
19830-011	3	48	6	07/14/10 09:53:13	11.82	7.35	7.65	49099	31.99
19830-002	3	49	6	07/14/10 09:53:36	12.00	7.53	7.57	48906	31.86
19830-012	3	50	6	07/14/10 09:53:50	12.07	7.61	7.64	48895	31.86
19830-001	3	51	6	07/14/10 09:54:19	11.81	8.19	7.83	49012	31.93
19830-003	3	52	6	07/14/10 09:54:37	11.80	8.58	7.76	48973	31.90
19830-007	3	53	6	07/14/10 09:55:19	11.84	7.41	7.33	48903	31.85
19830-015	3	54	6	07/14/10 09:55:47	11.82	8.13	7.54	48959	31.89
19830-006	4	55	6	07/14/10 09:56:06	11.78	8.47	7.45	48914	31.86
19830-011	4	56	6	07/14/10 09:56:25	11.71	8.37	7.75	48989	31.91
19830-012	4	57	6	07/14/10 09:56:48	11.65	8.82	7.85	49049	31.95
19830-010	4	58	6	07/14/10 09:57:06	11.61	9.08	7.79	49058	31.95
19830-015	4	59	6	07/14/10 09:57:19	11.53	9.05	7.67	49036	31.93
19830-009	4	60	6	07/14/10 09:57:37	11.43	8.83	7.66	49110	31.98
19830-001	4	61	6	07/14/10 09:57:52	11.47	8.89	7.70	49179	32.03
19830-016	4	62	6	07/14/10 09:58:08	11.63	8.48	7.68	49105	31.99
19830-008	4	63	6	07/14/10 09:58:22	11.79	8.33	7.69	49070	31.97
19830-004	4	64	6	07/14/10 09:58:40	11.96	8.53	7.65	49048	31.96
19830-007	4	65	6	07/14/10 09:59:03	11.80	8.42	7.44	48949	31.88
19830-014	4	66	6	07/14/10 09:59:18	11.76	8.16	7.49	48989	31.91
19830-000	4	67	6	07/14/10 10:00:24	11.73	8.68	7.56	48962	31.89
19830-017	4	68	6	07/14/10 10:00:37	11.72	8.64	7.60	48969	31.89
19830-013	4	69	6	07/14/10 10:00:51	11.72	8.29	7.72	48986	31.91
19830-002	4	70	6	07/14/10 10:01:04	11.73	8.49	7.81	48976	31.90
19830-005	4	71	6	07/14/10 10:01:20	11.75	8.53	7.58	48901	31.85
19830-003	4	72	6	07/14/10 10:01:38	11.78	8.46	7.58	48938	31.87
19830-016	5	73	6	07/14/10 10:02:22	11.73	8.16	7.67	48958	31.89
19830-003	5	74	6	07/14/10 10:03:11	11.73	8.07	7.54	48934	31.87
19830-000	5	75	6	07/14/10 10:03:30	11.78	8.23	7.57	48902	31.85
19830-013	5	76	6	07/14/10 10:03:46	11.82	8.53	7.62	48924	31.87
19830-001	5	77	6	07/14/10 10:04:12	11.87	8.65	7.65	48568	31.61
19830-002	5	78	6	07/14/10 10:04:32	11.95	8.61	7.69	48911	31.86
19830-004	5	79	6	07/14/10 10:04:51	12.01	8.29	7.59	48899	31.86
19830-012	5	80	6	07/14/10 10:05:36	12.10	8.90	7.81	48910	31.87
19830-005	5	81	6	07/14/10 10:06:18	11.82	8.74	7.56	48953	31.89
19830-011	5	82	6	07/14/10 10:06:38	11.75	8.43	7.69	48957	31.89
19830-010	5	83	6	07/14/10 10:07:07	11.71	7.73	7.66	49010	31.92
19830-017	5	84	6	07/14/10 10:07:28	11.72	7.56	7.59	48954	31.88
19830-009	5	85	6	07/14/10 10:07:45	11.73	7.71	7.62	49003	31.92
19830-006	5	86	6	07/14/10 10:08:02	11.77	7.86	7.53	48900	31.85
19830-008	5	87	6	07/14/10 10:08:14	11.79	8.14	7.62	48978	31.90
19830-007	5	88	6	07/14/10 10:08:28	11.80	8.61	7.62	48958	31.89
19830-014	5	89	6	07/14/10 10:08:41	11.75	8.78	7.67	49004	31.92
19830-015	5	90	6	07/14/10 10:08:54	11.74	8.76	7.71	49006	31.92

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	6	91	6	07/14/10 10:09:08	11.75	8.71	7.65	48949	31.88
19830-007	6	92	6	07/14/10 10:09:23	11.79	8.82	7.53	48930	31.87
19830-002	6	93	6	07/14/10 10:09:45	11.84	8.63	7.70	48922	31.87
19830-009	6	94	6	07/14/10 10:10:03	11.86	8.49	7.67	48983	31.91
19830-013	6	95	6	07/14/10 10:10:14	11.88	8.33	7.80	49034	31.95
19830-004	6	96	6	07/14/10 10:10:26	11.93	8.48	7.67	49031	31.95
19830-012	6	97	6	07/14/10 10:10:51	11.80	8.76	7.70	49003	31.92
19830-015	6	98	6	07/14/10 10:11:01	11.75	8.88	7.72	48970	31.90
19830-014	6	99	6	07/14/10 10:11:10	11.69	8.83	7.78	48861	31.81
19830-003	6	100	6	07/14/10 10:11:19	11.65	8.71	7.79	49074	31.97
19830-010	6	101	6	07/14/10 10:11:33	11.66	8.81	7.74	49166	32.03
19830-000	6	102	6	07/14/10 10:11:42	11.65	8.98	7.72	49085	31.98
19830-016	6	103	6	07/14/10 10:11:52	11.64	9.12	7.75	49123	32.00
19830-001	6	104	6	07/14/10 10:12:05	11.63	9.00	7.83	49120	32.00
19830-017	6	105	6	07/14/10 10:12:21	11.58	8.97	7.76	49044	31.94
19830-008	6	106	6	07/14/10 10:12:33	11.56	8.99	7.77	49028	31.93
19830-011	6	107	6	07/14/10 10:12:49	11.62	8.98	7.81	49048	31.95
19830-006	6	108	6	07/14/10 10:13:04	11.70	8.65	7.65	49080	31.97
19830-015	7	109	6	07/14/10 10:13:14	11.81	8.56	7.59	49168	32.04
19830-017	7	110	6	07/14/10 10:13:28	11.98	8.55	7.69	49147	32.04
19830-003	7	111	6	07/14/10 10:13:38	12.07	8.63	7.72	49137	32.03
19830-008	7	112	6	07/14/10 10:13:57	12.20	8.87	7.79	49127	32.03
19830-006	7	113	6	07/14/10 10:14:12	12.13	9.08	7.69	48790	31.78
19830-012	7	114	6	07/14/10 10:14:25	12.08	8.97	7.70	48846	31.82
19830-004	7	115	6	07/14/10 10:14:39	12.05	8.90	7.75	48842	31.82
19830-011	7	116	6	07/14/10 10:14:51	12.00	8.95	7.78	48831	31.81
19830-014	7	117	6	07/14/10 10:15:08	11.92	8.80	7.85	48963	31.90
19830-005	7	118	6	07/14/10 10:15:18	11.91	8.96	7.74	48806	31.79
19830-001	7	119	6	07/14/10 10:15:27	11.87	8.94	7.69	48855	31.82
19830-000	7	120	6	07/14/10 10:15:38	11.86	8.91	7.71	48825	31.80
19830-009	7	121	6	07/14/10 10:15:51	11.73	9.18	7.74	48906	31.85
19830-010	7	122	6	07/14/10 10:16:04	11.64	9.14	7.74	48945	31.87
19830-007	7	123	6	07/14/10 10:16:19	11.64	8.92	7.57	48968	31.89
19830-002	7	124	6	07/14/10 10:16:35	11.72	8.60	7.73	49053	31.96
19830-013	7	125	6	07/14/10 10:16:48	11.78	8.56	7.77	49102	31.99
19830-016	7	126	6	07/14/10 10:16:59	11.89	8.69	7.78	49071	31.98
19830-017	8	127	6	07/14/10 10:17:09	12.02	8.64	7.73	49035	31.96
19830-013	8	128	6	07/14/10 10:17:19	12.13	8.57	7.68	49057	31.98
19830-010	8	129	6	07/14/10 10:17:41	12.14	8.77	7.79	48889	31.86
19830-007	8	130	6	07/14/10 10:17:55	12.10	8.99	7.64	48831	31.81
19830-011	8	131	6	07/14/10 10:18:20	11.99	8.27	7.52	48742	31.74
19830-002	8	132	6	07/14/10 10:18:33	12.01	7.83	7.58	48920	31.87
19830-004	8	133	6	07/14/10 10:18:47	12.04	7.59	7.64	48868	31.84
19830-003	8	134	6	07/14/10 10:19:10	11.96	8.63	7.77	48885	31.85
19830-005	8	135	6	07/14/10 10:19:23	11.91	8.87	7.59	48872	31.83
19830-012	8	136	6	07/14/10 10:19:38	11.85	8.55	7.65	48911	31.86
19830-006	8	137	6	07/14/10 10:19:56	11.77	8.46	7.51	48925	31.86
19830-001	8	138	6	07/14/10 10:20:16	11.74	8.40	7.73	48981	31.90
19830-014	8	139	6	07/14/10 10:20:30	11.76	8.64	7.82	49056	31.96
19830-000	8	140	6	07/14/10 10:20:40	11.82	8.66	7.81	49016	31.93
19830-009	8	141	6	07/14/10 10:20:55	11.89	8.96	7.87	49052	31.96
19830-008	8	142	6	07/14/10 10:21:16	11.99	9.06	7.94	48996	31.93
19830-015	8	143	6	07/14/10 10:21:32	12.09	8.90	7.76	48990	31.93
19830-016	8	144	6	07/14/10 10:21:47	12.22	8.29	7.74	49025	31.96

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	1	1	7	07/15/10 10:01:15	12.41	8.55	7.74	48900	31.88
19830-016	1	2	7	07/15/10 10:02:09	12.30	8.07	7.74	47879	31.13
19830-015	1	3	7	07/15/10 10:02:22	12.25	7.93	7.59	48866	31.84
19830-017	1	4	7	07/15/10 10:02:33	12.23	7.89	7.51	48821	31.81
19830-001	1	5	7	07/15/10 10:02:44	12.21	7.71	7.51	48849	31.83
19830-011	1	6	7	07/15/10 10:02:57	12.21	7.39	7.56	48845	31.83
19830-014	1	7	7	07/15/10 10:03:18	12.21	7.73	7.59	48902	31.87
19830-009	1	8	7	07/15/10 10:03:31	12.17	7.64	7.59	48804	31.80
19830-012	1	9	7	07/15/10 10:03:43	12.19	7.40	7.63	48914	31.88
19830-010	1	10	7	07/15/10 10:04:13	12.08	7.92	7.66	48914	31.87
19830-008	1	11	7	07/15/10 10:04:30	12.04	8.18	7.78	48911	31.87
19830-006	1	12	7	07/15/10 10:04:41	12.04	8.00	7.65	48856	31.83
19830-004	1	13	7	07/15/10 10:04:52	12.05	7.65	7.51	48879	31.84
19830-013	1	14	7	07/15/10 10:05:05	12.04	7.73	7.65	48896	31.86
19830-000	1	15	7	07/15/10 10:05:16	12.01	7.90	7.64	48884	31.85
19830-005	1	16	7	07/15/10 10:05:30	11.98	8.24	7.55	48955	31.90
19830-007	1	17	7	07/15/10 10:05:40	11.95	8.34	7.50	49001	31.93
19830-003	1	18	7	07/15/10 10:05:51	12.00	8.29	7.50	49061	31.97
19830-009	2	19	7	07/15/10 10:06:07	12.16	8.31	7.52	48933	31.89
19830-016	2	20	7	07/15/10 10:06:30	12.26	6.94	7.43	48846	31.83
19830-007	2	21	7	07/15/10 10:06:43	12.28	6.08	7.33	48603	31.66
19830-015	2	22	7	07/15/10 10:07:07	12.25	7.07	7.41	48664	31.70
19830-008	2	23	7	07/15/10 10:07:21	12.24	7.62	7.55	48845	31.83
19830-002	2	24	7	07/15/10 10:07:40	12.24	7.77	7.63	48821	31.81
19830-012	2	25	7	07/15/10 10:07:58	12.19	7.58	7.49	48105	31.29
19830-004	2	26	7	07/15/10 10:08:07	12.19	7.47	7.49	48808	31.80
19830-000	2	27	7	07/15/10 10:08:31	12.06	8.14	7.55	48828	31.81
19830-003	2	28	7	07/15/10 10:08:42	12.03	8.43	7.55	48590	31.63
19830-011	2	29	7	07/15/10 10:08:52	12.03	8.44	7.56	48766	31.76
19830-017	2	30	7	07/15/10 10:09:02	12.04	8.22	7.56	48830	31.81
19830-014	2	31	7	07/15/10 10:09:21	11.99	7.82	7.58	48886	31.85
19830-001	2	32	7	07/15/10 10:09:31	11.94	7.57	7.57	48819	31.80
19830-013	2	33	7	07/15/10 10:09:41	11.92	7.50	7.62	48934	31.88
19830-010	2	34	7	07/15/10 10:09:52	11.99	7.73	7.61	48922	31.87
19830-006	2	35	7	07/15/10 10:10:07	12.14	7.99	7.53	48985	31.93
19830-005	2	36	7	07/15/10 10:10:21	12.21	7.97	7.43	48868	31.84
19830-013	3	37	7	07/15/10 10:10:35	12.19	7.62	7.40	48910	31.87
19830-009	3	38	7	07/15/10 10:10:48	12.24	7.22	7.51	48895	31.87
19830-017	3	39	7	07/15/10 10:11:04	12.30	7.63	7.49	48759	31.77
19830-016	3	40	7	07/15/10 10:11:15	12.26	7.47	7.56	48853	31.84
19830-000	3	41	7	07/15/10 10:11:32	12.23	7.99	7.63	48809	31.80
19830-010	3	42	7	07/15/10 10:12:14	12.21	8.19	7.49	48799	31.79
19830-008	3	43	7	07/15/10 10:12:40	12.12	8.52	7.52	48878	31.85
19830-014	3	44	7	07/15/10 10:12:51	12.14	8.36	7.56	48840	31.82
19830-004	3	45	7	07/15/10 10:13:03	12.05	8.13	7.58	48876	31.84
19830-006	3	46	7	07/15/10 10:13:16	12.11	8.00	7.47	48841	31.82
19830-005	3	47	7	07/15/10 10:13:29	12.12	7.64	7.34	48766	31.77
19830-011	3	48	7	07/15/10 10:14:16	11.77	5.30	7.43	49108	32.00
19830-002	3	49	7	07/15/10 10:14:42	11.98	6.44	7.61	48865	31.83
19830-012	3	50	7	07/15/10 10:14:55	12.04	7.17	7.64	48872	31.84
19830-001	3	51	7	07/15/10 10:15:20	11.77	7.85	7.74	48987	31.91
19830-003	3	52	7	07/15/10 10:15:30	11.74	7.98	7.72	48983	31.91
19830-007	3	53	7	07/15/10 10:15:41	11.75	8.19	7.54	48997	31.92

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	3	54	7	07/15/10 10:15:55	11.76	7.92	7.46	48968	31.90
19830-006	4	55	7	07/15/10 10:16:07	11.72	8.04	7.43	48926	31.86
19830-011	4	56	7	07/15/10 10:16:18	11.66	7.94	7.55	48993	31.91
19830-012	4	57	7	07/15/10 10:16:32	11.60	8.11	7.75	48999	31.91
19830-010	4	58	7	07/15/10 10:16:42	11.56	8.39	7.75	48993	31.90
19830-015	4	59	7	07/15/10 10:16:52	11.45	8.58	7.65	49013	31.91
19830-009	4	60	7	07/15/10 10:17:01	11.38	8.46	7.60	49031	31.92
19830-001	4	61	7	07/15/10 10:17:12	11.39	8.42	7.59	49101	31.97
19830-016	4	62	7	07/15/10 10:17:28	11.56	8.09	7.54	49091	31.97
19830-008	4	63	7	07/15/10 10:17:38	11.70	7.86	7.60	49089	31.98
19830-004	4	64	7	07/15/10 10:17:53	11.89	8.03	7.59	49049	31.96
19830-007	4	65	7	07/15/10 10:18:05	11.80	8.06	7.51	48896	31.85
19830-014	4	66	7	07/15/10 10:18:17	11.72	8.00	7.49	48978	31.90
19830-000	4	67	7	07/15/10 10:18:27	11.70	7.80	7.52	48923	31.86
19830-017	4	68	7	07/15/10 10:18:37	11.68	7.84	7.49	48939	31.87
19830-013	4	69	7	07/15/10 10:18:46	11.68	7.76	7.57	48959	31.89
19830-002	4	70	7	07/15/10 10:18:57	11.68	7.85	7.68	48968	31.89
19830-005	4	71	7	07/15/10 10:19:09	11.70	7.98	7.55	48882	31.83
19830-003	4	72	7	07/15/10 10:19:19	11.71	7.97	7.51	48926	31.86
19830-016	5	73	7	07/15/10 10:19:32	11.67	8.10	7.56	48952	31.88
19830-003	5	74	7	07/15/10 10:19:44	11.68	8.06	7.52	48915	31.85
19830-000	5	75	7	07/15/10 10:20:03	11.73	8.02	7.52	48892	31.84
19830-013	5	76	7	07/15/10 10:20:13	11.77	8.21	7.54	48923	31.86
19830-001	5	77	7	07/15/10 10:20:30	11.84	8.21	7.53	48838	31.81
19830-002	5	78	7	07/15/10 10:20:41	11.89	8.25	7.52	48961	31.90
19830-004	5	79	7	07/15/10 10:20:54	11.98	8.03	7.53	48922	31.87
19830-012	5	80	7	07/15/10 10:21:11	12.06	8.05	7.67	48917	31.87
19830-005	5	81	7	07/15/10 10:21:33	11.80	8.26	7.49	48890	31.84
19830-011	5	82	7	07/15/10 10:21:45	11.73	7.92	7.53	48904	31.85
19830-010	5	83	7	07/15/10 10:21:57	11.67	7.89	7.55	48986	31.90
19830-017	5	84	7	07/15/10 10:22:14	11.68	7.27	7.48	48847	31.80
19830-009	5	85	7	07/15/10 10:22:33	11.69	7.27	7.57	48969	31.89
19830-006	5	86	7	07/15/10 10:22:58	11.74	7.71	7.39	48898	31.84
19830-008	5	87	7	07/15/10 10:23:24	11.76	8.10	7.68	48945	31.88
19830-007	5	88	7	07/15/10 10:23:41	11.76	8.26	7.51	48935	31.87
19830-014	5	89	7	07/15/10 10:23:55	11.71	8.14	7.53	48958	31.89
19830-015	5	90	7	07/15/10 10:24:03	11.70	8.17	7.58	48967	31.89
19830-005	6	91	7	07/15/10 10:24:12	11.70	8.18	7.56	48949	31.88
19830-007	6	92	7	07/15/10 10:24:23	11.74	8.22	7.48	48944	31.88
19830-002	6	93	7	07/15/10 10:24:34	11.78	8.16	7.54	49014	31.93
19830-009	6	94	7	07/15/10 10:24:45	11.84	8.06	7.57	48964	31.90
19830-013	6	95	7	07/15/10 10:24:57	11.88	7.93	7.67	49016	31.94
19830-004	6	96	7	07/15/10 10:25:05	11.91	7.98	7.66	49053	31.96
19830-012	6	97	7	07/15/10 10:25:27	11.79	8.42	7.61	48991	31.91
19830-015	6	98	7	07/15/10 10:25:39	11.71	8.46	7.62	48974	31.90
19830-014	6	99	7	07/15/10 10:25:49	11.64	8.32	7.67	48819	31.78
19830-003	6	100	7	07/15/10 10:26:00	11.62	8.08	7.65	49063	31.96
19830-010	6	101	7	07/15/10 10:26:11	11.62	8.17	7.64	49139	32.01
19830-000	6	102	7	07/15/10 10:26:21	11.61	8.39	7.63	49046	31.95
19830-016	6	103	7	07/15/10 10:26:30	11.60	8.56	7.64	49090	31.98
19830-001	6	104	7	07/15/10 10:26:38	11.59	8.55	7.69	49077	31.97
19830-017	6	105	7	07/15/10 10:26:52	11.53	8.46	7.69	48991	31.90
19830-008	6	106	7	07/15/10 10:27:00	11.50	8.46	7.70	49007	31.91
19830-011	6	107	7	07/15/10 10:27:11	11.55	8.49	7.67	49062	31.95

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-006	6	108	7	07/15/10 10:27:24	11.67	8.29	7.57	49075	31.97
19830-015	7	109	7	07/15/10 10:27:38	11.83	8.17	7.53	49127	32.01
19830-017	7	110	7	07/15/10 10:27:53	12.01	8.10	7.64	49084	31.99
19830-003	7	111	7	07/15/10 10:28:11	12.13	8.25	7.66	49064	31.98
19830-008	7	112	7	07/15/10 10:28:40	12.25	8.50	7.72	49077	32.00
19830-006	7	113	7	07/15/10 10:28:59	12.10	8.60	7.59	48614	31.66
19830-012	7	114	7	07/15/10 10:29:08	12.05	8.45	7.60	48831	31.81
19830-004	7	115	7	07/15/10 10:29:15	12.03	8.39	7.64	48811	31.79
19830-011	7	116	7	07/15/10 10:29:29	11.96	8.38	7.67	48806	31.79
19830-014	7	117	7	07/15/10 10:29:41	11.90	8.22	7.70	48888	31.84
19830-005	7	118	7	07/15/10 10:29:51	11.86	8.29	7.64	48788	31.77
19830-001	7	119	7	07/15/10 10:30:01	11.82	8.32	7.60	48838	31.80
19830-000	7	120	7	07/15/10 10:30:09	11.80	8.34	7.62	48820	31.79
19830-009	7	121	7	07/15/10 10:30:22	11.69	8.53	7.65	48876	31.83
19830-010	7	122	7	07/15/10 10:30:34	11.60	8.50	7.63	48931	31.86
19830-007	7	123	7	07/15/10 10:30:44	11.60	8.37	7.53	48968	31.89
19830-002	7	124	7	07/15/10 10:30:53	11.67	8.19	7.55	49085	31.98
19830-013	7	125	7	07/15/10 10:31:06	11.74	8.03	7.64	49129	32.01
19830-016	7	126	7	07/15/10 10:31:16	11.88	8.08	7.66	49065	31.97
19830-017	8	127	7	07/15/10 10:31:26	12.02	8.01	7.63	49026	31.95
19830-013	8	128	7	07/15/10 10:31:35	12.15	7.99	7.62	49008	31.94
19830-010	8	129	7	07/15/10 10:31:49	12.09	8.17	7.67	48868	31.84
19830-007	8	130	7	07/15/10 10:32:04	12.03	8.41	7.57	48315	31.44
19830-011	8	131	7	07/15/10 10:32:14	11.98	8.34	7.53	48848	31.82
19830-002	8	132	7	07/15/10 10:32:28	11.98	7.79	7.59	48881	31.84
19830-004	8	133	7	07/15/10 10:32:40	11.99	7.37	7.57	48847	31.82
19830-003	8	134	7	07/15/10 10:32:53	11.93	7.75	7.66	48815	31.79
19830-005	8	135	7	07/15/10 10:33:04	11.89	8.10	7.55	48824	31.80
19830-012	8	136	7	07/15/10 10:33:13	11.84	7.95	7.56	48844	31.81
19830-006	8	137	7	07/15/10 10:33:26	11.75	7.87	7.48	48914	31.86
19830-001	8	138	7	07/15/10 10:33:35	11.73	7.77	7.50	48958	31.89
19830-014	8	139	7	07/15/10 10:33:54	11.77	8.09	7.74	49001	31.92
19830-000	8	140	7	07/15/10 10:34:05	11.83	8.12	7.69	48972	31.90
19830-009	8	141	7	07/15/10 10:34:19	11.90	8.36	7.74	49002	31.93
19830-008	8	142	7	07/15/10 10:34:35	11.98	8.44	7.81	48995	31.93
19830-015	8	143	7	07/15/10 10:34:50	12.08	8.41	7.70	48967	31.91
19830-016	8	144	7	07/15/10 10:35:02	12.21	8.10	7.63	48992	31.93
19830-002	1	1	8	07/16/10 09:51:43	14.48	7.98	7.75	48377	31.57
19830-016	1	2	8	07/16/10 09:53:02	14.57	7.78	7.74	48209	31.45
19830-015	1	3	8	07/16/10 09:53:31	14.60	7.83	7.69	48360	31.56
19830-017	1	4	8	07/16/10 09:53:43	14.56	7.82	7.68	48361	31.56
19830-001	1	5	8	07/16/10 09:53:57	14.36	7.81	7.67	48319	31.52
19830-011	1	6	8	07/16/10 09:54:15	14.51	7.73	7.69	48423	31.60
19830-014	1	7	8	07/16/10 09:54:38	14.42	7.96	7.70	48525	31.67
19830-009	1	8	8	07/16/10 09:54:51	14.40	7.90	7.69	48402	31.58
19830-012	1	9	8	07/16/10 09:55:47	13.24	8.23	7.49	49485	32.33
19830-010	1	10	8	07/16/10 09:56:33	14.31	7.72	7.69	48385	31.57
19830-008	1	11	8	07/16/10 09:56:49	14.35	7.59	7.72	48440	31.61
19830-006	1	12	8	07/16/10 09:57:07	14.54	7.63	7.68	48419	31.60
19830-004	1	13	8	07/16/10 09:57:29	14.17	7.74	7.66	48372	31.55
19830-013	1	14	8	07/16/10 09:57:52	14.27	7.69	7.70	48414	31.59
19830-000	1	15	8	07/16/10 09:58:19	14.30	7.84	7.68	48396	31.58
19830-005	1	16	8	07/16/10 09:58:41	14.33	7.87	7.69	48385	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	1	17	8	07/16/10 09:58:56	14.27	7.78	7.66	48383	31.57
19830-003	1	18	8	07/16/10 09:59:12	14.19	7.63	7.67	48374	31.56
19830-009	2	19	8	07/16/10 09:59:48	14.55	7.76	7.72	48354	31.55
19830-016	2	20	8	07/16/10 10:00:13	14.47	7.69	7.64	48535	31.68
19830-007	2	21	8	07/16/10 10:00:33	14.75	7.51	7.62	48355	31.56
19830-015	2	22	8	07/16/10 10:00:52	14.63	7.50	7.66	48221	31.46
19830-008	2	23	8	07/16/10 10:01:15	14.44	7.68	7.70	48394	31.58
19830-002	2	24	8	07/16/10 10:01:29	14.54	7.52	7.72	48432	31.61
19830-012	2	25	8	07/16/10 10:01:49	14.61	7.59	7.72	48274	31.50
19830-004	2	26	8	07/16/10 10:02:02	14.56	7.55	7.71	48332	31.54
19830-000	2	27	8	07/16/10 10:02:26	14.11	7.83	7.68	48357	31.54
19830-003	2	28	8	07/16/10 10:02:43	14.41	7.73	7.69	48354	31.55
19830-011	2	29	8	07/16/10 10:02:58	14.47	7.63	7.70	48331	31.53
19830-017	2	30	8	07/16/10 10:03:11	14.48	7.69	7.69	48354	31.55
19830-014	2	31	8	07/16/10 10:03:24	14.42	7.68	7.69	48348	31.54
19830-001	2	32	8	07/16/10 10:03:41	14.34	7.63	7.70	48354	31.55
19830-013	2	33	8	07/16/10 10:03:57	14.23	7.61	7.73	48289	31.50
19830-010	2	34	8	07/16/10 10:04:20	14.31	7.87	7.70	48440	31.61
19830-006	2	35	8	07/16/10 10:04:54	14.45	7.71	7.67	48353	31.55
19830-005	2	36	8	07/16/10 10:05:23	14.64	7.62	7.68	48341	31.54
19830-013	3	37	8	07/16/10 10:05:44	14.60	7.50	7.69	48345	31.55
19830-009	3	38	8	07/16/10 10:06:07	14.63	7.60	7.71	48325	31.53
19830-017	3	39	8	07/16/10 10:06:32	14.63	7.46	7.63	48332	31.54
19830-016	3	40	8	07/16/10 10:06:51	14.50	7.45	7.67	48337	31.54
19830-000	3	41	8	07/16/10 10:07:21	14.79	7.83	7.73	48322	31.53
19830-010	3	42	8	07/16/10 10:07:58	14.63	7.76	7.71	48308	31.52
19830-008	3	43	8	07/16/10 10:08:18	14.01	7.89	7.66	48329	31.52
19830-014	3	44	8	07/16/10 10:08:33	14.31	7.64	7.69	48518	31.66
19830-004	3	45	8	07/16/10 10:08:46	14.38	7.66	7.70	48352	31.55
19830-006	3	46	8	07/16/10 10:09:01	14.51	7.63	7.68	48383	31.57
19830-005	3	47	8	07/16/10 10:09:18	14.57	7.59	7.67	48342	31.54
19830-011	3	48	8	07/16/10 10:09:36	14.32	7.62	7.69	48341	31.54
19830-002	3	49	8	07/16/10 10:10:00	14.32	7.53	7.70	48368	31.56
19830-012	3	50	8	07/16/10 10:10:18	14.35	7.52	7.71	48366	31.56
19830-001	3	51	8	07/16/10 10:10:39	13.81	7.75	7.72	48341	31.52
19830-003	3	52	8	07/16/10 10:10:52	13.80	7.66	7.72	48444	31.60
19830-007	3	53	8	07/16/10 10:11:15	13.92	7.54	7.60	48438	31.60
19830-015	3	54	8	07/16/10 10:11:34	14.12	7.36	7.64	48420	31.59
19830-006	4	55	8	07/16/10 10:11:49	14.08	7.57	7.66	48375	31.55
19830-011	4	56	8	07/16/10 10:12:03	13.96	7.60	7.69	48389	31.56
19830-012	4	57	8	07/16/10 10:12:15	13.95	7.59	7.72	48394	31.56
19830-010	4	58	8	07/16/10 10:12:31	13.86	7.74	7.73	48338	31.52
19830-015	4	59	8	07/16/10 10:12:45	13.67	7.82	7.69	48384	31.55
19830-009	4	60	8	07/16/10 10:13:01	13.54	7.64	7.69	48420	31.57
19830-001	4	61	8	07/16/10 10:13:16	13.50	7.71	7.67	48464	31.60
19830-016	4	62	8	07/16/10 10:13:36	13.83	7.55	7.68	48463	31.61
19830-008	4	63	8	07/16/10 10:13:50	13.75	7.62	7.69	48400	31.56
19830-004	4	64	8	07/16/10 10:14:11	13.92	7.66	7.68	48455	31.61
19830-007	4	65	8	07/16/10 10:14:43	14.05	7.55	7.66	48397	31.57
19830-014	4	66	8	07/16/10 10:14:57	14.05	7.47	7.66	48387	31.56
19830-000	4	67	8	07/16/10 10:15:12	14.01	7.47	7.66	48401	31.57
19830-017	4	68	8	07/16/10 10:15:27	14.12	7.65	7.67	48476	31.63
19830-013	4	69	8	07/16/10 10:15:45	14.31	7.62	7.70	48387	31.57
19830-002	4	70	8	07/16/10 10:16:01	14.21	7.65	7.72	48346	31.54

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	4	71	8	07/16/10 10:16:13	14.17	7.52	7.69	48349	31.54
19830-003	4	72	8	07/16/10 10:16:33	13.97	7.64	7.67	48371	31.55
19830-016	5	73	8	07/16/10 10:16:50	13.99	7.69	7.68	48397	31.57
19830-003	5	74	8	07/16/10 10:17:03	13.95	7.58	7.68	48440	31.60
19830-000	5	75	8	07/16/10 10:17:25	14.26	7.69	7.68	48415	31.59
19830-013	5	76	8	07/16/10 10:17:42	14.31	7.70	7.67	48350	31.54
19830-001	5	77	8	07/16/10 10:17:53	14.29	7.57	7.67	48320	31.52
19830-002	5	78	8	07/16/10 10:18:07	14.24	7.58	7.69	48343	31.54
19830-004	5	79	8	07/16/10 10:18:21	14.23	7.47	7.68	48355	31.54
19830-012	5	80	8	07/16/10 10:18:35	14.21	7.43	7.71	48322	31.52
19830-005	5	81	8	07/16/10 10:19:05	14.00	7.88	7.69	47830	31.16
19830-011	5	82	8	07/16/10 10:19:25	14.22	7.64	7.71	48337	31.53
19830-010	5	83	8	07/16/10 10:19:41	14.18	7.55	7.69	48342	31.53
19830-017	5	84	8	07/16/10 10:20:04	14.36	7.23	7.64	48188	31.43
19830-009	5	85	8	07/16/10 10:20:27	14.06	7.34	7.64	48377	31.56
19830-006	5	86	8	07/16/10 10:20:46	14.36	7.40	7.64	48411	31.59
19830-008	5	87	8	07/16/10 10:21:02	14.38	7.44	7.68	48332	31.53
19830-007	5	88	8	07/16/10 10:21:21	14.18	7.59	7.64	48318	31.52
19830-014	5	89	8	07/16/10 10:21:40	14.04	7.62	7.68	48393	31.57
19830-015	5	90	8	07/16/10 10:21:56	14.06	7.61	7.69	48415	31.58
19830-005	6	91	8	07/16/10 10:22:44	14.19	7.44	7.68	48379	31.56
19830-007	6	92	8	07/16/10 10:22:58	14.23	7.55	7.66	48385	31.57
19830-002	6	93	8	07/16/10 10:23:13	14.29	7.45	7.69	48363	31.55
19830-009	6	94	8	07/16/10 10:23:34	14.21	7.61	7.70	48409	31.58
19830-013	6	95	8	07/16/10 10:23:49	14.18	7.70	7.73	48366	31.55
19830-004	6	96	8	07/16/10 10:24:07	14.10	7.67	7.72	48367	31.55
19830-012	6	97	8	07/16/10 10:24:34	13.63	7.86	7.70	48405	31.56
19830-015	6	98	8	07/16/10 10:24:52	13.77	7.74	7.70	48435	31.59
19830-014	6	99	8	07/16/10 10:25:14	13.59	7.54	7.72	48369	31.54
19830-003	6	100	8	07/16/10 10:25:26	13.54	7.47	7.70	48394	31.55
19830-010	6	101	8	07/16/10 10:25:46	13.48	7.77	7.70	48470	31.60
19830-000	6	102	8	07/16/10 10:26:02	13.63	7.87	7.70	48509	31.64
19830-016	6	103	8	07/16/10 10:26:18	13.58	7.80	7.72	48450	31.59
19830-001	6	104	8	07/16/10 10:26:37	13.42	7.66	7.74	48419	31.57
19830-017	6	105	8	07/16/10 10:26:51	13.29	7.74	7.73	48448	31.58
19830-008	6	106	8	07/16/10 10:27:06	13.32	7.81	7.72	48487	31.61
19830-011	6	107	8	07/16/10 10:27:18	13.31	7.81	7.71	48490	31.61
19830-006	6	108	8	07/16/10 10:27:31	13.36	7.72	7.67	48569	31.67
19830-015	7	109	8	07/16/10 10:27:48	13.46	7.63	7.64	48553	31.66
19830-017	7	110	8	07/16/10 10:28:04	13.58	7.57	7.68	48549	31.67
19830-003	7	111	8	07/16/10 10:28:20	13.78	7.61	7.69	48489	31.63
19830-008	7	112	8	07/16/10 10:28:40	13.80	7.72	7.72	48504	31.64
19830-006	7	113	8	07/16/10 10:29:02	14.13	7.81	7.71	48483	31.63
19830-012	7	114	8	07/16/10 10:29:20	14.27	7.69	7.73	48349	31.54
19830-004	7	115	8	07/16/10 10:29:34	14.28	7.77	7.74	48360	31.55
19830-011	7	116	8	07/16/10 10:29:48	14.39	7.81	7.74	48388	31.57
19830-014	7	117	8	07/16/10 10:30:01	14.37	7.67	7.73	48313	31.52
19830-005	7	118	8	07/16/10 10:30:14	14.31	7.78	7.70	48342	31.54
19830-001	7	119	8	07/16/10 10:30:32	13.88	7.79	7.70	48280	31.48
19830-000	7	120	8	07/16/10 10:30:53	14.09	7.89	7.71	48396	31.57
19830-009	7	121	8	07/16/10 10:31:11	13.82	8.03	7.70	48306	31.50
19830-010	7	122	8	07/16/10 10:31:26	13.83	7.78	7.69	48464	31.61
19830-007	7	123	8	07/16/10 10:31:38	13.86	7.72	7.66	48390	31.56
19830-002	7	124	8	07/16/10 10:31:50	13.89	7.64	7.67	48433	31.59

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	7	125	8	07/16/10 10:32:05	13.79	7.61	7.72	48439	31.59
19830-016	7	126	8	07/16/10 10:32:21	13.96	7.70	7.71	48489	31.63
19830-017	8	127	8	07/16/10 10:32:36	14.13	7.57	7.69	48444	31.61
19830-013	8	128	8	07/16/10 10:32:49	14.16	7.57	7.69	48364	31.55
19830-010	8	129	8	07/16/10 10:33:14	14.10	7.81	7.72	48405	31.58
19830-007	8	130	8	07/16/10 10:33:30	14.35	7.84	7.68	48427	31.60
19830-011	8	131	8	07/16/10 10:33:42	14.13	7.81	7.66	48224	31.45
19830-002	8	132	8	07/16/10 10:33:56	14.15	7.49	7.68	48409	31.58
19830-004	8	133	8	07/16/10 10:34:10	14.32	7.39	7.68	48431	31.60
19830-003	8	134	8	07/16/10 10:34:26	14.33	7.58	7.71	48354	31.55
19830-005	8	135	8	07/16/10 10:34:41	14.28	7.65	7.65	48347	31.54
19830-012	8	136	8	07/16/10 10:34:54	14.12	7.44	7.69	48246	31.46
19830-006	8	137	8	07/16/10 10:35:07	13.86	7.85	7.70	48356	31.53
19830-001	8	138	8	07/16/10 10:35:20	13.79	7.71	7.70	48383	31.55
19830-014	8	139	8	07/16/10 10:35:28	13.83	7.72	7.73	48591	31.70
19830-000	8	140	8	07/16/10 10:35:35	13.97	7.69	7.75	48587	31.70
19830-009	8	141	8	07/16/10 10:35:44	14.05	7.80	7.75	48402	31.57
19830-008	8	142	8	07/16/10 10:35:52	14.02	7.90	7.76	48406	31.57
19830-015	8	143	8	07/16/10 10:36:05	14.03	7.94	7.79	48420	31.59
19830-016	8	144	8	07/16/10 10:36:15	14.06	7.76	7.74	48412	31.58
19830-002	1	1	9	07/17/10 10:59:06	12.42	8.12	7.63	48466	31.56
19830-016	1	2	9	07/17/10 10:59:42	12.35	7.94	7.65	46215	29.94
19830-015	1	3	9	07/17/10 11:00:07	12.26	7.62	7.44	48403	31.51
19830-017	1	4	9	07/17/10 11:00:25	12.25	7.46	7.47	48398	31.51
19830-001	1	5	9	07/17/10 11:00:40	12.24	7.29	7.52	48409	31.51
19830-011	1	6	9	07/17/10 11:01:06	12.21	7.03	7.46	48414	31.52
19830-014	1	7	9	07/17/10 11:01:19	12.20	6.85	7.46	48468	31.55
19830-009	1	8	9	07/17/10 11:01:32	12.19	6.79	7.48	48385	31.49
19830-012	1	9	9	07/17/10 11:01:50	12.22	6.41	7.57	48491	31.57
19830-010	1	10	9	07/17/10 11:02:33	12.07	6.97	7.53	48447	31.53
19830-008	1	11	9	07/17/10 11:02:50	12.03	7.15	7.69	48457	31.54
19830-006	1	12	9	07/17/10 11:03:06	12.01	7.32	7.57	48393	31.49
19830-004	1	13	9	07/17/10 11:03:26	12.01	7.27	7.48	48459	31.54
19830-013	1	14	9	07/17/10 11:03:40	12.02	7.38	7.54	48457	31.54
19830-000	1	15	9	07/17/10 11:03:54	12.00	7.29	7.55	48420	31.51
19830-005	1	16	9	07/17/10 11:04:15	11.95	7.74	7.54	48505	31.57
19830-007	1	17	9	07/17/10 11:04:30	11.92	7.88	7.50	48543	31.60
19830-003	1	18	9	07/17/10 11:04:46	12.01	7.90	7.51	48580	31.63
19830-009	2	19	9	07/17/10 11:05:26	12.27	7.47	7.55	48376	31.49
19830-016	2	20	9	07/17/10 11:05:43	12.28	7.04	7.40	48347	31.47
19830-007	2	21	9	07/17/10 11:06:03	12.33	5.91	7.28	48020	31.24
19830-015	2	22	9	07/17/10 11:06:46	12.31	7.35	7.47	48295	31.43
19830-008	2	23	9	07/17/10 11:07:05	12.31	7.53	7.64	48355	31.48
19830-002	2	24	9	07/17/10 11:07:20	12.26	7.59	7.69	48385	31.50
19830-012	2	25	9	07/17/10 11:07:42	12.18	7.45	7.62	48027	31.23
19830-004	2	26	9	07/17/10 11:08:00	12.18	7.46	7.51	48144	31.32
19830-000	2	27	9	07/17/10 11:08:32	12.06	7.96	7.57	48369	31.48
19830-003	2	28	9	07/17/10 11:08:45	12.04	8.10	7.55	48019	31.22
19830-011	2	29	9	07/17/10 11:09:15	12.04	7.61	7.49	48390	31.49
19830-017	2	30	9	07/17/10 11:09:29	12.06	7.49	7.47	48372	31.48
19830-014	2	31	9	07/17/10 11:09:47	12.02	7.40	7.55	48418	31.51
19830-001	2	32	9	07/17/10 11:10:02	11.96	7.14	7.57	48390	31.49
19830-013	2	33	9	07/17/10 11:10:13	11.95	7.08	7.60	48500	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-010	2	34	9	07/17/10 11:10:33	12.02	7.43	7.56	48432	31.52
19830-006	2	35	9	07/17/10 11:10:54	12.19	7.51	7.48	48479	31.56
19830-005	2	36	9	07/17/10 11:11:07	12.20	7.41	7.45	48455	31.54
19830-013	3	37	9	07/17/10 11:11:57	12.21	6.04	7.42	48473	31.56
19830-009	3	38	9	07/17/10 11:12:41	12.31	7.57	7.61	48396	31.51
19830-017	3	39	9	07/17/10 11:12:52	12.34	7.66	7.53	48347	31.47
19830-016	3	40	9	07/17/10 11:13:11	12.25	7.02	7.57	48439	31.53
19830-000	3	41	9	07/17/10 11:13:48	12.24	8.22	7.66	48355	31.47
19830-010	3	42	9	07/17/10 11:14:03	12.22	8.32	7.61	48346	31.47
19830-008	3	43	9	07/17/10 11:14:19	12.12	8.17	7.58	48367	31.48
19830-014	3	44	9	07/17/10 11:14:53	12.11	7.53	7.63	48365	31.48
19830-004	3	45	9	07/17/10 11:15:06	12.03	7.48	7.57	48400	31.50
19830-006	3	46	9	07/17/10 11:15:45	12.11	6.71	7.38	48336	31.45
19830-005	3	47	9	07/17/10 11:16:27	12.09	7.67	7.51	48318	31.44
19830-011	3	48	9	07/17/10 11:17:17	11.77	6.33	7.49	48605	31.63
19830-002	3	49	9	07/17/10 11:17:31	11.90	6.26	7.57	48498	31.56
19830-012	3	50	9	07/17/10 11:17:52	12.06	6.85	7.63	48440	31.53
19830-001	3	51	9	07/17/10 11:18:26	11.76	7.48	7.75	48585	31.62
19830-003	3	52	9	07/17/10 11:19:28	11.76	7.92	7.68	48505	31.56
19830-007	3	53	9	07/17/10 11:19:49	11.77	7.64	7.44	48462	31.53
19830-015	3	54	9	07/17/10 11:20:22	11.76	7.77	7.57	48490	31.55
19830-006	4	55	9	07/17/10 11:20:48	11.70	7.83	7.50	48482	31.54
19830-011	4	56	9	07/17/10 11:21:10	11.64	7.73	7.62	48560	31.59
19830-012	4	57	9	07/17/10 11:21:40	11.58	8.04	7.82	48570	31.60
19830-010	4	58	9	07/17/10 11:22:09	11.52	8.07	7.70	48579	31.60
19830-015	4	59	9	07/17/10 11:22:26	11.42	8.05	7.64	48605	31.62
19830-009	4	60	9	07/17/10 11:22:43	11.34	7.87	7.65	48624	31.63
19830-001	4	61	9	07/17/10 11:23:00	11.39	7.94	7.61	48707	31.69
19830-016	4	62	9	07/17/10 11:23:24	11.58	7.53	7.56	48577	31.60
19830-008	4	63	9	07/17/10 11:23:55	11.76	7.73	7.66	48543	31.59
19830-004	4	64	9	07/17/10 11:24:34	11.94	7.21	7.55	48531	31.59
19830-007	4	65	9	07/17/10 11:25:06	11.74	7.60	7.46	48498	31.55
19830-014	4	66	9	07/17/10 11:25:49	11.71	6.82	7.49	48530	31.58
19830-000	4	67	9	07/17/10 11:26:31	11.68	7.70	7.53	48474	31.53
19830-017	4	68	9	07/17/10 11:27:15	11.67	6.89	7.47	48497	31.55
19830-013	4	69	9	07/17/10 11:27:56	11.68	7.72	7.68	48505	31.56
19830-002	4	70	9	07/17/10 11:28:42	11.69	7.59	7.72	48511	31.56
19830-005	4	71	9	07/17/10 11:29:22	11.70	7.54	7.50	48452	31.52
19830-003	4	72	9	07/17/10 11:29:47	11.72	7.68	7.59	48485	31.54
19830-016	5	73	9	07/17/10 11:30:02	11.68	7.84	7.59	48486	31.54
19830-003	5	74	9	07/17/10 11:30:24	11.67	7.47	7.52	48493	31.55
19830-000	5	75	9	07/17/10 11:30:52	11.73	7.63	7.56	48407	31.49
19830-013	5	76	9	07/17/10 11:31:07	11.76	7.78	7.56	48457	31.53
19830-001	5	77	9	07/17/10 11:31:23	11.80	7.65	7.52	48405	31.49
19830-002	5	78	9	07/17/10 11:31:43	11.91	7.69	7.61	48465	31.54
19830-004	5	79	9	07/17/10 11:32:02	11.99	7.46	7.52	48448	31.53
19830-012	5	80	9	07/17/10 11:32:18	12.06	7.44	7.67	48492	31.57
19830-005	5	81	9	07/17/10 11:32:39	11.79	7.87	7.56	48450	31.52
19830-011	5	82	9	07/17/10 11:32:56	11.70	7.59	7.58	48497	31.55
19830-010	5	83	9	07/17/10 11:33:07	11.66	7.58	7.51	48482	31.54
19830-017	5	84	9	07/17/10 11:33:29	11.69	6.07	7.44	48413	31.49
19830-009	5	85	9	07/17/10 11:33:55	11.69	6.51	7.53	48544	31.59
19830-006	5	86	9	07/17/10 11:34:15	11.73	6.97	7.50	48446	31.52
19830-008	5	87	9	07/17/10 11:34:46	11.76	7.87	7.66	48512	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	5	88	9	07/17/10 11:35:39	11.77	7.92	7.52	48390	31.48
19830-014	5	89	9	07/17/10 11:35:54	11.69	7.95	7.58	48508	31.56
19830-015	5	90	9	07/17/10 11:36:09	11.66	7.92	7.65	48549	31.59
19830-005	6	91	9	07/17/10 11:36:20	11.68	7.93	7.64	48502	31.55
19830-007	6	92	9	07/17/10 11:36:36	11.72	7.93	7.53	48473	31.54
19830-002	6	93	9	07/17/10 11:36:48	11.77	7.86	7.57	48564	31.60
19830-009	6	94	9	07/17/10 11:37:13	11.84	7.52	7.63	48509	31.57
19830-013	6	95	9	07/17/10 11:37:28	11.87	7.47	7.58	48408	31.50
19830-004	6	96	9	07/17/10 11:37:44	11.92	7.65	7.60	48604	31.64
19830-012	6	97	9	07/17/10 11:38:12	11.79	8.11	7.65	48542	31.59
19830-015	6	98	9	07/17/10 11:38:43	11.63	7.74	7.72	48554	31.59
19830-014	6	99	9	07/17/10 11:38:59	11.61	7.71	7.74	48550	31.59
19830-003	6	100	9	07/17/10 11:39:13	11.60	7.75	7.70	48635	31.65
19830-010	6	101	9	07/17/10 11:39:45	11.59	8.23	7.72	47251	30.65
19830-000	6	102	9	07/17/10 11:40:05	11.58	8.29	7.68	48603	31.62
19830-016	6	103	9	07/17/10 11:40:36	11.56	7.91	7.76	48657	31.66
19830-001	6	104	9	07/17/10 11:41:01	11.57	7.91	7.81	48686	31.68
19830-017	6	105	9	07/17/10 11:41:27	11.48	8.15	7.71	48574	31.60
19830-008	6	106	9	07/17/10 11:41:40	11.46	8.18	7.73	48590	31.61
19830-011	6	107	9	07/17/10 11:42:18	11.56	7.64	7.73	48572	31.60
19830-006	6	108	9	07/17/10 11:42:58	11.68	8.04	7.62	48588	31.62
19830-015	7	109	9	07/17/10 11:43:44	11.85	7.87	7.64	48507	31.57
19830-017	7	110	9	07/17/10 11:44:03	11.99	7.90	7.70	48637	31.67
19830-003	7	111	9	07/17/10 11:44:23	12.10	7.86	7.67	48650	31.68
19830-008	7	112	9	07/17/10 11:44:40	12.21	7.79	7.74	48684	31.71
19830-006	7	113	9	07/17/10 11:45:02	12.10	8.18	7.69	48333	31.45
19830-012	7	114	9	07/17/10 11:45:19	12.03	8.14	7.73	48361	31.47
19830-004	7	115	9	07/17/10 11:45:35	11.98	8.13	7.77	48379	31.48
19830-011	7	116	9	07/17/10 11:46:11	11.93	7.64	7.70	48364	31.47
19830-014	7	117	9	07/17/10 11:46:44	11.85	8.08	7.78	48469	31.54
19830-005	7	118	9	07/17/10 11:47:01	11.83	8.18	7.64	48357	31.46
19830-001	7	119	9	07/17/10 11:47:22	11.78	8.06	7.67	48453	31.52
19830-000	7	120	9	07/17/10 11:47:36	11.79	8.09	7.70	48357	31.46
19830-009	7	121	9	07/17/10 11:47:54	11.65	8.32	7.74	48458	31.52
19830-010	7	122	9	07/17/10 11:48:13	11.56	7.99	7.65	48493	31.54
19830-007	7	123	9	07/17/10 11:48:36	11.59	7.79	7.52	48508	31.55
19830-002	7	124	9	07/17/10 11:48:57	11.70	7.69	7.69	48561	31.60
19830-013	7	125	9	07/17/10 11:49:32	11.78	7.94	7.78	48603	31.63
19830-016	7	126	9	07/17/10 11:50:01	11.96	7.82	7.71	48483	31.55
19830-017	8	127	9	07/17/10 11:50:20	12.09	7.68	7.64	48486	31.56
19830-013	8	128	9	07/17/10 11:50:34	12.19	7.65	7.66	48551	31.61
19830-010	8	129	9	07/17/10 11:51:02	12.12	8.09	7.76	48272	31.41
19830-007	8	130	9	07/17/10 11:51:17	12.05	8.20	7.68	48375	31.48
19830-011	8	131	9	07/17/10 11:52:04	11.92	6.83	7.46	48464	31.54
19830-002	8	132	9	07/17/10 11:52:24	11.95	6.85	7.50	48457	31.53
19830-004	8	133	9	07/17/10 11:53:06	11.99	7.77	7.63	48363	31.47
19830-003	8	134	9	07/17/10 11:53:23	11.92	7.96	7.73	48412	31.50
19830-005	8	135	9	07/17/10 11:53:36	11.87	8.10	7.61	48393	31.48
19830-012	8	136	9	07/17/10 11:54:05	11.79	7.69	7.72	48444	31.52
19830-006	8	137	9	07/17/10 11:54:22	11.73	7.69	7.58	48506	31.56
19830-001	8	138	9	07/17/10 11:54:38	11.71	7.61	7.69	48553	31.59
19830-014	8	139	9	07/17/10 11:54:52	11.74	7.86	7.76	48557	31.60
19830-000	8	140	9	07/17/10 11:55:13	11.84	8.12	7.75	48501	31.56
19830-009	8	141	9	07/17/10 11:55:29	11.89	8.37	7.84	48585	31.62

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	8	142	9	07/17/10 11:55:42	11.96	8.30	7.89	48577	31.62
19830-015	8	143	9	07/17/10 11:55:59	12.09	8.22	7.75	48552	31.61
19830-016	8	144	9	07/17/10 11:56:14	12.22	7.94	7.71	48571	31.63
19830-002	1	1	10	07/18/10 10:51:17	13.18	7.71	7.77	47854	31.15
19830-016	1	2	10	07/18/10 10:52:03	13.29	7.23	7.75	47348	30.79
19830-015	1	3	10	07/18/10 10:52:20	13.23	7.25	7.67	47805	31.11
19830-017	1	4	10	07/18/10 10:52:42	13.14	7.20	7.65	47800	31.11
19830-001	1	5	10	07/18/10 10:53:02	12.87	7.20	7.68	47800	31.10
19830-011	1	6	10	07/18/10 10:53:21	12.94	7.14	7.64	47854	31.14
19830-014	1	7	10	07/18/10 10:53:47	13.02	6.86	7.67	47851	31.14
19830-009	1	8	10	07/18/10 10:54:02	12.91	6.73	7.67	47809	31.11
19830-012	1	9	10	07/18/10 10:54:20	12.85	6.86	7.64	47803	31.10
19830-010	1	10	10	07/18/10 10:54:44	12.85	6.93	7.69	47841	31.13
19830-008	1	11	10	07/18/10 10:55:08	12.94	7.26	7.80	47847	31.13
19830-006	1	12	10	07/18/10 10:55:26	12.99	7.15	7.65	47815	31.11
19830-004	1	13	10	07/18/10 10:55:42	12.84	7.07	7.59	47791	31.09
19830-013	1	14	10	07/18/10 10:55:57	12.78	7.31	7.70	47858	31.14
19830-000	1	15	10	07/18/10 10:56:13	12.76	7.41	7.69	47825	31.11
19830-005	1	16	10	07/18/10 10:56:26	12.67	7.72	7.68	47853	31.13
19830-007	1	17	10	07/18/10 10:56:40	12.61	7.85	7.62	47871	31.14
19830-003	1	18	10	07/18/10 10:56:58	12.60	7.87	7.64	47893	31.15
19830-009	2	19	10	07/18/10 10:57:28	13.09	7.45	7.68	47845	31.14
19830-016	2	20	10	07/18/10 10:58:05	13.21	5.56	7.55	47788	31.10
19830-007	2	21	10	07/18/10 10:58:48	13.34	6.21	7.42	47738	31.07
19830-015	2	22	10	07/18/10 11:00:01	13.31	6.96	7.47	47740	31.07
19830-008	2	23	10	07/18/10 11:00:16	13.31	7.29	7.66	47793	31.11
19830-002	2	24	10	07/18/10 11:00:29	13.34	7.56	7.73	47841	31.14
19830-012	2	25	10	07/18/10 11:00:46	13.27	7.45	7.73	47691	31.03
19830-004	2	26	10	07/18/10 11:01:08	13.14	7.46	7.62	47732	31.06
19830-000	2	27	10	07/18/10 11:01:26	13.09	7.61	7.63	47801	31.11
19830-003	2	28	10	07/18/10 11:01:42	13.19	7.81	7.63	47763	31.08
19830-011	2	29	10	07/18/10 11:02:02	13.08	7.63	7.63	47768	31.08
19830-017	2	30	10	07/18/10 11:02:16	13.13	7.51	7.63	47812	31.12
19830-014	2	31	10	07/18/10 11:02:29	13.10	7.49	7.67	47786	31.10
19830-001	2	32	10	07/18/10 11:02:51	12.96	7.10	7.70	47781	31.09
19830-013	2	33	10	07/18/10 11:03:10	12.89	7.25	7.74	47849	31.13
19830-010	2	34	10	07/18/10 11:03:24	12.95	7.56	7.70	47832	31.12
19830-006	2	35	10	07/18/10 11:03:59	13.04	7.45	7.55	47834	31.13
19830-005	2	36	10	07/18/10 11:04:16	13.15	7.21	7.54	47831	31.13
19830-013	3	37	10	07/18/10 11:04:34	13.18	7.00	7.59	47823	31.13
19830-009	3	38	10	07/18/10 11:04:57	13.24	7.12	7.64	47784	31.10
19830-017	3	39	10	07/18/10 11:05:15	13.27	7.15	7.55	47803	31.11
19830-016	3	40	10	07/18/10 11:05:37	13.19	6.98	7.64	47804	31.11
19830-000	3	41	10	07/18/10 11:06:00	13.22	7.81	7.71	47787	31.10
19830-010	3	42	10	07/18/10 11:06:13	13.15	8.08	7.62	47652	31.00
19830-008	3	43	10	07/18/10 11:06:38	12.82	7.79	7.65	47829	31.12
19830-014	3	44	10	07/18/10 11:06:55	13.07	7.56	7.71	47899	31.18
19830-004	3	45	10	07/18/10 11:07:09	13.06	7.49	7.67	47800	31.10
19830-006	3	46	10	07/18/10 11:07:21	13.12	7.41	7.61	47824	31.12
19830-005	3	47	10	07/18/10 11:07:36	13.17	7.27	7.58	47767	31.08
19830-011	3	48	10	07/18/10 11:07:54	12.74	7.49	7.64	47801	31.09
19830-002	3	49	10	07/18/10 11:08:09	13.01	7.20	7.68	47936	31.20
19830-012	3	50	10	07/18/10 11:08:23	13.02	6.90	7.68	47742	31.06

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	3	51	10	07/18/10 11:08:50	12.25	7.57	7.73	47881	31.13
19830-003	3	52	10	07/18/10 11:09:14	12.35	7.96	7.72	47921	31.16
19830-007	3	53	10	07/18/10 11:09:53	12.51	6.69	7.41	47866	31.13
19830-015	3	54	10	07/18/10 11:10:28	12.58	7.57	7.61	47858	31.13
19830-006	4	55	10	07/18/10 11:10:46	12.49	7.79	7.63	47836	31.11
19830-011	4	56	10	07/18/10 11:11:06	12.51	7.76	7.67	47918	31.17
19830-012	4	57	10	07/18/10 11:11:23	12.51	7.81	7.78	47909	31.16
19830-010	4	58	10	07/18/10 11:11:40	12.29	8.08	7.75	47852	31.11
19830-015	4	59	10	07/18/10 11:11:58	11.95	8.03	7.68	47894	31.13
19830-009	4	60	10	07/18/10 11:12:17	11.91	7.93	7.69	47983	31.19
19830-001	4	61	10	07/18/10 11:12:34	11.92	8.02	7.66	48009	31.21
19830-016	4	62	10	07/18/10 11:12:54	12.26	7.66	7.65	47994	31.21
19830-008	4	63	10	07/18/10 11:13:14	12.36	7.70	7.73	47968	31.20
19830-004	4	64	10	07/18/10 11:13:28	12.51	7.80	7.68	47968	31.21
19830-007	4	65	10	07/18/10 11:13:42	12.36	7.68	7.59	47852	31.12
19830-014	4	66	10	07/18/10 11:13:57	12.53	7.51	7.58	47938	31.18
19830-000	4	67	10	07/18/10 11:14:13	12.60	7.26	7.60	47873	31.14
19830-017	4	68	10	07/18/10 11:14:26	12.68	7.44	7.59	47902	31.16
19830-013	4	69	10	07/18/10 11:14:39	12.76	7.31	7.66	47877	31.15
19830-002	4	70	10	07/18/10 11:14:53	12.78	7.55	7.70	47844	31.13
19830-005	4	71	10	07/18/10 11:15:05	12.74	7.59	7.64	47804	31.10
19830-003	4	72	10	07/18/10 11:15:27	12.50	7.72	7.66	47817	31.10
19830-016	5	73	10	07/18/10 11:15:48	12.54	7.70	7.65	47870	31.14
19830-003	5	74	10	07/18/10 11:16:13	12.73	7.23	7.59	47847	31.13
19830-000	5	75	10	07/18/10 11:16:41	12.96	7.51	7.66	47808	31.11
19830-013	5	76	10	07/18/10 11:16:59	13.03	7.58	7.62	47809	31.11
19830-001	5	77	10	07/18/10 11:17:23	13.07	7.56	7.56	47729	31.05
19830-002	5	78	10	07/18/10 11:17:48	13.20	7.20	7.62	47816	31.12
19830-004	5	79	10	07/18/10 11:18:07	13.11	7.09	7.61	47783	31.09
19830-012	5	80	10	07/18/10 11:18:24	12.99	7.45	7.72	47808	31.11
19830-005	5	81	10	07/18/10 11:18:45	12.48	7.86	7.63	47780	31.07
19830-011	5	82	10	07/18/10 11:19:02	12.61	7.47	7.67	47894	31.16
19830-010	5	83	10	07/18/10 11:19:31	12.68	5.60	7.52	47849	31.13
19830-017	5	84	10	07/18/10 11:20:50	12.79	6.63	7.58	47800	31.09
19830-009	5	85	10	07/18/10 11:21:11	12.73	6.86	7.66	47850	31.13
19830-006	5	86	10	07/18/10 11:21:33	12.92	7.28	7.55	47829	31.12
19830-008	5	87	10	07/18/10 11:21:51	12.91	7.47	7.67	47839	31.13
19830-007	5	88	10	07/18/10 11:22:09	12.59	7.85	7.61	47771	31.07
19830-014	5	89	10	07/18/10 11:22:28	12.40	7.97	7.66	47851	31.12
19830-015	5	90	10	07/18/10 11:22:43	12.50	7.83	7.67	47934	31.18
19830-005	6	91	10	07/18/10 11:23:00	12.68	7.83	7.67	47876	31.15
19830-007	6	92	10	07/18/10 11:23:18	12.78	7.78	7.56	47835	31.12
19830-002	6	93	10	07/18/10 11:23:46	12.90	7.49	7.65	47830	31.12
19830-009	6	94	10	07/18/10 11:23:59	12.91	7.46	7.68	47826	31.12
19830-013	6	95	10	07/18/10 11:24:14	12.92	7.45	7.73	47837	31.13
19830-004	6	96	10	07/18/10 11:24:36	12.77	7.63	7.70	47862	31.14
19830-012	6	97	10	07/18/10 11:25:19	12.31	8.04	7.71	47895	31.14
19830-015	6	98	10	07/18/10 11:25:42	12.25	7.91	7.74	47901	31.15
19830-014	6	99	10	07/18/10 11:26:01	12.19	7.76	7.72	47933	31.17
19830-003	6	100	10	07/18/10 11:26:20	12.11	7.84	7.70	47924	31.16
19830-010	6	101	10	07/18/10 11:26:34	12.09	8.04	7.71	47984	31.20
19830-000	6	102	10	07/18/10 11:26:56	12.17	8.21	7.70	47960	31.19
19830-016	6	103	10	07/18/10 11:27:14	12.13	8.14	7.74	47956	31.18
19830-001	6	104	10	07/18/10 11:27:27	11.96	8.02	7.78	47870	31.11

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	6	105	10	07/18/10 11:27:46	11.72	8.19	7.72	47942	31.15
19830-008	6	106	10	07/18/10 11:28:03	11.72	8.24	7.74	47999	31.19
19830-011	6	107	10	07/18/10 11:28:24	11.89	8.05	7.75	48004	31.20
19830-006	6	108	10	07/18/10 11:28:49	12.07	7.90	7.65	48007	31.22
19830-015	7	109	10	07/18/10 11:29:09	12.24	7.94	7.66	48044	31.25
19830-017	7	110	10	07/18/10 11:29:26	12.45	7.91	7.72	48019	31.24
19830-003	7	111	10	07/18/10 11:29:43	12.61	7.94	7.69	47976	31.22
19830-008	7	112	10	07/18/10 11:29:59	12.67	7.93	7.75	47981	31.22
19830-006	7	113	10	07/18/10 11:30:27	13.01	8.03	7.67	47816	31.11
19830-012	7	114	10	07/18/10 11:30:37	13.13	7.94	7.69	47877	31.16
19830-004	7	115	10	07/18/10 11:30:51	13.22	7.94	7.76	47813	31.12
19830-011	7	116	10	07/18/10 11:31:04	13.26	7.97	7.74	47790	31.10
19830-014	7	117	10	07/18/10 11:31:14	13.20	7.76	7.76	47735	31.06
19830-005	7	118	10	07/18/10 11:31:25	13.12	7.84	7.70	47725	31.05
19830-001	7	119	10	07/18/10 11:31:35	12.95	7.88	7.67	47652	30.99
19830-000	7	120	10	07/18/10 11:31:54	12.78	8.08	7.71	47759	31.06
19830-009	7	121	10	07/18/10 11:32:09	12.43	8.33	7.75	47738	31.04
19830-010	7	122	10	07/18/10 11:32:27	12.49	7.99	7.69	47918	31.17
19830-007	7	123	10	07/18/10 11:32:38	12.52	7.87	7.63	47861	31.13
19830-002	7	124	10	07/18/10 11:32:51	12.54	7.77	7.68	47915	31.17
19830-013	7	125	10	07/18/10 11:33:07	12.60	7.76	7.76	47948	31.19
19830-016	7	126	10	07/18/10 11:33:26	12.85	7.81	7.71	47898	31.17
19830-017	8	127	10	07/18/10 11:33:39	12.97	7.63	7.68	47899	31.17
19830-013	8	128	10	07/18/10 11:33:50	13.01	7.60	7.68	47847	31.14
19830-010	8	129	10	07/18/10 11:34:10	12.98	7.84	7.78	47841	31.13
19830-007	8	130	10	07/18/10 11:34:32	13.18	7.98	7.67	47806	31.11
19830-011	8	131	10	07/18/10 11:34:48	13.01	7.80	7.62	47774	31.08
19830-002	8	132	10	07/18/10 11:35:00	13.06	7.32	7.69	47866	31.15
19830-004	8	133	10	07/18/10 11:35:10	13.18	7.08	7.70	47890	31.17
19830-003	8	134	10	07/18/10 11:35:32	13.15	7.68	7.75	47783	31.10
19830-005	8	135	10	07/18/10 11:35:45	13.02	7.87	7.63	47751	31.07
19830-012	8	136	10	07/18/10 11:36:12	12.65	7.57	7.68	47782	31.08
19830-006	8	137	10	07/18/10 11:36:27	12.53	7.58	7.62	47811	31.09
19830-001	8	138	10	07/18/10 11:36:45	12.59	7.58	7.71	47904	31.16
19830-014	8	139	10	07/18/10 11:36:53	12.69	7.77	7.75	47990	31.23
19830-000	8	140	10	07/18/10 11:37:09	12.84	7.93	7.75	47861	31.14
19830-009	8	141	10	07/18/10 11:37:21	12.84	8.13	7.77	47843	31.13
19830-008	8	142	10	07/18/10 11:37:35	12.83	8.14	7.82	47885	31.16
19830-015	8	143	10	07/18/10 11:37:49	12.94	8.17	7.73	47831	31.12
19830-016	8	144	10	07/18/10 11:37:59	13.00	7.95	7.67	47879	31.16
19830-002	1	1	11	07/19/10 09:57:20	13.86	8.07	7.82	47995	31.27
19830-016	1	2	11	07/19/10 09:57:58	13.90	7.84	7.79	47929	31.23
19830-015	1	3	11	07/19/10 09:58:13	13.94	7.80	7.72	47996	31.28
19830-017	1	4	11	07/19/10 09:58:29	13.88	7.70	7.70	47956	31.24
19830-001	1	5	11	07/19/10 09:58:58	13.55	7.57	7.73	47996	31.26
19830-011	1	6	11	07/19/10 09:59:12	13.72	7.52	7.69	48091	31.34
19830-014	1	7	11	07/19/10 09:59:30	13.80	7.52	7.70	48041	31.30
19830-009	1	8	11	07/19/10 09:59:49	13.60	7.27	7.70	47971	31.25
19830-012	1	9	11	07/19/10 10:00:06	13.58	7.10	7.72	48021	31.28
19830-010	1	10	11	07/19/10 10:00:18	13.56	6.95	7.74	47989	31.26
19830-008	1	11	11	07/19/10 10:00:35	13.66	7.48	7.80	48025	31.29
19830-006	1	12	11	07/19/10 10:00:46	13.69	7.59	7.73	48032	31.29
19830-004	1	13	11	07/19/10 10:01:09	13.46	7.62	7.67	47992	31.26

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	1	14	11	07/19/10 10:01:20	13.45	7.70	7.70	48050	31.30
19830-000	1	15	11	07/19/10 10:01:32	13.47	7.75	7.73	48039	31.29
19830-005	1	16	11	07/19/10 10:01:45	13.35	8.01	7.72	47985	31.25
19830-007	1	17	11	07/19/10 10:01:58	13.26	8.09	7.68	48033	31.28
19830-003	1	18	11	07/19/10 10:02:10	13.20	8.11	7.68	48025	31.27
19830-009	2	19	11	07/19/10 10:02:35	13.80	7.81	7.72	48070	31.32
19830-016	2	20	11	07/19/10 10:03:06	13.99	6.93	7.74	47944	31.24
19830-007	2	21	11	07/19/10 10:03:17	14.12	6.81	7.66	48067	31.33
19830-015	2	22	11	07/19/10 10:03:34	14.19	7.18	7.66	47968	31.26
19830-008	2	23	11	07/19/10 10:03:49	14.15	7.54	7.74	47964	31.26
19830-002	2	24	11	07/19/10 10:04:06	14.17	7.66	7.78	47978	31.27
19830-012	2	25	11	07/19/10 10:04:21	14.06	7.53	7.69	47814	31.15
19830-004	2	26	11	07/19/10 10:04:32	13.96	7.61	7.68	47773	31.11
19830-000	2	27	11	07/19/10 10:04:45	13.83	7.69	7.68	47910	31.21
19830-003	2	28	11	07/19/10 10:04:54	13.83	7.90	7.69	47981	31.26
19830-011	2	29	11	07/19/10 10:05:08	13.76	7.93	7.67	47931	31.22
19830-017	2	30	11	07/19/10 10:05:24	13.85	7.72	7.65	47997	31.27
19830-014	2	31	11	07/19/10 10:05:39	13.77	7.56	7.68	47948	31.24
19830-001	2	32	11	07/19/10 10:05:51	13.65	7.38	7.70	47888	31.19
19830-013	2	33	11	07/19/10 10:06:01	13.57	7.34	7.74	47961	31.24
19830-010	2	34	11	07/19/10 10:06:14	13.60	7.63	7.72	48009	31.27
19830-006	2	35	11	07/19/10 10:06:30	13.61	7.77	7.67	48184	31.40
19830-005	2	36	11	07/19/10 10:06:43	13.86	7.66	7.61	48085	31.34
19830-013	3	37	11	07/19/10 10:07:00	13.93	7.45	7.65	48006	31.28
19830-009	3	38	11	07/19/10 10:07:12	14.00	7.34	7.68	48038	31.31
19830-017	3	39	11	07/19/10 10:07:23	14.05	7.53	7.64	48012	31.29
19830-016	3	40	11	07/19/10 10:07:35	13.94	7.38	7.65	47923	31.22
19830-000	3	41	11	07/19/10 10:07:46	14.07	7.45	7.70	48093	31.35
19830-010	3	42	11	07/19/10 10:08:01	14.05	7.94	7.71	47911	31.22
19830-008	3	43	11	07/19/10 10:08:21	13.34	8.04	7.66	47931	31.21
19830-014	3	44	11	07/19/10 10:08:39	13.76	7.72	7.75	48104	31.35
19830-004	3	45	11	07/19/10 10:08:55	13.78	7.62	7.68	47834	31.15
19830-006	3	46	11	07/19/10 10:09:14	13.82	7.47	7.63	47960	31.25
19830-005	3	47	11	07/19/10 10:09:26	13.81	7.33	7.61	47946	31.24
19830-011	3	48	11	07/19/10 10:09:46	13.45	7.57	7.72	47979	31.25
19830-002	3	49	11	07/19/10 10:10:01	13.70	7.49	7.73	48079	31.33
19830-012	3	50	11	07/19/10 10:10:16	13.64	7.25	7.72	47897	31.19
19830-001	3	51	11	07/19/10 10:10:45	12.91	7.73	7.74	48003	31.25
19830-003	3	52	11	07/19/10 10:11:02	13.02	7.87	7.74	48097	31.32
19830-007	3	53	11	07/19/10 10:11:15	13.18	8.02	7.61	48107	31.33
19830-015	3	54	11	07/19/10 10:11:29	13.32	7.75	7.64	48088	31.32
19830-006	4	55	11	07/19/10 10:11:44	13.24	7.92	7.66	47990	31.25
19830-011	4	56	11	07/19/10 10:12:16	13.25	7.85	7.71	48051	31.29
19830-012	4	57	11	07/19/10 10:12:36	13.26	8.04	7.80	48036	31.28
19830-010	4	58	11	07/19/10 10:12:49	13.08	8.28	7.77	47943	31.21
19830-015	4	59	11	07/19/10 10:13:12	12.71	8.12	7.70	48054	31.28
19830-009	4	60	11	07/19/10 10:13:33	12.69	8.08	7.77	48110	31.32
19830-001	4	61	11	07/19/10 10:13:46	12.68	8.22	7.71	48108	31.31
19830-016	4	62	11	07/19/10 10:14:02	13.09	7.84	7.68	48186	31.39
19830-008	4	63	11	07/19/10 10:14:17	13.17	7.76	7.72	48091	31.32
19830-004	4	64	11	07/19/10 10:14:36	13.29	7.78	7.69	48062	31.30
19830-007	4	65	11	07/19/10 10:15:03	13.04	7.68	7.60	48027	31.27
19830-014	4	66	11	07/19/10 10:15:18	13.25	7.57	7.66	48125	31.35
19830-000	4	67	11	07/19/10 10:15:37	13.38	7.55	7.68	48021	31.28

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	4	68	11	07/19/10 10:15:54	13.46	7.69	7.66	48029	31.28
19830-013	4	69	11	07/19/10 10:16:12	13.56	7.59	7.72	48011	31.27
19830-002	4	70	11	07/19/10 10:16:27	13.54	7.72	7.65	47897	31.19
19830-005	4	71	11	07/19/10 10:16:43	13.47	7.69	7.66	47972	31.24
19830-003	4	72	11	07/19/10 10:16:54	13.27	7.76	7.68	47886	31.17
19830-016	5	73	11	07/19/10 10:17:16	13.31	7.79	7.68	48024	31.28
19830-003	5	74	11	07/19/10 10:17:29	13.37	7.65	7.65	48044	31.29
19830-000	5	75	11	07/19/10 10:17:48	13.68	7.62	7.70	48031	31.29
19830-013	5	76	11	07/19/10 10:18:03	13.75	7.81	7.67	47987	31.26
19830-001	5	77	11	07/19/10 10:18:13	13.75	7.71	7.63	47960	31.24
19830-002	5	78	11	07/19/10 10:18:23	13.75	7.78	7.67	48042	31.30
19830-004	5	79	11	07/19/10 10:18:37	13.78	7.54	7.67	47979	31.26
19830-012	5	80	11	07/19/10 10:18:49	13.72	7.54	7.72	47942	31.23
19830-005	5	81	11	07/19/10 10:19:29	13.01	8.06	7.68	48101	31.32
19830-011	5	82	11	07/19/10 10:19:46	13.37	7.63	7.70	47889	31.18
19830-010	5	83	11	07/19/10 10:19:56	13.38	7.66	7.71	47990	31.25
19830-017	5	84	11	07/19/10 10:20:25	13.54	7.29	7.67	47991	31.26
19830-009	5	85	11	07/19/10 10:20:48	13.37	7.36	7.68	48010	31.27
19830-006	5	86	11	07/19/10 10:21:04	13.46	7.54	7.60	48051	31.30
19830-008	5	87	11	07/19/10 10:21:22	13.61	7.71	7.71	48027	31.29
19830-007	5	88	11	07/19/10 10:21:44	13.27	8.02	7.62	47964	31.23
19830-014	5	89	11	07/19/10 10:22:08	13.13	8.13	7.72	48042	31.28
19830-015	5	90	11	07/19/10 10:22:29	13.27	7.93	7.72	48052	31.29
19830-005	6	91	11	07/19/10 10:22:45	13.43	7.91	7.72	48052	31.30
19830-007	6	92	11	07/19/10 10:22:55	13.46	7.95	7.66	48000	31.26
19830-002	6	93	11	07/19/10 10:23:12	13.56	7.85	7.69	48016	31.28
19830-009	6	94	11	07/19/10 10:23:26	13.58	7.71	7.72	48019	31.28
19830-013	6	95	11	07/19/10 10:23:37	13.58	7.61	7.73	48007	31.27
19830-004	6	96	11	07/19/10 10:23:59	13.47	7.76	7.75	47997	31.26
19830-012	6	97	11	07/19/10 10:24:45	12.96	8.14	7.73	48063	31.29
19830-015	6	98	11	07/19/10 10:25:16	12.99	7.93	7.75	48059	31.29
19830-014	6	99	11	07/19/10 10:25:38	12.91	7.81	7.73	48063	31.29
19830-003	6	100	11	07/19/10 10:25:59	12.78	7.91	7.70	48062	31.28
19830-010	6	101	11	07/19/10 10:26:18	12.76	8.20	7.74	48113	31.32
19830-000	6	102	11	07/19/10 10:26:43	12.91	8.32	7.73	48094	31.31
19830-016	6	103	11	07/19/10 10:27:08	12.83	8.17	7.76	48092	31.31
19830-001	6	104	11	07/19/10 10:27:29	12.55	8.21	7.79	48070	31.28
19830-017	6	105	11	07/19/10 10:27:47	12.36	8.38	7.74	48067	31.27
19830-008	6	106	11	07/19/10 10:28:05	12.37	8.43	7.78	48120	31.31
19830-011	6	107	11	07/19/10 10:28:27	12.54	8.16	7.77	48132	31.33
19830-006	6	108	11	07/19/10 10:28:48	12.73	7.97	7.65	48139	31.34
19830-015	7	109	11	07/19/10 10:29:08	12.89	8.04	7.70	48161	31.36
19830-017	7	110	11	07/19/10 10:29:28	13.08	8.04	7.71	48139	31.35
19830-003	7	111	11	07/19/10 10:29:48	13.25	8.07	7.73	48092	31.32
19830-008	7	112	11	07/19/10 10:30:10	13.26	8.24	7.79	48088	31.32
19830-006	7	113	11	07/19/10 10:30:39	13.65	8.20	7.68	47946	31.23
19830-012	7	114	11	07/19/10 10:31:08	13.79	8.16	7.76	48007	31.28
19830-004	7	115	11	07/19/10 10:31:25	13.86	8.11	7.77	47981	31.26
19830-011	7	116	11	07/19/10 10:31:41	13.93	8.06	7.73	47978	31.26
19830-014	7	117	11	07/19/10 10:32:19	13.84	8.12	7.79	47732	31.08
19830-005	7	118	11	07/19/10 10:32:37	13.75	8.11	7.69	47945	31.23
19830-001	7	119	11	07/19/10 10:32:53	13.43	8.05	7.70	47926	31.21
19830-000	7	120	11	07/19/10 10:33:09	13.44	8.15	7.73	47991	31.26
19830-009	7	121	11	07/19/10 10:33:32	13.05	8.25	7.78	48000	31.25

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-010	7	122	11	07/19/10 10:33:48	13.23	7.98	7.72	48087	31.32
19830-007	7	123	11	07/19/10 10:34:02	13.25	7.87	7.67	48012	31.27
19830-002	7	124	11	07/19/10 10:34:16	13.26	7.75	7.72	48055	31.30
19830-013	7	125	11	07/19/10 10:34:35	13.25	7.91	7.77	48089	31.32
19830-016	7	126	11	07/19/10 10:34:47	13.46	8.04	7.74	48137	31.36
19830-017	8	127	11	07/19/10 10:35:05	13.67	7.85	7.72	48035	31.30
19830-013	8	128	11	07/19/10 10:35:21	13.66	7.85	7.72	47991	31.26
19830-010	8	129	11	07/19/10 10:35:59	13.58	8.15	7.81	48009	31.27
19830-007	8	130	11	07/19/10 10:36:20	13.83	8.11	7.68	47772	31.11
19830-011	8	131	11	07/19/10 10:36:44	13.59	7.64	7.67	47984	31.26
19830-002	8	132	11	07/19/10 10:37:06	13.67	7.20	7.75	48000	31.27
19830-004	8	133	11	07/19/10 10:37:24	13.85	7.29	7.74	47998	31.27
19830-003	8	134	11	07/19/10 10:37:52	13.76	7.93	7.75	47897	31.20
19830-005	8	135	11	07/19/10 10:38:11	13.55	7.86	7.59	47961	31.24
19830-012	8	136	11	07/19/10 10:38:33	13.24	7.59	7.73	47978	31.24
19830-006	8	137	11	07/19/10 10:38:59	13.07	7.70	7.60	48032	31.27
19830-001	8	138	11	07/19/10 10:39:28	13.18	7.98	7.72	48029	31.28
19830-014	8	139	11	07/19/10 10:39:53	13.41	7.93	7.79	48034	31.29
19830-000	8	140	11	07/19/10 10:40:12	13.49	8.04	7.79	48019	31.28
19830-009	8	141	11	07/19/10 10:40:29	13.44	8.30	7.72	47878	31.17
19830-008	8	142	11	07/19/10 10:40:41	13.42	8.25	7.79	48015	31.27
19830-015	8	143	11	07/19/10 10:40:59	13.48	8.17	7.71	47992	31.26
19830-016	8	144	11	07/19/10 10:41:22	13.55	7.92	7.66	47966	31.24
19830-002	1	1	12	07/20/10 14:41:56	13.78	8.76	7.82	48074	31.33
19830-016	1	2	12	07/20/10 14:42:37	13.91	8.19	7.81	47631	31.01
19830-015	1	3	12	07/20/10 14:42:46	13.89	8.04	7.78	48055	31.32
19830-017	1	4	12	07/20/10 14:42:59	13.81	8.02	7.73	48012	31.28
19830-001	1	5	12	07/20/10 14:43:14	13.52	8.00	7.79	47984	31.25
19830-011	1	6	12	07/20/10 14:43:26	13.56	7.96	7.77	48162	31.38
19830-014	1	7	12	07/20/10 14:43:35	13.60	7.90	7.77	48174	31.39
19830-009	1	8	12	07/20/10 14:43:52	13.45	7.55	7.75	48014	31.27
19830-012	1	9	12	07/20/10 14:44:05	13.46	7.20	7.76	48080	31.32
19830-010	1	10	12	07/20/10 14:44:19	13.43	7.04	7.76	48085	31.32
19830-008	1	11	12	07/20/10 14:44:31	13.53	7.33	7.85	48106	31.34
19830-006	1	12	12	07/20/10 14:44:42	13.60	7.49	7.80	48059	31.31
19830-004	1	13	12	07/20/10 14:44:57	13.37	7.44	7.73	48006	31.26
19830-013	1	14	12	07/20/10 14:45:10	13.30	7.67	7.77	48091	31.32
19830-000	1	15	12	07/20/10 14:45:23	13.29	7.77	7.76	48080	31.32
19830-005	1	16	12	07/20/10 14:45:35	13.18	8.02	7.77	48014	31.26
19830-007	1	17	12	07/20/10 14:45:48	13.08	8.09	7.73	48076	31.31
19830-003	1	18	12	07/20/10 14:45:59	13.02	8.18	7.70	48104	31.32
19830-009	2	19	12	07/20/10 14:46:30	13.66	7.40	7.79	48072	31.32
19830-016	2	20	12	07/20/10 14:46:46	13.79	7.04	7.76	48089	31.34
19830-007	2	21	12	07/20/10 14:46:58	13.94	6.75	7.66	48047	31.31
19830-015	2	22	12	07/20/10 14:47:10	13.95	6.78	7.65	48011	31.29
19830-008	2	23	12	07/20/10 14:47:32	14.02	7.46	7.82	48020	31.30
19830-002	2	24	12	07/20/10 14:47:41	14.08	7.59	7.81	48106	31.36
19830-012	2	25	12	07/20/10 14:47:51	14.01	7.36	7.76	47912	31.22
19830-004	2	26	12	07/20/10 14:47:59	13.89	7.26	7.74	47820	31.15
19830-000	2	27	12	07/20/10 14:48:10	13.67	7.40	7.73	47951	31.23
19830-003	2	28	12	07/20/10 14:48:24	13.67	7.81	7.72	47990	31.26
19830-011	2	29	12	07/20/10 14:48:36	13.60	7.91	7.71	47983	31.26
19830-017	2	30	12	07/20/10 14:48:47	13.64	7.79	7.70	48123	31.36

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-014	2	31	12	07/20/10 14:48:57	13.63	7.69	7.73	48021	31.28
19830-001	2	32	12	07/20/10 14:49:10	13.49	7.47	7.74	47967	31.24
19830-013	2	33	12	07/20/10 14:49:30	13.37	7.43	7.77	48062	31.30
19830-010	2	34	12	07/20/10 14:49:45	13.41	7.56	7.77	48051	31.30
19830-006	2	35	12	07/20/10 14:49:59	13.32	7.79	7.75	48426	31.57
19830-005	2	36	12	07/20/10 14:50:14	13.73	7.62	7.65	48177	31.40
19830-013	3	37	12	07/20/10 14:50:25	13.77	7.29	7.65	48076	31.33
19830-009	3	38	12	07/20/10 14:50:34	13.80	7.12	7.71	48063	31.32
19830-017	3	39	12	07/20/10 14:50:46	13.88	7.27	7.68	48079	31.33
19830-016	3	40	12	07/20/10 14:51:06	13.72	7.26	7.68	48038	31.30
19830-000	3	41	12	07/20/10 14:51:20	13.90	7.63	7.74	48068	31.33
19830-010	3	42	12	07/20/10 14:51:32	13.83	7.97	7.73	47911	31.21
19830-008	3	43	12	07/20/10 14:51:46	13.35	8.05	7.72	47970	31.24
19830-014	3	44	12	07/20/10 14:51:59	13.56	7.80	7.75	48198	31.41
19830-004	3	45	12	07/20/10 14:52:13	13.58	7.61	7.72	48032	31.29
19830-006	3	46	12	07/20/10 14:52:29	13.64	7.40	7.66	48034	31.29
19830-005	3	47	12	07/20/10 14:52:38	13.64	7.26	7.64	47999	31.27
19830-011	3	48	12	07/20/10 14:52:52	13.26	7.49	7.71	47991	31.25
19830-002	3	49	12	07/20/10 14:53:06	13.48	7.47	7.75	48181	31.40
19830-012	3	50	12	07/20/10 14:53:20	13.45	7.30	7.74	47993	31.26
19830-001	3	51	12	07/20/10 14:53:36	12.87	7.37	7.76	47914	31.18
19830-003	3	52	12	07/20/10 14:53:46	12.79	7.65	7.79	48190	31.38
19830-007	3	53	12	07/20/10 14:53:58	12.94	7.91	7.67	48210	31.40
19830-015	3	54	12	07/20/10 14:54:09	13.05	7.69	7.68	48159	31.36
19830-006	4	55	12	07/20/10 14:54:16	13.01	7.75	7.69	48030	31.27
19830-011	4	56	12	07/20/10 14:54:27	13.01	7.84	7.72	48190	31.39
19830-012	4	57	12	07/20/10 14:54:36	13.04	7.82	7.77	48126	31.34
19830-010	4	58	12	07/20/10 14:54:47	12.90	8.01	7.78	47977	31.23
19830-015	4	59	12	07/20/10 14:54:58	12.58	8.14	7.75	47939	31.19
19830-009	4	60	12	07/20/10 14:55:09	12.44	8.04	7.76	48184	31.36
19830-001	4	61	12	07/20/10 14:55:18	12.44	8.07	7.73	48220	31.38
19830-016	4	62	12	07/20/10 14:55:33	12.85	7.83	7.68	48312	31.47
19830-008	4	63	12	07/20/10 14:55:46	13.02	7.65	7.74	48211	31.40
19830-004	4	64	12	07/20/10 14:55:55	13.08	7.71	7.73	48241	31.42
19830-007	4	65	12	07/20/10 14:56:11	12.84	7.66	7.63	47991	31.23
19830-014	4	66	12	07/20/10 14:56:25	13.01	7.52	7.63	48204	31.40
19830-000	4	67	12	07/20/10 14:56:36	13.10	7.18	7.65	48198	31.39
19830-017	4	68	12	07/20/10 14:56:48	13.21	7.30	7.65	48152	31.37
19830-013	4	69	12	07/20/10 14:57:04	13.36	7.31	7.70	48096	31.33
19830-002	4	70	12	07/20/10 14:57:13	13.35	7.42	7.72	48053	31.30
19830-005	4	71	12	07/20/10 14:57:26	13.30	7.52	7.71	48029	31.28
19830-003	4	72	12	07/20/10 14:57:42	13.02	7.70	7.71	48001	31.25
19830-016	5	73	12	07/20/10 14:57:57	13.01	7.80	7.68	48114	31.33
19830-003	5	74	12	07/20/10 14:58:10	13.16	7.61	7.66	48165	31.37
19830-000	5	75	12	07/20/10 14:58:22	13.43	7.42	7.68	48185	31.40
19830-013	5	76	12	07/20/10 14:58:33	13.56	7.51	7.68	48106	31.34
19830-001	5	77	12	07/20/10 14:58:46	13.61	7.50	7.64	48078	31.32
19830-002	5	78	12	07/20/10 14:58:58	13.69	7.61	7.66	48112	31.35
19830-004	5	79	12	07/20/10 14:59:08	13.68	7.37	7.65	48004	31.27
19830-012	5	80	12	07/20/10 14:59:25	13.52	7.46	7.76	48005	31.27
19830-005	5	81	12	07/20/10 14:59:44	12.90	7.90	7.74	47998	31.24
19830-011	5	82	12	07/20/10 14:59:56	13.01	7.60	7.73	48234	31.42
19830-010	5	83	12	07/20/10 15:00:04	13.06	7.53	7.75	48130	31.34
19830-017	5	84	12	07/20/10 15:00:15	13.21	7.57	7.71	48165	31.37

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	5	85	12	07/20/10 15:00:28	13.24	7.27	7.65	48052	31.29
19830-006	5	86	12	07/20/10 15:00:42	13.27	7.35	7.60	48122	31.35
19830-008	5	87	12	07/20/10 15:00:55	13.37	7.41	7.67	48118	31.35
19830-007	5	88	12	07/20/10 15:01:07	13.11	7.73	7.68	47911	31.19
19830-014	5	89	12	07/20/10 15:01:22	12.86	7.99	7.70	48078	31.30
19830-015	5	90	12	07/20/10 15:01:30	12.92	7.91	7.70	48253	31.43
19830-005	6	91	12	07/20/10 15:01:39	13.08	7.84	7.72	48298	31.47
19830-007	6	92	12	07/20/10 15:01:51	13.25	7.81	7.69	48102	31.33
19830-002	6	93	12	07/20/10 15:02:03	13.35	7.75	7.69	48124	31.35
19830-009	6	94	12	07/20/10 15:02:14	13.39	7.62	7.73	48072	31.31
19830-013	6	95	12	07/20/10 15:02:24	13.40	7.43	7.75	48090	31.33
19830-004	6	96	12	07/20/10 15:02:36	13.29	7.58	7.75	48024	31.27
19830-012	6	97	12	07/20/10 15:03:12	12.73	8.03	7.75	47977	31.22
19830-015	6	98	12	07/20/10 15:03:19	12.72	7.98	7.74	48133	31.33
19830-014	6	99	12	07/20/10 15:03:28	12.68	7.93	7.73	48105	31.31
19830-003	6	100	12	07/20/10 15:03:38	12.57	7.88	7.71	48088	31.29
19830-010	6	101	12	07/20/10 15:03:46	12.53	7.92	7.73	48205	31.38
19830-000	6	102	12	07/20/10 15:03:58	12.61	8.10	7.75	48235	31.40
19830-016	6	103	12	07/20/10 15:04:09	12.60	8.21	7.75	48165	31.35
19830-001	6	104	12	07/20/10 15:04:21	12.39	8.17	7.77	48028	31.24
19830-017	6	105	12	07/20/10 15:04:33	12.13	8.27	7.75	48115	31.30
19830-008	6	106	12	07/20/10 15:04:41	12.09	8.27	7.78	48209	31.36
19830-011	6	107	12	07/20/10 15:04:51	12.18	8.29	7.80	48395	31.50
19830-006	6	108	12	07/20/10 15:05:00	12.36	8.11	7.76	48406	31.52
19830-015	7	109	12	07/20/10 15:05:07	12.51	8.00	7.72	48472	31.57
19830-017	7	110	12	07/20/10 15:05:16	12.71	7.95	7.72	48433	31.55
19830-003	7	111	12	07/20/10 15:05:29	13.00	7.95	7.74	48277	31.45
19830-008	7	112	12	07/20/10 15:05:41	13.08	7.97	7.77	48204	31.40
19830-006	7	113	12	07/20/10 15:05:59	13.41	8.10	7.74	48169	31.38
19830-012	7	114	12	07/20/10 15:06:11	13.66	8.00	7.72	48152	31.38
19830-004	7	115	12	07/20/10 15:06:20	13.77	7.92	7.74	48053	31.31
19830-011	7	116	12	07/20/10 15:06:36	13.89	7.79	7.72	48021	31.29
19830-014	7	117	12	07/20/10 15:06:53	13.79	7.62	7.78	48004	31.28
19830-005	7	118	12	07/20/10 15:07:03	13.71	7.80	7.75	47919	31.21
19830-001	7	119	12	07/20/10 15:07:13	13.47	7.89	7.72	47884	31.18
19830-000	7	120	12	07/20/10 15:07:33	13.30	8.06	7.74	47995	31.25
19830-009	7	121	12	07/20/10 15:07:45	12.96	8.26	7.79	47928	31.19
19830-010	7	122	12	07/20/10 15:07:54	12.96	8.11	7.79	48229	31.41
19830-007	7	123	12	07/20/10 15:08:06	13.03	7.92	7.69	48098	31.32
19830-002	7	124	12	07/20/10 15:08:18	13.06	7.67	7.72	48165	31.37
19830-013	7	125	12	07/20/10 15:08:29	13.08	7.59	7.75	48217	31.41
19830-016	7	126	12	07/20/10 15:08:42	13.31	7.73	7.72	48220	31.42
19830-017	8	127	12	07/20/10 15:08:58	13.53	7.69	7.73	48132	31.36
19830-013	8	128	12	07/20/10 15:09:08	13.54	7.66	7.72	48048	31.30
19830-010	8	129	12	07/20/10 15:09:28	13.46	7.89	7.82	48083	31.32
19830-007	8	130	12	07/20/10 15:09:40	13.64	7.96	7.74	48128	31.36
19830-011	8	131	12	07/20/10 15:10:00	13.47	7.55	7.67	48040	31.29
19830-002	8	132	12	07/20/10 15:10:11	13.50	7.14	7.72	48155	31.38
19830-004	8	133	12	07/20/10 15:10:20	13.65	6.98	7.76	48190	31.41
19830-003	8	134	12	07/20/10 15:10:31	13.67	7.28	7.77	48023	31.29
19830-005	8	135	12	07/20/10 15:10:42	13.50	7.64	7.70	47871	31.17
19830-012	8	136	12	07/20/10 15:10:57	13.08	7.55	7.72	47950	31.21
19830-006	8	137	12	07/20/10 15:11:09	12.89	7.44	7.70	48023	31.26
19830-001	8	138	12	07/20/10 15:11:22	12.96	7.53	7.70	48163	31.36

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-014	8	139	12	07/20/10 15:11:36	13.14	7.70	7.77	48198	31.40
19830-000	8	140	12	07/20/10 15:11:48	13.26	7.69	7.78	48156	31.37
19830-009	8	141	12	07/20/10 15:11:58	13.29	7.92	7.78	48084	31.32
19830-008	8	142	12	07/20/10 15:12:06	13.27	8.02	7.81	48098	31.33
19830-015	8	143	12	07/20/10 15:12:16	13.27	8.07	7.81	48212	31.41
19830-016	8	144	12	07/20/10 15:12:24	13.35	8.01	7.75	48188	31.40
19830-002	1	1	13	07/21/10 12:15:00	12.45	8.51	7.75	46782	30.35
19830-016	1	2	13	07/21/10 12:15:49	12.41	8.10	7.70	43172	27.76
19830-015	1	3	13	07/21/10 12:16:10	12.27	7.93	7.60	46719	30.29
19830-017	1	4	13	07/21/10 12:16:40	12.27	7.73	7.51	46755	30.32
19830-001	1	5	13	07/21/10 12:17:09	12.30	7.53	7.72	46788	30.35
19830-011	1	6	13	07/21/10 12:17:20	12.29	7.54	7.70	46754	30.32
19830-014	1	7	13	07/21/10 12:18:02	12.25	6.89	7.53	46786	30.34
19830-009	1	8	13	07/21/10 12:18:32	12.16	6.90	7.60	46863	30.39
19830-012	1	9	13	07/21/10 12:19:20	12.22	5.50	7.73	46835	30.38
19830-010	1	10	13	07/21/10 12:20:10	12.07	8.23	7.77	46814	30.35
19830-008	1	11	13	07/21/10 12:20:27	12.01	8.31	7.87	46764	30.32
19830-006	1	12	13	07/21/10 12:21:03	12.01	7.42	7.55	46761	30.31
19830-004	1	13	13	07/21/10 12:21:33	12.03	7.67	7.60	46820	30.36
19830-013	1	14	13	07/21/10 12:21:49	12.01	7.87	7.67	46810	30.35
19830-000	1	15	13	07/21/10 12:22:22	11.97	8.37	7.69	46774	30.32
19830-005	1	16	13	07/21/10 12:22:37	11.93	8.50	7.71	46889	30.40
19830-007	1	17	13	07/21/10 12:22:55	11.92	8.26	7.61	46899	30.41
19830-003	1	18	13	07/21/10 12:23:21	12.04	8.32	7.60	46908	30.42
19830-009	2	19	13	07/21/10 12:24:06	12.22	7.23	7.67	46748	30.31
19830-016	2	20	13	07/21/10 12:24:43	12.24	6.32	7.66	46749	30.31
19830-007	2	21	13	07/21/10 12:25:09	12.28	6.47	7.39	46502	30.14
19830-015	2	22	13	07/21/10 12:25:48	12.24	7.77	7.61	46723	30.30
19830-008	2	23	13	07/21/10 12:26:06	12.26	8.01	7.81	46671	30.26
19830-002	2	24	13	07/21/10 12:26:18	12.25	8.11	7.81	46733	30.30
19830-012	2	25	13	07/21/10 12:26:36	12.19	7.75	7.70	46088	29.84
19830-004	2	26	13	07/21/10 12:26:48	12.18	7.67	7.62	46644	30.24
19830-000	2	27	13	07/21/10 12:27:23	12.03	8.36	7.67	46605	30.20
19830-003	2	28	13	07/21/10 12:27:37	12.00	8.46	7.65	46174	29.89
19830-011	2	29	13	07/21/10 12:27:55	11.99	8.22	7.65	46743	30.30
19830-017	2	30	13	07/21/10 12:28:11	11.99	7.97	7.58	46675	30.25
19830-014	2	31	13	07/21/10 12:28:27	11.95	7.85	7.65	46790	30.33
19830-001	2	32	13	07/21/10 12:28:45	11.90	7.45	7.63	46739	30.29
19830-013	2	33	13	07/21/10 12:29:03	11.90	7.41	7.67	46861	30.38
19830-010	2	34	13	07/21/10 12:29:22	11.96	7.76	7.72	46790	30.33
19830-006	2	35	13	07/21/10 12:29:49	12.24	7.84	7.58	46783	30.34
19830-005	2	36	13	07/21/10 12:30:10	12.22	7.52	7.51	46771	30.33
19830-013	3	37	13	07/21/10 12:30:31	12.20	7.17	7.52	46852	30.39
19830-009	3	38	13	07/21/10 12:31:09	12.30	7.84	7.70	46768	30.33
19830-017	3	39	13	07/21/10 12:31:54	12.34	6.54	7.33	46635	30.24
19830-016	3	40	13	07/21/10 12:32:40	12.21	7.86	7.60	46810	30.36
19830-000	3	41	13	07/21/10 12:33:06	12.20	8.34	7.71	46686	30.27
19830-010	3	42	13	07/21/10 12:33:30	12.19	8.29	7.63	46697	30.28
19830-008	3	43	13	07/21/10 12:33:51	12.12	8.08	7.69	46747	30.31
19830-014	3	44	13	07/21/10 12:34:05	12.10	8.01	7.68	46713	30.28
19830-004	3	45	13	07/21/10 12:34:18	12.00	7.84	7.63	46503	30.13
19830-006	3	46	13	07/21/10 12:34:31	12.04	7.71	7.54	46725	30.29
19830-005	3	47	13	07/21/10 12:35:04	12.05	7.73	7.65	46705	30.28

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	3	48	13	07/21/10 12:35:23	11.77	7.98	7.71	46981	30.46
19830-002	3	49	13	07/21/10 12:35:40	11.90	7.95	7.70	46757	30.31
19830-012	3	50	13	07/21/10 12:36:25	12.04	6.59	7.60	46719	30.29
19830-001	3	51	13	07/21/10 12:37:05	11.82	7.82	7.78	46810	30.34
19830-003	3	52	13	07/21/10 12:37:25	11.83	8.21	7.78	46766	30.31
19830-007	3	53	13	07/21/10 12:38:10	11.87	7.30	7.43	46706	30.27
19830-015	3	54	13	07/21/10 12:38:49	11.89	8.16	7.72	46702	30.27
19830-006	4	55	13	07/21/10 12:39:15	11.82	8.09	7.63	46707	30.27
19830-011	4	56	13	07/21/10 12:39:39	11.78	8.02	7.76	46796	30.33
19830-012	4	57	13	07/21/10 12:40:00	11.73	8.31	7.87	46801	30.33
19830-010	4	58	13	07/21/10 12:40:23	11.64	8.50	7.82	46807	30.33
19830-015	4	59	13	07/21/10 12:40:45	11.49	8.36	7.72	46820	30.33
19830-009	4	60	13	07/21/10 12:41:07	11.45	8.29	7.83	46866	30.36
19830-001	4	61	13	07/21/10 12:41:29	11.51	8.25	7.66	46927	30.41
19830-016	4	62	13	07/21/10 12:41:53	11.73	7.84	7.58	46720	30.27
19830-008	4	63	13	07/21/10 12:42:18	11.90	8.06	7.84	46805	30.34
19830-004	4	64	13	07/21/10 12:42:42	12.05	8.09	7.71	46791	30.34
19830-007	4	65	13	07/21/10 12:43:03	11.84	8.03	7.56	46690	30.26
19830-014	4	66	13	07/21/10 12:43:27	11.81	7.52	7.59	46742	30.29
19830-000	4	67	13	07/21/10 12:43:50	11.79	7.67	7.62	46708	30.27
19830-017	4	68	13	07/21/10 12:44:15	11.79	7.63	7.49	46733	30.28
19830-013	4	69	13	07/21/10 12:44:39	11.82	7.73	7.61	46712	30.27
19830-002	4	70	13	07/21/10 12:45:01	11.82	7.95	7.68	46733	30.29
19830-005	4	71	13	07/21/10 12:45:20	11.83	7.89	7.64	46689	30.25
19830-003	4	72	13	07/21/10 12:45:33	11.82	7.90	7.65	46675	30.24
19830-016	5	73	13	07/21/10 12:45:48	11.79	8.04	7.64	46697	30.26
19830-003	5	74	13	07/21/10 12:46:27	11.83	7.03	7.50	46712	30.27
19830-000	5	75	13	07/21/10 12:47:07	11.92	8.13	7.69	46624	30.21
19830-013	5	76	13	07/21/10 12:47:29	11.97	7.99	7.60	46664	30.24
19830-001	5	77	13	07/21/10 12:47:50	12.03	7.88	7.57	46427	30.07
19830-002	5	78	13	07/21/10 12:48:10	12.13	7.85	7.66	46681	30.26
19830-004	5	79	13	07/21/10 12:48:29	12.18	7.64	7.64	46670	30.26
19830-012	5	80	13	07/21/10 12:48:52	12.21	7.97	7.77	46676	30.26
19830-005	5	81	13	07/21/10 12:49:08	11.93	8.29	7.73	46601	30.20
19830-011	5	82	13	07/21/10 12:49:26	11.82	7.95	7.69	46696	30.26
19830-010	5	83	13	07/21/10 12:49:38	11.79	7.98	7.74	46755	30.30
19830-017	5	84	13	07/21/10 12:50:09	11.85	7.38	7.56	46612	30.20
19830-009	5	85	13	07/21/10 12:50:31	11.81	7.43	7.68	46761	30.31
19830-006	5	86	13	07/21/10 12:50:58	11.82	7.72	7.51	46794	30.33
19830-008	5	87	13	07/21/10 12:51:11	11.86	7.73	7.61	46734	30.29
19830-007	5	88	13	07/21/10 12:51:30	11.85	8.14	7.62	46705	30.27
19830-014	5	89	13	07/21/10 12:51:47	11.79	8.24	7.66	46716	30.27
19830-015	5	90	13	07/21/10 12:52:03	11.79	8.16	7.70	46733	30.28
19830-005	6	91	13	07/21/10 12:52:18	11.83	8.11	7.73	46709	30.27
19830-007	6	92	13	07/21/10 12:52:32	11.87	8.12	7.66	46726	30.28
19830-002	6	93	13	07/21/10 12:52:46	11.95	8.12	7.65	46753	30.31
19830-009	6	94	13	07/21/10 12:53:01	12.02	7.92	7.72	46712	30.28
19830-013	6	95	13	07/21/10 12:53:14	12.04	7.74	7.75	46748	30.31
19830-004	6	96	13	07/21/10 12:53:29	12.08	7.93	7.73	46777	30.33
19830-012	6	97	13	07/21/10 12:53:55	11.78	8.40	7.74	46906	30.41
19830-015	6	98	13	07/21/10 12:54:07	11.67	8.41	7.74	46850	30.36
19830-014	6	99	13	07/21/10 12:54:23	11.60	8.18	7.75	46966	30.44
19830-003	6	100	13	07/21/10 12:54:34	11.57	8.12	7.75	47071	30.52
19830-010	6	101	13	07/21/10 12:54:45	11.58	8.23	7.76	47030	30.49

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-000	6	102	13	07/21/10 12:55:00	11.56	8.48	7.77	46959	30.44
19830-016	6	103	13	07/21/10 12:55:11	11.55	8.60	7.74	47017	30.48
19830-001	6	104	13	07/21/10 12:55:27	11.55	8.39	7.77	47028	30.49
19830-017	6	105	13	07/21/10 12:55:41	11.49	8.46	7.77	46925	30.41
19830-008	6	106	13	07/21/10 12:55:53	11.48	8.57	7.83	46948	30.42
19830-011	6	107	13	07/21/10 12:56:08	11.55	8.55	7.81	46983	30.45
19830-006	6	108	13	07/21/10 12:56:24	11.71	8.23	7.72	46999	30.47
19830-015	7	109	13	07/21/10 12:56:38	11.85	8.23	7.70	47065	30.53
19830-017	7	110	13	07/21/10 12:56:50	12.00	8.16	7.72	47089	30.55
19830-003	7	111	13	07/21/10 12:57:02	12.11	8.18	7.73	47071	30.54
19830-008	7	112	13	07/21/10 12:57:14	12.23	8.21	7.79	47067	30.54
19830-006	7	113	13	07/21/10 12:57:31	12.08	8.48	7.76	46667	30.25
19830-012	7	114	13	07/21/10 12:57:42	12.03	8.47	7.75	46682	30.26
19830-004	7	115	13	07/21/10 12:57:55	11.95	8.45	7.76	46725	30.29
19830-011	7	116	13	07/21/10 12:58:10	11.90	8.39	7.71	46685	30.25
19830-014	7	117	13	07/21/10 12:58:25	11.84	8.43	7.75	41051	26.24
19830-005	7	118	13	07/21/10 12:58:40	11.82	8.37	7.67	46675	30.24
19830-001	7	119	13	07/21/10 12:58:57	11.78	8.27	7.68	46735	30.29
19830-000	7	120	13	07/21/10 12:59:15	11.78	8.43	7.75	46672	30.24
19830-009	7	121	13	07/21/10 12:59:33	11.59	8.59	7.82	46821	30.34
19830-010	7	122	13	07/21/10 12:59:51	11.56	8.34	7.76	46855	30.36
19830-007	7	123	13	07/21/10 13:00:09	11.61	8.18	7.59	46831	30.35
19830-002	7	124	13	07/21/10 13:00:28	11.70	7.85	7.72	46894	30.40
19830-013	7	125	13	07/21/10 13:00:46	11.76	7.96	7.76	46947	30.44
19830-016	7	126	13	07/21/10 13:01:05	11.94	8.14	7.68	46865	30.39
19830-017	8	127	13	07/21/10 13:01:23	12.07	8.07	7.67	46828	30.36
19830-013	8	128	13	07/21/10 13:01:39	12.22	8.03	7.64	46864	30.40
19830-010	8	129	13	07/21/10 13:02:00	12.09	8.30	7.81	45893	29.69
19830-007	8	130	13	07/21/10 13:02:19	12.05	8.39	7.70	46658	30.24
19830-011	8	131	13	07/21/10 13:02:39	11.93	7.96	7.62	46778	30.32
19830-002	8	132	13	07/21/10 13:02:59	11.93	7.37	7.71	46401	30.05
19830-004	8	133	13	07/21/10 13:03:20	11.96	7.61	7.69	46720	30.28
19830-003	8	134	13	07/21/10 13:03:41	11.89	8.15	7.80	46755	30.30
19830-005	8	135	13	07/21/10 13:04:02	11.82	8.01	7.55	46744	30.29
19830-012	8	136	13	07/21/10 13:04:23	11.74	7.69	7.67	46810	30.34
19830-006	8	137	13	07/21/10 13:04:44	11.73	7.76	7.58	46845	30.36
19830-001	8	138	13	07/21/10 13:05:03	11.71	7.89	7.67	46931	30.42
19830-014	8	139	13	07/21/10 13:05:21	11.76	8.11	7.77	46880	30.39
19830-000	8	140	13	07/21/10 13:05:40	11.83	8.25	7.77	46840	30.36
19830-009	8	141	13	07/21/10 13:05:58	11.89	8.50	7.82	46915	30.42
19830-008	8	142	13	07/21/10 13:06:17	11.97	8.42	7.89	46863	30.39
19830-015	8	143	13	07/21/10 13:06:36	12.07	8.32	7.78	46877	30.40
19830-016	8	144	13	07/21/10 13:06:55	12.25	8.08	7.60	46861	30.40
19830-002	1	1	14	07/22/10 09:38:21	12.49	8.29	7.64	47694	31.01
19830-016	1	2	14	07/22/10 09:39:08	12.33	8.44	7.60	44452	28.67
19830-015	1	3	14	07/22/10 09:39:24	12.28	8.23	7.54	47648	30.97
19830-017	1	4	14	07/22/10 09:39:35	12.29	8.19	7.48	47674	30.98
19830-001	1	5	14	07/22/10 09:39:58	12.31	7.91	7.64	47724	31.02
19830-011	1	6	14	07/22/10 09:40:18	12.29	8.00	7.59	47620	30.94
19830-014	1	7	14	07/22/10 09:40:49	12.25	7.62	7.50	47686	30.99
19830-009	1	8	14	07/22/10 09:41:06	12.18	7.25	7.54	47733	31.02
19830-012	1	9	14	07/22/10 09:41:25	12.21	7.01	7.64	47761	31.04
19830-010	1	10	14	07/22/10 09:41:58	12.09	7.69	7.63	47739	31.02

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	1	11	14	07/22/10 09:42:12	12.03	8.02	7.73	47691	30.98
19830-006	1	12	14	07/22/10 09:42:51	12.02	6.56	7.23	47630	30.94
19830-004	1	13	14	07/22/10 09:43:15	12.03	7.21	7.46	47738	31.02
19830-013	1	14	14	07/22/10 09:43:31	12.02	7.89	7.55	47730	31.01
19830-000	1	15	14	07/22/10 09:43:42	11.98	8.06	7.58	47685	30.98
19830-005	1	16	14	07/22/10 09:43:57	11.94	8.12	7.61	47751	31.02
19830-007	1	17	14	07/22/10 09:44:12	11.93	8.39	7.55	47768	31.04
19830-003	1	18	14	07/22/10 09:44:38	12.03	8.49	7.54	47800	31.06
19830-009	2	19	14	07/22/10 09:45:02	12.27	6.65	7.42	47724	31.02
19830-016	2	20	14	07/22/10 09:46:55	12.36	6.60	7.60	47594	30.93
19830-007	2	21	14	07/22/10 09:47:14	12.36	7.04	7.41	47339	30.74
19830-015	2	22	14	07/22/10 09:47:33	12.31	7.51	7.50	47598	30.93
19830-008	2	23	14	07/22/10 09:47:49	12.27	8.04	7.68	47630	30.95
19830-002	2	24	14	07/22/10 09:48:03	12.24	8.19	7.70	47678	30.98
19830-012	2	25	14	07/22/10 09:48:15	12.18	7.94	7.65	47574	30.91
19830-004	2	26	14	07/22/10 09:48:29	12.20	7.91	7.54	47670	30.98
19830-000	2	27	14	07/22/10 09:48:47	12.06	8.15	7.56	47587	30.91
19830-003	2	28	14	07/22/10 09:49:00	12.01	8.52	7.57	47311	30.71
19830-011	2	29	14	07/22/10 09:49:14	11.99	8.52	7.57	47696	30.99
19830-017	2	30	14	07/22/10 09:49:26	12.01	8.31	7.53	47643	30.95
19830-014	2	31	14	07/22/10 09:49:39	11.96	8.21	7.49	47713	31.00
19830-001	2	32	14	07/22/10 09:49:54	11.90	7.87	7.56	47735	31.01
19830-013	2	33	14	07/22/10 09:50:05	11.90	7.69	7.56	47781	31.04
19830-010	2	34	14	07/22/10 09:50:21	11.97	7.89	7.62	47690	30.98
19830-006	2	35	14	07/22/10 09:50:40	12.24	8.02	7.54	47812	31.08
19830-005	2	36	14	07/22/10 09:51:00	12.32	7.66	7.42	47670	30.98
19830-013	3	37	14	07/22/10 09:51:15	12.28	7.30	7.38	47727	31.02
19830-009	3	38	14	07/22/10 09:51:32	12.36	7.17	7.54	47676	30.99
19830-017	3	39	14	07/22/10 09:51:46	12.35	7.66	7.42	47601	30.93
19830-016	3	40	14	07/22/10 09:51:59	12.25	7.37	7.39	47714	31.01
19830-000	3	41	14	07/22/10 09:52:07	12.24	7.58	7.47	47654	30.97
19830-010	3	42	14	07/22/10 09:52:24	12.28	8.22	7.53	47619	30.94
19830-008	3	43	14	07/22/10 09:52:40	12.17	8.35	7.58	47695	30.99
19830-014	3	44	14	07/22/10 09:52:52	12.12	8.32	7.61	47642	30.95
19830-004	3	45	14	07/22/10 09:53:08	12.02	8.19	7.55	47605	30.92
19830-006	3	46	14	07/22/10 09:53:25	12.07	7.98	7.45	47644	30.95
19830-005	3	47	14	07/22/10 09:53:36	12.07	7.61	7.48	47603	30.92
19830-011	3	48	14	07/22/10 09:53:49	11.86	7.87	7.58	47755	31.02
19830-002	3	49	14	07/22/10 09:54:01	11.88	8.08	7.59	47699	30.98
19830-012	3	50	14	07/22/10 09:54:13	11.98	7.99	7.52	47685	30.98
19830-001	3	51	14	07/22/10 09:54:40	11.85	7.55	7.53	47763	31.03
19830-003	3	52	14	07/22/10 09:55:00	11.78	8.35	7.66	47781	31.04
19830-007	3	53	14	07/22/10 09:55:13	11.80	8.64	7.54	47728	31.00
19830-015	3	54	14	07/22/10 09:55:27	11.78	8.22	7.55	47730	31.00
19830-006	4	55	14	07/22/10 09:55:40	11.75	8.39	7.57	47693	30.97
19830-011	4	56	14	07/22/10 09:55:54	11.68	8.49	7.60	47805	31.05
19830-012	4	57	14	07/22/10 09:56:08	11.61	8.59	7.73	47813	31.05
19830-010	4	58	14	07/22/10 09:56:21	11.57	8.79	7.75	47812	31.05
19830-015	4	59	14	07/22/10 09:56:35	11.48	8.81	7.64	47785	31.03
19830-009	4	60	14	07/22/10 09:56:48	11.40	8.63	7.68	47883	31.09
19830-001	4	61	14	07/22/10 09:57:00	11.45	8.70	7.63	47981	31.17
19830-016	4	62	14	07/22/10 09:57:11	11.61	8.43	7.53	47877	31.10
19830-008	4	63	14	07/22/10 09:57:23	11.77	8.21	7.64	47932	31.15
19830-004	4	64	14	07/22/10 09:57:37	11.94	8.45	7.69	47883	31.12

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	4	65	14	07/22/10 09:57:57	11.79	8.35	7.48	47705	30.98
19830-014	4	66	14	07/22/10 09:58:13	11.74	8.03	7.45	47725	31.00
19830-000	4	67	14	07/22/10 09:58:22	11.72	7.84	7.47	47684	30.97
19830-017	4	68	14	07/22/10 09:58:33	11.70	7.93	7.43	47721	30.99
19830-013	4	69	14	07/22/10 09:58:44	11.69	7.88	7.45	47722	30.99
19830-002	4	70	14	07/22/10 09:58:53	11.69	7.99	7.53	47743	31.01
19830-005	4	71	14	07/22/10 09:59:06	11.69	8.18	7.57	47719	30.99
19830-003	4	72	14	07/22/10 09:59:15	11.71	8.19	7.58	47746	31.01
19830-016	5	73	14	07/22/10 09:59:26	11.71	8.30	7.55	47716	30.99
19830-003	5	74	14	07/22/10 09:59:39	11.69	8.23	7.48	47758	31.02
19830-000	5	75	14	07/22/10 09:59:49	11.72	8.04	7.50	47714	30.99
19830-013	5	76	14	07/22/10 10:00:01	11.80	8.16	7.50	47696	30.98
19830-001	5	77	14	07/22/10 10:00:13	11.84	8.21	7.49	47742	31.01
19830-002	5	78	14	07/22/10 10:00:28	11.96	8.25	7.52	47722	31.00
19830-004	5	79	14	07/22/10 10:00:42	12.03	7.97	7.51	47726	31.01
19830-012	5	80	14	07/22/10 10:00:55	12.11	7.97	7.60	47735	31.02
19830-005	5	81	14	07/22/10 10:01:10	11.87	8.37	7.61	47638	30.94
19830-011	5	82	14	07/22/10 10:01:21	11.76	8.20	7.58	47668	30.96
19830-010	5	83	14	07/22/10 10:01:34	11.68	8.16	7.64	47782	31.03
19830-017	5	84	14	07/22/10 10:01:44	11.67	8.28	7.59	47703	30.98
19830-009	5	85	14	07/22/10 10:01:53	11.69	8.04	7.53	47791	31.04
19830-006	5	86	14	07/22/10 10:02:05	11.73	7.84	7.49	47765	31.02
19830-008	5	87	14	07/22/10 10:02:17	11.75	7.94	7.55	47713	30.99
19830-007	5	88	14	07/22/10 10:02:28	11.76	8.20	7.56	47717	30.99
19830-014	5	89	14	07/22/10 10:02:42	11.73	8.43	7.55	47753	31.02
19830-015	5	90	14	07/22/10 10:02:52	11.73	8.41	7.57	47747	31.01
19830-005	6	91	14	07/22/10 10:03:00	11.74	8.37	7.59	47722	30.99
19830-007	6	92	14	07/22/10 10:03:10	11.77	8.38	7.57	47724	31.00
19830-002	6	93	14	07/22/10 10:03:26	11.85	8.32	7.52	47760	31.03
19830-009	6	94	14	07/22/10 10:03:50	11.92	7.98	7.62	47723	31.00
19830-013	6	95	14	07/22/10 10:04:00	11.91	7.92	7.64	47840	31.09
19830-004	6	96	14	07/22/10 10:04:09	11.98	8.04	7.63	47858	31.10
19830-012	6	97	14	07/22/10 10:04:27	11.85	8.37	7.63	47764	31.03
19830-015	6	98	14	07/22/10 10:04:40	11.73	8.55	7.65	47716	30.99
19830-014	6	99	14	07/22/10 10:04:51	11.67	8.45	7.63	47811	31.06
19830-003	6	100	14	07/22/10 10:05:04	11.64	8.40	7.62	47917	31.13
19830-010	6	101	14	07/22/10 10:05:14	11.65	8.50	7.65	47905	31.12
19830-000	6	102	14	07/22/10 10:05:25	11.64	8.67	7.68	47811	31.05
19830-016	6	103	14	07/22/10 10:05:34	11.62	8.81	7.65	47887	31.11
19830-001	6	104	14	07/22/10 10:05:42	11.62	8.76	7.65	47904	31.12
19830-017	6	105	14	07/22/10 10:05:52	11.57	8.69	7.66	47801	31.04
19830-008	6	106	14	07/22/10 10:06:00	11.56	8.73	7.71	47829	31.06
19830-011	6	107	14	07/22/10 10:06:10	11.59	8.82	7.72	47939	31.14
19830-006	6	108	14	07/22/10 10:06:18	11.68	8.73	7.66	48062	31.24
19830-015	7	109	14	07/22/10 10:06:28	11.87	8.58	7.64	48045	31.23
19830-017	7	110	14	07/22/10 10:06:37	12.02	8.50	7.64	48024	31.23
19830-003	7	111	14	07/22/10 10:06:46	12.15	8.49	7.64	47952	31.18
19830-008	7	112	14	07/22/10 10:06:59	12.28	8.54	7.69	47939	31.17
19830-006	7	113	14	07/22/10 10:07:12	12.14	8.76	7.69	47551	30.89
19830-012	7	114	14	07/22/10 10:07:22	12.05	8.77	7.65	47593	30.91
19830-004	7	115	14	07/22/10 10:07:34	11.97	8.75	7.66	47609	30.92
19830-011	7	116	14	07/22/10 10:07:42	11.94	8.74	7.65	47573	30.90
19830-014	7	117	14	07/22/10 10:08:04	11.85	8.66	7.67	47314	30.71
19830-005	7	118	14	07/22/10 10:08:13	11.85	8.69	7.61	47580	30.90

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	7	119	14	07/22/10 10:08:23	11.85	8.62	7.58	47686	30.97
19830-000	7	120	14	07/22/10 10:08:32	11.84	8.55	7.61	47568	30.89
19830-009	7	121	14	07/22/10 10:08:43	11.70	8.69	7.67	47666	30.95
19830-010	7	122	14	07/22/10 10:08:53	11.63	8.72	7.68	47720	30.99
19830-007	7	123	14	07/22/10 10:09:03	11.65	8.62	7.59	47746	31.01
19830-002	7	124	14	07/22/10 10:09:15	11.70	8.41	7.57	47865	31.10
19830-013	7	125	14	07/22/10 10:09:31	11.79	8.30	7.61	47890	31.12
19830-016	7	126	14	07/22/10 10:09:42	11.91	8.45	7.57	47874	31.11
19830-017	8	127	14	07/22/10 10:09:53	12.07	8.43	7.55	47803	31.07
19830-013	8	128	14	07/22/10 10:10:06	12.23	8.36	7.58	47823	31.09
19830-010	8	129	14	07/22/10 10:10:24	12.13	8.46	7.68	47144	30.59
19830-007	8	130	14	07/22/10 10:10:34	12.09	8.58	7.62	47525	30.87
19830-011	8	131	14	07/22/10 10:10:47	11.96	8.46	7.54	47638	30.94
19830-002	8	132	14	07/22/10 10:10:59	11.91	8.02	7.59	47706	30.99
19830-004	8	133	14	07/22/10 10:11:10	11.93	7.75	7.58	47684	30.98
19830-003	8	134	14	07/22/10 10:11:21	11.93	7.91	7.61	47671	30.97
19830-005	8	135	14	07/22/10 10:11:33	11.89	8.24	7.52	47602	30.91
19830-012	8	136	14	07/22/10 10:11:47	11.83	7.66	7.44	47676	30.96
19830-006	8	137	14	07/22/10 10:12:01	11.76	7.35	7.48	47762	31.02
19830-001	8	138	14	07/22/10 10:12:14	11.75	7.68	7.53	47788	31.04
19830-014	8	139	14	07/22/10 10:12:24	11.77	7.95	7.58	47787	31.04
19830-000	8	140	14	07/22/10 10:12:34	11.83	7.97	7.61	47752	31.02
19830-009	8	141	14	07/22/10 10:12:47	11.90	8.35	7.66	47829	31.08
19830-008	8	142	14	07/22/10 10:12:57	11.97	8.47	7.70	47822	31.08
19830-015	8	143	14	07/22/10 10:13:10	12.07	8.56	7.68	47798	31.06
19830-016	8	144	14	07/22/10 10:13:22	12.24	8.39	7.52	47835	31.10
19830-002	1	1	15	07/23/10 11:42:02	13.40	7.60	7.60	45640	29.56
19830-016	1	2	15	07/23/10 11:43:00	13.32	7.73	7.63	45528	29.48
19830-015	1	3	15	07/23/10 11:43:19	13.32	7.81	7.60	45631	29.55
19830-017	1	4	15	07/23/10 11:43:46	13.34	7.50	7.52	45619	29.54
19830-001	1	5	15	07/23/10 11:44:07	13.24	7.40	7.60	45662	29.57
19830-011	1	6	15	07/23/10 11:44:33	13.29	7.49	7.60	45635	29.55
19830-014	1	7	15	07/23/10 11:44:50	13.29	7.67	7.56	45632	29.55
19830-009	1	8	15	07/23/10 11:45:15	13.16	7.27	7.58	45641	29.55
19830-012	1	9	15	07/23/10 11:45:46	13.20	7.88	7.59	45593	29.52
19830-010	1	10	15	07/23/10 11:46:01	13.17	8.15	7.60	45655	29.56
19830-008	1	11	15	07/23/10 11:46:25	13.21	7.73	7.73	45624	29.54
19830-006	1	12	15	07/23/10 11:46:39	13.22	7.63	7.66	45615	29.53
19830-004	1	13	15	07/23/10 11:47:04	13.13	7.72	7.61	45648	29.56
19830-013	1	14	15	07/23/10 11:47:19	13.11	7.71	7.61	45667	29.57
19830-000	1	15	15	07/23/10 11:47:33	13.10	7.62	7.58	45653	29.56
19830-005	1	16	15	07/23/10 11:48:07	13.02	8.11	7.65	45652	29.56
19830-007	1	17	15	07/23/10 11:48:36	13.00	8.15	7.58	45671	29.57
19830-003	1	18	15	07/23/10 11:49:03	13.04	8.10	7.58	45670	29.57
19830-009	2	19	15	07/23/10 11:49:43	13.26	7.44	7.64	45618	29.54
19830-016	2	20	15	07/23/10 11:49:56	13.30	7.33	7.65	45650	29.56
19830-007	2	21	15	07/23/10 11:50:18	13.39	7.31	7.50	45581	29.52
19830-015	2	22	15	07/23/10 11:50:36	13.37	7.38	7.55	45614	29.54
19830-008	2	23	15	07/23/10 11:50:54	13.35	7.73	7.69	45632	29.55
19830-002	2	24	15	07/23/10 11:51:13	13.38	7.68	7.65	45628	29.55
19830-012	2	25	15	07/23/10 11:51:26	13.35	7.45	7.61	45596	29.53
19830-004	2	26	15	07/23/10 11:51:40	13.29	7.50	7.58	45601	29.53
19830-000	2	27	15	07/23/10 11:52:19	13.12	8.09	7.56	45641	29.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-003	2	28	15	07/23/10 11:52:34	13.18	8.13	7.56	45608	29.53
19830-011	2	29	15	07/23/10 11:52:57	13.18	7.89	7.59	45629	29.54
19830-017	2	30	15	07/23/10 11:53:19	13.25	7.82	7.56	45617	29.54
19830-014	2	31	15	07/23/10 11:53:54	13.17	7.20	7.59	45629	29.54
19830-001	2	32	15	07/23/10 11:54:06	13.11	7.12	7.59	45627	29.54
19830-013	2	33	15	07/23/10 11:54:29	13.06	7.33	7.57	45659	29.56
19830-010	2	34	15	07/23/10 11:54:53	13.13	7.54	7.59	45627	29.54
19830-006	2	35	15	07/23/10 11:55:33	13.22	7.65	7.49	45649	29.56
19830-005	2	36	15	07/23/10 11:56:02	13.30	7.14	7.47	45627	29.55
19830-013	3	37	15	07/23/10 11:56:16	13.27	7.03	7.49	45634	29.55
19830-009	3	38	15	07/23/10 11:56:40	13.35	7.53	7.60	45619	29.54
19830-017	3	39	15	07/23/10 11:57:05	13.40	7.22	7.46	45601	29.53
19830-016	3	40	15	07/23/10 11:57:18	13.29	6.99	7.47	45612	29.53
19830-000	3	41	15	07/23/10 11:57:58	13.47	8.24	7.61	45566	29.51
19830-010	3	42	15	07/23/10 11:58:13	13.40	8.24	7.60	45561	29.50
19830-008	3	43	15	07/23/10 11:58:40	13.12	8.01	7.59	45708	29.60
19830-014	3	44	15	07/23/10 11:59:00	13.28	7.74	7.63	45632	29.55
19830-004	3	45	15	07/23/10 11:59:21	13.26	7.70	7.60	45557	29.49
19830-006	3	46	15	07/23/10 11:59:46	13.27	7.49	7.51	45603	29.53
19830-005	3	47	15	07/23/10 12:00:10	13.27	7.66	7.59	45601	29.53
19830-011	3	48	15	07/23/10 12:00:32	13.01	7.88	7.61	45631	29.54
19830-002	3	49	15	07/23/10 12:00:52	13.16	7.55	7.62	45678	29.58
19830-012	3	50	15	07/23/10 12:01:14	13.16	7.46	7.61	45622	29.54
19830-001	3	51	15	07/23/10 12:01:58	12.80	8.04	7.68	45716	29.59
19830-003	3	52	15	07/23/10 12:02:28	12.87	8.29	7.69	45677	29.57
19830-007	3	53	15	07/23/10 12:03:05	12.94	7.78	7.49	45662	29.56
19830-015	3	54	15	07/23/10 12:03:36	12.98	8.06	7.65	45648	29.55
19830-006	4	55	15	07/23/10 12:04:13	12.90	8.11	7.60	45654	29.55
19830-011	4	56	15	07/23/10 12:04:52	12.89	8.11	7.67	45656	29.55
19830-012	4	57	15	07/23/10 12:05:15	12.88	8.26	7.73	45674	29.57
19830-010	4	58	15	07/23/10 12:05:45	12.75	8.32	7.70	45674	29.56
19830-015	4	59	15	07/23/10 12:06:23	12.57	8.01	7.60	45702	29.58
19830-009	4	60	15	07/23/10 12:06:51	12.57	8.20	7.70	45719	29.59
19830-001	4	61	15	07/23/10 12:07:30	12.60	7.92	7.60	45738	29.60
19830-016	4	62	15	07/23/10 12:08:10	12.87	7.85	7.56	45677	29.57
19830-008	4	63	15	07/23/10 12:08:40	12.92	8.00	7.68	45738	29.61
19830-004	4	64	15	07/23/10 12:09:20	13.03	7.59	7.62	45673	29.57
19830-007	4	65	15	07/23/10 12:09:47	12.82	7.88	7.52	45638	29.54
19830-014	4	66	15	07/23/10 12:10:28	12.91	7.26	7.54	45662	29.56
19830-000	4	67	15	07/23/10 12:11:13	12.91	7.71	7.52	45658	29.56
19830-017	4	68	15	07/23/10 12:12:04	12.91	7.39	7.48	45667	29.56
19830-013	4	69	15	07/23/10 12:12:39	12.97	7.76	7.58	45647	29.55
19830-002	4	70	15	07/23/10 12:13:07	12.95	7.82	7.65	45654	29.55
19830-005	4	71	15	07/23/10 12:13:40	12.94	7.94	7.60	45622	29.53
19830-003	4	72	15	07/23/10 12:14:21	12.84	8.01	7.59	45633	29.54
19830-016	5	73	15	07/23/10 12:14:48	12.87	7.90	7.57	45664	29.56
19830-003	5	74	15	07/23/10 12:15:20	12.92	7.69	7.53	45652	29.55
19830-000	5	75	15	07/23/10 12:16:01	13.07	8.00	7.57	45619	29.53
19830-013	5	76	15	07/23/10 12:16:38	13.11	7.63	7.52	45632	29.54
19830-001	5	77	15	07/23/10 12:17:15	13.09	8.07	7.49	45609	29.53
19830-002	5	78	15	07/23/10 12:18:04	13.16	7.45	7.57	45657	29.56
19830-004	5	79	15	07/23/10 12:18:36	13.16	7.48	7.54	45641	29.55
19830-012	5	80	15	07/23/10 12:19:15	13.13	8.01	7.67	45634	29.55
19830-005	5	81	15	07/23/10 12:20:08	12.80	7.41	7.56	45650	29.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	5	82	15	07/23/10 12:20:45	12.88	7.79	7.61	45654	29.55
19830-010	5	83	15	07/23/10 12:21:15	12.85	7.96	7.68	45667	29.56
19830-017	5	84	15	07/23/10 12:21:59	12.92	6.93	7.46	45651	29.55
19830-009	5	85	15	07/23/10 12:22:31	12.87	7.25	7.60	45643	29.54
19830-006	5	86	15	07/23/10 12:23:11	12.79	7.81	7.51	45747	29.62
19830-008	5	87	15	07/23/10 12:23:42	12.99	8.05	7.64	45633	29.54
19830-007	5	88	15	07/23/10 12:26:04	12.84	8.35	7.53	45342	29.33
19830-014	5	89	15	07/23/10 12:26:55	12.76	8.02	7.61	45647	29.54
19830-015	5	90	15	07/23/10 12:27:18	12.81	8.04	7.65	45664	29.56
19830-005	6	91	15	07/23/10 12:27:41	12.89	8.00	7.63	45650	29.55
19830-007	6	92	15	07/23/10 12:28:02	12.91	8.01	7.58	45651	29.55
19830-002	6	93	15	07/23/10 12:28:20	12.95	7.97	7.59	45680	29.57
19830-009	6	94	15	07/23/10 12:28:53	13.01	7.47	7.64	45638	29.54
19830-013	6	95	15	07/23/10 12:29:25	12.99	7.88	7.67	45656	29.56
19830-004	6	96	15	07/23/10 12:29:43	12.96	7.94	7.68	45678	29.57
19830-012	6	97	15	07/23/10 12:30:14	12.75	8.24	7.67	45683	29.57
19830-015	6	98	15	07/23/10 12:30:27	12.70	8.18	7.66	45656	29.55
19830-014	6	99	15	07/23/10 12:30:46	12.64	8.12	7.67	45725	29.59
19830-003	6	100	15	07/23/10 12:31:09	12.59	8.17	7.64	45718	29.59
19830-010	6	101	15	07/23/10 12:32:08	12.58	8.55	7.72	45733	29.60
19830-000	6	102	15	07/23/10 12:32:34	12.66	8.45	7.65	45711	29.58
19830-016	6	103	15	07/23/10 12:32:57	12.60	8.29	7.67	45733	29.60
19830-001	6	104	15	07/23/10 12:33:16	12.51	8.30	7.71	45714	29.58
19830-017	6	105	15	07/23/10 12:33:39	12.40	8.51	7.69	45717	29.58
19830-008	6	106	15	07/23/10 12:33:57	12.39	8.57	7.74	45756	29.61
19830-011	6	107	15	07/23/10 12:34:34	12.51	8.20	7.70	45759	29.61
19830-006	6	108	15	07/23/10 12:34:52	12.60	8.17	7.64	45802	29.65
19830-015	7	109	15	07/23/10 12:35:07	12.70	8.24	7.64	45860	29.69
19830-017	7	110	15	07/23/10 12:35:30	12.85	8.25	7.67	45781	29.64
19830-003	7	111	15	07/23/10 12:35:51	12.95	8.20	7.63	45727	29.61
19830-008	7	112	15	07/23/10 12:36:24	12.98	8.39	7.70	45735	29.61
19830-006	7	113	15	07/23/10 12:36:57	13.13	8.35	7.61	45600	29.52
19830-012	7	114	15	07/23/10 12:37:17	13.17	8.26	7.65	45623	29.54
19830-004	7	115	15	07/23/10 12:37:44	13.17	8.26	7.69	45622	29.54
19830-011	7	116	15	07/23/10 12:38:20	13.19	7.96	7.66	45602	29.52
19830-014	7	117	15	07/23/10 12:40:39	13.09	8.58	7.72	45579	29.50
19830-005	7	118	15	07/23/10 12:41:11	13.09	8.31	7.60	45599	29.52
19830-001	7	119	15	07/23/10 12:41:53	12.95	8.21	7.72	45637	29.54
19830-000	7	120	15	07/23/10 12:42:21	12.94	8.42	7.66	45609	29.52
19830-009	7	121	15	07/23/10 12:43:08	12.65	7.96	7.71	45698	29.58
19830-010	7	122	15	07/23/10 12:43:35	12.75	7.96	7.63	45687	29.57
19830-007	7	123	15	07/23/10 12:43:56	12.76	7.90	7.54	45656	29.55
19830-002	7	124	15	07/23/10 12:44:18	12.77	7.78	7.63	45718	29.59
19830-013	7	125	15	07/23/10 12:44:40	12.79	7.96	7.64	45752	29.62
19830-016	7	126	15	07/23/10 12:45:00	12.95	8.08	7.59	45710	29.59
19830-017	8	127	15	07/23/10 12:45:18	13.05	7.97	7.59	45679	29.58
19830-013	8	128	15	07/23/10 12:45:37	13.07	7.96	7.61	45663	29.56
19830-010	8	129	15	07/23/10 12:46:02	13.09	8.28	7.70	45660	29.56
19830-007	8	130	15	07/23/10 12:46:31	13.18	8.07	7.57	45592	29.52
19830-011	8	131	15	07/23/10 12:47:11	12.98	7.10	7.60	45671	29.57
19830-002	8	132	15	07/23/10 12:47:35	13.07	7.17	7.66	45633	29.54
19830-004	8	133	15	07/23/10 12:48:03	13.18	7.57	7.61	45620	29.54
19830-003	8	134	15	07/23/10 12:48:23	13.15	7.77	7.61	45600	29.52
19830-005	8	135	15	07/23/10 12:49:03	12.96	6.90	7.40	45623	29.53

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	8	136	15	07/23/10 12:49:31	12.84	6.79	7.52	45624	29.53
19830-006	8	137	15	07/23/10 12:50:12	12.68	7.80	7.53	45367	29.34
19830-001	8	138	15	07/23/10 12:50:27	12.71	7.92	7.62	45732	29.60
19830-014	8	139	15	07/23/10 12:50:41	12.79	7.82	7.64	45736	29.61
19830-000	8	140	15	07/23/10 12:50:55	12.87	7.66	7.63	45680	29.57
19830-009	8	141	15	07/23/10 12:51:10	12.88	8.11	7.69	45689	29.58
19830-008	8	142	15	07/23/10 12:51:24	12.89	8.22	7.71	45692	29.58
19830-015	8	143	15	07/23/10 12:51:36	12.92	8.28	7.69	45734	29.61
19830-016	8	144	15	07/23/10 12:51:52	13.01	8.15	7.59	45717	29.60
19830-002	1	1	16	07/24/10 09:45:00	13.00	7.84	7.55	47414	30.82
19830-016	1	2	16	07/24/10 09:45:38	12.88	7.66	7.56	46350	30.05
19830-015	1	3	16	07/24/10 09:45:52	12.84	7.70	7.53	46824	30.39
19830-017	1	4	16	07/24/10 09:46:08	12.85	7.53	7.43	47325	30.75
19830-001	1	5	16	07/24/10 09:46:23	12.85	7.07	7.54	47456	30.85
19830-011	1	6	16	07/24/10 09:46:40	12.84	7.22	7.57	47387	30.80
19830-014	1	7	16	07/24/10 09:46:51	12.79	7.36	7.54	47408	30.81
19830-009	1	8	16	07/24/10 09:47:26	12.71	6.25	7.57	47325	30.75
19830-012	1	9	16	07/24/10 09:48:39	12.79	6.15	7.60	46921	30.46
19830-010	1	10	16	07/24/10 09:49:04	12.65	6.98	7.60	47377	30.78
19830-008	1	11	16	07/24/10 09:49:22	12.58	7.10	7.81	47402	30.80
19830-006	1	12	16	07/24/10 09:49:57	12.55	7.74	7.63	47401	30.80
19830-004	1	13	16	07/24/10 09:50:13	12.56	7.90	7.60	47455	30.84
19830-013	1	14	16	07/24/10 09:50:30	12.57	7.52	7.59	47454	30.84
19830-000	1	15	16	07/24/10 09:50:46	12.54	7.17	7.49	47407	30.80
19830-005	1	16	16	07/24/10 09:51:00	12.51	6.76	7.57	47476	30.85
19830-007	1	17	16	07/24/10 09:51:25	12.49	7.81	7.53	47494	30.86
19830-003	1	18	16	07/24/10 09:51:44	12.59	7.92	7.54	47527	30.89
19830-009	2	19	16	07/24/10 09:52:02	12.74	7.94	7.64	47517	30.89
19830-016	2	20	16	07/24/10 09:52:35	12.81	7.15	7.64	47385	30.80
19830-007	2	21	16	07/24/10 09:52:54	12.82	6.89	7.43	47271	30.71
19830-015	2	22	16	07/24/10 09:53:09	12.79	6.78	7.48	47316	30.75
19830-008	2	23	16	07/24/10 09:53:30	12.78	7.46	7.76	47364	30.78
19830-002	2	24	16	07/24/10 09:53:48	12.76	7.45	7.66	47361	30.78
19830-012	2	25	16	07/24/10 09:54:04	12.71	7.16	7.59	47320	30.74
19830-004	2	26	16	07/24/10 09:54:16	12.72	7.06	7.53	47396	30.80
19830-000	2	27	16	07/24/10 09:54:45	12.61	7.62	7.49	47333	30.75
19830-003	2	28	16	07/24/10 09:55:03	12.56	7.85	7.50	47056	30.55
19830-011	2	29	16	07/24/10 09:55:17	12.56	7.76	7.56	47389	30.79
19830-017	2	30	16	07/24/10 09:55:36	12.56	7.52	7.52	47361	30.77
19830-014	2	31	16	07/24/10 09:55:58	12.51	7.18	7.53	47400	30.80
19830-001	2	32	16	07/24/10 09:56:18	12.44	6.66	7.54	47444	30.82
19830-013	2	33	16	07/24/10 09:56:39	12.47	6.73	7.54	47465	30.84
19830-010	2	34	16	07/24/10 09:57:00	12.54	7.15	7.59	47402	30.80
19830-006	2	35	16	07/24/10 09:57:25	12.79	7.44	7.51	47463	30.85
19830-005	2	36	16	07/24/10 09:57:44	12.81	7.25	7.42	47406	30.81
19830-013	3	37	16	07/24/10 09:58:07	12.78	6.36	7.43	47426	30.82
19830-009	3	38	16	07/24/10 09:58:35	12.86	6.98	7.52	47208	30.67
19830-017	3	39	16	07/24/10 09:58:50	12.83	7.20	7.43	47334	30.76
19830-016	3	40	16	07/24/10 09:59:15	12.73	6.99	7.48	47423	30.82
19830-000	3	41	16	07/24/10 09:59:39	12.82	7.81	7.58	47278	30.72
19830-010	3	42	16	07/24/10 10:00:02	12.80	7.79	7.53	47324	30.75
19830-008	3	43	16	07/24/10 10:00:28	12.69	7.44	7.55	47417	30.81
19830-014	3	44	16	07/24/10 10:00:49	12.66	7.25	7.66	47346	30.76

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	3	45	16	07/24/10 10:01:07	12.60	7.27	7.56	47369	30.78
19830-006	3	46	16	07/24/10 10:01:29	12.63	7.08	7.43	47350	30.76
19830-005	3	47	16	07/24/10 10:01:53	12.61	7.15	7.53	47349	30.76
19830-011	3	48	16	07/24/10 10:02:19	12.34	7.38	7.60	47523	30.88
19830-002	3	49	16	07/24/10 10:02:41	12.48	7.24	7.64	47382	30.78
19830-012	3	50	16	07/24/10 10:03:03	12.58	6.91	7.57	47383	30.79
19830-001	3	51	16	07/24/10 10:03:33	12.36	7.40	7.72	47536	30.89
19830-003	3	52	16	07/24/10 10:03:57	12.36	8.01	7.73	47492	30.86
19830-007	3	53	16	07/24/10 10:04:22	12.38	7.85	7.46	47390	30.78
19830-015	3	54	16	07/24/10 10:04:48	12.37	7.84	7.64	47425	30.81
19830-006	4	55	16	07/24/10 10:05:11	12.30	8.02	7.58	47453	30.82
19830-011	4	56	16	07/24/10 10:05:26	12.25	7.98	7.64	47486	30.85
19830-012	4	57	16	07/24/10 10:05:37	12.18	8.04	7.73	47507	30.86
19830-010	4	58	16	07/24/10 10:05:54	12.13	8.19	7.77	47520	30.87
19830-015	4	59	16	07/24/10 10:06:20	12.01	7.99	7.60	47516	30.86
19830-009	4	60	16	07/24/10 10:06:47	11.97	8.03	7.81	47584	30.91
19830-001	4	61	16	07/24/10 10:07:15	12.07	7.72	7.63	47625	30.94
19830-016	4	62	16	07/24/10 10:07:38	12.24	7.52	7.52	47497	30.85
19830-008	4	63	16	07/24/10 10:08:05	12.41	7.83	7.76	47499	30.86
19830-004	4	64	16	07/24/10 10:08:31	12.55	7.62	7.62	47487	30.86
19830-007	4	65	16	07/24/10 10:08:55	12.32	7.67	7.48	47454	30.83
19830-014	4	66	16	07/24/10 10:09:16	12.28	7.50	7.47	47439	30.81
19830-000	4	67	16	07/24/10 10:09:32	12.25	7.19	7.44	47398	30.78
19830-017	4	68	16	07/24/10 10:09:43	12.23	7.27	7.41	47422	30.80
19830-013	4	69	16	07/24/10 10:09:54	12.23	7.22	7.45	47429	30.80
19830-002	4	70	16	07/24/10 10:10:10	12.23	7.52	7.60	47444	30.81
19830-005	4	71	16	07/24/10 10:10:23	12.24	7.67	7.63	47415	30.80
19830-003	4	72	16	07/24/10 10:10:32	12.25	7.76	7.61	47456	30.82
19830-016	5	73	16	07/24/10 10:10:44	12.25	7.82	7.56	47428	30.80
19830-003	5	74	16	07/24/10 10:10:57	12.25	7.68	7.50	47438	30.81
19830-000	5	75	16	07/24/10 10:11:11	12.28	7.45	7.49	47402	30.79
19830-013	5	76	16	07/24/10 10:11:32	12.36	7.58	7.47	47392	30.78
19830-001	5	77	16	07/24/10 10:11:51	12.39	7.61	7.49	47479	30.85
19830-002	5	78	16	07/24/10 10:12:05	12.48	7.75	7.51	47416	30.81
19830-004	5	79	16	07/24/10 10:12:20	12.56	7.53	7.52	47410	30.80
19830-012	5	80	16	07/24/10 10:12:33	12.63	7.41	7.60	47455	30.84
19830-005	5	81	16	07/24/10 10:12:51	12.38	7.80	7.57	47405	30.79
19830-011	5	82	16	07/24/10 10:13:05	12.26	7.44	7.60	47446	30.82
19830-010	5	83	16	07/24/10 10:13:17	12.21	7.59	7.66	47526	30.87
19830-017	5	84	16	07/24/10 10:13:28	12.20	7.79	7.62	47428	30.80
19830-009	5	85	16	07/24/10 10:13:48	12.23	7.15	7.59	47491	30.85
19830-006	5	86	16	07/24/10 10:14:10	12.25	7.44	7.47	47492	30.85
19830-008	5	87	16	07/24/10 10:14:29	12.26	7.80	7.63	47436	30.81
19830-007	5	88	16	07/24/10 10:15:14	12.28	7.99	7.49	46892	30.42
19830-014	5	89	16	07/24/10 10:15:32	12.27	8.00	7.56	47486	30.85
19830-015	5	90	16	07/24/10 10:15:46	12.27	7.94	7.60	47485	30.85
19830-005	6	91	16	07/24/10 10:16:00	12.29	7.94	7.63	47445	30.82
19830-007	6	92	16	07/24/10 10:16:18	12.34	7.93	7.56	47436	30.81
19830-002	6	93	16	07/24/10 10:16:34	12.38	7.99	7.56	47493	30.86
19830-009	6	94	16	07/24/10 10:16:58	12.44	7.49	7.65	47459	30.83
19830-013	6	95	16	07/24/10 10:17:15	12.45	7.43	7.65	47520	30.88
19830-004	6	96	16	07/24/10 10:17:34	12.53	7.69	7.67	47547	30.90
19830-012	6	97	16	07/24/10 10:18:05	12.37	7.98	7.68	47503	30.86
19830-015	6	98	16	07/24/10 10:18:21	12.23	7.93	7.66	47482	30.84

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-014	6	99	16	07/24/10 10:18:38	12.20	7.82	7.67	47556	30.90
19830-003	6	100	16	07/24/10 10:18:56	12.20	7.81	7.62	47604	30.93
19830-010	6	101	16	07/24/10 10:19:14	12.20	8.07	7.70	47635	30.95
19830-000	6	102	16	07/24/10 10:19:28	12.19	8.27	7.67	47524	30.87
19830-016	6	103	16	07/24/10 10:19:38	12.18	8.24	7.65	47569	30.90
19830-001	6	104	16	07/24/10 10:19:51	12.18	8.12	7.73	47583	30.91
19830-017	6	105	16	07/24/10 10:20:08	12.14	8.19	7.69	47418	30.79
19830-008	6	106	16	07/24/10 10:20:23	12.13	8.20	7.77	47541	30.88
19830-011	6	107	16	07/24/10 10:20:37	12.19	8.27	7.75	47576	30.91
19830-006	6	108	16	07/24/10 10:21:00	12.36	8.07	7.63	47584	30.92
19830-015	7	109	16	07/24/10 10:21:16	12.50	8.09	7.65	47637	30.97
19830-017	7	110	16	07/24/10 10:21:30	12.61	8.00	7.67	47639	30.97
19830-003	7	111	16	07/24/10 10:21:45	12.70	8.04	7.63	47649	30.98
19830-008	7	112	16	07/24/10 10:21:58	12.78	7.99	7.69	47627	30.97
19830-006	7	113	16	07/24/10 10:22:17	12.62	8.29	7.67	47310	30.73
19830-012	7	114	16	07/24/10 10:22:30	12.52	8.27	7.67	47332	30.75
19830-004	7	115	16	07/24/10 10:22:43	12.45	8.19	7.70	47329	30.74
19830-011	7	116	16	07/24/10 10:22:52	12.42	8.19	7.70	47295	30.72
19830-014	7	117	16	07/24/10 10:23:05	12.35	8.09	7.72	47380	30.77
19830-005	7	118	16	07/24/10 10:23:16	12.34	8.23	7.67	47324	30.73
19830-001	7	119	16	07/24/10 10:23:25	12.34	8.26	7.67	47394	30.78
19830-000	7	120	16	07/24/10 10:23:36	12.34	8.22	7.69	47315	30.73
19830-009	7	121	16	07/24/10 10:23:49	12.23	8.30	7.70	47398	30.78
19830-010	7	122	16	07/24/10 10:24:04	12.16	8.04	7.65	47452	30.82
19830-007	7	123	16	07/24/10 10:24:16	12.19	7.86	7.54	47461	30.83
19830-002	7	124	16	07/24/10 10:24:30	12.26	7.73	7.55	47542	30.89
19830-013	7	125	16	07/24/10 10:24:45	12.34	7.72	7.61	47562	30.90
19830-016	7	126	16	07/24/10 10:25:00	12.49	7.89	7.57	47492	30.86
19830-017	8	127	16	07/24/10 10:25:15	12.61	7.84	7.55	47476	30.85
19830-013	8	128	16	07/24/10 10:25:30	12.76	7.80	7.61	47505	30.88
19830-010	8	129	16	07/24/10 10:25:47	12.66	8.01	7.69	47203	30.66
19830-007	8	130	16	07/24/10 10:25:59	12.58	8.11	7.65	47300	30.73
19830-011	8	131	16	07/24/10 10:26:31	12.42	6.79	7.61	47436	30.82
19830-002	8	132	16	07/24/10 10:26:50	12.45	6.50	7.67	47249	30.68
19830-004	8	133	16	07/24/10 10:27:22	12.47	7.33	7.57	47334	30.75
19830-003	8	134	16	07/24/10 10:27:37	12.43	7.54	7.59	47370	30.77
19830-005	8	135	16	07/24/10 10:27:50	12.37	7.76	7.51	47376	30.77
19830-012	8	136	16	07/24/10 10:28:19	12.33	6.00	7.47	47441	30.82
19830-006	8	137	16	07/24/10 10:29:00	12.28	7.40	7.42	45639	29.52
19830-001	8	138	16	07/24/10 10:29:38	12.27	7.81	7.68	45062	29.10
19830-014	8	139	16	07/24/10 10:29:52	12.29	7.71	7.66	47478	30.84
19830-000	8	140	16	07/24/10 10:30:07	12.35	7.39	7.63	47447	30.82
19830-009	8	141	16	07/24/10 10:30:21	12.40	7.85	7.71	47542	30.89
19830-008	8	142	16	07/24/10 10:30:35	12.46	8.01	7.77	47533	30.89
19830-015	8	143	16	07/24/10 10:30:48	12.55	8.09	7.70	47543	30.90
19830-016	8	144	16	07/24/10 10:31:02	12.71	7.95	7.57	47545	30.91
19830-002	1	1	17	07/25/10 15:18:55	13.14	8.03	7.59	46956	30.50
19830-016	1	2	17	07/25/10 15:19:41	13.00	7.90	7.59	44655	28.84
19830-015	1	3	17	07/25/10 15:19:54	12.96	7.89	7.58	46878	30.44
19830-017	1	4	17	07/25/10 15:20:32	12.99	7.04	7.44	46922	30.47
19830-001	1	5	17	07/25/10 15:20:50	12.96	7.01	7.57	46973	30.50
19830-011	1	6	17	07/25/10 15:21:11	12.93	7.25	7.57	46951	30.49
19830-014	1	7	17	07/25/10 15:22:16	12.90	6.05	7.49	46946	30.48

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	1	8	17	07/25/10 15:22:51	12.81	6.00	7.51	46973	30.50
19830-012	1	9	17	07/25/10 15:23:33	12.86	6.90	7.68	46963	30.49
19830-010	1	10	17	07/25/10 15:23:59	12.77	7.15	7.62	46966	30.49
19830-008	1	11	17	07/25/10 15:24:10	12.75	7.14	7.67	46940	30.47
19830-006	1	12	17	07/25/10 15:24:23	12.71	7.22	7.69	46973	30.49
19830-004	1	13	17	07/25/10 15:24:40	12.71	7.70	7.62	46967	30.49
19830-013	1	14	17	07/25/10 15:24:58	12.69	7.66	7.59	46977	30.50
19830-000	1	15	17	07/25/10 15:25:14	12.65	7.68	7.58	46959	30.48
19830-005	1	16	17	07/25/10 15:25:29	12.61	7.93	7.66	46980	30.50
19830-007	1	17	17	07/25/10 15:25:48	12.58	8.14	7.59	47016	30.52
19830-003	1	18	17	07/25/10 15:26:05	12.66	8.06	7.57	47033	30.54
19830-009	2	19	17	07/25/10 15:26:41	12.97	7.79	7.65	46951	30.49
19830-016	2	20	17	07/25/10 15:26:58	12.99	7.66	7.70	46932	30.48
19830-007	2	21	17	07/25/10 15:27:44	12.99	6.39	7.30	46894	30.45
19830-015	2	22	17	07/25/10 15:28:25	12.96	7.44	7.58	46915	30.46
19830-008	2	23	17	07/25/10 15:28:37	12.96	7.54	7.67	46916	30.46
19830-002	2	24	17	07/25/10 15:28:50	12.95	7.59	7.65	46925	30.47
19830-012	2	25	17	07/25/10 15:29:09	12.90	7.33	7.57	46915	30.46
19830-004	2	26	17	07/25/10 15:29:37	12.87	7.12	7.40	46882	30.44
19830-000	2	27	17	07/25/10 15:30:08	12.75	7.66	7.48	46926	30.46
19830-003	2	28	17	07/25/10 15:30:20	12.74	7.79	7.51	46740	30.33
19830-011	2	29	17	07/25/10 15:30:30	12.73	7.83	7.54	46938	30.47
19830-017	2	30	17	07/25/10 15:30:59	12.74	7.76	7.55	46927	30.46
19830-014	2	31	17	07/25/10 15:31:37	12.71	6.87	7.49	46956	30.48
19830-001	2	32	17	07/25/10 15:31:52	12.66	6.74	7.53	46944	30.47
19830-013	2	33	17	07/25/10 15:32:28	12.63	7.35	7.56	46984	30.50
19830-010	2	34	17	07/25/10 15:32:41	12.66	7.43	7.58	46978	30.50
19830-006	2	35	17	07/25/10 15:33:07	12.93	7.59	7.52	46986	30.51
19830-005	2	36	17	07/25/10 15:33:40	12.97	7.04	7.49	46942	30.48
19830-013	3	37	17	07/25/10 15:33:52	12.91	6.92	7.47	46965	30.50
19830-009	3	38	17	07/25/10 15:34:32	13.00	7.58	7.57	46925	30.47
19830-017	3	39	17	07/25/10 15:34:44	13.00	7.67	7.51	46909	30.46
19830-016	3	40	17	07/25/10 15:35:01	12.90	7.24	7.51	46931	30.47
19830-000	3	41	17	07/25/10 15:35:40	12.95	8.21	7.64	46898	30.45
19830-010	3	42	17	07/25/10 15:35:51	12.90	8.30	7.60	46918	30.46
19830-008	3	43	17	07/25/10 15:36:23	12.79	7.73	7.62	46959	30.49
19830-014	3	44	17	07/25/10 15:36:53	12.84	7.46	7.60	46928	30.47
19830-004	3	45	17	07/25/10 15:37:16	12.82	7.23	7.49	46912	30.45
19830-006	3	46	17	07/25/10 15:37:27	12.82	7.12	7.49	46926	30.47
19830-005	3	47	17	07/25/10 15:38:00	12.79	7.53	7.61	46931	30.47
19830-011	3	48	17	07/25/10 15:38:36	12.48	7.28	7.58	47032	30.53
19830-002	3	49	17	07/25/10 15:38:56	12.68	7.12	7.55	46988	30.50
19830-012	3	50	17	07/25/10 15:39:24	12.75	7.03	7.55	46947	30.48
19830-001	3	51	17	07/25/10 15:39:57	12.44	7.77	7.74	47013	30.51
19830-003	3	52	17	07/25/10 15:40:23	12.45	8.20	7.73	47020	30.52
19830-007	3	53	17	07/25/10 15:41:02	12.52	7.64	7.44	46972	30.49
19830-015	3	54	17	07/25/10 15:41:38	12.50	8.06	7.71	46976	30.49
19830-006	4	55	17	07/25/10 15:41:51	12.44	8.16	7.65	46982	30.49
19830-011	4	56	17	07/25/10 15:42:06	12.39	8.02	7.68	47030	30.52
19830-012	4	57	17	07/25/10 15:42:18	12.34	8.09	7.74	47029	30.52
19830-010	4	58	17	07/25/10 15:42:39	12.26	8.32	7.78	47011	30.50
19830-015	4	59	17	07/25/10 15:42:53	12.15	8.32	7.72	46978	30.48
19830-009	4	60	17	07/25/10 15:43:08	12.09	8.15	7.73	47058	30.53
19830-001	4	61	17	07/25/10 15:43:42	12.18	7.92	7.69	47081	30.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	4	62	17	07/25/10 15:43:59	12.36	7.79	7.61	47059	30.54
19830-008	4	63	17	07/25/10 15:44:16	12.52	7.73	7.72	47065	30.55
19830-004	4	64	17	07/25/10 15:44:37	12.66	7.78	7.64	47029	30.53
19830-007	4	65	17	07/25/10 15:45:07	12.41	7.70	7.48	46988	30.49
19830-014	4	66	17	07/25/10 15:45:45	12.43	7.22	7.51	46989	30.50
19830-000	4	67	17	07/25/10 15:46:20	12.43	7.39	7.49	46969	30.48
19830-017	4	68	17	07/25/10 15:46:51	12.42	7.34	7.44	46983	30.49
19830-013	4	69	17	07/25/10 15:47:21	12.44	7.63	7.59	46983	30.49
19830-002	4	70	17	07/25/10 15:47:40	12.45	7.77	7.67	46985	30.49
19830-005	4	71	17	07/25/10 15:48:02	12.47	7.87	7.66	46960	30.48
19830-003	4	72	17	07/25/10 15:48:16	12.43	7.93	7.62	46936	30.46
19830-016	5	73	17	07/25/10 15:48:48	12.41	7.69	7.52	46971	30.48
19830-003	5	74	17	07/25/10 15:49:16	12.47	7.41	7.51	46983	30.49
19830-000	5	75	17	07/25/10 15:49:49	12.56	7.76	7.57	46942	30.47
19830-013	5	76	17	07/25/10 15:50:12	12.62	7.74	7.52	46947	30.47
19830-001	5	77	17	07/25/10 15:50:27	12.65	7.71	7.51	46908	30.45
19830-002	5	78	17	07/25/10 15:50:44	12.73	7.82	7.55	46974	30.50
19830-004	5	79	17	07/25/10 15:51:01	12.78	7.55	7.54	46948	30.48
19830-012	5	80	17	07/25/10 15:51:15	12.79	7.53	7.62	46983	30.50
19830-005	5	81	17	07/25/10 15:51:41	12.45	7.82	7.64	46968	30.48
19830-011	5	82	17	07/25/10 15:51:55	12.40	7.62	7.66	47004	30.51
19830-010	5	83	17	07/25/10 15:52:11	12.39	7.83	7.69	47014	30.51
19830-017	5	84	17	07/25/10 15:52:51	12.44	6.88	7.45	46941	30.46
19830-009	5	85	17	07/25/10 15:53:12	12.43	7.10	7.58	47012	30.51
19830-006	5	86	17	07/25/10 15:53:30	12.45	7.45	7.55	47043	30.54
19830-008	5	87	17	07/25/10 15:53:49	12.48	7.87	7.67	46990	30.50
19830-007	5	88	17	07/25/10 15:54:04	12.45	8.04	7.58	46929	30.45
19830-014	5	89	17	07/25/10 15:54:20	12.38	8.11	7.61	46996	30.50
19830-015	5	90	17	07/25/10 15:54:40	12.40	8.10	7.65	47005	30.51
19830-005	6	91	17	07/25/10 15:54:57	12.45	8.13	7.69	46994	30.50
19830-007	6	92	17	07/25/10 15:55:12	12.49	8.13	7.61	46989	30.50
19830-002	6	93	17	07/25/10 15:55:31	12.55	8.04	7.59	46999	30.51
19830-009	6	94	17	07/25/10 15:55:52	12.60	7.75	7.66	46983	30.50
19830-013	6	95	17	07/25/10 15:56:07	12.62	7.61	7.62	47006	30.52
19830-004	6	96	17	07/25/10 15:56:24	12.65	7.74	7.62	47015	30.52
19830-012	6	97	17	07/25/10 15:56:54	12.46	8.20	7.68	47005	30.51
19830-015	6	98	17	07/25/10 15:57:22	12.31	7.89	7.68	46995	30.50
19830-014	6	99	17	07/25/10 15:57:40	12.29	7.79	7.67	47056	30.54
19830-003	6	100	17	07/25/10 15:57:52	12.29	7.76	7.66	47050	30.53
19830-010	6	101	17	07/25/10 15:58:09	12.29	8.07	7.68	47074	30.55
19830-000	6	102	17	07/25/10 15:58:27	12.29	8.24	7.67	47041	30.53
19830-016	6	103	17	07/25/10 15:58:47	12.27	8.21	7.68	47068	30.55
19830-001	6	104	17	07/25/10 15:59:07	12.24	8.14	7.77	47062	30.54
19830-017	6	105	17	07/25/10 15:59:26	12.15	8.30	7.69	47039	30.52
19830-008	6	106	17	07/25/10 15:59:45	12.15	8.34	7.79	47040	30.52
19830-011	6	107	17	07/25/10 16:00:05	12.24	8.27	7.69	47063	30.54
19830-006	6	108	17	07/25/10 16:00:21	12.36	8.09	7.67	47113	30.58
19830-015	7	109	17	07/25/10 16:00:42	12.55	8.15	7.69	47088	30.57
19830-017	7	110	17	07/25/10 16:01:03	12.69	8.10	7.69	47078	30.57
19830-003	7	111	17	07/25/10 16:01:20	12.78	8.10	7.65	47060	30.56
19830-008	7	112	17	07/25/10 16:02:03	12.86	8.25	7.74	47056	30.56
19830-006	7	113	17	07/25/10 16:02:26	12.78	8.32	7.66	46928	30.46
19830-012	7	114	17	07/25/10 16:03:14	12.78	8.06	7.67	46925	30.46
19830-004	7	115	17	07/25/10 16:03:32	12.73	8.07	7.69	46921	30.46

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	7	116	17	07/25/10 16:03:49	12.71	8.05	7.69	46916	30.45
19830-014	7	117	17	07/25/10 16:04:09	12.64	8.01	7.72	46942	30.47
19830-005	7	118	17	07/25/10 16:04:29	12.63	8.23	7.64	46922	30.45
19830-001	7	119	17	07/25/10 16:04:48	12.61	8.19	7.73	46941	30.47
19830-000	7	120	17	07/25/10 16:05:06	12.54	8.23	7.70	46903	30.44
19830-009	7	121	17	07/25/10 16:05:24	12.32	8.28	7.65	46977	30.48
19830-010	7	122	17	07/25/10 16:05:42	12.33	7.95	7.68	47010	30.51
19830-007	7	123	17	07/25/10 16:05:57	12.37	7.86	7.58	47001	30.50
19830-002	7	124	17	07/25/10 16:06:13	12.43	7.74	7.61	47031	30.53
19830-013	7	125	17	07/25/10 16:06:33	12.49	7.86	7.65	47042	30.54
19830-016	7	126	17	07/25/10 16:06:48	12.64	8.00	7.63	47029	30.53
19830-017	8	127	17	07/25/10 16:07:00	12.74	7.93	7.61	47021	30.53
19830-013	8	128	17	07/25/10 16:07:14	12.85	7.86	7.62	47024	30.54
19830-010	8	129	17	07/25/10 16:07:34	12.80	8.03	7.71	46945	30.48
19830-007	8	130	17	07/25/10 16:07:46	12.78	8.09	7.66	46906	30.45
19830-011	8	131	17	07/25/10 16:07:55	12.70	8.11	7.64	46907	30.45
19830-002	8	132	17	07/25/10 16:08:17	12.69	7.08	7.69	46964	30.49
19830-004	8	133	17	07/25/10 16:08:41	12.74	7.21	7.63	46925	30.46
19830-003	8	134	17	07/25/10 16:09:01	12.71	7.64	7.63	46934	30.47
19830-005	8	135	17	07/25/10 16:09:16	12.61	7.89	7.54	46932	30.46
19830-012	8	136	17	07/25/10 16:10:29	12.48	4.75	7.51	46976	30.49
19830-006	8	137	17	07/25/10 16:11:19	12.39	8.08	7.55	47030	30.52
19830-001	8	138	17	07/25/10 16:11:36	12.43	8.11	7.63	47026	30.52
19830-014	8	139	17	07/25/10 16:11:49	12.47	7.79	7.68	47044	30.54
19830-000	8	140	17	07/25/10 16:12:06	12.54	7.51	7.66	46989	30.50
19830-009	8	141	17	07/25/10 16:12:24	12.59	7.97	7.71	47012	30.52
19830-008	8	142	17	07/25/10 16:12:38	12.62	8.02	7.76	47041	30.54
19830-015	8	143	17	07/25/10 16:12:49	12.68	8.05	7.73	47066	30.56
19830-016	8	144	17	07/25/10 16:13:06	12.85	7.87	7.63	47019	30.53
19830-002	1	1	18	07/26/10 09:40:06	12.98	8.03	7.56	47109	30.60
19830-016	1	2	18	07/26/10 09:40:50	12.87	7.78	7.52	46630	30.25
19830-015	1	3	18	07/26/10 09:41:09	12.84	7.68	7.53	47090	30.58
19830-017	1	4	18	07/26/10 09:41:29	12.86	7.34	7.41	47079	30.58
19830-001	1	5	18	07/26/10 09:41:47	12.87	7.21	7.51	47120	30.61
19830-011	1	6	18	07/26/10 09:42:07	12.83	7.34	7.49	47114	30.60
19830-014	1	7	18	07/26/10 09:42:19	12.78	7.26	7.45	47107	30.59
19830-009	1	8	18	07/26/10 09:42:37	12.72	6.59	7.43	47154	30.63
19830-012	1	9	18	07/26/10 09:42:49	12.72	6.39	7.48	47184	30.65
19830-010	1	10	18	07/26/10 09:43:13	12.66	6.96	7.56	47129	30.60
19830-008	1	11	18	07/26/10 09:43:28	12.60	7.30	7.71	47120	30.60
19830-006	1	12	18	07/26/10 09:43:44	12.59	7.49	7.64	47122	30.60
19830-004	1	13	18	07/26/10 09:44:04	12.61	7.87	7.57	47120	30.60
19830-013	1	14	18	07/26/10 09:44:16	12.59	7.88	7.55	47140	30.61
19830-000	1	15	18	07/26/10 09:44:26	12.56	7.83	7.55	47115	30.59
19830-005	1	16	18	07/26/10 09:44:36	12.52	7.93	7.61	47204	30.65
19830-007	1	17	18	07/26/10 09:44:47	12.52	8.11	7.60	47209	30.66
19830-003	1	18	18	07/26/10 09:44:56	12.53	8.16	7.56	47310	30.73
19830-009	2	19	18	07/26/10 09:45:11	12.70	8.16	7.57	47239	30.69
19830-016	2	20	18	07/26/10 09:45:24	12.80	8.01	7.64	47114	30.60
19830-007	2	21	18	07/26/10 09:45:42	12.81	7.52	7.40	47047	30.55
19830-015	2	22	18	07/26/10 09:45:52	12.80	7.08	7.39	47051	30.55
19830-008	2	23	18	07/26/10 09:46:12	12.77	7.61	7.71	47065	30.56
19830-002	2	24	18	07/26/10 09:46:22	12.74	7.82	7.67	47053	30.55

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-012	2	25	18	07/26/10 09:46:36	12.68	7.61	7.57	47049	30.55
19830-004	2	26	18	07/26/10 09:46:48	12.69	7.49	7.51	47080	30.57
19830-000	2	27	18	07/26/10 09:47:06	12.61	7.62	7.45	47064	30.56
19830-003	2	28	18	07/26/10 09:47:16	12.58	7.77	7.45	46815	30.38
19830-011	2	29	18	07/26/10 09:47:27	12.54	7.87	7.52	47122	30.60
19830-017	2	30	18	07/26/10 09:47:36	12.54	7.87	7.53	47110	30.59
19830-014	2	31	18	07/26/10 09:47:45	12.54	7.84	7.49	47094	30.58
19830-001	2	32	18	07/26/10 09:47:57	12.48	7.45	7.48	47113	30.59
19830-013	2	33	18	07/26/10 09:48:19	12.49	6.97	7.45	47167	30.63
19830-010	2	34	18	07/26/10 09:48:34	12.53	7.36	7.53	47137	30.61
19830-006	2	35	18	07/26/10 09:49:02	12.75	7.81	7.49	47158	30.63
19830-005	2	36	18	07/26/10 09:49:15	12.76	7.55	7.45	47131	30.61
19830-013	3	37	18	07/26/10 09:49:33	12.73	7.00	7.38	47132	30.61
19830-009	3	38	18	07/26/10 09:49:54	12.82	6.87	7.47	47092	30.58
19830-017	3	39	18	07/26/10 09:50:04	12.84	7.29	7.43	47036	30.55
19830-016	3	40	18	07/26/10 09:50:21	12.73	7.20	7.42	47095	30.58
19830-000	3	41	18	07/26/10 09:50:34	12.71	7.59	7.53	47062	30.56
19830-010	3	42	18	07/26/10 09:50:49	12.73	8.04	7.50	47052	30.55
19830-008	3	43	18	07/26/10 09:51:04	12.65	8.00	7.53	47120	30.60
19830-014	3	44	18	07/26/10 09:51:17	12.67	7.95	7.54	47074	30.57
19830-004	3	45	18	07/26/10 09:51:29	12.64	7.73	7.47	47088	30.57
19830-006	3	46	18	07/26/10 09:51:42	12.65	7.34	7.43	47078	30.57
19830-005	3	47	18	07/26/10 09:51:56	12.62	7.19	7.50	47099	30.58
19830-011	3	48	18	07/26/10 09:52:09	12.44	7.44	7.51	47136	30.60
19830-002	3	49	18	07/26/10 09:52:25	12.50	7.24	7.48	47131	30.60
19830-012	3	50	18	07/26/10 09:52:42	12.58	7.05	7.41	47138	30.61
19830-001	3	51	18	07/26/10 09:53:17	12.37	7.59	7.62	47238	30.67
19830-003	3	52	18	07/26/10 09:53:31	12.36	7.84	7.67	47213	30.65
19830-007	3	53	18	07/26/10 09:53:43	12.39	8.11	7.57	47174	30.63
19830-015	3	54	18	07/26/10 09:53:54	12.40	7.92	7.56	47159	30.62
19830-006	4	55	18	07/26/10 09:54:03	12.35	7.99	7.62	47156	30.61
19830-011	4	56	18	07/26/10 09:54:13	12.29	8.10	7.65	47189	30.63
19830-012	4	57	18	07/26/10 09:54:22	12.25	8.13	7.71	47160	30.61
19830-010	4	58	18	07/26/10 09:54:31	12.19	8.26	7.74	47200	30.64
19830-015	4	59	18	07/26/10 09:54:55	12.07	8.19	7.62	47220	30.65
19830-009	4	60	18	07/26/10 09:55:04	12.03	8.07	7.67	47259	30.67
19830-001	4	61	18	07/26/10 09:55:15	12.05	8.11	7.69	47378	30.76
19830-016	4	62	18	07/26/10 09:55:31	12.24	7.91	7.54	47182	30.63
19830-008	4	63	18	07/26/10 09:55:45	12.40	7.77	7.65	47248	30.68
19830-004	4	64	18	07/26/10 09:55:59	12.54	7.90	7.62	47250	30.69
19830-007	4	65	18	07/26/10 09:56:14	12.42	7.75	7.49	47109	30.58
19830-014	4	66	18	07/26/10 09:56:24	12.34	7.79	7.45	47140	30.60
19830-000	4	67	18	07/26/10 09:56:35	12.31	7.60	7.43	47105	30.57
19830-017	4	68	18	07/26/10 09:56:46	12.29	7.56	7.40	47122	30.59
19830-013	4	69	18	07/26/10 09:56:55	12.28	7.53	7.41	47142	30.60
19830-002	4	70	18	07/26/10 09:57:03	12.29	7.61	7.49	47151	30.61
19830-005	4	71	18	07/26/10 09:57:11	12.29	7.71	7.57	47154	30.61
19830-003	4	72	18	07/26/10 09:57:20	12.31	7.83	7.58	47150	30.61
19830-016	5	73	18	07/26/10 09:57:31	12.31	7.96	7.54	47131	30.59
19830-003	5	74	18	07/26/10 09:57:46	12.31	7.87	7.46	47155	30.61
19830-000	5	75	18	07/26/10 09:58:05	12.38	7.70	7.51	47084	30.56
19830-013	5	76	18	07/26/10 09:58:16	12.43	7.89	7.49	47110	30.58
19830-001	5	77	18	07/26/10 09:58:26	12.48	7.86	7.48	47167	30.63
19830-002	5	78	18	07/26/10 09:58:48	12.60	7.74	7.51	47106	30.59

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	5	79	18	07/26/10 09:59:03	12.65	7.54	7.49	47104	30.59
19830-012	5	80	18	07/26/10 09:59:16	12.68	7.64	7.56	47175	30.64
19830-005	5	81	18	07/26/10 09:59:30	12.49	7.98	7.62	47047	30.54
19830-011	5	82	18	07/26/10 09:59:39	12.36	7.93	7.63	47095	30.57
19830-010	5	83	18	07/26/10 09:59:51	12.30	7.89	7.65	47185	30.63
19830-017	5	84	18	07/26/10 10:00:01	12.30	7.91	7.56	47100	30.57
19830-009	5	85	18	07/26/10 10:00:10	12.29	7.66	7.51	47210	30.65
19830-006	5	86	18	07/26/10 10:00:23	12.33	7.55	7.52	47173	30.62
19830-008	5	87	18	07/26/10 10:00:33	12.35	7.69	7.57	47148	30.61
19830-007	5	88	18	07/26/10 10:00:45	12.34	7.96	7.58	47194	30.64
19830-014	5	89	18	07/26/10 10:00:57	12.31	8.09	7.56	47194	30.64
19830-015	5	90	18	07/26/10 10:01:05	12.32	8.13	7.58	47177	30.63
19830-005	6	91	18	07/26/10 10:01:16	12.34	8.11	7.62	47167	30.62
19830-007	6	92	18	07/26/10 10:01:27	12.38	8.10	7.59	47186	30.64
19830-002	6	93	18	07/26/10 10:01:39	12.44	8.07	7.53	47178	30.63
19830-009	6	94	18	07/26/10 10:01:50	12.49	7.93	7.56	47184	30.64
19830-013	6	95	18	07/26/10 10:02:01	12.53	7.72	7.57	47179	30.64
19830-004	6	96	18	07/26/10 10:02:08	12.56	7.74	7.55	47275	30.71
19830-012	6	97	18	07/26/10 10:02:29	12.44	8.07	7.61	47160	30.62
19830-015	6	98	18	07/26/10 10:02:46	12.31	8.14	7.63	47169	30.62
19830-014	6	99	18	07/26/10 10:02:59	12.27	7.90	7.61	47233	30.66
19830-003	6	100	18	07/26/10 10:03:14	12.26	7.89	7.59	47276	30.70
19830-010	6	101	18	07/26/10 10:03:26	12.26	8.08	7.62	47276	30.70
19830-000	6	102	18	07/26/10 10:03:38	12.23	8.27	7.63	47247	30.67
19830-016	6	103	18	07/26/10 10:03:52	12.23	8.34	7.63	47260	30.68
19830-001	6	104	18	07/26/10 10:04:03	12.22	8.22	7.69	47322	30.73
19830-017	6	105	18	07/26/10 10:04:22	12.19	8.30	7.64	47200	30.64
19830-008	6	106	18	07/26/10 10:04:36	12.17	8.39	7.74	47247	30.67
19830-011	6	107	18	07/26/10 10:04:48	12.23	8.44	7.71	47247	30.67
19830-006	6	108	18	07/26/10 10:05:00	12.32	8.24	7.64	47342	30.75
19830-015	7	109	18	07/26/10 10:05:08	12.41	8.26	7.64	47426	30.81
19830-017	7	110	18	07/26/10 10:05:23	12.61	8.19	7.64	47314	30.74
19830-003	7	111	18	07/26/10 10:05:43	12.74	8.10	7.58	47280	30.72
19830-008	7	112	18	07/26/10 10:05:55	12.79	8.00	7.62	47325	30.75
19830-006	7	113	18	07/26/10 10:06:23	12.65	8.25	7.59	47057	30.55
19830-012	7	114	18	07/26/10 10:06:33	12.62	8.20	7.59	47015	30.52
19830-004	7	115	18	07/26/10 10:06:45	12.56	8.15	7.61	47051	30.55
19830-011	7	116	18	07/26/10 10:06:59	12.50	8.14	7.62	47036	30.53
19830-014	7	117	18	07/26/10 10:07:13	12.45	8.07	7.67	47093	30.57
19830-005	7	118	18	07/26/10 10:07:25	12.44	8.24	7.64	47054	30.54
19830-001	7	119	18	07/26/10 10:07:37	12.44	8.28	7.64	47060	30.55
19830-000	7	120	18	07/26/10 10:07:55	12.43	8.30	7.63	47033	30.53
19830-009	7	121	18	07/26/10 10:08:07	12.29	8.46	7.61	47123	30.59
19830-010	7	122	18	07/26/10 10:08:18	12.22	8.25	7.60	47061	30.54
19830-007	7	123	18	07/26/10 10:08:25	12.24	8.10	7.58	47212	30.65
19830-002	7	124	18	07/26/10 10:08:49	12.35	7.77	7.55	47167	30.62
19830-013	7	125	18	07/26/10 10:08:57	12.37	7.71	7.56	47259	30.69
19830-016	7	126	18	07/26/10 10:09:07	12.48	7.81	7.54	47272	30.70
19830-017	8	127	18	07/26/10 10:09:17	12.62	7.88	7.54	47218	30.67
19830-013	8	128	18	07/26/10 10:09:27	12.74	7.86	7.54	47257	30.70
19830-010	8	129	18	07/26/10 10:09:40	12.72	7.97	7.62	47061	30.56
19830-007	8	130	18	07/26/10 10:09:53	12.67	8.09	7.58	47039	30.54
19830-011	8	131	18	07/26/10 10:10:03	12.59	8.05	7.56	47053	30.55
19830-002	8	132	18	07/26/10 10:10:17	12.55	7.36	7.57	47112	30.59

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	8	133	18	07/26/10 10:10:28	12.56	7.09	7.55	47066	30.56
19830-003	8	134	18	07/26/10 10:10:37	12.55	7.25	7.55	47068	30.56
19830-005	8	135	18	07/26/10 10:10:50	12.49	7.67	7.47	47056	30.55
19830-012	8	136	18	07/26/10 10:10:58	12.44	7.60	7.48	47087	30.57
19830-006	8	137	18	07/26/10 10:11:15	12.36	7.70	7.53	47221	30.66
19830-001	8	138	18	07/26/10 10:11:26	12.34	7.77	7.56	47249	30.68
19830-014	8	139	18	07/26/10 10:11:38	12.39	7.72	7.61	47195	30.64
19830-000	8	140	18	07/26/10 10:11:47	12.42	7.48	7.61	47190	30.64
19830-009	8	141	18	07/26/10 10:11:57	12.48	7.64	7.65	47245	30.68
19830-008	8	142	18	07/26/10 10:12:07	12.53	7.94	7.70	47251	30.69
19830-015	8	143	18	07/26/10 10:12:17	12.59	8.10	7.70	47287	30.72
19830-016	8	144	18	07/26/10 10:12:28	12.72	8.05	7.61	47284	30.72
19830-002	1	1	19	07/27/10 09:40:50	12.94	8.64	7.59	46105	29.88
19830-016	1	2	19	07/27/10 09:41:29	12.84	8.24	7.54	45987	29.79
19830-015	1	3	19	07/27/10 09:41:53	12.80	8.08	7.56	46098	29.87
19830-017	1	4	19	07/27/10 09:42:13	12.82	7.76	7.47	46072	29.85
19830-001	1	5	19	07/27/10 09:42:30	12.84	7.50	7.51	46146	29.90
19830-011	1	6	19	07/27/10 09:42:44	12.83	7.45	7.53	46113	29.88
19830-014	1	7	19	07/27/10 09:42:57	12.80	7.65	7.47	46097	29.87
19830-009	1	8	19	07/27/10 09:43:15	12.74	7.11	7.48	46150	29.90
19830-012	1	9	19	07/27/10 09:43:31	12.76	6.96	7.58	46151	29.90
19830-010	1	10	19	07/27/10 09:43:45	12.67	7.10	7.65	46103	29.87
19830-008	1	11	19	07/27/10 09:44:01	12.59	7.75	7.80	46124	29.88
19830-006	1	12	19	07/27/10 09:44:12	12.58	7.94	7.76	46114	29.87
19830-004	1	13	19	07/27/10 09:44:25	12.60	8.16	7.65	46120	29.88
19830-013	1	14	19	07/27/10 09:44:40	12.59	8.18	7.63	46112	29.87
19830-000	1	15	19	07/27/10 09:44:50	12.55	8.16	7.61	46108	29.87
19830-005	1	16	19	07/27/10 09:45:02	12.51	8.26	7.68	46185	29.92
19830-007	1	17	19	07/27/10 09:45:13	12.47	8.43	7.65	46242	29.96
19830-003	1	18	19	07/27/10 09:45:22	12.52	8.46	7.59	46259	29.97
19830-009	2	19	19	07/27/10 09:45:38	12.68	8.40	7.59	46234	29.96
19830-016	2	20	19	07/27/10 09:45:52	12.76	8.26	7.63	46119	29.88
19830-007	2	21	19	07/27/10 09:46:14	12.78	7.71	7.44	46036	29.82
19830-015	2	22	19	07/27/10 09:46:27	12.77	7.39	7.46	46056	29.84
19830-008	2	23	19	07/27/10 09:46:38	12.77	7.57	7.63	46066	29.84
19830-002	2	24	19	07/27/10 09:46:50	12.75	7.89	7.63	46043	29.83
19830-012	2	25	19	07/27/10 09:47:00	12.70	7.79	7.57	46056	29.83
19830-004	2	26	19	07/27/10 09:47:11	12.71	7.68	7.52	46065	29.84
19830-000	2	27	19	07/27/10 09:47:21	12.63	7.69	7.48	46014	29.80
19830-003	2	28	19	07/27/10 09:47:32	12.55	7.98	7.51	46061	29.83
19830-011	2	29	19	07/27/10 09:47:41	12.55	8.13	7.57	46090	29.85
19830-017	2	30	19	07/27/10 09:47:52	12.56	8.14	7.58	46056	29.83
19830-014	2	31	19	07/27/10 09:48:08	12.52	7.93	7.49	46080	29.84
19830-001	2	32	19	07/27/10 09:48:23	12.47	7.31	7.52	46112	29.87
19830-013	2	33	19	07/27/10 09:48:35	12.47	6.91	7.50	46169	29.91
19830-010	2	34	19	07/27/10 09:48:50	12.55	7.32	7.56	46111	29.87
19830-006	2	35	19	07/27/10 09:49:14	12.74	7.78	7.48	46158	29.91
19830-005	2	36	19	07/27/10 09:49:26	12.74	7.63	7.45	46126	29.89
19830-013	3	37	19	07/27/10 09:49:39	12.73	7.30	7.38	46120	29.88
19830-009	3	38	19	07/27/10 09:49:50	12.76	6.93	7.40	46144	29.90
19830-017	3	39	19	07/27/10 09:50:01	12.80	7.22	7.39	46067	29.85
19830-016	3	40	19	07/27/10 09:50:13	12.77	7.00	7.37	46065	29.84
19830-000	3	41	19	07/27/10 09:50:21	12.76	7.04	7.44	46018	29.81

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-010	3	42	19	07/27/10 09:50:35	12.74	7.75	7.51	46051	29.83
19830-008	3	43	19	07/27/10 09:50:46	12.69	7.98	7.56	46064	29.84
19830-014	3	44	19	07/27/10 09:50:55	12.67	8.05	7.59	46032	29.82
19830-004	3	45	19	07/27/10 09:51:06	12.64	7.99	7.53	46040	29.82
19830-006	3	46	19	07/27/10 09:51:16	12.64	7.73	7.46	46056	29.83
19830-005	3	47	19	07/27/10 09:51:25	12.63	7.52	7.53	46046	29.82
19830-011	3	48	19	07/27/10 09:51:36	12.46	7.61	7.56	46104	29.86
19830-002	3	49	19	07/27/10 09:51:52	12.47	7.64	7.52	46111	29.87
19830-012	3	50	19	07/27/10 09:52:05	12.56	7.42	7.47	46131	29.88
19830-001	3	51	19	07/27/10 09:52:25	12.40	7.62	7.59	46203	29.93
19830-003	3	52	19	07/27/10 09:52:43	12.38	8.20	7.70	46204	29.93
19830-007	3	53	19	07/27/10 09:52:55	12.39	8.49	7.61	46161	29.90
19830-015	3	54	19	07/27/10 09:53:08	12.40	8.21	7.63	46133	29.88
19830-006	4	55	19	07/27/10 09:53:20	12.35	8.33	7.69	46156	29.89
19830-011	4	56	19	07/27/10 09:53:33	12.31	8.47	7.73	46015	29.79
19830-012	4	57	19	07/27/10 09:53:44	12.24	8.45	7.79	46183	29.91
19830-010	4	58	19	07/27/10 09:53:53	12.19	8.56	7.81	46208	29.92
19830-015	4	59	19	07/27/10 09:54:07	12.11	8.65	7.70	46196	29.91
19830-009	4	60	19	07/27/10 09:54:18	12.04	8.54	7.75	46257	29.95
19830-001	4	61	19	07/27/10 09:54:30	12.07	8.49	7.75	46361	30.03
19830-016	4	62	19	07/27/10 09:54:43	12.22	8.31	7.62	46235	29.94
19830-008	4	63	19	07/27/10 09:54:58	12.39	8.10	7.71	46239	29.95
19830-004	4	64	19	07/27/10 09:55:07	12.47	8.18	7.70	46304	30.00
19830-007	4	65	19	07/27/10 09:55:24	12.39	8.11	7.53	46140	29.88
19830-014	4	66	19	07/27/10 09:55:34	12.35	8.03	7.49	46119	29.87
19830-000	4	67	19	07/27/10 09:55:46	12.29	7.70	7.45	46117	29.86
19830-017	4	68	19	07/27/10 09:55:56	12.28	7.66	7.42	46117	29.86
19830-013	4	69	19	07/27/10 09:56:05	12.28	7.68	7.43	46131	29.87
19830-002	4	70	19	07/27/10 09:56:15	12.26	7.81	7.52	46177	29.90
19830-005	4	71	19	07/27/10 09:56:25	12.29	7.96	7.60	46137	29.88
19830-003	4	72	19	07/27/10 09:56:38	12.30	8.11	7.62	46161	29.89
19830-016	5	73	19	07/27/10 09:56:49	12.28	8.23	7.57	46146	29.88
19830-003	5	74	19	07/27/10 09:57:02	12.29	8.14	7.51	46143	29.88
19830-000	5	75	19	07/27/10 09:57:14	12.33	7.85	7.50	46089	29.84
19830-013	5	76	19	07/27/10 09:57:25	12.37	7.94	7.49	46092	29.85
19830-001	5	77	19	07/27/10 09:57:38	12.42	8.00	7.52	46111	29.86
19830-002	5	78	19	07/27/10 09:57:52	12.49	8.15	7.53	46132	29.88
19830-004	5	79	19	07/27/10 09:58:04	12.57	7.90	7.50	46109	29.87
19830-012	5	80	19	07/27/10 09:58:17	12.65	7.88	7.58	46138	29.89
19830-005	5	81	19	07/27/10 09:58:28	12.49	8.17	7.67	46066	29.83
19830-011	5	82	19	07/27/10 09:58:37	12.37	8.17	7.67	46065	29.83
19830-010	5	83	19	07/27/10 09:58:47	12.31	8.11	7.66	46159	29.89
19830-017	5	84	19	07/27/10 09:58:57	12.30	8.13	7.59	46095	29.85
19830-009	5	85	19	07/27/10 09:59:07	12.28	7.88	7.53	46192	29.92
19830-006	5	86	19	07/27/10 09:59:17	12.31	7.68	7.55	46190	29.92
19830-008	5	87	19	07/27/10 09:59:30	12.33	7.86	7.64	46155	29.89
19830-007	5	88	19	07/27/10 09:59:41	12.35	8.08	7.64	46186	29.91
19830-014	5	89	19	07/27/10 09:59:56	12.31	8.29	7.63	46172	29.90
19830-015	5	90	19	07/27/10 10:00:07	12.31	8.30	7.64	46161	29.89
19830-005	6	91	19	07/27/10 10:00:18	12.32	8.26	7.69	46149	29.89
19830-007	6	92	19	07/27/10 10:00:30	12.35	8.29	7.64	46164	29.90
19830-002	6	93	19	07/27/10 10:00:40	12.40	8.29	7.57	46181	29.91
19830-009	6	94	19	07/27/10 10:00:52	12.45	8.16	7.59	46171	29.91
19830-013	6	95	19	07/27/10 10:01:04	12.49	7.95	7.59	46173	29.91

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-004	6	96	19	07/27/10 10:01:15	12.54	8.04	7.59	46245	29.96
19830-012	6	97	19	07/27/10 10:01:33	12.44	8.26	7.65	46166	29.90
19830-015	6	98	19	07/27/10 10:01:41	12.37	8.38	7.65	46122	29.87
19830-014	6	99	19	07/27/10 10:01:54	12.29	8.24	7.64	46208	29.93
19830-003	6	100	19	07/27/10 10:02:04	12.27	8.18	7.64	46270	29.97
19830-010	6	101	19	07/27/10 10:02:15	12.27	8.28	7.67	46282	29.98
19830-000	6	102	19	07/27/10 10:02:22	12.24	8.43	7.68	46248	29.95
19830-016	6	103	19	07/27/10 10:02:32	12.24	8.54	7.65	46263	29.97
19830-001	6	104	19	07/27/10 10:02:41	12.25	8.46	7.68	46304	30.00
19830-017	6	105	19	07/27/10 10:02:50	12.20	8.43	7.70	46225	29.94
19830-008	6	106	19	07/27/10 10:03:01	12.17	8.51	7.76	46255	29.96
19830-011	6	107	19	07/27/10 10:03:11	12.20	8.62	7.78	46289	29.98
19830-006	6	108	19	07/27/10 10:03:21	12.31	8.53	7.70	46343	30.03
19830-015	7	109	19	07/27/10 10:03:31	12.44	8.46	7.66	46370	30.05
19830-017	7	110	19	07/27/10 10:03:39	12.55	8.37	7.65	46376	30.06
19830-003	7	111	19	07/27/10 10:03:49	12.67	8.29	7.64	46349	30.04
19830-008	7	112	19	07/27/10 10:03:59	12.76	8.23	7.67	46370	30.06
19830-006	7	113	19	07/27/10 10:04:09	12.69	8.35	7.67	46005	29.80
19830-012	7	114	19	07/27/10 10:04:21	12.59	8.44	7.64	45957	29.76
19830-004	7	115	19	07/27/10 10:04:29	12.51	8.42	7.62	46056	29.83
19830-011	7	116	19	07/27/10 10:04:37	12.47	8.41	7.62	46002	29.79
19830-014	7	117	19	07/27/10 10:04:47	12.41	8.34	7.66	46080	29.84
19830-005	7	118	19	07/27/10 10:04:55	12.40	8.37	7.67	46028	29.80
19830-001	7	119	19	07/27/10 10:05:04	12.40	8.42	7.67	45999	29.78
19830-000	7	120	19	07/27/10 10:05:12	12.41	8.42	7.66	46027	29.80
19830-009	7	121	19	07/27/10 10:05:22	12.30	8.50	7.64	46094	29.85
19830-010	7	122	19	07/27/10 10:05:33	12.23	8.37	7.62	46103	29.85
19830-007	7	123	19	07/27/10 10:05:43	12.24	8.18	7.55	46184	29.91
19830-002	7	124	19	07/27/10 10:05:55	12.30	8.01	7.52	46186	29.91
19830-013	7	125	19	07/27/10 10:06:05	12.34	7.94	7.55	46247	29.96
19830-016	7	126	19	07/27/10 10:06:15	12.46	8.02	7.56	46220	29.94
19830-017	8	127	19	07/27/10 10:06:27	12.59	8.02	7.53	46191	29.93
19830-013	8	128	19	07/27/10 10:06:38	12.72	7.95	7.55	46243	29.97
19830-010	8	129	19	07/27/10 10:06:52	12.68	8.09	7.65	46084	29.85
19830-007	8	130	19	07/27/10 10:07:03	12.65	8.28	7.63	46006	29.80
19830-011	8	131	19	07/27/10 10:07:19	12.56	7.90	7.51	46073	29.84
19830-002	8	132	19	07/27/10 10:07:29	12.51	7.15	7.52	46061	29.83
19830-004	8	133	19	07/27/10 10:07:39	12.50	6.90	7.53	46061	29.83
19830-003	8	134	19	07/27/10 10:07:47	12.51	7.08	7.53	46063	29.83
19830-005	8	135	19	07/27/10 10:07:56	12.48	7.49	7.49	46043	29.82
19830-012	8	136	19	07/27/10 10:08:05	12.44	7.55	7.49	46090	29.85
19830-006	8	137	19	07/27/10 10:08:14	12.39	7.58	7.55	46153	29.89
19830-001	8	138	19	07/27/10 10:08:22	12.34	7.75	7.57	46232	29.95
19830-014	8	139	19	07/27/10 10:08:30	12.36	7.81	7.59	46187	29.92
19830-000	8	140	19	07/27/10 10:08:40	12.40	7.66	7.58	46177	29.91
19830-009	8	141	19	07/27/10 10:08:48	12.45	7.74	7.59	46261	29.97
19830-008	8	142	19	07/27/10 10:08:57	12.51	7.94	7.64	46230	29.95
19830-015	8	143	19	07/27/10 10:09:05	12.58	8.08	7.68	46248	29.97
19830-016	8	144	19	07/27/10 10:09:14	12.70	8.10	7.63	46262	29.98
19830-002	1	1	20	07/28/10 16:05:35	13.22	8.25	7.69	47618	30.98
19830-016	1	2	20	07/28/10 16:06:15	13.20	8.12	7.66	47776	31.09
19830-015	1	3	20	07/28/10 16:06:25	13.18	8.10	7.67	47781	31.10
19830-017	1	4	20	07/28/10 16:06:38	13.18	8.06	7.65	47805	31.11

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-001	1	5	20	07/28/10 16:06:53	13.14	7.94	7.64	47763	31.08
19830-011	1	6	20	07/28/10 16:07:07	13.16	7.85	7.67	47808	31.11
19830-014	1	7	20	07/28/10 16:07:19	13.16	7.85	7.65	47798	31.11
19830-009	1	8	20	07/28/10 16:07:33	13.09	7.68	7.66	47791	31.10
19830-012	1	9	20	07/28/10 16:07:44	13.08	7.66	7.69	47834	31.13
19830-010	1	10	20	07/28/10 16:07:58	13.06	7.79	7.70	47812	31.11
19830-008	1	11	20	07/28/10 16:08:06	13.06	7.91	7.71	47812	31.11
19830-006	1	12	20	07/28/10 16:08:16	13.08	8.00	7.72	47819	31.12
19830-004	1	13	20	07/28/10 16:08:28	13.02	8.09	7.70	47786	31.09
19830-013	1	14	20	07/28/10 16:08:36	13.00	8.11	7.69	47837	31.13
19830-000	1	15	20	07/28/10 16:08:46	13.02	8.09	7.68	47809	31.11
19830-005	1	16	20	07/28/10 16:08:56	12.99	8.19	7.71	47784	31.09
19830-007	1	17	20	07/28/10 16:09:08	12.94	8.29	7.70	47811	31.11
19830-003	1	18	20	07/28/10 16:09:23	12.98	8.29	7.67	47820	31.12
19830-009	2	19	20	07/28/10 16:09:43	13.08	8.27	7.68	47868	31.15
19830-016	2	20	20	07/28/10 16:09:57	13.15	8.10	7.70	47802	31.11
19830-007	2	21	20	07/28/10 16:10:11	13.19	7.93	7.63	47805	31.11
19830-015	2	22	20	07/28/10 16:10:22	13.20	7.71	7.62	47787	31.10
19830-008	2	23	20	07/28/10 16:10:31	13.19	7.71	7.68	47771	31.09
19830-002	2	24	20	07/28/10 16:10:41	13.19	7.84	7.68	47787	31.10
19830-012	2	25	20	07/28/10 16:10:52	13.16	7.80	7.65	47798	31.11
19830-004	2	26	20	07/28/10 16:11:01	13.16	7.77	7.64	47775	31.09
19830-000	2	27	20	07/28/10 16:11:12	13.09	7.81	7.65	47780	31.09
19830-003	2	28	20	07/28/10 16:11:22	13.08	8.00	7.67	47778	31.09
19830-011	2	29	20	07/28/10 16:11:30	13.07	8.10	7.68	47779	31.09
19830-017	2	30	20	07/28/10 16:11:42	13.09	8.06	7.66	47802	31.11
19830-014	2	31	20	07/28/10 16:11:57	13.05	7.94	7.63	47774	31.09
19830-001	2	32	20	07/28/10 16:12:10	13.00	7.67	7.60	47758	31.07
19830-013	2	33	20	07/28/10 16:12:18	12.99	7.50	7.63	47806	31.11
19830-010	2	34	20	07/28/10 16:12:31	13.02	7.67	7.67	47814	31.11
19830-006	2	35	20	07/28/10 16:12:54	13.10	7.93	7.63	47833	31.13
19830-005	2	36	20	07/28/10 16:13:09	13.17	7.74	7.63	47816	31.12
19830-013	3	37	20	07/28/10 16:13:21	13.15	7.56	7.62	47824	31.13
19830-009	3	38	20	07/28/10 16:13:29	13.17	7.49	7.62	47823	31.13
19830-017	3	39	20	07/28/10 16:13:38	13.21	7.56	7.61	47816	31.12
19830-016	3	40	20	07/28/10 16:13:52	13.15	7.67	7.61	47754	31.07
19830-000	3	41	20	07/28/10 16:14:03	13.18	7.76	7.64	47834	31.13
19830-010	3	42	20	07/28/10 16:14:12	13.19	7.95	7.64	47768	31.09
19830-008	3	43	20	07/28/10 16:14:29	13.04	8.01	7.66	47748	31.07
19830-014	3	44	20	07/28/10 16:14:39	13.06	7.98	7.67	47873	31.16
19830-004	3	45	20	07/28/10 16:14:50	13.12	7.88	7.65	47808	31.11
19830-006	3	46	20	07/28/10 16:14:59	13.13	7.77	7.62	47795	31.10
19830-005	3	47	20	07/28/10 16:15:11	13.12	7.42	7.64	47788	31.10
19830-011	3	48	20	07/28/10 16:15:18	13.03	7.49	7.68	47632	30.98
19830-002	3	49	20	07/28/10 16:15:26	12.98	7.68	7.69	47846	31.14
19830-012	3	50	20	07/28/10 16:15:35	12.99	7.78	7.66	47850	31.14
19830-001	3	51	20	07/28/10 16:15:47	12.84	7.74	7.68	47713	31.03
19830-003	3	52	20	07/28/10 16:15:56	12.79	7.90	7.72	47828	31.11
19830-007	3	53	20	07/28/10 16:16:08	12.81	8.11	7.66	47817	31.11
19830-015	3	54	20	07/28/10 16:16:20	12.84	8.01	7.70	47885	31.16
19830-006	4	55	20	07/28/10 16:16:32	12.82	8.17	7.74	47833	31.12
19830-011	4	56	20	07/28/10 16:16:45	12.79	8.25	7.76	47842	31.13
19830-012	4	57	20	07/28/10 16:16:56	12.78	8.20	7.77	47828	31.11
19830-010	4	58	20	07/28/10 16:17:08	12.71	8.34	7.78	47819	31.11

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	4	59	20	07/28/10 16:17:28	12.57	8.39	7.75	47830	31.11
19830-009	4	60	20	07/28/10 16:17:38	12.55	8.25	7.74	47854	31.12
19830-001	4	61	20	07/28/10 16:17:47	12.55	8.22	7.75	47876	31.14
19830-016	4	62	20	07/28/10 16:18:02	12.71	8.11	7.68	47891	31.16
19830-008	4	63	20	07/28/10 16:18:15	12.77	7.98	7.72	47862	31.14
19830-004	4	64	20	07/28/10 16:18:31	12.88	8.04	7.71	47868	31.15
19830-007	4	65	20	07/28/10 16:18:41	12.78	8.04	7.67	47848	31.13
19830-014	4	66	20	07/28/10 16:18:55	12.84	7.91	7.63	47845	31.13
19830-000	4	67	20	07/28/10 16:19:09	12.84	7.69	7.61	47830	31.12
19830-017	4	68	20	07/28/10 16:19:16	12.85	7.73	7.61	47846	31.13
19830-013	4	69	20	07/28/10 16:19:29	12.90	7.80	7.65	47833	31.12
19830-002	4	70	20	07/28/10 16:19:37	12.90	7.86	7.67	47807	31.10
19830-005	4	71	20	07/28/10 16:19:45	12.90	7.91	7.70	47820	31.11
19830-003	4	72	20	07/28/10 16:20:02	12.81	8.03	7.70	47788	31.09
19830-016	5	73	20	07/28/10 16:20:20	12.80	8.09	7.67	47831	31.12
19830-003	5	74	20	07/28/10 16:20:36	12.82	7.97	7.65	47836	31.12
19830-000	5	75	20	07/28/10 16:20:53	12.95	7.85	7.65	47848	31.14
19830-013	5	76	20	07/28/10 16:21:02	12.98	7.95	7.66	47820	31.12
19830-001	5	77	20	07/28/10 16:21:11	12.99	7.97	7.67	47636	30.98
19830-002	5	78	20	07/28/10 16:21:22	13.02	8.01	7.66	47814	31.11
19830-004	5	79	20	07/28/10 16:21:33	13.02	7.89	7.63	47829	31.12
19830-012	5	80	20	07/28/10 16:21:40	13.03	7.84	7.64	47795	31.10
19830-005	5	81	20	07/28/10 16:21:58	12.84	8.03	7.72	47793	31.09
19830-011	5	82	20	07/28/10 16:22:16	12.86	7.88	7.71	47844	31.13
19830-010	5	83	20	07/28/10 16:22:26	12.85	7.85	7.72	47815	31.11
19830-017	5	84	20	07/28/10 16:22:37	12.88	7.88	7.68	47901	31.17
19830-009	5	85	20	07/28/10 16:22:48	12.87	7.77	7.66	47828	31.12
19830-006	5	86	20	07/28/10 16:22:58	12.81	7.74	7.66	47765	31.07
19830-008	5	87	20	07/28/10 16:23:08	12.88	7.78	7.68	47803	31.10
19830-007	5	88	20	07/28/10 16:23:18	12.88	7.95	7.68	47802	31.10
19830-014	5	89	20	07/28/10 16:23:29	12.79	8.07	7.67	47817	31.11
19830-015	5	90	20	07/28/10 16:23:40	12.79	8.06	7.69	47846	31.13
19830-005	6	91	20	07/28/10 16:23:53	12.85	8.08	7.75	47847	31.13
19830-007	6	92	20	07/28/10 16:24:02	12.87	8.06	7.72	47840	31.13
19830-002	6	93	20	07/28/10 16:24:14	12.91	8.04	7.68	47846	31.13
19830-009	6	94	20	07/28/10 16:24:22	12.94	8.00	7.69	47835	31.13
19830-013	6	95	20	07/28/10 16:24:31	12.95	7.91	7.68	47822	31.12
19830-004	6	96	20	07/28/10 16:24:40	12.94	7.92	7.68	47822	31.12
19830-012	6	97	20	07/28/10 16:25:01	12.71	8.25	7.73	47884	31.15
19830-015	6	98	20	07/28/10 16:25:10	12.71	8.28	7.73	47824	31.11
19830-014	6	99	20	07/28/10 16:25:21	12.67	8.22	7.72	47814	31.10
19830-003	6	100	20	07/28/10 16:25:32	12.63	8.08	7.71	47828	31.11
19830-010	6	101	20	07/28/10 16:25:42	12.62	8.16	7.72	47866	31.14
19830-000	6	102	20	07/28/10 16:25:49	12.64	8.24	7.73	47920	31.18
19830-016	6	103	20	07/28/10 16:25:56	12.65	8.32	7.72	47836	31.12
19830-001	6	104	20	07/28/10 16:26:03	12.62	8.35	7.72	47787	31.08
19830-017	6	105	20	07/28/10 16:26:16	12.47	8.34	7.71	47791	31.08
19830-008	6	106	20	07/28/10 16:26:25	12.45	8.31	7.73	47875	31.14
19830-011	6	107	20	07/28/10 16:26:33	12.49	8.35	7.76	47916	31.17
19830-006	6	108	20	07/28/10 16:26:40	12.54	8.37	7.74	48001	31.23
19830-015	7	109	20	07/28/10 16:26:51	12.68	8.29	7.71	47934	31.19
19830-017	7	110	20	07/28/10 16:27:02	12.79	8.21	7.70	47913	31.18
19830-003	7	111	20	07/28/10 16:27:13	12.87	8.20	7.70	47946	31.20
19830-008	7	112	20	07/28/10 16:27:24	12.95	8.15	7.72	47891	31.17

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-006	7	113	20	07/28/10 16:27:38	13.01	8.25	7.70	47869	31.15
19830-012	7	114	20	07/28/10 16:27:47	13.05	8.23	7.70	47791	31.10
19830-004	7	115	20	07/28/10 16:27:55	13.05	8.19	7.70	47776	31.09
19830-011	7	116	20	07/28/10 16:28:05	13.04	8.21	7.71	47857	31.15
19830-014	7	117	20	07/28/10 16:28:14	13.05	8.14	7.71	47779	31.09
19830-005	7	118	20	07/28/10 16:28:22	13.03	8.15	7.71	47780	31.09
19830-001	7	119	20	07/28/10 16:28:31	12.97	8.18	7.70	47708	31.04
19830-000	7	120	20	07/28/10 16:28:40	12.94	8.15	7.71	47802	31.10
19830-009	7	121	20	07/28/10 16:28:50	12.82	8.26	7.72	47692	31.02
19830-010	7	122	20	07/28/10 16:28:57	12.77	8.24	7.71	47835	31.12
19830-007	7	123	20	07/28/10 16:29:04	12.76	8.16	7.69	47835	31.12
19830-002	7	124	20	07/28/10 16:29:13	12.75	8.05	7.66	47886	31.16
19830-013	7	125	20	07/28/10 16:29:21	12.78	7.95	7.66	47871	31.15
19830-016	7	126	20	07/28/10 16:29:31	12.88	7.91	7.66	47918	31.18
19830-017	8	127	20	07/28/10 16:29:41	12.99	7.93	7.65	47874	31.16
19830-013	8	128	20	07/28/10 16:29:48	13.03	7.91	7.67	47852	31.14
19830-010	8	129	20	07/28/10 16:30:02	13.05	8.04	7.73	47882	31.16
19830-007	8	130	20	07/28/10 16:30:12	13.11	8.16	7.72	47832	31.13
19830-011	8	131	20	07/28/10 16:30:22	13.08	8.15	7.68	47728	31.05
19830-002	8	132	20	07/28/10 16:30:34	13.00	7.78	7.68	47769	31.08
19830-004	8	133	20	07/28/10 16:30:45	13.04	7.55	7.67	47845	31.14
19830-003	8	134	20	07/28/10 16:30:53	13.06	7.65	7.67	47792	31.10
19830-005	8	135	20	07/28/10 16:31:04	13.01	7.81	7.64	47766	31.08
19830-012	8	136	20	07/28/10 16:31:15	12.89	7.65	7.65	47747	31.06
19830-006	8	137	20	07/28/10 16:31:26	12.77	7.82	7.67	47822	31.11
19830-001	8	138	20	07/28/10 16:31:35	12.73	7.85	7.68	47876	31.15
19830-014	8	139	20	07/28/10 16:31:48	12.78	7.81	7.69	47855	31.13
19830-000	8	140	20	07/28/10 16:31:58	12.84	7.64	7.70	47874	31.15
19830-009	8	141	20	07/28/10 16:32:10	12.85	7.85	7.70	47875	31.15
19830-008	8	142	20	07/28/10 16:32:23	12.89	8.00	7.74	47849	31.13
19830-015	8	143	20	07/28/10 16:32:36	12.96	8.09	7.74	47863	31.15
19830-016	8	144	20	07/28/10 16:32:47	13.03	8.00	7.69	47850	31.14
19830-002	1	1	21	07/29/10 14:26:32	12.83	9.09	7.55	47611	30.96
19830-016	1	2	21	07/29/10 14:27:12	12.75	9.00	7.49	45239	29.25
19830-015	1	3	21	07/29/10 14:27:28	12.68	8.77	7.54	47619	30.96
19830-017	1	4	21	07/29/10 14:27:50	12.73	8.33	7.46	47525	30.89
19830-001	1	5	21	07/29/10 14:28:09	12.71	8.12	7.49	47597	30.95
19830-011	1	6	21	07/29/10 14:28:32	12.69	8.32	7.53	47586	30.94
19830-014	1	7	21	07/29/10 14:29:30	12.69	7.02	7.33	47591	30.94
19830-009	1	8	21	07/29/10 14:29:58	12.62	7.15	7.48	47584	30.93
19830-012	1	9	21	07/29/10 14:30:20	12.66	7.29	7.52	47619	30.96
19830-010	1	10	21	07/29/10 14:31:11	12.58	8.36	7.68	47619	30.96
19830-008	1	11	21	07/29/10 14:31:31	12.51	8.51	7.74	47604	30.94
19830-006	1	12	21	07/29/10 14:31:53	12.51	8.40	7.64	47646	30.97
19830-004	1	13	21	07/29/10 14:32:09	12.52	8.46	7.53	47608	30.95
19830-013	1	14	21	07/29/10 14:32:24	12.54	8.33	7.52	47607	30.95
19830-000	1	15	21	07/29/10 14:32:42	12.52	8.33	7.52	47632	30.96
19830-005	1	16	21	07/29/10 14:33:04	12.51	8.57	7.64	47753	31.05
19830-007	1	17	21	07/29/10 14:33:29	12.52	8.60	7.52	47790	31.08
19830-003	1	18	21	07/29/10 14:34:00	12.67	8.55	7.53	47696	31.02
19830-009	2	19	21	07/29/10 14:34:36	12.65	8.34	7.54	47630	30.97
19830-016	2	20	21	07/29/10 14:34:55	12.66	8.19	7.53	47596	30.94
19830-007	2	21	21	07/29/10 14:35:43	12.66	7.24	7.25	47587	30.94

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	2	22	21	07/29/10 14:36:22	12.66	7.81	7.52	47556	30.91
19830-008	2	23	21	07/29/10 14:37:07	12.67	8.36	7.73	47375	30.78
19830-002	2	24	21	07/29/10 14:37:46	12.64	7.80	7.44	47550	30.91
19830-012	2	25	21	07/29/10 14:38:07	12.61	7.78	7.48	47527	30.89
19830-004	2	26	21	07/29/10 14:38:29	12.63	7.85	7.42	47536	30.90
19830-000	2	27	21	07/29/10 14:39:11	12.51	8.61	7.54	47563	30.91
19830-003	2	28	21	07/29/10 14:39:48	12.47	8.44	7.47	47295	30.72
19830-011	2	29	21	07/29/10 14:40:11	12.49	8.28	7.52	47582	30.93
19830-017	2	30	21	07/29/10 14:40:37	12.51	8.16	7.42	47555	30.91
19830-014	2	31	21	07/29/10 14:41:25	12.45	7.34	7.38	47586	30.93
19830-001	2	32	21	07/29/10 14:42:10	12.41	6.74	7.35	47553	30.90
19830-013	2	33	21	07/29/10 14:42:57	12.45	7.60	7.37	47604	30.94
19830-010	2	34	21	07/29/10 14:44:00	12.54	8.08	7.54	47574	30.92
19830-006	2	35	21	07/29/10 14:44:59	12.65	7.12	7.28	47636	30.97
19830-005	2	36	21	07/29/10 14:46:44	12.61	7.02	7.39	47626	30.96
19830-013	3	37	21	07/29/10 14:47:15	12.57	7.31	7.29	47648	30.98
19830-009	3	38	21	07/29/10 14:47:28	12.63	6.91	7.36	47623	30.96
19830-017	3	39	21	07/29/10 14:47:37	12.68	7.28	7.35	47545	30.91
19830-016	3	40	21	07/29/10 14:47:51	12.63	7.12	7.34	47581	30.93
19830-000	3	41	21	07/29/10 14:48:03	12.62	7.49	7.45	47577	30.93
19830-010	3	42	21	07/29/10 14:48:15	12.63	8.14	7.47	47548	30.91
19830-008	3	43	21	07/29/10 14:48:26	12.56	8.21	7.50	47554	30.91
19830-014	3	44	21	07/29/10 14:48:34	12.55	8.18	7.53	47551	30.91
19830-004	3	45	21	07/29/10 14:48:42	12.55	8.10	7.51	47508	30.87
19830-006	3	46	21	07/29/10 14:48:50	12.55	7.92	7.39	47593	30.94
19830-005	3	47	21	07/29/10 14:49:03	12.54	7.06	7.43	47592	30.94
19830-011	3	48	21	07/29/10 14:49:12	12.40	7.33	7.49	47601	30.94
19830-002	3	49	21	07/29/10 14:49:21	12.37	7.76	7.46	47628	30.95
19830-012	3	50	21	07/29/10 14:49:31	12.45	7.55	7.33	47633	30.96
19830-001	3	51	21	07/29/10 14:49:57	12.33	6.74	7.57	47731	31.03
19830-003	3	52	21	07/29/10 14:50:14	12.32	8.15	7.67	47687	30.99
19830-007	3	53	21	07/29/10 14:50:24	12.33	8.58	7.59	47688	31.00
19830-015	3	54	21	07/29/10 14:50:32	12.33	8.54	7.57	47680	30.99
19830-006	4	55	21	07/29/10 14:50:42	12.28	8.51	7.68	47695	31.00
19830-011	4	56	21	07/29/10 14:50:57	12.21	8.66	7.70	47670	30.98
19830-012	4	57	21	07/29/10 14:51:09	12.16	8.63	7.73	47668	30.97
19830-010	4	58	21	07/29/10 14:51:18	12.13	8.76	7.74	47714	31.01
19830-015	4	59	21	07/29/10 14:51:33	12.03	8.82	7.67	47744	31.02
19830-009	4	60	21	07/29/10 14:51:41	11.98	8.72	7.68	47728	31.01
19830-001	4	61	21	07/29/10 14:51:52	11.98	8.66	7.70	47854	31.10
19830-016	4	62	21	07/29/10 14:52:06	12.11	8.41	7.53	47750	31.03
19830-008	4	63	21	07/29/10 14:52:28	12.27	8.36	7.66	47690	30.99
19830-004	4	64	21	07/29/10 14:52:53	12.42	8.17	7.55	47680	30.99
19830-007	4	65	21	07/29/10 14:53:22	12.25	8.08	7.41	47749	31.04
19830-014	4	66	21	07/29/10 14:53:36	12.21	7.97	7.38	47680	30.99
19830-000	4	67	21	07/29/10 14:53:48	12.19	7.66	7.36	47642	30.96
19830-017	4	68	21	07/29/10 14:54:01	12.18	7.81	7.34	47636	30.95
19830-013	4	69	21	07/29/10 14:54:08	12.17	7.82	7.36	47648	30.96
19830-002	4	70	21	07/29/10 14:54:24	12.18	8.05	7.50	47660	30.97
19830-005	4	71	21	07/29/10 14:54:36	12.20	8.17	7.59	47650	30.96
19830-003	4	72	21	07/29/10 14:54:49	12.20	8.26	7.56	47641	30.96
19830-016	5	73	21	07/29/10 14:55:01	12.18	8.34	7.50	47638	30.95
19830-003	5	74	21	07/29/10 14:55:27	12.17	8.00	7.44	47621	30.94
19830-000	5	75	21	07/29/10 14:55:47	12.22	8.09	7.48	47623	30.94

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	5	76	21	07/29/10 14:56:03	12.26	8.34	7.44	47592	30.92
19830-001	5	77	21	07/29/10 14:56:18	12.30	8.29	7.51	46090	29.84
19830-002	5	78	21	07/29/10 14:56:32	12.36	8.29	7.48	47633	30.96
19830-004	5	79	21	07/29/10 14:56:40	12.41	8.14	7.44	47614	30.95
19830-012	5	80	21	07/29/10 14:56:52	12.48	8.03	7.50	47655	30.98
19830-005	5	81	21	07/29/10 14:57:08	12.33	8.34	7.60	47647	30.97
19830-011	5	82	21	07/29/10 14:57:19	12.24	8.24	7.60	47615	30.94
19830-010	5	83	21	07/29/10 14:57:29	12.19	8.19	7.58	47666	30.97
19830-017	5	84	21	07/29/10 14:57:40	12.19	8.26	7.49	47551	30.89
19830-009	5	85	21	07/29/10 14:57:51	12.18	7.93	7.45	47677	30.98
19830-006	5	86	21	07/29/10 14:58:04	12.23	7.82	7.49	47647	30.96
19830-008	5	87	21	07/29/10 14:58:15	12.23	8.06	7.59	47682	30.99
19830-007	5	88	21	07/29/10 14:58:29	12.24	8.39	7.55	47747	31.03
19830-014	5	89	21	07/29/10 14:58:59	12.17	8.40	7.56	47703	31.00
19830-015	5	90	21	07/29/10 14:59:10	12.16	8.35	7.56	47703	31.00
19830-005	6	91	21	07/29/10 14:59:20	12.17	8.37	7.63	47715	31.01
19830-007	6	92	21	07/29/10 14:59:31	12.19	8.40	7.60	47735	31.02
19830-002	6	93	21	07/29/10 15:00:01	12.27	8.26	7.49	47682	30.99
19830-009	6	94	21	07/29/10 15:00:10	12.29	8.17	7.51	47681	30.99
19830-013	6	95	21	07/29/10 15:00:18	12.28	8.09	7.53	47743	31.03
19830-004	6	96	21	07/29/10 15:00:27	12.34	8.09	7.51	47773	31.06
19830-012	6	97	21	07/29/10 15:00:40	12.28	8.26	7.54	47701	31.00
19830-015	6	98	21	07/29/10 15:00:51	12.21	8.55	7.61	47680	30.98
19830-014	6	99	21	07/29/10 15:01:01	12.14	8.43	7.58	47718	31.01
19830-003	6	100	21	07/29/10 15:01:09	12.12	8.35	7.58	47790	31.06
19830-010	6	101	21	07/29/10 15:01:26	12.13	8.60	7.63	47826	31.09
19830-000	6	102	21	07/29/10 15:01:39	12.11	8.80	7.64	47794	31.06
19830-016	6	103	21	07/29/10 15:01:49	12.08	8.89	7.62	47810	31.07
19830-001	6	104	21	07/29/10 15:02:00	12.09	8.77	7.65	47880	31.12
19830-017	6	105	21	07/29/10 15:02:11	12.07	8.72	7.63	47736	31.02
19830-008	6	106	21	07/29/10 15:02:19	12.07	8.73	7.67	47762	31.04
19830-011	6	107	21	07/29/10 15:02:30	12.07	8.85	7.71	47762	31.04
19830-006	6	108	21	07/29/10 15:02:38	12.12	8.78	7.66	47864	31.11
19830-015	7	109	21	07/29/10 15:02:47	12.21	8.69	7.62	47809	31.08
19830-017	7	110	21	07/29/10 15:02:57	12.30	8.61	7.61	47839	31.10
19830-003	7	111	21	07/29/10 15:03:05	12.35	8.57	7.60	47870	31.13
19830-008	7	112	21	07/29/10 15:03:14	12.38	8.56	7.63	47927	31.17
19830-006	7	113	21	07/29/10 15:03:30	12.47	8.69	7.58	47656	30.98
19830-012	7	114	21	07/29/10 15:03:38	12.50	8.66	7.57	47483	30.85
19830-004	7	115	21	07/29/10 15:03:46	12.45	8.64	7.58	47405	30.80
19830-011	7	116	21	07/29/10 15:03:53	12.40	8.65	7.57	47483	30.85
19830-014	7	117	21	07/29/10 15:04:02	12.35	8.60	7.59	47584	30.92
19830-005	7	118	21	07/29/10 15:04:09	12.33	8.56	7.59	47565	30.91
19830-001	7	119	21	07/29/10 15:04:16	12.32	8.56	7.58	47499	30.86
19830-000	7	120	21	07/29/10 15:04:23	12.31	8.54	7.60	47548	30.89
19830-009	7	121	21	07/29/10 15:04:30	12.25	8.59	7.61	47502	30.86
19830-010	7	122	21	07/29/10 15:04:41	12.11	8.60	7.56	47622	30.94
19830-007	7	123	21	07/29/10 15:04:50	12.10	8.38	7.50	47725	31.01
19830-002	7	124	21	07/29/10 15:05:00	12.10	8.25	7.47	47791	31.06
19830-013	7	125	21	07/29/10 15:05:10	12.15	8.19	7.47	47775	31.05
19830-016	7	126	21	07/29/10 15:05:19	12.24	8.25	7.48	47770	31.05
19830-017	8	127	21	07/29/10 15:05:28	12.36	8.28	7.44	47740	31.03
19830-013	8	128	21	07/29/10 15:05:36	12.43	8.20	7.46	47735	31.03
19830-010	8	129	21	07/29/10 15:05:51	12.60	8.28	7.62	47641	30.97

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	8	130	21	07/29/10 15:06:01	12.61	8.46	7.58	47542	30.90
19830-011	8	131	21	07/29/10 15:06:10	12.55	8.44	7.51	47473	30.85
19830-002	8	132	21	07/29/10 15:06:20	12.43	7.94	7.48	47567	30.91
19830-004	8	133	21	07/29/10 15:06:30	12.42	7.42	7.46	47569	30.91
19830-003	8	134	21	07/29/10 15:06:38	12.43	7.47	7.47	47549	30.90
19830-005	8	135	21	07/29/10 15:06:46	12.36	7.80	7.45	47589	30.93
19830-012	8	136	21	07/29/10 15:06:58	12.27	7.87	7.50	47633	30.95
19830-006	8	137	21	07/29/10 15:07:09	12.22	7.98	7.50	47712	31.01
19830-001	8	138	21	07/29/10 15:07:19	12.19	8.04	7.51	47701	31.00
19830-014	8	139	21	07/29/10 15:07:28	12.20	8.04	7.52	47681	30.99
19830-000	8	140	21	07/29/10 15:07:36	12.22	7.90	7.51	47720	31.01
19830-009	8	141	21	07/29/10 15:07:45	12.26	7.98	7.54	47742	31.03
19830-008	8	142	21	07/29/10 15:07:55	12.31	8.23	7.60	47740	31.03
19830-015	8	143	21	07/29/10 15:08:04	12.37	8.40	7.64	47841	31.11
19830-016	8	144	21	07/29/10 15:08:17	12.50	8.34	7.52	47668	30.99
19830-002	1	1	22	07/30/10 11:23:15	12.97	8.13	7.60	48221	31.41
19830-016	1	2	22	07/30/10 11:23:53	12.87	7.83	7.55	48023	31.26
19830-015	1	3	22	07/30/10 11:24:01	12.84	7.77	7.54	48220	31.40
19830-017	1	4	22	07/30/10 11:24:15	12.85	7.46	7.47	48209	31.39
19830-001	1	5	22	07/30/10 11:24:29	12.86	6.87	7.50	48218	31.40
19830-011	1	6	22	07/30/10 11:24:40	12.84	6.78	7.55	48235	31.41
19830-014	1	7	22	07/30/10 11:24:51	12.80	6.96	7.50	48211	31.39
19830-009	1	8	22	07/30/10 11:25:08	12.72	6.12	7.50	48259	31.42
19830-012	1	9	22	07/30/10 11:25:19	12.75	5.90	7.53	48257	31.42
19830-010	1	10	22	07/30/10 11:25:34	12.69	6.11	7.57	48213	31.39
19830-008	1	11	22	07/30/10 11:25:49	12.62	6.75	7.68	48255	31.42
19830-006	1	12	22	07/30/10 11:25:59	12.59	6.93	7.70	48274	31.43
19830-004	1	13	22	07/30/10 11:26:13	12.61	7.57	7.61	48218	31.39
19830-013	1	14	22	07/30/10 11:26:25	12.60	7.58	7.51	48232	31.40
19830-000	1	15	22	07/30/10 11:26:36	12.57	7.41	7.48	48281	31.43
19830-005	1	16	22	07/30/10 11:26:50	12.52	7.56	7.64	48346	31.48
19830-007	1	17	22	07/30/10 11:27:04	12.48	8.10	7.66	48410	31.52
19830-003	1	18	22	07/30/10 11:27:14	12.52	8.29	7.61	48428	31.54
19830-009	2	19	22	07/30/10 11:27:32	12.74	8.14	7.66	48333	31.48
19830-016	2	20	22	07/30/10 11:27:47	12.77	7.95	7.63	48255	31.42
19830-007	2	21	22	07/30/10 11:27:58	12.77	7.76	7.50	48267	31.43
19830-015	2	22	22	07/30/10 11:28:08	12.78	7.48	7.46	48209	31.39
19830-008	2	23	22	07/30/10 11:28:16	12.78	7.42	7.58	48186	31.37
19830-002	2	24	22	07/30/10 11:28:26	12.74	7.61	7.65	48218	31.40
19830-012	2	25	22	07/30/10 11:28:38	12.69	7.53	7.54	48186	31.37
19830-004	2	26	22	07/30/10 11:28:48	12.69	7.26	7.47	48199	31.38
19830-000	2	27	22	07/30/10 11:29:01	12.61	7.27	7.48	48210	31.38
19830-003	2	28	22	07/30/10 11:29:11	12.57	7.64	7.47	48104	31.31
19830-011	2	29	22	07/30/10 11:29:19	12.55	7.76	7.49	48199	31.37
19830-017	2	30	22	07/30/10 11:29:27	12.55	7.79	7.51	48194	31.37
19830-014	2	31	22	07/30/10 11:29:37	12.50	7.78	7.43	48165	31.35
19830-001	2	32	22	07/30/10 11:29:51	12.48	6.54	7.36	48195	31.37
19830-013	2	33	22	07/30/10 11:30:14	12.51	6.36	7.43	48253	31.41
19830-010	2	34	22	07/30/10 11:30:22	12.54	6.76	7.46	48277	31.43
19830-006	2	35	22	07/30/10 11:30:37	12.70	7.25	7.38	48329	31.47
19830-005	2	36	22	07/30/10 11:30:58	12.75	6.70	7.38	48252	31.42
19830-013	3	37	22	07/30/10 11:31:43	12.73	4.91	7.16	47897	31.16
19830-009	3	38	22	07/30/10 11:32:16	12.82	6.61	7.37	48022	31.26

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	3	39	22	07/30/10 11:32:26	12.83	7.00	7.37	48179	31.37
19830-016	3	40	22	07/30/10 11:32:38	12.75	6.54	7.35	48216	31.39
19830-000	3	41	22	07/30/10 11:32:51	12.74	6.87	7.44	48223	31.40
19830-010	3	42	22	07/30/10 11:33:04	12.74	7.56	7.49	48216	31.39
19830-008	3	43	22	07/30/10 11:33:15	12.68	7.71	7.51	48175	31.36
19830-014	3	44	22	07/30/10 11:33:23	12.64	7.68	7.53	48237	31.41
19830-004	3	45	22	07/30/10 11:33:38	12.64	7.33	7.46	48187	31.37
19830-006	3	46	22	07/30/10 11:33:54	12.64	6.38	7.26	48225	31.40
19830-005	3	47	22	07/30/10 11:34:41	12.61	7.04	7.55	48262	31.42
19830-011	3	48	22	07/30/10 11:34:51	12.45	7.55	7.59	48293	31.44
19830-002	3	49	22	07/30/10 11:34:59	12.42	7.76	7.59	48316	31.45
19830-012	3	50	22	07/30/10 11:35:13	12.55	6.75	7.36	48278	31.43
19830-001	3	51	22	07/30/10 11:36:06	12.36	8.78	7.47	48375	31.49
19830-003	3	52	22	07/30/10 11:36:21	12.39	8.25	7.65	48321	31.46
19830-007	3	53	22	07/30/10 11:36:35	12.41	8.18	7.56	48297	31.44
19830-015	3	54	22	07/30/10 11:36:45	12.40	7.89	7.61	48348	31.48
19830-006	4	55	22	07/30/10 11:36:56	12.37	7.96	7.75	48322	31.46
19830-011	4	56	22	07/30/10 11:37:07	12.31	8.29	7.80	48289	31.43
19830-012	4	57	22	07/30/10 11:37:16	12.25	8.27	7.81	48322	31.45
19830-010	4	58	22	07/30/10 11:37:24	12.23	8.27	7.80	48319	31.45
19830-015	4	59	22	07/30/10 11:37:34	12.14	8.35	7.74	48338	31.46
19830-009	4	60	22	07/30/10 11:37:44	12.08	8.23	7.74	48373	31.48
19830-001	4	61	22	07/30/10 11:37:53	12.07	8.20	7.78	48502	31.57
19830-016	4	62	22	07/30/10 11:38:08	12.26	8.05	7.64	47996	31.22
19830-008	4	63	22	07/30/10 11:38:17	12.35	7.97	7.61	48443	31.54
19830-004	4	64	22	07/30/10 11:38:31	12.56	7.83	7.62	48357	31.49
19830-007	4	65	22	07/30/10 11:38:47	12.40	7.66	7.54	48334	31.47
19830-014	4	66	22	07/30/10 11:38:58	12.36	7.78	7.49	48277	31.42
19830-000	4	67	22	07/30/10 11:39:10	12.31	7.45	7.45	48263	31.41
19830-017	4	68	22	07/30/10 11:39:19	12.30	7.31	7.40	48276	31.42
19830-013	4	69	22	07/30/10 11:39:28	12.27	7.27	7.43	48336	31.46
19830-002	4	70	22	07/30/10 11:39:38	12.29	7.44	7.54	48313	31.45
19830-005	4	71	22	07/30/10 11:39:46	12.30	7.63	7.59	48317	31.45
19830-003	4	72	22	07/30/10 11:39:55	12.32	7.79	7.59	48287	31.43
19830-016	5	73	22	07/30/10 11:40:05	12.30	7.92	7.55	48296	31.43
19830-003	5	74	22	07/30/10 11:40:17	12.30	7.79	7.48	48262	31.41
19830-000	5	75	22	07/30/10 11:40:26	12.34	7.50	7.45	48293	31.43
19830-013	5	76	22	07/30/10 11:40:37	12.40	7.48	7.47	48270	31.42
19830-001	5	77	22	07/30/10 11:40:46	12.45	7.59	7.52	47393	30.79
19830-002	5	78	22	07/30/10 11:40:56	12.50	7.76	7.54	48321	31.46
19830-004	5	79	22	07/30/10 11:41:08	12.60	7.63	7.46	48240	31.41
19830-012	5	80	22	07/30/10 11:41:19	12.66	7.31	7.51	48285	31.44
19830-005	5	81	22	07/30/10 11:41:34	12.48	7.86	7.62	48194	31.37
19830-011	5	82	22	07/30/10 11:41:43	12.38	7.87	7.62	48231	31.39
19830-010	5	83	22	07/30/10 11:41:52	12.30	7.80	7.63	48329	31.46
19830-017	5	84	22	07/30/10 11:41:59	12.30	7.83	7.61	48231	31.39
19830-009	5	85	22	07/30/10 11:42:07	12.30	7.66	7.54	48322	31.45
19830-006	5	86	22	07/30/10 11:42:16	12.31	7.26	7.55	48277	31.42
19830-008	5	87	22	07/30/10 11:42:24	12.35	7.31	7.56	48338	31.47
19830-007	5	88	22	07/30/10 11:42:35	12.37	7.66	7.57	48349	31.48
19830-014	5	89	22	07/30/10 11:42:45	12.33	7.84	7.57	48364	31.48
19830-015	5	90	22	07/30/10 11:42:54	12.34	7.98	7.59	48346	31.47
19830-005	6	91	22	07/30/10 11:43:01	12.35	8.01	7.62	48352	31.48
19830-007	6	92	22	07/30/10 11:43:12	12.37	8.05	7.62	48362	31.48

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	6	93	22	07/30/10 11:43:20	12.40	8.12	7.58	48316	31.45
19830-009	6	94	22	07/30/10 11:43:30	12.45	8.02	7.58	48340	31.47
19830-013	6	95	22	07/30/10 11:43:40	12.49	7.60	7.59	48327	31.46
19830-004	6	96	22	07/30/10 11:43:47	12.54	7.60	7.57	48434	31.54
19830-012	6	97	22	07/30/10 11:44:22	12.29	8.01	7.64	48476	31.56
19830-015	6	98	22	07/30/10 11:44:31	12.33	8.09	7.66	48355	31.48
19830-014	6	99	22	07/30/10 11:44:44	12.28	7.95	7.60	48308	31.44
19830-003	6	100	22	07/30/10 11:44:55	12.27	7.78	7.59	48406	31.51
19830-010	6	101	22	07/30/10 11:45:03	12.27	7.89	7.61	48402	31.51
19830-000	6	102	22	07/30/10 11:45:12	12.26	8.14	7.65	48423	31.52
19830-016	6	103	22	07/30/10 11:45:21	12.26	8.28	7.64	48387	31.50
19830-001	6	104	22	07/30/10 11:45:28	12.26	8.25	7.69	48438	31.53
19830-017	6	105	22	07/30/10 11:45:44	12.18	8.32	7.65	48262	31.40
19830-008	6	106	22	07/30/10 11:45:56	12.17	8.30	7.72	48413	31.51
19830-011	6	107	22	07/30/10 11:46:09	12.25	8.40	7.73	48359	31.48
19830-006	6	108	22	07/30/10 11:46:17	12.32	8.31	7.70	48449	31.55
19830-015	7	109	22	07/30/10 11:46:26	12.45	8.26	7.67	48504	31.59
19830-017	7	110	22	07/30/10 11:46:35	12.57	8.21	7.64	48461	31.56
19830-003	7	111	22	07/30/10 11:46:46	12.71	8.16	7.60	48454	31.56
19830-008	7	112	22	07/30/10 11:46:58	12.79	8.00	7.66	48504	31.60
19830-006	7	113	22	07/30/10 11:47:08	12.74	8.16	7.69	48125	31.33
19830-012	7	114	22	07/30/10 11:47:16	12.66	8.34	7.65	48090	31.30
19830-004	7	115	22	07/30/10 11:47:25	12.56	8.31	7.65	48095	31.30
19830-011	7	116	22	07/30/10 11:47:35	12.49	8.21	7.63	48115	31.31
19830-014	7	117	22	07/30/10 11:47:44	12.44	8.04	7.66	48212	31.38
19830-005	7	118	22	07/30/10 11:47:50	12.43	8.03	7.68	48214	31.38
19830-001	7	119	22	07/30/10 11:47:58	12.42	8.12	7.66	48156	31.34
19830-000	7	120	22	07/30/10 11:48:04	12.42	8.15	7.65	48218	31.38
19830-009	7	121	22	07/30/10 11:48:13	12.33	8.21	7.62	48222	31.38
19830-010	7	122	22	07/30/10 11:48:21	12.26	8.17	7.60	48279	31.42
19830-007	7	123	22	07/30/10 11:48:29	12.26	7.94	7.54	48358	31.48
19830-002	7	124	22	07/30/10 11:48:39	12.29	7.81	7.52	48438	31.54
19830-013	7	125	22	07/30/10 11:48:46	12.34	7.76	7.53	48411	31.52
19830-016	7	126	22	07/30/10 11:48:54	12.44	7.77	7.52	48454	31.55
19830-017	8	127	22	07/30/10 11:49:01	12.56	7.80	7.49	48421	31.53
19830-013	8	128	22	07/30/10 11:49:08	12.66	7.77	7.49	48470	31.57
19830-010	8	129	22	07/30/10 11:49:17	12.69	7.80	7.57	48320	31.47
19830-007	8	130	22	07/30/10 11:49:24	12.71	7.86	7.62	48196	31.38
19830-011	8	131	22	07/30/10 11:49:34	12.61	7.93	7.55	48141	31.33
19830-002	8	132	22	07/30/10 11:49:45	12.52	7.18	7.50	48240	31.40
19830-004	8	133	22	07/30/10 11:49:56	12.49	6.61	7.48	48270	31.42
19830-003	8	134	22	07/30/10 11:50:04	12.50	6.72	7.49	48182	31.36
19830-005	8	135	22	07/30/10 11:50:13	12.47	7.11	7.47	48202	31.37
19830-012	8	136	22	07/30/10 11:50:20	12.44	7.17	7.43	48232	31.39
19830-006	8	137	22	07/30/10 11:50:27	12.38	7.11	7.48	48354	31.48
19830-001	8	138	22	07/30/10 11:50:34	12.33	7.19	7.53	48362	31.48
19830-014	8	139	22	07/30/10 11:50:42	12.32	7.40	7.57	48389	31.50
19830-000	8	140	22	07/30/10 11:50:48	12.36	7.40	7.54	48415	31.52
19830-009	8	141	22	07/30/10 11:50:55	12.42	7.32	7.55	48432	31.54
19830-008	8	142	22	07/30/10 11:51:04	12.49	7.54	7.62	48428	31.54
19830-015	8	143	22	07/30/10 11:51:12	12.55	7.77	7.66	48495	31.59
19830-016	8	144	22	07/30/10 11:51:19	12.66	7.89	7.65	48436	31.55
19830-002	1	1	23	07/31/10 12:07:35	14.10	8.59	7.71	48826	31.88

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	1	2	23	07/31/10 12:08:23	14.18	7.91	7.70	48818	31.88
19830-015	1	3	23	07/31/10 12:08:46	14.18	7.80	7.73	48809	31.87
19830-017	1	4	23	07/31/10 12:09:14	14.16	7.48	7.67	48615	31.73
19830-001	1	5	23	07/31/10 12:09:40	14.00	7.36	7.70	48800	31.86
19830-011	1	6	23	07/31/10 12:10:12	14.09	7.39	7.67	48804	31.87
19830-014	1	7	23	07/31/10 12:10:31	14.10	7.37	7.67	48809	31.87
19830-009	1	8	23	07/31/10 12:10:53	13.98	7.26	7.69	48775	31.84
19830-012	1	9	23	07/31/10 12:11:15	14.01	7.29	7.69	48812	31.87
19830-010	1	10	23	07/31/10 12:11:33	14.01	7.54	7.70	48800	31.86
19830-008	1	11	23	07/31/10 12:12:06	14.06	7.52	7.72	48768	31.84
19830-006	1	12	23	07/31/10 12:12:35	14.10	7.71	7.71	48799	31.86
19830-004	1	13	23	07/31/10 12:12:56	13.91	7.74	7.67	48711	31.79
19830-013	1	14	23	07/31/10 12:13:25	13.89	7.46	7.65	48795	31.85
19830-000	1	15	23	07/31/10 12:13:50	13.95	7.60	7.65	48820	31.87
19830-005	1	16	23	07/31/10 12:14:19	13.87	7.88	7.72	48782	31.84
19830-007	1	17	23	07/31/10 12:14:45	13.81	8.08	7.68	48768	31.83
19830-003	1	18	23	07/31/10 12:15:19	13.79	7.90	7.64	48835	31.88
19830-009	2	19	23	07/31/10 12:15:49	14.03	7.79	7.69	48680	31.77
19830-016	2	20	23	07/31/10 12:16:08	14.12	7.66	7.70	48649	31.75
19830-007	2	21	23	07/31/10 12:16:24	14.19	7.58	7.64	48817	31.88
19830-015	2	22	23	07/31/10 12:16:41	14.17	7.40	7.67	48806	31.87
19830-008	2	23	23	07/31/10 12:17:03	14.17	7.52	7.71	48808	31.87
19830-002	2	24	23	07/31/10 12:17:20	14.22	7.41	7.69	48809	31.87
19830-012	2	25	23	07/31/10 12:17:46	14.18	7.32	7.66	48708	31.80
19830-004	2	26	23	07/31/10 12:17:59	14.10	7.31	7.65	48780	31.85
19830-000	2	27	23	07/31/10 12:18:27	14.07	7.56	7.66	48810	31.87
19830-003	2	28	23	07/31/10 12:18:48	14.08	7.58	7.64	48793	31.86
19830-011	2	29	23	07/31/10 12:19:06	14.02	7.56	7.68	48804	31.86
19830-017	2	30	23	07/31/10 12:19:28	14.08	7.54	7.65	48806	31.87
19830-014	2	31	23	07/31/10 12:19:50	14.01	7.31	7.66	48794	31.86
19830-001	2	32	23	07/31/10 12:20:09	13.90	6.99	7.66	48755	31.83
19830-013	2	33	23	07/31/10 12:20:37	13.91	7.14	7.66	48754	31.82
19830-010	2	34	23	07/31/10 12:21:09	13.96	7.33	7.66	48809	31.87
19830-006	2	35	23	07/31/10 12:22:05	13.99	7.14	7.59	48499	31.64
19830-005	2	36	23	07/31/10 12:22:33	14.12	7.23	7.65	48804	31.87
19830-013	3	37	23	07/31/10 12:22:58	14.13	7.27	7.65	48803	31.87
19830-009	3	38	23	07/31/10 12:23:20	14.10	7.31	7.64	48797	31.86
19830-017	3	39	23	07/31/10 12:23:44	14.16	7.17	7.60	48805	31.87
19830-016	3	40	23	07/31/10 12:24:04	14.00	7.11	7.61	48767	31.84
19830-000	3	41	23	07/31/10 12:24:34	14.18	7.63	7.66	48773	31.85
19830-010	3	42	23	07/31/10 12:24:56	14.14	7.42	7.61	48793	31.86
19830-008	3	43	23	07/31/10 12:25:23	13.85	7.37	7.64	48805	31.86
19830-014	3	44	23	07/31/10 12:25:45	14.04	7.23	7.67	48778	31.85
19830-004	3	45	23	07/31/10 12:26:06	14.07	7.12	7.64	48792	31.86
19830-006	3	46	23	07/31/10 12:26:34	14.01	7.13	7.66	48801	31.86
19830-005	3	47	23	07/31/10 12:26:56	14.05	7.36	7.68	48813	31.87
19830-011	3	48	23	07/31/10 12:27:18	13.78	7.55	7.70	48814	31.86
19830-002	3	49	23	07/31/10 12:27:37	13.92	7.39	7.67	48844	31.89
19830-012	3	50	23	07/31/10 12:27:57	13.87	7.35	7.68	48796	31.85
19830-001	3	51	23	07/31/10 12:28:44	12.83	7.75	7.72	48115	31.32
19830-003	3	52	23	07/31/10 12:29:09	12.90	7.96	7.71	48638	31.71
19830-007	3	53	23	07/31/10 12:29:27	12.97	7.82	7.61	48522	31.62
19830-015	3	54	23	07/31/10 12:29:48	13.03	7.74	7.72	48382	31.52
19830-006	4	55	23	07/31/10 12:30:09	12.94	8.06	7.77	48872	31.88

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	4	56	23	07/31/10 12:30:44	12.93	7.84	7.80	48885	31.89
19830-012	4	57	23	07/31/10 12:31:02	12.91	7.92	7.78	48909	31.90
19830-010	4	58	23	07/31/10 12:31:24	12.80	8.13	7.76	48885	31.88
19830-015	4	59	23	07/31/10 12:31:59	12.59	7.84	7.63	48816	31.82
19830-009	4	60	23	07/31/10 12:32:33	12.59	8.18	7.75	48294	31.44
19830-001	4	61	23	07/31/10 12:32:52	12.67	7.91	7.76	47128	30.61
19830-016	4	62	23	07/31/10 12:33:11	12.88	7.61	7.66	48890	31.89
19830-008	4	63	23	07/31/10 12:33:37	13.00	7.61	7.69	48889	31.89
19830-004	4	64	23	07/31/10 12:33:56	13.07	7.41	7.65	48694	31.75
19830-007	4	65	23	07/31/10 12:49:34	12.78	8.05	7.55	47626	30.97
19830-014	4	66	23	07/31/10 12:49:57	12.91	7.75	7.58	48909	31.90
19830-000	4	67	23	07/31/10 12:50:13	12.93	7.52	7.58	48892	31.89
19830-017	4	68	23	07/31/10 12:50:40	13.00	7.94	7.54	48881	31.89
19830-013	4	69	23	07/31/10 12:50:57	13.02	7.61	7.60	48896	31.90
19830-002	4	70	23	07/31/10 12:51:14	13.02	7.64	7.65	48884	31.89
19830-005	4	71	23	07/31/10 12:51:27	13.01	7.65	7.68	48856	31.87
19830-003	4	72	23	07/31/10 12:51:40	12.91	7.82	7.65	48818	31.84
19830-016	5	73	23	07/31/10 12:52:07	12.87	7.55	7.61	48892	31.89
19830-003	5	74	23	07/31/10 12:52:31	12.98	7.15	7.56	48863	31.87
19830-000	5	75	23	07/31/10 12:53:03	13.12	7.30	7.58	48866	31.88
19830-013	5	76	23	07/31/10 12:53:24	13.16	7.34	7.58	48858	31.88
19830-001	5	77	23	07/31/10 12:53:50	13.18	7.51	7.67	48846	31.87
19830-002	5	78	23	07/31/10 12:54:12	13.24	7.53	7.59	48871	31.89
19830-004	5	79	23	07/31/10 12:54:33	13.21	7.28	7.57	48851	31.87
19830-012	5	80	23	07/31/10 12:54:56	13.15	7.58	7.66	48742	31.79
19830-005	5	81	23	07/31/10 12:56:31	13.03	7.79	7.71	48884	31.89
19830-011	5	82	23	07/31/10 12:57:01	13.16	7.76	7.70	48882	31.89
19830-010	5	83	23	07/31/10 12:57:17	13.16	7.71	7.71	48885	31.89
19830-017	5	84	23	07/31/10 12:57:36	13.48	7.32	7.62	48882	31.90
19830-009	5	85	23	07/31/10 12:57:59	13.47	7.06	7.66	48842	31.87
19830-006	5	86	23	07/31/10 12:58:24	13.23	7.43	7.61	48819	31.85
19830-008	5	87	23	07/31/10 12:58:42	13.49	7.56	7.67	48905	31.92
19830-007	5	88	23	07/31/10 12:59:03	13.49	7.67	7.63	48858	31.89
19830-014	5	89	23	07/31/10 12:59:30	13.45	7.61	7.69	48839	31.87
19830-015	5	90	23	07/31/10 12:59:43	13.52	7.60	7.69	48884	31.91
19830-005	6	91	23	07/31/10 12:59:59	13.61	7.80	7.73	48842	31.88
19830-007	6	92	23	07/31/10 13:00:10	13.65	7.89	7.70	48891	31.92
19830-002	6	93	23	07/31/10 13:00:27	13.77	7.87	7.69	48832	31.88
19830-009	6	94	23	07/31/10 13:00:41	13.89	7.71	7.70	48803	31.86
19830-013	6	95	23	07/31/10 13:01:00	13.88	7.74	7.70	48801	31.86
19830-004	6	96	23	07/31/10 13:01:18	13.86	7.86	7.70	48791	31.85
19830-012	6	97	23	07/31/10 13:11:35	12.70	7.49	7.75	48967	31.94
19830-015	6	98	23	07/31/10 13:11:53	12.67	7.78	7.73	48931	31.91
19830-014	6	99	23	07/31/10 13:12:10	12.61	7.74	7.73	48917	31.90
19830-003	6	100	23	07/31/10 13:12:21	12.58	7.71	7.70	48881	31.87
19830-010	6	101	23	07/31/10 13:12:44	12.55	8.16	7.75	48961	31.93
19830-000	6	102	23	07/31/10 13:13:14	12.60	8.06	7.69	48814	31.82
19830-016	6	103	23	07/31/10 13:13:41	12.57	7.90	7.71	48864	31.86
19830-001	6	104	23	07/31/10 13:14:09	12.46	8.00	7.79	48724	31.75
19830-017	6	105	23	07/31/10 13:14:31	12.34	8.11	7.72	48934	31.90
19830-008	6	106	23	07/31/10 13:14:49	12.34	8.16	7.81	48963	31.92
19830-011	6	107	23	07/31/10 13:15:03	12.44	8.13	7.78	48969	31.93
19830-006	6	108	23	07/31/10 13:15:20	12.57	7.97	7.73	48983	31.94
19830-015	7	109	23	07/31/10 13:15:39	12.71	7.99	7.72	48969	31.94

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	7	110	23	07/31/10 13:15:52	12.81	7.88	7.70	48938	31.92
19830-003	7	111	23	07/31/10 13:16:07	12.90	7.87	7.66	48928	31.92
19830-008	7	112	23	07/31/10 13:16:30	12.96	7.88	7.71	48934	31.92
19830-006	7	113	23	07/31/10 13:16:53	13.07	8.03	7.68	48787	31.82
19830-012	7	114	23	07/31/10 13:17:09	13.16	7.87	7.67	48866	31.88
19830-004	7	115	23	07/31/10 13:17:26	13.14	7.78	7.68	48851	31.87
19830-011	7	116	23	07/31/10 13:17:43	13.14	7.71	7.71	48863	31.88
19830-014	7	117	23	07/31/10 13:18:01	13.08	7.65	7.75	48867	31.88
19830-005	7	118	23	07/31/10 13:18:18	13.05	7.91	7.71	48815	31.84
19830-001	7	119	23	07/31/10 13:18:32	13.00	7.83	7.72	48830	31.85
19830-000	7	120	23	07/31/10 13:18:49	12.92	7.88	7.68	48869	31.87
19830-009	7	121	23	07/31/10 13:19:06	12.69	7.90	7.66	48830	31.84
19830-010	7	122	23	07/31/10 13:19:22	12.73	7.55	7.64	48931	31.91
19830-007	7	123	23	07/31/10 13:19:35	12.74	7.40	7.60	48905	31.89
19830-002	7	124	23	07/31/10 13:19:51	12.77	7.46	7.62	48931	31.91
19830-013	7	125	23	07/31/10 13:20:14	12.83	7.59	7.63	48804	31.82
19830-016	7	126	23	07/31/10 13:20:28	12.94	7.65	7.61	48971	31.95
19830-017	8	127	23	07/31/10 13:20:43	13.07	7.50	7.59	48915	31.91
19830-013	8	128	23	07/31/10 13:21:08	13.10	7.49	7.63	48884	31.89
19830-010	8	129	23	07/31/10 13:21:34	13.14	7.81	7.70	48893	31.90
19830-007	8	130	23	07/31/10 13:21:48	13.21	7.73	7.65	48803	31.84
19830-011	8	131	23	07/31/10 13:22:23	13.22	6.30	7.65	48840	31.86
19830-002	8	132	23	07/31/10 13:22:57	13.20	6.51	7.65	48917	31.92
19830-004	8	133	23	07/31/10 13:23:26	13.50	7.20	7.61	48844	31.88
19830-003	8	134	23	07/31/10 13:23:40	13.62	7.27	7.63	48853	31.89
19830-005	8	135	23	07/31/10 13:23:58	13.52	7.33	7.58	48808	31.85
19830-012	8	136	23	07/31/10 13:24:22	13.51	7.28	7.68	48835	31.87
19830-006	8	137	23	07/31/10 13:24:45	13.38	7.57	7.66	48862	31.89
19830-001	8	138	23	07/31/10 13:25:02	13.48	7.66	7.72	48828	31.86
19830-014	8	139	23	07/31/10 13:25:18	13.42	7.63	7.68	48910	31.92
19830-000	8	140	23	07/31/10 13:25:39	13.70	7.58	7.67	48870	31.90
19830-009	8	141	23	07/31/10 13:25:56	13.89	7.81	7.70	48855	31.90
19830-008	8	142	23	07/31/10 13:26:16	13.70	7.95	7.73	48786	31.84
19830-015	8	143	23	07/31/10 13:26:39	13.83	7.93	7.73	48702	31.78
19830-016	8	144	23	07/31/10 13:27:12	13.88	7.75	7.67	48817	31.87
19830-002	1	1	24	08/01/10 13:14:34	13.20	8.18	7.56	48237	31.43
19830-016	1	2	24	08/01/10 13:15:03	13.10	7.98	7.55	48277	31.45
19830-015	1	3	24	08/01/10 13:15:15	13.04	7.97	7.58	48309	31.47
19830-017	1	4	24	08/01/10 13:15:29	13.07	7.66	7.52	48314	31.48
19830-001	1	5	24	08/01/10 13:16:14	13.02	7.33	7.58	47752	31.07
19830-011	1	6	24	08/01/10 13:16:29	12.99	7.11	7.55	48315	31.48
19830-014	1	7	24	08/01/10 13:16:40	12.99	7.34	7.52	48314	31.47
19830-009	1	8	24	08/01/10 13:16:57	12.92	6.78	7.53	48297	31.46
19830-012	1	9	24	08/01/10 13:17:14	12.93	6.65	7.58	48309	31.47
19830-010	1	10	24	08/01/10 13:17:52	12.87	7.42	7.62	48304	31.46
19830-008	1	11	24	08/01/10 13:18:02	12.84	7.51	7.65	48326	31.48
19830-006	1	12	24	08/01/10 13:18:13	12.84	7.53	7.67	48296	31.46
19830-004	1	13	24	08/01/10 13:18:25	12.81	7.82	7.59	48309	31.46
19830-013	1	14	24	08/01/10 13:18:35	12.78	7.81	7.51	48323	31.47
19830-000	1	15	24	08/01/10 13:18:46	12.75	7.70	7.49	48319	31.47
19830-005	1	16	24	08/01/10 13:18:57	12.70	7.73	7.60	48301	31.45
19830-007	1	17	24	08/01/10 13:19:09	12.66	8.07	7.64	48346	31.49
19830-003	1	18	24	08/01/10 13:19:22	12.70	8.26	7.57	48360	31.50

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	2	19	24	08/01/10 13:19:35	12.82	8.13	7.55	48487	31.59
19830-016	2	20	24	08/01/10 13:19:44	12.94	8.08	7.57	48367	31.51
19830-007	2	21	24	08/01/10 13:19:58	12.98	7.85	7.46	48282	31.45
19830-015	2	22	24	08/01/10 13:20:27	13.03	7.45	7.55	48281	31.45
19830-008	2	23	24	08/01/10 13:20:41	13.06	7.46	7.61	48291	31.46
19830-002	2	24	24	08/01/10 13:20:48	13.07	7.56	7.60	48281	31.45
19830-012	2	25	24	08/01/10 13:20:56	13.05	7.58	7.55	48224	31.41
19830-004	2	26	24	08/01/10 13:21:08	12.98	7.47	7.48	48233	31.42
19830-000	2	27	24	08/01/10 13:21:17	12.91	7.31	7.46	48243	31.42
19830-003	2	28	24	08/01/10 13:21:28	12.88	7.56	7.47	48254	31.43
19830-011	2	29	24	08/01/10 13:21:37	12.87	7.75	7.49	48264	31.43
19830-017	2	30	24	08/01/10 13:21:45	12.86	7.79	7.52	48278	31.44
19830-014	2	31	24	08/01/10 13:21:54	12.84	7.78	7.47	48262	31.43
19830-001	2	32	24	08/01/10 13:22:07	12.78	7.12	7.43	47064	30.56
19830-013	2	33	24	08/01/10 13:22:32	12.75	7.00	7.48	48296	31.45
19830-010	2	34	24	08/01/10 13:22:40	12.77	7.31	7.49	48318	31.47
19830-006	2	35	24	08/01/10 13:22:55	12.86	7.51	7.43	48408	31.54
19830-005	2	36	24	08/01/10 13:23:07	12.91	7.37	7.47	48351	31.50
19830-013	3	37	24	08/01/10 13:23:17	12.90	7.45	7.49	48328	31.48
19830-009	3	38	24	08/01/10 13:23:28	12.94	7.28	7.49	48341	31.49
19830-017	3	39	24	08/01/10 13:23:39	13.01	7.31	7.41	48257	31.43
19830-016	3	40	24	08/01/10 13:23:51	12.92	6.86	7.37	48248	31.42
19830-000	3	41	24	08/01/10 13:24:05	12.92	7.19	7.47	48298	31.46
19830-010	3	42	24	08/01/10 13:24:16	12.96	7.66	7.40	48304	31.47
19830-008	3	43	24	08/01/10 13:24:29	12.91	6.79	7.40	48272	31.44
19830-014	3	44	24	08/01/10 13:24:44	12.92	7.03	7.46	48284	31.45
19830-004	3	45	24	08/01/10 13:24:51	12.92	7.12	7.45	48269	31.44
19830-006	3	46	24	08/01/10 13:25:02	12.90	7.12	7.42	48047	31.28
19830-005	3	47	24	08/01/10 13:25:15	12.88	7.13	7.50	48290	31.45
19830-011	3	48	24	08/01/10 13:25:23	12.75	7.41	7.53	48154	31.35
19830-002	3	49	24	08/01/10 13:25:30	12.71	7.67	7.54	48425	31.54
19830-012	3	50	24	08/01/10 13:25:43	12.78	7.50	7.52	48281	31.44
19830-001	3	51	24	08/01/10 13:26:09	12.55	8.03	7.66	48334	31.47
19830-003	3	52	24	08/01/10 13:26:25	12.57	8.10	7.65	48343	31.48
19830-007	3	53	24	08/01/10 13:26:35	12.60	8.23	7.57	48388	31.51
19830-015	3	54	24	08/01/10 13:26:44	12.60	8.08	7.57	48382	31.51
19830-006	4	55	24	08/01/10 13:26:53	12.57	8.08	7.68	48332	31.47
19830-011	4	56	24	08/01/10 13:27:04	12.55	8.32	7.76	48327	31.47
19830-012	4	57	24	08/01/10 13:27:13	12.50	8.39	7.76	48356	31.49
19830-010	4	58	24	08/01/10 13:27:21	12.43	8.44	7.74	48308	31.45
19830-015	4	59	24	08/01/10 13:27:29	12.31	8.51	7.71	48297	31.44
19830-009	4	60	24	08/01/10 13:27:38	12.26	8.46	7.70	48375	31.49
19830-001	4	61	24	08/01/10 13:27:46	12.27	8.37	7.70	48457	31.55
19830-016	4	62	24	08/01/10 13:27:56	12.43	8.16	7.64	48493	31.58
19830-008	4	63	24	08/01/10 13:28:04	12.53	8.05	7.60	48547	31.63
19830-004	4	64	24	08/01/10 13:28:12	12.66	7.97	7.58	48484	31.59
19830-007	4	65	24	08/01/10 13:28:24	12.58	7.78	7.50	48250	31.41
19830-014	4	66	24	08/01/10 13:28:31	12.52	7.81	7.48	48407	31.52
19830-000	4	67	24	08/01/10 13:28:42	12.56	7.73	7.47	48358	31.49
19830-017	4	68	24	08/01/10 13:28:50	12.57	7.66	7.46	48348	31.48
19830-013	4	69	24	08/01/10 13:28:58	12.59	7.56	7.45	48337	31.48
19830-002	4	70	24	08/01/10 13:29:06	12.60	7.55	7.49	48331	31.47
19830-005	4	71	24	08/01/10 13:29:14	12.60	7.70	7.56	48295	31.45
19830-003	4	72	24	08/01/10 13:29:22	12.58	7.85	7.57	48259	31.42

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	5	73	24	08/01/10 13:29:32	12.53	8.00	7.56	48360	31.49
19830-003	5	74	24	08/01/10 13:29:42	12.58	7.93	7.52	48355	31.49
19830-000	5	75	24	08/01/10 13:29:51	12.67	7.67	7.47	48366	31.50
19830-013	5	76	24	08/01/10 13:30:01	12.74	7.59	7.48	48336	31.48
19830-001	5	77	24	08/01/10 13:30:09	12.78	7.58	7.51	47718	31.04
19830-002	5	78	24	08/01/10 13:30:20	12.85	7.64	7.50	48342	31.49
19830-004	5	79	24	08/01/10 13:30:27	12.88	7.63	7.45	48304	31.46
19830-012	5	80	24	08/01/10 13:30:34	12.89	7.56	7.48	48293	31.46
19830-005	5	81	24	08/01/10 13:30:46	12.67	7.86	7.58	48149	31.34
19830-011	5	82	24	08/01/10 13:30:53	12.59	7.98	7.59	48269	31.43
19830-010	5	83	24	08/01/10 13:31:01	12.55	7.96	7.60	48314	31.46
19830-017	5	84	24	08/01/10 13:31:08	12.55	7.95	7.57	48356	31.49
19830-009	5	85	24	08/01/10 13:31:16	12.57	7.85	7.52	48334	31.47
19830-006	5	86	24	08/01/10 13:31:27	12.57	7.50	7.50	48381	31.51
19830-008	5	87	24	08/01/10 13:31:36	12.61	7.51	7.54	48352	31.49
19830-007	5	88	24	08/01/10 13:31:43	12.60	7.67	7.57	48272	31.43
19830-014	5	89	24	08/01/10 13:31:52	12.51	7.87	7.54	48340	31.47
19830-015	5	90	24	08/01/10 13:32:00	12.52	8.02	7.55	48374	31.50
19830-005	6	91	24	08/01/10 13:32:09	12.57	8.07	7.61	48376	31.50
19830-007	6	92	24	08/01/10 13:32:18	12.62	8.14	7.61	48342	31.48
19830-002	6	93	24	08/01/10 13:32:28	12.66	8.14	7.56	48348	31.49
19830-009	6	94	24	08/01/10 13:32:39	12.71	7.95	7.54	48337	31.48
19830-013	6	95	24	08/01/10 13:32:49	12.74	7.58	7.54	48331	31.48
19830-004	6	96	24	08/01/10 13:32:56	12.76	7.55	7.53	48358	31.50
19830-012	6	97	24	08/01/10 13:33:14	12.58	7.94	7.57	48274	31.43
19830-015	6	98	24	08/01/10 13:33:22	12.51	7.99	7.60	48295	31.44
19830-014	6	99	24	08/01/10 13:33:31	12.46	7.96	7.62	48330	31.46
19830-003	6	100	24	08/01/10 13:33:39	12.41	8.00	7.62	48400	31.51
19830-010	6	101	24	08/01/10 13:33:47	12.38	8.08	7.62	48464	31.56
19830-000	6	102	24	08/01/10 13:33:53	12.40	8.17	7.62	48412	31.52
19830-016	6	103	24	08/01/10 13:34:01	12.40	8.27	7.62	48385	31.50
19830-001	6	104	24	08/01/10 13:34:07	12.39	8.32	7.64	48336	31.47
19830-017	6	105	24	08/01/10 13:34:16	12.30	8.35	7.66	48333	31.46
19830-008	6	106	24	08/01/10 13:34:24	12.27	8.42	7.67	48425	31.53
19830-011	6	107	24	08/01/10 13:34:32	12.28	8.47	7.70	48527	31.60
19830-006	6	108	24	08/01/10 13:34:40	12.40	8.41	7.68	48557	31.63
19830-015	7	109	24	08/01/10 13:34:50	12.58	8.35	7.65	48544	31.62
19830-017	7	110	24	08/01/10 13:34:59	12.71	8.26	7.63	48502	31.60
19830-003	7	111	24	08/01/10 13:35:07	12.79	8.22	7.60	48468	31.58
19830-008	7	112	24	08/01/10 13:35:14	12.86	8.20	7.60	48472	31.58
19830-006	7	113	24	08/01/10 13:35:26	12.84	8.28	7.63	48326	31.48
19830-012	7	114	24	08/01/10 13:35:34	12.88	8.32	7.61	48291	31.45
19830-004	7	115	24	08/01/10 13:35:41	12.88	8.28	7.60	48242	31.42
19830-011	7	116	24	08/01/10 13:35:48	12.86	8.23	7.61	48243	31.42
19830-014	7	117	24	08/01/10 13:35:57	12.82	8.10	7.64	48238	31.41
19830-005	7	118	24	08/01/10 13:36:05	12.79	8.12	7.65	48234	31.41
19830-001	7	119	24	08/01/10 13:36:13	12.76	8.21	7.62	48228	31.40
19830-000	7	120	24	08/01/10 13:36:20	12.72	8.20	7.62	48215	31.39
19830-009	7	121	24	08/01/10 13:36:29	12.59	8.21	7.58	48170	31.36
19830-010	7	122	24	08/01/10 13:36:37	12.46	8.21	7.56	48408	31.52
19830-007	7	123	24	08/01/10 13:36:45	12.50	8.12	7.53	48350	31.48
19830-002	7	124	24	08/01/10 13:36:54	12.52	8.00	7.51	48409	31.52
19830-013	7	125	24	08/01/10 13:37:02	12.57	7.95	7.51	48441	31.55
19830-016	7	126	24	08/01/10 13:37:12	12.69	7.95	7.51	48460	31.57

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-017	8	127	24	08/01/10 13:37:22	12.83	7.89	7.49	48415	31.54
19830-013	8	128	24	08/01/10 13:37:31	12.92	7.79	7.50	48379	31.52
19830-010	8	129	24	08/01/10 13:37:45	12.92	7.95	7.58	48314	31.47
19830-007	8	130	24	08/01/10 13:37:51	12.93	8.01	7.61	48253	31.43
19830-011	8	131	24	08/01/10 13:37:59	12.89	8.03	7.55	48212	31.40
19830-002	8	132	24	08/01/10 13:38:06	12.83	7.79	7.50	48193	31.38
19830-004	8	133	24	08/01/10 13:38:17	12.82	7.16	7.49	48310	31.47
19830-003	8	134	24	08/01/10 13:38:25	12.80	7.14	7.49	48287	31.45
19830-005	8	135	24	08/01/10 13:38:35	12.76	7.36	7.46	48221	31.40
19830-012	8	136	24	08/01/10 13:38:43	12.65	7.34	7.45	48245	31.41
19830-006	8	137	24	08/01/10 13:38:52	12.56	7.31	7.50	48296	31.45
19830-001	8	138	24	08/01/10 13:39:00	12.54	7.46	7.53	48343	31.48
19830-014	8	139	24	08/01/10 13:39:08	12.52	7.61	7.55	48454	31.56
19830-000	8	140	24	08/01/10 13:39:15	12.58	7.56	7.52	48386	31.51
19830-009	8	141	24	08/01/10 13:39:23	12.63	7.51	7.54	48371	31.50
19830-008	8	142	24	08/01/10 13:39:32	12.68	7.72	7.58	48396	31.52
19830-015	8	143	24	08/01/10 13:39:41	12.74	7.88	7.61	48443	31.56
19830-016	8	144	24	08/01/10 13:39:49	12.83	7.95	7.58	48428	31.55
19830-002	1	1	25	08/02/10 11:02:25	12.95	8.59	7.48	48664	31.73
19830-016	1	2	25	08/02/10 11:02:59	12.86	8.07	7.47	48616	31.69
19830-015	1	3	25	08/02/10 11:03:12	12.80	8.01	7.48	48660	31.72
19830-017	1	4	25	08/02/10 11:03:28	12.84	7.87	7.52	48645	31.71
19830-001	1	5	25	08/02/10 11:03:40	12.83	8.00	7.59	48672	31.73
19830-011	1	6	25	08/02/10 11:03:50	12.79	8.01	7.57	48660	31.72
19830-014	1	7	25	08/02/10 11:04:04	12.75	7.71	7.40	48647	31.71
19830-009	1	8	25	08/02/10 11:04:22	12.68	6.56	7.42	48660	31.71
19830-012	1	9	25	08/02/10 11:04:38	12.72	6.55	7.49	48661	31.72
19830-010	1	10	25	08/02/10 11:04:51	12.65	6.70	7.53	48639	31.70
19830-008	1	11	25	08/02/10 11:05:02	12.59	7.06	7.61	48613	31.68
19830-006	1	12	25	08/02/10 11:05:12	12.55	7.25	7.65	48619	31.68
19830-004	1	13	25	08/02/10 11:05:23	12.56	7.61	7.54	48665	31.71
19830-013	1	14	25	08/02/10 11:05:33	12.56	7.66	7.44	48662	31.71
19830-000	1	15	25	08/02/10 11:05:44	12.53	7.56	7.40	48651	31.70
19830-005	1	16	25	08/02/10 11:05:55	12.50	7.62	7.53	48705	31.74
19830-007	1	17	25	08/02/10 11:06:06	12.48	7.90	7.58	48778	31.79
19830-003	1	18	25	08/02/10 11:06:20	12.57	8.03	7.51	48772	31.79
19830-009	2	19	25	08/02/10 11:06:33	12.61	7.92	7.48	48804	31.82
19830-016	2	20	25	08/02/10 11:06:44	12.69	7.77	7.49	48664	31.72
19830-007	2	21	25	08/02/10 11:06:56	12.70	7.74	7.42	48447	31.56
19830-015	2	22	25	08/02/10 11:07:09	12.70	7.44	7.44	48607	31.68
19830-008	2	23	25	08/02/10 11:07:19	12.70	7.40	7.55	48615	31.68
19830-002	2	24	25	08/02/10 11:07:29	12.68	7.54	7.54	48569	31.65
19830-012	2	25	25	08/02/10 11:07:38	12.62	7.40	7.48	48571	31.65
19830-004	2	26	25	08/02/10 11:07:49	12.65	7.24	7.39	48590	31.66
19830-000	2	27	25	08/02/10 11:07:59	12.59	7.13	7.41	48561	31.64
19830-003	2	28	25	08/02/10 11:08:09	12.53	7.45	7.43	48329	31.47
19830-011	2	29	25	08/02/10 11:08:19	12.51	7.67	7.44	48592	31.66
19830-017	2	30	25	08/02/10 11:08:30	12.48	7.69	7.43	48612	31.67
19830-014	2	31	25	08/02/10 11:08:41	12.47	7.60	7.36	48606	31.67
19830-001	2	32	25	08/02/10 11:08:58	12.43	6.73	7.33	48551	31.62
19830-013	2	33	25	08/02/10 11:09:09	12.44	6.41	7.42	48704	31.73
19830-010	2	34	25	08/02/10 11:09:23	12.51	7.05	7.42	48634	31.69
19830-006	2	35	25	08/02/10 11:09:40	12.65	7.29	7.38	48688	31.73

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	2	36	25	08/02/10 11:09:51	12.68	7.16	7.44	48612	31.68
19830-013	3	37	25	08/02/10 11:10:03	12.64	7.22	7.43	48659	31.71
19830-009	3	38	25	08/02/10 11:10:12	12.67	7.11	7.41	48689	31.73
19830-017	3	39	25	08/02/10 11:10:21	12.73	7.09	7.36	48577	31.66
19830-016	3	40	25	08/02/10 11:10:31	12.65	6.63	7.28	48601	31.67
19830-000	3	41	25	08/02/10 11:10:40	12.59	6.54	7.35	48568	31.64
19830-010	3	42	25	08/02/10 11:10:52	12.63	7.01	7.27	48608	31.67
19830-008	3	43	25	08/02/10 11:11:16	12.63	6.02	7.38	48646	31.70
19830-014	3	44	25	08/02/10 11:11:27	12.61	6.43	7.41	48569	31.64
19830-004	3	45	25	08/02/10 11:11:38	12.59	6.73	7.35	48558	31.64
19830-006	3	46	25	08/02/10 11:11:47	12.58	6.66	7.33	48580	31.65
19830-005	3	47	25	08/02/10 11:11:57	12.57	6.81	7.42	48567	31.64
19830-011	3	48	25	08/02/10 11:12:13	12.35	7.37	7.52	48750	31.76
19830-002	3	49	25	08/02/10 11:12:23	12.39	7.64	7.47	48707	31.74
19830-012	3	50	25	08/02/10 11:12:34	12.49	7.46	7.43	48665	31.71
19830-001	3	51	25	08/02/10 11:12:47	12.41	7.30	7.51	48687	31.72
19830-003	3	52	25	08/02/10 11:12:58	12.34	7.55	7.59	48705	31.73
19830-007	3	53	25	08/02/10 11:13:07	12.35	7.78	7.55	48689	31.72
19830-015	3	54	25	08/02/10 11:13:18	12.34	7.86	7.59	48712	31.74
19830-006	4	55	25	08/02/10 11:13:31	12.29	8.04	7.76	48675	31.71
19830-011	4	56	25	08/02/10 11:13:41	12.25	8.22	7.80	48698	31.72
19830-012	4	57	25	08/02/10 11:13:51	12.17	8.23	7.77	48724	31.74
19830-010	4	58	25	08/02/10 11:14:00	12.14	8.23	7.74	48717	31.73
19830-015	4	59	25	08/02/10 11:14:09	12.06	8.31	7.71	48720	31.73
19830-009	4	60	25	08/02/10 11:14:17	12.00	8.30	7.69	48762	31.76
19830-001	4	61	25	08/02/10 11:14:28	12.03	8.22	7.66	48894	31.85
19830-016	4	62	25	08/02/10 11:14:37	12.12	8.03	7.60	48935	31.89
19830-008	4	63	25	08/02/10 11:14:46	12.29	7.84	7.55	48906	31.88
19830-004	4	64	25	08/02/10 11:14:56	12.47	7.74	7.49	48840	31.84
19830-007	4	65	25	08/02/10 11:15:12	12.36	7.49	7.39	48622	31.67
19830-014	4	66	25	08/02/10 11:15:22	12.29	7.52	7.38	48647	31.69
19830-000	4	67	25	08/02/10 11:15:34	12.23	7.29	7.36	48688	31.72
19830-017	4	68	25	08/02/10 11:15:45	12.21	7.19	7.33	48696	31.72
19830-013	4	69	25	08/02/10 11:15:53	12.22	7.11	7.34	48667	31.70
19830-002	4	70	25	08/02/10 11:16:02	12.23	7.23	7.43	48688	31.71
19830-005	4	71	25	08/02/10 11:16:12	12.23	7.47	7.50	48640	31.68
19830-003	4	72	25	08/02/10 11:16:22	12.25	7.64	7.52	48670	31.70
19830-016	5	73	25	08/02/10 11:16:31	12.23	7.77	7.49	48719	31.74
19830-003	5	74	25	08/02/10 11:16:41	12.23	7.72	7.43	48676	31.71
19830-000	5	75	25	08/02/10 11:16:51	12.29	7.49	7.41	48642	31.68
19830-013	5	76	25	08/02/10 11:16:59	12.34	7.42	7.40	48656	31.70
19830-001	5	77	25	08/02/10 11:17:19	12.43	7.52	7.55	47742	31.04
19830-002	5	78	25	08/02/10 11:17:27	12.47	7.57	7.52	48673	31.71
19830-004	5	79	25	08/02/10 11:17:35	12.54	7.54	7.45	48668	31.71
19830-012	5	80	25	08/02/10 11:17:47	12.63	7.45	7.51	48694	31.74
19830-005	5	81	25	08/02/10 11:18:00	12.43	7.77	7.56	48549	31.62
19830-011	5	82	25	08/02/10 11:18:10	12.30	7.77	7.53	48596	31.65
19830-010	5	83	25	08/02/10 11:18:19	12.25	7.67	7.48	48675	31.71
19830-017	5	84	25	08/02/10 11:18:27	12.23	7.69	7.46	48621	31.67
19830-009	5	85	25	08/02/10 11:18:38	12.22	7.45	7.44	48718	31.74
19830-006	5	86	25	08/02/10 11:18:46	12.25	7.21	7.46	48773	31.78
19830-008	5	87	25	08/02/10 11:18:54	12.28	7.17	7.51	48678	31.71
19830-007	5	88	25	08/02/10 11:19:02	12.29	7.36	7.54	48692	31.72
19830-014	5	89	25	08/02/10 11:19:14	12.27	7.64	7.49	48732	31.75

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-015	5	90	25	08/02/10 11:19:21	12.28	7.68	7.49	48720	31.74
19830-005	6	91	25	08/02/10 11:19:30	12.29	7.70	7.58	48680	31.71
19830-007	6	92	25	08/02/10 11:19:37	12.31	7.77	7.60	48698	31.73
19830-002	6	93	25	08/02/10 11:19:46	12.36	7.84	7.54	48734	31.75
19830-009	6	94	25	08/02/10 11:19:56	12.42	7.76	7.50	48698	31.73
19830-013	6	95	25	08/02/10 11:20:04	12.45	7.49	7.49	48718	31.75
19830-004	6	96	25	08/02/10 11:20:12	12.52	7.35	7.48	48822	31.82
19830-012	6	97	25	08/02/10 11:20:30	12.33	7.72	7.53	48718	31.74
19830-015	6	98	25	08/02/10 11:20:38	12.28	7.90	7.57	48689	31.72
19830-014	6	99	25	08/02/10 11:20:48	12.20	7.89	7.60	48779	31.78
19830-003	6	100	25	08/02/10 11:20:58	12.20	7.91	7.59	48803	31.80
19830-010	6	101	25	08/02/10 11:21:06	12.20	7.92	7.58	48893	31.86
19830-000	6	102	25	08/02/10 11:21:15	12.19	8.02	7.58	48782	31.78
19830-016	6	103	25	08/02/10 11:21:23	12.18	8.08	7.58	48804	31.80
19830-001	6	104	25	08/02/10 11:21:30	12.17	8.09	7.63	48822	31.81
19830-017	6	105	25	08/02/10 11:21:39	12.14	8.11	7.65	48711	31.73
19830-008	6	106	25	08/02/10 11:21:47	12.11	8.16	7.67	48833	31.81
19830-011	6	107	25	08/02/10 11:21:54	12.14	8.22	7.72	48878	31.85
19830-006	6	108	25	08/02/10 11:22:05	12.28	8.14	7.65	48930	31.89
19830-015	7	109	25	08/02/10 11:22:13	12.40	8.08	7.61	49017	31.96
19830-017	7	110	25	08/02/10 11:22:21	12.54	8.02	7.60	48974	31.93
19830-003	7	111	25	08/02/10 11:22:30	12.67	7.96	7.56	48895	31.88
19830-008	7	112	25	08/02/10 11:22:41	12.75	7.91	7.60	48973	31.94
19830-006	7	113	25	08/02/10 11:22:56	12.64	8.09	7.60	48471	31.57
19830-012	7	114	25	08/02/10 11:23:06	12.56	8.09	7.57	48463	31.57
19830-004	7	115	25	08/02/10 11:23:18	12.45	8.02	7.55	48517	31.60
19830-011	7	116	25	08/02/10 11:23:27	12.39	8.01	7.55	48511	31.59
19830-014	7	117	25	08/02/10 11:23:35	12.36	7.90	7.60	48569	31.63
19830-005	7	118	25	08/02/10 11:23:43	12.34	7.87	7.60	48509	31.59
19830-001	7	119	25	08/02/10 11:23:51	12.31	7.94	7.57	48610	31.66
19830-000	7	120	25	08/02/10 11:23:59	12.33	7.94	7.56	48556	31.62
19830-009	7	121	25	08/02/10 11:24:10	12.24	8.01	7.53	48632	31.67
19830-010	7	122	25	08/02/10 11:24:17	12.19	7.98	7.49	48657	31.69
19830-007	7	123	25	08/02/10 11:24:25	12.21	7.78	7.46	48702	31.72
19830-002	7	124	25	08/02/10 11:24:33	12.25	7.65	7.45	48807	31.80
19830-013	7	125	25	08/02/10 11:24:40	12.28	7.62	7.43	48908	31.88
19830-016	7	126	25	08/02/10 11:24:49	12.42	7.59	7.44	48841	31.83
19830-017	8	127	25	08/02/10 11:25:01	12.61	7.55	7.43	48733	31.76
19830-013	8	128	25	08/02/10 11:25:09	12.70	7.48	7.44	48798	31.81
19830-010	8	129	25	08/02/10 11:25:24	12.67	7.70	7.57	48583	31.66
19830-007	8	130	25	08/02/10 11:25:33	12.64	7.77	7.57	48443	31.55
19830-011	8	131	25	08/02/10 11:25:43	12.55	7.73	7.47	48518	31.60
19830-002	8	132	25	08/02/10 11:25:52	12.46	7.27	7.40	48584	31.65
19830-004	8	133	25	08/02/10 11:26:02	12.44	6.69	7.39	48576	31.64
19830-003	8	134	25	08/02/10 11:26:10	12.44	6.72	7.42	48532	31.61
19830-005	8	135	25	08/02/10 11:26:20	12.40	7.07	7.40	48547	31.62
19830-012	8	136	25	08/02/10 11:26:29	12.36	7.04	7.40	48591	31.65
19830-006	8	137	25	08/02/10 11:26:37	12.30	7.00	7.44	48738	31.75
19830-001	8	138	25	08/02/10 11:26:44	12.29	7.10	7.50	48746	31.76
19830-014	8	139	25	08/02/10 11:26:52	12.30	7.27	7.49	48731	31.75
19830-000	8	140	25	08/02/10 11:27:01	12.36	7.19	7.45	48699	31.73
19830-009	8	141	25	08/02/10 11:27:09	12.41	7.22	7.49	48758	31.77
19830-008	8	142	25	08/02/10 11:27:18	12.46	7.48	7.56	48814	31.82
19830-015	8	143	25	08/02/10 11:27:27	12.55	7.67	7.60	48804	31.81

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-016	8	144	25	08/02/10 11:27:38	12.71	7.72	7.56	48797	31.81
19830-002	1	1	26	08/03/10 11:02:10	13.25	7.92	7.54	48340	31.50
19830-016	1	2	26	08/03/10 11:03:03	13.21	7.85	7.57	48225	31.42
19830-015	1	3	26	08/03/10 11:03:18	13.16	7.93	7.61	48319	31.48
19830-017	1	4	26	08/03/10 11:03:29	13.18	7.80	7.61	48324	31.49
19830-001	1	5	26	08/03/10 11:03:42	13.12	7.87	7.68	48293	31.46
19830-011	1	6	26	08/03/10 11:03:55	13.10	7.92	7.66	48339	31.50
19830-014	1	7	26	08/03/10 11:04:09	13.11	7.78	7.56	48353	31.51
19830-009	1	8	26	08/03/10 11:04:24	13.05	7.15	7.55	48285	31.46
19830-012	1	9	26	08/03/10 11:04:36	13.03	7.01	7.60	48359	31.51
19830-010	1	10	26	08/03/10 11:04:45	13.02	7.07	7.64	48321	31.48
19830-008	1	11	26	08/03/10 11:04:58	13.00	7.57	7.67	48335	31.49
19830-006	1	12	26	08/03/10 11:05:07	13.01	7.62	7.67	48315	31.48
19830-004	1	13	26	08/03/10 11:05:18	12.94	7.83	7.61	48312	31.47
19830-013	1	14	26	08/03/10 11:05:27	12.91	7.90	7.56	48328	31.48
19830-000	1	15	26	08/03/10 11:05:38	12.88	7.86	7.56	48330	31.48
19830-005	1	16	26	08/03/10 11:05:47	12.81	7.88	7.62	48318	31.47
19830-007	1	17	26	08/03/10 11:05:59	12.76	8.12	7.66	48347	31.49
19830-003	1	18	26	08/03/10 11:06:07	12.76	8.27	7.64	48412	31.54
19830-009	2	19	26	08/03/10 11:06:24	13.00	8.21	7.62	48437	31.56
19830-016	2	20	26	08/03/10 11:06:40	13.12	7.86	7.60	48341	31.50
19830-007	2	21	26	08/03/10 11:06:55	13.17	7.76	7.52	48291	31.46
19830-015	2	22	26	08/03/10 11:07:03	13.17	7.62	7.51	48396	31.54
19830-008	2	23	26	08/03/10 11:07:15	13.23	7.55	7.62	48292	31.47
19830-002	2	24	26	08/03/10 11:07:28	13.27	7.73	7.60	48298	31.47
19830-012	2	25	26	08/03/10 11:07:38	13.24	7.59	7.57	48233	31.43
19830-004	2	26	26	08/03/10 11:07:51	13.17	7.63	7.51	48246	31.43
19830-000	2	27	26	08/03/10 11:08:04	13.06	7.47	7.50	48260	31.44
19830-003	2	28	26	08/03/10 11:08:15	13.05	7.81	7.53	48208	31.40
19830-011	2	29	26	08/03/10 11:08:25	13.04	7.92	7.52	48287	31.46
19830-017	2	30	26	08/03/10 11:08:33	13.03	7.90	7.50	48300	31.47
19830-014	2	31	26	08/03/10 11:08:42	13.02	7.88	7.47	48298	31.46
19830-001	2	32	26	08/03/10 11:08:58	12.95	7.27	7.52	48297	31.46
19830-013	2	33	26	08/03/10 11:09:09	12.93	7.05	7.56	48324	31.48
19830-010	2	34	26	08/03/10 11:09:22	12.95	7.51	7.54	48314	31.47
19830-006	2	35	26	08/03/10 11:09:38	13.01	7.65	7.47	48404	31.54
19830-005	2	36	26	08/03/10 11:09:52	13.13	7.47	7.53	48346	31.50
19830-013	3	37	26	08/03/10 11:10:01	13.13	7.51	7.53	48309	31.48
19830-009	3	38	26	08/03/10 11:10:10	13.15	7.44	7.52	48359	31.51
19830-017	3	39	26	08/03/10 11:10:22	13.21	7.52	7.47	48325	31.49
19830-016	3	40	26	08/03/10 11:10:31	13.09	7.23	7.43	47953	31.22
19830-000	3	41	26	08/03/10 11:10:40	13.07	7.14	7.48	48352	31.50
19830-010	3	42	26	08/03/10 11:10:52	13.15	7.47	7.44	48304	31.47
19830-008	3	43	26	08/03/10 11:11:08	13.01	6.95	7.47	48312	31.47
19830-014	3	44	26	08/03/10 11:11:21	13.09	7.13	7.53	48338	31.50
19830-004	3	45	26	08/03/10 11:11:30	13.12	7.22	7.52	48302	31.47
19830-006	3	46	26	08/03/10 11:11:43	13.09	7.27	7.53	48267	31.44
19830-005	3	47	26	08/03/10 11:11:55	13.09	7.54	7.54	48261	31.44
19830-011	3	48	26	08/03/10 11:12:05	12.91	7.71	7.57	48178	31.37
19830-002	3	49	26	08/03/10 11:12:17	12.94	7.88	7.55	48393	31.53
19830-012	3	50	26	08/03/10 11:12:28	12.98	7.71	7.56	48279	31.45
19830-001	3	51	26	08/03/10 11:12:42	12.68	7.93	7.63	48248	31.41
19830-003	3	52	26	08/03/10 11:12:53	12.61	8.06	7.64	48396	31.52

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-007	3	53	26	08/03/10 11:13:04	12.65	8.18	7.62	48424	31.54
19830-015	3	54	26	08/03/10 11:13:13	12.67	8.15	7.61	48421	31.54
19830-006	4	55	26	08/03/10 11:13:27	12.64	8.25	7.75	48315	31.46
19830-011	4	56	26	08/03/10 11:14:12	12.59	8.13	7.76	48390	31.51
19830-012	4	57	26	08/03/10 11:14:19	12.58	8.02	7.75	48356	31.49
19830-010	4	58	26	08/03/10 11:14:29	12.50	8.11	7.74	48305	31.45
19830-015	4	59	26	08/03/10 11:14:43	12.31	8.37	7.72	48345	31.47
19830-009	4	60	26	08/03/10 11:14:52	12.28	8.32	7.72	48422	31.52
19830-001	4	61	26	08/03/10 11:15:04	12.32	8.27	7.71	48471	31.56
19830-016	4	62	26	08/03/10 11:15:15	12.48	8.13	7.65	48340	31.47
19830-008	4	63	26	08/03/10 11:15:24	12.62	8.06	7.63	48570	31.65
19830-004	4	64	26	08/03/10 11:15:38	12.81	7.91	7.56	48431	31.55
19830-007	4	65	26	08/03/10 11:15:49	12.68	7.68	7.52	48205	31.38
19830-014	4	66	26	08/03/10 11:15:57	12.64	7.75	7.53	48391	31.52
19830-000	4	67	26	08/03/10 11:16:09	12.65	7.67	7.53	48380	31.51
19830-017	4	68	26	08/03/10 11:16:18	12.68	7.69	7.52	48377	31.51
19830-013	4	69	26	08/03/10 11:16:30	12.74	7.65	7.53	48363	31.50
19830-002	4	70	26	08/03/10 11:16:36	12.75	7.72	7.57	48356	31.50
19830-005	4	71	26	08/03/10 11:16:44	12.75	7.82	7.60	48318	31.47
19830-003	4	72	26	08/03/10 11:16:54	12.66	7.97	7.60	48290	31.44
19830-016	5	73	26	08/03/10 11:17:03	12.63	8.11	7.57	48366	31.50
19830-003	5	74	26	08/03/10 11:17:13	12.69	7.95	7.50	48244	31.41
19830-000	5	75	26	08/03/10 11:17:23	12.80	7.73	7.49	48404	31.53
19830-013	5	76	26	08/03/10 11:17:33	12.89	7.71	7.52	48370	31.51
19830-001	5	77	26	08/03/10 11:17:43	12.94	7.73	7.55	47342	30.77
19830-002	5	78	26	08/03/10 11:17:55	13.00	7.80	7.54	48379	31.52
19830-004	5	79	26	08/03/10 11:18:05	13.03	7.69	7.52	48312	31.47
19830-012	5	80	26	08/03/10 11:18:13	13.02	7.67	7.55	48304	31.47
19830-005	5	81	26	08/03/10 11:18:26	12.75	7.98	7.62	48173	31.36
19830-011	5	82	26	08/03/10 11:18:34	12.69	7.99	7.60	48350	31.49
19830-010	5	83	26	08/03/10 11:18:43	12.65	7.92	7.59	48389	31.52
19830-017	5	84	26	08/03/10 11:18:53	12.72	7.93	7.55	48401	31.53
19830-009	5	85	26	08/03/10 11:19:01	12.74	7.76	7.50	48330	31.48
19830-006	5	86	26	08/03/10 11:19:13	12.70	7.33	7.48	48314	31.46
19830-008	5	87	26	08/03/10 11:19:22	12.74	7.41	7.55	48409	31.53
19830-007	5	88	26	08/03/10 11:19:33	12.71	7.75	7.57	48295	31.45
19830-014	5	89	26	08/03/10 11:19:43	12.62	7.90	7.56	48327	31.47
19830-015	5	90	26	08/03/10 11:19:50	12.62	7.97	7.59	48405	31.53
19830-005	6	91	26	08/03/10 11:19:56	12.67	8.01	7.62	48441	31.55
19830-007	6	92	26	08/03/10 11:20:03	12.72	8.05	7.65	48386	31.52
19830-002	6	93	26	08/03/10 11:20:09	12.77	8.08	7.62	48427	31.55
19830-009	6	94	26	08/03/10 11:20:16	12.83	8.08	7.60	48397	31.53
19830-013	6	95	26	08/03/10 11:20:25	12.88	7.89	7.55	48368	31.51
19830-004	6	96	26	08/03/10 11:20:34	12.89	7.79	7.54	48364	31.51
19830-012	6	97	26	08/03/10 11:20:47	12.66	7.91	7.57	48284	31.44
19830-015	6	98	26	08/03/10 11:20:56	12.56	8.11	7.60	48298	31.45
19830-014	6	99	26	08/03/10 11:21:06	12.47	8.13	7.63	48399	31.52
19830-003	6	100	26	08/03/10 11:21:18	12.45	8.15	7.64	48392	31.51
19830-010	6	101	26	08/03/10 11:21:26	12.40	8.22	7.63	48492	31.58
19830-000	6	102	26	08/03/10 11:21:35	12.43	8.31	7.65	48444	31.55
19830-016	6	103	26	08/03/10 11:21:46	12.43	8.38	7.64	48417	31.53
19830-001	6	104	26	08/03/10 11:21:54	12.40	8.36	7.67	48354	31.48
19830-017	6	105	26	08/03/10 11:22:03	12.30	8.38	7.68	48306	31.44
19830-008	6	106	26	08/03/10 11:22:10	12.25	8.41	7.68	48412	31.52

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-011	6	107	26	08/03/10 11:22:18	12.27	8.45	7.71	48540	31.61
19830-006	6	108	26	08/03/10 11:22:26	12.40	8.42	7.69	48607	31.66
19830-015	7	109	26	08/03/10 11:22:33	12.52	8.37	7.67	48681	31.72
19830-017	7	110	26	08/03/10 11:22:40	12.67	8.33	7.66	48642	31.70
19830-003	7	111	26	08/03/10 11:22:47	12.83	8.26	7.63	48540	31.63
19830-008	7	112	26	08/03/10 11:22:55	12.89	8.23	7.64	48559	31.65
19830-006	7	113	26	08/03/10 11:23:07	12.92	8.31	7.68	48093	31.31
19830-012	7	114	26	08/03/10 11:23:15	13.02	8.30	7.63	48366	31.51
19830-004	7	115	26	08/03/10 11:23:23	13.05	8.24	7.63	48285	31.46
19830-011	7	116	26	08/03/10 11:23:30	13.05	8.20	7.64	48300	31.47
19830-014	7	117	26	08/03/10 11:23:37	13.04	8.12	7.66	48240	31.42
19830-005	7	118	26	08/03/10 11:23:46	13.00	8.08	7.66	48230	31.41
19830-001	7	119	26	08/03/10 11:23:55	12.93	8.11	7.62	48174	31.37
19830-000	7	120	26	08/03/10 11:24:03	12.86	8.08	7.57	48217	31.40
19830-009	7	121	26	08/03/10 11:24:14	12.65	8.17	7.58	48206	31.38
19830-010	7	122	26	08/03/10 11:24:23	12.59	8.16	7.57	48380	31.51
19830-007	7	123	26	08/03/10 11:24:32	12.61	8.01	7.56	48347	31.48
19830-002	7	124	26	08/03/10 11:24:42	12.62	7.93	7.53	48432	31.55
19830-013	7	125	26	08/03/10 11:24:52	12.66	7.85	7.55	48456	31.57
19830-016	7	126	26	08/03/10 11:25:03	12.81	7.92	7.54	48475	31.58
19830-017	8	127	26	08/03/10 11:25:11	12.93	7.89	7.53	48455	31.57
19830-013	8	128	26	08/03/10 11:25:20	13.03	7.85	7.55	48402	31.54
19830-010	8	129	26	08/03/10 11:25:31	13.00	8.00	7.59	48425	31.56
19830-007	8	130	26	08/03/10 11:25:39	13.08	8.09	7.60	48175	31.38
19830-011	8	131	26	08/03/10 11:25:48	13.05	8.01	7.54	48239	31.42
19830-002	8	132	26	08/03/10 11:25:59	12.94	7.43	7.50	48264	31.44
19830-004	8	133	26	08/03/10 11:26:08	12.98	7.04	7.49	48399	31.54
19830-003	8	134	26	08/03/10 11:26:19	13.00	7.13	7.52	48318	31.48
19830-005	8	135	26	08/03/10 11:26:28	12.94	7.48	7.50	48220	31.40
19830-012	8	136	26	08/03/10 11:26:38	12.82	7.42	7.51	48184	31.37
19830-006	8	137	26	08/03/10 11:26:47	12.67	7.55	7.57	48302	31.45
19830-001	8	138	26	08/03/10 11:26:55	12.65	7.64	7.58	48394	31.52
19830-014	8	139	26	08/03/10 11:27:04	12.70	7.74	7.57	48420	31.54
19830-000	8	140	26	08/03/10 11:27:14	12.77	7.51	7.54	48367	31.50
19830-009	8	141	26	08/03/10 11:27:24	12.80	7.60	7.56	48375	31.51
19830-008	8	142	26	08/03/10 11:27:32	12.81	7.82	7.60	48410	31.54
19830-015	8	143	26	08/03/10 11:27:42	12.87	7.97	7.65	48444	31.56
19830-016	8	144	26	08/03/10 11:27:51	12.96	7.99	7.64	48442	31.57
19830-002	1	1	27	08/04/10 08:17:05	12.94	8.56	7.47	49304	32.19
19830-016	1	2	27	08/04/10 08:17:40	12.86	8.34	7.49	47492	30.87
19830-015	1	3	27	08/04/10 08:17:56	12.78	8.45	7.51	49306	32.19
19830-017	1	4	27	08/04/10 08:18:08	12.79	8.30	7.53	49313	32.19
19830-001	1	5	27	08/04/10 08:18:20	12.81	8.21	7.64	49360	32.23
19830-011	1	6	27	08/04/10 08:18:30	12.81	8.23	7.64	49215	32.12
19830-014	1	7	27	08/04/10 08:18:38	12.78	8.24	7.53	49268	32.16
19830-009	1	8	27	08/04/10 08:18:47	12.71	7.86	7.47	49305	32.18
19830-012	1	9	27	08/04/10 08:18:58	12.71	7.38	7.51	49388	32.24
19830-010	1	10	27	08/04/10 08:19:11	12.65	7.34	7.56	49297	32.17
19830-008	1	11	27	08/04/10 08:19:24	12.55	7.69	7.62	49316	32.18
19830-006	1	12	27	08/04/10 08:19:33	12.53	7.76	7.65	49310	32.18
19830-004	1	13	27	08/04/10 08:19:45	12.52	8.08	7.56	49340	32.20
19830-013	1	14	27	08/04/10 08:19:54	12.53	8.17	7.47	49313	32.18
19830-000	1	15	27	08/04/10 08:20:05	12.49	8.15	7.45	49313	32.18

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-005	1	16	27	08/04/10 08:20:14	12.47	8.18	7.56	49380	32.23
19830-007	1	17	27	08/04/10 08:20:24	12.45	8.36	7.61	49432	32.26
19830-003	1	18	27	08/04/10 08:20:33	12.48	8.52	7.56	49534	32.34
19830-009	2	19	27	08/04/10 08:20:59	12.70	8.25	7.55	49358	32.22
19830-016	2	20	27	08/04/10 08:21:07	12.71	8.11	7.53	49296	32.18
19830-007	2	21	27	08/04/10 08:21:15	12.72	8.04	7.49	49283	32.17
19830-015	2	22	27	08/04/10 08:21:22	12.73	7.96	7.46	49280	32.17
19830-008	2	23	27	08/04/10 08:21:33	12.74	7.86	7.58	49225	32.13
19830-002	2	24	27	08/04/10 08:21:41	12.73	7.97	7.60	49232	32.13
19830-012	2	25	27	08/04/10 08:21:51	12.69	8.00	7.53	49159	32.08
19830-004	2	26	27	08/04/10 08:22:01	12.68	7.98	7.46	49251	32.14
19830-000	2	27	27	08/04/10 08:22:12	12.62	7.79	7.43	49149	32.07
19830-003	2	28	27	08/04/10 08:22:22	12.54	7.98	7.47	48848	31.84
19830-011	2	29	27	08/04/10 08:22:30	12.52	8.16	7.49	49287	32.16
19830-017	2	30	27	08/04/10 08:22:37	12.52	8.21	7.45	49227	32.12
19830-014	2	31	27	08/04/10 08:22:43	12.50	8.20	7.41	49218	32.11
19830-001	2	32	27	08/04/10 08:22:51	12.45	8.03	7.38	49275	32.15
19830-013	2	33	27	08/04/10 08:23:02	12.44	7.49	7.42	49362	32.21
19830-010	2	34	27	08/04/10 08:23:11	12.48	7.62	7.45	49346	32.20
19830-006	2	35	27	08/04/10 08:23:27	12.57	8.09	7.41	49469	32.30
19830-005	2	36	27	08/04/10 08:23:37	12.62	7.98	7.43	49370	32.23
19830-013	3	37	27	08/04/10 08:23:47	12.60	7.83	7.44	49357	32.22
19830-009	3	38	27	08/04/10 08:23:58	12.66	7.60	7.44	49339	32.20
19830-017	3	39	27	08/04/10 08:24:15	12.73	7.27	7.28	49237	32.13
19830-016	3	40	27	08/04/10 08:24:31	12.62	6.27	7.25	49313	32.18
19830-000	3	41	27	08/04/10 08:24:45	12.57	6.83	7.43	49275	32.15
19830-010	3	42	27	08/04/10 08:24:55	12.59	7.66	7.42	49341	32.20
19830-008	3	43	27	08/04/10 08:25:08	12.59	7.60	7.37	49297	32.17
19830-014	3	44	27	08/04/10 08:25:19	12.59	7.39	7.40	49243	32.13
19830-004	3	45	27	08/04/10 08:25:30	12.57	7.35	7.35	49163	32.07
19830-006	3	46	27	08/04/10 08:25:40	12.56	7.32	7.35	49255	32.14
19830-005	3	47	27	08/04/10 08:25:50	12.56	7.51	7.43	49259	32.14
19830-011	3	48	27	08/04/10 08:25:58	12.45	7.74	7.48	49297	32.17
19830-002	3	49	27	08/04/10 08:26:06	12.40	7.92	7.48	49320	32.18
19830-012	3	50	27	08/04/10 08:26:13	12.46	7.95	7.43	49303	32.17
19830-001	3	51	27	08/04/10 08:27:39	12.85	8.41	7.65	48820	31.84
19830-003	3	52	27	08/04/10 08:27:51	12.42	8.46	7.67	49243	32.13
19830-007	3	53	27	08/04/10 08:28:00	12.34	8.59	7.61	49322	32.18
19830-015	3	54	27	08/04/10 08:28:09	12.31	8.61	7.62	49386	32.22
19830-006	4	55	27	08/04/10 08:28:18	12.28	8.62	7.74	49318	32.17
19830-011	4	56	27	08/04/10 08:28:27	12.19	8.75	7.78	49381	32.22
19830-012	4	57	27	08/04/10 08:28:35	12.11	8.80	7.75	49402	32.23
19830-010	4	58	27	08/04/10 08:28:45	12.06	8.80	7.75	49443	32.25
19830-015	4	59	27	08/04/10 08:28:53	12.02	8.81	7.73	49367	32.20
19830-009	4	60	27	08/04/10 08:29:01	11.95	8.78	7.71	49373	32.20
19830-001	4	61	27	08/04/10 08:29:09	11.95	8.73	7.70	49599	32.36
19830-016	4	62	27	08/04/10 08:29:17	12.03	8.65	7.65	49582	32.35
19830-008	4	63	27	08/04/10 08:29:29	12.25	8.45	7.60	49516	32.32
19830-004	4	64	27	08/04/10 08:29:40	12.42	8.34	7.52	49485	32.30
19830-007	4	65	27	08/04/10 08:29:54	12.30	8.10	7.45	49364	32.21
19830-014	4	66	27	08/04/10 08:30:12	12.22	8.06	7.45	49335	32.18
19830-000	4	67	27	08/04/10 08:30:20	12.20	7.93	7.45	49295	32.15
19830-017	4	68	27	08/04/10 08:30:28	12.18	7.93	7.43	49329	32.18
19830-013	4	69	27	08/04/10 08:30:35	12.17	7.92	7.41	49339	32.18

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	4	70	27	08/04/10 08:30:42	12.17	7.91	7.46	49369	32.21
19830-005	4	71	27	08/04/10 08:30:47	12.17	7.98	7.49	49333	32.18
19830-003	4	72	27	08/04/10 08:30:52	12.18	8.08	7.54	49386	32.22
19830-016	5	73	27	08/04/10 08:31:00	12.19	8.20	7.54	49332	32.18
19830-003	5	74	27	08/04/10 08:31:08	12.19	8.28	7.47	49315	32.17
19830-000	5	75	27	08/04/10 08:31:17	12.22	8.16	7.45	49313	32.17
19830-013	5	76	27	08/04/10 08:31:26	12.28	8.12	7.44	49327	32.18
19830-001	5	77	27	08/04/10 08:31:36	12.34	8.14	7.52	48160	31.34
19830-002	5	78	27	08/04/10 08:31:47	12.42	8.13	7.51	49168	32.07
19830-004	5	79	27	08/04/10 08:31:54	12.48	8.08	7.47	49348	32.20
19830-012	5	80	27	08/04/10 08:32:03	12.55	8.02	7.52	49413	32.25
19830-005	5	81	27	08/04/10 08:32:15	12.40	8.30	7.57	49231	32.12
19830-011	5	82	27	08/04/10 08:32:24	12.25	8.37	7.54	49291	32.15
19830-010	5	83	27	08/04/10 08:32:34	12.18	8.25	7.53	49362	32.20
19830-017	5	84	27	08/04/10 08:32:43	12.14	8.30	7.50	49332	32.18
19830-009	5	85	27	08/04/10 08:32:52	12.16	8.10	7.39	49392	32.22
19830-006	5	86	27	08/04/10 08:33:05	12.21	7.49	7.40	49393	32.22
19830-008	5	87	27	08/04/10 08:33:14	12.23	7.60	7.51	49352	32.20
19830-007	5	88	27	08/04/10 08:33:21	12.24	7.85	7.56	49420	32.25
19830-014	5	89	27	08/04/10 08:33:29	12.23	8.09	7.53	49398	32.23
19830-015	5	90	27	08/04/10 08:33:36	12.22	8.22	7.54	49381	32.22
19830-005	6	91	27	08/04/10 08:33:42	12.22	8.31	7.58	49384	32.22
19830-007	6	92	27	08/04/10 08:33:49	12.24	8.38	7.62	49402	32.23
19830-002	6	93	27	08/04/10 08:33:56	12.28	8.43	7.57	49456	32.27
19830-009	6	94	27	08/04/10 08:34:03	12.33	8.42	7.55	49431	32.26
19830-013	6	95	27	08/04/10 08:34:10	12.37	8.30	7.51	49426	32.26
19830-004	6	96	27	08/04/10 08:34:15	12.41	8.15	7.50	49567	32.36
19830-012	6	97	27	08/04/10 08:39:25	12.35	8.50	7.61	49280	32.15
19830-015	6	98	27	08/04/10 08:39:32	12.30	8.43	7.61	49286	32.15
19830-014	6	99	27	08/04/10 08:39:41	12.19	8.38	7.64	49393	32.22
19830-003	6	100	27	08/04/10 08:39:53	12.15	8.46	7.64	49492	32.29
19830-010	6	101	27	08/04/10 08:40:13	12.15	8.73	7.73	49178	32.07
19830-000	6	102	27	08/04/10 08:40:20	12.14	8.85	7.70	49449	32.26
19830-016	6	103	27	08/04/10 08:40:29	12.10	8.88	7.65	49531	32.32
19830-001	6	104	27	08/04/10 08:40:37	12.12	8.75	7.70	49546	32.33
19830-017	6	105	27	08/04/10 08:40:46	12.09	8.70	7.70	49405	32.23
19830-008	6	106	27	08/04/10 08:40:55	12.07	8.72	7.73	49456	32.26
19830-011	6	107	27	08/04/10 08:41:02	12.09	8.77	7.75	49497	32.29
19830-006	6	108	27	08/04/10 08:41:10	12.19	8.76	7.71	49595	32.37
19830-015	7	109	27	08/04/10 08:41:19	12.33	8.70	7.67	49640	32.41
19830-017	7	110	27	08/04/10 08:41:25	12.42	8.64	7.64	49668	32.43
19830-003	7	111	27	08/04/10 08:41:33	12.54	8.53	7.60	49627	32.41
19830-008	7	112	27	08/04/10 08:41:42	12.66	8.46	7.65	49614	32.41
19830-006	7	113	27	08/04/10 08:41:52	12.57	8.59	7.68	49245	32.13
19830-012	7	114	27	08/04/10 08:42:00	12.52	8.67	7.63	49152	32.06
19830-004	7	115	27	08/04/10 08:42:12	12.41	8.64	7.62	49191	32.09
19830-011	7	116	27	08/04/10 08:42:27	12.33	8.52	7.62	49218	32.10
19830-014	7	117	27	08/04/10 08:42:42	12.29	8.34	7.67	47856	31.12
19830-005	7	118	27	08/04/10 08:42:52	12.28	8.47	7.65	49231	32.11
19830-001	7	119	27	08/04/10 08:43:00	12.28	8.52	7.62	49214	32.10
19830-000	7	120	27	08/04/10 08:43:06	12.28	8.50	7.61	49232	32.11
19830-009	7	121	27	08/04/10 08:43:14	12.19	8.57	7.60	49277	32.14
19830-010	7	122	27	08/04/10 08:43:21	12.13	8.62	7.57	49316	32.17
19830-007	7	123	27	08/04/10 08:43:30	12.13	8.47	7.51	49394	32.22

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-002	7	124	27	08/04/10 08:43:40	12.18	8.33	7.49	49474	32.28
19830-013	7	125	27	08/04/10 08:43:48	12.23	8.23	7.50	49499	32.30
19830-016	7	126	27	08/04/10 08:43:57	12.36	8.23	7.51	49497	32.31
19830-017	8	127	27	08/04/10 08:44:06	12.50	8.18	7.48	49439	32.27
19830-013	8	128	27	08/04/10 08:44:14	12.60	8.09	7.49	49498	32.32
19830-010	8	129	27	08/04/10 08:44:24	12.62	8.18	7.57	48507	31.60
19830-007	8	130	27	08/04/10 08:44:33	12.60	8.29	7.53	49151	32.07
19830-011	8	131	27	08/04/10 08:44:40	12.53	8.22	7.45	49162	32.07
19830-002	8	132	27	08/04/10 08:44:54	12.38	7.53	7.40	49319	32.18
19830-004	8	133	27	08/04/10 08:45:02	12.38	7.21	7.40	49277	32.15
19830-003	8	134	27	08/04/10 08:45:10	12.38	7.22	7.41	49248	32.13
19830-005	8	135	27	08/04/10 08:45:18	12.36	7.53	7.42	49247	32.13
19830-012	8	136	27	08/04/10 08:45:27	12.29	7.60	7.44	49352	32.20
19830-006	8	137	27	08/04/10 08:45:34	12.24	7.61	7.51	49440	32.26
19830-001	8	138	27	08/04/10 08:45:41	12.23	7.75	7.54	49437	32.26
19830-014	8	139	27	08/04/10 08:45:47	12.23	7.86	7.56	49391	32.22
19830-000	8	140	27	08/04/10 08:45:52	12.26	7.92	7.51	49419	32.25
19830-009	8	141	27	08/04/10 08:45:59	12.30	7.89	7.52	49505	32.31
19830-008	8	142	27	08/04/10 08:46:07	12.38	8.02	7.58	49509	32.32
19830-015	8	143	27	08/04/10 08:46:14	12.44	8.17	7.63	49567	32.36
19830-016	8	144	27	08/04/10 08:46:23	12.59	8.30	7.61	49505	32.32
19830-002	1	1	28	08/05/10 08:26:06	13.09	9.77	7.49	48932	31.93
19830-016	1	2	28	08/05/10 08:27:24	12.95	9.07	7.52	40372	25.79
19830-015	1	3	28	08/05/10 08:28:03	12.86	8.02	7.57	49061	32.01
19830-017	1	4	28	08/05/10 08:28:21	12.88	7.88	7.55	49063	32.01
19830-001	1	5	28	08/05/10 08:28:38	12.88	7.92	7.64	49103	32.04
19830-011	1	6	28	08/05/10 08:29:14	12.86	7.78	7.52	48947	31.93
19830-014	1	7	28	08/05/10 08:30:12	12.82	5.56	7.23	49077	32.02
19830-009	1	8	28	08/05/10 08:30:54	12.74	6.50	7.40	48543	31.63
19830-012	1	9	28	08/05/10 08:31:16	12.76	6.71	7.41	49022	31.98
19830-010	1	10	28	08/05/10 08:31:38	12.65	7.16	7.46	48983	31.95
19830-008	1	11	28	08/05/10 08:31:55	12.56	7.45	7.56	49099	32.03
19830-006	1	12	28	08/05/10 08:32:22	12.51	7.95	7.62	49098	32.02
19830-004	1	13	28	08/05/10 08:32:48	12.53	7.91	7.43	49082	32.01
19830-013	1	14	28	08/05/10 08:33:09	12.54	7.59	7.40	49077	32.01
19830-000	1	15	28	08/05/10 08:33:26	12.53	7.68	7.42	49091	32.02
19830-005	1	16	28	08/05/10 08:34:00	12.50	8.21	7.69	49154	32.06
19830-007	1	17	28	08/05/10 08:34:15	12.49	8.31	7.64	49228	32.12
19830-003	1	18	28	08/05/10 08:34:42	12.60	8.10	7.52	49177	32.09
19830-009	2	19	28	08/05/10 08:35:49	12.88	7.72	7.56	49052	32.01
19830-016	2	20	28	08/05/10 08:36:13	12.83	7.58	7.53	49058	32.01
19830-007	2	21	28	08/05/10 08:36:33	12.84	7.45	7.45	49048	32.00
19830-015	2	22	28	08/05/10 08:36:51	12.84	7.39	7.46	49042	32.00
19830-008	2	23	28	08/05/10 08:37:15	12.82	7.62	7.69	48825	31.84
19830-002	2	24	28	08/05/10 08:37:40	12.78	7.52	7.49	49038	31.99
19830-012	2	25	28	08/05/10 08:37:57	12.72	7.30	7.45	49006	31.97
19830-004	2	26	28	08/05/10 08:38:14	12.73	7.25	7.42	49042	31.99
19830-000	2	27	28	08/05/10 08:38:41	12.59	7.77	7.52	49025	31.97
19830-003	2	28	28	08/05/10 08:39:03	12.54	8.02	7.51	48565	31.64
19830-011	2	29	28	08/05/10 08:39:33	12.58	7.72	7.51	49061	32.00
19830-017	2	30	28	08/05/10 08:39:55	12.55	7.60	7.42	49044	31.99
19830-014	2	31	28	08/05/10 08:40:23	12.49	7.00	7.34	49064	32.00
19830-001	2	32	28	08/05/10 08:40:55	12.46	6.42	7.47	49084	32.01

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-013	2	33	28	08/05/10 08:41:34	12.48	7.67	7.51	49122	32.04
19830-010	2	34	28	08/05/10 08:41:55	12.55	7.77	7.48	49072	32.01
19830-006	2	35	28	08/05/10 08:42:48	12.81	6.77	7.37	49092	32.03
19830-005	2	36	28	08/05/10 08:43:10	12.79	6.99	7.53	49092	32.03
19830-013	3	37	28	08/05/10 08:43:29	12.71	7.27	7.46	49094	32.03
19830-009	3	38	28	08/05/10 08:43:49	12.77	7.28	7.49	49075	32.02
19830-017	3	39	28	08/05/10 08:44:13	12.83	6.71	7.29	49021	31.98
19830-016	3	40	28	08/05/10 08:44:40	12.64	6.47	7.28	49149	32.07
19830-000	3	41	28	08/05/10 08:45:06	12.65	7.61	7.53	49086	32.02
19830-010	3	42	28	08/05/10 08:45:33	12.73	7.35	7.41	49041	31.99
19830-008	3	43	28	08/05/10 08:46:32	12.68	6.78	7.44	48986	31.95
19830-014	3	44	28	08/05/10 08:46:57	12.65	7.01	7.49	49044	31.99
19830-004	3	45	28	08/05/10 08:47:17	12.63	7.18	7.38	48988	31.95
19830-006	3	46	28	08/05/10 08:47:38	12.63	7.13	7.45	49070	32.01
19830-005	3	47	28	08/05/10 08:47:57	12.61	7.48	7.53	49077	32.01
19830-011	3	48	28	08/05/10 08:48:41	12.33	7.97	7.59	49293	32.16
19830-002	3	49	28	08/05/10 08:48:56	12.43	8.01	7.50	49141	32.05
19830-012	3	50	28	08/05/10 08:49:14	12.59	7.59	7.50	48876	31.87
19830-001	3	51	28	08/05/10 08:49:49	12.30	8.18	7.60	49209	32.10
19830-003	3	52	28	08/05/10 08:50:06	12.29	8.10	7.61	49158	32.06
19830-007	3	53	28	08/05/10 08:50:30	12.31	8.05	7.49	49111	32.02
19830-015	3	54	28	08/05/10 08:50:46	12.29	7.89	7.58	49157	32.06
19830-006	4	55	28	08/05/10 08:51:13	12.22	8.20	7.66	49139	32.04
19830-011	4	56	28	08/05/10 08:51:37	12.13	8.14	7.63	49159	32.05
19830-012	4	57	28	08/05/10 08:52:12	12.08	8.44	7.68	49155	32.05
19830-010	4	58	28	08/05/10 08:52:30	12.04	8.48	7.68	49212	32.09
19830-015	4	59	28	08/05/10 08:52:46	11.97	8.44	7.65	49212	32.08
19830-009	4	60	28	08/05/10 08:53:07	11.92	8.23	7.65	49234	32.10
19830-001	4	61	28	08/05/10 08:53:35	12.00	7.93	7.57	49268	32.13
19830-016	4	62	28	08/05/10 08:53:59	12.19	7.67	7.45	49177	32.07
19830-008	4	63	28	08/05/10 08:54:25	12.36	7.58	7.53	49163	32.06
19830-004	4	64	28	08/05/10 08:54:56	12.50	7.03	7.32	49153	32.06
19830-007	4	65	28	08/05/10 08:57:02	12.31	7.76	7.46	49154	32.06
19830-014	4	66	28	08/05/10 08:57:26	12.25	7.38	7.39	49131	32.04
19830-000	4	67	28	08/05/10 08:57:51	12.23	7.38	7.45	49110	32.02
19830-017	4	68	28	08/05/10 08:58:16	12.21	7.41	7.37	49124	32.03
19830-013	4	69	28	08/05/10 08:58:45	12.22	7.56	7.52	49120	32.03
19830-002	4	70	28	08/05/10 08:59:06	12.22	7.84	7.58	49150	32.05
19830-005	4	71	28	08/05/10 08:59:23	12.23	7.88	7.59	49110	32.02
19830-003	4	72	28	08/05/10 08:59:46	12.24	7.87	7.57	49111	32.02
19830-016	5	73	28	08/05/10 09:00:04	12.23	7.92	7.51	49129	32.03
19830-003	5	74	28	08/05/10 09:00:27	12.23	7.52	7.44	49098	32.01
19830-000	5	75	28	08/05/10 09:00:53	12.29	7.48	7.47	49079	32.00
19830-013	5	76	28	08/05/10 09:01:26	12.34	7.53	7.42	49066	31.99
19830-001	5	77	28	08/05/10 09:02:04	12.39	7.93	7.67	48744	31.76
19830-002	5	78	28	08/05/10 09:02:32	12.47	7.54	7.43	49053	31.99
19830-004	5	79	28	08/05/10 09:03:02	12.53	7.46	7.46	49056	31.99
19830-012	5	80	28	08/05/10 09:03:28	12.60	7.90	7.65	49123	32.05
19830-005	5	81	28	08/05/10 09:03:59	12.32	8.02	7.61	49147	32.05
19830-011	5	82	28	08/05/10 09:04:26	12.23	7.66	7.52	49136	32.04
19830-010	5	83	28	08/05/10 09:04:47	12.20	7.83	7.61	49202	32.09
19830-017	5	84	28	08/05/10 09:05:04	12.20	7.86	7.49	49008	31.95
19830-009	5	85	28	08/05/10 09:05:28	12.23	6.95	7.40	49151	32.05
19830-006	5	86	28	08/05/10 09:05:58	12.28	7.25	7.49	49136	32.04

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-008	5	87	28	08/05/10 09:06:17	12.29	7.74	7.64	49141	32.05
19830-007	5	88	28	08/05/10 09:06:38	12.29	7.89	7.55	49072	32.00
19830-014	5	89	28	08/05/10 09:07:03	12.22	8.17	7.57	49201	32.09
19830-015	5	90	28	08/05/10 09:07:21	12.23	8.12	7.59	49198	32.08
19830-005	6	91	28	08/05/10 09:07:36	12.26	8.04	7.70	49172	32.07
19830-007	6	92	28	08/05/10 09:07:54	12.30	8.07	7.62	49177	32.07
19830-002	6	93	28	08/05/10 09:08:15	12.36	7.87	7.59	49169	32.07
19830-009	6	94	28	08/05/10 09:08:42	12.41	7.50	7.51	49132	32.04
19830-013	6	95	28	08/05/10 09:09:03	12.45	7.44	7.44	49080	32.01
19830-004	6	96	28	08/05/10 09:09:25	12.50	7.65	7.49	49221	32.11
19830-012	6	97	28	08/05/10 09:09:50	12.33	7.92	7.56	48827	31.82
19830-015	6	98	28	08/05/10 09:10:09	12.19	7.93	7.61	49201	32.09
19830-014	6	99	28	08/05/10 09:10:28	12.15	7.92	7.63	49228	32.10
19830-003	6	100	28	08/05/10 09:10:41	12.15	8.03	7.63	49246	32.12
19830-010	6	101	28	08/05/10 09:10:56	12.13	8.17	7.67	49330	32.18
19830-000	6	102	28	08/05/10 09:11:13	12.13	8.38	7.62	49244	32.11
19830-016	6	103	28	08/05/10 09:11:30	12.11	8.29	7.60	49261	32.12
19830-001	6	104	28	08/05/10 09:11:42	12.13	8.18	7.65	49296	32.15
19830-017	6	105	28	08/05/10 09:12:02	12.08	8.25	7.60	49178	32.06
19830-008	6	106	28	08/05/10 09:12:15	12.07	8.31	7.64	49241	32.11
19830-011	6	107	28	08/05/10 09:12:27	12.12	8.34	7.64	49252	32.12
19830-006	6	108	28	08/05/10 09:12:41	12.26	8.17	7.64	49309	32.17
19830-015	7	109	28	08/05/10 09:13:07	12.46	8.03	7.62	49264	32.14
19830-017	7	110	28	08/05/10 09:13:23	12.56	7.90	7.60	49270	32.15
19830-003	7	111	28	08/05/10 09:13:40	12.65	8.00	7.58	49274	32.16
19830-008	7	112	28	08/05/10 09:13:52	12.71	7.92	7.64	49331	32.20
19830-006	7	113	28	08/05/10 09:16:15	12.67	8.42	7.66	48861	31.86
19830-012	7	114	28	08/05/10 09:16:31	12.53	8.22	7.65	48981	31.94
19830-004	7	115	28	08/05/10 09:16:47	12.43	8.17	7.62	49040	31.98
19830-011	7	116	28	08/05/10 09:17:08	12.38	7.99	7.58	49034	31.97
19830-014	7	117	28	08/05/10 09:17:48	12.33	8.26	7.68	48785	31.79
19830-005	7	118	28	08/05/10 09:18:02	12.33	8.29	7.64	49013	31.95
19830-001	7	119	28	08/05/10 09:18:13	12.32	8.13	7.62	48992	31.94
19830-000	7	120	28	08/05/10 09:18:27	12.32	8.04	7.64	49045	31.98
19830-009	7	121	28	08/05/10 09:18:48	12.18	8.19	7.59	49138	32.04
19830-010	7	122	28	08/05/10 09:19:03	12.14	7.97	7.57	49164	32.06
19830-007	7	123	28	08/05/10 09:19:22	12.19	7.72	7.51	49173	32.06
19830-002	7	124	28	08/05/10 09:19:42	12.25	7.60	7.50	49192	32.08
19830-013	7	125	28	08/05/10 09:20:03	12.32	7.74	7.54	49247	32.12
19830-016	7	126	28	08/05/10 09:20:20	12.45	7.85	7.55	49168	32.07
19830-017	8	127	28	08/05/10 09:20:38	12.59	7.68	7.50	49153	32.07
19830-013	8	128	28	08/05/10 09:20:50	12.69	7.61	7.55	49199	32.10
19830-010	8	129	28	08/05/10 09:21:11	12.69	7.86	7.62	49082	32.02
19830-007	8	130	28	08/05/10 09:21:26	12.64	7.67	7.52	48993	31.95
19830-011	8	131	28	08/05/10 09:21:42	12.54	7.08	7.39	49023	31.97
19830-002	8	132	28	08/05/10 09:21:56	12.44	6.58	7.41	49096	32.02
19830-004	8	133	28	08/05/10 09:22:11	12.43	6.60	7.44	49087	32.01
19830-003	8	134	28	08/05/10 09:22:27	12.43	7.24	7.53	49083	32.01
19830-005	8	135	28	08/05/10 09:22:41	12.39	7.56	7.45	49083	32.01
19830-012	8	136	28	08/05/10 09:22:52	12.36	7.04	7.50	49109	32.03
19830-006	8	137	28	08/05/10 09:23:07	12.28	7.32	7.54	49204	32.09
19830-001	8	138	28	08/05/10 09:23:21	12.26	7.48	7.60	49237	32.11
19830-014	8	139	28	08/05/10 09:23:38	12.28	7.60	7.51	49174	32.07
19830-000	8	140	28	08/05/10 09:23:53	12.34	7.15	7.55	49156	32.06

Sample Code	Replicate	Position	Day	DateTime M/D/Y	Temp C	DO Conc mg/L	pH SU	SpCond uS/cm	Salinity ppt
19830-009	8	141	28	08/05/10 09:24:16	12.40	7.94	7.62	49181	32.08
19830-008	8	142	28	08/05/10 09:24:35	12.45	8.05	7.66	49238	32.12
19830-015	8	143	28	08/05/10 09:24:46	12.50	8.08	7.69	49285	32.16
19830-016	8	144	28	08/05/10 09:25:03	12.68	7.92	7.64	49186	32.10

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Start Date: 01 Jul-10 12:00 **Species:** Nereis virens **Sample Code:** 19830-000
End Date: **Protocol:** ASTM E 1688 (2000a) **Sample Source:** Gowanus Canal Superfund Site
Sample Date: 25 Jun-10 12:00 **Material:** Marine Sediment **Sample Station:** Laboratory Control; 19830-000

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm
19830-009	1	1	10	10	25.64	0	10	
19830-001	1	2	10	10	27.12	0	10	
19830-017	1	3	10	8	22.84	0	8	
19830-007	1	4	10	5	13.27	0	5	
19830-002	1	5	10	10	27.6	0	10	
19830-006	1	6	10	9	24.73	0	9	
19830-000	1	7	10	10	26.37	0	10	
19830-004	1	8	11	11	27.9	0	11	
19830-016	1	9	10	8	19.35	0	8	
19830-003	1	10	10	9	27.15	0	9	
19830-010	1	11	10	9	24.81	0	9	
19830-014	1	12	10	10	21.74	0	10	
19830-011	1	13	10	10	23.53	0	10	
19830-012	1	14	10	9	22.82	0	9	
19830-005	1	15	10	4	14.31	0	4	
19830-013	1	16	10	9	29.29	0	9	
19830-008	1	17	10	10	30.04	0	10	
19830-015	1	18	10	10	20.96	0	10	
19830-003	2	19	10	8	32.75	0	8	
19830-013	2	20	10	10	24.43	0	10	
19830-012	2	21	10	9	27.18	0	9	
19830-005	2	22	10	8	26.82	0	8	
19830-002	2	23	10	8	31.8	0	8	
19830-017	2	24	10	8	33.95	0	8	
19830-008	2	25	10	8	26.08	0	8	
19830-009	2	26	10	8	19.45	0	8	
19830-000	2	27	10	10	36.15	0	10	
19830-016	2	28	10	10	27.81	0	10	
19830-015	2	29	10	10	30.94	0	10	
19830-014	2	30	10	8	24.28	0	8	
19830-010	2	31	10	9	30.7	0	9	
19830-004	2	32	10	9	29.4	0	9	
19830-007	2	33	10	8	20	0	8	
19830-011	2	34	10	9	26.53	0	9	
19830-006	2	35	10	5	17.17	0	5	
19830-001	2	36	10	7	30.49	0	7	
19830-013	3	37	10	8	26.65	0	8	
19830-009	3	38	11	11	34.93	0	11	
19830-011	3	39	10	8	29.43	0	8	
19830-000	3	40	10	9	26.97	0	9	
19830-004	3	41	10	10	33.9	0	10	
19830-006	3	42	10	8	23.4	0	8	
19830-015	3	43	10	10	31.8	0	10	
19830-012	3	44	10	9	17.77	0	9	
19830-001	3	45	10	9	27.82	0	9	
19830-003	3	46	10	9	24.78	0	9	
19830-016	3	47	10	8	23.4	0	8	

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm
19830-007	3	48	10	9	21.31	0	9	
19830-017	3	49	10	9	33.85	0	9	
19830-005	3	50	10	8	28.69	0	8	
19830-008	3	51	10	9	27.47	0	9	
19830-014	3	52	10	8	26.73	0	8	
19830-002	3	53	10	10	44.08	0	10	
19830-010	3	54	10	7	25.78	0	7	
19830-006	4	55	10	7	17.07	0	7	
19830-004	4	56	10	8	27.49	0	8	
19830-014	4	57	10	10	35.14	0	10	
19830-017	4	58	10	8	26.32	0	8	
19830-010	4	59	10	9	31.43	0	9	
19830-005	4	60	10	4	13.95	0	4	
19830-008	4	61	10	8	36.27	0	8	
19830-012	4	62	10	10	26.64	0	10	
19830-011	4	63	10	10	32.71	0	10	
19830-000	4	64	10	10	30.86	0	10	
19830-013	4	65	10	9	28.53	0	9	
19830-007	4	66	10	9	22.46	0	9	
19830-015	4	67	10	10	32.05	0	10	
19830-001	4	68	10	8	31.15	0	8	
19830-009	4	69	10	10	36.66	0	10	
19830-002	4	70	10	10	30.92	0	10	
19830-016	4	71	10	8	24.84	0	8	
19830-003	4	72	10	9	28.31	0	9	
19830-017	5	73	10	9	30.35	0	9	
19830-001	5	74	10	9	24.62	0	9	
19830-005	5	75	10	6	11.82	0	6	
19830-006	5	76	10	9	27.89	0	9	
19830-011	5	77	10	9	28.77	0	9	
19830-003	5	78	10	8	31.81	0	8	
19830-008	5	79	10	10	27.38	0	10	
19830-010	5	80	10	8	28.47	0	8	
19830-004	5	81	10	9	35.94	0	9	
19830-000	5	82	10	10	29.2	0	10	
19830-015	5	83	10	10	27.8	0	10	
19830-009	5	84	10	9	33.18	0	9	
19830-007	5	85	10	7	14.21	0	7	
19830-012	5	86	10	9	28.01	0	9	
19830-016	5	87	10	8	25.92	0	8	
19830-014	5	88	10	9	28.09	0	9	
19830-002	5	89	10	10	33.8	0	10	
19830-013	5	90	10	8	33.49	0	8	
19830-011	6	91	10	8	22.83	0	8	
19830-010	6	92	10	8	25.74	0	8	
19830-015	6	93	10	10	27.14	0	10	
19830-002	6	94	10	10	32.93	0	10	
19830-004	6	95	10	7	21.19	0	7	
19830-001	6	96	10	9	17.73	0	9	
19830-000	6	97	10	9	24.08	0	9	
19830-012	6	98	10	7	19.6	0	7	
19830-008	6	99	10	7	20.48	0	7	

Sample Code	Rep	Pos	# Exposed	# Survived	Total Weight-mg	Tare Weight-mg	Pan Count	Mean Length-mm
19830-006	6	100	10	7	21.69	0	7	
19830-016	6	101	10	10	31.75	0	10	
19830-007	6	102	10	8	20.78	0	8	
19830-013	6	103	10	7	19.84	0	7	
19830-017	6	104	10	9	23.17	0	9	
19830-014	6	105	12	12	34.47	0	12	
19830-005	6	106	10	5	13.81	0	5	
19830-009	6	107	10	8	22.47	0	8	
19830-003	6	108	10	10	28.9	0	10	
19830-014	7	109	10	9	23.7	0	9	
19830-004	7	110	10	5	12.47	0	5	
19830-002	7	111	10	9	27.47	0	9	
19830-016	7	112	10	9	26.18	0	9	
19830-012	7	113	10	7	17.45	0	7	
19830-006	7	114	10	7	21.2	0	7	
19830-011	7	115	10	10	20.06	0	10	
19830-015	7	116	10	10	26.38	0	10	
19830-000	7	117	11	11	33.45	0	11	
19830-007	7	118	10	5	13.74	0	5	
19830-009	7	119	10	7	21.05	0	7	
19830-008	7	120	10	9	20.48	0	9	
19830-005	7	121	10	5	13.95	0	5	
19830-003	7	122	10	9	28.02	0	9	
19830-001	7	123	10	10	30.35	0	10	
19830-010	7	124	10	10	29.77	0	10	
19830-017	7	125	10	8	21.66	0	8	
19830-013	7	126	10	10	30.79	0	10	
19830-015	8	127	10	8	23.88	0	8	
19830-012	8	128	10	8	20.6	0	8	
19830-010	8	129	10	8	23.81	0	8	
19830-014	8	130	10	10	24.39	0	10	
19830-016	8	131	10	8	23.48	0	8	
19830-007	8	132	10	6	17.16	0	6	
19830-005	8	133	10	9	27.01	0	9	
19830-009	8	134	10	8	24.9	0	8	
19830-004	8	135	10	10	25.95	0	10	
19830-000	8	136	10	10	22.89	0	10	
19830-002	8	137	10	8	28.4	0	8	
19830-001	8	138	10	8	24.18	0	8	
19830-006	8	139	10	8	25.62	0	8	
19830-003	8	140	10	6	20.05	0	6	
19830-011	8	141	10	6	22.12	0	6	
19830-013	8	142	10	9	32.15	0	9	
19830-008	8	143	10	7	18.36	0	7	
19830-017	8	144	10	8	21.34	0	8	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-002	1	1	10	10	27.60	JTP
19830-016	1	2	8	8	19.35	
19830-015	1	3	10	10	20.96	
19830-017	1	4	8	8	22.84	
19830-001	1	5	10	10	27.12	
19830-011	1	6	10	10	23.53	
19830-014	1	7	10	10	21.74	
19830-009	1	8	10	10	25.64	
19830-012	1	9	9	9	22.82	
19830-010	1	10	9	9	24.81	
19830-008	1	11	10	10	30.04	
19830-006	1	12	9	9	24.73	
19830-004	1	13	11	11	27.90	
19830-013	1	14	9	9	29.29	
19830-000	1	15	10	10	26.37	
19830-005	1	16	4	4	14.31	
19830-007	1	17	5	5	13.27	
19830-003	1	18	9	9	27.15	
19830-009	2	19	8	8	19.45	
19830-016	2	20	10	10	27.81	
19830-007	2	21	8	8	20.00	
19830-015	2	22	10	10	30.94	
19830-008	2	23	8	8	26.08	
19830-002	2	24	8	8	31.80	
19830-012	2	25	9	9	27.18	
19830-004	2	26	9	9	29.40	
19830-000	2	27	10	10	36.15	
19830-003	2	28	8	8	32.75	
19830-011	2	29	9	9	26.53	
19830-017	2	30	8	8	33.95	
19830-014	2	31	8	8	24.28	
19830-001	2	32	7	7	30.49	
19830-013	2	33	10	10	24.43	
19830-010	2	34	9	9	30.70	
19830-006	2	35	5	5	17.17	
19830-005	2	36	8	8	26.82	
19830-013	3	37	8	8	26.65	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-009	3	38	11	11	34.93	JTP
19830-017	3	39	9	9	33.85	
19830-016	3	40	8	8	23.40	
19830-000	3	41	9	9	26.97	
19830-010	3	42	7	7	25.78	
19830-008	3	43	9	9	27.47	
19830-014	3	44	8	8	26.73	
19830-004	3	45	10	10	33.90	
19830-006	3	46	8	8	23.40	
19830-005	3	47	8	8	28.69	
19830-011	3	48	8	8	29.43	
19830-002	3	49	10	10	44.08	
19830-012	3	50	9	9	17.77	
19830-001	3	51	9	9	27.82	
19830-003	3	52	9	9	24.78	
19830-007	3	53	9	9	21.31	
19830-015	3	54	10	10	31.80	
19830-006	4	55	7	7	17.07	
19830-011	4	56	10	10	32.71	
19830-012	4	57	10	10	26.64	
19830-010	4	58	9	9	31.43	
19830-015	4	59	10	10	32.05	
19830-009	4	60	10	10	36.66	
19830-001	4	61	8	8	31.15	
19830-016	4	62	8	8	24.84	
19830-008	4	63	8	8	36.27	
19830-004	4	64	8	8	27.49	
19830-007	4	65	9	9	22.46	
19830-014	4	66	10	10	35.14	
19830-000	4	67	10	10	30.86	
19830-017	4	68	8	8	26.32	
19830-013	4	69	9	9	28.53	
19830-002	4	70	10	10	30.92	
19830-005	4	71	4	4	13.95	
19830-003	4	72	9	9	28.31	
19830-016	5	73	8	8	25.92	
19830-003	5	74	8	8	31.81	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-000	5	75	10	10	29.20	JTP
19830-013	5	76	8	8	33.49	
19830-001	5	77	9	9	24.62	
19830-002	5	78	10	10	33.80	
19830-004	5	79	9	9	35.94	
19830-012	5	80	9	9	28.01	
19830-005	5	81	6	6	11.82	
19830-011	5	82	9	9	28.77	
19830-010	5	83	8	8	28.47	
19830-017	5	84	9	9	30.35	
19830-009	5	85	9	9	33.18	
19830-006	5	86	9	9	27.89	
19830-008	5	87	10	10	27.38	
19830-007	5	88	7	7	14.21	
19830-014	5	89	9	9	28.09	
19830-015	5	90	10	10	27.80	
19830-005	6	91	5	5	13.81	
19830-007	6	92	8	8	20.78	
19830-002	6	93	10	10	32.93	
19830-009	6	94	8	8	22.47	
19830-013	6	95	7	7	19.84	
19830-004	6	96	7	7	21.19	
19830-012	6	97	7	7	19.60	
19830-015	6	98	10	10	27.14	
19830-014	6	99	12	12	34.47	
19830-003	6	100	10	10	28.90	
19830-010	6	101	8	8	25.74	
19830-000	6	102	9	9	24.08	
19830-016	6	103	10	10	31.75	
19830-001	6	104	9	9	17.73	
19830-017	6	105	9	9	23.17	
19830-008	6	106	7	7	20.48	
19830-011	6	107	8	8	22.83	
19830-006	6	108	7	7	21.69	
19830-015	7	109	10	10	26.38	
19830-017	7	110	8	8	21.66	
19830-003	7	111	9	9	28.02	

Nereis virens 28 Day Assay

STUDY NUMBER: 19875 **PROJECT:** Gowanus Canal Superfund Site

DATE: 08/05/10 **CLIENT:** HDR Engineering, Inc.

Sample Code	Rep	Pos	# Survived	Pan Count	Weight	Initials
19830-008	7	112	9	9	20.48	JTP
19830-006	7	113	7	7	21.20	
19830-012	7	114	7	7	17.45	
19830-004	7	115	5	5	12.47	
19830-011	7	116	10	10	20.06	
19830-014	7	117	9	9	23.70	
19830-005	7	118	5	5	13.95	
19830-001	7	119	10	10	30.35	
19830-000	7	120	11	11	33.45	
19830-009	7	121	7	7	21.05	
19830-010	7	122	10	10	29.77	
19830-007	7	123	5	5	13.74	
19830-002	7	124	9	9	27.47	
19830-013	7	125	10	10	30.79	
19830-016	7	126	9	9	26.18	
19830-017	8	127	8	8	21.34	
19830-013	8	128	9	9	32.15	
19830-010	8	129	8	8	23.81	
19830-007	8	130	6	6	17.16	
19830-011	8	131	6	6	22.12	
19830-002	8	132	8	8	28.40	
19830-004	8	133	10	10	25.95	
19830-003	8	134	6	6	20.05	
19830-005	8	135	9	9	27.01	
19830-012	8	136	8	8	20.60	
19830-006	8	137	8	8	25.62	
19830-001	8	138	8	8	24.18	
19830-014	8	139	10	10	24.39	
19830-000	8	140	10	10	22.89	
19830-009	8	141	8	8	24.90	
19830-008	8	142	7	7	18.36	
19830-015	8	143	8	8	23.88	
19830-016	8	144	8	8	23.48	

Nereis virens 28 Day Assay

Study Number: 19830

Client: HDR Engineering, Inc.

Project: Gowanus Canal Superfund Site

ESI SAMPLE ID	REP	WET WEIGHT (G)
Start Worms	A	22
	B	30.1
	C	32.5
	D	26.4
	E	30.0
RECORDED BY: DM		
DATE: 7-8-10 1240		

NOTES:

Number Worms per Replicate: 10

Average wet weight per worm: 2.82 Grams

Average wet weight per replicate: 28.2 Grams

Balance: AccuSeries Model 225D Serial#: 17008376

Alternate Balance: ID: Serial #:



Aquatic Research Organisms

DATA SHEET

CHAIN OF CUSTODY

I. Organism History

Species: Neries virens

Source: Lab reared_____ Hatchery reared_____ Field collected X

Collection date 7/7/10 Receipt date 7/7/10

Lot number 070710 Strain Wild

Brood Origination Damariscotta River, Boothbay Harbor, Maine

II. Water Quality

Temperature 15 °C Salinity 28-32 ppt DO Saturated

pH 7.8-8.2 Hardness N.A. ppm

III. Culture Conditions

System: Held at 4°C on moist seaweed

Diet: Flake Food_____ Phytoplankton_____ Trout Chow_____

Brine Shrimp_____ Rotifers_____ Other Not feed

Prophylactic Treatments:_____

Comments: Shipped on moistened seaweed, gel ice packs to keep cool.

IV. Shipping Information

Client: ESI # of Organisms: 2000

Carrier: PICK UP Date Shipped: 7/8/10

Tracking # n/a # of cartons_____

RELEASED BY: Stan Latsko DATE: TIME:

RECEIVED BY:_____ DATE: TIME:

1 - 800 - 927 - 1650

PO Box 1271 • One Lafayette Road • Hampton, NH 03842 • (603) 926-1650

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Sample Code	Sample ID	Sample Date	Receive Date	Sample Age	Client Name	Project
19830-000	14-3755-5415	25 Jun-10 12:00	25 Jun-10 12:00	6d 0h	HDR Engineering, Inc.	Ecological Risk Assessme
19830-003	01-9996-7487	17 Jun-10 13:38	19 Jun-10 13:00	13d 22h		
19830-008	03-2283-8752	18 Jun-10 09:48	19 Jun-10 13:00	13d 2h		
19830-009	12-1069-2908	18 Jun-10 12:52	19 Jun-10 13:00	12d 23h		
19830-010	00-6363-3797	18 Jun-10 11:21	19 Jun-10 13:00	13d 1h		
19830-012	01-9941-3387	18 Jun-10 15:16	19 Jun-10 13:00	12d 21h		
19830-001	10-6412-9845	17 Jun-10 14:25	19 Jun-10 13:00	13d 22h		
19830-002	14-2377-4629	17 Jun-10 16:50	19 Jun-10 13:00	13d 19h		
19830-004	02-9429-9959	18 Jun-10 10:15	19 Jun-10 13:00	13d 2h		
19830-005	09-3345-3845	18 Jun-10 10:30	19 Jun-10 13:00	13d 2h		
19830-006	05-3627-1272	18 Jun-10 13:15	19 Jun-10 13:00	12d 23h		
19830-007	20-4940-8825	18 Jun-10 12:40	19 Jun-10 13:00	12d 23h		
19830-011	15-0121-6600	18 Jun-10 15:55	19 Jun-10 13:00	12d 20h		
19830-013	12-2297-1777	21 Jun-10 12:50	22 Jun-10 15:00	9d 23h		
19830-014	07-7862-4227	21 Jun-10 14:05	22 Jun-10 15:00	9d 22h		
19830-015	19-3475-1966	22 Jun-10 10:40	23 Jun-10 09:30	9d 1h		
19830-016	00-4606-7422	22 Jun-10 14:35	23 Jun-10 09:30	8d 21h		
19830-017	19-8907-5507	24 Jun-10 09:50	25 Jun-10 09:30	7d 2h		

Sample Code	Material Type	Sample Source	Station Location	Latitude	Longitude
19830-000	Marine Sediment	Gowanus Canal Superfund Site	Laboratory Control; 19830-000		
19830-003	Marine Sediment	Gowanus Canal Superfund Site	GC-SD326-0.0-0.5; 19830-003		
19830-008	Marine Sediment	Gowanus Canal Superfund Site	GC-SD328-0.0-0.5; 19830-008		
19830-009	Marine Sediment	Gowanus Canal Superfund Site	GC-SD330-0.0-0.5; 19830-009		
19830-010	Marine Sediment	Gowanus Canal Superfund Site	GC-SD333-0.0-0.5; 19830-010		
19830-012	Marine Sediment	Gowanus Canal Superfund Site	GC-SD329-0.0-0.5; 19830-012		
19830-001	Marine Sediment	Gowanus Canal Superfund Site	GC-SD303-0.0-0.5; 19830-001		
19830-002	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307A-0.0-0.5; 19830-002		
19830-004	Marine Sediment	Gowanus Canal Superfund Site	GC-SD309-0.0-0.5; 19830-004		
19830-005	Marine Sediment	Gowanus Canal Superfund Site	GC-SD313-0.0-0.5; 19830-005		
19830-006	Marine Sediment	Gowanus Canal Superfund Site	GC-SD314-0.0-0.5; 19830-006		
19830-007	Marine Sediment	Gowanus Canal Superfund Site	GC-SD315-0.0-0.5; 19830-007		
19830-011	Marine Sediment	Gowanus Canal Superfund Site	GC-SD307B-0.0-0.5; 19830-011		
19830-013	Marine Sediment	Gowanus Canal Superfund Site	GC-SD324-0.0-0.5; 19830-013		
19830-014	Marine Sediment	Gowanus Canal Superfund Site	GC-SD321-0.0-0.5; 19830-014		
19830-015	Marine Sediment	Gowanus Canal Superfund Site	GC-SD319-0.0-0.5; 19830-015		
19830-016	Marine Sediment	Gowanus Canal Superfund Site	GC-SD318-0.0-0.5; 19830-016		
19830-017	Marine Sediment	Gowanus Canal Superfund Site	GC-SD310-0.0-0.5; 19830-017		

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9577	0.9923	0.9	1	0.008452	0.04629	4.75%	0.0%
19830-003	8	0.85	0.8054	0.8946	0.6	1	0.02182	0.1195	14.06%	12.82%
19830-008	8	0.85	0.8054	0.8946	0.7	1	0.02182	0.1195	14.06%	12.82%
19830-009	8	0.875	0.8315	0.9185	0.7	1	0.02127	0.1165	13.31%	10.26%
19830-010	8	0.85	0.8154	0.8846	0.7	1	0.0169	0.09258	10.89%	12.82%
19830-012	8	0.85	0.8101	0.8899	0.7	1	0.01952	0.1069	12.58%	12.82%
19830-001	8	0.875	0.8363	0.9137	0.7	1	0.0189	0.1035	11.83%	10.26%
19830-002	8	0.9375	0.9033	0.9717	0.8	1	0.01673	0.09161	9.77%	3.85%
19830-004	8	0.85	0.7838	0.9162	0.5	1	0.03237	0.1773	20.86%	12.82%

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-005	8	0.6125	0.5393	0.6857	0.4	0.9	0.03577	0.1959	31.99%	37.18%
19830-006	8	0.75	0.7011	0.7989	0.5	0.9	0.0239	0.1309	17.46%	23.08%
19830-007	8	0.7125	0.6512	0.7738	0.5	0.9	0.02998	0.1642	23.05%	26.92%
19830-011	8	0.875	0.8231	0.9269	0.6	1	0.02535	0.1389	15.87%	10.26%
19830-013	8	0.875	0.8363	0.9137	0.7	1	0.0189	0.1035	11.83%	10.26%
19830-014	8	0.925	0.8919	0.9581	0.8	1	0.01618	0.08864	9.58%	5.13%
19830-015	8	0.975	0.9486	1	0.8	1	0.01291	0.07071	7.25%	0.0%
19830-016	8	0.8625	0.8283	0.8967	0.8	1	0.01673	0.09161	10.62%	11.54%
19830-017	8	0.8375	0.8182	0.8568	0.8	0.9	0.009449	0.05175	6.18%	14.1%

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.678	2.995	2.289	3.615	0.07745	0.4242	14.95%	0.0%
19830-003	8	2.772	2.623	2.921	2.005	3.275	0.07292	0.3994	14.41%	2.27%
19830-008	8	2.582	2.361	2.803	1.836	3.627	0.108	0.5915	22.91%	8.98%
19830-009	8	2.689	2.456	2.922	1.945	3.666	0.1141	0.6247	23.23%	5.21%
19830-010	8	2.756	2.648	2.864	2.381	3.143	0.05285	0.2895	10.5%	2.83%
19830-012	8	2.251	2.09	2.411	1.745	2.801	0.0785	0.4299	19.1%	20.65%
19830-001	8	2.668	2.501	2.835	1.773	3.115	0.08167	0.4473	16.76%	5.94%
19830-002	8	3.212	3.011	3.414	2.747	4.408	0.09855	0.5398	16.8%	-13.25%
19830-004	8	2.646	2.371	2.921	1.247	3.594	0.1345	0.7367	27.84%	6.71%
19830-005	8	1.879	1.608	2.151	1.182	2.869	0.1328	0.7274	38.7%	33.74%
19830-006	8	2.235	2.09	2.379	1.707	2.789	0.07058	0.3866	17.3%	21.22%
19830-007	8	1.787	1.647	1.926	1.327	2.246	0.06832	0.3742	20.95%	37.02%
19830-011	8	2.575	2.413	2.736	2.006	3.271	0.0789	0.4321	16.78%	9.23%
19830-013	8	2.815	2.649	2.98	1.984	3.349	0.08109	0.4441	15.78%	0.78%
19830-014	8	2.66	2.504	2.816	2.174	3.514	0.07621	0.4174	15.69%	6.23%
19830-015	8	2.762	2.615	2.909	2.096	3.205	0.0718	0.3933	14.24%	2.64%
19830-016	8	2.534	2.399	2.669	1.935	3.175	0.06604	0.3617	14.27%	10.66%
19830-017	8	2.668	2.47	2.867	2.134	3.395	0.09726	0.5327	19.96%	5.93%

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.762	3.053	2.289	3.615	0.07131	0.3906	13.43%	0.0%
19830-003	8	3.291	3.108	3.475	2.753	4.094	0.08983	0.492	14.95%	-13.2%
19830-008	8	3.052	2.801	3.302	2.276	4.534	0.1223	0.67	21.96%	-4.95%
19830-009	8	3.056	2.885	3.228	2.431	3.687	0.08404	0.4603	15.06%	-5.12%
19830-010	8	3.259	3.136	3.382	2.757	3.683	0.06018	0.3296	10.11%	-12.09%
19830-012	8	2.647	2.515	2.779	1.974	3.112	0.06447	0.3531	13.34%	8.97%
19830-001	8	3.102	2.828	3.376	1.97	4.356	0.1341	0.7346	23.68%	-6.69%
19830-002	8	3.439	3.239	3.638	2.76	4.408	0.09745	0.5338	15.52%	-18.27%
19830-004	8	3.092	2.894	3.29	2.494	3.993	0.0968	0.5302	17.15%	-6.36%
19830-005	8	3.066	2.858	3.274	1.97	3.586	0.1016	0.5563	18.14%	-5.45%
19830-006	8	2.997	2.884	3.109	2.439	3.434	0.05495	0.301	10.04%	-3.07%
19830-007	8	2.532	2.436	2.627	2.03	2.86	0.04653	0.2549	10.07%	12.93%
19830-011	8	2.999	2.777	3.221	2.006	3.687	0.1086	0.5946	19.83%	-3.15%
19830-013	8	3.234	3.042	3.425	2.443	4.186	0.09372	0.5133	15.87%	-11.22%
19830-014	8	2.891	2.721	3.061	2.174	3.514	0.08309	0.4551	15.74%	0.56%
19830-015	8	2.836	2.699	2.974	2.096	3.205	0.06719	0.368	12.97%	2.44%
19830-016	8	2.936	2.839	3.033	2.419	3.24	0.04734	0.2593	8.83%	-0.98%
19830-017	8	3.184	2.962	3.406	2.574	4.244	0.1086	0.5948	18.68%	-9.51%

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	1	1	0.9	1	1	0.9	1	1
19830-003	0.9	0.8	0.9	0.9	0.8	1	0.9	0.6
19830-008	1	0.8	0.9	0.8	1	0.7	0.9	0.7
19830-009	1	0.8	1	1	0.9	0.8	0.7	0.8
19830-010	0.9	0.9	0.7	0.9	0.8	0.8	1	0.8
19830-012	0.9	0.9	0.9	1	0.9	0.7	0.7	0.8
19830-001	1	0.7	0.9	0.8	0.9	0.9	1	0.8
19830-002	1	0.8	1	1	1	1	0.9	0.8
19830-004	1	0.9	1	0.8	0.9	0.7	0.5	1
19830-005	0.4	0.8	0.8	0.4	0.6	0.5	0.5	0.9
19830-006	0.9	0.5	0.8	0.7	0.9	0.7	0.7	0.8
19830-007	0.5	0.8	0.9	0.9	0.7	0.8	0.5	0.6
19830-011	1	0.9	0.8	1	0.9	0.8	1	0.6
19830-013	0.9	1	0.8	0.9	0.8	0.7	1	0.9
19830-014	1	0.8	0.8	1	0.9	1	0.9	1
19830-015	1	1	1	1	1	1	1	0.8
19830-016	0.8	1	0.8	0.8	0.8	1	0.9	0.8
19830-017	0.8	0.8	0.9	0.8	0.9	0.9	0.8	0.8

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.112
19830-010	2.757	3.411	3.683	3.492	3.559	3.217	2.977	2.976
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595
19830-005	3.578	3.352	3.586	3.487	1.97	2.762	2.79	3.001
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.707	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7047-9657	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-017	0.4648	1.761	0.1017	0.3246	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.014	2.586	0.5107	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002883158	0.002883158	1	0.216	0.6492	Non-Significant Effect
Error	0.1868688	0.01334777	14			
Total	0.189752	0.01623093	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.95	8.885	0.0904	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9166		0.1489	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	2.26%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-5575-3935	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.3%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-016	-0.1949	1.761	0.1255	0.5759	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.632	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.000772291	0.000772291	1	0.038	0.8482	Non-Significant Effect
Error	0.2845204	0.02032288	14			
Total	0.2852927	0.02109518	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.101	8.885	0.9020	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8919		0.0596	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-1.17%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7229-4220	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.06%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-012		19830-015	91		2	0.9926	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.152	2.586	0.3214	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1394276	0.1394276	1	8.471	0.0114	Significant Effect
Error	0.2304422	0.01646016	14			
Total	0.3698699	0.1558878	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.834	8.885	0.4423	Equal Variances
Distribution	Shapiro-Wilk Normality	0.7997		0.0027	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-15.73%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-4420-4727	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-014	-1.544	1.761	0.125	0.9276	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.639	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04804086	0.04804086	1	2.384	0.1449	Non-Significant Effect
Error	0.282117	0.02015121	14			
Total	0.3301578	0.06819208	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.121	8.885	0.8839	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8915		0.0589	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-9.23%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-6941-3255	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-013	-0.4739	1.761	0.1296	0.6786	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.624	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004863754	0.004863754	1	0.2246	0.6429	Non-Significant Effect
Error	0.3031931	0.02165665	14			
Total	0.3080568	0.0265204	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.033	8.885	0.9667	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9295		0.2394	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-1507-6766	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.63%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-011	-0.4997	1.761	0.1484	0.6875	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.108	2.586	0.3749	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.007091886	0.007091886	1	0.2497	0.6251	Non-Significant Effect
Error	0.3976953	0.0284068	14			
Total	0.4047872	0.03549869	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.667	8.885	0.5163	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9374		0.3188	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.55%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-4800-2112	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.63%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-007	1.983	1.761	0.1485	0.0337	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.44	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1117635	0.1117635	1	3.931	0.0674	Non-Significant Effect
Error	0.3980732	0.0284338	14			
Total	0.5098367	0.1401973	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.67	8.885	0.5151	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9031		0.0901	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	14.08%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-8321-2532	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-006	1.712	1.761	0.132	0.0545	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.888	2.586	0.7478	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0658441	0.0658441	1	2.93	0.1090	Non-Significant Effect
Error	0.3146536	0.02247526	14			
Total	0.3804977	0.08831935	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.11	8.885	0.8939	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9381		0.3266	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	10.81%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-1042-5715	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.05%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-005	2.997	1.761	0.1622	0.0048	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.899	2.586	0.7259	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3047056	0.3047056	1	8.982	0.0096	Significant Effect
Error	0.4749182	0.03392272	14			
Total	0.7796238	0.3386284	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.185	8.885	0.3242	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9305		0.2484	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.25%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-7101-3472	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-004	-0.1662	1.761	0.1691	0.5648	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.252	2.586	0.2221	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001018086	0.001018086	1	0.02762	0.8704	Non-Significant Effect
Error	0.5160447	0.03686034	14			
Total	0.5170628	0.03787842	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.461	8.885	0.2578	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9085		0.1100	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.34%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-4388-9437	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.36%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-002	-1.791	1.761	0.1261	0.9526	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.625	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06576182	0.06576182	1	3.209	0.0949	Non-Significant Effect
Error	0.2869296	0.02049497	14			
Total	0.3526914	0.08625679	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.082	8.885	0.9199	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8427		0.0106	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-10.8%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-1346-4255	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-001	-0.4739	1.761	0.1296	0.6786	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.624	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004863754	0.004863754	1	0.2246	0.6429	Non-Significant Effect
Error	0.3031931	0.02165665	14			
Total	0.3080568	0.0265204	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.033	8.885	0.9667	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9295		0.2394	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-0848-4553	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-017	0.4454	1.761	0.09336	0.3314	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.227	2.586	0.2449	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002229617	0.002229617	1	0.1984	0.6628	Non-Significant Effect
Error	0.1573438	0.01123885	14			
Total	0.1595735	0.01346846	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.168	8.885	0.1512	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9037		0.0921	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	1.99%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-7726-6261	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-016	-0.2539	1.761	0.1189	0.5984	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.749	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001174183	0.001174183	1	0.06447	0.8033	Non-Significant Effect
Error	0.2549954	0.01821395	14			
Total	0.2561696	0.01938814	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.132	8.885	0.8741	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8559		0.0167	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-1.45%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-1582-0124	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-015	-3.171	1.761	0.1055	0.9966	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.305	2.586	0.1806	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.144306	0.144306	1	10.06	0.0068	Significant Effect
Error	0.2009172	0.01435123	14			
Total	0.3452233	0.1586573	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.471	8.885	0.6236	Equal Variances
Distribution	Shapiro-Wilk Normality	0.857		0.0173	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-16.04%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-7258-7097	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-014	-1.68	1.761	0.1183	0.9424	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.757	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05092176	0.05092176	1	2.822	0.1151	Non-Significant Effect
Error	0.252592	0.01804228	14			
Total	0.3035138	0.06896404	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.112	8.885	0.8921	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9225		0.1852	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-9.53%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-9114-6882	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.39%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-013	-0.5451	1.761	0.1231	0.7029	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.71	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005809008	0.005809008	1	0.2972	0.5942	Non-Significant Effect
Error	0.2736681	0.01954772	14			
Total	0.2794771	0.02535673	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.288	8.885	0.7467	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9531		0.5398	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-3.22%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8953-4048	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.38%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-011	-0.5592	1.761	0.1428	0.7076	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.191	2.586	0.2797	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.008224598	0.008224598	1	0.3127	0.5848	Non-Significant Effect
Error	0.3681703	0.02629788	14			
Total	0.3763949	0.03452247	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.079	8.885	0.3553	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9506		0.4986	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.83%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-1769-3888	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.39%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-007	2.021	1.761	0.1429	0.0314	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.497	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1074753	0.1074753	1	4.083	0.0629	Non-Significant Effect
Error	0.3685482	0.02632487	14			
Total	0.4760235	0.1338002	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.082	8.885	0.3543	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9259		0.2097	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	13.84%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-0304-9043	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-006	1.753	1.761	0.1257	0.0508	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.984	2.586	0.5618	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06256242	0.06256242	1	3.072	0.1015	Non-Significant Effect
Error	0.2851286	0.02036633	14			
Total	0.3476911	0.08292875	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.384	8.885	0.6787	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9392		0.3389	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	10.56%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-5964-5729	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.86%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-005	3.058	1.761	0.1571	0.0043	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.961	2.586	0.6035	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2975978	0.2975978	1	9.354	0.0085	Significant Effect
Error	0.4453932	0.0318138	14			
Total	0.742991	0.3294116	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.724	8.885	0.2095	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9386		0.3325	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.04%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-6274-8868	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	-0.2059	1.761	0.1642	0.5801	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.32	2.586	0.1702	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001473308	0.001473308	1	0.0424	0.8398	Non-Significant Effect
Error	0.4865198	0.03475141	14			
Total	0.4879931	0.03622472	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.068	8.885	0.1623	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9254		0.2060	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.62%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-3875-1637	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-1.939	1.761	0.1194	0.9635	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.741	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06912529	0.06912529	1	3.76	0.0729	Non-Significant Effect
Error	0.2574046	0.01838604	14			
Total	0.3265299	0.08751134	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.152	8.885	0.8564	Equal Variances
Distribution	Shapiro-Wilk Normality	0.887		0.0499	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-11.1%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-1332-6941	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:53	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.39%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-001	-0.5451	1.761	0.1231	0.7029	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.71	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005809008	0.005809008	1	0.2972	0.5942	Non-Significant Effect
Error	0.2736681	0.01954772	14			
Total	0.2794771	0.02535673	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.288	8.885	0.7467	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9531		0.5398	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-3.22%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-2438-8054	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-012	-0.04675	1.761	0.122	0.5183	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.704	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	4.194157E-05	4.194157E-05	1	0.002185	0.9634	Non-Significant Effect
Error	0.2687073	0.01919338	14			
Total	0.2687492	0.01923532	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.247	8.885	0.7784	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8892		0.0541	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	-0.27%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-4568-4767	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-017	0.9922	1.761	0.1159	0.1690	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.844	2.586	0.8476	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01704745	0.01704745	1	0.9844	0.3380	Non-Significant Effect
Error	0.2424433	0.01731738	14			
Total	0.2594907	0.03436483	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	5.422	8.885	0.0403	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9236		0.1927	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	4.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	5.33%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-6081-5464	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.31%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-009		19830-016	66		3	0.4392	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.557	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002408916	0.002408916	1	0.09916	0.7575	Non-Significant Effect
Error	0.3400948	0.02429249	14			
Total	0.3425037	0.0267014	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.512	8.885	0.5991	Equal Variances
Distribution	Shapiro-Wilk Normality	0.836		0.0085	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	1.43%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	2.0%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-3353-5412	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-015	-2.075	1.761	0.1259	0.9715	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.932	2.586	0.6582	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08792961	0.08792961	1	4.304	0.0569	Non-Significant Effect
Error	0.2860167	0.02042976	14			
Total	0.3739463	0.1083594	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.517	8.885	0.2464	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8835		0.0441	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-11.43%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-12.1%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-3591-5638	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-014	-0.9163	1.761	0.1368	0.8125	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.563	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02025254	0.02025254	1	0.8396	0.3750	Non-Significant Effect
Error	0.3376915	0.02412082	14			
Total	0.357944	0.04437336	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.539	8.885	0.5834	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9005		0.0820	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-5.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-5.81%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-4633-4394	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-013	0.04454	1.761	0.141	0.4826	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.516	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	5.083998E-05	5.083998E-05	1	0.001984	0.9651	Non-Significant Effect
Error	0.3587675	0.02562625	14			
Total	0.3588184	0.02567709	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.328	8.885	0.7173	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8704		0.0276	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	0.29%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-9646-9507	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-011	-0.04081	1.761	0.1585	0.5160	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.975	2.586	0.5782	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	5.391236E-05	5.391236E-05	1	0.001665	0.9680	Non-Significant Effect
Error	0.4532697	0.03237641	14			
Total	0.4533236	0.03243032	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.214	8.885	0.8043	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8736		0.0308	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-0.3%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-5403-0334	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.34%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-007	2.284	1.761	0.1585	0.0192	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.349	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1690701	0.1690701	1	5.218	0.0385	Significant Effect
Error	0.4536476	0.0324034	14			
Total	0.6227177	0.2014735	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.216	8.885	0.8028	Equal Variances
Distribution	Shapiro-Wilk Normality	0.889		0.0538	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	18.57%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	16.77%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-9524-2248	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.87%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-006	2.051	1.761	0.1432	0.0298	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.741	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1112035	0.1112035	1	4.205	0.0595	Non-Significant Effect
Error	0.3702281	0.02644486	14			
Total	0.4814315	0.1376484	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.237	8.885	0.7866	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9005		0.0818	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	14.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	13.6%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-1617-5162	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-005	3.231	1.761	0.1714	0.0030	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.796	2.586	0.9673	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3954804	0.3954804	1	10.44	0.0060	Significant Effect
Error	0.5304926	0.03789233	14			
Total	0.9259731	0.4333728	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.592	8.885	0.5546	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8791		0.0375	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	30.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	25.65%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2466-4452	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-004	0.2225	1.761	0.1779	0.4136	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.14	2.586	0.3355	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002021705	0.002021705	1	0.04952	0.8271	Non-Significant Effect
Error	0.5716192	0.04082994	14			
Total	0.5736409	0.04285165	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.793	8.885	0.4592	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8987		0.0766	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	2.86%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	1.83%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-8664-4429	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.36%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-002	-1.148	1.761	0.1377	0.8649	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.552	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03224533	0.03224533	1	1.318	0.2702	Non-Significant Effect
Error	0.342504	0.02446457	14			
Total	0.3747494	0.0567099	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.485	8.885	0.6146	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8878		0.0514	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-7.14%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-7.33%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-7075-1045	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-001	0.04454	1.761	0.141	0.4826	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.516	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	5.083998E-05	5.083998E-05	1	0.001984	0.9651	Non-Significant Effect
Error	0.3587675	0.02562625	14			
Total	0.3588184	0.02567709	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.328	8.885	0.7173	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8704		0.0276	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	0.29%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-3665-5263	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:52	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.57%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-012	0.4836	1.761	0.14	0.3181	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.527	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005909125	0.005909125	1	0.2338	0.6362	Non-Significant Effect
Error	0.3538067	0.02527191	14			
Total	0.3597158	0.03118103	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.373	8.885	0.6865	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9163		0.1471	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	2.86%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	3.14%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-5668-7823	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-010	0.5476	1.761	0.134	0.2963	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.595	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006946733	0.006946733	1	0.2999	0.5926	Non-Significant Effect
Error	0.3242817	0.02316298	14			
Total	0.3312285	0.03010971	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.712	8.885	0.4951	Equal Variances
Distribution	Shapiro-Wilk Normality	0.927		0.2181	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	2.86%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	3.4%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-0966-0171	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-017	0.454	1.761	0.1144	0.3284	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.771	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.003476679	0.003476679	1	0.2061	0.6568	Non-Significant Effect
Error	0.2361137	0.01686526	14			
Total	0.2395904	0.02034194	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	5.254	8.885	0.0438	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9209		0.1744	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	2.48%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-3200-9860	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.09%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	-0.1459	1.761	0.136	0.5569	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.489	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0005072316	0.0005072316	1	0.02128	0.8861	Non-Significant Effect
Error	0.3337652	0.02384037	14			
Total	0.3342724	0.02434761	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.465	8.885	0.6269	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8519		0.0145	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-0.95%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-5356-2607	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	-2.605	1.761	0.1245	0.9896	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.954	2.586	0.6165	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.135521	0.135521	1	6.784	0.0208	Significant Effect
Error	0.2796871	0.01997765	14			
Total	0.4152081	0.1554987	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.439	8.885	0.2623	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8786		0.0369	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-15.47%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-3147-7395	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	-1.39	1.761	0.1355	0.9069	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.495	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04575917	0.04575917	1	1.933	0.1861	Non-Significant Effect
Error	0.3313619	0.0236687	14			
Total	0.377121	0.06942788	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.491	8.885	0.6110	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9054		0.0983	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-8.99%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-6038-7362	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-013	-0.4063	1.761	0.1397	0.6547	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.506	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004156677	0.004156677	1	0.1651	0.6906	Non-Significant Effect
Error	0.3524379	0.02517414	14			
Total	0.3565946	0.02933081	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.287	8.885	0.7474	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9237		0.1937	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.71%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-0631-6523	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-011	-0.4418	1.761	0.1573	0.6673	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.988	2.586	0.5538	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006232316	0.006232316	1	0.1952	0.6654	Non-Significant Effect
Error	0.4469401	0.0319243	14			
Total	0.4531724	0.03815661	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.253	8.885	0.7735	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9349		0.2907	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.32%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-9804-8579	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					13.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	1.9	1.761	0.1574	0.0391	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.359	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1153138	0.1153138	1	3.609	0.0783	Non-Significant Effect
Error	0.447318	0.03195129	14			
Total	0.5626318	0.1472651	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.255	8.885	0.7720	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8982		0.0752	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	14.27%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-0972-1197	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	1.624	1.761	0.142	0.0633	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.756	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06857557	0.06857557	1	2.638	0.1266	Non-Significant Effect
Error	0.3638985	0.02599275	14			
Total	0.432474	0.09456831	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.198	8.885	0.8175	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9322		0.2641	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	11.0%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-5732-7985	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-005	2.88	1.761	0.1704	0.0061	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.807	2.586	0.9393	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3105496	0.3105496	1	8.295	0.0121	Significant Effect
Error	0.524163	0.03744021	14			
Total	0.8347126	0.3479899	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.642	8.885	0.5284	Equal Variances
Distribution	Shapiro-Wilk Normality	0.909		0.1120	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.42%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-5221-7470	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					15.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-004	-0.1326	1.761	0.177	0.5518	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.152	2.586	0.3216	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0007096436	0.0007096436	1	0.01758	0.8964	Non-Significant Effect
Error	0.5652896	0.04037783	14			
Total	0.5659993	0.04108747	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.85	8.885	0.4358	Equal Variances
Distribution	Shapiro-Wilk Normality	0.909		0.1120	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.12%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-6330-9625	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:51	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.14%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-002	-1.621	1.761	0.1365	0.9363	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.484	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06308755	0.06308755	1	2.627	0.1273	Non-Significant Effect
Error	0.3361744	0.02401246	14			
Total	0.399262	0.08710001	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.439	8.885	0.6429	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8824		0.0423	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-10.55%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-1054-1993	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-001	-0.4063	1.761	0.1397	0.6547	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.506	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004156677	0.004156677	1	0.1651	0.6906	Non-Significant Effect
Error	0.3524379	0.02517414	14			
Total	0.3565946	0.02933081	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.287	8.885	0.7474	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9237		0.1937	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.71%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-2861-6550	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.37%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	0.03344	1.761	0.1387	0.4869	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.477	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.775521E-05	2.775521E-05	1	0.001118	0.9738	Non-Significant Effect
Error	0.3474771	0.0248198	14			
Total	0.3475049	0.02484755	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.33	8.885	0.7161	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8764		0.0341	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.22%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-6340-8642	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.76%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	0.07793	1.761	0.1327	0.4695	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.566	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0001379345	0.0001379345	1	0.006074	0.9390	Non-Significant Effect
Error	0.3179521	0.02271087	14			
Total	0.3180901	0.0228488	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.659	8.885	0.5204	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8963		0.0702	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.49%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-6438-7016	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-0.422	1.761	0.1494	0.6603	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.43	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.00512692	0.00512692	1	0.1781	0.6794	Non-Significant Effect
Error	0.4030516	0.0287894	14			
Total	0.4081785	0.03391632	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.032	8.885	0.9680	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8929		0.0619	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	0.0%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	-3.01%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008								
19830-009								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-6178-5348	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.35%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-017	0.4639	1.761	0.1071	0.3249	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.575	2.586	0.0530	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.003183579	0.003183579	1	0.2152	0.6498	Non-Significant Effect
Error	0.2070709	0.01479078	14			
Total	0.2102545	0.01797436	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.485	8.885	0.0659	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8893		0.0544	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	2.37%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-5389-8074	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.61%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-016	-0.1699	1.761	0.1299	0.5662	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.122	2.586	0.3568	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0006281016	0.0006281016	1	0.02886	0.8675	Non-Significant Effect
Error	0.3047225	0.02176589	14			
Total	0.3053506	0.02239399	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.25	8.885	0.7756	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8936		0.0636	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	-1.47%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	-1.05%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-4941-7239	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.4%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-003		19830-015	90.5		2	0.9897	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.34	2.586	0.1565	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1373977	0.1373977	1	7.674	0.0150	Significant Effect
Error	0.2506444	0.01790317	14			
Total	0.388042	0.1553008	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.082	8.885	0.3543	Equal Variances
Distribution	Shapiro-Wilk Normality	0.7729		0.0012	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	-14.71%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-15.59%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-4273-0085	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.55%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-014	-1.473	1.761	0.1294	0.9186	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.131	2.586	0.3465	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04685238	0.04685238	1	2.17	0.1629	Non-Significant Effect
Error	0.3023191	0.02159422	14			
Total	0.3491715	0.0684466	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.273	8.885	0.7582	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9345		0.2871	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	-8.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	-9.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-7821-1651	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-013	-0.4409	1.761	0.1338	0.6670	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.06	2.586	0.4401	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004490668	0.004490668	1	0.1944	0.6660	Non-Significant Effect
Error	0.3233952	0.02309966	14			
Total	0.3278858	0.02759032	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.099	8.885	0.9042	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9424		0.3794	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.82%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-4780-6414	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.87%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-011	-0.4716	1.761	0.1522	0.6778	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.056	2.586	0.4456	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006639833	0.006639833	1	0.2224	0.6445	Non-Significant Effect
Error	0.4178974	0.02984981	14			
Total	0.4245372	0.03648965	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.468	8.885	0.6250	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9204		0.1710	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	-3.43%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-5381-5415	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-007	1.95	1.761	0.1522	0.0358	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.811	2.586	0.9286	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1135951	0.1135951	1	3.802	0.0715	Non-Significant Effect
Error	0.4182753	0.0298768	14			
Total	0.5318704	0.1434719	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.47	8.885	0.6237	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9295		0.2391	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	16.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	14.18%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-0939-3637	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-006	1.677	1.761	0.1362	0.0579	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.025	2.586	0.4940	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06725165	0.06725165	1	2.812	0.1158	Non-Significant Effect
Error	0.3348557	0.02391826	14			
Total	0.4021074	0.09116991	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.023	8.885	0.9770	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9151		0.1406	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	11.76%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	10.91%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-4587-7128	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-005	2.95	1.761	0.1656	0.0053	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.86	2.586	0.8123	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.307725	0.307725	1	8.701	0.0106	Significant Effect
Error	0.4951203	0.03536573	14			
Total	0.8028452	0.3430907	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.924	8.885	0.4074	Equal Variances
Distribution	Shapiro-Wilk Normality	0.967		0.7886	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	27.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	23.34%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-3665-4403	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					14.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-004	-0.1491	1.761	0.1724	0.5582	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.209	2.586	0.2611	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.000851431	0.000851431	1	0.02223	0.8836	Non-Significant Effect
Error	0.5362468	0.03830335	14			
Total	0.5370983	0.03915478	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.167	8.885	0.3291	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9034		0.0912	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	-1.23%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-7121-4847	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:50	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-1.713	1.761	0.1304	0.9456	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.114	2.586	0.3672	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06437004	0.06437004	1	2.934	0.1088	Non-Significant Effect
Error	0.3071317	0.02193798	14			
Total	0.3715017	0.08630801	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.229	8.885	0.7929	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8794		0.0380	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	-10.29%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	-10.67%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-9037-6977	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-001	-0.4409	1.761	0.1338	0.6670	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.06	2.586	0.4401	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004490668	0.004490668	1	0.1944	0.6660	Non-Significant Effect
Error	0.3233952	0.02309966	14			
Total	0.3278858	0.02759032	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.099	8.885	0.9042	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9424		0.3794	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	-2.82%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-1493-1723	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-012	0.01809	1.761	0.1328	0.4929	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.076	2.586	0.4174	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	7.442896E-06	7.442896E-06	1	0.0003272	0.9858	Non-Significant Effect
Error	0.3184344	0.02274531	14			
Total	0.3184418	0.02275275	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.135	8.885	0.8712	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8903		0.0564	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	0.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-4738-2330	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					10.26%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-010	0.06407	1.761	0.1265	0.4749	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.18	2.586	0.2913	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	8.472094E-05	8.472094E-05	1	0.004105	0.9498	Non-Significant Effect
Error	0.2889094	0.02063638	14			
Total	0.2889941	0.0207211	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.416	8.885	0.6579	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9114		0.1227	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	0.39%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-4450-3094	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					12.03%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-009	-0.4536	1.761	0.1439	0.6715	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.916	2.586	0.6906	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005497135	0.005497135	1	0.2058	0.6571	Non-Significant Effect
Error	0.3740088	0.02671492	14			
Total	0.3795059	0.03221205	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.209	8.885	0.8088	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9375		0.3196	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	-2.94%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	-3.12%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-009								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-1114-0547	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	-0.01567	1.761	0.1427	0.5061	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.932	2.586	0.6577	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	6.452383E-06	6.452383E-06	1	0.0002457	0.9877	Non-Significant Effect
Error	0.3676792	0.0262628	14			
Total	0.3676857	0.02626925	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.172	8.885	0.8399	Equal Variances
Distribution	Shapiro-Wilk Normality	0.92		0.1685	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	-0.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-008								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-4957-2853	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					11.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	-0.01567	1.761	0.1427	0.5061	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.932	2.586	0.6577	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	6.452383E-06	6.452383E-06	1	0.0002457	0.9877	Non-Significant Effect
Error	0.3676792	0.0262628	14			
Total	0.3676857	0.02626925	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.172	8.885	0.8399	Equal Variances
Distribution	Shapiro-Wilk Normality	0.92		0.1685	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	0.0%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	0.0%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	-0.11%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003								
19830-008								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-3750-5435	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					4.44%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-017	5.667	1.761	0.06584	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.705	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1795121	0.1795121	1	32.12	<0.0001	Significant Effect
Error	0.0782471	0.005589079	14			
Total	0.2577592	0.1851012	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.073	8.885	0.9287	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8667		0.0243	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-017	8	0.8375	0.8178	0.8572	0.8	0.9	0.009611	0.05176	6.18%	14.1%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-017	8	1.16	1.132	1.188	1.107	1.249	0.01364	0.07344	6.33%	15.44%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-017								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-2109-4195	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.24%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-016	47		2	0.0141	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.948	2.586	0.6276	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1171033	0.1171033	1	9.32	0.0086	Significant Effect
Error	0.1758986	0.01256419	14			
Total	0.2930019	0.1296675	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.344	8.885	0.1338	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8331		0.0078	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-016	8	0.8625	0.8277	0.8973	0.8	1	0.01701	0.09161	10.62%	11.54%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-016	8	1.201	1.148	1.254	1.107	1.412	0.02583	0.1391	11.58%	12.47%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-016								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-1499-6490	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					5.31%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-015	71		1	0.6008	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.96	2.586	0.0044	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.160374E-05	1.160374E-05	1	0.001334	0.9714	Non-Significant Effect
Error	0.1218205	0.008701465	14			
Total	0.1218321	0.008713068	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.008	8.885	0.3779	Equal Variances
Distribution	Shapiro-Wilk Normality	0.5304		<0.0001	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-015	8	0.975	0.9481	1	0.8	1	0.01313	0.07071	7.25%	0.0%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-015	8	1.374	1.333	1.415	1.107	1.412	0.02002	0.1078	7.85%	-0.12%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint **EnviroSystems, Inc.**

Analysis ID:	17-4214-8079	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					3.7%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-015	63		1	0.7683	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005917208	0.005917208	1	1.9	0.1914	Non-Significant Effect
Error	0.0404944	0.003114954	13			
Total	0.0464116	0.009032162	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.558E+13	10.79	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk Normality	0.6969		0.0002	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-015	7	1	1	1	1	1	0	0	0.0%	-2.56%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-015	7	1.412	1.412	1.412	1.412	1.412	0	0	0.0%	-2.9%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-015								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-0124-8235	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:49	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-014	1.355	1.761	0.09804	0.0985	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.763	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02274408	0.02274408	1	1.835	0.1970	Non-Significant Effect
Error	0.1734953	0.01239252	14			
Total	0.1962394	0.0351366	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.284	8.885	0.1394	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8783		0.0365	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-014	8	0.925	0.8913	0.9587	0.8	1	0.01646	0.08864	9.58%	5.13%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-014	8	1.297	1.244	1.349	1.107	1.426	0.0256	0.1378	10.63%	5.5%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-014								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-1581-8707	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-013	2.547	1.761	0.1038	0.0116	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.028	2.586	0.4893	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0901519	0.0901519	1	6.487	0.0233	Significant Effect
Error	0.1945713	0.01389795	14			
Total	0.2847232	0.1040499	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.805	8.885	0.0989	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8788		0.0371	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-013	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-013	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	10.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-013								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-7053-0248	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.9%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-011	1.989	1.761	0.1265	0.0333	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.472	2.586	0.0874	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0816704	0.0816704	1	3.955	0.0666	Non-Significant Effect
Error	0.2890735	0.02064811	14			
Total	0.3707439	0.1023185	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.139	8.885	0.0288	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8756		0.0332	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-011	8	0.875	0.8222	0.9278	0.6	1	0.02579	0.1389	15.87%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-011	8	1.229	1.158	1.301	0.8861	1.412	0.03499	0.1884	15.33%	10.41%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-011								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-0598-7460	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-007	4.898	1.761	0.1266	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.689	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4960444	0.4960444	1	23.99	0.0002	Significant Effect
Error	0.2894514	0.0206751	14			
Total	0.7854958	0.5167195	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.148	8.885	0.0286	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9167		0.1493	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-007	8	0.7125	0.65	0.775	0.5	0.9	0.03049	0.1642	23.05%	26.92%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-007	8	1.02	0.9483	1.092	0.7854	1.249	0.03502	0.1886	18.49%	25.66%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-007								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-7077-4019	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-006	5.165	1.761	0.1068	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.334	2.586	0.1607	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.392621	0.392621	1	26.68	0.0001	Significant Effect
Error	0.2060319	0.01471656	14			
Total	0.5986528	0.4073375	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.088	8.885	0.0831	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9004		0.0815	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-006	8	0.75	0.7002	0.7998	0.5	0.9	0.02431	0.1309	17.46%	23.08%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-006	8	1.059	1	1.117	0.7854	1.249	0.02856	0.1538	14.52%	22.83%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-006								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-6162-8464	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					8.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-005	5.7	1.761	0.1424	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.162	2.586	0.3105	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8500751	0.8500751	1	32.49	<0.0001	Significant Effect
Error	0.3662964	0.02616403	14			
Total	1.216372	0.8762392	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	8.046	8.885	0.0134	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9273		0.2210	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-005	8	0.6125	0.538	0.687	0.4	0.9	0.03639	0.1959	31.99%	37.18%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-005	8	0.9112	0.8291	0.9933	0.6847	1.249	0.04006	0.2157	23.68%	33.6%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-005								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-0573-7968	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					9.98%

Unequal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-004	1.982	1.86	0.1586	0.0414	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.535	2.586	0.0647	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1143023	0.1143023	1	3.928	0.0675	Non-Significant Effect
Error	0.407423	0.02910164	14			
Total	0.5217253	0.1434039	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	9.061	8.885	0.0094	Unequal Variances
Distribution	Shapiro-Wilk Normality	0.8745		0.0319	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-004	8	0.85	0.7826	0.9174	0.5	1	0.03292	0.1773	20.86%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-004	8	1.203	1.116	1.29	0.7854	1.419	0.04252	0.229	19.03%	12.32%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-004								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-8299-8686	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.28%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-000		19830-002	62		2	0.2869	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.91	2.586	0.7015	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01289428	0.01289428	1	1.012	0.3314	Non-Significant Effect
Error	0.1783078	0.01273627	14			
Total	0.1912021	0.02563056	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.403	8.885	0.1285	Equal Variances
Distribution	Shapiro-Wilk Normality	0.7962		0.0024	Non-normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-002	8	0.9375	0.9027	0.9723	0.8	1	0.01701	0.09161	9.77%	3.85%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-002	8	1.315	1.262	1.369	1.107	1.412	0.02606	0.1403	10.67%	4.14%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-002								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-8398-5100	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-001	2.547	1.761	0.1038	0.0116	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.028	2.586	0.4893	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0901519	0.0901519	1	6.487	0.0233	Significant Effect
Error	0.1945713	0.01389795	14			
Total	0.2847232	0.1040499	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.805	8.885	0.0989	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8788		0.0371	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-001	8	0.875	0.8356	0.9144	0.7	1	0.01922	0.1035	11.83%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-001	8	1.222	1.166	1.279	0.9912	1.412	0.02755	0.1484	12.14%	10.94%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-001								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-0485-1071	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-012	3.179	1.761	0.1025	0.0033	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2	2.586	0.5349	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1368953	0.1368953	1	10.11	0.0067	Significant Effect
Error	0.1896105	0.01354361	14			
Total	0.3265058	0.1504389	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.682	8.885	0.1069	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8499		0.0136	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-012	8	0.85	0.8093	0.8907	0.7	1	0.01985	0.1069	12.58%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-012	8	1.187	1.132	1.243	0.9912	1.412	0.0271	0.146	12.29%	13.48%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-012								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-1375-8803	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					5.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-010	3.521	1.761	0.09417	0.0017	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.207	2.586	0.2631	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1417296	0.1417296	1	12.39	0.0034	Significant Effect
Error	0.1600855	0.01143468	14			
Total	0.3018151	0.1531643	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.953	8.885	0.1764	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8989		0.0773	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-010	8	0.85	0.8148	0.8852	0.7	1	0.01719	0.09258	10.89%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-010	8	1.184	1.134	1.234	0.9912	1.412	0.02427	0.1307	11.04%	13.72%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-010								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-1122-7627	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-009	2.215	1.761	0.1165	0.0219	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.834	2.586	0.8725	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.085921	0.085921	1	4.906	0.0439	Significant Effect
Error	0.245185	0.01751321	14			
Total	0.331106	0.1034342	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	5.055	8.885	0.0485	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8946		0.0658	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-009	8	0.875	0.8307	0.9193	0.7	1	0.02163	0.1165	13.31%	10.26%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-009	8	1.226	1.161	1.291	0.9912	1.419	0.03175	0.171	13.95%	10.68%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-009								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-6920-4810	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					7.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	2.792	1.761	0.115	0.0072	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.761	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1330246	0.1330246	1	7.797	0.0144	Significant Effect
Error	0.2388554	0.0170611	14			
Total	0.37188	0.1500857	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.898	8.885	0.0526	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9006		0.0822	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-008	8	0.85	0.8045	0.8955	0.7	1	0.02219	0.1195	14.06%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-008	8	1.19	1.126	1.254	0.9912	1.412	0.03126	0.1683	14.15%	13.29%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-008								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-0298-8266	**Endpoint:**	Proportion Survived	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:48	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run					6.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-003	3	1.761	0.1078	0.0048	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.558	2.586	0.0577	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.134884	0.134884	1	9	0.0096	Significant Effect
Error	0.2098126	0.01498662	14			
Total	0.3446966	0.1498706	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.181	8.885	0.0786	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8463		0.0120	Normal Distribution

Proportion Survived Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	0.975	0.9574	0.9926	0.9	1	0.008596	0.04629	4.75%	0.0%
19830-003	8	0.85	0.8045	0.8955	0.6	1	0.02219	0.1195	14.06%	12.82%

Angular (Corrected) Transformed Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	1.372	1.343	1.401	1.249	1.419	0.01412	0.07606	5.54%	0.0%
19830-003	8	1.189	1.129	1.248	0.8861	1.412	0.02888	0.1555	13.09%	13.38%

Proportion Survived Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000								
19830-003								

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-9606-6772	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:16	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-017	-2.197	1.761	0.4307	0.9773	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.243	2.586	0.2304	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.154254	1.154254	1	4.825	0.0454	Significant Effect
Error	3.349367	0.2392405	14			
Total	4.503621	1.393494	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.837	8.885	0.1923	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9661		0.7716	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-20.3%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-4716-0880	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.31%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-016	-1.868	1.761	0.2728	0.9586	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.246	2.586	0.2272	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.334824	0.334824	1	3.489	0.0828	Non-Significant Effect
Error	1.34348	0.09596289	14			
Total	1.678304	0.4307869	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.855	8.885	0.4336	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9442		0.4036	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	-10.93%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-9946-7078	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-015	-1.052	1.761	0.3176	0.8447	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.125	2.586	0.3532	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1440051	0.1440051	1	1.107	0.3105	Non-Significant Effect
Error	1.821037	0.1300741	14			
Total	1.965042	0.2740791	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.086	8.885	0.9161	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9129		0.1298	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	-7.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-8380-0810	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.55%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-014	-1.201	1.761	0.3587	0.8751	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.823	2.586	0.9001	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2391492	0.2391492	1	1.442	0.2498	Non-Significant Effect
Error	2.322621	0.1659015	14			
Total	2.56177	0.4050506	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.661	8.885	0.5194	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9652		0.7566	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	-9.24%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-1557-2928	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-013	-2.665	1.761	0.388	0.9908	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.238	2.586	0.2349	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.378495	1.378495	1	7.102	0.0185	Significant Effect
Error	2.717577	0.1941126	14			
Total	4.096072	1.572608	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.113	8.885	0.3448	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9642		0.7378	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-22.18%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-5510-8509	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-011	-1.441	1.761	0.4307	0.9143	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.102	2.586	0.3822	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.49686	0.49686	1	2.078	0.1715	Non-Significant Effect
Error	3.34804	0.2391457	14			
Total	3.8449	0.7360057	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.835	8.885	0.1925	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9496		0.4833	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	-13.32%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-4255-8365	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-007	0.7479	1.761	0.2712	0.2335	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.26	2.586	0.2158	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05304343	0.05304343	1	0.5593	0.4669	Non-Significant Effect
Error	1.327691	0.09483507	14			
Total	1.380734	0.1478785	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.92	8.885	0.4090	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9514		0.5118	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	4.35%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7964-1710	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.92%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-006	-2.133	1.761	0.2889	0.9745	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.121	2.586	0.3583	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4899306	0.4899306	1	4.551	0.0511	Non-Significant Effect
Error	1.506985	0.1076418	14			
Total	1.996915	0.5975724	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.377	8.885	0.6837	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9488		0.4717	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	-13.22%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-4743-7033	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.5%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-005	-1.799	1.761	0.4103	0.9532	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.435	2.586	0.1040	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7025715	0.7025715	1	3.237	0.0936	Non-Significant Effect
Error	3.039008	0.217072	14			
Total	3.74158	0.9196435	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.481	8.885	0.2535	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9147		0.1386	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-15.83%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-5972-1852	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-004	-1.978	1.761	0.3967	0.9660	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.07	2.586	0.4255	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7941826	0.7941826	1	3.914	0.0679	Non-Significant Effect
Error	2.840725	0.2029089	14			
Total	3.634908	0.9970915	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.254	8.885	0.3057	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9605		0.6703	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-16.84%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-8895-7335	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.06%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-002	-3.5	1.761	0.3986	0.9982	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.217	2.586	0.2541	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.509169	2.509169	1	12.25	0.0035	Significant Effect
Error	2.867374	0.2048125	14			
Total	5.376543	2.713981	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.285	8.885	0.2979	Equal Variances
Distribution	Shapiro-Wilk Normality	0.965		0.7526	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-29.92%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-0054-5933	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.18%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-001	-1.58	1.761	0.5076	0.9317	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.252	2.586	0.2226	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8288062	0.8288062	1	2.495	0.1365	Non-Significant Effect
Error	4.650354	0.3321681	14			
Total	5.47916	1.160974	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.327	8.885	0.0722	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9561		0.5921	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-17.2%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-4068-3817	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-017	0.3124	1.761	0.4235	0.3797	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.281	2.586	0.1984	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02256224	0.02256224	1	0.09758	0.7594	Non-Significant Effect
Error	3.236982	0.231213	14			
Total	3.259545	0.2537753	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.256	8.885	0.1421	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9409		0.3600	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	2.3%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-5181-8152	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					8.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-016	2.178	1.761	0.2611	0.0235	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.806	2.586	0.9431	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4172251	0.4172251	1	4.745	0.0470	Significant Effect
Error	1.231096	0.0879354	14			
Total	1.648321	0.5051605	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.616	8.885	0.5417	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9426		0.3815	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	9.91%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-3662-4184	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.44%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-015	2.419	1.761	0.3077	0.0149	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.194	2.586	0.2764	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7141761	0.7141761	1	5.852	0.0298	Significant Effect
Error	1.708652	0.1220466	14			
Total	2.422828	0.8362226	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.247	8.885	0.7787	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9348		0.2901	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	12.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-4436-1207	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:15	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.74%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-014	1.851	1.761	0.3499	0.0427	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.869	2.586	0.7917	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.54102	0.54102	1	3.427	0.0854	Non-Significant Effect
Error	2.210236	0.157874	14			
Total	2.751256	0.698894	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.906	8.885	0.4141	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9683		0.8095	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	11.28%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-5221-8633	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-013	0.117	1.761	0.3799	0.4543	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.285	2.586	0.1952	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.002547828	0.002547828	1	0.01369	0.9085	Non-Significant Effect
Error	2.605191	0.1860851	14			
Total	2.607739	0.1886329	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.425	8.885	0.2653	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9843		0.9884	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	0.77%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-4846-6775	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-011	1.081	1.761	0.4234	0.1490	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.138	2.586	0.3373	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.270074	0.270074	1	1.169	0.2980	Non-Significant Effect
Error	3.235656	0.2311182	14			
Total	3.50573	0.5011923	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.254	8.885	0.1423	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9674		0.7953	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	7.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-8352-4081	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					7.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-007	4.938	1.761	0.2595	0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.765	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.116679	2.116679	1	24.38	0.0002	Significant Effect
Error	1.215306	0.08680758	14			
Total	3.331985	2.203486	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.673	8.885	0.5136	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9491		0.4749	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	22.32%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-1702-1375	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					8.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-006	1.662	1.761	0.278	0.0593	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.831	2.586	0.8810	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2752251	0.2752251	1	2.763	0.1187	Non-Significant Effect
Error	1.3946	0.09961428	14			
Total	1.669825	0.3748394	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.2	8.885	0.8164	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9534		0.5450	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	8.05%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-1089-5629	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.35%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-005	0.8451	1.761	0.4026	0.2061	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.481	2.586	0.0840	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1492849	0.1492849	1	0.7141	0.4123	Non-Significant Effect
Error	2.926624	0.2090445	14			
Total	3.075908	0.3583294	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.848	8.885	0.1907	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9114		0.1224	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	5.93%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-2835-1368	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	0.7552	1.761	0.3888	0.2313	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.113	2.586	0.3690	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1111557	0.1111557	1	0.5704	0.4626	Non-Significant Effect
Error	2.72834	0.1948815	14			
Total	2.839496	0.3060371	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.587	8.885	0.2330	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9408		0.3591	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	5.12%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0994-9704	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-0.8103	1.761	0.3907	0.7843	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.262	2.586	0.2143	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1292159	0.1292159	1	0.6566	0.4313	Non-Significant Effect
Error	2.75499	0.196785	14			
Total	2.884206	0.3260009	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.622	8.885	0.2267	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9745		0.9053	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-5.52%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-9583-8274	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.38%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-001	0.5518	1.761	0.5014	0.2949	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.279	2.586	0.1999	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.09871	0.09871	1	0.3045	0.5898	Non-Significant Effect
Error	4.537969	0.3241406	14			
Total	4.636679	0.4228506	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.967	8.885	0.0507	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9619		0.6973	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	4.82%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-0280-1664	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.23%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-012	3.585	1.761	0.3008	0.0015	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.037	2.586	0.4742	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.49957	1.49957	1	12.85	0.0030	Significant Effect
Error	1.633521	0.1166801	14			
Total	3.133091	1.61625	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.148	8.885	0.8604	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9646		0.7454	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	18.79%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-7656-2432	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.32%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-017	-0.4794	1.761	0.4683	0.6805	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.063	2.586	0.4363	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06499491	0.06499491	1	0.2298	0.6391	Non-Significant Effect
Error	3.959611	0.2828293	14			
Total	4.024606	0.3478242	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.67	8.885	0.5150	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9265		0.2141	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-4.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-0189-4922	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.76%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-016	0.6445	1.761	0.329	0.2648	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.746	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05797564	0.05797564	1	0.4154	0.5296	Non-Significant Effect
Error	1.953724	0.1395517	14			
Total	2.011699	0.1975273	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.152	8.885	0.1528	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9601		0.6634	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	3.94%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2877-1459	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-015	1.056	1.761	0.367	0.1545	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.839	2.586	0.8599	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1935481	0.1935481	1	1.115	0.3090	Non-Significant Effect
Error	2.43128	0.1736629	14			
Total	2.624829	0.367211	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.564	8.885	0.5693	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9713		0.8596	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	7.2%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-8847-6780	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.19%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-014	0.7219	1.761	0.4031	0.2411	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.622	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1091591	0.1091591	1	0.5211	0.4823	Non-Significant Effect
Error	2.932864	0.2094903	14			
Total	3.042023	0.3186494	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.023	8.885	0.9767	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9463		0.4335	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	5.41%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-4993-3994	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:12	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.05%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-013	-0.7275	1.761	0.4294	0.7605	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.022	2.586	0.4979	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1257924	0.1257924	1	0.5292	0.4789	Non-Significant Effect
Error	3.32782	0.2377014	14			
Total	3.453613	0.3634939	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.244	8.885	0.7809	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9759		0.9229	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-5.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-0447-9171	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.32%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-011	0.2154	1.761	0.4683	0.4163	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.933	2.586	0.6551	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01311898	0.01311898	1	0.0464	0.8326	Non-Significant Effect
Error	3.958284	0.2827346	14			
Total	3.971403	0.2958536	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.669	8.885	0.5155	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9486		0.4684	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	1.87%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-8389-5177	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.72%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-007	2.821	1.761	0.3277	0.0068	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.753	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.101939	1.101939	1	7.961	0.0136	Significant Effect
Error	1.937935	0.1384239	14			
Total	3.039873	1.240363	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.262	8.885	0.1416	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9591		0.6461	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	17.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-2794-3815	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-006	0.3072	1.761	0.3425	0.3816	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.677	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01427324	0.01427324	1	0.09438	0.7632	Non-Significant Effect
Error	2.117228	0.1512306	14			
Total	2.131501	0.1655038	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.339	8.885	0.2847	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9543		0.5608	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	1.95%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-6399-3047	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-005	-0.03677	1.761	0.4496	0.5144	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.222	2.586	0.2494	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0003524744	0.0003524744	1	0.001352	0.9712	Non-Significant Effect
Error	3.649252	0.2606609	14			
Total	3.649604	0.2610133	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.46	8.885	0.6297	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9481		0.4600	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-0.31%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-1581-4952	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.31%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-004	-0.1445	1.761	0.4372	0.5564	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.878	2.586	0.7697	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.005147795	0.005147795	1	0.02088	0.8872	Non-Significant Effect
Error	3.450969	0.2464978	14			
Total	3.456116	0.2516456	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.327	8.885	0.7186	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9415		0.3673	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-1.17%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-0180-9784	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.36%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-002	-1.534	1.761	0.4389	0.9264	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.013	2.586	0.5127	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5846354	0.5846354	1	2.354	0.1473	Non-Significant Effect
Error	3.477618	0.2484013	14			
Total	4.062253	0.8330367	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.345	8.885	0.7059	Equal Variances
Distribution	Shapiro-Wilk Normality	0.951		0.5057	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-12.51%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-1550-1209	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-001	-0.1484	1.761	0.5398	0.5579	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.117	2.586	0.3633	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.008274968	0.008274968	1	0.02202	0.8841	Non-Significant Effect
Error	5.260597	0.3757569	14			
Total	5.268872	0.3840319	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.547	8.885	0.2406	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9661		0.7722	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-1.49%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-2394-8840	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.82%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-012	1.997	1.761	0.3613	0.0328	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.696	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6714509	0.6714509	1	3.99	0.0656	Non-Significant Effect
Error	2.356149	0.1682964	14			
Total	3.0276	0.8397473	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.699	8.885	0.5010	Equal Variances
Distribution	Shapiro-Wilk Normality	0.959		0.6429	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	13.4%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-4239-5846	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-010	-1.012	1.761	0.3526	0.8357	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.629	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1641452	0.1641452	1	1.024	0.3287	Non-Significant Effect
Error	2.243764	0.1602689	14			
Total	2.40791	0.3244141	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.95	8.885	0.3980	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9646		0.7453	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-6.63%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-9175-4620	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-017	-0.4181	1.761	0.5579	0.6589	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.422	2.586	0.1102	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.07014926	0.07014926	1	0.1748	0.6822	Non-Significant Effect
Error	5.619137	0.4013669	14			
Total	5.689287	0.4715162	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.269	8.885	0.7612	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9032		0.0904	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-4.34%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-4116-7878	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	0.4544	1.761	0.4474	0.3282	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	3.02	2.586	0.0027	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05329876	0.05329876	1	0.2065	0.6565	Non-Significant Effect
Error	3.61325	0.2580893	14			
Total	3.666549	0.3113881	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.679	8.885	0.0228	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8418		0.0104	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	3.78%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-8672-9488	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	-0.6391	1.771	0.2669	0.7331	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.034633	0.034633	1	0.4084	0.5339	Non-Significant Effect
Error	1.102361	0.08479699	13			
Total	1.136994	0.11943	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.567	9.155	0.5683	Equal Variances
Distribution	Shapiro-Wilk Normality	0.942		0.4082	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	-3.39%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-1641-3271	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	0.7955	1.761	0.476	0.2198	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.838	2.586	0.0110	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1849215	0.1849215	1	0.6329	0.4396	Non-Significant Effect
Error	4.090807	0.2922005	14			
Total	4.275728	0.4771219	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.315	8.885	0.1365	Equal Variances
Distribution	Shapiro-Wilk Normality	0.888		0.0519	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	7.05%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-6040-7223	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.25%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	0.01809	1.771	0.3195	0.4929	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.978016E-05	3.978016E-05	1	0.0003273	0.9858	Non-Significant Effect
Error	1.579917	0.1215321	13			
Total	1.579957	0.1215719	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.286	10.79	0.7749	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9257		0.2349	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	0.11%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-2327-5027	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	0.5596	1.761	0.5044	0.2923	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.679	2.586	0.0300	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.102705	0.102705	1	0.3131	0.5846	Non-Significant Effect
Error	4.592391	0.3280279	14			
Total	4.695096	0.4307329	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.168	8.885	0.3289	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9257		0.2082	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	5.25%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-6150-2893	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:11	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	-0.2487	1.771	0.3668	0.5963	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.009905622	0.009905622	1	0.06187	0.8075	Non-Significant Effect
Error	2.081501	0.1601155	13			
Total	2.091407	0.1700211	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.967	10.79	0.4280	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9731		0.9014	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	-1.81%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-2567-4632	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.23%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-013	-0.6108	1.761	0.5256	0.7245	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.571	2.586	0.0541	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1329247	0.1329247	1	0.3731	0.5511	Non-Significant Effect
Error	4.987346	0.356239	14			
Total	5.120271	0.4891637	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.704	8.885	0.4988	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8964		0.0705	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-5.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-8654-1325	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-011	0.1652	1.761	0.5579	0.4356	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.422	2.586	0.1100	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01094578	0.01094578	1	0.02728	0.8712	Non-Significant Effect
Error	5.61781	0.4012721	14			
Total	5.628756	0.4122179	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.27	8.885	0.7607	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9586		0.6357	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	1.71%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-9143-3953	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.63%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	2.051	1.761	0.4464	0.0297	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	3.027	2.586	0.0025	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.081219	1.081219	1	4.208	0.0594	Non-Significant Effect
Error	3.597461	0.2569615	14			
Total	4.678679	1.33818	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.911	8.885	0.0207	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8438		0.0111	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	17.04%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-8569-4580	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.33%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	2.06	1.771	0.265	0.0300	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3545272	0.3545272	1	4.242	0.0601	Non-Significant Effect
Error	1.086571	0.08358242	13			
Total	1.441098	0.4381096	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.621	9.155	0.5404	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9487		0.5047	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	10.85%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8727-5164	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	0.2109	1.761	0.4574	0.4180	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.954	2.586	0.0047	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01200221	0.01200221	1	0.04449	0.8360	Non-Significant Effect
Error	3.776755	0.2697682	14			
Total	3.788757	0.2817704	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.957	8.885	0.0510	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8688		0.0261	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	1.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-7363-8845	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.07%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	-0.972	1.771	0.286	0.8256	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.09198886	0.09198886	1	0.9447	0.3488	Non-Significant Effect
Error	1.265865	0.09737424	13			
Total	1.357854	0.1893631	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.163	9.155	0.8375	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9355		0.3288	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	-5.53%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-8806-1512	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-005	-0.04659	1.761	0.5423	0.5183	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.492	2.586	0.0799	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0008231372	0.0008231372	1	0.002171	0.9635	Non-Significant Effect
Error	5.308778	0.3791985	14			
Total	5.309601	0.3800216	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.451	8.885	0.6356	Equal Variances
Distribution	Shapiro-Wilk Normality	0.955		0.5728	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-0.47%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-2820-6909	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.44%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-004	-0.1352	1.761	0.5321	0.5528	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.539	2.586	0.0633	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.006669042	0.006669042	1	0.01827	0.8944	Non-Significant Effect
Error	5.110495	0.3650354	14			
Total	5.117164	0.3717044	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.597	8.885	0.5518	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9175		0.1535	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-1.34%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-1446-8354	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-002	-1.279	1.761	0.5335	0.8891	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.533	2.586	0.0654	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5998976	0.5998976	1	1.635	0.2218	Non-Significant Effect
Error	5.137145	0.3669389	14			
Total	5.737042	0.9668365	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.576	8.885	0.5632	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8979		0.0745	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-12.69%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-4194-3293	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					20.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-001	-0.1435	1.761	0.6192	0.5560	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.182	2.586	0.2886	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01017736	0.01017736	1	0.02059	0.8879	Non-Significant Effect
Error	6.920124	0.4942946	14			
Total	6.930301	0.5044719	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.202	8.885	0.8145	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9045		0.0949	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-1.65%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-8916-7454	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	1.511	1.761	0.4717	0.0765	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.865	2.586	0.0091	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6552984	0.6552984	1	2.285	0.1529	Non-Significant Effect
Error	4.015676	0.286834	14			
Total	4.670974	0.9421324	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.6	8.885	0.1127	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8852		0.0468	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	13.26%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-5807-1902	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	1.096	1.771	0.3118	0.1465	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1390691	0.1390691	1	1.201	0.2929	Non-Significant Effect
Error	1.504786	0.1157528	13			
Total	1.643855	0.2548219	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.184	10.79	0.8527	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9476		0.4869	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	6.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-3279-4497	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	-0.7861	1.761	0.465	0.7775	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.906	2.586	0.0068	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1722784	0.1722784	1	0.6179	0.4449	Non-Significant Effect
Error	3.903291	0.2788065	14			
Total	4.07557	0.4510849	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.132	8.885	0.0809	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8849		0.0463	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-6.8%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-9311-7307	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	-2.475	1.771	0.3	0.9861	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6563054	0.6563054	1	6.128	0.0279	Significant Effect
Error	1.392401	0.1071078	13			
Total	2.048707	0.7634132	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.032	10.79	0.9859	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9432		0.4238	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-14.76%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-2683-2598	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-0.01725	1.761	0.5062	0.5068	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.669	2.586	0.0317	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	9.832839E-05	9.832839E-05	1	0.0002976	0.9865	Non-Significant Effect
Error	4.625919	0.3304228	14			
Total	4.626018	0.3305211	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.119	8.885	0.3431	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9144		0.1371	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	-0.16%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-0706-3834	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.02%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-1.038	1.771	0.3697	0.8409	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1753233	0.1753233	1	1.078	0.3182	Non-Significant Effect
Error	2.11503	0.1626946	13			
Total	2.290353	0.3380179	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.012	10.79	0.4126	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9609		0.7076	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	-7.63%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-2490-8350	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:10	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-017	0.3935	1.761	0.4807	0.3500	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.01	2.586	0.5178	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0461205	0.0461205	1	0.1548	0.6999	Non-Significant Effect
Error	4.17082	0.2979158	14			
Total	4.216941	0.3440363	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.462	8.885	0.6291	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9034		0.0910	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	3.26%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-3380-5865	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.52%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-016	1.807	1.761	0.3463	0.0462	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.112	2.586	0.3695	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5047806	0.5047806	1	3.264	0.0923	Non-Significant Effect
Error	2.164934	0.1546381	14			
Total	2.669714	0.6594187	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.601	8.885	0.1127	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9453		0.4184	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	10.79%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-9028-5518	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.62%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-015	2.094	1.761	0.3826	0.0275	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.912	2.586	0.6985	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8274429	0.8274429	1	4.384	0.0550	Non-Significant Effect
Error	2.64249	0.1887493	14			
Total	3.469933	1.016192	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.787	8.885	0.4615	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9788		0.9534	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	13.82%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-6958-5979	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.68%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-014	1.688	1.761	0.4173	0.0567	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.753	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6401442	0.6401442	1	2.85	0.1135	Non-Significant Effect
Error	3.144074	0.2245767	14			
Total	3.784218	0.8647209	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.169	8.885	0.8422	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9587		0.6383	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	12.15%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-2428-6642	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.45%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-013	0.2288	1.761	0.4428	0.4112	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.961	2.586	0.6030	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01323087	0.01323087	1	0.05234	0.8223	Non-Significant Effect
Error	3.53903	0.2527878	14			
Total	3.55226	0.2660187	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.089	8.885	0.9137	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9443		0.4050	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	1.75%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-5889-5385	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-011	1.071	1.761	0.4806	0.1512	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.884	2.586	0.7578	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3413317	0.3413317	1	1.146	0.3025	Non-Significant Effect
Error	4.169494	0.297821	14			
Total	4.510825	0.6391526	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.461	8.885	0.6295	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9543		0.5606	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	8.88%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-2491-2592	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-007	3.878	1.761	0.345	0.0008	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.12	2.586	0.3598	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.308669	2.308669	1	15.04	0.0017	Significant Effect
Error	2.149144	0.1535103	14			
Total	4.457813	2.462179	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.726	8.885	0.1039	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9457		0.4253	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	23.08%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-5091-9226	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-006	1.445	1.761	0.3591	0.0853	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.037	2.586	0.4751	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3471195	0.3471195	1	2.087	0.1706	Non-Significant Effect
Error	2.328438	0.166317	14			
Total	2.675558	0.5134365	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.672	8.885	0.2180	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9503		0.4942	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	8.95%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-2654-0136	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.05%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-005	0.8587	1.761	0.4624	0.2025	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.16	2.586	0.3125	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.203332	0.203332	1	0.7374	0.4050	Non-Significant Effect
Error	3.860462	0.2757473	14			
Total	4.063794	0.4790793	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.278	8.885	0.7542	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9601		0.6635	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	6.85%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-7586-4603	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.68%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-004	0.7781	1.761	0.4504	0.2247	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.823	2.586	0.8985	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.158364	0.158364	1	0.6054	0.4495	Non-Significant Effect
Error	3.662178	0.2615842	14			
Total	3.820542	0.4199481	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.161	8.885	0.8486	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9222		0.1832	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	6.05%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-0320-3835	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.73%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-0.5745	1.761	0.452	0.7126	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.954	2.586	0.6148	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08697585	0.08697585	1	0.3301	0.5747	Non-Significant Effect
Error	3.688828	0.2634877	14			
Total	3.775804	0.3504635	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.177	8.885	0.8352	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9108		0.1199	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-4.48%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-4074-5507	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.73%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-001	0.6058	1.761	0.5506	0.2772	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.076	2.586	0.4178	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1434372	0.1434372	1	0.367	0.5543	Non-Significant Effect
Error	5.471807	0.3908434	14			
Total	5.615244	0.5342805	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.229	8.885	0.3121	Equal Variances
Distribution	Shapiro-Wilk Normality	0.926		0.2107	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	5.75%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-4269-8935	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-012	3.01	1.761	0.3771	0.0047	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.94	2.586	0.6431	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.661828	1.661828	1	9.062	0.0094	Significant Effect
Error	2.567359	0.1833828	14			
Total	4.229187	1.84521	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.941	8.885	0.4013	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9614		0.6871	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	19.58%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-3826-0406	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-010	0.1541	1.761	0.3688	0.4398	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.983	2.586	0.5624	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.004166638	0.004166638	1	0.02376	0.8797	Non-Significant Effect
Error	2.454974	0.1753553	14			
Total	2.459141	0.1795219	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.228	8.885	0.3125	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9442		0.4033	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	0.98%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-1082-3691	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-009	0.9859	1.761	0.4196	0.1705	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.743	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2206161	0.2206161	1	0.972	0.3409	Non-Significant Effect
Error	3.177603	0.2269716	14			
Total	3.398219	0.4475877	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.142	8.885	0.8651	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9159		0.1451	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	7.14%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-7708-7093	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:09	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.73%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	0.8159	1.761	0.5176	0.2141	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.61	2.586	0.0439	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2300295	0.2300295	1	0.6658	0.4282	Non-Significant Effect
Error	4.837129	0.3455092	14			
Total	5.067159	0.5755387	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.855	8.885	0.4338	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8859		0.0481	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	7.29%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-0532-3900	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.78%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	2.063	1.771	0.3877	0.0299	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7612345	0.7612345	1	4.254	0.0597	Non-Significant Effect
Error	2.326239	0.1789415	13			
Total	3.087474	0.940176	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.299	10.79	0.3301	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9518		0.5524	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	0.0%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	13.72%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-3816-2803	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-017	-1.099	1.761	0.4431	0.8548	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.18	2.586	0.2906	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3056421	0.3056421	1	1.207	0.2904	Non-Significant Effect
Error	3.544249	0.2531606	14			
Total	3.849891	0.5588027	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.319	8.885	0.2895	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9367		0.3102	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-017	8	3.184	2.958	3.41	2.574	4.244	0.1104	0.5948	18.68%	-9.51%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-017	2.855	4.244	3.761	3.29	3.372	2.574	2.708	2.668

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-3573-8527	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-016	-0.1723	1.761	0.2919	0.5672	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.209	2.586	0.2614	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.003263467	0.003263467	1	0.0297	0.8656	Non-Significant Effect
Error	1.538362	0.109883	14			
Total	1.541625	0.1131465	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.269	8.885	0.3018	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9643		0.7397	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-016	8	2.936	2.837	3.035	2.419	3.24	0.04814	0.2593	8.83%	-0.98%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-016	2.419	2.781	2.925	3.105	3.24	3.175	2.909	2.935

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-2095-7945	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.49%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-015	0.3743	1.761	0.3342	0.3569	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.02	2.586	0.5014	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02017337	0.02017337	1	0.1401	0.7138	Non-Significant Effect
Error	2.015918	0.1439942	14			
Total	2.036092	0.1641675	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.126	8.885	0.8793	Equal Variances
Distribution	Shapiro-Wilk Normality	0.974		0.8979	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-015	8	2.836	2.697	2.976	2.096	3.205	0.06834	0.368	12.97%	2.44%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.985

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-5589-3489	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.84%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-014	0.0766	1.761	0.3734	0.4700	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.751	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001055225	0.001055225	1	0.005868	0.9400	Non-Significant Effect
Error	2.517502	0.1798216	14			
Total	2.518558	0.1808768	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.358	8.885	0.6969	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9725		0.8779	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-014	8	2.891	2.718	3.064	2.174	3.514	0.08451	0.4551	15.74%	0.56%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-014	2.174	3.035	3.341	3.514	3.121	2.873	2.633	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-9662-2077	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.81%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-013	-1.431	1.761	0.4017	0.9128	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.161	2.586	0.3109	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4258612	0.4258612	1	2.047	0.1744	Non-Significant Effect
Error	2.912458	0.2080327	14			
Total	3.338319	0.6338938	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.727	8.885	0.4878	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9672		0.7917	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-013	8	3.234	3.039	3.429	2.443	4.186	0.09532	0.5133	15.87%	-11.22%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-013	3.254	2.443	3.331	3.17	4.186	2.834	3.079	3.572

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-4492-1276	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-011	-0.3645	1.761	0.443	0.6395	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.044	2.586	0.4645	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03362453	0.03362453	1	0.1329	0.7209	Non-Significant Effect
Error	3.542922	0.2530659	14			
Total	3.576546	0.2866904	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.318	8.885	0.2898	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9536		0.5485	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-011	8	2.999	2.773	3.225	2.006	3.687	0.1104	0.5946	19.83%	-3.15%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-011	2.353	2.948	3.679	3.271	3.197	2.854	2.006	3.687

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-7413-8820	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.99%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-007	2.28	1.761	0.2904	0.0194	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.221	2.586	0.2505	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5652403	0.5652403	1	5.197	0.0388	Significant Effect
Error	1.522573	0.1087552	14			
Total	2.087813	0.6739954	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.348	8.885	0.2826	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9665		0.7793	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-007	8	2.532	2.435	2.629	2.03	2.86	0.04733	0.2549	10.07%	12.93%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-007	2.654	2.5	2.368	2.496	2.03	2.598	2.748	2.86

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-7865-7192	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-006	-0.5118	1.761	0.307	0.6916	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.1	2.586	0.3847	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03183991	0.03183991	1	0.2619	0.6168	Non-Significant Effect
Error	1.701866	0.1215619	14			
Total	1.733706	0.1534018	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.684	8.885	0.5080	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9595		0.6521	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-006	8	2.997	2.882	3.111	2.439	3.434	0.05589	0.301	10.04%	-3.07%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-006	2.748	3.434	2.925	2.439	3.099	3.099	3.029	3.203

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-5031-3971	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:08	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-005	-0.6589	1.761	0.4233	0.7397	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.36	2.586	0.1439	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1002877	0.1002877	1	0.4342	0.5206	Non-Significant Effect
Error	3.23389	0.2309921	14			
Total	3.334178	0.3312799	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.028	8.885	0.3713	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9606		0.6732	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-005	8	3.066	2.854	3.277	1.97	3.586	0.1033	0.5563	18.14%	-5.45%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-005	3.578	3.353	3.586	3.488	1.97	2.762	2.79	3.001

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-5389-8097	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-004	-0.7939	1.761	0.4101	0.7797	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.003	2.586	0.5294	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1366457	0.1366457	1	0.6302	0.4405	Non-Significant Effect
Error	3.035607	0.216829	14			
Total	3.172252	0.3534747	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.843	8.885	0.4386	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9499		0.4882	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-004	8	3.092	2.891	3.294	2.494	3.993	0.09846	0.5302	17.15%	-6.36%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-004	2.536	3.267	3.39	3.436	3.993	3.027	2.494	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-2065-6487	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.17%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-002	-2.272	1.761	0.4119	0.9803	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.145	2.586	0.3295	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.128954	1.128954	1	5.161	0.0394	Significant Effect
Error	3.062256	0.2187326	14			
Total	4.19121	1.347687	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.868	8.885	0.4287	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9575		0.6167	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-002	8	3.439	3.236	3.642	2.76	4.408	0.09912	0.5338	15.52%	-18.27%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-002	2.76	3.975	4.408	3.092	3.38	3.293	3.052	3.55

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-5380-8744	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.82%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-001	-0.661	1.761	0.5181	0.7403	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.206	2.586	0.2645	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1512237	0.1512237	1	0.437	0.5193	Non-Significant Effect
Error	4.845235	0.3460882	14			
Total	4.996459	0.4973119	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.537	8.885	0.1175	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9539		0.5531	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-001	8	3.102	2.823	3.381	1.97	4.356	0.1364	0.7346	23.68%	-6.69%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-001	2.712	4.356	3.091	3.894	2.736	1.97	3.035	3.023

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-0742-2906	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.28%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-012	1.401	1.761	0.3279	0.0915	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.967	2.586	0.5920	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2719758	0.2719758	1	1.962	0.1831	Non-Significant Effect
Error	1.940787	0.1386277	14			
Total	2.212763	0.4106035	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.223	8.885	0.7972	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9741		0.8994	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-012	8	2.647	2.512	2.781	1.974	3.112	0.06558	0.3531	13.34%	8.97%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-012	2.536	3.02	1.974	2.664	3.112	2.8	2.493	2.575

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-6433-2365	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-010	-1.945	1.761	0.3183	0.9640	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.026	2.586	0.4911	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4942883	0.4942883	1	3.785	0.0721	Non-Significant Effect
Error	1.828403	0.1306002	14			
Total	2.322691	0.6248885	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.404	8.885	0.6656	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9784		0.9496	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-010	8	3.259	3.134	3.384	2.757	3.683	0.06121	0.3296	10.11%	-12.09%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-010	2.757	3.411	3.683	3.492	3.559	3.218	2.977	2.976

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-0698-5959	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.93%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-009	-0.6979	1.761	0.3759	0.7517	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.716	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08874922	0.08874922	1	0.4871	0.4967	Non-Significant Effect
Error	2.551031	0.1822165	14			
Total	2.63978	0.2709657	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.389	8.885	0.6755	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9405		0.3553	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-009	8	3.056	2.881	3.232	2.431	3.687	0.08548	0.4603	15.06%	-5.12%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-009	2.564	2.431	3.175	3.666	3.687	2.809	3.007	3.113

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-0049-4557	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.61%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	-0.5251	1.761	0.483	0.6961	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.798	2.586	0.0145	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08293939	0.08293939	1	0.2758	0.6077	Non-Significant Effect
Error	4.210557	0.3007541	14			
Total	4.293497	0.3836935	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.943	8.885	0.1777	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8885		0.0527	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-008	8	3.052	2.797	3.306	2.276	4.534	0.1244	0.67	21.96%	-4.95%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-008	3.004	3.26	3.052	4.534	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0444-5030	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	0.362	1.771	0.3314	0.3616	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01713736	0.01713736	1	0.1311	0.7231	Non-Significant Effect
Error	1.699668	0.1307437	13			
Total	1.716805	0.147881	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.449	10.79	0.6676	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9665		0.8033	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-008	7	2.84	2.716	2.963	2.276	3.26	0.06026	0.3245	11.43%	2.33%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-008	3.004	3.26	3.052	Outlier	2.738	2.926	2.276	2.623

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-4367-3499	**Endpoint:**	Wet Weight - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:07	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.45%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-003	-1.728	1.761	0.3912	0.9470	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.87	2.586	0.7887	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5892188	0.5892188	1	2.986	0.1060	Non-Significant Effect
Error	2.762241	0.1973029	14			
Total	3.35146	0.7865217	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.587	8.885	0.5573	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9236		0.1926	Normal Distribution

Wet Weight - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.908	2.759	3.056	2.289	3.615	0.07253	0.3906	13.43%	0.0%
19830-003	8	3.291	3.104	3.478	2.753	4.094	0.09136	0.492	14.95%	-13.2%

Wet Weight - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.997	3.086	2.92	2.676	3.041	2.289
19830-003	3.017	4.094	2.753	3.146	3.976	2.89	3.113	3.342

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-5969-7919	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.94%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-017	-1.726	1.761	0.4263	0.9468	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.554	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6976423	0.6976423	1	2.977	0.1064	Non-Significant Effect
Error	3.280411	0.2343151	14			
Total	3.978053	0.9319573	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.535	8.885	0.5856	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8783		0.0364	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	-18.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-5209-7575	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.54%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-016	-1.426	1.761	0.3499	0.9121	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.67	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3209221	0.3209221	1	2.033	0.1758	Non-Significant Effect
Error	2.209836	0.1578454	14			
Total	2.530758	0.4787675	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.413	8.885	0.6598	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9587		0.6389	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	-12.58%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8916-7474	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.12%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-015	-2.48	1.761	0.3628	0.9868	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.673	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.044484	1.044484	1	6.153	0.0264	Significant Effect
Error	2.376626	0.169759	14			
Total	3.421109	1.214243	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.195	8.885	0.8200	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9274		0.2216	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-22.7%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-9343-6454	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.58%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-014	-1.931	1.761	0.3732	0.9630	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.086	2.586	0.4035	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6693284	0.6693284	1	3.728	0.0740	Non-Significant Effect
Error	2.513796	0.1795568	14			
Total	3.183124	0.8488852	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.061	8.885	0.9399	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9338		0.2799	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	-18.17%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-2090-9758	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:01	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-013	-2.58	1.761	0.3849	0.9891	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.967	2.586	0.5917	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.271256	1.271256	1	6.654	0.0218	Significant Effect
Error	2.674729	0.1910521	14			
Total	3.945986	1.462309	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.067	8.885	0.9340	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9468		0.4403	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-25.05%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8872-5457	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.86%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-011	-1.503	1.761	0.3796	0.9224	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.672	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4195801	0.4195801	1	2.258	0.1551	Non-Significant Effect
Error	2.601198	0.1857999	14			
Total	3.020778	0.60538	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.01	8.885	0.9897	Equal Variances
Distribution	Shapiro-Wilk Normality	0.926		0.2105	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	-14.39%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-1372-1718	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.77%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-007	2.304	1.761	0.3549	0.0185	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.413	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8621125	0.8621125	1	5.307	0.0371	Significant Effect
Error	2.274225	0.1624446	14			
Total	3.136337	1.024557	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.32	8.885	0.7234	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8898		0.0554	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	20.63%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-3964-6922	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.0%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-006	0.07949	1.761	0.3601	0.4689	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.404	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.00105625	0.00105625	1	0.006319	0.9378	Non-Significant Effect
Error	2.340195	0.1671568	14			
Total	2.341251	0.168213	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.237	8.885	0.7863	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9148		0.1392	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	0.72%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-6877-3116	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					23.38%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-005	1.243	1.761	0.5262	0.1171	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.714	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5516778	0.5516778	1	1.545	0.2342	Non-Significant Effect
Error	4.997612	0.3569723	14			
Total	5.54929	0.9086501	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.862	8.885	0.1887	Equal Variances
Distribution	Shapiro-Wilk Normality	0.862		0.0206	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	16.5%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-1114-3390	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					23.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-004	-1.311	1.761	0.5312	0.8946	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.401	2.586	0.1205	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6254292	0.6254292	1	1.719	0.2109	Non-Significant Effect
Error	5.092828	0.3637734	14			
Total	5.718257	0.9892026	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.936	8.885	0.1787	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9662		0.7747	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	-17.57%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-8662-1128	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.09%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-002	-3.941	1.761	0.4297	0.9993	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.536	2.586	0.0644	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.69889	3.69889	1	15.53	0.0015	Significant Effect
Error	3.333529	0.2381092	14			
Total	7.032418	3.936999	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.576	8.885	0.5630	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8982		0.0753	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-42.72%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-2509-4126	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.16%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-012		19830-001	-1.903	1.761	0.3864	0.9611	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.112	2.586	0.3694	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.6968076	0.6968076	1	3.62	0.0778	Non-Significant Effect
Error	2.694544	0.1924675	14			
Total	3.391352	0.8892751	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.082	8.885	0.9195	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9344		0.2857	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	-18.54%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-1031-7338	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-017	0.41	1.761	0.3775	0.3440	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.754	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03088811	0.03088811	1	0.1681	0.6880	Non-Significant Effect
Error	2.572962	0.183783	14			
Total	2.60385	0.2146711	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.387	8.885	0.1299	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9243		0.1979	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	3.19%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-7848-3174	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-016	1.357	1.761	0.2885	0.0981	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.025	2.586	0.4933	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1975803	0.1975803	1	1.841	0.1963	Non-Significant Effect
Error	1.502387	0.1073133	14			
Total	1.699967	0.3048936	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.561	8.885	0.5710	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9837		0.9860	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	8.06%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-3942-1204	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.03%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-015	-0.03186	1.761	0.3041	0.5125	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.996	2.586	0.5406	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0001209982	0.0001209982	1	0.001015	0.9750	Non-Significant Effect
Error	1.669177	0.1192269	14			
Total	1.669298	0.1193479	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.846	8.885	0.4374	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9469		0.4417	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-0.2%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-2341-6440	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-014	0.537	1.761	0.3163	0.2999	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.461	2.586	0.0921	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03720077	0.03720077	1	0.2883	0.5997	Non-Significant Effect
Error	1.806347	0.1290248	14			
Total	1.843548	0.1662256	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.08	8.885	0.3550	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9328		0.2700	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	3.5%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-1455-7970	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 12:00	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-013	-0.3108	1.761	0.3301	0.6197	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.294	2.586	0.1890	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01357228	0.01357228	1	0.09659	0.7605	Non-Significant Effect
Error	1.96728	0.14052	14			
Total	1.980853	0.1540923	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.354	8.885	0.2813	Equal Variances
Distribution	Shapiro-Wilk Normality	0.957		0.6086	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-2.11%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-7940-1094	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-011	0.9877	1.761	0.3239	0.1700	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.96	2.586	0.6054	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1319505	0.1319505	1	0.9755	0.3401	Non-Significant Effect
Error	1.893749	0.1352678	14			
Total	2.0257	0.2672183	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.229	8.885	0.3123	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9499		0.4887	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	6.59%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-5210-5069	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.69%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-007	5.798	1.761	0.2946	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.422	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.761661	3.761661	1	33.61	<0.0001	Significant Effect
Error	1.566776	0.1119126	14			
Total	5.328436	3.873573	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.671	8.885	0.5143	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9034		0.0911	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	35.18%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-4522-2818	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					10.91%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-006	3.056	1.761	0.3007	0.0043	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.68	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.088892	1.088892	1	9.337	0.0086	Significant Effect
Error	1.632746	0.1166247	14			
Total	2.721638	1.205517	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.784	8.885	0.4630	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9617		0.6934	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	18.93%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-9668-6577	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.69%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-005	3.168	1.761	0.4875	0.0034	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.85	2.586	0.8339	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.075639	3.075639	1	10.04	0.0068	Significant Effect
Error	4.290164	0.3064403	14			
Total	7.365803	3.38208	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.314	8.885	0.0266	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9069		0.1038	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	31.81%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-7360-8550	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	0.3934	1.761	0.4929	0.3500	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.588	2.586	0.0494	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04847004	0.04847004	1	0.1547	0.7000	Non-Significant Effect
Error	4.38538	0.3132414	14			
Total	4.43385	0.3617114	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	6.477	8.885	0.0248	Equal Variances
Distribution	Shapiro-Wilk Normality	0.945		0.4143	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	3.99%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-4471-8737	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.52%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-004	-0.427	1.771	0.3725	0.6618	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03011902	0.03011902	1	0.1823	0.6764	Non-Significant Effect
Error	2.147634	0.1652026	13			
Total	2.177752	0.1953216	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.105	9.155	0.1641	Equal Variances
Distribution	Shapiro-Wilk Normality	0.976		0.9347	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-004	7	2.846	2.652	3.04	2.119	3.594	0.09472	0.5101	17.92%	-3.26%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	Outlier	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0403-7458	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.84%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-2.106	1.761	0.3814	0.9731	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.857	2.586	0.0096	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8321998	0.8321998	1	4.437	0.0537	Non-Significant Effect
Error	2.62608	0.1875772	14			
Total	3.45828	1.019777	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.477	8.885	0.1223	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8719		0.0291	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-16.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-4474-9669	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					9.19%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-002	-1.995	1.771	0.2533	0.9663	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3039623	0.3039623	1	3.981	0.0674	Non-Significant Effect
Error	0.9926854	0.07636042	13			
Total	1.296648	0.3803227	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.238	10.79	0.8107	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9019		0.1019	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-002	7	3.042	2.943	3.141	2.747	3.38	0.04831	0.2602	8.55%	-10.35%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-002	2.76	3.18	Outlier	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-2428-3989	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-001	0.4678	1.761	0.3318	0.3236	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.46	2.586	0.0928	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.03106404	0.03106404	1	0.2189	0.6471	Non-Significant Effect
Error	1.987096	0.1419354	14			
Total	2.01816	0.1729994	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.388	8.885	0.2735	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9148		0.1393	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	3.2%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	05-0297-8204	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.71%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-010		19830-012	2.759	1.761	0.3228	0.0077	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.554	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.022121	1.022121	1	7.609	0.0154	Significant Effect
Error	1.880537	0.1343241	14			
Total	2.902658	1.156445	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.206	8.885	0.3183	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9274		0.2216	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	18.34%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-7558-3069	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-017	0.06996	1.761	0.5113	0.4726	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.742	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001649476	0.001649476	1	0.004894	0.9452	Non-Significant Effect
Error	4.718408	0.3370291	14			
Total	4.720057	0.3386786	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.375	8.885	0.6847	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9046		0.0954	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	0.76%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-0457-1469	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.72%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-016	0.6061	1.761	0.4495	0.2771	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.982	2.586	0.5657	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.09570587	0.09570587	1	0.3673	0.5542	Non-Significant Effect
Error	3.647832	0.2605594	14			
Total	3.743538	0.3562653	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.983	8.885	0.1726	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9608		0.6768	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	5.75%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-0170-1840	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-015	-0.28	1.761	0.4597	0.6082	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.938	2.586	0.6466	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02135582	0.02135582	1	0.07838	0.7836	Non-Significant Effect
Error	3.814622	0.272473	14			
Total	3.835978	0.2938288	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.523	8.885	0.2451	Equal Variances
Distribution	Shapiro-Wilk Normality	0.962		0.6986	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-2.72%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-5287-3182	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.4%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-014	0.1087	1.761	0.4679	0.4575	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.904	2.586	0.7150	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.00333375	0.00333375	1	0.01181	0.9150	Non-Significant Effect
Error	3.951793	0.2822709	14			
Total	3.955127	0.2856047	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.24	8.885	0.3094	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9433		0.3913	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	1.07%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-2798-0497	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:59	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-013	-0.4643	1.761	0.4773	0.6752	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.866	2.586	0.7970	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06332094	0.06332094	1	0.2155	0.6496	Non-Significant Effect
Error	4.112726	0.2937661	14			
Total	4.176047	0.3570871	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.979	8.885	0.3880	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9773		0.9387	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-4.68%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-0038-4432	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-011	0.4247	1.761	0.473	0.3388	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.883	2.586	0.7594	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05203577	0.05203577	1	0.1804	0.6775	Non-Significant Effect
Error	4.039195	0.2885139	14			
Total	4.091231	0.3405497	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.09	8.885	0.3518	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9492		0.4764	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	4.24%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-7507-6455	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.87%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-007	3.504	1.761	0.4535	0.0018	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.964	2.586	0.5966	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.255728	3.255728	1	12.28	0.0035	Significant Effect
Error	3.712221	0.2651587	14			
Total	6.96795	3.520887	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.787	8.885	0.1997	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9559		0.5883	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	33.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-3081-1232	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.01%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-006	1.749	1.761	0.4575	0.0511	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.947	2.586	0.6287	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.8251243	0.8251243	1	3.057	0.1022	Non-Significant Effect
Error	3.778192	0.2698708	14			
Total	4.603316	1.094995	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.611	8.885	0.2286	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9621		0.7000	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	16.89%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-7592-2379	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Nonparametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.21%

Wilcoxon Rank Sum Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	Ties	P-Value	Decision(5%)
19830-009		19830-005	51		0	0.0415	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.511	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.61991	2.61991	1	5.699	0.0316	Significant Effect
Error	6.435609	0.4596864	14			
Total	9.055519	3.079597	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.356	8.885	0.6982	Equal Variances
Distribution	Shapiro-Wilk Normality	0.834		0.0080	Non-normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	30.1%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-8949-5886	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.37%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-004	0.1245	1.761	0.6015	0.4514	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.121	2.586	0.3589	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.007228862	0.007228862	1	0.0155	0.9027	Non-Significant Effect
Error	6.530825	0.4664875	14			
Total	6.538054	0.4737163	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.391	8.885	0.6745	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9689		0.8210	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	1.58%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-2000-9056	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.12%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-002	-1.794	1.761	0.5141	0.9528	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.12	2.586	0.3601	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.097018	1.097018	1	3.219	0.0944	Non-Significant Effect
Error	4.771526	0.3408233	14			
Total	5.868544	1.437841	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.34	8.885	0.7095	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9206		0.1728	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-19.48%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	14-5874-4103	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.79%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-001	0.07567	1.761	0.4785	0.4704	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.862	2.586	0.8072	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001690322	0.001690322	1	0.005726	0.9408	Non-Significant Effect
Error	4.132541	0.2951815	14			
Total	4.134232	0.2968718	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.951	8.885	0.3978	Equal Variances
Distribution	Shapiro-Wilk Normality	0.979		0.9553	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	0.76%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-8423-3562	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.56%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-012	1.633	1.761	0.4723	0.0623	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.886	2.586	0.7526	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.767137	0.767137	1	2.668	0.1247	Non-Significant Effect
Error	4.025982	0.2875702	14			
Total	4.793119	1.054707	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.111	8.885	0.3453	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9338		0.2803	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	16.29%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-4676-1063	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-009		19830-010	-0.2776	1.761	0.4288	0.6073	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.078	2.586	0.4154	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01826185	0.01826185	1	0.07704	0.7854	Non-Significant Effect
Error	3.318534	0.2370381	14			
Total	3.336796	0.2553	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.658	8.885	0.0599	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9717		0.8656	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	-2.51%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-3436-0348	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.2%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-017	-0.3074	1.761	0.4957	0.6184	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.922	2.586	0.6784	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02992896	0.02992896	1	0.09446	0.7631	Non-Significant Effect
Error	4.435592	0.316828	14			
Total	4.465521	0.346757	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.233	8.885	0.7894	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9321		0.2628	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	-3.35%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-1066-2475	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.72%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-016	0.1953	1.761	0.4318	0.4240	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.206	2.586	0.2642	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.009168069	0.009168069	1	0.03814	0.8480	Non-Significant Effect
Error	3.365017	0.2403584	14			
Total	3.374185	0.2495264	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.674	8.885	0.2177	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9638		0.7301	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	1.85%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-7892-3761	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.13%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-015	-0.7163	1.761	0.4423	0.7572	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.154	2.586	0.3198	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.12942	0.12942	1	0.513	0.4856	Non-Significant Effect
Error	3.531807	0.252272	14			
Total	3.661227	0.381692	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.262	8.885	0.3036	Equal Variances
Distribution	Shapiro-Wilk Normality	0.958		0.6261	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	-6.97%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-7171-6067	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.46%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-014	-0.3045	1.761	0.4508	0.6174	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.113	2.586	0.3685	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02429701	0.02429701	1	0.09271	0.7652	Non-Significant Effect
Error	3.668978	0.2620698	14			
Total	3.693275	0.2863668	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.008	8.885	0.3781	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9488		0.4713	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	-3.02%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-3142-4583	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:58	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.84%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-013	-0.8895	1.761	0.4606	0.8056	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.068	2.586	0.4287	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2164577	0.2164577	1	0.7912	0.3888	Non-Significant Effect
Error	3.829911	0.2735651	14			
Total	4.046369	0.4900228	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.774	8.885	0.4673	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9672		0.7915	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-9.01%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8143-1016	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.67%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-011	0.02799	1.761	0.4562	0.4890	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.088	2.586	0.4008	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0002102463	0.0002102463	1	0.0007836	0.9781	Non-Significant Effect
Error	3.75638	0.2683128	14			
Total	3.75659	0.2685231	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.874	8.885	0.4264	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9644		0.7420	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	0.28%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-1704-6787	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-007	3.214	1.761	0.4359	0.0031	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.186	2.586	0.2852	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	2.530486	2.530486	1	10.33	0.0062	Significant Effect
Error	3.429406	0.2449576	14			
Total	5.959892	2.775443	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.499	8.885	0.2500	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9509		0.5044	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	30.8%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2724-6171	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.04%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-006	1.39	1.761	0.44	0.0931	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.165	2.586	0.3073	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.4826775	0.4826775	1	1.933	0.1861	Non-Significant Effect
Error	3.495376	0.2496697	14			
Total	3.978054	0.7323472	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.341	8.885	0.2843	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9504		0.4953	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	13.45%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-8955-7817	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.61%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-005	2.119	1.761	0.5838	0.0262	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.632	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.974025	1.974025	1	4.492	0.0524	Non-Significant Effect
Error	6.152794	0.4394853	14			
Total	8.12682	2.41351	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.512	8.885	0.5988	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8653		0.0230	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	27.21%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-8450-3383	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					22.79%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-004	-0.1925	1.761	0.5883	0.5749	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.168	2.586	0.3037	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01653562	0.01653562	1	0.03705	0.8501	Non-Significant Effect
Error	6.24801	0.4462864	14			
Total	6.264546	0.462822	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.551	8.885	0.5767	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9692		0.8258	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	-2.49%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-0338-3988	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					19.31%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-002	-2.227	1.761	0.4987	0.9786	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.185	2.586	0.2853	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.590121	1.590121	1	4.959	0.0429	Significant Effect
Error	4.48871	0.3206222	14			
Total	6.078831	1.910743	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.201	8.885	0.8154	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9096		0.1148	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-24.42%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-5988-8310	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.89%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-001	-0.329	1.761	0.4618	0.6265	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.063	2.586	0.4363	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02975629	0.02975629	1	0.1082	0.7471	Non-Significant Effect
Error	3.849726	0.2749804	14			
Total	3.879482	0.3047367	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.749	8.885	0.4783	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9651		0.7536	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	-3.34%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-0839-8909	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					17.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-012	1.281	1.761	0.4554	0.1105	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.092	2.586	0.3959	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.438575	0.438575	1	1.64	0.2211	Non-Significant Effect
Error	3.743167	0.2673691	14			
Total	4.181742	0.7059441	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.893	8.885	0.4191	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9537		0.5498	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	12.82%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-1113-6838	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.88%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-010	-0.7489	1.761	0.4101	0.7669	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.323	2.586	0.1679	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1216266	0.1216266	1	0.5609	0.4663	Non-Significant Effect
Error	3.035719	0.216837	14			
Total	3.157345	0.3384636	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	4.176	8.885	0.0788	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9672		0.7907	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	-6.75%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	17-6372-2429	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					20.75%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-008		19830-009	-0.3511	1.761	0.5357	0.6346	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.778	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04563078	0.04563078	1	0.1233	0.7307	Non-Significant Effect
Error	5.181164	0.3700832	14			
Total	5.226795	0.4157139	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.115	8.885	0.8891	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9333		0.2747	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	0.0%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	-4.14%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-3510-6271	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.96%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-017	0.4402	1.761	0.4146	0.3332	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.687	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04295259	0.04295259	1	0.1938	0.6665	Non-Significant Effect
Error	3.102987	0.2216419	14			
Total	3.145939	0.2645945	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.779	8.885	0.4650	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9618		0.6952	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	3.74%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	13-4447-3952	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.1%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-016	1.249	1.761	0.3355	0.1160	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.084	2.586	0.4065	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.226576	0.226576	1	1.561	0.2320	Non-Significant Effect
Error	2.032412	0.1451723	14			
Total	2.258988	0.3717483	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.219	8.885	0.8004	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9677		0.8008	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	8.59%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8216-2714	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.59%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-015	0.05172	1.761	0.349	0.4797	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.003	2.586	0.5283	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0004202502	0.0004202502	1	0.002675	0.9595	Non-Significant Effect
Error	2.199202	0.1570858	14			
Total	2.199622	0.1575061	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.031	8.885	0.9686	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9339		0.2810	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	0.37%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-9829-3234	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:57	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-014	0.5492	1.761	0.3598	0.2957	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.164	2.586	0.3081	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.05034412	0.05034412	1	0.3017	0.5915	Non-Significant Effect
Error	2.336372	0.1668837	14			
Total	2.386716	0.2172278	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.092	8.885	0.9101	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9838		0.9867	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	4.05%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	19-6836-7880	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.42%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-013	-0.2013	1.761	0.3719	0.5783	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.036	2.586	0.4766	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.007225037	0.007225037	1	0.0405	0.8434	Non-Significant Effect
Error	2.497305	0.178379	14			
Total	2.50453	0.185604	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.237	8.885	0.7865	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9281		0.2276	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	-1.53%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	15-6019-4967	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.22%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-011	0.9487	1.761	0.3664	0.1794	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.908	2.586	0.7056	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1558274	0.1558274	1	0.9001	0.3589	Non-Significant Effect
Error	2.423774	0.1731267	14			
Total	2.579602	0.3289542	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.171	8.885	0.8406	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9838		0.9866	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	7.12%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-5165-5638	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-007	5.093	1.761	0.3408	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.052	2.586	0.4523	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.884841	3.884841	1	25.94	0.0002	Significant Effect
Error	2.096801	0.1497715	14			
Total	5.981642	4.034613	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.139	8.885	0.8680	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9528		0.5351	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	35.55%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	04-2597-6864	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.49%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-006	2.735	1.761	0.3461	0.0081	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.02	2.586	0.5009	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.155625	1.155625	1	7.481	0.0161	Significant Effect
Error	2.162771	0.1544836	14			
Total	3.318396	1.310108	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.067	8.885	0.9338	Equal Variances
Distribution	Shapiro-Wilk Normality	0.96		0.6617	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	19.39%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	18-1639-9410	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.64%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-005	3.043	1.761	0.5167	0.0044	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.746	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.187118	3.187118	1	9.257	0.0088	Significant Effect
Error	4.820189	0.3442992	14			
Total	8.007307	3.531417	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.317	8.885	0.1363	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9291		0.2359	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	32.2%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	08-0047-9610	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.82%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-004	0.4247	1.761	0.5218	0.3387	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.444	2.586	0.0995	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.06333227	0.06333227	1	0.1804	0.6775	Non-Significant Effect
Error	4.915404	0.3511003	14			
Total	4.978736	0.4144326	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.402	8.885	0.1286	Equal Variances
Distribution	Shapiro-Wilk Normality	0.954		0.5557	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	4.54%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-3460-4049	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.08%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-1.855	1.761	0.4181	0.9576	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.606	2.586	0.0449	Outlier Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.7757205	0.7757205	1	3.441	0.0848	Non-Significant Effect
Error	3.156105	0.2254361	14			
Total	3.931826	1.001157	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.827	8.885	0.4451	Equal Variances
Distribution	Shapiro-Wilk Normality	0.938		0.3256	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-15.89%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	09-5471-5822	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.32%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-002	-1.522	1.771	0.3137	0.9240	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2713326	0.2713326	1	2.316	0.1520	Non-Significant Effect
Error	1.52271	0.1171316	13			
Total	1.794043	0.3884641	14			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.356	10.79	0.3161	Equal Variances
Distribution	Shapiro-Wilk Normality	0.957		0.6410	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-002	7	3.042	2.943	3.141	2.747	3.38	0.04831	0.2602	8.55%	-9.73%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-002	2.76	3.18	Outlier	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-5990-2850	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.47%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-001	0.49	1.761	0.3734	0.3159	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.185	2.586	0.2852	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.04316	0.04316	1	0.2401	0.6318	Non-Significant Effect
Error	2.517121	0.1797943	14			
Total	2.560281	0.2229543	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.254	8.885	0.7726	Equal Variances
Distribution	Shapiro-Wilk Normality	0.908		0.1079	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	3.75%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	01-9196-3466	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.18%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-012	2.512	1.761	0.3654	0.0124	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.914	2.586	0.6948	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.086806	1.086806	1	6.312	0.0249	Significant Effect
Error	2.410562	0.172183	14			
Total	3.497368	1.258989	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.159	8.885	0.8507	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9476		0.4531	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	18.8%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-8554-4427	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.08%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-010	0.09031	1.761	0.3072	0.4647	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.277	2.586	0.2021	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0009922452	0.0009922452	1	0.008156	0.9293	Non-Significant Effect
Error	1.703113	0.1216509	14			
Total	1.704105	0.1226432	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.904	8.885	0.4150	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9671		0.7895	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	0.57%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-6118-3712	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-009	0.3178	1.761	0.4617	0.3777	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.929	2.586	0.6634	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02776766	0.02776766	1	0.101	0.7553	Non-Significant Effect
Error	3.848559	0.274897	14			
Total	3.876326	0.3026647	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.447	8.885	0.2607	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9717		0.8653	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	3.01%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	11-2890-9796	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.03%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-003		19830-008	0.7535	1.761	0.4444	0.2318	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.143	2.586	0.3316	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.14459	0.14459	1	0.5677	0.4637	Non-Significant Effect
Error	3.565743	0.254696	14			
Total	3.710333	0.399286	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.193	8.885	0.3218	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9544		0.5630	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	0.0%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	6.86%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	06-0138-7878	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					14.95%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-017	0.6983	1.761	0.4241	0.2482	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.673	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1130489	0.1130489	1	0.4876	0.4965	Non-Significant Effect
Error	3.246115	0.2318653	14			
Total	3.359164	0.3449143	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.577	8.885	0.5625	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9041		0.0935	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-017	8	2.668	2.466	2.871	2.134	3.395	0.09892	0.5327	19.96%	5.93%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-017	2.284	3.395	3.385	2.632	3.035	2.317	2.166	2.134

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	12-0688-6949	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.24%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-016	1.535	1.761	0.3472	0.0736	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.044	2.586	0.4642	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.3659976	0.3659976	1	2.355	0.1471	Non-Significant Effect
Error	2.17554	0.1553957	14			
Total	2.541537	0.5213934	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.375	8.885	0.6846	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9602		0.6652	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-016	8	2.534	2.397	2.672	1.935	3.175	0.06717	0.3617	14.27%	10.66%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-016	1.935	2.781	2.34	2.484	2.592	3.175	2.618	2.348

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-9935-2213	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.7%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-015	0.3654	1.761	0.3602	0.3601	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.97	2.586	0.5867	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.0223435	0.0223435	1	0.1335	0.7202	Non-Significant Effect
Error	2.34233	0.1673093	14			
Total	2.364673	0.1896528	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.164	8.885	0.8467	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9859		0.9936	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-015	8	2.762	2.612	2.911	2.096	3.205	0.07303	0.3933	14.24%	2.64%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-015	2.096	3.094	3.18	3.205	2.78	2.714	2.638	2.388

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-2341-3763	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:56	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.07%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-014	0.8396	1.761	0.3706	0.2076	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.101	2.586	0.3843	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1248579	0.1248579	1	0.705	0.4152	Non-Significant Effect
Error	2.4795	0.1771072	14			
Total	2.604358	0.3019651	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.033	8.885	0.9672	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9237		0.1933	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-014	8	2.66	2.501	2.819	2.174	3.514	0.07752	0.4174	15.69%	6.23%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-014	2.174	2.428	2.673	3.514	2.809	2.873	2.37	2.439

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-3963-7471	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.48%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-013	0.1013	1.761	0.3825	0.4604	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.98	2.586	0.5689	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.001933994	0.001933994	1	0.01025	0.9208	Non-Significant Effect
Error	2.640433	0.1886024	14			
Total	2.642367	0.1905364	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.096	8.885	0.9068	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9919		0.9998	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-013	8	2.815	2.646	2.984	1.984	3.349	0.08247	0.4441	15.78%	0.78%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-013	2.929	2.443	2.665	2.853	3.349	1.984	3.079	3.215

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	02-1078-2809	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.29%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-011	1.223	1.761	0.3771	0.1207	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.882	2.586	0.7626	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2742902	0.2742902	1	1.496	0.2415	Non-Significant Effect
Error	2.566902	0.1833502	14			
Total	2.841193	0.4576404	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.038	8.885	0.9623	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9512		0.5085	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-011	8	2.575	2.41	2.739	2.006	3.271	0.08025	0.4321	16.78%	9.23%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-011	2.353	2.653	2.943	3.271	2.877	2.283	2.006	2.212

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-0729-2990	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.42%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-007	5.25	1.761	0.3523	<0.0001	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.014	2.586	0.5105	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	4.409905	4.409905	1	27.56	0.0001	Significant Effect
Error	2.239929	0.1599949	14			
Total	6.649834	4.5699	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.285	8.885	0.7491	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9492		0.4774	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-007	8	1.787	1.644	1.929	1.327	2.246	0.06949	0.3742	20.95%	37.02%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-007	1.327	2	2.131	2.246	1.421	2.078	1.374	1.716

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-6452-7444	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.6%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-006	2.967	1.761	0.3574	0.0051	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.985	2.586	0.5593	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.449561	1.449561	1	8.801	0.0102	Significant Effect
Error	2.305899	0.1647071	14			
Total	3.75546	1.614268	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.204	8.885	0.8127	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9562		0.5929	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-006	8	2.235	2.088	2.382	1.707	2.789	0.07179	0.3866	17.3%	21.22%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-006	2.473	1.717	2.34	1.707	2.789	2.169	2.12	2.562

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-2537-2415	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.49%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-005	3.215	1.761	0.5244	0.0031	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.72	2.586	1.0000	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	3.664267	3.664267	1	10.34	0.0062	Significant Effect
Error	4.963317	0.3545226	14			
Total	8.627584	4.018789	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.94	8.885	0.1781	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8713		0.0285	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-005	8	1.879	1.603	2.156	1.182	2.869	0.1351	0.7274	38.7%	33.74%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-005	1.431	2.682	2.869	1.395	1.182	1.381	1.395	2.701

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	16-5871-5802	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					18.66%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-004	0.6332	1.761	0.5294	0.2684	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.41	2.586	0.1163	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1448841	0.1448841	1	0.401	0.5368	Non-Significant Effect
Error	5.058533	0.3613237	14			
Total	5.203417	0.5062078	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	3.016	8.885	0.1685	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9551		0.5743	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-004	8	2.646	2.366	2.927	1.247	3.594	0.1368	0.7367	27.84%	6.71%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-004	2.536	2.94	3.39	2.749	3.594	2.119	1.247	2.595

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-9547-9562	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.07%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-002	-1.549	1.761	0.4275	0.9281	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.549	2.586	0.0603	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.5651619	0.5651619	1	2.398	0.1438	Non-Significant Effect
Error	3.299233	0.2356595	14			
Total	3.864395	0.8008214	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.619	8.885	0.5403	Equal Variances
Distribution	Shapiro-Wilk Normality	0.8882		0.0521	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-002	8	3.212	3.007	3.418	2.747	4.408	0.1002	0.5398	16.8%	-13.25%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-002	2.76	3.18	4.408	3.092	3.38	3.293	2.747	2.84

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	21-4087-7373	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.53%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-001	0.7725	1.761	0.3839	0.2263	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.126	2.586	0.3525	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.1133852	0.1133852	1	0.5967	0.4527	Non-Significant Effect
Error	2.660249	0.1900178	14			
Total	2.773634	0.303403	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.112	8.885	0.8924	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9858		0.9933	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-001	8	2.668	2.498	2.838	1.773	3.115	0.08306	0.4473	16.76%	5.94%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-001	2.712	3.049	2.782	3.115	2.462	1.773	3.035	2.418

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	07-5854-1335	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					13.26%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-012	2.743	1.761	0.3761	0.0079	Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.887	2.586	0.7520	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	1.372359	1.372359	1	7.524	0.0159	Significant Effect
Error	2.55369	0.1824064	14			
Total	3.926049	1.554765	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.027	8.885	0.9726	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9489		0.4728	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-012	8	2.251	2.087	2.414	1.745	2.801	0.07984	0.4299	19.1%	20.65%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-012	2.282	2.718	1.777	2.664	2.801	1.96	1.745	2.06

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	20-7796-1410	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					11.27%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-010	0.4419	1.761	0.3198	0.3327	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.219	2.586	0.2523	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02575298	0.02575298	1	0.1953	0.6653	Non-Significant Effect
Error	1.846241	0.1318744	14			
Total	1.871994	0.1576273	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.148	8.885	0.3347	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9641		0.7359	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-010	8	2.756	2.646	2.866	2.381	3.143	0.05375	0.2895	10.5%	2.83%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-010	2.481	3.07	2.578	3.143	2.847	2.574	2.977	2.381

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	10-0762-9377	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					16.58%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-009	0.5536	1.761	0.4702	0.2943	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.894	2.586	0.7352	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.08738748	0.08738748	1	0.3065	0.5886	Non-Significant Effect
Error	3.991687	0.2851205	14			
Total	4.079074	0.372508	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.169	8.885	0.3287	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9533		0.5439	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-009	8	2.689	2.451	2.926	1.945	3.666	0.116	0.6247	23.23%	5.21%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-009	2.564	1.945	3.175	3.666	3.318	2.247	2.105	2.49

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	00-5134-7819	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:55	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					15.98%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-008	0.9894	1.761	0.4533	0.1696	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.102	2.586	0.3831	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.2593125	0.2593125	1	0.9788	0.3393	Non-Significant Effect
Error	3.708872	0.2649194	14			
Total	3.968184	0.5242319	15			

ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.944	8.885	0.4001	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9547		0.5671	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-008	8	2.582	2.357	2.807	1.836	3.627	0.1098	0.5915	22.91%	8.98%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-008	3.004	2.608	2.747	3.627	2.738	2.048	2.048	1.836

Bioaccumulation Evaluation - Survival Endpoint — **EnviroSystems, Inc.**

Analysis ID:	03-0935-9786	**Endpoint:**	Wet Biomass - Mean	**CETIS Version:**	CETISv1.7.0
Analyzed:	09 Aug-10 11:54	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	19-8691-6246	**Test Type:**	Survival-Growth	**Analyst:**	
Start Date:	01 Jul-10 12:00	**Protocol:**	ASTM E 1688 (2000a)	**Diluent:**	Not Applicable
Ending Date:		**Species:**	Nereis virens	**Brine:**	Not Applicable
Duration:	N/A	**Source:**	ARO - Aquatic Research Organisms, NH	**Age:**	

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run					12.79%

Equal Variance t Two-Sample Test

Sample Code	vs	Sample Code	Test Stat	Critical	MSD	P-Value	Decision(5%)
19830-000		19830-003	0.3131	1.761	0.3628	0.3794	Non-Significant Effect

Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.956	2.586	0.6126	No Outliers Detected

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.01663517	0.01663517	1	0.09801	0.7588	Non-Significant Effect
Error	2.376266	0.1697333	14			
Total	2.392901	0.1863685	15			

ANOVA Assumptions

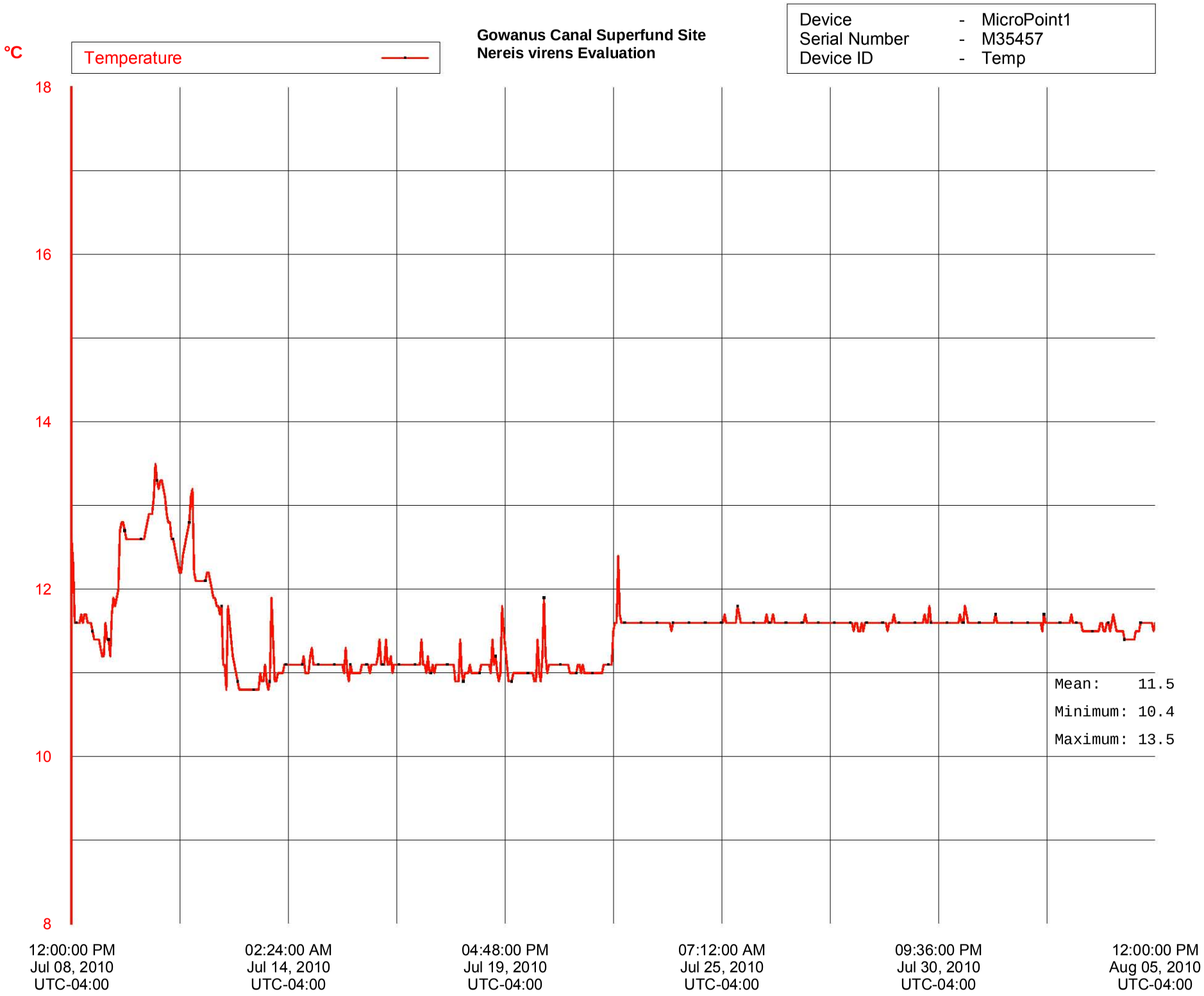
Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.128	8.885	0.8777	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9939		1.0000	Normal Distribution

Wet Biomass - Mean Summary

Sample Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
19830-000	8	2.837	2.675	2.998	2.289	3.615	0.07877	0.4242	14.95%	0.0%
19830-003	8	2.772	2.62	2.924	2.005	3.275	0.07416	0.3994	14.41%	2.27%

Wet Biomass - Mean Detail

Sample Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
19830-000	2.637	3.615	2.697	3.086	2.92	2.408	3.041	2.289
19830-003	2.715	3.275	2.478	2.831	3.181	2.89	2.802	2.005


°C
Temperature
Gowanus Canal Superfund Site
Nereis virens Evaluation
Device - MicroPoint1
Serial Number - M35457
Device ID - Temp
18
16
14
12
10
8
Mean: 11.5
Minimum: 10.4
Maximum: 13.5
12:00:00 PM
Jul 08, 2010
UTC-04:00
02:24:00 AM
Jul 14, 2010
UTC-04:00
04:48:00 PM
Jul 19, 2010
UTC-04:00
07:12:00 AM
Jul 25, 2010
UTC-04:00
09:36:00 PM
Jul 30, 2010
UTC-04:00
12:00:00 PM
Aug 05, 2010
UTC-04:00

Appendix K
Ecological Risk Assessment

Attachment C: Toxicity Equivalency Calculations

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Table C-1
Calculation of Toxicity Equivalents For Dioxin-like PCB Congeners - Small Prey Fish
Gowanus Canal Remedial Investigation
Brooklyn, New York

PCB Congener	Units	Atlantic Tomcod				Mummichog			
		GC-TI401-XATC-WB-1	GC-TI403-XATC-WB-1	GC-TI405-XATC-WB-1	GC-TI406-XATC-WB-1	GC-TI402-MCG-WB-1	GC-TI403-MCG-WB-1	GC-TI404-MCG-WB-1	GC-TI405-MCG-WB-1
Raw Data									
PCB 77	ng/kg dw	2510	1840	1420	1540	778	492	3460	1630
PCB 81	ng/kg dw	198 R	143 R	135 R	133	47.3	52.8 R	564	200
PCB 126	ng/kg dw	214	199	153	162	98.7	90.3	318	199
PCB 169	ng/kg dw	49.2 U	38 U	25.5 U	22.5 U	24.3 U	40.7 U	49.3 U	102 U
PCB 105	ng/kg dw	26600	22400	20200	20500	14700	9270	44900	24300
PCB 114	ng/kg dw	1720	1540	1450	1510	1050	637	3860	2000
PCB 118	ng/kg dw	75000	64600	57400	58300	42900	29600	125000	73900
PCB 123	ng/kg dw	1380	1330	1250	1340	961	625	2960	1720
PCB 156/157	ng/kg dw	8820	8170	6620	6340	6400	4760	10900	9390
PCB 167	ng/kg dw	3720	3320	2610	2670	3390	2650	4670	4830
PCB 189	ng/kg dw	619	585	445	403	644	569	640	1050
Toxicity Equivalents (TEQs)[1]									
PCB 77	ng/kg dw	125.5	92	71	77	38.9	24.6	173	81.5
PCB 81	ng/kg dw				13.3	4.73		56.4	20
PCB 126	ng/kg dw	21.4	19.9	15.3	16.2	9.87	9.03	31.8	19.9
PCB 169	ng/kg dw								
PCB 105	ng/kg dw	2.66	2.24	2.02	2.05	1.47	0.927	4.49	2.43
PCB 114	ng/kg dw	0.172	0.154	0.145	0.151	0.105	0.0637	0.386	0.2
PCB 118	ng/kg dw	7.5	6.46	5.74	5.83	4.29	2.96	12.5	7.39
PCB 123	ng/kg dw	0.0138	0.0133	0.0125	0.0134	0.00961	0.00625	0.0296	0.0172
PCB 156/157	ng/kg dw	0.882	0.817	0.662	0.634	0.64	0.476	1.09	0.939
PCB 167	ng/kg dw	0.0372	0.0332	0.0261	0.0267	0.0339	0.0265	0.0467	0.0483
PCB 189	ng/kg dw	0.00619	0.00585	0.00445	0.00403	0.00644	0.00569	0.0064	0.0105
Sum TEQs	ng/kg dw	158.2	121.6	94.9	115.2	60.1	38.1	279.7	132.4

Notes:
Shaded cells indicate detections
R - rejected data
U - undetected
1 - Raw congener-specific concentrations multiplied by the Toxicity Equivalents Factors (TEFs; Van den berg et al. 1998) presented in Table 5-11; undetected concentrations are excluded

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Table C-2
Calculation of Toxicity Equivalents For Dioxin-like PCB Congeners - Benthic Invertebrate (Crab)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Units	GC-TI401-BC-WB-1	GC-TI401-BC-WB-2	GC-TI403-BC-WB-1	GC-TI403-BC-WB-2	GC-TI404-BC-WB-1	GC-TI404-BC-WB-2	GC-TI405-BC-WB-1	GC-TI405-BC-WB-2	GC-TI406-BC-WB-1	GC-TI406-BC-WB-2
Raw Data											
PCB 77	ng/kg dw	18900	19000	19200	19500	17500	18100	19000	18500	9800	18600
PCB 81	ng/kg dw	869	873	878	910	886	896	1020	966	594	848
PCB 126	ng/kg dw	1120	1120	1130	1150	1120	1130	1250	1220	736	1090
PCB 169	ng/kg dw	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U	0 U
PCB 105	ng/kg dw	117000	116000	117000	118000	116000	117000	131000	125000	75800	111000
PCB 114	ng/kg dw	8840	8710	8790	8860	8770	8860	9830	9380	5620	8390
PCB 118	ng/kg dw	385000	381000	384000	386000	381000	384000	429000	410000	248000	365000
PCB 123	ng/kg dw	7820	7760	7870	7870	7720	7850	8750	8320	5100	7410
PCB 156/157	ng/kg dw	51900	51000	51800	52100	51200	51700	57000	54800	32700	48800
PCB 167	ng/kg dw	25100	24800	25200	25100	24900	25100	27800	26600	15900	23700
PCB 189	ng/kg dw	4100	4060	4110	4080	4050	4130	4560	4350	2550	3880
Toxicity Equivalents (TEQs)[1]											
PCB 77	ng/kg dw	945	950	960	975	875	905	950	925	490	930
PCB 81	ng/kg dw	86.9	87.3	87.8	91	88.6	89.6	102	96.6	59.4	84.8
PCB 126	ng/kg dw	112	112	113	115	112	113	125	122	73.6	109
PCB 169	ng/kg dw										
PCB 105	ng/kg dw	11.7	11.6	11.7	11.8	11.6	11.7	13.1	12.5	7.58	11.1
PCB 114	ng/kg dw	0.884	0.871	0.879	0.886	0.877	0.886	0.983	0.938	0.562	0.839
PCB 118	ng/kg dw	38.5	38.1	38.4	38.6	38.1	38.4	42.9	41	24.8	36.5
PCB 123	ng/kg dw	0.0782	0.0776	0.0787	0.0787	0.0772	0.0785	0.0875	0.0832	0.051	0.0741
PCB 156/157	ng/kg dw	5.19	5.1	5.18	5.21	5.12	5.17	5.7	5.48	3.27	4.88
PCB 167	ng/kg dw	0.251	0.248	0.252	0.251	0.249	0.251	0.278	0.266	0.159	0.237
PCB 189	ng/kg dw	0.041	0.0406	0.0411	0.0408	0.0405	0.0413	0.0456	0.0435	0.0255	0.0388
Sum TEQs	ng/kg dw	1200.5	1205.3	1217.3	1237.9	1131.7	1164.1	1240.1	1203.9	659.4	1177.5

Notes:
Shaded cells indicate detections
U - undetected
1 - Raw congener-specific concentrations multiplied by the Toxicity Equivalents Factors (TEFs; Van den berg et al. 1998) presented in Table 5-11; undetected concentrations are excluded

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Appendix K
Ecological Risk Assessment

Attachment C: Total PAH Plant Tissue Calculations

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ATTACHMENT D

Aquatic Plant Tissue Exposure Point Concentration Calculations

For polycyclic aromatic hydrocarbons (PAHs), aquatic plant tissue exposure point concentrations (EPCs) were estimated from sediment using an approach that incorporated the uptake differences between low molecular weight (LMW) and high molecular weight (HMW) PAH compounds. Due to the lack of sediment-to-plant uptake information in the scientific literature, the aquatic plant uptake was assumed to be identical uptake into terrestrial plants from soil. Therefore, the bioaccumulation approach from the PAH-specific ecological soil screening levels (Eco-SSL) document (USEPA, 2007) was used to estimate the total PAH (TPAH) concentration in aquatic plants using site-specific sediment PAH data.

The 17 PAH compounds analyzed in sediment, are categorized as follows:

LMW PAHs:

- 2-methylnaphthalene
- Acenaphthene
- Acenaphthylene
- Anthracene
- Fluorene
- Naphthalene
- Phenanthrene

HMW PAHs:

- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Chrysene
- Dibenz(a,h)anthracene
- Fluoranthene
- Indeno(1,2,3-c,d)pyrene
- Pyrene

The following steps in the EPC calculation approach were used (all steps are reflected in Table E-1):

1. Calculate LMW and HMW TPAH concentrations in sediment – LWM and HWM TPAH concentrations were calculated for each sediment sample (including all field duplicates) by summing the concentration of detected PAHs in each category.
2. Estimate (model) LMW and HMW TPAH concentrations in plants – On a sample-specific basis, the LMW and HMW TPAH sediment concentrations calculated during Step 1 were used to estimate plant concentrations. For LMW TPAHs, the sediment

concentrations were multiplied by a BCF of 2.09 (Table 6.3 from USEPA, 2007). For HMW TPAHs, the sediment concentrations were calculated using the following regression model (Table 6.4 from USEPA, 2007):

$$\ln(Tissue_{aquatic\ plant}) = 0.9469 \times \ln(Sediment_{MW}) - 1.7026$$

Where:

ln = log normal
$Tissue_{aquatic\ plant}$ = concentration in aquatic plant tissue
$Sediment_{MW}$ = Step 1 molecular weight-specific TPAH concentration

3. Calculate TPAH concentration in aquatic plants – the LWM and HMW TPAH plant tissue concentrations were summed to calculate the overall TPAH concentration in aquatic plants from sediment samples.

4. Calculate EPC – First, the higher of the normal and corresponding field duplicate concentrations were selected for samples 308A, 314, 315 and 324 (the minimum concentration was ignored). Second, the 95 percent (%) upper confidence limit (UCL) of the mean (i.e., 95% UCL) was calculated for all 27 sample-specific aquatic plant tissue concentrations from Step 3 using USEPA's ProUCL version 4.00.05. This value was used as the TPAH EPC for aquatic plants in the food web assessment.

Table D-1
Calculation of Total PAHs in Aquatic Plant Tissues
Gowanus Canal Remedial Investigation
Brooklyn, New York

PAH/Category	301 GC-SD301-0.0-0.5 *Normal*	302 GC-SD302-0.0-0.5 *Normal*	303 GC-SD303-0.0-0.5 *Normal*	304 GC-SD304-0.0-0.5 *Normal*	305 GC-SD305-0.0-0.5 *Normal*	306 GC-SD306-0.0-0.5 *Normal*	307A GC-SD307A-0.0-0.5 *Normal*	307B GC-SD307B-0.0-0.5 *Normal*	308A D-062310-01 *Field Duplicate*	308A GC-SD308A-0.0-0.5 *Normal*	308B GC-SD308B-0.0-0.5 *Normal*	309 GC-SD309-0.0-0.5 *Normal*	310 GC-SD310-0.0-0.5 *Normal*	311 GC-SD311-0.0-0.5 *Normal*	312 GC-SD312-0.0-0.5 *Normal*	313 GC-SD313-0.0-0.5 *Normal*
Low Molecular Weight (LMW) PAHs																
2-methylnaphthalene	120 U	500	370	350 UJ	3,300 J	360 UJ	270	270 U	610 UJ	680 J	250 U	250 U	1,700 UJ	210 U	350	160 U
Acenaphthene	160	3,100 J	1,300	6,400 J	3,200 J	2,100 J	1,100	1,200	610 UJ	1,600 J	250 U	250 U	1,700 UJ	300	390	160 U
Acenaphthylene	270 J	2,100 J	270 U	4,200 J	2,700 U	360 UJ	230 U	270 U	760 J	620 UJ	720	250 U	1,700 UJ	210 U	1,100	160 U
Anthracene	330	3,000 J	1,800	7,300 J	3,300 J	3,900	1,000	1,500	660 J	2,400 J	250 U	610	1,700 UJ	550	810	730
Fluorene	130	1,400	270	4,100 J	260 U	360 UJ	360	270 U	610 UJ	1,800 J	250 U	250 U	1,700 UJ	260	500	160 U
Naphthalene	120	660	280	7,600 J	7,200 J	360 UJ	230 U	270 U	610 UJ	1,000 J	250 U	250 U	1,700 UJ	370	390	160 U
Phenanthrene	510	5,500 J	4,300 J	19,000 J	8,900 J	8,000 J	1,600	1,400	4,300 J	21,000 J	520 J	1,300	2,000 J	1,700 J	2,600 J	1,700 J
Total PAHs, LMW - Sediment[1]	1,520.0	16,260.0	8,050.0	48,600.0	25,900.0	14,000.0	4,330.0	4,100.0	5,720.0	28,480.0	1,240.0	1,910.0	2,000.0	3,180.0	6,140.0	2,430.0
Total PAHs, LMW - Aquatic Plant[2]	3,176.8	33,983.4	16,824.5	101,574.0	54,131.0	29,260.0	9,049.7	8,569.0	11,954.8	59,523.2	2,591.6	3,991.9	4,180.0	6,646.2	12,832.6	5,078.7
High Molecular Weight (HMW) PAHs																
Benzo(a)anthracene	1,100	4,200 J	3,400 J	11,000 J	6,500 J	5,100 J	1,900 J	2,200 J	2,500	12,000 J	1,600	1,700	4,800 J	1,600	2,400 J	1,300
Benzo(a)pyrene	1,200	5,200 J	3,600 J	8,400 J	5,400 J	4,800 J	2,800 J	2,400 J	2,900	8,100 J	1,700	250 U	8,700 J	1,900	2,300 J	1,300
Benzo(b)fluoranthene	1,000	3,500 J	3,400 J	8,900 J	6,000 J	7,100 J	3,100 J	2,900 J	2,200 J	11,000 J	1,200	250 U	11,000 J	1,800	1,900 J	1,900 U
Benzo(g,h,i)perylene	610	2,200 J	2,200	4,800 J	260 U	3,900 J	1,600	2,300	2,400	7,400 J	1,000	1,300	4,100 J	1,100	1,900	1,300
Benzo(k)fluoranthene	870	2,800 J	2,800 J	6,900 J	4,600 J	4,100 J	1,900	2,600	2,500 J	8,300 J	820	250 U	5,400 J	1,400	1,400	860 U
Chrysene	790 J	4,200 J	2,900 J	11,000 J	6,300 J	5,500 J	2,300 J	1,900 J	2,000 J	12,000 J	1,300 J	1,200 J	4,400 J	1,400 J	2,300 J	730 J
Dibenz(a,h)anthracene	200	920	520	1,400 J	700	1,500 J	460	990	910	2,500 J	420	340	1,700 UJ	400	800	210
Fluoranthene	1,200 J	6,600 J	4,200 J	12,000 J	9,300 J	6,900 J	3,600 J	3,400 J	3,800	24,000 J	1,800	2,200	8,200 J	2,700 J	4,700 J	2,200 J
Indeno(1,2,3-c,d)pyrene	1,000	3,000 J	2,400	9,000 J	3,900 J	5,300 J	2,100	1,500 J	1,900	7,100 J	1,200	2,500	5,300 J	1,800	1,200 J	1,700 J
Pyrene	1,400 J	9,500 J	5,900 J	18,000 J	13,000 J	9,600 J	5,000 J	4,400 J	3,900	22,000 J	2,200 J	2,600 J	13,000 J	2,100 J	4,900 J	1,900 J
Total PAHs, HMW - Sediment[1]	9,370.0	42,120.0	31,320.0	91,400.0	55,700.0	53,800.0	24,760.0	24,590.0	25,010.0	114,400.0	13,240.0	11,840.0	64,900.0	16,200.0	23,800.0	10,640.0
Total PAHs, HMW - Aquatic Plants[2]	1,050.5	4,360.1	3,293.5	9,080.1	5,680.9	5,497.3	2,636.4	2,619.3	2,661.6	11,230.4	1,457.4	1,311.1	6,565.8	1,764.2	2,539.5	1,184.9
Total PAHs																
Sedment[3]	10,890	58,380	39,370	140,000	81,600	67,800	29,090	28,690	30,730	142,880	14,480	13,750	66,900	19,380	29,940	13,070
Aquatic Plants[4]	4,227	38,344	20,118	110,654	59,812	34,757	11,686	11,188	14,616	70,754	4,049	5,303	10,746	8,410	15,372	6,264

Notes:

1 - Sum of detected LMW or HMW PAHs

2 - Aquatic plant bioaccummulation based in terrestrial plants via PAH Eco-SSL document (USEPA, 2007); For LMW PAHs, BCF of 2.09 taken from Table 6.3, and for HMW PAHs, BCF is regression model equation taken Table 6.4

3 - Sum of LMW and HMW Total PAHs in sediment

4 - Sum of LMW and HMW Total PAHs in aquatic plants

5 - 95% UCL calculated using ProUCL Version 4.00.05; maximum of "Normal" and "Field Duplicate" samples

Table D-1
Calculation of Total PAHs in Aquatic Plant Tissues
Gowanus Canal Remedial Investigation
Brooklyn, New York

	314		315		316	317	318	319	320	321	322	323	324		325	
	D-06182010-01	GC-SD314-0.0-0.5	D-06182010-02	GC-SD315-0.0-0.5	GC-SD316-0.0-0.5	GC-SD317-0.0-0.5	GC-SD318-0.0-0.5	GC-SD319-0.0-0.5	GC-SD320-0.0-0.5	GC-SD321-0.0-0.5	GC-SD322-0.0-0.5	GC-SD323-0.0-0.5	D-06212010-01	GC-SD324-0.0-0.5	GC-SD325-0.0-0.5	
PAH/Category	*Field Duplicate*	*Normal*	*Field Duplicate*	*Normal*	*Normal*	*Normal*	*Normal*	*Normal*	*Normal*	*Normal*	*Normal*	*Normal*	*Field Duplicate*	*Normal*	*Normal*	*95% UCL* [5]
Low Molecular Weight (LMW) PAHs																
2-methylnaphthalene	15,000	4,500 U	700,000 J	870,000 J	3,100 U	2,200 U	2,600 J	5,500 J	720 J	380	500	400	230 U	190 J	3,900 J	--
Acenaphthene	330,000 J	460,000 J	460,000 J	580,000 J	3,100 U	19,000	6,100 J	20,000 J	1,700 J	370	620	240	230 U	310 U	950	--
Acenaphthylene	100,000 J	150,000 J	110,000 J	130,000 J	3,100 U	12,000	13,000 J	10,000 J	3,600 J	260 U	320 U	480 J	230 U	310 U	240 U	--
Anthracene	230,000 J	350,000 J	360,000 J	610,000 J	3,100 U	16,000	9,700 J	21,000	3,200 J	1,100	1,500	830	450	330	2,800 J	--
Fluorene	99,000 J	130,000 J	420,000 J	540,000 J	3,100 U	13,000	3,200 J	11,000 J	1,100 J	430	460	330	230 U	310 U	1,400	--
Naphthalene	5,500	5,600	800,000 J	1,600,000 J	3,100 U	17,000	2,000	9,100 J	1,100 J	460	840	690	280	310 J	5,100 J	--
Phenanthrene	350,000 J	470,000 J	840,000 J	1,100,000 J	3,100 U	42,000 J	8,800 J	37,000 J	2,800 J	1,300	1,400	1,300	470	620	3,400 J	--
Total PAHs, LMW - Sediment[1]	1,129,500.0	1,565,600.0	3,690,000.0	5,430,000.0	--	119,000.0	45,400.0	113,600.0	14,220.0	4,040.0	5,320.0	4,270.0	1,200.0	1,450.0	17,550.0	--
Total PAHs, LMW - Aquatic Plant[2]	2,360,655.0	3,272,104.0	7,712,100.0	11,348,700.0	--	248,710.0	94,886.0	237,424.0	29,719.8	8,443.6	11,118.8	8,924.3	2,508.0	3,030.5	36,679.5	--
High Molecular Weight (HMW) PAHs																
Benzo(a)anthracene	230,000 J	320,000 J	260,000 J	490,000 J	4,800	38,000 J	25,000 J	21,000 J	9,000 J	3,000 J	3,300 J	1,900 J	940	1,500	6,300 J	--
Benzo(a)pyrene	140,000 J	200,000 J	110,000 J	140,000 J	7,100	48,000 J	15,000	14,000 J	6,500 J	4,100 J	3,100 J	2,200 J	1,800	310 U	5,200 J	--
Benzo(b)fluoranthene	110,000 J	210,000 J	170,000 J	98,000 J	11,000	17,000	17,000 J	13,000 J	5,000 J	3,400 J	2,000	1,600 J	1,900	5,300 J	3,400 J	--
Benzo(g,h,i)perylene	50,000	74,000 J	41,000 J	53,000 J	3,700	10,000	9,000 J	7,400 J	3,200 J	2,400	1,500 J	1,700	1,100	1,500	2,600 J	--
Benzo(k)fluoranthene	94,000 J	120,000 J	45,000 J	67,000 J	4,900	15,000	11,000 J	8,800 J	3,800 J	2,400	2,500 J	1,700	520	1,100	3,500 J	--
Chrysene	190,000 J	320,000 J	250,000 J	490,000 J	6,700 J	19,000 J	24,000 J	22,000 J	7,200 J	2,800 J	3,100 J	1,800 J	740 J	1,100 J	6,500 J	--
Dibenz(a,h)anthracene	14,000	14,000	8,200	10,000	3,100 U	2,200 U	3,100 J	2,500 J	1,100 J	650	320 U	390	440	600	740	--
Fluoranthene	400,000 J	630,000 J	290,000 J	530,000 J	8,200	27,000 J	31,000 J	29,000 J	14,000 J	3,500 J	4,200 J	2,500 J	230 U	2,000	7,400 J	--
Indeno(1,2,3-c,d)pyrene	67,000 J	120,000 J	54,000 J	63,000 J	5,600	13,000	11,000 J	11,000 J	4,200 J	2,100 J	1,400	1,900	1,200	1,800	1,700 J	--
Pyrene	450,000 J	670,000 J	420,000 J	630,000 J	15,000	62,000 J	44,000 J	47,000 J	15,000 J	5,500 J	5,500 J	3,900 J	230 U	310 U	11,000 J	--
Total PAHs, HMW - Sediment[1]	1,745,000.0	2,678,000.0	1,648,200.0	2,571,000.0	67,000.0	249,000.0	190,100.0	175,700.0	69,000.0	29,850.0	26,600.0	19,590.0	8,640.0	14,900.0	48,340.0	--
Total PAHs, HMW - Aquatic Plants[2]	148,226.7	222,363.8	140,429.0	213,941.9	6,766.8	23,454.8	18,165.1	16,859.5	6,957.9	3,147.0	2,821.6	2,112.0	972.9	1,629.9	4,967.5	--
Total PAHs																
Sediment[3]	2,874,500	4,243,600	5,338,200	8,001,000	67,000	368,000	235,500	289,300	83,220	33,890	31,920	23,860	9,840	16,350	65,890	1,950,282
Aquatic Plants[4]	2,508,882	3,494,468	7,852,529	11,562,642	6,767	272,165	113,051	254,283	36,678	11,591	13,940	11,036	3,481	4,660	41,647	2,522,138

Notes:
1 - Sum of detected LMW or HMW PAHs

2 - Aquatic plant bioaccummulation based in terrestrial plants via PAH Eco-SSL document (USEPA, 2007); For LMW PAHs, BCF of 2.09 taken from Table 6.3, and for HMW PAHs, BCF is regression model equation taken Table 6.4
3 - Sum of LMW and HMW Total PAHs in sediment
4 - Sum of LMW and HMW Total PAHs in aquatic plants
5 - 95% UCL calculated using ProUCL Version 4.00.05; maximum of "Normal" and "Field Duplicate" samples

	General UCL Statistics for Full Data Sets
User Selected Options	
From File	WorkSheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Sediment_TPAHs

General Statistics

Number of Valid Observations	27	Number of Distinct Observations	27

Raw Statistics		**Log-transformed Statistics**	
Minimum	10890	Minimum of Log Data	9.296
Maximum	8001000	Maximum of Log Data	15.9
Mean	526509	Mean of log Data	11.13
Median	58380	SD of log Data	1.602
SD	1697250		
Coefficient of Variation	3.224		
Skewness	3.963		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.335	Shapiro Wilk Test Statistic	0.842
Shapiro Wilk Critical Value	0.923	Shapiro Wilk Critical Value	0.923
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1083625	95% H-UCL	713299
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	601208
95% Adjusted-CLT UCL (Chen-1995)	1329969	97.5% Chebyshev (MVUE) UCL	764932
95% Modified-t UCL (Johnson-1978)	1125146	99% Chebyshev (MVUE) UCL	1086536
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.319	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	1648206		
MLE of Mean	526509		
MLE of Standard Deviation	931555		
nu star	17.25		
Approximate Chi Square Value (.05)	8.851	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0401	95% CLT UCL	1063778
Adjusted Chi Square Value	8.467	95% Jackknife UCL	1083625
		95% Standard Bootstrap UCL	1069411
Anderson-Darling Test Statistic	4.389	95% Bootstrap-t UCL	9915259
Anderson-Darling 5% Critical Value	0.846	95% Hall's Bootstrap UCL	6306793
Kolmogorov-Smirnov Test Statistic	0.325	95% Percentile Bootstrap UCL	1112167
Kolmogorov-Smirnov 5% Critical Value	0.182	95% BCA Bootstrap UCL	1404077
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	1950282
		97.5% Chebyshev(Mean, Sd) UCL	2566350
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	3776495
95% Approximate Gamma UCL	1026119		
95% Adjusted Gamma UCL	1072672		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	1950282

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Aquatic-Plants_TPAHs

General Statistics

Number of Valid Observations	27	Number of Distinct Observations	27

Raw Statistics		**Log-transformed Statistics**	
Minimum	4049	Minimum of Log Data	8.306
Maximum	11562642	Maximum of Log Data	16.26
Mean	601282	Mean of log Data	10.37
Median	15372	SD of log Data	1.951
SD	2289812		
Coefficient of Variation	3.808		
Skewness	4.625		

Relevant UCL Statistics

Normal Distribution Test		**Lognormal Distribution Test**	
Shapiro Wilk Test Statistic	0.289	Shapiro Wilk Test Statistic	0.844
Shapiro Wilk Critical Value	0.923	Shapiro Wilk Critical Value	0.923
Data not Normal at 5% Significance Level		**Data not Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	1352904	95% H-UCL	967754
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	562781
95% Adjusted-CLT UCL (Chen-1995)	1745242	97.5% Chebyshev (MVUE) UCL	728897
95% Modified-t UCL (Johnson-1978)	1418278	99% Chebyshev (MVUE) UCL	1055198
Gamma Distribution Test		**Data Distribution**	
k star (bias corrected)	0.24	**Data do not follow a Discernable Distribution (0.05)**	
Theta Star	2501306		
MLE of Mean	601282		
MLE of Standard Deviation	1226373		
nu star	12.98		
Approximate Chi Square Value (.05)	5.88	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0401	95% CLT UCL	1326127
Adjusted Chi Square Value	5.576	95% Jackknife UCL	1352904
		95% Standard Bootstrap UCL	1298878
Anderson-Darling Test Statistic	4.655	95% Bootstrap-t UCL	21755179
Anderson-Darling 5% Critical Value	0.878	95% Hall's Bootstrap UCL	12745008
Kolmogorov-Smirnov Test Statistic	0.336	95% Percentile Bootstrap UCL	1443483
Kolmogorov-Smirnov 5% Critical Value	0.185	95% BCA Bootstrap UCL	1903311
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	2522138
		97.5% Chebyshev(Mean, Sd) UCL	3353294
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	4985938
95% Approximate Gamma UCL	1327445		
95% Adjusted Gamma UCL	1399871		
Potential UCL to Use		Use 95% Chebyshev (Mean, Sd) UCL	2522138

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)

and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Appendix K
Ecological Risk Assessment

Attachment E: Fish and Crab Tissue – Direct Exposure Risk Evaluation

Information in this attachment to be added at a later date

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Appendix L
Human Health Risk Assessment

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Human Health Risk Assessment (HHRA)

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2-1 Conceptual Exposure Model for Human Health Risk Assessment

SECTION 1

Introduction

1.1 Introduction

This baseline human health risk assessment (HHRA) for the Gowanus Canal Superfund Site is Appendix L to the remedial investigation (RI) report. The baseline HHRA was conducted to assess the nature, magnitude, and probability of potential harm to public health posed by environmental media containing hazardous substances released to the Gowanus Canal by past activities along the canal—specifically, the potential human health risks associated with direct contact with sediment and surface water in the canal, with ingestion of fish and crabs caught in the canal, with direct contact of sediment and surface water that overtops the canal during significant rainfall events, and with inhalation of emissions from the canal into the ambient air near the canal. The data evaluated in the HHRA are presented in Appendix I to the RI report and discussed in Section 4 of the RI report.

1.2 Site Background

The Gowanus Canal is located in Brooklyn, New York, a borough of New York City. The canal is connected to the Gowanus Bay in the Upper New York Bay and borders the neighborhoods of Red Hook, Cobble Hill, Carroll Gardens, and Park Slope. The waterfront adjacent to the canal is primarily commercial and industrial and currently consists of concrete plants, warehouses, and parking lots. There are five bridge crossings over the canal, at Union Street, Carroll Street, Third Street, Ninth Street, and Hamilton Avenue (Figure 1-1 of the RI). The Gowanus Expressway and the New York Subway also cross over the canal.

The Gowanus Canal, completed in the 1860s, was built to allow water access for industrial needs by bulkheading and dredging a tidal creek and wetland that was previously fished for oysters. The canal quickly became one of the nation's busiest industrial waterways and was home to heavy industry such as gas works, coal yards, manufacturers of cement, manufacturers of soap, tanneries, paint and ink factories, machine shops, chemical plants, and oil refineries. It was also used as a repository of untreated industrial wastes, raw sewage, and surface water runoff for many decades. Although much of the industrial activity along the canal has stopped, high contaminant levels remain in the sediments. Despite ongoing pollution problems, some local residents use the Gowanus Canal for recreational purposes such as canoeing and swimming/diving, while others catch and eat fish and crabs.

The City built a "flushing tunnel" in 1911 to replace stagnant canal water with fresh, oxygen-rich water to improve water quality. The tunnel was in operation until the 1960s, when a mechanical failure caused it to shut down and the canal water became stagnant and thus polluted once again. The flushing tunnel was rehabilitated and reactivated in 1999 by the City's Department of Environmental Protection (NYCDEP) to pump water from Buttermilk Channel to the Gowanus Canal using the 1911 technology. The flushing tunnel

was shut down by NYCDEP on July 19, 2010, for an extended period of facility improvements to modernize the technology and improve operations. In early 2010, an aeration pipe was installed within the canal to circulate superoxygenated water while the flushing tunnel is shut down. The aeration pipe began operation in early July 2010, and repairs were started on the flushing tunnel. The completion date is anticipated to be September 2014.

The canal is part of the New York-New Jersey Estuary, which the U.S. Environmental Protection Agency (USEPA) has designated an Estuary of National Significance under the Clean Water Act Section 320 and USEPA's National Estuary Program.

SECTION 2

Conceptual Site Model

The conceptual site model (CSM) for human receptors presents an overview of site conditions, potential contaminant migration pathways, and potential exposure pathways to potential receptors. Figure 2-1 presents the preliminary CSM developed for the Gowanus Canal. Table 1 in the Attachment summarizes the potential exposure pathways and scenarios that were evaluated as part of the risk assessment.

There have been many sources of contamination to the canal, as discussed in Section 1. Although much of the industrial activity along the canal has stopped, high contaminant levels remain in the sediments.

The watershed drainage area of the Gowanus Canal is 1,758 acres, and the canal waterfront, or riparian area (defined as all blocks wholly or partially within ¼ mile of the canal), is occupied by commercial and industrial properties. The waterfront properties include concrete plants, warehouses, and parking lots. The riparian areas are classified as 18 percent residential, 6 percent park, and 76 percent mixed use. The entire watershed is 53 percent residential, 2 percent park, and 45 percent mixed use (NYCDEP, 2008).

Combined sewers (i.e., sewers that receive both sewage and stormwater flows) serve 92 percent of the Gowanus Canal watershed, while storm sewers serve 2 percent (NYCDEP, 2008). Direct runoff drains 6 percent of the watershed. Three stormwater outfalls also discharge to the canal. During significant rainfall events, the Gowanus Canal receives untreated discharges of combined sewage that exceed the capacity of the Red Hook and Owls Head wastewater pollution control plants (WPCPs); during such events, the canal has overflowed onto neighboring properties and streets. The area surrounding the canal is within a 100-year flood zone, indicating that there is a 1 percent annual chance of flooding in this area (FEMA, 2007).

Currently, the New York State Department of Health (NYSDOH) has fish-consumption advisories for the Upper Bay of the New York Harbor (north of the Verrazano Narrows Bridge), including the Gowanus Canal (NYSDOH, 2010). There are no warning signs concerning the fish-consumption advisories posted along the canal; however, New York City has posted caution signs at locations of combined sewer outfall (CSO) discharges that state during wet weather the CSOs may discharge harmful bacteria to the canal and people should not swim, boat, or fish during these periods. A fishing license is not required to fish in the Gowanus Canal. The main contaminants of concern identified in the NYSDOH health advisories for the waters of the Upper Bay of New York Harbor are polychlorinated biphenyls (PCBs) and dioxin in fish, and cadmium, dioxin, and PCBs in crab and lobster. The NYSDOH advisories include the following advice:

- For women under 50 years and children under 15 years: Do not eat any fish from these waters, eat no more than a few meals per year of crab meat from these waters, and avoid eating the crab tomalley (hepatopancras) and cooking liquid.

- For all others: Do not eat gizzard shad, white perch, or crab and lobster tomalley (hepatopancreas) and cooking liquid; eat only one meal per month of Atlantic needlefish, bluefish, rainbow smelt, and striped bass; eat no more than four meals per month of all other fish species and blue crab meat.

Potential current and future receptors at the Gowanus Canal may include recreational users, anglers, local residents, and nearby industrial workers. The recreational receptors may contact surface water and sediment through incidental ingestion and dermal absorption and inhale ambient air (volatile and particulate emissions from the surface water and sediment) at canal level while boating, fishing, and crabbing in the canal and potentially, although less common and less likely, while swimming/diving in the canal.

Swimming/diving in the canal, although it does occur (Gowanus Dredgers Canoe Club, 2010; New York Times, 2007; The Gowanus Lounge, 2007), is rare due to the general conditions of the canal, which are largely associated with CSO discharges to the canal. The anglers may also ingest fish or crabs caught in the canal, and share the fish and crabs with family members, including young children and adolescents. Residents and industrial workers may inhale ambient air (associated with volatile and particulate emissions from the canal) at street level. Also, it has been noted that during significant rainfall events the canal may overflow (about two to three times per year), and these residents and industrial workers may contact surface water and sediment (that has overtopped the canal) through incidental ingestion and dermal contact. If any of the sediment that has overtopped the canal is not washed away with rain, it is usually swept up by the local residents or workers and does not accumulate.

Future use of the area surrounding the canal is most likely to remain the same as current use (industrial and residential), with the potential for construction of new housing, which would result in additional residential populations living close to the canal.

SECTION 3

Scope of Human Health Risk Assessment

The primary objective of the baseline HHRA is to assess the potential current and future health risks from the contamination associated with the Gowanus Canal, in the absence of any remedial action. The risk assessment evaluates potential carcinogenic risks and noncarcinogenic hazards for a reasonable maximum exposure (RME) scenario consistent with the National Contingency Plan (NCP) (USEPA, 1994a) and Risk Assessment Guidance for Superfund (RAGS) guidance documents (USEPA, 1989, 1991, 2001a, 2004, 2009). The RME is the highest exposure that is reasonably expected to occur at a site (USEPA, 1989). The risk assessment comprises the following components:

- **Hazard Assessment/Identification of Chemicals of Potential Concern**—Identification of the contaminants found in the canal media and selection of the chemicals of potential concern (COPCs). COPCs represent that subset of the chemicals found at the canal that is expected to contribute the most to the risk estimates for the canal.
- **Exposure Assessment**—Identification of the potential pathways of human exposure and estimation of the magnitude, frequency, and duration of these exposures.
- **Toxicity Assessment**—Assessment of the potential adverse effects of the COPCs and compilation of the noncarcinogenic and carcinogenic toxicity values used for developing numerical risk estimates.
- **Risk Characterization**—Integration of the results of the hazard, exposure, and toxicity assessments to develop numerical estimates of health risks and characterize the potential health risks associated with potential exposure to site-related contamination.
- **Uncertainty Assessment**—Identification and discussion of sources of uncertainty in the risk assessment.

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SECTION 4

Hazard Assessment/Identification of COPCs

The identification of COPCs includes data collection, data evaluation, and data screening to identify those chemicals which would contribute the most to the total risk estimates associated with the site.

The data collection and evaluation involve gathering and reviewing the available site information and compiling a set of data for the purpose of conducting the baseline HHRA. Once the data collection and evaluation are completed, the established data set is further screened to focus the risk assessment efforts on the contaminants that need to be evaluated quantitatively in the risk assessment (data screening).

4.1 Data Summary

The purpose of this investigation is to evaluate the potential human health risks associated with contamination in surface sediment and surface water in the Gowanus Canal, in fish and crab caught in the canal, and in air from emissions from the canal media. Surface water and sediment samples collected from the canal, fish and crab tissue samples collected from the canal, and air samples collected at canal level and street level adjacent to the canal were evaluated in the baseline HHRA. Samples for all media have also been collected from reference areas. All of the data are included in Appendix I to the RI report. The samples evaluated in the baseline HHRA and the laboratory analysis performed for these samples are identified in Table 4-1. All data used in the risk assessment were validated in accordance with USEPA Region 2 Data Validation SOPs (USEPA Region 2, 1992, 2001b).

4.1.1 Surface Sediment

Surface sediment sampling activities were conducted within the Gowanus Canal and New York Harbor between June 17 and July 1, 2010. Surface sediment samples were collected over the length of the canal from 0 to 6 inches below the top of soft sediment. Some of the surface sediment samples were collected at locations where sediments are exposed at low-tide. Figures 2-3a through 2-3c in the RI report identify the locations where the surface sediment samples were collected. A total of 27 surface sediment samples were collected from the canal. Twelve of the samples were collected from "exposed" locations. All sediment samples were analyzed for Target Compound List (TCL) organics and Target Analyte List (TAL) metals (including mercury and cyanide), and these data were evaluated in the HHRA. Additionally, 19 sediment samples were analyzed for PCB congeners. These 19 locations were selected to provide data for areas with the greatest potential for human exposure (e.g., the canoe launch), to provide data in areas where high PCB concentrations were previously measured in sediment, and to provide spatial coverage throughout the canal. The PCB concentrations and risks were calculated based on total PCBs derived from congener data. Aroclor data were not used in the risk calculations. Ten surface sediment samples were also collected from the Gowanus Bay and Upper New York Bay, outside the mouth of the canal, to provide information for offsite conditions. Figure 2-4 of the RI identifies the reference surface sediment locations.

Two data groupings of surface sediment were evaluated in the HHRA. All of the surface sediment data were included in the data set to evaluate overflow sediment. Only the surface sediment samples collected from "exposed" locations were included in the data set used to evaluate contact with sediment during recreational use of the canal.

4.1.2 Surface Water

Surface water samples were collected from the length of Gowanus Canal during two sampling events representing dry-weather (June 19, 2010; 27 samples) and wet-weather (July 13, 2010; 26 samples) conditions. Figures 2-5a through 2-5c in the RI identify the locations where the surface water samples were collected. Ten offsite surface water samples were collected from the New York Harbor and Buttermilk Channel. Figure 2-6 identifies the offsite surface water sample locations. The surface water samples were collected from approximately 6 inches below the water surface. Surface water samples from all locations were analyzed for TCL organics and TAL metals (total and dissolved including mercury and cyanide). The total metals data were evaluated to estimate risks associated with metals in the HHRA, as the receptors would come in direct contact with total (rather than dissolved) concentrations in surface water.

4.1.3 Ambient Air

Air-sampling activities were conducted along the Gowanus Canal and at background locations during two sampling events. Air samples were collected between July 7 and 9, 2010, prior to the start of the canal oxygenation system. A second round of air sampling was conducted July 28 and 29, 2010, following the start-up of the oxygenation system. Air samples were collected at 10 locations along the length of the canal with two samples collected at each location, one at canal level and one at street level. Air samples were also collected at three background locations, with one sample at street level at each location. Figure 2-9 in the RI shows the locations of the air samples. Air samples along the canal were analyzed for VOCs and PAHs. Location 506 at the street level was also analyzed for PCBs during the first sampling event.

4.1.4 Fish Tissue

Fish and crab samples were collected in the Gowanus Canal and reference locations in Gowanus Bay and Upper New York Bay from June 21 through July 9, 2010. Fish and shellfish were collected in six reaches of the canal and in three reference areas (Figures 2-7 and 2-8 of the RI). Species targeted for sampling and evaluation in the HHRA included blue crab, striped bass, and white perch. Additional species caught and evaluated in the HHRA included American eel. These species were targeted on the basis of previous catch records for the canal, since they are typically consumed by humans, and because they represent different levels within the food web and have potentially different exposure within the ecosystem. These species were selected as the target fish/crab species for the canal in consultation with USEPA.

Both top-level predator (striped bass) and middle-level predator (white perch) fish tissue samples were collected and evaluated in the HHRA. The top-level predators represent species reflecting high-end bioaccumulation due to their position in the food web and are occasionally harvested and consumed by anglers. However, these fish tend to have a relatively large home range, and thus lower site fidelity, and a greater chance of

accumulating contaminants from offsite sources. The midlevel predator represents species most frequently harvested and consumed by anglers and likely retains greater site fidelity. However, the midlevel predator may not reflect maximum bioaccumulation due to its position in the food web. Additionally, because eel were caught during the sampling, and eel are consumed by humans, the eel were evaluated in the HHRA and represent bottom feeders.

Section 2.5 of the RI details the fish sampling, tissue preparation and grouping, and the preparation of fish samples for laboratory analysis. Twelve composite samples of blue crab, six composite samples of eel, five composite samples of striped bass, and two composite samples of white perch were included for quantitative evaluation in the HHRA.

Edible tissue (filet only) samples were analyzed to assess potential human health risks associated with ingestion of striped bass, white perch, and eel. For blue crab, edible portion samples and hepatopancreas samples were analyzed separately and combined to estimate human health risks. The hepatopancreas is a main component of a crab's digestive system. It functions as both the liver and pancreas for the crab, and is involved in producing digestive enzymes and is responsible for filtering impurities from the crab's blood. Some chemicals, such as PCBs and mercury, accumulate in the hepatopancreas. May and Burger (1996) reported that most crabbers in the Newark Bay Complex eat only cleaned crabs, and discard the hepatopancreas, with fewer than 3 percent of those surveyed eating the whole crab. The New Jersey Department of Environmental Protection (NJDEP) (2002) reported that 15 percent of the population surveyed in the Newark Bay Complex ate the hepatopancreas. It is possible that an individual may be exposed to the hepatopancreas during cooking unless actions are taken to remove the hepatopancreas from the crab prior to cooking. Based on the NJDEP report (NJDEP, 2002) and the potential for the hepatopancreas to be released during cooking, an individual may be exposed to both crab edible tissue and hepatopancreas. Therefore, the risk evaluation considered exposures to both the edible tissue and the hepatopancreas as the RME scenario. Risks from ingestion of the edible tissue only are discussed in the Uncertainty Assessment.

4.2 Data Evaluation

All of the data included in the risk assessment were evaluated to assess their reliability for use in the quantitative risk assessment. The following criteria were used to assess data usability:

- Estimated values flagged with a J or NJ qualifier were treated as unqualified detected concentrations.
- Data qualified with an R (rejected) were not used in the risk assessment.
- Data qualified with a B (blank contamination) were used in the risk assessment as if the constituents were not detected.
- For duplicate samples, the maximum concentration between the two samples was used as the sample concentration.

- Only the detected congeners were used to calculate the total PCB concentrations for each sample. Undetected congeners and congeners qualified with a B were not included in the calculations (see Section 5.3.1).
- Nondetected values (for all analytes except PCBs) were included in the risk assessment and exposure concentration calculation at the detection limit using ProUCL (USEPA, 2010a).

4.3 Selection of COPCs

The identification of COPCs is shown in Tables 2.1 through 2.13 in the Attachment. The methodology used to select the COPCs for quantitative evaluation in the baseline HHRA is outlined below:

- Sediment data were compared to the USEPA Regional Screening Levels (RSLs) for residential exposure to soil (USEPA, 2010b). RSLs that are based on the chemical's noncarcinogenic effects (noted with an ''"N" next to the screening toxicity value on the COPC screening table) were divided by 10 to account for potential exposure to multiple constituents. RSLs that are based on carcinogenic effects (noted with a "C"'' next to the screening toxicity value on the COPC screening table) were used without adjustment because the target carcinogenic risk used in the RSL calculations is based on a 1 × 10–6 risk level. Constituents whose maximum detected concentration is below the screening level were not retained as COPCs. As discussed in Section 4.1.1, sediment samples were analyzed for both Aroclors and PCB congeners. Only the PCB congener data were evaluated in the risk assessment so that the risks associated with PCBs would not be double-counted in the HHRA. In accordance with EPA guidance (USEPA, 1996) for PCB congener analysis, the "dioxin-like" PCB toxicity equivalent (TEQ) concentration, the "non-dioxin-like" total PCB concentration, and the total PCB concentration were calculated for each sample using the methods discussed in Section 5.3.1. The dioxin-like PCB TEQ concentration was screened against the 2,3,7,8-TCDD RSL (which was re-calculated from the value on the RSL table using the 2,3,7,8-TCDD oral cancer slope factor from USEPA, 1995), the non-dioxin-like PCB concentration was screened against the Aroclor-1260 RSL, and the total PCB concentration was screened against the Aroclor-1254 RSL.
- Surface water data were compared to the USEPA tap water RSLs (USEPA, 2010b). RSLs that are based on the chemical's noncarcinogenic effects were divided by 10 to account for potential exposure to multiple constituents. RSLs that are based on carcinogenic effects were used without adjustment because the target carcinogenic risk used in the RSL calculations is based on a 1 ×10–6 risk level. Constituents whose maximum detected concentration is below the screening value were not retained as COPCs.
- Fish tissue and crab sample data were compared to the USEPA Region 3 fish ingestion RSLs (USEPA Region 3, 2010c). RSLs that are based on noncarcinogenic effects were divided by 10 to account for exposure to multiple constituents. RSLs that are based on carcinogenic effects were used without adjustment. Constituents whose maximum detected concentrations are below the screening level were not retained as COPCs. In accordance with USEPA guidance (USEPA, 1996) for PCB congener analysis, the "dioxin-like" PCB TEQ concentration, the "non-dioxin-like" total PCB concentration,

and the total PCB concentration were calculated for each sample using the methods discussed in Section 5.3.1. The dioxin-like PCB TEQ concentration was screened against the 2,3,7,8-TCDD RSL (which was re-calculated from the value on the RSL table using the 2,3,7,8-TCDD oral cancer slope factor from USEPA, 1995), the non-dioxin-like PCB concentration was screened against the Aroclor-1260 RSL, and the total PCB concentration was screened against the Aroclor-1254 RSL.

- Air data were compared to the USEPA resident air RSLs (USEPA, 2010b). RSLs that are based on noncarcinogenic effects were divided by 10 to account for exposure to multiple constituents. RSLs that are based on carcinogenic effects were used without adjustment. Constituents whose maximum detected concentrations are below the screening level were not retained as COPCs.
- Essential human nutrients (calcium, magnesium, potassium, and sodium) that are toxic at concentrations significantly higher than those found in canal media, and whose concentrations in canal media are only slightly higher than the concentrations at which they occur naturally, were not retained as COPCs.
- Lead concentrations less than 0.015 mg/L in surface water (the Safe Drinking Water Act action level for lead in potable water) and less than 400 mg/kg in sediment (USEPA, 1994b) are considered adequately protective of human health under residential land-use conditions. Lead was retained as a COPC when exceeding these values. Lead was not detected in fish tissue.
- Constituents that were detected in less than 5 percent of the samples were not retained as COPCs (USEPA, 1989).
- Detected constituents classified as USEPA Class A carcinogens (known human carcinogens) were retained as COPCs for evaluation regardless of the comparison of the concentration to the screening level (USEPA, 1989).
- For constituents detected in canal samples that do not have established USEPA RSLs, the RSL values for surrogate constituents were selected based on guidance from the Superfund Technical Support Center and used in the COPC screening process.

4.4 Constituents of Potential Concern

Table 4-2 lists the chemicals that were identified as COPCs for site media:

- Surface sediment (exposed and near-shore)—11 PAHs [acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, naphthalene, and pyrene], one additional SVOC [bis(2-ethylhexyl)phthalate], PCBs, and 10 metals (aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, and vanadium).
- Surface sediment (overflow scenario)—the chemicals indicated above (exposed and near-shore) plus one additional PAH (fluorene).
- Surface water (dry event)—one VOC (benzene), four PAHs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene , and indeno(1,2,3-cd)pyrene], one additional

SVOC [bis(2-ethylhexyl)phthalate], and four metals (arsenic, chromium, copper, and selenium).

- Surface water (wet event and overflow)—the chemicals indicated above (dry event) plus four additional VOCs (1,4-dichlorobenzene, chloroform, ethylbenzene, and tetrachloroethene), two additional PAHs [dibenz(a,h)anthracene and naphthalene] , two additional metals (cobalt and lead), and one less metal (copper).
- Ambient air (street level)—benzene, chloroform, ethylbenzene and naphthalene.
- Ambient air (canal level)—the chemicals indicated above (street level) plus xylene.
- Fish tissue (striped bass)—two pesticides (p,p'-DDE and p,p'-DDT), PCBs, and three metals (arsenic, mercury, and selenium).
- Fish tissue (white perch)—PCBs and two metals (mercury and selenium)
- Fish tissue (eel)—six pesticides (alpha-chlordane, gamma-chlordane, dieldrin, p,p'-DDD, p,p'-DDE, and p,p'-DDT), PCBs, and six metals (arsenic, chromium, copper, cyanide. mercury, and selenium).
- Blue crab—five PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene), PCBs, and three metals (arsenic, copper, and mercury).

SECTION 5

Exposure Assessment

Exposure assessment is the estimation of the likelihood, magnitude, frequency, duration, and routes of potential exposure to a chemical. Exposure refers to the potential contact of an individual (or receptor) with a chemical. Exposure can occur when contaminants migrate from a source to an exposure point, or when a receptor comes into direct contact with contaminated media.

The components of exposure assessment include the following:

- Characterization of exposure setting
- Identification of exposure pathways, and evaluation of whether they are complete
- Quantification of exposure

5.1 Characterization of Exposure Setting

Characterization of exposure setting consists of two parts: (1) characterization of the site with respect to its physical characteristics and (2) characterization of the site with respect to human populations at or near the site.

5.1.1 Physical Setting

The physical setting is described in the Section 2, the CSM. The Gowanus Canal is a 1.8-mile-long canal located in the New York City borough of Brooklyn, Kings County, New York. The canal borders several residential neighborhoods including Red Hook, Cobble Hill, Carroll Gardens, and Park Slope. The waterfront properties abutting the canal are primarily commercial and industrial.

The Gowanus Canal is a tidally influenced dead-end channel that opens to Gowanus Bay and Upper New York Bay. The canal experiences a semidiurnal tidal cycle (i.e., two high tides and two low tides each tidal day). The entire canal is classified as a saline tributary to Upper New York Bay, and the reach between the head of the canal and 22nd Street is classified as a "minor river, tidal tributary," according to Title 6 of the New York Code of Rules and Regulations, Chapter X, Part 890. The only freshwater inflows to the canal are wet-weather CSO and stormwater discharges. Because of its narrow width, limited freshwater input, and enclosed upper end, the canal has low current speeds and limited tidal exchange with Gowanus Bay, though these are enhanced by additional circulation from the flushing tunnel when it is operating (NYCDEP, 2008).

5.1.2 Potentially Exposed Populations

As discussed above, the area around the Gowanus Canal consists of industrial, commercial, and residential properties. The Gowanus Canal itself may be used for recreational activities such as boating, swimming/diving, fishing, and crabbing (Gowanus Dredgers Canoe Club, 2010; New York Times, 2007; The Gowanus Lounge, 2007). Despite current fish advisories for the Upper New York Bay, which includes the Gowanus Canal, there have been observations of fishing/crabbing along the canal (The Gowanus Lounge, 2007). Although

most properties abutting the canal are commercial and industrial, there are residential neighborhoods within a few blocks of the canal. Therefore, potential current receptors for the surface water, sediment, air, and/or fish and crabs include recreationalists, anglers (and their families), local residents, and industrial workers. Table 1 in the Attachment identifies the potential receptors.

Future use of the canal and use of the surrounding area will likely remain the same as current use. Additionally, there have been discussions concerning construction of residential housing complexes adjacent to the canal. Therefore, the future potentially exposed populations are assumed to be the same as the current potentially exposed populations.

5.2 Identification of Exposure Pathways

An exposure pathway may be described as the physical course that a COPC takes from the point of release to a receptor. To be complete, an exposure pathway must have all of the following components present:

- A source
- A mechanism of a chemical release and transport
- An environmental transport medium
- An exposure point (receptor location)
- An exposure route (inhalation, dermal absorption, ingestion)
- A receptor or exposed population

In the absence of any one of these components, an exposure pathway is considered incomplete and, by definition, there is no risk or hazard. In some cases, a receptor may contact a source directly, eliminating the release and transport pathway.

The potential exposure pathways for Gowanus Canal are identified in the preliminary CSM (Figure 2-1) and Table 1 in the Attachment.

5.2.1 Contaminant Sources

The potential contaminant sources are identified in the preliminary CSM, in Section 2, and include past use of the areas abutting the canal by gas works, coal yards, manufacturers of cement, manufacturers of soap, tanneries, paint and ink factories, machine shops, chemical plants, and oil refineries. The canal was also used as a repository of untreated industrial wastes, raw sewage, and surface water runoff for many decades.

5.2.2 Release and Transport Mechanisms

The primary contaminant release and transport mechanism at the Gowanus Canal site appears to be the discharge from past industrial activities into the canal surface water, accumulation in the sediment, and bioaccumulation into fish and crabs. The transport pathway from emissions from surface water and sediment to ambient air will be evaluated in the risk assessment using the ambient air data collected along the canal. Additionally, the canal has been known to overflow during heavy precipitation events, resulting in transport of surface water and sediment out of the canal onto properties and streets adjacent to the canal. The surface water and sediment remains on the properties and streets adjacent to the canal only for short periods of time during the overflow and flooding events.

5.2.3 Exposure Points and Exposure Routes

Potential exposure points include the surface water and sediment within the canal, surface water and sediment temporarily deposited on properties adjacent to the canal when the canal overflows its banks during heavy precipitation events, ambient air at canal level and street level adjacent to the canal, and fish and crab caught in the canal. Table 1 in the Attachment lists all of the potential exposure pathways that were considered for evaluation in the risk assessment.

5.2.4 Summary of Potential Exposure Pathways

In summary, the potential pathways that were evaluated under the current/future land use scenario include the following:

- Adult, adolescent (12–18 years old), and child (1–6 years old) recreational: incidental ingestion and dermal contact with canal surface water (during both wet- and dry-sampling events); incidental ingestion and dermal contact with exposed and near-shore sediment in the canal; inhalation of ambient air at canal level (both before and during aeration system operation).
- Adult and adolescent (12–18 years old) angler and child (1–6 years old) of angler: ingestion of fish (striped bass, white perch, and eel) and crab caught in the canal.
- Adult and child (1–6 years) residents: inhalation of ambient air at street level (both before and during aeration system operation); incidental ingestion and dermal contact with canal overflow surface water (using surface water collected during wet events); incidental ingestion and dermal contact with sediment deposited adjacent to the canal (using surface sediment data) during canal overflow events.
- Adult industrial worker: inhalation of ambient air at street level (both before and during aeration system operation); incidental ingestion and dermal contact with canal overflow surface water (using surface water collected during wet events); incidental ingestion and dermal contact with sediment deposited adjacent to the canal (using surface sediment data) during canal overflow events.

5.3 Quantification of Exposure

Quantification of exposure involves estimating the exposure point concentration (EPC) and chemical intake.

5.3.1 Exposure Concentrations

The EPC is the estimated concentration at the point of contact. EPCs may be measured directly (i.e., surface water concentration) or calculated using fate and transport models. No fate and transport modeling was conducted for the Gowanus Canal risk assessment since data were collected at potential exposure points.

The EPCs for each COPC were calculated as the 95 percent upper confidence limit (UCL) of the mean concentration. The maximum detected concentration was used in place of the UCL as the EPC when the calculated UCL was greater than the maximum detected value or less than eight samples were available for the data grouping.

ProUCL, Version 4.00.05 (USEPA, 2010a), was used to calculate the UCLs and determine the data distribution. The data distribution identified was used to compute the most appropriate UCL for that specific data set. The recommendations in the ProUCL output file and outlined in the ProUCL model documentation were used to select the appropriate UCL.

In accordance with USEPA guidance (USEPA, 1996), EPCs were calculated separately for each medium (sediment and fish tissue) and data groupings for which PCB congeners were analyzed for (1) "dioxin-like" PCB TEQ concentrations, (2) "non-dioxin-like" total PCB concentrations, and (3) total PCB concentrations. These three concentrations were calculated for each sample using the methods discussed below. The concentrations were calculated using only the detected PCB congeners in each sample. Nondetected congeners and B-flagged congeners were not included in the individual sample sums. The calculations are included in Tables 2.8 Supplement A, 2.11 Supplement A, and 2.12 Supplement A in the Attachment for fish and crab, and for sediment, respectively. Detection limits are not shown on these tables for all of the dioxin congeners. The reporting limits are unreliable because during data validation the reporting limits were not provided correctly if the sample was reanalyzed or diluted. Appendix H presents the data quality evaluation. The uncertainties associated with the EPC calculation approach for PCBs are discussed in Section 8.

TEQ concentrations for "dioxin-like" PCBs were calculated for each sample in accordance with the World Health Organization (WHO) toxicity equivalency factor (TEF) approach (USEPA, 2010d). The purpose of using the WHO TEF approach is to adjust the relative carcinogenic potency of specific dioxin-like PCB congeners relative to 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD), the most potent dioxin congener. TEFs are published by WHO for mammals (including humans), fish, and wildlife. PCB TEQs were calculated using the mammal TEFs. Using the measured concentration values for each congener and the TEF for that congener, the TEQ for a mixture of PCB congeners in a specific sample is calculated as follows:

$$TEQ = \Sigma\ (TEFi \times Ci)$$

where:

TEFi = Toxicity equivalency factor for congener *i*
Ci = Concentration of congener *i*

Risks from the calculated dioxin-like PCB TEQ are therefore based on the toxicity factors for 2,3,7,8-TCDD. The TEFs used to calculate the dioxin-like PCB TEQ concentrations are provided in Table 5-1. Although there are also noncancer toxicity factors for 2,3,7,8-TCDD, there is greater uncertainty associated with evaluating the noncancer risk for the dioxin-like PCB TEQ concentrations using these values. Therefore, the evaluation of noncancer hazards associated with the dioxin-like PCB TEQ concentrations is presented in the uncertainty evaluation (Section 8).

The non-dioxin-like PCB concentrations (the sum of all detected non-dioxin-like PCB congeners) were also calculated and evaluated for carcinogenic risks using carcinogenic toxicity factors for total PCBs. The total PCB concentrations (the sum of all detected PCB congeners, not adjusted using TEFs) were also calculated for each sample and were used to evaluate noncarcinogenic effects.

Most arsenic present in fish and crab tissue is present in the organic form of arsenic (organoarsenical compounds), which is relatively nontoxic to humans and is excreted rapidly and unchanged in urine (U.S. Food and Drug Administration [FDA], 1993; ATSDR, 2007). Some regulatory agencies (for example, FDA) regulate arsenic in fish based on a default but conservative assumption that 10 percent of the total arsenic in fish tissue is potentially in the toxic (carcinogenic) form. Therefore, for this HHRA, it was assumed that 10 percent of the measured total arsenic in fish and crab tissue was in the inorganic form of arsenic. To account for this adjustment, the EPCs for arsenic used in the intake calculations are 10 percent of the total measured arsenic concentrations. The total measured arsenic concentrations are shown in Tables 3.8 through 3.11 in the Attachment, while 10 percent of the total measured values are shown in the Tables 7.8.RME through 7.10.RME and 7.7.CTE through 7.9.CTE in the Attachment.

5.3.2 Estimation of Chemical Intakes

The quantification of exposure is based on an estimate of the chronic daily intake (CDI), the average amount of the chemical contaminant entering the receptor's body per day. Chemical intake estimates for the ingestion and dermal exposure pathways are generally expressed as follows:

$$CDI = \frac{C \times CR \times EF \times ED}{BW \times AT}$$

Where:

CDI = chronic daily intake (mg/kg-day)
C = chemical concentration (mg/L, mg/kg)
CR = contact rate (L/day, mg/day)
EF = exposure frequency (days/year)
ED = exposure duration (years)
BW = body weight (kg)
AT = averaging time (days)

For the dermal pathway, the contact rate usually incorporates the skin surface area in contact with the exposure medium (water or sediment), and an absorption factor. The intake equation for the dermal exposure pathway is shown in the Attachment, Tables 4.1 (RME and CTE) and 4.5 (RME and CTE) for sediment and Tables 4.2 (RME and CTE) and 4.6 (RME and CTE) for surface water.

Chemical exposure estimates for the inhalation pathway are generally expressed as follows:

$$EC = \frac{Ca \times ET \times EF \times ED \times CF}{AT}$$

Where:

EC = exposure concentration (mg/m^3)
Ca = chemical concentration in air (mg/m^3)
ET = exposure time (hours/day)
EF = exposure frequency (days/year)
ED = exposure duration (years)
CF = conversion factor (day/24 hours)
AT = averaging time (days)

The intake and exposure equations require exposure parameters that are specific to each exposure pathway. Many of the exposure parameters have default values, which were used for this assessment. These assumptions, based on estimates of body weights, media intake levels, and exposure frequencies and duration, are provided in USEPA guidance. Other assumptions (e.g., for the recreational scenarios) require consideration of location-specific information and were determined using professional judgment. Tables 4.1.RME through 4.6.RME in the Attachment present the exposure parameters that were used for the exposure scenarios that were evaluated in the risk assessment. RME scenario exposure parameters were compiled for all scenarios; central tendency exposure (CTE) parameters were compiled only for scenarios where the RME risk for an environmental medium is greater than 'USEPA's noncarcinogenic hazard or carcinogenic risk target levels (target organ-specific hazard index (HI) >1.0, and excess lifetime cancer risk (ELCR) >1 × 10^{-4}). The exposure parameters selected for each receptor are discussed below.

For the fish consumption evaluation, the fish ingestion rate for each of the species of fish evaluated was adjusted to a percentage of the total fish ingestion rate assumed, as reported in literature for the State of New York. The percentage of ingestion of each fish type was obtained from the 1991 New York State Angler Report (Connelly et al., 1992). It was assumed that eel represent bottom feeders with 44 percent of the total fish consumption, striped bass represent the intermediate level with 47 percent consumption, and white perch represent the remaining 9 percent. A 100 percent crab ingestion rate was assumed for blue crab. Burger (2002) found that individuals typically consumed either fish or crabs, and that those who did consume both fish and crabs had lower consumptions of each. Therefore, the total noncarcinogenic hazards and carcinogenic risks were not combined for consumption of both fish and crabs.

For the fish and crab ingestion scenarios, an additional exposure parameter was used in the CDI calculation (USEPA, 2000) for the CTE scenario. During cooking and fish preparation, concentrations of some lipophilic contaminants decrease. Therefore, if appropriate for the COPC, a preparation/cooking loss factor (PCF) was applied to the equation for the CTE assessment.

Appendix C of USEPA's *Guidance for Assessment Chemical Contaminant Data for Use in Fish Advisories, Volume 2: Risk Assessment and Consumption Limits* (USEPA, 2000) summarizes many of the studies that have evaluated loss of PCBs and pesticides from fish during food preparation and cooking. A review of the available literature found the results range considerably, both between various cooking methods and within the same method. Cooking losses, expressed as percent loss based on total PCB mass before and after cooking, as high as 74 percent were reported in one study (Skea et al., 1979). Other studies reported net gains of PCBs (Moya et al., 1998; Armbruster et al., 1987). PCB losses from cooking may be a function of the cooking method (baking, frying, broiling, etc.), cooking duration, temperature during cooking, preparation techniques (i.e., trimmed vs. untrimmed, with or without skin), lipid content of the fish, the fish species, magnitude of the PCB contamination in the raw fish, the extent to which lipids separated during cooking are consumed, reporting method, and/or the experimental study design. Personal preferences for various preparation and cooking methods and other related habits (such as consuming pan drippings) may result in consumption of PCBs "lost" from the fish upon cooking.

A review of literature found that PCB cooking losses may range from 0 to 74 percent. Despite the wide range of cooking loss estimates, most PCB losses were between 10 and 40 percent. A value of 20 percent (midpoint of 0 – 40 percent) was selected as the CTE estimate for cooking loss. For the RME, a cooking loss factor was not used to include the possibility that pan drippings are consumed along with the fish. Table 5-2 identifies the PCFs used for the CTE evaluation.

Recreational Adult, Adolescent, and Child

The recreational adult, adolescent (ages 12–18), and child (ages 1–6) are individuals who may use the canal for boating, fishing, crabbing, or—although unlikely—swimming/diving and be exposed to the surface water, sediment, and air at canal level. It is assumed that the RME recreational user would engage in recreational activities in the canal for 1 day per week for one-half of the year, from May through October (26 days/year). For estimating the exposure to the surface water and sediment during recreational activities, swimming was assumed. It was assumed that the RME recreational user would be exposed to surface water and sediment for 2.6 hours during each exposure, the national average time spent swimming per swimming event (USEPA, 1989). It was assumed that the RME ingestion rate of sediment during swimming would be 50 percent of the resident ingestion rate of soil (50 mg/day for adults and adolescents and 100 mg/day for children [USEPA, 1991]). The RME ingestion rate of surface water was assumed to equal 0.05 L/day, the surface water ingestion rate for swimming activities (USEPA, 1989). For dermal exposure to sediment, it was assumed that the head, hands, forearms, lower legs, and feet could come into contact with the sediment (i.e., skin surface areas of 6,925 cm^2 [adult], 10,470 cm^2 [adolescent; includes full arms and legs since information was not available for this age group for forearms and lower legs alone], and 2,800 cm^2 [child] [USEPA, 2004]). A sediment-to-skin adherence factor of 0.3 cm^2, the average adherence factor for reed gatherers (USEPA, 2004), was selected for the adult, and a sediment-to-skin adherence factor of 0.2 cm^2, the average adherence factor for children in wet soil (USEPA, 2004), was selected for the adolescent and child. For surface water, it was assumed the full body (18,000 cm^2 [adult], 15,758 cm^2 [adolescent], and 6,600 cm^2 [child] [USEPA, 2004]) would be exposed. The default exposure durations of 24 years (adult), 6 years (adolescent ages 12–18), and 6 years (child ages 1–6) and default body weights of 70 kg (adult), 57 kg (mean body weight of girls and boys ages 12–18), and 15 kg (child ages 1–6) were used for exposure to all media.

For the CTE scenarios, the exposure frequency was assumed to be one-half of the RME exposure frequency (or 1 day every other week for one-half of the year). It was assumed that the CTE recreational user would be exposed to the surface water and sediment for one-half of the RME exposure time, or 1.3 hours during each exposure. It was also assumed that the ingestion rates of sediment and surface water would be half the RME values, or 25 mg/day for adults and adolescents and 50 mg/day for children for sediment, and 0.025 L/day for all recreational receptors for surface water. The CTE skin surface areas for exposure to surface water and sediment, and the sediment-to-skin adherence factors were assumed to be the same as the RME values. The total CTE exposure duration for the recreational receptor was assumed to be 9 years (USEPA, 1997), the 50th percentile value for living at one residence, therefore, for each of the receptors (adult, adolescent, and child) the exposure duration was assumed to be 3years. The default body weights of 70 kg (adult), 57 kg (mean body weight

of girls and boys from 12–18), and 15 kg (child ages 1–6) were used to evaluate CTE exposure to all media.

Adult Angler

It was assumed the adult angler would ingest the fish or crabs they catch in the canal. There is not a lot of published literature concerning ingestion rates of self-caught crabs. Burger (2002) reported results of an angler study for fish and crabs in the Newark Bay Complex, and has estimated a yearly consumption rate for self-caught crab by multiplying the number of crab meals eaten per month by the number of crabs eaten at each meal by the number of months per year crabs are caught. Burger assumed the average size of one crab is 70 g. In the Burger (2002) study, it was noted that most of the people interviewed mainly fished or mainly crabbed, and that more than 30 percent of the people who fished and crabbed in the Newark Bay Complex did not eat their catch. People reported crabbing for only 3 months of the year, which is why data from only the 3-month period were used to calculate the annual ingestion rate. This may underestimate the risks and hazards associated with crab ingestion if crabs are actually caught in the canal and eaten for longer than 3 months a year. The yearly consumption rate of self-caught crab estimated from Burger (2002) is 5,760 grams (g), or 16 g/day. A 95% UCL of the yearly consumption value was estimated on the basis of this to be 23 g/day, and an average yearly consumption value was estimated to be 16 g/day. The 95% UCL value was used for the RME scenario for crab ingestion, and the average value was used for the CTE scenario.

Burger (2002) also presented a yearly consumption rate of self-caught fish (based on the Newark Bay Complex study) of 8,210 g, or 22 g/day. This is similar to the value of 26 g/day, the 95th percentile recreational freshwater angler's fish ingestion rate, in the *Exposure Factors Handbook* (USEPA, 1997) and is also similar to the 1991 New York State Angler Survey derived rate of 31.9 g/day (Connelly et al., 1992). The fish ingestion rate of 26 g/day (USEPA, 1997) was used for an RME adult. The mean recreational freshwater angler's fish ingestion rate of 8 g/day (USEPA, 1997) was used for the CTE adult angler.

Adolescent Angler

It was assumed that the adolescent angler, ages 12–18 years, would fish or crab in the canal and ingest the fish and crabs caught in the canal. In addition to eating the fish or crab caught by an adult family member, several studies have found that children begin fishing at approximately 10 years of age (Connelly et al., 1992). There is not a lot of published literature concerning ingestion rates of self-caught crabs by adults, and even less for children. Therefore, the fish ingestion rate for the adolescent was estimated assuming that the intake for an adolescent is about two-thirds of that of an adult. This approach yields ingestion rates generally consistent with the limited information provided in USEPA's *Exposure Factors Handbook* (USEPA, 1997). For adolescents ages 10-19 years, the 95th percentile intake is 26.8 g/day (USEPA, 1997), which is comparable with the 17 g/day used in the HHRA for adolescents ages 12-18 years. The RME ingestion rate of crabs by adolescents was assumed to be 15 g/day (two-thirds the adult rate).. Similarly, the CTE ingestion rate of fish by adolescents was assumed to be 5.3 g/day, and the CTE ingestion rate of crabs by adolescents was assumed to be 10.7 g/day.

Child of Angler

It was assumed that the child (ages 1–6 years) of an angler would ingest the fish and crabs caught by a parent/relative in the canal. There is not a lot of published literature concerning ingestion rates of self-caught crabs by adults, and even less for children. However, based on information presented in USEPA's *Exposure Factors Handbook* (USEPA, 1997) for fish ingestion rates for children, children ingest about one-third the amount of fish that adults ingest. This approach yields ingestion rates generally consistent with the limited information provided in USEPA *Exposure Factors Handbook* (USEPA, 1997). According to Table 10-1 of the *Exposure Factors Handbook* (USEPA, 1997), the 95th percentile intake for children ages 0-9 years is 16.5 g/day, compared to the RME value used in the HHRA of 9 g/day for children ages 1-6 years. The RME ingestion rate of crabs by children was assumed to be 8 g/day. Similarly, the CTE ingestion rate of fish by children was assumed to be 2.7 g/day and the CTE ingestion rate of crabs by children was assumed to be 5.3 g/day.

Industrial Adult

The industrial adult is an individual who works near the canal and may be exposed to ambient air (collected at street-level stations) 250 days/year, 8 hours/day. This industrial adult may also be exposed to canal overflow surface water and sediment. It was conservatively assumed that the canal overflows three times per year and remains in overflow conditions 3 days during each overflow event, for a total of 9 days per year of exposure to the overflowed surface water and surface sediment. It is assumed that the adult industrial worker could be exposed to the overflow water and sediment 8 hours/day during these 9 days. It was assumed that the ingestion rate of the canal overflow sediment would be equal to the adult industrial worker ingestion rate of soil, or 100 mg/day (USEPA, 2002). The ingestion rate of surface water was conservatively assumed to equal 0.05 L/day, the ingestion rate of surface water for swimming activities (USEPA, 1989). For dermal exposure to sediment, it was assumed that the head, hands, and forearms could come into contact with the sediment, for a surface area of 3,300 cm^2 (USEPA, 2004). For dermal exposure to surface water, it was assumed the head, hands, forearms, and lower legs could come into contact with the surface water, for a surface area of 5,700 cm^2 (USEPA, 2004). A sediment-to-skin adherence factor of 0.2 cm^2, the soil adherence factor for industrial workers (Exhibit 3-5 in USEPA, 2004), was selected. The default exposure duration of 25 years for an adult industrial worker and default body weight of 70 kg were used for exposure to media.

Residential Adult and Child

The residential adult and child are individuals who live near the canal and may be exposed to ambient air (collected at street-level stations) 350 days/year, 24 hours/day (RME scenario). This resident may also be exposed to canal overflow surface water and sediment. It was conservatively assumed that the canal overflows three times per year and remains in overflow conditions 3 days during each overflow event, for a total of 9 days per year of exposure to the overflowed surface water and surface sediment. It was assumed the RME ingestion rate of the canal overflow sediment would be equal to the resident ingestion rates of soil (100 mg/day [adult] and 200 mg/day [child] [USEPA, 2002]). The RME ingestion rate of surface water was assumed to equal 0.05 L/day, the surface water ingestion rate for exposure scenarios involving swimming activities (USEPA, 1989), and the RME exposure time for exposure to the surface water was assumed to equal 2.6 hours during each exposure, the national average time spent swimming per swimming event (USEPA, 1989).

For dermal exposure to sediment and the surface water, it was assumed that the head, hands, forearms, and lower legs could come into contact with the sediment, for a surface area of 5,700 cm^2 (adult) and 2,800 cm^2 (child, including feet) (USEPA, 2004). A sediment-to-skin adherence factor of 0.2 cm^2, the average adherence factor for children in wet soil (USEPA, 2004), was selected. Default exposure durations of 24 years (adult) and 6 years (child) and default body weights of 70 kg (adult) and 15 kg (child) were used for exposure to all media.

For the CTE scenario, it was assumed the residential receptors would be exposed to ambient air 234 days/year (USEPA, 1993). It was assumed that the CTE resident would be exposed to the surface water for one-half of the RME exposure time, or 1.3 hours during each exposure. It was also assumed that the ingestion rates of sediment and surface water would be one-half the RME value, or 50 mg/day for adults 100 mg/day for children for sediment, and 0.025 L/day for both adults and children for surface water. The CTE skin surface areas for exposure to surface water and sediment and the sediment-to-skin adherence factors were assumed to be the same as the RME values. The CTE exposure duration for the residential receptor was assumed to be 9 years (USEPA, 1997), the 50th percentile value for living at one residence; therefore, the CTE exposure duration for the adult was assumed to be 3 years and the CTE exposure duration for the child was assumed to be 6 years, for a total residential exposure duration of 9 years. The default body weights of 70 kg (adult), and 15 kg (child ages 1–6) were used to evaluate CTE exposure to all media.

SECTION 6

Toxicity Assessment

Toxicity assessment defines the relationship between the magnitude of exposure and possible severity of adverse effects, and it weighs the quality of available toxicological evidence. Toxicity assessment generally consists of two steps: hazard identification and dose-response assessment. Hazard identification is the process of determining the potential adverse effects from exposure to the chemical and the type of health effect involved. Dose-response assessment is the process of quantitatively evaluating the toxicity information and characterizing the relationship between the dose of the constituent administered or received and the incidence of adverse health effects in the exposed population. Toxicity criteria (e.g., reference doses [RfDs], inhalation reference concentrations [RfCs], cancer slope factors [CSFs], and inhalation unit risk factors [IURs]) are derived from the dose-response relationship.

USEPA recommends that a tiered approach be used to obtain the toxicity values (RfDs, RfCs, CSFs, and IURs) that are used to estimate noncarcinogenic and carcinogenic risks (USEPA, 2003a). The hierarchy of toxicity value sources is the following:

1. Integrated Risk Information System (IRIS) (USEPA, 2010e)
2. Provisional Peer-Reviewed Toxicity Values (PPRTV)
3. Other USEPA and non-USEPA sources, including the National Center for Environmental Assessment (NCEA), Agency for Toxic Substances and Disease Registry (ATSDR), Health Effects Assessment Summary Tables (HEAST), California EPA (Cal EPA), and USEPA's Office of Water

The use in an HHRA of toxicity values from sources other than IRIS increases the uncertainty of the quantitative risk estimates. Some of the COPCs elicit both systemic (noncarcinogenic) toxic effects and cancer (carcinogenic) effects. Because of this, these constituents are evaluated as both noncarcinogens and carcinogens. The health risks for carcinogenic and noncarcinogenic effects were estimated separately based on different toxicity values.

Chromium is a COPC for sediment, surface water, and fish tissue (eel). It was assumed that all of the chromium detected in these media is hexavalent chromium, or Cr(VI), both for determining if chromium was a COPC (comparing the total chromium concentrations to the Cr(VI) RSLs) and for calculating the risks associated with exposure to chromium in these media. Cr(VI) is unstable in the body (in biological tissues) and is ultimately reduced to trivalent chromium, or Cr(III), by a variety of reducing agents, including ascorbate and glutathione (ATSDR, 2008; USEPA, 2010e). Cr(VI) exerts toxicity through direct contact mechanisms rather than bioaccumulation to a critical concentration in tissue. Therefore, all of the chromium detected in fish tissue samples is most likely Cr(III). However, the Cr(VI) toxicity values were used to evaluate the risks associated with chromium in fish tissue and all media. An RfD and RfC for Cr(VI) are available in IRIS; however, IRIS does not include a

CSF or IUR for CR(VI). The CSF for CR(VI) used in the HHRA is the same one included on the RSL Table (USEPA, 2010b) from NJDEP.

6.1 Toxicity Information for Noncarcinogenic Effects

Noncarcinogenic health effects include a variety of toxic effects on body systems, ranging from toxicity to the kidneys to central nervous system disorders. The toxicity of a chemical is assessed through a review of toxic effects noted in short-term (acute) animal studies, long-term (chronic) animal studies, and epidemiological investigations.

USEPA (1989) defines the chronic RfD as a dose that is likely to be without appreciable risk of deleterious effects during a lifetime of exposure. Chronic RfDs are specifically developed to be protective for long-term exposure to a chemical or compound (for example, 7 years to a lifetime), and consider uncertainty in the toxicological database and sensitive receptors. Chronic RfDs were used to evaluate noncarcinogenic risks to all receptors evaluated in the risk assessment.

In the development of RfDs, all available studies examining the toxicity of a chemical following exposure are considered on the basis of scientific merit. The lowest dose level at which an observed toxic effect occurs is identified as the lowest observed adverse effect level (LOAEL), and the dose at which no effect is observed is identified as the no observed adverse effect level (NOAEL). Several uncertainty factors (UFs) may be applied to account for uncertainties such as limited data, extrapolation of data from animal studies to human exposures, or the use of subchronic studies to develop chronic criteria. These UFs range from 10 to 10,000, and are based on professional judgment. Consequently, there are varying degrees of uncertainty in the toxicity criteria, which range from 1 to 3,000 for the COPCs identified for this site.

USEPA-derived oral RfDs and inhalation RfCs, and associated UF and modifying factor (MF) values, available for the COPCs are presented in Tables 5.1 and 5.2 in the Attachment. The RfD for Aroclor 1254 was used to estimate the noncarcinogenic effects associated with exposure to total PCBs.

Per USEPA guidance, oral RfDs were adjusted from administered dose (oral) to absorbed dose (dermal) to evaluate dermal toxicity. When appropriate, the RfDs were adjusted using oral absorption factors (USEPA, 2004). This adjustment is shown in Table 5.1 in the Attachment.

6.2 Toxicity Information for Carcinogenic Effects

Potential carcinogenic effects are quantified as CSFs or IURs that convert estimated exposures directly to incremental lifetime carcinogenic risks.

CSFs and IURs may be derived from the results of chronic animal bioassays, human epidemiological studies, or both. Animal bioassays are usually conducted at dose levels that are much higher than are likely to be encountered in the environment. This design detects possible adverse effects in the relatively small test populations used in the studies. The actual risks from exposure to a potential carcinogen are not likely to exceed the estimated risks and are probably much lower or even zero. USEPA-derived CSFs and IURs are presented in the Attachment, Tables 6.1 and 6.2. The CSF for 2,3,7,8-TCDD (dioxin) was

used to estimate the carcinogenic risks associated with the dioxin-like PCBs and the CSF for total PCBs was used to estimate the carcinogenic risks associated with the non-dioxin-like PCBs.As was done for oral RfDs, oral CSFs were adjusted from administered dose (oral) to absorbed dose (dermal) to evaluate dermal toxicity. When appropriate, the CSFs were adjusted using oral absorption factors (USEPA, 2004). This adjustment is shown in Table 6.1 in the Attachment. The IRIS toxicity profile for PCBs (USEPA, 2010e) presents a tiered approach for evaluating carcinogenic risks associated with exposure to PCBs. IRIS recommends that the first tier upper-bound CSF of 2.0 $(mg/kg\text{-}day)^{-1}$ be used to evaluate upper-bound risks estimates for exposures to PCBs through ingestion of fish and sediment, and dermal contact with sediment, and that the central-estimate of 1.0 $(mg/kg/day)^{-1}$ be used to evaluate cancer risks for the CTE estimate.

6.3 Approach for Potential Mutagenic Effects

For COPCs that act via a mutagenic mode of action (MMOA), cancer risks were estimated using age-dependent adjustment factors (ADAFs), as is consistent with cancer guidelines and supplemental guidance (USEPA, 2005a, b). Consistent with the Superfund guidance on MMOA (http://www.epa.gov/oswer/riskassessment/sghandbook/chemicals.htm), the carcinogenic PAHs are considered to act via a MMOA. Additionally, chromium is also categorized as a chemical with a MMOA (McCarrol, et al., 2010). The calculation of cancer risk using ADAFs is presented in Tables 7s of the Attachment. As chemical-specific data are not available for the carcinogenic PAHs or chromium, default ADAFs, as included in the USEPA Region 3 memorandum *Derivation of RBCs for Carcinogens That Act via a Mutagenic Mode of Action and Incorporate Default ADAFs* (USEPA, 2006), were used for the MMOA evaluation. The default ADAFs used to adjust the CSFs are 10 for 0-2 year olds, 3 for 2-6 year olds, 3 used for 6-12 year olds, and 1 for 16-30 year olds. The CSF was multiplied by the appropriate ADAF to derive the age-specific CSF for a receptor to calculate the total carcinogenic risk. Additionally, the exposure factors for children 0–2 years old and 2–6 years old were assumed to be the same as the parameters for a child 0–6 years old, with the exception of the exposure duration, which was instead 2 years and 4 years, respectively. The exposure factors for the adult residential receptor were used for residents 6–16 years old and 16–30 years old, with the exception of the exposure durations, which were 10 years and 14 years, respectively. For the adolescent receptors, the exposure factors for the adolescents 12-16 years old and 16-18 years old were assumed to be the same as the parameters for an adolescent 12-18 years old, with the exception of the exposure duration, which was 4 years and 2 years, respectively.

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SECTION 7

Risk Characterization

Risk characterization combines the results of the previous elements of the risk assessment to evaluate the potential health risks associated with exposure to the COPCs. The risk characterization is then used as an integral component in risk management decision-making.

7.1 Methods for Estimating Risks

Potential human health risks are discussed independently for carcinogenic and noncarcinogenic effects because of the different toxicological endpoints, relevant exposure duration, and methods used to characterize risk. The methodology used to estimate noncarcinogenic hazards and carcinogenic risks are described below.

7.1.1 Noncarcinogenic Hazard Estimation

Noncarcinogenic health risks are estimated by comparing the calculated exposures to RfDs (or RfCs). The calculated intake divided by the RfD (or exposure concentration divided by the RfC) is equal to the hazard quotient (HQ):

$$HQ = Intake / RfD \text{ or } Exposure\ Concentration / RfC$$

The intake and RfD (or exposure concentration and RfC) represent the same exposure route (i.e., oral intakes are divided by oral RfDs, inhalation exposure concentrations are divided by inhalation RfCs). An HQ that exceeds 1.0 (i.e., intake exceeds the RfD) indicates that there is a potential for adverse health effects associated with exposure to that constituent.

To assess the potential for noncarcinogenic health effects posed by exposure to multiple constituents, an HI approach is used (USEPA, 1986). This approach assumes that noncarcinogenic hazards associated with exposure to more than one constituent are additive (HI = sum of the HQs). Synergistic or antagonistic interactions between constituents are not considered. The HI may exceed 1.0 even if all of the individual HQs are less than 1. HIs may be added across exposure routes to estimate the total noncarcinogenic health effects to a receptor posed by exposure through multiple routes. If the HI is greater than 1, separate HIs are estimated for each target organ to assess whether the HI for a specific target organ is greater than 1. A target-organ-specific HI greater than 1 indicates that there is some potential for adverse noncarcinogenic health effects associated with exposure to the COPCs, possibly warranting remedial action. If the HI for each target organ does not exceed 1, noncarcinogenic hazards are not expected.

7.1.2 Carcinogenic Risk Estimation

The potential for carcinogenic effects due to exposure to site-related constituents is evaluated by estimating the ELCR, which is the incremental increase in the probability of developing cancer during one's lifetime in addition to the probability of getting cancer associated with exposure to all non-site-related sources of carcinogens.

Carcinogenic risk is calculated by multiplying the intake by the CSF (or exposure concentration by the IUR).

$$ELCR = Intake \times CSF \quad \text{or} \quad Exposure\ Concentration \times IUR$$

The combined risk from exposure to multiple constituents was evaluated by adding the risks from individual constituents. Risks were also added across the exposure routes if an individual would be exposed through multiple routes.

As required under the NCP (USEPA, 1994a) "[f]or known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} to 10^{-6} using information on the relationship between dose and response." When a cumulative carcinogenic risk to a receptor under the assumed RME exposure conditions exceeds 1 in 10 thousand (i.e., 10^{-4} ELCR), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) generally requires remedial action to reduce risks at the site.

7.1.3 Lead

Lead concentrations less than 0.015 mg/L in surface water (the Safe Drinking Water Act action level for lead in potable water) and less than 400 mg/kg in sediment (USEPA, 1994b) are considered adequately protective of human health under residential land-use conditions. Lead concentrations less than 800 mg/kg in sediment are considered adequately protective of human health under industrial land-use conditions. Lead was retained as a COPC when exceeding the residential values. Lead was identified as a COPC for exposed and near-shore surface sediment, surface sediment for the overflow scenario, and surface water during the wet event. Lead does not have available published toxicity factors, and therefore potential risks associated with lead are evaluated differently than the other COPCs. The toxicity of lead is evaluated by USEPA based on blood-lead uptake using a physiologically based pharmacokinetic model called the Integrated Exposure Uptake Biokinetic (IEUBK) model.

The IEUBK model is used to evaluate lead exposure to children. An interim approach to assessing risks associated with adult exposures to lead was developed by USEPA's Technical Review Workgroup for Lead (USEPA, 2003b) and updated in 2005. This methodology is a variation of the IEUBK model. The adult lead methodology (ALM) is used to evaluate risks associated with nonresidential adult exposures to lead in soil (or sediment for this assessment). The model focuses on estimating fetal blood concentrations in women exposed to lead in soil (USEPA, 2003b). It was used in this risk evaluation to be protective of potentially sensitive receptors within the industrial worker population and recreational population that may be exposed to overflow sediment. Because the lead model is a probabilistic model, several of the USEPA default parameters are based on central tendency (i.e., average) values (USEPA, 2003b). Therefore, the arithmetic means for sediment concentration served as the input value for the soil (sediment) concentrations.

The exposure parameters used in the ALM for ingestion and exposure frequency are the same as those that were used to evaluate direct contact with overflow sediment by the industrial worker and direct contact with exposed and near-shore sediment by the recreational adult. The sediment ingestion rate of 100 mg/day and exposure frequency of 9 days/year was assumed for the adult industrial worker. For the recreational adult, a

sediment ingestion rate of 50 mg/day and an exposure frequency of 26 days/year were used.

The ALM uses different sets of geometric standard deviations (GSDs) and baseline blood lead levels based on different studies. The GSD is a measure of the inter-individual variability in blood lead concentrations in a population whose members are exposed to the same nonresidential environmental lead levels. The baseline blood lead concentration is intended to represent the best estimate of a reasonable central value of blood lead concentrations in women of child-bearing age that are not exposed to lead-contaminated nonresidential soil (sediment) or dust at the site (USEPA, 2003b, c). In this analysis, geometric means were used.

ALM spreadsheets provided by USEPA (version date June 21, 2009) were used to calculate blood lead concentrations for the industrial worker. The model results are expressed as the predicted geometric mean blood lead level for adults (that is, women of child-bearing age) and the corresponding 95th percentile fetal blood lead concentrations and the percent of the population potentially experiencing concentrations above 10 micrograms per deciliter (µg/dL), below which adverse manifestations are not expected.

The potential risks associated with residential/recreational exposures to lead are addressed using the IEUBK Lead Model for Windows, Version 1.1, Build 11 (USEPA, 1994c, 2010f). The IEUBK model was designed to provide predictions of the probability of elevated blood lead levels for children. This model addresses three components of environmental risk assessments: the multimedia nature of exposures to lead, lead pharmacokinetics, and significant variability in exposure and risk, through estimation of probability distributions of blood lead levels for children exposed to similar environmental concentrations. Although use of the IEUBK model to evaluate exposure to lead in the sediment and surface water for recreational and residential receptors is extremely conservative, there is currently no better method available. The arithmetic mean of the lead concentration in sediment and surface water was used with the default input parameters to represent site-specific exposures to lead.

7.2 Risk Assessment Results

The results of the risk characterization are presented below by receptor group. The risk estimates are calculated in the Attachment, Tables 7.1.RME through 7.10.RME and 7.1.CTE through 7.9.CTE, and summarized in the Attachment, Tables 9.1.RME through 9.10.RME and 9.1.CTE through 9.9.CTE. A summary of the RME results is shown in Table 7-1, and a summary of the CTE results is shown in Table7-2. CTE risks were calculated when the total RME HI to a receptor group exceeded 1.0 and/or the total RME ELCR exceeded 1×10^{-4}. The risk estimates for each receptor group are summarized below and compared to USEPA's target HI of 1 and target ELCR range of 1×10^{-6} to 1×10^{-4}. Noncarcinogenic hazards less than 1 are below USEPA's noncarcinogenic goal of protection of an HI of 1. Carcinogenic risks between or below 1×10^{-6} to 1×10^{-4} are within USEPA's acceptable carcinogenic risk levels.

Noncarcinogenic hazards and carcinogenic risks are calculated for each of the receptors. However, carcinogenic risks are combined for the adult, adolescent, and child to estimate the carcinogenic risks to the recreational user, angler, and resident.

7.2.1 Recreational Adults

Tables 9.1.RME and 9.1.CTE in the Attachment summarize the HIs (and ELCRs, which are discussed in Section 7.2.4) for recreational adult exposure to Gowanus Canal exposed and near-shore surface sediment, Gowanus Canal surface water, and air at canal level. The higher of the risks and hazards estimated for the two surface water scenarios and the two ambient air scenarios were included in the total estimated risks and hazards for the receptor group.

- Total HI (RME) = 0.2, below USEPA's target.
- Total HI (CTE) = 0.08, below USEPA's target.
- Lead was identified as a COPC for sediment and surface water (wet-weather event only). Exposure to lead in sediment was evaluated using the adult lead model. The model results are presented in Table 11.1 (Attachment). The mean sediment lead concentration of 660 mg/kg results in geometric mean blood levels ranging from 1.1 to 1.6 microgram per deciliter (µg/dL) for women of child-bearing age. The corresponding 95th percentile fetal blood lead levels range from 2.6 to 4.9 µg/dL. The probabilities that the fetal blood lead levels exceed 10 µg/dL range from 0.005 to 0.5 percent. These values are less than the blood lead goal as described in the 1994 OSWER Directive (USEPA, 1994b) of no more than 5 percent of children (fetuses of exposed women) exceeding 10 µg/dL blood lead.

7.2.2 Recreational Adolescents

Table 9.2.RME in the Attachment summarizes the HIs (and ELCRs, which are discussed in Section 7.2.4) for recreational adolescent exposure to Gowanus Canal exposed and near-shore surface sediment, Gowanus Canal surface water, and air at canal level. The higher of the risks and hazards estimated for the two surface water scenarios and the two ambient air scenarios were included in the total estimated risks and hazards for the receptor group.

- Total HI (RME) = 0.2, below USEPA's target.
- Total HI (CTE) = 0.1, below USEPA's target.
- Lead was identified as a COPC for sediment and surface water (wet-weather event only). Exposure to lead in sediment was evaluated using the adult lead model, as discussed for the recreational adults. The probabilities that the fetal blood lead levels exceed 10 µg/DL range from 0.005 to 0.5 percent, which is less than the blood lead goal as described in the 1994 OSWER Directive (USEPA, 1994b) of no more than 5 percent of children (fetuses of exposed women) exceeding 10 µg/dL blood lead.

7.2.3 Recreational Children

Tables 9.3.RME and 9.3.CTE in the Attachment summarize the HIs (and ELCRs, which are discussed in Section 7.2.4) for recreational child exposure to Gowanus Canal exposed and near-shore surface sediment, Gowanus Canal surface water, and air at canal level. The higher of the risks and hazards estimated for the two surface water scenarios and the two ambient air scenarios were included in the total estimated risks and hazards for the receptor group.

- Total HI (RME) = 0.5, below USEPA's target.
- Total HI (CTE) = 0.2, below USEPA's target.
- Lead was identified as a COPC for sediment and surface water (wet-weather event only). Site-specific lead exposures were evaluated for recreational children using the IEUBK model. This calculation was based on the site-specific arithmetic mean concentration of lead detected in the sediment (660 mg/kg) and surface water (13 mg/L). The results of the model, along with the probability distribution plot are presented in Table 11.2 in the Attachment. The predicted geometric mean blood lead level for a young child was 7.1 µg/dL, with 23 percent of the population potentially experiencing concentrations exceeding 10 µg/dL, below which adverse manifestations are not expected. These results indicate that if a child was exposed to the sediment and surface water at levels consistent with residential exposure to soil and potable use of surface water, the percent of the exposed population with a blood lead level exceeding 10 µg/dL would be above the 5 percent level that USEPA considers being protective of human health. However, it is unlikely that a child recreational receptor would be exposed to the sediment and surface water at the levels estimated in the IEUBK model, and it is more likely there would be no adverse effects associated with exposure to the lead.

7.2.4 Recreational Receptors – Lifetime Carcinogenic Risks

Carcinogenic risks were estimated for the combined lifetime (young child/ adolescent/adult) recreational receptor, following USEPA risk assessment methodology. The total carcinogenic risk to a recreational receptor was calculated by adding the risks calculated for the young child, adolescent, and adult. The RME carcinogenic risks are summarized in Table 7-4, the CTE carcinogenic risks are summarized in Table 7-5, and the risks are discussed below. The higher of the risks estimated for the two surface water scenarios and the two ambient air scenarios were included in the total estimated risks.

- Total ELCR (RME) = 1×10^{-3}, above USEPA's target risk range. The risk is associated primarily with exposure to surface water (7×10^{-4}) and sediment (7×10^{-4}), and the risk drivers are carcinogenic PAHs. The carcinogenic PAHs were highest in the surface water samples collected at sampling locations 319 and 325 during the dry-weather sampling event and locations 309 and 319 during the wet-weather sampling event. The carcinogenic PAHs were highest (10 times higher than the next highest detection) in sediment sample 314, at the head of the 6th Street basin (see Figure 2-3a in the RI), and were therefore associated primarily with this location. The concentrations of the PAHs in the canal surface water during both dry- and wet-weather events and in the sediment were statistically significantly greater than in the reference area (see Sections 4.3.2 and 4.4.5 of the RI)
- Exposed and Near Shore Sediment ELCR (RME) = 7×10^{-4}, above USEPA's target risk range
- Surface water, dry weather event ELCR (RME) = 6×10^{-4}, above USEPA's target risk range

- Surface water, wet weather event ELCR (RME) = 5×10^{-4}, above USEPA's target risk range
- Air at canal level, prior to aeration system operation ELCR (RME) = 4×10^{-7}, below USEPA's target risk range
- Air at canal level, after to aeration system operation started ELCR (RME) = 4×10^{-7}, below USEPA's target risk range
- Total ELCR (CTE) = 3×10^{-4}, above USEPA's target risk range
- Exposed and Near Shore Sediment ELCR (CTE) = 1×10^{-4}, above USEPA's target risk range
- Surface water, dry weather event ELCR (CTE) = 1×10^{-4}, above USEPA's target risk range
- Surface water, wet weather event ELCR (CTE) = 9×10^{-5}, within USEPA's target risk range

7.2.5 Industrial Workers

Table 9.4.RME in the Attachment summarizes the HIs and ELCRs for industrial worker exposures to ambient air at street level and surface water and sediment associated with canal overflow. The higher of the risks and hazards estimated for the two ambient air scenarios were included in the total estimated risks and hazards for the receptor group.

- Total HI (RME) = 0.8, below USEPA's target HI.
- Total ELCR (RME) = 8×10^{-5}, within USEPA's target risk range.
- Lead was identified as a COPC for sediment and surface water. Exposure to lead in sediment was evaluated using the adult lead model. The model results are presented in Table 11.3 of the Attachment. The mean sediment lead concentration of 533 mg/kg results in geometric mean blood levels ranging from 1.1 to 1.6 ug/dL for women of child-bearing age. The corresponding 95th percentile fetal blood lead levels range from 2.5 to 4.8 µg/dL. The probabilities that the fetal blood lead levels exceed 10 µg/DL range from 0.003 to 0.4 percent. These values are less than the blood lead goal as described in the 1994 OSWER Directive (USEPA, 1994b) of no more than 5 percent of children (fetuses of exposed women) exceeding 10 µg/dL blood lead.

7.2.6 Adult Residents

Tables 9.5.RME and 9.4.CTE, in the Attachment summarize the HIs for adult resident exposures to ambient air at street level and surface water and sediment associated with canal overflow. The higher of the hazards estimated for the two ambient air scenarios were included in the total estimated risks and hazards for the receptor group.

- Total HI (RME) = 1 (calculated HI value is 1.1), equals USEPA's target of HI of 1. The HI is associated with inhalation of ambient air. The HIs for all target organs are below USEPA's target, and therefore, the hazard is within USEPA acceptable levels.
- Surface water and sediment HIs (RME) are below 0.1, below USEPA's target.

- Total HI (CTE) = 0.7, below USEPA's target.
- Lead was identified as a COPC for sediment and surface water. Exposure to lead in sediment was evaluated using the adult lead model. The model results are presented in Table 11.3 in the Attachment. The mean sediment lead concentration of 533 mg/kg results in geometric mean blood levels ranging from 1.1 to 1.6 µg/dL for women of child-bearing age. The corresponding 95th percentile fetal blood lead levels range from 2.5 to 4.8 ug/dL. The probabilities that the fetal blood lead levels exceed 10 µg/DL range from 0.003 to 0.4 percent. These values are less than the blood lead goal as described in the 1994 OSWER Directive (USEPA, 1994b) of no more than 5 percent of children (fetuses of exposed women) exceeding 10 µg/dL blood lead.

7.2.7 Child Residents

Tables 9.6.RME and 9.5.CTE in the Attachment summarize the HIs for child resident exposures to ambient air at street level and surface water and sediment associated with canal overflow. The higher of the hazards estimated for the two ambient air scenarios were included in the total estimated risks and hazards for the receptor group.

- Total HI (RME) = 1 (calculated HI value is 1.3), equals USEPA's target HI of 1. The HI is associated with inhalation of ambient air. The HIs for all target organs are below USEPA's target.
- Surface water and sediment HIs (RME) are below 0.3, below USEPA's target.
- Total HI (CTE) = 0.8, below USEPA's target.
- Lead was identified as a COPC for overflow sediment and surface water. Site-specific lead exposures were evaluated for recreational children using the IEUBK model. This calculation was based on the site-specific arithmetic mean concentration of lead detected in the sediment (533 mg/kg) and surface water (13 mg/L). The results of the model, along with the probability distribution plot are presented in Table 11.2 in the Attachment. The predicted geometric mean blood lead level for a young child was 6.1 µg/dL, with 14.9 percent of the population potentially experiencing concentrations exceeding 10 µg/dL, below which adverse manifestations are not expected. These results indicate that if a child was exposed to the sediment and surface water at levels consistent with residential exposure to soil and potable use of surface water, the percent of the exposed population with a blood lead level exceeding 10 µg/dL would be above the 5 percent level that USEPA considers to be protective of human health. However, it is unlikely that a child recreational receptor would be exposed to the sediment and surface water at the levels estimated in the IEUBK model, and it is more likely there would be no adverse effects associated with exposure to the lead.

7.2.8 Child/Adult (Lifetime) Residents

Carcinogenic risks were estimated for the combined lifetime (child/adult) resident, following USEPA risk assessment methodology. Tables 9.7.RME and 9.6.CTE in the Attachment summarize the ELCRs for lifetime resident exposures to ambient air at street level and surface water and sediment associated with canal overflow. The higher of the risks

estimated for the two ambient air scenarios were included in the total estimated risks and hazards for the receptor group.

- Total ELCR (RME) = 3×10^{-4}, above USEPA's target risk range. The ELCR is associated primarily with exposure to overflow sediment (2×10^{-4}), with smaller contributions from exposure to overflow surface water (6×10^{-5}) and ambient air after the aeration system started operating (4×10^{-5}). The sediment risk drivers are carcinogenic PAHs, with highest concentrations in samples 314, at the head of the 6th Street basin, and 315, at the mouth of the 7th Street turning basin (see Figure 2-3a in the RI). PAH concentrations were variable in the reference area sediment, but concentrations observed in the canal were generally higher than those in the reference area (see discussion in Section 4.3.2 of the RI). Additionally, the statistical comparison of the PAH data from the canal and the reference area surface sediment indicated concentrations in the canal were statistically significantly greater than the reference area.
- Total ELCR (CTE) = 8×10^{-5}, within USEPA's target risk range.

7.2.9 Adult Anglers

Tables 9.8.RME and 9.7.CTE in the Attachment summarize the HIs (and ELCRs, which are discussed in Section 7.2.12) for angler adults who ingest fish and crab caught from the canal. Striped bass are representative of upper level predator fish, white perch are representative of middle level predator fish, and eel are representative of bottom feeders.

- Total Fish HI (RME) = 17, above USEPA's target HI. The HIs for ingestion of striped bass and eel exceed USEPA's target HI. The hazard is associated with PCBs, with smaller contributions (below 1) from mercury. About 70 percent of the total HI is contributed by assumed consumption of American eel. The average concentration of total PCBs in the eel from the canal is about two times higher than the average concentration of total PCBs in the reference samples (see Table 7-3 for average concentrations in canal and reference fish tissue samples). The average concentration of mercury in the eel from the canal samples is slightly lower than the average concentration in the eel from the reference samples.
- Total Crab HI (RME) = 3, above USEPA's target HI. The hazard is associated with PCBs, with smaller contributions (below 1) from arsenic and mercury. The average concentration of PCBs in blue crab from the canal is almost twice the average concentration of PCBs in blue crab from the reference samples (Table 7-3); however, the average concentrations of arsenic and mercury in blue crab from the reference samples are slightly higher than the average concentrations in the canal samples.
- White perch HI (RME) is below USEPA's target.
- Total Fish HI (CTE) = 2, above USEPA's target HI. The hazard is primarily associated with PCBs in fish (mainly eel).
- Total Crab HI (CTE) = 2, above USEPA's target HI. The hazard is primarily associated with PCBs.

7.2.10 Adolescent Anglers

Tables 9.9.RME and 9.8.CTE in the Attachment summarize the HIs (and ELCRs, which are discussed in Section 7.2.12) for adolescent anglers who ingest fish and crab caught from the canal. Striped bass are representative of upper level predator fish, white perch are representative of middle level predator fish, and eel are representative of bottom feeders.

- Total Fish HI (RME) = 13, above USEPA's target HI. The hazard is associated with PCBs, with smaller contributions (below 1) from mercury (in striped bass and eel). The HIs for ingestion of striped bass and eel exceed USEPA's target HI. About 74 percent of the total HI is contributed by assumed consumption of American eel. The average concentration of total PCBs in the eel from the canal is about two times higher than the average concentration of total PCBs in the reference samples (see Table 7-3 for average concentrations in canal and reference fish and crab tissue samples). The average concentration of mercury in the eel from the canal samples is slightly lower than the average concentration in the eel from the reference samples.
- Total Crab HI (RME) = 3, above USEPA's target HI. The hazard is associated with PCBs, with smaller contributions (below 1) from arsenic and mercury. The average concentration of PCBs in blue crab from the canal is almost twice the average concentration of PCBs in blue crab from the reference samples. The average concentrations of arsenic and mercury in the blue crab from the reference samples are slightly higher than the average concentrations in the canal samples.
- White perch HI (RME) is below USEPA's target.
- Total Fish HI (CTE) = 1 (calculated HI value is 1.3), equals USEPA's target HI.

Total Crab HI (CTE) = 0.6, below USEPA's target HI.

7.2.11 Children of Anglers

Tables 9.10.RME and 9.9.CTE in the Attachment summarize the HIs (and ELCRs, which are discussed in Section 7.2.12)for children of anglers who ingest fish and crab caught from the canal. Striped bass are representative of upper level predator fish, white perch are representative of middle level predator fish, and eel are representative of bottom feeders.

- Total Fish HI (RME) = 27, above USEPA's target HI. The hazard is associated with PCBs, with smaller contributions (below 1) from mercury (in striped bass and eel). About 70 percent of the total HI is contributed by assumed consumption of American eel. The average concentration of total PCBs in the eel from the canal is about two times higher than the average concentration of total PCBs in the reference samples (see Table 7-3 for average concentrations in canal and reference fish and crab tissue samples). The average concentration of mercury in the eel from the canal samples is slightly lower than the average concentration in the eel from the reference samples.
- Total Crab HI (RME) = 5, above USEPA's target HI. The hazard is associated with PCBs, with smaller contributions (below 1) from arsenic and mercury. The average concentration of PCBs in blue crab from the canal is almost twice the average concentration of PCBs in blue crab from the reference samples. The average

concentrations of arsenic and mercury in the blue crab from the reference samples are slightly higher than the average concentrations in the canal samples.

- Total Fish HI (CTE) = 3, above USEPA's target HI, primarily associated with PCBs in eel.
- Total Crab HI (CTE) = 4, above USEPA's target HI, primarily associated with PCBs.

7.2.12 Anglers – Lifetime Carcinogenic Risks

Carcinogenic risks were estimated for the combined lifetime (child/adolescent/adult) angler, following USEPA risk assessment methodology. The total carcinogenic risk to a angler was calculated by adding the risks calculated for the young child, adolescent, and adult. The RME carcinogenic risks are summarized in Table 7-4 and the CTE carcinogenic risks are summarized in Table 7-5, and are presented below. Striped bass are representative of upper level predator fish, white perch are representative of middle level predator fish, and eel are representative of bottom feeders.

- Total Fish ELCR (RME) = 7×10^{-4}, above USEPA's target risk range. The risk from ingestion of eel (bottom feeders) and striped bass (top level predators) exceed USEPA's target risk range. The risk is associated primarily with ingestion of eel (74 percent). The risk drivers are PCBs. The dioxin-like PCBs and nondioxin-like PCBs contributed to the risk at similar risk levels. The average concentration of non-dioxin-like PCBs and dioxin-like PCB TEQs in the eel from the canal is almost two times higher than the average concentrations in the reference samples (see Table 7-3 for average concentrations in canal and reference fish and crab tissue samples).
- Total white perch (middle level predators) ELCR (RME) is within the target risk range .
- Total Crab ELCR (RME) = 3×10^{-4}, above USEPA's target risk range. The risk drivers are PCBs. The average concentration of non-dioxin-like PCBs and dioxin-like PCB TEQs in blue crab from the canal (see Table 7-3 for average concentrations in canal and reference fish and crab tissue samples) is almost twice the average concentration of PCBs in blue crab from the reference samples.
- Total Fish ELCR (CTE) = 2×10^{-5}, within USEPA's target risk range.
- Total Crab ELCR (CTE) = 6×10^{-5}, within USEPA's target risk range.

SECTION 8

Uncertainty Assessment

The risk measures used in HHRAs are not fully probabilistic estimates of risk, but are conditional estimates given that a set of assumptions about exposure and toxicity are realized. Thus, it is important to specify the assumptions and uncertainties inherent in the risk assessment to place the risk estimates in proper perspective (USEPA, 1989).

8.1 Uncertainty in Data Evaluation and COPC Identification

The sampling conducted along the canal for use in the HHRA focused on areas where contact with the canal is most likely to occur (shallow and exposed sediment and surface water and air samples collected from similar locations) to estimate the most realistic exposure and risk to potential receptors. Additional surface water and surface sediment samples were collected from locations where historic operations and discharges to the canal have most likely occurred. Only the surface sediment samples from the exposed and shallow areas were used to evaluate the recreational exposure risks, as this is the sediment that these receptors are most likely to contact. All of the surface water samples were included in the recreational scenario evaluations since the receptors could be exposed to the water throughout the canal while boating. All of the surface water and surface sediment samples were used to evaluate risks to the residential and industrial worker receptors associated with exposure to canal overflow water and sediment. Therefore, the available data were evaluated in the HHRA in data groupings for each receptor group to estimate the reasonable maximum exposures and risks.

The uncertainty associated with the data analysis is minimal, and all of the data were validated prior to being used in the HHRA. A data quality evaluation was performed on all analytical data evaluated in the HHRA, as discussed in Section 4.1 of the RI.

A few constituents (mainly pesticides) were not detected in any of the fish or crab tissue samples but had detection limits above the human health risk-based screening level. This may result in slightly underestimating the risk associated with ingestion of fish and crab. However, it should be noted that risks above acceptable levels were identified for the fish and/or crab tissue and risks were primarily associated with the PCBs detected in the fish and crab tissue. The pesticides detected in the fish and crab tissue did not contribute significantly to the risk.

A comparison of data collected from the canal to data collected from the reference locations was not used to identify the COPCs for the canal media. This may result in including COPCs related to background conditions in the risk estimates.

All of the canal data were screened against residential screening levels to select the COPCs. The use of residential screening levels is conservative, as not all the scenarios evaluated in the HHRA are residential (i.e., the industrial worker scenario). This may result in including COPCs with small contributions to overall risk estimates.

8.2 Uncertainty Associated with Exposure Assessment

The exposure factors used for quantifying exposure were conservative and reflect upper-bound assumptions. The reliability of the values chosen for the exposure factors also contributes substantially to the uncertainty of the resulting risk estimates. Because most of the exposure factors are upper-bound assumptions, the resulting risks are likely overestimates.

The most conservative recreational scenario (swimming) was used to evaluate potential exposure and risks for recreational adults, adolescents, and children. Based on the current conditions of the canal, it is likely that this is an overestimate of actual exposure to recreational receptors. Although possible, it is highly unlikely that a recreational receptor would swim in the canal for 26 days per year for 2.6 hours per day. Although the RME scenario indicated a slight risk above USEPA target levels, the CTE scenario (using more realistic but conservative assumptions of an exposure frequency of 13 days per year and an exposure time of 1.3 hours per day) indicated a risk within USEPA acceptable risk levels.

For the purposes of this risk assessment, the angler population is defined as those individuals who consume self-caught fish from the Gowanus Canal at least once per year, in the absence of a fishing ban or fish consumption advisories. Sources of uncertainty in the PCB concentrations in fish used in the assessment include the fact that concentrations were averaged over location, and weighted by species. The weighting of species intake in order to derive an average EPC in fish is a source of uncertainty because there are limited site-specific data available to estimate the species ingestion preferences (e.g., weighting factors).

Cancer risks and noncancer health hazards were not specifically quantified for subsistence anglers, or other subpopulations of anglers who may be highly exposed. Although there are no known distinct subpopulations that may be highly exposed, there is some degree of uncertainty as to whether these subpopulations have been adequately addressed in this risk assessment.

As described in Section 5.3.2, reported cooking losses vary considerably among the numerous studies reviewed. However, little information is available to quantify personal preferences among anglers for various preparation and cooking methods and other related habits (such as consumption of pan drippings). The assumption that there is no loss of PCBs during cooking or preparation, used in the RME cancer risk and noncarcinogenic hazard calculations, is conservative and could overestimate cancer risks and noncarcinogenic hazards.

The sediment/skin adherence factor represents the amount of sediment that adheres to skin and is available for dermal exposure. Because this value is likely to vary based on one's activity, the values used for this parameter, which are estimates from single activities, are somewhat uncertain. For dermal contact with canal sediments, published adherence factors for adults gathering reeds and for children playing in wet soils were used as a surrogate for recreational children and adults and children. Although it is somewhat uncertain whether these scenarios are representative of contact with canal sediments, they appear to be a reasonable use of available data.

Commercial PCB mixtures tested in laboratory animals were not subject to prior selective retention of persistent congeners through the food chain, so there is a potential that

carcinogenic risks and noncarcinogenic hazards have been underestimated. However, since the CSFs are based on animal exposures to a group of PCB mixtures (i.e., Aroclor 1260, 1254, 1242, and 1016) that contain overlapping groups of congeners spanning the range of congeners most often found in environmental mixtures, this source of potential uncertainty is unlikely to have a significant impact.

The fact that any previous exposures (either background, or past consumption of contaminated fish) may still be reflected in an individual's body burden today is an additional source of uncertainty, and may result in an underestimate of noncarcinogenic health hazards.

The risk assessment assumed that people would consume both the combined muscle (edible portion) and hepatopancreas from blue crab. This may result in an overestimation of risk, as many crabbers do not consume the hepatopancreas, and some chemicals, such as PCBs and mercury, accumulate in the hepatopancreas. However, the hepatopancreas is small compared to the edible portion of the fish, and therefore, although concentrations may be higher in the hepatopancreas, it contributes a small amount of the total amount of crab consumed by the receptor. Therefore, it would not significantly change the total amount of contaminants consumed.

Dioxin-like PCB TEQ concentrations, non-dioxin-like PCB concentrations, and total PCB concentrations were calculated for each sample using detected PCB congeners only. In general, if the nondetected dioxin congeners were included in the sample concentration calculations, the non-dioxin-like PCB concentrations and the total PCB concentrations would be similar to those used in the risk assessment and the resulting risks would not differ significantly. The dioxin-like PCB TEQ concentrations would not always be similar, since if the most toxic congener (3,3',4,4',5-Pentachlorobiphenyl [126]) was not detected in a sample, inclusion of this congener at the detection limit times the TEF would contribute significantly to the dioxin-like PCB TEQ, even if it was not detected. Therefore, this may result in an underestimation of actual risk if this congener was present in the sample at a concentration below the reporting limit. However, when this congener was detected in a sample, it was generally J flagged as detected below the reporting limit, so it is unlikely that it would be present in the samples at concentrations similar to reporting limits, and it would likely be present at much lower concentrations and not contribute significantly to the dioxin-like PCB TEQ concentration for the sample. Additionally, congeners that were B qualified, indicating they were detected in a laboratory or field blank at a concentration similar to that in the sample, were not included in the concentration calculation. There were a number of samples with B-qualified congeners, which may result in an underestimation of risk if these congeners are present in the samples at a concentration below the blank contamination level. However, the B-qualified concentrations were generally below the reporting limits.

There are inherent limitations and uncertainties associated with estimating health risks on the basis of fish and crab consumption that should be considered when interpreting the results of this HHRA. Factors contributing to these uncertainties include the following:

- Game fish and blue crab ranges are not limited to the canal, but reflect cumulative uptake from all areas they traverse. Blue crab and some of the game fish species kept by anglers have relatively large home ranges, and those caught within the canal are likely, at least in part, to have inhabited areas outside the canal and therefore to have been

potentially exposed to contaminants not related to the canal. However, differences between canal and reference concentrations of PCBs in fish and crab tissue and sediment were identified, with canal media having higher concentrations.

Assumptions regarding fishing/crabbing frequency and fish/crab consumption rates are variable and affect the estimates of exposure and associated risk.

8.3 Uncertainty Associated with Toxicity Assessment

Uncertainty associated with the noncarcinogenic toxicity factors is included in Table 5.1 in the Attachment. The USEPA applies several UFs to extrapolate doses from animal studies to humans. The UFs for the COPCs range from 1 to 3,000. Therefore, there is a high degree of uncertainty in the noncarcinogenic toxicity criteria based on the available scientific data. The noncarcinogenic toxicity factors used in the HHRA are expected to be overestimates of actual toxicity.

CSFs and IURs developed by USEPA represent upper-bound estimates. Carcinogenic risks generated in this assessment should be regarded as an upper-bound estimate on the potential carcinogenic risks. The true ELCR is likely to be less than the predicted value (USEPA, 1989).

Use of provisional or withdrawn toxicity factors increases the uncertainty of the quantitative hazard and risk estimates. Provisional toxicity values (from Cal EPA, PPRTV, ATSDR, and NCEA) were used in the HHRA. The provisional values were used to provide a quantitative estimate rather than a merely qualitative risk discussion; however, USEPA has not fully promulgated these toxicity values.

The TEFs used to adjust the concentrations of the dioxin-like PCB congeners to TEQ of dioxin for the sediment and fish/crab also results in uncertainty in the risk assessment. In particular, although the TEF scheme and TEQ methodology is intended primarily for estimating exposure and risk through ingestion (primarily dietary intakes; USEPA, 2010c), it was also used to estimate exposure and risk through dermal contact. Additionally, not using the dioxin-like PCB congener TEQ to evaluate noncarcinogenic risks may underestimate the noncarcinogenic hazard associated with exposure to the PCBs. However, there is a lot of uncertainty with use of this process, and even more uncertainty with use of it for noncarcinogenic hazards since the TEFs are based on the relationship of the PCB congeners to the carcinogenic risks associated with dioxin. Although, there is a large degree of uncertainty associated with use of this method for noncarcinogenic-hazard evaluation, noncarcinogenic hazards were estimated as part of the uncertainty evaluation.

Noncarcinogenic hazards were calculated for the dioxin-like PCB TEQ concentrations for sediment and fish/crab using the RfD for 2,3,7,8-TCDD from the 1998 dioxin ATSDR toxicity profile. It should be noted that use of this RfD in itself presents a source of uncertainty, as the ATSDR toxicity profiles are a Tier 3 source of toxicity information. Noncarcinogenic hazards were calculated for the non-dioxin-like PCB concentrations using the RfD for Aroclor 1254. The sum of the noncarcinogenic hazards associated with the dioxin-like PCB TEQ concentrations and the non-dioxin-like PCB concentrations for all receptors for sediment and fish/crab are below 1 and in most cases are less than the noncarcinogenic hazards associated with the total PCB concentration, which were estimated using the total PCB concentrations and the RfD for Aroclor 1254. Therefore, evaluation of

the noncarcinogenic hazards for the dioxin-like PCB TEQ concentrations does not change the conclusions of the HHRA.

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SECTION 9

Human Health Risk Summary

The risk assessment was conducted to evaluate the potential human health risks associated with direct contact with sediment and surface water in the Gowanus Canal, with ingestion of fish and crabs from the canal, with direct contact of sediment and surface water that overtops the canal during significant rainfall events, and with inhalation of emissions from the canal into the ambient air near the canal.

Table 5 and Tables 9.1.RME through 9.10.RME in the Attachment summarize the RME ELCRs and HIs. Table 6 and Tables 9.1.CTE through 9.9CTE in the Attachment summarize the CTE ELCRs and HIs. Estimated HIs and ELCRs associated with exposure to canal-related media indicate the potential for unacceptable risks based on exposure to some media by some receptor groups. Risk estimates are summarized below:

- Recreational receptors (adult, adolescent, and child)
  - Exposures are to surface water and surface sediment (from exposed and near-shore locations) in the canal and to ambient air at canal level while swimming in the canal for 26 days per year for 2.6 hours each day (very conservative assumptions given the nature of the canal and current CSO discharges).
  - HIs and ELCRs (RME) for inhalation of canal level air are within USEPA acceptable levels.
  - Total HI (RME) (all media combined) for all recreational receptors is within acceptable risk levels.
  - Total ELCR (RME) for recreational receptor (1×10^{-3}) exceeds USEPA's target risk range, primarily because of carcinogenic PAHs in surface water and sediment above background levels (see Sections 4.3.2 and 4.4.5 of the RI).
  - Total HI (CTE) for all recreational receptors are below USEPA's target level.
  - Total ELCR (CTE) for recreational receptor (3×10^{-4}) exceeds USEPA's target levels and ranges; the CTE scenario may be more representative of likely exposure (although still conservative, at an assumed swimming frequency of 13 days per year for 1.3 hours per day). The risk is primarily associated with exposure to the young child (67 percent of the risk).
  - Exposure to lead in sediment by adult and adolescent recreational receptors was demonstrated not to be a concern using the adult lead model. The IEUBK model indicated potential adverse effects for children exposed to lead in sediment and surface water; however, the model is based on residential exposure to these media, including using the surface water as a potable water supply. Therefore, it is unlikely, based on a more-realistic recreational exposure, that there would be any adverse effects based on exposure to recreational children.
- Industrial workers and residential receptors (adult and child)

- Exposures are to ambient air at street level and surface water and sediment associated with canal overflow.
- Total HI and ELCR (RME) for industrial workers are below or within USEPA's target levels.
- Total HIs (RME) for residential adults (Total HI equals 1, calculated value is 1.1) and for children (Total HI equals 1, calculated value is 1.3) do not exceed USEPA's target level of 1. Inhalation of ambient air at street level contributes over 75 percent of the hazard. No target organ HIs exceed USEPA's target levels.
- HIs (RME) for exposure to surface water and sediment are within USEPA acceptable levels.
- ELCRs (RME) for inhalation of street level air are within USEPA acceptable levels.
- ELCR (RME) for lifetime (child/adult) resident (3×10^{-4}) exceeds USEPA's acceptable level primarily associated with carcinogenic PAHs in sediment (with a smaller contribution from surface water below 1×10^{-4}) that were above background levels (see Sections 4.3.2 and 4.4.5 of the RI).
- Exposure to lead in sediment by industrial workers was demonstrated not to be a concern using the adult lead model. The IEUBK model indicated potential adverse effects for children exposed to lead in sediment and surface water; however, the model is based on residential exposure to these media, including using the surface water as a potable water supply. Therefore, it is unlikely, on the basis of a more realistic exposure, that there would be any adverse effects based on recreational children's exposure to lead.

- Anglers (adult, adolescent, and child)
  - Exposure is from ingestion of fish (striped bass [representative of top level predators], white perch [representative of middle level predators], and eel [representative of bottom feeders]) and crab caught in the Gowanus Canal. Assuming that fishing/crabbing and ingestion of fish/crab from the Gowanus Canal occur at typical recreational angler fish consumption rates is very conservative given the nature of the canal and current CSO discharges to the canal.
  - Total Fish HIs (RME) (all fish types) for adults (17), adolescents (13), and children (27) exceed acceptable risk levels, primarily because of PCBs. The ingestion of striped bass and eel contributed higher HIs than ingestion of white perch (which for the child only did contribute to HI above 1). Additionally, mercury contributed to the HIs, at HIs above 0.1 but below 1.
  - Total Crab HIs (RME) for adults (37), adolescents (3), and children (5) exceed acceptable risk levels, primarily because of PCBs. Additionally, mercury and arsenic contributed to the HIs, at HIs above 0.1 but below 1.0.
  - Average PCB concentrations in canal samples are about twice the average PCB concentrations in reference samples; however, concentrations of PCBs in reference samples would also result in HIs and ELCRs above acceptable risk levels.

- Total Fish ELCR (RME) for angler (7×10^{-4}) exceeds USEPA's target risk range, primarily because of PCBs.
- Total Crab ELCR (RME) for angler (3×10^{-4}) exceeds USEPA's target risk range, primarily because of PCBs.
- Total Fish HIs (CTE) for adults (2.0), adolescents (1.7), and children (3.2) exceed USEPA's target level; these are associated with PCBs in fish and crab.
- Total Crab HIs (CTE) for adults (2) and children (3) exceed USEPA's target level; these are associated with PCBs. Total HI (CTE) for adolescents (Total HI equals 1, calculated as 1.3) does not exceed USEPA's target level.
- Total Fish ELCR (CTE) for angler receptor is within USEPA's target range; the CTE scenario may be more representative of consumption of fish for the Gowanus Canal (although still conservative).
- Total Crab ELCR (CTE) for angler receptor is within USEPA's target range; the CTE scenario may be more representative of consumption of crab for the Gowanus Canal (although still conservative).
- A primary contributor to fish consumption risk is PCBs in tissues of fish caught from the canal. This conclusion is supported by NYDOH's decision to issue fish consumption advisories for the Upper Bay of the New York Harbor (north of the Verrazano Narrows Bridge), including the Gowanus Canal (NYSDOH, 2010) in part on the basis of PCB concentrations present in fish. Reference area average PCB fish concentrations are about one half the average concentrations identified in canal fish. However, these would also result in risks above acceptable risk levels.

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SECTION 10

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TABLE 4-1
Summary of Data Quantitatively Used in HHRA
Gowanus Canal Remedial Investigation, Brooklyn, New York

Medium	Date of Sampling	Sample Location	Sample	Parameters
Surface sediment	6/23/2010	301	GC-SD301-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/17/2010	302	GC-SD302-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, Metals
	6/17/2010	303	GC-SD303-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/17/2010	304	GC-SD304-0.0-0.5	VOCs, SVOCs, Pest, PCBs, Metals
	6/17/2010	305	GC-SD305-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/17/2010	306	GC-SD306-0.0-0.5	VOCs, SVOCs, Pest, PCBs, Metals
	6/17/2010	307A	GC-SD307A-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/18/2010	307B	GC-SD307B-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/23/2010	308A	D-062310-011[1,2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/23/2010	308A	GC-SD308A-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/24/2010	308B	GC-SD308B-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/18/2010	309	GC-SD309-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/24/2010	310	GC-SD310-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/23/2010	311	GC-SD311-0.0-0.5	VOCs, SVOCs, Pest, PCBs, Metals
	6/23/2010	312	GC-SD312-0.0-0.5	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/18/2010	313	GC-SD313-0.0-0.5	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/18/2010	314	GC-SD314-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/18/2010	314	D-06182010-01[1,2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/18/2010	314	D-06242010-01[1,2]	VOCs
	6/18/2010	315	D-06182010-02[1]	SVOCs, Pest, PCBs, PCB congeners, Metals
	6/18/2010	315	GC-SD315-0.0-0.5	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/21/2010	316	GC-SD316-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, Metals
	6/22/2010	317	GC-SD317-0.0-0.5	VOCs, SVOCs, Pest, PCBs, Metals
	6/22/2010	318	GC-SD318-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/22/2010	319	GC-SD319-0.0-0.5[2]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/22/2010	320	GC-SD320-0.0-0.5	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/21/2010	321	GC-SD321-0.0-0.5	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/22/2010	322	GC-SD322-0.0-0.5	VOCs, SVOCs, Pest, PCBs, Metals
	6/22/2010	323	GC-SD323-0.0-0.5	VOCs, SVOCs, Pest, PCBs, Metals
	6/21/2010	324	GC-SD324-0.0-0.5	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/21/2010	324	D-06212010-01[1]	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
	6/21/2010	325	GC-SD325-0.0-0.5	VOCs, SVOCs, Pest, PCBs, PCB congeners, Metals
Surface water— dry-weather event	6/19/2010	301	GC-SW301-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	302	GC-SW302-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	303	GC-SW303-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	304	GC-SW304-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	305	GC-SW305-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	306	GC-SW306-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	307A	GC-SW307A-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	307B	GC-SW307B-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	308A	GC-SW308A-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	308B	GC-SW308B-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	309	GC-SW309-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	310	GC-SW310-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	311	GC-SW311-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	312	GC-SW312-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	312	D-06192010-02[1]	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	313	GC-SW313-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	314	GC-SW314-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	315	GC-SW315-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals

TABLE 4-1
Summary of Data Quantitatively Used in HHRA
Gowanus Canal Remedial Investigation, Brooklyn, New York

Medium	Date of Sampling	Sample Location	Sample	Parameters
Surface water—	6/19/2010	316	GC-SW316-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
dry-weather event	6/19/2010	316	D-06192010-03[1]	VOCs, SVOCs, Pest, PCBs, Metals
(continued)	6/19/2010	317	GC-SW317-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	318	GC-SW318-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	318	D-06192010-04[1]	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	319	GC-SW319-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	320	GC-SW320-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	321	GC-SW321-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	322	GC-SW322-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	323	GC-SW323-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	324	GC-SW324-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
	6/19/2010	325	GC-SW325-0.5-DW	VOCs, SVOCs, Pest, PCBs, Metals
Surface water—	7/13/2010	301	GC-SW301-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
wet-weather event	7/13/2010	302	GC-SW302-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	303	GC-SW303-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	303	D-07132010-01[1]	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	304	GC-SW304-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	305	GC-SW305-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	306	GC-SW306-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	307A	GC-SW307A-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	307B	GC-SW307B-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	308A	GC-SW308A-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	308B	GC-SW308B-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	309	GC-SW309-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	310	GC-SW310-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	310	D-07132010-02[1]	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	311	GC-SW311-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	312	GC-SW312-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	313	GC-SW313-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	314	GC-SW314-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	315	GC-SW315-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	316	GC-SW316-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	317	GC-SW317-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	318	GC-SW318-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	319	GC-SW319-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	319	D-07132010-03[1]	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	320	GC-SW320-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	321	GC-SW321-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	322	GC-SW322-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	323	GC-SW323-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	324	GC-SW324-0.5-WW	VOCs, SVOCs, Pest, PCBs, Metals
	7/13/2010	324	D-07132010-04	VOCs, SVOCs, Pest, PCBs, Metals

TABLE 4-1
Summary of Data Quantitatively Used in HHRA
Gowanus Canal Remedial Investigation, Brooklyn, New York

Medium	Date of Sampling	Sample Location	Sample	Parameters
Ambient air—canal level	7/8/2010	501	GC-AS501-C-1	VOCs, SVOCs
Event 1 (prior to start	7/8/2010	502	GC-AS502-C-1	VOCs, SVOCs
of aeration system)	7/8/2010	503	GC-AS503-C-1	VOCs, SVOCs
	7/8/2010	504	GC-AS504-C-1[3]	VOCs, SVOCs
	7/8/2010	505	D-07082010-02-PAH[1]	VOCs, SVOCs
	7/8/2010	505	D-07082010-01-VOC[1]	VOCs, SVOCs
	7/8/2010	505	GC-AS505-C-1	VOCs, SVOCs
	7/8/2010	506	D-07082010-02-VOC[1]	VOCs, SVOCs
	7/8/2010	506	GC-AS506-C-1	VOCs, SVOCs
	7/8/2010	507	GC-AS507-C-1[3]	VOCs, SVOCs
	7/8/2010	508	GC-AS508-C-1	VOCs, SVOCs
	7/8/2010	509	GC-AS509-C-1	VOCs, SVOCs
	7/8/2010	510	GC-AS510-C-1	VOCs, SVOCs
Ambient air—canal level	7/29/2010	501	GC-AS501-C-2	VOCs, SVOCs
Event 2 (after start	7/29/2010	502	GC-AS502-C-2	VOCs, SVOCs
of aeration system)	7/29/2010	503	GC-AS503-C-2	VOCs, SVOCs
	7/29/2010	504	GC-AS504-C-2	VOCs, SVOCs
	7/29/2010	505	GC-AS505-C-2	VOCs, SVOCs
	7/29/2010	505	D-07292010-01	VOCs, SVOCs
	7/29/2010	506	D-07292010-02-VOC[1]	VOCs
	7/29/2010	506	GC-AS506-C-2	VOCs, SVOCs
	7/29/2010	507	GC-AS507-C-2	VOCs, SVOCs
	7/29/2010	508	GC-AS508-C-2	VOCs, SVOCs
	7/29/2010	509	GC-AS509-C-2	VOCs, SVOCs
	7/29/2010	510	GC-AS510-C-2	VOCs, SVOCs
Ambient air—street level	7/9/2010	501	GC-AS501-S-1	VOCs, SVOCs
Event 1 (prior to start	7/8/2010	502	GC-AS502-S-1	VOCs, SVOCs
of aeration system)	7/8/2010	503	GC-AS503-S-1	VOCs, SVOCs
	7/8/2010	504	D-07082010-01-PAH[1]	SVOCs
	7/8/2010	504	GC-AS504-S-1	VOCs, SVOCs
	7/8/2010	505	GC-AS505-S-1	VOCs, SVOCs
	7/8/2010	506	D-07082010-03[1]	PCBs
	7/8/2010	506	GC-AS506-S-1	VOCs, SVOCs, PCBs
	7/8/2010	507	GC-AS507-S-1	VOCs, SVOCs
	7/8/2010	508	GC-AS508-S-1	VOCs, SVOCs
	7/8/2010	509	GC-AS509-S-1	VOCs, SVOCs
	7/8/2010	510	GC-AS510-S-1	VOCs, SVOCs
Ambient air—street level	7/29/2010	501	GC-AS501-S-2	VOCs, SVOCs
Event 2 (after start	7/29/2010	502	GC-AS502-S-2	VOCs, SVOCs
of aeration system)	7/29/2010	503	GC-AS503-S-2	VOCs, SVOCs
	7/29/2010	504	D-07292010-02-PAH[1]	SVOCs
	7/29/2010	504	GC-AS504-S-2	VOCs, SVOCs
	7/29/2010	505	GC-AS505-S-2	VOCs, SVOCs
	7/29/2010	506	GC-AS506-S-2	VOCs, SVOCs
	7/29/2010	507	GC-AS507-S-2	VOCs, SVOCs
	7/29/2010	508	GC-AS508-S-2	VOCs, SVOCs
	7/29/2010	509	GC-AS509-S-2	VOCs, SVOCs
	7/29/2010	510	GC-AS510-S-2	VOCs, SVOCs

TABLE 4-1

Summary of Data Quantitatively Used in HHRA

Gowanus Canal Remedial Investigation, Brooklyn, New York

Medium	Date of Sampling	Sample Location	Sample	Parameters
Fish tissue—	10/18/2010	401	GC-TI401-SB-FI-1	Pest, Metals, PCB congeners
striped bass filet	10/18/2010	401	GC-TI401-SB-FI-2	Pest, Metals, PCB congeners
(representative of top-	10/21/2010	403	GC-TI403-SB-FI-1	Pest, Metals, PCB congeners
level predator fish)	10/22/2010	406	GC-TI406-SB-FI-1	Pest, Metals, PCB congeners
	10/22/2010	406	GC-TI406-SB-FI-2	Pest, Metals, PCB congeners
Fish tissue—	10/18/2010	401	GC-TI401-WP-FI-1	Pest, Metals, PCB congeners
white perch filet	10/19/2010	401	GC-TI401-WP-FI-2	Pest, Metals, PCB congeners
(representative of middle-				
level predator fish)				
Fish tissue—	10/19/2010	402	GC-TI402-XAE-FI-1	Pest, Metals, PCB congeners
eel filet	10/19/2010	402	GC-TI402-XAE-FI-2	Pest, Metals, PCB congeners
(representative of	10/20/2010	403	GC-TI403-XAE-FI-1	Pest, Metals, PCB congeners
bottom feeder fish)	10/21/2010	403	GC-TI403-XAE-FI-2	Pest, Metals, PCB congeners
	10/21/2010	403	GC-TI403-XAE-FI-3	Pest, Metals, PCB congeners
	10/22/2010	406	GC-TI406-XAE-FI-1	Pest, Metals, PCB congeners
Crab	8/16/2010	401	GC-TI401-BC-ED-1[4]	SVOCs, Pest, Metals, PCB congeners
	8/16/2010	401	GC-TI401-BC-ED-2[4]	SVOCs, Pest, Metals, PCB congeners
	8/17/2010	402	GC-TI402-BC-ED-1[4]	SVOCs, Pest, Metals, PCB congeners
	8/17/2010	402	GC-TI402-BC-ED-2[4]	SVOCs, Pest, Metals, PCB congeners
	8/17/2010	403	GC-TI403-BC-ED-1[4]	SVOCs, Pest, Metals, PCB congeners
	8/17/2010	403	GC-TI403-BC-ED-2[4]	SVOCs, Pest, Metals, PCB congeners
	8/18/2010	404	GC-TI404-BC-ED-1[4]	SVOCs, Pest, Metals, PCB congeners
	8/18/2010	404	GC-TI404-BC-ED-2[4]	SVOCs, Pest, Metals, PCB congeners
	8/19/2010	405	GC-TI405-BC-ED-1[4]	SVOCs, Pest, Metals, PCB congeners
	8/19/2010	405	GC-TI405-BC-ED-2[4]	SVOCs, Pest, Metals, PCB congeners
	8/19/2010	406	GC-TI406-BC-ED-1[4]	SVOCs, Pest, Metals, PCB congeners
	8/20/2010	406	GC-TI406-BC-ED-2[4]	SVOCs, Pest, Metals, PCB congeners
	8/24/2010	401-402	GC-TI401-402-BC-HP-1[5]	SVOCs, Pest, Metals, PCB congeners
	8/25/2010	403-406	GC-TI403-404-405-406-BC-HP-2[5]	SVOCs, Pest, Metals, PCB congeners

1. Duplicate sample.
2. Sediment sample used in recreational scenario for exposure to exposed and near shore surface sediment. All sediment samples used for overflow scenario.
3. Sample not used, volume not available to calculate $\mu g/m^3$.
4. Edible tissue sample.
5. Hepatopancreas sample.

TABLE 4-2

Chemicals of Potential Concern

Gowanus Canal Remedial Investigation, Brooklyn, New York

Surface Sediment (Exposed and Near-Shore Sediment in Gowanus Canal)	Surface Sediment	Surface Water (Gowanus Canal)	Ambient Air	Fish
	Canal overflow scenario	**Dry-weather event**	**Canal level, pre-aeration system**	**Striped bass**
Acenaphthene	Acenaphthene	Benzene	Benzene	p,p'-DDE
Benzo(a)anthracene	Benzo(a)anthracene	Benzo(a)anthracene	Chloroform	p,p'-DDT
Benzo(a)pyrene	Benzo(a)pyrene	Benzo(a)pyrene	Ethylbenzene	Dioxin-like PCB TEQ
Benzo(b)fluoranthene	Benzo(b)fluoranthene	Benzo(b)fluoranthene	Xylene, total	Nondioxin-like PCB
Benzo(k)fluoranthene	Benzo(k)fluoranthene	Bis(2-ethylhexyl) phthalate	Naphthalene	Total PCB
Bis(2-ethylhexyl) phthalate	Bis(2-ethylhexyl) phthalate	Indeno(1,2,3-c,d)pyrene		Arsenic
Chrysene	Chrysene	Arsenic	**Canal level, during aeration**	Mercury
Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	Chromium	**system operation**	Selenium
Fluoranthene	Fluoranthene	Copper	Benzene	**White perch**
Indeno(1,2,3-c,d)pyrene	Fluorene	Selenium	Chloroform	Dioxin-like PCB TEQ
Naphthalene	Indeno(1,2,3-c,d)pyrene		Ethylbenzene	Nondioxin-like PCB
Pyrene	Naphthalene	**Wet-weather event**	Xylene, total	Total PCB
Dioxin-Like PCB TEQ	Pyrene	**(and surface water overflow)**	Naphthalene	Mercury
Nondioxin-Like PCB	Dioxin-Like PCB TEQ	1,4-Dichlorobenzene		Selenium
Total PCB	Nondioxin-Like PCB	Benzene	**Street level, pre-aeration system**	**Eel**
Aluminum	Total PCB	Chloroform	Benzene	alpha-Chlordane
Arsenic	Aluminum	Ethylbenzene	Chloroform	Dieldrin
Cadmium	Arsenic	Tetrachloroethylene(PCE)	Ethylbenzene	gamma-Chlordane
Chromium	Cadmium	Benzo(a)anthracene	Naphthalene	p,p'-DDD
Cobalt	Chromium	Benzo(a)pyrene		p,p'-DDE
Copper	Cobalt	Benzo(b)fluoranthene	**Street level, during aeration**	p,p'-DDT
Iron	Copper	Dibenz(a,h)anthracene	**system operation**	Dioxin-like PCB TEQ
Lead	Iron	Indeno(1,2,3-c,d)pyrene	Benzene	Nondioxin-like
Manganese	Lead	Naphthalene	Chloroform	Total PCB
Vanadium	Manganese	Arsenic	Ethylbenzene	Arsenic
	Vanadium	Chromium	Naphthalene	Chromium
		Cobalt		Copper
		Lead		Cyanide, total
		Selenium		Mercury
				Selenium
				Blue crab
				Benzo(a)anthracene
				Benzo(a)pyrene
				Benzo(b)fluoranthene
				Dibenz(a,h)anthracene
				Indeno(1,2,3-cd)pyrene
				Dioxin-like PCB TEQ
				Nondioxin-like
				Total PCB
				Arsenic
				Copper
				Mercury

TABLE 5-1
WHO Dioxin-like PCB TEFs
Gowanus Canal Remedial Investigation, Brooklyn, New York

PCB Congener	WHO TEF[a,b]
3,3',4,4'-Tetrachlorobiphenyl (77)	0.0001
3,4,4',5-Tetrachlorobiphenyl (81)	0.0003
2,3,3',4,4'-Pentachlorobiphenyl (105)	0.00003
2,3,4,4',5-Pentachlorobiphenyl (114)	0.00003
2,3',4,4',5-Pentachlorobiphenyl (118)	0.00003
2,3',4,4',5'-Pentachlorobiphenyl (123)	0.00003
3,3',4,4',5-Pentachlorobiphenyl (126)	0.1
Congeners (156/157)	0.00003
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	0.00003
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	0.03
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	0.00003

[a] Van den Berg et al., 2006. The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds. ToxSci Advance Acces. July 7.

[b] USEPA. 2010c. Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8-Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds. Risk Assessment Forum, Washington, DC. EPA/100/R-10/005.

TABLE 5-2

Preparation/Cooking Loss Factor (PCF) for Fish

Gowanus Canal Remedial Investigation, Brooklyn, New York

COPC	PCF[a]
Chlordane	33
Dieldrin	30
p,p'-DDD	30
p,p'-DDE	35
p,p'-DDT	30
PCBs	20

[a] USEPA. 2000. Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories. Volume 2: Risk Assessment and Fish Consumption Limits - Third Edition. Appendix C. Dose Modifications Due to Food Preparation and Cooking. November. EPA 823-B-00-008.

TABLE 7-1
Summary of RME Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks >10^{-4}	Chemicals with Cancer Risks >10^{-5} and <10^{-4}	Chemicals with Cancer Risks >10^{-6} and <10^{-5}	Hazard Index	Chemicals with HI>1
Recreational Adult	Surface sediment—exposed and near-shore sediment in Gowanus Canal	Ingestion	2E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene	0.03	
		Dermal Contact	1E-04		Benzo(a)pyrene, Chromium	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Nondioxin-like PCBs	0.13	
		Total	1E-04		Benzo(a)pyrene, Chromium	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Non-dioxin-like PCBs, Arsenic	0.2	
	Surface water—Gowanus Canal, dry-weather event	Ingestion	2E-06			Arsenic	0.01	
		Dermal Contact	2E-04	Benzo(a)pyrene	Chromium	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene	0.03	
		Total	2E-04	Benzo(a)pyrene	Chromium	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Arsenic	0.04	
	Surface water—Gowanus Canal, wet-weather event	Ingestion	2E-06			Arsenic	0.01	
		Dermal Contact	1E-04		PCE, Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Chromium	0.02	
		Total	1E-04		PCE, Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Arsenic, Chromium	0.03	
	Ambient air at canal level, pre-aeration system operation	Inhalation	2E-07				0.006	
		Total	2E-07				0.006	
	Ambient air at canal level, after aeration system started	Ingestion	3E-07				0.007	
		Total	3E-07				0.007	
	All media		3E-04				0.2	

TABLE 7-1
Summary of RME Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks >10^{-4}	Chemicals with Cancer Risks >10^{-5} and <10^{-4}	Chemicals with Cancer Risks >10^{-6} and <10^{-5}	Hazard Index	Chemicals with HI>1
Recreational Adolescent	Surface sediment—exposed and near-shore sediment in Gowanus Canal	Ingestion	1E-05			Benzo(a)anthracene, Benzo(a)pyrene	0.03	
		Dermal Contact	8E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	0.2	
		Total	1E-04		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	0.2	
	Surface water—Gowanus Canal, dry-weather event	Ingestion	9E-07				0.01	
		Dermal Contact	1E-04		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	0.03	
		Total	1E-04		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	0.05	
	Surface water—Gowanus Canal, wet-weather event	Ingestion	8E-07				0.01	
		Dermal Contact	8E-05		Benzo(a)pyrene, Dibenz(a,h)anthracene	PCE, Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	0.02	
		Total	8E-05		Benzo(a)pyrene, Dibenz(a,h)anthracene	PCE, Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	0.04	
	Ambient air at canal level, pre-aeration system operation	Inhalation	6E-08				0.006	
		Total	6E-08				0.006	
	Ambient air at canal level, after aeration system started	Ingestion	7E-08				0.007	
		Total	7E-08				0.007	
	All media		2E-04				0.2	

TABLE 7-1
Summary of RME Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Recreational Child	Surface sediment—exposed and near-shore sediment in Gowanus Canal	Ingestion	2E-04	Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene	Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Arsenic, Chromium	0.3	
		Dermal Contact	2E-04	Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Chromium	Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	0.2	
		Total	4E-04	Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	Benzo(k)fluoranthene, Arsenic	0.4	
	Surface water—Gowanus Canal, dry-weather event	Ingestion	6E-06			Benzo(a)pyrene, Arsenic, Chromium	0.05	
		Dermal Contact	4E-04	Benzo(a)pyrene		Benzo(a)anthracene, Indeno(1,2,3-c,d)pyrene	0.05	
		Total	4E-04	Benzo(a)pyrene	Benzo(b)fluoranthene, Chromium	Benzo(a)anthracene, Indeno(1,2,3-c,d)pyrene, Arsenic	0.1	
	Surface water—Gowanus Canal, wet-weather event	Ingestion	4E-06			Arsenic, Chromium	0.05	
		Dermal Contact	3E-04	Benzo(a)pyrene	Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	PCE, Benzo(a)anthracene, Benzo(b)fluoranthene	0.04	
		Total	3E-04	Benzo(a)pyrene	Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	PCE, Benzo(b)fluoranthene, Arsenic	0.09	
	Ambient air at canal level, pre-aeration system operation	Inhalation	6E-08				0.01	
		Total	6E-08				0.01	
	Ambient air at canal level, after aeration system started	Ingestion	7E-08				0.01	
		Total	7E-08				0.01	
	All media		8E-04				0.5	

TABLE 7-1
Summary of RME Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks >10^{-4}	Chemicals with Cancer Risks >10^{-5} and <10^{-4}	Chemicals with Cancer Risks >10^{-6} and <10^{-5}	Hazard Index	Chemicals with HI>1
Industrial Worker Adult	Ambient air at street level, pre-aeration system operation	Inhalation	2E-05		Naphthalene	Benzene, Chloroform	0.3	
		Total	2E-05		Naphthalene	Benzene, Chloroform	0.3	
	Ambient air at street level, after aeration system started	Inhalation	3E-05		Naphthalene	Benzene, Chloroform	0.7	
		Total	3E-05		Naphthalene	Benzene, Chloroform	0.7	
	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	1E-05			Benzo(a)pyrene, Benzo(a)anthracene	0.02	
		Dermal Contact	1E-05			Benzo(a)pyrene, Chromium	0.02	
		Total	2E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Chromium	0.04	
	Canal Overflow—surface water	Ingestion	5E-07				0.01	
		Dermal Contact	3E-05			PCE, Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	0.006	
		Total	3E-05			PCE, Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	0.02	
	All media		8E-05				0.8	
Resident Adult	Ambient air at street level, pre-aeration system operation	Inhalation	NA				0.5	
		Total	NA				0.5	
	Ambient air at street level, after aeration system started	Inhalation	NA				1.0	
		Total	NA				1.0	
	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	NA				0.02	
		Dermal Contact	NA				0.03	
		Total	NA				0.06	
	Canal Overflow—surface water	Ingestion	NA				0.004	
		Contact	NA				0.002	
		Total	NA				0.006	
	All media		NA				1.1	

TABLE 7-1
Summary of RME Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Resident Child	Ambient air at street level, pre-aeration system operation	Inhalation	NA				0.5	
		Total	NA				0.5	
	Ambient air at street level, after aeration system started	Inhalation	NA				1.0	
		Total	NA				1.0	
	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	NA				0.2	
		Dermal Contact	NA				0.07	
		Total	NA				0.3	
	Canal Overflow—surface water	Ingestion	NA				0.02	
		Dermal Contact	NA				0.005	
		Total	NA				0.02	
	All media		NA				1.3	
Resident Child/Adult	Ambient air at street level, pre-aeration system operation	Inhalation	2E-05		Naphthalene	Benzene, Chloroform	NA	
		Total	2E-05		Naphthalene	Benzene, Chloroform	NA	
	Ambient air at street level, after aeration system started	Inhalation	4E-05		Naphthalene	Benzene, Chloroform	NA	
		Total	4E-05		Naphthalene	Benzene, Chloroform	NA	
	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	1E-04		Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene	Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	NA	
		Dermal Contact	7E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	NA	
		Total	2E-04	Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene	Indeno(1,2,3-c,d)pyrene, Arsenic, Chromium	NA	
	Canal Overflow—surface water	Ingestion	2E-06				NA	
		Dermal Contact	6E-05		Benzo(a)pyrene, Dibenz(a,h)anthracene	PCE, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	NA	
		Total	6E-05		Benzo(a)pyrene, Dibenz(a,h)anthracene	PCE, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	NA	
	All media		3E-04				NA	

TABLE 7-1
Summary of RME Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Angler Adult	Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	1E-04		Dioxin-Like PCB, Nondioxin-Like PCB	Arsenic	4.2	Total PCB
		Total	1E-04		Dioxin-Like PCB, Nondioxin-Like PCB	Arsenic	4.2	Total PCB
	White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	2E-05			Dioxin-Like PCB, Nondioxin-Like PCB	0.8	
		Total	2E-05			Dioxin-Like PCB, Nondioxin-Like PCB	0.8	
	Eel in Gowanus Canal (bottom feeder fish)	Ingestion	3E-04	Nondioxin-Like PCB, Dioxin-Like PCB	Dieldrin, Chromium	Arsenic	12	Total PCB
		Total	3E-04	Nondioxin-Like PCB, Dioxin-Like PCB	Dieldrin, Chromium	Arsenic	12	Total PCB
	Blue Crab in Gowanus Canal	Ingestion	2E-04		Dioxin-Like PCB, Nondioxin-Like PCB, Arsenic	Benzo(a)pyrene, Dibenz(a,h)anthracene	3.4	Total PCB
		Total	2E-04		Dioxin-Like PCB, Nondioxin-Like PCB, Arsenic	Benzo(a)pyrene, Dibenz(a,h)anthracene	3.4	Total PCB
	Fish Total Risk		4E-04				17	
	Crab Total Risk		2E-04				3.4	
Angler Adolescent	Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	2E-05			Dioxin-Like PCB, Nondioxin-like, Arsenic	3.4	Total PCB
		Total	2E-05			Dioxin-Like PCB, Nondioxin-Like PCB, Arsenic	3.4	Total PCB
	White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	4E-06			Dioxin-Like PCB, Nondioxin-Like PCB	0.7	
		Total	4E-06			Dioxin-Like PCB, Nondioxin-Like PCB	0.7	
	Eel in Gowanus Canal (bottom feeder fish)	Ingestion	7E-05		Dioxin-Like PCB, Nondioxin-Like PCB	Dieldrin, Chromium	9.4	Total PCB
		Total	7E-05		Dioxin-Like PCB, Nondioxin-Like PCB	Dieldrin, Chromium	9.4	Total PCB
	Blue Crab in Gowanus Canal	Ingestion	4E-05		Dioxin-Like PCB	Benzo(a)pyrene, Dibenz(a,h)anthracene, Nondioxin-Like PCB, Arsenic	2.7	Total PCB
		Total	4E-05		Dioxin-Like PCB	Benzo(a)pyrene, Dibenz(a,h)anthracene, Nondioxin-Like PCB, Arsenic	2.7	Total PCB
	Fish Total Risk		9E-05				13	
	Crab Total Risk		4E-05				2.7	

TABLE 7-1
Summary of RME Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Angler Child	Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	4E-05		Dioxin-Like PCB, Nondioxin-Like PCB	Arsenic	6.8	Total PCB
		Total	4E-05		Dioxin-Like PCB, Nondioxin-Like PCB	Arsenic	6.8	Total PCB
	White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	8E-06			Dioxin-Like PCB, Nondioxin-Like PCB	1.4	Total PCB
		Total	8E-06			Dioxin-Like PCB, Nondioxin-Like PCB	1.4	Total PCB
	Eel in Gowanus Canal (bottom feeder fish)	Ingestion	2E-04		Nondioxin-Like PCB, Chromium	Dieldrin, Arsenic	19	Total PCB
		Total	2E-04		Nondioxin-Like PCB, Chromium	Dieldrin, Arsenic	19	Total PCB
	Blue Crab in Gowanus Canal	Ingestion	9E-05		Dioxin-Like PCB, Nondioxin-Like PCB, Benzo(a)pyrene	Dibenz(a,h)anthracene, Arsenic	5.5	Total PCB
		Total	9E-05		Dioxin-Like PCB, Nondioxin-Like PCB, Benzo(a)pyrene	Dibenz(a,h)anthracene, Arsenic	5.5	Total PCB
	Fish Total Risk		2E-04				27	
	Crab Total Risk		9E-05				5.5	

NA—Not applicable, pathway incomplete.
Receptor Total risks and hazards for recreational receptors includes sum of exposed and near-shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to aeration system operation and after aeration system started.
Receptor Total risks and hazards for residential and industrial receptors includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

TABLE 7-2
Summary of CTE Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks >10^{-4}	Chemicals with Cancer Risks >10^{-5} and <10^{-4}	Chemicals with Cancer Risks >10^{-6} and <10^{-5}	Hazard Index	Chemicals with HI>1
Recreational Adult	Surface sediment—exposed and near-shore sediment in Gowanus Canal	Ingestion	6E-07				7E-03	
		Dermal Contact	7E-06			Benzo(a)pyrene	7E-02	
		Total	8E-06			Benzo(a)pyrene	7E-02	
	Surface water—Gowanus Canal, dry-weather event	Ingestion	3E-08				1E-03	
		Dermal Contact	8E-06			Benzo(a)pyrene	7E-03	
		Total	8E-06			Benzo(a)pyrene	9E-03	
	Surface water—Gowanus Canal, wet-weather event	Ingestion	3E-08				1E-03	
		Dermal Contact	5E-06			Benzo(a)pyrene	6E-03	
		Total	5E-06			Benzo(a)pyrene	7E-03	
	All media		2E-05				8E-02	
Recreational Adolescent	Surface sediment—exposed and near shore sediment in Gowanus Canal	Ingestion	2E-06			Benzo(a)pyrene	9E-03	
		Dermal Contact	3E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Chromium	8E-02	
		Total	3E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Chromium	9E-02	
	Surface water—Gowanus Canal, dry-weather event	Ingestion	6E-08				2E-03	
		Dermal Contact	3E-05		Benzo(a)pyrene	Benzo(b)fluoranthene, Chromium	8E-03	
		Total	3E-05		Benzo(a)pyrene	Benzo(b)fluoranthene, Chromium	1E-02	
	Surface water—Gowanus Canal, wet-weather event	Ingestion	5E-08				2E-03	
		Dermal Contact	2E-05			Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	6E-03	
		Total	2E-05			Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	8E-03	
	All media		5E-05				1E-01	

TABLE 7-2
Summary of CTE Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Recreational Child	Surface sediment—exposed and near-shore sediment in Gowanus Canal	Ingestion	4E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	6E-02	
		Dermal Contact	7E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	8E-02	
		Total	1E-04		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene, Chromium	1E-01	
	Surface water—Gowanus Canal, dry-weather event	Ingestion	5E-07				7E-03	
		Dermal Contact	1E-04		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	1E-02	
		Total	1E-04		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	2E-02	
	Surface water—Gowanus Canal, wet-weather event	Ingestion	3E-07				6E-03	
		Dermal Contact	7E-05		Benzo(a)pyrene, Dibenz(a,h)anthracene	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	1E-02	
		Total	7E-05		Benzo(a)pyrene, Dibenz(a,h)anthracene	Benzo(a)anthracene, Benzo(b)fluoranthene, Indeno(1,2,3-c,d)pyrene, Chromium	2E-02	
	All media		2E-04				2E-01	

TABLE 7-2
Summary of CTE Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Resident Adult	Ambient air at street level, pre-aeration system operation	Inhalation	NA				3E-01	
		Total	NA				3E-01	
	Ambient air at street level, after aeration system started	Inhalation	NA				7E-01	
		Total	NA				7E-01	
	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	NA				6E-03	
		Dermal Contact	NA				2E-02	
		Total	NA				2E-02	
	Canal overflow—surface water	Ingestion	NA				5E-04	
		Contact	NA				6E-04	
		Total	NA				1E-03	
	All media		NA				7E-01	
Resident Child	Ambient air at street level, pre-aeration system operation	Inhalation	NA				3E-01	
		Total	NA				3E-01	
	Ambient air at street level, after aeration system started	Inhalation	NA				7E-01	
		Total	NA				7E-01	
	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	NA				6E-02	
		Dermal Contact	NA				4E-02	
		Total	NA				9E-02	
	Canal overflow—surface water	Ingestion	NA				2E-03	
		Contact	NA				1E-03	
		Total	NA				4E-03	
	All media		NA				8E-01	

TABLE 7-2
Summary of CTE Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Resident Child/Adult	Ambient air at street level, pre-aeration system operation	Inhalation	5E-06			Naphthalene	NA	
		Total	5E-06			Naphthalene	NA	
	Ambient air at street level, after aeration system started	Inhalation	1E-05			Naphthalene	NA	
		Total	1E-05			Naphthalene	NA	
	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	3E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene	NA	
		Dermal Contact	2E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene	NA	
		Total	5E-05		Benzo(a)pyrene	Benzo(a)anthracene, Benzo(b)fluoranthene, Dibenz(a,h)anthracene Indeno(1,2,3-c,d)pyrene	NA	
	Canal overflow—surface water	Ingestion	2E-07				NA	
		Dermal Contact	1E-05			Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	NA	
		Total	1E-05			Benzo(a)pyrene, Dibenz(a,h)anthracene, Indeno(1,2,3-c,d)pyrene	NA	
	All media		8E-05				NA	

TABLE 7-2
Summary of CTE Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Angler Adult	Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	1E-06				0.5	
		Total	1E-06				0.5	
	White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	1E-07				0.1	
		Total	1E-07				0.1	
	Eel in Gowanus Canal (bottom feeder fish)	Ingestion	3E-06			Dioxin-Like PCB	1.2	Total PCB
		Total	3E-06			Dioxin-Like PCB	1.2	Total PCB
	Blue Crab in Gowanus Canal	Ingestion	1E-05			Dioxin-Like PCB, Nondioxin-Like PCB, Arsenic	2.3	Total PCB
		Total	1E-05			Dioxin-Like PCB, Nondioxin-Like PCB, Arsenic	2.3	Total PCB
	Fish Total Risk		4E-06				1.7	
	Crab Total Risk		1E-05				2.3	
Angler Adolescent	Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	8E-07				0.4	
		Total	8E-07				0.4	
	White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	9E-08				0.04	
		Total	9E-08				0.04	
	Eel in Gowanus Canal (bottom feeder fish)	Ingestion	3E-06			Dioxin-Like PCB	0.9	
		Total	3E-06			Dioxin-Like PCB	0.9	
	Blue Crab in Gowanus Canal	Ingestion	1E-05			Benzo(a)pyrene, Dioxin-Like PCB, Nondioxin-Like PCB, Arsenic	0.6	
		Total	1E-05			Benzo(a)pyrene, Dioxin-Like PCB, Nondioxin-Like PCB, Arsenic	0.6	
	Fish Total Risk		4E-06				1.3	
	Crab Total Risk		1E-05				0.6	

TABLE 7-2
Summary of CTE Cancer Risks and Hazard Indexes
Gowanus Canal Remedial Investigation, Brooklyn, New York

Receptor	Media	Exposure Route	Cancer Risk	Chemicals with Cancer Risks $>10^{-4}$	Chemicals with Cancer Risks $>10^{-5}$ and $<10^{-4}$	Chemicals with Cancer Risks $>10^{-6}$ and $<10^{-5}$	Hazard Index	Chemicals with HI>1
Angler Child	Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	2E-06				0.7	
		Total	2E-06				0.7	
	White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	2E-07				0.08	
		Total	2E-07				0.08	
	Eel in Gowanus Canal (bottom feeder fish)	Ingestion	7E-06			Dioxin-Like PCB, Nondioxin-Like PCB, Chromium	1.9	Total PCB
		Total	7E-06			Dioxin-Like PCB, Nondioxin-Like PCB, Chromium	1.9	Total PCB
	Blue Crab in Gowanus Canal	Ingestion	3E-05		Dioxin-Like PCB	Benzo(a)pyrene, Dibenz(a,h)anthracene, Nondioxin-Like PCB, Arsenic	3.6	
		Total	3E-05		Dioxin-Like PCB	Benzo(a)pyrene, Dibenz(a,h)anthracene, Nondioxin-Like PCB, Arsenic	3.6	
	Fish Total Risk		9E-06				2.7	
	Crab Total Risk		3E-05				3.6	

NA—Not applicable, pathway incomplete.
Receptor Total risks and hazards for recreational receptors includes sum of exposed and near-shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to aeration system operation and after aeration system started.
Receptor Total risks and hazards for residential and industrial receptors includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

TABLE 7-4
Summary of Total RME Cancer Risks for Recreational User and Angler
Gowanus Canal Remedial Investigation, Brooklyn, New York

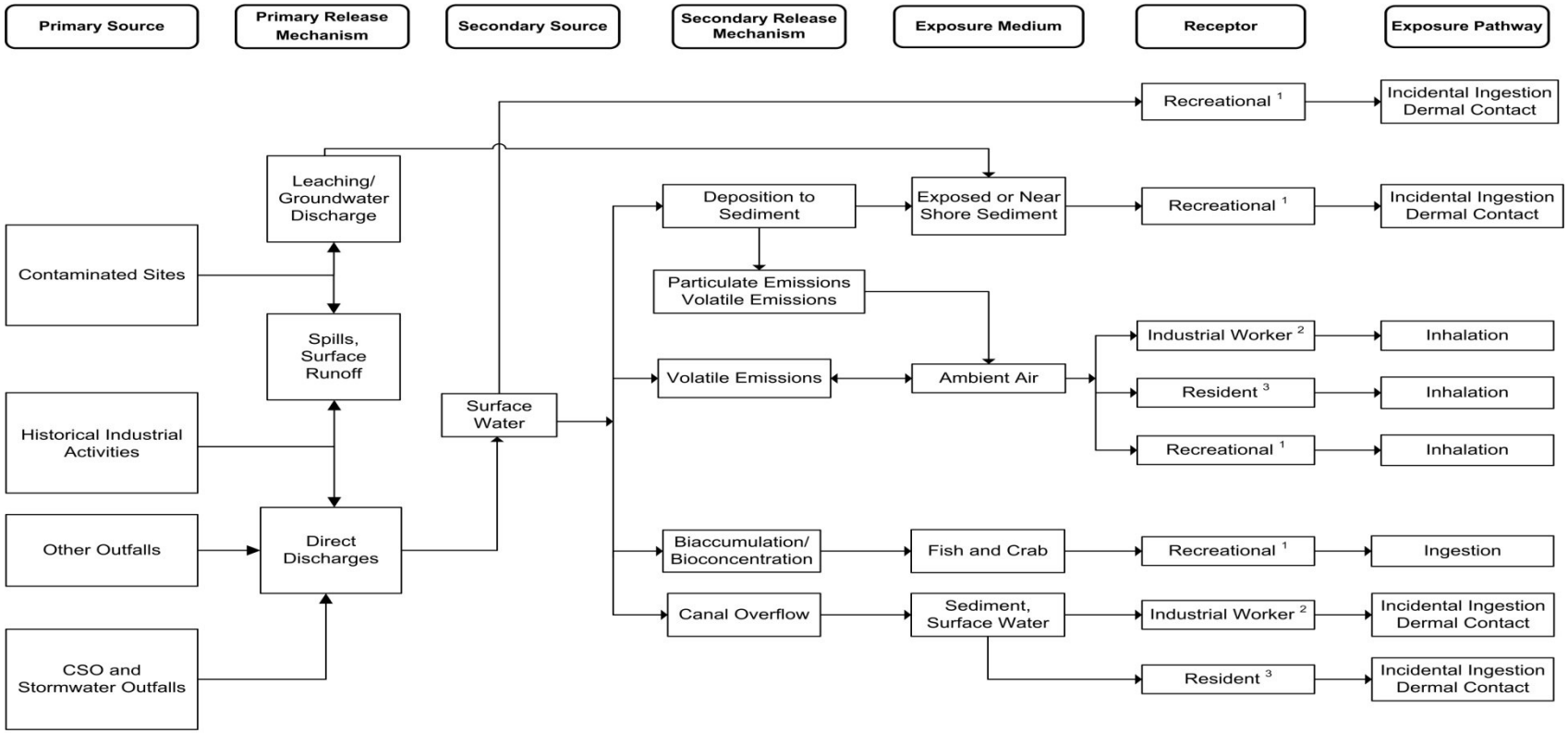
Media	Exposure Pathway	Receptor			
		Recreational adult Cancer Risk	Recreational Adolescent Cancer Risk	Recreational Child Cancer Risk	Total Recreational Cancer Risk
Surface sediment—exposed and near-shore sediment in Gowanus Canal	Ingestion	2E-05	1E-05	2E-04	3E-04
	Dermal	1E-04	8E-05	2E-04	4E-04
	Total	1E-04	1E-04	4E-04	7E-04
Surface water—Gowanus Canal, dry-weather event	Ingestion	2E-06	9E-07	6E-06	9E-06
	Dermal	2E-04	1E-04	4E-04	7E-04
	Total	2E-04	1E-04	4E-04	7E-04
Surface water—Gowanus Canal, wet-weather event	Ingestion	2E-06	8E-07	4E-06	7E-06
	Dermal	1E-04	8E-05	3E-04	4E-04
	Total	1E-04	8E-05	3E-04	5E-04
Ambient air at canal level, pre-aeration system operation	Inhalation	2E-07	6E-08	6E-08	4E-07
	Total	2E-07	6E-08	6E-08	4E-07
Ambient air at canal level, after aeration system started	Inhalation	3E-07	7E-08	7E-08	4E-07
	Total	3E-07	7E-08	7E-08	4E-07
All media[1]		3E-04	2E-04	8E-04	1E-03
		Angler adult Cancer Risk	Angler Adolescent Cancer Risk	Angler Child Cancer Risk	Total Angler Cancer Risk
Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	1E-04	2E-05	4E-05	2E-04
	Total	1E-04	2E-05	4E-05	2E-04
White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	2E-05	4E-06	8E-06	3E-05
	Total	2E-05	4E-06	8E-06	3E-05
Eel in Gowanus Canal (bottom feeder fish)	Ingestion	3E-04	7E-05	2E-04	5E-04
	Total	3E-04	7E-05	2E-04	5E-04
Blue Crab in Gowanus Canal	Ingestion	2E-04	4E-05	9E-05	3E-04
	Total	2E-04	4E-05	9E-05	3E-04
Fish Total Risk		4E-04	9E-05	2E-04	7E-04
Crab Total Risk		2E-04	4E-05	9E-05	3E-04

[1]Total risk includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started

TABLE 7-5
Summary of Total CTE Cancer Risks for Recreational User and Angler
Gowanus Canal Remedial Investigation, Brooklyn, New York

Media	Exposure Pathway	Receptor			
		Recreational adult Cancer Risk	Recreational Adolescent Cancer Risk	Recreational Child Cancer Risk	Total Recreational Cancer Risk
Surface sediment—exposed and near-shore sediment in Gowanus Canal	Ingestion	6E-07	2E-06	4E-05	5E-05
	Dermal	7E-06	3E-05	7E-05	1E-04
	Total	8E-06	3E-05	1E-04	1E-04
Surface water—Gowanus Canal, dry-weather event	Ingestion	3E-08	6E-08	5E-07	6E-07
	Dermal	8E-06	3E-05	1E-04	1E-04
	Total	8E-06	3E-05	1E-04	1E-04
Surface water—Gowanus Canal, wet-weather event	Ingestion	3E-08	5E-08	3E-07	4E-07
	Dermal	5E-06	2E-05	7E-05	9E-05
	Total	5E-06	2E-05	7E-05	9E-05
All media[1]		2E-05	5E-05	2E-04	3E-04
		Angler adult Cancer Risk	Angler Adolescent Cancer Risk	Angler Child Cancer Risk	Total Angler Cancer Risk
Striped Bass in Gowanus Canal (top-level predator fish)	Ingestion	1E-06	8E-07	2E-06	3E-06
	Total	1E-06	8E-07	2E-06	3E-06
White Perch in Gowanus Canal (middle-level predator fish)	Ingestion	1E-07	9E-08	2E-07	4E-07
	Total	1E-07	9E-08	2E-07	4E-07
Eel in Gowanus Canal (bottom feeder fish)	Ingestion	3E-06	3E-06	7E-06	1E-05
	Total	3E-06	3E-06	7E-06	1E-05
Blue Crab in Gowanus Canal	Ingestion	1E-05	1E-05	3E-05	6E-05
	Total	1E-05	1E-05	3E-05	6E-05
Fish Total Risk		4E-06	4E-06	9E-06	2E-05
Crab Total Risk		1E-05	1E-05	3E-05	6E-05

[1]Total risk includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started



[1] Recreational – Adult, Adolescent (12-18 years), Child (1-6 years)
[2] Industrial Worker – Adult
[3] Resident – Adult, Child (1-6 years)

FIGURE 2-1
Conceptual Exposure Model for Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

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Attachment
USEPA RAGS Part D and Supporting Tables

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TABLE 1

SELECTION OF EXPOSURE PATHWAYS

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Current/Future	Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Recreational	Adult	Ingestion	Quant	People have been observed boating and fishing/crabbing in the canal. These receptors may be exposed to surface sediment at boat launch locations, bridge crossing locations, and at locations with exposed sediment, or sediment covered by shallow water.
						Dermal	Quant	
					Adolescent	Ingestion	Quant	
						Dermal	Quant	
					Child	Ingestion	Quant	
						Dermal	Quant	
	Surface Water	Surface Water	Gowanus Canal	Recreational	Adult	Ingestion	Quant	People have been observed boating and fishing/crabbing in the canal. These receptors may be exposed to surface water throughout the canal during these activities.
						Dermal	Quant	
					Adolescent	Ingestion	Quant	
						Dermal	Quant	
					Child	Ingestion	Quant	
						Dermal	Quant	
	Air	Air	Ambient air at canal level	Recreational	Adult	Inhalation	Quant	People have been observed boating and fishing in the canal. These receptors may inhale ambient air from particulate and volatile emissions from exposed sediment and volatile emissions from surface water throughout the canal during these activities.
					Adolescent	Inhalation	Quant	
					Child	Inhalation	Quant	
			Ambient air at street level	Industrial Worker	Adult	Inhalation	Quant	Workers at the businesses surrounding the canal may inhale ambient air from particulate and volatile emissions from exposed sediment and volatile emissions from surface water during the workday.
				Resident	Adult	Inhalation	Quant	People live within a few blocks of the canal, and may inhale ambient air from particulate and volatile emissions from exposed sediment and volatile emissions from surface water at their residences and the surrounding areas.
					Child	Inhalation	Quant	
					Child/Adult	Inhalation	Quant	
	Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Angler	Adult	Ingestion	Quant	People have been observed fishing in the canal. These receptors may eat the fish they catch from the canal. Striped bass are representative of top-level predator fish.
					Adolescent	Ingestion	Quant	
					Child	Ingestion	Quant	
			White Perch in Gowanus Canal	Angler	Adult	Ingestion	Quant	People have been observed fishing in the canal. These receptors may eat the fish they catch from the canal. White perch are representative of middle-level predator fish.
					Adolescent	Ingestion	Quant	
					Child	Ingestion	Quant	
			Eel in Gowanus Canal	Angler	Adult	Ingestion	Quant	People have been observed fishing in the canal. These receptors may eat the fish they catch from the canal. American eel are representative of bottom feeders.
					Adolescent	Ingestion	Quant	
					Child	Ingestion	Quant	

TABLE 1

SELECTION OF EXPOSURE PATHWAYS

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Curren/tFuture	Surface Water/Sediment	Fish and Crab Tissue	Crab in Gowanus Canal	Angler	Adult	Ingestion	Quant	People have been observed crabbing in the canal. These receptors may eat the crab they catch from the canal.
					Adolescent	Ingestion	Quant	
					Child	Ingestion	Quant	
	Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Industrial Worker	Adult	Ingestion	Quant	Workers at businesses surrounding the canal may be exposed to sediment that gets deposited near the canal when the canal overflows, prior to being washed away with rain.
						Dermal	Quant	
				Residential	Adult	Ingestion	Quant	People live within a few blocks of the canal. These receptors may be exposed to surface sediment that gets deposited outside of the canal when the canal overflows prior to being wahsed away with rain.
						Dermal	Quant	
					Child	Ingestion	Quant	
						Dermal	Quant	
					Child/Adult	Ingestion	Quant	
						Dermal	Quant	
		Air	Particulate and volatile emissions from sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Industrial Worker	Adult	Inhalation	None	Emissions from deposited sediment associated with canal overflow is not expected to be a significant exposure pathway.
				Residential	Adult	Inhalation	None	
					Child	Inhalation	None	
					Child/Adult	Inhalation	None	
	Surface Water	Overflow Surface Water	Canal Overflow - Surface Water (surface water data from wet event)	Industrial Worker	Adult	Ingestion	Quant	Workers at businesses surrounding the canal may be exposed to canal surface water when the canal overflows.
						Dermal	Quant	
				Residential	Adult	Ingestion	Quant	People live within a few blocks of the canal. These receptors may be exposed to surface water outside of the canal when the canal overflows.
						Dermal	Quant	
					Child	Ingestion	Quant	
						Dermal	Quant	
					Child/Adult	Ingestion	Quant	
						Dermal	Quant	
		Air	Volatile emissions from overflow surface water in areas adjacent to Gowanus Canal	Industrial Worker	Adult	Inhalation	None	Emissions from surface water associated with canal overflow is not expected to be a significant exposure pathway.
				Residential	Adult	Inhalation	None	
					Child	Inhalation	None	
					Child/Adult	Inhalation	None	

Quant: will be quantitatively evaluated.

Qual: will be qualitatively evaluated.

None: Not considered to be a significant exposure pathway, and therefore not evaluated.

TABLE H-2.1
Exposed Sediment in Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Surface Sediment

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Exposed and near shore sediment in Gowanus Canal																
	107-06-2	1,2-dichloroethane	3.90	8.50 J	ug/kg	307B	5 / 14	3.90 - 23.0	8.50	---	430	C	---	---	NO	Below Screening Level
	106-46-7	1,4-dichlorobenzene	7.60	240 J	ug/kg	301	2 / 14	5.00 - 240	240	---	2400	C	---	---	NO	Below Screening Level
	67-64-1	Acetone	21.0	90.0	ug/kg	314	7 / 14	9.90 - 90.0	90.0	---	6100000	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	46.0	46.0 J	ug/kg	314	1 / 14	5.00 - 46.0	46.0	---	1100	C	---	---	NO	Below Screening Level
	75-15-0	Carbon disulfide	4.70	89.0	ug/kg	314	4 / 14	4.70 - 89.0	89.0	---	82000	N	---	---	NO	Below Screening Level
	108-90-7	Chlorobenzene	53.0	53.0	ug/kg	301	1 / 14	5.00 - 53.0	53.0	---	29000	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	6.60	1100 J	ug/kg	314	3 / 14	5.00 - 1100	1100	---	5400	C	---	---	NO	Below Screening Level
	98-82-8	Isopropylbenzene (cumene)	4.60	640 J	ug/kg	314	3 / 14	4.60 - 640	640	---	210000	N	---	---	NO	Below Screening Level
	179601-23-1	m, p xylenes	5.40	120 J	ug/kg	314	2 / 14	5.00 - 120	120	---	340000	N	---	---	NO	Below Screening Level
	108-87-2	Methylcyclohexane	27.0	170 J	ug/kg	314	2 / 14	5.00 - 170	170	---	---		---	---	NO	No toxicity information
	75-09-2	Methylene chloride	4.70	4.70 J	ug/kg	307A	1 / 14	4.70 - 23.0	4.70	---	11000	C	---	---	NO	Below Screening Level
	95-47-6	o-xylene (1,2-dimethylbenzene)	19.0	290 J	ug/kg	314	2 / 14	5.00 - 290	290	---	380000	N	---	---	NO	Below Screening Level
	127-18-4	Tetrachloroethylene(PCE)	5.80	11.0 J	ug/kg	302	2 / 14	5.00 - 23.0	11.0	---	550	C	---	---	NO	Below Screening Level
	108-88-3	Toluene	36.0	36.0 J	ug/kg	314	1 / 14	5.00 - 36.0	36.0	---	500000	N	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	4.20	4.20 J	ug/kg	301	1 / 14	4.20 - 23.0	4.20	---	2800	C	---	---	NO	Below Screening Level
	75-69-4	Trichlorofluoromethane	4.60	8.90 J	ug/kg	302	3 / 14	4.60 - 23.0	8.90	---	79000	N	---	---	NO	Below Screening Level
	91-57-6	2-methylnaphthalene	270	15000	ug/kg	314	8 / 14	120 - 15000	15000	---	31000	N	---	---	NO	Below Screening Level
	83-32-9	Acenaphthene	160	460000 J	ug/kg	314	10 / 14	160 - 460000	460000	---	340000	N	---	---	YES	Above Screening Level
	208-96-8	Acenaphthylene	270	150000 J	ug/kg	314	8 / 14	230 - 150000	150000	---	340000	N	---	---	NO	Below Screening Level
	120-12-7	Anthracene	330	350000 J	ug/kg	314	11 / 14	250 - 350000	350000	---	1700000	N	---	---	NO	Below Screening Level
	56-55-3	Benzo(a)anthracene	1100	320000 J	ug/kg	314	14 / 14	1100 - 320000	320000	---	150	C	---	---	YES	Above Screening Level
	50-32-8	Benzo(a)pyrene	1200	200000 J	ug/kg	314	13 / 14	250 - 200000	200000	---	15	C	---	---	YES	Above Screening Level
	205-99-2	Benzo(b)fluoranthene	1000	210000 J	ug/kg	314	13 / 14	250 - 210000	210000	---	150	C	---	---	YES	Above Screening Level
	191-24-2	Benzo(g,h,i)perylene	610	74000 J	ug/kg	314	13 / 14	260 - 74000	74000	---	170000	N	---	---	NO	Below Screening Level
	207-08-9	Benzo(k)fluoranthene	820	120000 J	ug/kg	314	13 / 14	250 - 120000	120000	---	1500	C	---	---	YES	Above Screening Level
	92-52-4	Biphenyl (diphenyl)	650	650 J	ug/kg	319	1 / 14	650 - 230000	650	---	210000	N	---	---	NO	Below Screening Level
	117-81-7	Bis(2-ethylhexyl) phthalate	2600	57000 J	ug/kg	314	12 / 14	2600 - 160000	57000	---	35000	C	---	---	YES	Above Screening Level
	86-74-8	Carbazole	1400	1400 J	ug/kg	308A	1 / 14	1400 - 230000	1400	---	---		---	---	NO	No toxicity information
	218-01-9	Chrysene	790	320000 J	ug/kg	314	14 / 14	790 - 320000	320000	---	15000	C	---	---	YES	Above Screening Level
	53-70-3	Dibenz(a,h)anthracene	200	14000	ug/kg	314	12 / 14	200 - 14000	14000	---	15	C	---	---	YES	Above Screening Level

TABLE H-2.1
Exposed Sediment in Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Surface Sediment

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Exposed and near shore sediment in Gowanus Canal																
	132-64-9	Dibenzofuran	1100	1100 J	ug/kg	319	1 / 14	1100 - 230000	1100	---	7800	N	---	---	NO	Below Screening Level
	84-74-2	Di-n-butyl phthalate	510	550 J	ug/kg	318	2 / 14	510 - 230000	550	---	610000	N	---	---	NO	Below Screening Level
	117-84-0	Di-n-octylphthalate	9300	9300 J	ug/kg	307A	1 / 14	6200 - 230000	9300	---	35000	N	---	---	NO	Below Screening Level
	206-44-0	Fluoranthene	1200	630000 J	ug/kg	314	14 / 14	1200 - 630000	630000	---	230000	N	---	---	YES	Above Screening Level
	86-73-7	Fluorene	130	130000 J	ug/kg	314	7 / 14	130 - 130000	130000	---	230000	N	---	---	NO	Below Screening Level
	193-39-5	Indeno(1,2,3-c,d)pyrene	1000	120000 J	ug/kg	314	14 / 14	1000 - 120000	120000	---	150	C	---	---	YES	Above Screening Level
	91-20-3	Naphthalene	120	9100 J	ug/kg	319	8 / 14	120 - 9100	9100	---	3600	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	510	470000 J	ug/kg	314	13 / 14	510 - 470000	470000	---	1700000	N	---	---	NO	Below Screening Level
	129-00-0	Pyrene	1400	670000 J	ug/kg	314	14 / 14	1400 - 670000	670000	---	170000	N	---	---	YES	Above Screening Level
	5103-71-9	Alpha-chlordane	6.70	14.0 J	ug/kg	308A	2 / 14	4.20 - 530	14.0	---	1600	C	---	---	NO	Below Screening Level
	33213-65-9	Beta endosulfan	13.0	13.0 J	ug/kg	308A	1 / 14	8.20 - 1000	13.0	---	37000	N	---	---	NO	Below Screening Level
	1031-07-8	Endosulfan sulfate	21.0	21.0 J	ug/kg	308A	1 / 14	8.20 - 1000	21.0	---	37000	N	---	---	NO	Below Screening Level
	5103-74-2	Gamma-chlordane	5.90	29.0 J	ug/kg	308A	3 / 14	4.20 - 530	29.0	---	1600	C	---	---	NO	Below Screening Level
	72-43-5	Methoxychlor	33.0	33.0 J	ug/kg	308A	1 / 14	33.0 - 5300	33.0	---	31000	N	---	---	NO	Below Screening Level
	72-54-8	P,P'-DDD	7.90	21.0 NJ	ug/kg	302	4 / 4	7.90 - 21.0	21.0	---	2000	C	---	---	NO	Below Screening Level
	72-55-9	P,P'-DDE	16.0	16.0 NJ	ug/kg	308A	1 / 14	8.20 - 1000	16.0	---	1400	C	---	---	NO	Below Screening Level
	12674-11-2	Aroclor 1016	220	290	ug/kg	318	2 / 14	41.0 - 290	290	---	390	N	---	---	NO	Below Screening Level
	12672-29-6	Aroclor 1248	2200	2200 J	ug/kg	316	1 / 14	41.0 - 2200	2200	---	220	C	---	---	YES	Above Screening Level
	11097-69-1	Aroclor 1254	590	590 J	ug/kg	308A	1 / 14	48.0 - 590	590	---	110	N	---	---	YES	Above Screening Level
	11096-82-5	Aroclor 1260	440	3400 J	ug/kg	314	3 / 14	41.0 - 3400	3400	---	220	C	---	---	YES	Above Screening Level
	PCBDioxin	PCB Dioxin	0.241	111	ng/kg	314	12 / 12	0.241 - 111	111	---	3.7	C	---	---	YES	Above Screening Level
	PCBNonDioxin	PCB Nondioxin	92500	14700000	ng/kg	314	12 / 12	92500 - 14700000	14700000	---	220000	C	---	---	YES	Above Screening Level
	PCBTotalCongen	Total PCB Congeners	99500	15100000	ng/kg	314	12 / 12	99500 - 15100000	15100000	---	110000	N	---	---	YES	Above Screening Level
	7429-90-5	Aluminum	4870	18900 J	mg/kg	310	14 / 14	4870 - 18900	18900	---	7700	N	---	---	YES	Above Screening Level
	7440-38-2	Arsenic	3.40	44.7	mg/kg	308A	14 / 14	3.40 - 44.7	44.7	---	0.39	C	---	---	YES	Above Screening Level
	7440-39-3	Barium	86.5	397 J	mg/kg	316	14 / 14	86.5 - 397	397	---	1500	N	---	---	NO	Below Screening Level
	7440-41-7	Beryllium	0.26	0.46 J	mg/kg	309	8 / 14	0.26 - 1.40	0.46	---	16	N	---	---	NO	Below Screening Level
	7440-43-9	Cadmium	1.50	20.2 J	mg/kg	308A	14 / 14	1.50 - 20.2	20.2	---	7	N	---	---	YES	Above Screening Level
	7440-70-2	Calcium	5360	10900 J	mg/kg	314	14 / 14	5360 - 10900	10900	---	---		---	---	NO	Essential Nutrient
	7440-47-3	Chromium	22.7	139 J	mg/kg	314	14 / 14	22.7 - 139	139	---	0.29	C	---	---	YES	Above Screening Level

TABLE H-2.1
Exposed Sediment in Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Surface Sediment

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Exposed and near shore sediment in Gowanus Canal																
	7440-48-4	Cobalt	10.0	14.8 J	mg/kg	318	6 / 14	7.30 - 15.3	14.8	---	2.3	N	---	---	YES	Above Screening Level
	7440-50-8	Copper	85.8	790	mg/kg	308A	14 / 14	85.8 - 790	790	---	310	N	---	---	YES	Above Screening Level
	57-12-5	Cyanide, Total	0.54	18.0 J	mg/kg	302	4 / 14	0.54 - 18.0	18.0	---	160	N	---	---	NO	Below Screening Level
	7439-89-6	Iron	12400	87000	mg/kg	308A	14 / 14	12400 - 87000	87000	---	5500	N	---	---	YES	Above Screening Level
	7439-92-1	Lead	184	4220	mg/kg	308A	14 / 14	184 - 4220	4220	---	400	N	---	---	YES	Above Screening Level
	7439-95-4	Magnesium	4210	11400 J	mg/kg	318	14 / 14	4210 - 11400	11400	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	89.1	480	mg/kg	308A	14 / 14	89.1 - 480	480	---	180	N	---	---	YES	Above Screening Level
	7439-97-6	Mercury	0.61	1.80 J	mg/kg	318	14 / 14	0.61 - 1.80	1.80	---	2.3	N	---	---	NO	Below Screening Level
	7440-02-0	Nickel	18.1	84.5 J	mg/kg	314	14 / 14	18.1 - 84.5	84.5	---	150	N	---	---	NO	Below Screening Level
	7440-09-7	Potassium	730	4410 J	mg/kg	310	14 / 14	730 - 4410	4410	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	0.74	4.90 J	mg/kg	310	6 / 14	0.74 - 10.7	4.90	---	39	N	---	---	NO	Below Screening Level
	7440-22-4	Silver	1.90	6.80 J	mg/kg	310	12 / 14	1.20 - 6.80	6.80	---	39	N	---	---	NO	Below Screening Level
	7440-23-5	Sodium	2610	15300 J	mg/kg	305	14 / 14	2610 - 15300	15300	---	---		---	---	NO	Essential Nutrient
	7440-62-2	Vanadium	19.4	61.2 J	mg/kg	316	14 / 14	19.4 - 61.2	61.2	---	39	N	---	---	YES	Above Screening Level
	7440-66-6	Zinc	240	1520	mg/kg	308A	7 / 7	240 - 1520	1520	---	2300	N	---	---	NO	Below Screening Level

TABLE H-2.2
Surface Water in Canal - Dry Weather - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Gowanus Canal																
	106-46-7	1,4-dichlorobenzene	0.11	0.11 J	ug/l	320	1 / 27	0.11 - 0.50	0.11	---	0.43	C	190	NRWQC	NO	Below Screening Level
	67-64-1	Acetone	1.10	6.70	ug/l	317	26 / 27	1.10 - 6.70	6.70	---	2200	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	0.50	11.0	ug/l	304	18 / 27	0.50 - 11.0	11.0	---	0.41	C	10	NYSDEC	YES	Above Screening Level
	100-41-4	Ethylbenzene	0.19	1.30	ug/l	320	16 / 27	0.19 - 1.30	1.30	---	1.5	C	2100	NRWQC	NO	Below Screening Level
	179601-23-1	m, p xylenes	0.16	1.30	ug/l	320	17 / 27	0.16 - 1.30	1.30	---	120	N	---	---	NO	Below Screening Level
	75-09-2	Methylene chloride	0.76	1.00	ug/l	310	3 / 27	0.50 - 1.00	1.00	---	4.8	C	200	NYSDEC	NO	Below Screening Level
	95-47-6	o-xylene (1,2-dimethylbenzene)	0.24	0.53	ug/l	320	5 / 27	0.24 - 0.53	0.53	---	120	N	---	---	NO	Below Screening Level
	1634-04-4	Tert-butyl methyl ether	0.18	0.18 J	ug/l	304	1 / 27	0.18 - 0.50	0.18	---	12	C	---	---	NO	Below Screening Level
	108-88-3	Toluene	0.17	0.95	ug/l	308B	16 / 27	0.17 - 0.95	0.95	---	230	N	6000	NYSDEC	NO	Below Screening Level
	91-57-6	2-methylnaphthalene	0.017	0.017 J	ug/l	315	1 / 27	0.017 - 0.10	0.017	---	15	N	---	---	NO	Below Screening Level
	83-32-9	Acenaphthene	0.26	0.94	ug/l	319	21 / 27	0.10 - 0.94	0.94	---	220	N	990	NRWQC	NO	Below Screening Level
	120-12-7	Anthracene	1.20	5.20 J	ug/l	325	3 / 27	0.10 - 5.20	5.20	---	1100	N	40000	NRWQC	NO	Below Screening Level
	56-55-3	Benzo(a)anthracene	0.12	0.83	ug/l	325	7 / 27	0.10 - 0.83	0.83	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	50-32-8	Benzo(a)pyrene	0.19	0.66	ug/l	319	3 / 27	0.10 - 0.66	0.66	---	0.0029	C	0.018	NRWQC	YES	Above Screening Level
	205-99-2	Benzo(b)fluoranthene	0.11	0.88	ug/l	319	21 / 27	0.10 - 0.88	0.88	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	191-24-2	Benzo(g,h,i)perylene	0.099	0.15	ug/l	302, 307A	5 / 27	0.099 - 0.15	0.15	---	110	N	---	---	NO	Below Screening Level
	207-08-9	Benzo(k)fluoranthene	0.10	0.29	ug/l	319, 325	11 / 27	0.10 - 0.29	0.29	---	0.29	C	0.018	NRWQC	NO	Below Screening Level
	117-81-7	Bis(2-ethylhexyl) phthalate	0.71	5.60	ug/l	321	13 / 27	0.71 - 5.60	5.60	---	4.8	C	2.2	NRWQC	YES	Above Screening Level
	105-60-2	Caprolactam	1.00	1.00 J	ug/l	312	1 / 27	1.00 - 5.00	1.00	---	1800	N	---	---	NO	Below Screening Level
	86-74-8	Carbazole	1.10	2.10 J	ug/l	325	2 / 27	1.10 - 5.00	2.10	---	---		---	---	NO	No toxicity information
	218-01-9	Chrysene	0.11	1.10 J	ug/l	325	15 / 27	0.10 - 1.10	1.10	---	2.9	C	0.018	NRWQC	NO	Below Screening Level
	131-11-3	Dimethyl phthalate	1.50	3.40 J	ug/l	324	8 / 27	1.50 - 5.00	3.40	---	365	N	1100000	NRWQC	NO	Below Screening Level
	84-74-2	Di-n-butyl phthalate	1.00	1.40 J	ug/l	301	3 / 27	1.00 - 5.00	1.40	---	370	N	4500	NRWQC	NO	Below Screening Level
	206-44-0	Fluoranthene	0.095	2.30 J	ug/l	325	23 / 27	0.095 - 2.30	2.30	---	150	N	140	NRWQC	NO	Below Screening Level
	86-73-7	Fluorene	0.11	0.19	ug/l	325	15 / 27	0.10 - 0.19	0.19	---	150	N	5300	NRWQC	NO	Below Screening Level
	193-39-5	Indeno(1,2,3-c,d)pyrene	0.097	0.22	ug/l	319	10 / 27	0.097 - 0.22	0.22	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	85-01-8	Phenanthrene	0.10	0.58	ug/l	325	11 / 27	0.10 - 0.58	0.58	---	1100	N	---	---	NO	Below Screening Level
	108-95-2	Phenol	1.30	1.30 J	ug/l	314	1 / 27	1.30 - 5.00	1.30	---	1100	N	860000	NRWQC	NO	Below Screening Level
	129-00-0	Pyrene	0.15	1.50 J	ug/l	325	6 / 27	0.10 - 1.50	1.50	---	110	N	4000	NRWQC	NO	Below Screening Level
	7440-38-2	Arsenic	18.8	23.4	ug/l	309	16 / 25	9.10 - 23.4	23.4	---	0.045	C	0.14	NRWQC	YES	Above Screening Level

TABLE H-2.2

Surface Water in Canal - Dry Weather - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Gowanus Canal																
	7440-39-3	Barium	18.4	22.3 J	ug/l	310	5 / 27	10.0 - 100	22.3	---	730	N	---	---	NO	Below Screening Level
	7440-70-2	Calcium	279000	315000 J	ug/l	312	12 / 27	254000 - 315000	315000	---	---		---	---	NO	Essential Nutrient
	7440-47-3	Chromium	4.00	99.7	ug/l	323	16 / 27	2.00 - 99.7	99.7	---	0.043	C	---	---	YES	Above Screening Level
	7440-50-8	Copper	123	232	ug/l	308B	11 / 27	25.0 - 375	232	---	150	N	---	---	YES	Above Screening Level
	7439-92-1	Lead	1.90	4.90 J	ug/l	323	5 / 27	1.90 - 10.0	4.90	---	15	N	---	---	NO	Below Screening Level
	7439-95-4	Magnesium	809000	998000	ug/l	312	27 / 27	809000 - 998000	998000	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	45.0	72.9	ug/l	310	27 / 27	45.0 - 72.9	72.9	---	88	N	100	NRWQC	NO	Below Screening Level
	7439-97-6	Mercury	0.047	0.06 J	ug/l	324	14 / 27	0.047 - 0.20	0.06	---	1.1	N	0.0007	NYSDEC	NO	Below Screening Level
	7440-02-0	Nickel	2.00	52.3 J	ug/l	323	15 / 27	2.00 - 52.3	52.3	---	73	N	4600	NRWQC	NO	Below Screening Level
	7440-09-7	Potassium	299000	328000 J	ug/l	312	12 / 27	268000 - 328000	328000	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	34.3	50.9	ug/l	322	16 / 26	18.7 - 50.9	50.9	---	18	N	4200	NRWQC	YES	Above Screening Level
	7440-23-5	Sodium	5550000	6620000 J	ug/l	307B	27 / 27	5550000 - 662000(	6620000	---	---		---	---	NO	Essential Nutrient
	7440-28-0	Thallium	2.10	2.10 J	ug/l	318	1 / 27	2.10 - 10.0	2.10	---	---		0.47	NRWQC	NO	No toxicity information
	7440-66-6	Zinc	11.0	25.7 J	ug/l	321	12 / 23	11.0 - 25.7	25.7	---	1100	N	26000	NRWQC	NO	Below Screening Level

TABLE H-2.3
Surface Water in Canal - Wet Weather - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Gowanus Canal																
	120-82-1	1,2,4-trichlorobenzene	0.12	0.12 J	ug/l	305	1 / 26	0.12 - 0.50	0.12	---	0.41	N	70	NRWQC	NO	Below Screening Level
	541-73-1	1,3-dichlorobenzene	0.13	0.13 J	ug/l	303, 305	2 / 26	0.13 - 0.50	0.13	---	37	N	960	NRWQC	NO	Below Screening Level
	106-46-7	1,4-dichlorobenzene	0.12	0.87	ug/l	306	14 / 26	0.12 - 0.87	0.87	---	0.43	C	190	NRWQC	YES	Above Screening Level
	67-64-1	Acetone	12.0	12.0	ug/l	307B	1 / 26	5.00 - 15.0	12.0	---	2200	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	0.36	2.90	ug/l	316	16 / 26	0.36 - 2.90	2.90	---	0.41	C	10	NYSDEC	YES	Above Screening Level
	75-15-0	Carbon disulfide	0.14	0.17 J	ug/l	308B, 313	5 / 26	0.14 - 0.50	0.17	---	100	N	---	---	NO	Below Screening Level
	108-90-7	Chlorobenzene	0.12	0.33 J	ug/l	306	17 / 26	0.12 - 0.50	0.33	---	9.1	N	400	NYSDEC	NO	Below Screening Level
	67-66-3	Chloroform	0.50	0.69	ug/l	321	14 / 26	0.50 - 0.69	0.69	---	0.19	C	470	NRWQC	YES	Above Screening Level
	156-59-2	cis-1,2-dichloroethylene	0.21	0.51	ug/l	319	17 / 26	0.21 - 0.51	0.51	---	37	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	0.18	2.60	ug/l	316	21 / 26	0.18 - 2.60	2.60	---	1.5	C	2100	NRWQC	YES	Above Screening Level
	98-82-8	Isopropylbenzene (cumene)	0.096	0.20 J	ug/l	316	4 / 26	0.096 - 0.50	0.20	---	68	N	---	---	NO	Below Screening Level
	179601-23-1	m, p xylenes	0.18	2.60	ug/l	316	22 / 26	0.18 - 2.60	2.60	---	120	N	---	---	NO	Below Screening Level
	79-20-9	Methyl acetate	0.44	0.44 J	ug/l	317	1 / 26	0.44 - 0.50	0.44	---	3700	N	---	---	NO	Below Screening Level
	75-09-2	Methylene chloride	0.99	3.40	ug/l	321	9 / 26	0.50 - 3.40	3.40	---	4.8	C	200	NYSDEC	NO	Below Screening Level
	95-47-6	o-xylene (1,2-dimethylbenzene)	0.13	5.10	ug/l	316	20 / 26	0.13 - 5.10	5.10	---	120	N	---	---	NO	Below Screening Level
	127-18-4	Tetrachloroethylene(PCE)	0.70	40.0 J	ug/l	319	24 / 26	0.50 - 40.0	40.0	---	0.11	C	3.3	NRWQC	YES	Above Screening Level
	108-88-3	Toluene	0.85	16.0	ug/l	316	24 / 26	0.50 - 16.0	16.0	---	230	N	6000	NYSDEC	NO	Below Screening Level
	10061-02-6	trans-1,3-dichloropropene	0.16	0.16 J	ug/l	306	1 / 26	0.16 - 0.50	0.16	---	0.43	C	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	0.10	0.12 J	ug/l	320	2 / 26	0.10 - 0.50	0.12	---	2	C	30	NRWQC	NO	Below Screening Level
	91-57-6	2-methylnaphthalene	0.17	3.00	ug/l	316	3 / 26	0.10 - 3.00	3.00	---	15	N	---	---	NO	Below Screening Level
	83-32-9	Acenaphthene	0.095	0.40	ug/l	313	20 / 26	0.095 - 1.00	0.40	---	220	N	990	NRWQC	NO	Below Screening Level
	120-12-7	Anthracene	0.095	0.095 J	ug/l	302	1 / 26	0.095 - 1.00	0.095	---	1100	N	40000	NRWQC	NO	Below Screening Level
	56-55-3	Benzo(a)anthracene	0.074	0.15	ug/l	302	4 / 26	0.074 - 1.00	0.15	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	50-32-8	Benzo(a)pyrene	0.14	0.30	ug/l	309	6 / 26	0.10 - 1.00	0.30	---	0.0029	C	0.018	NRWQC	YES	Above Screening Level
	205-99-2	Benzo(b)fluoranthene	0.12	0.33	ug/l	319	16 / 26	0.10 - 1.00	0.33	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	191-24-2	Benzo(g,h,i)perylene	0.13	1.50 J	ug/l	308A	23 / 26	0.10 - 1.50	1.50	---	110	N	---	---	NO	Below Screening Level
	207-08-9	Benzo(k)fluoranthene	0.037	0.12 J	ug/l	319	7 / 26	0.037 - 1.00	0.12	---	0.29	C	0.018	NRWQC	NO	Below Screening Level
	85-68-7	Benzyl butyl phthalate	0.73	1.10 J	ug/l	307A	3 / 26	0.73 - 50.0	1.10	---	35	C	1900	NRWQC	NO	Below Screening Level
	105-60-2	Caprolactam	0.33	1.50 J	ug/l	320	11 / 26	0.33 - 50.0	1.50	---	1800	N	---	---	NO	Below Screening Level
	218-01-9	Chrysene	0.057	0.11	ug/l	302	3 / 26	0.057 - 1.00	0.11	---	2.9	C	0.018	NRWQC	NO	Below Screening Level

TABLE H-2.3
Surface Water in Canal - Wet Weather - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Gowanus Canal																
	53-70-3	Dibenz(a,h)anthracene	0.071	0.11	ug/l	303	4 / 26	0.071 - 1.00	0.11	---	0.0029	C	0.018	NRWQC	YES	Above Screening Level
	84-74-2	Di-n-butyl phthalate	0.28	0.62 J	ug/l	320	12 / 26	0.28 - 50.0	0.62	---	370	N	4500	NRWQC	NO	Below Screening Level
	117-84-0	Di-n-octylphthalate	0.23	0.28 J	ug/l	318	3 / 26	0.23 - 50.0	0.28	---	4.8	N	---	---	NO	Below Screening Level
	206-44-0	Fluoranthene	0.089	0.32	ug/l	313	22 / 26	0.089 - 1.00	0.32	---	150	N	140	NRWQC	NO	Below Screening Level
	86-73-7	Fluorene	0.079	0.32 J	ug/l	313	3 / 26	0.079 - 1.00	0.32	---	150	N	5300	NRWQC	NO	Below Screening Level
	193-39-5	Indeno(1,2,3-c,d)pyrene	0.16	1.10	ug/l	316	23 / 26	0.10 - 1.10	1.10	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	91-20-3	Naphthalene	0.13	1.40	ug/l	316	5 / 26	0.10 - 1.40	1.40	---	0.14	C	---	---	YES	Above Screening Level
	87-86-5	Pentachlorophenol	0.13	0.13 J	ug/l	311	1 / 26	0.13 - 2.00	0.13	---	0.56	C	3	NRWQC	NO	Below Screening Level
	85-01-8	Phenanthrene	0.13	1.40	ug/l	316	14 / 26	0.10 - 1.40	1.40	---	1100	N	---	---	NO	Below Screening Level
	129-00-0	Pyrene	0.10	0.34	ug/l	313	22 / 26	0.10 - 1.00	0.34	---	110	N	4000	NRWQC	NO	Below Screening Level
	7440-38-2	Arsenic	6.90	26.2	ug/l	302	26 / 26	6.90 - 26.2	26.2	---	0.045	C	0.14	NRWQC	YES	Above Screening Level
	7440-39-3	Barium	18.4	42.8 J	ug/l	307A	26 / 26	18.4 - 42.8	42.8	---	730	N	---	---	NO	Below Screening Level
	7440-70-2	Calcium	97200	296000	ug/l	324	24 / 24	97200 - 296000	296000	---	---		---	---	NO	Essential Nutrient
	7440-47-3	Chromium	3.90	29.3 J	ug/l	308B	26 / 26	3.90 - 29.3	29.3	---	0.043	C	---	---	YES	Above Screening Level
	7440-48-4	Cobalt	3.90	3.90 J	ug/l	307A	1 / 26	3.90 - 10.0	3.90	---	1.1	N	---	---	YES	Above Screening Level
	7439-89-6	Iron	651	1040 J	ug/l	317	3 / 26	651 - 1500	1040	---	2600	N	---	---	NO	Below Screening Level
	7439-92-1	Lead	2.90	26.8	ug/l	317	26 / 26	2.90 - 26.8	26.8	---	15	N	---	---	YES	Above Screening Level
	7439-95-4	Magnesium	276000	972000	ug/l	303	25 / 25	276000 - 972000	972000	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	48.4	65.6	ug/l	307A	26 / 26	48.4 - 65.6	65.6	---	88	N	100	NRWQC	NO	Below Screening Level
	7439-97-6	Mercury	0.065	0.089 J	ug/l	302	19 / 26	0.065 - 0.20	0.089	---	1.1	N	0.0007	NYSDEC	NO	Below Screening Level
	7440-02-0	Nickel	2.10	29.8 J	ug/l	308B	25 / 25	2.10 - 29.8	29.8	---	73	N	4600	NRWQC	NO	Below Screening Level
	7440-09-7	Potassium	88700	290000	ug/l	324	24 / 24	88700 - 290000	290000	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	13.9	64.6 J	ug/l	301	26 / 26	13.9 - 64.6	64.6	---	18	N	4200	NRWQC	YES	Above Screening Level
	7440-23-5	Sodium	2340000	7090000 J	ug/l	301	25 / 25	2340000 - 709000(	7090000	---	---		---	---	NO	Essential Nutrient
	7440-66-6	Zinc	17.7	75.7 J	ug/l	318	24 / 26	17.7 - 75.7	75.7	---	1100	N	26000	NRWQC	NO	Below Screening Level

TABLE H-2.4

Ambient Air at Canal Level, Round 1 - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Ambient air at Canal level																
	67-64-1	Acetone	22.0	60.0	ug/m3	506	10 / 10	22.0 - 60.0	60.0	---	3200	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	0.69	1.10	ug/m3	501	10 / 10	0.69 - 1.10	1.10	---	0.31	C	---	---	YES	Above Screening Level
	75-25-2	Bromoform	0.12	0.12	ug/m3	505	1 / 10	0.10 - 0.52	0.12	---	2.2	C	---	---	NO	Below Screening Level
	75-15-0	Carbon disulfide	2.70	2.70	ug/m3	508	1 / 10	1.60 - 2.70	2.70	---	73	N	---	---	NO	Below Screening Level
	67-66-3	Chloroform	0.16	0.28	ug/m3	501	7 / 10	0.16 - 0.28	0.28	---	0.11	C	---	---	YES	Above Screening Level
	74-87-3	Chloromethane	1.70	3.10	ug/m3	504	10 / 10	1.70 - 3.10	3.10	---	9.4	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	0.48	5.10	ug/m3	508	10 / 10	0.48 - 5.10	5.10	---	0.97	C	---	---	YES	Above Screening Level
	78-93-3	Methyl ethyl ketone (2-butanone)	1.70	4.30	ug/m3	504	10 / 10	1.70 - 4.30	4.30	---	520	N	---	---	NO	Below Screening Level
	75-09-2	Methylene chloride	1.80	4.50 J	ug/m3	501	6 / 10	1.70 - 4.50	4.50	---	5.2	C	---	---	NO	Below Screening Level
	108-88-3	Toluene	2.70	8.50	ug/m3	507	10 / 10	2.70 - 8.50	8.50	---	520	N	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	0.069	0.90	ug/m3	507	7 / 10	0.069 - 0.90	0.90	---	1.2	C	---	---	NO	Below Screening Level
	1330-20-7	Xylene, total	1.80	16.0	ug/m3	508	10 / 10	1.80 - 16.0	16.0	---	10	N	---	---	YES	Above Screening Level
	83-32-9	Acenaphthene	0.057	5.70	ug/m3	502	10 / 10	0.057 - 5.70	5.70	---	---		---	---	NO	No toxicity information
	208-96-8	Acenaphthylene	0.0014	0.049 J	ug/m3	502	10 / 10	0.0014 - 0.049	0.049	---	---		---	---	NO	No toxicity information
	120-12-7	Anthracene	0.0042	0.37	ug/m3	502	10 / 10	0.0042 - 0.37	0.37	---	---		---	---	NO	No toxicity information
	56-55-3	Benzo(a)anthracene	0.002	0.0023 J	ug/m3	501	2 / 10	0.002 - 0.094	0.0023	---	0.0087	C	---	---	NO	Below Screening Level
	205-99-2	Benzo(b)fluoranthene	0.0025	0.0025 J	ug/m3	501	1 / 10	0.0025 - 0.094	0.0025	---	0.0087	C	---	---	NO	Below Screening Level
	218-01-9	Chrysene	0.0088	0.0088 J	ug/m3	502	1 / 10	0.0088 - 0.094	0.0088	---	0.087	C	---	---	NO	Below Screening Level
	206-44-0	Fluoranthene	0.019	1.00	ug/m3	502	10 / 10	0.019 - 1.00	1.00	---	---		---	---	NO	No toxicity information
	86-73-7	Fluorene	0.034	4.70	ug/m3	502	10 / 10	0.034 - 4.70	4.70	---	---		---	---	NO	No toxicity information
	91-20-3	Naphthalene	0.19	3.40	ug/m3	503	10 / 10	0.19 - 3.40	3.40	---	0.072	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	0.084	6.50	ug/m3	502	10 / 10	0.084 - 6.50	6.50	---	---		---	---	NO	No toxicity information
	129-00-0	Pyrene	0.014	0.55	ug/m3	502	10 / 10	0.014 - 0.55	0.55	---	---		---	---	NO	No toxicity information

TABLE H-2.5

Ambient Air at Canal Level, Round 2 - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Ambient air at Canal level																
	67-64-1	Acetone	24.0	300	ug/m3	509	10 / 10	24.0 - 300	300	---	3200	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	0.64	3.80	ug/m3	510	10 / 10	0.64 - 3.80	3.80	---	0.31	C	---	---	YES	Above Screening Level
	75-15-0	Carbon disulfide	3.30	3.30	ug/m3	503	1 / 10	1.60 - 7.80	3.30	---	73	N	---	---	NO	Below Screening Level
	67-66-3	Chloroform	0.16	0.24	ug/m3	503	8 / 10	0.098 - 0.24	0.24	---	0.11	C	---	---	YES	Above Screening Level
	74-87-3	Chloromethane	1.60	2.20	ug/m3	506, 510	8 / 10	1.60 - 5.20	2.20	---	9.4	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	0.41	4.40	ug/m3	510	10 / 10	0.41 - 4.40	4.40	---	0.97	C	---	---	YES	Above Screening Level
	78-93-3	Methyl ethyl ketone (2-butanone)	2.70	18.0	ug/m3	509	10 / 10	2.70 - 18.0	18.0	---	520	N	---	---	NO	Below Screening Level
	75-09-2	Methylene chloride	1.90	2.00 J	ug/m3	506	2 / 10	1.70 - 8.70	2.00	---	5.2	C	---	---	NO	Below Screening Level
	108-88-3	Toluene	5.00	25.0	ug/m3	510	9 / 10	3.80 - 25.0	25.0	---	520	N	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	0.096	0.20	ug/m3	505	8 / 10	0.096 - 0.27	0.20	---	1.2	C	---	---	NO	Below Screening Level
	1330-20-7	Xylene, total	2.90	28.0	ug/m3	510	9 / 10	2.90 - 28.0	28.0	---	10	N	---	---	YES	Above Screening Level
	83-32-9	Acenaphthene	0.084	3.30 J	ug/m3	502	8 / 8	0.084 - 3.30	3.30	---	---		---	---	NO	No toxicity information
	208-96-8	Acenaphthylene	0.0043	0.04 J	ug/m3	502	8 / 8	0.0043 - 0.04	0.04	---	---		---	---	NO	No toxicity information
	120-12-7	Anthracene	0.0054	0.15 J	ug/m3	502	8 / 8	0.0054 - 0.15	0.15	---	---		---	---	NO	No toxicity information
	56-55-3	Benzo(a)anthracene	0.0024	0.0033 J	ug/m3	509	3 / 8	0.0024 - 0.071	0.0033	---	0.0087	C	---	---	NO	Below Screening Level
	218-01-9	Chrysene	0.0043	0.0043 J	ug/m3	505	1 / 8	0.0043 - 0.071	0.0043	---	0.087	C	---	---	NO	Below Screening Level
	206-44-0	Fluoranthene	0.021	0.45 J	ug/m3	502	8 / 8	0.021 - 0.45	0.45	---	---		---	---	NO	No toxicity information
	86-73-7	Fluorene	0.056	2.30 J	ug/m3	502	8 / 8	0.056 - 2.30	2.30	---	---		---	---	NO	No toxicity information
	91-20-3	Naphthalene	0.47	2.60 J	ug/m3	503	8 / 8	0.47 - 2.60	2.60	---	0.072	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	0.098	3.00 J	ug/m3	502	8 / 8	0.098 - 3.00	3.00	---	---		---	---	NO	No toxicity information
	129-00-0	Pyrene	0.014	0.23 J	ug/m3	502	8 / 8	0.014 - 0.23	0.23	---	---		---	---	NO	No toxicity information

TABLE H-2.6

Ambient Air at Street Level, Round 1 - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Ambient air at Street Level																
	67-64-1	Acetone	25.0	53.0	ug/m3	510	10 / 10	25.0 - 53.0	53.0	---	3200	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	0.61	2.30	ug/m3	501	10 / 10	0.61 - 2.30	2.30	---	0.31	C	---	---	YES	Above Screening Level
	75-25-2	Bromoform	0.37	0.37	ug/m3	503	1 / 10	0.10 - 0.52	0.37	---	2.2	C	---	---	NO	Below Screening Level
	75-15-0	Carbon disulfide	2.60	3.80	ug/m3	504	2 / 10	1.60 - 3.80	3.80	---	73	N	---	---	NO	Below Screening Level
	67-66-3	Chloroform	0.17	0.39	ug/m3	501	6 / 10	0.17 - 0.39	0.39	---	0.11	C	---	---	YES	Above Screening Level
	74-87-3	Chloromethane	1.80	3.00	ug/m3	502	10 / 10	1.80 - 3.00	3.00	---	9.4	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	0.56	1.70	ug/m3	501	10 / 10	0.56 - 1.70	1.70	---	0.97	C	---	---	YES	Above Screening Level
	78-93-3	Methyl ethyl ketone (2-butanone)	1.90	11.0	ug/m3	510	10 / 10	1.90 - 11.0	11.0	---	520	N	---	---	NO	Below Screening Level
	75-09-2	Methylene chloride	1.70	5.10 J	ug/m3	501	5 / 10	1.70 - 5.10	5.10	---	5.2	C	---	---	NO	Below Screening Level
	108-88-3	Toluene	3.00	6.20	ug/m3	501	10 / 10	3.00 - 6.20	6.20	---	520	N	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	0.06	0.74	ug/m3	507	5 / 10	0.054 - 0.74	0.74	---	1.2	C	---	---	NO	Below Screening Level
	1330-20-7	Xylene, total	2.00	6.80	ug/m3	501	10 / 10	2.00 - 6.80	6.80	---	10	N	---	---	NO	Below Screening Level
	83-32-9	Acenaphthene	0.037	0.61	ug/m3	505	10 / 10	0.037 - 0.61	0.61	---	---		---	---	NO	No toxicity information
	208-96-8	Acenaphthylene	0.0016	0.018 J	ug/m3	507	10 / 10	0.0016 - 0.018	0.018	---	---		---	---	NO	No toxicity information
	120-12-7	Anthracene	0.0029	0.043 J	ug/m3	507	10 / 10	0.0029 - 0.043	0.043	---	---		---	---	NO	No toxicity information
	206-44-0	Fluoranthene	0.012	0.094	ug/m3	505	10 / 10	0.012 - 0.094	0.094	---	---		---	---	NO	No toxicity information
	86-73-7	Fluorene	0.03	0.31	ug/m3	505	10 / 10	0.03 - 0.31	0.31	---	---		---	---	NO	No toxicity information
	91-20-3	Naphthalene	0.10	1.30	ug/m3	503, 505	10 / 10	0.10 - 1.30	1.30	---	0.072	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	0.059	0.55	ug/m3	509	10 / 10	0.059 - 0.55	0.55	---	---		---	---	NO	No toxicity information
	129-00-0	Pyrene	0.0088	0.06 J	ug/m3	505	10 / 10	0.0088 - 0.06	0.06	---	---		---	---	NO	No toxicity information

TABLE H-2.7

Ambient Air at Street Level, Round 1 - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Ambient air at Street Level																
	67-64-1	Acetone	23.0	460	ug/m3	507	10 / 10	23.0 - 460	460	---	3200	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	0.67	1.40	ug/m3	510	10 / 10	0.67 - 1.40	1.40	---	0.31	C	---	---	YES	Above Screening Level
	67-66-3	Chloroform	0.16	0.45	ug/m3	505	9 / 10	0.16 - 0.45	0.45	---	0.11	C	---	---	YES	Above Screening Level
	74-87-3	Chloromethane	1.40	2.50	ug/m3	502	8 / 10	1.40 - 5.20	2.50	---	9.4	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	0.56	1.80	ug/m3	510	10 / 10	0.56 - 1.80	1.80	---	0.97	C	---	---	YES	Above Screening Level
	78-93-3	Methyl ethyl ketone (2-butanone)	2.30	30.0	ug/m3	507	10 / 10	2.30 - 30.0	30.0	---	520	N	---	---	NO	Below Screening Level
	75-09-2	Methylene chloride	2.00	2.00 J	ug/m3	506	1 / 10	1.70 - 8.70	2.00	---	5.2	C	---	---	NO	Below Screening Level
	108-88-3	Toluene	5.00	7.50	ug/m3	504, 505	6 / 10	3.70 - 7.50	7.50	---	520	N	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	0.06	0.60	ug/m3	502	8 / 10	0.06 - 0.60	0.60	---	1.2	C	---	---	NO	Below Screening Level
	1330-20-7	Xylene, total	2.40	7.60	ug/m3	510	10 / 10	2.40 - 7.60	7.60	---	10	N	---	---	NO	Below Screening Level
	83-32-9	Acenaphthene	0.079	1.30	ug/m3	507	10 / 10	0.079 - 1.30	1.30	---	---		---	---	NO	No toxicity information
	208-96-8	Acenaphthylene	0.0019	0.14	ug/m3	507	10 / 10	0.0019 - 0.14	0.14	---	---		---	---	NO	No toxicity information
	120-12-7	Anthracene	0.004	0.11	ug/m3	507	10 / 10	0.004 - 0.11	0.11	---	---		---	---	NO	No toxicity information
	206-44-0	Fluoranthene	0.018	0.20	ug/m3	509	10 / 10	0.018 - 0.20	0.20	---	---		---	---	NO	No toxicity information
	86-73-7	Fluorene	0.057	0.63	ug/m3	507	10 / 10	0.057 - 0.63	0.63	---	---		---	---	NO	No toxicity information
	91-20-3	Naphthalene	0.26	4.40	ug/m3	507	10 / 10	0.26 - 4.40	4.40	---	0.072	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	0.099	0.87	ug/m3	509	10 / 10	0.099 - 0.87	0.87	---	---		---	---	NO	No toxicity information
	129-00-0	Pyrene	0.0093	0.11	ug/m3	509	10 / 10	0.0093 - 0.11	0.11	---	---		---	---	NO	No toxicity information

TABLE H-2.8
Striped Bass Filet from Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Striped Bass in Gowanus Canal																
	5103-71-9	Alpha-chlordane	5.10	8.20 J	ug/kg	GC-TI406-SB	2 / 4	1.70 - 8.20	8.20	---	9	C	---	---	NO	Below Screening Level
	5103-74-2	Gamma-chlordane	3.50	3.50 J	ug/kg	GC-TI403-SB	1 / 5	1.70 - 3.50	3.50	---	9	C	---	---	NO	Below Screening Level
	72-54-8	P,P'-DDD	4.80	5.60 J	ug/kg	GC-TI406-SB	3 / 4	3.30 - 5.60	5.60	---	13	C	---	---	NO	Below Screening Level
	72-55-9	P,P'-DDE	4.80	12.0 NJ	ug/kg	GC-TI406-SB	5 / 5	4.80 - 12.0	12.0	---	9.3	C	---	---	YES	Above Screening Level
	50-29-3	P,P'-DDT	9.60	9.60 NJ	ug/kg	GC-TI403-SB	1 / 5	3.30 - 9.60	9.60	---	9.3	C	---	---	YES	Above Screening Level
	PCBDioxin	PCB Dioxin	2.83	4.31	ng/kg	GC-TI406-SB	5 / 5	2.83 - 4.31	4.31	---	0.020	C	---	---	YES	Above Screening Level
	PCBNonDioxin	PCB Nondioxin	244000	409000	ng/kg	GC-TI403-SB	5 / 5	244000 - 409000	409000	---	1600	C	---	---	YES	Above Screening Level
	PCBTotalCongen	Total PCB Congeners	263000	435000	ng/kg	GC-TI403-SB	5 / 5	263000 - 435000	435000	---	1600	C	---	---	YES	Above Screening Level
	7440-38-2	Arsenic	0.45	0.68 J	mg/kg	GC-TI403-SB	3 / 5	0.45 - 0.98	0.68	---	0.0021	C	---	---	YES	Above Screening Level
	7440-70-2	Calcium	197	541 J	mg/kg	GC-TI403-SB	5 / 5	197 - 541	541	---	---		---	---	NO	Essential Nutrient
	7439-95-4	Magnesium	190	343 J	mg/kg	GC-TI401-SB	5 / 5	190 - 343	343	---	---		---	---	NO	Essential Nutrient
	7439-97-6	Mercury	0.15	0.20	mg/kg	GC-TI406-SB	4 / 5	0.15 - 0.48	0.20	---	0.022	N	---	---	YES	Above Screening Level
	7440-09-7	Potassium	2070	3970	mg/kg	GC-TI406-SB	5 / 5	2070 - 3970	3970	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	1.20	1.20 J	mg/kg	GC-TI403-SB, GC-TI406-SB	2 / 5	1.20 - 3.50	1.20	---	0.68	N	---	---	YES	Above Screening Level
	7440-23-5	Sodium	468	1060	mg/kg	GC-TI403-SB	5 / 5	468 - 1060	1060	---	---		---	---	NO	Essential Nutrient
	7440-66-6	Zinc	3.90	16.4	mg/kg	GC-TI403-SB	5 / 5	3.90 - 16.4	16.4	---	41	N	---	---	NO	Below Screening Level
	57-12-5	Cyanide, Total	0.28	0.63 J	mg/kg	GC-TI401-SB	3 / 5	0.28 - 2.50	0.63	---	2.7	N	---	---	NO	Below Screening Level

TABLE H-2.9

White Perch Filet from Canal - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
White Perch in Gowanus Canal																
	5103-74-2	Gamma-chlordane	5.00	5.00 J	ug/kg	GC-TI401-WP	1 / 2	1.70 - 5.00	5.00	---	9	C	---	---	NO	Below Screening Level
	72-55-9	P,P'-DDE	6.00	7.00 NJ	ug/kg	GC-TI401-WP	2 / 2	6.00 - 7.00	7.00	---	9.3	C	---	---	NO	Below Screening Level
	PCBDioxin	PCB Dioxin	4.46	5.08	ng/kg	GC-TI401-WP	2 / 2	4.46 - 5.08	5.08	---	0.020	C	---	---	YES	Above Screening Level
	PCBNonDioxin	PCB Nondioxin	302000	437000	ng/kg	GC-TI401-WP	2 / 2	302000 - 437000	437000	---	1600	C	---	---	YES	Above Screening Level
	PCBTotalCongen	Total PCB Congeners	324000	462000	ng/kg	GC-TI401-WP	2 / 2	324000 - 462000	462000	---	1600	C	---	---	YES	Above Screening Level
	7440-70-2	Calcium	318	4220 J	mg/kg	GC-TI401-WP	2 / 2	318 - 4220	4220	---	---		---	---	NO	Essential Nutrient
	7440-50-8	Copper	0.90	1.30 J	mg/kg	GC-TI401-WP	2 / 2	0.90 - 1.30	1.30	---	5.4	N	---	---	NO	Below Screening Level
	7439-95-4	Magnesium	245	362 J	mg/kg	GC-TI401-WP	2 / 2	245 - 362	362	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	5.20	5.20	mg/kg	GC-TI401-WP	1 / 2	1.50 - 5.20	5.20	---	19	N	---	---	NO	Below Screening Level
	7439-97-6	Mercury	0.16	0.19	mg/kg	GC-TI401-WP	2 / 2	0.16 - 0.19	0.19	---	0.022	N	---	---	YES	Above Screening Level
	7440-09-7	Potassium	2550	2590	mg/kg	GC-TI401-WP	2 / 2	2550 - 2590	2590	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	1.40	1.40 J	mg/kg	GC-TI401-WP	1 / 2	1.40 - 3.40	1.40	---	0.68	N	---	---	YES	Above Screening Level
	7440-23-5	Sodium	628	823	mg/kg	GC-TI401-WP	2 / 2	628 - 823	823	---	---		---	---	NO	Essential Nutrient
	7440-66-6	Zinc	5.10	9.50	mg/kg	GC-TI401-WP	2 / 2	5.10 - 9.50	9.50	---	41	N	---	---	NO	Below Screening Level
	57-12-5	Cyanide, Total	0.22	0.91 J	mg/kg	GC-TI401-WP	2 / 2	0.22 - 0.91	0.91	---	2.7	N	---	---	NO	Below Screening Level

TABLE H-2.10

Atlantic Eel Filet from Canal - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Eel in Gowanus Canal																
	5103-71-9	Alpha-chlordane	10.0	22.0 J	ug/kg	GC-TI402-XAE	3 / 4	1.70 - 22.0	22.0	---	9	C	---	---	YES	Above Screening Level
	60-57-1	Dieldrin	5.00	17.0 J	ug/kg	GC-TI402-XAE	5 / 6	3.30 - 17.0	17.0	---	0.2	C	---	---	YES	Above Screening Level
	5103-74-2	Gamma-chlordane	9.90	13.0 J	ug/kg	GC-TI403-XAE	2 / 3	1.70 - 13.0	13.0	---	9	C	---	---	YES	Above Screening Level
	72-43-5	Methoxychlor	34.0	39.0 J	ug/kg	GC-TI403-XAE	2 / 6	17.0 - 39.0	39.0	---	680	N	---	---	NO	Below Screening Level
	72-54-8	P,P'-DDD	13.0	38.0 NJ	ug/kg	GC-TI403-XAE	4 / 4	13.0 - 38.0	38.0	---	13	C	---	---	YES	Above Screening Level
	72-55-9	P,P'-DDE	16.0	25.0 J	ug/kg	GC-TI403-XAE	4 / 5	3.30 - 25.0	25.0	---	9.3	C	---	---	YES	Above Screening Level
	50-29-3	P,P'-DDT	30.0	47.0 J	ug/kg	GC-TI406-XAE	2 / 4	3.30 - 47.0	47.0	---	9.3	C	---	---	YES	Above Screening Level
	PCBDioxin	PCB Dioxin	4.73	14.1	ng/kg	GC-TI406-XAE	6 / 6	4.73 - 14.1	14.1	---	0.020	C	---	---	YES	Above Screening Level
	PCBNonDioxin	PCB Nondioxin	480000	1220000	ng/kg	GC-TI406-XAE	6 / 6	480000 - 1220000	1220000	---	1600	C	---	---	YES	Above Screening Level
	PCBTotalCongen	Total PCB Congeners	519000	1350000	ng/kg	GC-TI406-XAE	6 / 6	519000 - 1350000	1350000	---	1600	C	---	---	YES	Above Screening Level
	7440-38-2	Arsenic	0.50	0.50 J	mg/kg	GC-TI402-XAE	1 / 6	0.50 - 0.98	0.50	---	0.0021	C	---	---	YES	Above Screening Level
	7440-70-2	Calcium	198	295 J	mg/kg	GC-TI402-XAE	3 / 6	198 - 485	295	---	---		---	---	NO	Essential Nutrient
	7440-47-3	Chromium	0.53	0.67 J	mg/kg	GC-TI402-XAE	2 / 6	0.53 - 0.97	0.67	---	0.0063	C	---	---	YES	Above Screening Level
	7440-50-8	Copper	0.86	7.40	mg/kg	GC-TI402-XAE	3 / 6	0.86 - 7.40	7.40	---	5.4	N	---	---	YES	Above Screening Level
	7439-89-6	Iron	12.7	12.7	mg/kg	GC-TI402-XAE	1 / 6	9.70 - 12.7	12.7	---	95	N	---	---	NO	Essential Nutrient
	7439-95-4	Magnesium	169	278 J	mg/kg	GC-TI403-XAE	4 / 6	169 - 485	278	---	---		---	---	NO	Essential Nutrient
	7439-97-6	Mercury	0.056	0.26	mg/kg	GC-TI406-XAE	6 / 6	0.056 - 0.26	0.26	---	0.022	N	---	---	YES	Above Screening Level
	7440-09-7	Potassium	1960	3570	mg/kg	GC-TI403-XAE	6 / 6	1960 - 3570	3570	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	1.20	1.40 J	mg/kg	GC-TI403-XAE	2 / 6	1.20 - 3.40	1.40	---	0.68	N	---	---	YES	Above Screening Level
	7440-23-5	Sodium	524	944	mg/kg	GC-TI403-XAE	6 / 6	524 - 944	944	---	---		---	---	NO	Essential Nutrient
	7440-66-6	Zinc	11.5	29.7	mg/kg	GC-TI403-XAE	6 / 6	11.5 - 29.7	29.7	---	41	N	---	---	NO	Below Screening Level
	57-12-5	Cyanide, Total	0.30	3.10	mg/kg	GC-TI403-XAE	6 / 6	0.30 - 3.10	3.10	---	2.7	N	---	---	YES	Above Screening Level

TABLE H-2.11

Blue Crab Edible Tissue and Hepatopancreas from Canal - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Crab in Gowanus Canal																
	83-32-9	Acenaphthene	23.8	73.0	ug/kg	GC-TI401-BC	12 / 12	23.8 - 73.0	73.0	---	8100	N	---	---	NO	Below Screening Level
	208-96-8	Acenaphthylene	6.07	14.3	ug/kg	GC-TI401-BC	6 / 12	3.64 - 14.3	14.3	---	8100	N	---	---	NO	Below Screening Level
	120-12-7	Anthracene	3.85	12.4	ug/kg	GC-TI401-BC	12 / 12	3.85 - 12.4	12.4	---	41000	N	---	---	NO	Below Screening Level
	56-55-3	Benzo(a)anthracene	4.75	15.7	ug/kg	GC-TI402-BC	5 / 12	2.87 - 15.7	15.7	---	4.3	C	---	---	YES	Above Screening Level
	50-32-8	Benzo(a)pyrene	5.45	17.5	ug/kg	GC-TI402-BC	11 / 12	4.53 - 17.5	17.5	---	0.43	C	---	---	YES	Above Screening Level
	205-99-2	Benzo(b)fluoranthene	4.82	9.61	ug/kg	GC-TI402-BC	9 / 12	2.74 - 9.61	9.61	---	4.3	C	---	---	YES	Above Screening Level
	191-24-2	Benzo(g,h,i)perylene	13.6	28.2	ug/kg	GC-TI401-BC	12 / 12	13.6 - 28.2	28.2	---	4100	N	---	---	NO	Below Screening Level
	207-08-9	Benzo(k)fluoranthene	3.65	8.76	ug/kg	GC-TI402-BC	8 / 12	2.44 - 8.76	8.76	---	43	C	---	---	NO	Below Screening Level
	218-01-9	Chrysene	5.03	13.6	ug/kg	GC-TI402-BC	8 / 12	2.91 - 13.6	13.6	---	430	C	---	---	NO	Below Screening Level
	53-70-3	Dibenz(a,h)anthracene	2.59	5.13	ug/kg	GC-TI402-BC	12 / 12	2.59 - 5.13	5.13	---	0.43	C	---	---	YES	Above Screening Level
	206-44-0	Fluoranthene	8.44	21.9	ug/kg	GC-TI402-BC	12 / 12	8.44 - 21.9	21.9	---	5400	N	---	---	NO	Below Screening Level
	86-73-7	Fluorene	6.43	26.8	ug/kg	GC-TI404-BC	12 / 12	6.43 - 26.8	26.8	---	5400	N	---	---	NO	Below Screening Level
	193-39-5	Indeno(1,2,3-c,d)pyrene	7.46	12.3	ug/kg	GC-TI402-BC	12 / 12	7.46 - 12.3	12.3	---	4.3	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	12.2	44.1	ug/kg	GC-TI401-BC	12 / 12	12.2 - 44.1	44.1	---	41000	N	---	---	NO	Below Screening Level
	129-00-0	Pyrene	9.88	28.6	ug/kg	GC-TI401-BC	12 / 12	9.88 - 28.6	28.6	---	4100	N	---	---	NO	Below Screening Level
	72-55-9	P,P'-DDE	2.05	2.79	ug/kg	GC-TI402-BC	12 / 12	2.05 - 2.79	2.79	---	9.3	C	---	---	NO	Below Screening Level
	PCBDioxin	PCB Dioxin	3.91	5.54	ng/kg	GC-TI405-BC	12 / 12	3.91 - 5.54	5.54	---	0.020	C	---	---	YES	Above Screening Level
	PCBNonDioxin	PCB Nondioxin	115000	167000	ng/kg	GC-TI405-BC	12 / 12	115000 - 167000	167000	---	1600	C	---	---	YES	Above Screening Level
	PCBTotalCongen	Total PCB Congeners	133000	194000	ng/kg	GC-TI405-BC	12 / 12	133000 - 194000	194000	---	1600	C	---	---	YES	Above Screening Level
	7440-38-2	Arsenic	0.902	1.47	mg/kg	GC-TI401-BC	12 / 12	0.902 - 1.47	1.47	---	0.0021	C	---	---	YES	Above Screening Level
	7440-70-2	Calcium	1050	1740	mg/kg	GC-TI406-BC	12 / 12	1050 - 1740	1740	---	---		---	---	NO	Essential Nutrient
	7440-50-8	Copper	8.19	11.7	mg/kg	GC-TI406-BC	12 / 12	8.19 - 11.7	11.7	---	5.4	N	---	---	YES	Above Screening Level
	7439-89-6	Iron	8.43	13.3	mg/kg	GC-TI406-BC	6 / 12	7.96 - 13.3	13.3	---	95	N	---	---	NO	Essential Nutrient
	7439-95-4	Magnesium	318	395	mg/kg	GC-TI406-BC	12 / 12	318 - 395	395	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	2.20	3.24	mg/kg	GC-TI405-BC	12 / 12	2.20 - 3.24	3.24	---	19	N	---	---	NO	Below Screening Level
	7439-97-6	Mercury	0.0792	0.142	mg/kg	GC-TI402-BC	12 / 12	0.0792 - 0.142	0.142	---	0.022	N	---	---	YES	Above Screening Level
	7440-09-7	Potassium	1910	2390	mg/kg	GC-TI406-BC	12 / 12	1910 - 2390	2390	---	---		---	---	NO	Essential Nutrient
	7440-22-4	Silver	0.421	0.463	mg/kg	GC-TI401-BC	2 / 12	0.421 - 0.497	0.463	---	0.68	N	---	---	NO	Below Screening Level
	7440-23-5	Sodium	2630	3490	mg/kg	GC-TI401-BC, GC-TI402-BC	12 / 12	2630 - 3490	3490	---	---		---	---	NO	Essential Nutrient
	7440-66-6	Zinc	18.9	24.0	mg/kg	GC-TI406-BC	12 / 12	18.9 - 24.0	24.0	---	41	N	---	---	NO	Below Screening Level

TABLE H-2.11

Blue Crab Edible Tissue and Hepatopancreas from Canal - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Crab in Gowanus Canal																
	57-12-5	Cyanide, Total	0.527	0.847	mg/kg	GC-TI401-BC	10 / 12	0.527 - 1.25	0.847	---	2.7	N	---	---	NO	Below Screening Level

TABLE H-2.12
All Surface Sediment in Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Overflow Surface Sediment

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow																
	107-06-2	1,2-dichloroethane	3.90	45.0 J	ug/kg	323	6 / 27	3.90 - 45.0	45.0	---	430	C	---	---	NO	Below Screening Level
	106-46-7	1,4-dichlorobenzene	7.60	240 J	ug/kg	301	3 / 26	5.00 - 240	240	---	2400	C	---	---	NO	Below Screening Level
	67-64-1	Acetone	21.0	90.0	ug/kg	314	11 / 27	9.90 - 90.0	90.0	---	6100000	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	6.80	110 J	ug/kg	304	4 / 27	5.00 - 110	110	---	1100	C	---	---	NO	Below Screening Level
	75-15-0	Carbon disulfide	4.70	89.0	ug/kg	314	9 / 27	4.70 - 89.0	89.0	---	82000	N	---	---	NO	Below Screening Level
	108-90-7	Chlorobenzene	53.0	53.0	ug/kg	301	1 / 27	5.00 - 53.0	53.0	---	29000	N	---	---	NO	Below Screening Level
	110-82-7	Cyclohexane	8.00	14.0 J	ug/kg	304	3 / 27	5.00 - 23.0	14.0	---	120000	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	5.30	3600 J	ug/kg	315	8 / 27	5.00 - 3600	3600	---	5400	C	---	---	NO	Below Screening Level
	98-82-8	Isopropylbenzene (cumene)	4.60	760 J	ug/kg	315	7 / 27	4.60 - 760	760	---	210000	N	---	---	NO	Below Screening Level
	179601-23-1	m, p xylenes	5.40	810 J	ug/kg	315	5 / 27	5.00 - 810	810	---	340000	N	---	---	NO	Below Screening Level
	108-87-2	Methylcyclohexane	15.0	170 J	ug/kg	314	3 / 27	5.00 - 170	170	---	---		---	---	NO	No toxicity information
	75-09-2	Methylene chloride	2.20	7.70 J	ug/kg	306	6 / 27	2.20 - 23.0	7.70	---	11000	C	---	---	NO	Below Screening Level
	95-47-6	o-xylene (1,2-dimethylbenzene)	19.0	1200 J	ug/kg	315	5 / 27	5.00 - 1200	1200	---	380000	N	---	---	NO	Below Screening Level
	1634-04-4	Tert-butyl methyl ether	34.0	34.0 J	ug/kg	304	1 / 27	5.00 - 34.0	34.0	---	43000	C	---	---	NO	Below Screening Level
	127-18-4	Tetrachloroethylene(PCE)	5.80	11.0 J	ug/kg	302	2 / 27	5.00 - 23.0	11.0	---	550	C	---	---	NO	Below Screening Level
	108-88-3	Toluene	5.80	36.0 J	ug/kg	314	4 / 27	5.00 - 36.0	36.0	---	500000	N	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	4.20	4.20 J	ug/kg	301	1 / 27	4.20 - 23.0	4.20	---	2800	C	---	---	NO	Below Screening Level
	75-69-4	Trichlorofluoromethane	4.60	8.90 J	ug/kg	302	3 / 27	4.60 - 23.0	8.90	---	79000	N	---	---	NO	Below Screening Level
	91-57-6	2-methylnaphthalene	190	870000 J	ug/kg	315	16 / 27	120 - 870000	870000	---	31000	N	---	---	YES	Above Screening Level
	83-32-9	Acenaphthene	160	580000 J	ug/kg	315	21 / 27	160 - 580000	580000	---	340000	N	---	---	YES	Above Screening Level
	208-96-8	Acenaphthylene	270	150000 J	ug/kg	314	14 / 27	160 - 150000	150000	---	340000	N	---	---	NO	Below Screening Level
	120-12-7	Anthracene	330	610000 J	ug/kg	315	24 / 27	250 - 610000	610000	---	1700000	N	---	---	NO	Below Screening Level
	56-55-3	Benzo(a)anthracene	1100	490000 J	ug/kg	315	27 / 27	1100 - 490000	490000	---	150	C	---	---	YES	Above Screening Level
	50-32-8	Benzo(a)pyrene	1200	200000 J	ug/kg	314	26 / 27	250 - 200000	200000	---	15	C	---	---	YES	Above Screening Level
	205-99-2	Benzo(b)fluoranthene	1000	210000 J	ug/kg	314	26 / 27	250 - 210000	210000	---	150	C	---	---	YES	Above Screening Level
	191-24-2	Benzo(g,h,i)perylene	610	74000 J	ug/kg	314	26 / 27	260 - 74000	74000	---	170000	N	---	---	NO	Below Screening Level
	207-08-9	Benzo(k)fluoranthene	820	120000 J	ug/kg	314	26 / 27	250 - 120000	120000	---	1500	C	---	---	YES	Above Screening Level
	92-52-4	Biphenyl (diphenyl)	650	71000 J	ug/kg	315	2 / 27	650 - 230000	71000	---	210000	N	---	---	NO	Below Screening Level
	117-81-7	Bis(2-ethylhexyl) phthalate	2600	57000 J	ug/kg	314	21 / 27	2600 - 160000	57000	---	35000	C	---	---	YES	Above Screening Level
	86-74-8	Carbazole	1400	1400 J	ug/kg	308A	1 / 27	1400 - 230000	1400	---	---		---	---	NO	No toxicity information

TABLE H-2.12
All Surface Sediment in Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Overflow Surface Sediment

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow																
	218-01-9	Chrysene	730	490000 J	ug/kg	315	27 / 27	730 - 490000	490000	---	15000	C	---	---	YES	Above Screening Level
	53-70-3	Dibenz(a,h)anthracene	200	14000	ug/kg	314	23 / 27	200 - 14000	14000	---	15	C	---	---	YES	Above Screening Level
	132-64-9	Dibenzofuran	1100	1100 J	ug/kg	319	1 / 27	1100 - 230000	1100	---	7800	N	---	---	NO	Below Screening Level
	84-74-2	Di-n-butyl phthalate	510	550 J	ug/kg	318	2 / 27	510 - 230000	550	---	610000	N	---	---	NO	Below Screening Level
	117-84-0	Di-n-octylphthalate	9300	9300 J	ug/kg	307A	1 / 27	6200 - 230000	9300	---	35000	N	---	---	NO	Below Screening Level
	206-44-0	Fluoranthene	1200	630000 J	ug/kg	314	27 / 27	1200 - 630000	630000	---	230000	N	---	---	YES	Above Screening Level
	86-73-7	Fluorene	130	540000 J	ug/kg	315	17 / 27	130 - 540000	540000	---	230000	N	---	---	YES	Above Screening Level
	193-39-5	Indeno(1,2,3-c,d)pyrene	1000	120000 J	ug/kg	314	27 / 27	1000 - 120000	120000	---	150	C	---	---	YES	Above Screening Level
	91-20-3	Naphthalene	120	1600000 J	ug/kg	315	19 / 27	120 - 1600000	1600000	---	3600	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	510	1100000 J	ug/kg	315	26 / 27	510 - 1100000	1100000	---	1700000	N	---	---	NO	Below Screening Level
	129-00-0	Pyrene	1400	670000 J	ug/kg	314	26 / 27	230 - 670000	670000	---	170000	N	---	---	YES	Above Screening Level
	5103-71-9	Alpha-chlordane	6.70	14.0 J	ug/kg	308A	2 / 27	2.70 - 530	14.0	---	1600	C	---	---	NO	Below Screening Level
	33213-65-9	Beta endosulfan	13.0	13.0 J	ug/kg	308A	1 / 27	5.30 - 1000	13.0	---	37000	N	---	---	NO	Below Screening Level
	1031-07-8	Endosulfan sulfate	21.0	21.0 J	ug/kg	308A	1 / 27	5.30 - 1000	21.0	---	37000	N	---	---	NO	Below Screening Level
	5103-74-2	Gamma-chlordane	5.90	29.0 J	ug/kg	308A	3 / 27	2.70 - 530	29.0	---	1600	C	---	---	NO	Below Screening Level
	72-43-5	Methoxychlor	33.0	33.0 J	ug/kg	308A	1 / 27	27.0 - 5300	33.0	---	31000	N	---	---	NO	Below Screening Level
	72-54-8	P,P'-DDD	7.90	1100 NJ	ug/kg	315	5 / 5	7.90 - 1100	1100	---	2000	C	---	---	NO	Below Screening Level
	72-55-9	P,P'-DDE	16.0	16.0 NJ	ug/kg	308A	1 / 26	5.30 - 1000	16.0	---	1400	C	---	---	NO	Below Screening Level
	12674-11-2	Aroclor 1016	140	290	ug/kg	318	4 / 27	41.0 - 290	290	---	390	N	---	---	NO	Below Screening Level
	12672-29-6	Aroclor 1248	230	2200 J	ug/kg	316	2 / 27	41.0 - 2200	2200	---	220	C	---	---	YES	Above Screening Level
	11097-69-1	Aroclor 1254	590	590 J	ug/kg	308A	1 / 27	48.0 - 590	590	---	110	N	---	---	YES	Above Screening Level
	11096-82-5	Aroclor 1260	150	3400 J	ug/kg	314	7 / 27	41.0 - 3400	3400	---	220	C	---	---	YES	Above Screening Level
	PCBDioxin	PCB Dioxin	0.241	111	ng/kg	314	19 / 19	0.241 - 111	111	---	3.7	C	---	---	YES	Above Screening Level
	PCBNonDioxin	PCB Nondioxin	92500	14700000	ng/kg	314	19 / 19	92500 - 14700000	14700000	---	220000	C	---	---	YES	Above Screening Level
	PCBTotalCongen	Total PCB Congeners	99500	15100000	ng/kg	314	19 / 19	99500 - 15100000	15100000	---	110000	N	---	---	YES	Above Screening Level
	7429-90-5	Aluminum	4870	18900 J	mg/kg	310	27 / 27	4870 - 18900	18900	---	7700	N	---	---	YES	Above Screening Level
	7440-38-2	Arsenic	3.40	44.7	mg/kg	308A	27 / 27	3.40 - 44.7	44.7	---	0.39	C	---	---	YES	Above Screening Level
	7440-39-3	Barium	83.1	631 J	mg/kg	317	27 / 27	83.1 - 631	631	---	1500	N	---	---	NO	Below Screening Level
	7440-41-7	Beryllium	0.11	0.46 J	mg/kg	309	12 / 27	0.11 - 1.60	0.46	---	16	N	---	---	NO	Below Screening Level
	7440-43-9	Cadmium	1.50	20.2 J	mg/kg	308A	27 / 27	1.50 - 20.2	20.2	---	7	N	---	---	YES	Above Screening Level

TABLE H-2.12
All Surface Sediment in Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Overflow Surface Sediment

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow																
	7440-70-2	Calcium	4890	11300 J	mg/kg	313	27 / 27	4890 - 11300	11300	---	---		---	---	NO	Essential Nutrient
	7440-47-3	Chromium	22.7	139 J	mg/kg	314	27 / 27	22.7 - 139	139	---	0.29	C	---	---	YES	Above Screening Level
	7440-48-4	Cobalt	6.50	14.8 J	mg/kg	318	14 / 27	6.50 - 17.1	14.8	---	2.3	N	---	---	YES	Above Screening Level
	7440-50-8	Copper	85.8	790	mg/kg	308A	27 / 27	85.8 - 790	790	---	310	N	---	---	YES	Above Screening Level
	57-12-5	Cyanide, Total	0.54	18.0 J	mg/kg	302	14 / 27	0.54 - 18.0	18.0	---	160	N	---	---	NO	Below Screening Level
	7439-89-6	Iron	12400	87000	mg/kg	308A	27 / 27	12400 - 87000	87000	---	5500	N	---	---	YES	Above Screening Level
	7439-92-1	Lead	146	4220	mg/kg	308A	27 / 27	146 - 4220	4220	---	400	N	---	---	YES	Above Screening Level
	7439-95-4	Magnesium	4210	11400 J	mg/kg	318	27 / 27	4210 - 11400	11400	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	89.1	480	mg/kg	308A	27 / 27	89.1 - 480	480	---	180	N	---	---	YES	Above Screening Level
	7439-97-6	Mercury	0.59	2.30 J	mg/kg	313	27 / 27	0.59 - 2.30	2.30	---	2.3	N	---	---	NO	Below Screening Level
	7440-02-0	Nickel	18.1	84.5 J	mg/kg	314	27 / 27	18.1 - 84.5	84.5	---	150	N	---	---	NO	Below Screening Level
	7440-09-7	Potassium	730	4410 J	mg/kg	310	27 / 27	730 - 4410	4410	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	0.74	4.90 J	mg/kg	310	15 / 27	0.74 - 12.0	4.90	---	39	N	---	---	NO	Below Screening Level
	7440-22-4	Silver	1.80	6.80 J	mg/kg	310	22 / 27	1.20 - 6.80	6.80	---	39	N	---	---	NO	Below Screening Level
	7440-23-5	Sodium	2610	18700 J	mg/kg	322	27 / 27	2610 - 18700	18700	---	---		---	---	NO	Essential Nutrient
	7440-62-2	Vanadium	19.4	61.2 J	mg/kg	316	27 / 27	19.4 - 61.2	61.2	---	39	N	---	---	YES	Above Screening Level
	7440-66-6	Zinc	240	1520	mg/kg	308A	17 / 17	240 - 1520	1520	---	2300	N	---	---	NO	Below Screening Level

TABLE H-2.13
Surface Water in Canal, Wet Weather - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Overflow Surface Water

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Canal Overflow – Surface Water																
	120-82-1	1,2,4-trichlorobenzene	0.12	0.12 J	ug/l	305	1 / 26	0.12 - 0.50	0.12	---	0.41	N	70	NRWQC	NO	Below Screening Level
	541-73-1	1,3-dichlorobenzene	0.13	0.13 J	ug/l	303, 305	2 / 26	0.13 - 0.50	0.13	---	37	N	960	NRWQC	NO	Below Screening Level
	106-46-7	1,4-dichlorobenzene	0.12	0.87	ug/l	306	14 / 26	0.12 - 0.87	0.87	---	0.43	C	190	NRWQC	YES	Above Screening Level
	67-64-1	Acetone	12.0	12.0	ug/l	307B	1 / 26	5.00 - 15.0	12.0	---	2200	N	---	---	NO	Below Screening Level
	71-43-2	Benzene	0.36	2.90	ug/l	316	16 / 26	0.36 - 2.90	2.90	---	0.41	C	10	NYSDEC	YES	Above Screening Level
	75-15-0	Carbon disulfide	0.14	0.17 J	ug/l	308B, 313	5 / 26	0.14 - 0.50	0.17	---	100	N	---	---	NO	Below Screening Level
	108-90-7	Chlorobenzene	0.12	0.33 J	ug/l	306	17 / 26	0.12 - 0.50	0.33	---	9.1	N	400	NYSDEC	NO	Below Screening Level
	67-66-3	Chloroform	0.50	0.69	ug/l	321	14 / 26	0.50 - 0.69	0.69	---	0.19	C	470	NRWQC	YES	Above Screening Level
	156-59-2	cis-1,2-dichloroethylene	0.21	0.51	ug/l	319	17 / 26	0.21 - 0.51	0.51	---	37	N	---	---	NO	Below Screening Level
	100-41-4	Ethylbenzene	0.18	2.60	ug/l	316	21 / 26	0.18 - 2.60	2.60	---	1.5	C	2100	NRWQC	YES	Above Screening Level
	98-82-8	Isopropylbenzene (cumene)	0.096	0.20 J	ug/l	316	4 / 26	0.096 - 0.50	0.20	---	68	N	---	---	NO	Below Screening Level
	179601-23-1	m, p xylenes	0.18	2.60	ug/l	316	22 / 26	0.18 - 2.60	2.60	---	120	N	---	---	NO	Below Screening Level
	79-20-9	Methyl acetate	0.44	0.44 J	ug/l	317	1 / 26	0.44 - 0.50	0.44	---	3700	N	---	---	NO	Below Screening Level
	75-09-2	Methylene chloride	0.99	3.40	ug/l	321	9 / 26	0.50 - 3.40	3.40	---	4.8	C	200	NYSDEC	NO	Below Screening Level
	95-47-6	o-xylene (1,2-dimethylbenzene)	0.13	5.10	ug/l	316	20 / 26	0.13 - 5.10	5.10	---	120	N	---	---	NO	Below Screening Level
	127-18-4	Tetrachloroethylene(PCE)	0.70	40.0 J	ug/l	319	24 / 26	0.50 - 40.0	40.0	---	0.11	C	3.3	NRWQC	YES	Above Screening Level
	108-88-3	Toluene	0.85	16.0	ug/l	316	24 / 26	0.50 - 16.0	16.0	---	230	N	6000	NYSDEC	NO	Below Screening Level
	10061-02-6	trans-1,3-dichloropropene	0.16	0.16 J	ug/l	306	1 / 26	0.16 - 0.50	0.16	---	0.43	C	---	---	NO	Below Screening Level
	79-01-6	Trichloroethylene (TCE)	0.10	0.12 J	ug/l	320	2 / 26	0.10 - 0.50	0.12	---	2	C	30	NRWQC	NO	Below Screening Level
	91-57-6	2-methylnaphthalene	0.17	3.00	ug/l	316	3 / 26	0.10 - 3.00	3.00	---	15	N	---	---	NO	Below Screening Level
	83-32-9	Acenaphthene	0.095	0.40	ug/l	313	20 / 26	0.095 - 1.00	0.40	---	220	N	990	NRWQC	NO	Below Screening Level
	120-12-7	Anthracene	0.095	0.095 J	ug/l	302	1 / 26	0.095 - 1.00	0.095	---	1100	N	40000	NRWQC	NO	Below Screening Level
	56-55-3	Benzo(a)anthracene	0.074	0.15	ug/l	302	4 / 26	0.074 - 1.00	0.15	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	50-32-8	Benzo(a)pyrene	0.14	0.30	ug/l	309	6 / 26	0.10 - 1.00	0.30	---	0.0029	C	0.018	NRWQC	YES	Above Screening Level
	205-99-2	Benzo(b)fluoranthene	0.12	0.33	ug/l	319	16 / 26	0.10 - 1.00	0.33	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	191-24-2	Benzo(g,h,i)perylene	0.13	1.50 J	ug/l	308A	23 / 26	0.10 - 1.50	1.50	---	110	N	---	---	NO	Below Screening Level
	207-08-9	Benzo(k)fluoranthene	0.037	0.12 J	ug/l	319	7 / 26	0.037 - 1.00	0.12	---	0.29	C	0.018	NRWQC	NO	Below Screening Level
	85-68-7	Benzyl butyl phthalate	0.73	1.10 J	ug/l	307A	3 / 26	0.73 - 50.0	1.10	---	35	C	1900	NRWQC	NO	Below Screening Level
	105-60-2	Caprolactam	0.33	1.50 J	ug/l	320	11 / 26	0.33 - 50.0	1.50	---	1800	N	---	---	NO	Below Screening Level
	218-01-9	Chrysene	0.057	0.11	ug/l	302	3 / 26	0.057 - 1.00	0.11	---	2.9	C	0.018	NRWQC	NO	Below Screening Level

TABLE H-2.13
Surface Water in Canal, Wet Weather - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Overflow Surface Water

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Canal Overflow – Surface Water																
	53-70-3	Dibenz(a,h)anthracene	0.071	0.11	ug/l	303	4 / 26	0.071 - 1.00	0.11	---	0.0029	C	0.018	NRWQC	YES	Above Screening Level
	84-74-2	Di-n-butyl phthalate	0.28	0.62 J	ug/l	320	12 / 26	0.28 - 50.0	0.62	---	370	N	4500	NRWQC	NO	Below Screening Level
	117-84-0	Di-n-octylphthalate	0.23	0.28 J	ug/l	318	3 / 26	0.23 - 50.0	0.28	---	4.8	N	---	---	NO	Below Screening Level
	206-44-0	Fluoranthene	0.089	0.32	ug/l	313	22 / 26	0.089 - 1.00	0.32	---	150	N	140	NRWQC	NO	Below Screening Level
	86-73-7	Fluorene	0.079	0.32 J	ug/l	313	3 / 26	0.079 - 1.00	0.32	---	150	N	5300	NRWQC	NO	Below Screening Level
	193-39-5	Indeno(1,2,3-c,d)pyrene	0.16	1.10	ug/l	316	23 / 26	0.10 - 1.10	1.10	---	0.029	C	0.018	NRWQC	YES	Above Screening Level
	91-20-3	Naphthalene	0.13	1.40	ug/l	316	5 / 26	0.10 - 1.40	1.40	---	0.14	C	---	---	YES	Above Screening Level
	87-86-5	Pentachlorophenol	0.13	0.13 J	ug/l	311	1 / 26	0.13 - 2.00	0.13	---	0.56	C	3	NRWQC	NO	Below Screening Level
	85-01-8	Phenanthrene	0.13	1.40	ug/l	316	14 / 26	0.10 - 1.40	1.40	---	1100	N	---	---	NO	Below Screening Level
	129-00-0	Pyrene	0.10	0.34	ug/l	313	22 / 26	0.10 - 1.00	0.34	---	110	N	4000	NRWQC	NO	Below Screening Level
	7440-38-2	Arsenic	6.90	26.2	ug/l	302	26 / 26	6.90 - 26.2	26.2	---	0.045	C	0.14	NRWQC	YES	Above Screening Level
	7440-39-3	Barium	18.4	42.8 J	ug/l	307A	26 / 26	18.4 - 42.8	42.8	---	730	N	---	---	NO	Below Screening Level
	7440-70-2	Calcium	97200	296000	ug/l	324	24 / 24	97200 - 296000	296000	---	---		---	---	NO	Essential Nutrient
	7440-47-3	Chromium	3.90	29.3 J	ug/l	308B	26 / 26	3.90 - 29.3	29.3	---	0.043	C	---	---	YES	Above Screening Level
	7440-48-4	Cobalt	3.90	3.90 J	ug/l	307A	1 / 26	3.90 - 10.0	3.90	---	1.1	N	---	---	YES	Above Screening Level
	7439-89-6	Iron	651	1040 J	ug/l	317	3 / 26	651 - 1500	1040	---	2600	N	---	---	NO	Below Screening Level
	7439-92-1	Lead	2.90	26.8	ug/l	317	26 / 26	2.90 - 26.8	26.8	---	15	N	---	---	YES	Above Screening Level
	7439-95-4	Magnesium	276000	972000	ug/l	303	25 / 25	276000 - 972000	972000	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	48.4	65.6	ug/l	307A	26 / 26	48.4 - 65.6	65.6	---	88	N	100	NRWQC	NO	Below Screening Level
	7439-97-6	Mercury	0.065	0.089 J	ug/l	302	19 / 26	0.065 - 0.20	0.089	---	1.1	N	0.0007	NYSDEC	NO	Below Screening Level
	7440-02-0	Nickel	2.10	29.8 J	ug/l	308B	25 / 25	2.10 - 29.8	29.8	---	73	N	4600	NRWQC	NO	Below Screening Level
	7440-09-7	Potassium	88700	290000	ug/l	324	24 / 24	88700 - 290000	290000	---	---		---	---	NO	Essential Nutrient
	7782-49-2	Selenium	13.9	64.6 J	ug/l	301	26 / 26	13.9 - 64.6	64.6	---	18	N	4200	NRWQC	YES	Above Screening Level
	7440-23-5	Sodium	2340000	7090000 J	ug/l	301	25 / 25	2340000 - 709000(	7090000	---	---		---	---	NO	Essential Nutrient
	7440-66-6	Zinc	17.7	75.7 J	ug/l	318	24 / 26	17.7 - 75.7	75.7	---	1100	N	26000	NRWQC	NO	Below Screening Level

TABLE H-2.14
Blue Crab Edible Tissue from Canal - Selection of Chemical of Potential Concern
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Crab in Gowanus Canal																
	83-32-9	Acenaphthene	9.91	79.4 J	ug/kg	GC-TI401-BC	12 / 12	9.91 - 79.4	79.4	---	8100	N	---	---	NO	Below Screening Level
	208-96-8	Acenaphthylene	2.70	16.4	ug/kg	GC-TI401-BC	6 / 12	2.70 - 16.4	16.4	---	8100	N	---	---	NO	Below Screening Level
	120-12-7	Anthracene	8.59	12.7 J	ug/kg	GC-TI401-BC	2 / 12	3.22 - 12.7	12.7	---	41000	N	---	---	NO	Below Screening Level
	56-55-3	Benzo(a)anthracene	2.86	21.0	ug/kg	GC-TI402-BC	5 / 12	2.86 - 21.0	21.0	---	4.3	C	---	---	YES	Above Screening Level
	50-32-8	Benzo(a)pyrene	3.61	22.8	ug/kg	GC-TI402-BC	11 / 12	3.31 - 22.8	22.8	---	0.43	C	---	---	YES	Above Screening Level
	205-99-2	Benzo(b)fluoranthene	3.58	11.4	ug/kg	GC-TI402-BC	9 / 12	3.23 - 11.4	11.4	---	4.3	C	---	---	YES	Above Screening Level
	191-24-2	Benzo(g,h,i)perylene	8.46	32.1	ug/kg	GC-TI401-BC	12 / 12	8.46 - 32.1	32.1	---	4100	N	---	---	NO	Below Screening Level
	207-08-9	Benzo(k)fluoranthene	2.61	10.9	ug/kg	GC-TI402-BC	8 / 12	2.61 - 10.9	10.9	---	43	C	---	---	NO	Below Screening Level
	218-01-9	Chrysene	3.28	17.5	ug/kg	GC-TI402-BC	8 / 12	3.23 - 17.5	17.5	---	430	C	---	---	NO	Below Screening Level
	53-70-3	Dibenz(a,h)anthracene	3.07	5.78	ug/kg	GC-TI402-BC	9 / 12	3.07 - 5.78	5.78	---	0.43	C	---	---	YES	Above Screening Level
	206-44-0	Fluoranthene	3.55	19.3	ug/kg	GC-TI402-BC	11 / 12	3.23 - 19.3	19.3	---	5400	N	---	---	NO	Below Screening Level
	86-73-7	Fluorene	4.97	28.6	ug/kg	GC-TI404-BC	10 / 12	3.26 - 28.6	28.6	---	5400	N	---	---	NO	Below Screening Level
	193-39-5	Indeno(1,2,3-c,d)pyrene	5.89	13.7	ug/kg	GC-TI402-BC	12 / 12	5.89 - 13.7	13.7	---	4.3	C	---	---	YES	Above Screening Level
	85-01-8	Phenanthrene	3.26	43.5	ug/kg	GC-TI401-BC	12 / 12	3.26 - 43.5	43.5	---	41000	N	---	---	NO	Below Screening Level
	129-00-0	Pyrene	3.55	26.5 J	ug/kg	GC-TI401-BC	12 / 12	3.55 - 26.5	26.5	---	4100	N	---	---	NO	Below Screening Level
	72-55-9	P,P'-DDE	1.14	2.28 J	ug/kg	GC-TI402-BC	4 / 12	1.14 - 3.37	2.28	---	9.3	C	---	---	NO	Below Screening Level
	PCBDioxin	PCB Dioxin	1.92	4.52	ng/kg	GC-TI405-BC	12 / 12	1.92 - 4.52	4.52	---	0.020	C	---	---	YES	Above Screening Level
	PCBNonDioxin	PCB Nondioxin	64200	149000	ng/kg	GC-TI405-BC	12 / 12	64200 - 149000	149000	---	1600	C	---	---	YES	Above Screening Level
	PCBTotalCongen	Total PCB Congeners	73000	171000	ng/kg	GC-TI405-BC	12 / 12	73000 - 171000	171000	---	1600	C	---	---	YES	Above Screening Level
	7440-38-2	Arsenic	0.89	1.80	mg/kg	GC-TI401-BC, GC-TI404-BC	12 / 12	0.89 - 1.80	1.80	---	0.0021	C	---	---	YES	Above Screening Level
	7440-70-2	Calcium	850	1970	mg/kg	GC-TI405-BC	12 / 12	850 - 1970	1970	---	---		---	---	NO	Essential Nutrient
	7440-50-8	Copper	9.10	14.1	mg/kg	GC-TI401-BC	12 / 12	9.10 - 14.1	14.1	---	5.4	N	---	---	YES	Above Screening Level
	7439-89-6	Iron	5.60	13.3	mg/kg	GC-TI406-BC	6 / 12	5.60 - 13.3	13.3	---	95	N	---	---	NO	Essential Nutrient
	7439-95-4	Magnesium	342	453 J	mg/kg	GC-TI401-BC	12 / 12	342 - 453	453	---	---		---	---	NO	Essential Nutrient
	7439-96-5	Manganese	0.66	1.70	mg/kg	GC-TI402-BC, GC-TI406-BC	7 / 12	0.66 - 1.70	1.70	---	19	N	---	---	NO	Below Screening Level
	7439-97-6	Mercury	0.10	0.20	mg/kg	GC-TI402-BC	12 / 12	0.10 - 0.20	0.20	---	0.022	N	---	---	YES	Above Screening Level
	7440-09-7	Potassium	2360	2870	mg/kg	GC-TI403-BC	12 / 12	2360 - 2870	2870	---	---		---	---	NO	Essential Nutrient
	7440-22-4	Silver	0.40	0.44 J	mg/kg	GC-TI401-BC	2 / 12	0.40 - 0.99	0.44	---	0.68	N	---	---	NO	Below Screening Level
	7440-23-5	Sodium	2660	4100	mg/kg	GC-TI402-BC	12 / 12	2660 - 4100	4100	---	---		---	---	NO	Essential Nutrient
	7440-66-6	Zinc	19.8	26.8	mg/kg	GC-TI401-BC	12 / 12	19.8 - 26.8	26.8	---	41	N	---	---	NO	Below Screening Level

TABLE H-2.14

Blue Crab Edible Tissue from Canal - Selection of Chemical of Potential Concern

Gowanus Canal Remedial Investigation

Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Cas Number	Chemical	Minimum Detected Value	Maximum Detected Value	Units	Location of Maximum Concentration	Detection Frequency	Range of Detection Limits	Conc. Used For Screening	Back-ground Value	Screening Toxicity Value		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Delection or Selection
Crab in Gowanus Canal																
	57-12-5	Cyanide, Total	0.28	0.59 J	mg/kg	GC-TI401-BC	10 / 12	0.28 - 2.50	0.59	---	2.7	N	---	---	NO	Below Screening Level

TABLE 2.8 Supplement a

PCB Congener Concentrations (ng/kg) in Large Fish Species– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI327-XAE-FI-1			GC-TI401-SB-FI-1			GC-TI401-SB-FI-2			GC-TI401-WP-FI-1			GC-TI401-WP-FI-2			GC-TI402-XAE-FI-1			GC-TI402-XAE-FI-2			GC-TI403-SB-FI-1		
			GC-TI327-XAE			GC-TI401-SB			GC-TI401-SB			GC-TI401-WP			GC-TI401-WP			GC-TI402-XAE			GC-TI402-XAE			GC-TI403-SB		
			American Eel			Striped Bass			Striped Bass			White Perch			White Perch			American Eel			American Eel			Striped Bass		
			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 77	Dioxin	0.0001	**33**		0.0033	**532**		0.0532	**391**		0.0391	**440**		0.044	**631**		0.0631	20.9	R	0.00209	**28.4**		0.00284	**312**		0.0312
PCB 81	Dioxin	0.0003	8.72	R	0.002616	26.5	R	0.00795	24.6	R	0.00738	**26.6**		0.00798	33	R	0.0099	**5**	U	0	**7.74**	U	0	**2.33**	U	0
PCB 105	Dioxin	0.00003	**10,300**		0.309	**4,410**		0.1323	**3,940**		0.1182	**4,200**		0.126	**4,780**		0.1434	**20,200**		0.606	**9,860**		0.2958	**5,460**		0.1638
PCB 114	Dioxin	0.00003	**616**		0.01848	**325**		0.00975	**312**		0.00936	**327**		0.00981	**352**		0.01056	**762**		0.02286	**488**		0.01464	**394**		0.01182
PCB 118	Dioxin	0.00003	**33,500**		1.005	**13,500**		0.405	**12,300**		0.369	**14,200**		0.426	**16,100**		0.483	**34,100**		1.023	**24,400**		0.732	**15,500**		0.465
PCB 123	Dioxin	0.00003	**619**		0.01857	**260**		0.0078	**231**		0.00693	**265**		0.00795	**322**		0.00966	**811**		0.02433	**410**		0.0123	**256**		0.00768
PCB 126	Dioxin	0.1	**56.5**		5.65	**24.6**		2.46	**24.3**		2.43	**37.6**		3.76	**42.9**		4.29	**42.8**		4.28	**35.4**		3.54	**26.6**		2.66
PCB 156/157	Dioxin	0.00003	**4,130**		0.1239	**1,340**		0.0402	**1,170**		0.0351	**1,680**		0.0504	**1,730**		0.0519	**3,710**		0.1113	**2,840**		0.0852	**2,480**		0.0744
PCB 167	Dioxin	0.00003	**2,180**		0.0654	**578**		0.01734	**497**		0.01491	**760**		0.0228	**756**		0.02268	**1,970**		0.0591	**1,510**		0.0453	**1,120**		0.0336
PCB 169	Dioxin	0.03	**19.9**	U	0	**11.8**	U	0	**12.8**	U	0	**12.2**	U	0	**11.3**	U	0	**51.3**	U	0	**21.6**	U	0	**22.9**	U	0
PCB 189	Dioxin	0.00003	**297**		0.00891	**71.5**		0.002145	**61.8**		0.001854	**119**		0.00357	**116**		0.00348	**305**		0.00915	**187**		0.00561	**164**		0.00492
PCB Dioxin			**7.2**			**3.13**			**3.02**			**4.46**			**5.08**			**6.14**			**4.73**			**3.45**		
PCB 1	NonDioxin		**4.12**			**32.2**			**16.9**			**8.14**			**17.6**			**9.41**			**4.79**			**21.9**		
PCB 2	NonDioxin		**2.29**	U		**2.27**	U		**2.27**	U		**2.03**	U		**3.93**	U		**2.28**	U		**2.32**	U		**2.31**	U	
PCB 3	NonDioxin		**2.29**	U		**5.44**			**3.22**			**2.65**			**4.19**			**3.32**			**2.32**	U		**4.38**		
PCB 4	NonDioxin		**78.3**			**913**			**443**			**325**			**465**			**90.3**			**65.8**			**418**		
PCB 5	NonDioxin		**2.29**	U		**5.67**			**4.56**			**2.39**			**5.9**			**2.28**	U		**2.32**	U		**4.94**		
PCB 6	NonDioxin		**4.93**			**154**			**98.7**			**71.3**			**104**			**10.5**			**5.33**			**91.3**		
PCB 7	NonDioxin		**2.29**	U		**22.4**			**11.7**			**10.1**			**15.7**			**2.28**	U		**2.32**	U		**12**		
PCB 8	NonDioxin		**17.5**			**459**			**306**			**210**			**323**			**34.9**			**17.1**			**306**		
PCB 9	NonDioxin		**2.29**	U		**37.2**			**20.8**			**15.2**			**24.5**			**3.46**			**2.32**	U		**19.4**		
PCB 10	NonDioxin		**8.25**			**113**			**43.5**			**39**			**50.7**			**8.38**			**7.78**			**40.7**		
PCB 11	NonDioxin		**44.1**			**146**			**69.6**			**70.3**			**106**			**35.9**			**47.3**			**104**		
PCB 12/13	NonDioxin		**7.35**			**36.1**			**20.4**			**20.5**			**30.3**			**8.88**			**8.56**			**23.5**		
PCB 14	NonDioxin		**2.29**	U		**2.27**	U		**2.27**	U		**2.03**	U		**3.93**	U		**2.28**	U		**2.32**	U		**2.31**	U	
PCB 15	NonDioxin		**94.6**			**248**			**132**			**101**			**161**			**80.4**			**105**			**171**		
PCB 16	NonDioxin		**32.3**			**651**			**507**			**399**			**652**			**28.2**			**21.3**			**429**		
PCB 17	NonDioxin		**85.6**			**2,530**			**1,410**			**1,460**			**2,230**			**71.8**			**69.8**			**1,260**		
PCB 18/30	NonDioxin		**245**			**3,690**			**2,080**			**1,850**			**2,830**			**222**			**197**			**1,830**		
PCB 19	NonDioxin		**91.8**			**929**			**423**			**404**			**570**			**82.7**			**77.6**			**433**		
PCB 20/28	NonDioxin		**10,300**			**11,000**			**6,970**			**6,220**			**8,260**			**5,100**			**9,010**			**6,310**		
PCB 21/33	NonDioxin		**4.58**	U		**699**			**727**			**602**			**987**			**69.6**			**26.9**			**639**		
PCB 22	NonDioxin		**152**			**1,850**			**1,280**			**1,140**			**1,560**			**209**			**287**			**1,160**		
PCB 23	NonDioxin		**2.29**	U		**7.65**			**4.44**			**4.52**			**8.33**			**2.28**	U		**2.32**	U		**5.24**		
PCB 24	NonDioxin		**6.03**			**41.9**			**27.4**			**24**			**36**			**5.1**			**4.91**			**23.9**		
PCB 25	NonDioxin		**64.5**			**1,000**			**597**			**640**			**943**			**65.6**			**74.9**			**570**		
PCB 26/29	NonDioxin		**1,590**			**2,320**			**1,320**			**1,430**			**2,270**			**747**			**1,520**			**1,370**		
PCB 27	NonDioxin		**45**			**657**			**356**			**417**			**637**			**36.5**			**30**			**365**		
PCB 31	NonDioxin		**4,220**			**7,030**			**4,510**			**4,490**			**6,210**			**2,150**			**5,010**			**4,550**		
PCB 32	NonDioxin		**186**			**1,790**			**1,100**			**1,090**			**1,890**			**190**			**250**			**1,130**		
PCB 34	NonDioxin		**11.6**			**89.6**			**46.9**			**57.3**			**106**			**14.9**			**20.8**			**67.6**		
PCB 35	NonDioxin		**2.29**	U		**2.27**	U		**2.27**	U		**2.03**	U		**3.93**	U		**2.28**	U		**2.32**	U		**2.31**	U	
PCB 36	NonDioxin		**2.29**	U		2.92	R		**2.27**	U		**2.03**	U		**3.93**	U		**2.28**	U		**2.32**	U		**2.31**	U	

TABLE 2.8 Supplement a

PCB Congener Concentrations (ng/kg) in Large Fish Species– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI327-XAE-FI-1		GC-TI401-SB-FI-1		GC-TI401-SB-FI-2		GC-TI401-WP-FI-1		GC-TI401-WP-FI-2		GC-TI402-XAE-FI-1		GC-TI402-XAE-FI-2		GC-TI403-SB-FI-1	
			GC-TI327-XAE		GC-TI401-SB		GC-TI401-SB		GC-TI401-WP		GC-TI401-WP		GC-TI402-XAE		GC-TI402-XAE		GC-TI403-SB	
			American Eel		Striped Bass		Striped Bass		White Perch		White Perch		American Eel		American Eel		Striped Bass	
			Fillet		Fillet		Fillet		Fillet		Fillet		Fillet		Fillet		Fillet	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 37	NonDioxin		42.1		788		376		334		409		2.28 U		66.3 R		467	
PCB 38	NonDioxin		26.3		15.8		10.6		2.03 U		3.93 U		74.7		33		22.6	
PCB 39	NonDioxin		2.29 U		63		41.3		47.5		3.93 U		2.28 U		2.32 U		50.7	
PCB 40/41/71	NonDioxin		916		4,960		3,620		4,790		9,780		820		981		5,580	
PCB 42	NonDioxin		1,490		3,070		2,100		2,570		4,400		1,490		2,380		2,560	
PCB 43	NonDioxin		63.3		542		347		394		664		2.28 U		30.1		460	
PCB 44/47/65	NonDioxin		16,900		15,500		9,500		10,800		22,300		27,100		19,000		15,300	
PCB 45/51	NonDioxin		333		1,890		1,160		1,360		2,770		330		332		1,460	
PCB 46	NonDioxin		37.7		345		235		305		624		27.1		23		258	
PCB 48	NonDioxin		38.1		1,630		1,190		1,310		2,100		39.6		41.1		1,110	
PCB 49/69	NonDioxin		3,340		12,900		7,590		9,020		20,800		3,760		6,380		13,100	
PCB 50/53	NonDioxin		278		1,940		1,050		1,300		2,870		370		181		1,520	
PCB 52	NonDioxin		23,600		17,100		11,200		11,800		24,100		57,900		30,100		17,100	
PCB 54	NonDioxin		8.87		55		39		32.6		55.3		6.86		8.68		34.4	
PCB 55	NonDioxin		2.29 U		2.47 U		3.15 U		99.7		143		5.54 U		18.6		2.54 U	
PCB 56	NonDioxin		53.7		2,870		2,210		2,530		4,320		74.1		82.6		2,040	
PCB 57	NonDioxin		76.4		102		62		86.7		166		27.6		62.3		145	
PCB 58	NonDioxin		83.9		579		379		59.9		110		136		96.4		88.6	
PCB 59/62/75	NonDioxin		2,160		1,430		923		1,090		1,940		4,950		2,290		1,470	
PCB 60	NonDioxin		2,650		1,890		1,650		1,500		1,950		7,030		2,600		1,530	
PCB 61/70/74/76	NonDioxin		11,000		14,400		12,600		13,000		19,000		12,500		9,290		11,100	
PCB 63	NonDioxin		857		888		597		685		1,100		1,360		1,010		1,030	
PCB 64	NonDioxin		7,240		5,070		3,340		3,890		6,720		34,900		9,850		4,860	
PCB 66	NonDioxin		13,100		10,900		9,070		9,060		12,000		23,900		12,400		8,090	
PCB 67	NonDioxin		59.1		320		215		281		403		52.4		102		278	
PCB 68	NonDioxin		238		289		165		229		406		182		261		397	
PCB 72	NonDioxin		449		380		223		321		641		336		442		599	
PCB 73	NonDioxin		65.2		111		2.27 U		85.2		210		2.28 U		46.1		131	
PCB 78	NonDioxin		19.1		2.45 U		3.12 U		2.03 U		3.93 U		35.5		8.07 U		29.4	
PCB 79	NonDioxin		65.4		195		154		177		249		145		142		214	
PCB 80	NonDioxin		2.29 U		170		138		2.03 U		3.93 U		5.28 U		7.13 U		2.42 U	
PCB 82	NonDioxin		447		792		783		892		1,340		771		615		959	
PCB 83/99	NonDioxin		24,000		14,900		10,500		13,200		20,400		24,400		17,300		18,600	
PCB 84	NonDioxin		1,950		2,440		1,470		2,260		4,460		4,090		3,240		2,760	
PCB 85/116/117	NonDioxin		4,730		3,510		2,830		2,970		4,390		8,510		5,800		4,430	
PCB 86/87/97/109/119/125	NonDioxin		4,710		8,320		6,880		7,720		11,700		8,800		--		8,920	
PCB 86/87/97/108/119/125	NonDioxin		--		--		--		--		--		--		8,130		--	
PCB 88/91	NonDioxin		1,500		3,380		1,990		2,620		5,350		4,070		3,190		4,520	
PCB 89	NonDioxin		2.29 U		60.8		55.1		89.5		163		4.94		4.84		63.7	
PCB 90/101/113	NonDioxin		15,900		19,100		14,100		16,500		24,800		25,100		21,000		21,600	
PCB 92	NonDioxin		4,530		3,630		2,760		3,410		5,740		7,350		6,400		5,800	
PCB 93/95/98/100/102	NonDioxin		6,790		11,900		7,000		9,730		18,800		14,500		11,900		12,600	
PCB 94	NonDioxin		22.8		121		62		136		341		40.5		38.3		124	

TABLE 2.8 Supplement a

PCB Congener Concentrations (ng/kg) in Large Fish Species– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI327-XAE-FI-1			GC-TI401-SB-FI-1			GC-TI401-SB-FI-2			GC-TI401-WP-FI-1			GC-TI401-WP-FI-2			GC-TI402-XAE-FI-1			GC-TI402-XAE-FI-2			GC-TI403-SB-FI-1		
			GC-TI327-XAE			GC-TI401-SB			GC-TI401-SB			GC-TI401-WP			GC-TI401-WP			GC-TI402-XAE			GC-TI402-XAE			GC-TI403-SB		
			American Eel			Striped Bass			Striped Bass			White Perch			White Perch			American Eel			American Eel			Striped Bass		
			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 96	NonDioxin		12.9			88.2			56.9			70.5			169			21.8			11.8			101		
PCB 103	NonDioxin		9.34			458			252			326			597			59.9			24.9			540		
PCB 104	NonDioxin		2.29	U		19.3			13.1			15.2			27.8			2.28	U		2.32	U		16.6		
PCB 106	NonDioxin		2.29	U		2.27	U		4.36	U		2.03	U		3.93	U		2.28	U		14.8	U		2.31	U	
PCB 107	NonDioxin		985			1,300			1,070			1,380			1,600			527			--			1,590		
PCB 107/124	NonDioxin		--			--			--			--			--			--			170			--		
PCB 108/124	NonDioxin		150			304			342			402			515			104			--			319		
PCB 109	NonDioxin		--			--			--			--			--			--			678			--		
PCB 110/115	NonDioxin		14,600			13,300			10,500			12,500			20,700			40,700			25,400			17,100		
PCB 111	NonDioxin		77.2			35.5	R		21			32.8			57.2			59.6			67.4			73.3		
PCB 112	NonDioxin		2.29	U		2.27	U		2.27	U		3.96	U		3.93	U		2.28	U		2.32	U		3.08	U	
PCB 120	NonDioxin		342			149			90.4			143			205			202			219			260		
PCB 121	NonDioxin		35.2			19.6			11			16.6			31			31.1			30			34.3		
PCB 122	NonDioxin		58.1			66.5			84.3			109			159			99.6			58.4			94.7		
PCB 127	NonDioxin		2.29	U		30.4			21.3			2.03	U		3.93	U		42.5			53.4			48.4		
PCB 128/166	NonDioxin		5,820			2,870			2,060			2,360			2,990			9,020			6,600			4,910		
PCB 129/138/160/163	NonDioxin		43,700			21,400			14,800			20,600			22,800			68,300			48,500			33,600		
PCB 130	NonDioxin		1,540			1,030			752			933			1,260			2,970			2,250			1,900		
PCB 131	NonDioxin		40.9			136			101			133			163			129			119			154		
PCB 132	NonDioxin		1,870			3,350			2,440			3,380			4,790			5,950			5,010			4,460		
PCB 133	NonDioxin		1,130			445			293			501			721			1,120			972			987		
PCB 134/143	NonDioxin		516			1,620			956			1,460			944			1,680			1,300			897		
PCB 135/151/154	NonDioxin		4,120			6,460			4,500			6,450			8,390			9,170			6,620			8,340		
PCB 136	NonDioxin		613			1,620			899			1,320			2,130			2,450			1,750			1,870		
PCB 137	NonDioxin		1,490			790			653			819			949			1,680			1,190			1,440		
PCB 139/140	NonDioxin		605			382			276			366			477			923			766			610		
PCB 141	NonDioxin		2,080			1,670			1,810			2,150			2,470			6,200			4,070			2,800		
PCB 142	NonDioxin		2.63	U		2.27	U		2.27	U		2.03	U		5.82			2.28	U		3.45	U		2.31	U	
PCB 144	NonDioxin		228			744			553			700			695			529			419			719		
PCB 145	NonDioxin		2.29	U		3.6			2.83			3.27	R		5.17			2.28	U		2.32	U		4.69		
PCB 146	NonDioxin		10,100			4,410			3,170			5,080			5,860			10,600			9,790			9,030		
PCB 147/149	NonDioxin		10,400			15,500			10,200			13,400			17,300			38,900			27,800			19,600		
PCB 148	NonDioxin		191			115			62.6			100			155			192			167			207		
PCB 150	NonDioxin		2.29	U		105			53.9			77.2			120			25.9			11.2			109		
PCB 152	NonDioxin		2.29	U		21.8			13.4			18.8			33.7			6.89			3.1			23.6		
PCB 153/168	NonDioxin		71,300			25,000			17,500			25,100			26,400			73,700			52,900			41,100		
PCB 155	NonDioxin		114			50.2			48.5			84.7			90.5			76			102			60.5		
PCB 158	NonDioxin		3,430			1,710			1,320			1,690			1,540			6,440			4,870			2,380		
PCB 159	NonDioxin		54.1			61.7			55.6			78.5			104			191			124			114		
PCB 161	NonDioxin		2.29	U		2.27	U		2.27	U		2.03	U		3.93	U		2.28	U		2.47	U		2.31	U	
PCB 162	NonDioxin		125			54.5			47.2	R		98.7	R		122	R		89.3			67.7			99.2		
PCB 164	NonDioxin		687			582			578			818			1,160			2,040			1,530			1,120		
PCB 165	NonDioxin		83.7			36.3			19.3			32.3			58			58.1			69.5			83.9		

TABLE 2.8 Supplement a

PCB Congener Concentrations (ng/kg) in Large Fish Species– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI327-XAE-FI-1		GC-TI401-SB-FI-1		GC-TI401-SB-FI-2		GC-TI401-WP-FI-1		GC-TI401-WP-FI-2		GC-TI402-XAE-FI-1		GC-TI402-XAE-FI-2		GC-TI403-SB-FI-1	
			GC-TI327-XAE		GC-TI401-SB		GC-TI401-SB		GC-TI401-WP		GC-TI401-WP		GC-TI402-XAE		GC-TI402-XAE		GC-TI403-SB	
			American Eel		Striped Bass		Striped Bass		White Perch		White Perch		American Eel		American Eel		Striped Bass	
			Fillet		Fillet		Fillet		Fillet		Fillet		Fillet		Fillet		Fillet	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 170	NonDioxin		5,240		2,200		1,770		2,820		2,800		9,430		5,380		3,900	
PCB 171/173	NonDioxin		2,110		1,100		725		1,110		1,040		3,990		2,890		1,560	
PCB 172	NonDioxin		962		388		334		567		647		1,630		958		806	
PCB 174	NonDioxin		994		1,120		1,010		1,380		1,850		3,590		2,390		1,870	
PCB 175	NonDioxin		395		193		137		216		194		612		429		287	
PCB 176	NonDioxin		78.3		365		212		282		324		371		273		341	
PCB 177	NonDioxin		2,420		1,900		1,220		1,330		1,840		7,220		5,160		2,720	
PCB 178	NonDioxin		2,850		1,110		730		1,310		1,370		3,280		2,490		1,920	
PCB 179	NonDioxin		910		1,240		801		1,190		1,430		1,930		1,490		1,260	
PCB 180/193	NonDioxin		19,000		7,480		5,860		8,940		8,500		26,200		16,800		12,600	
PCB 181	NonDioxin		64.9		39.1		27.4		41		54.4		108		90.1		66.5	
PCB 182	NonDioxin		61.3		41		27.3		42.4		58.8		74.9		68.4		78.2	
PCB 183/185	NonDioxin		7,510		3,590		2,320		3,790		3,210		11,900		8,470		4,990	
PCB 184	NonDioxin		55.4		22.8		11.7		29.2		29.7		41.1		50.3		28.6	
PCB 186	NonDioxin		2.29	U	2.27	U	2.27	U	2.03	U	3.93	U	2.28	U	2.32	U	2.31	U
PCB 187	NonDioxin		16,900		8,580		5,570		8,360		9,080		22,900		17,500		12,200	
PCB 188	NonDioxin		89.1		51.2		26		43		53.3		66.6		79.8		65.6	
PCB 190	NonDioxin		1,310		650		463		691		657		2,590		1,900		1,010	
PCB 191	NonDioxin		298		129		100		150		125		527		342		193	
PCB 192	NonDioxin		2.29	U	2.27	U	2.27	U	5.43		4.01		2.28	U	2.32	U	2.31	U
PCB 194	NonDioxin		2,770		742		825		1,360		1,360		2,820		1,890		1,960	
PCB 195	NonDioxin		733		382		308		471		461		1,590		1,050		640	
PCB 196	NonDioxin		1,490		628		495		789		767		2,200		1,590		1,080	
PCB 197/200	NonDioxin		341		155		105		155		174		337		334		246	
PCB 198/199	NonDioxin		3,570		1,290		1,080		1,720		1,960		3,880		3,200		2,720	
PCB 201	NonDioxin		713		270		188		309		300		579		519		460	
PCB 202	NonDioxin		2,470		700		511		922		960		1,220		1,390		1,420	
PCB 203	NonDioxin		2,840		1,230		887		1,460		1,530		3,560		3,280		2,200	
PCB 204	NonDioxin		5.93		2.6	R	2.27	U	5.18		6.73		4.58		5.59		4.9	
PCB 205	NonDioxin		111		51.4		38.6		66.2		66.6		190		133		95.3	
PCB 206	NonDioxin		1,800		611		521		816		1,200		1,400		1,610		1,300	
PCB 207	NonDioxin		219		96.1		75.8		125		165		207		236		186	
PCB 208	NonDioxin		847		272		234		287		431		473		576		598	
PCB 209	NonDioxin		869		286		264		448		606		496		759		585	
PCB Nondioxin			424,000		348,000		244,000		302,000		437,000		684,000		480,000		409,000	
Total PCB Congeners			475,000		369,000		263,000		324,000		462,000		746,000		519,000		435,000	

TABLE 2.8 Supplement a
PCB Congener Concentrations (ng/kg) in Large Fish
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI403-XAE-FI-1			GC-TI403-XAE-FI-2			GC-TI403-XAE-FI-3			GC-TI406-SB-FI-1			GC-TI406-SB-FI-2			GC-TI406-XAE-FI-1		
			GC-TI403-XAE			GC-TI403-XAE			GC-TI403-XAE			GC-TI406-SB			GC-TI406-SB			GC-TI406-XAE		
			American Eel			American Eel			American Eel			Striped Bass			Striped Bass			American Eel		
			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 77	Dioxin	0.0001	**32.9**		0.00329	**33.6**		0.00336	**31.1**		0.00311	**301**	J	0.0301	**287**		0.0287	**50.8**		0.00508
PCB 81	Dioxin	0.0003	**2.29**	U	0	**5.25**	U	0	**2.26**	U	0	28.2	R	0.00846	17.1	R	0.00513	8.95	R	0.002685
PCB 105	Dioxin	0.00003	**22,200**		0.666	**14,100**		0.423	**17,300**		0.519	**4,990**	J	0.1497	**4,670**		0.1401	**33,400**		1.002
PCB 114	Dioxin	0.00003	**1,190**		0.0357	**827**		0.02481	**1,030**		0.0309	**412**	J	0.01236	**375**		0.01125	**1,970**		0.0591
PCB 118	Dioxin	0.00003	**35,800**		1.074	**34,600**		1.038	**32,500**		0.975	**15,700**	J	0.471	**14,600**		0.438	**73,800**		2.214
PCB 123	Dioxin	0.00003	**1,110**		0.0333	**816**		0.02448	**901**		0.02703	**315**	J	0.00945	**248**		0.00744	**1,840**		0.0552
PCB 126	Dioxin	0.1	**88.7**		8.87	**51.7**		5.17	**72.7**		7.27	**35.4**	J	3.54	**21.1**		2.11	**101**		10.1
PCB 156/157	Dioxin	0.00003	**8,430**		0.2529	**5,090**		0.1527	**6,770**		0.2031	**2,050**	J	0.0615	**2,050**		0.0615	**13,800**		0.414
PCB 167	Dioxin	0.00003	**3,620**		0.1086	**2,130**		0.0639	**2,850**		0.0855	**914**	J	0.02742	**937**		0.02811	**7,080**		0.2124
PCB 169	Dioxin	0.03	**76**	U	0	**21.3**	U	0	**55.6**	U	0	**19.5**	U	0	**20.6**	U	0	**70.7**	U	0
PCB 189	Dioxin	0.00003	**485**		0.01455	**346**		0.01038	**388**		0.01164	**136**	J	0.00408	**136**		0.00408	**1,200**		0.036
PCB Dioxin			**11.1**			**6.91**			**9.13**			**4.31**			**2.83**			**14.1**		
PCB 1	NonDioxin		**12.8**			**9.06**			**9.54**			**6.63**	J		**4.84**			**3.03**		
PCB 2	NonDioxin		**2.29**	U		**2.3**	U		**2.26**	U		**2.29**	U		**2.32**	U		**2.28**	U	
PCB 3	NonDioxin		2.44	R		**2.46**			**2.26**	U		**2.46**	J		**2.32**	U		**2.28**	U	
PCB 4	NonDioxin		**159**			**88**			**92.2**			**340**	J		**196**			**129**		
PCB 5	NonDioxin		**2.29**	U		**2.3**	U		**2.26**	U		4.23	R		2.69	R		**2.28**	U	
PCB 6	NonDioxin		**10.8**			**6.55**			**7.8**			**60.4**	J		**56.7**			**5.28**		
PCB 7	NonDioxin		**2.29**	U		**2.3**	U		**2.26**	U		**8.59**	J		**6.48**			**2.28**	U	
PCB 8	NonDioxin		**34.1**			**18.6**			**23.7**			**281**	J		**194**			**34.1**		
PCB 9	NonDioxin		**3.25**			**2.3**	U		**2.93**			**14.4**	J		**11.5**			**2.57**		
PCB 10	NonDioxin		**45.7**	U		**6.72**			**9.35**			**34.8**	J		**18.3**			**10.7**		
PCB 11	NonDioxin		**61.6**			**40.1**			**38.8**			**39.1**	J		**24**			**47.4**		
PCB 12/13	NonDioxin		**12.3**			**8.71**			**8.6**			**15.4**	J		10.3	R		**12.2**		
PCB 14	NonDioxin		**2.29**	U		**2.3**	U		**2.26**	U		**2.29**	U		**2.32**	U		**2.28**	U	
PCB 15	NonDioxin		**123**			**79.7**			**102**			**104**	J		**66**			**160**		
PCB 16	NonDioxin		**59.6**			**24.5**			**33.9**	U		**576**	J		**306**			**63.2**		
PCB 17	NonDioxin		**174**			**87.9**			**82.9**			**1,360**	J		**816**			**139**		
PCB 18/30	NonDioxin		**606**			**392**			**344**			**2,110**	J		**1,410**			**449**		
PCB 19	NonDioxin		**218**			**131**			**116**			**349**	J		**200**			**167**		
PCB 20/28	NonDioxin		**8,510**			**5,270**			**5,810**			**6,550**	J		**4,410**			**10,200**		
PCB 21/33	NonDioxin		**91.4**	U		**18.6**			**67.8**	U		**693**	J		**407**			**46.1**		
PCB 22	NonDioxin		**795**			**407**			**323**			**1,230**	J		**880**			**359**		
PCB 23	NonDioxin		**45.7**	U		**2.3**	U		**33.9**	U		**3.98**	J		**3.34**			**2.28**	U	
PCB 24	NonDioxin		**45.7**	U		**8.28**			**33.9**	U		**29.8**	J		**19.9**			**11.6**		
PCB 25	NonDioxin		**213**			**101**			**119**			**477**	J		**374**			**72.3**		
PCB 26/29	NonDioxin		**1,190**			**660**			**882**			**1,130**	J		**833**			**1,280**		
PCB 27	NonDioxin		**107**			**58.1**			**61.2**			**356**	J		**218**			**61.3**		
PCB 31	NonDioxin		**3,030**			**1,630**			**2,250**			**3,670**	J		**2,300**			**3,780**		
PCB 32	NonDioxin		**543**			**270**			**306**			**1,140**	J		**722**			**301**		
PCB 34	NonDioxin		**45.7**	U		**21.7**			**33.9**	U		**39.8**	J		**36.5**			**10.4**		
PCB 35	NonDioxin		**45.7**	U		**2.3**	U		**33.9**	U		**2.29**	U		**2.32**	U		**2.28**	U	
PCB 36	NonDioxin		**45.7**	U		**2.3**	U		**33.9**	U		**2.29**	U		**2.32**	U		**2.28**	U	

TABLE 2.8 Supplement a
PCB Congener Concentrations (ng/kg) in Large Fish
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI403-XAE-FI-1			GC-TI403-XAE-FI-2			GC-TI403-XAE-FI-3			GC-TI406-SB-FI-1			GC-TI406-SB-FI-2			GC-TI406-XAE-FI-1		
			GC-TI403-XAE			GC-TI403-XAE			GC-TI403-XAE			GC-TI406-SB			GC-TI406-SB			GC-TI406-XAE		
			American Eel			American Eel			American Eel			Striped Bass			Striped Bass			American Eel		
			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 37	NonDioxin		230			134			223			306	J		273			288		
PCB 38	NonDioxin		64.8			24.6			59.2			12.4	J		16.8			61.2		
PCB 39	NonDioxin		45.7	U		3.38			33.9	U		44.3	J		40.6			2.28	U	
PCB 40/41/71	NonDioxin		2,060			1,310			1,410			3,790	J		4,430			1,810		
PCB 42	NonDioxin		3,490			2,770			1,970			1,820	J		1,780			2,840		
PCB 43	NonDioxin		156			67.5			200			333	J		344			38.3		
PCB 44/47/65	NonDioxin		26,700			24,700			21,900			10,100	J		10,300			38,700		
PCB 45/51	NonDioxin		535			649			589			1,080	J		937			438		
PCB 46	NonDioxin		89.9			50			48.5			214	J		146			63.4		
PCB 48	NonDioxin		142			94.6			67.9			1,120	J		1,010			61.7		
PCB 49/69	NonDioxin		7,200			6,900			5,250			7,500	J		9,010			4,360		
PCB 50/53	NonDioxin		1,200			768			688			1,000	J		900			394		
PCB 52	NonDioxin		43,900			36,300			38,500			11,200	J		11,200			39,800		
PCB 54	NonDioxin		15			11.6			8.48			27.4	J		16.7			13.9		
PCB 55	NonDioxin		2.29	U		12.8	R		2.26	U		2.29	U		2.32	U		32.7		
PCB 56	NonDioxin		246			160			99.9			1,620	J		1,700			81.4		
PCB 57	NonDioxin		83.4			47.6			63.4			75.3	J		122			57.5		
PCB 58	NonDioxin		161			92.6			137			40	J		70.2			156		
PCB 59/62/75	NonDioxin		3,500			2,640			2,950			967	J		1,010			4,340		
PCB 60	NonDioxin		4,370			2,620			3,540			2,090	J		1,370			6,520		
PCB 61/70/74/76	NonDioxin		7,680			5,740			7,300			11,300	J		9,860			22,100		
PCB 63	NonDioxin		1,660			942			1,400			668	J		824			1,440		
PCB 64	NonDioxin		13,600			12,300			12,000			3,220	J		3,150			20,200		
PCB 66	NonDioxin		12,600			10,000			11,300			9,570	J		7,960			27,700		
PCB 67	NonDioxin		137			88.9			104			199	J		229			102		
PCB 68	NonDioxin		398			239			331			195	J		310			284		
PCB 72	NonDioxin		440			289			447			277	J		485			522		
PCB 73	NonDioxin		2.29	U		59.6			171			2.29	U		2.32	U		26.7		
PCB 78	NonDioxin		50.2			5.54	U		50.5			12.9	J		19.8			48.4		
PCB 79	NonDioxin		379			175			203			133	J		187			129		
PCB 80	NonDioxin		2.29	U		4.9	U		2.26	U		2.29	U		2.32	U		6.81	U	
PCB 82	NonDioxin		1,220			860			806			620	J		794			1,280		
PCB 83/99	NonDioxin		33,200			31,700			31,800			16,100	J		17,500			58,500		
PCB 84	NonDioxin		5,620			3,610			4,600			1,320	J		1,660			3,130		
PCB 85/116/117	NonDioxin		10,400			8,440			8,910			3,360	J		3,840			13,300		
PCB 86/87/97/109/119/125	NonDioxin		14,200			--			9,180			7,030	J		8,290			--		
PCB 86/87/97/108/119/125	NonDioxin		--			9,860			--			--			--			9,190		
PCB 88/91	NonDioxin		5,400			4,310			4,230			2,040	J		3,360			3,580		
PCB 89	NonDioxin		10.7			8.92			10.2	R		48.9	J		55.1			7.9		
PCB 90/101/113	NonDioxin		43,900			30,200			35,600			14,500	J		19,800			30,600		
PCB 92	NonDioxin		7,850			7,200			8,060			3,370	J		4,990			7,430		
PCB 93/95/98/100/102	NonDioxin		26,300			16,700			20,800			7,430	J		9,140			10,700		
PCB 94	NonDioxin		98.3			104			134			47.8	J		55.3			31		

TABLE 2.8 Supplement a
PCB Congener Concentrations (ng/kg) in Large Fish
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI403-XAE-FI-1			GC-TI403-XAE-FI-2			GC-TI403-XAE-FI-3			GC-TI406-SB-FI-1			GC-TI406-SB-FI-2			GC-TI406-XAE-FI-1		
			GC-TI403-XAE			GC-TI403-XAE			GC-TI403-XAE			GC-TI406-SB			GC-TI406-SB			GC-TI406-XAE		
			American Eel			American Eel			American Eel			Striped Bass			Striped Bass			American Eel		
			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 96	NonDioxin		46.1			36.5			29.7			49.5	J		74.8			21.3		
PCB 103	NonDioxin		108			80.2			40.3			366	J		540			20		
PCB 104	NonDioxin		3.06			2.3	U		2.26	U		10.8	J		16.7			2.28	U	
PCB 106	NonDioxin		2.74	U		19.4	U		2.26	U		2.29	U		2.32	U		42.8	U	
PCB 107	NonDioxin		1,350			--			1,010			1,290	J		1,720			--		
PCB 107/124	NonDioxin		--			118			--			--			--			178		
PCB 108/124	NonDioxin		248			--			181			338	J		348			--		
PCB 109	NonDioxin		--			771			--			--			--			1,190		
PCB 110/115	NonDioxin		43,700			33,100			38,600			9,630	J		14,100			36,100		
PCB 111	NonDioxin		88			85.8			85.5			34.8	J		61.9			181		
PCB 112	NonDioxin		2.29	U		2.3	U		2.26	U		2.29	U		2.32	U		2.28	U	
PCB 120	NonDioxin		348			292			326			175	J		249			736		
PCB 121	NonDioxin		52.4			43.6			49.6			19.1	J		30			96.6		
PCB 122	NonDioxin		150			111			116			71	J		77.5			129		
PCB 127	NonDioxin		154			51.6			2.26	U		36.1	J		54.5			189		
PCB 128/166	NonDioxin		14,100			9,390			12,600			3,250	J		4,210			18,000		
PCB 129/138/160/163	NonDioxin		111,000			77,600			92,700			24,600	J		29,800			141,000		
PCB 130	NonDioxin		4,730			3,630			3,940			874	J		1,360			5,280		
PCB 131	NonDioxin		344			172			226			82.5	J		129			96.3		
PCB 132	NonDioxin		8,440			5,310			7,920			2,210	J		3,380			3,930		
PCB 133	NonDioxin		1,720			1,430			1,470			485	J		789			2,870		
PCB 134/143	NonDioxin		2,670			1,810			2,240			401	J		604			1,700		
PCB 135/151/154	NonDioxin		22,000			9,250			23,300			7,030	J		8,770			10,100		
PCB 136	NonDioxin		4,660			2,580			3,730			1,050	J		1,560			1,570		
PCB 137	NonDioxin		4,150			2,350			3,340			1,110	J		1,330			5,220		
PCB 139/140	NonDioxin		1,530			1,060			1,260			443	J		587			1,790		
PCB 141	NonDioxin		7,890			4,360			6,850			2,290	J		2,780			9,490		
PCB 142	NonDioxin		2.29	U		3.59	U		2.26	U		2.29	U		2.32	U		4.92	U	
PCB 144	NonDioxin		1,170			667			789			653	J		770			346		
PCB 145	NonDioxin		2.29	U		2.3	U		2.26	U		2.29	U		3.1			2.28	U	
PCB 146	NonDioxin		17,100			14,100			14,400			5,260	J		8,360			29,700		
PCB 147/149	NonDioxin		70,000			41,400			59,100			12,300	J		16,300			34,300		
PCB 148	NonDioxin		327			249			305			127	J		208			508		
PCB 150	NonDioxin		41.1			29.6			19.8			97.9	J		154			8.04		
PCB 152	NonDioxin		7			8.81			11.1			12.9	J		24.3			2.64		
PCB 153/168	NonDioxin		116,000			89,100			105,000			36,200	J		37,000			219,000		
PCB 155	NonDioxin		126			397			123			64.7	J		80.9			413		
PCB 158	NonDioxin		9,310			6,600			8,260			2,030	J		2,010			11,800		
PCB 159	NonDioxin		224			42.9			209			69.4	J		100			196		
PCB 161	NonDioxin		2.29	U		2.57	U		2.26	U		2.29	U		2.32	U		3.58	U	
PCB 162	NonDioxin		213			92.3			140			79.9	J		104			305		
PCB 164	NonDioxin		2,370			1,360			1,950			650	J		1,060			2,930		
PCB 165	NonDioxin		83.3			76.2			74.4			36.9	J		70.4			189		

TABLE 2.8 Supplement a
PCB Congener Concentrations (ng/kg) in Large Fish
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI403-XAE-FI-1			GC-TI403-XAE-FI-2			GC-TI403-XAE-FI-3			GC-TI406-SB-FI-1			GC-TI406-SB-FI-2			GC-TI406-XAE-FI-1		
			GC-TI403-XAE			GC-TI403-XAE			GC-TI403-XAE			GC-TI406-SB			GC-TI406-SB			GC-TI406-XAE		
			American Eel			American Eel			American Eel			Striped Bass			Striped Bass			American Eel		
			Fillet			Fillet			Fillet			Fillet			Fillet			Fillet		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 170	NonDioxin		14,800			8,330			12,000			4,060	J		4,130			27,200		
PCB 171/173	NonDioxin		6,550			3,850			5,360			1,420	J		1,550			8,160		
PCB 172	NonDioxin		2,400			1,590			1,900			669	J		882			5,190		
PCB 174	NonDioxin		4,150			1,700			3,700			1,170	J		1,700			4,490		
PCB 175	NonDioxin		919			626			757			242	J		291			1,450		
PCB 176	NonDioxin		850			470			585			261	J		317			225		
PCB 177	NonDioxin		9,830			7,250			8,750			1,570	J		2,010			11,900		
PCB 178	NonDioxin		4,360			3,970			3,500			1,310	J		1,710			8,320		
PCB 179	NonDioxin		3,130			2,370			3,010			1,120	J		1,270			2,480		
PCB 180/193	NonDioxin		39,600			24,800			33,200			12,300	J		12,200			99,800		
PCB 181	NonDioxin		193			98.5			155			54.2	J		68.8			324		
PCB 182	NonDioxin		126			77.1			107			48.9	J		82.1			204		
PCB 183/185	NonDioxin		18,000			11,800			15,200			4,740	J		4,850			28,200		
PCB 184	NonDioxin		77.2			90.2			66.1			20.6	J		27.4			129		
PCB 186	NonDioxin		2.29	U		2.3	U		2.26	U		2.29	U		2.32	U		2.28	U	
PCB 187	NonDioxin		35,900			25,900			29,500			8,870	J		11,400			67,800		
PCB 188	NonDioxin		117			113			110			71.8	J		84.2			397		
PCB 190	NonDioxin		4,470			2,810			3,810			984	J		949			6,320		
PCB 191	NonDioxin		866			561			734			210	J		195			1,560		
PCB 192	NonDioxin		2.29	U		3.08			2.26	U		2.29	U		2.32	U		2.28	U	
PCB 194	NonDioxin		4,270			3,840			3,980			1,570	J		1,590			12,100		
PCB 195	NonDioxin		2,690			1,700			2,180			602	J		648			3,640		
PCB 196	NonDioxin		3,630			2,840			2.26	U		978	J		1,090			8,040		
PCB 197/200	NonDioxin		635			538			525			167	J		244			975		
PCB 198/199	NonDioxin		5,910			5,550			5,110			1,720	J		2,560			17,000		
PCB 201	NonDioxin		937			1,130			730			329	J		436			2,390		
PCB 202	NonDioxin		1,460			2,820			1,460			862	J		1,250			6,790		
PCB 203	NonDioxin		6,250			5,000			5,300			1,660	J		2,100			13,600		
PCB 204	NonDioxin		7.84			8.75			6.27			2.9	J		5.42			19.3		
PCB 205	NonDioxin		345			242			278			76	J		81.2			539		
PCB 206	NonDioxin		2,420			2,730			2,180			845	J		1,040			6,190		
PCB 207	NonDioxin		338			394			318			127	J		167			844		
PCB 208	NonDioxin		754			987			688			344	J		504			2,870		
PCB 209	NonDioxin		764			1,280			637			396	J		470			2,950		
PCB Nondioxin			918,000			665,000			782,000			308,000			345,000			1,220,000		
Total PCB Congeners			991,000			723,000			844,000			332,000			369,000			1,350,000		

TABLE 2.11 Supplement a

PCB Congener Concentrations (ng/kg) in Blue Crab– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI401-402-BC-HP-1		GC-TI401-BC-ED-1		GC-TI401-BC-ED-2		GC-TI401-BC-WB-1		GC-TI401-BC-WB-2		GC-TI402-BC-ED-1		GC-TI402-BC-ED-2		GC-TI402-E	
			GC-TI401-402-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI402-BC		GC-TI402-BC		GC-TI40	
			Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue C	
			Hepatopancreas		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 77	Dioxin	0.0001	**1,010**	0.101	**335**	0.0335	**514**	0.0514	**598**	0.0598	**702**	0.0702	**464**	0.0464	**629**	0.0629	**681**	
PCB 81	Dioxin	0.0003	**45.8**	0.01374	**19.6**	0.00588	**26.6**	0.00798	**29.8**	0.00894	**33.9**	0.01017	**27.5**	0.00825	**32.6**	0.00978	**34.8**	
PCB 105	Dioxin	0.00003	**6,150**	0.1845	**2,600**	0.078	**3,200**	0.096	**3,980**	0.1194	**4,320**	0.1296	**2,370**	0.0711	**3,780**	0.1134	**3,870**	
PCB 114	Dioxin	0.00003	**466**	0.01398	**194**	0.00582	**215**	0.00645	**300**	0.009	**310**	0.0093	**179**	0.00537	**260**	0.0078	**293**	
PCB 118	Dioxin	0.00003	**20,300**	0.609	**8,380**	0.2514	**9,730**	0.2919	**13,000**	0.39	**13,700**	0.411	**6,980**	0.2094	**10,700**	0.321	**12,300**	
PCB 123	Dioxin	0.00003	**410**	0.0123	**181**	0.00543	**213**	0.00639	**270**	0.0081	**288**	0.00864	**175**	0.00525	**237**	0.00711	**268**	
PCB 126	Dioxin	0.1	**60**	6	**19.6**	1.96	**27.6**	2.76	**35.3**	3.53	**39.9**	3.99	**24.7**	2.47	**31.5**	3.15	**38.7**	
PCB 156/157	Dioxin	0.00003	**2,750**	0.0825	**1,140**	0.0342	**1,200**	0.036	**1,770**	0.0531	**1,790**	0.0537	**917**	0.02751	**1,290**	0.0387	**1,650**	
PCB 167	Dioxin	0.00003	**1,330**	0.0399	**523**	0.01569	**604**	0.01812	**837**	0.02511	**880**	0.0264	**434**	0.01302	**600**	0.018	**790**	
PCB 169	Dioxin	0.03	**12.1** U	0	**6.03** U	0	**6.63** U	0	**0** U	0	**0** U	0	**5.18** U	0	**5.37** U	0	**0**	U
PCB 189	Dioxin	0.00003	**219**	0.00657	**76.9**	0.002307	**91.4**	0.002742	**132**	0.00396	**140**	0.0042	**68**	0.00204	**90.8**	0.002724	**128**	
PCB Dioxin			**7.06**		**2.39**		**3.28**		**4.21**		**4.71**		**2.86**		**3.73**		**4.53**	
PCB 1	NonDioxin		**11.9**		**5.94**		**4.33**		**8.26**		**7.2**		**2.31** U		**3.4**		**4.73**	U
PCB 2	NonDioxin		**4.59** U		**2.28** U		**2.32** U		**0** U		**0** U		**2.31** U		**2.29** U		**0**	U
PCB 3	NonDioxin		**14**		**5.89**		**4.02**		**9.04**		**7.81**		**2.31** U		**2.29** U		**5.57**	U
PCB 4	NonDioxin		**40.9**		**21.3**		**16.8**		**28.9**		**25.9**		**6**		**16.4**		**19.9**	
PCB 5	NonDioxin		**4.59** U		**2.28** U		**2.32** U		**0** U		**0** U		**2.31** U		**2.29** U		**0**	U
PCB 6	NonDioxin		**17.7**		**9.29**		**7.6**		**12.6**		**11.4**		**3.37**		**5.8**		**9.07**	
PCB 7	NonDioxin		**7.32**		**3.61**		**2.32** U		**5.05**		**2.78** U		**2.31** U		**2.29** U		**2.91**	U
PCB 8	NonDioxin		**78.6**		**35.6**		**30.1**		**52.3**		**48.5**		**11.7**		**19**		**38.3**	
PCB 9	NonDioxin		**5.6**		**2.5**		**2.32** U		**3.71**		**2.13** U		**2.31** U		**2.29** U		**2.23**	U
PCB 10	NonDioxin		**4.59** U		**2.28** U		**2.32** U		**0** U		**0** U		**2.31** U		**2.29** U		**0**	U
PCB 11	NonDioxin		**87.6**		**38.6**		**57.7**		**57.7**		**69.1**		**21**		**47.8**		**47.5**	
PCB 12/13	NonDioxin		**15**		**7.34**		**10.9**		**10.5**		**12.6**		**7.67**		**8.23**		**10.7**	
PCB 14	NonDioxin		**4.59** U		**2.28** U		**2.32** U		**0** U		**0** U		**2.31** U		**2.29** U		**0**	U
PCB 15	NonDioxin		**670**		**275**		**437**		**429**		**525**		**443**		**677**		**533**	
PCB 16	NonDioxin		**21.3**		**8.5**		**6.34**		**13.5**		**12**		**2.6**		**7.33**		**10**	
PCB 17	NonDioxin		**40.8**		**20.5**		**21**		**28.4**		**28.5**		**10.2**		**20.3**		**22.4**	
PCB 18/30	NonDioxin		**62.6**		**24.2**		**24.1**		**46.6**		**46**		**10.7**		**31.7**		**39**	
PCB 19	NonDioxin		**8.38**		**4.32**		**3.34**		**5.9**		**5.25**		**2.31** U		**5.35**		**3.33**	U
PCB 20/28	NonDioxin		**8,320**		**4,010**		**5,410**		**5,690**		**6,510**		**4,910**		**7,380**		**6,270**	
PCB 21/33	NonDioxin		**63.3**		**26.8**		**29.7**		**43.8**		**45.2**		**27.3**		**29.1**		**44.5**	
PCB 22	NonDioxin		**59.8**		**24.1**		**36.1**		**38**		**45.1**		**18.5**		**23**		**34.9**	
PCB 23	NonDioxin		**4.59** U		**2.28** U		**2.32** U		**0** U		**0** U		**2.31** U		**2.29** U		**0**	U
PCB 24	NonDioxin		**4.59** U		**2.28** U		**2.32** U		**0** U		**0** U		**2.31** U		**2.29** U		**0**	U
PCB 25	NonDioxin		**35.2**		**13.2**		**14.9**		**21.8**		**22.6**		**8.8**		**12.7**		**19.3**	
PCB 26/29	NonDioxin		**50.7**		**18.4**		**19.3**		**40**		**40.1**		**9.35**		**22.3**		**35.1**	
PCB 27	NonDioxin		**9.19**		**3.99**		**5.88**		**9.67**		**10.7**		**2.4**		**5.41**		**8.84**	
PCB 31	NonDioxin		**231**		**81.5**		**72.3**		**140**		**133**		**37.9**		**68.7**		**115**	
PCB 32	NonDioxin		**40.7**		**19.7**		**30.4**		**35.8**		**42.1**		**19.6**		**22.7**		**36.1**	
PCB 34	NonDioxin		**4.59** U		**2.28** U		**3.63**		**2.7** U		**4.89**		**2.31** U		**2.29** U		**2.76**	U
PCB 35	NonDioxin		**4.59** U		**2.28** U		**2.32** U		0 R		0 R		**2.31** U		**2.29** U		0	R

TABLE 2.11 Supplement a

PCB Congener Concentrations (ng/kg) in Blue Crab– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI401-402-BC-HP-1		GC-TI401-BC-ED-1		GC-TI401-BC-ED-2		GC-TI401-BC-WB-1		GC-TI401-BC-WB-2		GC-TI402-BC-ED-1		GC-TI402-BC-ED-2		GC-TI402-E	
			GC-TI401-402-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI402-BC		GC-TI402-BC		GC-TI40	
			Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue C	
			Hepatopancreas		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 36	NonDioxin		4.59 U		2.28 U		5.46		0 U		3.39		2.31 U		2.29 U		0 U	
PCB 37	NonDioxin		1,560		585		827		964		1,110		945		1,240		1,190	
PCB 38	NonDioxin		4.59 U		2.28 U		2.32 U		0 U		0 U		2.31 U		2.29 U		0 U	
PCB 39	NonDioxin		7.61		4.29		5.59		5.58		6.36		2.42		5.24		4.48	
PCB 40/41/71	NonDioxin		217		50		139		223		275		92.6		63.7		253	
PCB 42	NonDioxin		58.2		27.2		26.3		39.3		38.4		13.8		24.7		31.5	
PCB 43	NonDioxin		9.78		2.66		5.93		11		12.9		5.38		8.34		12.9	
PCB 44/47/65	NonDioxin		7,790		4,740		5,270		5,930		6,230		3,490		6,260		5,200	
PCB 45/51	NonDioxin		10.3		5.14		5.78		7.15		7.5		4.62 U		10.8		4.09	
PCB 46	NonDioxin		4.59 U		2.28 U		2.32 U		0 U		0 U		2.31 U		2.29 U		0 U	
PCB 48	NonDioxin		21.7		6.81		8.88		17		18		5.59		12.5		16.4	
PCB 49/69	NonDioxin		220		80.1		46.3		135		112		18.6		47.7		98.7	
PCB 50/53	NonDioxin		11		4.55 U		4.63 U		8.01		7.82		4.62 U		8.26		8.19	
PCB 52	NonDioxin		144		48.3		42.3		133		127		19.8		65.8		118	
PCB 54	NonDioxin		4.59 U		2.28 U		2.32 U		0 U		0 U		2.31 U		2.29 U		0 U	
PCB 55	NonDioxin		4.59 U		2.28 U		2.32 U		0 U		0 U		2.31 U		2.29 U		0 U	
PCB 56	NonDioxin		113		30.7		42.3		66.2		72.6		20.2		28.1		60.7	
PCB 57	NonDioxin		5.63		2.28 U		2.32 U		6.46		6.3		2.31 U		2.29 U		6.6	
PCB 58	NonDioxin		7.99		3.07		3.83		6.12		6.51		2.31 U		2.29 U		4.33	
PCB 59/62/75	NonDioxin		470		335		332		388		384		213		412		315	
PCB 60	NonDioxin		4.59 U		1,050		1,480		1,030		1,290		1,540		2,020		1,320	
PCB 61/70/74/76	NonDioxin		7,530		3,280		4,370		4,930		5,570		3,450		5,260		5,070	
PCB 63	NonDioxin		117		53.3		49.5		78.1		75.1		23.3		44.4		60.5	
PCB 64	NonDioxin		108		54		39.6		75		65.6		23.7		46.4		57.2	
PCB 66	NonDioxin		11,000		4,710		6,780		7,160		8,380		5,510		8,500		7,690	
PCB 67	NonDioxin		4.59 U		6.81		6.6		12.6		12.3		2.57		6.58		10.1	
PCB 68	NonDioxin		66		34.9		37.5		47		48.3		16.3		30.7		36.1	
PCB 72	NonDioxin		31		13.7		15.3		21.7		22.5		5.71		10.3		17.1	
PCB 73	NonDioxin		7.06		3.86		9.75		7.77		11.3		2.47		2.77		7.01	
PCB 78	NonDioxin		4.59 U		2.28 U		2.32 U		0 U		0 U		2.31 U		2.29 U		0 U	
PCB 79	NonDioxin		22.6		17.3		20.4		19.4		21.2		12.8		21.5		16.7	
PCB 80	NonDioxin		4.59 U		2.28 U		2.32 U		0 U		0 U		2.31 U		2.29 U		0 U	
PCB 82	NonDioxin		14.6		6.99		6.1		9.95		9.33		4.2		8.63		8.33	
PCB 83/99	NonDioxin		16,300		8,900		9,700		11,800		12,200		6,650		10,500		10,500	
PCB 84	NonDioxin		16.1		8.99		12.1		11.9		13.8		11.5		18.1		13.5	
PCB 85/116/117	NonDioxin		2,450		1,370		1,530		1,790		1,880		1,140		1,800		1,660	
PCB 86/87/97/109/119/125	NonDioxin		1,230		678		722		893		915		488		798		783	
PCB 88/91	NonDioxin		63.1		32.3		30.8		44.3		43.1		17.5		39.3		35.6	
PCB 89	NonDioxin		4.59 U		2.28 U		2.32 U		0 U		0 U		2.31 U		2.29 U		0 U	
PCB 90/101/113	NonDioxin		907		353		257		568		504		102		240		422	
PCB 92	NonDioxin		132		40.1		30.7		116		108		11.7		31.5		100	
PCB 93/95/98/100/102	NonDioxin		744		353		440		505		555		328		592		493	

TABLE 2.11 Supplement a

PCB Congener Concentrations (ng/kg) in Blue Crab– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI401-402-BC-HP-1		GC-TI401-BC-ED-1		GC-TI401-BC-ED-2		GC-TI401-BC-WB-1		GC-TI401-BC-WB-2		GC-TI402-BC-ED-1		GC-TI402-BC-ED-2		GC-TI402-E	
			GC-TI401-402-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI402-BC		GC-TI402-BC		GC-TI40	
			Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue C	
			Hepatopancreas		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 94	NonDioxin		8.16		4.28		14.3		9.34		15.4		5.08		6.2		9.94	
PCB 96	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 103	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 104	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 106	NonDioxin		5.16	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 107	NonDioxin		633		275		330		414		445		187		300		364	
PCB 108/124	NonDioxin		31.2		6.89		8.39		17.4		18		4.62	U	6.13		13.4	
PCB 110/115	NonDioxin		813		355		304		533		497		222		364		457	
PCB 111	NonDioxin		45.3		21.6		16.7		30.8		27.6		11.3		21		24.8	
PCB 112	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 120	NonDioxin		175		101		101		130		129		65.4		102		109	
PCB 121	NonDioxin		20.2		11.2		11.1		14.7		14.6		6.49		12.4		11.9	
PCB 122	NonDioxin		5.99	U	2.28	U	2.32	U	3.28	U	3.2	U	2.31	U	2.29	U	3.35	U
PCB 127	NonDioxin		27.7		2.28	U	2.32	U	10.8	R	10.5	R	2.31	U	2.29	U	11	R
PCB 128/166	NonDioxin		2,450		1,290		1,430		1,740		1,820		1,040		1,560		1,600	
PCB 129/138/160/163	NonDioxin		22,200		10,100		11,100		14,800		15,300		7,530		12,200		13,400	
PCB 130	NonDioxin		313		123		110		197		187		44.2		84.3		151	
PCB 131	NonDioxin		4.59	U	2.72		4.23		1.66		2.62		2.49		3.61		1.5	
PCB 132	NonDioxin		28.9		9.2		4.3		16.9		13.6		2.68		8.6		13.1	
PCB 133	NonDioxin		553		312		246		406		363		168		316		321	
PCB 134/143	NonDioxin		9.19	U	4.55	U	4.63	U	0	U	0	U	4.62	U	4.57	U	0	U
PCB 135/151/154	NonDioxin		1,640		737		891		1,090		1,180		686		945		1,070	
PCB 136	NonDioxin		7.54		4.52		4.36		5.69		5.57		3.43		9.86		5.06	
PCB 137	NonDioxin		1,150		579		515		801		756		414		612		707	
PCB 139/140	NonDioxin		449		238		251		320		326		189		281		292	
PCB 141	NonDioxin		86.3		42.6		17		59.6		43.3		11.9		21.7		41.5	
PCB 142	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 144	NonDioxin		32		12.3		10.9		20		18.9		7.08		12.8		17	
PCB 145	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 146	NonDioxin		4,690		2,330		2,360		3,250		3,240		1,430		2,230		2,730	
PCB 147/149	NonDioxin		1,040		413		350		657		612		163		351		512	
PCB 148	NonDioxin		117		71.1		73.1		89		89.8		52.8		80.2		78.3	
PCB 150	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 152	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 153/168	NonDioxin		40,900		18,300		21,100		27,100		28,600		14,200		19,500		24,800	
PCB 155	NonDioxin		48.7		26.5		39.4		35.1		42.9		26.3		57.7		35.2	
PCB 158	NonDioxin		2,720		1,100		1,240		1,730		1,800		986		1,400		1,680	
PCB 159	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 161	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 162	NonDioxin		84.2		34.3		38		53.7		55.5		26.5		38.8		49.4	
PCB 164	NonDioxin		4.59	U	25.6		11		29.5		20.4		3.27		6.22		16.2	
PCB 165	NonDioxin		30.3		19.3		14.1		23.6		20.2		8.71		17.3		17.3	

TABLE 2.11 Supplement a

PCB Congener Concentrations (ng/kg) in Blue Crab– Wet Weight, and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-TI401-402-BC-HP-1		GC-TI401-BC-ED-1		GC-TI401-BC-ED-2		GC-TI401-BC-WB-1		GC-TI401-BC-WB-2		GC-TI402-BC-ED-1		GC-TI402-BC-ED-2		GC-TI402-E	
			GC-TI401-402-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI401-BC		GC-TI402-BC		GC-TI402-BC		GC-TI40	
			Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue C	
			Hepatopancreas		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 170	NonDioxin		4,130		1,170		1,310		2,320		2,380		1,200		1,630		2,360	
PCB 171/173	NonDioxin		1,480		581		730		931		1,010		583		803		940	
PCB 172	NonDioxin		807		267		222		477		444		199		314		441	
PCB 174	NonDioxin		55.3		22.7		9.65		35.4		27		5.93		14.2		25.6	
PCB 175	NonDioxin		209		88.1		98.5		135		140		70.3		108		125	
PCB 176	NonDioxin		12		5.43		4.72		7.99		7.48		3.09		6.36		6.63	
PCB 177	NonDioxin		1,260		282		270		662		646		117		209		571	
PCB 178	NonDioxin		1,330		709		654		951		911		467		783		810	
PCB 179	NonDioxin		17.8		6.83		2.81		11.1		8.5		2.31	U	4.11		7.08	
PCB 180/193	NonDioxin		14,900		5,340		6,390		9,060		9,620		4,680		6,640		8,740	
PCB 181	NonDioxin		54.2		28		26.4		38.2		37		21.6		33.2		34.6	
PCB 182	NonDioxin		37.8		28.3		22		32		28		15.4		26.4		24.3	
PCB 183/185	NonDioxin		5,200		2,100		2,590		3,310		3,580		1,810		2,580		3,160	
PCB 184	NonDioxin		16.1		12.6		14.6		14		15.2		8.92		16.2		11.8	
PCB 186	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 187	NonDioxin		9,810		4,410		5,150		6,510		6,920		2,820		4,440		5,600	
PCB 188	NonDioxin		60.4		34.1		44		44.3		50.2		32.5		45.9		43.6	
PCB 190	NonDioxin		1,190		376		435		693		722		345		492		681	
PCB 191	NonDioxin		261		87.3		105		155		164		85.7		122		155	
PCB 192	NonDioxin		4.59	U	2.28	U	2.32	U	0	U	0	U	2.31	U	2.29	U	0	U
PCB 194	NonDioxin		1,760		629		647		1,070		1,070		520		686		1,010	
PCB 195	NonDioxin		571		157		160		318		316		167		228		328	
PCB 196	NonDioxin		1,170		477		467		747		734		368		567		687	
PCB 197/200	NonDioxin		144		73.4		79.3		101		104		47.9		82		86.1	
PCB 198/199	NonDioxin		2,210		842		680		1,370		1,260		634		862		1,260	
PCB 201	NonDioxin		312		143		167		209		222		104		150		187	
PCB 202	NonDioxin		728		486		446		580		553		314		418		479	
PCB 203	NonDioxin		1,390		546		520		874		850		426		615		809	
PCB 204	NonDioxin		4.59	U	2.48		2.32	U	1.52		0	U	2.31	U	2.72		0	U
PCB 205	NonDioxin		38.7		11.6		11.7		22.1		21.9		13		18.4		23.2	
PCB 206	NonDioxin		472		260		238		342		327		303		314		370	
PCB 207	NonDioxin		90.8		66.8		52.4		76.1		67		45.5		71.1		63.5	
PCB 208	NonDioxin		248		227		150		235		187		183		208		209	
PCB 209	NonDioxin		222		215		184		218		198		185		225		200	
PCB Nondioxin			192,000		87,800		101,000		129,000		136,000		73,000		110,000		121,000	
Total PCB Congeners			224,000		101,000		117,000		150,000		158,000		84,600		127,000		141,000	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			C-WB-1	GC-TI402-BC-WB-2		TI403-404-405-406-BC-		GC-TI403-BC-ED-1		GC-TI403-BC-ED-2		GC-TI403-BC-WB-1		GC-TI403-BC-WB-2		GC-TI404-BC-ED-1		GC-TI404	
			2-BC	GC-TI402-BC		GC-TI403-THRU-406-BC		GC-TI403-BC		GC-TI403-BC		GC-TI403-BC		GC-TI403-BC		GC-TI404-BC		GC-TI4	
			rab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Body	Whole Body		Hepatopan		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 77	Dioxin	0.0001	0.0681	**777**	0.0777	**378**	0.0378	**544**	0.0544	**701**	0.0701	**722**	0.0722	**816**	0.0816	432 R	0.0432	360	R
PCB 81	Dioxin	0.0003	0.01044	**37.7**	0.01131	**21.5**	0.00645	**26.7**	0.00801	**38.7**	0.01161	**34**	0.0102	**41.3**	0.01239	**23.8**	0.00714	**20.4**	
PCB 105	Dioxin	0.00003	0.1161	**4,700**	0.141	**2,240**	0.0672	**3,330**	0.0999	**4,120**	0.1236	**4,400**	0.132	**4,880**	0.1464	**2,540**	0.0762	**1,920**	
PCB 114	Dioxin	0.00003	0.00879	**340**	0.0102	**153**	0.00459	**223**	0.00669	**279**	0.00837	**316**	0.00948	**349**	0.01047	**176**	0.00528	**137**	
PCB 118	Dioxin	0.00003	0.369	**14,400**	0.432	**6,410**	0.1923	**10,100**	0.303	**12,000**	0.36	**14,000**	0.42	**15,100**	0.453	**7,390**	0.2217	**5,450**	
PCB 123	Dioxin	0.00003	0.00804	**304**	0.00912	**139**	0.00417	**231**	0.00693	**263**	0.00789	**299**	0.00897	**318**	0.00954	**151**	0.00453	**132**	
PCB 126	Dioxin	0.1	3.87	**42.6**	4.26	**22**	2.2	**30**	3	**37.8**	3.78	**41.4**	4.14	**46.1**	4.61	**20.8**	2.08	**16.5**	
PCB 156/157	Dioxin	0.00003	0.0495	**1,860**	0.0558	**928**	0.02784	**1,350**	0.0405	**1,650**	0.0495	**1,880**	0.0564	**2,060**	0.0618	**931**	0.02793	**702**	
PCB 167	Dioxin	0.00003	0.0237	**884**	0.02652	**471**	0.01413	**660**	0.0198	**745**	0.02235	**915**	0.02745	**963**	0.02889	**457**	0.01371	**346**	
PCB 169	Dioxin	0.03	0	**0** U	0	**6** U	0	**6.84** U	0	**8.24** U	0	**0** U	0	**0** U	0	**4.46** U	0	**3.69**	U
PCB 189	Dioxin	0.00003	0.00384	**141**	0.00423	**71.1**	0.002133	**101**	0.00303	**109**	0.00327	**146**	0.00438	**150**	0.0045	**65.5**	0.001965	**56.3**	
PCB Dioxin				**5.03**		**2.56**		**3.54**		**4.44**		**4.88**		**5.42**		**2.44**		**1.92**	
PCB 1	NonDioxin			**6.71**		**4.62** U		**3.05**		**2.3** U		**6.42**		**4.43** U		**2.3** U		**2.31**	U
PCB 2	NonDioxin			**0** U		**4.62** U		**2.32** U		**2.3** U		**0** U		**0** U		**2.3** U		**2.31**	U
PCB 3	NonDioxin			**5.45** U		**4.62** U		**2.32** U		**2.3** U		**5.33** U		**5.21** U		**2.3** U		**2.31**	U
PCB 4	NonDioxin			**25.9**		**12.8**		**12.7**		**12.2**		**23.4**		**22.9**		**15.4**		**17.3**	
PCB 5	NonDioxin			**0** U		**4.62** U		**2.32** U		**2.3** U		**0** U		**0** U		**2.3** U		**2.31**	U
PCB 6	NonDioxin			**10.4**		**11.3**		**5.07**		**6.59**		**9.88**		**10.7**		**14.4**		**13.8**	
PCB 7	NonDioxin			**2.85** U		**4.62** U		**2.32** U		**2.3** U		**2.79** U		**2.73** U		**2.3** U		**2.31**	U
PCB 8	NonDioxin			**42.2**		**34.2**		**17.9**		**20.4**		**41**		**42.1**		**40.2**		**33.4**	
PCB 9	NonDioxin			**2.18** U		**4.62** U		**2.32** U		**2.3** U		**2.13** U		**2.09** U		**2.3** U		**2.31**	U
PCB 10	NonDioxin			**0** U		**4.62** U		**2.32** U		**2.3** U		**0** U		**0** U		**2.3** U		**2.31**	U
PCB 11	NonDioxin			**63.3**		**63.1**		**60.2**		**50.1**		**70.6**		**64.1**		**60.5**		**36.5**	
PCB 12/13	NonDioxin			**11**		**15.4**		**11.3**		**19.2**		**12.9**		**17.8**		**24.1**		**24**	
PCB 14	NonDioxin			**0** U		**4.62** U		**2.32** U		**2.3** U		**0** U		**0** U		**2.3** U		**2.31**	U
PCB 15	NonDioxin			**674**		**312**		**597**		**928**		**625**		**832**		**506**		**439**	
PCB 16	NonDioxin			**12.8**		**12**		**4.63**		**5.68**		**11**		**11.5**		**7.44**		**7.68**	
PCB 17	NonDioxin			**28.3**		**29.9**		**16.1**		**24.1**		**25.5**		**30.3**		**48.4**		**41.8**	
PCB 18/30	NonDioxin			**51.2**		**81.9**		**17**		**33**		**41.7**		**51.2**		**65.9**		**44.4**	
PCB 19	NonDioxin			**6.53**		**4.62** U		**3.36**		**3.24**		**5.27**		**5.15**		**3.99**		**6.46**	
PCB 20/28	NonDioxin			**7,750**		**3,390**		**5,930**		**7,400**		**6,840**		**7,740**		**4,580**		**4,430**	
PCB 21/33	NonDioxin			**45.2**		**70.6**		**31.4**		36.6 R		**46.3**		26.3 R		**51.6**		**44.9**	
PCB 22	NonDioxin			**37.3**		**51.8**		**26.1**		**40.8**		**38.9**		**47.9**		**83.2**		**56.1**	
PCB 23	NonDioxin			**0** U		**4.62** U		**2.32** U		**2.3** U		**0** U		**0** U		**2.3** U		**2.31**	U
PCB 24	NonDioxin			**0** U		**4.62** U		**2.32** U		**2.3** U		**0** U		**0** U		**2.3** U		**2.31**	U
PCB 25	NonDioxin			**21.5**		**27.1**		**10.1**		**20.2**		**19.7**		**25.8**		**39.7**		**31.3**	
PCB 26/29	NonDioxin			**42.4**		**74**		**13.3**		**27.3**		**36.4**		**44.7**		**62.1**		**39.9**	
PCB 27	NonDioxin			**10.5**		**18.6**		**4.08**		**6.7**		**9.61**		**11.1**		**16**		**11.1**	
PCB 31	NonDioxin			**132**		**170**		**51.1**		**117**		**120**		**159**		**216**		**125**	
PCB 32	NonDioxin			**37.6**		**61.1**		**19.8**		**32**		**35.5**		**42.8**		**79.1**		**56.3**	
PCB 34	NonDioxin			**2.7** U		**6.94**		**2.94**		**2.96**		**4.46**		**4.44**		**6.48**		**4.06**	
PCB 35	NonDioxin			0 R		4.93 R		**2.32** U		**2.7**		0 R		1.69 R		**5.06**		**2.82**	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

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TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			-BC-ED-2	GC-TI404-BC-WB-1		GC-TI404-BC-WB-2		GC-TI405-BC-ED-1		GC-TI405-BC-ED-2		GC-TI405-BC-WB-1		GC-TI405-BC-WB-2		GC-TI406-BC-ED-1		GC-TI406	
			04-BC	GC-TI404-BC		GC-TI404-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI406-BC		GC-TI4	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 77	Dioxin	0.0001	0.036	387 R	0.0387	399 R	0.0399	890 R	0.089	779 R	0.0779	420 R	0.042	410 R	0.041	752 R	0.0752	**451**	
PCB 81	Dioxin	0.0003	0.00612	**32.2**	0.00966	**30.4**	0.00912	**50.1**	0.01503	**40.9**	0.01227	**48.3**	0.01449	**42.9**	0.01287	**36.7**	0.01101	**22.7**	
PCB 105	Dioxin	0.00003	0.0576	**3,920**	0.1176	**3,590**	0.1077	**4,690**	0.1407	**3,840**	0.1152	**5,300**	0.159	**4,780**	0.1434	**3,950**	0.1185	**2,240**	
PCB 114	Dioxin	0.00003	0.00411	**287**	0.00861	**267**	0.00801	**326**	0.00978	**266**	0.00798	**384**	0.01152	**347**	0.01041	**267**	0.00801	**157**	
PCB 118	Dioxin	0.00003	0.1635	**12,300**	0.369	**11,300**	0.339	**14,300**	0.429	**12,200**	0.366	**16,800**	0.504	**15,500**	0.465	**12,400**	0.372	**6,760**	
PCB 123	Dioxin	0.00003	0.00396	**250**	0.0075	**242**	0.00726	**314**	0.00942	**253**	0.00759	**354**	0.01062	**317**	0.00951	**271**	0.00813	**140**	
PCB 126	Dioxin	0.1	1.65	**35.8**	3.58	**33.7**	3.37	**38.4**	3.84	**38.6**	3.86	**47.4**	4.74	**47.3**	4.73	**37.9**	3.79	**22.6**	
PCB 156/157	Dioxin	0.00003	0.02106	**1,630**	0.0489	**1,510**	0.0453	**1,660**	0.0498	**1,450**	0.0435	**2,110**	0.0633	**1,980**	0.0594	**1,490**	0.0447	**777**	
PCB 167	Dioxin	0.00003	0.01038	**792**	0.02376	**735**	0.02205	**839**	0.02517	**706**	0.02118	**1,040**	0.0312	**959**	0.02877	**720**	0.0216	**381**	
PCB 169	Dioxin	0.03	0	**0** U	0	**0** U	0	**6.96** U	0	**6.67** U	0	**0** U	0	**0** U	0	**6.2** U	0	**3.78** U	
PCB 189	Dioxin	0.00003	0.001689	**124**	0.00372	**121**	0.00363	**134**	0.00402	**106**	0.00318	**169**	0.00507	**152**	0.00456	**104**	0.00312	**56.5**	
PCB Dioxin				**4.17**		**3.91**		**4.52**		**4.44**		**5.54**		**5.46**		**4.38**		**2.63**	
PCB 1	NonDioxin			**4.56** U		**4.7** U		**2.37**		**2.32** U		**6.33**		**4.83** U		**2.2** U		**2.27** U	
PCB 2	NonDioxin			**0** U		**0** U		**2.32** U		**2.32** U		**0** U		**0** U		**2.2** U		**2.27** U	
PCB 3	NonDioxin			**5.37** U		**5.53** U		**2.32** U		**2.32** U		**5.82** U		**5.68** U		**2.2** U		**2.27** U	
PCB 4	NonDioxin			**25.2**		**26.6**		**19.2**		**9.98**		**28.2**		**22.5**		**12.1**		**9.56**	
PCB 5	NonDioxin			**0** U		**0** U		**2.32** U		**2.32** U		**0** U		**0** U		**2.2** U		**2.27** U	
PCB 6	NonDioxin			**15.7**		**15.3**		**13**		**5.12**		**15**		**10.2**		**3.59**		**3.16**	
PCB 7	NonDioxin			**2.81** U		**2.89** U		**2.32** U		**2.32** U		**3.04** U		**2.97** U		**2.2** U		**2.27** U	
PCB 8	NonDioxin			**54.9**		**51.3**		**63.5**		**19.2**		**69.8**		**43.3**		**18.5**		**17.4**	
PCB 9	NonDioxin			**2.15** U		**2.21** U		**2.32** U		**2.32** U		**2.33** U		**2.27** U		**2.2** U		**2.27** U	
PCB 10	NonDioxin			**0** U		**0** U		**2.32** U		**2.32** U		**0** U		**0** U		**2.2** U		**2.27** U	
PCB 11	NonDioxin			**70.9**		**56.7**		**68.7**		**58.7**		**76.6**		**70.4**		**56.7**		**44.6**	
PCB 12/13	NonDioxin			**20.8**		**20.6**		**23.8**		**16.6**		**20.3**		**16.1**		**15.1**		**14.3**	
PCB 14	NonDioxin			**0** U		**0** U		**2.32** U		**2.32** U		**0** U		**0** U		**2.2** U		**2.27** U	
PCB 15	NonDioxin			**569**		**530**		**869**		**671**		**786**		**671**		**634**		**561**	
PCB 16	NonDioxin			**12.8**		**13.1**		**13.9**		**3.14**		**17**		**10.5**		**6.31**		**5.52**	
PCB 17	NonDioxin			**45.5**		**41.4**		**45.9**		**20.4**		**43.8**		**28.7**		**22.2**		**20.1**	
PCB 18/30	NonDioxin			**72**		**59.2**		**60.3**		**20.3**		**69.3**		**45.3**		**29.2**		**35**	
PCB 19	NonDioxin			**5.67**		**7.22**		**5.28**		2.42 R		**6.57**		3.4 R		**3.69**		**2.27** U	
PCB 20/28	NonDioxin			**6,010**		**5,970**		**9,420**		**7,810**		**8,960**		**8,020**		**6,820**		**5,180**	
PCB 21/33	NonDioxin			**58.9**		**55.1**		**99.6**		**39.2**		**87.5**		**51.9**		**44.5**		**21.9**	
PCB 22	NonDioxin			**74.2**		**57.6**		**83.3**		**32**		**73.5**		**43.3**		**44**		**59.5**	
PCB 23	NonDioxin			**0** U		**0** U		**2.32** U		**2.32** U		**0** U		**0** U		**2.2** U		**2.27** U	
PCB 24	NonDioxin			**0** U		**0** U		**2.32** U		**2.32** U		**0** U		**0** U		**2.2** U		**2.27** U	
PCB 25	NonDioxin			**38**		**32.8**		**23.7**		**16**		**28.5**		**23.8**		**18.7**		**26.3**	
PCB 26/29	NonDioxin			**66.7**		**53.4**		**34.4**		**23.6**		**50.9**		**44**		**26.3**		**38.4**	
PCB 27	NonDioxin			**17**		**14.1**		**9.22**		**5.63**		**13.1**		**10.9**		**6.78**		**6.66**	
PCB 31	NonDioxin			**222**		**167**		**163**		**83.7**		**191**		**143**		**99.7**		**177**	
PCB 32	NonDioxin			**72.2**		**58.2**		**52.9**		**31.7**		**56.3**		**43.6**		**35.2**		**32.2**	
PCB 34	NonDioxin			**6.66**		**5.2**		**5.4**		**4.99**		**6.04**		**5.78**		**3.74**		**2.48**	
PCB 35	NonDioxin			3.12 R		1.71 R		**4.41**		**3.24**		2.58 R		1.93 R		3.02 R		**3.09**	

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PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			-BC-ED-2	GC-TI404-BC-WB-1		GC-TI404-BC-WB-2		GC-TI405-BC-ED-1		GC-TI405-BC-ED-2		GC-TI405-BC-WB-1		GC-TI405-BC-WB-2		GC-TI406-BC-ED-1		GC-TI406	
			04-BC	GC-TI404-BC		GC-TI404-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI406-BC		GC-TI4	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 36	NonDioxin			2.86		0 U		9.09		6.54		5.31		3.89		5.37		3.69	
PCB 37	NonDioxin			1,110		1,090		1,690		1,440		1,640		1,490		1,300		877	
PCB 38	NonDioxin			0 U		0 U		2.32 U		2.32 U		0 U		0 U		2.2 U		2.27 U	
PCB 39	NonDioxin			7.24		5.05		7.42		7.22		7.5		7.38		6.39		5.38	
PCB 40/41/71	NonDioxin			367		289		133		185		284		311		194		123	
PCB 42	NonDioxin			65.5		48.6		35.7		30.9		45.1		42		35.5		37.2	
PCB 43	NonDioxin			20.3		17.1		5.92		7.76		13.5		14.4		9.9		4.88 R	
PCB 44/47/65	NonDioxin			5,000		4,920		6,380		5,210		6,970		6,260		5,310		3,450	
PCB 45/51	NonDioxin			17.6		11.7		9.89		6.91		10.1		8.28		8.96		5.22 R	
PCB 46	NonDioxin			1.73		1.9		2.82		2.32 U		1.65		0 U		2.2 U		2.27 U	
PCB 48	NonDioxin			34		25.3		21		10.3		25.9		19.5		14.4		11.5	
PCB 49/69	NonDioxin			197		127		58.3		42.5		126		114		67.1		101	
PCB 50/53	NonDioxin			20.7		14.9		8.64		5.06		13.6		11.4		7.61		7.61	
PCB 52	NonDioxin			238		152		64.2		55.6		148		141		88		115	
PCB 54	NonDioxin			0 U		0 U		2.32 U		2.32 U		0 U		0 U		2.2 U		2.27 U	
PCB 55	NonDioxin			0 U		0 U		2.32 U		2.32 U		0 U		0 U		2.2 U		2.78 U	
PCB 56	NonDioxin			123		87.2		57.7		36.4		84.4		71.1		54.1		62.7	
PCB 57	NonDioxin			9.33		8.06		2.32 U		3.05		6.9		8.55		3.52		2.46 U	
PCB 58	NonDioxin			7.46		4.31		11.3		2.85		11.1		6.11		4.84		4.02 R	
PCB 59/62/75	NonDioxin			304		303		420		355		441		402		373		248	
PCB 60	NonDioxin			1,060		1,010		2,810		2,090		2,050		1,640		1,850		1,300	
PCB 61/70/74/76	NonDioxin			4,820		4,650		6,660		5,770		7,020		6,480		5,030		3,590	
PCB 63	NonDioxin			89.6		68.4		55.3		79.9		80.9		94.9		67.6		59.5	
PCB 64	NonDioxin			124		82.4		55.1		44.6		77.1		70.3		65		99.2	
PCB 66	NonDioxin			7,410		7,020		11,600		9,980		11,400		10,400		8,970		5,370	
PCB 67	NonDioxin			17.9		13.5		6.67		7.9		12.9		13.5		10.1		2.27 U	
PCB 68	NonDioxin			49		36.9		45.3		49.3		53.9		56.1		44.2		29.9	
PCB 72	NonDioxin			28.8		19.1		13.9		23.1		22.4		27.6		21.2		15.7	
PCB 73	NonDioxin			12.9		7.62		20.6		7.88		17.8		10.3		8.96		6.36	
PCB 78	NonDioxin			0 U		0 U		2.32 U		2.32 U		0 U		0 U		2.2 U		2.62 U	
PCB 79	NonDioxin			20		16.3		26.3		22.7		24.8		22.7		24.8		12.1	
PCB 80	NonDioxin			0 U		0 U		2.32 U		2.32 U		0 U		0 U		2.2 U		2.41 U	
PCB 82	NonDioxin			12.4		10.5		10.9		8.38		12.4		10.9		9.96		5.5	
PCB 83/99	NonDioxin			10,400		9,870		14,400		10,900		15,200		13,100		11,100		6,070	
PCB 84	NonDioxin			24.2		21.9		15.4		22		15.9		19.8		22.8		10.1	
PCB 85/116/117	NonDioxin			1,670		1,520		2,300		1,810		2,360		2,070		1,890		1,020	
PCB 86/87/97/109/119/125	NonDioxin			813		769		978		829		1,080		992		862		498	
PCB 88/91	NonDioxin			88.9		47.7		22.2		52.2		39.2		56.6		56.3		58.6	
PCB 89	NonDioxin			0 U		0 U		2.32 U		2.32 U		0 U		0 U		2.2 U		2.27 U	
PCB 90/101/113	NonDioxin			689		474		219		325		505		561		348		404	
PCB 92	NonDioxin			151		115		14.5		40.5		106		119		58.4		61.8	
PCB 93/95/98/100/102	NonDioxin			582		517		658		618		694		669		636		330	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			-BC-ED-2	GC-TI404-BC-WB-1		GC-TI404-BC-WB-2		GC-TI405-BC-ED-1		GC-TI405-BC-ED-2		GC-TI405-BC-WB-1		GC-TI405-BC-WB-2		GC-TI406-BC-ED-1		GC-TI406	
			04-BC	GC-TI404-BC		GC-TI404-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI406-BC		GC-TI4	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 94	NonDioxin			18.8		10.9		14.5		18.5		15.7		18		15.4		8.03	
PCB 96	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 103	NonDioxin			6.23		0	U	2.32	U	2.32	U	0	U	0	U	2.37		5.02	
PCB 104	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 106	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 107	NonDioxin			450		357		471		438		538		517		412		266	
PCB 108/124	NonDioxin			25.6		17.3		6.9		12.9		18.1		21.4		13.2		13	
PCB 110/115	NonDioxin			624		481		390		391		566		562		411		338	
PCB 111	NonDioxin			25.8		24.6		21.1		20		31.2		30.3		23.1		13.9	
PCB 112	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 120	NonDioxin			113		106		131		114		149		139		125		70.6	
PCB 121	NonDioxin			12.1		11.8		11.8		12.2		15.3		15.4		15.5		8.15	
PCB 122	NonDioxin			3.23	U	3.33	U	2.32	U	2.32	U	3.5	U	3.42	U	2.2	U	2.37	U
PCB 127	NonDioxin			10.6	R	11	R	2.32	U	2.32	U	11.5	R	11.2	R	2.2	U	8.36	
PCB 128/166	NonDioxin			1,610		1,500		2,070		1,460		2,230		1,860		1,820		929	
PCB 129/138/160/163	NonDioxin			13,900		13,000		16,800		11,600		19,000		15,900		12,700		7,190	
PCB 130	NonDioxin			200		161		108		146		193		214		113		81.9	
PCB 131	NonDioxin			3.58		1.63		4.53		6.84		2.65		4.07		6.43		3.55	
PCB 132	NonDioxin			19.8		15.7		4.94		6.27		14.9		15.4		10.2		8.02	
PCB 133	NonDioxin			344		326		393		339		459		426		361		192	
PCB 134/143	NonDioxin			4.79		0	U	4.64	U	4.63	U	0	U	0	U	4.39	U	4.54	U
PCB 135/151/154	NonDioxin			1,080		1,070		1,510		1,140		1,560		1,340		1,110		688	
PCB 136	NonDioxin			11.2		8.3		4.25		7.86		5.62		7.73		8.35		3.14	
PCB 137	NonDioxin			693		663		732		582		906		812		613		348	
PCB 139/140	NonDioxin			286		277		393		278		416		347		298		176	
PCB 141	NonDioxin			63.9		43.7		24.3		27.6		50.1		51.4		35.4		34.9	
PCB 142	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 144	NonDioxin			27.7		18.3		10.6		19		19.5		24.3		16.5		14.6	
PCB 145	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 146	NonDioxin			2,900		2,650		3,030		2,560		3,720		3,420		2,720		1,400	
PCB 147/149	NonDioxin			870		582		269		563		589		756		445		440	
PCB 148	NonDioxin			78.3		78.6		102		88.9		108		100		90		48.4	
PCB 150	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 152	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 153/168	NonDioxin			24,900		23,500		31,800		24,200		35,600		31,000		24,000		11,600	
PCB 155	NonDioxin			34.3		33.3		49.1		44.2		48.9		46		48.3		23.1	
PCB 158	NonDioxin			1,610		1,560		1,920		1,390		2,250		1,930		1,450		795	
PCB 159	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 161	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 162	NonDioxin			51.5		47		49.9		41.5		64.2		58.8		42.8		25.6	
PCB 164	NonDioxin			30.1		20		7.5		19.4		19.2		26		15.3		2.27	U
PCB 165	NonDioxin			19.7		17.7		19.2		19.7		23.8		24		20.8		11.8	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			-BC-ED-2	GC-TI404-BC-WB-1		GC-TI404-BC-WB-2		GC-TI405-BC-ED-1		GC-TI405-BC-ED-2		GC-TI405-BC-WB-1		GC-TI405-BC-WB-2		GC-TI406-BC-ED-1		GC-TI406	
			04-BC	GC-TI404-BC		GC-TI404-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI405-BC		GC-TI406-BC		GC-TI4	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 170	NonDioxin			2,240		2,230		2,000		1,260		2,890		2,420		1,470		728	
PCB 171/173	NonDioxin			899		865		1,150		741		1,290		1,040		842		428	
PCB 172	NonDioxin			439		441		371		303		552		507		265		145	
PCB 174	NonDioxin			40.7		28.8		9.87		15.3		28.8		31.5		15.3		22.8	
PCB 175	NonDioxin			130		127		156		127		178		160		134		73	
PCB 176	NonDioxin			12.2		7.53		3.02		8.02		6.75		9.63		5.66		4.62	
PCB 177	NonDioxin			693		598		273		354		683		721		255		183	
PCB 178	NonDioxin			880		820		1,180		979		1,240		1,120		966		506	
PCB 179	NonDioxin			13.4		9.87		2.32	U	4.03		7.4		9.61		6.08		6.18	
PCB 180/193	NonDioxin			8,580		8,340		8,760		6,380		11,300		9,840		6,800		3,380	
PCB 181	NonDioxin			32.6		33.5		40.2		28		46		38.6		27.2		14.8	
PCB 182	NonDioxin			23.8		23.6		22.5		19.8		28.9		27.1		22.8		11.5	
PCB 183/185	NonDioxin			3,100		2,990		3,940		2,780		4,460		3,760		3,020		1,540	
PCB 184	NonDioxin			12.4		10.6		16.5		14.4		16.3		15.1		16.9		9.58	
PCB 186	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 187	NonDioxin			6,060		5,600		5,510		4,590		7,300		6,710		4,620		3,060	
PCB 188	NonDioxin			43.4		41.7		59.3		50.2		59.8		54.3		50.1		27	
PCB 190	NonDioxin			650		643		602		443		846		746		463		241	
PCB 191	NonDioxin			148		148		166		122		205		178		121		62.6	
PCB 192	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 194	NonDioxin			946		942		793		630		1,190		1,090		716		343	
PCB 195	NonDioxin			303		308		226		145		369		318		178		94.3	
PCB 196	NonDioxin			638		655		557		429		812		730		508		264	
PCB 197/200	NonDioxin			88.1		82		87.5		65.5		111		97.3		78.8		51.8	
PCB 198/199	NonDioxin			1,210		1,180		737		705		1,350		1,320		747		441	
PCB 201	NonDioxin			199		176		200		176		247		231		197		121	
PCB 202	NonDioxin			542		439		582		552		643		623		626		349	
PCB 203	NonDioxin			762		755		525		491		885		856		598		328	
PCB 204	NonDioxin			0	U	0	U	2.32	U	2.32	U	0	U	0	U	2.2	U	2.27	U
PCB 205	NonDioxin			21.7		21		15.5		13		25.1		23.4		13.3		8.51	
PCB 206	NonDioxin			312		281		209		200		318		310		290		159	
PCB 207	NonDioxin			61		55.5		40.1		38.3		61.2		59.6		56.6		30.4	
PCB 208	NonDioxin			193		163		120		123		173		174		168		97.4	
PCB 209	NonDioxin			183		151		145		121		177		162		169		104	
PCB Nondioxin				123,000		115,000		149,000		116,000		167,000		148,000		117,000		67,800	
Total PCB Congeners				142,000		133,000		171,000		135,000		194,000		172,000		136,000		78,800	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
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Brooklyn, New York

			-BC-ED-2	GC-TI406-BC-WB-1		GC-TI406-BC-WB-2		GC-TI-INNER-BC-ED-1		GC-TI-INNER-BC-ED-2		GC-TI-INNER-BC-WB-1		GC-TI-INNER-BC-WB-2		NER-MIDDLE-OUTER-	GC-TIMIDD	
			106-BC	GC-TI406-BC		GC-TI406-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-IN-MID-OUT-BC	GC-TIMII	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab	Blue	
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Hepat	Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc
PCB 77	Dioxin	0.0001	0.0451	217 R	0.0217	659	0.0659	640	0.064	517	0.0517	567	0.0567	472	0.0472	359	0.0359	271
PCB 81	Dioxin	0.0003	0.00681	38.7	0.01161	31.3	0.00939	28.7	0.00861	24.9	0.00747	27.7	0.00831	24.9	0.00747	24.9	0.00747	15.1
PCB 105	Dioxin	0.00003	0.0672	4,420	0.1326	3,700	0.111	4,280	0.1284	3,360	0.1008	3,960	0.1188	3,270	0.0981	3,060	0.0918	2,140
PCB 114	Dioxin	0.00003	0.00471	310	0.0093	272	0.00816	276	0.00828	234	0.00702	266	0.00798	235	0.00705	239	0.00717	150
PCB 118	Dioxin	0.00003	0.2028	14,100	0.423	11,800	0.354	13,800	0.414	10,900	0.327	12,800	0.384	10,700	0.321	10,100	0.303	6,950
PCB 123	Dioxin	0.00003	0.0042	301	0.00903	241	0.00723	261	0.00783	242	0.00726	253	0.00759	239	0.00717	232	0.00696	141
PCB 126	Dioxin	0.1	2.26	42.6	4.26	36.5	3.65	38.4	3.84	33.3	3.33	36.7	3.67	32.9	3.29	31.8	3.18	16.8
PCB 156/157	Dioxin	0.00003	0.02331	1,760	0.0528	1,510	0.0453	1,450	0.0435	1,310	0.0393	1,480	0.0444	1,390	0.0417	1,580	0.0474	964
PCB 167	Dioxin	0.00003	0.01143	851	0.02553	735	0.02205	738	0.02214	643	0.01929	761	0.02283	696	0.02088	827	0.02481	459
PCB 169	Dioxin	0.03	0	0 U	0	0 U	0	6.45 U	0	6.38 U	0	0 U	0	0 U	0	6.39 U	0	6.44 U
PCB 189	Dioxin	0.00003	0.001695	129	0.00387	117	0.00351	87.4	0.002622	84.4	0.002532	94.3	0.002829	92.9	0.002787	114	0.00342	64.9
PCB Dioxin				4.93		4.28		4.54		3.89		4.32		3.84		3.71		2.04
PCB 1	NonDioxin			2.55 U		4.44 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 2	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 3	NonDioxin			3 U		5.22 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 4	NonDioxin			18.3		21.2		12		9.98		11.5		9.96		9.91		5.76
PCB 5	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 6	NonDioxin			6.62		8.58		5.69		3.04		6.22		4.39		7.72		2.33
PCB 7	NonDioxin			1.57 U		2.73 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 8	NonDioxin			31.4		40.2		22.7		7.53		21.5		10.5		17.9		12.1
PCB 9	NonDioxin			1.2 U		2.09 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 10	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 11	NonDioxin			63.3		60.6		91.6		40		89.3		52.3		82.8		48.5
PCB 12/13	NonDioxin			15.2		14.7		22.8		6.93		19.4		7.69		9.57		6.39
PCB 14	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 15	NonDioxin			642		602		539		366		461		329		239		232
PCB 16	NonDioxin			9.53		11.4		6.97		4.7		7.66		6.12		9.65		3.35
PCB 17	NonDioxin			26.2		27.8		48.6		22.4		43.8		24.6		29.9		21.3
PCB 18/30	NonDioxin			40.5		52.5		75.6		34.5		75.9		46.7		76.9		15.9
PCB 19	NonDioxin			4.7		3.12 U		3.47		4.09		2.57		2.91		4.47 U		2.48
PCB 20/28	NonDioxin			7,140		6,350		6,530		4,910		5,710		4,460		3,360		3,220
PCB 21/33	NonDioxin			50.1		40.1		36.5		18.6		40.3		27.9		51		21.2
PCB 22	NonDioxin			47.4		59.6		100		22.2		85.3		28.3		43.3		35.2
PCB 23	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 24	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U
PCB 25	NonDioxin			22.2		29.6		48.6		15.5		46.1		22.2		38.9		22.7
PCB 26/29	NonDioxin			36.5		51.7		77.8		30.7		83.4		50.4		99.3		25.2
PCB 27	NonDioxin			9.32		11.1		18.5		7.35		19.9		12.1		23.8		3.61
PCB 31	NonDioxin			128		197		295		93.8		266		120		185		127
PCB 32	NonDioxin			40.8		43		74		24.8		69.3		33.7		55.7		30.3
PCB 34	NonDioxin			4.43		4.14		6.18		2.28 U		6.78		2.44		8.48		2.29 U
PCB 35	NonDioxin			0 R		1.94 R		6.86		2.72		6.41		3.41		5.13		2.85

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			-BC-ED-2	GC-TI406-BC-WB-1		GC-TI406-BC-WB-2		GC-TI-INNER-BC-ED-1		GC-TI-INNER-BC-ED-2		GC-TI-INNER-BC-WB-1		GC-TI-INNER-BC-WB-2		NER-MIDDLE-OUTER-		GC-TIMIDD	
			406-BC	GC-TI406-BC		GC-TI406-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-IN-MID-OUT-BC		GC-TIMII	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Hepat		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 36	NonDioxin			4.22		2.31		6.87		2.79		5.09		1.99		4.47 U		4.26	
PCB 37	NonDioxin			1,360		1,130		822		749		728		666		460		367	
PCB 38	NonDioxin			0 U		0 U		4.74		2.28 U		3.51		0 U		4.47 U		2.29 U	
PCB 39	NonDioxin			6.65		6.21		9.37		5.91		8.67		6.13		6.67		5.68	
PCB 40/41/71	NonDioxin			259		262		390		141		444		272		598		135	
PCB 42	NonDioxin			40.4		45		119		42.5		101		44.8		50.5		60.9	
PCB 43	NonDioxin			13		9.02 R		20.7		13.1		23.2		18.1		30.4		2.29 U	
PCB 44/47/65	NonDioxin			5,840		5,070		5,630		5,570		5,110		5,010		3,620		4,050	
PCB 45/51	NonDioxin			9.25		3.84 R		21.7		13.3		19.7		13.5		13.9		9.1	
PCB 46	NonDioxin			0 U		0 U		4.31		2.36		3.19		1.68		4.47 U		2.29 U	
PCB 48	NonDioxin			18.4		19.5		41		23.1		41.2		28.5		41.9		16.7	
PCB 49/69	NonDioxin			99.9		145		285		75		260		107		187		134	
PCB 50/53	NonDioxin			10.4		12.5		29.9		13.1		29.7		17.8		29.3		8.21	
PCB 52	NonDioxin			126		171		341		114		336		174		323		86.3	
PCB 54	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U	
PCB 55	NonDioxin			0 U		0 U		5.89 U		2.28 U		0 U		0 U		4.47 U		2.29 U	
PCB 56	NonDioxin			68.7		84.8		199		49.1		186		78.1		150		94.7	
PCB 57	NonDioxin			6.33		6.19		7.45		2.28 U		11		6.07		21.1		2.29 U	
PCB 58	NonDioxin			6.14		4.06 R		5.16 U		2.28 U		0 R		0 R		7.87 R		2.29 U	
PCB 59/62/75	NonDioxin			394		331		413		363		374		334		262		279	
PCB 60	NonDioxin			1,660		1,180		1,720		1,200		1,490		1,100		850		711	
PCB 61/70/74/76	NonDioxin			5,570		5,060		5,250		4,270		4,900		4,170		3,910		2,720	
PCB 63	NonDioxin			78.2		80.9		93.5		47.5		85.6		52		63.1		62.6	
PCB 64	NonDioxin			74.2		102		220		70.8		193		83.2		114		102	
PCB 66	NonDioxin			9,410		7,470		8,620		6,520		7,750		6,160		5,260		3,840	
PCB 67	NonDioxin			12.6		8.05 U		4.55 U		2.28 U		0 U		0 U		4.47 U		2.29 U	
PCB 68	NonDioxin			48.9		43.4		53.1		33		51.9		37.5		48.5		40	
PCB 72	NonDioxin			24		22.6		42.2		16.8		45.1		27.3		53.3		14.7	
PCB 73	NonDioxin			10		9.17		8.54		2.28 U		9.2		3.19		11.1		2.62	
PCB 78	NonDioxin			0 U		0 U		5.54 U		2.28 U		0 U		0 U		4.47 U		2.29 U	
PCB 79	NonDioxin			24.3		16		29.3		21.1		27.9		21.9		24		19.6	
PCB 80	NonDioxin			0 U		0 U		5.11 U		2.28 U		0 U		0 U		4.47 U		2.29 U	
PCB 82	NonDioxin			11		8.89		18.6		10.1		18.7		12.6		18.9		14.2	
PCB 83/99	NonDioxin			12,200		9,880		10,900		10,600		10,000		9,710		7,500		7,300	
PCB 84	NonDioxin			21.4		12.5		29		32.6		28.1		30.6		25.6		19.6	
PCB 85/116/117	NonDioxin			2,010		1,550		1,870		1,670		1,690		1,530		1,190		1,230	
PCB 86/87/97/109/119/125	NonDioxin			941		771		934		871		894		845		780		679	
PCB 88/91	NonDioxin			57.8		60.3		136		56.8		117		58.5		62.7		64.7	
PCB 89	NonDioxin			0 U		0 U		2.29 U		2.28 U		0 U		0 U		4.47 U		2.29 U	
PCB 90/101/113	NonDioxin			468		592		891		352		816		424		603		457	
PCB 92	NonDioxin			96.3		126		169		62.9		201		129		292		55.6	
PCB 93/95/98/100/102	NonDioxin			659		484		545		545		523		521		460		319	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			-BC-ED-2	GC-TI406-BC-WB-1		GC-TI406-BC-WB-2		GC-TI-INNER-BC-ED-1		GC-TI-INNER-BC-ED-2		GC-TI-INNER-BC-WB-1		GC-TI-INNER-BC-WB-2		NER-MIDDLE-OUTER-		GC-TIMIDD	
			06-BC	GC-TI406-BC		GC-TI406-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-IN-MID-OUT-BC		GC-TIMII	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Hepat		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 94	NonDioxin			15.8		11.5		21.1		8.4		21.3		12.3		22		4.98	
PCB 96	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 103	NonDioxin			1.86		3.15		10.4		3.77		8.99		4.12		4.98		4.88	
PCB 104	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 106	NonDioxin			0	U	0	U	4.46	U	3.7	U	0	U	0	U	4.47	U	3.24	U
PCB 107	NonDioxin			459		403		460		326		519		430		686		336	
PCB 108/124	NonDioxin			17.6		20.8		33.4		11.5		36		20.6		43.3		23.3	
PCB 110/115	NonDioxin			497		515		837		388		800		476		693		479	
PCB 111	NonDioxin			27.9		25.6		22.5		25.7		43.9		48.5		105		14.4	
PCB 112	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 120	NonDioxin			136		110		128		128		146		148		196		96.6	
PCB 121	NonDioxin			16.5		12.6		12.5		13.4		13		13.7		14.3		9.95	
PCB 122	NonDioxin			1.81	U	3.14	U	10.7		4.29	U	10.5		2.88		10		7.21	
PCB 127	NonDioxin			5.94	R	15.6	R	15.5		20.3		15.6		19		15.7		14.6	
PCB 128/166	NonDioxin			1,960		1,500		1,650		1,690		1,610		1,640		1,500		1,470	
PCB 129/138/160/163	NonDioxin			14,700		12,800		11,300		10,400		11,300		10,700		11,400		9,180	
PCB 130	NonDioxin			156		168		172		78.2		169		102		162		128	
PCB 131	NonDioxin			5.05		2.23		8.12		3.46		6.01		2.46		4.47	U	3.55	R
PCB 132	NonDioxin			14.2		15.8		36.9		11.6		36.6		18.5		35.6		35.8	
PCB 133	NonDioxin			402		327		348		345		543		562		1,100		182	
PCB 134/143	NonDioxin			0	U	0	U	11.4		4.56	U	8.44		0	U	8.93	U	7.98	
PCB 135/151/154	NonDioxin			1,220		1,040		852		938		823		882		742		719	
PCB 136	NonDioxin			8.18		4.78		10.2		12.7		9.32		11		6.79		10.3	
PCB 137	NonDioxin			728		647		516		582		519		566		527		429	
PCB 139/140	NonDioxin			330		278		270		279		247		251		180		213	
PCB 141	NonDioxin			46.3		54.1		29.6		22.6		37.6		33.5		60.5		31.1	
PCB 142	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 144	NonDioxin			19.8		21.1		32.2		15.9		31		19.2		27.5		15	
PCB 145	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 146	NonDioxin			3,140		2,630		2,730		2,280		2,960		2,660		3,600		2,220	
PCB 147/149	NonDioxin			573		664		950		402		853		451		574		550	
PCB 148	NonDioxin			95.8		74		69.2		80.6		68.2		76.3		65.5		57.3	
PCB 150	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 152	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 153/168	NonDioxin			27,600		22,500		21,600		20,700		20,800		20,000		18,400		14,600	
PCB 155	NonDioxin			48.4		32.6		58.5		44.8		50.6		39.9		27.9		30.8	
PCB 158	NonDioxin			1,720		1,510		1,280		1,200		1,250		1,190		1,150		758	
PCB 159	NonDioxin			0	U	0	U	2.29	U	2.28	U	2.2		2.44		8.5		2.29	U
PCB 161	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29	U
PCB 162	NonDioxin			51.7		47.5		48.3		40.3		66.9		63.2		120		34.4	
PCB 164	NonDioxin			19.7		13.3	U	21.3		2.28	U	24.7		9.87		34.3		30.3	
PCB 165	NonDioxin			22.8		18.7		22.2		23.8		34.9		37.4		71.2		13.2	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			-BC-ED-2	GC-TI406-BC-WB-1		GC-TI406-BC-WB-2		GC-TI-INNER-BC-ED-1		GC-TI-INNER-BC-ED-2		GC-TI-INNER-BC-WB-1		GC-TI-INNER-BC-WB-2		NER-MIDDLE-OUTER-	GC-TIMIDD
			406-BC	GC-TI406-BC		GC-TI406-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-INNER-BC		GC-TI-IN-MID-OUT-BC	GC-TIMII
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab	Blue
			Tissue	Whole Body		Whole Body		Edible Tissue		Edible Tissue		Whole Body		Whole Body		Hepat	Edible
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc
PCB 170	NonDioxin			2,040		2,000		679		1,090		757		1,060		979		888
PCB 171/173	NonDioxin			979		820		622		687		571		612		426		521
PCB 172	NonDioxin			381		392		160		195		245		279		486		166
PCB 174	NonDioxin			23.9		34.9		14.7		10.3		17.1		14.3		24.1		32.4
PCB 175	NonDioxin			150		124		112		102		110		103		106		73.4
PCB 176	NonDioxin			7.02		7.37		14.7		7.58		12.4		7.09		5.89		13.1
PCB 177	NonDioxin			471		585		366		152		330		173		226		326
PCB 178	NonDioxin			1,040		813		923		824		1,100		1,050		1,610		458
PCB 179	NonDioxin			8.59		10.5		23.3		8.67		19.9		9.14		10.3		23.8
PCB 180/193	NonDioxin			8,540		7,680		5,230		5,740		5,350		5,720		5,680		4,380
PCB 181	NonDioxin			33		29.5		19.3		24.5		17.9		21.5		14		17.6
PCB 182	NonDioxin			26		21.3		18.4		26.1		18.3		23.8		18		23.4
PCB 183/185	NonDioxin			3,490		2,900		2,540		2,500		2,370		2,320		1,880		2,080
PCB 184	NonDioxin			16.7		12		21.6		17.3		19		15.6		11.5		14.9
PCB 186	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29 U
PCB 187	NonDioxin			5,730		5,580		4,670		4,660		4,980		5,010		5,860		4,880
PCB 188	NonDioxin			52.3		39.5		39.1		42.6		35.9		38		26.7		32.1
PCB 190	NonDioxin			619		595		290		341		300		338		330		246
PCB 191	NonDioxin			151		137		76.9		87.8		86.3		95		113		61.1
PCB 192	NonDioxin			0	U	0	U	2.29	U	2.28	U	0	U	0	U	4.47	U	2.29 U
PCB 194	NonDioxin			940		871		423		560		463		565		577		548
PCB 195	NonDioxin			262		272		72.3		134		72.7		117		73.9		109
PCB 196	NonDioxin			650		602		353		482		345		437		324		366
PCB 197/200	NonDioxin			92.8		86.2		90.7		94.8		81.2		83.1		54		76.9
PCB 198/199	NonDioxin			1,060		1,100		570		733		720		853		1,150		809
PCB 201	NonDioxin			222		192		212		198		193		181		138		181
PCB 202	NonDioxin			648		490		745		632		699		614		568		448
PCB 203	NonDioxin			768		724		293		472		302		430		326		505
PCB 204	NonDioxin			0	U	0	U	2.29	U	2.42		0	U	1.72		4.47	U	2.29 U
PCB 205	NonDioxin			18.7		19.8		4.61		9.39		5.87		9.42		9.48		10.8
PCB 206	NonDioxin			329		276		149		268		160		246		192		322
PCB 207	NonDioxin			63.9		52.9		42.4		71.9		39.8		60.5		32.3		58.3
PCB 208	NonDioxin			185		154		157		260		166		240		192		194
PCB 209	NonDioxin			180		148		159		271		151		230		130		219
PCB Nondioxin				133,000		115,000		111,000		100,000		106,000		98,400		94,600		76,500
Total PCB Congeners				155,000		134,000		132,000		117,000		127,000		116,000		111,000		87,700

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			LE-BC-ED-1	GC-TIMIDDLE-BC-ED-2		GC-TIMIDDLE-BC-ED-3		GC-TIMIDDLE-BC-WB-		GC-TIMIDDLE-BC-WB-		GC-TIMIDDLE-BC-WB-		GC-TI-OUTER-BC-ED-1		GC-TI-OUTER-BC-ED-2		GC-TI-OUTI	
			DDLE-BC	GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TI-OUTER-BC		GC-TI-OUTER-BC		GC-TI-OI	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Edible Tissue		Edible Tissue		Whole Body		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 77	Dioxin	0.0001	0.0271	**203**	0.0203	**263**	0.0263	**296**	0.0296	**246**	0.0246	**291**	0.0291	**157**	0.0157	**150**	0.015	**198**	
PCB 81	Dioxin	0.0003	0.00453	**10.5**	0.00315	**13.7**	0.00411	**17.9**	0.00537	**14.5**	0.00435	**16.9**	0.00507	**8.21**	0.002463	6.53 R	0.001959	**10.1**	
PCB 105	Dioxin	0.00003	0.0642	**1,500**	0.045	**2,010**	0.0603	**2,400**	0.072	**1,930**	0.0579	**2,310**	0.0693	**1,250**	0.0375	**1,200**	0.036	**1,600**	
PCB 114	Dioxin	0.00003	0.0045	**99.5**	0.002985	**138**	0.00414	**175**	0.00525	**138**	0.00414	**167**	0.00501	**79.6**	0.002388	**77.9**	0.002337	**114**	
PCB 118	Dioxin	0.00003	0.2085	**4,700**	0.141	**6,070**	0.1821	**7,840**	0.2352	**6,200**	0.186	**7,230**	0.2169	**4,060**	0.1218	**3,690**	0.1107	**5,250**	
PCB 123	Dioxin	0.00003	0.00423	**91.5**	0.002745	**139**	0.00417	**167**	0.00501	**131**	0.00393	**166**	0.00498	**82.7**	0.002481	**74.7**	0.002241	**101**	
PCB 126	Dioxin	0.1	1.68	**12.4**	1.24	**17.3**	1.73	**21**	2.1	**17.8**	1.78	**21.5**	2.15	**9.2**	0.92	**9.16**	0.916	12.4 R	
PCB 156/157	Dioxin	0.00003	0.02892	**600**	0.018	**872**	0.02616	**1,140**	0.0342	**872**	0.02616	**1,080**	0.0324	**550**	0.0165	**582**	0.01746	**715**	
PCB 167	Dioxin	0.00003	0.01377	**303**	0.00909	**423**	0.01269	**562**	0.01686	**449**	0.01347	**539**	0.01617	**259**	0.00777	**275**	0.00825	**347**	
PCB 169	Dioxin	0.03	0	**4.41** U	0	**5.65** U	0	**0** U	0	**0** U	0	**0** U	0	**3.38** U	0	**4.54** U	0	**5.61** U	
PCB 189	Dioxin	0.00003	0.001947	**39.8**	0.001194	**56.6**	0.001698	**78.7**	0.002361	**60.4**	0.001812	**73.2**	0.002196	**39.1**	0.001173	**43.3**	0.001299	**46.5**	
PCB Dioxin				**1.48**		**2.05**		**2.51**		**2.1**		**2.53**		**1.13**		**1.11**		**0.268**	
PCB 1	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 2	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 3	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 4	NonDioxin			**4.94**		**8.34**		**6.93**		**6.32**		**8.79**		**5.09**		**7.99**		**8.12**	
PCB 5	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 6	NonDioxin			**2.28** U		**3.48**		**3.84**		**2.15**		**4.7**		**2.29** U		**2.76**		**2.29** U	
PCB 7	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 8	NonDioxin			**10.5**		**17.2**		**13.7**		**12.6**		**17.4**		**13.4**		**17.6**		**14**	
PCB 9	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 10	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 11	NonDioxin			**42**		**66.8**		**58.1**		**53.3**		**71.4**		**51.7**		**58.7**		**57.4**	
PCB 12/13	NonDioxin			**5.59**		**8.25**		**7.28**		**6.7**		**8.63**		**6.9**		**8.04**		**7.29**	
PCB 14	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 15	NonDioxin			**210**		**232**		**234**		**218**		**234**		**173**		**179**		**209**	
PCB 16	NonDioxin			**3.04**		**5.88**		**5.12**		**4.88**		**6.97**		**3.29**		**4.73**		**4.42**	
PCB 17	NonDioxin			**14.6**		**28.2**		**23.7**		**18.9**		**28.7**		**24.2**		**29.2**		**26.2**	
PCB 18/30	NonDioxin			**13.9**		**22.8**		**33**		**31.4**		**38.4**		**15.4**		**21.9**		**21.4**	
PCB 19	NonDioxin			**2.28** U		**2.61**		**1.78**		**0** U		**1.86**		**2.29** U		**3.08**		**3.79**	
PCB 20/28	NonDioxin			**2,880**		**3,260**		**3,260**		**3,010**		**3,290**		**2,540**		**2,330**		**3,050**	
PCB 21/33	NonDioxin			**14.7**		**24.1**		**29.6**		**24.8**		**31.9**		**20.9**		**24.9**		**25.9**	
PCB 22	NonDioxin			**33.1**		**43.6**		**37.5**		**35.9**		**43.5**		**52.3**		**57.4**		**47.3**	
PCB 23	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 24	NonDioxin			**2.28** U		**2.3** U		**0** U		**0** U		**0** U		**2.29** U		**2.25** U		**2.29** U	
PCB 25	NonDioxin			**42**		**25.6**		**27.3**		**41.1**		**29.4**		**29.7**		**32.3**		**27.4**	
PCB 26/29	NonDioxin			**21.3**		**31.6**		**46**		**43**		**51.1**		**26.3**		**34.8**		**31.1**	
PCB 27	NonDioxin			**3.61**		**5.85**		**9.28**		**9.22**		**11**		**3.85**		**5.03**		**5.21**	
PCB 31	NonDioxin			**153**		**146**		**143**		**162**		**157**		**170**		**210**		**169**	
PCB 32	NonDioxin			**22.4**		**37.5**		**37.4**		**31.7**		**42.7**		**29.5**		**41.4**		**37.4**	
PCB 34	NonDioxin			**2.28** U		**2.99**		**2.38**		**2.36**		**4.57**		**2.29** U		**2.25** U		**2.29** U	
PCB 35	NonDioxin			**2.28** U		**3.42**		**3.49**		**1.43**		**3.91**		**2.9**		**3.44**		**3.17**	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

				LE-BC-ED-1	GC-TIMIDDLE-BC-ED-2		GC-TIMIDDLE-BC-ED-3		GC-TIMIDDLE-BC-WB-		GC-TIMIDDLE-BC-WB-		GC-TIMIDDLE-BC-WB-		GC-TI-OUTER-BC-ED-1		GC-TI-OUTER-BC-ED-2		GC-TI-OUTI
				DDLE-BC	GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TI-OUTER-BC		GC-TI-OUTER-BC		GC-TI-OI
				Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue
				Tissue	Edible Tissue		Edible Tissue		Whole Body		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Edible
Parameter	Type	TEF	TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc	
PCB 36	NonDioxin			3.79			4.62			3.06			2.74			3.29			5.34			5.44			6.19	
PCB 37	NonDioxin			285			349			393			334			381			213			209			259	
PCB 38	NonDioxin			2.29			2.3	U		0	U		1.65			0	U		2.29	U		2.25	U		2.29	U
PCB 39	NonDioxin			5.04			6.19			5.96			5.49			6.33			5.56			5.8			4.93	
PCB 40/41/71	NonDioxin			121			167			265			254			291			126			162			141	
PCB 42	NonDioxin			45.3			60.5			58			46.7			57.6			76.3			93.2			76.9	
PCB 43	NonDioxin			4.27			5.78			8.54			11.5			12.9			4.16	R		5.02			5.12	
PCB 44/47/65	NonDioxin			2,730			3,610			3,930			2,980			3,610			2,760			2,600			4,380	
PCB 45/51	NonDioxin			6.73			10.7			10.4			8.72			11.6			11.9			13.9			12.8	
PCB 46	NonDioxin			2.28	U		2.3	U		0	U		0	U		0	U		2.29	U		2.84			2.38	
PCB 48	NonDioxin			11.3			18.7			23.8			19.8			25.4			17.2			23.1			19.6	
PCB 49/69	NonDioxin			105			135			149			128			150			172			239			186	
PCB 50/53	NonDioxin			6.52			9.56			14.1			12.9			15.3			8.88			12.7			11.3	
PCB 52	NonDioxin			67.1			100			153			138			164			84.8			141			116	
PCB 54	NonDioxin			2.28	U		2.3	U		0	U		0	U		0	U		2.29	U		2.25	U		2.29	U
PCB 55	NonDioxin			2.28	U		2.3	U		0	U		0	U		0	U		2.29	U		2.47	U		2.87	U
PCB 56	NonDioxin			60			93			110			85			109			116			141			114	
PCB 57	NonDioxin			2.32			2.75			5.93			7.54			8.04			2.29	U		2.88			2.63	U
PCB 58	NonDioxin			2.94			5.51	R		0	R		2.12	R		0	R		5.35			6.29	R		5.27	
PCB 59/62/75	NonDioxin			189			256			274			209			258			197			180			287	
PCB 60	NonDioxin			500			719			750			597			757			478			434			519	
PCB 61/70/74/76	NonDioxin			1,830			2,530			3,050			2,410			2,930			1,730			1,650			2,250	
PCB 63	NonDioxin			60.6			76.7			62.7			61.3			72.8			66.3			69.5			59.6	
PCB 64	NonDioxin			99			101			105			103			105			126			162			126	
PCB 66	NonDioxin			2,980			3,500			4,240			3,610			4,010			2,560			2,340			3,500	
PCB 67	NonDioxin			17.9			18.3			0	U		12.9			13			17.9			18.9	R		19.5	
PCB 68	NonDioxin			44.7			45.3			42.4			45.8			46.2			36			35.6			36.7	
PCB 72	NonDioxin			16.4			19.1			25.5			26.7			29			12			15.6			13.4	
PCB 73	NonDioxin			3.04			4.84			5			5.28			6.65			3			2.91			2.65	
PCB 78	NonDioxin			2.28	U		2.3	U		0	U		0	U		0	U		2.29	U		2.37	U		2.76	U
PCB 79	NonDioxin			13.9			18			20.8			16.7			19.7			14.9			16.8			19.2	
PCB 80	NonDioxin			2.28	U		2.3	U		0	U		0	U		0	U		2.29	U		2.25	U		2.44	U
PCB 82	NonDioxin			8.83			13.8			15.5			11.6			15.3			15.7			21.6			19.1	
PCB 83/99	NonDioxin			5,050			6,120			7,360			5,730			6,520			4,720			4,730			6,390	
PCB 84	NonDioxin			12.1			18.9			21.3			15.9			20.8			19.2			26.2			22.1	
PCB 85/116/117	NonDioxin			804			1,160			1,220			911			1,170			795			796			1,060	
PCB 86/87/97/109/119/125	NonDioxin			463			638			707			551			679			512			556			668	
PCB 88/91	NonDioxin			53.3			64			64.1			55.9			63.6			65.8			88.2			66.2	
PCB 89	NonDioxin			2.28	U		2.3	U		0	U		0	U		0	U		2.29	U		2.25	U		2.29	U
PCB 90/101/113	NonDioxin			402			548			498			458			564			488			677			516	
PCB 92	NonDioxin			49.6			62.8			122			117			129			47			76.8			56.8	
PCB 93/95/98/100/102	NonDioxin			224			293			359			290			341			242			252			305	

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PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			LE-BC-ED-1	GC-TIMIDDLE-BC-ED-2		GC-TIMIDDLE-BC-ED-3		GC-TIMIDDLE-BC-WB-1		GC-TIMIDDLE-BC-WB-2		GC-TIMIDDLE-BC-WB-3		GC-TI-OUTER-BC-ED-1		GC-TI-OUTER-BC-ED-2		GC-TI-OUTI	
			DDLE-BC	GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TI-OUTER-BC		GC-TI-OUTER-BC		GC-TI-OI	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Edible Tissue		Edible Tissue		Whole Body		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 94	NonDioxin			6.96		8.32		9.76		11.1		12.3		4.63		4.78		4.1	
PCB 96	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 103	NonDioxin			3.77		4.57		4.91		4.11		4.69		5.78		8.13		5.96	
PCB 104	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 106	NonDioxin			2.42	U	2.97	U	0	U	0	U	0	U	2.29	U	2.25	U	2.82	U
PCB 107	NonDioxin			266		326		434		383		430		255		269		327	
PCB 108/124	NonDioxin			14.6		20.1		28.9		22.6		26.8		17.8		25.7		19	
PCB 110/115	NonDioxin			338		442		539		437		514		469		612		503	
PCB 111	NonDioxin			10.5		14.4		39.9		36.8		40.5		8.03		7.79		15.6	
PCB 112	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 120	NonDioxin			64.6		86		125		101		118		62.6		62		85.3	
PCB 121	NonDioxin			6.58		9.12		11.2		8.73		10.6		6.92		6.58		9.4	
PCB 122	NonDioxin			2.69	U	8.32		7.99		2.78		8.8		7.95		10.7		9.11	
PCB 127	NonDioxin			8.73		13.7		14.9		10.7		14.3		8.54		9.34		15	
PCB 128/166	NonDioxin			909		1,360		1,480		1,070		1,400		983		999		1,210	
PCB 129/138/160/163	NonDioxin			6,550		8,480		9,800		7,900		9,320		6,990		6,990		8,120	
PCB 130	NonDioxin			111		171		138		125		168		133		147		130	
PCB 131	NonDioxin			3.87		4.55		0	R	2.79		3.24		4.6		4.96		4.58	
PCB 132	NonDioxin			21.3		29.7		35.7		25.3		31.4		48.1		70.5		50	
PCB 133	NonDioxin			135		195		440		403		456		89.6		91.6		205	
PCB 134/143	NonDioxin			4.55	U	7.85		5.74		0	U	5.59		8.62		13.9		9.73	
PCB 135/151/154	NonDioxin			444		629		725		527		662		545		548		594	
PCB 136	NonDioxin			6.26	J	9.26		9.31		6.41		8.55		10.9		15.5		11.6	
PCB 137	NonDioxin			256		369		457		331		415		269		266		349	
PCB 139/140	NonDioxin			124		184		204		140		183		143		132		181	
PCB 141	NonDioxin			18.6		34.1		39.4		30.2		41.7		20.8		37.7		29.6	
PCB 142	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 144	NonDioxin			12.2		15.5		18.5		16.5		19		14.4		17.3		13.9	
PCB 145	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 146	NonDioxin			1,610		2,130		2,610		2,160		2,550		1,570		1,610		2,090	
PCB 147/149	NonDioxin			457		594		557		490		588		582		707		554	
PCB 148	NonDioxin			36.1		51.8		59.6		44.3		55.8		38.6		36.6		57.2	
PCB 150	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.34		2.29	U
PCB 152	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 153/168	NonDioxin			9,580		12,600		15,700		12,000		14,300		8,670		8,590		11,200	
PCB 155	NonDioxin			20.2		28		30		22.3		28		20.1		20.5		30.5	
PCB 158	NonDioxin			483		699		868		668		829		471		424		567	
PCB 159	NonDioxin			2.28	U	2.3	U	2.39		2.36		2.45		2.29	U	3.01		2.29	U
PCB 161	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 162	NonDioxin			22.6		33.4		58.5		49.7		58.4		24.9		24		31.5	
PCB 164	NonDioxin			18.9	R	25.4	R	31.4		9.53	R	9.89	R	27.4		40.1		31.1	
PCB 165	NonDioxin			9.91		13		29.5		26.9		29.8		6.4		6.87		15.7	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			LE-BC-ED-1	GC-TIMIDDLE-BC-ED-2		GC-TIMIDDLE-BC-ED-3		GC-TIMIDDLE-BC-WB-1		GC-TIMIDDLE-BC-WB-2		GC-TIMIDDLE-BC-WB-3		GC-TI-OUTER-BC-ED-1		GC-TI-OUTER-BC-ED-2		GC-TI-OUTI	
			DDLE-BC	GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TIMIDDLE-BC		GC-TI-OUTER-BC		GC-TI-OUTER-BC		GC-TI-OI	
			Crab	Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue Crab		Blue	
			Tissue	Edible Tissue		Edible Tissue		Whole Body		Whole Body		Whole Body		Edible Tissue		Edible Tissue		Edible	
Parameter	Type	TEF	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	
PCB 170	NonDioxin			559		796		914		676		849		535		610		672	
PCB 171/173	NonDioxin			320		476		494		349		462		345		320		395	
PCB 172	NonDioxin			108		146		256		213		244		92.4		110		156	
PCB 174	NonDioxin			20.8		30.4		30.1		21.7		28.6		24.5		40.3		32.4	
PCB 175	NonDioxin			55		74.1		82.6		69.2		83.3		47.1		48.5		62.7	
PCB 176	NonDioxin			8		10.8		11.1		7.41		9.38		13.5		15.3		11.6	
PCB 177	NonDioxin			249		440		298		243		378		320		367		346	
PCB 178	NonDioxin			343		469		782		695		798		203		229		450	
PCB 179	NonDioxin			13.3		18.6		20		12.5		16.2		24.3		37.7		26.5	
PCB 180/193	NonDioxin			2,880		4,360		4,750		3,660		4,740		2,810		3,090		3,390	
PCB 181	NonDioxin			10.8		14.6		16.6		11.7		14.4		11.5		12		15.2	
PCB 182	NonDioxin			13.7		19.3		21.9		14.9		18.9		15.4		17.5		22	
PCB 183/185	NonDioxin			1,300		1,930		2,020		1,460		1,920		1,370		1,330		1,450	
PCB 184	NonDioxin			10.6		13.5		13.9		10.9		12.9		10.6		10.3		13.7	
PCB 186	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 187	NonDioxin			3,510		4,740		5,160		4,160		5,060		3,750		3,740		4,190	
PCB 188	NonDioxin			20.3		27.1		30.6		22.1		27		21.1		21.7		32.8	
PCB 190	NonDioxin			154		217		270		203		250		158		166		188	
PCB 191	NonDioxin			39.2		59		75.7		59.7		74.6		39.3		39.7		44.3	
PCB 192	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 194	NonDioxin			313		423		556		386		467		308		392		380	
PCB 195	NonDioxin			64.6		86.1		99.1		67.2		82.6		66.9		78		84.7	
PCB 196	NonDioxin			210		296		354		242		304		216		243		281	
PCB 197/200	NonDioxin			54.1		67.7		70.5		54.1		63.7		55.1		54.2		67.2	
PCB 198/199	NonDioxin			471		655		905		660		798		462		587		656	
PCB 201	NonDioxin			122		172		169		126		162		128		131		150	
PCB 202	NonDioxin			335		458		482		400		490		265		305		443	
PCB 203	NonDioxin			287		412		455		298		387		333		375		355	
PCB 204	NonDioxin			2.28	U	2.3	U	0	U	0	U	0	U	2.29	U	2.25	U	2.29	U
PCB 205	NonDioxin			6.42		8.82		10.4		7.27		9.01		6.9		7.79		7.39	
PCB 206	NonDioxin			176		240		285		180		226		184		226		263	
PCB 207	NonDioxin			31.5		40.8		51		31.7		38.3		31.6		37.3		57.1	
PCB 208	NonDioxin			106		147		193		130		160		96.2		115		202	
PCB 209	NonDioxin			129		161		194		129		152		118		136		203	
PCB Nondioxin				53,200		70,300		81,600		64,600		77,300		52,500		53,600		66,200	
Total PCB Congeners				60,800		80,300		94,300		74,700		89,200		59,000		59,700		74,500	

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			ER-BC-ED-3
			JTER-BC
			Crab
			Tissue
Parameter	Type	TEF	**TEQ**
PCB 77	Dioxin	0.0001	0.0198
PCB 81	Dioxin	0.0003	0.00303
PCB 105	Dioxin	0.00003	0.048
PCB 114	Dioxin	0.00003	0.00342
PCB 118	Dioxin	0.00003	0.1575
PCB 123	Dioxin	0.00003	0.00303
PCB 126	Dioxin	0.1	1.24
PCB 156/157	Dioxin	0.00003	0.02145
PCB 167	Dioxin	0.00003	0.01041
PCB 169	Dioxin	0.03	0
PCB 189	Dioxin	0.00003	0.001395
PCB Dioxin			
PCB 1	NonDioxin		
PCB 2	NonDioxin		
PCB 3	NonDioxin		
PCB 4	NonDioxin		
PCB 5	NonDioxin		
PCB 6	NonDioxin		
PCB 7	NonDioxin		
PCB 8	NonDioxin		
PCB 9	NonDioxin		
PCB 10	NonDioxin		
PCB 11	NonDioxin		
PCB 12/13	NonDioxin		
PCB 14	NonDioxin		
PCB 15	NonDioxin		
PCB 16	NonDioxin		
PCB 17	NonDioxin		
PCB 18/30	NonDioxin		
PCB 19	NonDioxin		
PCB 20/28	NonDioxin		
PCB 21/33	NonDioxin		
PCB 22	NonDioxin		
PCB 23	NonDioxin		
PCB 24	NonDioxin		
PCB 25	NonDioxin		
PCB 26/29	NonDioxin		
PCB 27	NonDioxin		
PCB 31	NonDioxin		
PCB 32	NonDioxin		
PCB 34	NonDioxin		
PCB 35	NonDioxin		

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			ER-BC-ED-3
			JTER-BC
			Crab
			Tissue
Parameter	Type	TEF	TEQ
PCB 36	NonDioxin		
PCB 37	NonDioxin		
PCB 38	NonDioxin		
PCB 39	NonDioxin		
PCB 40/41/71	NonDioxin		
PCB 42	NonDioxin		
PCB 43	NonDioxin		
PCB 44/47/65	NonDioxin		
PCB 45/51	NonDioxin		
PCB 46	NonDioxin		
PCB 48	NonDioxin		
PCB 49/69	NonDioxin		
PCB 50/53	NonDioxin		
PCB 52	NonDioxin		
PCB 54	NonDioxin		
PCB 55	NonDioxin		
PCB 56	NonDioxin		
PCB 57	NonDioxin		
PCB 58	NonDioxin		
PCB 59/62/75	NonDioxin		
PCB 60	NonDioxin		
PCB 61/70/74/76	NonDioxin		
PCB 63	NonDioxin		
PCB 64	NonDioxin		
PCB 66	NonDioxin		
PCB 67	NonDioxin		
PCB 68	NonDioxin		
PCB 72	NonDioxin		
PCB 73	NonDioxin		
PCB 78	NonDioxin		
PCB 79	NonDioxin		
PCB 80	NonDioxin		
PCB 82	NonDioxin		
PCB 83/99	NonDioxin		
PCB 84	NonDioxin		
PCB 85/116/117	NonDioxin		
PCB 86/87/97/109/119/125	NonDioxin		
PCB 88/91	NonDioxin		
PCB 89	NonDioxin		
PCB 90/101/113	NonDioxin		
PCB 92	NonDioxin		
PCB 93/95/98/100/102	NonDioxin		

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			ER-BC-ED-3
			JTER-BC
			Crab
			Tissue
Parameter	Type	TEF	**TEQ**
PCB 94	NonDioxin		
PCB 96	NonDioxin		
PCB 103	NonDioxin		
PCB 104	NonDioxin		
PCB 106	NonDioxin		
PCB 107	NonDioxin		
PCB 108/124	NonDioxin		
PCB 110/115	NonDioxin		
PCB 111	NonDioxin		
PCB 112	NonDioxin		
PCB 120	NonDioxin		
PCB 121	NonDioxin		
PCB 122	NonDioxin		
PCB 127	NonDioxin		
PCB 128/166	NonDioxin		
PCB 129/138/160/163	NonDioxin		
PCB 130	NonDioxin		
PCB 131	NonDioxin		
PCB 132	NonDioxin		
PCB 133	NonDioxin		
PCB 134/143	NonDioxin		
PCB 135/151/154	NonDioxin		
PCB 136	NonDioxin		
PCB 137	NonDioxin		
PCB 139/140	NonDioxin		
PCB 141	NonDioxin		
PCB 142	NonDioxin		
PCB 144	NonDioxin		
PCB 145	NonDioxin		
PCB 146	NonDioxin		
PCB 147/149	NonDioxin		
PCB 148	NonDioxin		
PCB 150	NonDioxin		
PCB 152	NonDioxin		
PCB 153/168	NonDioxin		
PCB 155	NonDioxin		
PCB 158	NonDioxin		
PCB 159	NonDioxin		
PCB 161	NonDioxin		
PCB 162	NonDioxin		
PCB 164	NonDioxin		
PCB 165	NonDioxin		

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			ER-BC-ED-3
			JTER-BC
			Crab
			Tissue
Parameter	Type	TEF	TEQ
PCB 170	NonDioxin		
PCB 171/173	NonDioxin		
PCB 172	NonDioxin		
PCB 174	NonDioxin		
PCB 175	NonDioxin		
PCB 176	NonDioxin		
PCB 177	NonDioxin		
PCB 178	NonDioxin		
PCB 179	NonDioxin		
PCB 180/193	NonDioxin		
PCB 181	NonDioxin		
PCB 182	NonDioxin		
PCB 183/185	NonDioxin		
PCB 184	NonDioxin		
PCB 186	NonDioxin		
PCB 187	NonDioxin		
PCB 188	NonDioxin		
PCB 190	NonDioxin		
PCB 191	NonDioxin		
PCB 192	NonDioxin		
PCB 194	NonDioxin		
PCB 195	NonDioxin		
PCB 196	NonDioxin		
PCB 197/200	NonDioxin		
PCB 198/199	NonDioxin		
PCB 201	NonDioxin		
PCB 202	NonDioxin		
PCB 203	NonDioxin		
PCB 204	NonDioxin		
PCB 205	NonDioxin		
PCB 206	NonDioxin		
PCB 207	NonDioxin		
PCB 208	NonDioxin		
PCB 209	NonDioxin		
PCB Nondioxin			
Total PCB Congeners			

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI-OUTER-BC-WB-			GC-TI-OUTER-BC-WB-			GC-TI-OUTER-BC-WB-		
			GC-TI-OUTER-BC			GC-TI-OUTER-BC			GC-TI-OUTER-BC		
			Blue Crab			Blue Crab			Blue Crab		
			Whole Body			Whole Body			Whole Body		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 77	Dioxin	0.0001	**216**		0.0216	**180**		0.018	**243**		0.0243
PCB 81	Dioxin	0.0003	**13.1**		0.00393	3.56	R	0.001068	**14.3**		0.00429
PCB 105	Dioxin	0.00003	**1,780**		0.0534	**1,470**		0.0441	**2,010**		0.0603
PCB 114	Dioxin	0.00003	**126**		0.00378	**101**		0.00303	**149**		0.00447
PCB 118	Dioxin	0.00003	**5,820**		0.1746	**4,610**		0.1383	**6,620**		0.1986
PCB 123	Dioxin	0.00003	**126**		0.00378	**97.2**		0.002916	**138**		0.00414
PCB 126	Dioxin	0.1	**15.8**		1.58	**12.4**		1.24	8.98	R	0.898
PCB 156/157	Dioxin	0.00003	**851**		0.02553	**725**		0.02175	**959**		0.02877
PCB 167	Dioxin	0.00003	**425**		0.01275	**354**		0.01062	**483**		0.01449
PCB 169	Dioxin	0.03	**0**	U	0	**0**	U	0	**0**	U	0
PCB 189	Dioxin	0.00003	**61**		0.00183	**53.4**		0.001602	**65.6**		0.001968
PCB Dioxin			**1.88**			**1.48**			**0.341**		
PCB 1	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 2	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 3	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 4	NonDioxin		**6.5**			**8.26**			**8.63**		
PCB 5	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 6	NonDioxin		**2.25**			**3.47**			**2.18**		
PCB 7	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 8	NonDioxin		**14.7**			**17.6**			**15.1**		
PCB 9	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 10	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 11	NonDioxin		**60.8**			**62.1**			**64.6**		
PCB 12/13	NonDioxin		**7.68**			**8.26**			**7.93**		
PCB 14	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 15	NonDioxin		**192**			**188**			**217**		
PCB 16	NonDioxin		**5.15**			**5.43**			**5.9**		
PCB 17	NonDioxin		**25.9**			**29.3**			**27.2**		
PCB 18/30	NonDioxin		**33.4**			**29.8**			**37.1**		
PCB 19	NonDioxin		**0**	U		**2.64**			**2.72**		
PCB 20/28	NonDioxin		**2,780**			**2,480**			**3,140**		
PCB 21/33	NonDioxin		**29.7**			**28.6**			**33**		
PCB 22	NonDioxin		**49.7**			**55.4**			**46.2**		
PCB 23	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 24	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 25	NonDioxin		**32.4**			**33.2**			**30.6**		
PCB 26/29	NonDioxin		**47.6**			**44**			**50.4**		
PCB 27	NonDioxin		**9.67**			**7.71**			**10.5**		
PCB 31	NonDioxin		**174**			**206**			**174**		
PCB 32	NonDioxin		**37.1**			**43.4**			**42.6**		
PCB 34	NonDioxin		**2.48**			**1.21**			**2.39**		
PCB 35	NonDioxin		**3.55**			**3.68**			**3.72**		

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI-OUTER-BC-WB-			GC-TI-OUTER-BC-WB-			GC-TI-OUTER-BC-WB-		
			GC-TI-OUTER-BC			GC-TI-OUTER-BC			GC-TI-OUTER-BC		
			Blue Crab			Blue Crab			Blue Crab		
			Whole Body			Whole Body			Whole Body		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 36	NonDioxin		**3.78**			**4.66**			**4.44**		
PCB 37	NonDioxin		**285**			**245**			**316**		
PCB 38	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 39	NonDioxin		**5.88**			**5.92**			**5.42**		
PCB 40/41/71	NonDioxin		**264**			**224**			**270**		
PCB 42	NonDioxin		**68.8**			**87.1**			**69.4**		
PCB 43	NonDioxin		8.88	R		**8.65**			**12.3**		
PCB 44/47/65	NonDioxin		**3,010**			**2,750**			**4,170**		
PCB 45/51	NonDioxin		**12.5**			**13.9**			**13.1**		
PCB 46	NonDioxin		**0**	U		**2.43**			**1.71**		
PCB 48	NonDioxin		**24.4**			**25.8**			**25.9**		
PCB 49/69	NonDioxin		**176**			**232**			**186**		
PCB 50/53	NonDioxin		**14.8**			**15.1**			**16.4**		
PCB 52	NonDioxin		**154**			**167**			**174**		
PCB 54	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 55	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 56	NonDioxin		**126**			**142**			**124**		
PCB 57	NonDioxin		**6.16**			**5.48**			**5.96**		
PCB 58	NonDioxin		3.79	R		0	R		3.78	R	
PCB 59/62/75	NonDioxin		**216**			**192**			**280**		
PCB 60	NonDioxin		**587**			**493**			**612**		
PCB 61/70/74/76	NonDioxin		**2,370**			**1,970**			**2,720**		
PCB 63	NonDioxin		**65.4**			**68.6**			**60.6**		
PCB 64	NonDioxin		**122**			**155**			**123**		
PCB 66	NonDioxin		**3,350**			**2,760**			**4,000**		
PCB 67	NonDioxin		**12.7**			0	R		**14**		
PCB 68	NonDioxin		**39.6**			**37.4**			**40**		
PCB 72	NonDioxin		**24.1**			**21**			**24.7**		
PCB 73	NonDioxin		**5.36**			**4.08**			**5.04**		
PCB 78	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 79	NonDioxin		**17.6**			**17.8**			**20.6**		
PCB 80	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 82	NonDioxin		**16.6**			**21.2**			**19**		
PCB 83/99	NonDioxin		**5,530**			**5,130**			**6,700**		
PCB 84	NonDioxin		**21.1**			**26.1**			**23.1**		
PCB 85/116/117	NonDioxin		**910**			**852**			**1,100**		
PCB 86/87/97/109/119/125	NonDioxin		**590**			**588**			**700**		
PCB 88/91	NonDioxin		**64.9**			**84.6**			**65.2**		
PCB 89	NonDioxin		**0**	U		**0**	U		**0**	U	
PCB 90/101/113	NonDioxin		**522**			**666**			**541**		
PCB 92	NonDioxin		**119**			**108**			**123**		
PCB 93/95/98/100/102	NonDioxin		**306**			**282**			**349**		

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI-OUTER-BC-WB-			GC-TI-OUTER-BC-WB-			GC-TI-OUTER-BC-WB-		
			GC-TI-OUTER-BC			GC-TI-OUTER-BC			GC-TI-OUTER-BC		
			Blue Crab			Blue Crab			Blue Crab		
			Whole Body			Whole Body			Whole Body		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 94	NonDioxin		9.7			7.24			9.16		
PCB 96	NonDioxin		0	U		0	U		0	U	
PCB 103	NonDioxin		5.55			7.68			5.68		
PCB 104	NonDioxin		0	U		0	U		0	U	
PCB 106	NonDioxin		0	U		0	U		0	U	
PCB 107	NonDioxin		381			329			428		
PCB 108/124	NonDioxin		25.2			28.2			25.9		
PCB 110/115	NonDioxin		534			624			557		
PCB 111	NonDioxin		36.3			21.7			40.8		
PCB 112	NonDioxin		0	U		0	U		0	U	
PCB 120	NonDioxin		102			81.1			117		
PCB 121	NonDioxin		9.07			7.68			10.8		
PCB 122	NonDioxin		8.55			10.6			9.36		
PCB 127	NonDioxin		10.6			10.2			15.2		
PCB 128/166	NonDioxin		1,130			1,070			1,290		
PCB 129/138/160/163	NonDioxin		8,280			7,620			9,050		
PCB 130	NonDioxin		141			149			139		
PCB 131	NonDioxin		3.26			4.25			3.29		
PCB 132	NonDioxin		44.5			65.5			45.9		
PCB 133	NonDioxin		385			236			458		
PCB 134/143	NonDioxin		6.1			11.9			6.98		
PCB 135/151/154	NonDioxin		603			576			636		
PCB 136	NonDioxin		9.7			14.3			10.2		
PCB 137	NonDioxin		344			303			399		
PCB 139/140	NonDioxin		154			139			181		
PCB 141	NonDioxin		32.4			41			38.3		
PCB 142	NonDioxin		0	U		0	U		0	U	
PCB 144	NonDioxin		18.2			18.8			17.7		
PCB 145	NonDioxin		0	U		0	U		0	U	
PCB 146	NonDioxin		2,160			1,890			2,520		
PCB 147/149	NonDioxin		580			688			560		
PCB 148	NonDioxin		46.5			40.7			59.5		
PCB 150	NonDioxin		0	U		2.01			0	U	
PCB 152	NonDioxin		0	U		0	U		0	U	
PCB 153/168	NonDioxin		11,500			9,990			13,200		
PCB 155	NonDioxin		22.4			21.6			29.8		
PCB 158	NonDioxin		669			528			732		
PCB 159	NonDioxin		2.48			3.79			2.4		
PCB 161	NonDioxin		0	U		0	U		0	U	
PCB 162	NonDioxin		52.7			37.7			56.5		
PCB 164	NonDioxin		29.4			39.3			32		
PCB 165	NonDioxin		25.3			16.1			31.4		

TABLE 2.11 Supplement a
PCB Congener Concentrations (ng/kg) in Blue Crab–
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-TI-OUTER-BC-WB-		GC-TI-OUTER-BC-WB-		GC-TI-OUTER-BC-WB-	
			GC-TI-OUTER-BC		GC-TI-OUTER-BC		GC-TI-OUTER-BC	
			Blue Crab		Blue Crab		Blue Crab	
			Whole Body		Whole Body		Whole Body	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 170	NonDioxin		665		663		759	
PCB 171/173	NonDioxin		369		335		404	
PCB 172	NonDioxin		207		164		249	
PCB 174	NonDioxin		24.4		38		30.1	
PCB 175	NonDioxin		64.3		56.7		74.9	
PCB 176	NonDioxin		11.3		14		9.99	
PCB 177	NonDioxin		293		347		312	
PCB 178	NonDioxin		614		426		778	
PCB 179	NonDioxin		20.2		33.8		21.9	
PCB 180/193	NonDioxin		3,650		3,460		4,040	
PCB 181	NonDioxin		12.2		12.3		14.9	
PCB 182	NonDioxin		16.2		17.6		20.9	
PCB 183/185	NonDioxin		1,520		1,410		1,570	
PCB 184	NonDioxin		10.9		10.5		13.1	
PCB 186	NonDioxin		0	U	0	U	0	U
PCB 187	NonDioxin		4,370		4,040		4,660	
PCB 188	NonDioxin		22.7		22.4		31.1	
PCB 190	NonDioxin		208		189		228	
PCB 191	NonDioxin		60.8		50.2		63.7	
PCB 192	NonDioxin		0	U	0	U	0	U
PCB 194	NonDioxin		387		418		436	
PCB 195	NonDioxin		68.9		77.4		81.6	
PCB 196	NonDioxin		248		255		293	
PCB 197/200	NonDioxin		54.8		54.2		63.5	
PCB 198/199	NonDioxin		663		667		796	
PCB 201	NonDioxin		131		132		147	
PCB 202	NonDioxin		353		343		478	
PCB 203	NonDioxin		331		368		347	
PCB 204	NonDioxin		0	U	0	U	0	U
PCB 205	NonDioxin		7.65		8.03		7.98	
PCB 206	NonDioxin		186		221		243	
PCB 207	NonDioxin		31.8		36.6		50.1	
PCB 208	NonDioxin		124		126		199	
PCB 209	NonDioxin		122		135		182	
PCB Nondioxin			64,800		59,400		74,200	
Total PCB Congeners			74,200		67,000		84,800	

TABLE 2.12 Supplement a

PCB Congener Concentrations (ng/kg) in Surface Sediments and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-SD301-0.0-0.5			GC-SD303-0.0-0.5			GC-SD305-0.0-0.5			GC-SD307A-0.0-0.5			GC-SD307B-0.0-0.5			GC-SD308A-0.0-0.5			D-062310-01 (dup)		
			301			303			305			307A			307B			308A			308A		
			6/23/2010			6/17/2010			6/17/2010			6/17/2010			6/18/2010			6/23/2010			6/23/2010		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 77	Dioxin	0.0001	**464**		0.0464	**4,190**		0.419	**3,550**		0.355	**3,010**		0.301	**3,810**		0.381	**1,550**		0.155	**1,750**		0.175
PCB 81	Dioxin	0.0003	**0**	U	0	**93**		0.0279	**83.7**		0.02511	**81.3**		0.02439	**85.3**		0.02559	49.8	R	0	50	R	0
PCB 105	Dioxin	0.00003	**1,560**		0.0468	**6,680**		0.2004	**6,430**		0.1929	**7,050**		0.2115	**6,120**		0.1836	**35,200**		1.056	**34,100**		1.023
PCB 114	Dioxin	0.00003	**83.3**		0.002499	**409**		0.01227	**369**		0.01107	**392**		0.01176	**347**		0.01041	**1,580**		0.0474	**1,500**		0.045
PCB 118	Dioxin	0.00003	**3,990**		0.1197	**18,000**		0.54	**17,000**		0.51	**18,500**		0.555	**16,500**		0.495	**106,000**		3.18	**106,000**		3.18
PCB 123	Dioxin	0.00003	**67.6**		0.002028	**317**		0.00951	**288**		0.00864	**343**		0.01029	**304**		0.00912	**1,930**		0.0579	**1,810**		0.0543
PCB 126	Dioxin	0.1	**0**	U	0	**94.4**		9.44	**100**		10	**111**		11.1	**101**		10.1	123	R	0	85.3	R	0
PCB 156/157	Dioxin	0.00003	**564**		0.01692	**2,190**		0.0657	**2,290**		0.0687	**2,700**		0.081	**2,190**		0.0657	**15,900**		0.477	**15,100**		0.453
PCB 167	Dioxin	0.00003	**193**		0.00579	**749**		0.02247	**806**		0.02418	**1,010**		0.0303	**823**		0.02469	**6,550**		0.1965	**6,500**		0.195
PCB 169	Dioxin	0.03	**0**	U	0	**0**	U	0	**0**	U	0	**0**	U	0	**0**	U	0	**0**	U	0	**0**	U	0
PCB 189	Dioxin	0.00003	**44.2**		0.001326	**171**		0.00513	**192**		0.00576	**339**		0.01017	**225**		0.00675	**1,160**		0.0348	**1,110**		0.0333
PCB Dioxin			**0.241463**			**10.74238**			**11.20136**			**12.33541**			**11.30186**			**5.2046**			**5.1586**		
PCB 1	NonDioxin		**285**			**4,860**	J		**4,530**	J		**3,840**	J		**3,300**			**161**			**184**		
PCB 2	NonDioxin		**41.4**			**783**			**787**			**550**			**585**			**75.4**			**94**		
PCB 3	NonDioxin		**153**			**2,350**	J		**2,310**			**2,140**			**1,920**			**330**			**402**		
PCB 4	NonDioxin		**895**			**15,000**	J		**9,390**	J		**7,400**	J		**6,710**			**311**	U		**384**	U	
PCB 5	NonDioxin		**0**	U		**140**			**78.5**			**79.8**			**44.2**			**0**	U		**0**	U	
PCB 6	NonDioxin		**343**			**5,690**			**3,900**			**3,400**			**3,420**			**217**			**252**		
PCB 7	NonDioxin		**37.7**			**522**			**281**			**269**			**218**			**0**	U		**38.4**		
PCB 8	NonDioxin		**930**			**15,700**			**10,900**			**9,360**			**9,110**			**764**			**936**		
PCB 9	NonDioxin		**34.6**			**716**			**402**			**374**			**320**			**39.7**			**46.5**		
PCB 10	NonDioxin		**49.4**			**673**			**527**			**399**			**402**			**0**	U		**0**	U	
PCB 11	NonDioxin		**433**			**3,890**			**3,940**			**3,150**			**3,360**			**414**	U		**446**	U	
PCB 12/13	NonDioxin		**438**			**6,080**			**5,240**			**4,430**			**4,850**			**345**			**419**		
PCB 14	NonDioxin		**0**	U		**0**	U		**0**	U		**0**	U		**0**	U		**0**	U		**0**	U	
PCB 15	NonDioxin		**2,490**			**29,900**			**26,700**			**22,800**			**27,800**			**2,490**			**2,900**		
PCB 16	NonDioxin		**368**			**5,220**			**3,120**			**2,790**			**2,570**			**583**			**640**		
PCB 17	NonDioxin		**1,010**			**13,700**			**8,540**			**7,190**			**7,370**			**1,080**			**1,160**		
PCB 18/30	NonDioxin		**931**			**14,700**			**9,710**			**8,500**			**8,090**			**1,430**			**1,610**		
PCB 19	NonDioxin		**344**			**4,150**	J		**2,040**			**1,660**			**1,340**			**623**			**671**		
PCB 20/28	NonDioxin		**5,190**			**61,900**			**45,700**			**39,800**			**44,700**			**11,100**			**12,900**		
PCB 21/33	NonDioxin		**769**			**11,300**			**6,650**			**6,090**			**5,560**			**1,570**			**1,870**		
PCB 22	NonDioxin		**840**			**12,300**			**7,930**			**7,200**			**7,000**			**1,630**			**1,870**		
PCB 23	NonDioxin		**0**	U		**45.7**			**22.7**			**18.7**			**0**	U		**0**	U		**0**	U	
PCB 24	NonDioxin		**0**	U		**217**			**128**			**117**			**104**			**0**	U		**0**	U	
PCB 25	NonDioxin		**748**			**7,110**			**6,310**			**5,200**			**5,560**			**2,920**			**2,970**		
PCB 26/29	NonDioxin		**1,040**			**12,400**			**10,900**			**8,850**			**9,720**			**2,310**			**2,470**		
PCB 27	NonDioxin		**261**			**2,600**			**1,910**			**1,590**			**1,700**			**895**			**930**		

TABLE 2.12 Supplement a

PCB Congener Concentrations (ng/kg) in Surface Sediments and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-SD301-0.0-0.5			GC-SD303-0.0-0.5			GC-SD305-0.0-0.5			GC-SD307A-0.0-0.5			GC-SD307B-0.0-0.5			GC-SD308A-0.0-0.5			D-062310-01 (dup)		
			301			303			305			307A			307B			308A			308A		
			6/23/2010			6/17/2010			6/17/2010			6/17/2010			6/18/2010			6/23/2010			6/23/2010		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 31	NonDioxin		3,450			44,400			35,200			29,900			31,600			4,640			5,420		
PCB 32	NonDioxin		664			8,560			5,510			4,950			5,010			3,730			4,320		
PCB 34	NonDioxin		31.7			437			312			245			278			0	U		0	U	
PCB 35	NonDioxin		115			1,310			1,070			891			1,000			110			136		
PCB 36	NonDioxin		0	U		80			92			65			74.9			0	U		0	U	
PCB 37	NonDioxin		1,520			15,800			13,600			12,000			14,800			2,200			2,550		
PCB 38	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 39	NonDioxin		27.8			333			256			221			240			57.7	R		76.4		
PCB 40/41/71	NonDioxin		1,260			14,500			10,200			8,570			8,810			30,400			31,800		
PCB 42	NonDioxin		601			6,960			5,090			4,180			4,280			14,200			15,000		
PCB 43	NonDioxin		96.7			1,190			710			558			602			579			695		
PCB 44/47/65	NonDioxin		2,670			25,700			18,800			18,800			16,600			68,800			76,000		
PCB 45/51	NonDioxin		351			3,890			2,460			3,550			2,100			9,860			10,300		
PCB 46	NonDioxin		88.8			1,090			702			617			555			4,570			4,360		
PCB 48	NonDioxin		311			5,000			2,760			2,300			2,250			1,300			1,550		
PCB 49/69	NonDioxin		1,960			20,400			15,900			14,100			14,400			57,300			64,600		
PCB 50/53	NonDioxin		296			3,090			2,090			2,190			1,730			15,500			16,500		
PCB 52	NonDioxin		2,630			22,900			17,200			15,200			14,700			109,000			129,000		
PCB 54	NonDioxin		25.2			137			80.8			205			65.5			271			309		
PCB 55	NonDioxin		35.2			480			335			297			291			0	U		0	U	
PCB 56	NonDioxin		1,190			12,300			8,390			7,600			8,190			8,110			8,730		
PCB 57	NonDioxin		26.5			299			226			180			194			95.3			97.3		
PCB 58	NonDioxin		0	U		150			112			94.1			93.8			145			241		
PCB 59/62/75	NonDioxin		219			2,540			1,800			1,500			1,540			2,560			2,960		
PCB 60	NonDioxin		542			4,730			3,400			3,200			3,480			2,100			2,380		
PCB 61/70/74/76	NonDioxin		4,770			45,800			32,300			27,600			30,900			64,700			71,500		
PCB 63	NonDioxin		158			1,610			1,160			942			1,080			813			827		
PCB 64	NonDioxin		913			9,990			7,120			6,040			6,180			12,700			14,000		
PCB 66	NonDioxin		2,810			28,100			20,000			17,100			19,500			44,000			48,200		
PCB 67	NonDioxin		93.9			1,240			833			699			750			577			624		
PCB 68	NonDioxin		43.7			445			383			341			358			889			999		
PCB 72	NonDioxin		51.6			587			497			379			427			715			771		
PCB 73	NonDioxin		0	U		104			81.2			104			75.3			0	U		0	U	
PCB 78	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 79	NonDioxin		41.5			235			185			177			202			1,800			1,720		
PCB 80	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 82	NonDioxin		370			1,980			1,830			1,930			1,550			15,700			14,400		
PCB 83/99	NonDioxin		2,020			12,400			10,400			12,100			10,200			95,000			115,000		
PCB 84	NonDioxin		706			4,020			3,340			3,350			2,610			58,300			54,500		

TABLE 2.12 Supplement a

PCB Congener Concentrations (ng/kg) in Surface Sediments and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-SD301-0.0-0.5			GC-SD303-0.0-0.5			GC-SD305-0.0-0.5			GC-SD307A-0.0-0.5			GC-SD307B-0.0-0.5			GC-SD308A-0.0-0.5			D-062310-01 (dup)		
			301			303			305			307A			307B			308A			308A		
			6/23/2010			6/17/2010			6/17/2010			6/17/2010			6/18/2010			6/23/2010			6/23/2010		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 85/116/117	NonDioxin		596			3,170			3,100			3,160			2,670			26,000			24,400		
PCB 86/87/97/109/119/125	NonDioxin		2,190			11,000			10,700			11,500			9,250			102,000			111,000		
PCB 88/91	NonDioxin		474			3,300			2,810			3,260			2,440			37,100			38,400		
PCB 89	NonDioxin		27.8			239			152			157			129			1,170			1,140		
PCB 90/101/113	NonDioxin		3,310			18,900			16,200			19,700			16,100			155,000			163,000		
PCB 92	NonDioxin		582			3,460			2,850			3,310			2,680			35,200			36,000		
PCB 93/95/98/100/102	NonDioxin		2,270			12,700			11,100			12,800			8,740			178,000			177,000		
PCB 94	NonDioxin		27.5			207			154			283			133			1,690			1,640		
PCB 96	NonDioxin		19.5			146			107			160			92.5			1,540			1,430		
PCB 103	NonDioxin		35.9			292			268			459			248			1,840			1,870		
PCB 104	NonDioxin		0	U		21.9			0	U		78.1			0	U		64.6			67.6		
PCB 106	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 107	NonDioxin		277			1,360			1,280			1,280			1,160			8,080			7,840		
PCB 108/124	NonDioxin		137			579			550			614			538			4,710			4,640		
PCB 110/115	NonDioxin		3,860			18,600			19,200			20,500			17,200			223,000			228,000		
PCB 111	NonDioxin		0	U		20.1			21.6			22			19.9			0	U		0	U	
PCB 112	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 120	NonDioxin		0	U		99			104			95.6			103			150			143		
PCB 121	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 122	NonDioxin		44.6			222			208			218			187			1,380			1,460		
PCB 127	NonDioxin		0	U		20			24.9			33.1			0	U		236			224		
PCB 128/166	NonDioxin		775			2,870			3,060			3,760			2,950			35,700			32,400		
PCB 129/138/160/163	NonDioxin		4,760			18,100			19,800			26,000			19,900			199,000			236,000		
PCB 130	NonDioxin		284			1,110			1,180			1,420			1,220			12,700			11,800		
PCB 131	NonDioxin		57.9			204			215			258			223			2,960			2,650		
PCB 132	NonDioxin		1,540			5,170			5,420			7,540			6,100			87,500			82,300		
PCB 133	NonDioxin		67			332			340			430			398			2,530			2,430		
PCB 134/143	NonDioxin		217			843			872			1,140			912			13,400			12,000		
PCB 135/151/154	NonDioxin		1,110			5,060			5,970			8,660			6,660			65,100			62,400		
PCB 136	NonDioxin		388			1,800			1,660			2,680			1,870			29,800			27,400		
PCB 137	NonDioxin		245			867			786			953			833			12,000			12,000		
PCB 139/140	NonDioxin		74.1			311			319			389			328			3,820			3,660		
PCB 141	NonDioxin		781			2,610			2,970			4,680			3,180			34,300			32,500		
PCB 142	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 144	NonDioxin		159			654			803			1,140			913			8,930			8,220		
PCB 145	NonDioxin		0	U		0	U		0	U		0	U		0	U		93.5			93.2		
PCB 146	NonDioxin		651			2,780			2,930			3,860			3,380			26,500			26,600		
PCB 147/149	NonDioxin		3,470			12,800			15,100			22,300			16,900			190,000			183,000		
PCB 148	NonDioxin		0	U		60.3			66			97.5			71.8			242			247		

TABLE 2.12 Supplement a

PCB Congener Concentrations (ng/kg) in Surface Sediments and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-SD301-0.0-0.5			GC-SD303-0.0-0.5			GC-SD305-0.0-0.5			GC-SD307A-0.0-0.5			GC-SD307B-0.0-0.5			GC-SD308A-0.0-0.5			D-062310-01 (dup)		
			301			303			305			307A			307B			308A			308A		
			6/23/2010			6/17/2010			6/17/2010			6/17/2010			6/18/2010			6/23/2010			6/23/2010		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 150	NonDioxin		0	U		70.5			71.4			159			99.1			518			497		
PCB 152	NonDioxin		0	U		26.6			21.4			65.7			31.1			320			331		
PCB 153/168	NonDioxin		3,790			16,000			17,700			24,300			19,000			155,000			159,000		
PCB 155	NonDioxin		0	U		19.6			21			30.8			20.7			0	U		0	U	
PCB 158	NonDioxin		441			1,660			1,760			2,490			1,690			20,700			19,500		
PCB 159	NonDioxin		36.1			121			142			280			166			1,400			1,370		
PCB 161	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 162	NonDioxin		0	U		62.2			69.5			76.8			71.3			488	R		408		
PCB 164	NonDioxin		274			1,050			1,160			1,680			1,260			14,300			13,100		
PCB 165	NonDioxin		0	U		19.3			0	U		22.2			20.8			0	U		0	U	
PCB 170	NonDioxin		902			3,380			4,210			6,940			5,160			28,600			25,900		
PCB 171/173	NonDioxin		308			1,200			1,520			2,320			1,880			10,200			8,880		
PCB 172	NonDioxin		176			679			820			1,320			992			4,990			4,810		
PCB 174	NonDioxin		941			3,210			4,090			7,340			5,420			34,300			30,100		
PCB 175	NonDioxin		46.6			179			235			370			320			1,350			1,270		
PCB 176	NonDioxin		123			500			624			953			846			4,540			4,070		
PCB 177	NonDioxin		627			2,390			2,960			4,350			3,800			15,900			15,000		
PCB 178	NonDioxin		219			987			1,220			1,790			1,560			6,390			5,850		
PCB 179	NonDioxin		386			1,670			2,070			3,020			2,590			14,100			13,100		
PCB 180/193	NonDioxin		2,170			8,240			10,300			17,500			13,300			66,200	R		62,900		
PCB 181	NonDioxin		0	U		40.6			43			64.7			61.1			403			376		
PCB 182	NonDioxin		0	U		38.1			40.4			0	U		46.8			163			175		
PCB 183/185	NonDioxin		755			2,860			3,670			5,560			4,700			24,400			22,100		
PCB 184	NonDioxin		0	U		0	U		19.1			0	U		30.1			0	U		0	U	
PCB 186	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 187	NonDioxin		1,400			5,920			7,510			10,700			9,800			42,300			40,500		
PCB 188	NonDioxin		0	U		26.1			32.8			51.6			32.1			103			95.2		
PCB 190	NonDioxin		194			803			989			1,600			1,160			5,150			4,990		
PCB 191	NonDioxin		42.1			155			192			330			255			1,220			1,120		
PCB 192	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 194	NonDioxin		551			2,140			2,560			4,240			2,510			12,400			12,700		
PCB 195	NonDioxin		214			771			835			1,670			908			4,710			4,830		
PCB 196	NonDioxin		313			1,140			1,490			2,530			1,970			7,560			7,390		
PCB 197/200	NonDioxin		97.9			403			448			779			659			2,920			2,720		
PCB 198/199	NonDioxin		650			3,100			3,920			5,970			5,080			18,800			19,000		
PCB 201	NonDioxin		89.4			384			499			671			720			2,530			2,450		
PCB 202	NonDioxin		187			852			1,070			1,230			1,090			3,990			3,840		
PCB 203	NonDioxin		467			1,810			2,250			3,740			3,290			11,800			12,800		
PCB 204	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	

TABLE 2.12 Supplement a

PCB Congener Concentrations (ng/kg) in Surface Sediments and PCB Dioxin, PCB Non-dioxin, and PCB total calculations

Gowanus Canal Remedial Investigation

Brooklyn, New York

			GC-SD301-0.0-0.5		GC-SD303-0.0-0.5		GC-SD305-0.0-0.5		GC-SD307A-0.0-0.5		GC-SD307B-0.0-0.5		GC-SD308A-0.0-0.5		D-062310-01 (dup)	
			301		303		305		307A		307B		308A		308A	
			6/23/2010		6/17/2010		6/17/2010		6/17/2010		6/18/2010		6/23/2010		6/23/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 205	NonDioxin		30.1		110		135		228		153		673		687	
PCB 206	NonDioxin		397		2,120		2,360		3,190		2,600		11,300		11,700	
PCB 207	NonDioxin		51		252		299		389		309		1,430		1,520	
PCB 208	NonDioxin		153		857		1,090		1,200		1,160		3,430		3,510	
PCB 209	NonDioxin		303		1,780		2,290		2,000		2,450		8,290		8,230	
PCB Nondioxin			92,484		731,667		607,428		633,461		587,210		2,637,144		2,792,703	
Total PCB Congeners			99,450		764,560		638,537		666,997		617,715		2,807,014		2,960,573	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD308B-0.0-0.5		GC-SD309-0.0-0.5		GC-SD310-0.0-0.5		GC-SD312-0.0-0.5		GC-SD313-0.0-0.5		GC-SD314-0.0-0.5		D-06182010-01 (dup)	
			308B		309		310		312		313		314		314	
			6/24/2010		6/18/2010		6/24/2010		6/23/2010		6/18/2010		6/18/2010		6/18/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 77	Dioxin	0.0001	**2,120**	0.212	**4,200**	0.42	**5,960**	0.596	**3,220**	0.322	**9,260**	0.926	**16,200**	1.62	**14,800**	1.48
PCB 81	Dioxin	0.0003	**50.7**	0.01521	**94.9**	0.02847	**156**	0.0468	**92.1**	0.02763	**0** U	0	**757**	0.2271	**756**	0.2268
PCB 105	Dioxin	0.00003	**5,020**	0.1506	**8,060**	0.2418	**15,800**	0.474	**8,430**	0.2529	**41,700**	1.251	**72,200**	2.166	**65,200**	1.956
PCB 114	Dioxin	0.00003	**249**	0.00747	**454**	0.01362	**939**	0.02817	**492**	0.01476	**2,890**	0.0867	**4,940**	0.1482	**4,460**	0.1338
PCB 118	Dioxin	0.00003	**14,200**	0.426	**22,100**	0.663	**42,300**	1.269	**23,300**	0.699	**125,000**	3.75	206,000 R	0	**119,000**	3.57
PCB 123	Dioxin	0.00003	**252**	0.00756	**408**	0.01224	**720**	0.0216	**342**	0.01026	**2,740**	0.0822	**3,400**	0.102	**3,100**	0.093
PCB 126	Dioxin	0.1	**60.8**	6.08	**115**	11.5	**151**	15.1	**69.2**	6.92	**0** U	0	**971**	97.1	**965**	96.5
PCB 156/157	Dioxin	0.00003	**2,200**	0.066	**3,170**	0.0951	**8,220**	0.2466	**4,380**	0.1314	**37,500**	1.125	**61,000**	1.83	**61,000**	1.83
PCB 167	Dioxin	0.00003	**867**	0.02601	**1,190**	0.0357	**3,500**	0.105	**2,070**	0.0621	**18,800**	0.564	**24,200**	0.726	**26,100**	0.783
PCB 169	Dioxin	0.03	**0** U	0	**0** U	0	**0** U	0	**0** U	0	**0** U	0	**0** U	0	**0** U	0
PCB 189	Dioxin	0.00003	**248**	0.00744	**306**	0.00918	**1,300**	0.039	**704**	0.02112	**8,180**	0.2454	**14,400**	0.432	**14,100**	0.423
PCB Dioxin			**6.99829**		**13.01911**		**17.92617**		**8.46117**		**8.0303**		**104.3513**		**106.9956**	
PCB 1	NonDioxin		**1,280**		**2,440**		**1,480**		**1,030**		**9,480**		**7,540** J		**7,950** J	
PCB 2	NonDioxin		**168**		**286**		**278**		**184**		**1,560**		**668**		**790**	
PCB 3	NonDioxin		**668**		**1,360**		**1,010**		**649**		**5,680**		**5,770**		**5,880** J	
PCB 4	NonDioxin		**3,690**		**6,410**		**6,800**		**4,250**		**63,300**		**53,200** J		**55,700** J	
PCB 5	NonDioxin		**0** U		**88.6**		**147**		**81.5**		**2,200**		**2,050**		**1,760**	
PCB 6	NonDioxin		**1,630**		**3,320**		**4,920**		**2,370**		**42,700**		**24,800**		**25,700**	
PCB 7	NonDioxin		**97.1**		**264**		**371**		**202**		**4,840**		**4,380**		**4,400**	
PCB 8	NonDioxin		**4,380**		**9,240**		**12,600**		**6,760**		**104,000**		**111,000**		**116,000**	
PCB 9	NonDioxin		**151**		**379**		**533**		**303**		**7,500**		**7,050**		**6,930**	
PCB 10	NonDioxin		**262**		**529**		**375**		**267**		**2,350**		**1,620**		**1,430**	
PCB 11	NonDioxin		**1,930**		**2,830**		**3,670**		**2,350**		**5,280**		**9,980**		**10,100**	
PCB 12/13	NonDioxin		**2,050**		**3,760**		**5,700**		**2,510**		**14,700**		**10,600**		**11,400**	
PCB 14	NonDioxin		**0** U		**0** U		**0** U		**0** U		**0** U		**38.8**		**45.9**	
PCB 15	NonDioxin		**12,900**		**23,800**		**22,700**		**13,200**		**58,200**		**65,200**		**68,000**	
PCB 16	NonDioxin		**1,370**		**3,420**		**8,900**		**4,240**		**55,200**		**75,500**		**63,300**	
PCB 17	NonDioxin		**3,640**		**7,460**		**17,000**		**8,650**		**69,500**		**86,400**		**82,000**	
PCB 18/30	NonDioxin		**4,290**		**9,890**		**23,300**		**11,000**		**135,000**		**175,000**		**158,000**	
PCB 19	NonDioxin		**740**		**1,920**		**2,900**		**1,390**		**24,000**		**21,500**		**21,500** J	
PCB 20/28	NonDioxin		**20,700**		**41,600**		**76,200**		**35,400**		**208,000**		295,000 R		**258,000**	
PCB 21/33	NonDioxin		**2,750**		**6,950**		**16,600**		**7,880**		**92,400**		**143,000**		**119,000**	
PCB 22	NonDioxin		**3,550**		**7,960**		**19,200**		**8,540**		**70,000**		**101,000**		**94,300**	
PCB 23	NonDioxin		**0** U		**0** U		**42.7**		**0** U		**0** U		**379**		**368**	
PCB 24	NonDioxin		**52.2**		**148**		**271**		**159**		**1,900**		**2,100**		**2,090**	
PCB 25	NonDioxin		**2,770**		**5,190**		**10,400**		**3,890**		**24,600**		**25,400**		**25,500**	
PCB 26/29	NonDioxin		**4,690**		**9,360**		**14,100**		**7,120**		**45,700**		**55,700**		**54,500**	
PCB 27	NonDioxin		**959**		**1,720**		**3,450**		**1,690**		**11,500**		**13,100**		**12,100**	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD308B-0.0-0.5			GC-SD309-0.0-0.5			GC-SD310-0.0-0.5			GC-SD312-0.0-0.5			GC-SD313-0.0-0.5			GC-SD314-0.0-0.5			D-06182010-01 (dup)		
			308B			309			310			312			313			314			314		
			6/24/2010			6/18/2010			6/24/2010			6/23/2010			6/18/2010			6/18/2010			6/18/2010		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 31	NonDioxin		15,100			30,100			59,600			27,000			176,000			263,000	R		221,000		
PCB 32	NonDioxin		2,560			4,710	R		10,600			4,910			36,300			58,700			54,000		
PCB 34	NonDioxin		127			254			374			182			1,010			1,200			1,230		
PCB 35	NonDioxin		537			951			1,460			788			2,660			4,120			4,020		
PCB 36	NonDioxin		0	U		57.8			0	U		0	U		0	U		275			179		
PCB 37	NonDioxin		7,270			14,500			18,800			10,200			50,000			72,700			67,900		
PCB 38	NonDioxin		0	U		0	U		0	U		0	U		0	U		147			194		
PCB 39	NonDioxin		128			226			457			214			934			1,260			1,330		
PCB 40/41/71	NonDioxin		5,960			10,500			24,300			10,400			70,200			103,000			96,900		
PCB 42	NonDioxin		2,890			5,220			11,800			5,350			35,300			52,100			50,400		
PCB 43	NonDioxin		386			683			1,780			758			5,940			9,470			8,860		
PCB 44/47/65	NonDioxin		11,100			19,300			48,300			20,300			138,000			193,000	R		128,000		
PCB 45/51	NonDioxin		1,460			2,810			8,270			3,710			33,100			37,700			33,600		
PCB 46	NonDioxin		444			845			2,220			942			10,700			12,100			10,300		
PCB 48	NonDioxin		1,290			2,830			8,710			3,530			28,200			47,900			44,900		
PCB 49/69	NonDioxin		9,710			15,000			39,400			16,900			92,700			128,000			87,800		
PCB 50/53	NonDioxin		1,530			2,350			6,650			2,880			23,600			30,200			27,100		
PCB 52	NonDioxin		11,100			17,900			50,200			21,000			143,000			226,000	R		155,000		
PCB 54	NonDioxin		0	U		72.8			186			108			1,070			619			625		
PCB 55	NonDioxin		165			279			811			221			1,870			3,550			3,330		
PCB 56	NonDioxin		4,910			9,460			19,500			9,870			42,400			71,700			69,600		
PCB 57	NonDioxin		103			209			290			134			661			1,130			1,150		
PCB 58	NonDioxin		66.5			107			133			75			0	U		457			624		
PCB 59/62/75	NonDioxin		997			1,940			3,950			1,760			12,700			18,100			17,500		
PCB 60	NonDioxin		2,060			4,080			9,700			4,860			24,800			45,400			45,300		
PCB 61/70/74/76	NonDioxin		18,800			32,900			82,900			36,200			170,000			299,000	R		214,000		
PCB 63	NonDioxin		637			1,130			2,290			1,100			4,800			7,760			7,700		
PCB 64	NonDioxin		3,960			7,320			20,600			8,710			50,500			80,200			76,800		
PCB 66	NonDioxin		12,800			21,400			43,200			21,000			90,100			151,000	R		110,000		
PCB 67	NonDioxin		421			836			2,210			811			4,390			6,420			6,610		
PCB 68	NonDioxin		244			354			530			293			662			654			787		
PCB 72	NonDioxin		273			441			621			321			908			1,120			1,240		
PCB 73	NonDioxin		0	U		0	U		0	U		0	U		0	U		370			436		
PCB 78	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 79	NonDioxin		185			255			630			270			964			1,560			1,980		
PCB 80	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 82	NonDioxin		1,390			2,000			4,700			2,600			11,100			20,000			17,200		
PCB 83/99	NonDioxin		9,820			13,100			41,900			29,600			188,000			149,000	R		152,000		
PCB 84	NonDioxin		3,350			4,110			9,510			5,270			29,800			44,700			39,400		

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD308B-0.0-0.5			GC-SD309-0.0-0.5			GC-SD310-0.0-0.5			GC-SD312-0.0-0.5			GC-SD313-0.0-0.5			GC-SD314-0.0-0.5			D-06182010-01 (dup)		
			308B			309			310			312			313			314			314		
			6/24/2010			6/18/2010			6/24/2010			6/23/2010			6/18/2010			6/18/2010			6/18/2010		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 85/116/117	NonDioxin		2,450			3,450			7,860			4,120			17,900			31,700			28,700		
PCB 86/87/97/109/119/125	NonDioxin		8,760			12,000			34,100			17,700			89,700			144,000	R		91,900		
PCB 88/91	NonDioxin		2,840			3,350			11,700			8,110			59,400			53,700			56,000		
PCB 89	NonDioxin		110			177			455			250			1,520			2,320			2,100		
PCB 90/101/113	NonDioxin		14,500			19,900			76,300			41,400			273,000			365,000	R		321,000		
PCB 92	NonDioxin		2,780			3,400			9,050			4,960			31,400			50,600			54,100		
PCB 93/95/98/100/102	NonDioxin		12,200			14,200			46,500			25,400			210,000			300,000	R		217,000		
PCB 94	NonDioxin		130			179			459			271			1,190	R		1,140			1,080		
PCB 96	NonDioxin		100			136			395			232			1,770			1,770			1,540		
PCB 103	NonDioxin		252			372			1,480			1,310			11,600			8,630			9,610		
PCB 104	NonDioxin		0	U		0	U		63.5			40.7			0	U		59.4			64.2		
PCB 106	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 107	NonDioxin		1,110			1,380			3,310			1,910			5,880			11,600			10,900		
PCB 108/124	NonDioxin		459			649			1,760			927			3,940			7,540			7,140		
PCB 110/115	NonDioxin		18,100			21,900			66,000			32,800			164,000			262,000	R		177,000		
PCB 111	NonDioxin		0	U		0	U		0	U		0	U		0	U		38.4			33.7		
PCB 112	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 120	NonDioxin		56.4			121			234			214			1,200			829			1,010		
PCB 121	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 122	NonDioxin		170			214			573			289			1,340			2,260			2,010		
PCB 127	NonDioxin		0	U		0	U		0	U		0	U		0	U		244			410		
PCB 128/166	NonDioxin		3,370			3,930			10,500			5,940			39,100			64,200			63,400		
PCB 129/138/160/163	NonDioxin		23,500			25,000			128,000			60,700			441,000			681,000	R		605,000		
PCB 130	NonDioxin		1,290			1,450			4,940			2,430			13,400			23,800			25,000		
PCB 131	NonDioxin		259			256			920			513			3,890			6,120			6,330		
PCB 132	NonDioxin		7,040			7,450			34,400			16,000			119,000			211,000			153,000		
PCB 133	NonDioxin		366			408			1,430			814			5,590			9,280			9,500		
PCB 134/143	NonDioxin		1,110			1,160			4,650			2,470			21,500			32,300			35,100		
PCB 135/151/154	NonDioxin		6,860			8,010			45,600			26,300			230,000			391,000	R		298,000		
PCB 136	NonDioxin		2,280			2,600			14,100			8,010			66,500			81,800			120,000		
PCB 137	NonDioxin		992			876			2,580			1,680			9,010			13,500			15,900		
PCB 139/140	NonDioxin		369			373			1,400			913			7,150			9,100			11,000		
PCB 141	NonDioxin		3,670			3,980			26,900			11,600			109,000			204,000			155,000		
PCB 142	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 144	NonDioxin		947			1,060			5,820			2,820			25,500			57,600			60,900		
PCB 145	NonDioxin		0	U		0	U		0	U		0	U		0	U		56.8			56.7		
PCB 146	NonDioxin		3,250			3,600			19,000			10,300			72,800			115,000			129,000		
PCB 147/149	NonDioxin		19,000			19,900			132,000			69,800			551,000			742,000	R		681,000		
PCB 148	NonDioxin		50.1			69.1			321			355			2,470			2,220			2,510		

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD308B-0.0-0.5			GC-SD309-0.0-0.5			GC-SD310-0.0-0.5			GC-SD312-0.0-0.5			GC-SD313-0.0-0.5			GC-SD314-0.0-0.5			D-06182010-01 (dup)		
			308B			309			310			312			313			314			314		
			6/24/2010			6/18/2010			6/24/2010			6/23/2010			6/18/2010			6/18/2010			6/18/2010		
Parameter	Type	TEF	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ	Conc		TEQ
PCB 150	NonDioxin		76.2			131			964			1,060			7,960			5,860			8,690		
PCB 152	NonDioxin		0	U		0	U		132			82.6			0	U		177			224		
PCB 153/168	NonDioxin		20,500			23,400			148,000			82,000			631,000			857,000	R		841,000		
PCB 155	NonDioxin		0	U		0	U		89.5			104			868			516			519		
PCB 158	NonDioxin		2,090			2,330			9,740			5,160			43,000			73,200			77,700		
PCB 159	NonDioxin		174			270			1,820			682			6,940			11,100			10,100		
PCB 161	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 162	NonDioxin		75.4			72.8			167			103			654			1,040			1,180		
PCB 164	NonDioxin		1,470			1,690			7,720			4,010			38,400			59,400			62,100		
PCB 165	NonDioxin		0	U		0	U		0	U		0	U		0	U		39			53.2		
PCB 170	NonDioxin		5,200			7,710			32,000			16,000			188,000			295,000	R		189,000		
PCB 171/173	NonDioxin		1,800			2,470			10,900			5,330			56,800			102,000			61,400		
PCB 172	NonDioxin		1,000			1,340			5,740			3,020			32,600			57,900			58,800		
PCB 174	NonDioxin		5,110			6,710			40,500			17,900			183,000			300,000	R		202,000		
PCB 175	NonDioxin		265			377			1,490			789			8,260			15,600			16,500		
PCB 176	NonDioxin		735			979			5,100			2,450			23,600			45,600			47,700		
PCB 177	NonDioxin		3,490			4,810			17,800			8,870			99,800			180,000	R		107,000		
PCB 178	NonDioxin		1,330			1,870			7,710			4,570			42,900			70,100			74,100		
PCB 179	NonDioxin		2,380			3,220			17,600			9,220			87,700			147,000	R		89,500		
PCB 180/193	NonDioxin		12,600			16,700			93,400			43,100			446,000			657,000	R		492,000		
PCB 181	NonDioxin		55			65.9			237			162			1,520			2,390			2,680		
PCB 182	NonDioxin		42.4			0	U		98.9			0	U		0	U		783			857		
PCB 183/185	NonDioxin		4,460			5,850			28,800			14,500			147,000			269,000	R		169,000		
PCB 184	NonDioxin		0	U		0	U		40.9			0	U		0	U		115			139		
PCB 186	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 187	NonDioxin		8,460			11,800			60,500			34,500			266,000			415,000	R		284,000		
PCB 188	NonDioxin		0	U		54.7			240			309			2,510			1,860			1,930		
PCB 190	NonDioxin		1,130			1,610			6,120			3,450			40,900			71,200			69,200		
PCB 191	NonDioxin		234			328			1,530			797			8,780			15,400			14,900		
PCB 192	NonDioxin		0	U		0	U		0	U		0	U		0	U		0	U		0	U	
PCB 194	NonDioxin		3,240			3,800			16,700			10,700			93,600			147,000	R		101,000		
PCB 195	NonDioxin		1,220			1,410			6,510			3,760			35,200			46,900	R		58,200		
PCB 196	NonDioxin		1,650			2,170			8,970			5,320			45,600			78,700			67,300		
PCB 197/200	NonDioxin		542			751			3,280			1,800			13,900			25,000			25,100		
PCB 198/199	NonDioxin		4,230			5,190			20,100			12,800			79,200			131,000			130,000		
PCB 201	NonDioxin		548			754			2,810			1,700			10,100			18,400			18,100		
PCB 202	NonDioxin		1,140			1,540			4,020			3,120			17,000			23,600			23,400		
PCB 203	NonDioxin		2,740			3,460			12,700			8,820			57,800			102,000			91,400		
PCB 204	NonDioxin		0	U		0	U		0	U		0	U		0	U		38.9			34.1		

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD308B-0.0-0.5		GC-SD309-0.0-0.5		GC-SD310-0.0-0.5		GC-SD312-0.0-0.5		GC-SD313-0.0-0.5		GC-SD314-0.0-0.5		D-06182010-01 (dup)	
			308B		309		310		312		313		314		314	
			6/24/2010		6/18/2010		6/24/2010		6/23/2010		6/18/2010		6/18/2010		6/18/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 205	NonDioxin		152		218		857		561		5,530		8,670		8,350	
PCB 206	NonDioxin		2,970		3,220		8,040		6,810		20,600		30,800		30,200	
PCB 207	NonDioxin		385		357		1,090		835		2,760		4,980		4,910	
PCB 208	NonDioxin		1,090		1,220		2,900		2,050		4,620		6,110		6,360	
PCB 209	NonDioxin		2,570		2,630		4,560		2,440		4,910		4,830		4,880	
PCB Nondioxin			440,015		655,904		2,073,307		1,055,846		7,886,531		3,836,404		9,769,540	
Total PCB Congeners			465,283		696,002		2,152,353		1,098,945		8,132,601		4,034,472		10,079,021	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD315-0.0-0.5		D-06182010-02 (dup)		GC-SD318-0.0-0.5		GC-SD319-0.0-0.5		GC-SD320-0.0-0.5		GC-SD321-0.0-0.5		GC-SD324-0.0-0.5	
			315		315		318		319		320		321		324	
			6/18/2010		6/18/2010		6/22/2010		6/22/2010		6/22/2010		6/21/2010		6/21/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 77	Dioxin	0.0001	13,900	1.39	11,700	1.17	13,300	1.33	5,370	0.537	4,770	0.477	3,940	0.394	5,450	0.545
PCB 81	Dioxin	0.0003	691	0.2073	532	0.1596	572	0.1716	218	0.0654	205	0.0615	112	0.0336	146	0.0438
PCB 105	Dioxin	0.00003	51,400	1.542	47,500	1.425	36,700	1.101	17,700	0.531	13,800	0.414	9,170	0.2751	11,000	0.33
PCB 114	Dioxin	0.00003	3,610	0.1083	3,220	0.0966	2,360	0.0708	1,160	0.0348	976	0.02928	572	0.01716	611	0.01833
PCB 118	Dioxin	0.00003	104,000	3.12	95,600	2.868	84,000	2.52	50,800	1.524	31,000	0.93	25,200	0.756	28,000	0.84
PCB 123	Dioxin	0.00003	2,620	0.0786	2,530	0.0759	1,480	0.0444	758	0.02274	709	0.02127	439	0.01317	505	0.01515
PCB 126	Dioxin	0.1	539	53.9	442	44.2	261	26.1	113	11.3	110	11	81.6	8.16	148	14.8
PCB 156/157	Dioxin	0.00003	33,600	1.008	36,500	1.095	14,400	0.432	9,290	0.2787	4,770	0.1431	3,610	0.1083	3,710	0.1113
PCB 167	Dioxin	0.00003	13,900	0.417	16,000	0.48	5,480	0.1644	3,960	0.1188	1,890	0.0567	1,430	0.0429	1,420	0.0426
PCB 169	Dioxin	0.03	0 U	0	0 U	0	0 U	0	0 U	0	0 U	0	0 U	0	0 U	0
PCB 189	Dioxin	0.00003	7,270	0.2181	7,490	0.2247	2,050	0.0615	1,570	0.0471	661	0.01983	454	0.01362	416	0.01248
PCB Dioxin			61.9893		51.7948		31.9957		14.45954		13.15268		9.81385		16.75866	
PCB 1	NonDioxin		10,800 J		10,600 J		1,880		1,860		798		1,320		4,560 J	
PCB 2	NonDioxin		2,250		2,210		299		196		111		193		713	
PCB 3	NonDioxin		8,240 J		7,670		1,450		1,130		619		729		2,410	
PCB 4	NonDioxin		74,700 J		68,100 J		16,500		12,500		7,640		4,900		10,200 J	
PCB 5	NonDioxin		2,400		2,030		764		400		348		74.2		77.9	
PCB 6	NonDioxin		32,800		30,400		11,600		6,060		4,500		2,380		4,700	
PCB 7	NonDioxin		5,760		5,210		1,690		914		776		196		326	
PCB 8	NonDioxin		140,000		124,000		41,800		26,900		20,700		8,010		13,200	
PCB 9	NonDioxin		8,820		8,220		2,580		1,350		1,140		304		488	
PCB 10	NonDioxin		1,810		1,550		645		454		327		311		592	
PCB 11	NonDioxin		7,570		7,010		5,430		2,130		1,270		2,150		4,350	
PCB 12/13	NonDioxin		12,600		12,000		8,890		3,440		2,550		2,770		6,020	
PCB 14	NonDioxin		43.9		40.5		12.1		6.07		0 U		0 U		0 U	
PCB 15	NonDioxin		69,200		67,000		41,900		20,800		14,200		15,900		35,800	
PCB 16	NonDioxin		78,100		63,700		36,400		22,300		19,400		4,930		5,510	
PCB 17	NonDioxin		94,600		85,400		44,800		27,200		24,200		9,630		12,600	
PCB 18/30	NonDioxin		193,000		151,000		80,600		49,700		37,600		13,700		16,300	
PCB 19	NonDioxin		27,300 J		24,300 J		8,460		5,860		4,040		1,820		2,520	
PCB 20/28	NonDioxin		338,000		264,000		222,000		102,000		68,700		52,800		69,300	
PCB 21/33	NonDioxin		165,000		128,000		90,500		44,300		36,600		10,900		11,400	
PCB 22	NonDioxin		104,000		83,000		73,700		32,900		26,800		10,300		12,100	
PCB 23	NonDioxin		416		346		291		73.6		78.6		19.9		30.3	
PCB 24	NonDioxin		2,260		1,910		849		422		573		127		206	
PCB 25	NonDioxin		26,700		22,900		15,900		8,490		6,030		4,890		8,000	
PCB 26/29	NonDioxin		58,700		49,100		33,400		16,700		13,300		9,320		14,600	
PCB 27	NonDioxin		13,900		12,700		6,170		3,670		3,340		1,880		2,810	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD315-0.0-0.5		D-06182010-02 (dup)		GC-SD318-0.0-0.5		GC-SD319-0.0-0.5		GC-SD320-0.0-0.5		GC-SD321-0.0-0.5		GC-SD324-0.0-0.5	
			315		315		318		319		320		321		324	
			6/18/2010		6/18/2010		6/22/2010		6/22/2010		6/22/2010		6/21/2010		6/21/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 31	NonDioxin		294,000		227,000		209,000		84,700		62,500		40,300		48,400	
PCB 32	NonDioxin		61,600		51,800		31,700		19,700		14,300		6,530		8,690	
PCB 34	NonDioxin		1,270		1,060		1,110		304		270		208		389	
PCB 35	NonDioxin		4,100		3,330		5,700		1,130		891		878		1,320	
PCB 36	NonDioxin		36.4	R	31.1		0	U	0	U	0	U	0	U	89	
PCB 37	NonDioxin		69,500		60,000		51,200		21,200		17,500		12,500		21,000	
PCB 38	NonDioxin		180		109		127		45.2		42.3		21.9		26.4	
PCB 39	NonDioxin		1,350		1,160		1,630		518		525		294		372	
PCB 40/41/71	NonDioxin		97,200		87,800		74,400		31,700		34,300		19,600		18,500	
PCB 42	NonDioxin		51,100		44,400		36,800		20,900		16,200		9,360		9,020	
PCB 43	NonDioxin		9,310		8,100		5,990		2,640		2,460		1,140		1,410	
PCB 44/47/65	NonDioxin		175,000		146,000		125,000		58,100		53,700		28,500		33,900	
PCB 45/51	NonDioxin		35,300		33,700		24,600		14,500		12,700		5,000		5,330	
PCB 46	NonDioxin		11,600		10,000		7,770		4,040		3,990		1,360		1,490	
PCB 48	NonDioxin		47,000		40,700		33,100		16,200		14,300		6,000		5,650	
PCB 49/69	NonDioxin		126,000		105,000		94,400		39,400		40,000		22,100		26,300	
PCB 50/53	NonDioxin		30,100		26,500		17,300		11,500		9,470		4,130		4,350	
PCB 52	NonDioxin		208,000		172,000		128,000		61,200		53,700		28,900		34,600	
PCB 54	NonDioxin		699		748		347		244		190		100		139	
PCB 55	NonDioxin		3,380		2,720		2,080		990		718		438		499	
PCB 56	NonDioxin		69,000		59,200		70,100		26,400		25,900		17,300		15,000	
PCB 57	NonDioxin		1,130		867		1,000	R	334		264		230		322	
PCB 58	NonDioxin		441		406		331		112		94.1		104		144	
PCB 59/62/75	NonDioxin		17,800		16,200		12,000		6,070		5,220		2,720		3,270	
PCB 60	NonDioxin		45,600		38,200		43,200		17,100		14,600		7,320		7,110	
PCB 61/70/74/76	NonDioxin		277,000		218,000		266,000		101,000		89,400		57,000		55,500	
PCB 63	NonDioxin		7,060		6,420		7,370		2,780		2,650		1,760		1,810	
PCB 64	NonDioxin		77,300		71,200		63,600		24,400		27,700		15,000		13,400	
PCB 66	NonDioxin		138,000		109,000		139,000		55,100		53,200		34,000		34,600	
PCB 67	NonDioxin		6,120		5,830		5,790		1,950		2,610		1,090		1,250	
PCB 68	NonDioxin		633		584		862		343		248		301		447	
PCB 72	NonDioxin		1,050		1,070		1,290		468		323		414		634	
PCB 73	NonDioxin		366		328		0	U	0	U	0	U	0	U	107	
PCB 78	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 79	NonDioxin		1,250		1,420		1,210		675		483		403		316	
PCB 80	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 82	NonDioxin		14,700		11,100		11,200		5,400		5,340		3,040		2,860	
PCB 83/99	NonDioxin		134,000		156,000		87,700		59,300		35,400		23,500		20,200	
PCB 84	NonDioxin		33,300		28,600		22,000		12,700		10,700		6,190		5,990	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD315-0.0-0.5		D-06182010-02 (dup)		GC-SD318-0.0-0.5		GC-SD319-0.0-0.5		GC-SD320-0.0-0.5		GC-SD321-0.0-0.5		GC-SD324-0.0-0.5	
			315		315		318		319		320		321		324	
			6/18/2010		6/18/2010		6/22/2010		6/22/2010		6/22/2010		6/21/2010		6/21/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 85/116/117	NonDioxin		24,300		20,600		16,200		8,780		7,220		4,610		4,830	
PCB 86/87/97/109/119/125	NonDioxin		85,100		78,900		65,400		37,800		28,300		18,200		16,800	
PCB 88/91	NonDioxin		44,900		58,000		24,800		16,700		11,500		7,250		5,700	
PCB 89	NonDioxin		1,920		1,510		1,270		646		760		334		361	
PCB 90/101/113	NonDioxin		229,000		232,000		139,000		87,500		44,700		33,000		29,200	
PCB 92	NonDioxin		33,500		31,900		18,200		11,200		6,620		4,730		5,300	
PCB 93/95/98/100/102	NonDioxin		169,000		178,000		86,700		65,700		40,100		22,300		21,000	
PCB 94	NonDioxin		964		897		650		422		411		218		255	
PCB 96	NonDioxin		1,600		1,760		747		541		534		229		262	
PCB 103	NonDioxin		7,190		11,200		2,040		2,160		1,450		648		682	
PCB 104	NonDioxin		77.5		233		52.2		54.5		32.5		31.8		36.2	
PCB 106	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 107	NonDioxin		7,700		5,960		5,930		2,840		2,190		1,630		1,880	
PCB 108/124	NonDioxin		5,200		4,420		3,350		1,550		1,230		754		913	
PCB 110/115	NonDioxin		141,000		139,000		113,000		70,800		40,400		33,900		29,000	
PCB 111	NonDioxin		32		34.9		17.7	R	14.5		0	U	17.5		29.5	
PCB 112	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 120	NonDioxin		759		1,150		262		260		137		144		171	
PCB 121	NonDioxin		0	U	88.8		0	U	0	U	0	U	8.53		0	U
PCB 122	NonDioxin		1,670		1,330		1,220		482		493		275		326	
PCB 127	NonDioxin		216		280		0	U	0	U	0	U	0	U	32.5	
PCB 128/166	NonDioxin		36,200		35,200		17,800		11,000		6,130		4,720		4,620	
PCB 129/138/160/163	NonDioxin		413,000		417,000		164,000		143,000		68,300		45,300		35,600	
PCB 130	NonDioxin		13,800		13,600		6,890		3,970		2,470		1,670		1,860	
PCB 131	NonDioxin		3,570		3,980		1,530	R	890		558		314		391	
PCB 132	NonDioxin		109,000		111,000		41,200		36,100		19,500		12,900		10,500	
PCB 133	NonDioxin		5,260		5,960		1,870	R	1,180		713		493		595	
PCB 134/143	NonDioxin		19,600		20,800		6,680	R	5,040		3,000		1,620		1,700	
PCB 135/151/154	NonDioxin		224,000		249,000		57,500		63,500		27,800		17,300		15,500	
PCB 136	NonDioxin		62,800		71,000		14,400	R	16,600		8,950		4,780		4,270	
PCB 137	NonDioxin		8,970		10,700		5,100		2,730		1,800		1,230		1,270	
PCB 139/140	NonDioxin		6,450		7,850		2,160	R	1,450		892		484		620	
PCB 141	NonDioxin		104,000		114,000		33,100		32,000		13,300		8,020		6,430	
PCB 142	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 144	NonDioxin		29,100		26,900		6,910		6,040		3,150		1,690		1,760	
PCB 145	NonDioxin		47.3		39.1		27	R	12.3		0	U	7.15		0	U
PCB 146	NonDioxin		68,500		85,800		22,000		21,700		9,880		7,090		6,290	
PCB 147/149	NonDioxin		491,000		554,000		153,000		157,000		74,600		41,700		33,500	
PCB 148	NonDioxin		1,870		2,820		434	R	402		242		145		163	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD315-0.0-0.5		D-06182010-02 (dup)		GC-SD318-0.0-0.5		GC-SD319-0.0-0.5		GC-SD320-0.0-0.5		GC-SD321-0.0-0.5		GC-SD324-0.0-0.5	
			315		315		318		319		320		321		324	
			6/18/2010		6/18/2010		6/22/2010		6/22/2010		6/22/2010		6/21/2010		6/21/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 150	NonDioxin		5,810		10,300		1,070		1,400		771		339		390	
PCB 152	NonDioxin		217		266		73.1		90.3		75.1		42.3		50.2	
PCB 153/168	NonDioxin		599,000		690,000		188,000		187,000		81,000		50,900		39,100	
PCB 155	NonDioxin		459		766		112		141		66.9		51.5		55.3	
PCB 158	NonDioxin		39,400		43,300		15,900		11,900		5,530		3,680		3,120	
PCB 159	NonDioxin		5,450		5,820		2,300		2,110		860		560		355	
PCB 161	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 162	NonDioxin		602		610		269	R	139		73.4		84.3		98.7	
PCB 164	NonDioxin		33,300		35,000		11,700		8,680		4,300		2,660		2,400	
PCB 165	NonDioxin		31		65.3		25.3		0	U	0	U	0	U	25.4	
PCB 170	NonDioxin		116,000		129,000		55,500		44,400		17,700		15,800		9,650	
PCB 171/173	NonDioxin		51,600		49,100		15,900		17,800		5,760		4,410		3,620	
PCB 172	NonDioxin		29,500		27,800		9,760		9,770		2,910		2,460		1,900	
PCB 174	NonDioxin		109,000		133,000		58,900		45,300		21,000		16,200		10,800	
PCB 175	NonDioxin		8,180		8,120		2,390		2,000		766		520		599	
PCB 176	NonDioxin		24,100		23,200		6,910		6,510		2,600		1,630		1,630	
PCB 177	NonDioxin		92,000		80,800		26,700		22,000		9,470		8,740		6,820	
PCB 178	NonDioxin		39,400		39,200		11,700		11,500		4,190		3,080		2,780	
PCB 179	NonDioxin		84,600		66,000		24,100		23,100		9,490		6,210		5,750	
PCB 180/193	NonDioxin		299,000		340,000		153,000		122,000		45,200		30,700		25,500	
PCB 181	NonDioxin		1,520		1,650		412		430		145		115		107	
PCB 182	NonDioxin		458		385		129		91.1		51.5		51.6		74.1	
PCB 183/185	NonDioxin		101,000		115,000		44,200		35,200		14,800		11,400		9,260	
PCB 184	NonDioxin		101		105		40.9		24.7		0	U	17.5		30.6	
PCB 186	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 187	NonDioxin		178,000		222,000		89,900		75,500		30,900		20,900		18,600	
PCB 188	NonDioxin		1,490		2,230		329		398		165		111		107	
PCB 190	NonDioxin		37,900		39,100		12,300		13,300		3,570		2,900		2,120	
PCB 191	NonDioxin		8,110		7,870		2,430		2,450		771		582		522	
PCB 192	NonDioxin		0	U	0	U	0	U	0	U	0	U	0	U	0	U
PCB 194	NonDioxin		75,900		78,300		31,800		21,500		8,510		6,860		4,880	
PCB 195	NonDioxin		28,600		33,500		13,800		9,260		3,350		2,440		1,530	
PCB 196	NonDioxin		39,400		41,900		17,400		11,700		4,410		3,270		3,150	
PCB 197/200	NonDioxin		13,400		13,300		5,620		3,150		1,350		991		1,050	
PCB 198/199	NonDioxin		73,100		77,000		40,800		22,500		9,460		7,730		8,210	
PCB 201	NonDioxin		9,920		10,300		4,630		2,160		1,220		813		1,140	
PCB 202	NonDioxin		12,700		14,500		7,940		3,850		1,870		1,650		1,760	
PCB 203	NonDioxin		56,700		57,300		25,600		15,600		6,030		4,870		5,190	
PCB 204	NonDioxin		29.1		26.6		10.3		4.98		0	U	0	U	0	U

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			GC-SD315-0.0-0.5		D-06182010-02 (dup)		GC-SD318-0.0-0.5		GC-SD319-0.0-0.5		GC-SD320-0.0-0.5		GC-SD321-0.0-0.5		GC-SD324-0.0-0.5	
			315		315		318		319		320		321		324	
			6/18/2010		6/18/2010		6/22/2010		6/22/2010		6/22/2010		6/21/2010		6/21/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 205	NonDioxin		4,520		5,120		1,480		1,000		441		300		309	
PCB 206	NonDioxin		19,400		20,800		15,300		6,390		3,370		3,300		3,560	
PCB 207	NonDioxin		1,690		2,890		2,210		742		441		372		433	
PCB 208	NonDioxin		2,840		4,650		5,070		1,810		987		1,220		1,550	
PCB 209	NonDioxin		5,520		4,720		5,100		2,910		1,510		2,430		3,080	
PCB Nondioxin			8,091,652		7,910,886		4,227,280		2,650,774		1,640,005		1,015,419		1,046,401	
Total PCB Congeners			8,323,182		8,132,400		4,387,883		2,741,713		1,698,896		1,060,428		1,097,807	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			D-06212010-01 (dup)		GC-SD325-0.0-0.5		GC-SD326-0.0-0.5		GC-SD330-0.0-0.5		GC-SD333-0.0-0.5	
			324		325		326		330		333	
			6/21/2010		6/21/2010		6/17/2010		6/18/2010		6/18/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 77	Dioxin	0.0001	**3,080**	0.308	**2,790**	0.279	**9,340**	0.934	**3,750**	0.375	**3,050**	0.305
PCB 81	Dioxin	0.0003	**74.2**	0.02226	**70**	0.021	**150**	0.045	**74.3**	0.02229	**74.4**	0.02232
PCB 105	Dioxin	0.00003	**5,780**	0.1734	**6,470**	0.1941	**12,200**	0.366	**3,520**	0.1056	**3,780**	0.1134
PCB 114	Dioxin	0.00003	**352**	0.01056	**416**	0.01248	**623**	0.01869	**188**	0.00564	**208**	0.00624
PCB 118	Dioxin	0.00003	**15,200**	0.456	**20,700**	0.621	**38,300**	1.149	**9,900**	0.297	**10,300**	0.309
PCB 123	Dioxin	0.00003	**276**	0.00828	**392**	0.01176	**512**	0.01536	**190**	0.0057	**192**	0.00576
PCB 126	Dioxin	0.1	**50**	5	**46**	4.6	**182**	18.2	**69.3**	6.93	**68.2**	6.82
PCB 156/157	Dioxin	0.00003	**1,900**	0.057	**2,230**	0.0669	**4,050**	0.1215	**1,050**	0.0315	**1,080**	0.0324
PCB 167	Dioxin	0.00003	**700**	0.021	**927**	0.02781	**1,350**	0.0405	**361**	0.01083	**408**	0.01224
PCB 169	Dioxin	0.03	**0** U	0	**0** U	0	**0** U	0	**0** U	0	**0** U	0
PCB 189	Dioxin	0.00003	**180**	0.0054	**184**	0.00552	**421**	0.01263	**89.7**	0.002691	**98.8**	0.002964
PCB Dioxin			**6.0619**		**5.83957**		**20.90268**		**7.786251**		**7.629324**	
PCB 1	NonDioxin		**1,140**		**1,040**		**6,650** J		**4,620** J		**4,520** J	
PCB 2	NonDioxin		**200**		**166**		**2,510**		**839**		**761**	
PCB 3	NonDioxin		**623**		**540**		**4,870** J		**2,380** J		**2,180** J	
PCB 4	NonDioxin		**4,130**		**3,620**		**21,100** J		**8,380** J		**8,370** J	
PCB 5	NonDioxin		**50**		**36.5**		**200**		**32.9**		**38.1**	
PCB 6	NonDioxin		**1,920**		**1,690**		**7,210**		**3,570**		**3,560**	
PCB 7	NonDioxin		**158**		**137**		**718**		**188**		**197**	
PCB 8	NonDioxin		**6,250**		**5,550**		**22,400**		**9,390**		**9,490**	
PCB 9	NonDioxin		**226**		**202**		**894**		**296**		**318**	
PCB 10	NonDioxin		**273**		**235**		**660**		**441**		**447**	
PCB 11	NonDioxin		**2,150**		**1,680**		**22,100**		**3,900**		**3,320**	
PCB 12/13	NonDioxin		**2,400**		**2,100**		**15,900**		**5,290**		**5,080**	
PCB 14	NonDioxin		**5.08**		**0** U		**28.8**		**0** U		**0** U	
PCB 15	NonDioxin		**12,800**		**11,800**		**62,000**		**26,200**		**27,200**	
PCB 16	NonDioxin		**3,490**		**2,830**		**11,300**		**1,840**		**2,080**	
PCB 17	NonDioxin		**6,960**		**6,610**		**25,600**		**6,290**		**6,470**	
PCB 18/30	NonDioxin		**10,200**		**9,260**		**32,000**		**6,690**		**6,990**	
PCB 19	NonDioxin		**1,500**		**1,260**		**5,940** J		**1,760** J		**1,530**	
PCB 20/28	NonDioxin		**36,500**		**36,800**		**113,000**		**41,800**		**41,800**	
PCB 21/33	NonDioxin		**7,480**		**6,390**		**19,700**		**4,730**		**4,680**	
PCB 22	NonDioxin		**7,880**		**6,320**		**24,400**		**6,040**		**6,270**	
PCB 23	NonDioxin		**15.2**		**10.4**		**43.3**		**0** U		**0** U	
PCB 24	NonDioxin		**104**		**78.3**		**436**		**74.1**		**86.5**	
PCB 25	NonDioxin		**4,380**		**4,230**		**14,900**		**5,500**		**5,340**	
PCB 26/29	NonDioxin		**8,210**		**7,790**		**25,800**		**10,000**		**9,800**	
PCB 27	NonDioxin		**1,450**		**1,280**		**5,160**		**1,560**		**1,620**	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			D-06212010-01 (dup)		GC-SD325-0.0-0.5		GC-SD326-0.0-0.5		GC-SD330-0.0-0.5		GC-SD333-0.0-0.5	
			324		325		326		330		333	
			6/21/2010		6/21/2010		6/17/2010		6/18/2010		6/18/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 31	NonDioxin		26,400		26,300		76,800		29,400		29,000	
PCB 32	NonDioxin		6,030		5,200		16,800		4,710		4,750	
PCB 34	NonDioxin		191		154		912		305		273	
PCB 35	NonDioxin		792		604		3,400		1,230		981	
PCB 36	NonDioxin		0 U		23		206		92.7		82.2	
PCB 37	NonDioxin		8,600		8,650		33,100		12,500		13,200	
PCB 38	NonDioxin		18.4		14.1		60.5		0 U		0 U	
PCB 39	NonDioxin		230		201		816		258		232	
PCB 40/41/71	NonDioxin		13,000		12,000		35,000		9,270		9,030	
PCB 42	NonDioxin		6,340		5,910		20,700		4,180		4,230	
PCB 43	NonDioxin		819		691		2,700		605		572	
PCB 44/47/65	NonDioxin		20,700		18,500		68,000		16,200		15,800	
PCB 45/51	NonDioxin		3,560		3,050		9,960		1,820		1,810	
PCB 46	NonDioxin		1,080		790		2,780		543		544	
PCB 48	NonDioxin		3,980		3,540		11,600		2,030		1,950	
PCB 49/69	NonDioxin		15,600		20,900		52,500		14,200		13,500	
PCB 50/53	NonDioxin		3,070		2,880		8,080		1,710		1,640	
PCB 52	NonDioxin		22,400		20,400		65,400		14,700		14,000	
PCB 54	NonDioxin		67.2		58.5		191		60.2 J		43.4	
PCB 55	NonDioxin		217		188		594		244		233	
PCB 56	NonDioxin		11,100		11,200		28,500		6,900		6,920	
PCB 57	NonDioxin		171		203		590		235		220	
PCB 58	NonDioxin		76.3		72.5		508		117		121	
PCB 59/62/75	NonDioxin		2,040		1,730		7,330		1,610		1,600	
PCB 60	NonDioxin		4,350		4,280		6,660		2,660		2,630	
PCB 61/70/74/76	NonDioxin		36,800		38,700		86,100		26,300		25,400	
PCB 63	NonDioxin		1,050		1,010		3,450		1,040		1,000	
PCB 64	NonDioxin		9,360		9,600		27,300		5,540		5,560	
PCB 66	NonDioxin		23,300		25,000		60,900		17,900		17,800	
PCB 67	NonDioxin		810		834		2,170		701		669	
PCB 68	NonDioxin		256		233		1,120		390		348	
PCB 72	NonDioxin		327		334		1,830		497		468	
PCB 73	NonDioxin		0 U		0 U		210		89.5		78.3	
PCB 78	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 79	NonDioxin		253		311		668		137		135	
PCB 80	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 82	NonDioxin		2,020		1,780		4,450		889		1,000	
PCB 83/99	NonDioxin		12,800		19,100		34,400		6,920		7,160	
PCB 84	NonDioxin		4,230		4,650		11,300		2,090		2,270	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			D-06212010-01 (dup)		GC-SD325-0.0-0.5		GC-SD326-0.0-0.5		GC-SD330-0.0-0.5		GC-SD333-0.0-0.5	
			324		325		326		330		333	
			6/21/2010		6/21/2010		6/17/2010		6/18/2010		6/18/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 85/116/117	NonDioxin		3,040		3,150		7,980		1,740		1,880	
PCB 86/87/97/109/119/125	NonDioxin		11,100		13,200		26,300		5,280		5,610	
PCB 88/91	NonDioxin		3,800		5,630		8,660		1,890		2,010	
PCB 89	NonDioxin		221		164		672		97.1		106	
PCB 90/101/113	NonDioxin		18,500		23,900		45,600		8,990		9,570	
PCB 92	NonDioxin		3,140		4,220		10,200		2,030		2,100	
PCB 93/95/98/100/102	NonDioxin		15,600		16,800		36,000		6,630		7,020	
PCB 94	NonDioxin		146		119		442		126		123	
PCB 96	NonDioxin		157		130		421		86.4		84.1	
PCB 103	NonDioxin		379		389		962		187		190	
PCB 104	NonDioxin		19.2		18		19.6		0 U		0 U	
PCB 106	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 107	NonDioxin		1,080		1,270		3,380		854		892	
PCB 108/124	NonDioxin		511		606		939		292		304	
PCB 110/115	NonDioxin		20,600		25,400		48,000		9,930		10,700	
PCB 111	NonDioxin		12.8		13 R		82		19.4		0 U	
PCB 112	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 120	NonDioxin		87.3		108		445		85.3		83.2	
PCB 121	NonDioxin		6.97		0 U		20.4		0 U		0 U	
PCB 122	NonDioxin		200		189		364		103		122	
PCB 127	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 128/166	NonDioxin		2,550		2,580		5,910		1,370		1,540	
PCB 129/138/160/163	NonDioxin		19,800		27,000		39,800		8,360		9,120	
PCB 130	NonDioxin		1,070		949		2,830		579		636	
PCB 131	NonDioxin		185		186		447		81.3		91	
PCB 132	NonDioxin		6,530		6,130		13,100		2,480		2,760	
PCB 133	NonDioxin		277		290		904		206		218	
PCB 134/143	NonDioxin		1,010		992		2,080		455		489	
PCB 135/151/154	NonDioxin		7,780		9,370		17,100		3,280		3,580	
PCB 136	NonDioxin		2,340		2,690		5,530		1,020		1,110	
PCB 137	NonDioxin		699		740		1,400		338		357	
PCB 139/140	NonDioxin		276		293		821		158		169	
PCB 141	NonDioxin		3,530		3,150		5,110		1,060		1,160	
PCB 142	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 144	NonDioxin		822		724		1,880		339		381	
PCB 145	NonDioxin		4.79		4.09 R		19.1		0 U		0 U	
PCB 146	NonDioxin		3,200		4,820		8,050		1,630		1,760	
PCB 147/149	NonDioxin		19,900		24,700		35,300		6,880		7,630	
PCB 148	NonDioxin		69.5		73.2		160		45.8		46.7	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			D-06212010-01 (dup)		GC-SD325-0.0-0.5		GC-SD326-0.0-0.5		GC-SD330-0.0-0.5		GC-SD333-0.0-0.5	
			324		325		326		330		333	
			6/21/2010		6/21/2010		6/17/2010		6/18/2010		6/18/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 150	NonDioxin		153		175		180		49.5		52	
PCB 152	NonDioxin		20.9		26.9		47.4		0 U		0 U	
PCB 153/168	NonDioxin		19,100		23,900		41,000		8,250		9,070	
PCB 155	NonDioxin		27.2		28.6		96.2		0 U		0 U	
PCB 158	NonDioxin		1,650		1,840		3,380		661		730	
PCB 159	NonDioxin		228		189		362		68.5		72	
PCB 161	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 162	NonDioxin		53.8		58.2		122		30.9		36.8	
PCB 164	NonDioxin		1,310		1,330		2,580		514		547	
PCB 165	NonDioxin		12.2		0 U		33.7		0 U		0 U	
PCB 170	NonDioxin		5,180		5,550		9,670		1,840		2,170	
PCB 171/173	NonDioxin		1,670		1,600		3,710		660		756	
PCB 172	NonDioxin		872		930		2,010		349		428	
PCB 174	NonDioxin		5,490		5,200		10,400		1,740		2,050	
PCB 175	NonDioxin		234		198		592		115		131	
PCB 176	NonDioxin		697		589		1,800		297		365	
PCB 177	NonDioxin		3,320		3,840		7,650		1,440		1,740	
PCB 178	NonDioxin		1,210		1,210		3,270		649		794	
PCB 179	NonDioxin		2,600		2,470		6,370		1,130		1,350	
PCB 180/193	NonDioxin		12,100		14,600		24,100		4,560		5,710	
PCB 181	NonDioxin		42.6		50.1		88.5		23.1		23.8	
PCB 182	NonDioxin		30.7		31.7		143		24.3		26	
PCB 183/185	NonDioxin		4,130		4,210		9,400		1,660		2,080	
PCB 184	NonDioxin		9.68		10		42.7		0 U		0 U	
PCB 186	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 187	NonDioxin		9,220		12,600		19,700		3,920		4,850	
PCB 188	NonDioxin		45.2		51.6		52.2		23.5		21	
PCB 190	NonDioxin		1,010		1,080		2,180		408		479	
PCB 191	NonDioxin		201		209		457		83.7		92.6	
PCB 192	NonDioxin		0 U		0 U		0 U		0 U		0 U	
PCB 194	NonDioxin		2,430		2,520		6,190		1,240		1,760	
PCB 195	NonDioxin		849		840		1,380		380		515	
PCB 196	NonDioxin		1,570		1,340		3,970		741		1,070	
PCB 197/200	NonDioxin		434		497		1,190		247		298	
PCB 198/199	NonDioxin		3,530		3,620		12,800		2,160		2,960	
PCB 201	NonDioxin		428		397		1,530		332		392	
PCB 202	NonDioxin		969		987		3,580		665		801	
PCB 203	NonDioxin		2,300		2,300		6,550		1,300		1,790	
PCB 204	NonDioxin		0 U		0 U		0 U		0 U		0 U	

TABLE 2.12 Supplement a
PCB Congener Concentrations (ng/kg) in Surface Se
Gowanus Canal Remedial Investigation
Brooklyn, New York

			D-06212010-01 (dup)		GC-SD325-0.0-0.5		GC-SD326-0.0-0.5		GC-SD330-0.0-0.5		GC-SD333-0.0-0.5	
			324		325		326		330		333	
			6/21/2010		6/21/2010		6/17/2010		6/18/2010		6/18/2010	
Parameter	Type	TEF	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ	Conc	TEQ
PCB 205	NonDioxin		119		126		349		71.5		102	
PCB 206	NonDioxin		2,270		2,790		7,600		2,020		1,880	
PCB 207	NonDioxin		228		289		524		290		269	
PCB 208	NonDioxin		935		997		2,550		802		901	
PCB 209	NonDioxin		2,170		1,950		8,740		1,840		1,910	
PCB Nondioxin			600,025		641,357		1,669,923		447,092		457,462	
Total PCB Congeners			627,617		675,582		1,737,051		466,284		476,721	

Notes for Tables 2.1 through 2.12
Selection of Chemicals of Potential Concern
Gowanus Canal Remedial Investigation, Brooklyn, New York

Screening Toxicity Values from USEPA Regional Screening Level (RSL) Table, November 2010.

sediment - screening toxicity value is residential RSL
surface water - screening toxicity value is tap water RSL
air - screening toxicity value is ambient air RSL
fish - screening toxicity value is fish tissue RSL from EPA Region III Website

Footnotes/Definitions

ARAR/TBC = Applicable or Relevant and Appropriate Requirement/ To Be Considered
C = Carcinogenic
COPC = Chemical of Potential Concern
J = Estimated Value
N = Noncarcinogenic
N/A = Not available or not applicable
NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity
NRWQC = U.S. Environmental Protection Agency (USEPA). 2009. National Recommended Water Quality Criteria for Human Health for Consumption of Organism only from EPA's National Recommended Water Quality Criteria, Office of Water, Office of Science and Technology, 2009.
NYSDEC = New York State DEC, Chapter X, Division of Water, Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations . Values correspond to classification of canal (SD) and classification of Bay (I) and are the standards for Health - fish consumption and recreation.

Surrogates used for those Chemicals without a Screening Toxicity Value (RSL)

1,3-dichlorobenzene - used 1,2-dichlorobenzene as surrogate
acenaphthylene - used acenaphthalene as surrogate
benzo(g,h,i)perylene - used pyrene as surrogate
chromoium - used hexavalent chromium
dimethyl phthalate - calculated based on PPRTV toxicity value form PPRTV profile dated 9/25/2007
PCB dioxin - used 2,3,7,8-TCDD, however, did not use 2,3,7,8-TCDD RSL, but updated the RSL using the cancer slope factor for 2,3,7,8-TCDD from USEPA, 2005, Health Assessment Document for Polychlorinated Dibenzo-p-Dioxins, EPA 600/8-84-014F.
PCB non-dioxin - used Total PCBs
phenanthrene - used anthracene as surrogate

TABLE H-3.1
Exposed Sediment in Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Surface Sediment

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Exposed and near shore sediment in Gowanus Canal								
	Acenaphthene	ug/kg	35700	366000	460000	366000	ug/kg	99% KM (Chebyshev) UCL
	Benzo(a)anthracene	ug/kg	29300	127000	320000	127000	ug/kg	95% Chebyshev (Mean, Sd) UCL
	Benzo(a)pyrene	ug/kg	19700	107000	200000	107000	ug/kg	97.5% KM (Chebyshev) UCL
	Benzo(b)fluoranthene	ug/kg	21000	113000	210000	113000	ug/kg	97.5% KM (Chebyshev) UCL
	Benzo(k)fluoranthene	ug/kg	12500	64600	120000	64600	ug/kg	97.5% KM (Chebyshev) UCL
	Bis(2-ethylhexyl) phthalate	ug/kg	18800	33400	57000	33400	ug/kg	95% KM (Chebyshev) UCL
	Chrysene	ug/kg	29300	253000	320000	253000	ug/kg	99% Chebyshev (Mean, Sd) UCL
	Dibenz(a,h)anthracene	ug/kg	2080	6180	14000	6180	ug/kg	95% KM (Chebyshev) UCL
	Fluoranthene	ug/kg	54500	496000	630000	496000	ug/kg	99% Chebyshev (Mean, Sd) UCL
	Indeno(1,2,3-c,d)pyrene	ug/kg	12700	48900	120000	48900	ug/kg	95% Chebyshev (Mean, Sd) UCL
	Naphthalene	ug/kg	2060	3410	9100	3410	ug/kg	95% KM (t) UCL
	Pyrene	ug/kg	61100	529000	670000	529000	ug/kg	99% Chebyshev (Mean, Sd) UCL
	Aroclor 1248	ug/kg	195	---	2200	2200	ug/kg	Max, detected in <3 samples
	Aroclor 1254	ug/kg	81.8	---	590	590	ug/kg	Max, detected in <3 samples
	Aroclor 1260	ug/kg	338	863	3400	863	ug/kg	95% KM (BCA) UCL
	PCB Dioxin	ng/kg	20.5	40.2	111	40.2	ng/kg	95% Approximate Gamma UCL
	PCB Nondioxin	ng/kg	2520000	5230000	14700000	5230000	ng/kg	95% Approximate Gamma UCL
	Total PCB Congeners	ng/kg	2610000	5390000	15100000	5390000	ng/kg	95% Approximate Gamma UCL
	Aluminum	mg/kg	13800	15900	18900	15900	mg/kg	95% Student's-t UCL
	Arsenic	mg/kg	13.1	18.0	44.7	18	mg/kg	95% Approximate Gamma UCL
	Cadmium	mg/kg	6.20	9.62	20.2	9.62	mg/kg	95% Approximate Gamma UCL
	Chromium	mg/kg	78.7	93.5	139	93.5	mg/kg	95% Student's-t UCL
	Cobalt	mg/kg	8.95	12.9	14.8	12.9	mg/kg	95% KM (Percentile Bootstrap) UCL
	Copper	mg/kg	264	352	790	352	mg/kg	95% Approximate Gamma UCL
	Iron	mg/kg	31400	40000	87000	40000	mg/kg	95% Modified-t UCL
	Lead	mg/kg	660	1870	4220	1870	mg/kg	95% Chebyshev (Mean, Sd) UCL
	Manganese	mg/kg	273	314	480	314	mg/kg	95% Student's-t UCL
	Vanadium	mg/kg	45.0	50.1	61.2	50.1	mg/kg	95% Student's-t UCL

TABLE H-3.2
Surface Water in Canal, Dry Weather - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration Value	Units	Statistic
Gowanus Canal								
	Benzene	ug/l	1.20	2.24	11.0	2.24	ug/l	95% KM (BCA)
	Benzo(a)anthracene	ug/l	0.131	0.266	0.83	0.266	ug/l	95% KM (Percentile Bootstrap)
	Benzo(a)pyrene	ug/l	0.0863	0.66	0.66	0.66	ug/l	95% KM (Percentile Bootstrap)
	Benzo(b)fluoranthene	ug/l	0.216	0.299	0.88	0.299	ug/l	95% KM (BCA)
	Bis(2-ethylhexyl) phthalate	ug/l	2.51	2.45	5.60	2.45	ug/l	95% KM (t)
	Indeno(1,2,3-c,d)pyrene	ug/l	0.0847	0.132	0.22	0.132	ug/l	95% KM (% Bootstrap)
	Arsenic	ug/l	16.0	19.9	23.4	19.9	ug/l	95% KM (Percentile Bootstrap)
	Chromium	ug/l	11.7	18.9	99.7	18.9	ug/l	95% KM (% Bootstrap)
	Copper	ug/l	88.1	172	232	172	ug/l	95% KM (Percentile Bootstrap)
	Selenium	ug/l	32.0	41.0	50.9	41	ug/l	95% KM (Percentile Bootstrap)

TABLE H-3.3
Surface Water in Canal, Wet Weather - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Surface Water

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Gowanus Canal								
	1,4-dichlorobenzene	ug/l	0.431	0.59	0.87	0.59	ug/l	95% KM (Percentile Bootstrap)
	Benzene	ug/l	0.563	0.835	2.90	0.835	ug/l	95% KM (BCA)
	Chloroform	ug/l	0.423	0.559	0.69	0.559	ug/l	95% KM (Percentile Bootstrap)
	Ethylbenzene	ug/l	0.451	0.868	2.60	0.868	ug/l	95% KM (Chebyshev)
	Tetrachloroethylene(PCE)	ug/l	16.5	24.4	40.0	24.4	ug/l	95% KM (Chebyshev)
	Benzo(a)anthracene	ug/l	0.0758	0.104	0.15	0.104	ug/l	95% KM (Percentile Bootstrap)
	Benzo(a)pyrene	ug/l	0.103	0.205	0.30	0.205	ug/l	95% KM (Percentile Bootstrap)
	Benzo(b)fluoranthene	ug/l	0.154	0.189	0.33	0.189	ug/l	95% KM (Percentile Bootstrap)
	Dibenz(a,h)anthracene	ug/l	0.0742	0.101	0.11	0.101	ug/l	95% KM (Percentile Bootstrap)
	Indeno(1,2,3-c,d)pyrene	ug/l	0.309	0.50	1.10	0.5	ug/l	95% KM (Chebyshev)
	Naphthalene	ug/l	0.136	0.364	1.40	0.364	ug/l	95% KM (Percentile Bootstrap)
	Arsenic	ug/l	14.9	16.6	26.2	16.6	ug/l	95% Student's-t
	Chromium	ug/l	6.72	8.53	29.3	8.53	ug/l	95% Modified-t
	Cobalt	ug/l	4.96	---	3.90	3.9	ug/l	Max, detected in <3 samples
	Lead	ug/l	13.0	14.9	26.8	14.9	ug/l	95% Student's-t
	Selenium	ug/l	29.3	33.6	64.6	33.6	ug/l	95% Approximate Gamma

TABLE H-3.4
Ambient Air at Canal Level,Round 1 - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Ambient air at canal level								
	Benzene	ug/m3	0.841	0.914	1.10	0.914	ug/m3	95% Student's-t UCL
	Chloroform	ug/m3	0.181	0.222	0.28	0.222	ug/m3	95% KM (Percentile Bootstrap) UCL
	Ethylbenzene	ug/m3	1.34	2.25	5.10	2.25	ug/m3	95% H-UCL
	Xylene, total	ug/m3	4.30	10.1	16.0	10.1	ug/m3	95% Chebyshev (Mean, Sd) UCL
	Naphthalene	ug/m3	1.10	2.09	3.40	2.09	ug/m3	95% Approximate Gamma UCL

TABLE H-3.5
Ambient Air at Canal Level, Round 2 - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Ambient air at canal level								
	Benzene	ug/m3	1.38	1.94	3.80	1.94	ug/m3	95% Approximate Gamma UCL
	Chloroform	ug/m3	0.174	0.205	0.24	0.205	ug/m3	95% KM (Percentile Bootstrap) UCL
	Ethylbenzene	ug/m3	1.40	2.12	4.40	2.12	ug/m3	95% Approximate Gamma UCL
	Xylene, total	ug/m3	6.76	17.3	28.0	17.3	ug/m3	95% KM (Chebyshev) UCL
	Naphthalene	ug/m3	1.30	2.19	2.60	2.19	ug/m3	95% Approximate Gamma UCL

TABLE H-3.6
Ambient Air at Street Level, Round 1 - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration Value	Units	Statistic
Ambient air at Street Level								
	Benzene	ug/m3	0.948	1.26	2.30	1.26	ug/m3	95% Modified-t UCL
	Chloroform	ug/m3	0.18	0.245	0.39	0.245	ug/m3	95% KM (t) UCL
	Ethylbenzene	ug/m3	0.894	1.09	1.70	1.09	ug/m3	95% Student's-t UCL
	Naphthalene	ug/m3	0.533	1.39	1.30	1.3	ug/m3	Max,UCL exceeds max detected concentration

TABLE H-3.7
Ambient Air at Street Level, Round 2 - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Air
Exposure Medium:	Air

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Ambient air at Street Level								
	Benzene	ug/m3	0.982	1.11	1.40	1.11	ug/m3	95% Student's-t UCL
	Chloroform	ug/m3	0.206	0.331	0.45	0.331	ug/m3	95% KM (Chebyshev) UCL
	Ethylbenzene	ug/m3	0.956	1.24	1.80	1.24	ug/m3	95% Approximate Gamma UCL
	Naphthalene	ug/m3	1.19	3.02	4.40	3.02	ug/m3	95% H-UCL

TABLE H-3.8
Striped Bass Filet from Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Striped Bass in Gowanus Canal								
	P,P'-DDE	ug/kg	8.46	---	12.0	12	ug/kg	Max, detected in <8 samples
	P,P'-DDT	ug/kg	3.24	---	9.60	9.6	ug/kg	Max, detected in <8 samples
	PCB Dioxin	ng/kg	3.35	---	4.31	4.31	ng/kg	Max, detected in <8 samples
	PCB Nondioxin	ng/kg	331000	---	409000	409000	ng/kg	Max, detected in <8 samples
	Total PCB Congeners	ng/kg	354000	---	435000	435000	ng/kg	Max, detected in <8 samples
	Arsenic	mg/kg	0.53	---	0.68	0.68	mg/kg	Max, detected in <8 samples
	Mercury	mg/kg	0.194	---	0.20	0.2	mg/kg	Max, detected in <8 samples
	Selenium	mg/kg	1.51	---	1.20	1.2	mg/kg	Max, detected in <8 samples

TABLE H-3.9
White Perch Filet from Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
White Perch in Gowanus Canal								
	PCB Dioxin	ng/kg	4.77	---	5.08	5.08	ng/kg	Max, detected in <8 samples
	PCB Nondioxin	ng/kg	370000	---	437000	437000	ng/kg	Max, detected in <8 samples
	Total PCB Congeners	ng/kg	393000	---	462000	462000	ng/kg	Max, detected in <8 samples
	Mercury	mg/kg	0.175	---	0.19	0.19	mg/kg	Max, detected in <8 samples
	Selenium	mg/kg	1.55	---	1.40	1.4	mg/kg	Max, detected in <8 samples

TABLE H-3.10
Atlantic Eel Filet from Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Eel in Gowanus Canal								
	Alpha-chlordane	ug/kg	13.5	---	22.0	22	ug/kg	Max, detected in <8 samples
	Dieldrin	ug/kg	7.59	---	17.0	17	ug/kg	Max, detected in <8 samples
	Gamma-chlordane	ug/kg	7.92	---	13.0	13	ug/kg	Max, detected in <8 samples
	P,P'-DDD	ug/kg	27.3	---	38.0	38	ug/kg	Max, detected in <8 samples
	P,P'-DDE	ug/kg	16.3	---	25.0	25	ug/kg	Max, detected in <8 samples
	P,P'-DDT	ug/kg	20.1	---	47.0	47	ug/kg	Max, detected in <8 samples
	PCB Dioxin	ng/kg	8.69	---	14.1	14.1	ng/kg	Max, detected in <8 samples
	PCB Nondioxin	ng/kg	792000	---	1220000	1220000	ng/kg	Max, detected in <8 samples
	Total PCB Congeners	ng/kg	862000	---	1350000	1350000	ng/kg	Max, detected in <8 samples
	Arsenic	mg/kg	0.488	---	0.50	0.5	mg/kg	Max, detected in <8 samples
	Chromium	mg/kg	0.523	---	0.67	0.67	mg/kg	Max, detected in <8 samples
	Copper	mg/kg	2.12	---	7.40	7.4	mg/kg	Max, detected in <8 samples
	Cyanide, Total	mg/kg	1.25	---	3.10	3.1	mg/kg	Max, detected in <8 samples
	Mercury	mg/kg	0.098	---	0.26	0.26	mg/kg	Max, detected in <8 samples
	Selenium	mg/kg	1.57	---	1.40	1.4	mg/kg	Max, detected in <8 samples

TABLE H-3.11
Blue Crab Edible Tissue and Hepatopancreas from Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration Value	Units	Statistic
Crab in Gowanus Canal								
	Benzo(a)anthracene	ug/kg	4.27	7.70	15.7	7.7	ug/kg	95% KM (t) UCL
	Benzo(a)pyrene	ug/kg	7.28	11.8	17.5	11.8	ug/kg	95% KM (Chebyshev) UCL
	Benzo(b)fluoranthene	ug/kg	4.82	6.39	9.61	6.39	ug/kg	95% KM (BCA) UCL
	Dibenz(a,h)anthracene	ug/kg	3.56	3.94	5.13	3.94	ug/kg	95% Student's-t UCL
	Indeno(1,2,3-c,d)pyrene	ug/kg	9.22	9.91	12.3	9.91	ug/kg	95% Student's-t UCL
	PCB Dioxin	ng/kg	4.76	5.04	5.54	5.04	ng/kg	95% Student's-t UCL
	PCB Nondioxin	ng/kg	135000	143000	167000	143000	ng/kg	95% Student's-t UCL
	Total PCB Congeners	ng/kg	157000	166000	194000	166000	ng/kg	95% Student's-t UCL
	Arsenic	mg/kg	1.21	1.31	1.47	1.31	mg/kg	95% Student's-t UCL
	Copper	mg/kg	9.65	10.2	11.7	10.2	mg/kg	95% Student's-t UCL
	Mercury	mg/kg	0.115	0.124	0.142	0.124	mg/kg	95% Student's-t UCL

TABLE H-3.12
All Surface Sediment in Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Overflow Surface Sediment

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration Value	Units	Statistic
Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow								
	2-methylnaphthalene	ug/kg	33700	358000	870000	358000	ug/kg	99% KM (Chebyshev)
	Acenaphthene	ug/kg	41200	309000	580000	309000	ug/kg	99% KM (Chebyshev)
	Benzo(a)anthracene	ug/kg	36500	128000	490000	128000	ug/kg	95% Chebyshev (Mean, Sd)
	Benzo(a)pyrene	ug/kg	18700	73200	200000	73200	ug/kg	97.5% KM (Chebyshev)
	Benzo(b)fluoranthene	ug/kg	19400	79200	210000	79200	ug/kg	97.5% KM (Chebyshev)
	Benzo(k)fluoranthene	ug/kg	10600	41000	120000	41000	ug/kg	97.5% KM (Chebyshev)
	Bis(2-ethylhexyl) phthalate	ug/kg	15600	14600	57000	14600	ug/kg	95% KM (BCA)
	Chrysene	ug/kg	35600	127000	490000	127000	ug/kg	95% Chebyshev (Mean, Sd)
	Dibenz(a,h)anthracene	ug/kg	1780	5460	14000	5460	ug/kg	97.5% KM (Chebyshev)
	Fluoranthene	ug/kg	51200	180000	630000	180000	ug/kg	95% Chebyshev (Mean, Sd)
	Fluorene	ug/kg	26400	231000	540000	231000	ug/kg	99% KM (Chebyshev)
	Indeno(1,2,3-c,d)pyrene	ug/kg	10600	31400	120000	31400	ug/kg	95% Chebyshev (Mean, Sd)
	Naphthalene	ug/kg	61600	655000	1600000	655000	ug/kg	99% KM (Chebyshev)
	Pyrene	ug/kg	60200	387000	670000	387000	ug/kg	99% KM (Chebyshev)
	Aroclor 1248	ug/kg	128	935	2200	935	ug/kg	97.5% KM (Chebyshev)
	Aroclor 1254	ug/kg	61.9	---	590	590	ug/kg	Max, detected in <3 samples
	Aroclor 1260	ug/kg	318	657	3400	657	ug/kg	95% KM (t)
	PCB Dioxin	ng/kg	19.5	45.3	111	45.3	ng/kg	95% Chebyshev (Mean, Sd) UCL
	PCB Nondioxin	ng/kg	2710000	6440000	14700000	6440000	ng/kg	95% Chebyshev (Mean, Sd) UCL
	Total PCB Congeners	ng/kg	2810000	6630000	15100000	6630000	ng/kg	95% Chebyshev (Mean, Sd) UCL
	Aluminum	mg/kg	13200	14600	18900	14600	mg/kg	95% Student's-t
	Arsenic	mg/kg	12.1	14.7	44.7	14.7	mg/kg	95% Modified-t
	Cadmium	mg/kg	6.30	9.99	20.2	9.99	mg/kg	95% Chebyshev (Mean, Sd)
	Chromium	mg/kg	76.0	84.5	139	84.5	mg/kg	95% Modified-t
	Cobalt	mg/kg	9.13	11.0	14.8	11	mg/kg	95% KM (Percentile Bootstrap)
	Copper	mg/kg	226	274	790	274	mg/kg	95% Modified-t
	Iron	mg/kg	29200	33600	87000	33600	mg/kg	95% Modified-t
	Lead	mg/kg	533	1200	4220	1200	mg/kg	95% Chebyshev (Mean, Sd)
	Manganese	mg/kg	276	306	480	306	mg/kg	95% Student's-t

TABLE H-3.12
All Surface Sediment in Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Sediment
Exposure Medium:	Overflow Surface Sediment

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration		
						Value	Units	Statistic
Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow								
	Vanadium	mg/kg	42.6	45.9	61.2	45.9	mg/kg	95% Student's-t

TABLE H-3.13
Surface Water in Canal, Wet Weather - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water
Exposure Medium:	Overflow Surface Water

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration Value	Units	Statistic
Canal Overflow – Surface Water								
	1,4-dichlorobenzene	ug/l	0.431	0.59	0.87	0.59	ug/l	95% KM (Percentile Bootstrap)
	Benzene	ug/l	0.563	0.835	2.90	0.835	ug/l	95% KM (BCA)
	Chloroform	ug/l	0.423	0.559	0.69	0.559	ug/l	95% KM (Percentile Bootstrap)
	Ethylbenzene	ug/l	0.451	0.868	2.60	0.868	ug/l	95% KM (Chebyshev)
	Tetrachloroethylene(PCE)	ug/l	16.5	24.4	40.0	24.4	ug/l	95% KM (Chebyshev)
	Benzo(a)anthracene	ug/l	0.0758	0.104	0.15	0.104	ug/l	95% KM (Percentile Bootstrap)
	Benzo(a)pyrene	ug/l	0.103	0.205	0.30	0.205	ug/l	95% KM (Percentile Bootstrap)
	Benzo(b)fluoranthene	ug/l	0.154	0.189	0.33	0.189	ug/l	95% KM (Percentile Bootstrap)
	Dibenz(a,h)anthracene	ug/l	0.0742	0.101	0.11	0.101	ug/l	95% KM (Percentile Bootstrap)
	Indeno(1,2,3-c,d)pyrene	ug/l	0.309	0.50	1.10	0.5	ug/l	95% KM (Chebyshev)
	Naphthalene	ug/l	0.136	0.364	1.40	0.364	ug/l	95% KM (Percentile Bootstrap)
	Arsenic	ug/l	14.9	16.6	26.2	16.6	ug/l	95% Student's-t
	Chromium	ug/l	6.72	8.53	29.3	8.53	ug/l	95% Modified-t
	Cobalt	ug/l	4.96	---	3.90	3.9	ug/l	Max, detected in <3 samples
	Lead	ug/l	13.0	14.9	26.8	14.9	ug/l	95% Student's-t
	Selenium	ug/l	29.3	33.6	64.6	33.6	ug/l	95% Approximate Gamma

TABLE H-3.14
Blue Crab Edible Tissue from Canal - Exposure Point Concentration
Gowanus Canal Remedial Investigation
Brooklyn, New York

Scenario Timeframe:	Current/Future
Medium:	Surface Water/Sediment
Exposure Medium:	Fish and Crab Tissue

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95 % UCL Distribution	Maximum Detected Value	Exposure Point Concentration Value	Units	Statistic
Crab in Gowanus Canal								
	Benzo(a)anthracene	ug/kg	4.19	7.80	21.0	7.8	ug/kg	95% KM (t) UCL
	Benzo(a)pyrene	ug/kg	6.49	13.5	22.8	13.5	ug/kg	95% KM (Chebyshev) UCL
	Benzo(b)fluoranthene	ug/kg	4.36	6.14	11.4	6.14	ug/kg	95% KM (BCA) UCL
	Dibenz(a,h)anthracene	ug/kg	3.24	3.99	5.78	3.99	ug/kg	95% KM (Percentile Bootstrap) UCL
	Indeno(1,2,3-c,d)pyrene	ug/kg	8.75	9.87	13.7	9.87	ug/kg	95% Student's-t UCL
	PCB Dioxin	ng/kg	3.38	3.86	4.52	3.86	ng/kg	95% Student's-t UCL
	PCB Nondioxin	ng/kg	99800	113000	149000	113000	ng/kg	95% Student's-t UCL
	Total PCB Congeners	ng/kg	115000	131000	171000	131000	ng/kg	95% Student's-t UCL
	Arsenic	mg/kg	1.38	1.53	1.80	1.53	mg/kg	95% Student's-t UCL
	Copper	mg/kg	11.3	12.1	14.1	12.1	mg/kg	95% Student's-t UCL
	Mercury	mg/kg	0.153	0.168	0.20	0.168	mg/kg	95% Student's-t UCL

TABLE 4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational	Adult	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	50	mg/day	EPA, 1991, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Adolescent (12-18 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	50	mg/day	EPA, 1991, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	6	years	(5)	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	57	kg	EPA, 1997, (6)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child (1-6 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	100	mg/day	EPA, 1991, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
Dermal	Recreational	Adult	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6,925	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.3	mg/cm^2-day	EPA, 2004, (8)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	24	years	EPA, 1991	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	

TABLE 4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational	Adolescent (12-18 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	10,470	cm^2	EPA, 2004, (7)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 1997, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	6	years	(5)	
				BW	Body Weight	57	kg	EPA, 1997, (6)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
Dermal	Recreational	Child (1-6 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	6	years	EPA, 1991	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	

Notes:
(1) Assumed sediment ingestion rate is equal to 1/2 of the incidental soil ingestion rate.
(2) Professional judgement, conservatively assumed recreational use of the canal would occur 1 day per week for one-half the year.
(3) SA includes head, hands, forearms, lower legs, and feet.
(4) Average adherence factor for children in wet soil.
(5) Professional Judgement assuming adolescents from 12 to 18 years of age.
(6) Body weight is average of the mean values for boys and girls for the ages 12 through 18.
(7) SA includes head, hands, arms, legs, and feet.
(8) Average adherence factor for reed gatherers (from Exhibit 3-3 of EPA, 2004).

Sources:
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EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational	Adult	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CSW x IR-SW x ET x EF x ED x CF1 x 1/BW x 1/AT
				IR-SW	Ingestion Rate of Surface Water	0.05	l/hour	EPA,1989, (1)	
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (2)	
				EF	Exposure Frequency	26	days/year	(3)	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Adolescent (12-18 years)	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CSW x IR-SW x ET x EF x ED x CF1 x 1/BW x 1/AT
				IR-SW	Ingestion Rate of Surface Water	0.05	l/hour	EPA,1989, (1)	
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (2)	
				EF	Exposure Frequency	26	days/year	(3)	
				ED	Exposure Duration	6	years	(4)	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	57	kg	EPA, 1991, (5)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CSW x IR-SW x ET x EF x ED x CF1 x 1/BW x 1/AT
				IR-SW	Ingestion Rate of Surface Water	0.05	l/hour	EPA,1989, (1)	
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (2)	
				EF	Exposure Frequency	26	days/year	(3)	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
Dermal	Recreational	Adult	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	CDI (mg/kg-day) = DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) = Kp x CW x t_{event} x CF1 x CF2
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	Organics :
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) = 2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π)) x CF1 x CF2
				t_{event}	Event Time	2.6	hr/day	EPA, 1989, (2)	
				SA	Skin Surface Area Available for Contact	18,000	cm^2	EPA, 2004	
				EV	Event Frequency	1	events/day	EPA, 2004	
				EF	Exposure Frequency	26	days/year	(3)	t_{event}>t*: DAevent (mg/cm^2-event) = FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x ((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				ED	Exposure Duration	24	years	EPA, 1991	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

TABLE 4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational	Adolescent (12-18 years)	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	CDI (mg/kg-day) = DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) = Kp x CW x t_{event} x CF1 x CF2
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Organics :
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) = 2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π)) x CF1 x CF2
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	
				t_{event}	Event Time	2.6	hr/day	EPA, 1989, (2)	t_{event}>t*: DAevent (mg/cm^2-event) = FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x ((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				SA	Skin Surface Area Available for Contact	15,758	cm^2	EPA, 1997, (6)	
				EV	Event Frequency	1	events/day	EPA, 2004	
				EF	Exposure Frequency	26	days/year	(3)	
				ED	Exposure Duration	6	years	(4)	
				BW	Body Weight	57	kg	EPA, 1991, (5)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	
		Child	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	CDI (mg/kg-day) = DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) = Kp x CW x t_{event} x CF1 x CF2
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Organics :
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	t_{event}<t*: DAevent (mg/cm^2-event) = 2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π)) x CF1 x CF2
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	
				t_{event}	Event Time	2.6	hr/day	EPA, 1989, (2)	t_{event}>t*: DAevent (mg/cm^2-event) = FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x ((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				SA	Skin Surface Area Available for Contact	6,600	cm^2	EPA, 2004	
				EV	Event Frequency	1	events/day	EPA, 2004	
				EF	Exposure Frequency	26	days/year	(3)	
				ED	Exposure Duration	6	years	EPA, 1991	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

Notes:
(1) Ingestion rate of surface water for swimming.
(2) National average time spent swimming per swimming event.
(3) Professional judgement, conservatively assumed recreational use of the canal would occur 1 day per week for one-half the year.
(4) Professional Judgement assuming adolescents from 12 to 18 years of age.
(5) Body weight is average of the mean values for boys and girls for the ages 12 through 18.
(6) Average total body surface area of boys and girls from 12 to 18 years of age.

TABLE 4.2.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 1997: Exposure Factors Handbook. EPA/ 600/P-95/Fa, Fb, and Fc.
EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Recreational	Adult	Ambient air at canal level	Cair	Chemical Concentration in Air	Tables 3.4.RME and 3.5.RME	mg/m^3	Tables 3.4.RME and 3.5.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (1)	
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Adolescent (12-18 years)	Ambient air at canal level	Cair	Chemical Concentration in Air	Tables 3.4.RME and 3.5.RME	mg/m^3	Tables 3.4.RME and 3.5.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (1)	
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	6	years	(3)	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child	Ambient air at canal level	Cair	Chemical Concentration in Air	Tables 3.4.RME and 3.5.RME	mg/m^3	Tables 3.4.RME and 3.5.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (1)	
				EF	Exposure Frequency	26	days/year	(2)	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
	Industrial Worker	Adult	Ambient air at street level	Cair	Chemical Concentration in Air	Tables 3.6.RME and 3.7.RME	mg/m^3	Tables 3.6.RME and 3.7.RME	Exposure Concentration (EC) (mg/m^3) = CA x EF x ED x 1/AT
				EF	Exposure Frequency	250	days/year	EPA, 1991	
				ED	Exposure Duration	25	years	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9,125	days	EPA, 1989	
	Resident	Adult	Ambient air at street level	Cair	Chemical Concentration in Air	Tables 3.6.RME and 3.7.RME	mg/m^3	Tables 3.6.RME and 3.7.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	24	hr/day	EPA, 1991	
				EF	Exposure Frequency	350	days/year	EPA, 1991	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Child	Ambient air at street level	Cair	Chemical Concentration in Air	Tables 3.6.RME and 3.7.RME	mg/m^3	Tables 3.6.RME and 3.7.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	24	hr/day	EPA, 1991	
				EF	Exposure Frequency	350	days/year	EPA, 1991	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	

TABLE 4.3.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Child/Adult	Ambient air at street level	Cair	Chemical Concentration in Air	Tables 3.6.RME and 3.7.RME	mg/m^3	Tables 3.6.RME and 3.7.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	24	hr/day	EPA, 1991	
				EF	Exposure Frequency	350	days/year	EPA, 1991	
				ED	Exposure Duration	30	years	EPA, 1991	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

Notes:
(1) National average time spent swimming per swimming event.
(2) Professional judgement, conservatively assumed recreational use of the canal would occur 1 day per week for one-half the year.
(3) Professional Judgement assuming adolescents from 12 to 18 years of age.

Sources:
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

Table 4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water / Sediment
Exposure Medium: Fish and Crab Tissue

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Angler	Adult	Striped Bass White Perch Eel	CFish	Chemical Concentration in Fish	Tables 3.8.RME, 3.9.RME, and 3.10.RME	mg/kg	Tables 3.8.RME, 3.9.RME, and 3.10.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Fish	26	g/day	EPA, 1997, (1)	CFish x IR-Fish x FI x EF x ED x CF3 x 1/BW x 1/AT
				FI	Fraction Ingested -	fish specific	unitless	EPA, 2000	
					Striped Bass	0.47	unitless	Connelly, 1992, (4)	
					White Perch	0.09	unitless	Connelly, 1992, (4)	
					Eel	0.44	unitless	Connelly, 1992, (4)	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF3	Conversion Factor 3	0.001	kg/g	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Adolescent (12-18 years)	Striped Bass White Perch Eel	CFish	Chemical Concentration in Fish	Tables 3.8.RME, 3.9.RME, and 3.10.RME	mg/kg	Tables 3.8.RME, 3.9.RME, and 3.10.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Fish	17	g/day	(2)	CFish x IR-Fish x FI x EF x ED x CF3 x 1/BW x 1/AT
				FI	Fraction Ingested -	fish specific	unitless	EPA, 2000	
					Striped Bass	0.47	unitless	Connelly, 1992, (4)	
					White Perch	0.09	unitless	Connelly, 1992, (4)	
					Eel	0.44	unitless	Connelly, 1992, (4)	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF	Conversion Factor	0.001	kg/g	- -	
				BW	Body Weight	57	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child	Striped Bass White Perch Eel	CFish	Chemical Concentration in Fish	Tables 3.8.RME, 3.9.RME, and 3.10.RME	mg/kg	Tables 3.8.RME, 3.9.RME, and 3.10.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Fish	9	g/day	(3)	CFish x IR-Fish x FI x EF x ED x CF3 x 1/BW x 1/AT
				FI	Fraction Ingested -	fish specific	unitless	EPA, 2000	
					Striped Bass	0.47	unitless	Connelly, 1992, (4)	
					White Perch	0.09	unitless	Connelly, 1992, (4)	
					Eel	0.44	unitless	Connelly, 1992, (4)	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF	Conversion Factor	0.001	kg/g	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	

Table 4.4.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water / Sediment
Exposure Medium: Fish and Crab Tissue

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Angler	Adult	Blue Crab	CFish	Chemical Concentration in Crab	Table 3.11.RME	mg/kg	Table 3.11.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Crab	23	g/day	Burger, 2002	CFish x IR-Sed x EF x ED x CF3 x 1/BW x 1/AT
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF3	Conversion Factor 3	0.001	kg/g	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Adolescent (12-18 years)	Blue Crab	CFish	Chemical Concentration in Crab	Table 3.11.RME	mg/kg	Table 3.11.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Crab	15	g/day	(2)	CFish x IR-Fish x EF x ED x CF3 x 1/BW x 1/AT
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF3	Conversion Factor 3	0.001	kg/g	- -	
				BW	Body Weight	57	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child	Blue Crab	CFish	Chemical Concentration in Crab	Table 3.11.RME	mg/kg	Table 3.11.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Crab	8	g/day	(3)	CFish x IR-Fish x EF x ED x CF3 x 1/BW x 1/AT
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF	Conversion Factor	0.001	kg/g	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	

Notes:
(1) 95th percentile recreational freshwater anglers fish ingestion rate.
(2) Ingestion rate assumed to be 2/3 the adult ingestion rate.
(3) There are no recreational fish ingestion values or crab ingestion values for children. Therefore, ingestion rate assumed to be 1/3 the adult ingestion rate.
(4) Bottom feeders percent consumption (44%) used to for eel, intermediate level percent consumption (47%) used for striped bass, and remaining percent (4%) used for white perch.

Sources:

Connelly, Nancy A., Barbara A. Knuth, and Carole A. Bisogni, 1992. Effects of the Health Advisory and Advisory Changes on Fishing Habits and Fish Consumption in New York Sport Fisheries. Report for New York Sea Grant Institute Project No. R/FHD-2=PD. September.
Burger, 2002: Consumption Patterns and Why People Fish. Environmental Research Section A 90, 125-135.
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 1997: Exposure Factors Handbook. EPA/ 600/P-95/Fa, Fb, and Fc.

TABLE 4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Overflow Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Worker	Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	100	mg/day	EPA, 2002, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	9	days/year	(2)	
				ED	Exposure Duration	25	years	EPA, 1991	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9,125	days	EPA, 1989	
	Residential	Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	100	mg/day	EPA, 2002, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	9	days/year	(2)	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Child	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	200	mg/day	EPA, 2002, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	9	days/year	(2)	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	

TABLE 4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Overflow Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residential	Child/Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment-adjusted	114.3	mg-year/kg-day	calculated	CSed x IR-Sed x EF x CF x 1/AT
				IR-Sedc	Ingestion Rate of Sediment, child	200	mg/day	EPA, 1991, (1)	
				IR-Seda	Ingestion Rate of Sediment, adult	100	mg/day	EPA, 1991, (1)	
				EF	Exposure Frequency	9	days/year	(2)	
				EDc	Exposure Duration , child	6	years	EPA, 1991	IR-Sed = (EDc x IR-Sedc/ BWc) +
				EDa	Exposure Duration, adult	24	years	EPA, 1991	(EDa x IR-Seda/BWa)
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BWc	Body Weight, child	15	kg	EPA, 1991	
				BWa	Body Weight, adult	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
Dermal	Industrial Worker	Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	3,300	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (5)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	9	days/year	(2)	
				ED	Exposure Duration	25	years	EPA, 1991	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	9,125	days	EPA, 1989	
	Residential	Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	9	days/year	(2)	
				ED	Exposure Duration	24	years	EPA, 1991	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	

TABLE 4.5.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Overflow Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Residential	Child	areas adjacent to Gowanus Canal associated with canal	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	9	days/year	(2)	
				ED	Exposure Duration	6	years	EPA, 1991	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child/Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	CDI (mg/kg-day) =
				SAc	Skin Surface Area Available for Contact, child	2,800	cm^2	EPA, 2004, (3)	CSed x SA x DABS x CF x EF x 1/AT
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	
				EDc	Exposure Duration, child	6	years	EPA, 1991	SA = ((EDc x SAc/BWc) x SSAF) +
				BWc	Body Weight, child	15	kg	EPA, 1991	((EDa x SAa/BWa) x SSAF)
				SAa	Skin Surface Area Available for Contact, adult	5,700	cm^2	EPA, 2004, (3)	
				EDa	Exposure Duration , adult	24	years	EPA, 1991	
				BWa	Body Weight ,adult	70	kg	EPA, 1991	
				SA	Skin Surface Area adjusted	615	cm^2-year/kg-day	calculated	
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	9	days/year	(2)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

Notes:
(1) Assumed sediment ingestion rate is equal to the incidental soil ingestion rate.
(2) Professional judgement, conservatively assumes canal overflows 3 times a year, and remains on surface 3 days per each overflow event.
(3) SA includes head, hands, forearms, lower legs, and feet (for child only) for residents and head, hands, and forearms for industrial worker.
(4) Average adherence factor for children in wet soil.
(5) Adherence factor for adult industrial worker from Exhibit 3-5 of EPA, 2004.

Sources:
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 2002: Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24.
EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Overflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Industrial Worker	Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.05	l/hour	EPA, 1989, (1)	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	8	hr/day	(2)	1/BW x 1/AT
				EF	Exposure Frequency	9	days/year	(5)	
				ED	Exposure Duration	25	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
	Resident	Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.05	l/hour	EPA, 1989, (1)	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (3)	1/BW x 1/AT
				EF	Exposure Frequency	9	days/year	(5)	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Child	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.05	l/hour	EPA, 1989, (1)	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (3)	1/BW x 1/AT
				EF	Exposure Frequency	9	days/year	(5)	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child/Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW-Adj	Ingestion Rate of Surface Water, age-adjusted	0.037	l-year/kg-hour	calculated	CSW x IR-SW-adj x ET x EF x CF1 x 1/AT
				IR-SWc	Ingestion Rate of Surface Water, child	0.05	l/hour	EPA, 1989, (1)	
				IR-Swa	Ingestion Rate of Surface Water, adult	0.05	l/hour	EPA, 1989, (1)	
				ET	Exposure Time	2.6	hr/day	EPA, 1989, (3)	IR-W-Adj (liter-year/kg-hour) =
				EF	Exposure Frequency	9	days/year	(5)	(EDc x IR-SWc/BWc) + (EDa x IR-SWa/BWa)
				EDc	Exposure Duration, chiild	6	years	EPA, 1991	
				EDa	Exposure Duration, adult	24	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BWc	Body Weight, child	15	kg	EPA, 1991	
				BWa	Body Weight, adult	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

TABLE 4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Overflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Industrial Worker	Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	8	hr/day	(2)	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	EPA, 2004, (4)	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	9	days/year	(5)	
				ED	Exposure Duration	25	years	EPA, 1991	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				AT-N	Averaging Time (Non-Cancer)	9,125	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	
	Residential	Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	2.6	hr/day	EPA, 1989, (3)	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	EPA, 2004, (4)	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	9	days/year	(5)	
				ED	Exposure Duration	24	years	EPA, 1991	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

TABLE 4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Overflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Residential	Child	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	2.6	hr/day	EPA, 1989, (3)	$t_{event}<t^*$: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	EPA, 2004, (4)	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	9	days/year	(5)	
				ED	Exposure Duration	6	years	EPA, 1991	$t_{event}>t^*$: DAevent (mg/cm^2-event) =
				BW	Body Weight	15	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	
Dermal	Residential	Child/Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	CDI (mg/kg-day) =
				DA-Adj	Dermally Absorbed Dose, Age-adjusted	calculated	mg-year/event-kg	calculated	DA-Adj x EF x 1/AT
				DAevent-A	Dermally Absorbed Dose per Event, adult	calculated	mg/cm^2-event	calculated	
				DAevent-C	Dermally Absorbed Dose per Event, adult	calculated	mg/cm^2-event	calculated	DA-Adj = (DAevent-A x SAa x EDa x 1/BWa)
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	+ (DAevent-C x SAc x EDc x 1/BWc)
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t_{event}	Event Time	2.6	hr/day	EPA, 1989, (3)	
				SAc	Skin Surface Area Available for Contact, child	2,800	cm^2	EPA, 2004, (4)	Organics :
				SAa	Skin Surface Area Available for Contact, adult	5,700	cm^2	EPA, 2004, (4)	$t_{event}<t^*$: DAevent (mg/cm^2-event) =
				EV	Event Frequency	1	events/day	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EF	Exposure Frequency	9	days/year	(5)	x CF1 x CF2
				EDc	Exposure Duration, child	6	years	EPA, 1991	
				EDa	Exposure Duration, adult	24	years	EPA, 1991	
				BWc	Body Weight, child	15	kg	EPA, 1991	$t_{event}>t^*$: DAevent (mg/cm^2-event) =
				BWa	Body Weight, adult	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

Notes:
(1) Assumed ingestion rate for canal overflow water would be 1/2 of mean water ingestion rate for adults for exposure scenarios involving swimming activities.
(2) Professional judgement, conservatively assumes industrial receptors will contact overflow ponded surface water 8 hours per day.
(3) Professional judgement, conservatively assumes residential receptor will contact overflow surface water for the same exposure time as the national average time spent swimming per swimming event.
(4) SA includes head, hands, forearms, lower legs, and feet (for child only).
(5) Professional judgement, conservatively assumes canal overflows 3 times a year, and remains on surface 3 days per each overflow event.

TABLE 4.6.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Overflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.

EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.1.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational	Adult	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	25	mg/day	EPA, 1997, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	13	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997 (7)	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Adolescent (12-18 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	25	mg/day	EPA, 1997, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	13	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997 (7)	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	57	kg	EPA, 1997, (5)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Child (1-6 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	50	mg/day	EPA, 1997, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	13	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997 (7)	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
Dermal	Recreational	Adult	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	6,925	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	13	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997 (7)	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	

TABLE 4.1.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational	Adolescent (12-18 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	10,470	cm^2	EPA, 2004, (6)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 1997, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	13	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997 (7)	
				BW	Body Weight	57	kg	EPA, 1997, (5)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
Dermal	Recreational	Child (1-6 years)	Exposed and near shore sediment in Gowanus Canal	CSed	Chemical Concentration in Sediment	Table 3.1.RME	mg/kg	Table 3.1.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	13	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997 (7)	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	

Notes:
(1) Assumed CTE sediment ingestion rate is equal to 1/2 of the RME sediment ingestion rate, or 1/2 of the CTE incidental soil ingestion rate.
(2) Professional judgement, assuming 1/2 the RME value, or recreational use of the canal 1 day per week for one-quarter of the year.
(3) SA includes head, hands, forearms, lower legs, and feet.
(4) Average adherence factor for children in wet soil.
(5) Body weight is average of the mean values for boys and girls for the ages 12 through 18.
(6) SA includes head, hands, arms, legs, and feet.
(7) Based on 9 years, the 50th percentile of time at a single residence, divided into three years for each receptor age range.

Sources:
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 1997: Exposure Factors Handbook. EPA/ 600/P-95/Fa, Fb, and Fc.
EPA, 2000: Supplemental Guidance to RAGS: Region 4 Bulletins, Human Health Risk Assessment Bulletins. www.epa.gov/region4/waste/oftecser/healtbul.htm.
EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.2.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Recreational	Adult	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CSW x IR-SW x ET x EF x ED x CF1 x 1/BW x 1/AT
				IR-SW	Ingestion Rate of Surface Water	0.025	l/hour	EPA,1989, (1)	
				ET	Exposure Time	1.3	hr/day	EPA, 1989, (2)	
				EF	Exposure Frequency	13	days/year	(3)	
				ED	Exposure Duration	3	years	EPA, 1997 (4)	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Adolescent (12-18 years)	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CSW x IR-SW x ET x EF x ED x CF1 x 1/BW x 1/AT
				IR-SW	Ingestion Rate of Surface Water	0.025	l/hour	EPA,1989, (1)	
				ET	Exposure Time	1.3	hr/day	EPA, 1989, (2)	
				EF	Exposure Frequency	13	days/year	(3)	
				ED	Exposure Duration	3	years	EPA, 1997 (4)	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	57	kg	EPA, 1991, (5)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Child	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	Chronic Daily Intake (CDI) (mg/kg-day) = CSW x IR-SW x ET x EF x ED x CF1 x 1/BW x 1/AT
				IR-SW	Ingestion Rate of Surface Water	0.025	l/hour	EPA,1989, (1)	
				ET	Exposure Time	1.3	hr/day	EPA, 1989, (2)	
				EF	Exposure Frequency	13	days/year	(3)	
				ED	Exposure Duration	3	years	EPA, 1997 (4)	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
Dermal	Recreational	Adult	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	CDI (mg/kg-day) = DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) = Kp x CW x t_{event} x CF1 x CF2
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	1.3	hr/day	EPA, 1989, (2)	$t_{event}<t^*$: DAevent (mg/cm^2-event) = 2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π)) x CF1 x CF2
				SA	Skin Surface Area Available for Contact	18,000	cm^c	EPA, 2004	
				EV	Event Frequency	1	events/day	EPA, 2004	
				EF	Exposure Frequency	13	days/year	(3)	$t_{event}>t^*$: DAevent (mg/cm^2-event) = FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x ((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				ED	Exposure Duration	3	years	EPA, 1997 (4)	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

TABLE 4.2.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Recreational	Adolescent (12-18 years)	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	CDI (mg/kg-day) = DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) = Kp x CW x t_{event} x CF1 x CF2
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	1.3	hr/day	EPA, 1989, (2)	$t_{event}<t^*$: DAevent (mg/cm^2-event) = 2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π)) x CF1 x CF2
				SA	Skin Surface Area Available for Contact	15,758	cm^c	EPA, 1997, (6)	
				EV	Event Frequency	1	events/day	EPA, 2004	
				EF	Exposure Frequency	13	days/year	(3)	$t_{event}>t^*$: DAevent (mg/cm^2-event) = FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x ((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				ED	Exposure Duration	3	years	EPA, 1997 (4)	
				BW	Body Weight	57	kg	EPA, 1991, (5)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	
		Child	Gowanus Canal	CSW	Chemical Concentration in Surface Water	Tables 3.2.RME and 3.3.RME	µg/l	Tables 3.2.RME and 3.3.RME	CDI (mg/kg-day) = DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) = Kp x CW x t_{event} x CF1 x CF2
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	1.3	hr/day	EPA, 1989, (2)	$t_{event}<t^*$: DAevent (mg/cm^2-event) = 2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π)) x CF1 x CF2
				SA	Skin Surface Area Available for Contact	6,600	cm^c	EPA, 2004	
				EV	Event Frequency	1	events/day	EPA, 2004	
				EF	Exposure Frequency	13	days/year	(3)	$t_{event}>t^*$: DAevent (mg/cm^2-event) = FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x ((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				ED	Exposure Duration	3	years	EPA, 1997 (4)	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

Notes:
(1) Professional judgement, assuming 1/2 the RME value, or 1/2 the ingestion rate of surface water for swimming.
(2) 1/2 the RME value, equal to 1/2 the national average time spent swimming per swimming event.
(3) Professional judgement, assuming 1/2 the RME value, or recreational use of the canal 1 day per week for one-quarter of the year.
(4) Based on 9 years, the 50th percentile of time at a single residence, divided into three years for each receptor age range.
(5) Body weight is average of the mean values for boys and girls for the ages 12 through 18.
(6) Average total body surface area of boys and girls from 12 to 18 years of age.

TABLE 4.2.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name

Sources:

EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.

EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.

EPA, 1997: Exposure Factors Handbook. EPA/ 600/P-95/Fa, Fb, and Fc.

EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.3.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Air
Exposure Medium: Air

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Inhalation	Resident	Adult	Ambient air at street level	Cair	Chemical Concentration in Air	Tables 3.6.RME and 3.7.RME	mg/m^3	Tables 3.6.RME and 3.7.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	24	hr/day	EPA, 1991	
				EF	Exposure Frequency	234	days/year	EPA, 1993	
				ED	Exposure Duration	3	years	EPA, 2004	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Child	Ambient air at street level	Cair	Chemical Concentration in Air	Tables 3.6.RME and 3.7.RME	mg/m^3	Tables 3.6.RME and 3.7.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	24	hr/day	EPA, 1991	
				EF	Exposure Frequency	234	days/year	EPA, 1993	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child/Adult	Ambient air at street level	Cair	Chemical Concentration in Air	Tables 3.6.RME and 3.7.RME	mg/m^3	Tables 3.6.RME and 3.7.RME	Exposure Concentration (EC) (mg/m^3) = CA x ET x EF x ED x CF x 1/AT
				ET	Exposure Time	24	hr/day	EPA, 1991	
				EF	Exposure Frequency	234	days/year	EPA, 1993	
				ED	Exposure Duration	9	years	EPA, 2004	
				CF1	Conversion Factor 1	1/24	day/hr	- -	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

Notes:
(1) Professional judgement, assuming 1/2 the RME value, or 1/2 the ingestion rate of surface water for swimming.
(2) Professional judgement, conservatively assumed recreational use of the canal would occur 1 day per week for one-half the year.
(3) Professional Judgement assuming adolescents from 12 to 18 years of age.

Sources:
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 1993: Superfund's Standard Default Exposure Factors for the Central Tendency and Reasonable Maximum Exposure.
EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

Table 4.4.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water / Sediment
Exposure Medium: Fish and Crab Tissue

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Angler	Adult	Striped Bass	CFish	Chemical Concentration in Fish	Tables 3.8.RME, 3.9.RME, and 3.10.RME	mg/kg	Tables 3.8.RME, 3.9.RME, and 3.10.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
			White Perch	IR-Fish	Ingestion of Fish	8	g/day	EPA, 1997, (1)	CFish x IR-Fish x PCF x FI x EF x ED x CF3 x 1/BW x 1/AT
			Eel	PCF	Preparation/cooking loss factor	chem specific		EPA, 2000	
				FI	Fraction Ingested -	fish specific	unitless	EPA, 2000	
					Striped Bass	0.47	unitless	NYS, 1991, (4)	
					White Perch	0.09	unitless	NYS, 1991, (4)	
					Eel	0.44	unitless	NYS, 1991, (4)	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	3	years	EPA, 1997 (6)	
				CF3	Conversion Factor 3	0.001	kg/g	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Adolescent (12-18 years)	Striped Bass	CFish	Chemical Concentration in Fish	Tables 3.8.RME, 3.9.RME, and 3.10.RME	mg/kg	Tables 3.8.RME, 3.9.RME, and 3.10.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
			White Perch	IR-Fish	Ingestion of Fish	5.3	g/day	(2)	CFish x IR-Fish x PCF x FI x EF x ED x CF3 x 1/BW x 1/AT
			Eel	PCF	Preparation/cooking loss factor	chem specific		EPA, 2000	
				FI	Fraction Ingested -	fish specific	unitless	EPA, 2000	
					Striped Bass	0.47	unitless	NYS, 1991, (4)	
					White Perch	0.09	unitless	NYS, 1991, (4)	
					Eel	0.44	unitless	NYS, 1991, (4)	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	3	years	EPA, 1997 (6)	
				CF	Conversion Factor	0.001	kg/g	- -	
				BW	Body Weight	57	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Child	Striped Bass	CFish	Chemical Concentration in Fish	Tables 3.8.RME, 3.9.RME, and 3.10.RME	mg/kg	Tables 3.8.RME, 3.9.RME, and 3.10.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
			White Perch	IR-Fish	Ingestion of Fish	2.7	g/day	(3)	CFish x IR-Fish x PCF x FI x EF x ED x CF3 x 1/BW x 1/AT
			Eel	PCF	Preparation/cooking loss factor	chem specific		EPA, 2000	
				FI	Fraction Ingested -	fish specific	unitless	EPA, 2000	
					Striped Bass	0.47	unitless	NYS, 1991, (4)	
					White Perch	0.09	unitless	NYS, 1991, (4)	
					Eel	0.44	unitless	NYS, 1991, (4)	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	3	years	EPA, 1997 (6)	
				CF	Conversion Factor	0.001	kg/g	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	

Table 4.4.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water / Sediment
Exposure Medium: Fish and Crab Tissue

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Angler	Adult	Blue Crab	CFish	Chemical Concentration in Crab	Table 3.11.RME	mg/kg	Table 3.11.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Crab	16	g/day	Burger, 2002	CFish x IR-Fish x PCF x EF x ED x CF3 x 1/BW x 1/AT
				PCF	Preparation/cooking loss factor	chem specific		EPA, 2000	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	3	years	EPA, 1997 (6)	
				CF3	Conversion Factor 3	0.001	kg/g	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Adolescent	Blue Crab	CFish	Chemical Concentration in Crab	Table 3.11.RME	mg/kg	Table 3.11.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
		(12-18 years)		IR-Fish	Ingestion of Crab	10.7	g/day	(2)	CFish x IR-Fish x PCF x EF x ED x CF3 x 1/BW x 1/AT
				PCF	Preparation/cooking loss factor	chem specific		EPA, 2000	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	3	years	EPA, 1997 (6)	
				CF3	Conversion Factor 3	0.001	kg/g	- -	
				BW	Body Weight	57	kg/g	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Child	Blue Crab	CFish	Chemical Concentration in Crab	Table 3.11.RME	mg/kg	Table 3.11.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Fish	Ingestion of Crab	5.3	g/day	(3)	CFish x IR-Fish x PCF x EF x ED x CF3 x 1/BW x 1/AT
				PCF	Preparation/cooking loss factor	chem specific		EPA, 2000	
				EF	Exposure Frequency	365	days/year	EPA, 1997	
				ED	Exposure Duration	3	years	EPA, 1997 (6)	
				CF	Conversion Factor	0.001	kg/g	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	

Notes:
(1) Mean recreational freshwater anglers fish ingestion rate.
(2) Ingestion rate assumed to be 2/3 the adult ingestion rate.
(3) There are no recreational fish ingestion values or crab ingestion values for children. Therefore, ingestion rate assumed to be 1/3 the adult ingestion rate.
(4) Bottom feeders percent consumption (44%) used to for eel, intermediate level percent consumption (47%) used for striped bass, and remaining percent (4%) used for white perch.
(5) Average yearly crab ingestion rate.
(6) Based on 9 years, the 50th percentile of time at a single residence, divided into three years for each receptor age range.

Sources:

Burger, 2002: Consumption Patterns and Why People Fish. Environmental Research Section A 90, 125-135.
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 1997: Exposure Factors Handbook. EPA/ 600/P-95/Fa, Fb, and Fc.
NYS, 1991: New York State Angler reported fish consumpiton preferences.

TABLE 4.5.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Overflow Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Residential	Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	50	mg/day	EPA, 1997, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	4.5	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Child	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment	100	mg/day	EPA, 1997, (1)	CSed x IR-Sed x EF x ED x CF x 1/BW x 1/AT
				EF	Exposure Frequency	4.5	days/year	(2)	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child/Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-Sed	Ingestion Rate of Sediment-adjusted	42.1	mg-year/kg-day	calculated	CSed x IR-Sed x EF x CF x 1/AT
				IR-Sedc	Ingestion Rate of Sediment, child	100	mg/day	EPA, 1991, (1)	
				IR-Seda	Ingestion Rate of Sediment, adult	50	mg/day	EPA, 1991, (1)	
				EF	Exposure Frequency	4.5	days/year	(2)	
				EDc	Exposure Duration , child	6	years	EPA, 1991	IR-Sed = (EDc x IR-Sedc/ BWc) +
				EDa	Exposure Duration, adult	3	years	EPA, 1997	(EDa x IR-Seda/BWa)
				CF	Conversion Factor	0.000001	kg/mg	- -	
				BWc	Body Weight, child	15	kg	EPA, 1991	
				BWa	Body Weight, adult	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

TABLE 4.5.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Overflow Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Residential	Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	4.5	days/year	(2)	
				ED	Exposure Duration	3	years	EPA, 1997	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
		Child	areas adjacent to Gowanus Canal associated with canal	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	CDI (mg/kg-day) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	EPA, 2004, (3)	CSed x SA x SSAF x DABS x CF x EF x
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	ED x 1/BW x 1/AT
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	4.5	days/year	(2)	
				ED	Exposure Duration	6	years	EPA, 1991	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child/Adult	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	CSed	Chemical Concentration in Sediment	Table 3.12.RME	mg/kg	Table 3.12.RME	CDI (mg/kg-day) =
				SAc	Skin Surface Area Available for Contact, child	2,800	cm^2	EPA, 2004, (3)	CSed x SA x DABS x CF x EF x 1/AT
				SSAF	Soil to Skin Adherence Factor	0.2	mg/cm^2-day	EPA, 2004, (4)	
				EDc	Exposure Duration, child	6	years	EPA, 1991	SA = ((EDc x SAc/BWc) x SSAF) +
				BWc	Body Weight, child	15	kg	EPA, 1991	((EDa x SAa/BWa) x SSAF)
				SAa	Skin Surface Area Available for Contact, adult	5,700	cm^2	EPA, 2004, (3)	
				EDa	Exposure Duration , adult	3	years	EPA, 1997	
				BWa	Body Weight ,adult	70	kg	EPA, 1991	
				SA	Skin Surface Area adjusted	273	cm^2-year/kg-day	calculated	
				DABS	Dermal Absorption Factor Solids	chem specific	--	EPA, 2004	
				CF	Conversion Factor	0.000001	kg/mg	- -	
				EF	Exposure Frequency	4.5	days/year	(2)	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

TABLE 4.5.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Sediment
Exposure Medium: Overflow Surface Sediment

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name

Notes:
(1) Assumed CTE sediment ingestion rate is equal to the CTE incidental soil ingestion rate.
(2) Professional judgement, assumed equal to 1/2 RME value.
(3) SA includes head, hands, forearms, lower legs, and feet (for child only).
(4) Average adherence factor for children in wet soil.

Sources:
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 1997: Exposure Factors Handbook. EPA/ 600/P-95/Fa, Fb, and Fc.
EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 4.6.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Overflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Resident	Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.025	l/hour	EPA, 1989, (1)	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	1.3	hr/day	EPA, 1989, (2)	1/BW x 1/AT
				EF	Exposure Frequency	4.5	days/year	(4)	
				ED	Exposure Duration	3	years	EPA, 1997	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	8,760	days	EPA, 1989	
		Child	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW	Ingestion Rate of Surface Water	0.025	l/hour	EPA, 1989, (1)	CSW x IR-SW x ET x EF x ED x CF1 x
				ET	Exposure Time	1.3	hr/day	EPA, 1989, (2)	1/BW x 1/AT
				EF	Exposure Frequency	4.5	days/year	(4)	
				ED	Exposure Duration	6	years	EPA, 1991	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BW	Body Weight	15	kg	EPA, 1991	
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
		Child/Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	Chronic Daily Intake (CDI) (mg/kg-day) =
				IR-SW-Adj	Ingestion Rate of Surface Water, age-adjusted	0.011	l-year/kg-hour	calculated	CSW x IR-SW-adj x ET x EF x CF1 x 1/AT
				IR-SWc	Ingestion Rate of Surface Water, child	0.025	l/hour	EPA, 1989, (1)	
				IR-Swa	Ingestion Rate of Surface Water, adult	0.025	l/hour	EPA, 1989, (1)	
				ET	Exposure Time	1.3	hr/day	EPA, 1989, (2)	IR-W-Adj (liter-year/kg-hour) =
				EF	Exposure Frequency	4.5	days/year	(4)	(EDc x IR-SWc/BWc) + (EDa x IR-SWa/BWa)
				EDc	Exposure Duration, chiild	6	years	EPA, 1991	
				EDa	Exposure Duration, adult	3	years	EPA, 1997	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				BWc	Body Weight, child	15	kg	EPA, 1991	
				BWa	Body Weight, adult	70	kg	EPA, 1991	
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	

TABLE 4.6.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Overflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Residential	Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	1.3	hr/day	EPA, 1989, (2)	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	5,700	cm^2	EPA, 2004, (3)	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	4.5	days/year	(4)	
				ED	Exposure Duration	3	years	EPA, 1997	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-N	Averaging Time (Non-Cancer)	1,095	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	
		Child	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	CDI (mg/kg-day) =
				DAevent	Dermally Absorbed Dose per Event	calculated	mg/cm^2-event	calculated	DAevent x SA x EV x EF x ED x 1/BW x 1/AT
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Organics :
				t_{event}	Event Time	1.3	hr/day	EPA, 1989, (2)	t_{event}<t*: DAevent (mg/cm^2-event) =
				SA	Skin Surface Area Available for Contact	2,800	cm^2	EPA, 2004, (3)	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EV	Event Frequency	1	events/day	EPA, 2004	x CF1 x CF2
				EF	Exposure Frequency	4.5	days/year	(4)	
				ED	Exposure Duration	6	years	EPA, 1991	t_{event}>t*: DAevent (mg/cm^2-event) =
				BW	Body Weight	15	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-N	Averaging Time (Non-Cancer)	2,190	days	EPA, 1989	
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

TABLE 4.6.CTE
VALUES USED FOR DAILY INTAKE CALCULATIONS
CENTRAL TENDENCY EXPOSURE
Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Medium: Surface Water
Exposure Medium: Overflow Surface Water

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Dermal	Residential	Child/Adult	Canal Overflow - Surface Water	CSW	Chemical Concentration in Surface Water	Table 3.13.RME	µg/l	Table 3.13.RME	CDI (mg/kg-day) =
				DA-Adj	Dermally Absorbed Dose, Age-adjusted	calculated	mg-year/event-kg	calculated	DA-Adj x EF x 1/AT
				DAevent-A	Dermally Absorbed Dose per Event, adult	calculated	mg/cm^2-event	calculated	
				DAevent-C	Dermally Absorbed Dose per Event, adult	calculated	mg/cm^2-event	calculated	DA-Adj = (DAevent-A x SAa x EDa x 1/BWa)
				FA	Fraction absorbed water	chemical specific	dimensionless	EPA, 2004	+ (DAevent-C x SAc x EDc x 1/BWc)
				Kp	Permeability Coefficient	chemical specific	cm/hr	EPA, 2004	
				τ	Lag Time	chemical specific	hr/event	EPA, 2004	
				t*	Time to Reach Steady-state	chemical specific	hours	EPA, 2004	Inorganics: DAevent (mg/cm^2-event) =
				B	Epidermis	chemical specific	dimensionless	EPA, 2004	Kp x CW x t_{event} x CF1 x CF2
				t_{event}	Event Time	1.3	hr/day	EPA, 1989, (2)	
				SAc	Skin Surface Area Available for Contact, child	2,800	cm^2	EPA, 2004, (3)	Organics :
				SAa	Skin Surface Area Available for Contact, adult	5,700	cm^2	EPA, 2004, (3)	t_{event}<t*: DAevent (mg/cm^2-event) =
				EV	Event Frequency	1	events/day	EPA, 2004	2 x FA x Kp x CW x (sqrt((6 x τ x t_{event})/π))
				EF	Exposure Frequency	4.5	days/year	(4)	x CF1 x CF2
				EDc	Exposure Duration, child	6	years	EPA, 1991	
				EDa	Exposure Duration, adult	3	years	EPA, 1997	
				BWc	Body Weight, child	15	kg	EPA, 1991	t_{event}>t*: DAevent (mg/cm^2-event) =
				BWa	Body Weight, adult	70	kg	EPA, 1991	FA x Kp x CW x (t_{event}/(1+B) + 2 x τ x
				AT-C	Averaging Time (Cancer)	25,550	days	EPA, 1989	((1 + 3B + $3B^2$)/$(1+B)^2$)) x CF1 x CF2
				CF1	Conversion Factor 1	0.001	mg/µg	- -	
				CF2	Conversion Factor 2	0.001	l/cm^3	- -	

Notes:
(1) Professional judgement, assuming 1/2 the RME value, or 1/2 the ingestion rate of surface water for swimming.
(2) 1/2 the RME value, equal to 1/2 the national average time spent swimming per swimming event.
(3) SA includes head, hands, forearms, lower legs, and feet (for child only).
(4) Professional judgement, assumed equal to 1/2 RME value.

Sources:
EPA, 1989: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual, Part A. OERR. EPA/540/1-89/002.
EPA, 1991: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 2004: Risk Assessment Guidance for Superfund. Vol.1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final. EPA/540/R/99/005.

TABLE 5.1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfD: Target Organ (3)	Dates of RfD: Target Organ (4) (MM/DD/YY)
1,4-Dichlorobenzene	Chronic	7.0E-02	mg/kg-day	100%	7.0E-02	mg/kg-day	Liver	100	ATSDR	8/2006
	Subchronic	NA			NA					
Benzene	Chronic	4.0E-03	mg/kg-day	100%	4.0E-03	mg/kg-day	Blood, Immune	300/1	IRIS	11/23/2010
	Subchronic	1.0E-02	mg/kg-day	100%	1.0E-02	mg/kg-day	Blood, Immune	100	PPRTV	9/29/2009
Chloroform	Chronic	1.0E-02	mg/kg-day	100%	1.0E-02	mg/kg-day	Liver, Body Weight	100/1	IRIS	11/23/2010
	Subchronic	1.0E-02	mg/kg-day	NA	1.0E-02	mg/kg-day	Liver	1000	HEAST	7/1997
Ethylbenzene	Chronic	1.0E-01	mg/kg-day	100%	1.0E-01	mg/kg-day	Liver, Kidney	1000/1	IRIS	11/29/2010
	Subchronic	5.0E-02	mg/kg-day	100%	5.0E-02	mg/kg-day	Liver, Kidney	1000	PPRTV	9/10/2009
Tetrachloroethene	Chronic	1.0E-02	mg/kg-day	100%	1.0E-02	mg/kg-day	Liver	1000/1	IRIS	11/23/2010
	Subchronic	1.0E-01	mg/kg-day	100%	1.0E-01	mg/kg-day	Liver	100	HEAST	7/1997
Xylene, total	Chronic	2.0E-01	mg/kg-day	100%	2.0E-01	mg/kg-day	Body Weight, Mortality	1000/1	IRIS	11/29/2010
	Subchronic	4.0E-01	mg/kg-day	100%	4.0E-01	mg/kg-day	Body Weight	1000	PPRTV	9/30/2009
2-Methylnaphthalene	Chronic	4.0E-03	mg/kg-day	100%	4.0E-03	mg/kg-day	Lung	1000/1	IRIS	11/23/2010
	Subchronic	4.0E-03	mg/kg-day	1.0E+02	4.0E-03	mg/kg-day	Lung	1000/1	PPRTV	9/18/2007
Acenaphthene	Chronic	6.0E-02	mg/kg-day	100%	6.0E-02	mg/kg-day	Liver	3000/1	IRIS	11/23/2010
	Subchronic	6.0E-01	mg/kg-day	100%	6.0E-01	mg/kg-day	Liver	300	HEAST	7/1997
Benzo(a)anthracene	Chronic	NA			NA					
	Subchronic	NA			NA					
Benzo(a)pyrene	Chronic	NA			NA					
	Subchronic	NA			NA					
Benzo(b)fluoranthene	Chronic	NA			NA					
	Subchronic	NA			NA					
Benzo(k)fluoranthene	Chronic	NA			NA					
	Subchronic	NA			NA					
bis(2-Ethylhexyl)phthalate	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Increased Liver Weight	1000/1	IRIS	11/29/2010
	Subchronic	NA			NA					
Chrysene	Chronic	NA			NA					
	Subchronic	NA			NA					
Dibenz(a,h)anthracene	Chronic	NA			NA					
	Subchronic	NA			NA					
Fluoranthene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Kidney, Liver, Blood	3000/1	IRIS	11/23/2010
	Subchronic	4.0E-01	mg/kg-day	100%	4.0E-01	mg/kg-day	Kidney, Liver, Blood	300	HEAST	7/1997
Fluorene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Blood	3000/1	IRIS	11/23/2010
	Subchronic	4.0E-01	mg/kg-day	100%	4.0E-01	mg/kg-day	Blood	300	HEAST	7/1997

TABLE 5.1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfD: Target Organ (3)	Dates of RfD: Target Organ (4) (MM/DD/YY)
Indeno(1,2,3-cd)pyrene	Chronic	NA			NA					
	Subchronic	NA			NA					
Naphthalene	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Decreased Body Weight	3000/1	IRIS	11/23/2010
	Subchronic	NA			NA					
Pyrene	Chronic	3.0E-02	mg/kg-day	100%	3.0E-02	mg/kg-day	Kidney	3000/1	IRIS	11/23/2010
	Subchronic	3.0E-01	mg/kg-day	100%	3.0E-01	mg/kg-day	Kidney	300	PPRTV	9/5/2007
Chlordane	Chronic	5.0E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	300/1	IRIS	1/12/2011
	Subchronic	6.0E-05	mg/kg-day	100%	6.0E-05	mg/kg-day	Liver	1000	HEAST	7/1997
Dieldrin	Chronic	5.0E-05	mg/kg-day	100%	5.0E-05	mg/kg-day	Liver	100/1	IRIS	1/12/2011
	Subchronic	5.0E-05	mg/kg-day	100%	5.0E-05	mg/kg-day	Liver	100	HEAST	7/1997
p,p'-DDD	Chronic	NA			NA					
	Subchronic	NA			NA					
p,p'-DDE	Chronic	NA			NA					
	Subchronic	NA			NA					
p,p'-DDT	Chronic	5.0E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	100/1	IRIS	1/12/2011
	Subchronic	5.0E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	100	HEAST	7/1997
Aroclor 1248	Chronic	NA			NA					
	Subchronic	NA			NA					
Aroclor 1254[5]	Chronic	2.0E-05	mg/kg-day	100%	2.0E-05	mg/kg-day	Ocular, Finger and Toe Nails	300/1	IRIS	11/29/2010
	Subchronic	NA			NA					
Aroclor 1260	Chronic	NA			NA					
	Subchronic	NA			NA					
2,3,7,8-TCDD	Chronic	1.0E-09	mg/kg-day	100%	1.0E-09	mg/kg-day	Immune System	NA	ATSDR	12/1998
	Subchronic	NA			NA					
Aluminum	Chronic	1.0E+00	mg/kg-day	100%	1.0E+00	mg/kg-day	Neurological	100	PPRTV	10/23/2006
	Subchronic	NA			NA					
Arsenic	Chronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Skin, Vascular	3/1	IRIS	11/23/2010
	Subchronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Skin, Vascular	3	HEAST	7/1997
Cadmium (diet)	Chronic	1.0E-03	mg/kg-day	3%	2.5E-05	mg/kg-day	Proteinuria (Kidney)	10/1	IRIS	11/23/2010
	Subchronic	NA			NA					
Cadmium (water)	Chronic	5.0E-04	mg/kg-day	5%	2.5E-05	mg/kg-day	Proteinuria (Kidney)	10/1	IRIS	11/23/2010
	Subchronic	NA			NA					
Chromium (III)	Chronic	1.5E+00	mg/kg-day	1.3%	2.0E-02	mg/kg-day	Not identified	100/10	IRIS	11/23/2010
	Subchronic	NA			N/A					

TABLE 5.1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal RfD (2)	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfD: Target Organ (3)	Dates of RfD: Target Organ (4) (MM/DD/YY)
Chromium (VI)	Chronic	3.0E-03	mg/kg-day	2.5%	7.5E-05	mg/kg-day	Not identified	300/3	IRIS	11/23/2010
	Subchronic	2.0E-02	mg/kg-day	2.5%	5.0E-04	mg/kg-day	Not identified	100	HEAST	7/1997
Cobalt	Chronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Thyroid	3000	PPRTV	8/25/2008
	Subchronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Thyroid	300	PPRTV	8/25/2008
Copper	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Gastrointestinal	N/A	HEAST	7/1997
	Subchronic	NA			NA					
Cyanide	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Weight Loss, Thyroid Whole Body, Thyroid, Nerve	100/5	IRIS	1/12/2011
	Subchronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day		500	HEAST	7/1997
Iron	Chronic	7.0E-01	mg/kg-day	100%	7.0E-01	mg/kg/day	Gastrointestinal	1	PPRTV	7/29/2005
	Subchronic	7.0E-01	mg/kg-day	100%	7.0E-01	mg/kg/day	Gastrointestinal	1	PPRTV	7/29/2005
Manganese (diet)	Chronic	1.4E-01	mg/kg-day	100%	7.0E-01	mg/kg-day	CNS	1/1	IRIS	11/23/2010
	Subchronic	NA			NA					
Manganese (water)	Chronic	2.4E-02	mg/kg-day	4%	9.6E-04	mg/kg-day	CNS	1/1	IRIS	11/23/2010
	Subchronic	NA			NA					
Methylmercury	Chronic	1.0E-04	mg/kg-day	100%	1.0E-04	mg/kg-day	Developmental Neurological	10/1	IRIS	1/12/2011
	Subchronic	1.0E-04	mg/kg-day	100%	1.0E-04	mg/kg-day	Developmental Neurological	10	HEAST	7/1997
Selenium	Chronic	5.0E-03	mg/kg-day	100%	5.0E-03	mg/kg-day	Whole Body	3/1	IRIS	11/23/2010
	Subchronic	5.0E-03	mg/kg-day	100%	5.0E-03	mg/kg-day	Whole Body	3	HEAST	7/1997
Vanadium	Chronic	5.0E-03	mg/kg-day	100%	5.0E-03	mg/kg-day	Hair	100/1	RSL	5/25/2010
	Subchronic	NA			NA					

NA = Not Applicable or Not Available.

(1) Source: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual, Part E, Supplemental Guidance for Dermal Risk Assessment (Final).
Section 4.2 and Exhibit 4-1. USEPA recommends that the oral RfD should not be adjusted to estimate the absorbed dose for compounds when the absorption efficiency is greater than 50%.
Constituents with oral absorption efficiencies greater than 50%, or without reported oral absorption efficiencies, are shown with an oral absorption efficiency of 100%.

(2) Adjusted Dermal RfD = RfD (oral) x Oral to Dermal Adjustment Factor

(3) ATSDR = Agency for Toxic Substances and Disease Registry
HEAST = Health Effects Summary Tables
IRIS = Integrated Risk Information System
PPRTV = Provisional Peer Reviewed Toxicity Value, Superfund Health Technical Support Center
RSL = Regional Screening Level Table

(4) For ATSDR values, the date of the ATSDR toxicity profile
For HEAST values, date of HEAST document.
For IRIS values, the date IRIS was searched.
For PPRTV values, date of the PPRTV document.
For RSL values, date of RSL Table.

(5) Aroclor-1254 toxicity values also used for total PCBs.

TABLE 5.2

NON-CANCER TOXICITY DATA -- INHALATION

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ (1)	Dates (2) (MM/DD/YY)
1,4-Dichlorobenzene	Chronic	8.0E-01	mg/m^3	Liver	100/1	IRIS	11/23/2010
	Subchronic	7.1E-01	mg/m^3	Liver	30	HEAST	7/1997
Benzene	Chronic	3.0E-02	mg/m^3	Blood	300/1	IRIS	11/23/2010
	Subchronic	8.0E-02	mg/m^3	Blood	100	PPRTV	9/29/2009
Chloroform	Chronic	9.8E-02	mg/m^3	Liver	100	ATSDR	9/1997
	Subchronic	NA					
Ethylbenzene	Chronic	1.0E+00	mg/m^3	Developmental	300/1	IRIS	11/29/2010
	Subchronic	9.0E+00	mg/m^3	Ear	100	PPRTV	9/10/2009
Tetrachloroethene	Chronic	2.7E-01	mg/m^3	Neurological	100	ATSDR	9/1997
	Subchronic	NA					
Xylene, total	Chronic	1.0E-01	mg/m^3	Impaired motor coordination	300/1	IRIS	11/29/2010
	Subchronic	4.0E-01	mg/m^3	Neurological	100	PPRTV	9/30/2009
2-Methylnaphthalene	Chronic	NA					
	Subchronic	NA					
Acenaphthene	Chronic	NA					
	Subchronic	NA					
Benzo(a)anthracene	Chronic	NA					
	Subchronic	NA					
Benzo(a)pyrene	Chronic	NA					
	Subchronic	NA					
Benzo(b)fluoranthene	Chronic	NA					
	Subchronic	NA					
Benzo(k)fluoranthene	Chronic	NA					
	Subchronic	NA					
bis(2-Ethylhexyl)phthalate	Chronic	NA					
	Subchronic	NA					

TABLE 5.2

NON-CANCER TOXICITY DATA -- INHALATION

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ (1)	Dates (2) (MM/DD/YY)
Chrysene	Chronic	NA					
	Subchronic	NA					
Dibenz(a,h)anthracene	Chronic	NA					
	Subchronic	NA					
Fluoranthene	Chronic	NA					
	Subchronic	NA					
Fluorene	Chronic	NA					
	Subchronic	NA					
Indeno(1,2,3-cd)pyrene	Chronic	NA					
	Subchronic	NA					
Naphthalene	Chronic	3.0E-03	mg/m^3	Nasal, Respiratory	3000/1	IRIS	11/23/2010
	Subchronic	NA					
Pyrene	Chronic	NA					
	Subchronic	NA					
Chlordane	Chronic	7.0E-04	mg/m^3	Liver	1000/1	IRIS	1/2011
	Subchronic	NA					
Dieldrin	Chronic	NA					
	Subchronic	NA					
p,p'-DDD	Chronic	NA					
	Subchronic	NA					
p,p'-DDE	Chronic	NA					
	Subchronic	NA					
p,p'-DDT	Chronic	NA					
	Subchronic	NA					
Aroclor 1248	Chronic	NA					
	Subchronic	NA					
Aroclor 1254[3]	Chronic	NA					
	Subchronic	NA					

TABLE 5.2

NON-CANCER TOXICITY DATA -- INHALATION

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ (1)	Dates (2) (MM/DD/YY)
Aroclor 1260[3]	Chronic Subchronic	NA NA					
2,3,7,8-TCDD[3]	Chronic Subchronic	4.0E-08 NA	mg/m3	NA	NA	CalEPA	11/23/2010
Aluminum	Chronic Subchronic	5.0E-03 NA	mg/m^3	Neurological	300	PPRTV	10/23/2006
Arsenic	Chronic Subchronic	1.5E-05 NA	mg/m^3	Developmental, Cardiovascular, Nervous System	3/1	CalEPA	11/23/2010
Cadmium	Chronic Subchronic	1.0E-05 NA	mg/m^3	Kidney	3/3	ATSDR	9/2008
Chromium (III)	Chronic Subchronic	NA NA					
Chromium (VI)	Chronic Subchronic	1.0E-04 NA	mg/m^3	Respiratory System	300/1	IRIS	11/23/2010
Cobalt	Chronic Subchronic	6.0E-06 2.0E-05	mg/m^3 mg/m^3	Respiratory System Respiratory System	300 100	PPRTV PPRTV	8/25/2008 8/25/2008
Copper	Chronic Subchronic	NA NA					
Cyanide	Chronic Subchronic	NA NA					
Iron	Chronic Subchronic	NA NA					
Manganese	Chronic Subchronic	5.0E-05	mg/m^3	CNS	1000/1	IRIS	11/23/2010
Methylmercury	Chronic Subchronic	NA NA					

TABLE 5.2

NON-CANCER TOXICITY DATA -- INHALATION

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ (1)	Dates (2) (MM/DD/YY)
Selenium	Chronic Subchronic	2.0E-02 NA	mg/m^3	Respiratory System	30/1	CalEPA	11/23/2010
Vanadium	Chronic Subchronic	NA N/A					

NA = Not Applicable or Not Available

(1) ATSDR = Agency for Toxic Substances and Disease Registry

CalEPA = California EPA

HEAST = Health Effects Summary Tables

IRIS = Integrated Risk Information System

PPRTV = Provisional Peer Reviewed Toxicity Value, Superfund Health Technical Support Center

(2) For ATSDR values, the date of the ATSDR toxicity profile.

For CalEPA values, the date CalEPA toxicity database was searched.

For HEAST values, date of HEAST document.

For IRIS values, the date IRIS was searched.

For PPRTV values, date of the PPRTV document.

(3) Aroclor-1254 toxicity values also used for total PCBs.

TABLE 6.1

CANCER TOXICITY DATA -- ORAL/DERMAL

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal Cancer Slope Factor (2)	Units	EPA Carcinogen Group (3)	Source (4)	Date (5) (MM/DD/YY)
1,4-Dichlorobenzene	5.4E-03	100%	5.4E-03	(mg/kg-day) $^{-1}$	2B	CalEPA	11/23/2010
Benzene	5.5E-02	100%	5.5E-02	(mg/kg-day) $^{-1}$	A	IRIS	11/23/2010
Chloroform	3.1E-02	100%	3.1E-02	(mg/kg-day) $^{-1}$	B2, 2B	CalEPA	11/23/2010
Ethylbenzene	1.1E-02	100%	1.1E-02	(mg/kg-day) $^{-1}$	2A	CalEPA	11/29/2010
Tetrachloroethene	5.4E-01	100%	5.4E-01	(mg/kg-day) $^{-1}$	2A	CalEPA	11/23/2010
Xylene, total	NA		NA		D	IRIS	11/29/2010
2-Methylnaphthalene	NA		NA				
Acenaphthene	NA		NA				
Benzo(a)anthracene[7]	7.3E-01	100%	7.3E-01	(mg/kg-day) $^{-1}$	B2	NCEA	7/1993
Benzo(a)pyrene[7]	7.3E+00	100%	7.3E+00	(mg/kg-day) $^{-1}$	B2	IRIS	11/23/2010
Benzo(b)fluoranthene[7]	7.3E-01	100%	7.3E-01	(mg/kg-day) $^{-1}$	B2	NCEA	7/1993
Benzo(k)fluoranthene[7]	7.3E-02	100%	7.3E-02	(mg/kg-day) $^{-1}$	B2	NCEA	7/1993
bis(2-Ethylhexyl)phthalate	1.4E-02	100%	1.4E-02	(mg/kg-day) $^{-1}$	B2	IRIS	11/29/2010
Chrysene[7]	7.3E-03	100%	7.3E-03	(mg/kg-day) $^{-1}$	B2	NCEA	7/1993
Dibenz(a,h)anthracene[7]	7.3E+00	100%	7.3E+00	(mg/kg-day) $^{-1}$	B2	NCEA	7/1993
Fluoranthene	NA		NA		D	IRIS	11/23/2010
Fluorene	NA		NA		D	IRIS	11/23/2010
Indeno(1,2,3-cd)pyrene[7]	7.3E-01	100%	7.3E-01	(mg/kg-day) $^{-1}$	B2	NCEA	7/1993
Naphthalene	NA		NA				
Pyrene	NA		NA		D	IRIS	11/23/2010
Chlordane	3.5E-01	100%	3.5E-01	(mg/kg-day) $^{-1}$	B2	IRIS	1/12/2011
Dieldrin	1.6E+01	100%	1.6E+01	(mg/kg-day) $^{-1}$	B2	IRIS	1/12/2011
p,p'-DDD	2.4E-01	100%	2.4E-01	(mg/kg-day) $^{-1}$	B2	IRIS	1/12/2011
p,p'-DDE	3.4E-01	100%	3.4E-01	(mg/kg-day) $^{-1}$	B2	IRIS	1/12/2011
p,p'-DDT	3.4E-01	100%	3.4E-01	(mg/kg-day) $^{-1}$	B2	IRIS	1/12/2011

TABLE 6.1

CANCER TOXICITY DATA -- ORAL/DERMAL

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal Cancer Slope Factor (2)	Units	EPA Carcinogen Group (3)	Source (4)	Date (5) (MM/DD/YY)
Total PCBs[6] - RME value	2.0E+00	100%	2.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/23/2010
Total PCBs[6]- CTE value	1.0E+00	100%	1.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	11/23/2010
2,3,7,8-TCDD[6]	1.6E+05	100%	1.6E+05	$(mg/kg\text{-}day)^{-1}$	B2	EPA-D	1985
Aluminum	NA		NA				
Arsenic	1.5E+00	100%	1.5E+00	$(mg/kg\text{-}day)^{-1}$	A	IRIS	11/23/2010
Cadmium	NA		NA		B1	IRIS	11/23/2010
Chromium (III)	NA		NA		D	IRIS	11/23/2010
Chromium (VI)[7]	5.0E-01	2.5%	2.0E+01	$(mg/kg\text{-}day)^{-1}$	D	NJ	11/23/2010
Cobalt	NA		NA				
Copper	NA		NA		D	IRIS	11/29/2010
Cyanide	NA		NA		D	IRIS	1/12/2011
Iron	NA		NA				
Manganese	NA		NA		D	IRIS	11/23/2010
Methylmercury	NA		NA		C	IRIS	1/12/2011
Selenium	NA		NA		D	IRIS	11/23/2010
Vanadium	NA		NA				

N/A-Not available

(1) Source: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual, Part E, Supplemental Guidance for Dermal Risk Assessment (Final). Section 4.2 and Exhibit 4-1. USEPA recommends that the oral RfD should not be adjusted to estimate the absorbed dose for compounds when the absorption efficiency is greater than 50% Constituents with oral absorption efficiencies greater than 50%, or without reported oral absorption efficiencies, are shown with an oral absorption efficiency of 100%.

(2) Adjusted Dermal CSF = CSF (oral) / Oral to Dermal Adjustment Factor

(3) EPA Carcinogen Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

IARC Carcinogen Group:

2A: The agent is probably carcinogenic to humans

2B: The agent is possibly carcinogenic to humans

TABLE 6.1

CANCER TOXICITY DATA -- ORAL/DERMAL

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor (1)	Adjusted Dermal Cancer Slope Factor (2)	Units	EPA Carcinogen Group (3)	Source (4)	Date (5) (MM/DD/YY)

(4) CalEPA = California EPA

EPA-D = EPA, 1985. Health Assessment Document for Polychlorinated Dibenzo-p-Dioxins. U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office. Cincinnati, OH. EPA 600/8-84-014F.

IRIS = Integrated Risk Information System

NCEA = National Center for Environmental Assessment

NJ = New Jersey DEP

(5) For CalEPA values, the date CalEPA toxicity database was searched.

For IRIS values, the date IRIS was searched.

For NCEA values, the date of the NCEA document.

For New Jersey values, the date New Jersey DEP toxicity database was searched.

(6) 2,3,7,8-TCDD toxicity values will be used for dioxin-like PCBs.

Total PCBs toxicity values used for non-dioxin like PCBs.

(7) Chemical acts via a mutaganic mode of action. Age-dependent adjustment factor (ADAF) of 10 used for 0-2 year old, ADAF of 3 used for 2-6 year old, and ADAF of 3 used for 6-12 year old. Oral cancer slope factor multiplied by appropriate ADAF to derive age-specific oral cancer slope factor for receptor.

TABLE 6.2

CANCER TOXICITY DATA -- INHALATION

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Unit Risk	Units	Weight of Evidence/ Cancer Guidance Description (1)	Source (2)	Date (3) (MM/DD/YY)
1,4-Dichlorobenzene	1.1E-05	$(ug/m3)^{-1}$	2B	CalEPA	11/23/2010
Benzene	7.8E-06	$(ug/m3)^{-1}$	A	IRIS	11/23/2010
Chloroform	2.3E-05	$(ug/m3)^{-1}$	B2	IRIS	11/23/2010
Ethylbenzene	2.5E-06	$(ug/m3)^{-1}$	B2	CalEPA	11/29/2010
Tetrachloroethene	5.9E-06	$(ug/m3)^{-1}$	2A	CalEPA	11/23/2010
Xylene, total	NA		D	IRIS	11/29/2010
2-Methylnaphthalene	NA				
Acenaphthene	NA				
Benzo(a)anthracene[5]	1.1E-04	$(ug/m3)^{-1}$	B2, 2A	CalEPA	11/23/2010
Benzo(a)pyrene[5]	1.1E-03	$(ug/m3)^{-1}$	B2, 2A	CalEPA	11/23/2010
Benzo(b)fluoranthene[5]	1.1E-04	$(ug/m3)^{-1}$	B2, 2A	CalEPA	11/23/2010
Benzo(k)fluoranthene[5]	1.1E-04	$(ug/m3)^{-1}$	B2, 2A	CalEPA	11/23/2010
bis(2-Ethylhexyl)phthalate	2.4E-06	$(ug/m3)^{-1}$	B2, 2B	CalEPA	11/29/2010
Chrysene[5]	1.1E-05	$(ug/m3)^{-1}$	B2, 2A	CalEPA	11/23/2010
Dibenz(a,h)anthracene[5]	1.2E-03	$(ug/m3)^{-1}$	B2, 2A	CalEPA	11/23/2010
Fluoranthene	NA		D	IRIS	11/23/2010
Fluorene	NA		D	IRIS	11/23/2010
Indeno(1,2,3-cd)pyrene[5]	1.1E-04	$(ug/m3)^{-1}$	B2, 2A	CalEPA	11/23/2010
Naphthalene	3.4E-05	$(ug/m3)^{-1}$	2B	CalEPA	11/23/2010
Pyrene	NA		D	IRIS	11/23/2010
Chlordane	1.0E-04	$(ug/m3)^{-1}$	B2	IRIS	1/12/2011
Dieldrin	4.6E-03	$(ug/m3)^{-1}$	B2	IRIS	1/12/2011
p,p'-DDD	6.9E-05	$(ug/m3)^{-1}$	B2	CalEPA	1/12/2011
p,p'-DDE	9.7E-05	$(ug/m3)^{-1}$	B2	CalEPA	1/12/2011

TABLE 6.2

CANCER TOXICITY DATA -- INHALATION

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Unit Risk	Units	Weight of Evidence/ Cancer Guidance Description (1)	Source (2)	Date (3) (MM/DD/YY)
p,p'-DDT	9.7E-05	$(ug/m3)^{-1}$	B2	IRIS	1/12/2011
Total PCBs[4]	5.7E-04	$(ug/m3)^{-1}$	B2	IRIS	11/23/2010
2,3,7,8-TCDD[4]	3.8E+01	$(ug/m3)^{-1}$	B2	CalEPA	11/18/2009
Aluminum	NA				
Arsenic	4.3E-03	$(ug/m3)^{-1}$	A	IRIS	11/23/2010
Cadmium	1.8E-03	$(ug/m3)^{-1}$	B1	IRIS	11/23/2010
Chromium (III)	NA		D	IRIS	11/23/2010
Chromium (VI)[5]	8.4E-02	$(ug/m3)^{-1}$	A	IRIS	11/23/2010
Cobalt	9.0E-03	$(ug/m3)^{-1}$	B1	PPRTV	8/28/2008
Copper	NA		D	IRIS	11/29/2010
Cyanide	NA		D	IRIS	1/12/2011
Iron	NA				
Manganese	NA		D	IRIS	11/23/2010
Methylmercury	NA		C	IRIS	1/12/2011
Selenium	NA		D	IRIS	11/23/2010
Vanadium	NA				

(1) EPA Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

IARC Carcinogen Group:

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TABLE 6.2

CANCER TOXICITY DATA -- INHALATION

Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Unit Risk	Units	Weight of Evidence/ Cancer Guidance Description (1)	Source (2)	Date (3) (MM/DD/YY)

(2) CalEPA = California EPA

IRIS = Integrated Risk Information System

PPRTV = Provisional Peer Reviewed Toxicity Value, Superfund Health Technical Support Center

(3) For CalEPA values, the date CalEPA toxicity database was searched.

For IRIS values, the date IRIS was searched.

For PPRTV values, date of the PPRTV document.

(4) 2,3,7,8-TCDD toxicity values will be used for dioxin-like PCBs

Aroclor-1260 toxicity values alsoused for non-dioxin like PCBs

(5) Chemical acts via a mutaganic mode of action. Age-dependent adjustment factor (ADAF) of 10 used for 0-2 year old, ADAF of 3 used for 2-6 year old, and ADAF of 3 used for 6-12 year old. Oral cancer slope factor multiplied by appropriate ADAF to derive age-specific oral cancer slope factor for receptor.

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Ingestion	Acenaphthene	3.7E+02	mg/kg	6.4E-06	mg/kg-day	NA		NA	1.9E-05	mg/kg-day	6.0E-02	mg/kg-day	3.1E-04
				Benzo(a)anthracene	1.3E+02	mg/kg	2.2E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.6E-06	6.5E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	1.1E+02	mg/kg	1.9E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.4E-05	5.4E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.1E+02	mg/kg	2.0E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.4E-06	5.7E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	6.5E+01	mg/kg	1.1E-06	mg/kg-day	7.3E-02	1/(mg/kg-day)	8.2E-08	3.3E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	5.8E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	8.2E-09	1.7E-06	mg/kg-day	2.0E-02	mg/kg-day	8.5E-05
				Chrysene	2.5E+02	mg/kg	4.4E-06	mg/kg-day	7.3E-03	1/(mg/kg-day)	3.2E-08	1.3E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	6.2E+00	mg/kg	1.1E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	7.9E-07	3.1E-07	mg/kg-day	NA		NA
				Fluoranthene	5.0E+02	mg/kg	8.7E-06	mg/kg-day	NA		NA	2.5E-05	mg/kg-day	4.0E-02	mg/kg-day	6.3E-04
				Indeno(1,2,3-c,d)pyrene	4.9E+01	mg/kg	8.5E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.2E-07	2.5E-06	mg/kg-day	NA		NA
				Naphthalene	3.4E+00	mg/kg	5.9E-08	mg/kg-day	NA		NA	1.7E-07	mg/kg-day	2.0E-02	mg/kg-day	8.7E-06
				Pyrene	5.3E+02	mg/kg	9.2E-06	mg/kg-day	NA		NA	2.7E-05	mg/kg-day	3.0E-02	mg/kg-day	9.0E-04
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	7.0E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.1E-07	2.0E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	9.1E-08	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.8E-07	2.7E-07	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	9.4E-08	mg/kg-day	NA		NA	2.7E-07	mg/kg-day	2.0E-05	mg/kg-day	1.4E-02
				Aluminum	1.6E+04	mg/kg	2.8E-04	mg/kg-day	NA		NA	8.1E-04	mg/kg-day	1.0E+00	mg/kg-day	8.1E-04
				Arsenic	1.8E+01	mg/kg	3.1E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.7E-07	9.2E-07	mg/kg-day	3.0E-04	mg/kg-day	3.1E-03
				Cadmium	9.6E+00	mg/kg	1.7E-07	mg/kg-day	NA		NA	4.9E-07	mg/kg-day	1.0E-03	mg/kg-day	4.9E-04
				Chromium	9.4E+01	mg/kg	1.6E-06	mg/kg-day	5.0E-01	1/(mg/kg-day)	8.2E-07	4.8E-06	mg/kg-day	3.0E-03	mg/kg-day	1.6E-03
				Cobalt	1.3E+01	mg/kg	2.3E-07	mg/kg-day	NA		NA	6.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.2E-03
				Copper	3.5E+02	mg/kg	6.1E-06	mg/kg-day	NA		NA	1.8E-05	mg/kg-day	4.0E-02	mg/kg-day	4.5E-04
				Iron	4.0E+04	mg/kg	7.0E-04	mg/kg-day	NA		NA	2.0E-03	mg/kg-day	7.0E-01	mg/kg-day	2.9E-03
				Lead	1.9E+03	mg/kg	3.3E-05	mg/kg-day	NA		NA	9.5E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	5.5E-06	mg/kg-day	NA		NA	1.6E-05	mg/kg-day	1.4E-01	mg/kg-day	1.1E-04
				Vanadium	5.0E+01	mg/kg	8.7E-07	mg/kg-day	NA		NA	2.5E-06	mg/kg-day	5.0E-03	mg/kg-day	5.1E-04
			Exp. Route Total								2.0E-05					2.8E-02

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Dermal	Acenaphthene	3.7E+02	mg/kg	3.4E-05	mg/kg-day	NA		NA	1.0E-04	mg/kg-day	6.0E-02	mg/kg-day	1.7E-03
				Benzo(a)anthracene	1.3E+02	mg/kg	1.2E-05	mg/kg-day	7.3E-01	1/(mg/kg-day)	8.7E-06	3.5E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene	1.1E+02	mg/kg	1.0E-05	mg/kg-day	7.3E+00	1/(mg/kg-day)	7.4E-05	2.9E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.1E+02	mg/kg	1.1E-05	mg/kg-day	7.3E-01	1/(mg/kg-day)	7.8E-06	3.1E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	6.5E+01	mg/kg	6.1E-06	mg/kg-day	7.3E-02	1/(mg/kg-day)	4.4E-07	1.8E-05	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	2.4E-06	mg/kg-day	1.4E-02	1/(mg/kg-day)	3.4E-08	7.1E-06	mg/kg-day	2.0E-02	mg/kg-day	3.5E-04
				Chrysene	2.5E+02	mg/kg	2.4E-05	mg/kg-day	7.3E-03	1/(mg/kg-day)	1.7E-07	7.0E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	6.2E+00	mg/kg	5.8E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.3E-06	1.7E-06	mg/kg-day	NA		NA
				Fluoranthene	5.0E+02	mg/kg	4.7E-05	mg/kg-day	NA		NA	1.4E-04	mg/kg-day	4.0E-02	mg/kg-day	3.4E-03
				Indeno(1,2,3-c,d)pyrene	4.9E+01	mg/kg	4.6E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.4E-06	1.3E-05	mg/kg-day	NA		NA
				Naphthalene	3.4E+00	mg/kg	3.2E-07	mg/kg-day	NA		NA	9.4E-07	mg/kg-day	2.0E-02	mg/kg-day	4.7E-05
				Pyrene	5.3E+02	mg/kg	5.0E-05	mg/kg-day	NA		NA	1.5E-04	mg/kg-day	3.0E-02	mg/kg-day	4.8E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	4.1E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	6.4E-07	1.2E-11	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	5.3E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.1E-06	1.5E-06	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	5.5E-07	mg/kg-day	NA		NA	1.6E-06	mg/kg-day	2.0E-05	mg/kg-day	8.0E-02
				Aluminum	1.6E+04	mg/kg	1.2E-04	mg/kg-day	NA		NA	3.4E-04	mg/kg-day	1.0E+00	mg/kg-day	3.4E-04
				Arsenic	1.8E+01	mg/kg	3.9E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	5.9E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.8E-03
				Cadmium	9.6E+00	mg/kg	7.0E-09	mg/kg-day	NA		NA	2.0E-08	mg/kg-day	2.5E-05	mg/kg-day	8.1E-04
				Chromium	9.4E+01	mg/kg	6.8E-07	mg/kg-day	2.0E+01	1/(mg/kg-day)	1.4E-05	2.0E-06	mg/kg-day	7.5E-05	mg/kg-day	2.6E-02
				Cobalt	1.3E+01	mg/kg	9.4E-08	mg/kg-day	NA		NA	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.1E-04
				Copper	3.5E+02	mg/kg	2.6E-06	mg/kg-day	NA		NA	7.4E-06	mg/kg-day	4.0E-02	mg/kg-day	1.9E-04
				Iron	4.0E+04	mg/kg	2.9E-04	mg/kg-day	NA		NA	8.5E-04	mg/kg-day	7.0E-01	mg/kg-day	1.2E-03
				Lead	1.9E+03	mg/kg	1.4E-05	mg/kg-day	NA		NA	4.0E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	2.3E-06	mg/kg-day	NA		NA	6.6E-06	mg/kg-day	9.6E-04	mg/kg-day	6.9E-03
				Vanadium	5.0E+01	mg/kg	3.6E-07	mg/kg-day	NA		NA	1.1E-06	mg/kg-day	5.0E-03	mg/kg-day	2.1E-04
			Exp. Route Total								1.1E-04					1.3E-01
		Exposure Point Total									1.3E-04					1.6E-01
	Exposure Medium Total										1.3E-04					1.6E-01
Exposed Surface Sediment Total											1.3E-04					1.6E-01

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Dry event)	Ingestion													
				Benzene	2.2E+00	ug/L	1.0E-07	mg/kg-day	5.5E-02	1/(mg/kg-day)	5.6E-09	3.0E-07	mg/kg-day	4.0E-03	mg/kg-day	7.4E-05
				Benzo(a)anthracene	2.7E-01	ug/L	1.2E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	8.8E-09	3.5E-08	mg/kg-day	NA		NA
				Benzo(a)pyrene	6.6E-01	ug/L	3.0E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.2E-07	8.7E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	3.0E-01	ug/L	1.4E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	9.9E-09	4.0E-08	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	1.1E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.6E-09	3.2E-07	mg/kg-day	2.0E-02	mg/kg-day	1.6E-05
				Indeno(1,2,3-c,d)pyrene	1.3E-01	ug/L	6.0E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.4E-09	1.7E-08	mg/kg-day	NA		NA
				Arsenic	2.0E+01	ug/L	9.0E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.4E-06	2.6E-06	mg/kg-day	3.0E-04	mg/kg-day	8.8E-03
				Chromium	1.9E+01	ug/L	8.6E-07	mg/kg-day	5.0E-01	1/(mg/kg-day)	4.3E-07	2.5E-06	mg/kg-day	3.0E-03	mg/kg-day	8.3E-04
				Copper	1.7E+02	ug/L	7.8E-06	mg/kg-day	NA			2.3E-05	mg/kg-day	4.0E-02	mg/kg-day	5.7E-04
				Selenium	4.1E+01	ug/L	1.9E-06	mg/kg-day	NA			5.4E-06	mg/kg-day	5.0E-03	mg/kg-day	1.1E-03
			Exp. Route Total								2.0E-06					1.1E-02
			Dermal													
				Benzene	2.2E+00	ug/L	6.5E-07	mg/kg-day	5.5E-02	1/(mg/kg-day)	3.6E-08	1.9E-06	mg/kg-day	4.0E-03	mg/kg-day	4.7E-04
				Benzo(a)anthracene	2.7E-01	ug/L	5.0E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.6E-06	1.5E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene	6.6E-01	ug/L	2.1E-05	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.5E-04	6.2E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	3.0E-01	ug/L	9.7E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	7.1E-06	2.8E-05	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	5.6E-06	mg/kg-day	1.4E-02	1/(mg/kg-day)	7.8E-08	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	8.2E-04
				Indeno(1,2,3-c,d)pyrene	1.3E-01	ug/L	4.3E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.1E-06	1.3E-05	mg/kg-day	NA		NA
				Arsenic	2.0E+01	ug/L	3.2E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.9E-07	9.5E-07	mg/kg-day	3.0E-04	mg/kg-day	3.2E-03
				Chromium	1.9E+01	ug/L	6.2E-07	mg/kg-day	2.0E+01	1/(mg/kg-day)	1.2E-05	1.8E-06	mg/kg-day	7.5E-05	mg/kg-day	2.4E-02
				Copper	1.7E+02	ug/L	2.8E-06	mg/kg-day	NA		NA	8.2E-06	mg/kg-day	4.0E-02	mg/kg-day	2.0E-04
				Selenium	4.1E+01	ug/L	6.7E-07	mg/kg-day	NA		NA	2.0E-06	mg/kg-day	5.0E-03	mg/kg-day	3.9E-04
			Exp. Route Total								1.8E-04					2.9E-02
		Exposure Point Total									1.8E-04					4.0E-02
	Exposure Medium Total										1.8E-04					4.0E-02
Surface Water Total - Dry Event											1.8E-04					4.0E-02

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L	2.7E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.4E-10	7.8E-08	mg/kg-day	7.0E-02	mg/kg-day	1.1E-06
				Benzene	8.4E-01	ug/L	3.8E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	2.1E-09	1.1E-07	mg/kg-day	4.0E-03	mg/kg-day	2.8E-05
				Chloroform	5.6E-01	ug/L	2.5E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	7.9E-10	7.4E-08	mg/kg-day	1.0E-02	mg/kg-day	7.4E-06
				Ethylbenzene	8.7E-01	ug/L	3.9E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	4.3E-10	1.1E-07	mg/kg-day	1.0E-01	mg/kg-day	1.1E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	1.1E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	6.0E-07	3.2E-06	mg/kg-day	1.0E-02	mg/kg-day	3.2E-04
				Benzo(a)anthracene	1.0E-01	ug/L	4.7E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.4E-09	1.4E-08	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L	9.3E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.8E-08	2.7E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L	8.6E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.3E-09	2.5E-08	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L	4.6E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.3E-08	1.3E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L	2.3E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.7E-08	6.6E-08	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	1.7E-08	mg/kg-day	NA		NA	4.8E-08	mg/kg-day	2.0E-02	mg/kg-day	2.4E-06
				Arsenic	1.7E+01	ug/L	7.5E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.1E-06	2.2E-06	mg/kg-day	3.0E-04	mg/kg-day	7.3E-03
				Chromium	8.5E+00	ug/L	3.9E-07	mg/kg-day	5.0E-01	1/(mg/kg-day)	1.9E-07	1.1E-06	mg/kg-day	3.0E-03	mg/kg-day	3.8E-04
				Cobalt	3.9E+00	ug/L	1.8E-07	mg/kg-day	NA		NA	5.2E-07	mg/kg-day	3.0E-04	mg/kg-day	1.7E-03
				Lead	1.5E+01	ug/L	6.8E-07	mg/kg-day	NA		NA	2.0E-06	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	1.5E-06	mg/kg-day	NA		NA	4.4E-06	mg/kg-day	5.0E-03	mg/kg-day	8.9E-04
			Exp. Route Total								2.1E-06					1.1E-02

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	6.0E-07	mg/kg-day	5.4E-03	1/(mg/kg-day)	3.2E-09	1.8E-06	mg/kg-day	7.0E-02	mg/kg-day	2.5E-05
				Benzene	8.4E-01	ug/L	2.4E-07	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.3E-08	7.1E-07	mg/kg-day	4.0E-03	mg/kg-day	1.8E-04
				Chloroform	5.6E-01	ug/L	8.5E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	2.6E-09	2.5E-07	mg/kg-day	1.0E-02	mg/kg-day	2.5E-05
				Ethylbenzene	8.7E-01	ug/L	8.5E-07	mg/kg-day	1.1E-02	1/(mg/kg-day)	9.3E-09	2.5E-06	mg/kg-day	1.0E-01	mg/kg-day	2.5E-05
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	2.2E-05	mg/kg-day	5.4E-01	1/(mg/kg-day)	1.2E-05	6.4E-05	mg/kg-day	1.0E-02	mg/kg-day	6.4E-03
				Benzo(a)anthracene	1.0E-01	ug/L	1.9E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.4E-06	5.7E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L	6.6E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.8E-05	1.9E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L	6.2E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.5E-06	1.8E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L	5.0E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.7E-05	1.5E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L	1.6E-05	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.2E-05	4.8E-05	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	3.8E-07	mg/kg-day	NA		NA	1.1E-06	mg/kg-day	2.0E-02	mg/kg-day	5.5E-05
				Arsenic	1.7E+01	ug/L	2.7E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.1E-07	7.9E-07	mg/kg-day	3.0E-04	mg/kg-day	2.6E-03
				Chromium	8.5E+00	ug/L	2.8E-07	mg/kg-day	2.0E+01	1/(mg/kg-day)	5.6E-06	8.1E-07	mg/kg-day	7.5E-05	mg/kg-day	1.1E-02
				Cobalt	3.9E+00	ug/L	2.5E-08	mg/kg-day	NA		NA	7.4E-08	mg/kg-day	3.0E-04	mg/kg-day	2.5E-04
				Lead	1.5E+01	ug/L	2.4E-08	mg/kg-day	NA		NA	7.1E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	5.5E-07	mg/kg-day	NA		NA	1.6E-06	mg/kg-day	5.0E-03	mg/kg-day	3.2E-04
			Exp. Route Total								1.2E-04					2.1E-02
		Exposure Point Total									1.2E-04					3.1E-02
	Exposure Medium Total										1.2E-04					3.1E-02
Surface Water Total - Wet Event											1.2E-04					3.1E-02
Air	Air	Ambient air at canal level (pre-aeration system operation)	Inhalation	Benzene	9.1E-04	mg/m^3	2.4E-03	ug/m^3	7.8E-06	$1/(ug/m^3)$	1.9E-08	7.1E-06	mg/m^3	3.0E-02	mg/m^3	2.4E-04
				Chloroform	2.2E-04	mg/m^3	5.9E-04	ug/m^3	2.3E-05	$1/(ug/m^3)$	1.4E-08	1.7E-06	mg/m^3	9.8E-02	mg/m^3	1.7E-05
				Ethylbenzene	2.3E-03	mg/m^3	6.0E-03	ug/m^3	2.5E-06	$1/(ug/m^3)$	1.5E-08	1.7E-05	mg/m^3	1.0E+00	mg/m^3	1.7E-05
				Xylene, total	1.0E-02	mg/m^3	2.7E-02	ug/m^3	NA		NA	7.8E-05	mg/m^3	1.0E-01	mg/m^3	7.8E-04
				Naphthalene	2.1E-03	mg/m^3	5.5E-03	ug/m^3	3.4E-05	$1/(ug/m^3)$	1.9E-07	1.6E-05	mg/m^3	3.0E-03	mg/m^3	5.4E-03
			Exp. Route Total								2.4E-07					6.4E-03
		Exposure Point Total									2.4E-07					6.4E-03
	Exposure Medium Total										2.4E-07					6.4E-03
Ambient air at canal level Total - Pre-aeration system operation											2.4E-07					6.4E-03

TABLE 7.1.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at canal level (after aeration system started)	Inhalation	Benzene	1.9E-03	mg/m^3	5.1E-03	ug/m^3	7.8E-06	$1/(ug/m^3)$	4.0E-08	1.5E-05	mg/m^3	3.0E-02	mg/m^3	5.0E-04
				Chloroform	2.1E-04	mg/m^3	5.4E-04	ug/m^3	2.3E-05	$1/(ug/m^3)$	1.2E-08	1.6E-06	mg/m^3	9.8E-02	mg/m^3	1.6E-05
				Ethylbenzene	2.1E-03	mg/m^3	5.6E-03	ug/m^3	2.5E-06	$1/(ug/m^3)$	1.4E-08	1.6E-05	mg/m^3	1.0E+00	mg/m^3	1.6E-05
				Xylene, total	1.7E-02	mg/m^3	4.6E-02	ug/m^3	NA		NA	1.3E-04	mg/m^3	1.0E-01	mg/m^3	1.3E-03
				Naphthalene	2.2E-03	mg/m^3	5.8E-03	ug/m^3	3.4E-05	$1/(ug/m^3)$	2.0E-07	1.7E-05	mg/m^3	3.0E-03	mg/m^3	5.6E-03
			Exp. Route Total								2.6E-07					7.5E-03
		Exposure Point Total									2.6E-07					7.5E-03
	Exposure Medium Total										2.6E-07					7.5E-03
Ambient air at canal level Total - After aeration system turned on											2.6E-07					7.5E-03
Total										Total of Receptor Risks Across All Media	3.2E-04				Total of Receptor Hazards Across All Media	2.1E-01

Notes-

NA = Not available / Not applicable.

DAevent for surface water from dry event calculated on Table 7.1.RME Supplement A.

DAevent for surface water from wet event calculated on Table 7.1.RME Supplement B.

Total includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started

TABLE 7.1.RME Supplement A
Calculation of Daevent Dry Event
Recreational Scenario
Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (K_p) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (t_{event}) (hr)	DA_{event} (mg/cm^2-event)	Eq
Benzene	2.2E+00	1.5E-02	5.1E-02	2.9E-01	7.0E-01	1.0E+00	2.6	1.0E-07	3
Benzo(a)anthracene	2.7E-01	4.7E-01	2.8E+00	2.0E+00	8.5E+00	1.0E+00	2.6	7.9E-07	2
Benzo(a)pyrene	6.6E-01	7.0E-01	4.3E+00	2.7E+00	1.2E+01	1.0E+00	2.6	3.4E-06	2
Benzo(b)fluoranthene	3.0E-01	7.0E-01	4.3E+00	2.8E+00	1.2E+01	1.0E+00	2.6	1.6E-06	2
Bis(2-ethylhexyl) phthalate	2.5E+00	2.5E-02	1.9E-01	1.7E+01	4.0E+01	8.0E-01	2.6	8.9E-07	2
Indeno(1,2,3-c,d)pyrene	1.3E-01	1.0E+00	6.7E+00	3.8E+00	1.7E+01	6.0E-01	2.6	6.9E-07	2
Arsenic	2.0E+01	1.0E-03	NA	NA	NA	NA	2.6	5.2E-08	1
Chromium	1.9E+01	2.0E-03	NA	NA	NA	NA	2.6	9.8E-08	1
Copper	1.7E+02	1.0E-03	NA	NA	NA	NA	2.6	4.5E-07	1
Selenium	4.1E+01	1.0E-03	NA	NA	NA	NA	2.6	1.1E-07	1

Inorganics: DA_{event} (mg/cm^2-event) =

$K_p \times CW \times t_{event} \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 1)

Organics: DA_{event} (mg/cm^2-event) =

If $t_{event} < t^*$, then DA_{event} =

$2 \times FA \times K_p \times CW \times (\text{sqrt}((6 \times \tau_{event} \times t_{event})/\pi)) \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 2)

If $t_{event} > t^*$, then DA_{event} =

$FA \times K_p \times CW \times (t_{event}/(1+B) + 2 \times \tau_{event} \times ((1 + 3xB + 3xB^2)/(1+B)^2) \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 3)

Notes:

NA - Not applicable

Permeability constants and other input parameter values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.

B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).

t* - Time to reach steady-state

TABLE 7.1.RME Supplement B
Calculation of Daevent Wet Event
Recreational Scenario
Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (K_p) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (t_{event}) (hr)	DA_{event} (mg/cm^2-event)	Eq
1,4-dichlorobenzene	5.9E-01	4.2E-02	2.0E-01	7.1E-01	1.7E+00	1.0E+00	2.6	9.6E-08	3
Benzene	8.4E-01	1.5E-02	5.1E-02	2.9E-01	7.0E-01	1.0E+00	2.6	3.9E-08	3
Chloroform	5.6E-01	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	2.6	1.4E-08	3
Ethylbenzene	8.7E-01	4.9E-02	2.0E-01	4.2E-01	1.0E+00	1.0E+00	2.6	1.4E-07	3
Tetrachloroethylene(PCE)	2.4E+01	3.3E-02	1.7E-01	9.1E-01	2.2E+00	1.0E+00	2.6	3.5E-06	3
Benzo(a)anthracene	1.0E-01	4.7E-01	2.8E+00	2.0E+00	8.5E+00	1.0E+00	2.6	3.1E-07	2
Benzo(a)pyrene	2.1E-01	7.0E-01	4.3E+00	2.7E+00	1.2E+01	1.0E+00	2.6	1.0E-06	2
Benzo(b)fluoranthene	1.9E-01	7.0E-01	4.3E+00	2.8E+00	1.2E+01	1.0E+00	2.6	9.8E-07	2
Dibenz(a,h)anthracene	1.0E-01	1.5E+00	9.7E+00	3.9E+00	1.8E+01	6.0E-01	2.6	8.0E-07	2
Indeno(1,2,3-c,d)pyrene	5.0E-01	1.0E+00	6.7E+00	3.8E+00	1.7E+01	6.0E-01	2.6	2.6E-06	2
Naphthalene	3.6E-01	4.7E-02	2.0E-01	5.6E-01	1.3E+00	1.0E+00	2.6	6.0E-08	3
Arsenic	1.7E+01	1.0E-03	NA	NA	NA	NA	2.6	4.3E-08	1
Chromium	8.5E+00	2.0E-03	NA	NA	NA	NA	2.6	4.4E-08	1
Cobalt	3.9E+00	4.0E-04	NA	NA	NA	NA	2.6	4.1E-09	1
Lead	1.5E+01	1.0E-04	NA	NA	NA	NA	2.6	3.9E-09	1
Selenium	3.4E+01	1.0E-03	NA	NA	NA	NA	2.6	8.7E-08	1

Inorganics: DA_{event} (mg/cm^2-event) =
K_p x CW x t_{event} x 0.001 mg/µg x 0.001 l/cm^3 (eq 1)

Organics: DA_{event} (mg/cm^2-event) =
If $t_{event}<t^*$, then DA_{event} =
2 x FA x K_p x CW x (sqrt((6 x τ_{event} x t_{event})/π)) x 0.001 mg/µg x 0.001 l/cm^3 (eq 2)

If $t_{event}>t^*$, then DA_{event} =
FA x K_p x CW x (t_{event}/(1+B) + 2 x τ_{event} x ((1 + 3xB + 3xB^2)/(1+B)^2) x 0.001 mg/µg x 0.001 l/cm^3 (eq 3)

Ethylbenzene
Notes:
NA - Not applicable
Permeability constants and other input parameter values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Ingestion													
				Acenaphthene	3.7E+02	mg/kg	2.0E-06	mg/kg-day	NA		NA	2.3E-05	mg/kg-day	6.0E-02	mg/kg-day	3.8E-04
				Benzo(a)anthracene (12-16)*	1.3E+02	mg/kg	4.5E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	9.9E-07	7.9E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (16-18)*	1.3E+02	mg/kg	2.3E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.7E-07					
				Benzo(a)pyrene (12-16)*	1.1E+02	mg/kg	3.8E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	8.4E-06	6.7E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (16-18)*	1.1E+02	mg/kg	1.9E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.4E-06					
				Benzo(b)fluoranthene (12-16)*	1.1E+02	mg/kg	4.0E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	8.8E-07	7.1E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (16-18)*	1.1E+02	mg/kg	2.0E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.5E-07					
				Benzo(k)fluoranthene (12-16)*	6.5E+01	mg/kg	2.3E-07	mg/kg-day	2.2E-01	1/(mg/kg-day)	5.1E-08	4.0E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (16-18)*	6.5E+01	mg/kg	1.2E-07	mg/kg-day	7.3E-02	1/(mg/kg-day)	8.4E-09					
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	1.8E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.5E-09	2.1E-06	mg/kg-day	2.0E-02	mg/kg-day	1.0E-04
				Chrysene (12-16)*	2.5E+02	mg/kg	9.0E-07	mg/kg-day	2.2E-02	1/(mg/kg-day)	2.0E-08	1.6E-05	mg/kg-day	NA		NA
				Chrysene (16-18)*	2.5E+02	mg/kg	4.5E-07	mg/kg-day	7.3E-03	1/(mg/kg-day)	3.3E-09					
				Dibenz(a,h)anthracene (12-16)*	6.2E+00	mg/kg	2.2E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.8E-07	3.9E-07	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (16-18)*	6.2E+00	mg/kg	1.1E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	8.1E-08					
				Fluoranthene	5.0E+02	mg/kg	2.7E-06	mg/kg-day	NA		NA	3.1E-05	mg/kg-day	4.0E-02	mg/kg-day	7.7E-04
				Indeno(1,2,3-c,d)pyrene (12-16)*	4.9E+01	mg/kg	1.7E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.8E-07	3.1E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (16-18)*	4.9E+01	mg/kg	8.7E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.4E-08					
				Naphthalene	3.4E+00	mg/kg	1.8E-08	mg/kg-day	NA		NA	2.1E-07	mg/kg-day	2.0E-02	mg/kg-day	1.1E-05
				Pyrene	5.3E+02	mg/kg	2.8E-06	mg/kg-day	NA		NA	3.3E-05	mg/kg-day	3.0E-02	mg/kg-day	1.1E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	2.2E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	3.4E-08	2.5E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	2.8E-08	mg/kg-day	2.0E+00	1/(mg/kg-day)	5.6E-08	3.3E-07	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	2.9E-08	mg/kg-day	NA		NA	3.4E-07	mg/kg-day	2.0E-05	mg/kg-day	1.7E-02
				Aluminum	1.6E+04	mg/kg	8.5E-05	mg/kg-day	NA		NA	9.9E-04	mg/kg-day	1.0E+00	mg/kg-day	9.9E-04
				Arsenic	1.8E+01	mg/kg	9.6E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.4E-07	1.1E-06	mg/kg-day	3.0E-04	mg/kg-day	3.7E-03
				Cadmium	9.6E+00	mg/kg	5.2E-08	mg/kg-day	NA		NA	6.0E-07	mg/kg-day	1.0E-03	mg/kg-day	6.0E-04
				Chromium (12-16)*	9.4E+01	mg/kg	3.3E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	5.0E-07	5.8E-06	mg/kg-day	3.0E-03	mg/kg-day	1.9E-03
				Chromium (16-18)*	9.4E+01	mg/kg	1.7E-07	mg/kg-day	5.0E-01	1/(mg/kg-day)	8.3E-08					
				Cobalt	1.3E+01	mg/kg	6.9E-08	mg/kg-day	NA		NA	8.1E-07	mg/kg-day	3.0E-04	mg/kg-day	2.7E-03
				Copper	3.5E+02	mg/kg	1.9E-06	mg/kg-day	NA		NA	2.2E-05	mg/kg-day	4.0E-02	mg/kg-day	5.5E-04
				Iron	4.0E+04	mg/kg	2.1E-04	mg/kg-day	NA		NA	2.5E-03	mg/kg-day	7.0E-01	mg/kg-day	3.6E-03
				Lead	1.9E+03	mg/kg	1.0E-05	mg/kg-day	NA		NA	1.2E-04	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	1.7E-06	mg/kg-day	NA		NA	2.0E-05	mg/kg-day	1.4E-01	mg/kg-day	1.4E-04
				Vanadium	5.0E+01	mg/kg	2.7E-07	mg/kg-day	NA		NA	3.1E-06	mg/kg-day	5.0E-03	mg/kg-day	6.3E-04
			Exp. Route Total								1.4E-05					3.4E-02

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Dermal	Acenaphthene	3.7E+02	mg/kg	1.1E-05	mg/kg-day	NA		NA	1.2E-04	mg/kg-day	6.0E-02	mg/kg-day	2.1E-03
				Benzo(a)anthracene (12-16)*	1.3E+02	mg/kg	2.5E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.4E-06	4.3E-05	mg/kg-day	NA		NA
				Benzo(a)anthracene (16-18)*	1.3E+02	mg/kg	1.2E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	9.0E-07					
				Benzo(a)pyrene (12-16)*	1.1E+02	mg/kg	2.1E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.6E-05	3.6E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (16-18)*	1.1E+02	mg/kg	1.0E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	7.6E-06					
				Benzo(b)fluoranthene (12-16)*	1.1E+02	mg/kg	2.2E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	4.8E-06	3.8E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (16-18)*	1.1E+02	mg/kg	1.1E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	8.0E-07					
				Benzo(k)fluoranthene (12-16)*	6.5E+01	mg/kg	1.3E-06	mg/kg-day	2.2E-01	1/(mg/kg-day)	2.8E-07	2.2E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (16-18)*	6.5E+01	mg/kg	6.3E-07	mg/kg-day	7.3E-02	1/(mg/kg-day)	4.6E-08					
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	7.5E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.0E-08	8.7E-06	mg/kg-day	2.0E-02	mg/kg-day	4.4E-04
				Chrysene (12-16)*	2.5E+02	mg/kg	4.9E-06	mg/kg-day	2.2E-02	1/(mg/kg-day)	1.1E-07	8.6E-05	mg/kg-day	NA		NA
				Chrysene (16-18)*	2.5E+02	mg/kg	2.5E-06	mg/kg-day	7.3E-03	1/(mg/kg-day)	1.8E-08					
				Dibenz(a,h)anthracene (12-16)*	6.2E+00	mg/kg	1.2E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.6E-06	2.1E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (16-18)*	6.2E+00	mg/kg	6.0E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.4E-07					
				Fluoranthene	5.0E+02	mg/kg	1.4E-05	mg/kg-day	NA		NA	1.7E-04	mg/kg-day	4.0E-02	mg/kg-day	4.2E-03
				Indeno(1,2,3-c,d)pyrene (12-16)*	4.9E+01	mg/kg	9.5E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.1E-06	1.7E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (16-18)*	4.9E+01	mg/kg	4.8E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.5E-07					
				Naphthalene	3.4E+00	mg/kg	9.9E-08	mg/kg-day	NA		NA	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	5.8E-05
				Pyrene	5.3E+02	mg/kg	1.5E-05	mg/kg-day	NA		NA	1.8E-04	mg/kg-day	3.0E-02	mg/kg-day	6.0E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	1.3E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.0E-07	1.5E-11	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	1.6E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	3.3E-07	1.9E-06	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	1.7E-07	mg/kg-day	NA		NA	2.0E-06	mg/kg-day	2.0E-05	mg/kg-day	9.9E-02
				Aluminum	1.6E+04	mg/kg	3.6E-05	mg/kg-day	NA		NA	4.2E-04	mg/kg-day	1.0E+00	mg/kg-day	4.2E-04
				Arsenic	1.8E+01	mg/kg	1.2E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.8E-07	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.7E-03
				Cadmium	9.6E+00	mg/kg	2.2E-09	mg/kg-day	NA		NA	2.5E-08	mg/kg-day	2.5E-05	mg/kg-day	1.0E-03
				Chromium (12-16)*	9.4E+01	mg/kg	1.4E-07	mg/kg-day	6.0E+01	1/(mg/kg-day)	8.4E-06	2.4E-06	mg/kg-day	7.5E-05	mg/kg-day	3.3E-02
				Chromium (16-18)*	9.4E+01	mg/kg	7.0E-08	mg/kg-day	2.0E+01	1/(mg/kg-day)	1.4E-06					
				Cobalt	1.3E+01	mg/kg	2.9E-08	mg/kg-day	NA		NA	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Copper	3.5E+02	mg/kg	7.9E-07	mg/kg-day	NA		NA	9.2E-06	mg/kg-day	4.0E-02	mg/kg-day	2.3E-04
				Iron	4.0E+04	mg/kg	9.0E-05	mg/kg-day	NA		NA	1.0E-03	mg/kg-day	7.0E-01	mg/kg-day	1.5E-03
				Lead	1.9E+03	mg/kg	4.2E-06	mg/kg-day	NA		NA	4.9E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	7.0E-07	mg/kg-day	NA		NA	8.2E-06	mg/kg-day	9.6E-04	mg/kg-day	8.6E-03
				Vanadium	5.0E+01	mg/kg	1.1E-07	mg/kg-day	NA		NA	1.3E-06	mg/kg-day	5.0E-03	mg/kg-day	2.6E-04
			Exp. Route Total								8.2E-05					1.6E-01
		Exposure Point Total									9.5E-05					2.0E-01
	Exposure Medium Total										9.5E-05					2.0E-01
Exposed Surface Sediment Total											9.5E-05					2.0E-01

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Dry event)	Ingestion													
				Benzene	2.2E+00	ug/L	3.1E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.7E-09	3.6E-07	mg/kg-day	4.0E-03	mg/kg-day	9.1E-05
				Benzo(a)anthracene (12-16)*	2.7E-01	ug/L	2.5E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.4E-09	4.3E-08	mg/kg-day	NA		NA
				Benzo(a)anthracene (16-18)*	2.7E-01	ug/L	1.2E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	9.0E-10					
				Benzo(a)pyrene (12-16)*	6.6E-01	ug/L	6.1E-09	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.3E-07	1.1E-07	mg/kg-day	NA		NA
				Benzo(a)pyrene (16-18)*	6.6E-01	ug/L	3.1E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.2E-08					
				Benzo(b)fluoranthene (12-16)*	3.0E-01	ug/L	2.8E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.1E-09	4.9E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (16-18)*	3.0E-01	ug/L	1.4E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.0E-09					
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	3.4E-08	mg/kg-day	1.4E-02	1/(mg/kg-day)	4.8E-10	4.0E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Indeno(1,2,3-c,d)pyrene (12-16)*	1.3E-01	ug/L	1.2E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.7E-09	2.1E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (16-18)*	1.3E-01	ug/L	6.1E-10	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.5E-10					
				Arsenic	2.0E+01	ug/L	2.8E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.2E-07	3.2E-06	mg/kg-day	3.0E-04	mg/kg-day	1.1E-02
				Chromium (12-16)*	1.9E+01	ug/L	1.8E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.6E-07	3.1E-06	mg/kg-day	3.0E-03	mg/kg-day	1.0E-03
				Chromium (16-18)*	1.9E+01	ug/L	8.8E-08	mg/kg-day	5.0E-01	1/(mg/kg-day)	4.4E-08					
				Copper	1.7E+02	ug/L	2.4E-06	mg/kg-day	NA			2.8E-05	mg/kg-day	4.0E-02	mg/kg-day	7.0E-04
				Selenium	4.1E+01	ug/L	5.7E-07	mg/kg-day	NA			6.7E-06	mg/kg-day	5.0E-03	mg/kg-day	1.3E-03
			Exp. Route Total								9.0E-07					1.4E-02
			Dermal													
				Benzene	2.2E+00	ug/L	1.7E-07	mg/kg-day	5.5E-02	1/(mg/kg-day)	9.6E-09	2.0E-06	mg/kg-day	4.0E-03	mg/kg-day	5.1E-04
				Benzo(a)anthracene (12-16)*	2.7E-01	ug/L	8.9E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.0E-06	1.6E-05	mg/kg-day	NA		NA
				Benzo(a)anthracene (16-18)*	2.7E-01	ug/L	4.5E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.3E-07					
				Benzo(a)pyrene (12-16)*	6.6E-01	ug/L	3.8E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	8.3E-05	6.7E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (16-18)*	6.6E-01	ug/L	1.9E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.4E-05					
				Benzo(b)fluoranthene (12-16)*	3.0E-01	ug/L	1.7E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.8E-06	3.1E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (16-18)*	3.0E-01	ug/L	8.7E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.4E-07					
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	1.5E-06	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.1E-08	1.8E-05	mg/kg-day	2.0E-02	mg/kg-day	8.8E-04
				Indeno(1,2,3-c,d)pyrene (12-16)*	1.3E-01	ug/L	7.7E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.7E-06	1.4E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (16-18)*	1.3E-01	ug/L	3.9E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.8E-07					
				Arsenic	2.0E+01	ug/L	8.7E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.3E-07	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	3.4E-03
				Chromium (12-16)*	1.9E+01	ug/L	1.1E-07	mg/kg-day	6.0E+01	1/(mg/kg-day)	6.6E-06	1.9E-06	mg/kg-day	7.5E-05	mg/kg-day	2.6E-02
				Chromium (16-18)*	1.9E+01	ug/L	5.5E-08	mg/kg-day	2.0E+01	1/(mg/kg-day)	1.1E-06					
				Copper	1.7E+02	ug/L	7.5E-07	mg/kg-day	NA		NA	8.8E-06	mg/kg-day	4.0E-02	mg/kg-day	2.2E-04
				Selenium	4.1E+01	ug/L	1.8E-07	mg/kg-day	NA		NA	2.1E-06	mg/kg-day	5.0E-03	mg/kg-day	4.2E-04
			Exp. Route Total								1.1E-04					3.1E-02
		Exposure Point Total									1.1E-04					4.5E-02
	Exposure Medium Total										1.1E-04					4.5E-02
Surface Water Total - Dry Event											1.1E-04					4.5E-02

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L	8.2E-09	mg/kg-day	5.4E-03	1/(mg/kg-day)	4.4E-11	9.6E-08	mg/kg-day	7.0E-02	mg/kg-day	1.4E-06
				Benzene	8.4E-01	ug/L	1.2E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	6.4E-10	1.4E-07	mg/kg-day	4.0E-03	mg/kg-day	3.4E-05
				Chloroform	5.6E-01	ug/L	7.8E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	2.4E-10	9.1E-08	mg/kg-day	1.0E-02	mg/kg-day	9.1E-06
				Ethylbenzene	8.7E-01	ug/L	1.2E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	1.3E-10	1.4E-07	mg/kg-day	1.0E-01	mg/kg-day	1.4E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	3.4E-07	mg/kg-day	5.4E-01	1/(mg/kg-day)	1.8E-07	4.0E-06	mg/kg-day	1.0E-02	mg/kg-day	4.0E-04
				Benzo(a)anthracene (12-16)*	1.0E-01	ug/L	9.7E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.1E-09	1.7E-08	mg/kg-day	NA		NA
				Benzo(a)anthracene (16-18)*	1.0E-01	ug/L	4.8E-10	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.5E-10					
				Benzo(a)pyrene (12-16)*	2.1E-01	ug/L	1.9E-09	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.2E-08	3.3E-08	mg/kg-day	NA		NA
				Benzo(a)pyrene (16-18)*	2.1E-01	ug/L	9.5E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.9E-09					
				Benzo(b)fluoranthene (12-16)*	1.9E-01	ug/L	1.8E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.8E-09	3.1E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (16-18)*	1.9E-01	ug/L	8.8E-10	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.4E-10					
				Dibenz(a,h)anthracene (12-16)*	1.0E-01	ug/L	9.4E-10	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.1E-08	1.6E-08	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (16-18)*	1.0E-01	ug/L	4.7E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.4E-09					
				Indeno(1,2,3-c,d)pyrene (12-16)*	5.0E-01	ug/L	4.6E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.0E-08	8.1E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (16-18)*	5.0E-01	ug/L	2.3E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.7E-09					
				Naphthalene	3.6E-01	ug/L	5.1E-09	mg/kg-day	NA		NA	5.9E-08	mg/kg-day	2.0E-02	mg/kg-day	3.0E-06
				Arsenic	1.7E+01	ug/L	2.3E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	3.5E-07	2.7E-06	mg/kg-day	3.0E-04	mg/kg-day	9.0E-03
				Chromium (12-16)*	8.5E+00	ug/L	7.9E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.2E-07	1.4E-06	mg/kg-day	3.0E-03	mg/kg-day	4.6E-04
				Chromium (16-18)*	8.5E+00	ug/L	4.0E-08	mg/kg-day	5.0E-01	1/(mg/kg-day)	2.0E-08					
				Cobalt	3.9E+00	ug/L	5.4E-08	mg/kg-day	NA		NA	6.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.1E-03
				Lead	1.5E+01	ug/L	2.1E-07	mg/kg-day	NA		NA	2.4E-06	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	4.7E-07	mg/kg-day	NA		NA	5.5E-06	mg/kg-day	5.0E-03	mg/kg-day	1.1E-03
			Exp. Route Total								7.6E-07					1.3E-02

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	1.6E-07	mg/kg-day	5.4E-03	1/(mg/kg-day)	8.7E-10	1.9E-06	mg/kg-day	7.0E-02	mg/kg-day	2.7E-05
				Benzene	8.4E-01	ug/L	6.5E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	3.6E-09	7.6E-07	mg/kg-day	4.0E-03	mg/kg-day	1.9E-04
				Chloroform	5.6E-01	ug/L	2.3E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	7.1E-10	2.7E-07	mg/kg-day	1.0E-02	mg/kg-day	2.7E-05
				Ethylbenzene	8.7E-01	ug/L	2.3E-07	mg/kg-day	1.1E-02	1/(mg/kg-day)	2.5E-09	2.7E-06	mg/kg-day	1.0E-01	mg/kg-day	2.7E-05
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	5.9E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	3.2E-06	6.9E-05	mg/kg-day	1.0E-02	mg/kg-day	6.9E-03
				Benzo(a)anthracene (12-16)*	1.0E-01	ug/L	3.5E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	7.6E-07	6.1E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (16-18)*	1.0E-01	ug/L	5.9E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.3E-07					
				Benzo(a)pyrene (12-16)*	2.1E-01	ug/L	1.2E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.6E-05	2.1E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (16-18)*	2.1E-01	ug/L	5.5E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.0E-06					
				Benzo(b)fluoranthene (12-16)*	1.9E-01	ug/L	1.1E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.4E-06	1.9E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (16-18)*	1.9E-01	ug/L	4.5E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.3E-07					
				Dibenz(a,h)anthracene (12-16)*	1.0E-01	ug/L	9.0E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.0E-05	1.6E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (16-18)*	1.0E-01	ug/L	1.5E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.1E-05					
				Indeno(1,2,3-c,d)pyrene (12-16)*	5.0E-01	ug/L	2.9E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.4E-06	5.1E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (16-18)*	5.0E-01	ug/L	3.4E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.5E-08					
				Naphthalene	3.6E-01	ug/L	1.0E-07	mg/kg-day	NA		NA	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	5.9E-05
				Arsenic	1.7E+01	ug/L	7.3E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.1E-07	8.5E-07	mg/kg-day	3.0E-04	mg/kg-day	2.8E-03
				Chromium (12-16)*	8.5E+00	ug/L	5.0E-08	mg/kg-day	6.0E+01	1/(mg/kg-day)	3.0E-06	8.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.2E-02
				Chromium (16-18)*	8.5E+00	ug/L	2.5E-08	mg/kg-day	2.0E+01	1/(mg/kg-day)	5.0E-07					
				Cobalt	3.9E+00	ug/L	6.8E-09	mg/kg-day	NA		NA	8.0E-08	mg/kg-day	3.0E-04	mg/kg-day	2.7E-04
				Lead	1.5E+01	ug/L	6.5E-09	mg/kg-day	NA		NA	7.6E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	1.5E-07	mg/kg-day	NA		NA	1.7E-06	mg/kg-day	5.0E-03	mg/kg-day	3.4E-04
			Exp. Route Total								7.7E-05					2.2E-02
		Exposure Point Total									7.8E-05					3.5E-02
	Exposure Medium Total										7.8E-05					3.5E-02
Surface Water Total - Wet Event											7.8E-05					3.5E-02
Air	Air	Ambient air at canal level (pre-aeration system operation)	Inhalation	Benzene	9.1E-04	mg/m^3	6.0E-04	ug/m^3	7.8E-06	$1/(ug/m^3)$	4.7E-09	7.1E-06	mg/m^3	3.0E-02	mg/m^3	2.4E-04
				Chloroform	2.2E-04	mg/m^3	1.5E-04	ug/m^3	2.3E-05	$1/(ug/m^3)$	3.4E-09	1.7E-06	mg/m^3	9.8E-02	mg/m^3	1.7E-05
				Ethylbenzene	2.3E-03	mg/m^3	1.5E-03	ug/m^3	2.5E-06	$1/(ug/m^3)$	3.7E-09	1.7E-05	mg/m^3	1.0E+00	mg/m^3	1.7E-05
				Xylene, total	1.0E-02	mg/m^3	6.7E-03	ug/m^3	NA		NA	7.8E-05	mg/m^3	1.0E-01	mg/m^3	7.8E-04
				Naphthalene	2.1E-03	mg/m^3	1.4E-03	ug/m^3	3.4E-05	$1/(ug/m^3)$	4.7E-08	1.6E-05	mg/m^3	3.0E-03	mg/m^3	5.4E-03
			Exp. Route Total								5.9E-08					6.4E-03
		Exposure Point Total									5.9E-08					6.4E-03
	Exposure Medium Total										5.9E-08					6.4E-03
Ambient air at canal level Total - Pre-aeration system operation											5.9E-08					6.4E-03

TABLE 7.2.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at canal level (after aeration system started)	Inhalation	Benzene	1.9E-03	mg/m^3	1.3E-03	ug/m^3	7.8E-06	$1/(ug/m^3)$	1.0E-08	1.5E-05	mg/m^3	3.0E-02	mg/m^3	5.0E-04
				Chloroform	2.1E-04	mg/m^3	1.4E-04	ug/m^3	2.3E-05	$1/(ug/m^3)$	3.1E-09	1.6E-06	mg/m^3	9.8E-02	mg/m^3	1.6E-05
				Ethylbenzene	2.1E-03	mg/m^3	1.4E-03	ug/m^3	2.5E-06	$1/(ug/m^3)$	3.5E-09	1.6E-05	mg/m^3	1.0E+00	mg/m^3	1.6E-05
				Xylene, total	1.7E-02	mg/m^3	1.1E-02	ug/m^3	NA		NA	1.3E-04	mg/m^3	1.0E-01	mg/m^3	1.3E-03
				Naphthalene	2.2E-03	mg/m^3	1.4E-03	ug/m^3	3.4E-05	$1/(ug/m^3)$	4.9E-08	1.7E-05	mg/m^3	3.0E-03	mg/m^3	5.6E-03
			Exp. Route Total								6.6E-08					7.5E-03
		Exposure Point Total									6.6E-08					7.5E-03
	Exposure Medium Total										6.6E-08					7.5E-03
Ambient air at canal level Total - After aeration system turned on											6.6E-08					7.5E-03
Total										Total of Receptor Risks Across All Media	2.1E-04				Total of Receptor Hazards Across All Media	2.5E-01

Notes-

NA = Not available / Not applicable.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-16 year old for exposure duration of 4 years, ADAF of 1 used to adjust CSF for 16-18 year old for exposure duration of 2 years.
Non-cancer calculations shown under 12-16 year old only, as non-cancer calculations are not adjusted for MMOA.

DAevent for surface water from dry event calculated on Table 7.1.RME Supplement A.

DAevent for surface water from wet event calculated on Table 7.1.RME Supplement B.

Total includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started.

TABLE 7.3.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Ingestion	Acenaphthene	3.7E+02	mg/kg	1.5E-05	mg/kg-day	NA		NA	1.7E-04	mg/kg-day	6.0E-02	mg/kg-day	2.9E-03
				Benzo(a)anthracene (0-2)*	1.3E+02	mg/kg	1.7E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.3E-05	6.0E-05	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-6)*	1.3E+02	mg/kg	3.4E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	7.5E-06					
				Benzo(a)pyrene (0-2)*	1.1E+02	mg/kg	1.5E-06	mg/kg-day	7.3E+01	1/(mg/kg-day)	1.1E-04	5.1E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-6)*	1.1E+02	mg/kg	2.9E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	6.4E-05					
				Benzo(b)fluoranthene (0-2)*	1.1E+02	mg/kg	1.5E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.1E-05	5.4E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-6)*	1.1E+02	mg/kg	3.1E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.7E-06					
				Benzo(k)fluoranthene (0-2)*	6.5E+01	mg/kg	8.8E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.4E-07	3.1E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (2-6)*	6.5E+01	mg/kg	1.8E-06	mg/kg-day	2.2E-01	1/(mg/kg-day)	3.8E-07					
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	1.4E-06	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.9E-08	1.6E-05	mg/kg-day	2.0E-02	mg/kg-day	7.9E-04
				Chrysene (0-2)*	2.5E+02	mg/kg	3.4E-06	mg/kg-day	7.3E-02	1/(mg/kg-day)	2.5E-07	1.2E-04	mg/kg-day	NA		NA
				Chrysene (2-6)*	2.5E+02	mg/kg	6.9E-06	mg/kg-day	2.2E-02	1/(mg/kg-day)	1.5E-07					
				Dibenz(a,h)anthracene (0-2)*	6.2E+00	mg/kg	8.4E-08	mg/kg-day	7.3E+01	1/(mg/kg-day)	6.1E-06	2.9E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (2-6)*	6.2E+00	mg/kg	1.7E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	3.7E-06					
				Fluoranthene	5.0E+02	mg/kg	2.0E-05	mg/kg-day	NA		NA	2.4E-04	mg/kg-day	4.0E-02	mg/kg-day	5.9E-03
				Indeno(1,2,3-c,d)pyrene (0-2)*	4.9E+01	mg/kg	6.6E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.8E-06	2.3E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-6)*	4.9E+01	mg/kg	1.3E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.9E-06					
				Naphthalene	3.4E+00	mg/kg	1.4E-07	mg/kg-day	NA		NA	1.6E-06	mg/kg-day	2.0E-02	mg/kg-day	8.1E-05
				Pyrene	5.3E+02	mg/kg	2.2E-05	mg/kg-day	NA		NA	2.5E-04	mg/kg-day	3.0E-02	mg/kg-day	8.4E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	1.6E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.6E-07	1.9E-11	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	2.1E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	4.3E-07	2.5E-06	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	2.2E-07	mg/kg-day	NA		NA	2.6E-06	mg/kg-day	2.0E-05	mg/kg-day	1.3E-01
				Aluminum	1.6E+04	mg/kg	6.5E-04	mg/kg-day	NA		NA	7.6E-03	mg/kg-day	1.0E+00	mg/kg-day	7.6E-03
				Arsenic	1.8E+01	mg/kg	7.3E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.1E-06	8.5E-06	mg/kg-day	3.0E-04	mg/kg-day	2.8E-02
				Cadmium	9.6E+00	mg/kg	3.9E-07	mg/kg-day	NA		NA	4.6E-06	mg/kg-day	1.0E-03	mg/kg-day	4.6E-03
				Chromium (0-2)*	9.4E+01	mg/kg	1.3E-06	mg/kg-day	5.0E+00	1/(mg/kg-day)	6.3E-06	4.4E-05	mg/kg-day	3.0E-03	mg/kg-day	1.5E-02
				Chromium (2-6)*	9.4E+01	mg/kg	2.5E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	3.8E-06					
				Cobalt	1.3E+01	mg/kg	5.3E-07	mg/kg-day	NA		NA	6.1E-06	mg/kg-day	3.0E-04	mg/kg-day	2.0E-02
				Copper	3.5E+02	mg/kg	1.4E-05	mg/kg-day	NA		NA	1.7E-04	mg/kg-day	4.0E-02	mg/kg-day	4.2E-03
				Iron	4.0E+04	mg/kg	1.6E-03	mg/kg-day	NA		NA	1.9E-02	mg/kg-day	7.0E-01	mg/kg-day	2.7E-02
				Lead	1.9E+03	mg/kg	7.6E-05	mg/kg-day	NA		NA	8.9E-04	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	1.3E-05	mg/kg-day	NA		NA	1.5E-04	mg/kg-day	1.4E-01	mg/kg-day	1.1E-03
				Vanadium	5.0E+01	mg/kg	2.0E-06	mg/kg-day	NA		NA	2.4E-05	mg/kg-day	5.0E-03	mg/kg-day	4.8E-03
			Exp. Route Total								2.4E-04					2.6E-01

TABLE 7.3.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Dermal	Acenaphthene	3.7E+02	mg/kg	1.1E-05	mg/kg-day	NA		NA	1.3E-04	mg/kg-day	6.0E-02	mg/kg-day	2.1E-03
				Benzo(a)anthracene (0-2)*	1.3E+02	mg/kg	1.3E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	9.2E-06	4.4E-05	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-6)*	1.3E+02	mg/kg	2.5E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.5E-06					
				Benzo(a)pyrene (0-2)*	1.1E+02	mg/kg	1.1E-06	mg/kg-day	7.3E+01	1/(mg/kg-day)	7.7E-05	3.7E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-6)*	1.1E+02	mg/kg	2.1E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.6E-05					
				Benzo(b)fluoranthene (0-2)*	1.1E+02	mg/kg	1.1E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	8.1E-06	3.9E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-6)*	1.1E+02	mg/kg	2.2E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	4.9E-06					
				Benzo(k)fluoranthene (0-2)*	6.5E+01	mg/kg	6.4E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.7E-07	2.2E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (2-6)*	6.5E+01	mg/kg	1.3E-06	mg/kg-day	2.2E-01	1/(mg/kg-day)	2.8E-07					
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	7.6E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.1E-08	8.9E-06	mg/kg-day	2.0E-02	mg/kg-day	4.4E-04
				Chrysene (0-2)*	2.5E+02	mg/kg	2.5E-06	mg/kg-day	7.3E-02	1/(mg/kg-day)	1.8E-07	8.7E-05	mg/kg-day	NA		NA
				Chrysene (2-6)*	2.5E+02	mg/kg	5.0E-06	mg/kg-day	2.2E-02	1/(mg/kg-day)	1.1E-07					
				Dibenz(a,h)anthracene (0-2)*	6.2E+00	mg/kg	6.1E-08	mg/kg-day	7.3E+01	1/(mg/kg-day)	4.5E-06	2.1E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (2-6)*	6.2E+00	mg/kg	1.2E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.7E-06					
				Fluoranthene	5.0E+02	mg/kg	1.5E-05	mg/kg-day	NA		NA	1.7E-04	mg/kg-day	4.0E-02	mg/kg-day	4.3E-03
				Indeno(1,2,3-c,d)pyrene (0-2)*	4.9E+01	mg/kg	4.8E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.5E-06	1.7E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-6)*	4.9E+01	mg/kg	9.7E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.1E-06					
				Naphthalene	3.4E+00	mg/kg	1.0E-07	mg/kg-day	NA		NA	1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	5.9E-05
				Pyrene	5.3E+02	mg/kg	1.6E-05	mg/kg-day	NA		NA	1.8E-04	mg/kg-day	3.0E-02	mg/kg-day	6.1E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	1.3E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.0E-07	1.5E-11	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	1.7E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	3.3E-07	1.9E-06	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	1.7E-07	mg/kg-day	NA		NA	2.0E-06	mg/kg-day	2.0E-05	mg/kg-day	1.0E-01
				Aluminum	1.6E+04	mg/kg	3.6E-05	mg/kg-day	NA		NA	4.2E-04	mg/kg-day	1.0E+00	mg/kg-day	4.2E-04
				Arsenic	1.8E+01	mg/kg	1.2E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.8E-07	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.8E-03
				Cadmium	9.6E+00	mg/kg	2.2E-09	mg/kg-day	NA		NA	2.6E-08	mg/kg-day	2.5E-05	mg/kg-day	1.0E-03
				Chromium (0-2)*	9.4E+01	mg/kg	7.1E-08	mg/kg-day	2.0E+02	1/(mg/kg-day)	1.4E-05	2.5E-06	mg/kg-day	7.5E-05	mg/kg-day	3.3E-02
				Chromium (2-6)*	9.4E+01	mg/kg	1.4E-07	mg/kg-day	6.0E+01	1/(mg/kg-day)	8.5E-06					
				Cobalt	1.3E+01	mg/kg	2.9E-08	mg/kg-day	NA		NA	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Copper	3.5E+02	mg/kg	8.0E-07	mg/kg-day	NA		NA	9.4E-06	mg/kg-day	4.0E-02	mg/kg-day	2.3E-04
				Iron	4.0E+04	mg/kg	9.1E-05	mg/kg-day	NA		NA	1.1E-03	mg/kg-day	7.0E-01	mg/kg-day	1.5E-03
				Lead	1.9E+03	mg/kg	4.3E-06	mg/kg-day	NA		NA	5.0E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	7.2E-07	mg/kg-day	NA		NA	8.4E-06	mg/kg-day	9.6E-04	mg/kg-day	8.7E-03
				Vanadium	5.0E+01	mg/kg	1.1E-07	mg/kg-day	NA		NA	1.3E-06	mg/kg-day	5.0E-03	mg/kg-day	2.7E-04
			Exp. Route Total								1.9E-04					1.6E-01
		Exposure Point Total									4.3E-04					4.2E-01
	Exposure Medium Total										4.3E-04					4.2E-01
Exposed Surface Sediment Total											4.3E-04					4.2E-01

TABLE 7.3.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Dry event)	Ingestion													
				Benzene	2.2E+00	ug/L	1.2E-07	mg/kg-day	5.5E-02	1/(mg/kg-day)	6.5E-09	1.4E-06	mg/kg-day	4.0E-03	mg/kg-day	3.5E-04
				Benzo(a)anthracene (0-2)*	2.7E-01	ug/L	4.7E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.4E-08	1.6E-07	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-6)*	2.7E-01	ug/L	9.4E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.1E-08					
				Benzo(a)pyrene (0-2)*	6.6E-01	ug/L	1.2E-08	mg/kg-day	7.3E+01	1/(mg/kg-day)	8.5E-07	4.1E-07	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-6)*	6.6E-01	ug/L	2.3E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	5.1E-07					
				Benzo(b)fluoranthene (0-2)*	3.0E-01	ug/L	5.3E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.8E-08	1.8E-07	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-6)*	3.0E-01	ug/L	1.1E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.3E-08					
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	1.3E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.8E-09	1.5E-06	mg/kg-day	2.0E-02	mg/kg-day	7.6E-05
				Indeno(1,2,3-c,d)pyrene (0-2)*	1.3E-01	ug/L	2.3E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.7E-08	8.1E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-6)*	1.3E-01	ug/L	4.7E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.0E-08					
				Arsenic	2.0E+01	ug/L	1.1E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.6E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.1E-02
				Chromium (0-2)*	1.9E+01	ug/L	3.3E-07	mg/kg-day	5.0E+00	1/(mg/kg-day)	1.7E-06	1.2E-05	mg/kg-day	3.0E-03	mg/kg-day	3.9E-03
				Chromium (2-6)*	1.9E+01	ug/L	6.7E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.0E-06					
				Copper	1.7E+02	ug/L	9.1E-06	mg/kg-day	NA			1.1E-04	mg/kg-day	4.0E-02	mg/kg-day	2.7E-03
				Selenium	4.1E+01	ug/L	2.2E-06	mg/kg-day	NA			2.5E-05	mg/kg-day	5.0E-03	mg/kg-day	5.1E-03
			Exp. Route Total								5.8E-06					5.3E-02
			Dermal													
				Benzene	2.2E+00	ug/L	2.8E-07	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.5E-08	3.2E-06	mg/kg-day	4.0E-03	mg/kg-day	8.1E-04
				Benzo(a)anthracene (0-2)*	2.7E-01	ug/L	7.1E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	5.2E-06	2.5E-05	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-6)*	2.7E-01	ug/L	1.4E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.1E-06					
				Benzo(a)pyrene (0-2)*	6.6E-01	ug/L	3.0E-06	mg/kg-day	7.3E+01	1/(mg/kg-day)	2.2E-04	1.1E-04	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-6)*	6.6E-01	ug/L	6.0E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.3E-04					
				Benzo(b)fluoranthene (0-2)*	3.0E-01	ug/L	1.4E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.0E-05	4.9E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-6)*	3.0E-01	ug/L	2.8E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.1E-06					
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	2.4E-06	mg/kg-day	1.4E-02	1/(mg/kg-day)	3.4E-08	2.8E-05	mg/kg-day	2.0E-02	mg/kg-day	1.4E-03
				Indeno(1,2,3-c,d)pyrene (0-2)*	1.3E-01	ug/L	6.1E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.5E-06	2.2E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-6)*	1.3E-01	ug/L	1.2E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.7E-06					
				Arsenic	2.0E+01	ug/L	1.4E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.1E-07	1.6E-06	mg/kg-day	3.0E-04	mg/kg-day	5.4E-03
				Chromium (0-2)*	1.9E+01	ug/L	8.8E-08	mg/kg-day	2.0E+02	1/(mg/kg-day)	1.8E-05	3.1E-06	mg/kg-day	7.5E-05	mg/kg-day	4.1E-02
				Chromium (2-6)*	1.9E+01	ug/L	1.8E-07	mg/kg-day	6.0E+01	1/(mg/kg-day)	1.1E-05					
				Copper	1.7E+02	ug/L	1.2E-06	mg/kg-day	NA		NA	1.4E-05	mg/kg-day	4.0E-02	mg/kg-day	3.5E-04
				Selenium	4.1E+01	ug/L	2.9E-07	mg/kg-day	NA		NA	3.3E-06	mg/kg-day	5.0E-03	mg/kg-day	6.7E-04
			Exp. Route Total								4.1E-04					5.0E-02
		Exposure Point Total									4.2E-04					1.0E-01
	Exposure Medium Total										4.2E-04					1.0E-01
Surface Water Total - Dry Event											4.2E-04					1.0E-01

TABLE 7.3.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L	3.1E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.7E-10	3.6E-07	mg/kg-day	7.0E-02	mg/kg-day	5.2E-06
				Benzene	8.4E-01	ug/L	4.4E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	2.4E-09	5.2E-07	mg/kg-day	4.0E-03	mg/kg-day	1.3E-04
				Chloroform	5.6E-01	ug/L	3.0E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	9.2E-10	3.5E-07	mg/kg-day	1.0E-02	mg/kg-day	3.5E-05
				Ethylbenzene	8.7E-01	ug/L	4.6E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	5.1E-10	5.4E-07	mg/kg-day	1.0E-01	mg/kg-day	5.4E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	1.3E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	7.0E-07	1.5E-05	mg/kg-day	1.0E-02	mg/kg-day	1.5E-03
				Benzo(a)anthracene (0-2)*	1.0E-01	ug/L	1.8E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.3E-08	6.4E-08	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-6)*	1.0E-01	ug/L	3.7E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	8.0E-09					
				Benzo(a)pyrene (0-2)*	2.1E-01	ug/L	3.6E-09	mg/kg-day	7.3E+01	1/(mg/kg-day)	2.6E-07	1.3E-07	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-6)*	2.1E-01	ug/L	7.2E-09	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.6E-07					
				Benzo(b)fluoranthene (0-2)*	1.9E-01	ug/L	3.3E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.4E-08	1.2E-07	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-6)*	1.9E-01	ug/L	6.7E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.5E-08					
				Dibenz(a,h)anthracene (0-2)*	1.0E-01	ug/L	1.8E-09	mg/kg-day	7.3E+01	1/(mg/kg-day)	1.3E-07	6.2E-08	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (2-6)*	1.0E-01	ug/L	3.6E-09	mg/kg-day	2.2E+01	1/(mg/kg-day)	7.8E-08					
				Indeno(1,2,3-c,d)pyrene (0-2)*	5.0E-01	ug/L	8.8E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.4E-08	3.1E-07	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-6)*	5.0E-01	ug/L	1.8E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.9E-08					
				Naphthalene	3.6E-01	ug/L	1.9E-08	mg/kg-day	NA		NA	2.2E-07	mg/kg-day	2.0E-02	mg/kg-day	1.1E-05
				Arsenic	1.7E+01	ug/L	8.8E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.3E-06	1.0E-05	mg/kg-day	3.0E-04	mg/kg-day	3.4E-02
				Chromium (0-2)*	8.5E+00	ug/L	1.5E-07	mg/kg-day	5.0E+00	1/(mg/kg-day)	7.5E-07	5.3E-06	mg/kg-day	3.0E-03	mg/kg-day	1.8E-03
				Chromium (2-6)*	8.5E+00	ug/L	3.0E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.5E-07					
				Cobalt	3.9E+00	ug/L	2.1E-07	mg/kg-day	NA		NA	2.4E-06	mg/kg-day	3.0E-04	mg/kg-day	8.0E-03
				Lead	1.5E+01	ug/L	7.9E-07	mg/kg-day	NA		NA	9.2E-06	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	1.8E-06	mg/kg-day	NA		NA	2.1E-05	mg/kg-day	5.0E-03	mg/kg-day	4.1E-03
			Exp. Route Total								4.0E-06					5.0E-02

TABLE 7.3.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	2.6E-07	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.4E-09	3.0E-06	mg/kg-day	7.0E-02	mg/kg-day	4.3E-05
				Benzene	8.4E-01	ug/L	1.0E-07	mg/kg-day	5.5E-02	1/(mg/kg-day)	5.7E-09	1.2E-06	mg/kg-day	4.0E-03	mg/kg-day	3.0E-04
				Chloroform	5.6E-01	ug/L	3.6E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	1.1E-09	4.2E-07	mg/kg-day	1.0E-02	mg/kg-day	4.2E-05
				Ethylbenzene	8.7E-01	ug/L	3.6E-07	mg/kg-day	1.1E-02	1/(mg/kg-day)	4.0E-09	4.2E-06	mg/kg-day	1.0E-01	mg/kg-day	4.2E-05
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	9.4E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	5.1E-06	1.1E-04	mg/kg-day	1.0E-02	mg/kg-day	1.1E-02
				Benzo(a)anthracene (0-2)*	1.0E-01	ug/L	2.8E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.0E-06	9.7E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-6)*	1.0E-01	ug/L	5.6E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.2E-06					
				Benzo(a)pyrene (0-2)*	2.1E-01	ug/L	9.4E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	6.9E-05	3.3E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-6)*	2.1E-01	ug/L	1.9E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.1E-05					
				Benzo(b)fluoranthene (0-2)*	1.9E-01	ug/L	8.8E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.4E-06	3.1E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-6)*	1.9E-01	ug/L	1.8E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.8E-06					
				Dibenz(a,h)anthracene (0-2)*	1.0E-01	ug/L	7.1E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	5.2E-05	2.5E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (2-6)*	1.0E-01	ug/L	1.4E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	3.1E-05					
				Indeno(1,2,3-c,d)pyrene (0-2)*	5.0E-01	ug/L	2.3E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.7E-05	8.1E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-6)*	5.0E-01	ug/L	4.7E-06	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.0E-05					
				Naphthalene	3.6E-01	ug/L	1.6E-07	mg/kg-day	NA		NA	1.9E-06	mg/kg-day	2.0E-02	mg/kg-day	9.4E-05
				Arsenic	1.7E+01	ug/L	1.2E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.7E-07	1.4E-06	mg/kg-day	3.0E-04	mg/kg-day	4.5E-03
				Chromium (0-2)*	8.5E+00	ug/L	4.0E-08	mg/kg-day	2.0E+02	1/(mg/kg-day)	7.9E-06	1.4E-06	mg/kg-day	7.5E-05	mg/kg-day	1.9E-02
				Chromium (2-6)*	8.5E+00	ug/L	7.9E-08	mg/kg-day	6.0E+01	1/(mg/kg-day)	4.8E-06					
				Cobalt	3.9E+00	ug/L	1.1E-08	mg/kg-day	NA		NA	1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.2E-04
				Lead	1.5E+01	ug/L	1.0E-08	mg/kg-day	NA		NA	1.2E-07	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	2.3E-07	mg/kg-day	NA		NA	2.7E-06	mg/kg-day	5.0E-03	mg/kg-day	5.5E-04
			Exp. Route Total								2.5E-04					3.6E-02
		Exposure Point Total									2.6E-04					8.5E-02
	Exposure Medium Total										2.6E-04					8.5E-02
Surface Water Total - Wet Event											2.6E-04					8.5E-02
Air	Air	Ambient air at canal level (pre-aeration system operation)	Inhalation	Benzene	9.1E-04	mg/m^3	6.0E-04	ug/m^3	7.8E-06	$1/(ug/m^3)$	4.7E-09	7.1E-06	mg/m^3	3.0E-02	mg/m^3	2.4E-04
				Chloroform	2.2E-04	mg/m^3	1.5E-04	ug/m^3	2.3E-05	$1/(ug/m^3)$	3.4E-09	1.7E-06	mg/m^3	9.8E-02	mg/m^3	1.7E-05
				Ethylbenzene	2.3E-03	mg/m^3	1.5E-03	ug/m^3	2.5E-06	$1/(ug/m^3)$	3.7E-09	1.7E-05	mg/m^3	1.0E+00	mg/m^3	1.7E-05
				Xylene, total	1.0E-02	mg/m^3	6.7E-03	ug/m^3	NA		NA	7.8E-05	mg/m^3	1.0E-01	mg/m^3	7.8E-04
				Naphthalene	2.1E-03	mg/m^3	1.4E-03	ug/m^3	3.4E-05	$1/(ug/m^3)$	4.7E-08	1.6E-05	mg/m^3	3.0E-03	mg/m^3	5.4E-03
			Exp. Route Total								5.9E-08					6.4E-03
		Exposure Point Total									5.9E-08					6.4E-03
	Exposure Medium Total										5.9E-08					6.4E-03
Ambient air at canal level Total - Pre-aeration system operation											5.9E-08					6.4E-03

TABLE 7.3.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at canal level (after aeration system started)	Inhalation	Benzene	1.9E-03	mg/m^3	1.3E-03	ug/m^3	7.8E-06	$1/(ug/m^3)$	1.0E-08	1.5E-05	mg/m^3	3.0E-02	mg/m^3	5.0E-04
				Chloroform	2.1E-04	mg/m^3	1.4E-04	ug/m^3	2.3E-05	$1/(ug/m^3)$	3.1E-09	1.6E-06	mg/m^3	9.8E-02	mg/m^3	1.6E-05
				Ethylbenzene	2.1E-03	mg/m^3	1.4E-03	ug/m^3	2.5E-06	$1/(ug/m^3)$	3.5E-09	1.6E-05	mg/m^3	1.0E+00	mg/m^3	1.6E-05
				Xylene, total	1.7E-02	mg/m^3	1.1E-02	ug/m^3	NA		NA	1.3E-04	mg/m^3	1.0E-01	mg/m^3	1.3E-03
				Naphthalene	2.2E-03	mg/m^3	1.4E-03	ug/m^3	3.4E-05	$1/(ug/m^3)$	4.9E-08	1.7E-05	mg/m^3	3.0E-03	mg/m^3	5.6E-03
			Exp. Route Total								6.6E-08					7.5E-03
		Exposure Point Total									6.6E-08					7.5E-03
	Exposure Medium Total										6.6E-08					7.5E-03
Ambient air at canal level Total - After aeration system turned on											6.6E-08					7.5E-03
Total										Total of Receptor Risks Across All Media	8.5E-04				Total of Receptor Hazards Across All Media	5.3E-01

Notes-

NA = Not available / Not applicable.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-6 year old for exposure duration of 4 years.
Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

DAevent for surface water from dry event calculated on Table 7.1.RME Supplement A.

DAevent for surface water from wet event calculated on Table 7.1.RME Supplement B.

Total includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started

TABLE 7.4.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at street level (pre-aeration system operation)	Inhalation	Benzene	1.3E-03	mg/m^3	3.1E-01	ug/m^3	7.8E-06	1/(ug/m^3)	2.4E-06	8.6E-04	mg/m^3	3.0E-02	mg/m^3	2.9E-02
				Chloroform	2.5E-04	mg/m^3	6.0E-02	ug/m^3	2.3E-05	1/(ug/m^3)	1.4E-06	1.7E-04	mg/m^3	9.8E-02	mg/m^3	1.7E-03
				Ethylbenzene	1.1E-03	mg/m^3	2.7E-01	ug/m^3	2.5E-06	1/(ug/m^3)	6.7E-07	7.5E-04	mg/m^3	1.0E+00	mg/m^3	7.5E-04
				Naphthalene	1.3E-03	mg/m^3	3.2E-01	ug/m^3	3.4E-05	1/(ug/m^3)	1.1E-05	8.9E-04	mg/m^3	3.0E-03	mg/m^3	3.0E-01
			Exp. Route Total								1.5E-05					3.3E-01
		Exposure Point Total									1.5E-05					3.3E-01
	Exposure Medium Total										1.5E-05					3.3E-01
Ambient air at street level Total - Pre-aeration system operation											1.5E-05					3.3E-01
Air	Air	Ambient air at street level (after aeration system started)	Inhalation	Benzene	1.1E-03	mg/m^3	2.7E-01	ug/m^3	7.8E-06	1/(ug/m^3)	2.1E-06	7.6E-04	mg/m^3	3.0E-02	mg/m^3	2.5E-02
				Chloroform	3.3E-04	mg/m^3	8.1E-02	ug/m^3	2.3E-05	1/(ug/m^3)	1.9E-06	2.3E-04	mg/m^3	9.8E-02	mg/m^3	2.3E-03
				Ethylbenzene	1.2E-03	mg/m^3	3.0E-01	ug/m^3	2.5E-06	1/(ug/m^3)	7.6E-07	8.5E-04	mg/m^3	1.0E+00	mg/m^3	8.5E-04
				Naphthalene	3.0E-03	mg/m^3	7.4E-01	ug/m^3	3.4E-05	1/(ug/m^3)	2.5E-05	2.1E-03	mg/m^3	3.0E-03	mg/m^3	6.9E-01
			Exp. Route Total								3.0E-05					7.2E-01
		Exposure Point Total									3.0E-05					7.2E-01
	Exposure Medium Total										3.0E-05					7.2E-01
Ambient air at street level Total - After aeration system turned on											3.0E-05					7.2E-01

TABLE 7.4.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	2-methylnaphthalene	3.6E+02	mg/kg	4.5E-06	mg/kg-day	NA	1/(mg/kg-day)	NA	1.3E-05	mg/kg-day	4.0E-03	mg/kg-day	3.2E-03
				Acenaphthene	3.1E+02	mg/kg	3.9E-06	mg/kg-day	NA		NA	1.1E-05	mg/kg-day	6.0E-02	mg/kg-day	1.8E-04
				Benzo(a)anthracene	1.3E+02	mg/kg	1.6E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.2E-06	4.5E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg	9.2E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.7E-06	2.6E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg	1.0E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	7.3E-07	2.8E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg	5.2E-07	mg/kg-day	7.3E-02	1/(mg/kg-day)	3.8E-08	1.4E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg	1.8E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.6E-09	5.1E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
				Chrysene	1.3E+02	mg/kg	1.6E-06	mg/kg-day	7.3E-03	1/(mg/kg-day)	1.2E-08	4.5E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg	6.9E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	5.0E-07	1.9E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg	2.3E-06	mg/kg-day	NA		NA	6.3E-06	mg/kg-day	4.0E-02	mg/kg-day	1.6E-04
				Fluorene	2.3E+02	mg/kg	2.9E-06	mg/kg-day	NA		NA	8.1E-06	mg/kg-day	4.0E-02	mg/kg-day	2.0E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg	4.0E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.9E-07	1.1E-06	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg	8.2E-06	mg/kg-day	NA		NA	2.3E-05	mg/kg-day	2.0E-02	mg/kg-day	1.2E-03
				Pyrene	3.9E+02	mg/kg	4.9E-06	mg/kg-day	NA		NA	1.4E-05	mg/kg-day	3.0E-02	mg/kg-day	4.5E-04
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg	5.7E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	8.9E-08	1.6E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg	8.1E-08	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.6E-07	2.3E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg	8.3E-08	mg/kg-day	NA		NA	2.3E-07	mg/kg-day	2.0E-05	mg/kg-day	1.2E-02
				Aluminum	1.5E+04	mg/kg	1.8E-04	mg/kg-day	NA		NA	5.1E-04	mg/kg-day	1.0E+00	mg/kg-day	5.1E-04
				Arsenic	1.5E+01	mg/kg	1.8E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.8E-07	5.2E-07	mg/kg-day	3.0E-04	mg/kg-day	1.7E-03
				Cadmium	1.0E+01	mg/kg	1.3E-07	mg/kg-day	NA		NA	3.5E-07	mg/kg-day	1.0E-03	mg/kg-day	3.5E-04
				Chromium	8.5E+01	mg/kg	1.1E-06	mg/kg-day	5.0E-01		5.3E-07	3.0E-06	mg/kg-day	3.0E-03	mg/kg-day	9.9E-04
				Cobalt	1.1E+01	mg/kg	1.4E-07	mg/kg-day	NA		NA	3.9E-07	mg/kg-day	3.0E-04	mg/kg-day	1.3E-03
				Copper	2.7E+02	mg/kg	3.4E-06	mg/kg-day	NA		NA	9.7E-06	mg/kg-day	4.0E-02	mg/kg-day	2.4E-04
				Iron	3.4E+04	mg/kg	4.2E-04	mg/kg-day	NA		NA	1.2E-03	mg/kg-day	7.0E-01	mg/kg-day	1.7E-03
				Lead	1.2E+03	mg/kg	1.5E-05	mg/kg-day	NA		NA	4.2E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	3.8E-06	mg/kg-day	NA		NA	1.1E-05	mg/kg-day	1.4E-01	mg/kg-day	7.7E-05
				Vanadium	4.6E+01	mg/kg	5.8E-07	mg/kg-day	NA		NA	1.6E-06	mg/kg-day	5.0E-03	mg/kg-day	3.2E-04
			Exp. Route Total								1.1E-05					2.4E-02

TABLE 7.4.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Dermal	2-methylnaphthalene	3.6E+02	mg/kg	3.9E-06	mg/kg-day	NA		NA	1.1E-05	mg/kg-day	4.0E-03	mg/kg-day	2.7E-03
				Acenaphthene	3.1E+02	mg/kg	3.3E-06	mg/kg-day	NA		NA	9.3E-06	mg/kg-day	6.0E-02	mg/kg-day	1.6E-04
				Benzo(a)anthracene	1.3E+02	mg/kg	1.4E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.0E-06	3.9E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg	7.9E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	5.8E-06	2.2E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg	8.5E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.2E-07	2.4E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg	4.4E-07	mg/kg-day	7.3E-02	1/(mg/kg-day)	3.2E-08	1.2E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg	1.2E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.7E-09	3.4E-07	mg/kg-day	2.0E-02	mg/kg-day	1.7E-05
				Chrysene	1.3E+02	mg/kg	1.4E-06	mg/kg-day	7.3E-03	1/(mg/kg-day)	1.0E-08	3.8E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg	5.9E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.3E-07	1.7E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg	1.9E-06	mg/kg-day	NA		NA	5.4E-06	mg/kg-day	4.0E-02	mg/kg-day	1.4E-04
				Fluorene	2.3E+02	mg/kg	2.5E-06	mg/kg-day	NA		NA	7.0E-06	mg/kg-day	4.0E-02	mg/kg-day	1.7E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg	3.4E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.5E-07	9.5E-07	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg	7.1E-06	mg/kg-day	NA		NA	2.0E-05	mg/kg-day	2.0E-02	mg/kg-day	9.9E-04
				Pyrene	3.9E+02	mg/kg	4.2E-06	mg/kg-day	NA		NA	1.2E-05	mg/kg-day	3.0E-02	mg/kg-day	3.9E-04
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg	5.3E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	8.2E-08	1.5E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg	7.5E-08	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.5E-07	2.1E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg	7.7E-08	mg/kg-day	NA		NA	2.2E-07	mg/kg-day	2.0E-05	mg/kg-day	1.1E-02
				Aluminum	1.5E+04	mg/kg	1.2E-05	mg/kg-day	NA		NA	3.4E-05	mg/kg-day	1.0E+00	mg/kg-day	3.4E-05
				Arsenic	1.5E+01	mg/kg	3.7E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	5.5E-08	1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.4E-04
				Cadmium	1.0E+01	mg/kg	8.3E-10	mg/kg-day	NA		NA	2.3E-09	mg/kg-day	2.5E-05	mg/kg-day	9.3E-05
				Chromium	8.5E+01	mg/kg	7.0E-08	mg/kg-day	2.0E+01	1/(mg/kg-day)	1.4E-06	2.0E-07	mg/kg-day	7.5E-05	mg/kg-day	2.6E-03
				Cobalt	1.1E+01	mg/kg	9.1E-09	mg/kg-day	NA		NA	2.6E-08	mg/kg-day	3.0E-04	mg/kg-day	8.5E-05
				Copper	2.7E+02	mg/kg	2.3E-07	mg/kg-day	NA		NA	6.4E-07	mg/kg-day	4.0E-02	mg/kg-day	1.6E-05
				Iron	3.4E+04	mg/kg	2.8E-05	mg/kg-day	NA		NA	7.8E-05	mg/kg-day	7.0E-01	mg/kg-day	1.1E-04
				Lead	1.2E+03	mg/kg	1.0E-06	mg/kg-day	NA		NA	2.8E-06	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	2.5E-07	mg/kg-day	NA		NA	7.1E-07	mg/kg-day	7.0E-01	mg/kg-day	1.0E-06
				Vanadium	4.6E+01	mg/kg	3.8E-08	mg/kg-day	NA		NA	1.1E-07	mg/kg-day	5.0E-03	mg/kg-day	2.1E-05
			Exp. Route Total								9.8E-06					1.9E-02
		Exposure Point Total									2.0E-05					4.3E-02
	Exposure Medium Total										2.0E-05					4.3E-02
Overflow Surface Sediment Total											2.0E-05					4.3E-02

TABLE 7.4.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L	3.0E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.6E-10	8.3E-08	mg/kg-day	7.0E-02	mg/kg-day	1.2E-06
				Benzene	8.4E-01	ug/L	9.2E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	5.1E-10	1.2E-07	mg/kg-day	4.0E-03	mg/kg-day	2.9E-05
				Chloroform	5.6E-01	ug/L	6.2E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	1.9E-10	7.9E-08	mg/kg-day	1.0E-02	mg/kg-day	7.9E-06
				Ethylbenzene	8.7E-01	ug/L	9.6E-09	mg/kg-day	1.1E-02	1/(mg/kg-day)	1.1E-10	1.2E-07	mg/kg-day	1.0E-01	mg/kg-day	1.2E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	2.7E-07	mg/kg-day	5.4E-01	1/(mg/kg-day)	1.5E-07	3.4E-06	mg/kg-day	1.0E-02	mg/kg-day	3.4E-04
				Benzo(a)anthracene	1.0E-01	ug/L	1.2E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	8.4E-10	1.5E-08	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L	2.3E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.7E-08	2.9E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L	2.1E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.5E-09	2.7E-08	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L	1.1E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	8.2E-09	1.4E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L	5.5E-09	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.0E-09	7.0E-08	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	4.0E-09	mg/kg-day	NA		NA	5.1E-08	mg/kg-day	2.0E-02	mg/kg-day	2.6E-06
				Arsenic	1.7E+01	ug/L	1.8E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.8E-07	2.3E-06	mg/kg-day	3.0E-04	mg/kg-day	7.8E-03
				Chromium	8.5E+00	ug/L	9.4E-08	mg/kg-day	5.0E-01	1/(mg/kg-day)	4.7E-08	1.2E-06	mg/kg-day	3.0E-03	mg/kg-day	4.0E-04
				Cobalt	3.9E+00	ug/L	4.3E-08	mg/kg-day	NA		NA	5.5E-07	mg/kg-day	3.0E-04	mg/kg-day	1.8E-03
				Lead	1.5E+01	ug/L	1.6E-07	mg/kg-day	NA		NA	2.1E-06	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	3.7E-07	mg/kg-day	NA		NA	4.7E-06	mg/kg-day	5.0E-03	mg/kg-day	9.5E-04
			Exp. Route Total								5.0E-07					1.1E-02

TABLE 7.4.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	1.5E-07	mg/kg-day	5.4E-03	1/(mg/kg-day)	8.0E-10	4.2E-07	mg/kg-day	7.0E-02	mg/kg-day	6.0E-06
				Benzene	8.4E-01	ug/L	7.4E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	4.1E-09	2.1E-07	mg/kg-day	4.0E-03	mg/kg-day	5.2E-05
				Chloroform	5.6E-01	ug/L	2.4E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	7.4E-10	6.7E-08	mg/kg-day	1.0E-02	mg/kg-day	6.7E-06
				Ethylbenzene	8.7E-01	ug/L	2.3E-07	mg/kg-day	1.1E-02	1/(mg/kg-day)	2.6E-09	6.6E-07	mg/kg-day	1.0E-01	mg/kg-day	6.6E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	5.2E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	2.8E-06	1.5E-05	mg/kg-day	1.0E-02	mg/kg-day	1.5E-03
				Benzo(a)anthracene	1.0E-01	ug/L	3.9E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.9E-07	1.1E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L	1.3E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	9.6E-06	3.7E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L	1.2E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	9.0E-07	3.5E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L	1.0E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	7.3E-06	2.8E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L	3.3E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.4E-06	9.2E-06	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	9.8E-08	mg/kg-day	NA		NA	2.7E-07	mg/kg-day	2.0E-02	mg/kg-day	1.4E-05
				Arsenic	1.7E+01	ug/L	9.5E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.4E-07	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	8.9E-04
				Chromium	8.5E+00	ug/L	9.8E-08	mg/kg-day	2.0E+01	1/(mg/kg-day)	2.0E-06	2.7E-07	mg/kg-day	7.5E-05	mg/kg-day	3.7E-03
				Cobalt	3.9E+00	ug/L	8.9E-09	mg/kg-day	NA		NA	2.5E-08	mg/kg-day	3.0E-04	mg/kg-day	8.4E-05
				Lead	1.5E+01	ug/L	8.5E-09	mg/kg-day	NA		NA	2.4E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	1.9E-07	mg/kg-day	NA		NA	5.4E-07	mg/kg-day	5.0E-03	mg/kg-day	1.1E-04
			Exp. Route Total								2.5E-05					6.3E-03
		Exposure Point Total									2.6E-05					1.8E-02
	Exposure Medium Total										2.6E-05					1.8E-02
Overflow Surface Water Total											2.6E-05					1.8E-02
Total											Total of Receptor Risks Across All Media					7.8E-01

Notes-

NA = Not available / Not applicable.

DAevent for surface water calculated on Table 7.4.RME Supplement A.

Total includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

TABLE 7.4.RME Supplement A
Calculation of DA_{event}
Industrial Worker Adult
Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (K_p) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (t_{event}) (hr)	DA_{event} (mg/cm^2-event)	Eq
1,4-dichlorobenzene	5.9E-01	4.2E-02	2.0E-01	7.1E-01	1.7E+00	1.0E+00	8	2.1E-07	3
Benzene	8.4E-01	1.5E-02	5.1E-02	2.9E-01	7.0E-01	1.0E+00	8	1.0E-07	3
Chloroform	5.6E-01	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	8	3.3E-08	3
Ethylbenzene	8.7E-01	4.9E-02	2.0E-01	4.2E-01	1.0E+00	1.0E+00	8	3.3E-07	3
Tetrachloroethylene(PCE)	2.4E+01	3.3E-02	1.7E-01	9.1E-01	2.2E+00	1.0E+00	8	7.2E-06	3
Benzo(a)anthracene	1.0E-01	4.7E-01	2.8E+00	2.0E+00	8.5E+00	1.0E+00	8	5.4E-07	2
Benzo(a)pyrene	2.1E-01	7.0E-01	4.3E+00	2.7E+00	1.2E+01	1.0E+00	8	1.8E-06	2
Benzo(b)fluoranthene	1.9E-01	7.0E-01	4.3E+00	2.8E+00	1.2E+01	1.0E+00	8	1.7E-06	2
Dibenz(a,h)anthracene	1.0E-01	1.5E+00	9.7E+00	3.9E+00	1.8E+01	6.0E-01	8	1.4E-06	2
Indeno(1,2,3-c,d)pyrene	5.0E-01	1.0E+00	6.7E+00	3.8E+00	1.7E+01	6.0E-01	8	4.6E-06	2
Naphthalene	3.6E-01	4.7E-02	2.0E-01	5.6E-01	1.3E+00	1.0E+00	8	1.4E-07	3
Arsenic	1.7E+01	1.0E-03	NA	NA	NA	NA	8	1.3E-07	1
Chromium	8.5E+00	2.0E-03	NA	NA	NA	NA	8	1.4E-07	1
Cobalt	3.9E+00	4.0E-04	NA	NA	NA	NA	8	1.2E-08	1
Lead	1.5E+01	1.0E-04	NA	NA	NA	NA	8	1.2E-08	1
Selenium	3.4E+01	1.0E-03	NA	NA	NA	NA	8	2.7E-07	1

Inorganics: DA_{event} (mg/cm^2-event) =
$K_p \times CW \times t_{event} \times 0.001\ mg/\mu g \times 0.001\ l/cm^3$ (eq 1)

Organics: DA_{event} (mg/cm^2-event) =
If $t_{event} < t^*$, then DA_{event} =
$2 \times FA \times K_p \times CW \times (\sqrt{((6 \times \tau_{event} \times t_{event})/\pi)}) \times 0.001\ mg/\mu g \times 0.001\ l/cm^3$ (eq 2)

If $t_{event} > t^*$, then DA_{event} =
$FA \times K_p \times CW \times (t_{event}/(1+B) + 2 \times \tau_{event} \times ((1 + 3xB + 3xB^2)/(1+B)^2) \times 0.001\ mg/\mu g \times 0.001\ l/cm^3$ (eq 3)

Notes:
NA - Not applicable
Permeability constants and other input parameter values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

TABLE 7.5.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at street level (pre-aeration system operation)	Inhalation													
				Benzene	1.3E-03	mg/m^3			7.8E-06	1/(ug/m^3)		1.2E-03	mg/m^3	3.0E-02	mg/m^3	4.0E-02
				Chloroform	2.5E-04	mg/m^3			2.3E-05	1/(ug/m^3)		2.3E-04	mg/m^3	9.8E-02	mg/m^3	2.4E-03
				Ethylbenzene	1.1E-03	mg/m^3			2.5E-06	1/(ug/m^3)		1.0E-03	mg/m^3	1.0E+00	mg/m^3	1.0E-03
				Naphthalene	1.3E-03	mg/m^3			3.4E-05	1/(ug/m^3)		1.2E-03	mg/m^3	3.0E-03	mg/m^3	4.2E-01
			Exp. Route Total								0.0E+00					4.6E-01
		Exposure Point Total									0.0E+00					4.6E-01
	Exposure Medium Total										0.0E+00					4.6E-01
Ambient air at street level Total - Pre-aeration system operation											0.0E+00					4.6E-01
Air	Air	Ambient air at street level (after aeration system started)	Inhalation													
				Benzene	1.1E-03	mg/m^3			7.8E-06	1/(ug/m^3)		1.1E-03	mg/m^3	3.0E-02	mg/m^3	3.5E-02
				Chloroform	3.3E-04	mg/m^3			2.3E-05	1/(ug/m^3)		3.2E-04	mg/m^3	9.8E-02	mg/m^3	3.2E-03
				Ethylbenzene	1.2E-03	mg/m^3			2.5E-06	1/(ug/m^3)		1.2E-03	mg/m^3	1.0E+00	mg/m^3	1.2E-03
				Naphthalene	3.0E-03	mg/m^3			3.4E-05	1/(ug/m^3)		2.9E-03	mg/m^3	3.0E-03	mg/m^3	9.7E-01
			Exp. Route Total								0.0E+00					1.0E+00
		Exposure Point Total									0.0E+00					1.0E+00
	Exposure Medium Total										0.0E+00					1.0E+00
Ambient air at street level Total - After aeration system turned on											0.0E+00					1.0E+00

TABLE 7.5.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion													
				2-methylnaphthalene	3.6E+02	mg/kg			NA	1/(mg/kg-day)		1.3E-05	mg/kg-day	4.0E-03	mg/kg-day	3.2E-03
				Acenaphthene	3.1E+02	mg/kg			NA			1.1E-05	mg/kg-day	6.0E-02	mg/kg-day	1.8E-04
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		4.5E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		2.6E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		2.8E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		1.4E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		5.1E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		4.5E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		1.9E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			6.3E-06	mg/kg-day	4.0E-02	mg/kg-day	1.6E-04
				Fluorene	2.3E+02	mg/kg			NA			8.1E-06	mg/kg-day	4.0E-02	mg/kg-day	2.0E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		1.1E-06	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			2.3E-05	mg/kg-day	2.0E-02	mg/kg-day	1.2E-03
				Pyrene	3.9E+02	mg/kg			NA			1.4E-05	mg/kg-day	3.0E-02	mg/kg-day	4.5E-04
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		1.6E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			2.0E+00	1/(mg/kg-day)		2.3E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			2.3E-07	mg/kg-day	2.0E-05	mg/kg-day	1.2E-02
				Aluminum	1.5E+04	mg/kg			NA			5.1E-04	mg/kg-day	1.0E+00	mg/kg-day	5.1E-04
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		5.2E-07	mg/kg-day	3.0E-04	mg/kg-day	1.7E-03
				Cadmium	1.0E+01	mg/kg			NA			3.5E-07	mg/kg-day	1.0E-03	mg/kg-day	3.5E-04
				Chromium	8.5E+01	mg/kg			5.0E-01			3.0E-06	mg/kg-day	3.0E-03	mg/kg-day	9.9E-04
				Cobalt	1.1E+01	mg/kg			NA			3.9E-07	mg/kg-day	3.0E-04	mg/kg-day	1.3E-03
				Copper	2.7E+02	mg/kg			NA			9.7E-06	mg/kg-day	4.0E-02	mg/kg-day	2.4E-04
				Iron	3.4E+04	mg/kg			NA			1.2E-03	mg/kg-day	7.0E-01	mg/kg-day	1.7E-03
				Lead	1.2E+03	mg/kg			NA			4.2E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			1.1E-05	mg/kg-day	1.4E-01	mg/kg-day	7.7E-05
				Vanadium	4.6E+01	mg/kg			NA			1.6E-06	mg/kg-day	5.0E-03	mg/kg-day	3.2E-04
			Exp. Route Total								0.0E+00					2.4E-02

TABLE 7.5.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Dermal	2-methylnaphthalene	3.6E+02	mg/kg			NA			1.9E-05	mg/kg-day	4.0E-03	mg/kg-day	4.7E-03
				Acenaphthene	3.1E+02	mg/kg			NA			1.6E-05	mg/kg-day	6.0E-02	mg/kg-day	2.7E-04
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		6.7E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		3.8E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		4.1E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		2.1E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		5.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.9E-05
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		6.6E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		2.9E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			9.4E-06	mg/kg-day	4.0E-02	mg/kg-day	2.3E-04
				Fluorene	2.3E+02	mg/kg			NA			1.2E-05	mg/kg-day	4.0E-02	mg/kg-day	3.0E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		1.6E-06	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			3.4E-05	mg/kg-day	2.0E-02	mg/kg-day	1.7E-03
				Pyrene	3.9E+02	mg/kg			NA			2.0E-05	mg/kg-day	3.0E-02	mg/kg-day	6.7E-04
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		2.5E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			2.0E+00	1/(mg/kg-day)		3.6E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			3.7E-07	mg/kg-day	2.0E-05	mg/kg-day	1.9E-02
				Aluminum	1.5E+04	mg/kg			NA			5.9E-05	mg/kg-day	1.0E+00	mg/kg-day	5.9E-05
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	5.9E-04
				Cadmium	1.0E+01	mg/kg			NA			4.0E-09	mg/kg-day	2.5E-05	mg/kg-day	1.6E-04
				Chromium	8.5E+01	mg/kg			2.0E+01	1/(mg/kg-day)		3.4E-07	mg/kg-day	7.5E-05	mg/kg-day	4.5E-03
				Cobalt	1.1E+01	mg/kg			NA			4.4E-08	mg/kg-day	3.0E-04	mg/kg-day	1.5E-04
				Copper	2.7E+02	mg/kg			NA			1.1E-06	mg/kg-day	4.0E-02	mg/kg-day	2.8E-05
				Iron	3.4E+04	mg/kg			NA			1.3E-04	mg/kg-day	7.0E-01	mg/kg-day	1.9E-04
				Lead	1.2E+03	mg/kg			NA			4.8E-06	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			1.2E-06	mg/kg-day	7.0E-01	mg/kg-day	1.8E-06
				Vanadium	4.6E+01	mg/kg			NA			1.8E-07	mg/kg-day	5.0E-03	mg/kg-day	3.7E-05
			Exp. Route Total								0.0E+00					3.2E-02
		Exposure Point Total									0.0E+00					5.6E-02
	Exposure Medium Total										0.0E+00					5.6E-02
Overflow Surface Sediment Total											0.0E+00					5.6E-02

TABLE 7.5.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		2.7E-08	mg/kg-day	7.0E-02	mg/kg-day	3.9E-07
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		3.8E-08	mg/kg-day	4.0E-03	mg/kg-day	9.6E-06
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		2.6E-08	mg/kg-day	1.0E-02	mg/kg-day	2.6E-06
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		4.0E-08	mg/kg-day	1.0E-01	mg/kg-day	4.0E-07
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		1.1E-06	mg/kg-day	1.0E-02	mg/kg-day	1.1E-04
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		4.8E-09	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		9.4E-09	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		8.7E-09	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		4.6E-09	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		2.3E-08	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			1.7E-08	mg/kg-day	2.0E-02	mg/kg-day	8.3E-07
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		7.6E-07	mg/kg-day	3.0E-04	mg/kg-day	2.5E-03
				Chromium	8.5E+00	ug/L			5.0E-01	1/(mg/kg-day)		3.9E-07	mg/kg-day	3.0E-03	mg/kg-day	1.3E-04
				Cobalt	3.9E+00	ug/L			NA			1.8E-07	mg/kg-day	3.0E-04	mg/kg-day	6.0E-04
				Lead	1.5E+01	ug/L			NA			6.8E-07	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			1.5E-06	mg/kg-day	5.0E-03	mg/kg-day	3.1E-04
			Exp. Route Total								0.0E+00					3.7E-03

TABLE 7.5.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Dermal													
				1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		1.9E-07	mg/kg-day	7.0E-02	mg/kg-day	2.7E-06
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		7.8E-08	mg/kg-day	4.0E-03	mg/kg-day	1.9E-05
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		2.7E-08	mg/kg-day	1.0E-02	mg/kg-day	2.7E-06
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		2.7E-07	mg/kg-day	1.0E-01	mg/kg-day	2.7E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		7.0E-06	mg/kg-day	1.0E-02	mg/kg-day	7.0E-04
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		6.2E-07	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		2.1E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		2.0E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		1.6E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		5.2E-06	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			1.2E-07	mg/kg-day	2.0E-02	mg/kg-day	6.0E-06
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		8.7E-08	mg/kg-day	3.0E-04	mg/kg-day	2.9E-04
				Chromium	8.5E+00	ug/L			2.0E+01	1/(mg/kg-day)		8.9E-08	mg/kg-day	7.5E-05	mg/kg-day	1.2E-03
				Cobalt	3.9E+00	ug/L			NA			8.1E-09	mg/kg-day	3.0E-04	mg/kg-day	2.7E-05
				Lead	1.5E+01	ug/L			NA			7.8E-09	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			1.8E-07	mg/kg-day	5.0E-03	mg/kg-day	3.5E-05
			Exp. Route Total								0.0E+00					2.3E-03
		Exposure Point Total									0.0E+00					6.0E-03
	Exposure Medium Total										0.0E+00					6.0E-03
Overflow Surface Water Total											0.0E+00					6.0E-03
Total											Total of Receptor Risks Across All Media					0.0E+00	Total of Receptor Hazards Across All Media				1.1E+00

Notes-
NA = Not available / Not applicable.
DAevent for surface water calculated on Table 7.5.RME Supplement A.
Total includes maximum between air prior to and after aeration system operations, and surface water, and sediment.

TABLE 7.5.RME Supplement A
Calculation of Daevent Wet Event
Residential Scenario
Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (K_p) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (t_{event}) (hr)	DA_{event} (mg/cm^2-event)	Eq
1,4-dichlorobenzene	5.9E-01	4.2E-02	2.0E-01	7.1E-01	1.7E+00	1.0E+00	2.6	9.6E-08	3
Benzene	8.4E-01	1.5E-02	5.1E-02	2.9E-01	7.0E-01	1.0E+00	2.6	3.9E-08	3
Chloroform	5.6E-01	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	2.6	1.4E-08	3
Ethylbenzene	8.7E-01	4.9E-02	2.0E-01	4.2E-01	1.0E+00	1.0E+00	2.6	1.4E-07	3
Tetrachloroethylene(PCE)	2.4E+01	3.3E-02	1.7E-01	9.1E-01	2.2E+00	1.0E+00	2.6	3.5E-06	3
Benzo(a)anthracene	1.0E-01	4.7E-01	2.8E+00	2.0E+00	8.5E+00	1.0E+00	2.6	3.1E-07	2
Benzo(a)pyrene	2.1E-01	7.0E-01	4.3E+00	2.7E+00	1.2E+01	1.0E+00	2.6	1.0E-06	2
Benzo(b)fluoranthene	1.9E-01	7.0E-01	4.3E+00	2.8E+00	1.2E+01	1.0E+00	2.6	9.8E-07	2
Dibenz(a,h)anthracene	1.0E-01	1.5E+00	9.7E+00	3.9E+00	1.8E+01	6.0E-01	2.6	8.0E-07	2
Indeno(1,2,3-c,d)pyrene	5.0E-01	1.0E+00	6.7E+00	3.8E+00	1.7E+01	6.0E-01	2.6	2.6E-06	2
Naphthalene	3.6E-01	4.7E-02	2.0E-01	5.6E-01	1.3E+00	1.0E+00	2.6	6.0E-08	3
Arsenic	1.7E+01	1.0E-03	NA	NA	NA	NA	2.6	4.3E-08	1
Chromium	8.5E+00	2.0E-03	NA	NA	NA	NA	2.6	4.4E-08	1
Cobalt	3.9E+00	4.0E-04	NA	NA	NA	NA	2.6	4.1E-09	1
Lead	1.5E+01	1.0E-04	NA	NA	NA	NA	2.6	3.9E-09	1
Selenium	3.4E+01	1.0E-03	NA	NA	NA	NA	2.6	8.7E-08	1

Inorganics: DA_{event} (mg/cm^2-event) =
$K_p \times CW \times t_{event} \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 1)

Organics: DA_{event} (mg/cm^2-event) =
If $t_{event} < t^*$, then DA_{event} =
$2 \times FA \times K_p \times CW \times (\text{sqrt}((6 \times \tau_{event} \times t_{event})/\pi)) \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 2)

If $t_{event} > t^*$, then DA_{event} =
$FA \times K_p \times CW \times (t_{event}/(1+B) + 2 \times \tau_{event} \times ((1 + 3xB + 3xB^2)/(1+B)^2) \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 3)

Notes:
NA - Not applicable
Permeability constants and other input parameter values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

TABLE 7.6.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at street level (pre-aeration system operation)	Inhalation													
				Benzene	1.3E-03	mg/m^3			7.8E-06	1/(ug/m^3)		1.2E-03	mg/m^3	3.0E-02	mg/m^3	4.0E-02
				Chloroform	2.5E-04	mg/m^3			2.3E-05	1/(ug/m^3)		2.3E-04	mg/m^3	9.8E-02	mg/m^3	2.4E-03
				Ethylbenzene	1.1E-03	mg/m^3			2.5E-06	1/(ug/m^3)		1.0E-03	mg/m^3	1.0E+00	mg/m^3	1.0E-03
				Naphthalene	1.3E-03	mg/m^3			3.4E-05	1/(ug/m^3)		1.2E-03	mg/m^3	3.0E-03	mg/m^3	4.2E-01
			Exp. Route Total													4.6E-01
		Exposure Point Total														4.6E-01
	Exposure Medium Total															4.6E-01
Ambient air at street level Total - Pre-aeration system operation																4.6E-01
Air	Air	Ambient air at street level (after aeration system started)	Inhalation													
				Benzene	1.1E-03	mg/m^3			7.8E-06	1/(ug/m^3)		1.1E-03	mg/m^3	3.0E-02	mg/m^3	3.5E-02
				Chloroform	3.3E-04	mg/m^3			2.3E-05	1/(ug/m^3)		3.2E-04	mg/m^3	9.8E-02	mg/m^3	3.2E-03
				Ethylbenzene	1.2E-03	mg/m^3			2.5E-06	1/(ug/m^3)		1.2E-03	mg/m^3	1.0E+00	mg/m^3	1.2E-03
				Naphthalene	3.0E-03	mg/m^3			3.4E-05	1/(ug/m^3)		2.9E-03	mg/m^3	3.0E-03	mg/m^3	9.7E-01
			Exp. Route Total													1.0E+00
		Exposure Point Total														1.0E+00
	Exposure Medium Total															1.0E+00
Ambient air at street level Total - After aeration system turned on																1.0E+00

TABLE 7.6.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion													
				2-methylnaphthalene	3.6E+02	mg/kg			NA	1/(mg/kg-day)		1.2E-04	mg/kg-day	4.0E-03	mg/kg-day	2.9E-02
				Acenaphthene	3.1E+02	mg/kg			NA			1.0E-04	mg/kg-day	6.0E-02	mg/kg-day	1.7E-03
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		4.2E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		2.4E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		2.6E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		1.3E-05	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		4.8E-06	mg/kg-day	2.0E-02	mg/kg-day	2.4E-04
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		4.2E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		1.8E-06	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			5.9E-05	mg/kg-day	4.0E-02	mg/kg-day	1.5E-03
				Fluorene	2.3E+02	mg/kg			NA			7.6E-05	mg/kg-day	4.0E-02	mg/kg-day	1.9E-03
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		1.0E-05	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			2.2E-04	mg/kg-day	2.0E-02	mg/kg-day	1.1E-02
				Pyrene	3.9E+02	mg/kg			NA			1.3E-04	mg/kg-day	3.0E-02	mg/kg-day	4.2E-03
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		1.5E-11	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			2.0E+00	1/(mg/kg-day)		2.1E-06	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			2.2E-06	mg/kg-day	2.0E-05	mg/kg-day	1.1E-01
				Aluminum	1.5E+04	mg/kg			NA			4.8E-03	mg/kg-day	1.0E+00	mg/kg-day	4.8E-03
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		4.8E-06	mg/kg-day	3.0E-04	mg/kg-day	1.6E-02
				Cadmium	1.0E+01	mg/kg			NA			3.3E-06	mg/kg-day	1.0E-03	mg/kg-day	3.3E-03
				Chromium	8.5E+01	mg/kg			5.0E-01			2.8E-05	mg/kg-day	3.0E-03	mg/kg-day	9.3E-03
				Cobalt	1.1E+01	mg/kg			NA			3.6E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				Copper	2.7E+02	mg/kg			NA			9.0E-05	mg/kg-day	4.0E-02	mg/kg-day	2.3E-03
				Iron	3.4E+04	mg/kg			NA			1.1E-02	mg/kg-day	7.0E-01	mg/kg-day	1.6E-02
				Lead	1.2E+03	mg/kg			NA			3.9E-04	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			1.0E-04	mg/kg-day	1.4E-01	mg/kg-day	7.2E-04
				Vanadium	4.6E+01	mg/kg			NA			1.5E-05	mg/kg-day	5.0E-03	mg/kg-day	3.0E-03
			Exp. Route Total													2.3E-01

TABLE 7.6.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Dermal	2-methylnaphthalene	3.6E+02	mg/kg			NA			4.3E-05	mg/kg-day	4.0E-03	mg/kg-day	1.1E-02
				Acenaphthene	3.1E+02	mg/kg			NA			3.7E-05	mg/kg-day	6.0E-02	mg/kg-day	6.2E-04
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		1.5E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		8.8E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		9.5E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		4.9E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		1.3E-06	mg/kg-day	2.0E-02	mg/kg-day	6.7E-05
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		1.5E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		6.5E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			2.2E-05	mg/kg-day	4.0E-02	mg/kg-day	5.4E-04
				Fluorene	2.3E+02	mg/kg			NA			2.8E-05	mg/kg-day	4.0E-02	mg/kg-day	6.9E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		3.8E-06	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			7.8E-05	mg/kg-day	2.0E-02	mg/kg-day	3.9E-03
				Pyrene	3.9E+02	mg/kg			NA			4.6E-05	mg/kg-day	3.0E-02	mg/kg-day	1.5E-03
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		5.8E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			2.0E+00	1/(mg/kg-day)		8.3E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			8.5E-07	mg/kg-day	2.0E-05	mg/kg-day	4.3E-02
				Aluminum	1.5E+04	mg/kg			NA			1.3E-04	mg/kg-day	1.0E+00	mg/kg-day	1.3E-04
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03
				Cadmium	1.0E+01	mg/kg			NA			9.2E-09	mg/kg-day	2.5E-05	mg/kg-day	3.7E-04
				Chromium	8.5E+01	mg/kg			2.0E+01	1/(mg/kg-day)		7.8E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Cobalt	1.1E+01	mg/kg			NA			1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.4E-04
				Copper	2.7E+02	mg/kg			NA			2.5E-06	mg/kg-day	4.0E-02	mg/kg-day	6.3E-05
				Iron	3.4E+04	mg/kg			NA			3.1E-04	mg/kg-day	7.0E-01	mg/kg-day	4.4E-04
				Lead	1.2E+03	mg/kg			NA			1.1E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			2.8E-06	mg/kg-day	7.0E-01	mg/kg-day	4.0E-06
				Vanadium	4.6E+01	mg/kg			NA			4.2E-07	mg/kg-day	5.0E-03	mg/kg-day	8.5E-05
			Exp. Route Total													7.4E-02
		Exposure Point Total														3.0E-01
	Exposure Medium Total															3.0E-01
Overflow Surface Sediment Total																3.0E-01

TABLE 7.6.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		1.3E-07	mg/kg-day	7.0E-02	mg/kg-day	1.8E-06
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		1.8E-07	mg/kg-day	4.0E-03	mg/kg-day	4.5E-05
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		1.2E-07	mg/kg-day	1.0E-02	mg/kg-day	1.2E-05
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		1.9E-07	mg/kg-day	1.0E-01	mg/kg-day	1.9E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		5.2E-06	mg/kg-day	1.0E-02	mg/kg-day	5.2E-04
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		2.2E-08	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		4.4E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		4.0E-08	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		2.2E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		1.1E-07	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			7.8E-08	mg/kg-day	2.0E-02	mg/kg-day	3.9E-06
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		3.5E-06	mg/kg-day	3.0E-04	mg/kg-day	1.2E-02
				Chromium	8.5E+00	ug/L			5.0E-01	1/(mg/kg-day)		1.8E-06	mg/kg-day	3.0E-03	mg/kg-day	6.1E-04
				Cobalt	3.9E+00	ug/L			NA			8.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.8E-03
				Lead	1.5E+01	ug/L			NA			3.2E-06	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			7.2E-06	mg/kg-day	5.0E-03	mg/kg-day	1.4E-03
			Exp. Route Total													1.7E-02

TABLE 7.6.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		4.4E-07	mg/kg-day	7.0E-02	mg/kg-day	6.3E-06
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		1.8E-07	mg/kg-day	4.0E-03	mg/kg-day	4.4E-05
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		6.2E-08	mg/kg-day	1.0E-02	mg/kg-day	6.2E-06
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		6.2E-07	mg/kg-day	1.0E-01	mg/kg-day	6.2E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		1.6E-05	mg/kg-day	1.0E-02	mg/kg-day	1.6E-03
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		1.4E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		4.8E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		4.5E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		3.7E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		1.2E-05	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			2.8E-07	mg/kg-day	2.0E-02	mg/kg-day	1.4E-05
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		2.0E-07	mg/kg-day	3.0E-04	mg/kg-day	6.6E-04
				Chromium	8.5E+00	ug/L			2.0E+01	1/(mg/kg-day)		2.0E-07	mg/kg-day	7.5E-05	mg/kg-day	2.7E-03
				Cobalt	3.9E+00	ug/L			NA			1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.2E-05
				Lead	1.5E+01	ug/L			NA			1.8E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			4.0E-07	mg/kg-day	5.0E-03	mg/kg-day	8.0E-05
			Exp. Route Total													5.2E-03
		Exposure Point Total														2.2E-02
	Exposure Medium Total															2.2E-02
Overflow Surface Water Total																2.2E-02
Total									Total of Receptor Risks Across All Media					Total of Receptor Hazards Across All Media		1.3E+00

Notes-
NA = Not available / Not applicable.
DAevent for surface water calculated on Table 7.5.RME Supplement A.
Total includes maximum between air prior to and after aeration system operations, and surface water, and sediment.

TABLE 7.7.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at street level (pre-aeration system operation)	Inhalation	Benzene	1.3E-03	mg/m^3	3.7E-01	ug/m^3	7.8E-06	1/(ug/m^3)	2.9E-06			3.0E-02	mg/m^3	
				Chloroform	2.5E-04	mg/m^3	7.2E-02	ug/m^3	2.3E-05	1/(ug/m^3)	1.7E-06			9.8E-02	mg/m^3	
				Ethylbenzene	1.1E-03	mg/m^3	3.2E-01	ug/m^3	2.5E-06	1/(ug/m^3)	8.0E-07			1.0E+00	mg/m^3	
				Naphthalene	1.3E-03	mg/m^3	3.8E-01	ug/m^3	3.4E-05	1/(ug/m^3)	1.3E-05			3.0E-03	mg/m^3	
			Exp. Route Total								1.8E-05					
		Exposure Point Total									1.8E-05					
	Exposure Medium Total										1.8E-05					
Ambient air at street level Total - Pre-aeration system operation											1.8E-05					
Air	Air	Ambient air at street level (after aeration system started)	Inhalation	Benzene	1.1E-03	mg/m^3	3.3E-01	ug/m^3	7.8E-06	1/(ug/m^3)	2.5E-06			3.0E-02	mg/m^3	
				Chloroform	3.3E-04	mg/m^3	9.7E-02	ug/m^3	2.3E-05	1/(ug/m^3)	2.2E-06			9.8E-02	mg/m^3	
				Ethylbenzene	1.2E-03	mg/m^3	3.6E-01	ug/m^3	2.5E-06	1/(ug/m^3)	9.1E-07			1.0E+00	mg/m^3	
				Naphthalene	3.0E-03	mg/m^3	8.9E-01	ug/m^3	3.4E-05	1/(ug/m^3)	3.0E-05			3.0E-03	mg/m^3	
			Exp. Route Total								3.6E-05					
		Exposure Point Total									3.6E-05					
	Exposure Medium Total										3.6E-05					
Ambient air at street level Total - After aeration system turned on											3.6E-05					

TABLE 7.7.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion													
				2-methylnaphthalene	3.6E+02	mg/kg	1.4E-05	mg/kg-day	NA	1/(mg/kg-day)	NA			4.0E-03	mg/kg-day	
				Acenaphthene	3.1E+02	mg/kg	1.2E-05	mg/kg-day	NA		NA			6.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)	1.6E-05			NA		
				Benzo(a)pyrene[1]	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)	9.2E-05			NA		
				Benzo(b)fluoranthene[1]	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)	1.0E-05			NA		
				Benzo(k)fluoranthene[1]	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)	5.2E-07			NA		
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg	5.8E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	8.2E-09			2.0E-02	mg/kg-day	
				Chrysene[1]	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)	1.6E-07			NA		
				Dibenz(a,h)anthracene[1]	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)	6.9E-06			NA		
				Fluoranthene	1.8E+02	mg/kg	7.2E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Fluorene	2.3E+02	mg/kg	9.3E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Indeno(1,2,3-c,d)pyrene[1]	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)	4.0E-06			NA		
				Naphthalene	6.6E+02	mg/kg	2.6E-05	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Pyrene	3.9E+02	mg/kg	1.6E-05	mg/kg-day	NA		NA			3.0E-02	mg/kg-day	
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg	1.8E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.8E-07			NA		
				Nondioxin-Like PCB	6.4E+00	mg/kg	2.6E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	5.2E-07			NA		
				Total PCB	6.6E+00	mg/kg	2.7E-07	mg/kg-day	NA		NA			2.0E-05	mg/kg-day	
				Aluminum	1.5E+04	mg/kg	5.9E-04	mg/kg-day	NA		NA			1.0E+00	mg/kg-day	
				Arsenic	1.5E+01	mg/kg	5.9E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	8.9E-07			3.0E-04	mg/kg-day	
				Cadmium	1.0E+01	mg/kg	4.0E-07	mg/kg-day	NA		NA			1.0E-03	mg/kg-day	
				Chromium[1]	8.5E+01	mg/kg			5.0E-01	1/(mg/kg-day)	7.3E-08			3.0E-03	mg/kg-day	
				Cobalt	1.1E+01	mg/kg	4.4E-07	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Copper	2.7E+02	mg/kg	1.1E-05	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Iron	3.4E+04	mg/kg	1.4E-03	mg/kg-day	NA		NA			7.0E-01	mg/kg-day	
				Lead	1.2E+03	mg/kg	4.8E-05	mg/kg-day	NA		NA			NA		
				Manganese	3.1E+02	mg/kg	1.2E-05	mg/kg-day	NA		NA			1.4E-01	mg/kg-day	
				Vanadium	4.6E+01	mg/kg	1.8E-06	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								1.3E-04					

TABLE 7.7.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Dermal	2-methylnaphthalene	3.6E+02	mg/kg	1.0E-05	mg/kg-day	NA		NA			4.0E-03	mg/kg-day	
				Acenaphthene	3.1E+02	mg/kg	8.7E-06	mg/kg-day	NA		NA			6.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)	8.2E-06			NA		
				Benzo(a)pyrene[1]	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)	4.7E-05			NA		
				Benzo(b)fluoranthene[1]	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)	5.1E-06			NA		
				Benzo(k)fluoranthene[1]	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)	2.6E-07			NA		
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg	3.1E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	4.4E-09			2.0E-02	mg/kg-day	
				Chrysene[1]	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)	8.1E-08			NA		
				Dibenz(a,h)anthracene[1]	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)	3.5E-06			NA		
				Fluoranthene	1.8E+02	mg/kg	5.1E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Fluorene	2.3E+02	mg/kg	6.5E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Indeno(1,2,3-c,d)pyrene[1]	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)	2.0E-06			NA		
				Naphthalene	6.6E+02	mg/kg	1.8E-05	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Pyrene	3.9E+02	mg/kg	1.1E-05	mg/kg-day	NA		NA			3.0E-02	mg/kg-day	
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg	1.4E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.1E-07			NA		
				Nondioxin-Like PCB	6.4E+00	mg/kg	2.0E-07	mg/kg-day	2.0E+00	1/(mg/kg-day)	3.9E-07			NA		
				Total PCB	6.6E+00	mg/kg	2.0E-07	mg/kg-day	NA		NA			2.0E-05	mg/kg-day	
				Aluminum	1.5E+04	mg/kg	3.2E-05	mg/kg-day	NA		NA			1.0E+00	mg/kg-day	
				Arsenic	1.5E+01	mg/kg	9.6E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.4E-07			3.0E-04	mg/kg-day	
				Cadmium	1.0E+01	mg/kg	2.2E-09	mg/kg-day	NA		NA			2.5E-05	mg/kg-day	
				Chromium[1]	8.5E+01	mg/kg			2.0E+01	1/(mg/kg-day)	1.1E-06			7.5E-05	mg/kg-day	
				Cobalt	1.1E+01	mg/kg	2.4E-08	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Copper	2.7E+02	mg/kg	5.9E-07	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Iron	3.4E+04	mg/kg	7.3E-05	mg/kg-day	NA		NA			7.0E-01	mg/kg-day	
				Lead	1.2E+03	mg/kg	2.6E-06	mg/kg-day	NA		NA			NA		
				Manganese	3.1E+02	mg/kg	6.6E-07	mg/kg-day	NA		NA			7.0E-01	mg/kg-day	
				Vanadium	4.6E+01	mg/kg	9.9E-08	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								6.8E-05					
		Exposure Point Total									2.0E-04					
	Exposure Medium Total										2.0E-04					
Overflow Surface Sediment Total											2.0E-04					

TABLE 7.7.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L	2.0E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.1E-10			7.0E-02	mg/kg-day	
				Benzene	8.4E-01	ug/L	2.8E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.6E-09			4.0E-03	mg/kg-day	
				Chloroform	5.6E-01	ug/L	1.9E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	5.9E-10			1.0E-02	mg/kg-day	
				Ethylbenzene	8.7E-01	ug/L	2.9E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	3.2E-10			1.0E-01	mg/kg-day	
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	8.3E-07	mg/kg-day	5.4E-01	1/(mg/kg-day)	4.5E-07			1.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	9.6E-09			NA		
				Benzo(a)pyrene[1]	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)	1.9E-07			NA		
				Benzo(b)fluoranthene[1]	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)	1.7E-08			NA		
				Dibenz(a,h)anthracene[1]	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)	9.3E-08			NA		
				Indeno(1,2,3-c,d)pyrene[1]	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	4.6E-08			NA		
				Naphthalene	3.6E-01	ug/L	1.2E-08	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Arsenic	1.7E+01	ug/L	5.6E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	8.4E-07			3.0E-04	mg/kg-day	
				Chromium[1]	8.5E+00	ug/L			5.0E-01	1/(mg/kg-day)	5.4E-07			3.0E-03	mg/kg-day	
				Cobalt	3.9E+00	ug/L	1.3E-07	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Lead	1.5E+01	ug/L	5.0E-07	mg/kg-day	NA		NA			NA		
				Selenium	3.4E+01	ug/L	1.1E-06	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								2.2E-06					

TABLE 7.7.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	1.0E-07	mg/kg-day	5.4E-03	1/(mg/kg-day)	5.6E-10			7.0E-02	mg/kg-day	
				Benzene	8.4E-01	ug/L	4.2E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	2.3E-09			4.0E-03	mg/kg-day	
				Chloroform	5.6E-01	ug/L	1.5E-08	mg/kg-day	3.1E-02	1/(mg/kg-day)	4.5E-10			1.0E-02	mg/kg-day	
				Ethylbenzene	8.7E-01	ug/L	1.5E-07	mg/kg-day	1.1E-02	1/(mg/kg-day)	1.6E-09			1.0E-01	mg/kg-day	
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	3.8E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	2.0E-06			1.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	7.6E-07			NA		
				Benzo(a)pyrene[1]	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)	2.6E-05			NA		
				Benzo(b)fluoranthene[1]	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)	2.4E-06			NA		
				Dibenz(a,h)anthracene[1]	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)	2.0E-05			NA		
				Indeno(1,2,3-c,d)pyrene[1]	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	6.4E-06			NA		
				Naphthalene	3.6E-01	ug/L	6.5E-08	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Arsenic	1.7E+01	ug/L	4.7E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	7.0E-08			3.0E-04	mg/kg-day	
				Chromium[1]	8.5E+00	ug/L			2.0E+01	1/(mg/kg-day)	3.6E-06			7.5E-05	mg/kg-day	
				Cobalt	3.9E+00	ug/L	4.4E-09	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Lead	1.5E+01	ug/L	4.2E-09	mg/kg-day	NA		NA			NA		
				Selenium	3.4E+01	ug/L	9.5E-08	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								6.1E-05					
		Exposure Point Total									6.3E-05					
	Exposure Medium Total										6.3E-05					
Overflow Surface Water Total											6.3E-05					
Total											3.0E-04	Total of Receptor Hazards Across All Media				

Notes-

NA = Not available / Not applicable.

DAevent for surface water calculated on Table 7.5.RME Supplement A.

Total includes maximum between air prior to and after aeration system operations, and surface water, and sediment.

1. See Table 7.7.RME Supplement A for calculation of intake and cancer risk following MMOA method.

TABLE 7.7.RME Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult/Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations										
							Intake					CSF/Unit Risk					Cancer Risk
							Value				Units	Value				Units	
					Value	Units	0-2 yrs	2-6 yrs	6-16 years	16-30 yrs		0-2 yrs (ADAF=10)	2-6 yrs (ADAF=3)	6-16 yrs (ADAF=3)	16-30 yrs (ADAF=1)		
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	Benzo(a)anthracene	1.3E+02	mg/kg	1.2E-06	2.4E-06	6.4E-07	9.0E-07	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	mg/kg/day	1.6E-05
				Benzo(a)pyrene	7.3E+01	mg/kg	6.9E-07	1.4E-06	3.7E-07	5.2E-07	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	mg/kg/day	9.2E-05
				Benzo(b)fluoranthene	7.9E+01	mg/kg	7.4E-07	1.5E-06	4.0E-07	5.6E-07	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	mg/kg/day	1.0E-05
				Benzo(k)fluoranthene	4.1E+01	mg/kg	3.9E-07	7.7E-07	2.1E-07	2.9E-07	mg/kg/day	7.3E-01	2.2E-01	2.2E-01	7.3E-02	mg/kg/day	5.2E-07
				Chrysene	1.3E+02	mg/kg	1.2E-06	2.4E-06	6.4E-07	8.9E-07	mg/kg/day	7.3E-02	2.2E-02	2.2E-02	7.3E-03	mg/kg/day	1.6E-07
				Dibenz(a,h)anthracene	5.5E+00	mg/kg	5.1E-08	1.0E-07	2.7E-08	3.8E-08	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	mg/kg/day	6.9E-06
				Indeno(1,2,3-cd)pyrene	3.1E+01	mg/kg	2.9E-07	5.9E-07	1.6E-07	2.2E-07	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	mg/kg/day	4.0E-06
				Chromium	8.5E-01	mg/kg	8.0E-09	1.6E-08	4.3E-09	6.0E-09	mg/kg/day	5.0E+00	1.5E+00	1.5E+00	5.0E-01	mg/kg/day	7.3E-08
			Dermal	Benzo(a)anthracene	1.3E+02	mg/kg	4.4E-07	8.8E-07	9.5E-07	1.3E-06	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	mg/kg/day	8.2E-06
				Benzo(a)pyrene	7.3E+01	mg/kg	2.5E-07	5.0E-07	5.5E-07	7.6E-07	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	mg/kg/day	4.7E-05
				Benzo(b)fluoranthene	7.9E+01	mg/kg	2.7E-07	5.4E-07	5.9E-07	8.3E-07	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	mg/kg/day	5.1E-06
				Benzo(k)fluoranthene	4.1E+01	mg/kg	1.4E-07	2.8E-07	3.1E-07	4.3E-07	mg/kg/day	7.3E-01	2.2E-01	2.2E-01	7.3E-02	mg/kg/day	2.6E-07
				Chrysene	1.3E+02	mg/kg	4.3E-07	8.7E-07	9.5E-07	1.3E-06	mg/kg/day	7.3E-02	2.2E-02	2.2E-02	7.3E-03	mg/kg/day	8.1E-08
				Dibenz(a,h)anthracene	5.5E+00	mg/kg	1.9E-08	3.7E-08	4.1E-08	5.7E-08	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	mg/kg/day	3.5E-06
				Indeno(1,2,3-cd)pyrene	3.1E+01	mg/kg	1.1E-07	2.1E-07	2.3E-07	3.3E-07	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	mg/kg/day	2.0E-06
				Chromium	8.5E+01	mg/kg	2.2E-09	4.4E-09	4.8E-09	6.8E-09	mg/kg/day	2.0E+02	6.0E+01	6.0E+01	2.0E+01	mg/kg/day	1.1E-06
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion	Benzo(a)anthracene	1.0E-01	ug/L	6.3E-10	1.3E-09	6.8E-10	9.5E-10	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	9.6E-09
				Benzo(a)pyrene	2.1E-01	ug/L	1.3E-09	2.5E-09	1.3E-09	1.9E-09	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	1.9E-07
				Benzo(b)fluoranthene	1.9E-01	ug/L	1.2E-09	2.3E-09	1.2E-09	1.7E-09	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	1.7E-08
				Dibenz(a,h)anthracene	1.0E-01	ug/L	6.2E-10	1.2E-09	6.6E-10	9.3E-10	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	9.3E-08
				Indeno(1,2,3-cd)pyrene	5.0E-01	ug/L	3.1E-09	6.1E-09	3.3E-09	4.6E-09	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	4.6E-08
				Chromium	8.5E+00	ug/L	5.2E-08	1.0E-07	5.6E-08	7.8E-08	mg/kg/day	5.0E+00	1.5E+00	1.5E+00	5.0E-01	1/(mg/kg-day)	5.4E-07
			Dermal	Benzo(a)anthracene	1.0E-01	ug/L	4.1E-08	8.2E-08	8.9E-08	1.2E-07	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	7.6E-07
				Benzo(a)pyrene	2.1E-01	ug/L	1.4E-07	2.8E-07	3.0E-07	4.2E-07	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	2.6E-05
				Benzo(b)fluoranthene	1.9E-01	ug/L	1.3E-07	2.6E-07	2.8E-07	3.9E-07	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	2.4E-06
				Dibenz(a,h)anthracene	1.0E-01	ug/L	1.0E-07	2.1E-07	2.3E-07	3.2E-07	mg/kg/day	7.3E+01	2.2E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	2.0E-05
				Indeno(1,2,3-cd)pyrene	5.0E-01	ug/L	3.4E-07	6.8E-07	7.5E-07	1.0E-06	mg/kg/day	7.3E+00	2.2E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	6.4E-06
				Chromium	8.5E+00	ug/L	7.9E-09	1.6E-08	1.3E-08	1.8E-08	mg/kg/day	2.0E+02	6.0E+01	6.0E+01	2.0E+01	1/(mg/kg-day)	3.6E-06

Cancer risk = $(Intake_{0\text{-}2} \times CSF_{0\text{-}2}) + (Intake_{2\text{-}6} \times CSF_{2\text{-}6}) + (Intake_{6\text{-}16} \times CSF_{6\text{-}16}) + (Intake_{16\text{-}30} \times CSF_{16\text{-}30})$

TABLE 7.8.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Ingestion													
				p,p'-DDE	1.2E-02	mg/kg	7.2E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	2.4E-07	2.1E-06	mg/kg-day	NA		NA
				p,p'-DDT	9.6E-03	mg/kg	5.7E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	2.0E-07	1.7E-06	mg/kg-day	5.0E-04	mg/kg-day	3.4E-03
				Dioxin-Like PCB TEQ	4.3E-06	mg/kg	2.6E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	4.0E-05	7.5E-10	mg/kg-day	NA		NA
				Nondioxin-Like	4.1E-01	mg/kg	2.4E-05	mg/kg-day	2.0E+00	1/(mg/kg-day)	4.9E-05	7.1E-05	mg/kg-day	NA		NA
				Total PCB	4.4E-01	mg/kg	2.6E-05	mg/kg-day	NA		NA	7.6E-05	mg/kg-day	2.0E-05	mg/kg-day	3.8E+00
				Arsenic	6.8E-02	mg/kg	4.1E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	6.1E-06	1.2E-05	mg/kg-day	3.0E-04	mg/kg-day	4.0E-02
				Mercury	2.0E-01	mg/kg	1.2E-05	mg/kg-day	NA		NA	3.5E-05	mg/kg-day	1.0E-04	mg/kg-day	3.5E-01
				Selenium	1.2E+00	mg/kg	7.2E-05	mg/kg-day	NA		NA	2.1E-04	mg/kg-day	5.0E-03	mg/kg-day	4.2E-02
			Exp. Route Total								9.6E-05					4.2E+00
		Exposure Point Total									9.6E-05					4.2E+00
	Exposure Medium Total - Striped Bass in Gowanus Canal										9.6E-05					4.2E+00
	Fish and Crab Tissue	White Perch in Gowanus Canal	Ingestion													
				Dioxin-Like PCB TEQ	5.8E-06	mg/kg	6.4E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	9.9E-06	1.9E-10	mg/kg-day	NA		NA
				Nondioxin-Like	4.4E-01	mg/kg	4.8E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	9.6E-06	1.5E-05	mg/kg-day	NA		NA
				Total PCB	4.6E-01	mg/kg	5.1E-06	mg/kg-day	NA		NA	1.5E-05	mg/kg-day	2.0E-05	mg/kg-day	7.7E-01
				Mercury	1.9E-01	mg/kg	1.1E-05	mg/kg-day	NA		NA	6.4E-06	mg/kg-day	1.0E-04	mg/kg-day	6.4E-02
				Selenium	1.4E+00	mg/kg	8.0E-05	mg/kg-day	NA		NA	4.7E-05	mg/kg-day	5.0E-03	mg/kg-day	9.4E-03
			Exp. Route Total								2.0E-05					8.5E-01
		Exposure Point Total									2.0E-05					8.5E-01
	Exposure Medium Total - White Perch in Gowanus Canal										2.0E-05					8.5E-01

TABLE 7.8.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Ingestion	alpha-Chlordane	2.2E-02	mg/kg	1.2E-06	mg/kg-day	3.5E-01	1/(mg/kg-day)	4.3E-07	3.6E-06	mg/kg-day	5.0E-04	mg/kg-day	7.2E-03
				Dieldrin	1.7E-02	mg/kg	9.5E-07	mg/kg-day	1.6E+01	1/(mg/kg-day)	1.5E-05	2.8E-06	mg/kg-day	5.0E-05	mg/kg-day	5.6E-02
				gamma-Chlordane	1.3E-02	mg/kg	7.3E-07	mg/kg-day	3.5E-01	1/(mg/kg-day)	2.5E-07	2.1E-06	mg/kg-day	5.0E-04	mg/kg-day	4.2E-03
				p,p'-DDD	3.8E-02	mg/kg	2.1E-06	mg/kg-day	2.4E-01	1/(mg/kg-day)	5.1E-07	6.2E-06	mg/kg-day	NA		NA
				p,p'-DDE	2.5E-02	mg/kg	1.4E-06	mg/kg-day	3.4E-01	1/(mg/kg-day)	4.8E-07	4.1E-06	mg/kg-day	NA		NA
				p,p'-DDT	4.7E-02	mg/kg	2.6E-06	mg/kg-day	3.4E-01	1/(mg/kg-day)	9.0E-07	7.7E-06	mg/kg-day	5.0E-04	mg/kg-day	1.5E-02
				Dioxin-Like PCB TEQ	1.4E-05	mg/kg	7.9E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.2E-04	2.3E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.2E+00	mg/kg	6.8E-05	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.4E-04	2.0E-04	mg/kg-day	NA		NA
				Total PCB	1.4E+00	mg/kg	7.6E-05	mg/kg-day	NA		NA	2.2E-04	mg/kg-day	2.0E-05	mg/kg-day	1.1E+01
				Arsenic	5.0E-02	mg/kg	2.8E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.2E-06	8.2E-06	mg/kg-day	3.0E-04	mg/kg-day	2.7E-02
				Chromium	6.7E-01	mg/kg	3.8E-05	mg/kg-day	5.0E-01	1/(mg/kg-day)	1.9E-05	1.1E-04	mg/kg-day	3.0E-03	mg/kg-day	3.6E-02
				Copper	7.4E+00	mg/kg	4.1E-04	mg/kg-day	NA		NA	1.2E-03	mg/kg-day	4.0E-02	mg/kg-day	3.0E-02
				Cyanide, total	3.1E+00	mg/kg	1.7E-04	mg/kg-day	NA		NA	5.1E-04	mg/kg-day	2.0E-02		2.5E-02
				Mercury	2.6E-01	mg/kg	1.5E-05	mg/kg-day	NA		NA	4.2E-05	mg/kg-day	1.0E-04		4.2E-01
				Selenium	1.4E+00	mg/kg	7.8E-05	mg/kg-day	NA		NA	2.3E-04	mg/kg-day	5.0E-03	mg/kg-day	4.6E-02
			Exp. Route Total								3.0E-04					1.2E+01
		Exposure Point Total									3.0E-04					1.2E+01
	Exposure Medium Total - Eel in Gowanus Canal										3.0E-04					1.2E+01

TABLE 7.8.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal	Ingestion	Benzo(a)anthracene	7.7E-03	mg/kg	8.7E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.3E-07	2.5E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	1.2E-02	mg/kg	1.3E-06	mg/kg-day	7.3E+00	1/(mg/kg-day)	9.7E-06	3.9E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	6.4E-03	mg/kg	7.2E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	5.3E-07	2.1E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	3.9E-03	mg/kg	4.4E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.2E-06	1.3E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-cd)pyrene	9.9E-03	mg/kg	1.1E-06	mg/kg-day	7.3E-01	1/(mg/kg-day)	8.1E-07	3.3E-06	mg/kg-day	NA		NA
				Dioxin-Like PCB TEQ	5.0E-06	mg/kg	5.7E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	8.9E-05	1.7E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.4E-01	mg/kg	1.6E-05	mg/kg-day	2.0E+00	1/(mg/kg-day)	3.2E-05	4.7E-05	mg/kg-day	NA		NA
				Total PCB	1.7E-01	mg/kg	1.9E-05	mg/kg-day	NA		NA	5.5E-05	mg/kg-day	2.0E-05	mg/kg-day	2.7E+00
				Arsenic	1.3E-01	mg/kg	1.5E-05	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.2E-05	4.3E-05	mg/kg-day	3.0E-04	mg/kg-day	1.4E-01
				Copper	1.0E+01	mg/kg	1.1E-03	mg/kg-day	NA		NA	3.4E-03	mg/kg-day	4.0E-02	mg/kg-day	8.4E-02
				Mercury	1.2E-01	mg/kg	1.4E-05	mg/kg-day	NA		NA	4.1E-05	mg/kg-day	1.0E-04	mg/kg-day	4.1E-01
			Exp. Route Total								1.6E-04					3.4E+00
		Exposure Point Total									1.6E-04					3.4E+00
	Exposure Medium Total - Crab in Gowanus Canal										1.6E-04					3.4E+00
Total Fish									Total of Receptor Risks - Fish		4.2E-04			Total of Receptor Hazards - Fish		1.7E+01
Total Blue Crab									Total of Receptor Risks - Blur Crab		1.6E-04			Total of Receptor Hazards - Blue Crab		3.4E+00

Notes-
NA = Not available / Not applicable.

TABLE 7.9.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Ingestion													
				p,p'-DDE	1.2E-02	mg/kg	1.4E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	4.9E-08	1.7E-06	mg/kg-day	NA		NA
				p,p'-DDT	9.6E-03	mg/kg	1.2E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	3.9E-08	1.3E-06	mg/kg-day	5.0E-04	mg/kg-day	2.7E-03
				Dioxin-Like PCB TEQ	4.3E-06	mg/kg	5.2E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	8.1E-06	6.0E-10	mg/kg-day	NA		NA
				Nondioxin-Like	4.1E-01	mg/kg	4.9E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	9.8E-06	5.7E-05	mg/kg-day	NA		NA
				Total PCB	4.4E-01	mg/kg	5.2E-06	mg/kg-day	NA		NA	6.1E-05	mg/kg-day	2.0E-05	mg/kg-day	3.0E+00
				Arsenic	6.8E-02	mg/kg	8.2E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.2E-06	9.5E-06	mg/kg-day	3.0E-04	mg/kg-day	3.2E-02
				Mercury	2.0E-01	mg/kg	2.4E-06	mg/kg-day	NA		NA	2.8E-05	mg/kg-day	1.0E-04	mg/kg-day	2.8E-01
				Selenium	1.2E+00	mg/kg	1.4E-05	mg/kg-day	NA		NA	1.7E-04	mg/kg-day	5.0E-03	mg/kg-day	3.4E-02
			Exp. Route Total								1.9E-05					3.4E+00
		Exposure Point Total									1.9E-05					3.4E+00
	Exposure Medium Total - Striped Bass in Gowanus Canal										1.9E-05					3.4E+00
	Fish and Crab Tissue	White Perch in Gowanus Canal	Ingestion													
				Dioxin-Like PCB TEQ	5.8E-06	mg/kg	1.3E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.1E-06	1.6E-10	mg/kg-day	NA		NA
				Nondioxin-Like	4.4E-01	mg/kg	1.0E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	2.0E-06	1.2E-05	mg/kg-day	NA		NA
				Total PCB	4.6E-01	mg/kg	1.1E-06	mg/kg-day	NA		NA	1.2E-05	mg/kg-day	2.0E-05	mg/kg-day	6.2E-01
				Mercury	1.9E-01	mg/kg	4.4E-07	mg/kg-day	NA		NA	5.1E-06	mg/kg-day	1.0E-04	mg/kg-day	5.1E-02
				Selenium	1.4E+00	mg/kg	3.2E-06	mg/kg-day	NA		NA	3.8E-05	mg/kg-day	5.0E-03	mg/kg-day	7.5E-03
			Exp. Route Total								4.1E-06					6.8E-01
		Exposure Point Total									4.1E-06					6.8E-01
	Exposure Medium Total - White Perch in Gowanus Canal										4.1E-06					6.8E-01

TABLE 7.9.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Ingestion													
				alpha-Chlordane	2.2E-02	mg/kg	2.5E-07	mg/kg-day	3.5E-01	1/(mg/kg-day)	8.7E-08	2.9E-06	mg/kg-day	5.0E-04	mg/kg-day	5.8E-03
				Dieldrin	1.7E-02	mg/kg	1.9E-07	mg/kg-day	1.6E+01	1/(mg/kg-day)	3.1E-06	2.2E-06	mg/kg-day	5.0E-05	mg/kg-day	4.5E-02
				gamma-Chlordane	1.3E-02	mg/kg	1.5E-07	mg/kg-day	3.5E-01	1/(mg/kg-day)	5.1E-08	1.7E-06	mg/kg-day	5.0E-04	mg/kg-day	3.4E-03
				p,p'-DDD	3.8E-02	mg/kg	4.3E-07	mg/kg-day	2.4E-01	1/(mg/kg-day)	1.0E-07	5.0E-06	mg/kg-day	NA		NA
				p,p'-DDE	2.5E-02	mg/kg	2.8E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	9.6E-08	3.3E-06	mg/kg-day	NA		NA
				p,p'-DDT	4.7E-02	mg/kg	5.3E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	1.8E-07	6.2E-06	mg/kg-day	5.0E-04	mg/kg-day	1.2E-02
				Dioxin-Like PCB TEQ	1.4E-05	mg/kg	1.6E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.5E-05	1.9E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.2E+00	mg/kg	1.4E-05	mg/kg-day	2.0E+00	1/(mg/kg-day)	2.7E-05	1.6E-04	mg/kg-day	NA		NA
				Total PCB	1.4E+00	mg/kg	1.5E-05	mg/kg-day	NA		NA	1.8E-04	mg/kg-day	2.0E-05	mg/kg-day	8.9E+00
				Arsenic	5.0E-02	mg/kg	5.6E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	8.4E-07	6.6E-06	mg/kg-day	3.0E-04	mg/kg-day	2.2E-02
				Chromium (12-16)*	6.7E-01	mg/kg	5.0E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	7.5E-06	8.8E-05	mg/kg-day	3.0E-03	mg/kg-day	2.9E-02
				Chromium (16-18)*	6.7E-01	mg/kg	2.5E-06	mg/kg-day	5.0E-01	1/(mg/kg-day)	1.3E-06					
				Copper	7.4E+00	mg/kg	8.3E-05	mg/kg-day	NA		NA	9.7E-04	mg/kg-day	4.0E-02	mg/kg-day	2.4E-02
				Cyanide, total	3.1E+00	mg/kg	3.5E-05	mg/kg-day	NA		NA	4.1E-04	mg/kg-day	2.0E-02	mg/kg-day	2.0E-02
				Mercury	2.6E-01	mg/kg	2.9E-06	mg/kg-day	NA		NA	3.4E-05	mg/kg-day	1.0E-04	mg/kg-day	3.4E-01
				Selenium	1.4E+00	mg/kg	1.6E-05	mg/kg-day	NA		NA	1.8E-04	mg/kg-day	5.0E-03	mg/kg-day	3.7E-02
			Exp. Route Total								6.5E-05					9.4E+00
		Exposure Point Total									6.5E-05					9.4E+00
	Exposure Medium Total - Eel in Gowanus Canal										6.5E-05					9.4E+00

TABLE 7.9.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal	Ingestion	Benzo(a)anthracene (12-16)*	7.7E-03	mg/kg	1.2E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.5E-07	2.0E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (16-18)*	7.7E-03	mg/kg	5.8E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.2E-08					
				Benzo(a)pyrene (12-16)*	1.2E-02	mg/kg	1.8E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	3.9E-06	3.1E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (16-18)*	1.2E-02	mg/kg	8.9E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.5E-07					
				Benzo(b)fluoranthene (12-16)*	6.4E-03	mg/kg	9.6E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.1E-07	1.7E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (16-18)*	6.4E-03	mg/kg	4.8E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.5E-08					
				Dibenz(a,h)anthracene (12-16)*	3.9E-03	mg/kg	5.9E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.3E-06	1.0E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (16-18)*	3.9E-03	mg/kg	3.0E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.2E-07					
				Indeno(1,2,3-cd)pyrene (12-16)*	9.9E-03	mg/kg	1.5E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.3E-07	2.6E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-cd)pyrene (16-18)*	9.9E-03	mg/kg	7.5E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	5.4E-08					
				Dioxin-Like PCB TEQ	5.0E-06	mg/kg	1.1E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.8E-05	1.3E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.4E-01	mg/kg	3.2E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	6.5E-06	3.8E-05	mg/kg-day	NA		NA
				Total PCB	1.7E-01	mg/kg	3.7E-06	mg/kg-day	NA		NA	4.4E-05	mg/kg-day	2.0E-05	mg/kg-day	2.2E+00
				Arsenic	1.3E-01	mg/kg	3.0E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.4E-06	3.4E-05	mg/kg-day	3.0E-04	mg/kg-day	1.1E-01
				Copper	1.0E+01	mg/kg	2.3E-04	mg/kg-day	NA		NA	2.7E-03	mg/kg-day	4.0E-02	mg/kg-day	6.7E-02
				Mercury	1.2E-01	mg/kg	2.8E-06	mg/kg-day	NA		NA	3.3E-05	mg/kg-day	1.0E-04	mg/kg-day	3.3E-01
			Exp. Route Total								3.6E-05					2.7E+00
		Exposure Point Total									3.6E-05					2.7E+00
	Exposure Medium Total - Crab in Gowanus Canal										3.6E-05					2.7E+00
Total Fish									Total of Receptor Risks - Fish		8.9E-05	Total of Receptor Hazards - Fish				1.3E+01
Total Blue Crab									Total of Receptor Risks - Blur Crab		3.6E-05	Total of Receptor Hazards - Blue Crab				2.7E+00

Notes-

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-16 year old for exposure duration of 4 years, ADAF of 1 used to adjust CSF for 16-18 year old for exposure duration of 2 years.
Non-cancer calculations shown under 12-16 year old only, as non-cancer calculations are not adjusted for MMOA.

NA = Not available / Not applicable.

TABLE 7.10.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Ingestion													
				p,p'-DDE	1.2E-02	mg/kg	2.9E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	9.9E-08	3.4E-06	mg/kg-day	NA		NA
				p,p'-DDT	9.6E-03	mg/kg	2.3E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	7.9E-08	2.7E-06	mg/kg-day	5.0E-04	mg/kg-day	5.4E-03
				Dioxin-Like PCB TEQ	4.3E-06	mg/kg	1.0E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.6E-05	1.2E-09	mg/kg-day	NA		NA
				Nondioxin-Like	4.1E-01	mg/kg	9.9E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	2.0E-05	1.2E-04	mg/kg-day	NA		NA
				Total PCB	4.4E-01	mg/kg	1.1E-05	mg/kg-day	NA		NA	1.2E-04	mg/kg-day	2.0E-05	mg/kg-day	6.1E+00
				Arsenic	6.8E-02	mg/kg	1.6E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.5E-06	1.9E-05	mg/kg-day	3.0E-04	mg/kg-day	6.4E-02
				Mercury	2.0E-01	mg/kg	4.8E-06	mg/kg-day	NA	1/(mg/kg-day)	NA	5.6E-05	mg/kg-day	1.0E-04	mg/kg-day	5.6E-01
				Selenium	1.2E+00	mg/kg	2.9E-05	mg/kg-day	NA		NA	3.4E-04	mg/kg-day	5.0E-03	mg/kg-day	6.8E-02
			Exp. Route Total								3.9E-05					6.8E+00
		Exposure Point Total									3.9E-05					6.8E+00
	Exposure Medium Total - Striped Bass in Gowanus Canal										3.9E-05					6.8E+00
	Fish and Crab Tissue	White Perch in Gowanus Canal	Ingestion													
				Dioxin-Like PCB TEQ	5.8E-06	mg/kg	2.7E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	4.2E-06	3.1E-10	mg/kg-day	NA		NA
				Nondioxin-Like	4.4E-01	mg/kg	2.0E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	4.0E-06	2.4E-05	mg/kg-day	NA		NA
				Total PCB	4.6E-01	mg/kg	2.1E-06	mg/kg-day	NA		NA	2.5E-05	mg/kg-day	2.0E-05	mg/kg-day	1.2E+00
				Mercury	1.9E-01	mg/kg	8.8E-07	mg/kg-day	NA		NA	1.0E-05	mg/kg-day	1.0E-04	mg/kg-day	1.0E-01
				Selenium	1.4E+00	mg/kg	6.5E-06	mg/kg-day	NA		NA	7.6E-05	mg/kg-day	5.0E-03	mg/kg-day	1.5E-02
			Exp. Route Total								8.2E-06					1.4E+00
		Exposure Point Total									8.2E-06					1.4E+00
	Exposure Medium Total - White Perch in Gowanus Canal										8.2E-06					1.4E+00

TABLE 7.10.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Ingestion	alpha-Chlordane	2.2E-02	mg/kg	5.0E-07	mg/kg-day	3.5E-01	1/(mg/kg-day)	1.7E-07	5.8E-06	mg/kg-day	5.0E-04	mg/kg-day	1.2E-02
				Dieldrin	1.7E-02	mg/kg	3.8E-07	mg/kg-day	1.6E+01	1/(mg/kg-day)	6.2E-06	4.5E-06	mg/kg-day	5.0E-05	mg/kg-day	9.0E-02
				gamma-Chlordane	1.3E-02	mg/kg	2.9E-07	mg/kg-day	3.5E-01	1/(mg/kg-day)	1.0E-07	3.4E-06	mg/kg-day	5.0E-04	mg/kg-day	6.9E-03
				p,p'-DDD	3.8E-02	mg/kg	8.6E-07	mg/kg-day	2.4E-01	1/(mg/kg-day)	2.1E-07	1.0E-05	mg/kg-day	NA		NA
				p,p'-DDE	2.5E-02	mg/kg	5.7E-07	mg/kg-day	3.4E-01	1/(mg/kg-day)	1.9E-07	6.6E-06	mg/kg-day	NA		NA
				p,p'-DDT	4.7E-02	mg/kg	1.1E-06	mg/kg-day	3.4E-01	1/(mg/kg-day)	3.6E-07	1.2E-05	mg/kg-day	5.0E-04	mg/kg-day	2.5E-02
				Dioxin-Like PCB TEQ	1.4E-05	mg/kg	3.2E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	5.0E-05	3.7E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.2E+00	mg/kg	2.8E-05	mg/kg-day	2.0E+00	1/(mg/kg-day)	5.5E-05	3.2E-04	mg/kg-day	NA		NA
				Total PCB	1.4E+00	mg/kg	3.1E-05	mg/kg-day	NA		NA	3.6E-04	mg/kg-day	2.0E-05	mg/kg-day	1.8E+01
				Arsenic	5.0E-02	mg/kg	1.1E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.7E-06	1.3E-05	mg/kg-day	3.0E-04	mg/kg-day	4.4E-02
				Chromium (0-2)*	6.7E-01	mg/kg	5.1E-06	mg/kg-day	5.0E+00	1/(mg/kg-day)	2.5E-05	1.8E-04	mg/kg-day	3.0E-03	mg/kg-day	5.9E-02
				Chromium (2-6)*	6.7E-01	mg/kg	1.0E-05	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.5E-05					
				Copper	7.4E+00	mg/kg	1.7E-04	mg/kg-day	NA		NA	2.0E-03	mg/kg-day	4.0E-02	mg/kg-day	4.9E-02
				Cyanide, total	3.1E+00	mg/kg	7.0E-05	mg/kg-day	NA		NA	8.2E-04	mg/kg-day	2.0E-02	mg/kg-day	4.1E-02
				Mercury	2.6E-01	mg/kg	5.9E-06	mg/kg-day	NA		NA	6.9E-05	mg/kg-day	1.0E-04	mg/kg-day	6.9E-01
				Selenium	1.4E+00	mg/kg	3.2E-05	mg/kg-day	NA		NA	3.7E-04	mg/kg-day	5.0E-03	mg/kg-day	7.4E-02
			Exp. Route Total								1.5E-04					1.9E+01
		Exposure Point Total									1.5E-04					1.9E+01
	Exposure Medium Total - Eel in Gowanus Canal										1.5E-04					1.9E+01

TABLE 7.10.RME

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
	Fish and Crab Tissue	Blue Crab in Gowanus Canal	Ingestion													
				Benzo(a)anthracene (0-2)*	7.7E-03	mg/kg	1.2E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	8.6E-07	4.1E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-6)*	7.7E-03	mg/kg	2.3E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.1E-07					
				Benzo(a)pyrene (0-2)*	1.2E-02	mg/kg	1.8E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	1.3E-05	6.3E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-6)*	1.2E-02	mg/kg	3.6E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	7.9E-06					
				Benzo(b)fluoranthene (0-2)*	6.4E-03	mg/kg	9.7E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	7.1E-07	3.4E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-6)*	6.4E-03	mg/kg	1.9E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	4.3E-07					
				Dibenz(a,h)anthracene (0-2)*	3.9E-03	mg/kg	6.0E-08	mg/kg-day	7.3E+01	1/(mg/kg-day)	4.4E-06	2.1E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (2-6)*	3.9E-03	mg/kg	1.2E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.6E-06					
				Indeno(1,2,3-cd)pyrene (0-2)*	9.9E-03	mg/kg	1.5E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.1E-06	5.3E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-cd)pyrene (2-6)*	9.9E-03	mg/kg	3.0E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.6E-07					
				Dioxin-Like PCB TEQ	5.0E-06	mg/kg	2.3E-10	mg/kg-day	1.6E+05	1/(mg/kg-day)	3.6E-05	2.7E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.4E-01	mg/kg	6.5E-06	mg/kg-day	2.0E+00	1/(mg/kg-day)	1.3E-05	7.6E-05	mg/kg-day	NA		NA
				Total PCB	1.7E-01	mg/kg	7.6E-06	mg/kg-day	NA		NA	8.9E-05	mg/kg-day	2.0E-05	mg/kg-day	4.4E+00
				Arsenic	1.3E-01	mg/kg	6.0E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	9.0E-06	7.0E-05	mg/kg-day	3.0E-04	mg/kg-day	2.3E-01
				Copper	1.0E+01	mg/kg	4.7E-04	mg/kg-day	NA		NA	5.4E-03	mg/kg-day	4.0E-02	mg/kg-day	1.4E-01
				Mercury	1.2E-01	mg/kg	5.7E-06	mg/kg-day	NA		NA	6.6E-05	mg/kg-day	1.0E-04	mg/kg-day	6.6E-01
			Exp. Route Total								9.0E-05					5.5E+00
		Exposure Point Total									9.0E-05					5.5E+00
	Exposure Medium Total - Crab in Gowanus Canal										9.0E-05					5.5E+00
Total Fish										Total of Receptor Risks - Fish	2.0E-04			Total of Receptor Hazards - Fish		2.7E+01
Total Blue Crab										Total of Receptor Risks - Blur Crab	9.0E-05			Total of Receptor Hazards - Blue Crab		5.5E+00

Notes-

NA = Not available / Not applicable.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-6 year old for exposure duration of 4 years.
Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

TABLE 7.1.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Ingestion	Acenaphthene	3.7E+02	mg/kg	2.0E-07	mg/kg-day	NA		NA	4.7E-06	mg/kg-day	6.0E-02	mg/kg-day	7.8E-05
				Benzo(a)anthracene	1.3E+02	mg/kg	6.9E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	5.1E-08	1.6E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	1.1E+02	mg/kg	5.8E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.3E-07	1.4E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.1E+02	mg/kg	6.2E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.5E-08	1.4E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	6.5E+01	mg/kg	3.5E-08	mg/kg-day	7.3E-02	1/(mg/kg-day)	2.6E-09	8.2E-07	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	1.8E-08	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.5E-10	4.2E-07	mg/kg-day	2.0E-02	mg/kg-day	2.1E-05
				Chrysene	2.5E+02	mg/kg	1.4E-07	mg/kg-day	7.3E-03	1/(mg/kg-day)	1.0E-09	3.2E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	6.2E+00	mg/kg	3.4E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.5E-08	7.9E-08	mg/kg-day	NA		NA
				Fluoranthene	5.0E+02	mg/kg	2.7E-07	mg/kg-day	NA		NA	6.3E-06	mg/kg-day	4.0E-02	mg/kg-day	1.6E-04
				Indeno(1,2,3-c,d)pyrene	4.9E+01	mg/kg	2.7E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.9E-08	6.2E-07	mg/kg-day	NA		NA
				Naphthalene	3.4E+00	mg/kg	1.9E-09	mg/kg-day	NA		NA	4.3E-08	mg/kg-day	2.0E-02	mg/kg-day	2.2E-06
				Pyrene	5.3E+02	mg/kg	2.9E-07	mg/kg-day	NA		NA	6.7E-06	mg/kg-day	3.0E-02	mg/kg-day	2.2E-04
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	2.2E-14	mg/kg-day	1.6E+05	1/(mg/kg-day)	3.4E-09	5.1E-13	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	2.9E-09	mg/kg-day	1.0E+00	1/(mg/kg-day)	2.9E-09	6.7E-08	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	2.9E-09	mg/kg-day	NA		NA	6.9E-08	mg/kg-day	2.0E-05	mg/kg-day	3.4E-03
				Aluminum	1.6E+04	mg/kg	8.7E-06	mg/kg-day	NA		NA	2.0E-04	mg/kg-day	1.0E+00	mg/kg-day	2.0E-04
				Arsenic	1.8E+01	mg/kg	9.8E-09	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.5E-08	2.3E-07	mg/kg-day	3.0E-04	mg/kg-day	7.6E-04
				Cadmium	9.6E+00	mg/kg	5.2E-09	mg/kg-day	NA		NA	1.2E-07	mg/kg-day	1.0E-03	mg/kg-day	1.2E-04
				Chromium	9.4E+01	mg/kg	5.1E-08	mg/kg-day	5.0E-01	1/(mg/kg-day)	2.5E-08	1.2E-06	mg/kg-day	3.0E-03	mg/kg-day	4.0E-04
				Cobalt	1.3E+01	mg/kg	7.0E-09	mg/kg-day	NA		NA	1.6E-07	mg/kg-day	3.0E-04	mg/kg-day	5.5E-04
				Copper	3.5E+02	mg/kg	1.9E-07	mg/kg-day	NA		NA	4.5E-06	mg/kg-day	4.0E-02	mg/kg-day	1.1E-04
				Iron	4.0E+04	mg/kg	2.2E-05	mg/kg-day	NA		NA	5.1E-04	mg/kg-day	7.0E-01	mg/kg-day	7.3E-04
				Lead	1.9E+03	mg/kg	1.0E-06	mg/kg-day	NA		NA	2.4E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	1.7E-07	mg/kg-day	NA		NA	4.0E-06	mg/kg-day	1.4E-01	mg/kg-day	2.9E-05
				Vanadium	5.0E+01	mg/kg	2.7E-08	mg/kg-day	NA		NA	6.4E-07	mg/kg-day	5.0E-03	mg/kg-day	1.3E-04
			Exp. Route Total								6.2E-07					6.9E-03

TABLE 7.1.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Dermal	Acenaphthene	3.7E+02	mg/kg	2.2E-06	mg/kg-day	NA		NA	5.0E-05	mg/kg-day	6.0E-02	mg/kg-day	8.4E-04
				Benzo(a)anthracene	1.3E+02	mg/kg	7.5E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	5.5E-07	1.7E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene	1.1E+02	mg/kg	6.3E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.6E-06	1.5E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.1E+02	mg/kg	6.7E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.9E-07	1.6E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	6.5E+01	mg/kg	3.8E-07	mg/kg-day	7.3E-02	1/(mg/kg-day)	2.8E-08	8.9E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	1.5E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.1E-09	3.5E-06	mg/kg-day	2.0E-02	mg/kg-day	1.8E-04
				Chrysene	2.5E+02	mg/kg	1.5E-06	mg/kg-day	7.3E-03	1/(mg/kg-day)	1.1E-08	3.5E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	6.2E+00	mg/kg	3.6E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.7E-07	8.5E-07	mg/kg-day	NA		NA
				Fluoranthene	5.0E+02	mg/kg	2.9E-06	mg/kg-day	NA		NA	6.8E-05	mg/kg-day	4.0E-02	mg/kg-day	1.7E-03
				Indeno(1,2,3-c,d)pyrene	4.9E+01	mg/kg	2.9E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.1E-07	6.7E-06	mg/kg-day	NA		NA
				Naphthalene	3.4E+00	mg/kg	2.0E-08	mg/kg-day	NA		NA	4.7E-07	mg/kg-day	2.0E-02	mg/kg-day	2.3E-05
				Pyrene	5.3E+02	mg/kg	3.1E-06	mg/kg-day	NA		NA	7.3E-05	mg/kg-day	3.0E-02	mg/kg-day	2.4E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	2.5E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	4.0E-08	5.9E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	3.3E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	3.3E-08	7.7E-07	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	3.4E-08	mg/kg-day	NA		NA	8.0E-07	mg/kg-day	2.0E-05	mg/kg-day	4.0E-02
				Aluminum	1.6E+04	mg/kg	7.2E-06	mg/kg-day	NA		NA	1.7E-04	mg/kg-day	1.0E+00	mg/kg-day	1.7E-04
				Arsenic	1.8E+01	mg/kg	2.4E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	3.7E-08	5.7E-07	mg/kg-day	3.0E-04	mg/kg-day	1.9E-03
				Cadmium	9.6E+00	mg/kg	4.4E-10	mg/kg-day	NA		NA	1.0E-08	mg/kg-day	2.5E-05	mg/kg-day	4.1E-04
				Chromium	9.4E+01	mg/kg	4.2E-08	mg/kg-day	2.0E+01	1/(mg/kg-day)	8.5E-07	9.9E-07	mg/kg-day	7.5E-05	mg/kg-day	1.3E-02
				Cobalt	1.3E+01	mg/kg	5.8E-09	mg/kg-day	NA		NA	1.4E-07	mg/kg-day	3.0E-04	mg/kg-day	4.5E-04
				Copper	3.5E+02	mg/kg	1.6E-07	mg/kg-day	NA		NA	3.7E-06	mg/kg-day	4.0E-02	mg/kg-day	9.3E-05
				Iron	4.0E+04	mg/kg	1.8E-05	mg/kg-day	NA		NA	4.2E-04	mg/kg-day	7.0E-01	mg/kg-day	6.0E-04
				Lead	1.9E+03	mg/kg	8.5E-07	mg/kg-day	NA		NA	2.0E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	1.4E-07	mg/kg-day	NA		NA	3.3E-06	mg/kg-day	9.6E-04	mg/kg-day	3.5E-03
				Vanadium	5.0E+01	mg/kg	2.3E-08	mg/kg-day	NA		NA	5.3E-07	mg/kg-day	5.0E-03	mg/kg-day	1.1E-04
			Exp. Route Total								7.1E-06					6.5E-02
		Exposure Point Total									7.7E-06					7.2E-02
	Exposure Medium Total										7.7E-06					7.2E-02
Exposed Surface Sediment Total											7.7E-06					7.2E-02

TABLE 7.1.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Dry event)	Ingestion													
				Benzene	2.2E+00	ug/L	1.6E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	8.7E-11	3.7E-08	mg/kg-day	4.0E-03	mg/kg-day	9.3E-06
				Benzo(a)anthracene	2.7E-01	ug/L	1.9E-10	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.4E-10	4.4E-09	mg/kg-day	NA		NA
				Benzo(a)pyrene	6.6E-01	ug/L	4.7E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.4E-09	1.1E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	3.0E-01	ug/L	2.1E-10	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.5E-10	4.9E-09	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	1.7E-09	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.4E-11	4.1E-08	mg/kg-day	2.0E-02	mg/kg-day	2.0E-06
				Indeno(1,2,3-c,d)pyrene	1.3E-01	ug/L	9.4E-11	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.8E-11	2.2E-09	mg/kg-day	NA		NA
				Arsenic	2.0E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.1E-08	3.3E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Chromium	1.9E+01	ug/L	1.3E-08	mg/kg-day	5.0E-01	1/(mg/kg-day)	6.7E-09	3.1E-07	mg/kg-day	3.0E-03	mg/kg-day	1.0E-04
				Copper	1.7E+02	ug/L	1.2E-07	mg/kg-day	NA		NA	2.8E-06	mg/kg-day	4.0E-02	mg/kg-day	7.1E-05
				Selenium	4.1E+01	ug/L	2.9E-08	mg/kg-day	NA		NA	6.8E-07	mg/kg-day	5.0E-03	mg/kg-day	1.4E-04
			Exp. Route Total								3.2E-08					1.4E-03
			Dermal													
				Benzene	2.2E+00	ug/L	2.4E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.3E-09	5.7E-07	mg/kg-day	4.0E-03	mg/kg-day	1.4E-04
				Benzo(a)anthracene	2.7E-01	ug/L	2.2E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.6E-07	5.1E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	6.6E-01	ug/L	9.4E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.8E-06	2.2E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	3.0E-01	ug/L	4.3E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	3.1E-07	1.0E-05	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	2.5E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	3.5E-09	5.8E-06	mg/kg-day	2.0E-02	mg/kg-day	2.9E-04
				Indeno(1,2,3-c,d)pyrene	1.3E-01	ug/L	1.9E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.4E-07	4.4E-06	mg/kg-day	NA		NA
				Arsenic	2.0E+01	ug/L	1.0E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.5E-08	2.4E-07	mg/kg-day	3.0E-04	mg/kg-day	7.9E-04
				Chromium	1.9E+01	ug/L	1.9E-08	mg/kg-day	2.0E+01	1/(mg/kg-day)	3.9E-07	4.5E-07	mg/kg-day	7.5E-05	mg/kg-day	6.0E-03
				Copper	1.7E+02	ug/L	8.8E-08	mg/kg-day	NA		NA	2.0E-06	mg/kg-day	4.0E-02	mg/kg-day	5.1E-05
				Selenium	4.1E+01	ug/L	2.1E-08	mg/kg-day	NA		NA	4.9E-07	mg/kg-day	5.0E-03	mg/kg-day	9.8E-05
			Exp. Route Total								7.9E-06					7.4E-03
		Exposure Point Total									7.9E-06					8.8E-03
	Exposure Medium Total										7.9E-06					8.8E-03
Surface Water Total - Dry Event											7.9E-06					8.8E-03

TABLE 7.1.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L	4.2E-10	mg/kg-day	5.4E-03	1/(mg/kg-day)	2.3E-12	9.8E-09	mg/kg-day	7.0E-02	mg/kg-day	1.4E-07
				Benzene	8.4E-01	ug/L	5.9E-10	mg/kg-day	5.5E-02	1/(mg/kg-day)	3.3E-11	1.4E-08	mg/kg-day	4.0E-03	mg/kg-day	3.5E-06
				Chloroform	5.6E-01	ug/L	4.0E-10	mg/kg-day	3.1E-02	1/(mg/kg-day)	1.2E-11	9.2E-09	mg/kg-day	1.0E-02	mg/kg-day	9.2E-07
				Ethylbenzene	8.7E-01	ug/L	6.2E-10	mg/kg-day	1.1E-02	1/(mg/kg-day)	6.8E-12	1.4E-08	mg/kg-day	1.0E-01	mg/kg-day	1.4E-07
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	1.7E-08	mg/kg-day	5.4E-01	1/(mg/kg-day)	9.3E-09	4.0E-07	mg/kg-day	1.0E-02	mg/kg-day	4.0E-05
				Benzo(a)anthracene	1.0E-01	ug/L	7.4E-11	mg/kg-day	7.3E-01	1/(mg/kg-day)	5.4E-11	1.7E-09	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L	1.5E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.1E-09	3.4E-09	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L	1.3E-10	mg/kg-day	7.3E-01	1/(mg/kg-day)	9.8E-11	3.1E-09	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L	7.2E-11	mg/kg-day	7.3E+00	1/(mg/kg-day)	5.2E-10	1.7E-09	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L	3.5E-10	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.6E-10	8.3E-09	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	2.6E-10	mg/kg-day	NA		NA	6.0E-09	mg/kg-day	2.0E-02	mg/kg-day	3.0E-07
				Arsenic	1.7E+01	ug/L	1.2E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.8E-08	2.7E-07	mg/kg-day	3.0E-04	mg/kg-day	9.2E-04
				Chromium	8.5E+00	ug/L	6.0E-09	mg/kg-day	5.0E-01	1/(mg/kg-day)	3.0E-09	1.4E-07	mg/kg-day	3.0E-03	mg/kg-day	4.7E-05
				Cobalt	3.9E+00	ug/L	2.8E-09	mg/kg-day	NA		NA	6.4E-08	mg/kg-day	3.0E-04	mg/kg-day	2.1E-04
				Lead	1.5E+01	ug/L	1.1E-08	mg/kg-day	NA		NA	2.5E-07	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	2.4E-08	mg/kg-day	NA		NA	5.6E-07	mg/kg-day	5.0E-03	mg/kg-day	1.1E-04
			Exp. Route Total								3.2E-08					1.3E-03

TABLE 7.1.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	2.6E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.4E-10	6.0E-07	mg/kg-day	7.0E-02	mg/kg-day	8.6E-06
				Benzene	8.4E-01	ug/L	9.1E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	5.0E-10	2.1E-07	mg/kg-day	4.0E-03	mg/kg-day	5.3E-05
				Chloroform	5.6E-01	ug/L	3.4E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	1.1E-10	8.0E-08	mg/kg-day	1.0E-02	mg/kg-day	8.0E-06
				Ethylbenzene	8.7E-01	ug/L	3.5E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	3.8E-10	8.1E-07	mg/kg-day	1.0E-01	mg/kg-day	8.1E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	9.5E-07	mg/kg-day	5.4E-01	1/(mg/kg-day)	5.1E-07	2.2E-05	mg/kg-day	1.0E-02	mg/kg-day	2.2E-03
				Benzo(a)anthracene	1.0E-01	ug/L	8.6E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	6.3E-08	2.0E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L	2.9E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.1E-06	6.8E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L	2.7E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.0E-07	6.4E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L	2.2E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.6E-06	5.2E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L	7.2E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	5.3E-07	1.7E-05	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	1.6E-08	mg/kg-day	NA		NA	3.7E-07	mg/kg-day	2.0E-02	mg/kg-day	1.8E-05
				Arsenic	1.7E+01	ug/L	8.5E-09	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.3E-08	2.0E-07	mg/kg-day	3.0E-04	mg/kg-day	6.6E-04
				Chromium	8.5E+00	ug/L	8.7E-09	mg/kg-day	2.0E+01	1/(mg/kg-day)	1.7E-07	2.0E-07	mg/kg-day	7.5E-05	mg/kg-day	2.7E-03
				Cobalt	3.9E+00	ug/L	8.0E-10	mg/kg-day	NA		NA	1.9E-08	mg/kg-day	3.0E-04	mg/kg-day	6.2E-05
				Lead	1.5E+01	ug/L	7.6E-10	mg/kg-day	NA		NA	1.8E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	1.7E-08	mg/kg-day	NA		NA	4.0E-07	mg/kg-day	5.0E-03	mg/kg-day	8.0E-05
			Exp. Route Total								5.2E-06					5.8E-03
		Exposure Point Total									5.3E-06					7.2E-03
	Exposure Medium Total										5.3E-06					7.2E-03
Surface Water Total - Wet Event											5.3E-06					7.2E-03
Total										Total of Receptor Risks Across All Media	1.6E-05				Total of Receptor Hazards Across All Media	8.1E-02

Notes-

NA = Not available / Not applicable.

DAevent for surface water from dry event calculated on Table 7.1.CTE Supplement A.

DAevent for surface water from wet event calculated on Table 7.1.CTE Supplement B.

Total includes sum of exposed and near shore sediment, and maximum of dry event and wet event surface water

TABLE 7.1.CTE Supplement A
Calculation of Daevent Dry Event
Recreational Scenario
Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (K_p) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (t_{event}) (hr)	DA_{event} (mg/cm^2-event)	Eq
Benzene	2.2E+00	1.5E-02	5.1E-02	2.9E-01	7.0E-01	1.0E+00	1.3	6.2E-08	3
Benzo(a)anthracene	2.7E-01	4.7E-01	2.8E+00	2.0E+00	8.5E+00	1.0E+00	1.3	5.6E-07	2
Benzo(a)pyrene	6.6E-01	7.0E-01	4.3E+00	2.7E+00	1.2E+01	1.0E+00	1.3	2.4E-06	2
Benzo(b)fluoranthene	3.0E-01	7.0E-01	4.3E+00	2.8E+00	1.2E+01	1.0E+00	1.3	1.1E-06	2
Bis(2-ethylhexyl) phthalate	2.5E+00	2.5E-02	1.9E-01	1.7E+01	4.0E+01	8.0E-01	1.3	6.3E-07	2
Indeno(1,2,3-c,d)pyrene	1.3E-01	1.0E+00	6.7E+00	3.8E+00	1.7E+01	6.0E-01	1.3	4.9E-07	2
Arsenic	2.0E+01	1.0E-03	NA	NA	NA	NA	1.3	2.6E-08	1
Chromium	1.9E+01	2.0E-03	NA	NA	NA	NA	1.3	4.9E-08	1
Copper	1.7E+02	1.0E-03	NA	NA	NA	NA	1.3	2.2E-07	1
Selenium	4.1E+01	1.0E-03	NA	NA	NA	NA	1.3	5.3E-08	1

Inorganics: DA_{event} (mg/cm^2-event) =

$K_p \times CW \times t_{event} \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 1)

Organics: DA_{event} (mg/cm^2-event) =

If $t_{event} < t^*$, then DA_{event} =

$2 \times FA \times K_p \times CW \times (\text{sqrt}((6 \times \tau_{event} \times t_{event})/\pi)) \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 2)

If $t_{event} > t^*$, then DA_{event} =

$FA \times K_p \times CW \times (t_{event}/(1+B) + 2 \times \tau_{event} \times ((1 + 3xB + 3xB^2)/(1+B)^2) \times 0.001$ mg/µg $\times 0.001$ l/cm^3 (eq 3)

Notes:

NA - Not applicable

Permeability constants and other input parameter values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.

B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).

t* - Time to reach steady-state

TABLE 7.1.CTE Supplement B
Calculation of Daevent Wet Event
Recreational Scenario
Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (K_p) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (t_{event}) (hr)	DA_{event} (mg/cm^2-event)	Eq
1,4-dichlorobenzene	5.9E-01	4.2E-02	2.0E-01	7.1E-01	1.7E+00	1.0E+00	1.3	6.6E-08	2
Benzene	8.4E-01	1.5E-02	5.1E-02	2.9E-01	7.0E-01	1.0E+00	1.3	2.3E-08	3
Chloroform	5.6E-01	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	1.3	8.7E-09	3
Ethylbenzene	8.7E-01	4.9E-02	2.0E-01	4.2E-01	1.0E+00	1.0E+00	1.3	8.9E-08	3
Tetrachloroethylene(PCE)	2.4E+01	3.3E-02	1.7E-01	9.1E-01	2.2E+00	1.0E+00	1.3	2.4E-06	2
Benzo(a)anthracene	1.0E-01	4.7E-01	2.8E+00	2.0E+00	8.5E+00	1.0E+00	1.3	2.2E-07	2
Benzo(a)pyrene	2.1E-01	7.0E-01	4.3E+00	2.7E+00	1.2E+01	1.0E+00	1.3	7.4E-07	2
Benzo(b)fluoranthene	1.9E-01	7.0E-01	4.3E+00	2.8E+00	1.2E+01	1.0E+00	1.3	6.9E-07	2
Dibenz(a,h)anthracene	1.0E-01	1.5E+00	9.7E+00	3.9E+00	1.8E+01	6.0E-01	1.3	5.6E-07	2
Indeno(1,2,3-c,d)pyrene	5.0E-01	1.0E+00	6.7E+00	3.8E+00	1.7E+01	6.0E-01	1.3	1.8E-06	2
Naphthalene	3.6E-01	4.7E-02	2.0E-01	5.6E-01	1.3E+00	1.0E+00	1.3	4.0E-08	2
Arsenic	1.7E+01	1.0E-03	NA	NA	NA	NA	1.3	2.2E-08	1
Chromium	8.5E+00	2.0E-03	NA	NA	NA	NA	1.3	2.2E-08	1
Cobalt	3.9E+00	4.0E-04	NA	NA	NA	NA	1.3	2.0E-09	1
Lead	1.5E+01	1.0E-04	NA	NA	NA	NA	1.3	1.9E-09	1
Selenium	3.4E+01	1.0E-03	NA	NA	NA	NA	1.3	4.4E-08	1

Inorganics: DA_{event} (mg/cm^2-event) =
K_p x CW x t_{event} x 0.001 mg/µg x 0.001 l/cm^3 (eq 1)

Organics: DA_{event} (mg/cm^2-event) =
If $t_{event}<t^*$, then DA_{event} =
2 x FA x K_p x CW x (sqrt((6 x τ_{event} x t_{event})/π)) x 0.001 mg/µg x 0.001 l/cm^3 (eq 2)

If $t_{event}>t^*$, then DA_{event} =
FA x K_p x CW x (t_{event}/(1+B) + 2 x τ_{event} x ((1 + 3xB + 3xB^2)/(1+B)^2) x 0.001 mg/µg x 0.001 l/cm^3 (eq 3)

Notes:
NA - Not applicable
Permeability constants and other input parameter values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.
B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).
t* - Time to reach steady-state

TABLE 7.2.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Ingestion	Acenaphthene	3.7E+02	mg/kg	2.5E-07	mg/kg-day	NA		NA	5.7E-06	mg/kg-day	6.0E-02	mg/kg-day	9.5E-05
				Benzo(a)anthracene (12-15)*	1.3E+02	mg/kg	8.5E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.9E-07	2.0E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (12-15)*	1.1E+02	mg/kg	7.2E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.6E-06	1.7E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (12-15)*	1.1E+02	mg/kg	7.6E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.7E-07	1.8E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (12-15)*	6.5E+01	mg/kg	4.3E-08	mg/kg-day	2.2E-01	1/(mg/kg-day)	9.5E-09	1.0E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	2.2E-08	mg/kg-day	1.4E-02	1/(mg/kg-day)	3.1E-10	5.2E-07	mg/kg-day	2.0E-02	mg/kg-day	2.6E-05
				Chrysene (12-15)*	2.5E+02	mg/kg	1.7E-07	mg/kg-day	2.2E-02	1/(mg/kg-day)	3.7E-09	4.0E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (12-15)*	6.2E+00	mg/kg	4.1E-09	mg/kg-day	2.2E+01	1/(mg/kg-day)	9.1E-08	9.7E-08	mg/kg-day	NA		NA
				Fluoranthene	5.0E+02	mg/kg	3.3E-07	mg/kg-day	NA		NA	7.7E-06	mg/kg-day	4.0E-02	mg/kg-day	1.9E-04
				Indeno(1,2,3-c,d)pyrene (12-15)*	4.9E+01	mg/kg	3.3E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	7.2E-08	7.6E-07	mg/kg-day	NA		NA
				Naphthalene	3.4E+00	mg/kg	2.3E-09	mg/kg-day	NA		NA	5.3E-08	mg/kg-day	2.0E-02	mg/kg-day	2.7E-06
				Pyrene	5.3E+02	mg/kg	3.5E-07	mg/kg-day	NA		NA	8.3E-06	mg/kg-day	3.0E-02	mg/kg-day	2.8E-04
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	2.7E-14	mg/kg-day	1.6E+05	1/(mg/kg-day)	4.2E-09	6.3E-13	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	3.5E-09	mg/kg-day	1.0E+00	1/(mg/kg-day)	3.5E-09	8.2E-08	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	3.6E-09	mg/kg-day	NA		NA	8.4E-08	mg/kg-day	2.0E-05	mg/kg-day	4.2E-03
				Aluminum	1.6E+04	mg/kg	1.1E-05	mg/kg-day	NA		NA	2.5E-04	mg/kg-day	1.0E+00	mg/kg-day	2.5E-04
				Arsenic	1.8E+01	mg/kg	1.2E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.8E-08	2.8E-07	mg/kg-day	3.0E-04	mg/kg-day	9.4E-04
				Cadmium	9.6E+00	mg/kg	6.4E-09	mg/kg-day	NA		NA	1.5E-07	mg/kg-day	1.0E-03	mg/kg-day	1.5E-04
				Chromium (12-15)*	9.4E+01	mg/kg	6.3E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	9.4E-08	1.5E-06	mg/kg-day	3.0E-03	mg/kg-day	4.9E-04
				Cobalt	1.3E+01	mg/kg	8.6E-09	mg/kg-day	NA		NA	2.0E-07	mg/kg-day	3.0E-04	mg/kg-day	6.7E-04
				Copper	3.5E+02	mg/kg	2.4E-07	mg/kg-day	NA		NA	5.5E-06	mg/kg-day	4.0E-02	mg/kg-day	1.4E-04
				Iron	4.0E+04	mg/kg	2.7E-05	mg/kg-day	NA		NA	6.2E-04	mg/kg-day	7.0E-01	mg/kg-day	8.9E-04
				Lead	1.9E+03	mg/kg	1.3E-06	mg/kg-day	NA		NA	2.9E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	2.1E-07	mg/kg-day	NA		NA	4.9E-06	mg/kg-day	1.4E-01	mg/kg-day	3.5E-05
				Vanadium	5.0E+01	mg/kg	3.4E-08	mg/kg-day	NA		NA	7.8E-07	mg/kg-day	5.0E-03	mg/kg-day	1.6E-04
			Exp. Route Total								2.2E-06					8.5E-03

TABLE 7.2.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Dermal	Acenaphthene	3.7E+02	mg/kg	2.7E-06	mg/kg-day	NA		NA	6.2E-05	mg/kg-day	6.0E-02	mg/kg-day	1.0E-03
				Benzo(a)anthracene (12-15)*	1.3E+02	mg/kg	9.3E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.0E-06	2.2E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (12-15)*	1.1E+02	mg/kg	7.8E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.7E-05	1.8E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (12-15)*	1.1E+02	mg/kg	8.2E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.8E-06	1.9E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (12-15)*	6.5E+01	mg/kg	4.7E-07	mg/kg-day	2.2E-01	1/(mg/kg-day)	1.0E-07	1.1E-05	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	1.9E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.6E-09	4.4E-06	mg/kg-day	2.0E-02	mg/kg-day	2.2E-04
				Chrysene (12-15)*	2.5E+02	mg/kg	1.8E-06	mg/kg-day	2.2E-02	1/(mg/kg-day)	4.0E-08	4.3E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (12-15)*	6.2E+00	mg/kg	4.5E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	9.9E-07	1.1E-06	mg/kg-day	NA		NA
				Fluoranthene	5.0E+02	mg/kg	3.6E-06	mg/kg-day	NA		NA	8.4E-05	mg/kg-day	4.0E-02	mg/kg-day	2.1E-03
				Indeno(1,2,3-c,d)pyrene (12-15)*	4.9E+01	mg/kg	3.6E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	7.8E-07	8.3E-06	mg/kg-day	NA		NA
				Naphthalene	3.4E+00	mg/kg	2.5E-08	mg/kg-day	NA		NA	5.8E-07	mg/kg-day	2.0E-02	mg/kg-day	2.9E-05
				Pyrene	5.3E+02	mg/kg	3.9E-06	mg/kg-day	NA		NA	9.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.0E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	3.2E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	4.9E-08	7.4E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	4.1E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	4.1E-08	9.6E-07	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	4.2E-08	mg/kg-day	NA		NA	9.9E-07	mg/kg-day	2.0E-05	mg/kg-day	4.9E-02
				Aluminum	1.6E+04	mg/kg	8.9E-06	mg/kg-day	NA		NA	2.1E-04	mg/kg-day	1.0E+00	mg/kg-day	2.1E-04
				Arsenic	1.8E+01	mg/kg	3.0E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.5E-08	7.1E-07	mg/kg-day	3.0E-04	mg/kg-day	2.4E-03
				Cadmium	9.6E+00	mg/kg	5.4E-10	mg/kg-day	NA		NA	1.3E-08	mg/kg-day	2.5E-05	mg/kg-day	5.0E-04
				Chromium (12-15)*	9.4E+01	mg/kg	5.2E-08	mg/kg-day	6.0E+01	1/(mg/kg-day)	3.1E-06	1.2E-06	mg/kg-day	7.5E-05	mg/kg-day	1.6E-02
				Cobalt	1.3E+01	mg/kg	7.2E-09	mg/kg-day	NA		NA	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	5.6E-04
				Copper	3.5E+02	mg/kg	2.0E-07	mg/kg-day	NA		NA	4.6E-06	mg/kg-day	4.0E-02	mg/kg-day	1.2E-04
				Iron	4.0E+04	mg/kg	2.2E-05	mg/kg-day	NA		NA	5.2E-04	mg/kg-day	7.0E-01	mg/kg-day	7.5E-04
				Lead	1.9E+03	mg/kg	1.0E-06	mg/kg-day	NA		NA	2.4E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	1.8E-07	mg/kg-day	NA		NA	4.1E-06	mg/kg-day	9.6E-04	mg/kg-day	4.3E-03
				Vanadium	5.0E+01	mg/kg	2.8E-08	mg/kg-day	NA		NA	6.6E-07	mg/kg-day	5.0E-03	mg/kg-day	1.3E-04
			Exp. Route Total								2.6E-05					8.1E-02
		Exposure Point Total									2.8E-05					8.9E-02
	Exposure Medium Total										2.8E-05					8.9E-02
Exposed Surface Sediment Total											2.8E-05					8.9E-02

TABLE 7.2.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Dry event)	Ingestion													
				Benzene	2.2E+00	ug/L	1.9E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.1E-10	4.5E-08	mg/kg-day	4.0E-03	mg/kg-day	1.1E-05
				Benzo(a)anthracene (12-15)*	2.7E-01	ug/L	2.3E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.1E-10	5.4E-09	mg/kg-day	NA		NA
				Benzo(a)pyrene (12-15)*	6.6E-01	ug/L	5.7E-10	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.3E-08	1.3E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (12-15)*	3.0E-01	ug/L	2.6E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.7E-10	6.1E-09	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	2.1E-09	mg/kg-day	1.4E-02	1/(mg/kg-day)	3.0E-11	5.0E-08	mg/kg-day	2.0E-02	mg/kg-day	2.5E-06
				Indeno(1,2,3-c,d)pyrene (12-15)*	1.3E-01	ug/L	1.1E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.5E-10	2.7E-09	mg/kg-day	NA		NA
				Arsenic	2.0E+01	ug/L	1.7E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.6E-08	4.0E-07	mg/kg-day	3.0E-04	mg/kg-day	1.3E-03
				Chromium (12-15)*	1.9E+01	ug/L	1.6E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.5E-08	3.8E-07	mg/kg-day	3.0E-03	mg/kg-day	1.3E-04
				Copper	1.7E+02	ug/L	1.5E-07	mg/kg-day	NA			3.5E-06	mg/kg-day	4.0E-02	mg/kg-day	8.7E-05
				Selenium	4.1E+01	ug/L	3.6E-08	mg/kg-day	NA			8.3E-07	mg/kg-day	5.0E-03	mg/kg-day	1.7E-04
			Exp. Route Total								6.5E-08					1.7E-03
			Dermal													
				Benzene	2.2E+00	ug/L	2.6E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.4E-09	6.1E-07	mg/kg-day	4.0E-03	mg/kg-day	1.5E-04
				Benzo(a)anthracene (12-15)*	2.7E-01	ug/L	2.4E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.2E-07	5.5E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (12-15)*	6.6E-01	ug/L	1.0E-06	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.2E-05	2.4E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (12-15)*	3.0E-01	ug/L	4.6E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.0E-06	1.1E-05	mg/kg-day	NA		NA
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	2.7E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	3.7E-09	6.2E-06	mg/kg-day	2.0E-02	mg/kg-day	3.1E-04
				Indeno(1,2,3-c,d)pyrene (12-15)*	1.3E-01	ug/L	2.0E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	4.5E-07	4.8E-06	mg/kg-day	NA		NA
				Arsenic	2.0E+01	ug/L	1.1E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.6E-08	2.5E-07	mg/kg-day	3.0E-04	mg/kg-day	8.5E-04
				Chromium (12-15)*	1.9E+01	ug/L	2.1E-08	mg/kg-day	6.0E+01	1/(mg/kg-day)	1.2E-06	4.8E-07	mg/kg-day	7.5E-05	mg/kg-day	6.5E-03
				Copper	1.7E+02	ug/L	9.4E-08	mg/kg-day	NA		NA	2.2E-06	mg/kg-day	4.0E-02	mg/kg-day	5.5E-05
				Selenium	4.1E+01	ug/L	2.2E-08	mg/kg-day	NA		NA	5.2E-07	mg/kg-day	5.0E-03	mg/kg-day	1.0E-04
			Exp. Route Total								2.5E-05					7.9E-03
		Exposure Point Total									2.5E-05					9.7E-03
	Exposure Medium Total										2.5E-05					9.7E-03
Surface Water Total - Dry Event											2.5E-05					9.7E-03

TABLE 7.2.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Ingestion	1,4-dichlorobenzene	5.9E-01	ug/L	5.1E-10	mg/kg-day	5.4E-03	1/(mg/kg-day)	2.8E-12	1.2E-08	mg/kg-day	7.0E-02	mg/kg-day	1.7E-07
				Benzene	8.4E-01	ug/L	7.3E-10	mg/kg-day	5.5E-02	1/(mg/kg-day)	4.0E-11	1.7E-08	mg/kg-day	4.0E-03	mg/kg-day	4.2E-06
				Chloroform	5.6E-01	ug/L	4.9E-10	mg/kg-day	3.1E-02	1/(mg/kg-day)	1.5E-11	1.1E-08	mg/kg-day	1.0E-02	mg/kg-day	1.1E-06
				Ethylbenzene	8.7E-01	ug/L	7.6E-10	mg/kg-day	1.1E-02	1/(mg/kg-day)	8.3E-12	1.8E-08	mg/kg-day	1.0E-01	mg/kg-day	1.8E-07
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	2.1E-08	mg/kg-day	5.4E-01	1/(mg/kg-day)	1.1E-08	5.0E-07	mg/kg-day	1.0E-02	mg/kg-day	5.0E-05
				Benzo(a)anthracene (12-15)*	1.0E-01	ug/L	9.1E-11	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.0E-10	2.1E-09	mg/kg-day	NA		NA
				Benzo(a)pyrene (12-15)*	2.1E-01	ug/L	1.8E-10	mg/kg-day	2.2E+01	1/(mg/kg-day)	3.9E-09	4.2E-09	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (12-15)*	1.9E-01	ug/L	1.6E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.6E-10	3.8E-09	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (12-15)*	1.0E-01	ug/L	8.8E-11	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.9E-09	2.1E-09	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (12-15)*	5.0E-01	ug/L	4.4E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	9.5E-10	1.0E-08	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	3.2E-10	mg/kg-day	NA		NA	7.4E-09	mg/kg-day	2.0E-02	mg/kg-day	3.7E-07
				Arsenic	1.7E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.2E-08	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Chromium (12-15)*	8.5E+00	ug/L	7.4E-09	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.1E-08	1.7E-07	mg/kg-day	3.0E-03	mg/kg-day	5.8E-05
				Cobalt	3.9E+00	ug/L	3.4E-09	mg/kg-day	NA		NA	7.9E-08	mg/kg-day	3.0E-04	mg/kg-day	2.6E-04
				Lead	1.5E+01	ug/L	1.3E-08	mg/kg-day	NA		NA	3.0E-07	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	2.9E-08	mg/kg-day	NA		NA	6.8E-07	mg/kg-day	5.0E-03	mg/kg-day	1.4E-04
			Exp. Route Total								5.2E-08					1.6E-03

TABLE 7.2.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	2.8E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.5E-10	6.5E-07	mg/kg-day	7.0E-02	mg/kg-day	9.3E-06
				Benzene	8.4E-01	ug/L	9.8E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	5.4E-10	2.3E-07	mg/kg-day	4.0E-03	mg/kg-day	5.7E-05
				Chloroform	5.6E-01	ug/L	3.7E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	1.1E-10	8.6E-08	mg/kg-day	1.0E-02	mg/kg-day	8.6E-06
				Ethylbenzene	8.7E-01	ug/L	3.7E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	4.1E-10	8.7E-07	mg/kg-day	1.0E-01	mg/kg-day	8.7E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	1.0E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	5.5E-07	2.4E-05	mg/kg-day	1.0E-02	mg/kg-day	2.4E-03
				Benzo(a)anthracene (12-15)*	1.0E-01	ug/L	9.3E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.0E-07	2.2E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (12-15)*	2.1E-01	ug/L	3.1E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	6.9E-06	7.3E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (12-15)*	1.9E-01	ug/L	2.9E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.4E-07	6.8E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (12-15)*	1.0E-01	ug/L	2.4E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	5.2E-06	5.6E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (12-15)*	5.0E-01	ug/L	7.8E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.7E-06	1.8E-05	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L	1.7E-08	mg/kg-day	NA		NA	4.0E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Arsenic	1.7E+01	ug/L	9.1E-09	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.4E-08	2.1E-07	mg/kg-day	3.0E-04	mg/kg-day	7.1E-04
				Chromium (12-15)*	8.5E+00	ug/L	9.4E-09	mg/kg-day	6.0E+01	1/(mg/kg-day)	5.6E-07	2.2E-07	mg/kg-day	7.5E-05	mg/kg-day	2.9E-03
				Cobalt	3.9E+00	ug/L	8.6E-10	mg/kg-day	NA		NA	2.0E-08	mg/kg-day	3.0E-04	mg/kg-day	6.7E-05
				Lead	1.5E+01	ug/L	8.2E-10	mg/kg-day	NA		NA	1.9E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	1.8E-08	mg/kg-day	NA		NA	4.3E-07	mg/kg-day	5.0E-03	mg/kg-day	8.6E-05
			Exp. Route Total								1.6E-05					6.3E-03
		Exposure Point Total									1.6E-05					7.9E-03
	Exposure Medium Total										1.6E-05					7.9E-03
Surface Water Total - Wet Event											1.6E-05					7.9E-03
Total										Total of Receptor Risks Across All Media	5.4E-05				Total of Receptor Hazards Across All Media	9.9E-02

Notes-

NA = Not available / Not applicable.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-15 year old for exposure duration of 3 years, the CTE exposure duration for an adolescent.

DAevent for surface water from dry event calculated on Table 7.1.CTE Supplement A.

DAevent for surface water from wet event calculated on Table 7.1.CTE Supplement B.

Total includes sum of exposed and near shore sediment, and maximum of dry event and wet event surface water

TABLE 7.3.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Ingestion	Acenaphthene	3.7E+02	mg/kg	1.9E-06	mg/kg-day	NA		NA	4.3E-05	mg/kg-day	6.0E-02	mg/kg-day	7.2E-04
				Benzo(a)anthracene (0-2)*	1.3E+02	mg/kg	4.3E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.1E-06	1.5E-05	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-3)*	1.3E+02	mg/kg	2.2E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	4.7E-07					
				Benzo(a)pyrene (0-2)*	1.1E+02	mg/kg	3.6E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	2.6E-05	1.3E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-3)*	1.1E+02	mg/kg	1.8E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.0E-06					
				Benzo(b)fluoranthene (0-2)*	1.1E+02	mg/kg	3.8E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.8E-06	1.3E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-3)*	1.1E+02	mg/kg	1.9E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	4.2E-07					
				Benzo(k)fluoranthene (0-2)*	6.5E+01	mg/kg	2.2E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	1.6E-07	7.7E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (2-3)*	6.5E+01	mg/kg	1.1E-07	mg/kg-day	2.2E-01	1/(mg/kg-day)	2.4E-08					
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	1.7E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.4E-09	4.0E-06	mg/kg-day	2.0E-02	mg/kg-day	2.0E-04
				Chrysene (0-2)*	2.5E+02	mg/kg	8.6E-07	mg/kg-day	7.3E-02	1/(mg/kg-day)	6.3E-08	3.0E-05	mg/kg-day	NA		NA
				Chrysene (2-3)*	2.5E+02	mg/kg	4.3E-07	mg/kg-day	2.2E-02	1/(mg/kg-day)	9.4E-09					
				Dibenz(a,h)anthracene (0-2)*	6.2E+00	mg/kg	2.1E-08	mg/kg-day	7.3E+01	1/(mg/kg-day)	1.5E-06	7.3E-07	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (0-2)*	6.2E+00	mg/kg	1.0E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.3E-07					
				Fluoranthene	5.0E+02	mg/kg	2.5E-06	mg/kg-day	NA		NA	5.9E-05	mg/kg-day	4.0E-02	mg/kg-day	1.5E-03
				Indeno(1,2,3-c,d)pyrene (0-2)*	4.9E+01	mg/kg	1.7E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.2E-06	5.8E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-3)*	4.9E+01	mg/kg	8.3E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.8E-07					
				Naphthalene	3.4E+00	mg/kg	1.7E-08	mg/kg-day	NA		NA	4.0E-07	mg/kg-day	2.0E-02	mg/kg-day	2.0E-05
				Pyrene	5.3E+02	mg/kg	2.7E-06	mg/kg-day	NA		NA	6.3E-05	mg/kg-day	3.0E-02	mg/kg-day	2.1E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	2.0E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	3.2E-08	4.8E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	2.7E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	2.7E-08	6.2E-07	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	2.7E-08	mg/kg-day	NA		NA	6.4E-07	mg/kg-day	2.0E-05	mg/kg-day	3.2E-02
				Aluminum	1.6E+04	mg/kg	8.1E-05	mg/kg-day	NA		NA	1.9E-03	mg/kg-day	1.0E+00	mg/kg-day	1.9E-03
				Arsenic	1.8E+01	mg/kg	9.2E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.4E-07	2.1E-06	mg/kg-day	3.0E-04	mg/kg-day	7.1E-03
				Cadmium	9.6E+00	mg/kg	4.9E-08	mg/kg-day	NA		NA	1.1E-06	mg/kg-day	1.0E-03	mg/kg-day	1.1E-03
				Chromium (0-2)*	9.4E+01	mg/kg	3.2E-07	mg/kg-day	5.0E+00	1/(mg/kg-day)	1.6E-06	1.1E-05	mg/kg-day	3.0E-03	mg/kg-day	3.7E-03
				Chromium (2-3)*	9.4E+01	mg/kg	1.6E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.4E-07					
				Cobalt	1.3E+01	mg/kg	6.6E-08	mg/kg-day	NA		NA	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.1E-03
				Copper	3.5E+02	mg/kg	1.8E-06	mg/kg-day	NA		NA	4.2E-05	mg/kg-day	4.0E-02	mg/kg-day	1.0E-03
				Iron	4.0E+04	mg/kg	2.0E-04	mg/kg-day	NA		NA	4.7E-03	mg/kg-day	7.0E-01	mg/kg-day	6.8E-03
				Lead	1.9E+03	mg/kg	9.5E-06	mg/kg-day	NA		NA	2.2E-04	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	1.6E-06	mg/kg-day	NA		NA	3.7E-05	mg/kg-day	1.4E-01	mg/kg-day	2.7E-04
				Vanadium	5.0E+01	mg/kg	2.5E-07	mg/kg-day	NA		NA	5.9E-06	mg/kg-day	5.0E-03	mg/kg-day	1.2E-03
			Exp. Route Total								4.3E-05					6.5E-02

TABLE 7.3.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal	Dermal	Acenaphthene	3.7E+02	mg/kg	2.7E-06	mg/kg-day	NA		NA	6.3E-05	mg/kg-day	6.0E-02	mg/kg-day	1.1E-03
				Benzo(a)anthracene (0-2)*	1.3E+02	mg/kg	6.3E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.6E-06	2.2E-05	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-3)*	1.3E+02	mg/kg	3.1E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.9E-07					
				Benzo(a)pyrene (0-2)*	1.1E+02	mg/kg	5.3E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	3.9E-05	1.8E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-3)*	1.1E+02	mg/kg	2.6E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	5.8E-06					
				Benzo(b)fluoranthene (0-2)*	1.1E+02	mg/kg	5.6E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.1E-06	2.0E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-3)*	1.1E+02	mg/kg	2.8E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.1E-07					
				Benzo(k)fluoranthene (0-2)*	6.5E+01	mg/kg	3.2E-07	mg/kg-day	7.3E-01	1/(mg/kg-day)	2.3E-07	1.1E-05	mg/kg-day	NA		NA
				Benzo(k)fluoranthene (2-3)*	6.5E+01	mg/kg	1.6E-07	mg/kg-day	2.2E-01	1/(mg/kg-day)	3.5E-08					
				Bis(2-ethylhexyl) phthalate	3.3E+01	mg/kg	1.9E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	2.7E-09	4.4E-06	mg/kg-day	2.0E-02	mg/kg-day	2.2E-04
				Chrysene (0-2)*	2.5E+02	mg/kg	1.2E-06	mg/kg-day	7.3E-02	1/(mg/kg-day)	9.1E-08	4.4E-05	mg/kg-day	NA		NA
				Chrysene (2-3)*	2.5E+02	mg/kg	6.2E-07	mg/kg-day	2.2E-02	1/(mg/kg-day)	1.4E-08					
				Dibenz(a,h)anthracene (0-2)*	6.2E+00	mg/kg	3.1E-08	mg/kg-day	7.3E+01	1/(mg/kg-day)	2.2E-06	1.1E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (0-2)*	6.2E+00	mg/kg	1.5E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	3.3E-07					
				Fluoranthene	5.0E+02	mg/kg	3.7E-06	mg/kg-day	NA		NA	8.6E-05	mg/kg-day	4.0E-02	mg/kg-day	2.1E-03
				Indeno(1,2,3-c,d)pyrene (0-2)*	4.9E+01	mg/kg	2.4E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.8E-06	8.5E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-3)*	4.9E+01	mg/kg	1.2E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.6E-07					
				Naphthalene	3.4E+00	mg/kg	2.5E-08	mg/kg-day	NA		NA	5.9E-07	mg/kg-day	2.0E-02	mg/kg-day	2.9E-05
				Pyrene	5.3E+02	mg/kg	3.9E-06	mg/kg-day	NA		NA	9.1E-05	mg/kg-day	3.0E-02	mg/kg-day	3.0E-03
				Dioxin-Like PCB TEQ	4.0E-05	mg/kg	3.2E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	5.0E-08	7.5E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	5.2E+00	mg/kg	4.2E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	4.2E-08	9.7E-07	mg/kg-day	NA		NA
				Total PCB	5.4E+00	mg/kg	4.3E-08	mg/kg-day	NA		NA	1.0E-06	mg/kg-day	2.0E-05	mg/kg-day	5.0E-02
				Aluminum	1.6E+04	mg/kg	9.1E-06	mg/kg-day	NA		NA	2.1E-04	mg/kg-day	1.0E+00	mg/kg-day	2.1E-04
				Arsenic	1.8E+01	mg/kg	3.1E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.6E-08	7.2E-07	mg/kg-day	3.0E-04	mg/kg-day	2.4E-03
				Cadmium	9.6E+00	mg/kg	5.5E-10	mg/kg-day	NA		NA	1.3E-08	mg/kg-day	2.5E-05	mg/kg-day	5.1E-04
				Chromium (0-2)*	9.4E+01	mg/kg	3.6E-08	mg/kg-day	2.0E+02	1/(mg/kg-day)	7.1E-06	1.2E-06	mg/kg-day	7.5E-05	mg/kg-day	1.7E-02
				Chromium (2-3)*	9.4E+01	mg/kg	1.8E-08	mg/kg-day	6.0E+01	1/(mg/kg-day)	1.1E-06					
				Cobalt	1.3E+01	mg/kg	7.4E-09	mg/kg-day	NA		NA	1.7E-07	mg/kg-day	3.0E-04	mg/kg-day	5.7E-04
				Copper	3.5E+02	mg/kg	2.0E-07	mg/kg-day	NA		NA	4.7E-06	mg/kg-day	4.0E-02	mg/kg-day	1.2E-04
				Iron	4.0E+04	mg/kg	2.3E-05	mg/kg-day	NA		NA	5.3E-04	mg/kg-day	7.0E-01	mg/kg-day	7.6E-04
				Lead	1.9E+03	mg/kg	1.1E-06	mg/kg-day	NA		NA	2.5E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg	1.8E-07	mg/kg-day	NA		NA	4.2E-06	mg/kg-day	9.6E-04	mg/kg-day	4.3E-03
				Vanadium	5.0E+01	mg/kg	2.9E-08	mg/kg-day	NA		NA	6.7E-07	mg/kg-day	5.0E-03	mg/kg-day	1.3E-04
			Exp. Route Total								6.8E-05					8.2E-02
		Exposure Point Total									1.1E-04					1.5E-01
	Exposure Medium Total										1.1E-04					1.5E-01

TABLE 7.3.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Exposed Surface Sediment Total											1.1E-04					1.5E-01

TABLE 7.3.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Dry event)	Ingestion													
				Benzene	2.2E+00	ug/L	7.4E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	4.1E-10	1.7E-07	mg/kg-day	4.0E-03	mg/kg-day	4.3E-05
				Benzo(a)anthracene (0-2)*	2.7E-01	ug/L	5.9E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.3E-09	2.1E-08	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-3)*	2.7E-01	ug/L	2.9E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	6.4E-10					
				Benzo(a)pyrene (0-2)*	6.6E-01	ug/L	1.5E-09	mg/kg-day	7.3E+01	1/(mg/kg-day)	1.1E-07	5.1E-08	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-3)*	6.6E-01	ug/L	7.3E-10	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.6E-08					
				Benzo(b)fluoranthene (0-2)*	3.0E-01	ug/L	6.6E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.8E-09	2.3E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-3)*	3.0E-01	ug/L	3.3E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	7.2E-10					
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	8.1E-09	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.1E-10	1.9E-07	mg/kg-day	2.0E-02	mg/kg-day	9.5E-06
				Indeno(1,2,3-c,d)pyrene (0-2)*	1.3E-01	ug/L	2.9E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.1E-09	1.0E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-3)*	1.3E-01	ug/L	1.5E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.2E-10					
				Arsenic	2.0E+01	ug/L	6.6E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	9.9E-08	1.5E-06	mg/kg-day	3.0E-04	mg/kg-day	5.1E-03
				Chromium (0-2)*	1.9E+01	ug/L	4.2E-08	mg/kg-day	5.0E+00	1/(mg/kg-day)	2.1E-07	1.5E-06	mg/kg-day	3.0E-03	mg/kg-day	4.9E-04
				Chromium (2-3)*	1.9E+01	ug/L	2.1E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	3.1E-08					
				Copper	1.7E+02	ug/L	5.7E-07	mg/kg-day	NA			1.3E-05	mg/kg-day	4.0E-02	mg/kg-day	3.3E-04
				Selenium	4.1E+01	ug/L	1.4E-07	mg/kg-day	NA			3.2E-06	mg/kg-day	5.0E-03	mg/kg-day	6.3E-04
			Exp. Route Total								4.7E-07					6.6E-03
			Dermal													
				Benzene	2.2E+00	ug/L	4.2E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	2.3E-09	9.7E-07	mg/kg-day	4.0E-03	mg/kg-day	2.4E-04
				Benzo(a)anthracene (0-2)*	2.7E-01	ug/L	2.5E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.8E-06	8.8E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-3)*	2.7E-01	ug/L	1.3E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.8E-07					
				Benzo(a)pyrene (0-2)*	6.6E-01	ug/L	1.1E-06	mg/kg-day	7.3E+01	1/(mg/kg-day)	7.8E-05	3.7E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-3)*	6.6E-01	ug/L	5.3E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.2E-05					
				Benzo(b)fluoranthene (0-2)*	3.0E-01	ug/L	4.9E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.6E-06	1.7E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-3)*	3.0E-01	ug/L	2.5E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	5.4E-07					
				Bis(2-ethylhexyl) phthalate	2.5E+00	ug/L	4.2E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	5.9E-09	9.9E-06	mg/kg-day	2.0E-02	mg/kg-day	4.9E-04
				Indeno(1,2,3-c,d)pyrene (0-2)*	1.3E-01	ug/L	2.2E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.6E-06	7.6E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-3)*	1.3E-01	ug/L	1.1E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.4E-07					
				Arsenic	2.0E+01	ug/L	1.7E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.6E-08	4.1E-07	mg/kg-day	3.0E-04	mg/kg-day	1.4E-03
				Chromium (0-2)*	1.9E+01	ug/L	2.2E-08	mg/kg-day	2.0E+02	1/(mg/kg-day)	4.4E-06	7.7E-07	mg/kg-day	7.5E-05	mg/kg-day	1.0E-02
				Chromium (2-3)*	1.9E+01	ug/L	1.1E-08	mg/kg-day	6.0E+01	1/(mg/kg-day)	6.6E-07					
				Copper	1.7E+02	ug/L	1.5E-07	mg/kg-day	NA		NA	3.5E-06	mg/kg-day	4.0E-02	mg/kg-day	8.8E-05
				Selenium	4.1E+01	ug/L	3.6E-08	mg/kg-day	NA		NA	8.4E-07	mg/kg-day	5.0E-03	mg/kg-day	1.7E-04
			Exp. Route Total								1.0E-04					1.3E-02
		Exposure Point Total									1.0E-04					1.9E-02
	Exposure Medium Total										1.0E-04					1.9E-02
Surface Water Total - Dry Event											1.0E-04					1.9E-02

TABLE 7.3.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Ingestion	1,4-dichlorobenzene	5.9E-01	ug/L	2.0E-09	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.1E-11	4.6E-08	mg/kg-day	7.0E-02	mg/kg-day	6.5E-07
				Benzene	8.4E-01	ug/L	2.8E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.5E-10	6.4E-08	mg/kg-day	4.0E-03	mg/kg-day	1.6E-05
				Chloroform	5.6E-01	ug/L	1.8E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	5.7E-11	4.3E-08	mg/kg-day	1.0E-02	mg/kg-day	4.3E-06
				Ethylbenzene	8.7E-01	ug/L	2.9E-09	mg/kg-day	1.1E-02	1/(mg/kg-day)	3.2E-11	6.7E-08	mg/kg-day	1.0E-01	mg/kg-day	6.7E-07
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	8.1E-08	mg/kg-day	5.4E-01	1/(mg/kg-day)	4.4E-08	1.9E-06	mg/kg-day	1.0E-02	mg/kg-day	1.9E-04
				Benzo(a)anthracene (0-2)*	1.0E-01	ug/L	2.3E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	1.7E-09	8.0E-09	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-3)*	1.0E-01	ug/L	1.1E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.5E-10					
				Benzo(a)pyrene (0-2)*	2.1E-01	ug/L	4.5E-10	mg/kg-day	7.3E+01	1/(mg/kg-day)	3.3E-08	1.6E-08	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-3)*	2.1E-01	ug/L	2.3E-10	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.9E-09					
				Benzo(b)fluoranthene (0-2)*	1.9E-01	ug/L	4.2E-10	mg/kg-day	7.3E+00	1/(mg/kg-day)	3.0E-09	1.5E-08	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-3)*	1.9E-01	ug/L	2.1E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	4.6E-10					
				Dibenz(a,h)anthracene (0-2)*	1.0E-01	ug/L	2.2E-10	mg/kg-day	7.3E+01	1/(mg/kg-day)	1.6E-08	7.8E-09	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (0-2)*	1.0E-01	ug/L	1.1E-10	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.4E-09					
				Indeno(1,2,3-c,d)pyrene (0-2)*	5.0E-01	ug/L	1.1E-09	mg/kg-day	7.3E+00	1/(mg/kg-day)	8.0E-09	3.9E-08	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-3)*	5.0E-01	ug/L	5.5E-10	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.2E-09					
				Naphthalene	3.6E-01	ug/L	1.2E-09	mg/kg-day	NA		NA	2.8E-08	mg/kg-day	2.0E-02	mg/kg-day	1.4E-06
				Arsenic	1.7E+01	ug/L	5.5E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	8.2E-08	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.3E-03
				Chromium (0-2)*	8.5E+00	ug/L	1.9E-08	mg/kg-day	5.0E+00	1/(mg/kg-day)	9.4E-08	6.6E-07	mg/kg-day	3.0E-03	mg/kg-day	2.2E-04
				Chromium (2-3)*	8.5E+00	ug/L	9.4E-09	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.4E-08					
				Cobalt	3.9E+00	ug/L	1.3E-08	mg/kg-day	NA		NA	3.0E-07	mg/kg-day	3.0E-04	mg/kg-day	1.0E-03
				Lead	1.5E+01	ug/L	4.9E-08	mg/kg-day	NA		NA	1.1E-06	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	1.1E-07	mg/kg-day	NA		NA	2.6E-06	mg/kg-day	5.0E-03	mg/kg-day	5.2E-04
			Exp. Route Total								3.1E-07					6.2E-03

TABLE 7.3.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Surface Water	Gowanus Canal (Wet event)	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	4.4E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	2.4E-10	1.0E-06	mg/kg-day	7.0E-02	mg/kg-day	1.5E-05
				Benzene	8.4E-01	ug/L	1.6E-08	mg/kg-day	5.5E-02	1/(mg/kg-day)	8.5E-10	3.6E-07	mg/kg-day	4.0E-03	mg/kg-day	9.1E-05
				Chloroform	5.6E-01	ug/L	5.9E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	1.8E-10	1.4E-07	mg/kg-day	1.0E-02	mg/kg-day	1.4E-05
				Ethylbenzene	8.7E-01	ug/L	6.0E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	6.6E-10	1.4E-06	mg/kg-day	1.0E-01	mg/kg-day	1.4E-05
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	1.6E-06	mg/kg-day	5.4E-01	1/(mg/kg-day)	8.8E-07	3.8E-05	mg/kg-day	1.0E-02	mg/kg-day	3.8E-03
				Benzo(a)anthracene (0-2)*	1.0E-01	ug/L	9.8E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	7.2E-07	3.4E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-3)*	1.0E-01	ug/L	1.7E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	3.6E-07					
				Benzo(a)pyrene (0-2)*	2.1E-01	ug/L	3.3E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	2.4E-05	1.2E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-3)*	2.1E-01	ug/L	1.6E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	3.4E-06					
				Benzo(b)fluoranthene (0-2)*	1.9E-01	ug/L	3.1E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.3E-06	1.1E-05	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-3)*	1.9E-01	ug/L	1.3E-07	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.8E-07					
				Dibenz(a,h)anthracene (0-2)*	1.0E-01	ug/L	2.5E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	1.8E-05	8.8E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (0-2)*	1.0E-01	ug/L	4.1E-07	mg/kg-day	2.2E+01	1/(mg/kg-day)	9.0E-06					
				Indeno(1,2,3-c,d)pyrene (0-2)*	5.0E-01	ug/L	8.2E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	6.0E-06	2.9E-05	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene (2-3)*	5.0E-01	ug/L	9.0E-09	mg/kg-day	2.2E+00	1/(mg/kg-day)	2.0E-08					
				Naphthalene	3.6E-01	ug/L	2.7E-08	mg/kg-day	NA		NA	6.3E-07	mg/kg-day	2.0E-02	mg/kg-day	3.2E-05
				Arsenic	1.7E+01	ug/L	1.4E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	2.2E-08	3.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.1E-03
				Chromium (0-2)*	8.5E+00	ug/L	9.9E-09	mg/kg-day	2.0E+02	1/(mg/kg-day)	2.0E-06	3.5E-07	mg/kg-day	7.5E-05	mg/kg-day	4.6E-03
				Chromium (2-3)*	8.5E+00	ug/L	4.5E-10	mg/kg-day	6.0E+01	1/(mg/kg-day)	2.7E-08					
				Cobalt	3.9E+00	ug/L	1.4E-09	mg/kg-day	NA		NA	3.2E-08	mg/kg-day	3.0E-04	mg/kg-day	1.1E-04
				Lead	1.5E+01	ug/L	1.3E-09	mg/kg-day	NA		NA	3.0E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L	2.9E-08	mg/kg-day	NA		NA	6.8E-07	mg/kg-day	5.0E-03	mg/kg-day	1.4E-04
			Exp. Route Total								6.8E-05					1.0E-02
		Exposure Point Total									6.8E-05					1.6E-02
	Exposure Medium Total										6.8E-05					1.6E-02
Surface Water Total - Wet Event											6.8E-05					1.6E-02
Total										Total of Receptor Risks Across All Media	2.1E-04			Total of Receptor Hazards Across All Media		1.7E-01

Notes-

NA = Not available / Not applicable.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-3 year old for exposure duration of 1 year, for a total CTE exposure duration of 3 years.
Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

DAevent for surface water from dry event calculated on Table 7.1.CTE Supplement A.

DAevent for surface water from wet event calculated on Table 7.1.CTE Supplement B.

Total includes sum of exposed and near shore sediment, and maximum of dry event and wet event surface water

TABLE 7.4.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at street level (pre-aeration system operation)	Inhalation	Benzene	1.3E-03	mg/m^3			7.8E-06	$1/(ug/m^3)$		8.1E-04	mg/m^3	3.0E-02	mg/m^3	2.7E-02
				Chloroform	2.5E-04	mg/m^3			2.3E-05	$1/(ug/m^3)$		1.6E-04	mg/m^3	9.8E-02	mg/m^3	1.6E-03
				Ethylbenzene	1.1E-03	mg/m^3			2.5E-06	$1/(ug/m^3)$		7.0E-04	mg/m^3	1.0E+00	mg/m^3	7.0E-04
				Naphthalene	1.3E-03	mg/m^3			3.4E-05	$1/(ug/m^3)$		8.3E-04	mg/m^3	3.0E-03	mg/m^3	2.8E-01
			Exp. Route Total								0.0E+00					3.1E-01
		Exposure Point Total									0.0E+00					3.1E-01
	Exposure Medium Total										0.0E+00					3.1E-01
Ambient air at street level Total - Pre-aeration system operation											0.0E+00					3.1E-01
Air	Air	Ambient air at street level (after aeration system started)	Inhalation	Benzene	1.1E-03	mg/m^3			7.8E-06	$1/(ug/m^3)$		7.1E-04	mg/m^3	3.0E-02	mg/m^3	2.4E-02
				Chloroform	3.3E-04	mg/m^3			2.3E-05	$1/(ug/m^3)$		2.1E-04	mg/m^3	9.8E-02	mg/m^3	2.2E-03
				Ethylbenzene	1.2E-03	mg/m^3			2.5E-06	$1/(ug/m^3)$		7.9E-04	mg/m^3	1.0E+00	mg/m^3	7.9E-04
				Naphthalene	3.0E-03	mg/m^3			3.4E-05	$1/(ug/m^3)$		1.9E-03	mg/m^3	3.0E-03	mg/m^3	6.5E-01
			Exp. Route Total								0.0E+00					6.7E-01
		Exposure Point Total									0.0E+00					6.7E-01
	Exposure Medium Total										0.0E+00					6.7E-01
Ambient air at street level Total - After aeration system turned on											0.0E+00					6.7E-01

TABLE 7.4.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	2-methylnaphthalene	3.6E+02	mg/kg			NA	1/(mg/kg-day)		3.2E-06	mg/kg-day	4.0E-03	mg/kg-day	7.9E-04
				Acenaphthene	3.1E+02	mg/kg			NA			2.7E-06	mg/kg-day	6.0E-02	mg/kg-day	4.5E-05
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		1.1E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		6.4E-07	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		7.0E-07	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		3.6E-07	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		1.3E-07	mg/kg-day	2.0E-02	mg/kg-day	6.4E-06
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		1.1E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		4.8E-08	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			1.6E-06	mg/kg-day	4.0E-02	mg/kg-day	4.0E-05
				Fluorene	2.3E+02	mg/kg			NA			2.0E-06	mg/kg-day	4.0E-02	mg/kg-day	5.1E-05
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		2.8E-07	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			5.8E-06	mg/kg-day	2.0E-02	mg/kg-day	2.9E-04
				Pyrene	3.9E+02	mg/kg			NA			3.4E-06	mg/kg-day	3.0E-02	mg/kg-day	1.1E-04
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		4.0E-13	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			1.0E+00	1/(mg/kg-day)		5.7E-08	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			5.8E-08	mg/kg-day	2.0E-05	mg/kg-day	2.9E-03
				Aluminum	1.5E+04	mg/kg			NA			1.3E-04	mg/kg-day	1.0E+00	mg/kg-day	1.3E-04
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		1.3E-07	mg/kg-day	3.0E-04	mg/kg-day	4.3E-04
				Cadmium	1.0E+01	mg/kg			NA			8.8E-08	mg/kg-day	1.0E-03	mg/kg-day	8.8E-05
				Chromium	8.5E+01	mg/kg			5.0E-01			7.4E-07	mg/kg-day	3.0E-03	mg/kg-day	2.5E-04
				Cobalt	1.1E+01	mg/kg			NA			9.7E-08	mg/kg-day	3.0E-04	mg/kg-day	3.2E-04
				Copper	2.7E+02	mg/kg			NA			2.4E-06	mg/kg-day	4.0E-02	mg/kg-day	6.0E-05
				Iron	3.4E+04	mg/kg			NA			3.0E-04	mg/kg-day	7.0E-01	mg/kg-day	4.2E-04
				Lead	1.2E+03	mg/kg			NA			1.1E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			2.7E-06	mg/kg-day	1.4E-01	mg/kg-day	1.9E-05
				Vanadium	4.6E+01	mg/kg			NA			4.0E-07	mg/kg-day	5.0E-03	mg/kg-day	8.1E-05
			Exp. Route Total								0.0E+00					6.1E-03

TABLE 7.4.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Dermal	2-methylnaphthalene	3.6E+02	mg/kg			NA			9.3E-06	mg/kg-day	4.0E-03	mg/kg-day	2.3E-03
				Acenaphthene	3.1E+02	mg/kg			NA			8.1E-06	mg/kg-day	6.0E-02	mg/kg-day	1.3E-04
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		3.3E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		1.9E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		2.1E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		1.1E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		2.9E-07	mg/kg-day	2.0E-02	mg/kg-day	1.5E-05
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		3.3E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		1.4E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			4.7E-06	mg/kg-day	4.0E-02	mg/kg-day	1.2E-04
				Fluorene	2.3E+02	mg/kg			NA			6.0E-06	mg/kg-day	4.0E-02	mg/kg-day	1.5E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		8.2E-07	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			1.7E-05	mg/kg-day	2.0E-02	mg/kg-day	8.5E-04
				Pyrene	3.9E+02	mg/kg			NA			1.0E-05	mg/kg-day	3.0E-02	mg/kg-day	3.4E-04
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		1.3E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			1.0E+00	1/(mg/kg-day)		1.8E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			1.9E-07	mg/kg-day	2.0E-05	mg/kg-day	9.3E-03
				Aluminum	1.5E+04	mg/kg			NA			2.9E-05	mg/kg-day	1.0E+00	mg/kg-day	2.9E-05
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		8.9E-08	mg/kg-day	3.0E-04	mg/kg-day	3.0E-04
				Cadmium	1.0E+01	mg/kg			NA			2.0E-09	mg/kg-day	2.5E-05	mg/kg-day	8.0E-05
				Chromium	8.5E+01	mg/kg			2.0E+01	0.0E+00		1.7E-07	mg/kg-day	7.5E-05	mg/kg-day	2.3E-03
				Cobalt	1.1E+01	mg/kg			NA			2.2E-08	mg/kg-day	3.0E-04	mg/kg-day	7.4E-05
				Copper	2.7E+02	mg/kg			NA			5.5E-07	mg/kg-day	4.0E-02	mg/kg-day	1.4E-05
				Iron	3.4E+04	mg/kg			NA			6.7E-05	mg/kg-day	7.0E-01	mg/kg-day	9.6E-05
				Lead	1.2E+03	mg/kg			NA			2.4E-06	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			6.1E-07	mg/kg-day	7.0E-01	mg/kg-day	8.8E-07
				Vanadium	4.6E+01	mg/kg			NA			9.2E-08	mg/kg-day	5.0E-03	mg/kg-day	1.8E-05
			Exp. Route Total								0.0E+00					1.6E-02
		Exposure Point Total									0.0E+00					2.2E-02
	Exposure Medium Total										0.0E+00					2.2E-02
Overflow Surface Sediment Total											0.0E+00					2.2E-02

TABLE 7.4.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		3.4E-09	mg/kg-day	7.0E-02	mg/kg-day	4.8E-08
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		4.8E-09	mg/kg-day	4.0E-03	mg/kg-day	1.2E-06
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		3.2E-09	mg/kg-day	1.0E-02	mg/kg-day	3.2E-07
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		5.0E-09	mg/kg-day	1.0E-01	mg/kg-day	5.0E-08
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		1.4E-07	mg/kg-day	1.0E-02	mg/kg-day	1.4E-05
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		6.0E-10	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		1.2E-09	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		1.1E-09	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		5.8E-10	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		2.9E-09	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			2.1E-09	mg/kg-day	2.0E-02	mg/kg-day	1.0E-07
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		9.5E-08	mg/kg-day	3.0E-04	mg/kg-day	3.2E-04
				Chromium	8.5E+00	ug/L			5.0E-01	1/(mg/kg-day)		4.9E-08	mg/kg-day	3.0E-03	mg/kg-day	1.6E-05
				Cobalt	3.9E+00	ug/L			NA			2.2E-08	mg/kg-day	3.0E-04	mg/kg-day	7.4E-05
				Lead	1.5E+01	ug/L			NA			8.5E-08	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			1.9E-07	mg/kg-day	5.0E-03	mg/kg-day	3.8E-05
			Exp. Route Total								0.0E+00					4.6E-04

TABLE 7.4.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		6.6E-08	mg/kg-day	7.0E-02	mg/kg-day	9.4E-07
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		2.3E-08	mg/kg-day	4.0E-03	mg/kg-day	5.8E-06
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		8.7E-09	mg/kg-day	1.0E-02	mg/kg-day	8.7E-07
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		8.9E-08	mg/kg-day	1.0E-01	mg/kg-day	8.9E-07
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		2.4E-06	mg/kg-day	1.0E-02	mg/kg-day	2.4E-04
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		2.2E-07	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		7.4E-07	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		7.0E-07	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		5.7E-07	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		1.8E-06	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			4.1E-08	mg/kg-day	2.0E-02	mg/kg-day	2.0E-06
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		2.2E-08	mg/kg-day	3.0E-04	mg/kg-day	7.2E-05
				Chromium	8.5E+00	ug/L			2.0E+01	1/(mg/kg-day)		2.2E-08	mg/kg-day	7.5E-05	mg/kg-day	3.0E-04
				Cobalt	3.9E+00	ug/L			NA			2.0E-09	mg/kg-day	3.0E-04	mg/kg-day	6.8E-06
				Lead	1.5E+01	ug/L			NA			1.9E-09	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			4.4E-08	mg/kg-day	5.0E-03	mg/kg-day	8.8E-06
			Exp. Route Total								0.0E+00					6.4E-04
		Exposure Point Total									0.0E+00					1.1E-03
	Exposure Medium Total										0.0E+00					1.1E-03
Overflow Surface Water Total											0.0E+00					1.1E-03
Total										Total of Receptor Risks Across All Media	0.0E+00				Total of Receptor Hazards Across All Media	7.0E-01

Notes-
NA = Not available / Not applicable.
DAevent for surface water calculated on Table 7.4.CTE Supplement A.
Total includes maximum between air prior to and after aeration system operations, and surface water, and sediment.

TABLE 7.4.CTE Supplement A
Calculation of Daevent Wet Event
Residential Scenario
Gowanus Canal Remedial Investigation, Brooklyn, New York

Chemical of Potential Concern	Water Concentration (CW) (µg/L)	Permeability Coefficient (K_p) (cm/hr)	B (dimensionless)	Lag Time (τ_{event}) (hr)	t* (hr)	Fraction Absorbed Water (FA) (dimensionless)	Duration of Event (t_{event}) (hr)	DA_{event} (mg/cm^2-event)	Eq
1,4-dichlorobenzene	5.9E-01	4.2E-02	2.0E-01	7.1E-01	1.7E+00	1.0E+00	1.3	6.6E-08	2
Benzene	8.4E-01	1.5E-02	5.1E-02	2.9E-01	7.0E-01	1.0E+00	1.3	2.3E-08	3
Chloroform	5.6E-01	6.8E-03	2.9E-02	5.0E-01	1.2E+00	1.0E+00	1.3	8.7E-09	3
Ethylbenzene	8.7E-01	4.9E-02	2.0E-01	4.2E-01	1.0E+00	1.0E+00	1.3	8.9E-08	3
Tetrachloroethylene(PCE)	2.4E+01	3.3E-02	1.7E-01	9.1E-01	2.2E+00	1.0E+00	1.3	2.4E-06	2
Benzo(a)anthracene	1.0E-01	4.7E-01	2.8E+00	2.0E+00	8.5E+00	1.0E+00	1.3	2.2E-07	2
Benzo(a)pyrene	2.1E-01	7.0E-01	4.3E+00	2.7E+00	1.2E+01	1.0E+00	1.3	7.4E-07	2
Benzo(b)fluoranthene	1.9E-01	7.0E-01	4.3E+00	2.8E+00	1.2E+01	1.0E+00	1.3	6.9E-07	2
Dibenz(a,h)anthracene	1.0E-01	1.5E+00	9.7E+00	3.9E+00	1.8E+01	6.0E-01	1.3	5.6E-07	2
Indeno(1,2,3-c,d)pyrene	5.0E-01	1.0E+00	6.7E+00	3.8E+00	1.7E+01	6.0E-01	1.3	1.8E-06	2
Naphthalene	3.6E-01	4.7E-02	2.0E-01	5.6E-01	1.3E+00	1.0E+00	1.3	4.0E-08	2
Arsenic	1.7E+01	1.0E-03	NA	NA	NA	NA	1.3	2.2E-08	1
Chromium	8.5E+00	2.0E-03	NA	NA	NA	NA	1.3	2.2E-08	1
Cobalt	3.9E+00	4.0E-04	NA	NA	NA	NA	1.3	2.0E-09	1
Lead	1.5E+01	1.0E-04	NA	NA	NA	NA	1.3	1.9E-09	1
Selenium	3.4E+01	1.0E-03	NA	NA	NA	NA	1.3	4.4E-08	1

Organics: DA_{event} (mg/cm^2-event) =

If $t_{event}<t^*$, then DA_{event} =

$2 \times FA \times K_p \times CW \times (sqrt((6 \times \tau_{event} \times t_{event})/\pi))$ x 0.001 mg/µg x 0.001 l/cm^3 (eq 2)

If $t_{event}>t^*$, then DA_{event} =

$FA \times K_p \times CW \times (t_{event}/(1+B) + 2 \times \tau_{event} \times ((1 + 3xB + 3xB^2)/(1+B)^2)$ x 0.001 mg/µg x 0.001 l/cm^3 (eq 3)

Notes:

NA - Not applicable

Permeability constants and other input parameter values from EPA 2004, *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment - Final).* EPA/540/R/99/005. The default value of 0.001 was assigned to inorganics not listed in this document.

B - Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless).

t* - Time to reach steady-state

TABLE 7.5.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at street level (pre-aeration system operation)	Inhalation	Benzene	1.3E-03	mg/m^3			7.8E-06	1/(ug/m^3)		8.1E-04	mg/m^3	3.0E-02	mg/m^3	2.7E-02
				Chloroform	2.5E-04	mg/m^3			2.3E-05	1/(ug/m^3)		1.6E-04	mg/m^3	9.8E-02	mg/m^3	1.6E-03
				Ethylbenzene	1.1E-03	mg/m^3			2.5E-06	1/(ug/m^3)		7.0E-04	mg/m^3	1.0E+00	mg/m^3	7.0E-04
				Naphthalene	1.3E-03	mg/m^3			3.4E-05	1/(ug/m^3)		8.3E-04	mg/m^3	3.0E-03	mg/m^3	2.8E-01
			Exp. Route Total													3.1E-01
		Exposure Point Total														3.1E-01
	Exposure Medium Total															3.1E-01
Ambient air at street level Total - Pre-aeration system operation																3.1E-01
Air	Air	Ambient air at street level (after aeration system started)	Inhalation	Benzene	1.1E-03	mg/m^3			7.8E-06	1/(ug/m^3)		7.1E-04	mg/m^3	3.0E-02	mg/m^3	2.4E-02
				Chloroform	3.3E-04	mg/m^3			2.3E-05	1/(ug/m^3)		2.1E-04	mg/m^3	9.8E-02	mg/m^3	2.2E-03
				Ethylbenzene	1.2E-03	mg/m^3			2.5E-06	1/(ug/m^3)		7.9E-04	mg/m^3	1.0E+00	mg/m^3	7.9E-04
				Naphthalene	3.0E-03	mg/m^3			3.4E-05	1/(ug/m^3)		1.9E-03	mg/m^3	3.0E-03	mg/m^3	6.5E-01
			Exp. Route Total													6.7E-01
		Exposure Point Total														6.7E-01
	Exposure Medium Total															6.7E-01
Ambient air at street level Total - After aeration system turned on																6.7E-01

TABLE 7.5.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	2-methylnaphthalene	3.6E+02	mg/kg			NA	1/(mg/kg-day)		2.9E-05	mg/kg-day	4.0E-03	mg/kg-day	7.4E-03
				Acenaphthene	3.1E+02	mg/kg			NA			2.5E-05	mg/kg-day	6.0E-02	mg/kg-day	4.2E-04
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		1.1E-05	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		6.0E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		6.5E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		3.4E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		1.2E-06	mg/kg-day	2.0E-02	mg/kg-day	6.0E-05
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		1.0E-05	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		4.5E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			1.5E-05	mg/kg-day	4.0E-02	mg/kg-day	3.7E-04
				Fluorene	2.3E+02	mg/kg			NA			1.9E-05	mg/kg-day	4.0E-02	mg/kg-day	4.7E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		2.6E-06	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			5.4E-05	mg/kg-day	2.0E-02	mg/kg-day	2.7E-03
				Pyrene	3.9E+02	mg/kg			NA			3.2E-05	mg/kg-day	3.0E-02	mg/kg-day	1.1E-03
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		3.7E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			1.0E+00	1/(mg/kg-day)		5.3E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			5.4E-07	mg/kg-day	2.0E-05	mg/kg-day	2.7E-02
				Aluminum	1.5E+04	mg/kg			NA			1.2E-03	mg/kg-day	1.0E+00	mg/kg-day	1.2E-03
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		1.2E-06	mg/kg-day	3.0E-04	mg/kg-day	4.0E-03
				Cadmium	1.0E+01	mg/kg			NA			8.2E-07	mg/kg-day	1.0E-03	mg/kg-day	8.2E-04
				Chromium	8.5E+01	mg/kg			5.0E-01			6.9E-06	mg/kg-day	3.0E-03	mg/kg-day	2.3E-03
				Cobalt	1.1E+01	mg/kg			NA			9.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.0E-03
				Copper	2.7E+02	mg/kg			NA			2.3E-05	mg/kg-day	4.0E-02	mg/kg-day	5.6E-04
				Iron	3.4E+04	mg/kg			NA			2.8E-03	mg/kg-day	7.0E-01	mg/kg-day	3.9E-03
				Lead	1.2E+03	mg/kg			NA			9.9E-05	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			2.5E-05	mg/kg-day	1.4E-01	mg/kg-day	1.8E-04
				Vanadium	4.6E+01	mg/kg			NA			3.8E-06	mg/kg-day	5.0E-03	mg/kg-day	7.5E-04
			Exp. Route Total													5.7E-02

TABLE 7.5.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Dermal	2-methylnaphthalene	3.6E+02	mg/kg			NA			2.1E-05	mg/kg-day	4.0E-03	mg/kg-day	5.4E-03
				Acenaphthene	3.1E+02	mg/kg			NA			1.8E-05	mg/kg-day	6.0E-02	mg/kg-day	3.1E-04
				Benzo(a)anthracene	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)		7.7E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)		4.4E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)		4.7E-06	mg/kg-day	NA		NA
				Benzo(k)fluoranthene	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)		2.5E-06	mg/kg-day	NA		NA
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg			1.4E-02	1/(mg/kg-day)		6.7E-07	mg/kg-day	2.0E-02	mg/kg-day	3.3E-05
				Chrysene	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)		7.6E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)		3.3E-07	mg/kg-day	NA		NA
				Fluoranthene	1.8E+02	mg/kg			NA			1.1E-05	mg/kg-day	4.0E-02	mg/kg-day	2.7E-04
				Fluorene	2.3E+02	mg/kg			NA			1.4E-05	mg/kg-day	4.0E-02	mg/kg-day	3.5E-04
				Indeno(1,2,3-c,d)pyrene	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)		1.9E-06	mg/kg-day	NA		NA
				Naphthalene	6.6E+02	mg/kg			NA			3.9E-05	mg/kg-day	2.0E-02	mg/kg-day	2.0E-03
				Pyrene	3.9E+02	mg/kg			NA			2.3E-05	mg/kg-day	3.0E-02	mg/kg-day	7.7E-04
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg			1.6E+05	1/(mg/kg-day)		2.9E-12	mg/kg-day	NA		NA
				Nondioxin-Like PCB	6.4E+00	mg/kg			1.0E+00	1/(mg/kg-day)		4.1E-07	mg/kg-day	NA		NA
				Total PCB	6.6E+00	mg/kg			NA			4.3E-07	mg/kg-day	2.0E-05	mg/kg-day	2.1E-02
				Aluminum	1.5E+04	mg/kg			NA			6.7E-05	mg/kg-day	1.0E+00	mg/kg-day	6.7E-05
				Arsenic	1.5E+01	mg/kg			1.5E+00	1/(mg/kg-day)		2.0E-07	mg/kg-day	3.0E-04	mg/kg-day	6.8E-04
				Cadmium	1.0E+01	mg/kg			NA			4.6E-09	mg/kg-day	2.5E-05	mg/kg-day	1.8E-04
				Chromium	8.5E+01	mg/kg			2.0E+01	0.0E+00		3.9E-07	mg/kg-day	7.5E-05	mg/kg-day	5.2E-03
				Cobalt	1.1E+01	mg/kg			NA			5.1E-08	mg/kg-day	3.0E-04	mg/kg-day	1.7E-04
				Copper	2.7E+02	mg/kg			NA			1.3E-06	mg/kg-day	4.0E-02	mg/kg-day	3.2E-05
				Iron	3.4E+04	mg/kg			NA			1.5E-04	mg/kg-day	7.0E-01	mg/kg-day	2.2E-04
				Lead	1.2E+03	mg/kg			NA			5.5E-06	mg/kg-day	NA		NA
				Manganese	3.1E+02	mg/kg			NA			1.4E-06	mg/kg-day	7.0E-01	mg/kg-day	2.0E-06
				Vanadium	4.6E+01	mg/kg			NA			2.1E-07	mg/kg-day	5.0E-03	mg/kg-day	4.2E-05
			Exp. Route Total													3.7E-02
		Exposure Point Total														9.3E-02
	Exposure Medium Total															9.3E-02
Overflow Surface Sediment Total																9.3E-02

TABLE 7.5.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		1.6E-08	mg/kg-day	7.0E-02	mg/kg-day	2.3E-07
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		2.2E-08	mg/kg-day	4.0E-03	mg/kg-day	5.6E-06
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		1.5E-08	mg/kg-day	1.0E-02	mg/kg-day	1.5E-06
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		2.3E-08	mg/kg-day	1.0E-01	mg/kg-day	2.3E-07
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		6.5E-07	mg/kg-day	1.0E-02	mg/kg-day	6.5E-05
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		2.8E-09	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		5.5E-09	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		5.0E-09	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		2.7E-09	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		1.3E-08	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			9.7E-09	mg/kg-day	2.0E-02	mg/kg-day	4.9E-07
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		4.4E-07	mg/kg-day	3.0E-04	mg/kg-day	1.5E-03
				Chromium	8.5E+00	ug/L			5.0E-01	1/(mg/kg-day)		2.3E-07	mg/kg-day	3.0E-03	mg/kg-day	7.6E-05
				Cobalt	3.9E+00	ug/L			NA			1.0E-07	mg/kg-day	3.0E-04	mg/kg-day	3.5E-04
				Lead	1.5E+01	ug/L			NA			4.0E-07	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			9.0E-07	mg/kg-day	5.0E-03	mg/kg-day	1.8E-04
			Exp. Route Total													2.2E-03

TABLE 7.5.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk			Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L			5.4E-03	1/(mg/kg-day)		1.5E-07	mg/kg-day	7.0E-02	mg/kg-day	2.2E-06
				Benzene	8.4E-01	ug/L			5.5E-02	1/(mg/kg-day)		5.3E-08	mg/kg-day	4.0E-03	mg/kg-day	1.3E-05
				Chloroform	5.6E-01	ug/L			3.1E-02	1/(mg/kg-day)		2.0E-08	mg/kg-day	1.0E-02	mg/kg-day	2.0E-06
				Ethylbenzene	8.7E-01	ug/L			1.1E-02	1/(mg/kg-day)		2.0E-07	mg/kg-day	1.0E-01	mg/kg-day	2.0E-06
				Tetrachloroethylene(PCE)	2.4E+01	ug/L			5.4E-01	1/(mg/kg-day)		5.6E-06	mg/kg-day	1.0E-02	mg/kg-day	5.6E-04
				Benzo(a)anthracene	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		5.1E-07	mg/kg-day	NA		NA
				Benzo(a)pyrene	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)		1.7E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)		1.6E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)		1.3E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-c,d)pyrene	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)		4.2E-06	mg/kg-day	NA		NA
				Naphthalene	3.6E-01	ug/L			NA			9.3E-08	mg/kg-day	2.0E-02	mg/kg-day	4.6E-06
				Arsenic	1.7E+01	ug/L			1.5E+00	1/(mg/kg-day)		5.0E-08	mg/kg-day	3.0E-04	mg/kg-day	1.7E-04
				Chromium	8.5E+00	ug/L			2.0E+01	1/(mg/kg-day)		5.1E-08	mg/kg-day	7.5E-05	mg/kg-day	6.8E-04
				Cobalt	3.9E+00	ug/L			NA			4.7E-09	mg/kg-day	3.0E-04	mg/kg-day	1.6E-05
				Lead	1.5E+01	ug/L			NA			4.5E-09	mg/kg-day	NA		NA
				Selenium	3.4E+01	ug/L			NA			1.0E-07	mg/kg-day	5.0E-03	mg/kg-day	2.0E-05
			Exp. Route Total													1.5E-03
		Exposure Point Total														3.6E-03
	Exposure Medium Total															3.6E-03
Overflow Surface Water Total																3.6E-03
Total											Total of Receptor Risks Across All Media					Total of Receptor Hazards Across All Media: 7.7E-01

Notes-

NA = Not available / Not applicable.

DAevent for surface water calculated on Table 7.4.CTE Supplement A.

Total includes maximum between air prior to and after aeration system operations, and surface water, and sediment.

TABLE 7.6.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Air	Air	Ambient air at street level (pre-aeration system operation)	Inhalation	Benzene	1.3E-03	mg/m^3	1.0E-01	ug/m^3	7.8E-06	1/(ug/m^3)	8.1E-07			3.0E-02	mg/m^3	
				Chloroform	2.5E-04	mg/m^3	2.0E-02	ug/m^3	2.3E-05	1/(ug/m^3)	4.6E-07			9.8E-02	mg/m^3	
				Ethylbenzene	1.1E-03	mg/m^3	9.0E-02	ug/m^3	2.5E-06	1/(ug/m^3)	2.2E-07			1.0E+00	mg/m^3	
				Naphthalene	1.3E-03	mg/m^3	1.1E-01	ug/m^3	3.4E-05	1/(ug/m^3)	3.6E-06			3.0E-03	mg/m^3	
			Exp. Route Total								5.1E-06					
		Exposure Point Total									5.1E-06					
	Exposure Medium Total										5.1E-06					
Ambient air at street level Total - Pre-aeration system operation											5.1E-06					
Air	Air	Ambient air at street level (after aeration system started)	Inhalation	Benzene	1.1E-03	mg/m^3	9.1E-02	ug/m^3	7.8E-06	1/(ug/m^3)	7.1E-07			3.0E-02	mg/m^3	
				Chloroform	3.3E-04	mg/m^3	2.7E-02	ug/m^3	2.3E-05	1/(ug/m^3)	6.3E-07			9.8E-02	mg/m^3	
				Ethylbenzene	1.2E-03	mg/m^3	1.0E-01	ug/m^3	2.5E-06	1/(ug/m^3)	2.6E-07			1.0E+00	mg/m^3	
				Naphthalene	3.0E-03	mg/m^3	2.5E-01	ug/m^3	3.4E-05	1/(ug/m^3)	8.5E-06			3.0E-03	mg/m^3	
			Exp. Route Total								1.0E-05					
		Exposure Point Total									1.0E-05					
	Exposure Medium Total										1.0E-05					
Ambient air at street level Total - After aeration system turned on											1.0E-05					

TABLE 7.6.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion													
				2-methylnaphthalene	3.6E+02	mg/kg	2.7E-06	mg/kg-day	NA	1/(mg/kg-day)	NA			4.0E-03	mg/kg-day	
				Acenaphthene	3.1E+02	mg/kg	2.3E-06	mg/kg-day	NA		NA			6.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)	3.5E-06			NA		
				Benzo(a)pyrene[1]	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)	2.0E-05			NA		
				Benzo(b)fluoranthene[1]	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)	2.2E-06			NA		
				Benzo(k)fluoranthene[1]	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)	1.1E-07			NA		
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg	1.1E-07	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.5E-09			2.0E-02	mg/kg-day	
				Chrysene[1]	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)	3.5E-08			NA		
				Dibenz(a,h)anthracene[1]	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)	1.5E-06			NA		
				Fluoranthene	1.8E+02	mg/kg	1.3E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Fluorene	2.3E+02	mg/kg	1.7E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Indeno(1,2,3-c,d)pyrene[1]	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)	8.7E-07			NA		
				Naphthalene	6.6E+02	mg/kg	4.9E-06	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Pyrene	3.9E+02	mg/kg	2.9E-06	mg/kg-day	NA		NA			3.0E-02	mg/kg-day	
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg	3.4E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	5.2E-08			NA		
				Nondioxin-Like PCB	6.4E+00	mg/kg	4.8E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	4.8E-08			NA		
				Total PCB	6.6E+00	mg/kg	4.9E-08	mg/kg-day	NA		NA			2.0E-05	mg/kg-day	
				Aluminum	1.5E+04	mg/kg	1.1E-04	mg/kg-day	NA		NA			1.0E+00	mg/kg-day	
				Arsenic	1.5E+01	mg/kg	1.1E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.6E-07			3.0E-04	mg/kg-day	
				Cadmium	1.0E+01	mg/kg	7.4E-08	mg/kg-day	NA		NA			1.0E-03	mg/kg-day	
				Chromium[1]	8.5E+01	mg/kg			5.0E-01	1/(mg/kg-day)	1.6E-08			3.0E-03	mg/kg-day	
				Cobalt	1.1E+01	mg/kg	8.2E-08	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Copper	2.7E+02	mg/kg	2.0E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Iron	3.4E+04	mg/kg	2.5E-04	mg/kg-day	NA		NA			7.0E-01	mg/kg-day	
				Lead	1.2E+03	mg/kg	8.9E-06	mg/kg-day	NA		NA			NA		
				Manganese	3.1E+02	mg/kg	2.3E-06	mg/kg-day	NA		NA			1.4E-01	mg/kg-day	
				Vanadium	4.6E+01	mg/kg	3.4E-07	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								2.9E-05					

TABLE 7.6.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Dermal	2-methylnaphthalene	3.6E+02	mg/kg	3.0E-06	mg/kg-day	NA		NA			4.0E-03	mg/kg-day	
				Acenaphthene	3.1E+02	mg/kg	2.6E-06	mg/kg-day	NA		NA			6.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.3E+02	mg/kg			7.3E-01	1/(mg/kg-day)	2.7E-06			NA		
				Benzo(a)pyrene[1]	7.3E+01	mg/kg			7.3E+00	1/(mg/kg-day)	1.5E-05			NA		
				Benzo(b)fluoranthene[1]	7.9E+01	mg/kg			7.3E-01	1/(mg/kg-day)	1.6E-06			NA		
				Benzo(k)fluoranthene[1]	4.1E+01	mg/kg			7.3E-02	1/(mg/kg-day)	8.5E-08			NA		
				Bis(2-ethylhexyl)phthalate	1.5E+01	mg/kg	9.5E-08	mg/kg-day	1.4E-02	1/(mg/kg-day)	1.3E-09			2.0E-02	mg/kg-day	
				Chrysene[1]	1.3E+02	mg/kg			7.3E-03	1/(mg/kg-day)	2.6E-08			NA		
				Dibenz(a,h)anthracene[1]	5.5E+00	mg/kg			7.3E+00	1/(mg/kg-day)	1.1E-06			NA		
				Fluoranthene	1.8E+02	mg/kg	1.5E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Fluorene	2.3E+02	mg/kg	2.0E-06	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Indeno(1,2,3-c,d)pyrene[1]	3.1E+01	mg/kg			7.3E-01	1/(mg/kg-day)	6.5E-07			NA		
				Naphthalene	6.6E+02	mg/kg	5.6E-06	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Pyrene	3.9E+02	mg/kg	3.3E-06	mg/kg-day	NA		NA			3.0E-02	mg/kg-day	
				Dioxin-Like PCB TEQ	4.5E-05	mg/kg	4.1E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	6.5E-08			NA		
				Nondioxin-Like PCB	6.4E+00	mg/kg	5.9E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	5.9E-08			NA		
				Total PCB	6.6E+00	mg/kg	6.1E-08	mg/kg-day	NA		NA			2.0E-05	mg/kg-day	
				Aluminum	1.5E+04	mg/kg	9.5E-06	mg/kg-day	NA		NA			1.0E+00	mg/kg-day	
				Arsenic	1.5E+01	mg/kg	2.9E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.3E-08			3.0E-04	mg/kg-day	
				Cadmium	1.0E+01	mg/kg	6.5E-10	mg/kg-day	NA		NA			2.5E-05	mg/kg-day	
				Chromium[1]	8.5E+01	mg/kg			2.0E+01	1/(mg/kg-day)	3.7E-07			7.5E-05	mg/kg-day	
				Cobalt	1.1E+01	mg/kg	7.2E-09	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Copper	2.7E+02	mg/kg	1.8E-07	mg/kg-day	NA		NA			4.0E-02	mg/kg-day	
				Iron	3.4E+04	mg/kg	2.2E-05	mg/kg-day	NA		NA			7.0E-01	mg/kg-day	
				Lead	1.2E+03	mg/kg	7.8E-07	mg/kg-day	NA		NA			NA		
				Manganese	3.1E+02	mg/kg	2.0E-07	mg/kg-day	NA		NA			7.0E-01	mg/kg-day	
				Vanadium	4.6E+01	mg/kg	3.0E-08	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								2.2E-05					
		Exposure Point Total									5.1E-05					
	Exposure Medium Total										5.1E-05					
Overflow Surface Sediment Total											5.1E-05					

TABLE 7.6.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion													
				1,4-dichlorobenzene	5.9E-01	ug/L	1.8E-09	mg/kg-day	5.4E-03	1/(mg/kg-day)	9.5E-12			7.0E-02	mg/kg-day	
				Benzene	8.4E-01	ug/L	2.5E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	1.4E-10			4.0E-03	mg/kg-day	
				Chloroform	5.6E-01	ug/L	1.7E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	5.2E-11			1.0E-02	mg/kg-day	
				Ethylbenzene	8.7E-01	ug/L	2.6E-09	mg/kg-day	1.1E-02	1/(mg/kg-day)	2.8E-11			1.0E-01	mg/kg-day	
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	7.3E-08	mg/kg-day	5.4E-01	1/(mg/kg-day)	3.9E-08			1.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	9.5E-10			NA		
				Benzo(a)pyrene[1]	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)	2.2E-08			NA		
				Benzo(b)fluoranthene[1]	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)	2.1E-09			NA		
				Dibenz(a,h)anthracene[1]	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)	1.1E-08			NA		
				Indeno(1,2,3-c,d)pyrene[1]	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	5.4E-09			NA		
				Naphthalene	3.6E-01	ug/L	1.1E-09	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Arsenic	1.7E+01	ug/L	4.9E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	7.4E-08			3.0E-04	mg/kg-day	
				Chromium[1]	8.5E+00	ug/L			5.0E-01	1/(mg/kg-day)	6.4E-08			3.0E-03	mg/kg-day	
				Cobalt	3.9E+00	ug/L	1.2E-08	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Lead	1.5E+01	ug/L	4.4E-08	mg/kg-day	NA		NA			NA		
				Selenium	3.4E+01	ug/L	1.0E-07	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								2.2E-07					

TABLE 7.6.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Dermal	1,4-dichlorobenzene	5.9E-01	ug/L	2.1E-08	mg/kg-day	5.4E-03	1/(mg/kg-day)	1.2E-10			7.0E-02	mg/kg-day	
				Benzene	8.4E-01	ug/L	7.5E-09	mg/kg-day	5.5E-02	1/(mg/kg-day)	4.2E-10			4.0E-03	mg/kg-day	
				Chloroform	5.6E-01	ug/L	2.8E-09	mg/kg-day	3.1E-02	1/(mg/kg-day)	8.8E-11			1.0E-02	mg/kg-day	
				Ethylbenzene	8.7E-01	ug/L	2.9E-08	mg/kg-day	1.1E-02	1/(mg/kg-day)	3.2E-10			1.0E-01	mg/kg-day	
				Tetrachloroethylene(PCE)	2.4E+01	ug/L	7.9E-07	mg/kg-day	5.4E-01	1/(mg/kg-day)	4.3E-07			1.0E-02	mg/kg-day	
				Benzo(a)anthracene[1]	1.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	1.8E-07			NA		
				Benzo(a)pyrene[1]	2.1E-01	ug/L			7.3E+00	1/(mg/kg-day)	5.9E-06			NA		
				Benzo(b)fluoranthene[1]	1.9E-01	ug/L			7.3E-01	1/(mg/kg-day)	5.5E-07			NA		
				Dibenz(a,h)anthracene[1]	1.0E-01	ug/L			7.3E+00	1/(mg/kg-day)	4.5E-06			NA		
				Indeno(1,2,3-c,d)pyrene[1]	5.0E-01	ug/L			7.3E-01	1/(mg/kg-day)	1.5E-06			NA		
				Naphthalene	3.6E-01	ug/L	1.3E-08	mg/kg-day	NA		NA			2.0E-02	mg/kg-day	
				Arsenic	1.7E+01	ug/L	7.0E-09	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.1E-08			3.0E-04	mg/kg-day	
				Chromium[1]	8.5E+00	ug/L			2.0E+01	1/(mg/kg-day)	8.8E-07			7.5E-05	mg/kg-day	
				Cobalt	3.9E+00	ug/L	6.6E-10	mg/kg-day	NA		NA			3.0E-04	mg/kg-day	
				Lead	1.5E+01	ug/L	6.3E-10	mg/kg-day	NA		NA			NA		
				Selenium	3.4E+01	ug/L	1.4E-08	mg/kg-day	NA		NA			5.0E-03	mg/kg-day	
			Exp. Route Total								1.4E-05					
		Exposure Point Total									1.4E-05					
	Exposure Medium Total										1.4E-05					
Overflow Surface Water Total											1.4E-05					
Total										Total of Receptor Risks Across All Media	7.5E-05				Total of Receptor Hazards Across All Media	

Notes-

NA = Not available / Not applicable.

DAevent for surface water calculated on Table 7.4.CTE Supplement A.

Total includes maximum between air prior to and after aeration system operations, and surface water, and sediment.

1. See Table 7.6.CTE Supplement A for calculation of intake and cancer risk following MMOA method.

TABLE 7.6.CTE Supplement A

CALCULATION OF CHEMICAL CANCER RISKS FOR COPC WITH MUTAGENIC MODE OF ACTION

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Adult/Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations								
							Intake				CSF/Unit Risk				Cancer Risk
					Value	Units	Value			Units	Value			Units	
							0-2 yrs	2-6 yrs	16-19 yrs		0-2 yrs (ADAF=10)	2-6 yrs (ADAF=3)	16-19 yrs (ADAF=1)		
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal associated with canal overflow	Ingestion	Benzo(a)anthracene	1.3E+02	mg/kg	3.0E-07	6.0E-07	4.8E-08	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	mg/kg/day	3.5E-06
				Benzo(a)pyrene	7.3E+01	mg/kg	1.7E-07	3.4E-07	2.8E-08	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	mg/kg/day	2.0E-05
				Benzo(b)fluoranthene	7.9E+01	mg/kg	1.9E-07	3.7E-07	3.0E-08	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	mg/kg/day	2.2E-06
				Benzo(k)fluoranthene	4.1E+01	mg/kg	9.6E-08	1.9E-07	1.5E-08	mg/kg/day	7.3E-01	2.2E-01	7.3E-02	mg/kg/day	1.1E-07
				Chrysene	1.3E+02	mg/kg	3.0E-07	6.0E-07	4.8E-08	mg/kg/day	7.3E-02	2.2E-02	7.3E-03	mg/kg/day	3.5E-08
				Dibenz(a,h)anthracene	5.5E+00	mg/kg	1.3E-08	2.6E-08	2.1E-09	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	mg/kg/day	1.5E-06
				Indeno(1,2,3-cd)pyrene	3.1E+01	mg/kg	7.4E-08	1.5E-07	1.2E-08	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	mg/kg/day	8.7E-07
				Chromium	8.5E-01	mg/kg	2.0E-09	4.0E-09	3.2E-10	mg/kg/day	5.0E+00	1.5E+00	5.0E-01	mg/kg/day	1.6E-08
			Dermal	Benzo(a)anthracene	1.3E+02	mg/kg	2.2E-07	4.4E-07	1.4E-07	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	mg/kg/day	2.7E-06
				Benzo(a)pyrene	7.3E+01	mg/kg	1.3E-07	2.5E-07	8.2E-08	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	mg/kg/day	1.5E-05
				Benzo(b)fluoranthene	7.9E+01	mg/kg	1.4E-07	2.7E-07	8.9E-08	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	mg/kg/day	1.6E-06
				Benzo(k)fluoranthene	4.1E+01	mg/kg	7.0E-08	1.4E-07	4.6E-08	mg/kg/day	7.3E-01	2.2E-01	7.3E-02	mg/kg/day	8.5E-08
				Chrysene	1.3E+02	mg/kg	2.2E-07	4.3E-07	1.4E-07	mg/kg/day	7.3E-02	2.2E-02	7.3E-03	mg/kg/day	2.6E-08
				Dibenz(a,h)anthracene	5.5E+00	mg/kg	9.3E-09	1.9E-08	6.1E-09	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	mg/kg/day	1.1E-06
				Indeno(1,2,3-cd)pyrene	3.1E+01	mg/kg	5.4E-08	1.1E-07	3.5E-08	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	mg/kg/day	6.5E-07
				Chromium	8.5E+01	mg/kg	1.1E-09	2.2E-09	7.3E-10	mg/kg/day	2.0E+02	6.0E+01	2.0E+01	mg/kg/day	3.7E-07
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water	Ingestion	Benzo(a)anthracene	1.0E-01	ug/L	7.9E-11	1.6E-10	2.6E-11	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	9.5E-10
				Benzo(a)pyrene	2.1E-01	ug/L	1.6E-10	3.1E-10	5.0E-11	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	2.2E-08
				Benzo(b)fluoranthene	1.9E-01	ug/L	1.4E-10	2.9E-10	4.6E-11	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	2.1E-09
				Dibenz(a,h)anthracene	1.0E-01	ug/L	7.7E-11	1.5E-10	2.5E-11	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	1.1E-08
				Indeno(1,2,3-cd)pyrene	5.0E-01	ug/L	3.8E-10	7.6E-10	1.2E-10	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	5.4E-09
				Chromium	8.5E+00	ug/L	6.5E-09	1.3E-08	2.1E-09	mg/kg/day	5.0E+00	1.5E+00	5.0E-01	1/(mg/kg-day)	6.4E-08
			Dermal	Benzo(a)anthracene	1.0E-01	ug/L	1.4E-08	2.9E-08	9.4E-09	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	1.8E-07
				Benzo(a)pyrene	2.1E-01	ug/L	4.9E-08	9.8E-08	3.2E-08	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	5.9E-06
				Benzo(b)fluoranthene	1.9E-01	ug/L	4.6E-08	9.1E-08	3.0E-08	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	5.5E-07
				Dibenz(a,h)anthracene	1.0E-01	ug/L	3.7E-08	7.4E-08	2.4E-08	mg/kg/day	7.3E+01	2.2E+01	7.3E+00	1/(mg/kg-day)	4.5E-06
				Indeno(1,2,3-cd)pyrene	5.0E-01	ug/L	1.2E-07	2.4E-07	7.9E-08	mg/kg/day	7.3E+00	2.2E+00	7.3E-01	1/(mg/kg-day)	1.5E-06
				Chromium	8.5E+00	ug/L	2.7E-09	5.3E-09	1.7E-09	mg/kg/day	2.0E+02	6.0E+01	2.0E+01	1/(mg/kg-day)	8.8E-07

TABLE 7.7.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Ingestion													
				p,p'-DDE	1.2E-02	mg/kg	9.7E-09	mg/kg-day	3.4E-01	1/(mg/kg-day)	3.3E-09	2.3E-07	mg/kg-day	NA		NA
				p,p'-DDT	9.6E-03	mg/kg	7.7E-09	mg/kg-day	3.4E-01	1/(mg/kg-day)	2.6E-09	1.8E-07	mg/kg-day	5.0E-04	mg/kg-day	3.6E-04
				Dioxin-Like PCB TEQ	4.3E-06	mg/kg	3.5E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	5.4E-07	8.1E-11	mg/kg-day	NA		NA
				Nondioxin-Like	4.1E-01	mg/kg	3.3E-07	mg/kg-day	1.0E+00	1/(mg/kg-day)	3.3E-07	7.7E-06	mg/kg-day	NA		NA
				Total PCB	4.4E-01	mg/kg	3.5E-07	mg/kg-day	NA		NA	8.2E-06	mg/kg-day	2.0E-05	mg/kg-day	4.1E-01
				Arsenic	6.8E-02	mg/kg	5.5E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	8.2E-08	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.3E-03
				Mercury	2.0E-01	mg/kg	1.6E-07	mg/kg-day	NA		NA	3.8E-06	mg/kg-day	1.0E-04	mg/kg-day	3.8E-02
				Selenium	1.2E+00	mg/kg	9.7E-07	mg/kg-day	NA		NA	2.3E-05	mg/kg-day	5.0E-03	mg/kg-day	4.5E-03
			Exp. Route Total								9.6E-07					4.6E-01
		Exposure Point Total									9.6E-07					4.6E-01
	Exposure Medium Total - Striped Bass in Gowanus Canal										9.6E-07					4.6E-01
	Fish and Crab Tissue	White Perch in Gowanus Canal	Ingestion													
				Dioxin-Like PCB TEQ	5.8E-06	mg/kg	5.1E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	8.0E-08	1.2E-11	mg/kg-day	NA		NA
				Nondioxin-Like	4.4E-01	mg/kg	3.9E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	3.9E-08	9.0E-07	mg/kg-day	NA		NA
				Total PCB	4.6E-01	mg/kg	4.1E-08	mg/kg-day	NA		NA	9.5E-07	mg/kg-day	2.0E-05	mg/kg-day	4.8E-02
				Mercury	1.9E-01	mg/kg	1.7E-08	mg/kg-day	NA		NA	3.9E-07	mg/kg-day	1.0E-04	mg/kg-day	3.9E-03
				Selenium	1.4E+00	mg/kg	1.2E-07	mg/kg-day	NA		NA	2.9E-06	mg/kg-day	5.0E-03	mg/kg-day	5.8E-04
			Exp. Route Total								1.2E-07					5.2E-02
		Exposure Point Total									1.2E-07					5.2E-02
	Exposure Medium Total - White Perch in Gowanus Canal										1.2E-07					5.2E-02

TABLE 7.7.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Ingestion													
				alpha-Chlordane	2.2E-02	mg/kg	1.6E-08	mg/kg-day	3.5E-01	1/(mg/kg-day)	5.5E-09	3.7E-07	mg/kg-day	5.0E-04	mg/kg-day	7.3E-04
				Dieldrin	1.7E-02	mg/kg	1.2E-08	mg/kg-day	1.6E+01	1/(mg/kg-day)	1.9E-07	2.8E-07	mg/kg-day	5.0E-05	mg/kg-day	5.6E-03
				gamma-Chlordane	1.3E-02	mg/kg	9.2E-09	mg/kg-day	3.5E-01	1/(mg/kg-day)	3.2E-09	2.2E-07	mg/kg-day	5.0E-04	mg/kg-day	4.3E-04
				p,p'-DDD	3.8E-02	mg/kg	2.7E-08	mg/kg-day	2.4E-01	1/(mg/kg-day)	6.5E-09	6.3E-07	mg/kg-day	NA		NA
				p,p'-DDE	2.5E-02	mg/kg	1.8E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	6.0E-09	4.1E-07	mg/kg-day	NA		NA
				p,p'-DDT	4.7E-02	mg/kg	3.3E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	1.1E-08	7.8E-07	mg/kg-day	5.0E-04	mg/kg-day	1.6E-03
				Dioxin-Like PCB TEQ	1.4E-05	mg/kg	1.0E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.6E-06	2.3E-10	mg/kg-day	NA		NA
				Nondioxin-Like	1.2E+00	mg/kg	8.7E-07	mg/kg-day	1.0E+00	1/(mg/kg-day)	8.7E-07	2.0E-05	mg/kg-day	NA		NA
				Total PCB	1.4E+00	mg/kg	9.6E-07	mg/kg-day	NA		NA	2.2E-05	mg/kg-day	2.0E-05	mg/kg-day	1.1E+00
				Arsenic	5.0E-02	mg/kg	3.6E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	5.3E-08	8.3E-07	mg/kg-day	3.0E-04	mg/kg-day	2.8E-03
				Chromium	6.7E-01	mg/kg	4.8E-07	mg/kg-day	5.0E-01	1/(mg/kg-day)	2.4E-07	1.1E-05	mg/kg-day	3.0E-03	mg/kg-day	3.7E-03
				Copper	7.4E+00	mg/kg	5.3E-06	mg/kg-day	NA		NA	1.2E-04	mg/kg-day	4.0E-02	mg/kg-day	3.1E-03
				Cyanide, total	3.1E+00	mg/kg	2.2E-06	mg/kg-day	NA		NA	5.1E-05	mg/kg-day	2.0E-02		2.6E-03
				Mercury	2.6E-01	mg/kg	1.8E-07	mg/kg-day	NA		NA	4.3E-06	mg/kg-day	1.0E-04		4.3E-02
				Selenium	1.4E+00	mg/kg	1.0E-06	mg/kg-day	NA		NA	2.3E-05	mg/kg-day	5.0E-03	mg/kg-day	4.6E-03
			Exp. Route Total								2.9E-06					1.2E+00
		Exposure Point Total									2.9E-06					1.2E+00
	Exposure Medium Total - Eel in Gowanus Canal										2.9E-06					1.2E+00

TABLE 7.7.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal	Ingestion	Benzo(a)anthracene	7.7E-03	mg/kg	7.5E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	5.5E-08	1.8E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene	1.2E-02	mg/kg	1.2E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	8.4E-07	2.7E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene	6.4E-03	mg/kg	6.3E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	4.6E-08	1.5E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene	3.9E-03	mg/kg	3.9E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	2.8E-07	9.0E-07	mg/kg-day	NA		NA
				Indeno(1,2,3-cd)pyrene	9.9E-03	mg/kg	9.7E-08	mg/kg-day	7.3E-01	1/(mg/kg-day)	7.1E-08	2.3E-06	mg/kg-day	NA		NA
				Dioxin-Like PCB TEQ	5.0E-06	mg/kg	4.9E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	7.7E-06	1.2E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.4E-01	mg/kg	1.4E-06	mg/kg-day	1.0E+00	1/(mg/kg-day)	1.4E-06	3.3E-05	mg/kg-day	NA		NA
				Total PCB	1.7E-01	mg/kg	1.6E-06	mg/kg-day	NA		NA	3.8E-05	mg/kg-day	2.0E-05	mg/kg-day	1.9E+00
				Arsenic	1.3E-01	mg/kg	1.3E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.9E-06	3.0E-05	mg/kg-day	3.0E-04	mg/kg-day	1.0E-01
				Copper	1.0E+01	mg/kg	1.0E-04	mg/kg-day	NA		NA	2.3E-03	mg/kg-day	4.0E-02	mg/kg-day	5.8E-02
				Mercury	1.2E-01	mg/kg	1.2E-06	mg/kg-day	NA		NA	2.8E-05	mg/kg-day	1.0E-04	mg/kg-day	2.8E-01
			Exp. Route Total								1.2E-05					2.3E+00
		Exposure Point Total									1.2E-05					2.3E+00
	Exposure Medium Total - Crab in Gowanus Canal										1.2E-05					2.3E+00
Total Fish									Total of Receptor Risks - Fish		4.0E-06			Total of Receptor Hazards - Fish		1.7E+00
Total Blue Crab									Total of Receptor Risks - Blur Crab		1.2E-05			Total of Receptor Hazards - Blue Crab		2.3E+00

Notes-

NA = Not available / Not applicable.

TABLE 7.8.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Ingestion	p,p'-DDE	1.2E-02	mg/kg	7.9E-09	mg/kg-day	3.4E-01	1/(mg/kg-day)	2.7E-09	1.8E-07	mg/kg-day	NA		NA
				p,p'-DDT	9.6E-03	mg/kg	6.3E-09	mg/kg-day	3.4E-01	1/(mg/kg-day)	2.1E-09	1.5E-07	mg/kg-day	5.0E-04	mg/kg-day	2.9E-04
				Dioxin-Like PCB TEQ	4.3E-06	mg/kg	2.8E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	4.4E-07	6.6E-11	mg/kg-day	NA		NA
				Nondioxin-Like	4.1E-01	mg/kg	2.7E-07	mg/kg-day	1.0E+00	1/(mg/kg-day)	2.7E-07	6.3E-06	mg/kg-day	NA		NA
				Total PCB	4.4E-01	mg/kg	2.9E-07	mg/kg-day	NA		NA	6.7E-06	mg/kg-day	2.0E-05	mg/kg-day	3.3E-01
				Arsenic	6.8E-02	mg/kg	4.5E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	6.7E-08	1.0E-06	mg/kg-day	3.0E-04	mg/kg-day	3.5E-03
				Mercury	2.0E-01	mg/kg	1.3E-07	mg/kg-day	NA		NA	3.1E-06	mg/kg-day	1.0E-04	mg/kg-day	3.1E-02
				Selenium	1.2E+00	mg/kg	7.9E-07	mg/kg-day	NA		NA	1.8E-05	mg/kg-day	5.0E-03	mg/kg-day	3.7E-03
			Exp. Route Total								7.8E-07					3.7E-01
		Exposure Point Total									7.8E-07					3.7E-01
	Exposure Medium Total - Striped Bass in Gowanus Canal										7.8E-07					3.7E-01
	Fish and Crab Tissue	White Perch in Gowanus Canal	Ingestion	Dioxin-Like PCB TEQ	5.8E-06	mg/kg	4.0E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	6.2E-08	9.3E-12	mg/kg-day	NA		NA
				Nondioxin-Like	4.4E-01	mg/kg	3.0E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	3.0E-08	7.0E-07	mg/kg-day	NA		NA
				Total PCB	4.6E-01	mg/kg	3.2E-08	mg/kg-day	NA		NA	7.4E-07	mg/kg-day	2.0E-05	mg/kg-day	3.7E-02
				Mercury	1.9E-01	mg/kg	1.3E-08	mg/kg-day	NA		NA	3.0E-07	mg/kg-day	1.0E-04	mg/kg-day	3.0E-03
				Selenium	1.4E+00	mg/kg	9.6E-08	mg/kg-day	NA		NA	2.2E-06	mg/kg-day	5.0E-03	mg/kg-day	4.5E-04
			Exp. Route Total								9.2E-08					4.1E-02
		Exposure Point Total									9.2E-08					4.1E-02
	Exposure Medium Total - White Perch in Gowanus Canal										9.2E-08					4.1E-02

TABLE 7.8.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Ingestion	alpha-Chlordane	2.2E-02	mg/kg	1.2E-08	mg/kg-day	3.5E-01	1/(mg/kg-day)	4.3E-09	2.8E-07	mg/kg-day	5.0E-04	mg/kg-day	5.7E-04
				Dieldrin	1.7E-02	mg/kg	9.4E-09	mg/kg-day	1.6E+01	1/(mg/kg-day)	1.5E-07	2.2E-07	mg/kg-day	5.0E-05	mg/kg-day	4.4E-03
				gamma-Chlordane	1.3E-02	mg/kg	7.2E-09	mg/kg-day	3.5E-01	1/(mg/kg-day)	2.5E-09	1.7E-07	mg/kg-day	5.0E-04	mg/kg-day	3.4E-04
				p,p'-DDD	3.8E-02	mg/kg	2.1E-08	mg/kg-day	2.4E-01	1/(mg/kg-day)	5.1E-09	4.9E-07	mg/kg-day	NA		NA
				p,p'-DDE	2.5E-02	mg/kg	1.4E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	4.7E-09	3.2E-07	mg/kg-day	NA		NA
				p,p'-DDT	4.7E-02	mg/kg	2.6E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	8.9E-09	6.1E-07	mg/kg-day	5.0E-04	mg/kg-day	1.2E-03
				Dioxin-Like PCB TEQ	1.4E-05	mg/kg	7.8E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.2E-06	1.8E-10	mg/kg-day	NA		NA
				Nondioxin-Like	1.2E+00	mg/kg	6.8E-07	mg/kg-day	1.0E+00	1/(mg/kg-day)	6.8E-07	1.6E-05	mg/kg-day	NA		NA
				Total PCB	1.4E+00	mg/kg	7.5E-07	mg/kg-day	NA		NA	1.7E-05	mg/kg-day	2.0E-05	mg/kg-day	8.7E-01
				Arsenic	5.0E-02	mg/kg	2.8E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	4.2E-08	6.5E-07	mg/kg-day	3.0E-04	mg/kg-day	2.2E-03
				Chromium (12-15)*	6.7E-01	mg/kg	3.7E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	5.6E-07	8.7E-06	mg/kg-day	3.0E-03	mg/kg-day	2.9E-03
				Copper	7.4E+00	mg/kg	4.1E-06	mg/kg-day	NA		NA	9.6E-05	mg/kg-day	4.0E-02	mg/kg-day	2.4E-03
				Cyanide, total	3.1E+00	mg/kg	1.7E-06	mg/kg-day	NA		NA	4.0E-05	mg/kg-day	2.0E-02	mg/kg-day	2.0E-03
				Mercury	2.6E-01	mg/kg	1.4E-07	mg/kg-day	NA		NA	3.4E-06	mg/kg-day	1.0E-04	mg/kg-day	3.4E-02
				Selenium	1.4E+00	mg/kg	7.8E-07	mg/kg-day	NA		NA	1.8E-05	mg/kg-day	5.0E-03	mg/kg-day	3.6E-03
			Exp. Route Total								2.7E-06					9.3E-01
		Exposure Point Total									2.7E-06					9.3E-01
	Exposure Medium Total - Eel in Gowanus Canal										2.7E-06					9.3E-01

TABLE 7.8.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal	Ingestion	Benzo(a)anthracene (12-15)*	7.7E-03	mg/kg	5.9E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.3E-07	1.4E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (12-15)*	1.2E-02	mg/kg	9.1E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	2.0E-06	2.1E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (12-15)*	6.4E-03	mg/kg	4.9E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.1E-07	1.2E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (12-15)*	3.9E-03	mg/kg	3.0E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	6.7E-07	7.1E-07	mg/kg-day	NA		NA
				Indeno(1,2,3-cd)pyrene (12-15)*	9.9E-03	mg/kg	7.6E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.7E-07	1.8E-06	mg/kg-day	NA		NA
				Dioxin-Like PCB TEQ	5.0E-06	mg/kg	3.9E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	6.1E-06	1.8E-10	mg/kg-day	NA		NA
				Nondioxin-Like	1.4E-01	mg/kg	1.1E-06	mg/kg-day	1.0E+00	1/(mg/kg-day)	1.1E-06	5.1E-06	mg/kg-day	NA		NA
				Total PCB	1.7E-01	mg/kg	1.3E-06	mg/kg-day	NA		NA	6.0E-06	mg/kg-day	2.0E-05	mg/kg-day	3.0E-01
				Arsenic	1.3E-01	mg/kg	1.0E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.5E-06	2.4E-05	mg/kg-day	3.0E-04	mg/kg-day	7.9E-02
				Copper	1.0E+01	mg/kg	7.9E-05	mg/kg-day	NA		NA	1.8E-03	mg/kg-day	4.0E-02	mg/kg-day	4.6E-02
				Mercury	1.2E-01	mg/kg	9.6E-07	mg/kg-day	NA		NA	2.2E-05	mg/kg-day	1.0E-04	mg/kg-day	2.2E-01
			Exp. Route Total								1.2E-05					6.5E-01
		Exposure Point Total									1.2E-05					6.5E-01
	Exposure Medium Total - Crab in Gowanus Canal										1.2E-05					6.5E-01
Total Fish									Total of Receptor Risks - Fish		3.5E-06	Total of Receptor Hazards - Fish				1.3E+00
Total Blue Crab									Total of Receptor Risks - Blur Crab		1.2E-05	Total of Receptor Hazards - Blue Crab				6.5E-01

Notes-

NA = Not available / Not applicable.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-15 year old for exposure duration of 3 years, the CTE exposure duration for an adolescent.

TABLE 7.9.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Ingestion													
				p,p'-DDE	1.2E-02	mg/kg	1.5E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	5.2E-09	3.6E-07	mg/kg-day	NA		NA
				p,p'-DDT	9.6E-03	mg/kg	1.2E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	4.1E-09	2.8E-07	mg/kg-day	5.0E-04	mg/kg-day	5.7E-04
				Dioxin-Like PCB TEQ	4.3E-06	mg/kg	5.5E-12	mg/kg-day	1.6E+05	1/(mg/kg-day)	8.5E-07	1.3E-10	mg/kg-day	NA		NA
				Nondioxin-Like	4.1E-01	mg/kg	5.2E-07	mg/kg-day	1.0E+00	1/(mg/kg-day)	5.2E-07	1.2E-05	mg/kg-day	NA		NA
				Total PCB	4.4E-01	mg/kg	5.5E-07	mg/kg-day	NA		NA	1.3E-05	mg/kg-day	2.0E-05	mg/kg-day	6.4E-01
				Arsenic	6.8E-02	mg/kg	8.6E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	1.3E-07	2.0E-06	mg/kg-day	3.0E-04	mg/kg-day	6.7E-03
				Mercury	2.0E-01	mg/kg	2.5E-07	mg/kg-day	NA	1/(mg/kg-day)	NA	5.9E-06	mg/kg-day	1.0E-04	mg/kg-day	5.9E-02
				Selenium	1.2E+00	mg/kg	1.5E-06	mg/kg-day	NA		NA	3.6E-05	mg/kg-day	5.0E-03	mg/kg-day	7.1E-03
			Exp. Route Total								1.5E-06					7.2E-01
		Exposure Point Total									1.5E-06					7.2E-01
	Exposure Medium Total - Striped Bass in Gowanus Canal										1.5E-06					7.2E-01
	Fish and Crab Tissue	White Perch in Gowanus Canal	Ingestion													
				Dioxin-Like PCB TEQ	5.8E-06	mg/kg	8.1E-13	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.3E-07	1.9E-11	mg/kg-day	NA		NA
				Nondioxin-Like	4.4E-01	mg/kg	6.1E-08	mg/kg-day	1.0E+00	1/(mg/kg-day)	6.1E-08	1.4E-06	mg/kg-day	NA		NA
				Total PCB	4.6E-01	mg/kg	6.4E-08	mg/kg-day	NA		NA	1.5E-06	mg/kg-day	2.0E-05	mg/kg-day	7.5E-02
				Mercury	1.9E-01	mg/kg	2.6E-08	mg/kg-day	NA		NA	6.2E-07	mg/kg-day	1.0E-04	mg/kg-day	6.2E-03
				Selenium	1.4E+00	mg/kg	1.9E-07	mg/kg-day	NA		NA	4.5E-06	mg/kg-day	5.0E-03	mg/kg-day	9.1E-04
			Exp. Route Total								1.9E-07					8.2E-02
		Exposure Point Total									1.9E-07					8.2E-02
	Exposure Medium Total - White Perch in Gowanus Canal										1.9E-07					8.2E-02

TABLE 7.9.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Ingestion													
				alpha-Chlordane	2.2E-02	mg/kg	2.5E-08	mg/kg-day	3.5E-01	1/(mg/kg-day)	8.6E-09	5.7E-07	mg/kg-day	5.0E-04	mg/kg-day	1.1E-03
				Dieldrin	1.7E-02	mg/kg	1.9E-08	mg/kg-day	1.6E+01	1/(mg/kg-day)	3.0E-07	4.4E-07	mg/kg-day	5.0E-05	mg/kg-day	8.9E-03
				gamma-Chlordane	1.3E-02	mg/kg	1.5E-08	mg/kg-day	3.5E-01	1/(mg/kg-day)	5.1E-09	3.4E-07	mg/kg-day	5.0E-04	mg/kg-day	6.8E-04
				p,p'-DDD	3.8E-02	mg/kg	4.3E-08	mg/kg-day	2.4E-01	1/(mg/kg-day)	1.0E-08	9.9E-07	mg/kg-day	NA		NA
				p,p'-DDE	2.5E-02	mg/kg	2.8E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	9.5E-09	6.5E-07	mg/kg-day	NA		NA
				p,p'-DDT	4.7E-02	mg/kg	5.3E-08	mg/kg-day	3.4E-01	1/(mg/kg-day)	1.8E-08	1.2E-06	mg/kg-day	5.0E-04	mg/kg-day	2.5E-03
				Dioxin-Like PCB TEQ	1.4E-05	mg/kg	1.6E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	2.5E-06	3.7E-10	mg/kg-day	NA		NA
				Nondioxin-Like	1.2E+00	mg/kg	1.4E-06	mg/kg-day	1.0E+00	1/(mg/kg-day)	1.4E-06	3.2E-05	mg/kg-day	NA		NA
				Total PCB	1.4E+00	mg/kg	1.5E-06	mg/kg-day	NA		NA	3.5E-05	mg/kg-day	2.0E-05	mg/kg-day	1.8E+00
				Arsenic	5.0E-02	mg/kg	5.6E-08	mg/kg-day	1.5E+00	1/(mg/kg-day)	8.4E-08	1.3E-06	mg/kg-day	3.0E-04	mg/kg-day	4.4E-03
				Chromium (0-2)*	6.7E-01	mg/kg	5.0E-07	mg/kg-day	5.0E+00	1/(mg/kg-day)	2.5E-06	1.8E-05	mg/kg-day	3.0E-03	mg/kg-day	5.8E-03
				Chromium (2-3)*	6.7E-01	mg/kg	2.5E-07	mg/kg-day	1.5E+00	1/(mg/kg-day)	3.8E-07					
				Copper	7.4E+00	mg/kg	8.3E-06	mg/kg-day	NA		NA	1.9E-04	mg/kg-day	4.0E-02	mg/kg-day	4.8E-03
				Cyanide, total	3.1E+00	mg/kg	3.5E-06	mg/kg-day	NA		NA	8.1E-05	mg/kg-day	2.0E-02	mg/kg-day	4.1E-03
				Mercury	2.6E-01	mg/kg	2.9E-07	mg/kg-day	NA		NA	6.8E-06	mg/kg-day	1.0E-04	mg/kg-day	6.8E-02
				Selenium	1.4E+00	mg/kg	1.6E-06	mg/kg-day	NA		NA	3.7E-05	mg/kg-day	5.0E-03	mg/kg-day	7.3E-03
			Exp. Route Total								7.1E-06					1.9E+00
		Exposure Point Total									7.1E-06					1.9E+00
	Exposure Medium Total - Eel in Gowanus Canal										7.1E-06					1.9E+00

TABLE 7.9.CTE

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Cancer Risk Calculations					Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		CSF/Unit Risk		Cancer Risk	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units		Value	Units	Value	Units	
	Fish and Crab Tissue	Blue Crab in Gowanus Canal	Ingestion													
				Benzo(a)anthracene (0-2)*	7.7E-03	mg/kg	7.8E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	5.7E-07	2.7E-06	mg/kg-day	NA		NA
				Benzo(a)anthracene (2-3)*	7.7E-03	mg/kg	3.9E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	8.5E-08					
				Benzo(a)pyrene (0-2)*	1.2E-02	mg/kg	1.2E-07	mg/kg-day	7.3E+01	1/(mg/kg-day)	8.7E-06	4.2E-06	mg/kg-day	NA		NA
				Benzo(a)pyrene (2-3)*	1.2E-02	mg/kg	6.0E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	1.3E-06					
				Benzo(b)fluoranthene (0-2)*	6.4E-03	mg/kg	6.5E-08	mg/kg-day	7.3E+00	1/(mg/kg-day)	4.7E-07	2.3E-06	mg/kg-day	NA		NA
				Benzo(b)fluoranthene (2-3)*	6.4E-03	mg/kg	3.2E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	7.1E-08					
				Dibenz(a,h)anthracene (0-2)*	3.9E-03	mg/kg	4.0E-08	mg/kg-day	7.3E+01	1/(mg/kg-day)	2.9E-06	1.4E-06	mg/kg-day	NA		NA
				Dibenz(a,h)anthracene (2-3)*	3.9E-03	mg/kg	2.0E-08	mg/kg-day	2.2E+01	1/(mg/kg-day)	4.4E-07					
				Indeno(1,2,3-cd)pyrene (0-2)*	9.9E-03	mg/kg	1.0E-07	mg/kg-day	7.3E+00	1/(mg/kg-day)	7.3E-07	3.5E-06	mg/kg-day	NA		NA
				Indeno(1,2,3-cd)pyrene (2-3)*	9.9E-03	mg/kg	5.0E-08	mg/kg-day	2.2E+00	1/(mg/kg-day)	1.1E-07					
				Dioxin-Like PCB TEQ	5.0E-06	mg/kg	7.6E-11	mg/kg-day	1.6E+05	1/(mg/kg-day)	1.2E-05	1.8E-09	mg/kg-day	NA		NA
				Nondioxin-Like	1.4E-01	mg/kg	2.2E-06	mg/kg-day	1.0E+00	1/(mg/kg-day)	2.2E-06	5.1E-05	mg/kg-day	NA		NA
				Total PCB	1.7E-01	mg/kg	2.5E-06	mg/kg-day	NA		NA	5.9E-05	mg/kg-day	2.0E-05	mg/kg-day	2.9E+00
				Arsenic	1.3E-01	mg/kg	2.0E-06	mg/kg-day	1.5E+00	1/(mg/kg-day)	3.0E-06	4.6E-05	mg/kg-day	3.0E-04	mg/kg-day	1.5E-01
				Copper	1.0E+01	mg/kg	1.5E-04	mg/kg-day	NA		NA	3.6E-03	mg/kg-day	4.0E-02	mg/kg-day	9.0E-02
				Mercury	1.2E-01	mg/kg	1.9E-06	mg/kg-day	NA		NA	4.4E-05	mg/kg-day	1.0E-04	mg/kg-day	4.4E-01
			Exp. Route Total								3.2E-05					3.6E+00
		Exposure Point Total									3.2E-05					3.6E+00
	Exposure Medium Total - Crab in Gowanus Canal										3.2E-05					3.6E+00
Total Fish										Total of Receptor Risks - Fish	8.8E-06			Total of Receptor Hazards - Fish		2.7E+00
Total Blue Crab										Total of Receptor Risks - Blur Crab	3.2E-05			Total of Receptor Hazards - Blue Crab		3.6E+00

Notes-

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-3 year old for exposure duration of 1 year, for a total CTE exposure duration of 3 years.
Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

NA = Not available / Not applicable.

TABLE 9.1.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	3.1E-04	NA	1.7E-03	2.0E-03
			Benzo(a)anthracene	1.6E-06	NA	8.7E-06	1.0E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	1.4E-05	NA	7.4E-05	8.7E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	1.4E-06	NA	7.8E-06	9.2E-06		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene	8.2E-08	NA	4.4E-07	5.3E-07		NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	8.2E-09	NA	3.4E-08	4.2E-08	Increased Liver Weight	8.5E-05	NA	3.5E-04	4.4E-04
			Chrysene	3.2E-08	NA	1.7E-07	2.1E-07		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	7.9E-07	NA	4.3E-06	5.0E-06		NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	6.3E-04	NA	3.4E-03	4.0E-03
			Indeno(1,2,3-c,d)pyrene	6.2E-07	NA	3.4E-06	4.0E-06		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	8.7E-06	NA	4.7E-05	5.6E-05
			Pyrene	NA	NA	NA	0.0E+00	Kidney	9.0E-04	NA	4.8E-03	5.7E-03
			Dioxin-Like PCB TEQ	1.1E-07	NA	6.4E-07	7.5E-07		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	1.8E-07	NA	1.1E-06	1.2E-06		NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.4E-02	NA	8.0E-02	9.3E-02
			Aluminum	NA	NA	NA	0.0E+00	Neurological	8.1E-04	NA	3.4E-04	1.1E-03
			Arsenic	4.7E-07	NA	5.9E-07	1.1E-06	Skin, Vascular	3.1E-03	NA	3.8E-03	6.9E-03
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	4.9E-04	NA	8.1E-04	1.3E-03
			Chromium	8.2E-07	NA	1.4E-05	1.4E-05	Not identified	1.6E-03	NA	2.6E-02	2.8E-02
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	2.2E-03	NA	9.1E-04	3.1E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	4.5E-04	NA	1.9E-04	6.3E-04
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	2.9E-03	NA	1.2E-03	4.1E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA	0.0E+00	CNS	1.1E-04	NA	6.9E-03	7.0E-03
			Vanadium	NA	NA	NA	0.0E+00	Hair	5.1E-04	NA	2.1E-04	7.2E-04
Chemical Total				2.0E-05	NA	1.1E-04	1.3E-04		2.8E-02	NA	1.3E-01	1.6E-01
Exposed Surface Sediment Total							1.3E-04					1.6E-01

TABLE 9.1.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Dry event)	Benzene	5.6E-09	NA	3.6E-08	4.1E-08	Blood, Immune	7.4E-05	NA	4.7E-04	5.5E-04
			Benzo(a)anthracene	8.8E-09	NA	3.6E-06	3.6E-06		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	2.2E-07	NA	1.5E-04	1.6E-04		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	9.9E-09	NA	7.1E-06	7.1E-06		NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	1.6E-09	NA	7.8E-08	8.0E-08	Increased Liver Weight	1.6E-05	NA	8.2E-04	8.3E-04
			Indeno(1,2,3-c,d)pyrene	4.4E-09	NA	3.1E-06	3.2E-06		NA	NA	NA	0.0E+00
			Arsenic	1.4E-06	NA	4.9E-07	1.8E-06	Skin, Vascular	8.8E-03	NA	3.2E-03	1.2E-02
			Chromium	4.3E-07	NA	1.2E-05	1.3E-05	Not identified	8.3E-04	NA	2.4E-02	2.5E-02
			Copper	0.0E+00	NA	NA	0.0E+00	Gastrointestinal	5.7E-04	NA	2.0E-04	7.7E-04
			Selenium	0.0E+00	NA	NA	0.0E+00	Whole Body	1.1E-03	NA	3.9E-04	1.5E-03
Chemical Total				2.0E-06	NA	1.8E-04	1.8E-04		1.1E-02	NA	2.9E-02	4.0E-02
Surface Water Total - Dry Event							1.8E-04					4.0E-02

TABLE 9.1.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	1,4-dichlorobenzene	1.4E-10	NA	3.2E-09	3.4E-09	Liver	1.1E-06	NA	2.5E-05	2.6E-05
			Benzene	2.1E-09	NA	1.3E-08	1.5E-08	Blood, Immune	2.8E-05	NA	1.8E-04	2.0E-04
			Chloroform	7.9E-10	NA	2.6E-09	3.4E-09	Liver, Body Weight	7.4E-06	NA	2.5E-05	3.2E-05
			Ethylbenzene	4.3E-10	NA	9.3E-09	9.8E-09	Liver, Kidney	1.1E-06	NA	2.5E-05	2.6E-05
			Tetrachloroethylene(PCE)	6.0E-07	NA	1.2E-05	1.2E-05	Liver	3.2E-04	NA	6.4E-03	6.7E-03
			Benzo(a)anthracene	3.4E-09	NA	1.4E-06	1.4E-06		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	6.8E-08	NA	4.8E-05	4.8E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	6.3E-09	NA	4.5E-06	4.5E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	3.3E-08	NA	3.7E-05	3.7E-05		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	1.7E-08	NA	1.2E-05	1.2E-05		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	2.4E-06	NA	5.5E-05	5.7E-05
			Arsenic	1.1E-06	NA	4.1E-07	1.5E-06	Skin, Vascular	7.3E-03	NA	2.6E-03	1.0E-02
			Chromium	1.9E-07	NA	5.6E-06	5.8E-06	Not identified	3.8E-04	NA	1.1E-02	1.1E-02
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	1.7E-03	NA	2.5E-04	2.0E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA	0.0E+00	Whole Body	8.9E-04	NA	3.2E-04	1.2E-03
Chemical Total				2.1E-06	NA	1.2E-04	1.2E-04		1.1E-02	NA	2.1E-02	3.1E-02
Surface Water Total - Wet Event							1.2E-04					3.1E-02

TABLE 9.1.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at canal level (pre-aeration system operation)	Benzene	NA	1.9E-08	NA	1.9E-08	Blood	NA	2.4E-04	NA	2.4E-04
			Chloroform	NA	1.4E-08	NA	1.4E-08	Liver	NA	1.7E-05	NA	1.7E-05
			Ethylbenzene	NA	1.5E-08	NA	1.5E-08	Developmental	NA	1.7E-05	NA	1.7E-05
			Xylene, total	NA	NA	NA	0.0E+00	Impaired motor coordination	NA	7.8E-04	NA	7.8E-04
			Naphthalene	NA	1.9E-07	NA	1.9E-07	Nasal, Respiratory	NA	5.4E-03	NA	5.4E-03
Chemical Total				NA	2.4E-07	NA	2.4E-07		NA	6.4E-03	NA	6.4E-03
Ambient air at canal level Total - Pre-aeration system operation							2.4E-07					6.4E-03
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	4.0E-08	NA	4.0E-08	Blood	NA	5.0E-04	NA	5.0E-04
			Chloroform	NA	1.2E-08	NA	1.2E-08	Liver	NA	1.6E-05	NA	1.6E-05
			Ethylbenzene	NA	1.4E-08	NA	1.4E-08	Developmental	NA	1.6E-05	NA	1.6E-05
			Xylene, total	NA	NA	NA	0.0E+00	Impaired motor coordination	NA	1.3E-03	NA	1.3E-03
			Naphthalene	NA	2.0E-07	NA	2.0E-07	Nasal, Respiratory	NA	5.6E-03	NA	5.6E-03
Chemical Total				NA	2.6E-07	NA	2.6E-07		NA	7.5E-03	NA	7.5E-03
Ambient air at canal level Total - After aeration system turned on							2.6E-07					7.5E-03
Receptor Total							3.2E-04				Receptor HI Total	2.1E-01

TABLE 9.1.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ total includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started

Total Blood HI Across All Media =	5.1E-03
Total Body Weight HI Across All Media =	1.4E-04
Total Developmental HI Across All Media =	1.7E-05
Total Finger and Toe Nails HI Across All Media =	9.3E-02
Total Gastrointestinal HI Across All Media =	5.5E-03
Total Hair HI Across All Media =	7.2E-04
Total Kidney HI Across All Media =	1.1E-02
Total Immune HI Across All Media =	5.5E-04
Total Liver HI Across All Media =	1.4E-02
Total Nasal HI Across All Media =	5.6E-03
Total Nervous System HI Across All Media =	9.5E-03
Total Ocular HI Across All Media =	9.3E-02
Total Respiratory HI Across All Media =	5.6E-03
Total Skin HI Across All Media =	1.9E-02
Total Thyroid HI Across All Media =	5.1E-03
Total Vascular HI Across All Media =	1.9E-02
Total Whole Body HI Across All Media =	1.5E-03

TABLE 9.2.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	3.8E-04	NA	2.1E-03	2.5E-03
			Benzo(a)anthracene (12-16)*	9.9E-07	NA	5.4E-06	6.4E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (16-18)*	1.7E-07	NA	9.0E-07	1.1E-06					
			Benzo(a)pyrene (12-16)*	8.4E-06	NA	4.6E-05	5.4E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	1.4E-06	NA	7.6E-06	9.0E-06					
			Benzo(b)fluoranthene (12-16)*	8.8E-07	NA	4.8E-06	5.7E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (16-18)*	1.5E-07	NA	8.0E-07	9.5E-07					
			Benzo(k)fluoranthene (12-16)*	5.1E-08	NA	2.8E-07	3.3E-07		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene (16-18)*	8.4E-09	NA	4.6E-08	5.4E-08					
			Bis(2-ethylhexyl) phthalate	2.5E-09	NA	1.0E-08	1.3E-08	Increased Liver Weight	1.0E-04	NA	4.4E-04	5.4E-04
			Chrysene (12-16)*	2.0E-08	NA	1.1E-07	1.3E-07		NA	NA	NA	0.0E+00
			Chrysene (16-18)*	3.3E-09	NA	1.8E-08	2.1E-08					
			Dibenz(a,h)anthracene (12-16)*	4.8E-07	NA	2.6E-06	3.1E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (16-18)*	8.1E-08	NA	4.4E-07	5.2E-07					
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	7.7E-04	NA	4.2E-03	5.0E-03
			Indeno(1,2,3-c,d)pyrene (12-16)*	3.8E-07	NA	2.1E-06	2.5E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (16-18)*	6.4E-08	NA	3.5E-07	4.1E-07					
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	1.1E-05	NA	5.8E-05	6.9E-05
			Pyrene	NA	NA	NA	0.0E+00	Kidney	1.1E-03	NA	6.0E-03	7.1E-03
			Dioxin-Like PCB TEQ	3.4E-08	NA	2.0E-07	2.3E-07		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	5.6E-08	NA	3.3E-07	3.8E-07		NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.7E-02	NA	9.9E-02	1.2E-01
			Aluminum	NA	NA	NA	0.0E+00	Neurological	9.9E-04	NA	4.2E-04	1.4E-03
			Arsenic	1.4E-07	NA	1.8E-07	3.3E-07	Skin, Vascular	3.7E-03	NA	4.7E-03	8.5E-03
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	6.0E-04	NA	1.0E-03	1.6E-03
			Chromium (12-16)*	5.0E-07	NA	8.4E-06	8.9E-06	Not identified	1.9E-03	NA	3.3E-02	3.5E-02
			Chromium (16-18)*	8.3E-08	NA	1.4E-06	1.5E-06					
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	2.7E-03	NA	1.1E-03	3.8E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	5.5E-04	NA	2.3E-04	7.8E-04
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	3.6E-03	NA	1.5E-03	5.1E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA	0.0E+00	CNS	1.4E-04	NA	8.6E-03	8.7E-03
			Vanadium	NA	NA	NA	0.0E+00	Hair	6.3E-04	NA	2.6E-04	8.9E-04
Chemical Total				1.4E-05	NA	8.2E-05	9.5E-05		3.4E-02	NA	1.6E-01	2.0E-01
Exposed Surface Sediment Total							9.5E-05					2.0E-01

TABLE 9.2.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Dry event)	Benzene	1.7E-09	NA	9.6E-09	1.1E-08	Blood, Immune	9.1E-05	NA	5.1E-04	6.0E-04
			Benzo(a)anthracene (12-16)*	5.4E-09	NA	2.0E-06	2.0E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (16-18)*	9.0E-10	NA	3.3E-07	3.3E-07					
			Benzo(a)pyrene (12-16)*	1.3E-07	NA	8.3E-05	8.3E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	2.2E-08	NA	1.4E-05	1.4E-05					
			Benzo(b)fluoranthene (12-16)*	6.1E-09	NA	3.8E-06	3.8E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (16-18)*	1.0E-09	NA	6.4E-07	6.4E-07					
			Bis(2-ethylhexyl) phthalate	4.8E-10	NA	2.1E-08	2.2E-08	Increased Liver Weight	2.0E-05	NA	8.8E-04	9.0E-04
			Indeno(1,2,3-c,d)pyrene (12-16)*	2.7E-09	NA	1.7E-06	1.7E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (16-18)*	4.5E-10	NA	2.8E-07	2.8E-07					
			Arsenic	4.2E-07	NA	1.3E-07	5.5E-07	Skin, Vascular	1.1E-02	NA	3.4E-03	1.4E-02
			Chromium (12-16)*	2.6E-07	NA	6.6E-06	6.9E-06	Not identified	1.0E-03	NA	2.6E-02	2.7E-02
			Chromium (16-18)*	4.4E-08	NA	1.1E-06	1.1E-06					
			Copper	0.0E+00	NA	NA	0.0E+00	Gastrointestinal	7.0E-04	NA	2.2E-04	9.2E-04
			Selenium	0.0E+00	NA	NA	0.0E+00	Whole Body	1.3E-03	NA	4.2E-04	1.8E-03
Chemical Total				9.0E-07	NA	1.1E-04	1.1E-04		1.4E-02	NA	3.1E-02	4.5E-02
Surface Water Total - Dry Event							1.1E-04					4.5E-02

TABLE 9.2.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	1,4-dichlorobenzene	4.4E-11	NA	8.7E-10	9.2E-10	Liver	1.4E-06	NA	2.7E-05	2.8E-05
			Benzene	6.4E-10	NA	3.6E-09	4.2E-09	Blood, Immune	3.4E-05	NA	1.9E-04	2.2E-04
			Chloroform	2.4E-10	NA	7.1E-10	9.5E-10	Liver, Body Weight	9.1E-06	NA	2.7E-05	3.6E-05
			Ethylbenzene	1.3E-10	NA	2.5E-09	2.6E-09	Liver, Kidney	1.4E-06	NA	2.7E-05	2.8E-05
			Tetrachloroethylene(PCE)	1.8E-07	NA	3.2E-06	3.4E-06	Liver	4.0E-04	NA	6.9E-03	7.3E-03
			Benzo(a)anthracene (12-16)*	2.1E-09	NA	7.6E-07	7.7E-07		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (16-18)*	3.5E-10	NA	4.3E-07	4.3E-07					
			Benzo(a)pyrene (12-16)*	4.2E-08	NA	2.6E-05	2.6E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	6.9E-09	NA	4.0E-06	4.0E-06					
			Benzo(b)fluoranthene (12-16)*	3.8E-09	NA	2.4E-06	2.4E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (16-18)*	6.4E-10	NA	3.3E-07	3.3E-07					
			Dibenz(a,h)anthracene (12-16)*	2.1E-08	NA	2.0E-05	2.0E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (16-18)*	3.4E-09	NA	1.1E-05	1.1E-05					
			Indeno(1,2,3-c,d)pyrene (12-16)*	1.0E-08	NA	6.4E-06	6.4E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (16-18)*	1.7E-09	NA	2.5E-08	2.6E-08					
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	3.0E-06	NA	5.9E-05	6.2E-05
			Arsenic	3.5E-07	NA	1.1E-07	4.6E-07	Skin, Vascular	9.0E-03	NA	2.8E-03	1.2E-02
			Chromium (12-16)*	1.2E-07	NA	3.0E-06	3.1E-06	Not identified	4.6E-04	NA	1.2E-02	1.2E-02
			Chromium (16-18)*	2.0E-08	NA	5.0E-07	5.2E-07					
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	2.1E-03	NA	2.7E-04	2.4E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA	0.0E+00	Whole Body	1.1E-03	NA	3.4E-04	1.4E-03
Chemical Total				7.6E-07	NA	7.7E-05	7.8E-05		1.3E-02	NA	2.2E-02	3.5E-02
Surface Water Total - Wet Event							7.8E-05					3.5E-02

TABLE 9.2.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at canal level (pre-aeration system operation)	Benzene	NA	4.7E-09	NA	4.7E-09	Blood	NA	2.4E-04	NA	2.4E-04
			Chloroform	NA	3.4E-09	NA	3.4E-09	Liver	NA	1.7E-05	NA	1.7E-05
			Ethylbenzene	NA	3.7E-09	NA	3.7E-09	Developmental	NA	1.7E-05	NA	1.7E-05
			Xylene, total	NA	NA	NA	0.0E+00	Impaired motor coordination	NA	7.8E-04	NA	7.8E-04
			Naphthalene	NA	4.7E-08	NA	4.7E-08	Nasal, Respiratory	NA	5.4E-03	NA	5.4E-03
Chemical Total				NA	5.9E-08	NA	5.9E-08		NA	6.4E-03	NA	6.4E-03
Ambient air at canal level Total - Pre-aeration system operation							5.9E-08					6.4E-03
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	1.0E-08	NA	1.0E-08	Blood	NA	5.0E-04	NA	5.0E-04
			Chloroform	NA	3.1E-09	NA	3.1E-09	Liver	NA	1.6E-05	NA	1.6E-05
			Ethylbenzene	NA	3.5E-09	NA	3.5E-09	Developmental	NA	1.6E-05	NA	1.6E-05
			Xylene, total	NA	NA	NA	0.0E+00	Impaired motor coordination	NA	1.3E-03	NA	1.3E-03
			Naphthalene	NA	4.9E-08	NA	4.9E-08	Nasal, Respiratory	NA	5.6E-03	NA	5.6E-03
Chemical Total				NA	6.6E-08	NA	6.6E-08		NA	7.5E-03	NA	7.5E-03
Ambient air at canal level Total - After aeration system turned on							6.6E-08					7.5E-03
Receptor Total							2.1E-04				Receptor HI Total	2.5E-01

TABLE 9.2.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ total includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-16 year old for exposure duration of 4 years, ADAF of 1 used to adjust CSF for 16-18 year old for exposure duration of 2 years. Non-cancer calculations shown under 12-16 year old only, as non-cancer calculations are not adjusted for MMOA.

Total Blood HI Across All Media =	6.1E-03
Total Body Weight HI Across All Media =	1.7E-04
Total Developmental HI Across All Media =	1.7E-05
Total Finger and Toe Nails HI Across All Media =	1.2E-01
Total Gastrointestinal HI Across All Media =	6.8E-03
Total Hair HI Across All Media =	8.9E-04
Total Kidney HI Across All Media =	1.4E-02
Total Immune HI Across All Media =	6.0E-04
Total Liver HI Across All Media =	1.6E-02
Total Nasal HI Across All Media =	5.6E-03
Total Nervous System HI Across All Media =	1.1E-02
Total Ocular HI Across All Media =	1.2E-01
Total Respiratory HI Across All Media =	5.6E-03
Total Skin HI Across All Media =	2.3E-02
Total Thyroid HI Across All Media =	6.2E-03
Total Vascular HI Across All Media =	2.3E-02
Total Whole Body HI Across All Media =	1.8E-03

TABLE 9.3.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	2.9E-03	NA	2.1E-03	5.0E-03
			Benzo(a)anthracene (0-2)*	1.3E-05	NA	9.2E-06	2.2E-05		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-6)*	7.5E-06	NA	5.5E-06	1.3E-05					
			Benzo(a)pyrene (0-2)*	1.1E-04	NA	7.7E-05	1.8E-04		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	6.4E-05	NA	4.6E-05	1.1E-04					
			Benzo(b)fluoranthene (0-2)*	1.1E-05	NA	8.1E-06	1.9E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-6)*	6.7E-06	NA	4.9E-06	1.2E-05					
			Benzo(k)fluoranthene (0-2)*	6.4E-07	NA	4.7E-07	1.1E-06		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene (2-6)*	3.8E-07	NA	2.8E-07	6.6E-07					
			Bis(2-ethylhexyl) phthalate	1.9E-08	NA	1.1E-08	3.0E-08	Increased Liver Weight	7.9E-04	NA	4.4E-04	1.2E-03
			Chrysene (0-2)*	2.5E-07	NA	1.8E-07	4.3E-07		NA	NA	NA	0.0E+00
			Chrysene (2-6)*	1.5E-07	NA	1.1E-07	2.6E-07					
			Dibenz(a,h)anthracene (0-2)*	6.1E-06	NA	4.5E-06	1.1E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-6)*	3.7E-06	NA	2.7E-06	6.3E-06					
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	5.9E-03	NA	4.3E-03	1.0E-02
			Indeno(1,2,3-c,d)pyrene (0-2)*	4.8E-06	NA	3.5E-06	8.4E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-6)*	2.9E-06	NA	2.1E-06	5.0E-06					
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	8.1E-05	NA	5.9E-05	1.4E-04
			Pyrene	NA	NA	NA	0.0E+00	Kidney	8.4E-03	NA	6.1E-03	1.4E-02
			Dioxin-Like PCB TEQ	2.6E-07	NA	2.0E-07	4.6E-07		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	4.3E-07	NA	3.3E-07	7.6E-07		NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.3E-01	NA	1.0E-01	2.3E-01
			Aluminum	NA	NA	NA	0.0E+00	Neurological	7.6E-03	NA	4.2E-04	8.0E-03
			Arsenic	1.1E-06	NA	1.8E-07	1.3E-06	Skin, Vascular	2.8E-02	NA	4.8E-03	3.3E-02
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	4.6E-03	NA	1.0E-03	5.6E-03
			Chromium	6.3E-06	NA	1.4E-05	2.1E-05	Not identified	1.5E-02	NA	3.3E-02	4.8E-02
				3.8E-06	NA	8.5E-06	1.2E-05					
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	2.0E-02	NA	1.1E-03	2.2E-02
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	4.2E-03	NA	2.3E-04	4.4E-03
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	2.7E-02	NA	1.5E-03	2.9E-02
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA	0.0E+00	CNS	1.1E-03	NA	8.7E-03	9.8E-03
			Vanadium	NA	NA	NA	0.0E+00	Hair	4.8E-03	NA	2.7E-04	5.0E-03
Chemical Total				2.4E-04	NA	1.9E-04	4.3E-04		2.6E-01	NA	1.6E-01	4.2E-01
Exposed Surface Sediment Total							4.3E-04					4.2E-01

TABLE 9.3.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Dry event)	Benzene	6.5E-09	NA	1.5E-08	2.2E-08	Blood, Immune	3.5E-04	NA	8.1E-04	1.2E-03
			Benzo(a)anthracene (0-2)*	3.4E-08	NA	5.2E-06	5.2E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-6)*	2.1E-08	NA	3.1E-06	3.1E-06					
			Benzo(a)pyrene (0-2)*	8.5E-07	NA	2.2E-04	2.2E-04		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	5.1E-07	NA	1.3E-04	1.3E-04					
			Benzo(b)fluoranthene (0-2)*	3.8E-08	NA	1.0E-05	1.0E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-6)*	2.3E-08	NA	6.1E-06	6.1E-06					
			Bis(2-ethylhexyl) phthalate	1.8E-09	NA	3.4E-08	3.5E-08	Increased Liver Weight	7.6E-05	NA	1.4E-03	1.5E-03
			Indeno(1,2,3-c,d)pyrene (0-2)*	1.7E-08	NA	4.5E-06	4.5E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-6)*	1.0E-08	NA	2.7E-06	2.7E-06					
			Arsenic	1.6E-06	NA	2.1E-07	1.8E-06	Skin, Vascular	4.1E-02	NA	5.4E-03	4.6E-02
			Chromium (0-2)*	1.7E-06	NA	1.8E-05	1.9E-05	Not identified	3.9E-03	NA	4.1E-02	4.5E-02
			Chromium (2-6)*	1.0E-06	NA	1.1E-05	1.2E-05					
			Copper	0.0E+00	NA	NA	0.0E+00	Gastrointestinal	2.7E-03	NA	3.5E-04	3.0E-03
			Selenium	0.0E+00	NA	NA	0.0E+00	Whole Body	5.1E-03	NA	6.7E-04	5.7E-03
Chemical Total				5.8E-06	NA	4.1E-04	4.2E-04		5.3E-02	NA	5.0E-02	1.0E-01
Surface Water Total - Dry Event							4.2E-04					1.0E-01

TABLE 9.3.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	1,4-dichlorobenzene	1.7E-10	NA	1.4E-09	1.6E-09	Liver	5.2E-06	NA	4.3E-05	4.8E-05
			Benzene	2.4E-09	NA	5.7E-09	8.1E-09	Blood, Immune	1.3E-04	NA	3.0E-04	4.3E-04
			Chloroform	9.2E-10	NA	1.1E-09	2.0E-09	Liver, Body Weight	3.5E-05	NA	4.2E-05	7.7E-05
			Ethylbenzene	5.1E-10	NA	4.0E-09	4.5E-09	Liver, Kidney	5.4E-06	NA	4.2E-05	4.8E-05
			Tetrachloroethylene(PCE)	7.0E-07	NA	5.1E-06	5.8E-06	Liver	1.5E-03	NA	1.1E-02	1.2E-02
			Benzo(a)anthracene (0-2)*	1.3E-08	NA	2.0E-06	2.0E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-6)*	8.0E-09	NA	1.2E-06	1.2E-06					
			Benzo(a)pyrene (0-2)*	2.6E-07	NA	6.9E-05	6.9E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	1.6E-07	NA	4.1E-05	4.1E-05					
			Benzo(b)fluoranthene (0-2)*	2.4E-08	NA	6.4E-06	6.4E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-6)*	1.5E-08	NA	3.8E-06	3.9E-06					
			Dibenz(a,h)anthracene (0-2)*	1.3E-07	NA	5.2E-05	5.2E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-6)*	7.8E-08	NA	3.1E-05	3.1E-05					
			Indeno(1,2,3-c,d)pyrene (0-2)*	6.4E-08	NA	1.7E-05	1.7E-05		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-6)*	3.9E-08	NA	1.0E-05	1.0E-05					
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	1.1E-05	NA	9.4E-05	1.1E-04
			Arsenic	1.3E-06	NA	1.7E-07	1.5E-06	Skin, Vascular	3.4E-02	NA	4.5E-03	3.9E-02
			Chromium (0-2)*	7.5E-07	NA	7.9E-06	8.7E-06	Not identified	1.8E-03	NA	1.9E-02	2.0E-02
			Chromium (2-6)*	4.5E-07	NA	4.8E-06	5.2E-06					
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	8.0E-03	NA	4.2E-04	8.4E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA	0.0E+00	Whole Body	4.1E-03	NA	5.5E-04	4.7E-03
Chemical Total				4.0E-06	NA	2.5E-04	2.6E-04		5.0E-02	NA	3.6E-02	8.5E-02
Surface Water Total - Wet Event							2.6E-04					8.5E-02

TABLE 9.3.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at canal level (pre-aeration system operation)	Benzene	NA	4.7E-09	NA	4.7E-09	Blood	NA	2.4E-04	NA	2.4E-04
			Chloroform	NA	3.4E-09	NA	3.4E-09	Liver	NA	1.7E-05	NA	1.7E-05
			Ethylbenzene	NA	3.7E-09	NA	3.7E-09	Developmental	NA	1.7E-05	NA	1.7E-05
			Xylene, total	NA	NA	NA	0.0E+00	Impaired motor coordination	NA	7.8E-04	NA	7.8E-04
			Naphthalene	NA	4.7E-08	NA	4.7E-08	Nasal, Respiratory	NA	5.4E-03	NA	5.4E-03
Chemical Total				NA	5.9E-08	NA	5.9E-08		NA	6.4E-03	NA	6.4E-03
Ambient air at canal level Total - Pre-aeration system operation							5.9E-08					6.4E-03
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	1.0E-08	NA	1.0E-08	Blood	NA	5.0E-04	NA	5.0E-04
			Chloroform	NA	3.1E-09	NA	3.1E-09	Liver	NA	1.6E-05	NA	1.6E-05
			Ethylbenzene	NA	3.5E-09	NA	3.5E-09	Developmental	NA	1.6E-05	NA	1.6E-05
			Xylene, total	NA	NA	NA	0.0E+00	Impaired motor coordination	NA	1.3E-03	NA	1.3E-03
			Naphthalene	NA	4.9E-08	NA	4.9E-08	Nasal, Respiratory	NA	5.6E-03	NA	5.6E-03
Chemical Total				NA	6.6E-08	NA	6.6E-08		NA	7.5E-03	NA	7.5E-03
Ambient air at canal level Total - After aeration system turned on							6.6E-08					7.5E-03
Receptor Total							8.5E-04				Receptor HI Total	5.3E-01

TABLE 9.3.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ total includes sum of exposed and near shore sediment, maximum of dry event and wet event surface water, and maximum of air prior to areation system operation and after aeration system started

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-6 year old for exposure duration of 4 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA. as non-cancer calculations are not adjusted for MMOA.

Total Blood HI Across All Media =	1.2E-02
Total Body Weight HI Across All Media =	3.2E-04
Total Developmental HI Across All Media =	1.7E-05
Total Finger and Toe Nails HI Across All Media =	2.3E-01
Total Gastrointestinal HI Across All Media =	3.6E-02
Total Hair HI Across All Media =	5.0E-03
Total Kidney HI Across All Media =	3.0E-02
Total Immune HI Across All Media =	1.2E-03
Total Liver HI Across All Media =	3.1E-02
Total Nasal HI Across All Media =	5.6E-03
Total Nervous System HI Across All Media =	1.9E-02
Total Ocular HI Across All Media =	2.3E-01
Total Respiratory HI Across All Media =	5.6E-03
Total Skin HI Across All Media =	8.0E-02
Total Thyroid HI Across All Media =	3.0E-02
Total Vascular HI Across All Media =	8.0E-02
Total Whole Body HI Across All Media =	5.7E-03

TABLE 9.4.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	2.4E-06	NA	2.4E-06	Blood	NA	2.9E-02	NA	2.9E-02
			Chloroform	NA	1.4E-06	NA	1.4E-06	Liver	NA	1.7E-03	NA	1.7E-03
			Ethylbenzene	NA	6.7E-07	NA	6.7E-07	Developmental	NA	7.5E-04	NA	7.5E-04
			Naphthalene	NA	1.1E-05	NA	1.1E-05	Nasal, Respiratory	NA	3.0E-01	NA	3.0E-01
Chemical Total				NA	1.5E-05	NA	1.5E-05		NA	3.3E-01	NA	3.3E-01
Ambient air at street level Total - Pre-aeration system operation							1.5E-05					3.3E-01
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	2.1E-06	NA	2.1E-06	Blood	NA	2.5E-02	NA	2.5E-02
			Chloroform	NA	1.9E-06	NA	1.9E-06	Liver	NA	2.3E-03	NA	2.3E-03
			Ethylbenzene	NA	7.6E-07	NA	7.6E-07	Developmental	NA	8.5E-04	NA	8.5E-04
			Naphthalene	NA	2.5E-05	NA	2.5E-05	Nasal, Respiratory	NA	6.9E-01	NA	6.9E-01
Chemical Total				NA	3.0E-05	NA	3.0E-05		NA	7.2E-01	NA	7.2E-01
Ambient air at street level Total - After aeration system turned on							3.0E-05					7.2E-01

TABLE 9.4.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal										
			2-methylnaphthalene	NA	NA	NA	0.0E+00	Lung	3.2E-03	NA	2.7E-03	5.9E-03
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	1.8E-04	NA	1.6E-04	3.4E-04
			Benzo(a)anthracene	1.2E-06	NA	1.0E-06	2.2E-06		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	6.7E-06	NA	5.8E-06	1.2E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	7.3E-07	NA	6.2E-07	1.4E-06		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene	3.8E-08	NA	3.2E-08	7.0E-08		NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	2.6E-09	NA	1.7E-09	4.3E-09	Increased Liver Weight	2.6E-05	NA	1.7E-05	4.3E-05
			Chrysene	1.2E-08	NA	1.0E-08	2.2E-08		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	5.0E-07	NA	4.3E-07	9.3E-07		NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	1.6E-04	NA	1.4E-04	2.9E-04
			Fluorene	NA	NA	NA	0.0E+00	Blood	2.0E-04	NA	1.7E-04	3.8E-04
			Indeno(1,2,3-c,d)pyrene	2.9E-07	NA	2.5E-07	5.4E-07		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	1.2E-03	NA	9.9E-04	2.1E-03
			Pyrene	NA	NA	NA	0.0E+00	Kidney	4.5E-04	NA	3.9E-04	8.4E-04
			Dioxin-Like PCB TEQ	8.9E-08	NA	8.2E-08	1.7E-07		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	1.6E-07	NA	1.5E-07	3.1E-07		NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.2E-02	NA	1.1E-02	2.2E-02
			Aluminum	NA	NA	NA	0.0E+00	Neurological	5.1E-04	NA	3.4E-05	5.5E-04
			Arsenic	2.8E-07	NA	5.5E-08	3.3E-07	Skin, Vascular	1.7E-03	NA	3.4E-04	2.1E-03
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	3.5E-04	NA	9.3E-05	4.4E-04
			Chromium	5.3E-07	NA	1.4E-06	1.9E-06	Not identified	9.9E-04	NA	2.6E-03	3.6E-03
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	1.3E-03	NA	8.5E-05	1.4E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	2.4E-04	NA	1.6E-05	2.6E-04
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	1.7E-03	NA	1.1E-04	1.8E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA	0.0E+00	CNS	7.7E-05	NA	1.0E-06	7.8E-05
			Vanadium	NA	NA	NA	0.0E+00	Hair	3.2E-04	NA	2.1E-05	3.4E-04
Chemical Total				1.1E-05	NA	9.8E-06	2.0E-05		2.4E-02	NA	1.9E-02	4.3E-02
Overflow Surface Sediment Total							2.0E-05					4.3E-02

TABLE 9.4.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			1,4-dichlorobenzene	1.6E-10	NA	8.0E-10	9.6E-10	Liver	1.2E-06	NA	6.0E-06	7.1E-06
			Benzene	5.1E-10	NA	4.1E-09	4.6E-09	Blood, Immune	2.9E-05	NA	5.2E-05	8.1E-05
			Chloroform	1.9E-10	NA	7.4E-10	9.4E-10	Liver, Body Weight	7.9E-06	NA	6.7E-06	1.5E-05
			Ethylbenzene	1.1E-10	NA	2.6E-09	2.7E-09	Liver, Kidney	1.2E-06	NA	6.6E-06	7.8E-06
			Tetrachloroethylene(PCE)	1.5E-07	NA	2.8E-06	2.9E-06	Liver	3.4E-04	NA	1.5E-03	1.8E-03
			Benzo(a)anthracene	8.4E-10	NA	2.9E-07	2.9E-07		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	1.7E-08	NA	9.6E-06	9.6E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	1.5E-09	NA	9.0E-07	9.0E-07		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	8.2E-09	NA	7.3E-06	7.3E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	4.0E-09	NA	2.4E-06	2.4E-06		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	2.6E-06	NA	1.4E-05	1.6E-05
			Arsenic	2.8E-07	NA	1.4E-07	4.2E-07	Skin, Vascular	7.8E-03	NA	8.9E-04	8.7E-03
			Chromium	4.7E-08	NA	2.0E-06	2.0E-06	Not identified	4.0E-04	NA	3.7E-03	4.1E-03
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	1.8E-03	NA	8.4E-05	1.9E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA	0.0E+00	Whole Body	9.5E-04	NA	1.1E-04	1.1E-03
Chemical Total				5.0E-07	NA	2.5E-05	2.6E-05		1.1E-02	NA	6.3E-03	1.8E-02
Overflow Surface Water Total							2.6E-05					1.8E-02
Receptor Total							7.6E-05				Receptor HI Total	7.8E-01

TABLE 9.4.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Industrial Worker
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

Total Blood HI Across All Media =	3.0E-02
Total Body Weight HI Across All Media =	2.2E-03
Total Developmental HI Across All Media =	1.6E-03
Total Finger and Toe Nails HI Across All Media =	2.2E-02
Total Gastrointestinal HI Across All Media =	2.1E-03
Total Hair HI Across All Media =	3.4E-04
Total Kidney HI Across All Media =	1.6E-03
Total Immune HI Across All Media =	8.1E-05
Total Liver HI Across All Media =	4.8E-03
Total Lung HI Across All Media =	5.9E-03
Total Nasal HI Across All Media =	6.9E-01
Total Nervous System HI Across All Media =	6.3E-04
Total Ocular HI Across All Media =	2.2E-02
Total Respiratory HI Across All Media =	6.9E-01
Total Skin HI Across All Media =	1.1E-02
Total Thyroid HI Across All Media =	3.3E-03
Total Vascular HI Across All Media =	1.1E-02
Total Whole Body HI Across All Media =	1.1E-03

TABLE 9.5.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	NA	NA		Blood	NA	4.0E-02	NA	4.0E-02
			Chloroform	NA	NA	NA		Liver	NA	2.4E-03	NA	2.4E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	1.0E-03	NA	1.0E-03
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	4.2E-01	NA	4.2E-01
Chemical Total				NA	NA	NA			NA	4.6E-01	NA	4.6E-01
Ambient air at street level Total - Pre-aeration system operation												4.6E-01
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	NA	NA		Blood	NA	3.5E-02	NA	3.5E-02
			Chloroform	NA	NA	NA		Liver	NA	3.2E-03	NA	3.2E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	1.2E-03	NA	1.2E-03
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	9.7E-01	NA	9.7E-01
Chemical Total				NA	NA	NA			NA	1.0E+00	NA	1.0E+00
Ambient air at street level Total - After aeration system turned on												1.0E+00

TABLE 9.5.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal										
			2-methylnaphthalene	NA	NA	NA		Lung	3.2E-03	NA	4.7E-03	7.8E-03
			Acenaphthene	NA	NA	NA		Liver	1.8E-04	NA	2.7E-04	4.5E-04
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	NA	NA	NA		Increased Liver Weight	2.6E-05	NA	2.9E-05	5.5E-05
			Chrysene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA		Kidney, Liver, Blood	1.6E-04	NA	2.3E-04	3.9E-04
			Fluorene	NA	NA	NA		Blood	2.0E-04	NA	3.0E-04	5.0E-04
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	1.2E-03	NA	1.7E-03	2.9E-03
			Pyrene	NA	NA	NA		Kidney	4.5E-04	NA	6.7E-04	1.1E-03
			Dioxin-Like PCB TEQ	NA	NA	NA			NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	NA	NA	NA			NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA		Ocular, Finger and Toe Nails	1.2E-02	NA	1.9E-02	3.0E-02
			Aluminum	NA	NA	NA		Neurological	5.1E-04	NA	5.9E-05	5.7E-04
			Arsenic	NA	NA	NA		Skin, Vascular	1.7E-03	NA	5.9E-04	2.3E-03
			Cadmium	NA	NA	NA		Proteinuria (Kidney)	3.5E-04	NA	1.6E-04	5.1E-04
			Chromium	NA	NA	NA		Not identified	9.9E-04	NA	4.5E-03	5.5E-03
			Cobalt	NA	NA	NA		Thyroid	1.3E-03	NA	1.5E-04	1.4E-03
			Copper	NA	NA	NA		Gastrointestinal	2.4E-04	NA	2.8E-05	2.7E-04
			Iron	NA	NA	NA		Gastrointestinal	1.7E-03	NA	1.9E-04	1.9E-03
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA		CNS	7.7E-05	NA	1.8E-06	7.9E-05
			Vanadium	NA	NA	NA		Hair	3.2E-04	NA	3.7E-05	3.6E-04
Chemical Total				NA	NA	NA			2.4E-02	NA	3.2E-02	5.6E-02
Overflow Surface Sediment Total												5.6E-02

TABLE 9.5.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			1,4-dichlorobenzene	NA	NA	NA		Liver	3.9E-07	NA	2.7E-06	3.1E-06
			Benzene	NA	NA	NA		Blood, Immune	9.6E-06	NA	1.9E-05	2.9E-05
			Chloroform	NA	NA	NA		Liver, Body Weight	2.6E-06	NA	2.7E-06	5.3E-06
			Ethylbenzene	NA	NA	NA		Liver, Kidney	4.0E-07	NA	2.7E-06	3.1E-06
			Tetrachloroethylene(PCE)	NA	NA	NA		Liver	1.1E-04	NA	7.0E-04	8.1E-04
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	8.3E-07	NA	6.0E-06	6.8E-06
			Arsenic	NA	NA	NA		Skin, Vascular	2.5E-03	NA	2.9E-04	2.8E-03
			Chromium	NA	NA	NA		Not identified	1.3E-04	NA	1.2E-03	1.3E-03
			Cobalt	NA	NA	NA		Thyroid	6.0E-04	NA	2.7E-05	6.2E-04
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA		Whole Body	3.1E-04	NA	3.5E-05	3.4E-04
Chemical Total				NA	NA	NA			3.7E-03	NA	2.3E-03	6.0E-03
Overflow Surface Water Total												6.0E-03
Receptor Total											Receptor HI Total	1.1E+00

TABLE 9.5.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

Total Blood HI Across All Media =	4.1E-02
Total Body Weight HI Across All Media =	2.9E-03
Total Developmental HI Across All Media =	2.2E-03
Total Finger and Toe Nails HI Across All Media =	3.0E-02
Total Gastrointestinal HI Across All Media =	2.2E-03
Total Hair HI Across All Media =	3.6E-04
Total Kidney HI Across All Media =	2.0E-03
Total Immune HI Across All Media =	2.9E-05
Total Liver HI Across All Media =	5.0E-03
Total Lung HI Across All Media =	7.8E-03
Total Nasal HI Across All Media =	9.7E-01
Total Nervous System HI Across All Media =	6.5E-04
Total Ocular HI Across All Media =	3.0E-02
Total Respiratory HI Across All Media =	9.7E-01
Total Skin HI Across All Media =	5.1E-03
Total Thyroid HI Across All Media =	2.1E-03
Total Vascular HI Across All Media =	5.1E-03
Total Whole Body HI Across All Media =	3.4E-04

TABLE 9.6.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	NA	NA		Blood	NA	4.0E-02	NA	4.0E-02
			Chloroform	NA	NA	NA		Liver	NA	2.4E-03	NA	2.4E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	1.0E-03	NA	1.0E-03
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	4.2E-01	NA	4.2E-01
Chemical Total				NA	NA	NA			NA	4.6E-01	NA	4.6E-01
Ambient air at street level Total - Pre-aeration system operation												4.6E-01
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	NA	NA		Blood	NA	3.5E-02	NA	3.5E-02
			Chloroform	NA	NA	NA		Liver	NA	3.2E-03	NA	3.2E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	1.2E-03	NA	1.2E-03
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	9.7E-01	NA	9.7E-01
Chemical Total				NA	NA	NA			NA	1.0E+00	NA	1.0E+00
Ambient air at street level Total - After aeration system turned on												1.0E+00

TABLE 9.6.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal	2-methylnaphthalene	NA	NA	NA		Lung	2.9E-02	NA	1.1E-02	4.0E-02
			Acenaphthene	NA	NA	NA		Liver	1.7E-03	NA	6.2E-04	2.3E-03
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	NA	NA	NA		Increased Liver Weight	2.4E-04	NA	6.7E-05	3.1E-04
			Chrysene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA		Kidney, Liver, Blood	1.5E-03	NA	5.4E-04	2.0E-03
			Fluorene	NA	NA	NA		Blood	1.9E-03	NA	6.9E-04	2.6E-03
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	1.1E-02	NA	3.9E-03	1.5E-02
			Pyrene	NA	NA	NA		Kidney	4.2E-03	NA	1.5E-03	5.8E-03
			Dioxin-Like PCB TEQ	NA	NA	NA			NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	NA	NA	NA			NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA		Ocular, Finger and Toe Nails	1.1E-01	NA	4.3E-02	1.5E-01
			Aluminum	NA	NA	NA		Neurological	4.8E-03	NA	1.3E-04	4.9E-03
			Arsenic	NA	NA	NA		Skin, Vascular	1.6E-02	NA	1.4E-03	1.7E-02
			Cadmium	NA	NA	NA		Proteinuria (Kidney)	3.3E-03	NA	3.7E-04	3.7E-03
			Chromium	NA	NA	NA		Not identified	9.3E-03	NA	1.0E-02	2.0E-02
			Cobalt	NA	NA	NA		Thyroid	1.2E-02	NA	3.4E-04	1.2E-02
			Copper	NA	NA	NA		Gastrointestinal	2.3E-03	NA	6.3E-05	2.3E-03
			Iron	NA	NA	NA		Gastrointestinal	1.6E-02	NA	4.4E-04	1.6E-02
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA		CNS	7.2E-04	NA	4.0E-06	7.2E-04
			Vanadium	NA	NA	NA		Hair	3.0E-03	NA	8.5E-05	3.1E-03
Chemical Total				NA	NA	NA			2.3E-01	NA	7.4E-02	3.0E-01
Overflow Surface Sediment Total												3.0E-01

TABLE 9.6.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			1,4-dichlorobenzene	NA	NA	NA		Liver	1.8E-06	NA	6.3E-06	8.1E-06
			Benzene	NA	NA	NA		Blood, Immune	4.5E-05	NA	4.4E-05	8.9E-05
			Chloroform	NA	NA	NA		Liver, Body Weight	1.2E-05	NA	6.2E-06	1.8E-05
			Ethylbenzene	NA	NA	NA		Liver, Kidney	1.9E-06	NA	6.2E-06	8.1E-06
			Tetrachloroethylene(PCE)	NA	NA	NA		Liver	5.2E-04	NA	1.6E-03	2.1E-03
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	3.9E-06	NA	1.4E-05	1.8E-05
			Arsenic	NA	NA	NA		Skin, Vascular	1.2E-02	NA	6.6E-04	1.2E-02
			Chromium	NA	NA	NA		Not identified	6.1E-04	NA	2.7E-03	3.3E-03
			Cobalt	NA	NA	NA		Thyroid	2.8E-03	NA	6.2E-05	2.8E-03
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA		Whole Body	1.4E-03	NA	8.0E-05	1.5E-03
Chemical Total				NA	NA	NA			1.7E-02	NA	5.2E-03	2.2E-02
Overflow Surface Water Total												2.2E-02
Receptor Total											Receptor HI Total	1.3E+00

TABLE 9.6.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

Total Blood HI Across All Media =	4.5E-02
Total Body Weight HI Across All Media =	1.5E-02
Total Developmental HI Across All Media =	2.2E-03
Total Finger and Toe Nails HI Across All Media =	1.5E-01
Total Gastrointestinal HI Across All Media =	1.9E-02
Total Hair HI Across All Media =	3.1E-03
Total Kidney HI Across All Media =	1.1E-02
Total Immune HI Across All Media =	8.9E-05
Total Liver HI Across All Media =	1.0E-02
Total Lung HI Across All Media =	4.0E-02
Total Nasal HI Across All Media =	9.7E-01
Total Nervous System HI Across All Media =	5.7E-03
Total Ocular HI Across All Media =	1.5E-01
Total Respiratory HI Across All Media =	9.7E-01
Total Skin HI Across All Media =	3.0E-02
Total Thyroid HI Across All Media =	1.5E-02
Total Vascular HI Across All Media =	3.0E-02
Total Whole Body HI Across All Media =	1.5E-03

TABLE 9.7.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	2.9E-06	NA	2.9E-06	Blood	NA	NA	NA	
			Chloroform	NA	1.7E-06	NA	1.7E-06	Liver	NA	NA	NA	
			Ethylbenzene	NA	8.0E-07	NA	8.0E-07	Developmental	NA	NA	NA	
			Naphthalene	NA	1.3E-05	NA	1.3E-05	Nasal, Respiratory	NA	NA	NA	
Chemical Total				NA	1.8E-05	NA	1.8E-05		NA	NA	NA	
Ambient air at street level Total - Pre-aeration system operation							1.8E-05					
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	2.5E-06	NA	2.5E-06	Blood	NA	NA	NA	
			Chloroform	NA	2.2E-06	NA	2.2E-06	Liver	NA	NA	NA	
			Ethylbenzene	NA	9.1E-07	NA	9.1E-07	Developmental	NA	NA	NA	
			Naphthalene	NA	3.0E-05	NA	3.0E-05	Nasal, Respiratory	NA	NA	NA	
Chemical Total				NA	3.6E-05	NA	3.6E-05		NA	NA	NA	
Ambient air at street level Total - After aeration system turned on							3.6E-05					

TABLE 9.7.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal										
			2-methylnaphthalene	NA	NA	NA	0.0E+00	Lung	NA	NA	NA	
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	NA	NA	NA	
			Benzo(a)anthracene[1]	1.6E-05	NA	8.2E-06	2.4E-05		NA	NA	NA	
			Benzo(a)pyrene[1]	9.2E-05	NA	4.7E-05	1.4E-04		NA	NA	NA	
			Benzo(b)fluoranthene[1]	1.0E-05	NA	5.1E-06	1.5E-05		NA	NA	NA	
			Benzo(k)fluoranthene[1]	5.2E-07	NA	2.6E-07	7.8E-07		NA	NA	NA	
			Bis(2-ethylhexyl) phthalate	8.2E-09	NA	4.4E-09	1.3E-08	Increased Liver Weight	NA	NA	NA	
			Chrysene[1]	1.6E-07	NA	8.1E-08	2.4E-07		NA	NA	NA	
			Dibenz(a,h)anthracene[1]	6.9E-06	NA	3.5E-06	1.0E-05		NA	NA	NA	
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	NA	NA	NA	
			Fluorene	NA	NA	NA	0.0E+00	Blood	NA	NA	NA	
			Indeno(1,2,3-c,d)pyrene[1]	4.0E-06	NA	2.0E-06	6.0E-06		NA	NA	NA	
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	NA	NA	NA	
			Pyrene	NA	NA	NA	0.0E+00	Kidney	NA	NA	NA	
			Dioxin-Like PCB TEQ	2.8E-07	NA	2.1E-07	5.0E-07		NA	NA	NA	
			Nondioxin-Like PCB	5.2E-07	NA	3.9E-07	9.1E-07		NA	NA	NA	
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	NA	NA	NA	
			Aluminum	NA	NA	NA	0.0E+00	Neurological	NA	NA	NA	
			Arsenic	8.9E-07	NA	1.4E-07	1.0E-06	Skin, Vascular	NA	NA	NA	
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	NA	NA	NA	
			Chromium[1]	7.3E-08	NA	1.1E-06	1.2E-06	Not identified	NA	NA	NA	
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	NA	NA	NA	
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	NA	NA	NA	
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	NA	NA	NA	
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	
			Manganese	NA	NA	NA	0.0E+00	CNS	NA	NA	NA	
			Vanadium	NA	NA	NA	0.0E+00	Hair	NA	NA	NA	
Chemical Total				1.3E-04	NA	6.8E-05	2.0E-04		NA	NA	NA	
Overflow Surface Sediment Total							2.0E-04					

TABLE 9.7.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			1,4-dichlorobenzene	1.1E-10	NA	5.6E-10	6.7E-10	Liver	NA	NA	NA	
			Benzene	1.6E-09	NA	2.3E-09	3.9E-09	Blood, Immune	NA	NA	NA	
			Chloroform	5.9E-10	NA	4.5E-10	1.0E-09	Liver, Body Weight	NA	NA	NA	
			Ethylbenzene	3.2E-10	NA	1.6E-09	1.9E-09	Liver, Kidney	NA	NA	NA	
			Tetrachloroethylene(PCE)	4.5E-07	NA	2.0E-06	2.5E-06	Liver	NA	NA	NA	
			Benzo(a)anthracene[1]	9.6E-09	NA	7.6E-07	7.7E-07		NA	NA	NA	
			Benzo(a)pyrene[1]	1.9E-07	NA	2.6E-05	2.6E-05		NA	NA	NA	
			Benzo(b)fluoranthene[1]	1.7E-08	NA	2.4E-06	2.4E-06		NA	NA	NA	
			Dibenz(a,h)anthracene[1]	9.3E-08	NA	2.0E-05	2.0E-05		NA	NA	NA	
			Indeno(1,2,3-c,d)pyrene[1]	4.6E-08	NA	6.4E-06	6.4E-06		NA	NA	NA	
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	NA	NA	NA	
			Arsenic	8.4E-07	NA	7.0E-08	9.1E-07	Skin, Vascular	NA	NA	NA	
			Chromium[1]	5.4E-07	NA	3.6E-06	4.2E-06	Not identified	NA	NA	NA	
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	NA	NA	NA	
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	
			Selenium	NA	NA	NA	0.0E+00	Whole Body	NA	NA	NA	
Chemical Total				2.2E-06	NA	6.1E-05	6.3E-05		NA	NA	NA	
Overflow Surface Water Total							6.3E-05					
Receptor Total							3.0E-04				Receptor HI Total	

Receptor Total includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

1. Constituent acts via a mutagenic mode of action (MMOA). See Table 7.7.RME Supplement A for calculation of intake and cancer risk following MMOA method.

TABLE 9.8.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			p,p'-DDE	2.4E-07	NA	NA	2.4E-07	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	2.0E-07	NA	NA	2.0E-07	Liver	3.4E-03	NA	NA	3.4E-03
			Dioxin-Like PCB TEQ	4.0E-05	NA	NA	4.0E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	4.9E-05	NA	NA	4.9E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.8E+00	NA	NA	3.8E+00
			Arsenic	6.1E-06	NA	NA	6.1E-06	Skin, Vascular	4.0E-02	NA	NA	4.0E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.5E-01	NA	NA	3.5E-01
			Selenium	NA	NA	NA	0.0E+00	Whole Body	4.2E-02	NA	NA	4.2E-02
Chemical Total				9.6E-05	NA	NA	9.6E-05		4.2E+00	NA	NA	4.2E+00
Striped Bass in Gowanus Canal Total							9.6E-05					4.2E+00
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	9.9E-06	NA	NA	9.9E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	9.6E-06	NA	NA	9.6E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	7.7E-01	NA	NA	7.7E-01
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	6.4E-02	NA	NA	6.4E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	9.4E-03	NA	NA	9.4E-03
Chemical Total				2.0E-05	NA	NA	2.0E-05		8.5E-01	NA	NA	8.5E-01
White Perch in Gowanus Canal Total							2.0E-05					8.5E-01

TABLE 9.8.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			alpha-Chlordane	4.3E-07	NA	NA	4.3E-07	Liver	7.2E-03	NA	NA	7.2E-03
			Dieldrin	1.5E-05	NA	NA	1.5E-05	Liver	5.6E-02	NA	NA	5.6E-02
			gamma-Chlordane	2.5E-07	NA	NA	2.5E-07	Liver	4.2E-03	NA	NA	4.2E-03
			p,p'-DDD	5.1E-07	NA	NA	5.1E-07	NA	NA	NA	NA	0.0E+00
			p,p'-DDE	4.8E-07	NA	NA	4.8E-07	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	9.0E-07	NA	NA	9.0E-07	Liver	1.5E-02	NA	NA	1.5E-02
			Dioxin-Like PCB TEQ	1.2E-04	NA	NA	1.2E-04	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.4E-04	NA	NA	1.4E-04	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.1E+01	NA	NA	1.1E+01
			Arsenic	4.2E-06	NA	NA	4.2E-06	Skin, Vascular	2.7E-02	NA	NA	2.7E-02
			Chromium	1.9E-05	NA	NA	1.9E-05	Not identified	3.6E-02	NA	NA	3.6E-02
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	3.0E-02	NA	NA	3.0E-02
			Cyanide, total	NA	NA	NA	0.0E+00	Weight Loss, Thyroid	2.5E-02	NA	NA	2.5E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	4.2E-01	NA	NA	4.2E-01
			Selenium	NA	NA	NA	0.0E+00	Whole Body	4.6E-02	NA	NA	4.6E-02
Chemical Total				3.0E-04	NA	NA	3.0E-04		1.2E+01	NA	NA	1.2E+01
Eel in Gowanus Canal Total							3.0E-04					1.2E+01

TABLE 9.8.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)anthracene	6.3E-07	NA	NA	6.3E-07	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene	9.7E-06	NA	NA	9.7E-06	NA	NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	5.3E-07	NA	NA	5.3E-07	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	3.2E-06	NA	NA	3.2E-06	NA	NA	NA	NA	0.0E+00
			Indeno(1,2,3-cd)pyrene	8.1E-07	NA	NA	8.1E-07	NA	NA	NA	NA	0.0E+00
			Dioxin-Like PCB TEQ	8.9E-05	NA	NA	8.9E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	3.2E-05	NA	NA	3.2E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	2.7E+00	NA	NA	2.7E+00
			Arsenic	2.2E-05	NA	NA	2.2E-05	Skin, Vascular	1.4E-01	NA	NA	1.4E-01
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	8.4E-02	NA	NA	8.4E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	4.1E-01	NA	NA	4.1E-01
Chemical Total				1.6E-04	NA	NA	1.6E-04		3.4E+00	NA	NA	3.4E+00
Crab in Gowanus Canal Total							1.6E-04					3.4E+00
Receptor Total - Fish							4.2E-04				Receptor HI Total - Fiish	1.7E+01
Receptor Total - Blue Crab							1.6E-04				Receptor HI Total - Blue Crab	3.4E+00

HI - Hazard Index

Target organ totals for Fish

Total Body Weight HI Across All Media =	2.5E-02
Total Developmental HI Across All Media =	8.4E-01
Total Finger and Toe Nails HI Across All Media =	1.6E+01
Total Gastrointestinal HI Across All Media =	3.0E-02
Total Liver HI Across All Media =	8.6E-02
Total Neurological HI Across All Media =	8.4E-01
Total Ocular HI Across All Media =	1.6E+01
Total Skin HI Across All Media =	6.7E-02
Total Thyroid HI Across All Media =	2.5E-02
Total Vascular HI Across All Media =	6.7E-02
Total Whole Body HI Across All Media =	9.7E-02

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	4.1E-01
Total Finger and Toe Nails HI Across All Media =	2.7E+00
Total Gastrointestinal HI Across All Media =	8.4E-02
Total Neurological HI Across All Media =	4.1E-01
Total Ocular HI Across All Media =	2.7E+00
Total Skin HI Across All Media =	1.4E-01
Total Vascular HI Across All Media =	1.4E-01

TABLE 9.9.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			p,p'-DDE	4.9E-08	NA	NA	4.9E-08	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	3.9E-08	NA	NA	3.9E-08	Liver	2.7E-03	NA	NA	2.7E-03
			Dioxin-Like PCB TEQ	8.1E-06	NA	NA	8.1E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	9.8E-06	NA	NA	9.8E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.0E+00	NA	NA	3.0E+00
			Arsenic	1.2E-06	NA	NA	1.2E-06	Skin, Vascular	3.2E-02	NA	NA	3.2E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	2.8E-01	NA	NA	2.8E-01
			Selenium	NA	NA	NA	0.0E+00	Whole Body	3.4E-02	NA	NA	3.4E-02
Chemical Total				1.9E-05	NA	NA	1.9E-05		3.4E+00	NA	NA	3.4E+00
Striped Bass in Gowanus Canal Total							1.9E-05					3.4E+00
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	2.1E-06	NA	NA	2.1E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.0E-06	NA	NA	2.0E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	6.2E-01	NA	NA	6.2E-01
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	5.1E-02	NA	NA	5.1E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	7.5E-03	NA	NA	7.5E-03
Chemical Total				4.1E-06	NA	NA	4.1E-06		6.8E-01	NA	NA	6.8E-01
White Perch in Gowanus Canal Total							4.1E-06					6.8E-01

TABLE 9.9.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			alpha-Chlordane	8.7E-08	NA	NA	8.7E-08	Liver	5.8E-03	NA	NA	5.8E-03
			Dieldrin	3.1E-06	NA	NA	3.1E-06	Liver	4.5E-02	NA	NA	4.5E-02
			gamma-Chlordane	5.1E-08	NA	NA	5.1E-08	Liver	3.4E-03	NA	NA	3.4E-03
			p,p'-DDD	1.0E-07	NA	NA	1.0E-07	NA	NA	NA	NA	0.0E+00
			p,p'-DDE	9.6E-08	NA	NA	9.6E-08	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	1.8E-07	NA	NA	1.8E-07	Liver	1.2E-02	NA	NA	1.2E-02
			Dioxin-Like PCB TEQ	2.5E-05	NA	NA	2.5E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.7E-05	NA	NA	2.7E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	8.9E+00	NA	NA	8.9E+00
			Arsenic	8.4E-07	NA	NA	8.4E-07	Skin, Vascular	2.2E-02	NA	NA	2.2E-02
			Chromium (12-16)*	7.5E-06	NA	NA	7.5E-06	Not identified	2.9E-02	NA	NA	2.9E-02
			Chromium (16-18)*	1.3E-06	NA	NA	1.3E-06					
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	2.4E-02	NA	NA	2.4E-02
			Cyanide, total	NA	NA	NA	0.0E+00	Weight Loss, Thyroid	2.0E-02	NA	NA	2.0E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.4E-01	NA	NA	3.4E-01
			Selenium	NA	NA	NA	0.0E+00	Whole Body	3.7E-02	NA	NA	3.7E-02
Chemical Total				6.5E-05	NA	NA	6.5E-05		9.4E+00	NA	NA	9.4E+00
Eel in Gowanus Canal Total							6.5E-05					9.4E+00

TABLE 9.9.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)anthracene (12-16)*	2.5E-07	NA	NA	2.5E-07	NA	NA	NA	NA	0.0E+00
			Benzo(a)anthracene (16-18)*	4.2E-08	NA	NA	4.2E-08					
			Benzo(a)pyrene (12-16)*	3.9E-06	NA	NA	3.9E-06	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	6.5E-07	NA	NA	6.5E-07					
			Benzo(b)fluoranthene (12-16)*	2.1E-07	NA	NA	2.1E-07	NA	NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (16-18)*	3.5E-08	NA	NA	3.5E-08					
			Dibenz(a,h)anthracene (12-16)*	1.3E-06	NA	NA	1.3E-06	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (16-18)*	2.2E-07	NA	NA	2.2E-07					
			Indeno(1,2,3-cd)pyrene (12-16)*	3.3E-07	NA	NA	3.3E-07	NA	NA	NA	NA	0.0E+00
			Indeno(1,2,3-cd)pyrene (16-18)*	5.4E-08	NA	NA	5.4E-08					
			Dioxin-Like PCB TEQ	1.8E-05	NA	NA	1.8E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	6.5E-06	NA	NA	6.5E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	2.2E+00	NA	NA	2.2E+00
			Arsenic	4.4E-06	NA	NA	4.4E-06	Skin, Vascular	1.1E-01	NA	NA	1.1E-01
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	6.7E-02	NA	NA	6.7E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.3E-01	NA	NA	3.3E-01
Chemical Total				3.6E-05	NA	NA	3.6E-05		2.7E+00	NA	NA	2.7E+00
Crab in Gowanus Canal Total							3.6E-05					2.7E+00
Receptor Total - Fish							8.9E-05				Receptor HI Total - Fiish	1.3E+01
Receptor Total - Blue Crab							3.6E-05				Receptor HI Total - Blue Crab	2.7E+00

TABLE 9.9.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-16 year old for exposure duration of 4 years, ADAF of 1 used to adjust CSF for 16-18 year old for exposure duration of 2 years. Non-cancer calculations shown under 12-16 year old only, as non-cancer calculations are not adjusted for MMOA.

Target organ totals for Fish

Total Body Weight HI Across All Media =	2.0E-02
Total Developmental HI Across All Media =	6.7E-01
Total Finger and Toe Nails HI Across All Media =	1.3E+01
Total Gastrointestinal HI Across All Media =	2.4E-02
Total Liver HI Across All Media =	6.9E-02
Total Neurological HI Across All Media =	6.7E-01
Total Ocular HI Across All Media =	1.3E+01
Total Skin HI Across All Media =	5.4E-02
Total Thyroid HI Across All Media =	2.0E-02
Total Vascular HI Across All Media =	5.4E-02
Total Whole Body HI Across All Media =	7.8E-02

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	3.3E-01
Total Finger and Toe Nails HI Across All Media =	2.2E+00
Total Gastrointestinal HI Across All Media =	6.7E-02
Total Neurological HI Across All Media =	3.3E-01
Total Ocular HI Across All Media =	2.2E+00
Total Skin HI Across All Media =	1.1E-01
Total Vascular HI Across All Media =	1.1E-01

TABLE 9.10.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			p,p'-DDE	9.9E-08	NA	NA	9.9E-08	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	7.9E-08	NA	NA	7.9E-08	Liver	5.4E-03	NA	NA	5.4E-03
			Dioxin-Like PCB TEQ	1.6E-05	NA	NA	1.6E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.0E-05	NA	NA	2.0E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	6.1E+00	NA	NA	6.1E+00
			Arsenic	2.5E-06	NA	NA	2.5E-06	Skin, Vascular	6.4E-02	NA	NA	6.4E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	5.6E-01	NA	NA	5.6E-01
			Selenium	NA	NA	NA	0.0E+00	Whole Body	6.8E-02	NA	NA	6.8E-02
Chemical Total				3.9E-05	NA	NA	3.9E-05		6.8E+00	NA	NA	6.8E+00
Striped Bass in Gowanus Canal Total							3.9E-05					6.8E+00
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	4.2E-06	NA	NA	4.2E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	4.0E-06	NA	NA	4.0E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.2E+00	NA	NA	1.2E+00
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	1.0E-01	NA	NA	1.0E-01
			Selenium	NA	NA	NA	0.0E+00	Whole Body	1.5E-02	NA	NA	1.5E-02
Chemical Total				8.2E-06	NA	NA	8.2E-06		1.4E+00	NA	NA	1.4E+00
White Perch in Gowanus Canal Total							8.2E-06					1.4E+00

TABLE 9.10.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			alpha-Chlordane	1.7E-07	NA	NA	1.7E-07	Liver	1.2E-02	NA	NA	1.2E-02
			Dieldrin	6.2E-06	NA	NA	6.2E-06	Liver	9.0E-02	NA	NA	9.0E-02
			gamma-Chlordane	1.0E-07	NA	NA	1.0E-07	Liver	6.9E-03	NA	NA	6.9E-03
			p,p'-DDD	2.1E-07	NA	NA	2.1E-07	NA	NA	NA	NA	0.0E+00
			p,p'-DDE	1.9E-07	NA	NA	1.9E-07	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	3.6E-07	NA	NA	3.6E-07	Liver	2.5E-02	NA	NA	2.5E-02
			Dioxin-Like PCB TEQ	5.0E-05	NA	NA	5.0E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	5.5E-05	NA	NA	5.5E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.8E+01	NA	NA	1.8E+01
			Arsenic	1.7E-06	NA	NA	1.7E-06	Skin, Vascular	4.4E-02	NA	NA	4.4E-02
			Chromium (0-2)*	2.5E-05	NA	NA	2.5E-05	Not identified	5.9E-02	NA	NA	5.9E-02
			Chromium (2-6)*	1.5E-05	NA	NA	1.5E-05					
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	4.9E-02	NA	NA	4.9E-02
			Cyanide, total	NA	NA	NA	0.0E+00	Weight Loss, Thyroid	4.1E-02	NA	NA	4.1E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	6.9E-01	NA	NA	6.9E-01
			Selenium	NA	NA	NA	0.0E+00	Whole Body	7.4E-02	NA	NA	7.4E-02
Chemical Total				1.5E-04	NA	NA	1.5E-04		1.9E+01	NA	NA	1.9E+01
Eel in Gowanus Canal Total							1.5E-04					1.9E+01

TABLE 9.10.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)anthracene (0-2)*	8.6E-07	NA	NA	8.6E-07	NA	NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-6)*	5.1E-07	NA	NA	5.1E-07					
			Benzo(a)pyrene (0-2)*	1.3E-05	NA	NA	1.3E-05	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	7.9E-06	NA	NA	7.9E-06					
			Benzo(b)fluoranthene (0-2)*	7.1E-07	NA	NA	7.1E-07	NA	NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-6)*	4.3E-07	NA	NA	4.3E-07					
			Dibenz(a,h)anthracene (0-2)*	4.4E-06	NA	NA	4.4E-06	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-6)*	2.6E-06	NA	NA	2.6E-06					
			Indeno(1,2,3-cd)pyrene (0-2)*	1.1E-06	NA	NA	1.1E-06	NA	NA	NA	NA	0.0E+00
			Indeno(1,2,3-cd)pyrene (2-6)*	6.6E-07	NA	NA	6.6E-07					
			Dioxin-Like PCB TEQ	3.6E-05	NA	NA	3.6E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.3E-05	NA	NA	1.3E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	4.4E+00	NA	NA	4.4E+00
			Arsenic	9.0E-06	NA	NA	9.0E-06	Skin, Vascular	2.3E-01	NA	NA	2.3E-01
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	1.4E-01	NA	NA	1.4E-01
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	6.6E-01	NA	NA	6.6E-01
Chemical Total				9.0E-05	NA	NA	9.0E-05		5.5E+00	NA	NA	5.5E+00
Crab in Gowanus Canal Total							9.0E-05					5.5E+00
Receptor Total - Fish							2.0E-04				Receptor HI Total - Fiish	2.7E+01
Receptor Total - Blue Crab							9.0E-05				Receptor HI Total - Blue Crab	5.5E+00

TABLE 9.10.RME

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-6 year old for exposure duration of 4 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

Target organ totals for Fish

Total Body Weight HI Across All Media =	4.1E-02
Total Developmental HI Across All Media =	1.4E+00
Total Finger and Toe Nails HI Across All Media =	2.5E+01
Total Gastrointestinal HI Across All Media =	4.9E-02
Total Liver HI Across All Media =	1.4E-01
Total Neurological HI Across All Media =	1.4E+00
Total Ocular HI Across All Media =	2.5E+01
Total Skin HI Across All Media =	1.1E-01
Total Thyroid HI Across All Media =	4.1E-02
Total Vascular HI Across All Media =	1.1E-01
Total Whole Body HI Across All Media =	1.6E-01

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	6.6E-01
Total Finger and Toe Nails HI Across All Media =	4.4E+00
Total Gastrointestinal HI Across All Media =	1.4E-01
Total Neurological HI Across All Media =	6.6E-01
Total Ocular HI Across All Media =	4.4E+00
Total Skin HI Across All Media =	2.3E-01
Total Vascular HI Across All Media =	2.3E-01

TABLE 9.1.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	7.8E-05	NA	8.4E-04	9.2E-04
			Benzo(a)anthracene	5.1E-08	NA	5.5E-07	6.0E-07		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	4.3E-07	NA	4.6E-06	5.0E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	4.5E-08	NA	4.9E-07	5.3E-07		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene	2.6E-09	NA	2.8E-08	3.0E-08		NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	2.5E-10	NA	2.1E-09	2.4E-09	Increased Liver Weight	2.1E-05	NA	1.8E-04	2.0E-04
			Chrysene	1.0E-09	NA	1.1E-08	1.2E-08		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	2.5E-08	NA	2.7E-07	2.9E-07		NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	1.6E-04	NA	1.7E-03	1.9E-03
			Indeno(1,2,3-c,d)pyrene	1.9E-08	NA	2.1E-07	2.3E-07		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	2.2E-06	NA	2.3E-05	2.6E-05
			Pyrene	NA	NA	NA	0.0E+00	Kidney	2.2E-04	NA	2.4E-03	2.6E-03
			Dioxin-Like PCB TEQ	3.4E-09	NA	4.0E-08	4.3E-08		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	2.9E-09	NA	3.3E-08	3.6E-08		NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.4E-03	NA	4.0E-02	4.3E-02
			Aluminum	NA	NA	NA	0.0E+00	Neurological	2.0E-04	NA	1.7E-04	3.7E-04
			Arsenic	1.5E-08	NA	3.7E-08	5.1E-08	Skin, Vascular	7.6E-04	NA	1.9E-03	2.7E-03
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	1.2E-04	NA	4.1E-04	5.3E-04
			Chromium	2.5E-08	NA	8.5E-07	8.7E-07	Not identified	4.0E-04	NA	1.3E-02	1.4E-02
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	5.5E-04	NA	4.5E-04	1.0E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	1.1E-04	NA	9.3E-05	2.0E-04
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	7.3E-04	NA	6.0E-04	1.3E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA	0.0E+00	CNS	2.9E-05	NA	3.5E-03	3.5E-03
			Vanadium	NA	NA	NA	0.0E+00	Hair	1.3E-04	NA	1.1E-04	2.3E-04
Chemical Total				6.2E-07	NA	7.1E-06	7.7E-06		6.9E-03	NA	6.5E-02	7.2E-02
Exposed Surface Sediment Total							7.7E-06					7.2E-02

TABLE 9.1.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Dry event)	Benzene	8.7E-11	NA	1.3E-09	1.4E-09	Blood, Immune	9.3E-06	NA	1.4E-04	1.5E-04
			Benzo(a)anthracene	1.4E-10	NA	1.6E-07	1.6E-07		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	3.4E-09	NA	6.8E-06	6.8E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	1.5E-10	NA	3.1E-07	3.1E-07		NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	2.4E-11	NA	3.5E-09	3.5E-09	Increased Liver Weight	2.0E-06	NA	2.9E-04	2.9E-04
			Indeno(1,2,3-c,d)pyrene	6.8E-11	NA	1.4E-07	1.4E-07		NA	NA	NA	0.0E+00
			Arsenic	2.1E-08	NA	1.5E-08	3.6E-08	Skin, Vascular	1.1E-03	NA	7.9E-04	1.9E-03
			Chromium	6.7E-09	NA	3.9E-07	3.9E-07	Not identified	1.0E-04	NA	6.0E-03	6.1E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	7.1E-05	NA	5.1E-05	1.2E-04
			Selenium	NA	NA	NA	0.0E+00	Whole Body	1.4E-04	NA	9.8E-05	2.3E-04
Chemical Total				3.2E-08	NA	7.9E-06	7.9E-06		1.4E-03	NA	7.4E-03	8.8E-03
Surface Water Total - Dry Event							7.9E-06					8.8E-03

TABLE 9.1.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	1,4-dichlorobenzene	2.3E-12	NA	1.4E-10	1.4E-10	Liver	1.4E-07	NA	8.6E-06	8.7E-06
			Benzene	3.3E-11	NA	5.0E-10	5.3E-10	Blood, Immune	3.5E-06	NA	5.3E-05	5.6E-05
			Chloroform	1.2E-11	NA	1.1E-10	1.2E-10	Liver, Body Weight	9.2E-07	NA	8.0E-06	8.9E-06
			Ethylbenzene	6.8E-12	NA	3.8E-10	3.9E-10	Liver, Kidney	1.4E-07	NA	8.1E-06	8.3E-06
			Tetrachloroethylene(PCE)	9.3E-09	NA	5.1E-07	5.2E-07	Liver	4.0E-05	NA	2.2E-03	2.3E-03
			Benzo(a)anthracene	5.4E-11	NA	6.3E-08	6.3E-08		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	1.1E-09	NA	2.1E-06	2.1E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	9.8E-11	NA	2.0E-07	2.0E-07		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	5.2E-10	NA	1.6E-06	1.6E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	2.6E-10	NA	5.3E-07	5.3E-07		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	3.0E-07	NA	1.8E-05	1.9E-05
			Arsenic	1.8E-08	NA	1.3E-08	3.0E-08	Skin, Vascular	9.2E-04	NA	6.6E-04	1.6E-03
			Chromium	3.0E-09	NA	1.7E-07	1.8E-07	Not identified	4.7E-05	NA	2.7E-03	2.8E-03
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	2.1E-04	NA	6.2E-05	2.8E-04
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA	0.0E+00	Whole Body	1.1E-04	NA	8.0E-05	1.9E-04
Chemical Total				3.2E-08	NA	5.2E-06	5.3E-06		1.3E-03	NA	5.8E-03	7.2E-03
Surface Water Total - Wet Event							5.3E-06					7.2E-03
Receptor Total							1.6E-05				Receptor HI Total	8.1E-02

TABLE 9.1.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes sum of exposed and near shore sediment, and maximum of dry event and wet event surface water.

Total Blood HI Across All Media =	2.0E-03
Total Body Weight HI Across All Media =	5.3E-05
Total Finger and Toe Nails HI Across All Media =	4.3E-02
Total Gastrointestinal HI Across All Media =	1.7E-03
Total Hair HI Across All Media =	2.3E-04
Total Kidney HI Across All Media =	5.0E-03
Total Immune HI Across All Media =	1.5E-04
Total Liver HI Across All Media =	5.5E-03
Total Nervous System HI Across All Media =	3.9E-03
Total Ocular HI Across All Media =	4.3E-02
Total Skin HI Across All Media =	4.6E-03
Total Thyroid HI Across All Media =	1.3E-03
Total Vascular HI Across All Media =	4.6E-03
Total Whole Body HI Across All Media =	4.2E-04

TABLE 9.2.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	9.5E-05	NA	1.0E-03	1.1E-03
			Benzo(a)anthracene (12-15)*	1.9E-07	NA	2.0E-06	2.2E-06		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (12-15)*	1.6E-06	NA	1.7E-05	1.9E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (12-15)*	1.7E-07	NA	1.8E-06	2.0E-06		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene (12-15)*	9.5E-09	NA	1.0E-07	1.1E-07		NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	3.1E-10	NA	2.6E-09	2.9E-09	Increased Liver Weight	2.6E-05	NA	2.2E-04	2.4E-04
			Chrysene (12-15)*	3.7E-09	NA	4.0E-08	4.4E-08		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (12-15)*	9.1E-08	NA	9.9E-07	1.1E-06		NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	1.9E-04	NA	2.1E-03	2.3E-03
			Indeno(1,2,3-c,d)pyrene (12-15)*	7.2E-08	NA	7.8E-07	8.5E-07		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	2.7E-06	NA	2.9E-05	3.2E-05
			Pyrene	NA	NA	NA	0.0E+00	Kidney	2.8E-04	NA	3.0E-03	3.3E-03
			Dioxin-Like PCB TEQ	4.2E-09	NA	4.9E-08	5.3E-08		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	3.5E-09	NA	4.1E-08	4.5E-08		NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	4.2E-03	NA	4.9E-02	5.4E-02
			Aluminum	NA	NA	NA	0.0E+00	Neurological	2.5E-04	NA	2.1E-04	4.6E-04
			Arsenic	1.8E-08	NA	4.5E-08	6.3E-08	Skin, Vascular	9.4E-04	NA	2.4E-03	3.3E-03
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	1.5E-04	NA	5.0E-04	6.5E-04
			Chromium (12-15)*	9.4E-08	NA	3.1E-06	3.2E-06	Not identified	4.9E-04	NA	1.6E-02	1.7E-02
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	6.7E-04	NA	5.6E-04	1.2E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	1.4E-04	NA	1.2E-04	2.5E-04
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	8.9E-04	NA	7.5E-04	1.6E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA	0.0E+00	CNS	3.5E-05	NA	4.3E-03	4.3E-03
			Vanadium	NA	NA	NA	0.0E+00	Hair	1.6E-04	NA	1.3E-04	2.9E-04
Chemical Total				2.2E-06	NA	2.6E-05	2.8E-05		8.5E-03	NA	8.1E-02	8.9E-02
Exposed Surface Sediment Total							2.8E-05					8.9E-02

TABLE 9.2.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Dry event)	Benzene	1.1E-10	NA	1.4E-09	1.5E-09	Blood, Immune	1.1E-05	NA	1.5E-04	1.6E-04
			Benzo(a)anthracene (12-15)*	5.1E-10	NA	5.2E-07	5.2E-07		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (12-15)*	1.3E-08	NA	2.2E-05	2.2E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (12-15)*	5.7E-10	NA	1.0E-06	1.0E-06		NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	3.0E-11	NA	3.7E-09	3.8E-09	Increased Liver Weight	2.5E-06	NA	3.1E-04	3.1E-04
			Indeno(1,2,3-c,d)pyrene (12-15)*	2.5E-10	NA	4.5E-07	4.5E-07		NA	NA	NA	0.0E+00
			Arsenic	2.6E-08	NA	1.6E-08	4.2E-08	Skin, Vascular	1.3E-03	NA	8.5E-04	2.2E-03
			Chromium (12-15)*	2.5E-08	NA	1.2E-06	1.3E-06	Not identified	1.3E-04	NA	6.5E-03	6.6E-03
			Copper	0.0E+00	NA	NA	0.0E+00	Gastrointestinal	8.7E-05	NA	5.5E-05	1.4E-04
			Selenium	0.0E+00	NA	NA	0.0E+00	Whole Body	1.7E-04	NA	1.0E-04	2.7E-04
Chemical Total				6.5E-08	NA	2.5E-05	2.5E-05		1.7E-03	NA	7.9E-03	9.7E-03
Surface Water Total - Dry Event							2.5E-05					9.7E-03

TABLE 9.2.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	1,4-dichlorobenzene	2.8E-12	NA	1.5E-10	1.5E-10	Liver	1.7E-07	NA	9.3E-06	9.4E-06
			Benzene	4.0E-11	NA	5.4E-10	5.8E-10	Blood, Immune	4.2E-06	NA	5.7E-05	6.1E-05
			Chloroform	1.5E-11	NA	1.1E-10	1.3E-10	Liver, Body Weight	1.1E-06	NA	8.6E-06	9.7E-06
			Ethylbenzene	8.3E-12	NA	4.1E-10	4.2E-10	Liver, Kidney	1.8E-07	NA	8.7E-06	8.9E-06
			Tetrachloroethylene(PCE)	1.1E-08	NA	5.5E-07	5.6E-07	Liver	5.0E-05	NA	2.4E-03	2.4E-03
			Benzo(a)anthracene (12-15)*	2.0E-10	NA	2.0E-07	2.0E-07		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (12-15)*	3.9E-09	NA	6.9E-06	6.9E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (12-15)*	3.6E-10	NA	6.4E-07	6.4E-07		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (12-15)*	1.9E-09	NA	5.2E-06	5.2E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (12-15)*	9.5E-10	NA	1.7E-06	1.7E-06		NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	3.7E-07	NA	2.0E-05	2.0E-05
			Arsenic	2.2E-08	NA	1.4E-08	3.5E-08	Skin, Vascular	1.1E-03	NA	7.1E-04	1.8E-03
			Chromium (12-15)*	1.1E-08	NA	5.6E-07	5.7E-07	Not identified	5.8E-05	NA	2.9E-03	3.0E-03
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	2.6E-04	NA	6.7E-05	3.3E-04
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA	0.0E+00	Whole Body	1.4E-04	NA	8.6E-05	2.2E-04
Chemical Total				5.2E-08	NA	1.6E-05	1.6E-05		1.6E-03	NA	6.3E-03	7.9E-03
Surface Water Total - Wet Event							1.6E-05					7.9E-03
Receptor Total							5.4E-05				Receptor HI Total	9.9E-02

TABLE 9.2.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes sum of exposed and near shore sediment, and maximum of dry event and wet event surface water.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-15 year old for exposure duration of 3 years, the CTE exposure duration for an adolescent.

Total Blood HI Across All Media =	2.5E-03
Total Body Weight HI Across All Media =	6.2E-05
Total Finger and Toe Nails HI Across All Media =	5.4E-02
Total Gastrointestinal HI Across All Media =	2.0E-03
Total Hair HI Across All Media =	2.9E-04
Total Kidney HI Across All Media =	6.2E-03
Total Immune HI Across All Media =	1.6E-04
Total Liver HI Across All Media =	6.5E-03
Total Nervous System HI Across All Media =	4.8E-03
Total Ocular HI Across All Media =	5.4E-02
Total Skin HI Across All Media =	5.5E-03
Total Thyroid HI Across All Media =	1.6E-03
Total Vascular HI Across All Media =	5.5E-03
Total Whole Body HI Across All Media =	4.9E-04

TABLE 9.3.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	7.2E-04	NA	1.1E-03	1.8E-03
			Benzo(a)anthracene (0-2)*	3.1E-06	NA	4.6E-06	7.7E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-3)*	4.7E-07	NA	6.9E-07	1.2E-06					
			Benzo(a)pyrene (0-2)*	2.6E-05	NA	3.9E-05	6.5E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	4.0E-06	NA	5.8E-06	9.8E-06					
			Benzo(b)fluoranthene (0-2)*	2.8E-06	NA	4.1E-06	6.9E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-3)*	4.2E-07	NA	6.1E-07	1.0E-06					
			Benzo(k)fluoranthene (0-2)*	1.6E-07	NA	2.3E-07	3.9E-07		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene (2-3)*	2.4E-08	NA	3.5E-08	5.9E-08					
			Bis(2-ethylhexyl) phthalate	2.4E-09	NA	2.7E-09	5.0E-09	Increased Liver Weight	2.0E-04	NA	2.2E-04	4.2E-04
			Chrysene (0-2)*	6.3E-08	NA	9.1E-08	1.5E-07		NA	NA	NA	0.0E+00
			Chrysene (2-3)*	9.4E-09	NA	1.4E-08	2.3E-08					
			Dibenz(a,h)anthracene (0-2)*	1.5E-06	NA	2.2E-06	3.8E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (0-2)*	2.3E-07	NA	3.3E-07	5.6E-07					
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	1.5E-03	NA	2.1E-03	3.6E-03
			Indeno(1,2,3-c,d)pyrene (0-2)*	1.2E-06	NA	1.8E-06	3.0E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-3)*	1.8E-07	NA	2.6E-07	4.5E-07					
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	2.0E-05	NA	2.9E-05	5.0E-05
			Pyrene	NA	NA	NA	0.0E+00	Kidney	2.1E-03	NA	3.0E-03	5.1E-03
			Dioxin-Like PCB TEQ	3.2E-08	NA	5.0E-08	8.2E-08		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	2.7E-08	NA	4.2E-08	6.8E-08		NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.2E-02	NA	5.0E-02	8.2E-02
			Aluminum	NA	NA	NA	0.0E+00	Neurological	1.9E-03	NA	2.1E-04	2.1E-03
			Arsenic	1.4E-07	NA	4.6E-08	1.8E-07	Skin, Vascular	7.1E-03	NA	2.4E-03	9.5E-03
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	1.1E-03	NA	5.1E-04	1.7E-03
			Chromium (0-2)*	1.6E-06	NA	7.1E-06	8.7E-06	Not identified	3.7E-03	NA	1.7E-02	2.0E-02
			Chromium (2-3)*	2.4E-07	NA	1.1E-06	1.3E-06					
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	5.1E-03	NA	5.7E-04	5.7E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	1.0E-03	NA	1.2E-04	1.2E-03
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	6.8E-03	NA	7.6E-04	7.5E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA	0.0E+00	CNS	2.7E-04	NA	4.3E-03	4.6E-03
			Vanadium	NA	NA	NA	0.0E+00	Hair	1.2E-03	NA	1.3E-04	1.3E-03
Chemical Total				4.3E-05	NA	6.8E-05	1.1E-04		6.5E-02	NA	8.2E-02	1.5E-01
Exposed Surface Sediment Total							1.1E-04					1.5E-01

TABLE 9.3.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Dry event)	Benzene	4.1E-10	NA	2.3E-09	2.7E-09	Blood, Immune	4.3E-05	NA	2.4E-04	2.9E-04
			Benzo(a)anthracene (0-2)*	4.3E-09	NA	1.8E-06	1.8E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-3)*	6.4E-10	NA	2.8E-07	2.8E-07					
			Benzo(a)pyrene (0-2)*	1.1E-07	NA	7.8E-05	7.8E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	1.6E-08	NA	1.2E-05	1.2E-05					
			Benzo(b)fluoranthene (0-2)*	4.8E-09	NA	3.6E-06	3.6E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-3)*	7.2E-10	NA	5.4E-07	5.4E-07					
			Bis(2-ethylhexyl) phthalate	1.1E-10	NA	5.9E-09	6.0E-09	Increased Liver Weight	9.5E-06	NA	4.9E-04	5.0E-04
			Indeno(1,2,3-c,d)pyrene (0-2)*	2.1E-09	NA	1.6E-06	1.6E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-3)*	3.2E-10	NA	2.4E-07	2.4E-07					
			Arsenic	9.9E-08	NA	2.6E-08	1.2E-07	Skin, Vascular	5.1E-03	NA	1.4E-03	6.5E-03
			Chromium (0-2)*	2.1E-07	NA	4.4E-06	4.6E-06	Not identified	4.9E-04	NA	1.0E-02	1.1E-02
			Chromium (2-3)*	3.1E-08	NA	6.6E-07	6.9E-07					
			Copper	0.0E+00	NA	NA	0.0E+00	Gastrointestinal	3.3E-04	NA	8.8E-05	4.2E-04
			Selenium	0.0E+00	NA	NA	0.0E+00	Whole Body	6.3E-04	NA	1.7E-04	8.0E-04
Chemical Total				4.7E-07	NA	1.0E-04	1.0E-04		6.6E-03	NA	1.3E-02	1.9E-02
Surface Water Total - Dry Event							1.0E-04					1.9E-02

TABLE 9.3.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	1,4-dichlorobenzene	1.1E-11	NA	2.4E-10	2.5E-10	Liver	6.5E-07	NA	1.5E-05	1.5E-05
			Benzene	1.5E-10	NA	8.5E-10	1.0E-09	Blood, Immune	1.6E-05	NA	9.1E-05	1.1E-04
			Chloroform	5.7E-11	NA	1.8E-10	2.4E-10	Liver, Body Weight	4.3E-06	NA	1.4E-05	1.8E-05
			Ethylbenzene	3.2E-11	NA	6.6E-10	6.9E-10	Liver, Kidney	6.7E-07	NA	1.4E-05	1.5E-05
			Tetrachloroethylene(PCE)	4.4E-08	NA	8.8E-07	9.2E-07	Liver	1.9E-04	NA	3.8E-03	4.0E-03
			Benzo(a)anthracene (0-2)*	1.7E-09	NA	7.2E-07	7.2E-07		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-3)*	2.5E-10	NA	3.6E-07	3.6E-07					
			Benzo(a)pyrene (0-2)*	3.3E-08	NA	2.4E-05	2.4E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	4.9E-09	NA	3.4E-06	3.4E-06					
			Benzo(b)fluoranthene (0-2)*	3.0E-09	NA	2.3E-06	2.3E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-3)*	4.6E-10	NA	2.8E-07	2.8E-07					
			Dibenz(a,h)anthracene (0-2)*	1.6E-08	NA	1.8E-05	1.8E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (0-2)*	2.4E-09	NA	9.0E-06	9.0E-06					
			Indeno(1,2,3-c,d)pyrene (0-2)*	8.0E-09	NA	6.0E-06	6.0E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-3)*	1.2E-09	NA	2.0E-08	2.1E-08					
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	1.4E-06	NA	3.2E-05	3.3E-05
			Arsenic	8.2E-08	NA	2.2E-08	1.0E-07	Skin, Vascular	4.3E-03	NA	1.1E-03	5.4E-03
			Chromium (0-2)*	9.4E-08	NA	2.0E-06	2.1E-06	Not identified	2.2E-04	NA	4.6E-03	4.9E-03
			Chromium (2-3)*	1.4E-08	NA	2.7E-08	4.1E-08					
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	1.0E-03	NA	1.1E-04	1.1E-03
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA	0.0E+00	Whole Body	5.2E-04	NA	1.4E-04	6.6E-04
Chemical Total				3.1E-07	NA	6.8E-05	6.8E-05		6.2E-03	NA	1.0E-02	1.6E-02
Surface Water Total - Wet Event							6.8E-05					1.6E-02
Receptor Total							2.1E-04				Receptor HI Total	1.7E-01

TABLE 9.3.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes sum of exposed and near shore sediment, and maximum of dry event and wet event surface water.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-3 year old for exposure duration of 1 year, for a total CTE exposure duration of 3 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

Total Blood HI Across All Media =	3.9E-03
Total Body Weight HI Across All Media =	1.0E-04
Total Finger and Toe Nails HI Across All Media =	8.2E-02
Total Gastrointestinal HI Across All Media =	9.1E-03
Total Hair HI Across All Media =	1.3E-03
Total Kidney HI Across All Media =	1.0E-02
Total Immune HI Across All Media =	2.9E-04
Total Liver HI Across All Media =	1.0E-02
Total Nervous System HI Across All Media =	6.7E-03
Total Ocular HI Across All Media =	8.2E-02
Total Skin HI Across All Media =	1.6E-02
Total Thyroid HI Across All Media =	6.8E-03
Total Vascular HI Across All Media =	1.6E-02
Total Whole Body HI Across All Media =	1.5E-03

TABLE 9.4.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	NA	NA		Blood	NA	2.7E-02	NA	2.7E-02
			Chloroform	NA	NA	NA		Liver	NA	1.6E-03	NA	1.6E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	7.0E-04	NA	7.0E-04
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	2.8E-01	NA	2.8E-01
Chemical Total				NA	NA	NA			NA	3.1E-01	NA	3.1E-01
Ambient air at street level Total - Pre-aeration system operation												3.1E-01
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	NA	NA		Blood	NA	2.4E-02	NA	2.4E-02
			Chloroform	NA	NA	NA		Liver	NA	2.2E-03	NA	2.2E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	7.9E-04	NA	7.9E-04
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	6.5E-01	NA	6.5E-01
Chemical Total				NA	NA	NA			NA	6.7E-01	NA	6.7E-01
Ambient air at street level Total - After aeration system turned on												6.7E-01

TABLE 9.4.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal	2-methylnaphthalene	NA	NA	NA		Lung	7.9E-04	NA	2.3E-03	3.1E-03
			Acenaphthene	NA	NA	NA		Liver	4.5E-05	NA	1.3E-04	1.8E-04
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	NA	NA	NA		Increased Liver Weight	6.4E-06	NA	1.5E-05	2.1E-05
			Chrysene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA		Kidney, Liver, Blood	4.0E-05	NA	1.2E-04	1.6E-04
			Fluorene	NA	NA	NA		Blood	5.1E-05	NA	1.5E-04	2.0E-04
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	2.9E-04	NA	8.5E-04	1.1E-03
			Pyrene	NA	NA	NA		Kidney	1.1E-04	NA	3.4E-04	4.5E-04
			Dioxin-Like PCB TEQ	NA	NA	NA			NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	NA	NA	NA			NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA		Ocular, Finger and Toe Nails	2.9E-03	NA	9.3E-03	1.2E-02
			Aluminum	NA	NA	NA		Neurological	1.3E-04	NA	2.9E-05	1.6E-04
			Arsenic	NA	NA	NA		Skin, Vascular	4.3E-04	NA	3.0E-04	7.3E-04
			Cadmium	NA	NA	NA		Proteinuria (Kidney)	8.8E-05	NA	8.0E-05	1.7E-04
			Chromium	NA	NA	NA		Not identified	2.5E-04	NA	2.3E-03	2.5E-03
			Cobalt	NA	NA	NA		Thyroid	3.2E-04	NA	7.4E-05	4.0E-04
			Copper	NA	NA	NA		Gastrointestinal	6.0E-05	NA	1.4E-05	7.4E-05
			Iron	NA	NA	NA		Gastrointestinal	4.2E-04	NA	9.6E-05	5.2E-04
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA		CNS	1.9E-05	NA	8.8E-07	2.0E-05
			Vanadium	NA	NA	NA		Hair	8.1E-05	NA	1.8E-05	9.9E-05
Chemical Total				NA	NA	NA			6.1E-03	NA	1.6E-02	2.2E-02
Overflow Surface Sediment Total												2.2E-02

TABLE 9.4.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			1,4-dichlorobenzene	NA	NA	NA		Liver	4.8E-08	NA	9.4E-07	9.9E-07
			Benzene	NA	NA	NA		Blood, Immune	1.2E-06	NA	5.8E-06	7.0E-06
			Chloroform	NA	NA	NA		Liver, Body Weight	3.2E-07	NA	8.7E-07	1.2E-06
			Ethylbenzene	NA	NA	NA		Liver, Kidney	5.0E-08	NA	8.9E-07	9.4E-07
			Tetrachloroethylene(PCE)	NA	NA	NA		Liver	1.4E-05	NA	2.4E-04	2.6E-04
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	1.0E-07	NA	2.0E-06	2.1E-06
			Arsenic	NA	NA	NA		Skin, Vascular	3.2E-04	NA	7.2E-05	3.9E-04
			Chromium	NA	NA	NA		Not identified	1.6E-05	NA	3.0E-04	3.1E-04
			Cobalt	NA	NA	NA		Thyroid	7.4E-05	NA	6.8E-06	8.1E-05
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA		Whole Body	3.8E-05	NA	8.8E-06	4.7E-05
Chemical Total				NA	NA	NA			4.6E-04	NA	6.4E-04	1.1E-03
Overflow Surface Water Total												1.1E-03
Receptor Total											Receptor HI Total	7.0E-01

TABLE 9.4.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

Total Blood HI Across All Media =	2.7E-02
Total Body Weight HI Across All Media =	1.1E-03
Total Developmental HI Across All Media =	1.5E-03
Total Finger and Toe Nails HI Across All Media =	1.2E-02
Total Gastrointestinal HI Across All Media =	5.9E-04
Total Hair HI Across All Media =	9.9E-05
Total Kidney HI Across All Media =	7.8E-04
Total Immune HI Across All Media =	7.0E-06
Total Liver HI Across All Media =	2.8E-03
Total Lung HI Across All Media =	3.1E-03
Total Nasal HI Across All Media =	6.5E-01
Total Nervous System HI Across All Media =	1.8E-04
Total Ocular HI Across All Media =	1.2E-02
Total Respiratory HI Across All Media =	6.5E-01
Total Skin HI Across All Media =	1.1E-03
Total Thyroid HI Across All Media =	4.8E-04
Total Vascular HI Across All Media =	1.1E-03
Total Whole Body HI Across All Media =	4.7E-05

TABLE 9.5.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	NA	NA		Blood	NA	2.7E-02	NA	2.7E-02
			Chloroform	NA	NA	NA		Liver	NA	1.6E-03	NA	1.6E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	7.0E-04	NA	7.0E-04
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	2.8E-01	NA	2.8E-01
Chemical Total				NA	NA	NA			NA	3.1E-01	NA	3.1E-01
Ambient air at street level Total - Pre-aeration system operation												3.1E-01
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	NA	NA		Blood	NA	2.4E-02	NA	2.4E-02
			Chloroform	NA	NA	NA		Liver	NA	2.2E-03	NA	2.2E-03
			Ethylbenzene	NA	NA	NA		Developmental	NA	7.9E-04	NA	7.9E-04
			Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	6.5E-01	NA	6.5E-01
Chemical Total				NA	NA	NA			NA	6.7E-01	NA	6.7E-01
Ambient air at street level Total - After aeration system turned on												6.7E-01

TABLE 9.5.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal										
			2-methylnaphthalene	NA	NA	NA		Lung	7.4E-03	NA	5.4E-03	1.3E-02
			Acenaphthene	NA	NA	NA		Liver	4.2E-04	NA	3.1E-04	7.3E-04
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Bis(2-ethylhexyl) phthalate	NA	NA	NA		Increased Liver Weight	6.0E-05	NA	3.3E-05	9.3E-05
			Chrysene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Fluoranthene	NA	NA	NA		Kidney, Liver, Blood	3.7E-04	NA	2.7E-04	6.4E-04
			Fluorene	NA	NA	NA		Blood	4.7E-04	NA	3.5E-04	8.2E-04
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	2.7E-03	NA	2.0E-03	4.7E-03
			Pyrene	NA	NA	NA		Kidney	1.1E-03	NA	7.7E-04	1.8E-03
			Dioxin-Like PCB TEQ	NA	NA	NA			NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	NA	NA	NA			NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA		Ocular, Finger and Toe Nails	2.7E-02	NA	2.1E-02	4.9E-02
			Aluminum	NA	NA	NA		Neurological	1.2E-03	NA	6.7E-05	1.3E-03
			Arsenic	NA	NA	NA		Skin, Vascular	4.0E-03	NA	6.8E-04	4.7E-03
			Cadmium	NA	NA	NA		Proteinuria (Kidney)	8.2E-04	NA	1.8E-04	1.0E-03
			Chromium	NA	NA	NA		Not identified	2.3E-03	NA	5.2E-03	7.5E-03
			Cobalt	NA	NA	NA		Thyroid	3.0E-03	NA	1.7E-04	3.2E-03
			Copper	NA	NA	NA		Gastrointestinal	5.6E-04	NA	3.2E-05	5.9E-04
			Iron	NA	NA	NA		Gastrointestinal	3.9E-03	NA	2.2E-04	4.2E-03
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Manganese	NA	NA	NA		CNS	1.8E-04	NA	2.0E-06	1.8E-04
			Vanadium	NA	NA	NA		Hair	7.5E-04	NA	4.2E-05	8.0E-04
Chemical Total				NA	NA	NA			5.7E-02	NA	3.7E-02	9.3E-02
Overflow Surface Sediment Total												9.3E-02

TABLE 9.5.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			1,4-dichlorobenzene	NA	NA	NA		Liver	2.3E-07	NA	2.2E-06	2.4E-06
			Benzene	NA	NA	NA		Blood, Immune	5.6E-06	NA	1.3E-05	1.9E-05
			Chloroform	NA	NA	NA		Liver, Body Weight	1.5E-06	NA	2.0E-06	3.5E-06
			Ethylbenzene	NA	NA	NA		Liver, Kidney	2.3E-07	NA	2.0E-06	2.3E-06
			Tetrachloroethylene(PCE)	NA	NA	NA		Liver	6.5E-05	NA	5.6E-04	6.2E-04
			Benzo(a)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(a)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	NA	NA	NA			NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	NA	NA	NA			NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	NA	NA	NA			NA	NA	NA	0.0E+00
			Naphthalene	NA	NA	NA		Decreased Body Weight	4.9E-07	NA	4.6E-06	5.1E-06
			Arsenic	NA	NA	NA		Skin, Vascular	1.5E-03	NA	1.7E-04	1.6E-03
			Chromium	NA	NA	NA		Not identified	7.6E-05	NA	6.8E-04	7.6E-04
			Cobalt	NA	NA	NA		Thyroid	3.5E-04	NA	1.6E-05	3.6E-04
			Lead	NA	NA	NA			NA	NA	NA	0.0E+00
			Selenium	NA	NA	NA		Whole Body	1.8E-04	NA	2.0E-05	2.0E-04
Chemical Total				NA	NA	NA			2.2E-03	NA	1.5E-03	3.6E-03
Overflow Surface Water Total												3.6E-03
Receptor Total											Receptor HI Total	7.7E-01

TABLE 9.5.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

Total Blood HI Across All Media =	2.8E-02
Total Body Weight HI Across All Media =	4.7E-03
Total Developmental HI Across All Media =	1.5E-03
Total Finger and Toe Nails HI Across All Media =	4.9E-02
Total Gastrointestinal HI Across All Media =	4.8E-03
Total Hair HI Across All Media =	8.0E-04
Total Kidney HI Across All Media =	3.5E-03
Total Immune HI Across All Media =	1.9E-05
Total Liver HI Across All Media =	4.3E-03
Total Lung HI Across All Media =	1.3E-02
Total Nasal HI Across All Media =	6.5E-01
Total Nervous System HI Across All Media =	1.4E-03
Total Ocular HI Across All Media =	4.9E-02
Total Respiratory HI Across All Media =	6.5E-01
Total Skin HI Across All Media =	6.3E-03
Total Thyroid HI Across All Media =	3.5E-03
Total Vascular HI Across All Media =	6.3E-03
Total Whole Body HI Across All Media =	2.0E-04

TABLE 9.6.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	8.1E-07	NA	8.1E-07	Blood	NA	NA	NA	
			Chloroform	NA	4.6E-07	NA	4.6E-07	Liver	NA	NA	NA	
			Ethylbenzene	NA	2.2E-07	NA	2.2E-07	Developmental	NA	NA	NA	
			Naphthalene	NA	3.6E-06	NA	3.6E-06	Nasal, Respiratory	NA	NA	NA	
Chemical Total				NA	5.1E-06	NA	5.1E-06		NA	NA	NA	
Ambient air at street level Total - Pre-aeration system operation							5.1E-06					
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	7.1E-07	NA	7.1E-07	Blood	NA	NA	NA	
			Chloroform	NA	6.3E-07	NA	6.3E-07	Liver	NA	NA	NA	
			Ethylbenzene	NA	2.6E-07	NA	2.6E-07	Developmental	NA	NA	NA	
			Naphthalene	NA	8.5E-06	NA	8.5E-06	Nasal, Respiratory	NA	NA	NA	
Chemical Total				NA	1.0E-05	NA	1.0E-05		NA	NA	NA	
Ambient air at street level Total - After aeration system turned on							1.0E-05					

TABLE 9.6.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal										
			2-methylnaphthalene	NA	NA	NA	0.0E+00	Lung	NA	NA	NA	
			Acenaphthene	NA	NA	NA	0.0E+00	Liver	NA	NA	NA	
			Benzo(a)anthracene	3.5E-06	NA	2.7E-06	6.2E-06		NA	NA	NA	
			Benzo(a)pyrene	2.0E-05	NA	1.5E-05	3.5E-05		NA	NA	NA	
			Benzo(b)fluoranthene	2.2E-06	NA	1.6E-06	3.8E-06		NA	NA	NA	
			Benzo(k)fluoranthene	1.1E-07	NA	8.5E-08	2.0E-07		NA	NA	NA	
			Bis(2-ethylhexyl) phthalate	1.5E-09	NA	1.3E-09	2.8E-09	Increased Liver Weight	NA	NA	NA	
			Chrysene	3.5E-08	NA	2.6E-08	6.2E-08		NA	NA	NA	
			Dibenz(a,h)anthracene	1.5E-06	NA	1.1E-06	2.6E-06		NA	NA	NA	
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	NA	NA	NA	
			Fluorene	NA	NA	NA	0.0E+00	Blood	NA	NA	NA	
			Indeno(1,2,3-c,d)pyrene	8.7E-07	NA	6.5E-07	1.5E-06		NA	NA	NA	
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	NA	NA	NA	
			Pyrene	NA	NA	NA	0.0E+00	Kidney	NA	NA	NA	
			Dioxin-Like PCB TEQ	5.2E-08	NA	6.5E-08	1.2E-07		NA	NA	NA	
			Nondioxin-Like PCB	4.8E-08	NA	5.9E-08	1.1E-07		NA	NA	NA	
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	NA	NA	NA	
			Aluminum	NA	NA	NA	0.0E+00	Neurological	NA	NA	NA	
			Arsenic	1.6E-07	NA	4.3E-08	2.1E-07	Skin, Vascular	NA	NA	NA	
			Cadmium	NA	NA	NA	0.0E+00	Proteinuria (Kidney)	NA	NA	NA	
			Chromium	1.6E-08	NA	3.7E-07	3.9E-07	Not identified	NA	NA	NA	
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	NA	NA	NA	
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	NA	NA	NA	
			Iron	NA	NA	NA	0.0E+00	Gastrointestinal	NA	NA	NA	
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	
			Manganese	NA	NA	NA	0.0E+00	CNS	NA	NA	NA	
			Vanadium	NA	NA	NA	0.0E+00	Hair	NA	NA	NA	
Chemical Total				2.9E-05	NA	2.2E-05	5.1E-05		NA	NA	NA	
Overflow Surface Sediment Total							5.1E-05					

TABLE 9.6.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			1,4-dichlorobenzene	9.5E-12	NA	1.2E-10	1.3E-10	Liver	NA	NA	NA	
			Benzene	1.4E-10	NA	4.2E-10	5.5E-10	Blood, Immune	NA	NA	NA	
			Chloroform	5.2E-11	NA	8.8E-11	1.4E-10	Liver, Body Weight	NA	NA	NA	
			Ethylbenzene	2.8E-11	NA	3.2E-10	3.5E-10	Liver, Kidney	NA	NA	NA	
			Tetrachloroethylene(PCE)	3.9E-08	NA	4.3E-07	4.7E-07	Liver	NA	NA	NA	
			Benzo(a)anthracene	9.5E-10	NA	1.8E-07	1.8E-07		NA	NA	NA	
			Benzo(a)pyrene	2.2E-08	NA	5.9E-06	6.0E-06		NA	NA	NA	
			Benzo(b)fluoranthene	2.1E-09	NA	5.5E-07	5.6E-07		NA	NA	NA	
			Dibenz(a,h)anthracene	1.1E-08	NA	4.5E-06	4.5E-06		NA	NA	NA	
			Indeno(1,2,3-c,d)pyrene	5.4E-09	NA	1.5E-06	1.5E-06		NA	NA	NA	
			Naphthalene	NA	NA	NA	0.0E+00	Decreased Body Weight	NA	NA	NA	
			Arsenic	7.4E-08	NA	1.1E-08	8.5E-08	Skin, Vascular	NA	NA	NA	
			Chromium	6.4E-08	NA	8.8E-07	9.5E-07	Not identified	NA	NA	NA	
			Cobalt	NA	NA	NA	0.0E+00	Thyroid	NA	NA	NA	
			Lead	NA	NA	NA	0.0E+00		NA	NA	NA	
			Selenium	NA	NA	NA	0.0E+00	Whole Body	NA	NA	NA	
Chemical Total				2.2E-07	NA	1.4E-05	1.4E-05		NA	NA	NA	
Overflow Surface Water Total							1.4E-05					
Receptor Total							7.5E-05				Receptor HI Total	

Receptor Total includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

TABLE 9.7.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			p,p'-DDE	3.3E-09	NA	NA	3.3E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	2.6E-09	NA	NA	2.6E-09	Liver	3.6E-04	NA	NA	3.6E-04
			Dioxin-Like PCB TEQ	5.4E-07	NA	NA	5.4E-07	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	3.3E-07	NA	NA	3.3E-07	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	4.1E-01	NA	NA	4.1E-01
			Arsenic	8.2E-08	NA	NA	8.2E-08	Skin, Vascular	4.3E-03	NA	NA	4.3E-03
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.8E-02	NA	NA	3.8E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	4.5E-03	NA	NA	4.5E-03
Chemical Total				9.6E-07	NA	NA	9.6E-07		4.6E-01	NA	NA	4.6E-01
Striped Bass in Gowanus Canal Total							9.6E-07					4.6E-01
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	8.0E-08	NA	NA	8.0E-08	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	3.9E-08	NA	NA	3.9E-08	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	4.8E-02	NA	NA	4.8E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.9E-03	NA	NA	3.9E-03
			Selenium	NA	NA	NA	0.0E+00	Whole Body	5.8E-04	NA	NA	5.8E-04
Chemical Total				1.2E-07	NA	NA	1.2E-07		5.2E-02	NA	NA	5.2E-02
White Perch in Gowanus Canal Total							1.2E-07					5.2E-02

TABLE 9.7.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			alpha-Chlordane	5.5E-09	NA	NA	5.5E-09	Liver	7.3E-04	NA	NA	7.3E-04
			Dieldrin	1.9E-07	NA	NA	1.9E-07	Liver	5.6E-03	NA	NA	5.6E-03
			gamma-Chlordane	3.2E-09	NA	NA	3.2E-09	Liver	4.3E-04	NA	NA	4.3E-04
			p,p'-DDD	6.5E-09	NA	NA	6.5E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDE	6.0E-09	NA	NA	6.0E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	1.1E-08	NA	NA	1.1E-08	Liver	1.6E-03	NA	NA	1.6E-03
			Dioxin-Like PCB TEQ	1.6E-06	NA	NA	1.6E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	8.7E-07	NA	NA	8.7E-07	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.1E+00	NA	NA	1.1E+00
			Arsenic	5.3E-08	NA	NA	5.3E-08	Skin, Vascular	2.8E-03	NA	NA	2.8E-03
			Chromium	2.4E-07	NA	NA	2.4E-07	Not identified	3.7E-03	NA	NA	3.7E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	3.1E-03	NA	NA	3.1E-03
			Cyanide, total	NA	NA	NA	0.0E+00	Weight Loss, Thyroid	2.6E-03	NA	NA	2.6E-03
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	4.3E-02	NA	NA	4.3E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	4.6E-03	NA	NA	4.6E-03
Chemical Total				2.9E-06	NA	NA	2.9E-06		1.2E+00	NA	NA	1.2E+00
Eel in Gowanus Canal Total							2.9E-06					1.2E+00

TABLE 9.7.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)anthracene	5.5E-08	NA	NA	5.5E-08	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene	8.4E-07	NA	NA	8.4E-07	NA	NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	4.6E-08	NA	NA	4.6E-08	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	2.8E-07	NA	NA	2.8E-07	NA	NA	NA	NA	0.0E+00
			Indeno(1,2,3-cd)pyrene	7.1E-08	NA	NA	7.1E-08	NA	NA	NA	NA	0.0E+00
			Dioxin-Like PCB TEQ	7.7E-06	NA	NA	7.7E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.4E-06	NA	NA	1.4E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.9E+00	NA	NA	1.9E+00
			Arsenic	1.9E-06	NA	NA	1.9E-06	Skin, Vascular	1.0E-01	NA	NA	1.0E-01
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	5.8E-02	NA	NA	5.8E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	2.8E-01	NA	NA	2.8E-01
Chemical Total				1.2E-05	NA	NA	1.2E-05		2.3E+00	NA	NA	2.3E+00
Crab in Gowanus Canal Total							1.2E-05					2.3E+00
Receptor Total - Fish							4.0E-06				Receptor HI Total - Fiish	1.7E+00
Receptor Total - Blue Crab							1.2E-05				Receptor HI Total - Blue Crab	2.3E+00

HI - Hazard Index

Target organ totals for Fish

Total Body Weight HI Across All Media =	2.6E-03
Total Developmental HI Across All Media =	8.5E-02
Total Finger and Toe Nails HI Across All Media =	1.6E+00
Total Gastrointestinal HI Across All Media =	3.1E-03
Total Liver HI Across All Media =	8.7E-03
Total Neurological HI Across All Media =	8.5E-02
Total Ocular HI Across All Media =	1.6E+00
Total Skin HI Across All Media =	7.0E-03
Total Thyroid HI Across All Media =	2.6E-03
Total Vascular HI Across All Media =	7.0E-03
Total Whole Body HI Across All Media =	9.7E-03

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	2.8E-01
Total Finger and Toe Nails HI Across All Media =	1.9E+00
Total Gastrointestinal HI Across All Media =	5.8E-02
Total Neurological HI Across All Media =	2.8E-01
Total Ocular HI Across All Media =	1.9E+00
Total Skin HI Across All Media =	1.0E-01
Total Vascular HI Across All Media =	1.0E-01

TABLE 9.8.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			p,p'-DDE	2.7E-09	NA	NA	2.7E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	2.1E-09	NA	NA	2.1E-09	Liver	2.9E-04	NA	NA	2.9E-04
			Dioxin-Like PCB TEQ	4.4E-07	NA	NA	4.4E-07	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.7E-07	NA	NA	2.7E-07	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.3E-01	NA	NA	3.3E-01
			Arsenic	6.7E-08	NA	NA	6.7E-08	Skin, Vascular	3.5E-03	NA	NA	3.5E-03
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.1E-02	NA	NA	3.1E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	3.7E-03	NA	NA	3.7E-03
Chemical Total				7.8E-07	NA	NA	7.8E-07		3.7E-01	NA	NA	3.7E-01
Striped Bass in Gowanus Canal Total							7.8E-07					3.7E-01
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	6.2E-08	NA	NA	6.2E-08	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	3.0E-08	NA	NA	3.0E-08	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.7E-02	NA	NA	3.7E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.0E-03	NA	NA	3.0E-03
			Selenium	NA	NA	NA	0.0E+00	Whole Body	4.5E-04	NA	NA	4.5E-04
Chemical Total				9.2E-08	NA	NA	9.2E-08		4.1E-02	NA	NA	4.1E-02
White Perch in Gowanus Canal Total							9.2E-08					4.1E-02

TABLE 9.8.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			alpha-Chlordane	4.3E-09	NA	NA	4.3E-09	Liver	5.7E-04	NA	NA	5.7E-04
			Dieldrin	1.5E-07	NA	NA	1.5E-07	Liver	4.4E-03	NA	NA	4.4E-03
			gamma-Chlordane	2.5E-09	NA	NA	2.5E-09	Liver	3.4E-04	NA	NA	3.4E-04
			p,p'-DDD	5.1E-09	NA	NA	5.1E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDE	4.7E-09	NA	NA	4.7E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	8.9E-09	NA	NA	8.9E-09	Liver	1.2E-03	NA	NA	1.2E-03
			Dioxin-Like PCB TEQ	1.2E-06	NA	NA	1.2E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	6.8E-07	NA	NA	6.8E-07	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	8.7E-01	NA	NA	8.7E-01
			Arsenic	4.2E-08	NA	NA	4.2E-08	Skin, Vascular	2.2E-03	NA	NA	2.2E-03
			Chromium (12-15)*	5.6E-07	NA	NA	5.6E-07	Not identified	2.9E-03	NA	NA	2.9E-03
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	2.4E-03	NA	NA	2.4E-03
			Cyanide, total	NA	NA	NA	0.0E+00	Weight Loss, Thyroid	2.0E-03	NA	NA	2.0E-03
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.4E-02	NA	NA	3.4E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	3.6E-03	NA	NA	3.6E-03
Chemical Total				2.7E-06	NA	NA	2.7E-06		9.3E-01	NA	NA	9.3E-01
Eel in Gowanus Canal Total							2.7E-06					9.3E-01

TABLE 9.8.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)anthracene (12-15)*	1.3E-07	NA	NA	1.3E-07	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene (12-15)*	2.0E-06	NA	NA	2.0E-06	NA	NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (12-15)*	1.1E-07	NA	NA	1.1E-07	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (12-15)*	6.7E-07	NA	NA	6.7E-07	NA	NA	NA	NA	0.0E+00
			Indeno(1,2,3-cd)pyrene (12-15)*	1.7E-07	NA	NA	1.7E-07	NA	NA	NA	NA	0.0E+00
			Dioxin-Like PCB TEQ	6.1E-06	NA	NA	6.1E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.1E-06	NA	NA	1.1E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.0E-01	NA	NA	3.0E-01
			Arsenic	1.5E-06	NA	NA	1.5E-06	Skin, Vascular	7.9E-02	NA	NA	7.9E-02
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	4.6E-02	NA	NA	4.6E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	2.2E-01	NA	NA	2.2E-01
Chemical Total				1.2E-05	NA	NA	1.2E-05		6.5E-01	NA	NA	6.5E-01
Crab in Gowanus Canal Total							1.2E-05					6.5E-01
Receptor Total - Fish							3.5E-06				Receptor HI Total - Fiish	1.3E+00
Receptor Total - Blue Crab							1.2E-05				Receptor HI Total - Blue Crab	6.5E-01

HI - Hazard Index

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-15 year old for exposure duration of 3 years, the CTE exposure duration for an adolescent.

Target organ totals for Fish

Total Body Weight HI Across All Media =	2.0E-03
Total Developmental HI Across All Media =	6.7E-02
Total Finger and Toe Nails HI Across All Media =	1.2E+00
Total Gastrointestinal HI Across All Media =	2.4E-03
Total Liver HI Across All Media =	6.8E-03
Total Neurological HI Across All Media =	6.7E-02
Total Ocular HI Across All Media =	1.2E+00
Total Skin HI Across All Media =	5.6E-03
Total Thyroid HI Across All Media =	2.0E-03
Total Vascular HI Across All Media =	5.6E-03
Total Whole Body HI Across All Media =	7.7E-03

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	2.2E-01
Total Finger and Toe Nails HI Across All Media =	3.0E-01
Total Gastrointestinal HI Across All Media =	4.6E-02
Total Neurological HI Across All Media =	2.2E-01
Total Ocular HI Across All Media =	3.0E-01
Total Skin HI Across All Media =	7.9E-02
Total Vascular HI Across All Media =	7.9E-02

TABLE 9.9.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			p,p'-DDE	5.2E-09	NA	NA	5.2E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	4.1E-09	NA	NA	4.1E-09	Liver	5.7E-04	NA	NA	5.7E-04
			Dioxin-Like PCB TEQ	8.5E-07	NA	NA	8.5E-07	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	5.2E-07	NA	NA	5.2E-07	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	6.4E-01	NA	NA	6.4E-01
			Arsenic	1.3E-07	NA	NA	1.3E-07	Skin, Vascular	6.7E-03	NA	NA	6.7E-03
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	5.9E-02	NA	NA	5.9E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	7.1E-03	NA	NA	7.1E-03
Chemical Total				1.5E-06	NA	NA	1.5E-06		7.2E-01	NA	NA	7.2E-01
Striped Bass in Gowanus Canal Total							1.5E-06					7.2E-01
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	1.3E-07	NA	NA	1.3E-07	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	6.1E-08	NA	NA	6.1E-08	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	7.5E-02	NA	NA	7.5E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	6.2E-03	NA	NA	6.2E-03
			Selenium	NA	NA	NA	0.0E+00	Whole Body	9.1E-04	NA	NA	9.1E-04
Chemical Total				1.9E-07	NA	NA	1.9E-07		8.2E-02	NA	NA	8.2E-02
White Perch in Gowanus Canal Total							1.9E-07					8.2E-02

TABLE 9.9.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			alpha-Chlordane	8.6E-09	NA	NA	8.6E-09	Liver	1.1E-03	NA	NA	1.1E-03
			Dieldrin	3.0E-07	NA	NA	3.0E-07	Liver	8.9E-03	NA	NA	8.9E-03
			gamma-Chlordane	5.1E-09	NA	NA	5.1E-09	Liver	6.8E-04	NA	NA	6.8E-04
			p,p'-DDD	1.0E-08	NA	NA	1.0E-08	NA	NA	NA	NA	0.0E+00
			p,p'-DDE	9.5E-09	NA	NA	9.5E-09	NA	NA	NA	NA	0.0E+00
			p,p'-DDT	1.8E-08	NA	NA	1.8E-08	Liver	2.5E-03	NA	NA	2.5E-03
			Dioxin-Like PCB TEQ	2.5E-06	NA	NA	2.5E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.4E-06	NA	NA	1.4E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.8E+00	NA	NA	1.8E+00
			Arsenic	8.4E-08	NA	NA	8.4E-08	Skin, Vascular	4.4E-03	NA	NA	4.4E-03
			Chromium (0-2)*	2.5E-06	NA	NA	2.5E-06	Not identified	5.8E-03	NA	NA	5.8E-03
			Chromium (2-3)*	3.8E-07	NA	NA	3.8E-07					
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	4.8E-03	NA	NA	4.8E-03
			Cyanide, total	NA	NA	NA	0.0E+00	Weight Loss, Thyroid	4.1E-03	NA	NA	4.1E-03
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	6.8E-02	NA	NA	6.8E-02
			Selenium	NA	NA	NA	0.0E+00	Whole Body	7.3E-03	NA	NA	7.3E-03
Chemical Total				7.1E-06	NA	NA	7.1E-06		1.9E+00	NA	NA	1.9E+00
Eel in Gowanus Canal Total							7.1E-06					1.9E+00

TABLE 9.9.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)anthracene (0-2)*	5.7E-07	NA	NA	5.7E-07	NA	NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-3)*	8.5E-08	NA	NA	8.5E-08					
			Benzo(a)pyrene (0-2)*	8.7E-06	NA	NA	8.7E-06	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	1.3E-06	NA	NA	1.3E-06					
			Benzo(b)fluoranthene (0-2)*	4.7E-07	NA	NA	4.7E-07	NA	NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-3)*	7.1E-08	NA	NA	7.1E-08					
			Dibenz(a,h)anthracene (0-2)*	2.9E-06	NA	NA	2.9E-06	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-3)*	4.4E-07	NA	NA	4.4E-07					
			Indeno(1,2,3-cd)pyrene (0-2)*	7.3E-07	NA	NA	7.3E-07	NA	NA	NA	NA	0.0E+00
			Indeno(1,2,3-cd)pyrene (2-3)*	1.1E-07	NA	NA	1.1E-07					
			Dioxin-Like PCB TEQ	1.2E-05	NA	NA	1.2E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.2E-06	NA	NA	2.2E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	2.9E+00	NA	NA	2.9E+00
			Arsenic	3.0E-06	NA	NA	3.0E-06	Skin, Vascular	1.5E-01	NA	NA	1.5E-01
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	9.0E-02	NA	NA	9.0E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	4.4E-01	NA	NA	4.4E-01
Chemical Total				3.2E-05	NA	NA	3.2E-05		3.6E+00	NA	NA	3.6E+00
Crab in Gowanus Canal Total							3.2E-05					3.6E+00
Receptor Total - Fish							8.8E-06				Receptor HI Total - Fiish	2.7E+00
Receptor Total - Blue Crab							3.2E-05				Receptor HI Total - Blue Crab	3.6E+00

TABLE 9.9.CTE

SUMMARY OF RECEPTOR RISKS AND HAZARDS FOR COPCs

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

Target organ totals for Fish

Total Body Weight HI Across All Media =	4.1E-03
Total Developmental HI Across All Media =	1.3E-01
Total Finger and Toe Nails HI Across All Media =	2.5E+00
Total Gastrointestinal HI Across All Media =	4.8E-03
Total Liver HI Across All Media =	1.4E-02
Total Neurological HI Across All Media =	1.3E-01
Total Ocular HI Across All Media =	2.5E+00
Total Skin HI Across All Media =	1.1E-02
Total Thyroid HI Across All Media =	4.1E-03
Total Vascular HI Across All Media =	1.1E-02
Total Whole Body HI Across All Media =	1.5E-02

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	4.4E-01
Total Finger and Toe Nails HI Across All Media =	2.9E+00
Total Gastrointestinal HI Across All Media =	9.0E-02
Total Neurological HI Across All Media =	4.4E-01
Total Ocular HI Across All Media =	2.9E+00
Total Skin HI Across All Media =	1.5E-01
Total Vascular HI Across All Media =	1.5E-01

HI - Hazard Index

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-3 year old for exposure duration of 1 year, for a total CTE exposure duration of 3 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

TABLE 10.1.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Benzo(a)anthracene	1.6E-06	NA	8.7E-06	1.0E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	1.4E-05	NA	7.4E-05	8.7E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	1.4E-06	NA	7.8E-06	9.2E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	7.9E-07	NA	4.3E-06	5.0E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	6.2E-07	NA	3.4E-06	4.0E-06		NA	NA	NA	0.0E+00
			Nondioxin-Like PCB	1.8E-07	NA	1.1E-06	1.2E-06		NA	NA	NA	0.0E+00
			Arsenic	4.7E-07	NA	5.9E-07	1.1E-06	Skin, Vascular	3.1E-03	NA	3.8E-03	6.9E-03
			Chromium	8.2E-07	NA	1.4E-05	1.4E-05	Not identified	1.6E-03	NA	2.6E-02	2.8E-02
Chemical Total				2.0E-05	NA	1.1E-04	1.3E-04		4.6E-03	NA	3.0E-02	3.5E-02
Exposed Surface Sediment Total							1.3E-04					3.5E-02
Surface Water	Surface Water	Gowanus Canal (Dry event)										
			Benzo(a)anthracene	8.8E-09	NA	3.6E-06	3.6E-06		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	2.2E-07	NA	1.5E-04	1.6E-04		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	9.9E-09	NA	7.1E-06	7.1E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	4.4E-09	NA	3.1E-06	3.2E-06		NA	NA	NA	0.0E+00
			Arsenic	1.4E-06	NA	4.9E-07	1.8E-06	Skin, Vascular	8.8E-03	NA	3.2E-03	1.2E-02
			Chromium	4.3E-07	NA	1.2E-05	1.3E-05	Not identified	8.3E-04	NA	2.4E-02	2.5E-02
Chemical Total				2.0E-06	NA	1.8E-04	1.8E-04		9.6E-03	NA	2.7E-02	3.7E-02
Surface Water Total - Dry Event							1.8E-04					3.7E-02

TABLE 10.1.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	Tetrachloroethylene(PCE)	6.0E-07	NA	1.2E-05	1.2E-05	Liver	3.2E-04	NA	6.4E-03	6.7E-03
			Benzo(a)anthracene	3.4E-09	NA	1.4E-06	1.4E-06		NA	NA	NA	0.0E+00
			Benzo(a)pyrene	6.8E-08	NA	4.8E-05	4.8E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene	6.3E-09	NA	4.5E-06	4.5E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	3.3E-08	NA	3.7E-05	3.7E-05		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene	1.7E-08	NA	1.2E-05	1.2E-05		NA	NA	NA	0.0E+00
			Arsenic	1.1E-06	NA	4.1E-07	1.5E-06	Skin, Vascular	7.3E-03	NA	2.6E-03	1.0E-02
			Chromium	1.9E-07	NA	5.6E-06	5.8E-06	Not identified	3.8E-04	NA	1.1E-02	1.1E-02
Chemical Total				2.0E-06	NA	1.2E-04	1.2E-04		8.0E-03	NA	2.0E-02	2.8E-02
Surface Water Total - Wet Event							1.2E-04					2.8E-02
Receptor Total							3.2E-04				Receptor HI Total	7.2E-02

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ total includes sum of exposed and near shore sediment and maximum of dry event and wet event surface water.

Total Skin HI Across All Media =	1.9E-02
Total Vascular HI Across All Media =	1.9E-02

TABLE 10.2.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Benzo(a)anthracene (12-16)*	9.9E-07	NA	5.4E-06	6.4E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (16-18)*	1.7E-07	NA	9.0E-07	1.1E-06					
			Benzo(a)pyrene (12-16)*	8.4E-06	NA	4.6E-05	5.4E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	1.4E-06	NA	7.6E-06	9.0E-06					
			Benzo(b)fluoranthene (12-16)*	8.8E-07	NA	4.8E-06	5.7E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (12-16)*	4.8E-07	NA	2.6E-06	3.1E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (16-18)*	8.1E-08	NA	4.4E-07	5.2E-07					
			Indeno(1,2,3-c,d)pyrene (12-16)*	3.8E-07	NA	2.1E-06	2.5E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (16-18)*	6.4E-08	NA	3.5E-07	4.1E-07					
			Chromium (12-16)*	5.0E-07	NA	8.4E-06	8.9E-06	Not identified	1.9E-03	NA	3.3E-02	3.5E-02
			Chromium (16-18)*	8.3E-08	NA	1.4E-06	1.5E-06					
Chemical Total				1.3E-05	NA	8.0E-05	9.3E-05		1.9E-03	NA	3.3E-02	3.5E-02
Exposed Surface Sediment Total							9.3E-05					3.5E-02
Surface Water	Surface Water	Gowanus Canal (Dry event)										
			Benzo(a)anthracene (12-16)*	5.4E-09	NA	2.0E-06	2.0E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (16-18)*	9.0E-10	NA	3.3E-07	3.3E-07					
			Benzo(a)pyrene (12-16)*	1.3E-07	NA	8.3E-05	8.3E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	2.2E-08	NA	1.4E-05	1.4E-05					
			Benzo(b)fluoranthene (12-16)*	6.1E-09	NA	3.8E-06	3.8E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (16-18)*	1.0E-09	NA	6.4E-07	6.4E-07					
			Indeno(1,2,3-c,d)pyrene (12-16)*	2.7E-09	NA	1.7E-06	1.7E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (16-18)*	4.5E-10	NA	2.8E-07	2.8E-07					
			Chromium (12-16)*	2.6E-07	NA	6.6E-06	6.9E-06	Not identified	1.0E-03	NA	2.6E-02	2.7E-02
			Chromium (16-18)*	4.4E-08	NA	1.1E-06	1.1E-06					
Chemical Total				4.8E-07	NA	1.1E-04	1.1E-04		1.0E-03	NA	2.6E-02	2.7E-02
Surface Water Total - Dry Event							1.1E-04					2.7E-02

TABLE 10.2.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	Tetrachloroethylene(PCE)	1.8E-07	NA	3.2E-06	3.4E-06	Liver	4.0E-04	NA	6.9E-03	7.3E-03
			Benzo(a)anthracene (12-16)*	2.1E-09	NA	7.6E-07	7.7E-07		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (16-18)*	3.5E-10	NA	4.3E-07	4.3E-07					
			Benzo(a)pyrene (12-16)*	4.2E-08	NA	2.6E-05	2.6E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	6.9E-09	NA	4.0E-06	4.0E-06					
			Benzo(b)fluoranthene (12-16)*	3.8E-09	NA	2.4E-06	2.4E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (16-18)*	6.4E-10	NA	3.3E-07	3.3E-07					
			Dibenz(a,h)anthracene (12-16)*	2.1E-08	NA	2.0E-05	2.0E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (16-18)*	3.4E-09	NA	1.1E-05	1.1E-05					
			Indeno(1,2,3-c,d)pyrene (12-16)*	1.0E-08	NA	6.4E-06	6.4E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (16-18)*	1.7E-09	NA	2.5E-08	2.6E-08					
			Chromium (12-16)*	1.2E-07	NA	3.0E-06	3.1E-06	Not identified	4.6E-04	NA	1.2E-02	1.2E-02
			Chromium (16-18)*	2.0E-08	NA	5.0E-07	5.2E-07					
Chemical Total				4.1E-07	NA	7.7E-05	7.8E-05		8.6E-04	NA	1.9E-02	1.9E-02
Surface Water Total - Wet Event							7.8E-05					1.9E-02
Receptor Total							2.1E-04				Receptor HI Total	6.1E-02

Total Liver HI Across All Media = 7.3E-03

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ total includes sum of exposed and near shore sediment and maximum of dry event and wet event surface water.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-16 year old for exposure duration of 4 years, ADAF of 1 used to adjust CSF for 16-18 year old for exposure duration of 2 years. Non-cancer calculations shown under 12-16 year old only, as non-cancer calculations are not adjusted for MMOA.

TABLE 10.3.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Benzo(a)anthracene (0-2)*	1.3E-05	NA	9.2E-06	2.2E-05		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-6)*	7.5E-06	NA	5.5E-06	1.3E-05					
			Benzo(a)pyrene (0-2)*	1.1E-04	NA	7.7E-05	1.8E-04		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	6.4E-05	NA	4.6E-05	1.1E-04					
			Benzo(b)fluoranthene (0-2)*	1.1E-05	NA	8.1E-06	1.9E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-6)*	6.7E-06	NA	4.9E-06	1.2E-05					
			Benzo(k)fluoranthene (0-2)*	6.4E-07	NA	4.7E-07	1.1E-06		NA	NA	NA	0.0E+00
			Benzo(k)fluoranthene (2-6)*	3.8E-07	NA	2.8E-07	6.6E-07					
			Dibenz(a,h)anthracene (0-2)*	6.1E-06	NA	4.5E-06	1.1E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-6)*	3.7E-06	NA	2.7E-06	6.3E-06					
			Fluoranthene	NA	NA	NA	0.0E+00	Kidney, Liver, Blood	5.9E-03	NA	4.3E-03	1.0E-02
			Indeno(1,2,3-c,d)pyrene (0-2)*	4.8E-06	NA	3.5E-06	8.4E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-6)*	2.9E-06	NA	2.1E-06	5.0E-06					
			Arsenic	1.1E-06	NA	1.8E-07	1.3E-06	Skin, Vascular	2.8E-02	NA	4.8E-03	3.3E-02
			Chromium	6.3E-06	NA	1.4E-05	2.1E-05	Not identified	1.5E-02	NA	3.3E-02	4.8E-02
				3.8E-06	NA	8.5E-06	1.2E-05					
Chemical Total				2.4E-04	NA	1.9E-04	4.2E-04		4.9E-02	NA	4.2E-02	9.1E-02
Exposed Surface Sediment Total							4.2E-04					9.1E-02
Surface Water	Surface Water	Gowanus Canal										
		(Dry event)	Benzo(a)anthracene (0-2)*	3.4E-08	NA	5.2E-06	5.2E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-6)*	2.1E-08	NA	3.1E-06	3.1E-06					
			Benzo(a)pyrene (0-2)*	8.5E-07	NA	2.2E-04	2.2E-04		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	5.1E-07	NA	1.3E-04	1.3E-04					
			Benzo(b)fluoranthene (0-2)*	3.8E-08	NA	1.0E-05	1.0E-05		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-6)*	2.3E-08	NA	6.1E-06	6.1E-06					
			Indeno(1,2,3-c,d)pyrene (0-2)*	1.7E-08	NA	4.5E-06	4.5E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-6)*	1.0E-08	NA	2.7E-06	2.7E-06					
			Arsenic	1.6E-06	NA	2.1E-07	1.8E-06	Skin, Vascular	4.1E-02	NA	5.4E-03	4.6E-02
			Chromium (0-2)*	1.7E-06	NA	1.8E-05	1.9E-05	Not identified	3.9E-03	NA	4.1E-02	4.5E-02
			Chromium (2-6)*	1.0E-06	NA	1.1E-05	1.2E-05					
Chemical Total				5.7E-06	NA	4.1E-04	4.2E-04		4.5E-02	NA	4.6E-02	9.1E-02
Surface Water Total - Dry Event							4.2E-04					9.1E-02

TABLE 10.3.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	Tetrachloroethylene(PCE)	7.0E-07	NA	5.1E-06	5.8E-06	Liver	1.5E-03	NA	1.1E-02	1.2E-02
			Benzo(a)anthracene (0-2)*	1.3E-08	NA	2.0E-06	2.0E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-6)*	8.0E-09	NA	1.2E-06	1.2E-06					
			Benzo(a)pyrene (0-2)*	2.6E-07	NA	6.9E-05	6.9E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	1.6E-07	NA	4.1E-05	4.1E-05					
			Benzo(b)fluoranthene (0-2)*	2.4E-08	NA	6.4E-06	6.4E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-6)*	1.5E-08	NA	3.8E-06	3.9E-06					
			Dibenz(a,h)anthracene (0-2)*	1.3E-07	NA	5.2E-05	5.2E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-6)*	7.8E-08	NA	3.1E-05	3.1E-05					
			Indeno(1,2,3-c,d)pyrene (0-2)*	6.4E-08	NA	1.7E-05	1.7E-05		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-6)*	3.9E-08	NA	1.0E-05	1.0E-05					
			Arsenic	1.3E-06	NA	1.7E-07	1.5E-06	Skin, Vascular	3.4E-02	NA	4.5E-03	3.9E-02
			Chromium (0-2)*	7.5E-07	NA	7.9E-06	8.7E-06	Not identified	1.8E-03	NA	1.9E-02	2.0E-02
			Chromium (2-6)*	4.5E-07	NA	4.8E-06	5.2E-06					
Chemical Total				4.0E-06	NA	2.5E-04	2.6E-04		3.7E-02	NA	3.4E-02	7.1E-02
Surface Water Total - Wet Event							2.6E-04					7.1E-02
Receptor Total							8.4E-04				Receptor HI Total	1.8E-01

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ total includes sum of exposed and near shore sediment and maximum of dry event and wet event surface water.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-6 year old for exposure duration of 4 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA. as non-cancer calculations are not adjusted for MMOA.

Total Blood HI Across All Media =	1.0E-02
Total Kidney HI Across All Media =	1.0E-02
Total Liver HI Across All Media =	2.3E-02
Total Skin HI Across All Media =	8.0E-02
Total Vascular HI Across All Media =	8.0E-02

TABLE 10.4.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	4.2E-01	NA	4.2E-01
Chemical Total				NA	NA	NA			NA	4.2E-01	NA	4.2E-01
Ambient air at street level Total - Pre-aeration system operation												4.2E-01
Air	Air	Ambient air at canal level (after aeration system started)	Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	9.7E-01	NA	9.7E-01
Chemical Total				NA	NA	NA			NA	9.7E-01	NA	9.7E-01
Ambient air at street level Total - After aeration system turned on												9.7E-01
Receptor Total											Receptor HI Total	9.7E-01

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes maximum between air prior to and after aeration system operation.

Total Nasal HI Across All Media =	9.7E-01
Total Respiratory HI Across All Media =	9.7E-01

TABLE 10.5.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	4.2E-01	NA	4.2E-01
Chemical Total				NA	NA	NA			NA	4.2E-01	NA	4.2E-01
Ambient air at street level Total - Pre-aeration system operation												4.2E-01
Air	Air	Ambient air at canal level (after aeration system started)	Naphthalene	NA	NA	NA		Nasal, Respiratory	NA	9.7E-01	NA	9.7E-01
Chemical Total				NA	NA	NA			NA	9.7E-01	NA	9.7E-01
Ambient air at street level Total - After aeration system turned on												9.7E-01
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal	Total PCB	NA	NA	NA		Ocular, Finger and Toe Nails	1.1E-01	NA	4.3E-02	1.5E-01
Chemical Total				NA	NA	NA			1.1E-01	NA	4.3E-02	1.5E-01
Overflow Surface Sediment Total												1.5E-01
Receptor Total											Receptor HI Total	1.1E+00

HI - Hazard Index

CNS - Central Nervous System

Receptor Total and target organ totals includes maximum between air prior to and after aeration system operation, and sediment.

Total Finger and Toe Nails HI Across All Media =	1.5E-01
Total Nasal HI Across All Media =	9.7E-01
Total Ocular HI Across All Media =	1.5E-01
Total Respiratory HI Across All Media =	9.7E-01

TABLE 10.6.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Air	Air	Ambient air at street level (pre-aeration system operation)	Benzene	NA	2.9E-06	NA	2.9E-06	Blood	NA	NA	NA	
			Chloroform	NA	1.7E-06	NA	1.7E-06	Liver	NA	NA	NA	
			Naphthalene	NA	1.3E-05	NA	1.3E-05	Nasal, Respiratory	NA	NA	NA	
Chemical Total				NA	1.8E-05	NA	1.8E-05		NA	NA	NA	
Ambient air at street level Total - Pre-aeration system operation							1.8E-05					
Air	Air	Ambient air at canal level (after aeration system started)	Benzene	NA	2.5E-06	NA	2.5E-06	Blood	NA	NA	NA	
			Chloroform	NA	2.2E-06	NA	2.2E-06	Liver	NA	NA	NA	
			Naphthalene	NA	3.0E-05	NA	3.0E-05	Nasal, Respiratory	NA	NA	NA	
Chemical Total				NA	3.5E-05	NA	3.5E-05		NA	NA	NA	
Ambient air at street level Total - After aeration system turned on							3.5E-05					
Sediment	Overflow Surface Sediment	Sediment deposited in areas adjacent to Gowanus Canal	Benzo(a)anthracene[1]	1.6E-05	NA	8.2E-06	2.4E-05		NA	NA	NA	
			Benzo(a)pyrene[1]	9.2E-05	NA	4.7E-05	1.4E-04		NA	NA	NA	
			Benzo(b)fluoranthene[1]	1.0E-05	NA	5.1E-06	1.5E-05		NA	NA	NA	
			Dibenz(a,h)anthracene[1]	6.9E-06	NA	3.5E-06	1.0E-05		NA	NA	NA	
			Indeno(1,2,3-c,d)pyrene[1]	4.0E-06	NA	2.0E-06	6.0E-06		NA	NA	NA	
			Arsenic	8.9E-07	NA	1.4E-07	1.0E-06	Skin, Vascular	NA	NA	NA	
			Chromium[1]	7.3E-08	NA	1.1E-06	1.2E-06	Not identified	NA	NA	NA	
Chemical Total				1.3E-04	NA	6.7E-05	2.0E-04		NA	NA	NA	
Overflow Surface Sediment Total							2.0E-04					

TABLE 10.6.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Resident
Receptor Age: Child/Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Overflow Surface Water	Canal Overflow - Surface Water										
			Tetrachloroethylene(PCE)	4.5E-07	NA	2.0E-06	2.5E-06	Liver	NA	NA	NA	
			Benzo(a)pyrene[1]	1.9E-07	NA	2.6E-05	2.6E-05		NA	NA	NA	
			Benzo(b)fluoranthene[1]	1.7E-08	NA	2.4E-06	2.4E-06		NA	NA	NA	
			Dibenz(a,h)anthracene[1]	9.3E-08	NA	2.0E-05	2.0E-05		NA	NA	NA	
			Indeno(1,2,3-c,d)pyrene[1]	4.6E-08	NA	6.4E-06	6.4E-06		NA	NA	NA	
			Chromium[1]	5.4E-07	NA	3.6E-06	4.2E-06	Not identified	NA	NA	NA	
Chemical Total				1.3E-06	NA	6.0E-05	6.1E-05		NA	NA	NA	
Overflow Surface Water Total							6.1E-05					
Receptor Total							2.9E-04				Receptor HI Total	

Receptor Total includes maximum between air prior to and after aeration system operation, and surface water, and sediment.

1. Constituent acts via a mutagenic mode of action (MMOA). See Table 7.7.RME Supplement A for calculation of intake and cancer risk following MMOA method.

TABLE 10.7.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			Dioxin-Like PCB TEQ	4.0E-05	NA	NA	4.0E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	4.9E-05	NA	NA	4.9E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.8E+00	NA	NA	3.8E+00
			Arsenic	6.1E-06	NA	NA	6.1E-06	Skin, Vascular	4.0E-02	NA	NA	4.0E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.5E-01	NA	NA	3.5E-01
Chemical Total				9.5E-05	NA	NA	9.5E-05		4.2E+00	NA	NA	4.2E+00
Striped Bass in Gowanus Canal Total							9.5E-05					4.2E+00
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	9.9E-06	NA	NA	9.9E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	9.6E-06	NA	NA	9.6E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	7.7E-01	NA	NA	7.7E-01
Chemical Total				2.0E-05	NA	NA	2.0E-05		7.7E-01	NA	NA	7.7E-01
White Perch in Gowanus Canal Total							2.0E-05					7.7E-01

TABLE 10.7.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			Dieldrin	1.5E-05	NA	NA	1.5E-05	Liver	5.6E-02	NA	NA	5.6E-02
			Dioxin-Like PCB TEQ	1.2E-04	NA	NA	1.2E-04	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.4E-04	NA	NA	1.4E-04	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.1E+01	NA	NA	1.1E+01
			Arsenic	4.2E-06	NA	NA	4.2E-06	Skin, Vascular	2.7E-02	NA	NA	2.7E-02
			Chromium	1.9E-05	NA	NA	1.9E-05	Not identified	3.6E-02	NA	NA	3.6E-02
			Mercury	NA	NA	NA	0.0E+00	#REF!	4.2E-01	NA	NA	4.2E-01
Chemical Total				3.0E-04	NA	NA	3.0E-04		1.2E+01	NA	NA	1.2E+01
Eel in Gowanus Canal Total							3.0E-04					1.2E+01

TABLE 10.7.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)pyrene	9.7E-06	NA	NA	9.7E-06	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene	3.2E-06	NA	NA	3.2E-06	NA	NA	NA	NA	0.0E+00
			Dioxin-Like PCB TEQ	8.9E-05	NA	NA	8.9E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	3.2E-05	NA	NA	3.2E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	2.7E+00	NA	NA	2.7E+00
			Arsenic	2.2E-05	NA	NA	2.2E-05	Skin, Vascular	1.4E-01	NA	NA	1.4E-01
			Mercury	NA	NA	NA	0.0E+00	#REF!	4.1E-01	NA	NA	4.1E-01
Chemical Total				1.6E-04	NA	NA	1.6E-04		3.3E+00	NA	NA	3.3E+00
Crab in Gowanus Canal Total							1.6E-04					3.3E+00
Receptor Total - Fish							4.1E-04				Receptor HI Total - Fiish	1.7E+01
Receptor Total - Blue Crab							1.6E-04				Receptor HI Total - Blue Crab	3.3E+00

HI - Hazard Index

Target organ totals for Fish

Total Developmental HI Across All Media =	3.5E-01
Total Finger and Toe Nails HI Across All Media =	1.6E+01
Total Liver HI Across All Media =	5.6E-02
Total Neurological HI Across All Media =	7.7E-01
Total Ocular HI Across All Media =	1.6E+01
Total Skin HI Across All Media =	6.7E-02
Total Vascular HI Across All Media =	6.7E-02

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	4.1E-01
Total Finger and Toe Nails HI Across All Media =	2.7E+00
Total Neurological HI Across All Media =	4.1E-01
Total Ocular HI Across All Media =	2.7E+00
Total Skin HI Across All Media =	1.4E-01
Total Vascular HI Across All Media =	1.4E-01

TABLE 10.8.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			Dioxin-Like PCB TEQ	8.1E-06	NA	NA	8.1E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	9.8E-06	NA	NA	9.8E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	3.0E+00	NA	NA	3.0E+00
			Arsenic	1.2E-06	NA	NA	1.2E-06	Skin, Vascular	3.2E-02	NA	NA	3.2E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	2.8E-01	NA	NA	2.8E-01
Chemical Total				1.9E-05	NA	NA	1.9E-05		3.4E+00	NA	NA	3.4E+00
Striped Bass in Gowanus Canal Total							1.9E-05					3.4E+00
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	2.1E-06	NA	NA	2.1E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.0E-06	NA	NA	2.0E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	6.2E-01	NA	NA	6.2E-01
Chemical Total				4.1E-06	NA	NA	4.1E-06		6.2E-01	NA	NA	6.2E-01
White Perch in Gowanus Canal Total							4.1E-06					6.2E-01

TABLE 10.8.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			Dieldrin	3.1E-06	NA	NA	3.1E-06	Liver	4.5E-02	NA	NA	4.5E-02
			Dioxin-Like PCB TEQ	2.5E-05	NA	NA	2.5E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.7E-05	NA	NA	2.7E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	8.9E+00	NA	NA	8.9E+00
			Chromium (12-16)*	7.5E-06	NA	NA	7.5E-06	Not identified	2.9E-02	NA	NA	2.9E-02
			Chromium (16-18)*	1.3E-06	NA	NA	1.3E-06					
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.4E-01	NA	NA	3.4E-01
Chemical Total				6.4E-05	NA	NA	6.4E-05		9.3E+00	NA	NA	9.3E+00
Eel in Gowanus Canal Total							6.4E-05					9.3E+00
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)pyrene (12-16)*	3.9E-06	NA	NA	3.9E-06	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene (16-18)*	6.5E-07	NA	NA	6.5E-07					
			Dibenz(a,h)anthracene (12-16)*	1.3E-06	NA	NA	1.3E-06	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (16-18)*	2.2E-07	NA	NA	2.2E-07					
			Dioxin-Like PCB TEQ	1.8E-05	NA	NA	1.8E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	6.5E-06	NA	NA	6.5E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	2.2E+00	NA	NA	2.2E+00
			Arsenic	4.4E-06	NA	NA	4.4E-06	Skin, Vascular	1.1E-01	NA	NA	1.1E-01
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	3.3E-01	NA	NA	3.3E-01
Chemical Total				3.5E-05	NA	NA	3.5E-05		2.6E+00	NA	NA	2.6E+00
Crab in Gowanus Canal Total							3.5E-05					2.6E+00
Receptor Total - Fish							8.7E-05				Receptor HI Total - Fiish	1.3E+01
Receptor Total - Blue Crab							3.5E-05				Receptor HI Total - Blue Crab	2.6E+00

TABLE 10.8.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adolescent

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 3 used to adjust CSF for 12-16 year old for exposure duration of 4 years, ADAF of 1 used to adjust CSF for 16-18 year old for exposure duration of 2 years. Non-cancer calculations shown under 12-16 year old only, as non-cancer calculations are not adjusted for MMOA.

Target organ totals for Fish

Total Developmental HI Across All Media =	6.2E-01
Total Finger and Toe Nails HI Across All Media =	1.3E+01
Total Liver HI Across All Media =	4.5E-02
Total Neurological HI Across All Media =	6.2E-01
Total Ocular HI Across All Media =	1.3E+01
Total Skin HI Across All Media =	3.2E-02
Total Vascular HI Across All Media =	3.2E-02

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	3.3E-01
Total Finger and Toe Nails HI Across All Media =	2.2E+00
Total Neurological HI Across All Media =	3.3E-01
Total Ocular HI Across All Media =	2.2E+00
Total Skin HI Across All Media =	1.1E-01
Total Vascular HI Across All Media =	1.1E-01

TABLE 10.9.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal										
			Dioxin-Like PCB TEQ	1.6E-05	NA	NA	1.6E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.0E-05	NA	NA	2.0E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	6.1E+00	NA	NA	6.1E+00
			Arsenic	2.5E-06	NA	NA	2.5E-06	Skin, Vascular	6.4E-02	NA	NA	6.4E-02
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	5.6E-01	NA	NA	5.6E-01
Chemical Total				3.8E-05	NA	NA	3.8E-05		6.8E+00	NA	NA	6.8E+00
Striped Bass in Gowanus Canal Total							3.8E-05					6.8E+00
Surface Water/Sediment	Fish and Crab Tissue	White Perch in Gowanus Canal										
			Dioxin-Like PCB TEQ	4.2E-06	NA	NA	4.2E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	4.0E-06	NA	NA	4.0E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.2E+00	NA	NA	1.2E+00
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	1.0E-01	NA	NA	1.0E-01
Chemical Total				8.2E-06	NA	NA	8.2E-06		1.4E+00	NA	NA	1.4E+00
White Perch in Gowanus Canal Total							8.2E-06					1.4E+00

TABLE 10.9.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal										
			Dieldrin	6.2E-06	NA	NA	6.2E-06	Liver	9.0E-02	NA	NA	9.0E-02
			Dioxin-Like PCB TEQ	5.0E-05	NA	NA	5.0E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	5.5E-05	NA	NA	5.5E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.8E+01	NA	NA	1.8E+01
			Arsenic	1.7E-06	NA	NA	1.7E-06	Skin, Vascular	4.4E-02	NA	NA	4.4E-02
			Chromium (0-2)*	2.5E-05	NA	NA	2.5E-05	Not identified	5.9E-02	NA	NA	5.9E-02
			Chromium (2-6)*	1.5E-05	NA	NA	1.5E-05					
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	6.9E-01	NA	NA	6.9E-01
Chemical Total				1.5E-04	NA	NA	1.5E-04		1.9E+01	NA	NA	1.9E+01
Eel in Gowanus Canal Total							1.5E-04					1.9E+01

TABLE 10.9.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)pyrene (0-2)*	1.3E-05	NA	NA	1.3E-05	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-6)*	7.9E-06	NA	NA	7.9E-06					
			Dibenz(a,h)anthracene (0-2)*	4.4E-06	NA	NA	4.4E-06	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-6)*	2.6E-06	NA	NA	2.6E-06					
			Indeno(1,2,3-cd)pyrene (0-2)*	1.1E-06	NA	NA	1.1E-06	NA	NA	NA	NA	0.0E+00
			Indeno(1,2,3-cd)pyrene (2-6)*	6.6E-07	NA	NA	6.6E-07					
			Dioxin-Like PCB TEQ	3.6E-05	NA	NA	3.6E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.3E-05	NA	NA	1.3E-05	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	4.4E+00	NA	NA	4.4E+00
			Arsenic	9.0E-06	NA	NA	9.0E-06	Skin, Vascular	2.3E-01	NA	NA	2.3E-01
			Copper	NA	NA	NA	0.0E+00	Gastrointestinal	1.4E-01	NA	NA	1.4E-01
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	6.6E-01	NA	NA	6.6E-01
Chemical Total				8.8E-05	NA	NA	8.8E-05		5.5E+00	NA	NA	5.5E+00
Crab in Gowanus Canal Total							8.8E-05					5.5E+00
Receptor Total - Fish							2.0E-04				Receptor HI Total - Fiish	2.7E+01
Receptor Total - Blue Crab							8.8E-05				Receptor HI Total - Blue Crab	5.5E+00

TABLE 10.9.RME

RISK SUMMARY

REASONABLE MAXIMUM EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

Target organ totals for Fish

Total Developmental HI Across All Media =	1.4E+00
Total Finger and Toe Nails HI Across All Media =	2.5E+01
Total Liver HI Across All Media =	9.0E-02
Total Neurological HI Across All Media =	1.4E+00
Total Ocular HI Across All Media =	2.5E+01
Total Skin HI Across All Media =	1.1E-01
Total Vascular HI Across All Media =	1.1E-01

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	6.6E-01
Total Finger and Toe Nails HI Across All Media =	4.4E+00
Total Gastrointestinal HI Across All Media =	1.4E-01
Total Neurological HI Across All Media =	6.6E-01
Total Ocular HI Across All Media =	4.4E+00
Total Skin HI Across All Media =	2.3E-01
Total Vascular HI Across All Media =	2.3E-01

HI - Hazard Index

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-6 year old for exposure duration of 4 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

TABLE 10.1.CTE

RISK SUMMARY

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Sediment	Surface Sediment	Exposed and near shore sediment in Gowanus Canal										
			Benzo(a)anthracene (0-2)*	3.1E-06	NA	4.6E-06	7.7E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-3)*	4.7E-07	NA	6.9E-07	1.2E-06					
			Benzo(a)pyrene (0-2)*	2.6E-05	NA	3.9E-05	6.5E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	4.0E-06	NA	5.8E-06	9.8E-06					
			Benzo(b)fluoranthene (0-2)*	2.8E-06	NA	4.1E-06	6.9E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-3)*	4.2E-07	NA	6.1E-07	1.0E-06					
			Dibenz(a,h)anthracene (0-2)*	1.5E-06	NA	2.2E-06	3.8E-06		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (0-2)*	2.3E-07	NA	3.3E-07	5.6E-07					
			Indeno(1,2,3-c,d)pyrene (0-2)*	1.2E-06	NA	1.8E-06	3.0E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-3)*	1.8E-07	NA	2.6E-07	4.5E-07					
			Chromium (0-2)*	1.6E-06	NA	7.1E-06	8.7E-06	Not identified	3.7E-03	NA	1.7E-02	2.0E-02
			Chromium (2-3)*	2.4E-07	NA	1.1E-06	1.3E-06					
Chemical Total				4.2E-05	NA	6.7E-05	1.1E-04		3.7E-03	NA	1.7E-02	2.0E-02
Exposed Surface Sediment Total							1.1E-04					2.0E-02

TABLE 10.1.CTE

RISK SUMMARY

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Dry event)	Benzo(a)anthracene (0-2)*	4.3E-09	NA	1.8E-06	1.8E-06		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-3)*	6.4E-10	NA	2.8E-07	2.8E-07					
			Benzo(a)pyrene (0-2)*	1.1E-07	NA	7.8E-05	7.8E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	1.6E-08	NA	1.2E-05	1.2E-05					
			Benzo(b)fluoranthene (0-2)*	4.8E-09	NA	3.6E-06	3.6E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-3)*	7.2E-10	NA	5.4E-07	5.4E-07					
			Indeno(1,2,3-c,d)pyrene (0-2)*	2.1E-09	NA	1.6E-06	1.6E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-3)*	3.2E-10	NA	2.4E-07	2.4E-07					
			Chromium (0-2)*	2.1E-07	NA	4.4E-06	4.6E-06	Not identified	4.9E-04	NA	1.0E-02	1.1E-02
			Chromium (2-3)*	3.1E-08	NA	6.6E-07	6.9E-07					
Chemical Total				3.7E-07	NA	1.0E-04	1.0E-04		4.9E-04	NA	1.0E-02	1.1E-02
Surface Water Total - Dry Event							1.0E-04					1.1E-02

TABLE 10.1.CTE

RISK SUMMARY

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Recreational
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water	Surface Water	Gowanus Canal (Wet event)	Benzo(a)anthracene (0-2)*	1.7E-09	NA	7.2E-07	7.2E-07		NA	NA	NA	0.0E+00
			Benzo(a)anthracene (2-3)*	2.5E-10	NA	3.6E-07	3.6E-07					
			Benzo(a)pyrene (0-2)*	3.3E-08	NA	2.4E-05	2.4E-05		NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	4.9E-09	NA	3.4E-06	3.4E-06					
			Benzo(b)fluoranthene (0-2)*	3.0E-09	NA	2.3E-06	2.3E-06		NA	NA	NA	0.0E+00
			Benzo(b)fluoranthene (2-3)*	4.6E-10	NA	2.8E-07	2.8E-07					
			Dibenz(a,h)anthracene (0-2)*	1.6E-08	NA	1.8E-05	1.8E-05		NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (0-2)*	2.4E-09	NA	9.0E-06	9.0E-06					
			Indeno(1,2,3-c,d)pyrene (0-2)*	8.0E-09	NA	6.0E-06	6.0E-06		NA	NA	NA	0.0E+00
			Indeno(1,2,3-c,d)pyrene (2-3)*	1.2E-09	NA	2.0E-08	2.1E-08					
			Chromium (0-2)*	9.4E-08	NA	2.0E-06	2.1E-06	Not identified	2.2E-04	NA	4.6E-03	4.9E-03
			Chromium (2-3)*	1.4E-08	NA	2.7E-08	4.1E-08					
Chemical Total				1.8E-07	NA	6.7E-05	6.7E-05		2.2E-04	NA	4.6E-03	4.9E-03
Surface Water Total - Wet Event							6.7E-05					4.9E-03
Receptor Total							2.1E-04				Receptor HI Total	3.1E-02

HI - Hazard Index

Receptor Total and target organ totals includes sum of exposed and near shore sediment, and maximum of dry event and wet event surface water.

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-3 year old for exposure duration of 1 year, for a total CTE exposure duration of 3 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

TABLE 10.2.CTE

RISK SUMMARY

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	4.1E-01	NA	NA	4.1E-01
Chemical Total				0.0E+00	NA	NA	0.0E+00		4.1E-01	NA	NA	4.1E-01
Striped Bass in Gowanus Canal Total							0.0E+00					4.1E-01
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Dioxin-Like PCB TEQ	1.6E-06	NA	NA	1.6E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.1E+00	NA	NA	1.1E+00
Chemical Total				1.6E-06	NA	NA	1.6E-06		1.1E+00	NA	NA	1.1E+00
Eel in Gowanus Canal Total							1.6E-06					1.1E+00
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal	Dioxin-Like PCB TEQ	7.7E-06	NA	NA	7.7E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.4E-06	NA	NA	1.4E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.9E+00	NA	NA	1.9E+00
			Arsenic	1.9E-06	NA	NA	1.9E-06	Skin, Vascular	1.0E-01	NA	NA	1.0E-01
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	2.8E-01	NA	NA	2.8E-01
Chemical Total				1.1E-05	NA	NA	1.1E-05		2.3E+00	NA	NA	2.3E+00
Crab in Gowanus Canal Total							1.1E-05					2.3E+00
Receptor Total - Fish							1.6E-06				Receptor HI Total - Fiish	1.5E+00
Receptor Total - Blue Crab							1.1E-05				Receptor HI Total - Blue Crab	2.3E+00

TABLE 10.2.CTE

RISK SUMMARY

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Adult

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total

HI - Hazard Index

Target organ totals for Fish

Total Finger and Toe Nails HI Across All Media =	1.5E+00
Total Ocular HI Across All Media =	1.5E+00

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	2.8E-01
Total Finger and Toe Nails HI Across All Media =	1.9E+00
Total Neurological HI Across All Media =	2.8E-01
Total Ocular HI Across All Media =	1.9E+00
Total Skin HI Across All Media =	1.0E-01
Total Vascular HI Across All Media =	1.0E-01

TABLE 10.3.CTE

RISK SUMMARY

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Striped Bass in Gowanus Canal	Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	6.4E-01	NA	NA	6.4E-01
Chemical Total				0.0E+00	NA	NA	0.0E+00		6.4E-01	NA	NA	6.4E-01
Striped Bass in Gowanus Canal Total							0.0E+00					6.4E-01
Surface Water/Sediment	Fish and Crab Tissue	Eel in Gowanus Canal	Dioxin-Like PCB TEQ	2.5E-06	NA	NA	2.5E-06	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	1.4E-06	NA	NA	1.4E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	1.8E+00	NA	NA	1.8E+00
			Chromium (0-2)*	2.5E-06	NA	NA	2.5E-06	Not identified	5.8E-03	NA	NA	5.8E-03
			Chromium (2-3)*	3.8E-07	NA	NA	3.8E-07					
Chemical Total				6.7E-06	NA	NA	6.7E-06		1.8E+00	NA	NA	1.8E+00
Eel in Gowanus Canal Total							6.7E-06					1.8E+00

TABLE 10.3.CTE

RISK SUMMARY

CENTRAL TENDENCY EXPOSURE

Gowanus Canal Remedial Investigation, Brooklyn, New York

Scenario Timeframe: Current/Future
Receptor Population: Angler
Receptor Age: Child

Medium	Exposure Medium	Exposure Point	Chemical of Potential Concern	Carcinogenic Risk				Non-Carcinogenic Hazard Quotient				
				Ingestion	Inhalation	Dermal	Exposure Routes Total	Primary Target Organ(s)	Ingestion	Inhalation	Dermal	Exposure Routes Total
Surface Water/Sediment	Fish and Crab Tissue	Blue Crab in Gowanus Canal										
			Benzo(a)pyrene (0-2)*	8.7E-06	NA	NA	8.7E-06	NA	NA	NA	NA	0.0E+00
			Benzo(a)pyrene (2-3)*	1.3E-06	NA	NA	1.3E-06					
			Dibenz(a,h)anthracene (0-2)*	2.9E-06	NA	NA	2.9E-06	NA	NA	NA	NA	0.0E+00
			Dibenz(a,h)anthracene (2-3)*	4.4E-07	NA	NA	4.4E-07					
			Dioxin-Like PCB TEQ	1.2E-05	NA	NA	1.2E-05	NA	NA	NA	NA	0.0E+00
			Nondioxin-Like	2.2E-06	NA	NA	2.2E-06	NA	NA	NA	NA	0.0E+00
			Total PCB	NA	NA	NA	0.0E+00	Ocular, Finger and Toe Nails	2.9E+00	NA	NA	2.9E+00
			Arsenic	3.0E-06	NA	NA	3.0E-06	Skin, Vascular	1.5E-01	NA	NA	1.5E-01
			Mercury	NA	NA	NA	0.0E+00	Developmental Neurological	4.4E-01	NA	NA	4.4E-01
Chemical Total				3.0E-05	NA	NA	3.0E-05		3.5E+00	NA	NA	3.5E+00
Crab in Gowanus Canal Total							3.0E-05					3.5E+00
Receptor Total - Fish							6.7E-06				Receptor HI Total - Fiish	2.4E+00
Receptor Total - Blue Crab							3.0E-05				Receptor HI Total - Blue Crab	3.5E+00

HI - Hazard Index

* Constituent acts via a mutagenic mode of action (MMOA). ADAF of 10 used to adjust CSF for 0-2 year old for exposure duration of 2 years, ADAF of 3 used to adjust CSF for 2-3 year old for exposure duration of 1 year, for a total CTE exposure duration of 3 years. Non-cancer calculations shown under 0-2 year old only, as non-cancer calculations are not adjusted for MMOA.

Target organ totals for Fish

Total Finger and Toe Nails HI Across All Media =	2.4E+00
Total Ocular HI Across All Media =	2.4E+00

Target organ totals for Blue Crab

Total Developmental HI Across All Media =	4.4E-01
Total Finger and Toe Nails HI Across All Media =	2.9E+00
Total Neurological HI Across All Media =	4.4E-01
Total Ocular HI Across All Media =	2.9E+00
Total Skin HI Across All Media =	1.5E-01
Total Vascular HI Across All Media =	1.5E-01

Table 11.1
Calculations of Blood Lead Concentrations (PbBs), Recreational Adult, Exposed Sediment
U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee
Version date 6/21/09 **EDIT RED CELLS**

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 1999-2004	GSDi and PbBo from Analysis of NHANES III (Phases 1&2)
PbS	Soil lead concentration	ug/g or ppm	660	660
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9
BKSF	Biokinetic Slope Factor	ug/dL per ug/day	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	2.1
PbB_0	Baseline PbB	ug/dL	1.0	1.5
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.050	0.050
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--
$AF_{S, D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12
$EF_{S, D}$	Exposure frequency (same for soil and dust)	days/yr	26	26
$AT_{S, D}$	Averaging time (same for soil and dust)	days/yr	365	365
PbB_{adult}	**PbB of adult worker, geometric mean**	**ug/dL**	**1.1**	**1.6**
$PbB_{fetal, 0.95}$	95th percentile PbB among fetuses of adult workers	ug/dL	2.6	4.9
PbB_t	Target PbB level of concern (e.g., 10 ug/dL)	ug/dL	**10.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB > PbB_t, assuming lognormal distribution**	**%**	**0.005%**	**0.5%**

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

Table 11.2
Recreational Child, Exposed Sediment and Surface Water
LEAD MODEL FOR WINDOWS Version 1.1

==========

Model Version: 1.1 Build11
User Name: R. Warren
Date: 1/13/2011
Site Name: Gowanus Canal
Operable Unit:
Run Mode: Research

==========

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (µg Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

****** Diet ******

Age	Diet Intake(µg/day)
.5-1	2.260
1-2	1.960
2-3	2.130
3-4	2.040
4-5	1.950
5-6	2.050
6-7	2.220

****** Drinking Water ******

Water Consumption:

Table 11.2
Recreational Child, Exposed Sediment and Surface Water
LEAD MODEL FOR WINDOWS Version 1.1

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 13.000 µg Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 472.000 µg/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (µg Pb/g)	House Dust (µg Pb/g)
.5-1	660.000	472.000
1-2	660.000	472.000
2-3	660.000	472.000
3-4	660.000	472.000
4-5	660.000	472.000
5-6	660.000	472.000
6-7	660.000	472.000

****** Alternate Intake ******

Age	Alternate (µg Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000

Table 11.2
Recreational Child, Exposed Sediment and Surface Water
LEAD MODEL FOR WINDOWS Version 1.1

6-7 0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 1.000 µg Pb/dL

****
CALCULATED BLOOD LEAD AND LEAD UPTAKES:
****

Year	Air (µg/day)	Diet (µg/day)	Alternate (µg/day)	Water (µg/day)
.5-1	0.021	0.959	0.000	1.104
1-2	0.034	0.804	0.000	2.667
2-3	0.062	0.896	0.000	2.843
3-4	0.067	0.877	0.000	2.963
4-5	0.067	0.877	0.000	3.215
5-6	0.093	0.938	0.000	3.449
6-7	0.093	1.025	0.000	3.542

Year	Soil+Dust (µg/day)	Total (µg/day)	Blood (µg/dL)
.5-1	12.048	14.132	7.5
1-2	18.501	22.007	8.9
2-3	18.964	22.765	8.4
3-4	19.391	23.299	8.1
4-5	15.018	19.177	6.8
5-6	13.748	18.228	5.8
6-7	13.109	17.770	5.1

Table 11.2

Calculations of Blood Lead Concentrations (PbBs), Industrial Worker and Adult Resident, Overflow Sediment

U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee

Version date 6/21/09 **EDIT RED CELLS**

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 1999-2004	GSDi and PbBo from Analysis of NHANES III (Phases 1&2)
PbS	Soil lead concentration	ug/g or ppm	533	533
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9
BKSF	Biokinetic Slope Factor	ug/dL per ug/day	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	2.1
PbB_0	Baseline PbB	ug/dL	1.0	1.5
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100
IR_{S+D}	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--
W_S	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--
K_{SD}	Mass fraction of soil in dust	--	--	--
$AF_{S, D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12
$EF_{S, D}$	Exposure frequency (same for soil and dust)	days/yr	9	9
$AT_{S, D}$	Averaging time (same for soil and dust)	days/yr	365	365
PbB_{adult}	**PbB of adult worker, geometric mean**	**ug/dL**	**1.1**	**1.6**
$PbB_{fetal, 0.95}$	95th percentile PbB among fetuses of adult workers	ug/dL	2.5	4.8
PbB_t	Target PbB level of concern (e.g., 10 ug/dL)	ug/dL	**10.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB > PbB_t, assuming lognormal distribution**	**%**	**0.003%**	**0.4%**

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil

Table 11.4
Residential Child, Overflow Sediment and Surface Water
LEAD MODEL FOR WINDOWS Version 1.1

==========

Model Version: 1.1 Build11
User Name:
Date:
Site Name:
Operable Unit:
Run Mode: Research

==========

****** Air ******

Indoor Air Pb Concentration: 30.000 percent of outdoor.
Other Air Parameters:

Age	Time Outdoors (hours)	Ventilation Rate (m^3/day)	Lung Absorption (%)	Outdoor Air Pb Conc (µg Pb/m^3)
.5-1	1.000	2.000	32.000	0.100
1-2	2.000	3.000	32.000	0.100
2-3	3.000	5.000	32.000	0.100
3-4	4.000	5.000	32.000	0.100
4-5	4.000	5.000	32.000	0.100
5-6	4.000	7.000	32.000	0.100
6-7	4.000	7.000	32.000	0.100

****** Diet ******

Age	Diet Intake(µg/day)
.5-1	2.260
1-2	1.960
2-3	2.130
3-4	2.040
4-5	1.950
5-6	2.050
6-7	2.220

****** Drinking Water ******

Water Consumption:

Age	Water (L/day)
.5-1	0.200
1-2	0.500
2-3	0.520
3-4	0.530
4-5	0.550
5-6	0.580
6-7	0.590

Drinking Water Concentration: 13.000 µg Pb/L

****** Soil & Dust ******

Multiple Source Analysis Used
Average multiple source concentration: 383.100 µg/g

Mass fraction of outdoor soil to indoor dust conversion factor: 0.700
Outdoor airborne lead to indoor household dust lead concentration: 100.000
Use alternate indoor dust Pb sources? No

Age	Soil (µg Pb/g)	House Dust (µg Pb/g)
.5-1	533.000	383.100
1-2	533.000	383.100
2-3	533.000	383.100
3-4	533.000	383.100
4-5	533.000	383.100
5-6	533.000	383.100
6-7	533.000	383.100

****** Alternate Intake ******

Age	Alternate (µg Pb/day)
.5-1	0.000
1-2	0.000
2-3	0.000
3-4	0.000
4-5	0.000
5-6	0.000
6-7	0.000

****** Maternal Contribution: Infant Model ******

Maternal Blood Concentration: 1.000 µg Pb/dL

****

CALCULATED BLOOD LEAD AND LEAD UPTAKES:

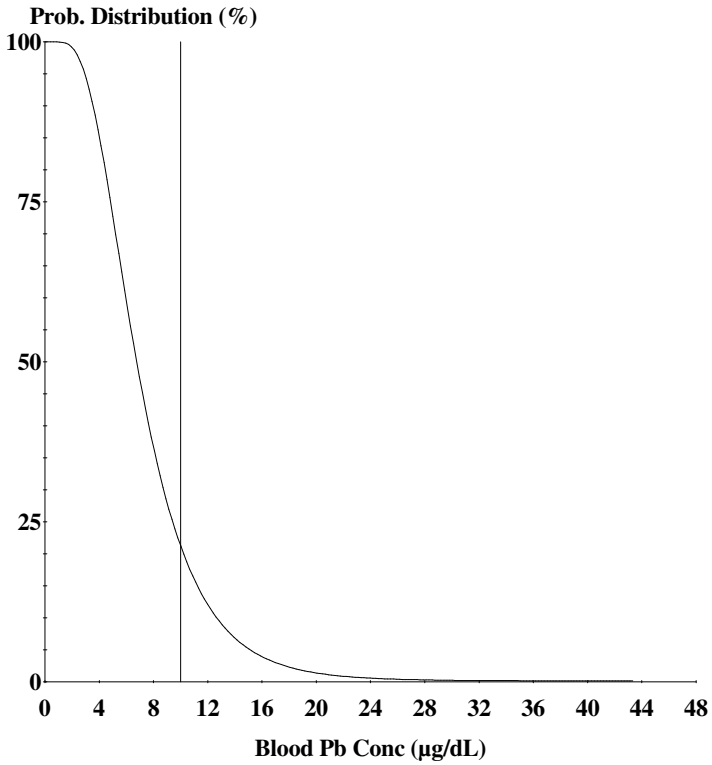
****

Year	Air (µg/day)	Diet (µg/day)	Alternate (µg/day)	Water (µg/day)
.5-1	0.021	0.982	0.000	1.130
1-2	0.034	0.827	0.000	2.743
2-3	0.062	0.918	0.000	2.914
3-4	0.067	0.897	0.000	3.028
4-5	0.067	0.890	0.000	3.263
5-6	0.093	0.949	0.000	3.491
6-7	0.093	1.036	0.000	3.580

Year	Soil+Dust (µg/day)	Total (µg/day)	Blood (µg/dL)
.5-1	9.989	12.123	6.5
1-2	15.398	19.002	7.7
2-3	15.732	19.626	7.3
3-4	16.041	20.033	6.9
4-5	12.338	16.558	5.8
5-6	11.265	15.798	5.0
6-7	10.725	15.435	4.4

:==========

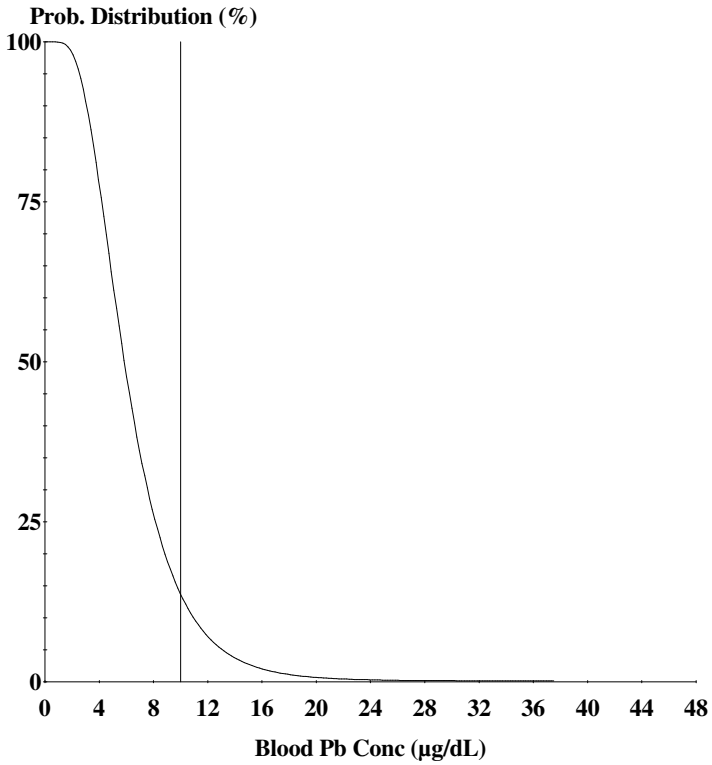
:==========



Cutoff = 10.000 µg/dl
Geo Mean = 7.091
GSD = 1.600
% Above = 23.227

Age Range = 0 to 84 months

Run Mode = Research



Cutoff = 10.000 µg/dl
Geo Mean = 6.137
GSD = 1.600
% Above = 14.947

Age Range = 0 to 84 months

Run Mode = Research

Appendix M
Historic Preservation

Contents

Gowanus Canal Preliminary Bulkhead Study

Side Scan Sonar Report

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GOWANUS CANAL PRELIMINARY BULKHEAD STUDY
BROOKLYN, KINGS COUNTY, NEW YORK

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prepared for

HDR, Inc.
One Blue Hill Plaza
Pearl River, NY 10965

and

United States Environmental Protection Agency
Region 2
Division of Environmental Planning and Protection
290 Broadway, 25th Floor
New York, NY 10007-1866

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December 2010

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Figure 17. Proposed alterations to timber crib bulkheads on portion of Gowanus land near 363-365 Bond Street (HPA Engineers, PC 2008).

1.0 TYPOLOGY OF BULKHEAD CONSTRUCTION

The purposes of this document are to identify the types of bulkheads that line the Gowanus Canal in Brooklyn, New York (Figure 1), to evaluate the historic significance and integrity of each of these types of bulkheads, and to recommend possible treatment strategies for historically significant bulkheads. The study was carried out in compliance with Section 106 of the National Register Preservation Act in conjunction with this EPA directed CERCLA (Superfund) action. In the case that repair of deteriorated bulkheads appears infeasible, mitigation recommendations have been made. As specified in the scope of work for this investigation, little original research was conducted. Instead, most of the information in this document was gathered from information in two previous studies: Hunter Research, Inc. (HRI)'s *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal* (HRI 2004) and Adam Brown's *Gowanus Canal: Bulkhead Inventory Survey* (Brown 2000).

1.1 DEFINITION OF A BULKHEAD

In general terms, a bulkhead is a structure erected to prevent the bank of a waterway from collapsing into the waterway. As indicated in the *Design of Coastal Revetments, Seawalls and Bulkheads*, issued by the U.S. Army Corps of Engineers:

> The terms *bulkhead* and *seawall* are often used interchangeably. However, a bulkhead is primarily intended to retain or prevent sliding of the land, while protecting the upland area against wave action is of secondary importance. Seawalls, on the other hand, are more massive structures whose primary purpose is interception of waves. Bulkheads may be either cantilevered or anchored (like sheetpiling) or gravity structures (such as rock-filled timber cribs). Their use is limited to those areas where wave action can be resisted by such materials (USACE 1995:1-1).

Over time, a variety of materials and construction techniques have been employed for river and canal bulkheads including timber cribs, timber piles, wood sheet piling, and steel sheet piling.

1.2 HISTORY OF BULKHEAD CONSTRUCTION ON THE GOWANUS CANAL

Although precise information about bulkhead planning and installation on the Gowanus Canal is minimal, HRI was able to assemble significant amounts of information concerning the sequence of bulkhead construction in their 2004 report.

The Gowanus Canal, as initially planned in the 1840s, was viewed as a possible solution to the lack of adequate drainage for sewage and stormwater of the rapidly growing city. In addition, the filling of the Gowanus marshes would provide additional available land for development. The initial plans for the canal were developed by Major David B. Douglass, a West Point-trained engineer who had earlier worked on New Jersey's Morris Canal.

A year after Douglass made his proposals, Daniel Richards, one of the city's most prominent landowners and real estate developers, presented a plan to City Council which would drain the Gowanus meadows and allow them to be filled. Developed in collaboration with the City Surveyor, Willard Dey, Richards's plan called for a 5,400-foot-long, 100-foot-canal, approximately 14 feet deep excavated to five feet below mean water with walls at four feet above mean high water.

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Figure 1. Project location. Detail of *Jersey City, N.J.-N.Y.* and *Brooklyn, N.Y.* 7.5-minute quadrangles (USGS 1981 and 1995).

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In order to avoid the expense of cribwork, Richards apparently proposed timber sheet piling to retain the vertical canal banks. When initial construction had been completed in 1854, the waterway lacked finished walls in most places or was lined with timber sheet piling unable to withstand stormwater washing mud into the canal (HRI 2004:40).

The initial major improvements for the canal took place between 1866 and 1870 under the auspices of the Gowanus Canal Improvement Commission. HRI described the types of bulkhead construction employed:

> At least inshore of Hamilton Avenue, the commission built canal walls where none existed previously or were not being built by private interests. Some landowners such as Edwin Litchfield built cribwork walls along their own frontages, often using these walls to fill extensive areas away from the canal....Existing conditions strongly suggest that the commission walls built 1866-1870 were also cribwork, based in part on the poor performance of sheet pile structure in the marsh environment (HRI 2004:42).

1.3 TYPES OF BULKHEADS ON THE GOWANUS CANAL

Three major types of bulkheads are present along the Gowanus Canal:

- Timber cribwork. In many areas the upper section is deteriorated, replaced with concrete and/or covered with rip-rap.
- Concrete bulkheads or relieving platforms, including five bridge abutments.
- Sheet piling of timber or steel.

1.3.1 Timber Crib Bulkheads

The earliest examples of this type consisted of a few rough logs laid along the water's edge with earth and sand filling behind them. Later cribs were constructed of rough logs, notched at the junction to form a rectangular framing, weighted with stones to sink it to the bottom, the filling being rock, earth and sand. As the crib sank in the subsoil additional logs were placed, building it up to the proper height.

HRI described a standardized mid-nineteenth century timber crib bulkhead:

> Cribwork construction of the mid-nineteenth century and later involved spiking together logs in alternating perpendicular rows forming square or rectangular cells. Arranged in lines or grids, these cells commonly measured five to eight feet on a side, and from about seven to eight feet in height. Empty cribwork units could be floated into place and sunk as fill was added. Some cells, probably at the bottom of cell units, had plank flooring to hold enough material to sink the structure; builders added more fill once the cells were in place to form a solid bulkhead. Cribwork often reached to between 20 and 25 feet below mean low water, and extended to about 10 feet above this elevation. In section, cribs below mean low water typically extended to widths of 20 to 25 feet, sometimes tapering in the exterior or both faces as they rose. Above mean low water, crib widths in section narrowed to about fifteen feet....Square timbers, spiked or bolted together in a smooth, continuous face and fitted into notch cribwork logs, formed the outer face of the bulkhead above mean low water in most cases….The upper horizontal surface of the bulkhead varied from packed earth to timber to stone (HRI 2004:72).

The turn-of-the-twentieth century crib was made of squared timbers, halved together at the corners and splices, the successive corners held together with drift bolts. Mooring piles and string pieces were provided and a deck of six-inch planks was usually added.

The timber crib bulkhead was recommended where timber was cheap and a hard clay or gravel bottom could be found at a reasonable depth. The estimated lifespan of crib bulkheads was 50 to 75 years (Orrock 1910:161). According to a 1905 report, the Department of Docks of the City of New York had constructed about 17,550 linear feet of crib bulkhead (Hoag 1905:107).

By the early twentieth century, opinion at the New York Dock Department had turned against the timber crib:

> Of all the structures with which the Department has had to deal, the most uncertain and unsatisfactory are crib bulkheads. No one can afford to predict their behavior; they may bulge on the face; they may retain a constant profile but bulge for line; they may even show an inshore movement at times; they may settle and they may not (Hoag 1905:105).

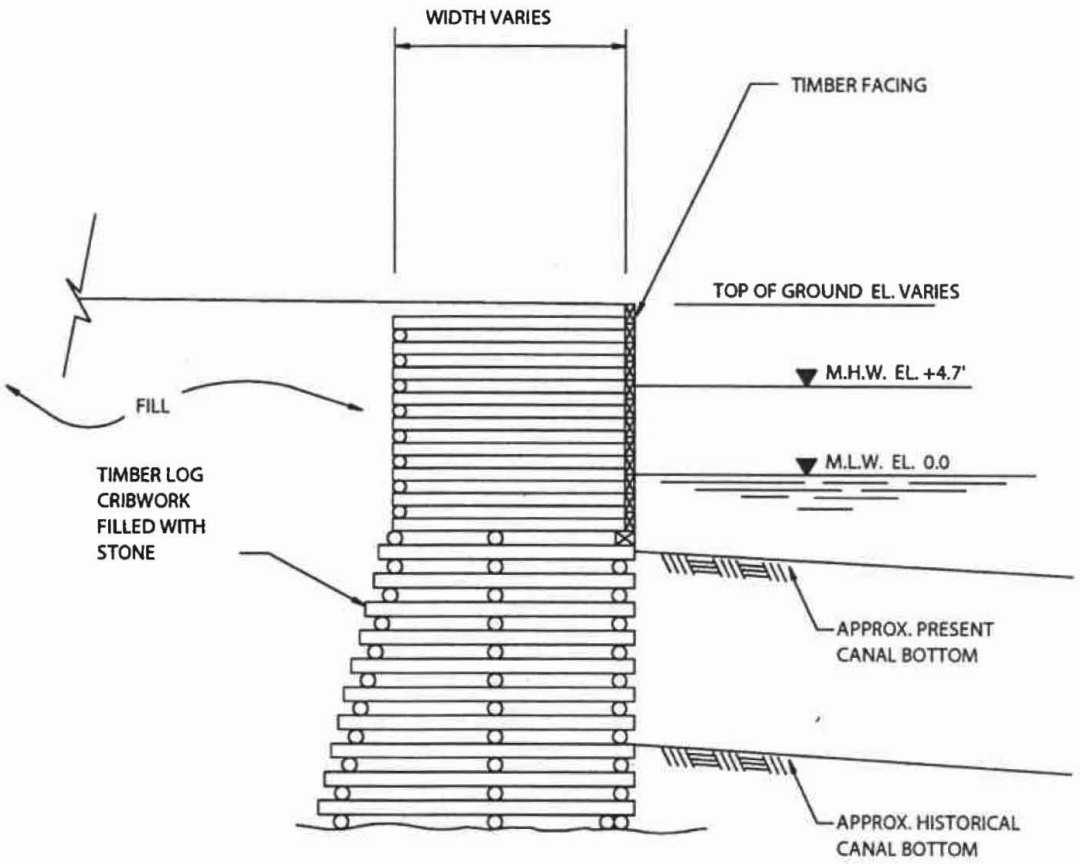
Based upon his field investigations, marine diver Adam Brown subdivided the types of timber crib bulkheads found on the Gowanus Canal: general timber crib (Type 1; Figure 2); crib with mass concrete for the upper three to five feet (Type 2; Figure 3); crib with concrete blocks for the upper three to five feet (Type 3; Figure 4); crib with vertical timber facing (Type 4; Figure 5); crib with fender piles along face (Type 5; Figure 6); crib with steel strap tiebacks (Type 6; Figure 7); and crib with concrete bulkhead wall (Type 7; Figure 8).

By far the most common of these types observed by Adam Brown was the general timber crib which, in 2000, represented 44.5 percent of the total bulkhead length. Second most common was the crib with mass concrete for the upper three to five feet (Type 2) which accounted for 18.2 percent of the total bulkhead length. The remaining types represented from 0.6 to 5.6 percent of the total bulkhead length. Many of the types of timber crib bulkheads may represent attempts to maintain deteriorating bulkheads. For example, the mass concrete or concrete blocks may have been employed to either cover or replace the original, then deteriorated timber superstructure, as may be the use of vertical timber facing or fender piles. Steel strap tiebacks may have been used, as they are with sheetpile walls, to anchor the wall to the adjacent bank to prevent shifting.

HRI indicated that in the early twentieth century, concrete bulkheads were appended to older cribwork and that the new work generally extended beyond the old a distance of about 20 feet (HRI 2004:74).

1.3.2 Timber Pile Bulkheads

Timber crib bulkheads were appropriate where there was a firm surface upon which the crib could be set. Where, as in many locations in the former Gowanus marshes, the waterway bottom was sandy or silty or bedrock or clay were located more than 25 feet below mean low water, timber pile-driven bulkheads were the norm.



TIMBER CRIB BULKHEAD

10 0 10 FEET

NOTE: ONLY EXTERIOR FACE OF BULKHEAD ABOVE LOW WATER ACCESSIBLE TO INSPECTION. BALANCE OF CROSS SECTION IS ASSUMED BASED ON CONSTRUCTION WHICH WAS WHICH WAS TYPICAL FOR THE PERIOD DURING WHICH TIME THE ORIGINAL BULKHEAD WAS CONSTRUCTED.

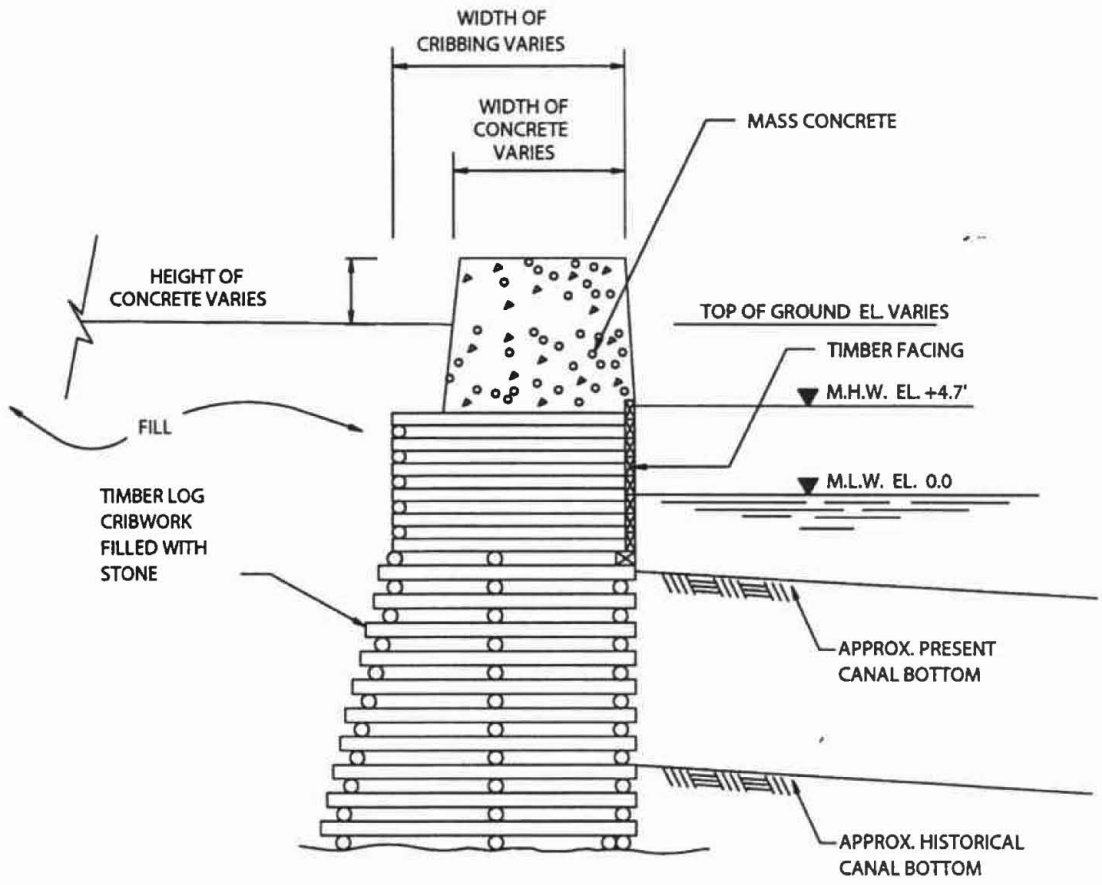
GOWANUS CANAL BULKHEAD SURVEY

CLIENT: GOWANUS CANAL COMMUNITY DEVELOPMENT CORPORATION
515 COURT STREET BROOKLYN, NY 11231

STRUCTURE TYPE 1
GOWANUS CANAL
TYPICAL SECTION

PREPARED BY: ADAM BROWN MARINE CONSULTING
127 EAST 10 STREET SUITE 8 NEW YORK, NY 10003
(212) 505-0694

Figure 2. Typical section of timber crib bulkhead, Gowanus Canal (Brown 2000). Used by permission.



TIMBER CRIB BULKHEAD WITH MASS CONCRETE FOR UPPER 3 TO 5 FEET

10 0 10 FEET

NOTE: ONLY EXTERIOR FACE OF BULKHEAD ABOVE LOW WATER ACCESSIBLE TO INSPECTION. BALANCE OF CROSS SECTION IS ASSUMED BASED ON CONSTRUCTION WHICH WAS WHICH WAS TYPICAL FOR THE PERIOD DURING WHICH TIME THE ORIGINAL BULKHEAD WAS CONSTRUCTED.

GOWANUS CANAL BULKHEAD SURVEY

CLIENT: GOWANUS CANAL COMMUNITY DEVELOPMENT CORPORATION
515 COURT STREET BROOKLYN, NY 11231

STRUCTURE TYPE 2
GOWANUS CANAL
TYPICAL SECTION

PREPARED BY: ADAM BROWN MARINE CONSULTING
127 EAST 10 STREET SUITE 8 NEW YORK, NY 10003
(212) 505-0694

JUNE 2000 SCALE: 1 INCH = 10 FEET

Figure 3. Typical section of timber crib bulkhead with mass concrete for upper 3 to 5 feet (Brown 2000). Used by permission.

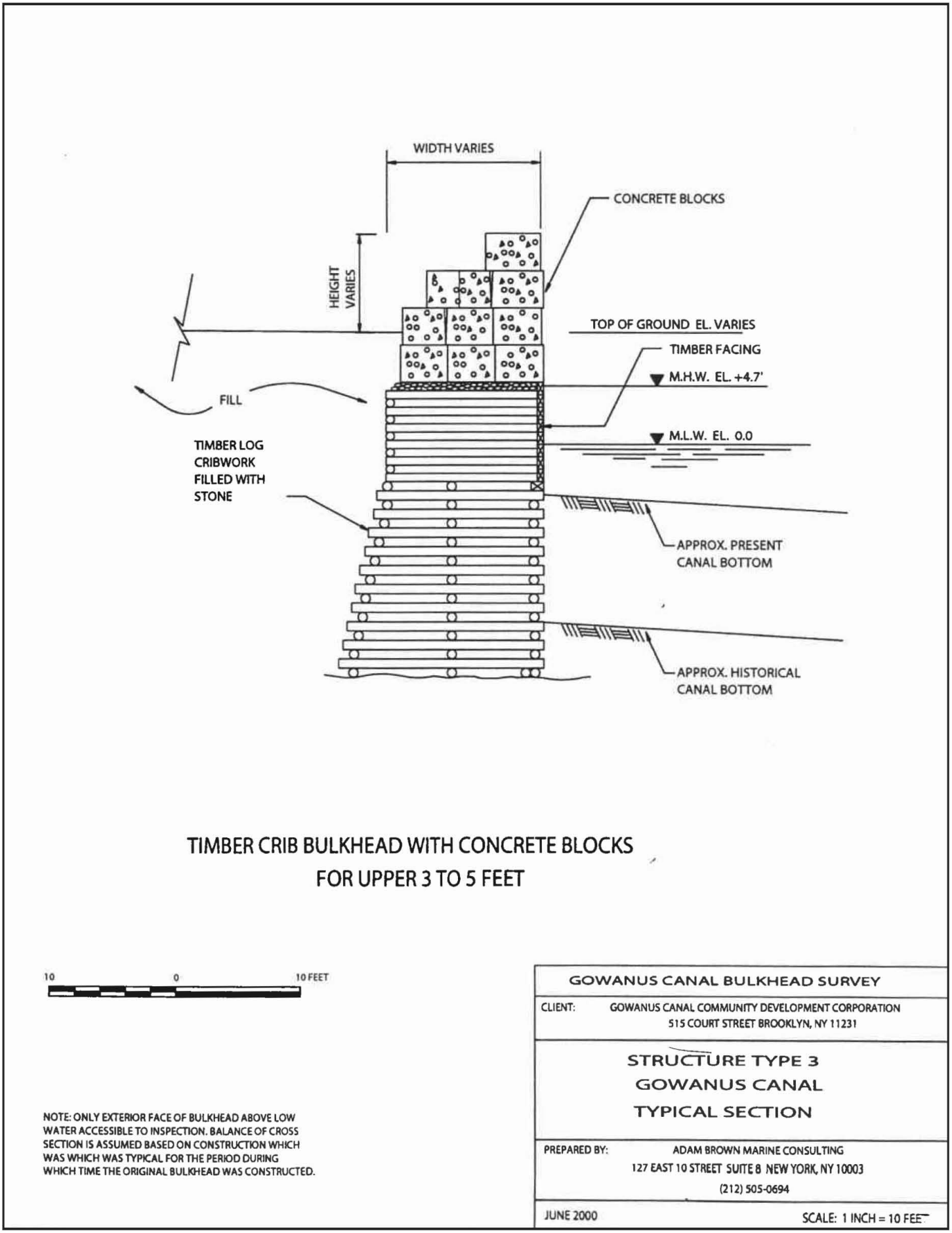


Figure 4. Typical section of timber crib bulkhead with concrete blocks for upper 3 to 5 feet (Brown 2000). Used by permission.

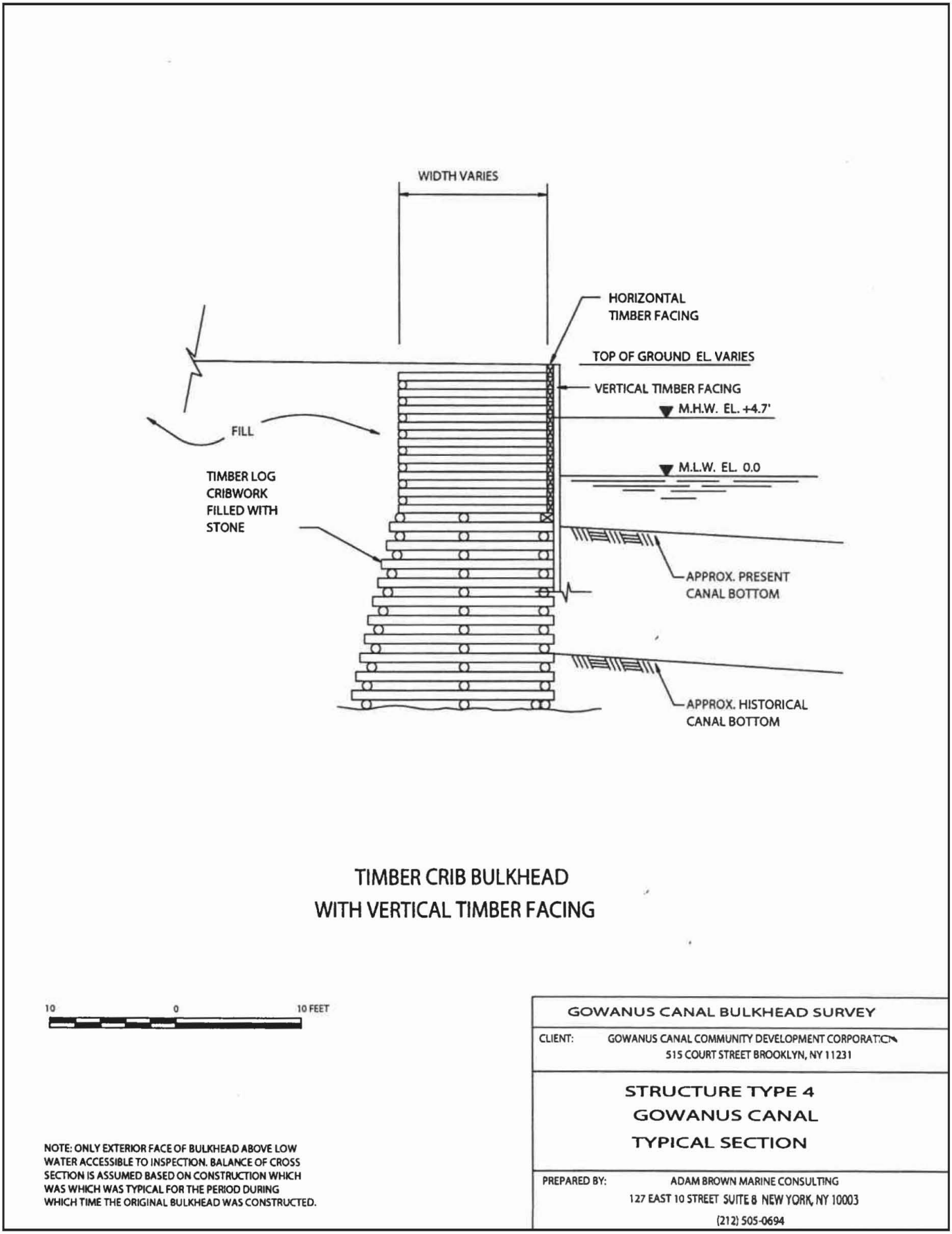


Figure 5. Typical section of timber crib bulkhead with vertical timber facing (Brown 2000). Used by permission.

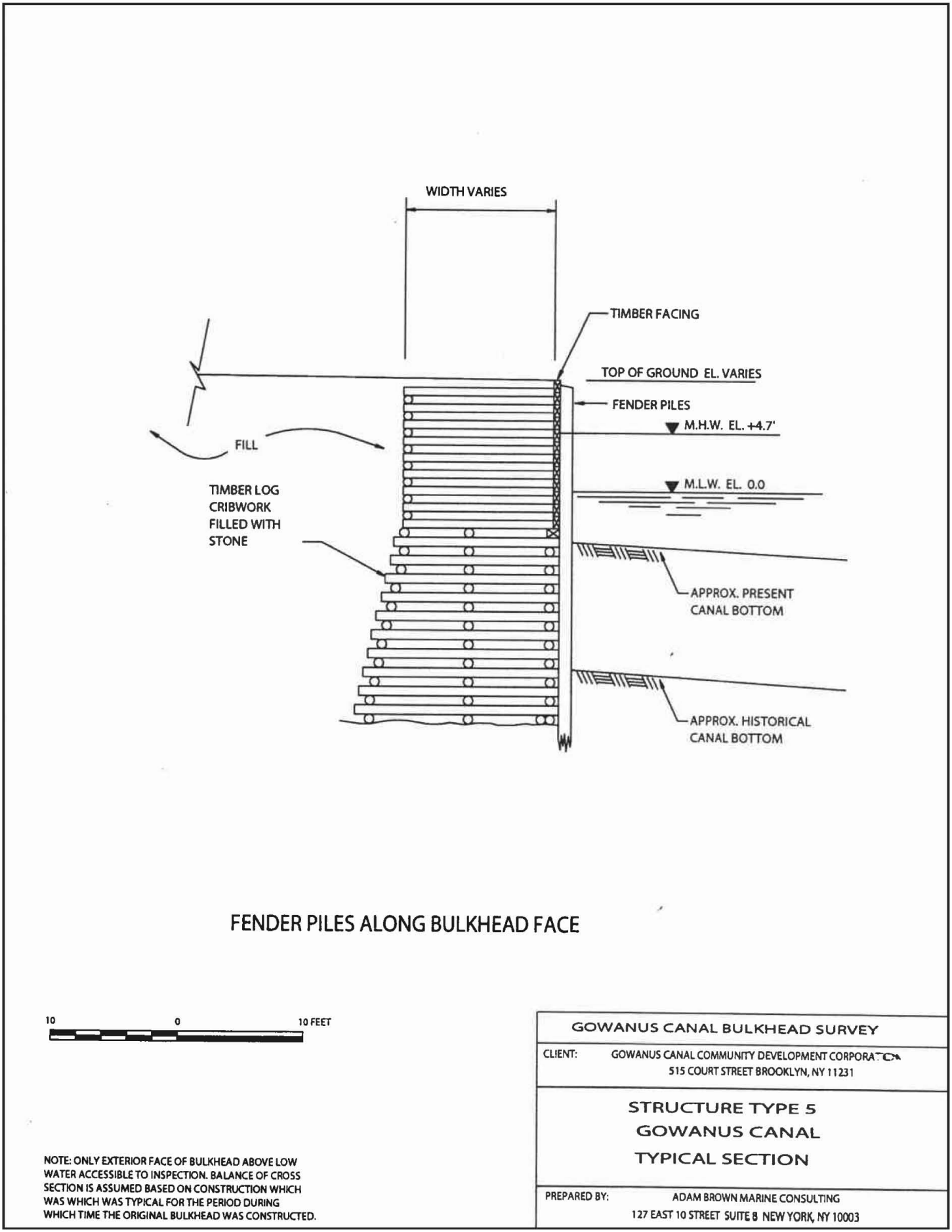


Figure 6. Typical section of timber crib bulkhead with fender piles along bulkhead face (Brown 2000). Used by permission.

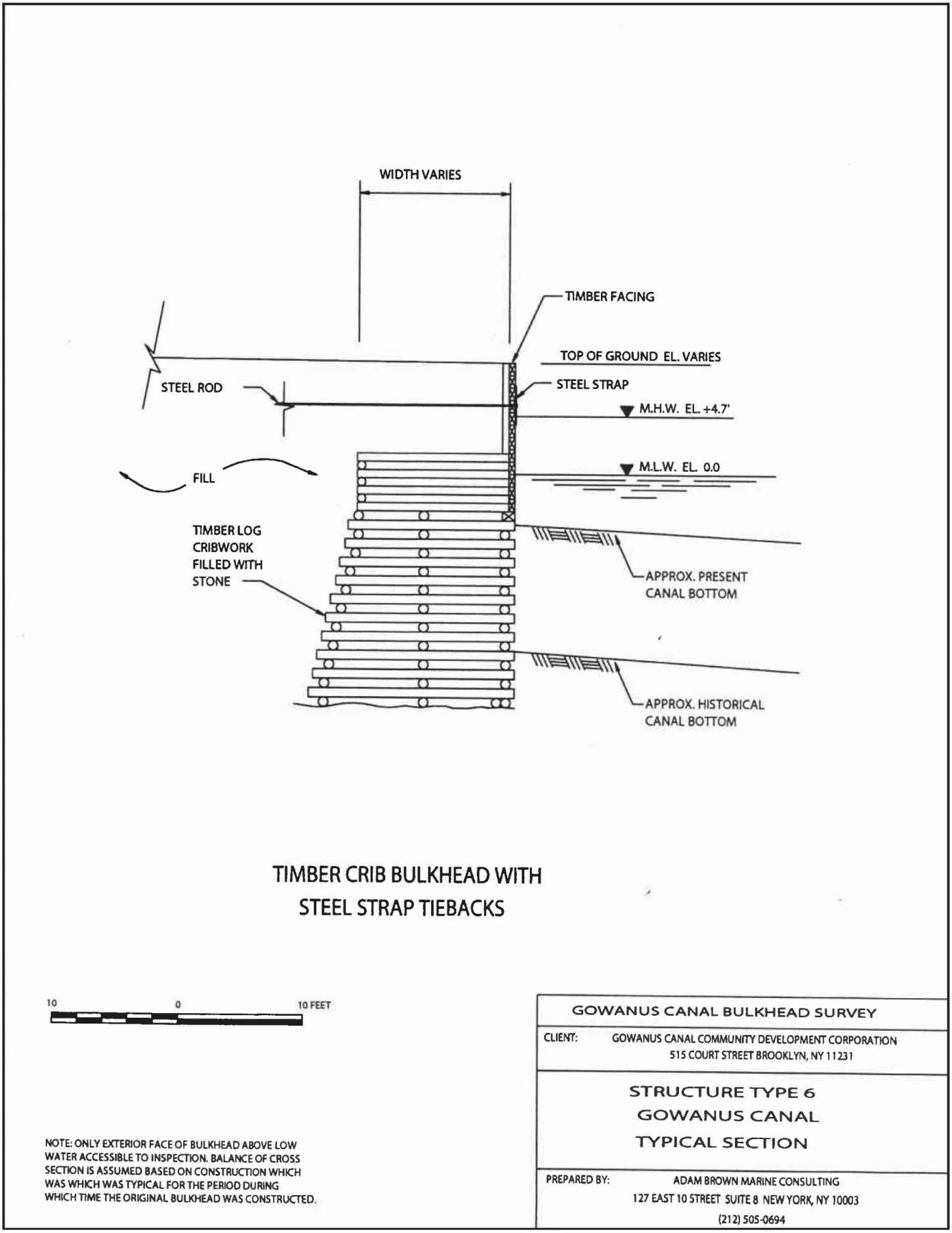


Figure 7. Typical section of timber crib bulkhead with steel strap tiebacks (Brown 2000). Used by permission.

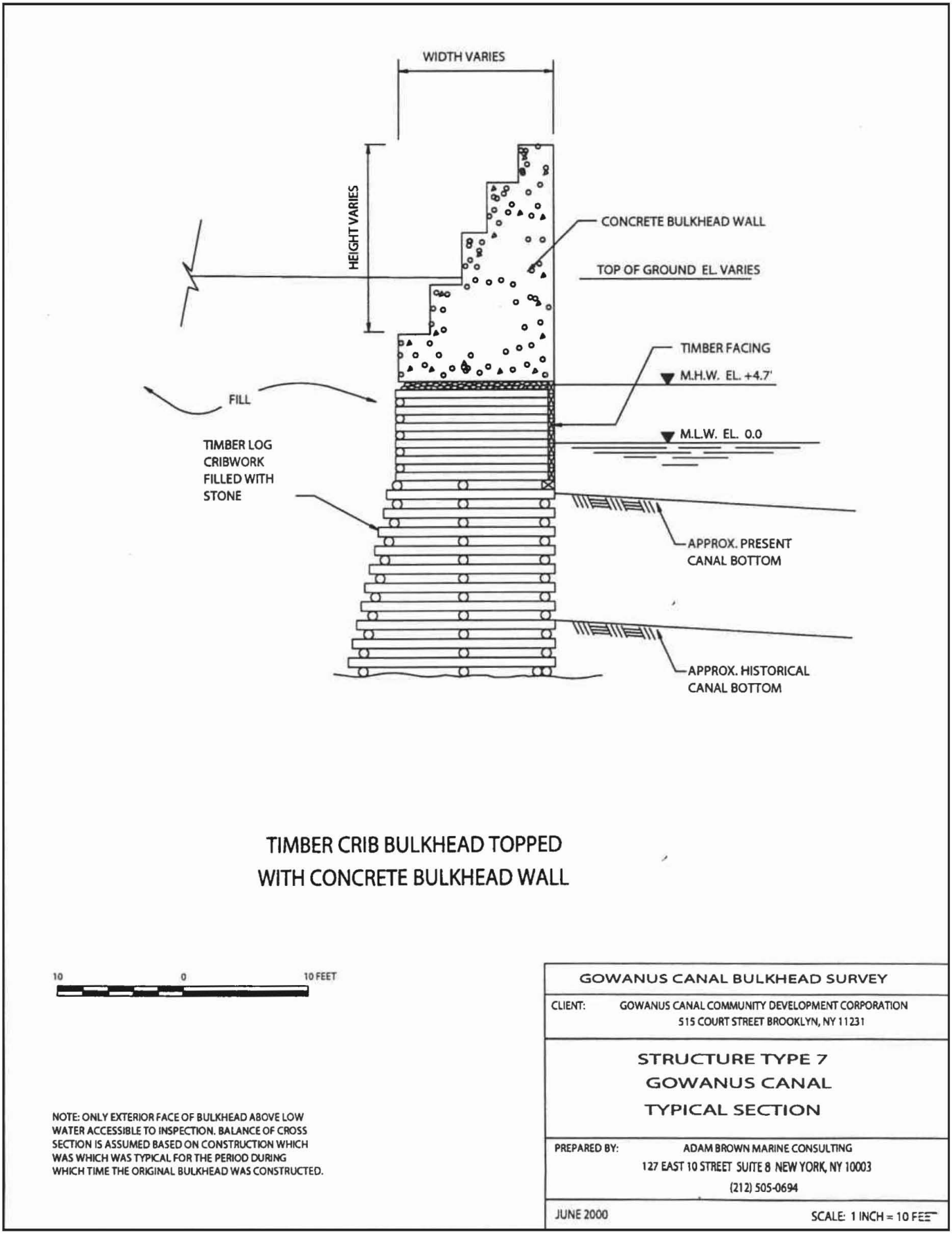


Figure 8. Typical section of timber crib bulkhead topped with concrete bulkhead wall (Brown 2000). Used by permission.

As J.F. Springer indicated in his history of steel sheet piling prepared for *Cassier's Magazine*, the earliest sheet-pile was an unhewn timber. This raw timber was succeeded by squared timber and tongue-and-groove timber. Springer viewed the culmination of the development of wood sheet piling as the Wakefield sheeting developed in the latter portion of the nineteenth century which he described, as follows:

> Each consists of three planks identical in width and thickness. These are bolted and nailed together to form a unit-pile, having a face equal to that of a single plank and a tongue and groove of the depth of one-half the width of a plank.

Springer indicated that this type of piling was often quite successful (Springer 1910:160). However, there could also be difficulties with this material. One was its limited ability to withstand lateral pressure. A second is the inevitable deterioration of the interlock points, while a third was the difficulty of driving sheeting through hard soils (Springer 1910:162).

Adam Brown indicated that the following types of closely spaced timber pile bulkheads are present on the Gowanus Canal: closely spaced timber piles (Type 8; Figure 9), representing 0.9 percent of the total bulkhead length; piles topper with concrete base and concrete blocks (Type 9; Figure 10), representing 0.2 percent of the total bulkhead length; piles with timber waler (Type 10; Figure 11), representing 0.7 percent of the total bulkhead length; piles with horizontal timber facing (Type 11; Figure 12), representing 0.2 percent of the total bulkhead length; and piles with vertical facing over horizontal facing (Type 12; Figure 13).

1.3.3 Wood Sheet Pile Bulkheads

Although steel sheet pile bulkheads began being used in the late nineteenth century in some areas of the country, available evidence suggests that they were first used on the Gowanus Canal in the second quarter of the twentieth century. Initially the sheet pile was employed behind new timber piles to add stability to the construction but after World War II, steel piling tended to replace the timber pile supports and subdecks completely (HRI 2004:74).

Adam Brown described the construction of the steel sheet pile bulkhead (Figures 14 and 15):

> A steel sheet pile bulkhead consists of a flexible wall formed of steel sheets with interlocking joints and cap of concrete construction. The bulkhead is restrained from outward movement by an anchorage system placed above the low water level. The anchorage system is made up of tie rods and anchors (deadmen), of either concrete blocks, sheet piles, or A-frames of batter piles (Brown 2000).

According to Adam Brown, approximately 16.6 percent of the total bulkhead length was, as of 2000, constructed of sheet pile.

1.3.4. Steel Sheet Pile Bulkheads

According to HRI, most concrete bulkheads in the New York City area were relieving platform designs (Figure 16), introduced shortly after 1900 by some of the region's railroads. In his bulkhead study, Adam Brown defines a "relieving platform":

> A relieving platform is a deck of timber or concrete supported on piles, generally of timber, at an elevation sufficiently above mean low water to eliminate underwater

> construction and low enough to keep timber piles permanently wet. A masonry gravity wall is located at the outshore face of the platform to retain the fill which extends from the deck up to finished grade. Upland or onshore fill is retained by an embankment of rip rap, or rip rap protected earth, beneath the deck, and a curtain wall located at the inshore end of the deck. Batter piles are provided to resist the lateral thrust from live load surcharges, from the earth placed above the deck and from the fill acting on the unsupported length of the curtain wall. The objective of this type of structure is to relieve or reduce the lateral thrust which would act on a wall with a vertical face extending from canal bottom to finished grade (Brown 2000).

According to Adam Brown, as of 2000, approximately 2.9 percent of the total bulkhead length consisted of relieving platforms.

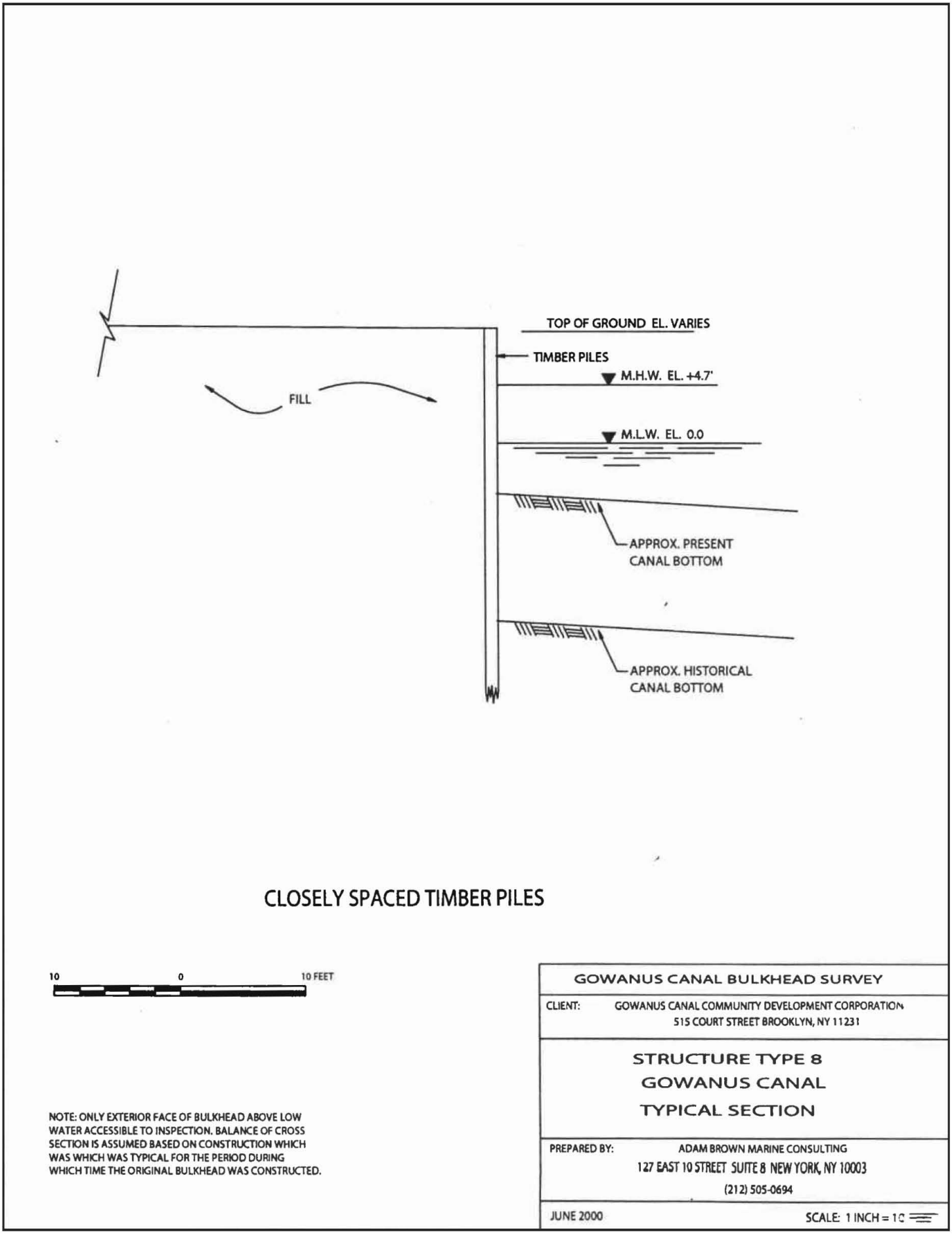


Figure 9. Typical section of closely spaced timber piles (Brown 2000). Used by permission.

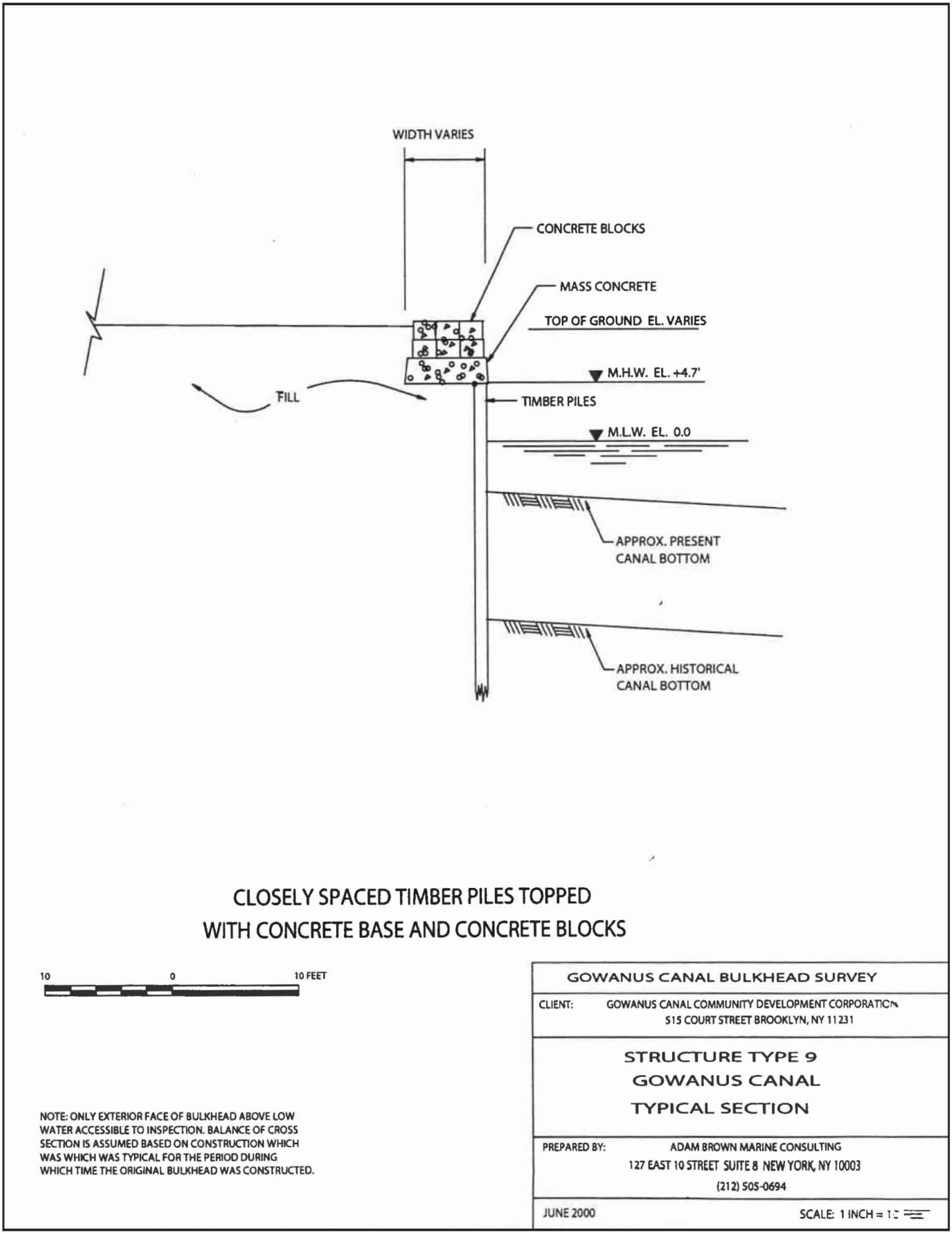


Figure 10. Typical section of closely spaced timber piles topped with concrete base and concrete blocks (Brown 2000). Used by permission.

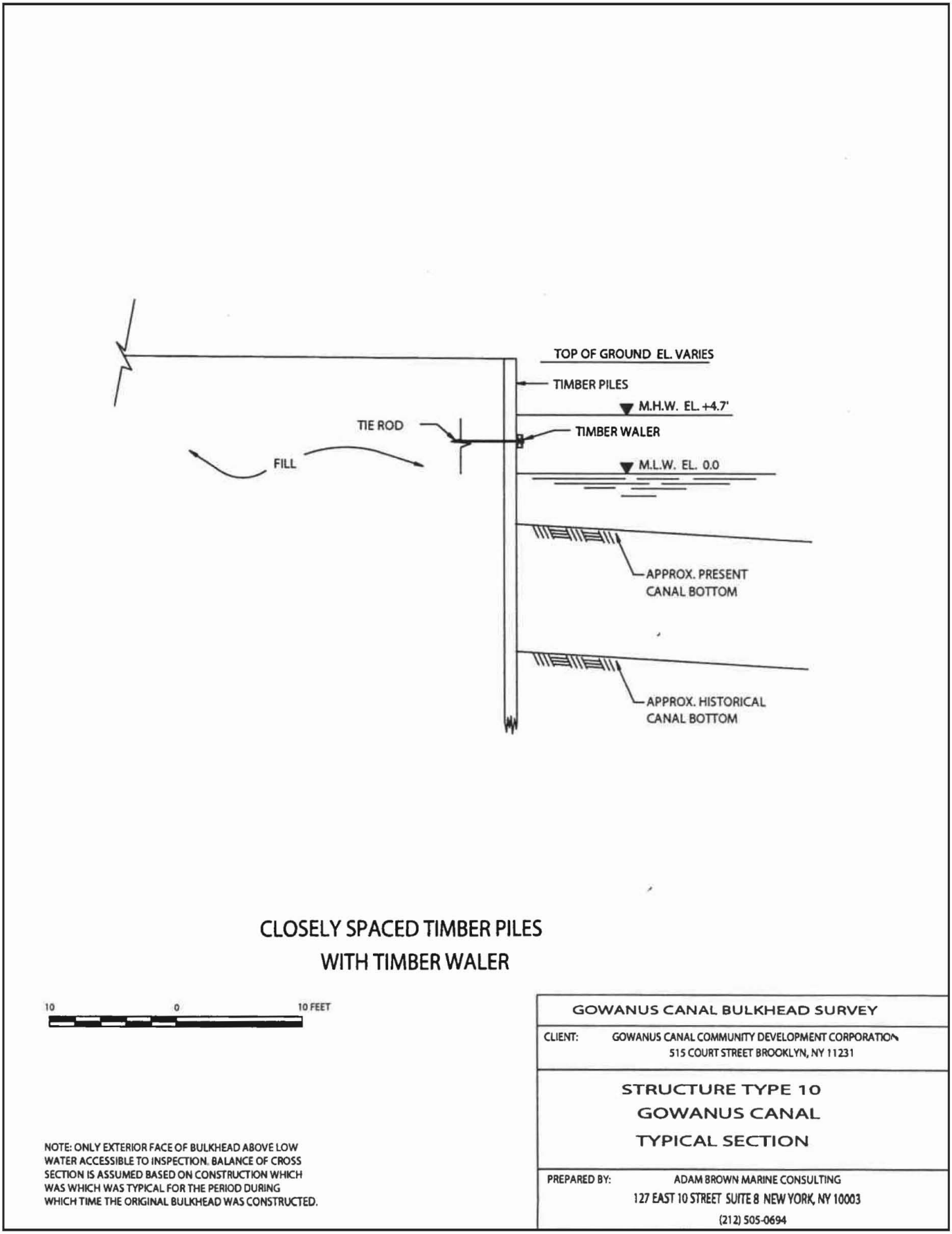
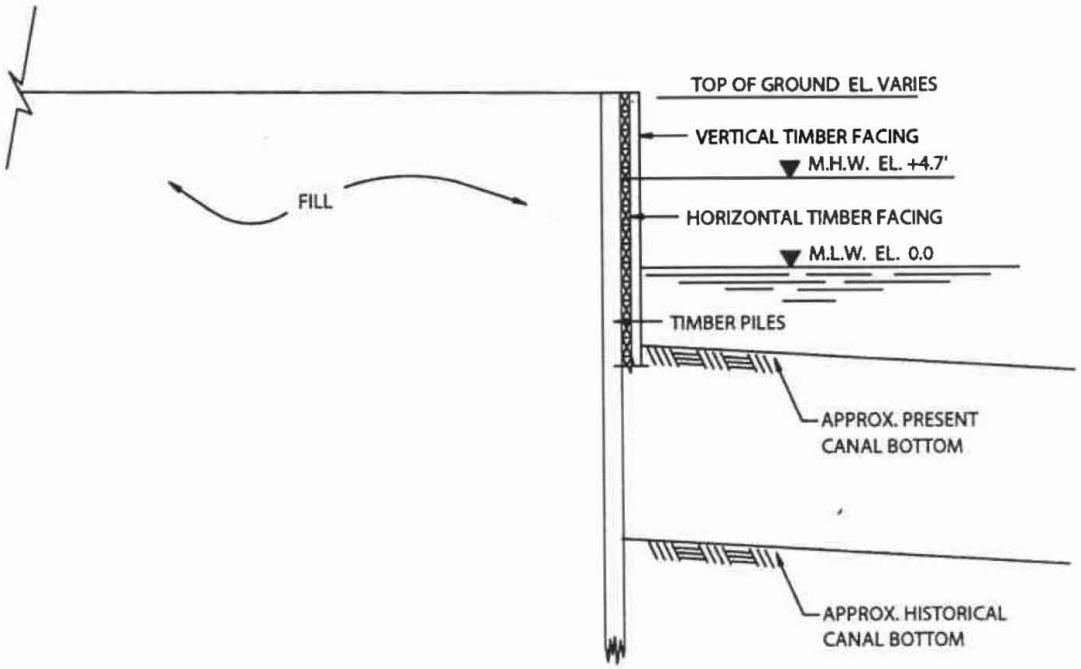


Figure 11. Typical section of closely spaced timber piles with timber waler (Brown 2000). Used by permission.



CLOSELY SPACED TIMBER PILES WITH VERTICAL FACING OVER HORIZONTAL TIMBER FACING

10 0 10 FEET

NOTE: ONLY EXTERIOR FACE OF BULKHEAD ABOVE LOW WATER ACCESSIBLE TO INSPECTION. BALANCE OF CROSS SECTION IS ASSUMED BASED ON CONSTRUCTION WHICH WAS WHICH WAS TYPICAL FOR THE PERIOD DURING WHICH TIME THE ORIGINAL BULKHEAD WAS CONSTRUCTED.

GOWANUS CANAL BULKHEAD SURVEY

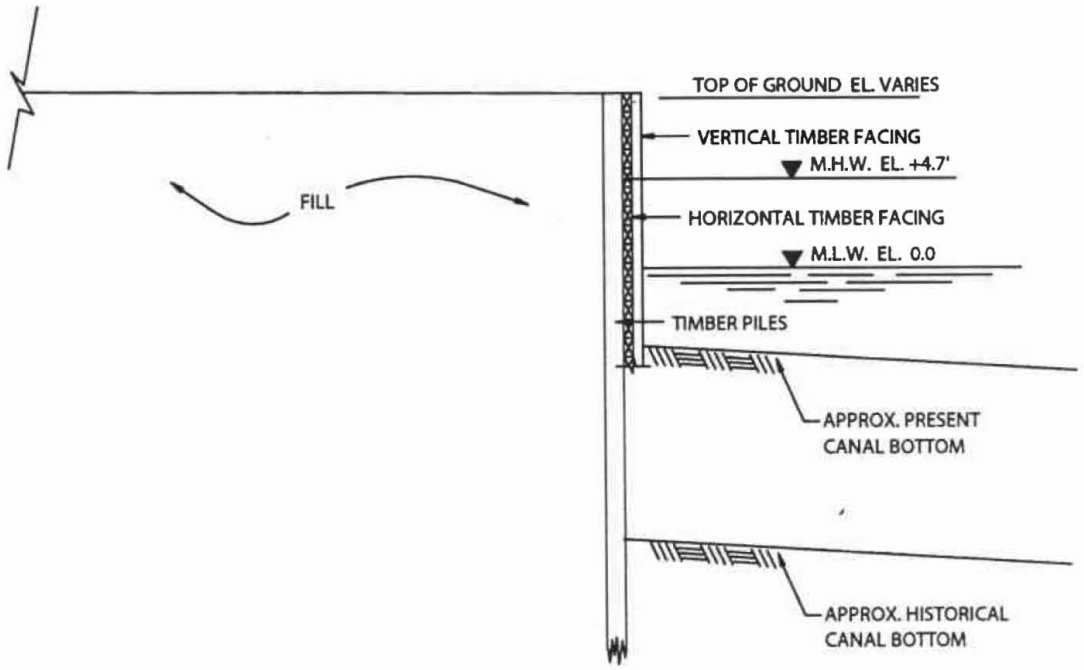
CLIENT: GOWANUS CANAL COMMUNITY DEVELOPMENT CORPORATION
515 COURT STREET BROOKLYN, NY 11231

STRUCTURE TYPE 12
GOWANUS CANAL
TYPICAL SECTION

PREPARED BY: ADAM BROWN MARINE CONSULTING
127 EAST 10 STREET SUITE 8 NEW YORK, NY 10003
(212) 505-0694

JUNE 2000 SCALE: 1 INCH = 10

Figure 12. Typical section of closely spaced timber piles with horizontal timber facing (Brown 2000). Used by permission.



CLOSELY SPACED TIMBER PILES WITH VERTICAL FACING OVER HORIZONTAL TIMBER FACING

10 0 10 FEET

NOTE: ONLY EXTERIOR FACE OF BULKHEAD ABOVE LOW WATER ACCESSIBLE TO INSPECTION. BALANCE OF CROSS SECTION IS ASSUMED BASED ON CONSTRUCTION WHICH WAS WHICH WAS TYPICAL FOR THE PERIOD DURING WHICH TIME THE ORIGINAL BULKHEAD WAS CONSTRUCTED.

GOWANUS CANAL BULKHEAD SURVEY

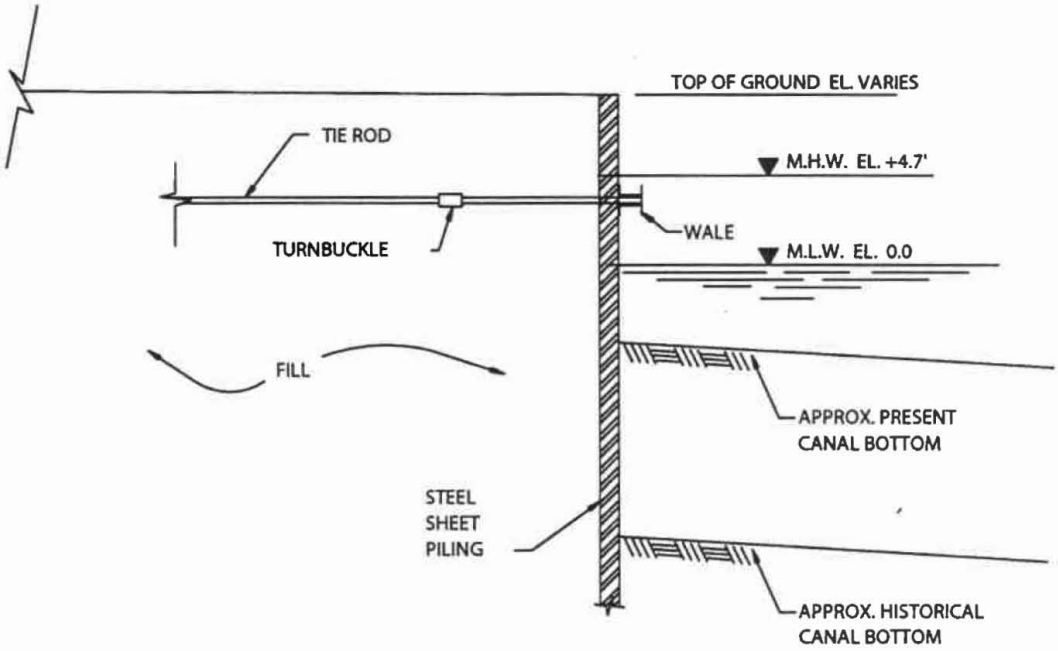
CLIENT: GOWANUS CANAL COMMUNITY DEVELOPMENT CORPORATION
515 COURT STREET BROOKLYN, NY 11231

STRUCTURE TYPE 12
GOWANUS CANAL
TYPICAL SECTION

PREPARED BY: ADAM BROWN MARINE CONSULTING
127 EAST 10 STREET SUITE 8 NEW YORK, NY 10003
(212) 505-0694

JUNE 2000 SCALE: 1 INCH = 10

Figure 13. Typical section of closely spaced timber piles with vertical facing over horizontal timber facing (Brown 2000). Used by permission.



STEEL SHEETPILE BULKHEAD

10 0 10 FEET

NOTE: ONLY EXTERIOR FACE OF BULKHEAD ABOVE LOW WATER ACCESSIBLE TO INSPECTION. BALANCE OF CROSS SECTION IS ASSUMED BASED ON CONSTRUCTION WHICH WAS WHICH WAS TYPICAL FOR THE PERIOD DURING WHICH TIME THE ORIGINAL BULKHEAD WAS CONSTRUCTED.

GOWANUS CANAL BULKHEAD SURVEY

CLIENT: GOWANUS CANAL COMMUNITY DEVELOPMENT CORPORATION
515 COURT STREET BROOKLYN, NY 11231

STRUCTURE TYPE 13
GOWANUS CANAL
TYPICAL SECTION

PREPARED BY: ADAM BROWN MARINE CONSULTING
127 EAST 10 STREET SUITE 8 NEW YORK, NY 10003
(212) 505-0694

JUNE 2000 SCALE: 1 INCH =

Figure 14. Typical section of sheet pile bulkhead (Brown 2000). Used by permission.

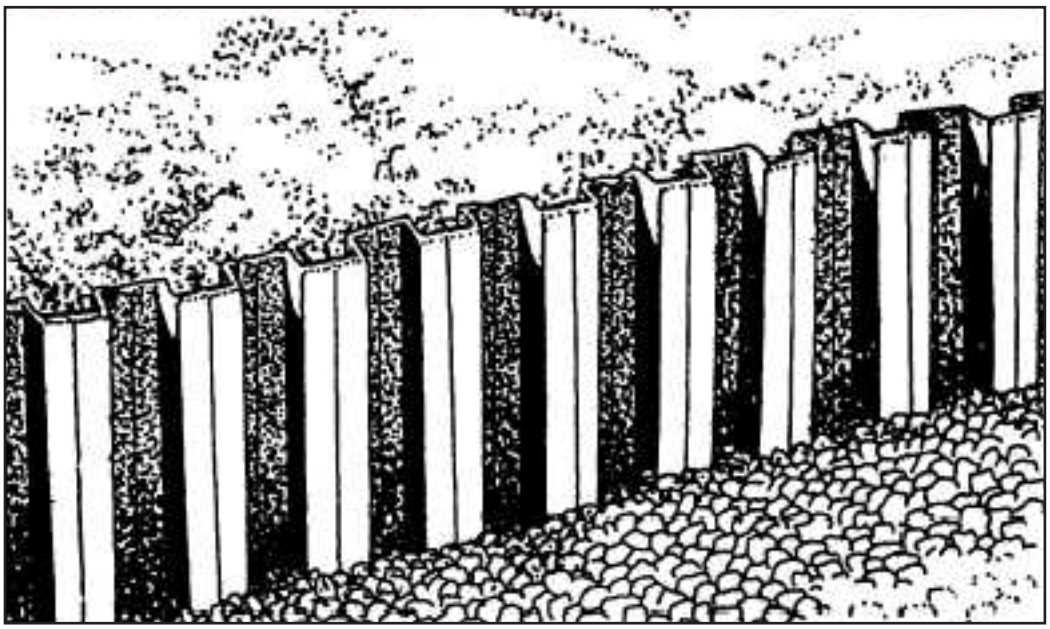


Figure 15. Elevation drawing of steel sheet pile bulkhead (from http://www.tpub.com/content/engineering/14071/css/14071_22.htm).

junction with the platform, where the thickness of riprap, through which the filling passed, was a minimum. This could have been prevented by careful grading of the riprap to make it sufficiently tight to hold the filling, by depositing a bed of selected dry filling over the riprap, or by placing a vertical sheeting at the rear edge of the platform.

It is important to make the dredged trench of sufficient

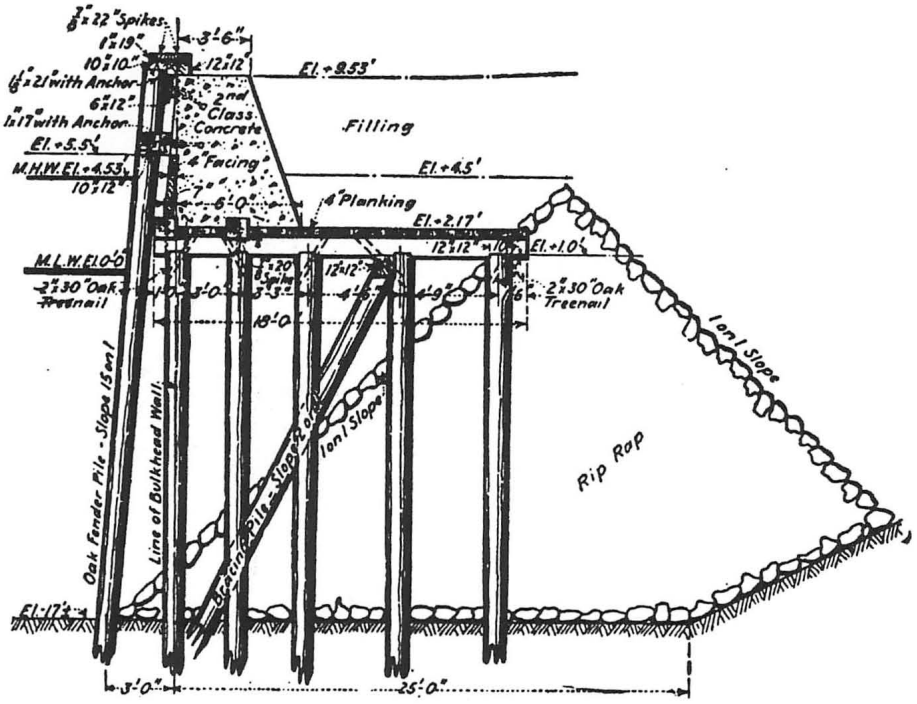


Fig. 31. Platform Wall, Gowanus Bay, Brooklyn, N. Y.

width, in the rear of such a wall, to prevent the riprap from sliding and pushing the piles out of plumb. Where such a wall encloses a large tidal area to be filled by pumping, special attention must be paid to the management of the filling and to the openings for controlling the effluent of the pumps and the flow of the tide through the wall, in order to prevent the washing of the dredged material through the riprap.

This wall was designed for a live load of 500 pounds per square foot and required piles to be placed 4 feet longi-

Figure 16. Example of platform wall construction (Greene 1917).

2.0 NATIONAL REGISTER SIGNIFICANCE AND INTEGRITY REQUIREMENTS FOR BULKHEADS

Considered in its entirety, the Gowanus Canal bulkhead system, as other surveyed bulkhead systems in New York (for example, the Hudson River Bulkhead), is representative of the evolution of bulkhead technology in the region. As noted, the earliest portions of the bulkhead may date from the 1850s or 1860s, while the dates of the most recent sections are not known, but probably post-date 1960.

The earliest portions of the bulkheads are of timber crib construction. Historian Michael Raber, in his evaluation of the Hudson River bulkheads, discusses significance and integrity issues related to timber crib bulkheads:

> When timber was relatively inexpensive, cribwork was a cheap form of bulkhead requiring only hand tools after any dredging phases. Disappearance of marine borers from the harbor beginning about 1850 made most bulkhead components permanent. Periodic replacement of all components subject to decay above mean low water complicates any identification of extant cribwork bulkheads with particular decades, and minimizes the significance of these upper elements. Cribwork bottoms are the least documented and probably most varied elements in timber bulkheads throughout the port, however, and tend to remain well preserved under water. The bottoms…could include important information on once-widespread vernacular engineering practice (Raber 2000:5).

As noted, the condition of portions of the bulkhead varies as does its date of construction or alteration. While concrete may usually be indicative of twentieth century construction, it may represent alterations to a nineteenth century bulkhead whose timber crib substructure remains intact. Steel sheet pile bulkheads may have replaced original bulkhead construction but may contribute to the significance of the resource as evidence of the evolution of bulkhead construction. Additional research should be focused on, among other topics, the dates of construction of the later portions of the bulkhead.

JMA recommends that all portions of the bulkhead that can be dated to before 1960 be considered eligible for the National Register under Criterion A. In addition, it is recommended that the timber crib portions of the bulkhead also be considered eligible under Criterion C as exemplifying the characteristics of nineteenth century timber crib construction and under Criterion D as having the potential to yield information about mid-to-late nineteenth century, timber crib construction practice.

3.0 PRESERVATION TREATMENT AND MITIGATION STRATEGIES FOR BULKHEADS

3.1 CASE STUDIES OF OTHER FEDERALLY-FUNDED OR PERMITTED UNDERTAKINGS INVOLVING BULKHEADS

The following represent easily accessible information on federal undertakings in which historic bulkheads are affected. This information may not be representative, and it is recommended that further information be sought in one or more state historic preservation office research collections.

Hudson River Park

Character of the Bulkhead

The Hudson River Park, planned to extend along the west shore of Manhattan from its tip to the Clinton neighborhood, includes within its APE the Hudson River Bulkhead. The bulkhead and its associated structural systems were constructed between 1871 and 1936 by the New York City Department of Docks. The EIS for the undertaking described the bulkhead as follows:

> The majority of the construction consisted of masonry walls on a variety of foundation systems, with quarry-faced ashlar granite block forming the visible face along nearly 80 percent of the armored frontage. The carefully built granite walls created a consistent monumental surface to waterfront sections seen by many thousands of transatlantic passengers, reinforcing an image of New York's commercial prominence. The bulkhead also incorporates two sections of older timber design. Approximately 18 percent of the bulkhead has concrete facing on a low-water relieving platform, a type which began to be used ca. 1920 and became the standard for new or replacement pile-supported bulkheads (AKRF 1998:7.5).

Proposed Treatment Recommendation and Mitigation

The EIS described the proposed treatment recommendation as follows:

> As presently proposed, repair work in sections of the bulkhead that are faced with granite would be done using either granite that has been salvaged from other sections of the bulkhead to replace its coping (or top layer). The proposed plan, which has been approved by SHPO, would involve rehabilitation of large sections/length of the granite bulkhead in relatively good/intact condition using granite salvaged from areas of the wall where the wall is either in poor conditions or where only a small length of the wall remains. In areas where the granite wall is either in deteriorated condition or of a short length, repairs would be made in concrete…. (AKRF 1998).

East River Waterfront Esplanade and Piers

Character of the Bulkhead

Typically, the visible bulkhead above the water line consisted of rough-cut granite ashlar with a capping course of larger granite blocks, with beveled upper edges surmounted by a simple squared timber

"backing-log." The granite walls were backed by mass concrete and originally included four courses of granite blocks laid as alternating headers and stretchers to an elevation of about 9.4 feet above mean low water.

All sections of the East River bulkhead within the project area have been altered to various degrees since their construction. On sections retaining the highest degree of integrity, such as the area between Broad Street and Coenties Slip, the visible alteration has been the replacement of the "backing-log" with a new piece of timber that, rather than being laid atop the granite cap stone, has been bolted into the face of the cap stone. Furthermore, a substantial metal railing has been added atop the bulkhead for much of its length, the majority of which likely dates to the construction of the FDR Drive along the waterfront (AKRF 2006:6-17).

Proposed Treatment Recommendation and Mitigation

The EIS for the proposed project indicates that the following changes would be made:

> From Broad Street to Old Slip, the esplanade would be developed with a new, approximately 20-foot-wide structure built out over the water, beyond the existing bulkhead. The new archipelago area is expected to be an independent structure on pilings.
>
> The proposed reconstruction of Pier 15 would require new piles, as well as presumably, minor alterations for attachments to the bulkhead.
>
> …the original granite bulkhead remains in good condition from Broad Street to Coenties Slip. The area would be visible from the new independent structure carrying the archipelago. The bulkhead structure itself would not be altered. In addition, the original granite bulkhead would remain visible at other locations within the project area. From Coenties Slip to Old Slip, the bulkhead may be in very poor condition behind the concrete wall which was built in the mid-20th century (AKRF 2006:6-24-25).

New Whatcom Redevelopment Project (Washington State)

Character of the Project and Bulkhead

Among the potentially eligible historic resources include the bulkhead/wharf defining the Whatcom Waterway in Bellingham, which is reflective of historic maritime use.

Proposed Treatment Recommendation and Mitigation

The proposed mitigation of the action would include HABS/HAER documentation for eligible structures that are scheduled for demolition, an interpretation plan for the Whatcom Waterway area and potentially eligible buildings and structures onsite that are scheduled for demolition or major modification, and salvage and reuse developed for potentially eligible for buildings and structures scheduled for demolition (Port of Bellingham 2008:3-11-12).

World Trade Center Transportation Hub, Route 9A Pedestrian Underpass

Character of the Project and Bulkhead

The project involves construction of a pedestrian concourse to provide access between the former World Trade Center site, Battery Park City, and the World Financial Center. The portion of the pedestrian concourse that crosses Route 9A will be constructed as an underpass, and this proposed construction intersects the expected location of a portion of the Hudson River Bulkhead (HRB).

Based on Michael Raber's 2000 study, it was expected that the bulkhead design would employ wide concrete blocks supporting a granite wall with wood log backing, receiving platform, inclined bracing and vertical posts. This design was used between 1899 and 1915 (Louis Berger Group, Inc. 2006:3).

Proposed Treatment and Mitigation

Based upon drawings in the Port Authority of New York and New Jersey (PANYNJP) it is thought that the upper portion of the bulkhead may have already been disturbed by installation of a flume/outfall for the World Trade Center. To confirm the condition of the HRB in the project area, Louis Berger suggested archeological monitoring during the Underpass construction.

Berger indicated a planned strategy if the configuration of the HRB was as expected:

> It is anticipated that the HRB will extend to a depth of 50 feet from the top of the granite wall. At a depth of approximately 15 feet from the top of the granite wall, it is anticipate that the material will change to concrete….The archaeologist will record the exposed granite/stone wall supported by stone and logs as the excavation contractor exposes this wall along the length of the trench…The archeologist will record evidence of the exposed HRB by drawing a plan view of it's [sic] extent across the archaeological trench, photograph the exposed portions, collect any archaeological material in association with the HRB, and draw the nearest soil profile (Louis Berger Group, Inc. 2006:9).

363-365 Bond Street, Brooklyn, New York

Character of the Project and the Bulkhead

The applicant, Toll Brothers, Inc., proposed to redevelop two blocks along the west waterfront of the Gowanus Canal. The proposed development would include a mixture of residential, commercial, community facility, and open space uses.

The portion of the canal bulkhead within the proposed project area is of wood crib construction.

Proposed Treatment and Mitigation

The proposed treatment of the portion of the bulkhead within the project area was the subject of a July 2008 memorandum from Joseph Silva, an engineer with Halcrow HPA. The initial plan called for the installing of a new steel sheet pile wall outboard of the existing timber crib bulkhead as close as constructability would allow. However, this plan was rejected by the New York State Department of Environmental Protection (Halcrow HPA 2009).

The memorandum evaluated four strategies: no action; repair the existing rock filled timber crib bulkhead; install a new steel sheet pile bulkhead behind the existing timber bulkhead; or complete demolition, excavation, removal, and replacement of the existing bulkhead.

The no action alternative would permit the bulkhead to continue to deteriorate and eventually collapse. Repairs to the bulkhead were viewed as providing only a short-term solution to the ongoing deterioration and eventual failure of the bulkhead. Repairs would consist of patching and possibility fortifying it in selected locations. However, since the deterioration was so widespread, these types of repairs would only be partially effective.

The third alternative, installation of a new sheet pile bulkhead behind the existing timber bulkhead was determined impractical because it would disrupt the framework of timbers causing the risk of failure of the bulkhead. The final alternative, demolition and rebuilding, was deemed too extreme, disruptive to the environment, and cost prohibitive.

As a solution, Halcrow HPA suggested the construction of a new steel sheet pile wall placed up against the existing bulkhead. The sheet pile wall would mimic the existing timber crib wall through use of timber facing consistent with the existing crib wall pattern (see Figure 17) (Halcrow HPA 2009).

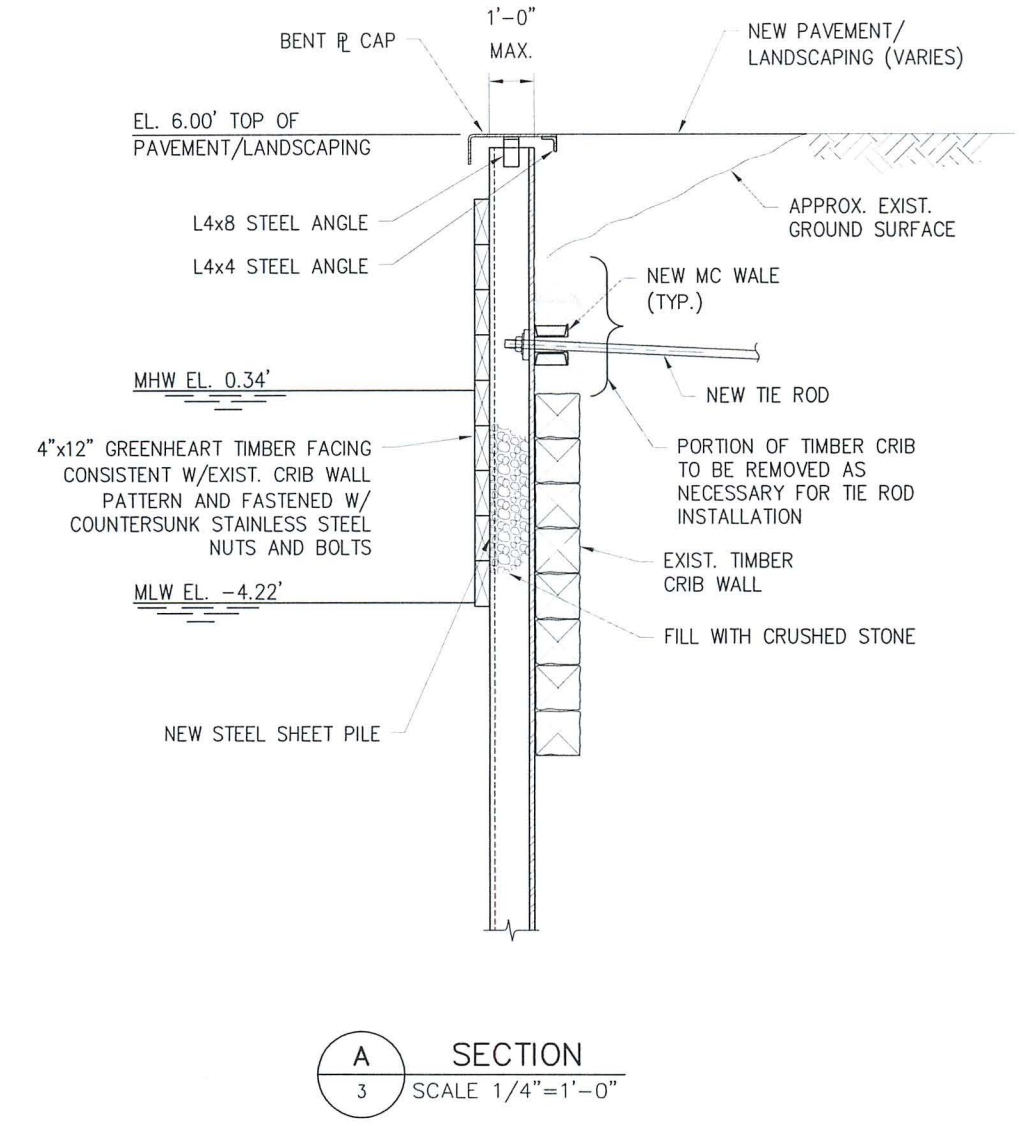
3.2 TREATMENT RECOMMENDATIONS FOR DEWATERED BULKHEADS

As part of the proposed remedy, dewatering of the canal may be applicable. An initial literature search failed to identify references specifically related to dewatering bulkheads. Sources were identified that discuss the effects of dewatering timber pile building foundations. As Russo, Brainerd, and Vatovec indicate in an article in *Structure*, dewatering poses substantial risk to structural members which remain continually immersed:

> Dewatering has the potential to cause ground settlement, settlement of pile foundations due to drawdown (negative skin friction), or rotting of untreated wood pile foundation systems.
>
> Removing water from weaker, compressible soil strata such as soft clay, peat and silt [as is apparently present in portions of the Gowanus Canal], effectively increases the stress on the soil, which can cause consolidation. Depending on the extent of compressible soils and the profile of the water-elevation drawdown, settlement can either be uniform or differential….Consolidation of soil around piles can create negative friction resulting in a downward force on the piles and subsequent settlement.
>
> When sections of previously immersed, untreated wood piles become exposed to air, conditions such as moisture and abundant oxygen, necessary for fungal growth, are created and initiate an accelerated decay process. The rate of deterioration of piles is highly sensitive to even minor variations in the environment around the piles: wood species, soil chemistry and makeup, etc. Consequently, the duration of exposure necessary to significantly impair the structural integrity of piles is unpredictable, but is usually longer than the length of most construction-related dewatering operations (Russo, Brainerd, and Vatovec 2008).

A similar caution is raised concerning pilings in a National Park Service Preservation Tech Note in which the author cautions that previously submerged timber piles that are exposed to air can quickly undergo dryout. Strategies suggested to mitigate this effect include using watertight excavation support systems such as slurry walls (NPS n.d.:3).

Because of the risk of structural deterioration during dewatering, it would be prudent to have a structural engineer or other professional familiar with timber deterioration on site or on call during the dewatering.



PURPOSE: PROPOSED NEW BULKHEAD PREPARED BY HPA ENGINEERS, P.C.	363–365 BOND STREET SHEETPILE BULKHEAD SECTION A	PROPOSED: STEEL SHEET PILE BULKHEAD CITY: BROOKLYN COUNTY: KINGS APPLICANT: TOLL BROTHERS, INC. SHEET 4 OF 7 DATE: 6/19/2008

Figure 17. Proposed alterations to timber crib bulkheads on portion of Gowanus Canal near 363-365 Bond Street (HPA Engineers, PC 2008).

The appropriate treatment strategy for deteriorated bulkheads will depend, of course, on its materials and method of construction. A discussion of treatment options is included in the Naval Engineering Facilities Command's (NEFC) *Maintenance of Waterfront Facilities* (UFC 4-150-07) available on the Internet (http://www.wbdg.org/ccb/DOD/UFC/ufc_4_150_07.pdf.) Some of the recommendations included in this publication are summarized below.

Repair of Timber Piles

Marine borers are the cause of extensive damage to wood piles, and due to the carcinogenic character of the leading marine wood preserver, creosote, some states have banned its use in marine waters. The United Facilities Criteria handbook for maintenance and operation of waterfront facilities discusses six repair methods for damaged wood piles:

1) Wrapping them with polyvinyl chloride or polyethylene wraps;

2) Partial posting of a damaged wood pile by joining a new pile but with bolted prestressed timber fish plates;

3) Encasement of the pile in concrete;

4) Repair or retrofit of timber piles with an underwater-curing epoxy and fiber-reinforced wraps;

5) Replacement with a new wood pile; and

6) Replacement of the wood pile with a new concrete pile.

Clearly, several of these methods would not adhere to the provisions of the Secretary of Interior's Standard due to either removal or covering of historic fabric. Suggestions 5 and 6 would permit the removal of the historic fabric with no attempt to retain the historic character of the structure. Suggestions 1 and 3 would involve obscuring the historic fabric of the bulkhead. Clearly, the remaining two alternatives: sistering a portion of the old pile to the new pile, and use of epoxy consolidates, represent approaches in keeping with accepted preservation practice with the exception of the application of a fiber-reinforced wrap to the column's exterior (Lopez-Anido et al. 2005:78-79).

Repair of Timber Sheet Piling Walls

The NEFC indicates that three repair strategies may be used on timber sheet piling walls. First, in the case of light to moderate movement of the upper portion of the wall, the existing tie-back system should be reinforced. If a tie-back system is not present, movement may be reduced by installing a tie-back system at the top of the wall. In the case of deterioration of pilings, a repair strategy includes installing a concrete cap or face on the timber sheet piling wall (NEFC 2001:6-4).

Clearly, the first two alternatives would be in keeping with the Secretary of the Interior's Standards for Rehabilitation, while the third would not. It must, however, be recognized, that the third alternative has already been used in sections of the Gowanus Canal.

Repair of Steel Sheet Pile Wall Bulkheads

The NEFC cites six repair techniques for sheet piling walls:

1. Coating and cathodic protection to slow corrosion;
2. Patching of missing portions of the wall;
3. Reinforcing the tie-back systems;
4. Replacement of the existing wall;
5. Installation of a concrete cap or face;
6. Scour protection.

Clearly, the first three repair techniques will not greatly alter the appearance of the existing wall so would be in accordance with the Secretary of the Interior's Standards. Coating and cathodic protection involves the installation of wiring and a power source to insure the cathodic protection and covering of the existing surface with a protective coating, as discussed on pages 3.21 and 3.22 of the UFC manual. Patching of the wall generally consists of either the use of epoxy or steel plate or both. Reinforcement of the tie back system can stabilize a wall that suffers from light to moderate movement. This repair (shown in Figure 17) would include installing a new wale above the existing wales, trenching for tie rods and deadman anchors, and installation of zinc or magnesium anodes to prevent future corrosion of the rods. A final strategy is to change the soil loading acting on the wall. For example, stone riprap dumped against its exterior toe will add resistance to movement (NEFC 2001:8-4-5).

Repair of Earth-Filled Structures

In the case of bulkheads used to retain the surrounding shoreline, the NEFC recommends using riprap to shore up the structure or reduce seepage and loss of backfill rather than performing expensive repairs to the structure. Specific recommendations include:

> Where there is evidence of erosion or loss of soil, protective coverings, such as rock fill or armor units, should be removed and the internal fill inspected. Any necessary repairs in the form of replacement of properly compacted soil should be made…A series of soil layers of varying coarseness may be used to insure that the finer, central materials cannot be washed out through the coarser shell materials (NEFC 2001:10-2).

A potentially useful material for retention of soil is geotextiles, porous, flexible polymeric fabrics used for separating soil types, soil retention, and strength reinforcement. Geotextiles may also be used to seal structures to prevent further loss of material (NEFC 2001:10-1-4).

3.3 MITIGATION OPTIONS FOR ADVERSE EFFECTS ON BULKHEADS

At the time of Brown's 2000 survey, an estimated 41.7 percent of the bulkhead length was in fair condition or worse. Fair condition was noted as characterized by timber deterioration sufficient to let fill escape. Because of lack of preventive maintenance in the intervening years, it is likely that the proportion of timber deterioration may have increased. Clearly, a portion of this length will not be able to be repaired.

For that portion of the bulkhead, several mitigation activities are recommended:

1) thorough archeological investigation of the timber cribs including photography and measured drawings to document the varieties in crib construction;

2) additional historical documentation including an intensive-level context development for both canal bulkheads and bulkheads of the New York area, as well as to obtain as much information as possible concerning the evolution of the Gowanus Canal bulkheads; and

3) a public history component consisting of an illustrated popular history of the Gowanus Canal; a website on the Gowanus Canal's history and cleanup; a video history of the canal and cleanup activities; and/or one or more interpretative panels concerning the canal placed at locations of public gathering near the canal.

4.0 SUGGESTIONS FOR ADDITIONAL AREAS OF RESEARCH AND REPOSITORIES

This preliminary investigation has yielded some information useful to the preparation of environmental compliance documentation for the Gowanus Canal, but it has also pointed to areas where additional information would be very useful. These areas of recommended further research include the following:

- Background information on timber crib construction using sources from the mid-nineteenth century and more recent research.

Such information would provide insight into the varieties of timber crib construction and how the Gowanus Canal cribs are typical or atypical of construction practices. Such sources may include digitized documents available on a variety of on-line public databases (such as Google Books and Internet Archives), and subscription databases (including JSTOR, American History and Life, etc.).

In addition, further information may be available in a variety of research collections, such as the American Philosophical Society, the Library Company of Philadelphia, and the Hagley Library (Wilmington, Delaware).

- Chronological information concerning construction of and alterations to the Gowanus Canal bulkhead.

A potentially critical source may be the archival records of the New York Department of Docks, an agency established in 1870. According to Raber, most surviving plans and drawings related to New York City's municipal waterfront construction are deposited at the Municipal Archives in Lower Manhattan.

Another useful Department of Docks source is likely to be the annual reports of the Department. Scattered earlier years are available on-line through Google Books, and an initial perusal yielded some references to bulkhead construction on the Gowanus Canal. These reports are available in the collection of the Main Research Library, New York Public Library, or at the Municipal Records and Research Center, New York Department of Records and Information Services.

Other sources may include newspaper articles and historic photographs. The *Brooklyn Daily Eagle* newspaper has been digitized from the 1840s into the early 1900s and will be a useful source of information for earlier changes to the canal, while articles on later canal alterations may be available in the Brooklyn Collection vertical files of the Brooklyn Public Library. The Brooklyn Collection also contains many historic photographs of the Gowanus Canal, as does the New York Public Library Research Library, and the Municipal Archives.

One other potential source of information on the construction and the evolution of the canal and its bulkheads is the New York Canal Records available at the New York State Archives in Albany. It is recommended that an initial reference inquiry be made to ascertain whether the collection does indeed contain information on the Gowanus Canal.

- Additional information concerning treatment recommendations for bulkhead components.

Up-to-date information on material conservation for bulkhead components may be available in a variety of sources including Naval and Army Corps of Engineers technical manuals, publications of the American Institute for Conservation and the Association for Preservation Technology, and the Texas A&M University Underwater Archeology program and Institute for Nautical Archeology. In addition, the

Maritime Conservation Program of East Carolina University may be able to provide guidance on materials conservation issues.

One specific study that may contain useful guidance is the 1965 *Bulkhead Stabilization Survey, Study and Report at Various Locations*, prepared by Christopher J. Foster Consulting Engineers. This report incorporates data from field survey of bulkhead failure areas and provides practical methods to stabilize existing steel sheet pile bulkheads and timber bulkheads with tie-rod anchorages. This report is available through the Defense Technical Information Center.

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SIDE SCAN SONAR REPORT

GOWANUS CANAL PRELIMINARY BULKHEAD STUDY BROOKLYN, KINGS COUNTY, NEW YORK



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Introduction

As part of the on-going Gowanus Canal Preliminary Bulkhead Study, high-frequency side scan sonar data were collected in Gowanus Canal, Brooklyn, NY. Side scan sonar data were collected along the entire length of the canal, from the mouth to the upstream limits above Douglas Street, including three large boat basins and a small boat basin (Figure 1). The purposes and goals of the investigation were to identify site conditions, anomalies, obstructions, and potential submerged cultural resources in the canal and boat basins and along the various bulkheads that canalized the waterway.

Description of Work Area

Sonar coverage extended from the mouth of the canal marked by a Hess marine terminal, all the way up to the head of the canal, including the four boat basins in the canal system. For the purposes of this side scan sonar survey, the four boat basins are referred to as Cove 1, Cove 2, etc. from north to south. Under our labeling designations, Cove 1 is the 5th St. boat basin, Cove 2 is the 6th St. boat basin, Cove 3 is the 7th St boat basin, and Cove 4 is the 11th St. (Lowes) boat basin.

At the mouth of the canal water depth generally exceeded 30 feet. While the entire canal is tidal water depth averaged 6-10 feet at mean low water (mlw) during our investigations. At the head of the canal and within the boat basins, water depth dropped to less than three feet (mlw). A large diameter aeration pipe extended from below the 3rd St. Bridge to Douglas St., near the head of the canal.

To access the entire range of the canal all work was conducted at or near high tide. Due to DGPS limitations while navigating under several of the five bridges that span the canal, accurate sonar coverage under the bridges was limited.

Summary of Field Survey and Equipment

Project horizontal reference is the New York (East) State Plane Coordinate System, NAD 83, in feet.

Side scan sonar survey operations were conducted from a 23-foot aluminum *SeaArk* survey vessel. A *Marine Sonic* Sea Scan HDS all-digital side scan sonar system with a dual frequency, 600/1200 kHz tow fish, was used to conduct the acoustic survey. *Hypack*, a laptop PC-based software package in conjunction with a Differential Global Positioning System (DGPS) onboard the survey vessel, provided positioning accuracy for the survey area of +/- three (3) feet. The sonar unit was operated at a 100-foot range with in the canal and boat basins to provide comprehensive coverage and sufficient detail of all features. At the mouth of the canal, south of the Hamilton Avenue Bridge, the sonar was set to a range of 150-feet since the water was deeper and the project area was considerably wider at this location.

The side scan sonar derives its information from reflected acoustic energy that is recorded onto a laptop survey computer. Side looking sonar, which transmits and receives swept high frequency bandwidth signals from transducers mounted on a sensor that is towed from a survey vessel. Two sets of transducers mounted in an array along both sides of the towfish generate the short duration acoustic pulses required for high resolution images. The pulses are emitted in a thin, fan-shaped pattern that spreads downward to either side of the towfish in a plane perpendicular to its path. As the fish is towed along the survey trackline this acoustic beam sequentially scans the bottom from a point beneath the fish outward to each side of the trackline.

Sonar data were gathered to document the nature and condition of the submerged portions of the canal floor and the various bulkheads that canalized the canal and the boat basins. Acoustic energy reflected from any discontinuities on the canal floor or along the faces of the bulkheads (exposed portions of cribbing, gaps in the sheet piles or cribbing, or blow-outs where rip-rap or other fill material has failed and spilled out onto the canal floor) is received by the set of transducers, amplified and transmitted to the survey vessel via a tow cable. The digital output from state-of-the-art units is essentially analogous to a high-angle oblique photograph and it provided detailed representations of submerged features and structural characteristics in the canal.

Raw sonar data files were edited using software from *Chesapeake Technology*. Data files were processed by adding the appropriate layback, and removing the water column from the records. A layback program in *Chesapeake Technology* provided sensor positioning. The actual sensor position was calculated by integrating two components; 1) offsets from the GPS antenna to the towing point, and 2) cable out to the sensor. The software then automatically calculated the sensor position for every sonar ping. The layback calculation was checked for each sonar set-up by conducting reciprocal passes on one end of a bulkhead corner.

All processed sonar files were then compiled into a geo-referenced sonar mosaic of the canal. The sonar mosaic was then overlaid onto a geo-referenced aerial photograph of the canal. All sonar records were inspected for potential man-made features and obstructions present on the canal floor. Individual acoustic data files were initially examined using Marine Sonic's *SeaScan* acoustic data review software to identify any unnatural or man-made features in the canal. Individual targets, e.g. localized obstructions, are described and displayed independently in Table 1, below. Acoustic targets are normally defined according to their spatial extent, configuration, location and environmental context.

Data Analysis & Discussion

While detailed and comprehensive sonar data were collected throughout the canal and all four boat basins, a few limiting factors were encountered. Various locations between the 3rd Street Bridge and the head of the canal were being actively aerated. The aeration process generated large volumes of air bubbles into the water column that effectively blanked-out sonar returns in the immediate vicinity of the aeration outfall points. Double-berthed construction and work barges also prevented comprehensive acoustic coverage at two locations at the mouth of the canal.

Locations of sonar contacts were typically described relative to the closest side of the canal. Since the path of the canal changes directions, the listed side of the canal (starboard – right, or port – left) was oriented to ascending the canal, or moving upstream.

Sonar Findings

Sonar records confirm the presence of isolated debris and general debris scatters, ship and/or barge wrecks, debris from bulkhead failures, and isolated objects and obstructions at various locations across the canal. A sonar mosaic of the entire canal was produced (Figure 1). Details of the mosaic at five locations within the canal are presented in Figures 2-6. A total of 29 features/obstructions or other noteworthy bottom characteristics were identified in the canal. See Table 1, below, for a complete listing and description of the bottom features identified on the sonar records. Locations of the 29 targets are depicted in Figures 7-9.

The 29 sonar targets and target clusters can be generally characterized into four groups: potential submerged cultural resources (7); isolated debris – potential cars (2); linear and circular debris or

debris fields (13); and rip-rap debris associated with apparent bulkhead failures (7). Typical examples of all the target types are found in Figures 10 – 18.

Sonar contacts **31, 31a, 31b, 37a, 37b, 37c,** and **39** are considered to be associated with potential submerged cultural resources. All seven contacts are located in Coves 1 and 2. A 60' long, round-ended shipwreck in Cove 1 was identified as Contact **31a.** Two large square-ended wood barges (contacts 37a & 37b) were identified in Cove 2. The other four potential submerged cultural resources are not intact ship wrecks but may represent material from ships.

Sonar contacts **2a** and **2b**, rectangular features partially buried close to bulkheads, have the potential to be automobiles or large containers discarded from the shoreline. Sonar contacts **2, 3, 5, 9, 9a, 24, 26, 28, 31c, 35, 42a, 48,** and **52** have been classified as linear or circular debris or debris fields. While debris is widespread across much of the canal these locations had prominent clusters or clearly defined individual objects and were designated as contacts. Sonar contacts **11, 11a, 11b, 17, 37, 42,** and **42b** were associated with debris fields that have spilled away from bulkheads – that are assumed to been compromised.

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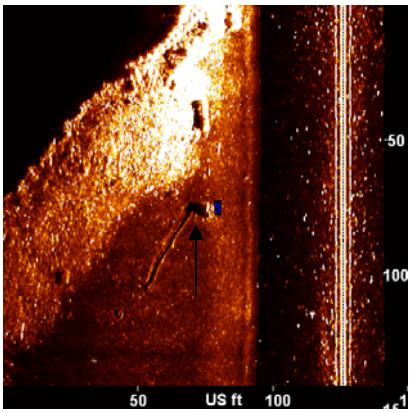
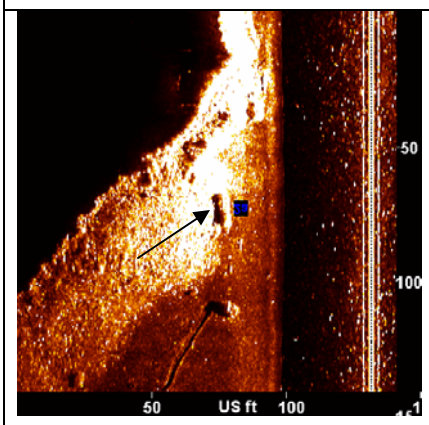
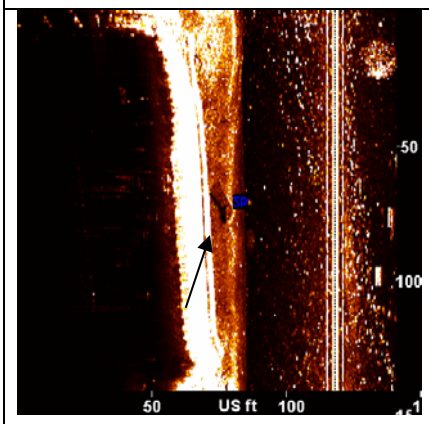
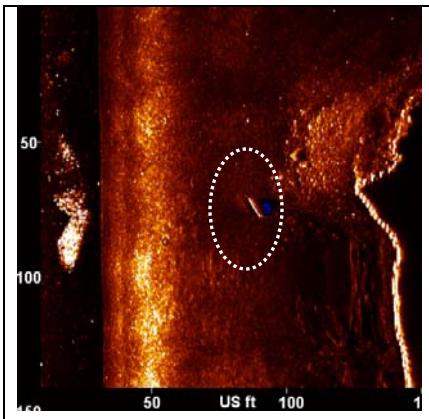
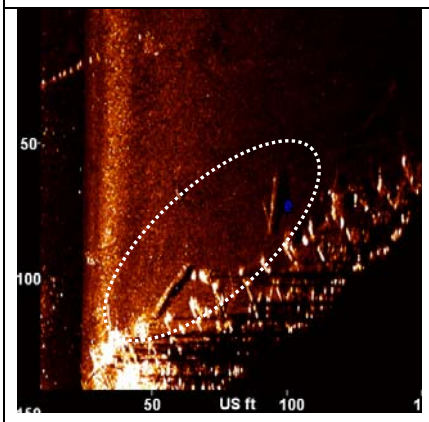
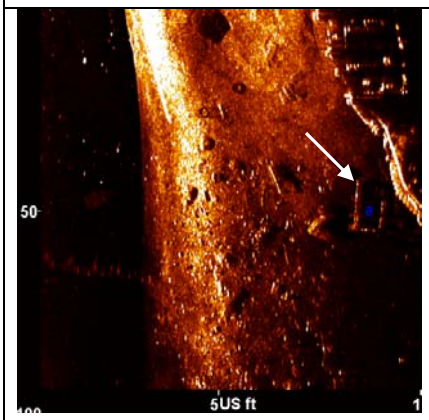
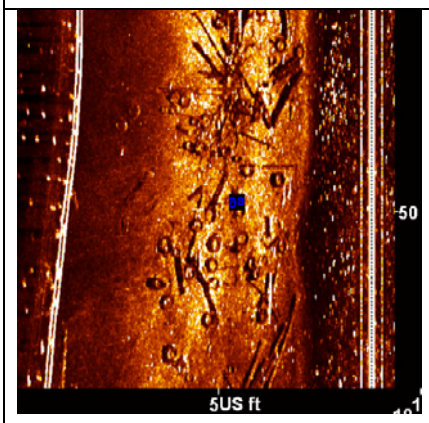
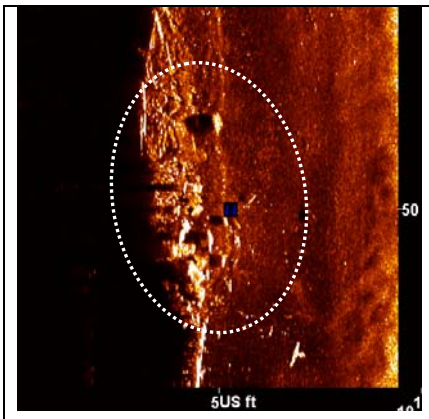
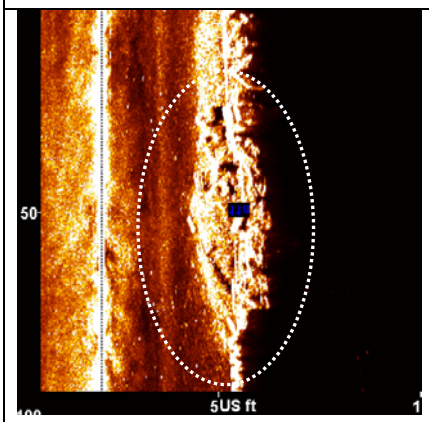
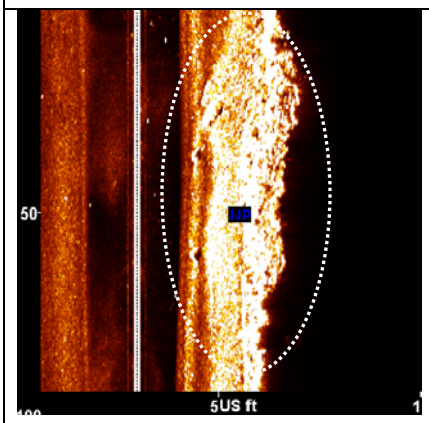
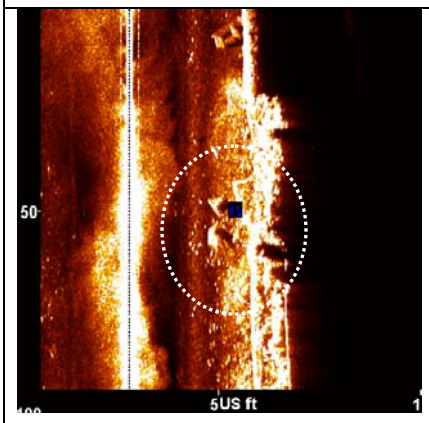
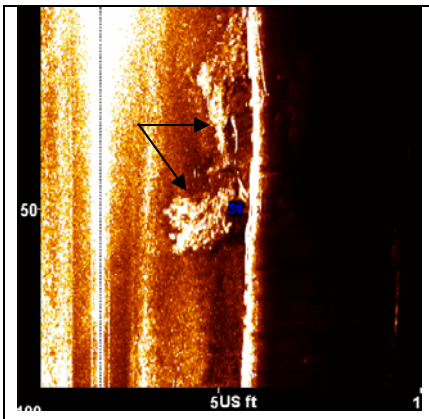
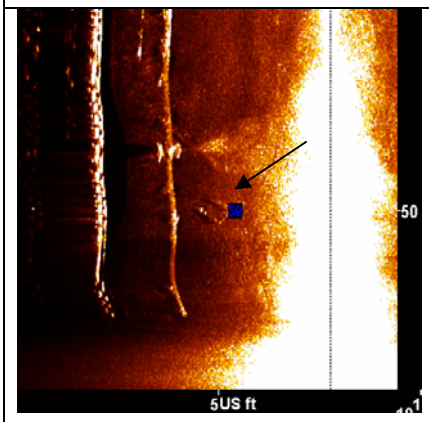
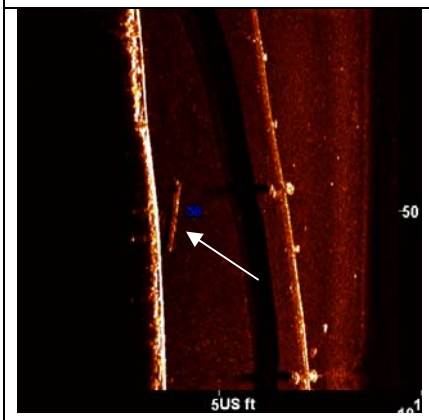
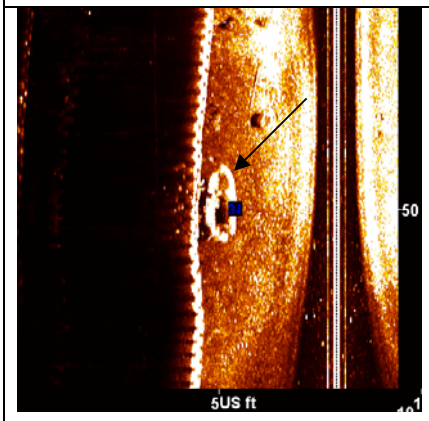
Table 1. Sonar Contacts in Gowanus Canal

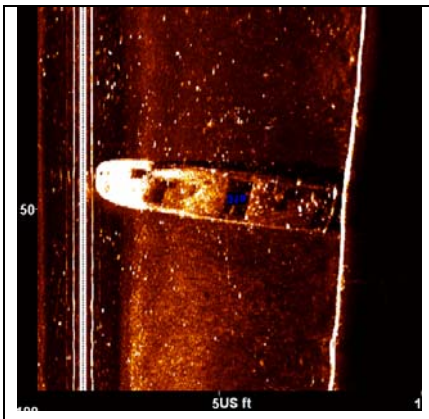
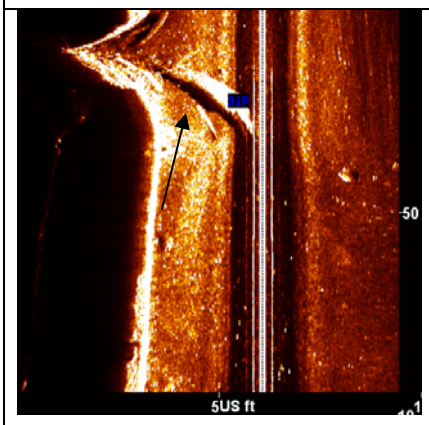
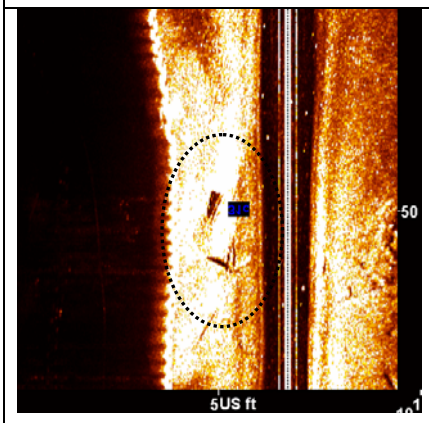
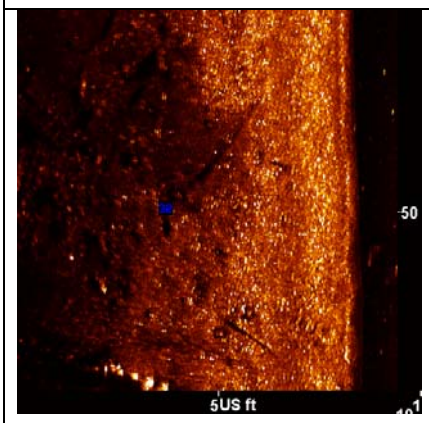
Note: Projected coordinates are expressed in New York (East) State Plane System (NAD83, feet)

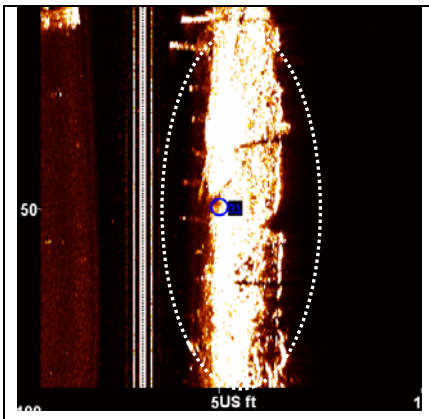
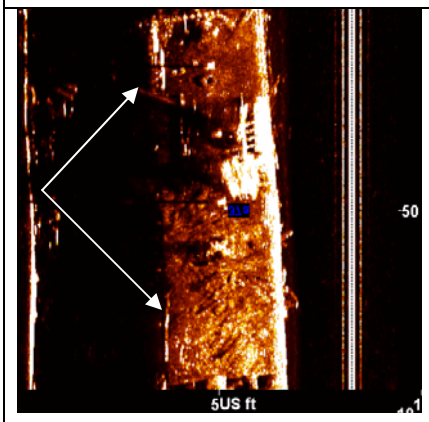
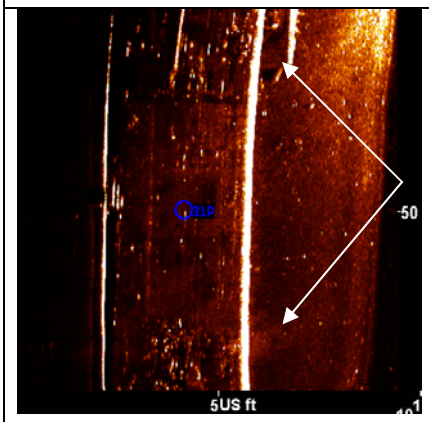
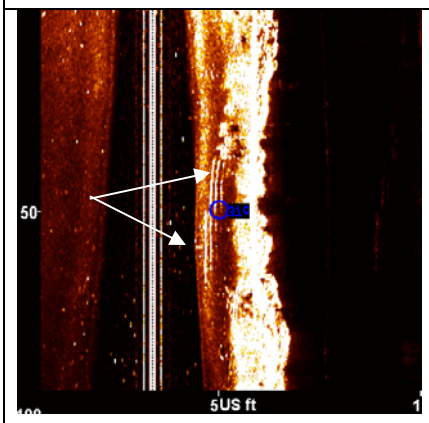
Contact Image	Contact Info	Comments
	**2** • Sonar Time at Target: 11/12/2010 15:32:45 • Click Position (Lat/Lon Coordinates) 40° 40.01747' N 074° 00.11718' W (WGS84) • Click Position (Projected Coordinates) (X) 630278.06 (Y) 668260.25 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0002.sds • Ping Number: 2956 • Range to Target: 15.56 US Feet • Fish Height: 10.41 US Feet • Event Number: 0 • Line Name: FILE0002	**Dimensions** Target Length35.2 US Feet Target Shadow:0.0 US Feet Target Width:3.8 US Feet Description: A 3.7' wide, hard square object with an associated linear feature that is over 35' long was located close to the ascending starboard side canal bulkhead, at the mouth of the canal
	**2a** • Sonar Time at Target: 11/12/2010 15:32:50 • Click Position (Lat/Lon Coordinates) 40° 40.01380' N 074° 00.12359' W (WGS84) • Click Position (Projected Coordinates) (X) 630249.25 (Y) 668237.81 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0002.sds • Ping Number: 3016 • Range to Target: 15.81 US Feet • Fish Height: 10.39 US Feet • Event Number: 0 • Line Name: FILE0002	**Dimensions** Target Height >= 0.0 US Feet Target Length10.6 US Feet Target Shadow:0.0 US Feet Target Width:4.6 US Feet Description: A rectangular object, 10.6' long and 4.6' wide (on its side), lying on the base of the rip rap associated with the ascending starboard side canal bulkhead. Feature may be an automobile.
	**2b** • Sonar Time at Target: 11/12/2010 15:33:07 • Click Position (Lat/Lon Coordinates) 40° 40.00717' N 074° 00.14694' W (WGS84) • Click Position (Projected Coordinates) (X) 630141.31 (Y) 668197.13 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0002.sds • Ping Number: 3208 • Range to Target: 12.02 US Feet • Fish Height: 10.36 US Feet • Event Number: 0 • Line Name: FILE0002	**Dimensions** Target Height >= 0.0 US Feet Target Length13.3 US Feet Target Shadow:0.0 US Feet Target Width:5.7 US Feet Description: A 13.3' long x 5.7' wide rectangular feature that is lying at the base of the ascending starboard side canal bulkhead. Feature may be an automobile.

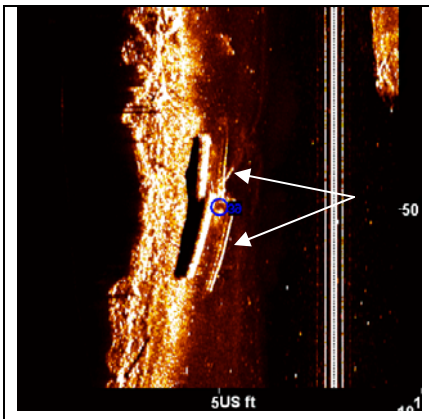
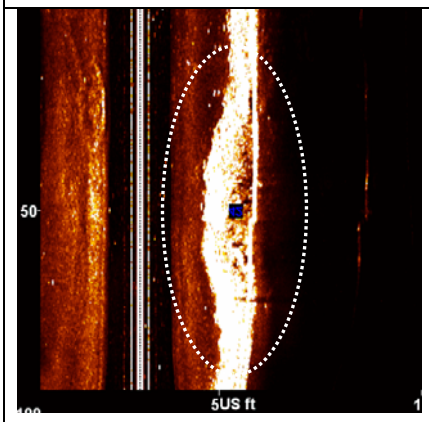
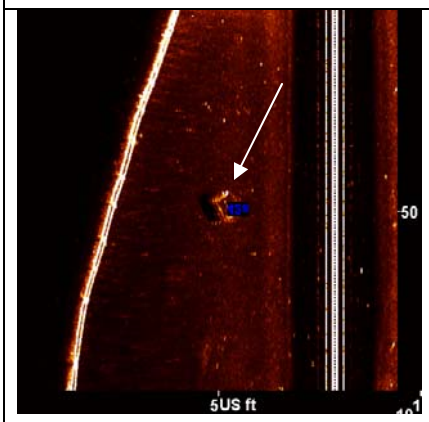
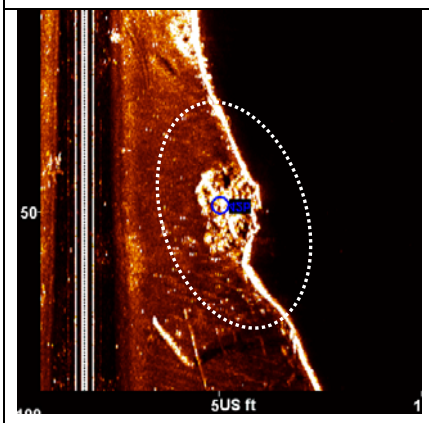
	**3** • Sonar Time at Target: 11/12/2010 15:36:31 • Click Position (Lat/Lon Coordinates) 40° 40.05958' N 074° 00.04486' W (WGS84) • Click Position (Projected Coordinates) (X) 630612.63 (Y) 668517.63 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0003.sds • Ping Number: 5283 • Range to Target: 26.76 US Feet • Fish Height: 10.55 US Feet • Event Number: 0 • Line Name: FILE0003	**Dimensions** Target Height >= 0.0 US Feet Target Length8.4 US Feet Target Shadow:0.0 US Feet Target Width:1.9 US Feet Description: An 8.4' long by 1.9' wide hard linear feature that is lying near the base of a pile of rip rap along the ascending starboard side canal bulkhead, at the mouth of the canal.
	**5** • Sonar Time at Target: 11/12/2010 15:47:53 • Click Position (Lat/Lon Coordinates) 40° 40.12596' N 074° 00.03662' W (WGS84) • Click Position (Projected Coordinates) (X) 630648.44 (Y) 668920.31 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0005.sds • Ping Number: 10998 • Range to Target: 29.21 US Feet • Fish Height: 9.18 US Feet • Event Number: 0 • Line Name: FILE0005	**Dimensions** Target Height >= 0.0 US Feet Target Length19.8 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: Linear debris pieces are scattered on the bottom close to the ascending port side canal bulkhead. Typical features are approximately 20' long.
	**9** • Sonar Time at Target: 11/12/2010 15:55:54 • Click Position (Lat/Lon Coordinates) 40° 40.18020' N 073° 59.93682' W (WGS84) • Click Position (Projected Coordinates) (X) 631107.25 (Y) 669252.06 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0009.sds • Ping Number: 16449 • Range to Target: 25.61 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0009	**Dimensions** Target Height >= 0.0 US Feet Target Length13.9 US Feet Target Shadow:0.0 US Feet Target Width:7.3 US Feet Description: A 13.9' x 7.3' rectangular feature is lying amidst other debris adjacent to the ascending starboard side canal bulkhead, downstream of the Hamilton Ave. Bridge
	**9a** • Sonar Time at Target: 11/12/2010 15:57:18 • Click Position (Lat/Lon Coordinates) 40° 40.26901' N 073° 59.93545' W (WGS84) • Click Position (Projected Coordinates) (X) 631110.88 (Y) 669791.88 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0009.sds • Ping Number: 17770 • Range to Target: 11.50 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0009	**Dimensions** Target Height >= 0.0 US Feet Target Length0.0 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: A wide spread scatter of misc. debris across the entire canal floor, downstream of the Hamilton Ave. Bridge. Debris is primarily comprised of tires and linear features

	**11** • Sonar Time at Target: 11/12/2010 16:18:51 • Click Position (Lat/Lon Coordinates) 40° 40.56976' N 073° 59.58343' W (WGS84) • Click Position (Projected Coordinates) (X) 632726.44 (Y) 671627.50 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0011.sds • Ping Number: 26054 • Range to Target: 15.60 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0011	**Dimensions** Target Height >= 0.0 US Feet Target Length0.0 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: Pile of large blocks and debris that has fallen away from the ascending port side canal bulkhead located between Coves 1 & 2.
	**11a** • Sonar Time at Target: 11/12/2010 16:19:13 • Click Position (Lat/Lon Coordinates) 40° 40.55213' N 073° 59.56146' W (WGS84) • Click Position (Projected Coordinates) (X) 632829.75 (Y) 671520.44 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0011.sds • Ping Number: 26365 • Range to Target: 8.81 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0011	**Dimensions** Target Height >= 0.0 US Feet Target Length0.0 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: Pile of debris that has fallen away from the bulkhead on the ascending starboard side of the canal between Coves 1 & 2.
	**11b** • Sonar Time at Target: 11/12/2010 16:20:28 • Click Position (Lat/Lon Coordinates) 40° 40.53749' N 073° 59.47494' W (WGS84) • Click Position (Projected Coordinates) (X) 633229.50 (Y) 671434.63 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0011.sds • Ping Number: 27407 • Range to Target: 6.19 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0011	**Dimensions** Target Height >= 0.0 US Feet Target Length0.0 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: A long pile of rip rap, almost 200' long, has fallen away from the bulkhead on the ascending starboard side of the canal, just below Cove 1
	**17** • Sonar Time at Target: 11/12/2010 16:34:13 • Click Position (Lat/Lon Coordinates) 40° 40.60432' N 073° 59.39208' W (WGS84) • Click Position (Projected Coordinates) (X) 633610.81 (Y) 671842.25 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0017.sds • Ping Number: 34369 • Range to Target: 6.74 US Feet • Fish Height: 5.39 US Feet • Event Number: 0 • Line Name: FILE0017	**Dimensions** Target Height >= 0.0 US Feet Target Length0.0 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: A pile of hard, square debris is present along the ascending port side canal bulkhead between the 3rd St. and Carroll St. bridges

	**24** • Sonar Time at Target: 11/12/2010 16:53:02 • Click Position (Lat/Lon Coordinates) 40° 40.85243' N 073° 59.25567' W (WGS84) • Click Position (Projected Coordinates) (X) 634232.88 (Y) 673351.31 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0024.sds • Ping Number: 42226 • Range to Target: 8.93 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0024	**Dimensions** Target Height >= 0.0 US Feet Target Length57.2 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: A large feature (suspected to be part of a tree), is present along the ascending port side bulkhead of the canal, above the Union St. bridge. Feature extends for more than 57' along the bulkhead.
	**26** • Sonar Time at Target: 11/12/2010 16:56:42 • Click Position (Lat/Lon Coordinates) 40° 40.74142' N 073° 59.31701' W (WGS84) • Click Position (Projected Coordinates) (X) 633953.13 (Y) 672677.06 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0026.sds • Ping Number: 44324 • Range to Target: 8.43 US Feet • Fish Height: 4.95 US Feet • Event Number: 0 • Line Name: FILE0026	**Dimensions** Target Height >= 0.0 US Feet Target Length6.9 US Feet Target Shadow:0.0 US Feet Target Width:3.1 US Feet Description: A "U"-shaped object, 7' x 3', lying flat on the canal floor, next to the aeration pipeline between the Union St. & Carroll St. bridges
	**28** • Sonar Time at Target: 11/12/2010 17:20:24 • Click Position (Lat/Lon Coordinates) 40° 40.61416' N 073° 59.36416' W (WGS84) • Click Position (Projected Coordinates) (X) 633739.13 (Y) 671902.31 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0028.sds • Ping Number: 46575 • Range to Target: 18.29 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0028	**Dimensions** Target Height >= 0.0 US Feet Target Length20.1 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: Linear object, 20' long located adjacent to the ascending starboard side canal bulkhead, between Carroll St. and 3rd St. bridges
	**31** • Sonar Time at Target: 11/12/2010 17:40:44 • Click Position (Lat/Lon Coordinates) 40° 40.52696' N 073° 59.42687' W (WGS84) • Click Position (Projected Coordinates) (X) 633453.19 (Y) 671371.88 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0031a.sds • Ping Number: 48477 • Range to Target: 8.81 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0031a	**Dimensions** Target Height >= 0.0 US Feet Target Length18.9 US Feet Target Shadow:0.0 US Feet Target Width:8.1 US Feet Description: A small boat wreck, 19' x 8', lies on the canal floor adjacent to the ascending port side canal bulkhead in Cove 1. Misc. debris is located on the canal floor near the wreck.

	**31a** • Sonar Time at Target: 11/12/2010 17:42:06 • Click Position (Lat/Lon Coordinates) 40° 40.47958' N 073° 59.39437' W (WGS84) • Click Position (Projected Coordinates) (X) 633604.38 (Y) 671084.13 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0031a.sds • Ping Number: 49376 • Range to Target: 10.24 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0031a	**Dimensions** Target Height >= 0.0 US Feet Target Length59.8 US Feet Target Shadow:0.0 US Feet Target Width:13.0 US Feet Description: The hull of a sunken boat is located perpendicular to the ascending starboard side canal bulkhead in Cove 1. The rounded end of the vessel is located on the offshore side of the wreck. A deck and hatch like opening in the deck are visible. The wreck is 59.8' long and 13' wide.
	**31b** • Sonar Time at Target: 11/12/2010 17:43:09 • Click Position (Lat/Lon Coordinates) 40° 40.46379' N 073° 59.34356' W (WGS84) • Click Position (Projected Coordinates) (X) 633839.88 (Y) 670990.13 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0031a.sds • Ping Number: 50002 • Range to Target: 3.28 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0031a	**Dimensions** Target Height >= 0.0 US Feet Target Length24.5 US Feet Target Shadow:0.0 US Feet Target Width:6.1 US Feet Description: A hard rectangular feature, 24.5' x 6', with several feet of relief off the canal floor is located in the northeastern corner of Cove 1.
	**31c** • Sonar Time at Target: 11/12/2010 17:41:13 • Click Position (Lat/Lon Coordinates) 40° 40.50613' N 073° 59.42138' W (WGS84) • Click Position (Projected Coordinates) (X) 633479.31 (Y) 671244.81 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0031.sds • Ping Number: 48823 • Range to Target: 5.19 US Feet • Fish Height: 1.93 US Feet • Event Number: 0 • Line Name: FILE0031	**Dimensions** Target Height >= 0.0 US Feet Target Length9.3 US Feet Target Shadow:0.0 US Feet Target Width:4.4 US Feet Description: Two rectangular features, longer one is 9.3' x 4.4', are lying on the canal floor near the ascending port side canal bulkhead in Cove 1
	**35** • Sonar Time at Target: 11/12/2010 17:49:56 • Click Position (Lat/Lon Coordinates) 40° 40.55351' N 073° 59.65438' W (WGS84) • Click Position (Projected Coordinates) (X) 632400.31 (Y) 671526.13 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0035.sds • Ping Number: 54513 • Range to Target: 20.45 US Feet • Fish Height: 4.77 US Feet • Event Number: 0 • Line Name: FILE0035	**Dimensions** Description: Wide scatter of debris across the canal floor at the mouth of Cove 2.

	**37** • Sonar Time at Target: 11/12/2010 17:52:39 • Click Position (Lat/Lon Coordinates) 40° 40.51643' N 073° 59.61181' W (WGS84) • Click Position (Projected Coordinates) (X) 632598.56 (Y) 671301.94 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0037.sds • Ping Number: 56231 • Range to Target: 5.78 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0037	**Dimensions** Target Height >= 0.0 US Feet Target Length127.5 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: A 127' long section of rubble/rip-rap that was spilled out of the ascending starboard side canal bulkhead in Cove 2.
	**37a** • Sonar Time at Target: 11/12/2010 17:53:02 • Click Position (Lat/Lon Coordinates) 40° 40.51506' N 073° 59.58847' W (WGS84) • Click Position (Projected Coordinates) (X) 632705.88 (Y) 671295.13 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0037.sds • Ping Number: 56473 • Range to Target: 10.01 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0037	**Dimensions** Target Height >= 0.0 US Feet Target Length110.1 US Feet Target Shadow:0.0 US Feet Target Width:32.2 US Feet Description: The sunken remains of a 110' long x 32' wide square-ended barge is lying on the canal floor in Cove 2. Some superstructure from the deck of the barge is visible above the water surface.
	**37b** • Sonar Time at Target: 11/12/2010 17:53:59 • Click Position (Lat/Lon Coordinates) 40° 40.49858' N 073° 59.54452' W (WGS84) • Click Position (Projected Coordinates) (X) 632910.44 (Y) 671196.13 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0037.sds • Ping Number: 57062 • Range to Target: 17.93 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0037	**Dimensions** Target Height >= 0.0 US Feet Target Length126.6 US Feet Target Shadow:0.0 US Feet Target Width:37.3 US Feet Description: The hull of a square-ended barge, 126' x 37' is lying on the canal floor in the northeast corner of Cove 2. The wreck of a small fiberglass boat is resting on the deck of this barge
	**37c** • Sonar Time at Target: 11/12/2010 17:53:53 • Click Position (Lat/Lon Coordinates) 40° 40.48965' N 073° 59.55688' W (WGS84) • Click Position (Projected Coordinates) (X) 632853.56 (Y) 671141.94 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0037.sds • Ping Number: 57004 • Range to Target: 5.00 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0037	**Dimensions** Target Height >= 0.0 US Feet Target Length29.7 US Feet Target Shadow:0.0 US Feet Target Width:0.0 US Feet Description: Two hard rectangular features, 29' long are lying on the canal floor next to the ascending starboard side canal bulkhead in Cove 2. These 2 rectangular features are in the middle of a pile of rip rap that has fallen away from the bulkhead.

	**39** • Sonar Time at Target: 11/12/2010 17:55:31 • Click Position (Lat/Lon Coordinates) 40° 40.50018' N 073° 59.57565' W (WGS84) • Click Position (Projected Coordinates) (X) 632765.25 (Y) 671204.31 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0039.sds • Ping Number: 57830 • Range to Target: 8.64 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0039	**Dimensions** Target Height >= 0.0 US Feet Target Length21.8 US Feet Target Shadow:0.0 US Feet Target Width:8.0 US Feet Description: Two rectangular objects are lying on the canal floor adjacent to the ascending starboard side canal bulkhead in Cove 2. One of the features is partially lying on top of the other feature. The top feature is 21.8' long x 8.0' wide.
	**42** • Sonar Time at Target: 11/12/2010 18:02:18 • Click Position (Lat/Lon Coordinates) 40° 40.49537' N 073° 59.71893' W (WGS84) • Click Position (Projected Coordinates) (X) 632103.13 (Y) 671171.88 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0042.sds • Ping Number: 62674 • Range to Target: 6.01 US Feet • Fish Height: 2.76 US Feet • Event Number: 0 • Line Name: FILE0042	**Dimensions** Target Height >= 0.0 US Feet Target Length61.8 US Feet Target Shadow:0.0 US Feet Target Width:13.1 US Feet Description: A pile of rip-rap, 62' long x 13' wide has spilled away from the ascending starboard side bulkhead in Cove 3. Rip rap pile appears to correspond with a visibly sagging deck/parking area adjacent to the top of the bulkhead at this location.
	**42a** • Sonar Time at Target: 11/12/2010 18:02:53 • Click Position (Lat/Lon Coordinates) 40° 40.48759' N 073° 59.68093' W (WGS84) • Click Position (Projected Coordinates) (X) 632279.44 (Y) 671125.38 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0042.sds • Ping Number: 63150 • Range to Target: 8.74 US Feet • Fish Height: 3.69 US Feet • Event Number: 0 • Line Name: FILE0042	**Dimensions** Target Height >= 0.0 US Feet Target Length5.7 US Feet Target Shadow:0.0 US Feet Target Width:4.9 US Feet Description: A square box-like object, 5.7' x 4.9' is lying on the canal floor in Cove 3.
	**42b** • Sonar Time at Target: 11/12/2010 18:03:26 • Click Position (Lat/Lon Coordinates) 40° 40.46859' N 073° 59.65896' W (WGS84) • Click Position (Projected Coordinates) (X) 632381.31 (Y) 671010.13 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0042.sds • Ping Number: 63560 • Range to Target: 10.16 US Feet • Fish Height: 2.49 US Feet • Event Number: 0 • Line Name: FILE0042	**Dimensions** Target Height >= 0.0 US Feet Target Length19.4 US Feet Target Shadow:0.0 US Feet Target Width:14.8 US Feet Description: A pile of rip-rap, 19.4' x 14.8' has spilled out on the canal floor from the ascending starboard side bulkhead in Cove 3.

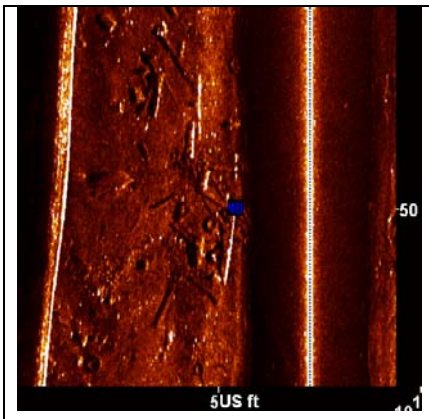
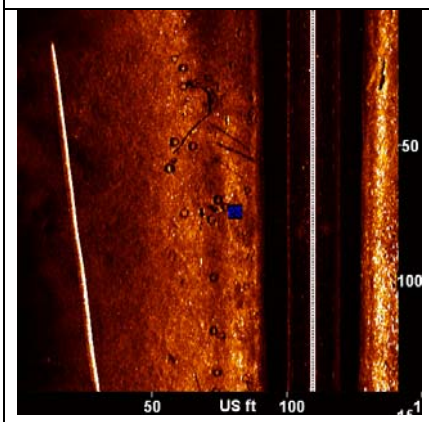
	**48** • Sonar Time at Target: 11/12/2010 18:13:12 • Click Position (Lat/Lon Coordinates) 40° 40.40199' N 073° 59.82467' W (WGS84) • Click Position (Projected Coordinates) (X) 631617.44 (Y) 670602.56 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0048.sds • Ping Number: 67821 • Range to Target: 6.88 US Feet • Fish Height: 5.24 US Feet • Event Number: 0 • Line Name: FILE0048	**Dimensions** Description: Typical scatter of debris on the canal floor between the 9th St. and Hamilton Ave. bridges. Linear and circular debris is scattered across this portion of the canal.
	**52** • Sonar Time at Target: 11/12/2010 18:27:41 • Click Position (Lat/Lon Coordinates) 40° 40.22026' N 073° 59.94918' W (WGS84) • Click Position (Projected Coordinates) (X) 631048.44 (Y) 669495.63 • Map Proj: • Acoustic Source File: I:\Sonar Data\Gowanus Canal\20101112\FILE0052.sds • Ping Number: 76366 • Range to Target: 10.54 US Feet • Fish Height: 0.00 US Feet • Event Number: 0 • Line Name: FILE0052	**Dimensions** Description: Numerous circular features, suspect tires, litter the canal floor, south of the Hamilton Ave. bridge.



Figure 1. Sonar Mosaic Overlaid on Aerial Photograph

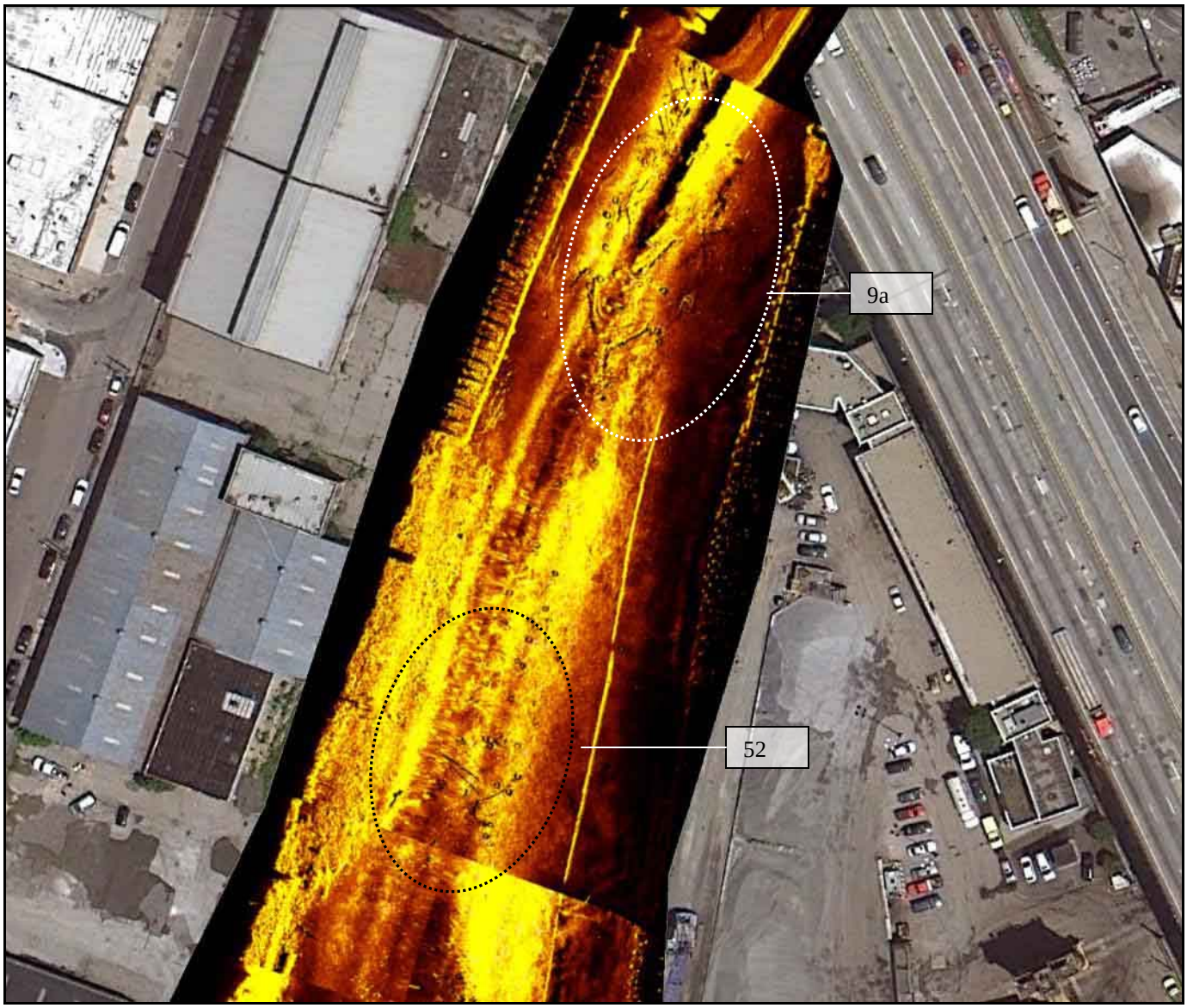


Figure 2. Detail of Sonar Mosaic at Hamilton Street Bridge

Note: Targets are listed in Table 1.



Figure 3. Detail of Sonar Mosaic at Cove #4 (11th St. Boat Basin - Lowes)

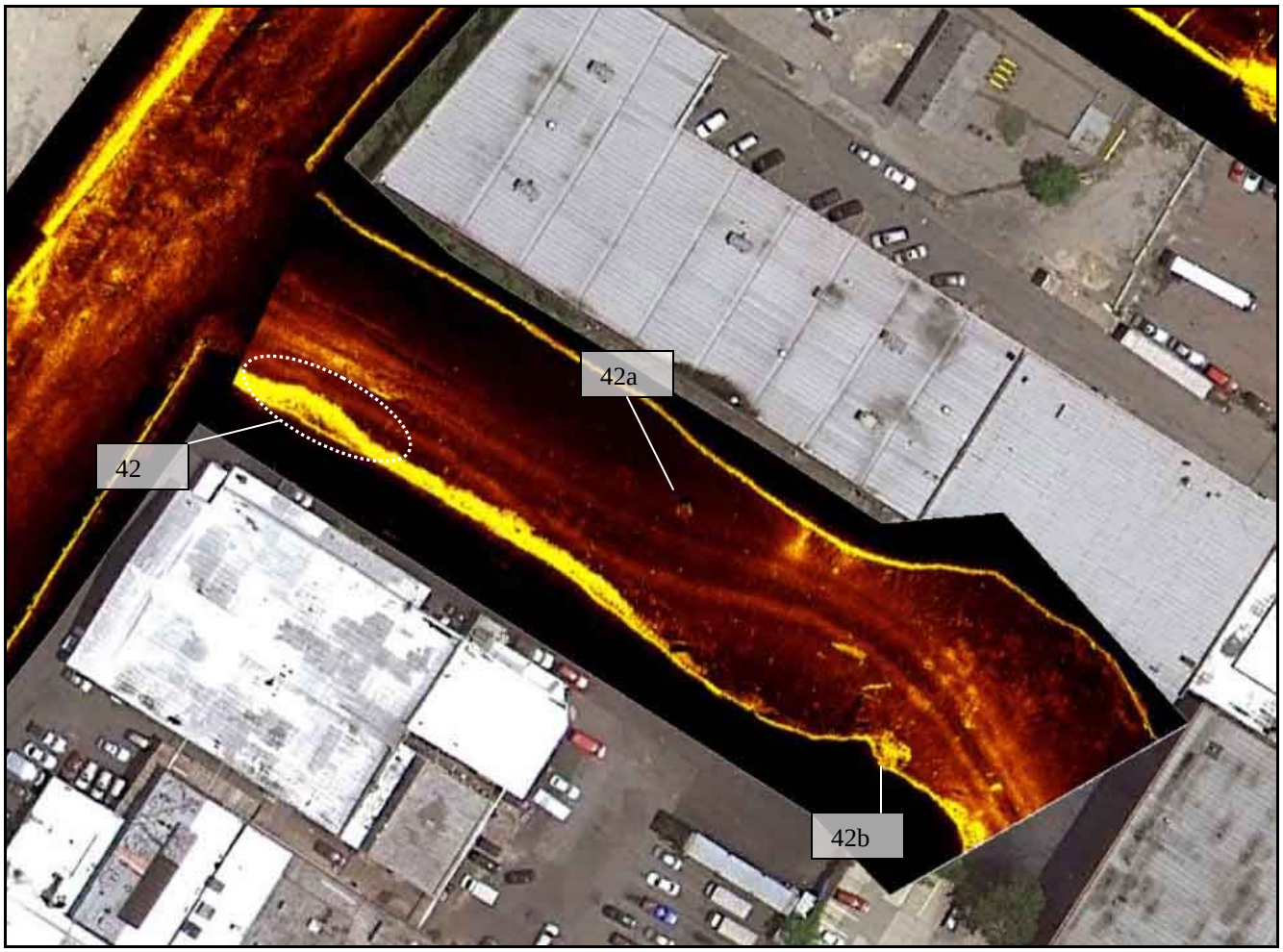


Figure 4. Detail of Sonar Mosaic at Cove #3 (7th St. Boat Basin)

Note: Targets are listed in Table 1.

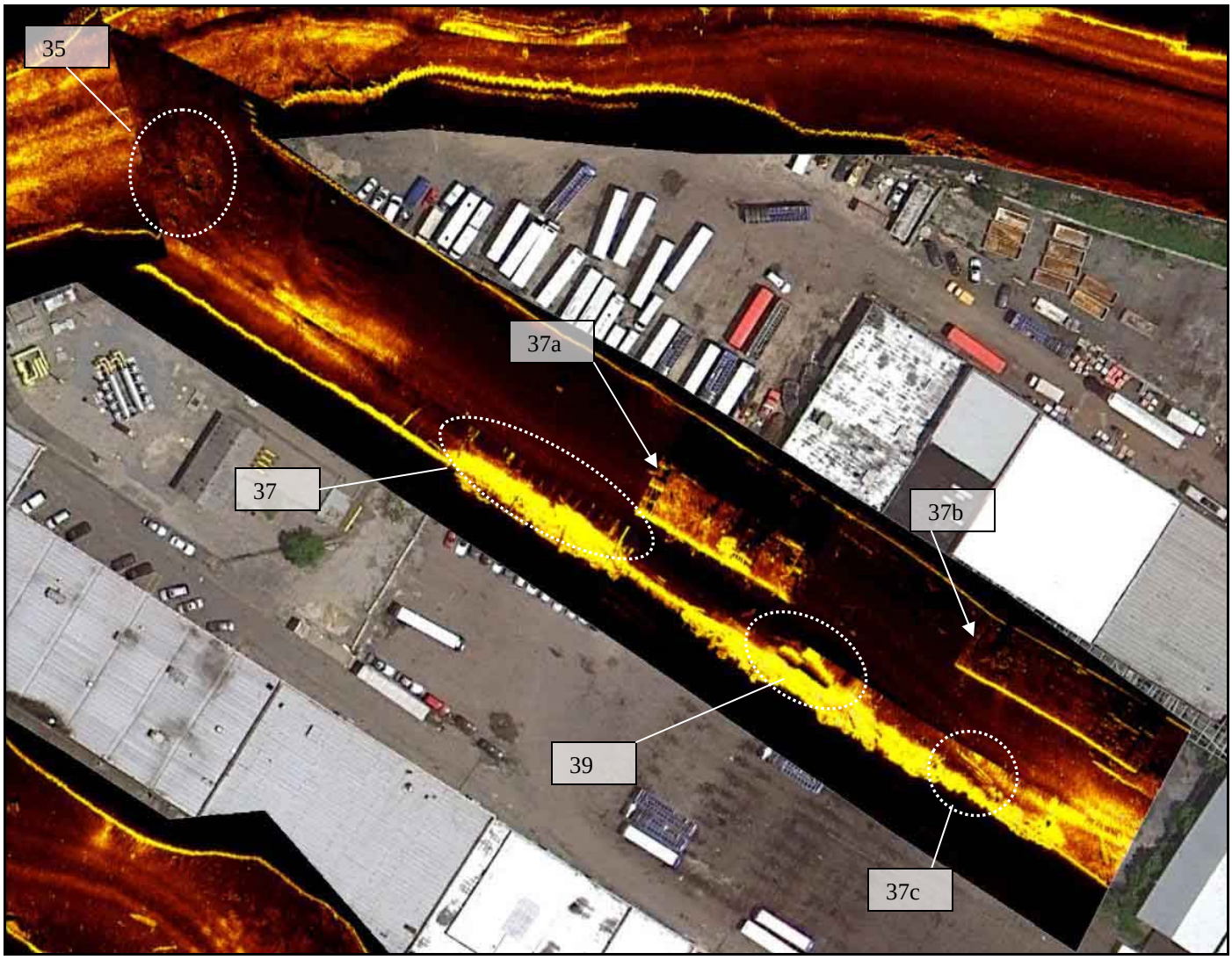


Figure 5. Detail of Sonar Mosaic at Cove #2 (6th St. Boat Basin)

Note: Targets are listed in Table 1.



Figure 6. Detail of Sonar Mosaic at Cove #1 (5th St. Boat Basin)

Note: Targets are listed in Table 1.

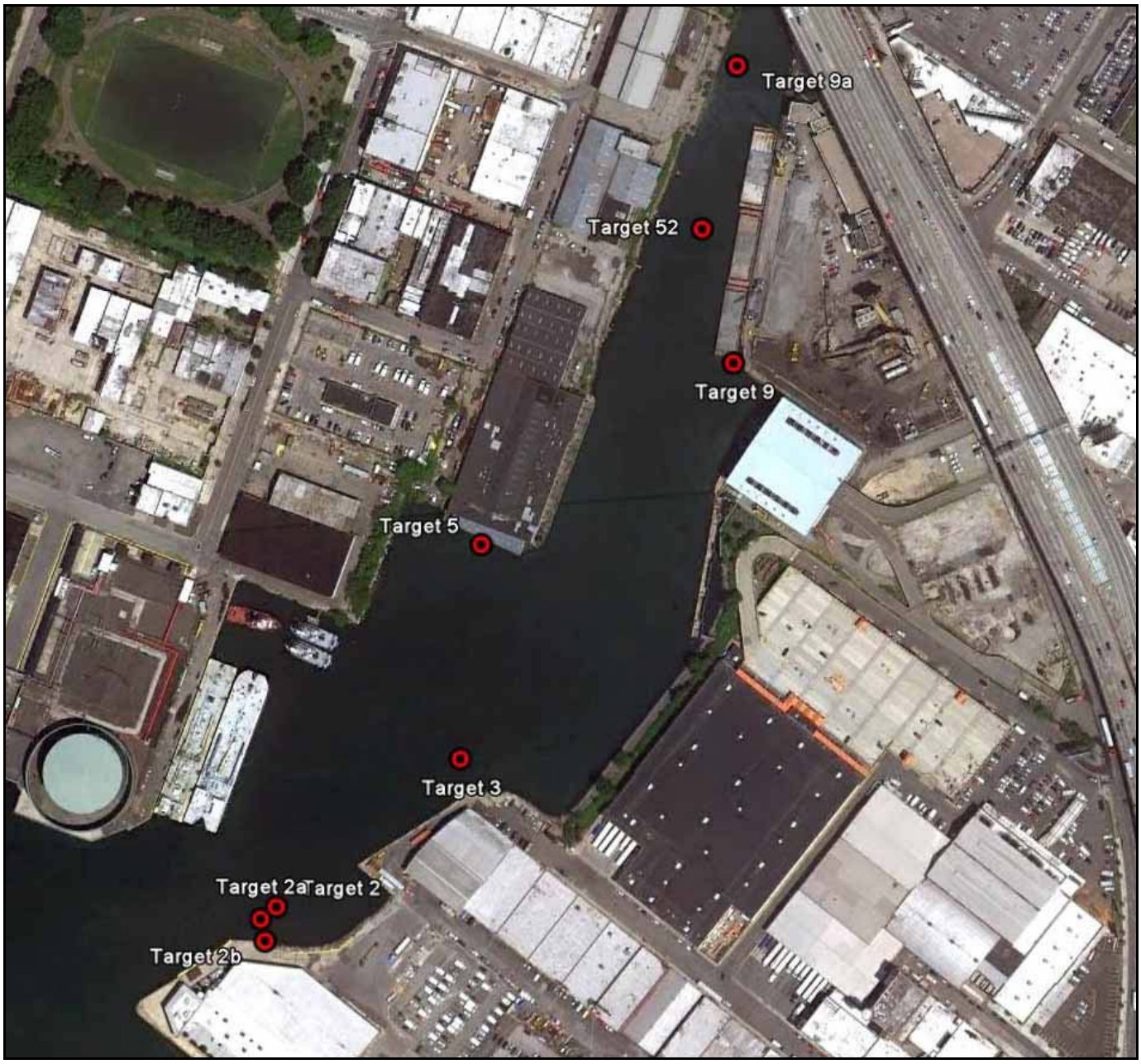


Figure 7. Locations of Sonar Targets in Mouth of Canal

Note: See Table 1 for target list.

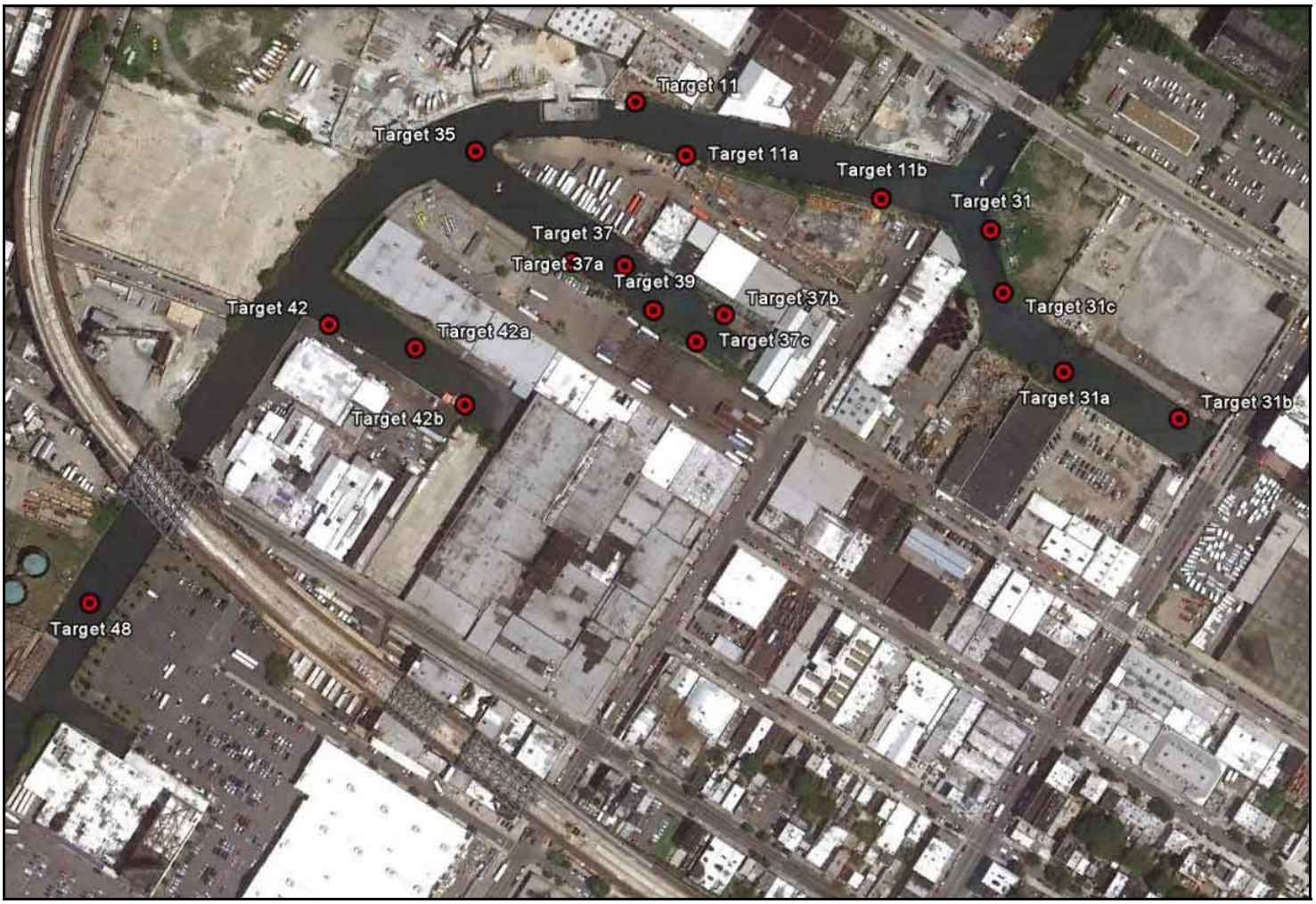


Figure 8. Locations of Sonar Targets in Middle Section of Canal

Note: See Table 1 for target list.

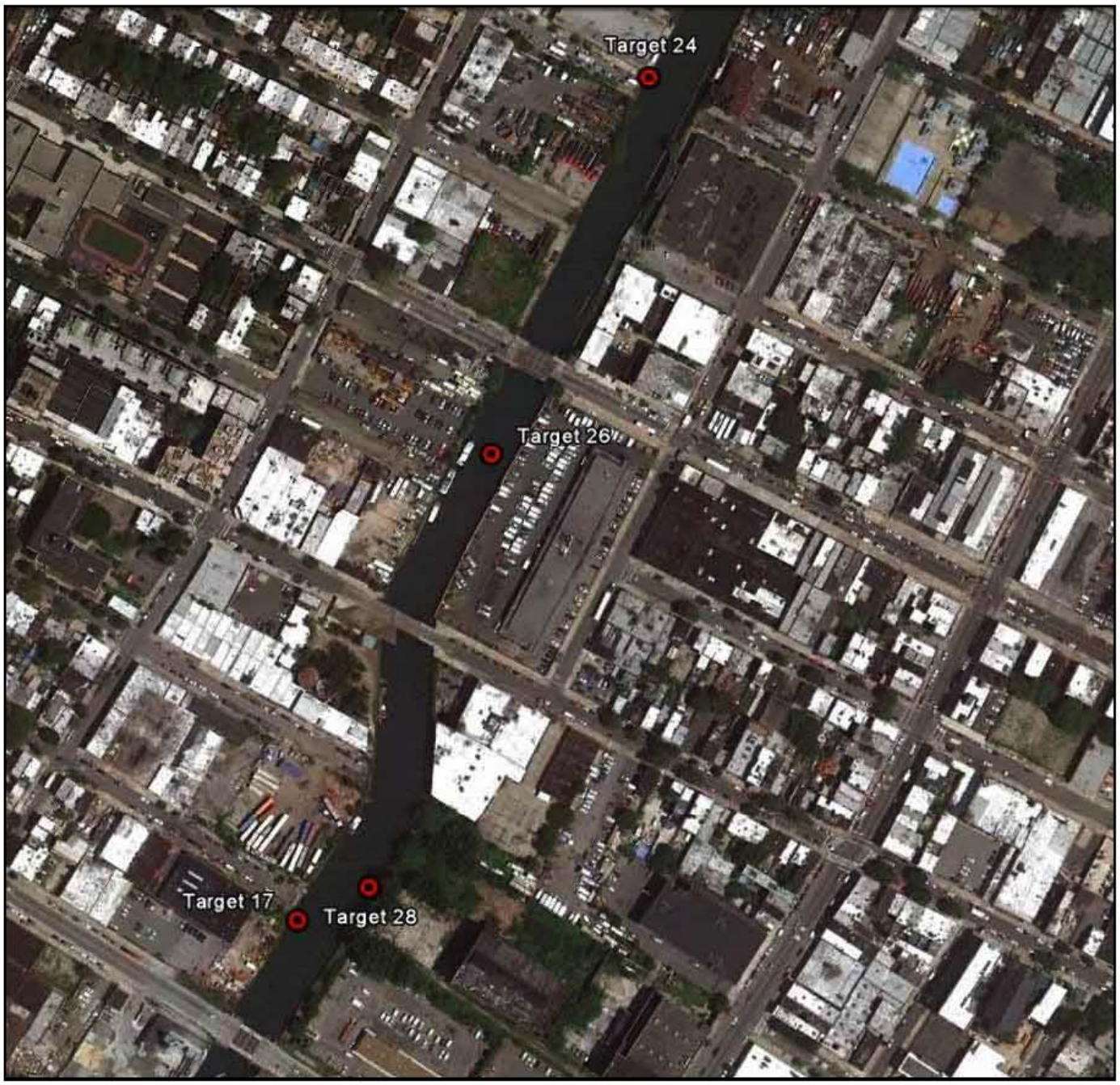


Figure 9. Locations of Sonar Targets in Upper Portion of Canal

Note: See Table 1 for target list.

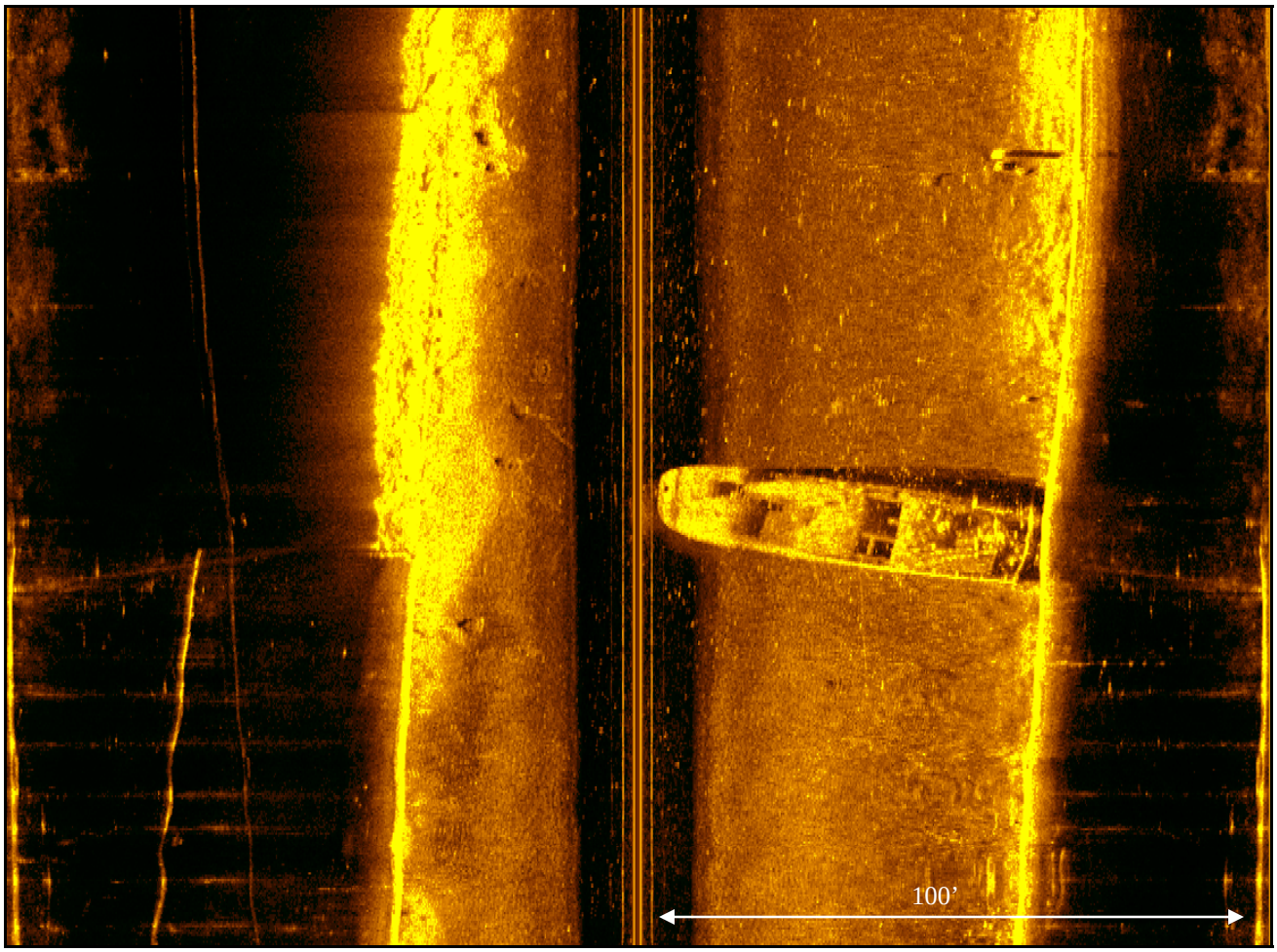


Figure 10. Wreck in Cove 1 (Target 31a)

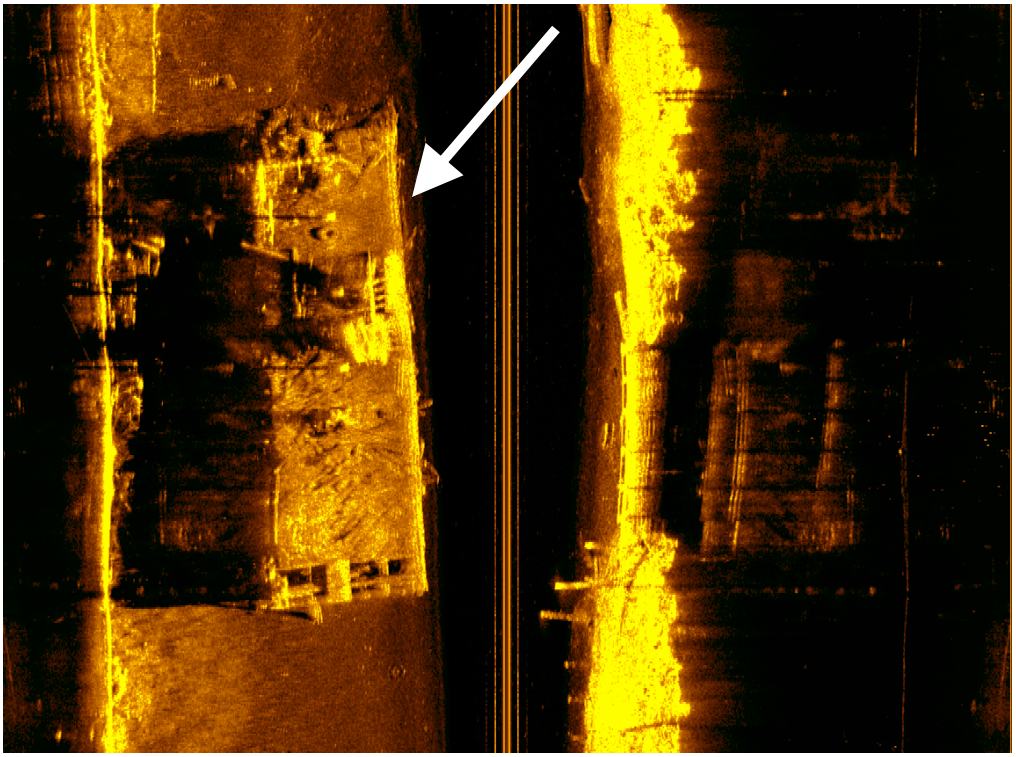


Figure 11. Wreck in Cove 2 (Target 37a)

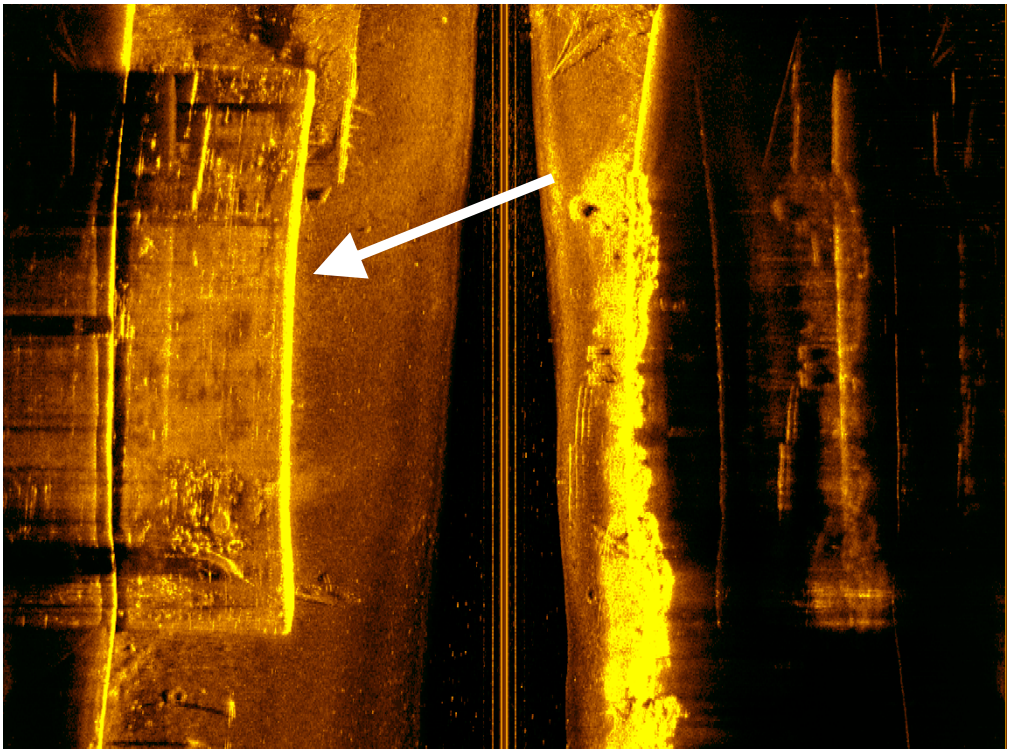


Figure 12. Wreck in Cove 2 (Target 37b)

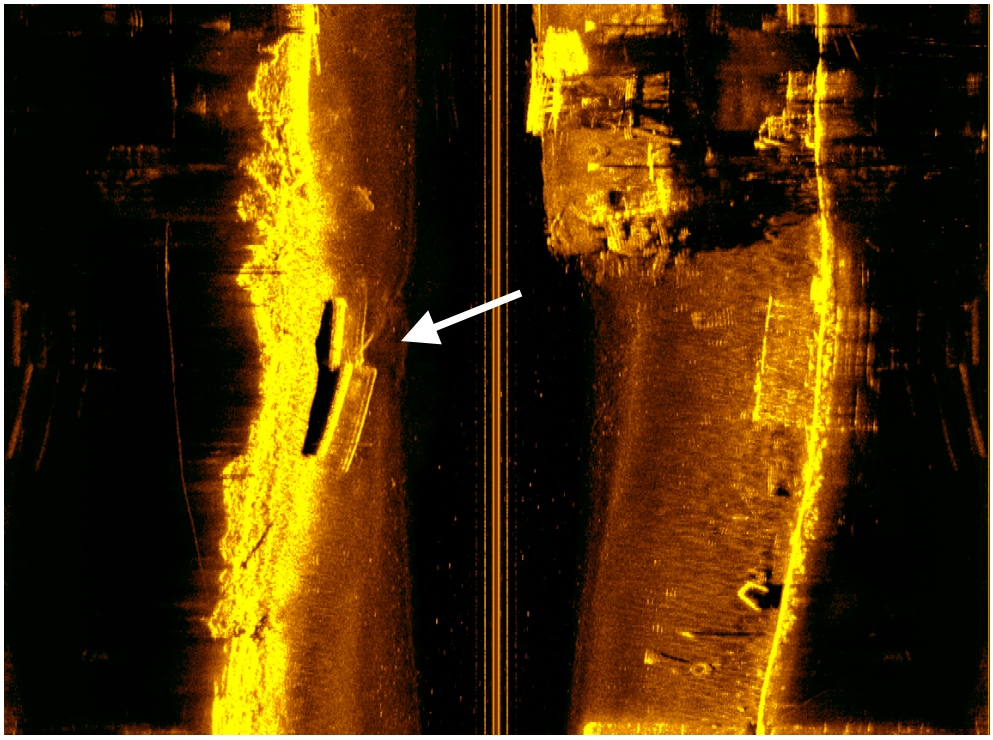


Figure 13. Potential Submerged Cultural Resource in Cove 2 (Target 37c)

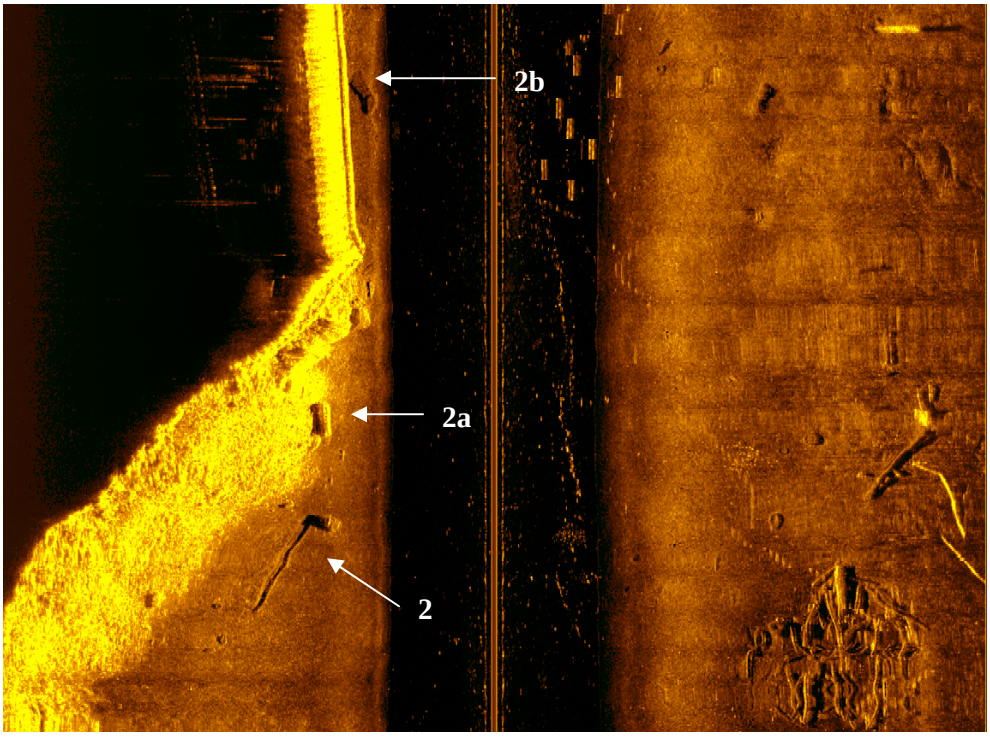


Figure 14. Targets 2, 2a, and 2b at mouth of Canal

Note: Targets 2a and 2b are suggestive of automobiles

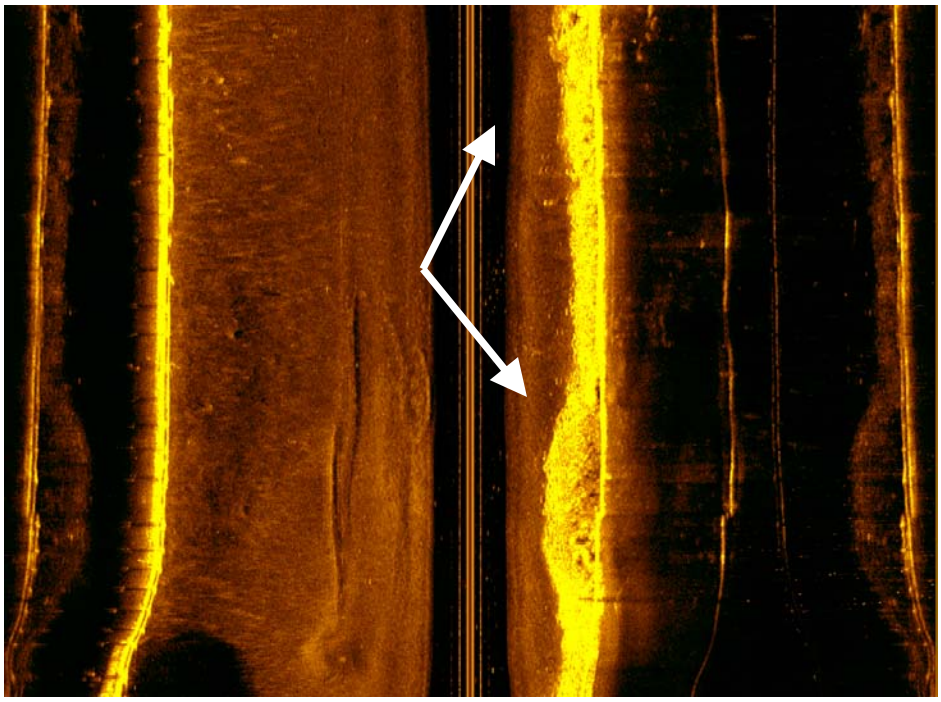


Figure 15. Rip-rap spilled out at Target 42

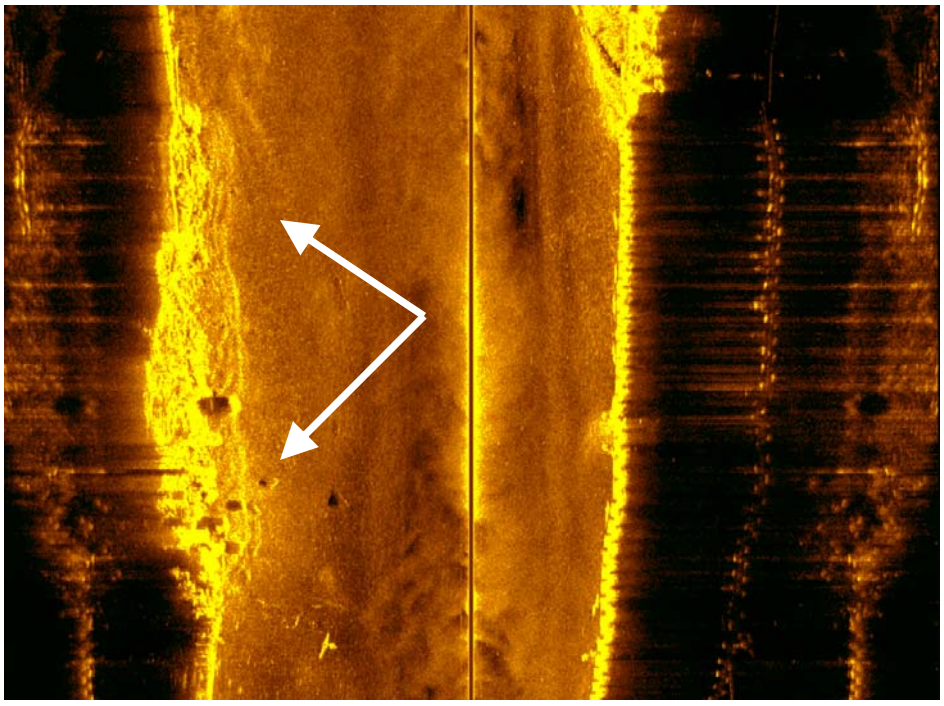


Figure 16. Rip-rap spilled out at Target 11a

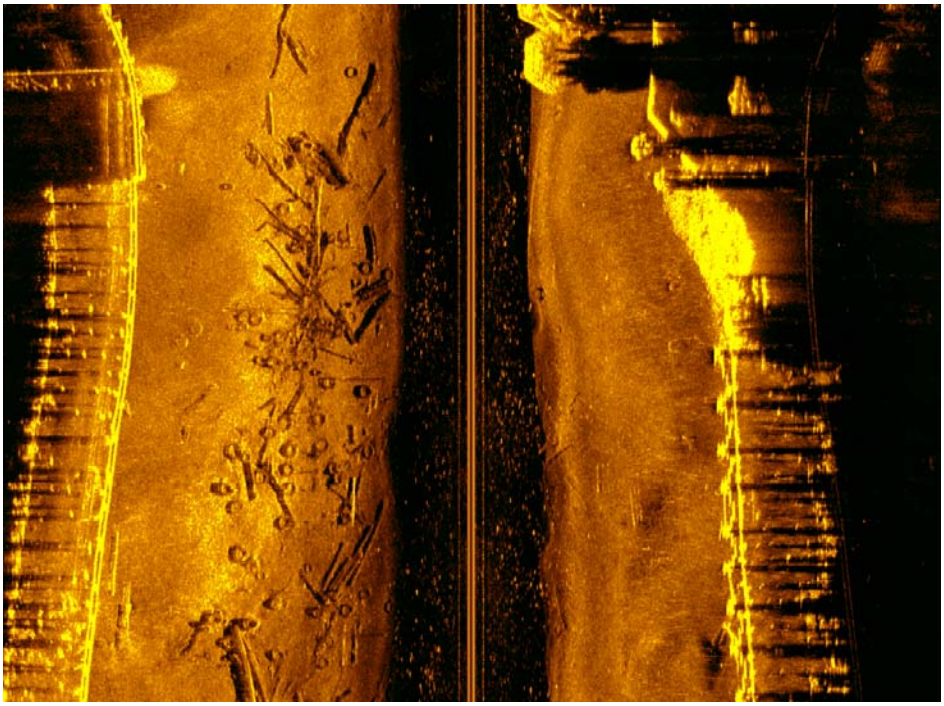


Figure 17. Typical Debris at Target 9a – South Side of Hamilton Ave. Bridge

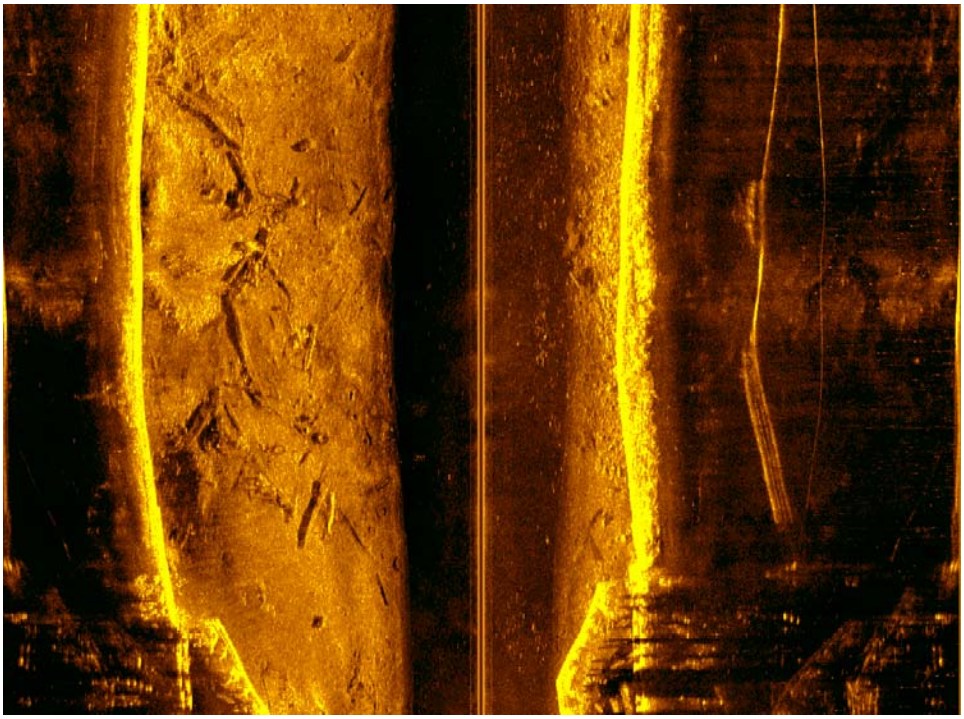


Figure 18. Typical Debris at Target 48 – Between Hamilton Ave. Bridge and 9th St. Bridge

Appendix N
Sediment Core Depth Profiles

Contents

Sediment Core Depth Profiles

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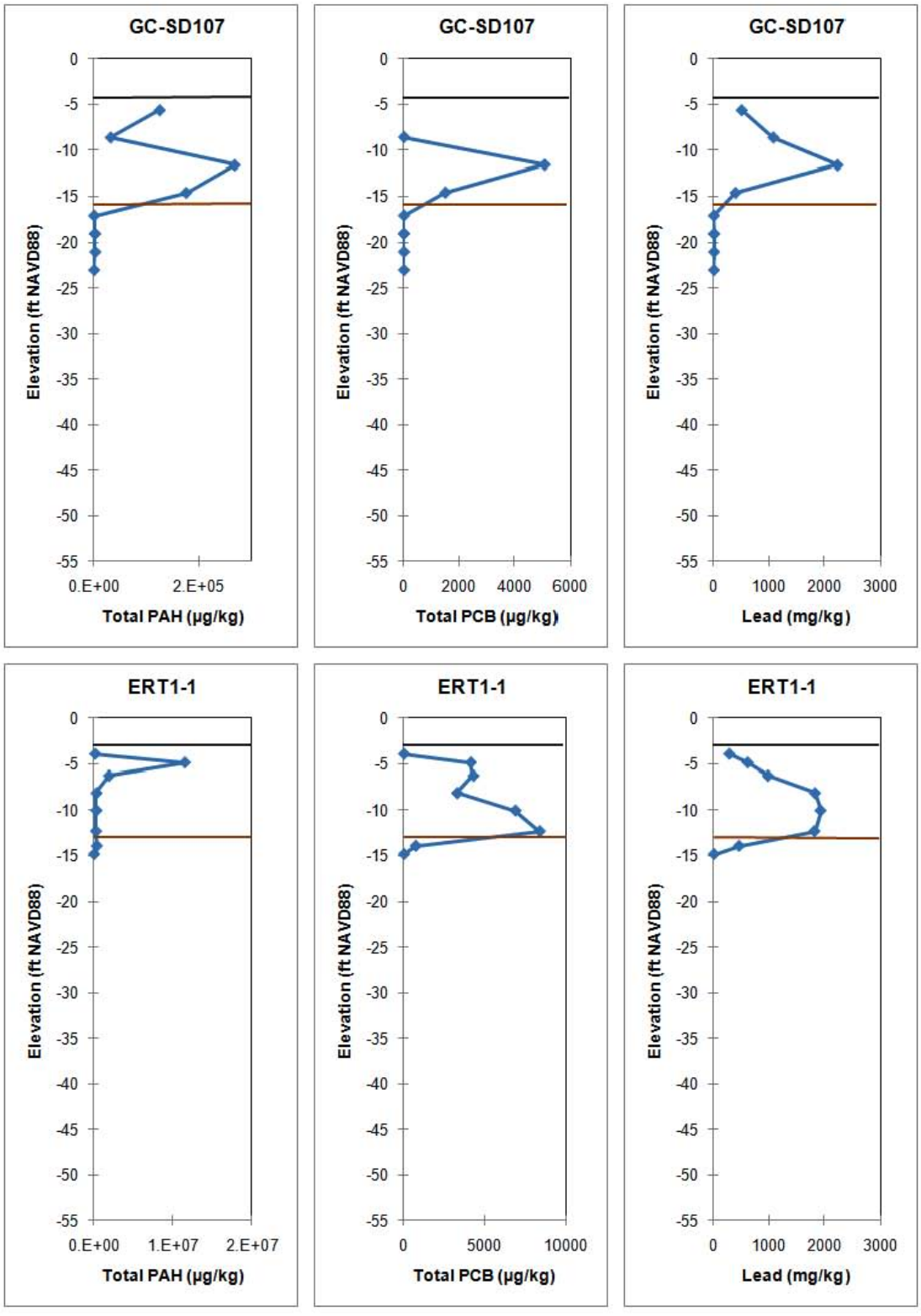
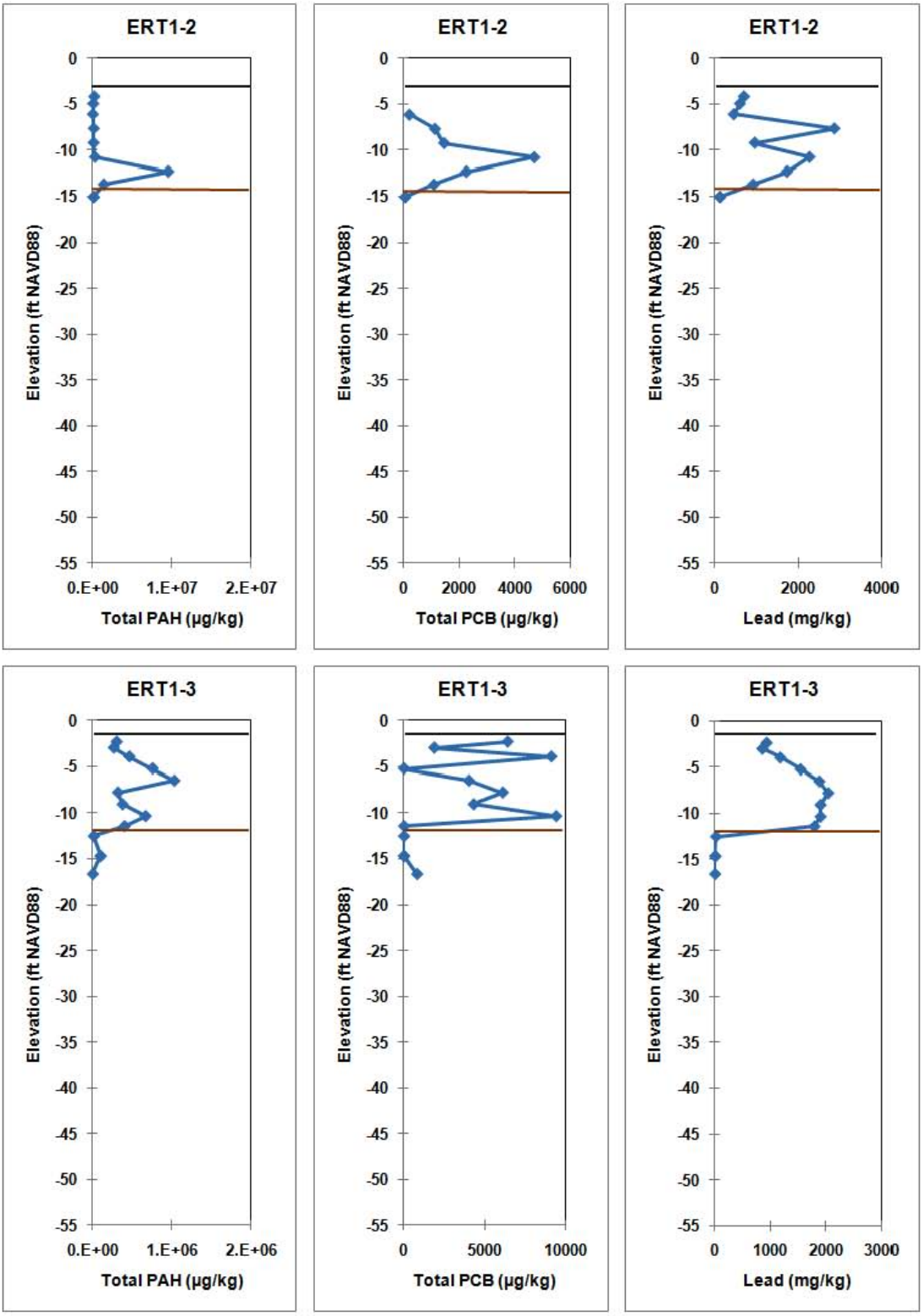


Notes:

Soft sediment surface
Native sediment contact
Native sediment inferred contact

Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.
Total PAH and total PCB values not calculated in cases where some results were rejected.

APPENDIX N
Sediment Core Depth Profiles for Total PAHs, Total PCBs, and Lead
Gowanus Canal Remedial Investigation
Brooklyn, New York



Notes:

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Native sediment contact
Native sediment inferred contact

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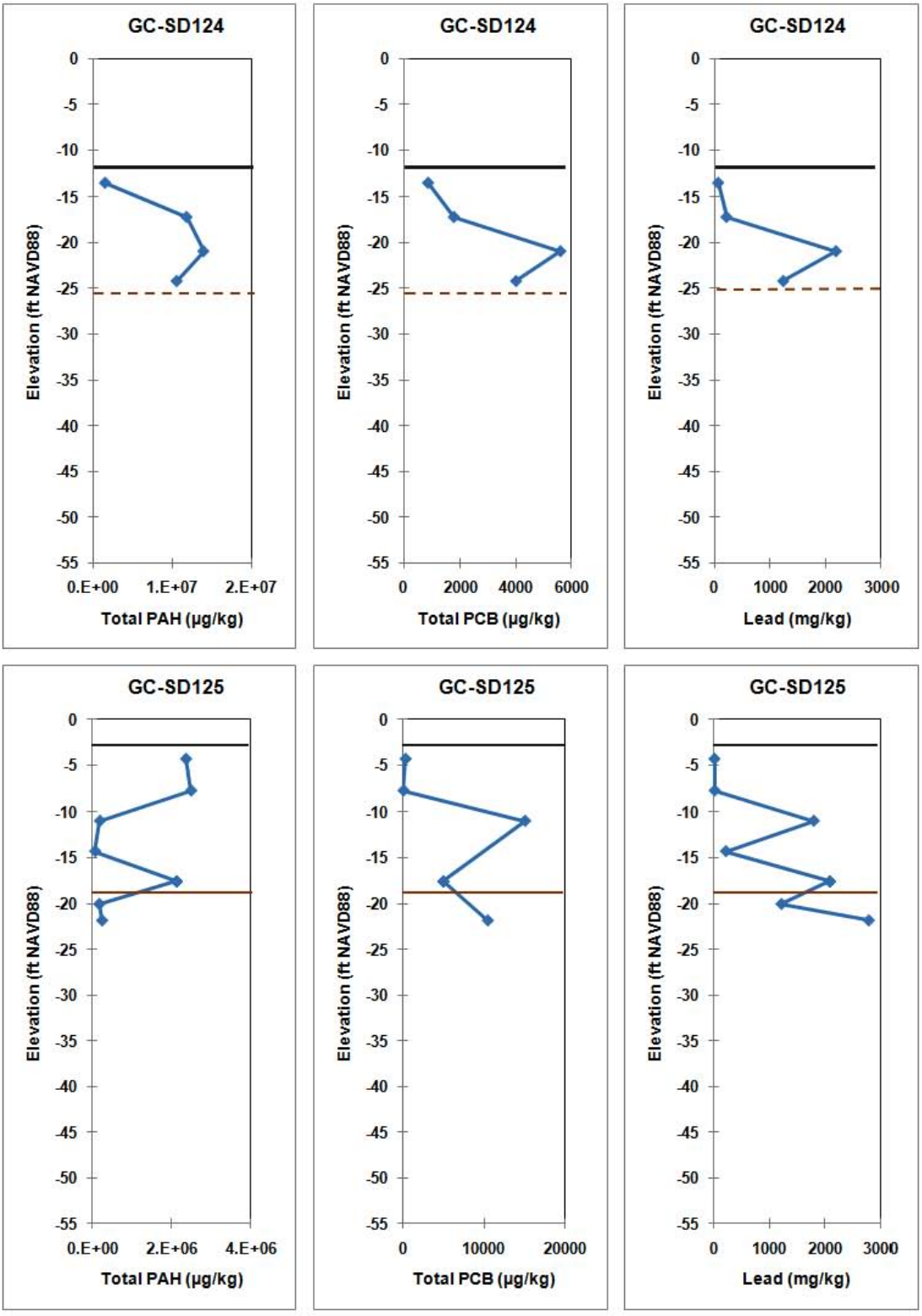

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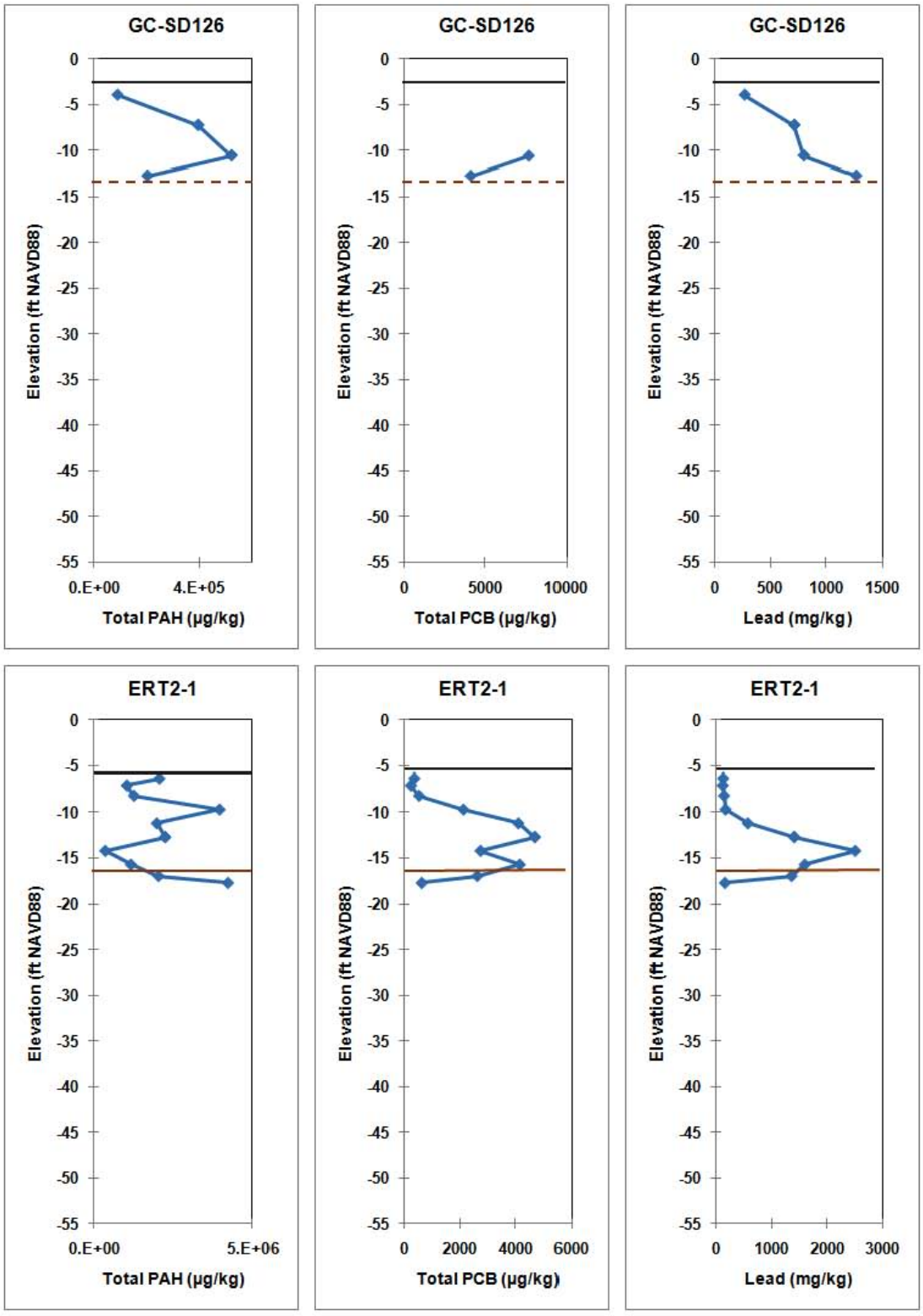

Notes:

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Native sediment contact

Native sediment inferred contact

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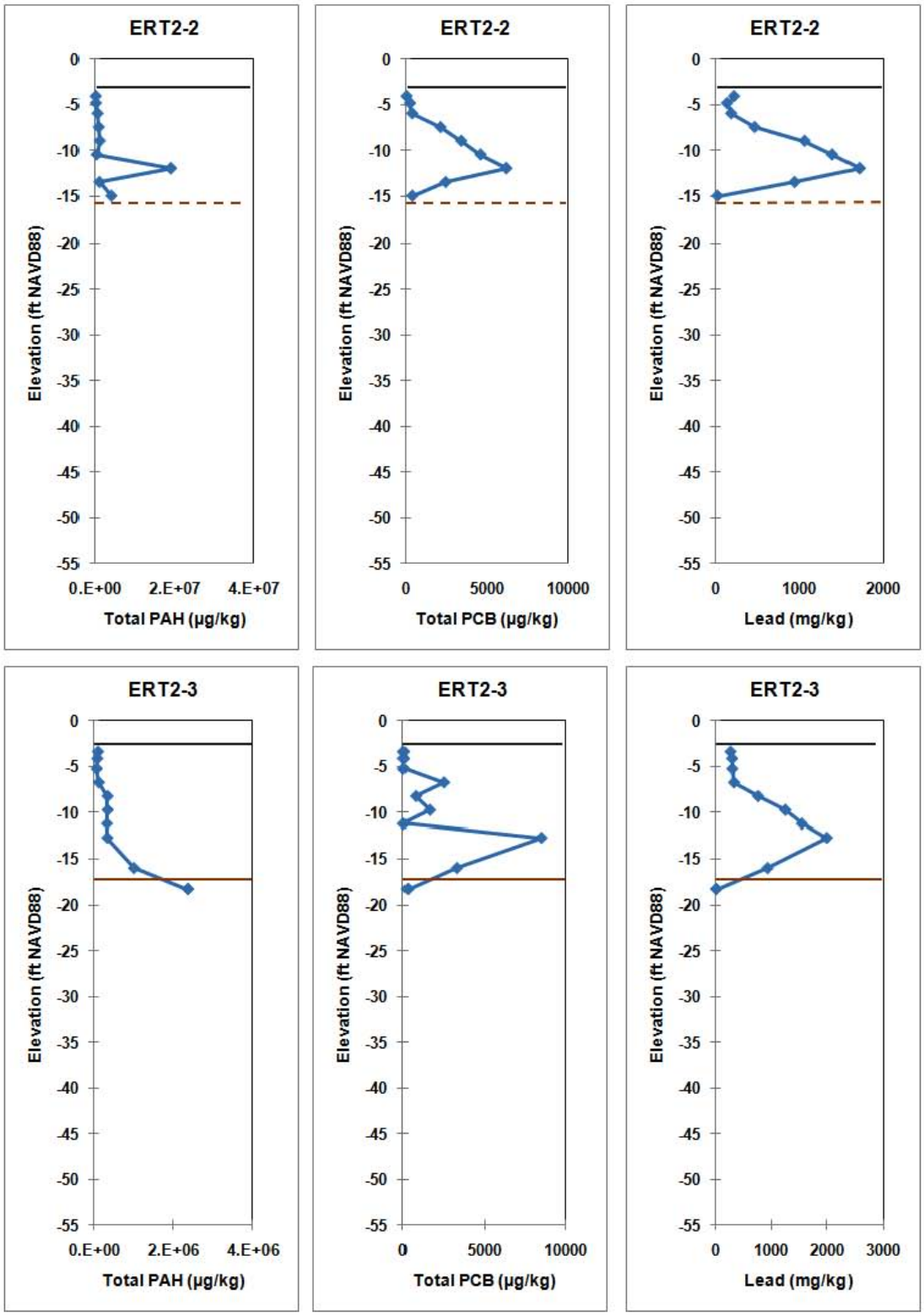

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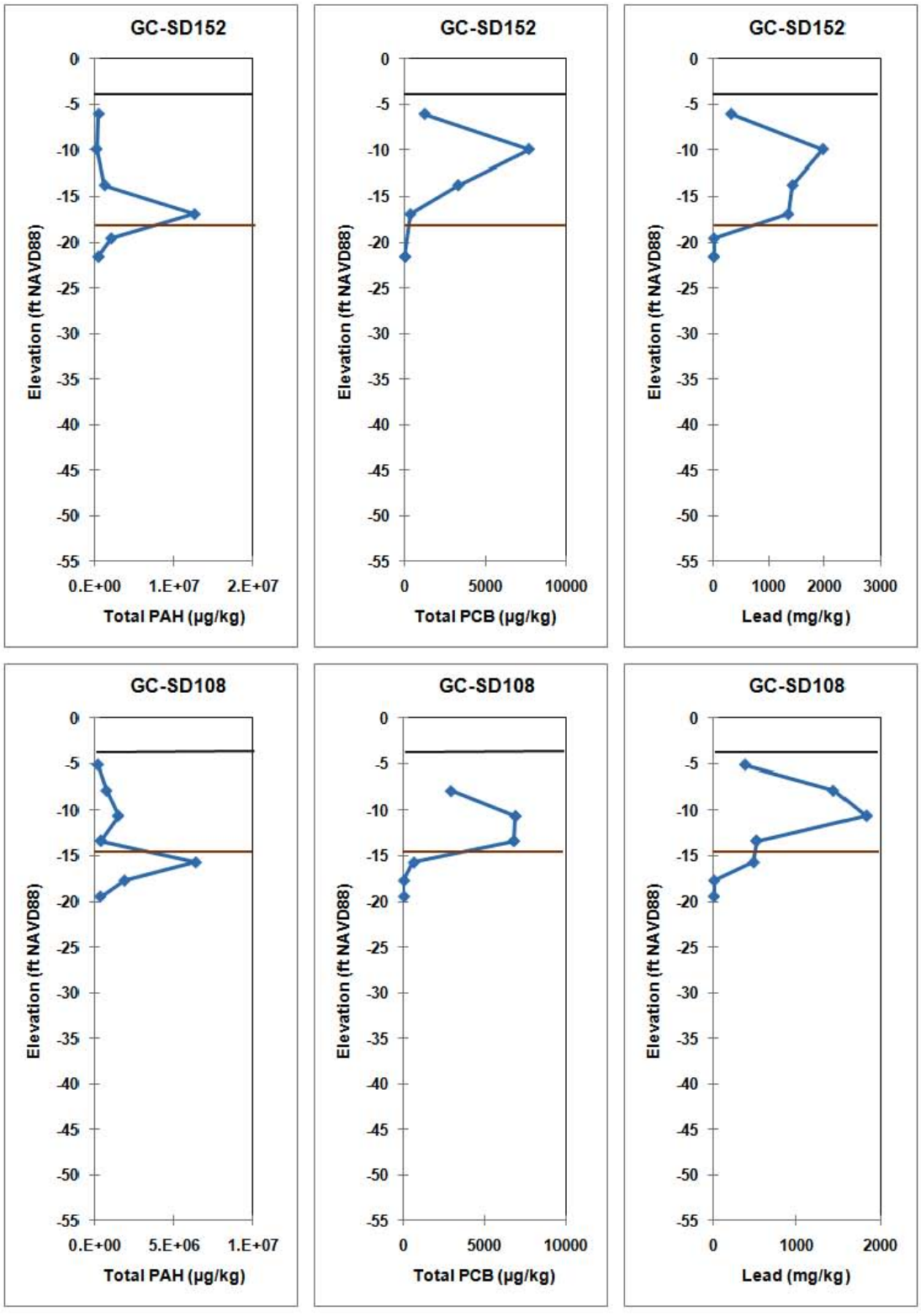

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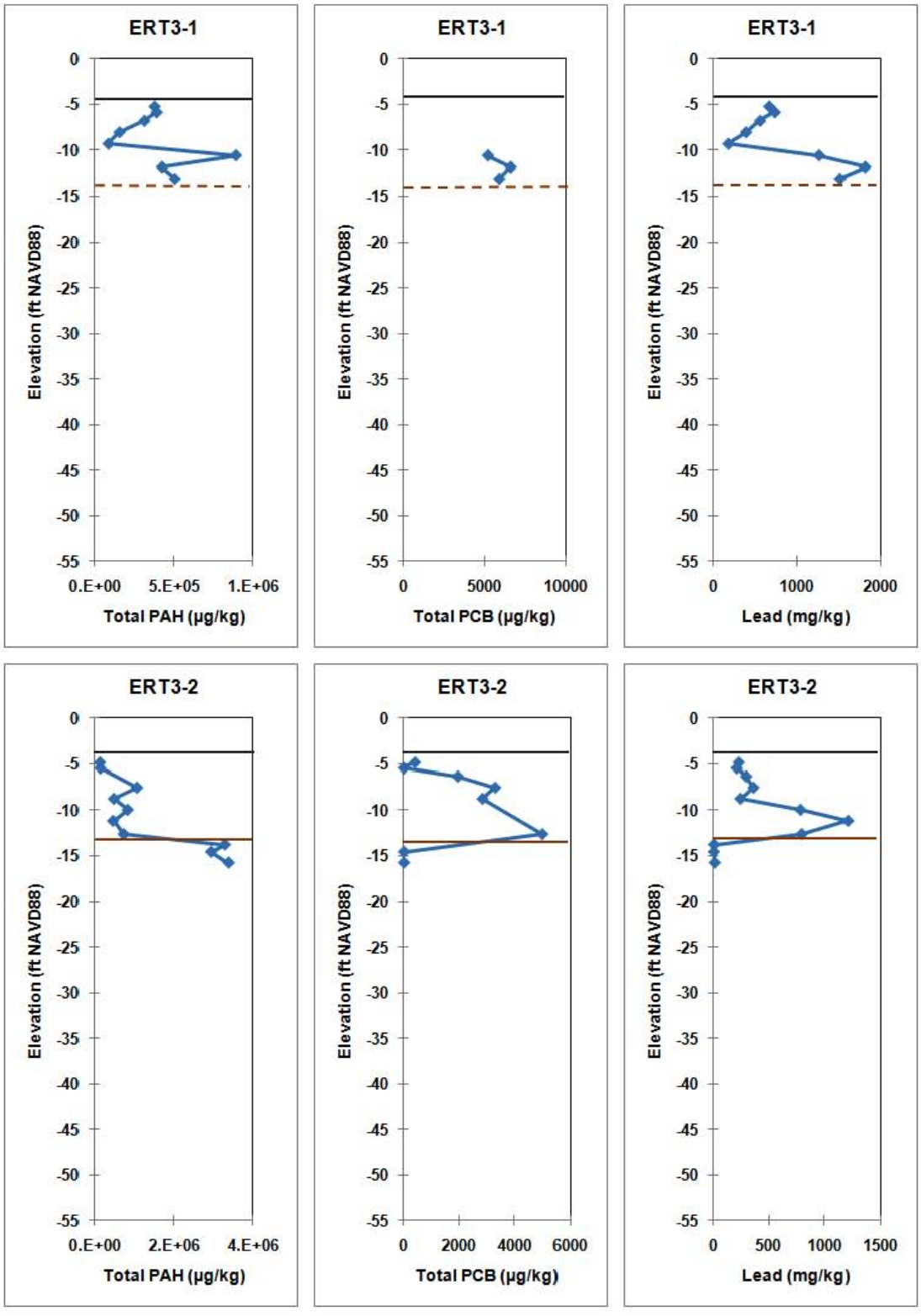

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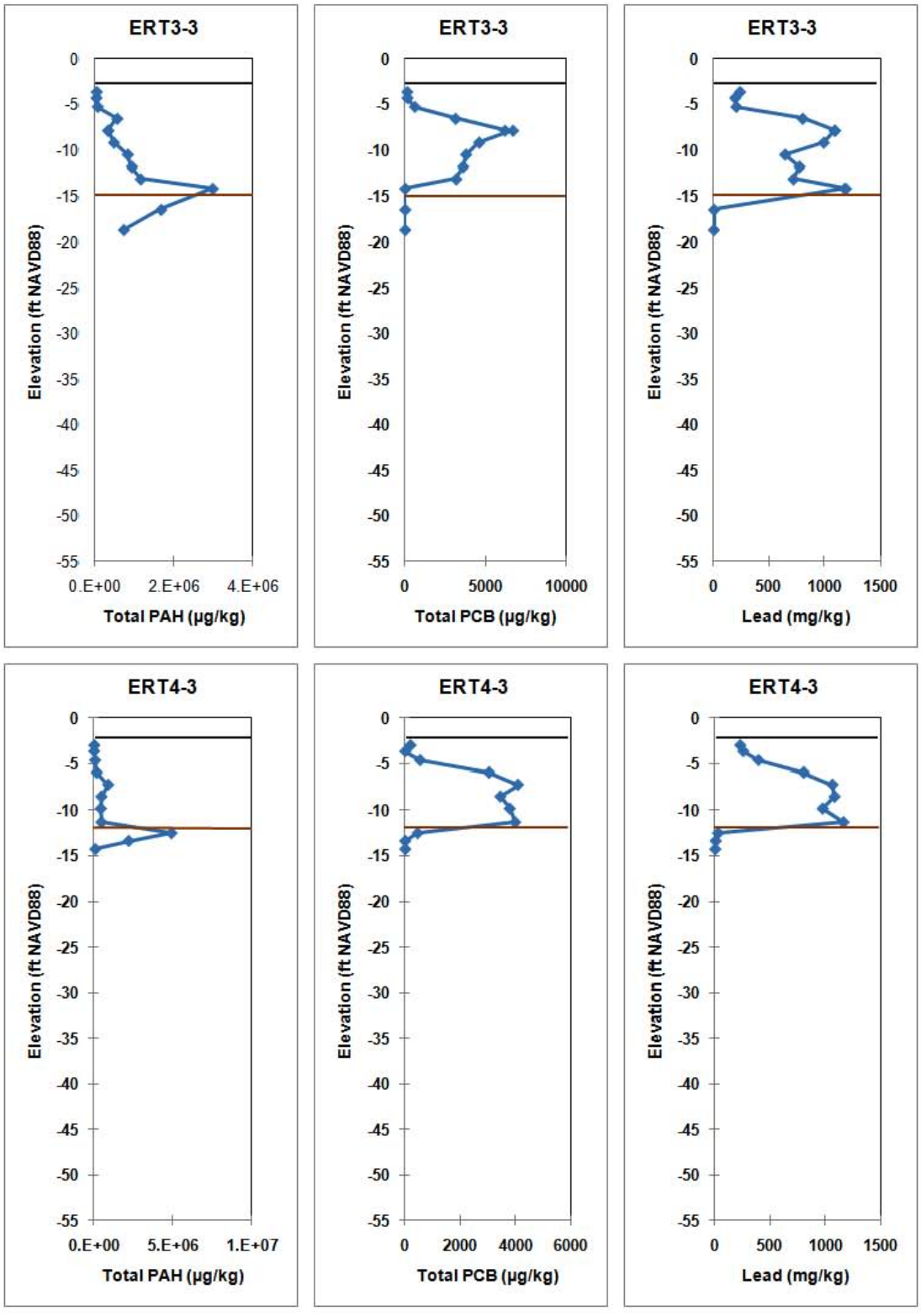

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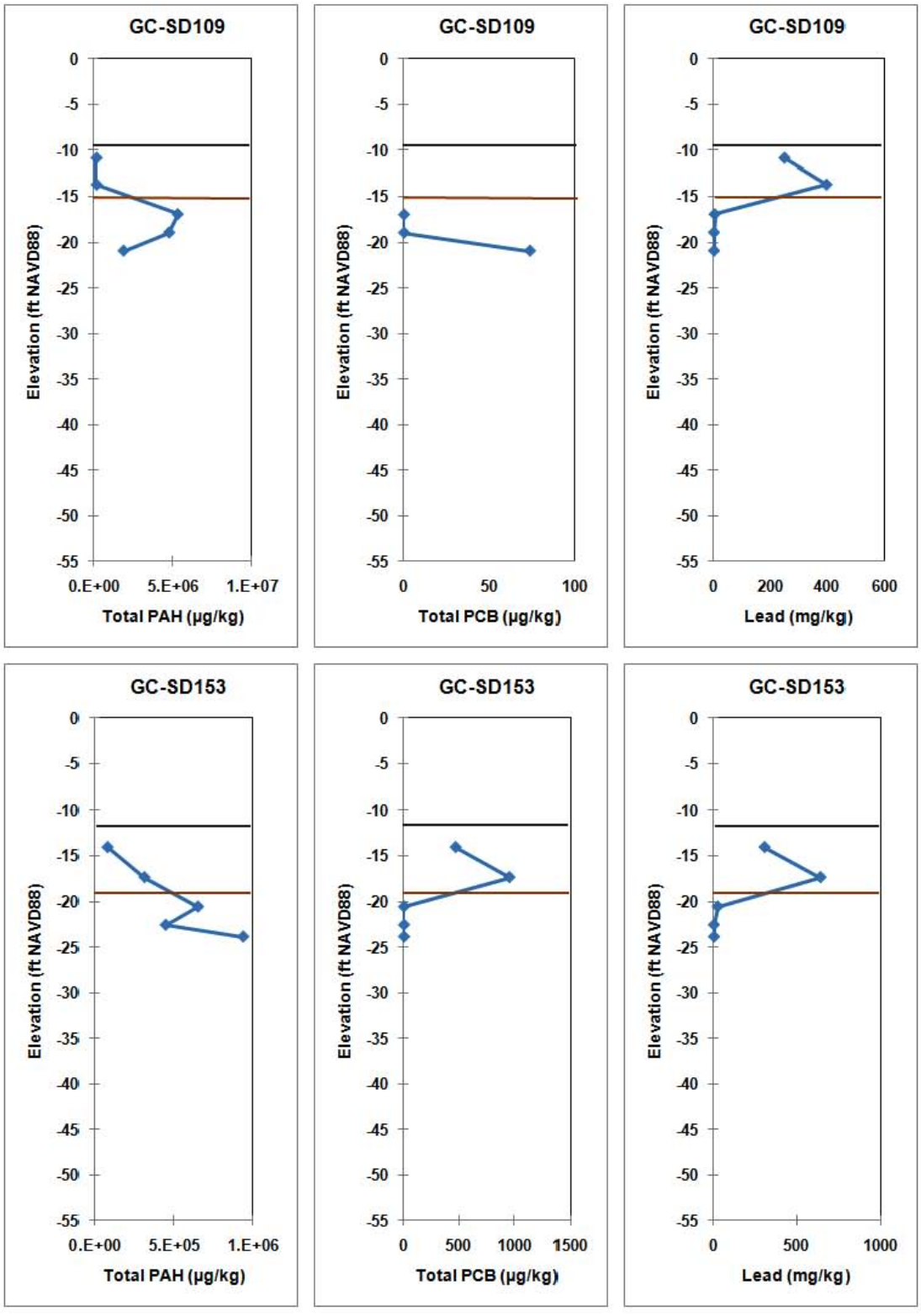

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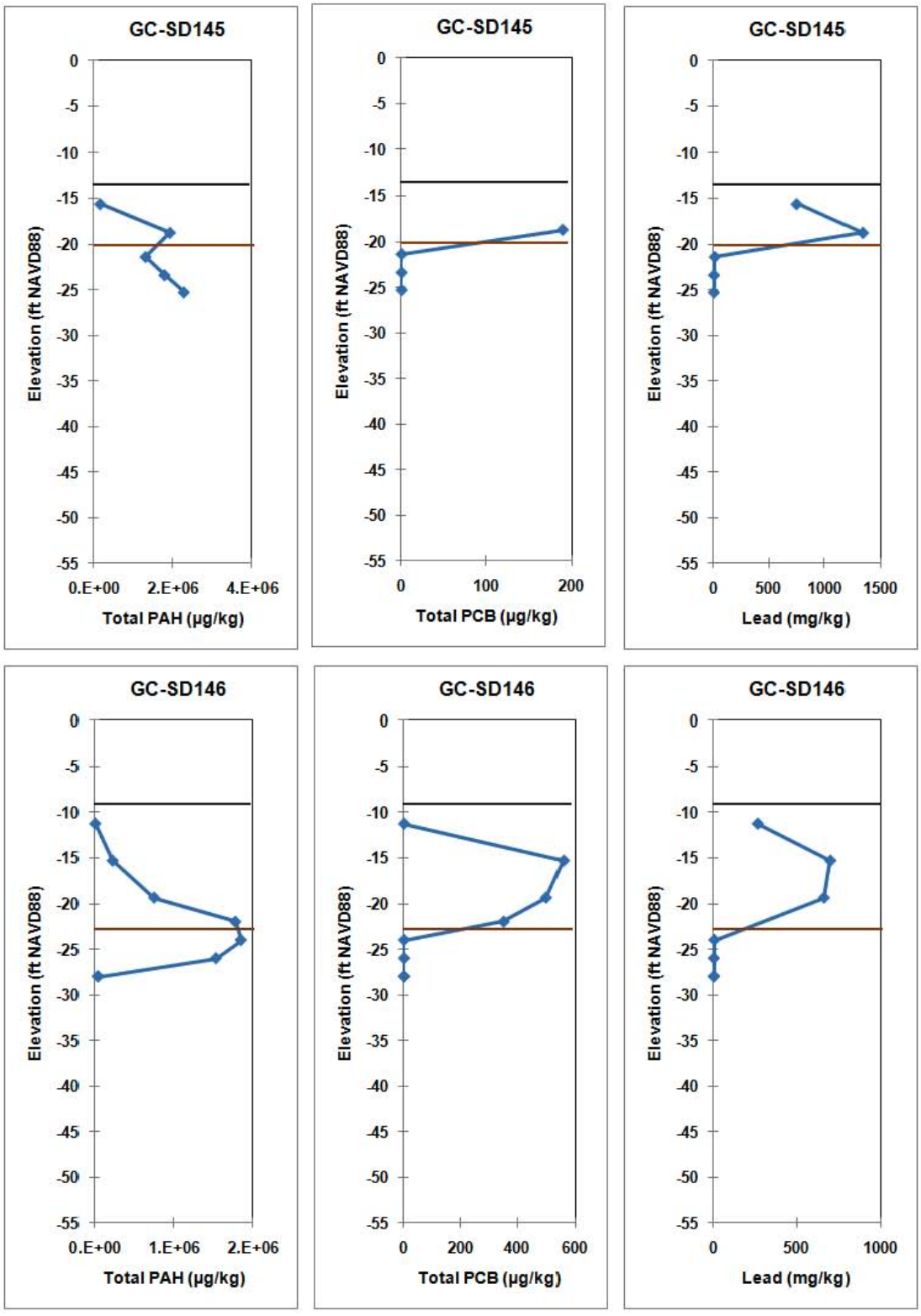

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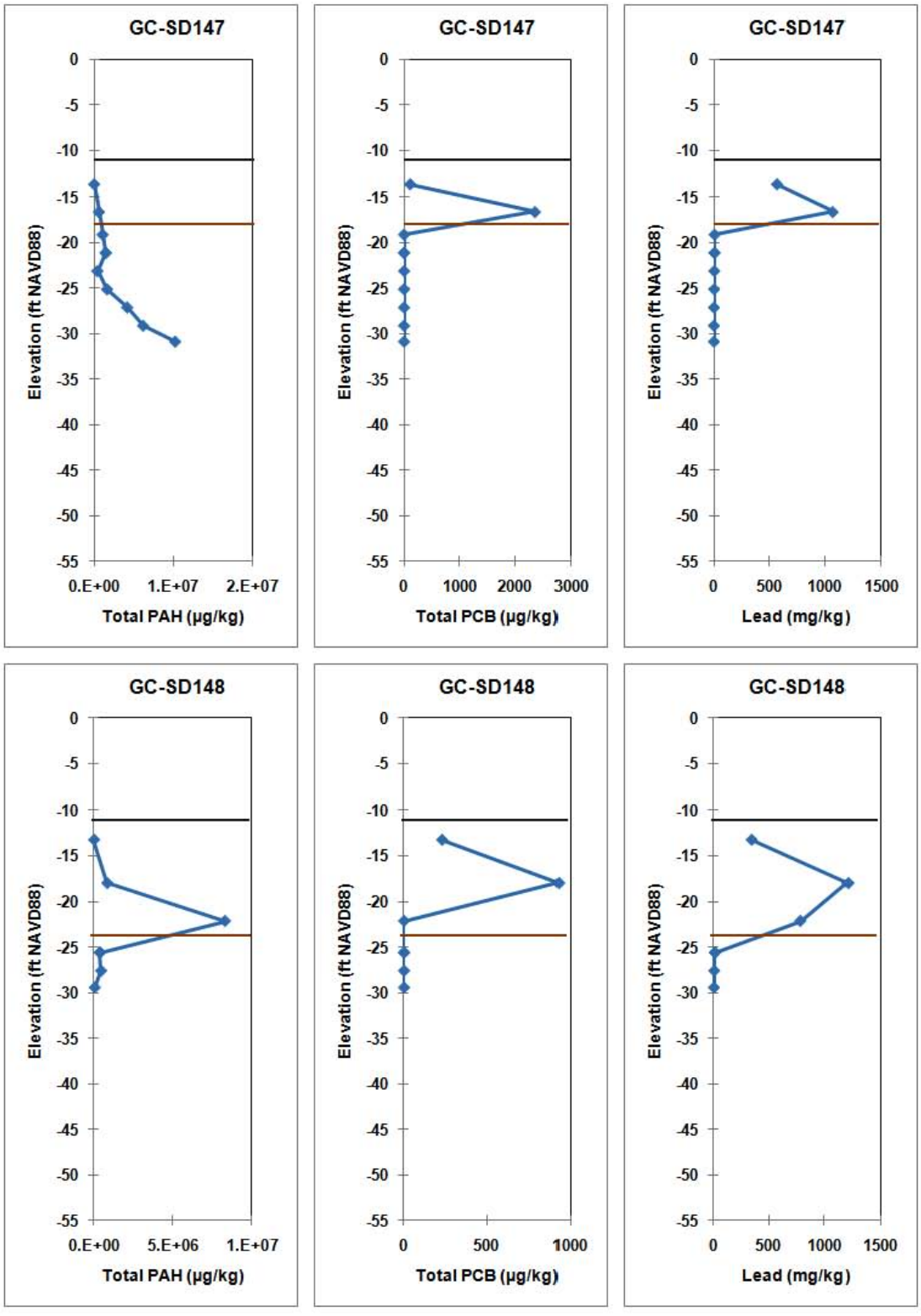

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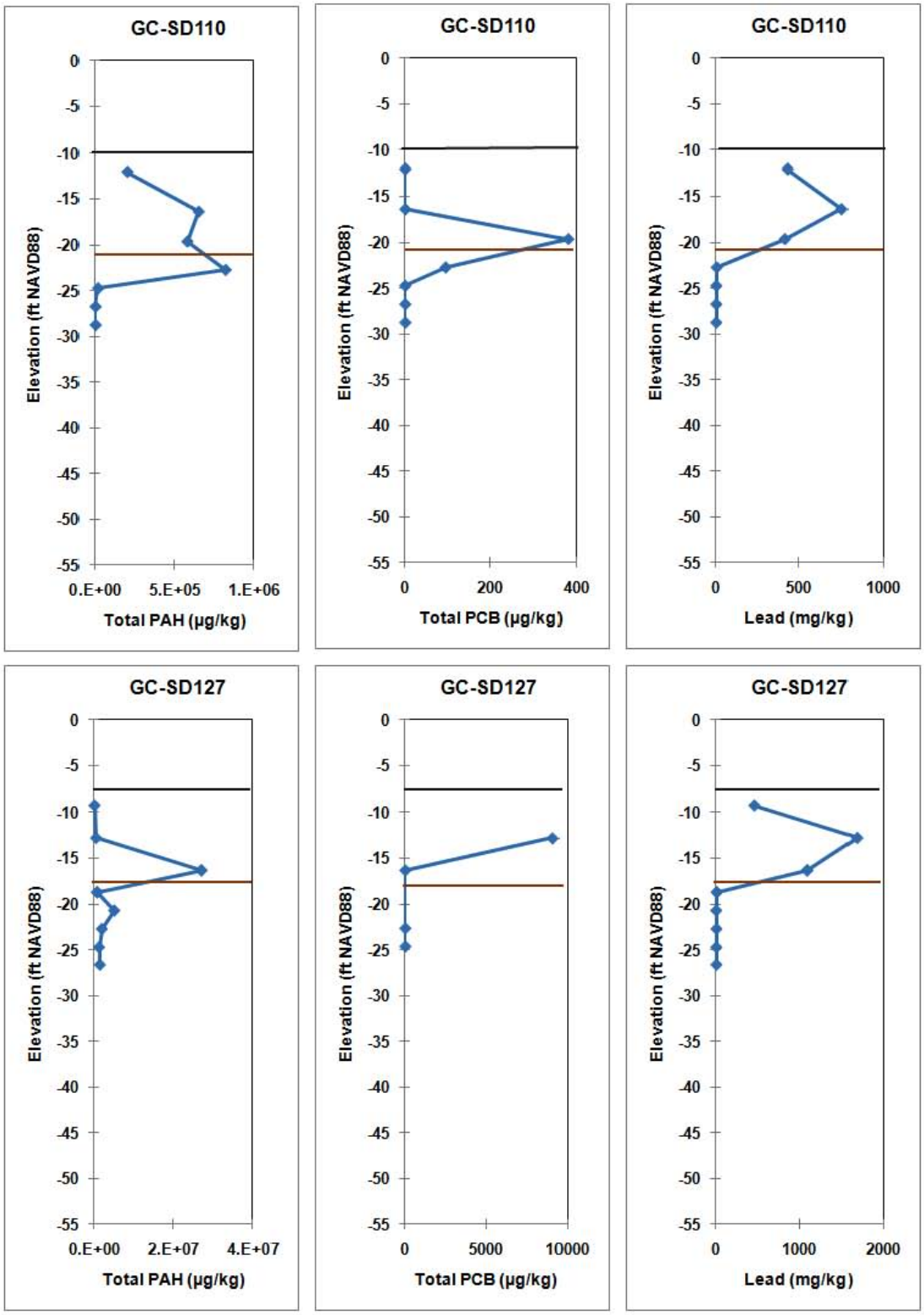

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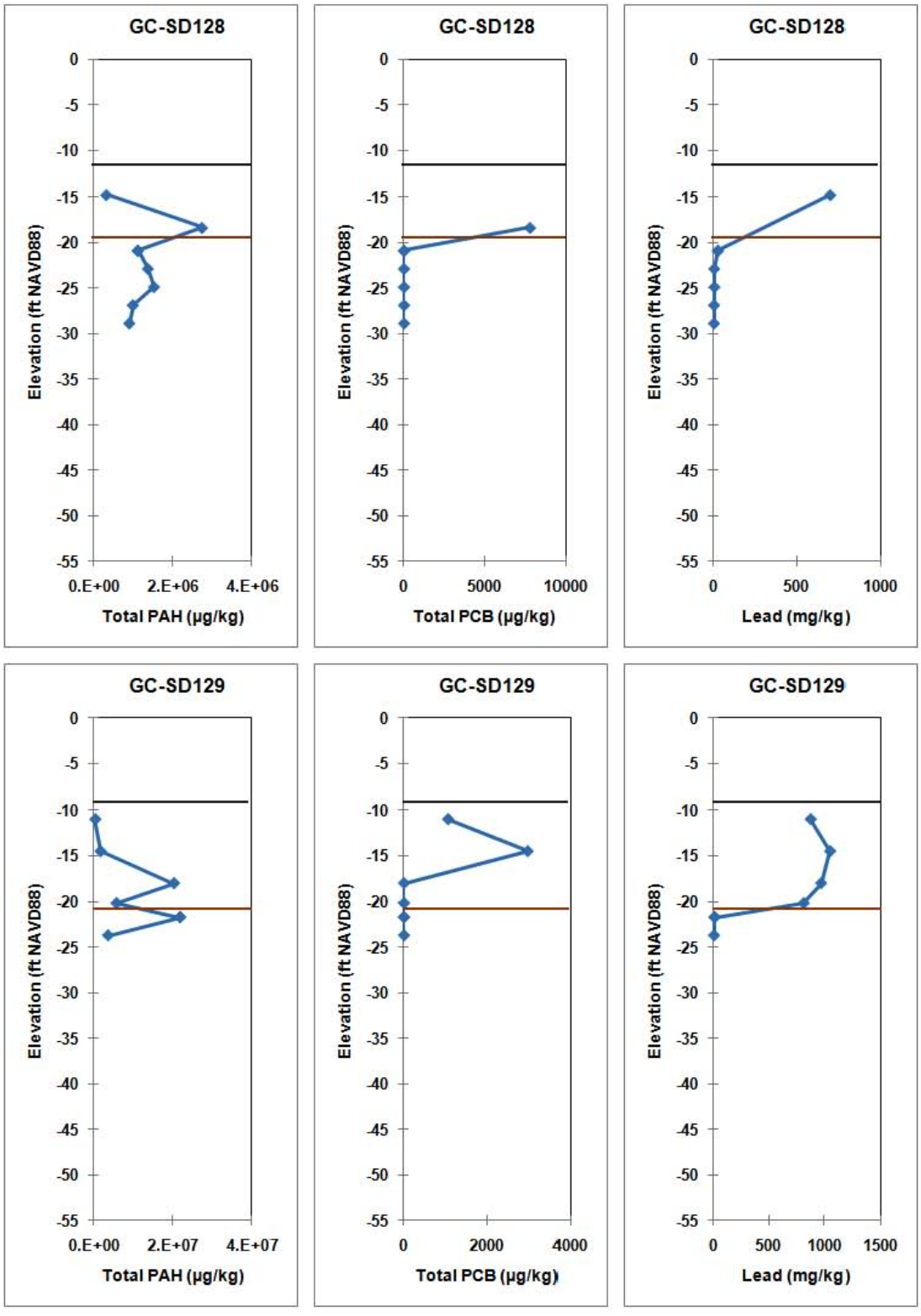

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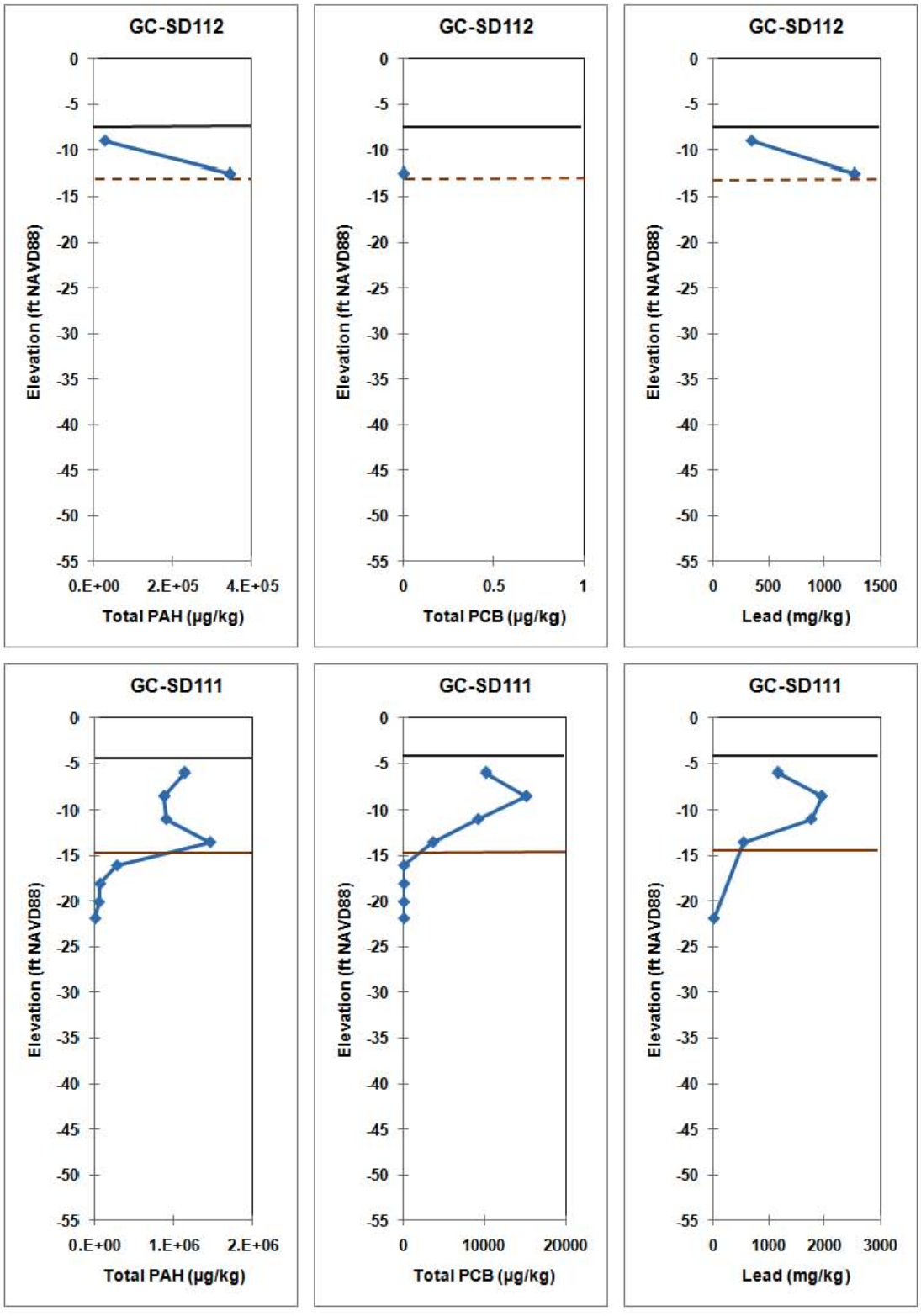

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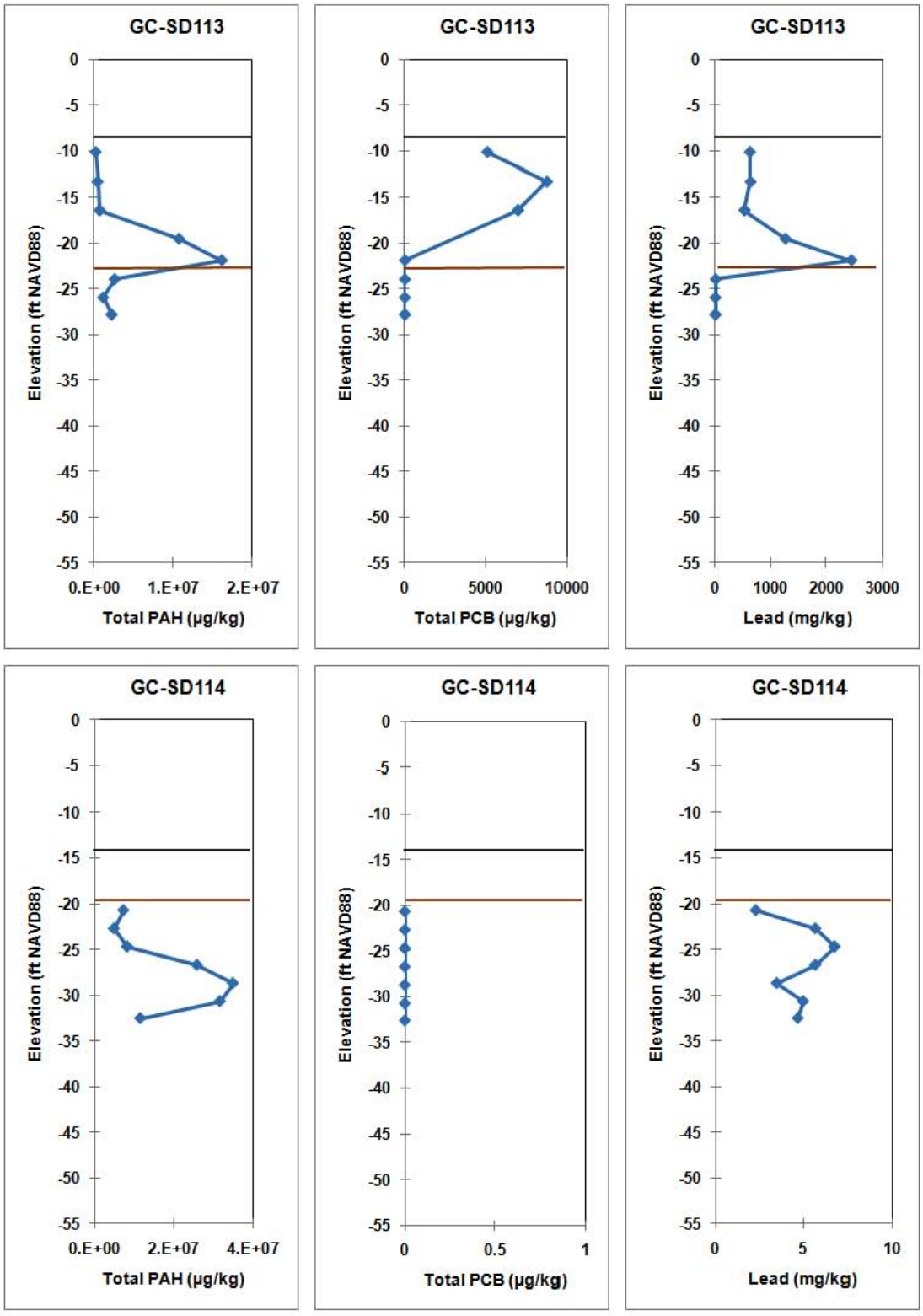

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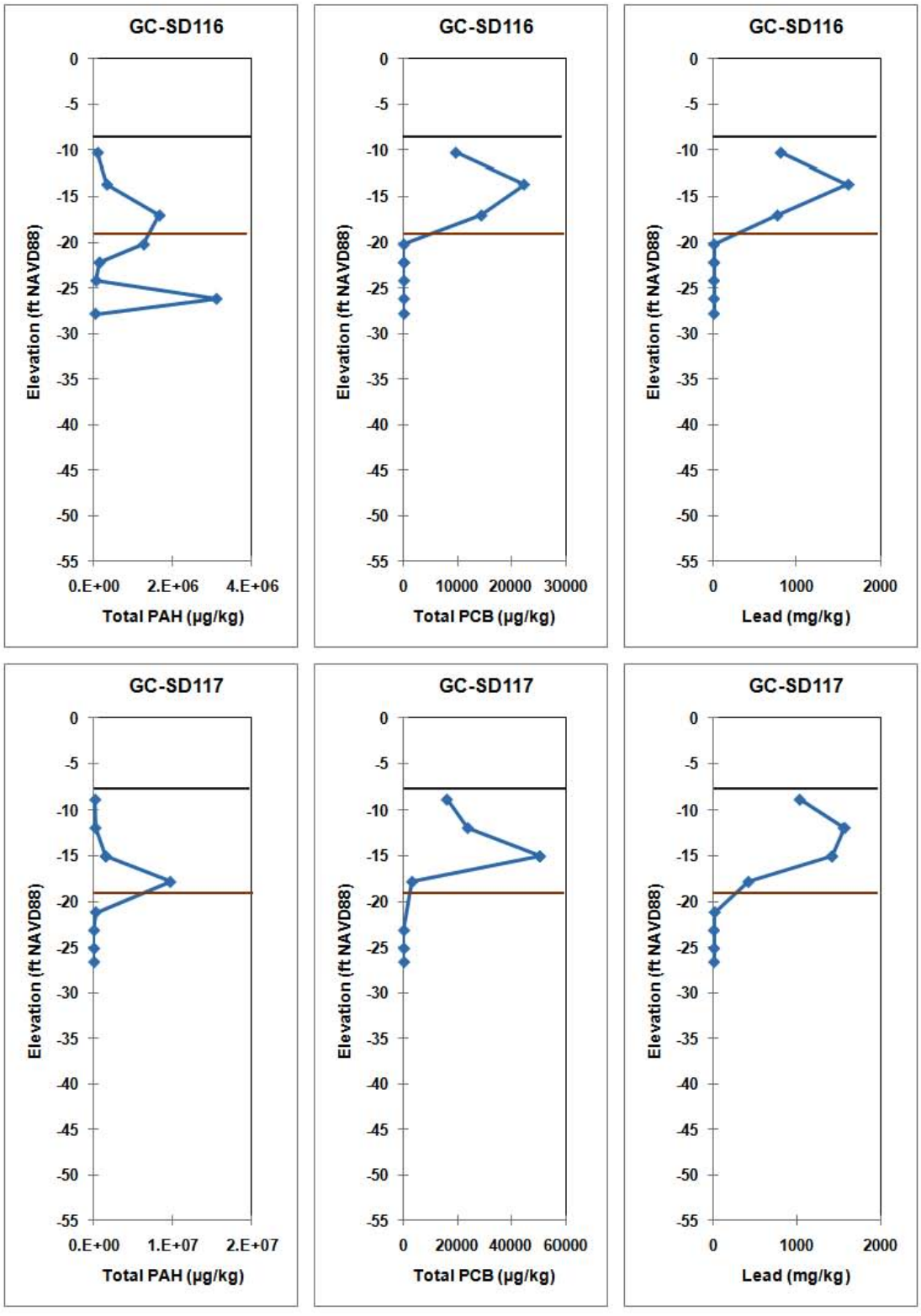

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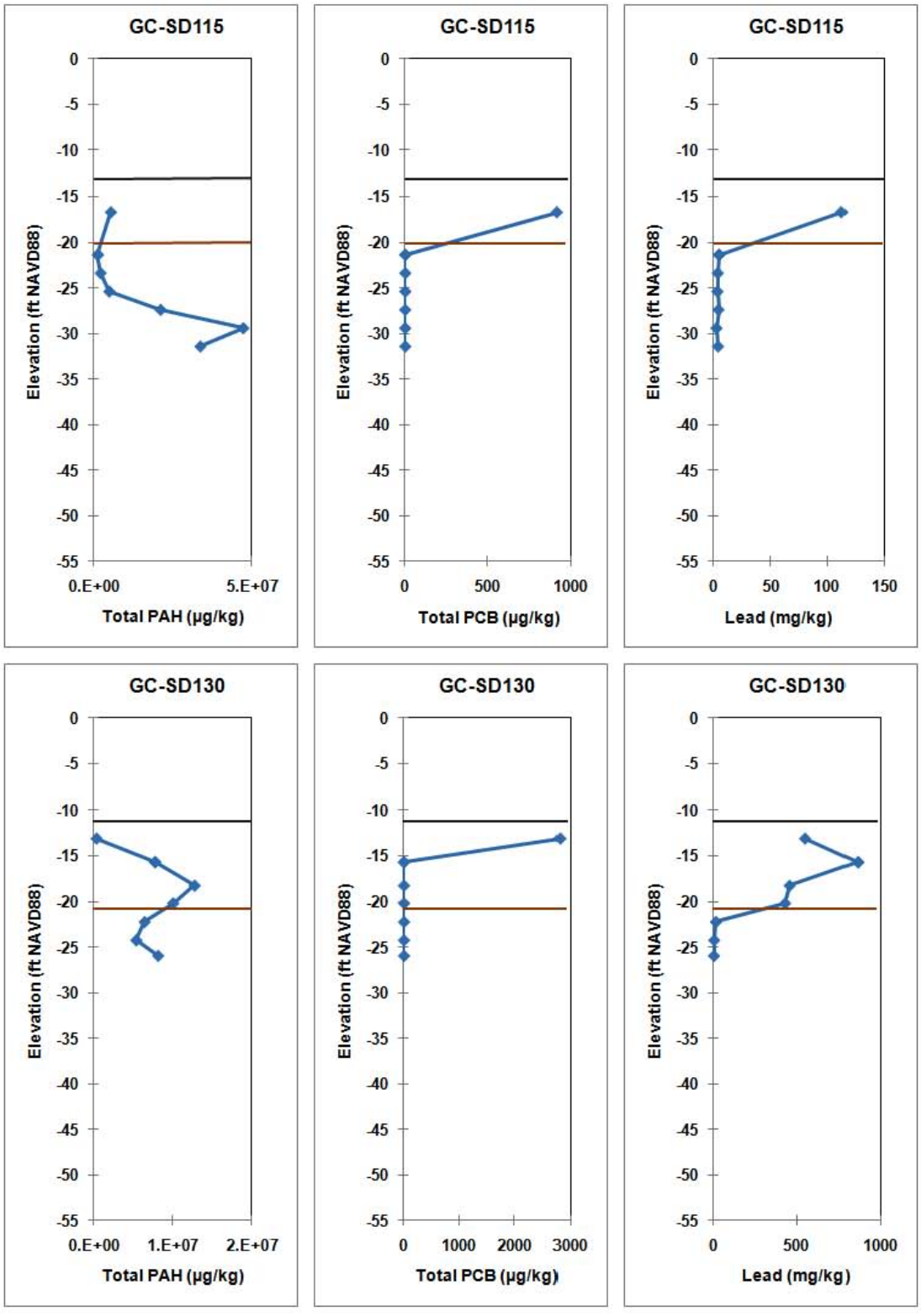

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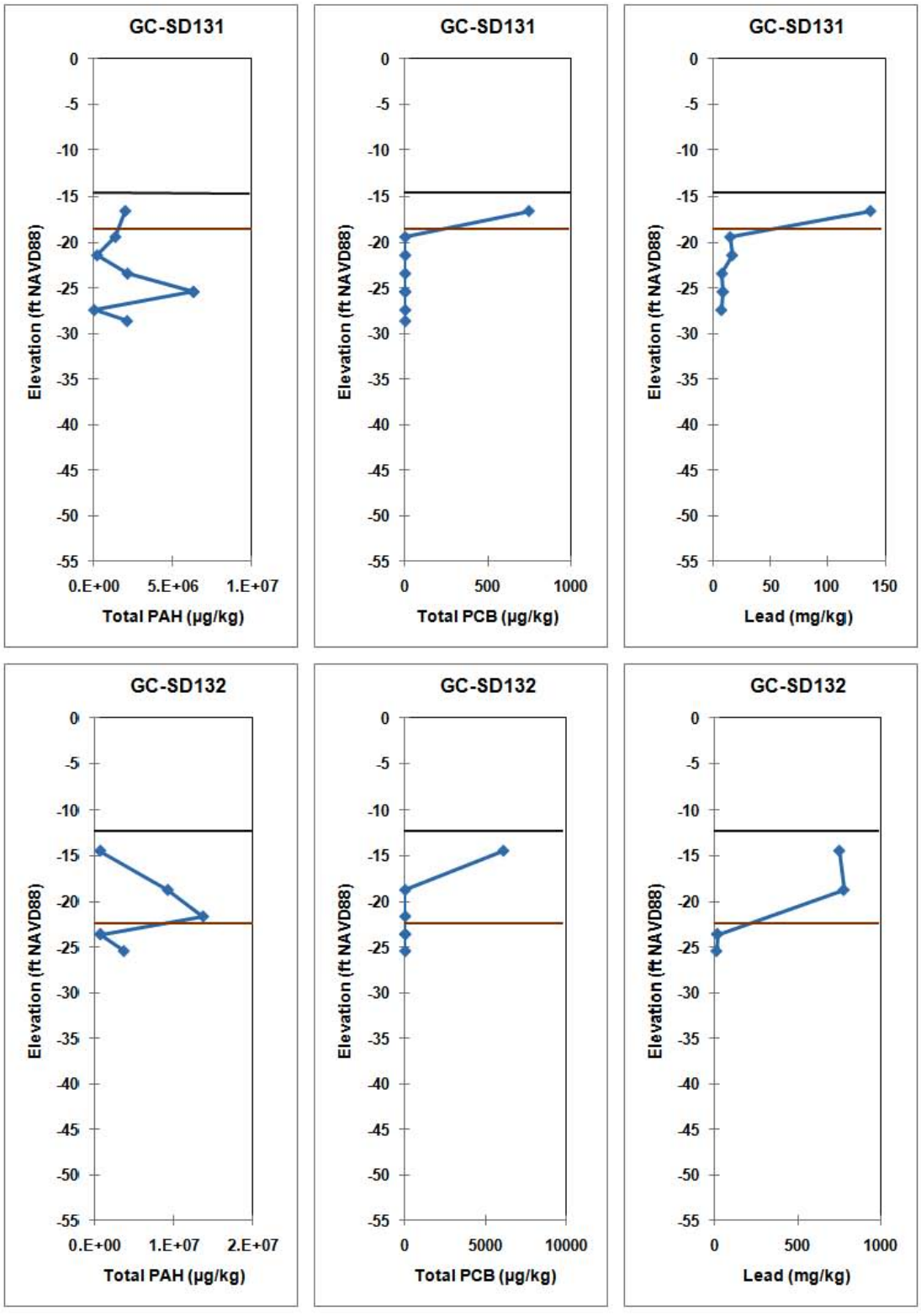

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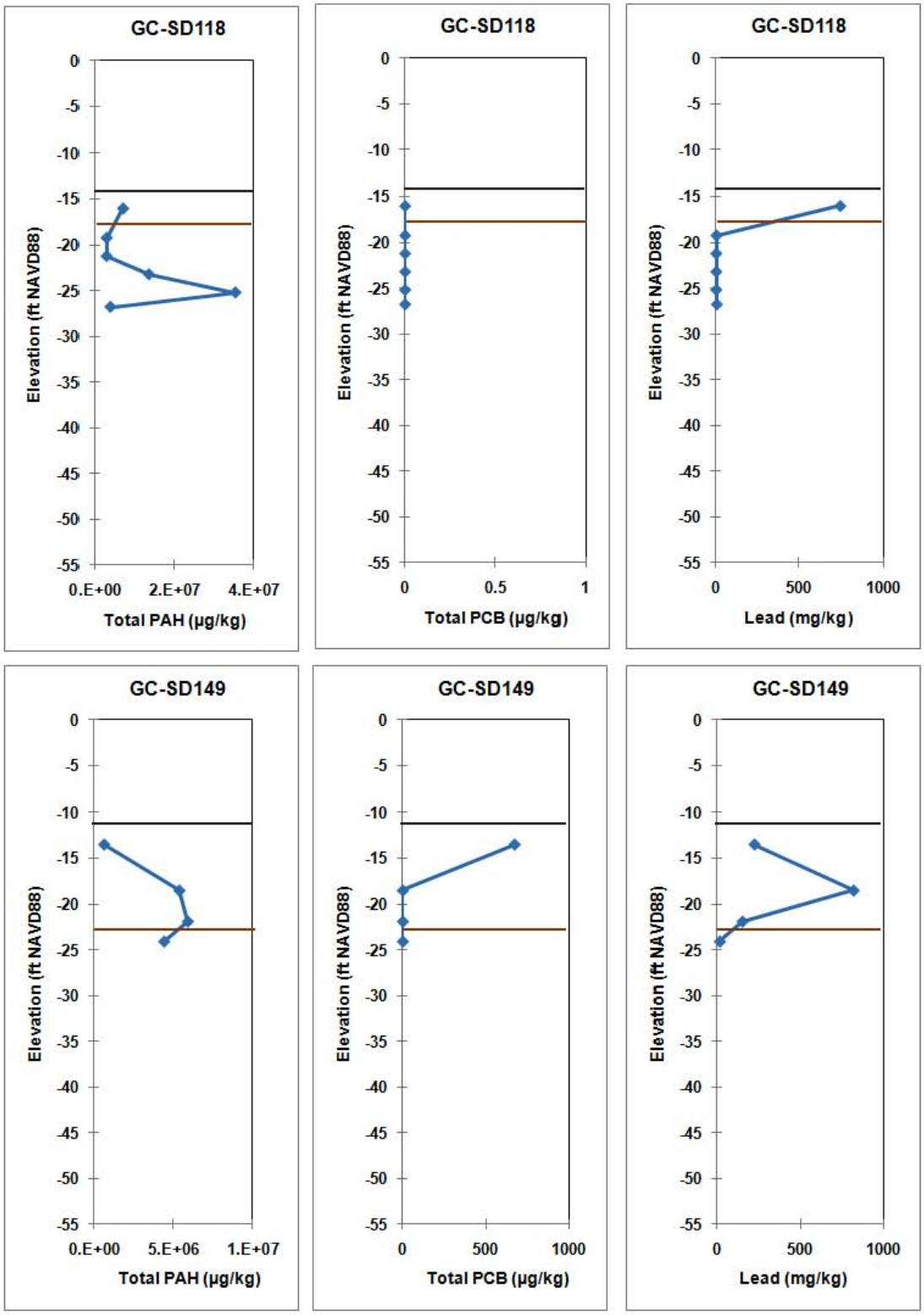

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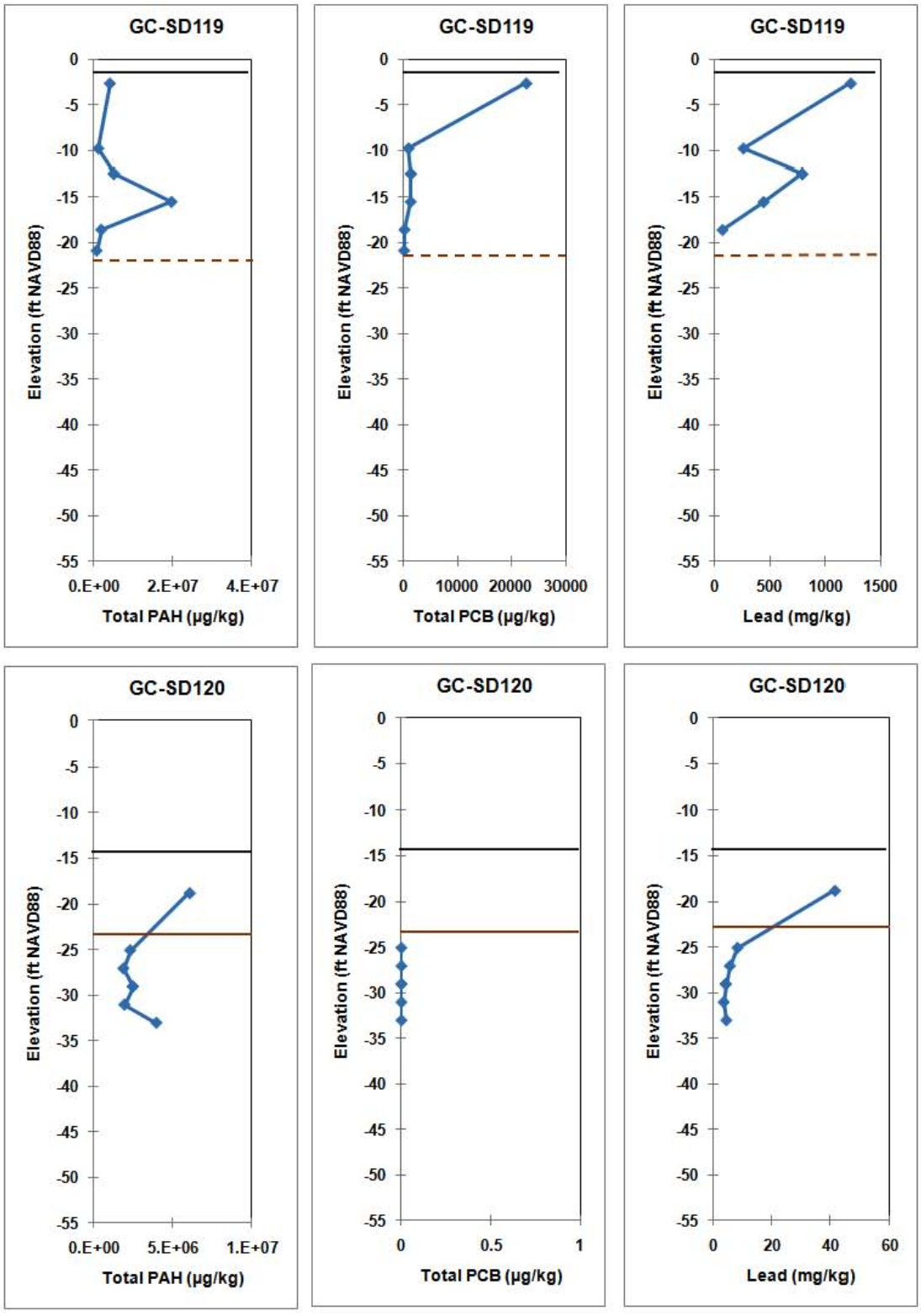

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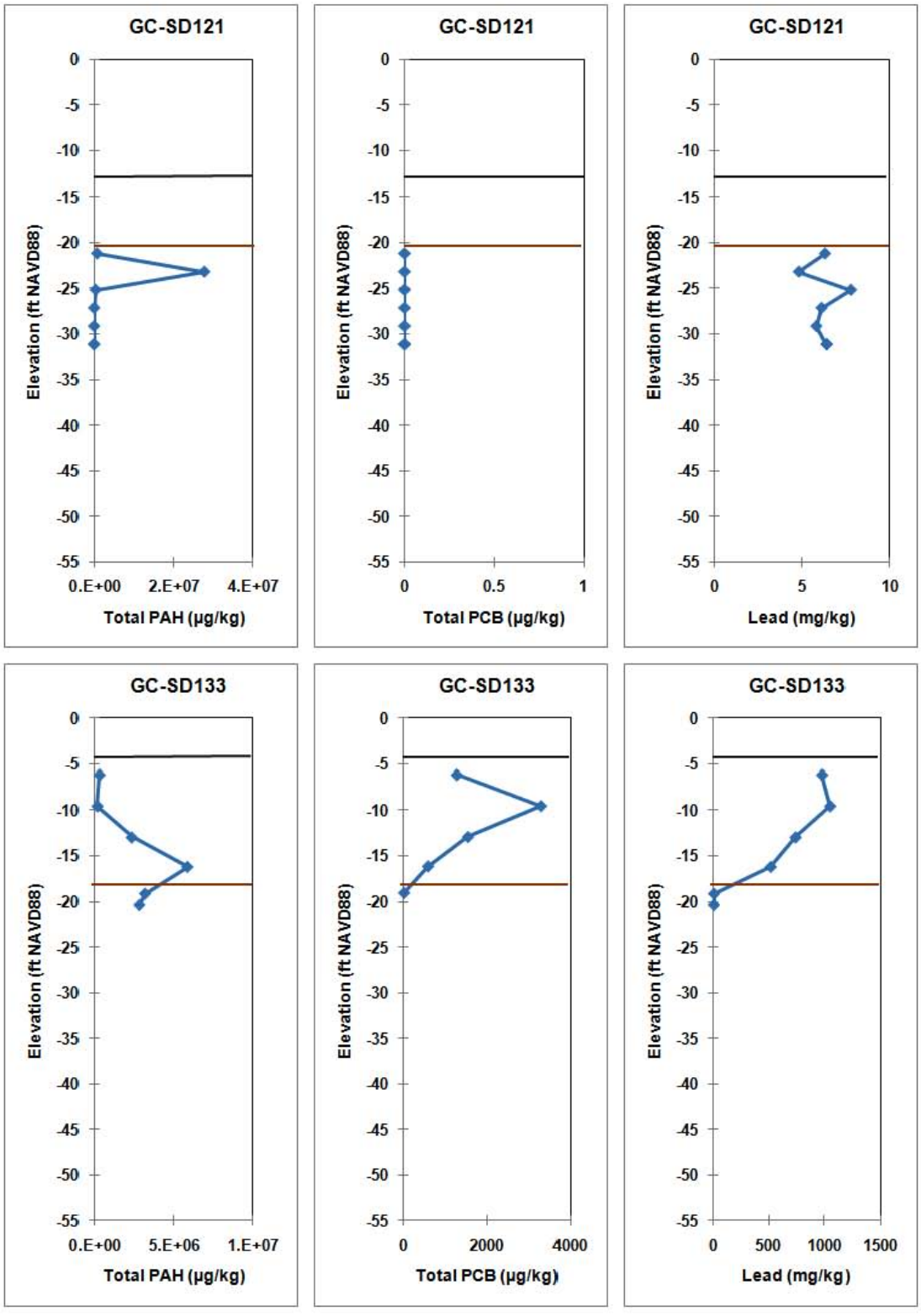

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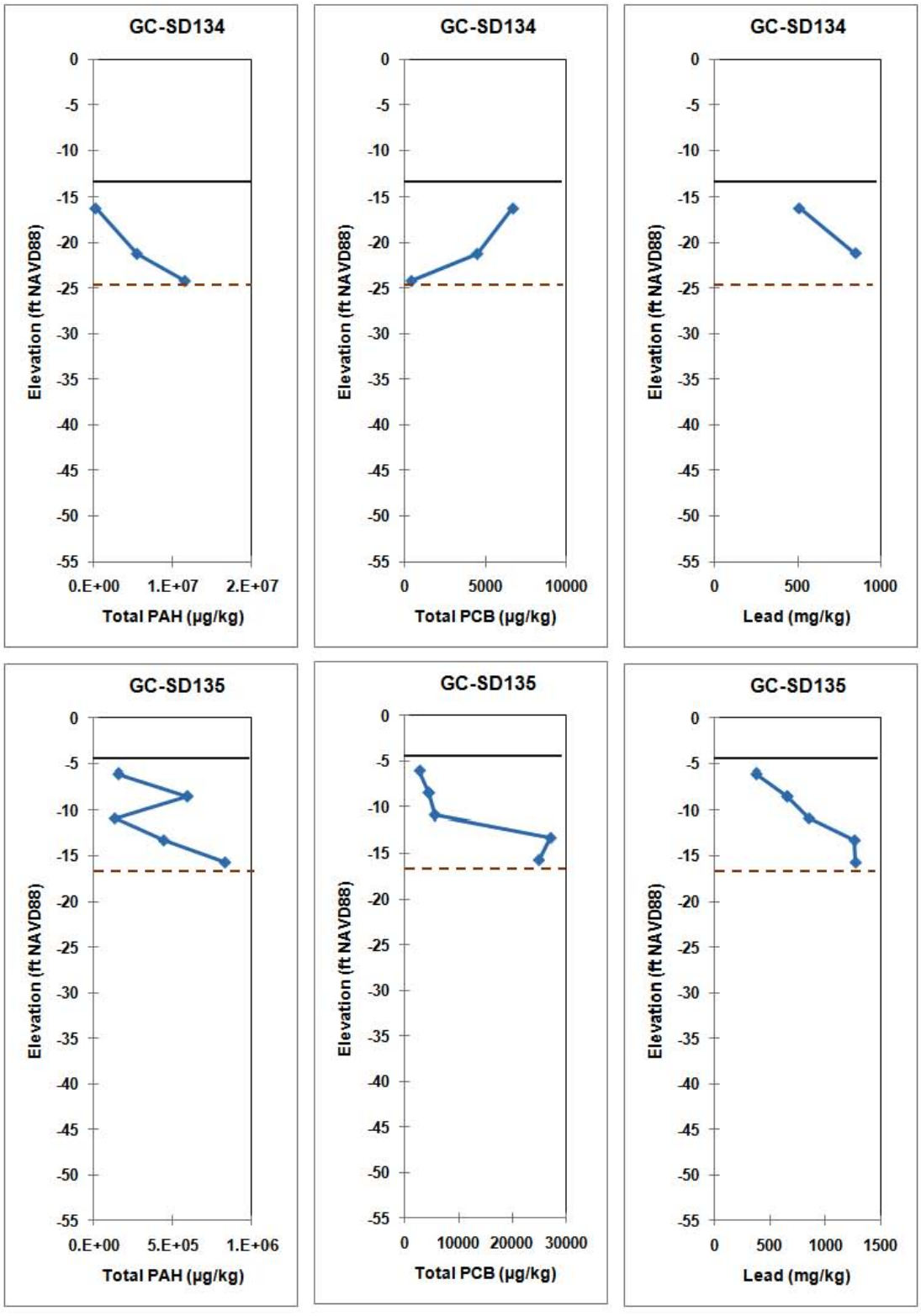

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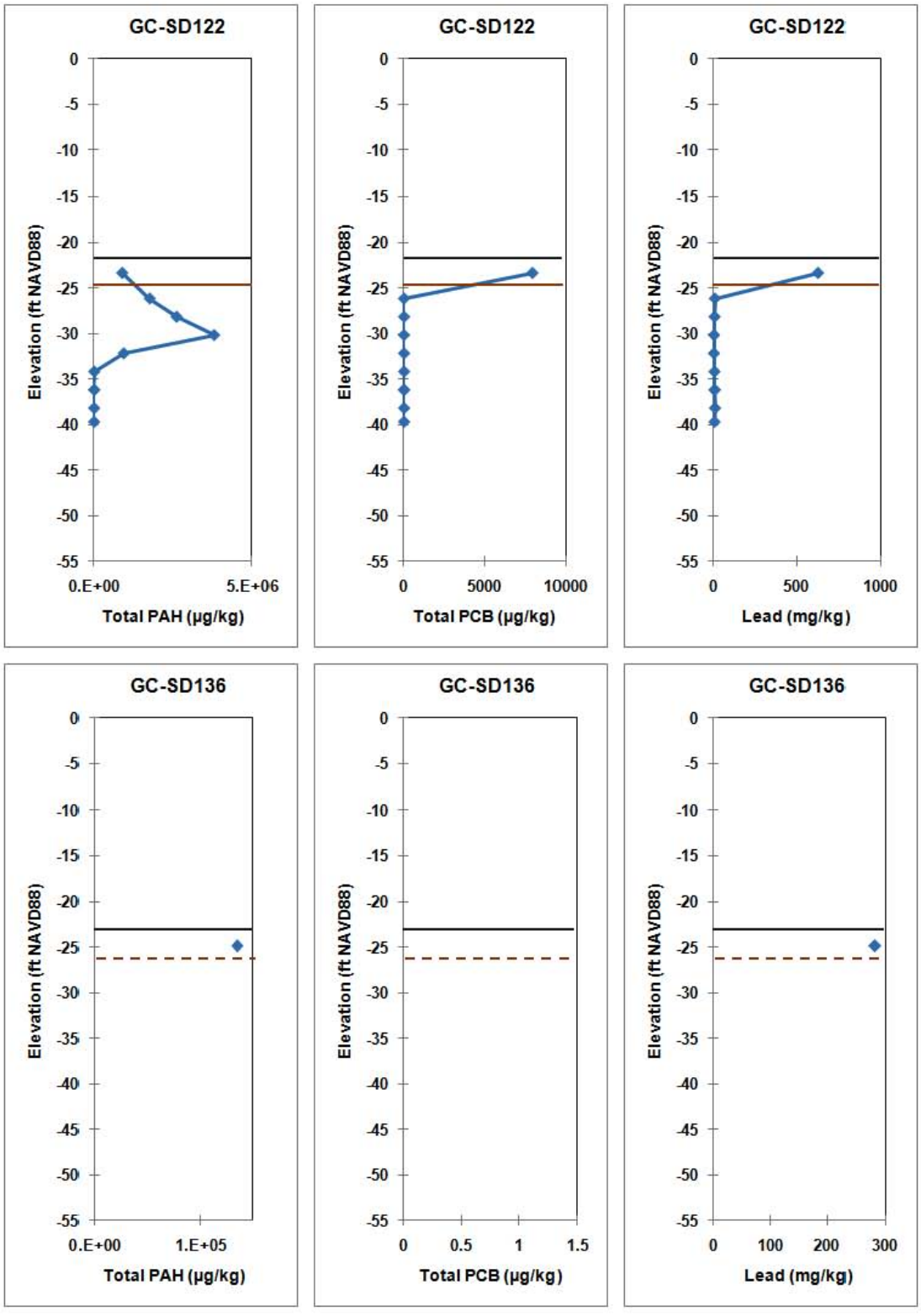

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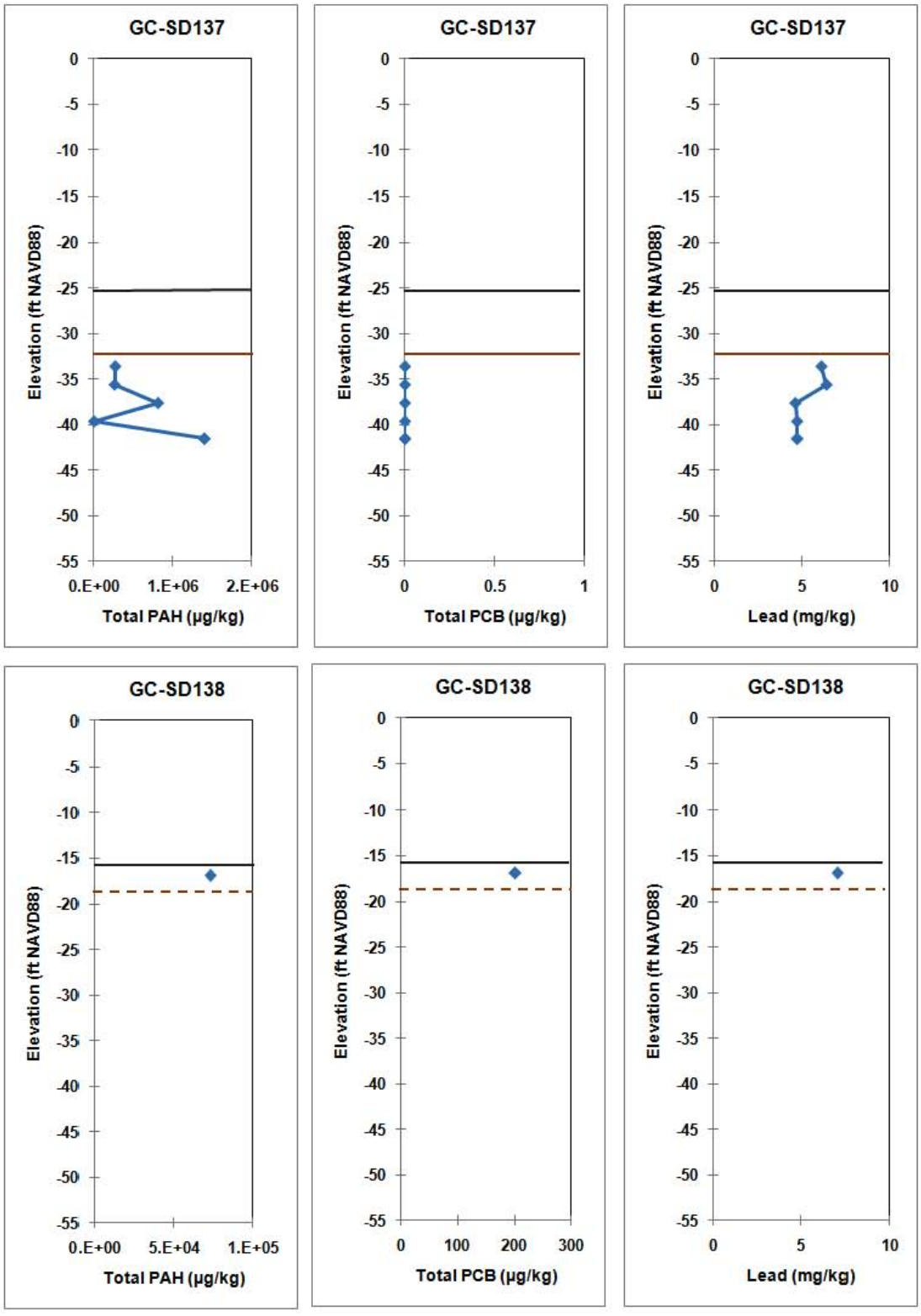

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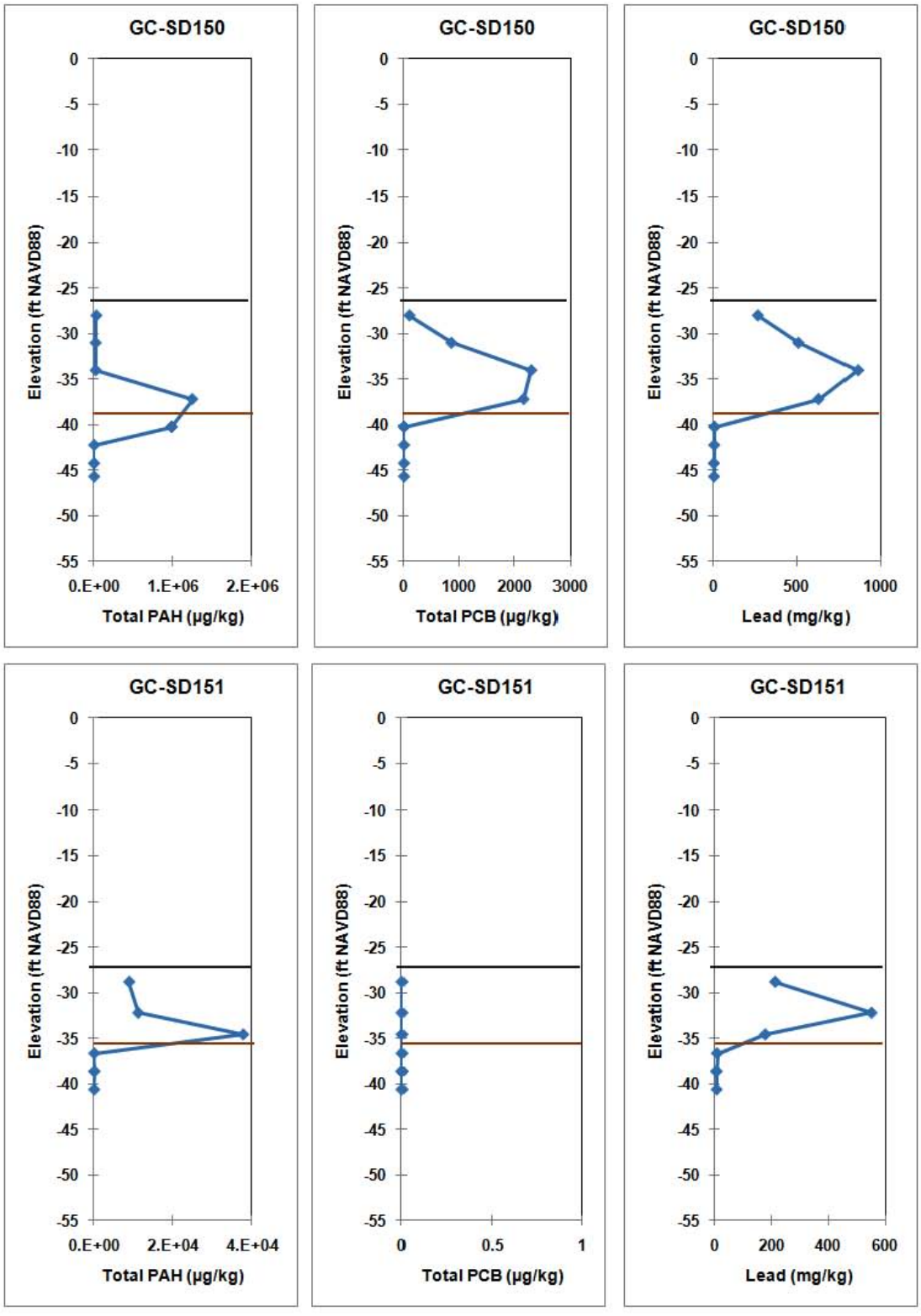

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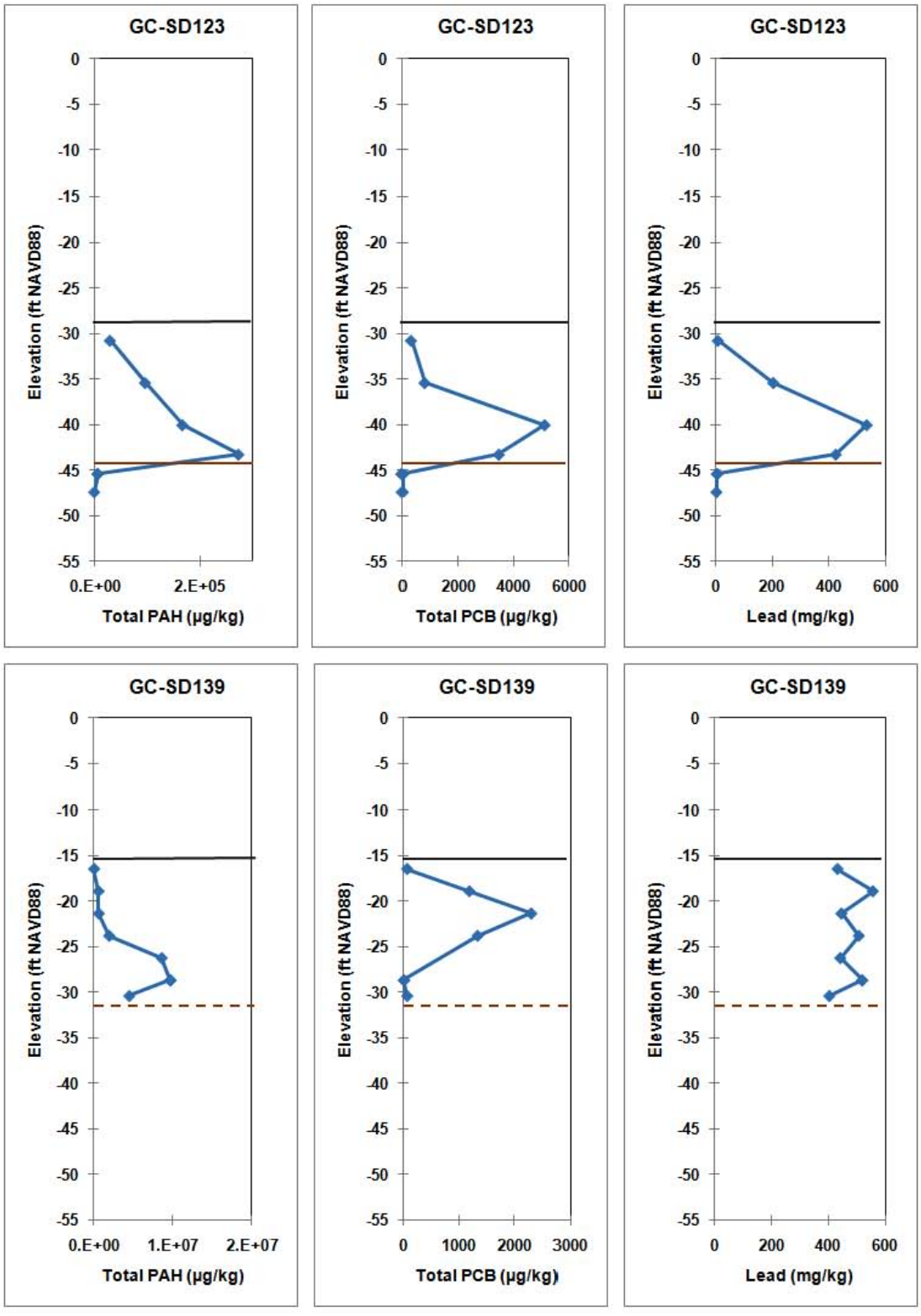
Gowanus Canal Remedial Investigation

Brooklyn, New York

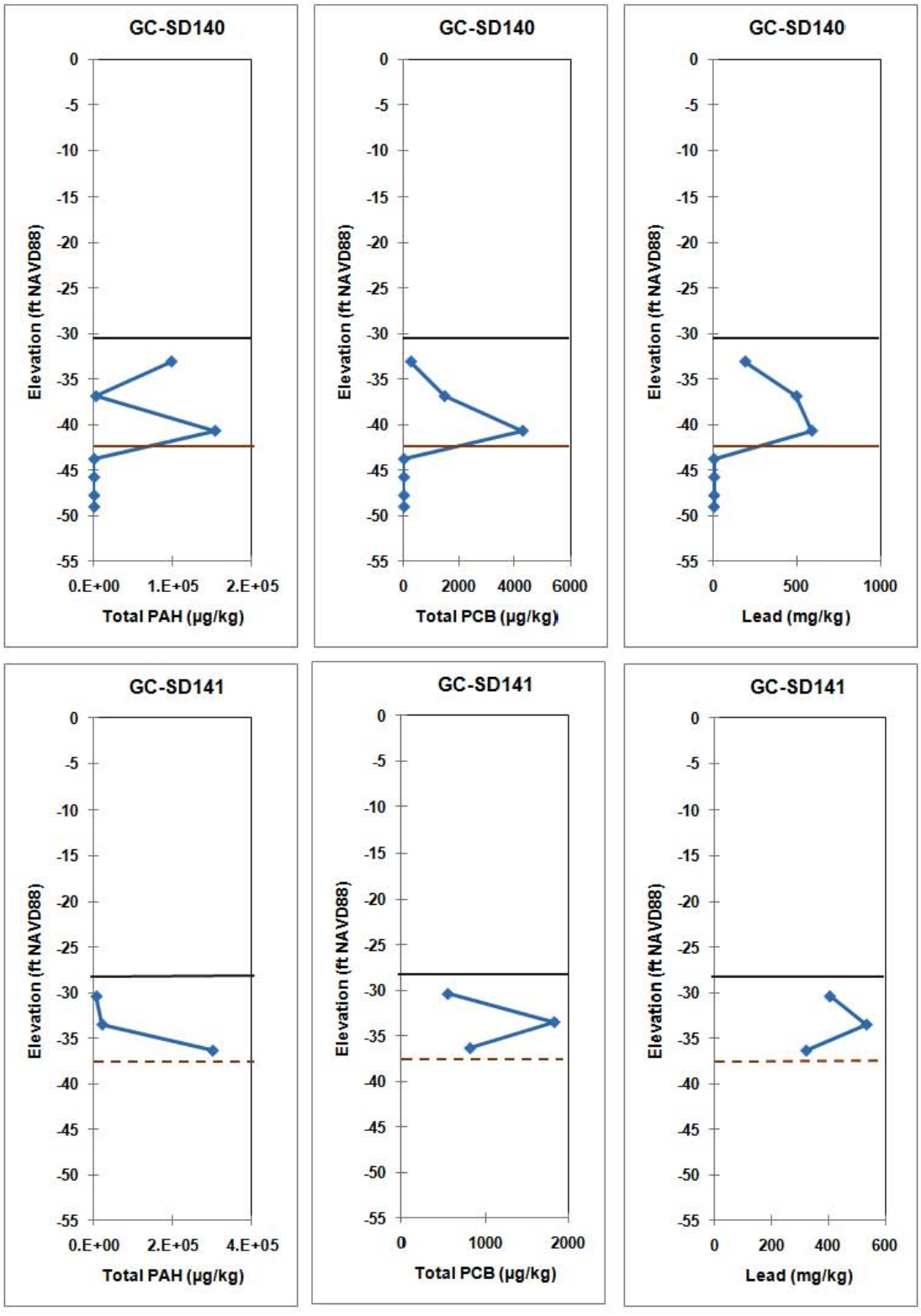


Notes:

Soft sediment surface
Native sediment contact
Native sediment inferred contact

Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.
Total PAH and total PCB values not calculated in cases where some results were rejected.

APPENDIX N
Sediment Core Depth Profiles for Total PAHs, Total PCBs, and Lead
Gowanus Canal Remedial Investigation
Brooklyn, New York



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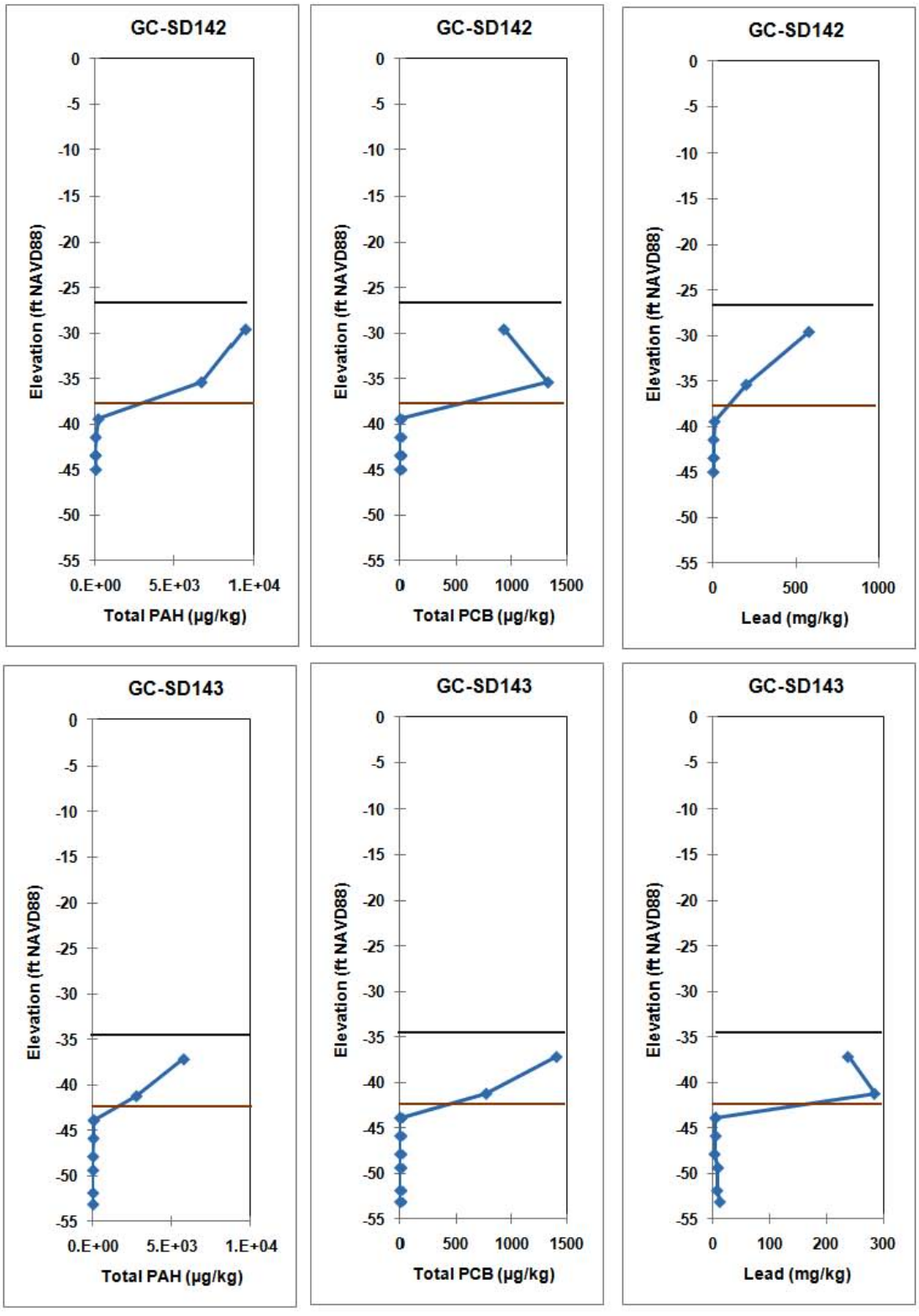

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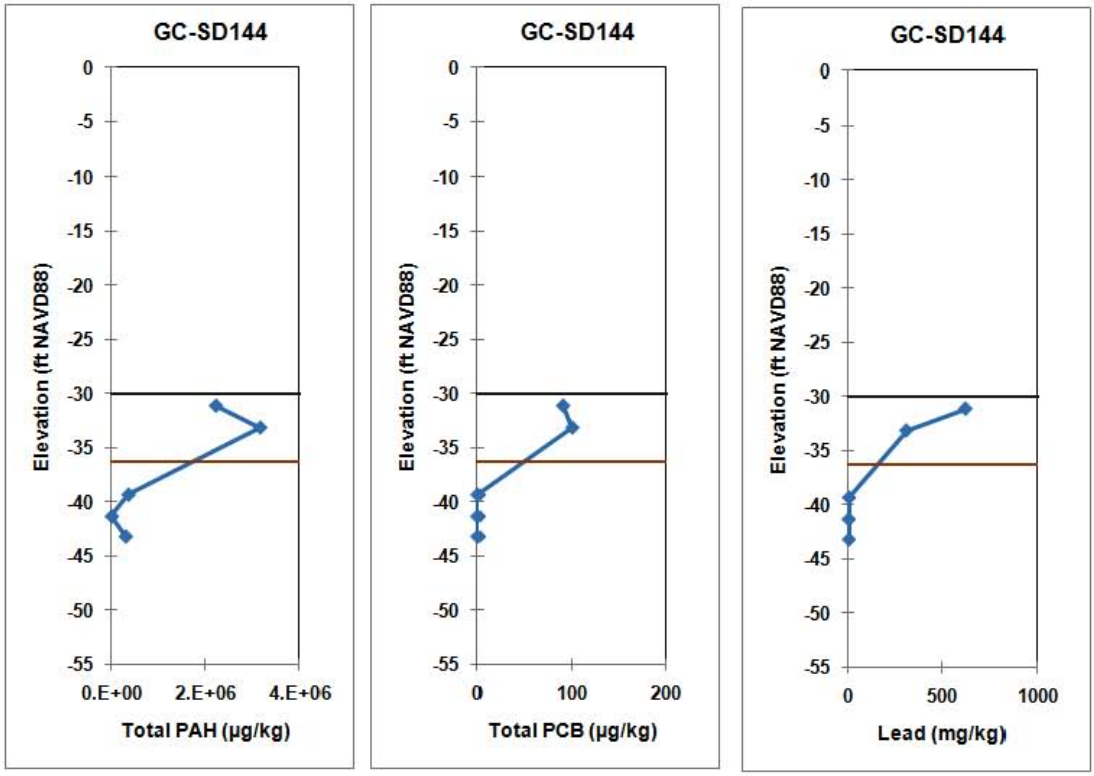
Brooklyn, New York



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Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.
Total PAH and total PCB values not calculated in cases where some results were rejected.

APPENDIX N
Sediment Core Depth Profiles for Total PAHs, Total PCBs, and Lead
Gowanus Canal Remedial Investigation
Brooklyn, New York

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Appendix O
Upland Investigation Summary

Contents

Soil and groundwater analytical result summaries for properties located along the canal.

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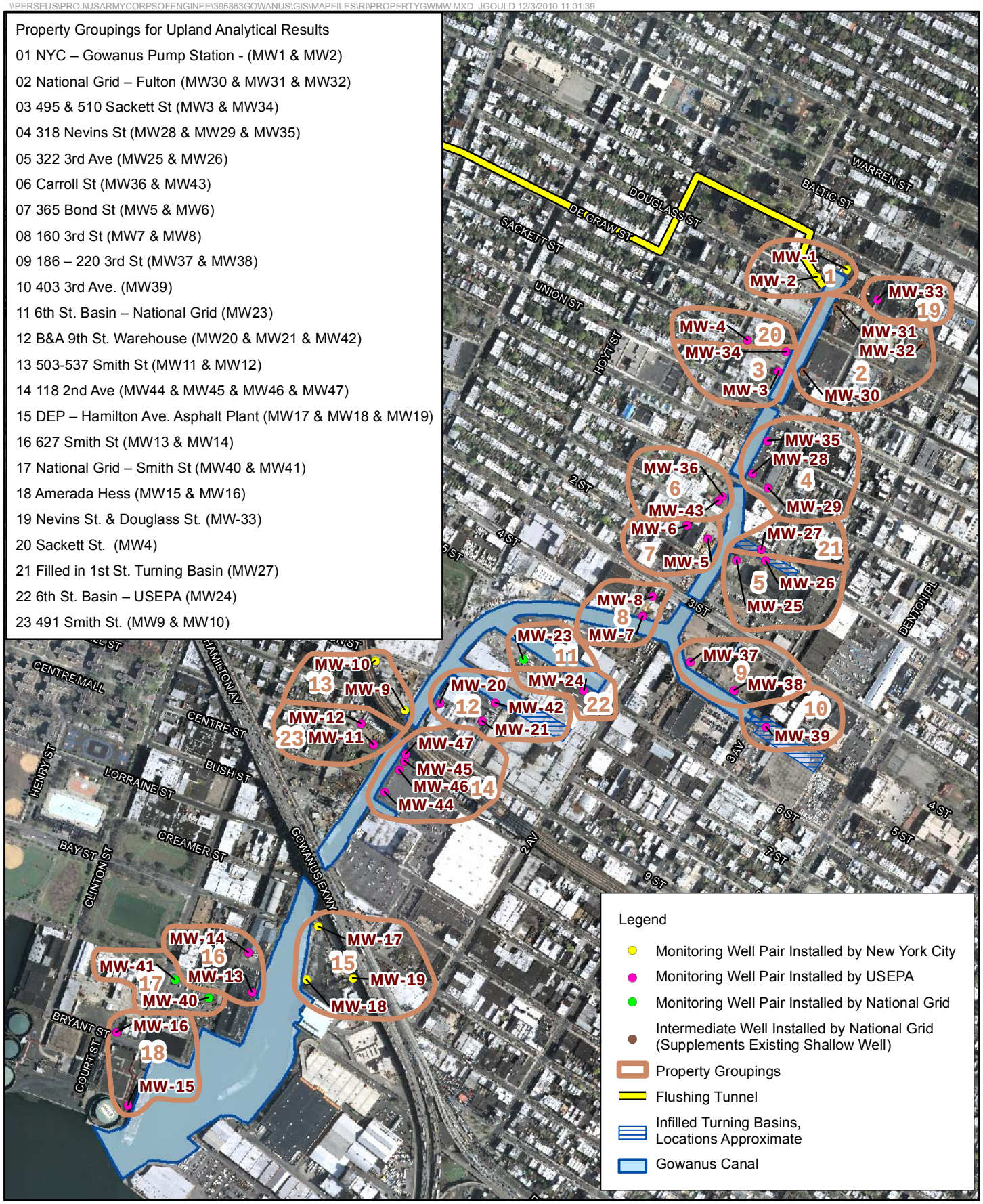

FIGURE 0-1
Property Groupings for Upland Analytical Results
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

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NYC – Gowanus Pump Station

(MW1 & MW2)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 201 Douglass St. - Gowanus Pump Station (Head of Gowanus Canal)
Monitoring Well Soil Borings Installed at Address: GC-MW-01I & GC-MW-2I
Intermediate Monitoring Wells Installed at Address: GC-MW-01I & GC-MW-2I
Shallow Monitoring Wells Installed at Address: GC-MW-01S & GC-MW-2S

GC-MW-01

The soil samples from the soil boring installed for the intermediate well (situated approximately 37 feet from the canal) contained 53 VOCs, 95 SVOCs, 4 pesticides, 1 PCBs, and 119 metals. From these, 7 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (90,500 µg/kg). The SVOC occurring at the highest concentration above screening value was phenol (531 µg/kg). The metal occurring at the highest concentration above screening value was mercury (1.5 mg/kg).

Shallow groundwater

The shallow well (depth of approximately17 ft bgs and situated approximately 37 feet from the canal) contained 7 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 10 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (1.1 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,950 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately40 ft bgs and situated approximately 37 feet from the canal) contained 13 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was vinyl chloride (31.5 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (19,900 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-02

The soil samples from the soil boring installed for the intermediate well (situated approximately 59 feet from the canal) contained 27 VOCs, 42 SVOCs, 2 pesticides, 0 PCBs, and 115 metals. From these, 6 VOCs, 0 SVOC, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (48,300 µg/kg).

Shallow groundwater

The shallow well (depth of approximately13 ft bgs and situated approximately 59 feet from the canal) contained 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 9 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (5,480 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately35 ft bgs and situated approximately 59 feet from the canal) contained 2 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 12 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was vinyl chloride (2.7 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (4,540 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene	
GCMW-01	SB01A	N	0	5	ft	**0.24**	U	**0.54**	U	**1**	U	**0.34**	U	**0.26**	U	**1.2**	U	**1.1**	U
GCMW-01	SB01B	N	5	10	ft	**13**	U	**29**	U	**55**	U	**18**	U	**14**	U	**65**	U	**58**	U
GCMW-01	SB01C	N	10	15	ft	**0.18**	U	**0.4**	U	**0.77**	U	**0.25**	U	**0.19**	U	**0.91**	U	**0.81**	U
GCMW-01	SB01D	N	15	20	ft	**0.23**	U	**0.53**	U	**1**	U	**0.33**	U	**0.25**	U	**1.2**	U	**1.1**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.21**	U	**0.47**	U	**0.91**	U	**0.3**	U	**0.22**	U	**1.1**	U	**0.95**	U
GCMW-01	SB01F	N	25	30	ft	**0.14**	U	**0.31**	U	**0.6**	U	**0.2**	U	**0.15**	U	**0.71**	U	**0.63**	U
GCMW-01	SB01G	N	30	35	ft	**0.13**	U	**0.29**	U	**0.55**	U	**0.18**	U	**0.14**	U	**0.65**	U	**0.58**	U
GCMW-01	SB01H	N	35	40	ft	**0.13**	U	**0.31**	U	**0.59**	U	**0.19**	U	**0.14**	U	**0.69**	U	**0.62**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.13**	U	**0.3**	U	**0.57**	U	**0.19**	U	**0.14**	U	**0.67**	U	**0.6**	U
GCMW-02	SB02B	N	5	10	ft	**0.28**	U	**0.64**	U	**1.2**	U	**0.4**	U	**0.3**	U	**1.4**	U	**1.3**	U
GCMW-02	SB02C	N	10	15	ft	**0.27**	U	**0.61**	U	**1.2**	U	**0.38**	U	**0.29**	U	**1.4**	U	**1.2**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	7.1	UR
GCMW-02	SB02D	N	15	20	ft	**0.75**	U	**1.7**	U	**3.3**	U	**1.1**	U	**0.81**	U	**3.9**	U	**3.5**	U
GCMW-02	SB02E	N	20	25	ft	**0.12**	U	**0.28**	U	**0.53**	U	**0.18**	U	**0.13**	U	**0.63**	U	**0.56**	U
GCMW-02	SB02F	N	25	30	ft	**0.13**	U	**0.3**	U	**0.58**	U	**0.19**	U	**0.14**	U	**0.68**	U	**0.6**	U
GCMW-02	SB02G	N	30	35	ft	**0.14**	U	**0.31**	U	**0.6**	U	**0.2**	U	**0.15**	U	**0.71**	U	**0.63**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.16**	U	**0.36**	U	**0.7**	U	**0.23**	U	**0.17**	U	**0.82**	U	**0.73**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene	
GCMW-01	SB01A	N	0	5	ft	**0.64**	U	**1**	U	**0.25**	U	**0.5**	U	**0.64**	U	**0.24**	U	**0.51**	U
GCMW-01	SB01B	N	5	10	ft	**34**	U	**53**	U	**13**	U	**27**	U	**34**	U	**13**	U	**27**	U
GCMW-01	SB01C	N	10	15	ft	**0.48**	U	**0.75**	U	**0.19**	U	**0.37**	U	**0.48**	U	**0.18**	U	**0.38**	U
GCMW-01	SB01D	N	15	20	ft	**0.62**	U	**0.97**	U	**0.25**	U	**0.48**	U	**0.62**	U	**0.23**	U	**0.49**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.56**	U	**0.87**	U	**0.22**	U	**0.44**	U	**0.56**	U	**0.21**	U	**0.44**	U
GCMW-01	SB01F	N	25	30	ft	**0.37**	U	**0.58**	U	**0.15**	U	**0.29**	U	**0.37**	U	**0.14**	U	**0.29**	U
GCMW-01	SB01G	N	30	35	ft	**0.34**	U	**0.53**	U	**0.14**	U	**0.27**	U	**0.34**	U	**0.13**	U	**0.27**	U
GCMW-01	SB01H	N	35	40	ft	**0.36**	U	**0.57**	U	**0.14**	U	**0.28**	U	**0.36**	U	**0.14**	U	**0.29**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.35**	U	**0.55**	U	**0.14**	U	**0.28**	U	**0.35**	U	**0.13**	U	**0.28**	U
GCMW-02	SB02B	N	5	10	ft	**0.75**	U	**1.2**	U	**0.3**	U	**0.59**	U	**0.75**	U	**0.28**	U	**0.6**	U
GCMW-02	SB02C	N	10	15	ft	**0.72**	U	**1.1**	U	**0.28**	U	**0.56**	U	**0.72**	U	**0.27**	U	**0.57**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	7.1	UR	7.1	UR	**7.1**	U	7.1	UR	**7.1**	U	**7.1**	U	7.1	UR
GCMW-02	SB02D	N	15	20	ft	**2**	U	**3.2**	U	**0.8**	U	**1.6**	U	**2**	U	**0.76**	U	**1.6**	U
GCMW-02	SB02E	N	20	25	ft	**0.33**	U	**0.51**	U	**0.13**	U	**0.26**	U	**0.33**	U	**0.12**	U	**0.26**	U
GCMW-02	SB02F	N	25	30	ft	**0.35**	U	**0.55**	U	**0.14**	U	**0.28**	U	**0.35**	U	**0.13**	U	**0.28**	U
GCMW-02	SB02G	N	30	35	ft	**0.37**	U	**0.58**	U	**0.15**	U	**0.29**	U	**0.37**	U	**0.14**	U	**0.29**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.43**	U	**0.67**	U	**0.17**	U	**0.34**	U	**0.43**	U	**0.16**	U	**0.34**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane	
GCMW-01	SB01A	N	0	5	ft	**0.63**	U	**160**	U	**1.8**	U	**12,800**		**0.63**	U	**0.41**	U	**0.48**	U
GCMW-01	SB01B	N	5	10	ft	**33**	U	**8,500**	U	**95**	U	**1,800**		**58.8**	J	**22**	U	**25**	U
GCMW-01	SB01C	N	10	15	ft	**0.46**	U	**120**	U	**1.3**	U	**90,500**		**1.7**		**0.3**	U	**0.35**	U
GCMW-01	SB01D	N	15	20	ft	**0.6**	U	**150**	U	**1.7**	U	**37,300**		**4.9**		**0.39**	U	**0.46**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	6,700	UR	**670**	U	**17,000**		**230**	J	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**1.7**	J	**140**	U	**1.6**	U	**6,550**		**3.8**		**0.36**	U	**0.42**	U
GCMW-01	SB01F	N	25	30	ft	**0.36**	U	**93**	U	**1**	U	**17,200**		**0.37**	U	**0.24**	U	**0.28**	U
GCMW-01	SB01G	N	30	35	ft	**0.33**	U	**85**	U	**0.95**	U	**44.9**		**0.34**	U	**0.22**	U	**0.25**	U
GCMW-01	SB01H	N	35	40	ft	**0.35**	U	**90**	U	**1**	U	**1,460**		**0.86**	J	**0.23**	U	**0.27**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	5,800	UR	**580**	U	**820**		**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.34**	U	**88**	U	**0.98**	U	**2.3**	U	**2.6**		**0.22**	U	**0.26**	U
GCMW-02	SB02B	N	5	10	ft	**0.74**	U	**190**	U	**2.1**	U	**93.6**		**4.5**		**0.48**	U	**0.56**	U
GCMW-02	SB02C	N	10	15	ft	**0.7**	U	**180**	U	**2**	U	**48,300**		**0.88**	J	**0.46**	U	**0.53**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	7.1	UR	140	UR	**14**	U	**170**		**10**	J	**7.1**	U	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**2**	U	**510**	U	**5.6**	U	**116**		**216**		**1.3**	U	**1.5**	U
GCMW-02	SB02E	N	20	25	ft	**0.32**	U	**82**	U	**0.91**	U	**651**		**1.7**		**0.21**	U	**0.24**	U
GCMW-02	SB02F	N	25	30	ft	**0.34**	U	**88**	U	**0.99**	U	**2.3**	U	**0.35**	U	**0.23**	U	**0.26**	U
GCMW-02	SB02G	N	30	35	ft	**0.36**	U	**92**	U	**1**	U	**74.4**		**0.36**	U	**0.23**	U	**0.27**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	100	UR	**10**	U	**380**		**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.42**	U	**110**	U	**1.2**	U	**34.8**		**0.42**	U	**0.27**	U	**0.32**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride	
GCMW-01	SB01A	N	0	5	ft	**0.28**	U	**0.75**	U	**0.57**	U	**1**	U
GCMW-01	SB01B	N	5	10	ft	**15**	U	**40**	U	**160**	J	**55**	U
GCMW-01	SB01C	N	10	15	ft	**0.21**	U	**0.56**	U	**1.9**	J	**0.76**	U
GCMW-01	SB01D	N	15	20	ft	**0.27**	U	**0.72**	U	**5**	J	**1**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	UJ	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.24**	U	**0.65**	U	**6.1**	J	**0.9**	U
GCMW-01	SB01F	N	25	30	ft	**0.16**	U	**0.43**	U	**5.5**		**0.59**	U
GCMW-01	SB01G	N	30	35	ft	**0.15**	U	**0.4**	U	**0.52**	J	**0.55**	U
GCMW-01	SB01H	N	35	40	ft	**0.16**	U	**0.42**	U	**2.9**	J	**0.58**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	UJ	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.15**	U	**0.41**	U	**0.31**	U	**0.57**	U
GCMW-02	SB02B	N	5	10	ft	**0.33**	U	**0.88**	U	**1.4**	J	**1.2**	U
GCMW-02	SB02C	N	10	15	ft	**0.31**	U	**0.84**	U	**6.2**	J	**1.2**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	7.1	UR	**7.1**	U	**4.4**	J	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**0.88**	U	**2.4**	U	**17.5**	J	**3.2**	U
GCMW-02	SB02E	N	20	25	ft	**0.14**	U	**0.38**	U	**5.5**		**0.53**	U
GCMW-02	SB02F	N	25	30	ft	**0.15**	U	**0.41**	U	**2.2**	J	**0.57**	U
GCMW-02	SB02G	N	30	35	ft	**0.16**	U	**0.43**	U	**2.6**	J	**0.59**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**1.9**	J	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.19**	U	**0.5**	U	**2.7**	J	**0.69**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane	
GCMW-01	SB01A	N	0	5	ft	0.63	U	1.9	U	0.59	U	0.31	U	0.44	U	0.25	U	0.28	U
GCMW-01	SB01B	N	5	10	ft	33	U	98	U	31	U	16	U	24	U	13	U	1,030	
GCMW-01	SB01C	N	10	15	ft	0.47	U	1.4	U	0.44	U	0.23	U	0.33	U	0.18	U	5.8	J
GCMW-01	SB01D	N	15	20	ft	0.61	U	1.8	U	0.57	U	0.3	U	0.43	U	0.24	U	4.3	J
GCMW-01	SB01D-S-NYC	S	15	20	ft	330	U	330	U	330	U	330	U	330	U	330	U	330	U
GCMW-01	SB01E	N	20	25	ft	0.55	U	1.6	U	0.51	U	0.27	U	0.39	U	0.21	U	11.9	
GCMW-01	SB01F	N	25	30	ft	0.36	U	1.1	U	0.34	U	0.18	U	0.26	U	0.14	U	0.16	U
GCMW-01	SB01G	N	30	35	ft	0.33	U	0.99	U	0.31	U	0.16	U	0.24	U	0.13	U	0.15	U
GCMW-01	SB01H	N	35	40	ft	0.35	U	1	U	0.33	U	0.17	U	0.37	J	0.14	U	2	J
GCMW-01	SB01H-S-NYC	S	35	40	ft	290	U	290	U	290	U	290	U	290	U	290	U	290	U
GCMW-02	SB02A	N	0	5	ft	0.35	U	1	U	0.32	U	0.17	U	0.24	U	0.14	U	0.15	U
GCMW-02	SB02B	N	5	10	ft	0.74	U	2.2	U	0.69	U	0.36	U	0.52	U	0.29	U	0.33	U
GCMW-02	SB02C	N	10	15	ft	0.7	U	2.1	U	0.66	U	0.34	U	0.5	U	0.28	U	0.31	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U
GCMW-02	SB02D	N	15	20	ft	2	U	5.9	U	1.9	U	0.97	U	1.4	U	0.78	U	0.88	U
GCMW-02	SB02E	N	20	25	ft	0.32	U	0.95	U	0.3	U	0.16	U	0.23	U	0.13	U	0.14	U
GCMW-02	SB02F	N	25	30	ft	0.35	U	1	U	0.33	U	0.17	U	0.24	U	0.14	U	0.15	U
GCMW-02	SB02G	N	30	35	ft	0.36	U	1.1	U	0.34	U	0.18	U	0.26	U	0.14	U	0.16	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U
GCMW-02	SB02H	N	35	36	ft	0.42	U	1.2	U	0.4	U	0.21	U	0.3	U	0.17	U	0.19	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate	
GCMW-01	SB01A	N	0	5	ft	**0.2**	U	**1.8**	U	**0.69**	U	**0.96**	U	**0.87**	U	**1.5**	U
GCMW-01	SB01B	N	5	10	ft	**11**	U	**93**	U	**134**		**2,180**		**362**		**342**	J
GCMW-01	SB01C	N	10	15	ft	**0.15**	U	**1.3**	U	**2.3**		**0.71**	U	**5.1**		**1.1**	U
GCMW-01	SB01D	N	15	20	ft	**0.2**	U	**1.7**	U	**0.67**	U	**0.93**	U	**1.9**	J	**1.5**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	**110**	J	**510**	
GCMW-01	SB01E	N	20	25	ft	**0.18**	U	**1.5**	U	**2.4**		**0.84**	U	**5.3**		**1.3**	U
GCMW-01	SB01F	N	25	30	ft	**0.12**	U	**1**	U	**0.4**	U	**0.56**	U	**0.5**	U	**0.88**	U
GCMW-01	SB01G	N	30	35	ft	**0.11**	U	**0.93**	U	**0.37**	U	**0.51**	U	**0.46**	U	**0.81**	U
GCMW-01	SB01H	N	35	40	ft	**0.12**	U	**0.99**	U	**0.39**	U	**0.54**	U	**0.49**	U	**0.86**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.11**	U	**0.96**	U	**0.38**	U	**0.53**	U	**0.48**	U	**0.84**	U
GCMW-02	SB02B	N	5	10	ft	**0.24**	U	**2.1**	U	**0.81**	U	**1.1**	U	**1**	U	**1.8**	U
GCMW-02	SB02C	N	10	15	ft	**0.23**	U	**2**	U	**0.77**	U	**1.1**	U	**0.97**	U	**1.7**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**0.64**	U	**5.5**	U	**295**		**15.7**	J	**33.1**		**4.8**	U
GCMW-02	SB02E	N	20	25	ft	**0.1**	U	**0.9**	U	**0.35**	U	**0.49**	U	**0.45**	U	**0.78**	U
GCMW-02	SB02F	N	25	30	ft	**0.11**	U	**0.97**	U	**0.38**	U	**0.53**	U	**0.48**	U	**0.84**	U
GCMW-02	SB02G	N	30	35	ft	**0.12**	U	**1**	U	**0.4**	U	**0.55**	U	**0.5**	U	**0.88**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.14**	U	**1.2**	U	**0.46**	U	**0.64**	U	**0.58**	U	**1**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether	
GCMW-01	SB01A	N	0	5	ft	3.7	U	1.5	U	1.2	U	0.41	U	0.87	U	0.2	U	0.52	U
GCMW-01	SB01B	N	5	10	ft	190	U	80	U	18,000		22	U	67	J	11	U	28	U
GCMW-01	SB01C	N	10	15	ft	2.7	U	1.1	U	10.6		0.31	U	0.77	J	0.15	U	0.39	U
GCMW-01	SB01D	N	15	20	ft	3.5	U	1.5	U	15.6		0.4	U	0.84	U	0.19	U	5.8	
GCMW-01	SB01D-S-NYC	S	15	20	ft	200	J	670	U	330	U	330	U	330	U	330	U	330	U
GCMW-01	SB01E	N	20	25	ft	3.2	U	1.3	U	52.7		0.36	U	0.91	J	0.17	U	1.3	J
GCMW-01	SB01F	N	25	30	ft	2.1	U	0.87	U	0.7	U	0.24	U	0.5	U	0.11	U	37	
GCMW-01	SB01G	N	30	35	ft	1.9	U	0.8	U	0.65	U	0.22	U	0.46	U	0.11	U	0.28	U
GCMW-01	SB01H	N	35	40	ft	2.1	U	0.85	U	11.9		0.23	U	0.49	U	0.11	U	1.9	
GCMW-01	SB01H-S-NYC	S	35	40	ft	580	U	580	U	290	U	290	U	290	U	290	U	290	U
GCMW-02	SB02A	N	0	5	ft	2	U	0.83	U	0.67	U	0.23	U	0.48	U	0.11	U	0.29	U
GCMW-02	SB02B	N	5	10	ft	4.3	U	1.8	U	1.4	U	0.49	U	1	U	0.23	U	1	J
GCMW-02	SB02C	N	10	15	ft	4.1	U	1.7	U	1.4	U	0.46	U	0.97	U	0.22	U	0.59	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	54		14	U	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U
GCMW-02	SB02D	N	15	20	ft	12	U	4.7	U	3.8	U	1.3	U	99		0.63	U	1.6	U
GCMW-02	SB02E	N	20	25	ft	1.9	U	0.77	U	0.62	U	0.21	U	0.45	U	0.1	U	0.27	U
GCMW-02	SB02F	N	25	30	ft	2	U	0.83	U	0.67	U	0.23	U	0.48	U	0.11	U	0.29	U
GCMW-02	SB02G	N	30	35	ft	2.1	U	0.87	U	1.8	J	0.24	U	0.5	U	0.11	U	0.3	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	10	U	10	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U
GCMW-02	SB02H	N	35	36	ft	2.4	U	1	U	0.81	U	0.28	U	0.58	U	0.13	U	0.35	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-01	SB01A	N	0	5	ft	**0.27**	U	**0.61**	J	**0.83**	U	**0.18**	U	**0.98**	U	**0.43**	U	**0.33**	U
GCMW-01	SB01B	N	5	10	ft	**14**	U	**85.4**	J	**44**	U	**9.4**	U	**52**	U	**23**	U	**18**	U
GCMW-01	SB01C	N	10	15	ft	**0.2**	U	**0.88**	J	**0.62**	U	**0.13**	U	**0.72**	U	**0.32**	U	**0.25**	U
GCMW-01	SB01D	N	15	20	ft	**0.26**	U	**1.3**	J	**0.81**	U	**0.17**	U	**0.94**	U	**0.41**	U	**0.32**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.23**	U	**1.2**	J	**0.73**	U	**0.16**	U	**0.85**	U	**0.37**	U	**0.29**	U
GCMW-01	SB01F	N	25	30	ft	**0.16**	U	**0.31**	U	**0.48**	U	**0.1**	U	**0.56**	U	**0.25**	U	**0.19**	U
GCMW-01	SB01G	N	30	35	ft	**0.14**	U	**0.29**	U	**0.44**	U	**0.095**	U	**0.52**	U	**0.23**	U	**0.18**	U
GCMW-01	SB01H	N	35	40	ft	**0.15**	U	**0.31**	U	**0.47**	U	**0.1**	U	**0.55**	U	**0.24**	U	**0.19**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.15**	U	**1.3**		**0.46**	U	**0.098**	U	**0.54**	U	**0.23**	U	**0.18**	U
GCMW-02	SB02B	N	5	10	ft	**0.32**	U	**0.88**	J	**0.98**	U	**0.21**	U	**1.1**	U	**0.5**	U	**0.39**	U
GCMW-02	SB02C	N	10	15	ft	**0.3**	U	**0.61**	U	**0.93**	U	**0.2**	U	**1.1**	U	**0.48**	U	**0.37**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**7.1**	U	**3.1**	J	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**0.85**	U	**14.8**		**2.6**	U	**0.56**	U	**3.1**	U	**1.3**	U	**1**	U
GCMW-02	SB02E	N	20	25	ft	**0.14**	U	**0.28**	U	**0.43**	U	**0.091**	U	**0.5**	U	**0.22**	U	**0.17**	U
GCMW-02	SB02F	N	25	30	ft	**0.15**	U	**0.3**	U	**0.46**	U	**0.098**	U	**0.54**	U	**0.23**	U	**0.18**	U
GCMW-02	SB02G	N	30	35	ft	**0.15**	U	**0.31**	U	**0.48**	U	**0.1**	U	**0.56**	U	**0.24**	U	**0.19**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.18**	U	**0.36**	U	**0.56**	U	**0.12**	U	**0.65**	U	**0.28**	U	**0.22**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,4-dinitrotoluene	2,6-dinitrotoluene	2-chloronaphthalene	2-chlorophenol
GCMW-01	SB01A	N	0	5	ft	13 U	42 U	48 U	39 U	66 U	69 U	50 U	18 U	16 U	13 U	42 U
GCMW-01	SB01B	N	5	10	ft	14 U	46 U	52 U	42 U	72 U	75 U	54 U	19 U	17 U	14 U	45 U
GCMW-01	SB01C	N	10	15	ft	13 U	42 U	47 U	38 U	66 U	69 U	50 U	18 U	16 U	13 U	41 U
GCMW-01	SB01D	N	15	20	ft	13 U	44 U	50 U	40 U	69 U	72 U	52 U	19 U	16 U	13 U	43 U
GCMW-01	SB01D-S-NYC	S	15	20	ft	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	6,300 U	12,000 U	6,300 U	6,300 U	6,300 U	6,300 U
GCMW-01	SB01E	N	20	25	ft	12 U	42 U	47 U	38 U	65 U	68 U	49 U	18 U	15 U	13 U	41 U
GCMW-01	SB01F	N	25	30	ft	11 U	38 U	43 U	35 U	60 U	63 U	45 U	16 U	14 U	12 U	38 U
GCMW-01	SB01G	N	30	35	ft	10 U	34 U	38 U	31 U	53 U	56 U	40 U	14 U	13 U	10 U	33 U
GCMW-01	SB01H	N	35	40	ft	11 U	36 U	41 U	33 U	56 U	59 U	43 U	15 U	13 U	11 U	35 U
GCMW-01	SB01H-S-NYC	S	35	40	ft	200 U	200 U	200 U	200 U	200 U	200 U	400 U	200 U	200 U	200 U	200 U
GCMW-02	SB02A	N	0	5	ft	9.6 U	32 U	36 U	29 U	50 U	53 U	38 U	14 U	12 U	9.7 U	32 U
GCMW-02	SB02B	N	5	10	ft	13 U	45 U	51 U	41 U	70 U	73 U	53 U	19 U	17 U	14 U	44 U
GCMW-02	SB02C	N	10	15	ft	15 U	50 U	56 U	45 U	77 U	81 U	59 U	21 U	18 U	15 U	49 U
GCMW-02	SB02C-S-NYC	S	10	15	ft	260 U	260 U	260 U	260 U	260 U	260 U	510 U	260 U	260 U	260 U	260 U
GCMW-02	SB02D	N	15	20	ft	34 U	110 U	130 U	100 U	180 U	180 U	130 U	48 U	42 U	34 U	110 U
GCMW-02	SB02E	N	20	25	ft	11 U	37 U	41 U	34 U	57 U	60 U	44 U	16 U	14 U	11 U	36 U
GCMW-02	SB02F	N	25	30	ft	11 U	35 U	40 U	32 U	55 U	58 U	42 U	15 U	13 U	11 U	35 U
GCMW-02	SB02G	N	30	35	ft	11 U	37 U	42 U	34 U	58 U	61 U	44 U	16 U	14 U	11 U	37 U
GCMW-02	SB02G-S-NYC	S	30	35	ft	210 U	210 U	210 U	210 U	210 U	210 U	400 U	210 U	210 U	210 U	210 U
GCMW-02	SB02H	N	35	36	ft	11 U	36 U	40 U	32 U	56 U	58 U	42 U	15 U	13 U	11 U	35 U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline
GCMW-01	SB01A	N	0	5	ft	23 U	47 U	18 U	44 U	10 U	16 U	50 U	15 U	41 U	13 U
GCMW-01	SB01B	N	5	10	ft	60.8 J	51 U	20 U	47 U	11 U	18 U	54 U	16 U	45 U	14 U
GCMW-01	SB01C	N	10	15	ft	23 U	47 U	18 U	43 U	10 U	16 U	50 U	15 U	41 U	13 U
GCMW-01	SB01D	N	15	20	ft	96	49 U	19 U	45 U	11 U	17 U	52 U	16 U	43 U	14 U
GCMW-01	SB01D-S-NYC	S	15	20	ft	3,500	6,300 U	12,000 U	6,300 U	6,300 U	12,000 U	12,000 U	6,300 U	6,300 U	6,300 U
GCMW-01	SB01E	N	20	25	ft	35.1 J	46 U	18 U	43 U	10 U	16 U	49 U	15 U	40 U	13 U
GCMW-01	SB01F	N	25	30	ft	21 U	42 U	16 U	39 U	9.5 U	15 U	45 U	14 U	37 U	12 U
GCMW-01	SB01G	N	30	35	ft	19 U	38 U	15 U	35 U	8.4 U	13 U	40 U	12 U	33 U	11 U
GCMW-01	SB01H	N	35	40	ft	20 U	40 U	15 U	37 U	8.9 U	14 U	43 U	13 U	35 U	11 U
GCMW-01	SB01H-S-NYC	S	35	40	ft	4.3	200 U	400 U	200 U	200 U	400 U	400 U	200 U	200 U	200 U
GCMW-02	SB02A	N	0	5	ft	17 U	36 U	14 U	33 U	7.9 U	13 U	38 U	11 U	31 U	10 U
GCMW-02	SB02B	N	5	10	ft	24 U	50 U	19 U	46 U	11 U	17 U	53 U	16 U	44 U	14 U
GCMW-02	SB02C	N	10	15	ft	27 U	55 U	21 U	51 U	12 U	19 U	59 U	17 U	48 U	15 U
GCMW-02	SB02C-S-NYC	S	10	15	ft	2.5 J	260 U	510 U	260 U	260 U	510 U	510 U	260 U	260 U	260 U
GCMW-02	SB02D	N	15	20	ft	61 U	130 U	48 U	120 U	28 U	44 U	130 U	40 U	110 U	35 U
GCMW-02	SB02E	N	20	25	ft	20 U	41 U	16 U	38 U	9.1 U	14 U	44 U	13 U	36 U	11 U
GCMW-02	SB02F	N	25	30	ft	19 U	39 U	15 U	36 U	8.7 U	14 U	42 U	12 U	34 U	11 U
GCMW-02	SB02G	N	30	35	ft	20 U	41 U	16 U	38 U	9.2 U	14 U	44 U	13 U	36 U	12 U
GCMW-02	SB02G-S-NYC	S	30	35	ft	1.1 J	210 U	400 U	210 U	210 U	400 U	400 U	210 U	210 U	210 U
GCMW-02	SB02H	N	35	36	ft	19 U	39 U	15 U	37 U	8.8 U	14 U	42 U	13 U	35 U	11 U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde
GCMW-01	SB01A	N	0	5	ft	**12** U	--	**16** U	**70** U	**108**	**32.4** J	**7.2** U	**168**	**8.1** U	**9.5** U
GCMW-01	SB01B	N	5	10	ft	**13** U	--	**17** U	**75** U	**1,040**	**18.1** J	**7.8** U	**312**	**8.8** U	**10** U
GCMW-01	SB01C	N	10	15	ft	**12** U	--	**16** U	**69** U	**149**	**13** U	**7.2** U	**58.2**	**8.1** U	**9.4** U
GCMW-01	SB01D	N	15	20	ft	**13** U	--	**17** U	**73** U	**259**	**23.8** J	**7.6** U	**256**	**8.5** U	**9.9** U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**6,300** U	**6,300** U	**12,000** U	**12,000** U	**7,200**	**100** J	**6,300** U	**15,000**	**6,300** U	**6,300** U
GCMW-01	SB01E	N	20	25	ft	**12** U	--	**16** U	**68** U	**175**	**17.4** J	**7.1** U	**229**	**8** U	**9.3** U
GCMW-01	SB01F	N	25	30	ft	**11** U	--	**15** U	**63** U	**11** U	**12** U	**6.6** U	**13** U	**7.3** U	**8.6** U
GCMW-01	SB01G	N	30	35	ft	**10** U	--	**13** U	**56** U	**9.6** U	**11** U	**5.8** U	**12** U	**6.5** U	**7.6** U
GCMW-01	SB01H	N	35	40	ft	**11** U	--	**14** U	**59** U	**10** U	**11** U	**6.2** U	**12** U	**6.9** U	**8.1** U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**200** U	**200** U	**400** U	**400** U	**22** J	**4** U	**200** U	**22** J	**200** U	**200** U
GCMW-02	SB02A	N	0	5	ft	**9.4** U	--	**12** U	**53** U	**24.2** J	**10** U	**5.5** U	**55.1**	**6.2** U	**7.2** U
GCMW-02	SB02B	N	5	10	ft	**13** U	--	**17** U	**74** U	**13** U	**14** U	**7.7** U	**15** U	**8.6** U	**10** U
GCMW-02	SB02C	N	10	15	ft	**14** U	--	**19** U	**81** U	**14** U	**15** U	**8.5** U	**17** U	**9.5** U	**11** U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**260** U	**260** U	**510** U	**510** U	**1.7** J	**1.6** J	**260** U	**10**	**260** U	**47** J
GCMW-02	SB02D	N	15	20	ft	**33** U	--	**43** U	**190** U	**32** U	**35** U	**19** U	**39** U	**22** U	**25** U
GCMW-02	SB02E	N	20	25	ft	**11** U	--	**14** U	**60** U	**10** U	**11** U	**6.3** U	**12** U	**7** U	**8.2** U
GCMW-02	SB02F	N	25	30	ft	**10** U	--	**13** U	**58** U	**10** U	**11** U	**6** U	**12** U	**6.8** U	**7.9** U
GCMW-02	SB02G	N	30	35	ft	**11** U	--	**14** U	**61** U	**10** U	**12** U	**6.4** U	**13** U	**7.1** U	**8.3** U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**210** U	**210** U	**400** U	**400** U	**5.4**	**0.87** J	**210** U	**4.8**	**210** U	**210** U
GCMW-02	SB02H	N	35	36	ft	**10** U	--	**13** U	**58** U	**10** U	**11** U	**6.1** U	**12** U	**6.8** U	**7.9** U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether
GCMW-01	SB01A	N	0	5	ft	**392**	**353**	**349**	**189**	**226**	**24** U	**4.8** U	**17** U	**12** U	--
GCMW-01	SB01B	N	5	10	ft	**149**	**104**	**84**	**54**	**72.2**	**26** U	**5.2** U	**18** U	**13** U	--
GCMW-01	SB01C	N	10	15	ft	**91.9**	**89.2**	**69.7**	**50.3**	**63.9**	**24** U	**4.7** U	**17** U	**12** U	--
GCMW-01	SB01D	N	15	20	ft	**581**	**598**	**492**	**317**	**374**	**25** U	**5** U	**17** U	**13** U	--
GCMW-01	SB01D-S-NYC	S	15	20	ft	**21,000** J	**16,000**	**15,000**	**11,000**	**11,000**	**6,300** U	**920** J	**6,300** U	**6,300** U	**6,300** U
GCMW-01	SB01E	N	20	25	ft	**493**	**498**	**370**	**264**	**305**	**23** U	**4.7** U	**16** U	**12** U	--
GCMW-01	SB01F	N	25	30	ft	**12** U	**11** U	**12** U	**14** U	**14** U	**22** U	**4.3** U	**15** U	**11** U	--
GCMW-01	SB01G	N	30	35	ft	**11** U	**10** U	**11** U	**12** U	**12** U	**19** U	**3.8** U	**13** U	**10** U	--
GCMW-01	SB01H	N	35	40	ft	**11** U	**11** U	**12** U	**13** U	**13** U	**20** U	**4.1** U	**14** U	**11** U	--
GCMW-01	SB01H-S-NYC	S	35	40	ft	**36** J	**39** J	**34** J	**19**	**26** J	**20** J	**200** U	**200** U	**200** U	**200** U
GCMW-02	SB02A	N	0	5	ft	**149**	**161**	**147**	**82.6**	**116**	**18** U	**3.6** U	**13** U	**9.4** U	--
GCMW-02	SB02B	N	5	10	ft	**14** U	**13** U	**15** U	**16** U	**16** U	**25** U	**5.1** U	**18** U	**13** U	--
GCMW-02	SB02C	N	10	15	ft	**32.3** J	**34.8** J	**32.6** J	**20.2** J	**24.9** J	**28** U	**5.6** U	**19** U	**14** U	--
GCMW-02	SB02C-S-NYC	S	10	15	ft	**42** J	**43** J	**33**	**29**	**46** J	**260** U	**260** U	**260** U	**260** U	**260** U
GCMW-02	SB02D	N	15	20	ft	**36** U	**34** U	**37** U	**41** U	**41** U	**64** U	**13** U	**44** U	**33** U	--
GCMW-02	SB02E	N	20	25	ft	**12** U	**11** U	**12** U	**13** U	**13** U	**21** U	**4.1** U	**14** U	**11** U	--
GCMW-02	SB02F	N	25	30	ft	**11** U	**10** U	**11** U	**13** U	**13** U	**20** U	**4** U	**14** U	**10** U	--
GCMW-02	SB02G	N	30	35	ft	**19.2** J	**11** U	**12** U	**13** U	**14** U	**21** U	**4.2** U	**15** U	**11** U	--
GCMW-02	SB02G-S-NYC	S	30	35	ft	**13**	**20**	**10**	**11**	**8.7**	**210** U	**210** U	**210** U	**210** U	**210** U
GCMW-02	SB02H	N	35	36	ft	**11** U	**11** U	**12** U	**13** U	**13** U	**20** U	**4** U	**14** U	**10** U	--

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate	
GCMW-01	SB01A	N	0	5	ft	**84.4**		**13**	U	**37.2**	J	**503**		**53.9**		**48.6**	J	**14**	U	**14**	U	**9.1**	U	**20**	U
GCMW-01	SB01B	N	5	10	ft	**39**	U	**14**	U	**30.9**	J	**135**		**15**	U	**564**		**15**	U	**16**	U	**9.9**	U	**22**	U
GCMW-01	SB01C	N	10	15	ft	**47.9**	J	**13**	U	**19**	U	**89.6**		**14**	U	**62**	J	**14**	U	**14**	U	**9.1**	U	**20**	U
GCMW-01	SB01D	N	15	20	ft	**38**	U	**14**	U	**122**		**616**		**105**		**98.1**		**15**	U	**15**	U	**9.5**	U	**21**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**6,300**	U	**6,300**	U	**7,100**		**19,000**		**3,800**		**6,600**		**6,300**	U	**6,300**	U	**6,300**	U	**6,300**	U
GCMW-01	SB01E	N	20	25	ft	**36**	U	**13**	U	**88.5**		**548**		**82.5**		**73**	J	**14**	U	**14**	U	**9**	U	**20**	U
GCMW-01	SB01F	N	25	30	ft	**33**	U	**12**	U	**17**	U	**13**	U	**13**	U	**11**	U	**13**	U	**13**	U	**8.3**	U	**18**	U
GCMW-01	SB01G	N	30	35	ft	**29**	U	**10**	U	**15**	U	**11**	U	**11**	U	**9.9**	U	**11**	U	**141**		**7.4**	U	**16**	U
GCMW-01	SB01H	N	35	40	ft	**31**	U	**11**	U	**16**	U	**12**	U	**12**	U	**10**	U	**12**	U	**12**	U	**7.8**	U	**17**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**130**	J	**200**	U	**200**	U	**39**	J	**6.5**		**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-02	SB02A	N	0	5	ft	**32.4**	J	**9.8**	U	**19.3**	J	**150**		**27.6**	J	**15.5**	J	**11**	U	**11**	U	**6.9**	U	**15**	U
GCMW-02	SB02B	N	5	10	ft	**38**	U	**14**	U	**20**	U	**15**	U	**15**	U	**13**	U	**15**	U	**15**	U	**9.7**	U	**21**	U
GCMW-02	SB02C	N	10	15	ft	**107**		**15**	U	**22**	U	**37**	J	**16**	U	**14**	U	**16**	U	**17**	U	**11**	U	**23**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**71**	J	**260**	U	**260**	U	**46**	J	**9.5**		**260**	U	**260**	U	**260**	U	**260**	U	**260**	U
GCMW-02	SB02D	N	15	20	ft	**97**	U	**35**	U	**51**	U	**37**	U	**38**	U	**33**	U	**38**	U	**39**	U	**24**	U	**54**	U
GCMW-02	SB02E	N	20	25	ft	**32**	U	**11**	U	**17**	U	**12**	U	**12**	U	**11**	U	**12**	U	**13**	U	**7.9**	U	**17**	U
GCMW-02	SB02F	N	25	30	ft	**43.2**	J	**11**	U	**16**	U	**12**	U	**12**	U	**10**	U	**12**	U	**12**	U	**7.6**	U	**17**	U
GCMW-02	SB02G	N	30	35	ft	**55.2**	J	**11**	U	**17**	U	**18**	J	**12**	U	**11**	U	**12**	U	**13**	U	**8**	U	**18**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**77**	J	**210**	U	**210**	U	**13**		**2.7**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-02	SB02H	N	35	36	ft	**68.8**	J	**11**	U	**16**	U	**12**	U	**12**	U	**10**	U	**12**	U	**12**	U	**7.7**	U	**17**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene
GCMW-01	SB01A	N	0	5	ft	**901**	**87.1**	**13** U	**11** U	**42** U	**11** U	**171**	**11** U	--	**20.2** J	**12** U
GCMW-01	SB01B	N	5	10	ft	**838**	**755**	**15** U	**12** U	**45** U	**12** U	**39.9** J	**12** U	--	**12** U	**13** U
GCMW-01	SB01C	N	10	15	ft	**269**	**55.8**	**13** U	**11** U	**42** U	**11** U	**42.7**	**11** U	--	**44.5**	**12** U
GCMW-01	SB01D	N	15	20	ft	**1,430**	**170**	**14** U	**12** U	**44** U	**12** U	**290**	**12** U	--	**150**	**12** U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**56,000**	**12,000** J	**6,300** U	**6,300** U	**6,300** U	**6,300** U	**10,000**	**6,300** U	--	**6,600**	**6,300** U
GCMW-01	SB01E	N	20	25	ft	**1,160**	**128**	**13** U	**11** U	**41** U	**11** U	**229**	**11** U	--	**100**	**12** U
GCMW-01	SB01F	N	25	30	ft	**16** U	**12** U	**12** U	**10** U	**38** U	**10** U	**13** U	**10** U	--	**10** U	**11** U
GCMW-01	SB01G	N	30	35	ft	**15** U	**11** U	**11** U	**9.2** U	**34** U	**9.2** U	**12** U	**8.9** U	--	**9.1** U	**9.6** U
GCMW-01	SB01H	N	35	40	ft	**15** U	**12** U	**11** U	**9.8** U	**36** U	**9.8** U	**12** U	**9.4** U	--	**9.6** U	**10** U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**88** J	**8**	**200** U	**200** U	**200** U	**200** U	**18**	**200** U	--	**6.7**	**200** U
GCMW-02	SB02A	N	0	5	ft	**301**	**22.6** J	**10** U	**8.7** U	**32** U	**8.7** U	**78.1**	**8.4** U	--	**35.7**	**9** U
GCMW-02	SB02B	N	5	10	ft	**19** U	**14** U	**14** U	**12** U	**44** U	**12** U	**15** U	**12** U	--	**12** U	**13** U
GCMW-02	SB02C	N	10	15	ft	**55**	**16** U	**16** U	**13** U	**49** U	**13** U	**19.1** J	**13** U	--	**13** U	**14** U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**78** J	**4.3** J	**260** U	**260** U	**260** UJ	**260** U	**28**	**260** U	--	**5.3**	**260** U
GCMW-02	SB02D	N	15	20	ft	**49** U	**36** U	**36** U	**31** U	**110** U	**31** U	**38** U	**30** U	--	**97.4** J	**32** U
GCMW-02	SB02E	N	20	25	ft	**16** U	**12** U	**12** U	**9.9** U	**36** U	**9.9** U	**12** U	**9.6** U	--	**45.2**	**10** U
GCMW-02	SB02F	N	25	30	ft	**15** U	**11** U	**11** U	**9.5** U	**35** U	**9.5** U	**12** U	**9.2** U	--	**9.4** U	**9.9** U
GCMW-02	SB02G	N	30	35	ft	**35** J	**12** U	**12** U	**10** U	**37** U	**10** U	**13** U	**9.7** U	--	**9.9** U	**10** U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**31** J	**3.3** J	**210** U	**210** U	**210** U	**210** U	**9.2**	**210** U	--	**4** J	**210** U
GCMW-02	SB02H	N	35	36	ft	**15** U	**11** U	**11** U	**9.6** U	**35** U	**9.6** U	**12** U	**9.3** U	--	**9.4** U	**10** U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs	
GCMW-01	SB01A	N	0	5	ft	**10**	U	**25**	U	**70**	U	**478**		**43**	U	**769**		**4,801**	
GCMW-01	SB01B	N	5	10	ft	**11**	U	**27**	U	**76**	U	**1,490**		**47**	U	**641**		**5,793**	
GCMW-01	SB01C	N	10	15	ft	**10**	U	**24**	U	**70**	U	**162**		**531**		**225**		**1,461**	
GCMW-01	SB01D	N	15	20	ft	**10**	U	**26**	U	**73**	U	**1,330**		**45**	U	**1,280**		**8,368**	
GCMW-01	SB01D-S-NYC	S	15	20	ft	**6,300**	U	**6,300**	U	**860**	U	**67,000**		**6,300**	U	**34,000**		**308,200**	
GCMW-01	SB01E	N	20	25	ft	**9.9**	U	**24**	U	**69**	U	**1,100**		**50.4**	J	**1,220**		**6,954**	
GCMW-01	SB01F	N	25	30	ft	**9.1**	U	**22**	U	**64**	U	**17**	U	**39**	U	**14**	U	**0**	U
GCMW-01	SB01G	N	30	35	ft	**8.1**	U	**20**	U	**57**	U	**15**	U	**35**	U	**13.8**	J	**13.8**	
GCMW-01	SB01H	N	35	40	ft	**8.6**	U	**21**	U	**60**	U	**16**	U	**37**	U	**15.3**	J	**15.3**	
GCMW-01	SB01H-S-NYC	S	35	40	ft	**200**	U	**200**	U	**8**	U	**72**	J	**200**	U	**80**	J	**520.5**	
GCMW-02	SB02A	N	0	5	ft	**7.6**	U	**19**	U	**53**	U	**222**		**33**	U	**302**		**1,874**	
GCMW-02	SB02B	N	5	10	ft	**11**	U	**26**	U	**74**	U	**20**	U	**46**	U	**17**	U	**0**	U
GCMW-02	SB02C	N	10	15	ft	**12**	U	**29**	U	**82**	U	**26.7**	J	**51**	U	**57.3**		**339.9**	
GCMW-02	SB02C-S-NYC	S	10	15	ft	**260**	U	**260**	U	**10**	U	**41**	J	**260**	U	**71**	J	**491.9**	
GCMW-02	SB02D	N	15	20	ft	**27**	U	**66**	U	**190**	U	**50**	U	**120**	U	**42**	U	**97.4**	
GCMW-02	SB02E	N	20	25	ft	**8.7**	U	**21**	U	**61**	U	**16**	J	**37**	U	**14**	U	**61.2**	
GCMW-02	SB02F	N	25	30	ft	**8.4**	U	**20**	U	**59**	U	**16**	U	**36**	U	**22.2**	J	**22.2**	
GCMW-02	SB02G	N	30	35	ft	**8.8**	U	**22**	U	**62**	U	**23.8**	J	**38**	U	**44.8**		**140.8**	
GCMW-02	SB02G-S-NYC	S	30	35	ft	**210**	U	**210**	U	**8.2**	U	**17**		**210**	U	**45**	J	**200.07**	
GCMW-02	SB02H	N	35	36	ft	**8.4**	U	**21**	U	**59**	U	**16**	U	**36**	U	**22.7**	J	**22.7**	

NYC – Gowanus Pump Station - (MW1 & MW2)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
GCMW-01	SB01A	N	0	5	ft	0.75 U	0.52 U	0.58 U	0.57 U	0.82 U	0.64 U	0.46 U	0.57 U	0.64 U	0.58 U	0.79 U
GCMW-01	SB01B	N	5	10	ft	0.83 U	0.57 U	0.63 U	0.62 U	0.89 U	0.7 U	0.5 U	0.62 U	0.7 U	0.64 U	0.86 U
GCMW-01	SB01C	N	10	15	ft	0.75 U	0.52 U	0.57 U	0.56 U	0.81 U	0.64 U	0.46 U	0.56 U	0.64 U	0.58 U	0.79 U
GCMW-01	SB01D	N	15	20	ft	0.79 U	0.54 U	0.6 U	0.59 U	0.85 U	0.67 U	0.48 U	0.59 U	0.67 U	0.61 U	0.83 U
GCMW-01	SB01D-S-NYC	S	15	20	ft	2.1 U	2.1 U	2.1 U	2.1 U	12 R	4.2 U	5.8 R	4.2 U	4.2 U	4.2 U	4.8
GCMW-01	SB01E	N	20	25	ft	0.74 U	0.51 U	0.56 U	0.56 U	0.8 U	0.63 U	0.45 U	0.56 U	0.63 U	0.57 U	0.77 U
GCMW-01	SB01F	N	25	30	ft	0.68 U	0.47 U	0.52 U	0.51 U	0.74 U	0.58 U	0.41 U	0.51 U	0.58 U	0.53 U	0.71 U
GCMW-01	SB01G	N	30	35	ft	0.61 U	0.42 U	0.46 U	0.46 U	0.66 U	0.52 U	0.37 U	0.46 U	0.52 U	0.47 U	0.64 U
GCMW-01	SB01H	N	35	40	ft	0.65 U	0.44 U	0.49 U	0.49 U	0.7 U	0.55 U	0.39 U	0.49 U	0.55 U	0.5 U	0.68 U
GCMW-01	SB01H-S-NYC	S	35	40	ft	2 U	2 U	2 U	2 U	2 U	3.9 U	2 U	3.9 U	3.9 U	3.9 U	3.9 U
GCMW-02	SB02A	N	0	5	ft	0.58 U	0.4 U	0.44 U	0.43 U	0.62 U	0.49 U	0.35 U	0.43 U	0.49 U	0.45 U	0.6 U
GCMW-02	SB02B	N	5	10	ft	0.8 U	0.55 U	0.61 U	0.6 U	0.86 U	0.68 U	0.49 U	0.6 U	0.68 U	0.62 U	0.83 U
GCMW-02	SB02C	N	10	15	ft	0.89 U	0.61 U	0.68 U	0.67 U	0.96 U	0.76 U	0.54 U	0.67 U	0.76 U	0.69 U	0.93 U
GCMW-02	SB02C-S-NYC	S	10	15	ft	2.6 U	2.6 U	2.6 U	2.6 U	3.1	5.1 U	1.8 J	5.1 U	5.1 U	5.1 U	5.1 U
GCMW-02	SB02D	N	15	20	ft	2 U	1.4 U	1.5 U	1.5 U	2.2 U	1.7 U	1.2 U	1.5 U	1.7 U	1.6 U	2.1 U
GCMW-02	SB02E	N	20	25	ft	0.64 U	0.44 U	0.49 U	0.48 U	0.7 U	0.55 U	0.39 U	0.48 U	0.55 U	0.5 U	0.67 U
GCMW-02	SB02F	N	25	30	ft	0.62 U	0.43 U	0.47 U	0.47 U	0.67 U	0.53 U	0.38 U	0.47 U	0.53 U	0.48 U	0.65 U
GCMW-02	SB02G	N	30	35	ft	0.66 U	0.45 U	0.5 U	0.5 U	0.71 U	0.56 U	0.4 U	0.5 U	0.56 U	0.51 U	0.69 U
GCMW-02	SB02G-S-NYC	S	30	35	ft	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.1 U	2.1 U	4.1 U	4.1 U	4.1 U	4.1 U
GCMW-02	SB02H	N	35	36	ft	0.63 U	0.44 U	0.48 U	0.48 U	0.69 U	0.54 U	0.39 U	0.48 U	0.54 U	0.49 U	0.66 U

NYC – Gowanus Pump Station - (MW1 & MW2)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
GCMW-01	SB01A	N	0	5	ft	0.6 U	0.52 U	0.66 U	0.76 U	0.65 U	0.75 U	0.72 U	9.5	0.71 U	20 U	9.5
GCMW-01	SB01B	N	5	10	ft	0.65 U	0.57 U	0.72 U	0.83 U	0.71 U	0.82 U	0.79 U	0.64 U	0.77 U	21 U	0 U
GCMW-01	SB01C	N	10	15	ft	0.59 U	0.52 U	0.66 U	0.75 U	0.64 U	0.75 U	0.72 U	4.1	3	20 U	7.1
GCMW-01	SB01D	N	15	20	ft	0.62 U	0.54 U	0.69 U	0.79 U	0.68 U	0.78 U	0.75 U	0.61 U	2.3	21 U	2.3
GCMW-01	SB01D-S-NYC	S	15	20	ft	5	3.8 NJ	2.6	5.8 R	2.1 U	21 U	4.1 J	4.2 U	4.2 U	210 U	4.1
GCMW-01	SB01E	N	20	25	ft	0.59 U	0.51 U	0.65 U	0.74 U	0.64 U	0.74 U	0.71 U	0.57 U	0.69 U	19 U	0 U
GCMW-01	SB01F	N	25	30	ft	0.54 U	0.47 U	0.59 U	0.68 U	0.58 U	0.68 U	0.65 U	0.53 U	0.64 U	18 U	0 U
GCMW-01	SB01G	N	30	35	ft	0.48 U	0.42 U	0.53 U	0.61 U	0.52 U	0.61 U	0.58 U	0.47 U	0.57 U	16 U	0 U
GCMW-01	SB01H	N	35	40	ft	0.51 U	0.45 U	0.56 U	0.65 U	0.55 U	0.64 U	0.62 U	0.5 U	0.61 U	17 U	0 U
GCMW-01	SB01H-S-NYC	S	35	40	ft	3.9 U	2 U	2 U	2 U	2 U	20 U	3.9 U	3.9 U	3.9 U	200 U	0 U
GCMW-02	SB02A	N	0	5	ft	0.46 U	0.4 U	0.5 U	0.58 U	0.49 U	0.57 U	0.55 U	4.7	5.2	15 U	9.9
GCMW-02	SB02B	N	5	10	ft	0.63 U	0.55 U	0.7 U	0.8 U	0.68 U	0.79 U	0.76 U	0.62 U	0.74 U	21 U	0 U
GCMW-02	SB02C	N	10	15	ft	0.7 U	0.61 U	0.77 U	0.89 U	0.76 U	0.88 U	0.85 U	0.69 U	0.83 U	23 U	0 U
GCMW-02	SB02C-S-NYC	S	10	15	ft	5.1 U	2.6 U	2.6 U	2.6 U	2.6 U	26 U	5.1 U	5.1 U	5.1 U	260 U	0 U
GCMW-02	SB02D	N	15	20	ft	1.6 U	1.4 U	1.8 U	2 U	1.7 U	2 U	1.9 U	1.6 U	1.9 U	53 U	0 U
GCMW-02	SB02E	N	20	25	ft	0.51 U	0.44 U	0.56 U	0.65 U	0.55 U	0.64 U	0.62 U	0.5 U	0.6 U	17 U	0 U
GCMW-02	SB02F	N	25	30	ft	0.49 U	0.43 U	0.54 U	0.62 U	0.53 U	0.62 U	0.59 U	0.48 U	0.58 U	16 U	0 U
GCMW-02	SB02G	N	30	35	ft	0.52 U	0.45 U	0.58 U	0.66 U	0.57 U	0.66 U	0.63 U	0.51 U	0.62 U	17 U	0 U
GCMW-02	SB02G-S-NYC	S	30	35	ft	4.1 U	2.1 U	2.1 U	2.1 U	2.1 U	21 U	4.1 U	4.1 U	4.1 U	210 U	0 U
GCMW-02	SB02H	N	35	36	ft	0.5 U	0.44 U	0.55 U	0.64 U	0.54 U	0.63 U	0.61 U	0.49 U	0.59 U	17 U	0 U

NYC – Gowanus Pump Station - (MW1 & MW2)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
GCMW-01	SB01A	N	0	5	ft	**15** U	**28** U	**14** U	**15** U	**8.4** U	**232**	**16** U	**8.5** U	**9.5** U	**232**
GCMW-01	SB01B	N	5	10	ft	**16** U	**30** U	**15** U	**17** U	**9.1** U	**12** U	**18** U	**9.3** U	**10** U	**0** U
GCMW-01	SB01C	N	10	15	ft	**15** U	**28** U	**13** U	**15** U	**8.3** U	**11** U	**16** U	**8.4** U	**9.5** U	**0** U
GCMW-01	SB01D	N	15	20	ft	**16** U	**29** U	**14** U	**16** U	**8.7** U	**11** U	**17** U	**8.9** U	**10** U	**0** U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**42** U	**450**	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**450**
GCMW-01	SB01E	N	20	25	ft	**15** U	**27** U	**13** U	**15** U	**8.2** U	**10** U	**16** U	**8.3** U	**9.3** U	**0** U
GCMW-01	SB01F	N	25	30	ft	**14** U	**25** U	**12** U	**14** U	**7.5** U	**9.6** U	**15** U	**7.7** U	**8.6** U	**0** U
GCMW-01	SB01G	N	30	35	ft	**12** U	**23** U	**11** U	**12** U	**6.8** U	**8.6** U	**13** U	**6.9** U	**7.7** U	**0** U
GCMW-01	SB01H	N	35	40	ft	**13** U	**24** U	**12** U	**13** U	**7.2** U	**9.1** U	**14** U	**7.3** U	**8.2** U	**0** U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**0** U
GCMW-02	SB02A	N	0	5	ft	**11** U	**21** U	**10** U	**12** U	**6.4** U	**8.1** U	**13** U	**6.5** U	**7.3** U	**0** U
GCMW-02	SB02B	N	5	10	ft	**16** U	**29** U	**14** U	**16** U	**8.8** U	**11** U	**17** U	**9** U	**10** U	**0** U
GCMW-02	SB02C	N	10	15	ft	**18** U	**33** U	**16** U	**18** U	**9.8** U	**12** U	**19** U	**10** U	**11** U	**0** U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**51** U	**51** U	**51** U	**51** U	**51** U	**51** U	**51** U	**51** U	**51** U	**0** U
GCMW-02	SB02D	N	15	20	ft	**40** U	**75** U	**36** U	**41** U	**22** U	**28** U	**44** U	**23** U	**26** U	**0** U
GCMW-02	SB02E	N	20	25	ft	**13** U	**24** U	**12** U	**13** U	**7.1** U	**9.1** U	**14** U	**7.3** U	**8.1** U	**0** U
GCMW-02	SB02F	N	25	30	ft	**12** U	**23** U	**11** U	**12** U	**6.9** U	**8.7** U	**13** U	**7** U	**7.8** U	**0** U
GCMW-02	SB02G	N	30	35	ft	**13** U	**24** U	**12** U	**13** U	**7.3** U	**9.3** U	**14** U	**7.4** U	**8.3** U	**0** U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**0** U
GCMW-02	SB02H	N	35	36	ft	**13** U	**23** U	**11** U	**13** U	**7** U	**8.9** U	**14** U	**7.1** U	**8** U	**0** U

NYC – Gowanus Pump Station - (MW1 & MW2)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-01	SB01A	N	0	5	ft	**11,700**	**0.49** U	**10.1**	**81.9**	**0.55**	**0.031** U	**16,700**	**28.5**	**8.4**	**39.1**	**29,400**
GCMW-01	SB01B	N	5	10	ft	**15,700**	**0.56** U	**10.7**	**81.9**	**0.64**	**0.035** U	**4,280**	**30.3**	**8.9**	**32**	**23,300**
GCMW-01	SB01C	N	10	15	ft	**9,330**	**0.48** U	**8.5**	**176**	**0.34**	**0.76**	**29,100**	**24.1**	**0.048** U	**474**	**21,100**
GCMW-01	SB01D	N	15	20	ft	**9,560**	**0.52** U	**6.9**	**86**	**0.38**	**0.032** U	**18,800**	**28.7**	**0.052** U	**44.1**	**22,400**
GCMW-01	SB01D-S-NYC	S	15	20	ft	**6,210**	**7.3** U	**8.6**	**142**	**0.61** U	**1.1**	**23,800**	**21.6**	**6.1** U	524 R	**25,500**
GCMW-01	SB01E	N	20	25	ft	**7,080**	**0.52** U	**5.6**	**81.3**	**0.025** U	**0.033** U	**17,900**	**19.6**	**0.052** U	**168**	**19,200**
GCMW-01	SB01F	N	25	30	ft	**4,390**	**0.44** U	**0.26** U	**0.045** U	**0.26**	**0.028** U	**0.85** U	**10.6**	**0.044** U	**6.5**	**8,260**
GCMW-01	SB01G	N	30	35	ft	**3,810**	**0.42** U	**0.25** U	**0.044** U	**0.021** U	**0.027** U	**1,790**	**10.3**	**0.042** U	**7.3**	**10,000**
GCMW-01	SB01H	N	35	40	ft	**3,680**	**0.43** U	**0.26** U	**0.044** U	**0.021** U	**0.027** U	**1,520**	**11.3**	**0.043** U	**8.7**	**9,340**
GCMW-01	SB01H-S-NYC	S	35	40	ft	**2,570**	**5.7** U	**1.2**	**19** U	**0.47** U	**0.47** U	**1,300**	**7.3**	**4.7** U	9.3 R	**7,430**
GCMW-02	SB02A	N	0	5	ft	**6,910**	**0.38** U	**5.6**	**73.7**	**0.27**	**0.024** U	**2,900**	**15.8**	**6.5**	**27.9**	**12,100**
GCMW-02	SB02B	N	5	10	ft	**14,100**	**0.55** U	**9.7**	**183**	**0.59**	**0.034** U	**3,250**	**30.3**	**0.055** U	**25.6**	**27,200**
GCMW-02	SB02C	N	10	15	ft	**15,900**	**0.57** U	**8.5**	**93.6**	**0.66**	**0.036** U	**2,770**	**31.8**	**8.2**	**28.6**	**27,100**
GCMW-02	SB02C-S-NYC	S	10	15	ft	**13,200**	**10** U	**10.2**	**49.6**	**0.83** U	**0.83** U	**3,170**	**29.4**	**8.3** U	**23.2**	**30,500**
GCMW-02	SB02D	N	15	20	ft	**13,000**	**0.99** U	**8.6**	**0.31** U	**0.026** U	**0.14** U	**4,300**	**24.1**	**0.35** U	**14**	**23,200**
GCMW-02	SB02E	N	20	25	ft	**6,340**	**0.43** U	**0.26** U	**24.6**	**0.46**	**0.027** U	**0.83** U	**11.2**	**0.043** U	**8.6**	**9,320**
GCMW-02	SB02F	N	25	30	ft	**4,320**	**0.41** U	**0.24** U	**0.042** U	**0.39**	**0.026** U	**936**	**11.2**	**0.041** U	**8.3**	**8,380**
GCMW-02	SB02G	N	30	35	ft	**3,480**	**0.43** U	**0.26** U	**0.044** U	**0.33**	**0.027** U	**1,520**	**11.1**	**0.043** U	**10**	**7,700**
GCMW-02	SB02G-S-NYC	S	30	35	ft	**2,110**	**7.2** U	**1.2** U	**24** U	**0.6** U	**0.6** U	**959**	**6.5**	**6** U	6.5 R	**5,350**
GCMW-02	SB02H	N	35	36	ft	**3,370**	**0.43** U	**0.26** U	**0.044** U	**0.3**	**0.027** U	**1,350**	**10.5**	**0.043** U	**7**	**7,630**

NYC – Gowanus Pump Station - (MW1 & MW2)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-01	SB01A	N	0	5	ft	100	5,280	373	1.5	28.8	2,130	0.45 U	0.076 U	2 U	0.24 U	27.9	128	0.46
GCMW-01	SB01B	N	5	10	ft	103	5,250	269	0.49	35.7	2,730	0.51 U	0.086 U	2.3 U	0.27 U	32.1	89.3	0.038 U
GCMW-01	SB01C	N	10	15	ft	370	6,140	376	1.4	27.7	1,670	0.44 U	1.9	2 U	0.23 U	24.6	230	0.63
GCMW-01	SB01D	N	15	20	ft	101	6,260	300	1.2	25.6	2,040	0.47 U	0.08 U	2.1 U	0.25 U	26.8	146	0.032 U
GCMW-01	SB01D-S-NYC	S	15	20	ft	374	4,780	445	0.94	23.2	1,020	4.3 UJ	2.4	697	3.1 U	24.2	254	3.1 U
GCMW-01	SB01E	N	20	25	ft	281	4,440	260	0.29	19.6	1,580	0.47 U	3.4	2.1 U	0.25 U	19.4	163	0.032 U
GCMW-01	SB01F	N	25	30	ft	5.2	1,480	46.3	0.014 U	8.8	2.2 U	0.4 U	0.068 U	1.8 U	0.21 U	13.3	23.5	0.031 U
GCMW-01	SB01G	N	30	35	ft	4.8	2,290	148	0.012 U	13.8	2.1 U	0.39 U	0.065 U	1.7 U	0.21 U	12.9	23	0.025 U
GCMW-01	SB01H	N	35	40	ft	8.6	2,460	73.5	0.014 U	13	2.2 U	0.4 U	0.067 U	1.8 U	0.21 U	11.5	23.3	0.028 U
GCMW-01	SB01H-S-NYC	S	35	40	ft	10.9	1,990	102	0.12 U	11.6	457 J	3.3 UJ	0.95 U	474 U	2.4 U	10	18.3	2.9 U
GCMW-02	SB02A	N	0	5	ft	154	2,050	250	0.4	25.2	1,100	0.35 U	0.058 U	1.5 U	0.18 U	19.8	65.3	0.023 U
GCMW-02	SB02B	N	5	10	ft	403	4,600	257	0.31	26.9	2,970	0.5 U	1.1	2.2 U	0.27 U	32.7	79.1	0.035 U
GCMW-02	SB02C	N	10	15	ft	87	5,450	271	0.16	28.4	3,360	0.52 U	1.5	2.3 U	0.28 U	36.1	80.9	0.038 U
GCMW-02	SB02C-S-NYC	S	10	15	ft	63.8	5,120	284	0.21	26.9	2,490	5.8 U	1.7 U	1,070	4.1 U	33.9	78.8	3.9 U
GCMW-02	SB02D	N	15	20	ft	13.6	5,830	203	0.12	19.2	19 U	1.2 U	0.14 U	4,670	1.1 U	36.5	48.8	0.086 U
GCMW-02	SB02E	N	20	25	ft	6.8	2,020	64	0.013 U	10.2	1,210	0.39 U	0.047 U	1.7 U	0.21 U	14.4	26.2	0.028 U
GCMW-02	SB02F	N	25	30	ft	4.8	2,640	62.9	0.013 U	19.5	2.1 U	0.37 U	0.045 U	1.7 U	0.2 U	12.2	21.7	0.026 U
GCMW-02	SB02G	N	30	35	ft	15.5	2,170	62.6	0.015 U	13.6	2.2 U	0.39 U	0.048 U	1.7 U	0.21 U	11.2	19.6	0.028 U
GCMW-02	SB02G-S-NYC	S	30	35	ft	7.2	1,630	43.3	0.06 J	10.8	360 J	4.2 UJ	1.2 U	600 U	3 U	8.4	17.2	2.9 U
GCMW-02	SB02H	N	35	36	ft	6.9	2,350	57.6	0.014 U	13.2	2.2 U	0.39 U	0.048 U	1.8 U	0.21 U	12.4	14.4	0.027 U

NYC – Gowanus Pump Station

(MW1 & MW2)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane	
MW-01	GC-MW01I	N	Intermediate	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U	**0.26**	U	**0.33**	U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U
MW-01	GC-MW01S	N	Shallow	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U	**0.26**	U	**0.33**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U
MW-02	GC-MW02I	N	Intermediate	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U	**0.26**	U	**0.33**	U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.08**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U
MW-02	GC-MW-02S	N	Shallow	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U	**0.26**	U	**0.33**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride	
MW-01	GC-MW01I	N	Intermediate	**0.27**	U	**0.25**	U	**0.28**	U	**94**	U	**1.4**	U	**465**		**5.3**		**0.33**	U	**0.22**	U	**0.23**	U	**0.3**	U	**0.74**	U	**0.26**	U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**0.5**	U	**0.5**	U	**0.23**	J	--		**5**	U	**470**		**3.9**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-01	GC-MW01S	N	Shallow	**0.27**	U	**0.25**	U	**0.28**	U	**94**	U	**1.4**	U	**2.9**	U	**1.1**		**0.33**	U	**0.22**	U	**0.23**	U	**0.3**	U	**0.74**	U	**0.26**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.17**	J	--		**5**	U	**5**	U	**0.95**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-02	GC-MW02I	N	Intermediate	**0.27**	U	**0.25**	U	**0.28**	U	**94**	U	**1.4**	U	**2.9**	U	**0.23**	U	**0.33**	U	**0.22**	U	**0.23**	U	**0.3**	U	**0.74**	U	**0.26**	U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**0.5**	U	**0.5**	U	**0.036**	J	--		**5**	U	**5**	U	**0.099**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-02	GC-MW-02S	N	Shallow	**0.27**	U	**0.25**	U	**0.28**	U	**94**	U	**1.4**	U	**2.9**	U	**0.23**	U	**0.33**	U	**0.22**	U	**0.23**	U	**0.3**	U	**0.74**	U	**0.26**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	--		**5**	U	**5**	U	**0.12**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)
MW-01	GC-MW01I	N	Intermediate	0.39 U	0.37 U	0.23 U	0.29 U	11	0.25 U	8.3	0.22 U	0.92 U	0.89 J	3.5	2	1.5 U	1.6 U
MW-01	GC-MW01I-S-NYC	S	Intermediate	0.5 U	0.5 U	0.5 U	0.13 J	8.7	0.5 U	6.4	0.5 U	0.5 U	0.6	2.5	1.6	0.5 U	5 U
MW-01	GC-MW01S	N	Shallow	0.39 U	0.37 U	0.23 U	0.29 U	0.22 U	0.25 U	7.8	0.22 U	0.92 U	0.55 J	3.4	0.83 J	1.5 U	1.6 U
MW-01	GC-MW01S-S-NYC	S	Shallow	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6.1	0.5 U	0.5 U	0.5 U	2.5	0.65 U	0.5 U	5 U
MW-02	GC-MW02I	N	Intermediate	0.39 U	0.37 U	0.23 U	0.29 U	1.1	0.25 U	1.9 U	0.22 U	0.92 U	0.27 U	0.57 U	0.25 U	1.5 U	1.6 U
MW-02	GC-MW02I-S-NYC	S	Intermediate	0.5 U	0.5 U	0.5 U	0.5 U	1.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
MW-02	GC-MW-02S	N	Shallow	0.39 U	0.37 U	0.23 U	0.29 U	0.22 U	0.25 U	1.9 U	0.22 U	0.92 U	0.27 U	0.57 U	0.25 U	1.5 U	1.6 U
MW-02	GC-MW02S-S-NYC	S	Shallow	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-01	GC-MW01I	N	Intermediate	**0.86**	U	**21.6**		**0.3**	U	**0.51**	J	**0.58**	U	**6.8**		**0.27**	U	**0.47**	J	**1.1**		**0.21**	U	**0.24**	U	**0.54**	U	**31.5**	
MW-01	GC-MW01I-S-NYC	S	Intermediate	**5**	U	**18**		**0.5**	U	**0.5**	U	**0.5**	U	**5.9**		**0.5**	U	**0.5**	U	**0.99**		**0.5**	U	**0.5**	U	**0.5**	U	**24**	J
MW-01	GC-MW01S	N	Shallow	**0.86**	U	**13.6**		**0.3**	U	**0.25**	U	**0.58**	U	**14.1**		**0.27**	U	**0.3**	U	**0.25**	U	**0.21**	U	**0.24**	U	**0.54**	U	**0.44**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**5**	U	**13**		**0.5**	U	**0.5**	U	**0.5**	U	**11**		**0.095**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-02	GC-MW02I	N	Intermediate	**0.86**	U	**0.35**	U	**0.3**	U	**0.25**	U	**0.58**	U	**0.23**	U	**0.27**	U	**0.3**	U	**0.25**	U	**0.21**	U	**0.24**	U	**0.54**	U	**2.7**	
MW-02	GC-MW02I-S-NYC	S	Intermediate	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.23**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**2.1**	
MW-02	GC-MW-02S	N	Shallow	**0.86**	U	**0.35**	U	**0.3**	U	**0.25**	U	**0.58**	U	**0.23**	U	**0.27**	U	**0.3**	U	**0.25**	U	**0.21**	U	**0.24**	U	**0.54**	U	**0.44**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.24**	J	**0.053**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.059**	J	**0.5**	U	**0.5**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline	
MW-01	GC-MW01I	N	Intermediate	**0.48**	U	**0.81**	U	**1.3**	U	**1.2**	U	**1.2**	U	**1.7**	U	**0.74**	U	**0.22**	U	**0.33**	U	**0.42**	U	**1.1**	U	**0.66**	U	**1.1**	U	**0.24**	U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**11**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**0.15**	J	**5.5**	U	**11**	U
MW-01	GC-MW01S	N	Shallow	**0.48**	U	**0.81**	U	**1.3**	U	**1.2**	U	**1.2**	U	**1.7**	U	**0.74**	U	**0.22**	U	**0.33**	U	**0.42**	U	**1.1**	U	**0.66**	U	**1.1**	U	**0.24**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**11**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**0.42**	U	**5.3**	U	**11**	U
MW-02	GC-MW02I	N	Intermediate	**0.48**	U	**0.81**	U	**1.3**	U	**1.2**	U	**1.2**	U	**1.7**	U	**0.74**	U	**0.22**	U	**0.33**	U	**0.42**	U	**1.1**	U	**0.66**	U	**1.1**	U	**0.24**	U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**10**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**0.1**	U	**5.2**	U	**10**	U
MW-02	GC-MW02S	N	Shallow	**0.48**	U	**0.81**	U	**1.3**	U	**1.2**	U	**1.2**	U	**1.7**	U	**0.74**	U	**0.22**	U	**0.33**	U	**0.42**	U	**1.1**	U	**0.66**	U	**1.1**	U	**0.24**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**10**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**0.1**	U	**5.1**	U	**10**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone
MW-01	GC-MW01I	N	Intermediate	**1.2** U	**0.3** U	**0.29** U	**0.51** U	**0.35** U	**1.1** U	**0.25** U	**0.35** U	--	**0.18** U	**0.83** U	**5.6**	**0.27** U	**0.4** U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**5.5** U	**5.5** U	**11** U	**11** U	**5.5** U	**5.5** U	**5.5** U	**5.5** U	**5.5** U	**11** U	**11** U	**5.4**	**0.74** U	**5.5** U
MW-01	GC-MW01S	N	Shallow	**1.2** U	**0.3** U	**0.29** U	**0.51** U	**0.35** U	**1.1** U	**0.25** U	**0.35** U	--	**0.18** U	**0.83** U	**8.7**	**0.27** U	**0.4** U
MW-01	GC-MW01S-S-NYC	S	Shallow	**5.3** U	**5.3** U	**11** U	**11** U	**5.3** U	**5.3** U	**5.3** U	**5.3** U	**5.3** U	**11** U	**11** U	**3.5**	**0.15** J	**5.3** U
MW-02	GC-MW02I	N	Intermediate	**1.2** U	**0.3** U	**0.29** U	**0.51** U	**0.35** U	**1.1** U	**0.25** U	**0.35** U	--	**0.18** U	**0.83** U	**4.8**	**0.27** U	**0.4** U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**5.2** U	**5.2** U	**10** U	**10** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**10** U	**10** U	**5.2** J	**0.07** J	**5.2** U
MW-02	GC-MW02S	N	Shallow	**1.2** U	**0.3** U	**0.29** U	**0.51** U	**0.35** U	**1.1** U	**0.25** U	**0.35** U	--	**0.18** U	**0.83** U	**0.37** U	**0.27** U	**0.4** U
MW-02	GC-MW02S-S-NYC	S	Shallow	**5.1** U	**5.1** U	**10** U	**10** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**10** U	**10** U	**0.1** U	**0.1** U	**5.1** U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether
MW-01	GC-MW01I	N	Intermediate	**0.42** J	**0.39** U	**0.4** U	**0.12** U	**0.095** U	**0.25** U	**0.12** U	**0.38** U	**0.25** U	**0.42** U	**0.25** U	**0.31** U	--
MW-01	GC-MW01I-S-NYC	S	Intermediate	**0.52** J	**5.5** U	**5.5** U	**0.38** J	**0.74** U	**0.28** J	**0.23** J	**0.24** J	**5.5** U	**5.5** U	**5.5** U	**5.5** U	**5.5** U
MW-01	GC-MW01S	N	Shallow	**0.16** U	**0.39** U	**0.4** U	**0.12** U	**0.095** U	**0.25** U	**0.12** U	**0.38** U	**0.25** U	**0.42** U	**0.25** U	**0.31** U	--
MW-01	GC-MW01S-S-NYC	S	Shallow	**0.42** U	**5.3** U	**5.3** U	**0.42** U	**0.42** U	**0.42** U	**0.42** U	**0.42** U	**0.59** J	**5.3** U	**5.3** U	**5.3** U	**5.3** U
MW-02	GC-MW02I	N	Intermediate	**0.16** U	**0.39** U	**0.4** U	**0.12** U	**0.095** U	**0.25** U	**0.12** U	**0.38** U	**0.25** U	**0.42** U	**0.25** U	**0.31** U	--
MW-02	GC-MW02I-S-NYC	S	Intermediate	**0.084** J	**5.2** U	**5.2** U	**0.1** U	**0.1** J	**0.1** UJ	**0.1** U	**0.1** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U
MW-02	GC-MW02S	N	Shallow	**0.16** U	**0.39** U	**0.4** U	**0.12** U	**0.095** U	**0.25** U	**0.12** U	**0.38** U	**0.25** U	**0.42** U	**0.25** U	**0.31** U	--
MW-02	GC-MW02S-S-NYC	S	Shallow	**0.1** U	**5.1** U	**5.1** U	**0.1** U	**0.1** U	**0.1** UJ	**0.1** U	**0.1** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene	
MW-01	GC-MW01I	N	Intermediate	**0.33**	U	**14.7**		**0.17**	U	**0.11**	U	**0.15**	U	**1.3**	J	**0.17**	U	**0.23**	U	**0.19**	U	**0.4**	U	**0.78**	J	**1.4**		**0.27**	U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**5.5**	U	**5.5**	U	**5.5**	U	**0.36**	J	**0.74**	U	**1.2**	J	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**1.5**		**1.3**		**5.5**	U
MW-01	GC-MW01S	N	Shallow	**0.33**	U	**0.2**	U	**0.17**	U	**0.11**	U	**0.15**	U	**1.4**	J	**0.17**	U	**0.23**	U	**0.19**	U	**0.4**	U	**1.1**		**1.2**		**0.27**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**5.3**	U	**1.7**	J	**5.3**	U	**0.42**	U	**0.42**	U	**0.62**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**0.69**		**0.31**	J	**5.3**	U
MW-02	GC-MW02I	N	Intermediate	**0.33**	U	**0.2**	U	**0.17**	U	**0.11**	U	**0.15**	U	**0.3**	U	**0.17**	U	**0.23**	U	**0.19**	U	**0.4**	U	**0.17**	U	**0.27**	U	**0.27**	U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**5.2**	U	**22**		**5.2**	U	**0.1**	U	**0.1**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**0.035**	J	**0.1**	U	**5.2**	U
MW-02	GC-MW02S	N	Shallow	**0.33**	U	**0.2**	U	**0.17**	U	**0.11**	U	**0.15**	U	**0.3**	U	**0.17**	U	**0.23**	U	**0.19**	U	**0.4**	U	**0.17**	U	**0.27**	U	**0.27**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**5.1**	U	**5.1**	U	**5.1**	U	**0.1**	U	**0.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**0.1**	U	**0.1**	U	**5.1**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-01	GC-MW01I	N	Intermediate	**0.13** U	**0.24** U	**0.21** U	**0.13** U	**0.25** U	**1.1**	**0.25** U	**0.44** U	**0.22** U	**0.8** U	**1.1**	**0.58** U	**0.52** J	**10.92**
MW-01	GC-MW01I-S-NYC	S	Intermediate	**5.5** U	**5.5** U	**5.5** U	**0.21** J	**5.5** U	**0.32** J	**5.5** U	**5.5** U	**5.5** U	**1.5** UJ	**0.68** J	**5.5** U	**1.2**	**12.77**
MW-01	GC-MW01S	N	Shallow	**0.13** U	**0.24** U	**0.21** U	**0.13** U	**0.25** U	**0.85** J	**0.25** U	**0.44** U	**0.22** U	**0.8** U	**0.51** J	**0.58** U	**0.72** J	**13.08**
MW-01	GC-MW01S-S-NYC	S	Shallow	**5.3** U	**5.3** U	**5.3** U	**0.42** U	**5.3** U	**0.42** U	**5.3** U	**5.3** U	**5.3** U	**0.84** UJ	**0.42** U	**5.3** U	**0.51**	**5.16**
MW-02	GC-MW02I	N	Intermediate	**0.13** U	**0.24** U	**0.21** U	**0.13** U	**0.25** U	**0.43** U	**0.25** U	**0.44** U	**0.22** U	**0.8** U	**0.21** U	**0.58** U	**0.5** J	**5.3**
MW-02	GC-MW02I-S-NYC	S	Intermediate	**5.2** U	**5.2** U	**5.2** U	**0.1** U	**5.2** U	**0.084** J	**5.2** U	**5.2** U	**5.2** U	**0.21** U	**0.075** J	**5.2** U	**0.45** J	**6.098**
MW-02	GC-MW02S	N	Shallow	**0.13** U	**0.24** U	**0.21** U	**0.13** U	**0.25** U	**0.43** U	**0.25** U	**0.44** U	**0.22** U	**0.8** U	**0.21** U	**0.58** U	**0.16** U	**0** U
MW-02	GC-MW02S-S-NYC	S	Shallow	**5.1** U	**5.1** U	**5.1** U	**0.1** U	**5.1** U	**0.1** U	**5.1** U	**5.1** U	**5.1** U	**0.2** U	**0.1** U	**5.1** U	**0.1** UJ	**0** U

NYC – Gowanus Pump Station - (MW1 & MW2)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-01	GC-MW01I	N	Intermediate	**0.0091**	U	**0.0023**	U	**0.0023**	U	**0.0031**	U	**0.0037**	U	**0.0034**	U	**0.0043**	U	**0.0014**	U	**0.0068**	U	**0.0013**	U	**0.0035**	U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.1**	UJ	**0.051**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-01	GC-MW01S	N	Shallow	**0.0091**	U	**0.0023**	U	**0.0023**	U	**0.0031**	U	**0.0037**	U	**0.0034**	U	**0.0043**	U	**0.0014**	U	**0.0069**	U	**0.0013**	U	**0.0035**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**0.056**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.11**	U	**0.056**	U	**0.11**	U	**0.11**	U	**0.11**	U	**0.11**	U
MW-02	GC-MW02I	N	Intermediate	**0.01**	U	**0.0026**	U	**0.0026**	U	**0.0035**	U	**0.0041**	U	**0.0038**	U	**0.0048**	U	**0.0016**	U	**0.0076**	U	**0.0015**	U	**0.0039**	U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**0.054**	U	**0.054**	U	**0.054**	U	**0.054**	U	**0.054**	U	**0.11**	U	**0.054**	U	**0.11**	U	**0.11**	U	**0.11**	U	**0.11**	U
MW-02	GC-MW02S	N	Shallow	**0.009**	U	**0.0023**	U	**0.0023**	U	**0.003**	U	**0.0037**	U	**0.0033**	U	**0.0043**	U	**0.0014**	U	**0.0067**	U	**0.0013**	U	**0.0035**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-01	GC-MW01I	N	Intermediate	**0.0075**	U	**0.0017**	U	**0.0024**	U	**0.0038**	U	**0.0025**	U	**0.0069**	U	**0.0036**	U	**0.0021**	U	**0.0038**	U	**0.25**	U	**0**	U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**0.1**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.51**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5.1**	UJ	**0**	U
MW-01	GC-MW01S	N	Shallow	**0.0076**	U	**0.0017**	U	**0.0024**	U	**0.0039**	U	**0.0025**	U	**0.007**	U	**0.0037**	U	**0.0022**	U	**0.0039**	U	**0.26**	U	**0**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**0.11**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.56**	U	**0.11**	U	**0.11**	U	**0.11**	U	**5.6**	U	**0**	U
MW-02	GC-MW02I	N	Intermediate	**0.0085**	U	**0.0019**	U	**0.0027**	U	**0.0043**	U	**0.0028**	U	**0.0078**	U	**0.0041**	U	**0.0024**	U	**0.0043**	U	**0.28**	U	**0**	U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**0.11**	U	**0.054**	U	**0.054**	U	**0.054**	U	**0.054**	U	**0.54**	U	**0.11**	U	**0.11**	U	**0.11**	U	**5.4**	U	**0**	U
MW-02	GC-MW02S	N	Shallow	**0.0074**	U	**0.0017**	U	**0.0024**	U	**0.0038**	U	**0.0025**	U	**0.0069**	U	**0.0036**	U	**0.0021**	U	**0.0038**	U	**0.25**	U	**0**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-01	GC-MW01I	N	Intermediate	**0.3**	U	**0.41**	U	**0.31**	U	**0.27**	U	**0.28**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**0**	U
MW-01	GC-MW01S	N	Shallow	**0.31**	U	**0.42**	U	**0.32**	U	**0.28**	U	**0.29**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-01	GC-MW01S-S-NYC	S	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-02	GC-MW02I	N	Intermediate	**0.34**	U	**0.47**	U	**0.35**	U	**0.31**	U	**0.32**	U	**0.2**	U	**0.16**	U	**0.11**	U	**0.14**	U	**0**	U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**0**	U
MW-02	GC-MW02S	N	Shallow	**0.3**	U	**0.41**	U	**0.31**	U	**0.27**	U	**0.28**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-02	GC-MW02S-S-NYC	S	Shallow	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**0**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Cadmium
MW-01	GC-MW01I	N	Intermediate	**9,610**	--	**2.2** U	--	**21.1**	--	**0.44** U	--	**2.1**	--	**0.35** U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**6,070**	**200** U	**2** U	**2** U	**20.6**	**1** U	123 R	222 R	**1** U	**1** U	**0.3** J
MW-01	GC-MW01S	N	Shallow	**1,190**	--	**2.2** U	--	**1.4** U	--	**0.44** U	--	**0.24** U	--	**0.35** U
MW-01	GC-MW01S-S-NYC	S	Shallow	**270**	**200** U	**2** U	**2** U	**2.9**	**2.1**	**180**	**166**	**1** U	**1** U	**1** U
MW-02	GC-MW02I	N	Intermediate	**1,820**	--	**2.2** U	--	**1.4** U	--	**260**	--	**0.24** U	--	**0.35** U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**1,200**	**200** U	**2** U	**2** U	1 R	14.8 R	**267**	**52.9**	**1** U	**1** U	**1** U
MW-02	GC-MW02S	N	Shallow	**7.8** U	--	**2.2** U	--	**4.3**	--	**0.44** U	--	**0.24** U	--	**0.35** U
MW-02	GC-MW02S-S-NYC	S	Shallow	**200** U	**200** U	**2** U	**2** U	**4.8**	**1.7**	**65.3**	**57**	**1** U	**1** U	**1** U

NYC – Gowanus Pump Station - (MW1 & MW2)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cadmium, dissolved	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead
MW-01	GC-MW01I	N	Intermediate	--	**88,800**	--	**26.5**	--	**0.65** U	--	**54.8**	--	**19,900**	--	**103**
MW-01	GC-MW01I-S-NYC	S	Intermediate	**1** U	**93,900**	**43,000**	**15.2**	**4.6**	**5.1**	**1** U	**34.6**	**0.9** J	**16,700**	**100** U	**107**
MW-01	GC-MW01S	N	Shallow	--	**182,000**	--	**0.59** U	--	**0.65** U	--	**30.9**	--	**3,950**	--	**28.3**
MW-01	GC-MW01S-S-NYC	S	Shallow	**1** U	**191,000**	**186,000**	**2** U	**2** U	**1** U	**1** U	**2.7**	**0.98** J	**1,640**	**100** U	**9.8**
MW-02	GC-MW02I	N	Intermediate	--	**43,300**	--	**0.59** U	--	**0.65** U	--	**36.2**	--	**4,540**	**18** U	**8.1**
MW-02	GC-MW02I-S-NYC	S	Intermediate	**1** U	43,900 R	89,500 R	**2.7**	**2** U	**1** U	**1** U	**5.9**	**0.55** J	**3,020**	**100** U	**4.2**
MW-02	GC-MW02S	N	Shallow	--	**56,700**	--	**0.59** U	--	**0.65** U	--	**23.3**	--	**5,480**	**454**	**4.4**
MW-02	GC-MW02S-S-NYC	S	Shallow	**1** U	**55,300**	**54,200**	**2** U	**2** U	**1** U	**1** U	**2.6**	**2.8**	**4,380**	**1,000**	**2.3**

NYC – Gowanus Pump Station - (MW1 & MW2)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium
MW-01	GC-MW01I	N	Intermediate	--	**55,500**	--	**495**	--	**0.61**	--	**23.5**	--	**14,900**	--	**1.9** U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**1** U	**57,600**	**42,000**	**490**	**448**	**0.48**	**0.2** U	**18.8**	**3.2**	14,300 R	23,400 R	**0.56** J
MW-01	GC-MW01S	N	Shallow	--	**116,000**	--	**727**	--	**0.082** U	--	**0.51** U	--	**39,900**	--	**1.9** U
MW-01	GC-MW01S-S-NYC	S	Shallow	**2.4**	**121,000**	**118,000**	**708**	**681**	**0.2** U	**0.2** U	**4.8**	**5.6**	**41,500**	**40,100**	**9.4**
MW-02	GC-MW02I	N	Intermediate	--	**42,400**	--	**515**	**523**	**0.082** U	--	**15.9**	--	**23,900**	--	**1.9** U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**1** U	**43,700** J	**54,200** J	**500**	**350**	**0.2** U	**0.2** U	**5.3**	**3**	**24,400**	**13,200**	**5** U
MW-02	GC-MW02S	N	Shallow	--	**11,600**	--	**366**	**381**	**0.082** U	--	**0.51** U	--	**22,900**	--	**1.9** U
MW-02	GC-MW02S-S-NYC	S	Shallow	**1** U	**10,700**	**10,100**	**330**	**318**	**0.2** U	**0.2** U	1.9 R	8.1 R	**21,300**	**20,700**	**0.73** J

NYC – Gowanus Pump Station - (MW1 & MW2)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-01	GC-MW01I	N	Intermediate	--	**0.53** U	--	**89,100**	--	**1.8** U	--	**0.56** U	--	**93.1**	--	**2** U
MW-01	GC-MW01I-S-NYC	S	Intermediate	**0.47** J	**1** U	**1** UJ	**92,800**	**57,200**	**1** U	**1** U	**13.3**	**5** U	135 R	**52.5**	**10** U
MW-01	GC-MW01S	N	Shallow	--	**0.53** U	--	**629,000**	--	**1.8** U	--	**0.56** U	--	**25**	--	**2** U
MW-01	GC-MW01S-S-NYC	S	Shallow	**8.3**	**1** U	**1** UJ	**763,000**	**769,000**	**1** U	**1** U	**5** U	**5** U	54.9 R	**50.1**	**10** U
MW-02	GC-MW02I	N	Intermediate	--	**0.53** U	--	**55,400**	--	**1.8** U	--	**0.56** U	--	**61.8**	--	**2** U
MW-02	GC-MW02I-S-NYC	S	Intermediate	**5** U	**1** U	**1** UJ	58,100 R	92,200 R	**1** U	**1** U	**5** U	**5** U	51.5 R	**50.1**	**10** U
MW-02	GC-MW02S	N	Shallow	--	**0.53** U	--	**116,000**	--	**1.8** U	--	**0.56** U	--	**1.4** U	--	**2** U
MW-02	GC-MW02S-S-NYC	S	Shallow	**0.97** J	**1** U	**1** UJ	**106,000**	**101,000**	**1** U	**1** U	**5** U	**5** U	58 R	**40.6**	**10** U

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National Grid – Fulton

(MW30 & MW31 & MW32)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: Former Fulton Manufactured Gas Plant (Located along Degraw St. on the eastern side of the canal)
Monitoring Well Soil Borings Installed at Address: GC-MW-30I, GC-MW-31I, & GC-MW-32I
Intermediate Monitoring Wells Installed at Address: GC-MW-30I, GC-MW-31I, & GC-MW-32I
Shallow Monitoring Wells Previously Installed at Address: GC-MW-30S, GC-MW-31S, & GC-MW-32S

GC-MW-30

The soil samples from the soil boring installed for the intermediate well (situated approximately 37 feet from the canal) contained 49 VOCs, 141 SVOCs, 3 pesticides, 0 PCBs, and 146 metals. From these, 11 VOCs, 4 SVOC, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was trichloroethylene (TCE) (13,000 µg/kg). The SVOC occurring at the highest concentration above screening value was chrysene (3,000 J µg/kg). The metal occurring at the highest concentration above screening value was arsenic (58.4 mg/kg).

Shallow groundwater

The shallow well (depth of approximately19 ft bgs and situated approximately 37 feet from the canal) contained 6 VOCs, 10 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 4 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (2,100 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (48 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (717 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately37 ft bgs and situated approximately 37 feet from the canal) contained 6 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 8 metals. From these, 4 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (5,200 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (19 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (4,000 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-31

The soil samples from the soil boring installed for the intermediate well (situated approximately 31 feet from the canal) contained 27 VOCs, 88 SVOCs, 18 pesticides, 1 PCB, and 122 metals. From these, 8 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (59,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (410,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 31 feet from the canal) contained 4 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (1,200 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately35 ft bgs and situated approximately 31 feet from the canal) contained 7 VOCs, 9 SVOCs, 2 pesticides, 0 PCBs, and 12 metals. From these, 5 VOCs, 1 SVOC, 1 pesticide, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (1,400 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (80 µg/L). The pesticide occurring at the highest concentration above screening criteria was beta BHC (0.084 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (2,740 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-32

The soil samples from the soil boring installed for the intermediate well (situated approximately 605 feet from the canal) contained 26 VOCs, 164 SVOCs, 15 pesticides, 1 PCB, and 164 metals. From these, 6 VOCs, 18 SVOCs, 0 pesticides, 0 PCBs, and 7 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (790,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (670,000 µg/kg). The metal occurring at the highest concentration above screening value was lead (1,190 J mg/kg).

Shallow groundwater

The shallow well (depth of approximately22 ft bgs and situated approximately 605 feet from the canal) contained 0 VOCs, 18 SVOCs, 0 pesticides, 0 PCBs, and 9 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (9,810 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately46 ft bgs and situated approximately 605 feet from the canal) contained 6 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 12 metals. From these, 4 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (6,300 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (63 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (4,130 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

National Grid – Fulton (MW30 & MW31 & MW32)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-30	GC-MW30I(13)	N	13	13	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	UJ	**4.8**	UJ	**4.8**	U
GCMW-30	GC-MW30I(17.5)	N	17.5	17.5	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-30	GC-MW30I(2.5)	N	2.5	2.5	ft	**11**	U	11	UR	**11**	U	**11**	UJ	**11**	U	**11**	U	11	UR	11	UR	11	UR
GCMW-30	GC-MW30I(24)	N	24	24	ft	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U
GCMW-30	GC-MW30I(27.5)	N	27.5	27.5	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-30	GC-MW30I(31.5)	N	31.5	31.5	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-30	GC-MW30I(35.5)	N	35.5	35.5	ft	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U
GCMW-30	GC-MW30I(8-8.5)	N	8	8.5	ft	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**4.6**	UJ	**4.6**	U	**4.6**	UJ	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-31	GC-MW31I(12-12.5)	N	12	12.5	ft	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**1,300**	J	**7,200**	UJ	**7,200**	UJ
GCMW-31	GC-MW31I(19-19.5)	N	19	19.5	ft	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	UJ
GCMW-31	GC-MW31I(23-23.5)	N	23	23.5	ft	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U
GCMW-31	GC-MW31I(29.2)	N	29.2	29.2	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.6**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-31	GC-MW31I(3.5-4)	N	3.5	4	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-31	GC-MW31I(35.75-36)	N	35.75	36	ft	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	UJ
GCMW-31	GC-MW31I(6-6.5)	N	6	6.5	ft	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	6.3	UR	6.3	UR	6.3	UR
GCMW-31	SB31IG-S-NG	S	30	35	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	UJ	**1,100**	UJ	**1,100**	U
GCMW-32	GC-MW32I(0.5-1)	N	0.5	1	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U
GCMW-32	GC-MW32I(10-10.5)	N	10	10.5	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-32	GC-MW32I(18-18.5)	N	18	18.5	ft	**9.2**	UJ	**10**	UJ	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**10**	UJ	**10**	UJ	**10**	UJ
GCMW-32	GC-MW32I(22.5-23)	N	22.5	23	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-32	GC-MW32I(29.5-30)	N	29.5	30	ft	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ
GCMW-32	GC-MW32I(30.5-31)	N	30.5	31	ft	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U
GCMW-32	GC-MW32I(35.5-36)	N	35.5	36	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U
GCMW-32	GC-MW32I(40.75)	N	40.75	40.75	ft	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	UJ
GCMW-32	GC-MW32I(9.5-10)	N	9.5	10	ft	**9.5**	U	**9.5**	UJ	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	UJ	**9.5**	UJ	**9.5**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	**7**	U	**7**	U	**7**	U	**7**	U	**7**	U	**7**	U	7	UR	7	UR	7	UR
GCMW-32	SB32IH-S-NG	S	35	40	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U

National Grid – Fulton (MW30 & MW31 & MW32)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone	
GCMW-30	GC-MW30I(13)	N	13	13	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	240	UR	**4.8**	U	**46**	J
GCMW-30	GC-MW30I(17.5)	N	17.5	17.5	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	240	UR	**4.8**	U	**4.8**	UJ
GCMW-30	GC-MW30I(2.5)	N	2.5	2.5	ft	**11**	UJ	11	UR	**11**	U	**11**	U	11	UR	11	UR	550	UR	**11**	UJ	**13**	UJ
GCMW-30	GC-MW30I(24)	N	24	24	ft	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	76,000	UR	**1,500**	U	1,500	UR
GCMW-30	GC-MW30I(27.5)	N	27.5	27.5	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	410	UR	**8.2**	U	**12**	UJ
GCMW-30	GC-MW30I(31.5)	N	31.5	31.5	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	260	UR	**5.1**	U	**9.3**	UJ
GCMW-30	GC-MW30I(35.5)	N	35.5	35.5	ft	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	380	UR	**7.7**	U	**7.9**	UJ
GCMW-30	GC-MW30I(8-8.5)	N	8	8.5	ft	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	49,000	UR	**990**	U	**990**	UJ
GCMW-30	SB30IB-S-NG	S	5	10	ft	**4.6**	UJ	**4.6**	U	**4.6**	UJ	**4.6**	U	**4.6**	U	**4.6**	U	92	UR	**9.2**	U	**9.2**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	110	UR	**11**	U	**5.1**	J
GCMW-31	GC-MW31I(12-12.5)	N	12	12.5	ft	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	360,000	UR	**7,200**	UJ	**7,200**	UJ
GCMW-31	GC-MW31I(19-19.5)	N	19	19.5	ft	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	64,000	UR	**1,300**	U	**1,300**	UJ
GCMW-31	GC-MW31I(23-23.5)	N	23	23.5	ft	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	370	UR	**7.3**	U	**11**	UJ
GCMW-31	GC-MW31I(29.2)	N	29.2	29.2	ft	**5.6**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	290	UR	**5.6**	U	**80**	J
GCMW-31	GC-MW31I(3.5-4)	N	3.5	4	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	57,000	UR	**1,100**	U	**1,100**	U
GCMW-31	GC-MW31I(35.75-36)	N	35.75	36	ft	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	110,000	UR	**2,200**	U	**2,200**	U
GCMW-31	GC-MW31I(6-6.5)	N	6	6.5	ft	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	48,000	UR	**950**	UJ	**950**	UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	**6.3**	U	6.3	UR	**6.3**	U	**6.3**	U	6.3	UR	6.3	UR	130	UR	**13**	U	**36**	
GCMW-31	SB31IG-S-NG	S	30	35	ft	**1,100**	U	**1,100**	UJ	**1,100**	U	**1,100**	U	**1,100**	UJ	**1,100**	UJ	21,000	UR	**2,100**	U	**2,100**	U
GCMW-32	GC-MW32I(0.5-1)	N	0.5	1	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	1,200	UR	**23**	U	**25**	UJ
GCMW-32	GC-MW32I(10-10.5)	N	10	10.5	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	660	UR	**13**	U	**17**	UJ
GCMW-32	GC-MW32I(18-18.5)	N	18	18.5	ft	**9.2**	UJ	**10**	UJ	**9.2**	U	**9.2**	U	**10**	UJ	**10**	UJ	460	UR	**9.2**	UJ	**140**	J
GCMW-32	GC-MW32I(22.5-23)	N	22.5	23	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	280	UR	**5.7**	U	**28**	UJ
GCMW-32	GC-MW32I(29.5-30)	N	29.5	30	ft	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	110,000	UR	**2,200**	UJ	**2,200**	UJ
GCMW-32	GC-MW32I(30.5-31)	N	30.5	31	ft	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	120,000	UR	**2,400**	U	**2,400**	UJ
GCMW-32	GC-MW32I(35.5-36)	N	35.5	36	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	340	UR	**6.7**	U	**12**	UJ
GCMW-32	GC-MW32I(40.75)	N	40.75	40.75	ft	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	1,100,000	UR	**23,000**	U	**23,000**	U
GCMW-32	GC-MW32I(9.5-10)	N	9.5	10	ft	**9.5**	UJ	**9.5**	UJ	**9.5**	U	**9.5**	U	**9.5**	UJ	**9.5**	UJ	480	UR	**9.5**	U	**10**	UJ
GCMW-32	SB32ID-S-NG	S	15	20	ft	**7**	U	7	UR	**7**	U	**7**	U	7	UR	7	UR	140	UR	**14**	U	**78**	
GCMW-32	SB32IH-S-NG	S	35	40	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	92	UR	**9.2**	U	**6.3**	J
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	170,000	UR	**17,000**	U	**17,000**	U

National Grid – Fulton (MW30 & MW31 & MW32)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
GCMW-30	GC-MW30I(13)	N	13	13	ft	**77** J	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U
GCMW-30	GC-MW30I(17.5)	N	17.5	17.5	ft	**66**	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U	**4.8** U
GCMW-30	GC-MW30I(2.5)	N	2.5	2.5	ft	**11** U	**11** U	**11** U	**11** UJ	**11** U	**11** U	**11** U	**11** UJ	**11** U	**11** U	**11** U
GCMW-30	GC-MW30I(24)	N	24	24	ft	**310** J	**1,500** U	**1,500** U	**1,500** U	**1,500** U	**1,500** U	**1,500** U	**1,500** U	**1,500** U	**1,500** U	**1,500** U
GCMW-30	GC-MW30I(27.5)	N	27.5	27.5	ft	**110**	**8.2** U	**8.2** U	**8.2** U	**8.2** U	**8.2** U	**8.2** U	**8.2** U	**8.2** U	**8.2** U	**8.2** U
GCMW-30	GC-MW30I(31.5)	N	31.5	31.5	ft	**170**	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**5.3**	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U
GCMW-30	GC-MW30I(35.5)	N	35.5	35.5	ft	**33**	**7.7** U	**7.7** U	**7.7** U	**7.7** U	**2** J	**7.7** U	**7.7** U	**7.7** U	**7.7** U	**7.7** U
GCMW-30	GC-MW30I(8-8.5)	N	8	8.5	ft	**990** U	**990** U	**990** U	**990** U	**990** U	**990** U	**990** U	**990** U	**990** U	**990** U	**990** U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**4.6** U	**4.6** U	**4.6** U	**4.6** U	**4.6** U	**4.6** U	**4.6** UJ	**4.6** U	**4.6** U	**4.6** U	**4.6** U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**26**	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U
GCMW-31	GC-MW31I(12-12.5)	N	12	12.5	ft	**7,200** UJ	**7,200** UJ	**7,200** UJ	**7,200** UJ	**7,200** UJ	**3,100** J	**7,200** UJ	**7,200** UJ	**7,200** UJ	**7,200** UJ	**7,200** UJ
GCMW-31	GC-MW31I(19-19.5)	N	19	19.5	ft	**1,600**	**1,300** U	**1,300** U	**1,300** U	**1,300** UJ	**1,300** U	**1,300** U	**1,300** U	**1,300** U	**1,300** U	**1,300** U
GCMW-31	GC-MW31I(23-23.5)	N	23	23.5	ft	**7.3** U	**7.3** U	**7.3** U	**7.3** U	**7.3** U	**11** J	**7.3** U	**7.3** U	**7.3** U	**7.3** U	**7.3** U
GCMW-31	GC-MW31I(29.2)	N	29.2	29.2	ft	**210**	**5.8** U	**5.8** U	**5.6** U	**5.8** U	**1.2** J	**5.8** U	**5.6** U	**5.8** U	**5.8** U	**5.8** U
GCMW-31	GC-MW31I(3.5-4)	N	3.5	4	ft	**1,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** UJ	**1,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** U
GCMW-31	GC-MW31I(35.75-36)	N	35.75	36	ft	**2,200** U	**2,200** U	**2,200** U	**2,200** U	**2,200** UJ	**2,200** U	**2,200** U	**2,200** U	**2,200** U	**2,200** U	**2,200** U
GCMW-31	GC-MW31I(6-6.5)	N	6	6.5	ft	**950** UJ	**950** UJ	**950** UJ	**950** UJ	**950** UJ	**950** UJ	**950** UJ	**950** UJ	**950** UJ	**950** UJ	**950** UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	**6.3** U	**6.3** U	**6.3** U	6.3 UR	**6.3** U	**6.3** U	**6.3** U	**6.3** U	**6.3** U	**6.3** U	**6.3** U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**1,200** J	**1,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** UJ	**1,100** U	**1,100** U
GCMW-32	GC-MW32I(0.5-1)	N	0.5	1	ft	**23** U	**23** U	**23** U	**23** U	**23** U	**23** U	**23** U	**23** U	**23** U	**23** U	**23** U
GCMW-32	GC-MW32I(10-10.5)	N	10	10.5	ft	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U
GCMW-32	GC-MW32I(18-18.5)	N	18	18.5	ft	**11** J	**9.2** U	**9.2** U	**9.2** UJ	**9.2** U	**9.2** U	**9.2** U	**9.2** UJ	**9.2** U	**9.2** U	**9.2** U
GCMW-32	GC-MW32I(22.5-23)	N	22.5	23	ft	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U	**5.7** U
GCMW-32	GC-MW32I(29.5-30)	N	29.5	30	ft	**5,300** J	**2,200** UJ	**2,200** UJ	**2,200** UJ	**2,200** UJ	**2,200** UJ	**2,200** UJ	**2,200** UJ	**2,200** UJ	**2,200** UJ	**2,200** UJ
GCMW-32	GC-MW32I(30.5-31)	N	30.5	31	ft	**4,400**	**2,400** U	**2,400** U	**2,400** U	**2,400** UJ	**2,400** U	**2,400** U	**2,400** U	**2,400** U	**2,400** U	**2,400** U
GCMW-32	GC-MW32I(35.5-36)	N	35.5	36	ft	**7.7**	**6.7** U	**6.7** U	**6.7** U	**6.7** U	**20**	**6.7** U	**6.7** U	**6.7** U	**6.7** U	**6.7** U
GCMW-32	GC-MW32I(40.75)	N	40.75	40.75	ft	**23,000** U	**23,000** U	**23,000** U	**23,000** U	**23,000** UJ	**23,000** U	**23,000** U	**23,000** U	**23,000** U	**23,000** U	**23,000** U
GCMW-32	GC-MW32I(9.5-10)	N	9.5	10	ft	**9.5** U	**9.5** U	**9.5** U	**9.5** U	**9.5** U	**9.5** U	**9.5** U	**9.5** U	**9.5** U	**9.5** U	**9.5** U
GCMW-32	SB32ID-S-NG	S	15	20	ft	**16** J	**7** U	**7** U	7 UR	**7** U	**7** U	**7** U	**7** U	**7** U	**7** U	**7** U
GCMW-32	SB32IH-S-NG	S	35	40	ft	**9.1**	**4.6** U	**4.6** U	**4.6** U	**4.6** U	**14**	**4.6** U	**4.6** U	**4.6** U	**4.6** U	**4.6** U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**8,600** U	**8,600** U	**8,600** U	**8,600** U	**8,600** U	**8,600** U	**8,600** U	**8,600** U	**8,600** U	**8,600** U	**8,600** U

National Grid – Fulton (MW30 & MW31 & MW32)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone	
GCMW-30	GC-MW30I(13)	N	13	13	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**0.87**	J	**28**	J	**4.6**	J	4.8	UR	**14**	J	**4.8**	U
GCMW-30	GC-MW30I(17.5)	N	17.5	17.5	ft	**4.8**	U	**4.8**	U	**2.6**	J	**4.8**	U	**4.8**	U	**12**		**27**		**7.6**		**4.8**	U	**5.8**	J	**4.8**	U
GCMW-30	GC-MW30I(2.5)	N	2.5	2.5	ft	**16**	J	**11**	U	**11**	U	**11**	UJ	**11**	U	**11**	UJ	11	UR	**11**	UJ	11	UR	11	UR	**11**	U
GCMW-30	GC-MW30I(24)	N	24	24	ft	**740**	J	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**3,500**		**1,200**	J	**420**	J	1,500	UR	1,500	UR	**1,500**	U
GCMW-30	GC-MW30I(27.5)	N	27.5	27.5	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**25**		**4.8**	J	**2.6**	J	**8.2**	U	8.2	UR	**8.2**	U
GCMW-30	GC-MW30I(31.5)	N	31.5	31.5	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**32**		**5.2**		**2.7**	J	5.1	UR	5.1	UR	**5.1**	U
GCMW-30	GC-MW30I(35.5)	N	35.5	35.5	ft	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**4.5**	J	**7.7**	U	**7.7**	U	7.7	UR	**7.7**	U	**7.7**	U
GCMW-30	GC-MW30I(8-8.5)	N	8	8.5	ft	**1,900**		**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	990	UR	990	UR	**990**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	UJ	**9.2**	U	**9.2**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**3.1**	J	**5.7**	U	**5.7**	U	**5.7**	U	**11**	U	**11**	U
GCMW-31	GC-MW31I(12-12.5)	N	12	12.5	ft	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**7,200**	UJ	**4,400**	J	7,200	UR	**7,200**	UJ
GCMW-31	GC-MW31I(19-19.5)	N	19	19.5	ft	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	UJ	1,300	UR	**1,300**	U
GCMW-31	GC-MW31I(23-23.5)	N	23	23.5	ft	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**3.1**	J	**7.3**	U	7.3	UR	7.3	UR	**7.3**	U
GCMW-31	GC-MW31I(29.2)	N	29.2	29.2	ft	**5.8**	U	**5.8**	U	**6.9**		**5.6**	U	**5.8**	U	**55**	J	**130**	J	**6**	J	5.8	UR	**26**	J	**5.8**	U
GCMW-31	GC-MW31I(3.5-4)	N	3.5	4	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	1,100	UR	1,100	UR	**1,100**	U
GCMW-31	GC-MW31I(35.75-36)	N	35.75	36	ft	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**2,200**	U	**59,000**		**5,800**		--		2,200	UR	2,200	UR	**2,200**	U
GCMW-31	GC-MW31I(6-6.5)	N	6	6.5	ft	**260**	J	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	**950**	UJ	950	UR	950	UR	**950**	UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**13**	U	**13**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**120,000**	J	**9,900**		**6,000**		**1,100**	U	**2,100**	U	**2,100**	U
GCMW-32	GC-MW32I(0.5-1)	N	0.5	1	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	23	UR	23	UR	**23**	U
GCMW-32	GC-MW32I(10-10.5)	N	10	10.5	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**33**	J	**20**	J	**71**	J	13	UR	13	UR	**13**	U
GCMW-32	GC-MW32I(18-18.5)	N	18	18.5	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	UJ	**9.2**	U	**48**	J	**22**	J	**80**	J	9.2	UR	**44**	J	**9.2**	U
GCMW-32	GC-MW32I(22.5-23)	N	22.5	23	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	5.7	UR	5.7	UR	**5.7**	U
GCMW-32	GC-MW32I(29.5-30)	N	29.5	30	ft	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	**2,200**	UJ	2,200	UR	**2,200**	UJ
GCMW-32	GC-MW32I(30.5-31)	N	30.5	31	ft	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	UJ	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	UJ	2,400	UR	**2,400**	U
GCMW-32	GC-MW32I(35.5-36)	N	35.5	36	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**3.8**	J	**16**		6.7	UR	6.7	UR	**6.7**	U
GCMW-32	GC-MW32I(40.75)	N	40.75	40.75	ft	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**790,000**		**28,000**		**560,000**		23,000	UR	23,000	UR	**23,000**	U
GCMW-32	GC-MW32I(9.5-10)	N	9.5	10	ft	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	UJ	**9.5**	U	9.5	UR	9.5	UR	**9.5**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	**7**	U	**7**	U	**7**	U	**7**	U	**7**	U	**12**	J	**3.4**	J	**22**	J	**7**	U	**30**		**14**	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**5.5**		**4.6**	U	**9.2**	U	**9.2**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**8,600**	U	**520,000**	J	**8,600**	U	**380,000**	J	**8,600**	U	**17,000**	U	**17,000**	U

National Grid – Fulton (MW30 & MW31 & MW32)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane	
GCMW-30	GC-MW30I(13)	N	13	13	ft	25	J	4.8	U	4.8	U	4.8	U	18	J	4.8	U	4.8	U	4.8	U	4.8	U	0.9	J	4.8	U
GCMW-30	GC-MW30I(17.5)	N	17.5	17.5	ft	11		4.8	U	4.8	U	4.8	U	30		4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U
GCMW-30	GC-MW30I(2.5)	N	2.5	2.5	ft	11	U	11	U	11	UJ	11	UJ	11	U	7.3	J	11	UJ	11	U	11	UJ	200	J	11	U
GCMW-30	GC-MW30I(24)	N	24	24	ft	330	J	1,500	U	1,500	U	1,500	U	1,500	U	1,500	U	1,500	U	280	J	1,500	U	3,500		1,500	U
GCMW-30	GC-MW30I(27.5)	N	27.5	27.5	ft	8.2	U	8.2	U	3.5	J	8.2	U	5.2	J	8.2	U	8.2	U	8.2	U	8.2	U	8.2	U	8.2	U
GCMW-30	GC-MW30I(31.5)	N	31.5	31.5	ft	2.4	J	5.1	U	4.2	J	5.1	U	3.7	J	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
GCMW-30	GC-MW30I(35.5)	N	35.5	35.5	ft	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	1.7	J	7.7	U
GCMW-30	GC-MW30I(8-8.5)	N	8	8.5	ft	990	U	990	U	990	U	990	U	990	U	320	J	990	U	990	U	990	U	13,000		990	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	4.6	U	4.6	UJ	4.6	U	4.6	U	4.6	UJ	2.2	J	4.6	U	4.6	U	4.6	U	22		4.6	UJ
GCMW-30	SB-30I-S-NG	S	35	36	ft	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U
GCMW-31	GC-MW31I(12-12.5)	N	12	12.5	ft	7,200	UJ	7,200	UJ	7,200	UJ	7,200	UJ	7,200	UJ	7,200	UJ	7,200	UJ	1,300	J	7,200	UJ	7,200	UJ	7,200	UJ
GCMW-31	GC-MW31I(19-19.5)	N	19	19.5	ft	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U
GCMW-31	GC-MW31I(23-23.5)	N	23	23.5	ft	7.3	U	7.3	U	4.4	J	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U
GCMW-31	GC-MW31I(29.2)	N	29.2	29.2	ft	5	J	5.8	U	37	J	5.6	U	2.4	J	5.6	U	5.8	U	5.8	U	5.8	U	5.8	U	5.8	U
GCMW-31	GC-MW31I(3.5-4)	N	3.5	4	ft	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	12,000	
GCMW-31	GC-MW31I(35.75-36)	N	35.75	36	ft	2,200	U	2,200	U	21,000		2,200	U	2,200	U	2,200	U	2,200	U	2,200	U	2,200	U	2,200	U	2,200	U
GCMW-31	GC-MW31I(6-6.5)	N	6	6.5	ft	950	UJ	950	UJ	950	UJ	950	UJ	950	UJ	210	J	950	UJ	950	UJ	950	UJ	670	J	3,200	J
GCMW-31	SB31IB-S-NG	S	5	10	ft	6.3	U	6.3	U	6.3	U	6.3	U	6.3	U	6.3	U	6.3	U	6.3	U	6.3	U	6.3	U	14	
GCMW-31	SB31IG-S-NG	S	30	35	ft	1,100	U	1,100	U	37,000		1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U
GCMW-32	GC-MW32I(0.5-1)	N	0.5	1	ft	23	U	23	U	23	U	23	U	23	U	23	U	23	U	23	U	23	U	23	U	23	U
GCMW-32	GC-MW32I(10-10.5)	N	10	10.5	ft	13	U	13	U	32	J	13	U	13	U	13	U	14	J	13	U	13	U	13	U	13	U
GCMW-32	GC-MW32I(18-18.5)	N	18	18.5	ft	2.2	J	9.2	U	50	J	4.3	J	9.2	U	9.2	UJ	49	J	9.2	U	9.2	UJ	9.2	U	9.2	U
GCMW-32	GC-MW32I(22.5-23)	N	22.5	23	ft	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U
GCMW-32	GC-MW32I(29.5-30)	N	29.5	30	ft	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ	2,200	UJ
GCMW-32	GC-MW32I(30.5-31)	N	30.5	31	ft	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U
GCMW-32	GC-MW32I(35.5-36)	N	35.5	36	ft	6.7	U	6.7	U	11		6.7	U	6.7	U	6.7	U	6.7	U	6.7	U	6.7	U	6.7	U	6.7	U
GCMW-32	GC-MW32I(40.75)	N	40.75	40.75	ft	23,000	U	23,000	U	260,000		23,000	U	23,000	U	23,000	U	23,000	U	23,000	U	23,000	U	23,000	U	23,000	U
GCMW-32	GC-MW32I(9.5-10)	N	9.5	10	ft	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	7	U	7	U	12	J	7	U	7	U	7	U	13	J	7	U	7	U	7	U	7	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	4.6	U	4.6	U	4	J	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U	4.6	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	8,600	U	8,600	U	180,000		8,600	U	8,600	U	8,600	U	8,600	U	8,600	U	8,600	U	8,600	U	8,600	U

National Grid – Fulton (MW30 & MW31 & MW32)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Vinyl chloride	
GCMW-30	GC-MW30I(13)	N	13	13	ft	**4.8**	U
GCMW-30	GC-MW30I(17.5)	N	17.5	17.5	ft	**4.8**	U
GCMW-30	GC-MW30I(2.5)	N	2.5	2.5	ft	**11**	U
GCMW-30	GC-MW30I(24)	N	24	24	ft	**1,500**	U
GCMW-30	GC-MW30I(27.5)	N	27.5	27.5	ft	**8.2**	U
GCMW-30	GC-MW30I(31.5)	N	31.5	31.5	ft	**5.1**	U
GCMW-30	GC-MW30I(35.5)	N	35.5	35.5	ft	**7.7**	U
GCMW-30	GC-MW30I(8-8.5)	N	8	8.5	ft	**990**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**4.6**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**5.7**	U
GCMW-31	GC-MW31I(12-12.5)	N	12	12.5	ft	**7,200**	UJ
GCMW-31	GC-MW31I(19-19.5)	N	19	19.5	ft	**1,300**	U
GCMW-31	GC-MW31I(23-23.5)	N	23	23.5	ft	**7.3**	U
GCMW-31	GC-MW31I(29.2)	N	29.2	29.2	ft	**5.8**	U
GCMW-31	GC-MW31I(3.5-4)	N	3.5	4	ft	**1,100**	U
GCMW-31	GC-MW31I(35.75-36)	N	35.75	36	ft	**2,200**	U
GCMW-31	GC-MW31I(6-6.5)	N	6	6.5	ft	**950**	UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	**6.3**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**1,100**	U
GCMW-32	GC-MW32I(0.5-1)	N	0.5	1	ft	**23**	U
GCMW-32	GC-MW32I(10-10.5)	N	10	10.5	ft	**13**	U
GCMW-32	GC-MW32I(18-18.5)	N	18	18.5	ft	**9.2**	U
GCMW-32	GC-MW32I(22.5-23)	N	22.5	23	ft	**5.7**	U
GCMW-32	GC-MW32I(29.5-30)	N	29.5	30	ft	**2,200**	UJ
GCMW-32	GC-MW32I(30.5-31)	N	30.5	31	ft	**2,400**	U
GCMW-32	GC-MW32I(35.5-36)	N	35.5	36	ft	**6.7**	U
GCMW-32	GC-MW32I(40.75)	N	40.75	40.75	ft	**23,000**	U
GCMW-32	GC-MW32I(9.5-10)	N	9.5	10	ft	**9.5**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	**7**	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	**4.6**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**8,600**	U

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	850	U	850	U	2,100	U	850	U	850	U	850	U	2,100	U	850	U	850	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	400	U	400	U	1,000	U	400	U	400	U	400	U	1,000	UJ	400	U	400	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	430	U	430	U	1,100	U	430	U	430	U	430	U	1,100	UJ	430	U	430	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	380	U	380	U	970	U	380	U	380	U	380	U	970	UJ	380	U	380	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	390	U	390	U	990	U	390	U	390	U	390	U	990	UJ	390	U	390	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	370	U	370	U	940	U	370	U	370	U	370	U	940	U	370	U	370	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	390	U	390	U	980	U	390	U	390	U	390	U	980	U	390	U	390	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	400	U	400	U	1,000	U	400	U	400	U	400	U	1,000	UJ	400	U	400	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	5,600	U	5,600	U	5,600	U	5,600	U	5,600	U	5,600	U	11,000	U	5,600	U	5,600	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	190	U	190	U	190	U	190	U	190	U	190	U	360	U	190	U	190	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	400	U	400	UJ	1,000	UJ	400	UJ	400	U	400	U	1,000	UJ	400	UJ	400	UJ
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	590	U	590	U	1,500	U	590	U	590	U	590	U	1,500	UJ	590	U	590	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	580	U	580	U	1,500	U	580	U	580	U	580	U	1,500	U	580	U	580	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	440	U	440	U	1,100	U	440	U	440	U	440	U	1,100	U	440	U	440	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	410	U	410	U	1,000	U	410	U	410	U	410	U	1,000	UJ	410	U	410	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	97,000	U	97,000	U	240,000	U	97,000	U	97,000	U	97,000	U	240,000	UJ	97,000	U	97,000	U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	500	U	500	U	1,300	U	500	U	500	U	500	U	1,300	U	500	U	500	U
GCMW-31	SB31IB-S-NG	S	5	10	ft	250	U	250	U	250	U	250	U	250	U	250	U	480	U	250	U	250	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	54,000	U	54,000	U	54,000	U	54,000	U	54,000	U	54,000	U	110,000	U	54,000	U	54,000	U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	360	U	360	U	900	U	360	U	360	U	360	U	900	U	360	U	360	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	480	U	480	U	1,200	U	480	U	480	U	480	U	1,200	UJ	480	U	480	U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	150,000	U	150,000	U	390,000	U	150,000	U	150,000	U	150,000	U	390,000	UJ	150,000	U	150,000	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	840	U	840	UJ	2,100	U	840	U	840	U	840	U	2,100	UJ	840	U	840	U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	780	UJ	780	UJ	2,000	UJ	780	UJ	780	UJ	780	UJ	2,000	UJ	780	UJ	780	UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	460	U	460	UJ	1,200	U	460	U	460	U	460	U	1,200	UJ	460	U	460	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	380	U	380	UJ	960	U	380	U	380	U	380	U	960	UJ	380	U	380	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	110,000	U	110,000	U	290,000	U	110,000	U	110,000	U	110,000	U	290,000	U	110,000	U	110,000	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	740	U	740	U	1,900	U	740	U	740	U	740	U	1,900	UJ	740	U	740	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	270,000	U	270,000	U	270,000	U	270,000	U	270,000	U	270,000	U	540,000	U	270,000	U	270,000	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	200	U	200	U	200	U	200	U	200	U	200	U	390	U	200	U	200	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	81,000	U	81,000	U	81,000	U	81,000	U	81,000	U	81,000	U	160,000	U	81,000	U	81,000	U

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	850	U	850	U	89	J	850	U	2,100	U	850	U	850	UJ	2,100	U	2,100	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	400	U	400	U	93	J	400	U	1,000	U	400	U	400	U	1,000	U	1,000	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	430	U	430	U	56	J	430	U	1,100	U	430	U	430	U	1,100	U	1,100	UJ
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	380	U	380	U	64	J	380	U	970	U	380	U	380	U	970	U	970	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	390	U	390	U	110	J	390	U	990	U	390	U	390	U	990	U	990	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	370	U	370	U	140	J	370	U	940	U	370	U	370	U	940	U	940	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	390	U	390	U	29	J	390	U	980	U	390	U	390	U	980	U	980	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	400	U	400	U	93	J	400	U	1,000	U	400	U	400	U	1,000	U	1,000	UJ
GCMW-30	SB30IB-S-NG	S	5	10	ft	5,600	U	5,600	U	51,000	J	5,600	U	11,000	U	5,600	U	5,600	U	11,000	U	11,000	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	190	U	190	U	24	J	190	U	360	U	190	U	190	U	360	U	360	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	400	UJ	400	U	930		400	U	1,000	UJ	400	UJ	400	U	1,000	UJ	1,000	UJ
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	590	U	590	U	89	J	590	U	1,500	U	590	U	590	U	1,500	U	1,500	UJ
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	580	U	580	U	580	U	580	U	1,500	U	580	U	580	U	1,500	U	1,500	UJ
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	440	U	440	U	440	U	440	U	1,100	U	440	U	440	U	1,100	U	1,100	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	410	U	410	U	630		410	U	1,000	U	410	U	410	U	1,000	U	1,000	UJ
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	97,000	U	97,000	U	270,000		97,000	U	240,000	U	97,000	U	97,000	U	240,000	U	240,000	UJ
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	500	U	500	U	710		500	U	1,300	U	500	U	500	U	1,300	U	1,300	UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	250	U	250	U	550		250	U	480	U	250	U	250	U	480	U	480	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	54,000	U	54,000	U	350,000		54,000	U	110,000	U	54,000	U	54,000	U	110,000	U	110,000	U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	360	U	360	U	40	J	360	U	900	U	360	U	360	U	900	U	900	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	480	U	480	U	42	J	480	U	1,200	U	480	U	480	U	1,200	U	1,200	U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	150,000	U	150,000	U	37,000	J	150,000	U	390,000	U	150,000	U	150,000	U	390,000	U	390,000	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	840	U	840	U	230	J	840	U	2,100	U	840	U	840	U	2,100	U	2,100	U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	780	UJ	780	UJ	100	J	780	UJ	2,000	UJ	780	UJ	780	UJ	2,000	UJ	2,000	UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	460	U	460	U	87	J	460	U	1,200	U	460	U	460	U	1,200	U	1,200	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	380	U	380	U	30	J	380	U	960	U	380	U	380	U	960	U	960	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	110,000	U	110,000	U	340,000		110,000	U	290,000	U	110,000	U	110,000	U	290,000	U	290,000	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	740	U	740	U	200	J	740	U	1,900	U	740	U	740	U	1,900	U	1,900	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	270,000	U	270,000	U	180,000	J	270,000	U	540,000	U	270,000	U	270,000	U	540,000	U	540,000	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	200	U	200	U	17	J	200	U	390	U	200	U	200	U	390	U	390	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	81,000	U	81,000	U	360,000		81,000	U	160,000	U	81,000	U	81,000	U	160,000	U	160,000	U

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Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**850**	U	**850**	U	**850**	U	**850**	U	**850**	U	**2,100**	U	--		**94**	J	**180**	J	**850**	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**1,000**	UJ	--		**130**	J	**400**	U	**27**	J
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**430**	U	**430**	U	**430**	U	**430**	U	**430**	U	**1,100**	U	--		**400**	J	**430**	U	**430**	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**970**	UJ	--		**2,200**		**380**	U	**380**	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**990**	UJ	--		**530**		**390**	U	**390**	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**940**	U	--		**610**		**370**	U	**370**	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**980**	U	--		**58**	J	**390**	U	**390**	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**1,000**	U	--		**63**	J	**30**	J	**39**	J
GCMW-30	SB30IB-S-NG	S	5	10	ft	**5,600**	U	**5,600**	U	**5,600**	U	**5,600**	U	**5,600**	U	**11,000**	U	**11,000**	U	**23,000**	J	**3,400**		**5,600**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**360**	U	**360**	U	**55**	J	**11**	J	**190**	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**400**	UJ	**400**	U	**400**	U	**400**	UJ	**400**	U	**1,000**	UJ	--		**130**	J	**400**	UJ	**400**	U
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**590**	U	**590**	U	**590**	U	**590**	U	**590**	U	**1,500**	U	--		**57**	J	**590**	U	**590**	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**580**	U	**580**	U	**580**	U	**580**	U	**580**	U	**1,500**	U	--		**580**	UJ	**580**	U	**580**	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**1,100**	U	--		**440**	U	**440**	U	**440**	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**1,000**	U	--		**330**	J	**410**	U	**410**	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**97,000**	U	**97,000**	U	**97,000**	U	**97,000**	U	**97,000**	U	**240,000**	U	--		**130,000**		**97,000**	U	**97,000**	U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**500**	UJ	**500**	U	**500**	U	**500**	U	**71**	J	**1,300**	U	--		**450**	J	**260**	J	**500**	U
GCMW-31	SB31IB-S-NG	S	5	10	ft	**250**	U	**250**	U	**250**	U	**250**	U	**78**	J	**480**	U	**480**	U	**470**		**360**		**250**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**54,000**	U	**54,000**	U	**54,000**	U	**54,000**	U	**54,000**	U	**110,000**	U	**110,000**	U	**180,000**		**54,000**	U	**54,000**	U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**900**	U	--		**59**	J	**360**	U	**360**	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**1,200**	UJ	--		**62**	J	**34**	J	**480**	U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**150,000**	U	**150,000**	U	**150,000**	U	**150,000**	U	**150,000**	U	**390,000**	UJ	--		**110,000**	J	**150,000**	U	**150,000**	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**2,100**	UJ	--		**890**		**840**	U	**46**	J
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**780**	UJ	**780**	UJ	**780**	UJ	**780**	UJ	**780**	UJ	**2,000**	UJ	--		**310**	J	**780**	UJ	**62**	J
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**460**	U	**460**	U	**460**	U	**460**	U	**460**	U	**1,200**	UJ	--		**110**	J	**460**	U	**28**	J
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**960**	UJ	--		**57**	J	**380**	U	**380**	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**110,000**	U	**110,000**	U	**110,000**	U	**110,000**	U	**110,000**	U	**290,000**	U	--		**91,000**	J	**32,000**	J	**110,000**	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**740**	U	**740**	U	**740**	U	**740**	U	**740**	U	**1,900**	UJ	--		**540**	J	**740**	U	**740**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	**270,000**	U	**270,000**	U	**270,000**	U	**270,000**	U	**270,000**	U	**540,000**	U	**540,000**	U	**410,000**		**270,000**	U	**270,000**	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	**200**	UJ	**200**	U	**200**	U	**200**	UJ	**200**	U	**390**	U	**390**	U	**26**	J	**26**	U	**200**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**81,000**	U	**81,000**	U	**81,000**	U	**81,000**	U	**81,000**	U	**160,000**	U	**160,000**	U	**110,000**		**33,000**	J	**81,000**	U

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	430 J	850 U	850 U	2,700 J	2,400	2,500	2,400 J	2,400	850 UJ	850 U	850 U	850 U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	57 J	400 U	22 J	160 J	150 J	150 J	120 J	120 J	400 U	400 U	400 U	400 U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	61 J	430 U	430 U	130 J	100 J	73 J	65 J	86 J	430 U	430 U	430 U	430 U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	230 J	380 U	380 U	590	520	270 J	360 J	250 J	380 U	380 U	380 U	380 U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	370 J	390 U	390 U	340 J	240 J	150 J	130 J	130 J	390 U	37 J	390 U	390 U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	470	370 U	370 U	400	290 J	120 J	130 J	210 J	370 U	370 U	370 U	370 U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	66 J	390 U	390 U	69 J	50 J	34 J	390 UJ	38 J	390 U	390 U	390 U	390 U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	84 J	400 U	400 U	210 J	210 J	190 J	260 J	200 J	400 U	400 U	400 U	400 U
GCMW-30	SB30IB-S-NG	S	5	10	ft	13,000 J	5,600 U	5,600 U	8,000 J	5,500	4,100 J	1,900	2,900	5,600 U	4,400 J	5,600 U	5,600 U
GCMW-30	SB-30I-S-NG	S	35	36	ft	74 J	190 U	190 U	77	69	37	33	47 J	190 U	190 U	190 U	190 U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	190 J	400 UJ	400 U	480	470	700	160 J	530	240 J	130 J	400 U	400 UJ
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	92 J	590 U	590 U	190 J	170 J	170 J	93 J	130 J	590 U	32 J	590 U	590 UJ
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	580 U	580 U	580 U	580 U	580 U	580 U	580 UJ	580 U	580 U	580 U	580 U	580 UJ
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 UJ
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	410 U	410 U	410 U	410 U	410 U	410 U	410 UJ	410 U	410 U	410 U	410 U	410 U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	58,000 J	97,000 U	97,000 U	32,000 J	22,000 J	9,000 J	97,000 UJ	15,000 J	97,000 U	29,000 J	97,000 U	97,000 U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	660 J	500 UJ	500 U	1,700	1,700	1,900	470 J	1,400	64 J	300 J	500 U	500 UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	660	250 U	250 U	1,600	1,600	1,600	790	1,100	45 J	240 J	250 U	250 U
GCMW-31	SB31IG-S-NG	S	30	35	ft	79,000	54,000 U	54,000 U	41,000 J	31,000 J	10,000 J	11,000 J	18,000 J	54,000 U	35,000 J	54,000 U	54,000 U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	360 U	360 U	360 U	380	360	430	140 J	340 J	20 J	360 U	360 U	360 U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	200 J	480 U	63 J	760	700	560	420 J	630	480 U	480 U	480 U	480 U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	210,000	150,000 U	150,000 U	210,000	160,000	120,000 J	88,000 J	140,000 J	150,000 U	10,000 J	150,000 U	150,000 U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	1,500	840 U	840 U	1,700	1,300	920	740 J	1,200	840 U	840 U	840 U	840 U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	590 J	780 UJ	47 J	650 J	480 J	360 J	190 J	420 J	780 UJ	780 UJ	780 UJ	780 UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	150 J	460 U	460 U	170 J	130 J	110 J	68 J	100 J	460 U	460 U	460 U	460 U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	380 U	380 U	380 U	380 U	54 J	45 J	27 J	45 J	380 U	380 U	380 U	380 U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	47,000 J	110,000 U	110,000 U	37,000 J	24,000 J	9,400 J	6,200 J	19,000 J	110,000 U	29,000 J	110,000 U	110,000 U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	930	740 U	740 U	1,800	1,500	1,100	1,200	1,200	740 U	69 J	740 U	740 U
GCMW-32	SB32ID-S-NG	S	15	20	ft	720,000	270,000 U	270,000 U	600,000	500,000	420,000	200,000 J	360,000 J	270,000 U	39,000 J	270,000 U	270,000 U
GCMW-32	SB32IH-S-NG	S	35	40	ft	22 J	200 U	200 U	21 J	26 U	11 J	26 U	10 J	200 UJ	200 UJ	200 U	200 U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	52,000 J	81,000 U	81,000 U	36,000 J	26,000 J	12,000 J	10,000 J	13,000 J	81,000 U	27,000 J	81,000 U	81,000 U

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	850	UJ	850	UJ	850	U	120	J	3,000	J	430	J	56	J	850	U	850	U	100	J	850	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	400	U	120	J	400	U	400	U	180	J	400	U	400	U	400	U	400	U	400	U	400	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	430	UJ	71	J	430	U	430	U	120	J	430	U	430	U	430	U	430	U	430	U	430	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	380	U	380	U	380	U	380	U	520		41	J	380	U	380	U	380	U	380	U	380	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	390	U	30	J	390	U	390	U	340	J	22	J	24	J	390	U	390	U	390	U	390	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	370	U	53	J	370	U	370	U	430		38	J	27	J	370	U	370	U	370	U	370	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	390	U	43	J	110	J	390	U	72	J	390	UJ	390	U	46	J	390	U	390	U	390	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	400	UJ	400	U	400	U	400	U	260	J	26	J	400	U	400	U	400	U	19	J	400	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	5,600	U	5,600	U	5,600	U	5,600	U	7,300		610	J	1,300	J	5,600	U	5,600	U	5,600	U	5,600	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	190	U	37	J	26	J	190	U	78	J	8.2	J	190	U	190	U	190	U	190	U	190	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	400	UJ	530		400	U	400	UJ	580		29	J	110	J	100	J	400	UJ	400	UJ	400	U
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	590	UJ	590	U	590	U	590	U	190	J	590	U	42	J	590	U	590	U	590	U	590	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	580	UJ	580	U	580	U	580	U	580	U	580	U	580	U	50	J	580	U	580	U	580	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	440	UJ	440	U	87	J	440	U	440	U	440	U	440	U	100	J	440	U	440	U	440	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	410	UJ	25	J	410	U	19	J	410	U	410	U	410	U	410	U	410	U	410	U	410	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	97,000	UJ	97,000	U	97,000	U	97,000	U	31,000	J	97,000	U	6,900	J	97,000	U	97,000	U	97,000	U	97,000	U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	500	UJ	130	J	500	U	81	J	1,500		140	J	210	J	53	J	500	U	500	UJ	500	U
GCMW-31	SB31IB-S-NG	S	5	10	ft	250	U	140	J	250	U	95	J	1,500		300		180	J	250	U	250	U	250	U	250	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	54,000	U	54,000	U	54,000	U	54,000	U	40,000	J	54,000	U	9,400	J	54,000	U	54,000	U	54,000	U	54,000	U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	360	U	360	U	360	U	35	J	450		40	J	32	J	130	J	360	U	360	U	360	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	480	U	480	U	480	UJ	60	J	810		130	J	52	J	480	U	480	U	480	U	480	U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	150,000	U	150,000	U	150,000	UJ	62,000	J	210,000		17,000	J	74,000	J	150,000	U	150,000	U	150,000	U	150,000	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	840	U	840	U	840	UJ	450	J	1,800		210	J	470	J	840	U	840	U	840	U	840	U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	780	UJ	780	UJ	780	UJ	160	J	630	J	49	J	190	J	780	UJ	780	UJ	780	UJ	780	UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	460	U	460	U	460	UJ	45	J	180	J	460	U	59	J	460	U	460	U	460	U	460	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	380	U	380	U	380	UJ	22	J	380	U	380	U	33	J	22	J	380	U	380	U	380	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	110,000	UJ	110,000	U	110,000	U	110,000	U	37,000	J	110,000	UJ	6,800	J	110,000	U	110,000	U	110,000	U	110,000	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	740	U	740	U	740	UJ	220	J	1,800		240	J	300	J	180	J	740	U	740	U	740	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	270,000	U	270,000	U	270,000	U	290,000		590,000		78,000	J	310,000		270,000	U	270,000	U	270,000	U	270,000	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	200	U	200	UJ	200	UJ	200	UJ	22	J	26	U	200	UJ	200	UJ	200	UJ	200	UJ	200	UJ
GCMW-32	SB32II-S-NG-R	S	40	45	ft	81,000	U	81,000	U	81,000	U	81,000	U	41,000	J	81,000	U	81,000	U	81,000	U	81,000	U	81,000	U	81,000	U

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	3,400	99 J	850 U	850 U	850 U	850 U	2,000	850 U	--	850 U	850 U	850 U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	210 J	37 J	400 U	400 U	400 UJ	400 U	84 J	400 U	--	190 J	400 U	400 U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	250 J	42 J	430 U	430 U	430 U	430 U	51 J	430 U	--	260 J	430 U	430 U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	1,200	260 J	380 U	380 U	380 U	380 U	220 J	380 U	--	510	380 U	380 U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	580	290 J	390 U	390 U	390 U	390 U	83 J	390 U	--	170 J	390 U	390 U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	760	320 J	370 U	370 U	370 U	370 U	100 J	370 U	--	310 J	370 U	370 U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	150 J	41 J	390 U	390 U	390 U	390 U	390 UJ	390 U	--	61 J	390 U	390 U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	280 J	47 J	400 U	400 U	400 U	400 U	150 J	400 U	--	140 J	400 U	400 U
GCMW-30	SB30IB-S-NG	S	5	10	ft	13,000 J	14,000 J	5,600 U	5,600 U	5,600 U	5,600 U	1,700	5,600 U	--	75,000	5,600 U	5,600 U
GCMW-30	SB-30I-S-NG	S	35	36	ft	160 J	48 J	190 U	190 U	190 U	190 U	28	190 U	--	49 J	190 U	190 U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	1,200 J	210 J	400 UJ	400 U	400 UJ	400 U	130 J	400 U	--	100 J	400 U	400 U
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	320 J	57 J	590 U	590 U	590 U	590 U	85 J	590 U	--	130 J	590 U	590 U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	580 U	580 U	580 U	580 U	580 U	580 U	580 UJ	580 U	--	580 U	580 U	580 U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	440 U	440 U	440 U	440 U	440 U	440 U	440 U	440 U	--	78 J	440 U	440 U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	410 U	59 J	410 U	410 U	410 U	410 U	410 UJ	410 U	--	1,300	410 U	410 U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	57,000 J	56,000 J	97,000 U	97,000 U	97,000 U	97,000 U	97,000 UJ	97,000 U	--	410,000	97,000 U	97,000 U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	2,900 J	350 J	500 UJ	500 U	500 U	500 U	530	500 U	--	1,400	500 U	500 U
GCMW-31	SB31IB-S-NG	S	5	10	ft	3,100 J	440	250 U	250 U	250 U	250 U	770	250 U	--	1,500	250 U	250 U
GCMW-31	SB31IG-S-NG	S	30	35	ft	75,000	78,000	54,000 U	54,000 U	54,000 U	54,000 U	8,300 J	54,000 U	--	700,000	54,000 U	54,000 U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	730	40 J	360 U	360 U	360 U	360 U	130 J	360 U	--	270 J	360 U	360 U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	1,500	62 J	480 U	480 U	480 U	480 U	410 J	480 U	--	140 J	480 U	480 U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	470,000	120,000 J	150,000 U	150,000 U	150,000 U	150,000 U	78,000 J	150,000 U	--	66,000 J	150,000 U	150,000 U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	4,000	810 J	840 U	840 U	840 U	840 U	710 J	840 U	--	450 J	840 U	840 U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	1,500 J	310 J	780 UJ	780 UJ	780 UJ	780 UJ	190 J	780 UJ	--	180 J	780 UJ	780 UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	360 J	93 J	460 U	460 U	460 U	460 U	67 J	460 U	--	1,100	460 U	460 U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	380 U	47 J	380 U	380 U	380 U	380 U	25 J	380 U	--	140 J	380 U	380 U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	56,000 J	62,000 J	110,000 U	110,000 U	110,000 U	110,000 U	110,000 U	110,000 U	--	670,000	110,000 U	110,000 U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	3,700	410 J	740 U	740 U	740 U	740 U	940	740 U	--	360 J	740 U	740 U
GCMW-32	SB32ID-S-NG	S	15	20	ft	1,700,000	440,000	270,000 U	270,000 U	270,000 U	270,000 U	220,000 J	270,000 U	--	380,000	270,000 U	270,000 U
GCMW-32	SB32IH-S-NG	S	35	40	ft	55 J	13 J	200 U	200 U	200 U	200 U	26 U	200 U	--	190 J	200 U	200 U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	59,000 J	50,000 J	81,000 U	81,000 U	81,000 U	81,000 U	8,700 J	81,000 U	--	880,000	81,000 U	81,000 U

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**850** U	--	**1,900**	**850** U	**5,400** J	**29,422**
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**400** U	--	**200** J	**400** U	**350** J	**2,231**
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**430** U	--	**120** J	**430** U	**470**	**2,284**
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**380** U	--	**460**	**380** U	**2,500**	**10,195**
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**390** U	--	**1,500**	**390** U	**1,100**	**6,085**
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**370** U	--	**1,800**	**370** U	**1,200** J	**7,328**
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**390** U	--	**260** J	**390** U	**230** J	**1,158**
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**400** U	--	**340** J	**400** U	**420**	**3,003**
GCMW-30	SB30IB-S-NG	S	5	10	ft	**5,600** U	**1,500** UJ	**41,000**	**5,600** U	**17,000**	**282,410**
GCMW-30	SB-30I-S-NG	S	35	36	ft	**190** U	**24** UJ	**280**	**190** U	**210**	**1,288**
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**400** UJ	--	**930** J	**400** U	**830**	**7,599**
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**590** U	--	**330** J	**590** U	**370** J	**2,473**
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**580** U	--	**580** U	**580** U	**580** U	**0** U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**440** U	--	**440** U	**440** U	**440** U	**78**
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**410** U	--	**69** J	**410** U	**410** U	**2,388**
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**97,000** U	--	**200,000**	**97,000** U	**91,000** J	**1,381,000**
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**500** UJ	--	**1,800** J	**500** U	**2,300**	**20,170**
GCMW-31	SB31IB-S-NG	S	5	10	ft	**250** U	**480** U	**1,600**	**250** U	**2,300** J	**20,240**
GCMW-31	SB31IG-S-NG	S	30	35	ft	**54,000** U	**110,000** U	**270,000**	**54,000** U	**100,000** J	**1,991,300**
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**360** U	--	**400**	**360** U	**500**	**4,309**
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**480** U	--	**710**	**480** U	**1,300**	**8,470**
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**150,000** U	--	**680,000**	**150,000** U	**480,000**	**3,196,000**
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**840** U	--	**5,200**	**840** U	**3,400**	**25,060**
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**780** UJ	--	**2,000**	**780** UJ	**1,400** J	**9,359**
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**460** U	--	**530**	**460** U	**360** J	**3,615**
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**380** U	--	**380** U	**380** U	**380** U	**470**
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**110,000** U	--	**170,000**	**110,000** U	**74,000** J	**1,674,600**
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**740** U	--	**4,800**	**740** U	**4,400**	**25,120**
GCMW-32	SB32ID-S-NG	S	15	20	ft	**270,000** U	**540,000** U	**2,300,000**	**270,000** U	**1,100,000**	**10,198,000**
GCMW-32	SB32IH-S-NG	S	35	40	ft	**200** U	**53** U	**70** J	**200** U	**39** J	**496**
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**81,000** U	**160,000** U	**180,000**	**81,000** U	**60,000** J	**1,930,700**

National Grid – Fulton (MW30 & MW31 & MW32)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**4.4**	U	**2.2**	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2.1**	JN	**3.9**	U	**2**	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	J	**4**	U	**2**	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.4**	J
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2.2**	J	**2**	UJ	**3.9**	UJ	**2**	UJ
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**6.1**	U	**3**	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**3.1**	U	**3.1**	U	**3.1**	U	**3.1**	U	**3.1**	U	**6.1**	U	**3.1**	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**4.6**	U	**2.3**	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**2**	U	**2**	U	**2.1**	JN	**2.6**	JN	**8.8**	J	**9.2**	J	**4.3**	JN
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**2.7**	UJ	**2.7**	UJ	**2.7**	UJ	**2.7**	UJ	**2.7**	UJ	**5.4**	UJ	**2.7**	UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**4.8**	U	**2.5**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**1.9**	U	**1.8**	J	4.2	R	7.5	R	7.2	R	**3.8**	U	**2**	J
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**1.8**	U	**1.8**	U	**1.8**	U	**4.7**		**1.8**	U	**3.5**	U	**1.8**	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**25**	JN	**4.6**	U	**16**	J
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**47**	U	**24**	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**15**	J	**4.2**	U	**5.7**	J
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**7.7**	UJ	**3.9**	UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**4.6**	U	**2.3**	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.9**	U	**1.9**	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**8.2**	U	**4.1**	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	4.3	R	**2.3**	UJ	**2.3**	UJ	**120**	J	25	R	**4.5**	UJ	11	R
GCMW-32	SB32IH-S-NG	S	35	40	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**2**	U	**2**	U	**2**	U	6.2	R	**2**	U	**4**	U	**2**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde		Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**3.8**	U	**4**	J	**3.8**	U	**3.8**	U	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**4**	U	**4**	U	**4**	U	**4**	U	**4**	U	**2**	U	**2**	U	**2**	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**2.2**	U	**2.2**	U	**2.2**	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**2**	U	**2**	U	**2**	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**2**	U	**2**	U	**2**	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**4**	U	**4**	U	**4**	U	**4**	U	**4**	U	**2**	U	**2**	U	**2**	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**2**	U	**2**	U	**2**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**2**	U	**2**	U	**2**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**2**	UJ	**2.4**	J	**2**	UJ
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**3**	U	**3**	U	**3**	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**3.1**	U	**3.1**	U	**3.1**	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**2.3**	U	**2.3**	U	**2.3**	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**4**	U	**4**	U	**4**	U	**4**	U	**4**	U	**2**	U	**2**	U	**2**	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**8.4**	J	**9.1**	JN	**6.2**	J	**12**	J	**8.1**	JN	**2**	U	**13**	J	**2**	U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**2.7**	UJ	**2.7**	UJ	**2.7**	UJ
GCMW-31	SB31IB-S-NG	S	5	10	ft	**4.8**	U	**3.4**	J	**4.8**	U	**4.8**	U	**4.8**	U	**2.5**	U	**2.5**	U	**2.5**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**3.8**	U	5.1	R	**7.9**		**7.4**	NJ	**3.8**	U	**1.9**	U	**9.2**	NJ	2.2	R
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**3.5**	U	**3.5**	U	**3.5**	U	**3.5**	U	**3.6**		**1.8**	U	**6.1**		**1.8**	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**3.4**	J	**2.3**	U	**2.9**	JN
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**47**	U	**47**	U	**47**	U	**47**	U	**47**	U	**24**	U	**71**		**24**	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U	**2.7**	J	**2.1**	U	**2.1**	U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**7.7**	UJ	**7.7**	UJ	**7.7**	UJ	**7.7**	UJ	**7.7**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**2.3**	U	**2.3**	U	**2.3**	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**1.9**	U	**1.9**	U	**1.9**	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**8.2**	U	**8.2**	U	**8.2**	U	**11**		**8.2**	U	**4.1**	U	**18**	J	**4.1**	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	17	R	**4.5**	UJ	7.1	R	5.6	R	**4.5**	UJ	6.1	R	**57**	NJ	**19**	NJ
GCMW-32	SB32IH-S-NG	S	35	40	ft	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**2**	U	**2**	U	**2**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**4**	U	4.7	R	**6.7**		**6.1**		**2.4**	J	**2**	U	**6.6**	NJ	**2**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**2.2**	U	**22**	U	**4.4**	U	**4.4**	U	**4.4**	U	**220**	U	**0**	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**2**	UJ	**20**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**200**	UJ	**0**	U
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**3**	U	**30**	U	**6.1**	U	**6.1**	U	**6.1**	U	**300**	U	**0**	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**3.1**	U	**31**	U	**6.1**	U	**6.1**	U	**6.1**	U	**310**	U	**0**	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**2.3**	U	**23**	U	**4.6**	U	**4.6**	U	**4.6**	U	**230**	U	**0**	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**16**	J	**17**	J	**17**	J	**9.8**	J	**11**	J	**200**	U	**37.8**	
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**2.7**	UJ	**27**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**270**	UJ	**0**	U
GCMW-31	SB31IB-S-NG	S	5	10	ft	**2.5**	U	**25**	U	**4.8**	U	**4.8**	U	**4.8**	U	**250**	U	**0**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	2.4	R	33	R	**8.6**		**4.3**	NJ	6.3	R	**190**	U	--	
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**1.8**	U	**18**	U	**3.5**	U	**3.5**	U	**3.5**	U	**180**	U	**0**	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**2.3**	U	**23**	U	**4.6**	U	**4.6**	U	**4.6**	U	**230**	U	**0**	U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**24**	U	**240**	U	**47**	U	**47**	U	**47**	U	**2,400**	U	**0**	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**4.2**	U	**210**	U	**0**	U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**3.9**	UJ	**39**	UJ	**7.7**	UJ	**7.7**	UJ	**7.7**	UJ	**390**	UJ	**0**	U
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**2.3**	U	**23**	U	**4.6**	U	**4.6**	U	**4.6**	U	**230**	U	**0**	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**1.9**	U	**19**	U	**3.9**	U	**3.9**	U	**3.9**	U	**190**	U	**0**	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**21**	J	**41**	U	**15**		**8.2**	U	**8.2**	U	**410**	U	**15**	
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	4.2	R	**180**	J	11	R	7.2	R	4.9	R	**230**	UJ	--	
GCMW-32	SB32IH-S-NG	S	35	40	ft	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**2**	U	**20**	U	**5.8**	NJ	5.1	R	**4**	U	**200**	U	--	

National Grid – Fulton (MW30 & MW31 & MW32)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**22**	U	**22**	U	**22**	U	**22**	U	**22**	U	**22**	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**20**	UJ	**20**	UJ	**20**	UJ	**97**		**20**	UJ	**23**	UJ
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**30**	U	**30**	U	**30**	U	**30**	U	**30**	U	**30**	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**31**	U	**31**	U	**31**	U	**31**	U	**31**	U	**31**	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**20**	UJ	**20**	UJ	**20**	UJ	**20**	UJ	**20**	UJ	**20**	UJ
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U
GCMW-31	SB31IB-S-NG	S	5	10	ft	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**18**	U	**18**	U	**18**	U	**18**	U	**18**	U	**36**	
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**39**	UJ	**39**	UJ	**39**	UJ	**39**	UJ	**39**	UJ	**39**	UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**21**	UJ	**21**	UJ	**21**	UJ	**21**	UJ	**21**	UJ	**21**	UJ
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ
GCMW-32	SB32IH-S-NG	S	35	40	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U

National Grid – Fulton (MW30 & MW31 & MW32)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**19**	U	**19**	U	**19**	U	**0**	U
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**22**	U	**22**	U	**22**	U	**0**	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**19**	U	**19**	U	**19**	U	**0**	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-30	SB-30I-S-NG	S	35	36	ft	**37**	UJ	**37**	UJ	**37**	UJ	**0**	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**20**	UJ	**20**	UJ	**20**	UJ	**97**	
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**30**	U	**30**	U	**30**	U	**0**	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**31**	U	**31**	U	**31**	U	**0**	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**23**	U	**23**	U	**23**	U	**0**	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**20**	UJ	**20**	UJ	**20**	UJ	**0**	U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**27**	U	**27**	U	**27**	U	**0**	U
GCMW-31	SB31IB-S-NG	S	5	10	ft	**48**	U	**48**	U	**48**	U	**0**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**37**	U	**37**	U	**37**	U	**0**	U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**18**	U	**18**	U	**18**	U	**36**	
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**23**	U	**23**	U	**23**	U	**0**	U
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**24**	U	**24**	U	**24**	U	**0**	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**39**	UJ	**39**	UJ	**39**	UJ	**0**	U
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**23**	U	**23**	U	**23**	U	**0**	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**19**	U	**19**	U	**19**	U	**0**	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**21**	UJ	**21**	UJ	**21**	UJ	**0**	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**19**	U	**19**	U	**19**	U	**0**	U
GCMW-32	SB32ID-S-NG	S	15	20	ft	**45**	UJ	**45**	UJ	**45**	UJ	**0**	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**40**	U	**40**	U	**40**	U	**0**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum		Antimony		Arsenic		Barium		Beryllium		Cadmium		Calcium	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**3,210**		**0.078**	UJ	**58.4**		**172**	J	**0.63**	J	**0.43**	J	**9,990**	J
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**5,910**		**0.076**	UJ	**12.5**	J	**49.2**		**0.58**	J	**0.11**	J	**1,560**	
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**5,540**		**0.079**	UJ	**6.3**	J	**45**	J	**0.43**	J	**0.54**		**905**	
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**3,540**		**0.074**	UJ	**2.8**	J	**46.4**	J	**0.45**	J	**0.091**	UJ	**614**	
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**2,730**		**0.075**	UJ	**2**	J	**31.2**	J	**0.34**	J	**0.052**	UJ	**645**	
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**2,350**		**0.079**	UJ	**2.3**		**22.8**		**0.27**	J	**0.059**	J	**817**	
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**3,140**		**0.073**	UJ	**1.9**		**25.8**		**0.55**		**0.056**	J	**1,170**	
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**2,700**		**0.087**	UJ	**57.4**	J	**61.7**	J	**0.23**	J	**0.014**	U	**725**	
GCMW-30	SB30IB-S-NG	S	5	10	ft	**2,700**		**5**	U	**66.8**	J	**74.5**		**0.16**	J	**0.42**	U	**1,150**	
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**8,110**		**0.086**	UJ	**7.5**		**57.6**		**0.69**		**0.4**	J	**13,500**	
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**13,800**		**0.14**	UJ	**12.8**		**25.5**	J	**1**		**0.14**	UJ	**2,230**	
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**14,600**		**0.096**	UJ	**11.5**		**26.3**		**1**		**0.17**	UJ	**2,450**	
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**4,330**		**0.083**	UJ	**2.3**	J	**16.3**	J	**0.34**	J	**0.054**	UJ	**628**	
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**4,070**		**0.083**	UJ	**5.2**		**19.8**	J	**0.34**	J	**0.095**	J	**757**	UJ
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**2,730**		**0.063**	UJ	**1.1**	J	**10.3**	J	**0.24**	J	**0.049**	J	**973**	UJ
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**10,300**		**0.099**	UJ	**10.9**		**37.2**		**0.81**		**0.21**	UJ	**3,030**	
GCMW-31	SB31IB-S-NG	S	5	10	ft	**7,210**		**7.4**	U	**9.5**	J	**28.4**		**0.43**	J	**0.62**	U	**3,220**	
GCMW-31	SB31IG-S-NG	S	30	35	ft	**1,520**		**4.8**	U	**1.2**	J	**16**	U	**0.12**	J	**0.4**	U	**685**	
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**5,860**		**0.28**	UJ	**7.4**		**95.5**		**0.49**		**0.76**		**24,100**	J
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**7,170**		**1.1**	J	**21.8**		**712**		**0.75**		**0.56**	J	**9,350**	J
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**4,000**		**0.38**	UJ	**17.8**		**186**		**0.49**	J	**0.15**	UJ	**4,630**	J
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**6,520**		**0.3**	J	**4.7**		**56.7**	J	**0.51**		**0.036**	J	**7,300**	
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**9,950**	J	**0.61**	UJ	**5.7**	J	**35.9**	J	**0.7**	J	**0.092**	J	**4,360**	J
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**8,470**		**0.3**	UJ	**5**		**217**	J	**0.56**		**0.035**	U	**1,130**	
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**4,310**		**0.32**	UJ	**9.5**		**49.1**	J	**0.38**	J	**0.042**	J	**667**	
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**3,790**		**0.08**	UJ	**1.7**		**31.9**	J	**0.42**	J	**0.049**	J	**3,630**	J
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**5,000**		**0.3**	UJ	**33**		**222**		**0.53**		**0.12**	UJ	**13,300**	J
GCMW-32	SB32ID-S-NG	S	15	20	ft	**3,440**		**8.6**	U	**22**	J	**338**		**0.72**	U	**1.4**		**6,410**	
GCMW-32	SB32IH-S-NG	S	35	40	ft	**3,290**		**7.1**	U	**3.1**	J	**31.2**		**0.59**	U	**0.59**	U	**625**	
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**4,240**		**6.3**	U	**1.1**	UJ	**47.5**		**0.29**	J	**0.53**	U	**5,630**	

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Chromium		Cobalt		Copper		Iron		Lead		Magnesium		Manganese	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**25.4**	J	**7.7**		**65.8**	J	**38,900**	J	**308**		**1,800**		**148**	J
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**15.3**		**5.6**		**55.4**		**16,000**		**88.7**	J	**2,190**		**96.8**	J
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**12.4**		**10.3**		**44.6**		**10,900**		**51.8**	J	**1,950**		**92**	J
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**8**	J	**2.9**	J	**22.6**		**7,690**		**13**	J	**1,500**		**87.4**	J
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**6.2**		**4.3**	J	**11.2**		**6,030**		**4.9**	J	**1,470**		**59.9**	J
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**6**		**3.1**	J	**11.5**		**5,760**		**5.1**	J	**1,470**	J	**53.9**	J
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**7.9**		**4.9**	J	**43**		**8,040**		**39.8**	J	**2,050**	J	**85.1**	J
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**13.6**	J	**2.4**	J	**33.4**		**37,400**		**32.6**	J	**1,330**		**47.5**	J
GCMW-30	SB30IB-S-NG	S	5	10	ft	**17.4**	J	**4.2**	U	**53.1**		**35,200**		**37.8**		**1,620**		**57.1**	
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**29.2**		**9.4**		**46.9**		**42,800**		**132**	J	**5,000**		**316**	J
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**25.7**		**8.8**		**12.6**		**33,900**		**16.4**	J	**6,400**		**333**	J
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**28.9**		**9.1**		**13.3**		**34,900**		**15.3**	J	**6,880**		**317**	J
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**10.1**		**3.2**	J	**6**		**7,910**		**4.6**	J	**1,930**		**52.9**	J
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**10.5**	J	**3.4**	J	**7**	J	**7,670**	J	**4.3**		**2,030**		**50.2**	J
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**7**	J	**2.5**	J	**5.1**	J	**6,200**	J	**2.7**		**1,820**		**45.2**	J
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**24.3**		**8.2**		**29.9**		**27,900**		**101**	J	**4,700**		**249**	J
GCMW-31	SB31IB-S-NG	S	5	10	ft	**19.6**	J	**7.3**		**28.8**		**21,900**		**107**	J	**3,740**		**226**	J
GCMW-31	SB31IG-S-NG	S	30	35	ft	**5.7**	J	**4**	U	**5.6**		**4,490**		**2.3**		**1,720**		**35**	
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**12.9**		**4.6**	J	**27.4**		**12,800**		**121**	J	**7,060**		**224**	
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**22.4**		**7.9**		**216**		**21,100**		**1,190**	J	**1,150**		**146**	
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**19.1**		**8.1**		**35.2**		**41,700**		**318**	J	**2,570**		**468**	
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**12.2**		**5.2**		**15.5**		**15,300**		**96.1**	J	**2,510**		**268**	
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**18.2**	J	**4.8**	J	**10.1**	J	**13,700**	J	**29.6**	J	**3,330**	J	**73.3**	J
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**14**		**4.4**	J	**9**		**10,500**		**14.1**	J	**3,390**		**80.8**	
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**8.8**		**4.6**	J	**5.5**		**10,100**		**4**	UJ	**1,630**		**67**	
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**9.4**	J	**3.1**	J	**12.7**	J	**8,550**	J	**9.3**		**3,500**		**111**	J
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**12.9**		**6**		**49.2**		**18,700**		**498**	J	**2,500**		**136**	
GCMW-32	SB32ID-S-NG	S	15	20	ft	**14.1**	J	**7.5**		**53**		**44,700**		**436**	J	**1,920**		**590**	J
GCMW-32	SB32IH-S-NG	S	35	40	ft	**8.1**	J	**5.9**	U	**5.2**		**5,730**		**3.2**		**1,370**		**66.3**	
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**12.5**	J	**5.8**		**19**		**11,200**		**7**	J	**5,640**		**183**	J

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Mercury		Nickel		Potassium		Selenium		Silver		Sodium	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**0.27**		**14.3**	J	**1,190**		**3.5**	J	**0.038**	UJ	**1,630**	J
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**0.19**	J	**18.2**		**993**		**0.46**	UJ	**0.037**	UJ	**458**	
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**0.21**	J	**23**		**753**		**0.57**	UJ	**0.038**	U	**207**	J
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**0.09**	J	**11.8**		**590**		**0.12**	U	**0.036**	U	**92.5**	UJ
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**0.016**	U	**13.8**		**504**		**0.12**	U	**0.036**	U	**88.1**	UJ
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**0.025**	J	**10.5**		**469**	J	**0.12**	U	**0.038**	U	**106**	UJ
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**0.016**	U	**18.3**		**614**		**0.11**	U	**0.035**	U	**152**	J
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**0.14**	J	**13.4**		**2,180**		**0.76**	UJ	**0.042**	UJ	**3,020**	
GCMW-30	SB30IB-S-NG	S	5	10	ft	**0.3**		**16.7**		**1,730**		**3.9**		**0.99**		**2,640**	
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**0.21**		**31.5**		**1,200**		**0.14**	U	**0.042**	UJ	**383**	J
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**0.11**		**20.5**		**3,200**		**0.45**	UJ	**0.069**	UJ	**4,180**	J
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**0.024**	U	**22.4**		**3,180**		**0.15**	U	**0.046**	UJ	**3,620**	J
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**0.018**	U	**8**		**787**		**0.13**	U	**0.04**	U	**743**	J
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**0.017**	U	**9.9**	J	**684**		**0.42**	UJ	**0.04**	U	**402**	J
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**0.014**	U	**8.5**	J	**504**		**0.099**	U	**0.03**	U	**140**	UJ
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**0.36**		**21.8**		**2,230**		**1.5**	UJ	**0.048**	UJ	**2,490**	J
GCMW-31	SB31IB-S-NG	S	5	10	ft	**0.48**	J	**21.3**		**1,530**		**2.9**	J	**1**	U	**2,410**	
GCMW-31	SB31IG-S-NG	S	30	35	ft	**0.049**	J	**11.2**		**240**	J	**0.43**	J	**0.83**	U	**161**	J
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**0.16**		**21.1**		**1,060**		**0.25**	UJ	**0.1**	U	**234**	UJ
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**5.5**		**19.3**		**1,240**		**1.1**	J	**0.39**	J	**391**	UJ
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**1.3**		**27.9**		**1,010**		**0.33**	UJ	**0.14**	U	**104**	UJ
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**0.19**		**17.4**		**898**		**0.25**	UJ	**0.1**	U	**91.7**	UJ
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**0.081**	J	**16.1**	J	**2,130**	J	**1.1**	UJ	**0.22**	UJ	**4,130**	J
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**0.023**	U	**18.4**		**1,360**		**0.26**	UJ	**0.11**	U	**1,030**	J
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**0.018**	U	**11.5**		**663**		**0.28**	UJ	**0.12**	U	**255**	UJ
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**0.022**	J	**11**	J	**1,010**		**0.12**	U	**0.038**	U	**138**	UJ
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**0.66**		**20.4**		**913**		**0.26**	UJ	**0.11**	U	**308**	UJ
GCMW-32	SB32ID-S-NG	S	15	20	ft	**1.1**	J	**35**		**545**	J	**2.3**	J	**1.4**	U	**720**	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	**0.12**	U	**9.6**		**496**	J	**4.2**	U	**0.093**	J	**595**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**0.084**	J	**20**		**1,230**		**0.91**	J	**1.1**	U	**217**	J

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Thallium		Vanadium		Zinc		Cyanide, Total	
GCMW-30	GC-MW30I(0.2-5)	N	0.2	5	ft	**0.59**	UJ	**19.1**		**358**		**0.61**	
GCMW-30	GC-MW30I(10-15)	N	10	15	ft	**0.041**	U	**19.5**		**145**	J	**0.55**	U
GCMW-30	GC-MW30I(15-20)	N	15	20	ft	**0.043**	U	**16.4**		**85**	J	**0.62**	U
GCMW-30	GC-MW30I(20-25)	N	20	25	ft	**0.04**	U	**13.1**		**22.9**	J	**0.55**	U
GCMW-30	GC-MW30I(25-30)	N	25	30	ft	**0.041**	U	**8.8**		**23.6**	J	**0.54**	U
GCMW-30	GC-MW30I(30-35)	N	30	35	ft	**0.043**	U	**8**		**22.2**		**0.55**	U
GCMW-30	GC-MW30I(35-36)	N	35	36	ft	**0.039**	U	**9.4**		**387**		**0.58**	U
GCMW-30	GC-MW30I(6-10)	N	6	10	ft	**0.31**	UJ	**12.5**		**68.1**	J	**0.57**	U
GCMW-30	SB30IB-S-NG	S	5	10	ft	**2.1**	U	**14.4**		**91.7**		**2.8**	U
GCMW-31	GC-MW31I(0-6)	N	0	6	ft	**0.047**	U	**23.5**		**164**		**0.58**	U
GCMW-31	GC-MW31I(10-15)	N	10	15	ft	**0.077**	U	**35.8**		**62.6**		**0.9**	U
GCMW-31	GC-MW31I(15-20)	N	15	20	ft	**0.052**	U	**32.5**		**69.3**		**0.9**	U
GCMW-31	GC-MW31I(20-26)	N	20	26	ft	**0.045**	U	**9.7**		**21.2**		**0.64**	U
GCMW-31	GC-MW31I(26-30)	N	26	30	ft	**0.13**	UJ	**15**		**24.4**		**0.59**	U
GCMW-31	GC-MW31I(30-36)	N	30	36	ft	**0.034**	UJ	**7.2**		**15.1**		**0.57**	U
GCMW-31	GC-MW31I(6-10)	N	6	10	ft	**0.054**	U	**25.8**		**95.7**		**0.77**	U
GCMW-31	SB31IB-S-NG	S	5	10	ft	**3.1**	U	**20.7**		**83.5**		**3.6**	U
GCMW-31	SB31IG-S-NG	S	30	35	ft	**2**	U	**5**		**14.3**		**2.8**	U
GCMW-32	GC-MW32I(0.5-5)	N	0.5	5	ft	**0.34**	U	**19**		**224**		--	U
GCMW-32	GC-MW32I(10-15)	N	10	15	ft	**0.47**	U	**23.3**		**665**		**1.2**	
GCMW-32	GC-MW32I(15-20)	N	15	20	ft	**0.45**	U	**19.5**		**118**		--	U
GCMW-32	GC-MW32I(20-25)	N	20	25	ft	**0.34**	U	**18.8**		**52.8**		--	
GCMW-32	GC-MW32I(25-30)	N	25	30	ft	**0.73**	UJ	**29.5**	J	**40.8**	J	**1.2**	UJ
GCMW-32	GC-MW32I(30-35)	N	30	35	ft	**0.36**	U	**18.7**		**30.7**		**0.69**	U
GCMW-32	GC-MW32I(35-40)	N	35	40	ft	**0.39**	U	**12.1**		**26.5**		**0.58**	U
GCMW-32	GC-MW32I(40-46)	N	40	46	ft	**0.043**	UJ	**12.2**		**19.6**		**0.58**	U
GCMW-32	GC-MW32I(5-10)	N	5	10	ft	**0.37**	U	**18.7**		**145**		**1.6**	
GCMW-32	SB32ID-S-NG	S	15	20	ft	**3.6**	U	**15.2**		**204**		**3.4**	U
GCMW-32	SB32IH-S-NG	S	35	40	ft	**3**	U	**9.7**		**22.1**		**2.9**	U
GCMW-32	SB32II-S-NG-R	S	40	45	ft	**2.6**	U	**17.8**		**30.8**		**3**	U

National Grid – Fulton

(MW30 & MW31 & MW32)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

National Grid – Fulton (MW30 & MW31 & MW32)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloro-1,2,2-trifluoroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dibromo-3-chloropropane	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane
MW-30	GC-MW30I(30-35)	N	Intermediate	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U
MW-30	GC-MW30S(7-16)	N	Shallow	**55** U	**55** U	**55** U	**55** U	**55** U	**55** U	**55** U	**55** U	**0.01** U	**0.01** U	**55** U	**55** U	**55** U
MW-30	GC-MW30S-S-NG	S	Shallow	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U
MW-31	GC-MW31I(30-35)	N	Intermediate	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**0.011** U	**0.011** U	**37** U	**37** U	**37** U
MW-31	GC-MW31I-S-NG	S	Intermediate	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0.011** U	**0.011** U	**1** U	**1** U	**1** U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.05** U	**0.05** U	**0.5** U	**0.5** U	**0.5** U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U
MW-32	GC-MW32I-S-NG	S	Intermediate	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U
MW-32	GC-MW-32S(12-19)	N	Shallow	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0.01** U	**0.01** U	**1** U	**1** U	**1** U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.5** U	**0.5** U	**0.057** J	**0.5** U	**0.5** U	**0.068** J	**0.5** U	**0.5** U	**0.05** U	**0.05** U	**0.5** U	**0.5** U	**0.5** U

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Location ID	Field ID	Sample Type	Depth	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene
MW-30	GC-MW30I(30-35)	N	Intermediate	**140** U	**140** U	6,900 R	**690** U	690 R	**5,200**	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U
MW-30	GC-MW30S(7-16)	N	Shallow	**55** U	**55** U	2,800 R	**280** U	280 R	**2,100**	**55** U	**55** U	**55** U	**55** UJ	**55** U	**55** U	**55** U
MW-30	GC-MW30S-S-NG	S	Shallow	**6.5** U	**6.5** U	--	**65** U	**65** U	**2,100** J	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U
MW-31	GC-MW31I(30-35)	N	Intermediate	**37** U	**37** U	1,800 R	**180** U	180 R	**190**	**37** U	**37** U	**37** U	**37** UJ	**37** U	**37** U	**37** U
MW-31	GC-MW31I-S-NG	S	Intermediate	**4.3** U	**4.3** U	--	**43** U	**43** U	**180** J	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**1** U	**1** U	50 R	**5** U	5 R	**1** U	**1** U	**1** U	**1** U	**1** UJ	**1** U	**1** U	**1** U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.098** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**160** U	**160** U	8,200 R	**820** U	820 R	**160** U	**160** U	**160** U	**160** U	**160** UJ	**160** U	**160** U	**160** U
MW-32	GC-MW32I-S-NG	S	Intermediate	**18** U	**18** U	--	**180** U	**180** U	**4.1** J	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U	**18** U
MW-32	GC-MW-32S(12-19)	N	Shallow	**1** U	**1** U	50 R	**5** U	5 R	**1** U	**1** U	**1** U	**1** U	**1** UJ	**1** U	**1** U	**1** U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.5** U	**0.5** U	--	**0.4** J	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U

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Location ID	Field ID	Sample Type	Depth	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)
MW-30	GC-MW30I(30-35)	N	Intermediate	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**140** U	**240**	**82** J	**47** J	140 R	690 R
MW-30	GC-MW30S(7-16)	N	Shallow	**55** U	**55** U	**55** U	**55** U	**55** U	**55** U	**55** U	**55** U	**320**	**68**	**31** J	55 R	280 R
MW-30	GC-MW30S-S-NG	S	Shallow	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**6.5** U	**1.2** J	**6.5** U	**6.5** U	**270** J	**53**	**22**	**6.5** U	**65** U
MW-31	GC-MW31I(30-35)	N	Intermediate	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**1,400**	**68**	**160**	37 R	180 R
MW-31	GC-MW31I-S-NG	S	Intermediate	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U	**1,400** J	**63**	**160**	**4.3** U	**9.9** J
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**1** U	**0.29** J	**1** U	**1** U	**1** U	**1** U	**1** U	**0.26** J	**1** U	**1** U	**1** U	1 R	5 R
MW-31	GC-MW31S-S-NG	S	Shallow	**0.5** U	**0.2** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.25** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**160** U	**6,300**	**170**	**3,900**	160 R	820 R
MW-32	GC-MW32I-S-NG	S	Intermediate	**18** U	**18** U	**18** U	**18** U	**18** U	**3.5** J	**18** U	**18** U	**6,200** J	**160**	**3,700** J	**18** U	**180** U
MW-32	GC-MW-32S(12-19)	N	Shallow	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	1 R	5 R
MW-32	GC-MW32S-S-NG	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.042** J	**0.5** U	**5** U

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Location ID	Field ID	Sample Type	Depth	Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-30	GC-MW30I(30-35)	N	Intermediate	**690**	U	**140**	U	**140**	U	**68**	J	**140**	U	**190**		**140**	U	**140**	U	**140**	U	**140**	U	**140**	U	**140**	U	**140**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**280**	U	**55**	U	**55**	U	**37**	J	**55**	U	**46**	J	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U
MW-30	GC-MW30S-S-NG	S	Shallow	**65**	U	**6.5**	U	**6.5**	U	**31**		**6.5**	U	**34**		**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U
MW-31	GC-MW31I(30-35)	N	Intermediate	**180**	U	**37**	U	**37**	U	**460**		**37**	U	**26**	J	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**8.7**	J	**37**	U
MW-31	GC-MW31I-S-NG	S	Intermediate	**43**	U	**4.3**	U	**4.3**	U	**430**	J	**4.3**	U	**24**		**4.3**	U	**5**		**4.3**	U	**4.3**	U	**4.3**	U	**8.4**		**4.3**	U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**5**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0.27**	J	**3.3**	J	**1**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**5**	U	**0.5**	U	**0.5**	U	**0.06**	J	**0.5**	U	**0.21**	J	**0.14**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.19**	J	**2.9**		**0.5**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**820**	U	**160**	U	**160**	U	**2,000**		**160**	U	**110**	J	**160**	U	**490**		**160**	U	**160**	U	**160**	U	**160**	U	**160**	U
MW-32	GC-MW32I-S-NG	S	Intermediate	**180**	U	**18**	U	**18**	U	**1,800**	J	**18**	U	**85**		**18**	U	**540**		**18**	U	**18**	U	**18**	U	**18**	U	**18**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**5**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U
MW-32	GC-MW32S-S-NG	S	Shallow	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

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Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,4-dinitrotoluene	2,6-dinitrotoluene	2-chloronaphthalene	2-chlorophenol	2-methylnaphthalene
MW-30	GC-MW30I(30-35)	N	Intermediate	630 U	630 U	1,600 U	630 U	630 U	630 U	1,600 UJ	630 U	630 U	630 U	630 U	310
MW-30	GC-MW30S(7-16)	N	Shallow	240 U	240 U	590 U	240 U	240 U	240 U	590 U	240 U	240 U	240 U	240 U	7.1
MW-30	GC-MW30S-S-NG	S	Shallow	95 U	95 U	95 U	95 U	95 U	95 U	190 U	95 U	95 U	95 U	95 U	9.5 U
MW-31	GC-MW31I(30-35)	N	Intermediate	1,200 U	1,200 U	3,000 U	1,200 U	1,200 U	1,200 U	3,000 U	1,200 U	1,200 U	1,200 U	1,200 U	970 J
MW-31	GC-MW31I-S-NG	S	Intermediate	480 U	480 U	480 U	480 U	480 U	480 U	960 U	480 U	480 U	480 U	480 U	1,100
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	9.6 U	9.6 U	24 U	9.6 U	9.6 U	9.6 U	24 U	9.6 U	9.6 U	9.6 U	9.6 U	0.062 UJ
MW-31	GC-MW31S-S-NG	S	Shallow	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	9.8 U	4.9 U	4.9 U	4.9 U	4.9 U	0.32 U
MW-32	GC-MW-32I(40-45)	N	Intermediate	2,100 U	2,100 U	5,200 U	2,100 U	2,100 U	2,100 U	5,200 U	2,100 U	2,100 U	2,100 U	2,100 U	1,400
MW-32	GC-MW32I-S-NG	S	Intermediate	99 U	99 U	99 U	99 U	99 U	99 U	200 U	99 U	99 U	99 U	99 U	1,300
MW-32	GC-MW-32S(12-19)	N	Shallow	9.6 U	9.6 U	24 U	9.6 U	9.6 U	9.6 U	24 U	9.6 U	9.6 U	9.6 U	9.6 U	0.035
MW-32	GC-MW32S-S-NG	S	Shallow	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	9.5 U	4.7 U	4.7 U	4.7 U	4.7 U	0.13 U

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Location ID	Field ID	Sample Type	Depth	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)
MW-30	GC-MW30I(30-35)	N	Intermediate	**630** U	**1,600** U	**630** U	**630** U	**1,600** U	**1,600** U	**630** U	**630** U	**630** U	**630** U	**630** U
MW-30	GC-MW30S(7-16)	N	Shallow	**240** U	**590** U	**240** U	**240** U	**590** U	**590** U	**240** U	**240** U	**240** U	**240** U	**240** U
MW-30	GC-MW30S-S-NG	S	Shallow	**95** U	**190** U	**95** U	**95** U	**190** U	**190** U	**95** U	**95** U	**95** U	**95** U	**95** U
MW-31	GC-MW31I(30-35)	N	Intermediate	**1,200** U	**3,000** U	**1,200** U	**1,200** U	**3,000** U	**3,000** U	**1,200** U	**1,200** U	**1,200** U	**1,200** U	**1,200** U
MW-31	GC-MW31I-S-NG	S	Intermediate	**480** U	**960** U	**480** U	**480** U	**960** U	**960** U	**480** U	**480** U	**480** U	**480** U	**480** U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**9.6** U	**24** U	**9.6** U	**9.6** U	**24** U	**24** U	**9.6** U	**9.6** U	**9.6** U	**9.6** U	**9.6** U
MW-31	GC-MW31S-S-NG	S	Shallow	**4.9** U	**9.8** U	**4.9** U	**4.9** U	**9.8** U	**9.8** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**2,100** U	**5,200** U	**2,100** U	**2,100** U	**5,200** U	**5,200** U	**2,100** U	**2,100** U	**2,100** U	**2,100** U	**2,100** U
MW-32	GC-MW32I-S-NG	S	Intermediate	**99** U	**200** U	**99** U	**99** U	**200** U	**200** U	**99** U	**99** U	**99** U	**99** U	**99** U
MW-32	GC-MW-32S(12-19)	N	Shallow	**9.6** U	**24** U	**9.6** U	**9.6** U	**24** U	**24** U	**9.6** U	**9.6** U	**9.6** U	**9.6** U	**9.6** U
MW-32	GC-MW32S-S-NG	S	Shallow	**4.7** U	**9.5** U	**4.7** U	**4.7** U	**9.5** U	**9.5** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U

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Location ID	Field ID	Sample Type	Depth	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
MW-30	GC-MW30I(30-35)	N	Intermediate	**1,600** U	--	**180**	**4.2** J	**630** U	**5** J	**630** U	**630** U	**7.6** U	**7.6** U	**7.6** U
MW-30	GC-MW30S(7-16)	N	Shallow	**590** U	--	**550**	**3.2**	**240** U	**20**	**240** U	**240** U	**3.1** U	**3.1** U	**3.1** U
MW-30	GC-MW30S-S-NG	S	Shallow	**190** U	**190** U	**490**	**9.5** U	**95** U	**21** J	**95** U	**95** U	**9.5** U	**9.5** U	**9.5** U
MW-31	GC-MW31I(30-35)	N	Intermediate	**3,000** U	--	**370**	**13** U	**1,200** U	**23**	**1,200** U	**1,200** U	**13** U	**13** U	**13** U
MW-31	GC-MW31I-S-NG	S	Intermediate	**960** U	**960** U	**350** J	**48** U	**480** U	**19** J	**480** U	**480** U	**48** U	**48** U	**48** U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**24** U	--	**0.3** J	**9.6** U	**9.6** U	**0.057** J	**9.6** U	**9.6** U	**9.6** U	**9.6** U	**9.6** U
MW-31	GC-MW31S-S-NG	S	Shallow	**9.8** U	**9.8** U	**0.95** J	**0.32** U	**4.9** U	**0.066** J	**4.9** U	**4.9** U	**0.32** U	**0.32** U	**0.32** U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**5,200** U	--	**190**	**170**	**2,100** U	**29** U	**2,100** U	**2,100** U	**29** U	**29** U	**29** U
MW-32	GC-MW32I-S-NG	S	Intermediate	**200** U	**200** U	**180**	**180**	**99** U	**23** J	**99** U	**99** U	**99** U	**99** U	**99** U
MW-32	GC-MW-32S(12-19)	N	Shallow	**24** U	--	**1.1** J	**0.045**	**9.6** U	**0.49**	**9.6** U	**9.6** U	**0.27**	**0.19**	**0.13**
MW-32	GC-MW32S-S-NG	S	Shallow	**9.5** U	**9.5** U	**1** J	**0.05** J	**4.7** U	**0.18**	**4.7** U	**4.7** U	**0.097** J	**0.15**	**0.043** J

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Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
MW-30	GC-MW30I(30-35)	N	Intermediate	**7.6**	U	**7.6**	U	**630**	U	**19**		**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**7.6**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**3.1**	U	**3.1**	U	**240**	U	**48**		**240**	U	**240**	U	**240**	UJ	**240**	U	**240**	U	**240**	U	**3.1**	U
MW-30	GC-MW30S-S-NG	S	Shallow	**9.5**	U	**9.5**	U	**95**	U	**43**	J	**95**	U	**95**	U	**95**	U	**95**	U	**95**	U	**95**	U	**9.5**	U
MW-31	GC-MW31I(30-35)	N	Intermediate	**13**	U	**13**	U	**1,200**	U	**80**		**1,200**	U	**1,200**	U	**1,200**	UJ	**1,200**	U	**1,200**	U	**1,200**	U	**13**	U
MW-31	GC-MW31I-S-NG	S	Intermediate	**48**	U	**48**	U	**480**	U	**88**	J	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**48**	U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**9.6**	UJ	**9.6**	U	**9.6**	U	**0.012**	J	**9.6**	U	**9.6**	U	**9.6**	UJ	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.32**	U	**0.32**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**0.32**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**29**	U	**29**	U	**2,100**	U	**63**		**2,100**	U	**2,100**	U	**2,100**	UJ	**2,100**	U	**2,100**	U	**2,100**	U	**29**	U
MW-32	GC-MW32I-S-NG	S	Intermediate	**99**	U	**99**	U	**99**	U	**62**	J	**99**	U	**99**	U	**99**	U	**99**	U	**99**	U	**38**	J	**99**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.095**		**0.2**		**9.6**	U	**0.02**		**9.6**	U	**9.6**	U	**9.6**	UJ	**9.6**	U	**9.6**	U	**9.6**	U	**0.29**	
MW-32	GC-MW32S-S-NG	S	Shallow	**0.13**	U	**0.042**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**0.086**	J

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
MW-30	GC-MW30I(30-35)	N	Intermediate	7.6 U	630 U	630 U	630 U	630 U	630 U	7.6 U	31	630 U	630 U	630 U	630 U
MW-30	GC-MW30S(7-16)	N	Shallow	3.1 U	240 U	240 U	240 U	240 U	240 U	12	41	240 U	240 U	240 U	240 U
MW-30	GC-MW30S-S-NG	S	Shallow	9.5 U	95 U	95 U	95 U	95 U	95 U	12 J	36 J	95 U	95 U	95 U	95 U
MW-31	GC-MW31I(30-35)	N	Intermediate	13 U	1,200 U	1,200 U	1,200 U	1,200 U	1,200 U	8.8 J	79	1,200 U	1,200 U	1,200 U	1,200 U
MW-31	GC-MW31I-S-NG	S	Intermediate	48 U	480 U	480 U	480 U	480 U	480 U	48 U	95 J	480 U	480 U	480 U	480 U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	0.06 J	0.092 J	9.6 U	9.6 U	9.6 U	9.6 U
MW-31	GC-MW31S-S-NG	S	Shallow	0.32 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U	0.16 J	0.32 U	4.9 U	4.9 U	4.9 U	4.9 U
MW-32	GC-MW-32I(40-45)	N	Intermediate	29 U	2,100 U	2,100 U	2,100 U	2,100 U	2,100 U	29 U	55	2,100 U	2,100 U	2,100 U	2,100 U
MW-32	GC-MW32I-S-NG	S	Intermediate	99 U	10 J	99 U	99 U	99 U	99 U	13 J	99 J	99 U	99 U	99 U	99 U
MW-32	GC-MW-32S(12-19)	N	Shallow	0.043	9.6 U	9.6 U	9.6 U	9.6 U	9.6 U	0.91 J	0.89	9.6 U	9.6 U	9.6 U	9.6 U
MW-32	GC-MW32S-S-NG	S	Shallow	0.13 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	0.73 J	0.74	4.7 U	4.7 U	4.7 U	4.7 U

National Grid – Fulton (MW30 & MW31 & MW32)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-30	GC-MW30I(30-35)	N	Intermediate	**7.6** U	**630** U	**3,700**	**630** U	**630** U	**630** U	--	**28**	**630** U	**4.3** J	--
MW-30	GC-MW30S(7-16)	N	Shallow	**3.1** U	**240** U	**1,400**	**240** U	**240** U	**240** U	--	**94**	**240** U	**15**	**2,142**
MW-30	GC-MW30S-S-NG	S	Shallow	**9.5** U	**95** U	**1,100**	**95** U	**95** U	**95** U	19 UR	**85** J	**95** U	**17** J	**1,761**
MW-31	GC-MW31I(30-35)	N	Intermediate	**13** U	**1,200** U	**6,000**	**1,200** U	**1,200** U	**1,200** U	--	**120**	**1,200** U	**9.4** J	**7,580**
MW-31	GC-MW31I-S-NG	S	Intermediate	**48** U	**480** U	**6,600**	**480** U	**480** U	**480** U	96 UR	**120** J	**480** U	**48** U	**8,284**
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**9.6** U	**9.6** U	**0.36** UJ	**9.6** U	**9.6** U	**9.6** U	--	**0.28** J	**9.6** U	**0.025** J	**0.814**
MW-31	GC-MW31S-S-NG	S	Shallow	**0.32** U	**4.9** U	**1.8** J	**4.9** U	**4.9** U	**4.9** U	0.64 UR	**0.32** U	**4.9** U	**0.32** U	**2.976**
MW-32	GC-MW-32I(40-45)	N	Intermediate	**29** U	**2,100** U	**14,000**	**2,100** U	**2,100** U	**2,100** U	--	**78**	**2,100** U	**29** U	**15,893**
MW-32	GC-MW32I-S-NG	S	Intermediate	**99** U	**99** U	**12,000**	**99** U	**99** U	**99** U	**200** U	**99** J	**99** U	**18** J	**13,912**
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.1**	**9.6** U	**0.19**	**9.6** U	**9.6** U	**9.6** U	--	**0.89**	**9.6** U	**0.82**	**6.688**
MW-32	GC-MW32S-S-NG	S	Shallow	**0.13** U	**4.7** U	**0.21**	**4.7** U	**4.7** U	**4.7** U	0.27 UR	**0.29**	**4.7** U	**0.62** J	**4.238**

National Grid – Fulton (MW30 & MW31 & MW32)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan	
MW-30	GC-MW30I(30-35)	N	Intermediate	**0.051**	U	**0.051**	U	**0.051**	U	**0.051**	U	**0.051**	U	**0.1**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.095**	UJ
MW-30	GC-MW30S-S-NG	S	Shallow	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.098**	J	**0.094**	UJ
MW-31	GC-MW31I(30-35)	N	Intermediate	**0.047**	UJ	**0.047**	UJ	**0.11**	J	**0.047**	UJ	**0.084**	J	**0.094**	UJ
MW-31	GC-MW31I-S-NG	S	Intermediate	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.1**	U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.096**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.096**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ
MW-32	GC-MW32I-S-NG	S	Intermediate	**0.047**	U	**0.047**	U	**0.047**	U	**0.047**	U	**0.047**	U	**0.095**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.1**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde		Endrin ketone	
MW-30	GC-MW30I(30-35)	N	Intermediate	**0.051**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**0.047**	UJ	**0.095**	UJ	**0.095**	UJ	**0.095**	UJ	**0.095**	UJ	**0.095**	UJ
MW-30	GC-MW30S-S-NG	S	Shallow	**0.047**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ
MW-31	GC-MW31I(30-35)	N	Intermediate	**0.047**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ
MW-31	GC-MW31I-S-NG	S	Intermediate	**0.052**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**0.048**	U	**0.096**	U	**0.096**	U	**0.096**	U	**0.096**	U	**0.096**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.048**	U	**0.096**	U	**0.096**	U	**0.096**	U	**0.096**	U	**0.096**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-32	GC-MW32I-S-NG	S	Intermediate	**0.047**	U	**0.095**	U	**0.095**	U	**0.095**	U	**0.095**	U	**0.095**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.052**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD	
MW-30	GC-MW30I(30-35)	N	Intermediate	**0.051**	U	**0.051**	U	**0.051**	U	**0.051**	U	**0.51**	U	**0.1**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.47**	UJ	**0.095**	UJ
MW-30	GC-MW30S-S-NG	S	Shallow	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.47**	UJ	**0.094**	UJ
MW-31	GC-MW31I(30-35)	N	Intermediate	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.47**	UJ	**0.094**	UJ
MW-31	GC-MW31I-S-NG	S	Intermediate	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.52**	U	**0.1**	U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.48**	U	**0.096**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.48**	U	**0.096**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ
MW-32	GC-MW32I-S-NG	S	Intermediate	**0.047**	U	**0.047**	U	**0.047**	U	**0.047**	U	**0.47**	U	**0.095**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.52**	U	**0.1**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-30	GC-MW30I(30-35)	N	Intermediate	**0.1**	U	**0.1**	U	**5.1**	U	**0**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**0.095**	UJ	**0.095**	UJ	**4.7**	UJ	**0**	U
MW-30	GC-MW30S-S-NG	S	Shallow	**0.094**	UJ	**0.094**	UJ	**4.7**	UJ	**0**	U
MW-31	GC-MW31I(30-35)	N	Intermediate	**0.094**	UJ	**0.094**	UJ	**4.7**	UJ	**0**	U
MW-31	GC-MW31I-S-NG	S	Intermediate	**0.1**	U	**0.1**	U	**5.2**	U	**0**	U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**0.096**	U	**0.096**	U	**4.8**	U	**0**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.096**	U	**0.096**	U	**4.8**	U	**0**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-32	GC-MW32I-S-NG	S	Intermediate	**0.095**	U	**0.095**	U	**4.7**	U	**0**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.1**	U	**0.1**	U	**5.2**	U	**0**	U

National Grid – Fulton (MW30 & MW31 & MW32)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-30	GC-MW30I(30-35)	N	Intermediate	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**0.47**	U	**0.47**	U	**0.47**	U	**0.47**	U	**0.47**	U	**0.47**	U	**0.47**	U	**0.47**	U	**0.47**	U	**0**	U
MW-30	GC-MW30S-S-NG	S	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-31	GC-MW31I(30-35)	N	Intermediate	**0.47**	UJ	**0.47**	UJ	**0.47**	UJ	**0.47**	UJ	**0.47**	UJ	**0.47**	UJ	**0.47**	UJ	**0.47**	UJ	**0.47**	UJ	**0**	U
MW-31	GC-MW31I-S-NG	S	Intermediate	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**1**	UJ	**0**	U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**0.48**	U	**0.48**	U	**0.48**	U	**0.48**	U	**0.48**	U	**0.48**	U	**0.48**	U	**0.48**	U	**0.48**	U	**0**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0**	U
MW-32	GC-MW32I-S-NG	S	Intermediate	**0.95**	UJ	**0.95**	UJ	**0.95**	UJ	**0.95**	UJ	**0.95**	UJ	**0.95**	UJ	**0.95**	UJ	**0.95**	UJ	**0.95**	UJ	**0**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0**	U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Cadmium	Cadmium, dissolved
MW-30	GC-MW30I(30-35)	N	Intermediate	**58.4** UJ	**4.1** U	**0.74** UJ	**0.64** UJ	**0.019** UJ	**0.019** UJ	**458**	**451**	**0.11** UJ	**0.12** UJ	**0.14** UJ	**0.11** UJ
MW-30	GC-MW30S(7-16)	N	Shallow	**2,250**	**6.1** UJ	**0.93** UJ	**0.68** UJ	**3.5** J	**0.019** UJ	**116**	**95.5** J	**0.3** UJ	**0.13** UJ	**0.18** UJ	**0.066** UJ
MW-30	GC-MW30S-S-NG	S	Shallow	**1,430**	**200** U	**2** U	**2** U	**4.4** J	**0.86** J	**115** J	**92.1**	**1** U	**1** U	**1** U	**1** U
MW-31	GC-MW31I(30-35)	N	Intermediate	**104** J	**20.3** UJ	**1.3** UJ	**1.3** UJ	**0.97** J	**0.43** UJ	**62.2** J	**63.8** J	**0.14** UJ	**0.13** UJ	**0.024** UJ	**0.064** UJ
MW-31	GC-MW31I-S-NG	S	Intermediate	**71.6** J	**8.8** J	**2** U	**2** U	**4.2** J	**1.6**	**61.3**	**59.2** J	**1** U	**1** U	**1** U	**1** U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**243**	**10** UJ	**0.91** UJ	**0.79** UJ	**1.5** J	**1.4** J	**199**	**184** J	**0.16** UJ	**0.15** UJ	**0.013** U	**0.013** U
MW-31	GC-MW31S-S-NG	S	Shallow	**57.5** J	**15.9** J	**8** U	**8** U	**24.1**	**13.4**	**165** J	**176** J	**0.34** J	**4** U	**4** U	**4** U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**1,010**	**4.1** U	**0.96** UJ	**1** UJ	**2.7** J	**2.8** J	**410**	**394**	**0.16** UJ	**0.1** UJ	**0.19** UJ	**0.17** UJ
MW-32	GC-MW32I-S-NG	S	Intermediate	**382**	**59.4** J	**2** U	**2** U	**5.8** J	**7.6** J	**415**	**404**	**1** U	**1** U	**1** U	**1** U
MW-32	GC-MW-32S(12-19)	N	Shallow	**71.4** UJ	**5.4** UJ	**0.63** UJ	**0.62** UJ	**0.019** UJ	**0.019** UJ	**456**	**453**	**0.097** UJ	**0.093** UJ	**0.17** UJ	**0.17** UJ
MW-32	GC-MW32S-S-NG	S	Shallow	**444**	**200** U	**2** U	**2** U	**5** J	**1** U	**532**	**478**	**1** U	**1** U	**1** U	**1** U

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead	Lead, dissolved
MW-30	GC-MW30I(30-35)	N	Intermediate	**74,600**	**72,900**	**4.2** U	**3.6** UJ	**0.075** UJ	**0.0055** UJ	**2.5** UJ	**1.6** UJ	**4,000**	**3,750** J	**0.96** J	**0.26** UJ
MW-30	GC-MW30S(7-16)	N	Shallow	**124,000**	**120,000**	**8.9** UJ	**2.7** UJ	**3.1** J	**0.99** UJ	**24.7** UJ	**1.6** UJ	**4,810** UJ	**72.9** J	**26.7** J	**0.12** UJ
MW-30	GC-MW30S-S-NG	S	Shallow	**111,000**	**108,000**	**6.9** J	**0.62** J	**1.6**	**1** U	**19.6** J	**2** U	**3,480** J	**96.2** J	**24.8**	**3.2** J
MW-31	GC-MW31I(30-35)	N	Intermediate	**119,000**	**119,000**	**3.8** UJ	**3.3** UJ	**1.1** UJ	**0.98** UJ	**3.4** UJ	**1.7** UJ	**2,740** J	**2,480** J	**1.3** J	**0.17** UJ
MW-31	GC-MW31I-S-NG	S	Intermediate	**103,000**	**99,800**	**2.1**	**1.6** J	**1** U	**1** U	**2** U	**2** U	**2,250** J	**2,100**	**3.8** J	**1** U
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**292,000**	**275,000**	**3** UJ	**3.1** UJ	**1.3** UJ	**1.3** UJ	**4.1** UJ	**4.8** UJ	**632** J	**508** J	**0.84** J	**0.42** UJ
MW-31	GC-MW31S-S-NG	S	Shallow	**248,000**	**256,000**	**0.81** J	**0.75** J	**4** U	**4** U	**8** U	**8** U	**463** J	**507**	**2.6** J	**4** U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**103,000**	**103,000**	**8.2** U	**4.6** U	**0.9** UJ	**0.19** UJ	**4.7** UJ	**4.8** UJ	**4,130** J	**2,360** J	**4.6** J	**0.23** UJ
MW-32	GC-MW32I-S-NG	S	Intermediate	**95,500**	**95,600**	**3.7** J	**1.3** J	**1** U	**1** U	**3**	**2** U	**3,130** J	**2,330**	**4.5** J	**2.6** J
MW-32	GC-MW-32S(12-19)	N	Shallow	**124,000**	**122,000**	**4.5** U	**4.2** U	**0.0055** UJ	**0.0055** UJ	**8.4** UJ	**1.6** UJ	**9,810** J	**9,610** J	**10** J	**0.39** UJ
MW-32	GC-MW32S-S-NG	S	Shallow	**114,000**	**116,000**	**2.8** J	**0.67** J	**1** U	**1** U	**5.7**	**2** U	**10,000** J	**8,930**	**57.6**	**4.3** J

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium		Potassium, dissolved		Selenium		Selenium, dissolved	
MW-30	GC-MW30I(30-35)	N	Intermediate	**51,300**	**50,100**	**1,800**	**1,760**	**0.1**	U	**0.1**	U	**0.0082**	U	**0.0082**	U	**12,400**		**12,000**		**2**	UJ	**1.7**	UJ
MW-30	GC-MW30S(7-16)	N	Shallow	**69,200**	**66,200**	**717**	**652**	**0.14**	J	**0.1**	U	**5.1**	J	**0.0082**	UJ	**9,480**		**8,820**		**1.3**	UJ	**1.3**	UJ
MW-30	GC-MW30S-S-NG	S	Shallow	**62,500**	**61,000**	**678**	**643**	**0.2**	U	**0.2**	U	**7.2**		**1.6**		**8,290**		**8,000**		2.4	R	2.5	R
MW-31	GC-MW31I(30-35)	N	Intermediate	**24,700**	**25,200**	**401**	**409**	**0.1**	U	**0.1**	U	**2.4**	J	**1.9**	J	**31,700**		**31,800**		**1.8**	UJ	**1.4**	UJ
MW-31	GC-MW31I-S-NG	S	Intermediate	**21,200**	**21,100**	**381**	**378**	**0.2**	U	**0.2**	U	**5.5**		**5**		**27,900**		**27,300**		**5**	J	1.3	R
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**599,000**	**562,000**	**1,200**	**1,000**	**0.1**	U	**0.1**	U	**0.0082**	UJ	**0.0082**	UJ	**198,000**		**186,000**		**8.1**	J	**7.1**	J
MW-31	GC-MW31S-S-NG	S	Shallow	**532,000**	**552,000**	**916**	**1,010**	**0.2**	U	**0.2**	U	**4.3**		**4.5**		**179,000**		**183,000**		102	R	61.2	R
MW-32	GC-MW-32I(40-45)	N	Intermediate	**63,500**	**63,200**	**1,240**	**1,210**	**0.1**	U	**0.1**	U	**5.8**	J	**0.0082**	U	**17,200**		**17,000**		**1.9**	UJ	**2**	UJ
MW-32	GC-MW32I-S-NG	S	Intermediate	**59,400**	**59,800**	**1,200**	**1,190**	**0.2**	U	**0.2**	U	**7.2**		**3.5**		**15,300**		**15,500**		0.93	R	1	R
MW-32	GC-MW-32S(12-19)	N	Shallow	**8,370**	**8,220**	**600**	**585**	**0.1**	U	**0.1**	U	**0.0082**	U	**0.0082**	U	**5,190**		**5,180**		**1.5**	UJ	**1.8**	UJ
MW-32	GC-MW32S-S-NG	S	Shallow	**7,790**	**7,640**	**622**	**604**	**0.2**	U	**0.2**	U	**3.1**		**1.3**		**4,850**	J	**4,740**	J	0.3	R	**5**	U

National Grid – Fulton (MW30 & MW31 & MW32)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Silver		Silver, dissolved		Sodium	Sodium, dissolved	Thallium		Thallium, dissolved		Vanadium		Vanadium, dissolved		Zinc		Zinc, dissolved		Cyanide, Total	
MW-30	GC-MW30I(30-35)	N	Intermediate	**0.22**	UJ	**0.21**	UJ	**248,000**	**243,000**	**0.27**	UJ	**0.21**	UJ	**0.3**	UJ	**0.3**	UJ	**1**	UJ	**0.78**	UJ	**10**	U
MW-30	GC-MW30S(7-16)	N	Shallow	**0.12**	UJ	**0.059**	UJ	**173,000**	**167,000**	**0.2**	UJ	**0.13**	UJ	**7.1**	J	**0.75**	UJ	**27.9**		**0.12**	UJ	**10**	U
MW-30	GC-MW30S-S-NG	S	Shallow	**0.38**	UJ	**0.48**	UJ	**146,000**	**144,000**	**1**	U	**1**	U	**4.6**	J	**1.2**	UJ	**56.4**		**28.3**	J	**10**	U
MW-31	GC-MW31I(30-35)	N	Intermediate	**0.063**	UJ	**0.067**	UJ	**120,000**	**122,000**	**0.12**	UJ	**0.11**	UJ	**1.4**	UJ	**1.8**	UJ	**5.3**	UJ	**0.94**	UJ	**11.3**	
MW-31	GC-MW31I-S-NG	S	Intermediate	**1**	U	**0.34**	UJ	**101,000**	**100,000**	**1**	U	**1**	U	**2.1**	UJ	**1.6**	UJ	**36.9**		**30.8**		**7.4**	J
MW-31	GC-MW31S(6.75-14.6)	N	Shallow	**0.063**	UJ	**0.066**	UJ	**4,900,000**	**4,580,000**	**0.11**	UJ	**0.16**	UJ	**0.3**	U	**0.3**	U	**0.018**	UJ	**0.018**	UJ	**10**	U
MW-31	GC-MW31S-S-NG	S	Shallow	**4**	U	**0.44**	J	**4,340,000**	**4,540,000**	**4**	U	**4**	U	**2.3**	UJ	**2.4**	UJ	**56.6**	J	**54.5**		**10**	U
MW-32	GC-MW-32I(40-45)	N	Intermediate	**0.22**	UJ	**0.21**	UJ	**96,600**	**97,400**	**0.21**	UJ	**0.2**		**2.1**	J	**0.3**	UJ	**5.3**	UJ	**0.18**	UJ	**10**	U
MW-32	GC-MW32I-S-NG	S	Intermediate	**1**	U	**1**	U	**91,200**	**92,000**	**1**	U	**1**	U	**2.3**	UJ	**0.95**	UJ	**34.2**		**23.4**		**10**	U
MW-32	GC-MW-32S(12-19)	N	Shallow	**0.21**	UJ	**0.21**	UJ	**7,690**	**7,600**	**0.2**	UJ	**0.2**	UJ	**0.3**	UJ	**0.3**	UJ	**7.9**	J	**1.5**	UJ	**10**	U
MW-32	GC-MW32S-S-NG	S	Shallow	**0.42**	UJ	**1**	U	**7,730**	**7,760**	**1**	U	**1**	U	**2**	UJ	**0.84**	UJ	**72.3**		**33.1**		**7.3**	J

495 & 510 Sackett St.

(MW3 & MW34)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 495 & 510 Sackett St.
Monitoring Well Soil Borings Installed at Address: GC-MW-3I & GC-MW-34I
Intermediate Monitoring Wells Installed at Address: GC-MW-3I & GC-MW-34I
Shallow Monitoring Wells Installed at Address: GC-MW-3S & GC-MW-34S

GC-MW-3

The soil samples from the soil boring installed for the intermediate well (situated approximately 14 feet from the canal) contained 39 VOCs, 136 SVOCs, 16 pesticides, 0 PCBs, and 113 metals. From these, 9 VOCs, 18 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (160,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (1,300,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately16 ft bgs and situated approximately 14 feet from the canal) contained 5 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 10 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was benzo(a)pyrene (0.42 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was selenium (51.2 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately43 ft bgs and situated approximately 14 feet from the canal) contained 7 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 1 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was vinyl chloride (5.9 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (2,070 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-34

The soil samples from the soil boring installed for the intermediate well (situated approximately 27 feet from the canal) contained 21 VOCs, 116 SVOCs, 18 pesticides, 0 PCBs, and 95 metals. From these, 6 VOCs, 20 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (26,000 µg/kg). The SVOC occurring at the highest concentration above screening value was acenaphthene (140,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 27 feet from the canal) contained 8 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was biphenyl (5.7 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (2,750 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately34 ft bgs and situated approximately 27 feet from the canal) contained 9 VOCs, 10 SVOCs, 0 pesticides, 0 PCBs, and 12 metals. From these, 1 VOC, 1 SVOC, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was

vinyl chloride (4.1 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (41 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (1,140 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene	
GCMW-03	059-2072	N	10	15	ft	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-03	059-2073	N	15	20	ft	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U
GCMW-03	059-2074	N	22	22.5	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**7,300**	J	**7,000**	J	**29,000**	U	**29,000**	U	**2,700**	J
GCMW-03	059-2075	N	24.5	25	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-03	059-2076	N	25	30	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-03	059-2077	N	30	35	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-03	059-2078	N	35	40	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-04	059-2099	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-04	059-2100	N	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-04	059-2101	N	15	20	ft	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-04	059-2102	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-04	059-2103	N	25	30	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-04	059-2104	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-34	059-2018	N	5	10	ft	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U
GCMW-34	059-2019	N	10	15	ft	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U
GCMW-34	059-2020	N	15	20	ft	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U
GCMW-34	059-2021	N	20	25	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-34	059-2022	N	25	30	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-34	059-2023	N	30	35	ft	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide	
GCMW-03	059-2072	N	10	15	ft	**11**	U	**11**	U	**11**	U	**11**	U	220	UR	**22**	U	**40**		**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**24**	
GCMW-03	059-2073	N	15	20	ft	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	30,000	UR	**3,000**	U	**3,000**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U	**1,500**	U
GCMW-03	059-2074	N	22	22.5	ft	**29,000**	U	**29,000**	U	**3,100**	J	**2,100**	J	590,000	UR	**59,000**	U	**59,000**	U	**8,300**	J	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U
GCMW-03	059-2075	N	24.5	25	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	110	UR	**11**	U	**11**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**1**	J
GCMW-03	059-2076	N	25	30	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	120	UR	**12**	U	**12**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**1.1**	J
GCMW-03	059-2077	N	30	35	ft	**5.4**	U	**5.4**	U	**5.4**	U	**0.76**	J	110	UR	**11**	U	**11**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**4.7**	J
GCMW-03	059-2078	N	35	40	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	110	UR	**11**	U	**11**	U	**1.3**	J	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**1.5**	J
GCMW-04	059-2099	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	95	UR	**9.5**	U	**31**		**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-04	059-2100	N	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	200	UR	**20**	U	**35**		**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**23**	
GCMW-04	059-2101	N	15	20	ft	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	87	UR	**8.7**	U	**7.5**	J	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**1.9**	J
GCMW-04	059-2102	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**6.8**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-04	059-2103	N	25	30	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**5.4**	J	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-04	059-2104	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**9.9**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-34	059-2018	N	5	10	ft	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	170	UR	**17**	U	**46**		**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**15**	
GCMW-34	059-2019	N	10	15	ft	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	180	UR	**18**	U	**27**		**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.8**	U	**8.9**	
GCMW-34	059-2020	N	15	20	ft	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	140,000	UR	**14,000**	U	**14,000**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U	**6,900**	U
GCMW-34	059-2021	N	20	25	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	36,000	UR	**3,600**	U	**3,600**	U	**370**	J	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-34	059-2022	N	25	30	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	110	UR	**11**	U	**11**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**3.7**	J
GCMW-34	059-2023	N	30	35	ft	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	130,000	UR	**13,000**	U	**13,000**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U	**6,400**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate
GCMW-03	059-2072	N	10	15	ft	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	11 U	0.96 J	1 J	1.5 J	11 U
GCMW-03	059-2073	N	15	20	ft	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	2,400	1,400 J	590 J	1,500 U
GCMW-03	059-2074	N	22	22.5	ft	29,000 U	29,000 U	29,000 U	29,000 U	29,000 U	29,000 U	29,000 U	29,000 U	29,000 U	29,000 U	160,000	5,600 J	120,000	29,000 U
GCMW-03	059-2075	N	24.5	25	ft	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	0.55 J	5.7 U	0.43 J	5.7 U
GCMW-03	059-2076	N	25	30	ft	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	0.16 J	6.1 U	0.31 J	6.1 U
GCMW-03	059-2077	N	30	35	ft	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	0.55 J	5.4 U	5.4 U
GCMW-03	059-2078	N	35	40	ft	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	0.65 J	5.5 U
GCMW-04	059-2099	N	5	10	ft	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	0.25 J	4.7 U	0.72 J	4.7 U
GCMW-04	059-2100	N	10	15	ft	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.89 J	10 U
GCMW-04	059-2101	N	15	20	ft	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	0.17 J	4.3 U	0.54 J	4.3 U
GCMW-04	059-2102	N	20	25	ft	5 U	5 U	5 U	5 U	5 U	2.5 J	5 U	5 U	5 U	5 U	5 U	5 U	0.39 J	5 U
GCMW-04	059-2103	N	25	30	ft	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	--	5.2 U
GCMW-04	059-2104	N	30	35	ft	5 U	5 U	5 U	5 U	5 U	1.7 J	5 U	5 U	5 U	5 U	0.33 J	5 U	0.9 J	5 U
GCMW-34	059-2018	N	5	10	ft	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U
GCMW-34	059-2019	N	10	15	ft	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U
GCMW-34	059-2020	N	15	20	ft	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	9,100	7,900	6,900 U	6,900 U
GCMW-34	059-2021	N	20	25	ft	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	2,600	380 J	230 J	1,800 U
GCMW-34	059-2022	N	25	30	ft	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	0.31 J	5.5 U	0.12 J	5.5 U
GCMW-34	059-2023	N	30	35	ft	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	26,000	10,000	1,500 J	6,400 U

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
GCMW-03	059-2072	N	10	15	ft	16 J	22 U	11 U	11 U	1.4 J	11 U	11 U	11 U	11 U	11 U	11 U	11 U	0.93 J	11 U
GCMW-03	059-2073	N	15	20	ft	3,000 U	3,000 U	1,500 U	1,500 U	740 J	1,500 U	1,500 U	1,500 U	57 J	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U
GCMW-03	059-2074	N	22	22.5	ft	59,000 U	59,000 U	29,000 U	29,000 U	54,000	26,000 J	29,000 U	29,000 U	45,000	29,000 U	29,000 U	29,000 U	29,000 U	29,000 U
GCMW-03	059-2075	N	24.5	25	ft	11 U	11 U	5.7 U	5.7 U	0.31 J	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
GCMW-03	059-2076	N	25	30	ft	12 U	12 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	0.84 J	6.1 U
GCMW-03	059-2077	N	30	35	ft	11 U	11 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	5.4 U
GCMW-03	059-2078	N	35	40	ft	11 U	11 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
GCMW-04	059-2099	N	5	10	ft	9.4 J	9.5 U	4.7 U	4.7 U	4.7 U	0.44 J	1.8 J	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U
GCMW-04	059-2100	N	10	15	ft	20 U	20 U	10 U	10 U	10 U	10 U	5.5 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
GCMW-04	059-2101	N	15	20	ft	8.7 U	8.7 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U
GCMW-04	059-2102	N	20	25	ft	9.9 U	9.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
GCMW-04	059-2103	N	25	30	ft	10 U	10 U	5.2 U	5.2 U	5.2 U	0.46 J	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
GCMW-04	059-2104	N	30	35	ft	9.9 U	9.9 U	5 U	5 U	5 U	0.78 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
GCMW-34	059-2018	N	5	10	ft	25	17 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U	8.3 U
GCMW-34	059-2019	N	10	15	ft	18 U	18 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U	8.8 U
GCMW-34	059-2020	N	15	20	ft	14,000 U	14,000 U	6,900 U	6,900 U	2,700 J	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U	6,900 U
GCMW-34	059-2021	N	20	25	ft	3,600 U	3,600 U	1,800 U	1,800 U	300 J	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U	1,800 U
GCMW-34	059-2022	N	25	30	ft	11 U	11 U	5.5 U	5.5 U	0.12 J	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U	5.5 U
GCMW-34	059-2023	N	30	35	ft	13,000 U	13,000 U	6,400 U	6,400 U	5,600 J	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U	6,400 U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-03	059-2072	N	10	15	ft	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	**610**	U	**310**	U	**310**	U	**310**	U	**310**	U
GCMW-03	059-2073	N	15	20	ft	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**1,900**	U	**990**	U	**990**	U	**990**	U	**990**	U
GCMW-03	059-2074	N	22	22.5	ft	**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U	**7,500**	U	**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U
GCMW-03	059-2075	N	24.5	25	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-03	059-2076	N	25	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-03	059-2077	N	30	35	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**3,500**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-03	059-2078	N	35	40	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**2,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-04	059-2099	N	5	10	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**360**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**570**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-34	059-2018	N	5	10	ft	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**1,100**	U	**570**	U	**570**	U	**570**	U	**570**	U
GCMW-34	059-2019	N	10	15	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**550**	U	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-34	059-2020	N	15	20	ft	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**12,000**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U
GCMW-34	059-2021	N	20	25	ft	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**12,000**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U
GCMW-34	059-2022	N	25	30	ft	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U	**8,100**	U	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U
GCMW-34	059-2023	N	30	35	ft	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**12,000**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether
GCMW-03	059-2072	N	10	15	ft	**110** J	**310** U	**610** U	**310** U	**310** U	**610** U	**610** U	**310** U	**310** U	**310** U	**310** U
GCMW-03	059-2073	N	15	20	ft	**14,000**	**990** U	**1,900** U	**990** U	**990** U	**1,900** U	**1,900** U	**990** U	**990** U	**990** U	**990** U
GCMW-03	059-2074	N	22	22.5	ft	**480,000**	**3,900** U	**7,500** U	**3,900** U	**3,900** U	**7,500** U	**7,500** U	**3,900** U	**3,900** U	**3,900** U	**3,900** U
GCMW-03	059-2075	N	24.5	25	ft	**370**	**190** U	**380** U	**190** U	**190** U	**380** U	**380** U	**190** U	**190** U	**190** U	**190** U
GCMW-03	059-2076	N	25	30	ft	**210** U	**210** U	**400** U	**210** U	**210** U	**400** U	**400** U	**210** U	**210** U	**210** U	**210** U
GCMW-03	059-2077	N	30	35	ft	**60** J	**1,800** U	**3,500** U	**1,800** U	**1,800** U	**3,500** U	**3,500** U	**1,800** U	**1,800** U	**1,800** U	**1,800** U
GCMW-03	059-2078	N	35	40	ft	**1,100** U	**1,100** U	**2,100** U	**1,100** U	**1,100** U	**2,100** U	**2,100** U	**1,100** U	**1,100** U	**1,100** U	**1,100** U
GCMW-04	059-2099	N	5	10	ft	**13** J	**190** U	**360** U	**190** U	**190** U	**360** U	**360** U	**190** U	**190** U	**190** U	**190** U
GCMW-04	059-2100	N	10	15	ft	**290** U	**290** U	**570** U	**290** U	**290** U	**570** U	**570** U	**290** U	**290** U	**290** U	**290** U
GCMW-04	059-2101	N	15	20	ft	**190** U	**190** U	**370** U	**190** U	**190** U	**370** U	**370** U	**190** U	**190** U	**190** U	**190** U
GCMW-04	059-2102	N	20	25	ft	**200** U	**200** U	**390** U	**200** U	**200** U	**390** U	**390** U	**200** U	**200** U	**200** U	**200** U
GCMW-04	059-2103	N	25	30	ft	**190** U	**190** U	**370** U	**190** U	**190** U	**370** U	**370** U	**190** U	**190** U	**190** U	**190** U
GCMW-04	059-2104	N	30	35	ft	**12** J	**190** U	**370** U	**190** U	**190** U	**370** U	**370** U	**190** U	**190** U	**190** U	**190** U
GCMW-34	059-2018	N	5	10	ft	**24** J	**570** U	**1,100** U	**570** U	**570** U	**1,100** U	**1,100** U	**570** U	**570** U	**570** U	**570** U
GCMW-34	059-2019	N	10	15	ft	**71** J	**280** U	**550** U	**280** U	**280** U	**550** U	**550** U	**280** U	**280** U	**280** U	**280** U
GCMW-34	059-2020	N	15	20	ft	**160,000**	**6,100** U	**12,000** U	**6,100** U	**6,100** U	**12,000** U	**12,000** U	**6,100** U	**6,100** U	**6,100** U	**6,100** U
GCMW-34	059-2021	N	20	25	ft	**2,900** J	**6,200** U	**12,000** U	**6,200** U	**6,200** U	**12,000** U	**12,000** U	**6,200** U	**6,200** U	**6,200** U	**6,200** U
GCMW-34	059-2022	N	25	30	ft	**4,200** U	**4,200** U	**8,100** U	**4,200** U	**4,200** U	**8,100** U	**8,100** U	**4,200** U	**4,200** U	**4,200** U	**4,200** U
GCMW-34	059-2023	N	30	35	ft	**2,100** J	**6,200** U	**12,000** U	**6,200** U	**6,200** U	**12,000** U	**12,000** U	**6,200** U	**6,200** U	**6,200** U	**6,200** U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-03	059-2072	N	10	15	ft	**16**	J	**610**	U	**610**	U	**240**	J	**23**	J	**91**	J	**95**	J	**310**	U	**160**	J	**120**	J	**69**	J
GCMW-03	059-2073	N	15	20	ft	**990**	U	**1,900**	U	**1,900**	U	**23,000**		**3,300**	J	**990**	U	**29,000**		**990**	U	**990**	U	**19,000**		**15,000**	
GCMW-03	059-2074	N	22	22.5	ft	**3,900**	U	**7,500**	U	**7,500**	U	**80,000**	J	**290,000**		**3,900**	U	**200,000**		**3,900**	U	**3,900**	U	**140,000**	J	**110,000**	J
GCMW-03	059-2075	N	24.5	25	ft	**190**	U	**380**	U	**380**	U	**190**	J	**140**	J	**44**	J	**280**		**190**	U	**88**	J	**260**		**190**	J
GCMW-03	059-2076	N	25	30	ft	**210**	U	**400**	U	**400**	U	**12**	J	**6.1**	J	**32**	J	**9.5**	J	**210**	U	**74**	J	**44**	J	**34**	J
GCMW-03	059-2077	N	30	35	ft	**1,800**	U	**3,500**	U	**3,500**	U	**5,600**		**650**	J	**1,800**	U	**820**	J	**1,800**	U	**61**	J	**7,100**		**6,000**	
GCMW-03	059-2078	N	35	40	ft	**1,100**	U	**2,100**	U	**2,100**	U	**2,500**		**290**	J	**34**	J	**1,600**		**1,100**	U	**63**	J	**1,300**		**1,100**	
GCMW-04	059-2099	N	5	10	ft	**470**		**360**	U	**360**	U	**190**	U	**190**	U	**38**	J	**12**	J	**190**	U	**100**	J	**14**	J	**14**	J
GCMW-04	059-2100	N	10	15	ft	**13**	J	**570**	U	**570**	U	**290**	U	**290**	U	**48**	J	**290**	U	**290**	U	**110**	J	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**34**	J	**6.3**	J	**190**	U	**61**	J	**21**	J	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**55**	J	**200**	U	**200**	U	**95**	J	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**44**	J	**190**	U	**190**	U	**73**	J	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**54**	J	**190**	U	**190**	U	**81**	J	**190**	U	**190**	U
GCMW-34	059-2018	N	5	10	ft	**570**	U	**1,100**	U	**1,100**	U	**31**	J	**570**	U	**78**	J	**19**	J	**570**	U	**90**	J	**49**	J	**30**	J
GCMW-34	059-2019	N	10	15	ft	**24**	J	**550**	U	**550**	U	**53**	J	**280**	U	**66**	J	**29**	J	**280**	U	**68**	J	**16**	J	**12**	J
GCMW-34	059-2020	N	15	20	ft	**6,100**	U	**12,000**	U	**12,000**	U	**140,000**		**9,900**		**200**	J	**85,000**		**6,100**	U	**6,100**	U	**42,000**		**32,000**	
GCMW-34	059-2021	N	20	25	ft	**6,200**	U	**12,000**	U	**12,000**	U	**13,000**		**1,500**	J	**1,100**	J	**12,000**		**6,200**	U	**6,200**	U	**7,500**		**5,700**	J
GCMW-34	059-2022	N	25	30	ft	**4,200**	U	**8,100**	U	**8,100**	U	**23,000**		**1,700**	J	**4,200**	U	**16,000**		**4,200**	U	**4,200**	U	**8,500**		**6,900**	
GCMW-34	059-2023	N	30	35	ft	**6,200**	U	**12,000**	U	**12,000**	U	**37,000**		**2,500**	J	**6,200**	U	**26,000**		**6,200**	U	**6,200**	U	**12,000**		**11,000**	

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-03	059-2072	N	10	15	ft	**69**	J	**310**	U	**28**	J	**310**	U	**27**	J	**310**	U	**310**	U	**310**	U	**50**	J	**310**	U	**310**	U	**94**	J
GCMW-03	059-2073	N	15	20	ft	**12,000**		**6,900**		**4,600**	J	**990**	U	**420**	J	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**350**	J	**20,000**	
GCMW-03	059-2074	N	22	22.5	ft	**82,000**	J	**38,000**	J	**31,000**	J	**3,900**	U	**65,000**	J	**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U	**4,000**		**130,000**	J
GCMW-03	059-2075	N	24.5	25	ft	**150**	J	**78**	J	**57**	J	**190**	U	**56**	J	**190**	U	**190**	U	**190**	U	**28**	J	**190**	U	**11**	J	**210**	
GCMW-03	059-2076	N	25	30	ft	**29**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**42**	J	**210**	U	**210**	U	**37**	J
GCMW-03	059-2077	N	30	35	ft	**3,900**		**2,500**		**1,900**		**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**5,200**	
GCMW-03	059-2078	N	35	40	ft	**750**	J	**340**	J	**380**	J	**1,100**	U	**200**	J	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**990**	J
GCMW-04	059-2099	N	5	10	ft	**14**	J	**10**	J	**9.3**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**29**	J	**190**	U	**6.6**	J	**15**	J
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**36**	J	**290**	U	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**23**	J	**190**	U	**10**	J	**32**	J	**190**	U	**190**	U	**190**	U	**190**	U	**20**	J	**190**	U	**18**	J	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**28**	J	**200**	U	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**23**	J	**190**	U	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**43**	J	**190**	U	**190**	U	**190**	U
GCMW-34	059-2018	N	5	10	ft	**40**	J	**570**	U	**23**	J	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**92**	J	**570**	U	**570**	U	**54**	J
GCMW-34	059-2019	N	10	15	ft	**12**	J	**280**	U	**280**	U	**280**	U	**9.9**	J	**280**	U	**280**	U	**280**	U	**26**	J	**280**	U	**280**	U	**15**	J
GCMW-34	059-2020	N	15	20	ft	**12,000**		**15,000**	J	**18,000**		**6,100**	U	**22,000**		**6,100**	U	**6,100**	U	**6,100**	U	**280**	J	**6,100**	U	**990**	J	**38,000**	
GCMW-34	059-2021	N	20	25	ft	**2,100**	J	**2,700**	J	**3,700**	J	**6,200**	U	**1,500**	J	**6,200**	U	**6,200**	U	**6,200**	U	**370**	J	**6,200**	U	**6,200**	U	**7,100**	
GCMW-34	059-2022	N	25	30	ft	**4,900**		**2,800**	J	**2,100**	J	**4,200**	U	**2,300**	J	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U	**8,200**	
GCMW-34	059-2023	N	30	35	ft	**7,000**		**4,400**	J	**3,500**	J	**6,200**	U	**6,000**	J	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**320**	J	**12,000**	

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-03	059-2072	N	10	15	ft	**310**	UJ	**11**	J	**310**	U	**310**	U	**310**	U	**310**	U	**240**	J	**78**	J	**310**	U	**310**	U	**310**	U	**310**	U
GCMW-03	059-2073	N	15	20	ft	**1,800**	J	**2,200**	J	**990**	U	**990**	U	**990**	U	**990**	U	**34,000**		**22,000**		**990**	U	**990**	U	**990**	U	**990**	U
GCMW-03	059-2074	N	22	22.5	ft	**9,000**	J	**25,000**	J	**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U	**230,000**		**250,000**		**3,900**	U	**3,900**	U	**3,900**	U	**3,900**	U
GCMW-03	059-2075	N	24.5	25	ft	**190**	UJ	**25**	J	**190**	U	**190**	U	**190**	U	**190**	U	**440**		**270**		**190**	U	**190**	U	**190**	U	**190**	U
GCMW-03	059-2076	N	25	30	ft	**210**	UJ	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**75**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-03	059-2077	N	30	35	ft	**680**	J	**350**	J	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**12,000**		**450**	J	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-03	059-2078	N	35	40	ft	**1,100**	UJ	**190**	J	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**2,300**		**230**	J	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-04	059-2099	N	5	10	ft	**190**	U	**13**	J	**190**	U	**190**	U	**45**	J	**190**	U	**39**	J	**13**	J	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**74**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**190**	U	**190**	U	**190**	U	**190**	U	**48**	J	**28**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**47**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**43**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**50**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-34	059-2018	N	5	10	ft	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**100**	J	**19**	J	**570**	U	**570**	U	**570**	U	**570**	U
GCMW-34	059-2019	N	10	15	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**41**	J	**30**	J	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-34	059-2020	N	15	20	ft	**4,600**	J	**7,100**		**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**80,000**		**80,000**		**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U
GCMW-34	059-2021	N	20	25	ft	**640**	J	**520**	J	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**16,000**		**8,700**		**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U
GCMW-34	059-2022	N	25	30	ft	**600**	J	**1,300**	J	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U	**18,000**		**1,900**	J	**4,200**	U	**4,200**	U	**4,200**	U	**4,200**	U
GCMW-34	059-2023	N	30	35	ft	**870**	J	**1,700**	J	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**29,000**		**14,000**		**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
GCMW-03	059-2072	N	10	15	ft	310 U	310 U	--	2,000	310 U	310 U	310 U	610 U	330	20 J	220 J	3,716
GCMW-03	059-2073	N	15	20	ft	6,000	990 U	--	51,000	990 U	990 U	990 U	1,900 U	92,000	990 U	60,000 J	413,600
GCMW-03	059-2074	N	22	22.5	ft	34,000 J	3,900 U	--	1,300,000	3,900 U	3,900 U	3,900 U	7,500 U	680,000	3,900 U	390,000 J	4,474,000
GCMW-03	059-2075	N	24.5	25	ft	76 J	190 U	--	600	190 U	190 U	190 U	380 U	1,100	9 J	490	4,901
GCMW-03	059-2076	N	25	30	ft	210 U	210 U	--	14 J	210 U	210 U	210 U	400 U	24 J	210 U	78 J	362.6
GCMW-03	059-2077	N	30	35	ft	2,300	1,800 U	--	170 J	1,800 U	1,800 U	1,800 U	3,500 U	1,700 J	1,800 U	17,000	68,030
GCMW-03	059-2078	N	35	40	ft	340 J	1,100 U	--	33 J	1,100 U	1,100 U	1,100 U	2,100 U	3,700	1,100 U	3,200	19,053
GCMW-04	059-2099	N	5	10	ft	190 U	190 U	--	25 J	190 U	190 U	190 U	360 U	59 J	24 J	39 J	276.3
GCMW-04	059-2100	N	10	15	ft	290 U	290 U	--	290 U	290 U	290 U	290 U	570 U	8.8 J	14 J	290 U	8.8
GCMW-04	059-2101	N	15	20	ft	190 U	190 U	--	190 U	190 U	190 U	190 U	370 U	190 U	9.1 J	190 U	60.3
GCMW-04	059-2102	N	20	25	ft	200 U	200 U	--	200 U	200 U	200 U	200 U	390 U	200 U	11 J	200 U	0 U
GCMW-04	059-2103	N	25	30	ft	190 U	190 U	--	190 U	190 U	190 U	190 U	370 U	190 U	8.5 J	190 U	0 U
GCMW-04	059-2104	N	30	35	ft	190 U	190 U	--	28 J	190 U	190 U	190 U	370 U	190 U	9.4 J	190 U	40
GCMW-34	059-2018	N	5	10	ft	570 U	570 U	--	38 J	570 U	570 U	570 U	1,100 UJ	87 J	27 J	93 J	607
GCMW-34	059-2019	N	10	15	ft	280 U	280 U	--	84 J	280 U	280 U	280 U	550 UJ	93 J	18 J	38 J	494
GCMW-34	059-2020	N	15	20	ft	11,000	6,100 U	--	71,000	6,100 U	6,100 U	6,100 U	12,000 UJ	280,000	6,100 U	120,000	1,198,500
GCMW-34	059-2021	N	20	25	ft	1,800 J	6,200 U	--	3,600 J	6,200 U	6,200 U	6,200 U	12,000 UJ	46,000	260 J	22,000	156,940
GCMW-34	059-2022	N	25	30	ft	2,600 J	4,200 U	--	4,200 U	4,200 U	4,200 U	4,200 U	8,100 UJ	41,000	4,200 U	20,000	158,200
GCMW-34	059-2023	N	30	35	ft	3,800 J	6,200 U	--	1,300 J	6,200 U	6,200 U	6,200 U	12,000 UJ	70,000	6,200 U	31,000	267,470

495 & 510 Sackett St (MW3 & MW4 & MW34)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-03	059-2072	N	10	15	ft	**3.1**	U	**3.1**	U	**3.1**	U	**3.1**	U	**3.1**	U	**5.9**	U	**3.1**	U	**5.9**	U	**0.18**	J	**5.9**	U	**5.9**	U
GCMW-03	059-2073	N	15	20	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**4.8**	J	**2**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**14**	NJ
GCMW-03	059-2074	N	22	22.5	ft	**24**	J	1.9	UR	1.9	UR	36	R	1.9	UR	**3.9**	J	1.9	UR	3.8	UR	3.8	UR	5.1	R	3.8	UR
GCMW-03	059-2075	N	24.5	25	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-03	059-2076	N	25	30	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4**	U	**2.1**	U	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-03	059-2077	N	30	35	ft	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**3.5**	U	**1.8**	U	**3.5**	U	**3.5**	U	**3.5**	U	**3.5**	U
GCMW-03	059-2078	N	35	40	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**5**		**2.1**	U	**4.2**	U	4.3	R	**4.2**	U	**15**	J
GCMW-04	059-2099	N	5	10	ft	**1.9**	UJ	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.6**	UJ	**1.9**	U	**3.6**	U	**3.6**	UJ	**0.69**	J	**3.6**	U
GCMW-04	059-2100	N	10	15	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.7**	U	**2.9**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-04	059-2101	N	15	20	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U
GCMW-04	059-2102	N	20	25	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-04	059-2103	N	25	30	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U
GCMW-04	059-2104	N	30	35	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U
GCMW-34	059-2018	N	5	10	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.6**	U	**2.9**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-34	059-2019	N	10	15	ft	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**5.5**	U	**2.8**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-34	059-2020	N	15	20	ft	**2.1**	UJ	6.7	R	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4**	UJ	**7.5**	J	**4**	UJ	8.3	R	**5.5**	J	**4**	UJ
GCMW-34	059-2021	N	20	25	ft	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4.1**	UJ	**2.1**	UJ	**4.1**	UJ	**4.1**	UJ	**3.5**	J	**15**	J
GCMW-34	059-2022	N	25	30	ft	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4.1**	UJ	**2.1**	UJ	**4.1**	UJ	4.9	R	**3.2**	J	9.6	R
GCMW-34	059-2023	N	30	35	ft	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4**	UJ	**2.1**	UJ	**4**	UJ	5.5	R	**4**	UJ	13	R

495 & 510 Sackett St (MW3 & MW4 & MW34)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-03	059-2072	N	10	15	ft	**5.9**	U	**3.1**	U	**3.1**	U	**3.1**	U	**3.1**	U	**31**	U	**5.9**	U	**5.9**	U	**5.9**	U	**310**	U	**0**	U
GCMW-03	059-2073	N	15	20	ft	**3.8**	UJ	**2**	UJ	**13**	J	**2**	UJ	**3.2**	NJ	**18**	J	**3.8**	UJ	**3.8**	UJ	**9.9**	J	**200**	UJ	**9.9**	
GCMW-03	059-2074	N	22	22.5	ft	3.8	UR	1.9	UR	1.9	UR	1.9	UR	1.9	UR	19	UR	4.1	R	3.8	UR	**5.1**	NJ	190	UR	--	
GCMW-03	059-2075	N	24.5	25	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-03	059-2076	N	25	30	ft	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4**	U	**1.6**	J	**1.5**	J	**210**	U	**3.1**	
GCMW-03	059-2077	N	30	35	ft	**3.5**	U	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**18**	U	**3.5**	U	**3.5**	U	**3.5**	U	**180**	U	**0**	U
GCMW-03	059-2078	N	35	40	ft	**4.2**	U	**2.1**	U	**14**		**2.1**	U	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**11**		**210**	U	**11**	
GCMW-04	059-2099	N	5	10	ft	**3.6**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	UJ	**3.6**	U	**3.6**	U	**0.15**	J	**190**	U	**0.15**	
GCMW-04	059-2100	N	10	15	ft	**1.5**	J	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**29**	U	**5.7**	U	**5.7**	U	**0.64**	J	**290**	U	**0.64**	
GCMW-04	059-2101	N	15	20	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-04	059-2102	N	20	25	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-04	059-2103	N	25	30	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-04	059-2104	N	30	35	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-34	059-2018	N	5	10	ft	**5.6**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**29**	U	**5.6**	U	**5.6**	U	**5.6**	U	**290**	U	**0**	U
GCMW-34	059-2019	N	10	15	ft	**5.5**	U	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**28**	U	**5.5**	U	**5.5**	U	**5.5**	U	**280**	U	**0**	U
GCMW-34	059-2020	N	15	20	ft	**12**	J	**2.1**	UJ	**40**	J	**2.1**	UJ	**2.1**	UJ	**21**	UJ	**19**	NJ	**7.3**	NJ	**14**	J	**210**	UJ	**40.3**	
GCMW-34	059-2021	N	20	25	ft	4.2	R	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**21**	UJ	**15**	J	**4.1**	UJ	**13**	NJ	**210**	UJ	**28**	
GCMW-34	059-2022	N	25	30	ft	**7.2**	J	**2.1**	UJ	**2.1**	UJ	**0.17**	J	**2.1**	UJ	**21**	UJ	**5.4**	NJ	**4.1**	UJ	**7.7**	J	**210**	UJ	**13.1**	
GCMW-34	059-2023	N	30	35	ft	**8.3**	NJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**21**	UJ	9.5	R	**4**	UJ	**12**	J	**210**	UJ	--	

495 & 510 Sackett St (MW3 & MW4 & MW34)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-03	059-2072	N	10	15	ft	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**0**	U
GCMW-03	059-2073	N	15	20	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-03	059-2074	N	22	22.5	ft	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**0**	U
GCMW-03	059-2075	N	24.5	25	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-03	059-2076	N	25	30	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-03	059-2077	N	30	35	ft	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**0**	U
GCMW-03	059-2078	N	35	40	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-04	059-2099	N	5	10	ft	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**0**	U
GCMW-04	059-2100	N	10	15	ft	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**0**	U
GCMW-04	059-2101	N	15	20	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-04	059-2102	N	20	25	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-04	059-2103	N	25	30	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**0**	U
GCMW-04	059-2104	N	30	35	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**0**	U
GCMW-34	059-2018	N	5	10	ft	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**0**	U
GCMW-34	059-2019	N	10	15	ft	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**0**	U
GCMW-34	059-2020	N	15	20	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-34	059-2021	N	20	25	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-34	059-2022	N	25	30	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-34	059-2023	N	30	35	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
GCMW-03	059-2072	N	10	15	ft	**12,700**	**10.6** U	**7.3**	**32.3** J	**0.69** J	**0.25** J	**2,260**	**27.5**	**7.7** J	**14.3**	**28,200**	**23.3**
GCMW-03	059-2073	N	15	20	ft	**5,340**	**6.7** UJ	**1.1** U	**12.6** J	**0.26** J	**0.56** U	**560** U	**11.3**	**3.2** J	**4**	**6,770**	**4.8**
GCMW-03	059-2074	N	22	22.5	ft	**4,430**	**6.6** UJ	**0.5** J	**22.2**	**0.25** J	**0.55** U	**546** U	**14.3**	**3.2** J	**8.9**	**8,070**	**4.7**
GCMW-03	059-2075	N	24.5	25	ft	**4,450**	**6.7** UJ	**0.97** J	**25.7**	**0.31** J	**0.56** U	**705**	**13.2**	**5.1** J	**15.1**	**6,950**	**4.8**
GCMW-03	059-2076	N	25	30	ft	**2,140**	**6.6** U	**1.1** U	**12.8** J	**0.13** J	**0.55** U	**592**	**6.5**	**2.4** J	**6.3**	**3,860**	**2.4**
GCMW-03	059-2077	N	30	35	ft	**4,270**	**6.4** U	**2.2**	**31.3**	**0.36** J	**0.11** J	**1,470**	**13.5**	**11**	**24**	**12,600**	**7**
GCMW-03	059-2078	N	35	40	ft	**4,860**	**7.7** UJ	**0.78** J	**32.6**	**0.28** J	**0.067** J	**7,710**	**10.9**	**5.6** J	**13.6**	**10,300**	**5**
GCMW-04	059-2099	N	5	10	ft	**8,030**	**0.45** J	**3.7**	**71.3**	**0.62** U	**0.62** U	**2,460**	**16.8**	**7.1**	**23.1**	**13,600**	**75.5**
GCMW-04	059-2100	N	10	15	ft	**16,000**	**0.89** J	**8.7**	**33.9** J	**0.87** U	**0.87** U	**3,170**	**31.7**	**9.9**	**16.4**	**34,500**	**16**
GCMW-04	059-2101	N	15	20	ft	**6,920**	**8.3** UJ	**2.1**	**36.3**	**0.69** U	**0.69** U	**640** J	**12.7**	**6** J	**11.6**	**13,900**	**6.5**
GCMW-04	059-2102	N	20	25	ft	**4,820**	**7.2** U	**1.2** J	**35.3**	**0.6** U	**0.6** U	**374** J	**10.2**	**4.3** J	**11.7**	**8,610**	**5.4**
GCMW-04	059-2103	N	25	30	ft	**3,760**	**7.1** U	**1.2** U	**26.3**	**0.59** U	**0.59** U	**717**	**6.9**	**5.7** J	**13.3**	**9,140**	**5**
GCMW-04	059-2104	N	30	35	ft	**2,820**	**6.7** U	**1.1** U	**32.2**	**0.56** U	**0.56** U	**805** J	**7.5**	**5.8**	**12.7**	**6,890**	**4.4**
GCMW-34	059-2018	N	5	10	ft	**12,600** J	**0.69** J	**10.1**	**31.3** J	**0.79** U	**0.09** J	**3,180** J	**29.2** J	**8.2** J	**14** J	**31,200** J	**16.9**
GCMW-34	059-2019	N	10	15	ft	**15,900** J	**0.64** J	**9.2**	**37.6** J	**0.85**	**0.2** J	**2,480** J	**34.4** J	**9.8** J	**19** J	**34,800** J	**31.9**
GCMW-34	059-2020	N	15	20	ft	**2,990** J	**6.8** UJ	**0.57** J	**13.5** J	**0.57** U	**0.57** U	**603** J	**9.4** J	**5.7** UJ	**6.9** J	**6,410** J	**3.3**
GCMW-34	059-2021	N	20	25	ft	**3,670** J	**7.1** UJ	**2.2**	**20.6** J	**0.59** U	**0.59** U	**593** UJ	**15.7** J	**5.9** UJ	**4.4** J	**6,250** J	**3.8**
GCMW-34	059-2022	N	25	30	ft	**2,490** J	**7** UJ	**1.2** U	**12.9** J	**0.19** J	**0.59** U	**1,230** J	**5.9** J	**5.9** UJ	**8.2**	**6,390** J	**2.7**
GCMW-34	059-2023	N	30	35	ft	**2,990** J	**7.1** UJ	**0.58** J	**25.4** J	**0.22** J	**0.59** U	**2,980** J	**7.7** J	**6** UJ	**9.9**	**7,140** J	**3.4**

495 & 510 Sackett St (MW3 & MW4 & MW34)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-03	059-2072	N	10	15	ft	5,230	262	0.18 U	22.9	2,700	1.1 J	1.8 U	2,740	4.4 U	32.1	57	4.2 U
GCMW-03	059-2073	N	15	20	ft	1,860	76.3	0.11 U	13.4	655	3.9 U	1.1 U	560 U	2.8 U	10.6	19.6	2.9 U
GCMW-03	059-2074	N	22	22.5	ft	1,860	40.7	0.11 U	10.7	763	3.8 U	1.1 U	546 U	2.7 U	15.1	22.5	2.8 U
GCMW-03	059-2075	N	24.5	25	ft	2,020	67.5	0.12 U	23.5	789	3.9 U	1.1 U	561 U	2.8 U	12.5	22.6	2.8 U
GCMW-03	059-2076	N	25	30	ft	1,260	59.7	0.11 U	11.8	389 J	3.9 U	1.1 U	554 U	2.8 U	5.3 J	11.8	2.8 U
GCMW-03	059-2077	N	30	35	ft	17,900	529	0.11 U	139	910	3.7 U	1.1 U	534 U	2.7 U	16.9	31.2	2.7 U
GCMW-03	059-2078	N	35	40	ft	6,140	262	0.13 U	30.8	1,310	4.5 U	1.3 U	643 U	3.2 U	13.7	26.6	3.2 U
GCMW-04	059-2099	N	5	10	ft	4,130	204	0.16	30.4	1,880	4.3 U	1.2 U	618 U	3.1 U	21	54.7	3 U
GCMW-04	059-2100	N	10	15	ft	6,750	368	0.18 U	26.5	3,570	6.1 U	1.7 U	1,600	4.3 U	36.6	69.4	4.3 U
GCMW-04	059-2101	N	15	20	ft	2,270	61.9	0.14 U	13.3	1,100	4.9 U	1.4 U	824	3.5 U	17.7	30.5	3.5 U
GCMW-04	059-2102	N	20	25	ft	1,490	57.9	0.12 U	12.2	768	4.2 U	1.2 U	602 U	3 U	14.6	23.2	3 U
GCMW-04	059-2103	N	25	30	ft	3,130	99.5345	0.12 U	25.2	727	4.1 U	1.2 U	590 U	3 U	9.6	19.6	2.9 U
GCMW-04	059-2104	N	30	35	ft	12,000 J	150 J	0.12 U	88.4	689	3.9 U	1.1 U	562 U	2.8 U	7	17.4	2.8 U
GCMW-34	059-2018	N	5	10	ft	5,360 J	308	0.15 U	24.1 J	2,750	5.5 U	1.6 U	1,460	3.9 U	36.6 J	59.7	3.9 U
GCMW-34	059-2019	N	10	15	ft	6,680 J	327	0.075 J	29.8 J	3,410	5.5 U	1.6 U	2,840	4 U	35.7 J	72.5	3.9 U
GCMW-34	059-2020	N	15	20	ft	1,830 J	47.6	0.11 U	13.5 J	582	4 U	1.1 U	568 U	2.8 U	9.6 J	20.4	2.9 U
GCMW-34	059-2021	N	20	25	ft	1,560 J	41.5	0.12 U	8.8 J	643	0.66 J	1.2 U	593 U	3 U	11.5 J	17.4	2.9 U
GCMW-34	059-2022	N	25	30	ft	2,800 J	129	0.12 U	20 J	563 J	4.1 U	1.2 U	586 U	2.9 U	9.4 J	17.1	2.9 U
GCMW-34	059-2023	N	30	35	ft	4,140 J	190	0.12 U	18.6 J	647	4.2 U	1.2 U	595 U	3 U	9.9 J	18.3	3 U

495 & 510 Sackett St.

(MW3 & MW34)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane	
MW-03	GC-MW03I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-03	GC-MW03S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-04	GC-MW04I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-04	GC-MW04S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-34	GC-MW34I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-34	GC-MW34S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
MW-03	GC-MW03I	N	Intermediate	**0.17** J	**0.17** J	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-03	GC-MW03S	N	Shallow	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-04	GC-MW04I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-04	GC-MW04S	N	Shallow	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-34	GC-MW34I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.54** J	**0.5** U	**0.5** U	**0.5** U
MW-34	GC-MW34S	N	Shallow	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.61**	**0.5** U	**0.5** U	**0.5** U

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone	
MW-03	GC-MW03I	N	Intermediate	**0.5**	U	**0.5**	U	**5**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**5**	U	**5**	U
MW-03	GC-MW03S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**3**		**0.13**	J	**3**		**0.5**	U	**5**	U	**5**	U
MW-04	GC-MW04I	N	Intermediate	**0.5**	U	**0.5**	U	**17**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**5**	U	**5**	U
MW-04	GC-MW04S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**5**	U	**5**	U
MW-34	GC-MW34I	N	Intermediate	**0.5**	U	**0.5**	U	**2**		**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.64**		**4.5**		**0.61**		**0.5**	U	**5**	U	**5**	U
MW-34	GC-MW34S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**1.5**		**1.4**		**1.5**		**0.5**	U	**5**	U	**5**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-03	GC-MW03I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.26**	J	**0.5**	U	**0.22**	J	**0.5**	U	**0.27**	J	**0.5**	U	**5.9**	J
MW-03	GC-MW03S	N	Shallow	**0.5**	U	**0.5**	U	**0.98**		**0.5**	U	**0.5**	U	**0.5**	U	**1.5**		**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U
MW-04	GC-MW04I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.33**	J	**0.5**	U	**0.5**	U	**0.5**	U	**13**		**0.5**	U	**0.5**	U
MW-04	GC-MW04S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**15**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-34	GC-MW34I	N	Intermediate	**0.69**		**0.5**	U	**0.32**	J	**0.5**	U	**2.6**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**4.1**	J
MW-34	GC-MW34S	N	Shallow	**0.5**	U	**0.5**	U	**0.72**		**0.5**	U	**0.86**		**0.24**	J	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.27**	J	**0.5**	U	**0.5**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline	
MW-03	GC-MW03I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**15**		**5**	U	**10**	U
MW-03	GC-MW03S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**7.3**	J	**5**	U	**10**	U
MW-04	GC-MW04I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**5**	U	**10**	U
MW-04	GC-MW04S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**5**	U	**10**	U
MW-34	GC-MW34I	N	Intermediate	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**50**	U	**50**	U	**50**	U	**50**	U	**400**	J	**50**	U	**100**	U
MW-34	GC-MW34S	N	Shallow	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**50**	U	**50**	U	**50**	U	**50**	U	**3.8**		**50**	U	**100**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone	
MW-03	GC-MW03I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**51**		**2.3**	J	**5**	U
MW-03	GC-MW03S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**3**	J	**1.9**	J	**5**	U
MW-04	GC-MW04I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U
MW-04	GC-MW04S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**0.18**		**0.1**	U	**5**	U
MW-34	GC-MW34I	N	Intermediate	**50**	U	**50**	U	**100**	U	**100**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**100**	U	**310**	J	**3.3**	J	**50**	U
MW-34	GC-MW34S	N	Shallow	**50**	U	**50**	U	**100**	U	**100**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**100**	U	**100**	J	**1**	U	**50**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether	
MW-03	GC-MW03I	N	Intermediate	**6.7**	J	**5**	U	**5**	U	**0.84**		**0.1**	U	**0.15**		**0.1**	U	**0.041**	J	**5**	U	**2.9**	J	**5**	U	**5**	U	**5**	U
MW-03	GC-MW03S	N	Shallow	**1.7**	J	**5**	U	**5**	U	**0.62**		**0.42**		**0.37**		**0.58**		**0.066**	J	**5**	U	**0.74**	J	**5**	U	**5**	U	**5**	U
MW-04	GC-MW04I	N	Intermediate	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.19**		**0.24**		**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-04	GC-MW04S	N	Shallow	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-34	GC-MW34I	N	Intermediate	**26**	J	**50**	U	**50**	UJ	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**50**	U	**41**	J	**50**	U	**50**	U	**50**	U
MW-34	GC-MW34S	N	Shallow	**21**	J	**50**	U	**50**	UJ	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**50**	U	**5.7**	J	**50**	U	**50**	U	**50**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene	
MW-03	GC-MW03I	N	Intermediate	**5**	U	**5**	U	**5**	U	**0.65**	J	**0.1**	U	**2.8**	J	**5**	U	**5**	U	**0.27**	J	**5**	U	**10**	J	**3.9**	J	**5**	U	**5**	U
MW-03	GC-MW03S	N	Shallow	**5**	U	**5**	U	**5**	U	**0.38**		**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**2.6**	J	**2.6**	J	**5**	U	**5**	U
MW-04	GC-MW04I	N	Intermediate	**77**		**5**	U	**5**	U	**0.1**	U	**0.099**	J	**5**	U	**5**	U	**5**	U	**0.33**	J	**5**	U	**0.13**		**0.1**	U	**5**	U	**5**	U
MW-04	GC-MW04S	N	Shallow	**5**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U
MW-34	GC-MW34I	N	Intermediate	**50**	U	**50**	U	**50**	U	**1**	U	**1**	U	**11**	J	**50**	U	**50**	U	**50**	U	**50**	U	**12**	J	**1**	U	**50**	U	**50**	U
MW-34	GC-MW34S	N	Shallow	**50**	U	**50**	U	**50**	U	**1**	U	**1**	U	**2.7**	J	**50**	U	**50**	U	**50**	U	**50**	U	**5.9**	J	**25**	J	**50**	U	**50**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-03	GC-MW03I	N	Intermediate	**5** U	**5** U	**0.13** U	**5** U	**0.54**	**5** U	**5** U	**5** U	**0.2** U	**19**	**5** U	**11**	**121.121**
MW-03	GC-MW03S	N	Shallow	**5** U	**5** U	**0.41**	**5** U	**18**	**5** U	**5** U	**5** U	**0.2** U	**5.4**	**5** U	**2.3** J	**47.646**
MW-04	GC-MW04I	N	Intermediate	**5** U	**5** U	**0.18**	**5** U	**0.25** J	**5** U	**5** U	**5** U	**0.2** U	**0.13**	**5** U	**0.32**	**1.539**
MW-04	GC-MW04S	N	Shallow	**5** U	**5** U	**0.13** U	**5** U	**0.1** U	**5** U	**5** U	**5** U	**0.2** U	**0.1** U	**5** U	**0.1** U	**0.18**
MW-34	GC-MW34I	N	Intermediate	**50** U	**50** U	**1** U	**50** U	**5.1** J	**50** U	**50** U	**50** U	**2** UJ	**96** J	**50** U	**8.7**	**861.1**
MW-34	GC-MW34S	N	Shallow	**50** U	**50** U	**1** UJ	**50** U	**1** U	**50** U	**50** U	**50** U	**2** UJ	**60** J	**50** U	**9.6**	**225.3**

495 & 510 Sackett St (MW3 & MW4 & MW34)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-03	GC-MW03I	N	Intermediate	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-03	GC-MW03S	N	Shallow	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-04	GC-MW04I	N	Intermediate	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-04	GC-MW04S	N	Shallow	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-34	GC-MW34I	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-34	GC-MW34S	N	Shallow	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ

495 & 510 Sackett St (MW3 & MW4 & MW34)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-03	GC-MW03I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-03	GC-MW03S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-04	GC-MW04I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-04	GC-MW04S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-34	GC-MW34I	N	Intermediate	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-34	GC-MW34S	N	Shallow	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-03	GC-MW03I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-03	GC-MW03S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-04	GC-MW04I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-04	GC-MW04S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-34	GC-MW34I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-34	GC-MW34S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium		Barium, dissolved		Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-03	GC-MW03I	N	Intermediate	**3,000**	U	**200**	U	**2**	U	**2**	U	0.73	R	1.8	R	**156**		**5.3**	J	**1**	U	**1**	U	**1**	U	**1**	U
MW-03	GC-MW03S	N	Shallow	**3,000**	U	**3,000**	U	**20**	U	**20**	U	**23.9**		**5.1**	J	59.3	R	1,540	R	**10**	U	**10**	U	**10**	U	**10**	U
MW-04	GC-MW04I	N	Intermediate	**3,000**	U	**838**		**2**	U	**2**	U	**2.1**		**2.2**		**176**		**179**		**1**	U	**1**	U	**1**	U	**1**	U
MW-04	GC-MW04S	N	Shallow	**1,660**	J	**200**	U	**2**	U	**2**	U	**6.1**		**5.5**		**542**		**443**		**1**	U	**1**	U	**1**	U	**1**	U
MW-34	GC-MW34I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**0.25**	J	**0.28**	J	**93.6**		**98.1**		**1**	U	**1**	U	**1**	U	**1**	U
MW-34	GC-MW34S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**3.3**	J	**3.1**		**265**		**287**		**1**	U	**1**	U	**1**	U	**1**	U

495 & 510 Sackett St (MW3 & MW4 & MW34)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium		Calcium, dissolved		Chromium		Chromium, dissolved		Cobalt		Cobalt, dissolved		Copper		Copper, dissolved		Iron		Iron, dissolved		Lead	
MW-03	GC-MW03I	N	Intermediate	**72,300**	J	**64,100**		**0.66**	J	**0.53**	J	**0.87**	J	**1**	U	**375**	U	**25**	U	**930**	J	**817**	J	**1.8**	
MW-03	GC-MW03S	N	Shallow	**310,000**		**339,000**		**5**	J	**4.6**	J	**10**	U	**9.3**	J	**375**	U	**375**	U	**1,500**	U	**1,500**	UJ	**5.9**	J
MW-04	GC-MW04I	N	Intermediate	**46,100**	J	**40,900**		2	UR	3.7	R	**0.38**	J	**1**		**375**	U	**25**	U	664	R	2,170	R	1	UR
MW-04	GC-MW04S	N	Shallow	**135,000**		**111,000**		**25.8**		**12.2**		**3.6**		**3.3**		**375**	U	**25**	U	**20,900**		**13,800**	J	**11.3**	
MW-34	GC-MW34I	N	Intermediate	**49,700**		**49,100**		**1**	J	**0.91**	J	**1**	U	**1**	U	**25**	U	**25**	U	**100**	U	**100**	U	**0.24**	J
MW-34	GC-MW34S	N	Shallow	**283,000**		**271,000**		**7.4**	J	**3.1**		**0.54**	J	**0.53**	J	**25**	U	**25**	U	**2,750**		**1,910**		**0.76**	J

495 & 510 Sackett St (MW3 & MW4 & MW34)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved		Magnesium		Magnesium, dissolved	Manganese		Manganese, dissolved		Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium		Potassium, dissolved	Selenium	
MW-03	GC-MW03I	N	Intermediate	**1**	U	**50,900**	J	**45,700**	**2,070**		**4.2**		**0.09**	J	**0.086**	U	**1**	J	**0.64**	J	**75,000**	U	**10,900**	**0.93**	J
MW-03	GC-MW03S	N	Shallow	**10**	U	**770,000**		**870,000**	34.6	R	21,600	R	**0.078**	J	**0.062**	J	5.3	R	12.1	R	**254,000**		**292,000**	**51.2**	J
MW-04	GC-MW04I	N	Intermediate	2.8	R	**41,500**	J	**37,500**	**823**		**843**		**0.077**	J	**0.1**	J	1.6	R	4.6	R	**75,000**	U	**12,000**	**5**	UJ
MW-04	GC-MW04S	N	Shallow	**0.52**	J	**92,200**		**81,500**	**1,230**		**1,140**		**0.12**	J	**0.096**	J	**30.7**	J	**34.7**	J	**42,200**	J	**41,800**	**1.6**	J
MW-34	GC-MW34I	N	Intermediate	**1**	U	**47,300**		**47,400**	**1,140**	J	**1,190**		**0.11**	J	**0.2**	U	**1.2**	J	**0.94**	J	**19,800**		**19,800**	**5**	U
MW-34	GC-MW34S	N	Shallow	**1**	U	**113,000**		**112,000**	**1,320**	J	**1,400**		**0.071**	J	**0.2**	U	**4.7**	J	**0.78**	J	**54,200**		**53,200**	**3.1**	J

495 & 510 Sackett St (MW3 & MW4 & MW34)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved		Silver		Silver, dissolved		Sodium		Sodium, dissolved		Thallium		Thallium, dissolved		Vanadium		Vanadium, dissolved		Zinc		Zinc, dissolved		Cyanide, Total	
MW-03	GC-MW03I	N	Intermediate	**3.8**	J	**1**	U	**1**	U	**196,000**		**191,000**		**1**	U	**1**	U	**5**	U	**5**	U	**4.6**	J	**2**	U	**10**	U
MW-03	GC-MW03S	N	Shallow	**50**	U	**10**	U	**10**	U	**5,700,000**	J	**7,130,000**	J	**10**	U	**10**	U	**50**	U	**50**	U	**42.9**	J	**17.9**	J	--	
MW-04	GC-MW04I	N	Intermediate	**5**	U	**1**	U	**1**	U	**177,000**		**167,000**		**1**	U	**1**	U	**5**	U	**1.5**	J	2	R	60.3	R	**10**	U
MW-04	GC-MW04S	N	Shallow	**0.97**	J	**0.22**	J	**1**	U	**309,000**		**313,000**		**1**	U	**1**	U	**4.8**	J	**1.2**	J	**17.3**		**8.8**		**10**	U
MW-34	GC-MW34I	N	Intermediate	**5**	U	**1**	UJ	**1**	U	**150,000**		**151,000**		**1**	U	**1**	U	**5**	U	**5**	U	**2.1**	J	**4.2**	J	**10**	U
MW-34	GC-MW34S	N	Shallow	**2.3**	J	**1**	UJ	**1**	U	**722,000**		**757,000**		**1**	U	**1**	U	**5**	U	**5**	U	**3.4**	J	**2**	U	**10**	U

318 Nevins St

(MW28 & MW29 & MW35)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 318 Nevins St.
Monitoring Well Soil Borings Installed at Address: GC-MW-28, GC-MW-29 & GC-MW-35
Intermediate Monitoring Wells Installed at Address: GC-MW-28I, GC-MW-29I & GC-MW-35I
Shallow Monitoring Wells Installed at Address: GC-MW-28S, GC-MW-29S & GC-MW-35S

GC-MW-28

The soil samples from the soil boring installed for the intermediate well (situated approximately 36 feet from the canal) contained 36 VOCs, 109 SVOCs, 1 pesticide, 0 PCBs, and 122 metals. From these, 3 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (1,200 µg/kg). The SVOC occurring at the highest concentration above screening value was benzo(a)anthracene (71,000 µg/kg). The metal occurring at the highest concentration above screening value was mercury (34.1 J mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 36 feet from the canal) contained 0 VOCs, 8 SVOCs, 0 pesticides, 0 PCBs, and 19 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (23,300 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately37 ft bgs and situated approximately 36 feet from the canal) contained 5 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was cis-1,2-dichloroehylene (53 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (11,800 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-29

The soil samples from the soil boring installed for the intermediate well (situated approximately 152 feet from the canal) contained 19 VOCs, 23 SVOCs, 1 pesticide, 0 PCBs, and 104 metals. From these, 2 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (71 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 152 feet from the canal) contained 7 VOCs, 11 SVOCs, 0 pesticides, 0 PCBs, and 19 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 6 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (16,500 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately37 ft bgs and situated approximately 152 feet from the canal) contained 13 VOCs, 10 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 5 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (19 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (9,530 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-35

The soil samples from the soil boring installed for the intermediate well (situated approximately 29 feet from the canal) contained 42 VOCs, 108 SVOCs, 9 pesticides, 0 PCBs, and 102 metals. From these, 21 VOCs, 21 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (420,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (1,100,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 29 feet from the canal) contained 8 VOCs, 19 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 2 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (18 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (16 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (11,100 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately33 ft bgs and situated approximately 29 feet from the canal) contained 11 VOCs, 18 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 3 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (19 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (15 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (9,450 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-28	059-2147	N	0	5	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-28	059-2148	N	5	10	ft	**17**	U	**17**	U	**17**	U	**17**	U	**17**	U	**17**	U	17	UR	17	UR	17	UR
GCMW-28	059-2149	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-28	059-2150	N	15	20	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-28	059-2151	N	20	25	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-28	059-2152	N	25	30	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-28	059-2153	N	30	35	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U
GCMW-29	059-2160	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-29	059-2161	N	10	15	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-29	059-2162	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-29	059-2163	N	20	25	ft	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U
GCMW-29	059-2164	N	25	30	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-29	059-2165	N	30	35	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-35	059-2154	N	5	10	ft	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ
GCMW-35	059-2155	N	10	15	ft	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U
GCMW-35	059-2156	N	15	20	ft	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U
GCMW-35	059-2157	N	20	25	ft	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U
GCMW-35	059-2158	N	25	30	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U
GCMW-35	059-2159	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-28	059-2147	N	0	5	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	200	UR	**20**	U	**60**		**3.7**	J
GCMW-28	059-2148	N	5	10	ft	**17**	U	17	UR	**17**	U	**17**	U	17	UR	17	UR	340	UR	**34**	U	**1,200**		**6.3**	J
GCMW-28	059-2149	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	180	UR	**18**	U	**30**		**9.2**	U
GCMW-28	059-2150	N	15	20	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	95	UR	**9.5**	U	**9.5**	U	**4.7**	U
GCMW-28	059-2151	N	20	25	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**10**	U	**1.1**	J
GCMW-28	059-2152	N	25	30	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	110	UR	**11**	U	**11**	U	**5.3**	U
GCMW-28	059-2153	N	30	35	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	130	UR	**13**	U	**13**	U	**1.5**	J
GCMW-29	059-2160	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	210	UR	**21**	U	**71**		**10**	U
GCMW-29	059-2161	N	10	15	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	160	UR	**16**	U	**57**		**8.2**	U
GCMW-29	059-2162	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	98	UR	**9.8**	U	**9.8**	U	**4.9**	U
GCMW-29	059-2163	N	20	25	ft	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	90	UR	**9**	U	**9**	U	**0.92**	J
GCMW-29	059-2164	N	25	30	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	110	UR	**11**	U	**11**	U	**5.5**	U
GCMW-29	059-2165	N	30	35	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	110	UR	**11**	U	**11**	U	**5.3**	U
GCMW-35	059-2154	N	5	10	ft	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	970	UR	**97**	UJ	**1,700**	J	**14**	J
GCMW-35	059-2155	N	10	15	ft	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	310	UR	**31**	U	**50**		**3.3**	J
GCMW-35	059-2156	N	15	20	ft	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	740,000	UR	**74,000**	U	**420,000**		**37,000**	U
GCMW-35	059-2157	N	20	25	ft	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	630,000	UR	**63,000**	U	**28,000**	J	**31,000**	U
GCMW-35	059-2158	N	25	30	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	310,000	UR	**31,000**	U	**31,000**	U	**3,400**	J
GCMW-35	059-2159	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	100	UR	**10**	U	**10**	U	**4.9**	J

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-28	059-2147	N	0	5	ft	**10**	U	**10**	U	**10**	U	**10**	U	**3.5**	J	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-28	059-2148	N	5	10	ft	**17**	U	**17**	U	17	UR	**17**	U	**68**		**17**	U	**17**	U	**17**	U	**17**	U	**17**	U	**17**	U
GCMW-28	059-2149	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**8.1**	J	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-28	059-2150	N	15	20	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**1.9**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-28	059-2151	N	20	25	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**2.2**	J	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**0.39**	J
GCMW-28	059-2152	N	25	30	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**3.6**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**3**	J
GCMW-28	059-2153	N	30	35	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**2.4**	J
GCMW-29	059-2160	N	5	10	ft	**10**	U	**10**	U	**10**	UJ	**10**	U	**14**		**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-29	059-2161	N	10	15	ft	**8.2**	U	**8.2**	U	**8.2**	UJ	**8.2**	U	**17**		**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-29	059-2162	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	UJ	**4.9**	U	**3.5**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**0.71**	J
GCMW-29	059-2163	N	20	25	ft	**4.5**	U	**4.5**	U	**4.5**	UJ	**4.5**	U	**2**	J	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**0.35**	J
GCMW-29	059-2164	N	25	30	ft	**5.5**	U	**5.5**	U	**5.5**	UJ	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**0.53**	J
GCMW-29	059-2165	N	30	35	ft	**5.3**	U	**5.3**	U	**5.3**	UJ	**5.3**	U	**0.72**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**1.6**	J
GCMW-35	059-2154	N	5	10	ft	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	J	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ
GCMW-35	059-2155	N	10	15	ft	**16**	U	**16**	U	**16**	U	**16**	U	**37**		**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U
GCMW-35	059-2156	N	15	20	ft	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U
GCMW-35	059-2157	N	20	25	ft	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**1,600**	J
GCMW-35	059-2158	N	25	30	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U
GCMW-35	059-2159	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**0.73**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**21**	

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-28	059-2147	N	0	5	ft	**10**	U	**10**	U	**10**	U	**10**	U	**1.2**	J	**10**	U	**2.4**	J	**10**	U	**16**	J	**20**	U	**10**	U
GCMW-28	059-2148	N	5	10	ft	**17**	U	**17**	UJ	**17**	U	**17**	U	**1.2**	J	**17**	U	**2.8**	J	**17**	U	**310**		**34**	U	**17**	U
GCMW-28	059-2149	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**18**	U	**18**	U	**9.2**	U
GCMW-28	059-2150	N	15	20	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**0.19**	J	**4.7**	U	**0.31**	J	**4.7**	U	**9.5**	U	**9.5**	U	**4.7**	U
GCMW-28	059-2151	N	20	25	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**0.16**	J	**5.2**	U	**0.4**	J	**5.2**	U	**10**	U	**10**	U	**5.2**	U
GCMW-28	059-2152	N	25	30	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**0.15**	J	**5.3**	U	**0.52**	J	**5.3**	U	**11**	U	**11**	U	**5.3**	U
GCMW-28	059-2153	N	30	35	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**0.42**	J	**6.3**	U	**13**	U	**13**	U	**6.3**	U
GCMW-29	059-2160	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**26**		**21**	U	**10**	U
GCMW-29	059-2161	N	10	15	ft	**8.2**	U	**8.2**	UJ	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**17**		**16**	U	**8.2**	U
GCMW-29	059-2162	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**0.37**	J	**4.9**	U	**9.8**	U	**9.8**	U	**4.9**	U
GCMW-29	059-2163	N	20	25	ft	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**0.18**	J	**4.5**	U	**0.38**	J	**4.5**	U	**9**	U	**9**	U	**4.5**	U
GCMW-29	059-2164	N	25	30	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**11**	U	**11**	U	**5.5**	U
GCMW-29	059-2165	N	30	35	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**11**	U	**11**	U	**5.3**	U
GCMW-35	059-2154	N	5	10	ft	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**2.4**	J	**49**	UJ	**410**	J	**97**	UJ	**49**	UJ
GCMW-35	059-2155	N	10	15	ft	**16**	U	**16**	U	**16**	U	**16**	U	**0.65**	J	**16**	U	**1.9**	J	**16**	U	**27**	J	**31**	U	**16**	U
GCMW-35	059-2156	N	15	20	ft	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**47,000**		**10,000**	J	**33,000**	J	**37,000**	U	**74,000**	U	**74,000**	U	**37,000**	U
GCMW-35	059-2157	N	20	25	ft	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**140,000**		**6,500**	J	**100,000**		**31,000**	U	**63,000**	U	**63,000**	U	**31,000**	U
GCMW-35	059-2158	N	25	30	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**87,000**		**3,900**	J	**57,000**		**15,000**	U	**31,000**	U	**31,000**	U	**15,000**	U
GCMW-35	059-2159	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**2.8**	J	**0.28**	J	**0.27**	J	**5**	U	**10**	U	**10**	U	**5**	U

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-28	059-2147	N	0	5	ft	**10**	U	**2.4**	J	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-28	059-2148	N	5	10	ft	**17**	U	**1.3**	J	**17**	U	**17**	U	**17**	U	**17**	UJ	**17**	U	**17**	U	**17**	U	**17**	U	**17**	U
GCMW-28	059-2149	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-28	059-2150	N	15	20	ft	**4.7**	U	**0.13**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-28	059-2151	N	20	25	ft	**5.2**	U	**0.16**	J	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-28	059-2152	N	25	30	ft	**5.3**	U	**0.17**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-28	059-2153	N	30	35	ft	**6.3**	U	**0.16**	J	**0.37**	J	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U
GCMW-29	059-2160	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-29	059-2161	N	10	15	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	UJ	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-29	059-2162	N	15	20	ft	**4.9**	U	**0.27**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-29	059-2163	N	20	25	ft	**4.5**	U	**0.25**	J	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U
GCMW-29	059-2164	N	25	30	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-29	059-2165	N	30	35	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-35	059-2154	N	5	10	ft	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ	**49**	UJ
GCMW-35	059-2155	N	10	15	ft	**16**	U	**0.52**	J	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U	**16**	U
GCMW-35	059-2156	N	15	20	ft	**7,400**	J	**14,000**	J	**37,000**	U	**37,000**	U	**37,000**	U	**3,100**	J	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U	**37,000**	U
GCMW-35	059-2157	N	20	25	ft	**3,100**	J	**42,000**		**9,900**	J	**31,000**	U	**31,000**	U	**17,000**	J	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U	**31,000**	U
GCMW-35	059-2158	N	25	30	ft	**2,900**	J	**27,000**		**6,000**	J	**15,000**	U	**15,000**	U	**23,000**		**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U
GCMW-35	059-2159	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-28	059-2147	N	0	5	ft	7,300	U	7,300	U	7,300	U	7,300	U	7,300	U	310	J	14,000	U	7,300	U	7,300	U	7,300	U	7,300	U
GCMW-28	059-2148	N	5	10	ft	470	U	470	U	470	U	470	U	470	U	470	U	910	U	470	U	470	U	470	U	470	U
GCMW-28	059-2149	N	10	15	ft	300	U	300	U	300	U	300	U	300	U	300	U	580	U	300	U	300	U	300	U	300	U
GCMW-28	059-2150	N	15	20	ft	200	U	200	U	200	U	200	U	200	U	200	U	390	U	200	U	200	U	200	U	200	U
GCMW-28	059-2151	N	20	25	ft	200	U	200	U	200	U	200	U	200	U	200	U	380	U	200	U	200	U	200	U	200	U
GCMW-28	059-2152	N	25	30	ft	190	U	190	U	190	U	190	U	190	U	190	U	380	U	190	U	190	U	190	U	190	U
GCMW-28	059-2153	N	30	35	ft	230	U	230	U	230	U	230	U	230	U	230	U	440	U	230	U	230	U	230	U	230	U
GCMW-29	059-2160	N	5	10	ft	290	U	290	U	290	U	290	U	290	U	290	U	550	U	290	U	290	U	290	U	290	U
GCMW-29	059-2161	N	10	15	ft	290	U	290	U	290	U	290	U	290	U	290	U	560	U	290	U	290	U	290	U	290	U
GCMW-29	059-2162	N	15	20	ft	200	U	200	U	200	U	200	U	200	U	200	U	380	U	200	U	200	U	200	U	200	U
GCMW-29	059-2163	N	20	25	ft	200	U	200	U	200	U	200	U	200	U	200	U	400	U	200	U	200	U	200	U	200	U
GCMW-29	059-2164	N	25	30	ft	210	U	210	U	210	U	210	U	210	U	210	U	400	U	210	U	210	U	210	U	210	U
GCMW-29	059-2165	N	30	35	ft	200	U	200	U	200	U	200	U	200	U	200	U	390	U	200	U	200	U	200	U	200	U
GCMW-35	059-2154	N	5	10	ft	930	UJ	930	UJ	930	UJ	930	UJ	930	UJ	930	UJ	1,800	UJ	930	UJ	930	UJ	930	UJ	930	UJ
GCMW-35	059-2155	N	10	15	ft	300	U	300	U	300	U	300	U	300	U	300	U	580	U	300	U	300	U	300	U	300	U
GCMW-35	059-2156	N	15	20	ft	6,100	U	6,100	U	6,100	U	6,100	U	6,100	U	6,100	U	12,000	U	6,100	U	6,100	U	6,100	U	6,100	U
GCMW-35	059-2157	N	20	25	ft	6,000	U	6,000	U	6,000	U	6,000	U	6,000	U	6,000	U	12,000	U	6,000	U	6,000	U	6,000	U	6,000	U
GCMW-35	059-2158	N	25	30	ft	6,100	U	6,100	U	6,100	U	6,100	U	6,100	U	6,100	U	12,000	U	6,100	U	6,100	U	6,100	U	6,100	U
GCMW-35	059-2159	N	30	35	ft	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	2,100	U	1,100	U	1,100	U	1,100	U	1,100	U

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)	
GCMW-28	059-2147	N	0	5	ft	**5,400**	J	**7,300**	U	**14,000**	U	**7,300**	U	**7,300**	U	**14,000**	U	**14,000**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**340**	J
GCMW-28	059-2148	N	5	10	ft	**250**	J	**470**	U	**910**	U	**470**	U	**470**	U	**910**	U	**910**	U	**470**	U	**470**	U	**470**	U	**470**	U	**470**	U
GCMW-28	059-2149	N	10	15	ft	**86**	J	**300**	U	**580**	U	**300**	U	**300**	U	**580**	U	**580**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-28	059-2150	N	15	20	ft	**20**	J	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-28	059-2151	N	20	25	ft	**5.8**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-28	059-2152	N	25	30	ft	**19**	J	**190**	U	**380**	U	**190**	U	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-28	059-2153	N	30	35	ft	**230**	U	**230**	U	**440**	U	**230**	U	**230**	U	**440**	U	**440**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U
GCMW-29	059-2160	N	5	10	ft	**290**	U	**290**	U	**550**	U	**290**	U	**290**	U	**550**	U	**550**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-29	059-2161	N	10	15	ft	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-29	059-2162	N	15	20	ft	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-29	059-2163	N	20	25	ft	**200**	U	**200**	U	**400**	U	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-29	059-2164	N	25	30	ft	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-29	059-2165	N	30	35	ft	**6.8**	J	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-35	059-2154	N	5	10	ft	**49**	J	**930**	UJ	**1,800**	UJ	**930**	UJ	**930**	UJ	**1,800**	UJ	**1,800**	UJ	**930**	UJ	**930**	UJ	**930**	UJ	**930**	UJ	**930**	UJ
GCMW-35	059-2155	N	10	15	ft	**56**	J	**300**	U	**580**	U	**300**	U	**300**	U	**580**	U	**580**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-35	059-2156	N	15	20	ft	**44,000**		**6,100**	U	**12,000**	U	**6,100**	U	**6,100**	U	**12,000**	U	**12,000**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U
GCMW-35	059-2157	N	20	25	ft	**560,000**		**6,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**12,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U
GCMW-35	059-2158	N	25	30	ft	**490,000**		**6,100**	U	**12,000**	U	**6,100**	U	**6,100**	U	**12,000**	U	**12,000**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U
GCMW-35	059-2159	N	30	35	ft	**3,300**		**1,100**	U	**2,100**	U	**1,100**	U	**1,100**	U	**2,100**	U	**2,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene	
GCMW-28	059-2147	N	0	5	ft	14,000	U	14,000	U	30,000		4,200	J	430	J	46,000		7,300	U	500	J	71,000		59,000		67,000		33,000	J
GCMW-28	059-2148	N	5	10	ft	910	U	910	U	31	J	40	J	140	J	30	J	470	U	210	J	46	J	62	J	38	J	46	J
GCMW-28	059-2149	N	10	15	ft	580	U	580	U	21	J	28	J	110	J	24	J	300	U	150	J	21	J	14	J	11	J	300	U
GCMW-28	059-2150	N	15	20	ft	390	U	390	U	7.2	J	200	U	56	J	7.6	J	200	U	69	J	6.8	J	200	U	200	U	200	U
GCMW-28	059-2151	N	20	25	ft	380	U	380	U	200	U	200	U	63	J	200	U	200	U	80	J	200	U	200	U	200	U	200	U
GCMW-28	059-2152	N	25	30	ft	380	U	380	U	14	J	190	U	49	J	13	J	190	U	84	J	8.4	J	6.2	J	190	U	190	U
GCMW-28	059-2153	N	30	35	ft	440	U	440	U	230	U	230	U	63	J	230	U	230	U	80	J	230	U	230	U	230	U	230	U
GCMW-29	059-2160	N	5	10	ft	550	U	550	U	290	U	290	U	64	J	290	U	290	U	97	J	290	U	290	U	290	U	290	U
GCMW-29	059-2161	N	10	15	ft	560	U	560	U	290	U	290	U	63	J	290	U	290	U	84	J	290	U	290	U	290	U	290	U
GCMW-29	059-2162	N	15	20	ft	380	U	380	U	200	U	200	U	32	J	200	U	200	U	38	J	200	U	200	U	200	U	200	U
GCMW-29	059-2163	N	20	25	ft	400	U	400	U	200	U	200	U	30	J	200	U	200	U	31	J	200	U	200	U	200	U	200	U
GCMW-29	059-2164	N	25	30	ft	400	U	400	U	210	U	210	U	38	J	210	U	210	U	48	J	210	U	210	U	210	U	210	U
GCMW-29	059-2165	N	30	35	ft	390	U	390	U	200	U	200	U	43	J	200	U	200	U	63	J	200	U	200	U	200	U	200	U
GCMW-35	059-2154	N	5	10	ft	1,800	UJ	1,800	UJ	930	UJ	930	UJ	320	J	930	UJ	930	UJ	460	J	930	UJ	930	UJ	930	UJ	930	UJ
GCMW-35	059-2155	N	10	15	ft	580	U	580	U	44	J	300	U	70	J	31	J	300	U	89	J	24	J	23	J	12	J	300	U
GCMW-35	059-2156	N	15	20	ft	12,000	U	12,000	U	42,000		3,200	J	6,100	U	30,000		6,100	U	6,100	U	17,000		12,000		11,000		4,700	J
GCMW-35	059-2157	N	20	25	ft	12,000	U	12,000	U	94,000	J	230,000		6,000	U	190,000		6,000	U	6,000	U	120,000		96,000	J	76,000	J	38,000	J
GCMW-35	059-2158	N	25	30	ft	12,000	U	12,000	U	73,000	J	210,000		6,100	U	150,000		6,100	U	6,100	U	100,000		79,000	J	59,000	J	30,000	J
GCMW-35	059-2159	N	30	35	ft	2,100	U	2,100	U	680	J	1,800		49	J	1,400		1,100	U	1,100	U	850	J	660	J	510	J	280	J

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran	
GCMW-28	059-2147	N	0	5	ft	**21,000**		**7,300**	U	**2,200**	J	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**17,000**		**58,000**		**7,700**		**24,000**	
GCMW-28	059-2148	N	5	10	ft	**19**	J	**470**	U	**24**	J	**470**	U	**470**	U	**470**	U	**55**	J	**470**	U	**470**	U	**41**	J	**470**	U	**14**	J
GCMW-28	059-2149	N	10	15	ft	**300**	U	**300**	U	**11**	J	**300**	U	**300**	U	**300**	U	**31**	J	**300**	U	**300**	U	**13**	J	**300**	U	**300**	U
GCMW-28	059-2150	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**17**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-28	059-2151	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**16**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-28	059-2152	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**41**	J	**190**	U	**190**	U	**6.3**	J	**190**	U	**190**	U
GCMW-28	059-2153	N	30	35	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**66**	J	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U
GCMW-29	059-2160	N	5	10	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**58**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-29	059-2161	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**86**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-29	059-2162	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**84**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-29	059-2163	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**37**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-29	059-2164	N	25	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**85**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-29	059-2165	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**26**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-35	059-2154	N	5	10	ft	**930**	UJ	**930**	UJ	**930**	UJ	**930**	UJ	**930**	UJ	**930**	UJ	**390**	J	**930**	UJ	**930**	UJ	**930**	UJ	**930**	UJ	**930**	UJ
GCMW-35	059-2155	N	10	15	ft	**300**	U	**300**	U	**9.9**	J	**300**	U	**300**	U	**300**	U	**42**	J	**300**	U	**300**	U	**19**	J	**300**	U	**300**	U
GCMW-35	059-2156	N	15	20	ft	**2,700**	J	**6,100**	U	**8,200**		**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**620**	J	**12,000**		**1,200**	J	**2,300**	J
GCMW-35	059-2157	N	20	25	ft	**20,000**		**6,000**	U	**79,000**	J	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**5,300**	J	**94,000**	J	**11,000**	J	**19,000**	J
GCMW-35	059-2158	N	25	30	ft	**22,000**	J	**6,100**	U	**64,000**	J	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**4,500**	J	**80,000**	J	**9,800**	J	**15,000**	J
GCMW-35	059-2159	N	30	35	ft	**170**	J	**1,100**	U	**560**	J	**1,100**	U	**1,100**	U	**1,100**	U	**40**	J	**1,100**	U	**47**	J	**710**	J	**79**	J	**150**	J

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene	
GCMW-28	059-2147	N	0	5	ft	7,300	U	7,300	U	7,300	U	7,300	U	180,000		32,000		7,300	U	7,300	U	7,300	U	7,300	U	35,000	
GCMW-28	059-2148	N	5	10	ft	470	U	470	U	470	U	470	U	100	J	31	J	470	U	470	U	470	U	470	U	30	J
GCMW-28	059-2149	N	10	15	ft	300	U	300	U	11	J	300	U	28	J	20	J	300	U	300	U	300	U	300	U	300	U
GCMW-28	059-2150	N	15	20	ft	200	U	200	U	200	U	200	U	7	J	7.3	J	200	U	200	U	200	U	200	U	200	U
GCMW-28	059-2151	N	20	25	ft	200	U	200	U	6.5	J	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-28	059-2152	N	25	30	ft	190	U	190	U	13	J	190	U	13	J	9	J	190	U	190	U	190	U	190	U	190	U
GCMW-28	059-2153	N	30	35	ft	230	U	230	U	8.7	J	230	U	230	U	230	U	230	U	230	U	230	U	230	U	230	U
GCMW-29	059-2160	N	5	10	ft	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U
GCMW-29	059-2161	N	10	15	ft	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U
GCMW-29	059-2162	N	15	20	ft	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-29	059-2163	N	20	25	ft	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-29	059-2164	N	25	30	ft	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U
GCMW-29	059-2165	N	30	35	ft	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-35	059-2154	N	5	10	ft	930	UJ	930	UJ	30	J	930	UJ	930	UJ	930	UJ	930	UJ	930	UJ	930	UJ	930	UJ	930	UJ
GCMW-35	059-2155	N	10	15	ft	300	U	300	U	300	U	300	U	40	J	32	J	300	U	300	U	300	U	300	U	300	U
GCMW-35	059-2156	N	15	20	ft	6,100	U	6,100	U	6,100	U	6,100	U	34,000		24,000		6,100	U	6,100	U	6,100	U	6,100	U	4,500	J
GCMW-35	059-2157	N	20	25	ft	6,000	U	6,000	U	6,000	U	6,000	U	220,000		190,000		6,000	U	6,000	U	6,000	U	6,000	U	36,000	J
GCMW-35	059-2158	N	25	30	ft	6,100	U	6,100	U	6,100	U	6,100	U	180,000		180,000		6,100	U	6,100	U	6,100	U	6,100	U	27,000	J
GCMW-35	059-2159	N	30	35	ft	1,100	U	1,100	U	1,100	U	1,100	U	1,700		1,400		1,100	U	1,100	U	1,100	U	1,100	U	240	J

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs	
GCMW-28	059-2147	N	0	5	ft	7,300	U	--	10,000		7,300	U	7,300	U	7,300	U	14,000	U	160,000		7,300	U	140,000		959,300	
GCMW-28	059-2148	N	5	10	ft	470	U	--	720		470	U	470	U	470	U	910	U	120	J	27	J	120	J	1,724	
GCMW-28	059-2149	N	10	15	ft	300	U	--	190	J	300	U	300	U	300	U	580	U	78	J	22	J	46	J	580	
GCMW-28	059-2150	N	15	20	ft	200	U	--	37	J	200	U	200	U	200	U	390	U	19	J	11	J	13	J	124.9	
GCMW-28	059-2151	N	20	25	ft	200	U	--	12	J	200	U	200	U	200	U	380	U	15	J	13	J	8.2	J	41	
GCMW-28	059-2152	N	25	30	ft	190	U	--	23	J	190	U	190	U	190	U	380	U	46	J	11	J	21	J	178.9	
GCMW-28	059-2153	N	30	35	ft	230	U	--	8.3	J	230	U	230	U	230	U	440	U	230	U	9.9	J	230	U	8.3	
GCMW-29	059-2160	N	5	10	ft	290	U	--	290	U	290	U	290	U	290	U	550	U	290	U	14	J	290	U	0	U
GCMW-29	059-2161	N	10	15	ft	290	U	--	290	U	290	U	290	U	290	U	560	U	290	U	10	J	290	U	0	U
GCMW-29	059-2162	N	15	20	ft	200	U	--	200	U	200	U	200	U	200	U	380	U	200	U	200	U	200	U	0	U
GCMW-29	059-2163	N	20	25	ft	200	U	--	200	U	200	U	200	U	200	U	400	U	200	U	200	U	200	U	0	U
GCMW-29	059-2164	N	25	30	ft	210	U	--	210	U	210	U	210	U	210	U	400	U	210	U	210	U	210	U	0	U
GCMW-29	059-2165	N	30	35	ft	200	U	--	19	J	200	U	200	U	200	U	390	U	200	U	6.9	J	200	U	25.8	
GCMW-35	059-2154	N	5	10	ft	930	UJ	--	160	J	930	UJ	930	UJ	930	UJ	1,800	UJ	30	J	73	J	33	J	272	
GCMW-35	059-2155	N	10	15	ft	300	U	--	89	J	300	U	300	U	300	U	580	U	110	J	13	J	63	J	543	
GCMW-35	059-2156	N	15	20	ft	6,100	U	--	52,000		6,100	U	6,100	U	6,100	U	12,000	UJ	91,000		6,100	U	39,000		424,300	
GCMW-35	059-2157	N	20	25	ft	6,000	U	--	1,100,000		6,000	U	6,000	U	6,000	U	12,000	U	690,000		6,000	U	330,000		4,095,000	
GCMW-35	059-2158	N	25	30	ft	6,100	U	--	900,000		6,100	U	6,100	U	6,100	U	12,000	U	540,000		6,100	U	290,000		3,419,800	
GCMW-35	059-2159	N	30	35	ft	1,100	U	--	6,600		1,100	U	1,100	U	1,100	U	2,100	UJ	5,100		1,100	U	2,400		27,879	

318 Nevins St (MW28 & MW29 & MW35)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde		Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor	
GCMW-28	059-2147	N	0	5	ft	**2.5**	U	**2.5**	UJ	**2.5**	U	**2.5**	U	**2.5**	U	**4.8**	UJ	**2.5**	U	**4.8**	U	**4.8**	U	**4.8**	UJ	**4.8**	UJ	9.9	R	**2.5**	UJ	**2.5**	U	**2.5**	U
GCMW-28	059-2148	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**9.2**	U	**4.7**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-28	059-2149	N	10	15	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**5.8**	U	**3**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**3**	U	**3**	U	**3**	U
GCMW-28	059-2150	N	15	20	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**2**	U	**2**	U	**2**	U
GCMW-28	059-2151	N	20	25	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**2**	U	**2**	U	**2**	U
GCMW-28	059-2152	N	25	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U	**2**	U	**2**	U	**2**	U
GCMW-28	059-2153	N	30	35	ft	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**4.4**	U	**2.3**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**2.3**	U	**2.3**	U	**2.3**	U
GCMW-29	059-2160	N	5	10	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.6**	U	**2.9**	U	**5.6**	UJ	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**0.63**	J	**2.9**	U	**2.9**	U
GCMW-29	059-2161	N	10	15	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.6**	U	**2.9**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**2.9**	U	**2.9**	U	**2.9**	U
GCMW-29	059-2162	N	15	20	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**2**	U	**2**	U	**2**	U
GCMW-29	059-2163	N	20	25	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4**	U	**2.1**	U	**4**	U	**4**	U	**4**	U	**4**	U	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U
GCMW-29	059-2164	N	25	30	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U
GCMW-29	059-2165	N	30	35	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U	**2**	U	**2**	U	**2**	U
GCMW-35	059-2154	N	5	10	ft	**9.4**	UJ	**9.4**	UJ	**9.4**	UJ	**9.4**	UJ	**9.4**	UJ	**18**	UJ	**9.4**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**9.4**	UJ	**9.4**	UJ	**9.4**	UJ
GCMW-35	059-2155	N	10	15	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**5.9**	U	**3**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**3**	U	**3**	U	**3**	U
GCMW-35	059-2156	N	15	20	ft	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4**	UJ	**2.1**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**2.1**	UJ	**17**	J	**2.1**	UJ
GCMW-35	059-2157	N	20	25	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**39**	U	**20**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**20**	U	**20**	U	**20**	U
GCMW-35	059-2158	N	25	30	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**40**	U	**21**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**21**	U	**21**	U	**21**	U
GCMW-35	059-2159	N	30	35	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.2**	U	**2.1**	U	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U	**2.1**	U	**2.1**	U	**2.1**	U

318 Nevins St (MW28 & MW29 & MW35)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-28	059-2147	N	0	5	ft	**2.5**	U	**25**	U	**4.8**	U	**19**	J	**4.8**	UJ	**250**	U	**19**	
GCMW-28	059-2148	N	5	10	ft	**4.7**	U	**47**	U	**9.2**	U	**9.2**	U	**9.2**	U	**470**	U	**0**	U
GCMW-28	059-2149	N	10	15	ft	**3**	U	**30**	U	**5.8**	U	**5.8**	U	**5.8**	U	**300**	U	**0**	U
GCMW-28	059-2150	N	15	20	ft	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-28	059-2151	N	20	25	ft	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-28	059-2152	N	25	30	ft	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-28	059-2153	N	30	35	ft	**2.3**	U	**23**	U	**4.4**	U	**4.4**	U	**4.4**	U	**230**	U	**0**	U
GCMW-29	059-2160	N	5	10	ft	**2.9**	U	**29**	U	**5.6**	U	**5.6**	U	**5.6**	U	**290**	U	**0**	U
GCMW-29	059-2161	N	10	15	ft	**2.9**	U	**29**	U	**5.6**	U	**5.6**	U	**5.6**	U	**290**	U	**0**	U
GCMW-29	059-2162	N	15	20	ft	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-29	059-2163	N	20	25	ft	**2.1**	U	**21**	U	**4**	U	**4**	U	**4**	U	**210**	U	**0**	U
GCMW-29	059-2164	N	25	30	ft	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-29	059-2165	N	30	35	ft	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	UJ	**200**	U	**0**	U
GCMW-35	059-2154	N	5	10	ft	**9.4**	UJ	**94**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**940**	UJ	**0**	U
GCMW-35	059-2155	N	10	15	ft	**3**	U	**30**	U	**5.9**	U	**5.9**	U	**5.9**	U	**300**	U	**0**	U
GCMW-35	059-2156	N	15	20	ft	**2.1**	UJ	**22**	NJ	**6.8**	J	**4**	UJ	**17**	J	**210**	UJ	**23.8**	
GCMW-35	059-2157	N	20	25	ft	**20**	U	**200**	U	**48**		**39**	U	**120**		**2,000**	U	**168**	
GCMW-35	059-2158	N	25	30	ft	**21**	U	**210**	U	**42**		**21**	J	**83**		**2,100**	U	**146**	
GCMW-35	059-2159	N	30	35	ft	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**4.2**	U	**210**	U	**0**	U

318 Nevins St (MW28 & MW29 & MW35)

PCB Aroclor Concentrations in Soils (ug/kg)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-28	059-2147	N	0	5	ft	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**0**	U
GCMW-28	059-2148	N	5	10	ft	**92**	U	**92**	U	**92**	U	**92**	U	**92**	U	**92**	U	**92**	U	**92**	U	**92**	U	**0**	U
GCMW-28	059-2149	N	10	15	ft	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**0**	U
GCMW-28	059-2150	N	15	20	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-28	059-2151	N	20	25	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-28	059-2152	N	25	30	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-28	059-2153	N	30	35	ft	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**0**	U
GCMW-29	059-2160	N	5	10	ft	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**0**	U
GCMW-29	059-2161	N	10	15	ft	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**0**	U
GCMW-29	059-2162	N	15	20	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-29	059-2163	N	20	25	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-29	059-2164	N	25	30	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-29	059-2165	N	30	35	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-35	059-2154	N	5	10	ft	**180**	UJ	**180**	UJ	**180**	UJ	**180**	UJ	**180**	UJ	**180**	UJ	**180**	UJ	**180**	UJ	**180**	UJ	**0**	U
GCMW-35	059-2155	N	10	15	ft	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**0**	U
GCMW-35	059-2156	N	15	20	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-35	059-2157	N	20	25	ft	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**0**	U
GCMW-35	059-2158	N	25	30	ft	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**0**	U
GCMW-35	059-2159	N	30	35	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U

318 Nevins St (MW28 & MW29 & MW35)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-28	059-2147	N	0	5	ft	3,320	0.84 J	5.7	106	0.71 U	0.33 J	9,490	15.2 J	7.1 J	43.3	11,200
GCMW-28	059-2148	N	5	10	ft	11,000	0.58 J	5.5	52.8	0.67 U	0.19 J	1,990	18.3 J	6.7	18.9	19,300
GCMW-28	059-2149	N	10	15	ft	15,400	1.1 J	9.5	33.1	0.82 U	0.5 J	2,220	31.1	10.7	18	34,300
GCMW-28	059-2150	N	15	20	ft	8,370	0.47 J	2.5	55.3	0.63 U	0.1 J	762	14.7 J	5.9 J	13.8	15,200
GCMW-28	059-2151	N	20	25	ft	4,040	7.3 U	2.5	19.6 J	0.6 U	0.048 J	574 J	9.9 J	5.7 J	8.9	8,000
GCMW-28	059-2152	N	25	30	ft	2,630	0.34 J	0.64 J	17.4 J	0.58 U	0.58 U	462 J	6.6	2.4 J	5.5	6,120
GCMW-28	059-2153	N	30	35	ft	3,120	6.8 U	1.1 U	11.8 J	0.57 U	0.57 U	868	7.1	3 J	8	7,090
GCMW-29	059-2160	N	5	10	ft	14,900	0.89 J	6.9	49.4	0.81 U	0.36 J	2,350	29.4	8.3	20.2	27,300
GCMW-29	059-2161	N	10	15	ft	15,600	0.89 J	8.6	31.6 J	0.84 U	0.56 J	2,530	33	9.8	15.7	35,800
GCMW-29	059-2162	N	15	20	ft	5,760	6.7 U	1.1 J	27.1	0.56 U	0.021 J	535 J	12.8	4.4 J	9.1	9,300
GCMW-29	059-2163	N	20	25	ft	5,220	0.34 J	0.55 J	42.6	0.26 J	0.063 J	1,090 J	13.1	4.1 J	12 J	8,440
GCMW-29	059-2164	N	25	30	ft	3,990	7.5 UJ	1.3 U	39.6	0.21 J	0.032 J	5,400 J	8.6	3.6 J	8.3 J	7,370
GCMW-29	059-2165	N	30	35	ft	4,240	7.1 UJ	0.71 J	40.6	0.2 J	0.083 J	5,550 J	8.3	4 J	10.1 J	9,700
GCMW-35	059-2154	N	5	10	ft	14,700	0.85 J	9.1	94.9	0.86 U	0.23 J	6,030	31.4	7.1 J	24.9	28,800
GCMW-35	059-2155	N	10	15	ft	14,800	0.81 J	8.1	31.4 J	0.93 U	0.4 J	2,380	30.9	9.4	16.4	33,800
GCMW-35	059-2156	N	15	20	ft	4,120	7.4 UJ	1.2 J	17.9 J	0.61 U	0.61 U	451 J	8.1 J	2.3 J	5.8	7,650
GCMW-35	059-2157	N	20	25	ft	2,930	7.1 U	2.2	12.3 J	0.6 U	0.13 J	288 J	6.9	2.9 J	5.9	4,670
GCMW-35	059-2158	N	25	30	ft	4,150	0.48 J	5.3	38.9	0.6 U	0.05 J	3,680	11.9	6.1	10.7	10,600
GCMW-35	059-2159	N	30	35	ft	7,070	0.46 J	1 J	64.1	0.6 U	0.22 J	12,000	16.8 J	7.1	18	14,500

318 Nevins St (MW28 & MW29 & MW35)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-28	059-2147	N	0	5	ft	**314**	**1,580**	**172**	**34.1** J	**19.6**	**649** J	**1** J	**1.4** U	**714** U	**3.6** U	**12.2**	**124**	**4**
GCMW-28	059-2148	N	5	10	ft	**89.8**	**3,280**	**165**	**0.23** J	**23.4**	**1,500**	**4.7** U	**1.3** U	**810**	**3.3** U	**24.9**	**42.4**	**3.4** U
GCMW-28	059-2149	N	10	15	ft	**25.7**	**6,550**	**400**	**0.14** J	**28.8**	**3,360**	**5.7** U	**1.6** U	**2,450**	**4.1** U	**35.3**	**72.9**	**4.2** U
GCMW-28	059-2150	N	15	20	ft	**8.4**	**2,680**	**69**	**0.13** UJ	**14.5**	**1,420**	**4.4** U	**1.3** U	**1,010**	**3.2** U	**18.1**	**35.1**	**3.2** U
GCMW-28	059-2151	N	20	25	ft	**5.7**	**1,820**	**54**	**0.12** UJ	**12**	**691**	**4.2** U	**1.2** U	**605** U	**3** U	**16.1**	**29.1**	**3.1** U
GCMW-28	059-2152	N	25	30	ft	**3.2**	**1,210**	**47.3**	**0.12** U	**10**	**463** J	**4** U	**1.2** U	**578** U	**2.9** U	**9**	**17.1**	**3** U
GCMW-28	059-2153	N	30	35	ft	**2.9**	**1,960**	**60.6**	**0.12** U	**13.4**	**718**	**4** U	**1.1** U	**566** U	**2.8** U	**7.6**	**15.1**	**2.9** U
GCMW-29	059-2160	N	5	10	ft	**36.9**	**5,370**	**256**	**0.079** J	**26.8**	**2,920**	**5.6** U	**1.6** U	**1,270**	**4** U	**36.4**	**57.9**	**4** U
GCMW-29	059-2161	N	10	15	ft	**15.4**	**6,740**	**355**	**0.17** U	**27**	**3,520**	**5.9** U	**1.7** U	**2,200**	**4.2** U	**34.5**	**72.4**	**4.2** U
GCMW-29	059-2162	N	15	20	ft	**5**	**1,940**	**54.2**	**0.12** U	**12.1**	**795**	**3.9** U	**1.1** U	**562** U	**2.8** U	**16.6**	**22.2**	**2.8** U
GCMW-29	059-2163	N	20	25	ft	**4.4**	**2,210**	**49.5**	**0.12** U	**16.5**	**1,340**	**4.2** U	**1.2** U	**605** U	**3** U	**14.8**	**21.1**	**3** U
GCMW-29	059-2164	N	25	30	ft	**3.3**	**4,470**	**139**	**0.13** U	**13.4**	**993**	**4.4** U	**1.3** U	**628** U	**3.1** U	**10.6**	**16.9**	**3.1** U
GCMW-29	059-2165	N	30	35	ft	**3.9**	**4,120**	**186**	**0.12** U	**13.2**	**1,200**	**4.2** U	**1.2** U	**594** U	**3** U	**11**	**19.8**	**2.9** U
GCMW-35	059-2154	N	5	10	ft	**151**	**5,300**	**219**	**0.33**	**27.1**	**2,980**	**6** U	**1.7** U	**1,250**	**4.3** U	**37.3**	**70.7**	**4.4** U
GCMW-35	059-2155	N	10	15	ft	**25.3**	**6,470**	**324**	**0.19** U	**26.7**	**3,340**	**6.5** U	**1.9** U	**2,910**	**4.7** U	**35.5**	**67.8**	**4.5** U
GCMW-35	059-2156	N	15	20	ft	**4.7**	**1,410**	**37.9**	**0.13** UJ	**6.5**	**647**	**4.3** U	**1.2** U	**614** U	**3.1** U	**12**	**16.4**	**3.2** U
GCMW-35	059-2157	N	20	25	ft	**3.7**	**1,180**	**35.4**	**0.12** U	**10.3**	**521** J	**4.2** U	**1.2** U	**595** U	**3** U	**12**	**14.2**	**2.9** U
GCMW-35	059-2158	N	25	30	ft	**4.1**	**4,430**	**115**	**0.12** U	**18.1**	**1,310**	**4.2** U	**1.2** U	**596** U	**3** U	**14.9**	**23.8**	**3** U
GCMW-35	059-2159	N	30	35	ft	**6.5**	**7,800**	**317**	**0.13** UJ	**23.4**	**2,280**	**4.2** U	**1.2** U	**604** U	**3** U	**21.2**	**36.8**	**3.1** U

318 Nevins St

(MW28 & MW29 & MW35)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane	
MW-28	GC-MW28I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-28	GC-MW28S-A	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-29	GC-MW29I	N	Intermediate	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-29	GC-MW29S	N	Shallow	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	UJ	**0.5**	UJ
MW-35	GC-MW35I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-35	GC-MW35S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
MW-28	GC-MW28I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.5** U	**0.5** UJ	**0.5** U	**0.5**
MW-28	GC-MW28S-A	N	Shallow	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5**
MW-29	GC-MW29I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**19** J	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.43** J	**0.5** UJ	**0.5** U	**0.5**
MW-29	GC-MW29S	N	Shallow	**0.21** J	**0.21** J	--	**5** U	**10** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	0.5 UR	**0.73**	**0.5** UJ	**0.5** U	**0.5**
MW-35	GC-MW35I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**1.8**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.5**
MW-35	GC-MW35S	N	Shallow	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5**

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	
MW-28	GC-MW28I	N	Intermediate	U
MW-28	GC-MW28S-A	N	Shallow	U
MW-29	GC-MW29I	N	Intermediate	U
MW-29	GC-MW29S	N	Shallow	U
MW-35	GC-MW35I	N	Intermediate	U
MW-35	GC-MW35S	N	Shallow	U

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone
MW-28	GC-MW28I	N	Intermediate	**0.5** U	**0.5** U	**53** J	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**5** U	**5** U
MW-28	GC-MW28S-A	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U
MW-29	GC-MW29I	N	Intermediate	**0.78**	**0.5** U	**18** J	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**6.4**	**0.99**	**6.3**	**0.5** UJ	**5** U	**5** U
MW-29	GC-MW29S	N	Shallow	**0.71**	**0.5** U	**0.5** U	**0.5** UJ	**3.1** J	**0.5** U	**0.5** U	**0.5** U	**3.5**	**0.5** U	**0.5** UJ	**5** U	**5** U
MW-35	GC-MW35I	N	Intermediate	**0.5** U	**0.5** U	**1.9**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**19**	**2.7**	**13**	**0.5** UJ	**5** U	**5** U
MW-35	GC-MW35S	N	Shallow	**0.5** U	**0.5** U	**0.49** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**18**	**3**	**9.1**	**0.5** U	**5** U	**5** U

318 Nevins St (MW28 & MW29 & MW35)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-28	GC-MW28I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**2**	J	**5.5**		**0.5**	U	**1.4**		**0.5**	UJ	**7.1**		**0.5**	UJ	**0.5**	U
MW-28	GC-MW28S-A	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-29	GC-MW29I	N	Intermediate	**2.1**		**0.34**	J	**6.4**		**1.5**		**0.5**	UJ	**0.42**	J	**15**		**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-29	GC-MW29S	N	Shallow	**1.8**	J	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-35	GC-MW35I	N	Intermediate	**0.14**	J	**0.5**	UJ	**7.8**		**0.5**	U	**1.8**	J	**0.3**	J	**1.7**		**0.5**	U	**0.5**	U	**0.28**	J	**0.5**	UJ	**0.5**	UJ
MW-35	GC-MW35S	N	Shallow	**0.5**	U	**0.5**	U	**6.5**		**0.5**	U	**1.7**		**0.28**	J	**1.7**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,4-dinitrotoluene	2,6-dinitrotoluene	2-chloronaphthalene	2-chlorophenol	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline
MW-28	GC-MW28I	N	Intermediate	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**5** UJ	**5** U	**5** U	**5** U	**0.1** U	**5** U	**10** U
MW-28	GC-MW28S	N	Shallow	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**5** UJ	**5** U	**5** U	**5** U	**0.15**	**5** U	**10** U
MW-29	GC-MW29I	N	Intermediate	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**5** UJ	**5** U	**5** U	**5** U	**6.1**	**5** U	**10** U
MW-29	GC-MW29S	N	Shallow	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**5** UJ	**5** U	**5** U	**5** U	**0.14**	**5** U	**10** U
MW-35	GC-MW35I	N	Intermediate	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**5** UJ	**5** U	**5** U	**5** U	**110** J	**5** U	**10** U
MW-35	GC-MW35S	N	Shallow	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**5** UJ	**5** U	**5** U	**5** U	**100** J	**5** U	**10** U

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone	
MW-28	GC-MW28I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U
MW-28	GC-MW28S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**1.6**	J	**10**	U	**10**	U	**0.54**		**0.1**	U	**5**	U
MW-29	GC-MW29I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**4.2**	J	**0.1**	U	**5**	U
MW-29	GC-MW29S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**0.17**		**0.1**	U	**5**	U
MW-35	GC-MW35I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**75**	J	**19**		**5**	U
MW-35	GC-MW35S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**79**	J	**21**		**5**	U

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether
MW-28	GC-MW28I	N	Intermediate	**0.1** U	**5** U	**5** U	**0.1** UJ	**0.1** U	**0.13**	**0.46**	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-28	GC-MW28S	N	Shallow	**0.1** U	**5** U	**5** U	**0.1** UJ	**0.1** U	**0.1** U	**0.15** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-29	GC-MW29I	N	Intermediate	**0.14**	**5** U	**5** U	**0.1** U	**0.1** U	**0.1** U	**0.14** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-29	GC-MW29S	N	Shallow	**0.1** U	**5** U	**5** U	**0.1** U	**0.1** U	**0.17**	**0.96**	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-35	GC-MW35I	N	Intermediate	**14**	**5** U	**5** U	**0.8**	**0.1** U	**0.22**	**0.33**	**0.1** UJ	**5** U	**15**	**5** U	**5** U	**5** U
MW-35	GC-MW35S	N	Shallow	**12**	**5** U	**5** U	**0.78**	**0.1** U	**0.34**	**0.87**	**0.1** UJ	**5** U	**16**	**5** U	**5** U	**5** U

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene
MW-28	GC-MW28I	N	Intermediate	**1.1** J	**5** U	**5** U	**0.1** U	**0.16**	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U
MW-28	GC-MW28S	N	Shallow	**1.8** J	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.18**	**5** U	**5** U
MW-29	GC-MW29I	N	Intermediate	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**1.5** J	**5** U	**5** U	**0.1** J	**0.67**	**5** U	**5** U
MW-29	GC-MW29S	N	Shallow	**3.5** J	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.18**	**0.17**	**5** U	**5** U
MW-35	GC-MW35I	N	Intermediate	**0.99** J	**5** U	**1.6** J	**0.64** J	**0.1** UJ	**3.7** J	**5** U	**5** U	**5** U	**5** U	**9.9**	**37**	**5** U	**5** U
MW-35	GC-MW35S	N	Shallow	**3.9** J	**5** U	**2.3** J	**0.44**	**0.1** UJ	**3.9** J	**5** U	**5** U	**5** U	**5** U	**8.3**	**38**	**5** U	**5** U

318 Nevins St (MW28 & MW29 & MW35)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-28	GC-MW28I	N	Intermediate	5 U	5 U	0.24	5 U	0.049 J	5 U	5 U	5 U	0.2 U	0.1 J	5 U	0.1 U	1.139
MW-28	GC-MW28S	N	Shallow	5 U	5 U	0.13 U	5 U	1.4 J	5 U	5 U	5 U	0.11 J	0.14 J	5 U	0.1 U	2.41
MW-29	GC-MW29I	N	Intermediate	5 U	5 U	0.14 U	5 U	71	5 U	5 U	5 U	0.16 J	0.53 J	5 U	0.13	82.87
MW-29	GC-MW29S	N	Shallow	5 U	5 U	0.48	5 U	0.17	5 U	5 U	5 U	0.2 UJ	0.37 J	5 U	0.17	2.98
MW-35	GC-MW35I	N	Intermediate	5 U	5 U	0.26	5 U	340 J	5 U	5 U	5 U	0.2 U	98 J	5 U	15	720.15
MW-35	GC-MW35S	N	Shallow	5 U	5 U	0.51	5 U	210 J	5 U	5 U	5 U	0.13 J	81 J	5 U	13	565.24

318 Nevins St (MW28 & MW29 & MW35)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-28	GC-MW28I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-28	GC-MW28S-A	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-29	GC-MW29I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-29	GC-MW29S-A	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-35	GC-MW35I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-35	GC-MW35S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

318 Nevins St (MW28 & MW29 & MW35)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-28	GC-MW28I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-28	GC-MW28S-A	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-29	GC-MW29I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-29	GC-MW29S-A	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-35	GC-MW35I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-35	GC-MW35S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

318 Nevins St (MW28 & MW29 & MW35)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-28	GC-MW28I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-28	GC-MW28S-A	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-29	GC-MW29I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-29	GC-MW29S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-35	GC-MW35I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-35	GC-MW35S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

318 Nevins St (MW28 & MW29 & MW35)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-28	GC-MW28I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**8.1**	J	**9.4**	J	**108**	**113**	**1**	U	**1**	U	**1**	U	**1**	U
MW-28	GC-MW28S-B	N	Shallow	**3,710**		**200**	U	**2**	U	**2**	U	**9.8**	J	**5.9**	J	**715**	**695**	**0.48**	J	**1**	U	**1**	U	**1**	U
MW-29	GC-MW29I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**7.3**	J	**8.9**	J	**869**	**799**	**1**	U	**1**	U	**1**	U	**1**	U
MW-29	GC-MW29S-A	N	Shallow	**2,680**		--		**2**	U	--		**7.5**	J	--		**806**	--	**1**	U	--		**1**	U	--	
MW-29	GC-MW29S-B	N	Shallow	--		**200**	U	--		**2**	U	--		**4.6**	J	--	**764**	--		**1**	U	--		**1**	U
MW-35	GC-MW35I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**8.4**	J	**8.2**	J	**238**	**240**	**1**	U	**1**	U	**1**	U	**1**	U
MW-35	GC-MW35S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**9**	J	**8.4**	J	**246**	**240**	**1**	U	**1**	U	**1**	U	**1**	U

318 Nevins St (MW28 & MW29 & MW35)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead
MW-28	GC-MW28I	N	Intermediate	**107,000** J	**108,000**	**0.45** J	**2** UJ	**1** U	**1** U	**25** U	**25** U	**11,800** J	**11,500**	**0.26** J
MW-28	GC-MW28S-B	N	Shallow	**129,000**	**142,000**	**36.8**	**7.2**	**3.1**	**1.7**	**262**	**25** U	**23,300**	**15,100**	**21.9**
MW-29	GC-MW29I	N	Intermediate	**85,300** J	**87,100**	**0.73** J	**0.53** J	**0.21** J	**0.23** J	**25** U	**25** U	**9,530** J	**9,690**	**0.19** J
MW-29	GC-MW29S-A	N	Shallow	**152,000**	--	**95.5**	--	**8.1**	--	**175**	--	**16,500**	--	**21**
MW-29	GC-MW29S-B	N	Shallow	--	**174,000**	--	**5.4**	--	**11.9**	--	**25** U	--	**6,060**	--
MW-35	GC-MW35I	N	Intermediate	**147,000** J	**148,000**	**3.1** J	**1** J	**0.68** J	**0.7** J	**25** U	**25** U	**9,450** J	**9,280**	**0.45** J
MW-35	GC-MW35S	N	Shallow	**138,000** J	**143,000**	**18** J	**2.7** J	**1.2**	**1**	**2.9** J	**25** U	**11,100** J	**12,100**	**5.4**

318 Nevins St (MW28 & MW29 & MW35)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium
MW-28	GC-MW28I	N	Intermediate	**1** U	**42,100** J	**42,200**	**3,330**	**3,600**	**0.1** J	**0.095** J	**4.6** J	**4.8** J	**20,400** J	**20,400**	5 UR
MW-28	GC-MW28S-B	N	Shallow	**0.4** J	**101,000**	**90,700**	**1,570**	**1,320**	**0.14** J	**0.05** J	**48.4** J	**30.7** J	**90,200**	**81,200**	**5** UJ
MW-29	GC-MW29I	N	Intermediate	**1** U	**72,500** J	**75,300**	**583**	**541**	**0.078** J	**0.095** J	**4.7** J	**5** J	**14,800** J	**15,200**	5 UR
MW-29	GC-MW29S-A	N	Shallow	--	**59,000**	--	**1,590**	--	**0.08** J	--	**110** J	--	**62,500**	--	**5** UJ
MW-29	GC-MW29S-B	N	Shallow	**0.93** J	--	**64,400**	--	**1,590**	--	**0.057** J	--	**14.9** J	--	**59,200**	--
MW-35	GC-MW35I	N	Intermediate	**1** U	**18,500** J	**18,700**	**1,240**	**1,290**	**0.081** J	**0.096** J	**3.8** J	**2.3** J	**30,700** J	**30,900**	5 UR
MW-35	GC-MW35S	N	Shallow	**1** U	**19,600** J	**22,100**	**1,190**	**1,140**	**0.098** J	**0.098** J	**19.3** J	**12.2** J	**33,400** J	**36,700**	5 UR

318 Nevins St (MW28 & MW29 & MW35)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-28	GC-MW28I	N	Intermediate	5 UR	**1** UJ	**1** UJ	**127,000**	**125,000**	**1** U	**1** U	**5** U	**5** U	**1.9** J	**2** UJ	**10** U
MW-28	GC-MW28S-B	N	Shallow	**5** UJ	**1** UJ	**1** U	**896,000**	**688,000**	**1** U	**1** U	**3.6** J	**5** U	**108**	**77.4**	**42.2**
MW-29	GC-MW29I	N	Intermediate	1.2 R	**1** UJ	**1** UJ	**552,000**	**610,000**	**1** U	**1** U	**5** U	**5** U	**3.6** J	**4.8** J	**10** U
MW-29	GC-MW29S-A	N	Shallow	--	**0.46** J	--	**545,000**	--	**1** U	--	**2.8** J	--	**165**	--	--
MW-29	GC-MW29S-B	N	Shallow	**5** UJ	--	**1** U	--	**488,000**	--	**1** U	--	**5** U	--	**65**	**4.8** J
MW-35	GC-MW35I	N	Intermediate	5 UR	**1** UJ	**1** UJ	**124,000**	**124,000**	**1** U	**1** U	**5** U	**5** U	**7.2** J	**3.5** J	**31**
MW-35	GC-MW35S	N	Shallow	5 UR	**1** UJ	**1** UJ	**170,000**	**183,000**	**1** U	**1** U	**1.5** J	**5** U	**11.5** J	**4.8** J	**32.8**

322 3rd Ave.

(MW25 & MW26)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 322 3rd Ave.
Monitoring Well Soil Borings Installed at Address: GC-MW-25 & GC-MW-26
Intermediate Monitoring Wells Installed at Address: GC-MW-25I & GC-MW-26I
Shallow Monitoring Wells Installed at Address: GC-MW-25S & GC-MW-26S

GC-MW-25

The soil samples from the soil boring installed for the intermediate well (situated approximately 60 feet from the canal) contained 11 VOCs, 84 SVOCs, 7 pesticides, 1 PCB, and 130 metals. From these, 2 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 12 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (82 µg/kg). The SVOC occurring at the highest concentration above screening value was benzo(b)fluoranthene (3,200 µg/kg). The metal occurring at the highest concentration above screening value was lead (34,700 mg/kg).

Shallow groundwater

The shallow well (depth of approximately24 ft bgs and situated approximately 60 feet from the canal) contained 2 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was bis(2-ethylhexyl) phthalate (5.1 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,900 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately43 ft bgs and situated approximately 60 feet from the canal) contained 10 VOCs, 14 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 2 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was 1,2,4-trichlorobenzene (52 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (388 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-26

The soil samples from the soil boring installed for the intermediate well (situated approximately 210 feet from the canal) contained 13 VOCs, 25 SVOCs, 6 pesticides, 0 PCBs, and 68 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The metal occurring at the highest concentration above screening value was mercury (2.8 mg/kg).

Shallow groundwater

The shallow well (depth of approximately24 ft bgs and situated approximately 210 feet from the canal) contained 10 VOCs, 8 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 5VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was 1,3-dichlorobenzene (29 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (17,400 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 210 feet from the canal) contained 14 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening

criteria was cis-1,2-dichloroethylene (14 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (5,930 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-25	059-2220	N	5	10	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-25	059-2221	N	10	15	ft	6.2	UR	6.2	UR	**6.2**	U	6.2	UR	**6.2**	U	**6.2**	U	6.2	UR	6.2	UR	6.2	UR
GCMW-25	059-2222	N	15	20	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-25	059-2223	N	20	25	ft	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U
GCMW-25	059-2224	N	25	30	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-25	059-2225	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**8.1**		**5.2**	U
GCMW-25	059-2226	N	35	40	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-26	059-2216	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-26	059-2217	N	20	25	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-26	059-2218	N	25	30	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-26	059-2219	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-25	059-2220	N	5	10	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	110	UR	**11**	U	**11**	U	**5.5**	U
GCMW-25	059-2221	N	10	15	ft	6.2	UR	6.2	UR	**6.2**	U	6.2	UR	6.2	UR	6.2	UR	120	UR	12	UR	**12**	U	6.2	UR
GCMW-25	059-2222	N	15	20	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	120	UR	**12**	U	**77**		**6.2**	U
GCMW-25	059-2223	N	20	25	ft	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	170	UR	**17**	U	**82**		**8.3**	U
GCMW-25	059-2224	N	25	30	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	95	UR	**9.5**	U	**13**		**4.7**	U
GCMW-25	059-2225	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**17**		**5.2**	U
GCMW-25	059-2226	N	35	40	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	120	UR	**12**	U	**12**	U	**5.8**	U
GCMW-26	059-2216	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**2.2**	J	**1.7**	J	99	UR	**9.9**	U	**36**		**4.9**	U
GCMW-26	059-2217	N	20	25	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**0.99**	J	**0.98**	J	110	UR	**11**	U	**23**		**5.3**	U
GCMW-26	059-2218	N	25	30	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	97	UR	**9.7**	U	**17**		**4.8**	U
GCMW-26	059-2219	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**18**		**5.2**	U

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-25	059-2220	N	5	10	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-25	059-2221	N	10	15	ft	**6.2**	U	6.2	UR	6.2	UR	**6.2**	U	**6.2**	U	6.2	UR	6.2	UR	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-25	059-2222	N	15	20	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-25	059-2223	N	20	25	ft	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**12**		**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U
GCMW-25	059-2224	N	25	30	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.6**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-25	059-2225	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-25	059-2226	N	35	40	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-26	059-2216	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**2.7**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-26	059-2217	N	20	25	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-26	059-2218	N	25	30	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-26	059-2219	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-25	059-2220	N	5	10	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**11**	U	**11**	U	**5.5**	U
GCMW-25	059-2221	N	10	15	ft	6.2	UR	6.2	UR	6.2	UR	**6.2**	U	6.2	UR	6.2	UR	--		**6.2**	U	**12**	U	12	UR	6.2	UR
GCMW-25	059-2222	N	15	20	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**30**		**12**	U	**6.2**	U
GCMW-25	059-2223	N	20	25	ft	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**17**	U	**17**	U	**8.3**	U
GCMW-25	059-2224	N	25	30	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**9.5**	U	**9.5**	U	**4.7**	U
GCMW-25	059-2225	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**10**	U	**10**	U	**5.2**	U
GCMW-25	059-2226	N	35	40	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**12**	U	**12**	U	**5.8**	U
GCMW-26	059-2216	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**9.9**	U	**9.9**	U	**4.9**	U
GCMW-26	059-2217	N	20	25	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**11**	U	**11**	U	**5.3**	U
GCMW-26	059-2218	N	25	30	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**9.7**	U	**9.7**	U	**4.8**	U
GCMW-26	059-2219	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**10**	U	**10**	U	**5.2**	U

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-25	059-2220	N	5	10	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**0.48**	J	**5.5**	U	**5.5**	U
GCMW-25	059-2221	N	10	15	ft	**6.2**	UJ	6.2	UR	6.2	UR	**6.2**	U	**5.1**	J	**6.2**	UJ	**6.2**	U	6.2	UR	**0.92**	J	**6.2**	U	**6.2**	U
GCMW-25	059-2222	N	15	20	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-25	059-2223	N	20	25	ft	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U	**8.3**	U
GCMW-25	059-2224	N	25	30	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-25	059-2225	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-25	059-2226	N	35	40	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-26	059-2216	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**3.1**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-26	059-2217	N	20	25	ft	**5.3**	U	**5.3**	U	**5.3**	U	**2.3**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-26	059-2218	N	25	30	ft	**4.8**	U	**4.8**	U	**4.8**	U	**6.4**		**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-26	059-2219	N	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**1.7**	J	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-25	059-2220	N	5	10	ft	**1,900**	U	**1,900**	U	**1,900**	U	**1,900**	U	**1,900**	U	**1,900**	U	**3,700**	U	**1,900**	U	**1,900**	U	**1,900**	U	**1,900**	U
GCMW-25	059-2221	N	10	15	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-25	059-2222	N	15	20	ft	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**2,400**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U
GCMW-25	059-2223	N	20	25	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**550**	U	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-25	059-2224	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2225	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2226	N	35	40	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**440**	U	**230**	U	**230**	U	**230**	U	**230**	U
GCMW-26	059-2216	N	15	20	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-26	059-2217	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-26	059-2218	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-26	059-2219	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
GCMW-25	059-2220	N	5	10	ft	**260**	J	**1,900**	U	**3,700**	U	**1,900**	U	**1,900**	U	**3,700**	U	**3,700**	U	**1,900**	U	**1,900**	U	**1,900**	U	**1,900**	U
GCMW-25	059-2221	N	10	15	ft	**34**	J	**190**	U	**380**	U	**190**	U	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-25	059-2222	N	15	20	ft	**1,200**	U	**1,200**	U	**2,400**	U	**1,200**	U	**1,200**	U	**2,400**	U	**2,400**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U
GCMW-25	059-2223	N	20	25	ft	**280**	U	**280**	U	**550**	U	**280**	U	**280**	U	**550**	U	**550**	U	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-25	059-2224	N	25	30	ft	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2225	N	30	35	ft	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2226	N	35	40	ft	**230**	U	**230**	U	**440**	U	**230**	U	**230**	U	**440**	U	**440**	U	**230**	U	**230**	U	**230**	U	**230**	U
GCMW-26	059-2216	N	15	20	ft	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-26	059-2217	N	20	25	ft	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-26	059-2218	N	25	30	ft	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-26	059-2219	N	30	35	ft	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
GCMW-25	059-2220	N	5	10	ft	**1,900**	U	**3,700**	U	**3,700**	U	**210**	J	**120**	J	**330**	J	**910**	J	**1,900**	U	**1,900**	U	**2,600**		**2,100**		**3,200**	
GCMW-25	059-2221	N	10	15	ft	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**110**	J	**12**	J	**190**	U	**190**	U	**78**	J	**91**	J	**150**	J
GCMW-25	059-2222	N	15	20	ft	**1,200**	U	**2,400**	U	**2,400**	U	**130**	J	**1,200**	U	**220**	J	**390**	J	**1,200**	U	**1,200**	U	**860**	J	**790**	J	**960**	J
GCMW-25	059-2223	N	20	25	ft	**17**	J	**550**	U	**550**	U	**280**	U	**280**	U	**130**	J	**19**	J	**280**	U	**280**	U	**42**	J	**41**	J	**35**	J
GCMW-25	059-2224	N	25	30	ft	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2225	N	30	35	ft	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**100**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2226	N	35	40	ft	**230**	U	**440**	U	**440**	U	**230**	U	**230**	U	**89**	J	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U
GCMW-26	059-2216	N	15	20	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**100**	J	**190**	U	**190**	U	**190**	U	**21**	J	**24**	J	**19**	J
GCMW-26	059-2217	N	20	25	ft	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**95**	J	**200**	U	**200**	U	**200**	U	**200**	U	**18**	J	**10**	J
GCMW-26	059-2218	N	25	30	ft	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**71**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-26	059-2219	N	30	35	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**110**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-25	059-2220	N	5	10	ft	**1,500**	J	**1,100**	J	**1,900**	U	**57**	J	**1,900**	U	**1,900**	U	**1,900**	U	**660**	J	**1,900**	U	**370**	J	**2,600**	
GCMW-25	059-2221	N	10	15	ft	**110**	J	**52**	J	**190**	U	**12**	J	**190**	U	**190**	U	**190**	U	**48**	J	**190**	U	**190**	U	**140**	J
GCMW-25	059-2222	N	15	20	ft	**480**	J	**290**	J	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**120**	J	**1,200**	U	**1,200**	U	**790**	J
GCMW-25	059-2223	N	20	25	ft	**25**	J	**15**	J	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**40**	J	**280**	U	**280**	U	**32**	J
GCMW-25	059-2224	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**42**	J	**200**	U	**200**	U	**200**	U
GCMW-25	059-2225	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**36**	J	**200**	U	**200**	U	**200**	U
GCMW-25	059-2226	N	35	40	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**31**	J	**230**	U	**230**	U	**230**	U
GCMW-26	059-2216	N	15	20	ft	**17**	J	**13**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**36**	J	**190**	U	**190**	U	**22**	J
GCMW-26	059-2217	N	20	25	ft	**200**	U	**14**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**26**	J	**200**	U	**200**	U	**200**	U
GCMW-26	059-2218	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**26**	J	**190**	U	**190**	U	**190**	U
GCMW-26	059-2219	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**46**	J	**190**	U	**190**	U	**190**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-25	059-2220	N	5	10	ft	**370**	J	**250**	J	**1,900**	U	**1,900**	U	**240**	J	**1,900**	U	**5,500**		**300**	J	**1,900**	U	**1,900**	U	**1,900**	U	**1,900**	U
GCMW-25	059-2221	N	10	15	ft	**38**	J	**24**	J	**190**	U	**190**	U	**190**	U	**190**	U	**130**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-25	059-2222	N	15	20	ft	**150**	J	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	J	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U	**1,200**	U
GCMW-25	059-2223	N	20	25	ft	**16**	J	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**64**	J	**11**	J	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-25	059-2224	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**8.7**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2225	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**7.3**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-25	059-2226	N	35	40	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U
GCMW-26	059-2216	N	15	20	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**11**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-26	059-2217	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-26	059-2218	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-26	059-2219	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-25	059-2220	N	5	10	ft	**1,500**	J	**1,900**	U	--		**290**	J	**1,900**	U	**1,900**	U	**1,900**	U	**3,700**	U	**4,100**		**1,900**	U	**4,500**		**31,160**
GCMW-25	059-2221	N	10	15	ft	**100**	J	**190**	U	--		**70**	J	**190**	U	**190**	U	**190**	U	**380**	U	**160**	J	**190**	U	**110**	J	**1,275**
GCMW-25	059-2222	N	15	20	ft	**580**	J	**1,200**	U	--		**94**	J	**1,200**	U	**1,200**	U	**1,200**	U	**2,400**	U	**520**	J	**1,200**	U	**1,600**	J	**8,834**
GCMW-25	059-2223	N	20	25	ft	**30**	J	**280**	U	--		**42**	J	**280**	U	**280**	U	**280**	U	**550**	U	**45**	J	**280**	U	**83**	J	**500**
GCMW-25	059-2224	N	25	30	ft	**200**	U	**200**	U	--		**35**	J	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**35**
GCMW-25	059-2225	N	30	35	ft	**200**	U	**200**	U	--		**21**	J	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U	**21**
GCMW-25	059-2226	N	35	40	ft	**230**	U	**230**	U	--		**22**	J	**230**	U	**230**	U	**230**	U	**440**	U	**230**	U	**230**	U	**230**	U	**22**
GCMW-26	059-2216	N	15	20	ft	**19**	J	**190**	U	--		**19**	J	**190**	U	**190**	U	**190**	U	**370**	U	**11**	J	**190**	U	**23**	J	**199**
GCMW-26	059-2217	N	20	25	ft	**200**	U	**200**	U	--		**19**	J	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**61**
GCMW-26	059-2218	N	25	30	ft	**190**	U	**190**	U	--		**13**	J	**190**	U	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**190**	U	**13**
GCMW-26	059-2219	N	30	35	ft	**190**	U	**190**	U	--		**25**	J	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**25**

322 3rd Ave (MW25 & MW26)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-25	059-2220	N	5	10	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**370**	U	**370**	U	370	UR	**370**	U
GCMW-25	059-2221	N	10	15	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U	**3.8**	U	**3.8**	U	**3.8**	UJ	**3.8**	UJ
GCMW-25	059-2222	N	15	20	ft	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**4.8**	U	**2.5**	U	**4.8**	U	**4.8**	U	**4.8**	UJ	**4.8**	U
GCMW-25	059-2223	N	20	25	ft	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**5.5**	UJ	**2.8**	UJ	**5.5**	UJ	**5.5**	UJ	5.5	UR	**5.5**	UJ
GCMW-25	059-2224	N	25	30	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.9**	UJ	**2**	UJ	**3.9**	UJ	**3.9**	UJ	3.9	UR	**3.9**	UJ
GCMW-25	059-2225	N	30	35	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.9**	UJ	**2**	UJ	**3.9**	UJ	**3.9**	UJ	3.9	UR	**3.9**	UJ
GCMW-25	059-2226	N	35	40	ft	**2.3**	UJ	**2.3**	UJ	**2.3**	UJ	**2.3**	UJ	**2.3**	UJ	**4.5**	UJ	**2.3**	UJ	**4.5**	UJ	**4.5**	UJ	4.5	UR	**4.5**	UJ
GCMW-26	059-2216	N	15	20	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	3.8	UR	**3.8**	U
GCMW-26	059-2217	N	20	25	ft	**2**	U	**2**	U	**2**	U	**2**	U	**0.44**	J	**3.8**	U	**2**	U	**3.8**	U	**0.12**	J	3.8	UR	**3.8**	U
GCMW-26	059-2218	N	25	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	3.8	UR	**3.8**	U
GCMW-26	059-2219	N	30	35	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U	**3.8**	U	**3.8**	U	3.8	UR	**3.8**	U

322 3rd Ave (MW25 & MW26)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-25	059-2220	N	5	10	ft	**120**	J	**190**	U	**190**	U	**190**	U	**190**	U	**1,900**	U	**370**	U	**370**	UJ	**370**	UJ	**19,000**	U	**0**	U
GCMW-25	059-2221	N	10	15	ft	**2.5**	J	**1.9**	U	**1.9**	U	**1.9**	U	**0.78**	J	**3.6**	J	**3.8**	U	**3.8**	UJ	**3.8**	UJ	**190**	U	**0**	U
GCMW-25	059-2222	N	15	20	ft	**4.8**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**25**	U	**4.8**	U	**4.8**	UJ	**4**	J	**250**	U	**4**	
GCMW-25	059-2223	N	20	25	ft	**0.52**	J	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**28**	UJ	**5.5**	UJ	**5.5**	UJ	5.5	UR	**280**	UJ	--	
GCMW-25	059-2224	N	25	30	ft	**0.6**	J	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.9**	UJ	**3.9**	UJ	3.9	UR	**200**	UJ	--	
GCMW-25	059-2225	N	30	35	ft	**3.9**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.9**	UJ	**3.9**	UJ	3.9	UR	**200**	UJ	--	
GCMW-25	059-2226	N	35	40	ft	**4.5**	UJ	**2.3**	UJ	**2.3**	UJ	**2.3**	UJ	**2.3**	UJ	**23**	UJ	**4.5**	UJ	**4.5**	UJ	4.5	UR	**230**	UJ	--	
GCMW-26	059-2216	N	15	20	ft	**0.38**	J	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	UJ	**3.8**	U	**3.8**	UJ	**200**	U	**0**	U
GCMW-26	059-2217	N	20	25	ft	**0.69**	J	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	UJ	**3.8**	U	**0.12**	J	**200**	U	**0.12**	
GCMW-26	059-2218	N	25	30	ft	**3.8**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	3.8	UR	**200**	U	--	
GCMW-26	059-2219	N	30	35	ft	**0.58**	J	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	3.8	UR	**190**	U	--	

322 3rd Ave (MW25 & MW26)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-25	059-2220	N	5	10	ft	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**2,300**	J	**3,700**	U	**3,700**	U	**2,300**	
GCMW-25	059-2221	N	10	15	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	62	R	**38**	U	**38**	U	--	
GCMW-25	059-2222	N	15	20	ft	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	140	R	**48**	U	**48**	U	--	
GCMW-25	059-2223	N	20	25	ft	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**0**	U
GCMW-25	059-2224	N	25	30	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-25	059-2225	N	30	35	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-25	059-2226	N	35	40	ft	**45**	U	**45**	U	**45**	U	**45**	U	**45**	U	**45**	U	**45**	U	**45**	U	**45**	U	**0**	U
GCMW-26	059-2216	N	15	20	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-26	059-2217	N	20	25	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-26	059-2218	N	25	30	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-26	059-2219	N	30	35	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U

322 3rd Ave (MW25 & MW26)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-25	059-2220	N	5	10	ft	**4,590**	**2,860** J	**49.9**	**2,290**	**0.56** U	**29.6**	**22,000**	**132**	**8**	**1,660**	**135,000**
GCMW-25	059-2221	N	10	15	ft	**7,810**	**1.6** J	**41.2**	**95.4**	**0.54** J	**1.2**	**28,300**	**15.8**	**5.6** U	**64.6**	**36,500**
GCMW-25	059-2222	N	15	20	ft	**3,660**	**7.6** UJ	**44.5**	**228**	**0.33** J	**1**	**2,040** J	**12.8**	**6.3** U	**100**	**40,600**
GCMW-25	059-2223	N	20	25	ft	**15,300**	**10.1** UJ	**13.4**	**45.6**	**0.85**	**0.73** J	**3,800**	**31.8**	**8.4** U	**31.2**	**32,900**
GCMW-25	059-2224	N	25	30	ft	**9,040**	**7.7** UJ	**3.5**	**25.8** U	**0.48** J	**0.3** J	**1,220** J	**19.7**	**6.4** U	**10.8**	**16,000**
GCMW-25	059-2225	N	30	35	ft	**4,140**	**7.2** UJ	**2**	**11** J	**0.6** U	**0.27** J	**680**	**14.6**	**1.9** J	**10.5**	**10,400**
GCMW-25	059-2226	N	35	40	ft	**3,530**	**7.1** UJ	**2.3**	**15.9** J	**0.27** J	**0.23** J	**739**	**8.6**	**0.91** J	**7**	**7,870**
GCMW-26	059-2216	N	15	20	ft	**6,050**	**6.9** UJ	**1.5**	**23.1** U	**0.41** J	**0.19** J	**1,390** J	**14.5**	**5.8** U	**12.1**	**9,580**
GCMW-26	059-2217	N	20	25	ft	**3,830**	**0.76** J	**0.89** J	**22.5** U	**0.27** J	**0.1** J	**771** J	**9.9**	**5.6** U	**11**	**7,770**
GCMW-26	059-2218	N	25	30	ft	**3,730**	**7** UJ	**1.5**	**23.3** U	**0.26** J	**0.096** UJ	**742** J	**8.5**	**5.8** U	**11.3**	**6,490**
GCMW-26	059-2219	N	30	35	ft	**2,980**	**6.8** UJ	**1.2**	**22.8** U	**0.21** J	**0.092** J	**806** J	**6.9**	**5.7** U	**8**	**5,920**

322 3rd Ave (MW25 & MW26)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-25	059-2220	N	5	10	ft	**34,700**	**4,230** J	**822**	**0.8**	**122**	**683** J	**3.9** U	**25.3**	**285** J	**10.4**	**32.9**	**4,860** J	**0.75** J
GCMW-25	059-2221	N	10	15	ft	**414**	**5,730** J	**203**	**0.11** J	**19**	**1,330** J	**3.9** U	**1.1** U	**988**	**2.7** J	**25.2**	**115** J	**2.8** U
GCMW-25	059-2222	N	15	20	ft	**758**	**1,650** J	**72**	**1.9**	**10.2**	**1,930** J	**4.4** U	**0.3** J	**3,110**	**0.84** J	**22.2**	**71.7** J	**3.1** U
GCMW-25	059-2223	N	20	25	ft	**76.8**	**6,110** J	**350**	**2.8**	**30.3**	**3,550** J	**5.9** U	**1.7** U	**1,610**	**0.91** J	**37.5**	**84** J	**4.1** U
GCMW-25	059-2224	N	25	30	ft	**6.6**	**3,090** J	**142**	**0.13** U	**18.2**	**1,470** J	**4.5** U	**1.3** U	**431** J	**3.2** U	**22.3**	**35.4** J	**3.3** U
GCMW-25	059-2225	N	30	35	ft	**3.2** J	**1,250** J	**75.6**	**0.12** UJ	**14.9**	**504** J	**4.2** U	**1.2** U	**604** U	**3** U	**26.7**	**16.5** J	**3** U
GCMW-25	059-2226	N	35	40	ft	**2.7** J	**1,550** J	**67.1**	**0.12** UJ	**12.1**	**728** J	**4.2** U	**1.2** U	**594** U	**3** U	**13.6**	**16** J	**3.1** U
GCMW-26	059-2216	N	15	20	ft	**5**	**2,440** J	**68.3**	**2.8**	**15.6**	**1,310** J	**4** U	**1.2** U	**114** J	**2.9** U	**15.6**	**21.3** J	**2.8** U
GCMW-26	059-2217	N	20	25	ft	**2.6**	**2,070** J	**79.8**	**0.67**	**15.4**	**1,130** J	**3.9** U	**1.1** U	**110** J	**2.8** U	**12**	**19.5** J	**2.9** U
GCMW-26	059-2218	N	25	30	ft	**3**	**1,840** J	**66.1**	**0.09** J	**15.5**	**1,210** J	**4.1** U	**1.2** U	**128** J	**2.9** U	**10.6**	**16.1** J	**2.9** U
GCMW-26	059-2219	N	30	35	ft	**2.4**	**1,720** J	**86.1**	**0.066** J	**14**	**998** J	**4** U	**1.1** U	**124** J	**2.9** U	**10.6**	**14.1** J	**2.9** U

322 3rd Ave.

(MW25 & MW26)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-25	GC-MW25I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**6.3**		**52**	J	**0.05**	U	**0.05**	U
MW-25	GC-MW25S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-26	GC-MW26I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.29**	J	**0.5**	U	**0.5**	U	**1.7**		**0.05**	U	**0.05**	U
MW-26	GC-MW26S	N	Shallow	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.29**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane
MW-25	GC-MW25I	N	Intermediate	**1.5**	**0.5** UJ	**0.5** U	**0.59**	**1.4**	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U
MW-25	GC-MW25S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U
MW-26	GC-MW26I	N	Intermediate	**0.5** U	**0.5** UJ	**0.5** U	**0.95**	**0.73**	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U
MW-26	GC-MW26S	N	Shallow	**0.5** U	**0.5** UJ	**0.5** U	**29** J	**15**	--	**5** U	**5** U	**0.45** J	**0.5** U	**0.5** U

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane	
MW-25	GC-MW25I	N	Intermediate	**0.5**	U	**0.5**	U	**0.52**		**0.5**	UJ	**0.5**	U	**0.5**	U	**0.53**		**0.5**	U	**0.54**		**0.5**	U	**0.5**	U
MW-25	GC-MW25S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**		**0.5**	U	**0.5**	U
MW-26	GC-MW26I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.62**		**0.5**	U	**14**		**0.5**	U	**0.5**	U
MW-26	GC-MW26S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**6.6**		**0.5**	U	**0.5**	U	**0.5**	U	**18**		**0.5**	U	**0.5**	U

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride	
MW-25	GC-MW25I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**5**	U	**5**	U	**0.5**	U	**0.5**	UJ
MW-25	GC-MW25S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**5**	U	**5**	U	**0.5**	U	**0.5**	U
MW-26	GC-MW26I	N	Intermediate	**0.5**	U	**0.5**	U	**1.3**		**0.34**	J	**0.99**		**0.5**	UJ	**5**	U	**5**	U	**0.5**	U	**0.5**	UJ
MW-26	GC-MW26S	N	Shallow	**0.5**	U	**0.5**	U	**0.27**	J	**0.5**	U	**0.5**	U	**0.5**	UJ	**5**	U	**5**	U	**0.5**	U	**0.5**	UJ

322 3rd Ave (MW25 & MW26)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-25	GC-MW25I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	J	**0.5**	UJ
MW-25	GC-MW25S	N	Shallow	**0.5**	U	**0.5**	U	**0.72**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ
MW-26	GC-MW26I	N	Intermediate	**0.71**		**0.5**	U	**36**	J	**0.53**		**0.5**	U	**0.5**	U	**0.5**	U	**1**		**1.4**	J	**0.5**	UJ
MW-26	GC-MW26S	N	Shallow	**0.5**	U	**0.5**	U	**77**	J	**0.5**	U	**0.5**	U	**0.54**		**0.5**	U	**0.5**	U	**0.5**	UJ	**3.6**	J

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-25	GC-MW25I	N	Intermediate	**0.64**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-25	GC-MW25S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-26	GC-MW26I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-26	GC-MW26S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)
MW-25	GC-MW25I	N	Intermediate	**0.19**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-25	GC-MW25S	N	Shallow	**0.1** U	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-26	GC-MW26I	N	Intermediate	**0.39**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-26	GC-MW26S	N	Shallow	**0.31**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene	
MW-25	GC-MW25I	N	Intermediate	**10**	U	**10**	U	**0.11**		**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.13**		**0.41**	
MW-25	GC-MW25S	N	Shallow	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**1.6**	J
MW-26	GC-MW26I	N	Intermediate	**10**	U	**10**	U	**0.19**		**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.45**	
MW-26	GC-MW26S	N	Shallow	**10**	U	**10**	U	**0.09**	J	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.17**	

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
MW-25	GC-MW25I	N	Intermediate	**0.1**	UJ	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**1.7**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	UJ
MW-25	GC-MW25S	N	Shallow	**0.1**	UJ	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5.1**		**5**	U	**5**	U	**0.1**	U	**0.1**	UJ
MW-26	GC-MW26I	N	Intermediate	**0.1**	UJ	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**2.1**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	UJ
MW-26	GC-MW26S	N	Shallow	**0.1**	UJ	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**1.4**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	UJ

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
MW-25	GC-MW25I	N	Intermediate	**5**	U	**0.44**	J	**0.93**	J	**0.46**	J	**5**	U	**0.13**		**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-25	GC-MW25S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-26	GC-MW26I	N	Intermediate	**5**	U	**5**	U	**1.5**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-26	GC-MW26S	N	Shallow	**5**	U	**5**	U	**1**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U

322 3rd Ave (MW25 & MW26)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-25	GC-MW25I	N	Intermediate	**0.32**	**5** U	**0.4**	**5** U	**5** U	**5** U	**0.2** U	**0.39**	**5** U	**0.24**	**2.32**
MW-25	GC-MW25S	N	Shallow	**0.45**	**5** U	**0.1** U	**5** U	**5** U	**5** U	**0.2** U	**0.1** U	**5** U	**0.1** U	**2.05**
MW-26	GC-MW26I	N	Intermediate	**0.3**	**5** U	**0.8** J	**5** U	**5** U	**5** U	**0.2** U	**0.32**	**5** U	**0.16**	**2.61**
MW-26	GC-MW26S	N	Shallow	**0.19**	**5** U	**0.93** J	**5** U	**5** U	**5** U	**0.2** U	**0.12**	**5** U	**0.1** U	**1.81**

322 3rd Ave (MW25 & MW26)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-25	GC-MW25I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-25	GC-MW25S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-26	GC-MW26I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-26	GC-MW26S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

322 3rd Ave (MW25 & MW26)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-25	GC-MW25I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-25	GC-MW25S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-26	GC-MW26I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-26	GC-MW26S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

322 3rd Ave (MW25 & MW26)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-25	GC-MW25I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-25	GC-MW25S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-26	GC-MW26I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-26	GC-MW26S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

322 3rd Ave (MW25 & MW26)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-25	GC-MW25I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**3.5**	J	**4.3**	J	**55.3**	**53**	**1**	U	**1**	U	**1**	U	**1**	U
MW-25	GC-MW25S	N	Shallow	**1,800**	U	**1,800**	U	**20**	U	**20**	U	**9.7**	J	**11.3**	J	**118**	**122**	**10**	U	**10**	U	**10**	U	**10**	U
MW-26	GC-MW26I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**4.4**	J	**4.4**	J	**164**	**165**	**1**	U	**1**	U	**1**	U	**1**	U
MW-26	GC-MW26S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**11.2**	J	**10.8**	J	**21.1**	**19.6**	**1**	U	**1**	U	**1**	U	**1**	U

322 3rd Ave (MW25 & MW26)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium		Calcium, dissolved	Chromium		Chromium, dissolved		Cobalt		Cobalt, dissolved		Copper		Copper, dissolved		Iron		Iron, dissolved		Lead	
MW-25	GC-MW25I	N	Intermediate	**98,600**	J	**99,300**	**2.8**	J	**1.1**	J	**1.2**		**0.95**	J	**25**	U	**25**	U	**100**	U	**100**	U	**0.96**	J
MW-25	GC-MW25S	N	Shallow	**447,000**	J	**471,000**	**20.7**	J	**11.4**	J	**10**	U	**10**	U	**225**	U	**225**	U	**3,900**	J	**4,270**		**10**	U
MW-26	GC-MW26I	N	Intermediate	**107,000**	J	**111,000**	**0.86**	J	**0.38**	J	**1.4**		**0.87**	J	**25**	U	**25**	U	**5,930**	J	**6,140**		**0.36**	J
MW-26	GC-MW26S	N	Shallow	**108,000**	J	**110,000**	**1.8**	J	**0.85**	J	**0.4**	J	**0.37**	J	**25**	U	**25**	U	**17,400**	J	**16,400**		**2**	

322 3rd Ave (MW25 & MW26)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved		Magnesium		Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium		Potassium, dissolved	Selenium	
MW-25	GC-MW25I	N	Intermediate	**0.59**	J	**57,000**	J	**57,400**	**388**	**415**	**0.079**	J	**0.096**	J	**2.2**	J	**1.9**	J	**11,200**	J	**11,500**	5	UR
MW-25	GC-MW25S	N	Shallow	**10**	U	**544,000**	J	**569,000**	**416**	**424**	**0.076**	J	**0.092**	J	**9.3**	J	**3.6**	J	**185,000**	J	**195,000**	22.6	R
MW-26	GC-MW26I	N	Intermediate	**1**	U	**73,700**	J	**74,700**	**2,470**	**2,720**	**0.082**	J	**0.1**	J	**1.2**	J	**0.71**	J	**22,800**	J	**23,600**	5	UR
MW-26	GC-MW26S	N	Shallow	**1**	U	**65,300**	J	**66,800**	**603**	**616**	**0.2**		**0.1**	J	**1.5**	J	**1.2**	J	**36,200**	J	**36,500**	5	UR

322 3rd Ave (MW25 & MW26)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-25	GC-MW25I	N	Intermediate	5 UR	**1** UJ	**1** UJ	**78,900**	**80,800**	**1** U	**1** U	**5.8**	**6.1**	**12.9** J	**10** J	**10** U
MW-25	GC-MW25S	N	Shallow	28.8 R	**10** UJ	**10** UJ	**3,940,000**	**3,970,000**	**10** U	**10** U	**50** U	**50** U	**20** UJ	**20** UJ	**10** U
MW-26	GC-MW26I	N	Intermediate	5 UR	**1** UJ	**1** UJ	**155,000**	**159,000**	**1** U	**1** U	**5** U	**5** U	**42.1** J	**1.7** J	**10** U
MW-26	GC-MW26S	N	Shallow	5 UR	**1** UJ	**1** UJ	**150,000**	**153,000**	**1** U	**1** U	**1.3** J	**5** U	**7.2** J	**4.3** J	**10** U

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Carroll St

(MW36 & MW43)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: Carroll St. (West Side of the Canal)
Monitoring Well Soil Borings Installed at Address: GC-MW-36 & GC-MW-43
Intermediate Monitoring Wells Installed at Address: GC-MW-36I & GC-MW-43I
Shallow Monitoring Wells Installed at Address: GC-MW-36S & GC-MW-43S

GC-MW-36

The soil samples from the soil boring installed for the intermediate well (situated approximately 33 feet from the canal) contained 30 VOCs, 87 SVOCs, 8 pesticides, 0 PCBs, and 96 metals. From these, 1 VOC, 4 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (3,100 µg/kg). The SVOC occurring at the highest concentration above screening value was benzo(a)anthracene (4,900 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 33 feet from the canal) contained 9 VOCs, 14 SVOCs, 0 pesticides, 0 PCBs, and 16 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was bis(2-ethylhexyl) phthalate (5.8 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (13,000 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately38 ft bgs and situated approximately 33 feet from the canal) contained 4 VOCs, 15 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was biphenyl (39 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (2,000 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-43

The soil samples from the soil boring installed for the intermediate well (situated approximately 58 feet from the canal) contained 60 VOCs, 111 SVOCs, 16 pesticides, 0 PCBs, and 157 metals. From these, 5 VOCs, 14 SVOCs, 1 pesticide, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (100,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (580,000 µg/kg). The pesticide occurring at the highest concentration above screening value was alpha BHC (72 NJ µg/kg). The metal occurring at the highest concentration above screening value was cadmium (8.5 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 58 feet from the canal) contained 13 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 18 metals. From these, 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (9.3 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (19,600 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately38 ft bgs and situated approximately 58 feet from the canal) contained 9 VOCs, 19 SVOCs, 0 pesticides, 0 PCBs, and 16 metals. From these, 4 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 4

metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (23 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (8.4 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,390 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

Carroll St (MW36 & MW43)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-36	059-2012	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-36	059-2013	N	10	15	ft	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U
GCMW-36	059-2014	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-36	059-2015	N	20	25	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-36	059-2016	N	25	30	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-36	059-2017	N	30	35	ft	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U
GCMW-43	059-2001	N	0	5	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-43	059-2002	N	5	10	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-43	059-2003	N	12	12.5	ft	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-43	059-2004	N	14.5	15	ft	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U
GCMW-43	059-2005	N	15	20	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-43	059-2006	N	20	25	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U
GCMW-43	059-2007	N	25	30	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U
GCMW-43	059-2008	N	30	35	ft	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U
GCMW-43	059-2009	N	35	40	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U

Carroll St (MW36 & MW43)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-36	059-2012	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	200	UR	**20**	U	**38**		**10**	U
GCMW-36	059-2013	N	10	15	ft	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	190	UR	**19**	U	**42**		**9.3**	U
GCMW-36	059-2014	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	97	UR	**9.7**	U	**9.7**	U	**4.9**	U
GCMW-36	059-2015	N	20	25	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	120	UR	**12**	U	**12**	U	**1.6**	J
GCMW-36	059-2016	N	25	30	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	110	UR	**11**	U	**11**	U	**5.4**	U
GCMW-36	059-2017	N	30	35	ft	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	45,000	UR	**4,500**	U	**4,500**	U	**2,300**	U
GCMW-43	059-2001	N	0	5	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	120	UR	**12**	U	**12**	U	**9.4**	
GCMW-43	059-2002	N	5	10	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	110	UR	**11**	U	**28**		**4.6**	J
GCMW-43	059-2003	N	12	12.5	ft	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	220	UR	**22**	U	**41**		**3**	J
GCMW-43	059-2004	N	14.5	15	ft	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	200	UR	**20**	U	**63**		**9.9**	U
GCMW-43	059-2005	N	15	20	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**16**		**2.4**	J
GCMW-43	059-2006	N	20	25	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	150	UR	**15**	U	**15**	U	**3.1**	J
GCMW-43	059-2007	N	25	30	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	290,000	UR	**29,000**	U	**29,000**	U	**14,000**	U
GCMW-43	059-2008	N	30	35	ft	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	14,000	UR	**1,400**	U	**1,400**	U	**690**	U
GCMW-43	059-2009	N	35	40	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**10**	U	**5.1**	U

Carroll St (MW36 & MW43)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-36	059-2012	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**9.8**	J	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-36	059-2013	N	10	15	ft	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**17**		**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U
GCMW-36	059-2014	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**3**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**0.73**	J
GCMW-36	059-2015	N	20	25	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**1.7**	J	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-36	059-2016	N	25	30	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**3.3**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-36	059-2017	N	30	35	ft	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**330**	J	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U
GCMW-43	059-2001	N	0	5	ft	**6**	U	**6**	U	**6**	U	**6**	U	**3.4**	J	**6**	U	**6**	U	**6**	U	**4.1**	J	**6**	U	**3.2**	J
GCMW-43	059-2002	N	5	10	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5**	J	**5.6**	U	**5.6**	U	**5.6**	U	**4.9**	J	**5.6**	U	**2.3**	J
GCMW-43	059-2003	N	12	12.5	ft	**11**	U	**11**	U	**11**	U	**11**	U	**26**		**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-43	059-2004	N	14.5	15	ft	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**22**		**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U
GCMW-43	059-2005	N	15	20	ft	**5**	U	**5**	U	**5**	U	**5**	U	**4.4**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-43	059-2006	N	20	25	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**2.5**	J	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**0.91**	J
GCMW-43	059-2007	N	25	30	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U
GCMW-43	059-2008	N	30	35	ft	**690**	U	**690**	U	**690**	U	**690**	U	**96**	J	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U
GCMW-43	059-2009	N	35	40	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U

Carroll St (MW36 & MW43)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-36	059-2012	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**15**	J	**20**	U	**10**	U
GCMW-36	059-2013	N	10	15	ft	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**26**		**19**	U	**9.3**	U
GCMW-36	059-2014	N	15	20	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**13**		**12**		**4.9**	U	**4.9**	U	**9.7**	U	**9.7**	U	**4.9**	U
GCMW-36	059-2015	N	20	25	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**32**		**12**		**6.1**	U	**6.1**	U	**12**	U	**12**	U	**4.1**	J
GCMW-36	059-2016	N	25	30	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**8.6**		**16**		**5.4**	U	**5.4**	U	**11**	U	**11**	U	**5.4**	U
GCMW-36	059-2017	N	30	35	ft	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**3,100**		**5,900**		**930**	J	**2,300**	U	**4,500**	U	**4,500**	U	**2,300**	U
GCMW-43	059-2001	N	0	5	ft	**6**	U	**6**	U	**6**	U	**6**	U	**3**	J	**1.7**	J	**10**		**6**	U	**12**	U	**12**	U	**3.7**	J
GCMW-43	059-2002	N	5	10	ft	**5.6**	U	**18**		**5.6**	U	**5.6**	U	**1.3**	J	**1.5**	J	**5.6**	U	**5.6**	U	**11**	U	**11**	U	**27**	
GCMW-43	059-2003	N	12	12.5	ft	**11**	U	**16**		**11**	U	**11**	U	**0.44**	J	**0.47**	J	**11**	U	**11**	U	**29**		**22**	U	**3.4**	J
GCMW-43	059-2004	N	14.5	15	ft	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**21**		**20**	U	**9.9**	U
GCMW-43	059-2005	N	15	20	ft	**5**	U	**5.9**		**5**	U	**5**	U	**0.24**	J	**0.29**	J	**5**	U	**5**	U	**9.9**	U	**9.9**	U	**9.2**	
GCMW-43	059-2006	N	20	25	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**0.91**	J	--		**7.4**	U	**15**	U	**15**	U	**6.8**	J
GCMW-43	059-2007	N	25	30	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**100,000**		**12,000**	J	**92,000**		**14,000**	U	**29,000**	U	**29,000**	U	**14,000**	U
GCMW-43	059-2008	N	30	35	ft	**690**	U	**690**	U	**690**	U	**690**	U	**410**	J	**74**	J	**370**	J	**690**	U	**1,400**	U	**1,400**	U	**690**	U
GCMW-43	059-2009	N	35	40	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**10**	U	**10**	U	**5.1**	U

Carroll St (MW36 & MW43)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-36	059-2012	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**2.1**	J	**10**	U
GCMW-36	059-2013	N	10	15	ft	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**9.3**	U	**2.2**	J	**9.3**	U
GCMW-36	059-2014	N	15	20	ft	**4.9**	U	**3.5**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-36	059-2015	N	20	25	ft	**6.1**	U	**11**		**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**1.4**	J	**6.1**	U
GCMW-36	059-2016	N	25	30	ft	**5.4**	U	**4.1**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-36	059-2017	N	30	35	ft	**2,300**	U	**1,200**	J	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**2,300**	U	**56**	J	**2,300**	U	**2,300**	U
GCMW-43	059-2001	N	0	5	ft	**6**	U	**4.2**	J	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**1.5**	J	**2.3**	J	**6**	U
GCMW-43	059-2002	N	5	10	ft	**5.6**	U	**2.3**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**1.2**	J	**5.6**	U	**5.6**	U
GCMW-43	059-2003	N	12	12.5	ft	**11**	U	**0.44**	J	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**2**	J	**11**	U
GCMW-43	059-2004	N	14.5	15	ft	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**9.9**	U	**0.87**	J	**9.9**	U
GCMW-43	059-2005	N	15	20	ft	**5**	U	**1.9**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-43	059-2006	N	20	25	ft	**7.4**	U	**1.6**	J	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U
GCMW-43	059-2007	N	25	30	ft	**14,000**	U	**43,000**		**14,000**	U	**14,000**	U	**14,000**	U	**5,500**	J	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U
GCMW-43	059-2008	N	30	35	ft	**690**	U	**250**	J	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U
GCMW-43	059-2009	N	35	40	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U

Carroll St (MW36 & MW43)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene	
GCMW-36	059-2012	N	5	10	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**570**	U	**290**	U	**290**	U
GCMW-36	059-2013	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U
GCMW-36	059-2014	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U
GCMW-36	059-2015	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U
GCMW-36	059-2016	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U
GCMW-36	059-2017	N	30	35	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**3,500**	U	**1,800**	U	**1,800**	U
GCMW-43	059-2001	N	0	5	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	UJ	**210**	U	**210**	U
GCMW-43	059-2002	N	5	10	ft	**2,100**	U	**2,100**	U	**2,100**	U	**2,100**	U	**2,100**	U	**2,100**	U	**4,000**	U	**2,100**	U	**2,100**	U
GCMW-43	059-2003	N	12	12.5	ft	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**660**	U	**340**	U	**340**	U
GCMW-43	059-2004	N	14.5	15	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**550**	U	**280**	U	**280**	U
GCMW-43	059-2005	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U
GCMW-43	059-2006	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U
GCMW-43	059-2007	N	25	30	ft	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**47,000**	U	**23,000**	U	**23,000**	U
GCMW-43	059-2008	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U
GCMW-43	059-2009	N	35	40	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U

Carroll St (MW36 & MW43)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
GCMW-36	059-2012	N	5	10	ft	**290**	U	**290**	U	**19**	J	**290**	U	**570**	U	**290**	U	**290**	U	**570**	U	**570**	U	**290**	U	**290**	U	**290**	U
GCMW-36	059-2013	N	10	15	ft	**290**	U	**290**	U	**13**	J	**290**	U	**560**	U	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**290**	U
GCMW-36	059-2014	N	15	20	ft	**200**	U	**200**	U	**14**	J	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-36	059-2015	N	20	25	ft	**200**	U	**200**	U	**12**	J	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-36	059-2016	N	25	30	ft	**190**	U	**190**	U	**200**		**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U
GCMW-36	059-2017	N	30	35	ft	**1,800**	U	**1,800**	U	**3,800**		**1,800**	U	**3,500**	U	**1,800**	U	**1,800**	U	**3,500**	U	**3,500**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-43	059-2001	N	0	5	ft	**210**	U	**210**	U	**1,500**		**210**	U	**400**	UJ	**210**	U	**210**	U	**400**	UJ	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-43	059-2002	N	5	10	ft	**2,100**	U	**2,100**	U	**760**	J	**2,100**	U	**4,000**	U	**2,100**	U	**2,100**	U	**4,000**	U	**4,000**	U	**2,100**	U	**2,100**	U	**2,100**	U
GCMW-43	059-2003	N	12	12.5	ft	**340**	U	**340**	U	**18**	J	**340**	U	**660**	U	**340**	U	**340**	U	**660**	U	**660**	U	**340**	U	**340**	U	**340**	U
GCMW-43	059-2004	N	14.5	15	ft	**280**	U	**280**	U	**10**	J	**280**	U	**550**	U	**280**	U	**280**	U	**550**	U	**550**	U	**280**	U	**280**	U	**280**	U
GCMW-43	059-2005	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-43	059-2006	N	20	25	ft	**210**	U	**210**	U	**79**	J	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-43	059-2007	N	25	30	ft	**23,000**	U	**23,000**	U	**360,000**		**23,000**	U	**47,000**	U	**23,000**	U	**23,000**	U	**47,000**	U	**47,000**	U	**23,000**	U	**23,000**	U	**23,000**	U
GCMW-43	059-2008	N	30	35	ft	**200**	U	**200**	U	**13,000**		**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-43	059-2009	N	35	40	ft	**210**	U	**210**	U	**19**	J	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U

Carroll St (MW36 & MW43)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-36	059-2012	N	5	10	ft	**290**	U	**290**	U	**570**	U	**570**	U	**290**	U	**290**	U	**48**	J	**10**	J	**290**	U	**52**	J	**290**	U	**290**	U
GCMW-36	059-2013	N	10	15	ft	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**54**	J	**290**	U	**290**	U	**83**	J	**290**	U	**290**	U
GCMW-36	059-2014	N	15	20	ft	**200**	U	**200**	U	**390**	U	**390**	U	**1,200**		**39**	J	**44**	J	**61**	J	**200**	U	**51**	J	**200**	U	**200**	U
GCMW-36	059-2015	N	20	25	ft	**200**	U	**200**	U	**390**	U	**390**	U	**1,700**		**100**	J	**48**	J	**120**	J	**200**	U	**44**	J	**200**	U	**200**	U
GCMW-36	059-2016	N	25	30	ft	**190**	U	**190**	U	**370**	U	**370**	U	**3,700**	J	**470**		**46**	J	**2,000**		**190**	U	**37**	J	**1,100**		**900**	
GCMW-36	059-2017	N	30	35	ft	**1,800**	U	**1,800**	U	**3,500**	U	**3,500**	U	**17,000**		**1,600**	J	**1,800**	U	**9,100**		**1,800**	U	**1,800**	U	**4,900**		**3,800**	
GCMW-43	059-2001	N	0	5	ft	**210**	U	**210**	U	**400**	UJ	**400**	UJ	**740**	J	**230**		**210**	U	**1,000**	J	**210**	U	**210**	U	**1,600**		**1,300**	
GCMW-43	059-2002	N	5	10	ft	**2,100**	U	**2,100**	U	**4,000**	U	**4,000**	U	**480**	J	**2,100**	U	**2,100**	U	**590**	J	**2,100**	U	**2,100**	U	**1,200**	J	**1,200**	J
GCMW-43	059-2003	N	12	12.5	ft	**340**	U	**340**	U	**660**	U	**660**	U	**340**	U	**340**	U	**60**	J	**340**	U	**340**	U	**73**	J	**340**	U	**340**	U
GCMW-43	059-2004	N	14.5	15	ft	**280**	U	**280**	U	**550**	U	**550**	U	**280**	U	**280**	U	**51**	J	**280**	U	**280**	U	**80**	J	**280**	U	**280**	U
GCMW-43	059-2005	N	15	20	ft	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**34**	J	**200**	U	**200**	U	**41**	J	**200**	U	**200**	U
GCMW-43	059-2006	N	20	25	ft	**210**	U	**210**	U	**410**	U	**410**	U	**55**	J	**210**	U	**32**	J	**210**	U	**210**	U	**40**	J	**210**	U	**210**	U
GCMW-43	059-2007	N	25	30	ft	**23,000**	U	**23,000**	U	**47,000**	U	**47,000**	U	**67,000**		**100,000**		**3,400**	J	**90,000**		**23,000**	U	**23,000**	U	**50,000**		**35,000**	
GCMW-43	059-2008	N	30	35	ft	**200**	U	**200**	U	**390**	U	**390**	U	**2,100**		**6,100**	J	**200**	U	**5,000**	J	**200**	U	**200**	U	**3,000**		**2,100**	
GCMW-43	059-2009	N	35	40	ft	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**8.9**	J	**31**	J	**210**	U	**210**	U	**45**	J	**210**	U	**210**	U

Carroll St (MW36 & MW43)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-36	059-2012	N	5	10	ft	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	200	J	290	U	290	U	290	U
GCMW-36	059-2013	N	10	15	ft	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	70	J	290	U	290	U	290	U
GCMW-36	059-2014	N	15	20	ft	200	U	200	U	200	U	200	U	210		200	U	200	U	200	U	45	J	200	U	39	J	200	U
GCMW-36	059-2015	N	20	25	ft	200	U	200	U	200	U	200	U	310		200	U	200	U	200	U	35	J	200	U	40	J	200	U
GCMW-36	059-2016	N	25	30	ft	330	J	370	J	490	J	190	U	580		190	U	190	U	190	U	41	J	190	U	190	U	1,000	
GCMW-36	059-2017	N	30	35	ft	1,200	J	2,000	J	2,300		1,800	U	3,300		1,800	U	1,800	U	1,800	U	1,800	U	1,800	U	99	J	4,500	
GCMW-43	059-2001	N	0	5	ft	1,400		840	J	1,200		210	U	210	U	210	U	210	U	210	U	140	J	210	U	430		1,600	
GCMW-43	059-2002	N	5	10	ft	1,000	J	900	J	1,000	J	2,100	U	2,100	U	2,100	U	2,100	U	2,100	U	180	J	2,100	U	2,100	U	1,100	J
GCMW-43	059-2003	N	12	12.5	ft	340	U	340	U	340	U	340	U	340	U	340	U	340	U	340	U	57	J	340	U	340	U	340	U
GCMW-43	059-2004	N	14.5	15	ft	280	U	280	U	280	U	280	U	280	U	280	U	280	U	280	U	48	J	280	U	280	U	280	U
GCMW-43	059-2005	N	15	20	ft	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	40	J	200	U	200	U	200	U
GCMW-43	059-2006	N	20	25	ft	210	U	210	U	210	U	210	U	7.3	J	210	U	210	U	210	U	72	J	210	U	210	U	210	U
GCMW-43	059-2007	N	25	30	ft	13,000	J	15,000	J	20,000	J	23,000	U	33,000		23,000	U	23,000	U	23,000	U	23,000	U	23,000	U	1,400	J	47,000	J
GCMW-43	059-2008	N	30	35	ft	650		720	J	1,000		200	U	1,400		200	U	200	U	200	U	58	J	200	U	49	J	2,700	
GCMW-43	059-2009	N	35	40	ft	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	64	J	210	U	210	U	210	U

Carroll St (MW36 & MW43)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-36	059-2012	N	5	10	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**15**	J	**12**	J	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-36	059-2013	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-36	059-2014	N	15	20	ft	**200**	U	**74**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**270**		**200**	U	**200**	U	**200**	U	**200**	U
GCMW-36	059-2015	N	20	25	ft	**200**	U	**120**	J	**200**	U	**200**	U	**200**	U	**200**	U	**25**	J	**170**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-36	059-2016	N	25	30	ft	**150**	J	**220**		**190**	U	**190**	U	**190**	U	**190**	U	**2,400**		**1,300**		**190**	U	**190**	U	**190**	U	**190**	U
GCMW-36	059-2017	N	30	35	ft	**650**	J	**1,000**	J	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**9,900**		**8,200**		**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-43	059-2001	N	0	5	ft	**350**		**540**		**210**	U	**210**	U	**210**	U	**210**	U	**3,600**		**800**	J	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-43	059-2002	N	5	10	ft	**350**	J	**330**	J	**2,100**	U	**2,100**	U	**2,100**	U	**2,100**	U	**2,200**		**430**	J	**2,100**	U	**2,100**	U	**2,100**	U	**2,100**	U
GCMW-43	059-2003	N	12	12.5	ft	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U	**340**	U
GCMW-43	059-2004	N	14.5	15	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-43	059-2005	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-43	059-2006	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-43	059-2007	N	25	30	ft	**6,400**	J	**12,000**	J	**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U	**89,000**		**84,000**		**23,000**	U	**23,000**	U	**23,000**	U	**23,000**	U
GCMW-43	059-2008	N	30	35	ft	**270**	J	**460**		**200**	U	**200**	U	**200**	U	**200**	U	**5,100**	J	**4,500**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-43	059-2009	N	35	40	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U

Carroll St (MW36 & MW43)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-36	059-2012	N	5	10	ft	290	U	290	U	--	28	J	290	U	290	U	290	U	570	UJ	40	J	290	U	23	J	147
GCMW-36	059-2013	N	10	15	ft	290	U	290	U	--	20	J	290	U	290	U	290	U	560	UJ	20	J	290	U	290	U	53
GCMW-36	059-2014	N	15	20	ft	200	U	200	U	--	280		200	U	200	U	200	U	390	UJ	590		200	U	8.8	J	2,463
GCMW-36	059-2015	N	20	25	ft	200	U	200	U	--	50	J	200	U	200	U	200	U	390	UJ	2,100		200	U	34	J	4,311
GCMW-36	059-2016	N	25	30	ft	270		190	U	--	250		190	U	190	U	190	U	370	UJ	7,700		190	U	3,400		26,030
GCMW-36	059-2017	N	30	35	ft	1,200	J	1,800	U	--	6,500		1,800	U	1,800	U	1,800	U	3,500	UJ	32,000		1,800	U	17,000		125,650
GCMW-43	059-2001	N	0	5	ft	620		210	U	--	920	J	210	U	210	U	210	U	400	U	3,800		210	U	3,600		25,100
GCMW-43	059-2002	N	5	10	ft	700	J	2,100	U	--	660	J	2,100	U	2,100	U	2,100	U	4,000	U	1,800	J	2,100	U	2,400		16,770
GCMW-43	059-2003	N	12	12.5	ft	340	U	340	U	--	37	J	340	U	340	U	340	U	660	UJ	15	J	340	U	340	U	70
GCMW-43	059-2004	N	14.5	15	ft	280	U	280	U	--	19	J	280	U	280	U	280	U	550	UJ	13	J	280	U	280	U	42
GCMW-43	059-2005	N	15	20	ft	200	U	200	U	--	11	J	200	U	200	U	200	U	390	UJ	200	U	200	U	200	U	11
GCMW-43	059-2006	N	20	25	ft	210	U	210	U	--	2,100		210	U	210	U	210	U	410	UJ	210	U	210	U	210	U	2,234
GCMW-43	059-2007	N	25	30	ft	10,000	J	23,000	U	--	580,000		23,000	U	23,000	U	23,000	U	47,000	U	360,000		23,000	U	140,000		2,066,400
GCMW-43	059-2008	N	30	35	ft	510		200	U	--	13,000		200	U	200	U	200	U	390	U	17,000		200	U	7,800		84,550
GCMW-43	059-2009	N	35	40	ft	210	U	210	U	--	42	J	210	U	210	U	210	U	400	UJ	18	J	210	U	12	J	99.9

Carroll St (MW36 & MW43)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-36	059-2012	N	5	10	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**5.8**	U	**3**	UJ	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-36	059-2013	N	10	15	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.6**	U	**2.9**	UJ	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-36	059-2014	N	15	20	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	UJ	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-36	059-2015	N	20	25	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	UJ	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-36	059-2016	N	25	30	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	UJ	**3.8**	U	**3.8**	U	**2**	J	**3.8**	U
GCMW-36	059-2017	N	30	35	ft	**1.8**	U	**11**	J	**1.8**	U	**1.8**	U	**1.8**	U	**5.2**	NJ	**1.8**	UJ	**3.5**	U	4.9	R	**3.5**	U	**12**	NJ
GCMW-43	059-2001	N	0	5	ft	**2.1**	U	2.4	R	**2.1**	U	**3.8**	NJ	**2.1**	U	**4**	U	**2.1**	UJ	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-43	059-2002	N	5	10	ft	**2.1**	U	**2.1**	U	**2.1**	U	2.5	R	**2.1**	U	**4.1**	U	**2.1**	UJ	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-43	059-2003	N	12	12.5	ft	**3.3**	U	**3.3**	U	**3.3**	U	**3.3**	U	**3.3**	U	**6.4**	U	**3.3**	UJ	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U
GCMW-43	059-2004	N	14.5	15	ft	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**5.5**	U	**2.8**	UJ	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-43	059-2005	N	15	20	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	UJ	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-43	059-2006	N	20	25	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	UJ	**4.1**	U	**0.29**	J	**4.1**	U	**4.1**	U
GCMW-43	059-2007	N	25	30	ft	**19**	U	**72**	NJ	**19**	U	**19**	U	**19**	U	**49**	J	**19**	UJ	**38**	U	40	R	**38**	U	**97**	
GCMW-43	059-2008	N	30	35	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	UJ	**4**	U	**4**	U	**4.9**		**4.7**	NJ
GCMW-43	059-2009	N	35	40	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	UJ	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U

Carroll St (MW36 & MW43)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-36	059-2012	N	5	10	ft	**5.8**	U	**3**	U	**3**	U	**3**	U	**3**	U	**30**	U	**5.8**	U	**5.8**	U	**5.8**	U	**300**	U	**0**	U
GCMW-36	059-2013	N	10	15	ft	**5.6**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**29**	U	**5.6**	U	**5.6**	U	**5.6**	U	**290**	U	**0**	U
GCMW-36	059-2014	N	15	20	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-36	059-2015	N	20	25	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-36	059-2016	N	25	30	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.5**	J	**3.8**	U	**190**	U	**3.5**	
GCMW-36	059-2017	N	30	35	ft	**3.5**	U	**1.8**	U	**19**	NJ	**1.8**	U	**1.8**	U	**18**	U	**9.4**	NJ	10	R	**6.5**	J	**180**	U	--	
GCMW-43	059-2001	N	0	5	ft	**4**	U	**2.1**	U	**6.8**	NJ	**2.1**	U	**2.1**	U	**21**	U	**5**	NJ	**4.7**	NJ	**4**	U	**210**	U	**9.7**	
GCMW-43	059-2002	N	5	10	ft	**0.87**	J	**2.1**	U	**5.5**	J	**2.1**	U	**2.1**	U	**21**	U	**3.4**	J	**4.1**	U	**4.1**	U	**210**	U	**3.4**	
GCMW-43	059-2003	N	12	12.5	ft	**6.4**	U	**3.3**	U	**3.3**	U	**3.3**	U	**3.3**	U	**33**	U	**6.4**	U	**6.4**	U	**6.4**	U	**330**	U	**0**	U
GCMW-43	059-2004	N	14.5	15	ft	**5.5**	U	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**28**	U	**5.5**	U	**5.5**	U	**5.5**	U	**280**	U	**0**	U
GCMW-43	059-2005	N	15	20	ft	**3.8**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-43	059-2006	N	20	25	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-43	059-2007	N	25	30	ft	**38**	U	**19**	U	**19**	U	**19**	U	**19**	U	**190**	U	**56**	J	**67**	J	**65**	J	**1,900**	U	**188**	
GCMW-43	059-2008	N	30	35	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	4.7	R	**4**	U	**200**	U	--	
GCMW-43	059-2009	N	35	40	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U

Carroll St (MW36 & MW43)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-36	059-2012	N	5	10	ft	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**0**	U
GCMW-36	059-2013	N	10	15	ft	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**0**	U
GCMW-36	059-2014	N	15	20	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-36	059-2015	N	20	25	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-36	059-2016	N	25	30	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-36	059-2017	N	30	35	ft	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**0**	U
GCMW-43	059-2001	N	0	5	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-43	059-2002	N	5	10	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-43	059-2003	N	12	12.5	ft	**66**	U	**66**	U	**66**	U	**66**	U	**66**	U	**66**	U	**66**	U	**66**	U	**66**	U	**0**	U
GCMW-43	059-2004	N	14.5	15	ft	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**0**	U
GCMW-43	059-2005	N	15	20	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-43	059-2006	N	20	25	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-43	059-2007	N	25	30	ft	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**0**	U
GCMW-43	059-2008	N	30	35	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-43	059-2009	N	35	40	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U

Carroll St (MW36 & MW43)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum		Antimony		Arsenic		Barium		Beryllium		Cadmium		Calcium		Chromium		Cobalt		Copper		Iron	
GCMW-36	059-2012	N	5	10	ft	**18,400**	J	**1.4**	J	**18.7**		**38.4**	J	**1**		**0.35**	J	**2,910**	J	**35.4**	J	**13.5**	J	**34.5**	J	**41,200**	J
GCMW-36	059-2013	N	10	15	ft	**15,800**	J	**0.77**	J	**10**		**32.6**	J	**0.88**		**0.12**	J	**2,830**	J	**33.2**	J	**10.4**	J	**16.4**	J	**37,200**	J
GCMW-36	059-2014	N	15	20	ft	**7,110**	J	**6.9**	UJ	**2.5**		**36**	J	**0.57**	U	**0.039**	J	**967**	J	**13.1**	J	**6.8**	J	**11.8**	J	**14,000**	J
GCMW-36	059-2015	N	20	25	ft	**4,180**	J	**7.2**	UJ	**1.8**		**28**	J	**0.6**	U	**0.6**	U	**784**	J	**10.4**	J	**6**	UJ	**7.5**	J	**8,430**	J
GCMW-36	059-2016	N	25	30	ft	**2,530**	J	**7.4**	UJ	**1.2**	U	**38.1**	J	**0.62**	U	**0.62**	U	**617**	UJ	**5.7**	J	**6.2**	UJ	**4.3**	J	**4,810**	J
GCMW-36	059-2017	N	30	35	ft	**7,140**	J	**0.39**	J	**1.3**		**74.8**	J	**0.55**	U	**0.55**	U	**2,020**	J	**10.2**	J	**5.7**	J	**16**	J	**13,700**	J
GCMW-43	059-2001	N	0	5	ft	**4,120**	J	**0.69**	J	**6.5**		**79.2**	J	**0.33**	J	**8.5**		**23,800**	J	**30**	J	**6.6**	UJ	**91.6**	J	**11,400**	J
GCMW-43	059-2002	N	5	10	ft	**5,180**	J	**0.71**	J	**7.6**		**77.7**	J	**0.35**	J	**5.2**		**21,300**	J	**24.4**	J	**6.3**	UJ	**89.2**	J	**12,900**	J
GCMW-43	059-2003	N	12	12.5	ft	**18,100**	J	**0.75**	J	**8.7**		**44.3**	J	**0.94**	J	**0.17**	J	**3,280**	J	**34**	J	**11.3**	J	**20.2**	J	**38,400**	J
GCMW-43	059-2004	N	14.5	15	ft	**16,200**	J	**1**	J	**9.7**		**34.9**	J	**0.92**		**0.19**	J	**4,710**	J	**34.4**	J	**10.8**	J	**16.5**	J	**37,500**	J
GCMW-43	059-2005	N	15	20	ft	**8,090**	J	**0.4**	J	**1.7**		**66.6**	J	**0.49**	J	**0.019**	J	**802**	J	**14.5**	J	**7.5**	J	**13.2**	J	**13,500**	J
GCMW-43	059-2006	N	20	25	ft	**4,320**	J	**0.4**	J	**3.2**		**26.1**	J	**0.6**	U	**0.6**	U	**903**	J	**9.8**	J	**6**	UJ	**7.7**	J	**12,800**	J
GCMW-43	059-2007	N	25	30	ft	**4,870**	J	**7.1**	UJ	**1.5**		**30.2**	J	**0.31**	J	**0.59**	U	**2,400**	J	**9.7**	J	**5.9**	UJ	**10.9**	J	**10,900**	J
GCMW-43	059-2008	N	30	35	ft	**5,400**	J	**6.7**	UJ	**1.4**		**40.6**	J	**0.56**	U	**0.56**	U	**3,740**	J	**10.6**	J	**5.6**	J	**12.5**	J	**11,900**	J
GCMW-43	059-2009	N	35	40	ft	**2,590**	J	**7.6**	UJ	**0.6**	J	**14.6**	J	**0.63**	U	**0.63**	U	**1,040**	J	**4.8**	J	**6.3**	UJ	**6.5**	J	**5,720**	J

Carroll St (MW36 & MW43)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-36	059-2012	N	5	10	ft	**23.3**	**7,510** J	**430**	**0.18** U	**32.1** J	**4,120**	**0.97** J	**1.8** U	**2,210**	**4.5** U	**43.5** J	**86.9**	**4.5** U
GCMW-36	059-2013	N	10	15	ft	**15.2**	**6,830** J	**392**	**0.17** U	**29.6** J	**3,480**	**6** U	**1.7** U	**2,260**	**4.3** U	**36.3** J	**74.8**	**4.3** U
GCMW-36	059-2014	N	15	20	ft	**7.3**	**2,920** J	**102**	**0.12** U	**15.2** J	**1,040**	**4** U	**1.1** U	**572** U	**2.9** U	**18** J	**36.9**	**2.9** U
GCMW-36	059-2015	N	20	25	ft	**4.8**	**2,150** J	**99.8**	**0.12** U	**12.7** J	**750**	**4.2** U	**1.2** U	**602** U	**3** U	**15.7** J	**26.2**	**3** U
GCMW-36	059-2016	N	25	30	ft	**2.4**	**1,530** J	**56.7**	**0.12** U	**9.5** J	**447** J	**4.3** U	**1.2** U	**617** U	**3.1** U	**6.2** UJ	**13.4**	**3** U
GCMW-36	059-2017	N	30	35	ft	**5**	**3,890** J	**335**	**0.11** U	**22.9** J	**1,610**	**3.8** U	**1.1** U	**546** U	**2.7** U	**12.1** J	**29**	**2.7** U
GCMW-43	059-2001	N	0	5	ft	**166**	**2,660** J	**158**	**0.25**	**16.1** J	**565** J	**1.3** J	**1.3** U	**658** U	**3.3** U	**16.7** J	**158**	**2.2** J
GCMW-43	059-2002	N	5	10	ft	**174**	**3,260** J	**193**	**0.31**	**16.6** J	**972**	**1.3** J	**0.14** J	**626** U	**3.1** U	**17.2** J	**148**	**1.3** J
GCMW-43	059-2003	N	12	12.5	ft	**30.9**	**6,710** J	**400**	**0.2** U	**31.1** J	**3,920**	**6.9** U	**2** U	**1,560**	**4.9** U	**43.1** J	**78.7**	**4.9** U
GCMW-43	059-2004	N	14.5	15	ft	**15.4**	**7,020** J	**403**	**0.17** U	**29.9** J	**3,810**	**5.7** U	**1.6** U	**2,420**	**4.1** U	**37.4** J	**82.8**	**4.1** U
GCMW-43	059-2005	N	15	20	ft	**7.7**	**2,600** J	**161**	**0.12** U	**15.6** J	**1,200**	**4** U	**1.1** U	**896**	**2.8** U	**18.7** J	**41.4**	**2.9** U
GCMW-43	059-2006	N	20	25	ft	**5.6**	**2,100** J	**134**	**0.12** U	**12.1** J	**739**	**4.2** U	**1.2** U	**647**	**3** U	**15.2** J	**29.2**	**3** U
GCMW-43	059-2007	N	25	30	ft	**5.7**	**3,470** J	**188**	**0.12** U	**14.8** J	**1,170**	**4.1** U	**1.2** U	**589** U	**2.9** U	**12.7** J	**25**	**2.9** U
GCMW-43	059-2008	N	30	35	ft	**6.3**	**4,680** J	**147**	**0.11** U	**16.4** J	**1,300**	**3.9** U	**1.1** U	**555** U	**2.8** U	**13.2** J	**28**	**2.8** U
GCMW-43	059-2009	N	35	40	ft	**3.2**	**1,880** J	**64**	**0.13** U	**10.9** J	**562** J	**4.4** U	**1.3** U	**631** U	**3.2** U	**6.3** UJ	**17.8**	**3.1** U

Carroll St

(MW36 & MW43)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Carroll St (MW36 & MW43)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloro-1,2,2-trifluoroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-dibromo-3-chloropropane	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane
MW-36	GC-MW36I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.05** U	**0.05** U	**0.5** U	**0.5** U	**0.5** U
MW-36	GC-MW36S	N	Shallow	**0.5** UJ	**0.5** UJ	**0.5** UJ	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.05** U	**0.05** U	**0.5** U	**0.5** UJ	**0.5** U
MW-43	GC-MW43I	N	Intermediate	**0.5** UJ	**0.5** UJ	**0.5** UJ	**0.5** UJ	**0.26** J	**0.5** U	**0.5** U	**0.5** U	**0.05** U	**0.05** U	**0.5** U	**0.5** UJ	**0.5** U
MW-43	GC-MW43S	N	Shallow	**0.5** UJ	**0.5** UJ	**0.5** UJ	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.05** U	**0.05** U	**0.5** U	**0.5** UJ	**0.5** U

Carroll St (MW36 & MW43)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride
MW-36	GC-MW36I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.5** U	**0.5** U
MW-36	GC-MW36S	N	Shallow	**0.36** J	**0.36** J	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.27** J	**0.5** UJ
MW-43	GC-MW43I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**16**	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.5** U	**0.5** UJ
MW-43	GC-MW43S	N	Shallow	**0.96**	**0.95**	--	**5** U	**5** U	**4.3**	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.17** J	**0.5** UJ

Carroll St (MW36 & MW43)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate
MW-36	GC-MW36I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**3.4** J	**2.4** J	**3.4** J	**0.5** U
MW-36	GC-MW36S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**1.8**	**0.5** U	**0.5** U	**0.59**	**4.6**	**0.59**	**0.5** UJ
MW-43	GC-MW43I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.72**	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**23** J	**2.1**	**23** J	**0.5** UJ
MW-43	GC-MW43S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5**	**0.5** UJ	**1.8**	**0.5** U	**0.5** U	**9.3**	**0.7**	**9.3**	**0.5** UJ

Carroll St (MW36 & MW43)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
MW-36	GC-MW36I	N	Intermediate	**5** U	**5** U	**0.5** U	**0.5** U	**1.4** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-36	GC-MW36S	N	Shallow	**5** U	**5** U	**1.6**	**0.5** UJ	**1.2**	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.5** UJ	**0.5** U
MW-43	GC-MW43I	N	Intermediate	**5** U	**5** U	**0.5** U	**0.5** UJ	**14**	**4.6**	**0.5** UJ	**0.5** U	**5.7**	**0.5** U	**0.5** UJ	**0.5** U	**0.5** UJ	**0.5** U
MW-43	GC-MW43S	N	Shallow	**5** U	**5** U	**0.5**	**0.5** UJ	**8.9**	**2.9**	**0.5** UJ	**0.5** U	**3.1**	**0.5** U	**0.5** UJ	**0.5** U	**0.5** UJ	**0.5** U

Carroll St (MW36 & MW43)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-36	GC-MW36I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-36	GC-MW36S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-43	GC-MW43I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-43	GC-MW43S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U

Carroll St (MW36 & MW43)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline
MW-36	GC-MW36I	N	Intermediate	**65**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U
MW-36	GC-MW36S	N	Shallow	**18** J	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U
MW-43	GC-MW43I	N	Intermediate	**24**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U
MW-43	GC-MW43S	N	Shallow	**28**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U

Carroll St (MW36 & MW43)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
MW-36	GC-MW36I	N	Intermediate	**10** U	**320**	**28**	**5** U	**9.7** J	**5** U	**5** U	**0.15**	**0.1** U	**0.1** U	**0.15** U
MW-36	GC-MW36S	N	Shallow	**10** U	**69**	**1.6** J	**5** U	**4.6** J	**5** U	**5** U	**0.42**	**0.1** U	**0.1** U	**0.19** U
MW-43	GC-MW43I	N	Intermediate	**10** U	**7.5**	**4.3** J	**5** U	**6**	**5** U	**5** U	**0.38** J	**0.1** U	**0.15**	**0.49**
MW-43	GC-MW43S	N	Shallow	**10** U	**8.7**	**13**	**5** U	**9.1**	**5** U	**5** U	**0.5**	**0.1** U	**0.24**	**0.32** U

Carroll St (MW36 & MW43)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene	Dibenz(a,h)anthracene
MW-36	GC-MW36I	N	Intermediate	**0.1** U	**5** U	**39**	**5** U	**5** U	**5** U	**2.9** J	**5** U	**20** J	**0.08** J	**0.1** U
MW-36	GC-MW36S	N	Shallow	**0.1** U	**5** U	**2.9** J	**5** U	**5** U	**5** U	**5.8**	**5** U	**5** U	**0.21**	**0.1** U
MW-43	GC-MW43I	N	Intermediate	**0.1** U	**5** U	**8.4**	**5** U	**5** U	**5** U	**1.3** J	**5** U	**1.5** J	**0.23**	**0.1** U
MW-43	GC-MW43S	N	Shallow	**0.1** U	**5** U	**1.5** J	**5** U	**5** U	**5** U	**2** J	**5** U	**5** U	**0.27**	**0.1** U

Carroll St (MW36 & MW43)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
MW-36	GC-MW36I	N	Intermediate	**110**	**5** U	**5** U	**5** U	**5** U	**8.4** J	**8.5** J	**5** U	**5** U	**5** U	**5** U
MW-36	GC-MW36S	N	Shallow	**19**	**5** U	**5** U	**5** U	**5** U	**9.9**	**34**	**5** U	**5** U	**5** U	**5** U
MW-43	GC-MW43I	N	Intermediate	**2.3** J	**5** U	**1.2** J	**5** U	**5** U	**2.8** J	**16**	**5** U	**5** U	**5** U	**5** U
MW-43	GC-MW43S	N	Shallow	**2.1** J	**5** U	**1.6** J	**5** U	**5** U	**4.5** J	**21**	**5** U	**5** U	**5** U	**5** U

Carroll St (MW36 & MW43)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-36	GC-MW36I	N	Intermediate	**0.17** U	**5** U	**1** J	**5** U	**5** U	**5** U	**0.2** UJ	**110**	**5** U	**8.3** J	**559.13**
MW-36	GC-MW36S	N	Shallow	**0.17** U	**5** U	**5.2**	**5** U	**5** U	**5** U	**0.2** UJ	**36**	**5** U	**7.8**	**186.73**
MW-43	GC-MW43I	N	Intermediate	**0.3**	**5** U	**0.3**	**5** U	**5** U	**5** U	**0.2** U	**21**	**5** U	**3.8** J	**87.25**
MW-43	GC-MW43S	N	Shallow	**0.25**	**5** U	**0.2**	**5** U	**5** U	**5** U	**0.2** UJ	**18**	**5** U	**7.8**	**111.56**

Carroll St (MW36 & MW43)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
MW-36	GC-MW36I	N	Intermediate	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-36	GC-MW36S	N	Shallow	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-43	GC-MW43I	N	Intermediate	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-43	GC-MW43S	N	Shallow	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U

Carroll St (MW36 & MW43)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
MW-36	GC-MW36I	N	Intermediate	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-36	GC-MW36S	N	Shallow	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-43	GC-MW43I	N	Intermediate	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**0** U
MW-43	GC-MW43S	N	Shallow	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**0** U

Carroll St (MW36 & MW43)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-36	GC-MW36I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-36	GC-MW36S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-43	GC-MW43I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-43	GC-MW43S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

Carroll St (MW36 & MW43)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium	
MW-36	GC-MW36I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**1.3**	J	**1.7**	J	**243**	**239**	**1**	U	**1**	U	**1**	U
MW-36	GC-MW36S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**3.8**	J	**2.5**	J	**335**	**311**	**1**	U	**1**	U	**1**	U
MW-43	GC-MW43I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**10.4**	J	**10.7**	J	**180**	**175**	**1**	U	**1**	U	**1**	U
MW-43	GC-MW43S	N	Shallow	**204**		**200**	U	**2**	U	**2**	U	**8.9**	J	**7.8**	J	**339**	**225**	**1**	U	**1**	U	**1**	U

Carroll St (MW36 & MW43)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cadmium, dissolved	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved
MW-36	GC-MW36I	N	Intermediate	**1** U	**51,600**	**57,800**	**9.3**	**0.46** J	**0.38** J	**0.47** J	**4.8** J	**25** U	**2,000**	**1,130**
MW-36	GC-MW36S	N	Shallow	**1** U	**167,000**	**178,000**	**5.9**	**1.4** J	**2**	**2.6**	**25** U	**25** U	**13,000**	**11,500**
MW-43	GC-MW43I	N	Intermediate	**1** U	**35,300**	**32,900**	**2.4**	**0.68** J	**0.24** J	**1** U	**25** U	**25** U	**1,390**	**1,300**
MW-43	GC-MW43S	N	Shallow	**1** U	**75,000**	**72,100**	**10.5**	**2.2**	**2.6**	**3.6**	**9.7** J	**25** U	**19,600**	**11,300**

Carroll St (MW36 & MW43)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead		Lead, dissolved		Magnesium		Magnesium, dissolved		Manganese	Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium	Potassium, dissolved
MW-36	GC-MW36I	N	Intermediate	**2.1**		**1**	U	**65,000**	J	**78,400**	J	**1,600**	**1,560**	**0.059**	J	**0.15**	J	**6.2**	J	**10.1**	J	**24,800**	**27,800**
MW-36	GC-MW36S	N	Shallow	**0.65**	J	**1**	U	**25,600**	J	**31,100**	J	**847**	**761**	**0.091**	J	**0.13**	J	**4.6**	J	**3.3**	J	**26,200**	**28,000**
MW-43	GC-MW43I	N	Intermediate	**0.44**	J	**1**	U	**63,600**		**59,000**		**413**	**412**	**0.075**	J	**0.064**	J	**1.7**	J	**1.2**	J	**48,800**	**45,400**
MW-43	GC-MW43S	N	Shallow	**2.1**		**1**	U	**79,100**		**92,700**		**763**	**803**	**0.052**	J	**0.2**	U	10.6	R	53.7	R	**77,800**	**81,200**

Carroll St (MW36 & MW43)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-36	GC-MW36I	N	Intermediate	**5** UJ	**2.2** J	**1** UJ	**1** U	**599,000**	**699,000**	**1** U	**1** U	**5** U	**5** U	**6.8**	**3.2**	**10** U
MW-36	GC-MW36S	N	Shallow	**5** UJ	**5** UJ	**1** UJ	**1** U	**140,000**	**161,000**	**1** U	**1** U	**1.2** J	**5** U	**1.8** J	**4.8**	**12.2**
MW-43	GC-MW43I	N	Intermediate	**1.7** J	**1.9** J	**1** UJ	**1** U	**686,000**	**707,000**	**1** U	**1** U	**5** U	**5** U	**1.8** J	**2** U	**10.4**
MW-43	GC-MW43S	N	Shallow	**1.3** J	**1.5** J	**1** UJ	**1** U	**765,000** J	**939,000** J	**1** U	**1** U	**1.5** J	**1.5** J	**9.1**	**7.2**	**12.8**

365 Bond St

(MW5 & MW6)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 365 Bond St.
Monitoring Well Soil Borings Installed at Address: GC-MW-5 & GC-MW-6
Intermediate Monitoring Wells Installed at Address: GC-MW-5I & GC-MW-6I
Shallow Monitoring Wells Installed at Address: GC-MW-5S & GC-MW-6S

GC-MW-5

The soil samples from the soil boring installed for the intermediate well (situated approximately 61 feet from the canal) contained 15 VOCs, 53 SVOCs, 3 pesticides, 0 PCBs, and 86 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (66 µg/kg). The metal occurring at the highest concentration above screening value was mercury (0.93 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 61 feet from the canal) contained 12 VOCs, 11 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (2,400 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately35 ft bgs and situated approximately 61 feet from the canal) contained 4 VOCs, 11 SVOCs, 0 pesticides, 0 PCBs, and 9 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,450 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-6

The soil samples from the soil boring installed for the intermediate well (situated approximately 216 feet from the canal) contained 29 VOCs, 91 SVOCs, 1 pesticide, 0 PCBs, and 103 metals. From these, 2 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (67 µg/kg). The metal occurring at the highest concentration above screening value was selenium (5.8 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 216 feet from the canal) contained 6 VOCs, 12 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,630 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately35 ft bgs and situated approximately 35 feet from the canal) contained 1 VOC, 11 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (42,300 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

365 Bond St (MW5 & MW6)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene	
GCMW-05	059-2031	N	5	10	ft	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U
GCMW-05	059-2032	N	10	15	ft	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U
GCMW-05	059-2033	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-05	059-2034	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-05	059-2035	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-06	059-2025	N	5	10	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-06	059-2026	N	10	15	ft	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U
GCMW-06	059-2027	N	15	20	ft	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U
GCMW-06	059-2028	N	20	25	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U
GCMW-06	059-2029	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-06	059-2030	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U

365 Bond St (MW5 & MW6)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane	
GCMW-05	059-2031	N	5	10	ft	**570**	U	**570**	U	**570**	U	**570**	U	11,000	UR	**1,100**	U	**1,100**	U	**570**	U	**570**	U	**570**	U
GCMW-05	059-2032	N	10	15	ft	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	200	UR	**20**	U	**49**		**9.8**	U	**9.8**	U	**9.8**	U
GCMW-05	059-2033	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	250	UR	**25**	U	**66**		**13**	U	**13**	U	**13**	U
GCMW-05	059-2034	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	100	UR	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U
GCMW-05	059-2035	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**10**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-06	059-2025	N	5	10	ft	**5.7**	U	**5.7**	U	**5.7**	U	**0.37**	J	110	UR	**11**	U	**40**		**5.7**	U	**5.7**	U	**5.7**	U
GCMW-06	059-2026	N	10	15	ft	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	190	UR	**19**	U	**67**		**2.9**	J	**9.7**	U	**9.7**	U
GCMW-06	059-2027	N	15	20	ft	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	190	UR	**19**	U	**48**		**9.4**	U	**9.4**	U	**9.4**	U
GCMW-06	059-2028	N	20	25	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	150	UR	**15**	U	**53**		**7.4**	U	**7.4**	U	**7.4**	U
GCMW-06	059-2029	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**9.9**	U	**5**	U	**5**	U	**5**	U
GCMW-06	059-2030	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**10**	U	**5.1**	U	**5.1**	U	**5.1**	U

365 Bond St (MW5 & MW6)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane	
GCMW-05	059-2031	N	5	10	ft	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**62**	J
GCMW-05	059-2032	N	10	15	ft	**9.8**	U	**9.8**	U	**15**		**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U
GCMW-05	059-2033	N	15	20	ft	**13**	U	**13**	U	**30**		**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-05	059-2034	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-05	059-2035	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-06	059-2025	N	5	10	ft	**5.7**	U	**5.7**	U	**1.8**	J	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-06	059-2026	N	10	15	ft	**9.7**	U	**9.7**	U	**33**		**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U
GCMW-06	059-2027	N	15	20	ft	**9.4**	U	**9.4**	U	**32**		**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U
GCMW-06	059-2028	N	20	25	ft	**7.4**	U	**7.4**	U	**28**		**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U
GCMW-06	059-2029	N	25	30	ft	**5**	U	**5**	U	**1**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-06	059-2030	N	30	35	ft	**5.1**	U	**5.1**	U	**0.83**	J	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U

365 Bond St (MW5 & MW6)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride	
GCMW-05	059-2031	N	5	10	ft	**570**	U	**570**	U	**30**	J	**79**	J	**15**	J	**570**	U	**1,100**	U	**1,100**	U	**620**		**570**	U
GCMW-05	059-2032	N	10	15	ft	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**0.28**	J	**9.8**	U	**27**		**20**	U	**9.8**	U	**9.8**	U
GCMW-05	059-2033	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	**0.45**	J	**13**	U	**28**		**25**	U	**13**	U	**13**	U
GCMW-05	059-2034	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U
GCMW-05	059-2035	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**0.15**	J	**5.1**	U	**10**	U	**10**	U	**5.1**	U	**5.1**	U
GCMW-06	059-2025	N	5	10	ft	**5.7**	U	**5.7**	U	**5.7**	U	**0.67**	J	**0.5**	J	**5.7**	U	**11**	U	**11**	U	**7.1**		**5.7**	U
GCMW-06	059-2026	N	10	15	ft	**9.7**	U	**9.7**	U	**0.37**	J	**9.7**	U	**0.67**	J	**9.7**	U	**17**	J	**19**	U	**9.7**	U	**9.7**	U
GCMW-06	059-2027	N	15	20	ft	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**0.26**	J	**9.4**	U	**14**	J	**19**	U	**9.4**	U	**9.4**	U
GCMW-06	059-2028	N	20	25	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**0.26**	J	**7.4**	U	**16**		**15**	U	**7.4**	U	**7.4**	U
GCMW-06	059-2029	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**9.9**	U	**9.9**	U	**5**	U	**5**	U
GCMW-06	059-2030	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**10**	U	**10**	U	**5.1**	U	**5.1**	U

365 Bond St (MW5 & MW6)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-05	059-2031	N	5	10	ft	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U	**570**	U
GCMW-05	059-2032	N	10	15	ft	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U	**9.8**	U
GCMW-05	059-2033	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-05	059-2034	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-05	059-2035	N	30	35	ft	**0.079**	J	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-06	059-2025	N	5	10	ft	**0.21**	J	**5.7**	U	**5.7**	U	**1.7**	J	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-06	059-2026	N	10	15	ft	**0.42**	J	**9.7**	U	**9.7**	U	**34**		**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U	**9.7**	U
GCMW-06	059-2027	N	15	20	ft	**9.4**	U	**9.4**	U	**9.4**	U	**0.15**	J	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U
GCMW-06	059-2028	N	20	25	ft	**0.12**	J	**7.4**	U	**7.4**	U	**5.8**	J	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U
GCMW-06	059-2029	N	25	30	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-06	059-2030	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-05	059-2031	N	5	10	ft	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**2,600**	UJ	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U
GCMW-05	059-2032	N	10	15	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**540**	U	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-05	059-2033	N	15	20	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**580**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-05	059-2034	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-05	059-2035	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-06	059-2025	N	5	10	ft	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**460**	U	**240**	U	**240**	U	**240**	U	**240**	U
GCMW-06	059-2026	N	10	15	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**570**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-06	059-2027	N	15	20	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**590**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-06	059-2028	N	20	25	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**220**	U	**220**	U	**220**	U
GCMW-06	059-2029	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-06	059-2030	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)	
GCMW-05	059-2031	N	5	10	ft	**250**	J	**1,300**	U	**2,600**	UJ	**1,300**	U	**1,300**	U	**2,600**	UJ	**2,600**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U
GCMW-05	059-2032	N	10	15	ft	**9.4**	J	**280**	U	**540**	U	**280**	U	**280**	U	**540**	U	**540**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-05	059-2033	N	15	20	ft	**300**	U	**300**	U	**580**	U	**300**	U	**300**	U	**580**	U	**580**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-05	059-2034	N	25	30	ft	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-05	059-2035	N	30	35	ft	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-06	059-2025	N	5	10	ft	**14**	J	**240**	U	**460**	U	**240**	U	**240**	U	**460**	U	**460**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U
GCMW-06	059-2026	N	10	15	ft	**300**	U	**300**	U	**570**	U	**300**	U	**300**	U	**570**	U	**570**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-06	059-2027	N	15	20	ft	**36**	J	**300**	U	**590**	U	**300**	U	**300**	U	**590**	U	**590**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-06	059-2028	N	20	25	ft	**23**	J	**220**	U	**420**	U	**220**	U	**220**	U	**420**	U	**420**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U
GCMW-06	059-2029	N	25	30	ft	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-06	059-2030	N	30	35	ft	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
GCMW-05	059-2031	N	5	10	ft	**2,600**	UJ	**2,600**	UJ	**240**	J	**1,300**	U	**1,300**	U	**170**	J	**1,300**	U	**1,300**	U	**380**	J	**300**	J	**240**	J
GCMW-05	059-2032	N	10	15	ft	**540**	U	**540**	U	**23**	J	**280**	U	**40**	J	**280**	U	**280**	U	**62**	J	**11**	J	**280**	U	**280**	U
GCMW-05	059-2033	N	15	20	ft	**580**	U	**580**	U	**22**	J	**300**	U	**30**	J	**300**	U	**300**	U	**48**	J	**300**	UJ	**300**	U	**300**	U
GCMW-05	059-2034	N	25	30	ft	**380**	U	**380**	U	**8.2**	J	**190**	U	**17**	J	**190**	U	**190**	U	**32**	J	**190**	UJ	**190**	U	**190**	U
GCMW-05	059-2035	N	30	35	ft	**370**	U	**370**	U	**190**	U	**190**	U	**31**	J	**190**	U	**190**	U	**57**	J	**190**	UJ	**190**	U	**190**	U
GCMW-06	059-2025	N	5	10	ft	**460**	U	**460**	U	**1,200**		**110**	J	**40**	J	**930**		**240**	U	**62**	J	**580**		**520**		**400**	
GCMW-06	059-2026	N	10	15	ft	**570**	U	**570**	U	**65**	J	**300**	U	**40**	J	**44**	J	**300**	U	**39**	J	**15**	J	**15**	J	**9.1**	J
GCMW-06	059-2027	N	15	20	ft	**590**	U	**590**	U	**110**	J	**300**	U	**44**	J	**56**	J	**300**	U	**73**	J	**22**	J	**16**	J	**14**	J
GCMW-06	059-2028	N	20	25	ft	**420**	U	**420**	U	**240**		**15**	J	**220**	U	**160**	J	**220**	U	**45**	J	**70**	J	**54**	J	**46**	J
GCMW-06	059-2029	N	25	30	ft	**380**	U	**380**	U	**6**	J	**200**	U	**25**	J	**200**	U	**200**	U	**36**	J	**200**	UJ	**200**	U	**200**	U
GCMW-06	059-2030	N	30	35	ft	**380**	U	**380**	U	**200**	U	**200**	U	**12**	J	**200**	U	**200**	U	**19**	J	**200**	UJ	**200**	U	**200**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
GCMW-05	059-2031	N	5	10	ft	**310**	J	**110**	J	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**82**	J	**1,300**	U	**1,300**	U	**380**	J	**93**	J
GCMW-05	059-2032	N	10	15	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**31**	J	**280**	U	**280**	U	**9.7**	J	**280**	U
GCMW-05	059-2033	N	15	20	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**30**	J	**300**	U	**300**	U	**300**	UJ	**300**	U
GCMW-05	059-2034	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**18**	J	**190**	U	**190**	U	**190**	UJ	**190**	U
GCMW-05	059-2035	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**18**	J	**190**	U	**190**	U	**5.7**	J	**190**	U
GCMW-06	059-2025	N	5	10	ft	**210**	J	**120**	J	**240**	U	**83**	J	**240**	U	**240**	U	**240**	U	**39**	J	**240**	U	**240**	U	**610**		**47**	J
GCMW-06	059-2026	N	10	15	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**28**	J	**300**	U	**300**	U	**19**	J	**300**	U
GCMW-06	059-2027	N	15	20	ft	**300**	U	**300**	U	**300**	U	**11**	J	**300**	U	**300**	U	**300**	U	**28**	J	**300**	U	**300**	U	**19**	J	**300**	U
GCMW-06	059-2028	N	20	25	ft	**28**	J	**19**	J	**220**	U	**18**	J	**220**	U	**220**	U	**220**	U	**24**	J	**220**	U	**220**	U	**83**	J	**9.6**	J
GCMW-06	059-2029	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**47**	J	**9.1**	J	**200**	U	**200**	UJ	**200**	U
GCMW-06	059-2030	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**11**	J	**200**	U	**200**	U	**200**	UJ	**200**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-05	059-2031	N	5	10	ft	**120**	J	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**520**	J	**210**	J	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U
GCMW-05	059-2032	N	10	15	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**18**	J	**9.3**	J	**280**	U	**280**	U	**280**	U	**280**	U
GCMW-05	059-2033	N	15	20	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	UJ	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-05	059-2034	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	UJ	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-05	059-2035	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**11**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-06	059-2025	N	5	10	ft	**84**	J	**240**	U	**240**	U	**240**	U	**240**	U	**1,300**		**110**	J	**240**	U	**240**	U	**240**	U	**240**	U
GCMW-06	059-2026	N	10	15	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**41**	J	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-06	059-2027	N	15	20	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**59**	J	**18**	J	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-06	059-2028	N	20	25	ft	**15**	J	**220**	U	**220**	U	**220**	U	**220**	U	**180**	J	**12**	J	**220**	U	**220**	U	**220**	U	**220**	U
GCMW-06	059-2029	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**8**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-06	059-2030	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**9.6**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-05	059-2031	N	5	10	ft	**200**	J	**1,300**	U	--	**180**	J	**1,300**	U	**1,300**	U	**1,300**	U	**2,600**	UJ	**600**	J	**1,300**	U	**540**	J	**4,723**
GCMW-05	059-2032	N	10	15	ft	**280**	U	**280**	U	--	**14**	J	**280**	U	**280**	U	**280**	U	**540**	UJ	**29**	J	**15**	J	**19**	J	**142.4**
GCMW-05	059-2033	N	15	20	ft	**300**	U	**300**	U	--	**15**	J	**300**	U	**300**	U	**300**	U	**580**	UJ	**22**	J	**14**	J	**300**	UJ	**59**
GCMW-05	059-2034	N	25	30	ft	**190**	U	**190**	U	--	**9.1**	J	**190**	U	**190**	U	**190**	U	**380**	UJ	**10**	J	**6.8**	J	**190**	UJ	**27.3**
GCMW-05	059-2035	N	30	35	ft	**190**	U	**190**	U	--	**190**	U	**190**	U	**190**	U	**190**	U	**370**	UJ	**11**	J	**9.4**	J	**13**	J	**40.7**
GCMW-06	059-2025	N	5	10	ft	**170**	J	**240**	U	--	**10**	J	**240**	U	**240**	U	**240**	U	**460**	UJ	**2,800**		**13**	J	**1,300**		**10,431**
GCMW-06	059-2026	N	10	15	ft	**300**	U	**300**	U	--	**14**	J	**300**	U	**300**	U	**300**	U	**570**	UJ	**120**	J	**15**	J	**38**	J	**380.1**
GCMW-06	059-2027	N	15	20	ft	**300**	U	**300**	U	--	**30**	J	**300**	U	**300**	U	**300**	U	**590**	UJ	**170**	J	**15**	J	**56**	J	**606**
GCMW-06	059-2028	N	20	25	ft	**25**	J	**220**	U	--	**31**	J	**220**	U	**220**	U	**220**	U	**420**	UJ	**460**		**11**	J	**220**	J	**1,676**
GCMW-06	059-2029	N	25	30	ft	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**380**	UJ	**17**	J	**8.1**	J	**7.9**	J	**38.9**
GCMW-06	059-2030	N	30	35	ft	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**380**	UJ	**14**	J	**200**	U	**12**	J	**35.6**

365 Bond St (MW5 & MW6)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-05	059-2031	N	5	10	ft	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**5.3**	U	**2.7**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-05	059-2032	N	10	15	ft	**0.48**	J	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**5.4**	U	**2.8**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-05	059-2033	N	15	20	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**5.8**	U	**3**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-05	059-2034	N	25	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-05	059-2035	N	30	35	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-06	059-2025	N	5	10	ft	**2.4**	UJ	**2.4**	UJ	**2.4**	UJ	**2.4**	UJ	**2.4**	UJ	**4.7**	UJ	**2.4**	UJ	**4.7**	UJ	**4.7**	UJ	**4.7**	UJ	**4.7**	UJ
GCMW-06	059-2026	N	10	15	ft	**3**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**5.8**	UJ	**3**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ
GCMW-06	059-2027	N	15	20	ft	**3.1**	UJ	**3.1**	UJ	**3.1**	UJ	**3.1**	UJ	**3.1**	UJ	**6**	UJ	**3.1**	UJ	**6**	UJ	**6**	UJ	**6**	UJ	**6**	UJ
GCMW-06	059-2028	N	20	25	ft	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**4.2**	UJ	**2.2**	UJ	**4.2**	UJ	**4.2**	UJ	**4.2**	UJ	**4.2**	UJ
GCMW-06	059-2029	N	25	30	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.9**	UJ	**2**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ
GCMW-06	059-2030	N	30	35	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.9**	UJ	**2**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ

365 Bond St (MW5 & MW6)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-05	059-2031	N	5	10	ft	**5.3**	U	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**3**	J	**5.3**	U	**5.3**	U	**5.3**	U	**270**	U	**0**	U
GCMW-05	059-2032	N	10	15	ft	**0.56**	J	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**28**	U	**5.4**	U	**5.4**	U	**5.4**	U	**280**	U	**0**	U
GCMW-05	059-2033	N	15	20	ft	**5.8**	U	**3**	U	**3**	U	**3**	U	**3**	U	**30**	U	**5.8**	U	**5.8**	U	**5.8**	U	**300**	U	**0**	U
GCMW-05	059-2034	N	25	30	ft	**3.8**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-05	059-2035	N	30	35	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-06	059-2025	N	5	10	ft	**4.7**	UJ	**2.4**	UJ	**2.4**	UJ	**2.4**	UJ	**2.4**	UJ	**24**	UJ	**4.7**	UJ	**4.7**	UJ	**4.7**	UJ	**240**	UJ	**0**	U
GCMW-06	059-2026	N	10	15	ft	**5.8**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**30**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**300**	UJ	**0**	U
GCMW-06	059-2027	N	15	20	ft	**0.24**	J	**3.1**	UJ	**3.1**	UJ	**3.1**	UJ	**3.1**	UJ	**31**	UJ	**6**	UJ	**6**	UJ	**6**	UJ	**310**	UJ	**0**	U
GCMW-06	059-2028	N	20	25	ft	**4.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**22**	UJ	**4.2**	UJ	**4.2**	UJ	**4.2**	UJ	**220**	UJ	**0**	U
GCMW-06	059-2029	N	25	30	ft	**3.9**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**200**	UJ	**0**	U
GCMW-06	059-2030	N	30	35	ft	**3.9**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**200**	UJ	**0**	U

365 Bond St (MW5 & MW6)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
GCMW-05	059-2031	N	5	10	ft	**53** U	**53** U	**53** U	**53** U	**53** U	**53** U	**53** U	**53** U	**53** U	**0** U
GCMW-05	059-2032	N	10	15	ft	**54** U	**54** U	**54** U	**54** U	**54** U	**54** U	**54** U	**54** U	**54** U	**0** U
GCMW-05	059-2033	N	15	20	ft	**58** U	**58** U	**58** U	**58** U	**58** U	**58** U	**58** U	**58** U	**58** U	**0** U
GCMW-05	059-2034	N	25	30	ft	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**0** U
GCMW-05	059-2035	N	30	35	ft	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**0** U
GCMW-06	059-2025	N	5	10	ft	**47** UJ	**47** UJ	**47** UJ	**47** UJ	**47** UJ	**47** UJ	**47** UJ	**47** UJ	**47** UJ	**0** U
GCMW-06	059-2026	N	10	15	ft	**58** UJ	**58** UJ	**58** UJ	**58** UJ	**58** UJ	**58** UJ	**58** UJ	**58** UJ	**58** UJ	**0** U
GCMW-06	059-2027	N	15	20	ft	**60** UJ	**60** UJ	**60** UJ	**60** UJ	**60** UJ	**60** UJ	**60** UJ	**60** UJ	**60** UJ	**0** U
GCMW-06	059-2028	N	20	25	ft	**42** UJ	**42** UJ	**42** UJ	**42** UJ	**42** UJ	**42** UJ	**42** UJ	**42** UJ	**42** UJ	**0** U
GCMW-06	059-2029	N	25	30	ft	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**0** U
GCMW-06	059-2030	N	30	35	ft	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**39** UJ	**0** U

365 Bond St (MW5 & MW6)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum		Antimony		Arsenic		Barium		Beryllium		Cadmium		Calcium		Chromium		Cobalt		Copper	Iron	
GCMW-05	059-2031	N	5	10	ft	**5,460**	J	**10.1**	U	**4.5**		**81.2**	J	**0.78**	J	**0.078**	J	**16,100**	J	**15**	J	**8.4**	UJ	**37.8**	**9,380**	J
GCMW-05	059-2032	N	10	15	ft	**15,400**	J	**0.74**	J	**8.6**		**35.9**	J	**0.84**		**0.19**	J	**3,200**	J	**31.7**	J	**10.1**	J	**18.5**	**32,900**	J
GCMW-05	059-2033	N	15	20	ft	**14,600**	J	**0.78**	J	**9.6**		**38.3**	J	**0.81**	J	**0.16**	J	**2,700**	J	**32.2**	J	**9.3**	J	**14.5**	**33,800**	J
GCMW-05	059-2034	N	25	30	ft	**2,900**	J	**6.8**	UJ	**0.51**	J	**14.7**	J	**0.57**	U	**0.57**	U	**606**	J	**7.6**	J	**5.7**	UJ	**5.1**	**5,590**	J
GCMW-05	059-2035	N	30	35	ft	**3,340**	J	**6.7**	UJ	**1.2**		**21.1**	J	**0.56**	U	**0.56**	U	**762**	J	**8.8**	J	**5.6**	UJ	**7.8**	**7,780**	J
GCMW-06	059-2025	N	5	10	ft	**7,330**	J	**7.7**	UJ	**2.9**		**31.8**	J	**0.45**	J	**0.027**	J	**1,770**	J	**13.6**	J	**6.4**	UJ	**9.9**	**13,000**	J
GCMW-06	059-2026	N	10	15	ft	**16,100**	J	**0.64**	J	**9.1**		**33.8**	J	**0.87**		**0.12**	J	**2,140**	J	**34.1**	J	**10.5**	J	**16**	**37,200**	J
GCMW-06	059-2027	N	15	20	ft	**16,700**	J	**1.1**	J	**11.3**		**56.2**	J	**0.89**		**0.17**	J	**3,110**	J	**35**	J	**10.8**	J	**17**	**38,400**	J
GCMW-06	059-2028	N	20	25	ft	**8,800**	J	**0.5**	J	**8.2**		**54.8**	J	**0.6**	J	**0.35**	J	**2,140**	J	**52.7**	J	**8**	UJ	**14.2**	**15,800**	J
GCMW-06	059-2029	N	25	30	ft	**3,140**	J	**6.7**	UJ	**0.89**	J	**17.9**	J	**0.22**	J	**0.56**	U	**558**	UJ	**11**	J	**5.6**	UJ	**4.4**	**5,500**	J
GCMW-06	059-2030	N	30	35	ft	**2,400**	J	**7.2**	UJ	**0.9**	J	**27.8**	J	**0.19**	J	**0.6**	U	**604**	UJ	**6**	J	**6**	UJ	**3.2**	**6,520**	J

365 Bond St (MW5 & MW6)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium		Manganese	Mercury		Nickel		Potassium		Selenium		Silver		Sodium		Thallium		Vanadium		Zinc	Cyanide, Total	
GCMW-05	059-2031	N	5	10	ft	**112**	**3,750**	J	**218**	**0.93**		**22.7**	J	**918**		**5.9**	U	**1.7**	U	**5,610**		**4.2**	U	**8.5**	J	**49.6**	**0.29**	J
GCMW-05	059-2032	N	10	15	ft	**24.4**	**6,580**	J	**352**	**0.12**	J	**30.2**	J	**3,420**		**5.6**	U	**1.6**	U	**2,020**		**4**	U	**37.1**	J	**75**	**3.9**	U
GCMW-05	059-2033	N	15	20	ft	**14.7**	**6,120**	J	**310**	**0.17**	U	**27.7**	J	**3,120**		**5.9**	U	**1.7**	U	**2,420**		**4.2**	U	**34.4**	J	**67.2**	**4.1**	U
GCMW-05	059-2034	N	25	30	ft	**3.3**	**1,410**	J	**46.5**	**0.11**	U	**8.9**	J	**509**	J	**4**	U	**1.1**	U	**570**	U	**2.9**	U	**9.5**	J	**18.5**	**2.9**	U
GCMW-05	059-2035	N	30	35	ft	**3.2**	**1,960**	J	**140**	**0.12**	U	**17.9**	J	**629**		**3.9**	U	**1.1**	U	**562**	U	**2.8**	U	**7.7**	J	**18**	**2.9**	U
GCMW-06	059-2025	N	5	10	ft	**8.8**	**2,690**	J	**338**	**0.13**	U	**16.3**	J	**1,250**		**4.5**	U	**1.3**	U	**641**	U	**3.2**	U	**20.8**	J	**30.3**	**3.3**	U
GCMW-06	059-2026	N	10	15	ft	**15.2**	**6,990**	J	**384**	**0.16**	U	**29.3**	J	**3,580**		**5.9**	U	**1.7**	U	**2,240**		**4.2**	U	**37.6**	J	**74.7**	**4.2**	U
GCMW-06	059-2027	N	15	20	ft	**15.3**	**6,920**	J	**377**	**0.16**	U	**30.3**	J	**3,600**		**5.9**	U	**1.7**	U	**3,580**		**4.2**	U	**39.5**	J	**85.1**	**4.1**	U
GCMW-06	059-2028	N	20	25	ft	**7.9**	**3,660**	J	**111**	**0.16**	U	**27.5**	J	**1,610**		**5.8**		**1.6**	U	**3,140**		**4**	U	**27.4**	J	**60.7**	**3.9**	U
GCMW-06	059-2029	N	25	30	ft	**3.4**	**1,540**	J	**38**	**0.12**	U	**9.2**	J	**565**		**3.9**	U	**1.1**	U	**839**		**2.8**	U	**9.5**	J	**20.2**	**2.9**	U
GCMW-06	059-2030	N	30	35	ft	**2.7**	**1,190**	J	**33**	**0.12**	U	**7.4**	J	**501**	J	**4.2**	U	**1.2**	U	**1,040**		**3**	U	**6.8**	J	**18.4**	**3**	U

365 Bond St

(MW5 & MW6)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

365 Bond St (MW5 & MW6)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-05	GC-MW05I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-05	GC-MW05S	N	Shallow	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.05**	U	**0.05**	U
MW-06	GC-MW06I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-06	GC-MW06S	N	Shallow	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

365 Bond St (MW5 & MW6)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane	
MW-05	GC-MW05I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.32**	J	**0.5**	U	**0.5**	U
MW-05	GC-MW05S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.48**	J	**0.5**	U	**0.5**	U
MW-06	GC-MW06I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-06	GC-MW06S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U

365 Bond St (MW5 & MW6)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane
MW-05	GC-MW05I	N	Intermediate	**0.5** U	**0.5** U	**0.36** J	**0.5** UJ	**0.5** U	**0.5** U	**0.44** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-05	GC-MW05S	N	Shallow	**0.5** U	**0.5** U	**0.63**	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.29** J	**0.5** U	**2.8**
MW-06	GC-MW06I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-06	GC-MW06S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.25** J	**0.5** U	**4.4**

365 Bond St (MW5 & MW6)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride	
MW-05	GC-MW05I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.23**	J	**0.5**	U	**0.5**	UJ	**5**	U	**5**	U	**0.5**	U	**0.5**	UJ
MW-05	GC-MW05S	N	Shallow	**0.5**	U	**0.5**	U	**1.2**		**4.9**		**2.7**		**0.5**	UJ	**2.8**	J	**5**	U	**5.1**		**0.5**	UJ
MW-06	GC-MW06I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**5**	U	**5**	U	**0.5**	U	**0.5**	U
MW-06	GC-MW06S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**2.2**		**0.4**	J	**0.5**	UJ	**5**	U	**5**	U	**4.7**		**0.5**	UJ

365 Bond St (MW5 & MW6)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-05	GC-MW05I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	UJ
MW-05	GC-MW05S	N	Shallow	**1.5**		**0.5**	U	**0.5**	UJ	**0.45**	J	**0.71**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	UJ
MW-06	GC-MW06I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**1.3**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ
MW-06	GC-MW06S	N	Shallow	**0.36**	J	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	UJ

365 Bond St (MW5 & MW6)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene	
MW-05	GC-MW05I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	UJ	**5**	U	**5**	U	**3.1**	J
MW-05	GC-MW05S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	UJ	**5**	U	**5**	U	**4.2**	J
MW-06	GC-MW06I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	UJ	**5**	U	**5**	U	**1.5**	J
MW-06	GC-MW06S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	UJ	**5**	U	**5**	U	**0.57**	

365 Bond St (MW5 & MW6)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline	
MW-05	GC-MW05I	N	Intermediate	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**2.7**	J	**10**	U
MW-05	GC-MW05S	N	Shallow	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**2.6**	J	**10**	U
MW-06	GC-MW06I	N	Intermediate	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U
MW-06	GC-MW06S	N	Shallow	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene
MW-05	GC-MW05I	N	Intermediate	**0.95** J	**0.14**	**5** U	**0.27**	**5** U	**5** U	**0.1** UJ	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-05	GC-MW05S	N	Shallow	**1.1** J	**0.1** U	**5** U	**0.21**	**5** U	**5** U	**0.1** UJ	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-06	GC-MW06I	N	Intermediate	**1.1** J	**0.011** J	**5** U	**0.25**	**5** U	**5** U	**0.1** UJ	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-06	GC-MW06S	N	Shallow	**2.2** J	**0.26**	**5** U	**0.28**	**5** U	**5** U	**0.1** UJ	**0.1** U	**0.1** U	**0.1** U	**0.1** U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran
MW-05	GC-MW05I	N	Intermediate	**5** U	**5** U	**5** U	**5** U	**5** U	**3.1** J	**5** U	**5** U	**0.1** U	**0.1** U	**5** U
MW-05	GC-MW05S	N	Shallow	**5** UJ	**5** UJ	**5** U	**5** U	**5** U	**1.5** J	**5** UJ	**5** U	**0.1** U	**0.1** U	**5** U
MW-06	GC-MW06I	N	Intermediate	**5** U	**5** U	**5** U	**5** U	**5** U	**2.5** J	**5** U	**5** U	**0.1** U	**0.1** U	**5** U
MW-06	GC-MW06S	N	Shallow	**5** U	**5** U	**5** U	**5** U	**5** U	**2.7** J	**5** U	**5** U	**0.1** U	**0.1** U	**1.2** J

365 Bond St (MW5 & MW6)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene	Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
MW-05	GC-MW05I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**0.19**	**0.72**		**5**	U	**5**	U	**5**	U	**5**	U
MW-05	GC-MW05S	N	Shallow	**5**	UJ	**5**	UJ	**5**	UJ	**5**	UJ	**0.18**	**0.27**	J	**5**	U	**5**	U	**5**	U	**5**	U
MW-06	GC-MW06I	N	Intermediate	**5**	U	**1**	J	**5**	U	**5**	U	**0.14**	**0.15**		**5**	U	**5**	U	**5**	U	**5**	U
MW-06	GC-MW06S	N	Shallow	**5**	U	**1.4**	J	**5**	U	**5**	U	**0.15**	**2.5**	J	**5**	U	**5**	U	**5**	U	**5**	U

365 Bond St (MW5 & MW6)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-05	GC-MW05I	N	Intermediate	**0.1** U	**5** U	**2.3** J	**5** U	**5** U	**5** U	**0.2** U	**1.3** J	**5** U	**0.34**	**9.31**
MW-05	GC-MW05S	N	Shallow	**0.1** U	**5** U	**2.1** J	**5** U	**5** U	**5** U	**0.19** J	**1.5** J	**5** U	**0.3**	**9.86**
MW-06	GC-MW06I	N	Intermediate	**0.1** U	**5** U	**6.9**	**5** U	**5** U	**5** U	**0.2** UJ	**1.3** J	**5** U	**0.17**	**11.521**
MW-06	GC-MW06S	N	Shallow	**0.1** U	**5** U	**1.9** J	**5** U	**5** U	**5** U	**0.2** U	**0.53** J	**5** U	**0.35**	**8.74**

365 Bond St (MW5 & MW6)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-05	GC-MW05I	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-05	GC-MW05S	N	Shallow	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-06	GC-MW06I	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-06	GC-MW06S	N	Shallow	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ

365 Bond St (MW5 & MW6)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-05	GC-MW05I	N	Intermediate	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-05	GC-MW05S	N	Shallow	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-06	GC-MW06I	N	Intermediate	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-06	GC-MW06S	N	Shallow	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U

365 Bond St (MW5 & MW6)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
MW-05	GC-MW05I	N	Intermediate	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0** U
MW-05	GC-MW05S	N	Shallow	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0** U
MW-06	GC-MW06I	N	Intermediate	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0** U
MW-06	GC-MW06S	N	Shallow	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0** U

365 Bond St (MW5 & MW6)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved		Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved		Calcium	Calcium, dissolved	Chromium	
MW-05	GC-MW05I	N	Intermediate	**200**	U	**200**	U	**20**	U	**20**	U	**8.2**	J	**8.4**	J	**279**	**295**	J	**10**	U	**10**	U	**10**	U	**10**	U	**71,300**	**70,400**	**20**	UJ
MW-05	GC-MW05S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**3.5**		**3.5**	J	**176**	**181**	J	**1**	U	**1**	U	**1**	U	**1**	U	**86,000**	**80,200**	**3**	J
MW-06	GC-MW06I	N	Intermediate	**2,000**	U	**2,000**	U	**20**	U	**20**	U	**44.6**		**58.7**		**1,470**	**1,890**	J	**10**	U	**10**	U	**10**	U	**10**	U	**159,000**	**157,000**	**3.8**	J
MW-06	GC-MW06S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**2.1**		**1.9**	J	**83.5**	**87.8**	J	**1**	U	**1**	U	**1**	U	**1**	U	**98,600**	**95,800**	**2.6**	J

365 Bond St (MW5 & MW6)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel
MW-05	GC-MW05I	N	Intermediate	**20** UJ	**10** U	**10** U	**25** U	**25** U	**3,450**	**2,920**	**10** U	**10** U	**66,100**	**63,900**	**2,210**	**2,390** J	**0.2** U	**0.2** U	**2.2** J
MW-05	GC-MW05S	N	Shallow	**0.65** J	**0.8** J	**0.82** J	**25** U	**25** U	**2,400**	**1,960**	**2.6**	**1** U	**15,700**	**14,900**	**297**	**300** J	**0.2** U	**0.2** U	**2.9** J
MW-06	GC-MW06I	N	Intermediate	**20** UJ	**10** U	**10** U	**38** J	**250** U	**42,300**	**41,100**	**10** U	**10** U	**371,000**	**354,000**	**269**	**351** J	**0.2** U	**0.2** U	**2** J
MW-06	GC-MW06S	N	Shallow	**1.5** J	**0.9** J	**1.2**	**5.3** J	**25** U	**3,630**	**3,520**	**1.9**	**1** U	**6,540**	**6,560**	**355**	**380** J	**0.2** U	**0.2** U	**1.9** J

365 Bond St (MW5 & MW6)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-05	GC-MW05I	N	Intermediate	**7.3** J	**21,700**	**21,300**	50 UR	50 UR	**10** U	**10** U	**494,000**	**450,000**	**10** U	**10** U	**50** U	**50** U	**20** U	**20** U	**10** U
MW-05	GC-MW05S	N	Shallow	**3.8** J	**26,300**	**26,800**	5 UR	5 UR	**1** U	**1** U	**122,000**	**125,000**	**1** U	**1** U	**5** U	**5** U	**9.8**	**1.6** J	**10** U
MW-06	GC-MW06I	N	Intermediate	**10** UJ	**124,000**	**120,000**	20 R	14 R	**10** U	**10** U	**3,020,000**	**2,910,000**	**10** U	**10** U	**50** U	**50** U	**20** U	**20** U	**10** U
MW-06	GC-MW06S	N	Shallow	**1.6** J	**7,210**	**7,130**	5 UR	5 UR	**1** U	**1** U	**15,500**	**17,700**	**1** U	**1** U	**1.3** J	**5** U	**26.3**	**4.4**	**10** U

160 3rd St

(MW7 & MW8)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 160 3rd St.
Monitoring Well Soil Borings Installed at Address: GC-MW-7 & GC-MW-8
Intermediate Monitoring Wells Installed at Address: GC-MW-7I & GC-MW-8I
Shallow Monitoring Wells Installed at Address: GC-MW-7S & GC-MW-8S

GC-MW-7

The soil samples from the soil boring installed for the intermediate well (situated approximately 9 feet from the canal) contained 13 VOCs, 68 SVOCs, 7 pesticides, 0 PCBs, and 55 metals. From these, 5 VOCs, 5 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (190,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (120,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 9 feet from the canal) contained 7 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (16 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (583 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately33 ft bgs and situated approximately 9 feet from the canal) contained 6 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 16 metals. From these, 5 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (460 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (72 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (6,290 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-8

The soil samples from the soil boring installed for the intermediate well (situated approximately 140 feet from the canal) contained 17 VOCs, 24 SVOCs, 5 pesticides, 0 PCBs, and 104 metals. From these, 2 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (99 J µg/kg). The metal occurring at the highest concentration above screening value was arsenic (16.6 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 140 feet from the canal) contained 3 VOCs, 10 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (5,850 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 140 feet from the canal) contained 7 VOCs, 4 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs,

and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (4,650 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

160 3rd St (MW7 & MW8)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-07	059-2205	N	0	5	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-07	059-2206	N	20	25	ft	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U
GCMW-07	059-2207	N	25	30	ft	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U
GCMW-08	059-2198	N	5	10	ft	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ
GCMW-08	059-2199	N	10	15	ft	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ
GCMW-08	059-2200	N	15	20	ft	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ
GCMW-08	059-2201	N	20	25	ft	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ
GCMW-08	059-2202	N	25	30	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ
GCMW-08	059-2203	N	30	35	ft	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ

160 3rd St (MW7 & MW8)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-07	059-2205	N	0	5	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	89	UR	**8.9**	U	**8.9**	U	**4.4**	U
GCMW-07	059-2206	N	20	25	ft	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	11,000	UR	**1,100**	U	**1,100**	U	**540**	U
GCMW-07	059-2207	N	25	30	ft	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	320,000	UR	**32,000**	U	**32,000**	U	**8,300**	J
GCMW-08	059-2198	N	5	10	ft	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	180	UR	**18**	UJ	**27**	J	**9.2**	UJ
GCMW-08	059-2199	N	10	15	ft	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	170	UR	**17**	UJ	**43**	J	**8.7**	UJ
GCMW-08	059-2200	N	15	20	ft	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	190	UR	**19**	UJ	**70**	J	**9.6**	UJ
GCMW-08	059-2201	N	20	25	ft	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	180	UR	**18**	UJ	**99**	J	**2**	J
GCMW-08	059-2202	N	25	30	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	99	UR	**9.9**	UJ	**46**	J	**4.9**	UJ
GCMW-08	059-2203	N	30	35	ft	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	110	UR	**11**	UJ	**11**	UJ	**5.3**	UJ

160 3rd St (MW7 & MW8)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-07	059-2205	N	0	5	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-07	059-2206	N	20	25	ft	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U
GCMW-07	059-2207	N	25	30	ft	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U
GCMW-08	059-2198	N	5	10	ft	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**19**	J	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ
GCMW-08	059-2199	N	10	15	ft	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**17**	J	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ
GCMW-08	059-2200	N	15	20	ft	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**34**	J	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ
GCMW-08	059-2201	N	20	25	ft	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**29**	J	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ
GCMW-08	059-2202	N	25	30	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**2.3**	J	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ
GCMW-08	059-2203	N	30	35	ft	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**1**	J	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ

160 3rd St (MW7 & MW8)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-07	059-2205	N	0	5	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**0.23**	J	**4.4**	U	**0.17**	J	**4.4**	U	**8.9**	U	**8.9**	U	**4.4**	U
GCMW-07	059-2206	N	20	25	ft	**540**	U	**540**	U	**540**	U	**540**	U	**990**		**180**	J	**760**		**540**	U	**1,100**	U	**1,100**	U	**540**	U
GCMW-07	059-2207	N	25	30	ft	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**190,000**		**36,000**		**160,000**		**16,000**	U	**32,000**	U	**32,000**	U	**16,000**	U
GCMW-08	059-2198	N	5	10	ft	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**18**	UJ	**18**	UJ	**9.2**	UJ
GCMW-08	059-2199	N	10	15	ft	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**17**	UJ	**17**	UJ	**8.7**	UJ
GCMW-08	059-2200	N	15	20	ft	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**19**	UJ	**19**	UJ	**9.6**	UJ
GCMW-08	059-2201	N	20	25	ft	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**34**	J	**18**	UJ	**9**	UJ
GCMW-08	059-2202	N	25	30	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**14**	J	**9.9**	UJ	**4.9**	UJ
GCMW-08	059-2203	N	30	35	ft	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**11**	UJ	**11**	UJ	**5.3**	UJ

160 3rd St (MW7 & MW8)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-07	059-2205	N	0	5	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-07	059-2206	N	20	25	ft	**540**	U	**440**	J	**540**	U	**540**	U	**540**	U	**130**	J	**540**	U	**540**	U	**540**	U	**540**	U	**540**	U
GCMW-07	059-2207	N	25	30	ft	**16,000**	U	**73,000**		**16,000**	U	**16,000**	U	**16,000**	U	**4,600**	J	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U	**16,000**	U
GCMW-08	059-2198	N	5	10	ft	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ
GCMW-08	059-2199	N	10	15	ft	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**8.7**	UJ	**1.5**	J	**8.7**	UJ
GCMW-08	059-2200	N	15	20	ft	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ	**9.6**	UJ
GCMW-08	059-2201	N	20	25	ft	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ	**1.6**	J	**9**	UJ
GCMW-08	059-2202	N	25	30	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**0.74**	J	**4.9**	UJ
GCMW-08	059-2203	N	30	35	ft	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ	**5.3**	UJ

160 3rd St (MW7 & MW8)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-07	059-2205	N	0	5	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**190**	U
GCMW-07	059-2206	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-07	059-2207	N	25	30	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**11,000**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-08	059-2198	N	5	10	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**580**	U	**300**	U	**300**	U	**300**	U
GCMW-08	059-2199	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**550**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2200	N	15	20	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2201	N	20	25	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2202	N	25	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-08	059-2203	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**420**	U	**210**	U	**210**	U	**210**	U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
GCMW-07	059-2205	N	0	5	ft	**190**	U	**14**	J	**190**	U	**380**	U	**190**	U	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**190**	U
GCMW-07	059-2206	N	20	25	ft	**210**	U	**470**		**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-07	059-2207	N	25	30	ft	**5,800**	U	**97,000**		**5,800**	U	**11,000**	U	**5,800**	U	**5,800**	U	**11,000**	U	**11,000**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-08	059-2198	N	5	10	ft	**300**	U	**300**	U	**300**	U	**580**	U	**300**	U	**300**	U	**580**	U	**580**	U	**300**	U	**300**	U	**300**	U
GCMW-08	059-2199	N	10	15	ft	**290**	U	**290**	U	**290**	U	**550**	U	**290**	U	**290**	U	**550**	U	**550**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2200	N	15	20	ft	**290**	U	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2201	N	20	25	ft	**290**	U	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2202	N	25	30	ft	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-08	059-2203	N	30	35	ft	**210**	U	**210**	U	**210**	U	**420**	U	**210**	U	**210**	U	**420**	U	**420**	U	**210**	U	**210**	U	**210**	U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-07	059-2205	N	0	5	ft	**190**	U	**190**	U	**380**	U	**380**	U	**74**	J	**190**	U	**76**	J	**140**	J	**190**	U	**88**	J	**370**		**270**	
GCMW-07	059-2206	N	20	25	ft	**210**	U	**210**	U	**410**	U	**410**	U	**330**		**70**	J	**73**	J	**190**	J	**210**	U	**100**	J	**130**	J	**83**	J
GCMW-07	059-2207	N	25	30	ft	**5,800**	U	**5,800**	U	**11,000**	U	**11,000**	U	**63,000**		**4,200**	J	**5,800**	U	**33,000**		**5,800**	U	**5,800**	U	**19,000**		**13,000**	
GCMW-08	059-2198	N	5	10	ft	**300**	U	**300**	U	**580**	U	**580**	U	**300**	U	**300**	U	**290**	J	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-08	059-2199	N	10	15	ft	**290**	U	**290**	U	**550**	U	**550**	U	**290**	U	**290**	U	**250**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2200	N	15	20	ft	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**210**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2201	N	20	25	ft	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**210**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2202	N	25	30	ft	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**110**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-08	059-2203	N	30	35	ft	**210**	U	**210**	U	**420**	U	**420**	U	**210**	U	**210**	U	**130**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-07	059-2205	N	0	5	ft	**390**		**160**	J	**110**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**24**	J	**190**	U	**67**	J	**300**	
GCMW-07	059-2206	N	20	25	ft	**68**	J	**34**	J	**23**	J	**8.7**	J	**71**	J	**210**	U	**210**	U	**210**	U	**25**	J	**210**	U	**8.2**	J	**100**	J
GCMW-07	059-2207	N	25	30	ft	**10,000**	J	**4,400**	J	**4,300**	J	**5,800**	U	**12,000**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**840**	J	**18,000**	
GCMW-08	059-2198	N	5	10	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**86**	J	**300**	U	**300**	U	**300**	U
GCMW-08	059-2199	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2200	N	15	20	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**88**	J	**290**	U	**290**	U	**290**	U
GCMW-08	059-2201	N	20	25	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**81**	J	**290**	U	**290**	U	**290**	U
GCMW-08	059-2202	N	25	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**49**	J	**210**	U	**210**	U	**210**	U
GCMW-08	059-2203	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**41**	J	**210**	U	**210**	U	**210**	U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-07	059-2205	N	0	5	ft	**46**	J	**29**	J	**190**	U	**190**	U	**190**	U	**190**	U	**650**		**72**	J	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-07	059-2206	N	20	25	ft	**12**	J	**25**	J	**210**	U	**210**	U	**6.5**	J	**210**	U	**190**	J	**220**		**210**	U	**210**	U	**210**	U	**210**	U
GCMW-07	059-2207	N	25	30	ft	**1,900**	J	**3,700**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**30,000**		**34,000**		**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-08	059-2198	N	5	10	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-08	059-2199	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2200	N	15	20	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2201	N	20	25	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-08	059-2202	N	25	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-08	059-2203	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
GCMW-07	059-2205	N	0	5	ft	**180** J	**190** U	--	**11** J	**190** U	**190** U	**190** U	**380** U	**540**	**11** J	**610**	**3,937**
GCMW-07	059-2206	N	20	25	ft	**29** J	**210** U	--	**570**	**210** U	**210** U	**210** U	**410** U	**650**	**13** J	**310**	**3,479**
GCMW-07	059-2207	N	25	30	ft	**4,500** J	**5,800** U	--	**120,000**	**5,800** U	**5,800** U	**5,800** U	**11,000** U	**92,000**	**5,800** U	**52,000**	**600,300**
GCMW-08	059-2198	N	5	10	ft	**300** U	**300** U	--	**46** J	**300** U	**300** UJ	**300** U	**580** U	**300** U	**46** J	**300** U	**46**
GCMW-08	059-2199	N	10	15	ft	**290** U	**290** U	--	**40** J	**290** U	**290** UJ	**290** U	**550** U	**290** U	**50** J	**290** U	**40**
GCMW-08	059-2200	N	15	20	ft	**290** U	**290** U	**320** NJ	**40** J	**290** U	**290** UJ	**290** U	**560** U	**290** U	**41** J	**290** U	**40**
GCMW-08	059-2201	N	20	25	ft	**290** U	**290** U	--	**42** J	**290** U	**290** UJ	**290** U	**560** U	**290** U	**44** J	**290** U	**42**
GCMW-08	059-2202	N	25	30	ft	**210** U	**210** U	--	**30** J	**210** U	**210** UJ	**210** U	**400** U	**210** U	**19** J	**210** U	**30**
GCMW-08	059-2203	N	30	35	ft	**210** U	**210** U	--	**30** J	**210** U	**210** UJ	**210** U	**420** U	**210** U	**16** J	**210** U	**30**

160 3rd St (MW7 & MW8)
Pesticide Concentrations in Soils (ug/mg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-07	059-2205	N	0	5	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-07	059-2206	N	20	25	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.2**	U	**2.1**	U	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U
GCMW-07	059-2207	N	25	30	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**28**	J	**20**	U	**3.8**	J	**38**	U	**38**	U	**38**	U
GCMW-08	059-2198	N	5	10	ft	**3**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**5.8**	UJ	**3**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ
GCMW-08	059-2199	N	10	15	ft	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**5.5**	UJ	**2.9**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ
GCMW-08	059-2200	N	15	20	ft	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**5.7**	UJ	**2.9**	UJ	**5.7**	UJ	**5.7**	UJ	**5.7**	UJ	**5.7**	UJ
GCMW-08	059-2201	N	20	25	ft	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**5.7**	UJ	**2.9**	UJ	**5.7**	UJ	**5.7**	UJ	**5.7**	UJ	**5.7**	UJ
GCMW-08	059-2202	N	25	30	ft	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4**	UJ	**2.1**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**4**	UJ
GCMW-08	059-2203	N	30	35	ft	**2.1**	UJ	**0.15**	J	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4.2**	UJ	**2.1**	UJ	**4.2**	UJ	**4.2**	UJ	**0.11**	J	**4.2**	UJ

160 3rd St (MW7 & MW8)
Pesticide Concentrations in Soils (ug/mg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-07	059-2205	N	0	5	ft	**5.3**	NJ	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-07	059-2206	N	20	25	ft	**4.2**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**0.26**	J	**210**	U	**0.26**	
GCMW-07	059-2207	N	25	30	ft	**38**	U	**20**	U	**59**		**20**	U	**8.1**	J	**200**	U	**38**	U	**38**	U	**56**		**2,000**	U	**56**	
GCMW-08	059-2198	N	5	10	ft	**5.8**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**3**	UJ	**30**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**300**	UJ	**0**	U
GCMW-08	059-2199	N	10	15	ft	**5.5**	UJ	**2.9**	UJ	**0.15**	J	**2.9**	UJ	**2.9**	UJ	**29**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**290**	UJ	**0**	U
GCMW-08	059-2200	N	15	20	ft	**5.7**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**29**	UJ	**5.7**	UJ	**5.7**	UJ	**5.7**	UJ	**290**	UJ	**0**	U
GCMW-08	059-2201	N	20	25	ft	**5.7**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**29**	UJ	**5.7**	UJ	**1.4**	J	**5.7**	UJ	**290**	UJ	**1.4**	
GCMW-08	059-2202	N	25	30	ft	**4**	UJ	**0.18**	J	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**21**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**210**	UJ	**0**	U
GCMW-08	059-2203	N	30	35	ft	**4.2**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**21**	UJ	**4.2**	UJ	**4.2**	UJ	**4.2**	UJ	**210**	UJ	**0**	U

160 3rd St (MW7 & MW8)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-07	059-2205	N	0	5	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-07	059-2206	N	20	25	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-07	059-2207	N	25	30	ft	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**380**	U	**0**	U
GCMW-08	059-2198	N	5	10	ft	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**0**	U
GCMW-08	059-2199	N	10	15	ft	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**0**	U
GCMW-08	059-2200	N	15	20	ft	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**0**	U
GCMW-08	059-2201	N	20	25	ft	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**0**	U
GCMW-08	059-2202	N	25	30	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-08	059-2203	N	30	35	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U

160 3rd St (MW7 & MW8)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-07	059-2205	N	0	5	ft	**6,440**	**6.8** UJ	**7.2**	**34.6**	**0.31** J	**0.84**	**9,160**	**11.9**	**3.3** J	**29.5**	**32,100**
GCMW-07	059-2206	N	20	25	ft	**10,300**	**9.3** UJ	**5.5**	**38.5**	**0.44** J	**0.48** J	**2,680** J	**19.4**	**5.2** J	**17.9**	**21,700**
GCMW-07	059-2207	N	25	30	ft	**4,400**	**7.1** UJ	**2.2**	**44.8**	**0.4** J	**0.31** J	**909** J	**10.5**	**5.3** J	**9.3**	**10,300**
GCMW-08	059-2198	N	5	10	ft	**14,900**	**10.9** U	**9.5**	**29.3** J	**0.79** J	**1.3**	**6,330** J	**32.4** J	**9.1** U	**17.2**	**34,500** J
GCMW-08	059-2199	N	10	15	ft	**13,900**	**10.6** U	**9.8**	**35.3** U	**0.73** J	**1.2**	**2,690** J	**31.3** J	**8.8** U	**16.5**	**32,700** J
GCMW-08	059-2200	N	15	20	ft	**13,600**	**0.84** J	**9.5**	**28.2** J	**0.86** U	**0.56** J	**2,330**	**30.4**	**9**	**18.5**	**31,900**
GCMW-08	059-2201	N	20	25	ft	**12,600**	**0.71** J	**9.8**	**59.7**	**0.74** U	**0.45** J	**2,160**	**27.6** J	**10.4**	**19.5**	**26,900**
GCMW-08	059-2202	N	25	30	ft	**5,260**	**0.39** J	**16.6**	**64.3**	**0.59** U	**0.17** J	**2,980**	**14.5**	**6.9**	**11.9**	**12,400**
GCMW-08	059-2203	N	30	35	ft	**3,390**	**7.1** U	**1.2** U	**31.7**	**0.59** U	**0.021** J	**11,500**	**7**	**3.6** J	**9.7**	**6,830**

160 3rd St (MW7 & MW8)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-07	059-2205	N	0	5	ft	47.5	2,780 J	161	0.13	18.1	1,070 J	3.9 U	1.1 U	736	0.92 J	16.9	48.2 J	2.9 U
GCMW-07	059-2206	N	20	25	ft	14.8	4,370 J	258	0.16 U	18.7	2,250 J	5.4 U	1.5 U	3,000	3.9 U	24.6	48.4 J	3.8 U
GCMW-07	059-2207	N	25	30	ft	5.3	2,190 J	203	0.12 U	13.7	1,080 J	4.1 U	1.2 U	601 U	2.9 U	17.4	34.2 J	3 U
GCMW-08	059-2198	N	5	10	ft	14 J	6,820 J	384	0.18 U	27.5	4,050 J	6.3 U	1.8 U	2,500	2.9 J	35.6	77.5 J	4.6 U
GCMW-08	059-2199	N	10	15	ft	12.8 J	6,660 J	384	0.18 U	27.2	3,780 J	6.2 U	1.8 U	2,980	1.4 J	33.1	72.7 J	4.5 U
GCMW-08	059-2200	N	15	20	ft	13.6	5,730	285	0.17 U	25	2,950	5.7 U	1.6 U	3,020	4.1 U	32.6	64	4.2 U
GCMW-08	059-2201	N	20	25	ft	13	4,840	223	0.15 UJ	24	2,210	5.2 U	1.5 U	1,950	3.7 U	30.8	62	3.8 U
GCMW-08	059-2202	N	25	30	ft	6.4	3,200	145	0.12 U	17	1,040	4.1 U	1.2 U	589	2.9 U	21.7	33.2	3 U
GCMW-08	059-2203	N	30	35	ft	3.4	4,750	236	0.12 U	11	753	4.1 U	1.2 U	590 U	2.9 U	8.2	16.7	3 U

160 3rd St

(MW7 & MW8)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

160 3rd St (MW7 & MW8)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-07	GC-MW07I	N	Intermediate	**13**	U	**13**	U	**13**	U	**13**	UJ	**13**	U	**13**	U	**13**	U	**13**	U	**0.05**	U	**0.05**	U
MW-07	GC-MW07S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-08	GC-MW08I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-08	GC-MW08S	N	Shallow	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

160 3rd St (MW7 & MW8)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane
MW-07	GC-MW07I	N	Intermediate	**13** U	**13** U	**13** U	**13** U	**13** U	--	**130** U	**130** U	**370** J	**13** U
MW-07	GC-MW07S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**5.4**	**0.5** U
MW-08	GC-MW08I	N	Intermediate	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.58**	**0.5** U
MW-08	GC-MW08S	N	Shallow	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U

160 3rd St (MW7 & MW8)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene	
MW-07	GC-MW07I	N	Intermediate	**13**	U	**13**	U	13	UR	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	UJ
MW-07	GC-MW07S	N	Shallow	**0.5**	U	**0.5**	U	0.5	UR	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ
MW-08	GC-MW08I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**1.4**		**0.5**	UJ	**0.5**	U	**0.5**	U	**3.3**		**0.5**	U	**0.5**	U	**0.5**	U
MW-08	GC-MW08S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.89**		**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.38**	J	**0.5**	UJ

160 3rd St (MW7 & MW8)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
MW-07	GC-MW07I	N	Intermediate	**13**	U	**13**	U	**13**	U	**460**	J	**40**		**460**	J	**13**	U	**130**	U	**130**	U	**13**	U
MW-07	GC-MW07S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**16**		**1.4**		**17**		**0.5**	U	**5**	U	**5**	U	**0.5**	U
MW-08	GC-MW08I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.71**		**0.5**	U	**0.65**		**0.5**	UJ	**5**	U	**5**	U	**0.5**	U
MW-08	GC-MW08S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**5**	U	**5**	U	**0.5**	U

160 3rd St (MW7 & MW8)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-07	GC-MW07I	N	Intermediate	**13**	U	**330**		**13**	U	**13**	U	**13**	U	**63**		**13**	U	**13**	UJ	**13**	U	**13**	U	**13**	U
MW-07	GC-MW07S	N	Shallow	**0.5**	U	**7.7**		**0.5**	U	**0.5**	U	**0.35**	J	**1**		**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U
MW-08	GC-MW08I	N	Intermediate	**0.38**	J	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.53**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-08	GC-MW08S	N	Shallow	**0.45**	J	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	UJ

160 3rd St (MW7 & MW8)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
MW-07	GC-MW07I	N	Intermediate	**250**	U	**250**	U	**250**	U	**250**	U	**250**	U	**250**	U	**500**	U	**250**	UJ	**250**	U	**250**	U
MW-07	GC-MW07S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U
MW-08	GC-MW08I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U
MW-08	GC-MW08S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
MW-07	GC-MW07I	N	Intermediate	**250**	U	**1,100**		**250**	U	**500**	U	**250**	U	**250**	U	**500**	U	**500**	U	**250**	U	**250**	U	**250**	U
MW-07	GC-MW07S	N	Shallow	**5**	U	**50**		**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U
MW-08	GC-MW08I	N	Intermediate	**5**	U	**0.1**	U	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U
MW-08	GC-MW08S	N	Shallow	**5**	U	**0.11**		**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
MW-07	GC-MW07I	N	Intermediate	**250** U	**250** U	**500** U	**500** U	**400**	**5** U	**250** U	**88** J	**250** U	**250** U	**27**	**11**	**13**
MW-07	GC-MW07S	N	Shallow	**5** U	**5** U	**10** U	**10** U	**25**	**0.1** U	**5** U	**3.2** J	**5** U	**6.5**	**0.28**	**0.1** U	**0.11**
MW-08	GC-MW08I	N	Intermediate	**5** U	**5** U	**10** U	**10** U	**0.1** U	**0.1** U	**5** U	**0.1** U	**5** U	**5** UJ	**0.1** U	**0.1** U	**0.1** U
MW-08	GC-MW08S	N	Shallow	**5** U	**5** U	**10** U	**10** U	**0.62** J	**0.1** U	**5** U	**0.1** UJ	**5** U	**5** U	**0.1** U	**0.1** U	**0.1** U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene
MW-07	GC-MW07I	N	Intermediate	**4.1** J	**3.1** J	**250** U	**72** J	**250** U	**250** U	**250** U	**250** U	**250** U	**250** U	**14**
MW-07	GC-MW07S	N	Shallow	**0.15**	**0.1** UJ	**5** U	**3.7** J	**5** U	**5** U	**5** U	**1.2** J	**5** U	**5** U	**0.17**
MW-08	GC-MW08I	N	Intermediate	**0.37**	**0.1** UJ	**5** U	**5** U	**5** UJ	**5** UJ	**5** UJ	**1.7** J	**5** U	**5** U	**0.1** U
MW-08	GC-MW08S	N	Shallow	**0.43**	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**2.8** J	**5** U	**5** U	**0.1** U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
MW-07	GC-MW07I	N	Intermediate	**5** UJ	**250** U	**250** U	**250** U	**250** U	**250** U	**72** J	**150** J	**250** U	**250** U	**250** U
MW-07	GC-MW07S	N	Shallow	**0.1** UJ	**5** U	**5** U	**5** U	**5** U	**5** U	**2.4** J	**10**	**5** U	**5** U	**5** U
MW-08	GC-MW08I	N	Intermediate	**0.1** UJ	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U
MW-08	GC-MW08S	N	Shallow	**0.1** UJ	**5** U	**5** U	**5** U	**5** U	**5** U	**0.11**	**0.38**	**5** U	**5** U	**5** U

160 3rd St (MW7 & MW8)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachloroethane		Indeno(1,2,3-c,d)pyrene	Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene	Phenol		Pyrene		Total PAHs
MW-07	GC-MW07I	N	Intermediate	250	U	7.4	250	U	3,500	J	250	U	250	U	250	U	10	U	330	250	U	120	J	5,840
MW-07	GC-MW07S	N	Shallow	5	U	0.14	5	U	130	J	5	U	5	U	5	U	0.2	U	14	5	U	3.1	J	238.55
MW-08	GC-MW08I	N	Intermediate	5	U	0.23	5	U	0.11		5	U	5	U	5	U	0.2	U	0.1	U	5	UJ	0.1	U	0.71
MW-08	GC-MW08S	N	Shallow	5	U	0.25	5	U	0.17		5	U	5	U	5	U	0.2	U	0.16	5	U	0.12		2.35

160 3rd St (MW7 & MW8)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-07	GC-MW07I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-07	GC-MW07S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-08	GC-MW08I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-08	GC-MW08S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

160 3rd St (MW7 & MW8)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-07	GC-MW07I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-07	GC-MW07S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-08	GC-MW08I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-08	GC-MW08S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

160 3rd St (MW7 & MW8)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-07	GC-MW07I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-07	GC-MW07S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-08	GC-MW08I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-08	GC-MW08S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

160 3rd St (MW7 & MW8)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-07	GC-MW07I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**1.7**	J	**1.3**	J	**1,090**	**970**	**1**	U	**1**	U	**1**	U	**1**	U
MW-07	GC-MW07S	N	Shallow	**3,000**	U	**3,000**	U	**20**	U	**20**	U	**13.3**	J	**13.3**	J	**156**	**160**	**10**	U	**10**	U	**10**	U	**10**	U
MW-08	GC-MW08I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**8.5**	J	**8.5**	J	**423**	**401**	**1**	U	**1**	U	**1**	U	**1**	U
MW-08	GC-MW08S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**6.8**	J	**6.7**	J	**201**	**194**	**1**	U	**1**	U	**1**	U	**1**	U

160 3rd St (MW7 & MW8)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium		Calcium, dissolved		Chromium		Chromium, dissolved		Cobalt		Cobalt, dissolved		Copper		Copper, dissolved		Iron		Iron, dissolved		Lead		Lead, dissolved	
MW-07	GC-MW07I	N	Intermediate	**92,700**	J	**91,800**		**15.5**	J	**7.1**	J	**2.9**		**2.6**		**28.5**		**25**	U	**6,290**	J	**6,040**		**0.66**	J	**1**	U
MW-07	GC-MW07S	N	Shallow	**297,000**	J	**292,000**		**14.8**	J	**8.7**	J	**10**	U	**10**	U	**375**	U	**375**	U	**1,500**	U	**1,500**	U	**10**	U	**10**	U
MW-08	GC-MW08I	N	Intermediate	**96,000**	J	**93,700**		**1.7**	J	**0.91**	J	**0.67**	J	**0.65**	J	**3.9**	J	**25**	U	**4,650**	J	**4,300**		**0.44**	J	**1**	U
MW-08	GC-MW08S	N	Shallow	**75,300**	J	**73,900**		**5.2**	J	**2.2**	J	**0.39**	J	**0.36**	J	**25**	U	**25**	U	**5,850**	J	**5,600**		**0.81**	J	**1**	U

160 3rd St (MW7 & MW8)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Magnesium		Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium		Potassium, dissolved	Selenium		Selenium, dissolved	
MW-07	GC-MW07I	N	Intermediate	**141,000**	J	**138,000**	**929**	**862**	**0.066**	J	**0.073**	J	**194**	J	**193**	J	**75,100**	J	**75,500**	5	UR	5	UR
MW-07	GC-MW07S	N	Shallow	**845,000**	J	**824,000**	**583**	**551**	**0.087**	J	**0.077**	J	**14.1**	J	**9.9**	J	**291,000**	J	**283,000**	26.6	R	24.6	R
MW-08	GC-MW08I	N	Intermediate	**58,100**	J	**55,700**	**1,600**	**1,580**	**0.081**	J	**0.078**	J	**1.8**	J	**1.6**	J	**24,900**	J	**24,100**	1	R	2.3	R
MW-08	GC-MW08S	N	Shallow	**14,800**	J	**14,400**	**560**	**569**	**0.09**	J	**0.084**	J	**4.9**	J	**4.3**	J	**27,400**	J	**27,400**	5	UR	5	UR

160 3rd St (MW7 & MW8)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Silver		Silver, dissolved		Sodium	Sodium, dissolved	Thallium		Thallium, dissolved		Vanadium		Vanadium, dissolved		Zinc		Zinc, dissolved		Cyanide, Total	
MW-07	GC-MW07I	N	Intermediate	**1**	UJ	**1**	UJ	**1,380,000**	**1,380,000**	**1**	U	**1**	U	**3.6**	J	**3.4**	J	**20.2**	J	**32**	J	**10**	U
MW-07	GC-MW07S	N	Shallow	**10**	UJ	**10**	UJ	**6,680,000**	**6,270,000**	**10**	U	**10**	U	**50**	U	**50**	U	**12.3**	J	**20**	UJ	**10**	U
MW-08	GC-MW08I	N	Intermediate	**1**	UJ	**1**	UJ	**656,000**	**619,000**	**1**	U	**1**	U	**5**	U	**5**	U	**11.3**	J	**7.6**	J	**10**	U
MW-08	GC-MW08S	N	Shallow	**1**	UJ	**1**	UJ	**189,000**	**182,000**	**1**	U	**1**	U	**1.2**	J	**5**	U	**2.5**	J	**1.9**	J	**10**	U

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186 – 220 3rd St

(MW37 & MW38)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 186-220 3rd St.
Monitoring Well Soil Borings Installed at Address: GC-MW-37 & GC-MW-38
Intermediate Monitoring Wells Installed at Address: GC-MW-37I & GC-MW-38I
Shallow Monitoring Wells Installed at Address: GC-MW-37S & GC-MW-38S

GC-MW-37

The soil samples from the soil boring installed for the intermediate well (situated approximately 31 feet from the canal) contained 43 VOCs, 135 SVOCs, 6 pesticides, 0 PCBs, and 146 metals. From these, 2 VOCs, 4 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (95 µg/kg). The SVOC occurring at the highest concentration above screening value was benzo(a)anthracene (8,400 µg/kg). The metal occurring at the highest concentration above screening value was lead (537 mg/kg).

Shallow groundwater

The shallow well (depth of approximately20 ft bgs and situated approximately 31 feet from the canal) contained 3 VOCs, 11 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (7,880 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately42 ft bgs and situated approximately 31 feet from the canal) contained 8 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (16 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,470 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-38

The soil samples from the soil boring installed for the intermediate well (situated approximately 33 feet from the canal) contained 6 VOCs, 96 SVOCs, 1 pesticide, 0 PCBs, and 112 metals. From these, 2 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (200 µg/kg). The metal occurring at the highest concentration above screening value was mercury (1.5 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 33 feet from the canal) contained 2 VOCs, 11 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was 2,4-dinitrotoluene (11 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (8,100 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 33 feet from the canal) contained 5 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4

metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,520 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
GCMW-37	059-2208	N	0	5	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U
GCMW-37	059-2209	N	5	10	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-37	059-2210	N	10	15	ft	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U
GCMW-37	059-2211	N	15	20	ft	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U
GCMW-37	059-2212	N	20	25	ft	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U
GCMW-37	059-2213	N	25	30	ft	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U
GCMW-37	059-2214	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-37	059-2215	N	35	40	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-38	059-2241	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-38	059-2242	N	16	16.5	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-38	059-2243	N	15	20	ft	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	30	UR	30	UR	30	UR	**30**	UJ
GCMW-38	059-2244	N	20	25	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-38	059-2245	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-38	059-2246	N	30	35	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U
GCMW-38	059-2247	N	35	40	ft	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane	
GCMW-37	059-2208	N	0	5	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	130	UR	**13**	U	**50**		**6.7**	U	**6.7**	U
GCMW-37	059-2209	N	5	10	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	96	UR	**9.6**	U	**18**		**4.8**	U	**4.8**	U
GCMW-37	059-2210	N	10	15	ft	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	170	UR	**17**	U	**62**		**8.5**	U	**8.5**	U
GCMW-37	059-2211	N	15	20	ft	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	270	UR	**27**	U	**95**		**14**	U	**14**	U
GCMW-37	059-2212	N	20	25	ft	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	7,100	UR	**710**	U	**710**	U	**360**	U	**360**	U
GCMW-37	059-2213	N	25	30	ft	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	7,400	UR	**740**	U	**740**	U	**370**	U	**370**	U
GCMW-37	059-2214	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**29**		**5**	U	**5**	U
GCMW-37	059-2215	N	35	40	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	98	UR	**9.8**	U	**9.8**	U	**1.5**	J	**4.9**	U
GCMW-38	059-2241	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	94	UR	**9.4**	U	**44**		**4.7**	U	**4.7**	U
GCMW-38	059-2242	N	16	16.5	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	250	UR	**25**	U	**61**		**13**	U	**13**	U
GCMW-38	059-2243	N	15	20	ft	30	UR	**30**	UJ	**30**	UJ	30	UR	30	UR	600	UR	**60**	UJ	**200**	J	**30**	UJ	**30**	UJ
GCMW-38	059-2244	N	20	25	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	94	UR	**9.4**	U	**9.4**	U	**4.7**	U	**4.7**	U
GCMW-38	059-2245	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	120	UR	**12**	U	**12**	U	**5.9**	U	**5.9**	U
GCMW-38	059-2246	N	30	35	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	130	UR	**13**	U	**13**	U	**6.5**	U	**6.5**	U
GCMW-38	059-2247	N	35	40	ft	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	130	UR	**13**	U	**13**	U	**6.4**	U	**6.4**	U

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene	
GCMW-37	059-2208	N	0	5	ft	**6.7**	U	**6.7**	U	**6.7**	U	**1.5**	J	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U
GCMW-37	059-2209	N	5	10	ft	**4.8**	U	**4.8**	U	**4.8**	U	**1.2**	J	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-37	059-2210	N	10	15	ft	**8.5**	U	**8.5**	U	**8.5**	U	**20**		**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U
GCMW-37	059-2211	N	15	20	ft	**14**	U	**14**	U	**14**	U	**210**		**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U
GCMW-37	059-2212	N	20	25	ft	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U
GCMW-37	059-2213	N	25	30	ft	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U
GCMW-37	059-2214	N	30	35	ft	**5**	U	**5**	U	**5**	U	**1.1**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-37	059-2215	N	35	40	ft	**4.9**	U	**4.9**	U	**4.9**	U	**2**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-38	059-2241	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-38	059-2242	N	16	16.5	ft	**13**	U	**13**	U	**13**	U	**22**		**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-38	059-2243	N	15	20	ft	**30**	UJ	30	UR	**30**	UJ	**35**	J	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ
GCMW-38	059-2244	N	20	25	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-38	059-2245	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-38	059-2246	N	30	35	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U
GCMW-38	059-2247	N	35	40	ft	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-37	059-2208	N	0	5	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**18**		**13**	U	**6.7**	U
GCMW-37	059-2209	N	5	10	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**7.4**	J	**9.6**	U	**4.8**	U
GCMW-37	059-2210	N	10	15	ft	**8.5**	U	**8.5**	U	**8.5**	U	**0.31**	J	**8.5**	U	**0.29**	J	**8.5**	U	**24**		**17**	U	**8.5**	U
GCMW-37	059-2211	N	15	20	ft	**14**	U	**14**	U	**14**	U	**1.4**	J	**14**	U	**1.1**	J	**14**	U	**40**		**27**	U	**14**	U
GCMW-37	059-2212	N	20	25	ft	**360**	U	**360**	U	**360**	U	**350**	J	**120**	J	**320**	J	**360**	U	**710**	U	**710**	U	**360**	U
GCMW-37	059-2213	N	25	30	ft	**370**	U	**370**	U	**370**	U	**470**		**97**	J	**460**		**370**	U	**740**	U	**740**	U	**370**	U
GCMW-37	059-2214	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**14**		**9.9**	U	**5**	U
GCMW-37	059-2215	N	35	40	ft	**4.9**	U	**4.9**	U	**4.9**	U	**21**		**4.1**	J	**19**		**4.9**	U	**9.8**	U	**9.8**	U	**4.9**	U
GCMW-38	059-2241	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**9.4**	U	**9.4**	U	**4.7**	U
GCMW-38	059-2242	N	16	16.5	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**25**	U	**25**	U	**13**	U
GCMW-38	059-2243	N	15	20	ft	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	--		**30**	UJ	**60**	UJ	**60**	UJ	**30**	UJ
GCMW-38	059-2244	N	20	25	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**9.4**	U	**9.4**	U	**4.7**	U
GCMW-38	059-2245	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**12**	U	**12**	U	**5.9**	U
GCMW-38	059-2246	N	30	35	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**13**	U	**13**	U	**6.5**	U
GCMW-38	059-2247	N	35	40	ft	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**13**	U	**13**	U	**6.4**	U

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-37	059-2208	N	0	5	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U
GCMW-37	059-2209	N	5	10	ft	**4.8**	U	**4.8**	U	**4.8**	U	**1.6**	J	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-37	059-2210	N	10	15	ft	**8.5**	U	**0.14**	J	**8.5**	U	**4.5**	J	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**1.8**	J	**8.5**	U
GCMW-37	059-2211	N	15	20	ft	**14**	U	**0.62**	J	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U	**14**	U
GCMW-37	059-2212	N	20	25	ft	**360**	U	**180**	J	**360**	U	**360**	U	**360**	U	**40**	J	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U
GCMW-37	059-2213	N	25	30	ft	**370**	U	**240**	J	**370**	U	**370**	U	**370**	U	**120**	J	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U
GCMW-37	059-2214	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.71**	J	**5**	U
GCMW-37	059-2215	N	35	40	ft	**4.9**	U	**11**		**3.7**	J	**4.9**	U	**4.9**	U	**5.5**		**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-38	059-2241	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-38	059-2242	N	16	16.5	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-38	059-2243	N	15	20	ft	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ	**30**	UJ
GCMW-38	059-2244	N	20	25	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-38	059-2245	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-38	059-2246	N	30	35	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**2.7**	J	**6.5**	U
GCMW-38	059-2247	N	35	40	ft	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-37	059-2208	N	0	5	ft	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**3,200**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U
GCMW-37	059-2209	N	5	10	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-37	059-2210	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-37	059-2211	N	15	20	ft	**350**	U	**350**	U	**350**	U	**350**	U	**350**	U	**350**	U	**680**	U	**350**	U	**350**	U	**350**	U	**350**	U
GCMW-37	059-2212	N	20	25	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-37	059-2213	N	25	30	ft	**450**	U	**450**	U	**450**	U	**450**	U	**450**	U	**450**	U	**870**	U	**450**	U	**450**	U	**450**	U	**450**	U
GCMW-37	059-2214	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-37	059-2215	N	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-38	059-2241	N	5	10	ft	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**1,900**	U	**990**	U	**990**	U	**990**	U	**990**	U
GCMW-38	059-2242	N	16	16.5	ft	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**800**	U	**410**	U	**410**	U	**410**	U	**410**	U
GCMW-38	059-2243	N	15	20	ft	**670**	UJ	**670**	UJ	**670**	UJ	**670**	UJ	**670**	UJ	**670**	UJ	**1,300**	UJ	**670**	UJ	**670**	UJ	**670**	UJ	**670**	UJ
GCMW-38	059-2244	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-38	059-2245	N	25	30	ft	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**460**	U	**240**	U	**240**	U	**240**	U	**240**	U
GCMW-38	059-2246	N	30	35	ft	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**340**	U	**180**	U	**180**	U	**180**	U	**180**	U
GCMW-38	059-2247	N	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
GCMW-37	059-2208	N	0	5	ft	**310**	J	**1,600**	U	**3,200**	U	**1,600**	U	**1,600**	U	**3,200**	U	**3,200**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U
GCMW-37	059-2209	N	5	10	ft	**21**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-37	059-2210	N	10	15	ft	**290**	U	**290**	U	**560**	U	**290**	U	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-37	059-2211	N	15	20	ft	**34**	J	**350**	U	**680**	U	**350**	U	**350**	U	**680**	U	**680**	U	**350**	U	**350**	U	**350**	U	**350**	U
GCMW-37	059-2212	N	20	25	ft	**130**	J	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-37	059-2213	N	25	30	ft	**3,500**		**450**	U	**870**	U	**450**	U	**450**	U	**870**	U	**870**	U	**450**	U	**450**	U	**450**	U	**450**	U
GCMW-37	059-2214	N	30	35	ft	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-37	059-2215	N	35	40	ft	**210**		**200**	U	**400**	U	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-38	059-2241	N	5	10	ft	**3,000**		**990**	U	**1,900**	U	**990**	U	**990**	U	**1,900**	U	**1,900**	U	**990**	U	**990**	U	**990**	U	**990**	U
GCMW-38	059-2242	N	16	16.5	ft	**270**	J	**410**	U	**800**	U	**410**	U	**410**	U	**800**	U	**800**	U	**410**	U	**410**	U	**410**	U	**410**	U
GCMW-38	059-2243	N	15	20	ft	**870**	J	**670**	UJ	**1,300**	UJ	**670**	UJ	**670**	UJ	**1,300**	UJ	**1,300**	UJ	**670**	UJ	**670**	UJ	**670**	UJ	**670**	UJ
GCMW-38	059-2244	N	20	25	ft	**63**	J	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-38	059-2245	N	25	30	ft	**9.3**	J	**240**	U	**460**	U	**240**	U	**240**	U	**460**	U	**460**	U	**240**	U	**240**	U	**240**	U	**240**	U
GCMW-38	059-2246	N	30	35	ft	**180**	U	**180**	U	**340**	U	**180**	U	**180**	U	**340**	U	**340**	U	**180**	U	**180**	U	**180**	U	**180**	U
GCMW-38	059-2247	N	35	40	ft	**13**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-37	059-2208	N	0	5	ft	**1,600**	U	**3,200**	U	**3,200**	U	**1,300**	J	**230**	J	**88**	J	**4,000**		**1,600**	U	**1,600**	U	**8,400**		**3,400**	
GCMW-37	059-2209	N	5	10	ft	**200**	U	**380**	U	**380**	U	**29**	J	**200**	U	**57**	J	**35**	J	**200**	U	**50**	J	**82**	J	**58**	J
GCMW-37	059-2210	N	10	15	ft	**290**	U	**560**	U	**560**	U	**290**	U	**290**	U	**79**	J	**290**	U	**290**	U	**90**	J	**290**	U	**290**	U
GCMW-37	059-2211	N	15	20	ft	**350**	U	**680**	U	**680**	U	**16**	J	**350**	U	**99**	J	**350**	U	**350**	U	**98**	J	**350**	U	**350**	U
GCMW-37	059-2212	N	20	25	ft	**190**	U	**370**	U	**370**	U	**87**	J	**16**	J	**60**	J	**66**	J	**190**	U	**54**	J	**50**	J	**32**	J
GCMW-37	059-2213	N	25	30	ft	**450**	U	**870**	U	**870**	U	**1,500**		**690**		**77**	J	**1,300**		**450**	U	**92**	J	**770**		**500**	
GCMW-37	059-2214	N	30	35	ft	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**56**	J	**210**	U	**210**	U	**79**	J	**210**	U	**210**	U
GCMW-37	059-2215	N	35	40	ft	**200**	U	**400**	U	**400**	U	**140**	J	**53**	J	**63**	J	**130**	J	**200**	U	**76**	J	**110**	J	**73**	J
GCMW-38	059-2241	N	5	10	ft	**990**	U	**1,900**	U	**1,900**	U	**1,900**		**520**	J	**56**	J	**1,300**		**990**	U	**71**	J	**1,000**		**670**	J
GCMW-38	059-2242	N	16	16.5	ft	**410**	U	**800**	U	**800**	U	**25**	J	**16**	J	**93**	J	**410**	U	**410**	U	**94**	J	**16**	J	**410**	U
GCMW-38	059-2243	N	15	20	ft	**670**	UJ	**1,300**	UJ	**1,300**	UJ	**270**	J	**200**	J	**140**	J	**260**	J	**670**	UJ	**170**	J	**190**	J	**110**	J
GCMW-38	059-2244	N	20	25	ft	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**61**	J	**210**	U	**210**	U	**69**	J	**210**	U	**210**	U
GCMW-38	059-2245	N	25	30	ft	**240**	U	**460**	U	**460**	U	**240**	U	**240**	U	**55**	J	**240**	U	**240**	U	**62**	J	**240**	U	**240**	U
GCMW-38	059-2246	N	30	35	ft	**180**	U	**340**	U	**340**	U	**180**	U	**180**	U	**54**	J	**180**	U	**180**	U	**87**	J	**180**	U	**180**	U
GCMW-38	059-2247	N	35	40	ft	**200**	U	**380**	U	**380**	U	**5.8**	J	**25**	J	**51**	J	**64**	J	**200**	U	**68**	J	**87**	J	**57**	J

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-37	059-2208	N	0	5	ft	7,900		370	J	2,800		1,600	U	110	J	1,600	U	1,600	U	1,600	U	130	J	1,600	U	820	J	7,400	
GCMW-37	059-2209	N	5	10	ft	86	J	28	J	22	J	7.1	J	200	U	200	U	200	U	200	U	20	J	200	U	9.8	J	90	J
GCMW-37	059-2210	N	10	15	ft	290	U	290	U	290	U	290	U	290	U	290	U	290	U	290	U	30	J	290	U	290	U	290	U
GCMW-37	059-2211	N	15	20	ft	350	U	350	U	350	U	350	U	350	U	350	U	350	U	350	U	39	J	350	U	350	U	350	U
GCMW-37	059-2212	N	20	25	ft	27	J	20	J	10	J	7	J	15	J	190	U	190	U	190	U	29	J	10	J	190	U	47	J
GCMW-37	059-2213	N	25	30	ft	390	J	220	J	150	J	450	U	330	J	450	U	450	U	450	U	35	J	450	U	28	J	760	
GCMW-37	059-2214	N	30	35	ft	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	16	J	9.5	J	210	U	210	U
GCMW-37	059-2215	N	35	40	ft	55	J	32	J	19	J	9.9	J	26	J	200	U	200	U	200	U	24	J	13	J	200	U	110	J
GCMW-38	059-2241	N	5	10	ft	590	J	290	J	230	J	990	U	380	J	990	U	990	U	990	U	48	J	990	U	53	J	970	J
GCMW-38	059-2242	N	16	16.5	ft	410	U	410	U	410	U	410	U	13	J	410	U	410	U	410	U	66	J	410	U	410	U	410	U
GCMW-38	059-2243	N	15	20	ft	94	J	52	J	35	J	670	UJ	82	J	670	UJ	670	UJ	670	UJ	110	J	670	UJ	670	UJ	130	J
GCMW-38	059-2244	N	20	25	ft	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	23	J	210	U	210	U	210	U
GCMW-38	059-2245	N	25	30	ft	240	U	240	U	240	U	240	U	240	U	240	U	240	U	240	U	40	J	240	U	240	U	240	U
GCMW-38	059-2246	N	30	35	ft	180	U	180	U	180	U	180	U	180	U	180	U	180	U	180	U	21	J	180	U	180	U	180	U
GCMW-38	059-2247	N	35	40	ft	47	J	24	J	16	J	200	U	200	U	200	U	200	U	200	U	28	J	200	U	200	U	78	J

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-37	059-2208	N	0	5	ft	**970**	J	**860**	J	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**25,000**		**1,400**	J	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U
GCMW-37	059-2209	N	5	10	ft	**17**	J	**10**	J	**200**	U	**200**	U	**6.1**	J	**200**	U	**160**	J	**22**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-37	059-2210	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**11**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-37	059-2211	N	15	20	ft	**350**	U	**350**	U	**350**	U	**350**	U	**11**	J	**350**	U	**350**	U	**350**	U	**350**	U	**350**	U	**350**	U	**350**	U
GCMW-37	059-2212	N	20	25	ft	**190**	U	**190**	U	**190**	U	**190**	U	**6.9**	J	**190**	U	**68**	J	**57**	J	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-37	059-2213	N	25	30	ft	**74**	J	**130**	J	**450**	U	**450**	U	**450**	U	**450**	U	**1,300**		**1,200**	J	**450**	U	**450**	U	**450**	U	**450**	U
GCMW-37	059-2214	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-37	059-2215	N	35	40	ft	**15**	J	**12**	J	**200**	U	**200**	U	**8.1**	J	**200**	U	**150**	J	**110**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-38	059-2241	N	5	10	ft	**91**	J	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**1,600**		**1,300**	J	**990**	U	**990**	U	**990**	U	**990**	U
GCMW-38	059-2242	N	16	16.5	ft	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**18**	J	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U
GCMW-38	059-2243	N	15	20	ft	**670**	UJ	**30**	J	**670**	UJ	**670**	UJ	**670**	UJ	**670**	UJ	**280**	J	**270**	J	**670**	UJ	**670**	UJ	**670**	UJ	**670**	UJ
GCMW-38	059-2244	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-38	059-2245	N	25	30	ft	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U	**240**	U
GCMW-38	059-2246	N	30	35	ft	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U
GCMW-38	059-2247	N	35	40	ft	**7.6**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**130**	J	**15**	J	**200**	U	**200**	U	**200**	U	**200**	U

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
GCMW-37	059-2208	N	0	5	ft	**2,100**	**1,600** U	--	**490** J	**1,600** U	**1,600** U	**1,600** U	**3,200** U	**19,000**	**1,600** U	**14,000**	**99,070**
GCMW-37	059-2209	N	5	10	ft	**46** J	**200** U	--	**24** J	**200** U	**200** U	**200** U	**380** U	**160** J	**200** U	**170** J	**1,050**
GCMW-37	059-2210	N	10	15	ft	**290** U	**290** U	--	**9.6** J	**290** U	**290** U	**290** U	**560** U	**290** U	**290** U	**16** J	**36.6**
GCMW-37	059-2211	N	15	20	ft	**350** U	**350** U	--	**57** J	**350** U	**350** U	**350** U	**680** U	**33** J	**350** U	**350** U	**140**
GCMW-37	059-2212	N	20	25	ft	**22** J	**190** U	--	**120** J	**190** U	**190** U	**190** U	**370** U	**230**	**190** U	**130** J	**1,112**
GCMW-37	059-2213	N	25	30	ft	**190** J	**450** U	--	**3,300**	**450** U	**450** U	**450** U	**870** U	**5,200**	**450** U	**2,300**	**23,344**
GCMW-37	059-2214	N	30	35	ft	**210** U	**210** U	--	**8.1** J	**210** U	**210** U	**210** U	**400** U	**210** U	**210** U	**210** U	**8.1**
GCMW-37	059-2215	N	35	40	ft	**27** J	**200** U	--	**150** J	**200** U	**200** U	**200** U	**400** U	**410**	**200** U	**300**	**2,094**
GCMW-38	059-2241	N	5	10	ft	**300** J	**990** U	--	**2,800**	**990** U	**990** U	**990** U	**1,900** U	**5,300**	**990** U	**2,800**	**24,661**
GCMW-38	059-2242	N	16	16.5	ft	**410** U	**410** U	--	**930**	**410** U	**410** U	**410** U	**800** U	**36** J	**17** J	**26** J	**1,337**
GCMW-38	059-2243	N	15	20	ft	**43** J	**670** UJ	--	**1,700** J	**670** UJ	**670** UJ	**670** UJ	**1,300** UJ	**1,000** J	**27** J	**460** J	**5,964**
GCMW-38	059-2244	N	20	25	ft	**210** U	**210** U	--	**200** J	**210** U	**210** U	**210** U	**410** U	**10** J	**12** J	**210** U	**273**
GCMW-38	059-2245	N	25	30	ft	**240** U	**240** U	--	**18** J	**240** U	**240** U	**240** U	**460** U	**240** U	**11** J	**240** U	**27.3**
GCMW-38	059-2246	N	30	35	ft	**180** U	**180** U	--	**9.6** J	**180** U	**180** U	**180** U	**340** U	**180** U	**10** J	**180** U	**9.6**
GCMW-38	059-2247	N	35	40	ft	**21** J	**200** U	--	**19** J	**200** U	**200** U	**200** U	**380** U	**190** J	**10** J	**220**	**1,019**

186 – 220 3rd St (MW37 & MW38)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-37	059-2208	N	0	5	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	UJ	**4**	U
GCMW-37	059-2209	N	5	10	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**0.6**	J	**2**	U	**3.9**	U	**3.9**	U	**1.7**	J	**3.9**	U
GCMW-37	059-2210	N	10	15	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.7**	U	**2.9**	U	**5.7**	U	**5.7**	U	5.7	UR	**5.7**	UJ
GCMW-37	059-2211	N	15	20	ft	**3.5**	U	**3.5**	U	**3.5**	U	**3.5**	U	**3.5**	U	**6.9**	U	**3.5**	U	**6.9**	U	**6.9**	U	6.9	UR	**6.9**	U
GCMW-37	059-2212	N	20	25	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	3.8	UR	**3.8**	UJ
GCMW-37	059-2213	N	25	30	ft	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**4.4**	U	**2.3**	U	**4.4**	U	**4.4**	U	4.4	UR	**4.4**	U
GCMW-37	059-2214	N	30	35	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	4.1	UR	**4.1**	U
GCMW-37	059-2215	N	35	40	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	4	UR	**4**	U
GCMW-38	059-2241	N	5	10	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-38	059-2242	N	16	16.5	ft	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**8**	U	**4.1**	U	**8**	U	**8**	U	**8**	U	**8**	U
GCMW-38	059-2243	N	15	20	ft	**6.8**	UJ	**6.8**	UJ	**6.8**	UJ	**6.8**	UJ	**6.8**	UJ	**13**	UJ	**6.8**	UJ	**13**	UJ	**13**	UJ	**13**	UJ	**13**	UJ
GCMW-38	059-2244	N	20	25	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-38	059-2245	N	25	30	ft	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**4.8**	U	**2.5**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-38	059-2246	N	30	35	ft	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**0.28**	J	**3.5**	U	**1.8**	U	**3.5**	U	**3.5**	U	**3.5**	U	**3.5**	U
GCMW-38	059-2247	N	35	40	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U

186 – 220 3rd St (MW37 & MW38)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-37	059-2208	N	0	5	ft	**4**	U	**2**	U	**12**	J	**2**	U	**2**	U	**20**	U	**4**	UJ	**4**	UJ	4	UR	**200**	U	--	
GCMW-37	059-2209	N	5	10	ft	**3.9**	UJ	**2**	U	2.7	R	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	UJ	3.9	UR	**200**	U	--	
GCMW-37	059-2210	N	10	15	ft	**5.7**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**29**	U	**5.7**	U	**5.7**	U	5.7	UR	**290**	U	--	
GCMW-37	059-2211	N	15	20	ft	**6.9**	U	**3.5**	U	**3.5**	U	**3.5**	U	**3.5**	U	**35**	U	**6.9**	U	**6.9**	U	6.9	UR	**350**	U	--	
GCMW-37	059-2212	N	20	25	ft	**3.8**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**0.12**	J	**200**	U	**0.12**	
GCMW-37	059-2213	N	25	30	ft	**4.4**	UJ	**2.3**	U	**2.2**	J	**2.3**	U	**2.3**	U	**23**	U	**4.4**	UJ	**4.4**	UJ	**2.2**	J	**230**	U	**2.2**	
GCMW-37	059-2214	N	30	35	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	4.1	UR	**210**	U	--	
GCMW-37	059-2215	N	35	40	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	4	UR	**200**	U	--	
GCMW-38	059-2241	N	5	10	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-38	059-2242	N	16	16.5	ft	**8**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**41**	U	**8**	U	**8**	U	**8**	U	**410**	U	**0**	U
GCMW-38	059-2243	N	15	20	ft	**13**	UJ	**6.8**	UJ	**6.8**	UJ	**6.8**	UJ	**6.8**	UJ	**68**	UJ	**13**	UJ	**13**	UJ	**13**	UJ	**680**	UJ	**0**	U
GCMW-38	059-2244	N	20	25	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-38	059-2245	N	25	30	ft	**4.8**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**25**	U	**4.8**	U	**4.8**	U	**4.8**	U	**250**	U	**0**	U
GCMW-38	059-2246	N	30	35	ft	**3.5**	U	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**18**	U	**3.5**	U	**3.5**	U	**3.5**	U	**180**	U	**0**	U
GCMW-38	059-2247	N	35	40	ft	**3.8**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	UJ	**200**	U	**0**	U

186 – 220 3rd St (MW37 & MW38)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-37	059-2208	N	0	5	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-37	059-2209	N	5	10	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-37	059-2210	N	10	15	ft	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**0**	U
GCMW-37	059-2211	N	15	20	ft	**69**	U	**69**	U	**69**	U	**69**	U	**69**	U	**69**	U	**69**	U	**69**	U	**69**	U	**0**	U
GCMW-37	059-2212	N	20	25	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-37	059-2213	N	25	30	ft	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**0**	U
GCMW-37	059-2214	N	30	35	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-37	059-2215	N	35	40	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-38	059-2241	N	5	10	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-38	059-2242	N	16	16.5	ft	**80**	U	**80**	U	**80**	U	**80**	U	**80**	U	**80**	U	**80**	U	**80**	U	**80**	U	**0**	U
GCMW-38	059-2243	N	15	20	ft	**130**	UJ	**130**	UJ	**130**	UJ	**130**	UJ	**130**	UJ	**130**	UJ	**130**	UJ	**130**	UJ	**130**	UJ	**0**	U
GCMW-38	059-2244	N	20	25	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-38	059-2245	N	25	30	ft	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**0**	U
GCMW-38	059-2246	N	30	35	ft	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**35**	U	**0**	U
GCMW-38	059-2247	N	35	40	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U

186 – 220 3rd St (MW37 & MW38)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-37	059-2208	N	0	5	ft	**3,570**	**7.3** UJ	**116**	**238**	**0.39** J	**1.7**	**9,640**	**18.9**	**14.5**	**88.6**	**31,300**
GCMW-37	059-2209	N	5	10	ft	**6,180**	**6.9** UJ	**22.1**	**61.7**	**0.4** J	**0.56** J	**3,480**	**13.9**	**7.2**	**65.6**	**19,300**
GCMW-37	059-2210	N	10	15	ft	**15,100**	**9.7** UJ	**9.4**	**73.1**	**0.74** J	**0.88**	**3,570** J	**29.9**	**6.5** J	**19.9**	**31,900**
GCMW-37	059-2211	N	15	20	ft	**14,200**	**11** UJ	**6.5**	**36.6** U	**0.69** J	**0.68** J	**2,110** J	**28**	**5.4** J	**15.6**	**30,100**
GCMW-37	059-2212	N	20	25	ft	**9,180**	**7.1** UJ	**5.3**	**28.4**	**0.47** J	**0.31** J	**588** UJ	**14.2**	**4.1** J	**13.2**	**17,000**
GCMW-37	059-2213	N	25	30	ft	**10,500**	**7.9** UJ	**5**	**71.4**	**0.49** J	**0.59** J	**5,460**	**16.5**	**7.6**	**29.8**	**26,000**
GCMW-37	059-2214	N	30	35	ft	**4,610**	**7.1** UJ	**3.5**	**38.9**	**0.31** J	**0.2** J	**1,150** J	**10.4**	**3.2** J	**9.6**	**10,800**
GCMW-37	059-2215	N	35	40	ft	**4,850**	**6.9** UJ	**1.7**	**49.7**	**0.3** J	**0.28** J	**9,150**	**10.5**	**5.8** U	**12.1**	**10,300**
GCMW-38	059-2241	N	5	10	ft	**6,950**	**0.91** J	**8.6**	**114**	**0.63** U	**0.63** U	**11,400**	**14.2**	**6.8**	**99.5443**	**14,200**
GCMW-38	059-2242	N	16	16.5	ft	**18,200**	**0.96** J	**11.9**	**60.3**	**1.1**	**0.92** U	**1,730**	**30.6**	**16.6**	**20.6**	**36,800**
GCMW-38	059-2243	N	15	20	ft	**11,200** J	**0.82** J	**5** J	**42.3** UJ	**1.1** UJ	**1.1** UJ	**2,740** J	**22.6** J	**10.6** UJ	**13.7** J	**24,100** J
GCMW-38	059-2244	N	20	25	ft	**11,300**	**0.5** J	**1.7**	**152**	**0.63**	**0.61** U	**1,680**	**16.7**	**10.3**	**23.2**	**22,600**
GCMW-38	059-2245	N	25	30	ft	**4,250**	**6.7** U	**2.9**	**35.9**	**0.56** U	**0.56** U	**5,380**	**9.3**	**5.6** U	**11.5**	**10,500**
GCMW-38	059-2246	N	30	35	ft	**4,050**	**7.1** U	**1.5**	**32.2**	**0.59** U	**0.59** U	**12,700**	**8.1**	**5.9** U	**13**	**8,740**
GCMW-38	059-2247	N	35	40	ft	**3,750**	**6.7** U	**1.6**	**38.9**	**0.56** U	**0.56** U	**7,060**	**9.4**	**6.4**	**14.2**	**8,800**

186 – 220 3rd St (MW37 & MW38)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-37	059-2208	N	0	5	ft	537	1,330 J	287	0.36	58	737 J	15.7	0.079 J	610 U	3.1 U	23.5	360 J	3.1 U
GCMW-37	059-2209	N	5	10	ft	47.3	2,070 J	213	0.14	16.4	908 J	4.1 U	1.2 U	577 U	2.9 U	22.4	53.3 J	0.25 J
GCMW-37	059-2210	N	10	15	ft	105	6,010 J	368	0.11 J	25.6	3,680 J	5.6 U	1.6 U	1,450	0.59 J	37.7	97.1 J	4.2 U
GCMW-37	059-2211	N	15	20	ft	11.8	6,050 J	279	0.18 U	24.6	3,690 J	6.4 U	1.8 U	4,600	4.6 U	41.6	57.2 J	4.6 U
GCMW-37	059-2212	N	20	25	ft	7.7	2,560 J	281	0.12 U	13.2	1,200 J	6.4 U	1.2 U	1,350	2.9 U	18.2	35 J	3 U
GCMW-37	059-2213	N	25	30	ft	10.7	6,090 J	371	0.13 U	23.1	2,030 J	4.6 U	1.3 U	1,820	0.73 J	20.4	61.3 J	3.3 U
GCMW-37	059-2214	N	30	35	ft	6.2	2,730 J	186	0.12 U	14.5	899 J	4.1 U	1.2 U	593 U	3 U	15.5	30.1 J	3 U
GCMW-37	059-2215	N	35	40	ft	4.2	5,060 J	264	0.11 U	17.8	1,630 J	4 U	1.2 U	241 J	2.9 U	14.2	24.1 J	2.9 U
GCMW-38	059-2241	N	5	10	ft	246	3,820	184	1.5	22.7	1,450 J	4.4 U	0.23 J	634 U	3.2 U	22.2	103	3.3 U
GCMW-38	059-2242	N	16	16.5	ft	17.8	6,410	832	0.2 U	27.6	3,220 J	6.4 U	1.8 U	1,760	4.6 U	39.7	70.2	4.7 U
GCMW-38	059-2243	N	15	20	ft	10.4 J	5,100 J	238 J	0.21 UJ	20.4 J	2,690 J	1.7 J	2.1 UJ	4,550 J	5.3 UJ	48.3 J	49.9 J	5.1 UJ
GCMW-38	059-2244	N	20	25	ft	10	5,330	264	0.12 U	22.5	2,090 J	4.3 U	1.2 U	607 U	3 U	22	58.7	2.9 U
GCMW-38	059-2245	N	25	30	ft	5.1	4,040	154	0.12 U	16.4	1,040 J	3.9 U	1.1 U	561 U	2.8 U	13.9	23.3	2.8 U
GCMW-38	059-2246	N	30	35	ft	3.9	5,660	211	0.12 U	14.5	1,080 J	4.1 U	1.2 U	589 U	2.9 U	11	22	2.9 U
GCMW-38	059-2247	N	35	40	ft	4.6	9,310	289	0.12 U	45.9	1,080 J	3.9 U	1.1 U	560 U	2.8 U	11.7	21	2.9 U

186 – 220 3rd St

(MW37 & MW38)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

186 – 220 3rd St (MW37 & MW38)

VOC Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene	
MW-37	GC-MW37I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U
MW-37	GC-MW37S	N	Shallow	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U
MW-38	GC-MW38I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U
MW-38	GC-MW38S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane
MW-37	GC-MW37I	N	Intermediate	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.87**	**0.5** U	**0.5** U
MW-37	GC-MW37S	N	Shallow	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U
MW-38	GC-MW38I	N	Intermediate	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U
MW-38	GC-MW38S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene
MW-37	GC-MW37I	N	Intermediate	**0.5** U	0.5 UR	**0.36** J	**0.5** UJ	**0.5** U	**0.5** U	**1.1**	**0.5** U	**0.5** U	**0.5** U
MW-37	GC-MW37S	N	Shallow	**0.5** U	0.5 UR	**0.73**	**0.5** UJ	**0.5** U	**0.5** U	**0.6**	**0.5** U	**0.5** U	**0.5** U
MW-38	GC-MW38I	N	Intermediate	**0.5** U	**0.5** U	**0.33** J	**0.5** UJ	**0.5** U	**0.5** U	**0.31** J	**0.5** U	**0.9**	**0.5** U
MW-38	GC-MW38S	N	Shallow	**0.5** U	**0.5** U	**0.83**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U

186 – 220 3rd St (MW37 & MW38)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane
MW-37	GC-MW37I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**16**	**2.4**	**16**	**0.5** UJ	**5** U	**5** U	**0.5** U
MW-37	GC-MW37S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**5** U	**5** U	**0.5** U
MW-38	GC-MW38I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**1.1**	**0.5** U	**0.5** U	**0.5** UJ	**5** U	**5** U	**0.5** U
MW-38	GC-MW38S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U

186 – 220 3rd St (MW37 & MW38)

VOC Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-37	GC-MW37I	N	Intermediate	**0.5**	UJ	**8.5**		**0.5**	U	**0.5**	UJ	**0.5**	U	**5.3**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-37	GC-MW37S	N	Shallow	**0.5**	UJ	**0.5**	U	**0.5**	U	**5.6**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-38	GC-MW38I	N	Intermediate	**0.5**	UJ	**0.5**	U	**0.5**	U	**2.6**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	UJ
MW-38	GC-MW38S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.91**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)	
MW-37	GC-MW37I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**32**		**5**	U
MW-37	GC-MW37S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.19**		**5**	U
MW-38	GC-MW38I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U	**3.1**	J	**5**	U
MW-38	GC-MW38S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**11**	J	**5**	U	**5**	U	**5**	U	**0.16**		**5**	U

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde
MW-37	GC-MW37I	N	Intermediate	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**10** U	**23**	**6.3** J	**5** U	**5** J	**5** U	**5** U
MW-37	GC-MW37S	N	Shallow	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**10** U	**1.2** J	**0.1** U	**5** U	**0.72**	**5** U	**5** U
MW-38	GC-MW38I	N	Intermediate	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**10** U	**2.2** J	**2.6** J	**5** U	**1.6** J	**5** U	**5** U
MW-38	GC-MW38S	N	Shallow	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U	**10** U	**10** U	**35**	**10**	**5** U	**0.1** U	**5** U	**5** U

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate
MW-37	GC-MW37I	N	Intermediate	**0.28**	**0.1** U	**0.1** U	**0.39**	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.72** J	**0.16**	**0.1** UJ	**0.94** J	**5** U
MW-37	GC-MW37S	N	Shallow	**0.32**	**0.1** U	**0.1** U	**0.34**	**0.1** UJ	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.18**	**0.1** U	**5** U	**5** U
MW-38	GC-MW38I	N	Intermediate	**0.088** J	**0.1** U	**0.12**	**0.45**	**0.1** UJ	**5** U	**5** U	**5** U	**5** U	**5** U	**1.1** J	**5** U	**5** U	**0.059** J	**0.1** UJ	**5** U	**5** U
MW-38	GC-MW38S	N	Shallow	**0.1** U	**0.1** U	**0.1** U	**0.13**	**0.1** UJ	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.1** UJ	**5** U	**5** U

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene	
MW-37	GC-MW37I	N	Intermediate	**5**	U	**0.44**	J	**5**	U	**2.8**	J	**13**		**5**	U	**5**	U	**5**	U	**5**	U	**0.17**		**5**	U	**0.48**		**5**	U	**5**	U	**5**	U	**0.2**	UJ	**3**	J
MW-37	GC-MW37S	N	Shallow	**5**	U	**0.34**	J	**5**	U	**1.4**	J	**0.48**		**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**5**	U	**0.1**		**5**	U	**5**	U	**5**	U	**0.2**	UJ	**0.1**	U
MW-38	GC-MW38I	N	Intermediate	**2.1**	J	**5**	U	**5**	U	**1.1**	J	**3.9**	J	**5**	U	**5**	U	**5**	U	**5**	U	**0.29**		**5**	U	**2.1**	J	**5**	U	**5**	U	**5**	U	**0.2**	U	**9.1**	
MW-38	GC-MW38S	N	Shallow	**5**	U	**5**	U	**5**	U	**0.19**		**2.9**	J	**5**	U	**5**	U	**5**	U	**5**	U	**0.12**		**5**	U	**0.68**		**5**	U	**5**	U	**5**	U	**0.2**	U	**0.21**	

186 – 220 3rd St (MW37 & MW38)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Phenol		Pyrene		Total PAHs
MW-37	GC-MW37I	N	Intermediate	**5**	U	**3.7**	J	**90.28**
MW-37	GC-MW37S	N	Shallow	**5**	U	**2.2**	J	**7.13**
MW-38	GC-MW38I	N	Intermediate	**5**	U	**1.6**	J	**28.307**
MW-38	GC-MW38S	N	Shallow	**5**	U	**0.24**		**49.63**

186 – 220 3rd St (MW37 & MW38)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin	
MW-37	GC-MW37I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-37	GC-MW37S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-38	GC-MW38I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-38	GC-MW38S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U

186 – 220 3rd St (MW37 & MW38)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin aldehyde	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
MW-37	GC-MW37I	N	Intermediate	**0.1** U	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-37	GC-MW37S	N	Shallow	**0.1** U	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-38	GC-MW38I	N	Intermediate	**0.1** U	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**0** U
MW-38	GC-MW38S	N	Shallow	**0.1** U	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**0** U

186 – 220 3rd St (MW37 & MW38)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-37	GC-MW37I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-37	GC-MW37S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-38	GC-MW38I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-38	GC-MW38S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

186 – 220 3rd St (MW37 & MW38)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-37	GC-MW37I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**1.6**		**1.6**		**350**	**384**	**1**	U	**1**	U	**1**	U	**1**	U
MW-37	GC-MW37S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**2.9**		**2.7**		**341**	**340**	**1**	U	**1**	U	**1**	U	**1**	U
MW-38	GC-MW38I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**14.9**	J	**15.9**	J	**159**	**161**	**1**	U	**1**	U	**1**	U	**1**	U
MW-38	GC-MW38S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**1.7**	J	**1.4**	J	**273**	**260**	**1**	U	**1**	U	**1**	U	**1**	U

186 – 220 3rd St (MW37 & MW38)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead
MW-37	GC-MW37I	N	Intermediate	**31,900**	**33,600**	**1.5** J	**0.55** J	**1** U	**1** U	**25** U	**25** U	**1,470**	**1,510**	**0.24** J
MW-37	GC-MW37S	N	Shallow	**111,000**	**119,000**	**39.7**	**7.6**	**1.3**	**0.93** J	**3.8** J	**25** U	**7,880**	**7,720**	**2.4**
MW-38	GC-MW38I	N	Intermediate	**69,600** J	**68,000**	**5.3** J	**0.72** J	**2.1**	**1.5**	**25** U	**25** U	**655** J	**584**	**0.6** J
MW-38	GC-MW38S	N	Shallow	**172,000** J	**170,000**	**8.6** J	**1.7** J	**0.44** J	**0.37** J	**2.5** J	**25** U	**8,100** J	**7,670**	**0.53** J

186 – 220 3rd St (MW37 & MW38)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium
MW-37	GC-MW37I	N	Intermediate	**1** U	**53,000**	**56,200**	**369**	**414**	**0.1** J	**0.11** J	**1** J	**0.58** J	**29,700**	**31,200**	**2** J
MW-37	GC-MW37S	N	Shallow	**1** U	**48,300**	**49,800**	**856**	**935**	**0.1** J	**0.091** J	**35.1** J	**19.3** J	**44,700**	**46,800**	**2.4** J
MW-38	GC-MW38I	N	Intermediate	**1** U	**49,400** J	**47,900**	**1,520**	**1,520**	**0.077** J	**0.094** J	**3.9** J	**2.7** J	**16,500** J	**16,200**	5 UR
MW-38	GC-MW38S	N	Shallow	**1** U	**20,900** J	**20,600**	**1,480**	**1,470**	**0.08** J	**0.089** J	**7.2** J	**4.7** J	**22,100** J	**21,800**	5 UR

186 – 220 3rd St (MW37 & MW38)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-37	GC-MW37I	N	Intermediate	**2.1** J	**1** U	**1** UJ	**300,000**	**311,000**	**1** U	**1** U	**5** U	**5** U	6.1 R	**1.8** J	**10** U
MW-37	GC-MW37S	N	Shallow	**2.1** J	**1** U	**1** UJ	**466,000**	**475,000**	**1** U	**1** U	**5** U	**5** U	**14.4**	**7.1**	**6.1** J
MW-38	GC-MW38I	N	Intermediate	5 UR	**1** UJ	**1** UJ	**84,400**	**82,000**	**1** U	**1** U	**5** U	**5** U	**6.9** J	**2.1** J	**10** U
MW-38	GC-MW38S	N	Shallow	5 UR	**1** UJ	**1** UJ	**96,100**	**92,900**	**1** U	**1** U	**1.8** J	**1.4** J	**10.2** J	**3.7** J	**8.5** J

403 3rd Ave.

(MW39)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 403 3rd St.
Monitoring Well Soil Borings Installed at Address: GC-MW-39
Intermediate Monitoring Wells Installed at Address: GC-MW-39I
Shallow Monitoring Wells Installed at Address: GC-MW-39S

GC-MW-39

The soil samples from the soil boring installed for the intermediate well (situated approximately 106 feet from the canal) contained 47 VOCs, 181 SVOCs, 22 pesticides, 0 PCBs, and 137 metals. From these, 13 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 7 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (8,600 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (85,000 µg/kg). The metals occurring at the highest concentrations above screening value were lead and barium (both at 1,030 mg/kg).

Shallow groundwater

The shallow well (depth of approximately21 ft bgs and situated approximately 106 feet from the canal) contained 11 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 18 metals. From these, 5 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (88 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (6,140 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately40 ft bgs and situated approximately 106 feet from the canal) contained 7 VOCs, 13 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 5 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was toluene (210 J µg/L). The SVOC occurring at the highest concentration above screening criteria was hexachloroethane (33 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (10,200 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

403 3rd Ave. (MW39)
VOC Concentrations in Soils (ug/mg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-39	059-2130	N	5	10	ft	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U
GCMW-39	059-2131	N	10	15	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-39	059-2132	N	15	20	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U
GCMW-39	059-2133	N	20	25	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-39	059-2134	N	25	30	ft	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U
GCMW-39	059-2135	N	30	35	ft	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U
GCMW-39	059-2136	N	36.5	37	ft	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U
GCMW-39	059-2137	N	40	40.5	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U

403 3rd Ave. (MW39)
VOC Concentrations in Soils (ug/mg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-39	059-2130	N	5	10	ft	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	89	UR	**8.9**	U	**45**		**4.5**	U
GCMW-39	059-2131	N	10	15	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	94	UR	**9.4**	U	**9.4**	U	**0.99**	J
GCMW-39	059-2132	N	15	20	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	91	UR	**9.1**	U	**29**		**1**	J
GCMW-39	059-2133	N	20	25	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**53**		**1.1**	J
GCMW-39	059-2134	N	25	30	ft	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	27,000	UR	**2,700**	U	**2,700**	U	**1,300**	U
GCMW-39	059-2135	N	30	35	ft	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	63,000	UR	**6,300**	U	**6,300**	U	**680**	J
GCMW-39	059-2136	N	36.5	37	ft	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	58,000	UR	**5,800**	U	**5,800**	U	**690**	J
GCMW-39	059-2137	N	40	40.5	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	94	UR	**9.4**	U	**19**		**1.2**	J

403 3rd Ave. (MW39)
VOC Concentrations in Soils (ug/mg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-39	059-2130	N	5	10	ft	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**0.86**	J	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U
GCMW-39	059-2131	N	10	15	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	--		**4.7**	U	**4.7**	U	**4.7**	U
GCMW-39	059-2132	N	15	20	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**0.72**	J	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U
GCMW-39	059-2133	N	20	25	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**1.8**	J	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-39	059-2134	N	25	30	ft	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**140**	J	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U
GCMW-39	059-2135	N	30	35	ft	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**370**	J	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U
GCMW-39	059-2136	N	36.5	37	ft	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U
GCMW-39	059-2137	N	40	40.5	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**1.5**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U

403 3rd Ave. (MW39)
VOC Concentrations in Soils (ug/mg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-39	059-2130	N	5	10	ft	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	4.5	U	11		8.9	U	4.5	U
GCMW-39	059-2131	N	10	15	ft	4.7	U	4.7	U	4.7	U	4.7	U	0.14	J	4.7	U	0.47	J	4.7	U	9.4	U	9.4	U	4.7	U
GCMW-39	059-2132	N	15	20	ft	4.6	U	4.6	U	4.6	U	4.6	U	0.19	J	4.6	U	0.47	J	4.6	U	8.3	J	9.1	U	4.6	U
GCMW-39	059-2133	N	20	25	ft	5.1	U	5.1	U	5.1	U	5.1	U	0.18	J	5.1	U	0.51	J	5.1	U	8.8	J	10	U	5.1	U
GCMW-39	059-2134	N	25	30	ft	1,300	U	1,300	U	1,300	U	1,300	U	1,800		530	J	2,000		1,300	U	2,700	U	2,700	U	1,300	U
GCMW-39	059-2135	N	30	35	ft	3,200	U	3,200	U	3,200	U	3,200	U	6,400		1,500	J	6,900		3,200	U	6,300	U	6,300	U	3,200	U
GCMW-39	059-2136	N	36.5	37	ft	2,900	U	2,900	U	2,900	U	2,900	U	8,600		1,800	J	8,400		2,900	U	5,800	U	5,800	U	2,900	U
GCMW-39	059-2137	N	40	40.5	ft	4.7	U	4.7	U	4.7	U	4.7	U	0.26	J	4.7	U	0.7	J	4.7	U	9.4	U	9.4	U	4.7	U

403 3rd Ave. (MW39)
VOC Concentrations in Soils (ug/mg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-39	059-2130	N	5	10	ft	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U	**0.74**	J	**4.5**	U
GCMW-39	059-2131	N	10	15	ft	**4.7**	U	**0.15**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-39	059-2132	N	15	20	ft	**4.6**	U	**0.14**	J	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U
GCMW-39	059-2133	N	20	25	ft	**5.1**	U	**0.23**	J	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-39	059-2134	N	25	30	ft	**1,300**	U	**1,100**	J	**1,300**	U	**1,300**	U	**1,300**	U	**530**	J	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U	**1,300**	U
GCMW-39	059-2135	N	30	35	ft	**3,200**	U	**3,600**		**3,200**	U	**3,200**	U	**3,200**	U	**2,200**	J	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U	**3,200**	U
GCMW-39	059-2136	N	36.5	37	ft	**2,900**	U	**4,500**		**2,900**	U	**2,900**	U	**2,900**	U	**3,400**		**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U	**2,900**	U
GCMW-39	059-2137	N	40	40.5	ft	**4.7**	U	**0.24**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U

403 3rd Ave. (MW39)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-39	059-2130	N	5	10	ft	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**1,800**	U	**950**	U	**950**	U	**950**	U
GCMW-39	059-2131	N	10	15	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U
GCMW-39	059-2132	N	15	20	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**380**	U	**190**	U	**190**	U	**190**	U
GCMW-39	059-2133	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-39	059-2134	N	25	30	ft	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**1,900**	U	**990**	U	**990**	U	**990**	U
GCMW-39	059-2135	N	30	35	ft	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**6,000**	U
GCMW-39	059-2136	N	36.5	37	ft	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**12,000**	U	**6,100**	U	**6,100**	U	**6,100**	U
GCMW-39	059-2137	N	40	40.5	ft	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**2,000**	U	**1,000**	U	**1,000**	U	**1,000**	U

403 3rd Ave. (MW39)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
GCMW-39	059-2130	N	5	10	ft	**950**	U	**120**	J	**950**	U	**1,800**	U	**950**	U	**950**	U	**1,800**	U	**1,800**	U	**950**	U	**950**	U	**950**	U	**950**	U
GCMW-39	059-2131	N	10	15	ft	**200**	U	**37**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-39	059-2132	N	15	20	ft	**190**	U	**13**	J	**190**	U	**380**	U	**190**	U	**190**	U	**380**	U	**380**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-39	059-2133	N	20	25	ft	**200**	U	**38**	J	**200**	U	**390**	U	**200**	U	**200**	UJ	**390**	U	**390**	U	**200**	U	**200**	U	**200**	UJ	**200**	U
GCMW-39	059-2134	N	25	30	ft	**990**	U	**870**	J	**990**	U	**1,900**	U	**990**	U	**990**	U	**1,900**	U	**1,900**	U	**990**	U	**990**	U	**990**	U	**990**	U
GCMW-39	059-2135	N	30	35	ft	**6,000**	U	**87,000**		**6,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**12,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U
GCMW-39	059-2136	N	36.5	37	ft	**6,100**	U	**65,000**		**6,100**	U	**12,000**	U	**6,100**	U	**6,100**	U	**12,000**	U	**12,000**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U
GCMW-39	059-2137	N	40	40.5	ft	**1,000**	U	**2,000**		**1,000**	U	**2,000**	U	**1,000**	U	**1,000**	U	**2,000**	U	**2,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U

403 3rd Ave. (MW39)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
GCMW-39	059-2130	N	5	10	ft	**950**	U	**1,800**	U	**1,800**	U	**300**	J	**130**	J	**98**	J	**490**	J	**950**	U	**110**	J	**1,800**		**1,500**		**1,900**	
GCMW-39	059-2131	N	10	15	ft	**200**	U	**380**	U	**380**	U	**31**	J	**6.9**	J	**110**	J	**32**	J	**200**	U	**120**	J	**67**	J	**59**	J	**67**	J
GCMW-39	059-2132	N	15	20	ft	**190**	U	**380**	U	**380**	U	**18**	J	**18**	J	**91**	J	**29**	J	**190**	U	**120**	J	**87**	J	**77**	J	**99**	J
GCMW-39	059-2133	N	20	25	ft	**200**	U	**390**	U	**390**	U	**110**	J	**17**	J	**83**	J	**200**	J	**200**	U	**130**	J	**670**		**520**		**720**	
GCMW-39	059-2134	N	25	30	ft	**990**	U	**1,900**	U	**1,900**	U	**1,200**		**120**	J	**82**	J	**1,400**		**990**	U	**150**	J	**2,000**		**1,200**		**1,600**	
GCMW-39	059-2135	N	30	35	ft	**6,000**	U	**12,000**	U	**12,000**	U	**80,000**		**8,400**	J	**540**	J	**86,000**		**6,000**	U	**6,000**	U	**59,000**		**41,000**		**32,000**	
GCMW-39	059-2136	N	36.5	37	ft	**6,100**	U	**12,000**	U	**12,000**	U	**41,000**		**4,400**	J	**6,100**	U	**28,000**		**6,100**	U	**6,100**	U	**20,000**		**12,000**		**11,000**	
GCMW-39	059-2137	N	40	40.5	ft	**1,000**	U	**2,000**	U	**2,000**	U	**1,400**		**160**	J	**84**	J	**850**	J	**1,000**	U	**1,000**	U	**560**	J	**370**	J	**290**	J

403 3rd Ave. (MW39)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
GCMW-39	059-2130	N	5	10	ft	**1,600**		**710**	J	**950**	U	**38**	J	**950**	U	**950**	U	**950**	U	**48**	J	**950**	U	**340**	J	**1,500**		**400**	J
GCMW-39	059-2131	N	10	15	ft	**30**	J	**26**	J	**10**	J	**6.1**	J	**200**	U	**200**	U	**200**	U	**50**	J	**200**	U	**6.8**	J	**68**	J	**12**	J
GCMW-39	059-2132	N	15	20	ft	**77**	J	**32**	J	**7**	J	**190**	U	**190**	U	**190**	U	**190**	U	**58**	J	**190**	U	**10**	J	**72**	J	**17**	J
GCMW-39	059-2133	N	20	25	ft	**410**		**240**		**200**	U	**7.8**	J	**200**	U	**200**	U	**200**	U	**39**	J	**200**	U	**100**	J	**590**		**96**	J
GCMW-39	059-2134	N	25	30	ft	**710**	J	**550**	J	**990**	U	**160**	J	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**130**	J	**2,000**		**180**	J
GCMW-39	059-2135	N	30	35	ft	**18,000**	J	**12,000**	J	**6,000**	U	**14,000**	J	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**1,600**	J	**61,000**		**5,000**	J
GCMW-39	059-2136	N	36.5	37	ft	**5,400**	J	**2,500**	J	**6,100**	U	**8,200**		**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**590**	J	**20,000**		**1,700**	J
GCMW-39	059-2137	N	40	40.5	ft	**150**	J	**120**	J	**1,000**	U	**290**	J	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**500**	J	**49**	J

403 3rd Ave. (MW39)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene	
GCMW-39	059-2130	N	5	10	ft	**210**	J	**950**	U	**950**	U	**950**	U	**950**	U	**3,300**		**380**	J	**950**	U	**950**	U	**950**	U	**950**	U	**1,400**	
GCMW-39	059-2131	N	10	15	ft	**200**	U	**7.5**	J	**200**	U	**200**	U	**200**	U	**110**	J	**28**	J	**200**	U	**200**	U	**200**	U	**200**	U	**39**	J
GCMW-39	059-2132	N	15	20	ft	**190**	U	**6.6**	J	**190**	U	**190**	U	**190**	U	**150**	J	**13**	J	**190**	U	**190**	U	**190**	U	**190**	U	**67**	J
GCMW-39	059-2133	N	20	25	ft	**56**	J	**7.3**	J	**200**	U	**200**	U	**200**	U	**1,400**		**100**	J	**200**	U	**200**	U	**200**	UJ	**200**	U	**410**	
GCMW-39	059-2134	N	25	30	ft	**140**	J	**990**	U	**990**	U	**990**	U	**990**	U	**4,400**		**910**	J	**990**	U	**990**	U	**990**	U	**990**	U	**790**	J
GCMW-39	059-2135	N	30	35	ft	**6,400**	J	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**110,000**		**57,000**		**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**18,000**	J
GCMW-39	059-2136	N	36.5	37	ft	**3,100**	J	**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**30,000**		**27,000**		**6,100**	U	**6,100**	U	**6,100**	U	**6,100**	U	**5,100**	J
GCMW-39	059-2137	N	40	40.5	ft	**99**	J	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**890**	J	**910**	J	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**140**	J

403 3rd Ave. (MW39)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-39	059-2130	N	5	10	ft	**950**	U	--	**260**	J	**950**	U	**950**	U	**950**	U	**1,800**	U	**3,100**		**32**	J	**3,300**		**22,190**
GCMW-39	059-2131	N	10	15	ft	**200**	U	--	**33**	J	**200**	U	**200**	U	**200**	U	**380**	U	**120**	J	**17**	J	**150**	J	**915.9**
GCMW-39	059-2132	N	15	20	ft	**190**	U	--	**21**	J	**190**	U	**190**	U	**190**	U	**380**	U	**120**	J	**17**	J	**180**	J	**1,090**
GCMW-39	059-2133	N	20	25	ft	**200**	U	--	**46**	J	**200**	U	**200**	U	**200**	U	**390**	U	**1,000**		**19**	J	**1,200**		**7,767**
GCMW-39	059-2134	N	25	30	ft	**990**	U	--	**1,300**		**990**	U	**990**	U	**990**	U	**1,900**	U	**5,500**		**990**	U	**4,300**		**29,030**
GCMW-39	059-2135	N	30	35	ft	**6,000**	U	--	**85,000**		**6,000**	U	**6,000**	U	**6,000**	U	**12,000**	U	**290,000**		**6,000**	U	**170,000**		**1,219,400**
GCMW-39	059-2136	N	36.5	37	ft	**6,100**	U	--	**60,000**		**6,100**	U	**6,100**	U	**6,100**	U	**12,000**	U	**95,000**		**6,100**	U	**59,000**		**487,100**
GCMW-39	059-2137	N	40	40.5	ft	**1,000**	U	--	**2,100**		**1,000**	U	**1,000**	U	**1,000**	U	**2,000**	U	**3,100**		**1,000**	U	**1,400**		**14,989**

403 3rd Ave. (MW39)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-39	059-2130	N	5	10	ft	**1.9**	U	**1.9**	UJ	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U
GCMW-39	059-2131	N	10	15	ft	**2**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-39	059-2132	N	15	20	ft	**2**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-39	059-2133	N	20	25	ft	**2**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-39	059-2134	N	25	30	ft	**2**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**4.6**		**3.9**	U
GCMW-39	059-2135	N	30	35	ft	**2**	U	**12**	NJ	**2**	U	73	R	**2**	U	**39**	U	**13**	J	**3.9**	U	4.9	R	**40**		**3.9**	U
GCMW-39	059-2136	N	36.5	37	ft	**2.1**	UJ	**8.1**	J	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	8.6	R	**6.6**	J	**4**	UJ	**40**	UJ	**13**	J	**4**	UJ
GCMW-39	059-2137	N	40	40.5	ft	**2**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	U	**4**	U

403 3rd Ave. (MW39)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-39	059-2130	N	5	10	ft	**3.7**	U	**1.9**	UJ	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**5.4**		**190**	U	**5.4**	
GCMW-39	059-2131	N	10	15	ft	**3.8**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-39	059-2132	N	15	20	ft	**3.8**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-39	059-2133	N	20	25	ft	**3.9**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**20**	U	**4.2**	J	**3.9**	U	**3.9**	U	**200**	U	**4.2**	
GCMW-39	059-2134	N	25	30	ft	**3.9**	U	**2**	UJ	**2**	U	**2**	U	**2**	U	**18**	J	**8.4**		**7**	J	**4.1**	NJ	**200**	U	**19.5**	
GCMW-39	059-2135	N	30	35	ft	**3.9**	UJ	**2**	UJ	**83**	J	**3.7**	NJ	**2**	U	**20**	UJ	**25**	J	**20**	J	**55**		**200**	U	**100**	
GCMW-39	059-2136	N	36.5	37	ft	**4**	UJ	**2.1**	UJ	**49**	J	**2.1**	UJ	5.6	R	**21**	UJ	**40**		**11**	NJ	**19**	J	**210**	UJ	**70**	
GCMW-39	059-2137	N	40	40.5	ft	**4**	U	**2**	UJ	**2**	UJ	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U

403 3rd Ave. (MW39)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
GCMW-39	059-2130	N	5	10	ft	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**0** U
GCMW-39	059-2131	N	10	15	ft	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**0** U
GCMW-39	059-2132	N	15	20	ft	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**0** U
GCMW-39	059-2133	N	20	25	ft	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**0** U
GCMW-39	059-2134	N	25	30	ft	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**0** U
GCMW-39	059-2135	N	30	35	ft	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**0** U
GCMW-39	059-2136	N	36.5	37	ft	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**0** U
GCMW-39	059-2137	N	40	40.5	ft	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**0** U

403 3rd Ave. (MW39)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-39	059-2130	N	5	10	ft	**6,040**	**0.48** J	**4.8**	**346**	**0.56** U	**0.58**	**35,300**	**13.3**	**5** J	**39.1**	**10,400**
GCMW-39	059-2131	N	10	15	ft	**9,800**	**7** U	**2.9**	**41.6**	**0.58** U	**0.58** U	**3,810**	**15.3**	**4.9** J	**14.7**	**12,800**
GCMW-39	059-2132	N	15	20	ft	**7,220**	**6.7** U	**2.2**	**59**	**0.56** U	**0.56** U	**3,600**	**13.7**	**5.7**	**20.8**	**11,300**
GCMW-39	059-2133	N	20	25	ft	**6,780**	**0.47** J	**3.9**	**401**	**0.57** U	**0.22** J	**15,300**	**16.1**	**5.5** J	**49.1**	**12,100**
GCMW-39	059-2134	N	25	30	ft	**5,580**	**1.9** J	**12**	**1,030**	**0.63** U	**0.76**	**28,600**	**34.3**	**15.5**	**121**	**46,000**
GCMW-39	059-2135	N	30	35	ft	**8,360**	**0.75** J	**10.6**	**123**	**0.6** U	**0.55** J	**2,190**	**22.6**	**8.8**	**139**	**21,100**
GCMW-39	059-2136	N	36.5	37	ft	**8,090**	**7.2** U	**1.9**	**54**	**0.6** U	**0.6** U	**5,080**	**13.7**	**9.2**	**20.6**	**17,900**
GCMW-39	059-2137	N	40	40.5	ft	**3,860**	**5.8** U	**3.6**	**22.7**	**0.48** U	**0.48** U	**547**	**8.1**	**4.3** J	**6.6**	**7,710**

403 3rd Ave. (MW39)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-39	059-2130	N	5	10	ft	**674**	**3,570**	**256**	**45.2**	**20.5**	**753**	**3.9** U	**1.1** U	**561** U	**2.8** U	**19.4**	**413**	**2.9** U
GCMW-39	059-2131	N	10	15	ft	**18**	**2,850**	**144**	**0.12** U	**17**	**955**	**4.1** U	**1.2** U	**580** U	**2.9** U	**23.5**	**34.6**	**2.8** U
GCMW-39	059-2132	N	15	20	ft	**52.5**	**2,620**	**195**	**0.59**	**22.3**	**879**	**3.9** U	**1.1** U	**557** U	**2.8** U	**19.3**	**48.9**	**2.9** U
GCMW-39	059-2133	N	20	25	ft	**190**	**3,760**	**252**	**0.93**	**24.5**	**959**	**4** U	**1.1** U	**574** U	**2.9** U	**21.2**	**241**	**2.9** U
GCMW-39	059-2134	N	25	30	ft	**1,030**	**13,700**	**272**	**1.6**	**112**	**890**	**4.3** U	**0.48** J	**628** U	**3** U	**16.4**	**574**	**3.1** U
GCMW-39	059-2135	N	30	35	ft	**205**	**3,480**	**136**	**5.9**	**22.1**	**1,600**	**4.2** U	**1.5**	**1,870**	**3** U	**20.8**	**302**	**3.2** U
GCMW-39	059-2136	N	36.5	37	ft	**10.1**	**5,290**	**345**	**0.12** U	**19.5**	**1,500**	**4.2** U	**1.2** U	**1,400**	**3** U	**18**	**48.2**	**3.1** U
GCMW-39	059-2137	N	40	40.5	ft	**4.7**	**1,840**	**69**	**0.1** U	**10.2**	**549**	**3.4** U	**0.97** U	**485** U	**2.4** U	**12.2**	**20.8**	**2.5** U

403 3rd Ave.

(MW39)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

403 3rd Ave. (MW39)

VOC Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-39	GC-MW39I	N	Intermediate	**2.5**	U	**2.5**	UJ	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**0.05**	U	**0.05**	U
MW-39	GC-MW39S	N	Shallow	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

403 3rd Ave. (MW39)

VOC Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane
MW-39	GC-MW39I	N	Intermediate	**2.5** U	**2.5** U	**2.5** U	**2.5** U	**2.5** U	--	**25** U	**25** U	**160** J	**2.5** U
MW-39	GC-MW39S	N	Shallow	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**14**	**0.5** U

403 3rd Ave. (MW39)

VOC Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene
MW-39	GC-MW39I	N	Intermediate	**2.5** U	**2.5** U	2.5 UR	**2.5** U	**2.5** U	**2.5** U	**2.5** U	**2.5** J	**2.5** U	**2.5** U	**2.5** U
MW-39	GC-MW39S	N	Shallow	**0.5** U	**0.5** U	0.5 UR	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.79**	**0.5** U	**0.5** U	**0.5** U

403 3rd Ave. (MW39)

VOC Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride
MW-39	GC-MW39I	N	Intermediate	**2.5** U	**2.5** U	**2.5** U	**150** J	**10**	**160** J	**2.5** U	**25** U	**25** U	**2.5** U	**2.5** U
MW-39	GC-MW39S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**88** J	**10**	**88** J	**0.5** UJ	**5** U	**5** U	**0.36** J	**0.6** J

403 3rd Ave. (MW39)

VOC Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
MW-39	GC-MW39I	N	Intermediate	**97**	**2.5** U	**2.5** U	**2.5** U	**210** J	**2.5** U	**2.5** U	**2.5** U	**2.5** U	**2.5** U
MW-39	GC-MW39S	N	Shallow	**58** J	**2.9**	**0.5** UJ	**1.2**	**52** J	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U

403 3rd Ave. (MW39)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-39	GC-MW39I	N	Intermediate	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**200**	U	**100**	UJ	**100**	U	**100**	U	**100**	U
MW-39	GC-MW39S	N	Shallow	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**50**	UJ	**50**	U	**50**	U	**50**	U

403 3rd Ave. (MW39)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)	
MW-39	GC-MW39I	N	Intermediate	**220**	J	**100**	U	**200**	U	**100**	U	**100**	U	**200**	U	**200**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U
MW-39	GC-MW39S	N	Shallow	**1**	U	**50**	U	**100**	U	**50**	U	**50**	U	**100**	U	**100**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U

403 3rd Ave. (MW39)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene	
MW-39	GC-MW39I	N	Intermediate	**200**	U	**200**	U	**62**	J	**5.8**	J	**100**	U	**8.1**	J	**100**	U	**100**	U	**2**	U	**2**	U	**2**	U	**2**	U
MW-39	GC-MW39S	N	Shallow	**100**	U	**100**	U	**28**	J	**1**	U	**50**	U	**2.9**	J	**50**	U	**50**	U	**1.4**		**1**	U	**1**	U	**1**	U

403 3rd Ave. (MW39)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran
MW-39	GC-MW39I	N	Intermediate	**2** UJ	**100** U	**11** J	**100** U	**100** U	**100** U	**100** U	**100** U	**8.2** J	**2** U	**2** U	**4.3** J
MW-39	GC-MW39S	N	Shallow	**1** UJ	**50** U	**50** U	**50** U	**50** U	**50** U	**50** U	**50** U	**3.9** J	**0.97** J	**1** U	**50** U

403 3rd Ave. (MW39)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene	
MW-39	GC-MW39I	N	Intermediate	**100**	U	**100**	U	**100**	U	**100**	U	**2.9**		**24**	J	**100**	U	**100**	U	**100**	U	**33**	J	**2**	U	**100**	U	**990**	J
MW-39	GC-MW39S	N	Shallow	**50**	U	**50**	U	**50**	U	**50**	U	**5.2**	J	**7.4**	J	**50**	U	**50**	U	**50**	U	**50**	U	**1**	U	**50**	U	**1**	

403 3rd Ave. (MW39)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
MW-39	GC-MW39I	N	Intermediate	**100**	U	**100**	U	**100**	U	**4**	UJ	**38**	J	**100**	U	**4.7**		**1,356**
MW-39	GC-MW39S	N	Shallow	**50**	U	**50**	U	**50**	U	**2**	UJ	**1**	U	**50**	U	**8.4**	J	**55.27**

403 3rd Ave. (MW39)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-39	GC-MW39I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-39	GC-MW39S	N	Shallow	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ

403 3rd Ave. (MW39)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
MW-39	GC-MW39I	N	Intermediate	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-39	GC-MW39S	N	Shallow	**0.1** UJ	**0.05** UJ	**0.05** UJ	**0.05** UJ	**0.05** UJ	**0.5** UJ	0.1 UR	**0.1** UJ	**0.1** UJ	**5** UJ	--

403 3rd Ave. (MW39)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-39	GC-MW39I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-39	GC-MW39S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

403 3rd Ave. (MW39)

Metal and Cyanide Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved		Calcium
MW-39	GC-MW39I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**1.3**	**1.1**	**2,900**	**2,850**	**1**	UJ	**1**	UJ	**1**	U	**1**	U	**162,000**
MW-39	GC-MW39S	N	Shallow	**2,570**		**200**	U	**2**	U	**2**	U	**6.8**	**5.9**	**326**	**125**	**1**	U	**1**	U	**0.26**	J	**1**	U	**75,900**

403 3rd Ave. (MW39)

Metal and Cyanide Concentrations in Groundwater (uç

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved
MW-39	GC-MW39I	N	Intermediate	**176,000**	**16.4**	**5**	**7.4**	**7.4**	**35.8**	**25** U	**10,200**	**9,880**	**6.8** J	**2.4** J	**490,000**	**538,000**	**1,710**	**1,710**	**0.073** J	**0.056** J
MW-39	GC-MW39S	N	Shallow	**77,800**	**29.5**	**0.6** J	**2.2**	**0.68** J	**22.2** J	**5** J	**6,140**	**1,110**	**110**	**4.6**	**12,000**	**11,800**	**754**	**704**	**0.49**	**0.11** J

403 3rd Ave. (MW39)

Metal and Cyanide Concentrations in Groundwater (uç

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-39	GC-MW39I	N	Intermediate	**13.9** J	**12** J	**197,000**	**210,000**	**5** U	**5** U	**1** U	**1** UJ	**3,760,000**	**4,140,000**	**1** UJ	**1** UJ	**2.5** J	**2** J	**19.9**	**16.8**	**15.4**
MW-39	GC-MW39S	N	Shallow	**36.9** J	**19.2** J	**10,700**	**11,400**	**5** U	**5** U	**1** U	**1** UJ	**108,000**	**121,000**	**1** U	**1** U	**4.7** J	**5** U	**71.2**	**11.5**	**10** U

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6th St. Basin – National Grid

(MW23)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 6th St. Basin – Canal Side
Monitoring Well Soil Borings Installed at Address: GC-MW-23
Intermediate Monitoring Wells Installed at Address: GC-MW-23I
Shallow Monitoring Wells Installed at Address: GC-MW-23S

GC-MW-23

The soil samples from the soil boring installed for the intermediate well (situated approximately 73 feet from the canal) contained 49 VOCs, 114 SVOCs, 37 pesticides, 0 PCBs, and 145 metals. From these, 17 VOCs, 21 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (680,000 J µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (440,000 µg/kg). The metal occurring at the highest concentration above screening value was mercury (1.2 J mg/kg).

Shallow groundwater

The shallow well (depth of approximately13 ft bgs and situated approximately 73 feet from the canal) contained 6 VOCs, 20 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 0 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was 2,4-dimethylphenol (17 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (8,320 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 73 feet from the canal) contained 6 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 5 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (1,600 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (32 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (5,160 J µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

6th St. Basin - National Grid (MW23)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-23	GC-MW23I(11.5-12)	N	11.5	12	ft	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**7**	J	**18**	UJ	**18**	UJ
GCMW-23	GC-MW23I(17-17.5)	N	17	17.5	ft	**11**	UJ	**12**	UJ	**11**	UJ	**12**	UJ	**11**	UJ	**11**	UJ	**6**	J	**11**	UJ	**12**	UJ
GCMW-23	GC-MW23I(2.5-3)	N	2.5	3	ft	**8.2**	U	**8.2**	UJ	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	UJ	**8.2**	UJ	**8.2**	UJ
GCMW-23	GC-MW23I(22-22.5)	N	22	22.5	ft	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U
GCMW-23	GC-MW23I(27.5-28)	N	27.5	28	ft	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U
GCMW-23	GC-MW23I(33-33.5)	N	33	33.5	ft	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U
GCMW-23	GC-MW23I(35.5-36)	N	35.5	36	ft	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U
GCMW-23	GC-MW23I(7-7.5)	N	7	7.5	ft	**6.3**	UJ	6.3	UR	**6.3**	UJ	**6**	UJ	**6.3**	UJ	**6.3**	UJ	**11**	J	**9.3**	J	6.3	UR
GCMW-23	SB23IC-S-NG	S	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	10	UR	10	UR	10	UR
GCMW-23	SB23IH-S-NG	S	35	39	ft	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U

6th St. Basin - National Grid (MW23)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-23	GC-MW23I(11.5-12)	N	11.5	12	ft	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**3.4**	J	900	UR	**18**	UJ	**110**	UJ	**18**	UJ
GCMW-23	GC-MW23I(17-17.5)	N	17	17.5	ft	**12**	UJ	**2.1**	J	**11**	UJ	**11**	UJ	**12**	UJ	**2.8**	J	560	UR	**12**	UJ	**78**	UJ	**11**	UJ
GCMW-23	GC-MW23I(2.5-3)	N	2.5	3	ft	**8.2**	U	**8.2**	UJ	**8.2**	U	**8.2**	U	**8.2**	UJ	**8.2**	UJ	410	UR	**8.2**	U	**75**	J	**24**	J
GCMW-23	GC-MW23I(22-22.5)	N	22	22.5	ft	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	220,000	UR	**4,400**	U	4,400	UR	**19,000**	
GCMW-23	GC-MW23I(27.5-28)	N	27.5	28	ft	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	36,000	UR	**730**	U	**790**	UJ	**1,800**	
GCMW-23	GC-MW23I(33-33.5)	N	33	33.5	ft	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	36,000	UR	**720**	U	**720**	UJ	**990**	
GCMW-23	GC-MW23I(35.5-36)	N	35.5	36	ft	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	990,000	UR	**20,000**	U	20,000	UR	**110,000**	J
GCMW-23	GC-MW23I(7-7.5)	N	7	7.5	ft	**6**	UJ	**4.3**	J	**6.3**	UJ	**6.3**	UJ	**4**	J	**4.6**	J	320	UR	**6**	UJ	**55**	J	**6.3**	UJ
GCMW-23	SB23IC-S-NG	S	10	15	ft	**10**	U	10	UR	**10**	U	**10**	U	10	UR	10	UR	200	UR	**20**	U	**65**		**10**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	32,000	UR	**3,200**	U	**3,200**	U	**7,000**	

6th St. Basin - National Grid (MW23)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-23	GC-MW23I(11.5-12)	N	11.5	12	ft	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**4.2**	J	**18**	UJ	**18**	UJ
GCMW-23	GC-MW23I(17-17.5)	N	17	17.5	ft	**11**	UJ	**11**	UJ	**12**	UJ	**11**	UJ	**28**	J	**11**	UJ	**12**	UJ	**11**	UJ	**11**	UJ	**11**	UJ	**11**	UJ
GCMW-23	GC-MW23I(2.5-3)	N	2.5	3	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**4.7**	J	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-23	GC-MW23I(22-22.5)	N	22	22.5	ft	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U
GCMW-23	GC-MW23I(27.5-28)	N	27.5	28	ft	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U
GCMW-23	GC-MW23I(33-33.5)	N	33	33.5	ft	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U
GCMW-23	GC-MW23I(35.5-36)	N	35.5	36	ft	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U
GCMW-23	GC-MW23I(7-7.5)	N	7	7.5	ft	**6.3**	UJ	**6.3**	UJ	**6**	UJ	**6.3**	UJ	**6.3**	UJ	**6.3**	UJ	**6**	UJ	**6.3**	UJ	**6.3**	UJ	**6.3**	UJ	**6.3**	UJ
GCMW-23	SB23IC-S-NG	S	10	15	ft	**10**	U	**10**	U	10	UR	**10**	U	**22**		**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U

6th St. Basin - National Grid (MW23)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-23	GC-MW23I(11.5-12)	N	11.5	12	ft	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**4.8**	J	**26**	J	**18**	UJ	**18**	UJ
GCMW-23	GC-MW23I(17-17.5)	N	17	17.5	ft	**11**	UJ	**11**	UJ	**12**	UJ	**11**	UJ	**12**	UJ	**12**	UJ	**12**	UJ	11	UR	**17**	J	**11**	UJ	**11**	UJ
GCMW-23	GC-MW23I(2.5-3)	N	2.5	3	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**9.7**	J	**3.3**	J	**24**	J	8.2	UR	**13**	J	**8.2**	U	**8.2**	U
GCMW-23	GC-MW23I(22-22.5)	N	22	22.5	ft	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**140,000**		**19,000**		**92,000**		4,400	UR	4,400	UR	**4,400**	U	**4,400**	U
GCMW-23	GC-MW23I(27.5-28)	N	27.5	28	ft	**730**	U	**730**	U	**730**	U	**730**	U	**4,400**		**270**	J	**2,800**		**730**	UJ	730	UR	**730**	U	**730**	U
GCMW-23	GC-MW23I(33-33.5)	N	33	33.5	ft	**720**	U	**720**	U	**720**	U	**720**	U	**1,400**		**720**	U	**830**		720	UR	720	UR	**720**	U	**720**	U
GCMW-23	GC-MW23I(35.5-36)	N	35.5	36	ft	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**680,000**	J	**32,000**	J	**490,000**	J	20,000	UR	20,000	UR	**20,000**	U	**20,000**	U
GCMW-23	GC-MW23I(7-7.5)	N	7	7.5	ft	**6.3**	UJ	**6.3**	UJ	**6**	UJ	**6.3**	UJ	**6**	UJ	6.3	UR	**6**	UJ	6.3	UR	**12**	J	**6.3**	UJ	**6.3**	UJ
GCMW-23	SB23IC-S-NG	S	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**21**		**20**	U	**10**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**56,000**		**1,600**	U	**44,000**		**1,600**	U	**3,200**	U	**3,200**	U	**1,600**	U

6th St. Basin - National Grid (MW23)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-23	GC-MW23I(11.5-12)	N	11.5	12	ft	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ	**18**	UJ
GCMW-23	GC-MW23I(17-17.5)	N	17	17.5	ft	**11**	UJ	**12**	UJ	**12**	UJ	**11**	UJ	**12**	UJ	**12**	UJ	**11**	UJ	**12**	UJ	**11**	UJ	**11**	UJ	**11**	UJ
GCMW-23	GC-MW23I(2.5-3)	N	2.5	3	ft	**8.2**	U	**11**	J	**8.2**	U	**8.2**	U	**8.2**	U	**16**	J	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-23	GC-MW23I(22-22.5)	N	22	22.5	ft	**4,400**	U	**66,000**		**6,300**		**4,400**	U	**4,400**	U	**9,800**		**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U	**4,400**	U
GCMW-23	GC-MW23I(27.5-28)	N	27.5	28	ft	**730**	U	**1,300**		**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U	**730**	U
GCMW-23	GC-MW23I(33-33.5)	N	33	33.5	ft	**720**	U	**430**	J	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U
GCMW-23	GC-MW23I(35.5-36)	N	35.5	36	ft	**20,000**	U	**240,000**	J	**13,000**	J	**20,000**	U	**20,000**	U	**420,000**	J	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U	**20,000**	U
GCMW-23	GC-MW23I(7-7.5)	N	7	7.5	ft	**6.3**	UJ	**6**	UJ	**6**	UJ	**6.3**	UJ	**6**	UJ	**6**	UJ	**6.3**	UJ	**6**	UJ	**6.3**	UJ	**6.3**	UJ	**6.3**	UJ
GCMW-23	SB23IC-S-NG	S	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**1,600**	U	**22,000**		**1,200**	J	**1,600**	U	**1,600**	U	**29,000**		**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**370**	U	**370**	UJ	**920**	UJ	**370**	UJ	**370**	U	**370**	U	**920**	UJ	**370**	UJ	**370**	UJ	**370**	UJ
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**900**	UJ	**900**	UJ	**2,300**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**2,300**	UJ	**900**	UJ	**900**	UJ	**900**	UJ
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**610**	U	**610**	U	**1,500**	U	**610**	U	**610**	U	**610**	U	**1,500**	UJ	**610**	U	**610**	U	**610**	U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**26,000**	U	**26,000**	U	**64,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**64,000**	UJ	**26,000**	U	**26,000**	U	**26,000**	U
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**820**	U	**820**	U	**2,100**	U	**820**	U	**820**	U	**820**	U	**2,100**	U	**820**	U	**820**	U	**820**	U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**5,800**	U	**5,800**	UJ	**15,000**	U	**5,800**	U	**5,800**	U	**5,800**	U	15,000	UR	**5,800**	UJ	**5,800**	U	**5,800**	U
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**78,000**	U	**78,000**	U	**200,000**	U	**78,000**	U	**78,000**	U	**78,000**	U	**200,000**	UJ	**78,000**	U	**78,000**	U	**78,000**	U
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**920**	U	**920**	U	**2,300**	U	**920**	U	**920**	U	**920**	U	**2,300**	U	**920**	U	**920**	U	**920**	U
GCMW-23	SB23IC-S-NG	S	10	15	ft	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**620**	U	**320**	U	**320**	U	**320**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U	**10,000**	U	**5,300**	U	**5,300**	U	**5,300**	U

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**370**	U	**700**		**370**	U	**920**	UJ	**370**	U	**370**	U	**920**	UJ	**920**	UJ	**370**	UJ	**370**	U	**370**	U	**370**	UJ
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**900**	UJ	**900**	UJ	**900**	UJ	**2,300**	UJ	**900**	UJ	**900**	UJ	**2,300**	UJ	**2,300**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**610**	U	**30**	J	**610**	U	**1,500**	U	**610**	U	**610**	U	**1,500**	U	**1,500**	U	**610**	U	**610**	U	**610**	U	**610**	U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**26,000**	U	**130,000**		**26,000**	U	**64,000**	U	**26,000**	U	**26,000**	U	**64,000**	U	**64,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**820**	U	**830**		**820**	U	**2,100**	U	**820**	U	**820**	U	**2,100**	U	**2,100**	U	**820**	U	**820**	U	**820**	U	**820**	U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**5,800**	U	**26,000**		**5,800**	U	**15,000**	U	**5,800**	U	**5,800**	U	**15,000**	U	**15,000**	UJ	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**78,000**	U	**290,000**		**78,000**	U	**200,000**	U	**78,000**	U	**78,000**	U	**200,000**	U	**200,000**	U	**78,000**	U	**78,000**	U	**78,000**	U	**78,000**	U
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**920**	U	**110**	J	**920**	U	**2,300**	U	**920**	U	**920**	U	**2,300**	U	**2,300**	U	**920**	U	**920**	U	**920**	U	**920**	U
GCMW-23	SB23IC-S-NG	S	10	15	ft	**320**	U	**4.1**	J	**320**	U	**620**	U	**320**	U	**320**	U	**620**	U	**620**	U	**320**	U	**320**	U	**320**	U	**320**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**5,300**	U	**340,000**	J	**5,300**	U	**10,000**	U	**5,300**	U	**5,300**	U	**10,000**	U	**10,000**	U	**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**370** U	**920** UJ	--	**65** J	**310** J	**140** J	**190** J	**370** UJ	**370** U	**570**	**1,100**	**1,000**
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**900** UJ	**2,300** UJ	--	**900** UJ	**900** UJ	**900** UJ	**900** UJ	**900** UJ	**900** UJ	**59** J	**52** J	**74** J
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**610** U	**1,500** UJ	--	**610** U	**610** U	**610** U	**610** U	**610** U	**610** U	**610** U	**610** U	**610** U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**26,000** U	**64,000** UJ	--	**38,000**	**25,000** J	**26,000** U	**35,000**	**26,000** U	**26,000** U	**19,000** J	**13,000** J	**7,100** J
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**820** U	**2,100** U	--	**270** J	**820** U	**820** U	**820** U	**820** U	**820** U	**820** U	**820** U	**820** U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**5,800** U	**15,000** UJ	--	**17,000**	**910** J	**5,800** U	**8,800** J	**5,800** U	**5,800** U	**5,400** J	**3,600** J	**1,800** J
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**78,000** U	**200,000** UJ	--	**120,000**	**13,000** J	**78,000** U	**59,000** J	**78,000** U	**78,000** U	**39,000** J	**26,000** J	**13,000** J
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**920** U	**2,300** U	--	**850** J	**920** U	**920** U	**1,600**	**920** U	**53** J	**2,400**	**2,000**	**2,000**
GCMW-23	SB23IC-S-NG	S	10	15	ft	**320** U	**620** U	**620** U	**7** J	**16** U	**77** J	**14** J	**320** U	**47** J	**59** J	**59**	**48**
GCMW-23	SB23IH-S-NG	S	35	39	ft	**5,300** U	**10,000** U	**10,000** U	**160,000** J	**20,000**	**5,300** U	**82,000** J	**5,300** U	**5,300** U	**50,000**	**34,000**	**15,000**

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**890**	J	**620**		**250**	J	**110**	J	**370**	U	**370**	U	**370**	UJ	**1,000**		**370**	U	**370**	UJ	**760**		**140**	J
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**900**	UJ	**49**	J	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**210**	J	**900**	UJ	**900**	UJ	**65**	J	**900**	UJ
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**610**	UJ	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**4,500**	J	**6,000**	J	**26,000**	U	**16,000**	J	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**18,000**	J	**26,000**	U
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**820**	UJ	**820**	U	**820**	U	**65**	J	**820**	U	**820**	U	**820**	UJ	**820**	U	**820**	U	**820**	U	**820**	U	**820**	UJ
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**1,200**	J	**1,900**	J	**5,800**	U	**3,500**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,100**	J	**5,800**	U
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**9,600**	J	**13,000**	J	**78,000**	U	**31,000**	J	**78,000**	U	**78,000**	U	**78,000**	U	**78,000**	U	**78,000**	U	**78,000**	U	**39,000**	J	**78,000**	U
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**530**	J	**1,900**		**920**	U	**920**	U	**920**	U	**920**	U	**920**	UJ	**380**	J	**920**	U	**200**	J	**2,300**		**97**	J
GCMW-23	SB23IC-S-NG	S	10	15	ft	**26**		**46**		**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**59**	J	**52**	J	**320**	U	**62**	J	**12**	J
GCMW-23	SB23IH-S-NG	S	35	39	ft	**11,000**		**17,000**		**5,300**	U	**31,000**		**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U	**2,800**	J	**52,000**		**3,200**	J

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene	
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**370**	UJ	**370**	UJ	**370**	UJ	**25**	J	**95**	J	**770**	J	**56**	J	**370**	UJ	**370**	U	**370**	UJ	**370**	U	**490**	
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**120**	J	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U	**610**	U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**3,800**	J	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**29,000**		**31,000**		**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**4,200**	J
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**820**	U	**820**	U	**820**	U	**820**	U	**820**	U	**820**	U	**72**	J	**820**	U	**820**	U	**820**	U	**820**	U	**820**	U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**910**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**8,100**	J	**9,200**		**5,800**	U	**5,800**	U	**5,800**	UJ	**5,800**	U	**1,000**	J
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**7,500**	J	**78,000**	U	**78,000**	U	**78,000**	U	**78,000**	U	**57,000**	J	**76,000**	J	**78,000**	U	**78,000**	U	**78,000**	U	**78,000**	U	**5,600**	J
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**450**	J	**920**	U	**920**	U	**920**	U	**920**	U	**6,200**		**830**	J	**920**	U	**920**	U	**920**	U	**920**	U	**560**	J
GCMW-23	SB23IC-S-NG	S	10	15	ft	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**110**		**8.9**	J	**320**	U	**320**	U	**320**	U	**320**	U	**29**	
GCMW-23	SB23IH-S-NG	S	35	39	ft	**9,700**		**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U	**83,000**	J	**110,000**	J	**5,300**	U	**5,300**	U	**5,300**	U	**5,300**	U	**9,800**	

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**370**	U	--	**490**		**370**	U	**370**	U	**370**	UJ	--		**610**	J	**370**	U	**820**		**9,581**
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**900**	UJ	--	**900**	UJ	**900**	UJ	**900**	UJ	**900**	UJ	--		**81**	J	**900**	UJ	**95**	J	**595**
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**610**	U	--	**73**	J	**610**	U	**610**	U	**610**	U	--		**610**	U	**610**	U	**610**	U	**103**
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**26,000**	U	--	**120,000**		**26,000**	U	**26,000**	U	**26,000**	U	--		**120,000**		**26,000**	U	**46,000**		**645,800**
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**820**	U	--	**4,300**		**820**	U	**820**	U	**820**	U	--		**130**	J	**820**	U	**820**	U	**5,602**
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**5,800**	U	--	**28,000**		**5,800**	U	**5,800**	U	**5,800**	U	--		**34,000**		**5,800**	U	**13,000**		**165,010**
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**78,000**	U	--	**440,000**		**78,000**	U	**78,000**	U	**78,000**	U	--		**230,000**		**78,000**	U	**89,000**		**1,519,200**
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**920**	U	--	**210**	J	**920**	U	**920**	U	**920**	U	--		**5,100**		**920**	U	**4,200**		**30,887**
GCMW-23	SB23IC-S-NG	S	10	15	ft	**320**	U	--	**16**	U	**320**	U	**320**	U	**320**	U	**32**	UJ	**62**	J	**320**	U	**100**	J	**647**
GCMW-23	SB23IH-S-NG	S	35	39	ft	**5,300**	U	--	**520,000**	J	**5,300**	U	**5,300**	U	**5,300**	U	**10,000**	U	**300,000**	J	**5,300**	U	**150,000**	J	**1,957,000**

6th St. Basin - National Grid (MW23)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**7.4**	U	**7.4**	U	**7.4**	U	**7.4**	U	**49**	J	**15**	U	**14**	JN	**15**	U	**15**	U	**15**	U	**15**	U
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**4.6**	UJ	**4.6**	UJ	**4.6**	UJ	**4.6**	UJ	**4.6**	UJ	**9.2**	UJ	**4.6**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.8**	U	**2.9**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**4**	J	**2**	U	**2.3**	JN	**13**	J	**6.2**	J	**21**	J	**2**	U	**6.2**	J	**39**		**11**	J	**15**	JN
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**2.3**	UJ	**2.3**	UJ	**2.3**	U	**2.3**	UJ	**2.3**	UJ	**4.5**	UJ	**2.3**	U	**4.5**	UJ	**4.5**	U	**4.5**	UJ	**4.5**	U
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**21**	J	**2**	U	**15**	J	**13**	J	**2.9**	JN	**7.7**	J	**2**	U	**8.6**	J	**20**		**14**	J	**28**	J
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.3**	U	**2.1**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-23	SB23IC-S-NG	S	10	15	ft	**3.3**	U	**3.3**	U	**3.3**	U	**3.3**	U	4.6	R	**6.4**	U	**3.3**	U	**6.4**	U	**6.4**	U	**6.4**	U	**6.4**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**3.4**		**2.8**	NJ	3.6	R	12	R	**6.2**		**14**		**2.1**	U	**4.2**	U	29	R	**10**		**15**	NJ

6th St. Basin - National Grid (MW23)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**15**	U	**9.1**	J	**7.4**	U	**11**	JN	**7.4**	U	**74**	U	**15**	U	**15**	U	**15**	U	**740**	U	**0**	U
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**9.2**	UJ	**4.6**	UJ	**4.6**	UJ	**4.6**	UJ	**4.6**	UJ	**46**	UJ	**9.2**	UJ	**9.2**	UJ	**9.2**	UJ	**460**	UJ	**0**	U
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**5.8**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**29**	U	**5.8**	U	**5.8**	U	**5.8**	U	**290**	U	**0**	U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**36**	J	**2**	U	**20**		**2**	U	**20**		**74**	J	**9.8**	J	**6.8**	J	**37**	J	**200**	U	**53.6**	
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**4.5**	U	**2.3**	U	**3.9**	J	**2.3**	UJ	**2.3**	UJ	**23**	U	**4.5**	U	**4.5**	UJ	**4.5**	UJ	**230**	U	**0**	U
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**12**	J	**2**	U	**9.1**	JN	**2**	U	**7.2**	JN	**27**	J	**19**	J	**4.7**	JN	**27**	J	**200**	U	**50.7**	
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**4.3**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.3**	U	**4.3**	U	**4.3**	U	**210**	U	**0**	U
GCMW-23	SB23IC-S-NG	S	10	15	ft	**6.4**	U	**3.3**	U	**3.3**	U	**3.3**	U	**3.3**	U	**33**	U	**6.4**	U	**6.4**	U	**6.4**	U	**330**	U	**0**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**13**		**2.1**	U	**19**		**2.1**	U	**4.6**	J	38	R	14	R	**9.6**	J	10	R	**210**	U	--	

6th St. Basin - National Grid (MW23)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**18**	U	**18**	U	**18**	U	**18**	U	**18**	U	**18**	U	**18**	U	**18**	U	**18**	U	**0**	U
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**46**	UJ	**46**	UJ	**46**	UJ	**46**	UJ	**46**	UJ	**46**	UJ	**46**	UJ	**46**	UJ	**46**	UJ	**0**	U
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**29**	U	**29**	U	**29**	U	**29**	U	**29**	U	**29**	U	**29**	U	**29**	U	**29**	U	**0**	U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**0**	U
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-23	SB23IC-S-NG	S	10	15	ft	**65**	U	**65**	U	**65**	U	**65**	U	**65**	U	**65**	U	**65**	U	**65**	U	**65**	U	**0**	U
GCMW-23	SB23IH-S-NG	S	35	39	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**0**	U

6th St. Basin - National Grid (MW23)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	4,880	0.078 UJ	6.9	87 J	0.61 J	0.33 J	5,260 J	18.5 J	4.8	44.3 J	15,900 J	122
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	16,000 J	0.2 UJ	9.6 J	38.2 J	1.2 J	0.26 J	3,950 J	28.2 J	10.7 J	18.7 J	33,600 J	50.8 J
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	12,900	0.13 UJ	7 J	20.9 J	0.88 J	0.23 J	1,590	23.6	8.2	12.5	29,400	12 J
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	3,400	0.085 UJ	3.6 J	15.7 J	0.44 J	0.037 UJ	112 UJ	6.8	3.3 J	4.7	11,800	4
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	7,440	0.085 UJ	4.8 J	36.8 J	0.65 J	0.13 J	957	14.2	8.4	15.3	15,900	9.4 J
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	4,020	0.075 UJ	3.9	20 J	0.44 J	0.09 UJ	921 J	9.8	5.3	7.9	12,500	5.7 J
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	4,130	0.081 UJ	2.4 J	23.8 J	0.41 J	0.12 J	8,080	9.2	4.4 J	11.3	11,200	4.2 J
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	10,700	0.09 UJ	5.3 J	151 J	1.4 J	0.48 J	7,880	19.4	12	293	21,600	222 J
GCMW-23	SB23IC-S-NG	S	10	15	ft	11,000 J	10.6 UJ	7.7 J	37 J	0.6 J	0.89 UJ	3,260 J	22.5 J	8.9 UJ	15.6 J	23,900 J	34.8 J
GCMW-23	SB23IH-S-NG	S	35	39	ft	3,460	6.3 U	2.1 J	21.3	0.25 J	0.52 U	8,230	8.6 J	5.3 U	11.7	9,990	4.1

6th St. Basin - National Grid (MW23)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-23	GC-MW23I(0-5)	N	0	5	ft	**1,420**	**126** J	**0.71**	**14** J	**728**	**0.72** UJ	**0.038** UJ	**164** UJ	**0.042** UJ	**16.3**	**173**	**4.6**
GCMW-23	GC-MW23I(10-15)	N	10	15	ft	**6,420** J	**294** J	**0.064** J	**24.7** J	**3,110** J	**0.32** UJ	**0.098** UJ	**3,000** J	**0.11** UJ	**40.4** J	**78** J	**1.3** UJ
GCMW-23	GC-MW23I(15-20)	N	15	20	ft	**5,840**	**274** J	**0.024** U	**20.1**	**2,610**	**0.2** U	**0.063** UJ	**4,040**	**0.07** U	**32**	**59.2** J	**0.87** U
GCMW-23	GC-MW23I(20-25)	N	20	25	ft	**1,130**	**46.4** J	**0.016** U	**6**	**656**	**0.13** U	**0.041** U	**815**	**0.046** U	**13.5**	**23.8** J	**0.57** U
GCMW-23	GC-MW23I(25-30)	N	25	30	ft	**3,720**	**151** J	**0.022** U	**17.1**	**1,170**	**0.13** U	**0.041** UJ	**1,400**	**0.12** UJ	**19.8**	**47.4** J	**0.62** U
GCMW-23	GC-MW23I(30-35)	N	30	35	ft	**2,440** J	**208** J	**0.015** U	**14.9**	**747**	**0.12** U	**0.036** U	**575**	**0.041** U	**17.1**	**27.7**	**0.68** U
GCMW-23	GC-MW23I(35-39)	N	35	39	ft	**5,230**	**221** J	**0.019** U	**15.8**	**1,110**	**0.13** U	**0.039** U	**1,090**	**0.044** U	**12.9**	**23.2** J	**0.55** U
GCMW-23	GC-MW23I(5-10)	N	5	10	ft	**6,550**	**218** J	**1.2** J	**23.8**	**7,540**	**0.14** U	**0.11** J	**243** J	**0.049** U	**30.1**	**252** J	**0.59** U
GCMW-23	SB23IC-S-NG	S	10	15	ft	**4,570** J	**224** J	**0.37** J	**20.7** J	**2,070** J	**6.2** UJ	**1.7** UJ	**1,930** J	**4.4** UJ	**31.1** J	**60.9** J	**4.8** UJ
GCMW-23	SB23IH-S-NG	S	35	39	ft	**4,790**	**226**	**0.12** U	**15.7**	**844**	**3.7** U	**1.1** U	**998**	**2.6** U	**11.4**	**24.6**	**2.8** U

6th St. Basin – National Grid

(MW23)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

6th St. Basin - National Grid (MW23)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**0.01**	U	**0.01**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-23	GC-MW23S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0.011**	U	**0.011**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

6th St. Basin - National Grid (MW23)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	2,200	R	**220**	U	220	R	**1,600**		**44**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	--		**50**	U	**50**	U	**1,600**	J	**5**	U
MW-23	GC-MW23S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	50	R	**5**	U	**24**	J	**1**	U	**1**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--		**5**	U	**19**		**0.099**	J	**0.5**	U

6th St. Basin - National Grid (MW23)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**44**	U	**44**	U	**44**	UJ	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-23	GC-MW23S	N	Shallow	**1**	U	**1**	U	**1**	UJ	**0.44**	J	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

6th St. Basin - National Grid (MW23)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**44** U	**44** U	**44** U	**1,000**	**39** J	**700**	44 R	220 R	**220** U	**44** U
MW-23	GC-MW23I-S-NG	S	Intermediate	**5** U	**5** U	**5** U	**1,000** J	**33**	**640** J	**5** U	**50** U	**50** U	**5** U
MW-23	GC-MW23S	N	Shallow	**1** U	**1** U	**1** U	**1** U	**1** U	**0.28** J	1 R	5 R	**5** U	**1** U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.083** J	**0.5** U	**0.18** J	**0.5** U	**5** U	**5** U	**0.5** U

6th St. Basin - National Grid (MW23)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**44**	U	**380**		**44**	U	**44**	U	**44**	U	**880**		**44**	U	**44**	U	**44**	U	**44**	U	**44**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**5**	U	**350**	J	**5**	U	**5**	U	**5**	U	**870**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-23	GC-MW23S	N	Shallow	**1**	U	**0.23**	J	**1**	U	**1.2**		**1**	U	**0.21**	J	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.5**	U	**0.16**	J	**0.5**	U	**0.91**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**130**	U	**130**	U	**330**	U	**130**	U	**130**	U	**130**	U	**330**	U	**130**	U	**130**	U	**130**	U	**130**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**21**	U	**10**	U	**10**	U	**10**	U	**10**	U
MW-23	GC-MW23S	N	Shallow	**9.5**	U	**9.5**	U	**24**	U	**9.5**	U	**9.5**	U	**17**		**24**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**22**		**9.9**	UJ	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**730**		**130**	U	**330**	U	**130**	U	**130**	U	**330**	U	**330**	U	**130**	U	**130**	U	**130**	U	**130**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**120**		**3.8**	J	**21**	U	**10**	U	**10**	U	**21**	U	**21**	U	**10**	U	**10**	U	**10**	U	**10**	U
MW-23	GC-MW23S	N	Shallow	**1**		**3.3**	J	**24**	U	**9.5**	U	**9.5**	U	**24**	U	**24**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**1.6**	J	**12**		**9.9**	U	**4.9**	U	**4.9**	U	**9.9**	U	**9.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**130**	U	**330**	U	--		**210**		**18**		**130**	U	**13**		**130**	U	**130**	U	**2**		**1.4**		**0.76**	J
MW-23	GC-MW23I-S-NG	S	Intermediate	**10**	U	**21**	U	**21**	U	**140**		**13**		**10**	U	**20**		**10**	U	**10**	U	**5.2**	J	**3.6**	J	**1.4**	J
MW-23	GC-MW23S	N	Shallow	**9.5**	U	**24**	U	--		**1.6**		**0.39**		**9.5**	U	**0.51**		**9.5**	U	**9.5**	U	**0.24**	J	**0.24**	J	**0.39**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**5.1**		**9.9**	U	**9.9**	U	**2.1**	J	**0.67**	J	**4.9**	U	**0.83**	J	**4.9**	U	**4.9**	U	**0.61**	J	**0.67**	J	**0.37**	

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**1.4**	U	**0.92**	J	**130**	U	**32**		**130**	U	**130**	U	**130**	U	**130**	U	**130**	U	**26**	J	**2.5**	
MW-23	GC-MW23I-S-NG	S	Intermediate	**1.5**	J	**1.9**	J	**10**	U	**39**		**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**27**		**5.9**	J
MW-23	GC-MW23S	N	Shallow	**0.39**	U	**0.21**	J	**1.9**	J	**0.26**	J	**9.5**	U	**9.5**	U	**9.5**	UJ	**2.8**	J	**9.5**	U	**0.87**	J	**0.31**	J
MW-23	GC-MW23S-S-NG	S	Shallow	**0.28**		**0.33**		**2**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**3.7**	J	**4.9**	U	**1.2**	J	**0.64**	J

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**1.4**	U	**11**	J	**130**	U	**130**	U	**130**	U	**130**	U	**6.4**		**41**		**130**	U	**130**	U	**130**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**0.32**	J	**8.8**	J	**10**	U	**10**	U	**10**	U	**10**	U	**12**		**64**		**10**	U	**10**	U	**10**	U
MW-23	GC-MW23S	N	Shallow	**0.39**	U	**0.94**	J	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**1.1**		**1.2**		**9.5**	U	**9.5**	U	**9.5**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.095**	J	**0.95**	J	**4.9**	U	**4.9**	U	**0.72**	J	**4.9**	U	**1.9**	J	**1.5**	J	**4.9**	U	**4.9**	U	**4.9**	U

6th St. Basin - National Grid (MW23)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**130**	U	**1.4**	U	**130**	U	**1.4**	U	**130**	U	**130**	U	**130**	U	--		**59**		**130**	U	**7.7**		**1,093**
MW-23	GC-MW23I-S-NG	S	Intermediate	**10**	U	**0.76**	J	**10**	U	**1.2**		**10**	U	**10**	U	**10**	U	2.1	UR	**80**		**7.5**	J	**15**		**485.78**
MW-23	GC-MW23S	N	Shallow	**9.5**	U	**0.39**	U	**9.5**	U	**5.1**		**9.5**	U	**9.5**	U	**9.5**	U	--		**2.3**		**9.5**	U	**0.71**		**14.91**
MW-23	GC-MW23S-S-NG	S	Shallow	**4.9**	U	**0.24**		**4.9**	U	**8.8**		**4.9**	U	**4.9**	U	**4.9**	U	0.2	UR	**3.6**	J	**1.9**	J	**1.5**	J	**25.735**

6th St. Basin - National Grid (MW23)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**0.056**	UJ	**0.056**	UJ	**0.056**	UJ	**0.056**	UJ	**0.056**	UJ	**0.11**	UJ	**0.056**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ
MW-23	GC-MW23I-S-NG	S	Intermediate	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.096**	U	**0.039**	J	**0.096**	U	**0.096**	U	**0.096**	U	**0.096**	U
MW-23	GC-MW23S	N	Shallow	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.097**	UJ	**0.049**	UJ	**0.097**	UJ	**0.097**	UJ	**0.097**	UJ	**0.097**	UJ
MW-23	GC-MW23S-S-NG	S	Shallow	**0.048**	UJ	**0.048**	UJ	**0.048**	UJ	**0.048**	UJ	**0.048**	UJ	**0.095**	UJ	**0.048**	UJ	**0.095**	UJ	**0.095**	UJ	**0.095**	UJ	**0.095**	UJ

6th St. Basin - National Grid (MW23)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**0.11**	UJ	**0.056**	UJ	**0.056**	UJ	**0.056**	UJ	**0.056**	UJ	**0.56**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ	**5.6**	UJ	**0**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**0.096**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.048**	U	**0.48**	U	**0.096**	U	**0.096**	U	**0.096**	U	**4.8**	U	**0**	U
MW-23	GC-MW23S	N	Shallow	**0.097**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.49**	UJ	**0.097**	UJ	**0.097**	UJ	**0.097**	UJ	**4.9**	UJ	**0**	U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.095**	UJ	**0.048**	UJ	**0.048**	UJ	**0.048**	UJ	**0.048**	UJ	**0.48**	UJ	**0.095**	UJ	**0.095**	UJ	**0.095**	UJ	**4.8**	UJ	**0**	U

6th St. Basin - National Grid (MW23)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**0.56** U	**0.56** U	**0.56** U	**0.56** U	**0.56** U	**0.56** U	**0.56** U	**0.56** U	**0.56** U	**0** U
MW-23	GC-MW23I-S-NG	S	Intermediate	**1.1** U	**1.1** U	**1.1** U	**1.1** U	**1.1** U	**1.1** U	**1.1** U	**1.1** U	**1.1** U	**0** U
MW-23	GC-MW23S	N	Shallow	**0.49** U	**0.49** U	**0.49** U	**0.49** U	**0.49** U	**0.49** U	**0.49** U	**0.49** U	**0.49** U	**0** U
MW-23	GC-MW23S-S-NG	S	Shallow	**0.99** U	**0.99** U	**0.99** U	**0.99** U	**0.99** U	**0.99** U	**0.99** U	**0.99** U	**0.99** U	**0** U

6th St. Basin - National Grid (MW23)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**364**		**4.2**	UJ	**0.77**	UJ	**0.73**	UJ	**0.11**	UJ	**0.019**	UJ	**612**	**572**	**0.13**	UJ	**0.1**	UJ	**0.013**	U	**0.013**	U
MW-23	GC-MW23I-S-NG	S	Intermediate	**243**		**200**	U	**8**	U	**8**	U	**13.7**		**16.2**		**614**	**585**	**4**	U	**0.37**	J	**4**	U	**4**	U
MW-23	GC-MW23S	N	Shallow	**438**		**7.7**	UJ	**1.8**	UJ	**1.6**	UJ	**2.3**	J	**1.4**	J	**234**	**227**	**0.16**	UJ	**0.14**	UJ	**0.18**	UJ	**0.17**	UJ
MW-23	GC-MW23S-S-NG	S	Shallow	**176**	J	**200**	U	**2**	U	**2**	U	**4.3**		**3.4**	J	**241**	**226**	**1**	U	**1**	U	**1**	U	**1**	U

6th St. Basin - National Grid (MW23)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**96,100**	**93,600**	**5.8** U	**4** U	**0.36** UJ	**0.055** UJ	**2.6** UJ	**3** UJ	**5,160** J	**1,860** J
MW-23	GC-MW23I-S-NG	S	Intermediate	**88,300**	**87,400**	**2.6** J	**8** U	**4** U	**4** U	**8** U	**8** U	**4,740** J	**1,680**
MW-23	GC-MW23S	N	Shallow	**183,000**	**189,000**	**4.1** U	**3.1** UJ	**2.4** UJ	**2.2** UJ	**5.1** UJ	**1.5** UJ	**8,320** J	**4,770** J
MW-23	GC-MW23S-S-NG	S	Shallow	**168,000**	**171,000**	**2**	**0.88** J	**1.1**	**1** U	**4.3**	**2** U	**7,410** J	**4,620**

6th St. Basin - National Grid (MW23)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**0.66** UJ	**0.18** UJ	**207,000**	**202,000**	**182**	**148**	**0.1** U	**0.1** U	**3.9** J	**1.6** J	**78,300**	**77,800**
MW-23	GC-MW23I-S-NG	S	Intermediate	**4** U	**2.3** J	**199,000**	**197,000**	**185**	**151**	**0.2** U	**0.2** U	**6.5**	**5.2**	**75,600**	**76,100**
MW-23	GC-MW23S	N	Shallow	**16.4** J	**0.18** UJ	**21,300**	**21,800**	**945**	**972**	**0.21**	**0.1** U	**2** J	**1.3** J	**27,300**	**28,100**
MW-23	GC-MW23S-S-NG	S	Shallow	**20.7**	**3** J	**19,400**	**19,500**	**943**	**935**	**0.2** U	**0.2** U	**8.1**	**7.4**	**25,400**	**25,600**

6th St. Basin - National Grid (MW23)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-23	GC-MW-23I(33.75-38.75)	N	Intermediate	**6.5** J	**6** UJ	**0.23** UJ	**0.21** UJ	**2,520,000**	**2,540,000**	**0.2** UJ	**0.19** UJ	**0.3** UJ	**0.3** UJ	**0.018** UJ	**0.018** UJ	**16.8**
MW-23	GC-MW23I-S-NG	S	Intermediate	59.5 R	65.6 R	**4** U	**4** U	**2,350,000**	**2,330,000**	**4** U	**4** U	**2.2** UJ	**0.94** UJ	**45**	**58.4**	**16.4**
MW-23	GC-MW23S	N	Shallow	**2** UJ	**2.2** UJ	**0.078** UJ	**0.064** UJ	**177,000**	**182,000**	**0.2** UJ	**0.13** UJ	**2.1** UJ	**1.2** UJ	**23**	**1.6** UJ	**148**
MW-23	GC-MW23S-S-NG	S	Shallow	3.2 R	2.3 R	**1** U	**1** U	**154,000**	**158,000**	**1** U	**1** U	**2.1** UJ	**1.1** UJ	**59.1**	**34.8**	**128**

B&A 9th St. Warehouse

(MW20 & MW21 & MW42)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: B&A 9th St. Warehouse
Monitoring Well Soil Borings Installed at Address: GC-MW-20, GC-MW-21 & GC-MW-42
Intermediate Monitoring Wells Installed at Address: GC-MW-20I, GC-MW-21I & GC-MW-42I
Shallow Monitoring Wells Installed at Address: GC-MW-20S, GC-MW-21S & GC-MW-42S

GC-MW-20

The soil samples from the soil boring installed for the intermediate well (situated approximately 48 feet from the canal) contained 33 VOCs, 103 SVOCs, 18 pesticides, 0 PCBs, and 90 metals. From these, 11 VOCs, 19 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (240,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (1,300,000 µg/kg). The metal occurring at the highest concentration above screening value was lead (533 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 48 feet from the canal) contained 6 VOCs, 13 SVOCs, 0 pesticides, 0 PCBs, and 16 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (24,000 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 48 feet from the canal) contained 8 VOCs, 12 SVOCs, 0 pesticides, 0 PCBs, and 19 metals. From these, 6 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (350 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (36 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (20,800 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-21

The soil samples from the soil boring installed for the intermediate well (situated approximately 149 feet from the canal) contained 25 VOCs, 60 SVOCs, 1 pesticide, 0 PCBs, and 98 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (71 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 149 feet from the canal) contained 0 VOCs, 8 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,360 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately38 ft bgs and situated approximately 149 feet from the canal) contained 0 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,120 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-42

The soil samples from the soil boring installed for the intermediate well (situated approximately 12 feet from the canal) contained 27 VOCs, 52 SVOCs, 6 pesticides, 1 PCB, and 83 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. No compounds exceeded the screening values at this location.

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 12 feet from the canal) contained 2 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 10 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was selenium (dissolved) (30.2 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately38 ft bgs and situated approximately 12 feet from the canal) contained 1 VOC, 3 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,960 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-20	059-2067	N	5	10	ft	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-20	059-2068	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-20	059-2069	N	25	30	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U
GCMW-20	059-2070	N	30	35	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U
GCMW-20	059-2071	N	35	40	ft	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U
GCMW-21	059-2055	N	5	10	ft	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U
GCMW-21	059-2056	N	10	15	ft	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U
GCMW-21	059-2057	N	15	20	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-21	059-2058	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-21	059-2059	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-21	059-2060	N	30	35	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-42	059-2061	N	5	10	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-42	059-2062	N	15	20	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2063	N	20	25	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2064	N	25	30	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-42	059-2065	N	30	35	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone	
GCMW-20	059-2067	N	5	10	ft	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	140	UR	**14**	U	**54**	
GCMW-20	059-2068	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	180	UR	**18**	U	**42**	
GCMW-20	059-2069	N	25	30	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	300,000	UR	**30,000**	U	**30,000**	U
GCMW-20	059-2070	N	30	35	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	570,000	UR	**57,000**	U	**57,000**	U
GCMW-20	059-2071	N	35	40	ft	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	17,000	UR	**1,700**	U	**1,700**	U
GCMW-21	059-2055	N	5	10	ft	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	150	UR	**15**	U	**71**	
GCMW-21	059-2056	N	10	15	ft	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	190	UR	**19**	U	**36**	
GCMW-21	059-2057	N	15	20	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	120	UR	**12**	U	**12**	U
GCMW-21	059-2058	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	110	UR	**11**	U	**11**	U
GCMW-21	059-2059	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	120	UR	**12**	U	**15**	
GCMW-21	059-2060	N	30	35	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	110	UR	**11**	U	**11**	U
GCMW-42	059-2061	N	5	10	ft	**4.4**	U	**0.071**	J	**0.79**	J	**4.4**	U	**4.4**	U	**0.27**	J	88	UR	**8.8**	U	**44**	
GCMW-42	059-2062	N	15	20	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**10**	U
GCMW-42	059-2063	N	20	25	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**10**	U
GCMW-42	059-2064	N	25	30	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	88	UR	**8.8**	U	**23**	
GCMW-42	059-2065	N	30	35	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	96	UR	**9.6**	U	**9.6**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzene		Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform	
GCMW-20	059-2067	N	5	10	ft	**2.4**	J	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**3.4**	J	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-20	059-2068	N	10	15	ft	**2.5**	J	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**19**		**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-20	059-2069	N	25	30	ft	**10,000**	J	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U
GCMW-20	059-2070	N	30	35	ft	**39,000**		**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U
GCMW-20	059-2071	N	35	40	ft	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U
GCMW-21	059-2055	N	5	10	ft	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**24**		**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U
GCMW-21	059-2056	N	10	15	ft	**2.7**	J	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**27**		**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U
GCMW-21	059-2057	N	15	20	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**7.5**		**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-21	059-2058	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**3.4**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-21	059-2059	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**0.76**	J	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-21	059-2060	N	30	35	ft	**1.4**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**1.2**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-42	059-2061	N	5	10	ft	**3.1**	J	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**3.9**	J	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-42	059-2062	N	15	20	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**6.9**		**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2063	N	20	25	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**7.3**		**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2064	N	25	30	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**1**	J	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-42	059-2065	N	30	35	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**6.5**		**4.8**	U	**4.8**	U	**4.8**	U	**1.1**	J

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate	
GCMW-20	059-2067	N	5	10	ft	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U	0.34	J	7.1	U	0.9	J	7.1	U
GCMW-20	059-2068	N	10	15	ft	9.2	U	9.2	U	9.2	U	9.2	U	9.2	U	9.2	U	2.7	J	2.7	J	4.6	J	9.2	U
GCMW-20	059-2069	N	25	30	ft	15,000	U	15,000	U	15,000	U	15,000	U	15,000	U	15,000	U	73,000		10,000	J	69,000		15,000	U
GCMW-20	059-2070	N	30	35	ft	29,000	U	29,000	U	29,000	U	29,000	U	29,000	U	29,000	U	240,000		10,000	J	200,000		29,000	U
GCMW-20	059-2071	N	35	40	ft	840	U	840	U	840	U	840	U	840	U	840	U	120	J	280	J	140	J	840	U
GCMW-21	059-2055	N	5	10	ft	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U	0.37	J	7.5	U	0.79	J	7.5	U
GCMW-21	059-2056	N	10	15	ft	9.6	U	9.6	U	9.6	U	9.6	U	9.6	U	9.6	U	0.24	J	9.6	U	0.72	J	9.6	U
GCMW-21	059-2057	N	15	20	ft	6.1	U	6.1	U	6.1	U	6.1	U	6.1	U	6.1	U	6.1	U	6.1	U	0.15	J	6.1	U
GCMW-21	059-2058	N	20	25	ft	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	0.29	J	5.4	U
GCMW-21	059-2059	N	25	30	ft	5.9	U	5.9	U	5.9	U	5.9	U	5.9	U	5.9	U	0.15	J	5.9	U	0.28	J	5.9	U
GCMW-21	059-2060	N	30	35	ft	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	5.6	U	0.15	J	5.6	U	0.34	J	5.6	U
GCMW-42	059-2061	N	5	10	ft	2.2	J	4.4	U	4.4	U	4.4	U	4.4	U	4.4	U	1.2	J	0.42	J	2.3	J	4.4	U
GCMW-42	059-2062	N	15	20	ft	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	0.2	J	5.1	U
GCMW-42	059-2063	N	20	25	ft	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	0.14	J	5.1	U	0.27	J	5.1	U
GCMW-42	059-2064	N	25	30	ft	4.4	U	4.4	U	4.4	U	4.4	U	4.4	U	4.4	U	4.4	U	4.4	U	--		4.4	U
GCMW-42	059-2065	N	30	35	ft	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	0.16	J	4.8	U	0.24	J	4.8	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene	
GCMW-20	059-2067	N	5	10	ft	**25**		**14**	U	**7.1**	U	**7.1**	U	**0.38**	J	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-20	059-2068	N	10	15	ft	**14**	J	**18**	U	**9.2**	U	**9.2**	U	**2.8**	J	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-20	059-2069	N	25	30	ft	**30,000**	U	**30,000**	U	**15,000**	U	**15,000**	U	**33,000**		**15,000**	U	**15,000**	U	**15,000**	U	**9,600**	J
GCMW-20	059-2070	N	30	35	ft	**57,000**	U	**57,000**	U	**29,000**	U	**29,000**	U	**90,000**		**19,000**	J	**29,000**	U	**29,000**	U	**110,000**	
GCMW-20	059-2071	N	35	40	ft	**1,700**	U	**1,700**	U	**840**	U	**840**	U	**76**	J	**840**	U	**840**	U	**840**	U	**41**	J
GCMW-21	059-2055	N	5	10	ft	**10**	J	**15**	U	**7.5**	U	**7.5**	U	**0.29**	J	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U
GCMW-21	059-2056	N	10	15	ft	**13**	J	**19**	U	**9.6**	U	**9.6**	U	**0.24**	J	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U
GCMW-21	059-2057	N	15	20	ft	**12**	U	**12**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-21	059-2058	N	20	25	ft	**11**	U	**11**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-21	059-2059	N	25	30	ft	**12**	U	**12**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-21	059-2060	N	30	35	ft	**11**	U	**11**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-42	059-2061	N	5	10	ft	**10**		**8.8**	U	**4.4**	U	**4.4**	U	**1.1**	J	**4.4**	U	**4.4**	U	**2.9**	J	**4.4**	U
GCMW-42	059-2062	N	15	20	ft	**10**	U	**10**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2063	N	20	25	ft	**10**	U	**10**	U	**5.1**	U	**5.1**	U	**0.074**	J	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2064	N	25	30	ft	**8.8**	U	**8.8**	U	**4.4**	U	**4.4**	U	**0.081**	J	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-42	059-2065	N	30	35	ft	**9.6**	U	**9.6**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-20	059-2067	N	5	10	ft	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-20	059-2068	N	10	15	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-20	059-2069	N	25	30	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U
GCMW-20	059-2070	N	30	35	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U
GCMW-20	059-2071	N	35	40	ft	**840**	U	**840**	U	**840**	U	**840**	U	**840**	U
GCMW-21	059-2055	N	5	10	ft	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U	**7.5**	U
GCMW-21	059-2056	N	10	15	ft	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U	**9.6**	U
GCMW-21	059-2057	N	15	20	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-21	059-2058	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-21	059-2059	N	25	30	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-21	059-2060	N	30	35	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-42	059-2061	N	5	10	ft	**4.4**	U	**4.4**	U	**0.24**	J	**4.4**	U	**4.4**	U
GCMW-42	059-2062	N	15	20	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2063	N	20	25	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-42	059-2064	N	25	30	ft	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-42	059-2065	N	30	35	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-20	059-2067	N	5	10	ft	**1,400**	U	**1,400**	U	**1,400**	U	**1,400**	U	**1,400**	U	**1,400**	U	**2,600**	U	**1,400**	U	**1,400**	U	**1,400**	U
GCMW-20	059-2068	N	10	15	ft	**520**	U	**520**	U	**520**	U	**520**	U	**520**	U	**520**	U	**1,000**	U	**520**	U	**520**	U	**520**	U
GCMW-20	059-2069	N	25	30	ft	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U	**120,000**	U	**60,000**	U	**60,000**	U	**60,000**	U
GCMW-20	059-2070	N	30	35	ft	**57,000**	U	**57,000**	U	**57,000**	U	**57,000**	U	**57,000**	U	**57,000**	U	**110,000**	U	**57,000**	U	**57,000**	U	**57,000**	U
GCMW-20	059-2071	N	35	40	ft	**4,100**	U	**4,100**	U	**4,100**	U	**4,100**	U	**4,100**	U	**4,100**	U	**8,000**	U	**4,100**	U	**4,100**	U	**4,100**	U
GCMW-21	059-2055	N	5	10	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**580**	U	**300**	U	**300**	U	**300**	U
GCMW-21	059-2056	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**570**	U	**290**	U	**290**	U	**290**	U
GCMW-21	059-2057	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2058	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2059	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2060	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	UJ	**200**	U	**200**	U	**200**	U
GCMW-42	059-2061	N	5	10	ft	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**1,900**	UJ	**990**	U	**990**	U	**990**	U
GCMW-42	059-2062	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2063	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2064	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U
GCMW-42	059-2065	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
GCMW-20	059-2067	N	5	10	ft	**1,400**	U	**92**	J	**1,400**	U	**2,600**	U	**1,400**	U	**1,400**	U	**2,600**	U	**2,600**	U	**1,400**	U	**1,400**	U	**1,400**	U
GCMW-20	059-2068	N	10	15	ft	**520**	U	**540**		**520**	U	**1,000**	U	**520**	U	**520**	U	**1,000**	U	**1,000**	U	**520**	U	**520**	U	**520**	U
GCMW-20	059-2069	N	25	30	ft	**60,000**	U	**160,000**		**60,000**	U	**120,000**	U	**60,000**	U	**60,000**	U	**120,000**	U	**120,000**	U	**60,000**	U	**60,000**	U	**60,000**	U
GCMW-20	059-2070	N	30	35	ft	**57,000**	U	**710,000**		**57,000**	U	**110,000**	U	**57,000**	U	**57,000**	U	**110,000**	U	**110,000**	U	**57,000**	U	**57,000**	U	**57,000**	U
GCMW-20	059-2071	N	35	40	ft	**4,100**	U	**33,000**		**4,100**	U	**8,000**	U	**4,100**	U	**4,100**	U	**8,000**	U	**8,000**	U	**4,100**	U	**4,100**	U	**4,100**	U
GCMW-21	059-2055	N	5	10	ft	**300**	U	**300**	U	**300**	U	**580**	U	**300**	U	**300**	U	**580**	U	**580**	U	**300**	U	**300**	U	**300**	U
GCMW-21	059-2056	N	10	15	ft	**290**	U	**10**	J	**290**	U	**570**	U	**290**	U	**290**	U	**570**	U	**570**	U	**290**	U	**290**	U	**290**	U
GCMW-21	059-2057	N	15	20	ft	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2058	N	20	25	ft	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2059	N	25	30	ft	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2060	N	30	35	ft	**200**	U	**200**	U	**200**	U	**400**	UJ	**200**	U	**200**	U	**400**	UJ	**400**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2061	N	5	10	ft	**990**	U	**990**	U	**990**	U	**1,900**	UJ	**990**	U	**990**	U	**1,900**	UJ	**1,900**	U	**990**	U	**990**	U	**990**	U
GCMW-42	059-2062	N	15	20	ft	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2063	N	20	25	ft	**200**	U	**7**	J	**200**	U	**400**	U	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2064	N	25	30	ft	**190**	U	**17**	J	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U
GCMW-42	059-2065	N	30	35	ft	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene	
GCMW-20	059-2067	N	5	10	ft	**1,400**	U	**1,400**	U	**2,600**	U	**2,600**	U	**82**	J	**95**	J	**100**	J	**190**	J	**1,400**	U	**140**	J	**950**	J
GCMW-20	059-2068	N	10	15	ft	**520**	U	**220**	J	**1,000**	U	**1,000**	U	**720**		**62**	J	**93**	J	**810**		**520**	U	**110**	J	**670**	J
GCMW-20	059-2069	N	25	30	ft	**60,000**	U	**60,000**	U	**120,000**	U	**120,000**	U	**29,000**	J	**42,000**	J	**60,000**	U	**40,000**	J	**60,000**	U	**60,000**	U	**20,000**	J
GCMW-20	059-2070	N	30	35	ft	**57,000**	U	**57,000**	U	**110,000**	U	**110,000**	U	**140,000**	J	**210,000**		**57,000**	U	**160,000**	J	**57,000**	U	**57,000**	U	**77,000**	J
GCMW-20	059-2071	N	35	40	ft	**4,100**	U	**4,100**	U	**8,000**	U	**8,000**	U	**16,000**		**8,600**		**140**	J	**11,000**		**4,100**	U	**4,100**	U	**5,800**	
GCMW-21	059-2055	N	5	10	ft	**300**	U	**10**	J	**580**	U	**580**	U	**28**	J	**300**	U	**93**	J	**45**	J	**300**	U	**170**	J	**77**	J
GCMW-21	059-2056	N	10	15	ft	**290**	U	**290**	U	**570**	U	**570**	U	**40**	J	**290**	U	**86**	J	**70**	J	**290**	U	**150**	J	**69**	J
GCMW-21	059-2057	N	15	20	ft	**200**	U	**200**	U	**390**	U	**390**	U	**6.9**	J	**200**	U	**58**	J	**200**	U	**200**	U	**100**	J	**200**	U
GCMW-21	059-2058	N	20	25	ft	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**44**	J	**200**	U	**200**	U	**82**	J	**200**	U
GCMW-21	059-2059	N	25	30	ft	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**57**	J	**200**	U	**200**	U	**100**	J	**200**	U
GCMW-21	059-2060	N	30	35	ft	**200**	U	**200**	U	**400**	UJ	**400**	UJ	**200**	U	**200**	U	**47**	J	**200**	U	**200**	U	**100**	J	**200**	U
GCMW-42	059-2061	N	5	10	ft	**990**	U	**990**	U	**1,900**	UJ	**1,900**	UJ	**990**	U	**990**	U	**41**	J	**35**	J	**990**	U	**53**	J	**190**	J
GCMW-42	059-2062	N	15	20	ft	**200**	U	**200**	U	**390**	U	**390**	U	**19**	J	**200**	U	**29**	J	**200**	U	**200**	U	**45**	J	**200**	U
GCMW-42	059-2063	N	20	25	ft	**200**	U	**200**	U	**400**	U	**400**	U	**6.5**	J	**200**	U	**32**	J	**200**	U	**200**	U	**55**	J	**200**	U
GCMW-42	059-2064	N	25	30	ft	**190**	U	**190**	U	**370**	U	**370**	U	**7.2**	J	**15**	J	**29**	J	**6.9**	J	**190**	U	**44**	J	**6.3**	J
GCMW-42	059-2065	N	30	35	ft	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**21**	J	**200**	U	**200**	U	**35**	J	**7.5**	J

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam	
GCMW-20	059-2067	N	5	10	ft	**1,400**		**1,100**	J	**1,500**		**1,100**	J	**1,400**	U	**1,400**	U	**1,400**	U	**1,400**	U	**1,400**	U	**45**	J	**1,400**	U
GCMW-20	059-2068	N	10	15	ft	**550**		**350**	J	**350**	J	**400**	J	**520**	U	**160**	J	**520**	U	**520**	U	**520**	U	**25**	J	**520**	U
GCMW-20	059-2069	N	25	30	ft	**15,000**	J	**10,000**	J	**60,000**	U	**4,500**	J	**60,000**	U	**17,000**	J	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U
GCMW-20	059-2070	N	30	35	ft	**58,000**		**42,000**	J	**21,000**	J	**18,000**	J	**57,000**	U	**70,000**		**57,000**	U	**57,000**	U	**57,000**	U	**57,000**	U	**57,000**	U
GCMW-20	059-2071	N	35	40	ft	**4,400**		**1,800**	J	**2,100**	J	**2,500**	J	**4,100**	U	**4,500**		**4,100**	U	**4,100**	U	**4,100**	U	**4,100**	U	**4,100**	U
GCMW-21	059-2055	N	5	10	ft	**76**	J	**44**	J	**45**	J	**64**	J	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**28**	J	**300**	U
GCMW-21	059-2056	N	10	15	ft	**64**	J	**52**	J	**52**	J	**46**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**41**	J	**290**	U
GCMW-21	059-2057	N	15	20	ft	**200**	U	**200**	U	**200**	UJ	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**25**	J	**200**	U
GCMW-21	059-2058	N	20	25	ft	**200**	U	**200**	U	**200**	UJ	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**22**	J	**200**	U
GCMW-21	059-2059	N	25	30	ft	**200**	U	**200**	U	**200**	UJ	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**32**	J	**200**	U
GCMW-21	059-2060	N	30	35	ft	**200**	U	**200**	U	**200**	UJ	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**27**	J	**200**	U
GCMW-42	059-2061	N	5	10	ft	**210**	J	**100**	J	**230**	J	**140**	J	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**91**	J	**990**	U
GCMW-42	059-2062	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**16**	J	**200**	U
GCMW-42	059-2063	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**14**	J	**200**	U
GCMW-42	059-2064	N	25	30	ft	**7.1**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**15**	J	**190**	U
GCMW-42	059-2065	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**16**	J	**200**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene	
GCMW-20	059-2067	N	5	10	ft	**61**	J	**800**	J	**410**	J	**88**	J	**1,400**	U	**1,400**	U	**1,400**	U	**1,400**	U	**990**	J	**54**	J	**1,400**	U
GCMW-20	059-2068	N	10	15	ft	**200**	J	**610**	J	**120**	J	**450**	J	**520**	U	**520**	U	**520**	U	**520**	U	**1,900**	J	**650**		**520**	U
GCMW-20	059-2069	N	25	30	ft	**60,000**	U	**18,000**	J	**60,000**	U	**4,500**	J	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U	**34,000**	J	**48,000**	J	**60,000**	U
GCMW-20	059-2070	N	30	35	ft	**4,700**	J	**70,000**		**57,000**	U	**21,000**	J	**57,000**	U	**57,000**	U	**57,000**	U	**57,000**	U	**140,000**	J	**200,000**		**57,000**	U
GCMW-20	059-2071	N	35	40	ft	**270**	J	**5,300**		**600**	J	**1,400**	J	**4,100**	U	**4,100**	U	**4,100**	U	**4,100**	U	**12,000**		**13,000**		**4,100**	U
GCMW-21	059-2055	N	5	10	ft	**300**	U	**71**	J	**14**	J	**13**	J	**300**	U	**300**	U	**300**	U	**300**	U	**180**	J	**17**	J	**300**	U
GCMW-21	059-2056	N	10	15	ft	**290**	U	**58**	J	**9.1**	J	**22**	J	**290**	U	**290**	U	**290**	U	**290**	U	**200**	J	**14**	J	**290**	U
GCMW-21	059-2057	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2058	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2059	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-21	059-2060	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2061	N	5	10	ft	**990**	U	**200**	J	**63**	J	**990**	U	**990**	U	**990**	U	**990**	U	**990**	U	**230**	J	**990**	U	**990**	U
GCMW-42	059-2062	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2063	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-42	059-2064	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**10**	J	**190**	U	**190**	U
GCMW-42	059-2065	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**8.9**	J	**200**	U	**200**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol	
GCMW-20	059-2067	N	5	10	ft	**1,400**	U	**1,400**	U	**1,400**	U	**1,100**	J	**1,400**	U	--	**280**	J	**1,400**	U	**1,400**	U	**1,400**	U	**2,600**	U
GCMW-20	059-2068	N	10	15	ft	**520**	U	**520**	U	**520**	U	**290**	J	**520**	U	--	**1,100**		**520**	U	**520**	U	**520**	U	**1,000**	U
GCMW-20	059-2069	N	25	30	ft	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U	**60,000**	U	--	**290,000**		**60,000**	U	**60,000**	U	**60,000**	U	**120,000**	UJ
GCMW-20	059-2070	N	30	35	ft	**57,000**	U	**57,000**	U	**57,000**	U	**17,000**	J	**57,000**	U	--	**1,300,000**		**57,000**	U	**57,000**	U	**57,000**	U	**110,000**	UJ
GCMW-20	059-2071	N	35	40	ft	**4,100**	U	**4,100**	U	**4,100**	U	**1,700**	J	**4,100**	U	--	**35,000**		**4,100**	U	**4,100**	U	**4,100**	U	**8,000**	U
GCMW-21	059-2055	N	5	10	ft	**300**	U	**300**	U	**300**	U	**41**	J	**300**	U	--	**54**	J	**300**	U	**300**	U	**300**	U	**580**	UJ
GCMW-21	059-2056	N	10	15	ft	**290**	U	**290**	U	**290**	U	**36**	J	**290**	U	--	**26**	J	**290**	U	**290**	U	**290**	U	**570**	UJ
GCMW-21	059-2057	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**390**	UJ
GCMW-21	059-2058	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	--	**6.7**	J	**200**	U	**200**	U	**200**	U	**390**	UJ
GCMW-21	059-2059	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**390**	UJ
GCMW-21	059-2060	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**400**	UJ
GCMW-42	059-2061	N	5	10	ft	**990**	U	**990**	U	**990**	U	**150**	J	**990**	U	--	**58**	J	**990**	U	**990**	U	**990**	U	**1,900**	U
GCMW-42	059-2062	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U
GCMW-42	059-2063	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	--	**11**	J	**200**	U	**200**	U	**200**	U	**400**	U
GCMW-42	059-2064	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	--	**26**	J	**190**	U	**190**	U	**190**	U	**370**	U
GCMW-42	059-2065	N	30	35	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	--	**11**	J	**200**	U	**200**	U	**200**	U	**380**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Phenanthrene		Phenol		Pyrene		Total PAHs	
GCMW-20	059-2067	N	5	10	ft	**360**	J	**1,400**	U	**1,500**		**12,003**	
GCMW-20	059-2068	N	10	15	ft	**2,700**		**49**	J	**1,600**	J	**13,422**	
GCMW-20	059-2069	N	25	30	ft	**130,000**		**60,000**	U	**58,000**	J	**898,500**	
GCMW-20	059-2070	N	30	35	ft	**500,000**		**57,000**	U	**240,000**		**3,903,000**	
GCMW-20	059-2071	N	35	40	ft	**47,000**		**4,100**	U	**19,000**		**218,800**	
GCMW-21	059-2055	N	5	10	ft	**140**	J	**21**	J	**170**	J	**1,066**	
GCMW-21	059-2056	N	10	15	ft	**160**	J	**18**	J	**180**	J	**1,086**	
GCMW-21	059-2057	N	15	20	ft	**200**	U	**11**	J	**200**	U	**6.9**	
GCMW-21	059-2058	N	20	25	ft	**200**	U	**8.4**	J	**200**	U	**6.7**	
GCMW-21	059-2059	N	25	30	ft	**200**	U	**10**	J	**200**	U	**0**	U
GCMW-21	059-2060	N	30	35	ft	**200**	U	**9.6**	J	**200**	U	**0**	U
GCMW-42	059-2061	N	5	10	ft	**72**	J	**990**	U	**390**	J	**2,068**	
GCMW-42	059-2062	N	15	20	ft	**200**	U	**6.5**	J	**200**	U	**19**	
GCMW-42	059-2063	N	20	25	ft	**15**	J	**6.6**	J	**7.1**	J	**46.6**	
GCMW-42	059-2064	N	25	30	ft	**24**	J	**5.7**	J	**17**	J	**136.5**	
GCMW-42	059-2065	N	30	35	ft	**9.4**	J	**200**	U	**13**	J	**49.8**	

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-20	059-2067	N	5	10	ft	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**5.4**	UJ	**2.8**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ
GCMW-20	059-2068	N	10	15	ft	**2.6**	UJ	**2.6**	UJ	**2.6**	UJ	**2.6**	UJ	**2.6**	UJ	**5.1**	UJ	**2.6**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ
GCMW-20	059-2069	N	25	30	ft	2	UR	2	UR	2	UR	2	UR	2	UR	**16**	J	**2**	UJ	**4**	UJ	4	UR	**4**	UJ	19	R
GCMW-20	059-2070	N	30	35	ft	**27**	J	2	UR	2	UR	**39**	NJ	2	UR	**15**	J	2	UR	3.9	UR	46	R	**6.3**	NJ	**20**	NJ
GCMW-20	059-2071	N	35	40	ft	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4**	J	**2.1**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	5.3	R
GCMW-21	059-2055	N	5	10	ft	**3**	U	**3**	U	**3**	U	**0.52**	J	**3**	U	**5.8**	U	**3**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-21	059-2056	N	10	15	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**5.8**	U	**3**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-21	059-2057	N	15	20	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-21	059-2058	N	20	25	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-21	059-2059	N	25	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-21	059-2060	N	30	35	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-42	059-2061	N	5	10	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.9**	UJ	**2**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ
GCMW-42	059-2062	N	15	20	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.9**	UJ	**2**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ
GCMW-42	059-2063	N	20	25	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**4**	UJ	**2**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**4**	UJ
GCMW-42	059-2064	N	25	30	ft	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**0.18**	J	**3.8**	UJ	**1.9**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ
GCMW-42	059-2065	N	30	35	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.8**	UJ	**2**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-20	059-2067	N	5	10	ft	**5.4**	UJ	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**2.8**	UJ	**28**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**280**	UJ	**0**	U
GCMW-20	059-2068	N	10	15	ft	**5.1**	UJ	**2.6**	UJ	**2.6**	UJ	**2.6**	UJ	**2.6**	UJ	**26**	UJ	**5.1**	UJ	**0.48**	J	**5.1**	UJ	**260**	UJ	**0.48**	
GCMW-20	059-2069	N	25	30	ft	7.1	R	2	UR	**17**	J	**2**	UJ	2	UR	**39**	J	**6.7**	J	**3.6**	J	**37**	J	200	UR	**47.3**	
GCMW-20	059-2070	N	30	35	ft	5.5	R	2	UR	2	UR	2	UR	2	UR	**20**	UJ	8.5	R	**4.9**	NJ	**35**	J	200	UR	--	
GCMW-20	059-2071	N	35	40	ft	**4**	UJ	**2.1**	UJ	**5.2**	J	**2.1**	UJ	**2.1**	UJ	**12**	J	**4**	UJ	**4**	UJ	**9.3**	J	**210**	UJ	**9.3**	
GCMW-21	059-2055	N	5	10	ft	**5.8**	U	**3**	U	**3**	U	**3**	U	**3**	U	**30**	U	**5.8**	U	**5.8**	U	**5.8**	U	**300**	U	**0**	U
GCMW-21	059-2056	N	10	15	ft	**5.8**	U	**3**	U	**3**	U	**3**	U	**3**	U	**30**	U	**5.8**	U	**5.8**	U	**5.8**	U	**300**	U	**0**	U
GCMW-21	059-2057	N	15	20	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-21	059-2058	N	20	25	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-21	059-2059	N	25	30	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-21	059-2060	N	30	35	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-42	059-2061	N	5	10	ft	**0.2**	J	**0.18**	J	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.9**	UJ	**1.7**	J	**3.9**	UJ	**200**	UJ	**1.7**	
GCMW-42	059-2062	N	15	20	ft	**3.9**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.9**	UJ	**3.9**	UJ	**3.9**	UJ	**200**	UJ	**0**	U
GCMW-42	059-2063	N	20	25	ft	**4**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**200**	UJ	**0**	U
GCMW-42	059-2064	N	25	30	ft	**0.23**	J	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**19**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**190**	UJ	**0**	U
GCMW-42	059-2065	N	30	35	ft	**3.8**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.8**	UJ	**3.8**	UJ	**1**	J	**200**	UJ	**1**	

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-20	059-2067	N	5	10	ft	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**0**	U
GCMW-20	059-2068	N	10	15	ft	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**0**	U
GCMW-20	059-2069	N	25	30	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-20	059-2070	N	30	35	ft	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**390**	U	**0**	U
GCMW-20	059-2071	N	35	40	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-21	059-2055	N	5	10	ft	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**0**	U
GCMW-21	059-2056	N	10	15	ft	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**0**	U
GCMW-21	059-2057	N	15	20	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-21	059-2058	N	20	25	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-21	059-2059	N	25	30	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-21	059-2060	N	30	35	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-42	059-2061	N	5	10	ft	**39**	U	**39**	U	**39**	U	**39**	U	**69**	J	**39**	U	**39**	U	**39**	U	**39**	U	**69**	
GCMW-42	059-2062	N	15	20	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-42	059-2063	N	20	25	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-42	059-2064	N	25	30	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-42	059-2065	N	30	35	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-20	059-2067	N	5	10	ft	**7,180**	**1.2** J	**46.3**	**147**	**1.3**	**0.2** J	**6,750**	**16.5**	**18.2**	**112**	**16,900**
GCMW-20	059-2068	N	10	15	ft	**13,300**	**0.5** J	**9.3**	**33.9**	**0.71** J	**0.33** J	**2,940**	**28.8**	**9**	**18.1**	**31,000**
GCMW-20	059-2069	N	25	30	ft	**2,250**	**7.3** UJ	**2**	**15.4** J	**0.14** J	**0.61** U	**610** U	**7.1**	**1.8** J	**2.5** J	**5,030**
GCMW-20	059-2070	N	30	35	ft	**3,470**	**6.9** UJ	**1.6**	**21.1** J	**0.26** J	**0.57** U	**572** U	**11.4**	**4.9** J	**5.4**	**5,740**
GCMW-20	059-2071	N	35	40	ft	**4,110**	**7.3** UJ	**1.6**	**25.5**	**0.3** J	**0.015** J	**799**	**8.8**	**4.9** J	**6.8**	**7,820**
GCMW-21	059-2055	N	5	10	ft	**13,700**	**10.9** U	**6.8**	**32** J	**0.91** U	**0.17** J	**2,130**	**27.8**	**8.6** J	**28.1**	**30,600**
GCMW-21	059-2056	N	10	15	ft	**13,800**	**10.2** U	**7.6**	**34.6**	**0.72** J	**0.29** J	**2,000**	**28.5**	**9.4**	**18.1**	**32,000**
GCMW-21	059-2057	N	15	20	ft	**2,470**	**7.3** UJ	**4.3**	**4.7** J	**0.33** J	**0.61** U	**612** U	**6.4**	**1.9** J	**4.9**	**8,300**
GCMW-21	059-2058	N	20	25	ft	**6,710**	**7** UJ	**3.5**	**18** J	**0.39** J	**0.017** J	**583** U	**11.4**	**6.2**	**10.3**	**13,000**
GCMW-21	059-2059	N	25	30	ft	**2,030**	**6.9** UJ	**0.7** J	**8.2** J	**0.14** J	**0.57** U	**575** U	**4.6**	**2.1** J	**2.4** J	**4,570**
GCMW-21	059-2060	N	30	35	ft	**5,090**	**7.2** UJ	**2.8**	**26.9**	**0.39** J	**0.6** U	**844**	**12.4**	**5.7** J	**8.9**	**9,110**
GCMW-42	059-2061	N	5	10	ft	**28,300**	**7.1** UJ	**2.9**	**45.8**	**0.26** J	**0.14** J	**18,500**	**42.9**	**7.6**	**111**	**13,700**
GCMW-42	059-2062	N	15	20	ft	**3,720**	**7.2** UJ	**2.4**	**7.3** J	**0.23** J	**0.6** U	**601** U	**7.7**	**3.2** J	**5.2**	**8,660**
GCMW-42	059-2063	N	20	25	ft	**4,670**	**6.9** UJ	**3.4**	**17.1** J	**0.42** J	**0.57** U	**573** U	**9.6**	**4.4** J	**6.2**	**11,400**
GCMW-42	059-2064	N	25	30	ft	**4,700**	**7** UJ	**3.4**	**34**	**0.38** J	**0.069** J	**922**	**13.5**	**6.9**	**8.1**	**8,240**
GCMW-42	059-2065	N	30	35	ft	**2,890**	**6.9** UJ	**2.5**	**12** J	**0.19** J	**0.57** U	**572** U	**6.8**	**2.8** J	**5.4**	**6,140**

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-20	059-2067	N	5	10	ft	533	3,050	163	4.2	33	1,500	0.84 J	0.13 J	1,000	3.2 U	20.4	198	0.25 J
GCMW-20	059-2068	N	10	15	ft	32.6	6,220	361	0.36	27.7	2,870	5.3 U	1.5 U	1,990	3.8 U	31.1	70.3	3.8 U
GCMW-20	059-2069	N	25	30	ft	2.3	869	46.6	0.12 U	5.4	355 J	4.3 U	1.2 U	610 U	3 U	5 J	12.5	3 U
GCMW-20	059-2070	N	30	35	ft	4	1,340	49.4	0.11 U	11.3	545 J	4 U	1.1 U	572 U	2.9 U	9.9	21.6	2.9 U
GCMW-20	059-2071	N	35	40	ft	4.9	1,960	71.5	0.12 U	11.5	678	4.2 U	1.2 U	599 U	3 U	12.3	25.5	3 U
GCMW-21	059-2055	N	5	10	ft	32.1	5,940	290	0.21	24.6	3,420	6.4 U	1.8 U	2,940	4.6 U	32.7	79	4.6 U
GCMW-21	059-2056	N	10	15	ft	30.1	6,100	329	0.17 U	25.9	3,290	5.9 U	1.7 U	2,960	4.2 U	31.7	73.5	4.3 U
GCMW-21	059-2057	N	15	20	ft	2.8	610 J	52.7	0.13 U	4.9 J	475 J	4.3 U	1.2 U	612 U	3.1 U	12.8	18.4	3.2 U
GCMW-21	059-2058	N	20	25	ft	5.7	2,350	66.5	0.12 U	12.3	1,020	4.1 U	1.2 U	583 U	2.9 U	15.7	35.7	2.8 U
GCMW-21	059-2059	N	25	30	ft	2.2	801	32.5	0.12 U	4.7	319 J	4 U	1.2 U	575 U	2.9 U	5.5 J	11.7	2.9 U
GCMW-21	059-2060	N	30	35	ft	6.2	2,410	79	0.12 U	14.9	1,040	4.2 U	1.2 U	598 U	3 U	17.6	31.5	2.9 U
GCMW-42	059-2061	N	5	10	ft	46.2	5,390	130	0.37	18.8	1,540	4.1 U	1.2 U	6,120	2.9 U	44.3	53.3	2.9 U
GCMW-42	059-2062	N	15	20	ft	3.7	1,070	61	0.12 U	6.2	603	4.2 U	1.2 U	601 U	3 U	10.5	17	3 U
GCMW-42	059-2063	N	20	25	ft	5	1,390	57.6	0.12 U	8.6	729	4 U	1.1 U	573 U	2.9 U	17.3	28	2.8 U
GCMW-42	059-2064	N	25	30	ft	5.3	1,940	73	0.12 U	19	778	4.1 U	1.2 U	581 U	2.9 U	16.5	31.6	0.54 J
GCMW-42	059-2065	N	30	35	ft	3.6	1,430	50.5	0.12 U	8.9	508 J	4 U	1.1 U	572 U	2.9 U	8.9	15.5	0.22 J

B&A 9th St. Warehouse

(MW20 & MW21 & MW42)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

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B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-20	GC-MW20I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-20	GC-MW20S	N	Shallow	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-21	GC-MW21I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-21	GC-MW21S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-42	GC-MW42I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-42	GC-MW42S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane	
MW-20	GC-MW20I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**350**	J	**0.5**	U	**0.5**	U
MW-20	GC-MW20S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.8**		**0.5**	U	**0.5**	U
MW-21	GC-MW21I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-21	GC-MW21S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-42	GC-MW42I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-42	GC-MW42S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene
MW-20	GC-MW20I	N	Intermediate	**0.5** U	0.5 UR	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ
MW-20	GC-MW20S	N	Shallow	**0.5** U	0.5 UR	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ
MW-21	GC-MW21I	N	Intermediate	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-21	GC-MW21S	N	Shallow	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-42	GC-MW42I	N	Intermediate	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-42	GC-MW42S	N	Shallow	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride
MW-20	GC-MW20I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**250** J	**32** J	**250** J	**3.6** J	**5** U	**5** U	**0.5** U	**0.5** UJ
MW-20	GC-MW20S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**3.4**	**0.52**	**3.4**	**0.5** UJ	**5** U	**5** U	**0.5** U	**0.5** UJ
MW-21	GC-MW21I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U
MW-21	GC-MW21S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U
MW-42	GC-MW42I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.35** J
MW-42	GC-MW42S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.39** J

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
VOC Concentrations in Groundwater (ug/L)
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Location ID	Field ID	Sample Type	Depth	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-20	GC-MW20I	N	Intermediate	**110**	J	**16**	J	**0.5**	UJ	**0.5**	U	**250**	J	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-20	GC-MW20S	N	Shallow	**1.9**		**0.5**	U	**0.5**	UJ	**0.5**	U	**0.42**	J	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-21	GC-MW21I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-21	GC-MW21S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-42	GC-MW42I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-42	GC-MW42S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.54**		**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Wet or Dry	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-20	GC-MW20I	N	Intermediate	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**50**	UJ	**50**	U	**50**	U	**50**	U
MW-20	GC-MW20S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-21	GC-MW21I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-21	GC-MW21S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-42	GC-MW42I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-42	GC-MW42S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Wet or Dry	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
MW-20	GC-MW20I	N	Intermediate	**600**		**50**	U	**100**	U	**50**	U	**50**	U	**100**	U	**100**	U	**50**	U	**50**	U	**50**	U	**50**	U
MW-20	GC-MW20S	N	Shallow	**24**	J	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-21	GC-MW21I	N	Intermediate	**0.066**	J	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-21	GC-MW21S	N	Shallow	**0.1**	U	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-42	GC-MW42I	N	Intermediate	**0.1**	U	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-42	GC-MW42S	N	Shallow	**0.13**	U	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Wet or Dry	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
MW-20	GC-MW20I	N	Intermediate	**50**	U	**100**	U	**100**	U	**94**		**81**		**50**	U	**8.5**	J	**50**	U	**50**	UJ	**1**	U	**1**	U	**1**	U
MW-20	GC-MW20S	N	Shallow	**5**	U	**10**	U	**10**	U	**7.2**	J	**6.6**	J	**5**	U	**3**	J	**5**	U	**5**	UJ	**0.36**		**0.1**	U	**0.1**	U
MW-21	GC-MW21I	N	Intermediate	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	UJ	**0.1**	U	**0.1**	U	**0.1**	U
MW-21	GC-MW21S	N	Shallow	**5**	U	**10**	U	**10**	U	**1.2**	J	**0.1**	U	**5**	U	**0.6**		**5**	U	**5**	UJ	**0.1**	U	**0.1**	U	**0.1**	U
MW-42	GC-MW42I	N	Intermediate	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	UJ	**0.1**	U	**0.1**	U	**0.1**	U
MW-42	GC-MW42S	N	Shallow	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	UJ	**0.1**	U	**0.1**	U	**0.1**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
MW-20	GC-MW20I	N	Intermediate	**1.1**	UJ	**1**	U	**50**	U	**36**	J	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**16**	J	**1**	U
MW-20	GC-MW20S	N	Shallow	**0.28**	UJ	**0.1**	U	**5**	U	**1.3**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.25**	
MW-21	GC-MW21I	N	Intermediate	**0.51**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U
MW-21	GC-MW21S	N	Shallow	**0.37**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U
MW-42	GC-MW42I	N	Intermediate	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**2.4**	J	**5**	U	**5**	U	**0.1**	U
MW-42	GC-MW42S	N	Shallow	**0.11**		**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**1.1**	J	**5**	U	**5**	U	**0.1**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene	
MW-20	GC-MW20I	N	Intermediate	**1**	U	**6.8**	J	**50**	U	**50**	U	**50**	U	**50**	U	**3.1**	J	**48**	J	**50**	U	**50**	U	**50**	U
MW-20	GC-MW20S	N	Shallow	**0.1**	U	**5**	U	**5**	U	**1.2**	J	**5**	U	**5**	U	**2.7**	J	**9.1**	J	**5**	U	**5**	U	**5**	U
MW-21	GC-MW21I	N	Intermediate	**0.1**	U	**5**	U	**5**	U	**2**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U
MW-21	GC-MW21S	N	Shallow	**0.12**		**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.6**		**0.5**	J	**5**	U	**5**	U	**5**	U
MW-42	GC-MW42I	N	Intermediate	**0.1**	U	**5**	U	**5**	U	**2**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U
MW-42	GC-MW42S	N	Shallow	**0.12**		**5**	U	**5**	U	**1.8**	J	**5**	U	**5**	U	**0.16**		**0.1**	U	**5**	U	**5**	U	**5**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol	
MW-20	GC-MW20I	N	Intermediate	**50**	U	**1.1**	UJ	**50**	U	**3,100**	J	**50**	U	**50**	U	**50**	U	**2**	U	**50**	J	**50**	U
MW-20	GC-MW20S	N	Shallow	**5**	U	**0.18**	UJ	**5**	U	**42**	J	**5**	U	**5**	U	**5**	U	**0.2**	U	**9.1**	J	**5**	U
MW-21	GC-MW21I	N	Intermediate	**5**	U	**0.19**	U	**5**	U	**0.19**		**5**	U	**5**	U	**5**	U	**0.2**	UJ	**0.1**	UJ	**5**	U
MW-21	GC-MW21S	N	Shallow	**5**	U	**0.2**	U	**5**	U	**2.2**	J	**5**	U	**5**	U	**5**	U	**0.2**	UJ	**1.5**	J	**5**	U
MW-42	GC-MW42I	N	Intermediate	**5**	U	**0.1**	UJ	**5**	U	**1.3**	J	**5**	U	**5**	U	**5**	U	**0.2**	UJ	**0.1**	U	**5**	U
MW-42	GC-MW42S	N	Shallow	**5**	U	**0.16**		**5**	U	**2.4**	J	**5**	U	**5**	U	**5**	U	**0.2**	U	**0.1**	U	**5**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Pyrene		Total PAHs
MW-20	GC-MW20I	N	Intermediate	**4.8**	J	**3,989**
MW-20	GC-MW20S	N	Shallow	**4.6**	J	**108.91**
MW-21	GC-MW21I	N	Intermediate	**0.1**	U	**0.256**
MW-21	GC-MW21S	N	Shallow	**0.43**	J	**7.15**
MW-42	GC-MW42I	N	Intermediate	**0.1**	U	**1.3**
MW-42	GC-MW42S	N	Shallow	**0.1**	U	**2.95**

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
MW-20	GC-MW20I	N	Intermediate	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-20	GC-MW20S	N	Shallow	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-21	GC-MW21I	N	Intermediate	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-21	GC-MW21S	N	Shallow	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-42	GC-MW42I	N	Intermediate	**0.05** U	**0.05** U	0.05 UR	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-42	GC-MW42S	N	Shallow	**0.05** U	**0.05** U	0.05 UR	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-20	GC-MW20I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-20	GC-MW20S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-21	GC-MW21I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-21	GC-MW21S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-42	GC-MW42I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-42	GC-MW42S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-20	GC-MW20I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-20	GC-MW20S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-21	GC-MW21I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-21	GC-MW21S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-42	GC-MW42I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-42	GC-MW42S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Cadmium	Cadmium, dissolved	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved
MW-20	GC-MW20I	N	Intermediate	**362**	**200** U	**2** U	**2** U	**1.3** J	**0.83** J	**872**	**906**	**1** U	**1** U	**1** U	**1** U	**145,000**	**138,000**	**41.4**	**2.5**
MW-20	GC-MW20S	N	Shallow	**200** U	**200** U	**4** U	**2** U	**14.5** J	**3.7** J	**36.9** J	**59.7** J	**2** U	**1** U	**2** U	**1** U	**176,000**	**143,000**	**8.6**	**1.3** J
MW-21	GC-MW21I	N	Intermediate	**200** U	**200** U	**2** U	**2** U	**107** J	**112** J	**45.1**	**45.8**	**1** U	**1** U	**1** U	**1** U	**25,200**	**24,000**	**2.3**	**1.6** J
MW-21	GC-MW21S	N	Shallow	**200** U	**200** U	**2** U	**2** U	**2.9** J	**2.4** J	**158**	**165**	**1** U	**1** U	**1** U	**1** U	**95,400**	**93,200**	**1.4** J	**1.1** J
MW-42	GC-MW42I	N	Intermediate	**200** U	**200** U	**2** U	**2** U	**24.1** J	**25.7**	**74.4**	**75.5**	**1** U	**1** U	**1** U	**1** U	**60,000**	**57,400**	**1.1** J	**0.58** J
MW-42	GC-MW42S	N	Shallow	**3,000** U	**3,000** U	**2** U	**20** U	1.7 R	14.3 R	**7.5** J	**67.8** J	**1** U	**10** U	**1** U	**10** U	**221,000**	**238,000**	**0.68** J	**6.6** J

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Metal and Cyanide Concentrations in Groundwater (
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved
MW-20	GC-MW20I	N	Intermediate	**11.4**	**4.1**	**31.3**	**25** U	**20,800**	**21,600**	**2.7**	**1** U	**122,000**	**113,000**	**929**	**936**	**0.074** J	**0.2** U
MW-20	GC-MW20S	N	Shallow	**2.6**	**1.7**	**12.8** J	**25** U	**24,000**	**5,330**	**0.74** J	**1** U	**412,000**	**327,000**	**138**	**142**	**0.074** J	**0.051** J
MW-21	GC-MW21I	N	Intermediate	**1** U	**1** U	**25** U	**25** U	**1,120**	**1,010**	**0.24** J	**1** U	**23,100**	**22,400**	**211**	**205**	**0.086** J	**0.075** J
MW-21	GC-MW21S	N	Shallow	**0.27** J	**0.23** J	**25** U	**25** U	**3,360**	**3,390**	**2.2**	**0.26** J	**27,400**	**27,900**	**594**	**601**	**0.096** J	**0.063** J
MW-42	GC-MW42I	N	Intermediate	**1.1**	**1.3**	**25** U	**25** U	**1,960**	**1,780**	**1** U	**1** U	**54,700**	**52,400**	**121** J	**137**	**0.069** J	**0.2** U
MW-42	GC-MW42S	N	Shallow	**1** U	**10** U	**375** U	**375** U	**1,500** U	**1,500** U	**1** U	**10** U	**624,000**	**675,000**	11.8 R	125 R	**0.071** J	**0.2** U

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Metal and Cyanide Concentrations in Groundwater (
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Nickel		Nickel, dissolved		Potassium	Potassium, dissolved	Selenium		Selenium, dissolved		Silver		Silver, dissolved		Sodium	Sodium, dissolved	Thallium		Thallium, dissolved		Vanadium		Vanadium, dissolved		Zinc	
MW-20	GC-MW20I	N	Intermediate	**24.4**	J	**14.5**	J	**61,700**	**57,800**	**5**	UJ	**5**	UJ	**0.16**	J	**1**	U	**978,000**	**853,000**	**1**	U	**1**	U	**4.3**	J	**5**	U	**43.4**	
MW-20	GC-MW20S	N	Shallow	**39.9**	J	**49.1**	J	**186,000**	**146,000**	**10**	UJ	**5**	UJ	**2**	UJ	**1**	U	**2,410,000**	**2,020,000**	**2**	U	**1**	U	**25.2**		**25.5**		**32**	
MW-21	GC-MW21I	N	Intermediate	**1.3**	J	**2**	J	**31,300**	**29,300**	**5**	UJ	**1.2**	J	**1**	UJ	**1**	U	**416,000**	**392,000**	**1**	U	**1**	U	**5**	U	**5**	U	**4.9**	
MW-21	GC-MW21S	N	Shallow	**2.2**	J	**1.9**	J	**36,000**	**36,500**	**5**	UJ	**0.97**	J	**1**	UJ	**1**	U	**203,000**	**203,000**	**1**	U	**1**	U	**5**	U	**5**	U	**3**	
MW-42	GC-MW42I	N	Intermediate	**1.3**	J	**0.86**	J	**33,100**	**32,500**	**1.2**	J	**1.6**	J	**1**	UJ	**1**	U	**540,000**	**520,000**	**1**	U	**1**	U	**5**	U	**5**	U	**2.6**	J
MW-42	GC-MW42S	N	Shallow	**0.74**	J	**8.3**	J	**210,000**	**222,000**	**3.1**	J	**30.2**	J	**1**	UJ	**1.6**	J	**4,690,000**	**4,990,000**	**1**	U	**10**	U	**5**	U	**50**	U	**3.4**	J

B&A 9th St. Warehouse (MW20 & MW21 & MW42)
Metal and Cyanide Concentrations in Groundwater (
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Zinc, dissolved		Cyanide, Total	
MW-20	GC-MW20I	N	Intermediate	**14.3**		**9.9**	J
MW-20	GC-MW20S	N	Shallow	**30.5**		**10**	U
MW-21	GC-MW21I	N	Intermediate	**2.5**		**10**	U
MW-21	GC-MW21S	N	Shallow	**1.2**	J	**10**	U
MW-42	GC-MW42I	N	Intermediate	**1.9**	J	**52.4**	
MW-42	GC-MW42S	N	Shallow	**14.5**	J	**10**	U

503 – 537 Smith St.

(MW11 & MW12)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 503-537 Smith St.
Monitoring Well Soil Borings Installed at Address: GC-MW-11 & GC-MW-12
Intermediate Monitoring Wells Installed at Address: GC-MW-11I & GC-MW-12I
Shallow Monitoring Wells Installed at Address: GC-MW-11S & GC-MW-12S

GC-MW-11

The soil samples from the soil boring installed for the intermediate well (situated approximately 67 feet from the canal) contained 77 VOCs, 171 SVOCs, 29 pesticides, 0 PCBs, and 142 metals. From these, 14 VOCs, 29 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (100,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (3,100,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 67 feet from the canal) contained 9 VOCs, 15 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 7 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (610 J µg/L). The SVOC occurring at the highest concentration above screening criteria was 2,4-dimethylphenol (330 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (9,720 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately45 ft bgs and situated approximately 67 feet from the canal) contained 8 VOCs, 12 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 7 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (690 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (45 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (5,050 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-12

The soil samples from the soil boring installed for the intermediate well (situated approximately 205 feet from the canal) contained 65 VOCs, 74 SVOCs, 2 pesticides, 0 PCBs, and 137 metals. From these, 10 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was m,p xylenes (170,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 205 feet from the canal) contained 9 VOCs, 12 SVOCs, 0 pesticides, 0 PCBs, and 18 metals. From these, 6 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was toluene (13,000 J µg/L). The SVOC occurring at the highest concentration above screening criteria was 2,4-dimethylphenol (22 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (26,700 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately45 ft bgs and situated approximately 205 feet from the canal) contained 8 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 15 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was 1,2-dichloroethane (30 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (20,400 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
GCMW-11	059-2046	N	7	7.5	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-11	059-2047	N	10	10.5	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-11	059-2048	N	10	15	ft	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U
GCMW-11	059-2049	N	15	20	ft	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U
GCMW-11	059-2050	N	20	25	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U
GCMW-11	059-2051	N	25	30	ft	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U
GCMW-11	059-2052	N	36	36.5	ft	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U
GCMW-11	059-2053	N	39	39.5	ft	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U
GCMW-11	059-2054	N	40	45	ft	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U
GCMW-12	059-2036	N	5	10	ft	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U
GCMW-12	059-2037	N	10	15	ft	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U
GCMW-12	059-2038	N	16.5	17	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-12	059-2039	N	20	20.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-12	059-2040	N	26.5	27	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-12	059-2041	N	29.5	30	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-12	059-2042	N	30	35	ft	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U
GCMW-12	059-2043	N	35	40	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-12	059-2044	N	40	45	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane	
GCMW-11	059-2046	N	7	7.5	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**39**		**4.9**	J	**5.2**	U
GCMW-11	059-2047	N	10	10.5	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**33**		**70**		**5.2**	U
GCMW-11	059-2048	N	10	15	ft	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U	7,500	UR	**750**	U	**750**	U	**120**	J	**370**	U
GCMW-11	059-2049	N	15	20	ft	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	170	UR	**17**	U	**47**		**3.3**	J	**8.5**	U
GCMW-11	059-2050	N	20	25	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	130	UR	**13**	U	**41**		**220**	J	**6.3**	U
GCMW-11	059-2051	N	25	30	ft	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U	7,100	UR	**710**	U	**710**	U	**97**	J	**360**	U
GCMW-11	059-2052	N	36	36.5	ft	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	500,000	UR	**50,000**	U	**50,000**	U	**11,000**	J	**25,000**	U
GCMW-11	059-2053	N	39	39.5	ft	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	74,000	UR	**7,400**	U	**7,400**	U	**920**	J	**3,700**	U
GCMW-11	059-2054	N	40	45	ft	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	130	UR	**13**	U	**13**	U	**2.3**	J	**6.6**	U
GCMW-12	059-2036	N	5	10	ft	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	130,000	UR	**13,000**	U	**13,000**	U	**9,600**		**6,500**	U
GCMW-12	059-2037	N	10	15	ft	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	6,400	UR	**640**	U	**640**	U	**2,300**		**320**	U
GCMW-12	059-2038	N	16.5	17	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	6,000	UR	**600**	U	**600**	U	**310**		**300**	U
GCMW-12	059-2039	N	20	20.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	110	UR	**11**	U	**33**		**140**		**5.3**	U
GCMW-12	059-2040	N	26.5	27	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	110	UR	**11**	U	**25**		**3**	J	**5.3**	U
GCMW-12	059-2041	N	29.5	30	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**31**		**2.3**	J	**5.1**	U
GCMW-12	059-2042	N	30	35	ft	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U	6,400	UR	**640**	U	**640**	U	**320**	U	**320**	U
GCMW-12	059-2043	N	35	40	ft	**5.1**	U	**14**		**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**33**		**1.4**	J	**5.1**	U
GCMW-12	059-2044	N	40	45	ft	**4.8**	U	**19**		**4.8**	U	**4.8**	U	**4.8**	U	96	UR	**9.6**	U	**30**		**4.8**	U	**4.8**	U

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane	
GCMW-11	059-2046	N	7	7.5	ft	5.2	U	5.2	U	5.2	U	2.6	J	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U
GCMW-11	059-2047	N	10	10.5	ft	5.2	U	5.2	U	5.2	U	1.5	J	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U
GCMW-11	059-2048	N	10	15	ft	370	U	370	U	370	U	47	J	370	U	370	U	370	U	370	U	370	U	370	U	370	U	370	U
GCMW-11	059-2049	N	15	20	ft	8.5	U	8.5	U	8.5	U	28		8.5	U	8.5	U	8.5	U	8.5	U	8.5	U	8.5	U	8.5	U	8.5	U
GCMW-11	059-2050	N	20	25	ft	6.3	U	6.3	U	6.3	U	18		6.3	U	6.3	U	6.3	U	0.6	J	6.3	U	6.3	U	6.3	U	34	
GCMW-11	059-2051	N	25	30	ft	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U
GCMW-11	059-2052	N	36	36.5	ft	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U	25,000	U
GCMW-11	059-2053	N	39	39.5	ft	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U	3,700	U
GCMW-11	059-2054	N	40	45	ft	6.6	U	6.6	U	6.6	U	6.6	U	6.6	U	6.6	U	6.6	U	6.6	U	6.6	U	0.58	J	6.6	U	6.6	U
GCMW-12	059-2036	N	5	10	ft	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U	45,000	
GCMW-12	059-2037	N	10	15	ft	320	U	320	U	320	U	320	U	320	U	320	U	320	U	320	U	320	U	320	U	320	U	740	
GCMW-12	059-2038	N	16.5	17	ft	300	U	300	U	300	U	300	U	300	U	300	U	300	U	300	U	300	U	300	U	300	U	63	J
GCMW-12	059-2039	N	20	20.5	ft	5.3	U	5.3	U	5.3	U	0.68	J	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	7.9	
GCMW-12	059-2040	N	26.5	27	ft	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	12	
GCMW-12	059-2041	N	29.5	30	ft	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
GCMW-12	059-2042	N	30	35	ft	320	U	320	U	320	U	62	J	320	U	320	U	320	U	320	U	320	U	320	U	320	U	320	U
GCMW-12	059-2043	N	35	40	ft	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
GCMW-12	059-2044	N	40	45	ft	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U	4.8	U

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride	
GCMW-11	059-2046	N	7	7.5	ft	5.2	U	5.2	U	2	J	5.9		6.5		5.2	U	10	U	10	U	2	J	5.2	U
GCMW-11	059-2047	N	10	10.5	ft	5.2	U	5.2	U	65		15		190		5.2	U	7.2	J	10	U	1.5	J	5.2	U
GCMW-11	059-2048	N	10	15	ft	370	U	370	U	66	J	20	J	67	J	370	U	750	U	750	U	370	U	370	U
GCMW-11	059-2049	N	15	20	ft	8.5	U	8.5	U	0.57	J	8.5	U	1.1	J	8.5	U	10	J	17	U	8.5	U	8.5	U
GCMW-11	059-2050	N	20	25	ft	6.3	U	6.3	U	19	J	9.9	J	52	J	6.3	U	13	U	13	U	11		6.3	U
GCMW-11	059-2051	N	25	30	ft	360	U	360	U	170	J	160	J	170	J	360	U	710	U	710	U	360	U	360	U
GCMW-11	059-2052	N	36	36.5	ft	25,000	U	25,000	U	100,000		17,000	J	96,000		25,000	U	50,000	U	50,000	U	25,000	U	25,000	U
GCMW-11	059-2053	N	39	39.5	ft	3,700	U	3,700	U	1,900	J	210	J	6,900		3,700	U	7,400	U	7,400	U	3,700	U	3,700	U
GCMW-11	059-2054	N	40	45	ft	6.6	U	6.6	U	3.6	J	0.33	J	1.4	J	6.6	U	13	U	13	U	6.6	U	6.6	U
GCMW-12	059-2036	N	5	10	ft	6,500	U	6,500	U	51,000		9,500		170,000		6,500	U	13,000	U	13,000	U	17,000		6,500	U
GCMW-12	059-2037	N	10	15	ft	320	U	320	U	710		85	J	2,400		320	U	640	U	640	U	200	J	320	U
GCMW-12	059-2038	N	16.5	17	ft	300	U	300	U	270	J	17	J	740		300	U	600	U	600	U	300	U	300	U
GCMW-12	059-2039	N	20	20.5	ft	5.3	U	5.3	U	140		6.2		69		5.3	U	11	U	11	U	3.2	J	5.3	U
GCMW-12	059-2040	N	26.5	27	ft	5.3	U	5.3	U	0.58	J	0.19	J	1.4	J	5.3	U	6.5	J	11	U	6.5		5.3	U
GCMW-12	059-2041	N	29.5	30	ft	5.1	U	5.1	U	0.33	J	5.1	U	--		5.1	U	10	U	10	U	5.1	U	5.1	U
GCMW-12	059-2042	N	30	35	ft	320	U	320	U	14	J	320	U	30	J	320	U	640	U	640	U	320	U	320	U
GCMW-12	059-2043	N	35	40	ft	5.1	U	5.1	U	0.2	J	5.1	U	0.52	J	5.1	U	10	U	10	U	5.1	U	5.1	U
GCMW-12	059-2044	N	40	45	ft	4.8	U	4.8	U	0.2	J	4.8	U	0.45	J	4.8	U	9.6	U	9.6	U	4.8	U	4.8	U

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-11	059-2046	N	7	7.5	ft	**4.3**	J	**5.2**	U	**1**	J	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**1.2**	J	**5.2**	U
GCMW-11	059-2047	N	10	10.5	ft	**83**		**5.2**	U	**7.9**		**5.2**	U	**6.3**		**5.2**	U	**5.2**	U	**5.2**	U	**0.64**	J	**5.2**	U
GCMW-11	059-2048	N	10	15	ft	**41**	J	**370**	U	**18**	J	**370**	U	**41**	J	**370**	U	**370**	U	**370**	U	**370**	U	**370**	U
GCMW-11	059-2049	N	15	20	ft	**0.35**	J	**8.5**	U	**1.3**	J	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**8.5**	U	**3**	J	**8.5**	U
GCMW-11	059-2050	N	20	25	ft	**13**	J	**6.3**	U	**23**	J	**6.3**	U	**71**	J	**6.3**	U	**6.3**	U	**6.3**	U	**0.58**	J	**6.3**	U
GCMW-11	059-2051	N	25	30	ft	**86**	J	**360**	U	**360**	U	**360**	U	**59**	J	**360**	U	**360**	U	**360**	U	**360**	U	**360**	U
GCMW-11	059-2052	N	36	36.5	ft	**42,000**		**25,000**	U	**25,000**	U	**25,000**	U	**23,000**	J	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U	**25,000**	U
GCMW-11	059-2053	N	39	39.5	ft	**3,200**	J	**9,500**		**3,700**	U	**3,700**	U	**2,100**	J	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U	**3,700**	U
GCMW-11	059-2054	N	40	45	ft	**1**	J	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U	**6.6**	U
GCMW-12	059-2036	N	5	10	ft	**69,000**		**6,500**	U	**6,500**	U	**6,500**	U	**97,000**		**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U
GCMW-12	059-2037	N	10	15	ft	**970**		**320**	U	**320**	U	**320**	U	**3,600**		**320**	U	**320**	U	**320**	U	**320**	U	**320**	U
GCMW-12	059-2038	N	16.5	17	ft	**330**		**300**	U	**300**	U	**300**	U	**520**		**300**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-12	059-2039	N	20	20.5	ft	**17**		**5.3**	U	**5.3**	U	**5.3**	U	**7.6**		**5.3**	U	**5.3**	U	**5.3**	U	**0.42**	J	**5.3**	U
GCMW-12	059-2040	N	26.5	27	ft	**0.59**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-12	059-2041	N	29.5	30	ft	**0.3**	J	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-12	059-2042	N	30	35	ft	**320**	U	**320**	U	**400**		**320**	U	**52**	J	**320**	U	**320**	U	**320**	U	**320**	U	**320**	U
GCMW-12	059-2043	N	35	40	ft	**0.23**	J	**5.1**	U	**10**		**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-12	059-2044	N	40	45	ft	**0.24**	J	**4.8**	U	**18**		**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-11	059-2046	N	7	7.5	ft	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**6,000**	U
GCMW-11	059-2047	N	10	10.5	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**97**	J	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-11	059-2048	N	10	15	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**160**	J	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-11	059-2049	N	15	20	ft	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**530**	U	**270**	U	**270**	U	**270**	U
GCMW-11	059-2050	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-11	059-2051	N	25	30	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**2,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-11	059-2052	N	36	36.5	ft	**55,000**	U	**55,000**	U	**55,000**	U	**55,000**	U	**55,000**	U	**55,000**	U	**110,000**	U	**55,000**	U	**55,000**	U	**55,000**	U
GCMW-11	059-2053	N	39	39.5	ft	**62,000**	U	**62,000**	U	**62,000**	U	**62,000**	U	**62,000**	U	**62,000**	U	**120,000**	U	**62,000**	U	**62,000**	U	**62,000**	U
GCMW-11	059-2054	N	40	45	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**220**	U	**220**	U
GCMW-12	059-2036	N	5	10	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	UJ	**380**	UJ	**200**	U	**200**	U	**200**	U
GCMW-12	059-2037	N	10	15	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**31**	J	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2038	N	16.5	17	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2039	N	20	20.5	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2040	N	26.5	27	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**420**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2041	N	29.5	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2042	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2043	N	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2044	N	40	45	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
GCMW-11	059-2046	N	7	7.5	ft	**6,000**	U	**620**	J	**6,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**12,000**	U	**12,000**	U	**6,000**	U	**6,000**	U	**6,000**	U
GCMW-11	059-2047	N	10	10.5	ft	**200**	U	**260**		**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-11	059-2048	N	10	15	ft	**210**	U	**62**	J	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-11	059-2049	N	15	20	ft	**270**	U	**10**	J	**270**	U	**530**	U	**270**	U	**270**	U	**530**	U	**530**	U	**270**	U	**270**	U	**270**	U
GCMW-11	059-2050	N	20	25	ft	**210**	U	**10**	J	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-11	059-2051	N	25	30	ft	**1,100**	U	**55,000**		**1,100**	U	**2,100**	U	**1,100**	U	**1,100**	U	**2,100**	U	**2,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-11	059-2052	N	36	36.5	ft	**55,000**	U	**810,000**		**55,000**	U	**110,000**	U	**55,000**	U	**55,000**	U	**110,000**	U	**110,000**	U	**55,000**	U	**55,000**	U	**55,000**	U
GCMW-11	059-2053	N	39	39.5	ft	**62,000**	U	**1,700,000**		**62,000**	U	**120,000**	U	**62,000**	U	**62,000**	U	**120,000**	U	**120,000**	U	**62,000**	U	**62,000**	U	**62,000**	U
GCMW-11	059-2054	N	40	45	ft	**220**	U	**3,000**		**220**	U	**420**	U	**220**	U	**220**	U	**420**	U	**420**	U	**220**	U	**220**	U	**220**	U
GCMW-12	059-2036	N	5	10	ft	**200**	U	**8,400**		**200**	UJ	**380**	UJ	**200**	U	**200**	U	**380**	UJ	**380**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2037	N	10	15	ft	**200**	U	**190**	J	**41**	J	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2038	N	16.5	17	ft	**210**	U	**13**	J	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2039	N	20	20.5	ft	**210**	U	**15**	J	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2040	N	26.5	27	ft	**210**	U	**210**	U	**210**	U	**420**	U	**210**	U	**210**	U	**420**	U	**420**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2041	N	29.5	30	ft	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2042	N	30	35	ft	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2043	N	35	40	ft	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2044	N	40	45	ft	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-11	059-2046	N	7	7.5	ft	**6,000**	U	**6,000**	U	**12,000**	U	**12,000**	U	**1,300**	J	**1,600**	J	**6,000**	U	**6,400**		**6,000**	U	**6,000**	U	**18,000**		**15,000**	
GCMW-11	059-2047	N	10	10.5	ft	**200**	U	**200**	U	**390**	U	**390**	U	**1,000**		**21**	J	**64**	J	**450**		**200**	U	**130**	J	**45**	J	**36**	J
GCMW-11	059-2048	N	10	15	ft	**210**	U	**210**	U	**400**	U	**400**	U	**2,100**		**28**	J	**78**	J	**1,100**		**210**	U	**95**	J	**92**	J	**46**	J
GCMW-11	059-2049	N	15	20	ft	**270**	U	**270**	U	**530**	U	**530**	U	**13**	J	**270**	U	**72**	J	**270**	U	**270**	U	**130**	J	**270**	U	**270**	U
GCMW-11	059-2050	N	20	25	ft	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**48**	J	**210**	U	**210**	U	**94**	J	**210**	UJ	**210**	U
GCMW-11	059-2051	N	25	30	ft	**1,100**	U	**1,100**	U	**2,100**	U	**2,100**	U	**33,000**		**1,900**	J	**1,100**	U	**18,000**		**1,100**	U	**1,000**	J	**7,500**		**6,100**	J
GCMW-11	059-2052	N	36	36.5	ft	**55,000**	U	**55,000**	U	**110,000**	U	**110,000**	U	**450,000**		**27,000**	J	**55,000**	U	**180,000**		**55,000**	U	**55,000**	U	**88,000**	J	**66,000**	
GCMW-11	059-2053	N	39	39.5	ft	**62,000**	U	**62,000**	U	**120,000**	U	**120,000**	U	**120,000**	J	**810,000**		**62,000**	U	**370,000**		**62,000**	U	**62,000**	U	**190,000**	J	**140,000**	J
GCMW-11	059-2054	N	40	45	ft	**220**	U	**220**	U	**420**	U	**420**	U	**320**		**1,200**		**39**	J	**860**		**220**	U	**110**	J	**420**		**400**	
GCMW-12	059-2036	N	5	10	ft	**200**	U	**200**	UJ	**380**	UJ	**380**	UJ	**120**	J	**70**	J	**200**	U	**250**	J	**200**	U	**200**	U	**310**	J	**240**	J
GCMW-12	059-2037	N	10	15	ft	**200**	U	**57**	J	**390**	U	**390**	U	**200**	U	**6.1**	J	**200**	U	**23**	J	**200**	U	**200**	U	**25**	J	**20**	J
GCMW-12	059-2038	N	16.5	17	ft	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**35**	J	**210**	U	**210**	U	**73**	J	**210**	U	**210**	U
GCMW-12	059-2039	N	20	20.5	ft	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**28**	J	**210**	U	**210**	U	**45**	J	**210**	U	**210**	U
GCMW-12	059-2040	N	26.5	27	ft	**210**	U	**210**	U	**420**	U	**420**	U	**210**	U	**210**	U	**26**	J	**210**	U	**210**	U	**38**	J	**210**	U	**210**	U
GCMW-12	059-2041	N	29.5	30	ft	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**33**	J	**210**	U	**210**	U	**59**	J	**210**	UJ	**210**	U
GCMW-12	059-2042	N	30	35	ft	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**45**	J	**210**	U	**210**	U	**86**	J	**210**	U	**210**	U
GCMW-12	059-2043	N	35	40	ft	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U	**31**	J	**200**	U	**200**	U	**62**	J	**200**	U	**200**	U
GCMW-12	059-2044	N	40	45	ft	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**25**	J	**210**	U	**210**	U	**33**	J	**210**	U	**210**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
GCMW-11	059-2046	N	7	7.5	ft	**18,000**		**8,900**		**5,000**	J	**6,000**	U	**230**	J	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**880**	J	**15,000**		**2,100**	J
GCMW-11	059-2047	N	10	10.5	ft	**38**	J	**50**	J	**14**	J	**200**	U	**270**	J	**200**	U	**200**	U	**200**	U	**48**	J	**200**	U	**220**	J	**41**	J	**200**	U
GCMW-11	059-2048	N	10	15	ft	**56**	J	**25**	J	**29**	J	**210**	U	**320**		**210**	U	**210**	U	**210**	U	**25**	J	**210**	U	**1,700**		**70**	J	**9.1**	J
GCMW-11	059-2049	N	15	20	ft	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**29**	J	**270**	U	**270**	U	**270**	U	**270**	U
GCMW-11	059-2050	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**19**	J	**210**	U	**210**	U	**210**	UJ	**210**	U
GCMW-11	059-2051	N	25	30	ft	**4,300**		**2,500**		**1,800**	J	**1,100**	U	**6,200**		**1,100**	U	**1,100**	U	**1,100**	U	**44**	J	**1,100**	U	**350**	J	**7,200**		**700**	J
GCMW-11	059-2052	N	36	36.5	ft	**55,000**		**23,000**	J	**20,000**	J	**55,000**	U	**87,000**		**55,000**	U	**55,000**	U	**55,000**	U	**55,000**	U	**55,000**	U	**4,700**	J	**84,000**	J	**5,700**	J
GCMW-11	059-2053	N	39	39.5	ft	**120,000**	J	**53,000**	J	**32,000**	J	**62,000**	U	**160,000**	J	**62,000**	U	**62,000**	U	**62,000**	U	**62,000**	U	**62,000**	U	**10,000**	J	**170,000**	J	**16,000**	J
GCMW-11	059-2054	N	40	45	ft	**270**		**260**		**92**	J	**220**	U	**320**	J	**220**	U	**220**	U	**220**	U	**55**	J	**220**	U	**41**	J	**430**		**48**	J
GCMW-12	059-2036	N	5	10	ft	**170**	J	**130**	J	**210**	J	**200**	U	**190**	J	**200**	U	**200**	U	**200**	U	**67**	J	**200**	U	**32**	J	**290**	J	**60**	J
GCMW-12	059-2037	N	10	15	ft	**15**	J	**19**	J	**15**	J	**200**	U	**7.2**	J	**200**	U	**200**	U	**200**	U	**22**	J	**200**	U	**200**	U	**21**	J	**200**	U
GCMW-12	059-2038	N	16.5	17	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**22**	J	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2039	N	20	20.5	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**15**	J	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2040	N	26.5	27	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**46**	J	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2041	N	29.5	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**24**	J	**210**	U	**210**	U	**210**	UJ	**210**	U
GCMW-12	059-2042	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**21**	J	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2043	N	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**16**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2044	N	40	45	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**20**	J	**210**	U	**210**	U	**210**	U	**210**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-11	059-2046	N	7	7.5	ft	**1,400**	J	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U	**38,000**		**2,500**	J	**6,000**	U	**6,000**	U	**6,000**	U	**6,000**	U
GCMW-11	059-2047	N	10	10.5	ft	**1,100**		**200**	U	**200**	U	**200**	U	**200**	U	**670**		**1,200**		**200**	U	**200**	U	**200**	U	**200**	U
GCMW-11	059-2048	N	10	15	ft	**2,300**		**210**	U	**210**	U	**210**	U	**210**	U	**850**		**3,800**		**210**	U	**210**	U	**210**	U	**210**	U
GCMW-11	059-2049	N	15	20	ft	**10**	J	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**20**	J	**270**	U	**270**	U	**270**	U	**270**	U
GCMW-11	059-2050	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	UJ	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-11	059-2051	N	25	30	ft	**1,700**		**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**17,000**		**17,000**		**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-11	059-2052	N	36	36.5	ft	**24,000**	J	**55,000**	U	**55,000**	U	**55,000**	U	**55,000**	U	**170,000**		**240,000**		**55,000**	U	**55,000**	U	**55,000**	U	**55,000**	U
GCMW-11	059-2053	N	39	39.5	ft	**46,000**	J	**62,000**	U	**62,000**	U	**62,000**	U	**62,000**	U	**330,000**		**490,000**		**62,000**	U	**62,000**	U	**62,000**	U	**62,000**	U
GCMW-11	059-2054	N	40	45	ft	**92**	J	**220**	U	**220**	U	**220**	U	**220**	U	**930**		**920**		**220**	U	**220**	U	**220**	U	**220**	U
GCMW-12	059-2036	N	5	10	ft	**94**	J	**200**	U	**200**	U	**200**	U	**200**	U	**790**		**190**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2037	N	10	15	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**53**	J	**8.1**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2038	N	16.5	17	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2039	N	20	20.5	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2040	N	26.5	27	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2041	N	29.5	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	UJ	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2042	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-12	059-2043	N	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-12	059-2044	N	40	45	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs	
GCMW-11	059-2046	N	7	7.5	ft	**10,000**		**6,000**	U	--	**1,700**	J	**6,000**	U	**6,000**	U	**6,000**	U	**12,000**	UJ	**20,000**		**6,000**	U	**24,000**		**188,120**	
GCMW-11	059-2047	N	10	10.5	ft	**34**	J	**200**	U	--	**4,400**		**200**	U	**200**	U	**200**	U	**390**	UJ	**2,600**		**17**	J	**250**	J	**11,109**	
GCMW-11	059-2048	N	10	15	ft	**31**	J	**210**	U	--	**4,400**		**210**	U	**210**	U	**210**	U	**400**	UJ	**4,600**		**15**	J	**350**	J	**17,648**	
GCMW-11	059-2049	N	15	20	ft	**270**	U	**270**	U	--	**52**	J	**270**	U	**270**	U	**270**	U	**530**	UJ	**26**	J	**15**	J	**270**	U	**121**	
GCMW-11	059-2050	N	20	25	ft	**210**	U	**210**	U	--	**27**	J	**210**	U	**210**	U	**210**	U	**410**	UJ	**210**	U	**14**	J	**210**	UJ	**37**	
GCMW-11	059-2051	N	25	30	ft	**2,500**		**1,100**	U	--	**71,000**		**1,100**	U	**1,100**	U	**1,100**	U	**2,100**	UJ	**53,000**		**1,100**	U	**20,000**		**318,500**	
GCMW-11	059-2052	N	36	36.5	ft	**19,000**	J	**55,000**	U	--	**1,500,000**		**55,000**	U	**55,000**	U	**55,000**	U	**110,000**	UJ	**680,000**		**55,000**	U	**280,000**		**4,697,700**	
GCMW-11	059-2053	N	39	39.5	ft	**43,000**	J	**62,000**	U	--	**3,100,000**		**62,000**	U	**62,000**	U	**62,000**	U	**120,000**	UJ	**1,300,000**		**62,000**	U	**600,000**		**9,584,000**	
GCMW-11	059-2054	N	40	45	ft	**160**	J	**220**	U	--	**3,900**		**220**	U	**220**	U	**220**	U	**420**	UJ	**2,800**		**13**	J	**1,100**		**17,110**	
GCMW-12	059-2036	N	5	10	ft	**130**	J	**200**	U	--	**8,200**		**200**	U	**200**	U	**200**	U	**380**	U	**940**		**43**	J	**790**		**21,290**	
GCMW-12	059-2037	N	10	15	ft	**15**	J	**200**	U	--	**100**	J	**200**	U	**200**	U	**200**	U	**390**	U	**77**	J	**36**	J	**59**	J	**646.2**	
GCMW-12	059-2038	N	16.5	17	ft	**210**	U	**210**	U	--	**16**	J	**210**	U	**210**	U	**210**	U	**400**	U	**9.4**	J	**13**	J	**210**	U	**38.4**	
GCMW-12	059-2039	N	20	20.5	ft	**210**	U	**210**	U	--	**25**	J	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**12**	J	**210**	U	**40**	
GCMW-12	059-2040	N	26.5	27	ft	**210**	U	**210**	U	--	**210**	U	**210**	U	**210**	U	**210**	U	**420**	U	**210**	U	**210**	U	**210**	U	**0**	U
GCMW-12	059-2041	N	29.5	30	ft	**210**	U	**210**	U	--	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	UJ	**0**	U
GCMW-12	059-2042	N	30	35	ft	**210**	U	**210**	U	--	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**9.9**	J	**210**	U	**0**	U
GCMW-12	059-2043	N	35	40	ft	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**6.4**	J	**200**	U	**0**	U
GCMW-12	059-2044	N	40	45	ft	**210**	U	**210**	U	--	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**7.1**	J	**210**	U	**0**	U

503-537 Smith St (MW11 & MW12)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
GCMW-11	059-2046	N	7	7.5	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**4** U	**2** U	**4** U	**13**	**4** U	**4** U
GCMW-11	059-2047	N	10	10.5	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**4** U	**2** U	**4** U	**4** U	**4** U	**4** U
GCMW-11	059-2048	N	10	15	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4.1** U	**2.1** U	**4.1** U	**4.1** U	**0.7** J	**4.1** U
GCMW-11	059-2049	N	15	20	ft	**2.7** U	**2.7** U	**2.7** U	**2.7** U	**2.7** U	**5.3** U	**2.7** U	**5.3** U	**5.3** U	**5.3** U	**5.3** U
GCMW-11	059-2050	N	20	25	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4.1** U	**2.1** U	**4.1** U	**4.1** U	**4.1** U	**4.1** U
GCMW-11	059-2051	N	25	30	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4.2** U	**2.1** U	**0.76** J	6.6 R	**4.2** U	9.8 R
GCMW-11	059-2052	N	36	36.5	ft	**20** U	29 R	**20** U	**20** U	**20** U	**88**	**20** U	**39** U	**39** U	**43**	**120** NJ
GCMW-11	059-2053	N	39	39.5	ft	**22** U	**18** J	**22** U	**71** NJ	**22** U	**19** J	8.4 R	**6.9** J	69 R	**7.5** J	110 R
GCMW-11	059-2054	N	40	45	ft	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**4.2** U	**2.2** U	**4.2** U	**4.2** U	**4.2** U	**4.2** U
GCMW-12	059-2036	N	5	10	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**3.8** U	**2** U	**3.8** U	**0.67** J	**3.8** U	**3.8** U
GCMW-12	059-2037	N	10	15	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**3.9** U	**2** U	**3.9** U	**3.9** U	**3.9** U	**3.9** U
GCMW-12	059-2038	N	16.5	17	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4** U	**2.1** U	**4** U	**4** U	**4** U	**4** U
GCMW-12	059-2039	N	20	20.5	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**0.12** J	**4.1** U	**2.1** U	**4.1** U	**4.1** U	**4.1** U	**4.1** U
GCMW-12	059-2040	N	26.5	27	ft	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**4.2** U	**2.2** U	**4.2** U	**4.2** U	**4.2** U	**4.2** U
GCMW-12	059-2041	N	29.5	30	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4** U	**2.1** U	**4** U	**4** U	**4** U	**4** U
GCMW-12	059-2042	N	30	35	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4.1** U	**2.1** U	**4.1** U	**4.1** U	**4.1** U	**4.1** U
GCMW-12	059-2043	N	35	40	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**3.9** U	**2** U	**3.9** U	**3.9** U	**3.9** U	**3.9** U
GCMW-12	059-2044	N	40	45	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**4** U	**2** U	**4** U	**4** U	**4** U	**4** U

503-537 Smith St (MW11 & MW12)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-11	059-2046	N	7	7.5	ft	**12**	J	**2**	U	**7.9**	J	**2**	U	**2**	U	**20**	U	**4**	U	**2.8**	J	6.6	R	**200**	U	--	
GCMW-11	059-2047	N	10	10.5	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-11	059-2048	N	10	15	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**0.3**	J	**4.1**	U	**0.4**	J	**210**	U	**0.7**	
GCMW-11	059-2049	N	15	20	ft	**5.3**	U	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**27**	U	**5.3**	U	**5.3**	U	**5.3**	U	**270**	U	**0**	U
GCMW-11	059-2050	N	20	25	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-11	059-2051	N	25	30	ft	**4.2**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**20**	J	**6.6**	J	**4.2**	U	**19**		**210**	U	**25.6**	
GCMW-11	059-2052	N	36	36.5	ft	45	R	**20**	U	**160**		**20**	U	25	R	**200**	U	**39**	U	**39**	U	**170**		**2,000**	U	**170**	
GCMW-11	059-2053	N	39	39.5	ft	**4.3**	UJ	**22**	U	**51**	J	**22**	U	**6.9**	J	**170**	J	**74**	NJ	**26**	J	57	R	**2,200**	U	**99**	
GCMW-11	059-2054	N	40	45	ft	**4.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**22**	U	**4.2**	U	**2**	J	**1.3**	J	**220**	U	**3.3**	
GCMW-12	059-2036	N	5	10	ft	**3.8**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-12	059-2037	N	10	15	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-12	059-2038	N	16.5	17	ft	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4**	U	**4**	U	**4**	U	**210**	U	**0**	U
GCMW-12	059-2039	N	20	20.5	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-12	059-2040	N	26.5	27	ft	**4.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**22**	U	**4.2**	U	**4.2**	U	**4.2**	U	**220**	U	**0**	U
GCMW-12	059-2041	N	29.5	30	ft	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4**	U	**4**	U	**4**	U	**210**	U	**0**	U
GCMW-12	059-2042	N	30	35	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-12	059-2043	N	35	40	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-12	059-2044	N	40	45	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U

503-537 Smith St (MW11 & MW12)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-11	059-2046	N	7	7.5	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-11	059-2047	N	10	10.5	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-11	059-2048	N	10	15	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-11	059-2049	N	15	20	ft	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**0**	U
GCMW-11	059-2050	N	20	25	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-11	059-2051	N	25	30	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-11	059-2052	N	36	36.5	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-11	059-2053	N	39	39.5	ft	**430**	U	**430**	U	**430**	U	**430**	U	**430**	U	**430**	U	**430**	U	**430**	U	**430**	U	**0**	U
GCMW-11	059-2054	N	40	45	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-12	059-2036	N	5	10	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-12	059-2037	N	10	15	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-12	059-2038	N	16.5	17	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-12	059-2039	N	20	20.5	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-12	059-2040	N	26.5	27	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-12	059-2041	N	29.5	30	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-12	059-2042	N	30	35	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-12	059-2043	N	35	40	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-12	059-2044	N	40	45	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U

503-537 Smith St (MW11 & MW12)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-11	059-2046	N	7	7.5	ft	**4,550**	**7** U	**3.4**	**41.2**	**0.58** U	**0.13** J	**2,280**	**11.1**	**4.7** J	**27.6**	**8,400**
GCMW-11	059-2047	N	10	10.5	ft	**8,370**	**7.4** U	**3.8**	**45.3**	**1.1**	**0.14** J	**1,470**	**18.8**	**25**	**17.7**	**13,400**
GCMW-11	059-2048	N	10	15	ft	**3,830**	**7.3** U	**2.5**	**16.5** J	**0.61** U	**0.61** U	**769**	**7.2**	**3.2** J	**6.5**	**9,400**
GCMW-11	059-2049	N	15	20	ft	**13,300**	**0.54** J	**10.2**	**25.4** J	**0.8** U	**0.33** J	**1,830**	**28.2**	**9.3**	**15.7**	**33,600**
GCMW-11	059-2050	N	20	25	ft	**6,040**	**7.6** U	**3**	**18.3** J	**0.64** U	**0.016** J	**800**	**12.2**	**4.5** J	**9.1**	**13,900**
GCMW-11	059-2051	N	25	30	ft	**2,100**	**7.5** U	**1.1** J	**21.2** J	**0.62** U	**0.62** U	**621** U	**5.7**	**3.1** J	**3.2**	**5,540**
GCMW-11	059-2052	N	36	36.5	ft	**3,770**	**7** U	**0.92** J	**37.4**	**0.58** U	**0.58** U	**635**	**8.2**	**5.2** J	**6.5**	**9,130**
GCMW-11	059-2053	N	39	39.5	ft	**3,340**	**7.4** U	**2.1**	**20.5** J	**0.61** U	**0.61** U	**614** U	**6.3**	**4.4** J	**7.1**	**9,410**
GCMW-11	059-2054	N	40	45	ft	**3,090**	**7.4** U	**5.9**	**244**	**0.63** U	**0.075** J	**664**	**6.5**	**5.2** J	**6.1**	**12,500**
GCMW-12	059-2036	N	5	10	ft	**5,200**	**7.2** U	**1.4**	**20.4** J	**0.6** U	**0.6** U	**2,590**	**8.4**	**3.2** J	**13.1**	**10,600**
GCMW-12	059-2037	N	10	15	ft	**5,850**	**7.1** U	**1.5**	**30.1**	**0.59** U	**0.04** J	**755**	**10.5**	**6.3**	**14.8**	**12,300**
GCMW-12	059-2038	N	16.5	17	ft	**4,920**	**7.3** U	**1.1** J	**31.1**	**0.6** U	**0.61** U	**711**	**9.3**	**3.8** J	**10**	**11,000**
GCMW-12	059-2039	N	20	20.5	ft	**4,590**	**6.1** UJ	**1.8**	**32.4**	**0.51** U	**0.017** J	**724**	**8.6**	**4** J	**10.5**	**10,200**
GCMW-12	059-2040	N	26.5	27	ft	**6,700**	**7.4** U	**2.5**	**35.7**	**0.62** U	**0.063** J	**1,230**	**11**	**5.4** J	**15.7**	**15,800**
GCMW-12	059-2041	N	29.5	30	ft	**2,800**	**7.9** U	**3.8**	**16.1** J	**0.66** U	**0.66** U	**662** U	**8.6**	**3.8** J	**4.5**	**10,200**
GCMW-12	059-2042	N	30	35	ft	**3,180**	**7** U	**1.1** J	**22.1** J	**0.58** U	**0.015** J	**581** U	**6.8**	**4.6** J	**5**	**6,390**
GCMW-12	059-2043	N	35	40	ft	**3,370**	**7.4** U	**1.3**	**15.7** J	**0.62** U	**0.62** U	**619** U	**11.7**	**3.9** J	**6.3**	**12,900**
GCMW-12	059-2044	N	40	45	ft	**4,140**	**7** U	**2.8**	**20.6** J	**0.59** U	**0.059** J	**626**	**8.3**	**5.1** J	**8.3**	**13,200**

503-537 Smith St (MW11 & MW12)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-11	059-2046	N	7	7.5	ft	**76.2**	**1,880**	**109**	**0.14**	**15.2**	**862**	**4.1 U**	**1.2 U**	**582 U**	**2.9 U**	**14.2**	**68.6**	**2.9 U**
GCMW-11	059-2047	N	10	10.5	ft	**9.2**	**4,130**	**209**	**0.12 U**	**70.8**	**1,650**	**4.3 U**	**1.2 U**	**620 U**	**3.1 U**	**20.2**	**186**	**3.1 U**
GCMW-11	059-2048	N	10	15	ft	**8.2**	**1,480**	**122**	**0.12 U**	**8.6**	**523 J**	**4.3 U**	**1.2 U**	**610 U**	**3.1 U**	**10.5**	**20.5**	**3 U**
GCMW-11	059-2049	N	15	20	ft	**13.6**	**5,650**	**376**	**0.16 U**	**26.4**	**2,710**	**5.6 U**	**1.6 U**	**1,390**	**4 U**	**32.5**	**68.8**	**3.9 U**
GCMW-11	059-2050	N	20	25	ft	**5.6**	**2,710**	**138**	**0.12 U**	**13.6**	**996**	**4.5 U**	**1.3 U**	**637 U**	**3.2 U**	**13**	**30.5**	**3.1 U**
GCMW-11	059-2051	N	25	30	ft	**2.8**	**766**	**50.4**	**0.13 U**	**6.2**	**352 J**	**4.3 U**	**1.2 U**	**621 U**	**3.1 U**	**7.5**	**16.9**	**3.1 U**
GCMW-11	059-2052	N	36	36.5	ft	**5.4**	**1,550**	**74.8**	**0.12 U**	**11.8**	**669**	**4.1 U**	**1.2 U**	**585 U**	**2.9 U**	**13.1**	**25.7**	**2.9 U**
GCMW-11	059-2053	N	39	39.5	ft	**5.8**	**1,560**	**83.8**	**0.12 U**	**10.4**	**460 J**	**4.3 U**	**1.2 U**	**614 U**	**3.1 U**	**9.1**	**21.5**	**3.1 U**
GCMW-11	059-2054	N	40	45	ft	**4.7**	**1,400**	**1,120**	**0.13 U**	**13.8**	**419 J**	**4.3 U**	**1.2 U**	**629 U**	**3.1 U**	**10**	**22.2**	**3 U**
GCMW-12	059-2036	N	5	10	ft	**17.6**	**1,830**	**168**	**0.12 U**	**10.3**	**646**	**4.2 U**	**1.2 U**	**602 U**	**3 U**	**10.4**	**22.5**	**3 U**
GCMW-12	059-2037	N	10	15	ft	**8.7**	**2,370**	**256**	**0.12 U**	**15.1**	**813**	**4.1 U**	**1.2 U**	**591 U**	**3 U**	**10.8**	**34.9**	**2.9 U**
GCMW-12	059-2038	N	16.5	17	ft	**5.9**	**2,100**	**124**	**0.12 U**	**13**	**806**	**4.2 U**	**1.2 U**	**605 U**	**3 U**	**9.4**	**30.5**	**3 U**
GCMW-12	059-2039	N	20	20.5	ft	**4.5**	**1,880**	**127**	**0.1 U**	**12.7**	**726**	**3.6 U**	**1 U**	**508 U**	**2.5 U**	**8.7**	**31.2**	**2.5 U**
GCMW-12	059-2040	N	26.5	27	ft	**7.2**	**2,800**	**148**	**0.12 U**	**15.2**	**1,080**	**4.3 U**	**1.2 U**	**619 U**	**3.1 U**	**13.3**	**40.6**	**3.2 U**
GCMW-12	059-2041	N	29.5	30	ft	**3.9**	**890**	**96.6**	**0.13 U**	**8**	**452 J**	**4.6 U**	**1.3 U**	**662 U**	**3.3 U**	**11.4**	**22.9**	**3.2 U**
GCMW-12	059-2042	N	30	35	ft	**3.9**	**1,100**	**91.4**	**0.12 U**	**8.5**	**453 J**	**4.1 U**	**1.2 U**	**581 U**	**2.9 U**	**11.8**	**23.6**	**3 U**
GCMW-12	059-2043	N	35	40	ft	**4.8**	**1,600**	**81.7**	**0.13 U**	**11.1**	**439 J**	**4.3 U**	**1.2 U**	**619 U**	**3.1 U**	**12.8**	**23.4**	**3.1 U**
GCMW-12	059-2044	N	40	45	ft	**6.1**	**1,780**	**110**	**0.12 U**	**12.4**	**506 J**	**4.1 U**	**1.2 U**	**585 U**	**2.9 U**	**11**	**26**	**2.9 U**

503 – 537 Smith St.

(MW11 & MW12)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
MW-11	GC-MW11I	N	Intermediate	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**0.05**	U
MW-11	GC-MW11S	N	Shallow	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**0.05**	U
MW-12	GC-MW12I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U
MW-12	GC-MW12S	N	Shallow	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**1.3**	U

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene
MW-11	GC-MW11I	N	Intermediate	**0.05** U	**13** U	**13** U	**13** U	**13** U	**13** U	--	**130** U	**130** U	**420**
MW-11	GC-MW11S	N	Shallow	**0.05** U	**13** U	**16**	**13** U	**13** U	**13** U	--	**130** U	**130** U	**610** J
MW-12	GC-MW12I	N	Intermediate	**0.05** U	**0.5** U	**30** J	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U
MW-12	GC-MW12S	N	Shallow	**1.3** U	**13** U	**220**	**13** U	**13** U	**13** U	--	**130** U	**130** U	**7,600** J

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene
MW-11	GC-MW11I	N	Intermediate	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**66**
MW-11	GC-MW11S	N	Shallow	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U
MW-12	GC-MW12I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.15** J	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-12	GC-MW12S	N	Shallow	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
MW-11	GC-MW11I	N	Intermediate	**13**	U	**13**	U	**13**	U	**13**	U	**690**		**65**		**690**		**13**	U	**130**	U	**130**	U	**13**	U
MW-11	GC-MW11S	N	Shallow	**13**	U	**13**	U	**13**	U	**13**	U	**560**	J	**48**		**560**	J	**13**	U	**130**	U	**130**	U	**13**	U
MW-12	GC-MW12I	N	Intermediate	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.42**	J	**0.5**	U	**0.42**	J	**0.5**	UJ	**5**	U	**5**	U	**0.15**	J
MW-12	GC-MW12S	N	Shallow	**13**	U	**42**		**13**	U	**13**	U	**1,600**	J	**110**		**1,600**	J	**13**	U	**130**	U	**130**	U	**22**	

503-537 Smith St (MW11 & MW12)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-11	GC-MW11I	N	Intermediate	**13**	U	**460**		**180**		**13**	U	**13**	U	**84**		**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
MW-11	GC-MW11S	N	Shallow	**13**	U	**380**		**52**		**42**		**13**	U	**120**		**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
MW-12	GC-MW12I	N	Intermediate	**0.5**	UJ	**0.47**	J	**0.5**	U	**14**	J	**0.5**	U	**0.6**		**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-12	GC-MW12S	N	Shallow	**13**	U	**2,600**	J	**13**	U	**13**	U	**13**	U	**13,000**	J	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
MW-11	GC-MW11I	N	Intermediate	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**50**	U	**50**	U	**50**	U
MW-11	GC-MW11S	N	Shallow	**130**	U	**130**	U	**130**	U	**130**	U	**130**	U	**330**		**250**	U	**130**	U	**130**	U	**130**	U
MW-12	GC-MW12I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U
MW-12	GC-MW12S	N	Shallow	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**22**	J	**100**	U	**50**	U	**50**	U	**50**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
MW-11	GC-MW11I	N	Intermediate	**50**	U	**720**	J	**50**	U	**100**	U	**50**	U	**50**	U	**100**	U	**100**	U	**50**	U	**50**	U	**50**	U
MW-11	GC-MW11S	N	Shallow	**130**	U	**630**		**20**	J	**250**	U	**130**	U	**130**	U	**250**	U	**250**	U	**130**	U	**130**	U	**130**	U
MW-12	GC-MW12I	N	Intermediate	**5**	U	**0.1**	U	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U
MW-12	GC-MW12S	N	Shallow	**50**	U	**60**		**31**	J	**100**	U	**50**	U	**50**	U	**100**	U	**100**	U	**50**	U	**50**	U	**50**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
MW-11	GC-MW11I	N	Intermediate	**50**	U	**50**	U	**100**	U	**100**	U	**140**	J	**140**	J	**50**	U	**21**	J	**50**	U	**50**	UJ	**1**	U	**1**	U
MW-11	GC-MW11S	N	Shallow	**130**	U	**10**	J	**250**	U	**250**	U	**160**		**40**	J	**130**	U	**15**		**130**	U	**130**	UJ	**2.5**	U	**2.5**	U
MW-12	GC-MW12I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U
MW-12	GC-MW12S	N	Shallow	**50**	U	**46**	J	**100**	U	**100**	U	**1.4**		**0.98**	J	**56**		**1**	U	**50**	U	**460**		**1**	U	**1**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam	
MW-11	GC-MW11I	N	Intermediate	**1**	U	**1**	U	**1**	U	**50**	U	**45**	J	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U
MW-11	GC-MW11S	N	Shallow	**2.5**	U	**2.5**	U	**2.5**	U	**130**	U	**37**	J	**130**	U	**130**	U	**130**	U	**130**	U	**130**	U
MW-12	GC-MW12I	N	Intermediate	**0.1**	U	**0.11**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-12	GC-MW12S	N	Shallow	**1**	U	**1**	U	**1**	UJ	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
MW-11	GC-MW11I	N	Intermediate	**22** J	**1** U	**1** U	**7.9** J	**50** U	**50** U	**50** U	**50** U	**5**	**68** J	**50** U	**50** U	**50** U
MW-11	GC-MW11S	N	Shallow	**15** J	**2.5** U	**2.5** U	**13** J	**130** U	**130** U	**130** U	**130** U	**4.8**	**63** J	**130** U	**130** U	**130** U
MW-12	GC-MW12I	N	Intermediate	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U
MW-12	GC-MW12S	N	Shallow	**50** U	**1** U	**1** UJ	**50** U	**50** U	**50** U	**50** U	**50** U	**0.87** J	**1.5**	**50** U	**50** U	**50** U

503-537 Smith St (MW11 & MW12)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
MW-11	GC-MW11I	N	Intermediate	**50**	U	**1**	U	**50**	U	**49,000**	J	**50**	U	**50**	U	**50**	U	**2**	UJ	**83**	J	**50**	U	**4.4**		**50,181**
MW-11	GC-MW11S	N	Shallow	**130**	U	**2.5**	UJ	**130**	U	**3,500**	J	**130**	U	**130**	U	**130**	U	**5**	UJ	**59**	J	**130**	U	**4.7**		**4,477**
MW-12	GC-MW12I	N	Intermediate	**5**	U	**0.14**	U	**5**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**0.2**	U	**0.13**		**5**	U	**0.1**	U	**0.13**
MW-12	GC-MW12S	N	Shallow	**50**	U	**1**	U	**50**	U	**230**		**50**	U	**50**	U	**50**	U	**2**	U	**3.3**		**50**	U	**1**	U	**298.05**

503-537 Smith St (MW11 & MW12)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-11	GC-MW11I	N	Intermediate	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-11	GC-MW11S	N	Shallow	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-12	GC-MW12I	N	Intermediate	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-12	GC-MW12S	N	Shallow	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

503-537 Smith St (MW11 & MW12)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-11	GC-MW11I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-11	GC-MW11S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-12	GC-MW12I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-12	GC-MW12S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	

503-537 Smith St (MW11 & MW12)

PCB Aroclor Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-11	GC-MW11I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-11	GC-MW11S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-12	GC-MW12I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-12	GC-MW12S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

503-537 Smith St (MW11 & MW12)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	
MW-11	GC-MW11I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**18.3**	J	**21.8**	**1,050**	**1,070**	**1**	U
MW-11	GC-MW11S	N	Shallow	**200**	U	**200**	U	**2**	U	**2**	U	**5**	J	**5.1**	**428**	**450**	**1**	U
MW-12	GC-MW12I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**10.9**	J	**12.3**	**148**	**154**	**1**	U
MW-12	GC-MW12S	N	Shallow	2,480	R	**200**	U	**2.1**		**3**		**27.8**	J	**28.9**	**275**	**258**	**1**	U

503-537 Smith St (MW11 & MW12)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Beryllium, dissolved		Cadmium		Cadmium, dissolved		Calcium	Calcium, dissolved	Chromium		Chromium, dissolved		Cobalt	
MW-11	GC-MW11I	N	Intermediate	**1**	U	**1**	U	**1**	U	**70,100**	**67,300**	**5**	J	**0.57**	J	**1.6**	
MW-11	GC-MW11S	N	Shallow	**1**	U	**1**	U	**1**	U	**164,000**	**161,000**	**13**	J	**4.4**		**0.86**	J
MW-12	GC-MW12I	N	Intermediate	**1**	U	**1**	U	**1**	U	**94,900**	**91,400**	**1.5**	J	**1.7**	J	**2**	
MW-12	GC-MW12S	N	Shallow	**1**	U	**1**	U	**1**	U	**74,100**	**73,600**	**34.5**	J	**1.5**	J	**4**	

503-537 Smith St (MW11 & MW12)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese
MW-11	GC-MW11I	N	Intermediate	**0.52** J	**25** U	**25** U	**5,050**	**4,560**	**0.53** J	**1** U	**39,400**	**38,200**	**3,860** J
MW-11	GC-MW11S	N	Shallow	**1**	**25** U	**25** U	**9,270**	**9,250**	**0.77** J	**1** U	**33,600**	**33,400**	**1,830** J
MW-12	GC-MW12I	N	Intermediate	**2.3**	**25** U	**25** U	**20,400**	**18,800**	**3.1**	**1** U	**34,400**	**33,400**	**2,550** J
MW-12	GC-MW12S	N	Shallow	**2.5**	**308**	**25** U	**26,700**	**19,600**	**89.4**	**4.3** J	**14,300**	**13,100**	**3,880** J

503-537 Smith St (MW11 & MW12)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium	Potassium, dissolved	Selenium		Selenium, dissolved		Silver	
MW-11	GC-MW11I	N	Intermediate	**3,920**	**0.093**	J	**0.2**	U	**3.7**	J	**1.5**	J	**8,480**	**8,200**	**5**	U	**5**	U	**1**	UJ
MW-11	GC-MW11S	N	Shallow	**1,970**	**0.069**	J	**0.2**	U	**12.7**	J	**12.8**	J	**27,600**	**27,300**	**1**	J	**1.3**	J	**1**	UJ
MW-12	GC-MW12I	N	Intermediate	**2,700**	**0.091**	J	**0.082**	U	**2.8**	J	**4.3**	J	**22,600**	**21,700**	**1.1**	J	**1.6**	J	**1**	UJ
MW-12	GC-MW12S	N	Shallow	**4,140**	**0.17**	J	**0.2**	U	**33.6**	J	**4.6**	J	**19,800**	**19,600**	**1.5**	J	**1.4**	J	**1**	UJ

503-537 Smith St (MW11 & MW12)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-11	GC-MW11I	N	Intermediate	**1** U	**82,600**	**81,000**	**1** U	**1** U	**5** U	**5** U	**1.9** J	**1.6** J	**10** U
MW-11	GC-MW11S	N	Shallow	**1** U	**221,000**	**213,000**	**1** U	**1** U	**1.1** J	**5** U	**14.8** J	**10.7** J	**5** J
MW-12	GC-MW12I	N	Intermediate	**1** U	**145,000**	**141,000**	**1** U	**1** U	**5** U	**5** U	**4.7** J	**5** J	**10** U
MW-12	GC-MW12S	N	Shallow	**1** U	**103,000**	**94,800**	**1** U	**1** U	**6.4**	**5** U	**53** J	**6.9** J	**10** U

118 2nd Ave

(MW44 & MW45 & MW46 & MW47)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 118 2nd Ave.
Monitoring Well Soil Borings Installed at Address: GC-MW-44, GC-MW-45, GC-MW-46 & GC-MW-47
Intermediate Monitoring Wells Installed at Address: GC-MW-44I, GC-MW-45I, GC-MW-46I & GC-MW-47I
Shallow Monitoring Wells Installed at Address: GC-MW-44S, GC-MW-45S, GC-MW-46S & GC-MW-47S

GC-MW-44

The soil samples from the soil boring installed for the intermediate well (situated approximately 45 feet from the canal) contained 58 VOCs, 105 SVOCs, 2 pesticides, 0 PCBs, and 136 metals. From these, 5 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (560 ug/kg). The SVOC occurring at the highest concentration above screening value was benzo(a)anthracene (2,400 µg/kg). The metal occurring at the highest concentration above screening value was lead (1,190 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 45 feet from the canal) contained 2 VOCs, 11 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (47,700 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately45 ft bgs and situated approximately 45 feet from the canal) contained 8 VOCs, 10 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was cis-1,2-dichloroethylene (240 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (11,200 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-45

The soil samples from the soil boring installed for the intermediate well (situated approximately 50 feet from the canal) contained 45 VOCs, 128 SVOCs, 11 pesticides, 0 PCBs, and 4 metals. From these, 17 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (120,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (340,000 µg/kg). The metal occurring at the highest concentration above screening value was lead (955 mg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 50 feet from the canal) contained 2 VOCs, 18 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was 2,4-dinitrotoluene (69 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,250 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately41 ft bgs and situated approximately 50 feet from the canal) contained 10 VOCs, 20 SVOCs, 0 pesticides, 0 PCBs, and 10 metals. From these, 4 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was

ethylbenzene (810 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (55 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,420 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-46

The soil samples from the soil boring installed for the intermediate well (situated approximately 52 feet from the canal) contained 38 VOCs, 82 SVOCs, 0 pesticides, 0 PCBs, and 169 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (240 µg/kg). The metal occurring at the highest concentration above screening value was arsenic (19.8 mg/kg).

Shallow groundwater

No shallow monitoring well installed at this location.

Intermediate groundwater

The intermediate well (depth of approximately57 ft bgs and situated approximately 52 feet from the canal) contained 9 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 7 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was cis-1, 2-dichloroethylene (500 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (7,570 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-47

The soil samples from the soil boring installed for the intermediate well (situated approximately 35 feet from the canal) contained 40 VOCs, 145 SVOCs, 17 pesticides, 0 PCBs, and 102 metals. From these, 19 VOCs, 25 SVOCs, 2 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (240,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (2,100,000 µg/kg). The pesticide occurring at the highest concentration above screening value was endrin (77 µg/kg). The metal occurring at the highest concentration above screening value was mercury (1.2 mg/kg).

Shallow groundwater

The shallow well (depth of approximately28 ft bgs and situated approximately 35 feet from the canal) contained 7 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 6 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (740 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (25 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (25,200 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately44 ft bgs and situated approximately 35 feet from the canal) contained 10 VOCs, 22 SVOCs, 0 pesticides, 0 PCBs, and 12 metals. From these, 6 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (340 J µg/L). The SVOC occurring at the highest concentration above screening criteria was 2,4-

dinitrotoluene (100 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (14,600 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-44	059-2122	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-44	059-2123	N	10	15	ft	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U
GCMW-44	059-2124	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-44	059-2125	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-44	059-2126	N	25	30	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-44	059-2127	N	30	35	ft	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U
GCMW-44	059-2128	N	35	40	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-44	059-2129	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-45	059-2114	N	5	10	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U
GCMW-45	059-2115	N	10	15	ft	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U
GCMW-45	059-2116	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U
GCMW-45	059-2117	N	20	25	ft	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U
GCMW-45	059-2118	N	25	30	ft	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U
GCMW-45	059-2119	N	30	35	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U
GCMW-45	059-2120	N	35	40	ft	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U
GCMW-46	059-2167	N	5	10	ft	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U
GCMW-46	059-2168	N	10	15	ft	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U
GCMW-46	059-2169	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U
GCMW-46	059-2170	N	20	25	ft	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U
GCMW-46	059-2171	N	25	30	ft	9	UR	9	UR	**9**	UJ	9	UR	**9**	UJ	**9**	UJ	9	UR	9	UR	9	UR
GCMW-46	059-2172	N	30	35	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-46	059-2173	N	35	40	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-46	059-2174	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-46	059-2175	N	45	50	ft	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ
GCMW-46	059-2176	N	50	55	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ
GCMW-47	059-2234	N	10	15	ft	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U
GCMW-47	059-2235	N	15	20	ft	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U
GCMW-47	059-2236	N	25	30	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-47	059-2237	N	30	35	ft	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U
GCMW-47	059-2238	N	36	36.5	ft	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U
GCMW-47	059-2239	N	40	40.5	ft	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U
GCMW-47	059-2240	N	40	45	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-44	059-2122	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	200	UR	**20**	U	**21**		**10**	U
GCMW-44	059-2123	N	10	15	ft	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	190	UR	**19**	U	**140**		**2.7**	J
GCMW-44	059-2124	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	250	UR	**25**	U	**50**		**2.9**	J
GCMW-44	059-2125	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**15**		**5**	
GCMW-44	059-2126	N	25	30	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	180	UR	**18**	U	**54**		**3**	J
GCMW-44	059-2127	N	30	35	ft	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	240	UR	**24**	U	**560**		**330**	J
GCMW-44	059-2128	N	35	40	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	110	UR	**11**	U	**11**	U	**2.1**	J
GCMW-44	059-2129	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	120	UR	**12**	U	**12**	U	**2.6**	J
GCMW-45	059-2114	N	5	10	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	850	UR	**85**	U	**230**		**17**	J
GCMW-45	059-2115	N	10	15	ft	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	180	UR	**18**	U	**56**		**2.7**	J
GCMW-45	059-2116	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	160	UR	**16**	U	**54**		**2**	J
GCMW-45	059-2117	N	20	25	ft	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	150	UR	**15**	U	**78**		**7.3**	U
GCMW-45	059-2118	N	25	30	ft	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	150,000	UR	**15,000**	U	**15,000**	U	**1,600**	J
GCMW-45	059-2119	N	30	35	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	70,000	UR	**7,000**	U	**7,000**	U	**730**	J
GCMW-45	059-2120	N	35	40	ft	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	180,000	UR	**18,000**	U	**18,000**	U	**9,100**	U
GCMW-46	059-2167	N	5	10	ft	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	140	UR	**14**	U	**14**	U	**7.2**	U
GCMW-46	059-2168	N	10	15	ft	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	150	UR	**15**	U	**44**		**7.7**	U
GCMW-46	059-2169	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	160	UR	**16**	U	**37**		**7.8**	U
GCMW-46	059-2170	N	20	25	ft	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	150	UR	**15**	U	**42**		**7.6**	U
GCMW-46	059-2171	N	25	30	ft	9	UR	9	UR	**9**	UJ	9	UR	9	UR	9	UR	180	UR	**22**	U	**240**		**2.5**	J
GCMW-46	059-2172	N	30	35	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	120	UR	**12**	U	**12**	U	**1.7**	J
GCMW-46	059-2173	N	35	40	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	120	UR	**12**	U	**12**	U	**2.4**	J
GCMW-46	059-2174	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	120	UR	**12**	U	**12**	U	**1.4**	J
GCMW-46	059-2175	N	45	50	ft	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	110	UR	**11**	UJ	**11**	UJ	**5.5**	UJ
GCMW-46	059-2176	N	50	55	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	99	UR	**9.9**	UJ	**9.9**	UJ	**2.4**	J
GCMW-47	059-2234	N	10	15	ft	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	11,000	UR	**1,100**	U	**1,100**	U	**530**	U
GCMW-47	059-2235	N	15	20	ft	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U	160	UR	**16**	U	**41**		**8**	U
GCMW-47	059-2236	N	25	30	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	35,000	UR	**3,500**	U	**3,500**	U	**370**	J
GCMW-47	059-2237	N	30	35	ft	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	670,000	UR	**67,000**	U	**67,000**	U	**10,000**	J
GCMW-47	059-2238	N	36	36.5	ft	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	1,000,000	UR	**100,000**	U	**100,000**	U	**19,000**	J
GCMW-47	059-2239	N	40	40.5	ft	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	48,000	UR	**4,800**	U	**4,800**	U	**2,400**	U
GCMW-47	059-2240	N	40	45	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	110	UR	**11**	U	**11**	U	**5.4**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-44	059-2122	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**4.1**	J	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-44	059-2123	N	10	15	ft	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**4.6**	J	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U
GCMW-44	059-2124	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	**15**		**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U
GCMW-44	059-2125	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**6.6**		**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-44	059-2126	N	25	30	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**24**		**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U
GCMW-44	059-2127	N	30	35	ft	**12**	U	**12**	U	**12**	U	**12**	U	**6.4**	J	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	
GCMW-44	059-2128	N	35	40	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**0.88**	J	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**8.2**	
GCMW-44	059-2129	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**0.94**	J	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**11**	
GCMW-45	059-2114	N	5	10	ft	**43**	U	**43**	U	**43**	U	**43**	U	**9.3**	J	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U
GCMW-45	059-2115	N	10	15	ft	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**25**		**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U
GCMW-45	059-2116	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**19**		**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U
GCMW-45	059-2117	N	20	25	ft	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**31**		**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U
GCMW-45	059-2118	N	25	30	ft	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U
GCMW-45	059-2119	N	30	35	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U
GCMW-45	059-2120	N	35	40	ft	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**1,100**	J	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**590**	J
GCMW-46	059-2167	N	5	10	ft	**7.2**	U	**7.2**	U	**7.2**	UJ	**7.2**	U	**2.6**	J	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U
GCMW-46	059-2168	N	10	15	ft	**7.7**	U	**7.7**	U	**7.7**	UJ	**7.7**	U	**5.3**	J	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U
GCMW-46	059-2169	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	UJ	**7.8**	U	**11**		**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U
GCMW-46	059-2170	N	20	25	ft	**7.6**	U	**7.6**	U	**7.6**	UJ	**7.6**	U	**10**		**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U
GCMW-46	059-2171	N	25	30	ft	**9**	UJ	9	UR	9	UR	**9**	UJ	**70**	J	9	UR	9	UR	**9**	UJ	**9**	UJ	**9**	UJ	**9**	UJ
GCMW-46	059-2172	N	30	35	ft	**6.2**	U	**6.2**	U	**6.2**	UJ	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**3**	J
GCMW-46	059-2173	N	35	40	ft	**5.9**	U	**5.9**	U	**5.9**	UJ	**5.9**	U	**1.8**	J	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**16**	
GCMW-46	059-2174	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	UJ	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.9**	
GCMW-46	059-2175	N	45	50	ft	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**0.87**	J	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**1.4**	J
GCMW-46	059-2176	N	50	55	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**15**	J
GCMW-47	059-2234	N	10	15	ft	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U	**530**	U
GCMW-47	059-2235	N	15	20	ft	**8**	U	**8**	U	**8**	U	**8**	U	**11**		**8**	U	**8**	U	**8**	U	**8**	U	**8**	U	**8**	U
GCMW-47	059-2236	N	25	30	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U
GCMW-47	059-2237	N	30	35	ft	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U
GCMW-47	059-2238	N	36	36.5	ft	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U
GCMW-47	059-2239	N	40	40.5	ft	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U
GCMW-47	059-2240	N	40	45	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**6.5**	

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-44	059-2122	N	5	10	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**0.37**	J	**10**	U	**20**	J	**20**	U	**10**	U
GCMW-44	059-2123	N	10	15	ft	**9.5**	U	**9.5**	U	**9.5**	U	**9.5**	U	**1.1**	J	**5.9**	J	**3.4**	J	**9.5**	U	**48**		**19**	U	**3.6**	J
GCMW-44	059-2124	N	15	20	ft	**13**	U	**13**	U	**13**	U	**13**	U	**0.76**	J	**13**	U	**1.5**	J	**13**	U	**27**		**25**	U	**13**	U
GCMW-44	059-2125	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**0.3**	J	**0.74**	J	**0.95**	J	**5**	U	**6.8**	J	**9.9**	U	**5**	U
GCMW-44	059-2126	N	25	30	ft	**9.2**	U	**9.2**	U	**9.2**	U	**9.2**	U	**0.67**	J	**9.2**	U	**1.9**	J	**9.2**	U	**12**	J	**18**	U	**9.2**	U
GCMW-44	059-2127	N	30	35	ft	**12**	U	**12**	U	**12**	U	**12**	U	**5.9**	J	**3.9**	J	**28**	J	**12**	U	**170**		**24**	U	**12**	U
GCMW-44	059-2128	N	35	40	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**0.21**	J	**5.7**	U	**11**	U	**11**	U	**5.7**	U
GCMW-44	059-2129	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**0.2**	J	**6.2**	U	**0.46**	J	**6.2**	U	**12**	U	**12**	U	**6.2**	U
GCMW-45	059-2114	N	5	10	ft	**43**	U	**43**	U	**43**	U	**43**	U	**4.5**	J	**43**	U	**12**	J	**43**	U	**85**	U	**85**	U	**43**	U
GCMW-45	059-2115	N	10	15	ft	**9.1**	U	**9.1**	U	**9.1**	U	**9.1**	U	**0.65**	J	**9.1**	U	**1.7**	J	**9.1**	U	**24**		**18**	U	**9.1**	U
GCMW-45	059-2116	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**0.33**	J	**7.8**	U	**0.88**	J	**7.8**	U	**22**		**16**	U	**7.8**	U
GCMW-45	059-2117	N	20	25	ft	**7.3**	U	**7.3**	U	**7.3**	U	**7.3**	U	**0.31**	J	**7.3**	U	**0.59**	J	**7.3**	U	**20**		**15**	U	**7.3**	U
GCMW-45	059-2118	N	25	30	ft	**7,300**	U	**7,300**	U	**7,300**	U	**7,300**	U	**31,000**		**2,900**	J	--		**7,300**	U	**15,000**	U	**15,000**	U	**7,300**	U
GCMW-45	059-2119	N	30	35	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**22,000**		**2,800**	J	**17,000**		**3,500**	U	**7,000**	U	**7,000**	U	**3,500**	U
GCMW-45	059-2120	N	35	40	ft	**9,100**	U	**9,100**	U	**9,100**	U	**9,100**	U	**120,000**		**19,000**		**97,000**		**9,100**	U	**18,000**	U	**18,000**	U	**9,100**	U
GCMW-46	059-2167	N	5	10	ft	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**7.2**	U	**14**	J	**14**	U	**7.2**	U
GCMW-46	059-2168	N	10	15	ft	**7.7**	U	**7.7**	U	**7.7**	U	**7.7**	U	**0.38**	J	**0.38**	J	**0.39**	J	**7.7**	U	**14**	J	**15**	U	**7.7**	U
GCMW-46	059-2169	N	15	20	ft	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**7.8**	U	**14**	J	**16**	U	**7.8**	U
GCMW-46	059-2170	N	20	25	ft	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**22**		**15**	U	**7.6**	U
GCMW-46	059-2171	N	25	30	ft	9	UR	**9**	UJ	9	UR	**9**	UJ	9	UR	9	UR	**11**	U	**9**	UJ	**65**	J	**22**	U	9	UR
GCMW-46	059-2172	N	30	35	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**12**	U	**12**	U	**6.2**	U
GCMW-46	059-2173	N	35	40	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**12**	U	**12**	U	**5.9**	U
GCMW-46	059-2174	N	40	45	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**0.99**	J	**6.2**	U	**6.2**	U	**6.2**	U	**12**	U	**12**	U	**6.2**	U
GCMW-46	059-2175	N	45	50	ft	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**5.5**	UJ	**11**	UJ	**11**	UJ	**5.5**	UJ
GCMW-46	059-2176	N	50	55	ft	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**4.9**	UJ	**9.9**	UJ	**9.9**	UJ	**4.9**	UJ
GCMW-47	059-2234	N	10	15	ft	**530**	U	**530**	U	**530**	U	**530**	U	**77**	J	**80**	J	**160**	J	**530**	U	**1,100**	U	**1,100**	U	**530**	U
GCMW-47	059-2235	N	15	20	ft	**8**	U	**8**	U	**8**	U	**8**	U	**24**		**7.8**	J	**45**		**8**	U	**16**	U	**16**	U	**8**	U
GCMW-47	059-2236	N	25	30	ft	**1,800**	U	**1,800**	U	**1,800**	U	**1,800**	U	**4,100**		**790**	J	**3,500**		**1,800**	U	**3,500**	U	**3,500**	U	**1,800**	U
GCMW-47	059-2237	N	30	35	ft	**33,000**	U	**33,000**	U	**33,000**	U	**33,000**	U	**94,000**		**7,800**	J	**75,000**		**33,000**	U	**67,000**	U	**67,000**	U	**33,000**	U
GCMW-47	059-2238	N	36	36.5	ft	**50,000**	U	**50,000**	U	**50,000**	U	**50,000**	U	**240,000**		**8,800**	J	**200,000**		**50,000**	U	**100,000**	U	**100,000**	U	**50,000**	U
GCMW-47	059-2239	N	40	40.5	ft	**2,400**	U	**2,400**	U	**2,400**	U	**2,400**	U	**4,800**		**830**	J	**3,700**		**2,400**	U	**4,800**	U	**4,800**	U	**2,400**	U
GCMW-47	059-2240	N	40	45	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**1**	J	**5.4**	U	**0.75**	J	**5.4**	U	**11**	U	**11**	U	**5.4**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-44	059-2122	N	5	10	ft	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
GCMW-44	059-2123	N	10	15	ft	9.5	U	9.4	J	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U	9.5	U
GCMW-44	059-2124	N	15	20	ft	13	U	0.63	J	13	U	13	U	13	U	13	U	13	U	13	U	13	U	13	U	13	U
GCMW-44	059-2125	N	20	25	ft	5	U	1.7	J	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
GCMW-44	059-2126	N	25	30	ft	9.2	U	0.79	J	9.2	U	9.2	U	9.2	U	9.2	U	9.2	U	9.2	U	9.2	U	9.2	U	9.2	U
GCMW-44	059-2127	N	30	35	ft	12	U	17	J	12	U	12	U	12	U	12	UJ	12	U	12	U	1.1	J	2.2	J	12	U
GCMW-44	059-2128	N	35	40	ft	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	5.7	U	2.3	J	5.7	U	5.7	U	5.7	U	5.7	U
GCMW-44	059-2129	N	40	45	ft	6.2	U	0.11	J	6.2	U	6.2	U	6.2	U	6.2	U	3.6	J	6.2	U	6.2	U	6.2	U	6.2	U
GCMW-45	059-2114	N	5	10	ft	43	U	4.5	J	43	U	43	U	43	U	43	U	43	U	43	U	43	U	43	U	43	U
GCMW-45	059-2115	N	10	15	ft	9.1	U	0.8	J	9.1	U	9.1	U	9.1	U	9.1	U	9.1	U	9.1	U	9.1	U	9.1	U	9.1	U
GCMW-45	059-2116	N	15	20	ft	7.8	U	0.39	J	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U
GCMW-45	059-2117	N	20	25	ft	7.3	U	0.21	J	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U	7.3	U
GCMW-45	059-2118	N	25	30	ft	7,300	U	12,000		7,300	U	7,300	U	7,300	U	1,000	J	7,300	U	7,300	U	7,300	U	7,300	U	7,300	U
GCMW-45	059-2119	N	30	35	ft	3,500	U	8,100		3,500	U	3,500	U	3,500	U	350	J	3,500	U	3,500	U	3,500	U	3,500	U	3,500	U
GCMW-45	059-2120	N	35	40	ft	9,100	U	43,000		9,100	U	9,100	U	9,100	U	2,200	J	9,100	U	9,100	U	2,100	J	9,100	U	9,100	U
GCMW-46	059-2167	N	5	10	ft	7.2	U	7.2	U	7.2	U	7.2	U	7.2	U	7.2	U	7.2	U	7.2	U	7.2	U	7.2	U	7.2	U
GCMW-46	059-2168	N	10	15	ft	7.7	U	0.35	J	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U	7.7	U
GCMW-46	059-2169	N	15	20	ft	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U	7.8	U
GCMW-46	059-2170	N	20	25	ft	7.6	U	7.6	U	7.6	U	7.6	U	7.6	U	7.6	U	7.6	U	7.6	U	7.6	U	7.6	U	7.6	U
GCMW-46	059-2171	N	25	30	ft	9	UJ	9	UR	9	UR	9	UJ	9	UR	9	UJ	9	UJ	9	UR	9	UR	9	UJ	9	UJ
GCMW-46	059-2172	N	30	35	ft	6.2	U	6.2	U	6.2	U	6.2	U	6.2	U	6.2	U	6.2	U	6.2	U	1.7	J	6.2	U	6.2	U
GCMW-46	059-2173	N	35	40	ft	5.9	U	5.9	U	5.9	U	5.9	U	5.9	U	5.9	U	5.9	U	5.9	U	2.1	J	5.9	U	5.9	U
GCMW-46	059-2174	N	40	45	ft	6.2	U	6.2	U	6.2	U	6.2	U	6.2	U	6.2	U	0.65	J	6.2	U	0.53	J	6.2	U	6.2	U
GCMW-46	059-2175	N	45	50	ft	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ	5.5	UJ
GCMW-46	059-2176	N	50	55	ft	4.9	UJ	4.9	UJ	4.9	UJ	0.56	J	4.9	UJ	4.9	UJ	6.6	J	4.9	UJ	1.1	J	4.9	UJ	4.9	UJ
GCMW-47	059-2234	N	10	15	ft	52	J	97	J	530	U	530	U	530	U	530	U	530	U	530	U	530	U	530	U	530	U
GCMW-47	059-2235	N	15	20	ft	8	U	51		8	U	8	U	8	U	8	U	8	U	8	U	8	U	8	U	8	U
GCMW-47	059-2236	N	25	30	ft	110	J	1,700	J	1,800	U	1,800	U	1,800	U	56	J	1,800	U	1,800	U	1,800	U	1,800	U	1,800	U
GCMW-47	059-2237	N	30	35	ft	33,000	U	35,000		33,000	U	33,000	U	33,000	U	24,000	J	33,000	U	33,000	U	33,000	U	33,000	U	33,000	U
GCMW-47	059-2238	N	36	36.5	ft	50,000	U	90,000		26,000	J	50,000	U	50,000	U	110,000		50,000	U	50,000	U	50,000	U	50,000	U	50,000	U
GCMW-47	059-2239	N	40	40.5	ft	2,400	U	2,100	J	2,400	U	2,400	U	2,400	U	380	J	2,400	U	2,400	U	2,400	U	2,400	U	2,400	U
GCMW-47	059-2240	N	40	45	ft	5.4	U	0.55	J	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,4-dinitrotoluene	2,6-dinitrotoluene	2-chloronaphthalene	2-chlorophenol
GCMW-44	059-2122	N	5	10	ft	270 U	270 U	270 U	270 U	270 U	270 U	520 U	270 U	270 U	270 U	270 U
GCMW-44	059-2123	N	10	15	ft	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U	2,800 U	1,400 U	1,400 U	1,400 U	1,400 U
GCMW-44	059-2124	N	15	20	ft	270 U	270 U	270 U	270 U	270 U	270 U	530 U	270 U	270 U	270 U	270 U
GCMW-44	059-2125	N	20	25	ft	200 U	200 U	200 U	200 U	200 U	200 U	400 U	200 U	200 U	200 U	200 U
GCMW-44	059-2126	N	25	30	ft	260 U	260 U	260 U	260 U	260 U	260 U	500 U	260 U	260 U	260 U	260 U
GCMW-44	059-2127	N	30	35	ft	310 U	310 U	310 U	310 U	310 U	310 U	610 U	310 U	310 U	310 U	310 U
GCMW-44	059-2128	N	35	40	ft	210 U	210 U	210 U	210 U	210 U	210 U	410 U	210 U	210 U	210 U	210 U
GCMW-44	059-2129	N	40	45	ft	220 U	220 U	220 U	220 U	220 U	220 U	420 U	220 U	220 U	220 U	220 U
GCMW-45	059-2114	N	5	10	ft	2,800 U	2,800 U	2,800 U	2,800 U	2,800 U	2,800 U	5,400 U	2,800 U	2,800 U	2,800 U	2,800 U
GCMW-45	059-2115	N	10	15	ft	280 U	280 U	280 U	280 U	280 U	280 U	540 U	280 U	280 U	280 U	280 U
GCMW-45	059-2116	N	15	20	ft	260 U	260 U	260 U	260 U	260 U	260 U	510 U	260 U	260 U	260 U	260 U
GCMW-45	059-2117	N	20	25	ft	260 U	260 U	260 U	260 U	260 U	260 U	500 U	260 U	260 U	260 U	260 U
GCMW-45	059-2118	N	25	30	ft	12,000 U	12,000 U	12,000 U	12,000 U	12,000 U	12,000 U	23,000 U	12,000 U	12,000 U	12,000 U	12,000 U
GCMW-45	059-2119	N	30	35	ft	32,000 U	32,000 U	32,000 U	32,000 U	32,000 U	32,000 U	63,000 U	32,000 U	32,000 U	32,000 U	32,000 U
GCMW-45	059-2120	N	35	40	ft	36,000 U	36,000 U	36,000 U	36,000 U	36,000 U	36,000 U	71,000 U	36,000 U	36,000 U	36,000 U	36,000 U
GCMW-46	059-2167	N	5	10	ft	250 U	250 U	250 U	250 U	250 U	250 U	480 U	250 U	250 U	250 U	250 U
GCMW-46	059-2168	N	10	15	ft	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	1,500 U	2,900 U	1,500 U	1,500 U	1,500 U	1,500 U
GCMW-46	059-2169	N	15	20	ft	270 U	270 U	270 U	270 U	270 U	270 U	520 U	270 U	270 U	270 U	270 U
GCMW-46	059-2170	N	20	25	ft	260 U	260 U	260 U	260 U	260 U	260 U	510 U	260 U	260 U	260 U	260 U
GCMW-46	059-2171	N	25	30	ft	240 U	240 U	240 U	240 U	240 U	240 U	460 U	240 U	240 U	240 U	240 U
GCMW-46	059-2172	N	30	35	ft	210 U	210 U	210 U	210 U	210 U	210 U	400 U	210 U	210 U	210 U	210 U
GCMW-46	059-2173	N	35	40	ft	210 U	210 U	210 U	210 U	210 U	210 U	410 U	210 U	210 U	210 U	210 U
GCMW-46	059-2174	N	40	45	ft	210 U	210 U	210 U	210 U	210 U	210 U	400 U	210 U	210 U	210 U	210 U
GCMW-46	059-2175	N	45	50	ft	190 U	190 U	190 U	190 U	190 U	190 U	370 U	190 U	190 U	190 U	190 U
GCMW-46	059-2176	N	50	55	ft	190 U	190 U	190 U	190 U	190 U	190 U	380 U	190 U	190 U	190 U	190 U
GCMW-47	059-2234	N	10	15	ft	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U	2,500 U	1,300 U	1,300 U	1,300 U	1,300 U
GCMW-47	059-2235	N	15	20	ft	270 U	270 U	270 U	270 U	270 U	270 U	520 U	270 U	270 U	270 U	270 U
GCMW-47	059-2236	N	25	30	ft	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U	12,000 U	6,200 U	6,200 U	6,200 U	6,200 U
GCMW-47	059-2237	N	30	35	ft	300,000 U	300,000 U	300,000 U	300,000 U	300,000 U	300,000 U	600,000 U	300,000 U	300,000 U	300,000 U	300,000 U
GCMW-47	059-2238	N	36	36.5	ft	180,000 U	180,000 U	180,000 U	180,000 U	180,000 U	180,000 U	350,000 U	180,000 U	180,000 U	180,000 U	180,000 U
GCMW-47	059-2239	N	40	40.5	ft	24,000 U	24,000 U	24,000 U	24,000 U	24,000 U	24,000 U	48,000 U	24,000 U	24,000 U	24,000 U	24,000 U
GCMW-47	059-2240	N	40	45	ft	980 U	980 U	980 U	980 U	980 U	980 U	1,900 U	980 U	980 U	980 U	980 U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)
GCMW-44	059-2122	N	5	10	ft	410	270 U	520 U	270 U	270 UJ	520 U	520 U	270 U	270 U	270 UJ	270 U	270 U
GCMW-44	059-2123	N	10	15	ft	1,400 J	1,400 U	2,800 U	1,400 U	1,400 U	2,800 U	2,800 U	1,400 U	1,400 U	1,400 U	1,400 U	1,400 U
GCMW-44	059-2124	N	15	20	ft	53 J	270 U	530 U	270 U	270 U	530 U	530 U	270 UJ	270 U	270 U	270 UJ	270 U
GCMW-44	059-2125	N	20	25	ft	200 U	200 U	400 U	200 U	200 U	400 U	400 U	200 U	200 U	200 U	200 U	200 U
GCMW-44	059-2126	N	25	30	ft	23 J	260 U	500 U	260 U	260 U	500 U	500 U	260 U	260 U	260 U	260 U	260 U
GCMW-44	059-2127	N	30	35	ft	310 U	310 U	610 U	310 U	310 U	610 U	610 U	310 U	310 U	310 U	310 U	310 U
GCMW-44	059-2128	N	35	40	ft	210 U	210 U	410 U	210 U	210 U	410 U	410 U	210 U	210 U	210 U	210 U	210 U
GCMW-44	059-2129	N	40	45	ft	220 U	220 U	420 U	220 U	220 U	420 U	420 U	220 U	220 U	220 U	220 U	220 U
GCMW-45	059-2114	N	5	10	ft	250 J	2,800 U	5,400 U	2,800 U	2,800 U	5,400 U	5,400 U	2,800 U	2,800 U	2,800 U	2,800 U	2,800 U
GCMW-45	059-2115	N	10	15	ft	62 J	280 U	540 U	280 U	280 U	540 U	540 U	280 U	280 U	280 U	280 U	280 U
GCMW-45	059-2116	N	15	20	ft	110 J	260 U	510 U	260 U	260 U	510 U	510 U	260 U	260 U	260 U	260 U	260 U
GCMW-45	059-2117	N	20	25	ft	510	260 U	500 U	260 U	260 U	500 U	500 U	260 U	260 U	260 U	260 U	260 U
GCMW-45	059-2118	N	25	30	ft	63,000	12,000 U	23,000 U	12,000 U	12,000 U	23,000 U	23,000 U	12,000 U	12,000 U	12,000 U	12,000 U	12,000 U
GCMW-45	059-2119	N	30	35	ft	230,000	32,000 U	63,000 U	32,000 U	32,000 U	63,000 U	63,000 U	32,000 U	32,000 U	32,000 U	32,000 U	32,000 U
GCMW-45	059-2120	N	35	40	ft	210,000	36,000 U	71,000 U	36,000 U	36,000 U	71,000 U	71,000 U	36,000 U	36,000 U	36,000 U	36,000 U	36,000 U
GCMW-46	059-2167	N	5	10	ft	250 U	250 U	480 U	250 U	250 U	480 U	480 U	250 U	250 U	250 U	250 U	35 J
GCMW-46	059-2168	N	10	15	ft	1,500 U	1,500 U	2,900 U	1,500 U	1,500 U	2,900 U	2,900 U	1,500 U	1,500 U	1,500 U	1,500 U	140 J
GCMW-46	059-2169	N	15	20	ft	270 U	270 U	520 U	270 U	270 U	520 U	520 U	270 U	270 U	270 U	270 U	270 U
GCMW-46	059-2170	N	20	25	ft	260 U	260 U	510 U	260 U	260 U	510 U	510 U	260 U	260 U	260 U	260 U	260 U
GCMW-46	059-2171	N	25	30	ft	240 U	240 U	460 U	240 U	240 U	460 U	460 U	240 U	240 U	240 U	240 U	240 U
GCMW-46	059-2172	N	30	35	ft	210 U	210 U	400 U	210 U	210 U	400 U	400 U	210 U	210 U	210 U	210 U	210 U
GCMW-46	059-2173	N	35	40	ft	210 U	210 U	410 U	210 U	210 U	410 U	410 U	210 U	210 U	210 U	210 U	210 U
GCMW-46	059-2174	N	40	45	ft	210 U	210 U	400 U	210 U	210 U	400 U	400 U	210 U	210 U	210 U	210 U	210 U
GCMW-46	059-2175	N	45	50	ft	190 U	190 U	370 U	190 U	190 U	370 U	370 U	190 U	190 U	190 U	190 U	190 U
GCMW-46	059-2176	N	50	55	ft	190 U	190 U	380 U	190 U	190 U	380 U	380 U	190 U	190 U	190 U	190 U	190 U
GCMW-47	059-2234	N	10	15	ft	390 J	1,300 U	2,500 U	1,300 U	1,300 U	2,500 U	2,500 U	1,300 U	1,300 U	1,300 U	1,300 U	1,300 U
GCMW-47	059-2235	N	15	20	ft	160 J	270 U	520 U	270 U	270 U	520 U	520 U	270 U	270 U	270 U	270 U	270 U
GCMW-47	059-2236	N	25	30	ft	1,500 J	6,200 U	12,000 U	6,200 U	6,200 U	12,000 U	12,000 U	6,200 U	6,200 U	6,200 U	6,200 U	6,200 U
GCMW-47	059-2237	N	30	35	ft	870,000	300,000 U	600,000 U	300,000 U	300,000 U	600,000 U	600,000 U	300,000 U	300,000 U	300,000 U	300,000 U	300,000 U
GCMW-47	059-2238	N	36	36.5	ft	1,200,000	180,000 U	350,000 U	180,000 U	180,000 U	350,000 U	350,000 U	180,000 U	180,000 U	180,000 U	180,000 U	180,000 U
GCMW-47	059-2239	N	40	40.5	ft	120,000	24,000 U	48,000 U	24,000 U	24,000 U	48,000 U	48,000 U	24,000 U	24,000 U	24,000 U	24,000 U	24,000 U
GCMW-47	059-2240	N	40	45	ft	1,700	980 U	1,900 U	980 U	980 U	1,900 U	1,900 U	980 U	980 U	980 U	980 U	980 U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene	
GCMW-44	059-2122	N	5	10	ft	520	U	520	U	450		58	J	120	J	290		270	U	190	J	430		340		410		210	J	120	J
GCMW-44	059-2123	N	10	15	ft	2,800	U	2,800	U	1,300	J	130	J	150	J	1,900	J	1,400	U	250	J	2,400		1,700		2,100		1,100	J	680	J
GCMW-44	059-2124	N	15	20	ft	530	U	530	U	44	J	270	U	71	J	38	J	270	U	100	J	23	J	21	J	16	J	13	J	270	U
GCMW-44	059-2125	N	20	25	ft	400	U	400	U	200	U	200	U	55	J	200	U	200	U	87	J	200	U	200	U	200	U	200	U	200	U
GCMW-44	059-2126	N	25	30	ft	500	U	500	U	20	J	260	U	85	J	11	J	260	U	130	J	8.2	J	260	U	260	U	260	U	260	U
GCMW-44	059-2127	N	30	35	ft	610	U	610	U	12	J	310	U	110	J	310	U	310	U	210	J	310	U	310	U	310	U	310	U	310	U
GCMW-44	059-2128	N	35	40	ft	410	U	410	U	8.7	J	210	U	56	J	210	U	210	U	90	J	210	UJ	210	U	210	U	210	U	210	U
GCMW-44	059-2129	N	40	45	ft	420	U	420	U	14	J	220	U	52	J	220	U	220	U	73	J	220	U	220	U	220	U	220	U	220	U
GCMW-45	059-2114	N	5	10	ft	5,400	U	5,400	U	230	J	2,800	U	200	J	210	J	2,800	U	1,400	J	720	J	820	J	960	J	520	J	390	J
GCMW-45	059-2115	N	10	15	ft	540	U	540	U	110	J	11	J	84	J	180	J	280	U	190	J	250	J	170	J	220	J	97	J	70	J
GCMW-45	059-2116	N	15	20	ft	510	U	510	U	19	J	8.1	J	83	J	260	U	260	U	160	J	260	U	260	U	260	U	260	U	260	U
GCMW-45	059-2117	N	20	25	ft	500	U	500	U	80	J	38	J	87	J	260	U	260	U	140	J	260	U	260	U	260	U	260	U	260	U
GCMW-45	059-2118	N	25	30	ft	23,000	U	23,000	U	14,000		14,000		810	J	11,000	J	12,000	U	12,000	U	5,700	J	3,800	J	3,000	J	1,600	J	1,200	J
GCMW-45	059-2119	N	30	35	ft	63,000	U	63,000	U	110,000		6,700	J	1,900	J	48,000		32,000	U	32,000	U	27,000	J	20,000	J	15,000	J	7,900	J	6,700	J
GCMW-45	059-2120	N	35	40	ft	71,000	U	71,000	U	120,000		8,300	J	1,700	J	59,000		36,000	U	36,000	U	30,000	J	22,000	J	16,000	J	7,200	J	6,800	J
GCMW-46	059-2167	N	5	10	ft	480	U	480	U	250	U	250	U	45	J	11	J	250	U	58	J	36	J	41	J	28	J	33	J	13	J
GCMW-46	059-2168	N	10	15	ft	2,900	U	2,900	U	150	J	1,500	U	150	J	340	J	1,500	U	200	J	780	J	520	J	570	J	340	J	170	J
GCMW-46	059-2169	N	15	20	ft	520	U	520	U	270	U	270	U	47	J	270	U	270	U	71	J	270	U	270	U	270	U	270	U	270	U
GCMW-46	059-2170	N	20	25	ft	510	U	510	U	260	U	260	U	34	J	260	U	260	U	47	J	260	U	260	U	260	U	260	U	260	U
GCMW-46	059-2171	N	25	30	ft	460	U	460	U	240	U	240	U	53	J	240	U	240	U	96	J	240	U	240	U	240	U	240	U	240	U
GCMW-46	059-2172	N	30	35	ft	400	U	400	U	12	J	210	U	35	J	210	U	210	U	58	J	210	U	210	U	210	U	210	U	210	U
GCMW-46	059-2173	N	35	40	ft	410	U	410	U	16	J	210	U	39	J	210	U	210	U	62	J	210	U	210	U	210	U	210	U	210	U
GCMW-46	059-2174	N	40	45	ft	400	U	400	U	11	J	210	U	50	J	210	U	210	U	98	J	210	U	210	U	210	U	210	U	210	U
GCMW-46	059-2175	N	45	50	ft	370	U	370	U	9.1	J	190	U	35	J	190	U	190	U	50	J	190	U	190	U	190	U	190	U	190	U
GCMW-46	059-2176	N	50	55	ft	380	U	380	U	47	J	25	J	46	J	190	U	190	U	73	J	190	U	190	U	190	U	190	U	190	U
GCMW-47	059-2234	N	10	15	ft	2,500	U	2,500	U	500	J	1,300	U	75	J	440	J	1,300	U	120	J	360	J	280	J	330	J	170	J	100	J
GCMW-47	059-2235	N	15	20	ft	520	U	520	U	86	J	31	J	84	J	77	J	270	U	110	J	66	J	38	J	27	J	19	J	15	J
GCMW-47	059-2236	N	25	30	ft	12,000	U	12,000	U	12,000		750	J	1,300	J	6,400		6,200	U	6,200	U	3,400	J	2,300	J	1,700	J	990	J	660	J
GCMW-47	059-2237	N	30	35	ft	600,000	U	600,000	U	290,000	J	160,000	J	300,000	U	210,000	J	300,000	U	300,000	U	140,000	J	94,000	J	69,000	J	42,000	J	26,000	J
GCMW-47	059-2238	N	36	36.5	ft	350,000	U	350,000	U	100,000	J	490,000		180,000	U	260,000		180,000	U	180,000	U	150,000	J	110,000	J	83,000	J	47,000	J	26,000	J
GCMW-47	059-2239	N	40	40.5	ft	48,000	U	48,000	U	67,000		11,000	J	1,400	J	38,000		24,000	U	24,000	U	25,000		16,000	J	13,000	J	7,500	J	3,200	J
GCMW-47	059-2240	N	40	45	ft	1,900	U	1,900	U	1,100		300	J	55	J	740	J	980	U	63	J	520	J	340	J	280	J	140	J	91	J

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran	
GCMW-44	059-2122	N	5	10	ft	17	J	72	J	270	U	270	U	270	U	38	J	270	U	73	J	330		50	J	54	J
GCMW-44	059-2123	N	10	15	ft	1,400	U	280	J	1,400	U	1,400	U	1,400	U	1,400	U	1,400	U	410	J	1,800		250	J	640	J
GCMW-44	059-2124	N	15	20	ft	270	UJ	270	UJ	270	U	270	U	270	U	28	J	270	UJ	270	UJ	20	J	270	U	270	UJ
GCMW-44	059-2125	N	20	25	ft	200	U	200	U	200	U	200	U	200	U	15	J	200	U	200	U	200	U	200	U	200	U
GCMW-44	059-2126	N	25	30	ft	9.9	J	260	U	260	U	260	U	260	U	32	J	260	U	260	U	260	U	260	U	260	U
GCMW-44	059-2127	N	30	35	ft	11	J	310	U	310	U	310	U	310	U	25	J	310	U	310	U	310	U	310	U	310	U
GCMW-44	059-2128	N	35	40	ft	210	U	210	U	210	U	210	U	210	U	24	J	210	U	210	U	210	UJ	210	U	210	U
GCMW-44	059-2129	N	40	45	ft	220	U	220	U	220	U	220	U	220	U	13	J	220	U	220	U	220	U	220	U	220	U
GCMW-45	059-2114	N	5	10	ft	2,800	U	2,800	U	2,800	U	2,800	U	2,800	U	2,800	U	2,800	U	2,800	U	660	J	210	J	2,800	U
GCMW-45	059-2115	N	10	15	ft	280	U	11	J	280	U	280	U	280	U	33	J	280	U	14	J	210	J	38	J	37	J
GCMW-45	059-2116	N	15	20	ft	260	U	9.1	J	260	U	260	U	260	U	22	J	260	U	260	U	260	U	260	U	260	U
GCMW-45	059-2117	N	20	25	ft	260	U	43	J	260	U	260	U	260	U	29	J	260	U	260	U	260	U	260	U	260	U
GCMW-45	059-2118	N	25	30	ft	12,000	U	6,500	J	12,000	U	12,000	U	12,000	U	12,000	U	12,000	U	1,500	J	4,000	J	740	J	1,800	J
GCMW-45	059-2119	N	30	35	ft	32,000	U	22,000	J	32,000	U	32,000	U	32,000	U	32,000	U	32,000	U	1,300	J	24,000	J	3,200	J	5,900	J
GCMW-45	059-2120	N	35	40	ft	36,000	U	24,000	J	36,000	U	36,000	U	36,000	U	36,000	U	36,000	U	2,200	J	25,000	J	2,800	J	7,100	J
GCMW-46	059-2167	N	5	10	ft	250	U	250	U	250	U	250	U	250	U	98	J	250	U	250	U	31	J	9.2	J	250	U
GCMW-46	059-2168	N	10	15	ft	1,500	U	1,500	U	1,500	U	1,500	U	1,500	U	120	J	1,500	U	1,500	U	720	J	130	J	59	J
GCMW-46	059-2169	N	15	20	ft	270	U	270	U	270	U	270	U	270	U	43	J	270	U	270	U	270	U	270	U	270	U
GCMW-46	059-2170	N	20	25	ft	260	U	260	U	260	U	260	U	260	U	53	J	260	U	260	U	260	U	260	U	260	U
GCMW-46	059-2171	N	25	30	ft	240	U	240	U	240	U	240	U	240	U	85	J	240	U	240	U	240	U	240	U	240	U
GCMW-46	059-2172	N	30	35	ft	210	U	210	U	210	U	210	U	210	U	56	J	210	U	210	U	210	U	210	U	210	U
GCMW-46	059-2173	N	35	40	ft	210	U	210	U	210	U	210	U	210	U	36	J	210	U	210	U	210	U	210	U	210	U
GCMW-46	059-2174	N	40	45	ft	210	U	210	U	210	U	210	U	210	U	61	J	210	U	210	U	210	U	210	U	210	U
GCMW-46	059-2175	N	45	50	ft	190	U	190	U	190	U	190	U	190	U	36	J	190	U	190	U	190	U	190	U	190	U
GCMW-46	059-2176	N	50	55	ft	190	U	190	U	190	U	190	U	190	U	46	J	190	U	190	U	190	U	190	U	190	U
GCMW-47	059-2234	N	10	15	ft	1,300	U	110	J	1,300	U	1,300	U	1,300	U	1,300	U	1,300	U	280	J	330	J	67	J	410	J
GCMW-47	059-2235	N	15	20	ft	270	U	23	J	270	U	270	U	270	U	46	J	270	U	10	J	54	J	270	U	28	J
GCMW-47	059-2236	N	25	30	ft	6,200	U	2,000	J	6,200	U	6,200	U	6,200	U	300	J	6,200	U	300	J	3,100	J	360	J	630	J
GCMW-47	059-2237	N	30	35	ft	300,000	U	85,000	J	300,000	U	300,000	U	300,000	U	300,000	U	300,000	U	300,000	U	120,000	J	300,000	U	27,000	J
GCMW-47	059-2238	N	36	36.5	ft	180,000	U	110,000	J	180,000	U	180,000	U	180,000	U	180,000	U	180,000	U	8,800	J	150,000	J	15,000	J	180,000	U
GCMW-47	059-2239	N	40	40.5	ft	24,000	U	14,000	J	24,000	U	24,000	U	24,000	U	24,000	U	24,000	U	1,000	J	24,000	J	2,600	J	4,800	J
GCMW-47	059-2240	N	40	45	ft	980	U	210	J	980	U	980	U	980	U	980	U	980	U	980	U	460	J	980	U	87	J

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene
GCMW-44	059-2122	N	5	10	ft	270 U	270 U	270 U	270 U	850	290	270 U	270 U	270 UJ	270 U	220 J
GCMW-44	059-2123	N	10	15	ft	1,400 U	1,400 U	1,400 U	1,400 U	5,600	1,200 J	1,400 U	1,400 U	1,400 U	1,400 U	1,200 J
GCMW-44	059-2124	N	15	20	ft	270 UJ	270 UJ	270 U	270 UJ	48 J	31 J	270 U	270 U	270 U	270 U	12 J
GCMW-44	059-2125	N	20	25	ft	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ
GCMW-44	059-2126	N	25	30	ft	260 U	260 U	260 U	260 U	13 J	14 J	260 U	260 U	260 U	260 U	260 UJ
GCMW-44	059-2127	N	30	35	ft	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 UJ
GCMW-44	059-2128	N	35	40	ft	210 U	210 U	210 U	210 U	210 UJ	210 U	210 U	210 U	210 U	210 U	210 UJ
GCMW-44	059-2129	N	40	45	ft	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 UJ
GCMW-45	059-2114	N	5	10	ft	2,800 U	2,800 U	2,800 U	2,800 U	1,200 J	110 J	2,800 U	2,800 U	2,800 U	2,800 U	540 J
GCMW-45	059-2115	N	10	15	ft	280 U	280 U	280 U	280 U	530	77 J	280 U	280 U	280 U	280 U	110 J
GCMW-45	059-2116	N	15	20	ft	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U
GCMW-45	059-2117	N	20	25	ft	260 U	260 U	11 J	260 U	260 U	21 J	260 U	260 U	260 U	260 U	260 U
GCMW-45	059-2118	N	25	30	ft	12,000 U	12,000 U	12,000 U	12,000 U	11,000 J	16,000	12,000 U	12,000 U	12,000 U	12,000 U	1,600 J
GCMW-45	059-2119	N	30	35	ft	32,000 U	32,000 U	32,000 U	32,000 U	50,000	56,000	32,000 U	32,000 U	32,000 U	32,000 U	7,600 J
GCMW-45	059-2120	N	35	40	ft	36,000 U	36,000 U	36,000 U	36,000 U	61,000	70,000	36,000 U	36,000 U	36,000 U	36,000 U	7,000 J
GCMW-46	059-2167	N	5	10	ft	250 U	250 U	250 U	250 U	41 J	250 U	250 U	250 U	250 U	250 U	36 J
GCMW-46	059-2168	N	10	15	ft	1,500 U	1,500 U	1,500 U	1,500 U	1,100 J	69 J	1,500 U	1,500 U	1,500 U	1,500 U	290 J
GCMW-46	059-2169	N	15	20	ft	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U
GCMW-46	059-2170	N	20	25	ft	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U	260 U
GCMW-46	059-2171	N	25	30	ft	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U	240 U
GCMW-46	059-2172	N	30	35	ft	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
GCMW-46	059-2173	N	35	40	ft	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
GCMW-46	059-2174	N	40	45	ft	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
GCMW-46	059-2175	N	45	50	ft	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
GCMW-46	059-2176	N	50	55	ft	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
GCMW-47	059-2234	N	10	15	ft	1,300 U	1,300 U	1,300 U	1,300 U	920 J	470 J	1,300 U	1,300 U	1,300 U	1,300 U	200 J
GCMW-47	059-2235	N	15	20	ft	270 U	270 U	270 U	270 U	100 J	78 J	270 U	270 U	270 U	270 U	19 J
GCMW-47	059-2236	N	25	30	ft	6,200 U	6,200 U	6,200 U	6,200 U	5,600 J	5,600 J	6,200 U	6,200 U	6,200 U	6,200 U	920 J
GCMW-47	059-2237	N	30	35	ft	300,000 U	300,000 U	300,000 U	300,000 U	220,000 J	230,000 J	300,000 U	300,000 U	300,000 U	300,000 U	37,000 J
GCMW-47	059-2238	N	36	36.5	ft	180,000 U	180,000 U	180,000 U	180,000 U	270,000	290,000 J	180,000 U	180,000 U	180,000 U	180,000 U	45,000 J
GCMW-47	059-2239	N	40	40.5	ft	24,000 U	24,000 U	24,000 U	24,000 U	39,000	38,000 J	24,000 U	24,000 U	24,000 U	24,000 U	7,500 J
GCMW-47	059-2240	N	40	45	ft	980 U	980 U	980 U	980 U	840 J	740 J	980 U	980 U	980 U	980 U	110 J

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs	
GCMW-44	059-2122	N	5	10	ft	270	U	--	250	J	270	U	270	U	270	U	520	U	1,300		26	J	990		6,998	
GCMW-44	059-2123	N	10	15	ft	1,400	U	--	7,000		1,400	U	1,400	U	1,400	U	2,800	U	5,400	J	52	J	5,100		40,260	
GCMW-44	059-2124	N	15	20	ft	270	U	--	39	J	270	U	270	U	270	U	530	U	150	J	15	J	74	J	582	
GCMW-44	059-2125	N	20	25	ft	200	U	--	7.7	J	200	U	200	U	200	U	400	U	200	U	9.8	J	200	U	7.7	
GCMW-44	059-2126	N	25	30	ft	260	U	--	19	J	260	U	260	U	260	U	500	U	54	J	20	J	22	J	184.2	
GCMW-44	059-2127	N	30	35	ft	310	U	--	15	J	310	U	310	U	310	U	610	U	310	U	22	J	310	U	27	
GCMW-44	059-2128	N	35	40	ft	210	U	--	210	U	210	U	210	U	210	U	410	U	8.4	J	10	J	210	UJ	17.1	
GCMW-44	059-2129	N	40	45	ft	220	U	--	220	U	220	U	220	U	220	U	420	U	11	J	12	J	7.8	J	32.8	
GCMW-45	059-2114	N	5	10	ft	2,800	U	--	1,400	J	2,800	U	2,800	U	2,800	U	5,400	U	500	J	88	J	1,000	J	9,720	
GCMW-45	059-2115	N	10	15	ft	280	U	--	340		280	U	280	U	280	U	540	U	250	J	19	J	430		3,155	
GCMW-45	059-2116	N	15	20	ft	260	U	--	260	J	260	U	260	U	260	U	510	U	8.8	J	25	J	260	U	405.9	
GCMW-45	059-2117	N	20	25	ft	260	U	--	960		260	U	260	U	260	U	500	U	11	J	22	J	260	U	1,620	
GCMW-45	059-2118	N	25	30	ft	12,000	U	--	140,000		12,000	U	12,000	U	12,000	U	23,000	U	42,000		12,000	U	15,000		347,640	
GCMW-45	059-2119	N	30	35	ft	32,000	U	--	170,000		32,000	U	32,000	U	32,000	U	63,000	U	180,000		32,000	U	78,000		1,040,100	
GCMW-45	059-2120	N	35	40	ft	36,000	U	--	340,000		36,000	U	36,000	U	36,000	U	71,000	U	220,000		36,000	U	88,000		1,293,100	
GCMW-46	059-2167	N	5	10	ft	250	U	--	8	J	250	U	250	U	250	U	480	U	33	J	9	J	47	J	367.2	
GCMW-46	059-2168	N	10	15	ft	1,500	U	--	110	J	1,500	U	1,500	U	1,500	U	2,900	U	610	J	57	J	1,500	J	7,399	
GCMW-46	059-2169	N	15	20	ft	270	U	--	270	U	270	U	270	U	270	U	520	U	270	U	8.3	J	270	U	0	U
GCMW-46	059-2170	N	20	25	ft	260	U	--	260	U	260	U	260	U	260	U	510	U	260	U	260	U	260	U	0	U
GCMW-46	059-2171	N	25	30	ft	240	U	--	240	U	240	U	240	U	240	U	460	U	240	U	9.5	J	240	U	0	U
GCMW-46	059-2172	N	30	35	ft	210	U	--	6.3	J	210	U	210	U	210	U	400	U	210	U	6.6	J	210	U	18.3	
GCMW-46	059-2173	N	35	40	ft	210	U	--	6.7	J	210	U	210	U	210	U	410	U	210	U	6.3	J	210	U	22.7	
GCMW-46	059-2174	N	40	45	ft	210	U	--	16	J	210	U	210	U	210	U	400	U	6.7	J	8.9	J	210	U	33.7	
GCMW-46	059-2175	N	45	50	ft	190	U	--	6.4	J	190	U	190	U	190	U	370	U	190	U	190	U	6.1	J	21.6	
GCMW-46	059-2176	N	50	55	ft	190	U	--	26	J	190	U	190	U	190	U	380	U	190	U	8.5	J	190	U	98	
GCMW-47	059-2234	N	10	15	ft	1,300	U	--	1,400		1,300	U	1,300	U	1,300	U	2,500	U	1,300	J	1,300	U	920	J	8,177	
GCMW-47	059-2235	N	15	20	ft	270	U	--	330		270	U	270	U	270	U	520	U	270		16	J	160	J	1,530	
GCMW-47	059-2236	N	25	30	ft	6,200	U	--	1,700	J	6,200	U	6,200	U	6,200	U	12,000	U	24,000		220	J	10,000		80,980	
GCMW-47	059-2237	N	30	35	ft	300,000	U	--	1,500,000		300,000	U	300,000	U	300,000	U	600,000	U	820,000		300,000	U	370,000		5,198,000	
GCMW-47	059-2238	N	36	36.5	ft	180,000	U	--	2,100,000		180,000	U	180,000	U	180,000	U	350,000	U	1,000,000		180,000	U	430,000		6,766,000	
GCMW-47	059-2239	N	40	40.5	ft	24,000	U	--	150,000		24,000	U	24,000	U	24,000	U	48,000	U	150,000		24,000	U	66,000		777,800	
GCMW-47	059-2240	N	40	45	ft	980	U	--	1,300		980	U	980	U	980	U	1,900	U	2,900		980	U	1,500		13,061	

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
GCMW-44	059-2122	N	5	10	ft	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	5.2 U	2.7 U	5.2 U	5.2 U	5.2 U	5.2 U
GCMW-44	059-2123	N	10	15	ft	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	5.6 U	2.9 U	5.6 U	3.7 J	5.6 U	5.6 U
GCMW-44	059-2124	N	15	20	ft	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	5.4 U	2.8 U	5.4 U	5.4 U	5.4 U	5.4 U
GCMW-44	059-2125	N	20	25	ft	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4 U	2.1 U	4 U	4 U	4 U	4 U
GCMW-44	059-2126	N	25	30	ft	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	5.1 U	2.6 U	5.1 U	5.1 U	5.1 U	5.1 U
GCMW-44	059-2127	N	30	35	ft	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	6.1 U	3.1 U	6.1 U	6.1 U	6.1 U	6.1 U
GCMW-44	059-2128	N	35	40	ft	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	4.2 U	4.2 U	4.2 U
GCMW-44	059-2129	N	40	45	ft	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.2 U	2.2 U	4.2 U	4.2 U	4.2 U	4.2 U
GCMW-45	059-2114	N	5	10	ft	5.6 U	5.6 U	0.29 J	5.6 U	5.6 U	11 U	5.6 U	11 U	11 U	11 U	11 U
GCMW-45	059-2115	N	10	15	ft	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	5.5 U	2.8 U	5.5 U	5.5 U	5.5 U	5.5 U
GCMW-45	059-2116	N	15	20	ft	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	5.1 U	2.6 U	5.1 U	5.1 U	5.1 U	5.1 U
GCMW-45	059-2117	N	20	25	ft	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	5.1 U	2.6 U	5.1 U	5.1 U	5.1 U	5.1 U
GCMW-45	059-2118	N	25	30	ft	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	8.7	2.1 U	4.1 U	4.1 U	4.1 U	4.1 U
GCMW-45	059-2119	N	30	35	ft	22 U	22 U	22 U	22 U	22 U	33 J	22 U	44 UJ	44 U	44 UJ	44 U
GCMW-45	059-2120	N	35	40	ft	25 U	25 U	25 U	25 U	25 U	38 J	25 U	50 U	50 U	50 U	50 U
GCMW-46	059-2167	N	5	10	ft	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	4.8 U	2.5 U	4.8 U	4.8 U	4.8 U	4.8 U
GCMW-46	059-2168	N	10	15	ft	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	5.7 U	2.9 U	5.7 U	5.7 UJ	5.7 UJ	5.7 U
GCMW-46	059-2169	N	15	20	ft	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	5.2 U	2.7 U	5.2 U	5.2 U	5.2 U	5.2 U
GCMW-46	059-2170	N	20	25	ft	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	5.1 U	2.6 U	5.1 U	5.1 U	5.1 U	5.1 U
GCMW-46	059-2171	N	25	30	ft	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	4.6 U	2.4 U	4.6 U	4.6 U	4.6 U	4.6 U
GCMW-46	059-2172	N	30	35	ft	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.1 U	2.1 U	4.1 U	4.1 U	4.1 U	4.1 U
GCMW-46	059-2173	N	35	40	ft	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	4.2 U	4.2 U	4.2 U
GCMW-46	059-2174	N	40	45	ft	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4 U	2.1 U	4 U	4 U	4 U	4 U
GCMW-46	059-2175	N	45	50	ft	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.7 U	1.9 U	3.7 U	3.7 U	3.7 U	3.7 U
GCMW-46	059-2176	N	50	55	ft	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	3.8 U	3.8 U	3.8 U
GCMW-47	059-2234	N	10	15	ft	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	5.2 U	2.7 U	5.2 U	5.2 U	5.2 U	5.2 U
GCMW-47	059-2235	N	15	20	ft	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	5.3 U	2.7 U	5.3 U	5.3 U	5.3 U	5.3 U
GCMW-47	059-2236	N	25	30	ft	2.1 UJ	4.4 J	2.1 UJ	2.1 UJ	2.1 UJ	4.1 UJ	2.2 J	4.1 UJ	11 R	5.1 J	4.1 UJ
GCMW-47	059-2237	N	30	35	ft	21 U	45 NJ	21 U	21 U	21 U	40 U	21 U	40 U	40 U	44 J	40 U
GCMW-47	059-2238	N	36	36.5	ft	21 U	65 R	21 U	21 U	21 U	41 U	21 U	41 U	41 U	77	41 U
GCMW-47	059-2239	N	40	40.5	ft	21 U	21 U	21 U	21 U	21 U	40 U	3.2 J	40 U	40 U	20 J	40 U
GCMW-47	059-2240	N	40	45	ft	2 U	2 U	2 U	2 U	2 U	3.9 U	2 U	3.9 U	3.9 U	3.9 U	3.9 U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-44	059-2122	N	5	10	ft	**5.2**	U	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**27**	U	**5.2**	U	**5.2**	U	**5.2**	U	**270**	U	**0**	U
GCMW-44	059-2123	N	10	15	ft	**5.6**	U	**2.9**	U	**6.2**		**2.9**	U	**2.9**	U	**10**	U	**5.6**	U	**5.6**	U	**5.6**	U	**290**	U	**0**	U
GCMW-44	059-2124	N	15	20	ft	**5.4**	U	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**28**	U	**5.4**	U	**5.4**	U	**5.4**	U	**280**	U	**0**	U
GCMW-44	059-2125	N	20	25	ft	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4**	U	**4**	U	**4**	U	**210**	U	**0**	U
GCMW-44	059-2126	N	25	30	ft	**5.1**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**26**	U	**5.1**	U	**5.1**	U	**5.1**	U	**260**	U	**0**	U
GCMW-44	059-2127	N	30	35	ft	**6.1**	U	**3.1**	U	**3.1**	U	**3.1**	U	**3.1**	U	**31**	U	**6.1**	U	**6.1**	U	**6.1**	U	**310**	U	**0**	U
GCMW-44	059-2128	N	35	40	ft	**4.2**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**4.2**	U	**210**	U	**0**	U
GCMW-44	059-2129	N	40	45	ft	**4.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**22**	U	**4.2**	U	**4.2**	U	**4.2**	U	**220**	U	**0**	U
GCMW-45	059-2114	N	5	10	ft	**11**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**56**	UJ	**11**	U	**11**	U	**11**	U	**560**	U	**0**	U
GCMW-45	059-2115	N	10	15	ft	**5.5**	U	**2.8**	U	**2.8**	U	**2.8**	U	**2.8**	U	**28**	U	**5.5**	U	**5.5**	U	**5.5**	U	**280**	U	**0**	U
GCMW-45	059-2116	N	15	20	ft	**5.1**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**26**	U	**5.1**	U	**5.1**	U	**5.1**	U	**260**	U	**0**	U
GCMW-45	059-2117	N	20	25	ft	**5.1**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**26**	U	**5.1**	U	**5.1**	U	**5.1**	U	**260**	U	**0**	U
GCMW-45	059-2118	N	25	30	ft	**4.1**	U	**2.1**	U	**6.9**		**2.1**	U	**2.1**	U	**34**	J	**4.1**	U	**4.1**	U	**25**		**210**	U	**25**	
GCMW-45	059-2119	N	30	35	ft	**44**	U	**22**	UJ	**22**	U	**22**	UJ	**22**	U	**220**	U	**44**	U	**44**	U	**92**		**2,200**	U	**92**	
GCMW-45	059-2120	N	35	40	ft	**50**	U	**25**	U	**31**	NJ	**25**	U	**25**	U	**250**	U	**34**	J	**50**	U	**94**		**2,500**	U	**128**	
GCMW-46	059-2167	N	5	10	ft	**4.8**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**25**	U	**4.8**	U	**4.8**	U	**4.8**	U	**250**	U	**0**	U
GCMW-46	059-2168	N	10	15	ft	**5.7**	U	**2.9**	UJ	**2.9**	U	**2.9**	U	**2.9**	U	**29**	UJ	**5.7**	U	**5.7**	UJ	**5.7**	UJ	**290**	U	**0**	U
GCMW-46	059-2169	N	15	20	ft	**5.2**	U	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**27**	U	**5.2**	U	**5.2**	U	**5.2**	U	**270**	U	**0**	U
GCMW-46	059-2170	N	20	25	ft	**5.1**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**26**	U	**5.1**	U	**5.1**	U	**5.1**	U	**260**	U	**0**	U
GCMW-46	059-2171	N	25	30	ft	**4.6**	U	**2.4**	U	**2.4**	U	**2.4**	U	**2.4**	U	**24**	U	**4.6**	U	**4.6**	U	**4.6**	U	**240**	U	**0**	U
GCMW-46	059-2172	N	30	35	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-46	059-2173	N	35	40	ft	**4.2**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**4.2**	U	**210**	U	**0**	U
GCMW-46	059-2174	N	40	45	ft	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4**	U	**4**	U	**4**	U	**210**	U	**0**	U
GCMW-46	059-2175	N	45	50	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-46	059-2176	N	50	55	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-47	059-2234	N	10	15	ft	**5.2**	U	**2.7**	U	**2.7**	U	**2.7**	U	**1.3**	J	**27**	U	**5.2**	U	**5.2**	U	**5.2**	U	**270**	U	**0**	U
GCMW-47	059-2235	N	15	20	ft	**5.3**	U	**2.7**	U	**2.7**	U	**2.7**	U	**0.64**	J	**27**	U	**5.3**	U	**5.3**	U	**5.3**	U	**270**	U	**0**	U
GCMW-47	059-2236	N	25	30	ft	**4.1**	UJ	**2.1**	UJ	7	R	**2.1**	UJ	**2.5**	J	**21**	J	**4.1**	UJ	**4.1**	UJ	**10**	J	**210**	UJ	**10**	
GCMW-47	059-2237	N	30	35	ft	**40**	U	**21**	U	82	R	**21**	U	**21**	U	**210**	U	**40**	U	**40**	U	**110**	NJ	**2,100**	U	**110**	
GCMW-47	059-2238	N	36	36.5	ft	**41**	U	**21**	U	**220**	NJ	**21**	U	**45**		**210**	U	**41**	U	**41**	U	**180**	J	**2,100**	U	**180**	
GCMW-47	059-2239	N	40	40.5	ft	**40**	U	**21**	U	**21**	U	**21**	U	**21**	U	**210**	U	**40**	U	**40**	U	**40**	U	**2,100**	U	**0**	U
GCMW-47	059-2240	N	40	45	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-44	059-2122	N	5	10	ft	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**0**	U
GCMW-44	059-2123	N	10	15	ft	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**0**	U
GCMW-44	059-2124	N	15	20	ft	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**54**	U	**0**	U
GCMW-44	059-2125	N	20	25	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-44	059-2126	N	25	30	ft	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**0**	U
GCMW-44	059-2127	N	30	35	ft	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**61**	U	**0**	U
GCMW-44	059-2128	N	35	40	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-44	059-2129	N	40	45	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-45	059-2114	N	5	10	ft	**110**	U	**110**	U	**110**	U	**110**	U	**110**	U	**110**	U	**110**	U	**110**	U	**110**	U	**0**	U
GCMW-45	059-2115	N	10	15	ft	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**0**	U
GCMW-45	059-2116	N	15	20	ft	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**0**	U
GCMW-45	059-2117	N	20	25	ft	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**0**	U
GCMW-45	059-2118	N	25	30	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-45	059-2119	N	30	35	ft	44	UR	44	UR	44	UR	44	UR	44	UR	44	UR	44	UR	44	UR	44	UR	--	
GCMW-45	059-2120	N	35	40	ft	49	UR	49	UR	49	UR	49	UR	49	UR	49	UR	49	UR	49	UR	49	UR	--	
GCMW-46	059-2167	N	5	10	ft	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**48**	U	**0**	U
GCMW-46	059-2168	N	10	15	ft	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**57**	U	**0**	U
GCMW-46	059-2169	N	15	20	ft	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**0**	U
GCMW-46	059-2170	N	20	25	ft	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**51**	U	**0**	U
GCMW-46	059-2171	N	25	30	ft	**46**	U	**46**	U	**46**	U	**46**	U	**46**	U	**46**	U	**46**	U	**46**	U	**46**	U	**0**	U
GCMW-46	059-2172	N	30	35	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-46	059-2173	N	35	40	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-46	059-2174	N	40	45	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-46	059-2175	N	45	50	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**0**	U
GCMW-46	059-2176	N	50	55	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-47	059-2234	N	10	15	ft	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**52**	U	**0**	U
GCMW-47	059-2235	N	15	20	ft	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**53**	U	**0**	U
GCMW-47	059-2236	N	25	30	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-47	059-2237	N	30	35	ft	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**400**	U	**0**	U
GCMW-47	059-2238	N	36	36.5	ft	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**410**	U	**0**	U
GCMW-47	059-2239	N	40	40.5	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-47	059-2240	N	40	45	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-44	059-2122	N	5	10	ft	4,840	2.2 J	58.3	277	0.77 U	0.26 J	3,880	25.1	7.5 J	104	25,400
GCMW-44	059-2123	N	10	15	ft	18,100	0.87 J	48.9	117	0.89	0.27 J	3,200	58.5	11.4	105	35,000
GCMW-44	059-2124	N	15	20	ft	15,000	0.62 J	8.4	30.8 J	0.79 U	0.79 U	3,410	29.5	9.4	13.7	30,900
GCMW-44	059-2125	N	20	25	ft	8,320	0.49 J	5	20.7 J	0.41 J	0.66 U	1,570	16.9	5.2 J	8.3	18,000
GCMW-44	059-2126	N	25	30	ft	7,020	0.45 J	10.5	42.5	0.68 U	0.68 U	1,660	18.9	5.5 J	9.2	18,500
GCMW-44	059-2127	N	30	35	ft	2,370	7.5 U	1.3 U	20.3 J	0.63 U	0.63 U	626 U	21	2.1 J	2.3 J	3,790
GCMW-44	059-2128	N	35	40	ft	2,750	7.9 U	0.98 J	11.8 J	0.66 U	0.66 U	655 U	7.7	3.8 J	5.3	7,060
GCMW-44	059-2129	N	40	45	ft	2,620	7.5 U	0.88 J	10.7 J	0.62 U	0.62 U	624 U	6.9	3.7 J	4.9	6,720
GCMW-45	059-2114	N	5	10	ft	5,370	7.6 J	16.8	184	0.93 U	0.15 J	4,290	44	6.1 J	211	16,200
GCMW-45	059-2115	N	10	15	ft	17,000	0.62 J	8.6	42.7	0.78	0.03 J	3,990	30	9.9	22.9	30,600
GCMW-45	059-2116	N	15	20	ft	16,900	0.81 J	8.6	40.7	0.8	0.78 U	2,720	33.1	10.2	15.8	34,000
GCMW-45	059-2117	N	20	25	ft	12,500	0.61 J	9.4	53.9	0.74 U	0.74 U	2,270	27.9	7.8	12.4	27,600
GCMW-45	059-2118	N	25	30	ft	5,710	7.6 UJ	6.7	34.3	0.64 U	0.64 U	13,300	12.9	3.6 J	5.7	12,900
GCMW-45	059-2119	N	30	35	ft	2,930	8.8 U	20.3	28.3 J	0.74 U	0.74 U	1,470	14.7	3.9 J	4.2	8,210
GCMW-45	059-2120	N	35	40	ft	8,970	8.8 U	5.9	48.6	0.74 U	0.74 U	1,570	18.3	5.9 J	9.6	18,600
GCMW-46	059-2167	N	5	10	ft	8,080	0.75 J	19.8	165	0.71 U	0.31 J	3,460 J	12.2	6.3 J	99.2 J	15,400
GCMW-46	059-2168	N	10	15	ft	18,100	0.72 J	11.6	58	0.85 U	0.64 J	2,370 J	32.1	11	47.4 J	32,500
GCMW-46	059-2169	N	15	20	ft	13,400	0.72 J	8.2	29.4	0.72 U	0.54 J	3,670 J	27.5	8.8	15 J	29,700
GCMW-46	059-2170	N	20	25	ft	12,500	0.72 J	8	55.6	0.72 U	0.56 J	2,340 J	26.9	8.5	14.9 J	28,200
GCMW-46	059-2171	N	25	30	ft	7,760	8.7 U	10.6	73.9	0.72 U	0.25 J	2,390 J	23.5	6.2 J	10.8 J	15,300
GCMW-46	059-2172	N	30	35	ft	3,080	7.4 UJ	0.66 J	19.7 J	0.61 U	0.045 J	446 J	7.5	4 J	5.8 J	6,620
GCMW-46	059-2173	N	35	40	ft	3,360	7.6 UJ	1.3 U	19.8 J	0.63 U	0.033 J	512 J	6.4	3.7 J	6.5 J	7,490
GCMW-46	059-2174	N	40	45	ft	2,770	7.4 UJ	1.2 U	16.1 J	0.62 U	0.015 J	390 J	5.7	3.8 J	5.2 J	6,580
GCMW-46	059-2175	N	45	50	ft	2,510	6.9 UJ	1.2	12.4 J	0.58 U	0.052 J	635 J	7.4	3.8 J	5.2 J	8,260
GCMW-46	059-2176	N	50	55	ft	3,300	0.51 J	1.4	15.9 J	0.57 U	0.11 J	3,890 J	7.8	5.2 J	8.2 J	10,600
GCMW-47	059-2234	N	10	15	ft	9,120	0.61 J	13.3	50.3	0.73 U	0.73 U	3,720	20.7	7 J	45	22,100
GCMW-47	059-2235	N	15	20	ft	14,200	0.71 J	9.4	33.7	0.79 U	0.79 U	3,940	29	9.8	17.3	32,500
GCMW-47	059-2236	N	25	30	ft	4,400	7.6 U	3.4	25.4 U	0.63 U	0.63 U	661	9	3 J	4.9	10,800
GCMW-47	059-2237	N	30	35	ft	2,750	7.2 U	7.5	24.1 U	0.6 U	0.6 U	601 U	6.5	2.1 J	3.4	6,730
GCMW-47	059-2238	N	36	36.5	ft	2,210	7 U	2.2	23.3 U	0.58 U	0.58 U	582 U	7.9	5.8 U	4.3	4,970
GCMW-47	059-2239	N	40	40.5	ft	3,250	7.1 U	0.6 J	23.7 U	0.59 U	0.59 U	594 U	5.2	5.9 U	5.3	7,450
GCMW-47	059-2240	N	40	45	ft	2,890	7.3 U	0.72 J	24.4 U	0.61 U	0.61 U	609 U	5.7	6.1 U	5.7	6,960

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-44	059-2122	N	5	10	ft	1,190	2,100	205	8.8	27.4	693 J	1.5 J	0.55 J	1,050	3.8 U	19.1	387	3.8 U
GCMW-44	059-2123	N	10	15	ft	313	7,770	365	5.5	30.6	3,460 J	5.7 U	0.41 J	2,150	4.1 U	44.9	197	4 U
GCMW-44	059-2124	N	15	20	ft	12.6	6,630	379	0.15 U	26.7	3,110 J	5.5 U	1.6 U	2,100	3.9 U	34.5	64.1	3.9 U
GCMW-44	059-2125	N	20	25	ft	7	3,180	174	0.13 U	14.4	1,750 J	4.6 U	1.3 U	894	3.3 U	19.9	34.9	3.3 U
GCMW-44	059-2126	N	25	30	ft	7	2,770	150	0.14 U	13.5	1,130	4.8 U	1.4 U	1,240	3.4 U	21.7	34.8	3.4 U
GCMW-44	059-2127	N	30	35	ft	2.3	913	37.6	0.13 U	5.9	238 J	0.94 J	1.3 U	626 U	3.1 U	9.8	16.7	3.1 U
GCMW-44	059-2128	N	35	40	ft	4.1	1,280	65.9	0.13 U	8.5	369 J	4.6 U	1.3 U	655 U	3.3 U	12.8	17.8	3.2 U
GCMW-44	059-2129	N	40	45	ft	3.6	1,250	64.7	0.13 U	7.8	344 J	4.4 U	1.2 U	624 U	3.1 U	11.1	16.7	3.2 U
GCMW-45	059-2114	N	5	10	ft	955	1,120	150	3.9	14.3	716 J	2.4 J	0.78 J	1,300	4.7 U	21.4	226	4.7 U
GCMW-45	059-2115	N	10	15	ft	40	6,440	329	0.2	28.7	3,510 J	5.1 U	1.5 U	1,740	3.7 U	38.7	69.2	3.7 U
GCMW-45	059-2116	N	15	20	ft	16.4	7,320	399	0.15 U	30	3,940 J	5.5 U	1.6 U	1,870	3.9 U	37.5	72.3	3.9 U
GCMW-45	059-2117	N	20	25	ft	10.8	4,930	253	0.15 U	22.3	2,560 J	5.2 U	1.5 U	1,310	3.7 U	31.1	53.9	3.8 U
GCMW-45	059-2118	N	25	30	ft	5	2,230	104	0.13 U	9.9	1,180 J	4.4 U	1.3 U	635 U	3.2 U	14.8	24	3.1 U
GCMW-45	059-2119	N	30	35	ft	3.7	1,460	73	0.15 U	8.2	441 J	2.7 J	1.5 U	736 U	3.7 U	30.3	17.7	3.7 U
GCMW-45	059-2120	N	35	40	ft	8.1	3,560	172	0.15 U	15.9	1,690 J	5.2 U	1.5 U	736 U	3.7 U	21.4	39.5	3.8 U
GCMW-46	059-2167	N	5	10	ft	427	1,600	297	1.7	14.2	787	5 U	0.13 J	711 U	3.6 U	21.8	91.1	3.5 U
GCMW-46	059-2168	N	10	15	ft	148	6,810	323	0.98	32.5	3,380	5.9 U	1.7 U	1,970	4.2 U	39.3	104	4.2 U
GCMW-46	059-2169	N	15	20	ft	12.6	6,270	365	0.15 U	26.6	2,980	5 U	1.4 U	1,470	3.6 U	31.2	61.3	3.6 U
GCMW-46	059-2170	N	20	25	ft	12.1	5,220	316	0.15 U	23.8	2,290	5 U	1.4 U	929	3.6 U	31.1	57.9	3.7 U
GCMW-46	059-2171	N	25	30	ft	7	3,000	152	0.15 U	14.2	1,040	5.1 U	1.4 U	722 U	3.6 U	23.1	36.8	3.6 U
GCMW-46	059-2172	N	30	35	ft	4.3	1,310	98.6	0.13 U	8.7	383 J	4.3 U	1.2 U	613 U	3.1 U	6.2	19.9	3.1 U
GCMW-46	059-2173	N	35	40	ft	5.1	1,570	128	0.13 U	8.5	427 J	4.4 U	1.3 U	633 U	3.2 U	6.7	20.7	3.1 U
GCMW-46	059-2174	N	40	45	ft	4.2	1,370	132	0.13 U	7.9	338 J	4.3 U	1.2 U	621 U	3.1 U	6.7	17.6	3 U
GCMW-46	059-2175	N	45	50	ft	3.6	1,300	234	0.11 U	8.3	329 J	4 U	1.2 U	578 U	2.9 U	7.2	15.9	2.8 U
GCMW-46	059-2176	N	50	55	ft	5.1	3,500	240	0.12 U	12	518 J	4 U	1.1 U	567 U	2.8 U	12.9	21.6	2.9 U
GCMW-47	059-2234	N	10	15	ft	86.6	3,980	221	1.2	19.2	1,840 J	5.1 U	0.14 J	821	3.7 U	23.9	116	0.24 J
GCMW-47	059-2235	N	15	20	ft	20.5	6,490	381	0.47	26.3	2,950 J	5.5 U	1.6 U	1,860	3.9 U	33.4	67.2	3.9 U
GCMW-47	059-2236	N	25	30	ft	3.5	1,870	103	0.12 U	8	740 J	4.4 U	1.3 U	670	3.2 U	12.2	19.2	3.1 U
GCMW-47	059-2237	N	30	35	ft	2.9	1,110	38.5	0.13 U	5	502 J	4.2 U	1.2 U	601 U	3 U	7.3	13	3.1 U
GCMW-47	059-2238	N	36	36.5	ft	2.3	1,090	40.3	0.12 U	5.5	269 J	4.1 U	1.2 U	582 U	2.9 U	6.9	13.4	2.8 U
GCMW-47	059-2239	N	40	40.5	ft	4.5	1,560	79.3	0.12 U	8.1	415 J	4.2 U	1.2 U	594 U	3 U	6.1	20	2.9 U
GCMW-47	059-2240	N	40	45	ft	4.4	1,400	61	0.12 U	7.8	363 J	4.3 U	1.2 U	609 U	3 U	6.5	18.5	3 U

118 2nd Ave

(MW44 & MW45 & MW46 & MW47)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
MW-44	GC-MW44I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.97**		**0.5**	U	**0.5**	U	**0.05**	U
MW-44	GC-MW44S	N	Shallow	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U
MW-45	GC-MW45I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U
MW-45	GC-MW45S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U
MW-46	GC-MW46D	N	Intermediate	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**0.05**	U
MW-47	GC-MW47I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U
MW-47	GC-MW47S	N	Shallow	**13**	UJ	**13**	UJ	**13**	UJ	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**0.05**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	2-hexanone		Acetone	
MW-44	GC-MW44I	N	Intermediate	**0.05**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U
MW-44	GC-MW44S	N	Shallow	**0.05**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U
MW-45	GC-MW45I	N	Intermediate	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U
MW-45	GC-MW45S	N	Shallow	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U
MW-46	GC-MW46D	N	Intermediate	**0.05**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	--	**130**	U	**130**	U
MW-47	GC-MW47I	N	Intermediate	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U
MW-47	GC-MW47S	N	Shallow	**0.05**	U	**13**	U	**13**	UJ	**13**	UJ	**13**	U	**13**	U	--	**130**	U	**130**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
MW-44	GC-MW44I	N	Intermediate	**6.4**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.79**	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-44	GC-MW44S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-45	GC-MW45I	N	Intermediate	**0.72**	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-45	GC-MW45S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-46	GC-MW46D	N	Intermediate	**41** J	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U
MW-47	GC-MW47I	N	Intermediate	**9**	**0.5** U	**0.5** U	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-47	GC-MW47S	N	Shallow	**690** J	**13** U	**13** UJ	**13** U	**13** U	**13** U	**13** UJ	**13** U	**13** U	**13** U	**13** U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone
MW-44	GC-MW44I	N	Intermediate	**240** J	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**5** U	**5** U
MW-44	GC-MW44S	N	Shallow	**0.59**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**5** U	**5** U
MW-45	GC-MW45I	N	Intermediate	**10**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**810** J	**2**	**600** J	**0.5** U	**5** U	**5** U
MW-45	GC-MW45S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.43** J	**0.5** U	**0.4** J	**0.5** U	**5** U	**5** U
MW-46	GC-MW46D	N	Intermediate	**500** J	**13** U	**13** U	**13** U	**13** U	**27**	**13** U	**40**	**13** U	**130** U	**130** U
MW-47	GC-MW47I	N	Intermediate	**220** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**340** J	**1.3**	**290** J	**0.5** U	**5** U	**5** U
MW-47	GC-MW47S	N	Shallow	**13** U	**13** U	**13** UJ	**13** U	**13** U	**740** J	**26**	**590** J	**13** UJ	**130** U	**130** U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-44	GC-MW44I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.91**	J	**0.5**	U	**0.5**	U	**33**	J	**0.5**	UJ	**4.5**		**0.5**	UJ	**1.8**	
MW-44	GC-MW44S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.35**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	UJ
MW-45	GC-MW45I	N	Intermediate	**0.5**	U	**0.5**	U	**15**		**0.5**	U	**0.29**	J	**0.5**	U	**1.9**		**0.61**		**0.5**	U	**5.1**		**0.5**	U	**0.5**	U
MW-45	GC-MW45S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-46	GC-MW46D	N	Intermediate	**13**	U	**13**	U	**20**		**13**	U	**13**		**13**	U	**21**		**160**		**13**	U	**30**		**13**	U	**13**	U
MW-47	GC-MW47I	N	Intermediate	**0.5**	U	**0.5**	U	**16**		**8.5**		**2**		**0.5**	U	**220**	J	**0.5**	U	**0.5**	U	**0.38**	J	**0.5**	U	**0.5**	U
MW-47	GC-MW47S	N	Shallow	**13**	UJ	**13**	UJ	**390**		**110**		**13**	UJ	**13**	U	**640**	J	**13**	U	**13**	U	**13**	U	**13**	UJ	**13**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-44	GC-MW44I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-44	GC-MW44S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-45	GC-MW45I	N	Intermediate	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**50**	U	**25**	UJ	**25**	U	**25**	U	**25**	U
MW-45	GC-MW45S	N	Shallow	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**50**	U	**69**	J	**25**	U	**25**	U	**25**	U
MW-46	GC-MW46D	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U
MW-47	GC-MW47I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**100**	J	**5**	UJ	**5**	U	**5**	U
MW-47	GC-MW47S	N	Shallow	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**200**	U	**100**	UJ	**100**	U	**100**	U	**100**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Groundwater (ug/L)
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Location ID	Field ID	Sample Type	Depth	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)
MW-44	GC-MW44I	N	Intermediate	**0.86**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-44	GC-MW44S	N	Shallow	**0.27** J	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-45	GC-MW45I	N	Intermediate	**900** J	**25** U	**50** U	**25** U	**25** U	**50** U	**50** U	**25** U	**25** U	**25** U	**25** U	**25** U
MW-45	GC-MW45S	N	Shallow	**5.9** J	**25** U	**50** U	**25** U	**25** U	**50** U	**50** U	**25** U	**25** U	**25** U	**25** U	**25** U
MW-46	GC-MW46D	N	Intermediate	**0.1** U	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-47	GC-MW47I	N	Intermediate	**790** J	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-47	GC-MW47S	N	Shallow	**390**	**100** U	**200** U	**100** U	**100** U	**200** U	**200** U	**100** U	**100** U	**100** U	**100** U	**100** U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
MW-44	GC-MW44I	N	Intermediate	**10**	U	**10**	U	**5.1**		**0.76**		**5**	U	**0.4**		**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.14**	U
MW-44	GC-MW44S	N	Shallow	**10**	U	**10**	U	**0.38**	J	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-45	GC-MW45I	N	Intermediate	**50**	U	**50**	U	**220**		**7.7**	J	**25**	U	**17**	J	**25**	U	**150**		**2.1**	J	**1.3**		**1.4**	
MW-45	GC-MW45S	N	Shallow	**50**	U	**50**	U	**160**		**1.1**	J	**25**	U	**29**	J	**25**	U	**25**	UJ	**1.3**	J	**0.85**		**1**	
MW-46	GC-MW46D	N	Intermediate	**10**	U	**10**	U	**11**		**3.3**	J	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	UJ	**0.1**	U	**0.1**	U
MW-47	GC-MW47I	N	Intermediate	**10**	U	**10**	U	**100**	J	**170**	J	**4**	J	**20**		**5**	U	**76**		**0.79**	J	**0.35**		**0.36**	
MW-47	GC-MW47S	N	Shallow	**200**	U	**200**	U	**68**	J	**110**		**100**	U	**17**	J	**100**	U	**44**	J	**4.5**	J	**2.1**		**2.3**	

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene
MW-44	GC-MW44I	N	Intermediate	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U
MW-44	GC-MW44S	N	Shallow	**0.71**	**0.1** UJ	**5** U	**5** U	**5** U	**5** U	**5** U	**1.2** J	**5** U	**5** U	**0.1** U
MW-45	GC-MW45I	N	Intermediate	**0.5** U	**0.39** J	**25** U	**55**	**25** U	**25** U	**25** U	**7.2** J	**25** U	**20** J	**1.2**
MW-45	GC-MW45S	N	Shallow	**0.5** U	**0.29** J	**25** U	**14** J	**25** U	**25** U	**25** U	**25** U	**25** U	**25** U	**0.84**
MW-46	GC-MW46D	N	Intermediate	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**1.8** J	**0.98** J	**5** U	**0.1** U
MW-47	GC-MW47I	N	Intermediate	**0.12**	**0.086** J	**5** U	**58**	**5** U	**5** U	**5** U	**2.1** J	**5** U	**14**	**0.37**
MW-47	GC-MW47S	N	Shallow	**2** U	**0.61** J	**100** U	**25** J	**100** U	**100** U	**100** U	**100** U	**100** U	**14** J	**3**

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
MW-44	GC-MW44I	N	Intermediate	**0.12** J	**5** U	**5** U	**5** U	**5** U	**5** U	**0.45** J	**1.2** J	**5** U	**5** U	**5** U	**5** U
MW-44	GC-MW44S	N	Shallow	**0.1** UJ	**5** U	**5** U	**1.2** J	**5** U	**5** U	**0.23**	**0.14**	**5** U	**5** U	**5** U	**5** U
MW-45	GC-MW45I	N	Intermediate	**0.5** U	**11** J	**25** U	**25** U	**25** U	**25** U	**7.6** J	**73**	**25** U	**25** U	**25** U	**25** U
MW-45	GC-MW45S	N	Shallow	**0.5** U	**7.9** J	**25** U	**25** U	**25** U	**25** U	**11** J	**80**	**25** U	**25** U	**25** U	**25** U
MW-46	GC-MW46D	N	Intermediate	**0.1** U	**5** U	**5** U	**0.93** J	**5** U	**5** U	**0.1** U	**0.16**	**5** U	**5** U	**5** U	**5** U
MW-47	GC-MW47I	N	Intermediate	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**4** J	**57** J	**5** U	**5** U	**5** U	**5** U
MW-47	GC-MW47S	N	Shallow	**2** U	**100** U	**100** U	**100** U	**100** U	**100** U	**14** J	**49** J	**100** U	**100** U	**100** U	**100** U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
MW-44	GC-MW44I	N	Intermediate	**0.16**	U	**5**	U	**0.48**		**5**	U	**5**	U	**5**	U	**0.2**	U	**1.6**	J	**5**	U	**0.71**		**11.68**
MW-44	GC-MW44S	N	Shallow	**0.4**		**5**	U	**0.41**		**5**	U	**5**	U	**5**	U	**0.2**	U	**0.52**	J	**5**	U	**0.28**		**3.34**
MW-45	GC-MW45I	N	Intermediate	**0.96**		**25**	U	**5,400**	J	**25**	U	**25**	U	**25**	U	**1**	UJ	**82**		**25**	U	**12**	J	**6,727**
MW-45	GC-MW45S	N	Shallow	**0.68**		**25**	U	**0.66**	J	**25**	U	**25**	U	**25**	U	**1**	UJ	**110**		**25**	UJ	**14**	J	**416.62**
MW-46	GC-MW46D	N	Intermediate	**0.12**		**5**	U	**0.33**		**5**	U	**5**	U	**5**	U	**0.2**	U	**0.15**	J	**5**	U	**0.1**	U	**15.06**
MW-47	GC-MW47I	N	Intermediate	**0.24**		**5**	U	**2,800**	J	**5**	U	**5**	U	**5**	U	**0.2**	U	**61**	J	**5**	U	**10**		**4,014**
MW-47	GC-MW47S	N	Shallow	**2**	U	**100**	U	**1,800**	J	**100**	U	**100**	U	**100**	U	**4**	UJ	**84**	J	**100**	U	**26**	J	**2,571**

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin	
MW-45	GC-MW45I	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-45	GC-MW45S	N	Shallow	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-46	GC-MW46D	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-47	GC-MW47I	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-47	GC-MW47S	N	Shallow	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin aldehyde		Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-45	GC-MW45I	N	Intermediate	**0.1**	UJ	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-45	GC-MW45S	N	Shallow	**0.1**	UJ	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-46	GC-MW46D	N	Intermediate	**0.1**	UJ	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-47	GC-MW47I	N	Intermediate	**0.1**	UJ	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-47	GC-MW47S	N	Shallow	**0.1**	U	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-44	GC-MW44I	N	Intermediate	**1**	U	**1**	U	**1**	U	1	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-44	GC-MW44S	N	Shallow	**1**	U	**1**	U	**1**	U	1	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-45	GC-MW45I	N	Intermediate	**1**	U	**1**	U	**1**	U	1	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-45	GC-MW45S	N	Shallow	**1**	U	**1**	U	**1**	U	1	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-46	GC-MW46D	N	Intermediate	**1**	U	**1**	U	**1**	U	1	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-47	GC-MW47I	N	Intermediate	**1**	U	**1**	U	**1**	U	1	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-47	GC-MW47S	N	Shallow	**1**	U	**1**	U	**1**	U	1	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Cadmium	Cadmium, dissolved
MW-44	GC-MW44I	N	Intermediate	**200** U	**200** U	**2** U	**2** U	**16**	**6**	**301**	**255**	**1** U	**1** U	**1** U	**1** U
MW-44	GC-MW44S	N	Shallow	**200** U	**200** U	**2** U	**2** U	**26** J	**26.2** J	**495**	**515**	**1** U	**1** U	**1** U	**1** U
MW-45	GC-MW45I	N	Intermediate	**200** U	**200** U	**2** U	**2** U	**3.2**	**2.9** J	**242**	**246** J	**1** U	**1** U	**1** U	**1** U
MW-45	GC-MW45S	N	Shallow	**357**	**200** U	**2** U	**2** U	**6.8**	**6.2**	**81.9**	**78.5** J	**1** U	**1** U	**1** U	**1** U
MW-46	GC-MW46D	N	Intermediate	**307**	**200** U	**2** U	**2** U	**3.5**	**4.7** J	**188**	**200** J	**1** U	**1** U	**1** U	**1** U
MW-47	GC-MW47I	N	Intermediate	**200** U	**200** U	**2** U	**2** U	**9.2**	**8.5**	**234**	**242** J	**1** U	**1** U	**1** U	**1** U
MW-47	GC-MW47S	N	Shallow	**3,270**	**200** U	**20** U	**20** U	**4.9** J	**5.9** J	**701**	**627** J	**10** U	**10** U	**10** U	**10** U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead
MW-44	GC-MW44I	N	Intermediate	**99,900**	**99,100**	**0.59** J	**2** U	**0.42** J	**0.33** J	**25** U	**25** U	**11,200**	**2,110**	**1.9**
MW-44	GC-MW44S	N	Shallow	**246,000** J	**244,000**	**1.8** J	**0.9** J	**2.5**	**2.6**	**10.9** J	**25** U	**47,700** J	**47,000**	**2.9**
MW-45	GC-MW45I	N	Intermediate	**86,400**	**82,600**	**1.8** J	**0.6** J	**0.77** J	**0.56** J	**25** U	**25** U	**3,420**	**3,140**	**1** U
MW-45	GC-MW45S	N	Shallow	**35,700**	**36,600**	**3.4** J	**1.8** J	**0.24** J	**1** U	**25** U	**25** U	**1,250**	**443**	**5.9**
MW-46	GC-MW46D	N	Intermediate	**96,300**	**98,800**	**8.6** J	**0.41** J	**0.48** J	**1** U	**25** U	**25** U	**7,570**	**7,780**	**10.7** J
MW-47	GC-MW47I	N	Intermediate	**76,900**	**80,100**	**1.4** J	**0.61** J	**0.25** J	**0.28** J	**25** U	**25** U	**14,600**	**15,100**	**1** U
MW-47	GC-MW47S	N	Shallow	**288,000**	**248,000**	**8.9** J	**13** J	**3.8** J	**10** U	**42**	**25** U	**25,200**	**8,520**	**10** U

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium
MW-44	GC-MW44I	N	Intermediate	**1** U	**47,300**	**47,300**	**658** J	**655**	**0.2** U	**0.2** U	**0.6** J	**0.64** J	**13,500**	**13,400**	**5** U
MW-44	GC-MW44S	N	Shallow	**1** U	**182,000** J	**180,000**	**2,890**	**3,100**	**0.079** J	**0.074** J	**1.4** J	**1.7** J	**99,000** J	**100,000**	5 UR
MW-45	GC-MW45I	N	Intermediate	**1** U	**36,400**	**34,100**	**795**	**836** J	**0.2** U	**0.2** U	1.4 R	**1.5** J	**7,660**	**7,280**	5 UR
MW-45	GC-MW45S	N	Shallow	**0.22** J	**2,720** J	**2,740** J	**108**	**111** J	**0.2** U	**0.2** U	**3** J	**1.6** J	**10,900**	**11,300**	5 UR
MW-46	GC-MW46D	N	Intermediate	**1** U	**36,100**	**36,600**	**827**	**904** J	**0.2** U	**0.2** U	**10.3** J	**2.1** J	**8,130**	**8,240**	5 UR
MW-47	GC-MW47I	N	Intermediate	**1** U	**37,100**	**38,200**	**857**	**909** J	**0.2** U	**0.2** U	**4.6** J	**6.2** J	**7,260**	**7,480**	5 UR
MW-47	GC-MW47S	N	Shallow	**10** U	**269,000**	**173,000**	**1,610**	**1,630** J	**0.2** U	**0.2** U	**110** J	**84.9** J	**85,500**	**63,500**	11.5 R

118 2nd Ave (MW44 & MW45 & MW46 & MW47)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved		Silver		Silver, dissolved		Sodium	Sodium, dissolved		Thallium		Thallium, dissolved		Vanadium		Vanadium, dissolved		Zinc		Zinc, dissolved		Cyanide, Total	
MW-44	GC-MW44I	N	Intermediate	**5**	U	**1**	U	**1**	UJ	**186,000**	**186,000**	J	**1**	U	**1**	U	**5**	U	**5**	U	**3.6**	J	**2.7**		**7.4**	J
MW-44	GC-MW44S	N	Shallow	5	UR	**1**	UJ	**1**	UJ	**1,880,000**	**1,800,000**		**1**	U	**1**	U	**1.2**	J	**5**	U	**5.7**	J	**4.7**	J	**28.7**	
MW-45	GC-MW45I	N	Intermediate	5	UR	**1**	U	**1**	U	**123,000**	**116,000**		**1**	U	**1**	U	**5**	U	**5**	U	3.7	R	3.9	R	**10**	U
MW-45	GC-MW45S	N	Shallow	5	UR	**1**	U	**1**	U	**207,000**	**215,000**		**1**	U	**1**	U	**3.3**	J	**2.7**	J	**9.1**		**1.6**	J	**10**	U
MW-46	GC-MW46D	N	Intermediate	5	UR	**1**	U	**1**	U	**117,000**	**127,000**		**1**	U	**1**	U	**5**	U	**5**	U	12.3	R	3.8	R	**10**	U
MW-47	GC-MW47I	N	Intermediate	5	UR	**1**	U	**1**	U	**130,000**	**131,000**		**1**	U	**1**	U	**5**	U	**5**	U	**2.1**		**2.3**		**10**	U
MW-47	GC-MW47S	N	Shallow	9.8	R	**10**	U	**10**	U	**1,900,000**	**1,320,000**		**10**	U	**10**	U	**50**	U	**50**	U	**22.8**		**13.2**	J	**14.3**	

DEP- Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)

Analytical Soil Results

Property Address: DEP – Hamilton Ave. Asphalt Plant
Monitoring Well Soil Borings Installed at Address: GC-MW-17, GC-MW-18 & GC-MW-19
Intermediate Monitoring Wells Installed at Address: GC-MW-17I, GC-MW-18I, GC-MW-18I & GC-MW-19I
Shallow Monitoring Wells Installed at Address: GC-MW-17S, GC-MW-18S & GC-MW-19S

GC-MW-17

The soil samples from the soil boring installed for the intermediate well (situated approximately 51 feet from the canal) contained 30 VOCs, 107 SVOCs, 0 pesticides, 0 PCBs, and 134 metals. From these, 7 VOCs, 9 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (10,000 µg/kg). The SVOC occurring at the highest concentration above screening value was benzo(a)anthracene (14,900 µg/kg). The metal occurring at the highest concentration above screening value was lead (1,170 mg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 51 feet from the canal) contained 2 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 9 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (860 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately44 ft bgs and situated approximately 51 feet from the canal) contained 10 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 2 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (826 µg/L). The SVOC occurring at the highest concentration above screening criteria was phenol (4.6 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (24,800 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-18

The soil samples from the soil boring installed for the intermediate well (situated approximately 33 feet from the canal) contained 42 VOCs, 199 SVOCs, 1 pesticide, 0 PCBs, and 174 metals. From these, 11 VOCs, 15 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (178,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (344,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 33 feet from the canal) contained 9 VOCs, 13 SVOCs, 1 pesticide, 0 PCBs, and 11 metals. From these, 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (7.3 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (2,650 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately57 ft bgs and situated approximately 33 feet from the canal) contained 14 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 7 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 5

metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was trichloroethylene (207 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (30.7 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (22,900 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-19

The soil samples from the soil boring installed for the intermediate well (situated approximately 280 feet from the canal) contained 44 VOCs, 105 SVOCs, 0 pesticides, 0 PCBs, and 162 metals. From these, 6 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (1,460 µg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 280 feet from the canal) contained 3 VOCs, 5 SVOCs, 0 pesticides, 0 PCBs, and 9 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,940 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately59 ft bgs and situated approximately 280 feet from the canal) contained 3 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 10 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (2,970 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-13	059-2177	N	10	15	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-13	059-2178	N	15	20	ft	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR
GCMW-13	059-2182	N	35	40	ft	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2191	N	25	30	ft	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ
GCMW-14	059-2192	N	30	35	ft	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ
GCMW-14	059-2193	N	35	40	ft	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ
GCMW-14	059-2194	N	40	45	ft	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone	
GCMW-13	059-2177	N	10	15	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**120,000**	UR	**12,000**	U	**12,000**	U
GCMW-13	059-2178	N	15	20	ft	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**120**	UR	**12**	UR	**23**	R
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**130**	UR	**13**	UR	**32**	R
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**190**	UR	**19**	UR	**74**	R
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**190**	UR	**19**	UR	**180**	R
GCMW-13	059-2182	N	35	40	ft	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**180**	UR	**990**	U	**990**	U
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**120**	UR	**12**	UR	**12**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**110**	UR	**11**	UR	**11**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**120**	UR	**12**	UR	**12**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**8,800**	UR	**880**	U	**880**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**110**	UR	**11**	U	**20**	
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**110**	UR	**11**	U	**11**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**120**	UR	**12**	U	**34**	
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**110**	UR	**11**	U	**11**	U
GCMW-14	059-2191	N	25	30	ft	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**100**	UR	**10**	UJ	**20**	J
GCMW-14	059-2192	N	30	35	ft	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**120**	UR	**12**	UJ	**30**	J
GCMW-14	059-2193	N	35	40	ft	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**110**	UR	**11**	UJ	**48**	J
GCMW-14	059-2194	N	40	45	ft	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**120**	UR	**12**	UJ	**19**	J
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**120**	UR	**12**	UJ	**12**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**110**	UR	**11**	UJ	**11**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzene		Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane	
GCMW-13	059-2177	N	10	15	ft	**970**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-13	059-2178	N	15	20	ft	**2.2**	R	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**8.1**	R	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**9.9**	R	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**77**	R	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**110**	R	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR
GCMW-13	059-2182	N	35	40	ft	**500**	U	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**500**	U	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**1.5**	R	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**0.96**	R	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**1.8**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**11**		**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.6**		**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2191	N	25	30	ft	**3**	J	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**2.3**	J	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ
GCMW-14	059-2192	N	30	35	ft	**3.4**	J	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ
GCMW-14	059-2193	N	35	40	ft	**4.4**	J	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**1.8**	J	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ
GCMW-14	059-2194	N	40	45	ft	**1.4**	J	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**1.9**	J	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**1.1**	J	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone	
GCMW-13	059-2177	N	10	15	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**9,000**		**1,300**	J	**11,000**		**5,800**	U	**12,000**	U	**12,000**	U
GCMW-13	059-2178	N	15	20	ft	**6.1**	UR	**6.1**	UR	**6.1**	R	**6.1**	UR	**6.1**	UR	**7.7**	R	**0.6**	R	**--**		**6.1**	UR	**13**	R	**12**	UR
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	R	**6.4**	UR	**--**		**6.4**	UR	**11**	R	**13**	UR
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**--**		**9.5**	UR	**30**	R	**19**	UR
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**--**		**9.4**	UR	**61**	R	**19**	UR
GCMW-13	059-2182	N	35	40	ft	**500**	U	**8.9**	UR	**8.9**	R	**8.9**	UR	**8.9**	UR	**8.9**	R	**8.9**	UR	**500**	U	**8.9**	UR	**990**	U	**990**	U
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**--**		**5.9**	UR	**12**	UR	**12**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**--**		**5.3**	UR	**11**	UR	**11**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**--**		**5.8**	UR	**12**	UR	**12**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**130**	J	**440**	U	**440**	U	**880**	U	**880**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**11**	U	**11**	U
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**11**	U	**11**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**13**		**12**	U
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**11**	U	**11**	U
GCMW-14	059-2191	N	25	30	ft	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**0.39**	J	--		**5.1**	UJ	**13**	J	**10**	UJ
GCMW-14	059-2192	N	30	35	ft	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**12**	UJ	**12**	UJ
GCMW-14	059-2193	N	35	40	ft	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**11**	UJ	**11**	UJ
GCMW-14	059-2194	N	40	45	ft	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**12**	UJ	**12**	UJ
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**12**	UJ	**12**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**11**	UJ	**11**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-13	059-2177	N	10	15	ft	**5,800**	U	**5,800**	U	**4,400**	J	**5,800**	U	**5,800**	U	**5,800**	U	**2,400**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-13	059-2178	N	15	20	ft	**6.1**	UR	**6.1**	R	**6.1**	R	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	R	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	R	**6.1**	UR
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	R	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	R	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	R	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	R	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**10**	R	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**10**	R	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR
GCMW-13	059-2182	N	35	40	ft	**8.9**	UR	**27**	J	**8.9**	R	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	R	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	R	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	R	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	R	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	R	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	R	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**30**	J	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**1.3**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**1.1**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**1.4**	J	**5.4**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2191	N	25	30	ft	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ
GCMW-14	059-2192	N	30	35	ft	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**0.44**	J	**6.2**	UJ
GCMW-14	059-2193	N	35	40	ft	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ
GCMW-14	059-2194	N	40	45	ft	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**2.5**	J	**5.8**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene	
GCMW-17	SB17A	N	2	5	ft	9.2	U	31	U	35	U	28	U	48	U	51	U	37	U	13	U	11	U	9.3	U	30	U	1,610	
GCMW-17	SB17B	N	5	10	ft	10	U	34	U	38	U	31	U	53	U	59.7	J	40	U	14	U	13	U	10	U	33	U	279	
GCMW-17	SB17C	N	10	15	ft	13	U	43	U	49	U	40	U	68	U	71	U	51	U	18	U	16	U	13	U	42	U	93.2	
GCMW-17	SB17C-S-NYC	S	10	15	ft	580	U	580	U	580	U	580	U	580	U	580	U	1,100	U	580	U	580	U	580	U	580	U	220	J
GCMW-17	SB17D	N	15	20	ft	13	U	42	U	48	U	39	U	66	U	69	U	50	U	18	U	16	U	13	U	41	U	23	U
GCMW-17	SB17E	N	20	25	ft	12	U	41	U	46	U	38	U	65	U	67	U	49	U	18	U	15	U	12	U	40	U	22	U
GCMW-17	SB17F	N	25	30	ft	11	U	37	U	41	U	34	U	58	U	60	U	44	U	16	U	14	U	11	U	36	U	20	U
GCMW-17	SB17G	N	30	35	ft	11	U	38	U	43	U	35	U	60	U	63	U	46	U	16	U	14	U	12	U	38	U	21	U
GCMW-17	SB17H	N	35	40	ft	11	U	39	U	43	U	35	U	60	U	63	U	46	U	16	U	14	U	12	U	38	U	21	U
GCMW-17	SB17I	N	40	45	ft	11	U	37	U	42	U	34	U	58	U	60	U	44	U	16	U	14	U	11	U	36	U	20	U
GCMW-17	SB17I-S-NYC	S	40	45	ft	200	U	200	U	200	U	200	U	200	U	200	U	380	U	200	U	200	U	200	U	200	U	16	
GCMW-18	SB18A	N	2	5	ft	9.5	U	32	U	36	U	29	U	50	U	52	U	38	U	13	U	12	U	9.6	U	31	U	17	U
GCMW-18	SB18B	N	5	10	ft	11	U	36	U	40	U	33	U	56	U	58	U	42	U	15	U	13	U	11	U	35	U	34.6	J
GCMW-18	SB18C	N	10	15	ft	12	U	39	U	44	U	35	U	61	U	63	U	46	U	16	U	14	U	12	U	38	U	27.6	J
GCMW-18	SB18D	N	15	20	ft	11	U	38	U	43	U	35	U	60	U	63	U	46	U	16	U	14	U	12	U	38	U	21	U
GCMW-18	SB18D-S-NYC	S	15	20	ft	230	U	230	U	230	U	230	U	230	U	230	U	440	U	230	U	230	U	230	U	230	U	16	
GCMW-18	SB18E	N	20	25	ft	11	U	38	U	42	U	34	U	59	U	61	U	45	U	16	U	14	U	11	U	37	U	20	U
GCMW-18	SB18F	N	25	30	ft	13	U	45	U	50	U	41	U	70	U	73	U	53	U	19	U	16	U	13	U	44	U	24	U
GCMW-18	SB18G	N	30	35	ft	11	U	37	U	42	U	34	U	58	U	61	U	44	U	16	U	14	U	11	U	36	U	20	U
GCMW-18	SB18H	N	35	40	ft	10	U	34	U	39	U	31	U	54	U	56	U	41	U	15	U	13	U	10	U	34	U	297,000	
GCMW-18	SB18I	N	40	45	ft	11	U	37	U	42	U	34	U	58	U	60	U	44	U	16	U	14	U	11	U	36	U	62,200	
GCMW-18	SB18J	N	45	50	ft	11	U	38	U	43	U	35	U	59	U	62	U	45	U	16	U	14	U	11	U	37	U	1,930	
GCMW-18	SB18K	N	50	55	ft	11	U	37	U	42	U	34	U	58	U	60	U	44	U	16	U	14	U	11	U	36	U	251	
GCMW-18	SB18K-S-NYC	S	50	55	ft	200	U	200	U	200	U	200	U	200	U	200	U	390	U	200	U	200	U	200	U	200	U	470	
GCMW-18	SB18L	N	55	58	ft	12	U	39	U	44	U	35	U	61	U	63	U	46	U	16	U	14	U	12	U	38	U	373	
GCMW-19	SB19A	N	2	5	ft	9.6	U	32	U	36	U	29	U	50	U	53	U	38	U	14	U	12	U	9.7	U	32	U	91.7	
GCMW-19	SB19B	N	5	10	ft	9.5	U	32	U	36	U	29	U	50	U	52	U	38	U	14	U	12	U	9.6	U	31	U	109	
GCMW-19	SB19C	N	10	15	ft	10	U	35	U	39	U	32	U	55	U	57	U	41	U	15	U	13	U	11	U	34	U	208	
GCMW-19	SB19C-S-NYC	S	10	15	ft	470	U	470	U	470	U	470	U	470	U	470	U	920	UJ	470	U	470	U	470	U	470	U	380	J
GCMW-19	SB19D	N	15	20	ft	9.8	U	33	U	37	U	30	U	51	U	54	U	39	U	14	U	12	U	9.9	U	32	U	89.5	
GCMW-19	SB19E	N	20	25	ft	11	U	36	U	40	U	33	U	56	U	58	U	42	U	15	U	13	U	11	U	35	U	68.3	J
GCMW-19	SB19F	N	25	30	ft	13	U	43	U	48	U	39	U	67	U	70	U	51	U	18	U	16	U	13	U	42	U	23	U
GCMW-19	SB19G	N	30	35	ft	11	U	38	U	43	U	35	U	59	U	62	U	45	U	16	U	14	U	11	U	37	U	21	U
GCMW-19	SB19H	N	35	40	ft	11	U	36	U	41	U	33	U	57	U	59	U	43	U	15	U	13	U	11	U	36	U	20	U
GCMW-19	SB19I	N	40	45	ft	10	U	35	U	39	U	32	U	54	U	56	U	41	U	15	U	13	U	10	U	34	U	19	U
GCMW-19	SB19J	N	45	50	ft	11	U	37	U	41	U	34	U	57	U	60	U	44	U	16	U	14	U	11	U	36	U	20	U
GCMW-19	SB19K	N	50	55	ft	10	U	33	U	38	U	31	U	52	U	55	U	40	U	14	U	12	U	10	U	33	U	18	U
GCMW-19	SB19L	N	55	60	ft	10	U	34	U	38	U	31	U	53	U	55	U	40	U	14	U	12	U	10	U	33	U	18	U
GCMW-19	SB19L-S-NYC	S	55	60	ft	200	U	200	U	200	U	200	U	200	U	200	U	390	U	200	U	200	U	200	U	200	U	3.9	U
GCMW-19	SB19M	N	60	62	ft	11	U	36	U	40	U	33	U	56	U	58	U	42	U	15	U	13	U	11	U	35	U	19	U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline
GCMW-17	SB17A	N	2	5	ft	34 U	13 U	32 U	7.6 U	12 U	37 U	11 U	30 U	9.6 U	9.1 U	--	12 U
GCMW-17	SB17B	N	5	10	ft	38 U	15 U	35 U	8.4 U	13 U	40 U	12 U	33 U	11 U	10 U	--	13 U
GCMW-17	SB17C	N	10	15	ft	48 U	19 U	45 U	11 U	17 U	51 U	15 U	42 U	13 U	13 U	--	16 U
GCMW-17	SB17C-S-NYC	S	10	15	ft	580 U	1,100 U	580 U	580 U	1,100 U	1,100 U	580 U	580 U	580 U	580 U	130 J	1,100 U
GCMW-17	SB17D	N	15	20	ft	47 U	18 U	43 U	10 U	16 U	50 U	15 U	41 U	13 U	12 U	--	16 U
GCMW-17	SB17E	N	20	25	ft	46 U	18 U	42 U	10 U	16 U	49 U	15 U	40 U	13 U	12 U	--	16 U
GCMW-17	SB17F	N	25	30	ft	41 U	16 U	38 U	9.1 U	14 U	44 U	13 U	36 U	11 U	11 U	--	14 U
GCMW-17	SB17G	N	30	35	ft	43 U	16 U	40 U	9.5 U	15 U	46 U	14 U	37 U	12 U	11 U	--	15 U
GCMW-17	SB17H	N	35	40	ft	43 U	16 U	40 U	9.5 U	15 U	46 U	14 U	37 U	12 U	11 U	--	15 U
GCMW-17	SB17I	N	40	45	ft	41 U	16 U	38 U	9.1 U	14 U	44 U	13 U	36 U	12 U	11 U	--	14 U
GCMW-17	SB17I-S-NYC	S	40	45	ft	200 U	380 U	200 U	200 U	380 U	380 U	200 U	200 U	200 U	200 U	200 U	380 U
GCMW-18	SB18A	N	2	5	ft	35 U	14 U	33 U	7.8 U	12 U	38 U	11 U	31 U	9.9 U	9.3 U	--	12 U
GCMW-18	SB18B	N	5	10	ft	40 U	15 U	37 U	8.8 U	14 U	42 U	13 U	35 U	11 U	10 U	--	14 U
GCMW-18	SB18C	N	10	15	ft	43 U	17 U	40 U	9.6 U	15 U	46 U	14 U	38 U	12 U	11 U	--	15 U
GCMW-18	SB18D	N	15	20	ft	43 U	16 U	40 U	9.5 U	15 U	46 U	14 U	37 U	12 U	11 U	--	15 U
GCMW-18	SB18D-S-NYC	S	15	20	ft	230 U	440 U	230 U	230 U	440 U	440 U	230 U	230 U	230 U	230 U	230 U	440 U
GCMW-18	SB18E	N	20	25	ft	42 U	16 U	39 U	9.3 U	15 U	45 U	13 U	37 U	12 U	11 U	--	14 U
GCMW-18	SB18F	N	25	30	ft	49 U	19 U	46 U	11 U	17 U	53 U	16 U	43 U	14 U	13 U	--	17 U
GCMW-18	SB18G	N	30	35	ft	41 U	16 U	38 U	9.2 U	14 U	44 U	13 U	36 U	12 U	11 U	--	14 U
GCMW-18	SB18H	N	35	40	ft	38 U	15 U	35 U	8.5 U	13 U	41 U	12 U	33 U	11 U	10 U	--	13 U
GCMW-18	SB18I	N	40	45	ft	41 U	16 U	38 U	9.1 U	14 U	44 U	13 U	36 U	11 U	11 U	--	14 U
GCMW-18	SB18J	N	45	50	ft	42 U	16 U	39 U	9.3 U	15 U	45 U	13 U	37 U	12 U	11 U	--	14 U
GCMW-18	SB18K	N	50	55	ft	41 U	16 U	38 U	9.1 U	14 U	44 U	13 U	36 U	12 U	11 U	--	14 U
GCMW-18	SB18K-S-NYC	S	50	55	ft	200 U	390 U	200 U	200 U	390 U	390 U	200 U	200 U	200 U	200 U	200 U	390 U
GCMW-18	SB18L	N	55	58	ft	43 U	17 U	40 U	9.5 U	15 U	46 U	14 U	38 U	12 U	11 U	--	15 U
GCMW-19	SB19A	N	2	5	ft	36 U	14 U	33 U	7.9 U	13 U	38 U	11 U	31 U	10 U	9.4 U	--	12 U
GCMW-19	SB19B	N	5	10	ft	35 U	14 U	33 U	7.9 U	12 U	38 U	11 U	31 U	9.9 U	9.3 U	--	12 U
GCMW-19	SB19C	N	10	15	ft	39 U	15 U	36 U	8.6 U	14 U	41 U	12 U	34 U	11 U	10 U	--	13 U
GCMW-19	SB19C-S-NYC	S	10	15	ft	470 U	920 U	470 U	470 U	920 U	920 U	470 U	470 U	470 U	470 U	470 U	920 U
GCMW-19	SB19D	N	15	20	ft	36 U	14 U	34 U	8.1 U	13 U	39 U	12 U	32 U	10 U	9.6 U	--	12 U
GCMW-19	SB19E	N	20	25	ft	40 U	15 U	37 U	8.8 U	14 U	42 U	13 U	35 U	11 U	10 U	--	14 U
GCMW-19	SB19F	N	25	30	ft	47 U	18 U	44 U	11 U	17 U	51 U	15 U	42 U	13 U	13 U	--	16 U
GCMW-19	SB19G	N	30	35	ft	42 U	16 U	39 U	9.4 U	15 U	45 U	13 U	37 U	12 U	11 U	--	14 U
GCMW-19	SB19H	N	35	40	ft	40 U	15 U	37 U	8.9 U	14 U	43 U	13 U	35 U	11 U	11 U	--	14 U
GCMW-19	SB19I	N	40	45	ft	38 U	15 U	36 U	8.5 U	13 U	41 U	12 U	34 U	11 U	10 U	--	13 U
GCMW-19	SB19J	N	45	50	ft	41 U	16 U	38 U	9.1 U	14 U	44 U	13 U	36 U	11 U	11 U	--	14 U
GCMW-19	SB19K	N	50	55	ft	37 U	14 U	34 U	8.3 U	13 U	40 U	12 U	33 U	10 U	9.8 U	--	13 U
GCMW-19	SB19L	N	55	60	ft	37 U	14 U	35 U	8.3 U	13 U	40 U	12 U	33 U	10 U	9.8 U	--	13 U
GCMW-19	SB19L-S-NYC	S	55	60	ft	200 U	390 U	200 U	200 U	390 U	390 U	200 U	200 U	200 U	200 U	200 U	390 U
GCMW-19	SB19M	N	60	62	ft	39 U	15 U	37 U	8.8 U	14 U	42 U	13 U	35 U	11 U	10 U	--	13 U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
GCMW-17	SB17A	N	2	5	ft	51 U	7,430	123	5.3 U	16,900	5.9 U	6.9 U	14,000	13,000	11,200	5,860
GCMW-17	SB17B	N	5	10	ft	56 U	977	253	5.8 U	2,150	6.5 U	7.6 U	2,690	1,870	1,720	914
GCMW-17	SB17C	N	10	15	ft	71 U	404	99.9	7.4 U	1,130	8.3 U	9.7 U	1,200	975	697	387
GCMW-17	SB17C-S-NYC	S	10	15	ft	1,100 U	710	220 J	580 U	1,900	580 U	580 U	2,300	2,100	2,100	970 J
GCMW-17	SB17D	N	15	20	ft	69 U	12 U	13 U	7.2 U	14 U	8.1 U	9.4 U	13 U	13 U	14 U	15 U
GCMW-17	SB17E	N	20	25	ft	68 U	12 U	13 U	7.1 U	25.7 J	7.9 U	9.2 U	40.3	37.6 J	28.5 J	19.6 J
GCMW-17	SB17F	N	25	30	ft	60 U	34.9 J	11 U	6.3 U	35.4 J	7 U	8.2 U	50.5	49	37.3	39.7
GCMW-17	SB17G	N	30	35	ft	63 U	97.1	12 U	6.6 U	59.6	7.4 U	8.6 U	17.5 J	11 U	12 U	14 U
GCMW-17	SB17H	N	35	40	ft	63 U	23.2 J	12 U	6.6 U	16.2 J	7.4 U	8.6 U	12 U	11 U	13 U	14 U
GCMW-17	SB17I	N	40	45	ft	61 U	28.8 J	12 U	6.3 U	21.7 J	7.1 U	8.3 U	12 U	18.9 J	12 U	13 U
GCMW-17	SB17I-S-NYC	S	40	45	ft	380 U	69 J	5.4	200 U	58 J	200 U	200 U	55 J	62 J	60 J	33
GCMW-18	SB18A	N	2	5	ft	52 U	9 U	9.9 U	5.4 U	11 U	6.1 U	7.1 U	25.7 J	36.9	35.4	35.3
GCMW-18	SB18B	N	5	10	ft	59 U	225	111	6.1 U	708	6.8 U	8 U	1,590	1,610	1,520	1,020
GCMW-18	SB18C	N	10	15	ft	64 U	113	51.8	6.6 U	230	7.4 U	8.7 U	727	656	496	404
GCMW-18	SB18D	N	15	20	ft	63 U	25 J	14.7 J	6.6 U	58.7	7.3 U	8.6 U	178	163	117	108
GCMW-18	SB18D-S-NYC	S	15	20	ft	440 U	99 J	27 J	230 U	150 J	230 U	230 U	520	490	360	280 J
GCMW-18	SB18E	N	20	25	ft	62 U	11 U	16.7 J	6.4 U	13 U	7.2 U	8.4 U	30.1 J	30.1 J	20.2 J	19.9 J
GCMW-18	SB18F	N	25	30	ft	73 U	13 U	14 U	7.6 U	34.6 J	8.5 U	9.9 U	90.2	72.1	53.1	43.8
GCMW-18	SB18G	N	30	35	ft	61 U	10 U	12 U	6.4 U	30.4 J	7.1 U	8.3 U	84.3	66	51.2	43.4
GCMW-18	SB18H	N	35	40	ft	56 U	109,000	70,100	5.9 U	83,500	6.6 U	7.7 U	42,900	32,100	13,500	11,600
GCMW-18	SB18I	N	40	45	ft	61 U	19,900	25,300	6.3 U	21,700	7.1 U	8.3 U	11,400	8,320	5,200	2,400
GCMW-18	SB18J	N	45	50	ft	62 U	1,070	762	6.5 U	1,210	7.2 U	8.4 U	650	475	230	198
GCMW-18	SB18K	N	50	55	ft	61 U	203	188	6.3 U	292	7.1 U	8.3 U	178	129	68.3	56.4
GCMW-18	SB18K-S-NYC	S	50	55	ft	390 U	320	240	200 U	450	200 U	200 U	280	220	100	80
GCMW-18	SB18L	N	55	58	ft	64 U	272	251	6.6 U	369	7.4 U	8.6 U	196	144	72.6	56.3
GCMW-19	SB19A	N	2	5	ft	53 U	34	10 U	5.5 U	11 U	6.2 U	7.2 U	16.8 J	9.5 U	10 U	12 U
GCMW-19	SB19B	N	5	10	ft	52 U	52.3	9.9 U	5.5 U	22.2 J	6.1 U	7.1 U	58.3	45.3	36.8	31.2
GCMW-19	SB19C	N	10	15	ft	57 U	55.9	11 U	6 U	33.8 J	6.7 U	7.8 U	101	58.9	46.1	35
GCMW-19	SB19C-S-NYC	S	10	15	ft	920 U	100 J	9.2 J	470 U	110	470 U	470 U	240 J	130 J	170 J	120
GCMW-19	SB19D	N	15	20	ft	54 U	77.3	60	5.6 U	203	6.3 U	7.3 U	428	410	347	225
GCMW-19	SB19E	N	20	25	ft	59 U	46.7	27.4 J	6.1 U	92.8	6.8 U	8 U	169	158	132	95.5
GCMW-19	SB19F	N	25	30	ft	70 U	12 U	13 U	7.3 U	15 U	8.2 U	9.6 U	14 U	13 U	14 U	15 U
GCMW-19	SB19G	N	30	35	ft	62 U	11 U	12 U	6.5 U	13 U	7.3 U	8.5 U	14.9 J	11 U	12 U	14 U
GCMW-19	SB19H	N	35	40	ft	59 U	10 U	11 U	6.2 U	12 U	6.9 U	8.1 U	11 U	11 U	12 U	13 U
GCMW-19	SB19I	N	40	45	ft	57 U	9.7 U	11 U	5.9 U	12 U	6.6 U	7.7 U	11 U	10 U	11 U	12 U
GCMW-19	SB19J	N	45	50	ft	60 U	10 U	11 U	6.3 U	12 U	7 U	8.2 U	12 U	11 U	12 U	13 U
GCMW-19	SB19K	N	50	55	ft	55 U	9.4 U	10 U	5.7 U	11 U	6.4 U	7.5 U	11 U	9.9 U	11 U	12 U
GCMW-19	SB19L	N	55	60	ft	55 U	9.5 U	10 U	5.8 U	11 U	6.4 U	7.5 U	11 U	10 U	11 U	12 U
GCMW-19	SB19L-S-NYC	S	55	60	ft	390 U	3.9 U	3.9 U	200 U	3.9 U	200 U	200 U	1 J	6.1	2.3 J	1.1 J
GCMW-19	SB19M	N	60	62	ft	58 U	10 U	11 U	6.1 U	12 U	6.8 U	8 U	11 U	11 U	12 U	13 U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene	Dibenz(a,h)anthracene
GCMW-17	SB17A	N	2	5	ft	9,270	17 U	774	12 U	9.1 U	--	569	9.5 U	5,030	13,900	2,340
GCMW-17	SB17B	N	5	10	ft	1,570	19 U	114	13 U	10 U	--	96	10 U	712	2,150	362
GCMW-17	SB17C	N	10	15	ft	698	24 U	46.8 J	17 U	13 U	--	55 J	13 U	288	1,150	170
GCMW-17	SB17C-S-NYC	S	10	15	ft	2,000	580 U	85 J	580 U	580 U	580 U	240 J	580 U	490 J	2,400	550 J
GCMW-17	SB17D	N	15	20	ft	15 U	24 U	4.8 U	17 U	12 U	--	36 U	13 U	19 U	14 U	14 U
GCMW-17	SB17E	N	20	25	ft	23.4 J	23 U	4.6 U	16 U	12 U	--	35 U	13 U	19 U	40.6	14 U
GCMW-17	SB17F	N	25	30	ft	38.4	21 U	4.1 U	14 U	11 U	--	66.3 J	11 U	17 U	57.6	12 U
GCMW-17	SB17G	N	30	35	ft	14 U	22 U	4.3 U	15 U	11 U	--	33 U	12 U	17 U	18.3 J	13 U
GCMW-17	SB17H	N	35	40	ft	14 U	22 U	4.3 U	15 U	11 U	--	33 U	12 U	17 U	13 U	13 U
GCMW-17	SB17I	N	40	45	ft	14 U	21 U	4.2 U	15 U	11 U	--	32 U	11 U	17 U	23.3 J	12 U
GCMW-17	SB17I-S-NYC	S	40	45	ft	43 J	21 J	200 U	200 U	200 U	200 U	91 J	200 U	200 U	62 J	12
GCMW-18	SB18A	N	2	5	ft	20.9 J	18 U	3.6 U	12 U	9.3 U	--	47.7 J	9.7 U	14 U	31.9	11 U
GCMW-18	SB18B	N	5	10	ft	696	20 U	4 U	14 U	10 U	--	189	11 U	138	1,470	560
GCMW-18	SB18C	N	10	15	ft	486	22 U	4.4 U	15 U	11 U	--	33 U	12 U	46.6 J	743	139
GCMW-18	SB18D	N	15	20	ft	119	22 U	4.3 U	15 U	11 U	--	33 U	12 U	17 U	181	34.3 J
GCMW-18	SB18D-S-NYC	S	15	20	ft	460	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	550	120 J
GCMW-18	SB18E	N	20	25	ft	20.3 J	21 U	4.2 U	15 U	11 U	--	32 U	12 U	17 U	26.6 J	12 U
GCMW-18	SB18F	N	25	30	ft	42.1 J	25 U	5 U	17 U	13 U	--	38 U	14 U	20 U	88.3	15 U
GCMW-18	SB18G	N	30	35	ft	55.2	21 U	4.2 U	15 U	11 U	--	99.6	11 U	17 U	83.1	12 U
GCMW-18	SB18H	N	35	40	ft	20,600	19 U	32,700	13 U	10 U	--	29 U	10 U	1,540	40,400	2,630
GCMW-18	SB18I	N	40	45	ft	3,740	21 U	7,770	15 U	11 U	--	99.1	11 U	360	11,100	692
GCMW-18	SB18J	N	45	50	ft	269	21 U	292	15 U	11 U	--	245	12 U	30.6 J	605	64.1
GCMW-18	SB18K	N	50	55	ft	69.3	21 U	51.9 J	15 U	11 U	--	217	11 U	17 U	164	15.1 J
GCMW-18	SB18K-S-NYC	S	50	55	ft	150 J	200 U	83 J	200 U	200 U	200 U	200 U	200 U	200 U	270	25
GCMW-18	SB18L	N	55	58	ft	74.8	22 U	69.6 J	15 U	11 U	--	65.2 J	12 U	17 U	186	13 U
GCMW-19	SB19A	N	2	5	ft	12 U	18 U	3.6 U	13 U	9.4 U	--	273	9.9 U	14 U	77	11 U
GCMW-19	SB19B	N	5	10	ft	28.5 J	18 U	3.6 U	13 U	9.3 U	--	152	9.8 U	14 U	117	11 U
GCMW-19	SB19C	N	10	15	ft	44.6	20 U	17 J	14 U	10 U	--	235	11 U	16 U	287	12 U
GCMW-19	SB19C-S-NYC	S	10	15	ft	120 J	470 U	470 U	470 U	470 U	470 U	400 J	470 U	470 U	680	45
GCMW-19	SB19D	N	15	20	ft	300	18 U	18.9 J	13 U	9.6 U	--	296	10 U	25.3 J	474	72.4
GCMW-19	SB19E	N	20	25	ft	122	20 U	4 U	14 U	10 U	--	311	11 U	24.7 J	208	34.5 J
GCMW-19	SB19F	N	25	30	ft	16 U	24 U	4.8 U	17 U	13 U	--	51.4 J	13 U	19 U	14 U	14 U
GCMW-19	SB19G	N	30	35	ft	14 U	21 U	4.3 U	15 U	11 U	--	83.6	12 U	17 U	15.2 J	13 U
GCMW-19	SB19H	N	35	40	ft	13 U	20 U	4.1 U	14 U	11 U	--	55.7 J	11 U	16 U	12 U	12 U
GCMW-19	SB19I	N	40	45	ft	13 U	19 U	3.9 U	14 U	10 U	--	72.1	11 U	16 U	11 U	11 U
GCMW-19	SB19J	N	45	50	ft	13 U	21 U	4.1 U	14 U	11 U	--	143	11 U	17 U	12 U	12 U
GCMW-19	SB19K	N	50	55	ft	12 U	19 U	3.8 U	13 U	9.8 U	--	138	10 U	15 U	11 U	11 U
GCMW-19	SB19L	N	55	60	ft	12 U	19 U	3.8 U	13 U	9.8 U	--	118	10 U	15 U	11 U	11 U
GCMW-19	SB19L-S-NYC	S	55	60	ft	1.6 J	200 U	200 U	200 U	200 U	200 U	230	200 U	200 U	1.5 J	3.9 U
GCMW-19	SB19M	N	60	62	ft	13 U	20 U	4 U	14 U	10 U	--	349	11 U	16 U	12 U	12 U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
GCMW-17	SB17A	N	2	5	ft	5,410	10 U	11 U	6.7 U	15 U	50,100	8,360	9.8 U	8.4 U	31 U	8.4 U
GCMW-17	SB17B	N	5	10	ft	722	11 U	12 U	7.3 U	16 U	8,610	1,270	11 U	9.2 U	34 U	9.2 U
GCMW-17	SB17C	N	10	15	ft	327	14 U	15 U	9.3 U	20 U	3,100	582	14 U	12 U	43 U	12 U
GCMW-17	SB17C-S-NYC	S	10	15	ft	590	580 U	580 U	580 U	580 U	5,900	1,000 J	580 U	580 U	580 U	580 U
GCMW-17	SB17D	N	15	20	ft	12 U	14 U	14 U	9.1 U	20 U	18 U	13 U	13 U	11 U	42 U	11 U
GCMW-17	SB17E	N	20	25	ft	12 U	14 U	14 U	8.9 U	20 U	104	13 U	13 U	11 U	41 U	11 U
GCMW-17	SB17F	N	25	30	ft	11 U	12 U	13 U	7.9 U	17 U	88.8	12 U	12 U	9.9 U	36 U	9.9 U
GCMW-17	SB17G	N	30	35	ft	11 U	13 U	13 U	8.3 U	18 U	63.9	12 U	12 U	10 U	38 U	10 U
GCMW-17	SB17H	N	35	40	ft	11 U	13 U	13 U	8.3 U	18 U	33.9 J	12 U	12 U	10 U	38 U	10 U
GCMW-17	SB17I	N	40	45	ft	11 U	12 U	13 U	8 U	18 U	56.2	12 U	12 U	10 U	37 U	10 U
GCMW-17	SB17I-S-NYC	S	40	45	ft	200 U	200 U	200 U	200 U	200 U	170 J	30 J	200 U	200 U	200 U	200 U
GCMW-18	SB18A	N	2	5	ft	9.2 U	11 U	11 U	6.9 U	15 U	47.7	10 U	10 U	8.6 U	31 U	8.6 U
GCMW-18	SB18B	N	5	10	ft	78.1	12 U	12 U	7.7 U	17 U	3,380	153	11 U	9.6 U	35 U	9.6 U
GCMW-18	SB18C	N	10	15	ft	43.5 J	13 U	13 U	8.4 U	18 U	1,350	78.6	12 U	10 U	38 U	10 U
GCMW-18	SB18D	N	15	20	ft	11 U	13 U	13 U	8.3 U	18 U	307	12 U	12 U	10 U	38 U	10 U
GCMW-18	SB18D-S-NYC	S	15	20	ft	32 J	230 U	230 U	230 U	230 U	920	42 J	230 U	230 U	230 UJ	230 U
GCMW-18	SB18E	N	20	25	ft	11 U	12 U	13 U	8.1 U	18 U	47.7	12 U	12 U	10 U	37 U	10 U
GCMW-18	SB18F	N	25	30	ft	13 U	15 U	15 U	9.6 U	21 U	157	14 U	14 U	12 U	44 U	12 U
GCMW-18	SB18G	N	30	35	ft	11 U	12 U	13 U	8 U	18 U	136	12 U	12 U	10 U	37 U	10 U
GCMW-18	SB18H	N	35	40	ft	10,600	11 U	12 U	7.4 U	16 U	94,800	103,000	11 U	9.3 U	34 U	9.3 U
GCMW-18	SB18I	N	40	45	ft	1,800	12 U	13 U	8 U	17 U	23,700	26,200	12 U	10 U	37 U	10 U
GCMW-18	SB18J	N	45	50	ft	129	13 U	13 U	8.2 U	18 U	1,410	1,260	12 U	10 U	37 U	10 U
GCMW-18	SB18K	N	50	55	ft	26.2 J	12 U	13 U	8 U	18 U	376	288	12 U	10 U	37 U	10 U
GCMW-18	SB18K-S-NYC	S	50	55	ft	54 J	200 U	200 U	200 U	200 U	550	530	200 U	200 U	200 UJ	200 U
GCMW-18	SB18L	N	55	58	ft	30.3 J	13 U	13 U	8.3 U	18 U	424	362	12 U	10 U	38 U	10 U
GCMW-19	SB19A	N	2	5	ft	9.3 U	11 U	31.8 J	6.9 U	15 U	17.4 J	72.9	10 U	8.7 U	32 U	8.7 U
GCMW-19	SB19B	N	5	10	ft	9.2 U	11 U	11 U	6.9 U	15 U	120	80.4	10 U	8.6 U	32 U	8.6 U
GCMW-19	SB19C	N	10	15	ft	10 U	12 U	12 U	7.5 U	17 U	151	101	11 U	9.4 U	35 U	9.4 U
GCMW-19	SB19C-S-NYC	S	10	15	ft	68 J	470 U	470 U	470 U	470 U	420 J	200 J	470 U	470 U	470 UJ	470 U
GCMW-19	SB19D	N	15	20	ft	51 J	11 U	11 U	7.1 U	16 U	780	142	10 U	8.9 U	33 U	8.9 U
GCMW-19	SB19E	N	20	25	ft	23.7 J	12 U	12 U	7.7 U	17 U	290	64.3	11 U	9.7 U	35 U	9.7 U
GCMW-19	SB19F	N	25	30	ft	12 U	14 U	126	9.2 U	20 U	18 U	14 U	14 U	12 U	42 U	12 U
GCMW-19	SB19G	N	30	35	ft	11 U	13 U	91	8.2 U	18 U	19 J	12 U	12 U	10 U	38 U	10 U
GCMW-19	SB19H	N	35	40	ft	10 U	12 U	68 J	7.8 U	17 U	16 U	12 U	11 U	9.8 U	36 U	9.8 U
GCMW-19	SB19I	N	40	45	ft	10 U	11 U	77.2	7.5 U	16 U	15 U	11 U	11 U	9.3 U	34 U	9.3 U
GCMW-19	SB19J	N	45	50	ft	11 U	12 U	13 U	7.9 U	17 U	16 U	12 U	12 U	9.9 U	36 U	9.9 U
GCMW-19	SB19K	N	50	55	ft	9.7 U	11 U	11 U	7.2 U	16 U	14 U	11 U	11 U	9 U	33 U	9 U
GCMW-19	SB19L	N	55	60	ft	9.7 U	11 U	12 U	7.3 U	16 U	14 U	11 U	11 U	9.1 U	33 U	9.1 U
GCMW-19	SB19L-S-NYC	S	55	60	ft	200 U	200 U	200 U	200 U	200 U	1.2 J	3.9 U	200 U	200 U	200 U	200 U
GCMW-19	SB19M	N	60	62	ft	10 U	12 U	12 U	7.7 U	17 U	15 U	11 U	11 U	9.6 U	35 U	9.6 U

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Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
GCMW-17	SB17A	N	2	5	ft	6,000	8.1 U	--	3,490	8.7 U	7.3 U	18 U	51 U	55,000	32 U	34,700	254,183
GCMW-17	SB17B	N	5	10	ft	878	8.9 U	--	412	9.6 U	8.1 U	20 U	57 U	10,100	35 U	8,020	44,225
GCMW-17	SB17C	N	10	15	ft	405	11 U	--	130	12 U	10 U	25 U	72 U	3,480	44 U	2,170	16,871
GCMW-17	SB17C-S-NYC	S	10	15	ft	1,100 J	580 U	--	260 J	580 U	580 U	580 U	92 U	6,000	580 U	3,600	33,330
GCMW-17	SB17D	N	15	20	ft	14 U	11 U	--	11 U	12 U	10 U	24 U	70 U	19 U	43 U	16 U	0 U
GCMW-17	SB17E	N	20	25	ft	18.4 J	11 U	--	11 U	12 U	9.8 U	24 U	69 U	108	42 U	96.8	542.9
GCMW-17	SB17F	N	25	30	ft	27.9 J	9.6 U	--	9.8 U	10 U	8.7 U	21 U	61 U	73	38 U	159	691.5
GCMW-17	SB17G	N	30	35	ft	13 U	10 U	--	10 U	11 U	9.1 U	22 U	64 U	43.7	39 U	82.8	382.9
GCMW-17	SB17H	N	35	40	ft	13 U	10 U	--	10 U	11 U	9.1 U	22 U	64 U	24.2 J	39 U	34.7 J	132.2
GCMW-17	SB17I	N	40	45	ft	12 U	9.7 U	--	9.8 U	10 U	8.8 U	21 U	62 U	57.6	38 U	64.2	270.7
GCMW-17	SB17I-S-NYC	S	40	45	ft	32	200 U	--	9.5	200 U	200 U	200 U	7.8 U	140 J	200 U	120 J	976.9
GCMW-18	SB18A	N	2	5	ft	21 J	8.3 U	--	8.4 U	8.9 U	7.5 U	18 U	53 U	17.5 J	32 U	46.7	319
GCMW-18	SB18B	N	5	10	ft	889	9.3 U	--	37.3	10 U	8.5 U	21 U	59 U	1,890	36 U	3,010	18,904
GCMW-18	SB18C	N	10	15	ft	348	10 U	--	45.9	11 U	9.2 U	22 U	64 U	457	40 U	1,450	7,803
GCMW-18	SB18D	N	15	20	ft	87.7	10 U	--	10 U	11 U	9.1 U	22 U	64 U	119	39 U	331	1,843
GCMW-18	SB18D-S-NYC	S	15	20	ft	270 J	230 U	--	36 J	230 U	230 U	230 U	18 U	220 J	230 U	920	5,480
GCMW-18	SB18E	N	20	25	ft	18.5 J	9.8 U	--	10 U	11 U	8.9 U	22 U	62 U	22.2 J	38 U	46.9	299.2
GCMW-18	SB18F	N	25	30	ft	33.6 J	12 U	--	12 U	12 U	11 U	26 U	74 U	87.6	45 U	162	864.4
GCMW-18	SB18G	N	30	35	ft	34.8 J	9.7 U	--	9.9 U	10 U	8.8 U	22 U	62 U	83	38 U	166	833.4
GCMW-18	SB18H	N	35	40	ft	10,900	9 U	--	344,000	9.6 U	8.1 U	20 U	57 U	308,000	35 U	130,000	1,714,030
GCMW-18	SB18I	N	40	45	ft	2,170	9.7 U	--	62,100	10 U	8.8 U	21 U	61 U	78,200	38 U	35,400	399,722
GCMW-18	SB18J	N	45	50	ft	175	9.9 U	--	1,560	11 U	9 U	22 U	63 U	4,420	39 U	1,890	18,178
GCMW-18	SB18K	N	50	55	ft	51.3	9.7 U	--	149	10 U	8.8 U	21 U	61 U	1,050	38 U	492	4,020
GCMW-18	SB18K-S-NYC	S	50	55	ft	81	200 U	--	240	200 U	200 U	200 U	32 U	1,800	200 U	810	6,616
GCMW-18	SB18L	N	55	58	ft	47.7	10 U	--	253	11 U	9.2 U	22 U	64 U	1,260	39 U	543	4,884
GCMW-19	SB19A	N	2	5	ft	11 U	8.4 U	--	13.1 J	9 U	7.6 U	19 U	53 U	81.7	33 U	55.8	460.4
GCMW-19	SB19B	N	5	10	ft	24 J	8.3 U	--	20.8 J	8.9 U	7.6 U	18 U	53 U	189	33 U	142	1,077
GCMW-19	SB19C	N	10	15	ft	27.9 J	9.1 U	--	46.8	9.8 U	8.3 U	20 U	58 U	312	36 U	265	1,774
GCMW-19	SB19C-S-NYC	S	10	15	ft	87	470 U	--	90 J	470 U	470 U	470 U	37 U	700	470 U	390 J	3,991
GCMW-19	SB19D	N	15	20	ft	214	8.6 U	--	53.5	9.2 U	7.8 U	19 U	55 U	617	33 U	616	5,109
GCMW-19	SB19E	N	20	25	ft	89.3	9.3 U	--	33.1 J	10 U	8.5 U	21 U	59 U	245	36 U	241	2,117
GCMW-19	SB19F	N	25	30	ft	14 U	11 U	--	11 U	12 U	10 U	25 U	71 U	19 U	44 U	16 U	0 U
GCMW-19	SB19G	N	30	35	ft	13 U	9.9 U	--	10 U	11 U	9 U	22 U	63 U	22.2 J	39 U	17.8 J	89.1
GCMW-19	SB19H	N	35	40	ft	12 U	9.5 U	--	40.1	10 U	8.6 U	21 U	60 U	16 U	37 U	14 U	40.1
GCMW-19	SB19I	N	40	45	ft	12 U	9 U	--	9.2 U	9.7 U	8.2 U	20 U	57 U	15 U	35 U	13 U	0 U
GCMW-19	SB19J	N	45	50	ft	12 U	9.6 U	--	22.5 J	10 U	8.7 U	21 U	61 U	17.6 J	37 U	14 U	40.1
GCMW-19	SB19K	N	50	55	ft	11 U	8.7 U	--	8.9 U	9.4 U	7.9 U	19 U	56 U	15 U	34 U	12 U	0 U
GCMW-19	SB19L	N	55	60	ft	11 U	8.8 U	--	8.9 U	9.4 U	8 U	20 U	56 U	15 U	34 U	13 U	0 U
GCMW-19	SB19L-S-NYC	S	55	60	ft	1.2 J	200 U	--	1.7 J	200 U	200 U	200 U	8 U	1.2 J	200 U	3.9 U	18.9
GCMW-19	SB19M	N	60	62	ft	12 U	9.3 U	--	9.4 U	10 U	8.4 U	21 U	59 U	16 U	36 U	13 U	0 U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
GCMW-17	SB17A	N	2	5	ft	**0.56** U	**0.38** U	**0.42** U	**0.42** U	**0.6** U	**0.47** U	**0.34** U	**0.42** U	**0.47** U	**0.43** U	**0.58** U
GCMW-17	SB17B	N	5	10	ft	**0.61** U	**0.42** U	**0.46** U	**0.46** U	**0.66** U	**0.52** U	**0.37** U	**0.46** U	**0.52** U	**0.47** U	**0.63** U
GCMW-17	SB17C	N	10	15	ft	**0.78** U	**0.53** U	**0.59** U	**0.58** U	**0.84** U	**0.66** U	**0.47** U	**0.58** U	**0.66** U	**0.6** U	**0.81** U
GCMW-17	SB17C-S-NYC	S	10	15	ft	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**4.4** U	**2.3** U	**4.4** U	**4.4** U	**4.4** U	**4.4** U
GCMW-17	SB17D	N	15	20	ft	**0.76** U	**0.52** U	**0.58** U	**0.57** U	**0.82** U	**0.64** U	**0.46** U	**0.57** U	**0.64** U	**0.58** U	**0.79** U
GCMW-17	SB17E	N	20	25	ft	**0.74** U	**0.51** U	**0.57** U	**0.56** U	**0.8** U	**0.63** U	**0.45** U	**0.56** U	**0.63** U	**0.57** U	**0.78** U
GCMW-17	SB17F	N	25	30	ft	**0.65** U	**0.45** U	**0.5** U	**0.49** U	**0.71** U	**0.56** U	**0.4** U	**0.49** U	**0.56** U	**0.5** U	**0.68** U
GCMW-17	SB17G	N	30	35	ft	**0.7** U	**0.48** U	**0.53** U	**0.52** U	**0.75** U	**0.59** U	**0.42** U	**0.52** U	**0.59** U	**0.54** U	**0.73** U
GCMW-17	SB17H	N	35	40	ft	**0.69** U	**0.47** U	**0.52** U	**0.52** U	**0.75** U	**0.59** U	**0.42** U	**0.52** U	**0.59** U	**0.53** U	**0.72** U
GCMW-17	SB17I	N	40	45	ft	**0.66** U	**0.45** U	**0.5** U	**0.5** U	**0.71** U	**0.56** U	**0.4** U	**0.5** U	**0.56** U	**0.51** U	**0.69** U
GCMW-17	SB17I-S-NYC	S	40	45	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**3.8** U	**2** U	**3.8** U	**3.8** U	**3.8** U	**3.8** U
GCMW-18	SB18A	N	2	5	ft	**0.57** U	**0.39** U	**0.44** U	**0.43** U	**0.62** U	**0.49** U	**0.35** U	**0.43** U	**0.49** U	**0.44** U	**0.6** U
GCMW-18	SB18B	N	5	10	ft	**0.64** U	**0.44** U	**0.49** U	**0.48** U	**0.7** U	**0.55** U	**0.39** U	**0.48** U	**0.55** U	**0.5** U	**0.67** U
GCMW-18	SB18C	N	10	15	ft	**0.7** U	**0.48** U	**0.53** U	**0.53** U	**0.76** U	**0.6** U	**0.43** U	**0.53** U	**0.6** U	**0.54** U	**0.73** U
GCMW-18	SB18D	N	15	20	ft	**0.68** U	**0.47** U	**0.52** U	**0.51** U	**0.74** U	**0.58** U	**0.42** U	**0.51** U	**0.58** U	**0.53** U	**0.72** U
GCMW-18	SB18D-S-NYC	S	15	20	ft	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**7**	**4.5** U	**2.3** U	**4.5** U	**4.5** U	**4.5** U	**4.5** U
GCMW-18	SB18E	N	20	25	ft	**0.67** U	**0.46** U	**0.51** U	**0.5** U	**0.72** U	**0.57** U	**0.41** U	**0.5** U	**0.57** U	**0.52** U	**0.7** U
GCMW-18	SB18F	N	25	30	ft	**0.79** U	**0.54** U	**0.6** U	**0.6** U	**0.86** U	**0.68** U	**0.48** U	**0.6** U	**0.68** U	**0.61** U	**0.83** U
GCMW-18	SB18G	N	30	35	ft	**0.67** U	**0.46** U	**0.51** U	**0.5** U	**0.72** U	**0.57** U	**0.41** U	**0.5** U	**0.57** U	**0.52** U	**0.7** U
GCMW-18	SB18H	N	35	40	ft	**0.62** U	**0.42** U	**0.47** U	**0.46** U	**0.67** U	**0.53** U	**0.38** U	**0.46** U	**0.53** U	**0.48** U	**0.65** U
GCMW-18	SB18I	N	40	45	ft	**0.67** U	**0.46** U	**0.51** U	**0.5** U	**0.72** U	**0.57** U	**0.41** U	**0.5** U	**0.57** U	**0.52** U	**0.7** U
GCMW-18	SB18J	N	45	50	ft	**0.67** U	**0.46** U	**0.51** U	**0.51** U	**0.73** U	**0.57** U	**0.41** U	**0.51** U	**0.57** U	**0.52** U	**0.7** U
GCMW-18	SB18K	N	50	55	ft	**0.67** U	**0.46** U	**0.51** U	**0.5** U	**0.72** U	**0.57** U	**0.41** U	**0.5** U	**0.57** U	**0.52** U	**0.7** U
GCMW-18	SB18K-S-NYC	S	50	55	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**4** U	**2** U	**4** U	**4** U	**4** U	**4** U
GCMW-18	SB18L	N	55	58	ft	**0.7** U	**0.48** U	**0.53** U	**0.52** U	**0.75** U	**0.59** U	**0.42** U	**0.52** U	**0.59** U	**0.54** U	**0.73** U
GCMW-19	SB19A	N	2	5	ft	**0.58** U	**0.4** U	**0.44** U	**0.43** U	**0.63** U	**0.49** U	**0.35** U	**0.43** U	**0.49** U	**0.45** U	**0.61** U
GCMW-19	SB19B	N	5	10	ft	**0.57** U	**0.39** U	**0.44** U	**0.43** U	**0.62** U	**0.49** U	**0.35** U	**0.43** U	**0.49** U	**0.44** U	**0.6** U
GCMW-19	SB19C	N	10	15	ft	**0.62** U	**0.43** U	**0.47** U	**0.47** U	**0.67** U	**0.53** U	**0.38** U	**0.47** U	**0.53** U	**0.48** U	**0.65** U
GCMW-19	SB19C-S-NYC	S	10	15	ft	**1.9** U	**1.9** U	**1.9** U	**1.9** U	**1.9** NJ	**3.7** U	**1.9** U	**3.7** U	**3.7** U	**3.7** U	**3.7** U
GCMW-19	SB19D	N	15	20	ft	**0.59** U	**0.4** U	**0.45** U	**0.44** U	**0.64** U	**0.5** U	**0.36** U	**0.44** U	**0.5** U	**0.45** U	**0.62** U
GCMW-19	SB19E	N	20	25	ft	**0.64** U	**0.44** U	**0.49** U	**0.48** U	**0.7** U	**0.55** U	**0.39** U	**0.48** U	**0.55** U	**0.5** U	**0.67** U
GCMW-19	SB19F	N	25	30	ft	**0.77** U	**0.53** U	**0.59** U	**0.58** U	**0.84** U	**0.66** U	**0.47** U	**0.58** U	**0.66** U	**0.6** U	**0.81** U
GCMW-19	SB19G	N	30	35	ft	**0.68** U	**0.47** U	**0.52** U	**0.51** U	**0.73** U	**0.58** U	**0.41** U	**0.51** U	**0.58** U	**0.52** U	**0.71** U
GCMW-19	SB19H	N	35	40	ft	**0.65** U	**0.44** U	**0.49** U	**0.49** U	**0.7** U	**0.55** U	**0.39** U	**0.49** U	**0.55** U	**0.5** U	**0.68** U
GCMW-19	SB19I	N	40	45	ft	**0.62** U	**0.43** U	**0.47** U	**0.47** U	**0.67** U	**0.53** U	**0.38** U	**0.47** U	**0.53** U	**0.48** U	**0.65** U
GCMW-19	SB19J	N	45	50	ft	**0.66** U	**0.45** U	**0.5** U	**0.5** U	**0.72** U	**0.56** U	**0.4** U	**0.5** U	**0.56** U	**0.51** U	**0.69** U
GCMW-19	SB19K	N	50	55	ft	**0.6** U	**0.41** U	**0.45** U	**0.45** U	**0.65** U	**0.51** U	**0.36** U	**0.45** U	**0.51** U	**0.46** U	**0.62** U
GCMW-19	SB19L	N	55	60	ft	**0.6** U	**0.41** U	**0.46** U	**0.45** U	**0.65** U	**0.51** U	**0.37** U	**0.45** U	**0.51** U	**0.46** U	**0.63** U
GCMW-19	SB19L-S-NYC	S	55	60	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**4** U	**2** U	**4** U	**4** U	**4** U	**4** U
GCMW-19	SB19M	N	60	62	ft	**0.62** U	**0.43** U	**0.48** U	**0.47** U	**0.67** U	**0.53** U	**0.38** U	**0.47** U	**0.53** U	**0.48** U	**0.65** U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
GCMW-17	SB17A	N	2	5	ft	0.44 U	0.38 U	0.49 U	0.56 U	0.48 U	0.55 U	0.53 U	0.43 U	0.52 U	14 U	0 U
GCMW-17	SB17B	N	5	10	ft	0.48 U	0.42 U	0.53 U	0.61 U	0.52 U	0.6 U	0.58 U	0.47 U	0.57 U	16 U	0 U
GCMW-17	SB17C	N	10	15	ft	0.61 U	0.53 U	0.68 U	0.78 U	0.67 U	0.77 U	0.74 U	0.6 U	0.73 U	20 U	0 U
GCMW-17	SB17C-S-NYC	S	10	15	ft	2.4 J	2.3 U	2.3 U	2.3 U	2.3 U	23 U	4.4 U	4.4 U	4.4 U	230 U	0 U
GCMW-17	SB17D	N	15	20	ft	0.6 U	0.52 U	0.66 U	0.76 U	0.65 U	0.75 U	0.72 U	0.58 U	0.71 U	20 U	0 U
GCMW-17	SB17E	N	20	25	ft	0.59 U	0.51 U	0.65 U	0.74 U	0.64 U	0.74 U	0.71 U	0.57 U	0.69 U	19 U	0 U
GCMW-17	SB17F	N	25	30	ft	0.52 U	0.45 U	0.57 U	0.65 U	0.56 U	0.65 U	0.62 U	0.5 U	0.61 U	17 U	0 U
GCMW-17	SB17G	N	30	35	ft	0.55 U	0.48 U	0.61 U	0.7 U	0.6 U	0.69 U	0.67 U	0.54 U	0.65 U	18 U	0 U
GCMW-17	SB17H	N	35	40	ft	0.54 U	0.47 U	0.6 U	0.69 U	0.59 U	0.68 U	0.66 U	0.53 U	0.64 U	18 U	0 U
GCMW-17	SB17I	N	40	45	ft	0.52 U	0.45 U	0.58 U	0.66 U	0.57 U	0.66 U	0.63 U	0.51 U	0.62 U	17 U	0 U
GCMW-17	SB17I-S-NYC	S	40	45	ft	3.8 U	2 U	2 U	2 U	2 U	20 U	3.8 U	3.8 U	3.8 U	200 U	0 U
GCMW-18	SB18A	N	2	5	ft	0.45 U	0.39 U	0.5 U	0.57 U	0.49 U	0.57 U	0.55 U	0.44 U	0.53 U	15 U	0 U
GCMW-18	SB18B	N	5	10	ft	0.51 U	0.44 U	0.56 U	0.65 U	0.55 U	0.64 U	0.62 U	0.5 U	2.6	17 U	2.6
GCMW-18	SB18C	N	10	15	ft	0.55 U	0.48 U	0.61 U	0.7 U	0.6 U	0.7 U	0.67 U	0.54 U	0.65 U	18 U	0 U
GCMW-18	SB18D	N	15	20	ft	0.54 U	0.47 U	0.6 U	0.69 U	0.59 U	0.68 U	0.65 U	0.53 U	0.64 U	18 U	0 U
GCMW-18	SB18D-S-NYC	S	15	20	ft	4.5 U	1.2 J	2.3 U	1.7 J	2.3 U	23 U	4.5 U	4.5 U	4.5 U	230 U	0 U
GCMW-18	SB18E	N	20	25	ft	0.53 U	0.46 U	0.58 U	0.67 U	0.57 U	0.67 U	0.64 U	0.52 U	0.63 U	17 U	0 U
GCMW-18	SB18F	N	25	30	ft	0.63 U	0.55 U	0.69 U	0.8 U	0.68 U	0.79 U	0.76 U	0.61 U	0.74 U	21 U	0 U
GCMW-18	SB18G	N	30	35	ft	0.53 U	0.46 U	0.58 U	0.67 U	0.57 U	0.66 U	0.64 U	0.52 U	0.62 U	17 U	0 U
GCMW-18	SB18H	N	35	40	ft	0.49 U	0.43 U	0.54 U	0.62 U	0.53 U	0.61 U	0.59 U	0.48 U	0.58 U	16 U	0 U
GCMW-18	SB18I	N	40	45	ft	0.53 U	0.46 U	0.58 U	0.67 U	0.57 U	0.66 U	0.64 U	0.51 U	0.62 U	17 U	0 U
GCMW-18	SB18J	N	45	50	ft	0.53 U	0.46 U	0.59 U	0.68 U	0.58 U	0.67 U	0.64 U	0.52 U	0.63 U	18 U	0 U
GCMW-18	SB18K	N	50	55	ft	0.53 U	0.46 U	0.58 U	0.67 U	0.57 U	0.66 U	0.64 U	0.51 U	0.62 U	17 U	0 U
GCMW-18	SB18K-S-NYC	S	50	55	ft	4 U	2 U	2 U	2 U	2 U	20 U	4 U	4 U	4 U	200 U	0 U
GCMW-18	SB18L	N	55	58	ft	0.55 U	0.48 U	0.61 U	0.7 U	0.6 U	0.69 U	0.67 U	0.54 U	0.65 U	18 U	0 U
GCMW-19	SB19A	N	2	5	ft	0.46 U	0.4 U	0.5 U	0.58 U	0.5 U	0.58 U	0.55 U	0.45 U	0.54 U	15 U	0 U
GCMW-19	SB19B	N	5	10	ft	0.45 U	0.39 U	0.5 U	0.58 U	0.49 U	0.57 U	0.55 U	0.44 U	0.54 U	15 U	0 U
GCMW-19	SB19C	N	10	15	ft	0.49 U	0.43 U	0.54 U	0.62 U	0.53 U	0.62 U	0.59 U	0.48 U	0.58 U	16 U	0 U
GCMW-19	SB19C-S-NYC	S	10	15	ft	3.7 U	1.9 U	1.9 U	1.9 U	1.9 U	19 U	3.7 U	3.7 U	3.7 U	190 U	0 U
GCMW-19	SB19D	N	15	20	ft	0.47 U	0.41 U	0.51 U	0.59 U	0.5 U	0.58 U	0.56 U	0.45 U	0.55 U	15 U	0 U
GCMW-19	SB19E	N	20	25	ft	0.51 U	0.44 U	0.56 U	0.65 U	0.55 U	0.64 U	0.61 U	0.5 U	0.6 U	17 U	0 U
GCMW-19	SB19F	N	25	30	ft	0.61 U	0.53 U	0.67 U	0.78 U	0.66 U	0.77 U	0.74 U	0.6 U	0.72 U	20 U	0 U
GCMW-19	SB19G	N	30	35	ft	0.54 U	0.47 U	0.59 U	0.68 U	0.58 U	0.67 U	0.65 U	0.52 U	0.63 U	18 U	0 U
GCMW-19	SB19H	N	35	40	ft	0.51 U	0.45 U	0.56 U	0.65 U	0.55 U	0.64 U	0.62 U	0.5 U	0.61 U	17 U	0 U
GCMW-19	SB19I	N	40	45	ft	0.49 U	0.43 U	0.54 U	0.62 U	0.53 U	0.62 U	0.59 U	0.48 U	0.58 U	16 U	0 U
GCMW-19	SB19J	N	45	50	ft	0.52 U	0.46 U	0.58 U	0.66 U	0.57 U	0.66 U	0.63 U	0.51 U	0.62 U	17 U	0 U
GCMW-19	SB19K	N	50	55	ft	0.47 U	0.41 U	0.52 U	0.6 U	0.51 U	0.59 U	0.57 U	0.46 U	0.56 U	16 U	0 U
GCMW-19	SB19L	N	55	60	ft	0.48 U	0.41 U	0.52 U	0.6 U	0.52 U	0.6 U	0.57 U	0.46 U	0.56 U	16 U	0 U
GCMW-19	SB19L-S-NYC	S	55	60	ft	4 U	2 U	2 U	2 U	2 U	20 U	4 U	4 U	4 U	200 U	0 U
GCMW-19	SB19M	N	60	62	ft	0.49 U	0.43 U	0.54 U	0.63 U	0.53 U	0.62 U	0.6 U	0.48 U	0.58 U	16 U	0 U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-17	SB17A	N	2	5	ft	**11**	U	**21**	U	**10**	U	**11**	U	**6.2**	U	**7.8**	U	**12**	U	**6.3**	U	**7**	U	**0**	U
GCMW-17	SB17B	N	5	10	ft	**12**	U	**22**	U	**11**	U	**12**	U	**6.7**	U	**8.5**	U	**13**	U	**6.8**	U	**7.6**	U	**0**	U
GCMW-17	SB17C	N	10	15	ft	**15**	U	**29**	U	**14**	U	**16**	U	**8.6**	U	**11**	U	**17**	U	**8.7**	U	**9.8**	U	**0**	U
GCMW-17	SB17C-S-NYC	S	10	15	ft	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**45**	UJ	**0**	U
GCMW-17	SB17D	N	15	20	ft	**15**	U	**28**	U	**14**	U	**15**	U	**8.4**	U	**11**	U	**16**	U	**8.5**	U	**9.5**	U	**0**	U
GCMW-17	SB17E	N	20	25	ft	**15**	U	**27**	U	**13**	U	**15**	U	**8.2**	U	**10**	U	**16**	U	**8.3**	U	**9.3**	U	**0**	U
GCMW-17	SB17F	N	25	30	ft	**13**	U	**24**	U	**12**	U	**13**	U	**7.2**	U	**9.2**	U	**14**	U	**7.3**	U	**8.2**	U	**0**	U
GCMW-17	SB17G	N	30	35	ft	**14**	U	**26**	U	**13**	U	**14**	U	**7.7**	U	**9.8**	U	**15**	U	**7.8**	U	**8.8**	U	**0**	U
GCMW-17	SB17H	N	35	40	ft	**14**	U	**25**	U	**12**	U	**14**	U	**7.6**	U	**9.7**	U	**15**	U	**7.7**	U	**8.7**	U	**0**	U
GCMW-17	SB17I	N	40	45	ft	**13**	U	**24**	U	**12**	U	**13**	U	**7.3**	U	**9.3**	U	**14**	U	**7.4**	U	**8.3**	U	**0**	U
GCMW-17	SB17I-S-NYC	S	40	45	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-18	SB18A	N	2	5	ft	**11**	U	**21**	U	**10**	U	**11**	U	**6.3**	U	**8**	U	**12**	U	**6.4**	U	**7.2**	U	**0**	U
GCMW-18	SB18B	N	5	10	ft	**13**	U	**24**	U	**12**	U	**13**	U	**7.1**	U	**9.1**	U	**14**	U	**7.3**	U	**8.1**	U	**0**	U
GCMW-18	SB18C	N	10	15	ft	**14**	U	**26**	U	**13**	U	**14**	U	**7.7**	U	**9.8**	U	**15**	U	**7.9**	U	**8.8**	U	**0**	U
GCMW-18	SB18D	N	15	20	ft	**14**	U	**25**	U	**12**	U	**14**	U	**7.6**	U	**9.6**	U	**15**	U	**7.7**	U	**8.6**	U	**0**	U
GCMW-18	SB18D-S-NYC	S	15	20	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**0**	U
GCMW-18	SB18E	N	20	25	ft	**13**	U	**25**	U	**12**	U	**13**	U	**7.4**	U	**9.4**	U	**15**	U	**7.5**	U	**8.4**	U	**0**	U
GCMW-18	SB18F	N	25	30	ft	**16**	U	**29**	U	**14**	U	**16**	U	**8.8**	U	**11**	U	**17**	U	**8.9**	U	**10**	U	**0**	U
GCMW-18	SB18G	N	30	35	ft	**13**	U	**25**	U	**12**	U	**13**	U	**7.4**	U	**9.4**	U	**14**	U	**7.5**	U	**8.4**	U	**0**	U
GCMW-18	SB18H	N	35	40	ft	**12**	U	**23**	U	**11**	U	**12**	U	**6.8**	U	**8.7**	U	**13**	U	**7**	U	**7.8**	U	**0**	U
GCMW-18	SB18I	N	40	45	ft	**13**	U	**25**	U	**12**	U	**13**	U	**7.4**	U	**9.4**	U	**14**	U	**7.5**	U	**8.4**	U	**0**	U
GCMW-18	SB18J	N	45	50	ft	**13**	U	**25**	U	**12**	U	**13**	U	**7.5**	U	**9.5**	U	**15**	U	**7.6**	U	**8.5**	U	**0**	U
GCMW-18	SB18K	N	50	55	ft	**13**	U	**25**	U	**12**	U	**13**	U	**7.4**	U	**9.4**	U	**14**	U	**7.5**	U	**8.4**	U	**0**	U
GCMW-18	SB18K-S-NYC	S	50	55	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-18	SB18L	N	55	58	ft	**14**	U	**26**	U	**13**	U	**14**	U	**7.7**	U	**9.8**	U	**15**	U	**7.8**	U	**8.8**	U	**0**	U
GCMW-19	SB19A	N	2	5	ft	**12**	U	**21**	U	**10**	U	**12**	U	**6.4**	U	**8.1**	U	**13**	U	**6.5**	U	**7.3**	U	**0**	U
GCMW-19	SB19B	N	5	10	ft	**11**	U	**21**	U	**10**	U	**11**	U	**6.3**	U	**8.1**	U	**12**	U	**6.4**	U	**7.2**	U	**0**	U
GCMW-19	SB19C	N	10	15	ft	**12**	U	**23**	U	**11**	U	**12**	U	**6.9**	U	**8.7**	U	**13**	U	**7**	U	**7.8**	U	**0**	U
GCMW-19	SB19C-S-NYC	S	10	15	ft	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**37**	UJ	**0**	U
GCMW-19	SB19D	N	15	20	ft	**12**	U	**22**	U	**11**	U	**12**	U	**6.5**	U	**8.3**	U	**13**	U	**6.6**	U	**7.4**	U	**0**	U
GCMW-19	SB19E	N	20	25	ft	**13**	U	**24**	U	**12**	U	**13**	U	**7.1**	U	**9**	U	**14**	U	**7.2**	U	**8.1**	U	**0**	U
GCMW-19	SB19F	N	25	30	ft	**15**	U	**28**	U	**14**	U	**15**	U	**8.5**	U	**11**	U	**17**	U	**8.7**	U	**9.7**	U	**0**	U
GCMW-19	SB19G	N	30	35	ft	**14**	U	**25**	U	**12**	U	**14**	U	**7.5**	U	**9.6**	U	**15**	U	**7.7**	U	**8.6**	U	**0**	U
GCMW-19	SB19H	N	35	40	ft	**13**	U	**24**	U	**12**	U	**13**	U	**7.2**	U	**9.1**	U	**14**	U	**7.3**	U	**8.2**	U	**0**	U
GCMW-19	SB19I	N	40	45	ft	**12**	U	**23**	U	**11**	U	**12**	U	**6.9**	U	**8.7**	U	**13**	U	**7**	U	**7.8**	U	**0**	U
GCMW-19	SB19J	N	45	50	ft	**13**	U	**24**	U	**12**	U	**13**	U	**7.3**	U	**9.3**	U	**14**	U	**7.4**	U	**8.3**	U	**0**	U
GCMW-19	SB19K	N	50	55	ft	**12**	U	**22**	U	**11**	U	**12**	U	**6.6**	U	**8.4**	U	**13**	U	**6.7**	U	**7.5**	U	**0**	U
GCMW-19	SB19L	N	55	60	ft	**12**	U	**22**	U	**11**	U	**12**	U	**6.7**	U	**8.5**	U	**13**	U	**6.8**	U	**7.6**	U	**0**	U
GCMW-19	SB19L-S-NYC	S	55	60	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-19	SB19M	N	60	62	ft	**12**	U	**23**	U	**11**	U	**12**	U	**6.9**	U	**8.8**	U	**14**	U	**7**	U	**7.9**	U	**0**	U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-17	SB17A	N	2	5	ft	7,610	0.37 U	6.5	49.7	0.018 U	0.54	46,000	20.3	0.037 U	55.9	11,400
GCMW-17	SB17B	N	5	10	ft	10,000	0.41 U	4.8	77.4	0.38	1.1	35,700	17.7	12.2	59.5	16,900
GCMW-17	SB17C	N	10	15	ft	7,460	0.53 U	10.2	338	0.45	0.033 U	21,300	17.4	0.053 U	49.7	12,900
GCMW-17	SB17C-S-NYC	S	10	15	ft	6,340	8 U	10.3	277	0.66 U	0.66 U	27,000	16.8	6.9	92.5 R	14,200
GCMW-17	SB17D	N	15	20	ft	11,800	0.53 U	8.1	40.4	0.47	0.033 U	2,870	22.8	0.053 U	13.5	21,600
GCMW-17	SB17E	N	20	25	ft	11,400	0.5 U	7.2	0.052 U	0.47	0.032 U	5,360	20.4	0.05 U	12.2	21,600
GCMW-17	SB17F	N	25	30	ft	5,970	0.44 U	5.5	0.045 U	0.29	0.028 U	1,730	11.6	0.044 U	7.4	12,600
GCMW-17	SB17G	N	30	35	ft	3,640	0.46 U	3.7	0.047 U	0.022 U	0.029 U	0.89 U	7.3	0.046 U	4.5	8,800
GCMW-17	SB17H	N	35	40	ft	4,270	0.47 U	4.3	0.049 U	0.023 U	0.03 U	2,450	9.6	0.047 U	8.7	10,000
GCMW-17	SB17I	N	40	45	ft	5,650	0.44 U	3.8	40.3	0.29	0.028 U	1,680	21.3	0.044 U	8.8	13,200
GCMW-17	SB17I-S-NYC	S	40	45	ft	3,260	6 U	3.2	19.8 U	0.5 U	0.5 U	1,320	8.3	5 U	5.1 R	8,920
GCMW-18	SB18A	N	2	5	ft	5,770	0.29 U	3.8	0.09 U	0.0074 U	0.042 U	90,900	5.8	5.4	45.9	14,100
GCMW-18	SB18B	N	5	10	ft	6,630	0.34 U	2.6	61.8	0.0088 U	0.049 U	42,200	13.4	0.12 U	61.5	16,000
GCMW-18	SB18C	N	10	15	ft	8,580	0.27 U	8.2	113	0.44	0.039 U	10,600	16	6.2	38.8	30,700
GCMW-18	SB18D	N	15	20	ft	6,950	0.27 U	4.5	30.5	0.3	0.039 U	6,090	13.9	0.094 U	11	16,300
GCMW-18	SB18D-S-NYC	S	15	20	ft	8,050	0.7 J	7.1	47.9	0.42 J	0.56 U	19,300	16	5.8	23.1 R	20,400
GCMW-18	SB18E	N	20	25	ft	10,700	0.28 U	5.3	27.3	0.46	0.04 U	4,090	20.3	6.4	11.7	20,900
GCMW-18	SB18F	N	25	30	ft	11,500	0.41 U	6.7	33.4	0.5	0.06 U	4,860	23	7.7	15	23,700
GCMW-18	SB18G	N	30	35	ft	6,570	0.36 U	4.8	0.11 U	0.32	0.052 U	4,850	12	0.13 U	8.8	13,600
GCMW-18	SB18H	N	35	40	ft	5,980	0.31 U	3.5	0.098 U	0.3	0.045 U	5.6 U	11.7	0.11 U	5.7	11,100
GCMW-18	SB18I	N	40	45	ft	6,300	0.27 U	2.7	20.7	0.37	0.039 U	908	12	0.094 U	7.3	11,800
GCMW-18	SB18J	N	45	50	ft	4,350	0.28 U	0.49 U	0.087 U	0.23	0.04 U	966	8.7	0.096 U	5.8	9,680
GCMW-18	SB18K	N	50	55	ft	3,250	0.27 U	0.49 U	0.087 U	0.2	0.04 U	4.9 U	6.7	0.096 U	5.3	8,880
GCMW-18	SB18K-S-NYC	S	50	55	ft	2,620	6.1 U	2.1	11.8 J	0.19 J	0.51 U	481 J	8.3	5.1 U	4.5 R	8,530
GCMW-18	SB18L	N	55	58	ft	3,480	0.27 U	3.3	26.9	0.21	0.039 U	4.8 U	7.8	0.094 U	6.7	10,400
GCMW-19	SB19A	N	2	5	ft	1,750	0.29 U	2.2	0.091 U	0.0075 U	0.042 U	107,000	2.4	0.1 U	16.4	8,820
GCMW-19	SB19B	N	5	10	ft	3,040	0.31 U	6.4	0.097 U	0.008 U	0.045 U	61,400	5.1	0.11 U	21.1	6,810
GCMW-19	SB19C	N	10	15	ft	3,640	0.34 U	4.8	0.11 U	0.0088 U	0.049 U	120,000	8.8	0.12 U	13.6	8,250
GCMW-19	SB19C-S-NYC	S	10	15	ft	2,870	5.4 U	4.6	34.6	0.45 U	0.45 U	71,300	10.7	4.5 U	19.5 R	9,440
GCMW-19	SB19D	N	15	20	ft	5,440	0.3 U	10.6	36.1	0.26	0.044 U	34,600	12.1	0.1 U	14.2	12,900
GCMW-19	SB19E	N	20	25	ft	3,910	0.32 U	3.4	0.1 U	0.0083 U	0.046 U	35,900	7.7	0.11 U	31.1	10,700
GCMW-19	SB19F	N	25	30	ft	13,400	0.4 U	7.1	32	0.62	0.057 U	2,840	24.6	7.7	14.5	27,600
GCMW-19	SB19G	N	30	35	ft	3,570	0.34 U	0.61 U	0.11 U	0.27	0.049 U	3,950	7.4	0.12 U	4.5	10,000
GCMW-19	SB19H	N	35	40	ft	5,260	0.32 U	0.58 U	0.1 U	0.33	0.047 U	813	10.7	0.11 U	6.1	10,800
GCMW-19	SB19I	N	40	45	ft	3,030	0.31 U	4.9	59	0.008 U	0.044 U	5.5 U	7.3	0.11 U	6.3	25,700
GCMW-19	SB19J	N	45	50	ft	2,990	0.34 U	0.61 U	0.11 U	0.0088 U	0.049 U	2,160	6.4	0.12 U	5.1	9,140
GCMW-19	SB19K	N	50	55	ft	3,750	0.3 U	2.3	34.2	0.0078 U	0.043 U	3,640	11.2	0.1 U	7.5	9,590
GCMW-19	SB19L	N	55	60	ft	2,810	0.31 U	0.55 U	0.097 U	0.008 U	0.045 U	6,670	9.4	0.11 U	6.1	8,910
GCMW-19	SB19L-S-NYC	S	55	60	ft	2,770	6.5 U	1.8	23.7	0.21 J	0.54 U	3,520	8.3	5.4 U	6.9 R	7,260
GCMW-19	SB19M	N	60	62	ft	2,680	0.42 U	0.25 U	0.043 U	0.28	0.026 U	4,830	6.3	0.042 U	6.1	7,500

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-17	SB17A	N	2	5	ft	76.6	25,800	192	0.42	16.9	1,760	0.34 U	0.058 U	1,490	0.18 U	28.4	96.9	0.023 U
GCMW-17	SB17B	N	5	10	ft	102	17,700	237	0.23	41	2.1 U	0.38 U	0.064 U	1,920	0.2 U	54.8	86.4	0.026 U
GCMW-17	SB17C	N	10	15	ft	1,170	5,960	277	3.4	21.4	2.7 U	0.48 U	0.081 U	2.1 U	0.26 U	29	155	0.035 U
GCMW-17	SB17C-S-NYC	S	10	15	ft	667	5,260	280	1.9	22.2	632 J	4.6 UJ	1.3 U	1,070	3.3 U	32	142	3 U
GCMW-17	SB17D	N	15	20	ft	33.7	5,090	281	0.075	26	2,690	0.49 U	0.082 U	2.2 U	0.26 U	25.8	56.3	0.034 U
GCMW-17	SB17E	N	20	25	ft	11	4,380	236	0.047	20.3	2,380	0.46 U	0.077 U	2.1 U	0.24 U	23.5	47.5	0.032 U
GCMW-17	SB17F	N	25	30	ft	8.4	2,410	129	0.014 U	10.8	1,340	0.4 U	0.068 U	1.8 U	0.21 U	15	29.2	0.028 U
GCMW-17	SB17G	N	30	35	ft	6.9	1,190	85.8	0.014 U	7	2.3 U	0.42 U	0.071 U	1.9 U	0.22 U	9.4	20.6	0.028 U
GCMW-17	SB17H	N	35	40	ft	10.6	2,100	122	0.058	8.2	2.4 U	0.43 U	0.073 U	1.9 U	0.23 U	12.5	27.4	0.031 U
GCMW-17	SB17I	N	40	45	ft	121	2,500	146	0.12	12.5	2.2 U	0.4 U	0.068 U	1.8 U	0.21 U	22.9	37.6	0.028 U
GCMW-17	SB17I-S-NYC	S	40	45	ft	11.9	1,760	127	0.11 U	8.7	542	3.5 UJ	0.99 U	496 U	2.5 U	10.6	23.9	2.6 U
GCMW-18	SB18A	N	2	5	ft	9.3	48,000	176	0.013 U	7	5.6 U	1 U	0.042 U	12 U	0.93 U	29	33.8	0.023 U
GCMW-18	SB18B	N	5	10	ft	44.3	18,800	322	0.21	10	2,310	0.4 U	0.049 U	15 U	0.36 U	42.1	61.3	0.026 U
GCMW-18	SB18C	N	10	15	ft	114	4,250	334	0.57	23.4	1,500	0.32 U	0.039 U	12 U	0.29 U	21.9	87.3	0.028 U
GCMW-18	SB18D	N	15	20	ft	21.3	3,790	241	0.3	16.1	1,370	0.32 U	0.039 U	12 U	0.29 U	17	41.9	0.028 U
GCMW-18	SB18D-S-NYC	S	15	20	ft	48	6,680	249	0.41	22.5	1,260	3.9 UJ	0.25 J	923	2.8 U	21.1	64	3.2 U
GCMW-18	SB18E	N	20	25	ft	12.5	4,580	226	0.078	18.9	2,420	0.33 U	0.04 U	1,130	0.3 U	23.8	46.6	0.029 U
GCMW-18	SB18F	N	25	30	ft	19.4	5,870	264	0.076	25.4	2,590	0.49 U	0.06 U	18 U	0.44 U	27.8	57.9	0.032 U
GCMW-18	SB18G	N	30	35	ft	9	2,560	114	0.059	11.7	1,350	0.43 U	0.052 U	16 U	0.39 U	16	29.4	0.029 U
GCMW-18	SB18H	N	35	40	ft	4	1,410	56.9	0.013 U	7.6	6 U	0.37 U	0.045 U	14 U	0.34 U	15.6	23.5	0.055 U
GCMW-18	SB18I	N	40	45	ft	5.3	2,140	79	0.014 U	11.7	1,080	0.32 U	0.039 U	12 U	0.29 U	17.1	29	0.03 U
GCMW-18	SB18J	N	45	50	ft	4.8	1,600	70.5	0.014 U	8.1	5.3 U	0.33 U	0.04 U	12 U	0.3 U	10.8	22.2	0.03 U
GCMW-18	SB18K	N	50	55	ft	3.7	1,330	68.2	0.013 U	8.3	5.3 U	0.33 U	0.04 U	12 U	0.3 U	8.6	19.3	0.029 U
GCMW-18	SB18K-S-NYC	S	50	55	ft	3.9	1,230	68.8	0.11 U	8.6	308 J	3.5 UJ	0.092 J	505 U	2.5 U	8.7	19.7	2.6 U
GCMW-18	SB18L	N	55	58	ft	4.1	1,480	140	0.015 U	8.6	5.2 U	0.32 U	0.039 U	12 U	0.29 U	10.6	20.3	0.029 U
GCMW-19	SB19A	N	2	5	ft	0.13 U	61,300	181	0.013 U	0.095 U	5.6 U	1 U	0.042 U	12 U	0.93 U	28	21	0.048 U
GCMW-19	SB19B	N	5	10	ft	12.3	30,300	111	0.012 U	0.1 U	6 U	0.37 U	0.045 U	13 U	0.66 U	18.1	18.7	0.049 U
GCMW-19	SB19C	N	10	15	ft	10	57,000	153	0.04	5.7	6.6 U	1.2 U	0.049 U	15 U	1.1 U	18.7	28.7	0.057 U
GCMW-19	SB19C-S-NYC	S	10	15	ft	20.5	32,800	162	0.11 U	10.9	447	3.1 UJ	0.89 U	446 U	2.2 U	17.3	36.2	2.7 U
GCMW-19	SB19D	N	15	20	ft	34	21,200	127	0.076	11.7	1,510	0.36 U	0.044 U	13 U	0.32 U	19.3	35.1	0.051 U
GCMW-19	SB19E	N	20	25	ft	7.1	21,300	127	0.014 U	6.9	6.2 U	0.38 U	0.046 U	14 U	0.34 U	15.8	22.5	0.054 U
GCMW-19	SB19F	N	25	30	ft	9.2	5,170	287	0.016 U	20.9	2,900	0.47 U	0.057 U	17 U	0.42 U	28.6	59.6	0.032 U
GCMW-19	SB19G	N	30	35	ft	2.8	2,920	56.4	0.014 U	6	6.6 U	0.41 U	0.049 U	15 U	0.37 U	11.5	19.2	0.028 U
GCMW-19	SB19H	N	35	40	ft	3.8	1,940	90.3	0.014 U	8.8	6.3 U	0.38 U	0.047 U	14 U	0.35 U	13.3	24.2	0.028 U
GCMW-19	SB19I	N	40	45	ft	3.1	1,250	353	0.013 U	5.5	6 U	0.37 U	0.044 U	13 U	0.33 U	8.5	18.1	0.026 U
GCMW-19	SB19J	N	45	50	ft	2.6	2,140	121	0.013 U	6.6	6.6 U	0.4 U	0.049 U	15 U	0.37 U	7.5	18.2	0.027 U
GCMW-19	SB19K	N	50	55	ft	2.2	3,180	221	0.013 U	11.4	1,140	0.36 U	0.043 U	13 U	0.32 U	12.7	19.2	0.027 U
GCMW-19	SB19L	N	55	60	ft	2.7	3,750	200	0.013 U	7.4	6 U	0.37 U	0.045 U	13 U	0.33 U	11.5	17.2	0.025 U
GCMW-19	SB19L-S-NYC	S	55	60	ft	4.1	1,860	219	0.1 U	6.7	675	3.8 UJ	0.086 J	542 U	2.7 U	10.4	21.6	2.7 U
GCMW-19	SB19M	N	60	62	ft	2.7	1,910	138	0.014 U	6.4	2.1 U	0.38 U	0.046 U	1.7 U	0.2 U	11.5	14.8	0.028 U

DEP – Hamilton Ave. Asphalt Plant

(MW17 & MW18 & MW19)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-17	GC-MW17I	N	Intermediate	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U	**2.6**	U
MW-17	GC-MW17S	N	Shallow	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.38**	J	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.37**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-18	GC-MW18I	N	Intermediate	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**2.7**		**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**0.6**	U	**0.6**	U	**0.6**	U	**0.6**	U	**0.6**	U	**2.4**		**0.6**	U	**0.6**	U	**0.05**	U	**0.05**	U
MW-18	GC-MW18S	N	Shallow	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-19	GC-MW19I	N	Intermediate	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-19	GC-MW19S	N	Shallow	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U	**0.39**	U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane
MW-17	GC-MW17I	N	Intermediate	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**9.9** J	**826**	**0.33** U	**0.22** U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**2.6** U	**2.6** U	**2.6** U	**2.6** U	**2.6** U	--	**26** U	**26** U	**750** J	**2.6** U	**2.6** U
MW-17	GC-MW17S	N	Shallow	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**2.9** U	**0.23** U	**0.33** U	**0.22** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U
MW-18	GC-MW18I	N	Intermediate	**0.26** U	**1.1**	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**2.9** U	**2.3**	**0.33** U	**0.22** U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**0.6** U	**0.6** U	**0.6** U	**0.6** U	**0.6** U	--	**6** U	**6** U	**1.9**	**0.6** U	**0.6** U
MW-18	GC-MW18S	N	Shallow	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**21.7**	**1.3**	**0.33** U	**0.22** U
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**0.58** J	**31**	**1.2**	**0.5** U	**0.5** U
MW-19	GC-MW19I	N	Intermediate	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**32.8**	**0.23** U	**0.33** U	**0.22** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**53**	**0.5** U	**0.5** U	**0.5** U
MW-19	GC-MW19S	N	Shallow	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**12.3**	**0.29** J	**0.33** U	**0.22** U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**19**	**0.5** U	**0.5** U	**0.5** U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane
MW-17	GC-MW17I	N	Intermediate	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.84** J	**0.29** U	**0.67** J	**0.25** U	**1.9** U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**2.6** U	**2.6** U	**0.51** J	**2.6** U	**0.41** J	**2.6** U	**2.6** U	**2.6** U	**0.76** J	**2.6** U	**2.6** U
MW-17	GC-MW17S	N	Shallow	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.23** U	**0.29** U	**0.22** U	**0.25** U	**1.9** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-18	GC-MW18I	N	Intermediate	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.23** U	**0.29** U	**71.5**	**0.25** U	**1.9** U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**0.6** U	**0.6** U	**0.34** J	**0.6** U	**0.6** U	**0.6** U	**0.6** U	**0.6** U	**69** J	**0.6** U	**0.6** U
MW-18	GC-MW18S	N	Shallow	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.23** U	**0.29** U	**0.27** J	**0.25** U	**1.9** U
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.32** J	**0.5** U	**0.5** U
MW-19	GC-MW19I	N	Intermediate	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**3.5**	**0.29** U	**0.24** J	**0.25** U	**1.9** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**3** U	**0.5** U	**0.27** J	**0.5** U	**0.5** U
MW-19	GC-MW19S	N	Shallow	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.23** U	**0.29** U	**0.22** U	**0.25** U	**1.9** U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.12** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.098** J

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride
MW-17	GC-MW17I	N	Intermediate	**0.22** U	**0.92** U	**1.6**	**4.7**	**1.2**	**1.5** U	**1.6** U	**0.86** U	**0.35** U	**0.3** U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**2.6** U	**2.6** U	**2.6** U	**4.8**	**2.6** U	**2.6** U	**26** U	**26** U	**0.47** J	**2.6** U
MW-17	GC-MW17S	N	Shallow	**0.22** U	**0.92** U	**0.27** U	**0.57** U	**0.25** U	**1.5** U	**1.6** U	**0.86** U	**0.35** U	**0.3** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U
MW-18	GC-MW18I	N	Intermediate	**0.22** U	**0.92** U	**26.3**	**1.4** J	**36.8**	**1.5** U	**1.6** U	**0.86** U	**0.35** U	**0.3** U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**0.6** U	**0.6** U	**22**	**0.6** U	**32** J	**0.6** U	**6** U	**6** U	**0.6** U	**0.6** U
MW-18	GC-MW18S	N	Shallow	**0.22** U	**0.92** U	**7.3**	**0.57** U	**10.1**	**1.5** U	**1.6** U	**0.86** U	**0.35** U	**0.3** U
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**6.7**	**0.27** J	**9.4**	**0.5** U	**1.2** J	**5** U	**0.5** U	**0.5** U
MW-19	GC-MW19I	N	Intermediate	**0.22** U	**0.92** U	**0.27** U	**0.57** U	**0.25** U	**1.5** U	**1.6** U	**0.86** U	**0.35** U	**0.3** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.92** J	**5** U	**0.5** U	**0.11** J
MW-19	GC-MW19S	N	Shallow	**0.22** U	**0.92** U	**0.27** U	**0.57** U	**0.25** U	**1.5** U	**1.6** U	**0.86** U	**0.35** U	**0.3** U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.53**	**0.5** U	**0.5** U	**1.6** J	**5** U	**0.16** J	**0.5** U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Wet or Dry	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
MW-17	GC-MW17I	N	Intermediate	4.8	0.58 U	0.23 U	0.27 U	0.78 J	0.25 U	0.21 U	0.24 U	0.54 U	3.3
MW-17	GC-MW17I-S-NYC	S	Intermediate	4.8	2.6 U	2.6 U	2.6 U	2.6 U	0.17 J	2.6 U	2.6 U	2.6 U	3
MW-17	GC-MW17S	N	Shallow	0.25 U	0.58 U	1.6	0.27 U	0.3 U	0.25 U	0.21 U	0.24 U	0.54 U	0.44 U
MW-17	GC-MW17S-S-NYC	S	Shallow	0.5 U	0.5 U	1.9	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-18	GC-MW18I	N	Intermediate	17.6	0.58 U	0.37 J	4.9	9.1	4	0.21 U	207	0.54 U	1.2
MW-18	GC-MW18I-S-NYC	S	Intermediate	16	4.1	0.43 J	4	7.7	3.7	0.6 U	190 J	0.6 U	0.94
MW-18	GC-MW18S	N	Shallow	5.1	0.58 U	1.2	0.27 U	4.1	0.25 U	0.21 U	0.29 J	0.54 U	0.44 U
MW-18	GC-MW18S-S-NYC	S	Shallow	5.2	1.2	1.3	0.5 U	3.7	0.5 U	0.5 U	0.31 J	0.5 U	0.5 U
MW-19	GC-MW19I	N	Intermediate	0.25 U	0.58 U	0.23 U	0.27 U	0.3 U	0.25 U	0.21 U	0.24 U	0.54 U	0.44 U
MW-19	GC-MW19I-S-NYC	S	Intermediate	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.17 J	0.5 U	0.5 U
MW-19	GC-MW19S	N	Shallow	0.25 U	0.58 U	0.84 J	0.27 U	0.3 U	0.25 U	0.21 U	0.24 U	0.54 U	0.44 U
MW-19	GC-MW19S-S-NYC	S	Shallow	0.5 U	0.5 U	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
SVOC Concentrations in Groundwater (ug/L)
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Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene	2,3,4,6-tetrachlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,4-dinitrotoluene	2,6-dinitrotoluene	2-chloronaphthalene	2-chlorophenol	2-methylnaphthalene
MW-17	GC-MW17I	N	Intermediate	**0.48** U	**0.81** U	**1.3** U	**1.2** U	**1.2** U	**1.7** U	**0.74** U	**0.22** U	**0.33** U	**0.42** U	**1.1** U	**0.66** U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**9.8** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**0.53** J
MW-17	GC-MW17S	N	Shallow	**0.5** U	**0.84** U	**1.4** U	**1.3** U	**1.3** U	**1.7** U	**0.77** U	**0.23** U	**0.34** U	**0.43** U	**1.1** U	**0.69** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**9.5** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**0.095** U
MW-18	GC-MW18I	N	Intermediate	**0.52** U	**0.87** U	**1.4** U	**1.3** U	**1.3** U	**1.8** U	**0.79** U	**0.24** U	**0.35** U	**0.45** U	**1.2** U	**296**
MW-18	GC-MW18I-S-NYC	S	Intermediate	**33** U	**33** U	**33** U	**33** U	**33** U	**33** U	**67** U	**33** U	**33** U	**33** U	**33** U	**260** J
MW-18	GC-MW18S	N	Shallow	**0.48** U	**0.81** U	**1.3** U	**1.2** U	**1.2** U	**1.7** U	**0.74** U	**0.22** U	**0.33** U	**0.42** U	**1.1** U	**28.8**
MW-18	GC-MW18S-S-NYC	S	Shallow	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**9.5** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**0.64** U
MW-19	GC-MW19I	N	Intermediate	**0.49** U	**0.82** U	**1.3** U	**1.2** U	**1.2** U	**1.7** U	**0.75** U	**0.22** U	**0.33** U	**0.42** U	**1.1** U	**0.67** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**9.5** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**0.019** J
MW-19	GC-MW19S	N	Shallow	**0.51** U	**0.85** U	**1.4** U	**1.3** U	**1.3** U	**1.7** U	**0.78** U	**0.23** U	**0.34** U	**0.44** U	**1.1** U	**0.82** J
MW-19	GC-MW19S-S-NYC	S	Shallow	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**9.8** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**0.32** U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
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Location ID	Field ID	Sample Type	Depth	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)
MW-17	GC-MW17I	N	Intermediate	**1.1** U	**0.24** U	**1.2** U	**0.3** U	**0.29** U	**0.51** U	**0.35** U	**1.1** U	**0.25** U	**0.35** U	--
MW-17	GC-MW17I-S-NYC	S	Intermediate	**4.9** U	**9.8** U	**4.9** U	**4.9** U	**9.8** U	**9.8** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U
MW-17	GC-MW17S	N	Shallow	**1.2** U	**0.24** U	**1.3** U	**0.31** U	**0.3** U	**0.53** U	**0.36** U	**1.1** U	**0.26** U	**0.37** U	--
MW-17	GC-MW17S-S-NYC	S	Shallow	**4.7** U	**9.5** U	**4.7** U	**4.7** U	**9.5** U	**9.5** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U
MW-18	GC-MW18I	N	Intermediate	**1.2** U	**0.25** U	**1.3** U	**0.32** U	**0.31** U	**0.55** U	**0.38** U	**1.1** U	**0.27** U	**0.38** U	--
MW-18	GC-MW18I-S-NYC	S	Intermediate	**33** U	**67** U	**33** U	**33** U	**67** U	**67** U	**33** U	**33** U	**33** U	**33** U	**33** U
MW-18	GC-MW18S	N	Shallow	**1.1** U	**0.24** U	**1.2** U	**0.3** U	**0.29** U	**0.51** U	**0.35** U	**1.1** U	**0.25** U	**0.35** U	--
MW-18	GC-MW18S-S-NYC	S	Shallow	**4.7** U	**9.5** U	**4.7** U	**4.7** U	**9.5** U	**9.5** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U
MW-19	GC-MW19I	N	Intermediate	**1.1** U	**0.24** U	**1.3** U	**0.3** U	**0.29** U	**0.52** U	**0.36** U	**1.1** U	**0.26** U	**0.36** U	--
MW-19	GC-MW19I-S-NYC	S	Intermediate	**4.7** U	**9.5** U	**4.7** U	**4.7** U	**9.5** U	**9.5** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U
MW-19	GC-MW19S	N	Shallow	**1.2** U	**0.25** U	**1.3** U	**0.31** U	**0.3** U	**0.54** U	**0.37** U	**1.1** U	**0.27** U	**0.37** U	--
MW-19	GC-MW19S-S-NYC	S	Shallow	**4.9** U	**9.8** U	**4.9** U	**4.9** U	**9.8** U	**9.8** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**0.52** J

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
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Location ID	Field ID	Sample Type	Depth	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene
MW-17	GC-MW17I	N	Intermediate	**0.18** U	**0.83** U	**5.5**	**0.27** U	**0.4** U	**0.16** U	**0.39** U	**0.4** U	**0.12** U	**0.095** U	**0.25** U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**9.8** U	**9.8** U	**5.4**	**0.24** J	**4.9** U	**0.65** U	**4.9** U	**4.9** U	**0.65** U	**0.65** U	**0.65** U
MW-17	GC-MW17S	N	Shallow	**0.19** U	**0.86** U	**0.38** U	**0.29** U	**0.42** U	**0.17** U	**0.41** U	**0.42** U	**0.13** U	**0.099** U	**0.26** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**9.5** U	**9.5** U	**0.095** U	**0.095** U	**4.7** U	**0.024** J	**4.7** U	**4.7** U	**0.095** U	**0.12** U	**0.095** U
MW-18	GC-MW18I	N	Intermediate	**0.19** U	**0.89** U	**79.5**	**72.7**	**0.43** U	**21.6**	**0.42** U	**0.43** U	**1.8**	**1.1**	**0.48** J
MW-18	GC-MW18I-S-NYC	S	Intermediate	**67** U	**67** U	**69** J	**59** J	**33** U	**21**	**33** U	**33** U	**3** J	**5** U	**5** U
MW-18	GC-MW18S	N	Shallow	**0.18** U	**0.83** U	**7.2**	**8.5**	**0.4** U	**2.4**	**0.39** U	**0.4** U	**0.42** J	**0.095** U	**0.25** U
MW-18	GC-MW18S-S-NYC	S	Shallow	**9.5** U	**9.5** U	**6.4** J	**5.3**	**4.7** U	**3**	**4.7** U	**4.7** U	**0.63** J	**0.64** U	**0.25** J
MW-19	GC-MW19I	N	Intermediate	**0.18** U	**0.84** U	**0.37** U	**0.28** U	**0.41** U	**0.17** U	**0.4** U	**0.41** U	**0.12** U	**0.097** U	**0.25** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**9.5** U	**9.5** U	**0.095** U	**0.095** U	**4.7** U	**0.095** U	**4.7** U	**4.7** U	**0.095** U	**0.12** U	**0.095** U
MW-19	GC-MW19S	N	Shallow	**0.19** U	**0.87** U	**2**	**0.29** U	**0.42** U	**0.17** U	**0.41** U	**0.43** U	**0.13** U	**0.1** U	**0.26** U
MW-19	GC-MW19S-S-NYC	S	Shallow	**9.8** U	**9.8** U	**1.7** J	**0.078** J	**4.9** U	**0.32** U	**4.9** U	**4.9** U	**0.32** U	**0.32** U	**0.32** U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
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Location ID	Field ID	Sample Type	Depth	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
MW-17	GC-MW17I	N	Intermediate	**0.12**	U	**0.38**	U	**0.25**	U	**0.42**	U	**0.25**	U	**0.31**	U	--		**0.33**	U	**0.2**	U	**0.17**	U	**0.11**	U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**0.65**	U	**0.65**	U	**0.49**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**2.4**	J	**4.9**	U	**0.65**	U
MW-17	GC-MW17S	N	Shallow	**0.12**	U	**0.39**	U	**0.26**	U	**0.44**	U	**0.26**	U	**0.32**	U	--		**0.34**	U	**0.2**	U	**0.17**	U	**0.11**	U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.095**	U	**0.095**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**0.02**	J
MW-18	GC-MW18I	N	Intermediate	**0.13**	U	**0.82**	J	**0.27**	U	**30.7**		**0.27**	U	**0.33**	U	--		**0.35**	U	**0.21**	U	**2.9**		**1.8**	
MW-18	GC-MW18I-S-NYC	S	Intermediate	**5**	U	**1.2**	J	**33**	U	**17**	J	**33**	U	**33**	U	**33**	U	**33**	U	**33**	U	**33**	U	**2.7**	J
MW-18	GC-MW18S	N	Shallow	**0.12**	U	**0.38**	U	**0.25**	U	**3**		**0.25**	U	**0.31**	U	--		**0.33**	U	**0.2**	U	**0.17**	U	**0.4**	J
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.18**	J	**0.25**	J	**4.7**	U	**0.48**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**6.1**		**4.7**	U	**0.61**	J
MW-19	GC-MW19I	N	Intermediate	**0.12**	U	**0.38**	U	**0.26**	U	**0.43**	U	**0.25**	U	**0.32**	U	--		**0.33**	U	**0.2**	U	**0.17**	U	**0.11**	U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.095**	U	**0.095**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**0.095**	U
MW-19	GC-MW19S	N	Shallow	**0.13**	U	**0.4**	U	**0.26**	U	**0.44**	U	**0.26**	U	**0.33**	U	--		**0.34**	U	**0.21**	U	**0.17**	U	**0.11**	U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.32**	U	**0.32**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**0.32**	U

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Location ID	Field ID	Sample Type	Depth	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
MW-17	GC-MW17I	N	Intermediate	**0.15** U	**0.3** U	**0.17** U	**0.23** U	**0.19** U	**0.4** U	**0.17** U	**0.27** U	**0.27** U	**0.13** U	**0.24** U	**0.21** U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**0.65** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**0.15** J	**0.65** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U
MW-17	GC-MW17S	N	Shallow	**0.16** U	**0.32** U	**0.17** U	**0.23** U	**0.2** U	**0.41** U	**0.18** U	**0.28** U	**0.28** U	**0.13** U	**0.25** U	**0.22** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.095** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**0.041** J	**0.095** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U
MW-18	GC-MW18I	N	Intermediate	**0.16** U	**8.7**	**0.18** U	**0.24** U	**0.21** U	**0.42** U	**9**	**65**	**0.28** U	**0.14** U	**0.26** U	**0.22** U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**5** U	**6.8** J	**33** U	**33** U	**33** U	**33** U	**12**	**60**	**33** U	**33** U	**33** U	**33** U
MW-18	GC-MW18S	N	Shallow	**0.15** U	**0.81** J	**0.17** U	**0.23** U	**0.19** U	**0.4** U	**1.6**	**6**	**0.27** U	**0.13** U	**0.24** U	**0.21** U
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.64** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**2.6**	**3.6**	**4.7** U	**4.7** U	**4.7** U	**4.7** U
MW-19	GC-MW19I	N	Intermediate	**0.16** U	**0.31** U	**0.17** U	**0.23** U	**0.19** U	**0.4** U	**0.17** U	**0.27** U	**0.27** U	**0.13** U	**0.25** U	**0.21** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.095** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U	**0.035** J	**0.095** U	**4.7** U	**4.7** U	**4.7** U	**4.7** U
MW-19	GC-MW19S	N	Shallow	**0.16** U	**0.45** J	**0.17** U	**0.24** U	**0.2** U	**0.42** U	**0.18** U	**1.2**	**0.28** U	**0.13** U	**0.26** U	**0.22** U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.32** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**4.9** U	**0.088** J	**0.55** J	**4.9** U	**4.9** U	**4.9** U	**4.9** U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-17	GC-MW17I	N	Intermediate	**0.13** U	**0.25** U	**1.4**	**0.25** U	**0.44** U	**0.22** U	**0.8** U	**0.21** U	**4.6**	**0.16** U	**6.9**
MW-17	GC-MW17I-S-NYC	S	Intermediate	**0.65** U	**4.9** U	**1.3**	**4.9** U	**4.9** U	**4.9** U	**1.3** UJ	**0.2** J	**13**	**0.65** U	**7.82**
MW-17	GC-MW17S	N	Shallow	**0.14** U	**0.26** U	**0.44** U	**0.26** U	**0.46** U	**0.22** U	**0.83** U	**0.22** U	**0.6** U	**0.16** U	**0** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.095** U	**4.7** U	**0.026** J	**4.7** U	**4.7** U	**4.7** U	**0.19** UJ	**0.048** J	**4.7** U	**0.095** U	**0.159**
MW-18	GC-MW18I	N	Intermediate	**0.14** U	**0.27** U	**605**	**0.27** U	**0.47** U	**0.23** U	**0.86** U	**87.4**	**0.62** U	**11.6**	**1,254**
MW-18	GC-MW18I-S-NYC	S	Intermediate	**5** U	**33** U	**370**	**33** U	**33** U	**33** U	**10** UJ	**81** J	**33** U	**12**	**950.9**
MW-18	GC-MW18S	N	Shallow	**0.13** U	**0.25** U	**99.9**	**0.25** U	**0.44** U	**0.22** U	**0.8** U	**9.5**	**0.58** U	**2**	**166.72**
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.18** J	**4.7** U	**0.13** J	**4.7** U	**4.7** U	**4.7** U	**1.3** UJ	**1.2**	**4.7** U	**2** J	**26.33**
MW-19	GC-MW19I	N	Intermediate	**0.13** U	**0.25** U	**0.44** U	**0.26** U	**0.45** U	**0.22** U	**0.82** U	**0.21** U	**0.59** U	**0.16** U	**0** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.095** U	**4.7** U	**0.098**	**4.7** U	**4.7** U	**4.7** U	**0.19** UJ	**0.047** J	**4.7** U	**0.095** U	**0.199**
MW-19	GC-MW19S	N	Shallow	**0.14** U	**0.26** U	**1.3**	**0.27** U	**0.46** U	**0.23** U	**0.84** U	**0.22** U	**0.61** U	**0.16** U	**5.32**
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.32** U	**4.9** U	**0.18** J	**4.9** U	**4.9** U	**4.9** U	**0.65** UJ	**0.32** U	**6.7**	**0.32** U	**2.596**

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-17	GC-MW17I	N	Intermediate	**0.0092**	U	**0.0023**	U	**0.0024**	U	**0.0031**	U	**0.0038**	U	**0.0034**	U	**0.0044**	U	**0.0014**	U	**0.0069**	U	**0.0014**	U	**0.0036**	U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**0.052**	UJ	**0.052**	UJ	**0.052**	UJ	**0.052**	UJ	**0.052**	UJ	**0.1**	UJ	**0.052**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-17	GC-MW17S	N	Shallow	**0.0092**	U	**0.0023**	U	**0.0024**	U	**0.0031**	U	**0.0038**	U	**0.0034**	U	**0.0044**	U	**0.0014**	U	**0.0069**	U	**0.0014**	U	**0.0036**	U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.056**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.11**	U	**0.056**	U	**0.11**	U	**0.11**	U	**0.11**	U	**0.11**	U
MW-18	GC-MW18I	N	Intermediate	**0.009**	U	**0.0023**	U	**0.0023**	U	**0.003**	U	**0.0037**	U	**0.0033**	U	**0.0043**	U	**0.0014**	U	**0.0067**	U	**0.0013**	U	**0.0035**	U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.094**	UJ	**0.047**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ
MW-18	GC-MW18S	N	Shallow	**0.009**	U	**0.0023**	U	**0.15**		**0.003**	U	**0.0037**	U	**0.0033**	U	**0.0043**	U	**0.0014**	U	**0.0067**	U	**0.0013**	U	**0.0035**	U
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.049**	UJ	**0.049**	UJ	**0.046**	J	**0.049**	UJ	**0.049**	UJ	**0.098**	UJ	**0.049**	UJ	**0.098**	UJ	**0.098**	UJ	**0.098**	UJ	**0.098**	UJ
MW-19	GC-MW19I	N	Intermediate	**0.0097**	U	**0.0024**	U	**0.0025**	U	**0.0033**	U	**0.004**	U	**0.0036**	U	**0.0046**	U	**0.0015**	U	**0.0073**	U	**0.0014**	U	**0.0038**	U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.099**	UJ	**0.05**	UJ	**0.099**	UJ	**0.099**	UJ	**0.099**	UJ	**0.099**	UJ
MW-19	GC-MW19S	N	Shallow	**0.0095**	U	**0.0024**	U	**0.0024**	U	**0.0032**	U	**0.0039**	U	**0.0036**	U	**0.0045**	U	**0.0015**	U	**0.0072**	U	**0.0014**	U	**0.0037**	U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.098**	UJ	**0.049**	UJ	**0.098**	UJ	**0.098**	UJ	**0.098**	UJ	**0.098**	UJ

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-17	GC-MW17I	N	Intermediate	**0.0077**	U	**0.0017**	U	**0.0025**	U	**0.0039**	U	**0.0026**	U	**0.0071**	U	**0.0037**	U	**0.0022**	U	**0.0039**	U	**0.26**	U	**0**	U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**0.1**	UJ	**0.052**	UJ	**0.052**	UJ	**0.052**	UJ	**0.052**	UJ	**0.52**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5.2**	UJ	**0**	U
MW-17	GC-MW17S	N	Shallow	**0.0077**	U	**0.0017**	U	**0.0025**	U	**0.0039**	U	**0.0026**	U	**0.0071**	U	**0.0037**	U	**0.0022**	U	**0.0039**	U	**0.26**	U	**0**	U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.11**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.056**	U	**0.56**	U	**0.11**	U	**0.11**	U	**0.11**	U	**5.6**	U	**0**	U
MW-18	GC-MW18I	N	Intermediate	**0.0074**	U	**0.0017**	U	**0.0024**	U	**0.0038**	U	**0.0025**	U	**0.0069**	U	**0.0036**	U	**0.0021**	U	**0.0038**	U	**0.25**	U	**0**	U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**0.094**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.47**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**4.7**	UJ	**0**	U
MW-18	GC-MW18S	N	Shallow	**0.0074**	U	**0.0017**	U	**0.0024**	U	**0.0038**	U	**0.0025**	U	**0.0069**	U	**0.0036**	U	**0.0021**	U	**0.0038**	U	**0.25**	U	**0**	U
MW-18	GC-MW18S-S-NYC	S	Shallow	**0.098**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.49**	UJ	**0.098**	UJ	**0.098**	UJ	**0.098**	UJ	**4.9**	UJ	**0**	U
MW-19	GC-MW19I	N	Intermediate	**0.0081**	U	**0.0018**	U	**0.0026**	U	**0.0041**	U	**0.0027**	U	**0.0075**	U	**0.0039**	U	**0.0023**	U	**0.0041**	U	**0.27**	U	**0**	U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.099**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.099**	UJ	**0.099**	UJ	**0.099**	UJ	**5**	UJ	**0**	U
MW-19	GC-MW19S	N	Shallow	**0.0079**	U	**0.0018**	U	**0.0025**	U	**0.0041**	U	**0.0026**	U	**0.0073**	U	**0.0038**	U	**0.0022**	U	**0.004**	U	**0.27**	U	**0**	U
MW-19	GC-MW19S-S-NYC	S	Shallow	**0.098**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.049**	UJ	**0.49**	UJ	**0.098**	UJ	**0.098**	UJ	**0.098**	UJ	**4.9**	UJ	**0**	U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-17	GC-MW17I	N	Intermediate	**0.31**	U	**0.42**	U	**0.32**	U	**0.28**	U	**0.29**	U	**0.19**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0**	U
MW-17	GC-MW17S	N	Shallow	**0.31**	U	**0.42**	U	**0.32**	U	**0.28**	U	**0.29**	U	**0.19**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0**	U
MW-18	GC-MW18I	N	Intermediate	**0.3**	U	**0.41**	U	**0.31**	U	**0.27**	U	**0.28**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0.97**	U	**0**	U
MW-18	GC-MW18S	N	Shallow	**0.3**	U	**0.41**	U	**0.31**	U	**0.27**	U	**0.28**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-18	GC-MW18S-S-NYC	S	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-19	GC-MW19I	N	Intermediate	**0.33**	U	**0.45**	U	**0.34**	U	**0.29**	U	**0.3**	U	**0.2**	U	**0.15**	U	**0.11**	U	**0.13**	U	**0**	U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0.94**	U	**0**	U
MW-19	GC-MW19S	N	Shallow	**0.32**	U	**0.44**	U	**0.33**	U	**0.29**	U	**0.3**	U	**0.19**	U	**0.15**	U	**0.11**	U	**0.13**	U	**0**	U
MW-19	GC-MW19S-S-NYC	S	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Cadmium
MW-17	GC-MW17I	N	Intermediate	**2,950**	--	**2.2** U	--	**22.9**	--	**352**	--	**0.24** U	--	**0.35** U
MW-17	GC-MW17I-S-NYC	S	Intermediate	**2,760**	**200** U	**2** U	**2** U	**24.7**	**8.7**	**416**	**360**	**1** U	**1** U	**0.24** J
MW-17	GC-MW17S	N	Shallow	**7.8** U	--	**2.2** U	--	**4.7**	--	**0.44** U	--	**0.24** U	--	**0.35** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**216**	**200** U	**2** U	**2** U	**5.8**	**4.2**	**64.4**	**50.1**	**1** U	**1** U	**0.12** J
MW-18	GC-MW18I	N	Intermediate	**9,480**	--	**2.2** U	--	**10.2**	--	**0.44** U	--	**0.24** U	--	**0.35** U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**9,250**	**200** U	**2** U	**2** U	**9.5**	**1.9**	**196**	**101**	**1** U	**1** U	**0.39** J
MW-18	GC-MW18S	N	Shallow	**786**	--	**2.2** U	--	**1.4** U	--	**211**	--	**0.24** U	--	**0.35** U
MW-18	GC-MW18S-S-NYC	S	Shallow	**438**	**9.9** J	2 R	2 R	**1.3**	**1** U	**243**	**241**	**1** U	**1** U	**1** U
MW-19	GC-MW19I	N	Intermediate	**1,250**	--	**2.2** U	--	**1.4** U	--	**249**	--	**0.24** U	--	**0.35** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**1,890**	**11.4** J	**2** U	**2** U	**6.9**	**4.9**	**307**	**286**	**1** U	**1** U	**1** U
MW-19	GC-MW19S	N	Shallow	**228**	--	**2.2** U	--	**10**	--	**263**	--	**0.24** U	--	**0.35** U
MW-19	GC-MW19S-S-NYC	S	Shallow	**200** U	**200** U	**2** U	**2** U	**12.3**	**9.9**	**256**	**196**	**1** U	**1** U	**1** U

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cadmium, dissolved	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved
MW-17	GC-MW17I	N	Intermediate	--	**54,500**	--	**0.59** U	--	**0.65** U	--	**39**	--	**24,800**	--
MW-17	GC-MW17I-S-NYC	S	Intermediate	**1** U	**62,300**	**60,500**	**10.9**	**2** U	**3**	**1** U	**11.2**	**0.96** J	**28,500**	**7,720**
MW-17	GC-MW17S	N	Shallow	--	**119,000**	--	**0.59** U	--	**0.65** U	--	**2.5** U	--	**482**	--
MW-17	GC-MW17S-S-NYC	S	Shallow	**1** U	**115,000**	**116,000**	**2** U	**2** U	**2.1**	**1.8**	**4.8**	**2.5**	**532**	**237**
MW-18	GC-MW18I	N	Intermediate	--	**59,000**	--	**25.8**	--	**0.65** U	--	**44.6**	--	**22,900**	**18** U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**1** U	**65,400**	**61,500**	**24.3**	**2** U	**8.6**	**1** U	**38.6**	**0.88** J	**28,100**	**12.6** J
MW-18	GC-MW18S	N	Shallow	--	**113,000**	--	**0.59** U	--	**0.65** U	--	**27.2**	--	**2,650**	**102**
MW-18	GC-MW18S-S-NYC	S	Shallow	**1** U	**128,000**	**130,000**	**2** U	**2** U	**1** U	**1** U	**2.8**	**1.3** J	**2,230**	**30.6** J
MW-19	GC-MW19I	N	Intermediate	--	**94,500**	--	**11.7**	--	**0.65** U	--	**24.3**	--	**2,970**	--
MW-19	GC-MW19I-S-NYC	S	Intermediate	**1** U	**111,000**	**104,000**	**8.2**	**2** U	**2.2**	**1** U	**7.8**	**1.4** J	**5,180**	**14.1** J
MW-19	GC-MW19S	N	Shallow	--	**93,900**	--	**0.59** U	--	**0.65** U	--	**2.5** U	--	**3,940**	--
MW-19	GC-MW19S-S-NYC	S	Shallow	**1** U	**94,900**	**93,600**	**2** U	**2** U	**1** U	**1** U	**1.1** J	**0.98** J	**3,790**	**83.3** J

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved
MW-17	GC-MW17I	N	Intermediate	**9.3**	--	**38,400**	--	**1,740**	--	**0.082** U	--	**0.51** U	--	**14,600**	--
MW-17	GC-MW17I-S-NYC	S	Intermediate	**12.3**	**1** U	**44,800**	**43,700**	**1,910**	**1,820**	**0.2** U	**0.2** U	**7.3**	**3.9**	**12,800**	**11,900**
MW-17	GC-MW17S	N	Shallow	**5.1**	--	**21,600**	--	**860**	--	**0.082** U	--	**10**	--	**20,600**	--
MW-17	GC-MW17S-S-NYC	S	Shallow	**25.2**	**1** U	**21,600**	**21,900**	**823**	**779**	**0.2** U	**0.2** U	**9.5**	**10.1**	**17,800**	**17,700**
MW-18	GC-MW18I	N	Intermediate	**25.3**	--	**37,800**	--	**1,630**	**1,570**	**0.21**	--	**22.4**	--	**17,700**	--
MW-18	GC-MW18I-S-NYC	S	Intermediate	**45.4**	**1** U	**43,600**	**39,600**	**1,700**	**1,500**	**0.16** J	**0.2** U	**21.6**	**7.4**	**16,800**	**14,600**
MW-18	GC-MW18S	N	Shallow	**7.3**	--	**25,100**	--	**356**	**376**	**0.082** U	--	**0.51** U	--	**27,100**	--
MW-18	GC-MW18S-S-NYC	S	Shallow	**6.4**	**1** U	**29,200**	**29,400**	**381**	**398**	**0.2** U	**0.2** U	**3.3** J	**4.2** J	**26,700**	**25,800**
MW-19	GC-MW19I	N	Intermediate	**1.9** U	--	**103,000**	--	**1,050**	--	**0.082** U	--	**0.51** U	--	**74,000**	--
MW-19	GC-MW19I-S-NYC	S	Intermediate	**4.9**	**1** U	**123,000**	**118,000**	**1,310**	**1,030**	**0.2** U	**0.2** U	**6.5**	**6**	**74,900**	**70,700**
MW-19	GC-MW19S	N	Shallow	**1.9** U	--	**15,300**	--	**344**	--	**0.082** U	--	**0.51** U	--	**29,900**	--
MW-19	GC-MW19S-S-NYC	S	Shallow	**1** U	**1** U	**15,800**	**15,400**	**337**	**320**	**0.2** U	**0.2** U	2.2 R	3.7 R	**25,900**	**25,800**

DEP – Hamilton Ave. Asphalt Plant (MW17 & MW18 & MW19)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-17	GC-MW17I	N	Intermediate	**1.9** U	--	**0.53** U	--	**497,000**	--	**1.8** U	--	**0.56** U	--	**24.9**	--	**36**
MW-17	GC-MW17I-S-NYC	S	Intermediate	**10**	**8.1**	**1** U	**0.24** UJ	**628,000**	**612,000**	**1** U	**1** U	**5** U	**5** U	72.5 R	**57.2**	**72**
MW-17	GC-MW17S	N	Shallow	**1.9** U	--	**0.53** U	--	**395,000**	--	**1.8** U	--	**0.56** U	--	**1.4** U	--	**2** U
MW-17	GC-MW17S-S-NYC	S	Shallow	**0.81** J	**0.52** J	**1** U	**1** UJ	**391,000**	**385,000**	**1** U	**1** U	**2.8** J	**1.5** J	53.7 R	**49.3**	**9.2** J
MW-18	GC-MW18I	N	Intermediate	**1.9** U	--	**0.53** U	--	**314,000**	--	**1.8** U	--	**0.56** U	--	**59.1**	--	**2** U
MW-18	GC-MW18I-S-NYC	S	Intermediate	**3.5** J	**3.4** J	**1** U	**1** UJ	**342,000**	**321,000**	**1** U	**1** U	**27.3**	**5** U	118 R	**56.5**	**10** U
MW-18	GC-MW18S	N	Shallow	**1.9** U	--	**0.53** U	--	**634,000**	--	**1.8** U	--	**0.56** U	--	**22.4**	--	**2** U
MW-18	GC-MW18S-S-NYC	S	Shallow	**2** J	**1.6** J	**1** U	**1** UJ	**748,000**	**727,000**	**1** U	**1** U	**10.4**	**7.4**	65.7 R	**52.3**	**3.8** J
MW-19	GC-MW19I	N	Intermediate	**1.9** U	--	**0.53** U	--	**1,610,000**	--	**1.8** U	--	**0.56** U	--	**1.4** U	--	**2** U
MW-19	GC-MW19I-S-NYC	S	Intermediate	**25**	**23**	**1** U	**1** UJ	**1,820,000**	**1,720,000**	**1** U	**1** U	**2.4** J	**5** U	54.9 R	**50.3**	**10** U
MW-19	GC-MW19S	N	Shallow	**1.9** U	--	**0.53** U	--	**489,000**	--	**1.8** U	--	**0.56** U	--	**1.4** U	--	**2** U
MW-19	GC-MW19S-S-NYC	S	Shallow	**1.1** J	**0.78** J	**1** U	**1** UJ	**469,000**	**469,000**	**1** U	**1** U	**3.5** J	**1.4** J	50.7 R	**40.2**	**5.4** J

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627 Smith St

(MW13 & MW14)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 627 Smith St.
Monitoring Well Soil Borings Installed at Address: GC-MW-13 & GC-MW-14
Intermediate Monitoring Wells Installed at Address: GC-MW-13I & GC-MW-14I
Shallow Monitoring Wells Installed at Address: GC-MW-13S & GC-MW-14S

GC-MW-13

The soil samples from the soil boring installed for the intermediate well (situated approximately 32 feet from the canal) contained 7 VOCs, 82 SVOCs, 1 pesticide, 0 PCBs, and 136 metals. From these, 5 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The VOC occurring at the highest concentration above screening value was m,p xylenes (11,000 µg/kg). The metal occurring at the highest concentration above screening value was arsenic (17 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 32 feet from the canal) contained 6 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 5 VOCs, 4 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (470 µg/L). The SVOC occurring at the highest concentration above screening criteria was 2,4-dimethylphenol (490 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (9,880 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately56 ft bgs and situated approximately 32 feet from the canal) contained 7 VOCs, 15 SVOCs, 0 pesticides, 0 PCBs, and 12 metals. From these, 1 VOC, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (6.8 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (28 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (8,910 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-14

The soil samples from the soil boring installed for the intermediate well (situated approximately 139 feet from the canal) contained 27 VOCs, 103 SVOCs, 4 pesticides, 0 PCBs, and 170 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. No compounds exceeded the screening values at this location.

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 139 feet from the canal) contained 6 VOCs, 8 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (3,000 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately56 ft bgs and situated approximately 139 feet from the canal) contained 9 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs,

and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (11,900 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-13	059-2177	N	10	15	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-13	059-2178	N	15	20	ft	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR
GCMW-13	059-2182	N	35	40	ft	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2191	N	25	30	ft	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ
GCMW-14	059-2192	N	30	35	ft	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ
GCMW-14	059-2193	N	35	40	ft	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ
GCMW-14	059-2194	N	40	45	ft	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone	
GCMW-13	059-2177	N	10	15	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**120,000**	UR	**12,000**	U	**12,000**	U
GCMW-13	059-2178	N	15	20	ft	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**120**	UR	**12**	UR	**23**	R
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**130**	UR	**13**	UR	**32**	R
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**190**	UR	**19**	UR	**74**	R
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**190**	UR	**19**	UR	**180**	R
GCMW-13	059-2182	N	35	40	ft	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**180**	UR	**990**	U	**990**	U
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**120**	UR	**12**	UR	**12**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**110**	UR	**11**	UR	**11**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**120**	UR	**12**	UR	**12**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**8,800**	UR	**880**	U	**880**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**110**	UR	**11**	U	**20**	
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**110**	UR	**11**	U	**11**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**120**	UR	**12**	U	**34**	
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**110**	UR	**11**	U	**11**	U
GCMW-14	059-2191	N	25	30	ft	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**100**	UR	**10**	UJ	**20**	J
GCMW-14	059-2192	N	30	35	ft	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**120**	UR	**12**	UJ	**30**	J
GCMW-14	059-2193	N	35	40	ft	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**110**	UR	**11**	UJ	**48**	J
GCMW-14	059-2194	N	40	45	ft	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**120**	UR	**12**	UJ	**19**	J
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**120**	UR	**12**	UJ	**12**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**110**	UR	**11**	UJ	**11**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzene		Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane	
GCMW-13	059-2177	N	10	15	ft	**970**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-13	059-2178	N	15	20	ft	**2.2**	R	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**8.1**	R	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR	**6.1**	UR
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**9.9**	R	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**77**	R	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**110**	R	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR
GCMW-13	059-2182	N	35	40	ft	**500**	U	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**500**	U	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR	**8.9**	UR
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**1.5**	R	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**0.96**	R	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**1.8**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**11**		**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.6**		**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-14	059-2191	N	25	30	ft	**3**	J	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**2.3**	J	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ
GCMW-14	059-2192	N	30	35	ft	**3.4**	J	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ
GCMW-14	059-2193	N	35	40	ft	**4.4**	J	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**1.8**	J	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ
GCMW-14	059-2194	N	40	45	ft	**1.4**	J	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**1.9**	J	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**1.1**	J	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone	
GCMW-13	059-2177	N	10	15	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**9,000**		**1,300**	J	**11,000**		**5,800**	U	**12,000**	U	**12,000**	U
GCMW-13	059-2178	N	15	20	ft	**6.1**	UR	**6.1**	UR	**6.1**	R	**6.1**	UR	**6.1**	UR	**7.7**	R	**0.6**	R	**--**		**6.1**	UR	**13**	R	**12**	UR
GCMW-13	059-2179	N	20	25	ft	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	UR	**6.4**	R	**6.4**	UR	**--**		**6.4**	UR	**11**	R	**13**	UR
GCMW-13	059-2180	N	25	30	ft	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**9.5**	UR	**--**		**9.5**	UR	**30**	R	**19**	UR
GCMW-13	059-2181	N	30	35	ft	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**9.4**	UR	**--**		**9.4**	UR	**61**	R	**19**	UR
GCMW-13	059-2182	N	35	40	ft	**500**	U	**8.9**	UR	**8.9**	R	**8.9**	UR	**8.9**	UR	**8.9**	R	**8.9**	UR	**500**	U	**8.9**	UR	**990**	U	**990**	U
GCMW-13	059-2183	N	40	45	ft	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**5.9**	UR	**--**		**5.9**	UR	**12**	UR	**12**	UR
GCMW-13	059-2184	N	45	50	ft	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**5.3**	UR	**--**		**5.3**	UR	**11**	UR	**11**	UR
GCMW-13	059-2185	N	50	55	ft	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**5.8**	UR	**--**		**5.8**	UR	**12**	UR	**12**	UR
GCMW-14	059-2186	N	6	6.5	ft	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**440**	U	**130**	J	**440**	U	**440**	U	**880**	U	**880**	U
GCMW-14	059-2187	N	10	10.5	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**11**	U	**11**	U
GCMW-14	059-2188	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**11**	U	**11**	U
GCMW-14	059-2189	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**13**		**12**	U
GCMW-14	059-2190	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**11**	U	**11**	U
GCMW-14	059-2191	N	25	30	ft	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**5.1**	UJ	**0.39**	J	--		**5.1**	UJ	**13**	J	**10**	UJ
GCMW-14	059-2192	N	30	35	ft	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**6.2**	UJ	**12**	UJ	**12**	UJ
GCMW-14	059-2193	N	35	40	ft	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**11**	UJ	**11**	UJ
GCMW-14	059-2194	N	40	45	ft	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**6.1**	UJ	**12**	UJ	**12**	UJ
GCMW-14	059-2195	N	45	50	ft	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**5.8**	UJ	**12**	UJ	**12**	UJ
GCMW-14	059-2196	N	50	55	ft	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**5.4**	UJ	**11**	UJ	**11**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-13	059-2177	N	10	15	ft	5,800	U	5,800	U	4,400	J	5,800	U	5,800	U	5,800	U	2,400	J	5,800	U	5,800	U	5,800	U	5,800	U	5,800	U
GCMW-13	059-2178	N	15	20	ft	6.1	UR	6.1	R	6.1	R	6.1	UR	6.1	UR	6.1	UR	6.1	R	6.1	UR	6.1	UR	6.1	UR	6.1	R	6.1	UR
GCMW-13	059-2179	N	20	25	ft	6.4	UR	6.4	R	6.4	UR	6.4	UR	6.4	UR	6.4	UR	6.4	R	6.4	UR	6.4	UR	6.4	UR	6.4	UR	6.4	UR
GCMW-13	059-2180	N	25	30	ft	9.5	UR	9.5	R	9.5	UR	9.5	UR	9.5	UR	9.5	UR	9.5	R	9.5	UR	9.5	UR	9.5	UR	9.5	UR	9.5	UR
GCMW-13	059-2181	N	30	35	ft	9.4	UR	10	R	9.4	UR	9.4	UR	9.4	UR	9.4	UR	10	R	9.4	UR	9.4	UR	9.4	UR	9.4	UR	9.4	UR
GCMW-13	059-2182	N	35	40	ft	8.9	UR	27	J	8.9	R	8.9	UR	8.9	UR	8.9	UR	8.9	R	8.9	UR	8.9	UR	8.9	UR	8.9	UR	8.9	UR
GCMW-13	059-2183	N	40	45	ft	5.9	UR	5.9	R	5.9	UR	5.9	UR	5.9	UR	5.9	UR	5.9	R	5.9	UR	5.9	UR	5.9	UR	5.9	UR	5.9	UR
GCMW-13	059-2184	N	45	50	ft	5.3	UR	5.3	R	5.3	UR	5.3	UR	5.3	UR	5.3	UR	5.3	R	5.3	UR	5.3	UR	5.3	UR	5.3	UR	5.3	UR
GCMW-13	059-2185	N	50	55	ft	5.8	UR	5.8	R	5.8	UR	5.8	UR	5.8	UR	5.8	UR	5.8	UR	5.8	UR	5.8	UR	5.8	UR	5.8	UR	5.8	UR
GCMW-14	059-2186	N	6	6.5	ft	440	U	30	J	440	U	440	U	440	U	440	U	440	U	440	U	440	U	440	U	440	U	440	U
GCMW-14	059-2187	N	10	10.5	ft	5.3	U	5.3	U	5.3	U	5.3	U	1.3	J	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U	5.3	U
GCMW-14	059-2188	N	10	15	ft	5.4	U	5.4	U	5.4	U	5.4	U	1.1	J	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	1.4	J	5.4	U
GCMW-14	059-2189	N	15	20	ft	6	U	6	U	6	U	6	U	6	U	6	U	6	U	6	U	6	U	6	U	6	U	6	U
GCMW-14	059-2190	N	20	25	ft	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U	5.4	U
GCMW-14	059-2191	N	25	30	ft	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ	5.1	UJ
GCMW-14	059-2192	N	30	35	ft	6.2	UJ	6.2	UJ	6.2	UJ	6.2	UJ	6.2	UJ	6.2	UJ	6.2	UJ	6.2	UJ	6.2	UJ	6.2	UJ	0.44	J	6.2	UJ
GCMW-14	059-2193	N	35	40	ft	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ	5.6	UJ
GCMW-14	059-2194	N	40	45	ft	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ	6.1	UJ
GCMW-14	059-2195	N	45	50	ft	5.8	UJ	5.8	UJ	5.8	UJ	5.8	UJ	5.8	UJ	5.8	UJ	5.8	UJ	5.8	UJ	5.8	UJ	5.8	UJ	2.5	J	5.8	UJ
GCMW-14	059-2196	N	50	55	ft	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ	5.4	UJ

627 Smith St (MW13 & MW14)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-13	059-2177	N	10	15	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**180**	J	**400**	U	**200**	U	**200**	U	**200**	U
GCMW-13	059-2178	N	15	20	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**450**	U	**230**	U	**230**	U	**230**	U
GCMW-13	059-2179	N	20	25	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**440**	U	**230**	U	**230**	U	**230**	U
GCMW-13	059-2180	N	25	30	ft	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**520**	U	**270**	U	**270**	U	**270**	U
GCMW-13	059-2181	N	30	35	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**590**	U	**300**	U	**300**	U	**300**	U
GCMW-13	059-2182	N	35	40	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**440**	U	**230**	U	**230**	U	**230**	U
GCMW-13	059-2183	N	40	45	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U
GCMW-13	059-2184	N	45	50	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U
GCMW-13	059-2185	N	50	55	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U
GCMW-14	059-2186	N	6	6.5	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**110**	J	**2,100**	UJ	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-14	059-2187	N	10	10.5	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U
GCMW-14	059-2188	N	10	15	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-14	059-2189	N	15	20	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-14	059-2190	N	20	25	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**450**	U	**230**	U	**230**	U	**230**	U
GCMW-14	059-2191	N	25	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U
GCMW-14	059-2192	N	30	35	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**430**	U	**220**	U	**220**	U	**220**	U
GCMW-14	059-2193	N	35	40	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**220**	U	**220**	U
GCMW-14	059-2194	N	40	45	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U
GCMW-14	059-2195	N	45	50	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U
GCMW-14	059-2196	N	50	55	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**25**	J	**370**	U	**190**	U	**190**	U	**190**	U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol	
GCMW-13	059-2177	N	10	15	ft	**200**	U	**21,000**		**15**	J	**400**	U	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U
GCMW-13	059-2178	N	15	20	ft	**230**	U	**8.5**	J	**230**	U	**450**	U	**230**	U	**230**	U	**450**	U	**450**	U	**230**	U	**230**	U
GCMW-13	059-2179	N	20	25	ft	**230**	U	**16**	J	**230**	U	**440**	U	**230**	U	**230**	U	**440**	U	**440**	U	**230**	U	**230**	U
GCMW-13	059-2180	N	25	30	ft	**270**	U	**270**	U	**270**	U	**520**	U	**270**	U	**270**	U	**520**	U	**520**	U	**270**	U	**270**	U
GCMW-13	059-2181	N	30	35	ft	**300**	U	**300**	U	**300**	U	**590**	U	**300**	U	**300**	U	**590**	U	**590**	U	**300**	U	**300**	U
GCMW-13	059-2182	N	35	40	ft	**230**	U	**29**	J	**230**	U	**440**	U	**230**	U	**230**	U	**440**	U	**440**	U	**230**	U	**230**	U
GCMW-13	059-2183	N	40	45	ft	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U
GCMW-13	059-2184	N	45	50	ft	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U
GCMW-13	059-2185	N	50	55	ft	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U
GCMW-14	059-2186	N	6	6.5	ft	**1,100**	U	**2,900**		**1,100**	U	**2,100**	UJ	**1,100**	U	**1,100**	U	**2,100**	UJ	**2,100**	UJ	**1,100**	U	**1,100**	U
GCMW-14	059-2187	N	10	10.5	ft	**200**	U	**15**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U
GCMW-14	059-2188	N	10	15	ft	**210**	U	**7.5**	J	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U
GCMW-14	059-2189	N	15	20	ft	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U
GCMW-14	059-2190	N	20	25	ft	**230**	U	**230**	U	**230**	U	**450**	U	**230**	U	**230**	U	**450**	U	**450**	U	**230**	U	**230**	U
GCMW-14	059-2191	N	25	30	ft	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U
GCMW-14	059-2192	N	30	35	ft	**220**	U	**220**	U	**220**	U	**430**	U	**220**	U	**220**	U	**430**	U	**430**	U	**220**	U	**220**	U
GCMW-14	059-2193	N	35	40	ft	**220**	U	**12**	J	**220**	U	**420**	U	**220**	U	**220**	U	**420**	U	**420**	U	**220**	U	**220**	U
GCMW-14	059-2194	N	40	45	ft	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U
GCMW-14	059-2195	N	45	50	ft	**200**	U	**7.3**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U
GCMW-14	059-2196	N	50	55	ft	**190**	U	**7.2**	J	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde	
GCMW-13	059-2177	N	10	15	ft	**200**	U	**200**	U	**35**	J	**400**	U	**400**	U	**7,300**		**400**	J	**160**	J	**3,300**	J	**200**	U	**200**	U
GCMW-13	059-2178	N	15	20	ft	**230**	U	**230**	U	**230**	U	**450**	U	**450**	U	**230**	U	**230**	U	**66**	J	**230**	U	**230**	U	**57**	J
GCMW-13	059-2179	N	20	25	ft	**230**	U	**230**	U	**230**	U	**440**	U	**440**	U	**230**	U	**230**	U	**66**	J	**230**	U	**230**	U	**57**	J
GCMW-13	059-2180	N	25	30	ft	**270**	U	**270**	U	**270**	U	**520**	U	**520**	U	**270**	U	**270**	U	**120**	J	**270**	U	**270**	U	**63**	J
GCMW-13	059-2181	N	30	35	ft	**300**	U	**300**	U	**300**	U	**590**	U	**590**	U	**300**	U	**300**	U	**130**	J	**300**	U	**300**	U	**110**	J
GCMW-13	059-2182	N	35	40	ft	**230**	U	**230**	U	**230**	U	**440**	U	**440**	U	**110**	J	**230**	U	**67**	J	**230**	U	**230**	U	**76**	J
GCMW-13	059-2183	N	40	45	ft	**190**	U	**190**	U	**190**	U	**370**	U	**370**	U	**9.8**	J	**190**	U	**49**	J	**190**	U	**190**	U	**45**	J
GCMW-13	059-2184	N	45	50	ft	**190**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**38**	J	**190**	U	**190**	U	**30**	J
GCMW-13	059-2185	N	50	55	ft	**190**	U	**190**	U	**190**	U	**370**	U	**370**	U	**5.9**	J	**190**	U	**48**	J	**190**	U	**190**	U	**34**	J
GCMW-14	059-2186	N	6	6.5	ft	**1,100**	U	**1,100**	U	**110**	J	**2,100**	UJ	**2,100**	UJ	**13,000**		**1,100**	U	**170**	J	**2,200**		**1,100**	U	**1,100**	U
GCMW-14	059-2187	N	10	10.5	ft	**200**	U	**200**	U	**200**	U	**380**	U	**380**	U	**18**	J	**200**	U	**120**	J	**14**	J	**200**	U	**200**	U
GCMW-14	059-2188	N	10	15	ft	**210**	U	**210**	U	**210**	U	**410**	U	**410**	U	**18**	J	**210**	U	**82**	J	**11**	J	**210**	U	**210**	U
GCMW-14	059-2189	N	15	20	ft	**210**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**110**	J	**210**	U	**210**	U	**210**	U
GCMW-14	059-2190	N	20	25	ft	**230**	U	**230**	U	**230**	U	**450**	U	**450**	U	**230**	U	**230**	U	**110**	J	**230**	U	**230**	U	**230**	U
GCMW-14	059-2191	N	25	30	ft	**210**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**130**	J	**210**	U	**210**	U	**210**	U
GCMW-14	059-2192	N	30	35	ft	**220**	U	**220**	U	**220**	U	**430**	U	**430**	U	**220**	U	**220**	U	**130**	J	**220**	U	**220**	U	**220**	U
GCMW-14	059-2193	N	35	40	ft	**220**	U	**220**	U	**220**	U	**420**	U	**420**	U	**220**	U	**220**	U	**120**	J	**220**	U	**220**	U	**220**	U
GCMW-14	059-2194	N	40	45	ft	**200**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**210**		**200**	U	**200**	U	**200**	U
GCMW-14	059-2195	N	45	50	ft	**200**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**130**	J	**200**	U	**200**	U	**200**	U
GCMW-14	059-2196	N	50	55	ft	**190**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**130**	J	**190**	U	**190**	U	**190**	U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam	
GCMW-13	059-2177	N	10	15	ft	**910**	J	**560**	J	**620**		**330**	J	**250**	J	**200**	U	**3,100**	J	**200**	U	**200**	U	**200**	U	**110**	J	**200**	U
GCMW-13	059-2178	N	15	20	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**150**	J	**230**	U
GCMW-13	059-2179	N	20	25	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**120**	J	**230**	U
GCMW-13	059-2180	N	25	30	ft	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**60**	J	**270**	U
GCMW-13	059-2181	N	30	35	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**140**	J	**300**	U
GCMW-13	059-2182	N	35	40	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**59**	J	**230**	U
GCMW-13	059-2183	N	40	45	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**48**	J	**190**	U
GCMW-13	059-2184	N	45	50	ft	**7.5**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**250**		**190**	U
GCMW-13	059-2185	N	50	55	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**240**		**190**	U
GCMW-14	059-2186	N	6	6.5	ft	**870**	J	**600**	J	**800**	J	**450**	J	**200**	J	**1,100**	U	**210**	J	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-14	059-2187	N	10	10.5	ft	**12**	J	**6.5**	J	**11**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**48**	J	**200**	U
GCMW-14	059-2188	N	10	15	ft	**7.6**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**40**	J	**210**	U
GCMW-14	059-2189	N	15	20	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**48**	J	**210**	U
GCMW-14	059-2190	N	20	25	ft	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**230**	U	**53**	J	**230**	U
GCMW-14	059-2191	N	25	30	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**71**	J	**210**	U
GCMW-14	059-2192	N	30	35	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**57**	J	**220**	U
GCMW-14	059-2193	N	35	40	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**56**	J	**220**	U
GCMW-14	059-2194	N	40	45	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**8.3**	J	**200**	U	**200**	U	**200**	U	**200**	U	**55**	J	**200**	U
GCMW-14	059-2195	N	45	50	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**51**	J	**200**	U
GCMW-14	059-2196	N	50	55	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**58**	J	**190**	U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
GCMW-13	059-2177	N	10	15	ft	1,200	800 J	81 J	4,800 J	200 U	200 U	200 U	200 U	4,000 J	6,100 J	200 U	200 U	200 U
GCMW-13	059-2178	N	15	20	ft	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U
GCMW-13	059-2179	N	20	25	ft	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U
GCMW-13	059-2180	N	25	30	ft	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U	270 U
GCMW-13	059-2181	N	30	35	ft	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U	300 U
GCMW-13	059-2182	N	35	40	ft	20 J	230 U	230 U	9.2 J	230 U	230 U	230 U	230 U	230 U	16 J	230 U	230 U	230 U
GCMW-13	059-2183	N	40	45	ft	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
GCMW-13	059-2184	N	45	50	ft	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	13 J	190 U	190 U	190 U	190 U
GCMW-13	059-2185	N	50	55	ft	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U	190 U
GCMW-14	059-2186	N	6	6.5	ft	640 J	770 J	120 J	15,000	1,100 U	1,100 U	1,100 U	1,100 U	2,200	16,000	1,100 U	1,100 U	1,100 U
GCMW-14	059-2187	N	10	10.5	ft	200 U	10 J	200 U	42 J	200 U	200 U	7.8 J	200 U	25 J	48 J	200 U	200 U	200 U
GCMW-14	059-2188	N	10	15	ft	210 U	210 U	210 U	39 J	210 U	210 U	210 U	210 U	13 J	41 J	210 U	210 U	210 U
GCMW-14	059-2189	N	15	20	ft	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
GCMW-14	059-2190	N	20	25	ft	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U	230 U
GCMW-14	059-2191	N	25	30	ft	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U	210 U
GCMW-14	059-2192	N	30	35	ft	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U
GCMW-14	059-2193	N	35	40	ft	6.6 J	220 U	220 U	11 J	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U	220 U
GCMW-14	059-2194	N	40	45	ft	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
GCMW-14	059-2195	N	45	50	ft	200 U	200 U	200 U	7.3 J	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
GCMW-14	059-2196	N	50	55	ft	190 U	190 U	190 U	5.6 J	190 U	190 U	6.6 J	190 U	190 U	190 U	190 U	190 U	190 U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-13	059-2177	N	10	15	ft	**200**	U	**330**	J	**200**	U	--		**56,000**		**200**	U	**200**	U	**200**	U	**400**	U	**14,000**		**30**	J	**3,200**	J	**119,181**
GCMW-13	059-2178	N	15	20	ft	**230**	U	**230**	U	**230**	U	--		**36**	J	**230**	U	**230**	U	**230**	U	**450**	U	**8.7**	J	**14**	J	**230**	U	**53.2**
GCMW-13	059-2179	N	20	25	ft	**230**	U	**230**	U	**230**	U	--		**53**	J	**230**	U	**230**	U	**230**	U	**440**	U	**12**	J	**14**	J	**230**	U	**81**
GCMW-13	059-2180	N	25	30	ft	**270**	U	**270**	U	**270**	U	--		**13**	J	**270**	U	**270**	U	**270**	U	**520**	U	**270**	U	**23**	J	**270**	U	**13**
GCMW-13	059-2181	N	30	35	ft	**300**	U	**300**	U	**300**	U	--		**19**	J	**300**	U	**300**	U	**300**	U	**590**	U	**300**	U	**28**	J	**300**	U	**19**
GCMW-13	059-2182	N	35	40	ft	**230**	U	**230**	U	**230**	U	--		**180**	J	**230**	U	**230**	U	**230**	U	**440**	U	**20**	J	**14**	J	**230**	U	**355**
GCMW-13	059-2183	N	40	45	ft	**190**	U	**190**	U	**190**	U	--		**7.4**	J	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**11**	J	**190**	U	**17.2**
GCMW-13	059-2184	N	45	50	ft	**190**	U	**190**	U	**190**	U	--		**6.8**	J	**190**	U	**190**	U	**190**	U	**370**	U	**16**	J	**7.7**	J	**15**	J	**58.3**
GCMW-13	059-2185	N	50	55	ft	**190**	U	**190**	U	**190**	U	--		**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**15**	J	**12**	J	**17.9**
GCMW-14	059-2186	N	6	6.5	ft	**1,100**	U	**420**	J	**1,100**	U	--		**1,700**		**1,100**	U	**1,100**	UJ	**1,100**	U	**2,100**	U	**9,000**		**1,100**	U	**2,200**		**53,430**
GCMW-14	059-2187	N	10	10.5	ft	**200**	U	**200**	U	**200**	U	--		**61**	J	**200**	U	**200**	U	**200**	U	**380**	U	**62**	J	**18**	J	**25**	J	**307.5**
GCMW-14	059-2188	N	10	15	ft	**210**	U	**210**	U	**210**	U	**450**	NJ	**29**	J	**210**	U	**210**	U	**210**	U	**410**	U	**34**	J	**12**	J	**11**	J	**172.1**
GCMW-14	059-2189	N	15	20	ft	**210**	U	**210**	U	**210**	U	--		**30**	J	**210**	U	**210**	U	**210**	U	**410**	U	**6.6**	J	**18**	J	**210**	U	**36.6**
GCMW-14	059-2190	N	20	25	ft	**230**	U	**230**	U	**230**	U	--		**29**	J	**230**	U	**230**	U	**230**	U	**450**	U	**230**	U	**17**	J	**230**	U	**29**
GCMW-14	059-2191	N	25	30	ft	**210**	U	**210**	U	**210**	U	--		**39**	J	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**17**	J	**210**	U	**39**
GCMW-14	059-2192	N	30	35	ft	**220**	U	**220**	U	**220**	U	--		**30**	J	**220**	U	**220**	U	**220**	U	**430**	U	**220**	U	**25**	J	**220**	U	**30**
GCMW-14	059-2193	N	35	40	ft	**220**	U	**220**	U	**220**	U	**560**	NJ	**56**	J	**220**	U	**220**	U	**220**	U	**420**	U	**8.5**	J	**20**	J	**220**	U	**76.5**
GCMW-14	059-2194	N	40	45	ft	**200**	U	**200**	U	**200**	U	**370**	NJ	**29**	J	**200**	U	**200**	UJ	**200**	U	**390**	U	**200**	U	**72**	J	**200**	U	**29**
GCMW-14	059-2195	N	45	50	ft	**200**	U	**200**	U	**200**	U	**620**	NJ	**41**	J	**200**	U	**200**	UJ	**200**	U	**380**	U	**6.2**	J	**23**	J	**200**	U	**54.5**
GCMW-14	059-2196	N	50	55	ft	**190**	U	**190**	U	**190**	U	**440**	NJ	**42**	J	**190**	U	**190**	UJ	**190**	U	**370**	U	**7.8**	J	**23**	J	**190**	U	**57**

627 Smith St (MW13 & MW14)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
GCMW-13	059-2177	N	10	15	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4** U	**2.1** U	**4** U	**1.8** J	**4** U	**4** U
GCMW-13	059-2178	N	15	20	ft	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**4.5** U	**2.3** U	**4.5** U	**4.5** U	**4.5** U	**4.5** U
GCMW-13	059-2179	N	20	25	ft	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**4.4** U	**2.3** U	**4.4** U	**4.4** U	**4.4** U	**4.4** U
GCMW-13	059-2180	N	25	30	ft	**2.7** U	**2.7** U	**2.7** U	**2.7** U	**2.7** U	**5.2** U	**2.7** U	**5.2** UJ	**5.2** U	**5.2** U	**5.2** U
GCMW-13	059-2181	N	30	35	ft	**3.1** U	**3.1** U	**3.1** U	**3.1** U	**3.1** U	**5.9** U	**3.1** U	**5.9** U	**5.9** U	**5.9** U	**5.9** U
GCMW-13	059-2182	N	35	40	ft	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**4.4** U	**2.3** U	**4.4** U	**4.4** U	**4.4** U	**4.4** U
GCMW-13	059-2183	N	40	45	ft	**1.9** U	**1.9** U	**1.9** U	**1.9** U	**1.9** U	**3.7** U	**1.9** U	**3.7** U	**3.7** U	**3.7** U	**3.7** U
GCMW-13	059-2184	N	45	50	ft	**1.9** U	**1.9** U	**1.9** U	**1.9** U	**1.9** U	**3.7** U	**1.9** U	**3.7** U	**3.7** U	**3.7** U	**3.7** U
GCMW-13	059-2185	N	50	55	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**3.8** U	**2** U	**3.8** U	**3.8** U	**3.8** U	**3.8** U
GCMW-14	059-2186	N	6	6.5	ft	**2.2** UJ	**2.2** UJ	**2.2** UJ	**2.2** UJ	**2.2** UJ	**4.3** UJ	**4.4** J	**4.3** UJ	**4.3** UJ	**4.3** UJ	**4.3** UJ
GCMW-14	059-2187	N	10	10.5	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**3.9** U	**2** U	**3.9** U	**3.9** U	**3.9** U	**3.9** U
GCMW-14	059-2188	N	10	15	ft	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**4.2** U	**2.2** U	**4.2** U	**4.2** U	**0.34** J	**4.2** U
GCMW-14	059-2189	N	15	20	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4.1** U	**2.1** U	**4.1** U	**4.1** U	**4.1** U	**4.1** U
GCMW-14	059-2190	N	20	25	ft	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**2.3** U	**4.5** U	**2.3** U	**4.5** U	**4.5** U	**4.5** U	**4.5** U
GCMW-14	059-2191	N	25	30	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4.1** U	**2.1** U	**4.1** U	**4.1** U	**4.1** U	**4.1** U
GCMW-14	059-2192	N	30	35	ft	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**4.3** U	**2.2** U	**4.3** U	**4.3** U	**4.3** U	**4.3** U
GCMW-14	059-2193	N	35	40	ft	**2.2** UJ	**2.2** UJ	**2.2** UJ	**2.2** UJ	**2.2** UJ	**4.2** UJ	**2.2** UJ	**4.2** UJ	**4.2** UJ	**4.2** UJ	**4.2** UJ
GCMW-14	059-2194	N	40	45	ft	**2** UJ	**2** UJ	**2** UJ	**2** UJ	**2** UJ	**4** UJ	**2** UJ	**4** UJ	**4** UJ	**4** UJ	**4** UJ
GCMW-14	059-2195	N	45	50	ft	**2** UJ	**2** UJ	**2** UJ	**2** UJ	**2** UJ	**3.8** UJ	**2** UJ	**3.8** UJ	**3.8** UJ	**3.8** UJ	**3.8** UJ
GCMW-14	059-2196	N	50	55	ft	**1.9** UJ	**1.9** UJ	**1.9** UJ	**1.9** UJ	**1.9** UJ	**3.7** UJ	**1.9** UJ	**3.7** UJ	**3.7** UJ	**3.7** UJ	**3.7** UJ

627 Smith St (MW13 & MW14)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-13	059-2177	N	10	15	ft	4	U	2.1	U	2.1	U	2.1	U	2.1	U	21	U	4	U	4	U	4	U	210	U	0	U
GCMW-13	059-2178	N	15	20	ft	4.5	U	2.3	U	2.3	U	2.3	U	2.3	U	23	U	4.5	U	4.5	U	4.5	U	230	U	0	U
GCMW-13	059-2179	N	20	25	ft	4.4	U	2.3	U	2.3	U	2.3	U	2.3	U	23	U	4.4	U	4.4	U	4.4	U	230	U	0	U
GCMW-13	059-2180	N	25	30	ft	5.2	U	2.7	UJ	2.7	U	2.7	U	2.7	U	27	U	5.2	U	5.2	U	5.2	U	270	U	0	U
GCMW-13	059-2181	N	30	35	ft	5.9	U	3.1	U	3.1	U	3.1	U	3.1	U	31	U	5.9	U	5.9	U	5.9	U	310	U	0	U
GCMW-13	059-2182	N	35	40	ft	4.4	U	2.3	U	2.3	U	2.3	U	2.3	U	23	U	4.4	U	4.4	U	4.4	U	230	U	0	U
GCMW-13	059-2183	N	40	45	ft	3.7	U	1.9	U	1.9	U	1.9	U	1.9	U	19	U	3.7	U	3.7	U	3.7	U	190	U	0	U
GCMW-13	059-2184	N	45	50	ft	3.7	U	1.9	U	1.9	U	1.9	U	1.9	U	19	U	3.7	U	3.7	U	3.7	U	190	U	0	U
GCMW-13	059-2185	N	50	55	ft	3.8	U	2	U	2	U	2	U	2	U	20	U	3.8	U	3.8	U	3.8	U	200	U	0	U
GCMW-14	059-2186	N	6	6.5	ft	4.3	UJ	2.2	UJ	2.2	UJ	2.2	UJ	2.2	UJ	22	UJ	4.3	UJ	4.3	UJ	4.3	UJ	220	UJ	0	U
GCMW-14	059-2187	N	10	10.5	ft	3.9	U	2	U	2	U	2	U	2	U	20	U	3.9	U	3.9	U	3.9	U	200	U	0	U
GCMW-14	059-2188	N	10	15	ft	4.2	U	2.2	U	2.2	U	2.2	U	2.2	U	22	U	4.2	U	4.2	U	4.2	U	220	U	0	U
GCMW-14	059-2189	N	15	20	ft	0.47	J	2.1	U	2.1	U	2.1	U	2.1	U	21	U	4.1	U	4.1	U	4.1	U	210	U	0	U
GCMW-14	059-2190	N	20	25	ft	4.5	U	2.3	U	2.3	U	2.3	U	2.3	U	23	U	4.5	U	0.094	J	4.5	U	230	U	0.094	
GCMW-14	059-2191	N	25	30	ft	4.1	U	2.1	U	2.1	U	2.1	U	2.1	U	21	U	4.1	U	4.1	U	4.1	U	210	U	0	U
GCMW-14	059-2192	N	30	35	ft	4.3	U	2.2	U	2.2	U	2.2	U	2.2	U	22	U	4.3	U	4.3	U	4.3	U	220	U	0	U
GCMW-14	059-2193	N	35	40	ft	4.2	UJ	2.2	UJ	2.2	UJ	2.2	UJ	2.2	UJ	22	UJ	4.2	UJ	4.2	UJ	4.2	UJ	220	UJ	0	U
GCMW-14	059-2194	N	40	45	ft	4	UJ	2	UJ	2	UJ	2	UJ	2	UJ	20	UJ	4	UJ	4	UJ	4	UJ	200	UJ	0	U
GCMW-14	059-2195	N	45	50	ft	3.8	UJ	2	UJ	2	UJ	2	UJ	2	UJ	20	UJ	3.8	UJ	3.8	UJ	3.8	UJ	200	UJ	0	U
GCMW-14	059-2196	N	50	55	ft	3.7	UJ	1.9	UJ	1.9	UJ	1.9	UJ	1.9	UJ	19	UJ	3.7	UJ	3.7	UJ	3.7	UJ	190	UJ	0	U

627 Smith St (MW13 & MW14)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
GCMW-13	059-2177	N	10	15	ft	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**0** U
GCMW-13	059-2178	N	15	20	ft	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**0** U
GCMW-13	059-2179	N	20	25	ft	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**0** U
GCMW-13	059-2180	N	25	30	ft	**52** U	**52** U	**52** U	**52** U	**52** U	**52** U	**52** U	**52** U	**52** U	**0** U
GCMW-13	059-2181	N	30	35	ft	**59** U	**59** U	**59** U	**59** U	**59** U	**59** U	**59** U	**59** U	**59** U	**0** U
GCMW-13	059-2182	N	35	40	ft	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**44** U	**0** U
GCMW-13	059-2183	N	40	45	ft	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**0** U
GCMW-13	059-2184	N	45	50	ft	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**0** U
GCMW-13	059-2185	N	50	55	ft	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**0** U
GCMW-14	059-2186	N	6	6.5	ft	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**0** U
GCMW-14	059-2187	N	10	10.5	ft	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**0** U
GCMW-14	059-2188	N	10	15	ft	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**0** U
GCMW-14	059-2189	N	15	20	ft	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**0** U
GCMW-14	059-2190	N	20	25	ft	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**45** U	**0** U
GCMW-14	059-2191	N	25	30	ft	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**41** U	**0** U
GCMW-14	059-2192	N	30	35	ft	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**43** U	**0** U
GCMW-14	059-2193	N	35	40	ft	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**42** U	**0** U
GCMW-14	059-2194	N	40	45	ft	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**0** U
GCMW-14	059-2195	N	45	50	ft	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**38** U	**0** U
GCMW-14	059-2196	N	50	55	ft	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**37** U	**0** U

627 Smith St (MW13 & MW14)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-13	059-2177	N	10	15	ft	**6,000**	**7** UJ	**1.3**	**25.4**	**0.58** U	**0.12** J	**1,050** J	**12.4**	**5.3** J	**12.6** J	**11,500**
GCMW-13	059-2178	N	15	20	ft	**8,370**	**0.46** J	**4.7**	**16.2** J	**0.69** U	**0.22** J	**2,250** J	**16.6**	**5.6** J	**8.8** J	**18,100**
GCMW-13	059-2179	N	20	25	ft	**6,470**	**0.4** J	**4.4**	**13.9** J	**0.64** U	**0.2** J	**1,960** J	**13.3**	**4.3** J	**7.7** J	**14,300**
GCMW-13	059-2180	N	25	30	ft	**8,910**	**9.8** U	**9.6**	**48.5**	**0.82** U	**0.88**	**2,500** J	**21.6** J	**4.2** J	**13.9**	**23,300** J
GCMW-13	059-2181	N	30	35	ft	**11,900**	**10.6** U	**17**	**112**	**0.88** U	**1.3**	**3,050** J	**33.6** J	**8.8** U	**16.2**	**32,500** J
GCMW-13	059-2182	N	35	40	ft	**2,730**	**8.3** UJ	**2.2**	**52.1**	**0.69** U	**0.69** U	**1,180** J	**49.5** J	**6.9** U	**8.7**	**3,820** J
GCMW-13	059-2183	N	40	45	ft	**2,560**	**7** UJ	**1.6**	**23.4** U	**0.59** U	**0.59** U	**585** UJ	**9.4** J	**5.9** U	**5.2**	**8,170** J
GCMW-13	059-2184	N	45	50	ft	**2,330**	**6.9** U	**3.7**	**27.3**	**0.57** U	**0.57** U	**571** UJ	**6** J	**5.7** U	**6.1**	**11,500** J
GCMW-13	059-2185	N	50	55	ft	**2,620**	**7.3** UJ	**5.6**	**33.8**	**0.61** U	**0.61** U	**775** J	**7** J	**6.1** U	**7.2**	**11,600** J
GCMW-14	059-2186	N	6	6.5	ft	**6,000**	**7.1** UJ	**1.8**	**41.5**	**0.59** U	**0.59** U	**14,500** J	**10.1** J	**5.9** U	**11.7**	**7,960** J
GCMW-14	059-2187	N	10	10.5	ft	**3,850**	**6.9** U	**1.9**	**24.6**	**0.57** U	**0.57** U	**1,250**	**7.2**	**5.7** U	**13**	**7,970** J
GCMW-14	059-2188	N	10	15	ft	**4,530**	**7.5** UJ	**1.8**	**13.9** J	**0.23** J	**0.63** U	**1,760** J	**7.9** J	**6.3** U	**6.5**	**8,420** J
GCMW-14	059-2189	N	15	20	ft	**8,450**	**7.7** UJ	**5**	**18** J	**0.42** J	**0.78**	**932** J	**17.5** J	**6.4** U	**11.7**	**21,100** J
GCMW-14	059-2190	N	20	25	ft	**6,410**	**8** UJ	**4.4**	**26.5** U	**0.66** U	**0.59** J	**663** UJ	**12.3**	**3** J	**9.2**	**16,200** J
GCMW-14	059-2191	N	25	30	ft	**2,830**	**7** UJ	**2.1**	**13** J	**0.19** J	**0.58** U	**584** UJ	**19.3** J	**5.8** U	**2.9** U	**4,310** J
GCMW-14	059-2192	N	30	35	ft	**8,500**	**7.3** UJ	**3.3**	**44.6**	**0.8**	**0.61** U	**898** J	**24.3** J	**8.3**	**16.1**	**13,800** J
GCMW-14	059-2193	N	35	40	ft	**3,090**	**7.2** UJ	**2.8**	**11** J	**0.25** J	**0.6** U	**602** UJ	**6.5** J	**6** U	**7.1**	**7,900** J
GCMW-14	059-2194	N	40	45	ft	**6,840**	**7.4** UJ	**4.4**	**30.9**	**0.62**	**0.62** U	**1,340** J	**19.5** J	**6.2** U	**12.5**	**19,100** J
GCMW-14	059-2195	N	45	50	ft	**2,840**	**6.9** U	**1.6**	**13.8** J	**0.3** J	**0.57** U	**573** UJ	**5.9** J	**5.7** U	**6**	**7,490** J
GCMW-14	059-2196	N	50	55	ft	**2,640**	**6.9** U	**3.4**	**15.5** J	**0.28** J	**0.58** U	**575** UJ	**5.7** J	**5.8** U	**6.1**	**9,490** J

627 Smith St (MW13 & MW14)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-13	059-2177	N	10	15	ft	6.9	2,580	111	0.12 U	19.9	1,260	4.1 U	1.2 U	584 U	2.9 U	21.9	29	2.9 U
GCMW-13	059-2178	N	15	20	ft	7.6	4,000	210	0.14 U	19.7	1,620	4.8 U	1.4 U	692 U	3.5 U	19	40.8	3.4 U
GCMW-13	059-2179	N	20	25	ft	6.2	2,750	156	0.13 U	12.8	1,130	4.5 U	1.3 U	638 U	3.2 U	14.8	29.2	3.2 U
GCMW-13	059-2180	N	25	30	ft	8.4 J	3,490 J	185	0.16 U	17	1,840 J	5.7 U	1.6 U	816 U	4.1 U	21.4	45.6 J	4.2 U
GCMW-13	059-2181	N	30	35	ft	10.6 J	4,560 J	286	0.18 U	21.8	2,450 J	1.2 J	1.8 U	879 U	4.4 U	29.2	60.2 J	4.4 U
GCMW-13	059-2182	N	35	40	ft	2.8 J	998 J	107	0.14 U	8.5	310 J	2.1 J	1.4 U	690 U	3.5 U	14.8	18.8 J	3.4 U
GCMW-13	059-2183	N	40	45	ft	4.1 J	1,210 J	151	0.12 U	7.8	403 J	4 U	1.1 U	585 U	2.9 U	7.3	18.5 J	2.8 U
GCMW-13	059-2184	N	45	50	ft	3.4 J	1,420 J	360	0.12 U	8.4	337 J	4 U	1.1 U	571 U	2.9 U	8.3	17.9 J	2.8 U
GCMW-13	059-2185	N	50	55	ft	3.9 J	1,510 J	500	0.12 U	8.8	355 J	4.2 U	1.2 U	606 U	3 U	8.7	18.6 J	3 U
GCMW-14	059-2186	N	6	6.5	ft	18.3 J	9,770 J	352	0.12 U	14.4	1,380 J	4.1 U	1.2 U	593 U	3 U	14.4	29.9 J	0.55 J
GCMW-14	059-2187	N	10	10.5	ft	4.6 J	1,760 J	202	0.12 U	13.3	780 J	4 U	1.1 U	574 U	2.9 U	10.9	20.4 J	0.23 J
GCMW-14	059-2188	N	10	15	ft	4.5 J	2,050 J	141	0.12 U	11.7	773 J	4.4 U	1.3 U	627 U	0.47 J	9.2	21.8 J	3.1 U
GCMW-14	059-2189	N	15	20	ft	7.4 J	3,970 J	226	0.13 U	18.7	1,940 J	4.5 U	1.3 U	799	0.96 J	19.7	43 J	3.2 U
GCMW-14	059-2190	N	20	25	ft	5.4 J	2,690 J	153	0.13 U	13.3	1,330 J	4.6 U	1.3 U	663 U	3.3 U	15.1	31.5 J	3.3 U
GCMW-14	059-2191	N	25	30	ft	2.6 J	872 J	29	0.12 U	5.4	369 J	4.1 U	0.061 J	584 U	2.9 U	7.9	15 J	2.9 U
GCMW-14	059-2192	N	30	35	ft	10 J	3,060 J	128	0.14 U	18	1,820 J	4.3 U	1.2 U	1,370	0.71 J	36	54.7 J	3.1 U
GCMW-14	059-2193	N	35	40	ft	4.9 J	1,400 J	235	0.12 U	12.7	494 J	4.2 U	1.2 U	602 U	3 U	10.2	25.5 J	3 U
GCMW-14	059-2194	N	40	45	ft	7.9 J	2,520 J	294	0.13 U	14.3	1,520 J	4.3 U	1.2 U	910	0.89 J	29.3	45.9 J	3.1 U
GCMW-14	059-2195	N	45	50	ft	3.9 J	1,270 J	58.9	0.12 U	10	512 J	4 U	1.1 U	573 U	2.9 U	7.7	20.2 J	2.8 U
GCMW-14	059-2196	N	50	55	ft	3.7 J	1,110 J	98.9	0.12 U	10	440 J	4 U	1.1 U	575 U	0.68 J	8	18.8 J	2.9 U

627 Smith St

(MW13 & MW14)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

627 Smith St (MW13 & MW14)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-13	GC-MW13I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.11**	J	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.05**	U	**0.05**	U
MW-13	GC-MW13S	N	Shallow	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	**0.05**	U	**0.05**	U
MW-14	GC-MW14I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.05**	U	**0.05**	U
MW-14	GC-MW14S	N	Shallow	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.05**	U	**0.05**	U

627 Smith St (MW13 & MW14)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	2-hexanone		Acetone		Benzene		Bromochloromethane	
MW-13	GC-MW13I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U
MW-13	GC-MW13S	N	Shallow	**13**	U	**13**	U	**13**	U	**13**	U	**13**	U	--	**130**	U	**130**	U	**470**		**13**	U
MW-14	GC-MW14I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.28**	J	**0.5**	U
MW-14	GC-MW14S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U

627 Smith St (MW13 & MW14)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene
MW-13	GC-MW13I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.99**	**0.5** U
MW-13	GC-MW13S	N	Shallow	**13** U	**13** U	13 UR	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U	**13** U
MW-14	GC-MW14I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.32** J	**0.5** UJ	**0.5** U	**0.5** U	**1.2**	**0.5** U	**0.4** J	**0.5** U
MW-14	GC-MW14S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.25** J	**0.5** U	**0.5** U	**0.5** U

627 Smith St (MW13 & MW14)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride	
MW-13	GC-MW13I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**6.8**		**1.9**		**9.6**		**0.5**	UJ	**5**	U	**5**	U	**0.5**	U	**0.5**	UJ
MW-13	GC-MW13S	N	Shallow	**13**	U	**13**	U	**13**	U	**400**	J	**29**		**400**	J	**13**	U	**130**	U	**130**	U	**13**	U	**13**	U
MW-14	GC-MW14I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.43**	J	**0.2**	J	**0.56**		**0.5**	UJ	**5**	U	**5**	U	**0.5**	U	**0.5**	UJ
MW-14	GC-MW14S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.21**	J	**0.24**	J	**0.26**	J	**0.5**	UJ	**5**	U	**5**	U	**0.5**	U	**0.5**	UJ

627 Smith St (MW13 & MW14)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
MW-13	GC-MW13I	N	Intermediate	**3.8**	**0.5** U	**0.5** UJ	**0.5** U	**0.84**	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** UJ
MW-13	GC-MW13S	N	Shallow	**430**	**13** U	**13** U	**13** U	**380** J	**13** U	**13** U	**13** U	**13** U	**13** U
MW-14	GC-MW14I	N	Intermediate	**0.39** J	**0.5** U	**1.1** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** UJ
MW-14	GC-MW14S	N	Shallow	**0.32** J	**0.5** U	**5.1** J	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** UJ

627 Smith St (MW13 & MW14)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
MW-13	GC-MW13I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U
MW-13	GC-MW13S	N	Shallow	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**490**		**200**	U	**290**	J	**100**	U	**100**	U
MW-14	GC-MW14I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	UJ	**5**	U
MW-14	GC-MW14S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	UJ	**5**	U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	2-chlorophenol	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline
MW-13	GC-MW13I	N	Intermediate	**5** U	**210** J	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U
MW-13	GC-MW13S	N	Shallow	**100** U	**470**	**100** U	**200** U	**100** U	**100** U	**200** U	**200** U	**100** U	**100** U	**250**
MW-14	GC-MW14I	N	Intermediate	**5** U	**1.1** J	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U
MW-14	GC-MW14S	N	Shallow	**5** U	**0.27**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
MW-13	GC-MW13I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**56**		**1.6**	J	**5**	U	**14**		**5**	U	**3.9**	J	**0.22**	J	**0.1**	U
MW-13	GC-MW13S	N	Shallow	**100**	U	**100**	U	**200**	U	**200**	U	**130**		**3**		**100**	U	**6.6**		**100**	U	**41**	J	**2**	UJ	**2**	U
MW-14	GC-MW14I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**1.6**	J	**0.064**	J	**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	UJ	**0.1**	U
MW-14	GC-MW14S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**2.3**	J	**0.12**		**5**	U	**0.1**	U	**5**	U	**5**	U	**0.1**	UJ	**0.1**	U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole	
MW-13	GC-MW13I	N	Intermediate	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**28**		**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**9.3**	
MW-13	GC-MW13S	N	Shallow	**2**	U	**2**	U	**2**	U	**100**	U	**64**	J	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**82**	J
MW-14	GC-MW14I	N	Intermediate	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**3**	J	**5**	U	**5**	U
MW-14	GC-MW14S	N	Shallow	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	UJ	**5**	UJ	**5**	UJ	**5**	U	**1.8**	J	**5**	U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
MW-13	GC-MW13I	N	Intermediate	**0.12**	**0.1** U	**39**	**5** U	**5** U	**5** U	**5** U	**6.2**	**49**	**5** U	**5** U	**5** U
MW-13	GC-MW13S	N	Shallow	**2** U	**2** U	**70** J	**100** U	**100** U	**100** U	**100** U	**2.1**	**77** J	**100** U	**100** U	**100** U
MW-14	GC-MW14I	N	Intermediate	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.43**	**5** U	**5** U	**5** U
MW-14	GC-MW14S	N	Shallow	**0.1** U	**0.1** U	**1.3** J	**5** U	**5** U	**5** U	**5** U	**0.11**	**0.63**	**5** U	**5** U	**5** U

627 Smith St (MW13 & MW14)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
MW-13	GC-MW13I	N	Intermediate	**5**	U	**0.1**	U	**5**	U	**390**	J	**5**	U	**5**	U	**5**	U	**0.2**	U	**74**	J	**5**	U	**4.8**	J	**805.94**
MW-13	GC-MW13S	N	Shallow	**100**	U	**2**	U	**100**	U	**680**		**100**	U	**100**	U	**100**	U	**4**	UJ	**48**	J	**100**	U	**1.6**	J	**1,418**
MW-14	GC-MW14I	N	Intermediate	**5**	U	**0.1**	U	**5**	U	**1.3**	J	**5**	U	**5**	U	**5**	U	**0.2**	U	**0.1**	J	**5**	U	**0.1**	U	**4.594**
MW-14	GC-MW14S	N	Shallow	**5**	U	**0.1**	U	**5**	U	**0.94**	J	**5**	U	**5**	U	**5**	U	**0.2**	U	**0.1**	UJ	**5**	U	**0.1**	U	**4.37**

627 Smith St (MW13 & MW14)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-13	GC-MW13I	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-13	GC-MW13S	N	Shallow	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-14	GC-MW14I	N	Intermediate	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-14	GC-MW14S	N	Shallow	**0.05**	UJ	**0.05**	UJ	0.05	UR	**0.05**	UJ	**0.05**	UJ	**0.1**	UJ	**0.05**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ

627 Smith St (MW13 & MW14)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
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Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-13	GC-MW13I	N	Intermediate	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-13	GC-MW13S	N	Shallow	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-14	GC-MW14I	N	Intermediate	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U
MW-14	GC-MW14S	N	Shallow	**0.1**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5**	UJ	**0**	U

627 Smith St (MW13 & MW14)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-13	GC-MW13I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-13	GC-MW13S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-14	GC-MW14I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-14	GC-MW14S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

627 Smith St (MW13 & MW14)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Cadmium	Cadmium, dissolved	Calcium
MW-13	GC-MW13I	N	Intermediate	**200** U	**200** U	**2** U	**2** U	**4.6**	**1.9** J	**644**	**625** J	**1** U	**1** U	**1** U	**1** U	**171,000**
MW-13	GC-MW13S	N	Shallow	**396**	**200** U	**2** U	**2** U	**7.9**	**8.2**	**264**	**264** J	**1** U	**1** U	**1** U	**1** U	**90,300**
MW-14	GC-MW14I	N	Intermediate	**478**	**200** U	**2** U	**2** U	**5.5**	**2.9** J	**423**	**389** J	**1** U	**1** U	**1** U	**1** U	**55,400**
MW-14	GC-MW14S	N	Shallow	**200** U	**200** U	**2** U	**2** U	2.2 R	4.7 R	**171**	**170** J	**1** U	**1** U	**1** U	**1** U	**97,900**

627 Smith St (MW13 & MW14)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium, dissolved	Chromium		Chromium, dissolved		Cobalt		Cobalt, dissolved		Copper		Copper, dissolved		Iron	Iron, dissolved	Lead		Lead, dissolved	
MW-13	GC-MW13I	N	Intermediate	**177,000**	**2.5**	J	**2**	UJ	**1.3**		**1.3**		**25**	U	**25**	U	**8,910**	**8,320**	1.4	R	**1**	U
MW-13	GC-MW13S	N	Shallow	**91,300**	**17.5**	J	**1.4**	J	**1**		**0.93**	J	**2.9**	J	**25**	U	**9,880**	**6,080**	**2.2**		**1**	U
MW-14	GC-MW14I	N	Intermediate	**54,200**	**2.8**	J	**2**	UJ	**0.5**	J	**0.33**	J	**25**	U	**25**	U	**11,900**	**9,920**	**0.94**	J	**1**	U
MW-14	GC-MW14S	N	Shallow	**95,400**	**0.56**	J	**0.42**	J	**0.68**	J	**0.62**	J	**25**	U	**25**	U	**1,280**	**1,180**	**1**	U	**1**	U

627 Smith St (MW13 & MW14)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium	Selenium, dissolved
MW-13	GC-MW13I	N	Intermediate	**132,000**	**137,000**	**8,860**	**8,440** J	**0.2** U	**0.2** U	**3.5** J	**3.3** J	**34,600**	**35,500**	5 UR	5 UR
MW-13	GC-MW13S	N	Shallow	**39,400**	**39,300**	**1,180**	**1,230** J	**0.2** U	**0.2** U	**22.4** J	**22.2** J	**33,100**	**33,500**	5 UR	5 UR
MW-14	GC-MW14I	N	Intermediate	**108,000**	**107,000**	**3,360**	**3,450** J	**0.2** U	**0.2** U	**2.7** J	**1.2** J	**40,400**	**40,000**	5 UR	5 UR
MW-14	GC-MW14S	N	Shallow	**15,500**	**14,400**	**3,000**	**3,190** J	**0.2** U	**0.2** U	**6.2** J	**5.4** J	**15,400**	**15,000**	5 UR	5 UR

627 Smith St (MW13 & MW14)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-13	GC-MW13I	N	Intermediate	**1** U	**1** U	**671,000**	**418,000**	**1** U	**1** U	**5** U	**5** U	**2** U	**2** U	**15.5**
MW-13	GC-MW13S	N	Shallow	**1** U	**1** U	**424,000**	**413,000**	**1** U	**1** U	**1.9** J	**1.6** J	**10.7**	**8**	**10** J
MW-14	GC-MW14I	N	Intermediate	**1** U	**1** U	**482,000**	**479,000**	**1** U	**1** U	**5** U	**5** U	**4.1**	**1.2** J	**19.2**
MW-14	GC-MW14S	N	Shallow	**1** U	**1** U	**128,000**	**124,000**	**1** U	**1** U	**5** U	**5** U	8.5 R	21.2 R	**15.8**

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National Grid – Smith St

(MW40 & MW41)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: National Grid – Smith St.
Monitoring Well Soil Borings Installed at Address: GC-MW-40 & GC-MW-41
Intermediate Monitoring Wells Installed at Address: GC-MW-40I & GC-MW-41I
Shallow Monitoring Wells Installed at Address: GC-MW-40S & GC-MW-41S

GC-MW-40

The soil samples from the soil boring installed for the intermediate well (situated approximately 191 feet from the canal) contained 66 VOCs, 145 SVOCs, 5 pesticides, 1 PCB, and 193 metals. From these, 15 VOCs, 44 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was benzene (550,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (11,000,000 µg/kg). The metal occurring at the highest concentration above screening value was mercury (1.9 mg/kg).

Shallow groundwater

No shallow groundwater sample collected at this location due to the presence of NAPL.

Intermediate groundwater

The intermediate well (depth of approximately58 ft bgs and situated approximately 191 feet from the canal) contained 7 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 2 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (32 µg/L). The SVOC occurring at the highest concentration above screening criteria was phenol (74 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (6,340 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-41I

The soil samples from the soil boring installed for the intermediate well (situated approximately 345 feet from the canal) contained 34 VOCs, 125 SVOCs, 15 pesticides, 0 PCBs, and 208 metals. From these, 11 VOCs, 28 SVOCs, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was m,p xylenes (64,000 µg/kg). The SVOC occurring at the highest concentration above screening value was phenanthrene (4,300,000 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 345 feet from the canal) contained 10 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 5 VOCs, 3 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (120 µg/L). The SVOC occurring at the highest concentration above screening criteria was 2,4-dimethylphenol (80 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (7,510 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately58 ft bgs and situated approximately 345 feet from the canal) contained 0 VOCs, 12 SVOCs, 0 pesticides, 0 PCBs, and 8 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (2,100 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene	
GCMW-40	GC-MW40D(2.5-3)	N	2.5	3	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-40	GC-MW40I(11)	N	11	11	ft	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U
GCMW-40	GC-MW40I(17.5)	N	17.5	17.5	ft	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-40	GC-MW40I(22)	N	22	22	ft	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U
GCMW-40	GC-MW40I(26.5)	N	26.5	26.5	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-40	GC-MW40I(32.5)	N	32.5	32.5	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**1.9**	J	**4.6**	U	**4.6**	U	**4.6**	U
GCMW-40	GC-MW40I(37.5)	N	37.5	37.5	ft	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U
GCMW-40	GC-MW40I(43.5)	N	43.5	43.5	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U
GCMW-40	GC-MW40I(47.5)	N	47.5	47.5	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-40	GC-MW40I(52.5)	N	52.5	52.5	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-40	GC-MW40I(56.5)	N	56.5	56.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-40	GC-MW40I(7)	N	7	7	ft	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-41	GC-MW41I(10-10.5)	N	10	10.5	ft	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U
GCMW-41	GC-MW41I(18-18.5)	N	18	18.5	ft	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ
GCMW-41	GC-MW41I(21-21.5)	N	21	21.5	ft	**700**	U	**700**	U	**700**	U	**700**	U	**700**	U	**700**	U	**700**	U	**700**	U
GCMW-41	GC-MW41I(27.5-28)	N	27.5	28	ft	**620**	U	**620**	U	**620**	U	**620**	U	**620**	U	**620**	U	**620**	U	**620**	U
GCMW-41	GC-MW41I(31.5-32)	N	31.5	32	ft	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U
GCMW-41	GC-MW41I(37-37.5)	N	37	37.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-41	GC-MW41I(42.5-43)	N	42.5	43	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-41	GC-MW41I(47.5-48)	N	47.5	48	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-41	GC-MW41I(51.5-52)	N	51.5	52	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-41	GC-MW41I(5-5.5)	N	5	5.5	ft	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U
GCMW-41	GC-MW41I(55.5-56)	N	55.5	56	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-41	GC-MW41S(4.5-5)	N	4.5	5	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-41	SB41IB-S-NG	S	5	10	ft	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U
GCMW-41	SB41IL-S-NG	S	55	58	ft	**5.2**	UJ	**5.2**	U	**5.2**	UJ	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone	
GCMW-40	GC-MW40D(2.5-3)	N	2.5	3	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	240	UR	**4.8**	U	**31**	UJ
GCMW-40	GC-MW40I(11)	N	11	11	ft	**18,000**	UJ	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	880,000	UR	**18,000**	U	**18,000**	U
GCMW-40	GC-MW40I(17.5)	N	17.5	17.5	ft	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	570	UR	**11**	U	**69**	UJ
GCMW-40	GC-MW40I(22)	N	22	22	ft	**1,600**	UJ	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	79,000	UR	**1,600**	U	**1,600**	U
GCMW-40	GC-MW40I(26.5)	N	26.5	26.5	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	260	UR	**5.2**	U	**19**	UJ
GCMW-40	GC-MW40I(32.5)	N	32.5	32.5	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	230	UR	**4.6**	U	**51**	J
GCMW-40	GC-MW40I(37.5)	N	37.5	37.5	ft	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U	35,000	UR	**690**	U	**690**	U
GCMW-40	GC-MW40I(43.5)	N	43.5	43.5	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	330	UR	**6.5**	U	**17**	UJ
GCMW-40	GC-MW40I(47.5)	N	47.5	47.5	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	300	UR	**6**	U	**8.5**	UJ
GCMW-40	GC-MW40I(52.5)	N	52.5	52.5	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	280	UR	**5.6**	U	**6.8**	UJ
GCMW-40	GC-MW40I(56.5)	N	56.5	56.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	310	UR	**6.1**	U	**7.3**	UJ
GCMW-40	GC-MW40I(7)	N	7	7	ft	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	560,000	UR	**11,000**	U	**11,000**	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	120,000	UR	**12,000**	U	**12,000**	U
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	110	UR	**11**	U	**11**	U
GCMW-41	GC-MW41I(10-10.5)	N	10	10.5	ft	**720**	UJ	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	36,000	UR	**720**	U	**720**	UJ
GCMW-41	GC-MW41I(18-18.5)	N	18	18.5	ft	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	170,000	UR	**3,400**	UJ	**3,400**	UJ
GCMW-41	GC-MW41I(21-21.5)	N	21	21.5	ft	**700**	UJ	**700**	U	**700**	U	**700**	U	**700**	U	**700**	U	**700**	U	35,000	UR	**700**	U	**700**	UJ
GCMW-41	GC-MW41I(27.5-28)	N	27.5	28	ft	**620**	UJ	**620**	U	**620**	U	**620**	U	**620**	U	**620**	U	**620**	U	31,000	UR	**620**	U	**620**	UJ
GCMW-41	GC-MW41I(31.5-32)	N	31.5	32	ft	**810**	UJ	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	40,000	UR	**810**	U	**810**	U
GCMW-41	GC-MW41I(37-37.5)	N	37	37.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	300	UR	**6.1**	U	**19**	UJ
GCMW-41	GC-MW41I(42.5-43)	N	42.5	43	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	300	UR	**6.1**	U	**14**	UJ
GCMW-41	GC-MW41I(47.5-48)	N	47.5	48	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	300	UR	**6.1**	U	**14**	UJ
GCMW-41	GC-MW41I(51.5-52)	N	51.5	52	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	290	UR	**5.8**	U	**7.4**	UJ
GCMW-41	GC-MW41I(5-5.5)	N	5	5.5	ft	**1,000**	UJ	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	51,000	UR	**1,000**	U	**1,000**	U
GCMW-41	GC-MW41I(55.5-56)	N	55.5	56	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	280	UR	**5.7**	U	**5.9**	UJ
GCMW-41	GC-MW41S(4.5-5)	N	4.5	5	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	280	UR	**5.7**	U	**7.2**	UJ
GCMW-41	SB41IB-S-NG	S	5	10	ft	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U	6,100	UR	**610**	U	**610**	U
GCMW-41	SB41IL-S-NG	S	55	58	ft	**5.2**	U	**5.2**	UJ	**5.2**	U	**5.2**	UJ	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**10**	U

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene
GCMW-40	GC-MW40D(2.5-3)	N	2.5	3	ft	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
GCMW-40	GC-MW40I(11)	N	11	11	ft	550,000 J	18,000 U	18,000 U	18,000 U	18,000 UJ	18,000 U	18,000 U	18,000 U	18,000 U	18,000 U	18,000 U	18,000 U
GCMW-40	GC-MW40I(17.5)	N	17.5	17.5	ft	10 J	11 U	11 U	11 U	11 U	18	11 U	11 U	11 U	11 U	11 U	11 U
GCMW-40	GC-MW40I(22)	N	22	22	ft	3,600	1,600 U	1,600 U	1,600 U	1,600 UJ	1,600 U	1,600 U	1,600 U	1,600 U	1,600 U	1,600 U	1,600 U
GCMW-40	GC-MW40I(26.5)	N	26.5	26.5	ft	17	5.2 U	5.2 U	5.2 U	5.2 U	5.2 UJ	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U
GCMW-40	GC-MW40I(32.5)	N	32.5	32.5	ft	59	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U
GCMW-40	GC-MW40I(37.5)	N	37.5	37.5	ft	1,400	690 U	690 U	690 U	690 UJ	690 U	690 U	690 U	690 U	690 U	690 U	690 U
GCMW-40	GC-MW40I(43.5)	N	43.5	43.5	ft	6.3 J	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U	6.5 U
GCMW-40	GC-MW40I(47.5)	N	47.5	47.5	ft	1.9 J	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U
GCMW-40	GC-MW40I(52.5)	N	52.5	52.5	ft	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U	5.6 U
GCMW-40	GC-MW40I(56.5)	N	56.5	56.5	ft	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U
GCMW-40	GC-MW40I(7)	N	7	7	ft	400,000	11,000 U	11,000 U	11,000 U	11,000 UJ	11,000 U	11,000 U	11,000 U	11,000 U	11,000 U	11,000 U	11,000 U
GCMW-40	SB40IB-S-NG	S	5	10	ft	320,000 J	5,800 U	5,800 U	5,800 U	5,800 U	5,800 U	5,800 U	5,800 U	5,800 U	5,800 U	5,800 U	5,800 U
GCMW-40	SB40IJ-S-NG	S	55	58	ft	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
GCMW-41	GC-MW41I(10-10.5)	N	10	10.5	ft	720 U	720 U	720 U	720 U	720 UJ	720 U	720 U	720 U	720 U	720 U	720 U	720 U
GCMW-41	GC-MW41I(18-18.5)	N	18	18.5	ft	39,000 J	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ	3,400 UJ
GCMW-41	GC-MW41I(21-21.5)	N	21	21.5	ft	1,400	700 U	700 U	700 U	700 U	700 U	700 U	700 U	700 U	700 U	700 U	700 U
GCMW-41	GC-MW41I(27.5-28)	N	27.5	28	ft	2,200	620 U	620 U	620 U	620 UJ	620 U	620 U	620 U	620 U	620 U	620 U	620 U
GCMW-41	GC-MW41I(31.5-32)	N	31.5	32	ft	3,500	810 U	810 U	810 U	810 UJ	810 U	810 U	810 U	810 U	810 U	810 U	810 U
GCMW-41	GC-MW41I(37-37.5)	N	37	37.5	ft	5.5 J	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U
GCMW-41	GC-MW41I(42.5-43)	N	42.5	43	ft	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	1.5 J	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U
GCMW-41	GC-MW41I(47.5-48)	N	47.5	48	ft	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U
GCMW-41	GC-MW41I(51.5-52)	N	51.5	52	ft	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U
GCMW-41	GC-MW41I(5-5.5)	N	5	5.5	ft	14,000	1,000 U	1,000 U	1,000 U	1,000 UJ	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
GCMW-41	GC-MW41I(55.5-56)	N	55.5	56	ft	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
GCMW-41	GC-MW41S(4.5-5)	N	4.5	5	ft	31	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
GCMW-41	SB41IB-S-NG	S	5	10	ft	160 J	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 U	310 U
GCMW-41	SB41IL-S-NG	S	55	58	ft	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 UJ	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-40	GC-MW40D(2.5-3)	N	2.5	3	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	4.8	UR	**7**	J	**4.8**	U	**4.8**	U
GCMW-40	GC-MW40I(11)	N	11	11	ft	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**49,000**	J	**5,100**	J	--		18,000	UR	18,000	UR	**18,000**	U	**11,000**	J
GCMW-40	GC-MW40I(17.5)	N	17.5	17.5	ft	**11**	U	**15**		**11**	U	**11**	U	**3.6**	J	**11**	U	**7.8**	J	11	UR	**18**	J	**11**	U	**11**	U
GCMW-40	GC-MW40I(22)	N	22	22	ft	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**470**	J	**1,600**	U	**2,000**		1,600	UR	1,600	UR	**1,600**	U	**1,600**	U
GCMW-40	GC-MW40I(26.5)	N	26.5	26.5	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**27**		**1.4**	J	**33**		5.2	UR	5.2	UR	**1.4**	J	**5.2**	U
GCMW-40	GC-MW40I(32.5)	N	32.5	32.5	ft	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**80**		**4.6**		**120**		4.6	UR	**19**	J	**2.4**	J	**4.6**	U
GCMW-40	GC-MW40I(37.5)	N	37.5	37.5	ft	**690**	U	**690**	U	**690**	U	**690**	U	**1,100**		**690**	U	**1,200**		690	UR	690	UR	**690**	U	**690**	U
GCMW-40	GC-MW40I(43.5)	N	43.5	43.5	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**3.2**	J	**6.5**	U	**2**	J	6.5	UR	6.5	UR	**4.7**	J	**6.5**	U
GCMW-40	GC-MW40I(47.5)	N	47.5	47.5	ft	**6**	U	**6**	U	**6**	U	**6**	U	**2.6**	J	**6**	U	**2.1**	J	6	UR	6	UR	**1.4**	J	**6**	U
GCMW-40	GC-MW40I(52.5)	N	52.5	52.5	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	5.6	UR	5.6	UR	**1.7**	J	**5.6**	U
GCMW-40	GC-MW40I(56.5)	N	56.5	56.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**1.4**	J	**2**	J	6.1	UR	**6.1**	U	**6.1**	U
GCMW-40	GC-MW40I(7)	N	7	7	ft	**11,000**	U	**2,900**	J	**11,000**	U	**11,000**	U	**44,000**		**3,700**	J	**240,000**		11,000	UR	11,000	UR	**11,000**	U	**8,700**	J
GCMW-40	SB40IB-S-NG	S	5	10	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**32,000**		**2,900**	J	**190,000**		**5,800**	U	**12,000**	U	**12,000**	U	**6,400**	
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**11**	U	**11**	U	**5.3**	U
GCMW-41	GC-MW41I(10-10.5)	N	10	10.5	ft	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**190**	J	**720**	UJ	720	UR	**720**	U	**720**	U
GCMW-41	GC-MW41I(18-18.5)	N	18	18.5	ft	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	3,400	UR	3,400	UR	**3,400**	UJ	**3,400**	UJ
GCMW-41	GC-MW41I(21-21.5)	N	21	21.5	ft	**700**	U	**700**	U	**700**	U	**700**	U	**210**	J	**700**	U	**280**	J	700	UR	700	UR	**700**	U	**700**	U
GCMW-41	GC-MW41I(27.5-28)	N	27.5	28	ft	**620**	U	**620**	U	**620**	U	**620**	U	**310**	J	**620**	U	**450**	J	**620**	UJ	620	UR	**620**	U	**620**	U
GCMW-41	GC-MW41I(31.5-32)	N	31.5	32	ft	**810**	U	**810**	U	**810**	U	**810**	U	**1,100**		**810**	U	**1,300**		810	UR	810	UR	**810**	U	**810**	U
GCMW-41	GC-MW41I(37-37.5)	N	37	37.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**2.2**	J	**4.8**	J	6.1	UR	6.1	UR	**6.1**	U	**6.1**	U
GCMW-41	GC-MW41I(42.5-43)	N	42.5	43	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	6.1	UR	6.1	UR	**2.3**	J	**6.1**	U
GCMW-41	GC-MW41I(47.5-48)	N	47.5	48	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	6.1	UR	**6.1**	U	6.1	UR	**6.1**	U
GCMW-41	GC-MW41I(51.5-52)	N	51.5	52	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	5.8	UR	5.8	UR	**1.6**	J	**5.8**	U
GCMW-41	GC-MW41I(5-5.5)	N	5	5.5	ft	**1,000**	U	**1,600**		**1,000**	U	**1,000**	U	**36,000**		**5,200**	J	**64,000**		1,000	UR	1,000	UR	**1,000**	U	**5,900**	
GCMW-41	GC-MW41I(55.5-56)	N	55.5	56	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	5.7	UR	5.7	UR	**5.7**	U	**5.7**	U
GCMW-41	GC-MW41S(4.5-5)	N	4.5	5	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**58**		**8.9**		**50**		5.7	UR	5.7	UR	**5.7**	U	**5.7**	U
GCMW-41	SB41IB-S-NG	S	5	10	ft	**310**	U	**310**	U	**310**	U	**310**	U	**620**		**190**	J	**650**		**530**		**610**	U	**610**	U	**260**	J
GCMW-41	SB41IL-S-NG	S	55	58	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	UJ	**10**	U	**10**	U	**5.2**	U

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-40	GC-MW40D(2.5-3)	N	2.5	3	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-40	GC-MW40I(11)	N	11	11	ft	**18,000**	U	**100,000**	J	**110,000**	J	**18,000**	U	**18,000**	U	**400,000**	J	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U	**18,000**	U
GCMW-40	GC-MW40I(17.5)	N	17.5	17.5	ft	**11**	U	**17**		**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-40	GC-MW40I(22)	N	22	22	ft	**1,600**	U	**720**	J	**360**	J	**1,600**	U	**1,600**	U	**2,500**		**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U	**1,600**	U
GCMW-40	GC-MW40I(26.5)	N	26.5	26.5	ft	**5.2**	U	**17**		**1**	J	**5.2**	U	**5.2**	U	**30**		**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-40	GC-MW40I(32.5)	N	32.5	32.5	ft	**4.6**	U	**49**		**4.6**	U	**2**	J	**4.6**	U	**87**		**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U	**4.6**	U
GCMW-40	GC-MW40I(37.5)	N	37.5	37.5	ft	**690**	U	**560**	J	**690**	U	**690**	U	**690**	U	**150**	J	**690**	U	**690**	U	**690**	U	**690**	U	**690**	U
GCMW-40	GC-MW40I(43.5)	N	43.5	43.5	ft	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U	**6.5**	U
GCMW-40	GC-MW40I(47.5)	N	47.5	47.5	ft	**6**	U	**1.3**	J	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-40	GC-MW40I(52.5)	N	52.5	52.5	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-40	GC-MW40I(56.5)	N	56.5	56.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-40	GC-MW40I(7)	N	7	7	ft	**11,000**	U	**84,000**		**76,000**		**11,000**	U	**11,000**	U	**300,000**		**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U	**11,000**	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	**5,800**	U	**70,000**		**70,000**		**5,800**	U	**5,800**	U	**250,000**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U
GCMW-41	GC-MW41I(10-10.5)	N	10	10.5	ft	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U	**720**	U
GCMW-41	GC-MW41I(18-18.5)	N	18	18.5	ft	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ	**3,400**	UJ
GCMW-41	GC-MW41I(21-21.5)	N	21	21.5	ft	**700**	U	**700**	U	**700**	U	**700**	U	**700**	U	**220**	J	**700**	U	**700**	U	**700**	U	**700**	U	**700**	UJ
GCMW-41	GC-MW41I(27.5-28)	N	27.5	28	ft	**620**	U	**180**	J	**620**	U	**620**	U	**620**	U	**1,200**		**620**	U	**620**	U	**620**	U	**620**	U	**620**	U
GCMW-41	GC-MW41I(31.5-32)	N	31.5	32	ft	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U	**810**	U
GCMW-41	GC-MW41I(37-37.5)	N	37	37.5	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-41	GC-MW41I(42.5-43)	N	42.5	43	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-41	GC-MW41I(47.5-48)	N	47.5	48	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-41	GC-MW41I(51.5-52)	N	51.5	52	ft	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U	**5.8**	U
GCMW-41	GC-MW41I(5-5.5)	N	5	5.5	ft	**1,000**	U	**24,000**		**1,000**	U	**1,000**	U	**1,000**	U	**33,000**		**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U
GCMW-41	GC-MW41I(55.5-56)	N	55.5	56	ft	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-41	GC-MW41S(4.5-5)	N	4.5	5	ft	**5.7**	U	**24**		**5.7**	U	**5.7**	U	**5.7**	U	**55**		**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-41	SB41IB-S-NG	S	5	10	ft	**310**	U	**260**	J	**310**	U	**310**	U	**310**	U	**160**	J	**310**	U	**310**	U	**310**	U	**310**	U	**310**	U
GCMW-41	SB41IL-S-NG	S	55	58	ft	**5.2**	UJ	**5.2**	U	**5.2**	U	**5.2**	UJ	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	UJ	**5.2**	U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene	
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	590	U	590	U	1,500	U	590	U	590	U	590	U	1,500	U	590	U	590	U
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	800,000	U	800,000	U	2,000,000	U	800,000	U	800,000	U	110,000	J	2,000,000	U	800,000	U	800,000	U
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	550	U	550	U	1,400	U	550	U	550	U	550	U	1,400	U	550	U	550	U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	10,000	U	10,000	U	26,000	U	10,000	U	10,000	U	1,500	J	26,000	U	10,000	U	10,000	U
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	390	U	390	U	970	U	390	U	390	U	390	U	970	U	390	U	390	U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	1,100	U	1,100	U	2,800	U	1,100	U	1,100	U	1,100	U	2,800	U	1,100	U	1,100	U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	710	U	710	U	1,800	U	710	U	710	U	130	J	1,800	U	710	U	710	U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	400	U	400	U	1,000	U	400	U	400	U	400	U	1,000	U	400	U	400	U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	410	U	410	U	1,000	U	410	U	410	U	410	U	1,000	U	410	U	410	U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	380	U	380	U	960	U	380	U	380	U	17	J	960	U	380	U	380	U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	1,900,000	U	1,900,000	U	4,700,000	U	1,900,000	U	1,900,000	U	260,000	J	4,700,000	UJ	1,900,000	U	1,900,000	U
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	360	U	360	U	920	U	360	U	360	U	360	U	920	U	360	U	360	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	810,000	U	810,000	U	810,000	U	810,000	U	810,000	U	180,000	J	1,600,000	U	810,000	U	810,000	U
GCMW-40	SB40IJ-S-NG	S	55	58	ft	190	U	190	U	190	U	190	U	190	U	190	U	370	U	190	U	190	U
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	4,500	U	4,500	U	11,000	U	4,500	U	4,500	U	4,500	U	11,000	UJ	4,500	U	4,500	U
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	560	U	560	U	1,400	U	560	U	560	U	120	J	1,400	UJ	560	U	560	U
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	400	U	400	U	1,000	U	400	U	400	U	410		1,000	UJ	400	U	400	U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	390	U	390	U	970	U	390	U	390	U	190	J	970	UJ	390	U	390	U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	800	U	800	U	2,000	U	800	U	800	UJ	290	J	2,000	U	800	U	800	U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	400	U	400	U	1,000	U	400	U	400	U	39	J	1,000	UJ	400	U	400	U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	430	U	430	U	1,100	U	430	U	430	U	430	U	1,100	UJ	430	U	430	U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	420	U	420	U	1,100	U	420	U	420	U	420	U	1,100	UJ	420	U	420	U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	400	U	400	U	1,000	U	400	U	400	U	400	U	1,000	UJ	400	U	400	U
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	44,000	U	44,000	U	110,000	U	44,000	U	44,000	U	44,000	U	110,000	UJ	44,000	U	44,000	U
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	430	U	430	U	1,100	U	430	U	430	U	430	U	1,100	UJ	430	U	430	U
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	840,000	U	840,000	U	2,100,000	U	840,000	U	840,000	U	840,000	U	2,100,000	UJ	840,000	U	840,000	U
GCMW-41	SB41IB-S-NG	S	5	10	ft	40,000	U	40,000	U	40,000	U	40,000	U	40,000	U	40,000	U	79,000	U	40,000	U	40,000	U
GCMW-41	SB41IL-S-NG	S	55	58	ft	200	U	200	U	200	U	200	U	200	U	200	U	400	U	200	U	200	U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chloronaphthalene	2-chlorophenol	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	590 U	590 U	150 J	590 U	1,500 U	590 U	590 U	1,500 U	1,500 U	590 U	590 U
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	800,000 U	800,000 U	600,000 J	98,000 J	2,000,000 U	800,000 U	800,000 U	2,000,000 U	2,000,000 U	800,000 U	800,000 U
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	550 U	550 U	550 U	550 U	1,400 U	550 U	550 U	1,400 U	1,400 U	550 U	550 U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	10,000 U	10,000 U	9,900 J	1,100 J	26,000 U	10,000 U	10,000 U	26,000 U	26,000 U	10,000 U	10,000 U
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	390 U	390 U	100 J	390 U	970 U	390 U	390 U	970 U	970 U	390 U	390 U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	1,100 U	1,100 U	810 J	1,100 U	2,800 U	1,100 U	1,100 U	2,800 U	2,800 U	1,100 U	1,100 U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	710 U	710 U	210 J	710 U	1,800 U	710 U	710 U	1,800 U	1,800 U	710 U	710 U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	400 U	400 U	100 J	400 U	1,000 U	400 U	400 U	1,000 U	1,000 U	400 U	400 U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	410 U	410 U	30 J	410 U	1,000 U	410 U	410 U	1,000 U	1,000 U	410 U	410 U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	380 U	380 U	380 U	82 J	960 U	380 U	380 U	960 U	960 U	380 U	380 U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	1,900,000 U	1,900,000 U	1,400,000 J	240,000 J	4,700,000 U	1,900,000 U	1,900,000 U	4,700,000 U	4,700,000 U	1,900,000 U	1,900,000 U
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	360 U	360 U	360 U	360 U	920 U	360 U	360 U	920 U	920 U	360 U	360 U
GCMW-40	SB40IB-S-NG	S	5	10	ft	810,000 U	810,000 U	990,000	170,000 J	1,600,000 U	810,000 U	810,000 U	1,600,000 U	1,600,000 U	810,000 U	810,000 U
GCMW-40	SB40IJ-S-NG	S	55	58	ft	190 U	190 U	2.1 J	190 U	370 U	190 U	190 U	370 U	370 U	190 U	190 U
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	4,500 U	4,500 U	5,500	4,500 U	11,000 U	4,500 U	4,500 U	11,000 U	11,000 UJ	4,500 U	4,500 U
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	560 U	560 U	75 J	560 U	1,400 U	560 U	560 U	1,400 U	1,400 UJ	560 U	560 U
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	400 U	400 U	200 J	400 U	1,000 U	400 U	400 U	1,000 U	1,000 UJ	400 U	400 U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	390 U	390 U	130 J	390 U	970 U	390 U	390 U	970 U	970 UJ	390 U	390 U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	800 U	800 U	440 J	800 U	2,000 U	800 U	800 U	2,000 U	2,000 UJ	800 U	800 U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	400 U	400 U	24 J	400 U	1,000 U	400 U	400 U	1,000 U	1,000 UJ	400 U	400 U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	430 U	430 U	430 U	430 U	1,100 U	430 U	430 U	1,100 U	1,100 UJ	430 U	430 U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	420 U	420 U	420 U	420 U	1,100 U	420 U	420 U	1,100 U	1,100 UJ	420 U	420 U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	400 U	400 U	400 U	400 U	1,000 U	400 U	400 U	1,000 U	1,000 UJ	400 U	400 U
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	44,000 U	44,000 U	65,000	44,000 U	110,000 U	44,000 U	44,000 U	110,000 U	110,000 UJ	44,000 U	44,000 U
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	430 U	430 U	430 U	430 U	1,100 U	430 U	430 U	1,100 U	1,100 UJ	430 U	430 U
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	840,000 U	840,000 U	260,000 J	840,000 U	2,100,000 U	840,000 U	840,000 U	2,100,000 U	2,100,000 U	840,000 U	840,000 U
GCMW-41	SB41IB-S-NG	S	5	10	ft	40,000 U	40,000 U	86,000	40,000 U	79,000 U	40,000 U	40,000 U	79,000 U	79,000 U	40,000 U	40,000 U
GCMW-41	SB41IL-S-NG	S	55	58	ft	200 U	200 U	5.8 J	200 U	400 U	200 U	200 U	400 U	400 U	200 U	200 U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	590	U	590	U	590	U	1,500	U	--		310	J	590	U	47	J	410	J	590	U	590	U	1,100		1,100	
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	800,000	U	800,000	U	260,000	J	2,000,000	U	--		170,000	J	410,000	J	800,000	U	440,000	J	800,000	U	800,000	U	290,000	J	270,000	J
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	550	U	550	U	550	U	1,400	U	--		550	U	550	U	57	J	550	U	550	U	550	U	550	U	550	U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	10,000	U	10,000	U	2,700	J	26,000	U	--		3,400	J	6,900	J	10,000	U	9,900	J	10,000	U	10,000	U	5,900	J	5,500	J
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	390	U	390	U	18	J	970	U	--		67	J	27	J	390	U	390	U	390	U	390	U	390	U	38	J
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	1,100	U	1,100	U	1,100	U	2,800	U	--		420	J	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	710	U	710	U	710	U	1,800	U	--		71	J	710	U	710	U	710	U	710	U	710	U	710	U	710	U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	400	U	400	U	26	J	1,000	U	--		70	J	39	J	400	U	400	U	400	U	400	U	400	U	75	J
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	410	U	410	U	410	U	1,000	U	--		37	J	410	U	410	U	410	U	410	U	410	U	410	U	410	U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	380	U	380	U	370	J	960	U	--		380	U	380	U	380	U	380	U	380	U	380	U	380	U	380	U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	1,900,000	U	1,900,000	U	570,000	J	4,700,000	UJ	--		380,000	J	810,000	J	1,900,000	U	860,000	J	1,900,000	U	1,900,000	U	560,000	J	510,000	J
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	360	U	360	U	360	U	920	U	--		360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	810,000	U	810,000	U	400,000	J	1,600,000	U	1,600,000	U	260,000	J	560,000	J	810,000	U	560,000	J	810,000	U	810,000	U	380,000	J	340,000	J
GCMW-40	SB40IJ-S-NG	S	55	58	ft	190	U	190	U	190	U	370	U	370	U	3.5	J	1.7	J	28	J	4.2		190	U	190	U	5.1		8.7	
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	4,500	U	4,500	U	4,500	U	11,000	U	--		5,200		4,500	U	4,500	U	6,300		4,500	U	4,500	U	6,400		5,100	
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	560	U	560	U	560	U	1,400	U	--		57	J	560	U	560	U	50	J	560	U	560	U	44	J	32	J
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	400	U	400	U	100	J	1,000	U	--		76	J	400	U	400	U	400	U	400	U	400	U	400	U	400	U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	390	U	390	U	130	J	970	U	--		31	J	390	U	390	U	390	U	390	U	390	U	390	U	390	U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	800	U	800	U	94	J	2,000	U	--		76	J	800	U	800	U	800	U	800	U	800	U	800	U	800	U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	400	U	400	U	400	U	1,000	U	--		400	U	400	U	400	U	400	U	400	U	400	U	400	U	400	U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	430	U	430	U	430	U	1,100	U	--		25	J	430	U	430	U	430	U	430	U	430	U	430	U	430	U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	420	U	420	U	420	U	1,100	U	--		420	U	420	U	420	U	420	U	420	U	420	U	420	U	420	U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	400	U	400	U	400	U	1,000	U	--		400	U	400	U	400	U	21	J	400	U	400	U	30	J	21	J
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	44,000	U	44,000	U	44,000	U	110,000	U	--		41,000	J	44,000	U	44,000	U	36,000	J	44,000	U	44,000	U	30,000	J	25,000	J
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	430	U	430	U	430	U	1,100	U	--		430	U	430	U	430	U	30	J	430	U	430	U	31	J	23	J
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	840,000	U	840,000	U	840,000	U	2,100,000	UJ	--		670,000	J	840,000	U	840,000	U	1,100,000		840,000	U	840,000	U	1,100,000		980,000	
GCMW-41	SB41IB-S-NG	S	5	10	ft	40,000	U	40,000	U	40,000	U	79,000	U	79,000	U	61,000		40,000	U	40,000	U	55,000		40,000	U	40,000	U	42,000		38,000	J
GCMW-41	SB41IL-S-NG	S	55	58	ft	200	U	200	U	200	U	400	U	400	U	5.4	J	12	J	27	J	44		200	U	200	U	39		44	

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	1,100		910	J	800		590	U	49	J	590	U	590	U	590	U	180	J	590	U	290	J	1,100	
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	230,000	J	150,000	J	210,000	J	800,000	U	150,000	J	800,000	U	800,000	U	800,000	U	800,000	U	800,000	U	180,000	J	330,000	J
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	550	U	550	U	550	U	28	J	550	U	550	U	550	U	550	U	550	U	550	U	550	U	550	U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	4,600	J	3,400	J	4,100	J	10,000	U	2,700	J	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	3,900	J	6,400	J
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	29	J	22	J	36	J	390	U	31	J	390	U	390	U	390	U	390	U	390	U	220	J	390	U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	1,100	U	1,100	U	1,100	U	1,100	U	97	J	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	710	U	710	U	710	U	710	U	710	U	710	U	710	U	710	U	710	U	710	U	710	U	710	U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	61	J	55	J	74	J	400	U	29	J	400	U	400	U	400	U	400	U	400	U	89	J	400	U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	410	U	410	U	410	U	410	U	410	U	410	U	410	U	410	U	410	U	410	U	60	J	410	U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	380	U	380	U	380	U	380	U	380	U	380	U	380	U	380	U	380	U	380	U	26	J	380	U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	430,000	J	280,000	J	400,000	J	1,900,000	U	340,000	J	1,900,000	U	1,900,000	U	1,900,000	U	1,900,000	U	1,900,000	UJ	360,000	J	590,000	J
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U	360	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	220,000	J	180,000	J	270,000	J	810,000	U	210,000	J	810,000	U	810,000	U	810,000	U	810,000	U	810,000	U	230,000	J	380,000	J
GCMW-40	SB40IJ-S-NG	S	55	58	ft	3.9		2.4	J	3.5	J	37	J	190	U	190	U	190	U	190	U	65	J	190	U	190	U	4.7	
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	3,400	J	2,600	J	4,900		4,500	U	1,500	J	4,500	U	4,500	UJ	4,500	UJ	4,500	U	4,500	U	2,500	J	6,000	
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	560	UJ	560	U	560	U	560	U	560	U	560	U	560	UJ	560	UJ	560	U	560	U	560	U	40	J
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	400	UJ	400	U	400	U	400	U	38	J	400	U	400	UJ	400	UJ	400	U	400	U	71	J	400	U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	390	UJ	390	U	390	U	390	U	51	J	390	U	390	UJ	390	UJ	390	U	390	U	250	J	390	U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	800	UJ	800	U	800	U	800	U	800	U	800	U	800	UJ	800	UJ	800	U	800	U	800	U	800	U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	400	UJ	400	U	400	U	400	U	400	U	400	U	400	UJ	400	UJ	400	U	400	U	400	U	400	U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	430	UJ	430	U	430	U	430	U	430	U	430	U	430	UJ	430	UJ	430	U	430	U	430	U	430	U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	420	U	420	UJ	420	U	420	U	420	U	420	U	420	UJ	420	UJ	420	U	110	J	420	U	420	U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	400	U	400	UJ	400	U	400	U	400	U	400	U	400	UJ	400	UJ	400	U	400	U	400	U	27	J
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	19,000	J	14,000	J	21,000	J	44,000	U	15,000	J	44,000	U	44,000	UJ	44,000	UJ	44,000	U	44,000	U	15,000	J	27,000	J
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	430	U	430	UJ	430	U	430	U	430	U	430	U	430	UJ	430	UJ	430	U	430	U	430	U	32	J
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	720,000	J	590,000	J	810,000	J	840,000	U	96,000	J	840,000	U	840,000	U	840,000	U	840,000	U	840,000	U	470,000	J	1,100,000	
GCMW-41	SB41IB-S-NG	S	5	10	ft	22,000	J	15,000	J	32,000	J	40,000	U	20,000	J	40,000	U	40,000	U	40,000	U	40,000	U	40,000	U	22,000	J	38,000	J
GCMW-41	SB41IL-S-NG	S	55	58	ft	32	J	22		26		200	U	200	U	200	U	200	U	200	U	34	J	200	U	200	U	40	

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	290 J	240 J	590 U	590 U	590 U	590 U	2,500	400 J	590 U	590 U	590 U	590 U
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	800,000 U	380,000 J	800,000 U	800,000 U	800,000 U	800,000 U	1,100,000	370,000 J	800,000 U	800,000 U	800,000 U	800,000 U
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U	550 U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	650 J	7,300 J	10,000 U	10,000 U	10,000 U	10,000 U	22,000	7,000 J	10,000 U	10,000 U	10,000 U	10,000 U
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	390 U	98 J	390 U	390 U	390 U	390 U	390 U	110 J	390 U	390 U	390 U	390 U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	1,100 U	81 J	1,100 U	1,100 U	1,100 U	1,100 U	1,100 U	1,100 U	1,100 U	1,100 U	1,100 U	1,100 U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	710 U	710 U	710 U	710 U	710 U	710 U	710 U	710 U	710 U	710 U	710 U	710 U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	400 U	75 J	400 U	400 U	400 U	400 U	290 J	80 J	400 U	400 U	400 U	400 U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U	410 U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U	380 U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	1,900,000 U	780,000 J	1,900,000 U	1,900,000 U	1,900,000 U	1,900,000 U	1,900,000	700,000 J	1,900,000 U	1,900,000 U	1,900,000 U	1,900,000 U
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U	360 U
GCMW-40	SB40IB-S-NG	S	5	10	ft	810,000 U	550,000 J	810,000 U	810,000 U	810,000 U	810,000 U	1,200,000	510,000 J	810,000 U	810,000 U	810,000 U	810,000 U
GCMW-40	SB40IJ-S-NG	S	55	58	ft	0.9 J	190 U	190 U	190 U	190 U	190 U	13	2.4 J	190 U	190 U	190 U	190 U
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	390 J	4,600	4,500 U	4,500 U	4,500 U	4,500 U	17,000	5,100	4,500 U	4,500 U	4,500 U	4,500 U
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	560 U	36 J	47 J	560 U	560 U	560 U	120 J	38 J	560 U	560 U	560 U	560 U
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	400 U	65 J	400 U	400 U	400 U	400 U	400 U	41 J	400 U	400 U	400 U	400 U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	390 U	97 J	390 U	390 U	390 U	390 U	390 U	91 J	390 U	390 U	390 U	390 U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	800 U	800 U	800 U	800 U	800 U	800 U	800 U	800 U	800 U	800 U	800 U	800 U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	400 U	400 U	400 U	400 U	400 U	400 U	18 J	400 U	400 U	400 U	400 U	400 U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	430 U	430 U	63 J	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U	430 U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	420 U	420 U	74 J	420 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U	420 U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	400 U	400 U	400 U	400 U	400 U	400 U	59 J	400 U	400 U	400 U	400 U	400 U
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	2,500 J	39,000 J	44,000 U	44,000 U	44,000 U	44,000 U	82,000	39,000 J	44,000 U	44,000 U	44,000 U	44,000 U
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	430 U	430 U	43 J	430 U	430 U	430 U	86 J	430 U	430 U	430 U	430 U	430 U
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	130,000 J	540,000 J	840,000 U	840,000 U	840,000 U	840,000 U	2,800,000	630,000 J	840,000 U	840,000 U	840,000 U	840,000 U
GCMW-41	SB41IB-S-NG	S	5	10	ft	5,000 J	55,000	40,000 U	40,000 U	40,000 U	40,000 U	120,000	55,000	40,000 U	40,000 U	40,000 U	40,000 U
GCMW-41	SB41IL-S-NG	S	55	58	ft	6 J	200 U	200 U	200 U	200 U	200 U	120	19 J	200 U	200 U	200 U	200 U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	**750** J	**590** U	--	**480** J	**590** U	**590** U	**590** U	--	**2,100**	**590** U	**2,600**	**16,100**
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	**110,000** J	**800,000** U	--	**4,300,000**	**800,000** U	**800,000** U	**800,000** U	--	**1,600,000**	**170,000** J	**740,000** J	**11,320,000**
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	**550** U	**550** U	--	**1,300**	**550** U	**550** U	**550** U	--	**550** U	**550** U	**550** U	**1,300**
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	**2,700** J	**10,000** U	--	**56,000**	**10,000** U	**10,000** U	**10,000** U	--	**34,000**	**1,700** J	**16,000**	**198,350**
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	**390** U	**390** U	--	**420**	**390** U	**390** U	**390** U	--	**390** U	**390** U	**390** U	**849**
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	**1,100** U	**1,100** U	--	**5,300**	**1,100** U	**1,100** U	**1,100** U	--	**1,100** U	**76** J	**1,100** U	**6,530**
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	**710** U	**710** U	--	**3,300**	**710** U	**710** U	**710** U	--	**710** U	**53** J	**710** U	**3,581**
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	**42** J	**400** U	--	**390** J	**400** U	**400** U	**400** U	--	**400** J	**38** J	**400** U	**1,676**
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	**410** U	**410** U	--	**140** J	**410** U	**410** U	**410** U	--	**410** U	**410** U	**410** U	**207**
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	**380** U	**380** U	--	**39** J	**380** U	**380** U	**380** U	--	**380** U	**520**	**380** U	**39**
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	**240,000** J	**1,900,000** U	--	**11,000,000**	**1,900,000** U	**1,900,000** U	**1,900,000** U	--	**3,200,000**	**340,000** J	**1,600,000** J	**24,860,000**
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	**360** U	**360** U	--	**360** U	**360** U	**360** U	**360** U	--	**360** U	**360** U	**360** U	**0** U
GCMW-40	SB40IB-S-NG	S	5	10	ft	**170,000** J	**810,000** U	--	**7,100,000**	**810,000** U	**810,000** U	**810,000** U	**1,600,000** U	**2,100,000**	**230,000** J	**910,000**	**16,130,000**
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**2.6** J	**190** U	--	**14**	**190** U	**190** U	**190** U	**7.5** UJ	**15**	**42** J	**9.1**	**96.8**
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	**2,600** J	**4,500** U	--	**22,000**	**4,500** U	**4,500** U	**4,500** U	--	**26,000**	**4,500** U	**13,000**	**131,490**
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	**560** U	**560** U	--	**1,300**	**560** U	**560** U	**560** U	--	**180** J	**560** U	**88** J	**2,024**
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	**400** U	**400** U	--	**720**	**400** U	**400** U	**400** U	--	**46** J	**74** J	**400** U	**1,083**
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	**390** U	**390** U	--	**650**	**390** U	**390** U	**390** U	--	**80** J	**90** J	**390** U	**982**
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	**800** U	**800** U	--	**3,700**	**800** U	**800** U	**800** U	--	**800** U	**6,000**	**800** U	**4,216**
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	**400** U	**400** U	--	**130** J	**400** U	**400** U	**400** U	--	**24** J	**440**	**400** U	**196**
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	**430** U	**430** U	--	**430** U	**430** U	**430** U	**430** U	--	**20** J	**430** U	**430** U	**45**
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	**420** UJ	**420** U	--	**420** U	**420** U	**420** U	**420** U	--	**420** U	**420** U	**420** U	**0** U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	**400** UJ	**400** U	--	**400** U	**400** U	**400** U	**400** U	--	**76** J	**400** U	**57** J	**291**
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	**12,000** J	**44,000** U	--	**270,000**	**44,000** U	**44,000** U	**44,000** U	--	**150,000**	**44,000** U	**73,000**	**906,500**
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	**430** UJ	**430** U	--	**430** U	**430** U	**430** U	**430** U	--	**100** J	**430** U	**79** J	**381**
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	**570,000** J	**840,000** U	--	**820,000** J	**840,000** U	**840,000** U	**840,000** U	--	**4,300,000**	**840,000** U	**2,600,000**	**19,180,000**
GCMW-41	SB41IB-S-NG	S	5	10	ft	**14,000** J	**40,000** U	--	**420,000**	**40,000** U	**40,000** U	**40,000** U	**79,000** U	**220,000**	**40,000** U	**84,000**	**1,307,000**
GCMW-41	SB41IL-S-NG	S	55	58	ft	**20** J	**200** U	--	**20** U	**200** U	**200** U	**200** U	**40** UJ	**140**	**200** U	**79** J	**654.2**

National Grid – Smith St (MW40 & MW41)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**15**	J	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**81**	U	**41**	U	**81**	U	**230**	J	**81**	U	**81**	U
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**5.4**	U	**2.7**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**5**	U	**2.5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.2**	U	**2.1**	U	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4.1**	U	**2**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**77**	U	**38**	U	**77**	U	**300**	JN	**77**	U	**77**	U
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	10	R	**3.9**	UJ	**3.9**	UJ	**270**	J	**3.9**	UJ	18	R	**26**	J	11	R	**7.6**	UJ	**7.6**	UJ	**22**	NJ
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	**2.4**	U	**2.4**	U	**2.4**	U	**2.4**	U	**16**	J	**4.8**	U	**6.6**	J	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**6**	U	**3**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4.1**	U	**2**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.2**	U	**2.1**	U	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**4.5**	U	**2.3**	U	**4.5**	U	**4.5**	U	**4.5**	U	**4.5**	U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.3**	U	**2.1**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4.1**	U	**2**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**5.3**	JN	**4.3**	U	**5.7**	J	**4.3**	U	**11**	JN	**4.3**	U	**6.1**	J
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**4.4**	U	**2.2**	U	**4.4**	U	**4.4**	U	**4.4**	U	**4.4**	U
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	**9.5**	U	**9.5**	U	**9.5**	U	**120**	JN	**9.5**	U	**19**	U	**9.5**	U	**19**	U	**19**	U	**19**	U	**19**	U
GCMW-41	SB41IB-S-NG	S	5	10	ft	**2.1**	U	**2.1**	U	**2.1**	U	**48**	NJ	6.6	R	**4**	U	3.1	R	**4**	U	12	R	**4**	U	**4**	UJ
GCMW-41	SB41IL-S-NG	S	55	58	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	U	**4**	U

National Grid – Smith St (MW40 & MW41)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	**81**	U	**41**	U	**160**		**41**	U	**41**	U	**410**	U	**81**	U	**81**	U	**81**	U	**4,100**	U	**0**	U
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	**5.4**	U	**2.7**	U	**2.7**	U	**2.7**	U	**2.7**	U	**27**	U	**5.4**	U	**5.4**	U	**5.4**	U	**270**	U	**0**	U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	**5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**2.5**	U	**25**	U	**5**	U	**5**	U	**5**	U	**250**	U	**0**	U
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	**4.2**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**4.2**	U	**210**	U	**0**	U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	**4.1**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4.1**	U	**4.1**	U	**4.1**	U	**200**	U	**0**	U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	**77**	U	**38**	U	**200**		**38**	U	**38**	U	**380**	U	**77**	U	**77**	U	**77**	U	**3,800**	U	**0**	U
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	**43**	NJ	**3.9**	UJ	4.4	R	**11**	J	**96**	J	210	R	20	R	**7.6**	UJ	35	R	**390**	UJ	--	
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	**4.8**	U	**3.6**	J	**2.4**	U	**2.4**	U	**2.4**	U	**24**	U	**4.8**	U	**4.8**	U	**4.8**	U	**240**	U	**0**	U
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	**6**	U	**3**	U	**3**	U	**3**	U	**3**	U	**30**	U	**6**	U	**6**	U	**6**	U	**300**	U	**0**	U
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	**4.1**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4.1**	U	**4.1**	U	**4.1**	U	**200**	U	**0**	U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	**4.2**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.2**	U	**4.2**	U	**4.2**	U	**210**	U	**0**	U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	**4.5**	U	**2.3**	U	**2.3**	U	**2.3**	U	**2.3**	U	**23**	U	**4.5**	U	**4.5**	U	**4.5**	U	**230**	U	**0**	U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	**4.3**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.3**	U	**4.3**	U	**4.3**	U	**210**	U	**0**	U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	**4.1**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4.1**	U	**4.1**	U	**4.1**	U	**200**	U	**0**	U
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	**23**	J	**2.1**	U	**16**	J	**4.7**	JN	**2.1**	U	**21**	U	**4.3**	U	**6.1**	JN	**6.5**	JN	**210**	U	**12.6**	
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	**4.4**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**22**	U	**4.4**	U	**4.4**	U	**4.4**	U	**220**	U	**0**	U
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	**77**	J	**9.5**	U	**39**	J	**9.5**	U	**9.5**	U	**95**	U	**19**	U	**19**	U	**19**	U	**950**	U	**0**	U
GCMW-41	SB41IB-S-NG	S	5	10	ft	**17**	J	**3.8**	J	**9.6**	NJ	4.4	R	**2.1**	UJ	**21**	U	**16**	NJ	**4**	U	5.6	R	**210**	U	--	
GCMW-41	SB41IL-S-NG	S	55	58	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U

National Grid – Smith St (MW40 & MW41)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**36**		**19**	U	**19**	U	**19**	U	**36**	
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	20	UR	20	UR	20	UR	20	UR	20	UR	20	UR	20	UR	20	UR	20	UR	--	
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U	**0**	U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**25**	U	**0**	U
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	19	UR	19	UR	19	UR	19	UR	19	UR	19	UR	19	UR	19	UR	19	UR	--	
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**0**	U
GCMW-40	SB40IB-S-NG	S	5	10	ft	37	UR	37	UR	37	UR	37	UR	37	UR	37	UR	37	UR	37	UR	37	UR	--	
GCMW-40	SB40IJ-S-NG	S	55	58	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**0**	U
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	**30**	U	**30**	U	**30**	U	**30**	U	**30**	U	**30**	U	**30**	U	**30**	U	**30**	U	**0**	U
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**23**	U	**0**	U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**0**	U
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**21**	U	**0**	U
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	**22**	U	**22**	U	**22**	U	**22**	U	**22**	U	**22**	U	**22**	U	**22**	U	**22**	U	**0**	U
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**0**	U
GCMW-41	SB41IB-S-NG	S	5	10	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-41	SB41IL-S-NG	S	55	58	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U

National Grid – Smith St (MW40 & MW41)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	4,310	0.082 UJ	5.1	39.4	0.43 J	0.19 J	78,700	9.3 J	3.8 J	25.8	10,300
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	5,790	0.31 UJ	6.1	24	0.41 J	0.11 UJ	2,000 J	11.5	4.5 J	10.2	10,900
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	12,000	0.43 UJ	8.5 J	22.9 J	0.81	0.2 UJ	4,440 J	24.8	8.3	10.8	28,200
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	11,700	0.42 UJ	7.6 J	25.4 J	0.77	0.18 UJ	2,910 J	22.9	7.9	10.5	27,000
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	4,000	0.26 UJ	3.1	6.9 J	0.37 J	0.055 UJ	344 J	8.5	3.3 J	6.4	9,510
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	4,900	0.28 UJ	2.4	27.3	0.47	0.095 UJ	538 J	10.8	4.5 J	6	9,590
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	4,810	0.28 UJ	2.1	29.5	0.43 J	0.069 UJ	586 J	11.1	4.8	6.4	13,000
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	3,210	0.25 UJ	1.4 U	11.7 J	0.23 J	0.11 UJ	313 J	6.5	6.1	5.1	7,740
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	2,840	0.35 UJ	3.9	14.9 J	0.19 J	0.33 J	291 J	5.5	5.2 J	5.9	11,100
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	2,660	0.3 UJ	7.2	17.8 J	0.23 J	0.046 UJ	255 UJ	7.4	4.3 J	5.2	14,700
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	7,470	0.28 UJ	7	43.7	0.59	0.14 UJ	1,710 J	15	7.2	16.8	12,900
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	2,690	0.3 UJ	3.8	20 J	0.23 J	0.058 UJ	291 J	5.8	3.8 J	5.1	11,100
GCMW-40	SB40IB-S-NG	S	5	10	ft	6,290	5.6 U	6.7 J	38.8	0.47 U	0.47 U	2,180	12.7 J	5.7	14.8	10,900
GCMW-40	SB40IJ-S-NG	S	55	58	ft	2,200	5.2 U	3.6 J	17.4 U	0.44 U	0.44 U	434 U	5.7 J	4.4 U	5.5	10,800
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	9,420	0.089 UJ	5.8	43.5	0.7	0.1 UJ	5,900	17.8	6.6	13.3	18,400
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	14,500	0.13 UJ	8.6	25.7 J	1.1	0.21 UJ	1,920	27.8	9.1	11.8	34,800
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	7,140	0.076 UJ	2.6	13.3 J	0.52	0.065 UJ	352 J	11.5	4.6	8.7	13,000
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	2,520	0.087 UJ	2.1 J	8.4 J	0.33 J	0.018 UJ	215 J	6.9	2.3 J	2.7	7,620
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	5,750	0.085 UJ	2.5	27.7	0.56	0.065 UJ	761	13	5.8	6.9	10,800
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	3,980	0.068 UJ	1.2 J	13.3 J	0.35 J	0.061 UJ	437	8.5	4.6	5.7	9,940
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	3,710	0.099 UJ	1.8 J	13.6 J	0.3 J	0.082 UJ	332 J	7.2	6.5	6.4	9,250
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	2,820	0.086 UJ	1.5 J	17.5 J	0.27 J	0.029 UJ	199 J	5.9	4.5 J	4.5	9,340
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	3,130	0.093 UJ	5.1	22.8	0.24 J	0.03 UJ	247 J	5.8	4.3 J	4.7	12,200
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	6,620	0.071 UJ	4.1	16.3 J	0.47	0.063 UJ	4,180	12.3	4.8	7.5	14,200
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	3,020	0.076 UJ	3.3	20.6	0.2 J	0.029 UJ	219 J	5.6	3.4 J	4.5	10,800
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	4,830	0.084 UJ	5.9	42.1 J	1 J	0.73 J	22,600 J	7.1 J	8.1	40.8 J	18,900 J
GCMW-41	SB41IB-S-NG	S	5	10	ft	4,180	6.1 U	3.4 J	20.4 U	0.25 J	0.51 U	4,760	9.3 J	5.1 U	7.2	9,940
GCMW-41	SB41IL-S-NG	S	55	58	ft	1,750	6.1 U	3 J	20.3 U	0.12 J	0.51 U	507 U	4.4 J	5.1 U	4.2	8,120

National Grid – Smith St (MW40 & MW41)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-40	GC-MW40D(0-5)	N	0	5	ft	54.9 J	6,580 J	232 J	0.28	11.1	900	0.24 UJ	0.039 UJ	1,080	0.044 U	13.9	47.8	0.54 U
GCMW-40	GC-MW40I(10-15)	N	10	15	ft	34.7 J	2,530	184	0.81 J	17.6	897	0.27 UJ	0.11 U	123 UJ	0.37 U	13.7	34.3	9.4
GCMW-40	GC-MW40I(15-20)	N	15	20	ft	11.7 J	6,390	327	0.021 U	24.7	2,700	0.38 UJ	0.16 U	867	0.52 U	26.9	58.5	-- U
GCMW-40	GC-MW40I(20-25)	N	20	25	ft	11.3 J	5,690	294	0.022 U	21.9	2,520	0.36 UJ	0.15 U	859	0.5 U	25.5	56.2	-- U
GCMW-40	GC-MW40I(25-30)	N	25	30	ft	3.6 UJ	1,210	48.8	0.017 U	6.7	616	0.23 UJ	0.097 U	78.5 UJ	0.32 U	12.6	22.6	-- U
GCMW-40	GC-MW40I(30-35)	N	30	35	ft	5.2 UJ	1,550	64.4	0.015 U	10.2	815	0.24 UJ	0.1 U	47.9 UJ	0.34 U	16.6	29.2	-- U
GCMW-40	GC-MW40I(35-40)	N	35	40	ft	6.2 UJ	1,800	94.1	0.016 U	8.1	854	0.24 UJ	0.1 U	63.7 UJ	0.33 U	17	28.6	-- U
GCMW-40	GC-MW40I(40-45)	N	40	45	ft	4.1 UJ	1,430	71.8	0.016 U	9.1	525	0.21 UJ	0.09 U	88.9 UJ	0.3 U	9.8	21.9	-- U
GCMW-40	GC-MW40I(45-50)	N	45	50	ft	3.7 UJ	1,270	111	0.018 U	8.8	523 J	0.3 UJ	0.13 U	140 UJ	0.41 U	8.1	19.5	-- U
GCMW-40	GC-MW40I(50-55)	N	50	55	ft	4.7 UJ	1,230	237	0.019 U	7.8	431 J	0.26 UJ	0.11 U	123 UJ	0.36 U	12.2	18.7	-- U
GCMW-40	GC-MW40I(5-10)	N	5	10	ft	55.6 J	3,010	222	1.9	32.8	1,100	0.24 UJ	0.1 U	85.2 UJ	0.33 U	18.4	50	13.3
GCMW-40	GC-MW40I(55-58)	N	55	58	ft	3.5 UJ	1,400	187	0.015 U	8.3	488 J	0.26 UJ	0.11 U	210 UJ	0.36 U	8.3	17.3	-- U
GCMW-40	SB40IB-S-NG	S	5	10	ft	40.6	2,160	199	1.7	27.8	818	0.76 J	0.2 J	467 U	2.3 U	15.5	45.4	7.6
GCMW-40	SB40IJ-S-NG	S	55	58	ft	2.9	1,110	157	0.1 U	8.3	353 J	0.57 J	0.25 J	434 U	2.2 U	8.5	20.1	2.7 U
GCMW-41	GC-MW41I(10-15)	N	10	15	ft	53.8 J	6,310	269 J	0.16	31.5	1,900	0.14 U	0.043 UJ	310 J	0.048 U	20	55.6	0.67 U
GCMW-41	GC-MW41I(15-20)	N	15	20	ft	12.5 J	6,600 J	331	0.022 U	23.7	3,010	0.2 U	0.061 UJ	1,200 J	0.068 U	32.9	64.7	0.83 U
GCMW-41	GC-MW41I(20-25)	N	20	25	ft	5.4 J	2,980	90.7 J	0.016 U	13.8	939	0.12 U	0.037 U	262 J	0.041 U	14	30	0.6 U
GCMW-41	GC-MW41I(25-30)	N	25	30	ft	2.5 J	730	42.1 J	0.019 U	5.3	599	0.22 UJ	0.042 U	53.8 J	0.047 U	11.8	19.2	0.58 U
GCMW-41	GC-MW41I(30-35)	N	30	35	ft	6.8 J	2,260	109 J	0.017 U	12	1,130	0.17 UJ	0.041 U	134 J	0.046 U	20.2	33.3	0.61 U
GCMW-41	GC-MW41I(35-40)	N	35	40	ft	5.1 J	1,920	86.9 J	0.019 U	10	825	0.11 U	0.033 U	140 J	0.037 U	13.5	26.1	0.58 U
GCMW-41	GC-MW41I(40-45)	N	40	45	ft	5.9 J	1,850	117 J	0.016 U	11.9	770	0.26 UJ	0.048 U	145 J	0.053 U	10.8	26.8	0.63 U
GCMW-41	GC-MW41I(45-50)	N	45	50	ft	4.8 J	1,310	63.3 J	0.017 U	9.1	575	0.37 UJ	0.041 U	88.2 J	0.046 U	8.6	18	0.62 U
GCMW-41	GC-MW41I(50-53)	N	50	53	ft	3.6 J	1,530	186 J	0.016 U	7.5	589	0.27 UJ	0.045 U	216 J	0.05 U	8.6	18.9	0.59 U
GCMW-41	GC-MW41I(5-10)	N	5	10	ft	10.9 J	4,130	154 J	0.065	23	1,160	0.11 U	0.034 UJ	276 J	0.039 U	13.8	33.1	0.61 U
GCMW-41	GC-MW41I(53-58)	N	53	58	ft	3.3 J	1,430	123 J	0.019 U	7.1	593	0.27 UJ	0.037 U	111 J	0.042 U	7	18.5	0.65 U
GCMW-41	GC-MW41S(0-5)	N	0	5	ft	38.7	9,460	197 J	0.28	13.9 J	696	0.13 U	0.041 UJ	579 J	0.046 UJ	50.2	49.9	0.53 U
GCMW-41	SB41IB-S-NG	S	5	10	ft	8.8 J	2,680	129 J	0.15 J	18.2	588	0.93 J	1 U	292 J	2.6 U	10.6	28.4	3 U
GCMW-41	SB41IL-S-NG	S	55	58	ft	2.7	780	111	0.061 J	6.4	166 J	0.55 J	0.98 U	230 J	2.5 U	6.9	15.7	2.9 U

National Grid – Smith St

(MW40 & MW41)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-40	GC-MW40I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0.01**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**0.01**	U	**0.01**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Depth	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane	
MW-40	GC-MW40I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	50	R	**5**	U	5	R	**32**		**1**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	50	R	**5**	U	5	R	**1**	U	**1**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--		**5**	U	**5**	U	**0.12**	J	**0.5**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	170	R	**17**	U	17	R	**120**		**3.4**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--		**5**	U	**5**	U	**110**	J	**0.5**	U

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Depth	Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene	
MW-40	GC-MW40I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**3.8**		**1**	U	**1**	U	**1**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**1**	U	**1**	U	**1**	UJ	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.091**	J	**0.5**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**3.4**	U	**3.4**	U	**3.4**	UJ	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Depth	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane
MW-40	GC-MW40I	N	Intermediate	**1** U	**1** U	**1** U	**0.65** J	**1** U	**2.3**	1 R	5 R	**5** U	**1** U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	1 R	5 R	**5** U	**1** U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.069** J	**0.5** U	**0.14** J	**0.5** U	**5** U	**5** U	**0.5** U
MW-41	GC-MW-41S(8-13)	N	Shallow	**2.6** J	**3.4** U	**3.4** U	**92**	**9.8**	**110**	3.4 R	17 R	**17** U	**4.1**
MW-41	GC-MW41S-S-NG	S	Shallow	**2.3**	**0.5** U	**0.5** U	**84** J	**9.6**	**110** J	**0.5** U	**5** U	**5** U	**4**

National Grid – Smith St (MW40 & MW41)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Depth	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-40	GC-MW40I	N	Intermediate	**1**	U	**1.2**		**0.79**	J	**1**	U	**1**	U	**8.5**		**1**	U	**1**	U	**1**	U	**1**	U	**1**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.5**	U	**0.048**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.12**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**3.4**	U	**58**		**4.4**		**1.3**	J	**3.4**	U	**32**		**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U	**3.4**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**0.5**	U	**51**	J	**0.5**	U	**0.5**	U	**0.5**	U	**31**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
MW-40	GC-MW40I	N	Intermediate	**26**	U	**26**	U	**64**	U	**26**	U	**26**	U	**63**		**64**	UJ	**26**	U	**26**	U	**26**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**9.4**	U	**9.4**	U	**24**	U	**9.4**	U	**9.4**	U	**9.4**	U	**24**	U	**9.4**	U	**9.4**	U	**9.4**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**9.5**	U	**4.7**	U	**4.7**	U	**4.7**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**140**	U	**140**	U	**360**	U	**140**	U	**140**	U	**80**	J	**360**	U	**140**	U	**140**	U	**140**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**75**		**48**	U	**24**	U	**24**	U	**24**	U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Groundwater (ug/L)
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Location ID	Field ID	Sample Type	Depth	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
MW-40	GC-MW40I	N	Intermediate	**26**	U	**0.88**		**67**		**64**	U	**26**	U	**26**	U	**64**	U	**64**	U	**26**	U	**26**	U	**26**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**9.4**	U	**1.7**	J	**9.4**	U	**24**	U	**9.4**	U	**9.4**	U	**24**	U	**24**	U	**9.4**	U	**9.4**	U	**9.4**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**4.7**	U	**0.64**	U	**4.7**	U	**9.5**	U	**4.7**	U	**4.7**	U	**9.5**	U	**9.5**	U	**4.7**	U	**4.7**	U	**4.7**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**140**	U	**110**	J	**50**	J	**360**	U	**140**	U	**140**	U	**360**	U	**360**	U	**140**	U	**140**	U	**140**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**24**	U	**110**		**59**		**48**	U	**24**	U	**24**	U	**48**	U	**48**	U	**24**	U	**24**	U	**24**	U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene
MW-40	GC-MW40I	N	Intermediate	**26** U	**120**	**64** U	--	**0.41**	**0.5**	**26** U	**1.1**	**26** U	**26** U	**0.13** U	**0.13** U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**9.4** U	**9.4** U	**24** U	--	**4**	**0.21** J	**9.4** U	**2.3**	**9.4** U	**9.4** U	**0.38** U	**0.38** U
MW-41	GC-MW41I-S-NG	S	Intermediate	**4.7** U	**4.7** U	**9.5** U	**9.5** U	**6.7**	**0.82**	**4.7** U	**3.9**	**4.7** U	**4.7** U	**0.21** J	**0.64** U
MW-41	GC-MW-41S(8-13)	N	Shallow	**140** U	**81** J	**360** U	--	**170**	**3.1**	**140** U	**22** J	**140** U	**140** U	**1.9** U	**1.9** U
MW-41	GC-MW41S-S-NG	S	Shallow	**24** U	**110**	**48** U	**48** U	**180**	**6.6** J	**24** U	**24** J	**24** U	**24** U	**0.99** J	**2.7** U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Groundwater (ug/L)
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Location ID	Field ID	Sample Type	Depth	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole	
MW-40	GC-MW40I	N	Intermediate	**0.13**	U	**0.068**	J	**0.07**	J	**26**	U	**0.21**		**26**	U	**26**	U	**26**	U	**26**	U	**8.5**	J	**26**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**0.38**	U	**0.38**	U	**0.38**	U	**9.4**	U	**0.82**		**9.4**	U	**9.4**	U	**9.4**	UJ	**9.4**	U	**9.4**	U	**2.4**	J
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.64**	U	**0.64**	U	**0.64**	U	**4.7**	U	**1.4**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**2.6**	J
MW-41	GC-MW-41S(8-13)	N	Shallow	**1.9**	U	**1.9**	U	**1.9**	U	**140**	U	**21**	J	**140**	U	**140**	U	**140**	UJ	**140**	U	**140**	U	**77**	J
MW-41	GC-MW41S-S-NG	S	Shallow	**2.7**	U	**2.7**	U	**2.7**	U	**24**	U	**22**	J	**24**	U	**24**	U	**24**	U	**24**	U	**24**	U	**56**	

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Groundwater (ug/L)
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Location ID	Field ID	Sample Type	Depth	Chrysene		Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene	
MW-40	GC-MW40I	N	Intermediate	**0.074**	J	**0.13**	U	**26**	U	**26**	U	**26**	U	**26**	U	**26**	U	**1.4**		**0.68**		**26**	U	**26**	U	**26**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**0.38**	U	**0.38**	U	**5**	J	**9.4**	U	**9.4**	U	**9.4**	U	**9.4**	U	**1.7**		**3.9**		**9.4**	U	**9.4**	U	**9.4**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.19**	J	**0.64**	U	**4.6**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**3.5**		**7.1**		**4.7**	U	**4.7**	U	**4.7**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**1.9**	U	**1.9**	U	**90**	J	**140**	U	**140**	U	**140**	U	**140**	U	**23**	J	**78**	J	**140**	U	**140**	U	**140**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**0.69**	J	**2.7**	U	**89**		**24**	U	**24**	U	**24**	U	**24**	U	**23**	J	**78**		**24**	U	**24**	U	**24**	U

National Grid – Smith St (MW40 & MW41)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-40	GC-MW40I	N	Intermediate	**26** U	**0.13** U	**26** U	**0.19** U	**26** U	**26** U	**26** U	--	**4.2**	**74**	**0.8**	**10.182**
MW-41	GC-MW-41I(53-58)	N	Intermediate	**9.4** U	**0.38** U	**9.4** U	**3** J	**9.4** U	**9.4** U	**9.4** U	--	**14**	**9.4** U	**1**	**31.81**
MW-41	GC-MW41I-S-NG	S	Intermediate	**4.7** U	**0.64** U	**4.7** U	**0.72**	**4.7** U	**4.7** U	**4.7** U	1.3 UR	**19**	**4.7** U	**2.4**	**44.54**
MW-41	GC-MW-41S(8-13)	N	Shallow	**140** U	**1.9** U	**140** U	**940**	**140** U	**140** U	**140** U	--	**150**	**33** J	**14** J	**1,510**
MW-41	GC-MW41S-S-NG	S	Shallow	**24** U	**2.7** U	**24** U	**320**	**24** U	**24** U	**24** U	5.4 UR	**150**	**64**	**16** J	**909.28**

National Grid – Smith St (MW40 & MW41)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-40	GC-MW40I	N	Intermediate	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.1**	UJ	**0.051**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ
MW-41	GC-MW-41I(53-58)	N	Intermediate	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.1**	U	**0.052**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.047**	U	**0.047**	U	**0.047**	U	**0.047**	U	**0.047**	U	**0.094**	U	**0.047**	U	**0.094**	U	**0.094**	U	**0.094**	U	**0.094**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.099**	UJ	**0.05**	UJ	**0.099**	UJ	**0.099**	UJ	**0.099**	UJ	**0.099**	UJ
MW-41	GC-MW41S-S-NG	S	Shallow	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.094**	UJ	**0.047**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ

National Grid – Smith St (MW40 & MW41)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-40	GC-MW40I	N	Intermediate	**0.1**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.051**	UJ	**0.51**	UJ	**0.1**	UJ	**0.1**	UJ	**0.1**	UJ	**5.1**	UJ	**0**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**0.1**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.052**	U	**0.52**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5.2**	U	**0**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.094**	U	**0.047**	U	**0.047**	U	**0.047**	U	**0.047**	U	**0.47**	U	**0.094**	U	**0.094**	U	**0.094**	U	**4.7**	U	**0**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**0.099**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.05**	UJ	**0.5**	UJ	**0.099**	UJ	**0.099**	UJ	**0.099**	UJ	**5**	UJ	**0**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**0.094**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.047**	UJ	**0.47**	UJ	**0.094**	UJ	**0.094**	UJ	**0.094**	UJ	**4.7**	UJ	**0**	U

National Grid – Smith St (MW40 & MW41)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-40	GC-MW40I	N	Intermediate	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0.51**	U	**0**	U
MW-41	GC-MW-41I(53-58)	N	Intermediate	**0.52**	U	**0.52**	U	**0.52**	U	**0.52**	U	**0.52**	U	**0.52**	U	**0.52**	U	**0.52**	U	**0.52**	U	**0**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0.99**	U	**0**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0**	U
MW-41	GC-MW41S-S-NG	S	Shallow	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0.95**	U	**0**	U

National Grid – Smith St (MW40 & MW41)

Metal and Cyanide Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Sample ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-40	GC-MW40I	N	Intermediate	**14.4**	UJ	**4.1**	U	**0.78**	UJ	**0.81**	UJ	**1.8**	J	**1.8**	J	**616**	**605**	**0.098**	UJ	**0.1**	UJ	**0.081**	UJ	**0.076**	UJ
MW-41	GC-MW-41I(53-58)	N	Intermediate	**11.1**	UJ	**4.1**	U	**0.71**	UJ	**0.73**	UJ	**0.3**	UJ	**0.76**	UJ	**299**	**298**	**0.1**	UJ	**0.11**	UJ	**0.061**	UJ	**0.053**	UJ
MW-41	GC-MW41I-S-NG	S	Intermediate	**20.1**	J	**200**	U	**2**	U	**2**	U	**4.3**		**4.4**		**300**	**297**	**1**	U	**1**	U	**1**	U	**1**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**284**		**204**		**0.78**	UJ	**0.78**	UJ	**1.3**	J	**1.2**	J	**132**	**127**	**0.11**	UJ	**0.095**	UJ	**0.11**	UJ	**0.15**	UJ
MW-41	GC-MW41S-S-NG	S	Shallow	**73.4**	J	**200**	U	**2**	U	**2**	U	**7**	J	**4**		**134**	**136**	**1**	U	**1**	U	**1**	U	**1**	U

National Grid – Smith St (MW40 & MW41)

Metal and Cyanide Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Sample ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium		Chromium, dissolved		Cobalt		Cobalt, dissolved		Copper		Copper, dissolved		Iron		Iron, dissolved		Lead		Lead, dissolved	
MW-40	GC-MW40I	N	Intermediate	**75,600**	**72,900**	**3.9**	UJ	**4**	U	**3.5**	J	**3.6**	J	**3.9**	UJ	**4.4**	UJ	**824**	J	**557**	J	**0.28**	UJ	**0.19**	UJ
MW-41	GC-MW-41I(53-58)	N	Intermediate	**37,800**	**37,100**	**4.4**	U	**4.1**	U	**0.9**	UJ	**0.87**	UJ	**1.8**	UJ	**7.1**	J	**569**	J	**526**	J	**0.22**	UJ	**0.21**	UJ
MW-41	GC-MW41I-S-NG	S	Intermediate	**35,800**	**34,700**	**1.2**	J	**2**	U	**1.1**		**1.1**		**2.2**		**2.6**		**610**	J	**506**		**1**	U	**2.6**	J
MW-41	GC-MW-41S(8-13)	N	Shallow	**223,000**	**218,000**	**4.4**	U	**4**	U	**0.22**	UJ	**0.19**	UJ	**2.6**	UJ	**3.2**	UJ	**7,510**	J	**6,670**	J	**0.66**	UJ	**0.19**	UJ
MW-41	GC-MW41S-S-NG	S	Shallow	**207,000**	**215,000**	**1.2**	J	**1.1**	J	**1**	U	**1**	U	**2**	U	**2**	U	**6,630**	J	**6,650**		**2.9**	J	**4.4**	J

National Grid – Smith St (MW40 & MW41)

Metal and Cyanide Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Sample ID	Sample Type	Depth	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium	Potassium, dissolved	Selenium		Selenium, dissolved	
MW-40	GC-MW40I	N	Intermediate	**194,000**	**195,000**	**6,340**	**6,260**	**0.1**	U	**0.1**	U	**7.2**	J	**6.6**	J	**70,600**	**71,800**	**5**	UJ	**6**	UJ
MW-41	GC-MW-41I(53-58)	N	Intermediate	**79,600**	**79,300**	**2,100**	**2,090**	**0.1**	U	**0.1**	U	**8.1**	J	**7.6**	J	**46,400**	**46,200**	**4.2**	UJ	**4.3**	UJ
MW-41	GC-MW41I-S-NG	S	Intermediate	**76,900**	**75,800**	**2,120**	**2,090**	**0.2**	U	**0.2**	U	**10.7**	J	**9.8**	J	**45,000**	**44,500**	12.5	R	12.1	R
MW-41	GC-MW-41S(8-13)	N	Shallow	**48,200**	**47,100**	**2,060**	**2,020**	**0.1**	U	**0.1**	U	**0.0082**	U	**0.0082**	U	**31,500**	**30,800**	**2.3**	UJ	**2.2**	UJ
MW-41	GC-MW41S-S-NG	S	Shallow	**44,900**	**46,500**	**2,040**	**2,210**	**0.2**	U	**0.2**	U	**3.8**		**3.9**		**29,800**	**30,900**	1.8	R	1.9	R

National Grid – Smith St (MW40 & MW41)

Metal and Cyanide Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Sample ID	Sample Type	Depth	Silver		Silver, dissolved		Sodium	Sodium, dissolved	Thallium		Thallium, dissolved		Vanadium		Vanadium, dissolved		Zinc		Zinc, dissolved		Cyanide, Total	
MW-40	GC-MW40I	N	Intermediate	**0.22**	UJ	**0.21**	UJ	**1,590,000**	**1,620,000**	**0.21**	UJ	**0.2**	UJ	**0.3**	UJ	**0.3**	UJ	**0.018**	UJ	**0.018**	UJ	**10.2**	
MW-41	GC-MW-41I(53-58)	N	Intermediate	**0.21**	UJ	**0.21**	UJ	**1,280,000**	**1,270,000**	**0.2**	UJ	**0.2**	UJ	**0.3**	UJ	**0.3**	UJ	**0.018**	UJ	**2.4**	UJ	**10**	U
MW-41	GC-MW41I-S-NG	S	Intermediate	**0.39**	J	**0.45**	J	**1,150,000**	**1,130,000**	**1**	U	**1**	U	**0.99**	UJ	**0.79**	UJ	**32.4**		**25.6**		**10**	U
MW-41	GC-MW-41S(8-13)	N	Shallow	**0.21**	UJ	**0.21**	UJ	**604,000**	**577,000**	**0.2**	UJ	**0.19**	UJ	**5.1**	J	**4.7**	J	**0.52**	UJ	**0.26**	UJ	**21.8**	
MW-41	GC-MW41S-S-NG	S	Shallow	**1**	U	**0.38**	J	**592,000**	**599,000**	**1**	U	**1**	U	**5.2**		**4.6**	J	**36.3**		**29.6**		**20.1**	

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Amerada Hess

(MW15 & MW16)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 764 Court St. (Amerada Hess)
Monitoring Well Soil Borings Installed at Address: GC-MW-15 & GC-MW-16
Intermediate Monitoring Wells Installed at Address: GC-MW-15I & GC-MW-16I
Shallow Monitoring Wells Installed at Address: GC-MW-15S & GC-MW-16S

GC-MW-15

The soil samples from the soil boring installed for the intermediate well (situated approximately 32 feet from the canal) contained 47 VOCs, 122 SVOCs, 15 pesticides, 0 PCBs, and 167 metals. From these, 0 VOCs, 14 SVOCs, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening value. The SVOC occurring at the highest concentration above screening value was benzo(a)anthracene (39,000 µg/kg). The metal occurring at the highest concentration above screening value was lead (628 mg/kg).

Shallow groundwater

The shallow well (depth of approximately13 ft bgs and situated approximately 32 feet from the canal) contained 0 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 19 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (3,010 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately60 ft bgs and situated approximately 32 feet from the canal) contained 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 16 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,410 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-16

The soil samples from the soil boring installed for the intermediate well (situated approximately 254 feet from the canal) contained 42 VOCs, 75 SVOCs, 5 pesticides, 0 PCBs, and 144 metals. From these, 0 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 1 metal exceeded the screening value. The SVOC occurring at the highest concentration above screening value was chrysene (1,300 µg/kg). The metal occurring at the highest concentration above screening value was mercury (0.82 mg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 254 feet from the canal) contained 7 VOCs, 15 SVOCs, 0 pesticides, 0 PCBs, and 17 metals. From these, 1 VOC, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was isopropylbenzene (cumene) - (19 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (25,700 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately59 ft bgs and situated approximately 254 feet from the canal) contained 0 VOCs, 12 SVOCs, 0 pesticides, 0 PCBs, and 15 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (1,390 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

Amerada Hess (MW15 & MW16)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
GCMW-15	059-2089	N	5	10	ft	**6.2**	U	6.2	UR	**6.2**	U	**6.2**	U	6.2	UR	**6.2**	U	**6.2**	U	**6.2**	U	6.2	UR	**6.2**	U
GCMW-15	059-2090	N	10	15	ft	**8.2**	U	8.2	UR	**8.2**	U	**8.2**	U	**8.2**	UJ	**8.2**	U	**8.2**	U	**8.2**	U	8.2	UR	**8.2**	U
GCMW-15	059-2091	N	15	20	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2092	N	20	25	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U
GCMW-15	059-2093	N	25	30	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2094	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-15	059-2095	N	35	40	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-15	059-2096	N	40	45	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-15	059-2097	N	45	50	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-15	059-2098	N	50	55	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2079	N	5	10	ft	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U
GCMW-16	059-2080	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2081	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-16	059-2082	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2083	N	25	30	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U
GCMW-16	059-2084	N	30	35	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-16	059-2085	N	40	45	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2086	N	45	50	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2087	N	50	55	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U

Amerada Hess (MW15 & MW16)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane	
GCMW-15	059-2089	N	5	10	ft	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	120	UR	**12**	U	**22**		**6.2**	U	6.2	UR	**6.2**	U
GCMW-15	059-2090	N	10	15	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	160	UR	**16**	U	**25**		**8.2**	U	**8.2**	UJ	**8.2**	U
GCMW-15	059-2091	N	15	20	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	110	UR	**11**	U	**27**		**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2092	N	20	25	ft	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	130	UR	**13**	U	**18**		**6.7**	U	**6.7**	U	**6.7**	U
GCMW-15	059-2093	N	25	30	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	110	UR	**11**	U	**11**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2094	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	100	UR	**10**	U	**6.4**	J	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-15	059-2095	N	35	40	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	120	UR	**12**	U	**6.7**	J	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-15	059-2096	N	40	45	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	120	UR	**12**	U	**9.3**	J	**6**	U	**6**	U	**6**	U
GCMW-15	059-2097	N	45	50	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	95	UR	**9.5**	U	**6.3**	J	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-15	059-2098	N	50	55	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	110	UR	**11**	U	**7.8**	J	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2079	N	5	10	ft	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	150	UR	**15**	U	**23**		**7.6**	U	**7.6**	U	**7.6**	U
GCMW-16	059-2080	N	10	15	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	110	UR	**11**	U	**19**		**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2081	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	120	UR	**12**	U	**14**		**6**	U	**6**	U	**6**	U
GCMW-16	059-2082	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	110	UR	**11**	U	**19**		**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2083	N	25	30	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	130	UR	**13**	U	**19**		**6.3**	U	**6.3**	U	**6.3**	U
GCMW-16	059-2084	N	30	35	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	110	UR	**11**	U	**11**		**5.5**	U	**5.5**	U	**5.5**	U
GCMW-16	059-2085	N	40	45	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	110	UR	**11**	U	**7.9**	J	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2086	N	45	50	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	110	UR	**11**	U	**9.2**	J	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2087	N	50	55	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	110	UR	**11**	U	**11**	U	**5.3**	U	**5.3**	U	**5.3**	U

Amerada Hess (MW15 & MW16)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane	
GCMW-15	059-2089	N	5	10	ft	6.2	UR	**6.2**	U	**9.2**		**6.2**	U	**6.2**	U	**6.2**	U	**53**	J	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U
GCMW-15	059-2090	N	10	15	ft	**8.2**	UJ	**8.2**	U	**18**		**8.2**	U	**8.2**	U	**8.2**	U	**53**	J	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-15	059-2091	N	15	20	ft	**5.6**	U	**5.6**	U	**9.1**		**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2092	N	20	25	ft	**6.7**	U	**6.7**	U	**7**		**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U
GCMW-15	059-2093	N	25	30	ft	**5.6**	U	**5.6**	U	**1.5**	J	**5.6**	U	**5.6**	U	**5.6**	U	**2.3**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2094	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-15	059-2095	N	35	40	ft	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-15	059-2096	N	40	45	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-15	059-2097	N	45	50	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-15	059-2098	N	50	55	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2079	N	5	10	ft	**7.6**	U	**7.6**	U	**3.4**	J	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U
GCMW-16	059-2080	N	10	15	ft	**5.4**	U	**5.4**	U	**1.9**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2081	N	15	20	ft	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-16	059-2082	N	20	25	ft	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2083	N	25	30	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U
GCMW-16	059-2084	N	30	35	ft	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-16	059-2085	N	40	45	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2086	N	45	50	ft	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2087	N	50	55	ft	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U

Amerada Hess (MW15 & MW16)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride	
GCMW-15	059-2089	N	5	10	ft	6.2	UR	**6.2**	U	**0.6**	J	**6.2**	U	**1.5**	J	**6.2**	U	**12**	U	**12**	U	**6.2**	U	**6.2**	U
GCMW-15	059-2090	N	10	15	ft	**8.2**	UJ	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**16**	U	**16**	U	**8.2**	U	**8.2**	U
GCMW-15	059-2091	N	15	20	ft	**5.6**	U	**5.6**	U	**0.27**	J	**5.6**	U	**0.79**	J	**5.6**	U	**11**	U	**11**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2092	N	20	25	ft	**6.7**	U	**6.7**	U	**0.47**	J	**6.7**	U	**1.5**	J	**6.7**	U	**13**	U	**13**	U	**6.7**	U	**6.7**	U
GCMW-15	059-2093	N	25	30	ft	**5.6**	U	**5.6**	U	**0.23**	J	**5.6**	U	**0.77**	J	**5.6**	U	**11**	U	**11**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2094	N	30	35	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**0.72**	J	**5.1**	U	**10**	U	**10**	U	**5.1**	U	**5.1**	U
GCMW-15	059-2095	N	35	40	ft	**6.1**	U	**6.1**	U	**0.35**	J	**6.1**	U	**1**	J	**6.1**	U	**12**	U	**12**	U	**6.1**	U	**6.1**	U
GCMW-15	059-2096	N	40	45	ft	**6**	U	**6**	U	**0.35**	J	**6**	U	**1.2**	J	**6**	U	**12**	U	**12**	U	**6**	U	**6**	U
GCMW-15	059-2097	N	45	50	ft	**4.7**	U	**4.7**	U	**0.26**	J	**4.7**	U	**0.77**	J	**4.7**	U	**9.5**	U	**9.5**	U	**4.7**	U	**4.7**	U
GCMW-15	059-2098	N	50	55	ft	**5.4**	U	**5.4**	U	**0.28**	J	**5.4**	U	**0.95**	J	**5.4**	U	**11**	U	**11**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2079	N	5	10	ft	**7.6**	U	**7.6**	U	**0.37**	J	**5.6**	J	**0.98**	J	**7.6**	U	**15**	U	**15**	U	**7.6**	U	**7.6**	U
GCMW-16	059-2080	N	10	15	ft	**5.4**	U	**5.4**	U	**0.35**	J	**0.16**	J	**1.1**	J	**5.4**	U	**11**	U	**11**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2081	N	15	20	ft	**6**	U	**6**	U	**0.3**	J	**6**	U	**0.88**	J	**6**	U	**12**	U	**12**	U	**6**	U	**6**	U
GCMW-16	059-2082	N	20	25	ft	**5.4**	U	**5.4**	U	**0.15**	J	**5.4**	U	**0.47**	J	**5.4**	U	**11**	U	**11**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2083	N	25	30	ft	**6.3**	U	**6.3**	U	**0.32**	J	**6.3**	U	**1.1**	J	**6.3**	U	**13**	U	**13**	U	**6.3**	U	**6.3**	U
GCMW-16	059-2084	N	30	35	ft	**5.5**	U	**5.5**	U	**0.36**	J	**5.5**	U	**1.1**	J	**5.5**	U	**11**	U	**11**	U	**5.5**	U	**5.5**	U
GCMW-16	059-2085	N	40	45	ft	**5.6**	U	**5.6**	U	**0.24**	J	**5.6**	U	**0.67**	J	**5.6**	U	**11**	U	**11**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2086	N	45	50	ft	**5.6**	U	**5.6**	U	**0.25**	J	**5.6**	U	**0.88**	J	**5.6**	U	**11**	U	**11**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2087	N	50	55	ft	**5.3**	U	**5.3**	U	**0.26**	J	**5.3**	U	**0.72**	J	**5.3**	U	**11**	U	**11**	U	**5.3**	U	**5.3**	U

Amerada Hess (MW15 & MW16)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-15	059-2089	N	5	10	ft	**0.77**	J	**0.88**	J	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**6.2**	U	**16**		**6.2**	U	**6.2**	U
GCMW-15	059-2090	N	10	15	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-15	059-2091	N	15	20	ft	**0.48**	J	**0.44**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2092	N	20	25	ft	**0.58**	J	**0.66**	J	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U	**6.7**	U
GCMW-15	059-2093	N	25	30	ft	**5.6**	U	**0.64**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-15	059-2094	N	30	35	ft	**5.1**	U	**0.67**	J	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-15	059-2095	N	35	40	ft	**6.1**	U	**1.2**	J	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
GCMW-15	059-2096	N	40	45	ft	**6**	U	**1.1**	J	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-15	059-2097	N	45	50	ft	**4.7**	U	**0.8**	J	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-15	059-2098	N	50	55	ft	**5.4**	U	**0.84**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2079	N	5	10	ft	**7.6**	U	**0.83**	J	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U	**7.6**	U
GCMW-16	059-2080	N	10	15	ft	**0.54**	J	**0.62**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2081	N	15	20	ft	**0.38**	J	**0.86**	J	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U	**6**	U
GCMW-16	059-2082	N	20	25	ft	**5.4**	U	**0.48**	J	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U	**5.4**	U
GCMW-16	059-2083	N	25	30	ft	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U	**6.3**	U
GCMW-16	059-2084	N	30	35	ft	**0.51**	J	**1.3**	J	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-16	059-2085	N	40	45	ft	**5.6**	U	**0.39**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2086	N	45	50	ft	**5.6**	U	**0.62**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-16	059-2087	N	50	55	ft	**0.37**	J	**0.78**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-15	059-2089	N	5	10	ft	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**13,000**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U
GCMW-15	059-2090	N	10	15	ft	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**17,000**	U	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U
GCMW-15	059-2091	N	15	20	ft	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U	**2,200**	U	**1,100**	U	**1,100**	U	**1,100**	U	**1,100**	U
GCMW-15	059-2092	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-15	059-2093	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**360**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-15	059-2094	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-15	059-2095	N	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-15	059-2096	N	40	45	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-15	059-2097	N	45	50	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-15	059-2098	N	50	55	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-16	059-2079	N	5	10	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**430**	U	**220**	U	**220**	UJ	**220**	U	**220**	U
GCMW-16	059-2080	N	10	15	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	UJ	**210**	U	**210**	U
GCMW-16	059-2081	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	UJ	**200**	U	**200**	U
GCMW-16	059-2082	N	20	25	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**430**	U	**220**	U	**220**	UJ	**220**	U	**220**	U
GCMW-16	059-2083	N	25	30	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**220**	UJ	**220**	U	**220**	U
GCMW-16	059-2084	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	UJ	**210**	U	**210**	U
GCMW-16	059-2085	N	40	45	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	UJ	**200**	U	**200**	U
GCMW-16	059-2086	N	45	50	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**220**	UJ	**220**	U	**220**	U
GCMW-16	059-2087	N	50	55	ft	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**360**	U	**180**	U	**180**	UJ	**180**	U	**180**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)	
GCMW-15	059-2089	N	5	10	ft	3,100	J	6,500	U	13,000	U	6,500	U	6,500	U	13,000	U	13,000	U	6,500	U	6,500	U	6,500	U	6,500	U	6,500	U
GCMW-15	059-2090	N	10	15	ft	8,700	U	8,700	U	17,000	U	8,700	U	8,700	U	17,000	U	17,000	U	8,700	U	8,700	U	8,700	U	8,700	U	8,700	U
GCMW-15	059-2091	N	15	20	ft	120	J	1,100	U	2,200	U	1,100	U	1,100	U	2,200	U	2,200	U	1,100	U	1,100	U	1,100	U	1,100	U	1,100	U
GCMW-15	059-2092	N	20	25	ft	10	J	210	U	400	U	210	U	210	U	400	U	400	U	210	U	210	U	210	U	210	U	210	U
GCMW-15	059-2093	N	25	30	ft	190	U	190	U	360	U	190	U	190	U	360	U	360	U	190	U	190	U	190	U	190	U	190	U
GCMW-15	059-2094	N	30	35	ft	210	U	210	U	400	U	210	U	210	U	400	U	400	U	210	U	210	U	210	U	210	U	210	U
GCMW-15	059-2095	N	35	40	ft	200	U	200	U	380	U	200	U	200	U	380	U	380	U	200	U	200	U	200	U	200	U	200	U
GCMW-15	059-2096	N	40	45	ft	190	U	190	U	370	U	190	U	190	U	370	U	370	U	190	U	190	U	190	U	190	U	190	U
GCMW-15	059-2097	N	45	50	ft	190	U	190	U	370	U	190	U	190	U	370	U	370	U	190	U	190	U	190	U	190	U	190	U
GCMW-15	059-2098	N	50	55	ft	200	U	200	U	380	U	200	U	200	U	380	U	380	U	200	U	200	U	200	U	200	U	200	U
GCMW-16	059-2079	N	5	10	ft	220	U	220	U	430	U	220	U	220	U	430	U	430	U	220	U	220	U	220	U	220	U	28	J
GCMW-16	059-2080	N	10	15	ft	63	J	43	J	410	U	210	U	210	U	410	U	410	U	210	U	210	U	210	U	210	U	29	J
GCMW-16	059-2081	N	15	20	ft	200	U	200	U	400	U	200	U	200	U	400	U	400	U	200	U	200	U	200	U	200	U	200	U
GCMW-16	059-2082	N	20	25	ft	220	U	220	U	430	U	220	U	220	U	430	U	430	U	220	U	220	U	220	U	220	U	220	U
GCMW-16	059-2083	N	25	30	ft	220	U	220	U	420	U	220	U	220	U	420	U	420	U	220	U	220	U	220	U	220	U	220	U
GCMW-16	059-2084	N	30	35	ft	210	U	210	U	410	U	210	U	210	U	410	U	410	U	210	U	210	U	210	U	210	U	210	U
GCMW-16	059-2085	N	40	45	ft	200	U	200	U	400	U	200	U	200	U	400	U	400	U	200	U	200	U	200	U	200	U	200	U
GCMW-16	059-2086	N	45	50	ft	220	U	220	U	420	U	220	U	220	U	420	U	420	U	220	U	220	U	220	U	220	U	220	U
GCMW-16	059-2087	N	50	55	ft	180	U	180	U	360	U	180	U	180	U	360	U	360	U	180	U	180	U	180	U	180	U	180	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene	
GCMW-15	059-2089	N	5	10	ft	13,000	U	13,000	U	7,300		1,500	J	6,500	U	15,000		6,500	U	6,500	U	39,000		35,000		27,000		21,000	
GCMW-15	059-2090	N	10	15	ft	17,000	U	17,000	U	260	J	1,000	J	8,700	U	1,400	J	8,700	U	8,700	U	8,600	J	8,200	J	4,000	J	3,900	J
GCMW-15	059-2091	N	15	20	ft	2,200	U	2,200	U	410	J	70	J	64	J	950	J	1,100	U	92	J	3,400		5,000		3,900		4,100	
GCMW-15	059-2092	N	20	25	ft	400	U	400	U	210	U	210	U	28	J	15	J	210	U	70	J	69	J	49	J	41	J	33	J
GCMW-15	059-2093	N	25	30	ft	360	U	360	U	190	U	190	U	33	J	190	U	190	U	73	J	9.9	J	9.3	J	7.6	J	190	U
GCMW-15	059-2094	N	30	35	ft	400	U	400	U	210	U	210	U	47	J	210	U	210	U	93	J	210	U	210	U	210	U	210	U
GCMW-15	059-2095	N	35	40	ft	380	U	380	U	200	U	200	U	38	J	200	U	200	U	67	J	200	U	200	U	200	U	200	U
GCMW-15	059-2096	N	40	45	ft	370	U	370	U	190	U	190	U	63	J	190	U	190	U	130	J	190	U	190	U	190	U	190	U
GCMW-15	059-2097	N	45	50	ft	370	U	370	U	190	U	190	U	54	J	190	U	190	U	100	J	190	U	190	U	190	U	190	U
GCMW-15	059-2098	N	50	55	ft	380	U	380	U	200	U	200	U	34	J	200	U	200	U	67	J	200	U	200	U	200	U	200	U
GCMW-16	059-2079	N	5	10	ft	430	U	430	U	92	J	220	U	220	U	61	J	220	U	93	J	120	J	91	J	100	J	43	J
GCMW-16	059-2080	N	10	15	ft	410	U	410	U	230		210	U	120	J	1,100		210	U	130	J	1,200		870		1,200		370	J
GCMW-16	059-2081	N	15	20	ft	400	U	400	U	200	U	200	U	43	J	200	U	200	U	58	J	200	U	200	U	200	U	200	UJ
GCMW-16	059-2082	N	20	25	ft	430	U	430	U	220	U	220	U	44	J	220	U	220	U	68	J	220	U	220	U	220	U	220	UJ
GCMW-16	059-2083	N	25	30	ft	420	U	420	U	220	U	220	U	56	J	220	U	220	U	91	J	220	U	220	U	220	U	220	UJ
GCMW-16	059-2084	N	30	35	ft	410	U	410	U	210	U	210	U	41	J	210	U	210	U	70	J	210	U	210	U	210	U	210	UJ
GCMW-16	059-2085	N	40	45	ft	400	U	400	U	200	U	200	U	34	J	200	U	200	U	62	J	200	U	200	U	200	U	200	UJ
GCMW-16	059-2086	N	45	50	ft	420	U	420	U	220	U	220	U	41	J	220	U	220	U	61	J	220	U	220	U	220	U	220	UJ
GCMW-16	059-2087	N	50	55	ft	360	U	360	U	180	U	180	U	37	J	180	U	180	U	61	J	180	U	180	U	180	U	180	UJ

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
GCMW-15	059-2089	N	5	10	ft	**25,000**		**6,500**	U	**710**	J	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**6,500**	U	**9,300**		**34,000**		**6,600**	
GCMW-15	059-2090	N	10	15	ft	**5,400**	J	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**8,700**	U	**5,500**	J	**1,000**	J
GCMW-15	059-2091	N	15	20	ft	**3,400**		**1,100**	U	**42**	J	**1,100**	U	**1,100**	U	**1,100**	U	**95**	J	**1,100**	U	**440**	J	**3,100**		**1,100**	J
GCMW-15	059-2092	N	20	25	ft	**41**	J	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**17**	J	**210**	U	**210**	U	**43**	J	**8.8**	J
GCMW-15	059-2093	N	25	30	ft	**6.3**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**23**	J	**190**	U	**190**	U	**7.4**	J	**190**	U
GCMW-15	059-2094	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**29**	J	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-15	059-2095	N	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**26**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-15	059-2096	N	40	45	ft	**190**	U	**6.2**	J	**190**	U	**190**	U	**190**	U	**190**	U	**20**	J	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-15	059-2097	N	45	50	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**25**	J	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-15	059-2098	N	50	55	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**28**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-16	059-2079	N	5	10	ft	**43**	J	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**24**	J	**220**	U	**220**	U	**99**	J	**220**	U
GCMW-16	059-2080	N	10	15	ft	**290**		**210**	U	**12**	J	**210**	U	**210**	U	**210**	U	**26**	J	**210**	U	**480**		**1,300**		**120**	J
GCMW-16	059-2081	N	15	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**24**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-16	059-2082	N	20	25	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**26**	J	**220**	U	**220**	U	**220**	U	**220**	U
GCMW-16	059-2083	N	25	30	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**25**	J	**220**	U	**220**	U	**220**	U	**220**	U
GCMW-16	059-2084	N	30	35	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**26**	J	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-16	059-2085	N	40	45	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**17**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-16	059-2086	N	45	50	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**32**	J	**220**	U	**220**	U	**220**	U	**220**	U
GCMW-16	059-2087	N	50	55	ft	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**13**	J	**180**	U	**180**	U	**180**	U	**180**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene	
GCMW-15	059-2089	N	5	10	ft	4,500	J	6,500	U	6,500	U	6,500	U	6,500	U	93,000		7,000		6,500	U	6,500	U	6,500	U	6,500	U	18,000	
GCMW-15	059-2090	N	10	15	ft	8,700	U	8,700	U	8,700	U	8,700	U	8,700	U	6,200	J	8,700	U	8,700	U	8,700	U	8,700	U	8,700	U	3,000	J
GCMW-15	059-2091	N	15	20	ft	220	J	1,100	U	1,100	U	58	J	1,100	U	5,000		340	J	1,100	U	1,100	U	1,100	U	1,100	U	3,500	
GCMW-15	059-2092	N	20	25	ft	9.4	J	210	U	210	U	26	J	210	U	65	J	210	U	210	U	210	U	210	U	210	U	25	J
GCMW-15	059-2093	N	25	30	ft	190	U	190	U	190	U	37	J	190	U	10	J	190	U	190	U	190	U	190	U	190	U	190	U
GCMW-15	059-2094	N	30	35	ft	210	U	210	U	210	U	51	J	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U
GCMW-15	059-2095	N	35	40	ft	200	U	200	U	200	U	25	J	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-15	059-2096	N	40	45	ft	190	U	190	U	190	U	36	J	190	U	190	U	190	U	190	U	190	U	190	U	190	U	190	U
GCMW-15	059-2097	N	45	50	ft	190	U	190	U	190	U	40	J	190	U	190	U	190	U	190	U	190	U	190	U	190	U	190	U
GCMW-15	059-2098	N	50	55	ft	200	U	200	U	200	U	21	J	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-16	059-2079	N	5	10	ft	8	J	220	U	220	U	220	U	220	U	230		20	J	220	U	220	U	220	U	220	U	45	J
GCMW-16	059-2080	N	10	15	ft	190	J	210	U	210	U	210	U	210	U	2,300		360		210	U	210	U	210	U	210	U	460	
GCMW-16	059-2081	N	15	20	ft	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-16	059-2082	N	20	25	ft	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U
GCMW-16	059-2083	N	25	30	ft	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U
GCMW-16	059-2084	N	30	35	ft	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U
GCMW-16	059-2085	N	40	45	ft	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U	200	U
GCMW-16	059-2086	N	45	50	ft	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U	220	U
GCMW-16	059-2087	N	50	55	ft	180	U	180	U	180	U	180	U	180	U	180	U	180	U	180	U	180	U	180	U	180	U	180	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs	
GCMW-15	059-2089	N	5	10	ft	**6,500**	U	--	**6,600**		**6,500**	U	**6,500**	U	**6,500**	U	**13,000**	U	**72,000**		**6,500**	U	**98,000**		**509,100**	
GCMW-15	059-2090	N	10	15	ft	**8,700**	U	--	**1,100**	J	**8,700**	U	**8,700**	U	**8,700**	U	**17,000**	U	**2,000**	J	**8,700**	U	**21,000**		**72,560**	
GCMW-15	059-2091	N	15	20	ft	**1,100**	U	--	**280**	J	**1,100**	U	**1,100**	U	**1,100**	U	**2,200**	U	**3,400**		**46**	J	**5,500**		**43,570**	
GCMW-15	059-2092	N	20	25	ft	**210**	U	--	**17**	J	**210**	U	**210**	U	**210**	U	**400**	U	**34**	J	**8.3**	J	**190**	J	**640.8**	
GCMW-15	059-2093	N	25	30	ft	**190**	U	--	**190**	U	**190**	U	**190**	U	**190**	U	**360**	U	**5.7**	J	**6.2**	J	**21**	J	**77.2**	
GCMW-15	059-2094	N	30	35	ft	**210**	U	--	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**9.4**	J	**210**	U	**0**	U
GCMW-15	059-2095	N	35	40	ft	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**7.5**	J	**200**	U	**0**	U
GCMW-15	059-2096	N	40	45	ft	**190**	U	--	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**12**	J	**190**	U	**0**	U
GCMW-15	059-2097	N	45	50	ft	**190**	U	--	**6.1**	J	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**11**	J	**9.6**	J	**15.7**	
GCMW-15	059-2098	N	50	55	ft	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**7**	J	**8.1**	J	**8.1**	
GCMW-16	059-2079	N	5	10	ft	**220**	U	--	**34**	J	**220**	U	**220**	U	**220**	U	**430**	U	**100**	J	**50**	J	**240**	J	**1,318**	
GCMW-16	059-2080	N	10	15	ft	**210**	U	--	**77**	J	**210**	U	**210**	U	**210**	U	**410**	U	**2,800**		**23**	J	**2,300**	J	**15,040**	
GCMW-16	059-2081	N	15	20	ft	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**8.1**	J	**200**	UJ	**0**	U
GCMW-16	059-2082	N	20	25	ft	**220**	U	--	**220**	U	**220**	U	**220**	U	**220**	U	**430**	U	**220**	U	**8.4**	J	**220**	UJ	**0**	U
GCMW-16	059-2083	N	25	30	ft	**220**	U	--	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**11**	J	**220**	UJ	**0**	U
GCMW-16	059-2084	N	30	35	ft	**210**	U	--	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**8.7**	J	**210**	UJ	**0**	U
GCMW-16	059-2085	N	40	45	ft	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**8.6**	J	**8.4**	J	**8.4**	
GCMW-16	059-2086	N	45	50	ft	**220**	U	--	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**6.5**	J	**7.4**	J	**7.4**	
GCMW-16	059-2087	N	50	55	ft	**180**	U	--	**180**	U	**180**	U	**180**	U	**180**	U	**360**	U	**180**	U	**7.7**	J	**11**	J	**11**	

Amerada Hess (MW15 & MW16)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-15	059-2089	N	5	10	ft	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**4.2**	UJ	**2.2**	UJ	**4.2**	UJ	**9.6**	NJ	**8.4**	NJ	**4.2**	UJ
GCMW-15	059-2090	N	10	15	ft	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**2.9**	UJ	**5.6**	UJ	**2.9**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ	**5.6**	UJ
GCMW-15	059-2091	N	15	20	ft	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**4.2**	UJ	**2.2**	UJ	**4.2**	UJ	**5.1**	J	**2.2**	J	**4.2**	UJ
GCMW-15	059-2092	N	20	25	ft	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**4.1**	UJ	**2.1**	UJ	**4.1**	UJ	**4.1**	UJ	**4.1**	UJ	**4.1**	UJ
GCMW-15	059-2093	N	25	30	ft	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**3.6**	UJ	**1.9**	UJ	**3.6**	UJ	**3.6**	UJ	**3.6**	UJ	**3.6**	UJ
GCMW-15	059-2094	N	30	35	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**4**	UJ	**2**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**4**	UJ
GCMW-15	059-2095	N	35	40	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**0.22**	J	**3.8**	UJ	**2**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ
GCMW-15	059-2096	N	40	45	ft	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**3.7**	UJ	**1.9**	UJ	**3.7**	UJ	**3.7**	UJ	**3.7**	UJ	**3.7**	UJ
GCMW-15	059-2097	N	45	50	ft	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**3.7**	UJ	**1.9**	UJ	**3.7**	UJ	**3.7**	UJ	**3.7**	UJ	**3.7**	UJ
GCMW-15	059-2098	N	50	55	ft	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.8**	UJ	**2**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ
GCMW-16	059-2079	N	5	10	ft	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**4.3**	U	**2.2**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-16	059-2080	N	10	15	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-16	059-2081	N	15	20	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**0.32**	J	**4**	U	**2.1**	U	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-16	059-2082	N	20	25	ft	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**4.3**	U	**2.2**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-16	059-2083	N	25	30	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**0.23**	J	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-16	059-2084	N	30	35	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**0.09**	J	**4.1**	U	**2.1**	U	**4.1**	U	**4.1**	U	**4.1**	U	**4.1**	U
GCMW-16	059-2085	N	40	45	ft	**2**	U	**2**	U	**2**	U	**2**	U	**0.096**	J	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-16	059-2086	N	45	50	ft	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**4.2**	U	**2.2**	U	**4.2**	U	**4.2**	U	**4.2**	U	**4.2**	U
GCMW-16	059-2087	N	50	55	ft	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**3.6**	U	**1.8**	U	**3.6**	U	**3.6**	U	**3.6**	U	**3.6**	U

Amerada Hess (MW15 & MW16)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-15	059-2089	N	5	10	ft	**8.7**	J	**2.2**	UJ	**21**	J	**2.2**	UJ	**2.2**	UJ	40	R	**7.8**	NJ	**7.7**	NJ	**13**	J	**220**	UJ	**28.5**	
GCMW-15	059-2090	N	10	15	ft	**4.5**	J	**2.9**	UJ	**7.8**	NJ	**2.9**	UJ	**2.9**	UJ	**25**	J	**6.9**	J	**5.6**	UJ	**5.6**	UJ	**290**	UJ	**6.9**	
GCMW-15	059-2091	N	15	20	ft	**4.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**2.2**	UJ	**22**	UJ	**4.2**	UJ	**4.2**	UJ	**4.2**	UJ	**220**	UJ	**0**	U
GCMW-15	059-2092	N	20	25	ft	**4.1**	UJ	**2.1**	UJ	**2.1**	UJ	**2.1**	UJ	**0.13**	J	**21**	UJ	**4.1**	UJ	**4.1**	UJ	**4.1**	UJ	**210**	UJ	**0**	U
GCMW-15	059-2093	N	25	30	ft	**3.6**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**19**	UJ	**3.6**	UJ	**3.6**	UJ	**3.6**	UJ	**190**	UJ	**0**	U
GCMW-15	059-2094	N	30	35	ft	**4**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**4**	UJ	**4**	UJ	**4**	UJ	**200**	UJ	**0**	U
GCMW-15	059-2095	N	35	40	ft	**3.8**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**200**	UJ	**0**	U
GCMW-15	059-2096	N	40	45	ft	**3.7**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**19**	UJ	**3.7**	UJ	**3.7**	UJ	**3.7**	UJ	**190**	UJ	**0**	U
GCMW-15	059-2097	N	45	50	ft	**3.7**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**1.9**	UJ	**19**	UJ	**3.7**	UJ	**3.7**	UJ	**3.7**	UJ	**190**	UJ	**0**	U
GCMW-15	059-2098	N	50	55	ft	**3.8**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**2**	UJ	**20**	UJ	**3.8**	UJ	**3.8**	UJ	**3.8**	UJ	**200**	UJ	**0**	U
GCMW-16	059-2079	N	5	10	ft	**4.3**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**22**	U	**4.3**	U	**4.3**	U	**4.3**	U	**220**	U	**0**	U
GCMW-16	059-2080	N	10	15	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-16	059-2081	N	15	20	ft	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4**	U	**4**	U	**4**	U	**210**	U	**0**	U
GCMW-16	059-2082	N	20	25	ft	**4.3**	UJ	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**22**	U	**4.3**	U	**4.3**	U	**4.3**	U	**220**	U	**0**	U
GCMW-16	059-2083	N	25	30	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-16	059-2084	N	30	35	ft	**4.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4.1**	U	**4.1**	U	**4.1**	U	**210**	U	**0**	U
GCMW-16	059-2085	N	40	45	ft	**3.9**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**3.9**	U	**3.9**	U	**3.9**	U	**200**	U	**0**	U
GCMW-16	059-2086	N	45	50	ft	**4.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**2.2**	U	**0.24**	J	**4.2**	U	**4.2**	U	**4.2**	U	**220**	U	**0**	U
GCMW-16	059-2087	N	50	55	ft	**3.6**	U	**1.8**	U	**1.8**	U	**1.8**	U	**1.8**	U	**18**	U	**3.6**	U	**3.6**	U	**3.6**	U	**180**	U	**0**	U

Amerada Hess (MW15 & MW16)

PCB Aroclor Concentrations in Soils (ug/kg)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-15	059-2089	N	5	10	ft	**43**	UJ	**43**	UJ	**43**	UJ	**43**	UJ	**43**	UJ	**43**	UJ	**43**	UJ	**43**	UJ	**43**	UJ	**0**	U
GCMW-15	059-2090	N	10	15	ft	**56**	UJ	**56**	UJ	**56**	UJ	**56**	UJ	**56**	UJ	**56**	UJ	**56**	UJ	**56**	UJ	**56**	UJ	**0**	U
GCMW-15	059-2091	N	15	20	ft	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**44**	U	**0**	U
GCMW-15	059-2092	N	20	25	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-15	059-2093	N	25	30	ft	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**0**	U
GCMW-15	059-2094	N	30	35	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-15	059-2095	N	35	40	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-15	059-2096	N	40	45	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**0**	U
GCMW-15	059-2097	N	45	50	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**0**	U
GCMW-15	059-2098	N	50	55	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-16	059-2079	N	5	10	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**0**	U
GCMW-16	059-2080	N	10	15	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**0**	U
GCMW-16	059-2081	N	15	20	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-16	059-2082	N	20	25	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**0**	U
GCMW-16	059-2083	N	25	30	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-16	059-2084	N	30	35	ft	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**42**	U	**0**	U
GCMW-16	059-2085	N	40	45	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-16	059-2086	N	45	50	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**0**	U
GCMW-16	059-2087	N	50	55	ft	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**0**	U

Amerada Hess (MW15 & MW16)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
GCMW-15	059-2089	N	5	10	ft	**6,650**	**4.4** J	**7.4**	**233**	**0.6** U	**1.6**	**70,100**	**23.1**	**5** J	**77.7**	**22,800** J	**628**
GCMW-15	059-2090	N	10	15	ft	**16,000**	**3.6** J	**39.3**	**638**	**0.71** U	**1.8**	**193,000**	**26.9**	**7.5**	**135**	**111,000** J	**611**
GCMW-15	059-2091	N	15	20	ft	**4,570**	**0.85** J	**11.1**	**45.4**	**0.6** U	**0.6** U	**3,490**	**15.4**	**7.2**	**32.1**	**24,400** J	**216**
GCMW-15	059-2092	N	20	25	ft	**2,550**	**6.8** UJ	**2.1**	**15.7** J	**0.57** U	**0.57** U	**7,090**	**8.8**	**3.1** J	**3.7**	**7,410** J	**12.8**
GCMW-15	059-2093	N	25	30	ft	**2,150**	**6.5** UJ	**0.91** J	**5.4** J	**0.55** U	**0.55** U	**407** J	**9.2**	**3** J	**2.5** J	**5,520** J	**2.7**
GCMW-15	059-2094	N	30	35	ft	**5,150**	**7.1** UJ	**2.1**	**18.4** J	**0.59** U	**0.59** U	**354** J	**13.4**	**3.6** J	**7.1**	**13,300** J	**5.6**
GCMW-15	059-2095	N	35	40	ft	**3,350**	**7.2** UJ	**1.3**	**24.7**	**0.6** U	**0.6** U	**421** J	**7**	**3.8** J	**6.2**	**8,880** J	**4.3**
GCMW-15	059-2096	N	40	45	ft	**3,010**	**6.8** UJ	**1.3**	**11.4** J	**0.56** U	**0.57** U	**87.1** J	**6.1**	**5.2** J	**6**	**9,130** J	**4.2**
GCMW-15	059-2097	N	45	50	ft	**2,800**	**6.5** UJ	**1.5**	**9** J	**0.55** U	**0.55** U	**220** J	**6.3**	**6.3**	**5.8**	**8,880** J	**3.6**
GCMW-15	059-2098	N	50	55	ft	**2,570**	**6.7** UJ	**1.2**	**8.1** J	**0.56** U	**0.56** U	**238** J	**6.5**	**5.6** J	**4.9**	**7,400** J	**3.4**
GCMW-16	059-2079	N	5	10	ft	**10,100**	**8.7** U	**7.1**	**38.5**	**0.73** U	**0.73** U	**14,200**	**19**	**7.1** J	**22.4**	**19,500** J	**55.9**
GCMW-16	059-2080	N	10	15	ft	**6,280**	**7.6** UJ	**3.8**	**25.3**	**0.63** U	**0.63** U	**3,910**	**12.9**	**4.9** J	**8.9**	**13,100** J	**26.5**
GCMW-16	059-2081	N	15	20	ft	**5,800**	**0.35** J	**1.2** J	**16.7** J	**0.62** U	**0.62** U	**1,030**	**9.3**	**4.2** J	**12.4**	**11,700** J	**5.3**
GCMW-16	059-2082	N	20	25	ft	**5,840**	**0.42** J	**2.7**	**24.7**	**0.6** U	**0.6** U	**737**	**11**	**5.7** J	**11.4**	**13,800** J	**5.6**
GCMW-16	059-2083	N	25	30	ft	**8,290**	**0.38** J	**4.8**	**47.7**	**0.74**	**0.61** U	**1,080**	**22**	**6.3**	**13.9**	**18,900** J	**9.7**
GCMW-16	059-2084	N	30	35	ft	**5,400**	**7.2** UJ	**2.4**	**18.4** J	**0.6** U	**0.6** U	**524** J	**12**	**5.5** J	**7.9**	**17,400** J	**5.9**
GCMW-16	059-2085	N	40	45	ft	**3,070**	**7.2** UJ	**0.93** J	**14.4** J	**0.6** U	**0.6** U	**1,530**	**6.2**	**4.1** J	**5.7**	**8,360** J	**5.2**
GCMW-16	059-2086	N	45	50	ft	**2,640**	**6.9** UJ	**1.1** J	**10** J	**0.57** U	**0.57** U	**859**	**6.5**	**3.5** J	**4.7**	**9,250** J	**4.1**
GCMW-16	059-2087	N	50	55	ft	**2,800**	**6.5** U	**1.2**	**10.7** J	**0.54** U	**0.54** U	**253** J	**6.4**	**3.5** J	**4.6**	**9,290** J	**3.7**

Amerada Hess (MW15 & MW16)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Sample ID	Sample Type	Top Depth	Bottom Depth	Unit	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-15	059-2089	N	5	10	ft	**11,200** J	**294**	**0.9**	**16.2** J	**891**	**4.2** UJ	**0.4** J	**744**	**3** U	**31.7**	**358**	**0.28** J
GCMW-15	059-2090	N	10	15	ft	**20,500** J	**694**	**0.89**	**27.9** J	**1,330**	**5** U	**0.76** J	**858**	**3.6** U	**27**	**580**	**0.26** J
GCMW-15	059-2091	N	15	20	ft	**4,290** J	**142**	**0.14**	**38.7** J	**1,570**	**4.2** UJ	**1.2** U	**646**	**3** U	**16.8**	**41.3**	**3** U
GCMW-15	059-2092	N	20	25	ft	**5,100** J	**99.3**	**0.11** U	**30.3** J	**686**	**4** UJ	**1.1** U	**566** U	**2.8** U	**9.6**	**15.4**	**2.9** U
GCMW-15	059-2093	N	25	30	ft	**6,690** J	**53.9**	**0.11** U	**52.9** J	**798**	**3.8** UJ	**1.1** U	**545** U	**2.7** U	**8**	**10**	**2.7** U
GCMW-15	059-2094	N	30	35	ft	**1,830** J	**52.1**	**0.12** U	**9.1** J	**1,170**	**4.1** UJ	**1.2** U	**1,370**	**2.9** U	**20.8**	**25.1**	**3** U
GCMW-15	059-2095	N	35	40	ft	**1,940** J	**62**	**0.12** U	**12.7** J	**695**	**4.2** UJ	**1.2** U	**715**	**3** U	**11.6**	**20.9**	**3** U
GCMW-15	059-2096	N	40	45	ft	**1,260** J	**69.9**	**0.11** U	**10.1** J	**607**	**4** UJ	**1.1** U	**565** U	**2.8** U	**9.6**	**20.1**	**2.7** U
GCMW-15	059-2097	N	45	50	ft	**1,230** J	**68**	**0.11** U	**11.7** J	**509** J	**3.8** UJ	**1.1** U	**545** U	**2.7** U	**9**	**17.8**	**2.8** U
GCMW-15	059-2098	N	50	55	ft	**1,200** J	**57.4**	**0.11** U	**9.9** J	**491** J	**3.9** UJ	**1.1** U	**562** U	**2.8** U	**7.6**	**16.9**	**2.7** U
GCMW-16	059-2079	N	5	10	ft	**4,770** J	**303**	**0.82**	**25.5** J	**2,030**	**5.1** U	**1.5** U	**726** U	**3.6** U	**22.6**	**55.7**	**3.6** U
GCMW-16	059-2080	N	10	15	ft	**4,450** J	**170**	**0.078** J	**27.9** J	**1,250**	**4.4** UJ	**1.3** U	**633** U	**3.2** U	**14.1**	**31**	**3** U
GCMW-16	059-2081	N	15	20	ft	**2,670** J	**80.6**	**0.12** U	**20.9** J	**1,090**	**4.4** UJ	**1.2** U	**755**	**3.1** U	**11.1**	**31.8**	**3.1** U
GCMW-16	059-2082	N	20	25	ft	**2,190** J	**105**	**0.12** U	**18.7** J	**1,080**	**4.2** UJ	**1.2** U	**753**	**3** U	**13.9**	**35.3**	**3** U
GCMW-16	059-2083	N	25	30	ft	**3,250** J	**254**	**0.12** U	**13.9** J	**1,780**	**4.3** UJ	**1.2** U	**842**	**3.1** U	**34.3**	**44.1**	**3.1** U
GCMW-16	059-2084	N	30	35	ft	**1,980** J	**89.1**	**0.12** U	**11.1** J	**1,000**	**4.2** UJ	**1.2** U	**602** U	**3** U	**15.9**	**30.5**	**3** U
GCMW-16	059-2085	N	40	45	ft	**1,300** J	**59.1**	**0.12** U	**9.4** J	**528** J	**4.2** UJ	**1.2** U	**601** U	**3** U	**8.7**	**20.4**	**3** U
GCMW-16	059-2086	N	45	50	ft	**1,210** J	**75.9**	**0.12** U	**8.5** J	**495** J	**4** UJ	**1.1** U	**574** U	**2.9** U	**10.4**	**16.8**	**3** U
GCMW-16	059-2087	N	50	55	ft	**1,120** J	**74.3**	**0.11** U	**8.3** J	**408** J	**3.8** U	**1.1** U	**542** U	**2.7** U	**8.5**	**16.7**	**2.7** U

Amerada Hess

(MW15 & MW16)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Amerada Hess (MW15 & MW16)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-15	GC-MW15I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-15	GC-MW15S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-16	GC-MW16I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-16	GC-MW16S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

Amerada Hess (MW15 & MW16)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane	
MW-15	GC-MW15I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-15	GC-MW15S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-16	GC-MW16I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-16	GC-MW16S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**53**		**0.5**	U	**0.5**	U	**0.5**	U

Amerada Hess (MW15 & MW16)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane
MW-15	GC-MW15I	N	Intermediate	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-15	GC-MW15S	N	Shallow	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-16	GC-MW16I	N	Intermediate	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-16	GC-MW16S	N	Shallow	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**1**

Amerada Hess (MW15 & MW16)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride
MW-15	GC-MW15I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U
MW-15	GC-MW15S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U
MW-16	GC-MW16I	N	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U
MW-16	GC-MW16S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**19**	**0.22** J	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U

Amerada Hess (MW15 & MW16)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-15	GC-MW15I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-15	GC-MW15S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-16	GC-MW16I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-16	GC-MW16S	N	Shallow	**0.29**	J	**0.45**	J	**0.5**	U	**0.5**	U	**0.37**	J	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)	
MW-15	GC-MW15I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U	**0.1**	U	**5**	U
MW-15	GC-MW15S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	UJ	**5**	U	**0.1**	U	**5**	U
MW-16	GC-MW16I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U	**0.18**		**5**	U
MW-16	GC-MW16S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U	**0.45**		**5**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol	
MW-15	GC-MW15I	N	Intermediate	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U
MW-15	GC-MW15S	N	Shallow	**10**	U	**5**	U	**5**	UJ	**10**	U	**10**	U	**5**	U	**5**	U	**5**	UJ	**5**	U	**5**	U	**10**	U	**10**	U
MW-16	GC-MW16I	N	Intermediate	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U
MW-16	GC-MW16S	N	Shallow	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene	
MW-15	GC-MW15I	N	Intermediate	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	UJ	**0.1**	U	**0.1**	U	**0.1**	U	**0.35**	U	**0.1**	U
MW-15	GC-MW15S	N	Shallow	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	UJ	**0.1**	U	**0.1**	U	**0.1**	U	**0.48**	U	**0.1**	U
MW-16	GC-MW16I	N	Intermediate	**0.38**		**0.2**		**5**	U	**0.46**		**5**	U	**5**	U	**0.072**	J	**0.1**	U	**0.1**	U	**0.31**	U	**0.1**	U
MW-16	GC-MW16S	N	Shallow	**5.5**		**0.1**	U	**10**		**0.21**		**5**	U	**4**	J	**0.1**	U	**0.1**	U	**0.2**		**0.46**		**0.1**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
MW-15	GC-MW15I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	U
MW-15	GC-MW15S	N	Shallow	**5**	U	**5**	U	**5**	UJ	**5**	UJ	**5**	UJ	**5**	U	**5**	U	**5**	U	**0.1**	U	**0.1**	UJ
MW-16	GC-MW16I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**2.3**	J	**5**	U	**5**	U	**0.073**	J	**0.11**	U
MW-16	GC-MW16S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**3**	J	**1.3**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
MW-15	GC-MW15I	N	Intermediate	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U
MW-15	GC-MW15S	N	Shallow	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** UJ	**5** U
MW-16	GC-MW16I	N	Intermediate	**5** U	**5** U	**5** U	**5** U	**5** U	**0.78** J	**0.61**	**5** U	**5** U	**5** U	**5** U
MW-16	GC-MW16S	N	Shallow	**5** U	**5** U	**5** U	**5** U	**5** U	**0.27**	**1.4** J	**5** U	**5** U	**5** U	**5** U

Amerada Hess (MW15 & MW16)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-15	GC-MW15I	N	Intermediate	**0.2** U	**5** U	**0.1** U	**5** U	**5** U	**5** U	**0.2** UJ	**0.1** UJ	**5** U	**0.12**	**0.12**
MW-15	GC-MW15S	N	Shallow	**0.18** U	**5** U	**0.22**	**5** U	**5** U	**5** U	**0.2** UJ	**0.1** U	**5** UJ	**0.12**	**0.34**
MW-16	GC-MW16I	N	Intermediate	**0.19** U	**5** U	**0.18**	**5** U	**5** U	**5** U	**0.2** U	**1.4** J	**5** U	**1.3** J	**5.635**
MW-16	GC-MW16S	N	Shallow	**0.3**	**5** U	**0.47**	**5** U	**5** U	**5** U	**0.2** UJ	**1.6** J	**5** U	**0.5**	**11.36**

Amerada Hess (MW15 & MW16)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-15	GC-MW15I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-15	GC-MW15S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-16	GC-MW16I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-16	GC-MW16S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

Amerada Hess (MW15 & MW16)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
MW-15	GC-MW15I	N	Intermediate	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-15	GC-MW15S	N	Shallow	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-16	GC-MW16I	N	Intermediate	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	0.1 UR	**0.1** U	**0.1** U	**5** U	--
MW-16	GC-MW16S	N	Shallow	**0.1** U	**0.05** U	**0.05** U	**0.05** U	**0.05** U	**0.5** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**0** U

Amerada Hess (MW15 & MW16)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-15	GC-MW15I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-15	GC-MW15S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-16	GC-MW16I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-16	GC-MW16S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

Amerada Hess (MW15 & MW16)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-15	GC-MW15I	N	Intermediate	**200**	U	**200**	U	**4**	U	**4**	U	**11.1**	J	**11**	J	**97.5**	**102**	**2**	U	**2**	U	**2**	U	**2**	U
MW-15	GC-MW15S	N	Shallow	**1,510**		**200**	U	**4**	U	**2**	U	**11.2**	J	**6.7**	J	**138**	**130**	**2**	U	**1**	U	**2**	U	**1**	U
MW-16	GC-MW16I	N	Intermediate	**200**	U	**200**	U	**2**	U	**2**	U	**2.8**	J	**2.4**	J	**207**	**207**	**1**	U	**1**	U	**1**	U	**1**	U
MW-16	GC-MW16S	N	Shallow	**471**		**200**	U	**2**	U	**2**	U	**8.7**	J	**7.7**	J	**289**	**282**	**1**	U	**1**	U	**1**	U	**1**	U

Amerada Hess (MW15 & MW16)
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead
MW-15	GC-MW15I	N	Intermediate	**96,700**	**90,000**	**4.4**	**1.4** J	**1.1** J	**1** J	**12.3** J	**25** U	**1,410**	**1,200**	**0.53** J
MW-15	GC-MW15S	N	Shallow	**77,700**	**69,200**	**72.6**	**1.2** J	**2.4**	**2.1**	**24.2** J	**25** U	**3,010**	**296**	**9.8**
MW-16	GC-MW16I	N	Intermediate	**46,300**	**51,500**	**1.9** J	**0.64** J	**0.55** J	**0.45** J	**25** U	**25** U	**1,390**	**1,430**	**0.56** J
MW-16	GC-MW16S	N	Shallow	**154,000**	**166,000**	**8.6**	**1.2** J	**1.1**	**1.1**	**6.4** J	**25** U	**25,700**	**26,700**	**6.9**

Amerada Hess (MW15 & MW16)
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved		Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium	Potassium, dissolved	Selenium	
MW-15	GC-MW15I	N	Intermediate	**2**	U	**251,000**	**236,000**	**761**	**810**	**0.076**	J	**0.051**	J	2.6	R	**1.8**	J	**136,000**	**125,000**	**4**	J
MW-15	GC-MW15S	N	Shallow	**1**	U	**182,000**	**162,000**	**642**	**570**	**0.095**	J	**0.2**	U	**51.9**	J	**47.1**	J	**111,000**	**99,700**	**2.5**	J
MW-16	GC-MW16I	N	Intermediate	**1**	U	**100,000**	**116,000**	**606**	**616**	**0.054**	J	**0.048**	J	**0.97**	J	**0.73**	J	**60,100**	**64,300**	**5**	UJ
MW-16	GC-MW16S	N	Shallow	**1**	U	**36,800**	**42,800**	**2,790**	**2,870**	**0.08**	J	**0.078**	J	**8.1**	J	**4**	J	**29,800**	**31,100**	**5**	UJ

Amerada Hess (MW15 & MW16)
Metal and Cyanide Concentrations in Groundwater
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-15	GC-MW15I	N	Intermediate	**3.2** J	**2** UJ	**2** U	**2,380,000** J	**2,180,000**	**2** U	**2** U	**10** U	**10** U	**6.3** J	**4** U	**9.1** J
MW-15	GC-MW15S	N	Shallow	**5** UJ	**2** UJ	**1** U	**2,150,000** J	**1,850,000**	**2** U	**1** U	**3.7** J	**2** J	**24.4** J	**14.9**	**15.1**
MW-16	GC-MW16I	N	Intermediate	**5** UJ	**1** UJ	**1** U	**1,220,000**	**1,310,000**	**1** U	**1** U	**5** U	**5** U	**2**	**4.3**	**4.5** J
MW-16	GC-MW16S	N	Shallow	**5** UJ	**1** UJ	**1** U	**300,000**	**332,000**	**1** U	**1** U	**1.6** J	**5** U	**13.1**	**7.9**	**10** U

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Nevins St. & Douglass St.

(MW33)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: Nevins St. & Douglass St.
Monitoring Well Soil Borings Installed at Address: GC-MW-33
Intermediate Monitoring Wells Installed at Address: GC-MW-33I
Shallow Monitoring Wells Installed at Address: GC-MW-33S

GC-MW-33

The soil samples from the soil boring installed for the intermediate well (situated approximately 236 feet from the canal) contained 49 VOCs, 70 SVOCs, 0 pesticides, 0 PCBs, and 105 metals. From these, 6 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (2,700 µg/kg). The SVOC occurring at the highest concentration above screening value was phenol (340 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 236 feet from the canal) contained 14 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 16 metals. From these, 3 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (15 µg/L). The SVOC occurring at the highest concentration above screening criteria was phenol (25 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (33,900 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 236 feet from the canal) contained 8 VOCs, 13 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 5 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (720 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (51µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (9,990 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane	
GCMW-33	059-2139	N	5	10	ft	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U	**12**	U
GCMW-33	059-2140	N	16.5	17	ft	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U	**20**	U
GCMW-33	059-2141	N	19.5	20	ft	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U	**8.1**	U
GCMW-33	059-2142	N	20	25	ft	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U	**630**	U
GCMW-33	059-2143	N	31	31.5	ft	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U	**270**	U
GCMW-33	059-2144	N	35	35.5	ft	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U	**5.1**	U
GCMW-33	059-2145	N	35	40	ft	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride
GCMW-33	059-2139	N	5	10	ft	**12** U	**12** U	240 UR	**24** U	**71**	**2.9** J	**12** U	**12** U	**12** U	**12** U	**12** U	**12** U
GCMW-33	059-2140	N	16.5	17	ft	**20** U	**20** U	410 UR	**41** U	**180**	**39**	**20** U	**20** U	**20** U	**20** U	**32**	**20** U
GCMW-33	059-2141	N	19.5	20	ft	**8.1** U	**8.1** U	160 UR	**16** U	**530**	**11**	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**28**	**8.1** U
GCMW-33	059-2142	N	20	25	ft	**630** U	**630** U	13,000 UR	**1,300** U	**1,300** U	**2,100**	**630** U	**630** U	**630** U	**630** U	**630** U	**630** U
GCMW-33	059-2143	N	31	31.5	ft	**270** U	**270** U	5,400 UR	**540** U	**540** U	**960**	**270** U	**270** U	**270** U	**270** U	**270** U	**270** U
GCMW-33	059-2144	N	35	35.5	ft	**5.1** U	**5.1** U	100 UR	**10** U	**10** U	**11**	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**0.96** J	**5.1** U
GCMW-33	059-2145	N	35	40	ft	**5.9** U	**5.9** U	120 UR	**12** U	**22**	**54**	**5.9** U	**5.9** U	**5.9** U	**5.9** U	**3.8** J	**5.9** U

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate
GCMW-33	059-2139	N	5	10	ft	**12** U	**12** U	**12** U	**12** U	**12** U	**12** U	**12** U	**12** U	**12** U	**0.4** J	**12** U	**1.2** J	**12** U
GCMW-33	059-2140	N	16.5	17	ft	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U	**2.2** J	**1.2** J	**1.8** J	**20** U
GCMW-33	059-2141	N	19.5	20	ft	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**0.55** J	**8.1** U
GCMW-33	059-2142	N	20	25	ft	**630** U	**630** U	**630** U	**630** U	**630** U	**630** U	**630** U	**630** U	**630** U	**2,700**	**140** J	**190** J	**630** U
GCMW-33	059-2143	N	31	31.5	ft	**270** U	**270** U	**270** U	**270** U	**270** U	**270** U	**270** U	**270** U	**270** U	**170** J	**270** U	**9** J	**270** U
GCMW-33	059-2144	N	35	35.5	ft	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**0.28** J	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**16**	**0.63** J	**2.1** J	**5.1** U
GCMW-33	059-2145	N	35	40	ft	**5.9** U	**5.9** U	**1.6** J	**5.9** U	**5.9** U	**5.9** U	**5.9** U	**5.9** U	**5.9** U	**32**	**1.6** J	**3.7** J	**5.9** U

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
GCMW-33	059-2139	N	5	10	ft	**20** J	**24** U	**2.9** J	**12** U	**0.53** J	**12** U	**1.7** J	**12** U	**12** U	**12** U	**12** U	**12** U	**12** U	**12** U
GCMW-33	059-2140	N	16.5	17	ft	**50**	**41** U	**20** U	**20** U	**2.3** J	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U	**20** U
GCMW-33	059-2141	N	19.5	20	ft	**70**	**16** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U	**8.1** U
GCMW-33	059-2142	N	20	25	ft	**1,300** U	**1,300** U	**630** U	**630** U	**820**	**630** U	**630** U	**630** U	**17** J	**630** U	**630** U	**630** U	**630** U	**630** U
GCMW-33	059-2143	N	31	31.5	ft	**540** U	**540** U	**270** U	**270** U	**56** J	**270** U	**20** J	**270** U	**270** U	**270** U	**270** U	**270** U	**270** U	**270** U
GCMW-33	059-2144	N	35	35.5	ft	**10** U	**10** U	**5.1** U	**5.1** U	**5.7**	**5.1** U	**7.4**	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U	**5.1** U
GCMW-33	059-2145	N	35	40	ft	**12** U	**12** U	**5.9** U	**5.9** U	**10**	**5.9** U	**3.8** J	**5.9** U	**5.9** U	**5.9** U	**5.9** U	**5.9** U	**5.9** U	**5.9** U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)	
GCMW-33	059-2139	N	5	10	ft	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**1,000**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U
GCMW-33	059-2140	N	16.5	17	ft	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**1,000**	U	**510**	U	**510**	U	**510**	U	**510**	U	**54**	J	**510**	U
GCMW-33	059-2141	N	19.5	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	U	**200**	U	**200**	U	**35**	J	**200**	U
GCMW-33	059-2142	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**210**	U	**210**	U	**210**	U	**360**		**210**	U
GCMW-33	059-2143	N	31	31.5	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U	**12**	J	**190**	U
GCMW-33	059-2144	N	35	35.5	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**400**	U	**200**	U	**200**	U	**200**	U	**200**	U	**20**	J	**200**	U
GCMW-33	059-2145	N	35	40	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**420**	U	**220**	U	**220**	U	**220**	U	**220**	U	**15**	J	**220**	U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)	
GCMW-33	059-2139	N	5	10	ft	**1,000**	U	**510**	U	**510**	U	**1,000**	U	**1,000**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U
GCMW-33	059-2140	N	16.5	17	ft	**1,000**	U	**510**	U	**510**	U	**1,000**	U	**1,000**	U	**510**	U	**510**	U	**510**	U	**510**	U	**100**	J
GCMW-33	059-2141	N	19.5	20	ft	**400**	U	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-33	059-2142	N	20	25	ft	**410**	U	**210**	U	**210**	U	**410**	U	**410**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U
GCMW-33	059-2143	N	31	31.5	ft	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-33	059-2144	N	35	35.5	ft	**400**	U	**200**	U	**200**	U	**400**	U	**400**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-33	059-2145	N	35	40	ft	**420**	U	**220**	U	**220**	U	**420**	U	**420**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-33	059-2139	N	5	10	ft	**1,000**	U	**1,000**	U	**510**	U	**510**	U	**150**	J	**510**	U	**510**	U	**190**	J	**510**	U	**510**	U
GCMW-33	059-2140	N	16.5	17	ft	**1,000**	U	**1,000**	U	**510**	U	**510**	U	**190**	J	**510**	U	**510**	U	**220**	J	**510**	U	**510**	U
GCMW-33	059-2141	N	19.5	20	ft	**400**	U	**400**	U	**200**	U	**200**	U	**97**	J	**200**	U	**200**	U	**82**	J	**200**	U	**200**	U
GCMW-33	059-2142	N	20	25	ft	**410**	U	**410**	U	**210**		**210**	U	**55**	J	**210**	U	**210**	U	**68**	J	**210**	U	**210**	U
GCMW-33	059-2143	N	31	31.5	ft	**370**	U	**370**	U	**7.2**	J	**190**	U	**70**	J	**7.4**	J	**190**	U	**97**	J	**11**	J	**6.9**	J
GCMW-33	059-2144	N	35	35.5	ft	**400**	U	**400**	U	**17**	J	**200**	U	**63**	J	**11**	J	**200**	U	**87**	J	**200**	U	**200**	U
GCMW-33	059-2145	N	35	40	ft	**420**	U	**420**	U	**10**	J	**220**	U	**62**	J	**7**	J	**220**	U	**88**	J	**220**	U	**220**	U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-33	059-2139	N	5	10	ft	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**250**	J	**510**	U	**510**	U	**510**	U
GCMW-33	059-2140	N	16.5	17	ft	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**260**	J	**510**	U	**510**	U	**510**	U
GCMW-33	059-2141	N	19.5	20	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**100**	J	**200**	U	**200**	U	**200**	U
GCMW-33	059-2142	N	20	25	ft	**210**	U	**210**	U	**210**	U	**210**	U	**29**	J	**210**	U	**210**	U	**210**	U	**190**	J	**210**	U	**15**	J	**210**	U
GCMW-33	059-2143	N	31	31.5	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**100**	J	**190**	U	**8.3**	J	**8.4**	J
GCMW-33	059-2144	N	35	35.5	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**46**	J	**200**	U	**200**	U	**200**	U
GCMW-33	059-2145	N	35	40	ft	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**220**	U	**170**	J	**220**	U	**220**	U	**220**	U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
GCMW-33	059-2139	N	5	10	ft	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U
GCMW-33	059-2140	N	16.5	17	ft	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U	**510** U
GCMW-33	059-2141	N	19.5	20	ft	**200** U	**200** U	**200** U	**200** U	**200** U	**200** U	**17** J	**200** U	**200** U	**200** U	**200** U
GCMW-33	059-2142	N	20	25	ft	**210** U	**210** U	**210** U	**210** U	**210** U	**210** U	**210** U	**16** J	**210** U	**210** U	**210** U
GCMW-33	059-2143	N	31	31.5	ft	**190** U	**190** U	**190** U	**190** U	**190** U	**190** U	**11** J	**190** U	**190** U	**190** U	**190** U
GCMW-33	059-2144	N	35	35.5	ft	**200** U	**200** U	**200** U	**200** U	**200** U	**200** U	**13** J	**9** J	**200** U	**200** U	**200** U
GCMW-33	059-2145	N	35	40	ft	**220** U	**220** U	**220** U	**220** U	**220** U	**220** U	**220** U	**6.6** J	**220** U	**220** U	**220** U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-33	059-2139	N	5	10	ft	**510**	U	**510**	U	**510**	U	--	**510**	U	**510**	U	**510**	U	**510**	U	**1,000**	U	**26**	J	**33**	J	**510**	U	**26**
GCMW-33	059-2140	N	16.5	17	ft	**510**	U	**510**	U	**510**	U	--	**170**	J	**510**	U	**510**	U	**510**	U	**1,000**	U	**17**	J	**54**	J	**510**	U	**241**
GCMW-33	059-2141	N	19.5	20	ft	**200**	U	**200**	U	**200**	U	--	**170**	J	**200**	U	**200**	U	**200**	U	**400**	U	**11**	J	**340**		**9.9**	J	**242.9**
GCMW-33	059-2142	N	20	25	ft	**210**	U	**210**	U	**210**	U	--	**1,800**		**210**	U	**210**	U	**210**	U	**410**	U	**210**	U	**24**	J	**210**	U	**2,386**
GCMW-33	059-2143	N	31	31.5	ft	**190**	U	**190**	U	**190**	U	--	**35**	J	**190**	U	**190**	U	**190**	U	**370**	U	**23**	J	**29**	J	**19**	J	**140.9**
GCMW-33	059-2144	N	35	35.5	ft	**200**	U	**200**	U	**200**	U	--	**50**	J	**200**	U	**200**	U	**200**	U	**400**	U	**40**	J	**15**	J	**21**	J	**181**
GCMW-33	059-2145	N	35	40	ft	**220**	U	**220**	U	**220**	U	--	**38**	J	**220**	U	**220**	U	**220**	U	**420**	U	**23**	J	**19**	J	**9.4**	J	**109**

Nevins St. & Douglass St. (MW-33)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
GCMW-33	059-2139	N	5	10	ft	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**10** U	**5.2** U	**10** U	**10** U	10 UR	**10** UJ
GCMW-33	059-2140	N	16.5	17	ft	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**10** U	**5.2** U	**10** U	**10** U	**10** UJ	**10** UJ
GCMW-33	059-2141	N	19.5	20	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4** U	**2.1** U	**4** U	**4** U	**4** UJ	**4** U
GCMW-33	059-2142	N	20	25	ft	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**4.1** U	**2.1** U	**4.1** U	**4.1** U	4.1 UR	**4.1** U
GCMW-33	059-2143	N	31	31.5	ft	**1.9** UJ	**1.9** UJ	**1.9** UJ	**1.9** UJ	**1.9** UJ	**3.8** UJ	**1.9** UJ	**3.8** UJ	**3.8** UJ	3.8 UR	**3.8** UJ
GCMW-33	059-2144	N	35	35.5	ft	**2** U	**2** U	**2** U	**2** U	**2** U	**4** U	**2** U	**4** U	**4** U	4 UR	**4** U
GCMW-33	059-2145	N	35	40	ft	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**4.3** U	**2.2** U	**4.3** U	**4.3** U	4.3 UR	**4.3** U

Nevins St. & Douglass St. (MW-33)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
GCMW-33	059-2139	N	5	10	ft	**10** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**52** U	**10** U	**10** U	10 UR	**520** U	--
GCMW-33	059-2140	N	16.5	17	ft	**10** U	**5.2** U	**5.2** U	**5.2** U	**5.2** U	**52** U	**10** U	**10** UJ	**10** UJ	**520** U	**0** U
GCMW-33	059-2141	N	19.5	20	ft	**4** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**21** U	**4** U	**4** U	4 UR	**210** U	--
GCMW-33	059-2142	N	20	25	ft	**4.1** U	**2.1** U	**2.1** U	**2.1** U	**2.1** U	**21** U	**4.1** U	**4.1** U	4.1 UR	**210** U	--
GCMW-33	059-2143	N	31	31.5	ft	**3.8** UJ	**1.9** UJ	**1.9** UJ	**1.9** UJ	**1.9** UJ	**19** UJ	**3.8** UJ	**3.8** UJ	3.8 UR	**190** UJ	--
GCMW-33	059-2144	N	35	35.5	ft	**4** UJ	**2** U	**2** U	**2** U	**2** U	**20** U	**4** U	**4** U	**4** UJ	**200** U	**0** U
GCMW-33	059-2145	N	35	40	ft	**4.3** UJ	**2.2** U	**2.2** U	**2.2** U	**2.2** U	**22** U	**4.3** U	**4.3** U	4.3 UR	**220** U	--

Nevins St. & Douglass St. (MW-33)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-33	059-2139	N	5	10	ft	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**0**	U
GCMW-33	059-2140	N	16.5	17	ft	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**100**	U	**0**	U
GCMW-33	059-2141	N	19.5	20	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-33	059-2142	N	20	25	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-33	059-2143	N	31	31.5	ft	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**38**	UJ	**0**	U
GCMW-33	059-2144	N	35	35.5	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-33	059-2145	N	35	40	ft	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**43**	U	**0**	U

Nevins St. & Douglass St. (MW-33)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-33	059-2139	N	5	10	ft	**8,240**	**7.2** U	**2.9**	**34.5**	**0.6** U	**0.6** U	**947**	**12.1**	**5.6** J	**12.5**	**13,000**
GCMW-33	059-2140	N	16.5	17	ft	**10,200**	**10.9** U	**2.1**	**32.5** J	**0.91** U	**0.91** U	**1,160**	**18.8**	**5.3** J	**12**	**15,800**
GCMW-33	059-2141	N	19.5	20	ft	**8,850**	**10.5** U	**5.9**	**39.9**	**0.88** U	**0.88** U	**2,530**	**17.2**	**5.4** J	**10.1**	**19,100**
GCMW-33	059-2142	N	20	25	ft	**3,650**	**7.1** U	**4.8**	**14.5** J	**0.59** U	**0.59** U	**608**	**9.2**	**6.7**	**8.3**	**8,550**
GCMW-33	059-2143	N	31	31.5	ft	**2,930**	**7.3** U	**1.2** U	**13.3** J	**0.61** U	**0.61** U	**2,910**	**8**	**3.1** J	**7.9**	**6,570**
GCMW-33	059-2144	N	35	35.5	ft	**2,900**	**6.9** U	**1.1** U	**27.4**	**0.57** U	**0.57** U	**5,200**	**6.3**	**3.8** J	**10**	**7,040**
GCMW-33	059-2145	N	35	40	ft	**2,290**	**7.3** U	**1.2** U	**18.3** J	**0.61** U	**0.61** U	**3,720**	**5.5**	**2.5** J	**6.3**	**4,890**

Nevins St. & Douglass St. (MW-33)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-33	059-2139	N	5	10	ft	**16.5**	**2,010**	**212**	**0.05** U	**15.9**	**621**	**4.2** U	**1.2** U	**599** U	**3** U	**17.3**	**24.6**	**3.1** U
GCMW-33	059-2140	N	16.5	17	ft	**14.9**	**2,940**	**184**	**0.18** U	**20.8**	**1,060**	**6.3** U	**1.8** U	**1,240**	**4.5** U	**25.2**	**26.4**	**4.4** U
GCMW-33	059-2141	N	19.5	20	ft	**7.3**	**4,170**	**66.1**	**0.17** U	**12.8**	**1,740**	**6.2** U	**1.8** U	**6,080**	**4.4** U	**24.3**	**24.5**	**4.4** U
GCMW-33	059-2142	N	20	25	ft	**4.9**	**1,750**	**54.6**	**0.12** U	**12.5**	**586** J	**4.2** U	**1.2** U	**619**	**3** U	**15.9**	**26.7**	**2.9** U
GCMW-33	059-2143	N	31	31.5	ft	**3.2**	**3,160**	**105**	**0.13** U	**12.8**	**701**	**4.3** U	**1.2** U	**609** U	**3** U	**10.8**	**14.3**	**3.2** U
GCMW-33	059-2144	N	35	35.5	ft	**3.3**	**4,730**	**233**	**0.12** U	**20.9**	**675**	**4** U	**1.1** U	**574** U	**2.9** U	**10.6**	**14.4**	**2.8** U
GCMW-33	059-2145	N	35	40	ft	**2.5**	**2,620**	**142**	**0.12** U	**11**	**472** J	**4.3** U	**1.2** U	**608** U	**3** U	**6.8**	**10.9**	**3** U

Nevins St. & Douglass St.

(MW33)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane	
MW-33	GC-MW33I	N	Intermediate	**13**	U	**13**	U	**13**	U	**13**	UJ	**13**	U	**13**	U	**13**	U	**13**	U	**0.05**	U	**0.05**	U	**13**	U	**13**	U
MW-33	GC-MW33S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.17**	J	**0.11**	J	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride	
MW-33	GC-MW33I	N	Intermediate	**13**	U	**13**	U	**13**	U	--	**130**	U	**130**	U	**240**	J	**13**	U	**13**	U	**13**	U	**13**	UJ	**13**	UJ	**13**	U
MW-33	GC-MW33S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**20**	U	**15**		**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.61**	J	**0.5**	U

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)
MW-33	GC-MW33I	N	Intermediate	**13** U	**13** UJ	**13** U	**13** UJ	**16**	**13** UJ	**13** U	**13** U	**13** UJ	**720** J	**130**	**720** J	**13** U	**130** U
MW-33	GC-MW33S	N	Shallow	**5.5**	**0.5** U	**0.62**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**12**	**0.47** J	**12**	**1.7**	**5** U

Nevins St. & Douglass St. (MW-33)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
MW-33	GC-MW33I	N	Intermediate	**130** U	**3.1** J	**13** U	**210** J	**13** U	**13** U	**13** U	**21** U	**13** U	**13** UJ	**3.8** J	**13** U	**13** U
MW-33	GC-MW33S	N	Shallow	**5** U	**0.5** U	**0.8**	**4.4**	**0.5** U	**3.4**	**0.5** U	**0.65** U	**0.5** U	**0.5** U	**0.17** J	**0.5** U	**0.5** U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline	
MW-33	GC-MW33I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**770**	J	**5**	U	**10**	U
MW-33	GC-MW33S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**3.4**	J	**5**	U	**10**	U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone	
MW-33	GC-MW33I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**250**	J	**1.1**	J	**5**	U
MW-33	GC-MW33S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**1.9**	J	**0.1**	U	**5**	U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether
MW-33	GC-MW33I	N	Intermediate	**7.7**	**5** U	**5** UJ	**0.1** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**51**	**5** U	**5** U	**5** U
MW-33	GC-MW33S	N	Shallow	**0.1** U	**5** U	**5** UJ	**0.1** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene	Hexachlorobenzene	
MW-33	GC-MW33I	N	Intermediate	**2.5**	J	**5**	U	**28**		**0.1**	U	**0.1**	U	**7.6**		**5**	U	**5**	U	**5**	U	**5**	U	**1.8**	J	**48**	**5**	U
MW-33	GC-MW33S	N	Shallow	**1.1**	J	**5**	U	**5**	U	**0.1**	U	**0.1**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**0.36**	**5**	U

Nevins St. & Douglass St. (MW-33)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-33	GC-MW33I	N	Intermediate	**5** U	**5** U	**5** U	**0.1** UJ	**5** U	**6,900**	**5** U	**5** U	**5** U	**0.2** UJ	**45**	**5** U	**1.8** J	**8,025**
MW-33	GC-MW33S	N	Shallow	**5** U	**5** U	**5** U	**0.1** UJ	**5** U	**20**	**5** U	**5** U	**5** U	**0.2** UJ	**0.49**	**25**	**0.1** U	**26.15**

Nevins St. & Douglass St. (MW-33)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-33	GC-MW33I	N	Intermediate	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-33	GC-MW33S	N	Shallow	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

Nevins St. & Douglass St. (MW-33)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-33	GC-MW33I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-33	GC-MW33S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

Nevins St. & Douglass St. (MW-33)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
MW-33	GC-MW33I	N	Intermediate	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0** U
MW-33	GC-MW33S	N	Shallow	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**1** U	**0** U

Nevins St. & Douglass St. (MW-33)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium	Beryllium, dissolved	Cadmium
MW-33	GC-MW33I	N	Intermediate	**200** U	**200** U	**2** U	**2** U	**3.4** J	**3.9**	**724**	**773**	**1** U	**1** U	**1** U
MW-33	GC-MW33S	N	Shallow	1,010 R	**200** U	**2** U	**2** U	**12.3** J	**12.9**	**501**	**408**	**1** U	**1** U	**1** U

Nevins St. & Douglass St. (MW-33)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cadmium, dissolved	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead
MW-33	GC-MW33I	N	Intermediate	**1** U	**116,000**	**108,000**	**3.1** J	**0.7** J	**1.2**	**1.3**	**25** U	**25** U	**9,990**	**9,120**	**0.36** J
MW-33	GC-MW33S	N	Shallow	**1** U	**108,000**	**100,000**	**17.3** J	**1.3** J	**2.4**	**1.1**	**14.7** J	**25** U	**33,900**	**31,600**	**6**

Nevins St. & Douglass St. (MW-33)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved		Magnesium	Magnesium, dissolved	Manganese		Manganese, dissolved	Mercury		Mercury, dissolved		Nickel		Nickel, dissolved		Potassium	Potassium, dissolved	Selenium	
MW-33	GC-MW33I	N	Intermediate	**1**	U	**57,700**	**53,600**	**1,650**	J	**1,720**	**0.083**	J	**0.2**	U	**2.7**	J	**1.5**	J	**14,900**	**13,700**	**5**	U
MW-33	GC-MW33S	N	Shallow	**1**	U	**39,200**	**36,000**	**1,480**	J	**1,510**	**0.081**	J	**0.2**	U	**17**	J	**6.9**	J	**28,500**	**26,300**	**5**	U

Nevins St. & Douglass St. (MW-33)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-33	GC-MW33I	N	Intermediate	**5** U	**1** UJ	**1** U	**103,000**	**96,700**	**1** U	**1** U	**5** U	**5** U	**6.2** J	**5** J	**10** U
MW-33	GC-MW33S	N	Shallow	**1.2** J	**1** UJ	**1** U	**245,000**	**223,000**	**1** U	**1** U	**1.7** J	**5** U	**14.9** J	**7.4** J	**10** U

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Sackett St.

(MW-4)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: Sackett St. (West Side of the Canal)
Monitoring Well Soil Borings Installed at Address: GC-MW-4
Intermediate Monitoring Wells Installed at Address: GC-MW-4I
Shallow Monitoring Wells Installed at Address: GC-MW-4S

GC-MW-4

The soil samples from the soil boring installed for the intermediate well (situated approximately 271 feet from the canal) contained 23 VOCs, 57 SVOCs, 4 pesticides, 0 PCBs, and 93 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 0 metals exceeded the screening value. The SVOC occurring at the highest concentration above screening value was 4-methylphenol (p-cresol) - (470 µg/kg).

Shallow groundwater

The shallow well (depth of approximately14 ft bgs and situated approximately 271 feet from the canal) contained 1 VOC, 1 SVOC, 0 pesticides, 0 PCBs, and 18 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (20,900 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 271 feet from the canal) contained 3 VOCs, 10 SVOCs, 0 pesticides, 0 PCBs, and 8 metals. From these, 2 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was cis-1,2-dichloroethylene (17 µg/L). The SVOC occurring at the highest concentration above screening criteria was bis(2-ethylhexyl) phthalate (77 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (823 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

Sackett St. (MW4)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-04	059-2099	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-04	059-2100	N	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-04	059-2101	N	15	20	ft	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-04	059-2102	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-04	059-2103	N	25	30	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-04	059-2104	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U

Sackett St. (MW4)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene		Bromochloromethane	
GCMW-04	059-2099	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	95	UR	**9.5**	U	**31**		**4.7**	U	**4.7**	U
GCMW-04	059-2100	N	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	200	UR	**20**	U	**35**		**10**	U	**10**	U
GCMW-04	059-2101	N	15	20	ft	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	87	UR	**8.7**	U	**7.5**	J	**4.3**	U	**4.3**	U
GCMW-04	059-2102	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**6.8**	J	**5**	U	**5**	U
GCMW-04	059-2103	N	25	30	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR	**10**	U	**5.4**	J	**5.2**	U	**5.2**	U
GCMW-04	059-2104	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	99	UR	**9.9**	U	**9.9**	U	**5**	U	**5**	U

Sackett St. (MW4)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane	
GCMW-04	059-2099	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-04	059-2100	N	10	15	ft	**10**	U	**10**	U	**10**	U	**23**		**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-04	059-2101	N	15	20	ft	**4.3**	U	**4.3**	U	**4.3**	U	**1.9**	J	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-04	059-2102	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**2.5**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-04	059-2103	N	25	30	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-04	059-2104	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**1.7**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U

Sackett St. (MW4)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene	
GCMW-04	059-2099	N	5	10	ft	**0.25**	J	**4.7**	U	**0.72**	J	**4.7**	U	**9.4**	J	**9.5**	U	**4.7**	U	**4.7**	U	**4.7**	U	**0.44**	J	**1.8**	J	**4.7**	U	**4.7**	U
GCMW-04	059-2100	N	10	15	ft	**10**	U	**10**	U	**0.89**	J	**10**	U	**20**	U	**20**	U	**10**	U	**10**	U	**10**	U	**10**	U	**5.5**	J	**10**	U	**10**	U
GCMW-04	059-2101	N	15	20	ft	**0.17**	J	**4.3**	U	**0.54**	J	**4.3**	U	**8.7**	U	**8.7**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-04	059-2102	N	20	25	ft	**5**	U	**5**	U	**0.39**	J	**5**	U	**9.9**	U	**9.9**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-04	059-2103	N	25	30	ft	**5.2**	U	**5.2**	U	--		**5.2**	U	**10**	U	**10**	U	**5.2**	U	**5.2**	U	**5.2**	U	**0.46**	J	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-04	059-2104	N	30	35	ft	**0.33**	J	**5**	U	**0.9**	J	**5**	U	**9.9**	U	**9.9**	U	**5**	U	**5**	U	**5**	U	**0.78**	J	**5**	U	**5**	U	**5**	U

Sackett St. (MW4)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-04	059-2099	N	5	10	ft	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U	**4.7**	U
GCMW-04	059-2100	N	10	15	ft	**10**	U	**10**	U	**10**	U	**10**	U	**10**	U
GCMW-04	059-2101	N	15	20	ft	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U	**4.3**	U
GCMW-04	059-2102	N	20	25	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-04	059-2103	N	25	30	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-04	059-2104	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U

Sackett St. (MW4)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-04	059-2099	N	5	10	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**360**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**570**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U

Sackett St. (MW4)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
GCMW-04	059-2099	N	5	10	ft	**13**	J	**190**	U	**360**	U	**190**	U	**190**	U	**360**	U	**360**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	**570**	U	**290**	U	**290**	U	**570**	U	**570**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**12**	J	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U

Sackett St. (MW4)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene	
GCMW-04	059-2099	N	5	10	ft	**470**		**360**	U	**360**	U	**190**	U	**190**	U	**38**	J	**12**	J	**190**	U	**100**	J	**14**	J	**14**	J
GCMW-04	059-2100	N	10	15	ft	**13**	J	**570**	U	**570**	U	**290**	U	**290**	U	**48**	J	**290**	U	**290**	U	**110**	J	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**34**	J	**6.3**	J	**190**	U	**61**	J	**21**	J	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**55**	J	**200**	U	**200**	U	**95**	J	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**44**	J	**190**	U	**190**	U	**73**	J	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**54**	J	**190**	U	**190**	U	**81**	J	**190**	U	**190**	U

Sackett St. (MW4)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-04	059-2099	N	5	10	ft	**14**	J	**10**	J	**9.3**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**29**	J	**190**	U	**6.6**	J	**15**	J
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**36**	J	**290**	U	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**23**	J	**190**	U	**10**	J	**32**	J	**190**	U	**190**	U	**190**	U	**190**	U	**20**	J	**190**	U	**18**	J	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**28**	J	**200**	U	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**23**	J	**190**	U	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**43**	J	**190**	U	**190**	U	**190**	U

Sackett St. (MW4)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-04	059-2099	N	5	10	ft	**190**	U	**13**	J	**190**	U	**190**	U	**45**	J	**190**	U	**39**	J	**13**	J	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	**290**	U	**290**	U	**74**	J	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-04	059-2101	N	15	20	ft	**190**	U	**190**	U	**190**	U	**190**	U	**48**	J	**28**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	**200**	U	**200**	U	**47**	J	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	**190**	U	**190**	U	**43**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**50**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U

Sackett St. (MW4)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs	
GCMW-04	059-2099	N	5	10	ft	**190**	U	**190**	U	--	**25**	J	**190**	U	**190**	U	**190**	U	**360**	U	**59**	J	**24**	J	**39**	J	**276.3**	
GCMW-04	059-2100	N	10	15	ft	**290**	U	**290**	U	--	**290**	U	**290**	U	**290**	U	**290**	U	**570**	U	**8.8**	J	**14**	J	**290**	U	**8.8**	
GCMW-04	059-2101	N	15	20	ft	**190**	U	**190**	U	--	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**9.1**	J	**190**	U	**60.3**	
GCMW-04	059-2102	N	20	25	ft	**200**	U	**200**	U	--	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**11**	J	**200**	U	**0**	U
GCMW-04	059-2103	N	25	30	ft	**190**	U	**190**	U	--	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**8.5**	J	**190**	U	**0**	U
GCMW-04	059-2104	N	30	35	ft	**190**	U	**190**	U	--	**28**	J	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**9.4**	J	**190**	U	**40**	

Sackett St. (MW4)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-04	059-2099	N	5	10	ft	**1.9**	UJ	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.6**	UJ	**1.9**	U	**3.6**	U	**3.6**	UJ	**0.69**	J	**3.6**	U
GCMW-04	059-2100	N	10	15	ft	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**5.7**	U	**2.9**	U	**5.7**	U	**5.7**	U	**5.7**	U	**5.7**	U
GCMW-04	059-2101	N	15	20	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U
GCMW-04	059-2102	N	20	25	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-04	059-2103	N	25	30	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U
GCMW-04	059-2104	N	30	35	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.7**	U	**1.9**	U	**3.7**	U	**3.7**	U	**3.7**	U	**3.7**	U

Sackett St. (MW4)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-04	059-2099	N	5	10	ft	**3.6**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	UJ	**3.6**	U	**3.6**	U	**0.15**	J	**190**	U	**0.15**	
GCMW-04	059-2100	N	10	15	ft	**1.5**	J	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**29**	U	**5.7**	U	**5.7**	U	**0.64**	J	**290**	U	**0.64**	
GCMW-04	059-2101	N	15	20	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-04	059-2102	N	20	25	ft	**4**	U	**2**	U	**2**	U	**2**	U	**2**	U	**20**	U	**4**	U	**4**	U	**4**	U	**200**	U	**0**	U
GCMW-04	059-2103	N	25	30	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U
GCMW-04	059-2104	N	30	35	ft	**3.7**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.7**	U	**3.7**	U	**3.7**	U	**190**	U	**0**	U

Sackett St. (MW4)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-04	059-2099	N	5	10	ft	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**0**	U
GCMW-04	059-2100	N	10	15	ft	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**58**	U	**0**	U
GCMW-04	059-2101	N	15	20	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-04	059-2102	N	20	25	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U
GCMW-04	059-2103	N	25	30	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**0**	U
GCMW-04	059-2104	N	30	35	ft	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**37**	U	**0**	U

Sackett St. (MW4)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
GCMW-04	059-2099	N	5	10	ft	**8,030**	**0.45** J	**3.7**	**71.3**	**0.62** U	**0.62** U	**2,460**	**16.8**	**7.1**	**23.1**	**13,600**	**75.5**
GCMW-04	059-2100	N	10	15	ft	**16,000**	**0.89** J	**8.7**	**33.9** J	**0.87** U	**0.87** U	**3,170**	**31.7**	**9.9**	**16.4**	**34,500**	**16**
GCMW-04	059-2101	N	15	20	ft	**6,920**	**8.3** UJ	**2.1**	**36.3**	**0.69** U	**0.69** U	**640** J	**12.7**	**6** J	**11.6**	**13,900**	**6.5**
GCMW-04	059-2102	N	20	25	ft	**4,820**	**7.2** U	**1.2** J	**35.3**	**0.6** U	**0.6** U	**374** J	**10.2**	**4.3** J	**11.7**	**8,610**	**5.4**
GCMW-04	059-2103	N	25	30	ft	**3,760**	**7.1** U	**1.2** U	**26.3**	**0.59** U	**0.59** U	**717**	**6.9**	**5.7** J	**13.3**	**9,140**	**5**
GCMW-04	059-2104	N	30	35	ft	**2,820**	**6.7** U	**1.1** U	**32.2**	**0.56** U	**0.56** U	**805** J	**7.5**	**5.8**	**12.7**	**6,890**	**4.4**

Sackett St. (MW4)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	**Magnesium**	**Manganese**	**Mercury**	**Nickel**	**Potassium**	**Selenium**	**Silver**	**Sodium**	**Thallium**	**Vanadium**	**Zinc**	**Cyanide, Total**
GCMW-04	059-2099	N	5	10	ft	**4,130**	**204**	**0.16**	**30.4**	**1,880**	**4.3** U	**1.2** U	**618** U	**3.1** U	**21**	**54.7**	**3** U
GCMW-04	059-2100	N	10	15	ft	**6,750**	**368**	**0.18** U	**26.5**	**3,570**	**6.1** U	**1.7** U	**1,600**	**4.3** U	**36.6**	**69.4**	**4.3** U
GCMW-04	059-2101	N	15	20	ft	**2,270**	**61.9**	**0.14** U	**13.3**	**1,100**	**4.9** U	**1.4** U	**824**	**3.5** U	**17.7**	**30.5**	**3.5** U
GCMW-04	059-2102	N	20	25	ft	**1,490**	**57.9**	**0.12** U	**12.2**	**768**	**4.2** U	**1.2** U	**602** U	**3** U	**14.6**	**23.2**	**3** U
GCMW-04	059-2103	N	25	30	ft	**3,130**	**99.5345**	**0.12** U	**25.2**	**727**	**4.1** U	**1.2** U	**590** U	**3** U	**9.6**	**19.6**	**2.9** U
GCMW-04	059-2104	N	30	35	ft	**12,000** J	**150** J	**0.12** U	**88.4**	**689**	**3.9** U	**1.1** U	**562** U	**2.8** U	**7**	**17.4**	**2.8** U

Sackett St.

(MW-4)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Sackett St. (MW4)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane	
MW-04	GC-MW04I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-04	GC-MW04S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.5**	U	**0.5**	U

Sackett St. (MW4)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
MW-04	GC-MW04I	N	Intermediate	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-04	GC-MW04S	N	Shallow	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U

Sackett St. (MW4)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone
MW-04	GC-MW04I	N	Intermediate	**0.5** U	**0.5** U	**17**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U
MW-04	GC-MW04S	N	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**5** U	**5** U

Sackett St. (MW4)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-04	GC-MW04I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.33**	J	**0.5**	U	**0.5**	U	**0.5**	U	**13**		**0.5**	U	**0.5**	U
MW-04	GC-MW04S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**15**		**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U

Sackett St. (MW4)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline	
MW-04	GC-MW04I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**5**	U	**10**	U
MW-04	GC-MW04S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.1**	U	**5**	U	**10**	U

Sackett St. (MW4)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether		4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone	
MW-04	GC-MW04I	N	Intermediate	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U
MW-04	GC-MW04S	N	Shallow	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**10**	U	**0.18**		**0.1**	U	**5**	U

Sackett St. (MW4)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether
MW-04	GC-MW04I	N	Intermediate	**0.1** U	**5** U	**5** U	**0.1** U	**0.1** U	**0.19**	**0.24**	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U
MW-04	GC-MW04S	N	Shallow	**0.1** U	**5** U	**5** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U

Sackett St. (MW4)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene
MW-04	GC-MW04I	N	Intermediate	**77**	**5** U	**5** U	**0.1** U	**0.099** J	**5** U	**5** U	**5** U	**0.33** J	**5** U	**0.13**	**0.1** U	**5** U	**5** U
MW-04	GC-MW04S	N	Shallow	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**0.1** U	**0.1** U	**5** U	**5** U

Sackett St. (MW4)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-04	GC-MW04I	N	Intermediate	**5** U	**5** U	**0.18**	**5** U	**0.25** J	**5** U	**5** U	**5** U	**0.2** U	**0.13**	**5** U	**0.32**	**1.539**
MW-04	GC-MW04S	N	Shallow	**5** U	**5** U	**0.13** U	**5** U	**0.1** U	**5** U	**5** U	**5** U	**0.2** U	**0.1** U	**5** U	**0.1** U	**0.18**

Sackett St. (MW4)

Pesticide Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin	Alpha BHC	Alpha endosulfan	Alpha-chlordane	Beta BHC	Beta endosulfan	Delta BHC	Dieldrin	Endosulfan sulfate	Endrin	Endrin aldehyde
MW-04	GC-MW04I	N	Intermediate	**0.05** U	**0.05** U	0.05 UR	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U
MW-04	GC-MW04S	N	Shallow	**0.05** U	**0.05** U	0.05 UR	**0.05** U	**0.05** U	**0.1** U	**0.05** U	**0.1** U	**0.1** U	**0.1** U	**0.1** U

Sackett St. (MW4)

Pesticide Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs
MW-04	GC-MW04I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--
MW-04	GC-MW04S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--

Sackett St. (MW4)

PCB Aroclor Concentrations in Groundwater (ug/L)

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-04	GC-MW04I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-04	GC-MW04S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

Sackett St. (MW4)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-04	GC-MW04I	N	Intermediate	**3,000**	U	**838**		**2**	U	**2**	U	**2.1**	**2.2**	**176**	**179**	**1**	U	**1**	U	**1**	U	**1**	U
MW-04	GC-MW04S	N	Shallow	**1,660**	J	**200**	U	**2**	U	**2**	U	**6.1**	**5.5**	**542**	**443**	**1**	U	**1**	U	**1**	U	**1**	U

Sackett St. (MW4)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead
MW-04	GC-MW04I	N	Intermediate	**46,100** J	**40,900**	2 UR	3.7 R	**0.38** J	**1**	**375** U	**25** U	664 R	2,170 R	1 UR
MW-04	GC-MW04S	N	Shallow	**135,000**	**111,000**	**25.8**	**12.2**	**3.6**	**3.3**	**375** U	**25** U	**20,900**	**13,800** J	**11.3**

Sackett St. (MW4)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Depth	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium
MW-04	GC-MW04I	N	Intermediate	2.8 R	**41,500** J	**37,500**	**823**	**843**	**0.077** J	**0.1** J	1.6 R	4.6 R	**75,000** U	**12,000**	**5** UJ
MW-04	GC-MW04S	N	Shallow	**0.52** J	**92,200**	**81,500**	**1,230**	**1,140**	**0.12** J	**0.096** J	**30.7** J	**34.7** J	**42,200** J	**41,800**	**1.6** J

Sackett St. (MW4)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-04	GC-MW04I	N	Intermediate	**5** U	**1** U	**1** U	**177,000**	**167,000**	**1** U	**1** U	**5** U	**1.5** J	2 R	60.3 R	**10** U
MW-04	GC-MW04S	N	Shallow	**0.97** J	**0.22** J	**1** U	**309,000**	**313,000**	**1** U	**1** U	**4.8** J	**1.2** J	**17.3**	**8.8**	**10** U

Fill in 1st St. Turning Basin

(MW27)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: Filled-in 1st St. Turning Basin
Monitoring Well Soil Borings Installed at Address: GC-MW-27
Intermediate Monitoring Wells Installed at Address: GC-MW-27I
Shallow Monitoring Wells Installed at Address: GC-MW-27S

GC-MW-27

The soil samples from the soil boring installed for the intermediate well (situated approximately 151 feet from the canal) contained 38 VOCs, 116 SVOCs, 24 pesticides, 0 PCBs, and 119 metals. From these, 21 VOCs, 37 SVOCs, 3 pesticides, 0 PCBs, and 16 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was m,p xylenes (47,000 µg/kg). The SVOC occurring at the highest concentration above screening value was phenanthrene (1,100,000 µg/kg). The pesticide occurring at the highest concentration above screening value was P,P'-DDE (19,000 µg/kg). The metal occurring at the highest concentration above screening value was barium (1,170 mg/kg).

Shallow groundwater

The shallow well (depth of approximately23 ft bgs and situated approximately 151 feet from the canal) contained 10 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 13 metals. From these, 1 VOC, 1 SVOC, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was chlorobenzene (7 µg/L). The SVOC occurring at the highest concentration above screening criteria was benzo(a)pyrene (0.48 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (6,110 J µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately47 ft bgs and situated approximately 151 feet from the canal) contained 12 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 10 metals. From these, 5 VOCs, 1 SVOC, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (150 J µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (41 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (6,950 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-27	059-2228	N	20	25	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U
GCMW-27	059-2229	N	25.5	26	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U
GCMW-27	059-2231	N	30	35	ft	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR
GCMW-27	059-2232	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-27	059-2233	N	40	45	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-27	059-2228	N	20	25	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	71,000	UR	**7,100**	U	**7,100**	U	**3,500**	U
GCMW-27	059-2229	N	25.5	26	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	580,000	UR	**58,000**	U	**58,000**	U	**29,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	510,000	UR	**51,000**	U	**51,000**	U	**26,000**	U
GCMW-27	059-2231	N	30	35	ft	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR	130	UR	**840**	U	**320**	J	**660**	J
GCMW-27	059-2232	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	96	UR	**9.6**	U	**9.6**	U	**4.8**	U
GCMW-27	059-2233	N	40	45	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	300,000	UR	**30,000**	U	**30,000**	U	**15,000**	U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromochloromethane		Bromodichloromethane		Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride		Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene	
GCMW-27	059-2228	N	20	25	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U
GCMW-27	059-2229	N	25.5	26	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U
GCMW-27	059-2231	N	30	35	ft	6.7	UR	6.7	UR	6.7	UR	6.7	UR	**14**	J	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR
GCMW-27	059-2232	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-27	059-2233	N	40	45	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-27	059-2228	N	20	25	ft	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**2,900**	J	**1,600**	J	**3,400**	J	**3,500**	U	**7,100**	U	**7,100**	U	**1,200**	J
GCMW-27	059-2229	N	25.5	26	ft	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**31,000**		**13,000**	J	**34,000**		**29,000**	U	**58,000**	U	**58,000**	U	**29,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**45,000**		**12,000**	J	**47,000**		**26,000**	U	**51,000**	U	**51,000**	U	**26,000**	U
GCMW-27	059-2231	N	30	35	ft	6.7	UR	**29**	J	6.7	UR	6.7	UR	**7,900**	J	**2,600**	J	**9,400**	J	6.7	UR	**110**	J	**840**	U	**100**	J
GCMW-27	059-2232	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**0.7**	J	**1.1**	J	**0.44**	J	**4.8**	U	**9.6**	U	**9.6**	U	**4.8**	U
GCMW-27	059-2233	N	40	45	ft	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**29,000**		**9,900**	J	**29,000**		**15,000**	U	**30,000**	U	**30,000**	U	**15,000**	U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-27	059-2228	N	20	25	ft	**3,500**	U	**2,600**	J	**3,500**	U	**3,500**	U	**3,500**	U	**460**	J	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U	**3,500**	U
GCMW-27	059-2229	N	25.5	26	ft	**29,000**	U	**17,000**	J	**29,000**	U	**29,000**	U	**29,000**	U	**5,200**	J	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U	**29,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**26,000**	U	**27,000**		**26,000**	U	**26,000**	U	**26,000**	U	**11,000**	J	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U	**26,000**	U
GCMW-27	059-2231	N	30	35	ft	**35**	J	**5,100**	J	6.7	UR	**6.1**	J	6.7	UR	**2,100**	J	6.7	UR	6.7	UR	6.7	UR	6.7	UR	6.7	UR
GCMW-27	059-2232	N	35	40	ft	**4.8**	U	**0.36**	J	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U
GCMW-27	059-2233	N	40	45	ft	**15,000**	U	**15,000**		**15,000**	U	**15,000**	U	**15,000**	U	**4,300**	J	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U	**15,000**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
GCMW-27	059-2228	N	20	25	ft	**7,800**	U	**7,800**	U	**7,800**	U	**7,800**	U	**7,800**	U	**7,800**	U	**15,000**	U	**7,800**	U	**7,800**	U	**7,800**	U	**7,800**	U
GCMW-27	059-2229	N	25.5	26	ft	**8,000**	U	**8,000**	U	**8,000**	U	**8,000**	U	**8,000**	U	**8,000**	U	**16,000**	U	**8,000**	U	**8,000**	U	**8,000**	U	**8,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**7,400**	U	**7,400**	U	**7,400**	U	**7,400**	U	**7,400**	U	**7,400**	U	**14,000**	U	**7,400**	U	**7,400**	U	**7,400**	U	**7,400**	U
GCMW-27	059-2231	N	30	35	ft	**7,000**	U	**7,000**	U	**7,000**	U	**7,000**	U	**7,000**	U	**7,000**	U	**14,000**	U	**7,000**	U	**7,000**	U	**7,000**	U	**7,000**	U
GCMW-27	059-2232	N	35	40	ft	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**7,800**	U	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U
GCMW-27	059-2233	N	40	45	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**360**	U	**190**	U	**190**	U	**190**	U	**190**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
GCMW-27	059-2228	N	20	25	ft	**120,000**		**7,800**	U	**15,000**	U	**7,800**	U	**7,800**	U	**15,000**	U	**15,000**	U	**7,800**	U	**7,800**	U	**7,800**	U	**7,800**	U
GCMW-27	059-2229	N	25.5	26	ft	**470,000**		**8,000**	U	**16,000**	U	**8,000**	U	**8,000**	U	**16,000**	U	**16,000**	U	**8,000**	U	**8,000**	U	**8,000**	U	**8,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**320,000**		**7,400**	U	**14,000**	U	**7,400**	U	**7,400**	U	**14,000**	U	**14,000**	U	**7,400**	U	**7,400**	U	**7,400**	U	**7,400**	U
GCMW-27	059-2231	N	30	35	ft	**850,000**		**7,000**	U	**14,000**	U	**7,000**	U	**7,000**	U	**14,000**	U	**14,000**	U	**7,000**	U	**7,000**	U	**7,000**	U	**7,000**	U
GCMW-27	059-2232	N	35	40	ft	**2,200**	J	**4,000**	U	**7,800**	U	**4,000**	U	**4,000**	U	**7,800**	U	**7,800**	U	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U
GCMW-27	059-2233	N	40	45	ft	**8.9**	J	**190**	U	**360**	U	**190**	U	**190**	U	**360**	U	**360**	U	**190**	U	**190**	U	**190**	U	**190**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
GCMW-27	059-2228	N	20	25	ft	**590**	J	**15,000**	U	**15,000**	U	**85,000**		**10,000**	J	**7,800**	U	**99,000**		**7,800**	U	**7,800**	U	**59,000**		**37,000**	J	**35,000**	J
GCMW-27	059-2229	N	25.5	26	ft	**620**	J	**16,000**	U	**16,000**	U	**250,000**		**17,000**	J	**8,000**	U	**200,000**		**8,000**	U	**8,000**	U	**100,000**		**58,000**		**59,000**	
GCMW-27	059-2230	N	29.5	30	ft	**7,400**	U	**14,000**	U	**14,000**	U	**190,000**		**19,000**		**7,400**	U	**140,000**		**7,400**	U	**7,400**	U	**100,000**		**66,000**		**53,000**	
GCMW-27	059-2231	N	30	35	ft	**7,000**	U	**14,000**	U	**14,000**	U	**460,000**		**39,000**	J	**7,000**	U	**310,000**		**7,000**	U	**7,000**	U	**200,000**	J	**120,000**	J	**90,000**	
GCMW-27	059-2232	N	35	40	ft	**4,000**	U	**7,800**	U	**7,800**	U	**15,000**		**1,500**	J	**4,000**	U	**10,000**		**4,000**	U	**4,000**	U	**6,600**		**4,000**	J	**3,200**	J
GCMW-27	059-2233	N	40	45	ft	**190**	U	**360**	U	**360**	U	**6.5**	J	**190**	U	**92**	J	**8.7**	J	**190**	U	**190**	U	**8.2**	J	**190**	U	**190**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene	
GCMW-27	059-2228	N	20	25	ft	**16,000**	J	**11,000**	J	**7,800**	U	**13,000**	J	**7,800**	U	**7,800**	U	**7,800**	U	**29,000**	J	**7,800**	U	**1,700**	J	**55,000**	
GCMW-27	059-2229	N	25.5	26	ft	**22,000**	J	**17,000**		**8,000**	U	**34,000**	J	**8,000**	U	**8,000**	U	**8,000**	U	**4,600**	J	**8,000**	U	**2,500**	J	**91,000**	
GCMW-27	059-2230	N	29.5	30	ft	**24,000**	J	**16,000**		**7,400**	U	**32,000**		**7,400**	U	**7,400**	U	**7,400**	U	**1,600**	J	**7,400**	U	**1,700**	J	**93,000**	
GCMW-27	059-2231	N	30	35	ft	**44,000**	J	**31,000**	J	**7,000**	U	**77,000**	J	**7,000**	U	**7,000**	U	**7,000**	U	**1,200**	J	**7,000**	U	**3,600**	J	**180,000**	J
GCMW-27	059-2232	N	35	40	ft	**1,500**	J	**950**	J	**4,000**	U	**2,200**	J	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**6,100**	
GCMW-27	059-2233	N	40	45	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**41**	J	**190**	U	**190**	U	**5.7**	J

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene		Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane	
GCMW-27	059-2228	N	20	25	ft	**6,700**	J	**8,000**	J	**7,800**	U	**7,800**	U	**7,800**	U	**7,800**	U	**100,000**		**56,000**	J	**7,800**	U	**7,800**	U	**7,800**	U	**7,800**	U
GCMW-27	059-2229	N	25.5	26	ft	**8,300**	J	**18,000**		**8,000**	U	**8,000**	U	**8,000**	U	**8,000**	U	**180,000**		**150,000**	J	**8,000**	U	**8,000**	U	**8,000**	U	**8,000**	U
GCMW-27	059-2230	N	29.5	30	ft	**6,800**	J	**12,000**		**7,400**	U	**7,400**	U	**7,400**	U	**7,400**	U	**160,000**		**110,000**	J	**7,400**	U	**7,400**	U	**7,400**	U	**7,400**	U
GCMW-27	059-2231	N	30	35	ft	**17,000**	J	**26,000**		**7,000**	U	**7,000**	U	**7,000**	U	**7,000**	U	**290,000**		**260,000**	J	**7,000**	U	**7,000**	U	**7,000**	U	**7,000**	U
GCMW-27	059-2232	N	35	40	ft	**550**	J	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U	**10,000**		**7,300**	J	**4,000**	U	**4,000**	U	**4,000**	U	**4,000**	U
GCMW-27	059-2233	N	40	45	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**8.5**	J	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene		Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-27	059-2228	N	20	25	ft	**13,000**	J	**7,800**	U	--	**80,000**		**7,800**	U	**7,800**	U	**7,800**	U	**15,000**	U	**270,000**		**7,800**	U	**160,000**		**1,212,700**
GCMW-27	059-2229	N	25.5	26	ft	**23,000**	J	**8,000**	U	--	**300,000**		**8,000**	U	**8,000**	U	**8,000**	U	**16,000**	U	**700,000**		**8,000**	U	**310,000**		**2,955,300**
GCMW-27	059-2230	N	29.5	30	ft	**21,000**		**7,400**	U	--	**260,000**		**7,400**	U	**7,400**	U	**7,400**	U	**14,000**	U	**570,000**		**7,400**	U	**300,000**		**2,448,800**
GCMW-27	059-2231	N	30	35	ft	**44,000**	J	**7,000**	U	--	**720,000**		**7,000**	U	**7,000**	U	**7,000**	U	**14,000**	U	**1,100,000**		**7,000**	U	**530,000**		**5,285,000**
GCMW-27	059-2232	N	35	40	ft	**1,400**	J	**4,000**	U	--	**2,100**	J	**4,000**	U	**4,000**	U	**4,000**	U	**7,800**	U	**40,000**		**4,000**	U	**19,000**		**131,400**
GCMW-27	059-2233	N	40	45	ft	**190**	U	**190**	U	--	**34**	J	**190**	U	**190**	U	**190**	U	**360**	U	**23**	J	**8.6**	J	**28**	J	**131.5**

Filled in 1st St. Turning Basin (MW27)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-27	059-2228	N	20	25	ft	**260**	U	**260**	U	**260**	U	**260**	U	**260**	U	**510**	U	**260**	U	**260**	U	**510**	U	**510**	U	**510**	U
GCMW-27	059-2229	N	25.5	26	ft	**27**	U	**27**	U	**27**	U	**27**	U	**27**	U	86	R	**27**	U	57	R	**52**	U	**52**	U	**52**	U
GCMW-27	059-2230	N	29.5	30	ft	**25**	U	43	R	**25**	U	**25**	U	**25**	U	**48**	U	**24**	J	**48**	U	540	R	**48**	U	**48**	U
GCMW-27	059-2231	N	30	35	ft	**23**	U	**130**	NJ	**23**	U	260	R	**23**	U	**77**	NJ	43	R	**18**	J	**880**	NJ	**110**		**46**	U
GCMW-27	059-2232	N	35	40	ft	**2**	UJ	**2.8**	NJ	**2**	UJ	**2**	UJ	**2**	UJ	**3.9**	UJ	**2**	UJ	**3.9**	UJ	30	R	**3.9**	UJ	**3.9**	UJ
GCMW-27	059-2233	N	40	45	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.6**	U	**1.9**	U	**3.6**	U	**3.6**	U	**3.6**	U	**3.6**	U

Filled in 1st St. Turning Basin (MW27)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
GCMW-27	059-2228	N	20	25	ft	**510**	U	**260**	U	**260**	U	**260**	U	**260**	U	**2,600**	U	**4,900**	J	**19,000**		760	R	**26,000**	U	**23,900**	
GCMW-27	059-2229	N	25.5	26	ft	**190**	J	**27**	U	340	R	**27**	U	**270**	U	**350**		**1,200**	J	**7,400**	NJ	**520**	U	**2,700**	U	**8,600**	
GCMW-27	059-2230	N	29.5	30	ft	**48**	U	**25**	U	**240**		**25**	U	29	R	**250**	U	**160**	J	**180**		**56**		**2,500**	U	**396**	
GCMW-27	059-2231	N	30	35	ft	**46**	U	**23**	U	**390**	J	**23**	U	**49**	J	**230**	U	92	R	**46**	U	110	R	**2,300**	U	--	
GCMW-27	059-2232	N	35	40	ft	**3.9**	UJ	**2**	UJ	**9.6**	J	**2**	UJ	**1.4**	J	**20**	UJ	**3.9**	UJ	**3.9**	UJ	**3.2**	J	**200**	UJ	**3.2**	
GCMW-27	059-2233	N	40	45	ft	**0.66**	J	**1.9**	U	**1.9**	U	**1.9**	U	**0.49**	J	**19**	U	**3.6**	U	**3.6**	U	**3.6**	U	**190**	U	**0**	U

Filled in 1st St. Turning Basin (MW27)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-27	059-2228	N	20	25	ft	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**510**	U	**0**	U
GCMW-27	059-2229	N	25.5	26	ft	**520**	U	**520**	U	**520**	U	**520**	U	**520**	U	**520**	U	**520**	U	**520**	U	**520**	U	**0**	U
GCMW-27	059-2230	N	29.5	30	ft	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**480**	U	**0**	U
GCMW-27	059-2231	N	30	35	ft	**460**	U	**460**	U	**460**	U	**460**	U	**460**	U	**460**	U	**460**	U	**460**	U	**460**	U	**0**	U
GCMW-27	059-2232	N	35	40	ft	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**39**	U	**0**	U
GCMW-27	059-2233	N	40	45	ft	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**36**	U	**0**	U

Filled in 1st St. Turning Basin (MW27)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-27	059-2228	N	20	25	ft	**7,290**	**9.4** UJ	**31.3**	**1,170**	**0.6** J	**9.9**	**6,850**	**102**	**7.6** J	**985**	**27,100**
GCMW-27	059-2229	N	25.5	26	ft	**6,970**	**9.2** UJ	**32.1**	**993**	**0.42** J	**8.9**	**8,170**	**83.1**	**6.6** J	**558**	**25,100**
GCMW-27	059-2230	N	29.5	30	ft	**4,710**	**7.1** UJ	**12.7**	**55.3**	**0.21** J	**0.74**	**8,240**	**21.6**	**2.8** J	**126**	**10,500**
GCMW-27	059-2231	N	30	35	ft	**6,690**	**8.7** UJ	**72.9**	**333**	**0.45** J	**4.5**	**30,000**	**51.3**	**4.4** J	**614**	**18,800**
GCMW-27	059-2232	N	35	40	ft	**3,840**	**6.8** UJ	**1.5**	**39.6**	**0.18** J	**0.26** J	**1,050**	**8.8**	**3.7** J	**10.3**	**7,630**
GCMW-27	059-2233	N	40	45	ft	**4,570**	**7.1** UJ	**1** U	**31.1**	**0.26** J	**0.37** J	**1,120**	**9.3**	**6.1**	**18.4**	**10,400**

Filled in 1st St. Turning Basin (MW27)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-27	059-2228	N	20	25	ft	**1,110** J	**4,360** J	**155**	**4.9** J	**46.7**	**2,000** J	**5.5** U	**11.6**	**5,780**	**2.9** J	**42.7**	**1,760** J	**0.82** J
GCMW-27	059-2229	N	25.5	26	ft	**1,020** J	**4,090** J	**161**	**5.8** J	**37.5**	**1,770** J	**5.4** U	**10.8**	**5,040**	**0.85** J	**39.6**	**1,820** J	**0.66** J
GCMW-27	059-2230	N	29.5	30	ft	**149** J	**2,590** J	**147**	**1.9** J	**18.2**	**1,160** J	**4.2** U	**0.81** J	**1,080**	**3** U	**13.8**	**144** J	**3** U
GCMW-27	059-2231	N	30	35	ft	**651** J	**5,090** J	**173**	**9.3** J	**28.2**	**1,760** J	**5.1** U	**4.7**	**3,920**	**2.6** J	**21.7**	**814** J	**0.42** J
GCMW-27	059-2232	N	35	40	ft	**3.1** J	**3,100** J	**311**	**0.11** UJ	**18.6**	**2,000** J	**4** U	**1.1** U	**567** U	**2.8** U	**13.9**	**16.3** J	**2.9** U
GCMW-27	059-2233	N	40	45	ft	**3.7** J	**3,210** J	**287**	**0.12** UJ	**25.2**	**1,710** J	**4.1** U	**1.2** U	**589** U	**2.9** U	**12**	**24.7** J	**2.9** U

Filled in 1st St. Turning Basin

(MW27)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Type	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-27	GC-MW27I	N	Intermediate	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-27	GC-MW27S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Type	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene	Bromochloromethane	Bromodichloromethane
MW-27	GC-MW27I	N	Intermediate	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**2.6** J	**31** J	**0.5** U	**0.5** U
MW-27	GC-MW27S	N	Shallow	**0.58**	**0.5** U	**0.5** U	**0.7**	**2.4**	--	**5** U	**5** U	**0.57**	**0.5** U	**0.5** U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Type	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene	cis-1,3-dichloropropene	Cyclohexane
MW-27	GC-MW27I	N	Intermediate	**0.5** U	0.5 UR	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**3.7**	**1.2**	**2.2**	**0.5** UJ	**0.5** U
MW-27	GC-MW27S	N	Shallow	**0.5** U	0.5 UR	**0.5** U	**0.5** U	**7**	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** UJ	**0.5** U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Type	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane	Methylene chloride
MW-27	GC-MW27I	N	Intermediate	**0.5** U	**0.5** U	**150** J	**19**	**150** J	**0.5** UJ	**5** U	**5** U	**0.5** U	**0.5** UJ
MW-27	GC-MW27S	N	Shallow	**0.5** U	**0.5** U	**2.3**	**0.36** J	**2.3**	**0.5** U	**5** U	**5** U	**0.5** U	**0.5** U

Filled in 1st St. Turning Basin (MW27)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Type	o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
MW-27	GC-MW27I	N	Intermediate	**94**	J	**4.4**		**17**	J	**0.5**	U	**66**	J	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	UJ	**0.5**	U
MW-27	GC-MW27S	N	Shallow	**1.3**		**0.5**	U	**0.5**	U	**0.5**	U	**1.4**		**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-27	GC-MW27I	N	Intermediate	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**100**	U	**50**	UJ	**50**	U	**50**	U	**50**	U
MW-27	GC-MW27S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	UJ	**5**	U	**5**	U	**5**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-methylnaphthalene	2-methylphenol (o-cresol)	2-nitroaniline	2-nitrophenol	3,3'-dichlorobenzidine	3-nitroaniline	4,6-dinitro-2-methylphenol	4-bromophenyl phenyl ether	4-chloro-3-methylphenol	4-chloroaniline	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)
MW-27	GC-MW27I	N	Intermediate	**630**	**50** U	**100** U	**50** U	**50** U	**100** U	**100** U	**50** U	**50** U	**50** U	**50** U	**50** U
MW-27	GC-MW27S	N	Shallow	**11**	**5** U	**10** U	**5** U	**5** U	**10** U	**10** U	**5** U	**5** U	**5** U	**5** U	**5** U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
MW-27	GC-MW27I	N	Intermediate	**100** U	**100** U	**210**	**9.5** J	**50** U	**24** J	**50** U	**50** UJ	**2.1**	**1** U	**1.3**	**1** UJ
MW-27	GC-MW27S	N	Shallow	**10** U	**10** U	**5.9**	**0.11**	**5** U	**2** J	**5** U	**5** U	**0.66** J	**0.48**	**0.58**	**0.66**

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
MW-27	GC-MW27I	N	Intermediate	**0.29**	J	**50**	U	**41**	J	**50**	U	**50**	U	**50**	U	**50**	U	**50**	U	**9.9**	J	**1.2**		**1**	U
MW-27	GC-MW27S	N	Shallow	**0.12**		**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**0.33**		**0.1**	U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
MW-27	GC-MW27I	N	Intermediate	**11** J	**50** U	**50** U	**50** U	**50** U	**10** J	**84**	**50** U	**50** U	**50** U	**50** U
MW-27	GC-MW27S	N	Shallow	**5** U	**5** U	**5** U	**5** U	**5** U	**1.7** J	**3.2** J	**5** U	**5** U	**5** U	**5** U

Filled in 1st St. Turning Basin (MW27)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene	Phenol		Pyrene		Total PAHs
MW-27	GC-MW27I	N	Intermediate	**0.97**	J	**50**	U	**1,700**	J	**50**	U	**50**	U	**50**	U	**2**	U	**110**	**50**	U	**16**	J	**2,799**
MW-27	GC-MW27S	N	Shallow	**0.55**		**5**	U	**17**		**5**	U	**5**	U	**5**	U	**0.2**	U	**8.6**	**5**	U	**2.9**	J	**55.79**

Filled in 1st St. Turning Basin (MW27)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
MW-27	GC-MW27I	N	Intermediate	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-27	GC-MW27S	N	Shallow	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

Filled in 1st St. Turning Basin (MW27)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-27	GC-MW27I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	0.1	UR	**0.1**	U	**0.1**	U	**5**	U	--	
MW-27	GC-MW27S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

Filled in 1st St. Turning Basin (MW27)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-27	GC-MW27I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-27	GC-MW27S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

Filled in 1st St. Turning Basin (MW27)
Metal and Cyanide Concentrations in Groundwater (ug.L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved		Barium		Barium, dissolved		Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-27	GC-MW27I	N	Intermediate	**201**		**200**	U	**2**	U	**2**	U	0.84	R	4	R	17.1	R	323	R	**1**	U	**1**	U	**1**	U	**1**	U
MW-27	GC-MW27S	N	Shallow	**3,000**	U	**3,000**	U	**20**	U	**20**	U	**13.4**	J	**14**	J	**87.9**	J	**82.4**	J	**10**	U	**10**	U	**10**	U	**10**	U

Filled in 1st St. Turning Basin (MW27)
Metal and Cyanide Concentrations in Groundwater (ug.L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium		Calcium, dissolved		Chromium		Chromium, dissolved		Cobalt		Cobalt, dissolved		Copper		Copper, dissolved		Iron		Iron, dissolved		Lead	
MW-27	GC-MW27I	N	Intermediate	**60,100**		**57,000**		0.62	R	3.3	R	**0.22**	J	**0.79**	J	**5.3**	J	**25**	U	**6,950**		**5,510**		**1**	U
MW-27	GC-MW27S	N	Shallow	**300,000**	J	**314,000**		**193**	J	**72.4**	J	**10**	U	**10**	U	**375**	U	**375**	U	**6,110**	J	**4,800**		**4.7**	J

Filled in 1st St. Turning Basin (MW27)
Metal and Cyanide Concentrations in Groundwater (ug.L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium
MW-27	GC-MW27I	N	Intermediate	**1** U	**61,000**	**57,300**	19 R	4,660 R	**0.14** J	**0.075** J	1.1 R	18.3 R	**45,700**	**37,300**	**5** UJ
MW-27	GC-MW27S	N	Shallow	**10** U	**886,000** J	**927,000**	**257**	**230**	**0.092** J	**0.09** J	**59.5** J	**30.4** J	**304,000** J	**310,000**	23.6 R

Filled in 1st St. Turning Basin (MW27)
Metal and Cyanide Concentrations in Groundwater (ug.L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-27	GC-MW27I	N	Intermediate	**5** UJ	**1** UJ	**1** U	**1,310,000** J	**411,000**	**1** U	**1** U	**5** U	**5** U	**2** U	**2.6**	**32.3**
MW-27	GC-MW27S	N	Shallow	28.8 R	**10** UJ	**10** UJ	**7,080,000**	**7,020,000**	**10** U	**10** U	**50** U	**50** U	**10** J	**20** UJ	**10** U

6th St. Basin – USEPA

(MW24)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 6th St. Basin (2nd Ave. Side)
Monitoring Well Soil Borings Installed at Address: GC-MW-24
Intermediate Monitoring Wells Installed at Address: GC-MW-24I
Shallow Monitoring Wells Installed at Address: GC-MW-24S

GC-MW-24

The soil samples from the soil boring installed for the intermediate well (situated approximately 35 feet from the canal) contained 47 VOCs, 150 SVOCs, 13 pesticides, 0 PCBs, and 137 metals. From these, 6 VOCs, 11 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was ethylbenzene (72,000 µg/kg). The SVOC occurring at the highest concentration above screening value was naphthalene (250,000 µg/kg). The metal occurring at the highest concentration above screening value was manganese (3,830 mg/kg).

Shallow groundwater

The shallow well (depth of approximately16 ft bgs and situated approximately 35 feet from the canal) contained 10 VOCs, 10 SVOCs, 0 pesticides, 0 PCBs, and 21 metals. From these, 4 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 7 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was ethylbenzene (11 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (9,840 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately40 ft bgs and situated approximately 35 feet from the canal) contained 4 VOCs, 5 SVOCs, 0 pesticides, 0 PCBs, and 11 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (307 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

6th St. Basin - USEPA (MW24)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
GCMW-24	059-2106	N	5	10	ft	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U
GCMW-24	059-2107	N	11	11.5	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-24	059-2108	N	13.5	14	ft	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U
GCMW-24	059-2109	N	15	20	ft	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-24	059-2110	N	20	25	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U
GCMW-24	059-2111	N	25	30	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-24	059-2112	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-24	059-2113	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

6th St. Basin - USEPA (MW24)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dibromoethane		1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)		2-hexanone		Acetone		Benzene	
GCMW-24	059-2106	N	5	10	ft	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	19,000	UR	**1,900**	U	**740**	J	**950**	U
GCMW-24	059-2107	N	11	11.5	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	160	UR	**16**	U	**36**		**3.1**	J
GCMW-24	059-2108	N	13.5	14	ft	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	170	UR	**17**	U	**47**		**5.8**	J
GCMW-24	059-2109	N	15	20	ft	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	210	UR	**21**	U	**46**		**5**	J
GCMW-24	059-2110	N	20	25	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	280,000	UR	**28,000**	U	**28,000**	U	**12,000**	J
GCMW-24	059-2111	N	25	30	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**0.51**	J	99	UR	**9.9**	U	**13**		**11**	
GCMW-24	059-2112	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	100	UR	**10**	U	**10**	U	**5**	U
GCMW-24	059-2113	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	97	UR	**9.7**	U	**9.7**	U	**4.8**	U

6th St. Basin - USEPA (MW24)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	**Bromochloromethane**		**Bromodichloromethane**		**Bromoform**		**Bromomethane**		**Carbon disulfide**		**Carbon tetrachloride**		**Chlorobenzene**		**Chloroethane**		**Chloroform**		**Chloromethane**		**cis-1,2-dichloroethylene**	
GCMW-24	059-2106	N	5	10	ft	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U
GCMW-24	059-2107	N	11	11.5	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**27**		**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-24	059-2108	N	13.5	14	ft	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**31**		**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U
GCMW-24	059-2109	N	15	20	ft	**11**	U	**11**	U	**11**	U	**11**	U	**61**		**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-24	059-2110	N	20	25	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U
GCMW-24	059-2111	N	25	30	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.8**	J	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-24	059-2112	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**2.3**	J	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-24	059-2113	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**0.89**	J	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

6th St. Basin - USEPA (MW24)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	cis-1,3-dichloropropene		Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
GCMW-24	059-2106	N	5	10	ft	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**340**	J	**950**	U	**950**	U	**1,900**	U	**1,900**	U	**360**	J
GCMW-24	059-2107	N	11	11.5	ft	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**1.2**	J	**1**	J	**1.4**	J	**8.2**	U	**16**	U	**16**	U	**8.2**	U
GCMW-24	059-2108	N	13.5	14	ft	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**1.3**	J	**0.41**	J	**1.5**	J	**8.7**	U	**17**		**17**	U	**8.7**	U
GCMW-24	059-2109	N	15	20	ft	**11**	U	**11**	U	**11**	U	**11**	U	**3.7**	J	**0.95**	J	**4.4**	J	**11**	U	**17**	J	**21**	U	**11**	U
GCMW-24	059-2110	N	20	25	ft	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**72,000**		**11,000**	J	**57,000**		**14,000**	U	**28,000**	U	**28,000**	U	**14,000**	U
GCMW-24	059-2111	N	25	30	ft	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**62**		**9.4**		**43**		**4.9**	U	**9.9**	U	**9.9**	U	**4.9**	U
GCMW-24	059-2112	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**0.24**	J	**5**	U	**0.32**	J	**5**	U	**10**	U	**10**	U	**5**	U
GCMW-24	059-2113	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**9.7**	U	**9.7**	U	**4.8**	U

6th St. Basin - USEPA (MW24)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Locatrion ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether		Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-24	059-2106	N	5	10	ft	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U	**950**	U
GCMW-24	059-2107	N	11	11.5	ft	**8.2**	U	**1**	J	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U	**8.2**	U
GCMW-24	059-2108	N	13.5	14	ft	**8.7**	U	**0.95**	J	**8.7**	U	**0.58**	J	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U	**8.7**	U
GCMW-24	059-2109	N	15	20	ft	**11**	U	**2.1**	J	**11**	U	**0.89**	J	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U	**11**	U
GCMW-24	059-2110	N	20	25	ft	**14,000**	U	**29,000**		**14,000**	U	**14,000**	U	**14,000**	U	**22,000**		**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U	**14,000**	U
GCMW-24	059-2111	N	25	30	ft	**4.9**	U	**29**		**4.9**	U	**4.9**	U	**4.9**	U	**14**		**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U	**4.9**	U
GCMW-24	059-2112	N	30	35	ft	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U
GCMW-24	059-2113	N	35	40	ft	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U	**4.8**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-24	059-2106	N	5	10	ft	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**12,000**	U	**6,200**	U	**6,200**	U	**6,200**	U
GCMW-24	059-2107	N	11	11.5	ft	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**280**	U	**540**	U	**280**	U	**280**	U	**280**	U
GCMW-24	059-2108	N	13.5	14	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**550**	U	**290**	U	**290**	U	**290**	U
GCMW-24	059-2109	N	15	20	ft	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**300**	U	**580**	U	**300**	U	**300**	U	**300**	U
GCMW-24	059-2110	N	20	25	ft	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**11,000**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-24	059-2111	N	25	30	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U
GCMW-24	059-2112	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**370**	U	**190**	U	**190**	U	**190**	U
GCMW-24	059-2113	N	35	40	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**210**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
GCMW-24	059-2106	N	5	10	ft	**6,200**	U	**1,700**	J	**6,200**	U	**12,000**	U	**6,200**	U	**6,200**	U	**12,000**	U	**12,000**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U
GCMW-24	059-2107	N	11	11.5	ft	**280**	U	**31**	J	**280**	U	**540**	U	**280**	U	**280**	UJ	**540**	U	**540**	U	**280**	U	**280**	U	**280**	UJ	**280**	U
GCMW-24	059-2108	N	13.5	14	ft	**290**	U	**39**	J	**290**	U	**550**	U	**290**	U	**290**	UJ	**550**	U	**550**	U	**290**	U	**290**	U	**290**	UJ	**290**	U
GCMW-24	059-2109	N	15	20	ft	**300**	U	**830**		**300**	U	**580**	U	**300**	U	**300**	U	**580**	U	**580**	U	**300**	U	**300**	U	**300**	U	**300**	U
GCMW-24	059-2110	N	20	25	ft	**5,800**	U	**240,000**		**5,800**	U	**11,000**	U	**5,800**	U	**5,800**	U	**11,000**	U	**11,000**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U
GCMW-24	059-2111	N	25	30	ft	**200**	U	**96**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-24	059-2112	N	30	35	ft	**190**	U	**10**	J	**190**	U	**370**	U	**190**	U	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-24	059-2113	N	35	40	ft	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**210**	U	**210**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
GCMW-24	059-2106	N	5	10	ft	**6,200**	U	**12,000**	U	**12,000**	U	**9,200**		**1,300**	J	**260**	J	**4,900**	J	**6,200**	U	**6,200**	U	**3,100**	J	**2,100**	J	**2,500**	J
GCMW-24	059-2107	N	11	11.5	ft	**12**	J	**540**	U	**540**	U	**150**	J	**22**	J	**140**	J	**210**	J	**280**	U	**280**	U	**310**		**240**	J	**270**	J
GCMW-24	059-2108	N	13.5	14	ft	**110**	J	**550**	U	**550**	U	**54**	J	**290**	U	**140**	J	**100**	J	**290**	U	**290**	U	**150**	J	**110**	J	**130**	J
GCMW-24	059-2109	N	15	20	ft	**9**	J	**580**	U	**580**	U	**520**		**300**	U	**130**	J	**680**		**300**	U	**300**	U	**690**		**500**		**630**	
GCMW-24	059-2110	N	20	25	ft	**5,800**	U	**11,000**	U	**11,000**	U	**140,000**		**8,900**	J	**5,800**	U	**72,000**		**5,800**	U	**5,800**	U	**36,000**	J	**27,000**	J	**20,000**	
GCMW-24	059-2111	N	25	30	ft	**200**	U	**380**	U	**380**	U	**32**	J	**14**	J	**53**	J	**16**	J	**200**	U	**80**	J	**9.3**	J	**8.1**	J	**6.9**	J
GCMW-24	059-2112	N	30	35	ft	**190**	U	**370**	U	**370**	U	**190**	U	**190**	U	**63**	J	**6.7**	J	**190**	U	**95**	J	**5.8**	J	**190**	U	**190**	U
GCMW-24	059-2113	N	35	40	ft	**210**	U	**400**	U	**400**	U	**210**	U	**210**	U	**66**	J	**210**	U	**210**	U	**77**	J	**210**	U	**210**	U	**210**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam		Carbazole		Chrysene		Dibenz(a,h)anthracene	
GCMW-24	059-2106	N	5	10	ft	**1,000**	J	**720**	J	**6,200**	U	**330**	J	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**6,200**	U	**2,600**	J	**380**	J
GCMW-24	059-2107	N	11	11.5	ft	**140**	J	**100**	J	**280**	U	**18**	J	**280**	U	**280**	U	**280**	U	**70**	J	**280**	U	**34**	J	**240**	J	**36**	J
GCMW-24	059-2108	N	13.5	14	ft	**59**	J	**55**	J	**290**	U	**9.5**	J	**290**	U	**290**	U	**290**	U	**32**	J	**290**	U	**19**	J	**120**	J	**25**	J
GCMW-24	059-2109	N	15	20	ft	**290**	J	**210**	J	**300**	U	**69**	J	**300**	U	**300**	U	**300**	U	**63**	J	**300**	U	**240**	J	**650**		**61**	J
GCMW-24	059-2110	N	20	25	ft	**10,000**	J	**8,000**	J	**5,800**	U	**27,000**	J	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**5,800**	U	**2,100**	J	**36,000**	J	**3,500**	J
GCMW-24	059-2111	N	25	30	ft	**200**	U	**200**	U	**12**	J	**12**	J	**200**	U	**200**	U	**200**	U	**21**	J	**200**	U	**200**	U	**200**	U	**200**	U
GCMW-24	059-2112	N	30	35	ft	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**190**	U	**30**	J	**190**	U	**190**	U	**190**	U	**190**	U
GCMW-24	059-2113	N	35	40	ft	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**210**	U	**28**	J	**210**	U	**210**	U	**210**	U	**210**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenzofuran		Diethyl phthalate		Dimethyl phthalate		Di-n-butyl phthalate		Di-n-octylphthalate		Fluoranthene		Fluorene		Hexachlorobenzene		Hexachlorobutadiene		Hexachlorocyclopentadiene		Hexachloroethane		Indeno(1,2,3-c,d)pyrene	
GCMW-24	059-2106	N	5	10	ft	3,600	J	6,200	U	6,200	U	6,200	U	6,200	U	11,000		7,900		6,200	U	6,200	U	6,200	U	6,200	U	1,200	J
GCMW-24	059-2107	N	11	11.5	ft	79	J	9.2	J	280	U	17	J	280	U	690		100	J	280	U	280	U	280	UJ	280	U	140	J
GCMW-24	059-2108	N	13.5	14	ft	29	J	290	U	290	U	9.7	J	290	U	410		50	J	290	U	290	U	290	UJ	290	U	72	J
GCMW-24	059-2109	N	15	20	ft	260	J	300	U	300	U	11	J	300	U	2,100		450		300	U	300	U	300	U	300	U	310	
GCMW-24	059-2110	N	20	25	ft	7,200	J	5,800	U	5,800	U	5,800	U	5,800	U	63,000		78,000		5,800	U	5,800	U	5,800	U	5,800	U	9,900	J
GCMW-24	059-2111	N	25	30	ft	200	U	200	U	200	U	7.7	J	200	U	15	J	19	J	200	U	200	U	200	U	200	U	200	U
GCMW-24	059-2112	N	30	35	ft	190	U	190	U	190	U	5.8	J	190	U	190	U	190	U	190	U	190	U	190	U	190	U	190	U
GCMW-24	059-2113	N	35	40	ft	210	U	210	U	210	U	12	J	210	U	210	U	210	U	210	U	210	U	210	U	210	U	210	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Isophorone		Methyl isobutyl ketone	Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
GCMW-24	059-2106	N	5	10	ft	**6,200**	U	--	**1,600**	J	**6,200**	U	**6,200**	U	**6,200**	U	**12,000**	U	**21,000**		**6,200**	U	**11,000**		**83,200**
GCMW-24	059-2107	N	11	11.5	ft	**280**	U	--	**130**	J	**280**	U	**280**	U	**280**	U	**540**	U	**510**		**32**	J	**610**		**3,929**
GCMW-24	059-2108	N	13.5	14	ft	**290**	U	--	**170**	J	**290**	U	**290**	U	**290**	U	**550**	U	**400**		**90**	J	**320**		**2,264**
GCMW-24	059-2109	N	15	20	ft	**300**	U	--	**2,100**		**300**	U	**300**	U	**300**	U	**580**	U	**2,900**		**42**	J	**1,800**		**14,721**
GCMW-24	059-2110	N	20	25	ft	**5,800**	U	--	**250,000**		**5,800**	U	**5,800**	U	**5,800**	U	**11,000**	U	**240,000**		**5,800**	U	**110,000**		**1,352,300**
GCMW-24	059-2111	N	25	30	ft	**200**	U	--	**270**		**200**	U	**200**	U	**200**	U	**380**	U	**56**	J	**11**	J	**21**	J	**563.3**
GCMW-24	059-2112	N	30	35	ft	**190**	U	--	**25**	J	**190**	U	**190**	U	**190**	U	**370**	U	**18**	J	**14**	J	**10**	J	**75.5**
GCMW-24	059-2113	N	35	40	ft	**210**	U	--	**13**	J	**210**	U	**210**	U	**210**	U	**400**	U	**210**	U	**16**	J	**210**	U	**13**

6th St. Basin - USEPA (MW24)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	**Aldrin**		**Alpha BHC**		**Alpha endosulfan**		**Alpha-chlordane**		**Beta BHC**		**Beta endosulfan**		**Delta BHC**		**Dieldrin**		**Endosulfan sulfate**		**Endrin**		**Endrin aldehyde**	
GCMW-24	059-2106	N	5	10	ft	2.1	UR	**2.1**	UJ	2.1	UR	2.1	UR	2.1	UR	**4.1**	UJ	2.1	UR	4.1	UR	4.1	UR	**0.72**	J	4.1	UR
GCMW-24	059-2107	N	11	11.5	ft	**2.8**	U	**0.18**	J	**2.8**	U	**2.8**	U	**2.8**	U	**5.5**	U	**2.8**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U
GCMW-24	059-2108	N	13.5	14	ft	**2.9**	U	**0.19**	J	**2.9**	U	**2.9**	U	**2.9**	U	**5.6**	U	**0.78**	J	**5.6**	U	**5.6**	U	**5.6**	U	**5.6**	U
GCMW-24	059-2109	N	15	20	ft	**3**	U	**3**	U	**3**	U	**3**	U	**3**	U	**5.9**	U	**3**	U	**5.9**	U	**5.9**	U	**5.9**	U	**5.9**	U
GCMW-24	059-2110	N	20	25	ft	**19**	U	**19**	U	**19**	U	**19**	U	**19**	U	**27**	J	**19**	U	**38**	U	**38**	U	**38**	U	**38**	U
GCMW-24	059-2111	N	25	30	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.8**	U	**2**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-24	059-2112	N	30	35	ft	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**3.8**	U	**1.9**	U	**3.8**	U	**3.8**	U	**3.8**	U	**3.8**	U
GCMW-24	059-2113	N	35	40	ft	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**4**	U	**2.1**	U	**4**	U	**4**	U	**4**	U	**4**	U

6th St. Basin - USEPA (MW24)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	**Endrin ketone**		**Gamma BHC**		**Gamma-chlordane**		**Heptachlor**		**Heptachlor epoxide**		**Methoxychlor**		**P,P'-DDD**		**P,P'-DDE**		**P,P'-DDT**		**Toxaphene**		**Total DDTs**	
GCMW-24	059-2106	N	5	10	ft	**0.28**	UJ	2.1	UR	3.2	R	**2.1**	UJ	2.1	UR	**1.4**	UJ	4.1	UR	**4.1**	UJ	**0.48**	UJ	210	UR	--	
GCMW-24	059-2107	N	11	11.5	ft	**5.5**	U	**2.8**	U	**2.8**	U	**0.11**	J	**2.8**	U	**28**	U	**5.5**	U	**5.5**	U	**0.21**	J	**280**	U	**0.21**	
GCMW-24	059-2108	N	13.5	14	ft	**5.6**	U	**2.9**	U	**2.9**	U	**2.9**	U	**2.9**	U	**0.71**	J	**5.6**	U	**5.6**	U	**5.6**	U	**290**	U	**0**	U
GCMW-24	059-2109	N	15	20	ft	**5.9**	U	**3**	U	**3**	U	**3**	U	**3**	U	**30**	U	**5.9**	U	**5.9**	U	**5.9**	U	**300**	U	**0**	U
GCMW-24	059-2110	N	20	25	ft	**38**	U	**19**	U	**30**	NJ	**19**	U	**19**	U	**100**	J	**27**	J	**38**	U	**75**		**1,900**	U	**102**	
GCMW-24	059-2111	N	25	30	ft	**3.8**	U	**0.21**	J	**2**	U	**2**	U	**2**	U	**20**	U	**3.8**	U	**3.8**	U	**3.8**	U	**200**	U	**0**	U
GCMW-24	059-2112	N	30	35	ft	**3.8**	U	**1.9**	U	**1.9**	U	**1.9**	U	**1.9**	U	**19**	U	**3.8**	U	**3.8**	U	**3.8**	U	**190**	U	**0**	U
GCMW-24	059-2113	N	35	40	ft	**4**	U	**2.1**	U	**2.1**	U	**2.1**	U	**2.1**	U	**21**	U	**4**	U	**4**	U	**4**	U	**210**	U	**0**	U

6th St. Basin - USEPA (MW24)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
GCMW-24	059-2106	N	5	10	ft	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**41**	U	**0**	U
GCMW-24	059-2107	N	11	11.5	ft	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**55**	U	**0**	U
GCMW-24	059-2108	N	13.5	14	ft	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**56**	U	**0**	U
GCMW-24	059-2109	N	15	20	ft	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**59**	U	**0**	U
GCMW-24	059-2110	N	20	25	ft	38	UR	38	UR	38	UR	38	UR	38	UR	38	UR	38	UR	38	UR	38	UR	--	
GCMW-24	059-2111	N	25	30	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-24	059-2112	N	30	35	ft	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**38**	U	**0**	U
GCMW-24	059-2113	N	35	40	ft	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**40**	U	**0**	U

6th St. Basin - USEPA (MW24)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead
GCMW-24	059-2106	N	5	10	ft	**5,470**	**2.5** J	**16.4**	**276**	**0.31** J	**1.9**	**62,900**	**9.1**	**9.5**	**631**	**21,600**	**1,160**
GCMW-24	059-2107	N	11	11.5	ft	**16,500**	**0.63** J	**9.2**	**39.2**	**0.63** J	**0.13** J	**5,230**	**31.1**	**13.2**	**22.8**	**32,600**	**30.1**
GCMW-24	059-2108	N	13.5	14	ft	**18,000**	**1.2** J	**9.4**	**42.8**	**0.82** U	**0.083** J	**2,710**	**32.7**	**12.1**	**39.1**	**44,100**	**21.5**
GCMW-24	059-2109	N	15	20	ft	**16,500**	**0.86** J	**8.8**	**41.4**	**0.84** U	**0.84** U	**4,060**	**27.4**	**8** J	**13.7**	**38,200**	**13.4**
GCMW-24	059-2110	N	20	25	ft	**3,640**	**7** UJ	**3.1**	**16.6** J	**0.58** U	**0.58** U	**584** U	**8.6**	**4.8** J	**4.7**	**9,230**	**4**
GCMW-24	059-2111	N	25	30	ft	**8,180**	**7.1** UJ	**4.2**	**33.3**	**0.59** U	**0.59** U	**1,620**	**14.9**	**7.9**	**15**	**16,500**	**8.1**
GCMW-24	059-2112	N	30	35	ft	**3,970**	**6.7** UJ	**4.4**	**57.7**	**0.56** U	**0.56** U	**1,650**	**9.2**	**4.8** J	**7.3**	**8,500**	**4.5**
GCMW-24	059-2113	N	35	40	ft	**4,920**	**7.2** UJ	**1.4**	**40.8**	**0.6** U	**0.6** U	**14,300**	**10.7**	**4.7** J	**11.7**	**11,500**	**5.1**

6th St. Basin - USEPA (MW24)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-24	059-2106	N	5	10	ft	**12,800**	**3,830**	**0.79**	**17.7**	**687** J	**4.3** U	**0.43** J	**613** U	**3.1** U	**56.7**	**634**	**2.5** J
GCMW-24	059-2107	N	11	11.5	ft	**5,660**	**320**	**0.079** J	**33.7**	**2,970** J	**5.4** U	**1.5** U	**1,090**	**3.9** U	**38.1**	**120**	**3.9** U
GCMW-24	059-2108	N	13.5	14	ft	**6,950**	**347**	**0.27**	**30.2**	**3,450** J	**5.8** U	**1.6** U	**1,370**	**4.1** U	**38.2**	**69.9**	**4.1** U
GCMW-24	059-2109	N	15	20	ft	**5,660**	**294**	**0.18** U	**22.3**	**3,040** J	**5.9** U	**1.7** U	**2,180**	**4.2** U	**36.2**	**54.2**	**4.3** U
GCMW-24	059-2110	N	20	25	ft	**960**	**40.2**	**0.11** U	**8.1**	**867** J	**4.1** U	**1.2** U	**584** U	**2.9** U	**15.9**	**21.1**	**3** U
GCMW-24	059-2111	N	25	30	ft	**3,770**	**161**	**0.12** U	**17.2**	**1,500** J	**4.2** U	**1.2** U	**692**	**3** U	**20.2**	**43.7**	**3** U
GCMW-24	059-2112	N	30	35	ft	**2,240**	**95.7**	**0.12** U	**15.3**	**880** J	**3.9** U	**1.1** U	**560** U	**2.8** U	**14.6**	**30**	**2.8** U
GCMW-24	059-2113	N	35	40	ft	**5,960**	**369**	**0.13** U	**13.9**	**1,420** J	**4.2** U	**1.2** U	**596** U	**3** U	**14.5**	**20.7**	**3.1** U

6th St. Basin – USEPA

(MW24)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

6th St. Basin - USEPA (MW24)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane	
MW-24	GC-MW24I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U
MW-24	GC-MW24S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U	**0.05**	U

6th St. Basin - USEPA (MW24)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dichlorobenzene		1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	2-hexanone		Acetone		Benzene		Bromochloromethane	
MW-24	GC-MW24I	N	Intermediate	**0.5**	U	**0.5**	U	**0.6**		**0.5**	U	**0.5**	U	--	**5**	U	**5**	U	**0.5**	U	**0.5**	U
MW-24	GC-MW24S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	--	**5**	U	**17**	U	**3.7**		**0.5**	U

6th St. Basin - USEPA (MW24)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	**Bromodichloromethane**		**Bromoform**		**Bromomethane**		**Carbon disulfide**		**Carbon tetrachloride**		**Chlorobenzene**		**Chloroethane**		**Chloroform**		**Chloromethane**		**cis-1,2-dichloroethylene**		**cis-1,3-dichloropropene**	
MW-24	GC-MW24I	N	Intermediate	**0.5**	U	**0.5**	UJ	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U
MW-24	GC-MW24S	N	Shallow	**0.5**	U	**0.5**	UJ	**0.5**	U	**2.6**	J	**0.5**	U	**0.5**	U	**0.5**	U	**9.4**		**0.5**	U	**0.5**	U	**0.5**	UJ

6th St. Basin - USEPA (MW24)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Cyclohexane		Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene	Isopropylbenzene (cumene)		m, p xylenes	Methyl acetate		Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane	
MW-24	GC-MW24I	N	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**1.3**	**0.5**	U	**1.3**	**0.5**	U	**5**	U	**5**	U	**0.5**	U
MW-24	GC-MW24S	N	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**11**	**0.97**		**11**	**0.5**	U	**5**	U	**5**	U	**0.5**	U

6th St. Basin - USEPA (MW24)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	**Methylene chloride**	**o-xylene (1,2-dimethylbenzene)**	**Styrene**	**Tert-butyl methyl ether**	**Tetrachloroethylene(PCE)**	**Toluene**	**trans-1,2-dichloroethene**	**trans-1,3-dichloropropene**	**Trichloroethylene (TCE)**	**Trichlorofluoromethane**	**Vinyl chloride**
MW-24	GC-MW24I	N	Intermediate	**0.5** U	**0.35** J	**0.5** U	**0.5** U	**0.5** U	**0.51** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-24	GC-MW24S	N	Shallow	**1.5**	**5.9**	**0.5** U	**0.55**	**0.5** U	**3**	**0.5** U	**0.5** UJ	**0.5** U	**0.5** U	**0.5** U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene		2-chlorophenol	
MW-24	GC-MW24I	N	Intermediate	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-24	GC-MW24S	N	Shallow	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**5**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample	Depth	2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline		4-chlorophenyl phenyl ether	
MW-24	GC-MW24I	N	Intermediate	**0.14**	U	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U
MW-24	GC-MW24S	N	Shallow	**0.32**	U	**5**	U	**10**	U	**5**	U	**5**	U	**10**	U	**10**	U	**5**	U	**5**	U	**5**	U	**5**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample	Depth	4-methylphenol (p-cresol)		4-nitroaniline		4-nitrophenol		Acenaphthene		Acenaphthylene		Acetophenone		Anthracene		Atrazine		Benzaldehyde		Benzo(a)anthracene		Benzo(a)pyrene		Benzo(b)fluoranthene	
MW-24	GC-MW24I	N	Intermediate	**5**	U	**10**	U	**10**	U	**0.1**	U	**0.1**	U	**5**	U	**0.1**	U	**5**	U	**5**	UJ	**0.1**	U	**0.1**	U	**0.1**	U
MW-24	GC-MW24S	N	Shallow	**5**	U	**10**	U	**10**	U	**1.1**	J	**1.5**	J	**5**	U	**0.1**	U	**5**	U	**5**	UJ	**0.19**		**0.1**	U	**0.1**	U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample	Depth	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene
MW-24	GC-MW24I	N	Intermediate	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**1.2** J	**5** U	**5** U	**0.1** U
MW-24	GC-MW24S	N	Shallow	**0.1** U	**0.1** U	**5** U	**5** U	**5** U	**5** U	**5** U	**5** J	**5** U	**5** U	**0.14**

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample	Depth	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
MW-24	GC-MW24I	N	Intermediate	**0.1** U	**5** U	**5** U	**1.3** J	**5** U	**5** U	**0.27** J	**0.1** U	**5** U	**5** U	**5** U
MW-24	GC-MW24S	N	Shallow	**0.1** U	**5** U	**5** U	**1.7** J	**5** U	**5** U	**1.4** J	**0.17**	**5** U	**5** U	**5** U

6th St. Basin - USEPA (MW24)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample	Depth	Hexachloroethane		Indeno(1,2,3-c,d)pyrene		Isophorone		Naphthalene		Nitrobenzene		N-nitrosodi-n-propylamine		N-nitrosodiphenylamine		Pentachlorophenol		Phenanthrene		Phenol		Pyrene		Total PAHs
MW-24	GC-MW24I	N	Intermediate	**5**	U	**0.1**	U	**5**	U	**8.1**	J	**5**	U	**5**	U	**5**	U	**0.2**	UJ	**0.1**	U	**5**	U	**9.1**	J	**17.47**
MW-24	GC-MW24S	N	Shallow	**5**	U	**0.1**	UJ	**5**	U	**4.5**	J	**5**	U	**5**	U	**5**	U	**0.2**	UJ	**0.1**	U	**5**	U	**2.8**	J	**11.8**

6th St. Basin - USEPA (MW24)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	**Aldrin**		**Alpha BHC**		**Alpha endosulfan**		**Alpha-chlordane**		**Beta BHC**		**Beta endosulfan**		**Delta BHC**		**Dieldrin**		**Endosulfan sulfate**		**Endrin**		**Endrin aldehyde**	
MW-24	GC-MW24I	N	Intermediate	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U
MW-24	GC-MW24S	N	Shallow	**0.05**	U	**0.05**	U	0.05	UR	**0.05**	U	**0.05**	U	**0.1**	U	**0.05**	U	**0.1**	U	**0.1**	U	**0.1**	U	**0.1**	U

6th St. Basin - USEPA (MW24)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	**Endrin ketone**		**Gamma BHC**		**Gamma-chlordane**		**Heptachlor**		**Heptachlor epoxide**		**Methoxychlor**		**P,P'-DDD**		**P,P'-DDE**		**P,P'-DDT**		**Toxaphene**		**Total DDTs**	
MW-24	GC-MW24I	N	Intermediate	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U
MW-24	GC-MW24S	N	Shallow	**0.1**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.05**	U	**0.5**	U	**0.1**	U	**0.1**	U	**0.1**	U	**5**	U	**0**	U

6th St. Basin - USEPA (MW24)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	**Aroclor 1016**		**Aroclor 1221**		**Aroclor 1232**		**Aroclor 1242**		**Aroclor 1248**		**Aroclor 1254**		**Aroclor 1260**		**Aroclor 1262**		**Aroclor 1268**		**Total PCBs**	
MW-24	GC-MW24I	N	Intermediate	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U
MW-24	GC-MW24S	N	Shallow	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**1**	U	**0**	U

6th St. Basin - USEPA (MW24)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum		Aluminum, dissolved		Antimony		Antimony, dissolved		Arsenic		Arsenic, dissolved	Barium	Barium, dissolved	Beryllium		Beryllium, dissolved		Cadmium		Cadmium, dissolved	
MW-24	GC-MW24I	N	Intermediate	121	R	**200**	U	**2**	U	**2**	U	**1.5**	J	**1.3**	**62.1**	**65**	**1**	U	**1**	U	**1**	U	**1**	U
MW-24	GC-MW24S	N	Shallow	4,630	R	**200**	U	**2.7**		**2.3**		**40**	J	**26.7**	**583**	**368**	**0.65**	J	**1**	U	**0.3**	J	**1**	U

6th St. Basin - USEPA (MW24)
Metal and Cyanide Concentrations in Groundwater (u
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved
MW-24	GC-MW24I	N	Intermediate	**6,610**	**6,230**	**2.5** J	**0.41** J	**0.23** J	**1** U	**25** U	**25** U	**307**	**38.9** J
MW-24	GC-MW24S	N	Shallow	**324,000**	**380,000**	**834** J	**19.6**	**40.8**	**0.77** J	**59.7**	**25** U	**9,840**	**100** U

6th St. Basin - USEPA (MW24)
Metal and Cyanide Concentrations in Groundwater (u
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved
MW-24	GC-MW24I	N	Intermediate	**1** U	**1** U	**7,360**	**6,990**	**44.3** J	**46.6**	**0.096** J	**0.2** U	1.9 R	**0.62** J	**13,600**	**12,600**
MW-24	GC-MW24S	N	Shallow	**17.3** J	**1** U	**341,000**	**114,000**	**860** J	**994**	**0.26**	**0.2** U	**441** J	**3.2** J	**107,000**	**49,600**

6th St. Basin - USEPA (MW24)
Metal and Cyanide Concentrations in Groundwater (u
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Selenium	Selenium, dissolved	Silver	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-24	GC-MW24I	N	Intermediate	**5** U	**5** U	**1** UJ	**1** U	**381,000**	**356,000**	**1** U	**1** U	**5** U	**5** U	3.2 R	**2** UJ	**10** U
MW-24	GC-MW24S	N	Shallow	**4.3** J	**4.2** J	**1.7** J	**1** U	**1,030,000**	**578,000**	**1** U	**1** U	**68.9**	**6.3**	16.6 R	**2** UJ	**11.3**

491 Smith St.

(MW9 & MW10)

Analytical Soil Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

Property Address: 491 Smith St.
Monitoring Well Soil Borings Installed at Address: GC-MW-9 & GC-MW-10
Intermediate Monitoring Wells Installed at Address: GC-MW-9I & GC-MW-10I
Shallow Monitoring Wells Installed at Address: GC-MW-9S & GC-MW-10S

GC-MW-9

The soil samples from the soil boring installed for the intermediate well (situated approximately 28 feet from the canal) contained 16 VOCs, 108 SVOCs, 5 pesticides, 0 PCBs, and 124 metals. From these, 4 VOCs, 7 SVOCs, 0 pesticides, 0 PCBs, and 2 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (10,600 µg/kg). The SVOC occurring at the highest concentration above screening value was benzo(a)anthracene (2,850 µg/kg). The metal occurring at the highest concentration above screening value was lead (650 mg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 28 feet from the canal) contained 1 VOC, 10 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 6 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (18,500 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately39 ft bgs and situated approximately 28 feet from the canal) contained 6 VOCs, 12 SVOCs, 0 pesticides, 0 PCBs, and 14 metals. From these, 5 VOCs, 2 SVOCs, 0 pesticides, 0 PCBs, and 5 metals exceeded the screening criteria. The VOC occurring at the highest concentration above screening criteria was benzene (1,730 µg/L). The SVOC occurring at the highest concentration above screening criteria was biphenyl (21.9 µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was iron (13,700 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

GC-MW-10

The soil samples from the soil boring installed for the intermediate well (situated approximately 329 feet from the canal) contained 16 VOCs, 168 SVOCs, 7 pesticides, 0 PCBs, and 124 metals. From these, 7 VOCs, 16 SVOCs, 0 pesticides, 0 PCBs, and 3 metals exceeded the screening value. The VOC occurring at the highest concentration above screening value was acetone (12,200 µg/kg). The SVOC occurring at the highest concentration above screening value was benzo(b)fluoranthene (37,000 µg/kg). The metal occurring at the highest concentration above screening value was lead (666 mg/kg).

Shallow groundwater

The shallow well (depth of approximately15 ft bgs and situated approximately 329 feet from the canal) contained 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 7 metals. From these, 0 VOCs, 0 SVOCs, 0 pesticides, 0 PCBs, and 4 metals exceeded the screening criteria. The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (2,080 µg/L).

Shallow groundwater at this location is expected to discharge to the canal.

Intermediate groundwater

The intermediate well (depth of approximately45 ft bgs and situated approximately 329 feet from the canal) contained 2 VOCs, 17 SVOCs, 0 pesticides, 0 PCBs, and 10 metals. From these, 0 VOCs, 1 SVOC, 0 pesticides, 0 PCBs,

and 4 metals exceeded the screening criteria. The SVOC occurring at the highest concentration above screening criteria was benzo(a)pyrene (0.53 J µg/L). The metal occurring at the highest concentration above screening criteria (excluding sodium) was manganese (2,210 µg/L).

Intermediate groundwater at this location is expected to discharge to the canal.

Contaminated groundwater discharging to the canal would affect the quality of the water in the canal.

Gowanus Canal Remedial Investigation – Brooklyn, NY

Notes on Soil and Groundwater Analytical Tables:

Analytical laboratory results of soil and groundwater samples collected within this property are presented in the following tables. Samples were collected in the summer of 2010 during the USEPA led remedial investigation of the Gowanus Canal Superfund Site. Analytical results for each sample collected within this property are shown including detected chemical concentrations and non-detected concentrations (designed with a U qualifier). The analytical method detection limit (MDL) is shown for non-detected compounds. The units for analytical results are specified in each table header.

Data Qualifiers:

B – Analyte detected in an associated blank

J – Concentration Estimated

N – Presumptive evidence of a compound based on a mass spectral library search

U – Constituent not detected above the MDL

R-Rejected

Table Acronyms

ft – feet

S-Split Sample

N-Normal sample

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene	
GCMW-01	SB01A	N	0	5	ft	**0.24**	U	**0.54**	U	**1**	U	**0.34**	U	**0.26**	U	**1.2**	U	**1.1**	U
GCMW-01	SB01B	N	5	10	ft	**13**	U	**29**	U	**55**	U	**18**	U	**14**	U	**65**	U	**58**	U
GCMW-01	SB01C	N	10	15	ft	**0.18**	U	**0.4**	U	**0.77**	U	**0.25**	U	**0.19**	U	**0.91**	U	**0.81**	U
GCMW-01	SB01D	N	15	20	ft	**0.23**	U	**0.53**	U	**1**	U	**0.33**	U	**0.25**	U	**1.2**	U	**1.1**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.21**	U	**0.47**	U	**0.91**	U	**0.3**	U	**0.22**	U	**1.1**	U	**0.95**	U
GCMW-01	SB01F	N	25	30	ft	**0.14**	U	**0.31**	U	**0.6**	U	**0.2**	U	**0.15**	U	**0.71**	U	**0.63**	U
GCMW-01	SB01G	N	30	35	ft	**0.13**	U	**0.29**	U	**0.55**	U	**0.18**	U	**0.14**	U	**0.65**	U	**0.58**	U
GCMW-01	SB01H	N	35	40	ft	**0.13**	U	**0.31**	U	**0.59**	U	**0.19**	U	**0.14**	U	**0.69**	U	**0.62**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.13**	U	**0.3**	U	**0.57**	U	**0.19**	U	**0.14**	U	**0.67**	U	**0.6**	U
GCMW-02	SB02B	N	5	10	ft	**0.28**	U	**0.64**	U	**1.2**	U	**0.4**	U	**0.3**	U	**1.4**	U	**1.3**	U
GCMW-02	SB02C	N	10	15	ft	**0.27**	U	**0.61**	U	**1.2**	U	**0.38**	U	**0.29**	U	**1.4**	U	**1.2**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	7.1	UR
GCMW-02	SB02D	N	15	20	ft	**0.75**	U	**1.7**	U	**3.3**	U	**1.1**	U	**0.81**	U	**3.9**	U	**3.5**	U
GCMW-02	SB02E	N	20	25	ft	**0.12**	U	**0.28**	U	**0.53**	U	**0.18**	U	**0.13**	U	**0.63**	U	**0.56**	U
GCMW-02	SB02F	N	25	30	ft	**0.13**	U	**0.3**	U	**0.58**	U	**0.19**	U	**0.14**	U	**0.68**	U	**0.6**	U
GCMW-02	SB02G	N	30	35	ft	**0.14**	U	**0.31**	U	**0.6**	U	**0.2**	U	**0.15**	U	**0.71**	U	**0.63**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.16**	U	**0.36**	U	**0.7**	U	**0.23**	U	**0.17**	U	**0.82**	U	**0.73**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane		1,2-dibromoethane		1,2-dichlorobenzene	
GCMW-01	SB01A	N	0	5	ft	**0.64**	U	**1**	U	**0.25**	U	**0.5**	U
GCMW-01	SB01B	N	5	10	ft	**34**	U	**53**	U	**13**	U	**27**	U
GCMW-01	SB01C	N	10	15	ft	**0.48**	U	**0.75**	U	**0.19**	U	**0.37**	U
GCMW-01	SB01D	N	15	20	ft	**0.62**	U	**0.97**	U	**0.25**	U	**0.48**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.56**	U	**0.87**	U	**0.22**	U	**0.44**	U
GCMW-01	SB01F	N	25	30	ft	**0.37**	U	**0.58**	U	**0.15**	U	**0.29**	U
GCMW-01	SB01G	N	30	35	ft	**0.34**	U	**0.53**	U	**0.14**	U	**0.27**	U
GCMW-01	SB01H	N	35	40	ft	**0.36**	U	**0.57**	U	**0.14**	U	**0.28**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.35**	U	**0.55**	U	**0.14**	U	**0.28**	U
GCMW-02	SB02B	N	5	10	ft	**0.75**	U	**1.2**	U	**0.3**	U	**0.59**	U
GCMW-02	SB02C	N	10	15	ft	**0.72**	U	**1.1**	U	**0.28**	U	**0.56**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	7.1	UR	7.1	UR	**7.1**	U	7.1	UR
GCMW-02	SB02D	N	15	20	ft	**2**	U	**3.2**	U	**0.8**	U	**1.6**	U
GCMW-02	SB02E	N	20	25	ft	**0.33**	U	**0.51**	U	**0.13**	U	**0.26**	U
GCMW-02	SB02F	N	25	30	ft	**0.35**	U	**0.55**	U	**0.14**	U	**0.28**	U
GCMW-02	SB02G	N	30	35	ft	**0.37**	U	**0.58**	U	**0.15**	U	**0.29**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.43**	U	**0.67**	U	**0.17**	U	**0.34**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2-dichloroethane		1,2-dichloropropane		1,3-dichlorobenzene		1,4-dichlorobenzene		1,4-dioxane (p-dioxane)	
GCMW-01	SB01A	N	0	5	ft	**0.64**	U	**0.24**	U	**0.51**	U	**0.63**	U	**160**	U
GCMW-01	SB01B	N	5	10	ft	**34**	U	**13**	U	**27**	U	**33**	U	**8,500**	U
GCMW-01	SB01C	N	10	15	ft	**0.48**	U	**0.18**	U	**0.38**	U	**0.46**	U	**120**	U
GCMW-01	SB01D	N	15	20	ft	**0.62**	U	**0.23**	U	**0.49**	U	**0.6**	U	**150**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	6,700	UR
GCMW-01	SB01E	N	20	25	ft	**0.56**	U	**0.21**	U	**0.44**	U	**1.7**	J	**140**	U
GCMW-01	SB01F	N	25	30	ft	**0.37**	U	**0.14**	U	**0.29**	U	**0.36**	U	**93**	U
GCMW-01	SB01G	N	30	35	ft	**0.34**	U	**0.13**	U	**0.27**	U	**0.33**	U	**85**	U
GCMW-01	SB01H	N	35	40	ft	**0.36**	U	**0.14**	U	**0.29**	U	**0.35**	U	**90**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	5,800	UR
GCMW-02	SB02A	N	0	5	ft	**0.35**	U	**0.13**	U	**0.28**	U	**0.34**	U	**88**	U
GCMW-02	SB02B	N	5	10	ft	**0.75**	U	**0.28**	U	**0.6**	U	**0.74**	U	**190**	U
GCMW-02	SB02C	N	10	15	ft	**0.72**	U	**0.27**	U	**0.57**	U	**0.7**	U	**180**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**7.1**	U	**7.1**	U	7.1	UR	7.1	UR	140	UR
GCMW-02	SB02D	N	15	20	ft	**2**	U	**0.76**	U	**1.6**	U	**2**	U	**510**	U
GCMW-02	SB02E	N	20	25	ft	**0.33**	U	**0.12**	U	**0.26**	U	**0.32**	U	**82**	U
GCMW-02	SB02F	N	25	30	ft	**0.35**	U	**0.13**	U	**0.28**	U	**0.34**	U	**88**	U
GCMW-02	SB02G	N	30	35	ft	**0.37**	U	**0.14**	U	**0.29**	U	**0.36**	U	**92**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	100	UR
GCMW-02	SB02H	N	35	36	ft	**0.43**	U	**0.16**	U	**0.34**	U	**0.42**	U	**110**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-hexanone		Acetone		Benzene		Bromochloromethane		Bromodichloromethane	
GCMW-01	SB01A	N	0	5	ft	**1.8**	U	**12,800**		**0.63**	U	**0.41**	U	**0.48**	U
GCMW-01	SB01B	N	5	10	ft	**95**	U	**1,800**		**58.8**	J	**22**	U	**25**	U
GCMW-01	SB01C	N	10	15	ft	**1.3**	U	**90,500**		**1.7**		**0.3**	U	**0.35**	U
GCMW-01	SB01D	N	15	20	ft	**1.7**	U	**37,300**		**4.9**		**0.39**	U	**0.46**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**670**	U	**17,000**		**230**	J	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**1.6**	U	**6,550**		**3.8**		**0.36**	U	**0.42**	U
GCMW-01	SB01F	N	25	30	ft	**1**	U	**17,200**		**0.37**	U	**0.24**	U	**0.28**	U
GCMW-01	SB01G	N	30	35	ft	**0.95**	U	**44.9**		**0.34**	U	**0.22**	U	**0.25**	U
GCMW-01	SB01H	N	35	40	ft	**1**	U	**1,460**		**0.86**	J	**0.23**	U	**0.27**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**580**	U	**820**		**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.98**	U	**2.3**	U	**2.6**		**0.22**	U	**0.26**	U
GCMW-02	SB02B	N	5	10	ft	**2.1**	U	**93.6**		**4.5**		**0.48**	U	**0.56**	U
GCMW-02	SB02C	N	10	15	ft	**2**	U	**48,300**		**0.88**	J	**0.46**	U	**0.53**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**14**	U	**170**		**10**	J	**7.1**	U	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**5.6**	U	**116**		**216**		**1.3**	U	**1.5**	U
GCMW-02	SB02E	N	20	25	ft	**0.91**	U	**651**		**1.7**		**0.21**	U	**0.24**	U
GCMW-02	SB02F	N	25	30	ft	**0.99**	U	**2.3**	U	**0.35**	U	**0.23**	U	**0.26**	U
GCMW-02	SB02G	N	30	35	ft	**1**	U	**74.4**		**0.36**	U	**0.23**	U	**0.27**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**10**	U	**380**		**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**1.2**	U	**34.8**		**0.42**	U	**0.27**	U	**0.32**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Bromoform		Bromomethane		Carbon disulfide		Carbon tetrachloride	
GCMW-01	SB01A	N	0	5	ft	**0.28**	U	**0.75**	U	**0.57**	U	**1**	U
GCMW-01	SB01B	N	5	10	ft	**15**	U	**40**	U	**160**	J	**55**	U
GCMW-01	SB01C	N	10	15	ft	**0.21**	U	**0.56**	U	**1.9**	J	**0.76**	U
GCMW-01	SB01D	N	15	20	ft	**0.27**	U	**0.72**	U	**5**	J	**1**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	UJ	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.24**	U	**0.65**	U	**6.1**	J	**0.9**	U
GCMW-01	SB01F	N	25	30	ft	**0.16**	U	**0.43**	U	**5.5**		**0.59**	U
GCMW-01	SB01G	N	30	35	ft	**0.15**	U	**0.4**	U	**0.52**	J	**0.55**	U
GCMW-01	SB01H	N	35	40	ft	**0.16**	U	**0.42**	U	**2.9**	J	**0.58**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	UJ	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.15**	U	**0.41**	U	**0.31**	U	**0.57**	U
GCMW-02	SB02B	N	5	10	ft	**0.33**	U	**0.88**	U	**1.4**	J	**1.2**	U
GCMW-02	SB02C	N	10	15	ft	**0.31**	U	**0.84**	U	**6.2**	J	**1.2**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	7.1	UR	**7.1**	U	**4.4**	J	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**0.88**	U	**2.4**	U	**17.5**	J	**3.2**	U
GCMW-02	SB02E	N	20	25	ft	**0.14**	U	**0.38**	U	**5.5**		**0.53**	U
GCMW-02	SB02F	N	25	30	ft	**0.15**	U	**0.41**	U	**2.2**	J	**0.57**	U
GCMW-02	SB02G	N	30	35	ft	**0.16**	U	**0.43**	U	**2.6**	J	**0.59**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**1.9**	J	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.19**	U	**0.5**	U	**2.7**	J	**0.69**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Chlorobenzene		Chloroethane		Chloroform		Chloromethane		cis-1,2-dichloroethylene		cis-1,3-dichloropropene		Cyclohexane	
GCMW-01	SB01A	N	0	5	ft	0.63	U	1.9	U	0.59	U	0.31	U	0.44	U	0.25	U	0.28	U
GCMW-01	SB01B	N	5	10	ft	33	U	98	U	31	U	16	U	24	U	13	U	1,030	
GCMW-01	SB01C	N	10	15	ft	0.47	U	1.4	U	0.44	U	0.23	U	0.33	U	0.18	U	5.8	J
GCMW-01	SB01D	N	15	20	ft	0.61	U	1.8	U	0.57	U	0.3	U	0.43	U	0.24	U	4.3	J
GCMW-01	SB01D-S-NYC	S	15	20	ft	330	U	330	U	330	U	330	U	330	U	330	U	330	U
GCMW-01	SB01E	N	20	25	ft	0.55	U	1.6	U	0.51	U	0.27	U	0.39	U	0.21	U	11.9	
GCMW-01	SB01F	N	25	30	ft	0.36	U	1.1	U	0.34	U	0.18	U	0.26	U	0.14	U	0.16	U
GCMW-01	SB01G	N	30	35	ft	0.33	U	0.99	U	0.31	U	0.16	U	0.24	U	0.13	U	0.15	U
GCMW-01	SB01H	N	35	40	ft	0.35	U	1	U	0.33	U	0.17	U	0.37	J	0.14	U	2	J
GCMW-01	SB01H-S-NYC	S	35	40	ft	290	U	290	U	290	U	290	U	290	U	290	U	290	U
GCMW-02	SB02A	N	0	5	ft	0.35	U	1	U	0.32	U	0.17	U	0.24	U	0.14	U	0.15	U
GCMW-02	SB02B	N	5	10	ft	0.74	U	2.2	U	0.69	U	0.36	U	0.52	U	0.29	U	0.33	U
GCMW-02	SB02C	N	10	15	ft	0.7	U	2.1	U	0.66	U	0.34	U	0.5	U	0.28	U	0.31	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U
GCMW-02	SB02D	N	15	20	ft	2	U	5.9	U	1.9	U	0.97	U	1.4	U	0.78	U	0.88	U
GCMW-02	SB02E	N	20	25	ft	0.32	U	0.95	U	0.3	U	0.16	U	0.23	U	0.13	U	0.14	U
GCMW-02	SB02F	N	25	30	ft	0.35	U	1	U	0.33	U	0.17	U	0.24	U	0.14	U	0.15	U
GCMW-02	SB02G	N	30	35	ft	0.36	U	1.1	U	0.34	U	0.18	U	0.26	U	0.14	U	0.16	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U
GCMW-02	SB02H	N	35	36	ft	0.42	U	1.2	U	0.4	U	0.21	U	0.3	U	0.17	U	0.19	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibromochloromethane		Dichlorodifluoromethane		Ethylbenzene		Isopropylbenzene (cumene)		m, p xylenes		Methyl acetate	
GCMW-01	SB01A	N	0	5	ft	**0.2**	U	**1.8**	U	**0.69**	U	**0.96**	U	**0.87**	U	**1.5**	U
GCMW-01	SB01B	N	5	10	ft	**11**	U	**93**	U	**134**		**2,180**		**362**		**342**	J
GCMW-01	SB01C	N	10	15	ft	**0.15**	U	**1.3**	U	**2.3**		**0.71**	U	**5.1**		**1.1**	U
GCMW-01	SB01D	N	15	20	ft	**0.2**	U	**1.7**	U	**0.67**	U	**0.93**	U	**1.9**	J	**1.5**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	**110**	J	**510**	
GCMW-01	SB01E	N	20	25	ft	**0.18**	U	**1.5**	U	**2.4**		**0.84**	U	**5.3**		**1.3**	U
GCMW-01	SB01F	N	25	30	ft	**0.12**	U	**1**	U	**0.4**	U	**0.56**	U	**0.5**	U	**0.88**	U
GCMW-01	SB01G	N	30	35	ft	**0.11**	U	**0.93**	U	**0.37**	U	**0.51**	U	**0.46**	U	**0.81**	U
GCMW-01	SB01H	N	35	40	ft	**0.12**	U	**0.99**	U	**0.39**	U	**0.54**	U	**0.49**	U	**0.86**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.11**	U	**0.96**	U	**0.38**	U	**0.53**	U	**0.48**	U	**0.84**	U
GCMW-02	SB02B	N	5	10	ft	**0.24**	U	**2.1**	U	**0.81**	U	**1.1**	U	**1**	U	**1.8**	U
GCMW-02	SB02C	N	10	15	ft	**0.23**	U	**2**	U	**0.77**	U	**1.1**	U	**0.97**	U	**1.7**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**0.64**	U	**5.5**	U	**295**		**15.7**	J	**33.1**		**4.8**	U
GCMW-02	SB02E	N	20	25	ft	**0.1**	U	**0.9**	U	**0.35**	U	**0.49**	U	**0.45**	U	**0.78**	U
GCMW-02	SB02F	N	25	30	ft	**0.11**	U	**0.97**	U	**0.38**	U	**0.53**	U	**0.48**	U	**0.84**	U
GCMW-02	SB02G	N	30	35	ft	**0.12**	U	**1**	U	**0.4**	U	**0.55**	U	**0.5**	U	**0.88**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.14**	U	**1.2**	U	**0.46**	U	**0.64**	U	**0.58**	U	**1**	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Methyl ethyl ketone (2-butanone)		Methyl isobutyl ketone		Methylcyclohexane		Methylene chloride		o-xylene (1,2-dimethylbenzene)		Styrene		Tert-butyl methyl ether	
GCMW-01	SB01A	N	0	5	ft	3.7	U	1.5	U	1.2	U	0.41	U	0.87	U	0.2	U	0.52	U
GCMW-01	SB01B	N	5	10	ft	190	U	80	U	18,000		22	U	67	J	11	U	28	U
GCMW-01	SB01C	N	10	15	ft	2.7	U	1.1	U	10.6		0.31	U	0.77	J	0.15	U	0.39	U
GCMW-01	SB01D	N	15	20	ft	3.5	U	1.5	U	15.6		0.4	U	0.84	U	0.19	U	5.8	
GCMW-01	SB01D-S-NYC	S	15	20	ft	200	J	670	U	330	U	330	U	330	U	330	U	330	U
GCMW-01	SB01E	N	20	25	ft	3.2	U	1.3	U	52.7		0.36	U	0.91	J	0.17	U	1.3	J
GCMW-01	SB01F	N	25	30	ft	2.1	U	0.87	U	0.7	U	0.24	U	0.5	U	0.11	U	37	
GCMW-01	SB01G	N	30	35	ft	1.9	U	0.8	U	0.65	U	0.22	U	0.46	U	0.11	U	0.28	U
GCMW-01	SB01H	N	35	40	ft	2.1	U	0.85	U	11.9		0.23	U	0.49	U	0.11	U	1.9	
GCMW-01	SB01H-S-NYC	S	35	40	ft	580	U	580	U	290	U	290	U	290	U	290	U	290	U
GCMW-02	SB02A	N	0	5	ft	2	U	0.83	U	0.67	U	0.23	U	0.48	U	0.11	U	0.29	U
GCMW-02	SB02B	N	5	10	ft	4.3	U	1.8	U	1.4	U	0.49	U	1	U	0.23	U	1	J
GCMW-02	SB02C	N	10	15	ft	4.1	U	1.7	U	1.4	U	0.46	U	0.97	U	0.22	U	0.59	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	54		14	U	7.1	U	7.1	U	7.1	U	7.1	U	7.1	U
GCMW-02	SB02D	N	15	20	ft	12	U	4.7	U	3.8	U	1.3	U	99		0.63	U	1.6	U
GCMW-02	SB02E	N	20	25	ft	1.9	U	0.77	U	0.62	U	0.21	U	0.45	U	0.1	U	0.27	U
GCMW-02	SB02F	N	25	30	ft	2	U	0.83	U	0.67	U	0.23	U	0.48	U	0.11	U	0.29	U
GCMW-02	SB02G	N	30	35	ft	2.1	U	0.87	U	1.8	J	0.24	U	0.5	U	0.11	U	0.3	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	10	U	10	U	5.2	U	5.2	U	5.2	U	5.2	U	5.2	U
GCMW-02	SB02H	N	35	36	ft	2.4	U	1	U	0.81	U	0.28	U	0.58	U	0.13	U	0.35	U

NYC – Gowanus Pump Station - (MW1 & MW2)
VOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Tetrachloroethylene(PCE)		Toluene		trans-1,2-dichloroethene		trans-1,3-dichloropropene		Trichloroethylene (TCE)		Trichlorofluoromethane		Vinyl chloride	
GCMW-01	SB01A	N	0	5	ft	**0.27**	U	**0.61**	J	**0.83**	U	**0.18**	U	**0.98**	U	**0.43**	U	**0.33**	U
GCMW-01	SB01B	N	5	10	ft	**14**	U	**85.4**	J	**44**	U	**9.4**	U	**52**	U	**23**	U	**18**	U
GCMW-01	SB01C	N	10	15	ft	**0.2**	U	**0.88**	J	**0.62**	U	**0.13**	U	**0.72**	U	**0.32**	U	**0.25**	U
GCMW-01	SB01D	N	15	20	ft	**0.26**	U	**1.3**	J	**0.81**	U	**0.17**	U	**0.94**	U	**0.41**	U	**0.32**	U
GCMW-01	SB01D-S-NYC	S	15	20	ft	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U	**330**	U
GCMW-01	SB01E	N	20	25	ft	**0.23**	U	**1.2**	J	**0.73**	U	**0.16**	U	**0.85**	U	**0.37**	U	**0.29**	U
GCMW-01	SB01F	N	25	30	ft	**0.16**	U	**0.31**	U	**0.48**	U	**0.1**	U	**0.56**	U	**0.25**	U	**0.19**	U
GCMW-01	SB01G	N	30	35	ft	**0.14**	U	**0.29**	U	**0.44**	U	**0.095**	U	**0.52**	U	**0.23**	U	**0.18**	U
GCMW-01	SB01H	N	35	40	ft	**0.15**	U	**0.31**	U	**0.47**	U	**0.1**	U	**0.55**	U	**0.24**	U	**0.19**	U
GCMW-01	SB01H-S-NYC	S	35	40	ft	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U	**290**	U
GCMW-02	SB02A	N	0	5	ft	**0.15**	U	**1.3**		**0.46**	U	**0.098**	U	**0.54**	U	**0.23**	U	**0.18**	U
GCMW-02	SB02B	N	5	10	ft	**0.32**	U	**0.88**	J	**0.98**	U	**0.21**	U	**1.1**	U	**0.5**	U	**0.39**	U
GCMW-02	SB02C	N	10	15	ft	**0.3**	U	**0.61**	U	**0.93**	U	**0.2**	U	**1.1**	U	**0.48**	U	**0.37**	U
GCMW-02	SB02C-S-NYC	S	10	15	ft	**7.1**	U	**3.1**	J	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U	**7.1**	U
GCMW-02	SB02D	N	15	20	ft	**0.85**	U	**14.8**		**2.6**	U	**0.56**	U	**3.1**	U	**1.3**	U	**1**	U
GCMW-02	SB02E	N	20	25	ft	**0.14**	U	**0.28**	U	**0.43**	U	**0.091**	U	**0.5**	U	**0.22**	U	**0.17**	U
GCMW-02	SB02F	N	25	30	ft	**0.15**	U	**0.3**	U	**0.46**	U	**0.098**	U	**0.54**	U	**0.23**	U	**0.18**	U
GCMW-02	SB02G	N	30	35	ft	**0.15**	U	**0.31**	U	**0.48**	U	**0.1**	U	**0.56**	U	**0.24**	U	**0.19**	U
GCMW-02	SB02G-S-NYC	S	30	35	ft	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U	**5.2**	U
GCMW-02	SB02H	N	35	36	ft	**0.18**	U	**0.36**	U	**0.56**	U	**0.12**	U	**0.65**	U	**0.28**	U	**0.22**	U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
GCMW-09	SB09A	N	0	5	ft	**9.3**	U	**31**	U	**35**	U	**28**	U	**49**	U	**51**	U	**37**	U	**13**	U	**12**	U	**9.4**	U
GCMW-09	SB09B	N	5	10	ft	**10**	U	**33**	U	**38**	U	**31**	U	**52**	U	**55**	U	**40**	U	**14**	U	**12**	U	**10**	U
GCMW-09	SB09C	N	10	15	ft	**11**	U	**37**	U	**41**	U	**34**	U	**57**	U	**60**	U	**43**	U	**16**	U	**14**	U	**11**	U
GCMW-09	SB09C-S-NYC	S	10	15	ft	**500**	U	**500**	U	**500**	U	**500**	U	**500**	U	**500**	U	**970**	U	**500**	U	**500**	U	**500**	U
GCMW-09	SB09D	N	15	20	ft	**11**	U	**37**	U	**42**	U	**34**	U	**58**	U	**61**	U	**44**	U	**16**	U	**14**	U	**11**	U
GCMW-09	SB09E	N	20	25	ft	**11**	U	**38**	U	**43**	U	**35**	U	**59**	U	**62**	U	**45**	U	**16**	U	**14**	U	**11**	U
GCMW-09	SB09F	N	25	30	ft	**14**	U	**46**	U	**52**	U	**42**	U	**72**	U	**75**	U	**55**	U	**20**	U	**17**	U	**14**	U
GCMW-09	SB09G	N	30	35	ft	**15**	U	**49**	U	**56**	U	**45**	U	**77**	U	**80**	U	**58**	U	**21**	U	**18**	U	**15**	U
GCMW-09	SB09H	N	35	40	ft	**11**	U	**36**	U	**40**	U	**32**	U	**56**	U	**58**	U	**42**	U	**15**	U	**13**	U	**11**	U
GCMW-09	SB09H-S-NYC	S	35	40	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**380**	U	**200**	U	**200**	U	**200**	U
GCMW-10	SB10A	N	0	5	ft	**9.6**	U	**32**	U	**36**	U	**29**	U	**51**	U	**111**	J	**38**	U	**14**	U	**12**	U	**9.7**	U
GCMW-10	SB10B	N	5	10	ft	**9.5**	U	**32**	U	**36**	U	**29**	U	**50**	U	**162**		**38**	U	**14**	U	**12**	U	**9.6**	U
GCMW-10	SB10C	N	10	15	ft	**11**	U	**36**	U	**40**	U	**33**	U	**56**	U	**58**	U	**42**	U	**15**	U	**13**	U	**11**	U
GCMW-10	SB10C-S-NYC	S	10	15	ft	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**1,000**	U	**2,000**	U	**1,000**	U	**1,000**	U	**1,000**	U
GCMW-10	SB10D	N	15	20	ft	**11**	U	**38**	U	**43**	U	**35**	U	**60**	U	**62**	U	**45**	U	**16**	U	**14**	U	**11**	U
GCMW-10	SB10E	N	20	25	ft	**12**	U	**40**	U	**45**	U	**37**	U	**63**	U	**65**	U	**48**	U	**17**	U	**15**	U	**12**	U
GCMW-10	SB10F	N	25	30	ft	**11**	U	**36**	U	**40**	U	**33**	U	**56**	U	**58**	U	**42**	U	**15**	U	**13**	U	**11**	U
GCMW-10	SB10G	N	30	35	ft	**11**	U	**35**	U	**40**	U	**32**	U	**55**	U	**58**	U	**42**	U	**15**	U	**13**	U	**11**	U
GCMW-10	SB10H	N	35	40	ft	**11**	U	**36**	U	**40**	U	**33**	U	**56**	U	**58**	U	**42**	U	**15**	U	**13**	U	**11**	U
GCMW-10	SB10I	N	40	45	ft	**11**	U	**35**	U	**40**	U	**32**	U	**55**	U	**58**	U	**42**	U	**15**	U	**13**	U	**11**	U
GCMW-10	SB10I-S-NYC	S	40	45	ft	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**200**	U	**390**	U	**200**	U	**200**	U	**200**	U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
GCMW-09	SB09A	N	0	5	ft	**31**	U	**166**		**34**	U	**13**	U	**32**	U	**7.7**	U	**12**	U	**37**	U	**11**	U	**30**	U	**9.7**	U
GCMW-09	SB09B	N	5	10	ft	**33**	U	**100**		**37**	U	**14**	U	**34**	U	**8.3**	U	**13**	U	**40**	U	**12**	U	**33**	U	**10**	U
GCMW-09	SB09C	N	10	15	ft	**36**	U	**97.8**		**41**	U	**16**	U	**38**	U	**9.1**	U	**14**	U	**43**	U	**13**	U	**36**	U	**11**	U
GCMW-09	SB09C-S-NYC	S	10	15	ft	**500**	U	**250**	J	**500**	U	**970**	U	**500**	U	**500**	U	**970**	U	**970**	U	**500**	U	**500**	U	**500**	U
GCMW-09	SB09D	N	15	20	ft	**36**	U	**20**	U	**41**	U	**16**	U	**38**	U	**9.2**	U	**14**	U	**44**	U	**13**	U	**36**	U	**12**	U
GCMW-09	SB09E	N	20	25	ft	**37**	U	**21**	U	**42**	U	**16**	U	**39**	U	**9.4**	U	**15**	U	**45**	U	**13**	U	**37**	U	**12**	U
GCMW-09	SB09F	N	25	30	ft	**45**	U	**83**	J	**51**	U	**20**	U	**47**	U	**11**	U	**18**	U	**55**	U	**16**	U	**45**	U	**14**	U
GCMW-09	SB09G	N	30	35	ft	**48**	U	**27**	U	**55**	U	**21**	U	**51**	U	**12**	U	**19**	U	**58**	U	**17**	U	**48**	U	**15**	U
GCMW-09	SB09H	N	35	40	ft	**35**	U	**19**	U	**39**	U	**15**	U	**37**	U	**8.8**	U	**14**	U	**42**	U	**13**	U	**34**	U	**11**	U
GCMW-09	SB09H-S-NYC	S	35	40	ft	**200**	U	**2.3**	J	**200**	U	**380**	U	**200**	U	**200**	U	**380**	U	**380**	U	**200**	U	**200**	U	**200**	U
GCMW-10	SB10A	N	0	5	ft	**32**	U	**934**		**36**	U	**14**	U	**33**	U	**8**	U	**13**	U	**38**	U	**11**	U	**31**	U	**10**	U
GCMW-10	SB10B	N	5	10	ft	**31**	U	**3,200**		**40.8**	J	**14**	U	**33**	U	**7.9**	U	**12**	U	**38**	U	**11**	U	**31**	U	**9.9**	U
GCMW-10	SB10C	N	10	15	ft	**35**	U	**34.3**	J	**39**	U	**15**	U	**37**	U	**8.8**	U	**14**	U	**42**	U	**13**	U	**35**	U	**11**	U
GCMW-10	SB10C-S-NYC	S	10	15	ft	**1,000**	U	**380**	J	**1,000**	U	**2,000**	U	**1,000**	U	**1,000**	U	**2,000**	U	**2,000**	U	**1,000**	U	**1,000**	U	**1,000**	U
GCMW-10	SB10D	N	15	20	ft	**37**	U	**172**		**42**	U	**16**	U	**39**	U	**9.4**	U	**15**	U	**45**	U	**13**	U	**37**	U	**12**	U
GCMW-10	SB10E	N	20	25	ft	**39**	U	**99.9**		**44**	U	**17**	U	**41**	U	**9.9**	U	**16**	U	**48**	U	**14**	U	**39**	U	**12**	U
GCMW-10	SB10F	N	25	30	ft	**35**	U	**19**	U	**39**	U	**15**	U	**37**	U	**8.8**	U	**14**	U	**42**	U	**13**	U	**35**	U	**11**	U
GCMW-10	SB10G	N	30	35	ft	**35**	U	**19**	U	**39**	U	**15**	U	**36**	U	**8.7**	U	**14**	U	**42**	U	**12**	U	**34**	U	**11**	U
GCMW-10	SB10H	N	35	40	ft	**35**	U	**19**	U	**39**	U	**15**	U	**37**	U	**8.8**	U	**14**	U	**42**	U	**13**	U	**35**	U	**11**	U
GCMW-10	SB10I	N	40	45	ft	**35**	U	**19**	U	**39**	U	**15**	U	**37**	U	**8.7**	U	**14**	U	**42**	U	**13**	U	**34**	U	**11**	U
GCMW-10	SB10I-S-NYC	S	40	45	ft	**200**	U	**8**		**200**	U	**390**	U	**200**	U	**200**	U	**390**	U	**390**	U	**200**	U	**200**	U	**200**	U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene
GCMW-09	SB09A	N	0	5	ft	9.1 U	--	12 U	51 U	378	148	5.3 U	1,040	6 U	7 U	1,870	1,640
GCMW-09	SB09B	N	5	10	ft	9.8 U	--	13 U	55 U	381	170	5.7 U	1,340	6.4 U	7.5 U	2,850	2,480
GCMW-09	SB09C	N	10	15	ft	11 U	--	14 U	60 U	268	124	6.3 U	786	7 U	8.2 U	1,660	1,450
GCMW-09	SB09C-S-NYC	S	10	15	ft	500 U	500 U	970 U	970 U	460 J	120 J	500 U	1,200	500 U	500 U	2,300	2,100
GCMW-09	SB09D	N	15	20	ft	11 U	--	14 U	61 U	21.2 J	17.2 J	6.4 U	77.8	7.1 U	8.3 U	153	114
GCMW-09	SB09E	N	20	25	ft	11 U	--	14 U	62 U	11 U	12 U	6.5 U	18 J	7.3 U	8.5 U	12 U	41
GCMW-09	SB09F	N	25	30	ft	13 U	--	17 U	76 U	174	14 U	7.9 U	602	8.8 U	10 U	58.8	64.9
GCMW-09	SB09G	N	30	35	ft	14 U	--	19 U	81 U	14 U	15 U	8.4 U	17 U	9.4 U	11 U	16 U	15 U
GCMW-09	SB09H	N	35	40	ft	10 U	--	13 U	58 U	10 U	11 U	6.1 U	12 U	6.8 U	7.9 U	11 U	11 U
GCMW-09	SB09H-S-NYC	S	35	40	ft	200 U	200 U	380 U	380 U	4.8	3.8 U	200 U	3.8 J	200 U	200 U	5.9	10
GCMW-10	SB10A	N	0	5	ft	9.4 U	--	12 U	53 U	2,410	1,300	5.5 U	7,070	6.2 U	7.2 U	13,400	13,300
GCMW-10	SB10B	N	5	10	ft	9.3 U	--	12 U	52 U	8,190	1,980	5.4 U	21,400	6.1 U	7.1 U	35,500	33,000
GCMW-10	SB10C	N	10	15	ft	10 U	--	13 U	58 U	130	48.5	6.1 U	340	6.8 U	8 U	738	699
GCMW-10	SB10C-S-NYC	S	10	15	ft	1,000 U	1,000 U	2,000 U	2,000 U	980 J	100	1,000 U	2,000	1,000 U	1,000 U	4,500	3,700
GCMW-10	SB10D	N	15	20	ft	11 U	--	14 U	63 U	542	300	6.5 U	1,640	7.3 U	8.5 U	3,390	2,850
GCMW-10	SB10E	N	20	25	ft	12 U	--	15 U	66 U	373	176	6.9 U	1,020	7.7 U	9 U	2,170	2,090
GCMW-10	SB10F	N	25	30	ft	10 U	--	13 U	58 U	67.2	34.5 J	6.1 U	218	6.8 U	8 U	447	460
GCMW-10	SB10G	N	30	35	ft	10 U	--	13 U	58 U	15.4 J	11 U	6 U	52.1	6.8 U	7.9 U	97.5	96.8
GCMW-10	SB10H	N	35	40	ft	10 U	--	13 U	58 U	15.2 J	11 U	6.1 U	50.2	6.8 U	8 U	104	102
GCMW-10	SB10I	N	40	45	ft	10 U	--	13 U	58 U	16.7 J	11 U	6.1 U	58.4	6.8 U	7.9 U	122	116
GCMW-10	SB10I-S-NYC	S	40	45	ft	200 U	200 U	390 U	390 U	23 J	5.5	200 U	63 J	200 U	200 U	170 J	150

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzyl butyl phthalate	Biphenyl (diphenyl)	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Caprolactam	Carbazole	Chrysene
GCMW-09	SB09A	N	0	5	ft	1,500	986	995	18 U	61.8	12 U	9.1 U	--	79.3	9.5 U	305	1,870
GCMW-09	SB09B	N	5	10	ft	2,390	1,400	1,470	19 U	40.4 J	13 U	9.8 U	--	37.3 J	10 U	505	2,790
GCMW-09	SB09C	N	10	15	ft	1,200	919	923	21 U	38 J	14 U	11 U	--	51.3 J	11 U	240	1,630
GCMW-09	SB09C-S-NYC	S	10	15	ft	1,900	1,100 J	1,600	500 U	70 J	500 U	500 U	500 U	500 U	500 U	370 J	2,300
GCMW-09	SB09D	N	15	20	ft	111	78.9	79.2	21 U	4.2 U	15 U	11 U	--	77.7	11 U	20.6 J	152
GCMW-09	SB09E	N	20	25	ft	43.7	23.1 J	14 U	21 U	4.3 U	15 U	11 U	--	33 U	12 U	17 U	42.6
GCMW-09	SB09F	N	25	30	ft	72.6	32.6 J	17 U	26 U	5.2 U	18 U	13 U	--	40 U	14 U	52.9 J	125
GCMW-09	SB09G	N	30	35	ft	16 U	18 U	18 U	28 U	5.6 U	19 U	14 U	--	42 U	15 U	22 U	16 U
GCMW-09	SB09H	N	35	40	ft	12 U	13 U	13 U	20 U	4 U	14 U	10 U	--	30 U	11 U	16 U	12 U
GCMW-09	SB09H-S-NYC	S	35	40	ft	5.1	4	3.9	26 J	200 U	200 U	200 U	200 U	200 U	200 U	200 U	5.5
GCMW-10	SB10A	N	0	5	ft	12,900	6,950	6,010	18 U	291	13 U	9.4 U	--	28 U	9.9 U	2,680	13,600
GCMW-10	SB10B	N	5	10	ft	37,000	15,500	11,900	18 U	1,340	12 U	9.3 U	--	27 U	9.7 U	6,410	33,700
GCMW-10	SB10C	N	10	15	ft	542	413	477	20 U	4 U	14 U	10 U	--	37.8 J	11 U	137	709
GCMW-10	SB10C-S-NYC	S	10	15	ft	2,800	1,700	3,100	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	600 J	4,700
GCMW-10	SB10D	N	15	20	ft	3,130	1,830	1,130	21 U	65.6 J	15 U	11 U	--	69.7 J	12 U	589	2,980
GCMW-10	SB10E	N	20	25	ft	2,300	1,300	718	23 U	34.1 J	16 U	12 U	--	34 U	12 U	355	2,070
GCMW-10	SB10F	N	25	30	ft	361	289	287	20 U	4 U	14 U	10 U	--	47.7 J	11 U	73.2	460
GCMW-10	SB10G	N	30	35	ft	60.7	60.1	81.6	20 U	4 U	14 U	10 U	--	51 J	11 U	16 U	101
GCMW-10	SB10H	N	35	40	ft	76.2	61.2	71.6	20 U	4 U	14 U	10 U	--	119	11 U	16 U	109
GCMW-10	SB10I	N	40	45	ft	71.4	71.8	97.8	20 U	4 U	14 U	10 U	--	63.2 J	11 U	16 U	128
GCMW-10	SB10I-S-NYC	S	40	45	ft	120 J	78 J	100 J	200 U	200 U	200 U	200 U	200 U	110 J	200 U	22 J	180 J

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane
GCMW-09	SB09A	N	0	5	ft	**344**	**306**	**10** U	**11** U	**6.7** U	**15** U	**4,290**	**487**	**9.9** U	**8.4** U	**31** U	**8.4** U
GCMW-09	SB09B	N	5	10	ft	**504**	**316**	**11** U	**34.2** J	**7.2** U	**16** U	**6,050**	**475**	**11** U	**9** U	**33** U	**9** U
GCMW-09	SB09C	N	10	15	ft	**306**	**199**	**12** U	**13** U	**7.9** U	**17** U	**3,630**	**318**	**12** U	**9.9** U	**36** U	**9.9** U
GCMW-09	SB09C-S-NYC	S	10	15	ft	**490** J	**410** J	**500** U	**500** U	**500** U	**500** U	**4,900**	**560** J	**500** U	**500** U	**500** UJ	**500** U
GCMW-09	SB09D	N	15	20	ft	**24.6** J	**16.8** J	**12** U	**13** U	**8** U	**18** U	**303**	**28.1** J	**12** U	**10** U	**37** U	**10** U
GCMW-09	SB09E	N	20	25	ft	**13** U	**11** U	**13** U	**13** U	**8.2** U	**18** U	**82.7**	**12** U	**12** U	**10** U	**38** U	**10** U
GCMW-09	SB09F	N	25	30	ft	**15** U	**97**	**15** U	**16** U	**9.9** U	**22** U	**544**	**299**	**15** U	**12** U	**46** U	**12** U
GCMW-09	SB09G	N	30	35	ft	**16** U	**14** U	**16** U	**17** U	**11** U	**23** U	**21** U	**16** U	**16** U	**13** U	**49** U	**13** U
GCMW-09	SB09H	N	35	40	ft	**12** U	**10** U	**12** U	**12** U	**7.7** U	**17** U	**15** U	**11** U	**11** U	**9.6** U	**35** U	**9.6** U
GCMW-09	SB09H-S-NYC	S	35	40	ft	**1.4** J	**200** U	**200** U	**200** U	**200** U	**200** U	**11**	**2.7** J	**200** U	**200** U	**200** UJ	**200** U
GCMW-10	SB10A	N	0	5	ft	**3,410**	**1,690**	**11** U	**11** U	**7** U	**15** U	**35,000**	**2,910**	**10** U	**8.7** U	**32** U	**8.7** U
GCMW-10	SB10B	N	5	10	ft	**7,760**	**6,170**	**11** U	**11** U	**6.9** U	**15** U	**92,100**	**10,400**	**10** U	**8.6** U	**32** U	**8.6** U
GCMW-10	SB10C	N	10	15	ft	**191**	**74.2**	**12** U	**12** U	**7.7** U	**17** U	**1,930**	**140**	**11** U	**9.6** U	**35** U	**9.6** U
GCMW-10	SB10C-S-NYC	S	10	15	ft	**650**	**660** J	**1,000** U	**1,000** U	**1,000** U	**1,000** U	**10,000**	**1,100**	**1,000** U	**1,000** U	**1,000** UJ	**1,000** U
GCMW-10	SB10D	N	15	20	ft	**875**	**387**	**13** U	**13** U	**8.2** U	**18** U	**8,140**	**669**	**12** U	**10** U	**38** U	**10** U
GCMW-10	SB10E	N	20	25	ft	**609**	**228**	**13** U	**14** U	**8.7** U	**19** U	**5,400**	**408**	**13** U	**11** U	**40** U	**11** U
GCMW-10	SB10F	N	25	30	ft	**125**	**42.4** J	**12** U	**12** U	**7.7** U	**17** U	**1,230**	**73.5**	**11** U	**9.6** U	**35** U	**9.6** U
GCMW-10	SB10G	N	30	35	ft	**25.8** J	**10** U	**12** U	**12** U	**7.6** U	**17** U	**262**	**16** J	**11** U	**9.5** U	**35** U	**9.5** U
GCMW-10	SB10H	N	35	40	ft	**20** J	**10** U	**12** U	**12** U	**7.7** U	**17** U	**278**	**14.7** J	**11** U	**9.6** U	**35** U	**9.6** U
GCMW-10	SB10I	N	40	45	ft	**30.1** J	**10** U	**12** U	**12** U	**7.6** U	**17** U	**329**	**18.9** J	**11** U	**9.6** U	**35** U	**9.6** U
GCMW-10	SB10I-S-NYC	S	40	45	ft	**29**	**200** U	**200** U	**200** U	**200** U	**200** U	**390**	**33** J	**200** U	**200** U	**200** UJ	**200** U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Indeno(1,2,3-c,d)pyrene	Isophorone	Methyl isobutyl ketone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
GCMW-09	SB09A	N	0	5	ft	895	8.1 U	--	275	8.7 U	7.4 U	18 U	52 U	4,120	32 U	4,000	25,004
GCMW-09	SB09B	N	5	10	ft	1,310	8.7 U	--	146	9.4 U	7.9 U	19 U	56 U	5,420	34 U	5,440	34,716
GCMW-09	SB09C	N	10	15	ft	804	9.6 U	--	183	10 U	8.7 U	21 U	61 U	3,120	37 U	3,460	20,879
GCMW-09	SB09C-S-NYC	S	10	15	ft	1,200 J	500 U	--	430 J	500 U	500 U	500 U	79 U	4,900	500 U	3,800	29,610
GCMW-09	SB09D	N	15	20	ft	69.2	9.7 U	--	17.6 J	10 U	8.8 U	22 U	62 U	277	38 U	309	1,833
GCMW-09	SB09E	N	20	25	ft	24.3 J	9.9 U	--	10 U	11 U	9 U	22 U	63 U	69.6	39 U	81.8	426.8
GCMW-09	SB09F	N	25	30	ft	32.8 J	12 U	--	58.3	13 U	11 U	27 U	77 U	1,420	47 U	536	4,103
GCMW-09	SB09G	N	30	35	ft	17 U	13 U	--	13 U	14 U	12 U	29 U	82 U	22 U	50 U	18 U	0 U
GCMW-09	SB09H	N	35	40	ft	12 U	9.3 U	--	9.4 U	10 U	8.4 U	21 U	59 U	16 U	36 U	13 U	0 U
GCMW-09	SB09H-S-NYC	S	35	40	ft	3.9	200 U	--	7.6	200 U	200 U	200 U	7.8 U	12	200 U	8	91.9
GCMW-10	SB10A	N	0	5	ft	6,780	8.4 U	--	1,800	9.1 U	7.7 U	19 U	54 U	25,300	33 U	29,400	182,474
GCMW-10	SB10B	N	5	10	ft	14,900	8.3 U	--	7,760	8.9 U	7.5 U	18 U	53 U	80,000	32 U	74,500	488,790
GCMW-10	SB10C	N	10	15	ft	380	9.3 U	--	48.1	10 U	8.4 U	21 U	59 U	1,520	36 U	1,560	9,900
GCMW-10	SB10C-S-NYC	S	10	15	ft	1,800	1,000 U	--	710 J	1,000 U	1,000 U	1,000 U	160 U	11,000	1,000 U	9,900	59,120
GCMW-10	SB10D	N	15	20	ft	1,910	10 U	--	327	11 U	9 U	22 U	63 U	6,220	39 U	6,800	42,905
GCMW-10	SB10E	N	20	25	ft	1,200	10 U	--	175	11 U	9.5 U	23 U	67 U	3,970	41 U	4,480	28,559
GCMW-10	SB10F	N	25	30	ft	257	9.3 U	--	36.8	10 U	8.4 U	21 U	59 U	946	36 U	1,010	6,302
GCMW-10	SB10G	N	30	35	ft	52.2	9.2 U	--	9.4 U	9.9 U	8.4 U	20 U	59 U	196	36 U	223	1,340
GCMW-10	SB10H	N	35	40	ft	55.9	9.3 U	--	9.4 U	10 U	8.4 U	21 U	59 U	227	36 U	245	1,430
GCMW-10	SB10I	N	40	45	ft	63.8	9.3 U	--	9.4 U	10 U	8.4 U	21 U	59 U	258	36 U	294	1,676
GCMW-10	SB10I-S-NYC	S	40	45	ft	82 J	200 U	--	11	200 U	200 U	200 U	7.9 U	370	200 U	430	2,243

491 Smith St. (MW9 & MW10)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aldrin		Alpha BHC		Alpha endosulfan		Alpha-chlordane		Beta BHC		Beta endosulfan		Delta BHC		Dieldrin		Endosulfan sulfate		Endrin		Endrin aldehyde	
GCMW-09	SB09A	N	0	5	ft	**0.56**	U	**0.39**	U	**0.43**	U	**3.7**		**0.61**	U	**0.48**	U	**0.34**	U	**2.7**		**0.48**	U	**0.44**	U	**0.59**	U
GCMW-09	SB09B	N	5	10	ft	**0.6**	U	**0.41**	U	**0.45**	U	**0.45**	U	**0.65**	U	**0.51**	U	**0.36**	U	**0.45**	U	**0.51**	U	**0.46**	U	**0.62**	U
GCMW-09	SB09C	N	10	15	ft	**0.66**	U	**0.45**	U	**0.5**	U	**0.5**	U	**0.72**	U	**0.56**	U	**0.4**	U	**0.5**	U	**0.56**	U	**0.51**	U	**0.69**	U
GCMW-09	SB09C-S-NYC	S	10	15	ft	**2**	U	**2**	U	**2**	U	**1.5**	J	**2**	U	**4**	U	**2**	U	**4**	U	**4**	U	**4**	U	**4**	U
GCMW-09	SB09D	N	15	20	ft	**0.66**	U	**0.46**	U	**0.51**	U	**0.5**	U	**0.72**	U	**0.57**	U	**0.4**	U	**0.5**	U	**0.57**	U	**0.51**	U	**0.69**	U
GCMW-09	SB09E	N	20	25	ft	**0.67**	U	**0.46**	U	**0.51**	U	**0.51**	U	**0.73**	U	**0.57**	U	**0.41**	U	**0.51**	U	**0.57**	U	**0.52**	U	**0.7**	U
GCMW-09	SB09F	N	25	30	ft	**0.81**	U	**0.56**	U	**0.62**	U	**0.61**	U	**0.88**	U	**0.69**	U	**0.49**	U	**0.61**	U	**0.69**	U	**0.63**	U	**0.85**	U
GCMW-09	SB09G	N	30	35	ft	**0.87**	U	**0.6**	U	**0.66**	U	**0.65**	U	**0.94**	U	**0.74**	U	**0.53**	U	**0.65**	U	**0.74**	U	**0.67**	U	**0.91**	U
GCMW-09	SB09H	N	35	40	ft	**0.62**	U	**0.43**	U	**0.48**	U	**0.47**	U	**0.68**	U	**0.53**	U	**0.38**	U	**0.47**	U	**0.53**	U	**0.48**	U	**0.65**	U
GCMW-09	SB09H-S-NYC	S	35	40	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U
GCMW-10	SB10A	N	0	5	ft	**0.58**	U	**0.4**	U	**0.44**	U	**0.44**	U	**0.63**	U	**0.49**	U	**0.35**	U	**0.44**	U	**0.49**	U	**0.45**	U	**19.5**	
GCMW-10	SB10B	N	5	10	ft	**0.57**	U	**0.39**	U	**0.44**	U	**0.43**	U	**0.62**	U	**0.49**	U	**0.35**	U	**0.43**	U	**0.49**	U	**0.44**	U	**0.6**	U
GCMW-10	SB10C	N	10	15	ft	**0.63**	U	**0.44**	U	**0.48**	U	**0.48**	U	**0.69**	U	**0.54**	U	**0.39**	U	**0.48**	U	**0.54**	U	**0.49**	U	**0.66**	U
GCMW-10	SB10C-S-NYC	S	10	15	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**4.5**	NJ
GCMW-10	SB10D	N	15	20	ft	**0.68**	U	**0.47**	U	**0.52**	U	**0.51**	U	**0.73**	U	**0.58**	U	**0.41**	U	**0.51**	U	**0.58**	U	**0.52**	U	**6.6**	
GCMW-10	SB10E	N	20	25	ft	**0.71**	U	**0.49**	U	**0.54**	U	**0.54**	U	**0.77**	U	**0.61**	U	**0.44**	U	**0.54**	U	**0.61**	U	**0.55**	U	**5.1**	
GCMW-10	SB10F	N	25	30	ft	**0.65**	U	**0.45**	U	**0.49**	U	**0.49**	U	**0.7**	U	**0.55**	U	**0.39**	U	**0.49**	U	**0.55**	U	**0.5**	U	**0.68**	U
GCMW-10	SB10G	N	30	35	ft	**0.65**	U	**0.44**	U	**0.49**	U	**0.49**	U	**0.7**	U	**0.55**	U	**0.39**	U	**0.49**	U	**0.55**	U	**0.5**	U	**0.68**	U
GCMW-10	SB10H	N	35	40	ft	**0.64**	U	**0.44**	U	**0.48**	U	**0.48**	U	**0.69**	U	**0.54**	U	**0.39**	U	**0.48**	U	**0.54**	U	**0.49**	U	**0.66**	U
GCMW-10	SB10I	N	40	45	ft	**0.64**	U	**0.44**	U	**0.49**	U	**0.48**	U	**0.7**	U	**0.55**	U	**0.39**	U	**0.48**	U	**0.55**	U	**0.5**	U	**0.67**	U
GCMW-10	SB10I-S-NYC	S	40	45	ft	**2**	U	**2**	U	**2**	U	**2**	U	**2**	U	**3.9**	U	**2**	U	**3.9**	U	**3.9**	U	**3.9**	U	**3.9**	U

491 Smith St. (MW9 & MW10)
Pesticide Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Endrin ketone	Gamma BHC	Gamma-chlordane	Heptachlor	Heptachlor epoxide	Methoxychlor	P,P'-DDD	P,P'-DDE	P,P'-DDT	Toxaphene	Total DDTs
GCMW-09	SB09A	N	0	5	ft	0.45 U	0.39 U	2.8	0.57 U	0.48 U	0.56 U	0.54 U	0.43 U	3.6	15 U	3.6
GCMW-09	SB09B	N	5	10	ft	0.47 U	0.41 U	0.52 U	0.6 U	0.51 U	0.59 U	0.57 U	0.46 U	0.56 U	15 U	0 U
GCMW-09	SB09C	N	10	15	ft	0.52 U	0.46 U	0.58 U	0.66 U	0.57 U	0.66 U	0.63 U	0.51 U	1.8	17 U	1.8
GCMW-09	SB09C-S-NYC	S	10	15	ft	5.8	2 U	1.8 J	2 U	2 U	20 U	4 U	4 U	4 U	200 U	0 U
GCMW-09	SB09D	N	15	20	ft	0.53 U	0.46 U	0.58 U	0.67 U	0.57 U	0.66 U	0.63 U	0.51 U	0.62 U	17 U	0 U
GCMW-09	SB09E	N	20	25	ft	0.53 U	0.46 U	0.59 U	0.68 U	0.58 U	0.67 U	0.64 U	0.52 U	0.63 U	18 U	0 U
GCMW-09	SB09F	N	25	30	ft	0.64 U	0.56 U	0.71 U	0.82 U	0.7 U	0.81 U	0.78 U	0.63 U	0.76 U	21 U	0 U
GCMW-09	SB09G	N	30	35	ft	0.69 U	0.6 U	0.76 U	0.87 U	0.74 U	0.86 U	0.83 U	0.67 U	0.81 U	23 U	0 U
GCMW-09	SB09H	N	35	40	ft	0.49 U	0.43 U	0.55 U	0.63 U	0.54 U	0.62 U	0.6 U	0.48 U	0.58 U	16 U	0 U
GCMW-09	SB09H-S-NYC	S	35	40	ft	3.9 U	2 U	2 U	2 U	2 U	20 U	3.9 U	3.9 U	3.9 U	200 U	0 U
GCMW-10	SB10A	N	0	5	ft	55.6	0.4 U	0.51 U	0.58 U	0.5 U	43.8	0.55 U	0.45 U	0.54 U	15 U	0 U
GCMW-10	SB10B	N	5	10	ft	0.45 U	0.4 U	0.5 U	0.58 U	0.49 U	0.57 U	0.55 U	0.44 U	0.54 U	15 U	0 U
GCMW-10	SB10C	N	10	15	ft	0.5 U	0.44 U	0.55 U	0.64 U	0.54 U	0.63 U	0.61 U	0.49 U	0.59 U	16 U	0 U
GCMW-10	SB10C-S-NYC	S	10	15	ft	8.6	2 U	2 U	2 U	2 U	20 U	3.9 U	3.9 U	3.9 U	200 U	0 U
GCMW-10	SB10D	N	15	20	ft	10.8	0.47 U	0.59 U	0.68 U	0.58 U	0.67 U	0.65 U	0.52 U	0.63 U	18 U	0 U
GCMW-10	SB10E	N	20	25	ft	8.6	0.49 U	0.62 U	0.72 U	0.61 U	0.71 U	0.68 U	0.55 U	0.67 U	19 U	0 U
GCMW-10	SB10F	N	25	30	ft	0.51 U	0.45 U	0.57 U	0.65 U	0.55 U	0.64 U	0.62 U	0.5 U	0.61 U	17 U	0 U
GCMW-10	SB10G	N	30	35	ft	0.51 U	0.44 U	0.56 U	0.65 U	0.55 U	0.64 U	0.62 U	0.5 U	0.6 U	17 U	0 U
GCMW-10	SB10H	N	35	40	ft	0.5 U	0.44 U	0.55 U	0.64 U	0.55 U	0.63 U	0.61 U	0.49 U	0.59 U	17 U	0 U
GCMW-10	SB10I	N	40	45	ft	0.51 U	0.44 U	0.56 U	0.65 U	0.55 U	0.64 U	0.62 U	0.5 U	0.6 U	17 U	0 U
GCMW-10	SB10I-S-NYC	S	40	45	ft	3.9 U	2 U	2 U	2 U	2 U	20 U	3.9 U	3.9 U	3.9 U	200 U	0 U

491 Smith St. (MW9 & MW10)
PCB Aroclor Concentrations in Soils (ug/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
GCMW-09	SB09A	N	0	5	ft	**11** U	**21** U	**10** U	**11** U	**6.2** U	**7.9** U	**12** U	**6.3** U	**7.1** U	**0** U
GCMW-09	SB09B	N	5	10	ft	**12** U	**22** U	**11** U	**12** U	**6.6** U	**8.4** U	**13** U	**6.7** U	**7.5** U	**0** U
GCMW-09	SB09C	N	10	15	ft	**13** U	**24** U	**12** U	**13** U	**7.3** U	**9.3** U	**14** U	**7.4** U	**8.3** U	**0** U
GCMW-09	SB09C-S-NYC	S	10	15	ft	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**0** U
GCMW-09	SB09D	N	15	20	ft	**13** U	**25** U	**12** U	**13** U	**7.4** U	**9.3** U	**14** U	**7.5** U	**8.4** U	**0** U
GCMW-09	SB09E	N	20	25	ft	**13** U	**25** U	**12** U	**13** U	**7.5** U	**9.5** U	**15** U	**7.6** U	**8.5** U	**0** U
GCMW-09	SB09F	N	25	30	ft	**16** U	**30** U	**15** U	**16** U	**9** U	**11** U	**18** U	**9.1** U	**10** U	**0** U
GCMW-09	SB09G	N	30	35	ft	**17** U	**32** U	**16** U	**17** U	**9.6** U	**12** U	**19** U	**9.8** U	**11** U	**0** U
GCMW-09	SB09H	N	35	40	ft	**12** U	**23** U	**11** U	**13** U	**6.9** U	**8.8** U	**14** U	**7** U	**7.9** U	**0** U
GCMW-09	SB09H-S-NYC	S	35	40	ft	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**39** U	**0** U
GCMW-10	SB10A	N	0	5	ft	**12** U	**21** U	**10** U	**12** U	**6.4** U	**8.2** U	**13** U	**6.5** U	**7.3** U	**0** U
GCMW-10	SB10B	N	5	10	ft	**11** U	**21** U	**10** U	**11** U	**6.4** U	**8.1** U	**12** U	**6.5** U	**7.2** U	**0** U
GCMW-10	SB10C	N	10	15	ft	**13** U	**23** U	**11** U	**13** U	**7** U	**8.9** U	**14** U	**7.1** U	**8** U	**0** U
GCMW-10	SB10C-S-NYC	S	10	15	ft	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**0** U
GCMW-10	SB10D	N	15	20	ft	**14** U	**25** U	**12** U	**14** U	**7.5** U	**9.5** U	**15** U	**7.6** U	**8.6** U	**0** U
GCMW-10	SB10E	N	20	25	ft	**14** U	**26** U	**13** U	**14** U	**7.9** U	**10** U	**16** U	**8** U	**9** U	**0** U
GCMW-10	SB10F	N	25	30	ft	**13** U	**24** U	**12** U	**13** U	**7.2** U	**9.1** U	**14** U	**7.3** U	**8.2** U	**0** U
GCMW-10	SB10G	N	30	35	ft	**13** U	**24** U	**12** U	**13** U	**7.2** U	**9.1** U	**14** U	**7.3** U	**8.1** U	**0** U
GCMW-10	SB10H	N	35	40	ft	**13** U	**23** U	**11** U	**13** U	**7** U	**8.9** U	**14** U	**7.2** U	**8** U	**0** U
GCMW-10	SB10I	N	40	45	ft	**13** U	**24** U	**12** U	**13** U	**7.1** U	**9.1** U	**14** U	**7.2** U	**8.1** U	**0** U
GCMW-10	SB10I-S-NYC	S	40	45	ft	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**40** U	**0** U

491 Smith St. (MW9 & MW10)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
GCMW-09	SB09A	N	0	5	ft	**5,370**	**0.3** U	**7.2**	**81.6**	**0.27**	**0.043** U	**45,200**	**16.2**	**0.1** U	**29.2**	**11,300**
GCMW-09	SB09B	N	5	10	ft	**4,200**	**0.3** U	**10.5**	**122**	**0.25**	**0.044** U	**22,000**	**12.4**	**0.11** U	**30.1**	**15,400**
GCMW-09	SB09C	N	10	15	ft	**5,500**	**0.35** U	**9.3**	**133**	**0.31**	**0.05** U	**18,500**	**19.2**	**0.12** U	**48.3**	**18,000**
GCMW-09	SB09C-S-NYC	S	10	15	ft	**4,090**	**0.97** J	**8.7**	**115**	**0.27** J	**0.63**	**26,900**	**14.7**	**4.8** U	32 R	**16,300**
GCMW-09	SB09D	N	15	20	ft	**9,080**	**0.36** U	**8**	**134**	**0.54**	**0.052** U	**19,800**	**41.7**	**10.8**	**214**	**14,800**
GCMW-09	SB09E	N	20	25	ft	**5,870**	**0.35** U	**4.6**	**40.3**	**0.38**	**0.05** U	**1,920**	**10.5**	**0.12** U	**45.7**	**10,500**
GCMW-09	SB09F	N	25	30	ft	**14,000**	**0.42** U	**9.1**	**108**	**0.65**	**0.061** U	**2,630**	**21.1**	**14.5**	**63.6**	**23,400**
GCMW-09	SB09G	N	30	35	ft	**16,800**	**0.44** U	**14.4**	**43.3**	**0.79**	**0.064** U	**2,440**	**30.8**	**10.3**	**60.1**	**32,300**
GCMW-09	SB09H	N	35	40	ft	**4,730**	**0.32** U	**0.57** U	**25.5**	**0.26**	**0.046** U	**5.7** U	**16.9**	**0.11** U	**8.3**	**5,680**
GCMW-09	SB09H-S-NYC	S	35	40	ft	**5,210**	**6.8** U	**2.3**	**32.6**	**0.3** J	**0.57** U	**574**	**25.5**	**5.7** U	7.5 R	**6,860**
GCMW-10	SB10A	N	0	5	ft	**6,370**	**0.3** U	**6.6**	**662**	**0.33**	**0.69**	**26,800**	**14.4**	**0.1** U	**60.1**	**15,500**
GCMW-10	SB10B	N	5	10	ft	**5,570**	**0.29** U	**7.1**	**214**	**0.3**	**0.67**	**19,500**	**14.1**	**0.1** U	**51.5**	**13,200**
GCMW-10	SB10C	N	10	15	ft	**7,470**	**0.33** U	**0.59** U	**56.4**	**0.32**	**0.048** U	**1,860**	**12.3**	**0.12** U	**14**	**10,500**
GCMW-10	SB10C-S-NYC	S	10	15	ft	**6,320**	**6.4** U	**2**	**36.8**	**0.22** J	**0.53** U	**924**	**11.4**	**5.3** U	7.2 R	**10,500**
GCMW-10	SB10D	N	15	20	ft	**8,340**	**0.34** U	**0.61** U	**33**	**0.39**	**0.05** U	**1,660**	**12.5**	**0.12** U	**15.2**	**14,600**
GCMW-10	SB10E	N	20	25	ft	**7,330**	**0.38** U	**0.67** U	**39.8**	**0.42**	**0.054** U	**1,750**	**11.9**	**0.13** U	**14.6**	**14,300**
GCMW-10	SB10F	N	25	30	ft	**7,020**	**0.34** U	**0.6** U	**37.4**	**0.36**	**0.049** U	**1,170**	**10.3**	**0.12** U	**13**	**14,000**
GCMW-10	SB10G	N	30	35	ft	**6,470**	**0.32** U	**0.57** U	**32.8**	**0.33**	**0.046** U	**2,940**	**11.3**	**0.11** U	**11.9**	**13,800**
GCMW-10	SB10H	N	35	40	ft	**5,160**	**0.32** U	**0.57** U	**0.1** U	**0.24**	**0.047** U	**983**	**9**	**0.11** U	**8.1**	**10,700**
GCMW-10	SB10I	N	40	45	ft	**4,360**	**0.34** U	**0.61** U	**0.11** U	**0.27**	**0.049** U	**6.1** U	**8.8**	**0.12** U	**7**	**9,570**
GCMW-10	SB10I-S-NYC	S	40	45	ft	**4,580**	**7.1** U	**1.6**	**18.5** J	**0.23** J	**0.59** U	**1,750**	**9.6**	**5.9** U	7.7 R	**11,200**

491 Smith St. (MW9 & MW10)
Metal and Cyanide Concentrations in Soils (mg/kg)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Top Depth	Bottom Depth	Unit	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Cyanide, Total
GCMW-09	SB09A	N	0	5	ft	84	10,900	161	0.26	10.4	5.8 U	0.35 U	0.043 U	13 U	0.32 U	17.4	84.9	0.025 U
GCMW-09	SB09B	N	5	10	ft	125	8,820	142	0.49	11	1,380	0.36 U	0.044 U	13 U	0.33 U	16.5	88.5	0.026 U
GCMW-09	SB09C	N	10	15	ft	143	4,670	144	0.42	13.9	1,850	0.41 U	0.05 U	15 U	0.38 U	21.1	122	0.027 U
GCMW-09	SB09C-S-NYC	S	10	15	ft	128	11,100	128	0.39	14.2	1,600	3.3 UJ	0.23 J	478 U	2.4 U	18.7	130	2.7 U
GCMW-09	SB09D	N	15	20	ft	406	7,750	678	0.51	33.2	7 U	0.43 U	0.052 U	16 U	0.39 U	18.4	139	0.027 U
GCMW-09	SB09E	N	20	25	ft	113	1,140	61.8	0.13	17	6.7 U	0.41 U	0.05 U	15 U	0.37 U	12.4	62.1	0.028 U
GCMW-09	SB09F	N	25	30	ft	650	3,620	291	0.77	35.3	2,280	0.5 U	0.061 U	18 U	0.45 U	24.5	236	0.036 U
GCMW-09	SB09G	N	30	35	ft	39.2	5,540	298	0.056	24.1	3,290	0.53 U	0.064 U	19 U	0.48 U	35.3	71.4	0.039 U
GCMW-09	SB09H	N	35	40	ft	10.6	1,300	47.7	0.014 U	9.1	6.2 U	0.38 U	0.046 U	14 U	0.35 U	10.2	25	0.026 U
GCMW-09	SB09H-S-NYC	S	35	40	ft	16	1,470	51.1	0.12 U	10.7	469 J	4 UJ	0.068 J	568 U	2.8 U	11.6	31.1	2.7 U
GCMW-10	SB10A	N	0	5	ft	666	4,650	219	1.5	15.4	5.7 U	0.35 U	0.043 U	13 U	0.32 U	17.4	400	0.051 U
GCMW-10	SB10B	N	5	10	ft	381	6,300	224	0.87	14.2	5.6 U	0.34 U	0.042 U	13 U	0.31 U	16.4	291	0.69
GCMW-10	SB10C	N	10	15	ft	77.8	3,200	125	0.057	13.3	6.4 U	0.39 U	0.048 U	14 U	0.36 U	16.9	110	0.028 U
GCMW-10	SB10C-S-NYC	S	10	15	ft	8	1,970	112	0.12 U	14.4	494 J	3.7 UJ	0.12 J	534 U	2.7 U	12.8	101	2.9 U
GCMW-10	SB10D	N	15	20	ft	35	2,900	149	0.086	14.9	6.7 U	0.41 U	0.05 U	15 U	0.37 U	16.1	52.8	0.029 U
GCMW-10	SB10E	N	20	25	ft	24.2	2,930	168	0.37	14	7.3 U	0.44 U	0.054 U	16 U	0.4 U	13.7	43.7	0.031 U
GCMW-10	SB10F	N	25	30	ft	5.5	2,700	389	0.014 U	12.9	6.6 U	0.4 U	0.049 U	15 U	0.36 U	13.5	32.6	0.029 U
GCMW-10	SB10G	N	30	35	ft	6	2,420	231	0.013 U	12.1	6.2 U	0.38 U	0.046 U	14 U	0.34 U	12.7	33.2	0.029 U
GCMW-10	SB10H	N	35	40	ft	3.4	2,160	197	0.014 U	10.2	6.3 U	0.38 U	0.047 U	14 U	0.35 U	9.6	26.3	0.026 U
GCMW-10	SB10I	N	40	45	ft	4.1	1,580	95.1	0.013 U	8.4	6.6 U	0.41 U	0.049 U	15 U	0.37 U	11.9	23	0.028 U
GCMW-10	SB10I-S-NYC	S	40	45	ft	4.6	2,070	187	0.12 U	11	555 J	4.1 UJ	0.13 J	589 U	2.9 U	10.4	35.9	2.7 U

503 – 537 Smith St.

(MW11 & MW12)

Analytical Groundwater Results

2010

Gowanus Canal –

Remedial Investigation

Brooklyn, NY

491 Smith St. (MW9 & MW10)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,1,1-trichloroethane		1,1,2,2-tetrachloroethane		1,1,2-trichloro-1,2,2-trifluoroethane		1,1,2-trichloroethane		1,1-dichloroethane		1,1-dichloroethene		1,2,3-trichlorobenzene		1,2,4-trichlorobenzene		1,2-dibromo-3-chloropropane	
MW-09	GC-MW09I	N	Intermediate	**2.6**	U	**2.4**	U	**3.8**	U	**2.3**	U	**2.9**	U	**4**	U	**4.7**	U	**5.6**	U	**11**	U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U	**6.1**	U
MW-09	GC-MW09S	N	Shallow	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U
MW-09	GC-MW09S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U
MW-10	GC-MW10I	N	Intermediate	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U
MW-10	GC-MW10S	N	Shallow	**0.26**	U	**0.24**	U	**0.38**	U	**0.23**	U	**0.29**	U	**0.4**	U	**0.47**	U	**0.56**	U	**1.1**	U
MW-10	GC-MW10S-S-NYC	S	Shallow	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.5**	U	**0.05**	U

491 Smith St. (MW9 & MW10)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2-dibromoethane	1,2-dichlorobenzene	1,2-dichloroethane	1,2-dichloropropane	1,3-dichlorobenzene	1,4-dichlorobenzene	1,4-dioxane (p-dioxane)	2-hexanone	Acetone	Benzene
MW-09	GC-MW09I	N	Intermediate	**3.9** U	**2.6** U	**3.3** U	**2.7** U	**2.5** U	**2.8** U	**940** U	**14** U	**29** U	**1,730**
MW-09	GC-MW09I-S-NYC	S	Intermediate	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	--	**61** U	**61** U	**1,800** J
MW-09	GC-MW09S	N	Shallow	**0.39** U	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**2.9** U	**0.32** J
MW-09	GC-MW09S-S-NYC	S	Shallow	**0.05** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**15**	**0.25** J
MW-10	GC-MW10I	N	Intermediate	**0.39** U	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**2.9** U	**0.23** U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**0.05** U	**0.5** U	**0.2** J	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.085** J
MW-10	GC-MW10S	N	Shallow	**0.39** U	**0.26** U	**0.33** U	**0.27** U	**0.25** U	**0.28** U	**94** U	**1.4** U	**2.9** U	**0.23** U
MW-10	GC-MW10S-S-NYC	S	Shallow	**0.05** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	--	**5** U	**5** U	**0.1** J

491 Smith St. (MW9 & MW10)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethylene
MW-09	GC-MW09I	N	Intermediate	**3.3** U	**2.2** U	**2.3** U	**3** U	**7.4** U	**2.6** U	**3.9** U	**3.7** U	**2.3** U	**2.9** U	**2.2** U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U	**6.1** U
MW-09	GC-MW09S	N	Shallow	**0.33** U	**0.22** U	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.23** U	**0.29** U	**0.22** U
MW-09	GC-MW09S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U
MW-10	GC-MW10I	N	Intermediate	**0.33** U	**0.22** U	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.75** J	**0.29** U	**0.22** U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.69** U	**0.5** U	**0.068** J
MW-10	GC-MW10S	N	Shallow	**0.33** U	**0.22** U	**0.23** U	**0.3** U	**0.74** U	**0.26** U	**0.39** U	**0.37** U	**0.23** U	**0.29** U	**0.22** U
MW-10	GC-MW10S-S-NYC	S	Shallow	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U	**0.5** U

491 Smith St. (MW9 & MW10)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	cis-1,3-dichloropropene	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (cumene)	m, p xylenes	Methyl acetate	Methyl ethyl ketone (2-butanone)	Methyl isobutyl ketone	Methylcyclohexane
MW-09	GC-MW09I	N	Intermediate	2.5 U	19 U	2.2 U	9.2 U	832	32.1	232	15 U	16 U	8.6 U	3.5 U
MW-09	GC-MW09I-S-NYC	S	Intermediate	6.1 U	6.1 U	6.1 U	6.1 U	870 J	35	240	6.1 U	61 U	61 U	6.1 U
MW-09	GC-MW09S	N	Shallow	0.25 U	1.9 U	0.22 U	0.92 U	0.27 U	0.57 U	0.25 U	1.5 U	1.6 U	0.86 U	0.35 U
MW-09	GC-MW09S-S-NYC	S	Shallow	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U
MW-10	GC-MW10I	N	Intermediate	0.25 U	1.9 U	0.22 U	0.92 U	0.27 U	0.57 U	0.25 U	1.5 U	1.6 U	0.86 U	0.35 U
MW-10	GC-MW10I-S-NYC	S	Intermediate	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.5 U
MW-10	GC-MW10S	N	Shallow	0.25 U	1.9 U	0.22 U	0.92 U	0.27 U	0.57 U	0.25 U	1.5 U	1.6 U	0.86 U	0.35 U
MW-10	GC-MW10S-S-NYC	S	Shallow	0.5 U	0.44 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	5 U	0.18 J

491 Smith St. (MW9 & MW10)
VOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Methylene chloride	o-xylene (1,2-dimethylbenzene)	Styrene	Tert-butyl methyl ether	Tetrachloroethylene(PCE)	Toluene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethylene (TCE)	Trichlorofluoromethane	Vinyl chloride
MW-09	GC-MW09I	N	Intermediate	3 U	186	5.8 U	2.3 U	2.7 U	158	2.5 U	2.1 U	2.4 U	5.4 U	4.4 U
MW-09	GC-MW09I-S-NYC	S	Intermediate	6.1 U	200	6.1 U	6.1 U	6.1 U	160	6.1 U	6.1 U	6.1 U	6.1 U	6.1 U
MW-09	GC-MW09S	N	Shallow	0.3 U	0.25 U	0.58 U	0.23 U	0.27 U	0.3 U	0.25 U	0.21 U	0.24 U	0.54 U	0.44 U
MW-09	GC-MW09S-S-NYC	S	Shallow	0.5 U	0.5 U	0.5 U	0.23 J	0.052 J	0.5 U	0.5 U	0.5 U	0.14 J	0.5 U	0.5 U
MW-10	GC-MW10I	N	Intermediate	0.3 U	0.25 U	0.58 U	0.28 J	0.27 U	0.3 U	0.25 U	0.21 U	0.24 U	0.54 U	0.44 U
MW-10	GC-MW10I-S-NYC	S	Intermediate	0.5 U	0.5 U	0.5 U	0.33 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-10	GC-MW10S	N	Shallow	0.3 U	0.25 U	0.58 U	0.23 U	0.27 U	0.3 U	0.25 U	0.21 U	0.24 U	0.54 U	0.44 U
MW-10	GC-MW10S-S-NYC	S	Shallow	0.5 U	0.5 U	0.5 U	0.06 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	1,2,4,5-tetrachlorobenzene		2,3,4,6-tetrachlorophenol		2,4,5-trichlorophenol		2,4,6-trichlorophenol		2,4-dichlorophenol		2,4-dimethylphenol		2,4-dinitrophenol		2,4-dinitrotoluene		2,6-dinitrotoluene		2-chloronaphthalene	
MW-09	GC-MW09I	N	Intermediate	**0.48**	U	**0.81**	U	**1.3**	U	**1.2**	U	**1.2**	U	**1.7**	U	**0.74**	U	**0.22**	U	**0.33**	U	**0.42**	U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U	**350**	U	**180**	U	**180**	U	**180**	U
MW-09	GC-MW09S	N	Shallow	**0.48**	U	**0.81**	U	**1.3**	U	**1.2**	U	**1.2**	U	**1.7**	U	**0.74**	U	**0.22**	U	**0.33**	U	**0.42**	U
MW-09	GC-MW09S-S-NYC	S	Shallow	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**11**	U	**5.3**	U	**5.3**	U	**5.3**	U
MW-10	GC-MW10I	N	Intermediate	**0.48**	U	**0.81**	U	**1.3**	U	**1.2**	U	**1.2**	U	**1.7**	U	**0.74**	U	**0.22**	U	**0.33**	U	**0.42**	U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**5.5**	U	**11**	U	**5.5**	U	**5.5**	U	**5.5**	U
MW-10	GC-MW10S	N	Shallow	**0.53**	U	**0.89**	U	**1.5**	U	**1.3**	U	**1.3**	U	**1.8**	U	**0.81**	U	**0.24**	U	**0.36**	U	**0.46**	U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	2-chlorophenol		2-methylnaphthalene		2-methylphenol (o-cresol)		2-nitroaniline		2-nitrophenol		3,3'-dichlorobenzidine		3-nitroaniline		4,6-dinitro-2-methylphenol		4-bromophenyl phenyl ether		4-chloro-3-methylphenol		4-chloroaniline	
MW-09	GC-MW09I	N	Intermediate	**1.1**	U	**148**		**1.1**	U	**0.24**	U	**1.2**	U	**0.3**	U	**0.29**	U	**0.51**	U	**0.35**	U	**1.1**	U	**0.25**	U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**180**	U	**240**		**180**	U	**350**	U	**180**	U	**180**	U	**350**	U	**350**	U	**180**	U	**180**	U	**180**	U
MW-09	GC-MW09S	N	Shallow	**1.1**	U	**0.66**	U	**1.1**	U	**0.24**	U	**1.2**	U	**0.3**	U	**0.29**	U	**0.51**	U	**0.35**	U	**1.1**	U	**0.25**	U
MW-09	GC-MW09S-S-NYC	S	Shallow	**5.3**	U	**0.61**	J	**5.3**	U	**11**	U	**5.3**	U	**5.3**	U	**11**	U	**11**	U	**5.3**	U	**5.3**	U	**5.3**	U
MW-10	GC-MW10I	N	Intermediate	**1.1**	U	**3.4**		**1.1**	U	**0.24**	U	**1.2**	U	**0.3**	U	**0.29**	U	**0.51**	U	**0.35**	U	**1.1**	U	**0.25**	U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**5.5**	U	**4.2**	J	**5.5**	U	**11**	U	**5.5**	U	**5.5**	U	**11**	U	**11**	U	**5.5**	U	**5.5**	U	**5.5**	U
MW-10	GC-MW10S	N	Shallow	**1.2**	U	**0.72**	U	**1.2**	U	**0.26**	U	**1.4**	U	**0.32**	U	**0.32**	U	**0.56**	U	**0.38**	U	**1.2**	U	**0.28**	U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	4-chlorophenyl phenyl ether	4-methylphenol (p-cresol)	4-nitroaniline	4-nitrophenol	Acenaphthene	Acenaphthylene	Acetophenone	Anthracene	Atrazine	Benzaldehyde	Benzo(a)anthracene	Benzo(a)pyrene
MW-09	GC-MW09I	N	Intermediate	**0.35** U	--	**0.18** U	**0.83** U	**178**	**2.3**	**0.4** U	**2.3**	**0.39** U	**0.4** U	**0.12** U	**0.095** U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**180** U	**180** U	**350** U	**350** U	**250**	**21** U	**180** U	**21** U	**180** U	**180** U	**21** U	**21** U
MW-09	GC-MW09S	N	Shallow	**0.35** U	--	**0.18** U	**0.83** U	**0.89** J	**0.27** U	**0.4** U	**0.49** J	**0.39** U	**0.4** U	**0.41** J	**0.095** U
MW-09	GC-MW09S-S-NYC	S	Shallow	**5.3** U	**0.57** J	**11** U	**11** U	**0.96** J	**0.04** J	**5.3** U	**1.1** J	**5.3** U	**5.3** U	**1.8** J	**1.5** J
MW-10	GC-MW10I	N	Intermediate	**0.35** U	--	**0.18** U	**0.83** U	**5.3**	**0.27** U	**0.4** U	**2.4**	**0.39** U	**0.4** U	**0.76** J	**0.53** J
MW-10	GC-MW10I-S-NYC	S	Intermediate	**5.5** U	**5.5** U	**11** U	**11** U	**5.5** J	**0.12**	**5.5** U	**1** J	**5.5** U	**5.5** U	**1.3** J	**1.2** J
MW-10	GC-MW10S	N	Shallow	**0.39** U	--	**0.2** U	**0.91** U	**0.4** U	**0.3** U	**0.44** U	**0.18** U	**0.43** U	**0.44** U	**0.13** U	**0.1** U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Benzo(b)fluoranthene		Benzo(g,h,i)perylene		Benzo(k)fluoranthene		Benzyl butyl phthalate		Biphenyl (diphenyl)		Bis(2-chloroethoxy) methane		Bis(2-chloroethyl) ether		Bis(2-chloroisopropyl) ether		Bis(2-ethylhexyl) phthalate		Caprolactam	
MW-09	GC-MW09I	N	Intermediate	**0.25**	U	**0.12**	U	**0.38**	U	**0.25**	U	**21.9**		**0.25**	U	**0.31**	U	--		**0.33**	U	**0.2**	U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**21**	UJ	**21**	U	**21**	U	**180**	U	**29**	J	**180**	U	**180**	U	**180**	U	**180**	U	**180**	U
MW-09	GC-MW09S	N	Shallow	**0.25**	U	**0.12**	U	**0.38**	U	**0.25**	U	**0.42**	U	**0.25**	U	**0.31**	U	--		**0.33**	U	**0.2**	U
MW-09	GC-MW09S-S-NYC	S	Shallow	**1.4**	J	**1.1**	J	**1.2**	J	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**5.3**	U	**7.4**	
MW-10	GC-MW10I	N	Intermediate	**0.46**	J	**0.12**	U	**0.47**	J	**0.25**	U	**0.91**	J	**0.25**	U	**0.31**	U	--		**0.33**	U	**0.2**	U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**0.82**	J	**0.55**	J	**0.94**	J	**5.5**	U	**0.9**	J	**5.5**	U	**5.5**	U	**5.5**	U	**0.77**	J	**5.5**	U
MW-10	GC-MW10S	N	Shallow	**0.27**	U	**0.13**	U	**0.41**	U	**0.28**	U	**0.46**	U	**0.27**	U	**0.34**	U	--		**0.36**	U	**0.21**	U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octylphthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene
MW-09	GC-MW09I	N	Intermediate	**10**	**0.11** U	**0.15** U	**5.5**	**0.17** U	**0.23** U	**0.19** U	**0.4** U	**0.46** J	**22.2**	**0.27** U	**0.13** U	**0.24** U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**180** U	**21** U	**21** U	**180** U	**180** U	**180** U	**180** U	**180** U	**21** U	**30** J	**180** U	**180** U	**180** U
MW-09	GC-MW09S	N	Shallow	**0.58** J	**0.41** J	**0.15** U	**0.3** U	**0.17** U	**0.23** U	**0.19** U	**0.4** U	**1.1**	**0.65** J	**0.27** U	**0.13** U	**0.24** U
MW-09	GC-MW09S-S-NYC	S	Shallow	**0.63** J	**1.9** J	**0.23** J	**0.62** J	**5.3** U	**5.3** U	**5.3** U	**5.3** U	**4** J	**0.98** J	**5.3** U	**5.3** U	**5.3** U
MW-10	GC-MW10I	N	Intermediate	**4.5**	**0.84** J	**0.15** U	**2.7** J	**0.17** U	**0.23** U	**1** J	**0.4** U	**3.7**	**3.7**	**0.27** U	**0.13** U	**0.24** U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**3.7** J	**1.4** J	**0.15**	**3** J	**5.5** U	**5.5** U	**0.98** J	**5.5** U	**4.6** J	**4.1** J	**5.5** U	**5.5** U	**5.5** U
MW-10	GC-MW10S	N	Shallow	**0.18** U	**0.12** U	**0.17** U	**0.33** U	**0.18** U	**0.25** U	**0.21** U	**0.43** U	**0.19** U	**0.29** U	**0.29** U	**0.14** U	**0.27** U

491 Smith St. (MW9 & MW10)
SVOC Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Hexachloroethane	Indeno(1,2,3-c,d)pyrene	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propylamine	N-nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Total PAHs
MW-09	GC-MW09I	N	Intermediate	0.21 U	0.13 U	0.25 U	2,310	0.25 U	0.44 U	0.22 U	0.8 U	15.7	4.9	0.16 U	2,679
MW-09	GC-MW09I-S-NYC	S	Intermediate	180 U	21 U	180 U	2,800	180 U	180 U	180 U	43 U	21 J	20 J	21 UJ	3,341
MW-09	GC-MW09S	N	Shallow	0.21 U	0.13 U	0.25 U	2.2	0.25 U	0.44 U	0.22 U	0.8 U	1.7	0.58 U	0.79 J	8.64
MW-09	GC-MW09S-S-NYC	S	Shallow	5.3 U	0.82 J	5.3 U	2.1 J	5.3 U	5.3 U	5.3 U	0.21 UJ	4.5 J	5.3 U	3.8 J	28.04
MW-10	GC-MW10I	N	Intermediate	0.21 U	0.13 U	0.25 U	21.2	0.25 U	0.44 U	0.22 U	0.8 U	11.1	0.58 U	2.9	56.76
MW-10	GC-MW10I-S-NYC	S	Intermediate	5.5 U	0.42	5.5 U	22	5.5 U	5.5 U	5.5 U	0.22 U	14	5.5 U	4.4 J	66.7
MW-10	GC-MW10S	N	Shallow	0.23 U	0.14 U	0.27 U	0.47 U	0.28 U	0.48 U	0.24 U	0.88 U	0.23 U	0.63 U	0.17 U	0 U

491 Smith St. (MW9 & MW10)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	**Aldrin**		**Alpha BHC**		**Alpha endosulfan**		**Alpha-chlordane**		**Beta BHC**		**Beta endosulfan**		**Delta BHC**		**Dieldrin**		**Endosulfan sulfate**		**Endrin**		**Endrin aldehyde**	
MW-09	GC-MW09I	N	Intermediate	**0.009**	U	**0.0023**	U	**0.0023**	U	**0.003**	U	**0.0037**	U	**0.0033**	U	**0.0043**	U	**0.0014**	U	**0.0067**	U	**0.0013**	U	**0.0035**	U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**0.054**	UJ	**0.054**	UJ	**0.054**	UJ	**0.054**	UJ	0.063	R	**0.11**	UJ	**0.054**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ
MW-09	GC-MW09S	N	Shallow	**0.009**	U	**0.0023**	U	**0.0023**	U	**0.003**	U	**0.0037**	U	**0.0033**	U	**0.0043**	U	**0.0014**	U	**0.0067**	U	**0.0013**	U	**0.0035**	U
MW-09	GC-MW09S-S-NYC	S	Shallow	**0.053**	UJ	**0.053**	UJ	**0.053**	UJ	**0.053**	UJ	**0.053**	UJ	**0.11**	UJ	**0.053**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ
MW-10	GC-MW10I	N	Intermediate	**0.009**	U	**0.0023**	U	**0.0023**	U	**0.003**	U	**0.0037**	U	**0.0033**	U	**0.0043**	U	**0.0014**	U	**0.0067**	U	**0.0013**	U	**0.0035**	U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**0.055**	U	**0.055**	U	**0.055**	U	**0.055**	U	**0.055**	U	**0.11**	U	**0.055**	U	**0.11**	U	**0.11**	U	**0.11**	U	**0.11**	U
MW-10	GC-MW10S	N	Shallow	**0.0091**	U	**0.0023**	U	**0.0023**	U	**0.0031**	U	**0.0037**	U	**0.0034**	U	**0.0043**	U	**0.0014**	U	**0.0069**	U	**0.0013**	U	**0.0035**	U

491 Smith St. (MW9 & MW10)
Pesticide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Endrin ketone		Gamma BHC		Gamma-chlordane		Heptachlor		Heptachlor epoxide		Methoxychlor		P,P'-DDD		P,P'-DDE		P,P'-DDT		Toxaphene		Total DDTs	
MW-09	GC-MW09I	N	Intermediate	**0.0074**	U	**0.0017**	U	**0.0024**	U	**0.0038**	U	**0.0025**	U	**0.0069**	U	**0.0036**	U	**0.0021**	U	**0.0038**	U	**0.25**	U	**0**	U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**0.11**	UJ	**0.054**	UJ	**0.054**	UJ	**0.054**	UJ	**0.054**	UJ	**0.54**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ	**5.4**	UJ	**0**	U
MW-09	GC-MW09S	N	Shallow	**0.0074**	U	**0.0017**	U	**0.0024**	U	**0.0038**	U	**0.0025**	U	**0.0069**	U	**0.0036**	U	**0.0021**	U	**0.0038**	U	**0.25**	U	**0**	U
MW-09	GC-MW09S-S-NYC	S	Shallow	**0.11**	UJ	**0.053**	UJ	**0.053**	UJ	**0.053**	UJ	**0.053**	UJ	**0.53**	UJ	**0.11**	UJ	**0.11**	UJ	**0.11**	UJ	**5.3**	UJ	**0**	U
MW-10	GC-MW10I	N	Intermediate	**0.0074**	U	**0.0017**	U	**0.0024**	U	**0.0038**	U	**0.0025**	U	**0.0069**	U	**0.0036**	U	**0.0021**	U	**0.0038**	U	**0.25**	U	**0**	U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**0.11**	U	**0.055**	U	**0.055**	U	**0.055**	U	**0.055**	U	**0.55**	U	**0.11**	U	**0.11**	U	**0.11**	U	**5.5**	U	**0**	U
MW-10	GC-MW10S	N	Shallow	**0.0076**	U	**0.0017**	U	**0.0024**	U	**0.0039**	U	**0.0025**	U	**0.007**	U	**0.0037**	U	**0.0022**	U	**0.0039**	U	**0.26**	U	**0**	U

491 Smith St. (MW9 & MW10)
PCB Aroclor Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aroclor 1016		Aroclor 1221		Aroclor 1232		Aroclor 1242		Aroclor 1248		Aroclor 1254		Aroclor 1260		Aroclor 1262		Aroclor 1268		Total PCBs	
MW-09	GC-MW09I	N	Intermediate	**0.3**	U	**0.41**	U	**0.31**	U	**0.27**	U	**0.28**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**0**	U
MW-09	GC-MW09S	N	Shallow	**0.3**	U	**0.41**	U	**0.31**	U	**0.27**	U	**0.28**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-09	GC-MW09S-S-NYC	S	Shallow	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**1.1**	UJ	**0**	U
MW-10	GC-MW10I	N	Intermediate	**0.3**	U	**0.41**	U	**0.31**	U	**0.27**	U	**0.28**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**1.1**	U	**0**	U
MW-10	GC-MW10S	N	Shallow	**0.31**	U	**0.42**	U	**0.32**	U	**0.28**	U	**0.29**	U	**0.18**	U	**0.14**	U	**0.1**	U	**0.12**	U	**0**	U

491 Smith St. (MW9 & MW10)
Metal and Cyanide Concentrations in Groundwater (ug/L)
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Aluminum	Aluminum, dissolved	Antimony	Antimony, dissolved	Arsenic	Arsenic, dissolved	Barium	Barium, dissolved	Beryllium
MW-09	GC-MW09I	N	Intermediate	**4,350**	--	**2.2** U	--	**93.3**	--	**450**	--	**0.21** U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**14,500**	**200** U	**2** U	**2** U	**94.3**	**58**	**488**	**255**	**1.2**
MW-09	GC-MW09S	N	Shallow	**10,400**	--	**2.2** U	--	**31.5**	--	**0.44** U	--	**0.21** U
MW-09	GC-MW09S-S-NYC	S	Shallow	**9,020**	**200** U	**2.9**	**2** U	**31.6**	**9.3**	**227**	**23.4**	**1** U
MW-10	GC-MW10I	N	Intermediate	**964**	--	**2.2** U	--	**3.2**	--	**0.44** U	--	**0.21** U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**1,210**	**200** U	**2** U	**2** U	**2.5**	**1.9**	**136**	**133**	**1** U
MW-10	GC-MW10S	N	Shallow	**7.8** U	--	**2.2** U	--	**10.7**	--	**0.44** U	--	**0.21** U

491 Smith St. (MW9 & MW10)
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Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Beryllium, dissolved	Cadmium	Cadmium, dissolved	Calcium	Calcium, dissolved	Chromium	Chromium, dissolved	Cobalt
MW-09	GC-MW09I	N	Intermediate	--	**0.35** U	--	**73,800**	--	**13.2**	--	**0.65** U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**1** U	**0.57** J	**1** U	**75,900**	**75,300**	**38.9**	**2** U	**17.8**
MW-09	GC-MW09S	N	Shallow	--	**0.35** U	--	**381,000**	--	**41**	--	**0.65** U
MW-09	GC-MW09S-S-NYC	S	Shallow	**1** U	**0.68** J	**1** U	**467,000**	**492,000**	**23.2**	**2** U	**5**
MW-10	GC-MW10I	N	Intermediate	--	**0.35** U	--	**85,000**	--	**0.59** U	--	**0.65** U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**1** U	**1** U	**1** U	**84,600**	**86,900**	**2.5**	**2** U	**3.6**
MW-10	GC-MW10S	N	Shallow	--	**0.35** U	--	**183,000**	--	**0.56** U	--	**0.65** U

491 Smith St. (MW9 & MW10)
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Location ID	Field ID	Sample Type	Depth	Cobalt, dissolved	Copper	Copper, dissolved	Iron	Iron, dissolved	Lead	Lead, dissolved	Magnesium	Magnesium, dissolved	Manganese
MW-09	GC-MW09I	N	Intermediate	--	**19.2**	--	**13,700**	**18** U	**277**	--	**67,400**	--	**831**
MW-09	GC-MW09I-S-NYC	S	Intermediate	**1** U	**61.5**	**0.35** J	**26,100**	**514**	**472**	**1** U	**66,200**	**67,100**	**806**
MW-09	GC-MW09S	N	Shallow	--	**107**	--	**18,500**	**18** U	**293**	--	**58,100**	--	**744**
MW-09	GC-MW09S-S-NYC	S	Shallow	**1.1**	**61.9**	**0.55** J	**28,700**	**3,460**	**395**	**1** U	**96,600**	**112,000**	**1,020**
MW-10	GC-MW10I	N	Intermediate	--	**2.5** U	--	**1,190**	--	**19.2**	--	**49,900**	--	**2,210**
MW-10	GC-MW10I-S-NYC	S	Intermediate	**3**	**3.7**	**0.5** J	**2,190**	**100** U	**14.3**	**1** U	**45,300**	**46,200**	**2,000**
MW-10	GC-MW10S	N	Shallow	--	**2.5** U	--	**617**	--	**1.9** U	--	**34,000**	--	**2,080**

491 Smith St. (MW9 & MW10)
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Brooklyn, New York

Location ID	Field ID	Sample Type	Depth	Manganese, dissolved	Mercury	Mercury, dissolved	Nickel	Nickel, dissolved	Potassium	Potassium, dissolved	Selenium	Selenium, dissolved	Silver
MW-09	GC-MW09I	N	Intermediate	**796**	**0.082** U	--	**12.6**	--	**37,800**	--	**1.9** U	--	**0.53** U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**728**	**0.36**	**0.2** U	**31**	**4.8**	**35,400**	**35,700**	**5.8**	**5.8**	**1** U
MW-09	GC-MW09S	N	Shallow	**614**	**1.6**	--	**30.3**	--	**72,000**	--	**1.9** U	--	**0.53** U
MW-09	GC-MW09S-S-NYC	S	Shallow	**1,020**	**1.4**	**0.2** U	**22.9**	**10.7**	**87,400**	**94,300**	**14.1**	**14**	**1** U
MW-10	GC-MW10I	N	Intermediate	--	**0.082** U	--	**0.51** U	--	**22,000**	--	**1.9** U	--	**0.53** U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**2,150**	**0.2** U	**0.2** U	**4.2**	**2.7**	**22,600**	**23,400**	**5** U	**0.61** J	**1** U
MW-10	GC-MW10S	N	Shallow	--	**0.082** U	--	**0.51** U	--	**18,700**	--	**1.9** U	--	**0.53** U

491 Smith St. (MW9 & MW10)
Metal and Cyanide Concentrations in Groundwater (ug/L)
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Location ID	Field ID	Sample Type	Depth	Silver, dissolved	Sodium	Sodium, dissolved	Thallium	Thallium, dissolved	Vanadium	Vanadium, dissolved	Zinc	Zinc, dissolved	Cyanide, Total
MW-09	GC-MW09I	N	Intermediate	--	**502,000**	--	**1.8** U	--	**0.56** U	--	**109**	--	**2** U
MW-09	GC-MW09I-S-NYC	S	Intermediate	**1** UJ	**507,000**	**536,000**	**1** U	**1** U	**31.6**	**5** U	242 R	3 R	**3.8** J
MW-09	GC-MW09S	N	Shallow	--	**413,000**	--	**1.8** U	--	**0.56** U	--	**274**	--	**2** U
MW-09	GC-MW09S-S-NYC	S	Shallow	**1** UJ	**709,000**	**824,000**	**1** U	**1** U	**24.4**	**5** U	223 R	8.7 R	**10** U
MW-10	GC-MW10I	N	Intermediate	--	**58,400**	--	**1.8** U	--	**0.56** U	--	**21.6**	--	**2** U
MW-10	GC-MW10I-S-NYC	S	Intermediate	**1** UJ	**52,600**	**52,600**	**1** U	**1** U	**5** U	**0.46** J	62.9 R	**11.4**	**13.3**
MW-10	GC-MW10S	N	Shallow	--	**69,500**	--	**1.8** U	--	**0.56** U	--	**1.4** U	--	**2** U

Appendix C
Evaluation Criteria

Contents

1. Table - Evaluation Criteria
2. Notes associated with table entries

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APPENDIX C

List Of Evaluation Criteria

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Refer letter	A	B1		B2		C	D	E1		E2		E3		F		G1		G2		H	L1		I		K		N1		N2		O1		O2		P	Q		R		S		T		AA		AB		AC		AD	
		Criteria	RSLs Residential Soil Adjusted	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 2% TOC)	Notes	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 6.5% TOC)	Notes; included for informational purposes only	Tox Bench 1997 (for Biota) lesser of ER-L*4 or TEL*5	WDOE 1995 Mar Sed*11	SQuiRTs*46 2008 Mar SD TEL*14	Notes	SQuiRTs*46 2008 Mar SD ERL*14	Notes	SQuiRTs*46 2008 Mar SD PEL*14	Notes	USEPA NRWQC HHRA Organism-Only	Notes	NYSDEC Chapter X for SW (fish consumption) I HHC)	Notes; included for informational purposes only; applies to Bar	NYSDEC Chapter X for SW (fish consumption) SD HHC)	Notes	RSLs Tapwater Adjusted	NYSDEC Chapter X for SW (aquatic chronic tox) I AEC)	Notes	USEPA NRWQC ERA Saltwater CCC*30 (Chronic) Aquatic Life	Notes	SQuiRTs*46 2008 Mar SW Chronic*47	Notes	MCL-Groundwater	Notes	MCLG-Groundwater	Notes	NYSDEC Chapter X for GW (health and asthetic) GA H(HV5)	Notes	NYSDEC Chapter X for GW (health and asthetic) GA E(HV5)	Notes	RSLs Residential Air Adjusted	NYSDEC 2009 Restricted Soil for Protection of GW	Notes	Selected Eco SD (from B1, C, D, E1, E2, E3)	Notes	Selected Eco SW (from I, K)	Notes	Selected HHRA SW (Lesser of F or G2. H if no F or G2)	Notes	Crab NOEC TRV	Notes	Crab LOEC TRV	Notes	Fish NOEC TRV	Notes	Fish LOEC TRV	Notes
Group	Organics	CAS / Units	ug/kg	ug/kg		ug/kg		ug/kg	ug/kg	ug/kg		ug/kg		ug/kg		ug/L		ug/L		ug/L		ug/L	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/m3	mg/kg		ug/kg		ug/L		ug/L		ug/kg		ug/kg		ug/kg		ug/kg	
VOC	Dichlorodifluoromethane (Freon-12)	75-71-8	18000																			39										5				21							39								
VOC	Chloromethane	74-87-3	12000																			19							5			5				9.4							19								
VOC	Vinyl chloride	75-01-4	60													2.4	17, 18					0.016							2		0	2				0.16	20						2.4	17, 18							
VOC	Bromomethane	74-83-9	730													1500	19					0.87										5				0.52							1500	19							
VOC	Chloroethane	75-00-3	1500000																			2100										5				1000							2100								
VOC	Trichlorofluoromethane (Freon-11)	75-69-4	79000																			130					6400	48, 49				5				73					6400	48, 49	130								
VOC	1,1-Dichloroethene	75-35-4	24000													7100						34							7			5				21	330						7100								
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	910000																			5900										5				3100							5900								
VOC	Acetone	67-64-1	6100000																			2200														3200	50						2200								
VOC	Carbon disulfide	75-15-0	82000																			100										60				73							100								
VOC	Methyl acetate	79-20-9	7800000																			3700																					3700								
VOC	Methylene chloride	75-09-2	11000													590	17, 19	200		200		4.8					6400	48, 49	5		0	5				5.2	50				6400	48, 49	200								
VOC	trans-1,2-Dichloroethene	156-60-5	15000													10000						11							100			5				6.3	190						10000								
VOC	Methyl-tert-butyl ether (MTBE)	1634-04-4	43000																			12					5000	48, 49								9.4	930				5000	48, 49	12								
VOC	1,1-Dichloroethane	75-34-3	3300																			2.4										5				1.5	270						2.4								
VOC	cis-1,2-Dichloroethene	156-59-2	78000																			37							70			5					250						37								
VOC	2-Butanone (MEK)	78-93-3	2800000																			710														520	120						710								
VOC	Bromochloromethane	74-97-5																														5																			
VOC	Chloroform	67-66-3	290													470	17, 20					0.19							80		0	7				0.11	370						470	17, 20							
VOC	1,1,1-Trichloroethane	71-55-6	640000																			910					3120	51	200			5				520	680				3120	51	910								
VOC	Cyclohexane	110-82-7	120000																			1300														630							1300								
VOC	Carbon tetrachloride	56-23-5	610													1.6	17, 19					0.44					5000	51	5		0	5				0.41	760				5000	51	1.6	17, 19							
VOC	Benzene	71-43-2	1100	520		1690										51	17, 19	10		10		0.41					110	49, 50	5		0	1				0.31	60		520		110	49, 50	10								
VOC	1,2-Dichloroethane	107-06-2	430													37	17, 19					0.15					11300	51	5		0	0.6				0.094	20	62			11300	51	37	17, 19							
VOC	1,4-Dioxane	123-91-1	44000																			6.1														0.32	100	63					6.1								
VOC	Trichloroethene	79-01-6	2800													30	17	40		40		2					200	51, 52	5		0	5				1.2	470				200	51, 52	30	17							
VOC	Methylcyclohexane	108-87-2																																																		
VOC	1,2-Dichloropropane (propylene chloride)	78-87-5	890													15	17, 19					0.39					3040	48, 53	5		0	1				0.24					3040	48, 53	15	17, 19							
VOC	Bromodichloromethane (dichlorobromomethane)	75-27-4	270													17	17, 19					0.12					6400	48, 49	80		0					0.066					6400	48, 49	17	17, 19							
VOC	cis-1,3-Dichloropropene	10061-01-5	1700																			0.43										0.4	60			0.61							0.43								
VOC	4-Methyl-2-pentanone	108-10-1	530000																			200														310							200								
VOC	Toluene	108-88-3	500000	900		2925										15000		6000		6000		230					215	49, 50	1000			5				520	700		900		215	49, 50	6000								
VOC	trans-1,3-Dichloropropene	10061-02-6	1700																			0.43										0.4	60			0.61							0.43								
VOC	1,1,2-Trichloroethane	79-00-5	1100													16	17, 19					0.24					1900	54	5		3	1				0.15					1900	54	16	17, 19							
VOC	Tetrachloroethene (PCE)	127-18-4	550													3.3	17					0.11					450	48	5		0	5				0.41	1300				450	48	3.3	17							
VOC	2-Hexanone	591-78-6	21000																			4.7														3.1							4.7								
VOC	Dibromochloromethane (Chlorodibromomethane)	124-48-1	680													13	17, 19					0.15					6400	48, 49	80		60					0.09					6400	48, 49	13	17, 19							
VOC	1,2-Dibromoethane (Ethylene dibromide)	106-93-4	34																			0.0065							0.05		0	0.0006				0.0041							0.0065								
VOC	Chlorobenzene (Monochlorobenzene)	108-90-7	29000	70		227.5										1600	21	400		400		9.1					25	49, 50	100			5				5.2	1100		70		25	49, 50	400								
VOC	Ethylbenzene	100-41-4	5400	128		416										2100						1.5					25	49, 50	700			5				0.97	1000		128		25	49, 50	1.5								
VOC	o-Xylene	95-47-6	380000	540	64	1755	64															120										5				73	1600	64	540	64			120								
VOC	m- and p-Xylene	m&pXYLENE	340000	540	64	1755	64															120							100			5				73	1600	64	540	64			120								
VOC	Styrene	100-42-5	630000																			160							100			5				100							160								
VOC	Bromoform	75-25-2	61000													140	17, 19					8.5							80		0					2.2							140	17, 19							
VOC	Isopropylbenzene	98-82-8	210000																			68										5				42							68								
VOC	1,1,2,2-Tetrachloroethane	79-34-5	560													4	17, 19					0.067					902	51				5				0.042					902	51	4	17, 19							
VOC	1,3-Dichlorobenzene	541-73-1		240	66	780	66									960																3					2400		240	66			960								
VOC	1,4-Dichlorobenzene	106-46-7	2400	240	66	780	66		62							190						0.43					129	48, 49	75			3				0.22	1800		240	66	129	48, 49	190								
VOC	1,2-Dichlorobenzene	95-50-1	190000	240	66	780	66		46							1300						37					42	49, 50	600			3				21	1100		240	66	42	49, 50	1300								
VOC	1,2-Dibromo-3-chloropropane	96-12-8	5.4																			0.00032									0	0.2	0	0.04		0.00016							0.00032								
VOC	1,2,4-Trichlorobenzene	120-82-1	6200	1820		5915			16.2							70						0.41					5.4	49, 50	70			5				0.21			1820		5.4	49, 50	70								
VOC	1,2,3-Trichlorobenzene	87-61-6	4900	1820		5915																2.9					5.4	49, 50, 55				5							1820		5.4	49, 50, 55	2.9								
VOC	Xylene, total (Dimethylbenzene, mixed isomers)	1330-20-7	63000	540		1755																20							10000							10	1600		540				20								
SVOC	Benzaldehyde	100-52-7	780000																			370																					370								
SVOC	Phenol	108-95-2	1800000						420	13						860000	21, 22					1100					400	54						1	61	21	330	63	420	13	400	54	860000	21, 22							
SVOC	bis(2-Chloroethyl)ether	111-44-4	210													0.53	17, 19					0.012										1				0.0074							0.53	17, 19							
SVOC	2-Chlorophenol	95-57-8	39000													150	19, 21					18																					150	19, 21							
SVOC	2-Methylphenol (o-cresol)	95-48-7	310000						63	13												180														63	330	63	63	13			180								
SVOC	2,2'-Oxybis(1-chloropropane)	108-60-1	4600													65000	19					0.32										5				0.24							65000	19							
SVOC	Acetophenone	98-86-2	780000																			370																					370								
SVOC	4-Methylphenol (p-cresol)	106-44-5	31000						670	13												18														63	330	63	670	13			18								
SVOC	n-Nitroso-di-n-propylamine	621-64-7	69													0.51	17, 19					0.0096														0.0012							0.51	17, 19							
SVOC	Hexachloroethane	67-72-1	6100													3.3	17, 19	0.6		0.6		3.7					94	51				5				0.61					94	51	0.6								
SVOC	Nitrobenzene	98-95-3	4800													690	19, 21, 23					0.12					668	51				0.4				0.061					668	51	690	19, 21, 23							
SVOC	Isophorone	78-59-1	510000													960	17, 19					71					1290	51								210					1290	51	960	17, 19							
SVOC	2-Nitrophenol	88-75-5	39000																			18																					18								
SVOC	2,4-Dimethylphenol	105-67-9	120000						29	13						850	19, 21	1000		1000		73												1				29	13				850	19, 21							
SVOC	bis(2-Chloroethoxy)methane	111-91-1	18000																			11					6400	48, 49				5									6400	48, 49	11								
SVOC	2,4-Dichlorophenol	120-83-2	18000													290	19, 21					11												1										290	19, 21							
SVOC	Naphthalene	91-20-3	3600	160		2470		34.6	1980		34.6	160		391								0.14					1.4	49, 50								0.072	12000		160		1.4	49, 50	0.14								
SVOC	4-Chloroaniline	106-47-8	2400																			0.34					129	48, 49				5									129	48, 49	0.34								
SVOC	Hexachlorobutadiene	87-68-3	6100	32		104			78							18	17, 19	0.01		0.01		0.86					3.2	51				0.5				0.11			32		3.2	51	0.01								
SVOC	Caprolactam	105-60-2	3100000																			1800																					1800								
SVOC	4-Chloro-3-methylphenol	59-50-7	610000																			370																					370								
SVOC	2-Methylnaphthalene	91-57-6	31000	70		1950		20.2	760		20.2	70		201								15																70					15								
SVOC	Hexachlorocyclopentadiene	77-47-4	37000	14		45.5										1100	21					22					0.7	51	50			5				0.021			14		0.7	51	1100	21							
SVOC	2,4,6-Trichlorophenol	88-06-2	6100													2.4	17, 19, 21					3.7															0.78							2.4	17, 19, 21							
SVOC	2,4,5-Trichlorophenol	95-95-4	610000													3600	19, 24					370					11	56													11	56	3600	19, 24							
SVOC	1,1-Biphenyl	92-52-4	210000																			180										5											180								
SVOC	2-Chloronaphthalene	91-58-7	180000													1600	19					290																							1600	19							
SVOC	2-Nitroaniline	88-74-4	61000																			37										5				0.0052							37								
SVOC	Dimethyl phthalate	131-11-3							1060							1100000											3.4	48, 49											53000		3.4	48, 49	1100000								
SVOC	2,6-Dinitrotoluene	606-20-2	6100																			3.7										5											3.7								
SVOC	Acenaphthylene	208-96-8	340000	44				5.87	1320		5.87	44		128								220															107000		44					220								
SVOC	3-Nitroaniline	99-09-2																														5																			
SVOC	Acenaphthene	83-32-9	340000	16	67, 68	15600	67, 68	6.71	320		6.71	16		88.9		990	19, 21					220					40	57									98000		16	67, 68	40	57	990	19, 21							
SVOC	2,4-Dinitrophenol	51-28-5	12000													5300	19	400		400		7.3											1											400								
SVOC	4-Nitrophenol	100-02-7	4800																			0.12														0.061							0.12								
SVOC	Dibenzofuran	132-64-9	7800						300													3.7															210000		300					3.7								
SVOC	2,4-Dinitrotoluene	121-14-2	1600													3.4	17					0.22					370	48, 53	5			5				0.027					370	48, 53	3.4	17							
SVOC	Diethylphthalate	84-66-2	4900000						1220							44000	19					2900					3.4	48, 49											61000		3.4	48, 49	44000	19							
SVOC	Fluorene	86-73-7	230000	19		2470		19	460		21.2	19		144		5300	19					150															386000		19					5300	19							
SVOC	4-Chlorophenyl-phenylether	7005-72-3	31000																			18																					18								
SVOC	4-Nitroaniline	100-01-6	24000																			3.4										5				0.63							3.4								
SVOC	4,6-Dinitro-2-methylphenol (2-Methyl-4,6-Dinitrophenol)	534-52-1	490													280						0.29																					280								
SVOC	n-Nitrosodiphenylamine	86-30-6	99000						220							6	17, 19					14														0.94			11000				6	17, 19							
SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3	1800													1.1	24					1.1					129	48, 49													129	48, 49	1.1	24							
SVOC	4-Bromophenyl-phenylether	101-55-3																																																	
SVOC	Hexachlorobenzene	118-74-1	300						7.6							0.00029	17, 19	0.00003		0.00003		0.042					129	48, 49	1		0	0.04				0.0053	3200		380		129	48, 49	0.00003								
SVOC	Atrazine	1912-24-9	2100																			0.29					10	58	3			7.5									10	58	0.29								
SVOC	Pentachlorophenol	87-86-5	3000						360	13						3	17, 19, 23					0.17		7.9	31		7.9		1		0		1			0.48	800	63	360		7.9	31	3	17, 19, 23							
SVOC	Phenanthrene	85-01-8	1700000	240	67, 68	10400	67, 68	86.7	2000	86.7	240	544				1100						4.6	56														1E+06	65	240	67, 68	4.6	56	1100								
SVOC	Anthracene	120-12-7	1700000	85.3				46.9	4400	46.9	85.3	245				40000	19					1100															1E+06	65	85.3					40000	19							
SVOC	Carbazole	86-74-8																																																	
SVOC	Di-n-butylphthalate	84-74-2	610000						4400							4500	19					370					3.4	48, 49				50							4400		3.4	48, 49	4500	19							
SVOC	Fluoranthene	206-44-0	230000	600	67, 68	87100	67, 68	113	3200	113	600	1494				140	19					150					11	57											1E+06	65	600	67, 68	11	57	140	19							
SVOC	Pyrene	129-00-0	170000	665				153	20000	153	665	1398				4000	19					110															1E+06	65	665					4000	19							
SVOC	Butylbenzylphthalate	85-68-7	260000						98							1900	19					35					3.4	48, 49											98		3.4	48, 49	1900	19							
SVOC	3,3'-Dichlorobenzidine	91-94-1	1100													0.028	17, 19					0.15										3				0.0072							0.028	17, 19							
SVOC	Benzo(a)anthracene	56-55-3	150	261				74.8	2200	74.8	261	693				0.018	17, 19					0.029															0.0087	1000	62	261				0.018	17, 19							

Notes:
R-based on following in listed order: B1, C, D, E1, E2, and E3.
S-the lesser of I or K.
T-the Lesser of F or G2 or H if no F or G2 are available.
AA-AD-values for compunds detected in tissue samples are identified.

APPENDIX C

List Of Evaluation Criteria

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Refer letter	A	B1		B2		C		D		E1		E2		E3		F		G1		G2		H	L1		I		K		N1		N2		O1		O2		P	Q		R		S		T		AA		AB		AC		AD	
		Criteria	RSLs Residential Soil Adjusted	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 2% TOC)	Notes	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 6.5% TOC)	Notes: included for informational purposes only	Tox Bench 1997 (for Biota) lesser of ER-L^4 or TEL^5	Notes	WDOE 1995 Mar Sed^11	Notes	SQuiRTs^46 2008 Mar SD TEL^14	Notes	SQuiRTs^46 2008 Mar SD ERL^14	Notes	SQuiRTs^46 2008 Mar SD PEL^14	Notes	USEPA NRWQC HHRA Organism-Only	Notes	NYSDEC Chapter X for SW (fish consumption) I H(FC)	Notes: included for informational purposes only, applies to Bay	NYSDEC Chapter X for SW (fish consumption) SD H(FC)	Notes	RSLs Tapwater Adjusted	NYSDEC Chapter X for SW (aquatic chronic tox) I A(C)	Notes	USEPA NRWQC ERA Saltwater CCC^30 (Chronic) Aquatic Life	Notes	SQuiRTs^46 2008 Mar SW Chronic^47	Notes	MCL-Groundwater	Notes	MCLG-Groundwater	Notes	NYSDEC Chapter X for GW (health and asthetic) GA H(WS)	Notes	NYSDEC Chapter X for GW (health and asthetic) GA E(WS)	Notes	RSLs Residential Air Adjusted	NYSDEC 2009 Restricted Soil for Protection of GW	Notes	Selected Eco SD (from B1, C, D, E1, E2, E3)	Notes	Selected Eco SW (from I, K)	Notes	Selected HHRA SW (Lesser of F or G2. H if no F or G2)	Notes	Crab NOEC TRV	Notes	Crab LOEC TRV	Notes	Fish NOEC TRV	Notes	Fish LOEC TRV	Notes
SVOC	Chrysene	218-01-9	15000	384				108		2200		108		384		846		0.018	17, 19					2.9															0.087	1000	62	384				0.018	17, 19								
SVOC	bis(2-Ethylhexyl)phthalate	117-81-7	35000					182		940		182				2647		2.2	17, 19					4.8					360	56	6		0		5				1			182		360	56	2.2	17, 19								
SVOC	Di-n-octylphthalate	117-84-0	35000							1160														4.8					3.4	48, 49									1			1160		3.4	48, 49	4.8									
SVOC	Benzo(b)fluoranthene	205-99-2	150							4600	10							0.018	17, 19					0.029															0.0087	1700		4600	10			0.018	17, 19								
SVOC	Benzo(k)fluoranthene	207-08-9	1500							4600	10							0.018	17, 19					0.29															0.0087	1700		4600	10			0.018	17, 19								
SVOC	Benzo(a)pyrene	50-32-8	15	430				88.8		1980		88.8		430		763		0.018	17, 19					0.0029							0.2		0						0.00087	22000		430				0.018	17, 19								
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	150							680								0.018	17, 19					0.029															0.0087	8200		680				0.018	17, 19								
SVOC	Dibenz(a,h)anthracene	53-70-3	15	63.4				6.22		240		6.22		63.4		135		0.018	17, 19					0.0029															0.0008	1E+06	65	63.4				0.018	17, 19								
SVOC	Benzo(g,h,i)perylene	191-24-2	170000							620														110																1E+06	65	620				110									
SVOC	2,3,4,6-Tetrachlorophenol	58-90-2	180000																					110					44	51														44	51	110									
SVOC	Polynuclear aromatic hydrocarbons^1	PAH		4022				1684				1684		4022		16770																										4022						22		220					
PEST	alpha-BHC (alpha-Hexachlorocyclohexane)	319-84-6	77															0.0049	17, 19	0.002		0.002		0.011											0.01				0.0014	20						0.002									
PEST	beta-BHC (beta-Hexachlorocyclohexane)	319-85-7	270															0.017	17, 19	0.007		0.007		0.037											0.04				0.0046	90						0.007									
PEST	delta-BHC (delta-Hexachlorocyclohexane)	319-86-8	270																	0.008		0.008		0.037											0.04				0.0048	250						0.008									
PEST	gamma-BHC (Lindane)	58-89-9	520					0.32				0.32				0.99		1.8	17, 19	0.008		0.008		0.061							0.2				0.05				0.0078	100		0.32				0.008									
PEST	Heptachlor	76-44-8	110	1.8		5.85												0.000079	17, 19	0.0002		0.0002		0.015			0.0036	32, 33	0.0018	59	0.4		0		0.04				0.0019	380		1.8		0.0036	32, 33	0.000079	17, 19								
PEST	Aldrin	309-00-2	29															0.00005	17, 19					0.004															0.0005	190						0.00005	17, 19								
PEST	Heptachlor epoxide	1024-57-3	53	1.8		5.85										2.74	15	0.000039	17, 19	0.0003		0.0003		0.0074			0.0036	32, 33, 34	0.0018	59	0.2		0		0.03				0.00094			1.8		0.0036	32, 33, 34	0.000039	17, 19								
PEST	Endosulfan I (alpha-Endosulfan)	959-98-8	37000	0.08	35	0.26	35											89	19					22			0.0087	32, 35	0.00435	59										102000		0.08	35	0.0087	32, 35	89	19								
PEST	Dieldrin	60-57-1	30	340	67	1105	67	0.02	6			0.72		0.02		4.3		0.000054	17, 19	0.0000006		0.0000006		0.0042			0.0019	32, 35	0.00095	59					0.004				0.00053	100		340	67	0.0019	32, 35	0.0000006						11		110	
PEST	4,4'-DDE (p,p'-DDE)	72-55-9	1400	2.2				2.07				2.07		2.2		374		0.00022	17, 19					0.2					1.4	51									0.025	17000		2.2		1.4	51	0.00022	17, 19	0.18	87	1.8	87	0.039	87	1.8	87
PEST	Endrin	72-20-8	1800	14.6	67, 68	47.45	67, 68	0.02	6									0.06				0.002		1.1			0.0023	32, 33	0.00115	59	2									60		14.6	67, 68	0.0023	32, 33	0.002						1.15		11.5	
PEST	Endosulfan II (beta-Endosulfan)	33213-65-9	37000	0.08	35	0.26	35											89	19					22			0.0087	32, 35	0.00435	59										102000		0.08	35	0.0087	32, 35	89	19								
PEST	4,4'-DDD (p,p'-DDD)	72-54-8	2000					1.22				1.22		2		7.81		0.00031	17, 19					0.28					0.36	51									0.035	14000		1.22		0.36	51	0.00031	17, 19	0.18	87	1.8	87	0.039	87	1.8	87
PEST	Endosulfan sulfate	1031-07-8	37000															89	19					22																1E+06	65					89	19								
PEST	4,4'-DDT (p,p'-DDT)	50-29-3	1700	20	69	65	69	1.19				1.19		1		4.77		0.00022	17, 19					0.2			0.001	32, 36, 36	0.0005	59									0.025	136000		20	69	0.001	32, 36, 36	0.00022	17, 19	0.18		1.8		0.039		1.8	
PEST	DDT, total^2	DDT		1.58	69	65	69	1.58				3.89		1.58		51.7													0.0005	59												1.58	69	0.0005	59			0.18		1.8		0.039		1.8	
PEST	Methoxychlor	72-43-5	31000																					18			0.03	37	0.03		40				35									0.03	37	18						60		1640	
PEST	Endrin ketone	53494-70-5	1800																					1.1							2				5											1.1						1.15	89	11.5	89
PEST	Endrin aldehyde	7421-93-4	1800															0.3	19, 22					1.1							2				5											0.3	19, 22					1.15	89	11.5	89
PEST	alpha-Chlordane	5103-71-9	1600	0.04	7	0.13	7	0.5	6, 7			2.26	7			4.79	7							0.19			0.004	7, 32, 35	0.002	7, 59									0.024	2900		0.04	7	0.004	7, 32, 35	0.19						1	88	10	88
PEST	gamma-Chlordane	5103-74-2	1600	0.04	7	0.13	7	0.5	6, 7			2.26	7			4.79	7							0.19			0.004	7, 32, 35	0.002	7, 59									0.024			0.04	7	0.004	7, 32, 35	0.19						1	88	10	88
PEST	Toxaphene	8001-35-2	440	0.2		0.65						0.1	15					0.00028	17, 19	0.000006		0.000006		0.061			0.0002	33	0.0002		3		0		0.06				0.0076			0.2		0.0002	33	0.000006									
PCB	Aroclor-1016	12674-11-2	390	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.26			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.12			22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1221	11104-28-2	140	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.0068			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1232	11141-16-5	140	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.0068			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1242	53469-21-9	220	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1248	12672-29-6	220	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1254	11097-69-1	110	22.7	8	2691	8	21.6	8	240	8	63.3		22.7	8	709		0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1260	11096-82-5	220	22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8	0.034			0.03	8, 33	0.03	8	0.5	8			0.09	8			0.0043			22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1262	37384-23-5		22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8				0.03	8, 33	0.03	8					0.09	8						22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCB	Aroclor-1268	11100-14-4		22.7	8	2691	8	21.6	8	240	8	21.6	8	22.7	8	189	8	0.000064	8, 17, 19	0.000001	8	0.000001	8				0.03	8, 33	0.03	8					0.09	8						22.7	8	0.03	8, 33	0.000001	8	420	86	1100	86	2.5	86	25	86
PCBs	Polychlorinated biphenyls (PCBs)^3	1336-36-3	220	22.7		2691		21.6		240		21.6		22.7		189		0.000064	8, 17	0.000001		0.000001		0.17			0.03	33	0.03		0.5		0		0.09				0.0043	3200		22.7		0.03	33	0.000001		420		1100		2.5		25	
Group	**Congeners**	**CAS / Units**	**ng/kg**	**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**		**pg/L**		**pg/L**		**pg/L**		**pg/L**	**pg/L**		**pg/L**		**pg/L**		**pg/L**		**pg/L**		**pg/L**		**pg/L**		**ug/m3**	**ng/kg**		**ng/kg**		**pg/L**		**pg/L**		**ng/kg**		**ng/kg**		**ng/kg**		**ng/kg**	
PCBCONG	3,3',4,4'-Tetrachlorobiphenyl (77)	32598-13-3	34000																					5200															0.00064							5200									
PCBCONG	3,3',4,5-Tetrachlorobiphenyl (78)	70362-49-1																																																				
PCBCONG	3,3',4,5'-Tetrachlorobiphenyl (79)	41464-48-6																																																				
PCBCONG	3,3',5,5'-Tetrachlorobiphenyl (80)	33284-52-5																																																				
PCBCONG	3,4,4',5-Tetrachlorobiphenyl (81)	70362-50-4	34000																					5200															0.00064							5200									
PCBCONG	2,2',3,3',4-Pentachlorobiphenyl (82)	52663-62-4																																																			
PCBCONG	2,2',3,3',5-Pentachlorobiphenyl (83)	60145-20-2																																																			
PCBCONG	2,2',3,3',6-Pentachlorobiphenyl (84)	52663-60-2																																																			
PCBCONG	2,2',3,4,4'-Pentachlorobiphenyl (85)	65510-45-4																																																			
PCBCONG	2,2',3,4,5-Pentachlorobiphenyl (86)	55312-69-1																																																			
PCBCONG	2,2',3,4,5'-Pentachlorobiphenyl (87)	38380-02-8																																																			
PCBCONG	2,2',3,4,6-Pentachlorobiphenyl (88)	55215-17-3																																																			
PCBCONG	2,2',3,4,6'-Pentachlorobiphenyl (89)	73575-57-2																																																			
PCBCONG	2,2',3,4',5-Pentachlorobiphenyl (90)	68194-07-0																																																			
PCBCONG	2,2',3,4',6-Pentachlorobiphenyl (91)	68194-05-8																																																			
PCBCONG	2,2',3,5,5'-Pentachlorobiphenyl (92)	52663-61-3																																																			
PCBCONG	2,2',3,5,6-Pentachlorobiphenyl (93)	73575-56-1																																																			
PCBCONG	2,2',3,5,6'-Pentachlorobiphenyl (94)	73575-55-0																																																			
PCBCONG	2,2',3,5',6-Pentachlorobiphenyl (95)	38379-99-6																																																			
PCBCONG	2,2',3,6,6'-Pentachlorobiphenyl (96)	73575-54-9																																																			
PCBCONG	2,2',3,4',5'-Pentachlorobiphenyl (97)	41464-51-1																																																			
PCBCONG	2,2',3,4',6'-Pentachlorobiphenyl (98)	60233-25-2																																																			
PCBCONG	2,2',4,4',5-Pentachlorobiphenyl (99)	38380-01-7																																																			
PCBCONG	2,2',4,4',6-Pentachlorobiphenyl (100)	39485-83-1																																																			
PCBCONG	2,2',4,5,5'-Pentachlorobiphenyl (101)	37680-73-2																																																			
PCBCONG	2,2',4,5,6'-Pentachlorobiphenyl (102)	68194-06-9																																																			
PCBCONG	2,2',4,5',6-Pentachlorobiphenyl (103)	60145-21-3																																																			
PCBCONG	2,2',4,6,6'-Pentachlorobiphenyl (104)	56558-16-8																																																			
PCBCONG	2,3,3',4,4'-Pentachlorobiphenyl (105)	32598-14-4	34000																					5200															0.00064							5200									
PCBCONG	2,3,3',4,5-Pentachlorobiphenyl (106)	70424-69-0																																																			
PCBCONG	2,3,3',4',5-Pentachlorobiphenyl (107)	70424-68-9																																																			
PCBCONG	2,3,3',4,5'-Pentachlorobiphenyl (108)	70362-41-3																																																			
PCBCONG	2,3,3',4,6-Pentachlorobiphenyl (109)	74472-35-8																																																			
PCBCONG	2,3,3',4',6-Pentachlorobiphenyl (110)	38380-03-9																																																			
PCBCONG	2,3,3',5,5'-Pentachlorobiphenyl (111)	39635-32-0																																																			
PCBCONG	2,3,3',5,6-Pentachlorobiphenyl (112)	74472-36-9																																																			
PCBCONG	2,3,3',5',6-Pentachlorobiphenyl (113)	68194-10-5																																																			
PCBCONG	2,3,4,4',5-Pentachlorobiphenyl (114)	74472-37-0	680																					100															0.00013							100									
PCBCONG	2,3,4,4',6-Pentachlorobiphenyl (115)	74472-38-1																																																			
PCBCONG	2,3,4,5,6-Pentachlorobiphenyl (116)	18259-05-7																																																			
PCBCONG	2,3,4',5,6-Pentachlorobiphenyl (117)	68194-11-6																																																			
PCBCONG	2,3',4,4',5-Pentachlorobiphenyl (118)	31508-00-6	34000																					5200															0.00064							5200									
PCBCONG	2,3',4,4',6-Pentachlorobiphenyl (119)	56558-17-9																																																			
PCBCONG	2,3',4,5,5'-Pentachlorobiphenyl (120)	68194-12-7																																																			
PCBCONG	2,3',4,5',6-Pentachlorobiphenyl (121)	56558-18-0																																																			
PCBCONG	2,3,3',4',5'-Pentachlorobiphenyl (122)	76842-07-4																																																			
PCBCONG	2,3',4,4',5'-Pentachlorobiphenyl (123)	65510-44-3	34000																					5200															0.00064							5200									
PCBCONG	2,3',4',5,5'-Pentachlorobiphenyl (124)	70424-70-3																																																			
PCBCONG	2,3',4',5',6-Pentachlorobiphenyl (125)	74472-39-2																																																			
PCBCONG	3,3',4,4',5-Pentachlorobiphenyl (126)	57465-28-8	34																					5.2															0.00000064							5.2									
PCBCONG	3,3',4,5,5'-Pentachlorobiphenyl (127)	39635-33-1																																																			
PCBCONG	2,2',3,3',4,4'-Hexachlorobiphenyl (128)	38380-07-3																																																			
PCBCONG	2,2',3,3',4,5-Hexachlorobiphenyl (129)	55215-18-4																																																			
PCBCONG	2,2',3,3',4,5'-Hexachlorobiphenyl (130)	52663-66-8																																																			
PCBCONG	2,2',3,3',4,6-Hexachlorobiphenyl (131)	61798-70-7																																																			
PCBCONG	2,2',3,3',4,6'-Hexachlorobiphenyl (132)	38380-05-1																																																			
PCBCONG	2,2',3,3',5,5'-Hexachlorobiphenyl (133)	35694-04-3																																																			
PCBCONG	2,2',3,3',5,6-Hexachlorobiphenyl (134)	52704-70-8																																																			
PCBCONG	2,2',3,3',5,6'-Hexachlorobiphenyl (135)	52744-13-5																																																			
PCBCONG	2,2',3,3',6,6'-Hexachlorobiphenyl (136)	38411-22-2																																																			
PCBCONG	2,2',3,4,4',5-Hexachlorobiphenyl (137)	35694-06-5																																																			
PCBCONG	2,2',3,4,4',5'-Hexachlorobiphenyl (138)	35065-28-2																																																			
PCBCONG	2,2',3,4,4',6-Hexachlorobiphenyl (139)	56030-56-9																																																			
PCBCONG	2,2',3,4,4',6'-Hexachlorobiphenyl (140)	59291-64-4																																																			
PCBCONG	2,2',3,4,5,5'-Hexachlorobiphenyl (141)	52712-04-6																																																			
PCBCONG	2,2',3,4,5,6-Hexachlorobiphenyl (142)	41411-61-4																																																			
PCBCONG	2,2',3,4,5,6'-Hexachlorobiphenyl (143)	68194-15-0																																																			
PCBCONG	2,2',3,4,5',6-Hexachlorobiphenyl (144)	68194-14-9																																																			
PCBCONG	2,2',3,4,6,6'-Hexachlorobiphenyl (145)	74472-40-5																																																			
PCBCONG	2,2',3,4',5,5'-Hexachlorobiphenyl (146)	51908-16-8																																																			
PCBCONG	2,2',3,4',5,6-Hexachlorobiphenyl (147)	68194-13-8																																																			

Notes:
R-based on following in listed order: B1, C, D, E1, E2, and E3.
S-the lesser of I or K.
T-the Lesser of F or G2 or H if no F or G2 are available.
AA-AD-values for compunds detected in tissue samples are identified.

APPENDIX C

List Of Evaluation Criteria

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Refer letter	A	B1		B2		C		D		E1		E2		E3		F		G1		G2		H	L1		I		K		N1		N2		O1		O2		P	Q		R		S		T		AA		AB		AC		AD	
		Criteria	RSLs Residential Soil Adjusted	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 2% TOC)	Notes	NYSDEC 1999 Benth Aq Life Chronic Tox (SD 6.5% TOC)	Notes; included for informational purposes only	Tox Bench 1997 (tor Biota) lesser of ERL*.4 or TEL*.5	Notes	WDOE 1995 Mar Sed*11	Notes	SQuiRTs*46 2008 Mar SD TEL*.14	Notes	SQuiRTs*46 2008 Mar SD ERL*.14	Notes	SQuiRTs*46 2008 Mar SD PEL*.14	Notes	USEPA NRWQC HHRA Organism-Only	Notes	NYSDEC Chapter X for SW (fish consumption) I HHC)	Notes; included for informational purposes only; applies to Bar	NYSDEC Chapter X for SW (fish consumption) SD I(FC)	Notes	RSLs Tapwater Adjusted	NYSDEC Chapter X for SW (aquatic chronic tox) I ACC)	Notes	USEPA NRWQC ERA Saltwater CCC*.50 (Chronic) Aquatic Life	Notes	SQuiRTs*46 2008 Mar SW Chronic*.47	Notes	MCL-Groundwater	Notes	MCLG-Groundwater	Notes	NYSDEC Chapter X for GW (health and asthetic) GA H(HVS)	Notes	NYSDEC Chapter X for GW (health and asthetic) GA E(HVS)	Notes	RSLs Residential Air Adjusted	NYSDEC 2009 Restricted Soil for Protection of GW	Notes	Selected Eco SD (from B1, C, D, E1, E2, E3)	Notes	Selected Eco SW (from I, K)	Notes	Selected HHRA SW (Lesser of F or G2. H if no F or G2)	Notes	Crab NOEC TRV	Notes	Crab LOEC TRV	Notes	Fish NOEC TRV	Notes	Fish LOEC TRV	Notes
PCBCONG	2,2',3,4',5,6'-Hexachlorobiphenyl (148)	74472-41-6																																																		
PCBCONG	2,2',3,4',5,6-Hexachlorobiphenyl (149)	38380-04-0																																																		
PCBCONG	2,2',3,4',6,6'-Hexachlorobiphenyl (150)	68194-08-1																																																		
PCBCONG	2,2',3,5,5',6-Hexachlorobiphenyl (151)	52663-63-5																																																		
PCBCONG	2,2',3,5,6,6'-Hexachlorobiphenyl (152)	68194-09-2																																																		
PCBCONG	2,2',4,4',5,5'-Hexachlorobiphenyl (153)	35065-27-1																																																		
PCBCONG	2,2',4,4',5,6'-Hexachlorobiphenyl (154)	60145-22-4																																																		
PCBCONG	2,2',4,4',6,6'-Hexachlorobiphenyl (155)	33979-03-2																																																		
PCBCONG	2,3,3',4,4',5-Hexachlorobiphenyl (156)	38380-08-4	6800																					1000														0.00013						1000								
PCBCONG	2,3,3',4,4',5'-Hexachlorobiphenyl (157)	69782-90-7	6800																					1000														0.00013						1000								
PCBCONG	2,3,3',4,4',6-Hexachlorobiphenyl (158)	74472-42-7																																																	
PCBCONG	2,3,3',4,5,5'-Hexachlorobiphenyl (159)	39635-35-3																																																	
PCBCONG	2,3,3',4,5,6-Hexachlorobiphenyl (160)	41411-62-5																																																	
PCBCONG	2,3,3',4,5',6-Hexachlorobiphenyl (161)	74472-43-8																																																	
PCBCONG	2,3,3',4',5,5'-Hexachlorobiphenyl (162)	39635-34-2																																																	
PCBCONG	2,3,3',4',5,6-Hexachlorobiphenyl (163)	74472-44-9																																																	
PCBCONG	2,3,3',4',5',6-Hexachlorobiphenyl (164)	74472-45-0																																																	
PCBCONG	2,3,3',5,5',6-Hexachlorobiphenyl (165)	74472-46-1																																																	
PCBCONG	2,3,4,4',5,6-Hexachlorobiphenyl (166)	41411-63-6																																																	
PCBCONG	2,3',4,4',5,5'-Hexachlorobiphenyl (167)	52663-72-6	340000																					52000														0.0064						52000								
PCBCONG	2,3',4,4',5',6-Hexachlorobiphenyl (168)	59291-65-5																																																	
PCBCONG	3,3',4,4',5,5'-Hexachlorobiphenyl (169)	32774-16-6	340																					52														0.0000064						52								
PCBCONG	2,2',3,3',4,4',5-Heptachlorobiphenyl (170)	35065-30-6																																																	
PCBCONG	2,2',3,3',4,4',6-Heptachlorobiphenyl (171)	52663-71-5																																																	
PCBCONG	2,2',3,3',4,5,5'-Heptachlorobiphenyl (172)	52663-74-8																																																	
PCBCONG	2,2',3,3',4,5,6-Heptachlorobiphenyl (173)	68194-16-1																																																	
PCBCONG	2,2',3,3',4,5,6'-Heptachlorobiphenyl (174)	38411-25-5																																																	
PCBCONG	2,2',3,3',4,5',6-Heptachlorobiphenyl (175)	40186-70-7																																																	
PCBCONG	2,2',3,3',4,6,6'-Heptachlorobiphenyl (176)	52663-65-7																																																	
PCBCONG	2,2',3,3',4,5',6'-Heptachlorobiphenyl (177)	52663-70-4																																																	
PCBCONG	2,2',3,3',5,5',6-Heptachlorobiphenyl (178)	52663-67-9																																																	
PCBCONG	2,2',3,3',5,6,6'-Heptachlorobiphenyl (179)	52663-64-6																																																	
PCBCONG	2,2',3,4,4',5,5'-Heptachlorobiphenyl (180)	35065-29-3																																																	
PCBCONG	2,2',3,4,4',5,6-Heptachlorobiphenyl (181)	74472-47-2																																																	
PCBCONG	2,2',3,4,4',5,6'-Heptachlorobiphenyl (182)	60145-23-5																																																	
PCBCONG	2,2',3,4,4',5',6-Heptachlorobiphenyl (183)	52663-69-1																																																	
PCBCONG	2,2',3,4,4',6,6'-Heptachlorobiphenyl (184)	74472-48-3																																																	
PCBCONG	2,2',3,4,5,5',6-Heptachlorobiphenyl (185)	52712-05-7																																																	
PCBCONG	2,2',3,4,5,6,6'-Heptachlorobiphenyl (186)	74472-49-4																																																	
PCBCONG	2,2',3,4',5,5',6-Heptachlorobiphenyl (187)	52663-68-0																																																	
PCBCONG	2,2',3,4',5,6,6'-Heptachlorobiphenyl (188)	74487-85-7																																																	
PCBCONG	2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	39635-31-9	34000																					5200														0.00064						5200								
Group	**Inorganics**	**CAS / Units**	**mg/kg**	**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/L**		**ug/m3**	**mg/kg**		**mg/kg**		**ug/L**		**ug/L**		**mg/kg**		**mg/kg**		**mg/kg**		**mg/kg**	
METAL	Aluminum	7429-90-5	7700																					3700														0.52						3700								
METAL	Antimony	7440-36-0	3.1					2 4, 9										640						1.5					500 56		6				3						2 4, 9		500 56		640							
METAL	Arsenic	7440-38-2	0.39	8.2				7.24 5, 9		57 12		7.24		8.2		41.6		0.14						0.045		36 31, 38, 39		36		10	0	25				0.00057	16 62		8.2 5, 9		36 31, 38, 39		0.14						1.5		2	
METAL	Barium	7440-39-3	1500									130.1 16												730				200 58		2000		1000				0.052	820		130.1 16		200 58		730							
METAL	Beryllium	7440-41-7	16																					7.3				100 58		4						0.001	47				100 58		7.3							
METAL	Cadmium	7440-43-9	7	1.2				0.68 5, 9		5.1 12		0.68		1.2		4.21								1.8	7.7	8.8 31, 39		8.8		5		5				0.001	7.5		1.2 5, 9		8.8 31, 39		1.8							
METAL	Calcium	7440-70-2																																																	
METAL	Chromium	7440-47-3	0.29	81				52.3 5, 9		260 12		52.3		81		160								0.043						100		50				0.000011			81 5, 9				0.043							
METAL	Cobalt	7440-48-4	2.3																					1.1				1 54								0.00027					1 54		1.1							
METAL	Copper	7440-50-8	310	34				18.7 5, 9		390 12		18.7		34		108								150	5.6	3.1 39, 40, 41		3.1		1300									1720		34 5, 9		3.1 39, 40, 41		150		0.086		0.86		0.002		0.02	
METAL	Iron	7439-89-6	5500																					2600				50 58						300								50 58		2600							
METAL	Lead	7439-92-1	400	46.7				30.2 5, 9		450 12		30.24		46.7		112								15	8	8.1 31, 39		8.1		15	0	25							450		46.7 5, 9		8.1 31, 39		15						0.028		0.28	
METAL	Magnesium	7439-95-4																																																	
METAL	Manganese	7439-96-5	180	460														100 27						88				100 58						300		0.0052	2000 62		460		100 58		100 27							
METAL	Mercury	7439-97-6	2.3	0.15				0.13 5, 9		0.41 12		0.13		0.15		0.7				0.0007 29		0.0007 29		1.1		0.94 39, 42, 43		0.94		2		0.7				0.031	0.73		0.15 5, 9		0.94 39, 42, 43		0.0007 29		0.0095		0.095		0.001		0.01	
METAL	Nickel	7440-02-0	150	20.9				15.9 5, 9				15.9		20.9		42.8		4600 19						73	8.2	8.2 31, 39		8.2				100				0.0094	130		20.9 5, 9		8.2 31, 39		4600 19							
METAL	Potassium	7440-09-7																																																	
METAL	Selenium	7782-49-2	39															4200						18		71 31, 39, 44		71		50		10				2.1	4 62				71 31, 39, 44		4200						0.6		0.68	
METAL	Silver	7440-22-4	39	1				0.73 5, 9		6.1 12		0.73		1		1.77								18								50							8.3		1 5, 9				18		0.0019		0.019		0.024		0.24	
METAL	Sodium	7440-23-5																														20000																			
METAL	Thallium	7440-28-0																0.47										17 54		2	0.5											17 54		0.47							
METAL	Vanadium	7440-62-2	39																					18				50 58								0.01					50 58		18							
METAL	Zinc	7440-66-6	2300	150				124 5, 9		410 12		124		150		271		26000 21						1100	66	81 31, 39		81											2480		150 5, 9		81 31, 39		26000 21		0.13		1.3		0.284			
METAL	Cyanide	57-12-5	160															140 28						73		1 31, 45		1		200		200					40				1 31, 45		140 28							

Notes:
R-based on following in listed order: B1, C, D, E1, E2, and E3.
S-the lesser of I or K.
T-the Lesser of F or G2 or H if no F or G2 are available.
AA-AD-values for compunds detected in tissue samples are identified.

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Notes:

1 – Total PAH concentrations are based on the sum of the sixteen PAHs: naphthalene, acenaphthalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, and benzo(g,h,i)perylene.

2 – Total DDT concentrations are based on the sum of the six DDT isomers, 2,4'-DDD, 4,4'-DDD, 2,4'-DDE, 4,4'-DDE, 2,4'-DDT and 4,4'-DDT

3 – Total PCBs are based on the sum of detected aroclors: aroclor 1016, aroclor 1221, aroclor 1232, aroclor 1242, aroclor 1248, aroclor 1254, aroclor 1260, aroclor 1260, aroclor 1262 and aroclor 1268.

4 – ER-L = Effects Range–Low. Effects levels are the updated and revised values from Long et al. (1995) - NOAA = National Oceanic and Atmospheric Administration.

5 – TEL = threshold effects level. Source document is MacDonald (1994); FDEP = Florida Department of Environmental Protection.

6 - Source document is Long and Morgan (1991).

7 – Value shown for alpha- and gamma-chlordane corresponds to chlordane.

8 - Value shown for each aroclor corresponds to sum of PCB compounds.

9 – Units not noted for metals. Value reported as shown in source document.

10 - Value shown for each benzo(k)fluoranthene and benzo(a)fluoranthene corresponds to total benzofluoranthene.

11 - Compounds other than metals, phenol, 2-methylphenol, 4-methylphenol, 2,4-dimethyl phenol and pentachlorophenol are reported in mg/kg organic carbon (ppm carbon) - The listed chemical parameter criteria represent concentrations in parts per million, "normalized," or expressed, on a total organic carbon basis. To normalize to total organic carbon, the dry weight concentration for each parameter is divided by the decimal fraction representing the percent total organic carbon content of the sediment.

12 - All metals reported in mg/kg dry weight (parts per million [ppm] dry)

13 - Phenol, 2-methylphenol, 4-methylphenol, 2,4-dimethyl phenol and pentachlorophenol reported in mg/kg dry weight (parts per million (ppm) dry).

14 – MacDonald et al., 1996. Ecotox. 5(4):253.

15 – Canadian Sediment Quality Guidelines for the protection of Aquatic Life, Summary Tables Update 2002, www.ccme.ca/publications/cegg_rcqe.html

16 - Based on SLC approach using sensitive species HC 5%; ES&T 2005 39(14): 5148-515.

17 - This criterion is based on carcinogenicity of 10^{-6} risk. Alternate risk levels may be obtained by moving the decimal point (e.g., for a risk level of 10^{-5}, move the decimal point in the recommended criterion one place to the right).

18 - This recommended water quality criterion was derived using the cancer slope factor of 1.4 (LMS exposure from birth).

19 - This criterion has been revised to reflect The Environmental Protection Agency's q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of May 17, 2002. The fish tissue bioconcentration factor (BCF) from the 1980 Ambient Water Quality Criteria document was retained in each case.

20 - Although a new RfD is available in IRIS, the surface water criteria will not be revised until the National Primary Drinking Water Regulations: Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR) is completed, since public comment on the relative source contribution (RSC) for chloroform is anticipated.

21 - The organoleptic effect criterion is more stringent than the value for priority toxic pollutants.

22 - This criterion has been revised to reflect the Environmental Protection Agency's cancer slope factor (CSF) or reference dose (RfD), as contained in the Integrated Risk Information System (IRIS) as of (Final FR Notice June 10, 2009). The fish tissue bioconcentration factor (BCF) from the 1980 Ambient Water Quality Criteria document was retained in each case.

23 - No criterion for protection of human health from consumption of aquatic organisms excluding water was presented in the 1980 criteria document or in the *1986 Quality Criteria for Water*. Nevertheless, sufficient information was presented in the 1980 document to allow the calculation of a criterion, even though the results of such a calculation were not shown in the document.

24 - The freshwater criterion for this metal is expressed as a function of hardness (mg/L) in the water column. The value given here corresponds to a hardness of 100 mg/L. Criteria values for other hardness may be calculated from the following: CMC (dissolved) = $\exp\{m_A [\ln(\text{hardness})] + b_A\}$ (CF), or CCC (dissolved) = $\exp\{m_C [\ln(\text{hardness})] + b_C\}$ (CF) and the parameters specified in Appendix B-Parameters for Calculating Freshwater Dissolved Metals Criteria That Are Hardness-Dependent.

25 - EPA is currently reassessing the criteria for arsenic.

26 - This recommended water quality criterion for arsenic refers to the inorganic form only.

27 - This human health criterion is the same as originally published in the Red Book (EPA 440/9-76-023, July, 1976) which predates the 1980 methodology and did not utilize the fish

ingestion BCF approach. This same criterion value is now published in the Gold Book (Quality Criteria for Water: 1986. EPA 440/5-86-001).

28 - This recommended water quality criterion is expressed as total cyanide, even though the IRIS RFD used to derive the criterion is based on free cyanide. The multiple forms of cyanide that are present in ambient water have significant differences in toxicity due to their differing abilities to liberate the CN-moiety. Some complex cyanides require even more extreme conditions than refluxing with sulfuric acid to liberate the CN-moiety. Thus, these complex cyanides are expected to have little or no 'bioavailability' to humans. If a substantial fraction of the cyanide present in a water body is present in a complexed form (e.g., $Fe_4[Fe(CN)_6]_3$), this criterion may be over conservative.

29 – Applies to dissolved form.

30 - The Criterion Continuous Concentration (CCC) is an estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.

31 - This water quality criterion is based on a 304(a) aquatic life criterion that was derived using the 1985 Guidelines (104 pp.) (*Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses*, PB85-227049, January 1985) and was issued in one of the following criteria documents: Arsenic) (EPA 440/5-84-033), Cadmium (EPA 822-R-01-001), Chromium (EPA 440/5-84-029), Copper) (EPA 440/5-84-031), Cyanide) (EPA 440/5-84-028), Lead (EPA 440/5-84-027), Nickel (EPA 440/5-86-004), Pentachlorophenol (EPA 440/5-86-009), Toxaphene, (EPA 440/5-86-006), Zinc (EPA 440/5-87-003).

32 - This Criterion is based on 304(a) aquatic life criterion issued in 1980, and was issued in one of the following documents: Aldrin/Dieldrin (153 pp.) (EPA 440/5-80-019), Chlordane (68 pp.) (EPA 440/5-80-027), (175 pp.) (EPA 440/5-80-038), Endosulfan (155 pp.) (EPA 440/5-80-046), Endrin (103 pp.) (EPA 440/5-80-047), Heptachlor (EPA 440/5-80-052), Hexachlorocyclohexane (EPA 440/5-80-054), Silver (EPA 440/5-80-071). The Minimum Data Requirements and derivation procedures were different in the 1980 Guidelines than in the 1985 Guidelines. For example, a "CMC" derived using the 1980 Guidelines was derived to be used as an instantaneous maximum. If assessment is to be done using an averaging period, the values given should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.

33 - This criterion is based on a 304(a) aquatic life criterion issued in 1980 or 1986, and was issued in one of the following documents: Aldrin/Dieldrin (EPA 440/5-80-019), Chlordane, DDT (EPA 440/5-80-038), Endrin (EPA 440/5-80-047), Heptachlor (EPA 440/5-80-052), Polychlorinated biphenyls (EPA 440/5-80-068), Toxaphene (EPA 440/5-86-006). This CCC is currently based on the Final Residue Value (FRV) procedure. Since the publication of the Great Lakes Aquatic Life Criteria Guidelines in 1995 (60 FR 15393-15399, March 23, 1995), the Agency no longer uses the Final Residue Value procedure for deriving CCCs for new or revised 304(a) aquatic life criteria. Therefore, the Agency anticipates that future revisions of this CCC will not be based on the FRV procedure.

34 - This value was derived from data for heptachlor and the criteria document provides insufficient data to estimate the relative toxicities of heptachlor and heptachlor epoxide.

35 - This value was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.

36 - This criterion applies to DDT and its metabolites (i.e., the total concentration of DDT and its metabolites should not exceed this value).

37 - The derivation of this value is presented in the Red Book (EPA 440/9-76-023, July, 1976).

38 - This recommended water quality criterion was derived from data for arsenic (III), but is applied here to total arsenic, which might imply that arsenic (III) and arsenic (V) are equally toxic to aquatic life and that their toxicities are additive. In the arsenic criteria document (EPA 440/5-84-033, January 1985), Species Mean Acute Values are given for both arsenic (III) and arsenic (V) for five species and the ratios of the SMAVs for each species range from 0.6 to 1.7. Chronic values are available for both arsenic (III) and arsenic (V) for one species; for the fathead minnow, the chronic value for arsenic (V) is 0.29 times the chronic value for arsenic (III). No data are known to be available concerning whether the toxicities of the forms of arsenic to aquatic organisms are additive.

39 - Freshwater and saltwater criteria for metals are expressed in terms of the dissolved metal in the water column. The recommended water quality criteria value was calculated by using the previous 304(a) aquatic life criteria expressed in terms of total recoverable metal, and multiplying it by a conversion factor (CF). The term "Conversion Factor" (CF) represents the recommended conversion factor for converting a metal criterion expressed as the total recoverable fraction in the water column to a criterion expressed as the dissolved fraction in the water column. (Conversion Factors for saltwater CCCs are not currently available. Conversion factors derived for saltwater CMCs have been used for both saltwater CMCs and CCCs). See "," (49 pp., 3MB) October 1, 1993, by Martha G. Prothro, Acting Assistant Administrator for Water, available from the Water Resource center and 40CFR§131.36(b)(1). Conversion Factors applied in the table can be found in Appendix A to the Preamble-Conversion Factors for Dissolved Metals. Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria (PDF)

40 - When the concentration of dissolved organic carbon is elevated, copper is substantially less toxic and use of Water-Effect Ratios might be appropriate.

41 - This recommended water quality criterion was derived in *Ambient Water Quality Criteria Saltwater Copper Addendum* (Draft, April 14, 1995) and was promulgated in the Interim final National Toxics Rule (60 FR 22228-222237, May 4, 1995).

42 - This recommended water quality criterion was derived on page 43 of the mercury criteria document (EPA 440/5-84-026, January 1985). The saltwater CCC of 0.025 ug/L given on page 23 of the criteria document is based on the Final Residue Value procedure in the 1985 Guidelines. Since the publication of the Great Lakes Aquatic Life Criteria Guidelines in 1995 (60 FR 15393-15399, March 23, 1995), the Agency no longer uses the Final Residue Value procedure for deriving CCCs for new or revised 304(a) aquatic life criteria.

43 - This recommended water quality criterion was derived from data for inorganic mercury (II), but is applied here to total mercury. If a substantial portion of the mercury in the water column is methylmercury, this criterion will probably be under protective. In addition, even though inorganic mercury is converted to methylmercury and methylmercury bioaccumulates to a great extent, this criterion does not account for uptake via the food chain because sufficient data were not available when the criterion was derived.

44 - The selenium criteria document (EPA 440/5-87-006, September 1987) provides that if selenium is as toxic to saltwater fishes in the field as it is to freshwater fishes in the field, the status of the fish community should be monitored whenever the concentration of selenium exceeds 5.0 g/L in salt water because the saltwater CCC does not take into account uptake via the food chain.

45 - This recommended water quality criterion is expressed as g free cyanide (as CN)/L.

46 - SQuiRTs – Screening Quick Reference Table for Inorganics in Water. These tables were developed for screening purposes only: they do not represent official NOAAA policy and do not constitute criteria or clean-up levels. All Attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data becomes available.

47 – Primary entry is the US Ambient Water Quality Criteria, followed by the lowest of Tier II Secondary Acute Values (SAVs) or available standards and guidelines.

48 - *- LOEL

49 – C - Value for chemical class

50 - A - Avian

51 - x 0.1 – chronic value derived by division of acute value by 10
52 – Value shown and CAS number corresponds to 1,1,2-trichloroethene; no value or CAS number shown for TCE.
53 - S - value for summation of isomers

54 - NZ – Australian & New Zealand ECLs and Trigger values: ANZECC Oct 2000, Volume 1., The Guidelines. www.mfe.govt.nz/publications/

55 – Value shown corresponds to 1,2,4-trichlorobenzene; no value or CAS number shown for 1,2,3-trichlorobenzene.

56 - P - proposed

57 - Eco – EPA EcoUpdate, Ecotox thresholds, EPA 540/F-95/038.

58 - BC – British Columbia Water Quality Guidelines (either working or recommended): http://www.env.gov.bc.ca/wat/wg/

59 - ½- Criteria maximum concentration (CMC) is halved to compare to 1985 Guideline derivation.

60 – Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.

61 – Applies to the sum of phenolic compounds.

62 - For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

63 – For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

64 -Value shown corresponds to total xylenes.

65 - The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm.

66 - Value shown corresponds to dichlorobenzenes.

67 – Water quality criteria used are taken from Togs 1.1.1. If a water quality criterion was not listed in TOGS 1.1.1, then an EPA criterion was used. These are annotated with the suffix (E). EPA criteria were extracted from the "Water Quality Criteria Summary" chart (EPA, 1991).

68 – Water quality standards and guidance values are New York State regulatory terms that are essentially synonymous with the EPA term criterion. A standard is a water quality criterion that has been adopted into regulation. A guidance is a water quality criterion that has been derived in the same manner as a standard, but has not yet been adopted into regulation, or subjected to public review and comment. When referring to water quality in this document, the use of the general term criteria will mean either a New York standard or a guidance value.

69 – Criteria applies to DDT only.

70 through 85 – not used

86 – Criteria based on "Total PCBs"

87 – Criteria based on Total DDT.

88 – Criteria based on chlordane.

89 – Criteria based on endrin.

Tissue Residue Analysis

Chemical concentrations measured in crab and fish tissues collected during the Phase 3 investigation were used in the baseline ecological risk assessment (BERA), along with the other lines of evidence first discussed in Section 2.3 of the ecological risk assessment (ERA), to evaluate potential risks to benthic macroinvertebrates and fish. The approach for conducting this evaluation and its results are discussed in the following sections.

Evaluated Tissue Residue Data

A detailed description of the crab and fish tissue collected during the Phase 3 sample effort and used in the ERA is presented in Section 2.5 of the RI. Whole-body crab, small prey fish, and larger fish species tissue chemical residue concentrations were used to directly screen for potential risks to these species. The following subsections discuss the approach used to estimate tissue residue exposure concentrations for these species.

Crab

The wet weight, weighted average whole-body crab tissue residue concentration of each chemical was estimated for each of the 12 crab samples according to the procedures presented in Section 5.1.3 of the ERA. Table 5-1 of the ERA summarizes the maximum and mean wet weight tissue residue concentrations for the combined crab tissue samples. These whole-body wet weight concentrations are used in this attachment to evaluate the potential for adverse effects to benthic macroinvertebrates.

Small Prey Fish

Small prey fish tissue concentration estimates were based on whole-body concentrations measured with four Atlantic tomcod and four mummichog samples (eight total small prey fish samples) collected from the Gowanus Canal (Table 2-5 of the RI). The chemical concentrations determined in each of the eight small prey fish samples were combined to estimate the maximum and mean wet weight chemical concentrations for small prey fish in the Gowanus Canal. Table 5-3 of the ERA summarizes the maximum and mean wet weight concentrations for the combined small prey fish samples. These whole-body wet weight concentrations are used in this attachment to evaluate the potential for adverse effects to benthic macroinvertebrates.

Larger Fish Species

Larger fish tissue whole-body concentration estimates were based on concentrations measured in 13 samples from three larger fish species (six Atlantic eel, five striped bass, and two white perch) that were collected from the Gowanus Canal (Table 2-5 of the RI).

Wet weight, weighted average whole-body tissue residue concentrations were estimated for each of the larger fish species by taking a weighted average of the chemical residue

concentrations measured in edible and corresponding offal tissue (skin included) samples. Weighted average whole-body tissue wet weight residue concentrations were estimated for each of the 13 fish samples using the following lab-measured data:

- Measured chemical concentrations in the fillet (two fillets/fish) sample;
- Measured chemical concentrations detected in the corresponding offal sample;
- Total wet weight mass of the fillet sample; and
- Total wet weight mass of the offal sample.

For each of the 13 fish samples, a weighted average whole body concentration was calculated for each chemical by taking the weighted average concentration of the chemical detected in the fillet and offal tissues using the following equation:

$$FWBTC_x = \frac{[[(FTC_x)(FTW)] + [(OC_x)(OW)]]}{TW}$$

Where:

$FWBTC_x$ = Weighted average fish whole body tissue concentration for constituent *x* (wet weight)
FTC_x = Fillet tissue concentration for constituent *x* (wet weight)
FTW = Fillet tissue weight (wet weight)
OC_x = Offal tissue concentration for constituent *x* (wet weight)
OW = Offal tissue weight (wet weight)
TW = Total weight of fillet and offal tissues (wet weight)

The chemical concentrations determined in each of the 13 fish samples were then combined by species to estimate the maximum and mean wet weight chemical concentrations for each larger fish species within the Gowanus Canal. Tables E-1 through E-3 summarize the maximum and mean wet weight concentrations for each species. These whole-body wet weight concentrations are used in this attachment to screen the potential for adverse effects to fish.

Approach to Risk Evaluation

Benthic Macroinvertebrates

The BERA further evaluated benthic macroinvertebrate (blue crab) tissue to refine the estimate of risk for benthic macroinvertebrates. Whole-body wet weight tissue residue concentrations in composite crab samples collected from Gowanus Canal were compared to literature-based tissue residue benchmark concentrations for decapods to evaluate the potential for adverse effects to benthic macroinvertebrates. The maximum and mean wet weight concentrations determined for the 12 crab samples collected from Gowanus Canal are summarized in Table 5-1 of the ERA.

A literature review was conducted to identify available aquatic invertebrate tissue residue screening values for this evaluation. The screening values selected for this assessment were based primarily on conservative values identified for the BERA associated with the Lower Passaic River Restoration Project (LPRRP) via the technical memorandum "Refinement of

Toxicity Values and Development of Critical Biota Residues and Biomagnification Factors (BMFs), Conceptual Site Model/Problem Formulation, Lower Passaic River Restoration Project, March 3, 2006" (Battelle, 2006). The majority of the toxicological data used to develop tissue screening values for the LPRRP were obtained from the U.S. Army Corps of Engineers' Environmental Residue-Effects Database (http://el.erdc.usace.army.mil/ered). Additional tissue residue data were also obtained from the broader scientific literature. A summary of the tissue residue screening benchmarks selected for use in this BERA, as well as the sources of these values, is presented in Table E-4.

Maximum Allowable Toxicant Concentrations (MATCs) were presented in the above cited memorandum, while the no-observed-effect concentration (NOEC) and the lowest-observed-effect concentration (LOEC) values were used for screening in this BERA. The MATC is the geometric mean of the NOEC and LOEC. The underlying NOEC and LOEC values, which were used to derive the MATC, were thus used in this evaluation. The NOEC represents the concentration below which adverse effects are not expected, while the LOEC represents the concentration above which adverse effects are expected. Both values were used for the evaluation in order to place bounds on the range of concentrations in which a potential risk would occur.

Following selection of the screening benchmarks, HQs were derived for each chemical in the BERA by dividing both the maximum and mean crab tissue residue concentrations by the corresponding screening value. Chemicals were identified as COCs if the maximum tissue concentrations exceeded either the NOEC or the LOEC.

Water-Column-Dwelling Aquatic Life

The BERA further evaluated fish tissue to refine the estimate of risk for water-column-dwelling aquatic life. Whole-body fish tissue residue concentrations detected in samples collected from Gowanus Canal were compared to literature-based tissue residue benchmark concentrations for fish to evaluate the potential for adverse effects to fish populations. Both small prey fish (mummichog and Atlantic tomcod) and larger fish (striped bass, white perch, American eel) species captured from the canal were used in this analysis. The maximum and mean wet weight concentrations determined for small prey fish species collected from Gowanus Canal is summarized in Table 5-3 of the ERA. The maximum and mean wet weight concentrations determined for larger fish species collected from Gowanus Canal are summarized in Tables E-1 through E-3.

A literature review was conducted to identify available tissue residue screening values for this evaluation. Both NOEC and LOEC were used for screening. The NOEC represents the concentration below which adverse effects are not expected, while the LOEC represents the concentration above which adverse effects are expected. Both values were used for this evaluation in order to bound the range of concentrations in which a potential risk is likely to occur. A summary of the fish tissue residue screening benchmarks selected for use in the BERA is presented in Table E-5.

The source of LPRRP BERA tissue screening values used for invertebrates (Battelle 2006) was also the primary source of fish tissue screening values for this BERA. Additional tissue residue data were also obtained from the broader scientific literature. A summary of the fish tissue residue screening benchmarks selected for use in the BERA, as well as the sources of these values, is presented in Table E-5.

Following selection of the screening benchmarks, HQs were derived for each parameter in the BERA by dividing both the maximum and mean tissue residue concentrations for each evaluated fish species by the screening value. Chemicals were identified as COCs if the maximum tissue concentrations exceeded either the NOEC or LOEC.

Risk Evaluation

This section presents a final evaluation of risks to benthic macroinvertebrates and water-column-dwelling aquatic life using the data and approach discussed in this attachment. The outcome of this step is a final list of COCs for each medium-pathway-receptor combination identified for evaluation. Because risk to each receptor is being evaluated using multiple data inputs, conclusions about the potential for adverse effects to each receptor will be based on a weight-of-evidence analysis of the available data. The results of this evaluation should be used, along with consideration of the other lines of evidence evaluated for these receptors, to draw conclusions about the overall potential for adverse effects to ecological receptors in the Gowanus Canal.

Benthic Macroinvertebrates

The maximum and mean concentrations of DDE, total DDTs, copper, mercury, silver, and zinc had HQs exceeding 1 when compared to the NOEC and LOEC (Table E-6 and E-7). The maximum and mean concentrations of total PAHs had HQs exceeding 1 when compared to the NOEC (Table E-6), while only the maximum concentration of total PAHs had HQs exceeding when compared to the LOEC (Table E-7). Fifteen PAHs and 8 metals were detected in crab tissue samples; however, screening benchmarks were not available for these chemicals, and the potential for adverse effects to blue crabs could not be evaluated.

Water-Column-Dwelling Aquatic Life

The following sections present the results of the whole-body fish tissue residue analysis for the combined small prey fish species (mummichog and Atlantic tomcod) and for each larger fish species (striped bass, white perch, and American eel).

Small Prey Fish. The maximum and mean concentrations of total PCB congeners, copper, mercury, and selenium had HQs exceeding 1 when compared to the NOEC and LOEC (Tables E-8 and E-9). The maximum concentrations of DDE, DDT, and lead had HQs exceeding 1 when compared to the NOEC and LOEC (Tables E-8 and E-9), while the mean concentrations of these chemicals could not be evaluated because they were detected in only a single fish sample. The maximum and mean concentrations of alpha-chlordane and the maximum concentrations of endrin and gamma-chlordane had HQs exceeding 1 when compared to the NOEC (Table E-8), but not when compared to the LOEC (Table E-9). Nine inorganic chemicals were detected but could not be evaluated because screening benchmarks were not available for those chemicals.

American Eel. The maximum and mean concentrations of total PCB congeners, alpha-chlordane, DDD, copper, mercury, and selenium had HQs exceeding 1 when compared to the NOEC and LOEC (Tables E-10 and E-11). The maximum concentrations of DDE, DDT, and lead had HQs exceeding 1 when compared to the NOEC and LOEC (Tables E-10 and E-11), while the mean concentrations of these chemicals could not be evaluated because they were detected in only a single eel sample. The maximum and mean concentrations of gamma-chlordane and the maximum concentration of dieldrin had HQs exceeding 1 when compared to the NOEC (Table E-10), but not when compared to the LOEC (Table E-11). Nine inorganic chemicals were detected but could not be evaluated because screening benchmarks were not available for those chemicals.

Striped Bass. The maximum and mean concentrations of DDE, DDD, DDT, total PCB congeners, copper, mercury, and selenium had HQs exceeding 1 when compared to the NOEC and LOEC (Tables E-12 and E-13). The maximum concentration of total DDT had an HQ exceeding 1 when compared to the NOEC and LOEC (Tables E-12 and E-13), while the mean concentration of this chemical could not be evaluated because it was detected in only one fish sample. The maximum and mean concentrations of alpha-chlordane and the maximum concentration of gamma-chlordane had HQs exceeding 1 when compared to the NOEC (Table E-12), but not when compared to the LOEC (Table E-13). Eight inorganic chemicals were detected but could not be evaluated because screening benchmarks were not available for those chemicals.

White Perch. The maximum and mean concentrations of total PCB congeners, copper, mercury, and selenium had HQs exceeding 1 when compared to the NOEC and LOEC (Tables E-14 and E-15). The maximum concentrations of DDT and silver had HQs exceeding 1 when compared to the NOEC and LOEC (Tables E-14 and E-15), while the mean concentrations of these chemicals could not be evaluated because they were detected in only a single fish sample. The maximum and mean concentrations of alpha-chlordane and the maximum concentration of gamma-chlordane had HQs exceeding 1 when compared to the NOEC (Table E-14), but not when compared to the LOEC (Table E-15). Seven inorganic chemicals were detected but could not be evaluated because screening benchmarks were not available for those chemicals.

Risk Summary and Conclusions

Benthic Macroinvertebrate Communities

Risks to benthic macroinvertebrate communities were evaluated primarily through the use of laboratory-based sediment bioassays, which were conducted with two sediment-dwelling invertebrates (amphipods and polychaetes), and through the comparison of sediment chemical concentrations to literature-based screening benchmarks. Chemical concentrations measured in crab tissue also indicate a potential for adverse effects to benthic macroinvertebrates. Among these chemicals, PAHs and several metals (copper, mercury and silver), were detected in canal sediment at concentrations exceeding those detected in the Gowanus Bay reference samples (Table 4-5 of the RI), suggesting those chemicals represent a potential site-related risk.

Water-Column-Dwelling Aquatic Life Communities

Chemical concentrations measured in fish tissue indicate a potential for adverse effects to water-column-dwelling aquatic life. Several of the chemicals indicating risk in one or more fish species, including PCBs and several metals (copper, mercury and silver), were detected in canal sediment at concentrations exceeding those detected in the Gowanus Bay reference samples (Table 4-5 of the RI), suggesting those chemicals represent a potential site-related risk.

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TABLE E-1
Summary Statistics – Gowanus Larger Fish American Eel – Maximum and Mean Wet Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Pesticides (ug/kg)					
Alpha-chlordane	3 / 4 (75.0%)	5.19 - 27.0	GC-TI403-XAE	27.0	17.1
Dieldrin	2 / 3 (66.7%)	7.49 - 13.7	GC-TI403-XAE	13.7	10.6
Gamma-chlordane	2 / 3 (66.7%)	4.91 - 5.14	GC-TI402-XAE	5.14	5.03
Methoxychlor	3 / 6 (50.0%)	13.5 - 18.7	GC-TI403-XAE	18.7	15.9
P,P'-DDD	4 / 4 (100%)	23.1 - 38.0	GC-TI403-XAE	38.0	28.2
P,P'-DDE	1 / 1 (100%)	13.3 - 13.3	GC-TI406-XAE	13.3	---
P,P'-DDT	1 / 2 (50.0%)	40.6 - 40.6	GC-TI403-XAE	40.6	---
Polychlorinated Biphenyl Congeners (ng/kg)					
Total PCB Congeners	6 / 6 (100%)	505000 - 946000	GC-TI406-XAE	946000	800000
Metals (mg/kg)					
Aluminum	1 / 6 (16.7%)	17.8 - 17.8	GC-TI406-XAE	17.8	---
Arsenic	1 / 6 (16.7%)	0.491 - 0.491	GC-TI402-XAE	0.491	---
Calcium	6 / 6 (100%)	453 - 6220	GC-TI402-XAE	6220	2270
Chromium	4 / 6 (66.7%)	0.425 - 0.796	GC-TI406-XAE	0.796	0.619
Copper	4 / 6 (66.7%)	1.11 - 7.51	GC-TI402-XAE	7.51	3.42
Iron	6 / 6 (100%)	15.9 - 99.9	GC-TI406-XAE	99.9	34.5
Lead	1 / 6 (16.7%)	0.602 - 0.602	GC-TI406-XAE	0.602	---
Magnesium	5 / 6 (83.3%)	205 - 307	GC-TI402-XAE	307	248
Manganese	1 / 6 (16.7%)	1.59 - 1.59	GC-TI406-XAE	1.59	---
Mercury	6 / 6 (100%)	0.0647 - 0.28	GC-TI406-XAE	0.28	0.138
Potassium	6 / 6 (100%)	2000 - 2760	GC-TI403-XAE	2760	2380
Selenium	6 / 6 (100%)	1.20 - 1.59	GC-TI402-XAE	1.59	1.39
Sodium	6 / 6 (100%)	702 - 1000	GC-TI402-XAE	1000	867
Zinc	6 / 6 (100%)	12.3 - 26.3	GC-TI406-XAE	26.3	18.7
Cyanide, Total	6 / 6 (100%)	0.253 - 1.76	GC-TI403-XAE	1.76	1.08

TABLE E-2
Summary Statistics – Gowanus Larger Fish Tissue Striped Bass – Maximum and Mean Wet Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Pesticides (ug/kg)					
Alpha-chlordane	3 / 4 (75.0%)	2.39 - 7.57	GC-TI401-SB	7.57	4.75
Gamma-chlordane	1 / 5 (20.0%)	5.63 - 5.63	GC-TI403-SB	5.63	---
P,P'-DDD	4 / 4 (100%)	7.35 - 25.7	GC-TI401-SB	25.7	16.2
P,P'-DDE	2 / 2 (100%)	2.96 - 19.1	GC-TI403-SB	19.1	11.0
P,P'-DDT	2 / 5 (40.0%)	11.4 - 13.0	GC-TI403-SB	13.0	12.2
Total DDTs	1 / 1 (100%)	29.3 - 29.3	GC-TI406-SB	29.3	---
Polychlorinated Biphenyl Congeners (ng/kg)					
Total PCB Congeners	5 / 5 (100%)	604000 - 1230000	GC-TI406-SB	1230000	916000
Metals (mg/kg)					
Arsenic	4 / 5 (80.0%)	0.447 - 0.569	GC-TI406-SB	0.569	0.533
Calcium	5 / 5 (100%)	4650 - 8800	GC-TI401-SB	8800	6010
Chromium	2 / 5 (40.0%)	0.435 - 0.46	GC-TI401-SB	0.46	0.448
Copper	4 / 5 (80.0%)	0.922 - 1.28	GC-TI401-SB	1.28	1.13
Iron	5 / 5 (100%)	15.9 - 28.9	GC-TI403-SB	28.9	21.7
Magnesium	5 / 5 (100%)	339 - 417	GC-TI401-SB	417	367
Manganese	3 / 5 (60.0%)	1.45 - 1.62	GC-TI401-SB	1.62	1.53
Mercury	4 / 5 (80.0%)	0.13 - 0.185	GC-TI406-SB	0.185	0.152
Potassium	5 / 5 (100%)	2460 - 3460	GC-TI406-SB	3460	3040
Selenium	5 / 5 (100%)	1.33 - 1.60	GC-TI406-SB	1.60	1.47
Sodium	5 / 5 (100%)	1020 - 1450	GC-TI406-SB	1450	1240
Zinc	5 / 5 (100%)	9.51 - 16.7	GC-TI403-SB	16.7	12.5
Cyanide, Total	3 / 5 (60.0%)	0.631 - 2.06	GC-TI401-SB	2.06	1.18

TABLE E-3
Summary Statistics – Gowanus Larger Fish White Perch – Maximum and Mean Wet Weight Tissue Residue Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Location of Max Detect	Maximum Concentration Detected	Mean Concentration Detected
Pesticides (ug/kg)					
Alpha-chlordane	2 / 2 (100%)	8.46 - 9.02	GC-TI401-WP	9.02	8.74
Gamma-chlordane	1 / 1 (100%)	7.78 - 7.78	GC-TI401-WP	7.78	---
Methoxychlor	1 / 2 (50.0%)	26.5 - 26.5	GC-TI401-WP	26.5	---
P,P'-DDT	1 / 1 (100%)	14.9 - 14.9	GC-TI401-WP	14.9	---
Polychlorinated Biphenyl Congeners (ng/kg)					
Total PCB Congeners	2 / 2 (100%)	901000 - 1110000	GC-TI401-WP	1110000	1010000
Metals (mg/kg)					
Calcium	2 / 2 (100%)	5800 - 9940	GC-TI401-WP	9940	7870
Copper	2 / 2 (100%)	6.36 - 18.2	GC-TI401-WP	18.2	12.3
Iron	2 / 2 (100%)	13.5 - 14.3	GC-TI401-WP	14.3	13.9
Magnesium	2 / 2 (100%)	266 - 371	GC-TI401-WP	371	319
Manganese	2 / 2 (100%)	0.933 - 4.31	GC-TI401-WP	4.31	2.62
Mercury	2 / 2 (100%)	0.146 - 0.153	GC-TI401-WP	0.153	0.15
Potassium	2 / 2 (100%)	1830 - 2000	GC-TI401-WP	2000	1920
Selenium	2 / 2 (100%)	1.36 - 1.47	GC-TI401-WP	1.47	1.42
Silver	1 / 2 (50.0%)	0.415 - 0.415	GC-TI401-WP	0.415	---
Sodium	2 / 2 (100%)	805 - 1090	GC-TI401-WP	1090	948
Zinc	2 / 2 (100%)	12.0 - 16.8	GC-TI401-WP	16.8	14.4
Cyanide, Total	2 / 2 (100%)	0.455 - 0.951	GC-TI401-WP	0.951	0.703

TABLE E-4
Whole Body Crab Tissue Screening Benchmarks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Detected Constituents	mg/kg (wet weight) NOEC	LOEC	Test Species	Endpoint	Source	Notes
Polychlorinated Biphenyls						
Total PCBs	0.42	1.1	Grass shrimp	Mortality - LOED	Hansen et al 1974 (LOEC); Nimmo et al. 1974 (NOEC)	
Polycyclic Aromatic Hydrocarbons						
Total PAHs	0.022	0.22	Blue mussel	Reproduction - LOED	Eertman et al . 1995	Based on exposure to fluoranthene; NOEC is LOEC divided by 10
Pesticides						
DDT, total	0.000180	0.0018	Freshwater amphipod	Mortality – LD50	Villalobos et al. 2003	exposure to 4,4'-DDE; NOEC is LOEC divided by 10
Inorganics						
Arsenic	--	--	--	--	--	--
Copper	0.086	0.86	Littleneck clam	Mortality - LD11	Roesijadi 1980	NOEC is LOEC divided by 10
Iron	--	--	--	--	--	--
Manganese	--	--	--	--	--	--
Mercury	0.0095	0.095	Estuarine copepod	Reproduction – ED50	Hook and Fisher, 2002	NOEC is LOEC divided by 10
Silver	0.0019	0.019	Estuarine copepod	Reproduction - ED68	Hook and Fisher, 2001	NOEC is LOEC divided by 10
Zinc	0.13	1.3	Estuarine copepod	Reproduction - ED50	Hook and Fisher, 2002	NOEC is LOEC divided by 10
Cyanide, Total	--	--	--	--	--	--

TABLE E-5
Whole Body Fish Tissue Screening Benchmarks
Gowanus Canal Remedial Investigation
Brooklyn, New York

Detected Constituents	mg/kg (wet weight) NOEC	LOEC	Test Species	Endpoint	Source	Notes
Polychlorinated Biphenyls						
Total PCBs	0.0025	0.025	Japanese medaka	Reproduction – ED11	Nakayama et al. 2005	NOEC is LOEC devided by 10
Pesticides						
Alpha-Chlordane	0.001	0.01	Sheepshead minnow	Mortality - ED5	Schimmel et al. 1976	value for chlordane; NOEC is LOEC devided by 10
DDT, total	0.000039	0.0018	Japanese medaka	Mortality - NOED/LOED	Villalobos et al. 2003	based on exposure to 4,4'-DDE
Dieldrin	0.011	0.11	Rainbow trout	Growth - LOED	Dillon 1984	NOEC is LOEC devided by 10
Endrin	0.00115	0.0115	Largemouth bass	Mortality - LOED	Fabacher 1976	NOEC is LOEC devided by 10
Gamma-Chlordane	0.001	0.01	Sheepshead minnow	Mortality - ED5	Schimmel et al. 1976	value for chlordane; NOEC is LOEC devided by 10
Methoxychlor	0.06	1.64	Striped mullet (field-caught)	Mortality	Lee et al. 1975	
Inorganics						
Aluminum	--	--	--	--	--	--
Arsenic	1.5	2	Rainbow trout	Growth	McGeachy and Dixon 1990	
Chromium	--	--	--	--	--	--
Copper	0.002	0.02	Channel catfish	Growth - LOED	Murai et al. 1981	NOEC is LOEC devided by 10
Iron	--	--	--	--	--	--
Lead	0.028	0.28	Rainbow trout	Growth - ED11	Hansen et al. 2004	NOEC is LOEC devided by 10
Manganese	--	--	--	--	--	--
Mercury	0.001	0.01	Mummichog	Growth – ED146	Matta et al. 2001	Value for Methyl mercury; NOEC is LOEC devided by 10
Selenium	0.6	0.68	Bluegill	Mortality	Cleveland et al. 1993	
Silver	0.024	0.24	Rainbow trout	Reproduction - NOED	Guadagnolo 2001	NOEC is LOEC devided by 10
Zinc	0.284	--	Guppy	Mortality - NOED	Pierson 1981	
Cyanide, Total	--	--	--	--	--	--

TABLE E-6
Screening Statistics – Gowanus Canal Blue Crab Tissue – Comparison of Wet Weight Tissue Residue Levels to No Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value NOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Semi-Volatile Organic Compounds (ug/kg)									
Acenaphthene	12 / 12 (100%)	23.8 - 73.0	73.0	39.5	NSV	NSV	NSV	NSV	NSV
Acenaphthylene	6 / 12 (50.0%)	6.07 - 14.3	14.3	9.71	NSV	NSV	NSV	NSV	NSV
Anthracene	12 / 12 (100%)	3.85 - 12.4	12.4	6.44	NSV	NSV	NSV	NSV	NSV
Benzo(a)anthracene	5 / 12 (41.7%)	4.75 - 15.7	15.7	7.64	NSV	NSV	NSV	NSV	NSV
Benzo(a)pyrene	11 / 12 (91.7%)	5.45 - 17.5	17.5	7.74	NSV	NSV	NSV	NSV	NSV
Benzo(b)fluoranthene	9 / 12 (75.0%)	4.82 - 9.61	9.61	5.87	NSV	NSV	NSV	NSV	NSV
Benzo(g,h,i)perylene	12 / 12 (100%)	13.6 - 28.2	28.2	18.5	NSV	NSV	NSV	NSV	NSV
Benzo(k)fluoranthene	8 / 12 (66.7%)	3.65 - 8.76	8.76	4.89	NSV	NSV	NSV	NSV	NSV
Chrysene	8 / 12 (66.7%)	5.03 - 13.6	13.6	6.66	NSV	NSV	NSV	NSV	NSV
Dibenz(a,h)anthracene	12 / 12 (100%)	2.59 - 5.13	5.13	3.56	NSV	NSV	NSV	NSV	NSV
Fluoranthene	12 / 12 (100%)	8.44 - 21.9	21.9	14.9	NSV	NSV	NSV	NSV	NSV
Fluorene	12 / 12 (100%)	6.43 - 26.8	26.8	14.9	NSV	NSV	NSV	NSV	NSV
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	7.46 - 12.3	12.3	9.22	NSV	NSV	NSV	NSV	NSV
Phenanthrene	12 / 12 (100%)	12.2 - 44.1	44.1	26.6	NSV	NSV	NSV	NSV	NSV
Pyrene	12 / 12 (100%)	9.88 - 28.6	28.6	18.5	NSV	NSV	NSV	NSV	NSV
Total PAHs	12 / 12 (100%)	106 - 300	300	184	22	14	8.4	YES	YES
Pesticides (ug/kg)									
P,P'-DDE	12 / 12 (100%)	2.05 - 2.79	2.79	2.41	0.18	16	13	YES	YES
Total DDTs	4 / 12 (33.3%)	2.08 - 2.79	2.79	2.50	0.18	16	14	YES	YES
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	12 / 12 (100%)	133000 - 194000	194000	157000	420000	0.46	0.37	No	No
Metals (mg/kg)									
Arsenic	12 / 12 (100%)	0.902 - 1.47	1.47	1.21	NSV	NSV	NSV	NSV	NSV
Calcium	12 / 12 (100%)	1050 - 1740	1740	1400	NSV	NSV	NSV	NSV	NSV
Copper	12 / 12 (100%)	8.19 - 11.7	11.7	9.65	0.086	140	110	YES	YES
Iron	6 / 12 (50.0%)	8.43 - 13.3	13.3	10.8	NSV	NSV	NSV	NSV	NSV
Magnesium	12 / 12 (100%)	318 - 395	395	351	NSV	NSV	NSV	NSV	NSV
Manganese	12 / 12 (100%)	2.20 - 3.24	3.24	2.72	NSV	NSV	NSV	NSV	NSV
Mercury	12 / 12 (100%)	0.0792 - 0.142	0.142	0.115	0.0095	15	12	YES	YES
Potassium	12 / 12 (100%)	1910 - 2390	2390	2100	NSV	NSV	NSV	NSV	NSV

TABLE E-6
Screening Statistics – Gowanus Canal Blue Crab Tissue – Comparison of Wet Weight Tissue Residue Levels to No Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value NOEC	Hazard Quotient: Maximum Concentration Comparison	Hazard Quotient: Mean Concentration Comparison	COC?: Maximum Concentration Comparison	COC?: Mean Concentration Comparison
Metals (mg/kg)									
Silver	2 / 12 (16.7%)	0.421 - 0.463	0.463	0.442	0.0019	240	230	YES	YES
Sodium	12 / 12 (100%)	2630 - 3490	3490	3070	NSV	NSV	NSV	NSV	NSV
Zinc	12 / 12 (100%)	18.9 - 24.0	24.0	20.9	0.13	180	160	YES	YES
Cyanide, Total	10 / 12 (83.3%)	0.527 - 0.847	0.847	0.708	NSV	NSV	NSV	NSV	NSV

TABLE E-7
Screening Statistics – Gowanus Canal Blue Crab Tissue – Comparison of Wet Weight Tissue Residue Levels to Lowest Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value LOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Semi-Volatile Organic Compounds (ug/kg)									
Acenaphthene	12 / 12 (100%)	23.8 - 73.0	73.0	39.5	NSV	NSV	NSV	NSV	NSV
Acenaphthylene	6 / 12 (50.0%)	6.07 - 14.3	14.3	9.71	NSV	NSV	NSV	NSV	NSV
Anthracene	12 / 12 (100%)	3.85 - 12.4	12.4	6.44	NSV	NSV	NSV	NSV	NSV
Benzo(a)anthracene	5 / 12 (41.7%)	4.75 - 15.7	15.7	7.64	NSV	NSV	NSV	NSV	NSV
Benzo(a)pyrene	11 / 12 (91.7%)	5.45 - 17.5	17.5	7.74	NSV	NSV	NSV	NSV	NSV
Benzo(b)fluoranthene	9 / 12 (75.0%)	4.82 - 9.61	9.61	5.87	NSV	NSV	NSV	NSV	NSV
Benzo(g,h,i)perylene	12 / 12 (100%)	13.6 - 28.2	28.2	18.5	NSV	NSV	NSV	NSV	NSV
Benzo(k)fluoranthene	8 / 12 (66.7%)	3.65 - 8.76	8.76	4.89	NSV	NSV	NSV	NSV	NSV
Chrysene	8 / 12 (66.7%)	5.03 - 13.6	13.6	6.66	NSV	NSV	NSV	NSV	NSV
Dibenz(a,h)anthracene	12 / 12 (100%)	2.59 - 5.13	5.13	3.56	NSV	NSV	NSV	NSV	NSV
Fluoranthene	12 / 12 (100%)	8.44 - 21.9	21.9	14.9	NSV	NSV	NSV	NSV	NSV
Fluorene	12 / 12 (100%)	6.43 - 26.8	26.8	14.9	NSV	NSV	NSV	NSV	NSV
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	7.46 - 12.3	12.3	9.22	NSV	NSV	NSV	NSV	NSV
Phenanthrene	12 / 12 (100%)	12.2 - 44.1	44.1	26.6	NSV	NSV	NSV	NSV	NSV
Pyrene	12 / 12 (100%)	9.88 - 28.6	28.6	18.5	NSV	NSV	NSV	NSV	NSV
Total PAHs	12 / 12 (100%)	106 - 300	300	184	220	1.4	0.84	YES	No
Pesticides (ug/kg)									
P,P'-DDE	12 / 12 (100%)	2.05 - 2.79	2.79	2.41	1.8	1.6	1.3	YES	YES
Total DDTs	4 / 12 (33.3%)	2.08 - 2.79	2.79	2.50	1.8	1.6	1.4	YES	YES
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	12 / 12 (100%)	133000 - 194000	194000	157000	1100000	0.18	0.14	No	No
Metals (mg/kg)									
Arsenic	12 / 12 (100%)	0.902 - 1.47	1.47	1.21	NSV	NSV	NSV	NSV	NSV
Calcium	12 / 12 (100%)	1050 - 1740	1740	1400	NSV	NSV	NSV	NSV	NSV
Copper	12 / 12 (100%)	8.19 - 11.7	11.7	9.65	0.86	14	11	YES	YES
Iron	6 / 12 (50.0%)	8.43 - 13.3	13.3	10.8	NSV	NSV	NSV	NSV	NSV
Magnesium	12 / 12 (100%)	318 - 395	395	351	NSV	NSV	NSV	NSV	NSV
Manganese	12 / 12 (100%)	2.20 - 3.24	3.24	2.72	NSV	NSV	NSV	NSV	NSV
Mercury	12 / 12 (100%)	0.0792 - 0.142	0.142	0.115	0.095	1.5	1.2	YES	YES
Potassium	12 / 12 (100%)	1910 - 2390	2390	2100	NSV	NSV	NSV	NSV	NSV

TABLE E-7
Screening Statistics – Gowanus Canal Blue Crab Tissue – Comparison of Wet Weight Tissue Residue Levels to Lowest Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value LOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Metals (mg/kg)									
Silver	2 / 12 (16.7%)	0.421 - 0.463	0.463	0.442	0.019	24	23	YES	YES
Sodium	12 / 12 (100%)	2630 - 3490	3490	3070	NSV	NSV	NSV	NSV	NSV
Zinc	12 / 12 (100%)	18.9 - 24.0	24.0	20.9	1.3	18	16	YES	YES
Cyanide, Total	10 / 12 (83.3%)	0.527 - 0.847	0.847	0.708	NSV	NSV	NSV	NSV	NSV

TABLE E-8
Screening Statistics – Gowanus Canal Small Fish Tissue – Comparison of Wet Weight Tissue Residue Levels to No Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value NOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	4 / 8 (50.0%)	1.80 - 4.20	4.20	3.15	1	4.2	3.2	YES	YES
Endrin	1 / 8 (12.5%)	2.70 - 2.70	2.70	---	1.15	2.3	---	YES	---
Gamma-chlordane	1 / 7 (14.3%)	5.40 - 5.40	5.40	---	1	5.4	---	YES	---
P,P'-DDE	1 / 8 (12.5%)	3.50 - 3.50	3.50	---	0.039	90	---	YES	---
P,P'-DDT	1 / 8 (12.5%)	8.50 - 8.50	8.50	---	0.039	220	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	8 / 8 (100%)	117000 - 650000	650000	273000	2500	260	110	YES	YES
Metals (mg/kg)									
Aluminum	1 / 8 (12.5%)	30.3 - 30.3	30.3	---	NSV	NSV	---	NSV	---
Calcium	8 / 8 (100%)	2910 - 11600	11600	7110	NSV	NSV	NSV	NSV	NSV
Chromium	2 / 8 (25.0%)	0.33 - 0.40	0.40	0.365	NSV	NSV	NSV	NSV	NSV
Copper	6 / 8 (75.0%)	0.84 - 4.50	4.50	2.52	0.002	2300	1300	YES	YES
Iron	8 / 8 (100%)	16.2 - 77.6	77.6	31.4	NSV	NSV	NSV	NSV	NSV
Lead	1 / 8 (12.5%)	0.69 - 0.69	0.69	---	0.028	25	---	YES	---
Magnesium	8 / 8 (100%)	187 - 517	517	361	NSV	NSV	NSV	NSV	NSV
Manganese	8 / 8 (100%)	0.92 - 4.30	4.30	2.30	NSV	NSV	NSV	NSV	NSV
Mercury	8 / 8 (100%)	0.072 - 0.10	0.10	0.0866	0.001	100	87	YES	YES
Potassium	8 / 8 (100%)	1290 - 2730	2730	2220	NSV	NSV	NSV	NSV	NSV
Selenium	3 / 8 (37.5%)	1.20 - 1.30	1.30	1.27	0.6	2.2	2.1	YES	YES
Sodium	8 / 8 (100%)	588 - 1910	1910	1360	NSV	NSV	NSV	NSV	NSV
Zinc	8 / 8 (100%)	7.20 - 42.3	42.3	21.9	0.284	150	77	YES	YES
Cyanide, Total	3 / 8 (37.5%)	0.24 - 0.44	0.44	0.357	NSV	NSV	NSV	NSV	NSV

TABLE E-9
Screening Statistics – Gowanus Canal Small Fish Tissue – Comparison of Wet Weight Tissue Residue Levels to Lowest Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value LOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	4 / 8 (50.0%)	1.80 - 4.20	4.20	3.15	10	0.42	0.32	No	No
Endrin	1 / 8 (12.5%)	2.70 - 2.70	2.70	---	11.5	0.23	---	No	---
Gamma-chlordane	1 / 7 (14.3%)	5.40 - 5.40	5.40	---	10	0.54	---	No	---
P,P'-DDE	1 / 8 (12.5%)	3.50 - 3.50	3.50	---	1.8	1.9	---	YES	---
P,P'-DDT	1 / 8 (12.5%)	8.50 - 8.50	8.50	---	1.8	4.7	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	8 / 8 (100%)	117000 - 650000	650000	273000	NSV	NSV	NSV	NSV	NSV
Metals (mg/kg)									
Aluminum	1 / 8 (12.5%)	30.3 - 30.3	30.3	---	NSV	NSV	---	NSV	---
Calcium	8 / 8 (100%)	2910 - 11600	11600	7110	NSV	NSV	NSV	NSV	NSV
Chromium	2 / 8 (25.0%)	0.33 - 0.40	0.40	0.365	NSV	NSV	NSV	NSV	NSV
Copper	6 / 8 (75.0%)	0.84 - 4.50	4.50	2.52	0.02	230	130	YES	YES
Iron	8 / 8 (100%)	16.2 - 77.6	77.6	31.4	NSV	NSV	NSV	NSV	NSV
Lead	1 / 8 (12.5%)	0.69 - 0.69	0.69	---	0.28	2.5	---	YES	---
Magnesium	8 / 8 (100%)	187 - 517	517	361	NSV	NSV	NSV	NSV	NSV
Manganese	8 / 8 (100%)	0.92 - 4.30	4.30	2.30	NSV	NSV	NSV	NSV	NSV
Mercury	8 / 8 (100%)	0.072 - 0.10	0.10	0.0866	0.01	10	8.7	YES	YES
Potassium	8 / 8 (100%)	1290 - 2730	2730	2220	NSV	NSV	NSV	NSV	NSV
Selenium	3 / 8 (37.5%)	1.20 - 1.30	1.30	1.27	0.68	1.9	1.9	YES	YES
Sodium	8 / 8 (100%)	588 - 1910	1910	1360	NSV	NSV	NSV	NSV	NSV
Zinc	8 / 8 (100%)	7.20 - 42.3	42.3	21.9	NSV	NSV	NSV	NSV	NSV
Cyanide, Total	3 / 8 (37.5%)	0.24 - 0.44	0.44	0.357	NSV	NSV	NSV	NSV	NSV

TABLE E-10
Screening Statistics – Gowanus Canal Larger Fish Tissue American Eel – Comparison of Wet Weight Tissue Residue Levels to No Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value NOEC	Hazard Quotient: Maximum Concentration Comparison	Hazard Quotient: Mean Concentration Comparison	COC?: Maximum Concentration Comparison	COC?: Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	3 / 4 (75.0%)	5.19 - 27.0	27.0	17.1	1	27	17	YES	YES
Dieldrin	2 / 3 (66.7%)	7.49 - 13.7	13.7	10.6	11	1.2	0.96	YES	No
Gamma-chlordane	2 / 3 (66.7%)	4.91 - 5.14	5.14	5.03	1	5.1	5.0	YES	YES
Methoxychlor	3 / 6 (50.0%)	13.5 - 18.7	18.7	15.9	60	0.31	0.27	No	No
P,P'-DDD	4 / 4 (100%)	23.1 - 38.0	38.0	28.2	0.039	970	720	YES	YES
P,P'-DDE	1 / 1 (100%)	13.3 - 13.3	13.3	---	0.039	340	---	YES	---
P,P'-DDT	1 / 2 (50.0%)	40.6 - 40.6	40.6	---	0.039	1000	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	6 / 6 (100%)	505000 - 946000	946000	800000	NSV	NSV	NSV	NSV	NSV
Metals (mg/kg)									
Aluminum	1 / 6 (16.7%)	17.8 - 17.8	17.8	---	NSV	NSV	---	NSV	---
Arsenic	1 / 6 (16.7%)	0.491 - 0.491	0.491	---	1.5	0.33	---	No	---
Calcium	6 / 6 (100%)	453 - 6220	6220	2270	NSV	NSV	NSV	NSV	NSV
Chromium	4 / 6 (66.7%)	0.425 - 0.796	0.796	0.619	NSV	NSV	NSV	NSV	NSV
Copper	4 / 6 (66.7%)	1.11 - 7.51	7.51	3.42	0.002	3800	1700	YES	YES
Iron	6 / 6 (100%)	15.9 - 99.9	99.9	34.5	NSV	NSV	NSV	NSV	NSV
Lead	1 / 6 (16.7%)	0.602 - 0.602	0.602	---	0.028	22	---	YES	---
Magnesium	5 / 6 (83.3%)	205 - 307	307	248	NSV	NSV	NSV	NSV	NSV
Manganese	1 / 6 (16.7%)	1.59 - 1.59	1.59	---	NSV	NSV	---	NSV	---
Mercury	6 / 6 (100%)	0.0647 - 0.28	0.28	0.138	0.001	280	140	YES	YES
Potassium	6 / 6 (100%)	2000 - 2760	2760	2380	NSV	NSV	NSV	NSV	NSV
Selenium	6 / 6 (100%)	1.20 - 1.59	1.59	1.39	0.6	2.7	2.3	YES	YES
Sodium	6 / 6 (100%)	702 - 1000	1000	867	NSV	NSV	NSV	NSV	NSV
Zinc	6 / 6 (100%)	12.3 - 26.3	26.3	18.7	0.284	93	66	YES	YES
Cyanide, Total	6 / 6 (100%)	0.253 - 1.76	1.76	1.08	NSV	NSV	NSV	NSV	NSV

TABLE E-11
Screening Statistics – Gowanus Canal Larger Fish Tissue American Eel – Comparison of Wet Weight Tissue Residue Levels to Lowest Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value LOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	3 / 4 (75.0%)	5.19 - 27.0	27.0	17.1	10	2.7	1.7	YES	YES
Dieldrin	2 / 3 (66.7%)	7.49 - 13.7	13.7	10.6	110	0.12	0.096	No	No
Gamma-chlordane	2 / 3 (66.7%)	4.91 - 5.14	5.14	5.03	10	0.51	0.5	No	No
Methoxychlor	3 / 6 (50.0%)	13.5 - 18.7	18.7	15.9	1640	0.011	0.0097	No	No
P,P'-DDD	4 / 4 (100%)	23.1 - 38.0	38.0	28.2	1.8	21	16	YES	YES
P,P'-DDE	1 / 1 (100%)	13.3 - 13.3	13.3	---	1.8	7.4	---	YES	---
P,P'-DDT	1 / 2 (50.0%)	40.6 - 40.6	40.6	---	1.8	23	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	6 / 6 (100%)	505000 - 946000	946000	800000	NSV	NSV	NSV	NSV	NSV
Metals (mg/kg)									
Aluminum	1 / 6 (16.7%)	17.8 - 17.8	17.8	---	NSV	NSV	---	NSV	---
Arsenic	1 / 6 (16.7%)	0.491 - 0.491	0.491	---	2	0.25	---	No	---
Calcium	6 / 6 (100%)	453 - 6220	6220	2270	NSV	NSV	NSV	NSV	NSV
Chromium	4 / 6 (66.7%)	0.425 - 0.796	0.796	0.619	NSV	NSV	NSV	NSV	NSV
Copper	4 / 6 (66.7%)	1.11 - 7.51	7.51	3.42	0.02	380	170	YES	YES
Iron	6 / 6 (100%)	15.9 - 99.9	99.9	34.5	NSV	NSV	NSV	NSV	NSV
Lead	1 / 6 (16.7%)	0.602 - 0.602	0.602	---	0.28	2.2	---	YES	---
Magnesium	5 / 6 (83.3%)	205 - 307	307	248	NSV	NSV	NSV	NSV	NSV
Manganese	1 / 6 (16.7%)	1.59 - 1.59	1.59	---	NSV	NSV	---	NSV	---
Mercury	6 / 6 (100%)	0.0647 - 0.28	0.28	0.138	0.01	28	14	YES	YES
Potassium	6 / 6 (100%)	2000 - 2760	2760	2380	NSV	NSV	NSV	NSV	NSV
Selenium	6 / 6 (100%)	1.20 - 1.59	1.59	1.39	0.68	2.3	2.0	YES	YES
Sodium	6 / 6 (100%)	702 - 1000	1000	867	NSV	NSV	NSV	NSV	NSV
Zinc	6 / 6 (100%)	12.3 - 26.3	26.3	18.7	NSV	NSV	NSV	NSV	NSV
Cyanide, Total	6 / 6 (100%)	0.253 - 1.76	1.76	1.08	NSV	NSV	NSV	NSV	NSV

TABLE E-12
Screening Statistics – Gowanus Canal Larger Fish Tissue Striped Bass – Comparison of Wet Weight Tissue Residue Levels to No Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value NOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	3 / 4 (75.0%)	2.39 - 7.57	7.57	4.75	1	7.6	4.8	YES	YES
Gamma-chlordane	1 / 5 (20.0%)	5.63 - 5.63	5.63	---	1	5.6	---	YES	---
P,P'-DDD	4 / 4 (100%)	7.35 - 25.7	25.7	16.2	0.039	660	420	YES	YES
P,P'-DDE	2 / 2 (100%)	2.96 - 19.1	19.1	11.0	0.039	490	280	YES	YES
P,P'-DDT	2 / 5 (40.0%)	11.4 - 13.0	13.0	12.2	0.039	330	310	YES	YES
Total DDTs	1 / 1 (100%)	29.3 - 29.3	29.3	---	0.039	750	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	5 / 5 (100%)	604000 - 1230000	1230000	916000	2500	490	370	YES	YES
Metals (mg/kg)									
Arsenic	4 / 5 (80.0%)	0.447 - 0.569	0.569	0.533	1.5	0.38	0.36	No	No
Calcium	5 / 5 (100%)	4650 - 8800	8800	6010	NSV	NSV	NSV	NSV	NSV
Chromium	2 / 5 (40.0%)	0.435 - 0.46	0.46	0.448	NSV	NSV	NSV	NSV	NSV
Copper	4 / 5 (80.0%)	0.922 - 1.28	1.28	1.13	0.002	640	570	YES	YES
Iron	5 / 5 (100%)	15.9 - 28.9	28.9	21.7	NSV	NSV	NSV	NSV	NSV
Magnesium	5 / 5 (100%)	339 - 417	417	367	NSV	NSV	NSV	NSV	NSV
Manganese	3 / 5 (60.0%)	1.45 - 1.62	1.62	1.53	NSV	NSV	NSV	NSV	NSV
Mercury	4 / 5 (80.0%)	0.13 - 0.185	0.185	0.152	0.001	190	150	YES	YES
Potassium	5 / 5 (100%)	2460 - 3460	3460	3040	NSV	NSV	NSV	NSV	NSV
Selenium	5 / 5 (100%)	1.33 - 1.60	1.60	1.47	0.6	2.7	2.5	YES	YES
Sodium	5 / 5 (100%)	1020 - 1450	1450	1240	NSV	NSV	NSV	NSV	NSV
Zinc	5 / 5 (100%)	9.51 - 16.7	16.7	12.5	0.284	59	44	YES	YES
Cyanide, Total	3 / 5 (60.0%)	0.631 - 2.06	2.06	1.18	NSV	NSV	NSV	NSV	NSV

TABLE E-13
Screening Statistics – Gowanus Canal Larger Fish Tissue Striped Bass – Comparison of Wet Weight Tissue Residue Levels to Lowest Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value LOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	3 / 4 (75.0%)	2.39 - 7.57	7.57	4.75	10	0.76	0.48	No	No
Gamma-chlordane	1 / 5 (20.0%)	5.63 - 5.63	5.63	---	10	0.56	---	No	---
P,P'-DDD	4 / 4 (100%)	7.35 - 25.7	25.7	16.2	1.8	14	9.0	YES	YES
P,P'-DDE	2 / 2 (100%)	2.96 - 19.1	19.1	11.0	1.8	11	6.1	YES	YES
P,P'-DDT	2 / 5 (40.0%)	11.4 - 13.0	13.0	12.2	1.8	7.2	6.8	YES	YES
Total DDTs	1 / 1 (100%)	29.3 - 29.3	29.3	---	1.8	16	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	5 / 5 (100%)	604000 - 1230000	1230000	916000	25000	49	37	YES	YES
Metals (mg/kg)									
Arsenic	4 / 5 (80.0%)	0.447 - 0.569	0.569	0.533	2	0.28	0.27	No	No
Calcium	5 / 5 (100%)	4650 - 8800	8800	6010	NSV	NSV	NSV	NSV	NSV
Chromium	2 / 5 (40.0%)	0.435 - 0.46	0.46	0.448	NSV	NSV	NSV	NSV	NSV
Copper	4 / 5 (80.0%)	0.922 - 1.28	1.28	1.13	0.02	64	57	YES	YES
Iron	5 / 5 (100%)	15.9 - 28.9	28.9	21.7	NSV	NSV	NSV	NSV	NSV
Magnesium	5 / 5 (100%)	339 - 417	417	367	NSV	NSV	NSV	NSV	NSV
Manganese	3 / 5 (60.0%)	1.45 - 1.62	1.62	1.53	NSV	NSV	NSV	NSV	NSV
Mercury	4 / 5 (80.0%)	0.13 - 0.185	0.185	0.152	0.01	19	15	YES	YES
Potassium	5 / 5 (100%)	2460 - 3460	3460	3040	NSV	NSV	NSV	NSV	NSV
Selenium	5 / 5 (100%)	1.33 - 1.60	1.60	1.47	0.68	2.4	2.2	YES	YES
Sodium	5 / 5 (100%)	1020 - 1450	1450	1240	NSV	NSV	NSV	NSV	NSV
Zinc	5 / 5 (100%)	9.51 - 16.7	16.7	12.5	NSV	NSV	NSV	NSV	NSV
Cyanide, Total	3 / 5 (60.0%)	0.631 - 2.06	2.06	1.18	NSV	NSV	NSV	NSV	NSV

TABLE E-14
Screening Statistics – Gowanus Canal Larger Fish Tissue White Perch – Comparison of Wet Weight Tissue Residue Levels to No Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value NOEC	Hazard Quotient: Maximum Concentration Comparison	Hazard Quotient: Mean Concentration Comparison	COC?: Maximum Concentration Comparison	COC?: Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	2 / 2 (100%)	8.46 - 9.02	9.02	8.74	1	9.0	8.7	YES	YES
Gamma-chlordane	1 / 1 (100%)	7.78 - 7.78	7.78	---	1	7.8	---	YES	---
Methoxychlor	1 / 2 (50.0%)	26.5 - 26.5	26.5	---	60	0.44	---	No	---
P,P'-DDT	1 / 1 (100%)	14.9 - 14.9	14.9	---	0.039	380	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	2 / 2 (100%)	901000 - 1110000	1110000	1010000	2500	440	400	YES	YES
Metals (mg/kg)									
Calcium	2 / 2 (100%)	5800 - 9940	9940	7870	NSV	NSV	NSV	NSV	NSV
Copper	2 / 2 (100%)	6.36 - 18.2	18.2	12.3	0.002	9100	6200	YES	YES
Iron	2 / 2 (100%)	13.5 - 14.3	14.3	13.9	NSV	NSV	NSV	NSV	NSV
Magnesium	2 / 2 (100%)	266 - 371	371	319	NSV	NSV	NSV	NSV	NSV
Manganese	2 / 2 (100%)	0.933 - 4.31	4.31	2.62	NSV	NSV	NSV	NSV	NSV
Mercury	2 / 2 (100%)	0.146 - 0.153	0.153	0.15	0.001	150	150	YES	YES
Potassium	2 / 2 (100%)	1830 - 2000	2000	1920	NSV	NSV	NSV	NSV	NSV
Selenium	2 / 2 (100%)	1.36 - 1.47	1.47	1.42	0.6	2.5	2.4	YES	YES
Silver	1 / 2 (50.0%)	0.415 - 0.415	0.415	---	0.024	17	---	YES	---
Sodium	2 / 2 (100%)	805 - 1090	1090	948	NSV	NSV	NSV	NSV	NSV
Zinc	2 / 2 (100%)	12.0 - 16.8	16.8	14.4	0.284	59	51	YES	YES
Cyanide, Total	2 / 2 (100%)	0.455 - 0.951	0.951	0.703	NSV	NSV	NSV	NSV	NSV

TABLE E-15
Screening Statistics – Gowanus Canal Larger Fish Tissue White Perch – Comparison of Wet Weight Tissue Residue Levels to Lowest Observed Effect Concentrations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Range of Detected Values	Maximum Concentration Result	Mean Concentration Result	Screening Value LOEC	Hazard Quotient		COC?	
						Maximum Concentration Comparison	Mean Concentration Comparison	Maximum Concentration Comparison	Mean Concentration Comparison
Pesticides (ug/kg)									
Alpha-chlordane	2 / 2 (100%)	8.46 - 9.02	9.02	8.74	10	0.9	0.87	No	No
Gamma-chlordane	1 / 1 (100%)	7.78 - 7.78	7.78	---	10	0.78	---	No	---
Methoxychlor	1 / 2 (50.0%)	26.5 - 26.5	26.5	---	1640	0.016	---	No	---
P,P'-DDT	1 / 1 (100%)	14.9 - 14.9	14.9	---	1.8	8.3	---	YES	---
Polychlorinated Biphenyl Congeners (ng/kg)									
Total PCB Congeners	2 / 2 (100%)	901000 - 1110000	1110000	1010000	25000	44	40	YES	YES
Metals (mg/kg)									
Calcium	2 / 2 (100%)	5800 - 9940	9940	7870	NSV	NSV	NSV	NSV	NSV
Copper	2 / 2 (100%)	6.36 - 18.2	18.2	12.3	0.02	910	620	YES	YES
Iron	2 / 2 (100%)	13.5 - 14.3	14.3	13.9	NSV	NSV	NSV	NSV	NSV
Magnesium	2 / 2 (100%)	266 - 371	371	319	NSV	NSV	NSV	NSV	NSV
Manganese	2 / 2 (100%)	0.933 - 4.31	4.31	2.62	NSV	NSV	NSV	NSV	NSV
Mercury	2 / 2 (100%)	0.146 - 0.153	0.153	0.15	0.01	15	15	YES	YES
Potassium	2 / 2 (100%)	1830 - 2000	2000	1920	NSV	NSV	NSV	NSV	NSV
Selenium	2 / 2 (100%)	1.36 - 1.47	1.47	1.42	0.68	2.2	2.1	YES	YES
Silver	1 / 2 (50.0%)	0.415 - 0.415	0.415	---	0.24	1.7	---	YES	---
Sodium	2 / 2 (100%)	805 - 1090	1090	948	NSV	NSV	NSV	NSV	NSV
Zinc	2 / 2 (100%)	12.0 - 16.8	16.8	14.4	NSV	NSV	NSV	NSV	NSV
Cyanide, Total	2 / 2 (100%)	0.455 - 0.951	0.951	0.703	NSV	NSV	NSV	NSV	NSV

TABLE 7-3
PCBs, Mercury, and Arsenic in Canal and Reference Fish and Crab Tissue Samples
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Crab - Canal- Blue Crab-Edible Tis-WET						
PCB Dioxin	12 / 12 (100%)	12	---	1.92 - 4.52	GC-TI405-BC	3.38
PCB Nondioxin	12 / 12 (100%)	12	---	64200 - 149000	GC-TI405-BC	99800
Total PCB Congeners	12 / 12 (100%)	12	---	73000 - 171000	GC-TI405-BC	115000
Arsenic	12 / 12 (100%)	12	---	0.89 - 1.80	GC-TI401-BC, GC-TI404-BC	1.38
Mercury	12 / 12 (100%)	12	---	0.10 - 0.20	GC-TI402-BC	0.153
Crab - Reference- Blue Crab-Edible Tis-WET						
PCB Dioxin	8 / 8 (100%)	8	---	0.268 - 4.54	GC-TI-INNER-BC	2.06
PCB Nondioxin	8 / 8 (100%)	8	---	52500 - 111000	GC-TI-INNER-BC	72900
Total PCB Congeners	8 / 8 (100%)	8	---	59000 - 132000	GC-TI-INNER-BC	83900
Arsenic	8 / 8 (100%)	8	---	1.00 - 2.00	GC-TI-INNER-BC	1.40
Mercury	8 / 8 (100%)	8	---	0.099 - 0.36	GC-TI-OUTER-BC	0.207
Crab - Canal- Blue Crab-Hepatopanc-WET						
PCB Dioxin	2 / 2 (100%)	2	---	2.56 - 7.06	GC-TI401-402-BC	4.81
PCB Nondioxin	2 / 2 (100%)	2	---	65000 - 192000	GC-TI401-402-BC	129000
Total PCB Congeners	2 / 2 (100%)	2	---	75800 - 224000	GC-TI401-402-BC	150000
Arsenic	2 / 2 (100%)	2	---	0.72 - 0.92	GC-TI403-THRU-406-BC	0.82
Crab - Reference- Blue Crab-Hepatopanc-WET						
PCB Dioxin	1 / 1 (100%)	1	---	3.71 - 3.71	GC-TI-IN-MID-OUT-BC	3.71
PCB Nondioxin	1 / 1 (100%)	1	---	94600 - 94600	GC-TI-IN-MID-OUT-BC	94600
Total PCB Congeners	1 / 1 (100%)	1	---	111000 - 111000	GC-TI-IN-MID-OUT-BC	111000
Arsenic	1 / 1 (100%)	1	---	1.30 - 1.30	GC-TI-IN-MID-OUT-BC	1.30
Crab - Canal- Blue Crab-Whole Body-WET						
PCB Dioxin	12 / 12 (100%)	12	---	3.91 - 5.54	GC-TI405-BC	4.76
PCB Nondioxin	12 / 12 (100%)	12	---	115000 - 167000	GC-TI405-BC	135000
Total PCB Congeners	12 / 12 (100%)	12	---	133000 - 194000	GC-TI405-BC	157000
Arsenic	12 / 12 (100%)	12	---	0.902 - 1.47	GC-TI401-BC	1.21
Mercury	12 / 12 (100%)	12	---	0.0792 - 0.142	GC-TI402-BC	0.115

TABLE 7-3
PCBs, Mercury, and Arsenic in Canal and Reference Fish and Crab Tissue Samples
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Crab - Reference- Blue Crab-Whole Body-WET						
PCB Dioxin	8 / 8 (100%)	8	---	0.341 - 4.32	GC-TI-INNER-BC	2.38
PCB Nondioxin	8 / 8 (100%)	8	---	59400 - 106000	GC-TI-INNER-BC	78300
Total PCB Congeners	8 / 8 (100%)	8	---	67000 - 127000	GC-TI-INNER-BC	90900
Arsenic	8 / 8 (100%)	8	---	1.08 - 1.82	GC-TI-INNER-BC	1.37
Mercury	8 / 8 (100%)	8	---	0.0849 - 0.316	GC-TI-OUTER-BC	0.168
Larger Fish Species - Canal- American E-Fillet-WET						
PCB Dioxin	6 / 6 (100%)	6	---	4.73 - 14.1	GC-TI406-XAE	8.69
PCB Nondioxin	6 / 6 (100%)	6	---	480000 - 1220000	GC-TI406-XAE	792000
Total PCB Congeners	6 / 6 (100%)	6	---	519000 - 1350000	GC-TI406-XAE	862000
Arsenic	1 / 6 (16.7%)	6	0.97 - 0.98	0.50 - 0.50	GC-TI402-XAE	0.488
Mercury	6 / 6 (100%)	6	---	0.056 - 0.26	GC-TI406-XAE	0.098
Larger Fish Species - Reference- American E-Fillet-WET						
PCB Dioxin	1 / 1 (100%)	1	---	7.20 - 7.20	GC-TI327-XAE	7.20
PCB Nondioxin	1 / 1 (100%)	1	---	424000 - 424000	GC-TI327-XAE	424000
Total PCB Congeners	1 / 1 (100%)	1	---	475000 - 475000	GC-TI327-XAE	475000
Mercury	1 / 1 (100%)	1	---	0.16 - 0.16	GC-TI327-XAE	0.16
Larger Fish Species - Canal- Striped Ba-Fillet-WET						
PCB Dioxin	5 / 5 (100%)	5	---	2.83 - 4.31	GC-TI406-SB	3.35
PCB Nondioxin	5 / 5 (100%)	5	---	244000 - 409000	GC-TI403-SB	331000
Total PCB Congeners	5 / 5 (100%)	5	---	263000 - 435000	GC-TI403-SB	354000
Arsenic	3 / 5 (60.0%)	5	0.98 - 0.98	0.45 - 0.68	GC-TI403-SB	0.53
Mercury	4 / 5 (80.0%)	5	0.48 - 0.48	0.15 - 0.20	GC-TI406-SB	0.194
Larger Fish Species - Canal- White Perc-Fillet-WET						
PCB Dioxin	2 / 2 (100%)	2	---	4.46 - 5.08	GC-TI401-WP	4.77
PCB Nondioxin	2 / 2 (100%)	2	---	302000 - 437000	GC-TI401-WP	370000
Total PCB Congeners	2 / 2 (100%)	2	---	324000 - 462000	GC-TI401-WP	393000
Mercury	2 / 2 (100%)	2	---	0.16 - 0.19	GC-TI401-WP	0.175

TABLE 4-2
List of Evaluation Criteria Used to Evaluate the Nature and Extent of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

Surface Sediment, Subsurface Sediment, CSO Sediment

The standards / criteria below are used to evaluate the degree of contamination found in the surface sediments in the Gowanus Canal. These standards / criteria are also used to provide a perspective on the concentrations in subsurface sediments and sediments. The results for the surface sediment reference locations are also compared to the results for the surface sediment locations within the canal.

A. U.S. Environmental Protection Agency (USEPA). 2010. Residential soil RSL from EPA Regional Screening Table, May 2010. RSLs based on noncancer risk divided by 10 to account for exposure to more than one constituent that effects the same target organ.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

The standards / criteria listed below are used in the following order to create criteria R: 1) use criteria B1 first; 2) if no criteria available for a constituent under B1, go to C; 3) if no criteria available for a constituent under B1 and C, go to D; and 4) if no criteria available for a constituent under B1, C, and D, go to E and use in this order – E1, E2, E3.

B. New York State Department of Environmental Conservation (NYSDEC). 1999. Technical Guidance for Screening Contaminated Sediments. New York State Department of Environmental Conservation. (Benthic aquatic life chronic toxicity values for saltwater (designated SW)
B1 - NYSDEC 1999 Benthic Aquatic Life Chronic Toxicity (2% TOC)
B2 - NYSDEC 1999 Benthic Aquatic Life Chronic Toxicity (6.5% TOC) – included for informational purposes only

C. Jones, D.S., G.W. Suter II, and R.N. Hull. 1997. Toxicological benchmarks for screening contaminants of potential concern for effects on sediment-associated biota: 1997 revision. Environmental Restoration Division, ORNL Environmental Restoration Program. ES/ER/TM-95/R4. (Marine and estuarine benchmarks, lower of ER-L or TEL values)

D. Washington Department of Ecology (WDOE). 1995. Chapter 173-204 WAC, Sediment Management Standards. http://www.ecy.wa.gov/biblio/wac173204.html (Marine Sediment Quality Standards; presented in Table 1, under WAC 173-204-320)

E. Buchman, M.F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle WA, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration, 34 pages. (Marine surface water, chronic values)
E1 - SQuiRTs 2008 Mar SD TEL
E2 - SQuiRTs 2008 Mar SD ERL
E3 - SQuiRTs 2008 Mar SD PEL

Surface Water, CSO Water, Pipe Outfall Water

The standards / criteria below are used to evaluate the degree of contamination found in the surface water in the Gownus Canal. These standards / criteria are also used to provide a perspective on the concentrations in CSO water, and pipe outfall discharges. The results for the surface water reference locations are also compared to the results for the surface water locations within the canal.

The standards / criteria listed below are used in the following order to create criteria T and S:

Criteria T: Use the lesser of F or G2; use H if no F or G2 criteria available for a constituent.

Criteria S: 1) use criteria L1 first; 2) if no criteria available for a constituent under L1, go to I; and 3) if no criteria available for a constituent under L1 and I, go to K.

F. U.S. Environmental Protection Agency (USEPA). 2009. National Recommended Water Quality Criteria. Office of Water, Office of Science and Technology. Human Health for Consumption of Organism only.

G. New York State DEC, Chapter X, Division of Water, Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations. Values correspond to classification of canal (SD) and classification of Bay (I) and are the standards for Health-fish consumption and recreation.
G1 - NYSDEC Chapter X for surface water (fish consumption) I H(FC) – included for informational purposes only, applies to Gowanus Bay
G2 - NYSDEC Chapter X for SW (fish consumption) SD H(FC)

H. U.S. Environmental Protection Agency (USEPA). 2010. Tap Water RSL from EPA Regional Screening Table, May 2010.
RSLs based on noncancer divided by 10 to account for exposure to more than one constituent that effects the s ame target organ.

I. U.S. Environmental Protection Agency (USEPA). 2009. National Recommended Water Quality Criteria. Office of Water, Office of Science and Technology. 4303T. Saltwater chronic value (CCC) for the protection of aquatic life.

J. New York State Department of Environmental Conservation (NYSDEC). 1998. Water Quality Standards and Analytical Support. http://www.dec.ny.gov/chemical/23842.html. Chronic marine values for protection of aquatic life. (Note that these values have been incorporated into reference L and this reference is included here only to indicate that it was also reviewed).

K. Buchman, M.F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle WA, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration, 34 pages. Marine surface water, chronic values.

L. New York State DEC, Chapter X, Division of Water, Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations . Values correspond to classification of canal (SD) and classification of Bay (I) and are the standards for Aquatic-Chronic toxicity.
L1 - NYSDEC Chapter X for surface water (aquatic chronic toxicity) I A(C) – included for informational purposes only, applies to Gowanus Bay

Groundwater

Groundwater was evaluated to assess groundwater interactions with the surface water in the canal. For completeness and to provide a perspective on the significance of detected concentrations at the locations where the monitoring wells were installed, the detected concentrations in groundwater are compared to the standards / criteria listed below.

The standards / criteria listed below are used in the following order to create criteria 1) use criteria N1 first; 2) if no criteria available for a constituent under N1, go to O1; and 3) if no criteria available for a constituent under N1 and O1, go to O2.

N. U.S. Environmental Protection Agency (USEPA). Maximum Contaminant Levels and MCLGs. http://www.epa.gov/safewater/contaminants/index.html (N1 is MCLs, N2 is MCLGs).

O. New York State DEC, Chapter X, Division of Water, Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations. Values correspond to classification of groundwater along the canal (GA) and are the standards for Health-Water Source and Aesthetic -Water Source (includes O1 and O2).

Air

P. U.S. Environmental Protection Agency (USEPA). 2010. Residential air RSLs from EPA Regional Screening Table, May 2010. RSLs based on noncancer risk divided by 10 to account for exposure to more than one constituent that effects the same target organ.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

Soil

Soils were evaluated at the locations where monitoring wells were installed. For completeness and to provide a perspective on the significance of detected concentrations at the locations where the monitoring wells were installed, detected concentrations in soils are compared to the standards / criteria listed below.

Q. New York State DEC. 2009. Subpart 375-6: Remedial Program Soil Cleanup Objectives. December 14, 2006 and NYSDEC Draft CP/Soil Cleanup Guidance, November 4, 2009. Values used correspond to restricted use soil cleanup objectives; Protection of Groundwater.

TABLE 4-2
List of Evaluation Criteria Used to Evaluate the Nature and Extent of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

Fish Tissue

M. U.S. Environmental Protection Agency (USEPA). 2010. Regional Screening Table, May 2010.

Calculator on the RSL table website based on default assumptions included in calculator tool - not site-specific inputs.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm).

http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search.

AA, AB, AC, and AD:

Fish tissue is compared to both AC (no observed effect concentration) and AD (low observed effect concentration). Blue crab is compared to both AA (no observed effect concentration) and AB (low observed effect concentration).

Cleveland, L., D.R. Buckler, W.G. Brumbaugh. 1991. Residue dynamics and effects of aluminum on growth and mortality in brook trout. Environ Toxicol Chem 10:243-248. (AC and AD)

Dillon, T.M. 1984. Biological consequences of bioaccumulation in aquatic animals: An assessment of the current literature. Technical Report D-84-8. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS. (AC and AD)

Eertmana, R.H.M., C.L.F.M.G. Groeninka, B. Sandeea, H. Hummela and A.C. Smaalb. 1995. Response of the blue mussel *Mytilus edulis L*. following exposure to PAHs or contaminated sediment. Marine Environmental Research (AA and AB)

Fabacher, D.L. 1976. Toxicity of endrin and an endrin-methyl parathion formulation to Largemouth bass fingerlings. Bulletin of Environmental Contamination and Toxicology. 16(3):376-378. (AC and AD)

Guadagnolo C.M., C.J. Brauner and C.M. Wood. 2001. Chronic effects of silver exposure on ion levels, survival, and silver distribution within developing rainbow trout (*Oncorhynchus mykiss*) embryos (AC and AD)

Hansen, D.J., P.R. Parrish and J. Forester. 1974. Effects of Aroclor(R) 1016 on Embryos, Fry, Juveniles, and Adults of Sheepshead Minnows (*Cyprinodon variegatus*). Transactions of the American Fisheries Society 104 (3): 584-588. (AA and AB)

Hansen, J.A., J. Lipton, P.G. Welsh, D. Cacela, and B. MacConnell. 2004. Reduced growth of rainbow trout fed a live invertebrate diet pre-exposed to metal contaminated sediments. Environmental Toxicology and Chemistry 23:1902-1911. (AC and AD)

Hook, S.E.; Fisher, N.S. 2001. Sublethal effects of silver in zooplankton: Importance of exposure pathways and implications for toxicity testing. Environ. Toxicol. Chem. 2001, 20 (3), 568-574. (AA and AB)

Hook, S.E. and N.S. Fisher. 2002. Relating the reproductive toxicity of five ingested metals in calanoid copepods with sulfur affinity. Mar. Environ. Res. 53: 161-174. (AA and AB)

Lee, J.H., J.R. Sylvester, C.E. Nash. 1975. Effects of mirex and methoxychlor on juvenile and adult striped mullet, *Mugil cephalus L*. Bull Environ Contam Toxicol 14(2):180-185. (AC and AD)

Matta, M.B., J. Linse, C. Cairncross, L. Francendese, R.M. Kocan. 2001. Reproductive and transgenerational effects of methyl mercury or Aroclor 1268 on *Fundulus heteroclitus*. Environ Toxicol Chem 20:327-335 (AC and AD)

McGeachy, S.M., and D.G. Dixon. 1990. Effect of temperature on the chronic toxicity of arsenate to rainbow trout (*Onchorhynchus mykiss*). Can J Fish Aquat Sci 47:2228-2234. (AC and AD)

Murai, T., J.W. Andrews and R.G. Smith. 1981. Effects of dietary copper on channel catfish. Aquaculture 22, 353–357. (AC and AD)

Nakayama, K., Y. Oshima, K. Nagafuchi, T. Hano, Y. Shimasaki and T. Honjo. 2005. Early–life-stage toxicity in offspring from exposed parent medaka, Oryzias latipes, to mixtures of tributyltin and polychlorinated biphenyls. Environmental Toxicology and Chemistry. 24 (3): 591–596 (AC and AD)

Pierson, K.B. 1981. Effects of chronic zinc exposure on the growth, sexual maturity, reporduction and bioaccumulation of the guppy, *Poecilia reticulate*. Canad. Jour. Fish. Aquat. Sci. 38:23-31. (AC and AD)

Roesijadi, G. 1980. Influence of copper on the clam *Protochaca staminea*: Effects on gills and occurrence of copper-binding proteins. Biol. Bull. 158: 223-47. (AA and AB)

TABLE 4-2
List of Evaluation Criteria Used to Evaluate the Nature and Extent of Contamination
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Brooklyn, New York

Schimmel, S.C. J.M. Patrick and J. Forester. 1976. Toxicity and bioconcentration of BHC and lindane in selected estuarine animals. Archives of Environmental Contamination and Toxicology, 6 (1): 355-363. (AA, AB, AC, and AD)

Villalobos, S.A., D. Papoulias, J. Meadows, A. L. Blankenship, S. D. Pastva, K. Kannan, D. E. Tillitt and J. P. Giesy. 2000. Toxic Responses of Ploychlorinated Napthalene Mixtures to Medaka (dRr Strain) after Embryonic Exposure by In ovo Microinjection: A Partial Life Cycle Assessment. Environ. Toxicol. Chem. 19:432-440. (AA and AB)

Villalobos, S.A., D.M. Papoulias, S.D. Pastva, A.L. Blankenship, J. Meadows, D.E. Tillitt and J.P. Giesy. 2003. Toxicity of o,p'-DDE to medaka d-rR strain after a one-time embryonic exposure by in ovo nanoinjection: an early through juvenile life cycle assessment. Chemosphere. 53(8): 819-26 (AC and AD)

TABLE 4-3
Summary of Evaluation Criteria Used to Evaluate Nature and Extent of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

Medium	Evaluation Criteria		
	Human Health Risk	**Ecological Risk**	**General**
Sediment - surface in canal	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Sediment – CSOs	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Sediment – subsurface soft	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Sediment – subsurface native	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Surface water in canal - dry and wet events	T (lesser of F or G2, H if no F or G2)	S (lesser of I or K)	
Surface water – CSOs	T (lesser of F or G2, H if no F or G2)	S (lesser of I or K)	
Surface water - pipe outfalls	T (lesser of F or G2, H if no F or G2)	S (lesser of I or K)	
Tissue	M	AC and AD (fish); AA and AB (crab)	
Groundwater			N1, O1,O2
Soil			Q
Air	P		

Evaluation criteria for each letter are defined in Table 4-2.

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Canal - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)								
Acenaphthene	12 / 12 (100%)	12	---	23.8 - 73.0	GC-TI401-BC	39.5	NA	NA
Acenaphthylene	6 / 12 (50.0%)	12	3.64 - 5.37	6.07 - 14.3	GC-TI401-BC	6.09	NA	NA
Anthracene	12 / 12 (100%)	12	---	3.85 - 12.4	GC-TI401-BC	6.44	NA	NA
Benzo(a)anthracene	5 / 12 (41.7%)	12	2.87 - 3.98	4.75 - 15.7	GC-TI402-BC	4.27	NA	NA
Benzo(a)pyrene	11 / 12 (91.7%)	12	4.53 - 4.53	5.45 - 17.5	GC-TI402-BC	7.28	NA	NA
Benzo(b)fluoranthene	9 / 12 (75.0%)	12	2.74 - 3.61	4.82 - 9.61	GC-TI402-BC	4.82	NA	NA
Benzo(g,h,i)perylene	12 / 12 (100%)	12	---	13.6 - 28.2	GC-TI401-BC	18.5	NA	NA
Benzo(k)fluoranthene	8 / 12 (66.7%)	12	2.44 - 3.08	3.65 - 8.76	GC-TI402-BC	3.75	NA	NA
Chrysene	8 / 12 (66.7%)	12	2.91 - 3.89	5.03 - 13.6	GC-TI402-BC	5.05	NA	NA
Dibenz(a,h)anthracene	12 / 12 (100%)	12	---	2.59 - 5.13	GC-TI402-BC	3.56	NA	NA
Fluoranthene	12 / 12 (100%)	12	---	8.44 - 21.9	GC-TI402-BC	14.9	NA	NA
Fluorene	12 / 12 (100%)	12	---	6.43 - 26.8	GC-TI404-BC	14.9	NA	NA
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	12	---	7.46 - 12.3	GC-TI402-BC	9.22	NA	NA
Phenanthrene	12 / 12 (100%)	12	---	12.2 - 44.1	GC-TI401-BC	26.6	NA	NA
Pyrene	12 / 12 (100%)	12	---	9.88 - 28.6	GC-TI401-BC	18.5	NA	NA
Total PAHs	12 / 12 (100%)	12	---	106 - 300	GC-TI401-BC	184	22 (12)	220 (3)
Canal - Blue Crab Whole Body - Pesticides (ug/kg)								
P,P'-DDE	12 / 12 (100%)	12	---	2.05 - 2.79	GC-TI402-BC	2.41	0.18 (12)	1.8 (12)
Total DDTs	4 / 12 (33.3%)	12	0.772 - 1.50	2.08 - 2.79	GC-TI402-BC	1.28	0.18 (4)	1.8 (4)
Canal - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	12 / 12 (100%)	12	---	3.91 - 5.54	GC-TI405-BC	4.76	NA	NA
PCB Nondioxin	12 / 12 (100%)	12	---	115000 - 167000	GC-TI405-BC	135000	NA	NA
Total PCB Congeners	12 / 12 (100%)	12	---	133000 - 194000	GC-TI405-BC	157000	420000 (0)	1100000 (0)
Canal - Blue Crab Whole Body - Metals (mg/kg)								
Arsenic	12 / 12 (100%)	12	---	0.902 - 1.47	GC-TI401-BC	1.21	NA	NA
Calcium	12 / 12 (100%)	12	---	1050 - 1740	GC-TI406-BC	1400	NA	NA
Copper	12 / 12 (100%)	12	---	8.19 - 11.7	GC-TI406-BC	9.65	0.086 (12)	0.86 (12)
Iron	6 / 12 (50.0%)	12	7.96 - 8.21	8.43 - 13.3	GC-TI406-BC	7.43	NA	NA

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Canal - Blue Crab Whole Body - Metals (mg/kg)								
Magnesium	12 / 12 (100%)	12	---	318 - 395	GC-TI406-BC	351	NA	NA
Manganese	12 / 12 (100%)	12	---	2.20 - 3.24	GC-TI405-BC	2.72	NA	NA
Mercury	12 / 12 (100%)	12	---	0.0792 - 0.142	GC-TI402-BC	0.115	0.0095 (12)	0.095 (11)
Potassium	12 / 12 (100%)	12	---	1910 - 2390	GC-TI406-BC	2100	NA	NA
Silver	2 / 12 (16.7%)	12	0.488 - 0.497	0.421 - 0.463	GC-TI401-BC	0.279	0.0019 (2)	0.019 (2)
Sodium	12 / 12 (100%)	12	---	2630 - 3490	GC-TI401-BC, GC-TI402-BC	3070	NA	NA
Zinc	12 / 12 (100%)	12	---	18.9 - 24.0	GC-TI406-BC	20.9	0.13 (12)	1.3 (12)
Cyanide, Total	10 / 12 (83.3%)	12	1.22 - 1.25	0.527 - 0.847	GC-TI401-BC	0.693	NA	NA
Percent Lipids	12 / 12 (100%)	12	---	1.14 - 1.86	GC-TI405-BC	1.56	NA	NA
Reference - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)								
Acenaphthene	2 / 8 (25.0%)	8	1.63 - 1.69	2.64 - 3.79	GC-TI-INNER-BC	1.43	NA	NA
Benzo(a)pyrene	7 / 8 (87.5%)	8	1.65 - 1.65	2.80 - 4.07	GC-TIMIDDLE-BC	3.21	NA	NA
Benzo(b)fluoranthene	6 / 8 (75.0%)	8	1.63 - 1.65	3.03 - 4.18	GC-TI-OUTER-BC	2.80	NA	NA
Benzo(g,h,i)perylene	8 / 8 (100%)	8	---	14.0 - 25.3	GC-TIMIDDLE-BC	18.7	NA	NA
Benzo(k)fluoranthene	4 / 8 (50.0%)	8	1.63 - 1.69	2.78 - 3.41	GC-TI-OUTER-BC	1.93	NA	NA
Dibenz(a,h)anthracene	8 / 8 (100%)	8	---	2.10 - 4.43	GC-TI-OUTER-BC	3.40	NA	NA
Fluoranthene	1 / 8 (12.5%)	8	1.63 - 1.69	3.58 - 3.58	GC-TI-OUTER-BC	1.17	NA	NA
Fluorene	1 / 8 (12.5%)	8	1.63 - 1.69	2.20 - 2.20	GC-TI-INNER-BC	1.00	NA	NA
Indeno(1,2,3-c,d)pyrene	8 / 8 (100%)	8	---	6.77 - 10.8	GC-TIMIDDLE-BC	8.67	NA	NA
Phenanthrene	8 / 8 (100%)	8	---	2.31 - 5.40	GC-TI-OUTER-BC	3.68	NA	NA
Pyrene	8 / 8 (100%)	8	---	2.28 - 5.13	GC-TI-OUTER-BC	2.69	NA	NA
Total PAHs	8 / 8 (100%)	8	---	29.5 - 58.8	GC-TI-OUTER-BC	43.1	22 (8)	220 (0)
Reference - Blue Crab Whole Body - Pesticides (ug/kg)								
P,P'-DDE	1 / 8 (12.5%)	8	1.61 - 1.66	1.73 - 1.73	GC-TI-INNER-BC	0.933	0.18 (1)	1.8 (0)
Total DDTs	1 / 8 (12.5%)	8	---	1.25 - 1.25	GC-TI-INNER-BC	0.156	0.18 (1)	1.8 (0)
Reference - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	8 / 8 (100%)	8	---	0.341 - 4.32	GC-TI-INNER-BC	2.38	NA	NA
PCB Nondioxin	8 / 8 (100%)	8	---	59400 - 106000	GC-TI-INNER-BC	78300	NA	NA

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Reference - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
Total PCB Congeners	8 / 8 (100%)	8	---	67000 - 127000	GC-TI-INNER-BC	90900	420000 (0)	1100000 (0)
Reference - Blue Crab Whole Body - Metals (mg/kg)								
Arsenic	8 / 8 (100%)	8	---	1.08 - 1.82	GC-TI-INNER-BC	1.37	NA	NA
Cadmium	4 / 8 (50.0%)	8	0.243 - 0.25	0.186 - 0.233	GC-TI-OUTER-BC	0.162	NA	NA
Calcium	8 / 8 (100%)	8	---	831 - 1940	GC-TI-INNER-BC	1230	NA	NA
Copper	8 / 8 (100%)	8	---	14.0 - 18.9	GC-TI-OUTER-BC	15.6	0.086 (8)	0.86 (8)
Iron	7 / 8 (87.5%)	8	5.00 - 5.00	5.72 - 10.9	GC-TI-OUTER-BC	6.84	NA	NA
Magnesium	8 / 8 (100%)	8	---	301 - 432	GC-TI-OUTER-BC	349	NA	NA
Manganese	8 / 8 (100%)	8	---	2.54 - 4.44	GC-TI-INNER-BC	3.21	NA	NA
Mercury	8 / 8 (100%)	8	---	0.0849 - 0.316	GC-TI-OUTER-BC	0.168	0.0095 (8)	0.095 (7)
Potassium	8 / 8 (100%)	8	---	2270 - 2840	GC-TI-OUTER-BC	2510	NA	NA
Selenium	8 / 8 (100%)	8	---	1.23 - 1.62	GC-TI-OUTER-BC	1.49	NA	NA
Silver	8 / 8 (100%)	8	---	0.669 - 0.987	GC-TIMIDDLE-BC	0.817	0.0019 (8)	0.019 (8)
Sodium	8 / 8 (100%)	8	---	2310 - 2670	GC-TI-INNER-BC	2520	NA	NA
Zinc	8 / 8 (100%)	8	---	22.4 - 29.5	GC-TI-OUTER-BC	25.4	0.13 (8)	1.3 (8)
Cyanide, Total	6 / 8 (75.0%)	8	1.25 - 1.25	0.538 - 0.78	GC-TI-INNER-BC	0.611	NA	NA
Percent Lipids	8 / 8 (100%)	8	---	1.23 - 2.33	GC-TIMIDDLE-BC	1.49	NA	NA
Canal - Large Fish American Eel Whole Body - Pesticides (ug/kg)								
Alpha-chlordane	3 / 4 (75.0%)	6	0.85 - 0.85	5.19 - 27.0	GC-TI403-XAE	12.9	1 (3)	10 (2)
Dieldrin	2 / 3 (66.7%)	6	1.65 - 1.65	7.49 - 13.7	GC-TI403-XAE	7.34	11 (1)	110 (0)
Gamma-chlordane	2 / 3 (66.7%)	6	0.85 - 0.85	4.91 - 5.14	GC-TI402-XAE	3.49	1 (2)	10 (0)
Methoxychlor	3 / 6 (50.0%)	6	8.50 - 8.50	13.5 - 18.7	GC-TI403-XAE	10.1	60 (0)	1640 (0)
P,P'-DDD	4 / 4 (100%)	6	---	23.1 - 38.0	GC-TI403-XAE	28.2	0.039 (4)	1.8 (4)
P,P'-DDE	1 / 1 (100%)	6	---	13.3 - 13.3	GC-TI406-XAE	13.3	0.039 (1)	1.8 (1)
P,P'-DDT	1 / 2 (50.0%)	6	1.65 - 1.65	40.6 - 40.6	GC-TI403-XAE	20.7	0.039 (1)	1.8 (1)
Canal - Large Fish American Eel Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	6 / 6 (100%)	6	---	4.54 - 10.4	GC-TI406-XAE	8.18	NA	NA
PCB Nondioxin	6 / 6 (100%)	6	---	467000 - 847000	GC-TI406-XAE	734000	NA	NA

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Canal - Large Fish American Eel Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
Total PCB Congeners	6 / 6 (100%)	6	---	505000 - 946000	GC-TI406-XAE	800000	2500 (6)	25000 (6)
Canal - Large Fish American Eel Whole Body - Metals (mg/kg)								
Aluminum	1 / 6 (16.7%)	6	9.70 - 9.75	17.8 - 17.8	GC-TI406-XAE	7.02	NA	NA
Arsenic	1 / 6 (16.7%)	6	0.485 - 0.488	0.491 - 0.491	GC-TI402-XAE	0.285	1.5 (0)	2 (0)
Calcium	6 / 6 (100%)	6	---	453 - 6220	GC-TI402-XAE	2270	NA	NA
Chromium	4 / 6 (66.7%)	6	0.485 - 0.485	0.425 - 0.796	GC-TI406-XAE	0.493	NA	NA
Copper	4 / 6 (66.7%)	6	1.20 - 1.20	1.11 - 7.51	GC-TI402-XAE	2.48	0.002 (4)	0.02 (4)
Iron	6 / 6 (100%)	6	---	15.9 - 99.9	GC-TI406-XAE	34.5	NA	NA
Lead	1 / 6 (16.7%)	6	0.485 - 0.488	0.602 - 0.602	GC-TI406-XAE	0.303	0.028 (1)	0.28 (1)
Magnesium	5 / 6 (83.3%)	6	242 - 242	205 - 307	GC-TI402-XAE	227	NA	NA
Manganese	1 / 6 (16.7%)	6	0.75 - 0.75	1.59 - 1.59	GC-TI406-XAE	0.578	NA	NA
Mercury	6 / 6 (100%)	6	---	0.0647 - 0.28	GC-TI406-XAE	0.138	0.001 (6)	0.01 (6)
Potassium	6 / 6 (100%)	6	---	2000 - 2760	GC-TI403-XAE	2380	NA	NA
Selenium	6 / 6 (100%)	6	---	1.20 - 1.59	GC-TI402-XAE	1.39	0.6 (6)	0.68 (6)
Sodium	6 / 6 (100%)	6	---	702 - 1000	GC-TI402-XAE	867	NA	NA
Zinc	6 / 6 (100%)	6	---	12.3 - 26.3	GC-TI406-XAE	18.7	0.284 (6)	NA
Cyanide, Total	6 / 6 (100%)	6	---	0.253 - 1.76	GC-TI403-XAE	1.08	NA	NA
Percent Lipids	9 / 9 (100%)	9	---	11.0 - 20.4	GC-TI403-XAE	15.4	NA	NA
Reference - Large Fish American Eel Whole Body - Pesticides (ug/kg)								
Alpha-chlordane	1 / 1 (100%)	1	---	3.11 - 3.11	GC-TI327-XAE	3.11	1 (1)	10 (0)
Dieldrin	1 / 1 (100%)	1	---	2.57 - 2.57	GC-TI327-XAE	2.57	11 (0)	110 (0)
P,P'-DDD	1 / 1 (100%)	1	---	9.70 - 9.70	GC-TI327-XAE	9.70	0.039 (1)	1.8 (1)
Reference - Large Fish American Eel Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	1 / 1 (100%)	1	---	6.88 - 6.88	GC-TI327-XAE	6.88	NA	NA
PCB Nondioxin	1 / 1 (100%)	1	---	399000 - 399000	GC-TI327-XAE	399000	NA	NA
Total PCB Congeners	1 / 1 (100%)	1	---	446000 - 446000	GC-TI327-XAE	446000	2500 (1)	25000 (1)
Reference - Large Fish American Eel Whole Body - Metals (mg/kg)								
Calcium	1 / 1 (100%)	1	---	2060 - 2060	GC-TI327-XAE	2060	NA	NA

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Reference - Large Fish American Eel Whole Body - Metals (mg/kg)								
Iron	1 / 1 (100%)	1	---	16.6 - 16.6	GC-TI327-XAE	16.6	NA	NA
Magnesium	1 / 1 (100%)	1	---	222 - 222	GC-TI327-XAE	222	NA	NA
Mercury	1 / 1 (100%)	1	---	0.131 - 0.131	GC-TI327-XAE	0.131	0.001 (1)	0.01 (1)
Potassium	1 / 1 (100%)	1	---	2050 - 2050	GC-TI327-XAE	2050	NA	NA
Sodium	1 / 1 (100%)	1	---	767 - 767	GC-TI327-XAE	767	NA	NA
Zinc	1 / 1 (100%)	1	---	19.3 - 19.3	GC-TI327-XAE	19.3	0.284 (1)	NA
Percent Lipids	2 / 2 (100%)	2	---	20.3 - 20.3	GC-TI327-XAE	20.3	NA	NA
Canal - Large Fish Striped Bass Whole Body - Pesticides (ug/kg)								
Alpha-chlordane	3 / 4 (75.0%)	5	0.85 - 0.85	2.39 - 7.57	GC-TI401-SB	3.67	1 (3)	10 (0)
Gamma-chlordane	1 / 5 (20.0%)	5	0.85 - 0.85	5.63 - 5.63	GC-TI403-SB	1.47	1 (1)	10 (0)
P,P'-DDD	4 / 4 (100%)	5	---	7.35 - 25.7	GC-TI401-SB	16.2	0.039 (4)	1.8 (4)
P,P'-DDE	2 / 2 (100%)	5	---	2.96 - 19.1	GC-TI403-SB	11.0	0.039 (2)	1.8 (2)
P,P'-DDT	2 / 5 (40.0%)	5	1.65 - 1.65	11.4 - 13.0	GC-TI403-SB	5.38	0.039 (2)	1.8 (2)
Total DDTs	1 / 1 (100%)	5	---	29.3 - 29.3	GC-TI406-SB	29.3	0.039 (1)	1.8 (1)
Canal - Large Fish Striped Bass Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	5 / 5 (100%)	5	---	5.85 - 11.1	GC-TI406-SB	8.94	NA	NA
PCB Nondioxin	5 / 5 (100%)	5	---	560000 - 1160000	GC-TI406-SB	860000	NA	NA
Total PCB Congeners	5 / 5 (100%)	5	---	604000 - 1230000	GC-TI406-SB	916000	2500 (5)	25000 (5)
Canal - Large Fish Striped Bass Whole Body - Metals (mg/kg)								
Arsenic	4 / 5 (80.0%)	5	0.487 - 0.487	0.447 - 0.569	GC-TI406-SB	0.475	1.5 (0)	2 (0)
Calcium	5 / 5 (100%)	5	---	4650 - 8800	GC-TI401-SB	6010	NA	NA
Chromium	2 / 5 (40.0%)	5	0.485 - 0.49	0.435 - 0.46	GC-TI401-SB	0.325	NA	NA
Copper	4 / 5 (80.0%)	5	1.20 - 1.20	0.922 - 1.28	GC-TI401-SB	1.02	0.002 (4)	0.02 (4)
Iron	5 / 5 (100%)	5	---	15.9 - 28.9	GC-TI403-SB	21.7	NA	NA
Magnesium	5 / 5 (100%)	5	---	339 - 417	GC-TI401-SB	367	NA	NA
Manganese	3 / 5 (60.0%)	5	0.75 - 0.75	1.45 - 1.62	GC-TI401-SB	1.07	NA	NA
Mercury	4 / 5 (80.0%)	5	0.246 - 0.246	0.13 - 0.185	GC-TI406-SB	0.146	0.001 (4)	0.01 (4)
Potassium	5 / 5 (100%)	5	---	2460 - 3460	GC-TI406-SB	3040	NA	NA

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Canal - Large Fish Striped Bass Whole Body - Metals (mg/kg)								
Selenium	5 / 5 (100%)	5	---	1.33 - 1.60	GC-TI406-SB	1.47	0.6 (5)	0.68 (5)
Sodium	5 / 5 (100%)	5	---	1020 - 1450	GC-TI406-SB	1240	NA	NA
Zinc	5 / 5 (100%)	5	---	9.51 - 16.7	GC-TI403-SB	12.5	0.284 (5)	NA
Cyanide, Total	3 / 5 (60.0%)	5	1.20 - 1.21	0.631 - 2.06	GC-TI401-SB	0.95	NA	NA
Percent Lipids	10 / 10 (100%)	10	---	1.58 - 8.29	GC-TI401-SB	4.51	NA	NA
Reference - Large Fish Weakfish Whole Body - Pesticides (ug/kg)								
P,P'-DDE	1 / 1 (100%)	1	---	7.32 - 7.32	GC-TI332-XW	7.32	0.039 (1)	1.8 (1)
Reference - Large Fish Weakfish Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	1 / 1 (100%)	1	---	0.743 - 0.743	GC-TI332-XW	0.743	NA	NA
PCB Nondioxin	1 / 1 (100%)	1	---	279000 - 279000	GC-TI332-XW	279000	NA	NA
Total PCB Congeners	1 / 1 (100%)	1	---	303000 - 303000	GC-TI332-XW	303000	2500 (1)	25000 (1)
Reference - Large Fish Weakfish Whole Body - Metals (mg/kg)								
Calcium	1 / 1 (100%)	1	---	5480 - 5480	GC-TI332-XW	5480	NA	NA
Copper	1 / 1 (100%)	1	---	1.01 - 1.01	GC-TI332-XW	1.01	0.002 (1)	0.02 (1)
Iron	1 / 1 (100%)	1	---	16.5 - 16.5	GC-TI332-XW	16.5	NA	NA
Magnesium	1 / 1 (100%)	1	---	370 - 370	GC-TI332-XW	370	NA	NA
Manganese	1 / 1 (100%)	1	---	2.69 - 2.69	GC-TI332-XW	2.69	NA	NA
Mercury	1 / 1 (100%)	1	---	0.156 - 0.156	GC-TI332-XW	0.156	0.001 (1)	0.01 (1)
Potassium	1 / 1 (100%)	1	---	2960 - 2960	GC-TI332-XW	2960	NA	NA
Sodium	1 / 1 (100%)	1	---	1280 - 1280	GC-TI332-XW	1280	NA	NA
Zinc	1 / 1 (100%)	1	---	15.5 - 15.5	GC-TI332-XW	15.5	0.284 (1)	NA
Percent Lipids	2 / 2 (100%)	2	---	2.10 - 2.10	GC-TI332-XW	2.10	NA	NA
Canal - Large Fish White Perch Whole Body - Pesticides (ug/kg)								
Alpha-chlordane	2 / 2 (100%)	2	---	8.46 - 9.02	GC-TI401-WP	8.74	1 (2)	10 (0)
Gamma-chlordane	1 / 1 (100%)	2	---	7.78 - 7.78	GC-TI401-WP	7.78	1 (1)	10 (0)
Methoxychlor	1 / 2 (50.0%)	2	8.50 - 8.50	26.5 - 26.5	GC-TI401-WP	15.4	60 (0)	1640 (0)
P,P'-DDT	1 / 1 (100%)	2	---	14.9 - 14.9	GC-TI401-WP	14.9	0.039 (1)	1.8 (1)

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Canal - Large Fish White Perch Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	2 / 2 (100%)	2	---	11.8 - 14.6	GC-TI401-WP	13.2	NA	NA
PCB Nondioxin	2 / 2 (100%)	2	---	836000 - 1050000	GC-TI401-WP	943000	NA	NA
Total PCB Congeners	2 / 2 (100%)	2	---	901000 - 1110000	GC-TI401-WP	1010000	2500 (2)	25000 (2)
Canal - Large Fish White Perch Whole Body - Metals (mg/kg)								
Calcium	2 / 2 (100%)	2	---	5800 - 9940	GC-TI401-WP	7870	NA	NA
Copper	2 / 2 (100%)	2	---	6.36 - 18.2	GC-TI401-WP	12.3	0.002 (2)	0.02 (2)
Iron	2 / 2 (100%)	2	---	13.5 - 14.3	GC-TI401-WP	13.9	NA	NA
Magnesium	2 / 2 (100%)	2	---	266 - 371	GC-TI401-WP	319	NA	NA
Manganese	2 / 2 (100%)	2	---	0.933 - 4.31	GC-TI401-WP	2.62	NA	NA
Mercury	2 / 2 (100%)	2	---	0.146 - 0.153	GC-TI401-WP	0.15	0.001 (2)	0.01 (2)
Potassium	2 / 2 (100%)	2	---	1830 - 2000	GC-TI401-WP	1920	NA	NA
Selenium	2 / 2 (100%)	2	---	1.36 - 1.47	GC-TI401-WP	1.42	0.6 (2)	0.68 (2)
Silver	1 / 2 (50.0%)	2	0.492 - 0.492	0.415 - 0.415	GC-TI401-WP	0.331	0.024 (1)	0.24 (1)
Sodium	2 / 2 (100%)	2	---	805 - 1090	GC-TI401-WP	948	NA	NA
Zinc	2 / 2 (100%)	2	---	12.0 - 16.8	GC-TI401-WP	14.4	0.284 (2)	NA
Cyanide, Total	2 / 2 (100%)	2	---	0.455 - 0.951	GC-TI401-WP	0.703	NA	NA
Percent Lipids	4 / 4 (100%)	4	---	3.42 - 4.15	GC-TI401-WP	3.79	NA	NA
Reference - Large Fish Scup Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	3 / 3 (100%)	3	---	1.78 - 1.97	GC-TI332-XSCUP	1.86	NA	NA
PCB Nondioxin	3 / 3 (100%)	3	---	93100 - 103000	GC-TI332-XSCUP	96800	NA	NA
Total PCB Congeners	3 / 3 (100%)	3	---	101000 - 111000	GC-TI332-XSCUP	105000	2500 (3)	25000 (3)
Reference - Large Fish Scup Whole Body - Metals (mg/kg)								
Arsenic	3 / 3 (100%)	3	---	0.537 - 0.619	GC-TI332-XSCUP	0.587	1.5 (0)	2 (0)
Calcium	3 / 3 (100%)	3	---	7190 - 13900	GC-TI332-XSCUP	10500	NA	NA
Chromium	2 / 3 (66.7%)	3	0.49 - 0.49	0.393 - 0.471	GC-TI332-XSCUP	0.37	NA	NA
Copper	1 / 3 (33.3%)	3	1.23 - 1.25	1.00 - 1.00	GC-TI332-XSCUP	0.747	0.002 (1)	0.02 (1)
Iron	3 / 3 (100%)	3	---	27.0 - 34.5	GC-TI332-XSCUP	30.4	NA	NA
Lead	1 / 3 (33.3%)	3	0.49 - 0.492	0.656 - 0.656	GC-TI332-XSCUP	0.382	0.028 (1)	0.28 (1)

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Reference - Large Fish Scup Whole Body - Metals (mg/kg)								
Magnesium	3 / 3 (100%)	3	---	319 - 416	GC-TI332-XSCUP	376	NA	NA
Manganese	3 / 3 (100%)	3	---	2.34 - 4.23	GC-TI332-XSCUP	3.25	NA	NA
Mercury	3 / 3 (100%)	3	---	0.0746 - 0.122	GC-TI332-XSCUP	0.0935	0.001 (3)	0.01 (3)
Potassium	3 / 3 (100%)	3	---	2500 - 2640	GC-TI332-XSCUP	2580	NA	NA
Selenium	3 / 3 (100%)	3	---	1.34 - 1.64	GC-TI332-XSCUP	1.45	0.6 (3)	0.68 (3)
Sodium	3 / 3 (100%)	3	---	896 - 1100	GC-TI332-XSCUP	990	NA	NA
Zinc	3 / 3 (100%)	3	---	7.99 - 11.5	GC-TI332-XSCUP	9.72	0.284 (3)	NA
Cyanide, Total	2 / 3 (66.7%)	3	1.25 - 1.25	3.36 - 4.42	GC-TI332-XSCUP	2.80	NA	NA
Percent Lipids	6 / 6 (100%)	6	---	1.76 - 2.62	GC-TI332-XSCUP	2.12	NA	NA
Canal - Small Prey Fish - Pesticides (ug/kg)								
Alpha-chlordane	4 / 8 (50.0%)	8	1.70 - 1.70	1.80 - 4.20	GC-TI405-MCG	2.00	1 (4)	10 (0)
Endrin	1 / 8 (12.5%)	8	3.30 - 3.30	2.70 - 2.70	GC-TI401-XATC	1.78	1.15 (1)	11.5 (0)
Gamma-chlordane	1 / 7 (14.3%)	8	1.70 - 1.70	5.40 - 5.40	GC-TI405-MCG	1.50	1 (1)	10 (0)
P,P'-DDE	1 / 8 (12.5%)	8	3.30 - 3.30	3.50 - 3.50	GC-TI405-MCG	1.88	0.039 (1)	1.8 (1)
P,P'-DDT	1 / 8 (12.5%)	8	3.30 - 3.30	8.50 - 8.50	GC-TI401-XATC	2.51	0.039 (1)	1.8 (1)
Canal - Small Prey Fish - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	8 / 8 (100%)	8	---	1.15 - 8.57	GC-TI404-MCG	3.63	NA	NA
PCB Nondioxin	8 / 8 (100%)	8	---	110000 - 606000	GC-TI404-MCG	255000	NA	NA
Total PCB Congeners	8 / 8 (100%)	8	---	117000 - 650000	GC-TI404-MCG	273000	2500 (8)	25000 (8)
Canal - Small Prey Fish - Metals (mg/kg)								
Aluminum	1 / 8 (12.5%)	8	19.4 - 20.0	30.3 - 30.3	GC-TI405-XATC	12.4	NA	NA
Calcium	8 / 8 (100%)	8	---	2910 - 11600	GC-TI404-MCG	7110	NA	NA
Chromium	2 / 8 (25.0%)	8	0.97 - 1.00	0.33 - 0.40	GC-TI405-XATC	0.459	NA	NA
Copper	6 / 8 (75.0%)	8	2.40 - 2.50	0.84 - 4.50	GC-TI403-MCG	2.20	0.002 (6)	0.02 (6)
Iron	8 / 8 (100%)	8	---	16.2 - 77.6	GC-TI405-XATC	31.4	NA	NA
Lead	1 / 8 (12.5%)	8	0.97 - 1.00	0.69 - 0.69	GC-TI405-XATC	0.515	0.028 (1)	0.28 (1)
Magnesium	8 / 8 (100%)	8	---	187 - 517	GC-TI404-MCG	361	NA	NA
Manganese	8 / 8 (100%)	8	---	0.92 - 4.30	GC-TI404-MCG	2.30	NA	NA

TABLE 4-21a
Tissue Canal - Statisical Summary Compared to Ecological Screening Levels - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value NOEC (# of Exceedances)	Screening Value LOEC (# of Exceedances)
Canal - Small Prey Fish - Metals (mg/kg)								
Mercury	8 / 8 (100%)	8	---	0.072 - 0.10	GC-TI401-XATC, GC-TI403-MCG	0.0866	0.001 (8)	0.01 (8)
Potassium	8 / 8 (100%)	8	---	1290 - 2730	GC-TI404-MCG	2220	NA	NA
Selenium	3 / 8 (37.5%)	8	3.40 - 3.50	1.20 - 1.30	GC-TI403-MCG, GC-TI405-MCG	1.54	0.6 (3)	0.68 (3)
Sodium	8 / 8 (100%)	8	---	588 - 1910	GC-TI401-XATC	1360	NA	NA
Zinc	8 / 8 (100%)	8	---	7.20 - 42.3	GC-TI403-MCG	21.9	0.284 (8)	NA
Cyanide, Total	3 / 8 (37.5%)	8	2.40 - 2.50	0.24 - 0.44	GC-TI406-XATC	0.909	NA	NA
Percent Lipids	8 / 8 (100%)	8	---	0.94 - 2.52	GC-TI401-XATC	1.62	NA	NA
Reference - Small Prey Fish - Pesticides (ug/kg)								
P,P'-DDD	1 / 2 (50.0%)	2	3.30 - 3.30	13.0 - 13.0	GC-TI332-XHK	7.33	0.039 (1)	1.8 (1)
Reference - Small Prey Fish - Polychlorinated Biphenyl Congeners (ng/kg)								
PCB Dioxin	2 / 2 (100%)	2	---	2.56 - 4.79	GC-TI332-XHK	3.68	NA	NA
PCB Nondioxin	2 / 2 (100%)	2	---	137000 - 181000	GC-TI332-XHK	159000	NA	NA
Total PCB Congeners	2 / 2 (100%)	2	---	150000 - 205000	GC-TI332-XHK	178000	2500 (2)	25000 (2)
Reference - Small Prey Fish - Metals (mg/kg)								
Arsenic	1 / 2 (50.0%)	2	0.98 - 0.98	1.20 - 1.20	GC-TI332-XHK	0.845	1.5 (0)	2 (0)
Calcium	2 / 2 (100%)	2	---	2170 - 2490	GC-TI-INNER-XATC	2330	NA	NA
Copper	1 / 2 (50.0%)	2	2.50 - 2.50	1.00 - 1.00	GC-TI332-XHK	1.13	0.002 (1)	0.02 (1)
Iron	2 / 2 (100%)	2	---	10.7 - 12.3	GC-TI332-XHK	11.5	NA	NA
Magnesium	2 / 2 (100%)	2	---	180 - 253	GC-TI332-XHK	217	NA	NA
Manganese	2 / 2 (100%)	2	---	0.88 - 1.80	GC-TI332-XHK	1.34	NA	NA
Mercury	2 / 2 (100%)	2	---	0.076 - 0.089	GC-TI-INNER-XATC	0.0825	0.001 (2)	0.01 (2)
Potassium	2 / 2 (100%)	2	---	1300 - 3230	GC-TI332-XHK	2270	NA	NA
Sodium	2 / 2 (100%)	2	---	664 - 1200	GC-TI332-XHK	932	NA	NA
Zinc	2 / 2 (100%)	2	---	4.90 - 8.80	GC-TI-INNER-XATC	6.85	0.284 (2)	NA
Cyanide, Total	1 / 2 (50.0%)	2	2.50 - 2.50	0.87 - 0.87	GC-TI-INNER-XATC	1.06	NA	NA
Percent Lipids	2 / 2 (100%)	2	---	1.14 - 1.40	GC-TI332-XHK	1.27	NA	NA

TABLE 4-21b
Tissue Canal - Statisical Summary Compared to Human Health Regional Screening Level - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value RSL (# of Exceedances)
Canal - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)							
Acenaphthene	12 / 12 (100%)	12	---	23.8 - 73.0	GC-TI401-BC	39.5	8100 (0)
Acenaphthylene	6 / 12 (50.0%)	12	3.64 - 5.37	6.07 - 14.3	GC-TI401-BC	6.09	8100 (0)
Anthracene	12 / 12 (100%)	12	---	3.85 - 12.4	GC-TI401-BC	6.44	41000 (0)
Benzo(a)anthracene	5 / 12 (41.7%)	12	2.87 - 3.98	4.75 - 15.7	GC-TI402-BC	4.27	4.3 (5)
Benzo(a)pyrene	11 / 12 (91.7%)	12	4.53 - 4.53	5.45 - 17.5	GC-TI402-BC	7.28	0.43 (11)
Benzo(b)fluoranthene	9 / 12 (75.0%)	12	2.74 - 3.61	4.82 - 9.61	GC-TI402-BC	4.82	4.3 (9)
Benzo(g,h,i)perylene	12 / 12 (100%)	12	---	13.6 - 28.2	GC-TI401-BC	18.5	4100 (0)
Benzo(k)fluoranthene	8 / 12 (66.7%)	12	2.44 - 3.08	3.65 - 8.76	GC-TI402-BC	3.75	43 (0)
Chrysene	8 / 12 (66.7%)	12	2.91 - 3.89	5.03 - 13.6	GC-TI402-BC	5.05	430 (0)
Dibenz(a,h)anthracene	12 / 12 (100%)	12	---	2.59 - 5.13	GC-TI402-BC	3.56	0.43 (12)
Fluoranthene	12 / 12 (100%)	12	---	8.44 - 21.9	GC-TI402-BC	14.9	5400 (0)
Fluorene	12 / 12 (100%)	12	---	6.43 - 26.8	GC-TI404-BC	14.9	5400 (0)
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	12	---	7.46 - 12.3	GC-TI402-BC	9.22	4.3 (12)
Phenanthrene	12 / 12 (100%)	12	---	12.2 - 44.1	GC-TI401-BC	26.6	41000 (0)
Pyrene	12 / 12 (100%)	12	---	9.88 - 28.6	GC-TI401-BC	18.5	4100 (0)
Total PAHs	12 / 12 (100%)	12	---	106 - 300	GC-TI401-BC	184	NA
Canal - Blue Crab Whole Body - Pesticides (ug/kg)							
P,P'-DDE	12 / 12 (100%)	12	---	2.05 - 2.79	GC-TI402-BC	2.41	9.3 (0)
Total DDTs	4 / 12 (33.3%)	12	0.772 - 1.50	2.08 - 2.79	GC-TI402-BC	1.28	NA
Canal - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	12 / 12 (100%)	12	---	3.91 - 5.54	GC-TI405-BC	4.76	0.020 (12)
PCB Nondioxin	12 / 12 (100%)	12	---	115000 - 167000	GC-TI405-BC	135000	1600 (12)
Total PCB Congeners	12 / 12 (100%)	12	---	133000 - 194000	GC-TI405-BC	157000	1600 (12)
Canal - Blue Crab Whole Body - Metals (mg/kg)							
Arsenic	12 / 12 (100%)	12	---	0.902 - 1.47	GC-TI401-BC	1.21	0.0021 (12)
Calcium	12 / 12 (100%)	12	---	1050 - 1740	GC-TI406-BC	1400	NA
Copper	12 / 12 (100%)	12	---	8.19 - 11.7	GC-TI406-BC	9.65	5.4 (12)
Iron	6 / 12 (50.0%)	12	7.96 - 8.21	8.43 - 13.3	GC-TI406-BC	7.43	95 (0)
Magnesium	12 / 12 (100%)	12	---	318 - 395	GC-TI406-BC	351	NA

TABLE 4-21b
Tissue Canal - Statisical Summary Compared to Human Health Regional Screening Level - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value RSL (# of Exceedances)
Canal - Blue Crab Whole Body - Metals (mg/kg)							
Manganese	12 / 12 (100%)	12	---	2.20 - 3.24	GC-TI405-BC	2.72	19 (0)
Mercury	12 / 12 (100%)	12	---	0.0792 - 0.142	GC-TI402-BC	0.115	0.022 (12)
Potassium	12 / 12 (100%)	12	---	1910 - 2390	GC-TI406-BC	2100	NA
Silver	2 / 12 (16.7%)	12	0.488 - 0.497	0.421 - 0.463	GC-TI401-BC	0.279	0.68 (0)
Sodium	12 / 12 (100%)	12	---	2630 - 3490	GC-TI401-BC, GC-TI402-BC	3070	NA
Zinc	12 / 12 (100%)	12	---	18.9 - 24.0	GC-TI406-BC	20.9	41 (0)
Cyanide, Total	10 / 12 (83.3%)	12	1.22 - 1.25	0.527 - 0.847	GC-TI401-BC	0.693	2.7 (0)
Percent Lipids	12 / 12 (100%)	12	---	1.14 - 1.86	GC-TI405-BC	1.56	NA
Reference - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)							
Acenaphthene	2 / 8 (25.0%)	8	1.63 - 1.69	2.64 - 3.79	GC-TI-INNER-BC	1.43	8100 (0)
Benzo(a)pyrene	7 / 8 (87.5%)	8	1.65 - 1.65	2.80 - 4.07	GC-TIMIDDLE-BC	3.21	0.43 (7)
Benzo(b)fluoranthene	6 / 8 (75.0%)	8	1.63 - 1.65	3.03 - 4.18	GC-TI-OUTER-BC	2.80	4.3 (0)
Benzo(g,h,i)perylene	8 / 8 (100%)	8	---	14.0 - 25.3	GC-TIMIDDLE-BC	18.7	4100 (0)
Benzo(k)fluoranthene	4 / 8 (50.0%)	8	1.63 - 1.69	2.78 - 3.41	GC-TI-OUTER-BC	1.93	43 (0)
Dibenz(a,h)anthracene	8 / 8 (100%)	8	---	2.10 - 4.43	GC-TI-OUTER-BC	3.40	0.43 (8)
Fluoranthene	1 / 8 (12.5%)	8	1.63 - 1.69	3.58 - 3.58	GC-TI-OUTER-BC	1.17	5400 (0)
Fluorene	1 / 8 (12.5%)	8	1.63 - 1.69	2.20 - 2.20	GC-TI-INNER-BC	1.00	5400 (0)
Indeno(1,2,3-c,d)pyrene	8 / 8 (100%)	8	---	6.77 - 10.8	GC-TIMIDDLE-BC	8.67	4.3 (8)
Phenanthrene	8 / 8 (100%)	8	---	2.31 - 5.40	GC-TI-OUTER-BC	3.68	41000 (0)
Pyrene	8 / 8 (100%)	8	---	2.28 - 5.13	GC-TI-OUTER-BC	2.69	4100 (0)
Total PAHs	8 / 8 (100%)	8	---	29.5 - 58.8	GC-TI-OUTER-BC	43.1	NA
Reference - Blue Crab Whole Body - Pesticides (ug/kg)							
P,P'-DDE	1 / 8 (12.5%)	8	1.61 - 1.66	1.73 - 1.73	GC-TI-INNER-BC	0.933	9.3 (0)
Total DDTs	1 / 8 (12.5%)	8	---	1.25 - 1.25	GC-TI-INNER-BC	0.156	NA
Reference - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	8 / 8 (100%)	8	---	0.341 - 4.32	GC-TI-INNER-BC	2.38	0.020 (8)
PCB Nondioxin	8 / 8 (100%)	8	---	59400 - 106000	GC-TI-INNER-BC	78300	1600 (8)
Total PCB Congeners	8 / 8 (100%)	8	---	67000 - 127000	GC-TI-INNER-BC	90900	1600 (8)

TABLE 4-21b
Tissue Canal - Statisical Summary Compared to Human Health Regional Screening Level - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value RSL (# of Exceedances)
Reference - Blue Crab Whole Body - Metals (mg/kg)							
Arsenic	8 / 8 (100%)	8	---	1.08 - 1.82	GC-TI-INNER-BC	1.37	0.0021 (8)
Cadmium	4 / 8 (50.0%)	8	0.243 - 0.25	0.186 - 0.233	GC-TI-OUTER-BC	0.162	0.14 (4)
Calcium	8 / 8 (100%)	8	---	831 - 1940	GC-TI-INNER-BC	1230	NA
Copper	8 / 8 (100%)	8	---	14.0 - 18.9	GC-TI-OUTER-BC	15.6	5.4 (8)
Iron	7 / 8 (87.5%)	8	5.00 - 5.00	5.72 - 10.9	GC-TI-OUTER-BC	6.84	95 (0)
Magnesium	8 / 8 (100%)	8	---	301 - 432	GC-TI-OUTER-BC	349	NA
Manganese	8 / 8 (100%)	8	---	2.54 - 4.44	GC-TI-INNER-BC	3.21	19 (0)
Mercury	8 / 8 (100%)	8	---	0.0849 - 0.316	GC-TI-OUTER-BC	0.168	0.022 (8)
Potassium	8 / 8 (100%)	8	---	2270 - 2840	GC-TI-OUTER-BC	2510	NA
Selenium	8 / 8 (100%)	8	---	1.23 - 1.62	GC-TI-OUTER-BC	1.49	0.68 (8)
Silver	8 / 8 (100%)	8	---	0.669 - 0.987	GC-TIMIDDLE-BC	0.817	0.68 (7)
Sodium	8 / 8 (100%)	8	---	2310 - 2670	GC-TI-INNER-BC	2520	NA
Zinc	8 / 8 (100%)	8	---	22.4 - 29.5	GC-TI-OUTER-BC	25.4	41 (0)
Cyanide, Total	6 / 8 (75.0%)	8	1.25 - 1.25	0.538 - 0.78	GC-TI-INNER-BC	0.611	2.7 (0)
Percent Lipids	8 / 8 (100%)	8	---	1.23 - 2.33	GC-TIMIDDLE-BC	1.49	NA
Canal - Large Fish American Eel Fillet - Pesticides (ug/kg)							
Alpha-chlordane	3 / 4 (75.0%)	6	1.70 - 1.70	10.0 - 22.0	GC-TI402-XAE	13.5	9 (3)
Dieldrin	5 / 6 (83.3%)	6	3.30 - 3.30	5.00 - 17.0	GC-TI402-XAE	7.59	0.2 (5)
Gamma-chlordane	2 / 3 (66.7%)	6	1.70 - 1.70	9.90 - 13.0	GC-TI403-XAE	7.92	9 (2)
Methoxychlor	2 / 6 (33.3%)	6	17.0 - 17.0	34.0 - 39.0	GC-TI403-XAE	17.8	680 (0)
P,P'-DDD	4 / 4 (100%)	6	---	13.0 - 38.0	GC-TI403-XAE	27.3	13 (3)
P,P'-DDE	4 / 5 (80.0%)	6	3.30 - 3.30	16.0 - 25.0	GC-TI403-XAE	16.3	9.3 (4)
P,P'-DDT	2 / 4 (50.0%)	6	3.30 - 3.30	30.0 - 47.0	GC-TI406-XAE	20.1	9.3 (2)
Total DDTs	2 / 2 (100%)	6	---	46.0 - 93.0	GC-TI403-XAE	69.5	NA
Canal - Large Fish American Eel Fillet - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	6 / 6 (100%)	6	---	4.73 - 14.1	GC-TI406-XAE	8.69	0.020 (6)
PCB Nondioxin	6 / 6 (100%)	6	---	480000 - 1220000	GC-TI406-XAE	792000	1600 (6)
Total PCB Congeners	6 / 6 (100%)	6	---	519000 - 1350000	GC-TI406-XAE	862000	1600 (6)

TABLE 4-21b
Tissue Canal - Statisical Summary Compared to Human Health Regional Screening Level - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value RSL (# of Exceedances)
Canal - Large Fish American Eel Fillet - Metals (mg/kg)							
Arsenic	1 / 6 (16.7%)	6	0.97 - 0.98	0.50 - 0.50	GC-TI402-XAE	0.488	0.0021 (1)
Calcium	3 / 6 (50.0%)	6	485 - 485	198 - 295	GC-TI402-XAE	238	NA
Chromium	2 / 6 (33.3%)	6	0.97 - 0.97	0.53 - 0.67	GC-TI402-XAE	0.523	0.0063 (2)
Copper	3 / 6 (50.0%)	6	2.40 - 2.40	0.86 - 7.40	GC-TI402-XAE	2.12	5.4 (1)
Iron	1 / 6 (16.7%)	6	9.70 - 9.80	12.7 - 12.7	GC-TI402-XAE	6.17	95 (0)
Magnesium	4 / 6 (66.7%)	6	485 - 485	169 - 278	GC-TI403-XAE	232	NA
Mercury	6 / 6 (100%)	6	---	0.056 - 0.26	GC-TI406-XAE	0.098	0.022 (6)
Potassium	6 / 6 (100%)	6	---	1960 - 3570	GC-TI403-XAE	2630	NA
Selenium	2 / 6 (33.3%)	6	3.40 - 3.40	1.20 - 1.40	GC-TI403-XAE	1.57	0.68 (2)
Sodium	6 / 6 (100%)	6	---	524 - 944	GC-TI403-XAE	720	NA
Zinc	6 / 6 (100%)	6	---	11.5 - 29.7	GC-TI403-XAE	17.6	41 (0)
Cyanide, Total	6 / 6 (100%)	6	---	0.30 - 3.10	GC-TI403-XAE	1.25	2.7 (1)
Percent Lipids	6 / 6 (100%)	6	---	8.99 - 25.0	GC-TI406-XAE	16.4	NA
Reference - Large Fish American Eel Fillet - Pesticides (ug/kg)							
Dieldrin	1 / 1 (100%)	1	---	4.90 - 4.90	GC-TI327-XAE	4.90	0.2 (1)
P,P'-DDD	1 / 1 (100%)	1	---	14.0 - 14.0	GC-TI327-XAE	14.0	13 (1)
P,P'-DDT	1 / 1 (100%)	1	---	9.20 - 9.20	GC-TI327-XAE	9.20	9.3 (0)
Reference - Large Fish American Eel Fillet - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	1 / 1 (100%)	1	---	7.20 - 7.20	GC-TI327-XAE	7.20	0.020 (1)
PCB Nondioxin	1 / 1 (100%)	1	---	424000 - 424000	GC-TI327-XAE	424000	1600 (1)
Total PCB Congeners	1 / 1 (100%)	1	---	475000 - 475000	GC-TI327-XAE	475000	1600 (1)
Reference - Large Fish American Eel Fillet - Metals (mg/kg)							
Calcium	1 / 1 (100%)	1	---	169 - 169	GC-TI327-XAE	169	NA
Mercury	1 / 1 (100%)	1	---	0.16 - 0.16	GC-TI327-XAE	0.16	0.022 (1)
Potassium	1 / 1 (100%)	1	---	1870 - 1870	GC-TI327-XAE	1870	NA
Sodium	1 / 1 (100%)	1	---	501 - 501	GC-TI327-XAE	501	NA
Zinc	1 / 1 (100%)	1	---	20.5 - 20.5	GC-TI327-XAE	20.5	41 (0)
Percent Lipids	1 / 1 (100%)	1	---	20.9 - 20.9	GC-TI327-XAE	20.9	NA

TABLE 4-21b
Tissue Canal - Statisical Summary Compared to Human Health Regional Screening Level - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value RSL (# of Exceedances)
Canal - Large Fish Striped Bass Fillet - Pesticides (ug/kg)							
Alpha-chlordane	2 / 4 (50.0%)	5	1.70 - 1.70	5.10 - 8.20	GC-TI406-SB	3.75	9 (0)
Gamma-chlordane	1 / 5 (20.0%)	5	1.70 - 1.70	3.50 - 3.50	GC-TI403-SB	1.38	9 (0)
P,P'-DDD	3 / 4 (75.0%)	5	3.30 - 3.30	4.80 - 5.60	GC-TI406-SB	4.39	13 (0)
P,P'-DDE	5 / 5 (100%)	5	---	4.80 - 12.0	GC-TI406-SB	8.46	9.3 (2)
P,P'-DDT	1 / 5 (20.0%)	5	3.30 - 3.30	9.60 - 9.60	GC-TI403-SB	3.24	9.3 (1)
Total DDTs	4 / 4 (100%)	5	---	7.90 - 17.6	GC-TI406-SB	11.8	NA
Canal - Large Fish Striped Bass Fillet - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	5 / 5 (100%)	5	---	2.83 - 4.31	GC-TI406-SB	3.35	0.020 (5)
PCB Nondioxin	5 / 5 (100%)	5	---	244000 - 409000	GC-TI403-SB	331000	1600 (5)
Total PCB Congeners	5 / 5 (100%)	5	---	263000 - 435000	GC-TI403-SB	354000	1600 (5)
Canal - Large Fish Striped Bass Fillet - Metals (mg/kg)							
Arsenic	3 / 5 (60.0%)	5	0.98 - 0.98	0.45 - 0.68	GC-TI403-SB	0.53	0.0021 (3)
Calcium	5 / 5 (100%)	5	---	197 - 541	GC-TI403-SB	323	NA
Magnesium	5 / 5 (100%)	5	---	190 - 343	GC-TI401-SB	291	NA
Mercury	4 / 5 (80.0%)	5	0.48 - 0.48	0.15 - 0.20	GC-TI406-SB	0.194	0.022 (4)
Potassium	5 / 5 (100%)	5	---	2070 - 3970	GC-TI406-SB	3240	NA
Selenium	2 / 5 (40.0%)	5	3.40 - 3.50	1.20 - 1.20	GC-TI403-SB, GC-TI406-SB	1.51	0.68 (2)
Sodium	5 / 5 (100%)	5	---	468 - 1060	GC-TI403-SB	712	NA
Zinc	5 / 5 (100%)	5	---	3.90 - 16.4	GC-TI403-SB	7.58	41 (0)
Cyanide, Total	3 / 5 (60.0%)	5	2.40 - 2.50	0.28 - 0.63	GC-TI401-SB	0.792	2.7 (0)
Percent Lipids	5 / 5 (100%)	5	---	0.74 - 3.11	GC-TI401-SB	1.87	NA
Reference - Large Fish Weakfish Fillet - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	1 / 1 (100%)	1	---	0.259 - 0.259	GC-TI332-XW	0.259	0.020 (1)
PCB Nondioxin	1 / 1 (100%)	1	---	98900 - 98900	GC-TI332-XW	98900	1600 (1)
Total PCB Congeners	1 / 1 (100%)	1	---	107000 - 107000	GC-TI332-XW	107000	1600 (1)
Reference - Large Fish Weakfish Fillet - Metals (mg/kg)							
Calcium	1 / 1 (100%)	1	---	460 - 460	GC-TI332-XW	460	NA
Magnesium	1 / 1 (100%)	1	---	262 - 262	GC-TI332-XW	262	NA

TABLE 4-21b
Tissue Canal - Statisical Summary Compared to Human Health Regional Screening Level - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value RSL (# of Exceedances)
Reference - Large Fish Weakfish Fillet - Metals (mg/kg)							
Mercury	1 / 1 (100%)	1	---	0.19 - 0.19	GC-TI332-XW	0.19	0.022 (1)
Potassium	1 / 1 (100%)	1	---	3310 - 3310	GC-TI332-XW	3310	NA
Sodium	1 / 1 (100%)	1	---	636 - 636	GC-TI332-XW	636	NA
Zinc	1 / 1 (100%)	1	---	4.20 - 4.20	GC-TI332-XW	4.20	41 (0)
Percent Lipids	1 / 1 (100%)	1	---	0.91 - 0.91	GC-TI332-XW	0.91	NA
Canal - Large Fish White Perch Fillet - Pesticides (ug/kg)							
Gamma-chlordane	1 / 2 (50.0%)	2	1.70 - 1.70	5.00 - 5.00	GC-TI401-WP	2.93	9 (0)
P,P'-DDE	2 / 2 (100%)	2	---	6.00 - 7.00	GC-TI401-WP	6.50	9.3 (0)
Canal - Large Fish White Perch Fillet - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	2 / 2 (100%)	2	---	4.46 - 5.08	GC-TI401-WP	4.77	0.020 (2)
PCB Nondioxin	2 / 2 (100%)	2	---	302000 - 437000	GC-TI401-WP	370000	1600 (2)
Total PCB Congeners	2 / 2 (100%)	2	---	324000 - 462000	GC-TI401-WP	393000	1600 (2)
Canal - Large Fish White Perch Fillet - Metals (mg/kg)							
Calcium	2 / 2 (100%)	2	---	318 - 4220	GC-TI401-WP	2270	NA
Copper	2 / 2 (100%)	2	---	0.90 - 1.30	GC-TI401-WP	1.10	5.4 (0)
Magnesium	2 / 2 (100%)	2	---	245 - 362	GC-TI401-WP	304	NA
Manganese	1 / 2 (50.0%)	2	1.50 - 1.50	5.20 - 5.20	GC-TI401-WP	2.98	19 (0)
Mercury	2 / 2 (100%)	2	---	0.16 - 0.19	GC-TI401-WP	0.175	0.022 (2)
Potassium	2 / 2 (100%)	2	---	2550 - 2590	GC-TI401-WP	2570	NA
Selenium	1 / 2 (50.0%)	2	3.40 - 3.40	1.40 - 1.40	GC-TI401-WP	1.55	0.68 (1)
Sodium	2 / 2 (100%)	2	---	628 - 823	GC-TI401-WP	726	NA
Zinc	2 / 2 (100%)	2	---	5.10 - 9.50	GC-TI401-WP	7.30	41 (0)
Cyanide, Total	2 / 2 (100%)	2	---	0.22 - 0.91	GC-TI401-WP	0.565	2.7 (0)
Percent Lipids	2 / 2 (100%)	2	---	1.49 - 2.26	GC-TI401-WP	1.88	NA
Reference - Large Fish Scup Fillet - Polychlorinated Biphenyl Congeners (ng/kg)							
PCB Dioxin	3 / 3 (100%)	3	---	0.639 - 0.839	GC-TI332-XSCUP	0.709	0.020 (3)
PCB Nondioxin	3 / 3 (100%)	3	---	38300 - 42800	GC-TI332-XSCUP	40200	1600 (3)
Total PCB Congeners	3 / 3 (100%)	3	---	41400 - 46200	GC-TI332-XSCUP	43400	1600 (3)

TABLE 4-21b
Tissue Canal - Statisical Summary Compared to Human Health Regional Screening Level - Detected Analytes
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value RSL (# of Exceedances)
Reference - Large Fish Scup Fillet - Metals (mg/kg)							
Arsenic	3 / 3 (100%)	3	---	0.45 - 0.55	GC-TI332-XSCUP	0.487	0.0021 (3)
Calcium	3 / 3 (100%)	3	---	1390 - 1800	GC-TI332-XSCUP	1550	NA
Magnesium	3 / 3 (100%)	3	---	255 - 310	GC-TI332-XSCUP	282	NA
Mercury	2 / 3 (66.7%)	3	0.45 - 0.45	0.074 - 0.097	GC-TI332-XSCUP	0.132	0.022 (2)
Potassium	3 / 3 (100%)	3	---	2660 - 3490	GC-TI332-XSCUP	3040	NA
Selenium	2 / 3 (66.7%)	3	3.40 - 3.40	1.20 - 1.30	GC-TI332-XSCUP	1.40	0.68 (2)
Sodium	3 / 3 (100%)	3	---	633 - 803	GC-TI332-XSCUP	728	NA
Zinc	3 / 3 (100%)	3	---	4.00 - 4.20	GC-TI332-XSCUP	4.07	41 (0)
Cyanide, Total	2 / 3 (66.7%)	3	2.50 - 2.50	3.50 - 10.0	GC-TI332-XSCUP	4.92	2.7 (2)
Percent Lipids	3 / 3 (100%)	3	---	0.78 - 1.03	GC-TI332-XSCUP	0.907	NA

TABLE 2-1

Chronology of Remedial Investigation Activities and Dates Performed

Gowanus Canal Remedial Investigation

Brooklyn, New York

Investigation	Date	Summary of Remedial Investigation Activity
Bathymetric Survey	January 5, 2010	Survey to measure sediment surface elevations within the canal.
Sediment Coring	January 27 - 29, 2010 March 3 - April 15, 2010	USEPA collected sediment cores in the canal.
Surface Sediment Sampling	June 17 - July 1, 2010	USEPA collected surface sediment samples from the canal and from reference locations.
Surface Water - Dry Weather Sampling	June 19, 2010 July 26, 2010	USEPA collected surface water samples in dry weather conditions from the canal, reference locations, and one location from the Buttermilk Channel. One additional surface water sample was collected in July 2010 in an area with a sheen.
Surface Water - Wet Weather Sampling	July 13, 2010	USEPA collected surface water samples in wet weather conditions from the canal, reference locations, and one location from the Buttermilk Channel.
Fish and Shellfish Tissue Sampling	June 21 - July 9, 2010	USEPA collected tissue samples from species of fish and crab in the canal and from reference locations.
Air Sampling (Round 1)	July 7 - 9, 2010	USEPA collected air samples from locations along the canal and at predominately upwind background locations away from the canal. Samples were collected before the start of the canal aeration system.
Air Sampling (Round 2)	July 28 - 29, 2010	Same as above but after the start of the canal aeration system.
Combined Sewer Outfalls - Dry Weather Sampling	June 30 - July 1, 2010	USEPA collected sediment and water samples from manholes upland of CSO outfalls to the canal.
Combined Sewer Outfalls - Wet Weather Sampling 1	July 13, 2010	USEPA collected water samples from manholes upland of CSO outfalls to the canal. Not all outfalls were sampled because rainfall stopped before sampling was completed.
Combined Sewer Outfalls - Wet Weather Sampling 2	September 28, 2010	USEPA collected water samples from manholes upland of CSO outfalls to the canal. Not all outfalls were sampled because rainfall stopped.
Combined Sewer Outfalls - Wet Weather Sampling 3	September 30 - October 1, 2010	USEPA collected water samples from manholes upland of CSO outfalls to the canal. All outfalls were sampled.
Pipe Outfalls - Dry Weather Sampling	September 1 - 7, 2010	USEPA collected samples from actively discharging pipes.
Pipe Outfalls - Tracing and Video survey	October - December 2010	USEPA ERT performed a video survey of identified pipes to determine how far they extend from the canal and collect a variety of other information about the pipes.
Soil Sampling and Monitoring Well Installation	May 17 - June 30, 2010	USEPA ERT, National Grid, and New York City installed monitoring wells and collected soil samples during well installation activities. Each entity also completed a survey of the horizontal and verical information for the respective wells.
Groundwater Sampling	June 24- July 26, 2010	USEPA, National Grid, and New York City collected groundwater samples from the monitoring wells.
Groundwater / Surface Water Interaction	June 24- July 26, 2010	USEPA, National Grid, and New York City collected surface water and groundwater samples to evaluate groundwater surface water interactions.
Synoptic Water Level Survey	July 26 - December 20, 2010	USEPA, National Grid, and New York City collected synoptic water level measurements at monitoring wells and staff gauges along the entire canal to quantify hydraulic gradients and establish groundwater flow directions. Last survey scheduled for December 20, 2010 and those results will be included in final RI.
Tidal Survey	August 2, 2010 August 5, 2010	USEPA performed a survey to evaluate the influence of tidal fluctuations on groundwater levels.
Side Scan Sonar	November 12, 2010	USEPA performed survey to identify debris of potential historical significance at the bottom of the canal.

Notes:

CSO = Combined Sewer Overflow

ERT = Emergency Response Team

USEPA = United States Environmental Protection Agency

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TABLE 2-2

Summary of Phase 1, 2, and 3 Sampling Programs

Gowanus Canal Remedial Investigation

Brooklyn, New York

Type	Sampling Entity	Sampling comments	Number of Samples (1) and Analyses Performed (2)																				
			TAL Metals (including mercury)	Filtered TAL Metals (including mercury)	Cyanide	TCL VOCs	TCL SVOCs	TCL PCBs	TCL Pesticides	PCB Congeners	TOC (Non-Geochemistry Samples)	Sulfide	Grain size	AVS/SEM	TSS	Geochemistry (3)	Air VOCs	Air PCBs	Air PAHs	Bioassay / toxicity	TCLP	RIC	Lipid content
Phase 1																							
Pipe Outfalls	USEPA	Dry weather	10	10	10	12	11	10	10														
Phase 2																							
Sediment Coring	USEPA		509		509	518	518	518	518		494	500	503								22	22	
	USEPA-ERT		100		100	99	100	100	100														
	National Grid	From 2005 investigation (soft sediment only)	144		144	144	144	144	144														
Phase 3																							
Surface Water	USEPA	Dry weather	38	38	38	38	38	38	38						38								
		Wet weather	37	37	37	37	37	37	37						37								
		General Canal Condition Sample	1	1	1	1	1	1	1														
	USEPA	Groundwater surface water interaction sampling														4							
	National Grid	Groundwater surface water interaction sampling														2							
	NYC	Groundwater surface water interaction sampling														3							
Surface Sediment	USEPA		37		37	37	37	37	37	22	37		37	37									
Sediment Toxicity Testing	USEPA																			17			
Fish and Shellfish Tissue	USEPA	Mummichug	5						5	5													4
		Blue crab	20				20		20	20													20
		Striped Bass	5						5	5													5
		White Perch	2						2	2													2
		American Eel	7						7	7													7
		Atlantic Tomcod	6						6	6													4
		Hake	1						1	1													1
		Scup	3						3	3													3
		Weakfish	1						1	1													1
Subsurface Soil	USEPA ERT		233		233	233	233	233	233														
	NYC		67		67	67	67	67	67														
	National Grid		56		56	56	56	56	56														
Groundwater	USEPA		65	65	65	65	65	65	65							16							
	NYC		14		14	14	14	14	14							6							
	National Grid		11	11	11	11	11	11	11							3							
CSO - Sediment	USEPA	Dry weather	7		7	7	7	7	7		7		7										
CSO - Water	USEPA	Dry weather event	10	10	10	10	10	10	10						10	2							
		Wet weather event 1	6	6	6	5	6	5	5						6								
		Wet weather event 2	3	3	3	3	3	3	3						3	1							
		Wet weather event 3	10	10	10	10	10	10	10						9	1							
Air	USEPA	Dry weather before start of aeration															23	1	23				
		Dry weather after start of aeration															20		20				
Oversight - split samples	USEPA	Soil	26		26	27	27	26	26														
		Groundwater	22	22	22	23	22	22	22														

(1) Numbers do not include QA/QC samples.

(2) Analyses of samples collected by USEPA were performed and validated through the CLP (contract laboratory program) for TCL (target compound list), TAL (target analyte list), cyanide, PCB congeners, and lipids. Remaining analyses were through a subcontracted laboratory and validated by a contractor outside of the CLP. Analyses of samples collected by other entities were analyzed through subcontracted laboratories and independently validated.

(3) Geochemistry parameters include: alkalinity, ammonia, calcium, chlorides, iron – total, iron – dissolved, magnesium, manganese – total, manganese – dissolved, aluminum, nitrates, total Kjeldahl Nitrogen (TKN), organic carbon – total, organic carbon - dissolved, potassium, phosphate, total hardness, silica, sodium, sulfates, total dissolved solids (TDS), total suspended solids (TSS), and field test for ferrous (+II) iron.

TOC - Total Organic Carbon

AVS/SEM - acid volatile sulfide/simultaneously extracted metals

VOCs - volatile organic compounds

SVOCs - semi-volatile organic compounds

CSO - combined sewer overflow

NYC - New York City

USEPA - United States Environmental Protection Agency

ERT - Emergency Response Team

PCB - polychlorinated biphenyl

PAH - polycyclic aromatic hydrocarbons

TCLP - toxicity characteristic leaching procedure

RIC - reactivity, ignitibility, and corrosivity

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TABLE 2-3

Rationale for Selection of Sediment Coring Locations

Gowanus Canal Remedial Investigation

Brooklyn, New York

Location ID	Description	Rationale
Individual Locations		
ERT 4-3	East side of canal, south of Union Street bridge	National Grid Location SED-15A; sampled in January 2010 because location may not have been accessible once NYCDEP started Flushing Tunnel repair activities.
107	CSO (RH-034)	Head of canal; thick sediment mound from CSO discharges
108	Fulton former MGP site	Potential source
109	CSO (RH-036)	CSO; spatial coverage
110	National Grid location SED-24B	Potential source; NAPL observed at sediment surface by National Grid at location SED-24B
111	4th Street turning basin; National Grid location SED-86A	Verify previous results for National Grid SED-86A
112	CSO (OH-007)	CSO
113	CSO (RH-035)	CSO; upstream of CG/PP former MGP site
114	CG/PP former MGP site	NAPL adjacent to CG/PP former MGP site
115	CG/PP former MGP site	NAPL adjacent to CG/PP former MGP site
116	6th St. turning basin	Potential source
117	7th St. turning basin; National Grid location SED-92A	Verify National Grid SED-92A; potential source
118	Potential active source; storm water outfalls RH-601 and OH-607; former National Grid location GC-SED-58C	NAPL observed at sediment surface by National Grid at SED-58 and SED-59
119	11th St. turning basin, Metropolitan former MGP site	Potential source
120	Metropolitan former MGP site	Potential source
121	Metropolitan former MGP site	Potential source
122	Asphalt plant; National Grid location GC-SED-71C	Potential source
123	Gowanus Creek Channel	Spatial coverage of Gowanus Creek Channel
145	Center of channel, south of Carrol Street bridge	Potential source
149	Mouth of 11th Street turning basin	Potential source; added in field because core at location 119 did not penetrate into native sediment due to thick layer of accumulated sediment
150	West side of canal, near end of Halleck Street	Potential source
151	Near entrance to New York City incinerator facility	Potential source
152	East side of canal at end of DeGraw Street	CSO in upper reach of canal
153	Center of channel, north of Carrol Street bridge	Potential source
Transects		
ERT 1-1	Transect at head of canal	CSO near head of canal; sampled in January 2010 since location may not have been accessible once NYCDEP started Flushing Tunnel repair activities.
ERT 1-2		
ERT 1-3		
ERT 2-1	Between National Grid transects A and B	
ERT 2-2		
ERT 2-3		
ERT 3-1	Between National Grid transects C and D	
ERT 3-2		
ERT 3-3		
124	Between National Grid transects A and B	CSO near head of canal
125		
126		
127	North of 3rd St. bridge	Potential source
128		
129		
130	Under train bridge crossing (9th St.)	Potential source
131		
132		
133	Under Hamilton Ave./Gowanus Expressway	Potential source
134		
135		
136	Between National Grid transects X and Y	Channel deepens south of this point
137		
138		
139	South end Gowanus Creek Channel	Transect away from CSO
140		
141		
142	Hess oil tank	South end of study area
143		
144		
146	South of former 1st Street turning basin	Potential source
147		
148		

Notes:

CSO = combined sewer overflow

NAPL = non-aqueous phase liquid

NYCDEP = New York City Department of Environmental Protection

CG/PP = Carroll Gardens/Public Place

MGP = manufactured gas plant

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TABLE 2-4
Rationale for Selection of Surface Water and Sediment Sampling Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Description	Rationale
301 *	CSO (RH-034)	Active source, shallow water and / or exposed sediment during low tide, potential human health exposure point; note that area targeted for dredging by NYCDEP for CSO abatement
302 *	CSO (RH-038)	Active source, shallow water and / or exposed sediment during low tide, potential human health exposure point
303 *#	Fulton former MGP site	Active source, shallow water and / or exposed sediment during low tide, potential human health exposure point; high surface sediment PAH concentrations for evaluation in BERA
304	CSO (RH-037)	Active source
305 *	Union St. bridge	Potential human health exposure considered at bridge crossings
306	CSO (RH-036)	Active source, spatial coverage
307A *# 307B *#	CSO (OH-005) and Carroll St. bridge	Active source, potential human health exposure considered at bridge crossings
308A * 308B *	Canoe launch	Shallow water and / or exposed sediment during low tide, potential human health exposure point
309 *#	3rd St. bridge	Shallow water and / or exposed sediment during low tide, potential human health exposure point
310 *#	4th Street turning basin	Shallow water and / or exposed sediment during low tide, potential human health exposure point
311	CSO (OH-007)	Active source
312	CSO (RH-035)	Active source Upstream of CG/PP former MGP site
313 #	CG/PP former MGP site	Potential active source
314 *#	6th St. turning basin	Shallow water and / or exposed sediment during low tide, potential human health exposure point
315 #	CG/PP former MGP site	Potential active source
316 *	7th St. turning basin	Shallow water and / or exposed sediment during low tide, potential human health exposure point
317	Storm sewer outfalls (RH-601 and OH-607)[1]	Active source
318 *#	11th St. Basin, Metro. former MGP site	Metropolitan former MGP site Shallow water and / or exposed sediment during low tide, potential human health exposure point
319 *#	Metro. former MGP site	Metropolitan former MGP site Shallow water and / or exposed sediment during low tide, potential human health exposure point High surface sediment PAH concentrations for evaluation in BERA
320	CSO (RH-031) and Hamilton Avenue crossing	Active source
321 #	New York City incinerator location	Potential active source
322	Gowanus Creek Channel	Spatial coverage of Gowanus Creek Channel

TABLE 2-4
Rationale for Selection of Surface Water and Sediment Sampling Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

Location	Description	Rationale
323	CSO (OH-006)	Active source
324 #	Former Navy facility	Spatial coverage of Gowanus Creek Channel
325	Former Navy facility	Spatial coverage of Gowanus Creek Channel
326 #	Reference location	Ten locations in Gowanus Bay and Upper New York Bay were selected as reference sampling locations. These locations were positioned on an approximate grid with increased spacing with increasing distance from the mouth of the canal to characterize gradients in contaminant concentrations and biological effects, if present. Only surface water was collected from location 336, which near the Flushing Tunnel intake in the Buttermilk Channel.
327	Reference location	
328 #	Reference location	
329 #	Reference location	
330 #	Reference location	
331	Reference location	
332	Reference location	
333 #	Reference location	
334	Reference location	
335	Reference location	
336	Reference location – Surface water only	

* Denotes sample that will be used to support the human health risk assessment.
\# Denotes sample collected for toxicity testing.
_ Denotes sample collected for PCB congener analysis.
T – NYC has previously identified RH-601 as RH-032 and OH-607 as OH-008.
BERA – baseline ecological risk assessment
CG/PP – Carroll Gardens/Public Place former MGP site
CSO – combined sewer overflow
MGP – manufactured gas plant
NYCDEP – New York City Department of Environmental Protection
PAH- polycyclic aromatic hydrocarbon

TABLE 2-5

Tissue Sample Groupings for Chemical Analysis

Gowanus Canal Remedial Investigation

Brooklyn, New York

	Canal								Reference				
	Number of Samples Per Area[1]						Additional Samples (Multiple Area Groupings)	Total Canal Samples	Number of Samples Per Area[1]			Additional Samples (Multiple Area Groupings)	Total Reference Samples
	401	402	403	404	405	406			Reference (Inner)	Reference (Middle)	Reference (Outer)		
Small Prey Fish (Whole Body)													
Atlantic Tomcod[2]	1	0	1	0	1	1	0	4	1	0	0	0	1
Hake	0	0	0	0	0	0	0	0	0	0	1	0	1
Mummichog[3]	0	1	1	1	1	0	0	4	0	0	0	0	0
Crab													
Edible Tissue													
Blue Crab	2	2	2	2	2	2	0	12	2	3	3	0	8
Hepatopancreas													
Blue Crab	0	0	0	0	0	0	2	2	0	0	0	1	1
Larger Fish Species (Fillet and Carcass)													
Fillet													
American Eel	0	2	3	0	0	1	0	6	1	0	0	0	1
Scup	0	0	0	0	0	0	0	0	0	0	3	0	3
Striped Bass	2	0	1	0	0	2	0	5	0	0	0	0	0
Weakfish	0	0	0	0	0	0	0	0	0	0	1	0	1
White Perch	2	0	0	0	0	0	0	2	0	0	0	0	0
Carcass													
American Eel	0	2	3	0	0	1	0	6	1	0	0	0	1
Scup	0	0	0	0	0	0	0	0	0	0	3	0	3
Striped Bass	2	0	1	0	0	2	0	5	0	0	0	0	0
Weakfish	0	0	0	0	0	0	0	0	0	0	1	0	1
White Perch	2	0	0	0	0	0	0	2	0	0	0	0	0

1) Matrix spike / matrix spike duplicate samples included at a frequency of 5 percent.

2) Percent moisture and lipids were not analyzed on sample from reach 401 and reference (inner) due to limited Atlantic tomcod tissue mass collected from these sample reaches. Reduced weight tissue analysis was additionally conducted on the sample collected from the reference (inner) sample reach.

3) Percent moisture and lipids were not analyzed on sample from reach 402 due to limited mummichog tissue mass collected from this sample reach.

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TABLE 2-6
Locations of Combined Sewer Overflow Regulators
Gowanus Canal Remedial Investigation
Brooklyn, New York

CSO	Description
RH-031	Bond-Lorraine Sewer relief at Lorraine and Smith Streets
RH-034	Gowanus Pump Station
RH-033	Regulator R-25 at Nevins and Douglass Streets
RH-035	Bond-Lorraine Sewer relief at Bond and 4th Streets
RH-037	Regulator R-23 at Nevins and Sackett Streets
RH-036	Regulator R-22 at Nevins and President Streets
RH-038	Regulator R-24 at Nevins and Degraw Streets
OH-005	3rd Avenue sewer relief at 3rd Ave. and Carroll St.
OH-006	3rd Avenue sewer relief at 3rd Ave. and 19th St.
OH-007	2nd Avenue Pump Station at 3rd Ave. and 7th St.

Note:

CSOs designated with RH are part of the Red Hook Water Pollution Control Plant (WPCP) service area and CSOs designated as OH are part of the Owl's Head WPCP service area.

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TABLE 2-7
Locations of Selected Monitoring Locations at Combined Sewer Overflows
Gowanus Canal Remedial Investigation
Brooklyn, New York

CSO	Monitoring Location Description
RH-031	Manhole located in the traffic intersection of Lorraine St., Smith St., and Hamilton Blvd.
RH-034	Gowanus Pump Station influent screening chamber
RH-033	Manhole located approximately 75 ft southeast of the Nevins St. and Douglass St. intersection
RH-035	Manhole located approximately 25 ft northeast of the intersection of 4th St. and Bond St.
RH-037	Manhole located within the intersection of Nevins St. and Sackett St.
RH-036	Manhole located within the sidewalk southwest of the Nevins St. and President St. intersection
RH-038	Manhole located approximately 40 ft east of the Nevins St. and Degraw St. intersection
OH-005	Manhole located approximately 160 ft east of the intersection of 3rd Ave. and Carrroll St.
OH-006	Manhole located approximately 220 ft north of the 3rd Ave. and 19th St. intersection
OH-007	Dry weather sampling event: wet well located within the 2nd Avenue pump station Wet weather events: manhole located approximately 35 ft northeast of the 2nd Ave. and 5th St. intersection

Notes:

CSOs designated with RH are part of the Red Hook Water Pollution Control Plant (WPCP) service area and CSOs designated as OH are part of the Owls Head WPCP service area. Water and sediment samples were collected from the wet well located within the 2nd Avenue pump station during the dry weather sampling event due to a lack of water in the upstream manhole. Samples collected during the wet weather sampling events were collected from the upstream manhole located on 2nd Avenue.

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TABLE 2-8

Groundwater Monitoring Well & Staff Gauge Summary

Gowanus Canal Remedial Investigation

Brooklyn, NY

Monitoring Well Location ID	Installed by	Easting	Northing	Ground Surface or Staff Gauge Elevation (ft NAVD88)	Elevation of Well Protective Casing Cover (ft NAVD88)	Elevation of Well Riser Pipe (ft NAVD88)	Finished Well Elevation (ft NAVD88)	Finished Well Depth (ft bgs)	Elevation of Top of Screen (ft NAVD88)	Elevation of Bottom of Screen (ft NAVD88)	Depth of Top of Screen (ft bgs)	Depth of Bottom of Screen (ft bgs)	Screen Length (ft)	Screen Diameter (inches)	Screen Material	Screen Slot Size (inches)
Monitoring Well Construction Details																
MW-1S	NYC	634481.92	673670.09	9.57	9.57	8.89	-7.43	17.0	2.57	-7.43	7.00	17.00	10	2	PVC	0.1
MW-1I	NYC	634484.71	673668.50	9.59	9.59	9.42	-30.21	39.8	-25.21	-30.21	34.80	39.80	5	2	PVC	0.1
MW-2S	NYC	634299.81	673623.69	5.49	5.49	5.02	-7.51	13.0	2.64	-7.36	2.85	12.85	10	2	PVC	0.1
MW-2I	NYC	634302.04	673620.93	5.57	5.57	5.28	-29.03	34.6	-24.03	-29.03	29.60	34.60	5	2	PVC	0.1
MW-3S	USEPA	634061.45	673042.91	7.06	7.03	6.62	-8.44	15.5	2.06	-7.94	5.00	15.00	10	2	PVC	0.1
MW-3I	USEPA	634061.45	673042.91	7.06	7.03	6.62	-35.94	43.0	-30.94	-35.94	38.00	43.00	5	2	PVC	0.1
MW-4S	USEPA	633870.41	673236.28	9.05	8.90	8.62	-4.45	13.5	6.05	-3.95	3.00	13.00	10	2	PVC	0.1
MW-4I	USEPA	633870.41	673236.28	9.05	8.90	8.56	-29.95	39.0	-24.95	-29.95	34.00	39.00	5	2	PVC	0.1
MW-5S	USEPA	633628.17	672012.73	6.30	6.30	5.84	-7.20	13.5	3.30	-6.70	3.00	13.00	10	2	PVC	0.1
MW-5I	USEPA	633628.17	672012.73	6.30	6.30	5.86	-28.70	35.0	-23.70	-28.70	30.00	35.00	5	2	PVC	0.1
MW-6S	USEPA	633498.35	672097.47	7.42	7.43	7.18	-6.08	13.5	4.42	-5.58	3.00	13.00	10	2	PVC	0.1
MW-6I	USEPA	633498.35	672097.47	7.42	7.43	7.21	-27.58	35.0	-22.58	-27.58	30.00	35.00	5	2	PVC	0.1
MW-7S	USEPA	633225.36	671538.18	7.15	7.09	6.44	-6.35	13.5	4.15	-5.85	3.00	13.00	10	2	PVC	0.1
MW-7I	USEPA	633225.36	671538.18	7.15	7.09	6.39	-25.85	33.0	-20.85	-27.85	28.00	35.00	5	2	Stainless Steel	0.1
MW-8S	USEPA	633285.11	671659.10	7.50	7.51	7.13	-6.00	13.5	4.50	-5.50	3.00	13.00	10	2	PVC	0.1
MW-8I	USEPA	633285.11	671659.10	7.50	7.51	7.17	-31.50	39.0	-26.50	-31.50	34.00	39.00	5	2	PVC	0.1
MW-9S	NYC	631759.29	670962.61	10.47	10.47	10.21	-4.53	15.0	5.55	-4.45	4.92	14.92	10	2	PVC	0.1
MW-9I	NYC	631763.30	670958.60	10.32	10.32	9.76	-28.90	39.2	-23.90	-28.90	34.22	39.22	5	2	PVC	0.1
MW-10S	NYC	631580.16	671266.66	13.63	13.63	13.31	-1.37	15.0	8.63	-1.37	5.00	15.00	10	2	PVC	0.1
MW-10I	NYC	631573.23	671266.33	13.74	13.74	13.46	-31.26	45.0	-26.26	-31.26	40.00	45.00	5	2	PVC	0.1
MW-11S	USEPA	631568.40	670748.41	10.07	9.99	9.75	-4.43	14.5	6.07	-3.93	4.00	14.00	10	2	PVC	0.1
MW-11I	USEPA	631568.40	670748.41	10.07	9.99	9.75	-34.93	45.0	-29.93	-34.93	40.00	45.00	5	2	PVC	0.1
MW-12S	USEPA	631490.03	670880.07	12.25	12.29	11.84	-2.25	14.5	8.25	-1.75	4.00	14.00	10	2	PVC	0.1
MW-12I	USEPA	631490.03	670880.07	12.25	12.29	11.75	-32.75	45.0	-27.75	-32.75	40.00	45.00	5	2	PVC	0.1
MW-13S	USEPA	630819.62	669229.21	6.36	6.43	5.85	-7.14	13.5	3.36	-6.64	3.00	13.00	10	2	PVC	0.02
MW-13I	USEPA	630819.62	669229.21	6.36	6.43	5.82	-49.64	56.0	-44.64	-49.64	51.00	56.00	5	2	Stainless Steel	0.1
MW-14S	USEPA	630796.36	669471.94	7.26	7.19	7.04	-6.24	13.5	4.26	-5.74	3.00	13.00	10	2	PVC	0.02
MW-14I	USEPA	630796.36	669471.94	7.26	7.19	7.05	-48.74	56.0	-43.74	-48.74	51.00	56.00	5	2	PVC	0.02
MW-15S	USEPA	630054.60	668535.01	7.94	7.85	7.46	-5.56	13.5	4.94	-5.06	3.00	13.00	10	2	PVC	0.1
MW-15I	USEPA	630054.60	668535.01	7.94	7.85	7.49	-52.06	60.0	-47.06	-52.06	55.00	60.00	5	2	PVC	0.1
MW-16S	USEPA	629985.28	668982.48	7.09	7.31	6.72	-6.41	13.5	4.09	-5.91	3.00	13.00	10	2	PVC	0.1
MW-16I	USEPA	629985.28	668982.48	7.09	7.31	6.77	-51.91	59.0	-46.91	-51.91	54.00	59.00	5	2	PVC	0.1
MW-17S	NYC	631227.12	669633.17	10.41	10.41	9.89	-4.59	15.0	5.40	-4.60	5.01	15.01	10	2	PVC	0.1
MW-17I	NYC	631226.02	669638.15	10.32	10.32	9.94	-34.03	44.4	-29.03	-34.03	39.35	44.35	5	2	PVC	0.1
MW-18S	NYC	631155.34	669306.43	11.35	11.35	10.89	-3.65	15.0	6.79	-3.21	4.56	14.56	10	2	PVC	0.1
MW-18I	NYC	631152.60	669307.63	11.08	11.08	10.52	-45.62	56.7	-40.62	-45.62	51.70	56.70	5	2	PVC	0.1
MW-19S	NYC	631440.90	669316.23	12.08	12.08	11.44	-2.92	15.0	7.08	-2.92	5.00	15.00	10	2	PVC	0.1
MW-19I	NYC	631437.41	669332.11	12.14	12.14	11.69	-46.97	59.1	-41.97	-46.97	54.11	59.11	5	2	PVC	0.1
MW-20S	USEPA	631976.32	671004.55	6.27	6.40	6.00	-7.23	13.5	3.27	-6.73	3.00	13.00	10	2	PVC	0.1
MW-20I	USEPA	631976.32	671004.55	6.27	6.40	6.06	-32.73	39.0	-27.73	-32.73	34.00	39.00	5	2	PVC	0.1
MW-21S	USEPA	632233.70	670896.65	6.49	6.54	6.22	-7.01	13.5	3.49	-6.51	3.00	13.00	10	2	PVC	0.1
MW-21I	USEPA	632233.70	670896.65	6.49	6.54	6.31	-31.51	38.0	-26.51	-31.51	33.00	38.00	5	2	PVC	0.1
MW-23S	NG	632494.23	671280.82	12.08	12.08	11.83	-0.92	13.0	9.08	-0.92	3.00	13.00	10	2	Stainless Steel	0.01
MW-23I	NG	632487.09	671276.44	12.03	12.03	11.57	-26.97	39.0	-21.97	-26.97	34.00	39.00	5	2	Stainless Steel	0.01
MW-24S	USEPA	632863.47	671082.33	9.05	8.99	8.71	-6.45	15.5	3.55	-6.45	5.50	15.50	10	2	PVC	0.1
MW-24I	USEPA	632863.47	671082.33	9.05	8.99	8.71	-30.95	40.0	-25.95	-30.95	35.00	40.00	5	2	PVC	0.1
MW-25S	USEPA	633802.55	671879.63	19.92	22.74	22.25	-4.08	24.0	5.92	-4.08	14.00	24.00	10	2	PVC	0.1
MW-25I	USEPA	633802.55	671879.63	19.92	22.74	22.25	-23.08	43.0	-18.08	-23.08	38.00	43.00	5	2	PVC	0.1
MW-26S	USEPA	633980.46	671880.97	18.77	21.71	21.44	-5.23	24.0	4.77	-5.23	14.00	24.00	10	2	PVC	0.1
MW-26I	USEPA	633980.46	671880.97	18.77	21.71	21.44	-20.23	39.0	-15.23	-20.23	34.00	39.00	5	2	PVC	0.1

TABLE 2-8

Groundwater Monitoring Well & Staff Gauge Summary

Gowanus Canal Remedial Investigation

Brooklyn, NY

Monitoring Well Location ID	Installed by	Easting	Northing	Ground Surface or Staff Gauge Elevation (ft NAVD88)	Elevation of Well Protective Casing Cover (ft NAVD88)	Elevation of Well Riser Pipe (ft NAVD88)	Finished Well Elevation (ft NAVD88)	Finished Well Depth (ft bgs)	Elevation of Top of Screen (ft NAVD88)	Elevation of Bottom of Screen (ft NAVD88)	Depth of Top of Screen (ft bgs)	Depth of Bottom of Screen (ft bgs)	Screen Length (ft)	Screen Diameter (inches)	Screen Material	Screen Slot Size (inches)
MW-27S	USEPA	633954.17	671949.49	14.99	17.80	17.41	-8.01	23.0	1.99	-8.01	13.00	23.00	10	2	Stainless Steel	0.1
MW-27I	USEPA	633954.17	671949.49	14.99	17.80	17.41	-32.01	47.0	-20.01	-25.01	35.00	40.00	5	2	Stainless Steel	0.1
MW-28S	USEPA	633901.78	672417.01	8.22	8.26	7.80	-5.28	13.5	5.22	-4.78	3.00	13.00	10	2	PVC	0.1
MW-28I	USEPA	633901.78	672417.01	8.22	8.26	7.75	-28.78	37.0	-23.78	-28.78	32.00	37.00	5	2	PVC	0.1
MW-29S	USEPA	633997.24	672324.87	9.18	9.14	8.82	-4.32	13.5	6.18	-3.82	3.00	13.00	10	2	PVC	0.1
MW-29I	USEPA	633997.24	672324.87	9.18	9.14	8.86	-27.82	37.0	-22.82	-27.82	32.00	37.00	5	2	PVC	0.1
MW-30S (Existing Well FW-MW-01)	NG	634212.53	673042.18	11.56	11.56	11.37	-7.44	19.0	4.56	-5.44	7.00	17.00	10	2	PVC	0.01
MW-30I	NG	634214.93	673046.58	11.67	11.67	11.43	-25.33	37.0	-20.33	-25.33	32.00	37.00	5	2	Stainless Steel	0.01
MW-31S (Existing Well FW-MW-10)	NG	634418.00	673443.02	10.71	10.71	10.31	-4.29	15.0	5.71	-4.29	5.00	15.00	10	2	PVC	0.01
MW-31I	NG	634422.17	673448.30	10.44	10.44	10.20	-24.56	35.0	-19.56	-24.56	30.00	35.00	5	2	Stainless Steel	0.01
MW-32S (Existing Well FW-MW-16)	NG	634954.64	673200.22	21.42	21.42	21.04	-0.58	22.0	11.42	1.42	10.00	20.00	10	2	PVC	0.01
MW-32I	NG	634940.76	673207.40	21.50	21.50	21.25	-24.50	46.0	-19.50	-24.50	41.00	46.00	5	2	Stainless Steel	0.01
MW-33S	USEPA	634668.43	673483.54	7.78	7.82	7.31	-5.72	13.5	4.78	-5.22	3.00	13.00	10	2	PVC	0.1
MW-33I	USEPA	634668.43	673483.54	7.78	7.82	7.24	-31.22	39.0	-26.22	-31.22	34.00	39.00	5	2	PVC	0.1
MW-34S	USEPA	634106.67	673163.06	5.47	5.46	4.99	-8.03	13.5	2.47	-7.53	3.00	13.00	10	2	PVC	0.1
MW-34I	USEPA	634106.67	673163.06	5.47	5.46	5.00	-28.53	34.0	-23.53	-28.53	29.00	34.00	5	2	PVC	0.1
MW-35S	USEPA	633995.07	672616.02	8.08	8.11	7.68	-5.42	13.5	5.08	-4.92	3.00	13.00	10	2	PVC	0.1
MW-35I	USEPA	633995.07	672616.02	8.08	8.11	7.54	-24.92	33.0	-19.92	-24.92	28.00	33.00	5	2	Stainless Steel	0.1
MW-36S	USEPA	633718.04	672275.77	5.59	5.64	5.31	-7.91	13.5	2.59	-7.41	3.00	13.00	10	2	PVC	0.1
MW-36I	USEPA	633718.04	672275.77	5.59	5.64	5.24	-32.41	38.0	-27.41	-32.41	33.00	38.00	5	2	PVC	0.1
MW-37S	USEPA	633517.53	671258.65	9.29	12.43	12.05	-10.71	20.0	-0.71	-10.71	10.00	20.00	10	2	PVC	0.1
MW-37I	USEPA	633517.53	671258.65	9.29	12.43	11.99	-32.71	42.0	-27.71	-32.71	37.00	42.00	5	2	PVC	0.1
MW-38S	USEPA	633787.62	671082.23	8.15	11.68	11.33	-5.35	13.5	5.15	-4.85	3.00	13.00	10	2	PVC	0.1
MW-38I	USEPA	633787.62	671082.23	8.15	11.68	11.32	-30.85	39.0	-25.85	-30.85	34.00	39.00	5	2	PVC	0.1
MW-39S	USEPA	633983.28	670858.74	18.42	18.38	18.14	-2.58	21.0	7.42	-2.58	11.00	21.00	10	2	PVC	0.1
MW-39I	USEPA	633983.28	670858.74	18.42	18.38	18.16	-21.58	40.0	-16.58	-21.58	35.00	40.00	5	2	PVC	0.1
MW-40S	NG	630555.34	669202.65	12.30	12.30	11.74	-1.20	13.5	8.80	-1.20	3.50	13.50	10	2	Stainless Steel	0.01
MW-40I	NG	630552.51	669193.87	12.42	12.42	11.50	-45.58	58.0	-40.58	-45.58	53.00	58.00	5	2	Stainless Steel	0.01
MW-41S	NG	630336.49	669305.63	11.94	11.94	11.26	-1.56	13.5	8.44	-1.56	3.50	13.50	10	2	Stainless Steel	0.01
MW-41I	NG	630342.77	669304.82	11.92	11.92	11.46	-46.08	58.0	-41.08	-46.08	53.00	58.00	5	2	Stainless Steel	0.01
MW-42S	USEPA	632315.30	671007.55	7.02	7.03	6.81	-6.48	13.5	4.02	-5.98	3.00	13.00	10	2	PVC	0.1
MW-42I	USEPA	632315.30	671007.55	7.02	7.03	6.82	-30.98	38.0	-25.98	-30.98	33.00	38.00	5	2	PVC	0.1
MW-43S	USEPA	633691.37	672247.15	5.66	5.61	5.39	-7.84	13.5	2.66	-7.34	3.00	13.00	10	2	PVC	0.1
MW-43I	USEPA	633691.37	672247.15	5.66	5.61	5.40	-31.84	37.5	-26.84	-31.84	32.50	37.50	5	2	PVC	0.1
MW-44S	USEPA	631635.67	670458.60	5.21	5.23	4.72	-8.29	13.5	2.21	-7.79	3.00	13.00	10	2	PVC	0.1
MW-44I	USEPA	631635.67	670458.60	5.21	5.23	4.73	-39.79	45.0	-34.79	-39.79	40.00	45.00	5	2	PVC	0.1
MW-45S	USEPA	631757.01	670649.53	4.94	4.94	4.49	-9.56	14.5	0.94	-9.06	4.00	14.00	10	2	PVC	0.1
MW-45I	USEPA	631757.01	670649.53	4.94	4.94	4.50	-36.06	41.0	-31.06	-36.06	36.00	41.00	5	2	PVC	0.1
MW-46I [1]	USEPA	631724.44	670594.47	5.11	5.15	4.76	-51.89	57.0	-41.89	-51.89	47.00	57.00	10	2	PVC	0.1

TABLE 2-8

Groundwater Monitoring Well & Staff Gauge Summary

Gowanus Canal Remedial Investigation

Brooklyn, NY

Monitoring Well Location ID	Installed by	Easting	Northing	Ground Surface or Staff Gauge Elevation (ft NAVD88)	Elevation of Well Protective Casing Cover (ft NAVD88)	Elevation of Well Riser Pipe (ft NAVD88)	Finished Well Elevation (ft NAVD88)	Finished Well Depth (ft bgs)	Elevation of Top of Screen (ft NAVD88)	Elevation of Bottom of Screen (ft NAVD88)	Depth of Top of Screen (ft bgs)	Depth of Bottom of Screen (ft bgs)	Screen Length (ft)	Screen Diameter (inches)	Screen Material	Screen Slot Size (inches)
MW-47S	USEPA	631765.70	670691.72	5.37	5.46	4.53	-22.63	28.0	-17.63	-22.63	23.00	28.00	5	2	Stainless Steel	0.1
MW-47I	USEPA	631765.70	670691.72	5.37	5.46	4.62	-38.63	44.0	-28.63	-38.63	34.00	44.00	10	2	Stainless Steel	0.1
Staff Gauge Construction Details																
SGMW-2[2]	NYC	634354.55	673608.24	9.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-3	USEPA	634095.72	673079.21	5.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-8	USEPA	633350.32	671503.54	5.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-9[3]	NYC	631797.76	670973.43	10.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-13	USEPA	630851.19	669177.08	4.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-15	USEPA	630183.97	668807.08	6.97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-18[4]	NYC	631117.71	669292.88	8.83	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-23[5]	NG	632512.69	671344.85	11.31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-24	USEPA	632675.72	671243.65	7.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-27	USEPA	633775.12	671949.12	6.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-28	USEPA	633824.73	672376.27	9.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-31[6]	NG	634396.41	673470.04	9.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-37	USEPA	633472.44	671300.07	8.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-42	USEPA	632317.98	671028.05	5.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-45	USEPA	631697.53	670645.54	5.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SG-Union[7]	NG	634074.33	672854.45	17.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SGMW-32[8]	NG	634262.76	673255.98	10.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

[1] - Montitoring well MW-46I was originally labeled in the field as MW-46D. This well is screened in the intermediate zone and is discussed in the report as MW-46I.

[2] - Original Staff Gauge ID was "Stream Gauge - Gowanus Pump Station"

[3] - Original Staff Gauge ID was "Stream Gauge - Former Power Station"

[4] - Original Staff Gauge ID was "Stream Gauge - DOT"

[5] - Original Staff Gauge ID was "Canal-Gate Station"

[6] - Original Staff Gauge ID was "Canal-Degraw St"

[7] - Original Staff Gauge ID was "Canal-Union St"

[8] - Original Staff Gauge ID was "Canal-Mazzei"

All measurements are in US Survey Feet

Vertical Datum is NAVD 1988

bgs = below ground surface

ft = feet

NA = Not Applicable

NG = National Grid

NYSP = Horizontal Datum is the New York State Plane Coordinate System (East Zone) = NAD 1983 DATUM

NYC = New York City

USEPA = United States Environmental Protection Agency

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TABLE 3-1

Summary of Sediment Physical Characteristics

Gowanus Canal Remedial Investigation

Brooklyn, New York

Surface Sediment Data	***Canal Surface Sediment***			***Reference Area Surface Sediment***		
	Minimum	**Maxium**	**Average**	**Minimum**	**Maxium**	**Average**
Total Organic Carbon (mg/kg)	25,100	137,000	64,385	2,980	43,400	28,358
Percent Sand	10.2	58.5	39.0	9.7	43.6	28.1
Percent Silt	35.0	74.5	52.1	44.4	71.7	56.8
Percent Clay	4.9	15.4	8.9	12.1	20.7	15.2
Total Percent Fines	41.5	89.9	61.0	56.4	90.3	71.9
Percent Solids	25.7	77.9	35.5	27.3	69.5	40.9
Sulfide (mg/kg)	50.6	8,790.0	3,448.2	383.0	2,160.0	1,167.2
Sediment Core Data	***Soft Sediment***			***Native Sediment***		
	Minimum	**Maxium**	**Average**	**Minimum**	**Maxium**	**Average**
Total Organic Carbon (mg/kg)	730	490,000	119,650	550	168,000	18,677
Percent Sand	10.2	79.6	34.7	0.0	100.0	51.2
Percent Silt	18.4	69.6	54.4	0.0	81.2	38.4
Percent Clay	1.2	24.0	10.9	0.0	74.4	10.4
Total Percent Fines	20.4	89.8	65.3	0.5	100.0	49.3
Percent Solids	25.2	98.9	53.8	48.1	91.1	81.2
Sulfide (mg/kg)	184.0	8,330.0	3,908.6	7.6	7,300.0	144.7
Bulk Density (g/cm^3)	0.31	1.98	0.83	0.59	2.1	1.5

Notes:

Statistics were generated using 1/2 the detection limit for non-detected results

Statistics for surface sediment were generated using only USEPA 2010 data.

Total percent fines is the sum of percent silt and percent clay.

Total Organic Carbon and Percent Solids summary statistics for soft sediment from sediment cores were calculated using the USEPA 2010 and National Grid 2005 data sets. The summaries for native sediment were determined using only the USEPA 2010 data set.

Sulfide and Total Percent Fines summary statistics for soft and native sediment for sediment cores were determined using only the USEPA 2010 data set.

Bulk density for soft sediment was determined using only the National Grid 2005 data set. This parameter was not measured in the 2010 investigation. Bulk density values for native sediment were obtained from GEI (2007).

mg/kg = milligram per kilogram

g/cm^3 = grams per cubic centimeter

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TABLE 3-2
Storm Water and Combined Sewer Overflows to Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CSO / Storm water Outfall[1]	Outfall Location	Outfall Size (diameter)	Discharging From	Regulator/ relief Location	Combined Sewer Area (acres)	Annual Discharge Volume[2] (million gallons)	Annual Discharge Frequency[2]
RH-031	Creamer St.	72"	Bond-Lorraine Sewer Relief	Lorraine St. & Smith St.	70	35	33
RH-033	Douglass St.	38"W x 44"H	Regulator R-25	Nevins St. & Douglass St.	5	0.2	14
RH-034	Butler St.	4 barrels, each 163"	Gowanus Pump Station	Douglass St.	657	121	56
RH-035	Bond St.	48"	Bond-Lorraine Sewer Relief	Bond St. & 4th St.	88	111	75
RH-036	President St.	18"	Regulator RH-22	Nevins St. & President St.	10	1.6	21
RH-037	Sackett St.	18"	Regulator RH-23	Nevins St. & Sackett St.	7	0.5	16
RH-038	Degraw St.	144" W x 62"H	Regulator RH-24	Nevins St. & Degraw St.	10	0.9	18
RH-039	Douglass St.	38" x 44"H	Bond-Lorraine Sewer Relief	NA (closed)	0	0	0
OH-005	south of Carroll St.	42"	3rd Ave. Sewer Relief	3rd Ave. & Carroll St.	34	0.7	5
OH-006	19th St. (north side)	36"	3rd Ave. Sewer Relief	3rd Ave. & 19th St.	306	13	33
OH-007	East of 2nd Ave.	78"	2nd Ave. Pump Station	3rd Ave. & 7th St.	339	69	47
OH-009	5th St.	78"	3rd Ave. Sewer Relief	NA (closed)	0	0	0
RH-601[3]	9th St (West)	12"	NA	NA	2	1.5	38
OH-602	South of Gowanus Expressway	18"	NA	NA	10	0.1	3
OH-607 [3]	9th St. (East)	12"	NA	NA	8	0.1	10
				Total	**1,546**	**354.6**	

Notes:
1) Outfalls RH-601, OH-602, and OH-607 are storm water outfalls. In addition to the above CSO and storm water outfalls, 14 highway drain outfalls discharge to the canal.

2) Baseline condition reflects collection system model calculations for a design precipitation record (annual rainfall recorded at JFK International Airport in 1988) and sanitary flows projected for year 2045 (Red Hook WPCP: 40 MGD; Owls Head WPCP: 117 MGD). An existing condition calculation is not available.

Source: NYCDEP 2008a

3) NYC has previously identified OH-601 as RH-032, OH-607 as OH-008, and OH-602 as OH-538.

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TABLE 3-3
NYCDEP Shoreline Survey Outfalls Not Observed During Canal Reconnaissance
Gowanus Canal Remedial Investigation
Brooklyn, New York

Shoreline Survey Pipe Identification	Pipe Diameter (Inches)	Comments on Approximate Location[(1)]
OH-114	10	Lowe's Home Improvement store
OH-186	10	Northeast corner of 11th Street turning basin
OH-192	10	Alongside New York City asphalt plant
OH-514	6	End of 5th St.
OH-517	8	Corner of 4th Street Turning Basin
OH-522	8	Lowe's Home Improvement store
OH-602	18	South of Gowanus Expressway
OH-888	6	Lowe's Home Improvement store
RH-033	38W x 44H	End of Douglass St
RH-037	18	End of Sackett St.
RH-836	6	Approximately 50 feet south of Sackett St.
RH-837	3	Verizon property
RH-134	10	End of Bay St.
RH-154	12	3rd St. concrete facility
RH-575	4	End of Huntington St.
RH-587	4	3rd St. concrete facility
RH-588	4	3rd St. concrete facility
RH-601[2]	12	9th St., west side of canal

(1) Approximate location is based on the maps in the NYCDEP Shoreline Survey Reports and physical features / streets noted during the field survey in the general areas where these outfalls were expected to be situated.
(2) NYC has previously identified RH-601-as RH-032.

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TABLE 4-1
Summary of Validation Qualifiers Applied to Remedial Investigation Data
Gowanus Canal Remedial Investigation
Brooklyn, New York

Validation Qualifier	Count	Percentage	Available for Use as Reported	Available for Use as Qualified	Not Available for Use	Definition	Effect on Data Quality
U	180,849	66.17%	X	X		Not detected. May also indicate "not detected at significantly greater concentration than that in an associated blank"	If applied by the laboratory, this indicates "nondetect" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "not detected at significantly greater concentration than that in an associated blank". If detected at less than the CRQL, the data validation elevated the (U-qualified) result to the CRQL. In this instance, the data validator changed the detect status from detect to nondetect. This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as nondetects as long as the data user understands that the compound was detected in the sample and was subsequently attributed to blank contamination. Therefore, this does not affect the availability of results. The data user should take caution when a U-qualified result is greater than a screening level.
[null]	35,173	12.87%	X			Detected	No effect on data quality. Detected. Available as reported. Note that "[null]" indicates that a data point is not accompanied by a qualifier.
J	31,068	11.37%	X	X		Concentration estimated	If applied by the laboratory, this indicates "below reporting limit" and does not affect the availability of results. It does not indicate a QA/QC problem. If applied by the validator, this indicates "estimated". This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. These results are usable as detects at their reported concentration as long as the data user understands that the concentration is estimated.
UJ	18,531	6.78%		X		Not detected, quantitation limit is estimated	This indicates "nondetect, estimated quantitation limit". This may indicate a QA/QC issue but not one severe enough to warrant rejection of data. If the laboratory qualifier did not contain "U" then the data validator changed the detect status and this is usually due to blank contamination. These results are usable as nondetects at their reported quantitation limit as long as the data user understands that the quantitation limit is estimated and may be higher. This does not affect the usability of results but the data user should take caution when a UJ-qualified result is greater than an action limit.
R	6,297	2.30%			X	Rejected	Significant negative effect. Not available for use. Note that any reported rejected data are accompanied by the R-qualifier.
NJ	1,395	0.51%		X		Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.	This indicates "presumptively present at approximate quantity". This may indicate a QA/QC issue (most often precision exceedance between results from dual-columns) but not one severe enough to warrant rejection of data. These results are usable as detects at their reported concentration as long as the data user conservatively considers the analyte "present" and understands that the concentration is estimated.

Notes:
QA/QC = quality assurance/quality control
CRQL = contract-required quantitation limit

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TABLE 4-2
List of Evaluation Criteria Used to Evaluate the Nature and Extent of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

Surface Sediment, Subsurface Sediment, CSO Sediment

The standards / criteria below are used to evaluate the degree of contamination found in the surface sediments in the Gowanus Canal. These standards / criteria are also used to provide a perspective on the concentrations in subsurface sediments and CSO sediments. The results for the surface sediment reference locations are also compared to the results for the surface sediment locations within the canal.

A. U.S. Environmental Protection Agency (USEPA). 2010. Residential soil RSL from EPA Regional Screening Table, May 2010. RSLs based on noncancer risk divided by 10 to account for exposure to more than one constituent that effects the same target organ.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

The standards / criteria listed below are used in the following order to create criteria R: 1) use criteria B1 first; 2) if no criteria available for a constituent under B1, go to C; 3) if no criteria available for a constituent under B1 and C, go to D; and 4) if no criteria available for a constituent under B1, C, and D, go to E and use in this order – E1, E2, E3.

B. New York State Department of Environmental Conservation (NYSDEC). 1999. Technical Guidance for Screening Contaminated Sediments. New York State Department of Environmental Conservation. (Benthic aquatic life chronic toxicity values for saltwater (designated SW)
B1 - NYSDEC 1999 Benthic Aquatic Life Chronic Toxicity (2% TOC)
B2 - NYSDEC 1999 Benthic Aquatic Life Chronic Toxicity (6.5% TOC) – included for informational purposes only

C. Jones, D.S., G.W. Suter II, and R.N. Hull. 1997. Toxicological benchmarks for screening contaminants of potential concern for effects on sediment-associated biota: 1997 revision. Environmental Restoration Division, ORNL Environmental Restoration Program. ES/ER/TM-95/R4. (Marine and estuarine benchmarks, lower of ER-L or TEL values)

D. Washington Department of Ecology (WDOE). 1995. Chapter 173-204 WAC, Sediment Management Standards. http://www.ecy.wa.gov/biblio/wac173204.html (Marine Sediment Quality Standards; presented in Table 1, under WAC 173-204-320)

E. Buchman, M.F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle WA, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration, 34 pages. (Marine surface water, chronic values)
E1 - SQuiRTs 2008 Mar SD TEL
E2 - SQuiRTs 2008 Mar SD ERL
E3 - SQuiRTs 2008 Mar SD PEL

Surface Water, CSO Water, Pipe Outfall Water

The standards / criteria below are used to evaluate the degree of contamination found in the surface water in the Gownus Canal. These standards / criteria are also used to provide a perspective on the concentrations in CSO water, and pipe outfall discharges. The results for the surface water reference locations are also compared to the results for the surface water locations within the canal.

The standards / criteria listed below are used in the following order to create criteria T and S:

Criteria T: Use the lesser of F or G2; use H if no F or G2 criteria available for a constituent.

Criteria S: 1) use criteria L1 first; 2) if no criteria available for a constituent under L1, go to I; and 3) if no criteria available for a constituent under L1 and I, go to K.

F. U.S. Environmental Protection Agency (USEPA). 2009. National Recommended Water Quality Criteria. Office of Water, Office of Science and Technology. Human Health for Consumption of Organism only.

G. New York State DEC, Chapter X, Division of Water, Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations. Values correspond to classification of canal (SD) and classification of Bay (I) and are the standards for Health-fish consumption and recreation.
G1 - NYSDEC Chapter X for surface water (fish consumption) I H(FC) – included for informational purposes only, applies to Gowanus Bay
G2 - NYSDEC Chapter X for SW (fish consumption) SD H(FC)

TABLE 4-2
List of Evaluation Criteria Used to Evaluate the Nature and Extent of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

H. U.S. Environmental Protection Agency (USEPA). 2010. Tap Water RSL from EPA Regional Screening Table, May 2010.
RSLs based on noncancer divided by 10 to account for exposure to more than one constituent that effects the s ame target organ.

I. U.S. Environmental Protection Agency (USEPA). 2009. National Recommended Water Quality Criteria. Office of Water, Office of Science and Technology. 4303T. Saltwater chronic value (CCC) for the protection of aquatic life.

J. New York State Department of Environmental Conservation (NYSDEC). 1998. Water Quality Standards and Analytical Support. http://www.dec.ny.gov/chemical/23842.html. Chronic marine values for protection of aquatic life. (Note that these values have been incorporated into reference L and this reference is included here only to indicate that it was also reviewed).

K. Buchman, M.F., 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle WA, Office of Response and Restoration Division, National Oceanic and Atmospheric Administration, 34 pages. Marine surface water, chronic values.

L. New York State DEC, Chapter X, Division of Water, Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations . Values correspond to classification of canal (SD) and classification of Bay (I) and are the standards for Aquatic-Chronic toxicity.
L1 - NYSDEC Chapter X for surface water (aquatic chronic toxicity) I A(C) – included for informational purposes only, applies to Gowanus Bay

Groundwater

Groundwater was evaluated to assess groundwater interactions with the surface water in the canal. For completeness and to provide a perspective on the significance of detected concentrations at the locations where the monitoring wells were installed, the detected concentrations in groundwater are compared to the standards / criteria listed below.

The standards / criteria listed below are used in the following order to create criteria 1) use criteria N1 first; 2) if no criteria available for a constituent under N1, go to O1; and 3) if no criteria available for a constituent under N1 and O1, go to O2.

N. U.S. Environmental Protection Agency (USEPA). Maximum Contaminant Levels and MCLGs. http://www.epa.gov/safewater/contaminants/index.html (N1 is MCLs, N2 is MCLGs).

O. New York State DEC, Chapter X, Division of Water, Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations. Values correspond to classification of groundwater along the canal (GA) and are the standards for Health-Water Source and Aesthetic -Water Source (includes O1 and O2).

Air

P. U.S. Environmental Protection Agency (USEPA). 2010. Residential air RSLs from EPA Regional Screening Table, May 2010. RSLs based on noncancer risk divided by 10 to account for exposure to more than one constituent that effects the same target organ.
http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

Soil

Soils were evaluated at the locations where monitoring wells were installed. For completeness and to provide a perspective on the significance of detected concentrations at the locations where the monitoring wells were installed, detected concentrations in soils are compared to the standards / criteria listed below.

Q. New York State DEC. 2009. Subpart 375-6: Remedial Program Soil Cleanup Objectives. December 14, 2006 and NYSDEC Draft CP/Soil Cleanup Guidance, November 4, 2009. Values used correspond to restricted use soil cleanup objectives; Protection of Groundwater.

TABLE 4-3
Summary of Evaluation Criteria Used to Evaluate Nature and Extent of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

Medium	Evaluation Criteria		
	Human Health Risk	**Ecological Risk**	**General**
Sediment - surface in canal	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Sediment – CSOs	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Sediment – subsurface soft	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Sediment – subsurface native	A	R (developed using this order:B1, C, D, E1, E2, and E3)	
Surface water in canal - dry and wet events	T (lesser of F or G2, H if no F or G2)	S (lesser of I or K)	
Surface water – CSOs	T (lesser of F or G2, H if no F or G2)	S (lesser of I or K)	
Surface water - pipe outfalls	T (lesser of F or G2, H if no F or G2)	S (lesser of I or K)	
Groundwater			N1, O1,O2
Soil			Q
Air	P		

Evaluation criteria for each letter are defined in Table 4-2.

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Notes for Statistical Summary Tables
Gowanus Canal Remedial Investigation
Brooklyn, New York

Columns included in all statistical summary tables are listed and defined below:

Parameter – This column lists detected constituents and is organized by parameter class (e.g., VOCs, SVOCs, etc). Constituents that were not detected within any sample for that matrix or data set are not included in the statistical summary tables.

Frequency of Detection - The frequency of detection represents the (total number of detections, excluding rejected and duplicate results) / (total number of samples analyzed, excluding rejected and duplicate results); value in parenthesis is the detection frequency presented as a percentage.

Number of Results - Total number of results includes all results (includes rejected results and excludes duplicate results). For field duplicate results, only best result is used (i.e., the highest detected value, or the detected value if one result is a detect and the other a non-detect).

Range of Non-Detect Values – This column presents the range of analytical detection levels observed for non-detected results. An entry of "--" for the range of non-detect values indicates that the parameter was detected in all samples.

Range of Detected Values – This column presents the range of detected analytical results.

Location of Maximum Detect- This column presents the location where the maximum detected concentration was found.

Parameters are listed twice when the maximum concentration is observed at two locations

Mean (1/2 RL for Non-Detects) – This column presents the mean concentrations calculated using a value of ½ the reporting limit (RL) for non-detected results.

Ecological Screening Value "designation letter" (# of Exceedances) – This column shows the ecological screening value followed in parenthesis by the number of results that exceeded the value. Note that multiple sources of screening values were available for each medium. Table 4-2 lists the sources of the screening values for each medium and assigns a letter to each as a reference. Because multiple sources of values were available for each medium, a prioritization order was developed to determine how the values were applied to each medium. Section 4-2 describes this prioritization order and Table 4-3 provides a summary of the prioritization scheme. The complete list of values is in Appendix C. Surface sediment and surface water samples collected from reference areas were not compared to screening values.

When a screening value was not available, the following designation was used: NA - Not available

Human Health Screening Value "designation letter" (# of Exceedances) - This column provides the same information as described above for the ecological screening values, but are related to human health.

Units:

mg/kg – milligrams/kilogram

µg/kg – micrograms/kilogram

ng/kg – nanograms/kilogram

mg/l – milligrams/liter

µg/l – micrograms/liter

$\mu g/m^3$ – micrograms/cubic meter

Calculation of total concentrations: Total PAH was calculated by summing the detected concentrations of the 16 priority pollutant PAHs. Total DDT was calculated by summing the detected concentrations of p,p'-DDD, p,p'-DDE, and p,p'-DDT. Total PCB was calculated by summing either detected concentrations of PCB Aroclors, or detected concentrations of PCB congeners. If any constituent had a rejected, or "R"-flagged, result, a total value was not calculated for the sample.

The following notes are specific to the table listed:

Table 4-6 – Soft Sediment:
The number of results varies for some parameters due to different target analyte lists used by GEI (2007) and USEPA.

Table 4-8a Surface Water – Canal – Dry Weather:
The number of results does not include an additional sample collected at the end of Sackett Street that was not part of the planned wet and dry weather sampling events.

Table 4-8b Surface Water – Reference – Dry Weather:
The total number of samples includes the location in Buttermilk Channel.

Table 4-9a Surface Water – Canal – Wet Weather:
The number of results does not include an additional sample collected at the end of Sackett Street that was not part of the planned wet and dry weather sampling events.
Location (325) could not be sampled during the wet event sampling.

Table 4-9b Surface Water – Reference – Wet Weather:
The total number of samples includes the location in Buttermilk Channel.

Table 4-19 Soil Samples:
Split samples from oversight sampling are not included in the statistical summary.

Tables 4-20a – Shallow Groundwater and 4-20b – Intermediate Groundwater:
Split samples from oversight sampling are not included in the statistical summary.
Filtered metals were not analyzed at New York City well locations.
Analytical results were not available for some constituents at some locations. "Number of Results" column indicates the number of samples included in statistical summary.

Tables 4-21a – Tissue – Summary of Results Used in Ecological Risk Assessment and 4-21b – Tissue – Summary of Results Used in Human Health Risk Assessment:
All tissue concentrations are reported in wet weight.
"PCB Dioxin" refer to "PCB Dioxin-like PCBs" and "PCB Nondioxin" refer to "PCB Nondioxin-like". Dioxin-like PCB congeners are listed below; all other congeners are non-dioxin like.

3,3',4,4'-Tetrachlorobiphenyl (77)
3,4,4',5-Tetrachlorobiphenyl (81)
2,3,3',4,4'-Pentachlorobiphenyl (105)
2,3,4,4',5-Pentachlorobiphenyl (114)
2,3',4,4',5-Pentachlorobiphenyl (118)
2,3',4,4',5'-Pentachlorobiphenyl (123)
3,3',4,4',5-Pentachlorobiphenyl (126)
Congeners (156/157)
2,3',4,4',5,5'-Hexachlorobiphenyl (167)
3,3',4,4',5,5'-Hexachlorobiphenyl (169)
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)

TABLE 4-4a
Surface Sediment - Canal - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Volatile Organic Compounds (ug/kg)								
1,2-dichloroethane	6 / 27 (22.2%)	27	5.00 - 23.0	3.90 - 45.0	323	9.10	NA	430 (0)
1,4-dichlorobenzene	3 / 26 (11.5%)	27	5.00 - 23.0	7.60 - 240	301	16.8	240 (0)	2400 (0)
Acetone	11 / 27 (40.7%)	27	9.90 - 46.0	21.0 - 90.0	314	25.0	NA	6100000 (0)
Benzene	4 / 27 (14.8%)	27	5.00 - 23.0	6.80 - 110	304	13.7	520 (0)	1100 (0)
Carbon disulfide	9 / 27 (33.3%)	27	5.00 - 23.0	4.70 - 89.0	314	10.2	NA	82000 (0)
Chlorobenzene	1 / 27 (3.7%)	27	5.00 - 23.0	53.0 - 53.0	301	9.44	70 (0)	29000 (0)
Cyclohexane	3 / 27 (11.1%)	27	5.00 - 23.0	8.00 - 14.0	304	7.86	NA	120000 (0)
Ethylbenzene	8 / 27 (29.6%)	27	5.00 - 23.0	5.30 - 3600	315	233	128 (4)	5400 (0)
Isopropylbenzene (cumene)	7 / 27 (25.9%)	27	5.00 - 23.0	4.60 - 760	315	81.0	NA	210000 (0)
m, p xylenes	5 / 27 (18.5%)	27	5.00 - 23.0	5.40 - 810	315	55.7	540 (1)	340000 (0)
Methylcyclohexane	3 / 27 (11.1%)	27	5.00 - 23.0	15.0 - 170	314	14.6	NA	NA
Methylene chloride	6 / 27 (22.2%)	27	5.00 - 23.0	2.20 - 7.70	306	6.95	NA	11000 (0)
o-xylene (1,2-dimethylbenzene)	5 / 27 (18.5%)	27	5.00 - 23.0	19.0 - 1200	315	82.8	540 (1)	380000 (0)
Tert-butyl methyl ether	1 / 27 (3.7%)	27	5.00 - 23.0	34.0 - 34.0	304	8.45	NA	43000 (0)
Tetrachloroethylene(PCE)	2 / 27 (7.4%)	27	5.00 - 23.0	5.80 - 11.0	302	7.50	NA	550 (0)
Toluene	4 / 27 (14.8%)	27	5.00 - 23.0	5.80 - 36.0	314	9.17	900 (0)	500000 (0)
Trichloroethylene (TCE)	1 / 27 (3.7%)	27	5.00 - 23.0	4.20 - 4.20	301	7.64	NA	2800 (0)
Trichlorofluoromethane	3 / 27 (11.1%)	27	5.00 - 23.0	4.60 - 8.90	302	7.33	NA	79000 (0)
Semi-Volatile Organic Compounds (ug/kg)								
2-methylnaphthalene	16 / 27 (59.3%)	27	120 - 3100	190 - 870000	315	33700	70 (16)	31000 (1)
Acenaphthene	21 / 27 (77.8%)	27	160 - 3100	160 - 580000	315	41200	16 (21)	340000 (2)
Acenaphthylene	14 / 27 (51.9%)	27	160 - 3100	270 - 150000	314	12400	44 (14)	340000 (0)
Anthracene	24 / 27 (88.9%)	27	250 - 3100	330 - 610000	315	38800	85.3 (24)	1700000 (0)
Benzo(a)anthracene	27 / 27 (100%)	27	---	1100 - 490000	315	36500	261 (27)	150 (27)
Benzo(a)pyrene	26 / 27 (96.3%)	27	250 - 250	1200 - 200000	314	18700	430 (26)	15 (26)
Benzo(b)fluoranthene	26 / 27 (96.3%)	27	250 - 250	1000 - 210000	314	19400	4600 (13)	150 (26)
Benzo(g,h,i)perylene	26 / 27 (96.3%)	27	260 - 260	610 - 74000	314	7620	620 (25)	170000 (0)
Benzo(k)fluoranthene	26 / 27 (96.3%)	27	250 - 250	820 - 120000	314	10600	4600 (9)	1500 (20)
Biphenyl (diphenyl)	2 / 27 (7.4%)	27	6200 - 230000	650 - 71000	315	19200	NA	210000 (0)
Bis(2-ethylhexyl) phthalate	21 / 27 (77.8%)	27	8100 - 160000	2600 - 57000	314	15600	182 (21)	35000 (2)

TABLE 4-4a
Surface Sediment - Canal - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Semi-Volatile Organic Compounds (ug/kg)								
Carbazole	1 / 27 (3.7%)	27	6200 - 230000	1400 - 1400	308A	19100	NA	NA
Chrysene	27 / 27 (100%)	27	---	730 - 490000	315	35600	384 (27)	15000 (5)
Dibenz(a,h)anthracene	23 / 27 (85.2%)	27	320 - 3100	200 - 14000	314	1780	63.4 (23)	15 (23)
Dibenzofuran	1 / 27 (3.7%)	27	6200 - 230000	1100 - 1100	319	19500	300 (1)	7800 (0)
Di-n-butyl phthalate	2 / 27 (7.4%)	27	6200 - 230000	510 - 550	318	19200	4400 (0)	610000 (0)
Di-n-octylphthalate	1 / 27 (3.7%)	27	6200 - 230000	9300 - 9300	307A	19800	1160 (1)	35000 (0)
Fluoranthene	27 / 27 (100%)	27	---	1200 - 630000	314	51200	600 (27)	230000 (2)
Fluorene	17 / 27 (63.0%)	27	160 - 3100	130 - 540000	315	26400	19 (17)	230000 (1)
Indeno(1,2,3-c,d)pyrene	27 / 27 (100%)	27	---	1000 - 120000	314	10600	680 (27)	150 (27)
Naphthalene	19 / 27 (70.4%)	27	160 - 3100	120 - 1600000	315	61600	160 (18)	3600 (7)
Phenanthrene	26 / 27 (96.3%)	27	3100 - 3100	510 - 1100000	315	64800	240 (26)	1700000 (0)
Pyrene	26 / 27 (96.3%)	27	230 - 230	1400 - 670000	314	60200	665 (26)	170000 (2)
Total PAHs	27 / 27 (100%)	27	---	10900 - 8000000	315	527000	4022 (27)	NA
Pesticides (ug/kg)								
Alpha-chlordane	2 / 27 (7.4%)	27	2.70 - 530	6.70 - 14.0	308A	79.7	0.04 (2)	1600 (0)
Beta endosulfan	1 / 27 (3.7%)	27	5.30 - 1000	13.0 - 13.0	308A	154	0.08 (1)	37000 (0)
Endosulfan sulfate	1 / 27 (3.7%)	27	5.30 - 1000	21.0 - 21.0	308A	154	NA	37000 (0)
Gamma-chlordane	3 / 27 (11.1%)	27	2.70 - 530	5.90 - 29.0	308A	80.6	0.04 (3)	1600 (0)
Methoxychlor	1 / 27 (3.7%)	27	27.0 - 5300	33.0 - 33.0	308A	792	NA	31000 (0)
P,P'-DDD	5 / 5 (100%)	27	---	7.90 - 1100	315	232	1.22 (5)	2000 (0)
P,P'-DDE	1 / 26 (3.8%)	27	5.30 - 1000	16.0 - 16.0	308A	160	2.2 (1)	1400 (0)
Total DDTs	5 / 5 (100%)	27	---	7.90 - 1100	315	235	1.58 (5)	NA
Polychlorinated Biphenyls (ug/kg)								
Aroclor 1016	4 / 27 (14.8%)	27	41.0 - 120	140 - 290	318	68.5	22.7 (4)	390 (0)
Aroclor 1248	2 / 27 (7.4%)	27	41.0 - 120	230 - 2200	316	128	22.7 (2)	220 (2)
Aroclor 1254	1 / 27 (3.7%)	27	48.0 - 120	590 - 590	308A	61.9	22.7 (1)	110 (1)
Aroclor 1260	7 / 27 (25.9%)	27	41.0 - 120	150 - 3400	314	318	22.7 (7)	220 (6)
Total PCBs	10 / 27 (37.0%)	27	---	230 - 3400	314	432	22.7 (10)	220 (10)
Metals (mg/kg)								
Aluminum	27 / 27 (100%)	27	---	4870 - 18900	310	13200	NA	7700 (23)

TABLE 4-4a
Surface Sediment - Canal - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Metals (mg/kg)								
Arsenic	27 / 27 (100%)	27	---	3.40 - 44.7	308A	12.1	8.2 (19)	0.39 (27)
Barium	27 / 27 (100%)	27	---	83.1 - 631	317	175	130.1 (15)	1500 (0)
Beryllium	12 / 27 (44.4%)	27	0.60 - 1.60	0.11 - 0.46	309	0.474	NA	16 (0)
Cadmium	27 / 27 (100%)	27	---	1.50 - 20.2	308A	6.30	1.2 (27)	7 (11)
Calcium	27 / 27 (100%)	27	---	4890 - 11300	313	7640	NA	NA
Chromium	27 / 27 (100%)	27	---	22.7 - 139	314	76.0	81 (8)	0.29 (27)
Cobalt	14 / 27 (51.9%)	27	7.30 - 17.1	6.50 - 14.8	318	9.13	NA	2.3 (14)
Copper	27 / 27 (100%)	27	---	85.8 - 790	308A	226	34 (27)	310 (5)
Iron	27 / 27 (100%)	27	---	12400 - 87000	308A	29200	NA	5500 (27)
Lead	27 / 27 (100%)	27	---	146 - 4220	308A	533	46.7 (27)	400 (9)
Magnesium	27 / 27 (100%)	27	---	4210 - 11400	318	8740	NA	NA
Manganese	27 / 27 (100%)	27	---	89.1 - 480	308A	276	460 (1)	180 (23)
Mercury	27 / 27 (100%)	27	---	0.59 - 2.30	313	1.27	0.15 (27)	2.3 (0)
Nickel	27 / 27 (100%)	27	---	18.1 - 84.5	314	43.8	20.9 (26)	150 (0)
Potassium	27 / 27 (100%)	27	---	730 - 4410	310	3200	NA	NA
Selenium	15 / 27 (55.6%)	27	4.20 - 12.0	0.74 - 4.90	310	3.04	NA	39 (0)
Silver	22 / 27 (81.5%)	27	1.20 - 3.20	1.80 - 6.80	310	3.40	1 (22)	39 (0)
Sodium	27 / 27 (100%)	27	---	2610 - 18700	322	11100	NA	NA
Vanadium	27 / 27 (100%)	27	---	19.4 - 61.2	316	42.6	NA	39 (18)
Zinc	17 / 17 (100%)	27	---	240 - 1520	308A	744	150 (17)	2300 (0)
Cyanide, Total	14 / 27 (51.9%)	27	3.60 - 8.30	0.54 - 18.0	302	3.65	NA	160 (0)

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TABLE 4-4b
Surface Sediment - Reference - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Volatile Organic Compounds (ug/kg)						
Acetone	4 / 10 (40.0%)	10	17.0 - 38.0	9.60 - 41.0	327	18.3
Carbon disulfide	1 / 10 (10.0%)	10	5.90 - 20.0	3.20 - 3.20	328	6.47
Methylene chloride	1 / 10 (10.0%)	10	5.90 - 19.0	11.0 - 11.0	327	6.68
Semi-Volatile Organic Compounds (ug/kg)						
2-methylnaphthalene	2 / 10 (20.0%)	10	110 - 290	900 - 1100	335	289
Acenaphthene	2 / 10 (20.0%)	10	110 - 290	420 - 870	335	218
Acenaphthylene	1 / 10 (10.0%)	10	110 - 290	180 - 180	332	122
Anthracene	6 / 10 (60.0%)	10	110 - 290	140 - 1200	335	343
Benzo(a)anthracene	9 / 10 (90.0%)	10	110 - 110	350 - 1200	332	511
Benzo(a)pyrene	8 / 10 (80.0%)	10	190 - 280	210 - 920	332	458
Benzo(b)fluoranthene	10 / 10 (100%)	10	---	150 - 1400	335	633
Benzo(g,h,i)perylene	9 / 10 (90.0%)	10	280 - 280	130 - 660	335	369
Benzo(k)fluoranthene	9 / 10 (90.0%)	10	280 - 280	120 - 750	332	358
Bis(2-ethylhexyl) phthalate	1 / 10 (10.0%)	10	8000 - 15000	1700 - 1700	334	5510
Chrysene	10 / 10 (100%)	10	---	130 - 800	332	452
Fluoranthene	10 / 10 (100%)	10	---	130 - 2400	332	655
Fluorene	2 / 10 (20.0%)	10	110 - 290	320 - 780	335	199
Indeno(1,2,3-c,d)pyrene	8 / 10 (80.0%)	10	270 - 290	160 - 960	332	342
Naphthalene	3 / 10 (30.0%)	10	110 - 290	340 - 1600	328	389
Phenanthrene	8 / 10 (80.0%)	10	110 - 280	250 - 2700	335	634
Pyrene	3 / 10 (30.0%)	10	110 - 290	640 - 2000	332	493
Total PAHs	10 / 10 (100%)	10	---	1030 - 14400	335	5790
Metals (mg/kg)						
Aluminum	10 / 10 (100%)	10	---	4750 - 19400	327	13900
Arsenic	10 / 10 (100%)	10	---	5.40 - 19.0	326	11.7
Barium	9 / 10 (90.0%)	10	25.7 - 25.7	45.8 - 133	326	67.1
Beryllium	7 / 10 (70.0%)	10	0.64 - 1.30	0.23 - 0.46	327, 333	0.426
Cadmium	9 / 10 (90.0%)	10	1.50 - 1.50	0.24 - 6.30	329	2.31
Calcium	10 / 10 (100%)	10	---	8130 - 51400	328	22800

TABLE 4-4b
Surface Sediment - Reference - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Metals (mg/kg)						
Chromium	10 / 10 (100%)	10	---	16.9 - 181	326	61.9
Cobalt	8 / 10 (80.0%)	10	13.2 - 15.5	4.70 - 12.8	330	9.39
Copper	10 / 10 (100%)	10	---	15.1 - 242	326	80.7
Iron	10 / 10 (100%)	10	---	10700 - 35500	327	26200
Lead	10 / 10 (100%)	10	---	25.5 - 244	326	93.1
Magnesium	10 / 10 (100%)	10	---	3040 - 10200	327	7760
Manganese	10 / 10 (100%)	10	---	172 - 866	330	509
Mercury	10 / 10 (100%)	10	---	0.16 - 3.70	326	1.12
Nickel	10 / 10 (100%)	10	---	13.0 - 50.0	331	32.3
Potassium	10 / 10 (100%)	10	---	1130 - 5020	327	3470
Selenium	3 / 10 (30.0%)	10	6.00 - 10.8	0.53 - 2.00	329	3.43
Silver	3 / 10 (30.0%)	10	1.30 - 3.10	2.10 - 9.50	326	2.15
Sodium	10 / 10 (100%)	10	---	2780 - 18100	327	11600
Vanadium	10 / 10 (100%)	10	---	11.4 - 53.6	326	35.6
Zinc	5 / 5 (100%)	10	---	63.1 - 254	331	156

See notes in Table 4-21

TABLE 4-5

Comparison of Surface Sediment Concentrations in Gowanus Canal and Gowanus Bay Reference Area

Gowanus Canal Remedial Investigation

Brooklyn, New York

	Central Tendency Comparison		
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Volatile Organic Compounds (ug/kg)			
1,2-dichloroethane	Gehan	0.223	nsd
1,4-dichlorobenzene	Gehan	0.166	nsd
Acetone	Gehan	0.176	nsd
Benzene	Gehan	0.132	nsd
Carbon disulfide	Gehan	0.096	nsd
Chlorobenzene	-	-	Only a Single Detect in Canal
Cyclohexane	Gehan	0.212	nsd
Ethylbenzene	Gehan	0.068	nsd
Isopropylbenzene (cumene)	Gehan	0.055	nsd
Methylcyclohexane	Gehan	0.141	nsd
Methylene chloride	Gehan	0.850	nsd
Tert-butyl methyl ether	-	-	Only a Single Detect in Canal
Tetrachloroethylene(PCE)	Gehan	0.201	nsd
Toluene	Gehan	0.181	nsd
Trichloroethylene (TCE)	-	-	Only a Single Detect in Canal
Trichlorofluoromethane	Gehan	0.261	nsd
m, p xylenes	Gehan	0.102	nsd
o-xylene (1,2-dimethylbenzene)	Gehan	0.072	nsd
Semi-Volatile Organic Compounds (ug/kg)			
2-methylnaphthalene	Gehan	0.029	Canal > Reference
Acenaphthene	Gehan	0.001	Canal > Reference
Acenaphthylene	Gehan	0.003	Canal > Reference
Anthracene	WRS	0.025	Canal > Reference
Benzo(a)anthracene	WRS	0.000	Canal > Reference
Benzo(a)pyrene	WRS	0.000	Canal > Reference
Benzo(b)fluoranthene	WRS	0.000	Canal > Reference
Benzo(g,h,i)perylene	WRS	0.000	Canal > Reference
Benzo(k)fluoranthene	WRS	0.000	Canal > Reference
Biphenyl (diphenyl)	Gehan	0.247	nsd
Bis(2-ethylhexyl) phthalate	Gehan	0.037	Canal > Reference
Carbazole	-	-	Only a Single Detect in Canal
Chrysene	WRS	0.000	Canal > Reference
Di-n-butyl phthalate	Gehan	0.500	nsd
Di-n-octylphthalate	-	-	Only a Single Detect in Canal
Dibenz(a,h)anthracene	Gehan	0.000	Canal > Reference
Dibenzofuran	-	-	Only a Single Detect in Canal
Fluoranthene	WRS	0.000	Canal > Reference
Fluorene	Gehan	0.007	Canal > Reference
Indeno(1,2,3-c,d)pyrene	WRS	0.000	Canal > Reference
Naphthalene	Gehan	0.015	Canal > Reference
Phenanthrene	WRS	0.010	Canal > Reference
Pyrene	Gehan	0.000	Canal > Reference
Total PAHs	WRS	0.000	Canal > Reference
Pesticides (ug/kg)			
Alpha-chlordane	Gehan	0.104	nsd
Beta endosulfan	-	-	Only a Single Detect in Canal
Endosulfan sulfate	-	-	Only a Single Detect in Canal
Gamma-chlordane	Gehan	0.056	nsd
Methoxychlor	-	-	Only a Single Detect in Canal
P,P'-DDE	-	-	Only a Single Detect in Canal
Polychlorinated biphenyls (ug/kg)			
Aroclor 1016	Gehan	0.102	nsd
Aroclor 1248	Gehan	0.191	nsd

TABLE 4-5

Comparison of Surface Sediment Concentrations in Gowanus Canal and Gowanus Bay Reference Area

Gowanus Canal Remedial Investigation

Brooklyn, New York

	Central Tendency Comparison		
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Aroclor 1254	-	-	Only a Single Detect in Canal
Aroclor 1260	Gehan	0.040	Canal > Reference
Total PCBs	Gehan	0.014	Canal > Reference
Metals (mg/kg)			
Aluminum	WRS	0.664	nsd
Arsenic	WRS	0.646	nsd
Barium	WRS	0.000	Canal > Reference
Beryllium	Gehan	0.824	nsd
Cadmium	WRS	0.003	Canal > Reference
Calcium	WRS	1.000	nsd
Chromium	WRS	0.007	Canal > Reference
Cobalt	Gehan	0.356	nsd
Copper	WRS	0.000	Canal > Reference
Cyanide, Total	Gehan	0.153	nsd
Iron	WRS	0.574	nsd
Lead	WRS	0.000	Canal > Reference
Magnesium	WRS	0.101	nsd
Manganese	WRS	0.997	nsd
Mercury	WRS	0.014	Canal > Reference
Nickel	WRS	0.005	Canal > Reference
Potassium	WRS	0.796	nsd
Selenium	Gehan	0.171	nsd
Silver	Gehan	0.005	Canal > Reference
Sodium	WRS	0.718	nsd
Vanadium	WRS	0.107	nsd
Zinc	-	-	< 10 reference results

Notes:

Test was performed for detected constituents only, and only if a minimum of ten canal and ten reference sample results were available.

WRS = Wilcoxson Rank Sum

- = test not performed

nsd = no significant difference

TABLE 4-6
Soft Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Volatile Organic Compounds (ug/kg)								
1,2,3-trichlorobenzene	2 / 205 (1.0%)	222	4.40 - 19000	3.10 - 4.70	ERT3-2	791	1820 (0)	4900 (0)
1,2,3-trichloropropane	1 / 144 (.7%)	144	5.10 - 44000	1400 - 1400	GC-SED-82	2790	NA	5 (1)
1,2-dichlorobenzene	29 / 353 (8.2%)	366	4.40 - 1300000	3.50 - 340	GC-SD119	34000	240 (4)	190000 (0)
1,3-dichlorobenzene	37 / 357 (10.4%)	366	3.80 - 1300000	0.70 - 340	ERT2-1	33600	240 (1)	NA
1,4-dichlorobenzene	135 / 363 (37.2%)	366	3.80 - 1300000	2.30 - 52000	GC-SD113	33200	240 (66)	2400 (7)
Acetone	164 / 365 (44.9%)	366	12.0 - 110000	20.0 - 4100	GC-SED-01	3750	NA	6100000 (0)
Benzene	271 / 366 (74.0%)	366	4.90 - 3700	0.68 - 410000	GC-SED-51	13600	520 (129)	1100 (102)
Bromoform	3 / 348 (.9%)	366	3.80 - 44000	480 - 2000	GC-SD119	1630	NA	61000 (0)
Bromomethane	1 / 365 (.3%)	366	3.80 - 44000	450 - 450	GC-SD119	1500	NA	730 (0)
Carbon disulfide	212 / 365 (58.1%)	366	5.00 - 44000	0.85 - 8800	GC-SED-52	1490	NA	82000 (0)
Chlorobenzene	96 / 365 (26.3%)	366	3.80 - 44000	0.47 - 21000	GC-SED-02	1680	70 (47)	29000 (0)
Chloromethane	6 / 365 (1.6%)	366	3.80 - 44000	80.0 - 810	GC-SD117	1500	NA	12000 (0)
cis-1,2-dichloroethylene	21 / 365 (5.8%)	366	3.80 - 44000	0.54 - 400	GC-SED-87	1500	NA	78000 (0)
Cyclohexane	38 / 220 (17.3%)	222	3.80 - 19000	0.98 - 980	ERT3-3	696	NA	120000 (0)
Ethylbenzene	312 / 365 (85.5%)	366	5.00 - 1400	0.40 - 1200000	GC-SED-51	63400	128 (211)	5400 (114)
Isopropylbenzene (cumene)	199 / 222 (89.6%)	222	5.00 - 2900	0.94 - 100000	GC-SD139	4490	NA	210000 (0)
m, p xylenes	183 / 222 (82.4%)	222	5.00 - 1900	0.45 - 440000	GC-SD139	18100	540 (88)	340000 (1)
Methyl acetate	44 / 221 (19.9%)	222	3.80 - 19000	1.90 - 2300	GC-SD117	719	NA	7800000 (0)
Methyl ethyl ketone (2-butanone)	147 / 365 (40.3%)	366	7.60 - 44000	8.20 - 6400	GC-SD124	1950	NA	2800000 (0)
Methylcyclohexane	64 / 221 (29.0%)	222	4.80 - 19000	2.40 - 6100	ERT2-2	760	NA	NA
Methylene chloride	4 / 365 (1.1%)	366	3.80 - 44000	0.63 - 1500	GC-SED-10	1520	NA	11000 (0)
o-xylene (1,2-dimethylbenzene)	190 / 222 (85.6%)	222	5.00 - 1200	0.91 - 250000	GC-SD139	10300	540 (91)	380000 (0)
Styrene	6 / 364 (1.6%)	366	3.80 - 44000	170 - 38000	GC-SD130	1660	NA	630000 (0)
Tert-butyl methyl ether	40 / 366 (10.9%)	366	0.85 - 44000	0.68 - 190	ERT3-3	1500	NA	43000 (0)
Tetrachloroethylene(PCE)	8 / 364 (2.2%)	366	3.80 - 44000	1.40 - 290	ERT1-2	1520	NA	550 (0)
Toluene	224 / 365 (61.4%)	366	5.00 - 13000	0.69 - 1000000	GC-SED-51	28000	900 (77)	500000 (7)
Trichloroethylene (TCE)	6 / 364 (1.6%)	366	3.80 - 44000	1.70 - 360	GC-SED-87	1520	NA	2800 (0)
Trichlorofluoromethane	1 / 365 (.3%)	366	3.80 - 44000	10.0 - 10.0	ERT1-2	1500	NA	79000 (0)
Vinyl chloride	1 / 364 (.3%)	366	3.80 - 44000	2.90 - 2.90	ERT3-2	1500	NA	60 (0)
Xylene, total	125 / 144 (86.8%)	144	5.10 - 730	4.60 - 1200000	GC-SED-47, GC-SED-51	139000	540 (83)	63000 (40)

TABLE 4-6
Soft Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Semi-Volatile Organic Compounds (ug/kg)								
2,4-dimethylphenol	1 / 365 (.3%)	367	230 - 1300000	400 - 400	GC-SD117	43800	29 (1)	120000 (0)
2,4-dinitrotoluene	1 / 365 (.3%)	367	230 - 1300000	26000 - 26000	GC-SD130	43300	NA	1600 (1)
2,6-dinitrotoluene	1 / 365 (.3%)	367	230 - 1300000	2300 - 2300	ERT4-3	43800	NA	6100 (0)
2-methylnaphthalene	338 / 366 (92.3%)	367	230 - 460000	16.0 - 9100000	GC-SED-51	574000	70 (331)	31000 (168)
4-chloroaniline	16 / 365 (4.4%)	367	230 - 1300000	600 - 9100	GC-SED-89B	43800	NA	2400 (10)
4-chlorophenyl phenyl ether	1 / 365 (.3%)	367	230 - 1300000	110 - 110	GC-SD117	43800	NA	31000 (0)
4-methylphenol (p-cresol)	23 / 365 (6.3%)	367	230 - 1300000	13.0 - 1800	GC-SD145	43600	670 (7)	31000 (0)
Acenaphthene	359 / 367 (97.8%)	367	360 - 460000	6.90 - 3900000	GC-SED-31	275000	16 (358)	340000 (71)
Acenaphthylene	353 / 367 (96.2%)	367	370 - 540000	40.0 - 1200000	GC-SED-51	52700	44 (352)	340000 (15)
Acetophenone	37 / 221 (16.7%)	223	230 - 530000	59.0 - 9200	GC-SD115	17900	NA	780000 (0)
Anthracene	364 / 367 (99.2%)	367	370 - 460000	33.0 - 2200000	GC-SD127	168000	85.3 (362)	1700000 (4)
Benzaldehyde	3 / 221 (1.4%)	223	230 - 530000	100 - 480	GC-SD117	18700	NA	780000 (0)
Benzidine	2 / 144 (1.4%)	144	3300 - 13000000	2400 - 4700	GC-SED-10	822000	NA	0.5 (2)
Benzo(a)anthracene	365 / 367 (99.5%)	367	370 - 13000	170 - 880000	GC-SED-51	96000	261 (362)	150 (365)
Benzo(a)pyrene	342 / 367 (93.2%)	367	230 - 460000	250 - 630000	GC-SED-51	67500	430 (340)	15 (342)
Benzo(b)fluoranthene	318 / 367 (86.6%)	367	230 - 1300000	180 - 320000	GC-SED-45C	51700	4600 (263)	150 (318)
Benzo(g,h,i)perylene	351 / 367 (95.6%)	367	370 - 1300000	72.0 - 340000	GC-SED-102	34400	620 (334)	170000 (7)
Benzo(k)fluoranthene	304 / 367 (82.8%)	367	230 - 1300000	100 - 380000	GC-SED-51	42900	4600 (229)	1500 (283)
Benzyl butyl phthalate	80 / 367 (21.8%)	367	230 - 1300000	160 - 120000	GC-SED-38	43300	4900 (6)	260000 (0)
Biphenyl (diphenyl)	153 / 222 (68.9%)	223	230 - 26000	16.0 - 380000	GC-SD127	29600	NA	210000 (6)
Bis(2-chloroethoxy) methane	1 / 365 (.3%)	367	230 - 1300000	58.0 - 58.0	GC-SD116	43800	NA	18000 (0)
Bis(2-ethylhexyl) phthalate	223 / 367 (60.8%)	367	230 - 1300000	110 - 2800000	GC-SED-93	80500	182 (221)	35000 (121)
Carbazole	115 / 366 (31.4%)	367	230 - 1300000	26.0 - 93000	GC-SED-37B	37700	NA	NA
Chrysene	365 / 367 (99.5%)	367	370 - 13000	160 - 1100000	GC-SED-51	102000	384 (360)	15000 (254)
Dibenz(a,h)anthracene	262 / 367 (71.4%)	367	230 - 1300000	38.0 - 110000	GC-SED-37B	38200	63.4 (258)	15 (262)
Dibenzofuran	223 / 365 (61.1%)	367	230 - 1300000	31.0 - 430000	GC-SD133	33200	300 (216)	7800 (97)
Diethyl phthalate	2 / 365 (.5%)	367	230 - 1300000	9600 - 170000	GC-SED-93	43600	61000 (1)	4900000 (0)
Dimethyl phthalate	1 / 365 (.3%)	367	230 - 1300000	9200 - 9200	GC-SD134	43800	53000 (0)	NA
Di-n-butyl phthalate	6 / 365 (1.6%)	367	230 - 1300000	21.0 - 1700	ERT1-2	43800	4400 (0)	610000 (0)
Di-n-octylphthalate	130 / 367 (35.4%)	367	230 - 1300000	110 - 130000	ERT2-2	44500	1160 (106)	35000 (4)
Fluoranthene	366 / 367 (99.7%)	367	370 - 370	290 - 6500000	ERT1-2	181000	600 (360)	230000 (78)

TABLE 4-6
Soft Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Semi-Volatile Organic Compounds (ug/kg)								
Fluorene	345 / 367 (94.0%)	367	230 - 460000	34.0 - 2000000	GC-SED-51	156000	19 (345)	230000 (68)
Indeno(1,2,3-c,d)pyrene	356 / 367 (97.0%)	367	370 - 1300000	61.0 - 280000	GC-SED-37B	31000	680 (336)	150 (347)
Naphthalene	337 / 367 (91.8%)	367	230 - 460000	56.0 - 16000000	GC-SED-51	961000	160 (333)	3600 (272)
N-nitrosodiphenylamine	11 / 365 (3.0%)	367	230 - 1300000	1200 - 35000	GC-SD135	44000	11000 (3)	99000 (0)
Phenanthrene	367 / 367 (100%)	367	---	28.0 - 5200000	GC-SED-51	488000	240 (360)	1700000 (36)
Phenol	11 / 365 (3.0%)	367	230 - 1300000	18.0 - 1000	GC-SD133	43700	420 (3)	1800000 (0)
Pyrene	367 / 367 (100%)	367	---	60.0 - 2500000	GC-SED-51	251000	665 (362)	170000 (110)
Total PAHs	366 / 366 (100%)	367	---	120 - 45000000	GC-SED-51	3490000	4022 (359)	NA
Pesticides (ug/kg)								
Aldrin	71 / 343 (20.7%)	367	1.90 - 1800	1.30 - 640	GC-SED-74	55.2	NA	29 (33)
Alpha BHC	69 / 348 (19.8%)	367	1.80 - 1500	1.40 - 1800	GC-SED-52	53.3	NA	77 (18)
Alpha endosulfan	29 / 338 (8.6%)	367	1.70 - 1500	1.70 - 440	GC-SED-87	42.0	0.08 (29)	37000 (0)
Alpha-chlordane	184 / 337 (54.6%)	367	1.70 - 6300	1.50 - 1200	GC-SD112	76.6	0.04 (184)	1600 (0)
Beta BHC	59 / 308 (19.2%)	367	1.70 - 1500	1.90 - 750	ERT3-3	48.9	NA	270 (2)
Beta endosulfan	40 / 333 (12.0%)	367	3.30 - 2900	6.40 - 950	GC-SED-52	80.9	0.08 (40)	37000 (0)
Delta BHC	82 / 353 (23.2%)	367	1.70 - 1500	1.20 - 2900	GC-SED-74	53.6	NA	270 (5)
Dieldrin	152 / 339 (44.8%)	367	3.30 - 2900	4.40 - 830	GC-SED-32	108	340 (9)	30 (111)
Endosulfan sulfate	92 / 290 (31.7%)	367	3.30 - 2900	2.30 - 730	GC-SED-101	121	NA	37000 (0)
Endrin	31 / 334 (9.3%)	367	3.70 - 4500	4.80 - 570	GC-SED-51	119	14.6 (26)	1800 (0)
Endrin aldehyde	98 / 324 (30.2%)	367	3.50 - 2900	5.40 - 710	GC-SED-38	99.2	NA	1800 (0)
Endrin ketone	88 / 309 (28.5%)	367	3.30 - 2900	3.20 - 990	GC-SED-14	96.0	NA	1800 (0)
Gamma BHC	19 / 347 (5.5%)	367	1.70 - 1500	2.70 - 190	GC-SED-52	38.6	0.32 (19)	520 (0)
Gamma-chlordane	126 / 251 (50.2%)	367	1.70 - 6300	3.60 - 920	GC-SD112	125	0.04 (126)	1600 (0)
Heptachlor	55 / 340 (16.2%)	367	1.70 - 1500	2.10 - 980	GC-SED-74	43.8	1.8 (55)	110 (4)
Heptachlor epoxide	107 / 310 (34.5%)	367	1.70 - 1500	1.00 - 420	GC-SED-52	52.9	1.8 (103)	53 (38)
Methoxychlor	88 / 322 (27.3%)	367	10.0 - 15000	20.0 - 8600	GC-SED-14	518	NA	31000 (0)
P,P'-DDD	259 / 346 (74.9%)	367	3.50 - 2900	1.80 - 1900	GC-SED-32, GC-SED-85B	213	1.22 (259)	2000 (0)
P,P'-DDE	222 / 305 (72.8%)	367	3.50 - 2900	1.10 - 1700	GC-SED-85B	174	2.2 (221)	1400 (2)
P,P'-DDT	179 / 321 (55.8%)	367	3.30 - 2800	6.80 - 2400	GC-SED-34B	192	20 (155)	1700 (2)
Total DDTs	235 / 265 (88.7%)	361	---	2.90 - 3600	GC-SED-85B	441	1.58 (235)	NA

TABLE 4-6
Soft Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Polychlorinated Biphenyls (ug/kg)								
Aroclor 1016	58 / 367 (15.8%)	367	10.0 - 5000	84.0 - 3700	ERT1-3	319	22.7 (58)	390 (50)
Aroclor 1242	157 / 366 (42.9%)	367	20.0 - 5000	10.0 - 33000	GC-SD117	797	22.7 (155)	220 (120)
Aroclor 1248	56 / 367 (15.3%)	367	10.0 - 3300	30.0 - 16000	GC-SD135	427	22.7 (56)	220 (47)
Aroclor 1254	225 / 343 (65.6%)	367	10.0 - 2400	5.90 - 9200	GC-SED-80	1020	22.7 (223)	110 (211)
Aroclor 1260	282 / 365 (77.3%)	367	37.0 - 2400	10.0 - 28000	GC-SED-34B	1210	22.7 (280)	220 (225)
Total PCBs	290 / 342 (84.8%)	366	---	38.0 - 50700	GC-SD117	3470	22.7 (290)	220 (261)
Metals (mg/kg)								
Aluminum	361 / 361 (100%)	361	---	206 - 25000	GC-SED-13B	7620	NA	7700 (149)
Antimony	152 / 360 (42.2%)	361	6.10 - 46.7	0.75 - 20200	GC-SED-71C	65.1	2 (131)	3.1 (102)
Arsenic	359 / 361 (99.4%)	361	8.10 - 10.9	1.20 - 105	GC-SD149	13.9	8.2 (260)	0.39 (359)
Barium	361 / 361 (100%)	361	---	3.00 - 2030	GC-SD127	441	130.1 (284)	1500 (9)
Beryllium	61 / 361 (16.9%)	361	0.20 - 8.00	0.15 - 2.60	GC-SED-80	1.11	NA	16 (0)
Cadmium	319 / 361 (88.4%)	361	0.29 - 10.7	0.41 - 97.6	GC-SED-93	9.70	1.2 (312)	7 (159)
Calcium	357 / 361 (98.9%)	361	364 - 7400	355 - 180000	GC-SED-41	12300	NA	NA
Chromium	361 / 361 (100%)	361	---	3.60 - 874	GC-SED-93	135	81 (215)	0.29 (361)
Cobalt	257 / 361 (71.2%)	361	2.00 - 16.0	1.60 - 23.9	GC-SED-16	7.46	NA	2.3 (254)
Copper	361 / 361 (100%)	361	---	6.00 - 1610	GC-SD112	388	34 (348)	310 (192)
Iron	361 / 361 (100%)	361	---	1310 - 110000	GC-SED-51	25500	NA	5500 (358)
Lead	360 / 361 (99.7%)	361	9.20 - 9.20	5.20 - 2880	ERT1-2	770	46.7 (347)	400 (248)
Magnesium	361 / 361 (100%)	361	---	793 - 129000	GC-SED-41	7460	NA	NA
Manganese	361 / 361 (100%)	361	---	13.0 - 920	GC-SED-57	206	460 (14)	180 (173)
Mercury	354 / 361 (98.1%)	361	0.03 - 0.27	0.02 - 61.6	ERT1-3	2.63	0.15 (340)	2.3 (134)
Nickel	361 / 361 (100%)	361	---	3.10 - 484	GC-SD111	77.9	20.9 (335)	150 (34)
Potassium	354 / 361 (98.1%)	361	281 - 1060	84.9 - 5870	GC-SED-13B	1630	NA	NA
Selenium	154 / 361 (42.7%)	361	3.40 - 63.8	0.49 - 9.60	GC-SD149	8.01	NA	39 (0)
Silver	315 / 361 (87.3%)	361	1.00 - 1280	0.20 - 42.1	ERT1-1	10.9	1 (301)	39 (1)
Sodium	324 / 361 (89.8%)	361	95.0 - 3440	245 - 22200	GC-SED-13B	5180	NA	NA
Thallium	60 / 361 (16.6%)	361	2.40 - 79.7	0.70 - 9.00	GC-SD116	9.60	NA	NA
Vanadium	361 / 361 (100%)	361	---	2.60 - 277	GC-SED-46C	45.9	NA	39 (186)
Zinc	361 / 361 (100%)	361	---	5.50 - 4350	GC-SED-27	872	150 (343)	2300 (6)

TABLE 4-6
Soft Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Metals (mg/kg)								
Cyanide, Total	166 / 361 (46.0%)	361	0.51 - 8.00	0.06 - 48.2	GC-SED-52	2.29	NA	160 (0)
Herbicides (ug/kg)								
2,4,5-t (trichlorophenoxyacetic acid)	5 / 143 (3.5%)	143	10.0 - 220	40.0 - 110	GC-SED-102	16.6	NA	61000 (0)
Silvex (2,4,5-tp)	16 / 143 (11.2%)	143	10.0 - 220	4.40 - 480	GC-SED-102	21.7	NA	49000 (0)
General Chemistry (mg/kg)								
Nitrogen, nitrate (as N)	24 / 144 (16.7%)	144	1.00 - 12.5	0.48 - 28.3	GC-SED-46C	2.86	NA	13000 (0)
Nitrogen, nitrite	1 / 144 (.7%)	144	1.00 - 62.5	1.10 - 1.10	GC-SED-01	5.56	NA	780 (0)
Sulfate (as SO4)	123 / 144 (85.4%)	144	11.8 - 25.3	5.60 - 2360	GC-SED-75C	168	NA	NA
Sulfide	6 / 6 (100%)	6	---	2610 - 4740	GC-SD109	3470	NA	NA
Total Organic Carbon	6 / 6 (100%)	6	---	55400 - 151000	GC-SD126	91500	NA	NA
General Chemistry (%)								
Silt	6 / 6 (100%)	6	---	19.2 - 52.9	GC-SD109	42.7	NA	NA
Substrate - clay	6 / 6 (100%)	6	---	1.17 - 12.4	GC-SD126	7.24	NA	NA
Substrate - fines	6 / 6 (100%)	6	---	35.9 - 79.6	GC-SD126	50.0	NA	NA
Solid (%)								
Solids, percent	6 / 6 (100%)	6	---	28.7 - 63.9	GC-SD126	46.1	NA	NA

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TABLE 4-7a
Native Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Volatile Organic Compounds (ug/kg)								
1,2-dibromo-3-chloropropane	1 / 392 (.3%)	395	4.00 - 31000	4500 - 4500	GC-SD49A	2130	NA	5.4 (1)
1,2-dichlorobenzene	4 / 392 (1.0%)	395	4.00 - 31000	0.47 - 270	GC-SD107	2130	240 (1)	190000 (0)
1,2-dichloroethane	3 / 395 (.8%)	395	4.00 - 31000	0.45 - 0.67	GC-SD153	2100	NA	430 (0)
1,2-dichloropropane	3 / 395 (.8%)	395	4.00 - 31000	3.30 - 22.0	GC-SD153	2100	NA	890 (0)
1,3-dichlorobenzene	2 / 392 (.5%)	395	4.00 - 31000	0.31 - 0.60	GC-SD153	2130	240 (0)	NA
1,4-dichlorobenzene	15 / 393 (3.8%)	395	4.40 - 31000	1.40 - 2100	GC-SD107	2120	240 (2)	2400 (0)
1,4-dioxane (p-dioxane)	3 / 3 (100%)	395	---	23.0 - 35.0	GC-SD81A	27.3	NA	44000 (0)
Acetone	41 / 395 (10.4%)	395	8.80 - 63000	10.0 - 3100	GC-SD50B	4170	NA	6100000 (0)
Benzene	254 / 395 (64.3%)	395	4.40 - 12000	0.62 - 340000	GC-SD114	18200	520 (197)	1100 (180)
Bromochloromethane	1 / 395 (.3%)	395	4.00 - 31000	1.30 - 1.30	GC-SD153	2100	NA	NA
Carbon disulfide	81 / 395 (20.5%)	395	4.40 - 31000	0.42 - 170	GC-SD70B	2100	NA	82000 (0)
Chlorobenzene	9 / 395 (2.3%)	395	4.20 - 31000	0.54 - 1200	GC-SD107	2100	70 (1)	29000 (0)
cis-1,2-dichloroethylene	7 / 395 (1.8%)	395	4.00 - 31000	0.44 - 19.0	GC-SD151	2100	NA	78000 (0)
cis-1,3-dichloropropene	4 / 395 (1.0%)	395	4.00 - 31000	2.90 - 4500	GC-SD31A	2110	NA	1700 (1)
Cyclohexane	5 / 395 (1.3%)	395	4.10 - 31000	4.00 - 650	ERT3-3	2100	NA	120000 (0)
Dichlorodifluoromethane	3 / 395 (.8%)	395	4.00 - 31000	0.39 - 0.72	GC-SD148	2100	NA	18000 (0)
Ethylbenzene	337 / 395 (85.3%)	395	4.40 - 580	0.42 - 610000	GC-SD114	74100	128 (294)	5400 (249)
Isopropylbenzene (cumene)	291 / 395 (73.7%)	395	4.40 - 31000	0.39 - 57000	GC-SD35A	6660	NA	210000 (0)
m, p xylenes	322 / 395 (81.5%)	395	4.40 - 2800	0.30 - 790000	GC-SD114	70400	540 (265)	340000 (14)
Methyl acetate	3 / 395 (.8%)	395	4.00 - 31000	1.50 - 400	GC-SD72B	2100	NA	7800000 (0)
Methyl ethyl ketone (2-butanone)	34 / 395 (8.6%)	395	8.10 - 63000	2.00 - 4100	GC-SD47A	4190	NA	2800000 (0)
Methylcyclohexane	15 / 395 (3.8%)	395	4.00 - 31000	1.30 - 25000	GC-SD33A	2160	NA	NA
Methylene chloride	4 / 395 (1.0%)	395	4.00 - 31000	0.81 - 850	GC-SD152	2100	NA	11000 (0)
o-xylene (1,2-dimethylbenzene)	331 / 395 (83.8%)	395	4.40 - 320	0.48 - 340000	GC-SD114, GC-SD115	35300	540 (263)	380000 (0)
Styrene	43 / 395 (10.9%)	395	4.00 - 29000	22.0 - 530000	GC-SD114	16500	NA	630000 (0)
Tert-butyl methyl ether	16 / 395 (4.1%)	395	4.40 - 31000	0.34 - 98.0	ERT1-3	2100	NA	43000 (0)
Toluene	187 / 395 (47.3%)	395	4.10 - 12000	0.33 - 720000	GC-SD114	41100	900 (152)	500000 (4)
trans-1,3-dichloropropene	3 / 395 (.8%)	395	4.00 - 31000	1.50 - 1.90	GC-SD153	2100	NA	1700 (0)
Trichloroethylene (TCE)	2 / 395 (.5%)	395	4.00 - 31000	0.60 - 1.80	GC-SD10A	2100	NA	2800 (0)

TABLE 4-7a
Native Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Semi-Volatile Organic Compounds (ug/kg)								
2,4-dinitrophenol	1 / 393 (.3%)	395	320 - 4700000	3700 - 3700	GC-SD59A	75500	NA	12000 (0)
2,4-dinitrotoluene	3 / 393 (.8%)	395	160 - 2400000	940 - 44000	GC-SD43A	37600	NA	1600 (2)
2-chloronaphthalene	2 / 393 (.5%)	395	160 - 2400000	1800 - 6100	GC-SD28B	38100	NA	180000 (0)
2-methylnaphthalene	330 / 395 (83.5%)	395	190 - 28000	47.0 - 6300000	GC-SD114	487000	70 (326)	31000 (260)
4-methylphenol (p-cresol)	1 / 393 (.3%)	395	160 - 2400000	320 - 320	GC-SD131	38100	670 (0)	31000 (0)
4-nitrophenol	1 / 393 (.3%)	395	320 - 4700000	8.30 - 8.30	GC-SD117	75800	NA	4800 (0)
Acenaphthene	350 / 395 (88.6%)	395	190 - 9300	7.70 - 2300000	GC-SD129	145000	16 (346)	340000 (44)
Acenaphthylene	319 / 395 (80.8%)	395	190 - 150000	6.90 - 4100000	GC-SD115	139000	44 (311)	340000 (37)
Acetophenone	56 / 393 (14.2%)	395	190 - 2400000	20.0 - 4900	GC-SD35A	37200	NA	780000 (0)
Anthracene	348 / 395 (88.1%)	395	190 - 9300	6.20 - 2000000	GC-SD115	126000	85.3 (329)	1700000 (1)
Benzaldehyde	25 / 393 (6.4%)	395	190 - 2400000	26.0 - 5600	GC-SD30A	38000	NA	780000 (0)
Benzo(a)anthracene	346 / 395 (87.6%)	395	190 - 11000	6.50 - 1200000	GC-SD115	68200	261 (319)	150 (323)
Benzo(a)pyrene	313 / 395 (79.2%)	395	190 - 170000	9.50 - 830000	GC-SD115	46600	430 (300)	15 (312)
Benzo(b)fluoranthene	301 / 394 (76.4%)	395	190 - 170000	9.10 - 650000	GC-SD115	29600	4600 (250)	150 (293)
Benzo(g,h,i)perylene	255 / 394 (64.7%)	395	160 - 2400000	24.0 - 450000	GC-SD44A	30600	620 (246)	170000 (5)
Benzo(k)fluoranthene	294 / 395 (74.4%)	395	160 - 170000	7.60 - 290000	GC-SD115	23400	4600 (241)	1500 (266)
Benzyl butyl phthalate	1 / 393 (.3%)	395	160 - 2400000	6.70 - 6.70	GC-SD117	38100	4900 (0)	260000 (0)
Biphenyl (diphenyl)	308 / 395 (78.0%)	395	180 - 28000	14.0 - 700000	GC-SD115	44300	NA	210000 (12)
Bis(2-chloroethyl) ether	1 / 393 (.3%)	395	160 - 2400000	11.0 - 11.0	GC-SD117	38100	NA	210 (0)
Bis(2-ethylhexyl) phthalate	45 / 393 (11.5%)	395	190 - 2400000	31.0 - 27000	GC-SD114	37500	182 (30)	35000 (0)
Carbazole	188 / 393 (47.8%)	395	180 - 2400000	11.0 - 46000	GC-SD118	22300	NA	NA
Chrysene	343 / 395 (86.8%)	395	190 - 11000	5.90 - 980000	GC-SD115	65200	384 (312)	15000 (256)
Dibenz(a,h)anthracene	147 / 393 (37.4%)	395	160 - 2400000	8.10 - 180000	GC-SD44A	32900	63.4 (144)	15 (146)
Dibenzofuran	276 / 395 (69.9%)	395	180 - 480000	13.0 - 240000	GC-SD115	18100	300 (265)	7800 (175)
Di-n-butyl phthalate	3 / 392 (.8%)	395	190 - 2400000	5.00 - 6.20	GC-SD143	38200	4400 (0)	610000 (0)
Di-n-octylphthalate	3 / 391 (.8%)	395	160 - 2400000	53.0 - 1800	GC-SD122	38000	1160 (1)	35000 (0)
Fluoranthene	356 / 395 (90.1%)	395	190 - 11000	7.40 - 1700000	GC-SD115, GC-SD44A	130000	600 (315)	230000 (49)
Fluorene	332 / 395 (84.1%)	395	190 - 120000	11.0 - 2900000	GC-SD115	145000	19 (329)	230000 (57)
Indeno(1,2,3-c,d)pyrene	256 / 394 (65.0%)	395	160 - 2400000	19.0 - 420000	GC-SD44A	31700	680 (245)	150 (252)
Naphthalene	315 / 395 (79.7%)	395	180 - 29000	7.00 - 21000000	GC-SD115	845000	160 (312)	3600 (285)
Phenanthrene	359 / 395 (90.9%)	395	190 - 28000	6.30 - 6800000	GC-SD115	448000	240 (329)	1700000 (18)

TABLE 4-7a
Native Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Semi-Volatile Organic Compounds (ug/kg)								
Phenol	9 / 393 (2.3%)	395	190 - 2400000	6.50 - 560	GC-SD131	38100	420 (1)	1800000 (0)
Pyrene	357 / 395 (90.4%)	395	190 - 11000	8.40 - 3200000	GC-SD115	190000	665 (318)	170000 (133)
Total PAHs	375 / 393 (95.4%)	395	---	8.40 - 47500000	GC-SD115	2920000	4022 (321)	NA
Pesticides (ug/kg)								
Aldrin	27 / 360 (7.5%)	395	1.80 - 40.0	1.90 - 30.0	GC-SD131	2.24	NA	29 (1)
Alpha BHC	44 / 380 (11.6%)	395	1.80 - 40.0	1.10 - 140	ERT2-1	2.24	NA	77 (2)
Alpha endosulfan	25 / 363 (6.9%)	395	1.80 - 40.0	1.00 - 100	GC-SD29A	1.89	0.08 (25)	37000 (0)
Alpha-chlordane	56 / 355 (15.8%)	395	0.95 - 22.0	1.10 - 29.0	ERT3-3	1.82	0.04 (56)	1600 (0)
Beta BHC	30 / 334 (9.0%)	395	1.10 - 40.0	1.10 - 31.0	ERT4-3	1.76	NA	270 (0)
Beta endosulfan	78 / 356 (21.9%)	395	3.60 - 78.0	3.30 - 150	GC-SD29A	9.51	0.08 (78)	37000 (0)
Delta BHC	38 / 379 (10.0%)	395	1.80 - 40.0	1.10 - 65.0	GC-SD29A	2.07	NA	270 (0)
Dieldrin	29 / 379 (7.7%)	395	3.60 - 78.0	1.30 - 24.0	GC-SD47A	3.13	340 (0)	30 (0)
Endosulfan sulfate	25 / 221 (11.3%)	395	3.60 - 78.0	3.60 - 1700	GC-SD29A	27.0	NA	37000 (0)
Endrin	29 / 380 (7.6%)	395	3.60 - 63.0	1.20 - 110	ERT3-2	3.56	14.6 (8)	1800 (0)
Endrin aldehyde	54 / 256 (21.1%)	395	3.60 - 78.0	2.10 - 190	GC-SD131	6.82	NA	1800 (0)
Endrin ketone	139 / 351 (39.6%)	395	3.60 - 63.0	2.50 - 130	GC-SD115	10.5	NA	1800 (0)
Gamma BHC	9 / 391 (2.3%)	395	1.80 - 40.0	0.57 - 9.30	GC-SD47A	1.42	0.32 (9)	520 (0)
Gamma-chlordane	96 / 295 (32.5%)	395	1.30 - 20.0	0.98 - 70.0	GC-SD29A	4.71	0.04 (96)	1600 (0)
Heptachlor	39 / 376 (10.4%)	395	1.80 - 40.0	0.93 - 21.0	GC-SD44A	1.82	1.8 (34)	110 (0)
Heptachlor epoxide	102 / 332 (30.7%)	395	1.80 - 40.0	0.99 - 250	ERT2-1	6.12	1.8 (94)	53 (8)
Methoxychlor	92 / 342 (26.9%)	395	18.0 - 330	4.40 - 1100	ERT3-2	44.6	NA	31000 (0)
P,P'-DDD	146 / 304 (48.0%)	395	3.60 - 39.0	2.00 - 470	GC-SD29A	22.7	1.22 (146)	2000 (0)
P,P'-DDE	92 / 259 (35.5%)	395	3.00 - 78.0	2.30 - 140	GC-SD29A	8.23	2.2 (92)	1400 (0)
P,P'-DDT	165 / 346 (47.7%)	395	2.30 - 78.0	2.80 - 340	GC-SD131	22.5	20 (109)	1700 (0)
Total DDTs	109 / 174 (62.6%)	390	---	2.00 - 840	GC-SD29A	46.6	1.58 (109)	NA
Polychlorinated Biphenyls (ug/kg)								
Aroclor 1016	3 / 394 (.8%)	395	36.0 - 220	200 - 1500	ERT2-1	28.5	22.7 (3)	390 (1)
Aroclor 1242	14 / 394 (3.6%)	395	36.0 - 320	39.0 - 870	GC-SD13B	30.2	22.7 (14)	220 (4)
Aroclor 1248	1 / 393 (.3%)	395	36.0 - 320	110 - 110	GC-SD28B	24.5	22.7 (1)	220 (0)
Aroclor 1254	6 / 388 (1.5%)	395	36.0 - 220	70.0 - 540	ERT2-1	27.7	22.7 (6)	110 (5)

TABLE 4-7a
Native Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Polychlorinated Biphenyls (ug/kg)								
Aroclor 1260	15 / 394 (3.8%)	395	36.0 - 210	48.0 - 1200	GC-SD13B	36.8	22.7 (15)	220 (11)
Total PCBs	19 / 387 (4.9%)	395	---	39.0 - 2610	ERT2-1	26.1	22.7 (19)	220 (11)
Metals (mg/kg)								
Aluminum	392 / 392 (100%)	392	---	1320 - 18500	GC-SD131	4700	NA	7700 (43)
Antimony	69 / 392 (17.6%)	392	4.90 - 766	0.32 - 12.5	ERT2-1	8.46	2 (3)	3.1 (2)
Arsenic	381 / 392 (97.2%)	392	0.81 - 1.20	0.32 - 34.6	GC-SD26A	4.45	8.2 (56)	0.39 (379)
Barium	300 / 392 (76.5%)	392	17.1 - 30.1	4.20 - 799	ERT2-1	31.5	130.1 (5)	1500 (0)
Beryllium	200 / 392 (51.0%)	392	0.15 - 1.00	0.054 - 0.95	GC-SD131	0.30	NA	16 (0)
Cadmium	118 / 392 (30.1%)	392	0.11 - 1.00	0.017 - 8.90	ERT2-1	0.319	1.2 (4)	7 (2)
Calcium	238 / 392 (60.7%)	392	262 - 865	248 - 24000	GC-SD143	1680	NA	NA
Chromium	392 / 392 (100%)	392	---	4.10 - 75.2	GC-SD77A	12.3	81 (0)	0.29 (392)
Cobalt	322 / 392 (82.1%)	392	4.00 - 7.70	1.30 - 15.6	GC-SD143, GC-SD89B	4.80	NA	2.3 (291)
Copper	390 / 392 (99.5%)	392	2.80 - 3.60	2.40 - 483	ERT2-1	12.4	34 (6)	310 (1)
Iron	392 / 392 (100%)	392	---	2840 - 44900	GC-SD70B	10700	NA	5500 (359)
Lead	380 / 380 (100%)	392	---	2.00 - 1360	ERT2-1	14.4	46.7 (8)	400 (3)
Magnesium	392 / 392 (100%)	392	---	631 - 22700	GC-SD143	2530	NA	NA
Manganese	392 / 392 (100%)	392	---	21.4 - 1370	GC-SD152	131	460 (8)	180 (79)
Mercury	33 / 392 (8.4%)	392	0.05 - 0.21	0.00 - 4.80	ERT2-1	0.0947	0.15 (12)	2.3 (1)
Nickel	392 / 392 (100%)	392	---	4.30 - 154	GC-SD143	15.1	20.9 (58)	150 (1)
Potassium	354 / 392 (90.3%)	392	524 - 723	161 - 4600	GC-SD143	980	NA	NA
Selenium	112 / 392 (28.6%)	392	2.80 - 7.10	0.42 - 4.20	ERT2-1	1.77	NA	39 (0)
Silver	22 / 392 (5.6%)	392	0.06 - 2.00	0.055 - 5.90	ERT2-1	0.612	1 (4)	39 (0)
Sodium	163 / 392 (41.6%)	392	127 - 865	569 - 7550	GC-SD72B	847	NA	NA
Thallium	76 / 392 (19.4%)	392	2.00 - 5.10	0.41 - 6.80	GC-SD30A	1.58	NA	NA
Vanadium	392 / 392 (100%)	392	---	3.50 - 62.6	GC-SD130	15.0	NA	39 (5)
Zinc	392 / 392 (100%)	392	---	11.5 - 1580	ERT2-1	37.2	150 (5)	2300 (0)
Cyanide, Total	21 / 392 (5.4%)	392	2.50 - 5.20	0.19 - 9.60	ERT2-1	1.50	NA	160 (0)
General Chemistry (deg f)								
Flashpoint	1 / 1 (100%)	1	---	200 - 200	GC-SD107	200	NA	NA

TABLE 4-7a
Native Sediment - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
General Chemistry (mg/kg)								
Sulfide	287 / 371 (77.4%)	371	15.2 - 53.1	14.7 - 7300	GC-SD120	148	NA	NA
Sulfide	8 / 17 (47.1%)	17	34.9 - 36.0	17.6 - 7390	ERT2-1	482	NA	NA
Total Organic Carbon	321 / 371 (86.5%)	371	1100 - 1340	1130 - 168000	GC-SD108	18700	NA	NA
General Chemistry (ph units)								
pH Dissolved	1 / 1 (100%)	1	---	7.97 - 7.97	GC-SD107	7.97	NA	NA
General Chemistry (%)								
Silt	371 / 371 (100%)	371	---	0.00 - 81.2	GC-SD11A	38.3	NA	NA
Substrate - clay	371 / 371 (100%)	371	---	0.00 - 74.4	GC-SD128	10.4	NA	NA
Substrate - fines	371 / 371 (100%)	371	---	0.00 - 100	GC-SD123, GC-SD18A	51.3	NA	NA
Solid (%)								
Solids, percent	371 / 371 (100%)	371	---	48.1 - 91.1	GC-SD79A	81.4	NA	NA

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TABLE 4-7b

Summary of Average Total PAH Concentrations in Soft and Native Sediment by Sampling Transect

Gowanus Canal Remedial Investigation

Brooklyn, New York

Transect ID	Stations Included	Distance from Head of Canal (ft)	Depth (feet below native sediment surface)	Average Total PAH Concentration (ug/kg)
ERT-1	ERT1-1, 1-2, 1-3	23	Soft	1,334,748
			0-2'	102,160
			2-4'	47,840
			4-6'	617
A	01A, 02A, 03B	67	Soft	315,545
			0-2'	3,268,900
			2-4'	138,890
			4-6'	NR
T1	124, 125, 126	114	Soft	3,223,792
			0-2'	2,490,900
			2-4'	2,362,400
			4-6'	NR
ERT-2	ERT2-1, 2-2, 2-3	179	Soft	1,293,692
			0-2'	2,199,050
			2-4'	4,221,000
			4-6'	NR
B	04A, 05A, 06A	252	Soft	1,468,233
			0-2'	2,172,487
			2-4'	1,940,067
			4-6'	1,988,600
C	07A, 08A, 09B	412	Soft	5,368,050
			0-2'	2,997,650
			2-4'	2,520,450
			4-6'	2,920,500
ERT-3	ERT3-1, 3-2, 3-3	554	Soft	572,987
			0-2'	3,108,500
			2-4'	2,520,100
			4-6'	718,200
D	10A, 11A, 12A	760	Soft	702,940
			0-2'	725,800
			2-4'	373,220
			4-6'	36,820
E	14A, 13B, 15A ERT4-3	978	Soft	2,087,286
			0-2'	3,011,975
			2-4'	4,265,137
			4-6'	3,174,050

TABLE 4-7b

Summary of Average Total PAH Concentrations in Soft and Native Sediment by Sampling Transect

Gowanus Canal Remedial Investigation

Brooklyn, New York

Transect ID	Stations Included	Distance from Head of Canal (ft)	Depth (feet below native sediment surface)	Average Total PAH Concentration (ug/kg)
F	16A, 17A, 18A	1,259	Soft	198,627
			0-2'	2,213,000
			2-4'	4,356,167
			4-6'	966,610
G	19C, 20A, 21B	1,603	Soft	347,818
			0-2'	2,608,000
			2-4'	2,984,000
			4-6'	3,714,000
T8	146, 147, 148	1,773	Soft	1,406,680
			0-2'	1,086,367
			2-4'	864,767
			4-6'	179,830
H	22B, 110, 24B	1,921	Soft	397,704
			0-2'	1,691,000
			2-4'	2,187,867
			4-6'	1,545,212
T2	127, 128, 129	2,116	Soft	6,196,644
			0-2'	7,873,800
			2-4'	3,351,733
			4-6'	1,778,150
I	25B, 26A, 27A	2,348	Soft	831,885
			0-2'	2,547,567
			2-4'	3,269,567
			4-6'	2,822,500
J	28B, 29A, 30A	2,608	Soft	127,700
			0-2'	164,403
			2-4'	1,305,733
			4-6'	1,790,833
K	31A, 32A, 33A	2,799	Soft	7,530,298
			0-2'	1,406,267
			2-4'	5,067,450
			4-6'	4,031,633
L	34B, 35A, 36A	3,054	Soft	7,429,800
			0-2'	5,771,400
			2-4'	4,325,000
			4-6'	954,800

TABLE 4-7b

Summary of Average Total PAH Concentrations in Soft and Native Sediment by Sampling Transect

Gowanus Canal Remedial Investigation

Brooklyn, New York

Transect ID	Stations Included	Distance from Head of Canal (ft)	Depth (feet below native sediment surface)	Average Total PAH Concentration (ug/kg)
M	37B, 38A, 39A	3,278	Soft	8,271,233
			0-2'	NR
			2-4'	NR
			4-6'	NR
N	40A, 41A, 42B	3,444	Soft	91,475
			0-2'	3,890,000
			2-4'	4,316,000
			4-6'	6,478,000
O	43A, 44A, 45C	3,540	Soft	20,296,400
			0-2'	1,979,200
			2-4'	5,388,633
			4-6'	12,207,500
P	46C, 47A, 48A	3,740	Soft	13,532,400
			0-2'	1,505,600
			2-4'	3,035,800
			4-6'	1,759,600
Q	49A, 50B, 51A	3,875	Soft	22,626,200
			0-2'	2,950,300
			2-4'	3,289,833
			4-6'	1,111,333
R	52A, 53A, 54B	4,038	Soft	12,401,525
			0-2'	3,469,100
			2-4'	1,661,650
			4-6'	1,711,940
S	55A, 56A, 57A	4,264	Soft	997,767
			0-2'	4,844,000
			2-4'	5,663,500
			4-6'	2,207,000
T3	130, 131, 132	4,383	Soft	7,032,700
			0-2'	2,807,867
			2-4'	3,054,777
			4-6'	5,132,500
T	118, 59A, 60B	4,604	Soft	8,048,500
			0-2'	5,548,000
			2-4'	3,647,833
			4-6'	7,369,350

TABLE 4-7b

Summary of Average Total PAH Concentrations in Soft and Native Sediment by Sampling Transect

Gowanus Canal Remedial Investigation

Brooklyn, New York

Transect ID	Stations Included	Distance from Head of Canal (ft)	Depth (feet below native sediment surface)	Average Total PAH Concentration (ug/kg)
U	61C, 62C, 63A	4,819	Soft	5,183,667
			0-2'	1,871,533
			2-4'	2,189,567
			4-6'	1,726,250
V	64D, 65A, 66C	5,161	Soft	8,253,500
			0-2'	1,641,157
			2-4'	2,075,433
			4-6'	1,314,333
BB	104A, 105A, 106D	5,304	Soft	8,384,000
			0-2'	431,700
			2-4'	237,690
			4-6'	2,468,000
T4	133, 134, 135	5,542	Soft	2,337,450
			0-2'	3,173,000
			2-4'	2,809,000
			4-6'	NR
W	67B, 68A, 69C	5,730	Soft	4,021,055
			0-2'	5,100
			2-4'	1,260
			4-6'	7,050
X	70B, 122, 72B	5,908	Soft	795,496
			0-2'	593,267
			2-4'	1,047,670
			4-6'	1,278,737
T5	136, 137, 138	6,075	Soft	104,070
			0-2'	271,900
			2-4'	263,000
			4-6'	816,200
Y	73E, 74E, 75C	6,256	Soft	378,480
			0-2'	3,425
			2-4'	100
			4-6'	0
Z	76C, 77A, 78B	6,649	Soft	610,108
			0-2'	1,627,500
			2-4'	15,465
			4-6'	4,400

TABLE 4-7b

Summary of Average Total PAH Concentrations in Soft and Native Sediment by Sampling Transect

Gowanus Canal Remedial Investigation

Brooklyn, New York

Transect ID	Stations Included	Distance from Head of Canal (ft)	Depth (feet below native sediment surface)	Average Total PAH Concentration (ug/kg)
T6	139, 140, 141	7,079	Soft	1,952,032
			0-2'	56
			2-4'	0
			4-6'	51
T7	142, 143, 144	7,519	Soft	902,542
			0-2'	118,926
			2-4'	16
			4-6'	99,600
AA	79A, 81A, 83A	7,596	Soft	374,900
			0-2'	119,136
			2-4'	38
			4-6'	20
4th St. Basin	85B, 111, 87A, 85B	2,469	Soft	994,388
			0-2'	676,750
			2-4'	79,105
			4-6'	24,520
6th St. Basin	88A, 89B, 90B	3,573	Soft	1,485,467
			0-2'	2,739,200
			2-4'	2,134,733
			4-6'	1,966,200
7th St. Basin	91A, 117, 93A	3,961	Soft	1,828,557
			0-2'	1,146,232
			2-4'	816,435
			4-6'	915

Notes:

1. The average of all soft sediment samples from the transect is listed first. The depth ranges below (0-2', 2-4', and 4-6') are average total PAH concentrations in native sediment for a given transect.
2. Transects T1 through T8 were sampled in 2010 by USEPA.
3. Transects A through BB, and those within the three turning basins were originally sampled by National Grid in 2005. These locations were resampled in 2010 and the averages presented utilize soft sediment data from both data sets. Native sediment data from only the 2010 USEPA sampling is included in this summary.
4. Field duplicates are not included (duplicates were omitted).

NR - Not Recovered

ug/kg - micrograms/kilogram

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TABLE 4-8a
Surface Water - Canal - Dry Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Volatile Organic Compounds (ug/l)								
1,4-dichlorobenzene	1 / 27 (3.7%)	27	0.50 - 0.50	0.11 - 0.11	320	0.245	129 (0)	190 (0)
Acetone	26 / 27 (96.3%)	27	5.00 - 5.00	1.10 - 6.70	317	2.24	NA	2200 (0)
Benzene	18 / 27 (66.7%)	27	0.50 - 0.50	0.50 - 11.0	304	1.20	110 (0)	10 (1)
Ethylbenzene	16 / 27 (59.3%)	27	0.50 - 0.50	0.19 - 1.30	320	0.37	25 (0)	1.5 (0)
m, p xylenes	17 / 27 (63.0%)	27	0.50 - 0.50	0.16 - 1.30	320	0.364	NA	120 (0)
Methylene chloride	3 / 27 (11.1%)	27	0.50 - 0.50	0.76 - 1.00	310	0.319	6400 (0)	200 (0)
o-xylene (1,2-dimethylbenzene)	5 / 27 (18.5%)	27	0.50 - 0.50	0.24 - 0.53	320	0.271	NA	120 (0)
Tert-butyl methyl ether	1 / 27 (3.7%)	27	0.50 - 0.50	0.18 - 0.18	304	0.247	5000 (0)	12 (0)
Toluene	16 / 27 (59.3%)	27	0.50 - 0.50	0.17 - 0.95	308B	0.327	215 (0)	6000 (0)
Semi-Volatile Organic Compounds (ug/l)								
2-methylnaphthalene	1 / 27 (3.7%)	27	0.10 - 0.10	0.017 - 0.017	315	0.0488	NA	15 (0)
Acenaphthene	21 / 27 (77.8%)	27	0.10 - 0.10	0.26 - 0.94	319	0.417	40 (0)	990 (0)
Anthracene	3 / 27 (11.1%)	27	0.10 - 0.10	1.20 - 5.20	325	0.352	NA	40000 (0)
Benzo(a)anthracene	7 / 27 (25.9%)	27	0.10 - 0.10	0.12 - 0.83	325	0.131	NA	0.018 (7)
Benzo(a)pyrene	3 / 27 (11.1%)	27	0.10 - 0.10	0.19 - 0.66	319	0.0863	NA	0.018 (3)
Benzo(b)fluoranthene	21 / 27 (77.8%)	27	0.10 - 0.10	0.11 - 0.88	319	0.216	NA	0.018 (21)
Benzo(g,h,i)perylene	5 / 27 (18.5%)	27	0.10 - 0.10	0.099 - 0.15	302, 307A	0.0651	NA	110 (0)
Benzo(k)fluoranthene	11 / 27 (40.7%)	27	0.10 - 0.10	0.10 - 0.29	319, 325	0.103	NA	0.018 (11)
Bis(2-ethylhexyl) phthalate	13 / 27 (48.1%)	27	5.00 - 5.00	0.71 - 5.60	321	2.51	360 (0)	2.2 (5)
Caprolactam	1 / 27 (3.7%)	27	5.00 - 5.00	1.00 - 1.00	312	2.44	NA	1800 (0)
Carbazole	2 / 27 (7.4%)	27	5.00 - 5.00	1.10 - 2.10	325	2.43	NA	NA
Chrysene	15 / 27 (55.6%)	27	0.10 - 0.10	0.11 - 1.10	325	0.195	NA	0.018 (15)
Dimethyl phthalate	8 / 27 (29.6%)	27	5.00 - 5.00	1.50 - 3.40	324	2.47	3.4 (0)	1100000 (0)
Di-n-butyl phthalate	3 / 27 (11.1%)	27	5.00 - 5.00	1.00 - 1.40	301	2.35	3.4 (0)	4500 (0)
Fluoranthene	23 / 27 (85.2%)	27	0.10 - 0.10	0.095 - 2.30	325	0.443	11 (0)	140 (0)
Fluorene	15 / 27 (55.6%)	27	0.10 - 0.10	0.11 - 0.19	325	0.0926	NA	5300 (0)
Indeno(1,2,3-c,d)pyrene	10 / 27 (37.0%)	27	0.10 - 0.10	0.097 - 0.22	319	0.0847	NA	0.018 (10)
Phenanthrene	11 / 27 (40.7%)	27	0.10 - 0.10	0.10 - 0.58	325	0.114	4.6 (0)	1100 (0)
Phenol	1 / 27 (3.7%)	27	5.00 - 5.00	1.30 - 1.30	314	2.46	400 (0)	860000 (0)
Pyrene	6 / 27 (22.2%)	27	0.10 - 0.10	0.15 - 1.50	325	0.19	NA	4000 (0)

TABLE 4-8a
Surface Water - Canal - Dry Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Semi-Volatile Organic Compounds (ug/l)								
Total PAHs	24 / 27 (88.9%)	27	---	0.11 - 13.3	325	2.12	NA	NA
Metals (ug/l)								
Aluminum Dissolved	1 / 27 (3.7%)	27	2000 - 3000	1480 - 1480	324	1300	NA	3700 (0)
Arsenic Dissolved	25 / 25 (100%)	27	---	15.1 - 21.6	323	19.1	36 (0)	0.14 (25)
Arsenic	25 / 25 (100%)	27	---	9.10 - 23.4	309	18.5	36 (0)	0.14 (25)
Barium Dissolved	18 / 27 (66.7%)	27	100 - 100	18.0 - 32.5	304	30.9	200 (0)	730 (0)
Barium	9 / 27 (33.3%)	27	10.0 - 100	18.4 - 23.0	312	38.4	200 (0)	730 (0)
Calcium Dissolved	27 / 27 (100%)	27	---	257000 - 298000	306, 308A	274000	NA	NA
Calcium	27 / 27 (100%)	27	---	259000 - 315000	312	280000	NA	NA
Chromium Dissolved	23 / 27 (85.2%)	27	20.0 - 20.0	3.60 - 10.5	310	5.84	NA	0.043 (23)
Chromium	21 / 27 (77.8%)	27	2.00 - 20.0	4.00 - 99.7	323	12.4	NA	0.043 (21)
Cobalt Dissolved	1 / 27 (3.7%)	27	10.0 - 10.0	2.80 - 2.80	304	4.92	1 (1)	1.1 (1)
Copper Dissolved	11 / 27 (40.7%)	27	25.0 - 375	181 - 282	303	107	3.1 (11)	150 (11)
Copper	11 / 27 (40.7%)	27	25.0 - 375	123 - 232	308B	88.1	3.1 (11)	150 (10)
Lead	7 / 27 (25.9%)	27	10.0 - 10.0	1.90 - 7.30	304	4.68	8.1 (0)	15 (0)
Magnesium Dissolved	27 / 27 (100%)	27	---	803000 - 942000	306, 308A	858000	NA	NA
Magnesium	27 / 27 (100%)	27	---	809000 - 998000	312	880000	NA	NA
Manganese Dissolved	27 / 27 (100%)	27	---	40.0 - 71.5	323	51.1	100 (0)	100 (0)
Manganese	27 / 27 (100%)	27	---	45.0 - 72.9	310	56.9	100 (0)	100 (0)
Mercury Dissolved	13 / 27 (48.1%)	27	0.20 - 0.20	0.047 - 0.091	323	0.0798	0.94 (0)	0.0007 (13)
Mercury	14 / 27 (51.9%)	27	0.20 - 0.20	0.047 - 0.06	324	0.0751	0.94 (0)	0.0007 (14)
Nickel Dissolved	17 / 27 (63.0%)	27	10.0 - 10.0	2.20 - 13.4	310	4.68	8.2 (2)	4600 (0)
Nickel	22 / 27 (81.5%)	27	10.0 - 10.0	2.00 - 52.3	323	6.35	8.2 (4)	4600 (0)
Potassium Dissolved	27 / 27 (100%)	27	---	274000 - 316000	322	289000	NA	NA
Potassium	27 / 27 (100%)	27	---	277000 - 328000	312	297000	NA	NA
Selenium Dissolved	16 / 16 (100%)	27	---	38.6 - 53.5	323	45.8	71 (0)	4200 (0)
Selenium	26 / 26 (100%)	27	---	18.7 - 50.9	322	39.0	71 (0)	4200 (0)
Sodium Dissolved	27 / 27 (100%)	27	---	5330000 - 6790000	322	5950000	NA	NA
Sodium	27 / 27 (100%)	27	---	5550000 - 6620000	307B	6100000	NA	NA
Thallium	1 / 27 (3.7%)	27	10.0 - 10.0	2.10 - 2.10	318	4.89	17 (0)	0.47 (1)
Zinc Dissolved	12 / 24 (50.0%)	27	20.0 - 20.0	9.90 - 37.9	321	13.1	81 (0)	26000 (0)

TABLE 4-8a
Surface Water - Canal - Dry Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Metals (ug/l)								
Zinc	13 / 23 (56.5%)	27	20.0 - 20.0	11.0 - 25.7	321	13.4	81 (0)	26000 (0)
General Chemistry (mg/l)								
Total suspended solids	27 / 27 (100%)	27	---	52.0 - 106	309	80.1	NA	NA

See notes in Table 4-21

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TABLE 4-8b
Surface Water - Reference - Dry Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Volatile Organic Compounds (ug/l)						
Acetone	9 / 11 (81.8%)	11	5.00 - 5.00	0.92 - 2.10	326	1.63
Methylene chloride	8 / 11 (72.7%)	11	0.50 - 0.50	0.53 - 1.10	331	0.58
Semi-Volatile Organic Compounds (ug/l)						
2,4-dinitrophenol	1 / 11 (9.1%)	11	10.0 - 10.0	9.00 - 9.00	336	5.36
4-methylphenol (p-cresol)	1 / 11 (9.1%)	11	5.00 - 5.00	9.00 - 9.00	336	3.09
Acenaphthylene	1 / 11 (9.1%)	11	0.10 - 0.10	0.55 - 0.55	336	0.0955
Benzo(a)anthracene	1 / 11 (9.1%)	11	0.10 - 0.10	0.94 - 0.94	333	0.131
Benzo(a)pyrene	1 / 11 (9.1%)	11	0.10 - 0.10	0.46 - 0.46	333	0.0873
Benzo(b)fluoranthene	3 / 11 (27.3%)	11	0.10 - 0.10	0.15 - 0.55	333	0.115
Benzo(g,h,i)perylene	1 / 11 (9.1%)	11	0.10 - 0.22	0.051 - 0.051	332	0.0555
Benzo(k)fluoranthene	1 / 11 (9.1%)	11	0.10 - 0.10	0.36 - 0.36	333	0.0782
Bis(2-ethylhexyl) phthalate	1 / 11 (9.1%)	11	5.00 - 5.00	1.10 - 1.10	327	2.37
Chrysene	1 / 11 (9.1%)	11	0.10 - 0.10	0.79 - 0.79	333	0.117
Dibenz(a,h)anthracene	1 / 11 (9.1%)	11	0.10 - 0.10	0.12 - 0.12	328	0.0564
Diethyl phthalate	1 / 11 (9.1%)	11	5.00 - 5.00	2.20 - 2.20	336	2.47
Dimethyl phthalate	1 / 11 (9.1%)	11	5.00 - 5.00	2.20 - 2.20	329	2.47
Di-n-butyl phthalate	1 / 11 (9.1%)	11	5.00 - 5.00	0.47 - 0.47	331	2.32
Fluoranthene	1 / 11 (9.1%)	11	0.10 - 0.10	0.61 - 0.61	333	0.101
Fluorene	1 / 11 (9.1%)	11	0.10 - 0.10	0.11 - 0.11	335	0.0555
Indeno(1,2,3-c,d)pyrene	3 / 11 (27.3%)	11	0.10 - 0.10	0.14 - 0.76	336	0.135
Pyrene	1 / 11 (9.1%)	11	0.10 - 0.10	0.62 - 0.62	333	0.102
Total PAHs	5 / 11 (45.5%)	11	---	0.051 - 4.52	333	0.596
Metals (ug/l)						
Arsenic	11 / 11 (100%)	11	---	16.3 - 25.8	336	21.3
Arsenic Dissolved	11 / 11 (100%)	11	---	17.7 - 23.3	326	21.3
Barium	1 / 11 (9.1%)	11	21.2 - 100	30.1 - 30.1	335	44.6
Barium Dissolved	2 / 11 (18.2%)	11	100 - 100	21.3 - 23.4	332	45.0
Calcium	11 / 11 (100%)	11	---	256000 - 321000	331	272000
Calcium Dissolved	11 / 11 (100%)	11	---	244000 - 286000	335	275000

TABLE 4-8b
Surface Water - Reference - Dry Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Metals (ug/l)						
Chromium	10 / 11 (90.9%)	11	20.0 - 20.0	4.70 - 30.6	329	11.7
Chromium Dissolved	11 / 11 (100%)	11	---	3.90 - 9.10	332	4.84
Copper	5 / 11 (45.5%)	11	375 - 375	49.0 - 146	332	155
Copper Dissolved	4 / 11 (36.4%)	11	25.0 - 375	169 - 177	332	166
Lead	5 / 9 (55.6%)	11	10.0 - 10.0	2.00 - 17.9	333	7.47
Lead Dissolved	1 / 10 (10.0%)	11	10.0 - 10.0	2.00 - 2.00	333	4.70
Magnesium	11 / 11 (100%)	11	---	795000 - 1020000	331	852000
Magnesium Dissolved	11 / 11 (100%)	11	---	763000 - 897000	335	853000
Manganese	11 / 11 (100%)	11	---	36.9 - 60.4	329	47.8
Manganese Dissolved	11 / 11 (100%)	11	---	29.0 - 47.9	334	36.2
Mercury	1 / 11 (9.1%)	11	0.20 - 0.20	0.053 - 0.053	329	0.0957
Mercury Dissolved	1 / 11 (9.1%)	11	0.20 - 0.20	0.053 - 0.053	329	0.0957
Nickel	8 / 10 (80.0%)	11	10.0 - 10.0	2.00 - 18.8	330	7.16
Nickel Dissolved	5 / 10 (50.0%)	11	10.0 - 10.0	2.10 - 5.80	332	4.26
Potassium	11 / 11 (100%)	11	---	274000 - 337000	331	294000
Potassium Dissolved	11 / 11 (100%)	11	---	251000 - 322000	336	300000
Selenium	11 / 11 (100%)	11	---	36.6 - 52.2	328	46.2
Selenium Dissolved	7 / 7 (100%)	11	---	37.5 - 51.1	329	43.9
Sodium	11 / 11 (100%)	11	---	5830000 - 6600000	331	6170000
Sodium Dissolved	11 / 11 (100%)	11	---	4790000 - 6910000	326	6360000
Zinc	7 / 8 (87.5%)	11	20.0 - 20.0	10.5 - 24.7	330	17.3
Zinc Dissolved	7 / 8 (87.5%)	11	20.0 - 20.0	10.3 - 14.0	332	11.7
General Chemistry (mg/l)						
Total suspended solids	11 / 11 (100%)	11	---	42.0 - 106	331	78.4

See notes in Table 4-21

TABLE 4-9a
Surface Water - Canal - Wet Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Volatile Organic Compounds (ug/l)								
1,2,4-trichlorobenzene	1 / 26 (3.8%)	26	0.50 - 0.50	0.12 - 0.12	305	0.245	5.4 (0)	70 (0)
1,3-dichlorobenzene	2 / 26 (7.7%)	26	0.50 - 0.50	0.13 - 0.13	303	0.241	NA	960 (0)
1,3-dichlorobenzene	2 / 26 (7.7%)	26	0.50 - 0.50	0.13 - 0.13	305	0.241	NA	960 (0)
1,4-dichlorobenzene	14 / 26 (53.8%)	26	0.50 - 0.50	0.12 - 0.87	306	0.431	129 (0)	190 (0)
Acetone	1 / 26 (3.8%)	26	5.00 - 15.0	12.0 - 12.0	307B	4.53	NA	2200 (0)
Benzene	16 / 26 (61.5%)	26	0.50 - 0.50	0.36 - 2.90	316	0.563	110 (0)	10 (0)
Carbon disulfide	5 / 26 (19.2%)	26	0.50 - 0.50	0.14 - 0.17	308B	0.232	NA	100 (0)
Carbon disulfide	5 / 26 (19.2%)	26	0.50 - 0.50	0.14 - 0.17	313	0.232	NA	100 (0)
Chlorobenzene	17 / 26 (65.4%)	26	0.50 - 0.50	0.12 - 0.33	306	0.253	25 (0)	400 (0)
Chloroform	14 / 26 (53.8%)	26	0.50 - 0.50	0.50 - 0.69	321	0.423	NA	470 (0)
cis-1,2-dichloroethylene	17 / 26 (65.4%)	26	0.50 - 0.50	0.21 - 0.51	319	0.296	NA	37 (0)
Ethylbenzene	21 / 26 (80.8%)	26	0.50 - 0.50	0.18 - 2.60	316	0.451	25 (0)	1.5 (1)
Isopropylbenzene (cumene)	4 / 26 (15.4%)	26	0.50 - 0.50	0.096 - 0.20	316	0.233	NA	68 (0)
m, p xylenes	22 / 26 (84.6%)	26	0.50 - 0.50	0.18 - 2.60	316	0.451	NA	120 (0)
Methyl acetate	1 / 26 (3.8%)	26	0.50 - 0.50	0.44 - 0.44	317	0.257	NA	3700 (0)
Methylene chloride	9 / 26 (34.6%)	26	0.50 - 2.90	0.99 - 3.40	321	0.961	6400 (0)	200 (0)
o-xylene (1,2-dimethylbenzene)	20 / 26 (76.9%)	26	0.50 - 0.50	0.13 - 5.10	316	0.521	NA	120 (0)
Tetrachloroethylene(PCE)	24 / 26 (92.3%)	26	0.50 - 0.50	0.70 - 40.0	319	16.5	450 (0)	3.3 (23)
Toluene	24 / 26 (92.3%)	26	0.50 - 0.50	0.85 - 16.0	316	5.11	215 (0)	6000 (0)
trans-1,3-dichloropropene	1 / 26 (3.8%)	26	0.50 - 0.50	0.16 - 0.16	306	0.247	NA	0.43 (0)
Trichloroethylene (TCE)	2 / 26 (7.7%)	26	0.50 - 0.50	0.10 - 0.12	320	0.239	200 (0)	30 (0)
Semi-Volatile Organic Compounds (ug/l)								
2-methylnaphthalene	3 / 26 (11.5%)	26	0.10 - 0.10	0.17 - 3.00	316	0.174	NA	15 (0)
Acenaphthene	20 / 26 (76.9%)	26	0.10 - 1.00	0.095 - 0.40	313	0.169	40 (0)	990 (0)
Anthracene	1 / 26 (3.8%)	26	0.10 - 1.00	0.095 - 0.095	302	0.069	NA	40000 (0)
Benzo(a)anthracene	4 / 26 (15.4%)	26	0.10 - 1.00	0.074 - 0.15	302	0.0758	NA	0.018 (4)
Benzo(a)pyrene	6 / 26 (23.1%)	26	0.10 - 1.00	0.14 - 0.30	309	0.103	NA	0.018 (6)
Benzo(b)fluoranthene	16 / 26 (61.5%)	26	0.10 - 1.00	0.12 - 0.33	319	0.154	NA	0.018 (16)
Benzo(g,h,i)perylene	23 / 26 (88.5%)	26	0.10 - 1.00	0.13 - 1.50	308A	0.466	NA	110 (0)
Benzo(k)fluoranthene	7 / 26 (26.9%)	26	0.10 - 1.00	0.037 - 0.12	319	0.07	NA	0.018 (7)

TABLE 4-9a
Surface Water - Canal - Wet Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Semi-Volatile Organic Compounds (ug/l)								
Benzyl butyl phthalate	3 / 26 (11.5%)	26	5.00 - 50.0	0.73 - 1.10	307A	3.18	3.4 (0)	1900 (0)
Caprolactam	11 / 26 (42.3%)	26	5.00 - 50.0	0.33 - 1.50	320	2.78	NA	1800 (0)
Chrysene	3 / 26 (11.5%)	26	0.10 - 1.00	0.057 - 0.11	302	0.0709	NA	0.018 (3)
Dibenz(a,h)anthracene	4 / 26 (15.4%)	26	0.10 - 1.00	0.071 - 0.11	303	0.0742	NA	0.018 (4)
Di-n-butyl phthalate	12 / 26 (46.2%)	26	5.00 - 50.0	0.28 - 0.62	320	2.42	3.4 (0)	4500 (0)
Di-n-octylphthalate	3 / 26 (11.5%)	26	5.00 - 50.0	0.23 - 0.28	318	3.11	3.4 (0)	4.8 (0)
Fluoranthene	22 / 26 (84.6%)	26	0.10 - 1.00	0.089 - 0.32	313	0.17	11 (0)	140 (0)
Fluorene	3 / 26 (11.5%)	26	0.10 - 1.00	0.079 - 0.32	313	0.0804	NA	5300 (0)
Indeno(1,2,3-c,d)pyrene	23 / 26 (88.5%)	26	0.10 - 0.15	0.16 - 1.10	316	0.309	NA	0.018 (23)
Naphthalene	5 / 26 (19.2%)	26	0.10 - 0.10	0.13 - 1.40	316	0.136	1.4 (0)	0.14 (4)
Pentachlorophenol	1 / 26 (3.8%)	26	0.20 - 2.00	0.13 - 0.13	311	0.136	7.9 (0)	3 (0)
Phenanthrene	14 / 26 (53.8%)	26	0.10 - 0.10	0.13 - 1.40	316	0.202	4.6 (0)	1100 (0)
Pyrene	22 / 26 (84.6%)	26	0.10 - 1.00	0.10 - 0.34	313	0.197	NA	4000 (0)
Total PAHs	25 / 26 (96.2%)	26	---	0.49 - 6.90	316	1.81	NA	NA
Metals (ug/l)								
Arsenic Dissolved	26 / 26 (100%)	26	---	9.10 - 21.0	322	13.2	36 (0)	0.14 (26)
Arsenic	26 / 26 (100%)	26	---	6.90 - 26.2	302	14.9	36 (0)	0.14 (26)
Barium Dissolved	25 / 26 (96.2%)	26	100 - 100	18.4 - 31.1	322	23.4	200 (0)	730 (0)
Barium	26 / 26 (100%)	26	---	18.4 - 42.8	307A	25.9	200 (0)	730 (0)
Calcium Dissolved	24 / 24 (100%)	26	---	100000 - 304000	303	164000	NA	NA
Calcium	24 / 24 (100%)	26	---	97200 - 296000	324	164000	NA	NA
Chromium Dissolved	7 / 26 (26.9%)	26	20.0 - 20.0	3.60 - 5.80	314	8.50	NA	0.043 (7)
Chromium	26 / 26 (100%)	26	---	3.90 - 29.3	308B	6.72	NA	0.043 (26)
Cobalt Dissolved	1 / 26 (3.8%)	26	10.0 - 10.0	2.50 - 2.50	315	4.90	1 (1)	1.1 (1)
Cobalt	1 / 26 (3.8%)	26	10.0 - 10.0	3.90 - 3.90	307A	4.96	1 (1)	1.1 (1)
Iron Dissolved	1 / 26 (3.8%)	26	1500 - 7500	1020 - 1020	310	991	50 (1)	2600 (0)
Iron	3 / 26 (11.5%)	26	1500 - 1500	651 - 1040	317	754	50 (3)	2600 (0)
Lead Dissolved	6 / 26 (23.1%)	26	10.0 - 10.0	1.90 - 17.7	314	4.93	8.1 (1)	15 (1)
Lead	26 / 26 (100%)	26	---	2.90 - 26.8	317	13.0	8.1 (21)	15 (8)
Magnesium Dissolved	25 / 25 (100%)	26	---	286000 - 4880000	301	805000	NA	NA

TABLE 4-9a
Surface Water - Canal - Wet Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Metals (ug/l)								
Magnesium	25 / 25 (100%)	26	---	276000 - 972000	303	505000	NA	NA
Manganese Dissolved	26 / 26 (100%)	26	---	35.6 - 63.0	322	43.9	100 (0)	100 (0)
Manganese	26 / 26 (100%)	26	---	48.4 - 65.6	307A	54.7	100 (0)	100 (0)
Mercury	19 / 26 (73.1%)	26	0.20 - 0.20	0.065 - 0.089	302	0.0855	0.94 (0)	0.0007 (19)
Nickel Dissolved	25 / 25 (100%)	26	---	2.20 - 8.00	315	3.74	8.2 (0)	4600 (0)
Nickel	25 / 25 (100%)	26	---	2.10 - 29.8	308B	5.76	8.2 (5)	4600 (0)
Potassium Dissolved	24 / 24 (100%)	26	---	92300 - 292000	303	154000	NA	NA
Potassium	24 / 24 (100%)	26	---	88700 - 290000	324	155000	NA	NA
Selenium Dissolved	16 / 16 (100%)	26	---	14.7 - 41.9	303	24.5	71 (0)	4200 (0)
Selenium	26 / 26 (100%)	26	---	13.9 - 64.6	301	29.3	71 (0)	4200 (0)
Sodium Dissolved	25 / 25 (100%)	26	---	2480000 - 9180000	301	4050000	NA	NA
Sodium	25 / 25 (100%)	26	---	2340000 - 7090000	301	3940000	NA	NA
Zinc Dissolved	25 / 26 (96.2%)	26	20.0 - 20.0	11.0 - 40.2	314	22.6	81 (0)	26000 (0)
Zinc	24 / 26 (92.3%)	26	20.0 - 20.0	17.7 - 75.7	318	39.9	81 (0)	26000 (0)
General Chemistry (mg/l)								
Total suspended solids	26 / 26 (100%)	26	---	33.0 - 93.0	302	52.8	NA	NA

See notes in Table 4-21

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TABLE 4-9b
Surface Water - Reference -Wet Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Volatile Organic Compounds (ug/l)						
Ethylbenzene	1 / 11 (9.1%)	11	0.50 - 0.50	0.15 - 0.15	326	0.241
m, p xylenes	1 / 11 (9.1%)	11	0.50 - 0.50	0.14 - 0.14	326	0.24
Methylene chloride	7 / 11 (63.6%)	11	0.50 - 0.50	0.40 - 0.85	326	0.44
o-xylene (1,2-dimethylbenzene)	1 / 11 (9.1%)	11	0.50 - 0.50	0.13 - 0.13	326	0.239
Tetrachloroethylene(PCE)	3 / 11 (27.3%)	11	0.50 - 0.50	0.17 - 5.10	326	0.676
Toluene	1 / 11 (9.1%)	11	0.50 - 0.50	1.40 - 1.40	326	0.355
Semi-Volatile Organic Compounds (ug/l)						
Benzo(a)pyrene	3 / 11 (27.3%)	11	0.10 - 0.10	0.17 - 1.40	328	0.195
Benzo(b)fluoranthene	4 / 11 (36.4%)	11	0.10 - 0.10	0.12 - 1.30	328	0.191
Benzo(g,h,i)perylene	10 / 11 (90.9%)	11	0.10 - 0.10	0.13 - 0.96	328	0.425
Benzo(k)fluoranthene	1 / 11 (9.1%)	11	0.10 - 0.10	1.40 - 1.40	328	0.173
Caprolactam	3 / 11 (27.3%)	11	5.00 - 5.00	0.57 - 0.64	329	1.98
Dibenz(a,h)anthracene	1 / 11 (9.1%)	11	0.10 - 0.10	0.19 - 0.19	326	0.0627
Dimethyl phthalate	1 / 11 (9.1%)	11	5.00 - 5.00	5.40 - 5.40	330	2.76
Di-n-butyl phthalate	2 / 11 (18.2%)	11	5.00 - 5.00	0.22 - 0.28	326	2.09
Fluoranthene	2 / 11 (18.2%)	11	0.10 - 0.10	0.12 - 0.17	335	0.0673
Indeno(1,2,3-c,d)pyrene	10 / 11 (90.9%)	11	0.10 - 0.10	0.13 - 0.94	328	0.271
Isophorone	1 / 11 (9.1%)	11	5.00 - 5.00	0.80 - 0.80	331	2.35
Naphthalene	2 / 11 (18.2%)	11	0.10 - 0.10	0.13 - 0.13	326	0.0645
Naphthalene	2 / 11 (18.2%)	11	0.10 - 0.10	0.13 - 0.13	331	0.0645
Pyrene	1 / 11 (9.1%)	11	0.10 - 0.10	0.13 - 0.13	326	0.0573
Total PAHs	11 / 11 (100%)	11	---	0.13 - 6.00	328	1.21
Metals (ug/l)						
Arsenic	11 / 11 (100%)	11	---	17.7 - 23.2	332	20.0
Arsenic Dissolved	11 / 11 (100%)	11	---	17.2 - 23.5	328	20.6
Barium	1 / 11 (9.1%)	11	100 - 100	23.6 - 23.6	328	47.6
Barium Dissolved	1 / 11 (9.1%)	11	100 - 100	21.9 - 21.9	327	47.4
Calcium	11 / 11 (100%)	11	---	271000 - 336000	333	308000
Calcium Dissolved	11 / 11 (100%)	11	---	265000 - 333000	329	305000

TABLE 4-9b
Surface Water - Reference -Wet Weather Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Metals (ug/l)						
Chromium	11 / 11 (100%)	11	---	4.50 - 7.60	331	6.04
Chromium Dissolved	9 / 11 (81.8%)	11	20.0 - 20.0	3.90 - 9.20	335	5.90
Lead	4 / 11 (36.4%)	11	10.0 - 10.0	2.50 - 5.90	336	4.53
Magnesium	11 / 11 (100%)	11	---	828000 - 1030000	333	939000
Magnesium Dissolved	11 / 11 (100%)	11	---	792000 - 1010000	329	928000
Manganese	11 / 11 (100%)	11	---	42.1 - 59.0	336	45.3
Manganese Dissolved	11 / 11 (100%)	11	---	29.2 - 41.5	336	34.6
Mercury	2 / 11 (18.2%)	11	0.20 - 0.20	0.053 - 0.055	326	0.0916
Nickel	11 / 11 (100%)	11	---	2.50 - 4.60	332	3.46
Nickel	11 / 11 (100%)	11	---	2.50 - 4.60	334	3.46
Nickel Dissolved	9 / 11 (81.8%)	11	10.0 - 10.0	2.40 - 8.50	327	4.45
Potassium	11 / 11 (100%)	11	---	271000 - 333000	333	305000
Potassium Dissolved	11 / 11 (100%)	11	---	255000 - 322000	329	300000
Selenium	11 / 11 (100%)	11	---	27.2 - 40.0	329	32.8
Selenium Dissolved	7 / 7 (100%)	11	---	29.2 - 34.5	330	31.0
Sodium	11 / 11 (100%)	11	---	6320000 - 8250000	333	7210000
Sodium Dissolved	11 / 11 (100%)	11	---	5960000 - 7240000	330	6880000
Zinc	4 / 11 (36.4%)	11	20.0 - 20.0	10.5 - 23.9	336	12.6
Zinc Dissolved	2 / 11 (18.2%)	11	20.0 - 20.0	10.2 - 10.5	335	10.1
General Chemistry (mg/l)						
Total suspended solids	11 / 11 (100%)	11	---	62.0 - 116	336	82.3

See notes in Table 4-21

TABLE 4-10
Comparison of Surface Water Concentrations in Gowanus Canal in Dry and Wet Weather Conditions
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Central Tendency Comparison		
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Volatile Organic Compounds (ug/L)			
1,2,4-trichlorobenzene	-	-	Only a Single Detect
1,3-dichlorobenzene	Gehan	0.500	nsd
1,4-dichlorobenzene	Gehan	0.000	Wet > Dry
Acetone	Gehan	0.468	nsd
Benzene	WRS	0.013	Dry > Wet
Carbon disulfide	Gehan	0.500	nsd
Chlorobenzene	Gehan	0.500	nsd
Chloroform	Gehan	0.000	Wet > Dry
Ethylbenzene	Gehan	0.159	nsd
Isopropylbenzene (cumene)	Gehan	0.500	nsd
Methyl acetate	-	-	Only a Single Detect
Methylene chloride	Gehan	0.001	Wet > Dry
Tert-butyl methyl ether	-	-	Only a Single Detect
Tetrachloroethylene(PCE)	Gehan	0.000	Wet > Dry
Toluene	Gehan	0.000	Wet > Dry
Trichloroethylene (TCE)	Gehan	0.500	nsd
cis-1,2-dichloroethylene	Gehan	0.202	nsd
m, p xylenes	WRS	0.977	nsd
o-xylene (1,2-dimethylbenzene)	Gehan	0.212	nsd
trans-1,3-dichloropropene	-	-	Only a Single Detect
Semi-Volatile Organic Compounds (ug/L)			
2-methylnaphthalene	Gehan	0.036	Wet > Dry
Acenaphthene	WRS	1.000	nsd
Anthracene	Gehan	0.042	Dry > Wet
Benzo(a)anthracene	Gehan	0.034	Dry > Wet
Benzo(a)pyrene	Gehan	0.136	nsd
Benzo(b)fluoranthene	WRS	1.000	nsd
Benzo(g,h,i)perylene	Gehan	0.000	Wet > Dry
Benzo(k)fluoranthene	Gehan	0.001	Dry > Wet
Benzyl butyl phthalate	Gehan	0.500	nsd
Caprolactam	Gehan	0.228	nsd
Carbazole	Gehan	0.500	nsd
Chrysene	Gehan	0.000	Dry > Wet
Di-n-butyl phthalate	Gehan	0.017	Dry > Wet
Di-n-octylphthalate	Gehan	0.500	nsd
Dibenz(a,h)anthracene	Gehan	0.069	nsd
Dimethyl phthalate	Gehan	0.500	nsd
Fluoranthene	WRS	0.169	nsd
Fluorene	Gehan	0.000	Dry > Wet
Indeno(1,2,3-c,d)pyrene	Gehan	0.000	Wet > Dry
Naphthalene	Gehan	0.009	Wet > Dry
Pentachlorophenol	-	-	Only a Single Detect
Phenanthrene	Gehan	0.051	nsd
Phenol	-	-	Only a Single Detect
Pyrene	Gehan	0.000	Wet > Dry
Total PAHs	WRS	0.413	nsd

TABLE 4-10
Comparison of Surface Water Concentrations in Gowanus Canal in Dry and Wet Weather Conditions
Gowanus Canal Remedial Investigation
Brooklyn, New York

	Central Tendency Comparison		
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Metals (ug/L)			
Aluminum Dissolved	-	-	Only a Single Detect
Arsenic	WRS	0.008	Dry > Wet
Arsenic Dissolved	WRS	0.000	Dry > Wet
Barium	Gehan	0.002	Wet > Dry
Barium Dissolved	WRS	1.000	nsd
Calcium	WRS	0.000	Dry > Wet
Calcium Dissolved	WRS	0.000	Dry > Wet
Chromium	WRS	0.564	nsd
Chromium Dissolved	Gehan	0.184	nsd
Cobalt	-	-	Only a Single Detect
Cobalt Dissolved	Gehan	0.081	nsd
Copper	Gehan	0.500	nsd
Copper Dissolved	Gehan	0.500	nsd
Iron	Gehan	0.040	Wet > Dry
Iron Dissolved	Gehan	0.019	Wet > Dry
Lead	Gehan	0.000	Wet > Dry
Lead Dissolved	Gehan	0.156	nsd
Magnesium	WRS	0.000	Dry > Wet
Magnesium Dissolved	WRS	0.000	Dry > Wet
Manganese	WRS	0.194	nsd
Manganese Dissolved	WRS	0.000	Dry > Wet
Mercury	Gehan	0.000	Wet > Dry
Mercury Dissolved	Gehan	0.500	nsd
Nickel	WRS	0.694	nsd
Nickel Dissolved	WRS	0.356	nsd
Potassium	WRS	0.000	Dry > Wet
Potassium Dissolved	WRS	0.000	Dry > Wet
Selenium	WRS	0.000	Dry > Wet
Selenium Dissolved	WRS	0.000	Dry > Wet
Sodium	WRS	0.000	Dry > Wet
Sodium Dissolved	WRS	0.000	Dry > Wet
Zinc	Gehan	0.000	Wet > Dry
Zinc Dissolved	Gehan	0.000	Wet > Dry

Notes:
Test was performed for detected constituents only, and only if a minimum of ten canal and ten reference sample results were available.
WRS = Wilcoxson Rank Sum
- = test not performed
nsd = no significant difference

TABLE 4-11

Comparison of Surface Water Concentrations in Gowanus Canal and Gowanus Bay Reference Area

Gowanus Canal Remedial Investigation

Brooklyn, New York

	Central Tendency Comparison		
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Dry Weather - Volatile Organic Compounds (ug/L)			
1,4-dichlorobenzene	-	-	Only a Single Detect in Canal
Acetone	WRS	0.194	nsd
Benzene	Gehan	0.000	Canal > Reference
Ethylbenzene	Gehan	0.104	nsd
Methylene chloride	Gehan	1.000	nsd
Tert-butyl methyl ether	-	-	Only a Single Detect in Canal
Toluene	Gehan	0.104	nsd
m, p xylenes	Gehan	0.107	nsd
o-xylene (1,2-dimethylbenzene)	Gehan	0.263	nsd
Dry Weather - Semi-Volatile Organic Compounds (ug/L)			
2-methylnaphthalene	-	-	Only a Single Detect in Canal
Acenaphthene	Gehan	0.000	Canal > Reference
Anthracene	Gehan	0.128	nsd
Benzo(a)anthracene	Gehan	0.166	nsd
Benzo(a)pyrene	Gehan	0.440	nsd
Benzo(b)fluoranthene	Gehan	0.009	Canal > Reference
Benzo(g,h,i)perylene	Gehan	0.101	nsd
Benzo(k)fluoranthene	Gehan	0.053	nsd
Bis(2-ethylhexyl) phthalate	Gehan	0.113	nsd
Caprolactam	-	-	Only a Single Detect in Canal
Carbazole	Gehan	0.500	nsd
Chrysene	Gehan	0.013	Canal > Reference
Di-n-butyl phthalate	Gehan	0.072	nsd
Dimethyl phthalate	Gehan	0.389	nsd
Fluoranthene	Gehan	0.000	Canal > Reference
Fluorene	Gehan	0.003	Canal > Reference
Indeno(1,2,3-c,d)pyrene	Gehan	0.477	nsd
Phenanthrene	Gehan	0.008	Canal > Reference
Phenol	-	-	Only a Single Detect in Canal
Pyrene	Gehan	0.177	nsd
Total PAHs	Gehan	0.002	Canal > Reference
Dry Weather - Metals (ug/L)			
Aluminum Dissolved	-	-	Only a Single Detect in Canal
Arsenic	WRS	0.951	nsd
Arsenic Dissolved	WRS	0.997	nsd
Barium	Gehan	0.749	nsd
Barium Dissolved	Gehan	0.801	nsd
Calcium	WRS	0.015	Canal > Reference
Calcium Dissolved	WRS	0.728	nsd
Chromium	WRS	0.527	nsd
Chromium Dissolved	WRS	0.500	nsd
Cobalt Dissolved	-	-	Only a Single Detect in Canal
Copper	Gehan	0.727	nsd
Copper Dissolved	Gehan	0.653	nsd
Lead	-	-	< 10 reference results
Lead Dissolved	-	-	Only a Single Detect in Canal
Magnesium	WRS	0.013	Canal > Reference
Magnesium Dissolved	WRS	0.481	nsd
Manganese	WRS	0.007	Canal > Reference
Manganese Dissolved	WRS	0.000	Canal > Reference
Mercury	Gehan	0.699	nsd
Mercury Dissolved	Gehan	0.307	nsd

TABLE 4-11

Comparison of Surface Water Concentrations in Gowanus Canal and Gowanus Bay Reference Area

Gowanus Canal Remedial Investigation

Brooklyn, New York

	Central Tendency Comparison		
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Nickel	WRS	0.762	nsd
Nickel Dissolved	Gehan	0.204	nsd
Potassium	WRS	0.162	nsd
Potassium Dissolved	WRS	0.986	nsd
Selenium	WRS	0.999	nsd
Selenium Dissolved	-	-	< 10 reference results
Sodium	WRS	1.000	nsd
Sodium Dissolved	WRS	1.000	nsd
Zinc	-	-	< 10 reference results
Zinc Dissolved	-	-	< 10 reference results
Wet Weather - Volatile Organic Compounds (ug/L)			
1,2,4-trichlorobenzene	-	-	Only a Single Detect in Canal
1,3-dichlorobenzene	Gehan	0.500	nsd
1,4-dichlorobenzene	Gehan	0.004	Canal > Reference
Acetone	-	-	Only a Single Detect in Canal
Benzene	Gehan	0.007	Canal > Reference
Carbon disulfide	Gehan	0.500	nsd
Chlorobenzene	Gehan	0.500	nsd
Chloroform	Gehan	0.002	Canal > Reference
Ethylbenzene	Gehan	0.039	Canal > Reference
Isopropylbenzene (cumene)	Gehan	0.500	nsd
Methyl acetate	-	-	Only a Single Detect in Canal
Methylene chloride	Gehan	0.030	Canal > Reference
Tetrachloroethylene(PCE)	Gehan	0.000	Canal > Reference
Toluene	Gehan	0.000	Canal > Reference
Trichloroethylene (TCE)	Gehan	0.500	nsd
cis-1,2-dichloroethylene	Gehan	0.324	nsd
m, p xylenes	Gehan	0.057	nsd
o-xylene (1,2-dimethylbenzene)	Gehan	0.055	nsd
trans-1,3-dichloropropene	-	-	Only a Single Detect in Canal
Wet Weather - Semi-Volatile Organic Compounds (ug/L)			
2-methylnaphthalene	Gehan	0.123	nsd
Acenaphthene	Gehan	0.000	Canal > Reference
Anthracene	-	-	Only a Single Detect in Canal
Benzo(a)anthracene	Gehan	0.169	nsd
Benzo(a)pyrene	Gehan	0.572	nsd
Benzo(b)fluoranthene	Gehan	0.067	nsd
Benzo(g,h,i)perylene	WRS	0.279	nsd
Benzo(k)fluoranthene	Gehan	0.751	nsd
Benzyl butyl phthalate	Gehan	0.500	nsd
Caprolactam	Gehan	0.027	Canal > Reference
Chrysene	Gehan	0.252	nsd
Di-n-butyl phthalate	Gehan	0.043	Canal > Reference
Di-n-octylphthalate	Gehan	0.500	nsd
Dibenz(a,h)anthracene	Gehan	0.572	nsd
Fluoranthene	Gehan	0.000	Canal > Reference
Fluorene	Gehan	0.252	nsd
Indeno(1,2,3-c,d)pyrene	WRS	0.187	nsd
Naphthalene	Gehan	0.376	nsd
Pentachlorophenol	-	-	Only a Single Detect in Canal
Phenanthrene	Gehan	0.002	Canal > Reference
Pyrene	Gehan	0.000	Canal > Reference
Total PAHs	WRS	0.007	Canal > Reference

TABLE 4-11

Comparison of Surface Water Concentrations in Gowanus Canal and Gowanus Bay Reference Area

Gowanus Canal Remedial Investigation

Brooklyn, New York

	Central Tendency Comparison		
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Wet Weather - Metals (ug/L)			
Arsenic	WRS	0.999	nsd
Arsenic Dissolved	WRS	1.000	nsd
Barium	Gehan	0.395	nsd
Barium Dissolved	Gehan	0.534	nsd
Calcium	WRS	1.000	nsd
Calcium Dissolved	WRS	1.000	nsd
Chromium	WRS	0.857	nsd
Chromium Dissolved	Gehan	0.867	nsd
Cobalt	-	-	Only a Single Detect in Canal
Cobalt Dissolved	-	-	Only a Single Detect in Canal
Iron	Gehan	0.500	nsd
Iron Dissolved	-	-	Only a Single Detect in Canal
Lead	Gehan	0.000	Canal > Reference
Lead Dissolved	Gehan	0.261	nsd
Magnesium	WRS	1.000	nsd
Magnesium Dissolved	WRS	1.000	nsd
Manganese	WRS	0.000	Canal > Reference
Manganese Dissolved	WRS	0.000	Canal > Reference
Mercury	Gehan	0.070	nsd
Nickel	WRS	0.065	nsd
Nickel Dissolved	WRS	0.500	nsd
Potassium	WRS	1.000	nsd
Potassium Dissolved	WRS	1.000	nsd
Selenium	WRS	0.973	nsd
Selenium Dissolved	-	-	< 10 reference results
Sodium	WRS	1.000	nsd
Sodium Dissolved	WRS	1.000	nsd
Zinc	Gehan	0.000	Canal > Reference
Zinc Dissolved	Gehan	0.000	Canal > Reference

Notes:

Test was performed for detected constituents only, and only if a minimum of ten canal and ten reference sample results were available.

WRS = Wilcoxson Rank Sum

- = test not performed

nsd = no significant difference

ug/L = micrograms per Liter

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TABLE 4-12
CSO Outfalls - Sediments - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Volatile Organic Compounds (ug/kg)								
1,4-dichlorobenzene	3 / 6 (50.0%)	7	6.10 - 6.40	4.60 - 870	OH-007	150	240 (1)	2400 (0)
Acetone	5 / 7 (71.4%)	7	12.0 - 13.0	17.0 - 1100	OH-007	176	NA	6100000 (0)
Carbon disulfide	3 / 7 (42.9%)	7	6.10 - 6.60	2.20 - 24.0	OH-007	6.01	NA	82000 (0)
cis-1,2-dichloroethylene	2 / 7 (28.6%)	7	6.10 - 7.90	6.60 - 19.0	OH-007	6.02	NA	78000 (0)
Cyclohexane	1 / 7 (14.3%)	7	6.10 - 490	26.0 - 26.0	RH-033	41.1	NA	120000 (0)
Ethylbenzene	2 / 7 (28.6%)	7	6.10 - 7.90	9.60 - 120	OH-007	20.9	128 (0)	5400 (0)
Isopropylbenzene (cumene)	1 / 7 (14.3%)	7	6.10 - 490	7.20 - 7.20	RH-033	38.4	NA	210000 (0)
m, p xylenes	2 / 7 (28.6%)	7	6.10 - 7.90	2.10 - 460	OH-007	68.4	540 (0)	340000 (0)
Methyl ethyl ketone (2-butanone)	2 / 7 (28.6%)	7	12.0 - 16.0	9.70 - 230	OH-007	39.0	NA	2800000 (0)
Methylcyclohexane	3 / 7 (42.9%)	7	6.10 - 7.90	1.50 - 150	OH-007	27.6	NA	NA
Methylene chloride	1 / 7 (14.3%)	7	6.10 - 7.90	8.20 - 8.20	OH-007	3.99	NA	11000 (0)
o-xylene (1,2-dimethylbenzene)	2 / 7 (28.6%)	7	6.10 - 7.90	2.00 - 150	OH-007	24.1	540 (0)	380000 (0)
Tetrachloroethylene(PCE)	2 / 7 (28.6%)	7	6.10 - 490	4.20 - 14.0	RH-037	39.5	NA	550 (0)
Toluene	5 / 7 (71.4%)	7	6.10 - 6.60	2.80 - 380	OH-007	62.6	900 (0)	500000 (0)
Trichloroethylene (TCE)	2 / 7 (28.6%)	7	6.10 - 490	2.50 - 5.30	RH-036	38.0	NA	2800 (0)
Semi-Volatile Organic Compounds (ug/kg)								
2-methylnaphthalene	4 / 7 (57.1%)	7	110 - 120	430 - 2600	OH-007	764	70 (4)	31000 (0)
4-methylphenol (p-cresol)	1 / 7 (14.3%)	7	5500 - 7500	3200 - 3200	OH-007	3010	670 (1)	31000 (0)
Acenaphthene	3 / 7 (42.9%)	7	110 - 120	310 - 1700	RH-033	396	16 (3)	340000 (0)
Anthracene	2 / 7 (28.6%)	7	110 - 150	310 - 580	RH-033	170	85.3 (2)	1700000 (0)
Benzo(a)anthracene	7 / 7 (100%)	7	---	110 - 1300	RH-031	419	261 (4)	150 (5)
Benzo(a)pyrene	4 / 7 (57.1%)	7	110 - 110	490 - 1300	RH-031	509	430 (4)	15 (4)
Benzo(b)fluoranthene	7 / 7 (100%)	7	---	230 - 4500	OH-007	1120	4600 (0)	150 (7)
Benzo(g,h,i)perylene	7 / 7 (100%)	7	---	130 - 960	RH-031	429	620 (2)	170000 (0)
Benzo(k)fluoranthene	5 / 7 (71.4%)	7	110 - 110	170 - 1500	OH-007	566	4600 (0)	1500 (0)
Bis(2-ethylhexyl) phthalate	5 / 7 (71.4%)	7	5500 - 6100	1200 - 22000	OH-007	6190	182 (5)	35000 (0)
Chrysene	6 / 7 (85.7%)	7	110 - 110	140 - 1300	RH-031	388	384 (3)	15000 (0)
Dibenz(a,h)anthracene	6 / 7 (85.7%)	7	110 - 110	110 - 530	RH-031	251	63.4 (6)	15 (6)
Fluoranthene	6 / 7 (85.7%)	7	150 - 150	170 - 2500	RH-031	754	600 (3)	230000 (0)
Fluorene	4 / 7 (57.1%)	7	110 - 120	140 - 910	RH-033	320	19 (4)	230000 (0)

TABLE 4-12
CSO Outfalls - Sediments - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Semi-Volatile Organic Compounds (ug/kg)								
Indeno(1,2,3-c,d)pyrene	7 / 7 (100%)	7	---	190 - 1800	RH-031	673	680 (3)	150 (7)
Naphthalene	5 / 7 (71.4%)	7	110 - 110	110 - 2400	RH-033	584	160 (3)	3600 (0)
Phenanthrene	6 / 7 (85.7%)	7	110 - 110	370 - 1700	RH-031, RH-033	871	240 (6)	1700000 (0)
Pyrene	7 / 7 (100%)	7	---	160 - 2200	RH-031	893	665 (4)	170000 (0)
Total PAHs	7 / 7 (100%)	7	---	1110 - 18300	RH-031	8890	4022 (5)	NA
Pesticides (ug/kg)								
Dieldrin	1 / 7 (14.3%)	7	4.10 - 55.0	85.0 - 85.0	RH-033	26.7	340 (0)	30 (1)
Endosulfan sulfate	1 / 7 (14.3%)	7	4.10 - 55.0	180 - 180	RH-033	40.3	NA	37000 (0)
Endrin aldehyde	1 / 7 (14.3%)	7	4.10 - 55.0	150 - 150	RH-033	36.0	NA	1800 (0)
Gamma-chlordane	1 / 7 (14.3%)	7	2.10 - 28.0	48.0 - 48.0	RH-033	14.4	0.04 (1)	1600 (0)
P,P'-DDT	1 / 7 (14.3%)	7	4.10 - 55.0	210 - 210	RH-033	44.6	20 (1)	1700 (0)
Polychlorinated Biphenyls (ug/kg)								
Aroclor 1260	2 / 7 (28.6%)	7	40.0 - 55.0	170 - 1200	RH-033	212	22.7 (2)	220 (1)
Total PCBs	2 / 7 (28.6%)	7	---	170 - 1200	RH-033	196	22.7 (2)	220 (1)
Metals (mg/kg)								
Aluminum	7 / 7 (100%)	7	---	1960 - 6750	RH-031	4020	NA	7700 (0)
Arsenic	3 / 3 (100%)	7	---	5.60 - 7.90	RH-037	6.47	8.2 (0)	0.39 (3)
Barium	7 / 7 (100%)	7	---	39.7 - 367	RH-037	150	130.1 (2)	1500 (0)
Beryllium	2 / 7 (28.6%)	7	0.60 - 0.87	0.24 - 0.32	RH-031	0.326	NA	16 (0)
Cadmium	7 / 7 (100%)	7	---	0.25 - 6.80	RH-031	1.99	1.2 (2)	7 (0)
Calcium	7 / 7 (100%)	7	---	3380 - 26600	RH-031	14600	NA	NA
Chromium	7 / 7 (100%)	7	---	10.7 - 147	RH-031	43.7	81 (1)	0.29 (7)
Cobalt	7 / 7 (100%)	7	---	3.00 - 10.1	RH-031	6.13	NA	2.3 (7)
Copper	7 / 7 (100%)	7	---	113 - 4540	OH-007	921	34 (7)	310 (4)
Iron	3 / 3 (100%)	7	---	11300 - 30500	RH-031	22000	NA	5500 (3)
Lead	7 / 7 (100%)	7	---	78.6 - 3320	RH-035	718	46.7 (7)	400 (2)
Magnesium	7 / 7 (100%)	7	---	1900 - 12200	RH-031	6880	NA	NA
Manganese	7 / 7 (100%)	7	---	40.6 - 462	RH-033	174	460 (1)	180 (3)
Mercury	7 / 7 (100%)	7	---	0.16 - 1.00	RH-037	0.421	0.15 (7)	2.3 (0)
Nickel	7 / 7 (100%)	7	---	12.0 - 42.9	RH-031, RH-037	28.7	20.9 (5)	150 (0)

TABLE 4-12
CSO Outfalls - Sediments - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value R (# of Exceedances)	Human Health Screening Value A (# of Exceedances)
Metals (mg/kg)								
Potassium	7 / 7 (100%)	7	---	298 - 1090	RH-031	662	NA	NA
Selenium	5 / 7 (71.4%)	7	4.20 - 5.10	0.49 - 1.10	RH-031	1.17	NA	39 (0)
Silver	6 / 7 (85.7%)	7	1.20 - 1.20	1.10 - 2.80	OH-007	1.50	1 (6)	39 (0)
Sodium	7 / 7 (100%)	7	---	167 - 3170	RH-031	658	NA	NA
Vanadium	7 / 7 (100%)	7	---	9.30 - 82.2	OH-007	29.9	NA	39 (1)
Zinc	7 / 7 (100%)	7	---	184 - 1770	RH-031	744	150 (7)	2300 (0)
Cyanide, Total	5 / 7 (71.4%)	7	2.90 - 4.40	0.31 - 1.60	OH-007	0.979	NA	160 (0)

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TABLE 4-13
CSO Outfalls - Water - Dry Weather - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Volatile Organic Compounds (ug/l)								
1,2-dibromo-3-chloropropane	5 / 10 (50.0%)	10	0.05 - 0.05	0.19 - 2.00	RH-038	0.441	NA	0.00032 (5)
1,2-dichloroethane	1 / 10 (10.0%)	10	0.50 - 0.50	1.30 - 1.30	RH-033	0.355	11300 (0)	37 (0)
1,3-dichlorobenzene	2 / 10 (20.0%)	10	0.50 - 0.50	0.36 - 0.58	OH-007	0.294	NA	960 (0)
1,4-dichlorobenzene	4 / 10 (40.0%)	10	0.50 - 0.50	0.35 - 0.64	RH-035	0.367	129 (0)	190 (0)
2-hexanone	1 / 10 (10.0%)	10	5.00 - 5.00	0.75 - 0.75	OH-005	2.33	NA	4.7 (0)
Acetone	10 / 10 (100%)	10	---	9.30 - 1600	RH-033	214	NA	2200 (0)
Benzene	6 / 10 (60.0%)	10	0.50 - 0.50	1.50 - 110	RH-038	21.8	110 (0)	10 (2)
Bromodichloromethane	9 / 10 (90.0%)	10	0.50 - 0.50	0.24 - 0.69	OH-006	0.417	6400 (0)	17 (0)
Carbon disulfide	2 / 10 (20.0%)	10	0.50 - 0.50	0.37 - 0.59	OH-007	0.296	NA	100 (0)
Chlorobenzene	3 / 10 (30.0%)	10	0.50 - 0.50	0.16 - 0.73	RH-033	0.285	25 (0)	400 (0)
Chloroform	10 / 10 (100%)	10	---	1.80 - 82.0	RH-038	14.3	NA	470 (0)
cis-1,2-dichloroethylene	7 / 10 (70.0%)	10	0.50 - 0.50	1.20 - 11.0	RH-037	2.80	NA	37 (0)
Cyclohexane	1 / 10 (10.0%)	10	0.50 - 0.50	1.60 - 1.60	RH-033	0.385	NA	1300 (0)
Ethylbenzene	8 / 10 (80.0%)	10	0.50 - 0.50	0.25 - 11.0	RH-033	2.82	25 (0)	1.5 (3)
Ethylbenzene	8 / 10 (80.0%)	10	0.50 - 0.50	0.25 - 11.0	RH-038	2.82	25 (0)	1.5 (3)
Isopropylbenzene (cumene)	5 / 10 (50.0%)	10	0.50 - 0.50	0.11 - 2.40	RH-033	0.608	NA	68 (0)
m, p xylenes	9 / 10 (90.0%)	10	0.50 - 0.50	0.14 - 11.0	RH-033	2.79	NA	120 (0)
m, p xylenes	9 / 10 (90.0%)	10	0.50 - 0.50	0.14 - 11.0	RH-038	2.79	NA	120 (0)
Methyl acetate	6 / 10 (60.0%)	10	0.50 - 0.50	0.53 - 8.50	OH-007	2.42	NA	3700 (0)
Methyl ethyl ketone (2-butanone)	8 / 10 (80.0%)	10	5.00 - 5.00	1.00 - 3.60	OH-007	2.46	NA	710 (0)
Methylcyclohexane	1 / 10 (10.0%)	10	0.50 - 0.50	1.40 - 1.40	RH-033	0.365	NA	NA
Methylene chloride	6 / 10 (60.0%)	10	0.50 - 0.50	0.49 - 6.70	OH-006	1.82	6400 (0)	200 (0)
o-xylene (1,2-dimethylbenzene)	9 / 10 (90.0%)	10	0.50 - 0.50	0.18 - 3.00	RH-038	0.86	NA	120 (0)
Styrene	4 / 10 (40.0%)	10	0.50 - 0.50	0.14 - 1.70	OH-005	0.408	NA	160 (0)
Tert-butyl methyl ether	4 / 10 (40.0%)	10	0.50 - 0.50	0.59 - 3.80	RH-037	0.951	5000 (0)	12 (0)
Tetrachloroethylene(PCE)	7 / 10 (70.0%)	10	0.50 - 0.50	0.35 - 34.0	RH-036	12.5	450 (0)	3.3 (6)
Toluene	10 / 10 (100%)	10	---	0.55 - 13.0	OH-005	3.68	215 (0)	6000 (0)
Trichloroethylene (TCE)	6 / 10 (60.0%)	10	0.50 - 0.50	1.40 - 5.80	RH-037	1.85	200 (0)	30 (0)
Vinyl chloride	3 / 10 (30.0%)	10	0.50 - 0.50	0.44 - 12.0	RH-037	1.48	NA	2.4 (1)

TABLE 4-13
CSO Outfalls - Water - Dry Weather - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Semi-Volatile Organic Compounds (ug/l)								
2-methylnaphthalene	5 / 10 (50.0%)	10	0.10 - 1.00	0.25 - 10.0	RH-033	2.21	NA	15 (0)
2-methylphenol (o-cresol)	1 / 10 (10.0%)	10	5.00 - 50.0	60.0 - 60.0	RH-033	15.0	NA	180 (0)
4-methylphenol (p-cresol)	7 / 10 (70.0%)	10	5.00 - 50.0	15.0 - 78.0	RH-031	33.4	NA	18 (6)
4-nitroaniline	1 / 10 (10.0%)	10	10.0 - 100	5.60 - 5.60	RH-038	23.1	NA	3.4 (1)
Acenaphthene	6 / 10 (60.0%)	10	0.10 - 1.00	0.10 - 6.60	RH-033	1.45	40 (0)	990 (0)
Acenaphthylene	2 / 10 (20.0%)	10	0.10 - 1.00	1.20 - 1.60	RH-034	0.50	NA	220 (0)
Acetophenone	1 / 10 (10.0%)	10	5.00 - 50.0	0.55 - 0.55	OH-007	11.3	NA	370 (0)
Benzo(a)anthracene	1 / 10 (10.0%)	10	0.10 - 1.00	0.18 - 0.18	OH-006	0.198	NA	0.018 (1)
Benzo(b)fluoranthene	7 / 10 (70.0%)	10	0.10 - 1.00	0.13 - 0.62	OH-006	0.316	NA	0.018 (7)
Benzo(g,h,i)perylene	5 / 10 (50.0%)	10	0.10 - 1.00	0.10 - 0.51	RH-037	0.308	NA	110 (0)
Benzo(k)fluoranthene	1 / 10 (10.0%)	10	0.10 - 1.00	0.11 - 0.11	RH-034	0.236	NA	0.018 (1)
Benzyl butyl phthalate	1 / 10 (10.0%)	10	5.00 - 50.0	2.60 - 2.60	OH-006	9.26	3.4 (0)	1900 (0)
Biphenyl (diphenyl)	1 / 10 (10.0%)	10	5.00 - 50.0	0.38 - 0.38	OH-007	11.3	NA	180 (0)
Bis(2-ethylhexyl) phthalate	6 / 10 (60.0%)	10	5.00 - 50.0	4.70 - 45.0	RH-034	13.0	360 (0)	2.2 (6)
Chrysene	1 / 10 (10.0%)	10	0.10 - 1.00	0.17 - 0.17	OH-006	0.197	NA	0.018 (1)
Dibenz(a,h)anthracene	4 / 10 (40.0%)	10	0.10 - 1.00	0.10 - 0.20	RH-034	0.265	NA	0.018 (4)
Diethyl phthalate	4 / 10 (40.0%)	10	5.00 - 50.0	1.30 - 5.50	RH-031	9.47	3.4 (2)	44000 (0)
Dimethyl phthalate	5 / 10 (50.0%)	10	5.00 - 50.0	1.80 - 4.10	RH-031	9.32	3.4 (1)	1100000 (0)
Di-n-butyl phthalate	1 / 10 (10.0%)	10	5.00 - 50.0	1.60 - 1.60	OH-005	11.4	3.4 (0)	4500 (0)
Fluoranthene	2 / 10 (20.0%)	10	0.10 - 1.00	0.12 - 0.14	RH-037	0.246	11 (0)	140 (0)
Fluorene	5 / 10 (50.0%)	10	0.10 - 1.00	0.18 - 1.70	RH-033	0.499	NA	5300 (0)
Indeno(1,2,3-c,d)pyrene	5 / 10 (50.0%)	10	0.10 - 1.00	0.13 - 0.99	RH-034	0.416	NA	0.018 (5)
Naphthalene	7 / 10 (70.0%)	10	0.10 - 1.00	0.16 - 63.0	RH-033	9.27	1.4 (3)	0.14 (7)
Phenanthrene	5 / 10 (50.0%)	10	0.10 - 1.00	0.31 - 1.60	RH-033	0.498	4.6 (0)	1100 (0)
Phenol	7 / 10 (70.0%)	10	5.00 - 50.0	6.50 - 110	RH-031	24.7	400 (0)	860000 (0)
Pyrene	1 / 10 (10.0%)	10	0.10 - 1.00	0.25 - 0.25	RH-038	0.25	NA	4000 (0)
Total PAHs	9 / 10 (90.0%)	10	---	0.10 - 82.9	RH-033	14.3	NA	NA
Pesticides (ug/l)								
Alpha-chlordane	1 / 10 (10.0%)	10	0.05 - 0.50	0.069 - 0.069	RH-034	0.0519	0.004 (1)	0.19 (0)

TABLE 4-13
CSO Outfalls - Water - Dry Weather - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Metals (ug/l)								
Aluminum Dissolved	1 / 10 (10.0%)	10	200 - 200	127 - 127	RH-038	103	NA	3700 (0)
Aluminum	9 / 10 (90.0%)	10	200 - 200	116 - 1940	OH-006	498	NA	3700 (0)
Antimony	2 / 10 (20.0%)	10	2.00 - 2.00	2.00 - 3.00	OH-006	1.30	500 (0)	640 (0)
Arsenic Dissolved	10 / 10 (100%)	10	---	0.57 - 4.40	RH-038	1.53	36 (0)	0.14 (10)
Arsenic	10 / 10 (100%)	10	---	1.00 - 5.20	RH-038	2.21	36 (0)	0.14 (10)
Barium Dissolved	10 / 10 (100%)	10	---	18.1 - 101	RH-033	44.3	200 (0)	730 (0)
Barium	10 / 10 (100%)	10	---	27.7 - 214	RH-033	87.6	200 (1)	730 (0)
Cadmium	4 / 10 (40.0%)	10	1.00 - 1.00	0.20 - 3.00	OH-006	0.715	8.8 (0)	1.8 (1)
Calcium Dissolved	9 / 9 (100%)	10	---	11800 - 134000	RH-033	54600	NA	NA
Calcium	9 / 9 (100%)	10	---	21700 - 137000	RH-033	61100	NA	NA
Chromium Dissolved	8 / 10 (80.0%)	10	2.00 - 2.00	0.36 - 1.50	RH-038	0.852	NA	0.043 (8)
Chromium	10 / 10 (100%)	10	---	1.10 - 16.0	OH-006	4.30	NA	0.043 (10)
Cobalt Dissolved	9 / 10 (90.0%)	10	1.00 - 1.00	0.33 - 2.70	RH-031	0.897	1 (2)	1.1 (2)
Cobalt	10 / 10 (100%)	10	---	0.70 - 3.40	RH-031	1.63	1 (5)	1.1 (5)
Copper Dissolved	7 / 10 (70.0%)	10	25.0 - 25.0	10.7 - 35.4	RH-034	19.4	3.1 (7)	150 (0)
Copper	10 / 10 (100%)	10	---	33.5 - 140	OH-006	67.8	3.1 (10)	150 (0)
Iron Dissolved	5 / 6 (83.3%)	10	100 - 100	300 - 577	OH-005	342	50 (5)	2600 (0)
Iron	6 / 6 (100%)	10	---	787 - 14200	OH-006	4140	50 (6)	2600 (2)
Lead Dissolved	8 / 10 (80.0%)	10	1.00 - 1.00	0.24 - 2.10	RH-031	0.953	8.1 (0)	15 (0)
Lead	10 / 10 (100%)	10	---	4.20 - 88.6	OH-006	31.5	8.1 (8)	15 (5)
Magnesium Dissolved	10 / 10 (100%)	10	---	5110 - 176000	RH-038	40600	NA	NA
Magnesium	10 / 10 (100%)	10	---	8260 - 202000	RH-038	44800	NA	NA
Manganese Dissolved	10 / 10 (100%)	10	---	30.3 - 693	RH-033	220	100 (5)	100 (5)
Manganese	10 / 10 (100%)	10	---	46.8 - 785	RH-033	268	100 (6)	100 (6)
Nickel Dissolved	10 / 10 (100%)	10	---	1.30 - 6.30	OH-007	2.91	8.2 (0)	4600 (0)
Nickel	10 / 10 (100%)	10	---	2.10 - 11.8	OH-005	5.45	8.2 (2)	4600 (0)
Potassium Dissolved	10 / 10 (100%)	10	---	9220 - 80100	RH-038	22700	NA	NA
Potassium	10 / 10 (100%)	10	---	8170 - 88000	RH-038	25000	NA	NA
Selenium Dissolved	7 / 10 (70.0%)	10	5.00 - 5.00	0.92 - 7.00	RH-038	2.49	71 (0)	4200 (0)
Selenium	5 / 10 (50.0%)	10	5.00 - 5.00	1.10 - 6.80	RH-038	2.83	71 (0)	4200 (0)

TABLE 4-13
CSO Outfalls - Water - Dry Weather - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Metals (ug/l)								
Silver Dissolved	3 / 10 (30.0%)	10	1.00 - 1.00	0.23 - 0.52	RH-034	0.453	NA	18 (0)
Silver	6 / 10 (60.0%)	10	1.00 - 1.00	0.17 - 1.60	RH-037	0.569	NA	18 (0)
Sodium Dissolved	10 / 10 (100%)	10	---	50900 - 1320000	RH-038	309000	NA	NA
Sodium	10 / 10 (100%)	10	---	59100 - 1440000	RH-038	338000	NA	NA
Thallium Dissolved	1 / 10 (10.0%)	10	1.00 - 1.00	0.36 - 0.36	RH-031	0.486	17 (0)	0.47 (0)
Vanadium	4 / 10 (40.0%)	10	5.00 - 5.00	1.40 - 8.90	OH-006	3.12	50 (0)	18 (0)
Zinc Dissolved	10 / 10 (100%)	10	---	5.40 - 80.2	RH-035	20.6	81 (0)	26000 (0)
Zinc	10 / 10 (100%)	10	---	41.1 - 430	OH-006	131	81 (5)	26000 (0)
Cyanide, Total	5 / 10 (50.0%)	10	10.0 - 10.0	4.20 - 9.80	OH-005	5.79	1 (5)	140 (0)
General Chemistry (mg/l)								
Total suspended solids	10 / 10 (100%)	10	---	56.0 - 467	RH-038	151	NA	NA

See notes in Table 4-21

TABLE 4-14
CSO Outfalls - Water - Wet Weather - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Volatile Organic Compounds (ug/l)								
1,1,1-trichloroethane	1 / 18 (5.6%)	18	0.50 - 0.50	0.19 - 0.19	RH-036	0.247	3120 (0)	910 (0)
1,3-dichlorobenzene	1 / 18 (5.6%)	18	0.50 - 0.50	0.56 - 0.56	RH-035	0.267	NA	960 (0)
1,4-dichlorobenzene	4 / 18 (22.2%)	18	0.50 - 0.50	0.41 - 0.73	RH-031	0.317	129 (0)	190 (0)
2-hexanone	4 / 18 (22.2%)	18	5.00 - 5.00	0.75 - 6.70	RH-031	2.91	NA	4.7 (3)
Acetone	16 / 18 (88.9%)	18	12.0 - 12.0	4.90 - 75.0	RH-034	24.7	NA	2200 (0)
Benzene	9 / 18 (50.0%)	18	0.50 - 0.50	0.56 - 30.0	RH-038	3.20	110 (0)	10 (1)
Bromodichloromethane	2 / 18 (11.1%)	18	0.50 - 0.50	0.35 - 0.36	OH-005	0.262	6400 (0)	17 (0)
Chlorobenzene	5 / 18 (27.8%)	18	0.50 - 0.50	0.14 - 1.40	RH-033, RH-038	0.386	25 (0)	400 (0)
Chloroform	14 / 18 (77.8%)	18	0.50 - 0.50	0.47 - 11.0	RH-038	2.23	NA	470 (0)
cis-1,2-dichloroethylene	5 / 18 (27.8%)	18	0.50 - 0.50	1.70 - 12.0	RH-037	1.65	NA	37 (0)
Cyclohexane	1 / 18 (5.6%)	18	0.50 - 0.50	0.27 - 0.27	RH-033	0.251	NA	1300 (0)
Ethylbenzene	12 / 18 (66.7%)	18	0.50 - 0.50	0.24 - 8.70	RH-037	1.21	25 (0)	1.5 (4)
Isopropylbenzene (cumene)	7 / 18 (38.9%)	18	0.50 - 0.50	0.27 - 5.10	RH-031	0.662	NA	68 (0)
m, p xylenes	12 / 18 (66.7%)	18	0.50 - 0.50	0.24 - 8.70	RH-037	1.22	NA	120 (0)
Methyl acetate	1 / 18 (5.6%)	18	0.50 - 0.50	2.30 - 2.30	RH-034	0.364	NA	3700 (0)
Methyl ethyl ketone (2-butanone)	3 / 18 (16.7%)	18	0.50 - 5.00	3.80 - 7.70	RH-034	2.86	NA	710 (0)
Methyl isobutyl ketone	2 / 18 (11.1%)	18	5.00 - 5.00	1.70 - 3.00	RH-034	2.48	NA	200 (0)
Methylcyclohexane	1 / 18 (5.6%)	18	0.50 - 0.50	0.16 - 0.16	RH-037	0.245	NA	NA
Methylene chloride	8 / 18 (44.4%)	18	0.50 - 0.50	0.50 - 2.10	RH-035	0.632	6400 (0)	200 (0)
o-xylene (1,2-dimethylbenzene)	12 / 18 (66.7%)	18	0.50 - 0.50	0.12 - 2.20	RH-037	0.528	NA	120 (0)
Tert-butyl methyl ether	2 / 18 (11.1%)	18	0.50 - 0.50	0.38 - 3.60	RH-038	0.443	5000 (0)	12 (0)
Tetrachloroethylene(PCE)	14 / 18 (77.8%)	18	0.50 - 0.50	0.30 - 20.0	RH-036	3.22	450 (0)	3.3 (5)
Toluene	17 / 18 (94.4%)	18	0.50 - 0.50	0.17 - 23.0	RH-037	3.63	215 (0)	6000 (0)
Trichloroethylene (TCE)	6 / 18 (33.3%)	18	0.50 - 0.50	0.25 - 19.0	RH-038	1.91	200 (0)	30 (0)
Vinyl chloride	2 / 18 (11.1%)	18	0.50 - 0.50	1.90 - 26.0	RH-037	1.77	NA	2.4 (1)
Semi-Volatile Organic Compounds (ug/l)								
2-methylnaphthalene	10 / 19 (52.6%)	19	0.10 - 1.00	0.14 - 3.40	RH-038	0.766	NA	15 (0)
2-methylphenol (o-cresol)	3 / 19 (15.8%)	19	5.00 - 50.0	6.00 - 11.0	RH-035	8.24	NA	180 (0)
4-methylphenol (p-cresol)	7 / 19 (36.8%)	19	5.00 - 50.0	1.70 - 76.0	RH-034	11.8	NA	18 (2)
Acenaphthene	13 / 19 (68.4%)	19	0.10 - 1.00	0.12 - 2.70	RH-038	0.691	40 (0)	990 (0)

TABLE 4-14
CSO Outfalls - Water - Wet Weather - Statistical Summary
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Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Semi-Volatile Organic Compounds (ug/l)								
Acenaphthylene	2 / 19 (10.5%)	19	0.10 - 1.00	0.20 - 0.25	RH-031	0.187	NA	220 (0)
Anthracene	4 / 19 (21.1%)	19	0.10 - 1.00	0.15 - 0.26	RH-031	0.197	NA	40000 (0)
Benzaldehyde	1 / 19 (5.3%)	19	5.00 - 50.0	1.10 - 1.10	RH-035	8.35	NA	370 (0)
Benzo(a)anthracene	11 / 19 (57.9%)	19	0.10 - 1.00	0.11 - 0.35	RH-031	0.239	NA	0.018 (11)
Benzo(a)pyrene	6 / 19 (31.6%)	19	0.10 - 1.00	0.15 - 0.59	RH-031	0.238	NA	0.018 (6)
Benzo(b)fluoranthene	14 / 19 (73.7%)	19	0.10 - 1.00	0.11 - 0.85	RH-034	0.341	NA	0.018 (14)
Benzo(g,h,i)perylene	3 / 19 (15.8%)	19	0.19 - 1.00	0.24 - 1.50	RH-037	0.378	NA	110 (0)
Benzo(k)fluoranthene	12 / 19 (63.2%)	19	0.10 - 1.00	0.066 - 0.31	RH-031	0.221	NA	0.018 (12)
Benzyl butyl phthalate	1 / 19 (5.3%)	19	5.00 - 50.0	3.40 - 3.40	RH-034	7.28	3.4 (0)	1900 (0)
Bis(2-ethylhexyl) phthalate	4 / 19 (21.1%)	19	5.00 - 50.0	17.0 - 76.0	RH-034	15.6	360 (0)	2.2 (4)
Chrysene	12 / 19 (63.2%)	19	0.10 - 1.00	0.11 - 0.32	RH-031	0.245	NA	0.018 (12)
Dibenz(a,h)anthracene	8 / 19 (42.1%)	19	0.10 - 1.00	0.095 - 0.45	RH-031	0.23	NA	0.018 (8)
Diethyl phthalate	1 / 19 (5.3%)	19	5.00 - 50.0	5.70 - 5.70	RH-034	8.59	3.4 (1)	44000 (0)
Dimethyl phthalate	1 / 19 (5.3%)	19	5.00 - 50.0	5.40 - 5.40	RH-038	8.57	3.4 (1)	1100000 (0)
Di-n-octylphthalate	1 / 19 (5.3%)	19	5.00 - 50.0	0.28 - 0.28	RH-034	8.30	3.4 (0)	4.8 (0)
Fluoranthene	9 / 19 (47.4%)	19	0.10 - 1.00	0.16 - 1.10	RH-034	0.328	11 (0)	140 (0)
Fluorene	10 / 19 (52.6%)	19	0.10 - 1.00	0.12 - 0.54	RH-038	0.278	NA	5300 (0)
Indeno(1,2,3-c,d)pyrene	4 / 19 (21.1%)	19	0.21 - 1.00	0.27 - 1.30	OH-006	0.343	NA	0.018 (4)
Naphthalene	14 / 19 (73.7%)	19	0.10 - 1.00	0.098 - 29.0	RH-037	4.18	1.4 (7)	0.14 (12)
Pentachlorophenol	11 / 19 (57.9%)	19	0.20 - 2.00	0.12 - 0.84	OH-005, OH-007	0.463	7.9 (0)	3 (0)
Phenanthrene	13 / 19 (68.4%)	19	0.10 - 1.00	0.11 - 1.10	RH-038	0.484	4.6 (0)	1100 (0)
Phenol	2 / 19 (10.5%)	19	5.00 - 50.0	4.30 - 24.0	RH-031	9.65	400 (0)	860000 (0)
Pyrene	14 / 19 (73.7%)	19	0.10 - 1.00	0.22 - 0.83	RH-031	0.396	NA	4000 (0)
Total PAHs	17 / 19 (89.5%)	19	---	0.69 - 33.6	RH-037	7.33	NA	NA
Polychlorinated Biphenyls (ug/l)								
Aroclor 1260	1 / 18 (5.6%)	18	1.00 - 1.00	0.57 - 0.57	OH-006	0.504	0.03 (1)	0.000001 (1)
Total PCBs	1 / 18 (5.6%)	18	---	0.57 - 0.57	OH-006	0.0317	0.03 (1)	0.000001 (1)
Metals (ug/l)								
Aluminum Dissolved	1 / 19 (5.3%)	19	200 - 3000	226 - 226	RH-033	180	NA	3700 (0)
Aluminum	19 / 19 (100%)	19	---	117 - 2150	RH-036	692	NA	3700 (0)

TABLE 4-14
CSO Outfalls - Water - Wet Weather - Statistical Summary
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Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Metals (ug/l)								
Arsenic Dissolved	19 / 19 (100%)	19	---	0.77 - 6.20	OH-005	2.66	36 (0)	0.14 (19)
Arsenic	19 / 19 (100%)	19	---	1.80 - 7.50	OH-005	3.28	36 (0)	0.14 (19)
Barium Dissolved	19 / 19 (100%)	19	---	5.40 - 170	OH-005	28.6	200 (0)	730 (0)
Barium	19 / 19 (100%)	19	---	7.30 - 116	RH-033	58.1	200 (0)	730 (0)
Cadmium Dissolved	1 / 19 (5.3%)	19	1.00 - 1.00	0.57 - 0.57	RH-033	0.504	8.8 (0)	1.8 (0)
Cadmium	10 / 19 (52.6%)	19	1.00 - 1.00	0.33 - 2.70	RH-033	0.892	8.8 (0)	1.8 (2)
Calcium Dissolved	18 / 18 (100%)	19	---	3730 - 51400	RH-036	18500	NA	NA
Calcium	18 / 18 (100%)	19	---	3250 - 69700	RH-036	24000	NA	NA
Chromium Dissolved	19 / 19 (100%)	19	---	0.61 - 3.80	RH-033	1.35	NA	0.043 (19)
Chromium	19 / 19 (100%)	19	---	1.20 - 14.6	RH-036	4.26	NA	0.043 (19)
Cobalt Dissolved	10 / 19 (52.6%)	19	1.00 - 1.00	0.44 - 1.90	RH-035	0.656	1 (2)	1.1 (2)
Cobalt	18 / 19 (94.7%)	19	1.00 - 1.00	0.55 - 3.70	RH-033	1.37	1 (7)	1.1 (7)
Copper Dissolved	18 / 19 (94.7%)	19	25.0 - 25.0	2.50 - 217	RH-037	25.0	3.1 (16)	150 (1)
Copper	19 / 19 (100%)	19	---	12.1 - 160	RH-034	50.4	3.1 (19)	150 (1)
Iron Dissolved	18 / 18 (100%)	19	---	47.0 - 625	RH-033	247	50 (17)	2600 (0)
Iron	18 / 18 (100%)	19	---	227 - 13600	RH-036	2990	50 (18)	2600 (6)
Lead Dissolved	19 / 19 (100%)	19	---	0.72 - 6.80	OH-007	2.57	8.1 (0)	15 (0)
Lead	19 / 19 (100%)	19	---	6.80 - 420	RH-036	76.3	8.1 (18)	15 (16)
Magnesium Dissolved	15 / 19 (78.9%)	19	5000 - 5000	2240 - 107000	RH-037	12800	NA	NA
Magnesium	16 / 19 (84.2%)	19	5000 - 5000	2350 - 25000	RH-031	7460	NA	NA
Manganese Dissolved	19 / 19 (100%)	19	---	4.20 - 348	RH-037	60.0	100 (2)	100 (2)
Manganese	19 / 19 (100%)	19	---	10.0 - 367	RH-037	109	100 (8)	100 (8)
Mercury Dissolved	1 / 19 (5.3%)	19	0.20 - 0.20	0.067 - 0.067	RH-033	0.0983	0.94 (0)	0.0007 (1)
Mercury	2 / 19 (10.5%)	19	0.20 - 0.20	0.16 - 0.19	OH-007	0.108	0.94 (0)	0.0007 (2)
Nickel Dissolved	17 / 19 (89.5%)	19	1.00 - 1.00	1.30 - 5.30	RH-037	2.59	8.2 (0)	4600 (0)
Nickel	18 / 19 (94.7%)	19	1.00 - 1.00	1.30 - 17.6	RH-034	5.85	8.2 (4)	4600 (0)
Potassium Dissolved	15 / 18 (83.3%)	19	5000 - 5000	2050 - 13400	RH-031	5700	NA	NA
Potassium	12 / 18 (66.7%)	19	5000 - 5000	3100 - 14000	RH-031	5730	NA	NA
Selenium Dissolved	2 / 19 (10.5%)	19	5.00 - 5.00	0.93 - 1.50	RH-036	2.36	71 (0)	4200 (0)
Selenium	4 / 19 (21.1%)	19	5.00 - 5.00	1.10 - 2.10	RH-036	2.28	71 (0)	4200 (0)
Sodium Dissolved	18 / 18 (100%)	19	---	5080 - 267000	RH-033	70700	NA	NA

TABLE 4-14
CSO Outfalls - Water - Wet Weather - Statistical Summary
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Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Metals (ug/l)								
Sodium	18 / 18 (100%)	19	---	4940 - 187000	RH-031	48400	NA	NA
Vanadium Dissolved	6 / 19 (31.6%)	19	5.00 - 5.00	1.10 - 1.90	RH-038	2.18	50 (0)	18 (0)
Vanadium	13 / 19 (68.4%)	19	5.00 - 5.00	1.70 - 19.3	RH-036	4.16	50 (0)	18 (1)
Zinc Dissolved	19 / 19 (100%)	19	---	13.0 - 110	RH-038	39.6	81 (1)	26000 (0)
Zinc	19 / 19 (100%)	19	---	40.1 - 705	RH-034	196	81 (15)	26000 (0)
General Chemistry (mg/l)								
Total suspended solids	18 / 18 (100%)	18	---	18.0 - 989	RH-035	137	NA	NA

See notes in Table 4-21

TABLE 4-15
Pipe Outfalls - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Volatile Organic Compounds (ug/l)								
Acetone	1 / 12 (8.3%)	12	5.00 - 5.00	33.0 - 33.0	E-27	5.04	NA	2200 (0)
Benzene	2 / 12 (16.7%)	12	0.50 - 0.50	0.35 - 0.37	E-33	0.268	110 (0)	10 (0)
Carbon disulfide	1 / 12 (8.3%)	12	0.50 - 0.50	0.36 - 0.36	E-35	0.259	NA	100 (0)
Chloroform	3 / 12 (25.0%)	12	0.50 - 0.50	0.37 - 1.30	W-77	0.399	NA	470 (0)
cis-1,2-dichloroethylene	1 / 12 (8.3%)	12	0.50 - 0.50	1.10 - 1.10	E-35	0.321	NA	37 (0)
Cyclohexane	1 / 12 (8.3%)	12	0.50 - 0.50	0.87 - 0.87	W-44	0.302	NA	1300 (0)
Ethylbenzene	2 / 12 (16.7%)	12	0.50 - 0.50	0.22 - 0.32	W-44	0.253	25 (0)	1.5 (0)
Isopropylbenzene (cumene)	2 / 12 (16.7%)	12	0.50 - 0.50	0.37 - 2.00	W-44	0.406	NA	68 (0)
m, p xylenes	1 / 12 (8.3%)	12	0.50 - 0.50	0.85 - 0.85	W-44	0.30	NA	120 (0)
Methyl ethyl ketone (2-butanone)	1 / 12 (8.3%)	12	5.00 - 5.00	33.0 - 33.0	T1-03	5.04	NA	710 (0)
Methylcyclohexane	1 / 12 (8.3%)	12	0.50 - 0.50	2.30 - 2.30	W-44	0.421	NA	NA
Methylene chloride	1 / 12 (8.3%)	12	0.50 - 0.50	0.51 - 0.51	W-037	0.272	6400 (0)	200 (0)
o-xylene (1,2-dimethylbenzene)	1 / 12 (8.3%)	12	0.50 - 0.50	0.36 - 0.36	W-44	0.259	NA	120 (0)
Tert-butyl methyl ether	2 / 12 (16.7%)	12	0.50 - 0.50	1.40 - 1.70	E-35	0.467	5000 (0)	12 (0)
Tetrachloroethylene(PCE)	1 / 12 (8.3%)	12	0.50 - 0.50	0.48 - 0.48	W-01	0.269	450 (0)	3.3 (0)
Toluene	3 / 12 (25.0%)	12	0.50 - 0.50	0.31 - 1.90	W-44	0.424	215 (0)	6000 (0)
Trichloroethylene (TCE)	1 / 12 (8.3%)	12	0.50 - 0.50	0.63 - 0.63	W-01	0.282	200 (0)	30 (0)
Vinyl chloride	1 / 12 (8.3%)	12	0.50 - 0.50	0.66 - 0.66	W-44	0.284	NA	2.4 (0)
Semi-Volatile Organic Compounds (ug/l)								
Acenaphthene	5 / 11 (45.5%)	11	0.10 - 0.10	0.14 - 39.0	E-33	3.68	40 (0)	990 (0)
Acenaphthylene	3 / 11 (27.3%)	11	0.10 - 0.10	0.13 - 0.36	E-33	0.0936	NA	220 (0)
Anthracene	1 / 11 (9.1%)	11	0.10 - 0.10	0.35 - 0.35	E-33	0.0773	NA	40000 (0)
Benzo(a)anthracene	1 / 11 (9.1%)	11	0.10 - 0.10	0.23 - 0.23	W-01	0.0664	NA	0.018 (1)
Benzo(a)pyrene	2 / 11 (18.2%)	11	0.10 - 0.10	0.20 - 0.72	W-01	0.125	NA	0.018 (2)
Benzo(b)fluoranthene	3 / 11 (27.3%)	11	0.10 - 0.10	0.16 - 0.54	W-01	0.12	NA	0.018 (3)
Benzo(g,h,i)perylene	4 / 11 (36.4%)	11	0.10 - 0.10	0.12 - 0.93	W-77	0.246	NA	110 (0)
Benzo(k)fluoranthene	3 / 11 (27.3%)	11	0.10 - 0.10	0.069 - 0.14	W-01	0.0625	NA	0.018 (3)
Bis(2-ethylhexyl) phthalate	5 / 11 (45.5%)	11	5.00 - 5.00	0.99 - 7.00	W-01	2.82	360 (0)	2.2 (3)
Chrysene	1 / 11 (9.1%)	11	0.10 - 0.10	0.41 - 0.41	W-01	0.0827	NA	0.018 (1)
Dibenz(a,h)anthracene	3 / 11 (27.3%)	11	0.10 - 0.10	0.14 - 0.25	E-63	0.0918	NA	0.018 (3)

TABLE 4-15
Pipe Outfalls - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Semi-Volatile Organic Compounds (ug/l)								
Diethyl phthalate	1 / 11 (9.1%)	11	5.00 - 5.00	6.30 - 6.30	T1-03	2.85	3.4 (1)	44000 (0)
Dimethyl phthalate	10 / 11 (90.9%)	11	5.00 - 5.00	1.30 - 2.50	W-01	1.97	3.4 (0)	1100000 (0)
Di-n-butyl phthalate	2 / 11 (18.2%)	11	5.00 - 5.00	0.30 - 5.40	T1-03	2.56	3.4 (1)	4500 (0)
Fluoranthene	4 / 11 (36.4%)	11	0.10 - 0.10	0.10 - 1.00	E-33	0.188	11 (0)	140 (0)
Fluorene	2 / 11 (18.2%)	11	0.10 - 0.10	0.13 - 2.30	E-33	0.262	NA	5300 (0)
Indeno(1,2,3-c,d)pyrene	10 / 11 (90.9%)	11	0.10 - 0.10	0.11 - 0.54	W-01	0.234	NA	0.018 (10)
Naphthalene	1 / 11 (9.1%)	11	0.10 - 0.10	0.17 - 0.17	E-33	0.0609	1.4 (0)	0.14 (1)
Pentachlorophenol	4 / 11 (36.4%)	11	0.20 - 0.20	0.11 - 0.79	W-77	0.185	7.9 (0)	3 (0)
Phenanthrene	2 / 11 (18.2%)	11	0.10 - 0.10	0.28 - 0.83	E-33	0.142	4.6 (0)	1100 (0)
Pyrene	5 / 11 (45.5%)	11	0.10 - 0.10	0.17 - 1.60	E-33	0.325	NA	4000 (0)
Total PAHs	11 / 11 (100%)	11	---	0.11 - 45.8	E-33	5.29	NA	NA
Metals (ug/l)								
Aluminum Dissolved	2 / 10 (20.0%)	10	20.0 - 20.0	20.2 - 341	T1-03	44.1	NA	3700 (0)
Aluminum	8 / 10 (80.0%)	10	20.0 - 20.0	5.60 - 390	T1-03	63.5	NA	3700 (0)
Arsenic Dissolved	10 / 10 (100%)	10	---	2.40 - 8.20	E-63	4.74	36 (0)	0.14 (10)
Arsenic	10 / 10 (100%)	10	---	2.50 - 7.80	E-63	4.56	36 (0)	0.14 (10)
Barium Dissolved	10 / 10 (100%)	10	---	16.8 - 285	E-33	115	200 (1)	730 (0)
Barium	10 / 10 (100%)	10	---	20.3 - 295	E-33	131	200 (2)	730 (0)
Cadmium Dissolved	1 / 10 (10.0%)	10	1.00 - 1.00	0.38 - 0.38	T1-03	0.488	8.8 (0)	1.8 (0)
Cadmium	1 / 10 (10.0%)	10	1.00 - 1.00	0.31 - 0.31	T1-03	0.481	8.8 (0)	1.8 (0)
Calcium Dissolved	10 / 10 (100%)	10	---	3190 - 474000	E-35	133000	NA	NA
Calcium	10 / 10 (100%)	10	---	2780 - 561000	E-35	189000	NA	NA
Chromium Dissolved	8 / 10 (80.0%)	10	2.00 - 2.00	0.70 - 1.80	W-01	1.01	NA	0.043 (8)
Chromium	8 / 10 (80.0%)	10	2.00 - 2.00	0.66 - 1.50	W-01	0.955	NA	0.043 (8)
Cobalt Dissolved	6 / 10 (60.0%)	10	1.00 - 1.00	0.41 - 1.50	T1-03	0.656	1 (1)	1.1 (1)
Cobalt	5 / 10 (50.0%)	10	1.00 - 1.00	0.40 - 1.50	T1-03	0.708	1 (2)	1.1 (2)
Copper Dissolved	10 / 10 (100%)	10	---	2.60 - 15.0	E-63	5.65	3.1 (8)	150 (0)
Copper	10 / 10 (100%)	10	---	2.50 - 16.0	E-63	6.72	3.1 (9)	150 (0)
Iron Dissolved	5 / 9 (55.6%)	10	200 - 200	88.5 - 696	W-77	234	50 (5)	2600 (0)
Iron	9 / 9 (100%)	10	---	132 - 4910	W-037	1990	50 (9)	2600 (3)

TABLE 4-15
Pipe Outfalls - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Ecological Screening Value S (# of Exceedances)	Human Health Screening Value T (# of Exceedances)
Metals (ug/l)								
Lead Dissolved	3 / 10 (30.0%)	10	1.00 - 1.00	0.71 - 1.20	T1-03	0.651	8.1 (0)	15 (0)
Lead	7 / 10 (70.0%)	10	1.00 - 1.00	0.39 - 6.50	W-46	1.66	8.1 (0)	15 (0)
Magnesium Dissolved	10 / 10 (100%)	10	---	806 - 132000	E-63	46600	NA	NA
Magnesium	10 / 10 (100%)	10	---	688 - 173000	E-63	55300	NA	NA
Manganese Dissolved	10 / 10 (100%)	10	---	6.00 - 893	E-33	316	100 (7)	100 (7)
Manganese	10 / 10 (100%)	10	---	10.0 - 857	E-33	322	100 (7)	100 (7)
Nickel Dissolved	10 / 10 (100%)	10	---	0.81 - 7.70	T1-03	2.88	8.2 (0)	4600 (0)
Nickel	10 / 10 (100%)	10	---	0.63 - 11.5	E-35	3.23	8.2 (1)	4600 (0)
Potassium Dissolved	10 / 10 (100%)	10	---	267 - 65000	E-35	28300	NA	NA
Potassium	10 / 10 (100%)	10	---	217 - 112000	E-63	37600	NA	NA
Selenium Dissolved	5 / 10 (50.0%)	10	5.00 - 5.00	2.90 - 9.40	E-63	4.07	71 (0)	4200 (0)
Selenium	5 / 10 (50.0%)	10	5.00 - 5.00	2.90 - 8.80	E-63	3.85	71 (0)	4200 (0)
Sodium Dissolved	9 / 9 (100%)	10	---	22200 - 1350000	E-63	488000	NA	NA
Sodium	9 / 9 (100%)	10	---	24900 - 1490000	E-63	546000	NA	NA
Vanadium	1 / 10 (10.0%)	10	5.00 - 5.00	2.00 - 2.00	W-46	2.45	50 (0)	18 (0)
Zinc Dissolved	10 / 10 (100%)	10	---	2.70 - 209	T1-03	26.7	81 (1)	26000 (0)
Zinc	10 / 10 (100%)	10	---	3.20 - 205	T1-03	32.5	81 (1)	26000 (0)
Cyanide, Total	3 / 10 (30.0%)	10	10.0 - 10.0	4.40 - 20.4	E-63	6.84	1 (3)	140 (0)

See notes in Table 4-21

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TABLE 4-16a
Air - Canoe Level - Round 1 Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Human Health Screening Value P (# of Exceedances)
Volatile Organic Compounds (ug/m3)							
Acetone	10 / 10 (100%)	10	---	22.0 - 60.0	506	36.6	3200 (0)
Benzene	10 / 10 (100%)	10	---	0.69 - 1.10	501	0.841	0.31 (10)
Bromoform	1 / 10 (10.0%)	10	0.10 - 0.52	0.12 - 0.12	505	0.12	2.2 (0)
Carbon disulfide	1 / 10 (10.0%)	10	1.60 - 1.60	2.70 - 2.70	508	0.99	73 (0)
Chloroform	7 / 10 (70.0%)	10	0.20 - 0.24	0.16 - 0.28	501	0.181	0.11 (7)
Chloromethane	10 / 10 (100%)	10	---	1.70 - 3.10	504	2.12	9.4 (0)
Ethylbenzene	10 / 10 (100%)	10	---	0.48 - 5.10	508	1.34	0.97 (3)
Methyl ethyl ketone (2-butanone)	10 / 10 (100%)	10	---	1.70 - 4.30	504	2.46	520 (0)
Methylene chloride	6 / 10 (60.0%)	10	1.70 - 1.70	1.80 - 4.50	501	2.00	5.2 (0)
Toluene	10 / 10 (100%)	10	---	2.70 - 8.50	507	4.45	520 (0)
Trichloroethylene (TCE)	7 / 10 (70.0%)	10	0.21 - 0.27	0.069 - 0.90	507	0.201	1.2 (0)
Xylene, total	10 / 10 (100%)	10	---	1.80 - 16.0	508	4.30	10 (1)
Semi-Volatile Organic Compounds (ug/m3)							
Acenaphthene	10 / 10 (100%)	10	---	0.057 - 5.70	502	0.91	NA
Acenaphthylene	10 / 10 (100%)	10	---	0.0014 - 0.049	502	0.0138	NA
Anthracene	10 / 10 (100%)	10	---	0.0042 - 0.37	502	0.0745	NA
Benzo(a)anthracene	2 / 10 (20.0%)	10	0.068 - 0.094	0.002 - 0.0023	501	0.0292	0.0087 (0)
Benzo(b)fluoranthene	1 / 10 (10.0%)	10	0.068 - 0.094	0.0025 - 0.0025	501	0.0325	0.0087 (0)
Chrysene	1 / 10 (10.0%)	10	0.068 - 0.094	0.0088 - 0.0088	502	0.033	0.087 (0)
Fluoranthene	10 / 10 (100%)	10	---	0.019 - 1.00	502	0.168	NA
Fluorene	10 / 10 (100%)	10	---	0.034 - 4.70	502	0.712	NA
Naphthalene	10 / 10 (100%)	10	---	0.19 - 3.40	503	1.10	0.072 (10)
Phenanthrene	10 / 10 (100%)	10	---	0.084 - 6.50	502	1.11	NA
Pyrene	10 / 10 (100%)	10	---	0.014 - 0.55	502	0.103	NA
Total PAHs	10 / 10 (100%)	10	---	0.404 - 21.0	502	4.21	NA

See notes in Table 4-21

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TABLE 4-16b
Air - Canoe Level - Round 2 Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Human Health Screening Value P (# of Exceedances)
Volatile Organic Compounds (ug/m3)							
Acetone	10 / 10 (100%)	10	---	24.0 - 300	509	83.0	3200 (0)
Benzene	10 / 10 (100%)	10	---	0.64 - 3.80	510	1.38	0.31 (10)
Carbon disulfide	1 / 10 (10.0%)	10	1.60 - 7.80	3.30 - 3.30	503	1.51	73 (0)
Chloroform	8 / 10 (80.0%)	10	0.098 - 0.24	0.16 - 0.24	503	0.174	0.11 (8)
Chloromethane	8 / 10 (80.0%)	10	2.10 - 5.20	1.60 - 2.20	510	1.91	9.4 (0)
Chloromethane	8 / 10 (80.0%)	10	2.10 - 5.20	1.60 - 2.20	506	1.91	9.4 (0)
Ethylbenzene	10 / 10 (100%)	10	---	0.41 - 4.40	510	1.40	0.97 (5)
Methyl ethyl ketone (2-butanone)	10 / 10 (100%)	10	---	2.70 - 18.0	509	5.70	520 (0)
Methylene chloride	2 / 10 (20.0%)	10	1.70 - 8.70	1.90 - 2.00	506	1.60	5.2 (0)
Toluene	9 / 10 (90.0%)	10	3.80 - 3.80	5.00 - 25.0	510	8.10	520 (0)
Trichloroethylene (TCE)	8 / 10 (80.0%)	10	0.11 - 0.27	0.096 - 0.20	505	0.131	1.2 (0)
Xylene, total	9 / 10 (90.0%)	10	4.30 - 4.30	2.90 - 28.0	510	6.76	10 (1)
Semi-Volatile Organic Compounds (ug)							
Acenaphthene	2 / 2 (100%)	2	---	0.92 - 4.00	507	2.46	NA
Acenaphthylene	2 / 2 (100%)	2	---	0.032 - 0.26	507	0.146	NA
Anthracene	2 / 2 (100%)	2	---	0.041 - 0.49	507	0.266	NA
Fluoranthene	2 / 2 (100%)	2	---	0.094 - 0.42	507	0.257	NA
Fluorene	2 / 2 (100%)	2	---	0.53 - 2.00	507	1.27	NA
Naphthalene	2 / 2 (100%)	2	---	1.00 - 11.0	507	6.00	NA
Phenanthrene	2 / 2 (100%)	2	---	0.71 - 3.60	507	2.16	NA
Pyrene	2 / 2 (100%)	2	---	0.068 - 0.39	507	0.229	NA
Total PAHs	2 / 2 (100%)	2	---	3.40 - 22.2	507	12.8	NA
Semi-Volatile Organic Compounds (ug/m3)							
Acenaphthene	8 / 8 (100%)	8	---	0.084 - 3.30	502	0.844	NA
Acenaphthylene	8 / 8 (100%)	8	---	0.0043 - 0.04	502	0.0167	NA
Anthracene	8 / 8 (100%)	8	---	0.0054 - 0.15	502	0.0517	NA
Benzo(a)anthracene	3 / 8 (37.5%)	8	0.071 - 0.071	0.0024 - 0.0033	509	0.0233	0.0087 (0)
Chrysene	1 / 8 (12.5%)	8	0.07 - 0.071	0.0043 - 0.0043	505	0.0315	0.087 (0)
Fluoranthene	8 / 8 (100%)	8	---	0.021 - 0.45	502	0.145	NA

TABLE 4-16b
Air - Canoe Level - Round 2 Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Human Health Screening Value P (# of Exceedances)
Semi-Volatile Organic Compounds (ug/m3)							
Fluorene	8 / 8 (100%)	8	---	0.056 - 2.30	502	0.537	NA
Naphthalene	8 / 8 (100%)	8	---	0.47 - 2.60	503	1.30	0.072 (8)
Phenanthrene	8 / 8 (100%)	8	---	0.098 - 3.00	502	0.80	NA
Pyrene	8 / 8 (100%)	8	---	0.014 - 0.23	502	0.0846	NA
Total PAHs	8 / 8 (100%)	8	---	0.903 - 11.8	502	3.77	NA

See notes in Table 4-21

TABLE 4-17a
Air - Street Level - Round 1 Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Human Health Screening Value P (# of Exceedances)
Volatile Organic Compounds (ug/m3)							
Acetone	10 / 10 (100%)	10	---	25.0 - 53.0	510	36.2	3200 (0)
Benzene	10 / 10 (100%)	10	---	0.61 - 2.30	501	0.948	0.31 (10)
Bromoform	1 / 10 (10.0%)	10	0.10 - 0.52	0.37 - 0.37	503	0.176	2.2 (0)
Carbon disulfide	2 / 10 (20.0%)	10	1.60 - 1.60	2.60 - 3.80	504	1.28	73 (0)
Chloroform	6 / 10 (60.0%)	10	0.20 - 0.24	0.17 - 0.39	501	0.18	0.11 (6)
Chloromethane	10 / 10 (100%)	10	---	1.80 - 3.00	502	2.41	9.4 (0)
Ethylbenzene	10 / 10 (100%)	10	---	0.56 - 1.70	501	0.894	0.97 (3)
Methyl ethyl ketone (2-butanone)	10 / 10 (100%)	10	---	1.90 - 11.0	510	3.56	520 (0)
Methylene chloride	5 / 10 (50.0%)	10	1.70 - 1.70	1.70 - 5.10	501	2.06	5.2 (0)
Toluene	10 / 10 (100%)	10	---	3.00 - 6.20	501	4.18	520 (0)
Trichloroethylene (TCE)	5 / 10 (50.0%)	10	0.054 - 0.27	0.06 - 0.74	507	0.191	1.2 (0)
Xylene, total	10 / 10 (100%)	10	---	2.00 - 6.80	501	3.10	10 (0)
Semi-Volatile Organic Compounds (ug/m3)							
Acenaphthene	10 / 10 (100%)	10	---	0.037 - 0.61	505	0.204	NA
Acenaphthylene	10 / 10 (100%)	10	---	0.0016 - 0.018	507	0.00483	NA
Anthracene	10 / 10 (100%)	10	---	0.0029 - 0.043	507	0.0166	NA
Fluoranthene	10 / 10 (100%)	10	---	0.012 - 0.094	505	0.0435	NA
Fluorene	10 / 10 (100%)	10	---	0.03 - 0.31	505	0.143	NA
Naphthalene	10 / 10 (100%)	10	---	0.10 - 1.30	505	0.533	0.072 (10)
Naphthalene	10 / 10 (100%)	10	---	0.10 - 1.30	503	0.533	0.072 (10)
Phenanthrene	10 / 10 (100%)	10	---	0.059 - 0.55	509	0.272	NA
Pyrene	10 / 10 (100%)	10	---	0.0088 - 0.06	505	0.0271	NA
Total PAHs	10 / 10 (100%)	10	---	0.347 - 2.93	505	1.24	NA

See notes in Table 4-21

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TABLE 4-17b
Air - Street Level - Round 2 Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Human Health Screening Value P (# of Exceedances)
Volatile Organic Compounds (ug/m3)							
Acetone	10 / 10 (100%)	10	---	23.0 - 460	507	101	3200 (0)
Benzene	10 / 10 (100%)	10	---	0.67 - 1.40	510	0.982	0.31 (10)
Chloroform	9 / 10 (90.0%)	10	0.24 - 0.24	0.16 - 0.45	505	0.206	0.11 (9)
Chloromethane	8 / 10 (80.0%)	10	3.10 - 5.20	1.40 - 2.50	502	1.91	9.4 (0)
Ethylbenzene	10 / 10 (100%)	10	---	0.56 - 1.80	510	0.956	0.97 (3)
Methyl ethyl ketone (2-butanone)	10 / 10 (100%)	10	---	2.30 - 30.0	507	7.00	520 (0)
Methylene chloride	1 / 10 (10.0%)	10	1.70 - 8.70	2.00 - 2.00	506	1.50	5.2 (0)
Toluene	6 / 10 (60.0%)	10	3.70 - 4.80	5.00 - 7.50	505	4.81	520 (0)
Toluene	6 / 10 (60.0%)	10	3.70 - 4.80	5.00 - 7.50	504	4.81	520 (0)
Trichloroethylene (TCE)	8 / 10 (80.0%)	10	0.16 - 0.27	0.06 - 0.60	502	0.185	1.2 (0)
Xylene, total	10 / 10 (100%)	10	---	2.40 - 7.60	510	3.97	10 (0)
Semi-Volatile Organic Compounds (ug/m3)							
Acenaphthene	10 / 10 (100%)	10	---	0.079 - 1.30	507	0.444	NA
Acenaphthylene	10 / 10 (100%)	10	---	0.0019 - 0.14	507	0.0234	NA
Anthracene	10 / 10 (100%)	10	---	0.004 - 0.11	507	0.0309	NA
Fluoranthene	10 / 10 (100%)	10	---	0.018 - 0.20	509	0.0693	NA
Fluorene	10 / 10 (100%)	10	---	0.057 - 0.63	507	0.259	NA
Naphthalene	10 / 10 (100%)	10	---	0.26 - 4.40	507	1.19	0.072 (10)
Phenanthrene	10 / 10 (100%)	10	---	0.099 - 0.87	509	0.401	NA
Pyrene	10 / 10 (100%)	10	---	0.0093 - 0.11	509	0.043	NA
Total PAHs	10 / 10 (100%)	10	---	0.614 - 7.54	507	2.46	NA

See notes in Table 4-21

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TABLE 4-17c
Air - Background - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Human Health Screening Value P (# of Exceedances)
Volatile Organic Compounds (ug/m3)							
Acetone	3 / 3 (100%)	3	---	21.0 - 31.0	513	24.3	3200 (0)
Benzene	3 / 3 (100%)	3	---	0.67 - 0.91	512	0.753	0.31 (3)
Chloroform	2 / 3 (66.7%)	3	0.20 - 0.20	0.16 - 0.29	512	0.183	0.11 (2)
Chloromethane	3 / 3 (100%)	3	---	1.50 - 2.20	512	1.80	9.4 (0)
Ethylbenzene	3 / 3 (100%)	3	---	0.71 - 1.20	513	0.913	0.97 (1)
Methyl ethyl ketone (2-butanone)	2 / 3 (66.7%)	3	1.50 - 1.50	1.90 - 2.40	511	1.68	520 (0)
Methylene chloride	2 / 3 (66.7%)	3	1.70 - 1.70	3.10 - 5.40	512	3.12	5.2 (1)
Toluene	3 / 3 (100%)	3	---	3.30 - 16.0	513	8.03	520 (0)
Xylene, total	3 / 3 (100%)	3	---	3.50 - 4.60	513	3.87	10 (0)
Semi-Volatile Organic Compounds (ug/m3)							
Acenaphthene	3 / 3 (100%)	3	---	0.0071 - 0.023	513	0.0131	NA
Acenaphthylene	1 / 3 (33.3%)	3	0.066 - 0.081	0.0015 - 0.0015	512	0.025	NA
Anthracene	1 / 3 (33.3%)	3	0.066 - 0.07	0.0021 - 0.0021	513	0.0234	NA
Fluoranthene	2 / 3 (66.7%)	3	0.07 - 0.07	0.0046 - 0.0064	513	0.0153	NA
Fluorene	3 / 3 (100%)	3	---	0.0051 - 0.019	513	0.0113	NA
Naphthalene	3 / 3 (100%)	3	---	0.11 - 0.17	512	0.133	0.072 (3)
Phenanthrene	3 / 3 (100%)	3	---	0.0037 - 0.045	513	0.0259	NA
Pyrene	2 / 3 (66.7%)	3	0.07 - 0.07	0.0023 - 0.0046	513	0.014	NA
Total PAHs	3 / 3 (100%)	3	---	0.165 - 0.22	513	0.191	NA

See notes in Table 4-21

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TABLE 4-18

Comparison of Air Concentrations at Canoe Level and Street Level

Gowanus Canal Remedial Investigation

Brooklyn, New York

		Central Tendency Comparison	
Parameter	**Test**	**Probability that the Observed Differences Would Occur Purely by Chance**	**Statistical Decision with 0.05 Significance Level**
Round 1 - Volatile Organic Compounds (ug/m^3)			
Acetone	WRS	0.762	nsd
Benzene	WRS	0.791	nsd
Bromoform	Gehan	0.347	nsd
Carbon disulfide	Gehan	0.272	nsd
Chloroform	WRS	0.670	nsd
Chloromethane	WRS	0.111	nsd
Ethylbenzene	WRS	0.791	nsd
Methyl ethyl ketone (2-butanone)	WRS	0.287	nsd
Methylene chloride	Gehan	0.452	nsd
Toluene	WRS	0.762	nsd
Trichloroethylene (TCE)	Gehan	0.459	nsd
Xylene, total	WRS	0.256	nsd
Round 1 - Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m^3)			
Acenaphthene	WRS	0.070	nsd
Acenaphthylene	WRS	0.104	nsd
Anthracene	WRS	0.026	Canoe > Street
Fluoranthene	WRS	0.140	nsd
Fluorene	WRS	0.140	nsd
Naphthalene	WRS	0.149	nsd
Phenanthrene	WRS	0.049	Canoe > Street
Pyrene	WRS	0.031	Canoe > Street
Round 2 - Volatile Organic Compounds (ug/m^3)			
Acetone	WRS	0.910	nsd
Benzene	WRS	0.272	nsd
Chloroform	WRS	0.368	nsd
Chloromethane	WRS	1.000	nsd
Ethylbenzene	WRS	0.364	nsd
Methyl ethyl ketone (2-butanone)	WRS	0.520	nsd
Methylene chloride	Gehan	0.500	nsd
Toluene	WRS	0.340	nsd
Trichloroethylene (TCE)	WRS	0.168	nsd
Xylene, total	WRS	0.264	nsd
Round 2 - Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m^3)			
Acenaphthene	WRS	0.399	nsd
Acenaphthylene	WRS	0.374	nsd
Anthracene	WRS	0.142	nsd
Fluoranthene	WRS	0.230	nsd
Fluorene	WRS	0.450	nsd
Naphthalene	WRS	0.267	nsd
Phenanthrene	WRS	0.399	nsd
Pyrene	WRS	0.248	nsd

Notes:

Test was performed for detected constituents only.

WRS = Wilcoxson Rank Sum

- = test not performed

nsd = no significant difference

ug/m^3 = micrograms per cubic meter

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TABLE 4-19a
Soil - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value Q (# of Exceedances)
Volatile Organic Compounds (ug/kg)							
1,1,1-trichloroethane	1 / 349 (.3%)	357	0.12 - 50000	0.47 - 0.47	GCMW-17	786	680 (0)
1,1-dichloroethane	3 / 349 (.9%)	357	0.13 - 50000	0.29 - 1.90	GCMW-40	786	270 (0)
1,2,3-trichlorobenzene	5 / 346 (1.4%)	357	0.55 - 50000	6.00 - 7300	GCMW-03	766	NA
1,2,4-trichlorobenzene	4 / 346 (1.2%)	357	0.32 - 50000	0.57 - 7000	GCMW-03	771	NA
1,2-dichlorobenzene	4 / 346 (1.2%)	357	0.25 - 50000	0.071 - 2700	GCMW-03	759	1100 (1)
1,2-dichloroethane	3 / 350 (.9%)	357	0.32 - 50000	0.79 - 19.0	GCMW-12	784	20 (0)
1,3-dichlorobenzene	4 / 346 (1.2%)	357	0.26 - 50000	0.99 - 3100	GCMW-03	760	2400 (1)
1,4-dichlorobenzene	11 / 346 (3.2%)	357	0.32 - 50000	0.27 - 2100	GCMW-03	757	1800 (1)
Acetone	183 / 347 (52.7%)	357	2.30 - 100000	4.20 - 420000	GCMW-35	3930	50 (82)
Benzene	145 / 349 (41.5%)	357	0.34 - 37000	0.41 - 1100000	GCMW-40	5650	60 (55)
Carbon disulfide	187 / 350 (53.4%)	357	0.31 - 50000	0.42 - 3100	GCMW-31	768	NA
Chlorobenzene	3 / 349 (.9%)	357	0.32 - 50000	0.51 - 2.70	GCMW-26	786	1100 (0)
Chloroethane	1 / 350 (.3%)	357	0.94 - 50000	1.50 - 1.50	GCMW-17	813	NA
Chloroform	12 / 350 (3.4%)	357	0.30 - 50000	0.43 - 53.0	GCMW-15	784	370 (0)
Chloromethane	1 / 350 (.3%)	357	0.15 - 50000	2.20 - 2.20	GCMW-42	784	NA
cis-1,2-dichloroethylene	35 / 350 (10.0%)	357	0.22 - 50000	0.28 - 1900	GCMW-30	736	250 (5)
Cyclohexane	22 / 349 (6.3%)	357	0.14 - 50000	2.00 - 45000	GCMW-12	902	NA
Ethylbenzene	182 / 349 (52.1%)	357	0.35 - 7200	0.14 - 790000	GCMW-32	11100	1000 (47)
Isopropylbenzene (cumene)	113 / 347 (32.6%)	357	0.49 - 7200	0.16 - 36000	GCMW-07	1070	NA
m, p xylenes	196 / 349 (56.2%)	357	0.45 - 7200	0.12 - 570000	GCMW-40	11000	1600 (39)
Methyl acetate	6 / 306 (2.0%)	357	0.77 - 50000	2.00 - 4400	GCMW-31	782	NA
Methyl ethyl ketone (2-butanone)	70 / 307 (22.8%)	357	1.80 - 100000	5.80 - 410	GCMW-35	1510	120 (3)
Methyl isobutyl ketone	7 / 348 (2.0%)	357	0.76 - 100000	1.40 - 4.70	GCMW-40	1450	NA
Methylcyclohexane	35 / 349 (10.0%)	357	0.61 - 50000	1.50 - 23000	GCMW-40	941	NA
Methylene chloride	8 / 350 (2.3%)	357	0.21 - 50000	27.0 - 7400	GCMW-35	699	50 (5)
o-xylene (1,2-dimethylbenzene)	160 / 349 (45.8%)	357	0.45 - 7200	0.074 - 260000	GCMW-32	5010	1600 (37)
Styrene	38 / 349 (10.9%)	357	0.10 - 37000	0.37 - 230000	GCMW-40	1720	NA
Tert-butyl methyl ether	43 / 350 (12.3%)	357	0.26 - 50000	0.48 - 400	GCMW-12	784	930 (0)
Tetrachloroethylene(PCE)	11 / 350 (3.1%)	357	0.14 - 50000	0.15 - 320	GCMW-30	783	1300 (0)
Toluene	77 / 350 (22.0%)	357	0.28 - 23000	0.33 - 810000	GCMW-40	6160	700 (32)
trans-1,2-dichloroethene	7 / 350 (2.0%)	357	0.42 - 50000	0.65 - 1300	GCMW-31	776	190 (2)

TABLE 4-19a
Soil - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value Q (# of Exceedances)
Volatile Organic Compounds (ug/kg)							
Trichloroethylene (TCE)	24 / 350 (6.9%)	357	0.49 - 50000	0.24 - 13000	GCMW-30	819	470 (4)
Trichlorofluoromethane	27 / 350 (7.7%)	357	0.21 - 50000	0.42 - 12000	GCMW-31	824	NA
Vinyl chloride	1 / 350 (.3%)	357	0.17 - 50000	0.72 - 0.72	GCMW-17	784	20 (0)
Semi-Volatile Organic Compounds (ug/kg)							
2,4-dimethylphenol	20 / 357 (5.6%)	357	51.0 - 840000	17.0 - 260000	GCMW-40	4420	NA
2-methylnaphthalene	215 / 357 (60.2%)	357	17.0 - 8700	5.80 - 1700000	GCMW-11	41200	NA
2-methylphenol (o-cresol)	8 / 357 (2.2%)	357	34.0 - 840000	15.0 - 240000	GCMW-40	4400	330 (3)
4-methylphenol (p-cresol)	31 / 290 (10.7%)	290	180 - 840000	9.00 - 570000	GCMW-40	7130	330 (8)
Acenaphthene	226 / 357 (63.3%)	357	9.00 - 990	5.80 - 670000	GCMW-41	15700	98000 (19)
Acenaphthylene	133 / 357 (37.3%)	357	9.70 - 840000	6.10 - 810000	GCMW-11, GCMW-40	13400	107000 (9)
Acetophenone	206 / 357 (57.7%)	357	5.30 - 1900000	12.0 - 3400	GCMW-43	6900	NA
Anthracene	205 / 357 (57.4%)	357	11.0 - 1100	6.30 - 1100000	GCMW-41	18200	1000000 (1)
Benzaldehyde	160 / 357 (44.8%)	357	6.90 - 1900000	19.0 - 1400	GCMW-45	7110	NA
Benzo(a)anthracene	208 / 357 (58.3%)	357	11.0 - 1100	5.80 - 1100000	GCMW-41	13000	1000 (83)
Benzo(a)pyrene	200 / 357 (56.0%)	357	9.20 - 1100	6.20 - 980000	GCMW-41	10500	22000 (28)
Benzo(b)fluoranthene	194 / 357 (54.3%)	357	10.0 - 1100	6.30 - 720000	GCMW-41	8140	1700 (67)
Benzo(g,h,i)perylene	178 / 357 (49.9%)	357	11.0 - 60000	10.0 - 590000	GCMW-41	5300	1000000 (0)
Benzo(k)fluoranthene	183 / 357 (51.3%)	357	11.0 - 1100	6.30 - 810000	GCMW-41	6300	1700 (58)
Benzyl butyl phthalate	19 / 357 (5.3%)	357	17.0 - 1900000	6.20 - 250	GCMW-23	7150	NA
Biphenyl (diphenyl)	133 / 357 (37.3%)	357	3.50 - 8700	6.10 - 340000	GCMW-40	5500	NA
Bis(2-ethylhexyl) phthalate	247 / 357 (69.2%)	357	27.0 - 1900000	11.0 - 29000	GCMW-27	7150	NA
Caprolactam	7 / 357 (2.0%)	357	9.50 - 1900000	9.10 - 110	GCMW-30, GCMW-41	7150	NA
Carbazole	126 / 357 (35.3%)	357	14.0 - 300000	6.60 - 470000	GCMW-41	4580	NA
Chrysene	202 / 357 (56.6%)	357	11.0 - 1100	5.70 - 1100000	GCMW-41	12600	1000 (81)
Dibenz(a,h)anthracene	135 / 357 (37.8%)	357	10.0 - 1900000	7.60 - 130000	GCMW-41	5850	1000000 (0)
Dibenzofuran	158 / 357 (44.3%)	357	9.00 - 180000	5.60 - 780000	GCMW-40	6760	210000 (3)
Diethyl phthalate	16 / 357 (4.5%)	357	10.0 - 1900000	6.60 - 180	GCMW-32	7150	NA
Dimethyl phthalate	7 / 357 (2.0%)	357	11.0 - 1900000	31.8 - 141	GCMW-01	7160	NA
Di-n-butyl phthalate	39 / 357 (10.9%)	357	6.70 - 1900000	5.80 - 240	GCMW-25	7140	NA
Di-n-octylphthalate	2 / 357 (.6%)	357	15.0 - 1900000	28.0 - 95.0	GCMW-23	7160	NA

TABLE 4-19a
Soil - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value Q (# of Exceedances)
Semi-Volatile Organic Compounds (ug/kg)							
Fluoranthene	219 / 357 (61.3%)	357	14.0 - 1100	7.00 - 2800000	GCMW-41	30400	1000000 (3)
Fluorene	194 / 357 (54.3%)	357	10.0 - 8700	6.60 - 700000	GCMW-40	16300	386000 (4)
Indeno(1,2,3-c,d)pyrene	174 / 357 (48.7%)	357	10.0 - 110000	12.0 - 570000	GCMW-41	4950	8200 (28)
Naphthalene	277 / 357 (77.6%)	357	8.40 - 4200	6.10 - 11000000	GCMW-40	102000	12000 (43)
Phenanthrene	257 / 357 (72.0%)	357	15.0 - 1100	5.70 - 4300000	GCMW-41	66300	1000000 (5)
Phenol	158 / 357 (44.3%)	357	32.0 - 840000	6.20 - 340000	GCMW-40	4830	330 (8)
Pyrene	238 / 357 (66.7%)	357	12.0 - 1100	6.10 - 2600000	GCMW-41	34300	1000000 (2)
Total PAHs	321 / 357 (89.9%)	357	---	6.70 - 24900000	GCMW-40	397000	NA
Pesticides (ug/kg)							
Aldrin	6 / 355 (1.7%)	357	0.56 - 260	0.063 - 27.0	GCMW-20	2.40	190 (0)
Alpha BHC	13 / 349 (3.7%)	357	0.38 - 260	0.15 - 130	GCMW-27	2.84	20 (3)
Alpha endosulfan	4 / 353 (1.1%)	357	0.42 - 260	0.29 - 15.0	GCMW-23	2.24	102000 (0)
Alpha-chlordane	11 / 352 (3.1%)	357	0.42 - 260	0.52 - 120	GCMW-41	2.90	2900 (0)
Beta BHC	20 / 353 (5.7%)	357	0.60 - 260	0.096 - 49.0	GCMW-23	2.58	90 (0)
Beta endosulfan	20 / 357 (5.6%)	357	0.47 - 520	0.60 - 88.0	GCMW-11	5.81	102000 (0)
Delta BHC	15 / 353 (4.2%)	357	0.34 - 260	0.78 - 24.0	GCMW-27	2.37	250 (0)
Dieldrin	8 / 354 (2.3%)	357	0.42 - 520	0.76 - 18.0	GCMW-27	4.51	100 (0)
Endosulfan sulfate	17 / 343 (5.0%)	357	0.47 - 510	0.12 - 880	GCMW-27	8.42	1000000 (0)
Endrin	27 / 335 (8.1%)	357	0.43 - 510	0.11 - 110	GCMW-27	4.62	60 (2)
Endrin aldehyde	17 / 349 (4.9%)	357	0.58 - 510	3.70 - 120	GCMW-11	5.22	NA
Endrin ketone	33 / 351 (9.4%)	357	0.28 - 510	0.20 - 190	GCMW-27	5.14	NA
Gamma BHC	8 / 353 (2.3%)	357	0.38 - 260	0.18 - 9.10	GCMW-23	2.22	100 (0)
Gamma-chlordane	41 / 351 (11.7%)	357	0.49 - 270	0.15 - 390	GCMW-27	7.98	NA
Heptachlor	6 / 355 (1.7%)	357	0.56 - 260	0.11 - 11.0	GCMW-23	2.24	380 (0)
Heptachlor epoxide	18 / 351 (5.1%)	357	0.48 - 270	0.051 - 49.0	GCMW-27	2.92	NA
Methoxychlor	21 / 355 (5.9%)	357	0.55 - 2600	0.24 - 350	GCMW-27	22.8	NA
P,P'-DDD	29 / 352 (8.2%)	357	0.53 - 370	0.30 - 4900	GCMW-27	22.1	14000 (0)
P,P'-DDE	31 / 354 (8.8%)	357	0.43 - 370	0.077 - 19000	GCMW-27	78.9	17000 (1)
P,P'-DDT	55 / 338 (16.3%)	357	0.48 - 5100	0.12 - 180	GCMW-47	15.7	136000 (0)
Total DDTs	66 / 332 (19.9%)	357	---	0.077 - 23900	GCMW-27	106	NA

TABLE 4-19a
Soil - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value Q (# of Exceedances)
Polychlorinated Biphenyls (ug/kg)							
Aroclor 1242	1 / 352 (.3%)	357	11.0 - 3700	97.0 - 97.0	GCMW-31	30.1	NA
Aroclor 1248	1 / 352 (.3%)	357	6.20 - 3700	69.0 - 69.0	GCMW-42	29.4	NA
Aroclor 1254	3 / 352 (.9%)	357	7.80 - 3700	36.0 - 232	GCMW-01	30.2	NA
Aroclor 1260	1 / 350 (.3%)	357	12.0 - 520	2300 - 2300	GCMW-25	31.3	NA
Total PCBs	6 / 350 (1.7%)	357	---	36.0 - 2300	GCMW-25	7.91	3200 (0)
Metals (mg/kg)							
Aluminum	357 / 357 (100%)	357	---	1750 - 28300	GCMW-42	6810	NA
Antimony	78 / 357 (21.8%)	357	0.063 - 11.0	0.30 - 2860	GCMW-25	9.92	NA
Arsenic	317 / 357 (88.8%)	357	0.24 - 1.40	0.50 - 116	GCMW-37	6.57	16 (24)
Barium	316 / 357 (88.5%)	357	0.042 - 36.6	4.70 - 2290	GCMW-25	65.6	820 (4)
Beryllium	199 / 357 (55.7%)	357	0.0074 - 0.93	0.13 - 1.40	GCMW-23	0.391	47 (0)
Cadmium	148 / 357 (41.5%)	357	0.014 - 0.94	0.015 - 29.6	GCMW-25	0.435	7.5 (4)
Calcium	309 / 357 (86.6%)	357	0.83 - 769	87.1 - 193000	GCMW-15	6500	NA
Chromium	357 / 357 (100%)	357	---	2.50 - 132	GCMW-25	16.3	NA
Cobalt	255 / 357 (71.4%)	357	0.037 - 9.10	0.91 - 25.0	GCMW-11	4.92	NA
Copper	357 / 357 (100%)	357	---	2.30 - 1660	GCMW-25	35.5	1720 (0)
Iron	357 / 357 (100%)	357	---	3790 - 135000	GCMW-25	16500	NA
Lead	348 / 357 (97.5%)	357	0.13 - 6.20	2.20 - 34700	GCMW-25	172	450 (19)
Magnesium	357 / 357 (100%)	357	---	610 - 61300	GCMW-19	4300	NA
Manganese	357 / 357 (100%)	357	---	32.5 - 3830	GCMW-24	198	2000 (1)
Mercury	115 / 357 (32.2%)	357	0.012 - 0.20	0.022 - 45.2	GCMW-39	0.562	0.73 (38)
Nickel	356 / 357 (99.7%)	357	0.10 - 0.10	4.70 - 139	GCMW-03	18.3	130 (1)
Potassium	317 / 357 (88.8%)	357	2.10 - 19.0	238 - 7540	GCMW-23	1250	NA
Selenium	18 / 357 (5.0%)	357	0.099 - 6.90	0.66 - 15.7	GCMW-37	1.58	4 (2)
Silver	27 / 357 (7.6%)	357	0.03 - 2.00	0.061 - 25.3	GCMW-25	0.589	8.3 (3)
Sodium	133 / 357 (37.3%)	357	1.50 - 879	53.8 - 6120	GCMW-42	736	NA
Thallium	17 / 357 (4.8%)	357	0.034 - 4.90	0.47 - 10.4	GCMW-25	1.13	NA
Vanadium	355 / 357 (99.4%)	357	6.20 - 6.30	5.00 - 56.7	GCMW-24	19.1	NA
Zinc	357 / 357 (100%)	357	---	10.0 - 4860	GCMW-25	87.3	2480 (1)
Cyanide, Total	28 / 357 (7.8%)	357	0.023 - 4.90	0.22 - 13.3	GCMW-40	1.20	40 (0)

See notes in Table 4-21

TABLE 4-19b
Compounds Detected / Exceeding Screening Values in Monitoring Well Soil Borings
Gowanus Canal Remedial Investigation
Brooklyn, New York

Monitoring Well Station Location	Approximate Distance from Monitoring Well to Canal (feet)	No. of Composite Soil Samples Collected	Approximate Range of Sample Collection Depths (feet below ground surface)	Number of Detections Number of Detections Above Screening Values	VOCs	SVOCs	PCBs	Pesticides	Metals and Cyanide
GC-MW-1	37	8	0-40	Number of detection	53	95	1	4	119
				Number of detections above screening values	7	1	0	0	3
GC-MW-2	59	8	2-36	Number of detection	27	42	0	2	115
				Number of detections above screening values	6	0	0	0	0
GC-MW-3	14	7	10-40	Number of detection	39	136	0	16	113
				Number of detections above screening values	9	18	0	0	1
GC-MW-4	271	6	5-35	Number of detection	23	57	0	4	93
				Number of detections above screening values	0	1	0	0	0
GC-MW-5	61	5	5-35	Number of detection	15	53	0	3	86
				Number of detections above screening values	1	0	0	0	1
GC-MW-6	216	6	5-35	Number of detection	29	91	0	1	103
				Number of detections above screening values	2	0	0	0	1
GC-MW-7	9	3	0-30	Number of detection	13	68	0	7	55
				Number of detections above screening values	5	5	0	0	0
GC-MW-8	140	6	5-35	Number of detection	17	24	0	5	104
				Number of detections above screening values	2	0	0	0	1
GC-MW-9	28	8	0-40	Number of detection	16	108	0	5	124
				Number of detections above screening values	4	7	0	0	2
GC-MW-10	329	9	0-45	Number of detection	16	168	0	7	124
				Number of detections above screening values	7	16	0	0	3
GC-MW-11	67	9	5-45	Number of detection	77	171	0	29	142
				Number of detections above screening values	14	29	0	0	0
GC-MW-12	205	9	5-45	Number of detection	65	74	0	2	137
				Number of detections above screening values	10	0	0	0	0
GC-MW-13	32	9	10-55	Number of detection	7	82	0	1	136
				Number of detections above screening values	5	0	0	0	1
GC-MW-14	139	11	5-55	Number of detection	27	103	0	4	170
				Number of detections above screening values	0	0	0	0	0
GC-MW-15	32	10	5-55	Number of detection	47	122	0	15	167
				Number of detections above screening values	0	14	0	0	5
GC-MW-16	254	9	5-55	Number of detection	42	75	0	5	144
				Number of detections above screening values	0	2	0	0	1
GC-MW-17	51	9	2-45	Number of detection	30	107	0	0	134
				Number of detections above screening values	7	9	0	0	2
GC-MW-18	33	12	2-58	Number of detection	42	199	0	1	174
				Number of detections above screening values	11	15	0	0	0
GC-MW-19	280	13	2-61.5	Number of detection	44	105	0	0	162
				Number of detections above screening values	6	0	0	0	0
GC-MW-20	48	5	5-40	Number of detection	33	103	0	18	90
				Number of detections above screening values	11	19	0	0	3
GC-MW-21	149	6	5-35	Number of detection	25	60	0	1	98
				Number of detections above screening values	1	0	0	0	0
GC-MW-23	73	8	0-39	Number of detection	49	114	0	37	145
				Number of detections above screening values	17	21	0	0	1
GC-MW-24	35	8	5-40	Number of detection	47	150	0	13	137
				Number of detections above screening values	6	11	0	0	4
GC-MW-25	60	7	5-40	Number of detection	11	84	1	7	130
				Number of detections above screening values	2	3	0	0	12
GC-MW-26	210	4	15-35	Number of detection	13	25	0	6	68
				Number of detections above screening values	0	0	0	0	1
GC-MW-27	151	6	20-45	Number of detection	38	116	0	24	119
				Number of detections above screening values	21	37	0	3	16
GC-MW-28	36	7	0-35	Number of detection	36	109	0	1	122
				Number of detections above screening values	3	7	0	0	1
GC-MW-29	152	6	5-35	Number of detection	19	23	0	1	104
				Number of detections above screening values	2	0	0	0	0
GC-MW-30	37	8	0-36	Number of detection	49	141	0	3	146
				Number of detections above screening values	11	4	0	0	2
GC-MW-31	31	7	0-36	Number of detection	27	88	1	18	122
				Number of detections above screening values	8	9	0	0	0
GC-MW-32	605	9	0.5-46	Number of detection	26	164	1	15	164
				Number of detections above screening values	6	18	0	0	7
GC-MW-33	236	7	5-40	Number of detection	49	70	0	0	105
				Number of detections above screening values	6	1	0	0	0
GC-MW-34	27	6	5-35	Number of detection	21	116	0	18	95
				Number of detections above screening values	6	20	0	0	0
GC-MW-35	29	6	5-35	Number of detection	42	108	0	9	102
				Number of detections above screening values	21	21	0	0	0
GC-MW-36	33	6	5-35	Number of detection	30	87	0	8	96
				Number of detections above screening values	1	4	0	0	0
GC-MW-37	31	8	0-40	Number of detection	43	135	0	6	146
				Number of detections above screening values	2	4	0	0	4
GC-MW-38	33	7	5-40	Number of detection	6	96	0	1	112
				Number of detections above screening values	2	0	0	0	1

Monitoring Well Station Location	Approximate Distance from Monitoring Well to Canal (feet)	No. of Composite Soil Samples Collected	Approximate Range of Sample Collection Depths (feet below ground surface)	Number of Detections Number of Detections Above Screening Values	VOCs	SVOCs	PCBs	Pesticides	Metals and Cyanide
GC-MW-39	106	8	5-40	Number of detection	47	181	0	22	137
				Number of detections above screening values	13	17	0	0	7
GC-MW-40	191	12	0-58	Number of detection	66	145	1	5	193
				Number of detections above screening values	15	44	0	0	2
GC-MW-41	345	12	0-58	Number of detection	34	125	0	15	208
				Number of detections above screening values	11	28	0	0	0
GC-MW-42	12	5	5-35	Number of detection	27	52	1	6	83
				Number of detections above screening values	0	0	0	0	0
GC-MW-43	58	9	0-40	Number of detection	60	111	0	16	157
				Number of detections above screening values	1	14	0	1	1
GC-MW-44	45	8	5-45	Number of detection	58	105	0	2	136
				Number of detections above screening values	5	3	0	0	5
GC-MW-45	50	7	5-40	Number of detection	45	128	0	11	122
				Number of detections above screening values	17	16	0	0	4
GC-MW-46	52	10	5-55	Number of detection	38	82	0	0	169
				Number of detections above screening values	1	0	0	0	3
GC-MW-47	35	7	10-45	Number of detection	40	145	0	17	102
				Number of detections above screening values	19	25	0	2	1

Notes:
This summary table does not include duplicate or split sample results.
Well GC-MW-22 was not installed.

TABLE 4-20a
Groundwater Shallow - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Volatile Organic Compounds (ug/l)								
1,1-dichloroethane	2 / 44 (4.5%)	44	0.29 - 55.0	0.29 - 0.38	MW-17	1.48	NA	5 (0)
1,2,3-trichlorobenzene	1 / 44 (2.3%)	44	0.47 - 55.0	0.17 - 0.17	MW-33	1.48	NA	5 (0)
1,2,4-trichlorobenzene	1 / 44 (2.3%)	44	0.50 - 55.0	0.11 - 0.11	MW-33	1.49	70 (0)	5 (0)
1,2-dichlorobenzene	1 / 44 (2.3%)	44	0.26 - 55.0	0.58 - 0.58	MW-27	1.48	600 (0)	3 (0)
1,2-dichloroethane	2 / 44 (4.5%)	44	0.33 - 55.0	16.0 - 220	MW-12	6.54	5 (2)	0.6 (2)
1,3-dichlorobenzene	5 / 44 (11.4%)	44	0.25 - 55.0	0.21 - 29.0	MW-26	2.15	NA	3 (1)
1,4-dichlorobenzene	5 / 44 (11.4%)	44	0.28 - 55.0	0.21 - 15.0	MW-26	1.87	75 (0)	3 (1)
Acetone	5 / 40 (12.5%)	44	2.90 - 130	1.10 - 53.0	MW-16	11.5	NA	NA
Benzene	19 / 44 (43.2%)	44	0.23 - 1.00	0.29 - 7600	MW-12	265	5 (9)	1 (13)
Carbon disulfide	11 / 44 (25.0%)	44	0.50 - 55.0	0.17 - 2.60	MW-24	1.63	NA	60 (0)
Chlorobenzene	3 / 44 (6.8%)	44	0.39 - 55.0	5.50 - 7.00	MW-27	1.90	100 (0)	5 (3)
Chloroform	7 / 44 (15.9%)	44	0.23 - 55.0	0.25 - 9.40	MW-24	1.71	80 (0)	7 (1)
cis-1,2-dichloroethylene	9 / 44 (20.5%)	44	0.22 - 55.0	0.25 - 18.0	MW-26	1.90	70 (0)	5 (1)
Cyclohexane	9 / 44 (20.5%)	44	0.50 - 55.0	1.00 - 42.0	MW-12	2.89	NA	NA
Dichlorodifluoromethane	1 / 44 (2.3%)	44	0.50 - 55.0	0.26 - 0.26	MW-31	1.52	NA	5 (0)
Ethylbenzene	23 / 44 (52.3%)	44	0.27 - 1.00	0.21 - 1600	MW-12	88.5	700 (2)	5 (13)
Isopropylbenzene (cumene)	23 / 44 (52.3%)	44	0.50 - 1.00	0.13 - 110	MW-12	8.04	NA	5 (8)
m, p xylenes	25 / 44 (56.8%)	44	0.25 - 1.00	0.22 - 1600	MW-12	78.8	NA	NA
Methyl acetate	1 / 39 (2.6%)	44	0.50 - 13.0	1.70 - 1.70	MW-33	1.02	NA	NA
Methyl ethyl ketone (2-butanone)	1 / 39 (2.6%)	44	1.60 - 130	2.80 - 2.80	MW-05	8.61	NA	NA
Methylcyclohexane	9 / 44 (20.5%)	44	0.35 - 55.0	0.36 - 22.0	MW-12	2.48	NA	NA
Methylene chloride	5 / 44 (11.4%)	44	0.30 - 55.0	0.39 - 1.50	MW-24	1.53	5 (0)	5 (0)
o-xylene (1,2-dimethylbenzene)	23 / 44 (52.3%)	44	0.25 - 1.00	0.23 - 2600	MW-12	91.0	NA	5 (12)
Styrene	6 / 44 (13.6%)	44	0.50 - 55.0	0.45 - 110	MW-47	5.07	100 (1)	5 (2)
Tert-butyl methyl ether	18 / 44 (40.9%)	44	0.23 - 13.0	0.55 - 77.0	MW-26	5.56	NA	NA
Tetrachloroethylene(PCE)	7 / 44 (15.9%)	44	0.27 - 55.0	0.24 - 1.20	MW-39	1.51	5 (0)	5 (0)
Toluene	18 / 44 (40.9%)	44	0.30 - 55.0	0.21 - 13000	MW-12	324	1000 (1)	5 (6)
trans-1,2-dichloroethene	1 / 44 (2.3%)	44	0.25 - 55.0	0.54 - 0.54	MW-26	1.47	100 (0)	5 (0)
Trichloroethylene (TCE)	4 / 44 (9.1%)	44	0.24 - 55.0	0.17 - 0.29	MW-18	1.46	5 (0)	5 (0)
Trichlorofluoromethane	1 / 44 (2.3%)	44	0.50 - 55.0	3.30 - 3.30	MW-31	1.55	NA	5 (0)

TABLE 4-20a
Groundwater Shallow - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Volatile Organic Compounds (ug/l)								
Vinyl chloride	1 / 44 (2.3%)	44	0.44 - 55.0	3.60 - 3.60	MW-26	1.56	2 (1)	2 (1)
Semi-Volatile Organic Compounds (ug/l)								
2,4-dimethylphenol	5 / 44 (11.4%)	44	1.70 - 240	22.0 - 490	MW-13	28.5	NA	NA
2,4-dinitrotoluene	3 / 44 (6.8%)	44	0.22 - 240	11.0 - 290	MW-13	18.8	NA	5 (3)
2-methylnaphthalene	31 / 44 (70.5%)	44	0.062 - 1.00	0.035 - 630	MW-11	44.9	NA	NA
2-methylphenol (o-cresol)	4 / 44 (9.1%)	44	1.10 - 240	9.20 - 50.0	MW-41	10.7	NA	NA
4-chloroaniline	1 / 44 (2.3%)	44	0.25 - 240	250 - 250	MW-13	16.4	NA	5 (1)
4-methylphenol (p-cresol)	6 / 37 (16.2%)	37	5.00 - 240	1.60 - 81.0	MW-41	13.3	NA	NA
Acenaphthene	38 / 44 (86.4%)	44	0.10 - 0.40	0.09 - 550	MW-30	37.4	NA	NA
Acenaphthylene	20 / 44 (45.5%)	44	0.10 - 9.60	0.045 - 110	MW-47	5.33	NA	NA
Acetophenone	2 / 44 (4.5%)	44	0.40 - 240	10.0 - 56.0	MW-12	12.7	NA	NA
Anthracene	25 / 44 (56.8%)	44	0.10 - 1.00	0.057 - 29.0	MW-45	4.02	NA	NA
Benzaldehyde	5 / 44 (11.4%)	44	0.40 - 240	4.00 - 460	MW-12	21.5	NA	NA
Benzo(a)anthracene	16 / 44 (36.4%)	44	0.10 - 9.60	0.19 - 4.50	MW-47	0.554	NA	NA
Benzo(a)pyrene	6 / 44 (13.6%)	44	0.095 - 9.60	0.19 - 2.10	MW-47	0.39	0.2 (5)	NA
Benzo(b)fluoranthene	12 / 44 (27.3%)	44	0.10 - 9.60	0.11 - 2.30	MW-47	0.424	NA	NA
Benzo(g,h,i)perylene	14 / 44 (31.8%)	44	0.10 - 9.60	0.095 - 1.60	MW-25	0.485	NA	NA
Benzo(k)fluoranthene	6 / 44 (13.6%)	44	0.10 - 9.60	0.066 - 0.61	MW-47	0.343	NA	NA
Benzyl butyl phthalate	1 / 44 (2.3%)	44	0.25 - 240	1.90 - 1.90	MW-23	11.8	NA	NA
Biphenyl (diphenyl)	17 / 44 (38.6%)	44	0.42 - 50.0	0.012 - 64.0	MW-13	7.80	NA	5 (8)
Bis(2-chloroisopropyl) ether	1 / 37 (2.7%)	37	5.00 - 240	3.00 - 3.00	MW-16	14.1	NA	5 (0)
Bis(2-ethylhexyl) phthalate	18 / 44 (40.9%)	44	0.33 - 240	1.00 - 5.80	MW-36	11.8	6 (0)	5 (2)
Caprolactam	1 / 44 (2.3%)	44	0.20 - 240	1.80 - 1.80	MW-14	11.8	NA	NA
Carbazole	8 / 44 (18.2%)	44	0.17 - 240	0.58 - 82.0	MW-13	10.2	NA	NA
Chrysene	16 / 44 (36.4%)	44	0.10 - 9.60	0.14 - 3.00	MW-47	0.46	NA	NA
Dibenz(a,h)anthracene	3 / 44 (6.8%)	44	0.10 - 9.60	0.043 - 0.12	MW-42	0.329	NA	NA
Dibenz(a,h)anthracene	3 / 44 (6.8%)	44	0.10 - 9.60	0.043 - 0.12	MW-21	0.329	NA	NA
Dibenzofuran	14 / 44 (31.8%)	44	0.30 - 240	0.45 - 90.0	MW-41	11.3	NA	NA
Dimethyl phthalate	7 / 44 (15.9%)	44	0.23 - 240	1.00 - 1.80	MW-42	11.7	NA	NA
Di-n-butyl phthalate	1 / 44 (2.3%)	44	0.19 - 240	0.34 - 0.34	MW-37	11.8	NA	50 (0)

TABLE 4-20a
Groundwater Shallow - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Semi-Volatile Organic Compounds (ug/l)								
Fluoranthene	34 / 44 (77.3%)	44	0.10 - 0.19	0.06 - 23.0	MW-41	2.82	NA	NA
Fluorene	36 / 44 (81.8%)	44	0.10 - 0.29	0.092 - 80.0	MW-45	12.8	NA	NA
Indeno(1,2,3-c,d)pyrene	15 / 44 (34.1%)	44	0.10 - 9.60	0.10 - 0.68	MW-45	0.42	NA	NA
Naphthalene	37 / 44 (84.1%)	44	0.10 - 1.00	0.10 - 3500	MW-11	208	NA	NA
Pentachlorophenol	3 / 39 (7.7%)	39	0.20 - 5.00	0.11 - 0.19	MW-05	0.398	1 (0)	NA
Phenanthrene	32 / 44 (72.7%)	44	0.10 - 1.00	0.12 - 150	MW-41	18.4	NA	NA
Phenol	2 / 44 (4.5%)	44	0.58 - 240	25.0 - 33.0	MW-41	11.5	NA	NA
Pyrene	32 / 44 (72.7%)	44	0.10 - 1.00	0.025 - 26.0	MW-47	3.43	NA	NA
Total PAHs	41 / 44 (93.2%)	44	---	0.18 - 4480	MW-11	337	NA	NA
Pesticides (ug/l)								
Alpha endosulfan	1 / 30 (3.3%)	44	0.0023 - 0.05	0.15 - 0.15	MW-18	0.0243	NA	NA
Metals (ug/l)								
Aluminum Dissolved	1 / 37 (2.7%)	37	5.40 - 3000	204 - 204	MW-41	265	NA	NA
Aluminum	19 / 41 (46.3%)	44	7.80 - 3000	204 - 10400	MW-09	1000	NA	NA
Antimony Dissolved	2 / 37 (5.4%)	37	0.62 - 20.0	2.30 - 3.00	MW-12	2.47	6 (0)	3 (0)
Antimony	2 / 44 (4.5%)	44	0.63 - 20.0	2.10 - 2.70	MW-24	2.09	6 (0)	3 (0)
Arsenic Dissolved	33 / 35 (94.3%)	37	0.019 - 0.019	1.20 - 28.9	MW-12	7.43	10 (8)	25 (3)
Arsenic	39 / 42 (92.9%)	44	0.019 - 1.40	1.30 - 40.0	MW-24	9.13	10 (12)	25 (4)
Barium Dissolved	36 / 36 (100%)	37	---	19.6 - 764	MW-29	263	2000 (0)	1000 (0)
Barium	38 / 43 (88.4%)	44	0.44 - 0.44	7.50 - 806	MW-29	251	2000 (0)	1000 (0)
Beryllium	2 / 44 (4.5%)	44	0.097 - 10.0	0.48 - 0.65	MW-24	0.928	4 (0)	NA
Cadmium	2 / 44 (4.5%)	44	0.013 - 10.0	0.26 - 0.30	MW-24	0.923	5 (0)	5 (0)
Calcium Dissolved	37 / 37 (100%)	37	---	36600 - 471000	MW-25	170000	NA	NA
Calcium	44 / 44 (100%)	44	---	35700 - 447000	MW-25	168000	NA	NA
Chromium Dissolved	32 / 37 (86.5%)	37	2.70 - 4.20	0.42 - 72.4	MW-27	5.70	100 (0)	50 (1)
Chromium	33 / 44 (75.0%)	44	0.56 - 8.90	0.56 - 834	MW-24	36.6	100 (2)	50 (4)
Cobalt Dissolved	26 / 37 (70.3%)	37	0.0055 - 10.0	0.23 - 11.9	MW-29	2.19	NA	NA
Cobalt	28 / 44 (63.6%)	44	0.0055 - 10.0	0.24 - 40.8	MW-24	2.68	NA	NA
Copper Dissolved	1 / 37 (2.7%)	37	1.50 - 375	5.00 - 5.00	MW-39	32.4	1300 (0)	NA

TABLE 4-20a
Groundwater Shallow - Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Metals (ug/l)								
Copper	21 / 44 (47.7%)	44	2.50 - 375	2.50 - 308	MW-12	53.3	1300 (0)	NA
Iron Dissolved	36 / 40 (90.0%)	40	100 - 1500	72.9 - 47000	MW-44	7740	NA	NA
Iron	40 / 44 (90.9%)	44	1500 - 4810	482 - 47700	MW-44	10400	NA	NA
Lead Dissolved	7 / 37 (18.9%)	37	0.12 - 10.0	0.22 - 4.60	MW-39	1.39	15 (0)	25 (0)
Lead	36 / 44 (81.8%)	44	0.66 - 10.0	0.53 - 293	MW-09	17.2	15 (9)	25 (5)
Magnesium Dissolved	37 / 37 (100%)	37	---	2740 - 927000	MW-27	173000	NA	NA
Magnesium	44 / 44 (100%)	44	---	2720 - 886000	MW-27	159000	NA	NA
Manganese Dissolved	38 / 38 (100%)	40	---	111 - 4140	MW-12	1130	NA	NA
Manganese	42 / 42 (100%)	44	---	108 - 3880	MW-12	1110	NA	NA
Mercury Dissolved	18 / 37 (48.6%)	37	0.10 - 0.20	0.05 - 0.13	MW-36	0.085	2 (0)	0.7 (0)
Mercury	29 / 44 (65.9%)	44	0.082 - 0.20	0.052 - 1.60	MW-09	0.136	2 (0)	0.7 (1)
Nickel Dissolved	31 / 35 (88.6%)	37	0.0082 - 0.0082	0.78 - 84.9	MW-47	12.8	NA	100 (0)
Nickel	34 / 42 (81.0%)	44	0.0082 - 0.51	0.74 - 441	MW-24	28.6	NA	100 (3)
Potassium Dissolved	37 / 37 (100%)	37	---	5180 - 310000	MW-27	75100	NA	NA
Potassium	44 / 44 (100%)	44	---	5190 - 304000	MW-27	70500	NA	NA
Selenium Dissolved	11 / 23 (47.8%)	37	1.30 - 50.0	0.97 - 30.2	MW-42	4.31	50 (0)	10 (1)
Selenium	11 / 30 (36.7%)	44	1.30 - 10.0	1.00 - 51.2	MW-03	3.75	50 (1)	10 (1)
Silver Dissolved	1 / 37 (2.7%)	37	0.059 - 10.0	1.60 - 1.60	MW-42	1.08	NA	50 (0)
Silver	3 / 44 (6.8%)	44	0.063 - 10.0	0.22 - 1.70	MW-24	0.968	NA	50 (0)
Sodium Dissolved	37 / 37 (100%)	37	---	7600 - 7130000	MW-03	1320000	NA	20000 (35)
Sodium	44 / 44 (100%)	44	---	7690 - 7080000	MW-27	1200000	NA	20000 (42)
Vanadium Dissolved	9 / 37 (24.3%)	37	0.30 - 50.0	1.20 - 25.5	MW-20	6.57	NA	NA
Vanadium	23 / 44 (52.3%)	44	0.30 - 50.0	1.10 - 68.9	MW-24	7.41	NA	NA
Zinc Dissolved	26 / 36 (72.2%)	37	0.018 - 20.0	1.20 - 77.4	MW-28	10.4	NA	NA
Zinc	35 / 42 (83.3%)	44	0.018 - 20.0	1.80 - 274	MW-09	27.0	NA	NA
Cyanide, Total	16 / 43 (37.2%)	43	2.00 - 10.0	4.80 - 148	MW-23	11.5	200 (0)	200 (0)
General Chemistry (mg/l)								
Total suspended solids	11 / 11 (100%)	11	---	16.0 - 496	MW-09	100	NA	NA

See notes in Table 4-21

TABLE 4-20b
Groundwater Intermediate- Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Volatile Organic Compounds (ug/l)								
1,1,2-trichloroethane	1 / 46 (2.2%)	46	0.23 - 160	0.11 - 0.11	MW-13	4.94	5 (0)	1 (0)
1,1-dichloroethane	2 / 46 (4.3%)	46	0.29 - 160	0.26 - 0.29	MW-26	4.96	NA	5 (0)
1,1-dichloroethene	2 / 46 (4.3%)	46	0.40 - 160	0.97 - 2.70	MW-18	5.05	7 (0)	5 (0)
1,2,3-trichlorobenzene	1 / 46 (2.2%)	46	0.47 - 160	6.30 - 6.30	MW-25	5.12	NA	5 (1)
1,2,4-trichlorobenzene	2 / 46 (4.3%)	46	0.50 - 160	1.70 - 52.0	MW-25	6.16	70 (0)	5 (1)
1,2-dichlorobenzene	1 / 46 (2.2%)	46	0.26 - 160	1.50 - 1.50	MW-25	4.98	600 (0)	3 (0)
1,2-dichloroethane	3 / 46 (6.5%)	46	0.33 - 160	1.10 - 430	MW-33	14.8	5 (2)	0.6 (3)
1,2-dichloropropane	1 / 46 (2.2%)	46	0.27 - 160	0.60 - 0.60	MW-24	4.96	5 (0)	1 (0)
1,3-dichlorobenzene	3 / 46 (6.5%)	46	0.25 - 160	0.17 - 0.95	MW-26	4.97	NA	3 (0)
1,4-dichlorobenzene	3 / 46 (6.5%)	46	0.28 - 160	0.17 - 1.40	MW-25	4.99	75 (0)	3 (0)
2-hexanone	1 / 46 (2.2%)	46	1.40 - 820	40.0 - 40.0	MW-33	28.0	NA	NA
Acetone	5 / 40 (12.5%)	46	2.90 - 130	1.10 - 465	MW-01	21.7	NA	NA
Benzene	25 / 46 (54.3%)	46	0.23 - 160	0.28 - 5200	MW-30	265	5 (18)	1 (20)
Carbon disulfide	10 / 46 (21.7%)	46	0.50 - 160	0.15 - 1.40	MW-08	5.10	NA	60 (0)
Chloroform	14 / 46 (30.4%)	46	0.23 - 160	0.31 - 3.80	MW-40	5.37	80 (0)	7 (0)
Chloromethane	1 / 46 (2.2%)	46	0.29 - 160	1.20 - 1.20	MW-27	4.98	NA	5 (0)
cis-1,2-dichloroethylene	24 / 46 (52.2%)	46	0.22 - 160	0.24 - 500	MW-46	42.2	70 (5)	5 (12)
Cyclohexane	2 / 46 (4.3%)	46	0.50 - 160	8.30 - 110	MW-33	7.65	NA	NA
Ethylbenzene	31 / 46 (67.4%)	46	0.27 - 1.00	0.42 - 6300	MW-32	354	700 (6)	5 (20)
Isopropylbenzene (cumene)	26 / 46 (56.5%)	46	0.50 - 13.0	0.20 - 3000	MW-33	78.3	NA	5 (11)
m, p xylenes	30 / 46 (65.2%)	46	0.25 - 1.00	0.42 - 3900	MW-32	248	NA	NA
Methyl acetate	1 / 40 (2.5%)	46	0.50 - 15.0	3.60 - 3.60	MW-20	1.24	NA	NA
Methyl isobutyl ketone	1 / 46 (2.2%)	46	0.86 - 820	21.0 - 21.0	MW-33	27.5	NA	NA
Methylcyclohexane	6 / 46 (13.0%)	46	0.35 - 160	0.14 - 86.0	MW-33	7.21	NA	NA
Methylene chloride	3 / 46 (6.5%)	46	0.30 - 160	0.34 - 0.38	MW-08	4.97	5 (0)	5 (0)
o-xylene (1,2-dimethylbenzene)	29 / 46 (63.0%)	46	0.25 - 1.00	0.32 - 2000	MW-32	118	NA	5 (19)
Styrene	8 / 46 (17.4%)	46	0.50 - 160	0.79 - 180	MW-11	9.55	100 (1)	5 (3)
Tert-butyl methyl ether	20 / 46 (43.5%)	46	0.23 - 44.0	0.28 - 330	MW-33	17.4	NA	NA
Tetrachloroethylene(PCE)	8 / 46 (17.4%)	46	0.27 - 160	0.26 - 5.50	MW-28	5.21	5 (1)	5 (1)
Toluene	23 / 46 (50.0%)	46	0.30 - 140	0.47 - 880	MW-23	69.3	1000 (0)	5 (16)

TABLE 4-20b
Groundwater Intermediate- Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Volatile Organic Compounds (ug/l)								
trans-1,2-dichloroethene	7 / 46 (15.2%)	46	0.25 - 160	0.22 - 160	MW-46	9.14	100 (1)	5 (2)
Trichloroethylene (TCE)	11 / 46 (23.9%)	46	0.24 - 160	0.27 - 207	MW-18	13.1	5 (6)	5 (6)
Trichlorofluoromethane	3 / 46 (6.5%)	46	0.50 - 160	0.50 - 8.70	MW-31	4.82	NA	5 (1)
Vinyl chloride	8 / 46 (17.4%)	46	0.44 - 160	1.20 - 60.0	MW-33	7.21	2 (6)	2 (6)
Semi-Volatile Organic Compounds (ug/l)								
1,2,4,5-tetrachlorobenzene	1 / 46 (2.2%)	46	0.48 - 2100	0.64 - 0.64	MW-25	52.2	NA	NA
2,4-dimethylphenol	1 / 46 (2.2%)	46	1.70 - 2100	63.0 - 63.0	MW-40	53.4	NA	NA
2,4-dinitrotoluene	1 / 46 (2.2%)	46	0.22 - 2100	100 - 100	MW-47	54.3	NA	5 (1)
2-methylnaphthalene	34 / 46 (73.9%)	46	0.10 - 0.67	0.066 - 1400	MW-32	227	NA	NA
2-methylphenol (o-cresol)	1 / 46 (2.2%)	46	1.10 - 2100	67.0 - 67.0	MW-40	53.4	NA	NA
4-methylphenol (p-cresol)	2 / 39 (5.1%)	39	5.00 - 2100	2.70 - 120	MW-40	64.3	NA	NA
Acenaphthene	37 / 46 (80.4%)	46	0.10 - 0.37	0.11 - 400	MW-07	77.8	NA	NA
Acenaphthylene	28 / 46 (60.9%)	46	0.10 - 13.0	0.011 - 170	MW-47	16.7	NA	NA
Acenaphthylene	28 / 46 (60.9%)	46	0.10 - 13.0	0.011 - 170	MW-32	16.7	NA	NA
Acetophenone	1 / 46 (2.2%)	46	0.40 - 2100	4.00 - 4.00	MW-47	52.2	NA	NA
Anthracene	30 / 46 (65.2%)	46	0.10 - 29.0	0.14 - 88.0	MW-07	7.95	NA	NA
Benzaldehyde	3 / 46 (6.5%)	46	0.40 - 2100	3.90 - 150	MW-45	56.8	NA	NA
Benzo(a)anthracene	15 / 46 (32.6%)	46	0.10 - 29.0	0.088 - 27.0	MW-07	1.48	NA	NA
Benzo(a)pyrene	8 / 46 (17.4%)	46	0.095 - 29.0	0.18 - 11.0	MW-07	0.989	0.2 (6)	NA
Benzo(b)fluoranthene	17 / 46 (37.0%)	46	0.10 - 29.0	0.12 - 13.0	MW-07	1.05	NA	NA
Benzo(g,h,i)perylene	13 / 46 (28.3%)	46	0.10 - 29.0	0.068 - 4.10	MW-07	0.856	NA	NA
Benzo(k)fluoranthene	9 / 46 (19.6%)	46	0.10 - 29.0	0.041 - 3.10	MW-07	0.779	NA	NA
Biphenyl (diphenyl)	23 / 46 (50.0%)	46	0.42 - 5.00	0.21 - 80.0	MW-31	17.4	NA	5 (19)
Bis(2-ethylhexyl) phthalate	19 / 46 (41.3%)	46	0.33 - 2100	0.99 - 77.0	MW-04	53.6	6 (2)	5 (2)
Caprolactam	3 / 46 (6.5%)	46	0.20 - 2100	0.98 - 14.7	MW-01	52.4	NA	NA
Carbazole	17 / 46 (37.0%)	46	0.17 - 2100	0.72 - 28.0	MW-33	51.6	NA	NA
Chrysene	16 / 46 (34.8%)	46	0.10 - 29.0	0.059 - 14.0	MW-07	1.14	NA	NA
Dibenz(a,h)anthracene	5 / 46 (10.9%)	46	0.10 - 29.0	0.099 - 0.16	MW-28	0.733	NA	NA
Dibenzofuran	19 / 46 (41.3%)	46	0.30 - 2100	1.00 - 110	MW-36	52.3	NA	NA
Diethyl phthalate	1 / 46 (2.2%)	46	0.17 - 2100	0.44 - 0.44	MW-25	52.1	NA	NA

TABLE 4-20b
Groundwater Intermediate- Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Semi-Volatile Organic Compounds (ug/l)								
Dimethyl phthalate	12 / 46 (26.1%)	46	0.23 - 2100	0.93 - 2.10	MW-38	51.9	NA	NA
Di-n-butyl phthalate	5 / 46 (10.9%)	46	0.19 - 2100	0.27 - 1.00	MW-10	52.0	NA	50 (0)
Fluoranthene	32 / 46 (69.6%)	46	0.10 - 29.0	0.10 - 72.0	MW-07	4.63	NA	NA
Fluorene	32 / 46 (69.6%)	46	0.10 - 1.00	0.15 - 150	MW-07	21.6	NA	NA
Hexachloroethane	1 / 46 (2.2%)	46	0.21 - 2100	33.0 - 33.0	MW-39	51.8	NA	5 (1)
Indeno(1,2,3-c,d)pyrene	15 / 46 (32.6%)	46	0.10 - 29.0	0.12 - 7.40	MW-07	0.915	NA	NA
Naphthalene	40 / 46 (87.0%)	46	0.10 - 1.40	0.049 - 49000	MW-11	2190	NA	NA
Pentachlorophenol	1 / 40 (2.5%)	40	0.20 - 10.0	0.16 - 0.16	MW-29	0.425	1 (0)	NA
Phenanthrene	38 / 46 (82.6%)	46	0.10 - 0.21	0.10 - 330	MW-07	36.1	NA	NA
Phenol	3 / 46 (6.5%)	46	0.58 - 2100	4.60 - 74.0	MW-40	53.7	NA	NA
Pyrene	35 / 46 (76.1%)	46	0.10 - 29.0	0.12 - 120	MW-07	6.46	NA	NA
Total PAHs	45 / 46 (97.8%)	46	---	0.12 - 50200	MW-11	2590	NA	NA
Pesticides (ug/l)								
Alpha endosulfan	1 / 30 (3.3%)	46	0.0023 - 0.056	0.11 - 0.11	MW-31	0.0224	NA	NA
Beta BHC	1 / 46 (2.2%)	46	0.0037 - 0.056	0.084 - 0.084	MW-31	0.0229	NA	0.04 (1)
Metals (ug/l)								
Aluminum Dissolved	1 / 39 (2.6%)	39	4.10 - 2000	838 - 838	MW-04	127	NA	NA
Aluminum	14 / 45 (31.1%)	46	11.1 - 3000	104 - 9610	MW-01	884	NA	NA
Arsenic Dissolved	33 / 37 (89.2%)	39	0.019 - 0.76	0.28 - 112	MW-21	9.98	10 (8)	25 (3)
Arsenic	39 / 44 (88.6%)	46	0.019 - 1.40	0.25 - 107	MW-21	11.5	10 (13)	25 (3)
Barium Dissolved	38 / 38 (100%)	39	---	5.30 - 2850	MW-39	441	2000 (1)	1000 (3)
Barium	42 / 45 (93.3%)	46	0.44 - 0.44	45.1 - 2900	MW-39	402	2000 (1)	1000 (4)
Beryllium	1 / 46 (2.2%)	46	0.098 - 10.0	2.10 - 2.10	MW-01	0.634	4 (0)	NA
Calcium Dissolved	39 / 39 (100%)	39	---	6230 - 177000	MW-13	84100	NA	NA
Calcium	46 / 46 (100%)	46	---	6610 - 171000	MW-13	82600	NA	NA
Chromium Dissolved	25 / 37 (67.6%)	39	2.00 - 20.0	0.38 - 7.10	MW-07	1.82	100 (0)	50 (0)
Chromium	34 / 44 (77.3%)	46	0.59 - 20.0	0.47 - 41.4	MW-20	5.67	100 (0)	50 (0)
Cobalt Dissolved	24 / 39 (61.5%)	39	0.0055 - 10.0	0.23 - 7.40	MW-39	1.27	NA	NA
Cobalt	28 / 46 (60.9%)	46	0.075 - 10.0	0.21 - 11.4	MW-20	1.33	NA	NA

TABLE 4-20b
Groundwater Intermediate- Statistical Summary
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)	Screening Value N1 (# of Exceedances)	Screening Value O1 (# of Exceedances)
Metals (ug/l)								
Copper Dissolved	1 / 39 (2.6%)	39	1.60 - 250	7.10 - 7.10	MW-41	13.8	1300 (0)	NA
Copper	14 / 46 (30.4%)	46	1.80 - 375	3.90 - 54.8	MW-01	22.9	1300 (0)	NA
Iron Dissolved	36 / 41 (87.8%)	42	18.0 - 100	38.9 - 41100	MW-06	5620	NA	NA
Iron	43 / 45 (95.6%)	46	100 - 100	307 - 42300	MW-06	7660	NA	NA
Lead Dissolved	2 / 38 (5.3%)	39	0.17 - 10.0	0.59 - 2.40	MW-39	0.74	15 (0)	25 (0)
Lead	33 / 44 (75.0%)	46	0.22 - 10.0	0.19 - 277	MW-09	11.4	15 (4)	25 (3)
Magnesium Dissolved	39 / 39 (100%)	39	---	6990 - 538000	MW-39	90800	NA	NA
Magnesium	46 / 46 (100%)	46	---	7360 - 490000	MW-39	85400	NA	NA
Manganese Dissolved	41 / 41 (100%)	42	---	4.20 - 8440	MW-13	1520	NA	NA
Manganese	45 / 45 (100%)	46	---	44.3 - 8860	MW-13	1540	NA	NA
Mercury Dissolved	17 / 39 (43.6%)	39	0.082 - 0.20	0.048 - 0.15	MW-36	0.0837	2 (0)	0.7 (0)
Mercury	27 / 46 (58.7%)	46	0.082 - 0.20	0.059 - 0.61	MW-01	0.0932	2 (0)	0.7 (0)
Nickel Dissolved	34 / 37 (91.9%)	39	0.0082 - 10.0	0.58 - 193	MW-07	8.39	NA	100 (1)
Nickel	37 / 41 (90.2%)	46	0.0082 - 0.51	0.69 - 194	MW-07	9.93	NA	100 (1)
Potassium Dissolved	39 / 39 (100%)	39	---	7280 - 210000	MW-39	38200	NA	NA
Potassium	44 / 46 (95.7%)	46	75000 - 75000	7260 - 197000	MW-39	38300	NA	NA
Selenium Dissolved	9 / 24 (37.5%)	39	1.40 - 6.00	1.20 - 3.80	MW-03	2.18	50 (0)	10 (0)
Selenium	8 / 31 (25.8%)	46	1.80 - 5.00	0.93 - 6.50	MW-23	1.96	50 (0)	10 (0)
Silver	1 / 46 (2.2%)	46	0.063 - 10.0	0.16 - 0.16	MW-20	0.611	NA	50 (0)
Sodium Dissolved	39 / 39 (100%)	39	---	80800 - 4140000	MW-39	682000	NA	20000 (39)
Sodium	46 / 46 (100%)	46	---	55400 - 3760000	MW-39	670000	NA	20000 (46)
Vanadium Dissolved	4 / 39 (10.3%)	39	0.30 - 50.0	1.50 - 6.10	MW-25	3.45	NA	NA
Vanadium	5 / 46 (10.9%)	46	0.30 - 50.0	2.10 - 5.80	MW-25	3.08	NA	NA
Zinc Dissolved	22 / 36 (61.1%)	39	0.018 - 20.0	1.20 - 32.0	MW-07	4.45	NA	NA
Zinc	31 / 42 (73.8%)	46	0.018 - 20.0	1.80 - 109	MW-09	15.4	NA	NA
Cyanide, Total	15 / 46 (32.6%)	46	2.00 - 10.0	7.40 - 52.4	MW-42	9.07	200 (0)	200 (0)
General Chemistry (mg/l)								
Total suspended solids	11 / 11 (100%)	11	---	3.00 - 406	MW-09	97.6	NA	NA

See notes in Table 4-21

TABLE 4-20c

Compounds Detected / Exceeding Screening Values in Shallow Groundwater

Gowanus Canal Remedial Investigation

Brooklyn, New York

Monitoring Well Station Location	Approximate Distance from Monitoring Well to Canal (feet)	Depth of Groundwater Sample (feet below ground surface)	Number of Detections Number of Detections Above Screening Values	VOCs	SVOCs	PCBs	Pesticides	Total Metals and Cyanide	Dissolved Metals
GC-MW-1S	37	12	Number of detection	7	7	0	0	10	NA
			Number of detections above screening values	1	0	0	0	4	NA
GC-MW-2S	59	7.75	Number of detection	0	0	0	0	9	2
			Number of detections above screening values	0	0	0	0	3	2
GC-MW-3S	14	10	Number of detection	5	17	0	0	10	9
			Number of detections above screening values	0	1	0	0	3	1
GC-MW-4S	271	8.3	Number of detection	1	1	0	0	18	16
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-5S	61	11.9	Number of detection	12	11	0	0	13	12
			Number of detections above screening values	0	0	0	0	2	2
GC-MW-6S	216	11.7	Number of detection	6	12	0	0	15	12
			Number of detections above screening values	0	0	0	0	2	2
GC-MW-7S	9	12.2	Number of detection	7	16	0	0	11	10
			Number of detections above screening values	3	0	0	0	3	3
GC-MW-8S	140	11.5	Number of detection	3	10	0	0	15	13
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-9S	28	11.75	Number of detection	1	10	0	0	14	1
			Number of detections above screening values	0	0	0	0	6	1
GC-MW-10S	329	10	Number of detection	0	0	0	0	7	NA
			Number of detections above screening values	0	0	0	0	4	NA
GC-MW-11S	67	13.5	Number of detection	9	15	0	0	17	13
			Number of detections above screening values	7	2	0	0	3	3
GC-MW-12S	205	13.1	Number of detection	9	12	0	0	18	15
			Number of detections above screening values	6	1	0	0	5	4
GC-MW-13S	32	11.4	Number of detection	6	16	0	0	17	13
			Number of detections above screening values	5	4	0	0	3	3
GC-MW-14S	139	12.5	Number of detection	6	8	0	0	11	10
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-15S	32	12.5	Number of detection	0	2	0	0	19	13
			Number of detections above screening values	0	0	0	0	5	2
GC-MW-16S	254	12.3	Number of detection	7	15	0	0	17	13
			Number of detections above screening values	1	0	0	0	3	3
GC-MW-17S	51	11.2	Number of detection	2	0	0	0	9	NA
			Number of detections above screening values	0	0	0	0	3	NA
GC-MW-18S	33	10.15	Number of detection	9	13	0	1	11	2
			Number of detections above screening values	3	0	0	0	3	1
GC-MW-19S	280	10	Number of detection	3	5	0	0	9	NA
			Number of detections above screening values	0	0	0	0	3	NA
GC-MW-20S	48	11.9	Number of detection	6	13	0	0	16	14
			Number of detections above screening values	0	0	0	0	3	2
GC-MW-21S	149	12	Number of detection	0	8	0	0	14	15
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-23S	73	3-13	Number of detection	6	20	0	0	14	9
			Number of detections above screening values	0	2	0	0	4	3
GC-MW-24S	35	15.1	Number of detection	10	10	0	0	21	13
			Number of detections above screening values	4	0	0	0	7	3
GC-MW-25S	60	25.8	Number of detection	2	3	0	0	11	11
			Number of detections above screening values	0	1	0	0	3	4
GC-MW-26S	210	26	Number of detection	10	8	0	0	15	13
			Number of detections above screening values	5	0	0	0	4	4
GC-MW-27S	151	24.5	Number of detection	10	16	0	0	13	11
			Number of detections above screening values	1	1	0	0	4	4

Monitoring Well Station Location	Approximate Distance from Monitoring Well to Canal (feet)	Depth of Groundwater Sample (feet below ground surface)	Number of Detections Number of Detections Above Screening Values	VOCs	SVOCs	PCBs	Pesticides	Total Metals and Cyanide	Dissolved Metals
GC-MW-28S	36	12.2	Number of detection	0	8	0	0	19	14
			Number of detections above screening values	0	0	0	0	4	3
GC-MW-29S	152	12.3	Number of detection	7	11	0	0	19	14
			Number of detections above screening values	0	0	0	0	6	3
GC-MW-30S	37	7-16	Number of detection	6	10	0	0	14	7
			Number of detections above screening values	4	1	0	0	3	2
GC-MW-31S	31	6.75-14.6	Number of detection	4	7	0	0	11	9
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-32S	605	12-19	Number of detection	0	18	0	0	9	7
			Number of detections above screening values	0	0	0	0	2	2
GC-MW-33S	236	12.2	Number of detection	14	7	0	0	16	13
			Number of detections above screening values	3	1	0	0	4	4
GC-MW-34S	27	11.78	Number of detection	8	9	0	0	15	12
			Number of detections above screening values	0	1	0	0	3	3
GC-MW-35S	29	12.3	Number of detection	8	19	0	0	17	13
			Number of detections above screening values	2	1	0	0	3	3
GC-MW-36S	33	11.3	Number of detection	9	14	0	0	16	13
			Number of detections above screening values	0	1	0	0	3	3
GC-MW-37S	31	22.8	Number of detection	3	11	0	0	17	14
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-38S	33	15.6	Number of detection	2	11	0	0	17	14
			Number of detections above screening values	0	1	0	0	3	3
GC-MW-39S	106	19	Number of detection	11	9	0	0	18	15
			Number of detections above screening values	5	0	0	0	4	3
GC-MW-41S	345	8-13	Number of detection	10	16	0	0	11	10
			Number of detections above screening values	5	3	0	0	3	3
GC-MW-42S	12	10.6	Number of detection	2	7	0	0	10	10
			Number of detections above screening values	0	0	0	0	1	2
GC-MW-43S	58	11.6	Number of detection	13	17	0	0	18	13
			Number of detections above screening values	3	0	0	0	3	3
GC-MW-44S	45	12	Number of detection	2	11	0	0	17	13
			Number of detections above screening values	0	0	0	0	4	4
GC-MW-45S	50	12.6	Number of detection	2	18	0	0	15	13
			Number of detections above screening values	0	3	0	0	2	2
GC-MW-47S	35	27	Number of detection	7	17	0	0	15	11
			Number of detections above screening values	6	2	0	0	4	3

Notes:
NA - Not Analyzed
This summary table does not include duplicate or split sample results.
Well GC-MW-22S was not installed.

TABLE 4-20d

Compounds Detected / Exceeding Screening Values in Intermediate Groundwater

Gowanus Canal Remedial Investigation

Brooklyn, New York

Monitoring Well Station Location	Approximate Distance from Monitoring Well to Canal (feet)	Depth of Groundwater Sample (feet below ground surface)	Number of Detections Number of Detections Above Screening Values	VOCs	SVOCs	PCBs	Pesticides	Total Metals	Dissolved Metals
GC-MW-1I	37	37.3	Number of detection	13	9	0	0	15	NA
			Number of detections above screening values	3	0	0	0	5	NA
GC-MW-2I	59	31.3	Number of detection	2	2	0	0	12	1
			Number of detections above screening values	1	0	0	0	3	1
GC-MW-3I	14	39.7	Number of detection	7	16	0	0	13	10
			Number of detections above screening values	1	0	0	0	3	2
GC-MW-4I	271	36.8	Number of detection	3	10	0	0	8	11
			Number of detections above screening values	2	1	0	0	2	2
GC-MW-5I	61	32	Number of detection	4	11	0	0	9	9
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-6I	216	33.2	Number of detection	1	11	0	0	11	8
			Number of detections above screening values	0	0	0	0	4	5
GC-MW-7I	9	29.8	Number of detection	6	16	0	0	16	14
			Number of detections above screening values	5	2	0	0	5	4
GC-MW-8I	140	37.2	Number of detection	7	4	0	0	15	13
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-9I	28	36.42	Number of detection	6	12	0	0	14	1
			Number of detections above screening values	5	2	0	0	5	1
GC-MW-10I	329	43	Number of detection	2	17	0	0	10	NA
			Number of detections above screening values	0	1	0	0	4	NA
GC-MW-11I	67	42.4	Number of detection	8	12	0	0	14	12
			Number of detections above screening values	7	1	0	0	5	5
GC-MW-12I	205	42.5	Number of detection	8	1	0	0	15	13
			Number of detections above screening values	1	0	0	0	4	4
GC-MW-13I	32	57.8	Number of detection	7	15	0	0	12	10
			Number of detections above screening values	1	1	0	0	3	3
GC-MW-14I	139	53.5	Number of detection	9	7	0	0	15	11
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-15I	32	57.8	Number of detection	0	1	0	0	16	13
			Number of detections above screening values	0	0	0	0	4	4
GC-MW-16I	254	57.5	Number of detection	0	12	0	0	15	13
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-17I	51	41.85	Number of detection	10	3	0	0	13	NA
			Number of detections above screening values	2	1	0	0	4	NA
GC-MW-18I	33	54	Number of detection	14	17	0	0	14	1
			Number of detections above screening values	7	2	0	0	5	1
GC-MW-19I	280	56.61	Number of detection	3	0	0	0	10	NA
			Number of detections above screening values	0	0	0	0	3	NA
GC-MW-20I	48	37	Number of detection	8	12	0	0	19	12
			Number of detections above screening values	6	1	0	0	3	3
GC-MW-21I	149	34.9	Number of detection	0	3	0	0	13	13
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-23I	73	33.75-38.75	Number of detection	6	16	0	0	11	8
			Number of detections above screening values	5	2	0	0	2	2
GC-MW-24I	35	38.4	Number of detection	4	5	0	0	11	10
			Number of detections above screening values	0	0	0	0	2	1
GC-MW-25I	60	43.3	Number of detection	10	14	0	0	14	14
			Number of detections above screening values	2	0	0	0	2	2
GC-MW-26I	210	36.6	Number of detection	14	9	0	0	14	13
			Number of detections above screening values	1	0	0	0	3	3
GC-MW-27I	151	40.8	Number of detection	12	17	0	0	10	8
			Number of detections above screening values	5	1	0	0	2	2
GC-MW-28I	36	34.3	Number of detection	5	7	0	0	13	10
			Number of detections above screening values	3	0	0	0	3	3
GC-MW-29I	152	34.9	Number of detection	13	10	0	0	14	13
			Number of detections above screening values	5	0	0	0	3	3
GC-MW-30I	37	30-35	Number of detection	6	9	0	0	8	7
			Number of detections above screening values	4	1	0	0	3	3
GC-MW-31I	31	30-35	Number of detection	7	9	0	2	12	8
			Number of detections above screening values	5	1	0	1	3	3
GC-MW-32I	605	40-45	Number of detection	6	7	0	0	12	8
			Number of detections above screening values	4	1	0	0	3	3
GC-MW-33I	236	36.4	Number of detection	8	13	0	0	14	12
			Number of detections above screening values	5	1	0	0	3	3

Monitoring Well Station Location	Approximate Distance from Monitoring Well to Canal (feet)	Depth of Groundwater Sample (feet below ground surface)	Number of Detections Number of Detections Above Screening Values	VOCs	SVOCs	PCBs	Pesticides	Total Metals	Dissolved Metals
GC-MW-34I	27	32.1	Number of detection	9	10	0	0	12	10
			Number of detections above screening values	1	1	0	0	2	2
GC-MW-35I	29	31.4	Number of detection	11	18	0	0	15	13
			Number of detections above screening values	3	1	0	0	3	3
GC-MW-36I	33	30.4	Number of detection	4	15	0	0	15	14
			Number of detections above screening values	0	1	0	0	3	3
GC-MW-37I	31	41.5	Number of detection	8	16	0	0	13	13
			Number of detections above screening values	3	0	0	0	3	3
GC-MW-38I	33	34.7	Number of detection	5	16	0	0	14	13
			Number of detections above screening values	0	0	0	0	4	4
GC-MW-39I	106	37.7	Number of detection	7	13	0	0	17	15
			Number of detections above screening values	5	2	0	0	4	4
GC-MW-40I	191	53-58	Number of detection	7	17	0	0	11	10
			Number of detections above screening values	2	2	0	0	3	3
GC-MW-41I	345	53-58	Number of detection	0	12	0	0	8	9
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-42I	12	35	Number of detection	1	3	0	0	15	13
			Number of detections above screening values	0	0	0	0	3	3
GC-MW-43I	58	34.7	Number of detection	9	19	0	0	16	12
			Number of detections above screening values	4	1	0	0	4	4
GC-MW-44I	45	41.5	Number of detection	8	10	0	0	14	11
			Number of detections above screening values	3	0	0	0	4	3
GC-MW-45I	50	38.4	Number of detection	10	20	0	0	10	11
			Number of detections above screening values	4	3	0	0	3	3
GC-MW-46I	52	54.9	Number of detection	9	9	0	0	13	10
			Number of detections above screening values	7	0	0	0	3	3
GC-MW-47I	35	42	Number of detection	10	22	0	0	12	12
			Number of detections above screening values	6	3	0	0	3	3

Notes:
This summary tables does not include duplicate or split sample results.
NA - Not Analyzed

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)						
Acenaphthene	12 / 12 (100%)	12	---	23.8 - 73.0	GC-TI401-BC	39.5
Acenaphthylene	6 / 12 (50.0%)	12	3.64 - 5.37	6.07 - 14.3	GC-TI401-BC	6.09
Anthracene	12 / 12 (100%)	12	---	3.85 - 12.4	GC-TI401-BC	6.44
Benzo(a)anthracene	5 / 12 (41.7%)	12	2.87 - 3.98	4.75 - 15.7	GC-TI402-BC	4.27
Benzo(a)pyrene	11 / 12 (91.7%)	12	4.53 - 4.53	5.45 - 17.5	GC-TI402-BC	7.28
Benzo(b)fluoranthene	9 / 12 (75.0%)	12	2.74 - 3.61	4.82 - 9.61	GC-TI402-BC	4.82
Benzo(g,h,i)perylene	12 / 12 (100%)	12	---	13.6 - 28.2	GC-TI401-BC	18.5
Benzo(k)fluoranthene	8 / 12 (66.7%)	12	2.44 - 3.08	3.65 - 8.76	GC-TI402-BC	3.75
Chrysene	8 / 12 (66.7%)	12	2.91 - 3.89	5.03 - 13.6	GC-TI402-BC	5.05
Dibenz(a,h)anthracene	12 / 12 (100%)	12	---	2.59 - 5.13	GC-TI402-BC	3.56
Fluoranthene	12 / 12 (100%)	12	---	8.44 - 21.9	GC-TI402-BC	14.9
Fluorene	12 / 12 (100%)	12	---	6.43 - 26.8	GC-TI404-BC	14.9
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	12	---	7.46 - 12.3	GC-TI402-BC	9.22
Phenanthrene	12 / 12 (100%)	12	---	12.2 - 44.1	GC-TI401-BC	26.6
Pyrene	12 / 12 (100%)	12	---	9.88 - 28.6	GC-TI401-BC	18.5
Total PAHs	12 / 12 (100%)	12	---	106 - 300	GC-TI401-BC	184
Canal - Blue Crab Whole Body - Pesticides (ug/kg)						
P,P'-DDE	12 / 12 (100%)	12	---	2.05 - 2.79	GC-TI402-BC	2.41
Total DDTs	4 / 12 (33.3%)	12	0.772 - 1.50	2.08 - 2.79	GC-TI402-BC	1.28
Canal - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	12 / 12 (100%)	12	---	3.91 - 5.54	GC-TI405-BC	4.76
PCB Nondioxin	12 / 12 (100%)	12	---	115000 - 167000	GC-TI405-BC	135000
Total PCB Congeners	12 / 12 (100%)	12	---	133000 - 194000	GC-TI405-BC	157000
Canal - Blue Crab Whole Body - Metals (mg/kg)						
Arsenic	12 / 12 (100%)	12	---	0.902 - 1.47	GC-TI401-BC	1.21
Calcium	12 / 12 (100%)	12	---	1050 - 1740	GC-TI406-BC	1400
Copper	12 / 12 (100%)	12	---	8.19 - 11.7	GC-TI406-BC	9.65
Iron	6 / 12 (50.0%)	12	7.96 - 8.21	8.43 - 13.3	GC-TI406-BC	7.43

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Blue Crab Whole Body - Metals (mg/kg)						
Magnesium	12 / 12 (100%)	12	---	318 - 395	GC-TI406-BC	351
Manganese	12 / 12 (100%)	12	---	2.20 - 3.24	GC-TI405-BC	2.72
Mercury	12 / 12 (100%)	12	---	0.0792 - 0.142	GC-TI402-BC	0.115
Potassium	12 / 12 (100%)	12	---	1910 - 2390	GC-TI406-BC	2100
Silver	2 / 12 (16.7%)	12	0.488 - 0.497	0.421 - 0.463	GC-TI401-BC	0.279
Sodium	12 / 12 (100%)	12	---	2630 - 3490	GC-TI401-BC, GC-TI402-BC	3070
Zinc	12 / 12 (100%)	12	---	18.9 - 24.0	GC-TI406-BC	20.9
Cyanide, Total	10 / 12 (83.3%)	12	1.22 - 1.25	0.527 - 0.847	GC-TI401-BC	0.693
Percent Lipids	12 / 12 (100%)	12	---	1.14 - 1.86	GC-TI405-BC	1.56
Reference - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)						
Acenaphthene	2 / 8 (25.0%)	8	1.63 - 1.69	2.64 - 3.79	GC-TI-INNER-BC	1.43
Benzo(a)pyrene	7 / 8 (87.5%)	8	1.65 - 1.65	2.80 - 4.07	GC-TIMIDDLE-BC	3.21
Benzo(b)fluoranthene	6 / 8 (75.0%)	8	1.63 - 1.65	3.03 - 4.18	GC-TI-OUTER-BC	2.80
Benzo(g,h,i)perylene	8 / 8 (100%)	8	---	14.0 - 25.3	GC-TIMIDDLE-BC	18.7
Benzo(k)fluoranthene	4 / 8 (50.0%)	8	1.63 - 1.69	2.78 - 3.41	GC-TI-OUTER-BC	1.93
Dibenz(a,h)anthracene	8 / 8 (100%)	8	---	2.10 - 4.43	GC-TI-OUTER-BC	3.40
Fluoranthene	1 / 8 (12.5%)	8	1.63 - 1.69	3.58 - 3.58	GC-TI-OUTER-BC	1.17
Fluorene	1 / 8 (12.5%)	8	1.63 - 1.69	2.20 - 2.20	GC-TI-INNER-BC	1.00
Indeno(1,2,3-c,d)pyrene	8 / 8 (100%)	8	---	6.77 - 10.8	GC-TIMIDDLE-BC	8.67
Phenanthrene	8 / 8 (100%)	8	---	2.31 - 5.40	GC-TI-OUTER-BC	3.68
Pyrene	8 / 8 (100%)	8	---	2.28 - 5.13	GC-TI-OUTER-BC	2.69
Total PAHs	8 / 8 (100%)	8	---	29.5 - 58.8	GC-TI-OUTER-BC	43.1
Reference - Blue Crab Whole Body - Pesticides (ug/kg)						
P,P'-DDE	1 / 8 (12.5%)	8	1.61 - 1.66	1.73 - 1.73	GC-TI-INNER-BC	0.933
Total DDTs	1 / 8 (12.5%)	8	---	1.25 - 1.25	GC-TI-INNER-BC	0.156
Reference - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	8 / 8 (100%)	8	---	0.341 - 4.32	GC-TI-INNER-BC	2.38
PCB Nondioxin	8 / 8 (100%)	8	---	59400 - 106000	GC-TI-INNER-BC	78300

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Reference - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
Total PCB Congeners	8 / 8 (100%)	8	---	67000 - 127000	GC-TI-INNER-BC	90900
Reference - Blue Crab Whole Body - Metals (mg/kg)						
Arsenic	8 / 8 (100%)	8	---	1.08 - 1.82	GC-TI-INNER-BC	1.37
Cadmium	4 / 8 (50.0%)	8	0.243 - 0.25	0.186 - 0.233	GC-TI-OUTER-BC	0.162
Calcium	8 / 8 (100%)	8	---	831 - 1940	GC-TI-INNER-BC	1230
Copper	8 / 8 (100%)	8	---	14.0 - 18.9	GC-TI-OUTER-BC	15.6
Iron	7 / 8 (87.5%)	8	5.00 - 5.00	5.72 - 10.9	GC-TI-OUTER-BC	6.84
Magnesium	8 / 8 (100%)	8	---	301 - 432	GC-TI-OUTER-BC	349
Manganese	8 / 8 (100%)	8	---	2.54 - 4.44	GC-TI-INNER-BC	3.21
Mercury	8 / 8 (100%)	8	---	0.0849 - 0.316	GC-TI-OUTER-BC	0.168
Potassium	8 / 8 (100%)	8	---	2270 - 2840	GC-TI-OUTER-BC	2510
Selenium	8 / 8 (100%)	8	---	1.23 - 1.62	GC-TI-OUTER-BC	1.49
Silver	8 / 8 (100%)	8	---	0.669 - 0.987	GC-TIMIDDLE-BC	0.817
Sodium	8 / 8 (100%)	8	---	2310 - 2670	GC-TI-INNER-BC	2520
Zinc	8 / 8 (100%)	8	---	22.4 - 29.5	GC-TI-OUTER-BC	25.4
Cyanide, Total	6 / 8 (75.0%)	8	1.25 - 1.25	0.538 - 0.78	GC-TI-INNER-BC	0.611
Percent Lipids	8 / 8 (100%)	8	---	1.23 - 2.33	GC-TIMIDDLE-BC	1.49
Canal - Large Fish American Eel Whole Body - Pesticides (ug/kg)						
Alpha-chlordane	3 / 4 (75.0%)	6	0.85 - 0.85	5.19 - 27.0	GC-TI403-XAE	12.9
Dieldrin	2 / 3 (66.7%)	6	1.65 - 1.65	7.49 - 13.7	GC-TI403-XAE	7.34
Gamma-chlordane	2 / 3 (66.7%)	6	0.85 - 0.85	4.91 - 5.14	GC-TI402-XAE	3.49
Methoxychlor	3 / 6 (50.0%)	6	8.50 - 8.50	13.5 - 18.7	GC-TI403-XAE	10.1
P,P'-DDD	4 / 4 (100%)	6	---	23.1 - 38.0	GC-TI403-XAE	28.2
P,P'-DDE	1 / 1 (100%)	6	---	13.3 - 13.3	GC-TI406-XAE	13.3
P,P'-DDT	1 / 2 (50.0%)	6	1.65 - 1.65	40.6 - 40.6	GC-TI403-XAE	20.7
Canal - Large Fish American Eel Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	6 / 6 (100%)	6	---	4.54 - 10.4	GC-TI406-XAE	8.18
PCB Nondioxin	6 / 6 (100%)	6	---	467000 - 847000	GC-TI406-XAE	734000

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Large Fish American Eel Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
Total PCB Congeners	6 / 6 (100%)	6	---	505000 - 946000	GC-TI406-XAE	800000
Canal - Large Fish American Eel Whole Body - Metals (mg/kg)						
Aluminum	1 / 6 (16.7%)	6	9.70 - 9.75	17.8 - 17.8	GC-TI406-XAE	7.02
Arsenic	1 / 6 (16.7%)	6	0.485 - 0.488	0.491 - 0.491	GC-TI402-XAE	0.285
Calcium	6 / 6 (100%)	6	---	453 - 6220	GC-TI402-XAE	2270
Chromium	4 / 6 (66.7%)	6	0.485 - 0.485	0.425 - 0.796	GC-TI406-XAE	0.493
Copper	4 / 6 (66.7%)	6	1.20 - 1.20	1.11 - 7.51	GC-TI402-XAE	2.48
Iron	6 / 6 (100%)	6	---	15.9 - 99.9	GC-TI406-XAE	34.5
Lead	1 / 6 (16.7%)	6	0.485 - 0.488	0.602 - 0.602	GC-TI406-XAE	0.303
Magnesium	5 / 6 (83.3%)	6	242 - 242	205 - 307	GC-TI402-XAE	227
Manganese	1 / 6 (16.7%)	6	0.75 - 0.75	1.59 - 1.59	GC-TI406-XAE	0.578
Mercury	6 / 6 (100%)	6	---	0.0647 - 0.28	GC-TI406-XAE	0.138
Potassium	6 / 6 (100%)	6	---	2000 - 2760	GC-TI403-XAE	2380
Selenium	6 / 6 (100%)	6	---	1.20 - 1.59	GC-TI402-XAE	1.39
Sodium	6 / 6 (100%)	6	---	702 - 1000	GC-TI402-XAE	867
Zinc	6 / 6 (100%)	6	---	12.3 - 26.3	GC-TI406-XAE	18.7
Cyanide, Total	6 / 6 (100%)	6	---	0.253 - 1.76	GC-TI403-XAE	1.08
Percent Lipids	9 / 9 (100%)	9	---	11.0 - 20.4	GC-TI403-XAE	15.4
Reference - Large Fish American Eel Whole Body - Pesticides (ug/kg)						
Alpha-chlordane	1 / 1 (100%)	1	---	3.11 - 3.11	GC-TI327-XAE	3.11
Dieldrin	1 / 1 (100%)	1	---	2.57 - 2.57	GC-TI327-XAE	2.57
P,P'-DDD	1 / 1 (100%)	1	---	9.70 - 9.70	GC-TI327-XAE	9.70
Reference - Large Fish American Eel Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	1 / 1 (100%)	1	---	6.88 - 6.88	GC-TI327-XAE	6.88
PCB Nondioxin	1 / 1 (100%)	1	---	399000 - 399000	GC-TI327-XAE	399000
Total PCB Congeners	1 / 1 (100%)	1	---	446000 - 446000	GC-TI327-XAE	446000
Reference - Large Fish American Eel Whole Body - Metals (mg/kg)						
Calcium	1 / 1 (100%)	1	---	2060 - 2060	GC-TI327-XAE	2060

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Reference - Large Fish American Eel Whole Body - Metals (mg/kg)						
Iron	1 / 1 (100%)	1	---	16.6 - 16.6	GC-TI327-XAE	16.6
Magnesium	1 / 1 (100%)	1	---	222 - 222	GC-TI327-XAE	222
Mercury	1 / 1 (100%)	1	---	0.131 - 0.131	GC-TI327-XAE	0.131
Potassium	1 / 1 (100%)	1	---	2050 - 2050	GC-TI327-XAE	2050
Sodium	1 / 1 (100%)	1	---	767 - 767	GC-TI327-XAE	767
Zinc	1 / 1 (100%)	1	---	19.3 - 19.3	GC-TI327-XAE	19.3
Percent Lipids	2 / 2 (100%)	2	---	20.3 - 20.3	GC-TI327-XAE	20.3
Canal - Large Fish Striped Bass Whole Body - Pesticides (ug/kg)						
Alpha-chlordane	3 / 4 (75.0%)	5	0.85 - 0.85	2.39 - 7.57	GC-TI401-SB	3.67
Gamma-chlordane	1 / 5 (20.0%)	5	0.85 - 0.85	5.63 - 5.63	GC-TI403-SB	1.47
P,P'-DDD	4 / 4 (100%)	5	---	7.35 - 25.7	GC-TI401-SB	16.2
P,P'-DDE	2 / 2 (100%)	5	---	2.96 - 19.1	GC-TI403-SB	11.0
P,P'-DDT	2 / 5 (40.0%)	5	1.65 - 1.65	11.4 - 13.0	GC-TI403-SB	5.38
Total DDTs	1 / 1 (100%)	5	---	29.3 - 29.3	GC-TI406-SB	29.3
Canal - Large Fish Striped Bass Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	5 / 5 (100%)	5	---	5.85 - 11.1	GC-TI406-SB	8.94
PCB Nondioxin	5 / 5 (100%)	5	---	560000 - 1160000	GC-TI406-SB	860000
Total PCB Congeners	5 / 5 (100%)	5	---	604000 - 1230000	GC-TI406-SB	916000
Canal - Large Fish Striped Bass Whole Body - Metals (mg/kg)						
Arsenic	4 / 5 (80.0%)	5	0.487 - 0.487	0.447 - 0.569	GC-TI406-SB	0.475
Calcium	5 / 5 (100%)	5	---	4650 - 8800	GC-TI401-SB	6010
Chromium	2 / 5 (40.0%)	5	0.485 - 0.49	0.435 - 0.46	GC-TI401-SB	0.325
Copper	4 / 5 (80.0%)	5	1.20 - 1.20	0.922 - 1.28	GC-TI401-SB	1.02
Iron	5 / 5 (100%)	5	---	15.9 - 28.9	GC-TI403-SB	21.7
Magnesium	5 / 5 (100%)	5	---	339 - 417	GC-TI401-SB	367
Manganese	3 / 5 (60.0%)	5	0.75 - 0.75	1.45 - 1.62	GC-TI401-SB	1.07
Mercury	4 / 5 (80.0%)	5	0.246 - 0.246	0.13 - 0.185	GC-TI406-SB	0.146
Potassium	5 / 5 (100%)	5	---	2460 - 3460	GC-TI406-SB	3040

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Large Fish Striped Bass Whole Body - Metals (mg/kg)						
Selenium	5 / 5 (100%)	5	---	1.33 - 1.60	GC-TI406-SB	1.47
Sodium	5 / 5 (100%)	5	---	1020 - 1450	GC-TI406-SB	1240
Zinc	5 / 5 (100%)	5	---	9.51 - 16.7	GC-TI403-SB	12.5
Cyanide, Total	3 / 5 (60.0%)	5	1.20 - 1.21	0.631 - 2.06	GC-TI401-SB	0.95
Percent Lipids	10 / 10 (100%)	10	---	1.58 - 8.29	GC-TI401-SB	4.51
Reference - Large Fish Weakfish Whole Body - Pesticides (ug/kg)						
P,P'-DDE	1 / 1 (100%)	1	---	7.32 - 7.32	GC-TI332-XW	7.32
Reference - Large Fish Weakfish Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	1 / 1 (100%)	1	---	0.743 - 0.743	GC-TI332-XW	0.743
PCB Nondioxin	1 / 1 (100%)	1	---	279000 - 279000	GC-TI332-XW	279000
Total PCB Congeners	1 / 1 (100%)	1	---	303000 - 303000	GC-TI332-XW	303000
Reference - Large Fish Weakfish Whole Body - Metals (mg/kg)						
Calcium	1 / 1 (100%)	1	---	5480 - 5480	GC-TI332-XW	5480
Copper	1 / 1 (100%)	1	---	1.01 - 1.01	GC-TI332-XW	1.01
Iron	1 / 1 (100%)	1	---	16.5 - 16.5	GC-TI332-XW	16.5
Magnesium	1 / 1 (100%)	1	---	370 - 370	GC-TI332-XW	370
Manganese	1 / 1 (100%)	1	---	2.69 - 2.69	GC-TI332-XW	2.69
Mercury	1 / 1 (100%)	1	---	0.156 - 0.156	GC-TI332-XW	0.156
Potassium	1 / 1 (100%)	1	---	2960 - 2960	GC-TI332-XW	2960
Sodium	1 / 1 (100%)	1	---	1280 - 1280	GC-TI332-XW	1280
Zinc	1 / 1 (100%)	1	---	15.5 - 15.5	GC-TI332-XW	15.5
Percent Lipids	2 / 2 (100%)	2	---	2.10 - 2.10	GC-TI332-XW	2.10
Canal - Large Fish White Perch Whole Body - Pesticides (ug/kg)						
Alpha-chlordane	2 / 2 (100%)	2	---	8.46 - 9.02	GC-TI401-WP	8.74
Gamma-chlordane	1 / 1 (100%)	2	---	7.78 - 7.78	GC-TI401-WP	7.78
Methoxychlor	1 / 2 (50.0%)	2	8.50 - 8.50	26.5 - 26.5	GC-TI401-WP	15.4
P,P'-DDT	1 / 1 (100%)	2	---	14.9 - 14.9	GC-TI401-WP	14.9

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Large Fish White Perch Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	2 / 2 (100%)	2	---	11.8 - 14.6	GC-TI401-WP	13.2
PCB Nondioxin	2 / 2 (100%)	2	---	836000 - 1050000	GC-TI401-WP	943000
Total PCB Congeners	2 / 2 (100%)	2	---	901000 - 1110000	GC-TI401-WP	1010000
Canal - Large Fish White Perch Whole Body - Metals (mg/kg)						
Calcium	2 / 2 (100%)	2	---	5800 - 9940	GC-TI401-WP	7870
Copper	2 / 2 (100%)	2	---	6.36 - 18.2	GC-TI401-WP	12.3
Iron	2 / 2 (100%)	2	---	13.5 - 14.3	GC-TI401-WP	13.9
Magnesium	2 / 2 (100%)	2	---	266 - 371	GC-TI401-WP	319
Manganese	2 / 2 (100%)	2	---	0.933 - 4.31	GC-TI401-WP	2.62
Mercury	2 / 2 (100%)	2	---	0.146 - 0.153	GC-TI401-WP	0.15
Potassium	2 / 2 (100%)	2	---	1830 - 2000	GC-TI401-WP	1920
Selenium	2 / 2 (100%)	2	---	1.36 - 1.47	GC-TI401-WP	1.42
Silver	1 / 2 (50.0%)	2	0.492 - 0.492	0.415 - 0.415	GC-TI401-WP	0.331
Sodium	2 / 2 (100%)	2	---	805 - 1090	GC-TI401-WP	948
Zinc	2 / 2 (100%)	2	---	12.0 - 16.8	GC-TI401-WP	14.4
Cyanide, Total	2 / 2 (100%)	2	---	0.455 - 0.951	GC-TI401-WP	0.703
Percent Lipids	4 / 4 (100%)	4	---	3.42 - 4.15	GC-TI401-WP	3.79
Reference - Large Fish Scup Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	3 / 3 (100%)	3	---	1.78 - 1.97	GC-TI332-XSCUP	1.86
PCB Nondioxin	3 / 3 (100%)	3	---	93100 - 103000	GC-TI332-XSCUP	96800
Total PCB Congeners	3 / 3 (100%)	3	---	101000 - 111000	GC-TI332-XSCUP	105000
Reference - Large Fish Scup Whole Body - Metals (mg/kg)						
Arsenic	3 / 3 (100%)	3	---	0.537 - 0.619	GC-TI332-XSCUP	0.587
Calcium	3 / 3 (100%)	3	---	7190 - 13900	GC-TI332-XSCUP	10500
Chromium	2 / 3 (66.7%)	3	0.49 - 0.49	0.393 - 0.471	GC-TI332-XSCUP	0.37
Copper	1 / 3 (33.3%)	3	1.23 - 1.25	1.00 - 1.00	GC-TI332-XSCUP	0.747
Iron	3 / 3 (100%)	3	---	27.0 - 34.5	GC-TI332-XSCUP	30.4
Lead	1 / 3 (33.3%)	3	0.49 - 0.492	0.656 - 0.656	GC-TI332-XSCUP	0.382

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Reference - Large Fish Scup Whole Body - Metals (mg/kg)						
Magnesium	3 / 3 (100%)	3	---	319 - 416	GC-TI332-XSCUP	376
Manganese	3 / 3 (100%)	3	---	2.34 - 4.23	GC-TI332-XSCUP	3.25
Mercury	3 / 3 (100%)	3	---	0.0746 - 0.122	GC-TI332-XSCUP	0.0935
Potassium	3 / 3 (100%)	3	---	2500 - 2640	GC-TI332-XSCUP	2580
Selenium	3 / 3 (100%)	3	---	1.34 - 1.64	GC-TI332-XSCUP	1.45
Sodium	3 / 3 (100%)	3	---	896 - 1100	GC-TI332-XSCUP	990
Zinc	3 / 3 (100%)	3	---	7.99 - 11.5	GC-TI332-XSCUP	9.72
Cyanide, Total	2 / 3 (66.7%)	3	1.25 - 1.25	3.36 - 4.42	GC-TI332-XSCUP	2.80
Percent Lipids	6 / 6 (100%)	6	---	1.76 - 2.62	GC-TI332-XSCUP	2.12
Canal - Small Prey Fish - Pesticides (ug/kg)						
Alpha-chlordane	4 / 8 (50.0%)	8	1.70 - 1.70	1.80 - 4.20	GC-TI405-MCG	2.00
Endrin	1 / 8 (12.5%)	8	3.30 - 3.30	2.70 - 2.70	GC-TI401-XATC	1.78
Gamma-chlordane	1 / 7 (14.3%)	8	1.70 - 1.70	5.40 - 5.40	GC-TI405-MCG	1.50
P,P'-DDE	1 / 8 (12.5%)	8	3.30 - 3.30	3.50 - 3.50	GC-TI405-MCG	1.88
P,P'-DDT	1 / 8 (12.5%)	8	3.30 - 3.30	8.50 - 8.50	GC-TI401-XATC	2.51
Canal - Small Prey Fish - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	8 / 8 (100%)	8	---	1.15 - 8.57	GC-TI404-MCG	3.63
PCB Nondioxin	8 / 8 (100%)	8	---	110000 - 606000	GC-TI404-MCG	255000
Total PCB Congeners	8 / 8 (100%)	8	---	117000 - 650000	GC-TI404-MCG	273000
Canal - Small Prey Fish - Metals (mg/kg)						
Aluminum	1 / 8 (12.5%)	8	19.4 - 20.0	30.3 - 30.3	GC-TI405-XATC	12.4
Calcium	8 / 8 (100%)	8	---	2910 - 11600	GC-TI404-MCG	7110
Chromium	2 / 8 (25.0%)	8	0.97 - 1.00	0.33 - 0.40	GC-TI405-XATC	0.459
Copper	6 / 8 (75.0%)	8	2.40 - 2.50	0.84 - 4.50	GC-TI403-MCG	2.20
Iron	8 / 8 (100%)	8	---	16.2 - 77.6	GC-TI405-XATC	31.4
Lead	1 / 8 (12.5%)	8	0.97 - 1.00	0.69 - 0.69	GC-TI405-XATC	0.515
Magnesium	8 / 8 (100%)	8	---	187 - 517	GC-TI404-MCG	361
Manganese	8 / 8 (100%)	8	---	0.92 - 4.30	GC-TI404-MCG	2.30

TABLE 4-21a
Tissue -Summary of Sample Results Used in Ecological Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Small Prey Fish - Metals (mg/kg)						
Mercury	8 / 8 (100%)	8	---	0.072 - 0.10	GC-TI401-XATC, GC-TI403-MCG	0.0866
Potassium	8 / 8 (100%)	8	---	1290 - 2730	GC-TI404-MCG	2220
Selenium	3 / 8 (37.5%)	8	3.40 - 3.50	1.20 - 1.30	GC-TI403-MCG, GC-TI405-MCG	1.54
Sodium	8 / 8 (100%)	8	---	588 - 1910	GC-TI401-XATC	1360
Zinc	8 / 8 (100%)	8	---	7.20 - 42.3	GC-TI403-MCG	21.9
Cyanide, Total	3 / 8 (37.5%)	8	2.40 - 2.50	0.24 - 0.44	GC-TI406-XATC	0.909
Percent Lipids	8 / 8 (100%)	8	---	0.94 - 2.52	GC-TI401-XATC	1.62
Reference - Small Prey Fish - Pesticides (ug/kg)						
P,P'-DDD	1 / 2 (50.0%)	2	3.30 - 3.30	13.0 - 13.0	GC-TI332-XHK	7.33
Reference - Small Prey Fish - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	2 / 2 (100%)	2	---	2.56 - 4.79	GC-TI332-XHK	3.68
PCB Nondioxin	2 / 2 (100%)	2	---	137000 - 181000	GC-TI332-XHK	159000
Total PCB Congeners	2 / 2 (100%)	2	---	150000 - 205000	GC-TI332-XHK	178000
Reference - Small Prey Fish - Metals (mg/kg)						
Arsenic	1 / 2 (50.0%)	2	0.98 - 0.98	1.20 - 1.20	GC-TI332-XHK	0.845
Calcium	2 / 2 (100%)	2	---	2170 - 2490	GC-TI-INNER-XATC	2330
Copper	1 / 2 (50.0%)	2	2.50 - 2.50	1.00 - 1.00	GC-TI332-XHK	1.13
Iron	2 / 2 (100%)	2	---	10.7 - 12.3	GC-TI332-XHK	11.5
Magnesium	2 / 2 (100%)	2	---	180 - 253	GC-TI332-XHK	217
Manganese	2 / 2 (100%)	2	---	0.88 - 1.80	GC-TI332-XHK	1.34
Mercury	2 / 2 (100%)	2	---	0.076 - 0.089	GC-TI-INNER-XATC	0.0825
Potassium	2 / 2 (100%)	2	---	1300 - 3230	GC-TI332-XHK	2270
Sodium	2 / 2 (100%)	2	---	664 - 1200	GC-TI332-XHK	932
Zinc	2 / 2 (100%)	2	---	4.90 - 8.80	GC-TI-INNER-XATC	6.85
Cyanide, Total	1 / 2 (50.0%)	2	2.50 - 2.50	0.87 - 0.87	GC-TI-INNER-XATC	1.06
Percent Lipids	2 / 2 (100%)	2	---	1.14 - 1.40	GC-TI332-XHK	1.27

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TABLE 4-21b
Tissue - Summary of Sample Results Used in Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)						
Acenaphthene	12 / 12 (100%)	12	---	23.8 - 73.0	GC-TI401-BC	39.5
Acenaphthylene	6 / 12 (50.0%)	12	3.64 - 5.37	6.07 - 14.3	GC-TI401-BC	6.09
Anthracene	12 / 12 (100%)	12	---	3.85 - 12.4	GC-TI401-BC	6.44
Benzo(a)anthracene	5 / 12 (41.7%)	12	2.87 - 3.98	4.75 - 15.7	GC-TI402-BC	4.27
Benzo(a)pyrene	11 / 12 (91.7%)	12	4.53 - 4.53	5.45 - 17.5	GC-TI402-BC	7.28
Benzo(b)fluoranthene	9 / 12 (75.0%)	12	2.74 - 3.61	4.82 - 9.61	GC-TI402-BC	4.82
Benzo(g,h,i)perylene	12 / 12 (100%)	12	---	13.6 - 28.2	GC-TI401-BC	18.5
Benzo(k)fluoranthene	8 / 12 (66.7%)	12	2.44 - 3.08	3.65 - 8.76	GC-TI402-BC	3.75
Chrysene	8 / 12 (66.7%)	12	2.91 - 3.89	5.03 - 13.6	GC-TI402-BC	5.05
Dibenz(a,h)anthracene	12 / 12 (100%)	12	---	2.59 - 5.13	GC-TI402-BC	3.56
Fluoranthene	12 / 12 (100%)	12	---	8.44 - 21.9	GC-TI402-BC	14.9
Fluorene	12 / 12 (100%)	12	---	6.43 - 26.8	GC-TI404-BC	14.9
Indeno(1,2,3-c,d)pyrene	12 / 12 (100%)	12	---	7.46 - 12.3	GC-TI402-BC	9.22
Phenanthrene	12 / 12 (100%)	12	---	12.2 - 44.1	GC-TI401-BC	26.6
Pyrene	12 / 12 (100%)	12	---	9.88 - 28.6	GC-TI401-BC	18.5
Total PAHs	12 / 12 (100%)	12	---	106 - 300	GC-TI401-BC	184
Canal - Blue Crab Whole Body - Pesticides (ug/kg)						
P,P'-DDE	12 / 12 (100%)	12	---	2.05 - 2.79	GC-TI402-BC	2.41
Total DDTs	4 / 12 (33.3%)	12	0.772 - 1.50	2.08 - 2.79	GC-TI402-BC	1.28
Canal - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	12 / 12 (100%)	12	---	3.91 - 5.54	GC-TI405-BC	4.76
PCB Nondioxin	12 / 12 (100%)	12	---	115000 - 167000	GC-TI405-BC	135000
Total PCB Congeners	12 / 12 (100%)	12	---	133000 - 194000	GC-TI405-BC	157000
Canal - Blue Crab Whole Body - Metals (mg/kg)						
Arsenic	12 / 12 (100%)	12	---	0.902 - 1.47	GC-TI401-BC	1.21
Calcium	12 / 12 (100%)	12	---	1050 - 1740	GC-TI406-BC	1400
Copper	12 / 12 (100%)	12	---	8.19 - 11.7	GC-TI406-BC	9.65
Iron	6 / 12 (50.0%)	12	7.96 - 8.21	8.43 - 13.3	GC-TI406-BC	7.43
Magnesium	12 / 12 (100%)	12	---	318 - 395	GC-TI406-BC	351

TABLE 4-21b
Tissue - Summary of Sample Results Used in Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Blue Crab Whole Body - Metals (mg/kg)						
Manganese	12 / 12 (100%)	12	---	2.20 - 3.24	GC-TI405-BC	2.72
Mercury	12 / 12 (100%)	12	---	0.0792 - 0.142	GC-TI402-BC	0.115
Potassium	12 / 12 (100%)	12	---	1910 - 2390	GC-TI406-BC	2100
Silver	2 / 12 (16.7%)	12	0.488 - 0.497	0.421 - 0.463	GC-TI401-BC	0.279
Sodium	12 / 12 (100%)	12	---	2630 - 3490	GC-TI401-BC, GC-TI402-BC	3070
Zinc	12 / 12 (100%)	12	---	18.9 - 24.0	GC-TI406-BC	20.9
Cyanide, Total	10 / 12 (83.3%)	12	1.22 - 1.25	0.527 - 0.847	GC-TI401-BC	0.693
Percent Lipids	12 / 12 (100%)	12	---	1.14 - 1.86	GC-TI405-BC	1.56
Reference - Blue Crab Whole Body - Semi-Volatile Organic Compounds (ug/kg)						
Acenaphthene	2 / 8 (25.0%)	8	1.63 - 1.69	2.64 - 3.79	GC-TI-INNER-BC	1.43
Benzo(a)pyrene	7 / 8 (87.5%)	8	1.65 - 1.65	2.80 - 4.07	GC-TIMIDDLE-BC	3.21
Benzo(b)fluoranthene	6 / 8 (75.0%)	8	1.63 - 1.65	3.03 - 4.18	GC-TI-OUTER-BC	2.80
Benzo(g,h,i)perylene	8 / 8 (100%)	8	---	14.0 - 25.3	GC-TIMIDDLE-BC	18.7
Benzo(k)fluoranthene	4 / 8 (50.0%)	8	1.63 - 1.69	2.78 - 3.41	GC-TI-OUTER-BC	1.93
Dibenz(a,h)anthracene	8 / 8 (100%)	8	---	2.10 - 4.43	GC-TI-OUTER-BC	3.40
Fluoranthene	1 / 8 (12.5%)	8	1.63 - 1.69	3.58 - 3.58	GC-TI-OUTER-BC	1.17
Fluorene	1 / 8 (12.5%)	8	1.63 - 1.69	2.20 - 2.20	GC-TI-INNER-BC	1.00
Indeno(1,2,3-c,d)pyrene	8 / 8 (100%)	8	---	6.77 - 10.8	GC-TIMIDDLE-BC	8.67
Phenanthrene	8 / 8 (100%)	8	---	2.31 - 5.40	GC-TI-OUTER-BC	3.68
Pyrene	8 / 8 (100%)	8	---	2.28 - 5.13	GC-TI-OUTER-BC	2.69
Total PAHs	8 / 8 (100%)	8	---	29.5 - 58.8	GC-TI-OUTER-BC	43.1
Reference - Blue Crab Whole Body - Pesticides (ug/kg)						
P,P'-DDE	1 / 8 (12.5%)	8	1.61 - 1.66	1.73 - 1.73	GC-TI-INNER-BC	0.933
Total DDTs	1 / 8 (12.5%)	8	---	1.25 - 1.25	GC-TI-INNER-BC	0.156
Reference - Blue Crab Whole Body - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	8 / 8 (100%)	8	---	0.341 - 4.32	GC-TI-INNER-BC	2.38
PCB Nondioxin	8 / 8 (100%)	8	---	59400 - 106000	GC-TI-INNER-BC	78300
Total PCB Congeners	8 / 8 (100%)	8	---	67000 - 127000	GC-TI-INNER-BC	90900

TABLE 4-21b
Tissue - Summary of Sample Results Used in Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Reference - Blue Crab Whole Body - Metals (mg/kg)						
Arsenic	8 / 8 (100%)	8	---	1.08 - 1.82	GC-TI-INNER-BC	1.37
Cadmium	4 / 8 (50.0%)	8	0.243 - 0.25	0.186 - 0.233	GC-TI-OUTER-BC	0.162
Calcium	8 / 8 (100%)	8	---	831 - 1940	GC-TI-INNER-BC	1230
Copper	8 / 8 (100%)	8	---	14.0 - 18.9	GC-TI-OUTER-BC	15.6
Iron	7 / 8 (87.5%)	8	5.00 - 5.00	5.72 - 10.9	GC-TI-OUTER-BC	6.84
Magnesium	8 / 8 (100%)	8	---	301 - 432	GC-TI-OUTER-BC	349
Manganese	8 / 8 (100%)	8	---	2.54 - 4.44	GC-TI-INNER-BC	3.21
Mercury	8 / 8 (100%)	8	---	0.0849 - 0.316	GC-TI-OUTER-BC	0.168
Potassium	8 / 8 (100%)	8	---	2270 - 2840	GC-TI-OUTER-BC	2510
Selenium	8 / 8 (100%)	8	---	1.23 - 1.62	GC-TI-OUTER-BC	1.49
Silver	8 / 8 (100%)	8	---	0.669 - 0.987	GC-TIMIDDLE-BC	0.817
Sodium	8 / 8 (100%)	8	---	2310 - 2670	GC-TI-INNER-BC	2520
Zinc	8 / 8 (100%)	8	---	22.4 - 29.5	GC-TI-OUTER-BC	25.4
Cyanide, Total	6 / 8 (75.0%)	8	1.25 - 1.25	0.538 - 0.78	GC-TI-INNER-BC	0.611
Percent Lipids	8 / 8 (100%)	8	---	1.23 - 2.33	GC-TIMIDDLE-BC	1.49
Canal - Large Fish American Eel Fillet - Pesticides (ug/kg)						
Alpha-chlordane	3 / 4 (75.0%)	6	1.70 - 1.70	10.0 - 22.0	GC-TI402-XAE	13.5
Dieldrin	5 / 6 (83.3%)	6	3.30 - 3.30	5.00 - 17.0	GC-TI402-XAE	7.59
Gamma-chlordane	2 / 3 (66.7%)	6	1.70 - 1.70	9.90 - 13.0	GC-TI403-XAE	7.92
Methoxychlor	2 / 6 (33.3%)	6	17.0 - 17.0	34.0 - 39.0	GC-TI403-XAE	17.8
P,P'-DDD	4 / 4 (100%)	6	---	13.0 - 38.0	GC-TI403-XAE	27.3
P,P'-DDE	4 / 5 (80.0%)	6	3.30 - 3.30	16.0 - 25.0	GC-TI403-XAE	16.3
P,P'-DDT	2 / 4 (50.0%)	6	3.30 - 3.30	30.0 - 47.0	GC-TI406-XAE	20.1
Total DDTs	2 / 2 (100%)	6	---	46.0 - 93.0	GC-TI403-XAE	69.5
Canal - Large Fish American Eel Fillet - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	6 / 6 (100%)	6	---	4.73 - 14.1	GC-TI406-XAE	8.69
PCB Nondioxin	6 / 6 (100%)	6	---	480000 - 1220000	GC-TI406-XAE	792000
Total PCB Congeners	6 / 6 (100%)	6	---	519000 - 1350000	GC-TI406-XAE	862000

TABLE 4-21b
Tissue - Summary of Sample Results Used in Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Large Fish American Eel Fillet - Metals (mg/kg)						
Arsenic	1 / 6 (16.7%)	6	0.97 - 0.98	0.50 - 0.50	GC-TI402-XAE	0.488
Calcium	3 / 6 (50.0%)	6	485 - 485	198 - 295	GC-TI402-XAE	238
Chromium	2 / 6 (33.3%)	6	0.97 - 0.97	0.53 - 0.67	GC-TI402-XAE	0.523
Copper	3 / 6 (50.0%)	6	2.40 - 2.40	0.86 - 7.40	GC-TI402-XAE	2.12
Iron	1 / 6 (16.7%)	6	9.70 - 9.80	12.7 - 12.7	GC-TI402-XAE	6.17
Magnesium	4 / 6 (66.7%)	6	485 - 485	169 - 278	GC-TI403-XAE	232
Mercury	6 / 6 (100%)	6	---	0.056 - 0.26	GC-TI406-XAE	0.098
Potassium	6 / 6 (100%)	6	---	1960 - 3570	GC-TI403-XAE	2630
Selenium	2 / 6 (33.3%)	6	3.40 - 3.40	1.20 - 1.40	GC-TI403-XAE	1.57
Sodium	6 / 6 (100%)	6	---	524 - 944	GC-TI403-XAE	720
Zinc	6 / 6 (100%)	6	---	11.5 - 29.7	GC-TI403-XAE	17.6
Cyanide, Total	6 / 6 (100%)	6	---	0.30 - 3.10	GC-TI403-XAE	1.25
Percent Lipids	6 / 6 (100%)	6	---	8.99 - 25.0	GC-TI406-XAE	16.4
Reference - Large Fish American Eel Fillet - Pesticides (ug/kg)						
Dieldrin	1 / 1 (100%)	1	---	4.90 - 4.90	GC-TI327-XAE	4.90
P,P'-DDD	1 / 1 (100%)	1	---	14.0 - 14.0	GC-TI327-XAE	14.0
P,P'-DDT	1 / 1 (100%)	1	---	9.20 - 9.20	GC-TI327-XAE	9.20
Reference - Large Fish American Eel Fillet - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	1 / 1 (100%)	1	---	7.20 - 7.20	GC-TI327-XAE	7.20
PCB Nondioxin	1 / 1 (100%)	1	---	424000 - 424000	GC-TI327-XAE	424000
Total PCB Congeners	1 / 1 (100%)	1	---	475000 - 475000	GC-TI327-XAE	475000
Reference - Large Fish American Eel Fillet - Metals (mg/kg)						
Calcium	1 / 1 (100%)	1	---	169 - 169	GC-TI327-XAE	169
Mercury	1 / 1 (100%)	1	---	0.16 - 0.16	GC-TI327-XAE	0.16
Potassium	1 / 1 (100%)	1	---	1870 - 1870	GC-TI327-XAE	1870
Sodium	1 / 1 (100%)	1	---	501 - 501	GC-TI327-XAE	501
Zinc	1 / 1 (100%)	1	---	20.5 - 20.5	GC-TI327-XAE	20.5
Percent Lipids	1 / 1 (100%)	1	---	20.9 - 20.9	GC-TI327-XAE	20.9

TABLE 4-21b
Tissue - Summary of Sample Results Used in Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Canal - Large Fish Striped Bass Fillet - Pesticides (ug/kg)						
Alpha-chlordane	2 / 4 (50.0%)	5	1.70 - 1.70	5.10 - 8.20	GC-TI406-SB	3.75
Gamma-chlordane	1 / 5 (20.0%)	5	1.70 - 1.70	3.50 - 3.50	GC-TI403-SB	1.38
P,P'-DDD	3 / 4 (75.0%)	5	3.30 - 3.30	4.80 - 5.60	GC-TI406-SB	4.39
P,P'-DDE	5 / 5 (100%)	5	---	4.80 - 12.0	GC-TI406-SB	8.46
P,P'-DDT	1 / 5 (20.0%)	5	3.30 - 3.30	9.60 - 9.60	GC-TI403-SB	3.24
Total DDTs	4 / 4 (100%)	5	---	7.90 - 17.6	GC-TI406-SB	11.8
Canal - Large Fish Striped Bass Fillet - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	5 / 5 (100%)	5	---	2.83 - 4.31	GC-TI406-SB	3.35
PCB Nondioxin	5 / 5 (100%)	5	---	244000 - 409000	GC-TI403-SB	331000
Total PCB Congeners	5 / 5 (100%)	5	---	263000 - 435000	GC-TI403-SB	354000
Canal - Large Fish Striped Bass Fillet - Metals (mg/kg)						
Arsenic	3 / 5 (60.0%)	5	0.98 - 0.98	0.45 - 0.68	GC-TI403-SB	0.53
Calcium	5 / 5 (100%)	5	---	197 - 541	GC-TI403-SB	323
Magnesium	5 / 5 (100%)	5	---	190 - 343	GC-TI401-SB	291
Mercury	4 / 5 (80.0%)	5	0.48 - 0.48	0.15 - 0.20	GC-TI406-SB	0.194
Potassium	5 / 5 (100%)	5	---	2070 - 3970	GC-TI406-SB	3240
Selenium	2 / 5 (40.0%)	5	3.40 - 3.50	1.20 - 1.20	GC-TI403-SB, GC-TI406-SB	1.51
Sodium	5 / 5 (100%)	5	---	468 - 1060	GC-TI403-SB	712
Zinc	5 / 5 (100%)	5	---	3.90 - 16.4	GC-TI403-SB	7.58
Cyanide, Total	3 / 5 (60.0%)	5	2.40 - 2.50	0.28 - 0.63	GC-TI401-SB	0.792
Percent Lipids	5 / 5 (100%)	5	---	0.74 - 3.11	GC-TI401-SB	1.87
Reference - Large Fish Weakfish Fillet - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	1 / 1 (100%)	1	---	0.259 - 0.259	GC-TI332-XW	0.259
PCB Nondioxin	1 / 1 (100%)	1	---	98900 - 98900	GC-TI332-XW	98900
Total PCB Congeners	1 / 1 (100%)	1	---	107000 - 107000	GC-TI332-XW	107000
Reference - Large Fish Weakfish Fillet - Metals (mg/kg)						
Calcium	1 / 1 (100%)	1	---	460 - 460	GC-TI332-XW	460
Magnesium	1 / 1 (100%)	1	---	262 - 262	GC-TI332-XW	262

TABLE 4-21b
Tissue - Summary of Sample Results Used in Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Reference - Large Fish Weakfish Fillet - Metals (mg/kg)						
Mercury	1 / 1 (100%)	1	---	0.19 - 0.19	GC-TI332-XW	0.19
Potassium	1 / 1 (100%)	1	---	3310 - 3310	GC-TI332-XW	3310
Sodium	1 / 1 (100%)	1	---	636 - 636	GC-TI332-XW	636
Zinc	1 / 1 (100%)	1	---	4.20 - 4.20	GC-TI332-XW	4.20
Percent Lipids	1 / 1 (100%)	1	---	0.91 - 0.91	GC-TI332-XW	0.91
Canal - Large Fish White Perch Fillet - Pesticides (ug/kg)						
Gamma-chlordane	1 / 2 (50.0%)	2	1.70 - 1.70	5.00 - 5.00	GC-TI401-WP	2.93
P,P'-DDE	2 / 2 (100%)	2	---	6.00 - 7.00	GC-TI401-WP	6.50
Canal - Large Fish White Perch Fillet - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	2 / 2 (100%)	2	---	4.46 - 5.08	GC-TI401-WP	4.77
PCB Nondioxin	2 / 2 (100%)	2	---	302000 - 437000	GC-TI401-WP	370000
Total PCB Congeners	2 / 2 (100%)	2	---	324000 - 462000	GC-TI401-WP	393000
Canal - Large Fish White Perch Fillet - Metals (mg/kg)						
Calcium	2 / 2 (100%)	2	---	318 - 4220	GC-TI401-WP	2270
Copper	2 / 2 (100%)	2	---	0.90 - 1.30	GC-TI401-WP	1.10
Magnesium	2 / 2 (100%)	2	---	245 - 362	GC-TI401-WP	304
Manganese	1 / 2 (50.0%)	2	1.50 - 1.50	5.20 - 5.20	GC-TI401-WP	2.98
Mercury	2 / 2 (100%)	2	---	0.16 - 0.19	GC-TI401-WP	0.175
Potassium	2 / 2 (100%)	2	---	2550 - 2590	GC-TI401-WP	2570
Selenium	1 / 2 (50.0%)	2	3.40 - 3.40	1.40 - 1.40	GC-TI401-WP	1.55
Sodium	2 / 2 (100%)	2	---	628 - 823	GC-TI401-WP	726
Zinc	2 / 2 (100%)	2	---	5.10 - 9.50	GC-TI401-WP	7.30
Cyanide, Total	2 / 2 (100%)	2	---	0.22 - 0.91	GC-TI401-WP	0.565
Percent Lipids	2 / 2 (100%)	2	---	1.49 - 2.26	GC-TI401-WP	1.88
Reference - Large Fish Scup Fillet - Polychlorinated Biphenyl Congeners (ng/kg)						
PCB Dioxin	3 / 3 (100%)	3	---	0.639 - 0.839	GC-TI332-XSCUP	0.709
PCB Nondioxin	3 / 3 (100%)	3	---	38300 - 42800	GC-TI332-XSCUP	40200
Total PCB Congeners	3 / 3 (100%)	3	---	41400 - 46200	GC-TI332-XSCUP	43400

TABLE 4-21b
Tissue - Summary of Sample Results Used in Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

Parameter	Frequency of Detection	Number of Results	Range of Non-Detect Values	Range of Detected Values	Location of Max Detect	Mean (1/2 RL for Non Detects)
Reference - Large Fish Scup Fillet - Metals (mg/kg)						
Arsenic	3 / 3 (100%)	3	---	0.45 - 0.55	GC-TI332-XSCUP	0.487
Calcium	3 / 3 (100%)	3	---	1390 - 1800	GC-TI332-XSCUP	1550
Magnesium	3 / 3 (100%)	3	---	255 - 310	GC-TI332-XSCUP	282
Mercury	2 / 3 (66.7%)	3	0.45 - 0.45	0.074 - 0.097	GC-TI332-XSCUP	0.132
Potassium	3 / 3 (100%)	3	---	2660 - 3490	GC-TI332-XSCUP	3040
Selenium	2 / 3 (66.7%)	3	3.40 - 3.40	1.20 - 1.30	GC-TI332-XSCUP	1.40
Sodium	3 / 3 (100%)	3	---	633 - 803	GC-TI332-XSCUP	728
Zinc	3 / 3 (100%)	3	---	4.00 - 4.20	GC-TI332-XSCUP	4.07
Cyanide, Total	2 / 3 (66.7%)	3	2.50 - 2.50	3.50 - 10.0	GC-TI332-XSCUP	4.92
Percent Lipids	3 / 3 (100%)	3	---	0.78 - 1.03	GC-TI332-XSCUP	0.907

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TABLE 6-1

Average Concentrations of Selected Constituents in Surface Sediment, Soft Sediment, and Native Sediment

Gowanus Canal Remedial Investigation

Brooklyn, New York

	Average Concentration						
Sediment type	**Total BTEX µg/kg**	**Total PAHs µg/kg**	**Total PCBs µg/kg**	**Total DDT µg/kg**	**Copper mg/kg**	**Lead mg/kg**	**Zinc mg/kg**
Canal surface sediment	364	527,000	432	235	226	533	744
Canal soft sediment	188,000	3,490,000	3470	441	388	770	872
Canal native sediment	233,000	2,920,000	26.1	46.6	12.4	14.4	37.2
Reference surface sediment	ND	5790	ND	ND	80.7	93.1	156

Notes:

mg/kg - milligrams/kilogram

µg/kg - micrograms/kilogram

ND - not detected

BTEX - benzene, toluene, ethylbenzene, and xylenes

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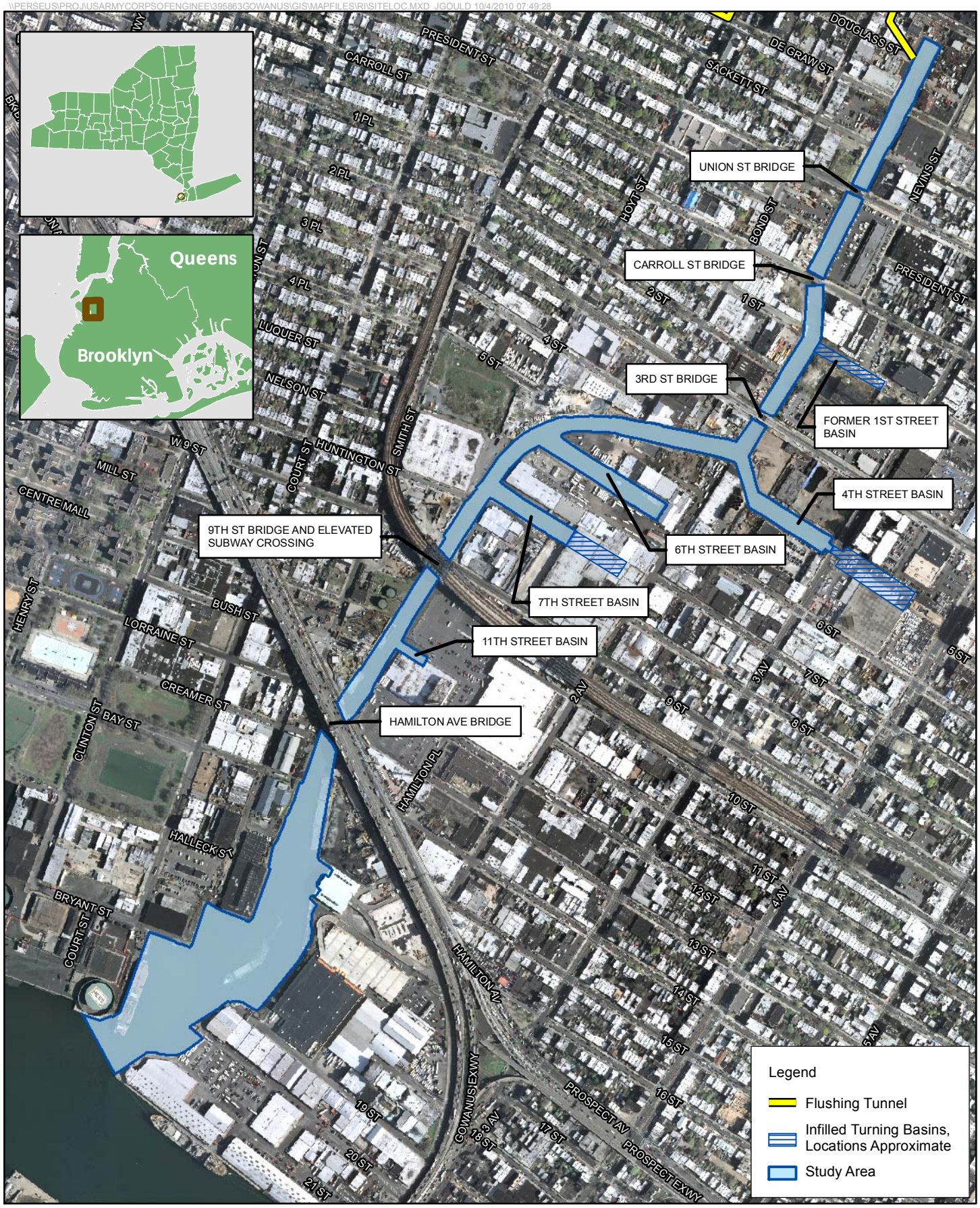

FIGURE 1-1
Site Location Map
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 1-2
Original Gowanus Creek and Wetland Complex
Gowanus Canal Remedial Investigation
Brooklyn, New York

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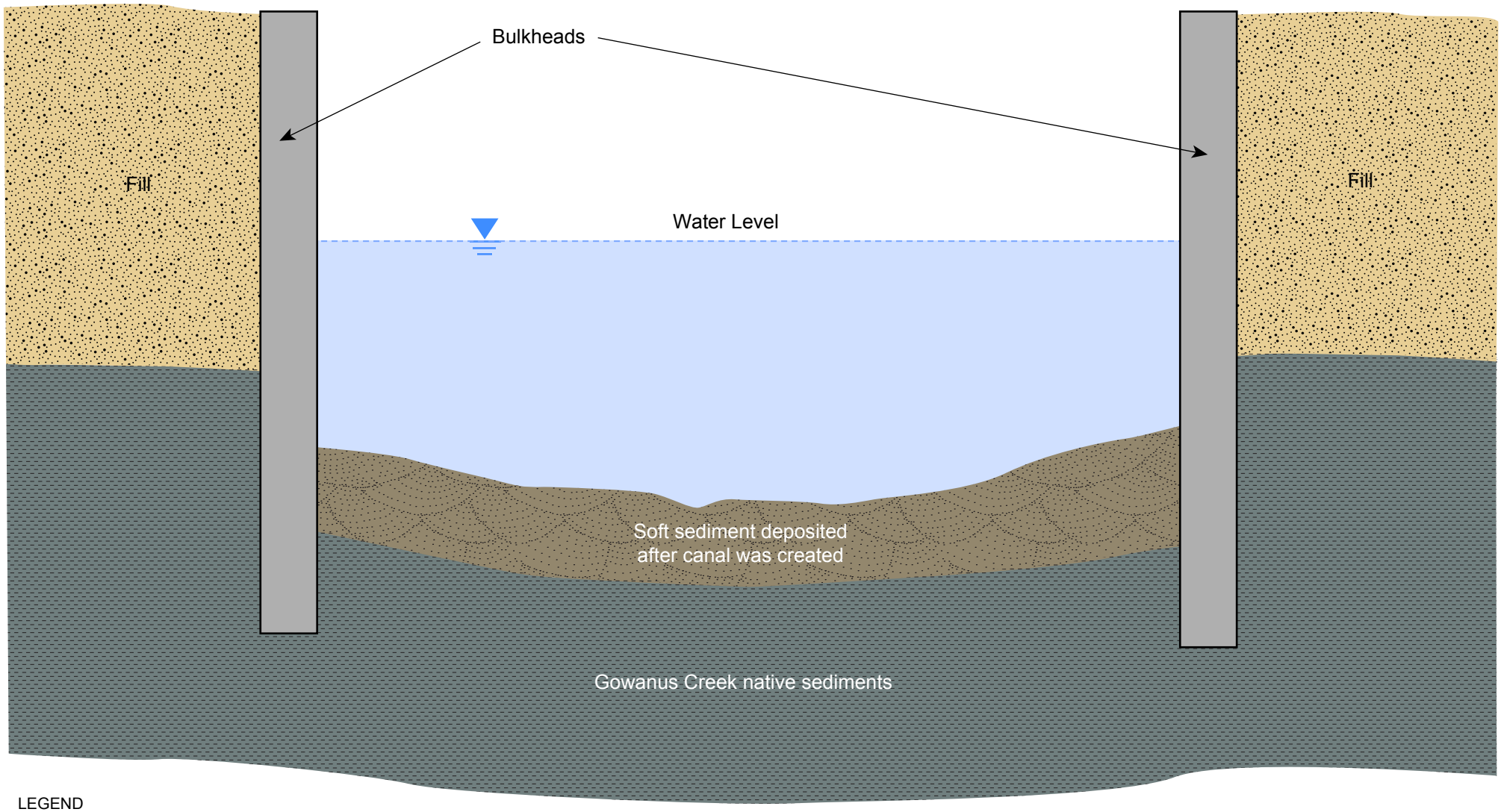
FIGURE 1-3
Gowanus Canal and Adjacent Water Bodies
Gowanus Canal Remedial Investigation
Brooklyn, New York



LEGEND

- Fill
- Soft sediment
- Gowanus Creek native sediments

Not to scale.

FIGURE 1-4
Conceptual Diagram of Sediment Deposits in the Gowanus Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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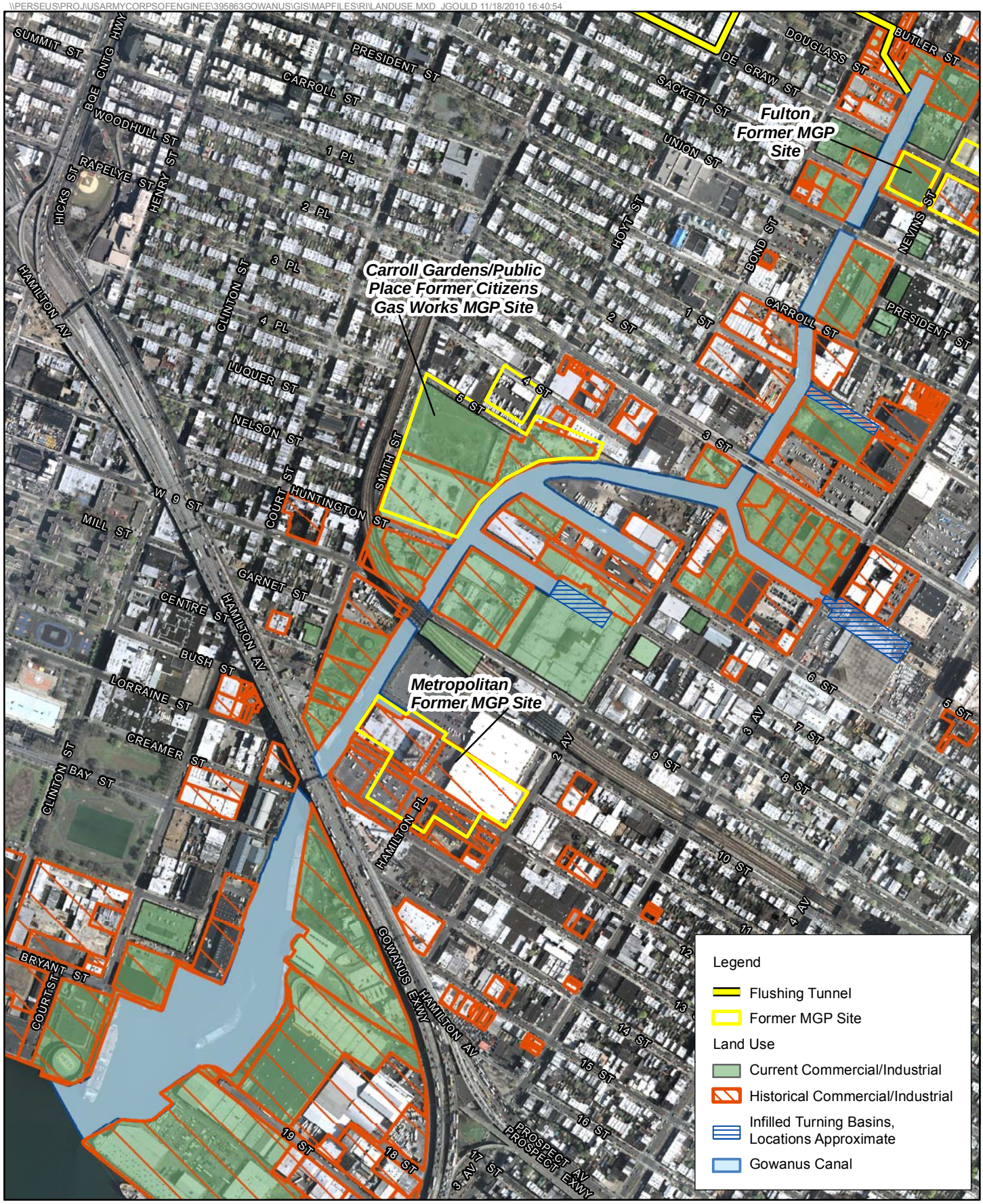

N

0 150 300

Feet

FIGURE 1-5
General Land Use – Current and Historic
Gowanus Canal Remedial Investigation
Brooklyn, New York

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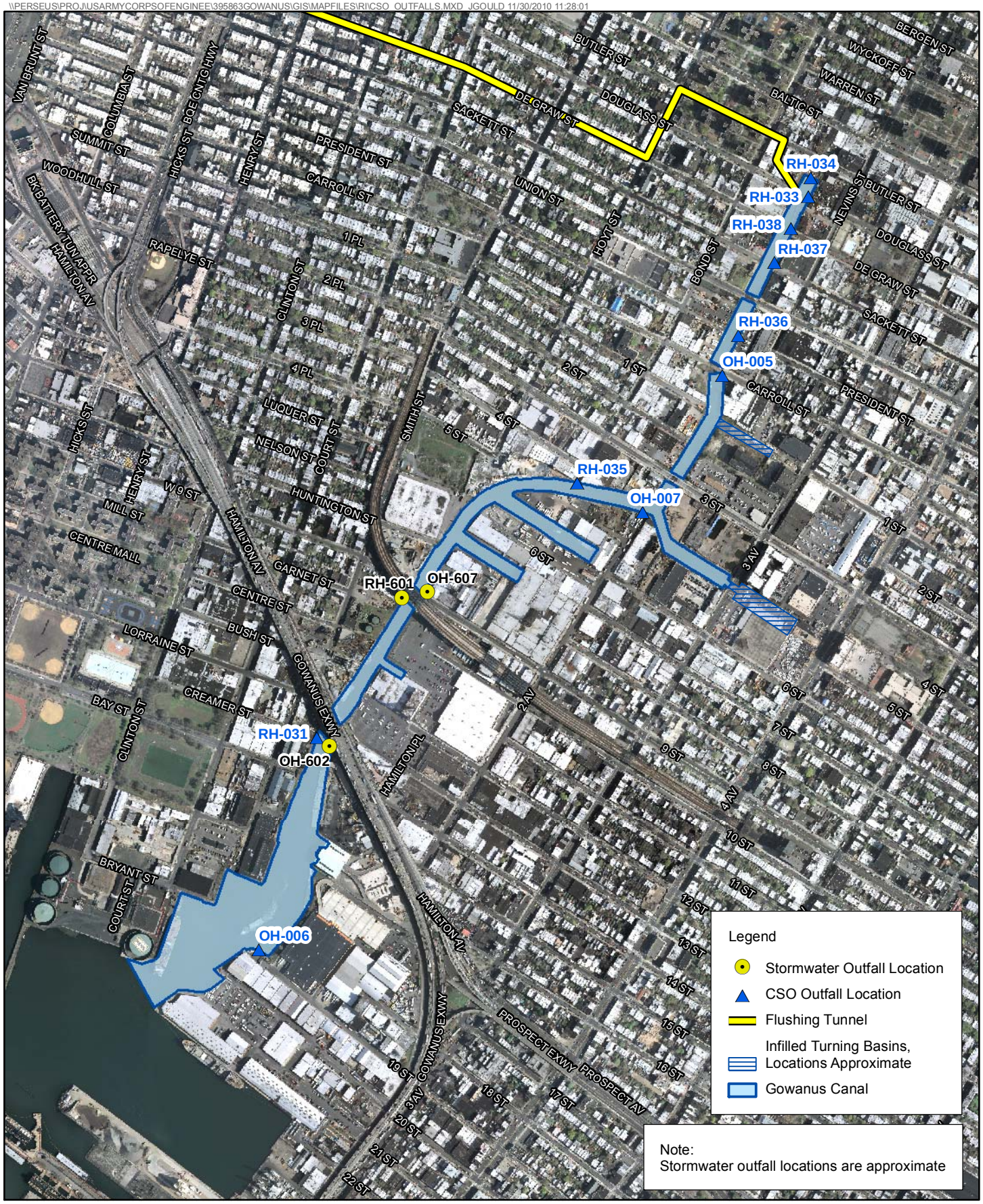

FIGURE 1-6
Stormwater/CSO Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-1a
Sediment Core Sample Locations
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-1b
Sediment Core Sample Locations
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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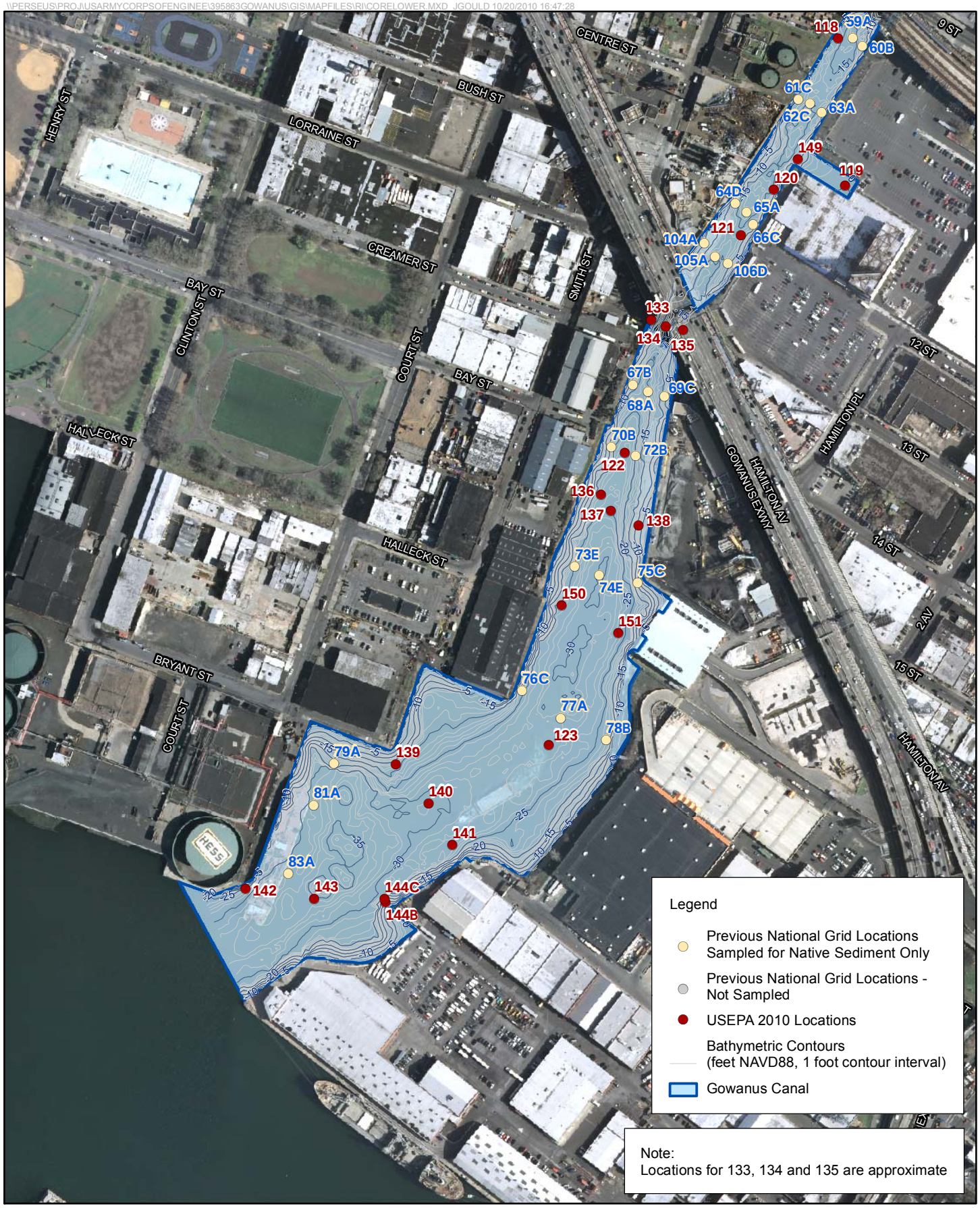

FIGURE 2-1c
Sediment Core Sample Locations
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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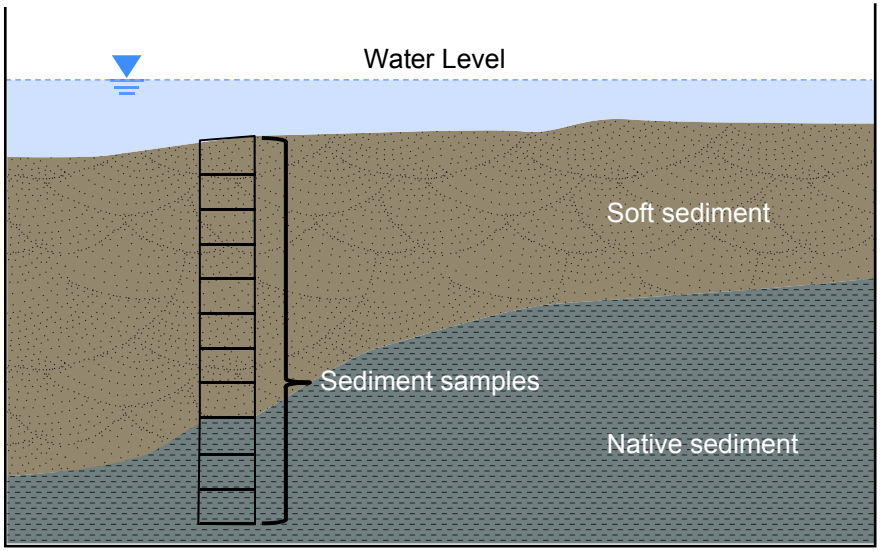
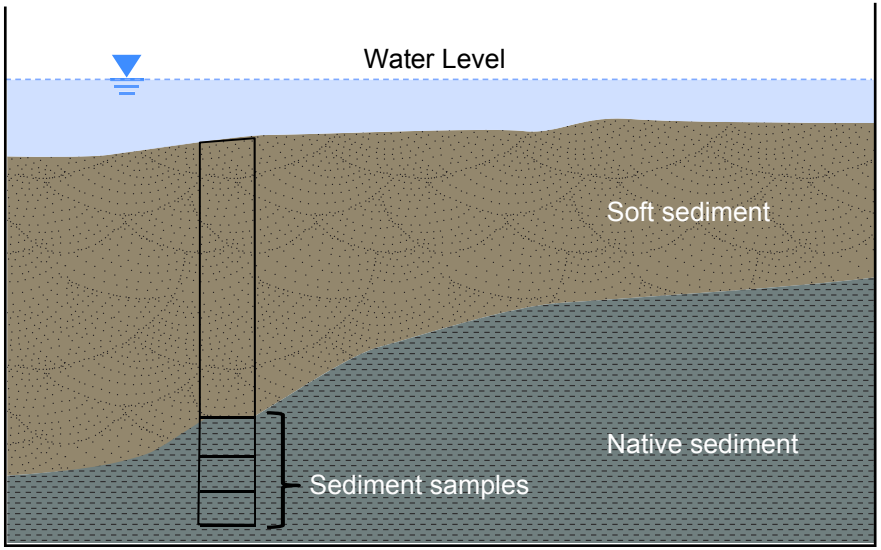
At individual coring stations, sediment samples were collected from the entire sediment profile to a target depth of 6 feet into the native sediment deposits. Samples were collected using a 2-foot composite interval.



At coring stations located on previously sampled transects, sediment samples were collected from the native sediment only. Three samples were collected using a 2-foot composite interval, to a target depth of 6 feet into the native sediment deposits.



LEGEND

Soft sediment

Gowanus Creek native sediments

FIGURE 2-2
Diagram of Sediment Core Sampling Scheme
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-3a
Surface Sediment Sample Locations
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SED_MIDDLEFIG2-3.MXD JGOULD 10/18/2010 17:49:16



FIGURE 2-3b
Surface Sediment Sample Locations
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-3c
Surface Sediment Sample Locations
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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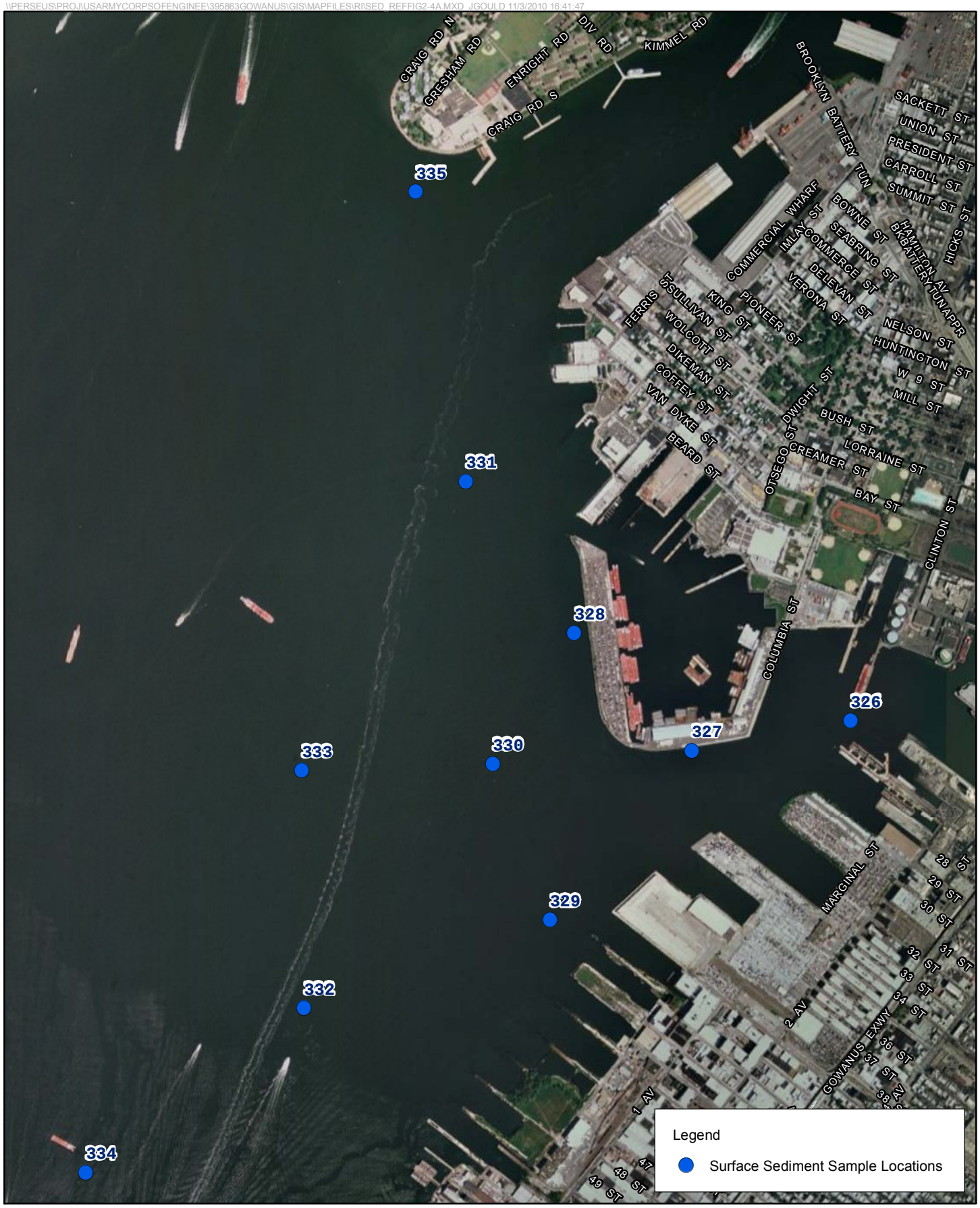

N

0 750 1,500

Feet

FIGURE 2-4
Reference Area Surface Sediment Sample Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-5a
Surface Water Sample Locations
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-5b
Surface Water Sample Locations
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-5c
Surface Water Sample Locations
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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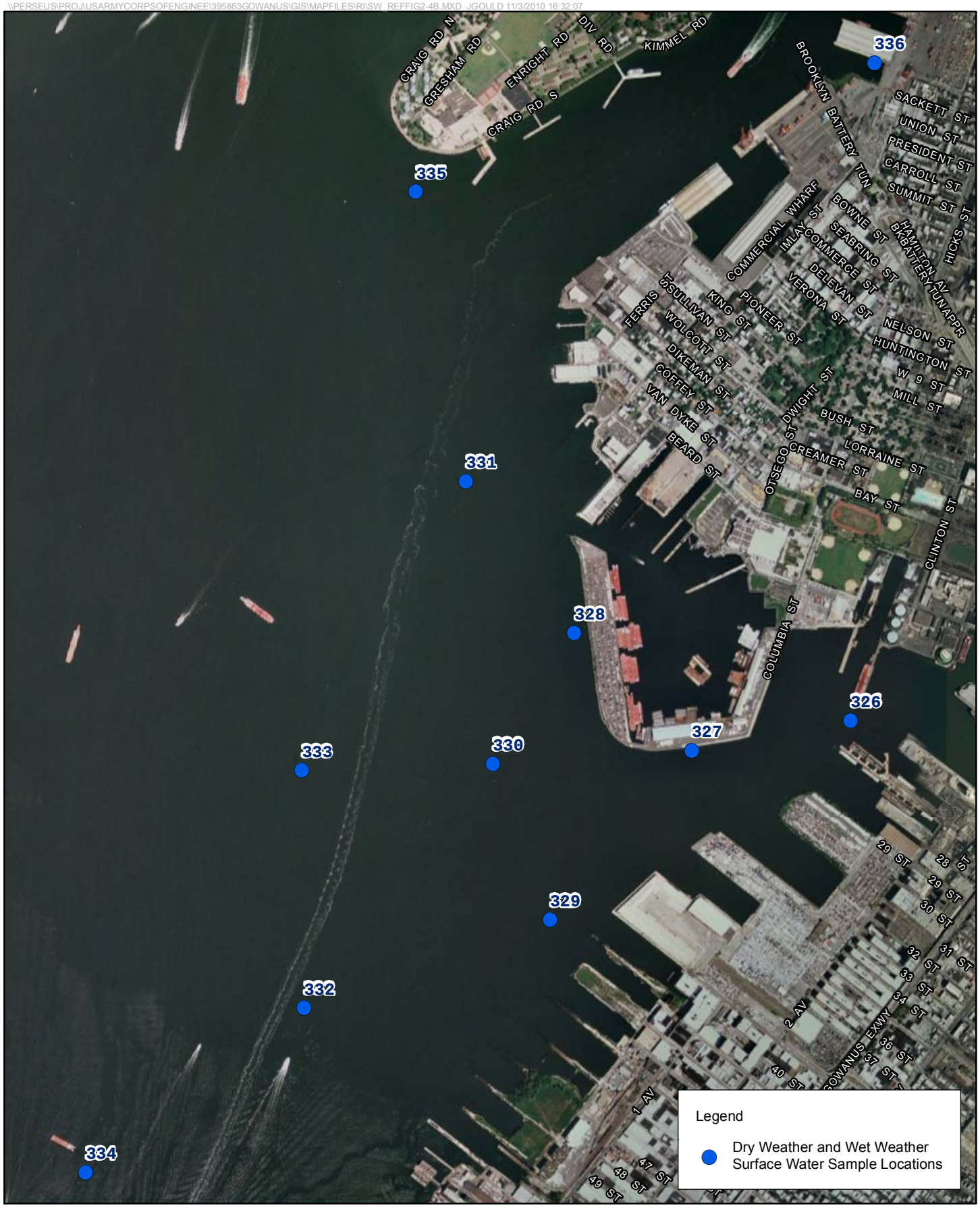

N

0 750 1,500

Feet

FIGURE 2-6
Reference Area Surface Water Sample Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 2-7
Gowanus Canal Fish and Shellfish Tissue Sample Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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0 750 1,500
Feet

N

FIGURE 2-8
Reference Area Fish and Shellfish Tissue Sample Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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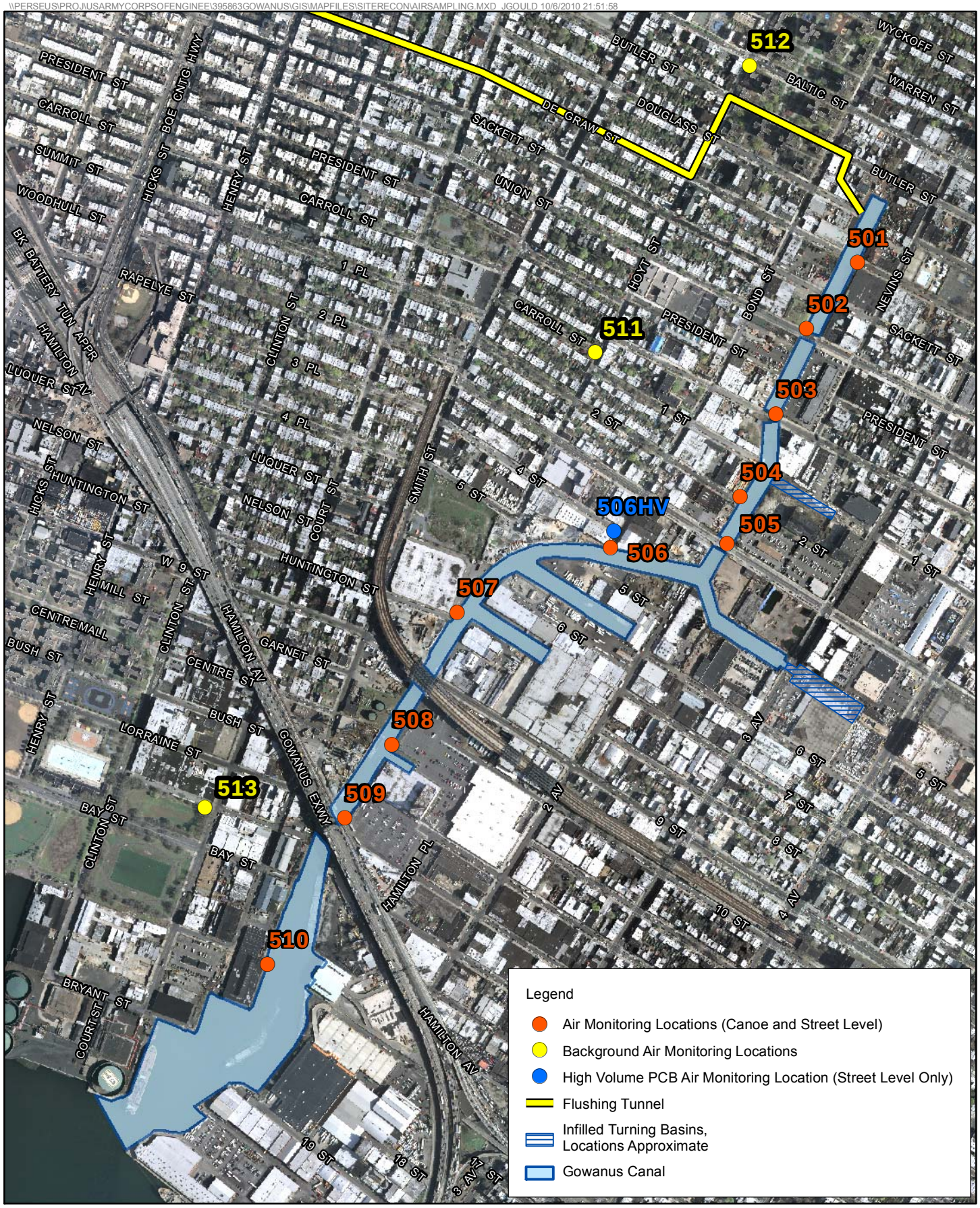

FIGURE 2-9
Air Sample Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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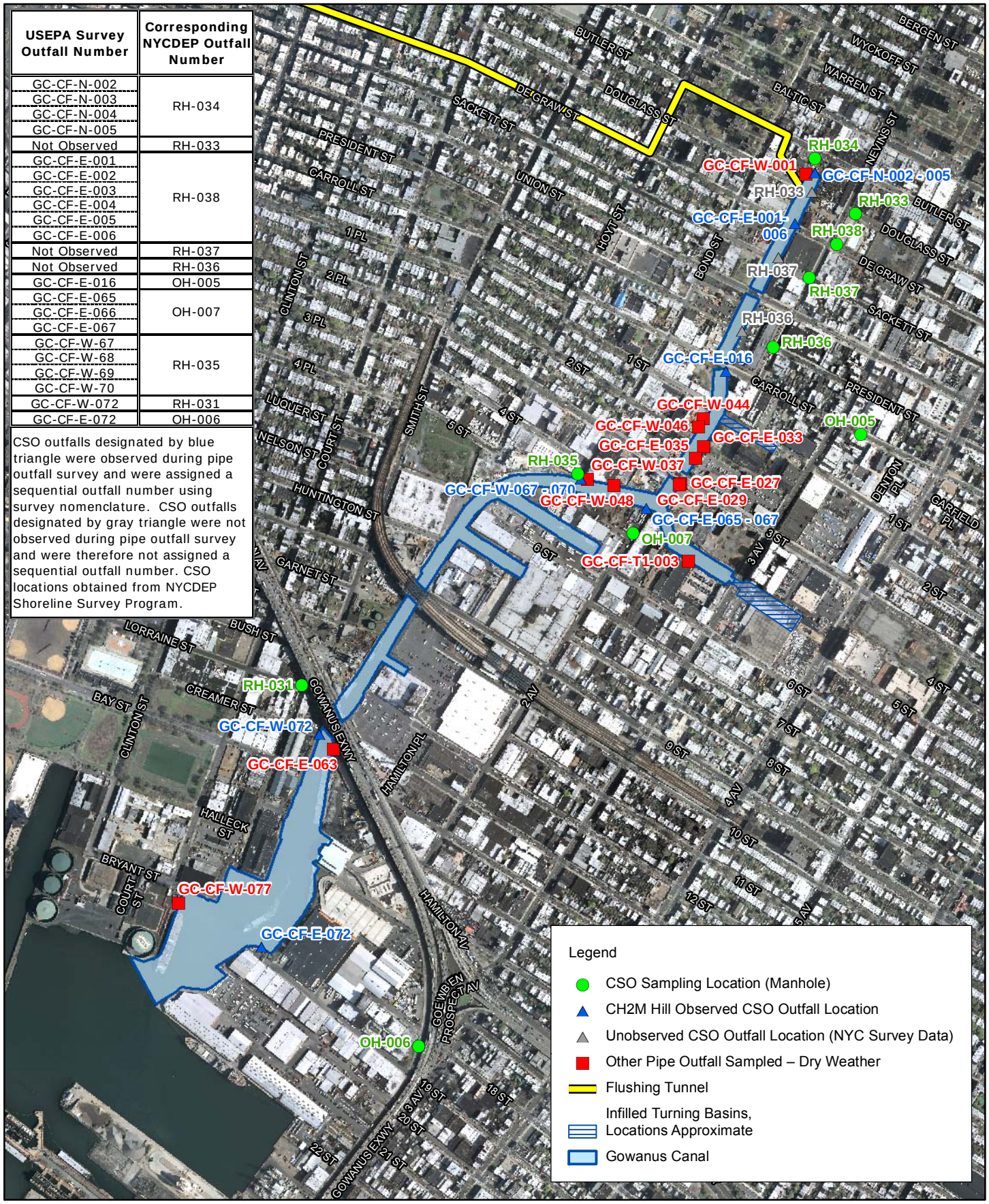

FIGURE 2-10
Sampled CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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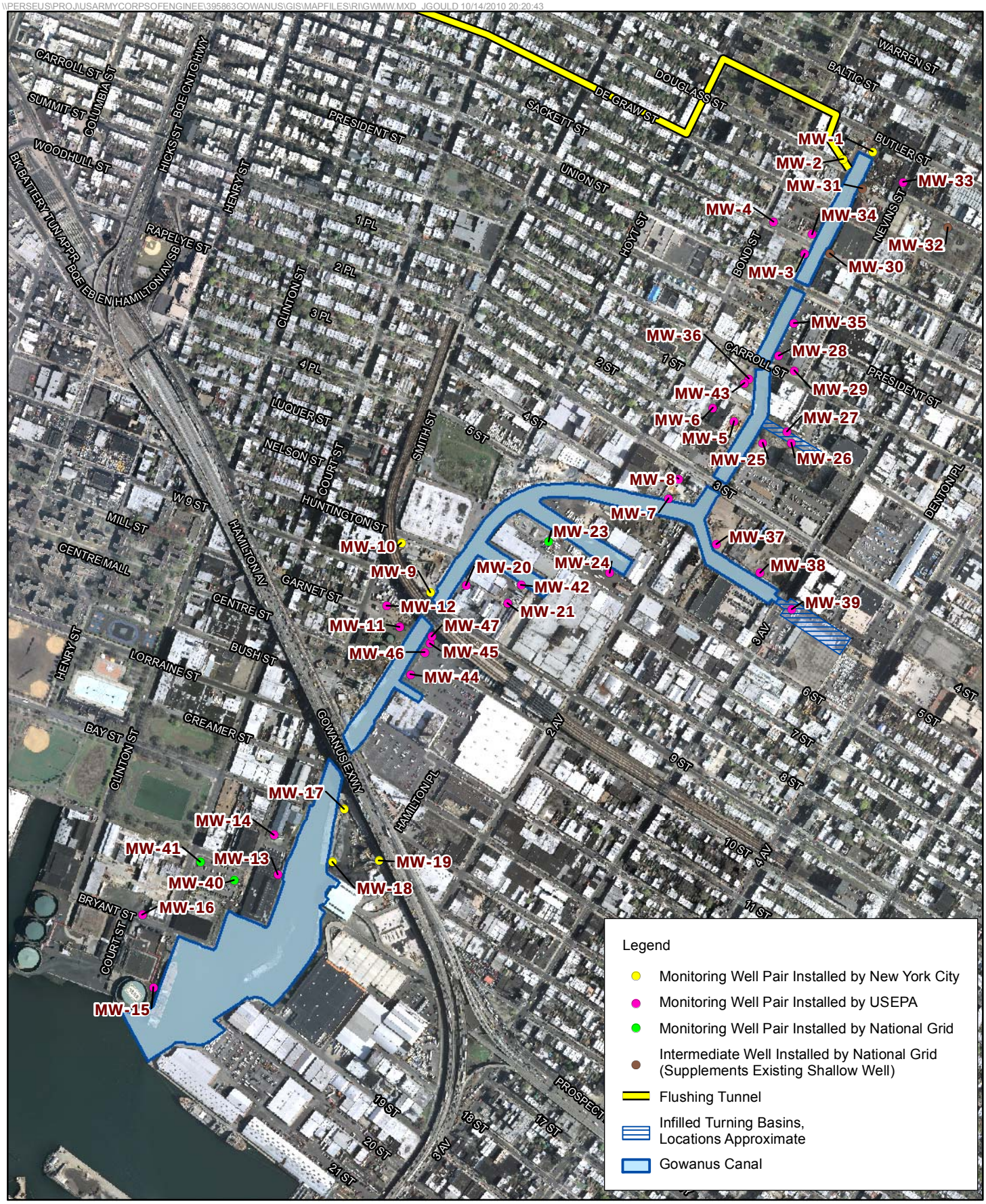

FIGURE 2-11
Groundwater Monitoring Well Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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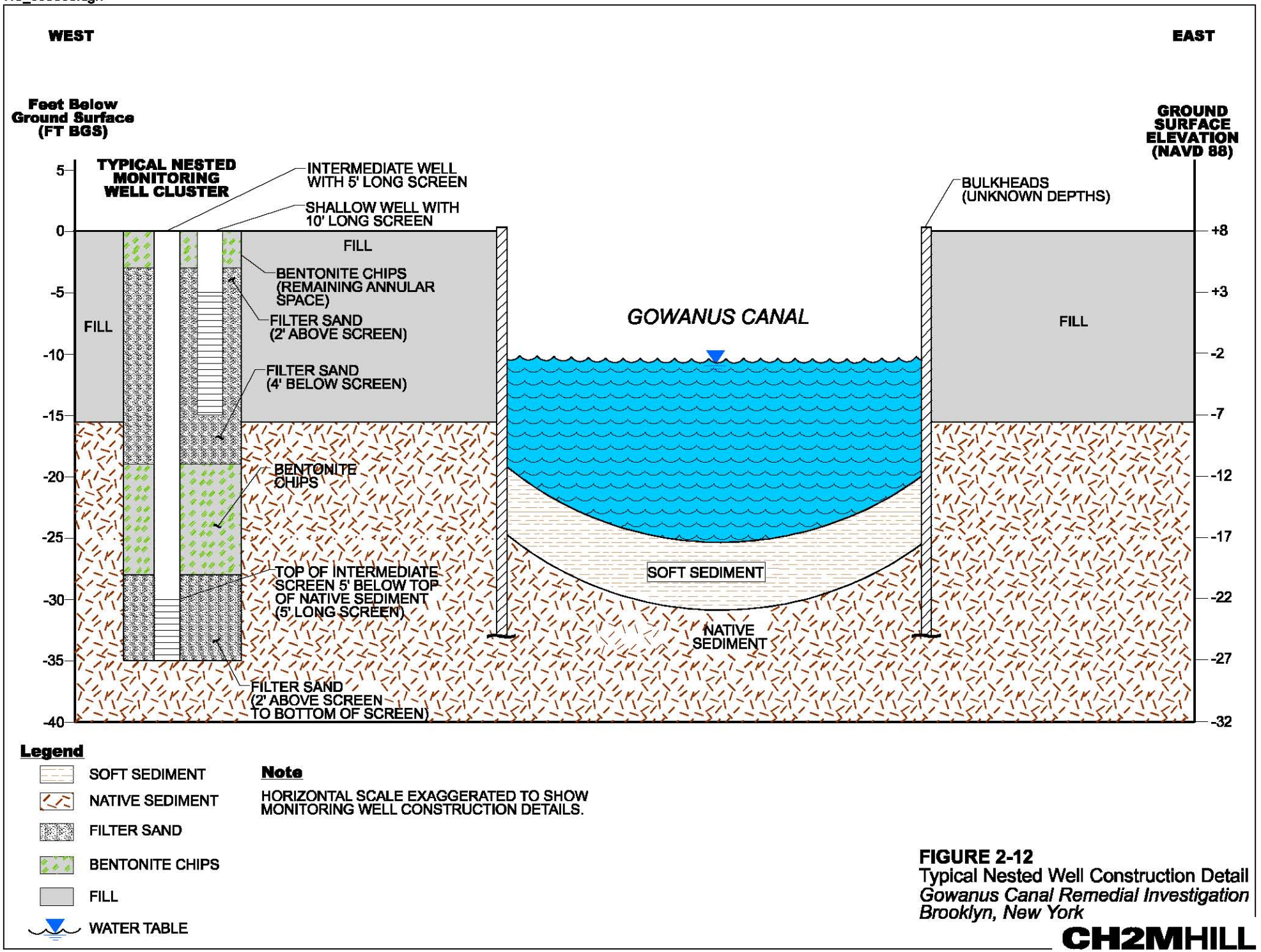

FIGURE 2-12
Typical Nested Well Construction Detail
Gowanus Canal Remedial Investigation
Brooklyn, New York

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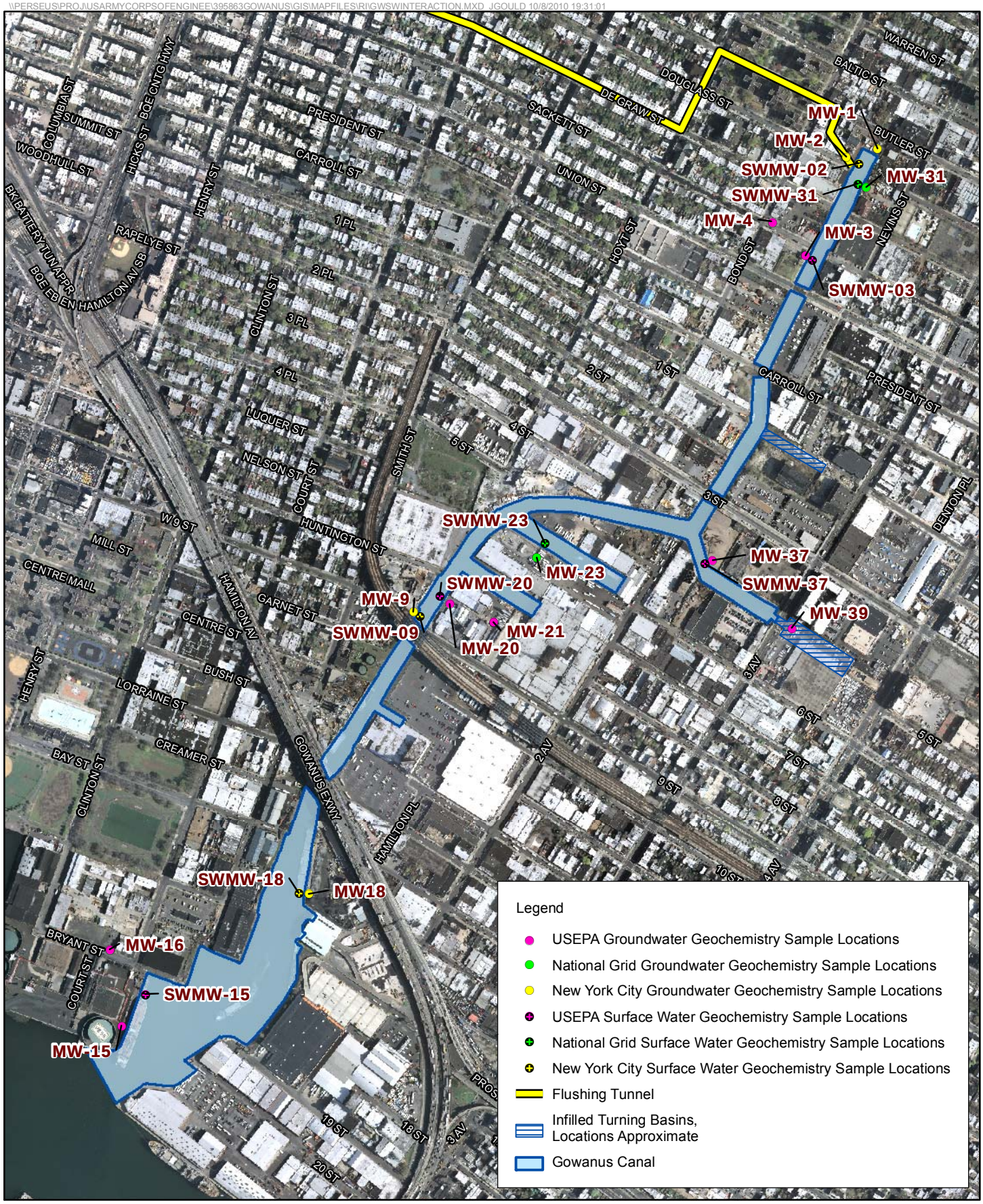

FIGURE 2-13
Groundwater – Surface Water Interaction Sampling Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

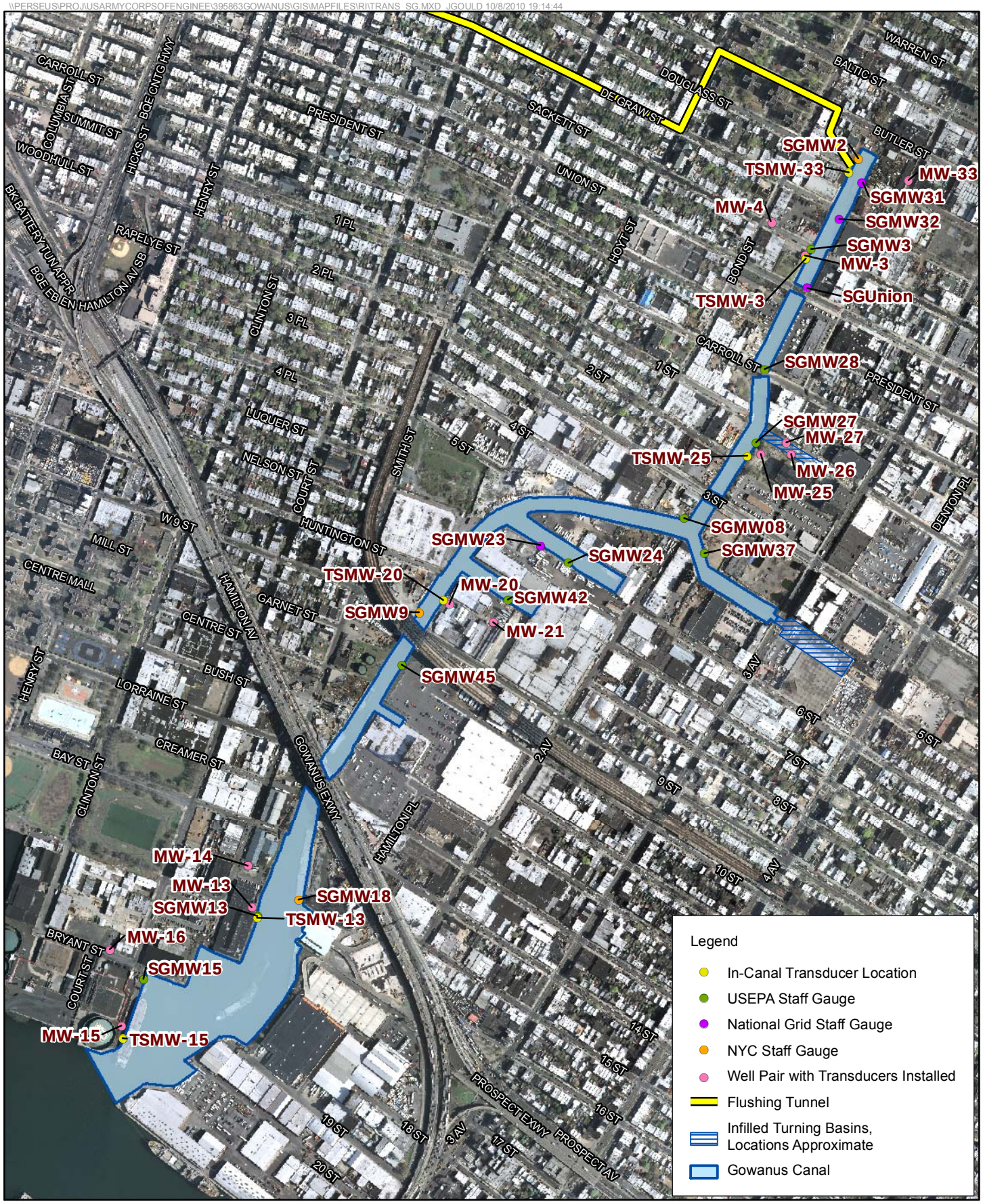

FIGURE 2-14
Groundwater – Surface Water Transducer and Staff Gauge Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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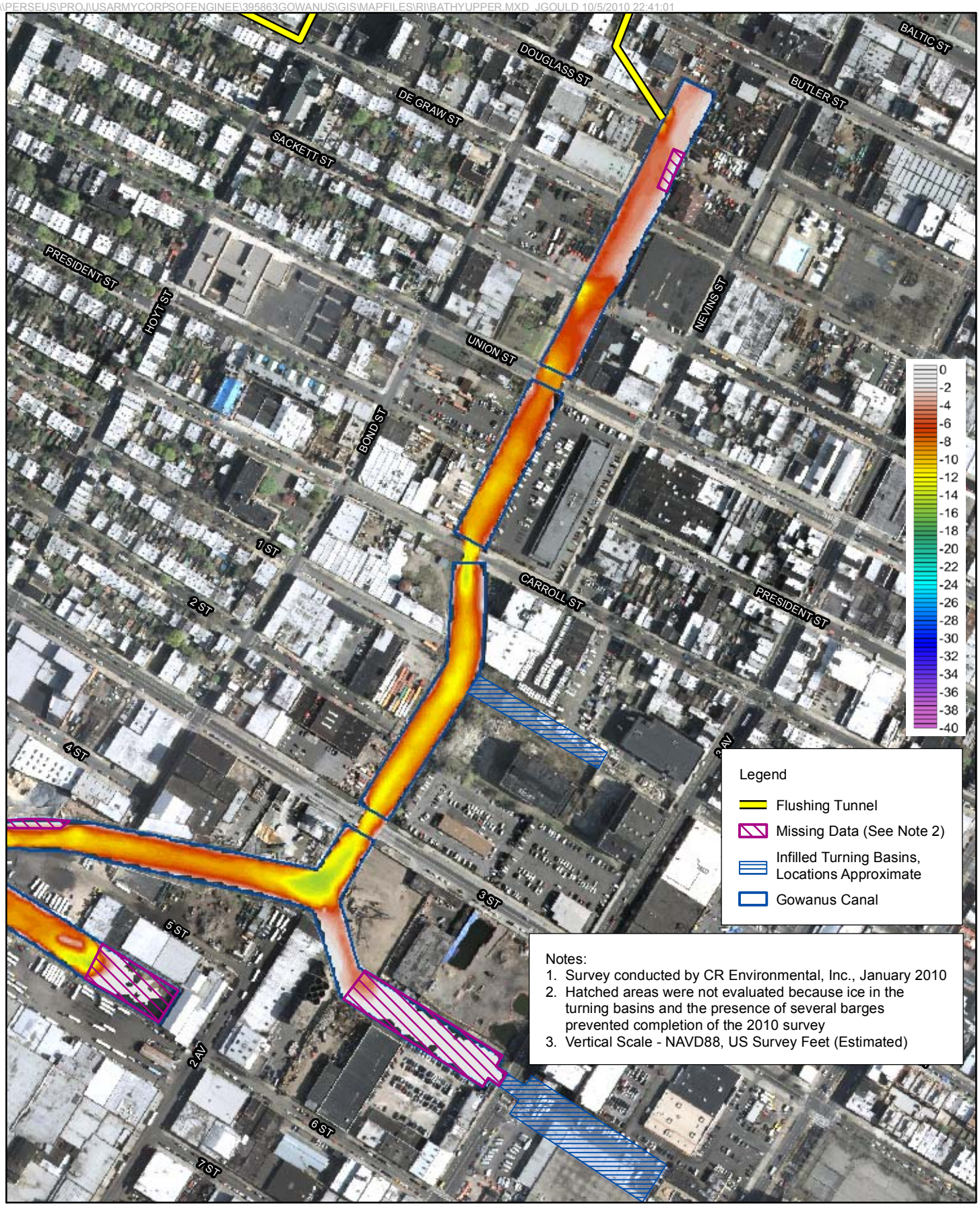

FIGURE 3-1a
Bathymetric Map of Gowanus Canal
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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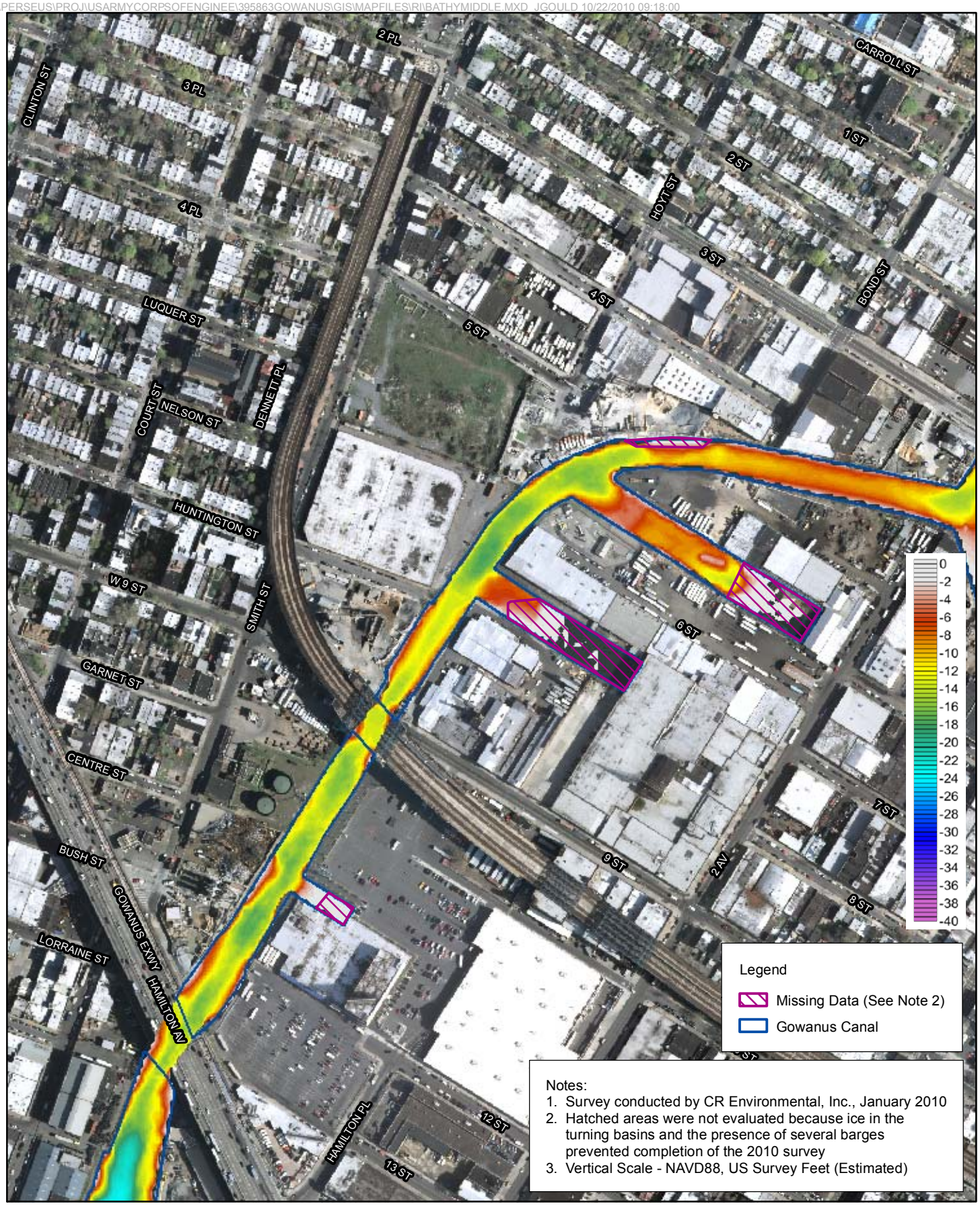

FIGURE 3-1b
Bathymetric Map of Gowanus Canal
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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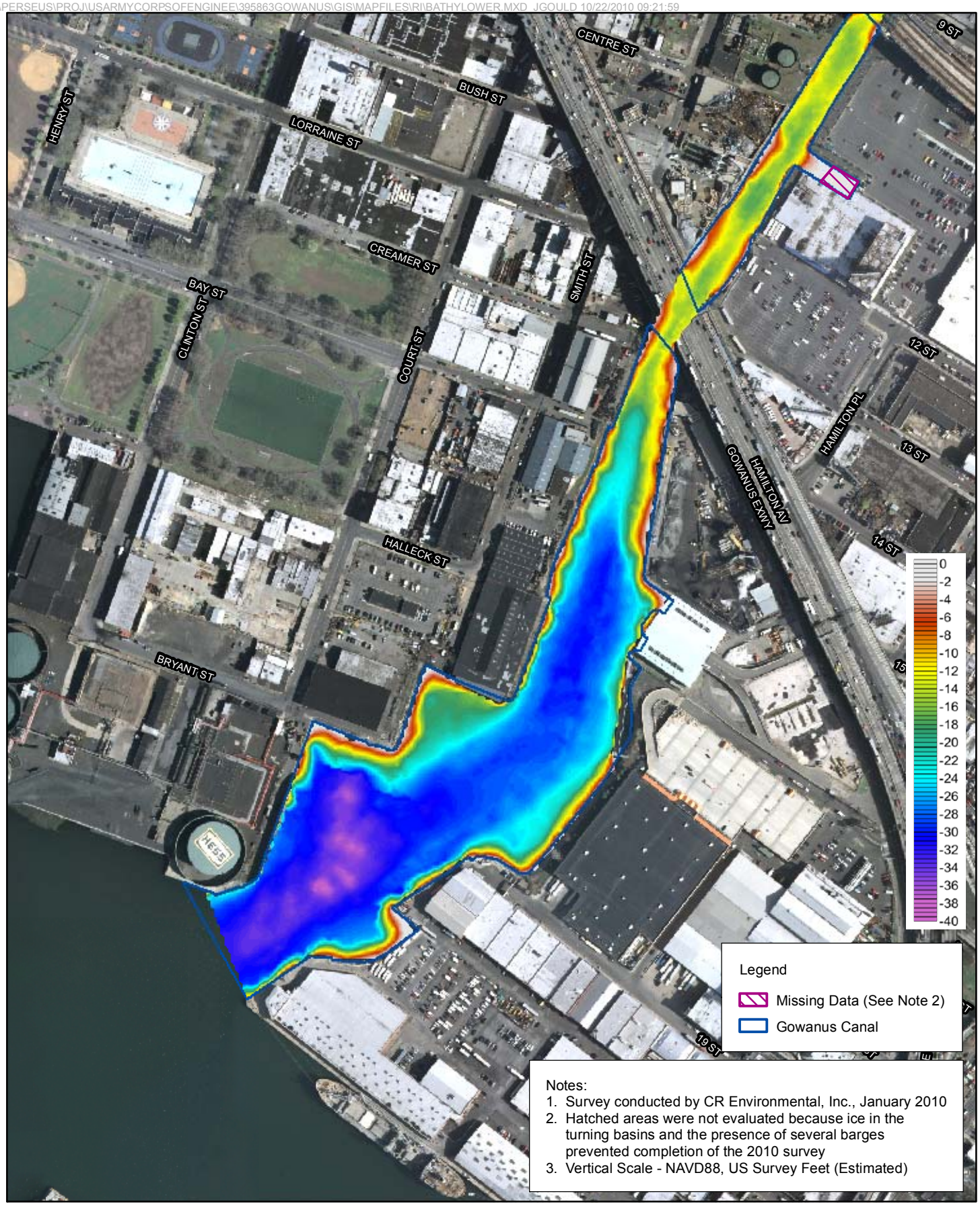

FIGURE 3-1c
Bathymetric Map of Gowanus Canal
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\BATHYDIFFERENCESUPPER.MXD JGOULD 10/5/2010 21:51:04

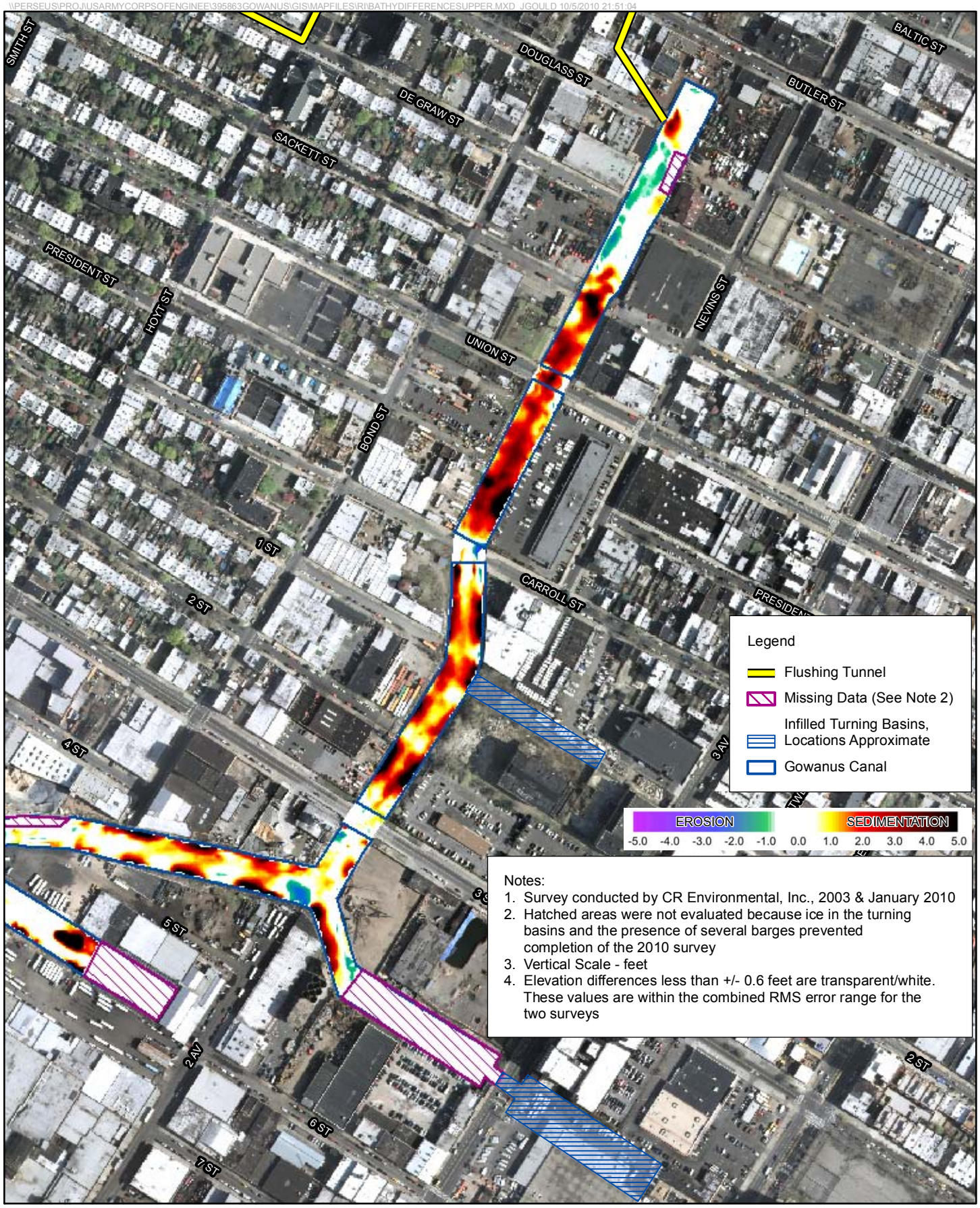

FIGURE 3-2a
Plan View of Bathymetric Differences 2003 - 2010
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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N

0 150 300

Feet

FIGURE 3-2b
Plan View of Bathymetric Differences 2003 - 2010
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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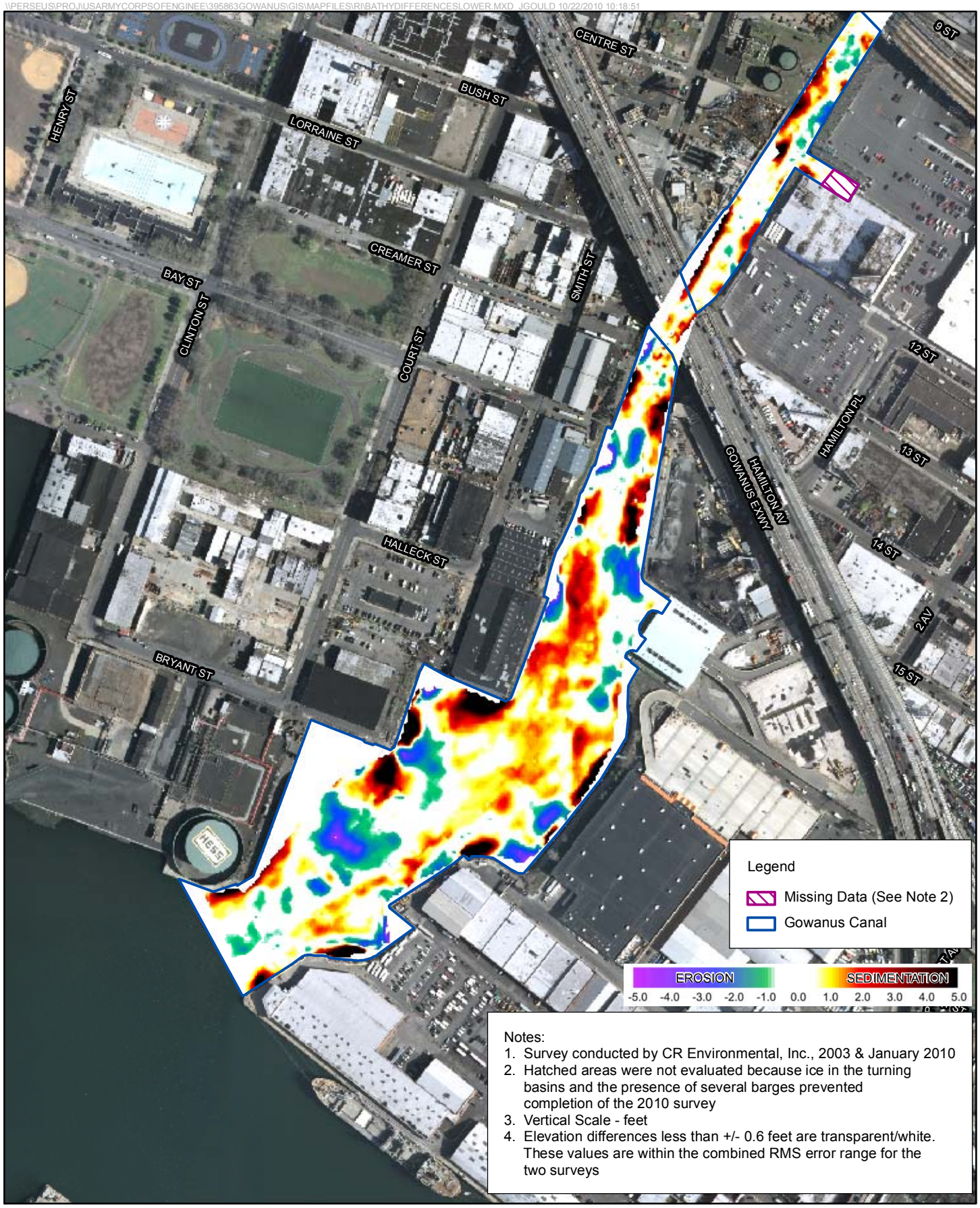

FIGURE 3-2c
Plan View of Bathymetric Differences 2003 - 2010
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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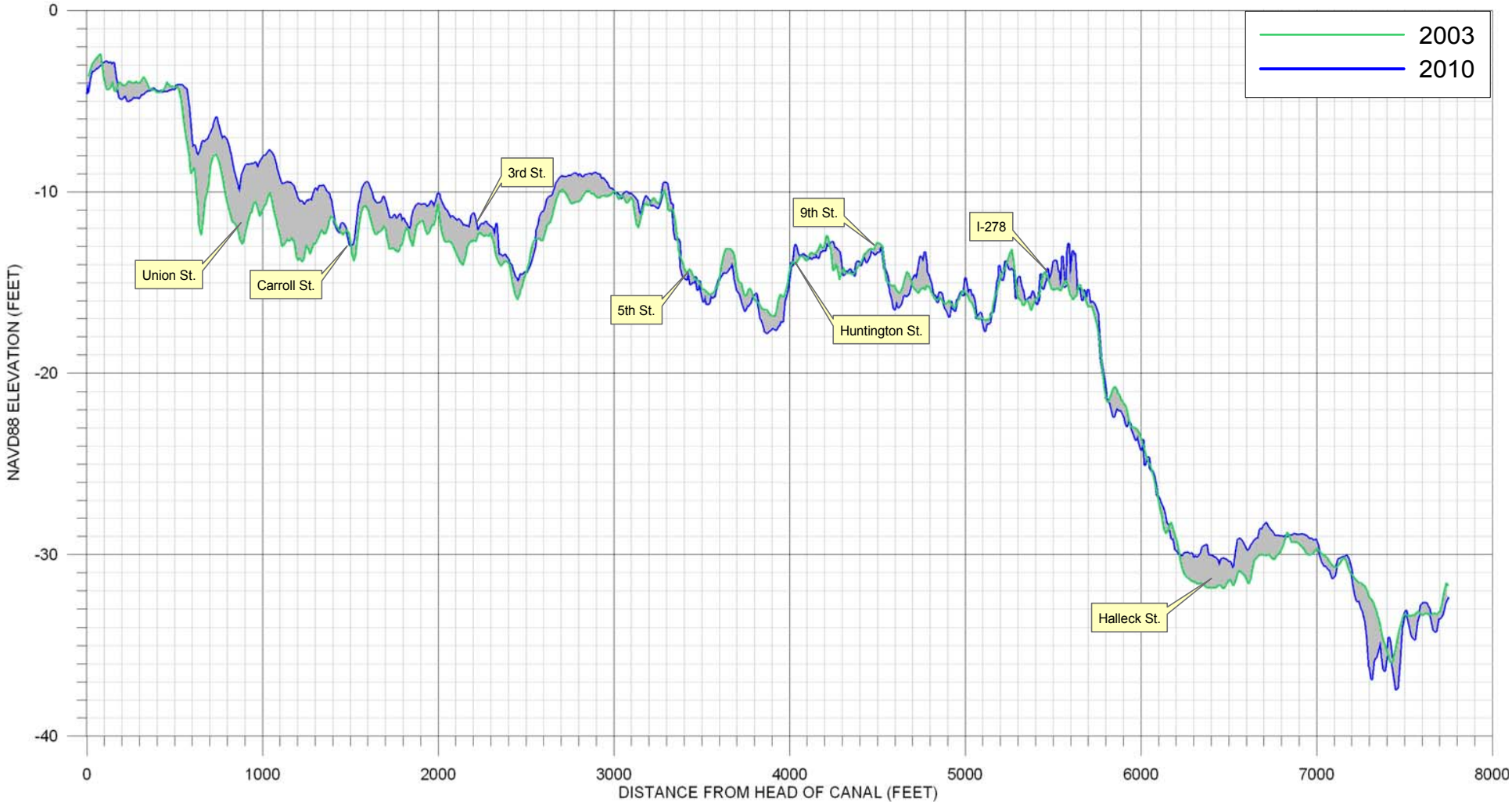

Head of Canal

Confluence with Gowanus Bay

Notes:
Approximately 100x vertical exaggeration used to illustrate small differences in elevation.
Survey data collected by CR Environmental, Inc (East Falmouth, Massachusetts) on June 25, 2003 and January 5, 2010

FIGURE 3-3
Cross Section of Bathymetric Differences 2003-2010
Gowanus Canal Remedial Investigation
Brooklyn, New York

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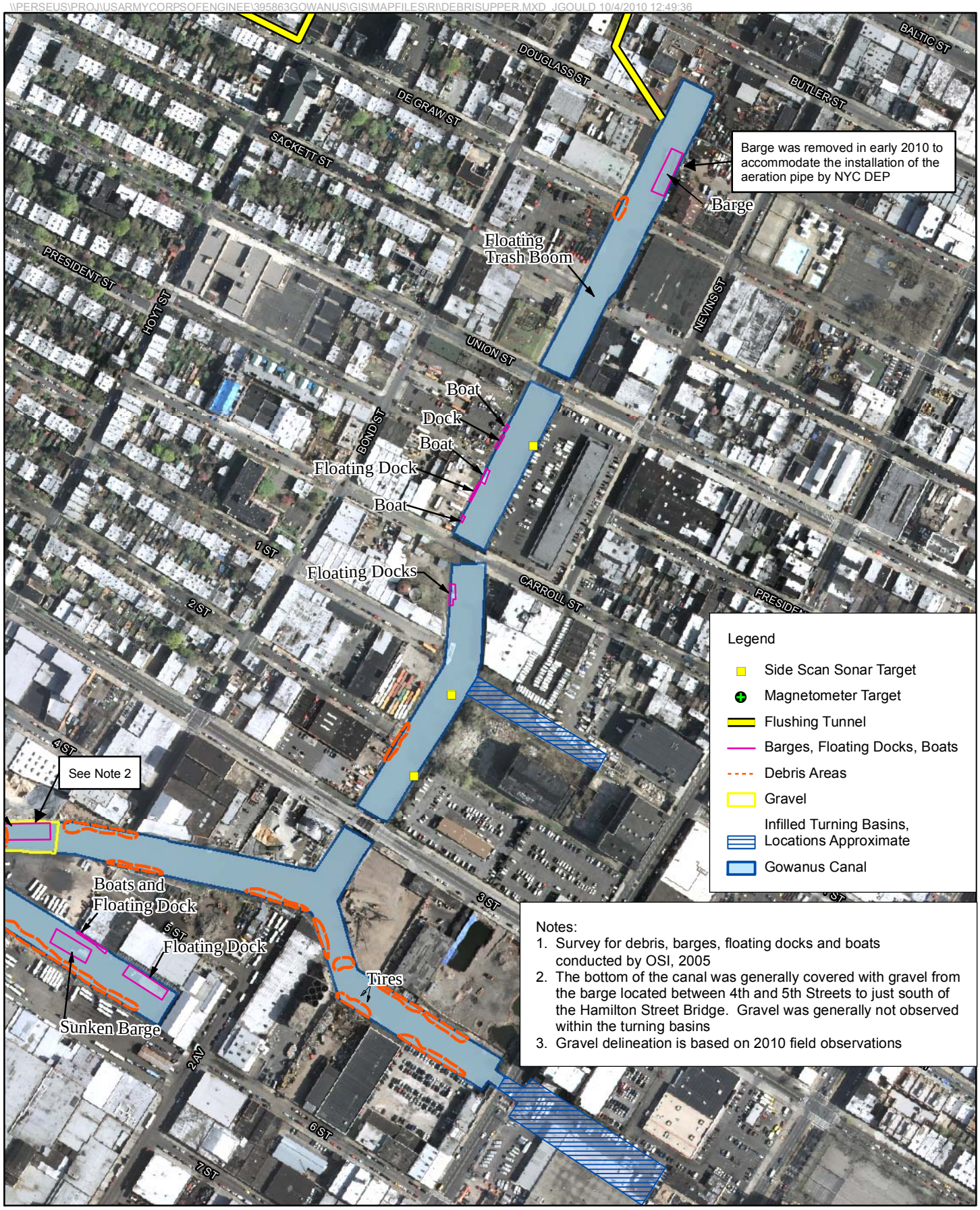

FIGURE 3-4a
Map of Debris and Obstructions in Gowanus Canal in 2005
Upper Canal
Gowanus Canal
Brooklyn, New York

CH2MHILL

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\DEBRISMIDDLE.MXD JGOULD 10/22/2010 11:19:00



FIGURE 3-4b
Map of Debris and Obstructions in Gowanus Canal in 2005
Middle Canal
Gowanus Canal
Brooklyn, New York

CH2MHILL

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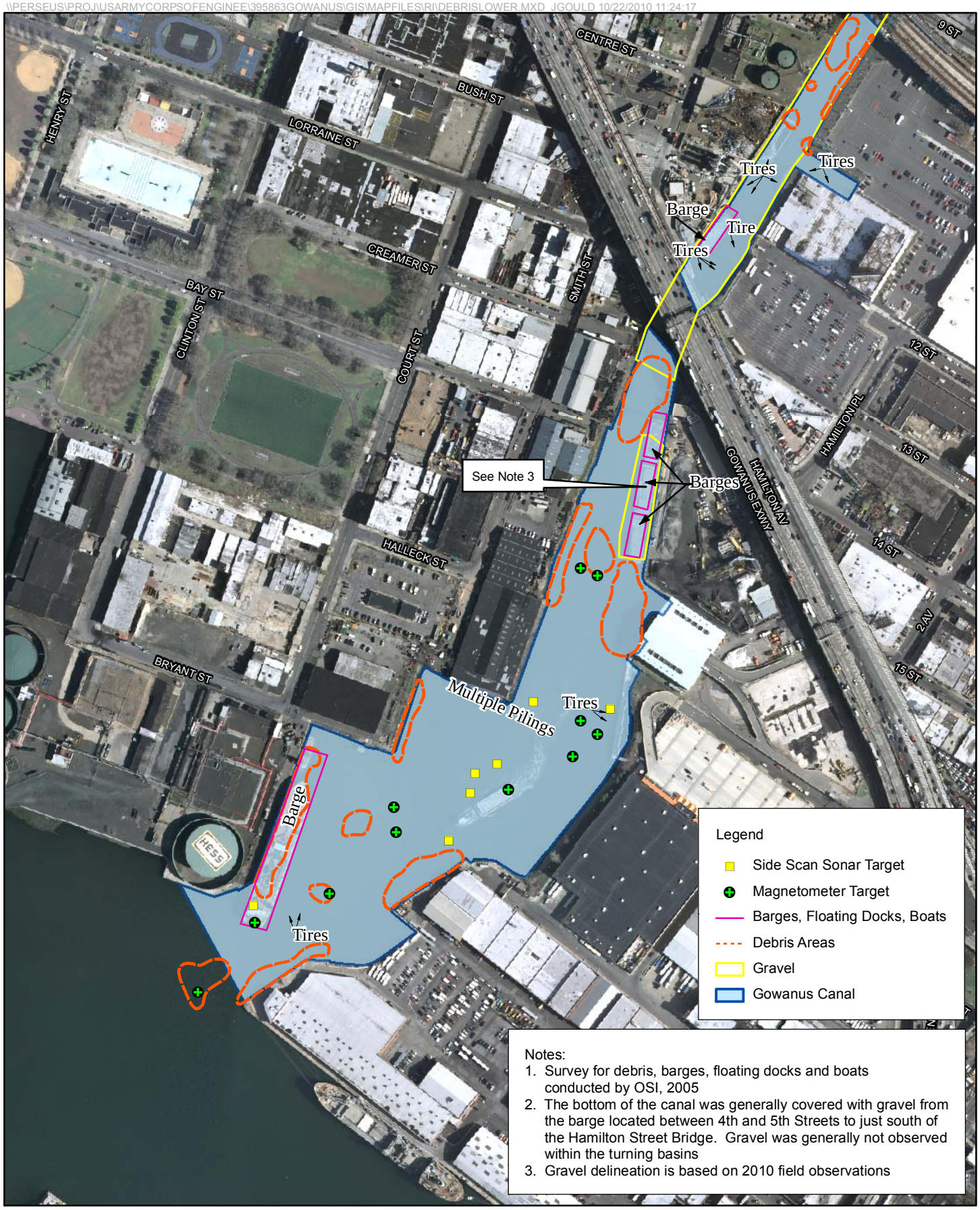

FIGURE 3-4c
Map of Debris and Obstructions in Gowanus Canal in 2005
Lower Canal
Gowanus Canal
Brooklyn, New York

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\DEBRISUPPER_D.MXD JGOULD 11/23/2010 16:33:21

Side Scan Sonar Target No.	Description
11	Pile of large blocks and debris
11a	Pile of debris
11b	Long pile of rip rap
17	Pile of hard, square debris
24	Suspected part of a tree
26	U-shaped object
28	Linear object
31	Small boat wreck
31a	Sunken boat hull
31b	Hard, rectangular feature
31c	Two rectangular features
37	Long section of rubble and rip rap
37a	Sunken barge
37b	Barge hull and small boat wreck
37c	Two hard rectangular features
39	Two rectangular objects

The complete side scan sonar survey report with imagery is provided in Appendix M.

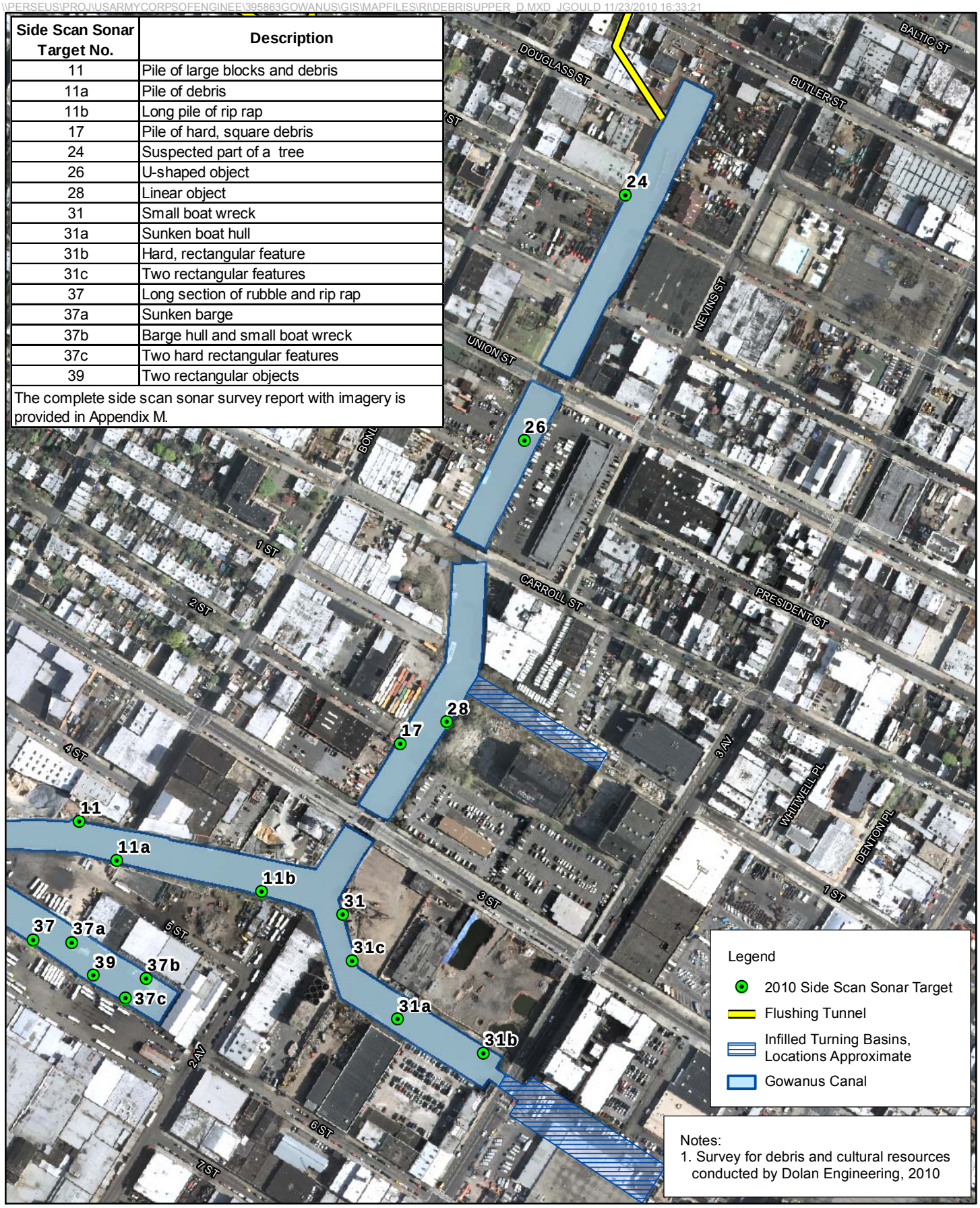

FIGURE 3-4d
Map of Debris and Obstructions in Gowanus Canal in 2010
Upper Canal
Gowanus Canal
Brooklyn, New York

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\DEBRISMIDDLE_E.MXD JGOULD 11/23/2010 16:34:10

Side Scan Sonar Target No.	Description
9a	Scattered debris
11	Pile of large blocks and debris
11a	Pile of debris
11b	Long pile of rip rap
35	Scattered debris
37	Long section of rubble and rip rap
37a	Sunken barge
37b	Barge hull and small boat wreck
37c	Two hard rectangular features
39	Two rectangular objects
42	Pile of rip rap
42a	Box-like object
42b	Pile of rip rap
48	Scattered debris

The complete side scan sonar survey report with imagery is provided in Appendix M.

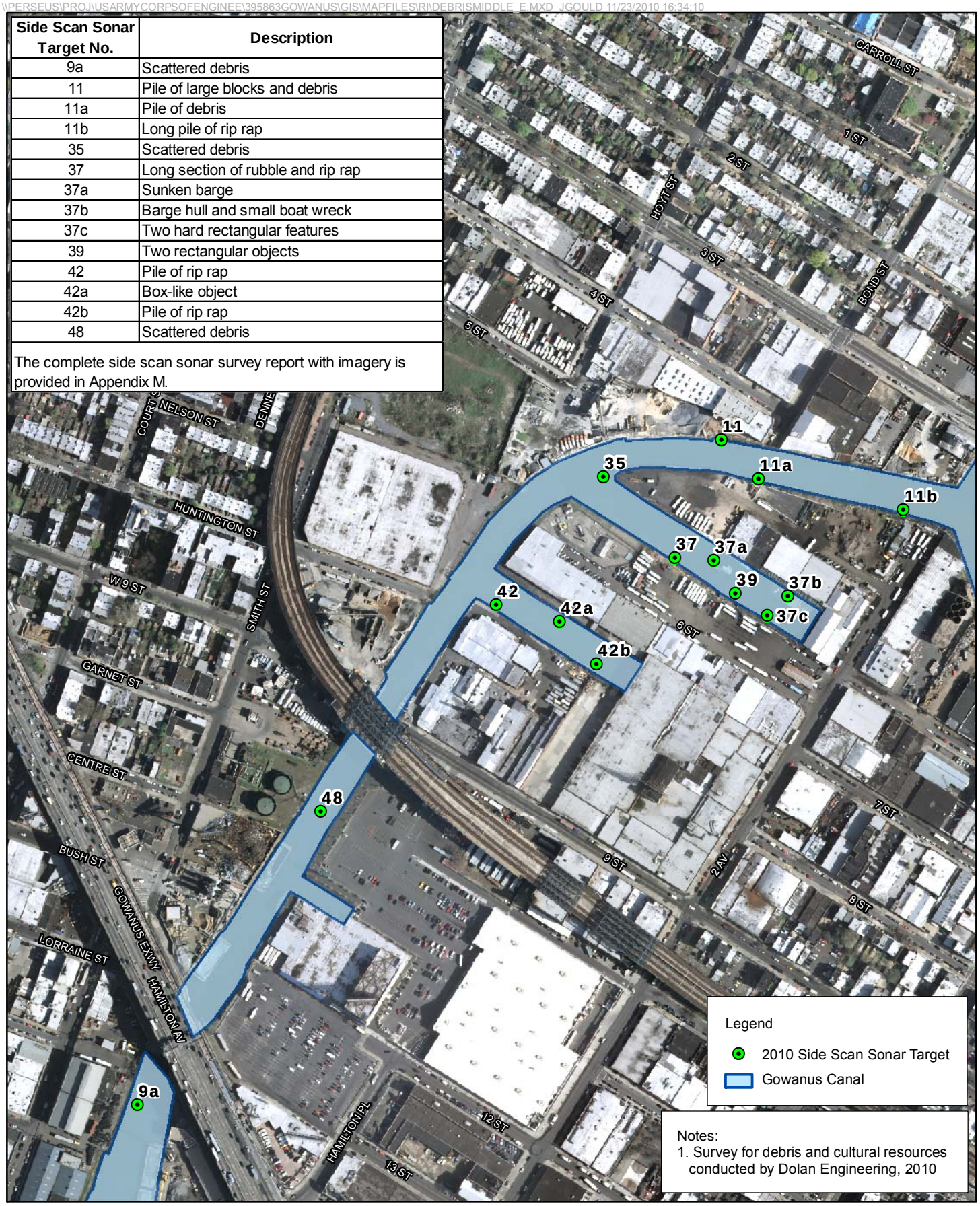

FIGURE 3-4e
Map of Debris and Obstructions in Gowanus Canal in 2010
Middle Canal
Gowanus Canal
Brooklyn, New York

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Side Scan Sonar Target No.	Description
2	Hard square object
2a	Rectangular object - possible automobile
2b	Rectangular object - possible automobile
3	Hard linear feature
5	Linear scattered debris
9	Rectangular feature
9a	Scattered debris
48	Scattered debris
52	Numerous circular features, suspected tires

The complete side scan sonar survey report with imagery is provided in Appendix M.

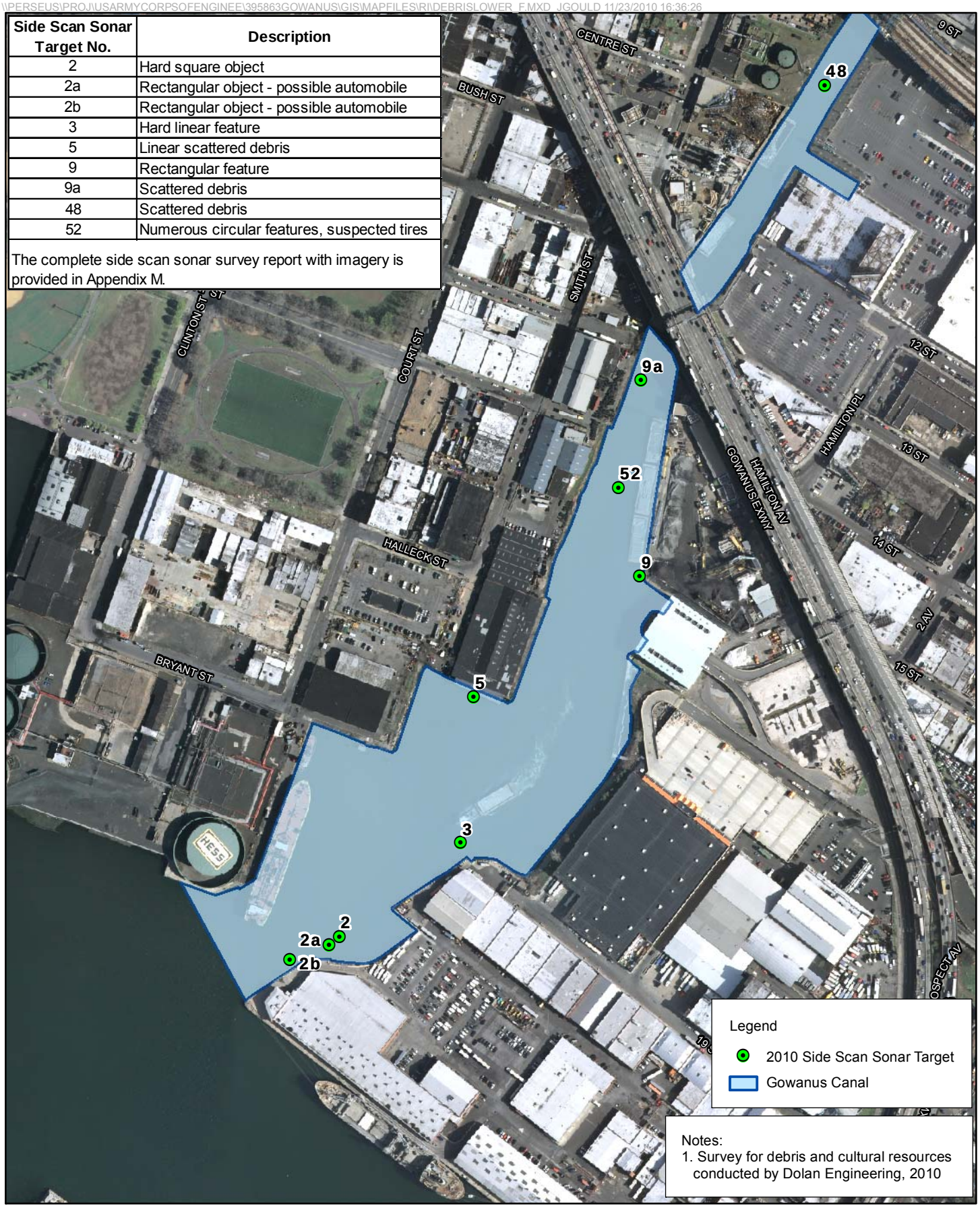

FIGURE 3-4f
Map of Debris and Obstructions in Gowanus Canal in 2010
Lower Canal
Gowanus Canal
Brooklyn, New York

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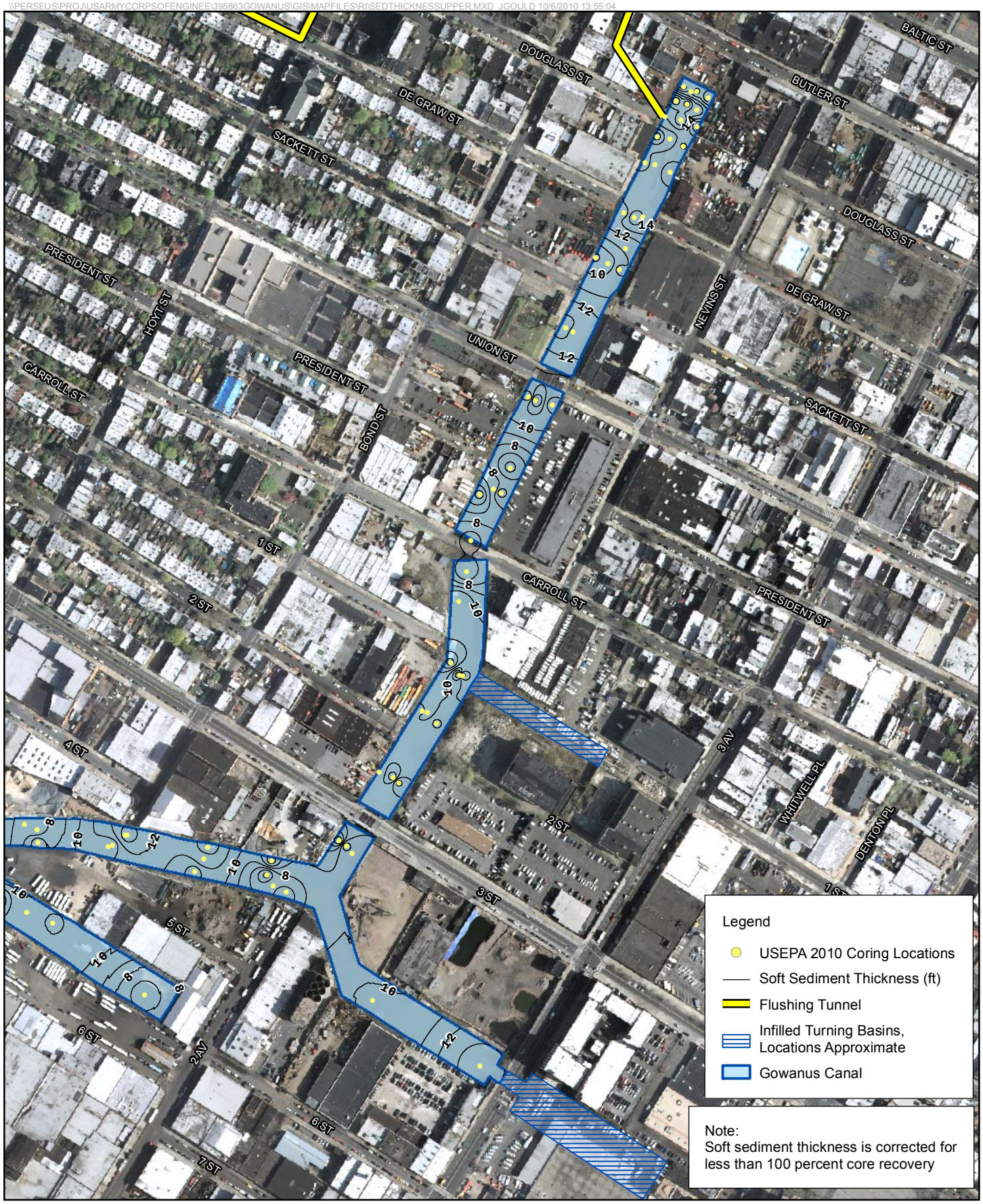

FIGURE 3-5a
Map of Thickness of Soft Sediment Layer
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SEDTHICKNESSMIDDLE.MXD JGOULD 10/22/2010 12:09:26



FIGURE 3-5b
Map of Thickness of Soft Sediment Layer
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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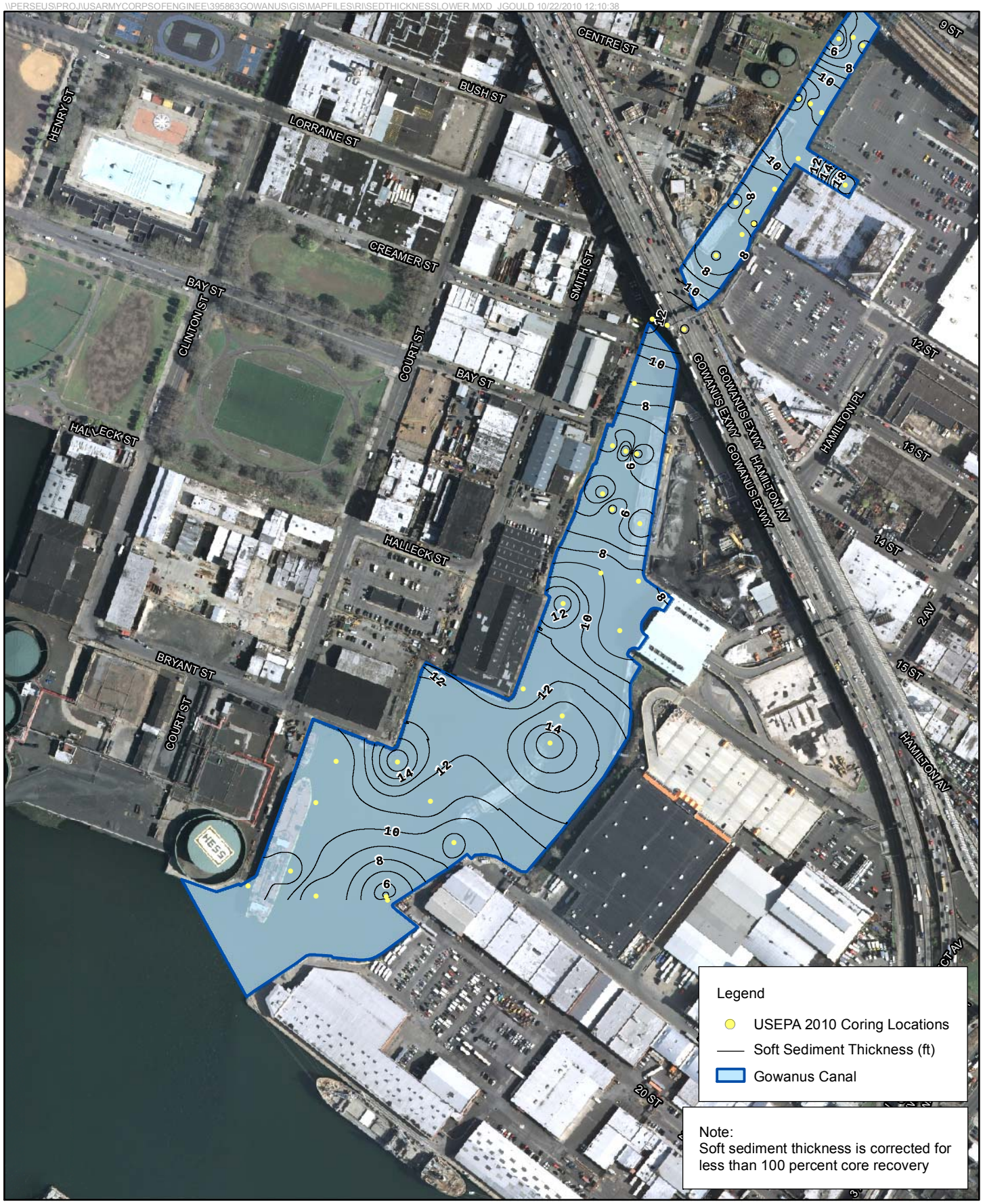

FIGURE 3-5c
Map of Thickness of Soft Sediment Layer
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RINATIVEELEVATIONUPPER.MXD JGOULD 10/12/2010 22:18:21



FIGURE 3-6a
Map of Elevation of Top of Native Sediment Unit
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 3-6b
Map of Elevation of Top of Native Sediment Unit
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

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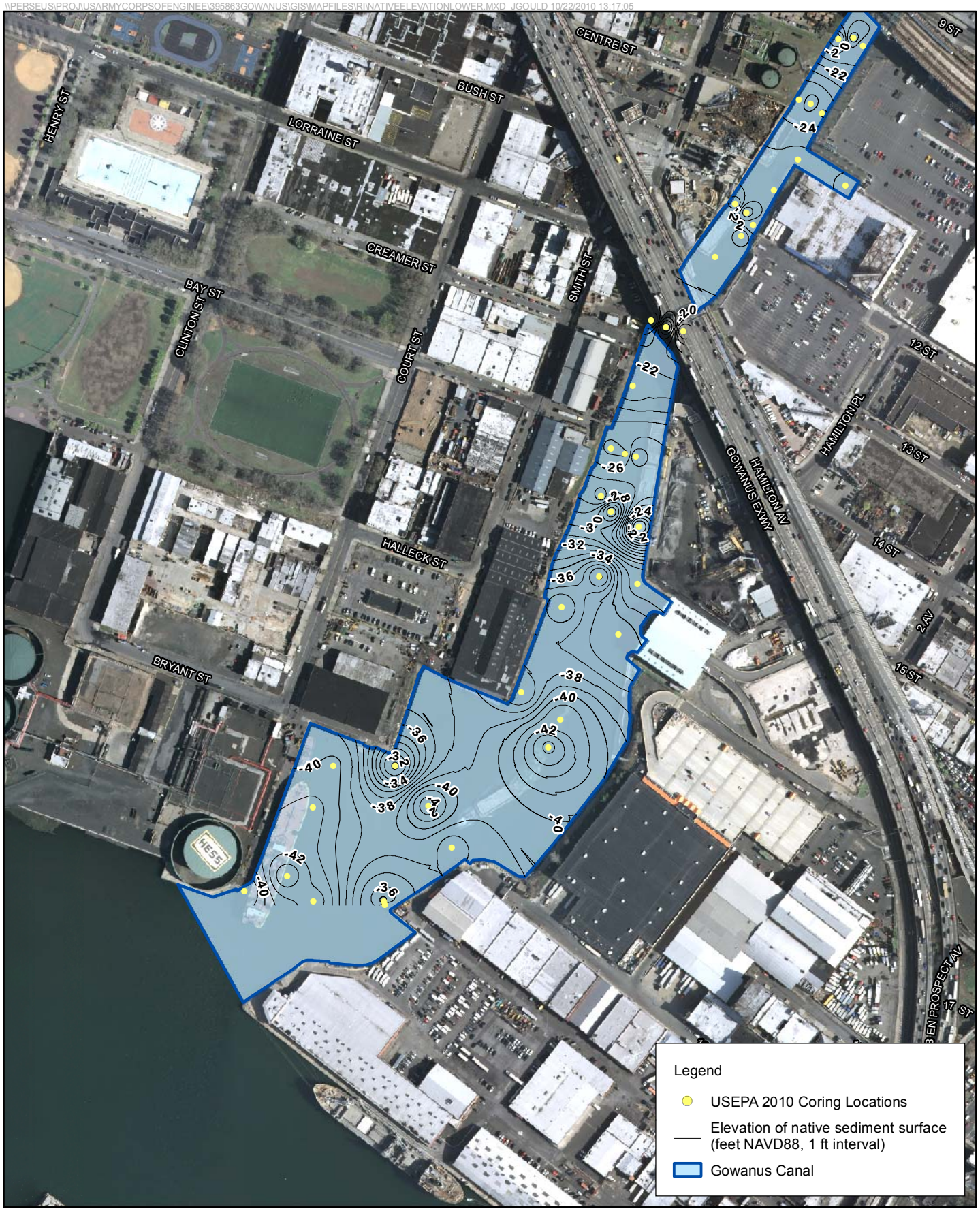

FIGURE 3-6c
Map of Elevation of Top of Native Sediment Unit
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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Head of canal at low tide (top), note exposed sediment at right of photo and aeration pipe under construction by NYC.
Example of crib-type bulkhead and floating boat docks observed in canal (bottom); this location is on the west side of the canal, immediately south of Carroll Street.

FIGURE 3-7a
Representative Photos of the Gowanus Canal Shoreline
Gowanus Canal Remedial Investigation
Brooklyn, New York



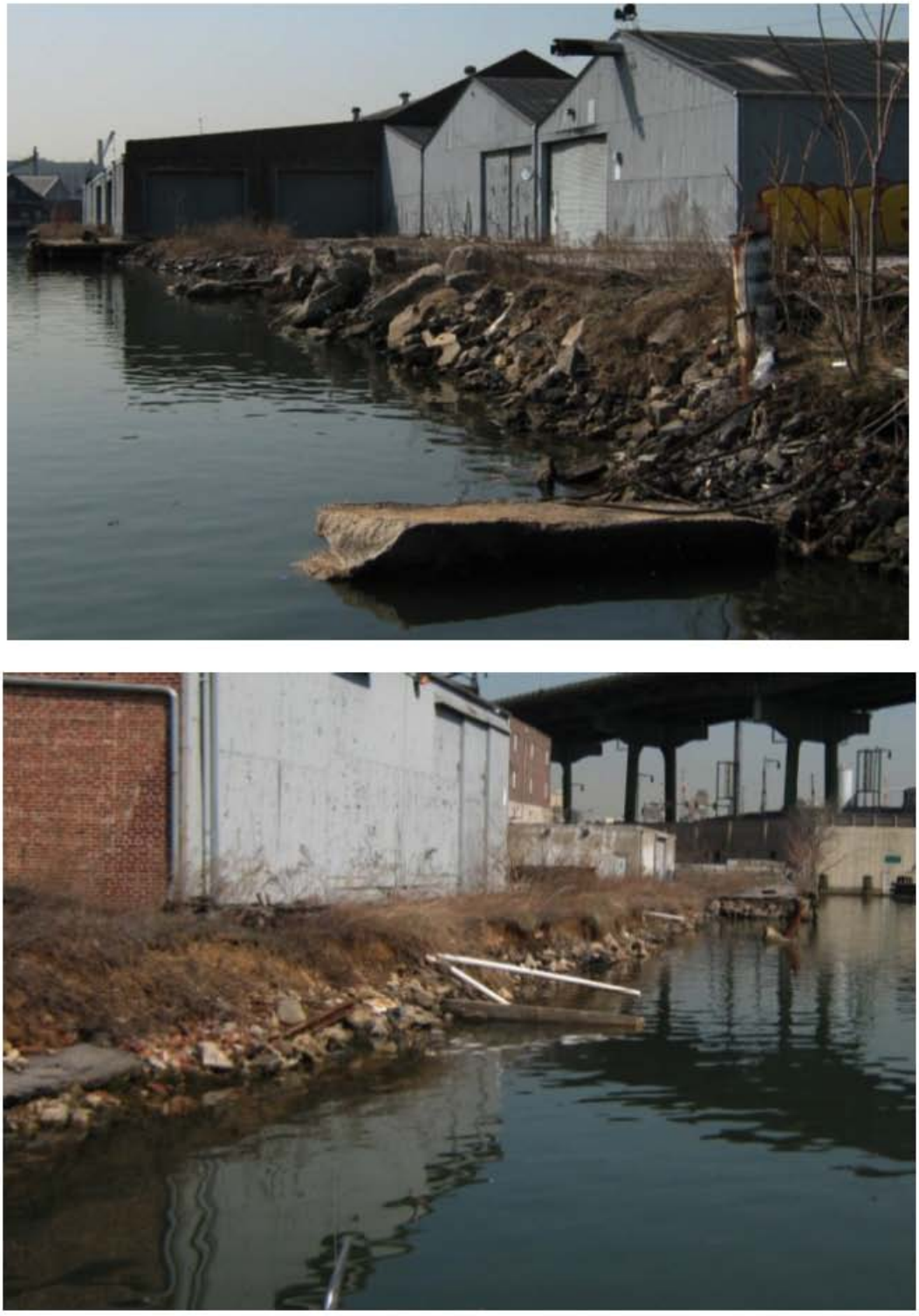
Example of sheet pile bulkheading along with a section of aeration pipe on the east side of the canal between Union and Carroll Streets (top). Example of newer wooden crib-type bulkhead (bottom).

FIGURE 3-7b
Representative Photos of the Gowanus Canal Shoreline
Gowanus Canal Remedial Investigation
Brooklyn, New York



Degraded bulkheads in middle reach of canal, near the end of Bond Street.

FIGURE 3-7c
Representative Photos of the Gowanus Canal Shoreline
Gowanus Canal Remedial Investigation
Brooklyn, New York



View to the south (top) and north (bottom) of the western shoreline south of the Hamilton Avenue Bridge. Note bulkhead structures in distance in both photos

FIGURE 3-7d
Representative Photos of the Gowanus Canal Shoreline
Gowanus Canal Remedial Investigation
Brooklyn, New York





End of DeGraw Street on western side of canal; note downed tree and other debris in water at left of photograph (left). Right photograph shows the mouth of the 4th Street Turning Basin,

FIGURE 3-7e
Representative Photos of the Gowanus Canal Shoreline
Gowanus Canal Remedial Investigation
Brooklyn, New York

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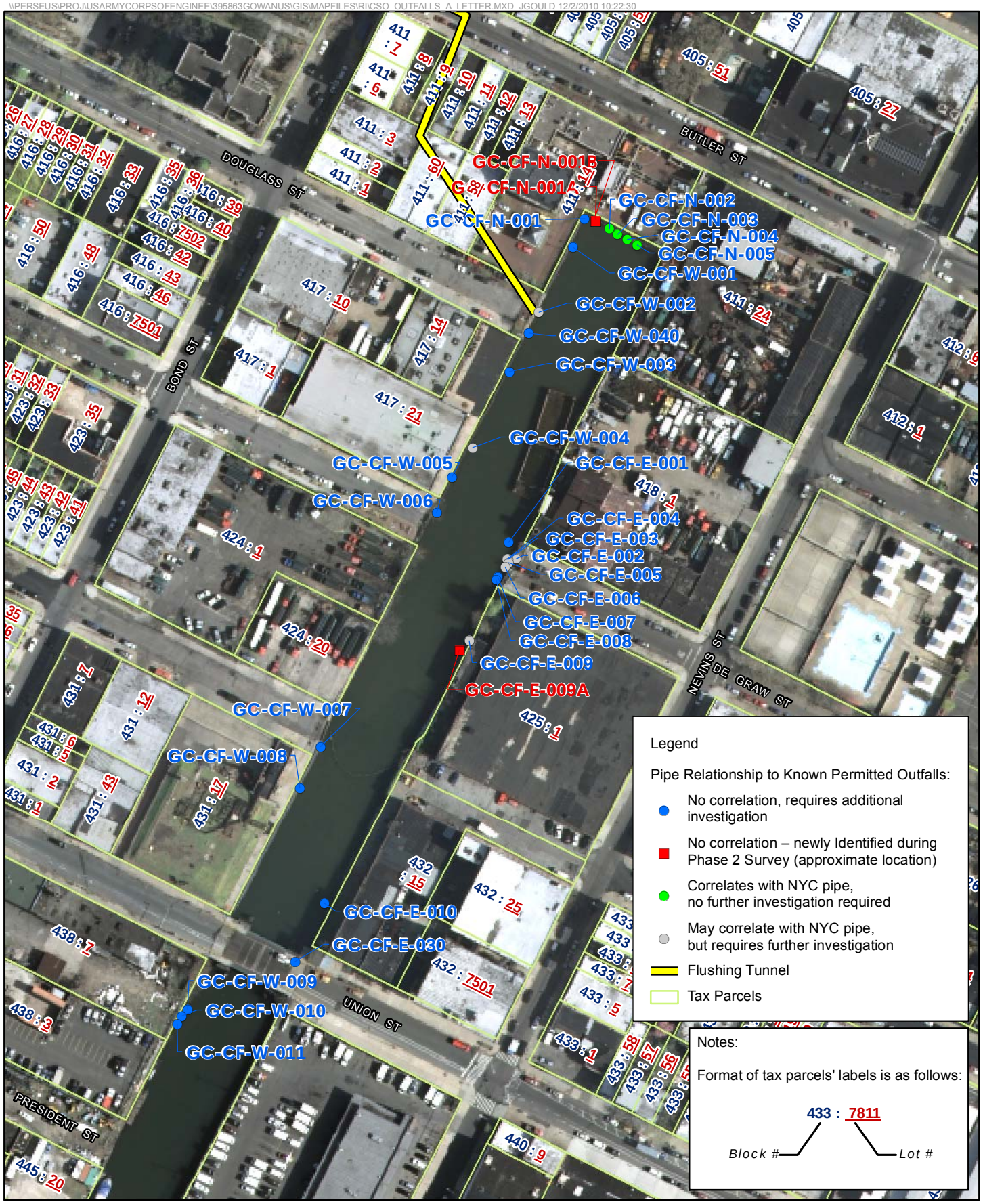

Figure 3-8a
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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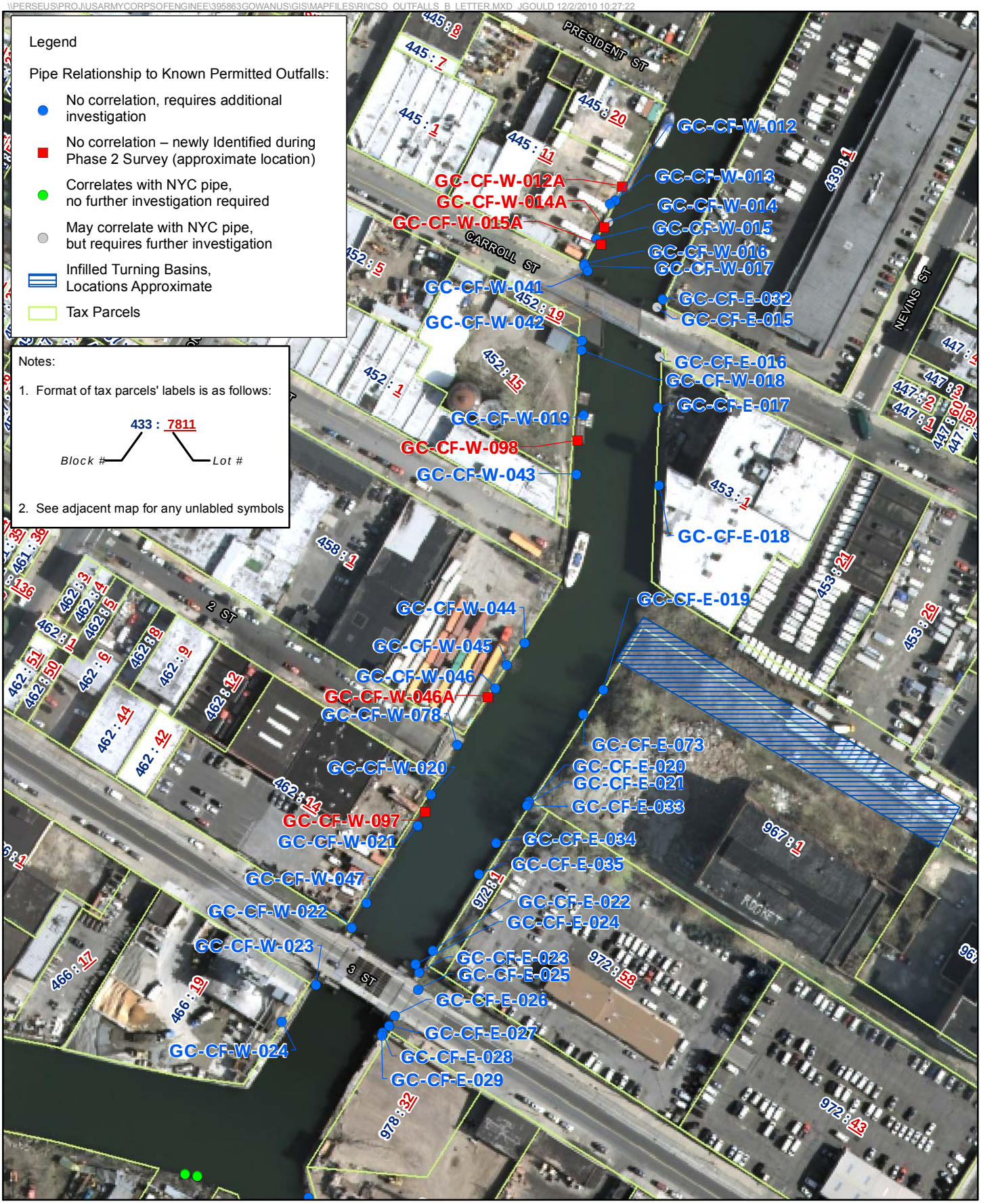

Figure 3-8b
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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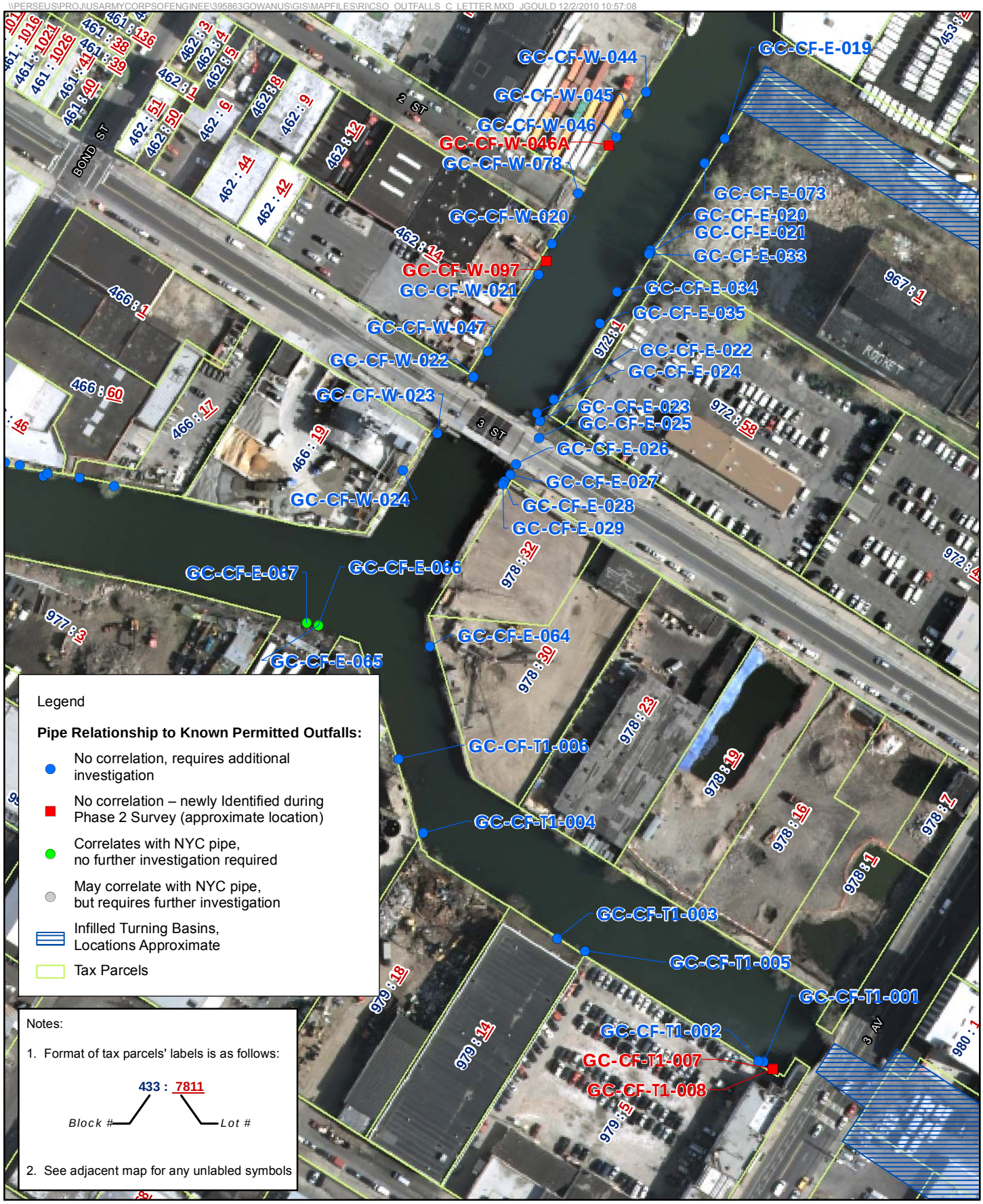

Figure 3-8c
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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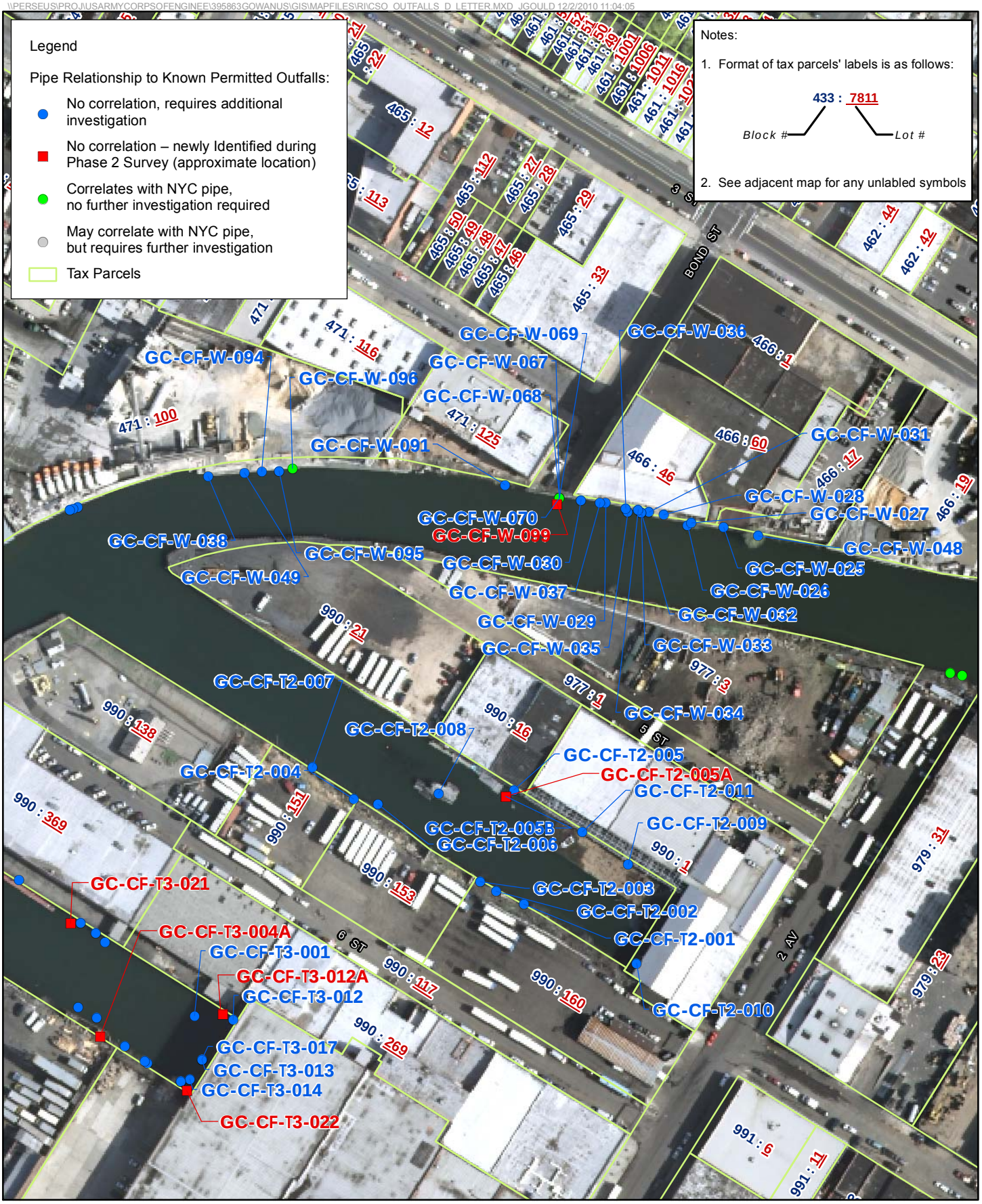

0 75 150
Feet

Figure 3-8d
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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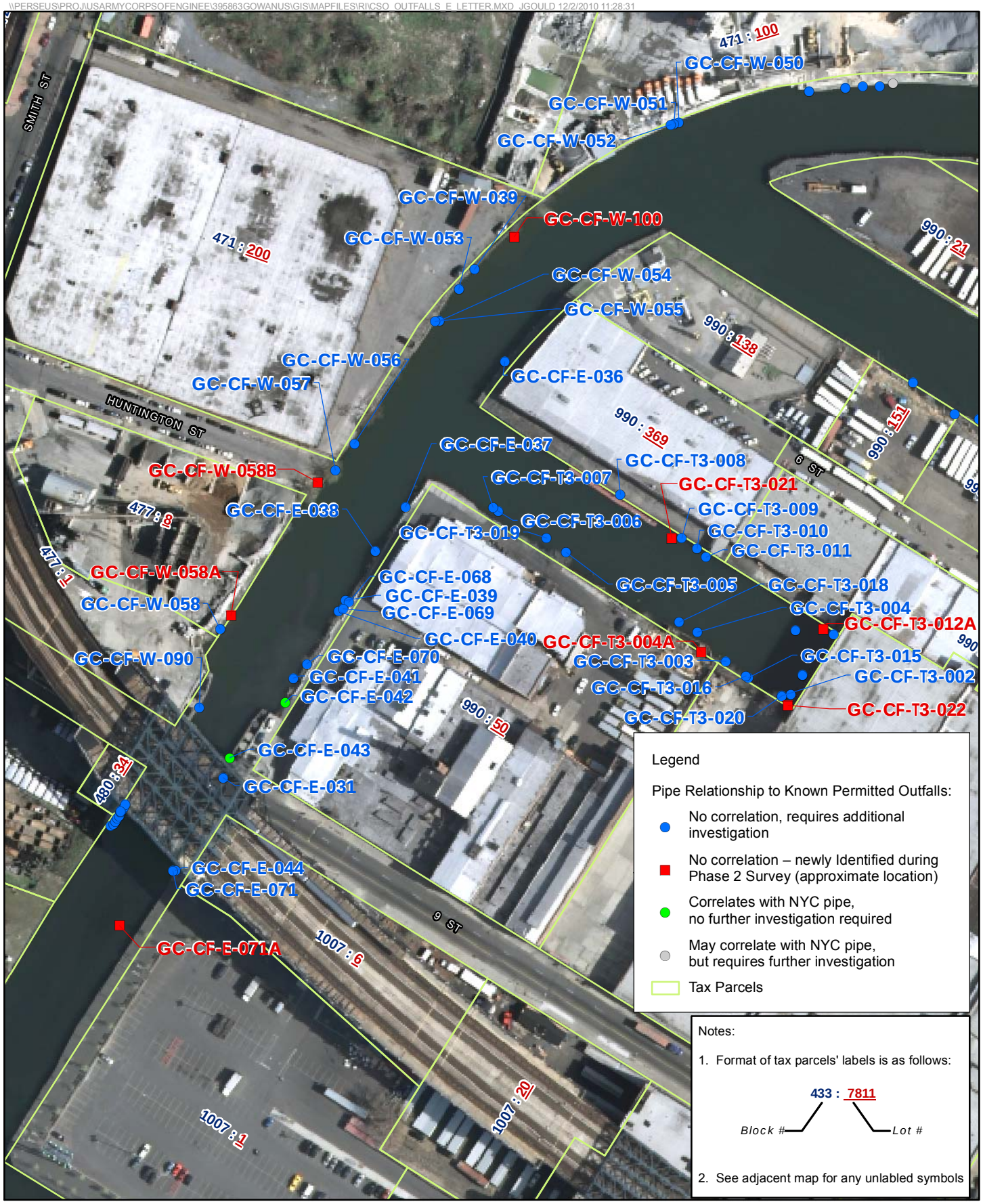

Figure 3-8e
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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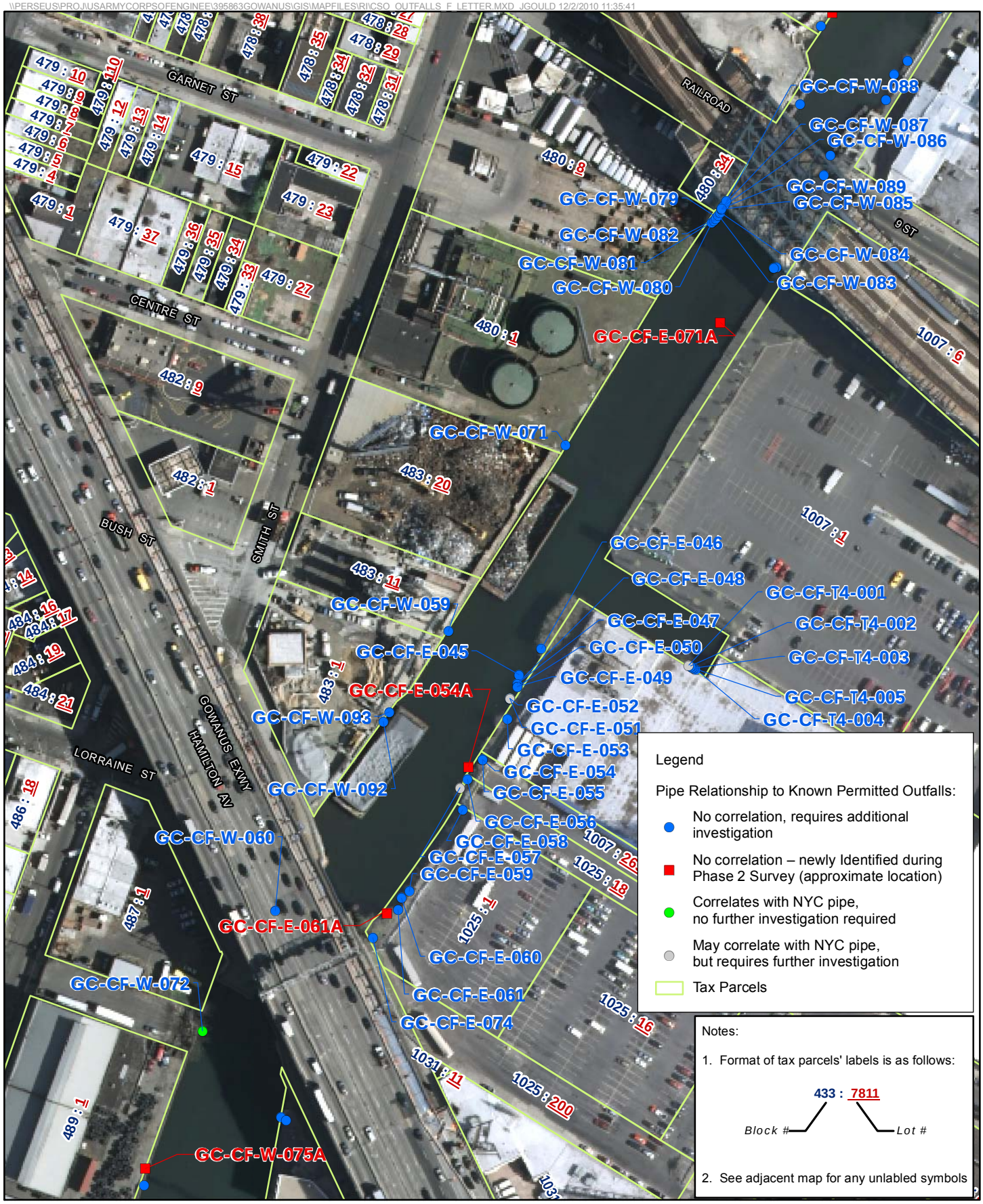

Figure 3-8f
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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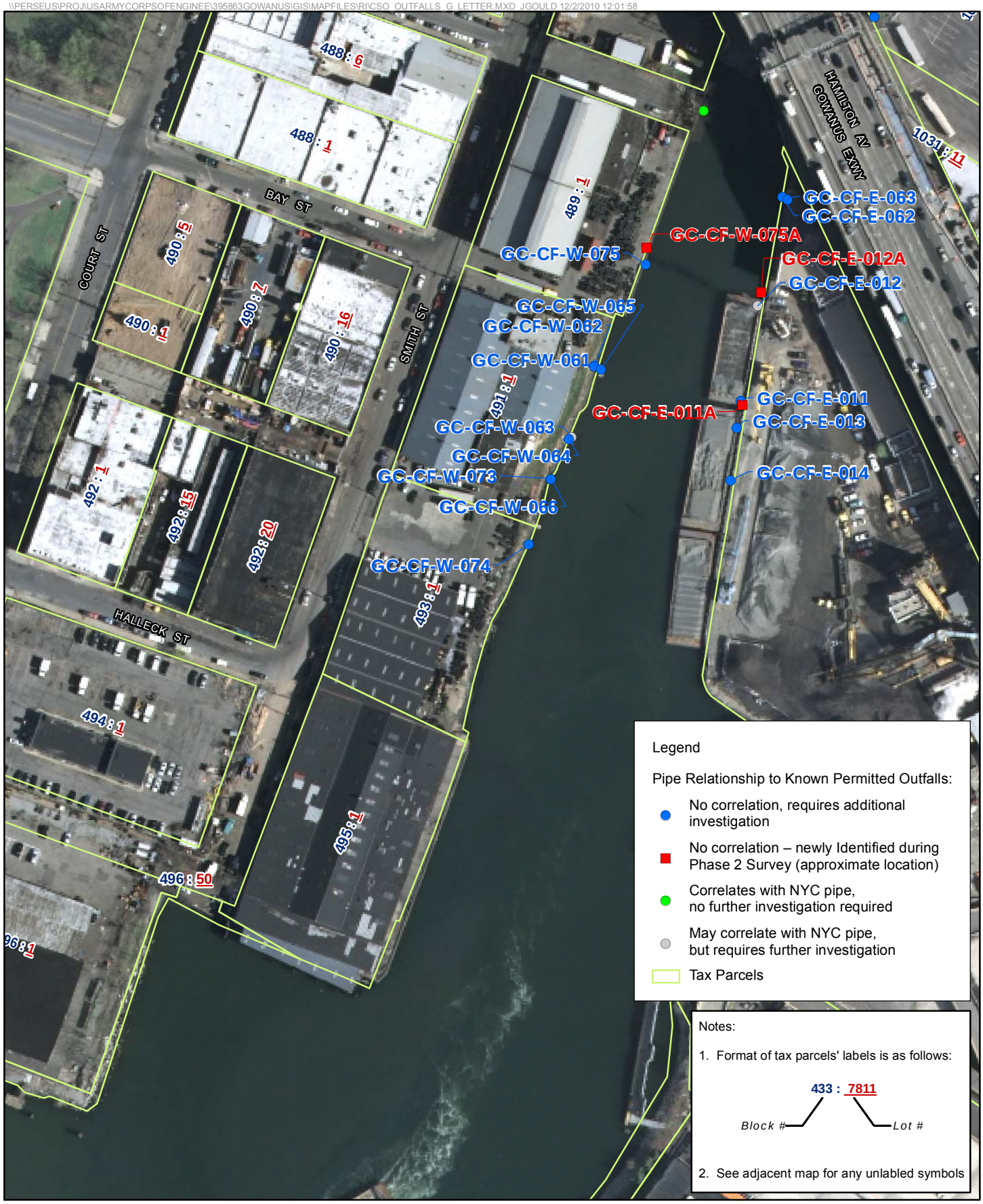

Figure 3-8g
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

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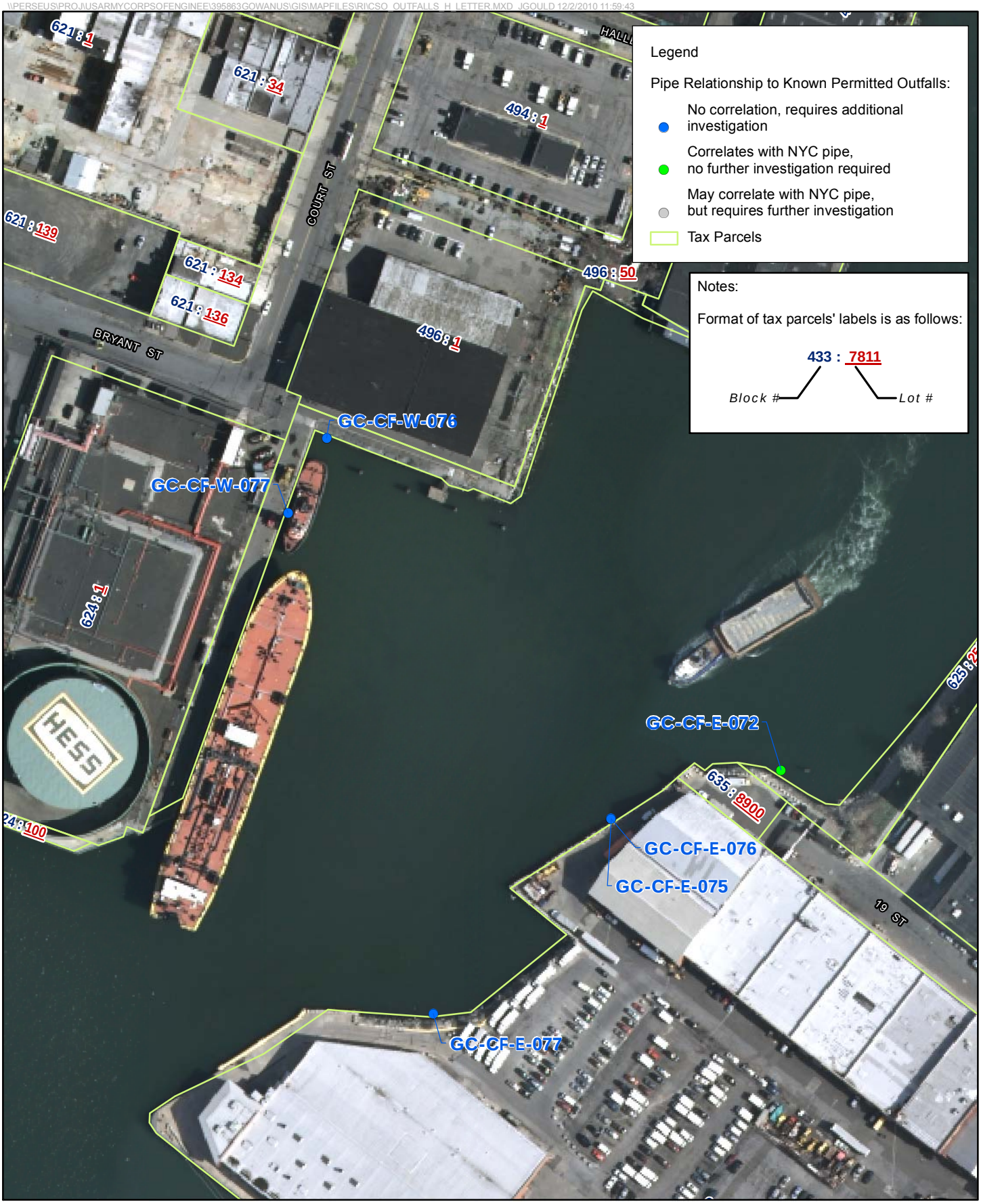

Figure 3-8h
CSO and Other Pipe Outfall Locations
Gowanus Canal Remedial Investigation
Brooklyn, New York

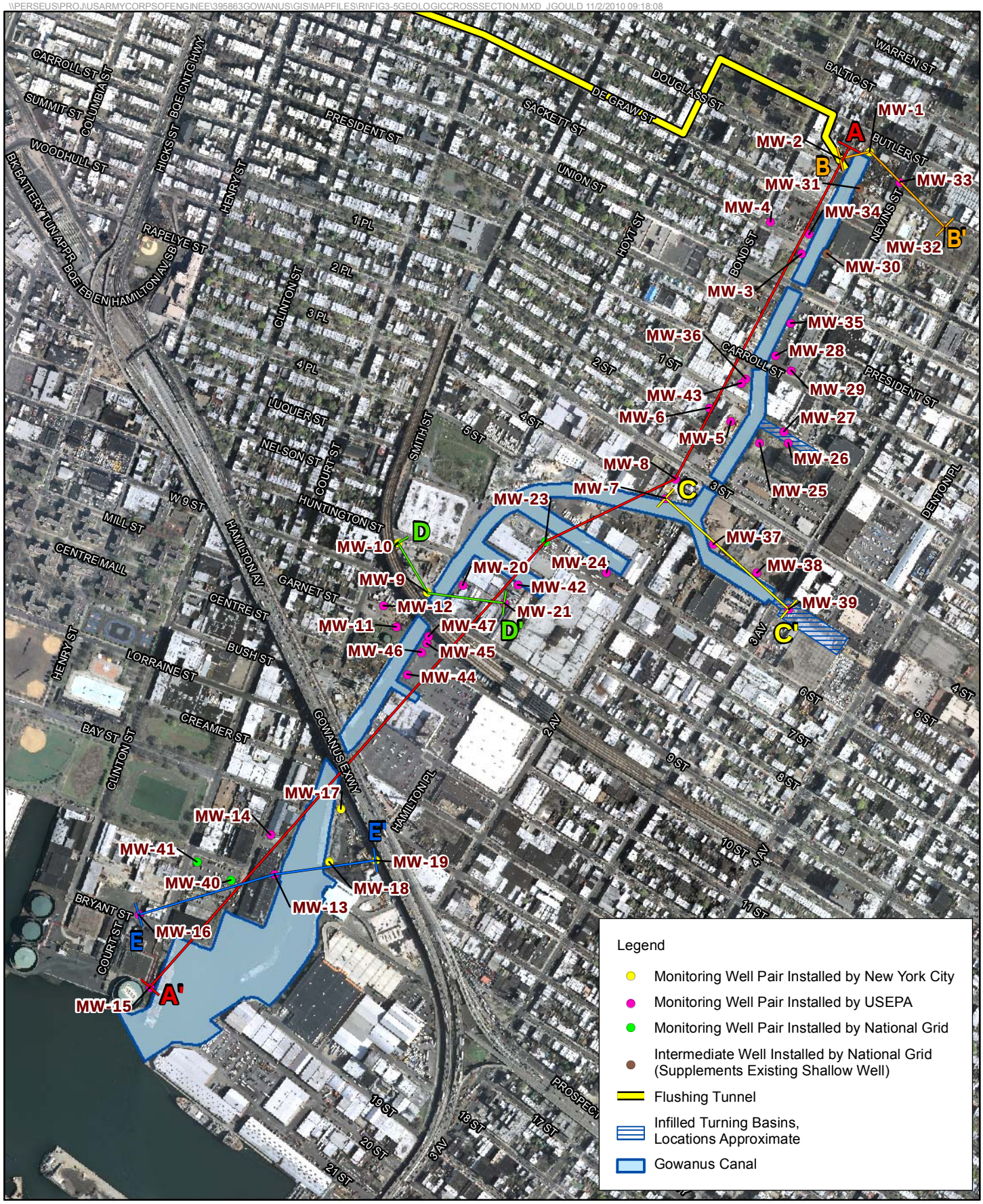

FIGURE 3-9
Study Area Geologic Cross-Section Location Map
(A-A' through E-E')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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f30_395863.dgn

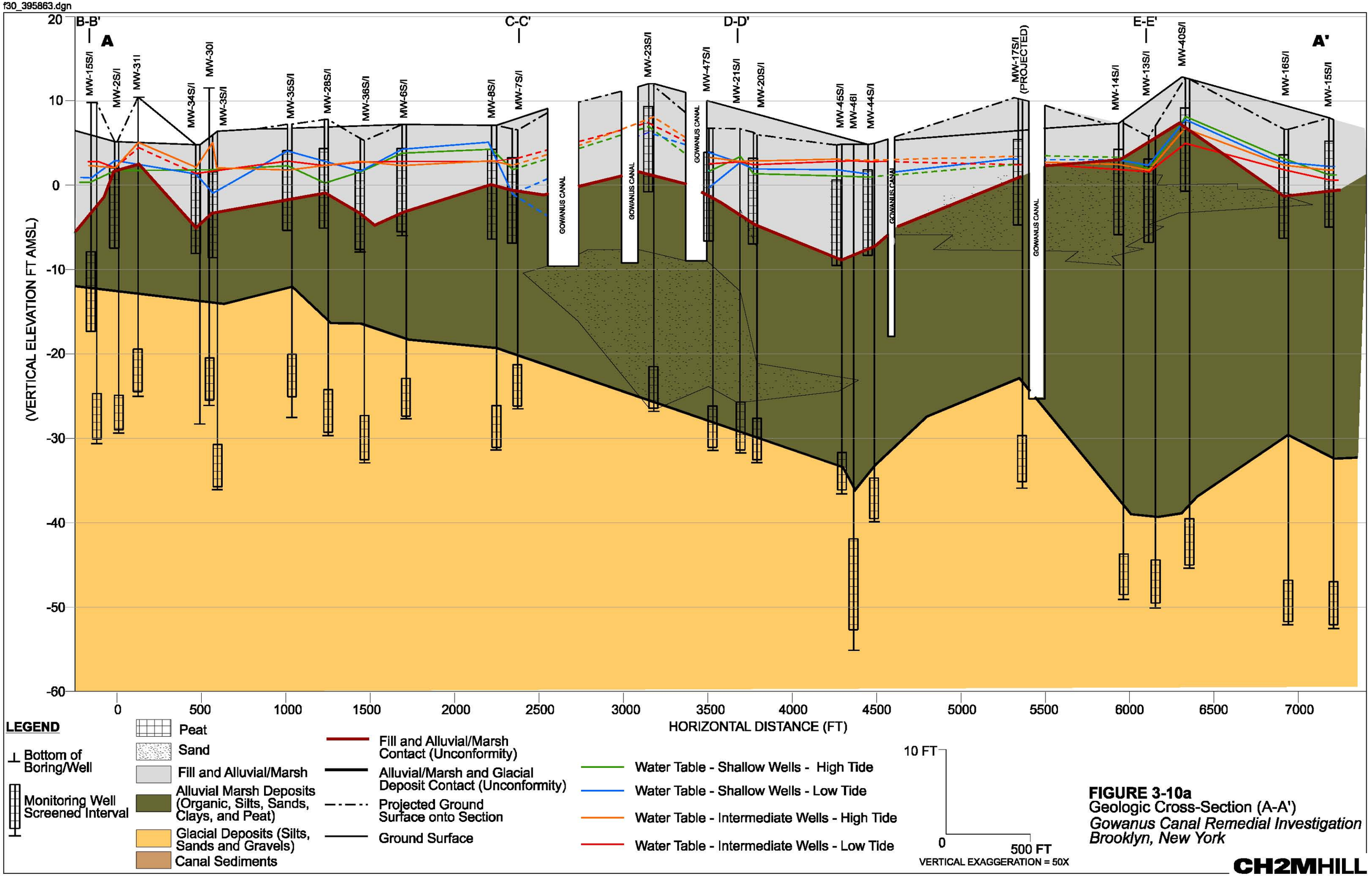

FIGURE 3-10a
Geologic Cross-Section (A-A')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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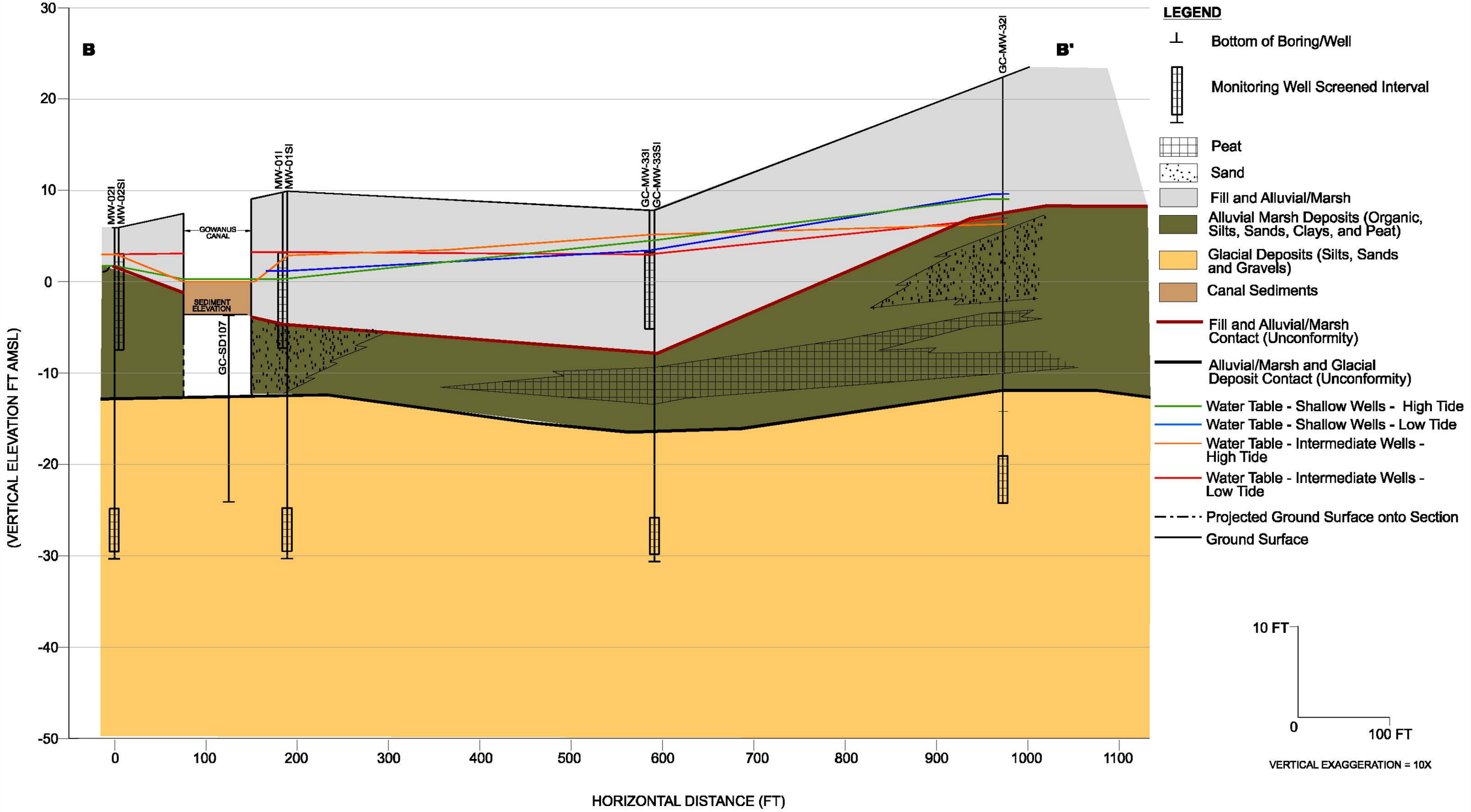

FIGURE 3-10b
Geologic Cross-Section (B-B')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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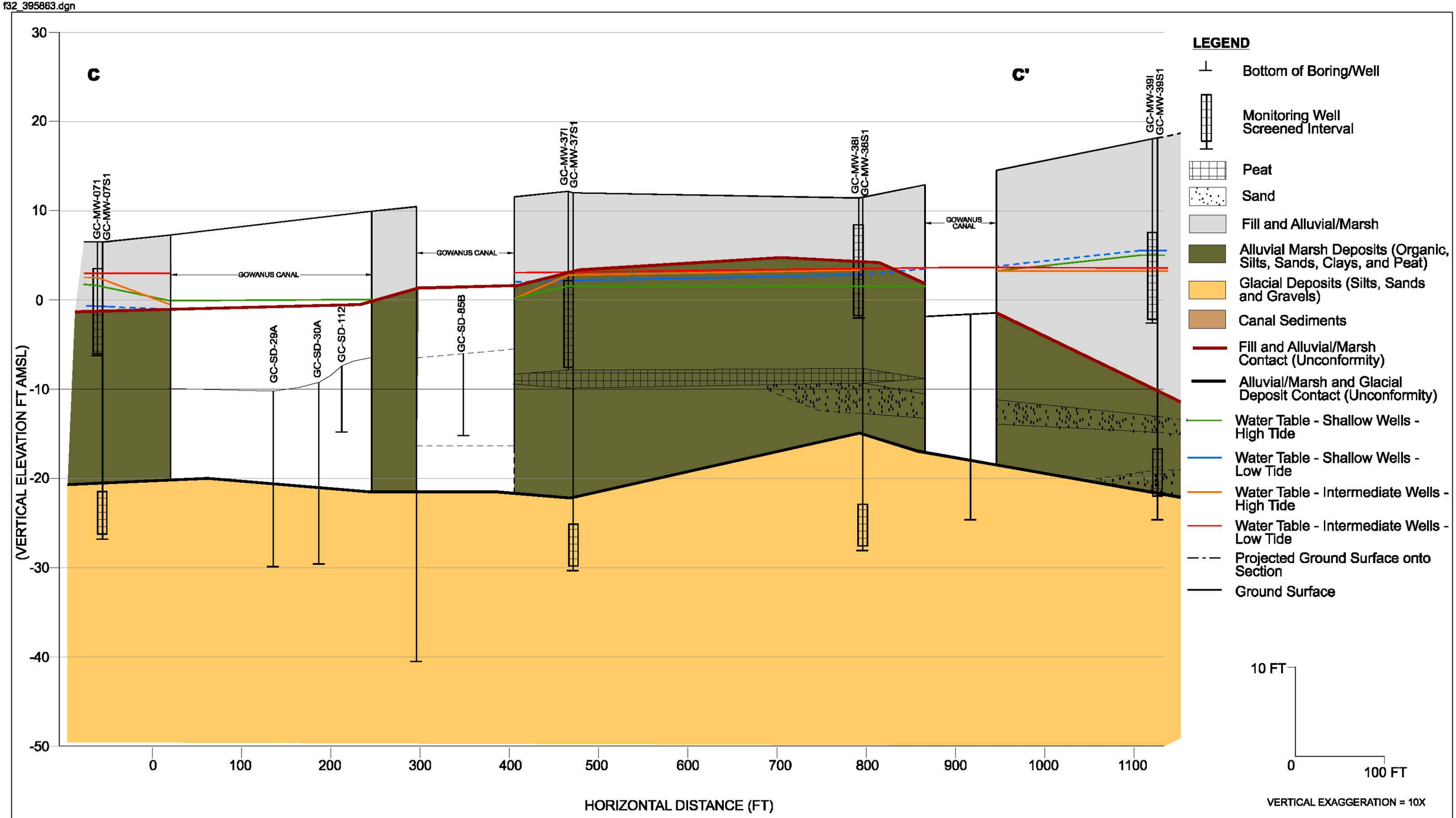

FIGURE 3-10c
Geologic Cross-Section (C-C')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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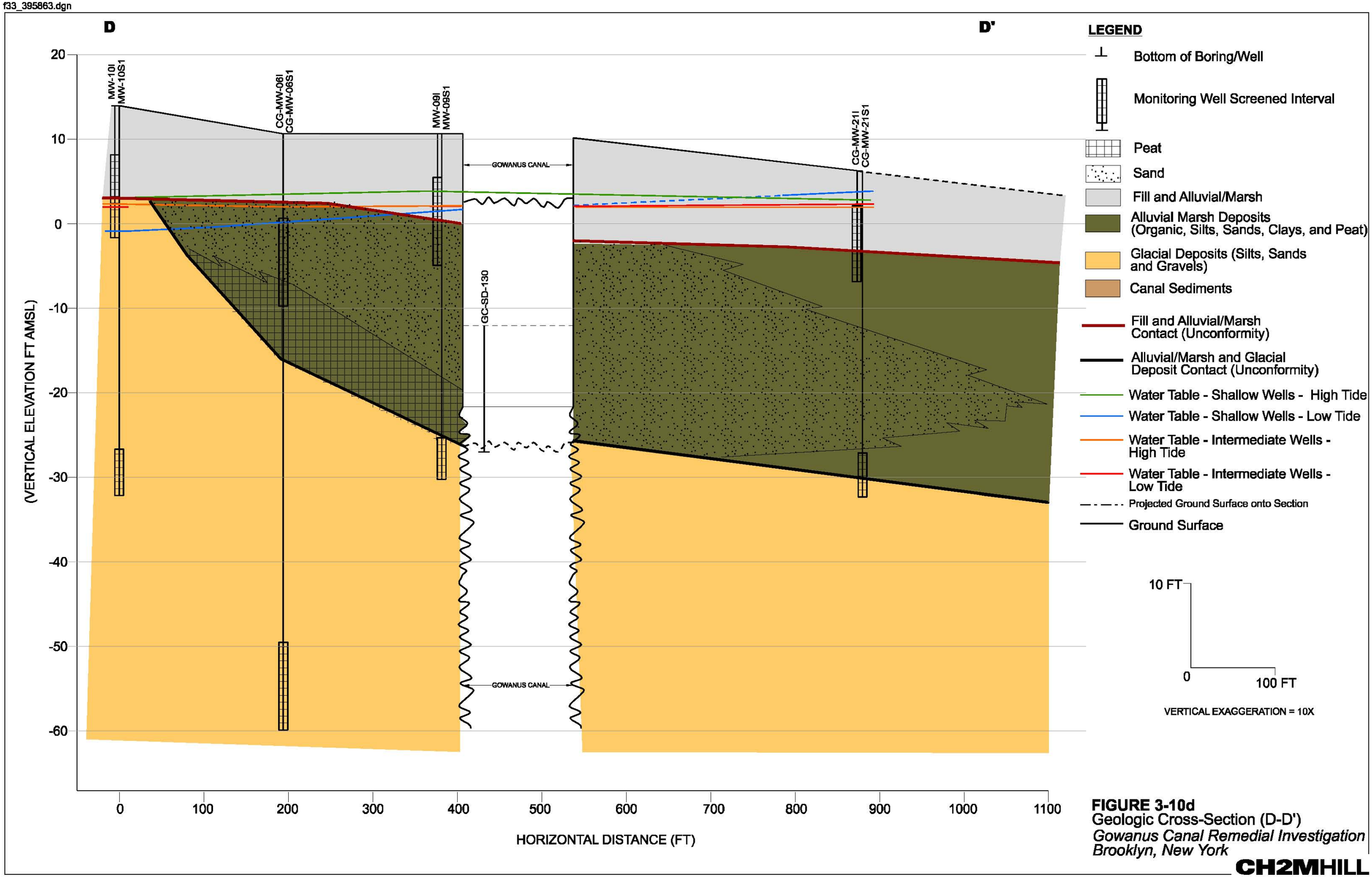

FIGURE 3-10d
Geologic Cross-Section (D-D')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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f34_395863.dgn

E

E'

CG-MW-16I
CG-MW-16SI

CG-MW-40I
CG-MW-40SI

CG-MW-13I
CG-MW-13SI

GOWANUS CANAL

MW-18I
MW-18SI

MW-19I
MW-19SI

CG-SD-150

CG-SD-74E

(VERTICAL ELEVATION FT AMSL)

20
10
0
-10
-20
-30
-40
-50
-60

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500

HORIZONTAL DISTANCE (FT)

LEGEND

- Bottom of Boring/ Well
- Monitoring Well Screened Interval
- Peat
- Sand
- Fill and Alluvial/Marsh
- Alluvial Marsh Deposits (Organic, Silts, Sands, Clays, and Peat)
- Glacial Deposits (Silts, Sands and Gravels)
- Canal Sediments
- Fill and Alluvial/Marsh Contact (Unconformity)
- Alluvial/Marsh and Glacial Deposit Contact (Unconformity)
- Projected Ground Surface onto Section
- Ground Surface
- Water Table - Shallow Wells - High Tide
- Water Table - Shallow Wells - Low Tide
- Water Table - Intermediate Wells - High Tide
- Water Table - Intermediate Wells - Low Tide

10 FT
0
100 FT
VERTICAL EXAGGERATION = 10X

FIGURE 3-10e
Geologic Cross-Section (E-E')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SHALLOWGWHIGHTIDE.MXD JGOULD 11/2/2010 11:47:40

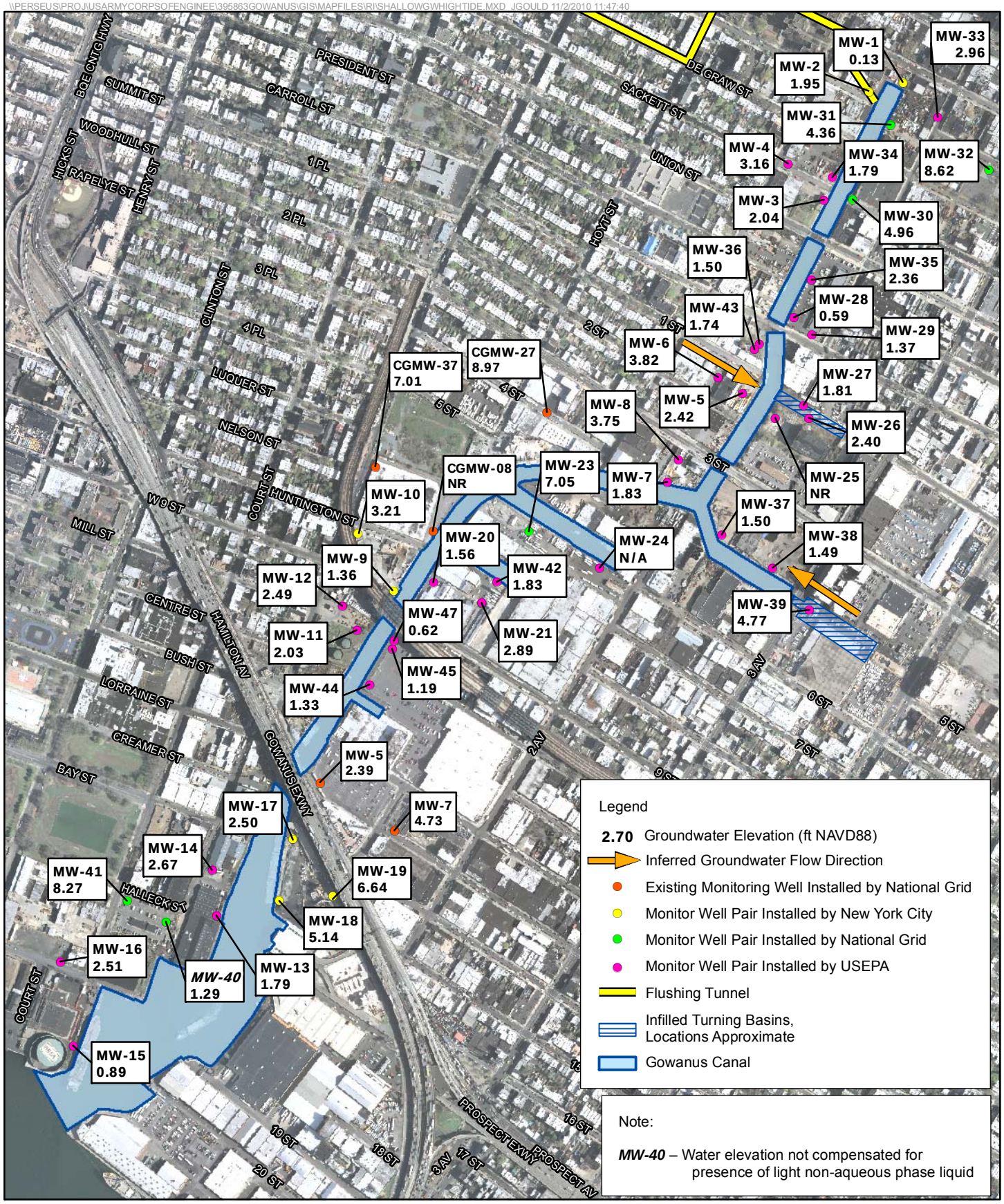

FIGURE 3-11a
Shallow Groundwater Elevations
July 26, 2010 @ 9-10 am
High Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SHALLOWGWLOWTIDE.MXD JGOULD 11/2/2010 21:37:51

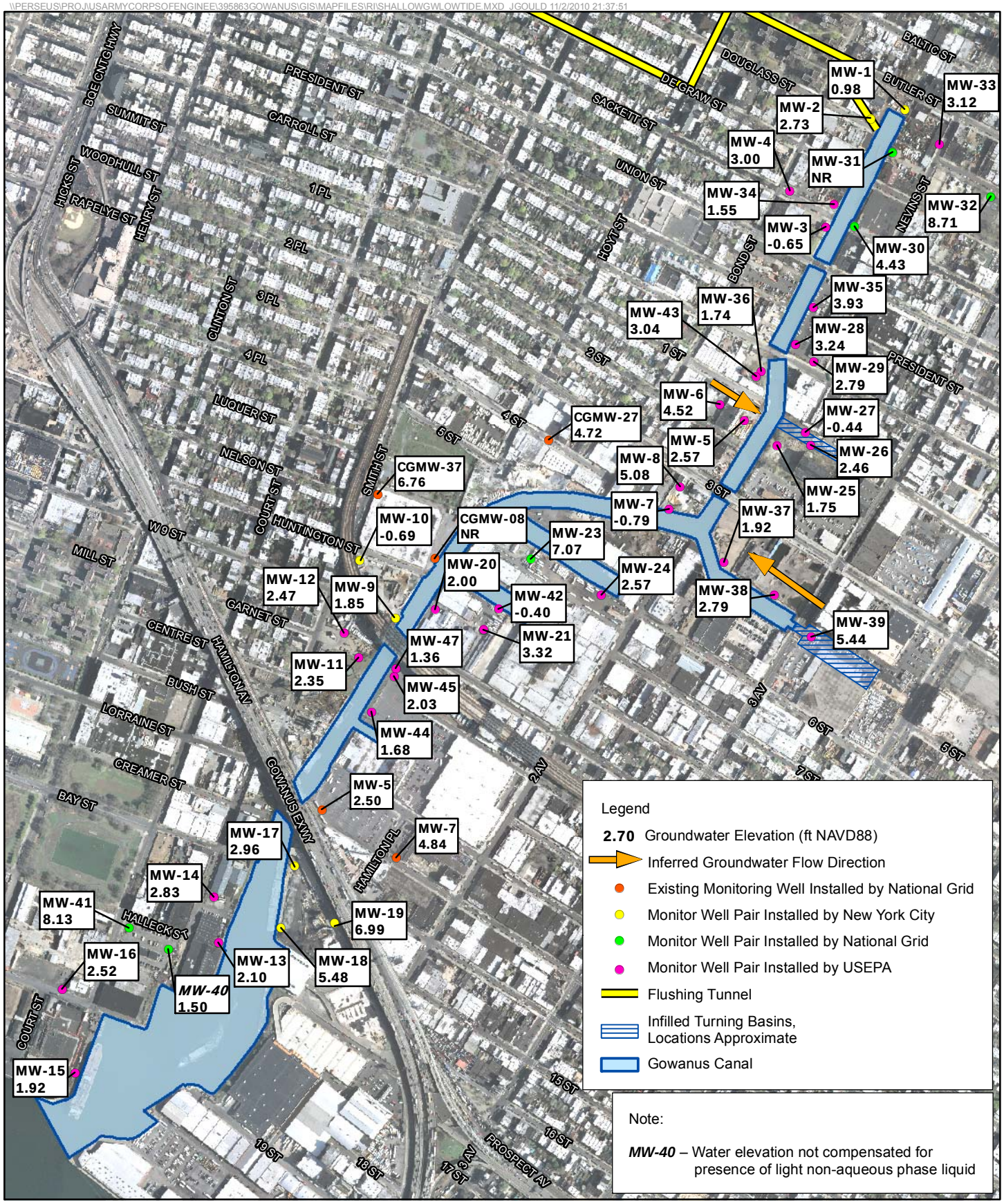

FIGURE 3-11b
Shallow Groundwater Elevations
August 23, 2010
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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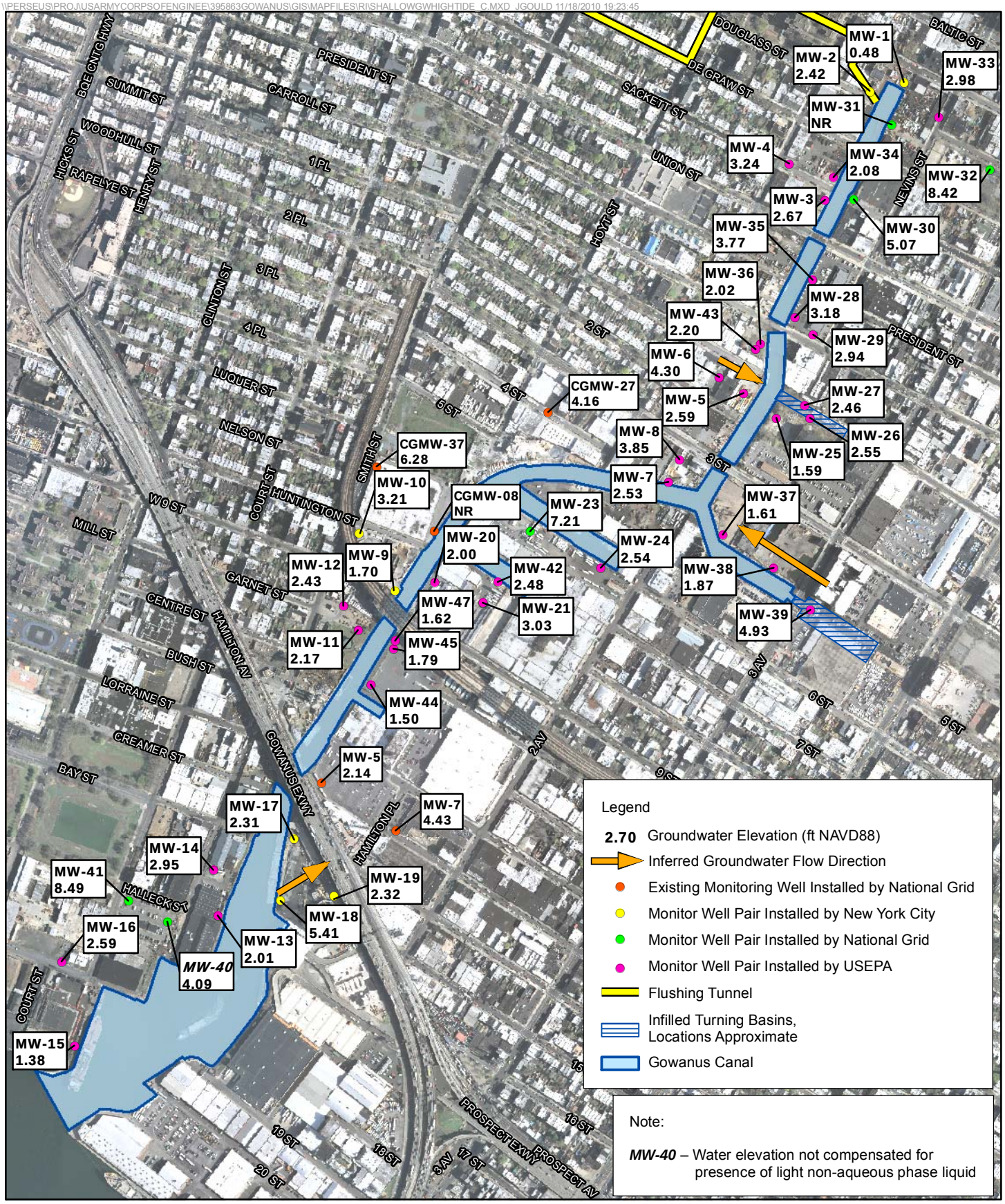

FIGURE 3-11c
Shallow GW Elevations
September 29, 2010 @ 12-1pm
High Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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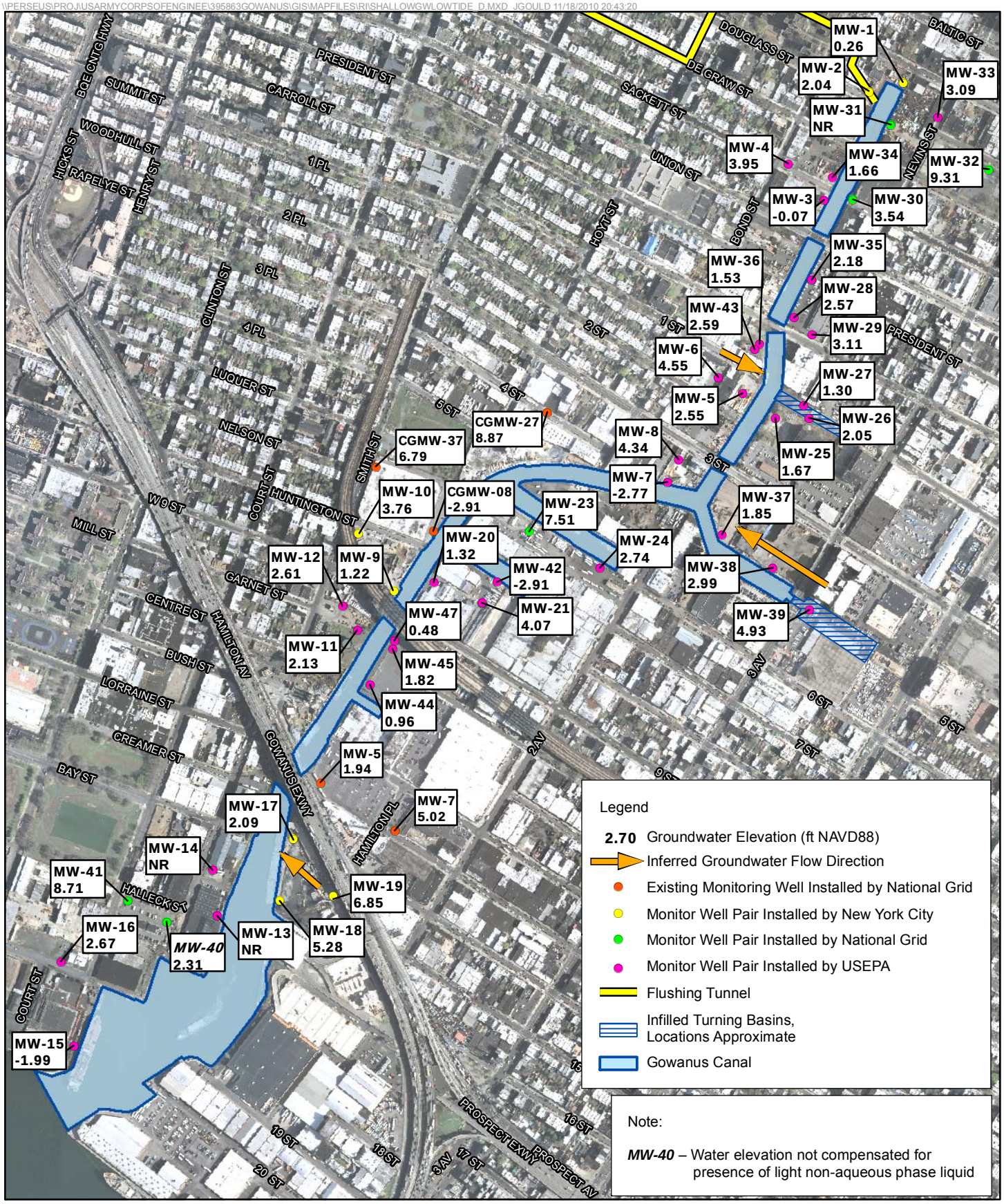

N

0 350 700

Feet

FIGURE 3-11d
Shallow Groundwater Elevations
October 22, 2010 @ 2-3pm
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SHALLOWGWLOWTIDE_E.MXD JGOULD 12/20/2010 07:44:37

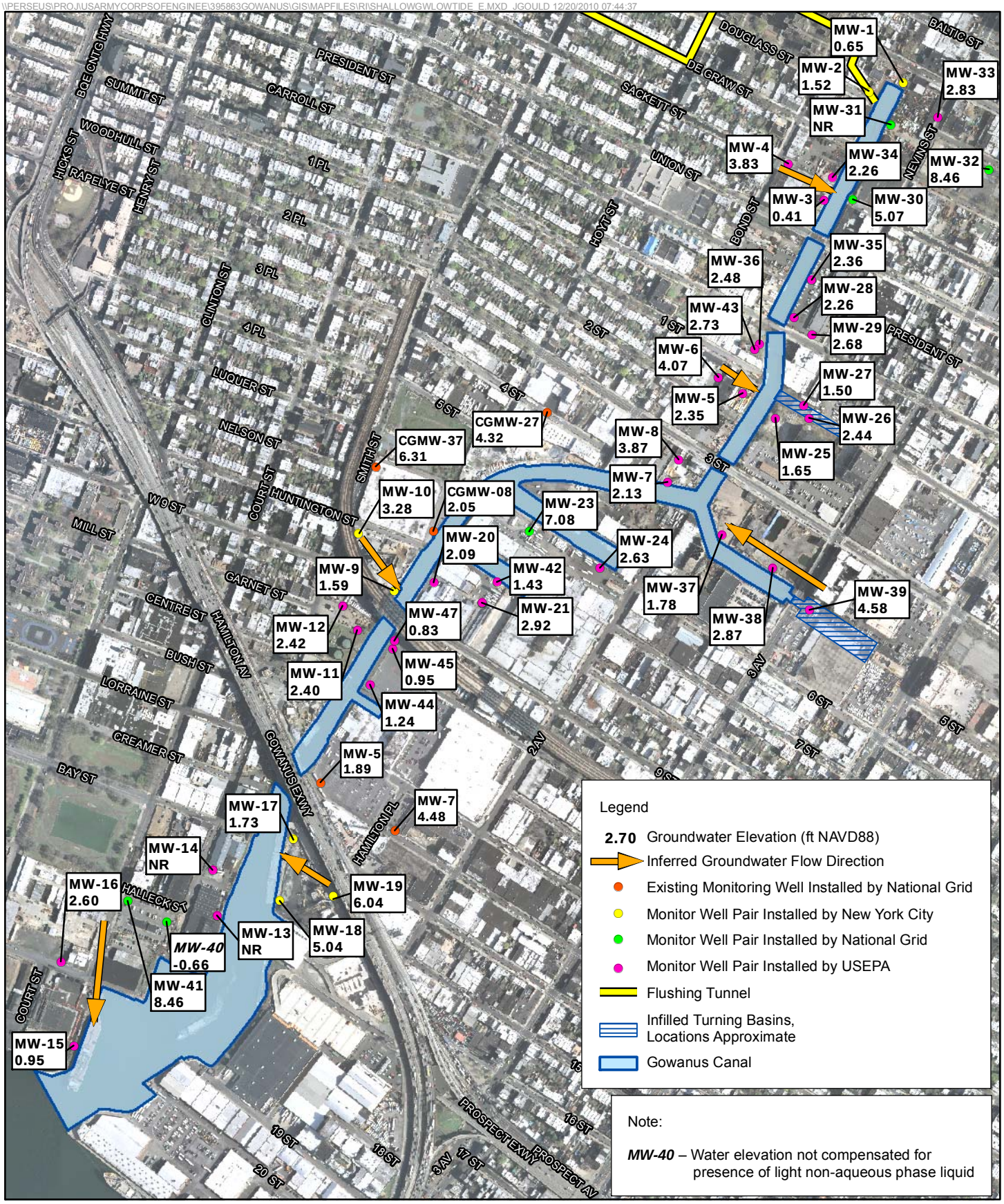

FIGURE 3-11e
Shallow Groundwater Elevations
November 22, 2010 @ 10am-12pm
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SHALLOWGWLOWTIDE_F.MXD MUNWIN 12/22/2010 14:49:27

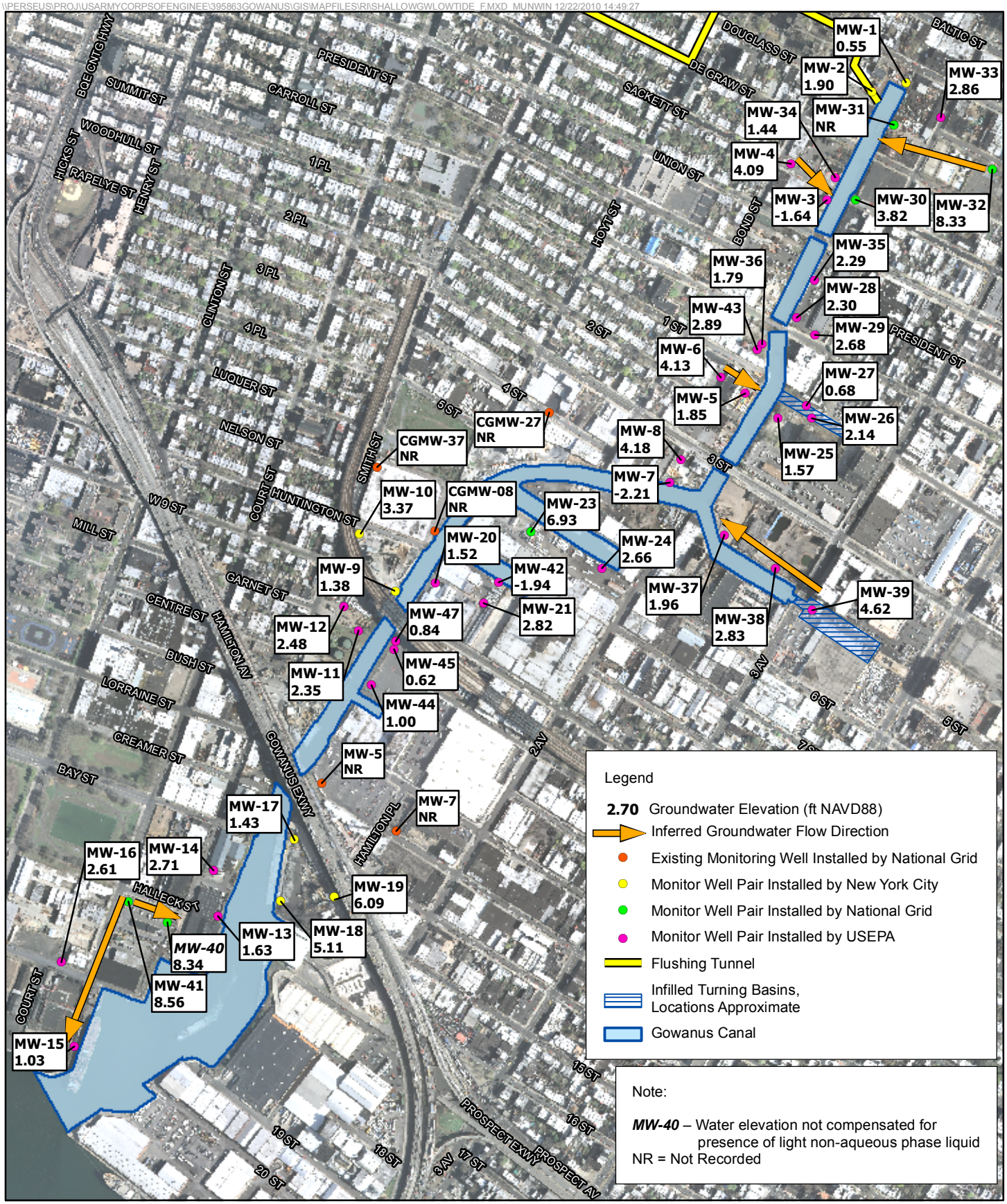

FIGURE 3-11f
Shallow Groundwater Elevations
December 20, 2010 @ 1-3pm
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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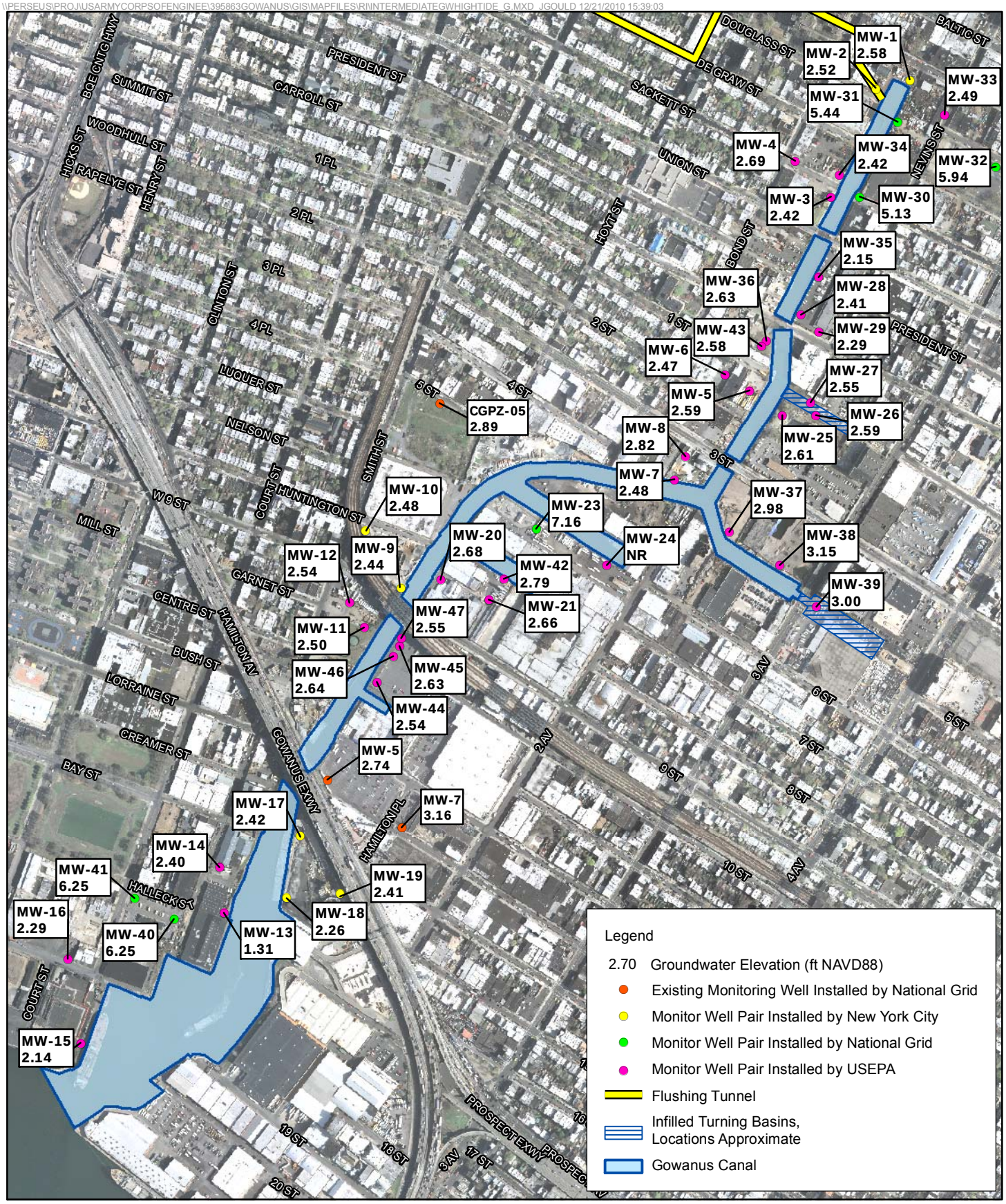
\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\INTERMEDIATEGWHIGHTIDE_G.MXD JGOULD 12/21/2010 15:39:03



N

0 500 1,000

Feet

FIGURE 3-11g
Intermediate Groundwater Elevations
July 26, 2010 @ 9-10am
High Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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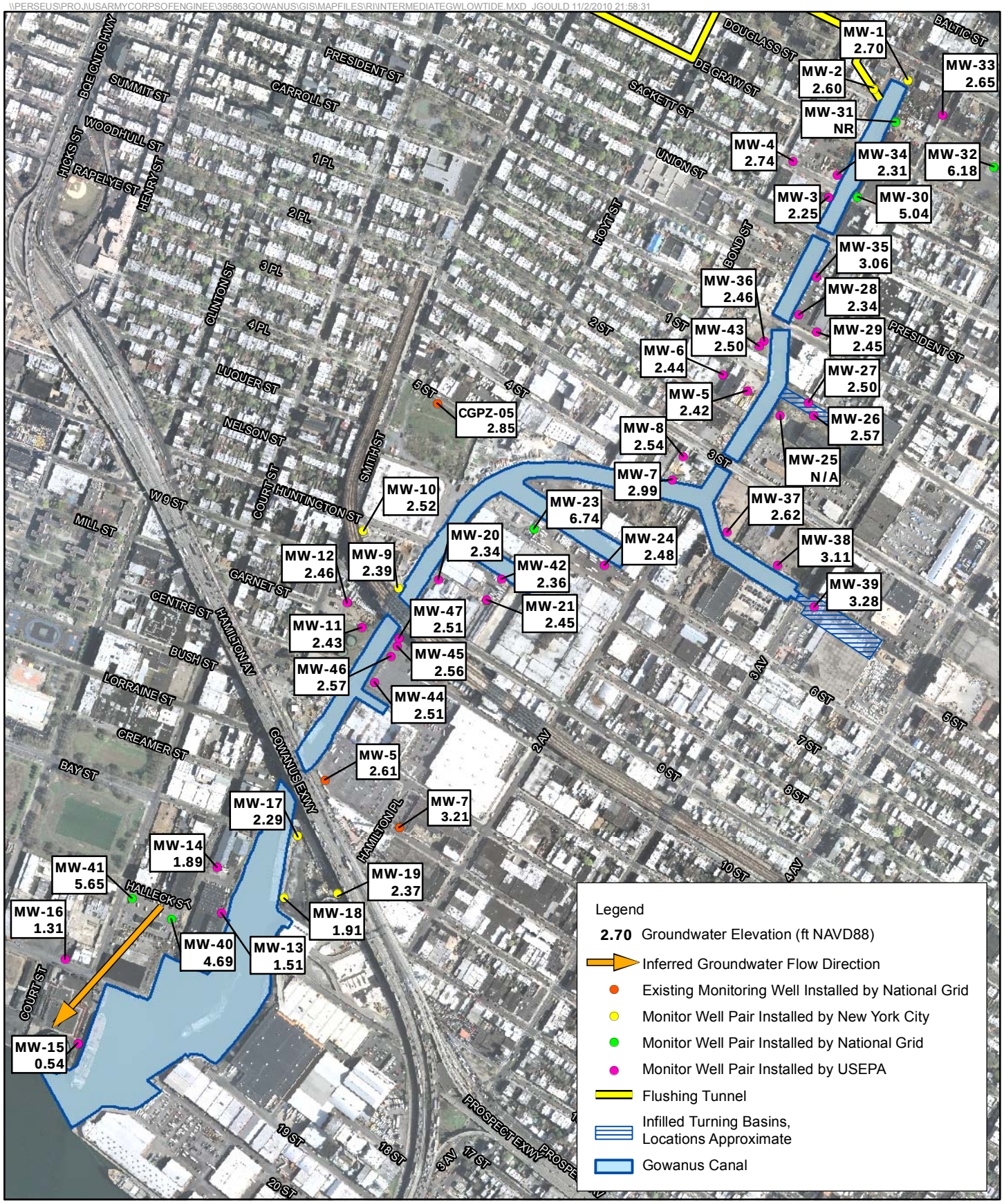
\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\INTERMEDIATEGWLOWTIDE.MXD JGOULD 11/2/2010 21:58:31



N

0 350 700

Feet

FIGURE 3-11h
Intermediate Groundwater Elevations
August 23, 2010
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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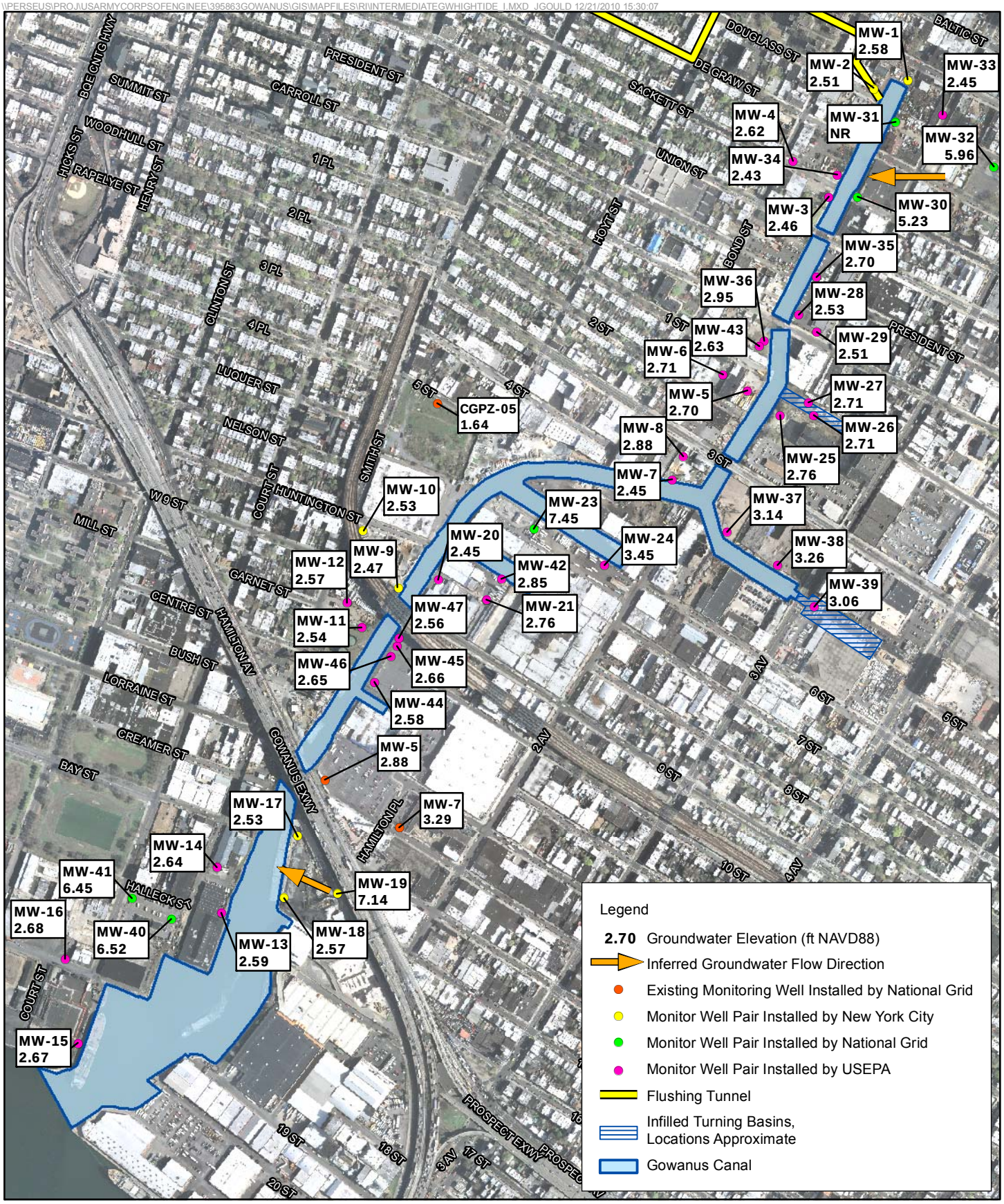
\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\INTERMEDIATEGWHIGHTIDE_I.MXD JGOULD 12/21/2010 15:30:07



N

0 500 1,000

Feet

FIGURE 3-11i
Intermediate Groundwater Elevations
September 29, 2010 @ 12-1pm
High Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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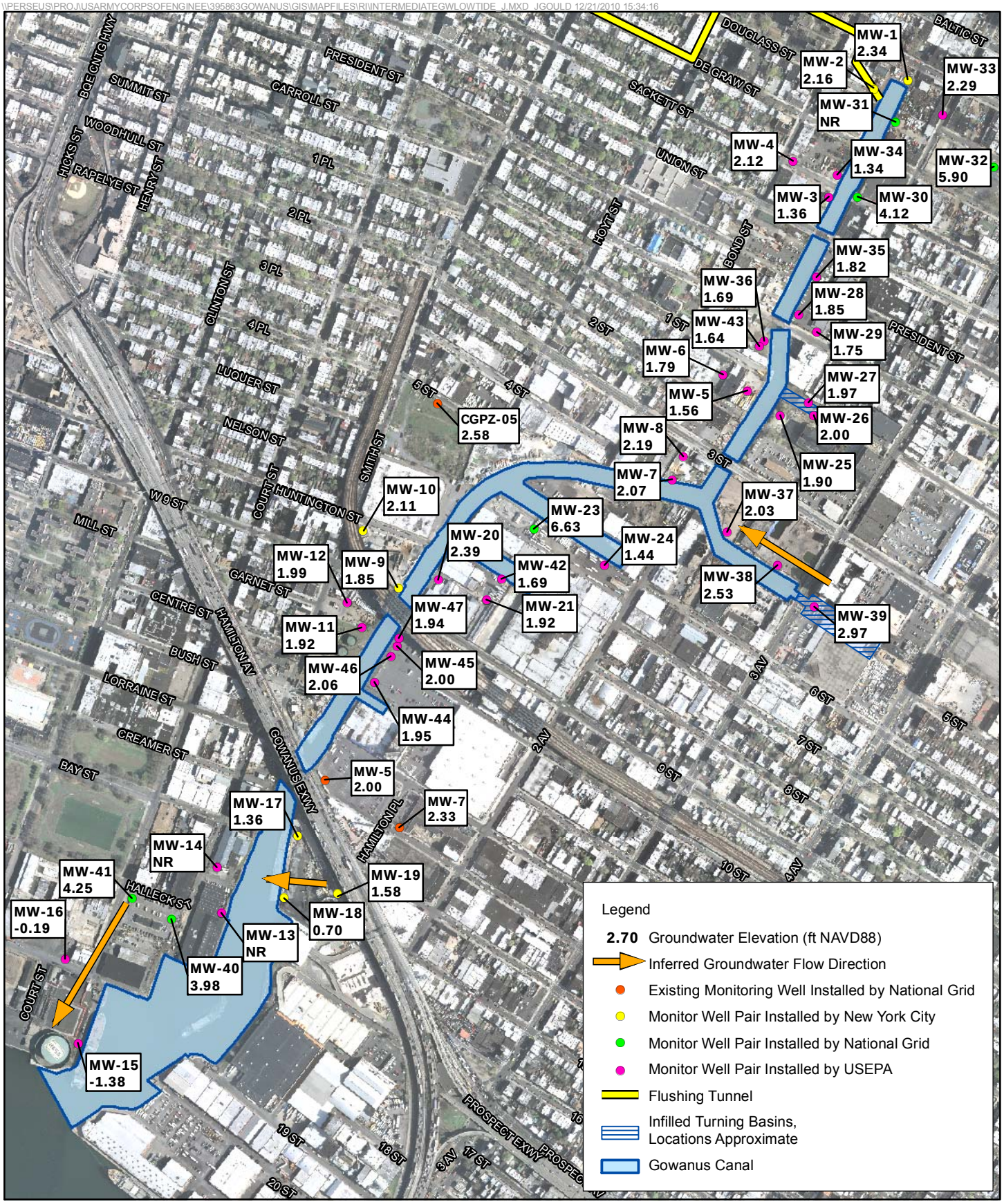
\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\INTERMEDIATEGWLOWTIDE_J.MXD JGOULD 12/21/2010 15:34:16



N

0 500 1,000

Feet

FIGURE 3-11j
Intermediate Groundwater Elevations
October 22, 2010 @ 2-3pm
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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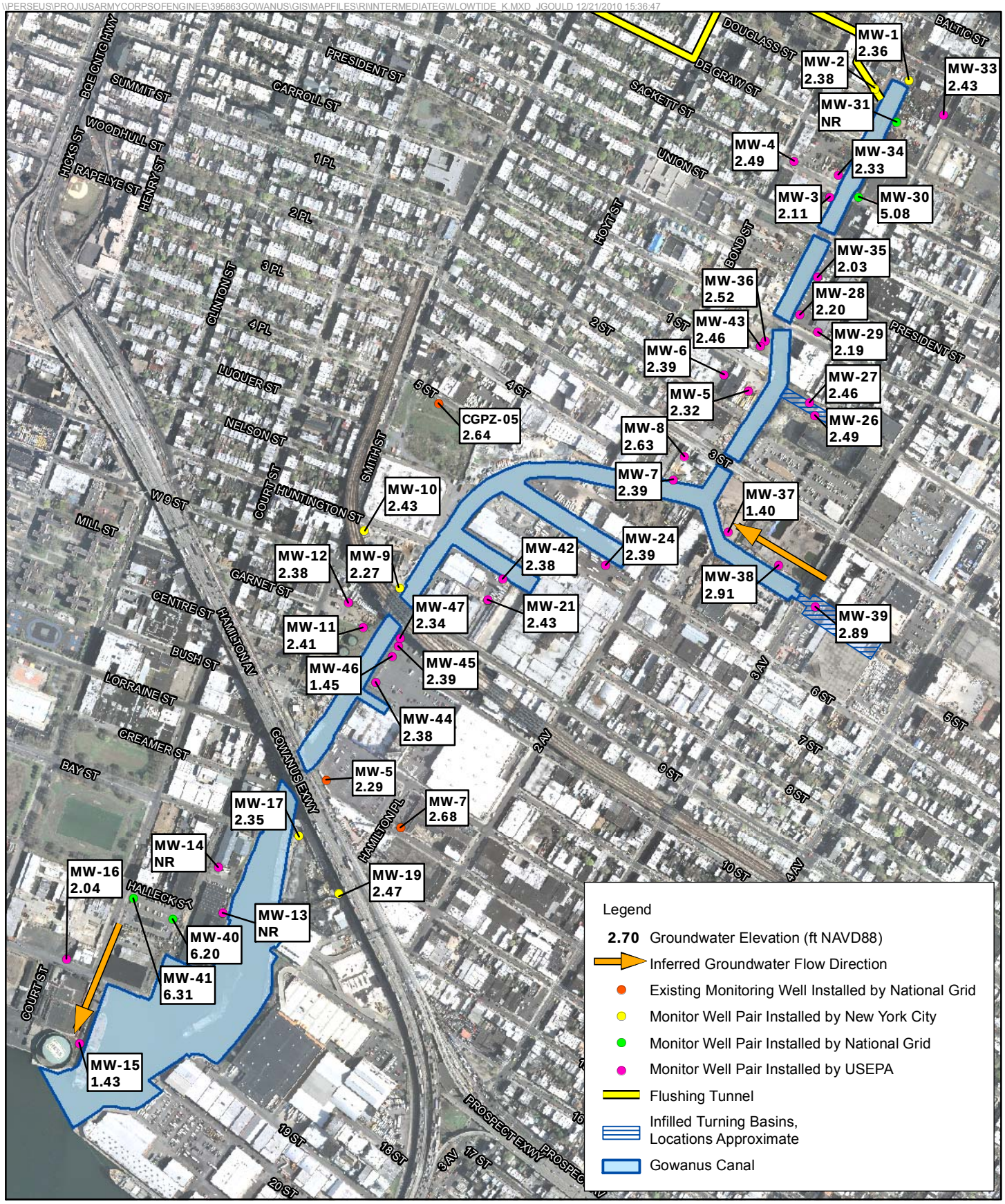
\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\INTERMEDIATEGWLOWTIDE_K.MXD JGOULD 12/21/2010 15:36:47



N

0 500 1,000

Feet

FIGURE 3-11k
Intermediate Groundwater Elevations
November 22, 2010 @ 10am-12pm
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

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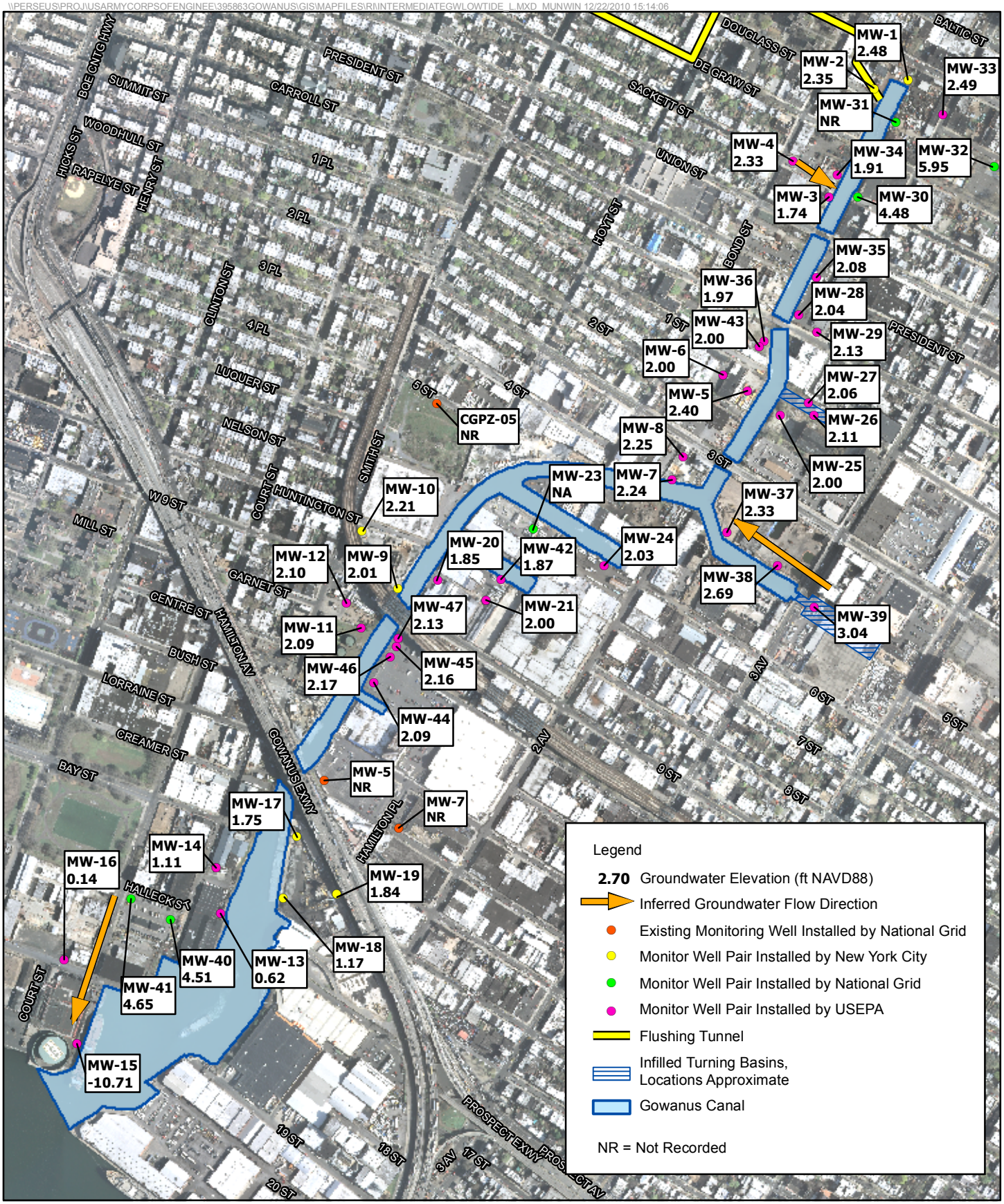

FIGURE 3-11I
Intermediate Groundwater Elevations
December 20, 2010 @ 1-3pm
Low Tide
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SURFSED_PAH_UPPER.MXD JGOULD 11/8/2010 07:36:01

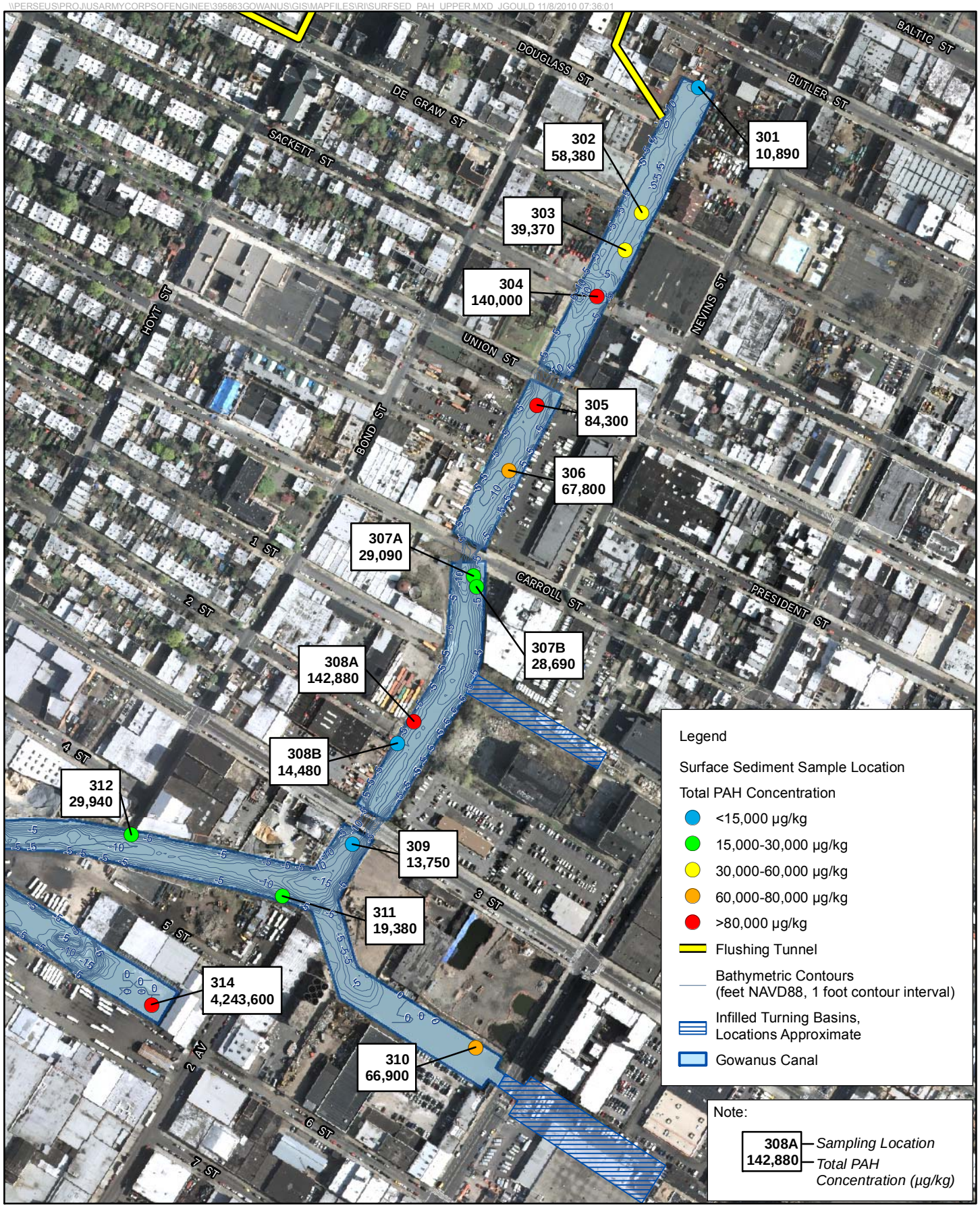

FIGURE 4-1a
Total PAH Concentrations in Surface Sediment
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SURFSED_PAH_MIDDLE.MXD JGOULD 11/8/2010 09:01:52



FIGURE 4-1b
Total PAH Concentrations in Surface Sediment
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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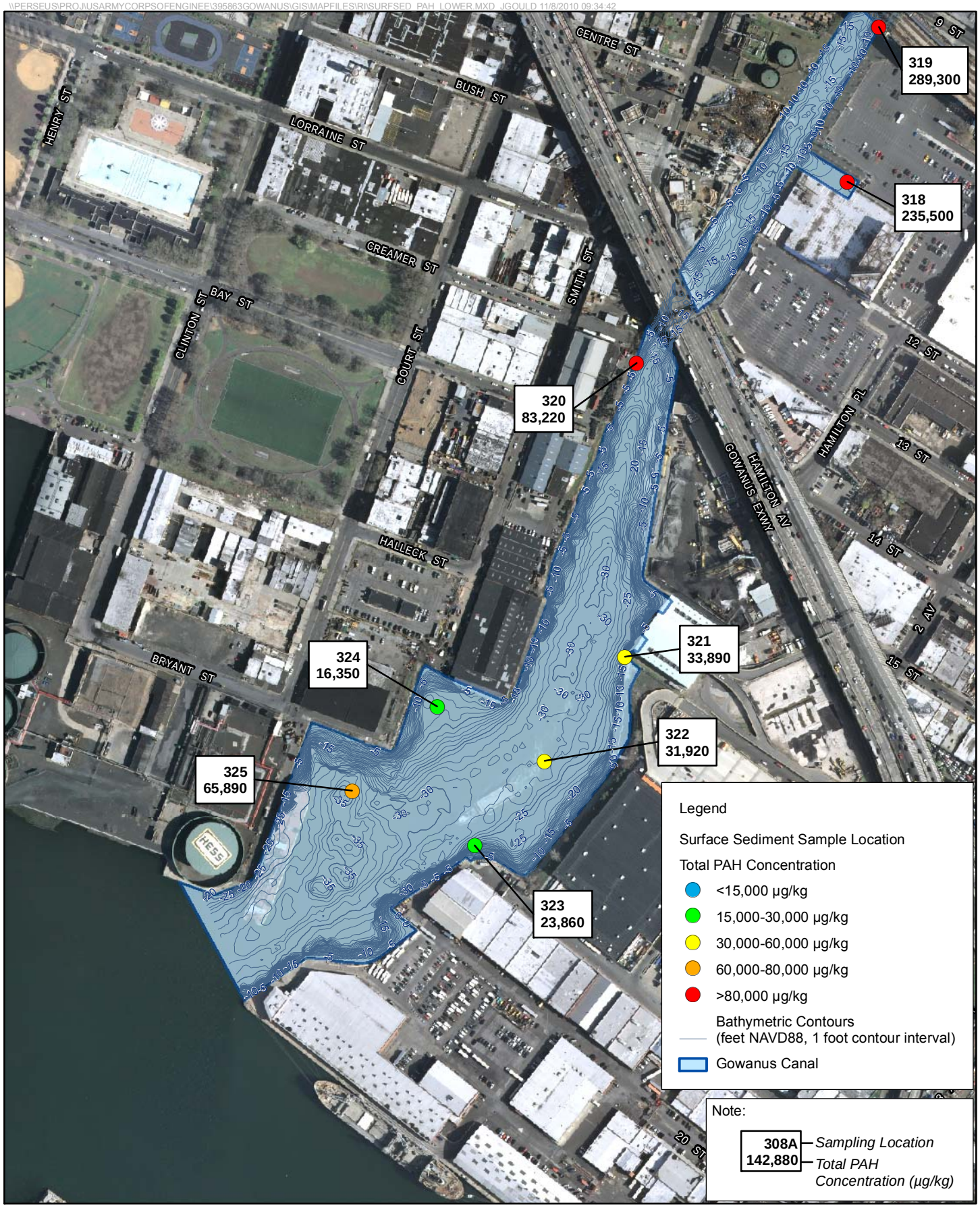

FIGURE 4-1c
Total PAH Concentrations in Surface Sediment
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SURFSED_PAH_REF.MXD JGOULD 11/8/2010 10:23:21



N

0 750 1,500

Feet

FIGURE 4-1d
Total PAH Concentrations in Surface Sediment
Reference Area
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SURFSED_PCB_UPPER.MXD JGOULD 11/8/2010 10:59:13



FIGURE 4-2a
Total PCB Concentrations in Surface Sediment
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 4-2b
Total PCB Concentrations in Surface Sediment
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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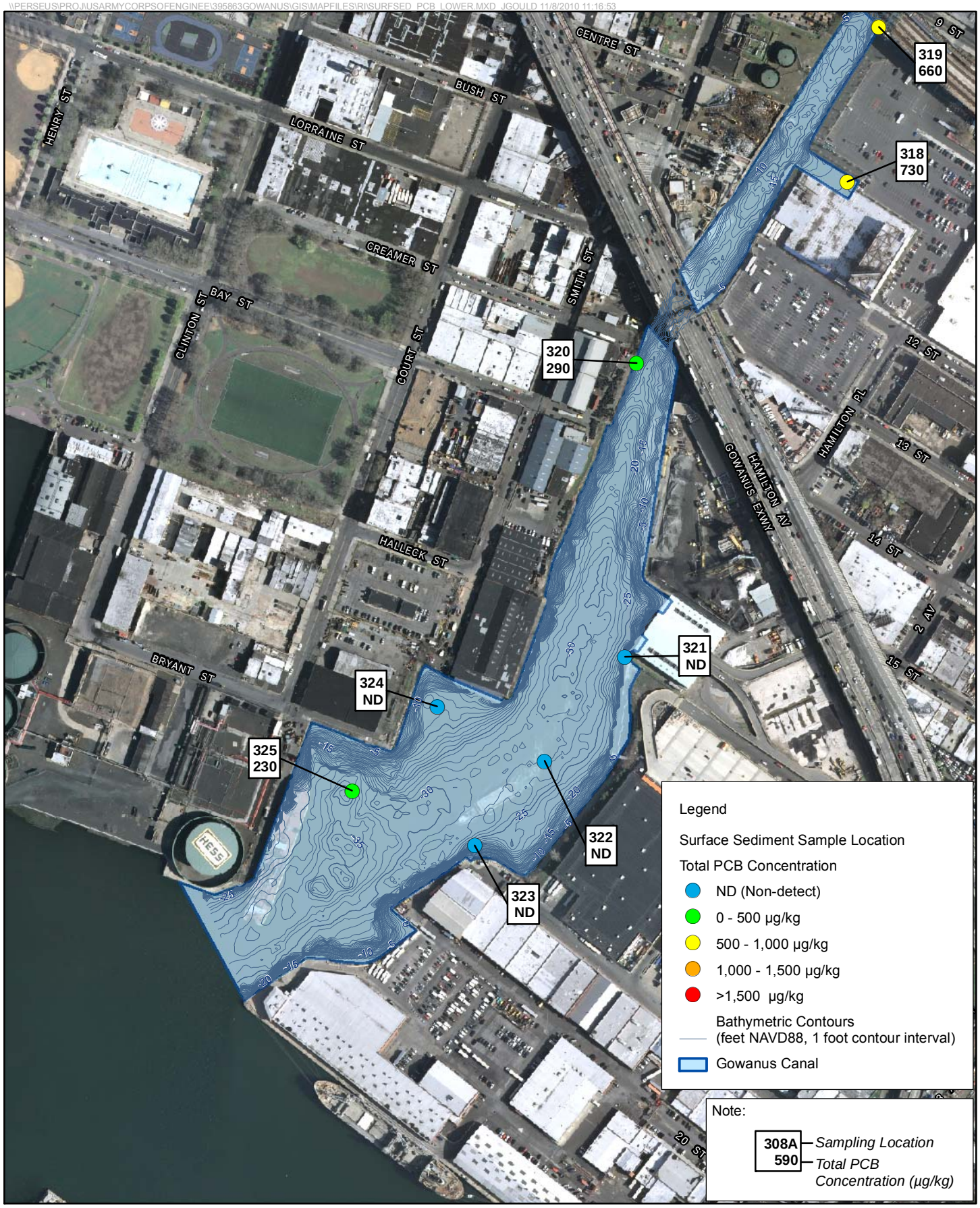

FIGURE 4-2c
Total PCB Concentrations in Surface Sediment
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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N

0 750 1,500

Feet

FIGURE 4-2d
Total PCB Concentrations in Surface Sediment
Reference Area
Gowanus Canal Remedial Investigation
Brooklyn, New York

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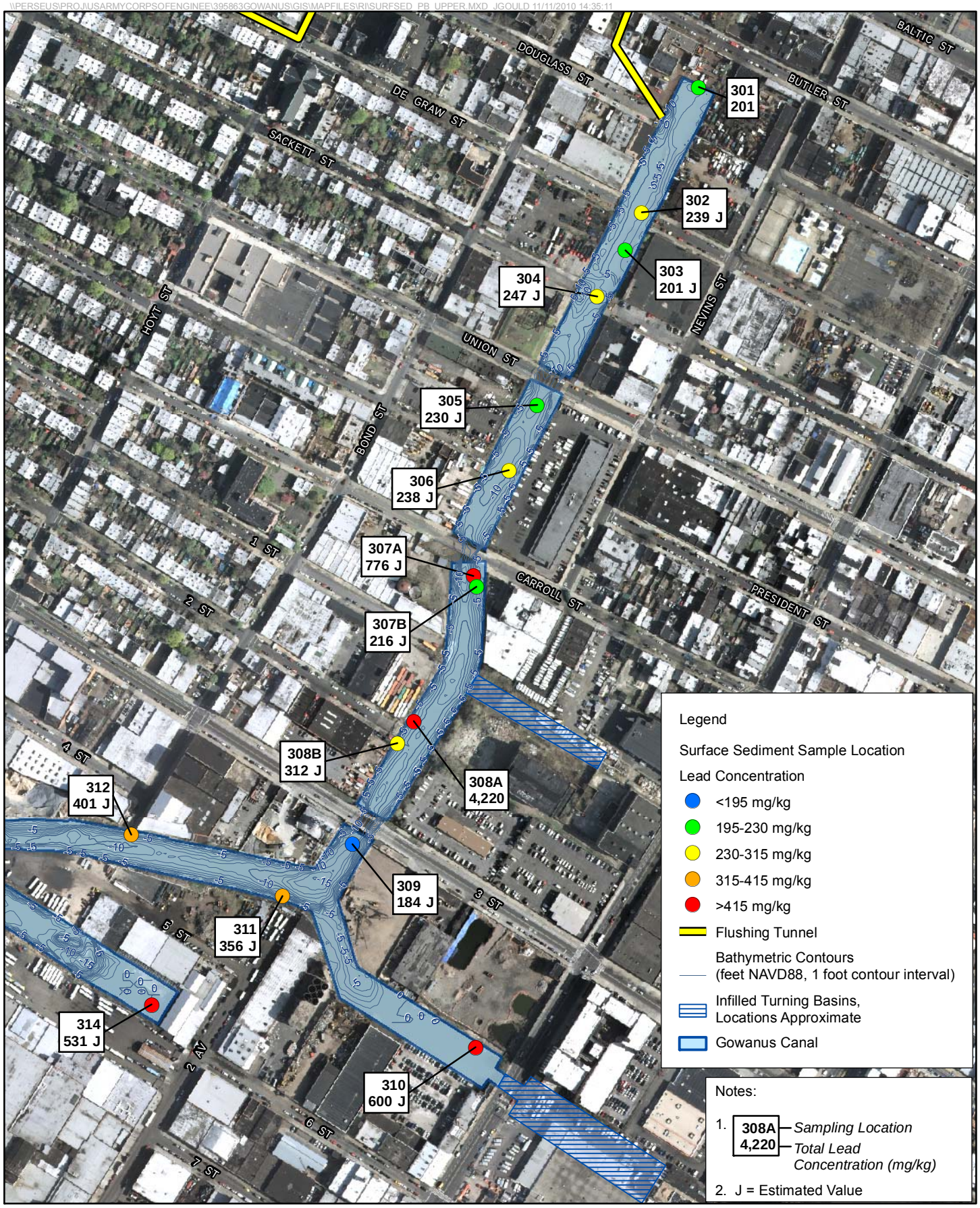

FIGURE 4-3a
Total Lead Concentrations in Surface Sediment
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SURFSED_PB_MIDDLE.MXD JGOULD 11/11/2010 15:25:39



FIGURE 4-3b
Total Lead Concentrations in Surface Sediment
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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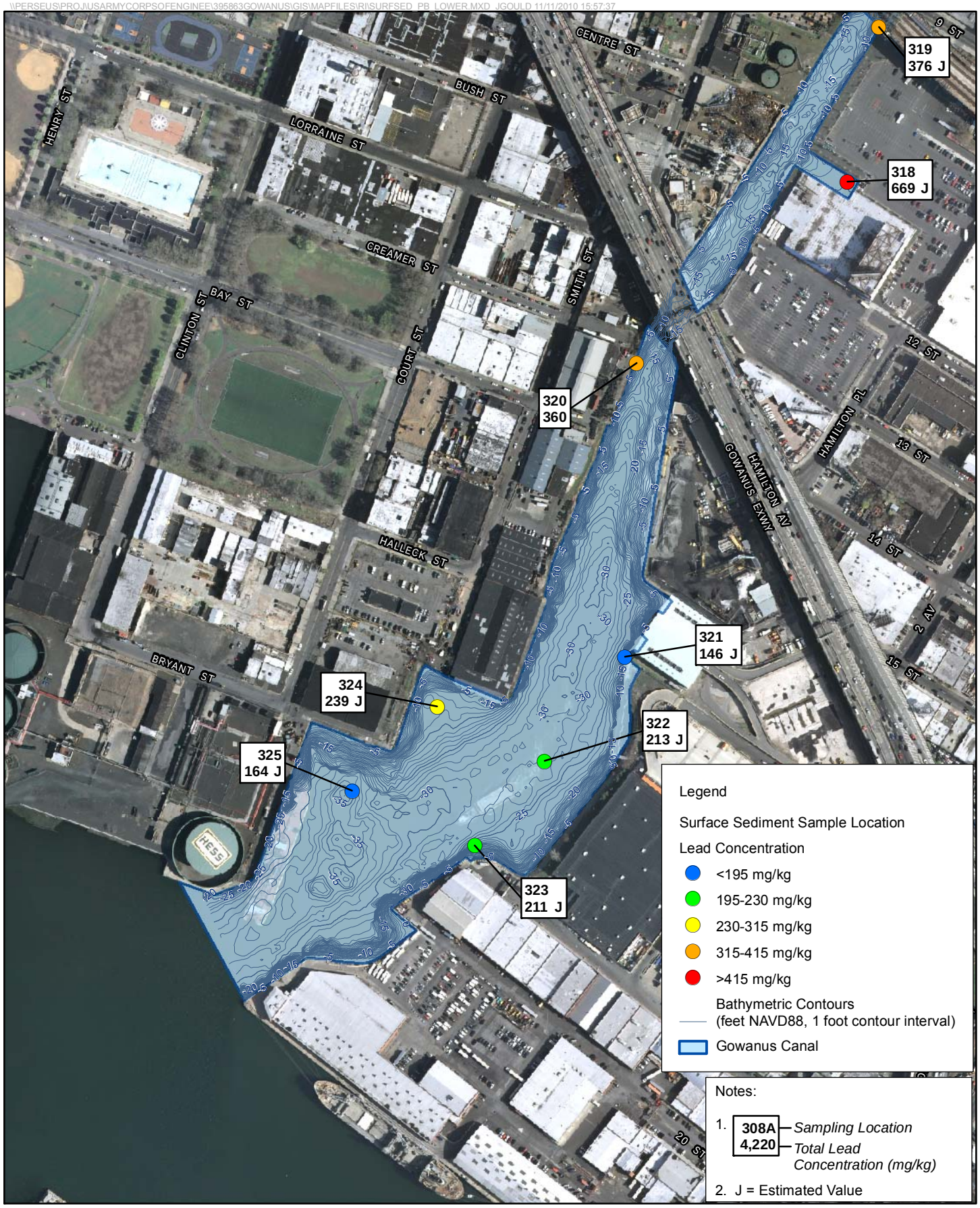

FIGURE 4-3c
Total Lead Concentrations in Surface Sediment
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\SURFSED_PB_REF.MXD JGOULD 11/11/2010 16:39:21



FIGURE 4-3d
Total Lead Concentrations in Surface Sediment
Reference Area
Gowanus Canal Remedial Investigation
Brooklyn, New York

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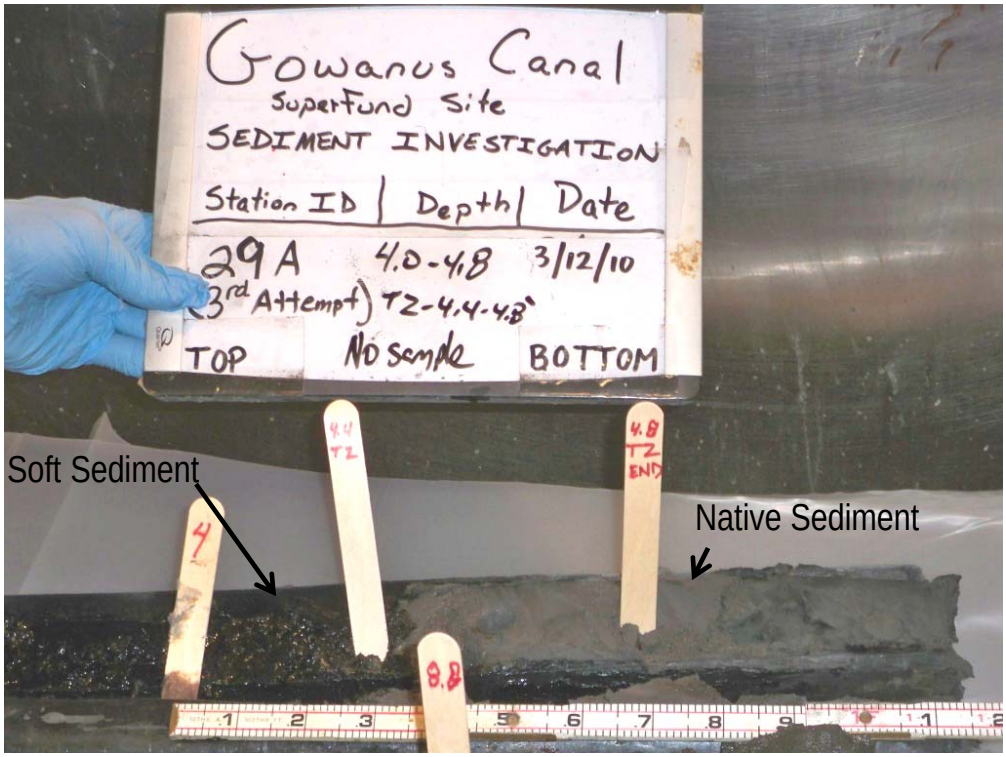
Sediment core from location SD-125 (Figure 2-1), near cross-section B-B' near the head of the canal (Figure 3-9). Lower photo illustrates NAPL saturated native sediment between -21.1 and -22.7 feet NAVD88.

FIGURE 4-4a
Representative Sediment Core Photos
Gowanus Canal Remedial Investigation
Brooklyn, New York







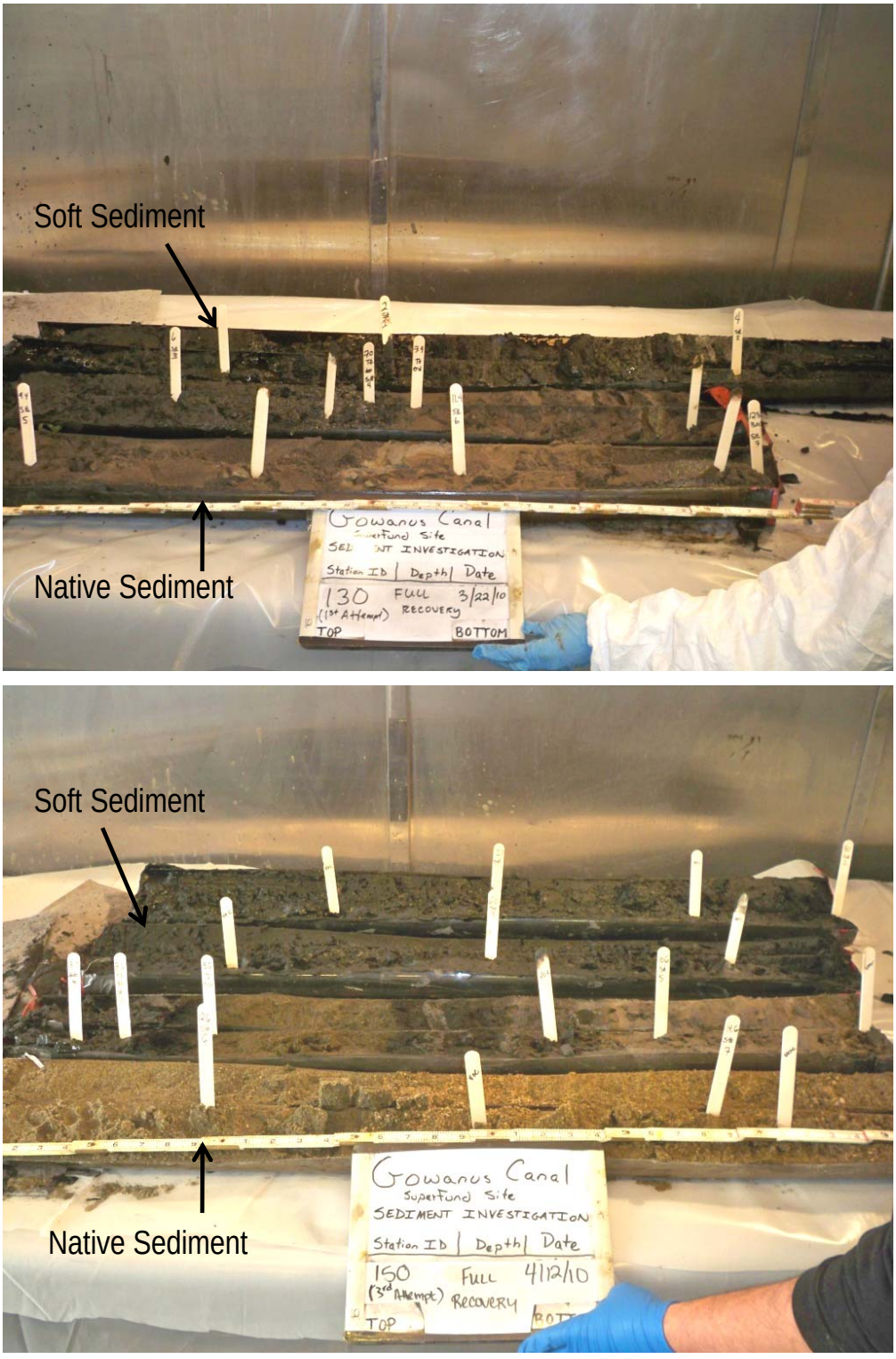
Transition zone observed in sediment core from location SD-29A (Figure 2-1), near cross-section C-C' near end of 2nd Avenue (Figure 3-9). Lower left photo illustrates staining observed on sampling equipment after sediment processing. Photo at lower right illustrates NAPL saturated native sediment between -23.6 and -25.6 feet NAVD88.

FIGURE 4-4b
Representative Sediment Core Photos
Gowanus Canal Remedial Investigation
Brooklyn, New York



Sediment core from location 111 (Figure 2-1), near cross-section C-C' near within the 4th Street turning basin (Figure 3-9). Lower photo illustrates NAPL saturated native sediment between -17.1 to -19.1 feet NAVD88.

FIGURE 4-4c
Representative Sediment Core Photos
Gowanus Canal Remedial Investigation
Brooklyn, New York



Sediment cores from locations SD-130 (top), near cross-section D-D' and the 9th Street bridge, and SD-150, near cross-section E-E'. (Figure 3-9). Location SD-150 is located on the western side of the channel, approximately 750 feet south of Hamilton Avenue. Sediment core locations are shown in Figure 2-1.

FIGURE 4-4d
Representative Sediment Core Photos
Gowanus Canal Remedial Investigation
Brooklyn, New York

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\NAPL_SUPPER.MXD JGOULD 10/22/2010 16:59:11



FIGURE 4-5a
NAPL Distribution in Soft Sediment and Soil
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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Legend

2010 Sediment Coring and
Monitoring Well / Soil Boring Locations

- NAPL-saturated
- NAPL Sheen, Coating, Staining, or Blebs
- No Observed NAPL Impacts
- No Soft Sediment was Recovered

Bathymetric Contours
(feet NAVD88, 1 foot contour interval)

Former MGP Site

Gowanus Canal

Notes:

1. NAPL impacts noted for -20 feet NAVD88 and above in monitoring well locations as observed during soil boring installation.
2. NAPL noted in multiple historical soil borings from the former MGP sites.
3. Locations for 133, 134 and 135 are approximate.

N

0 150 300

Feet

FIGURE 4-5b
NAPL Distribution in Soft Sediment and Soil
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\NAPL_SLOWER.MXD JGOULD 10/22/2010 16:48:44

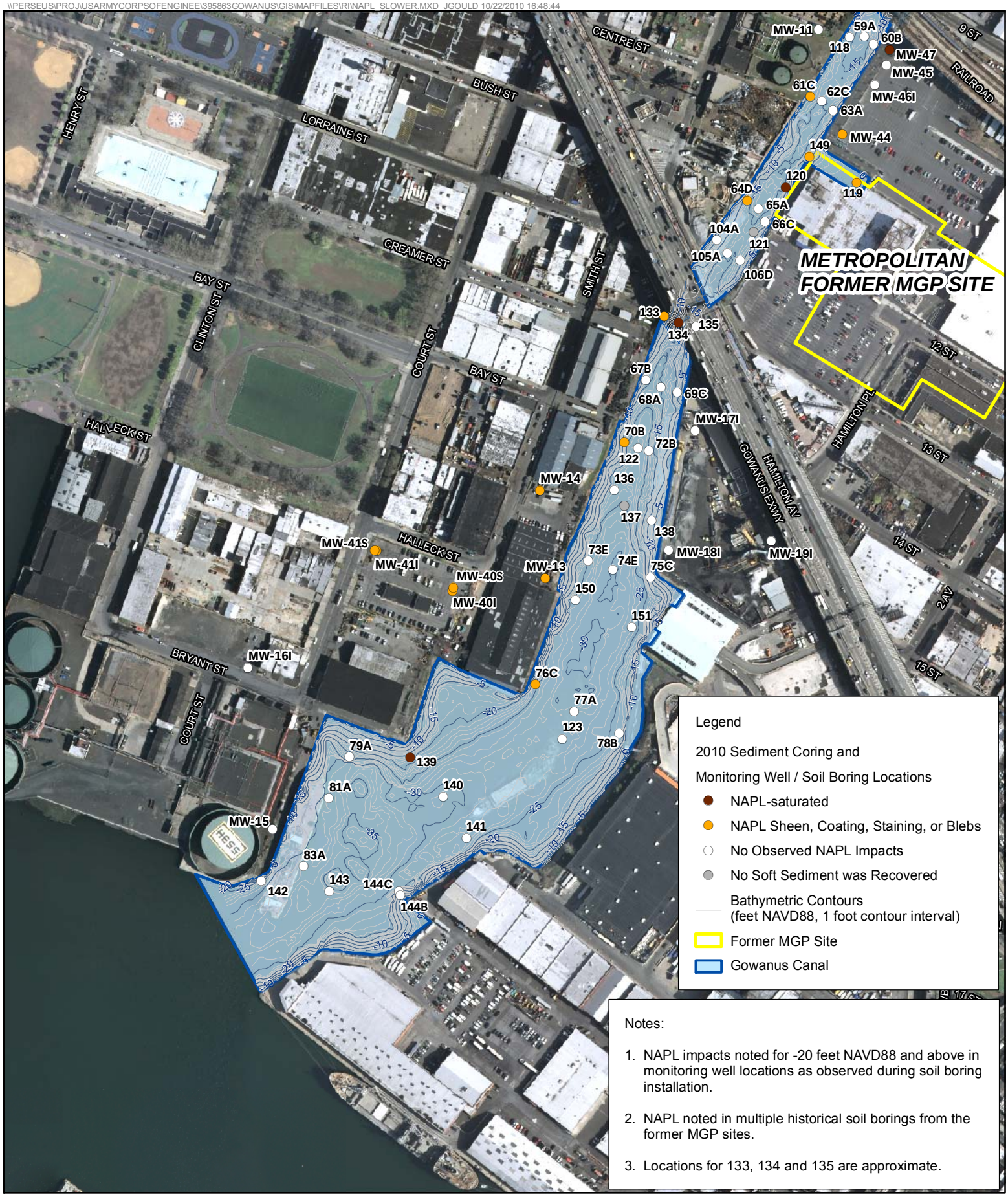

FIGURE 4-5c
NAPL Distribution in Soft Sediment and Soil
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 4-5d
NAPL Distribution in Native Sediment and Soil
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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FIGURE 4-5e
NAPL Distribution in Native Sediment and Soil
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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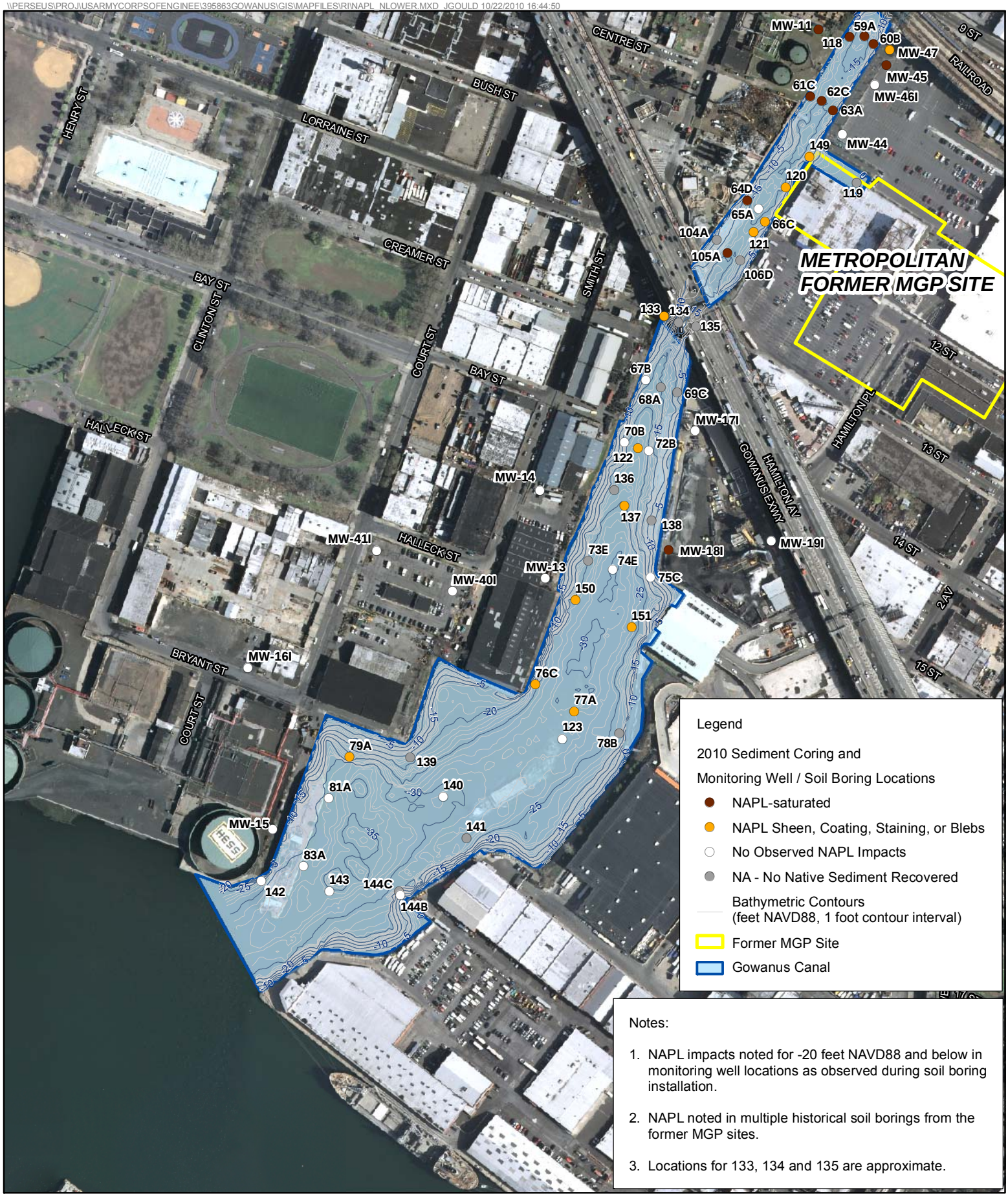

Notes:

1. NAPL impacts noted for -20 feet NAVD88 and below in monitoring well locations as observed during soil boring installation.
2. NAPL noted in multiple historical soil borings from the former MGP sites.
3. Locations for 133, 134 and 135 are approximate.

N

0 150 300

Feet

FIGURE 4-5f
NAPL Distribution in Native Sediment and Soil
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\CROSSSECTION.MXD JGOULD 11/4/2010 13:04:58

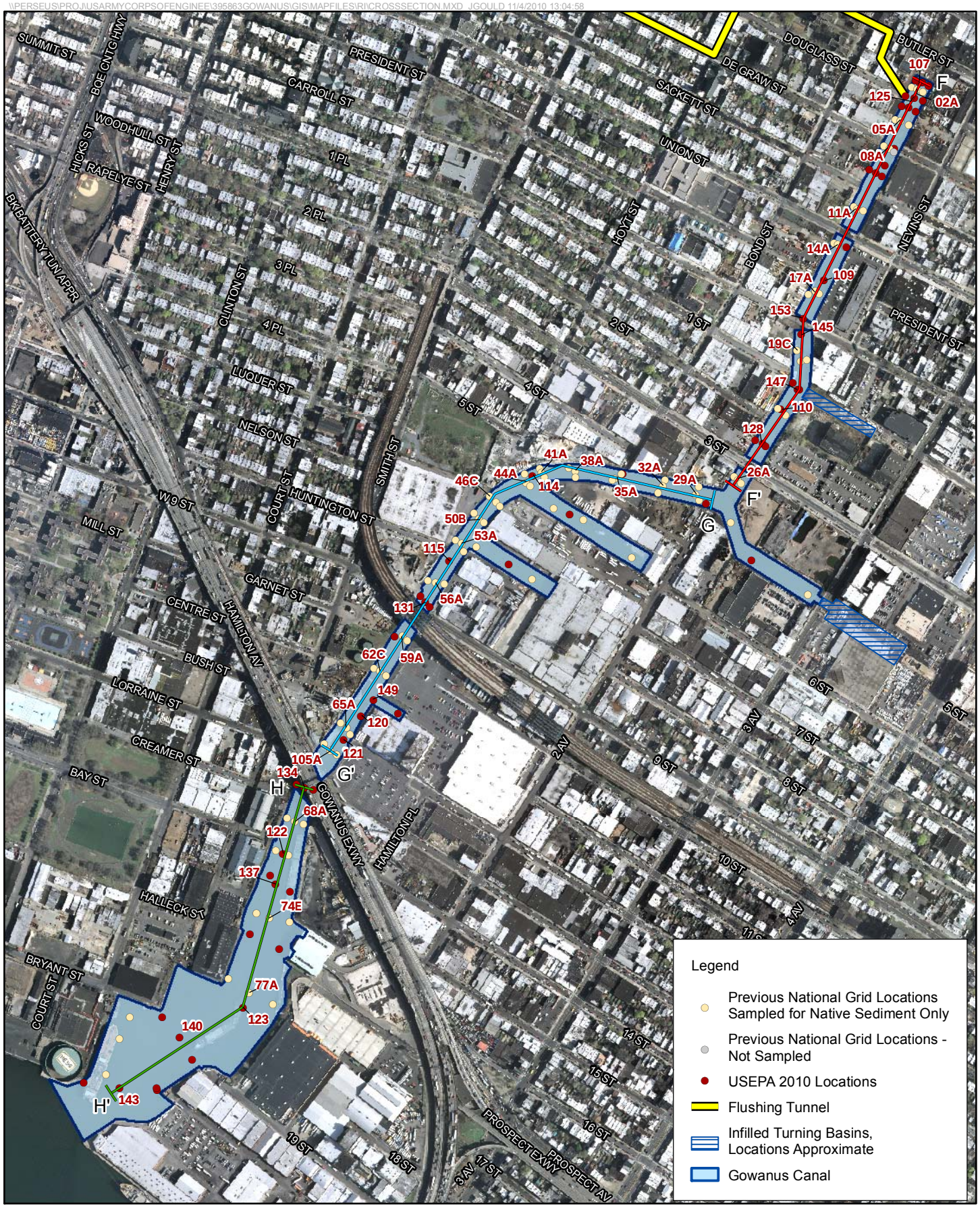

FIGURE 4-6a
Cross Section Locations
(F-F' through H-H')
Gowanus Canal Remedial Investigation
Brooklyn, New York

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f18_395863.dgn

F

F'

Union Street

Carroll Street

3rd Street

GC-SD107
GC-SD02A
GC-SD125
GC-SD05A
GC-SD08A
GC-SD11A
GC-SD14A
GC-SD109
GC-SD17A
GC-SD153
GC-SD145
GC-SD19C
GC-SD147
GC-SD110
GC-SD128
GC-SD26A

ELEVATION (FT NAVD88)

0
-4
-8
-12
-16
-20
-24
-28
-32
-36

0
300
600
900
1200
1500
1800
2100
2400
2700
3000
3300

N

S

DISTANCE FROM HEAD OF CANAL (FT)

LEGEND

- Sediment Surface
- Soft Sediment/Native Sediment Contact
- Sediment Surface Elevation at Coring Location
- x Native Surface Elevation at Coring Location
- ⊥ Bottom of Boring
- NAPL-Impacted Sediment (Coating/Staining/Blebs)
- NAPL-Saturated Sediment
- No Observed NAPL Impacts

4 FT

0

300 FT

VERTICAL EXAGGERATION (V.E.) = 75X

FIGURE 4-6b
Cross-Section of NAPL Distribution in Sediment - Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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f19_395863.dgn

G

G'

5th Street

Huntington Street

9th Street

I-278

GC-SD29A
GC-SD32A
GC-SD35A
GC-SD38A
GC-SD41A
GC-SD114
GC-SD44A
GC-SD46C
GC-SD50B
GC-SD53A
GC-SD115
GC-SD56A
GC-SD131
GC-SD59A
GC-SD62C
GC-SD149
GC-SD120
GC-SD65A
GC-SD105A

ELEVATION (FT NAVD88)

-4
-8
-12
-16
-20
-24
-28
-32
-36
-40

0
2400
2700
3000
3300
3600
3900
4200
4500
4800
5100
5400

N

DISTANCE FROM HEAD OF CANAL (FT)

S

LEGEND

- Sediment Surface
- Soft Sediment/Native Sediment Contact
- Sediment Surface Elevation at Coring Location
- Native Surface Elevation at Coring Location
- Bottom of Boring
- Top of Boring Elevation at Coring Location (no Soft Sediment Recovered)
- NAPL-Impacted Sediment (Coating/Staining/Blebs)
- NAPL-Saturated Sediment
- No Observed NAPL Impacts

NOTE

Single Vertical Line Indicates
No Soft Sediment Recovered

4 FT

0

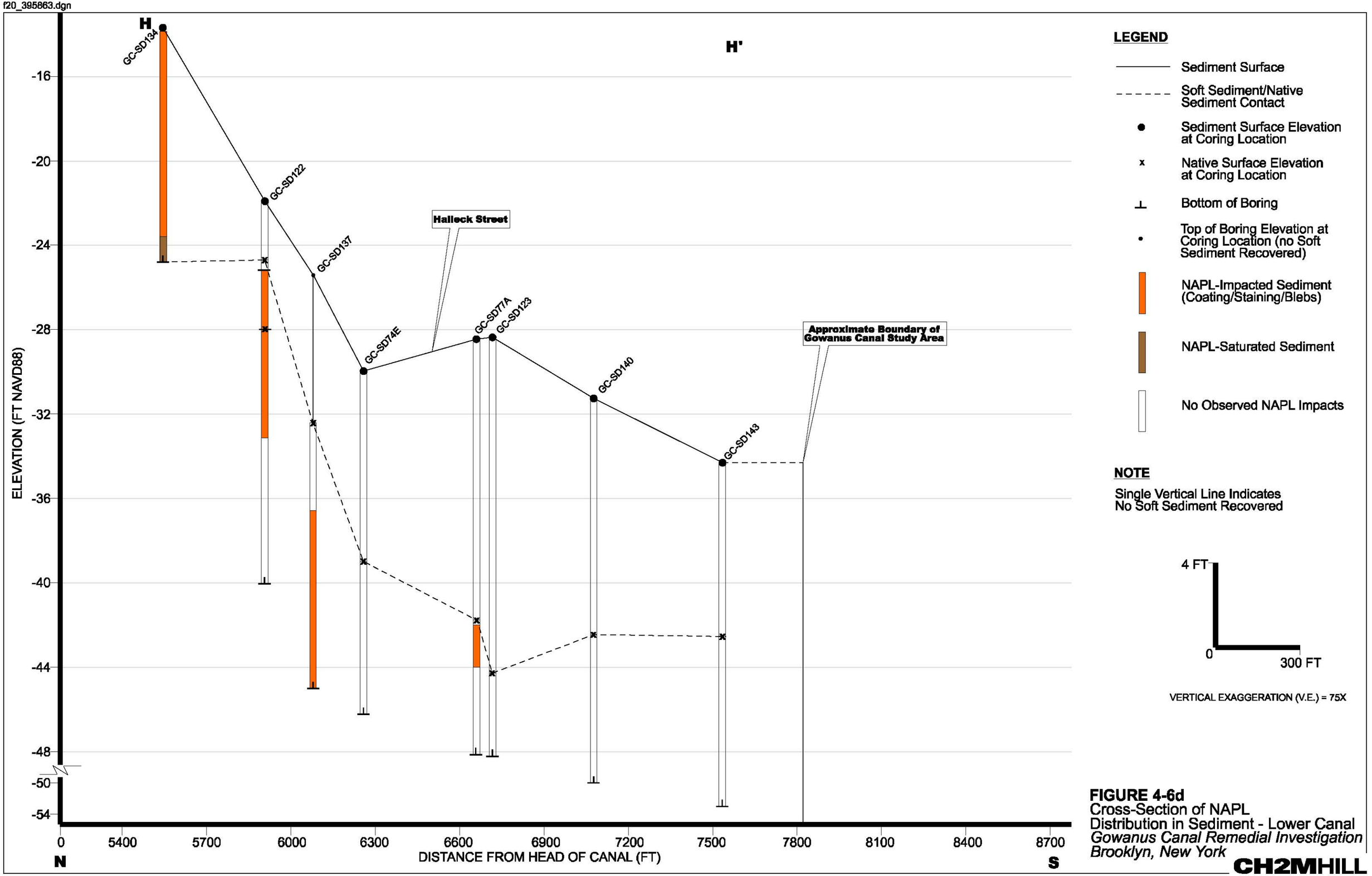
300 FT

VERTICAL EXAGGERATION (V.E.) = 75X

FIGURE 4-6c
Cross-Section of NAPL Distribution in Sediment - Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

f20_395863.dgn



LEGEND

- Sediment Surface
- Soft Sediment/Native Sediment Contact
- Sediment Surface Elevation at Coring Location
- Native Surface Elevation at Coring Location
- Bottom of Boring
- Top of Boring Elevation at Coring Location (no Soft Sediment Recovered)
- NAPL-Impacted Sediment (Coating/Staining/Blebs)
- NAPL-Saturated Sediment
- No Observed NAPL Impacts

NOTE

Single Vertical Line Indicates
No Soft Sediment Recovered

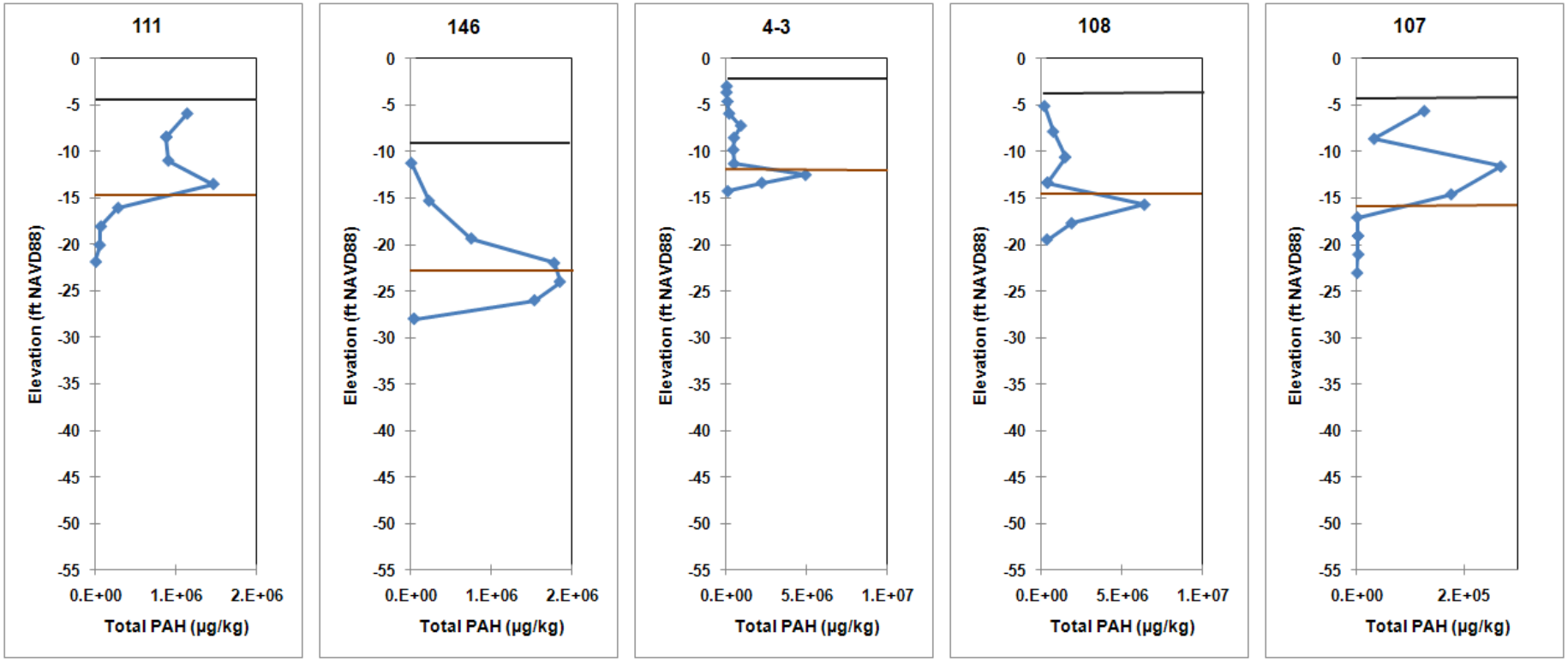
4 FT
0
300 FT

VERTICAL EXAGGERATION (V.E.) = 75X

FIGURE 4-6d
Cross-Section of NAPL Distribution in Sediment - Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL





Notes:

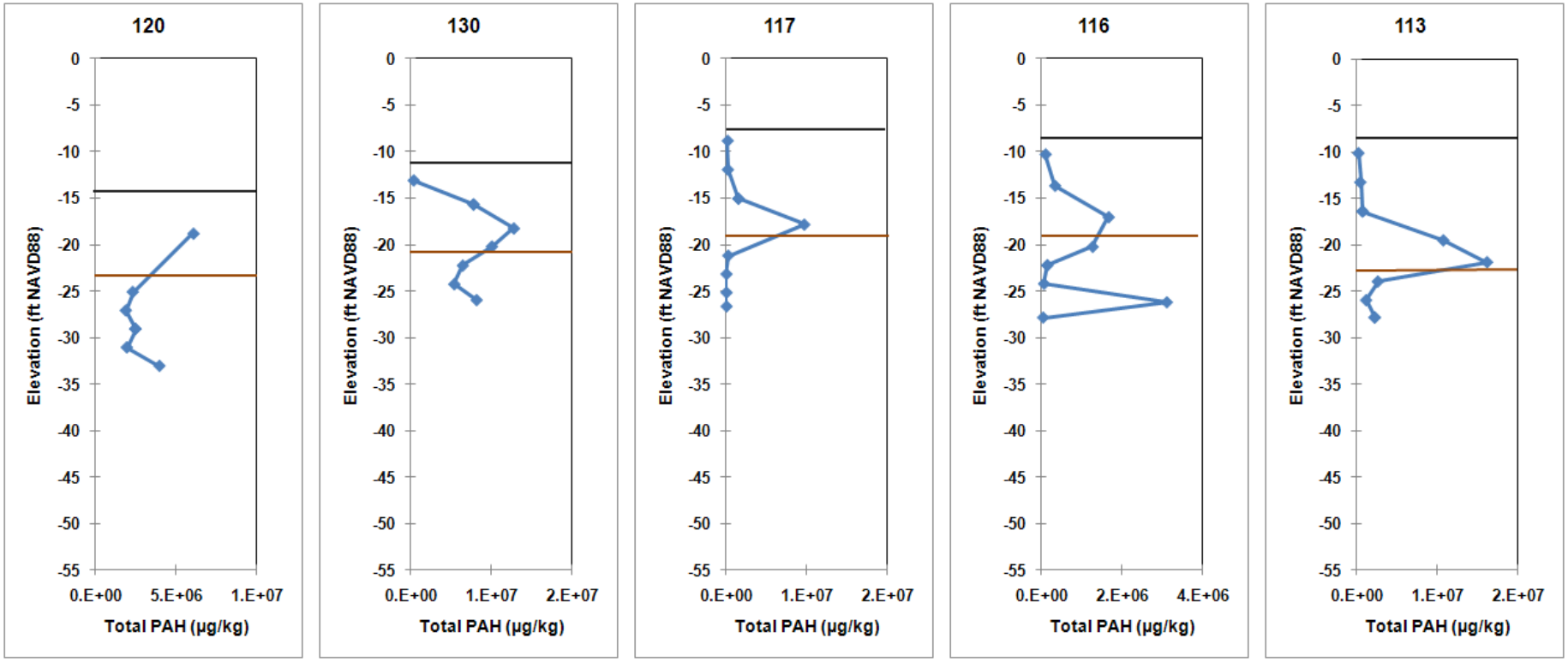
Soft sediment surface

Native sediment contact

Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

FIGURE 4-7a
Selected Depth Profiles Showing Total PAH Concentrations
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York





Notes:

Soft sediment surface

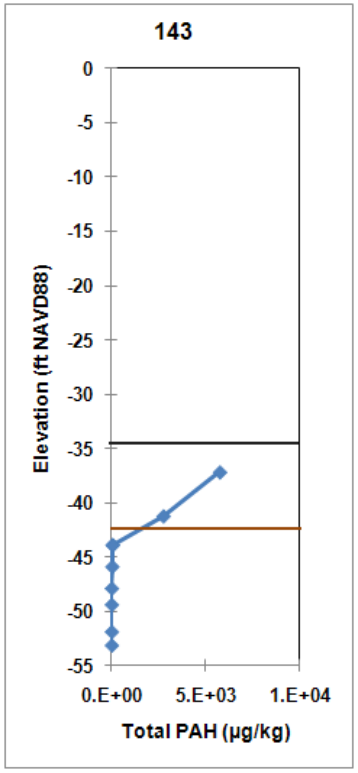
Native sediment contact

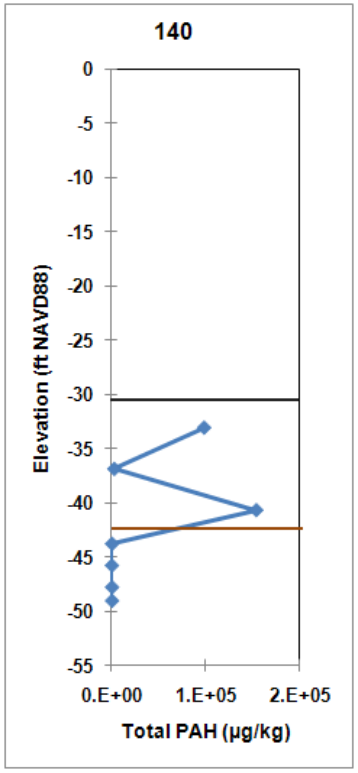
Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

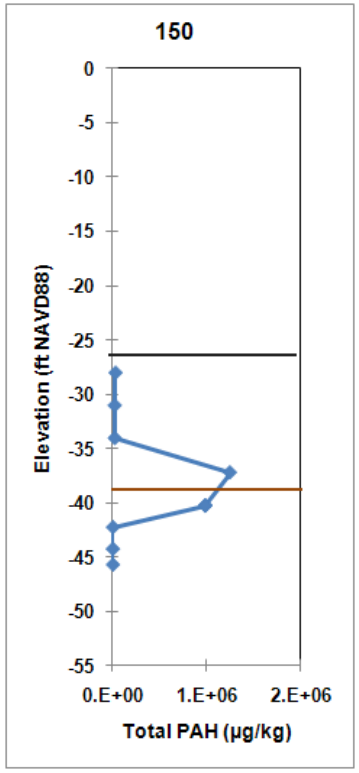
FIGURE 4-7b
Selected Depth Profiles Showing Total PAH Concentrations
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

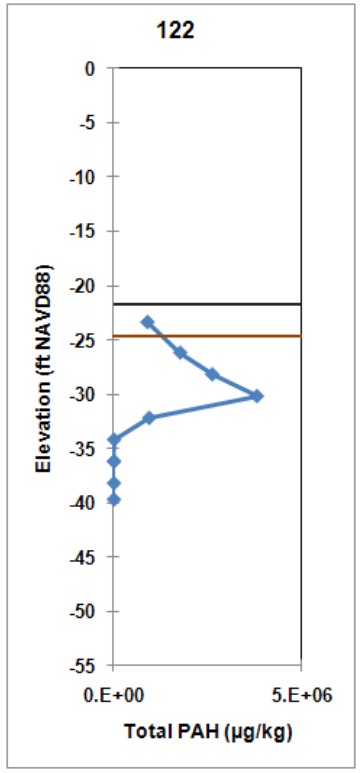
CH2MHILL

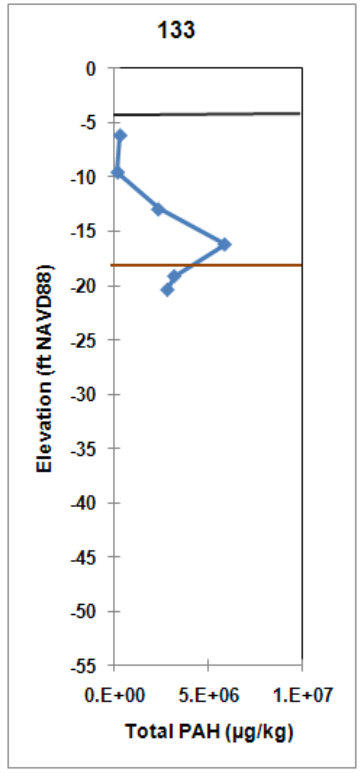












Notes:

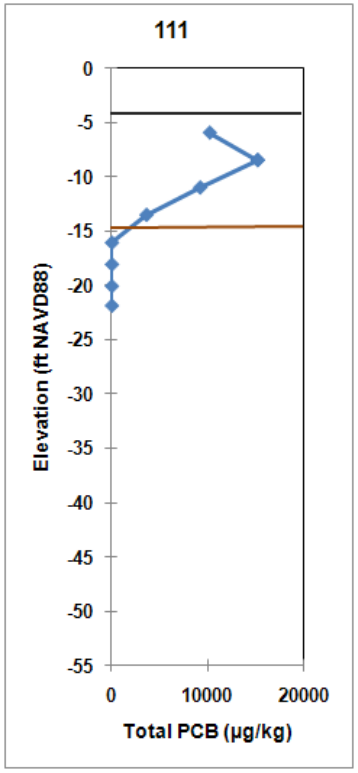
Soft sediment surface

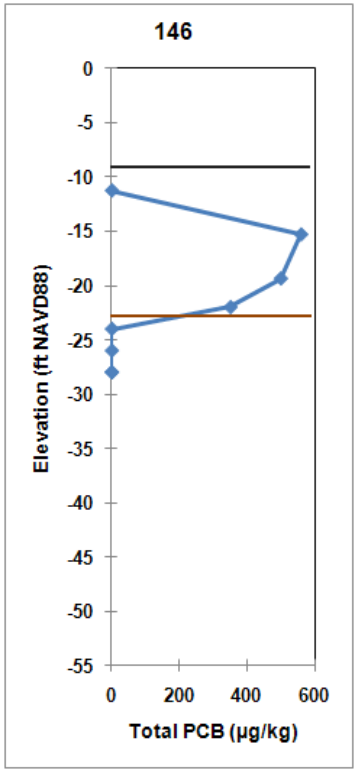
Native sediment contact

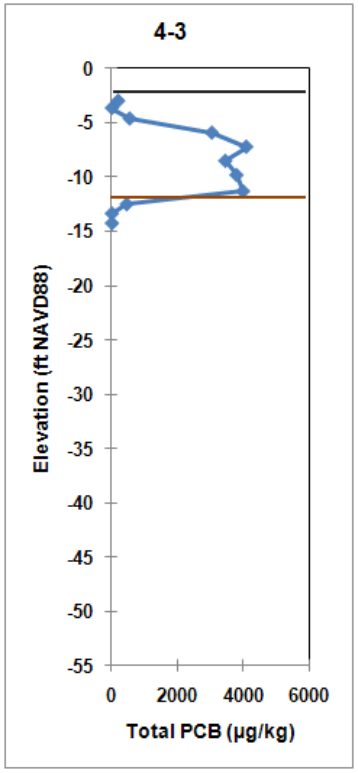
Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

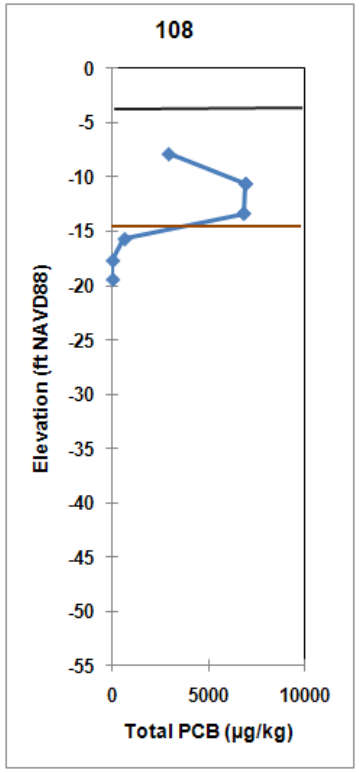
FIGURE 4-7c
Selected Depth Profiles Showing Total PAH Concentrations
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

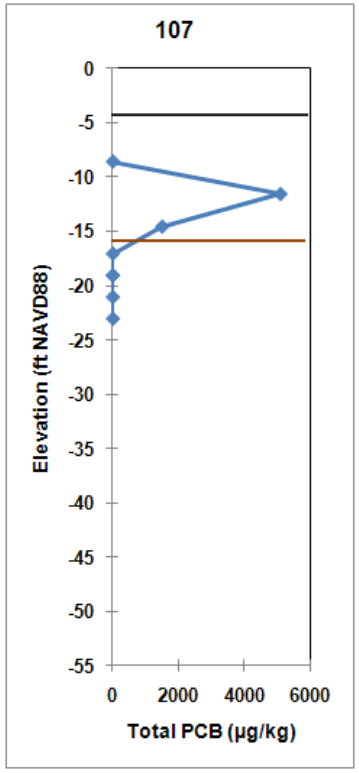












Notes:

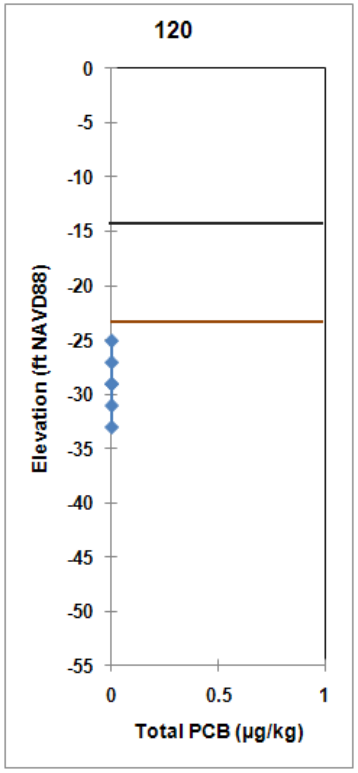
Soft sediment surface

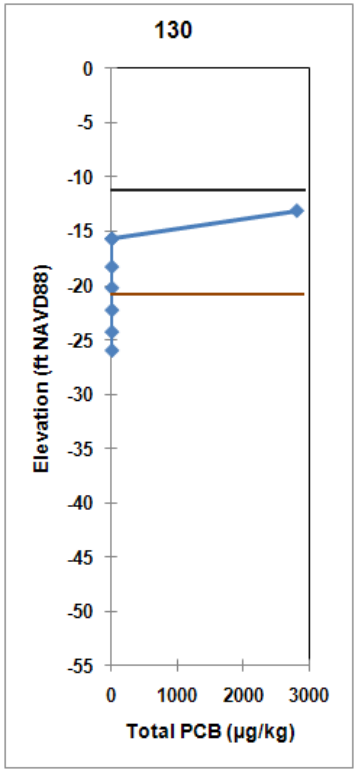
Native sediment contact

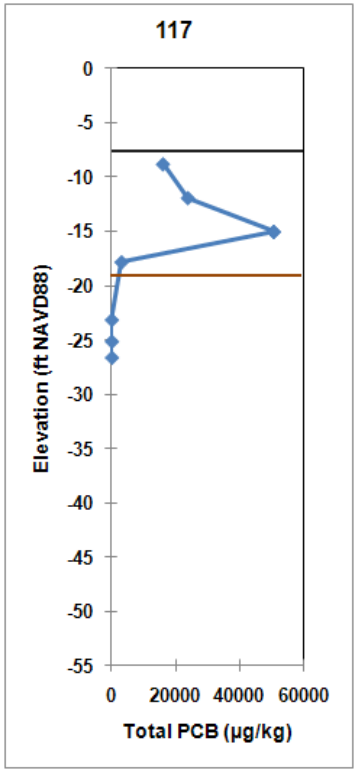
Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

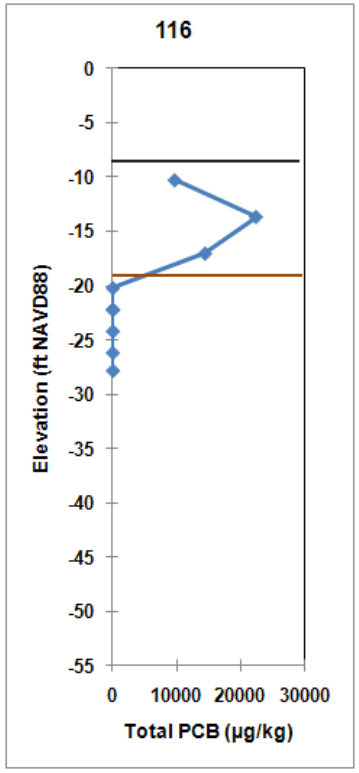
FIGURE 4-8a
Selected Depth Profiles Showing Total PCB Concentrations
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

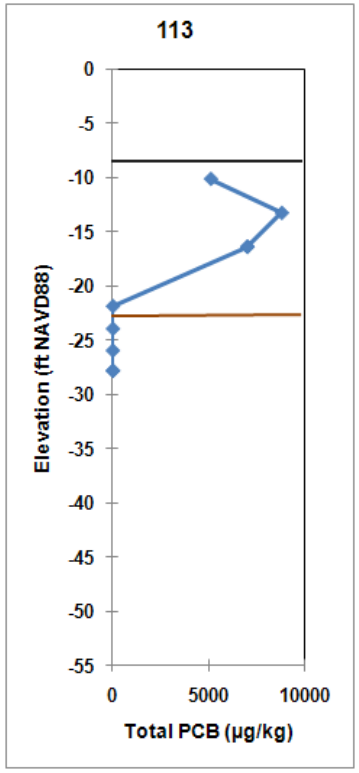












Notes:

Soft sediment surface

Native sediment contact

Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

FIGURE 4-8b
Selected Depth Profiles Showing Total PCB Concentrations
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

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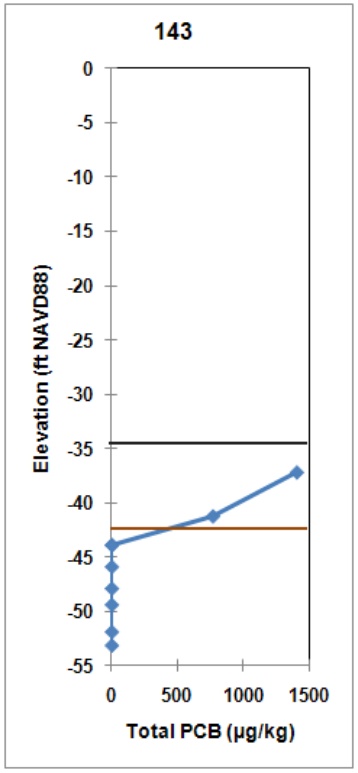
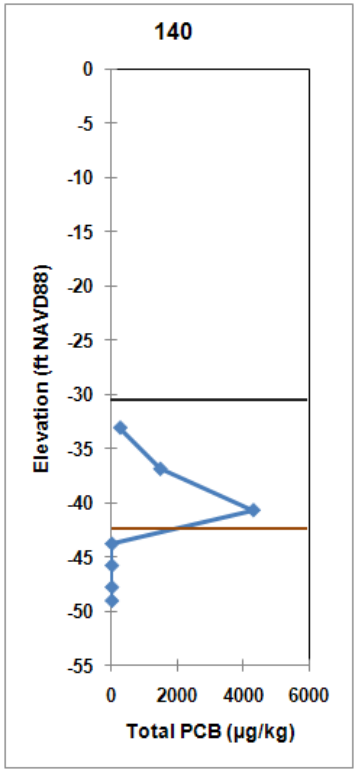
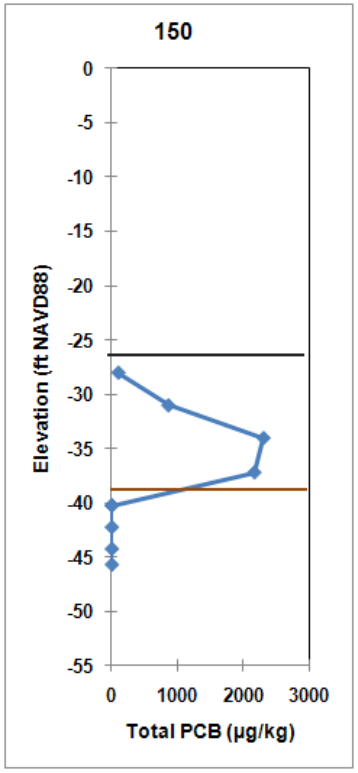
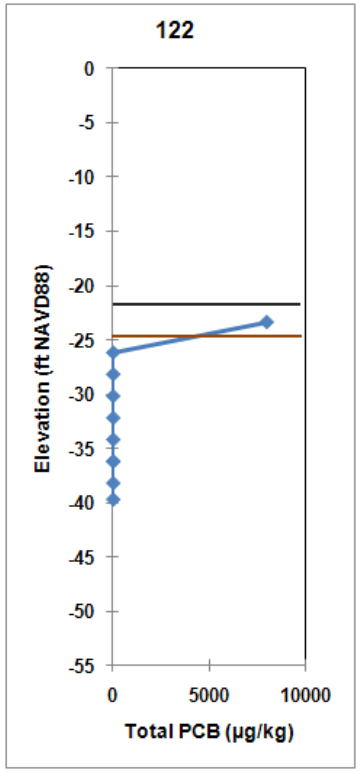
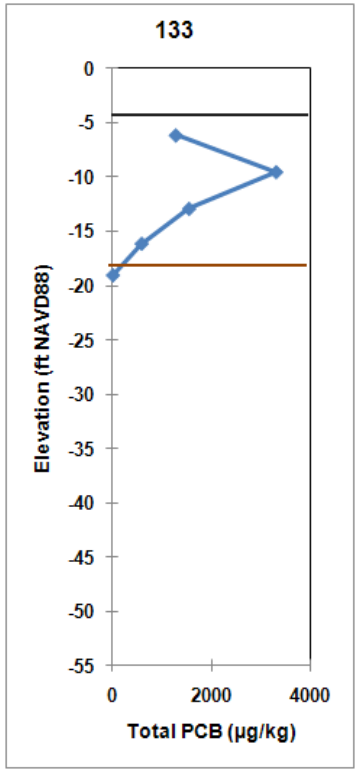










Notes:

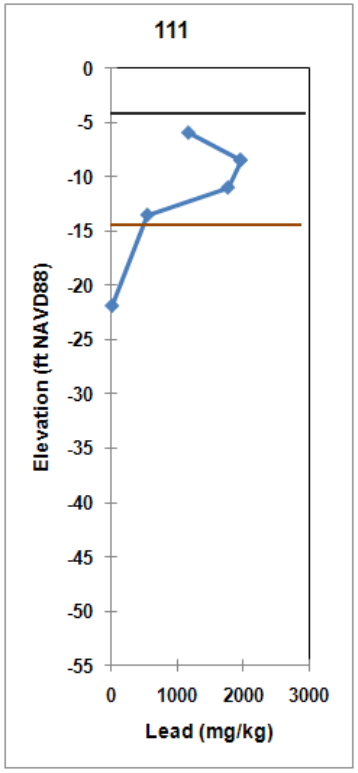
Soft sediment surface

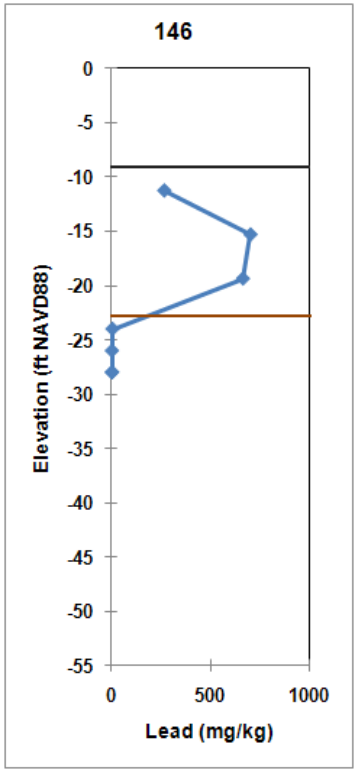
Native sediment contact

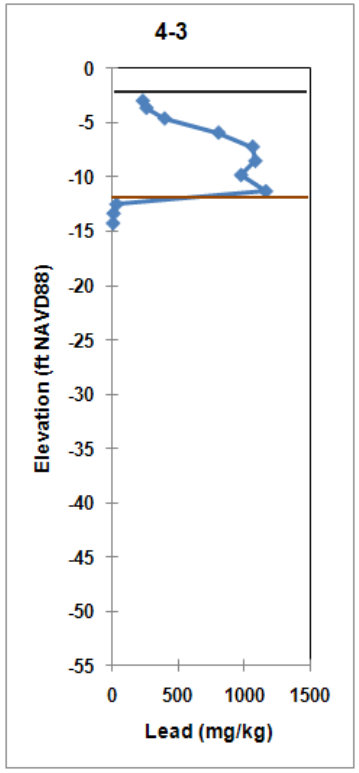
Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

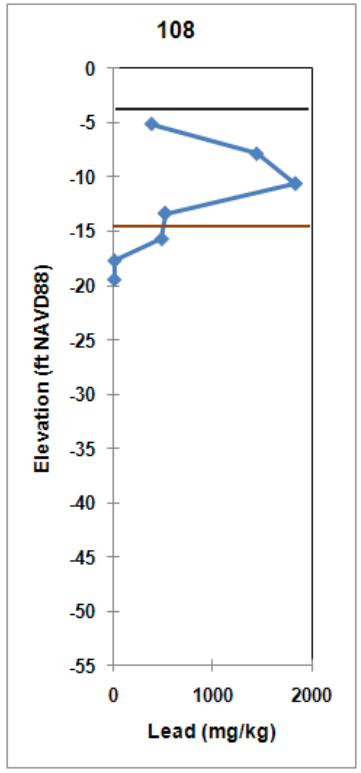
FIGURE 4-8c
Selected Depth Profiles Showing Total PCB Concentrations
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

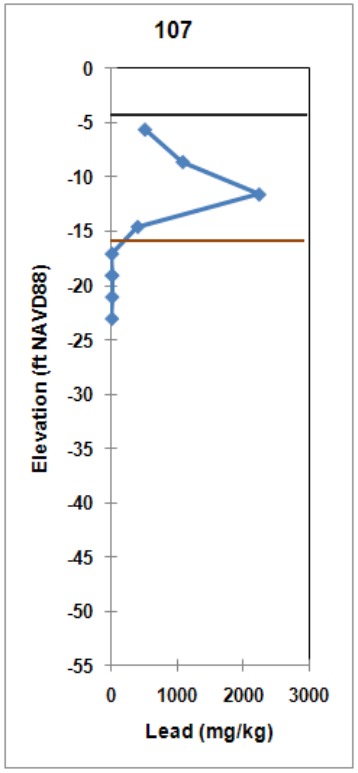












Notes:

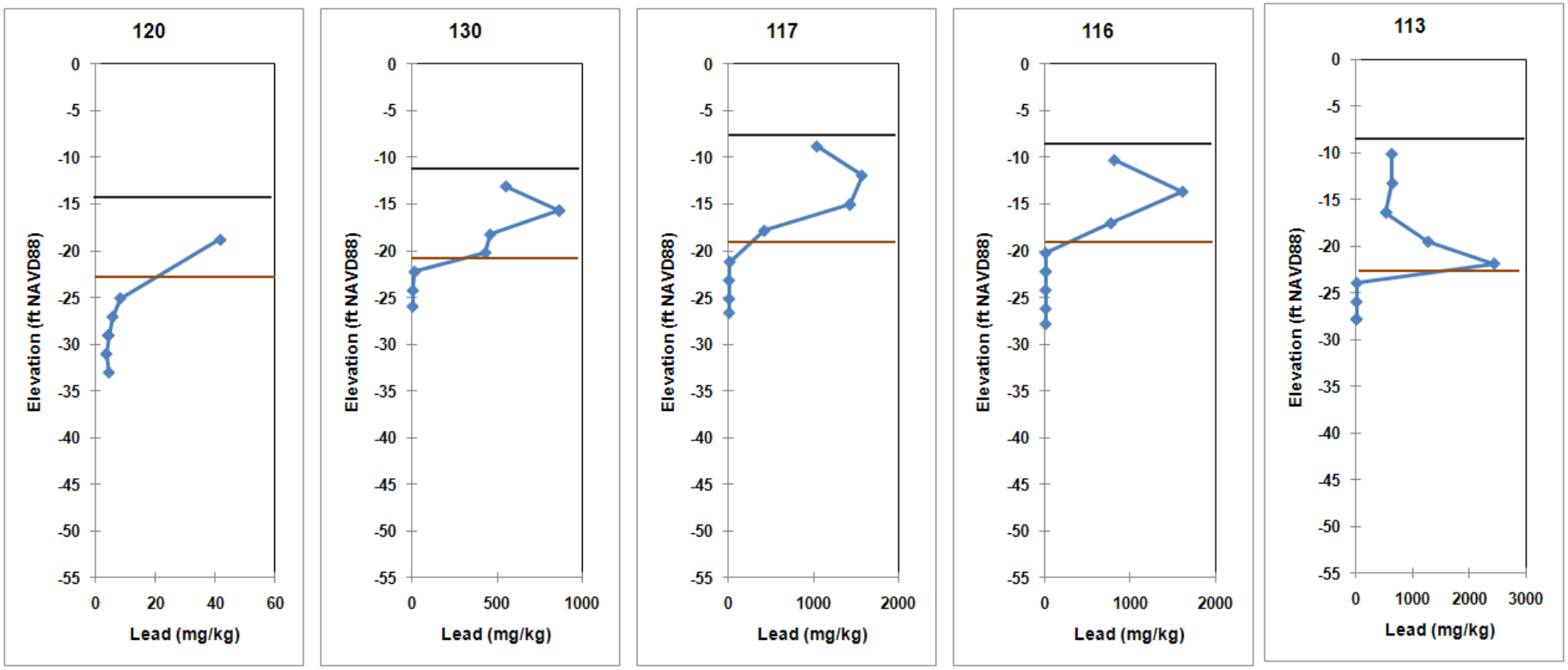
Soft sediment surface

Native sediment contact

Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

FIGURE 4-9a
Selected Depth Profiles Showing Lead Concentrations
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York





Notes:

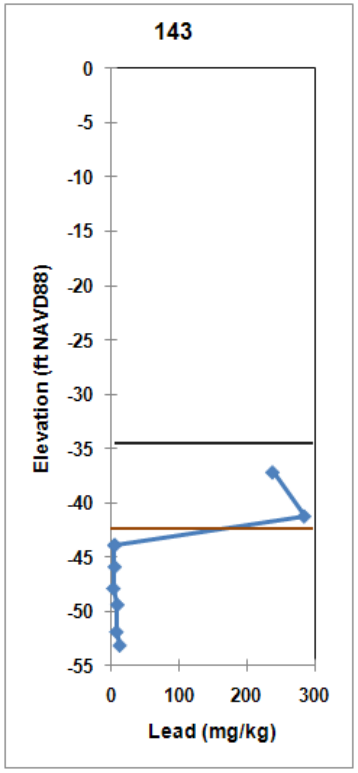
Soft sediment surface

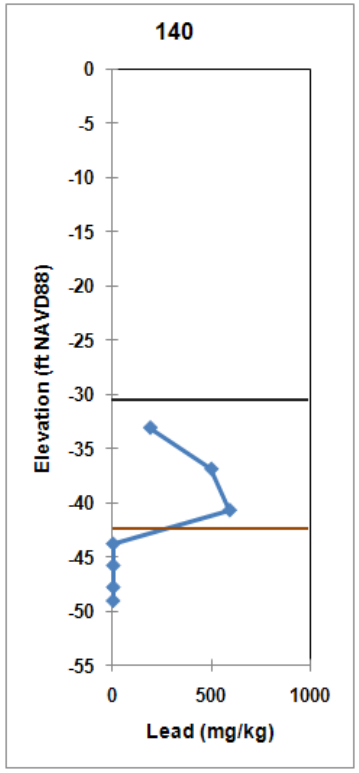
Native sediment contact

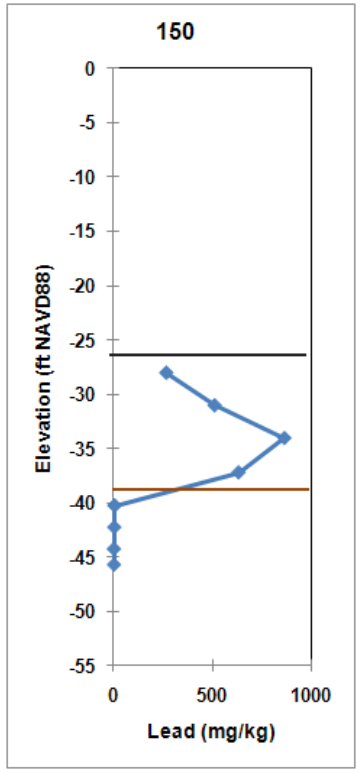
Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

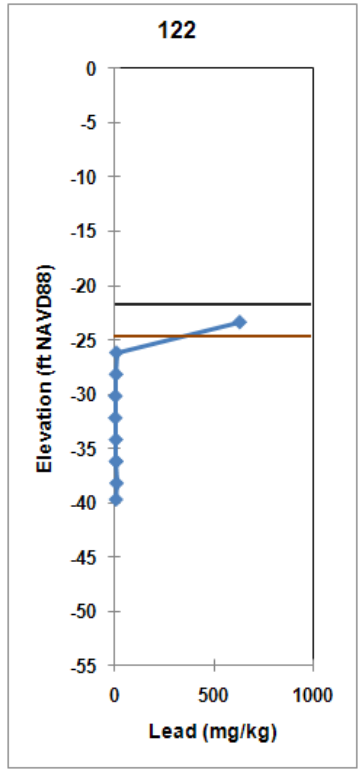
FIGURE 4-9b
Selected Depth Profiles Showing Lead Concentrations
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

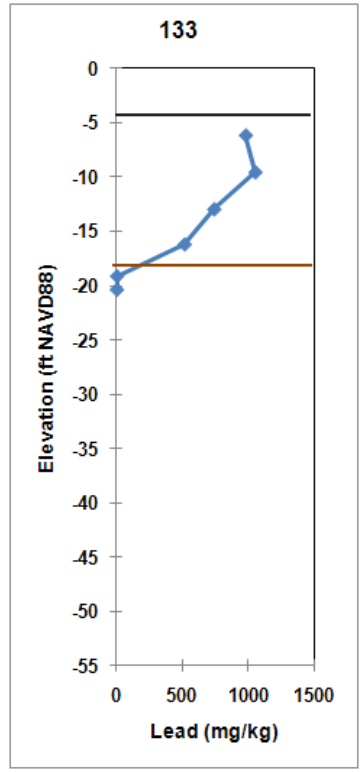












Notes:

Soft sediment surface

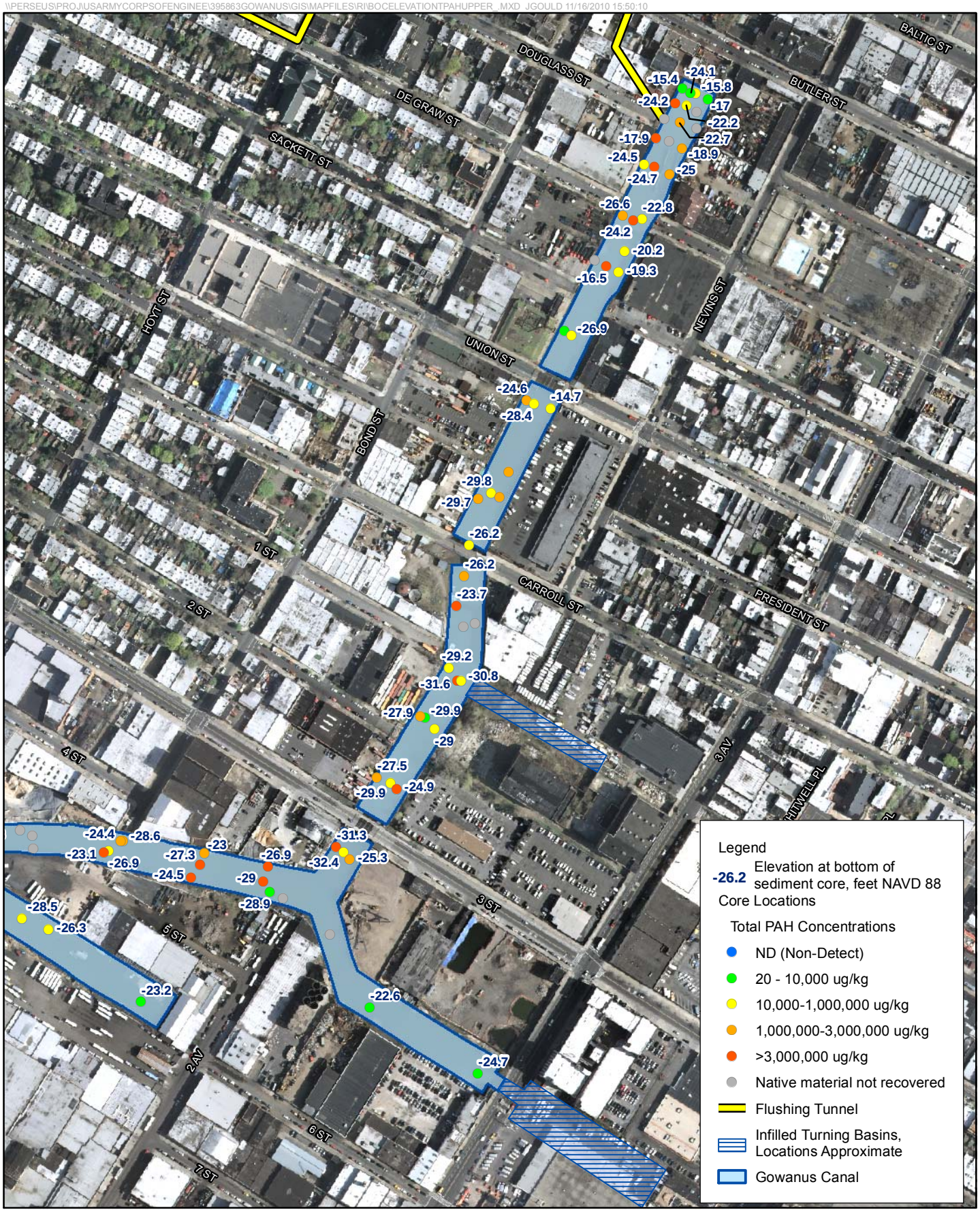
Native sediment contact

Scale of x-axis (concentration) is linear and varies by plot, based on concentration range observed.

FIGURE 4-9c
Selected Depth Profiles Showing Lead Concentrations
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\BOCELEVATIONTPAHUPPER_.MXD JGOULD 11/16/2010 15:50:10



N

0 150 300

Feet

FIGURE 4-10a
Total PAH Concentrations in Native Sediment at Bottom of Core
Upper Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RI\BOCELEVATIONTPAHMIDDLE.MXD JGOULD 11/15/2010 10:51:34



N

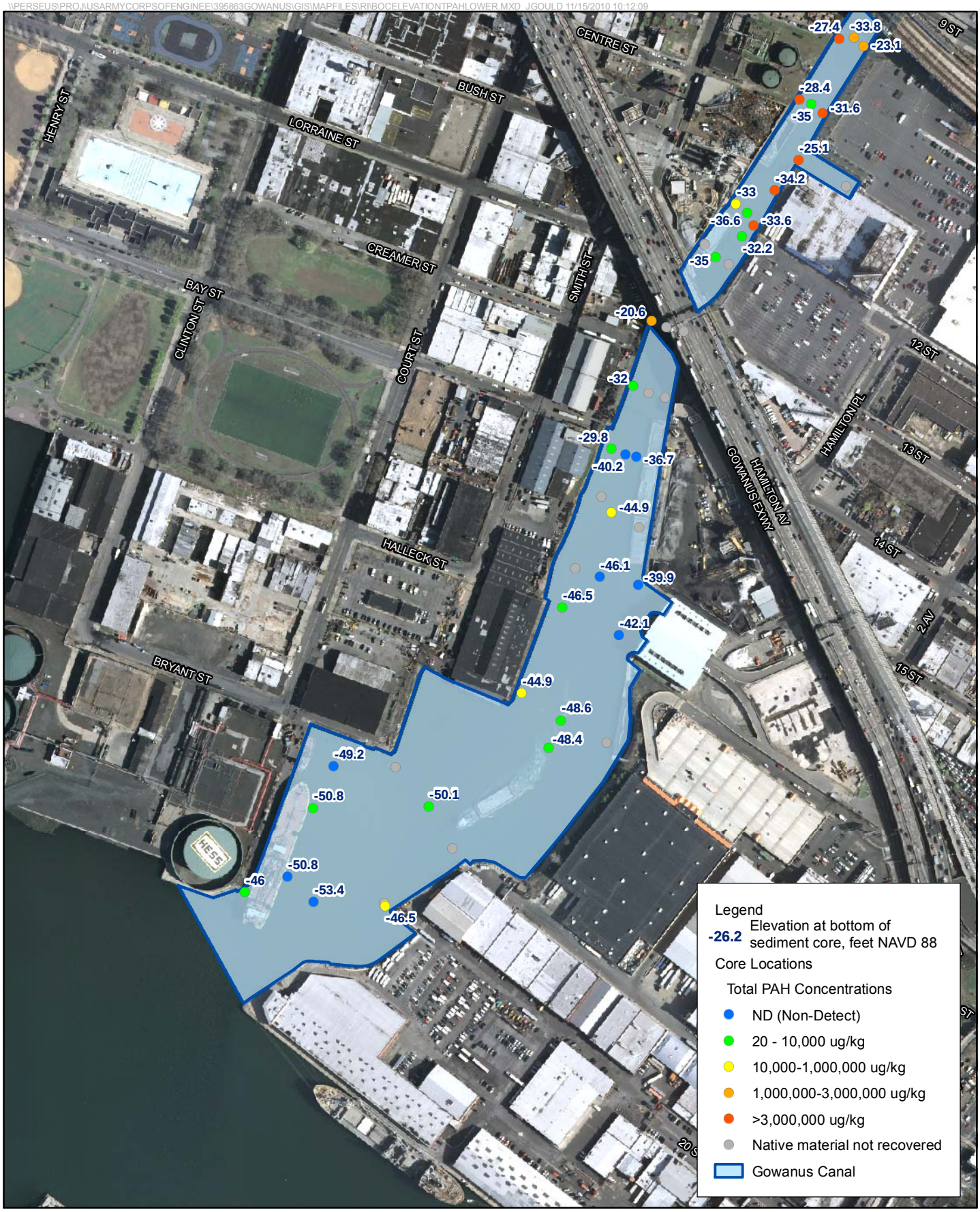
0 150 300

Feet

FIGURE 4-10b
Total PAH Concentrations in Native Sediment at Bottom of Core
Middle Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

\\PERSEUS\PROJ\USARMYCORPSOFENGINEE\395863GOWANUS\GIS\MAPFILES\RIBOCELEVATIONTPAHLOWER.MXD JGOULD 11/15/2010 10:12:09



N

0 150 300

Feet

FIGURE 4-10c
Total PAH Concentrations in Native Sediment at Bottom of Core
Lower Canal
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

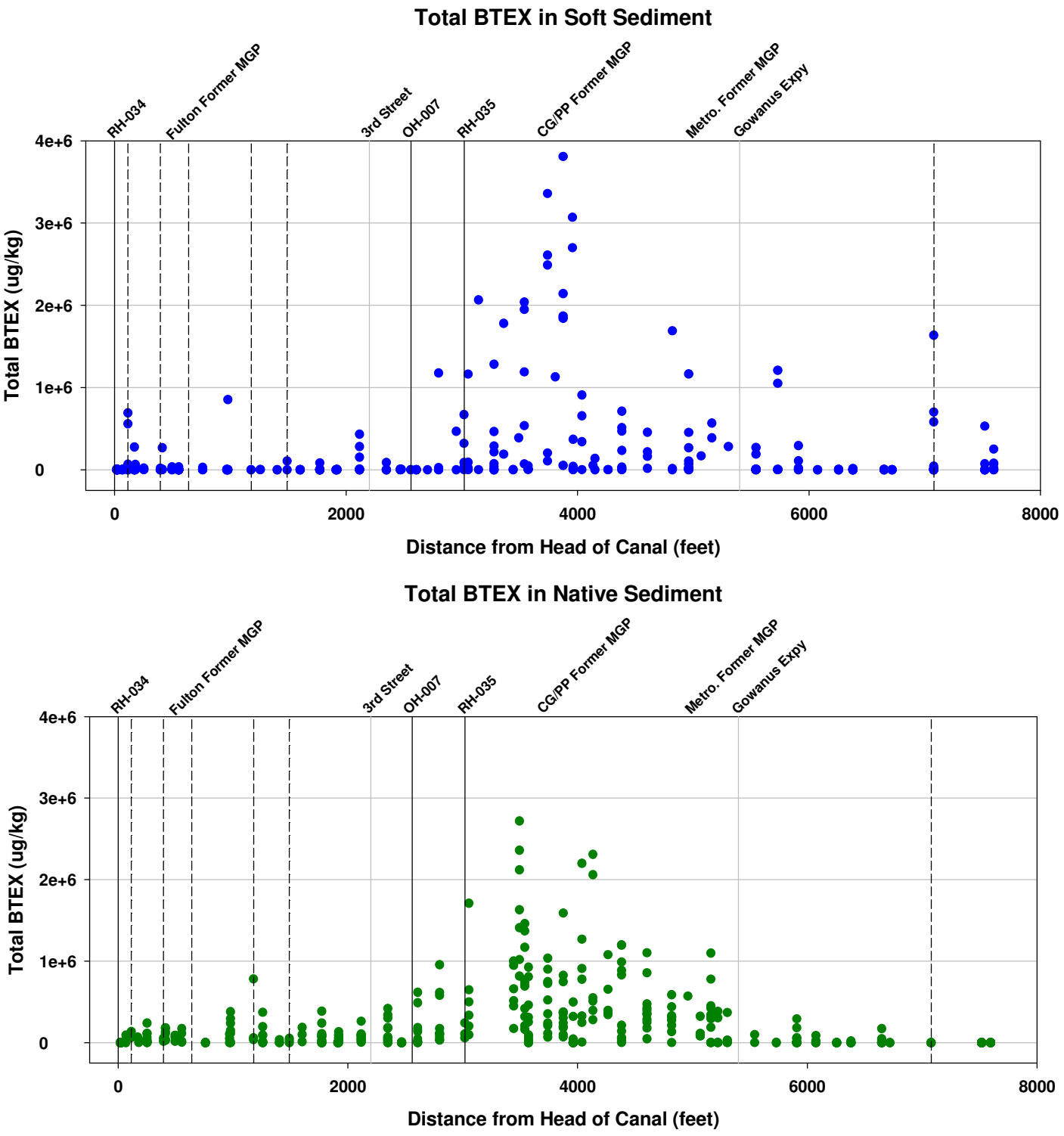


FIGURE 4-11a
Longitudinal Profile of Total BTEX Concentrations in Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL

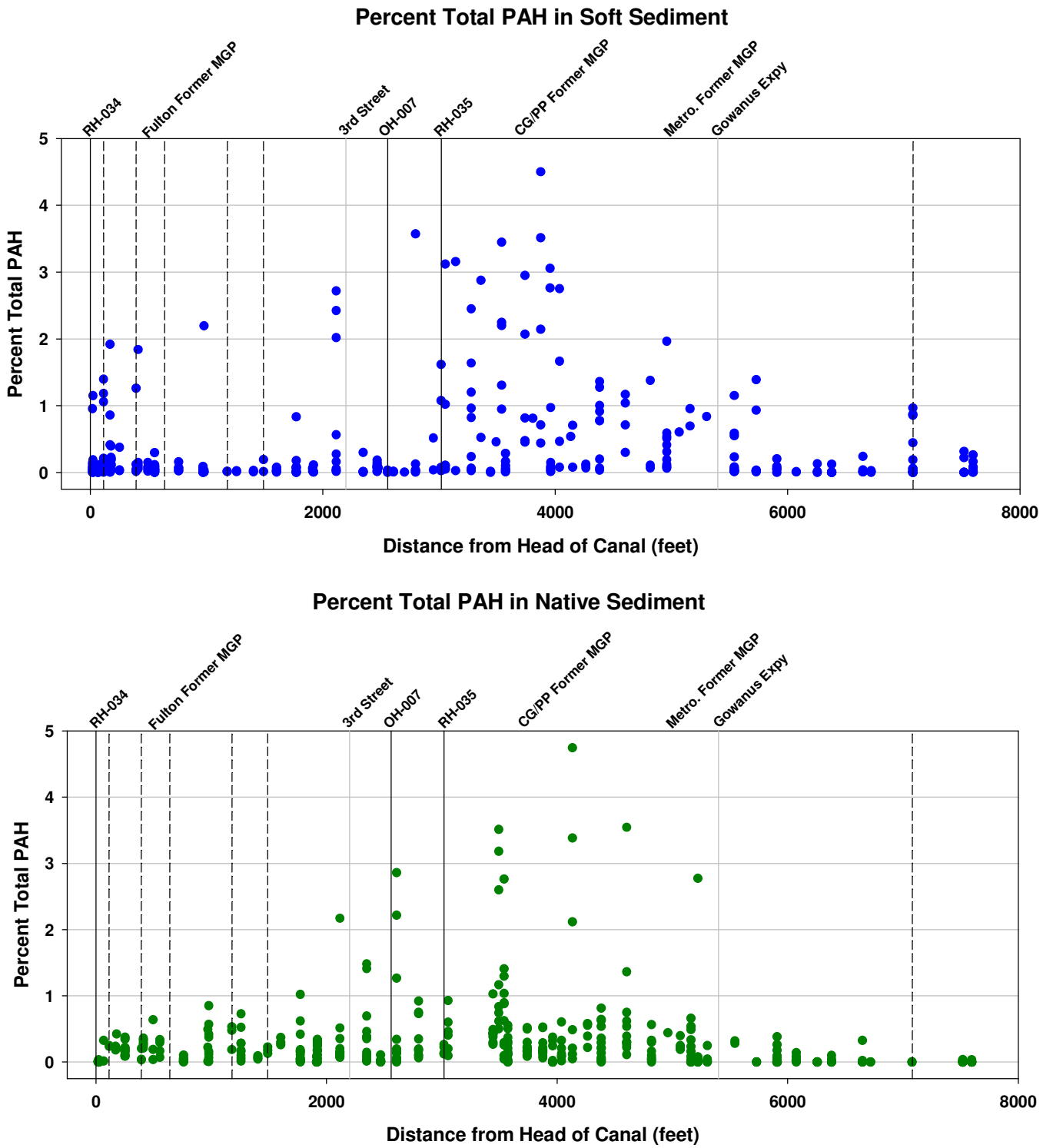
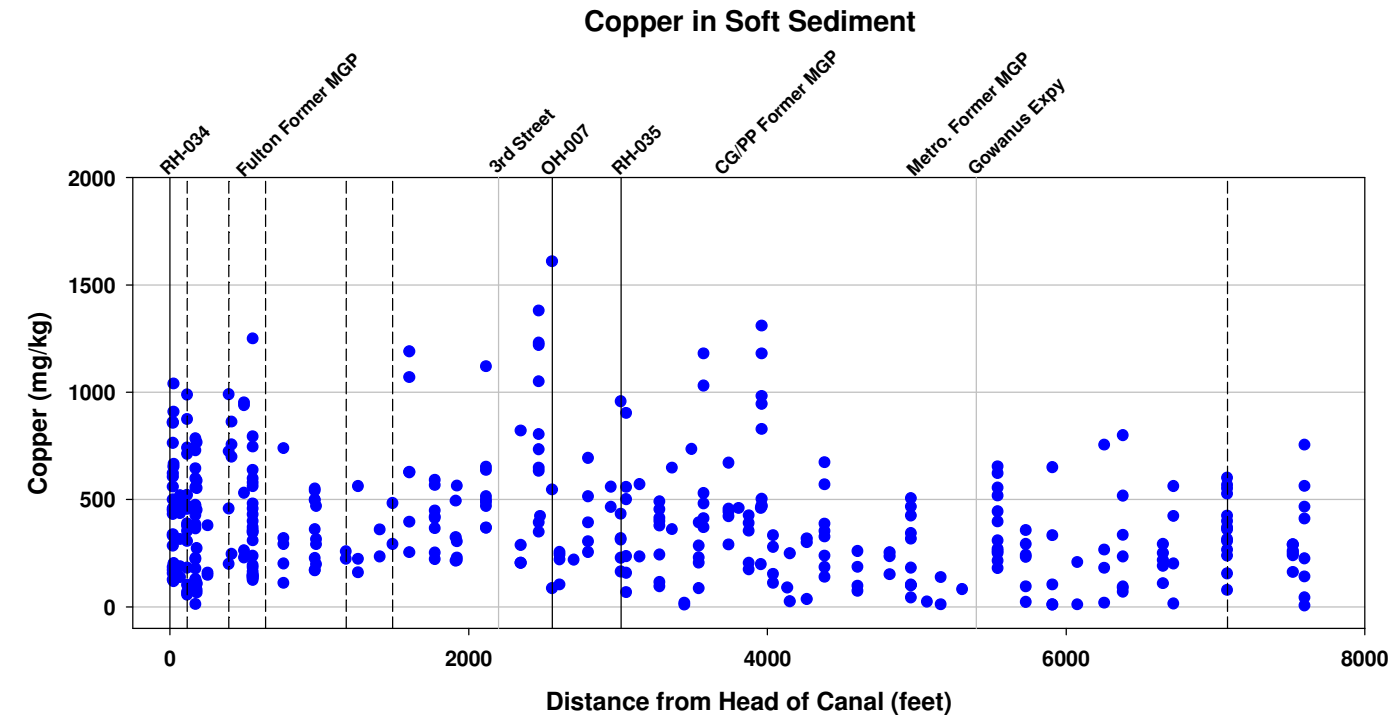
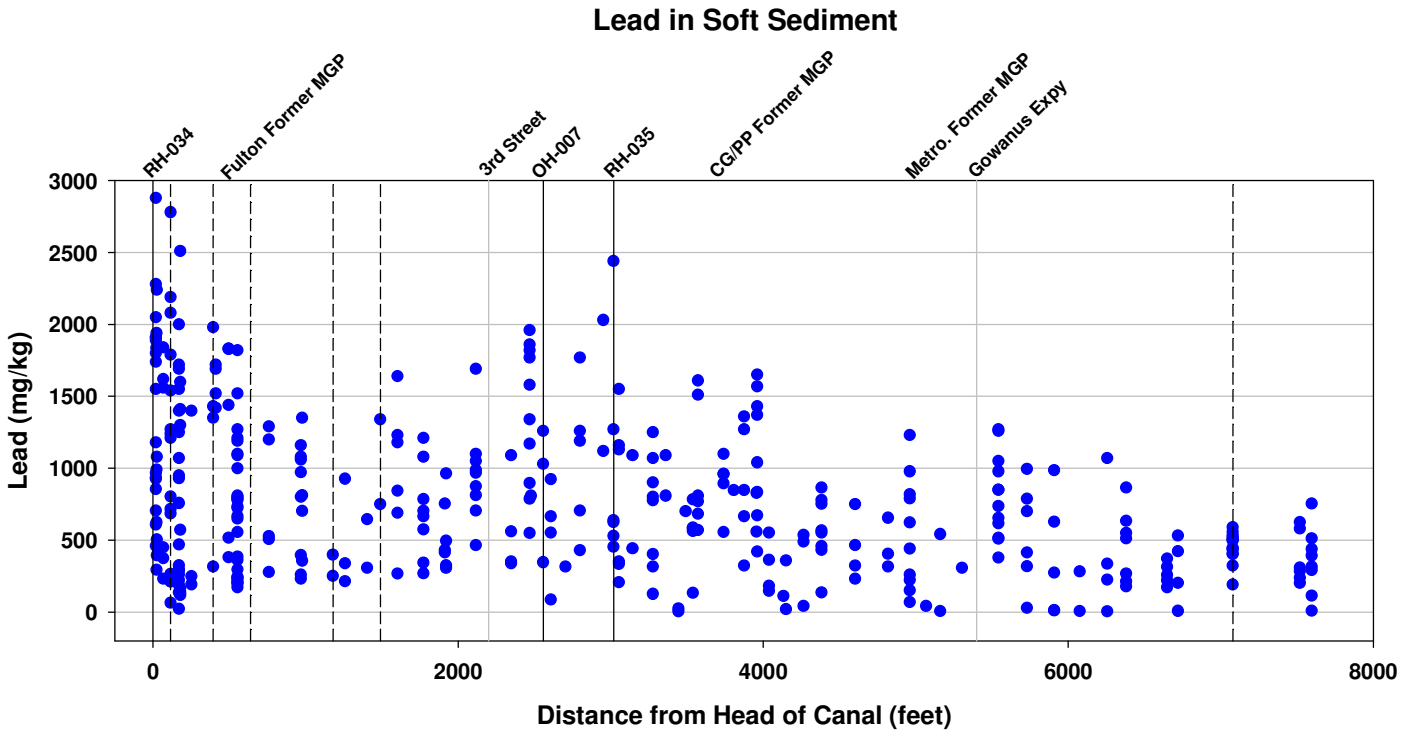


FIGURE 4-11b
Longitudinal Profile of Total PAH Concentrations in Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL



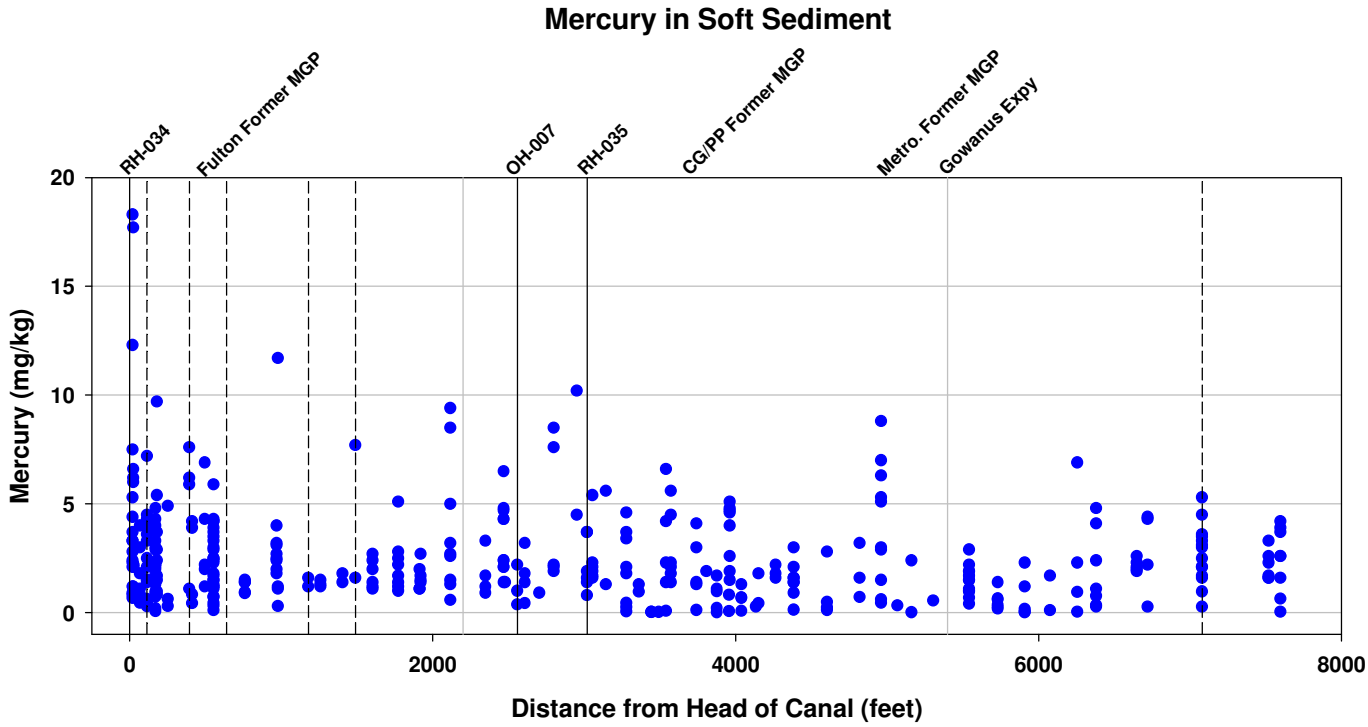


LEGEND

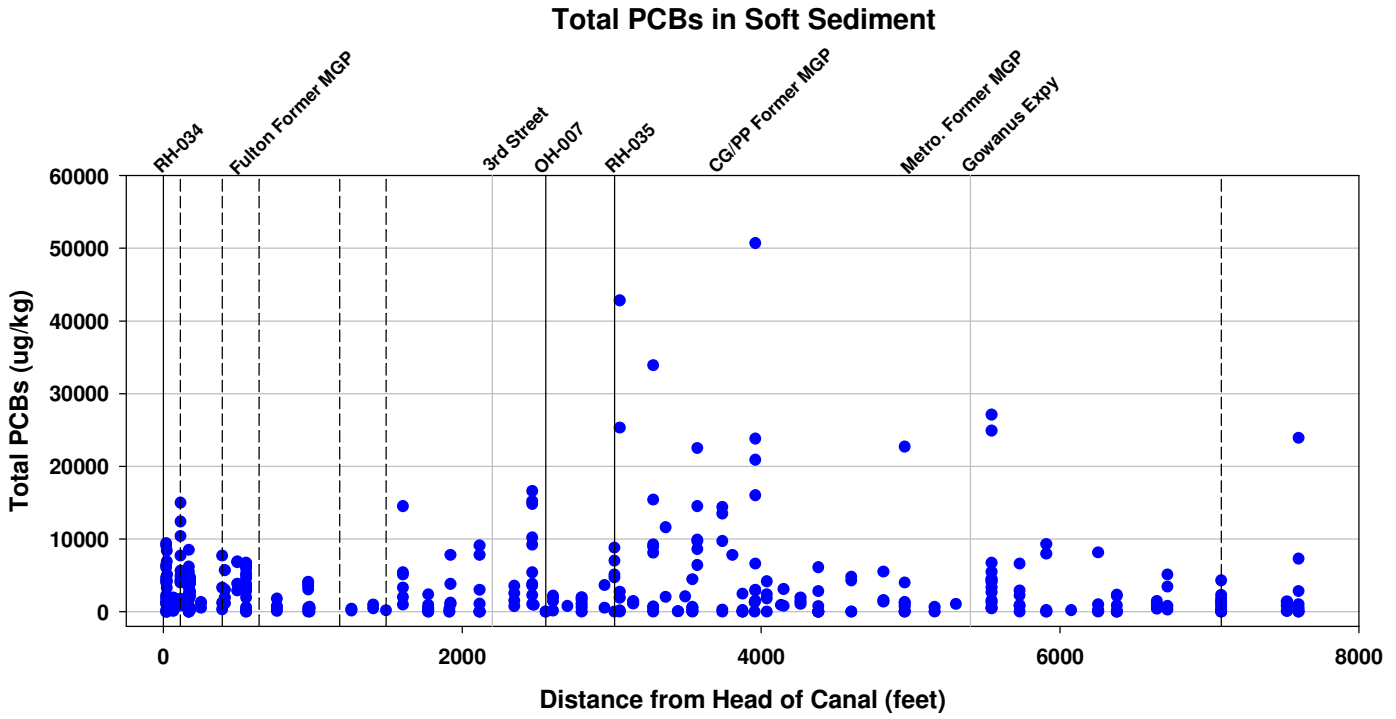
- Soft sediment sample
- Major CSO outfall location
- Minor CSO outfall location
- Road

FIGURE 4-11c
Longitudinal Profile of Copper and Lead Concentrations in Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL



One sample with 61.6 mg/kg mercury collected at the head of the canal is not shown.

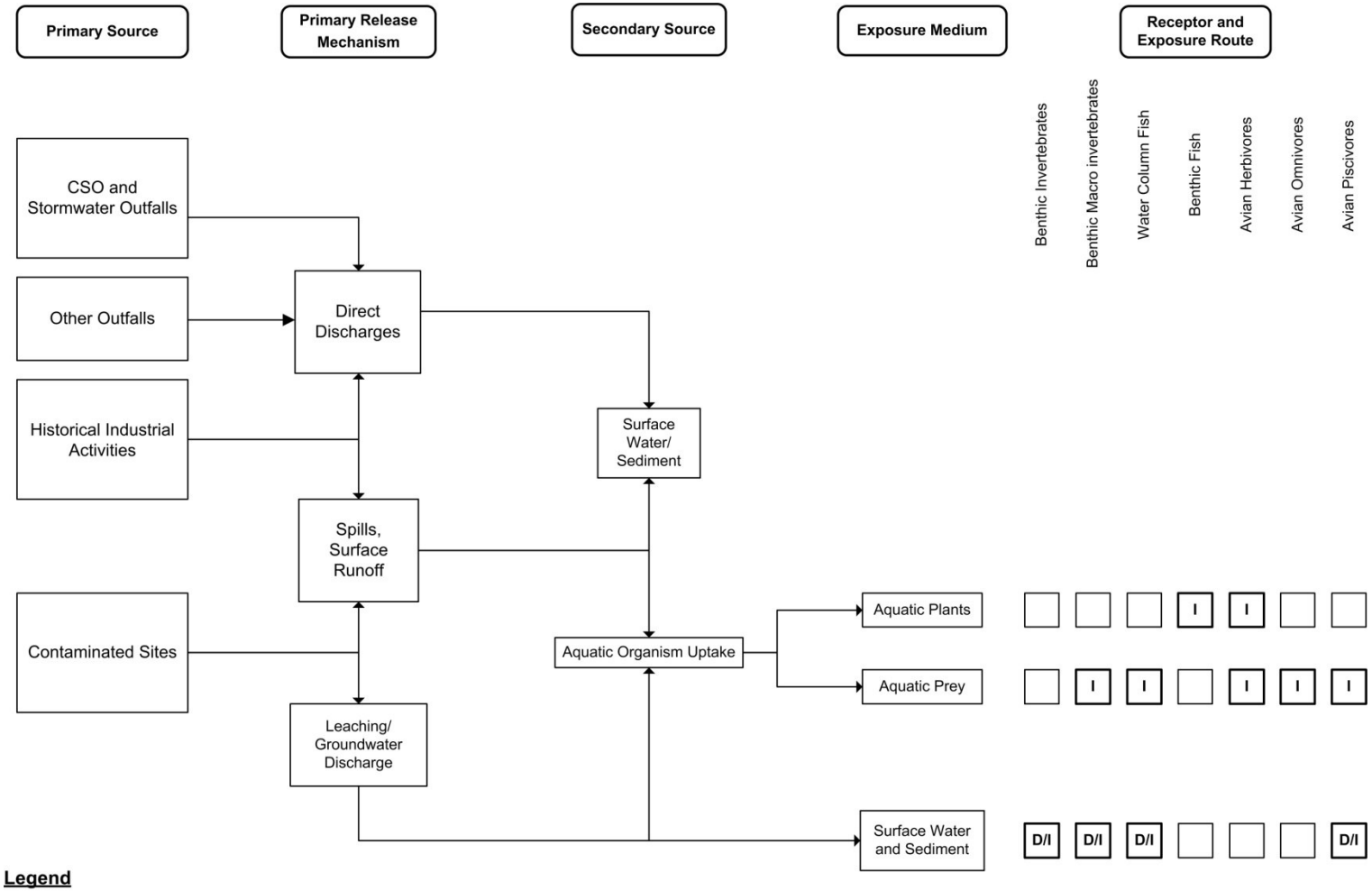


LEGEND

- Soft sediment sample
- Major CSO outfall location
- Minor CSO outfall location
- Road

FIGURE 4-11d
Longitudinal Profile of Mercury and Total PCB Concentrations in Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL



Legend

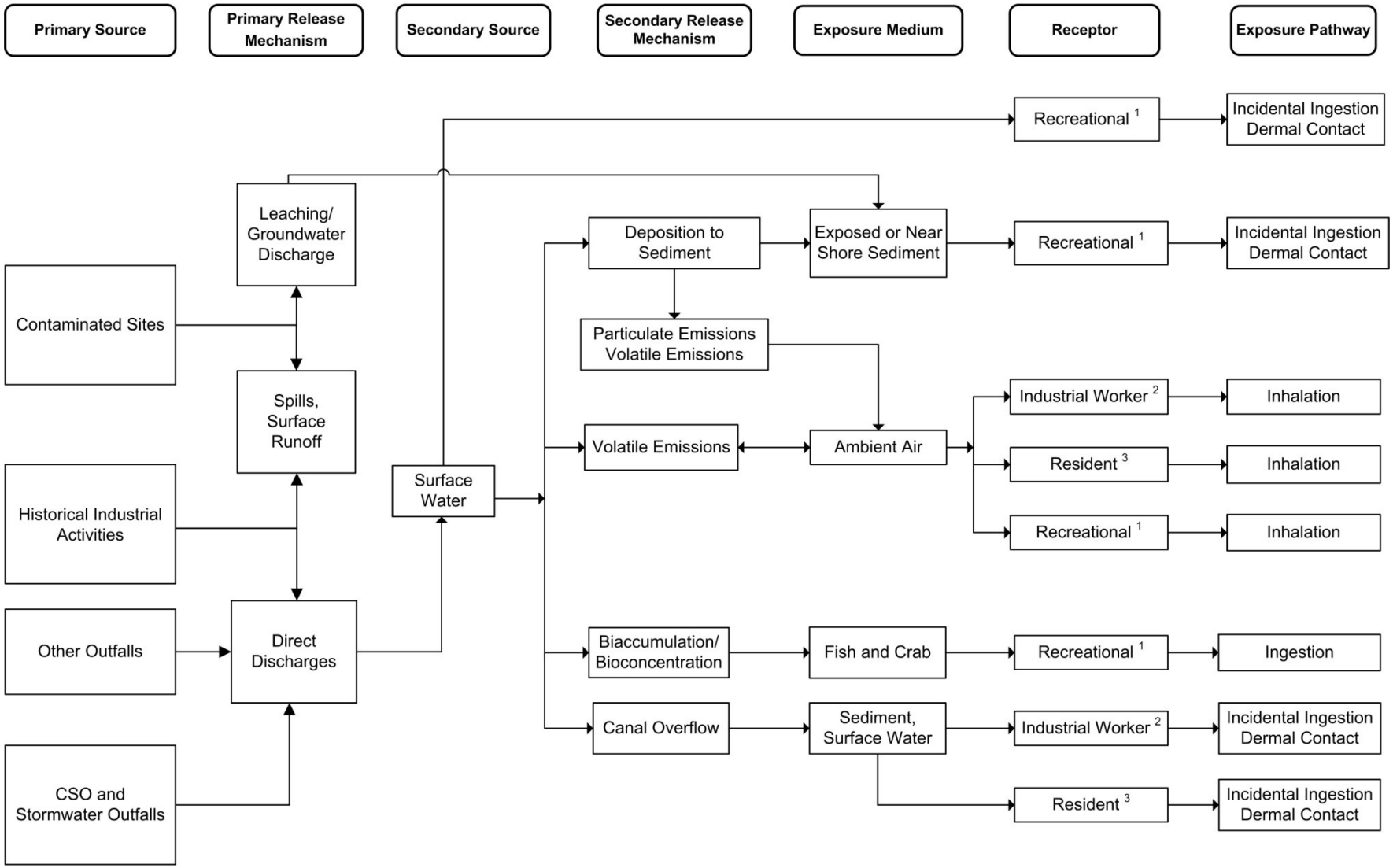
I = Ingestion

D = Direct Contact

Complete exposure pathways are shown in **BOLD**. All other pathways were not evaluated due to lack of significance or adequate habitat.

Empty boxes indicate incomplete pathways.

FIGURE 5-1
Conceptual Site Model for Pathways to Ecological Receptors
Gowanus Canal Remedial Investigation
Brooklyn, New York



[1] Recreational – Adult, Adolescent (12-18 years), Child (1-6 years)
[2] Industrial Worker – Adult
[3] Resident – Adult, Child (1-6 years)

FIGURE 5-2
Conceptual Exposure Model for Human Health Risk Assessment
Gowanus Canal Remedial Investigation
Brooklyn, New York

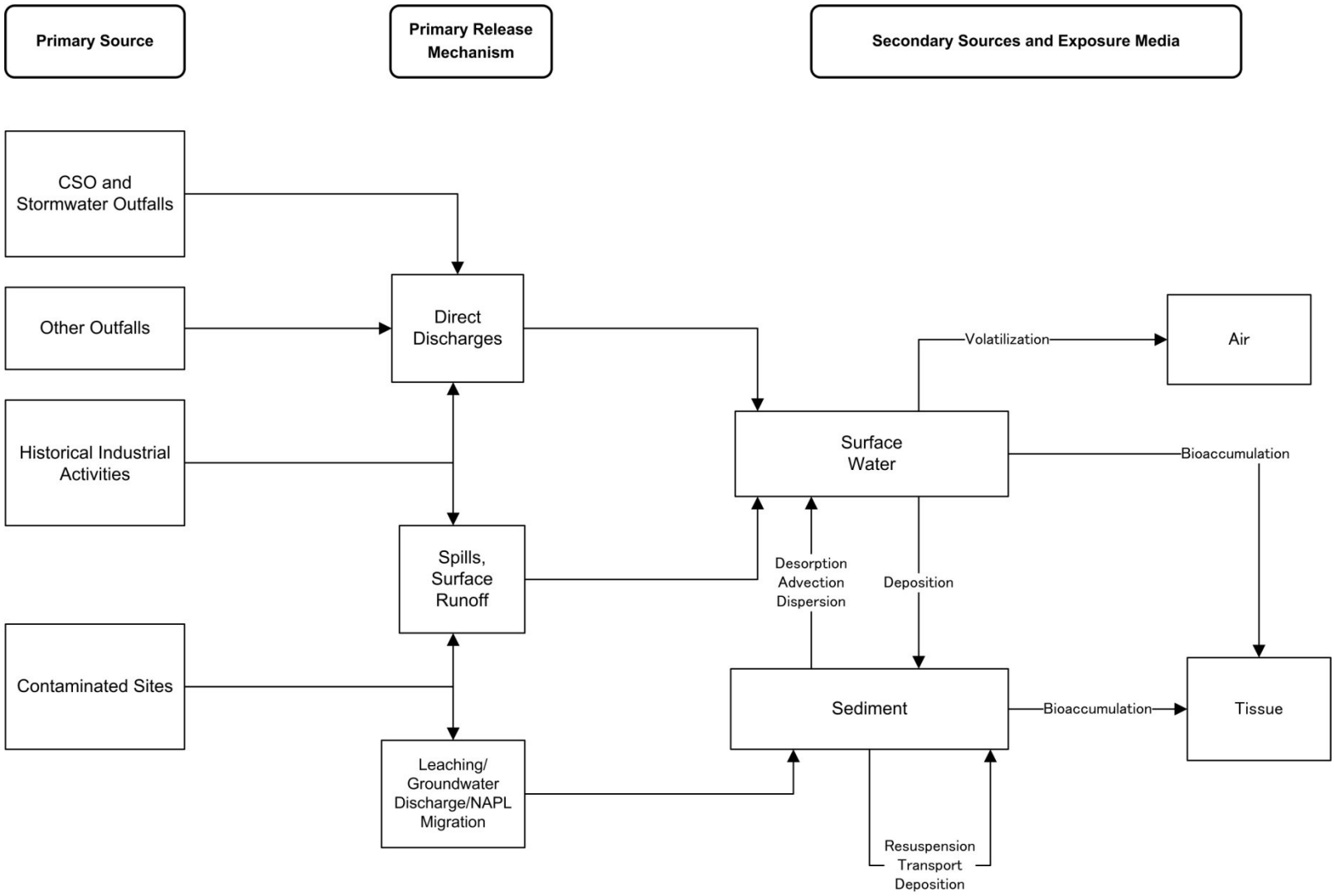
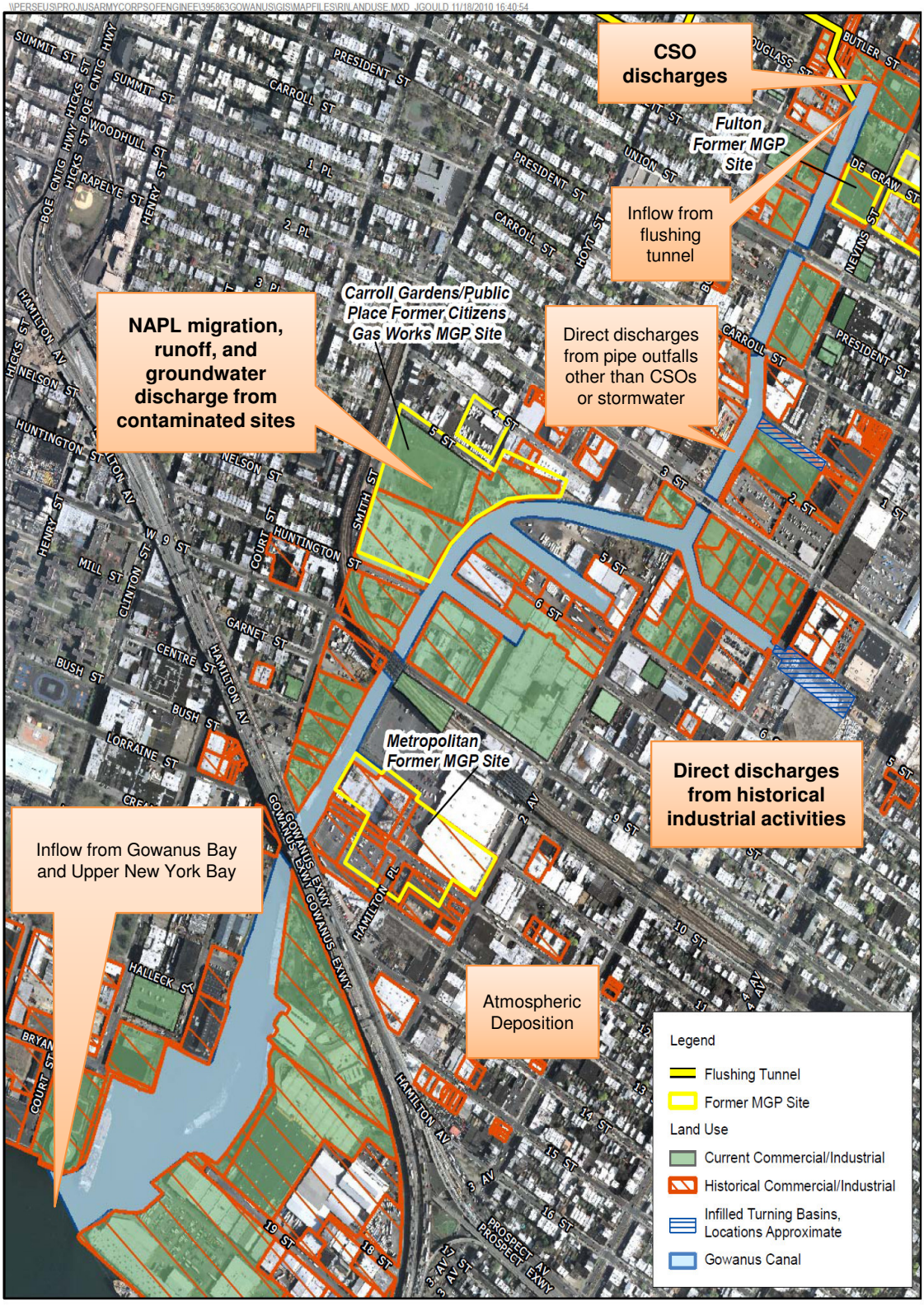


FIGURE 6-1
Physical and Chemical Conceptual Site Model
Gowanus Canal Remedial Investigation
Brooklyn, New York



Known or potential sources of contamination:
Primary
Secondary

CSO - combined sewer overflow
NAPL - non-aqueous phase liquid

FIGURE 6-2a
Conceptual Site Model - Known or Potential Sources of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

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Nature and extent of contamination

BTEX - benzene, toluene, ethylbenzene, and xylenes
PAH - polynuclear aromatic hydrocarbon
PCB - polychlorinated biphenyl
NAPL - non-aqueous phase liquid

FIGURE 6-2b
Conceptual Site Model – Nature and Extent of Contamination
Gowanus Canal Remedial Investigation
Brooklyn, New York

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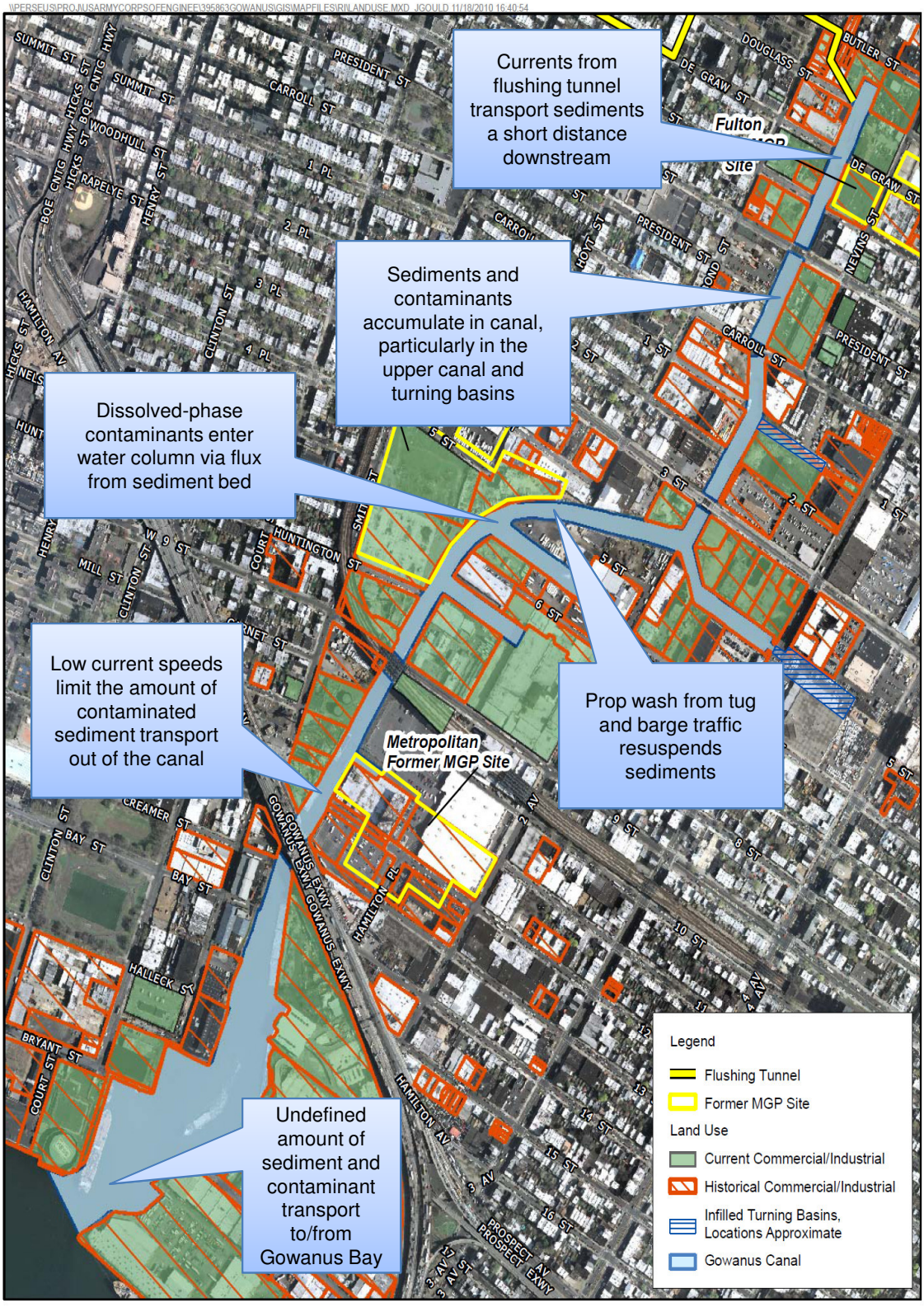

Contaminant Fate and Transport Mechanisms

FIGURE 6-2c
Conceptual Site Model – Contaminant Fate and Transport Mechanisms
Gowanus Canal Remedial Investigation
Brooklyn, New York

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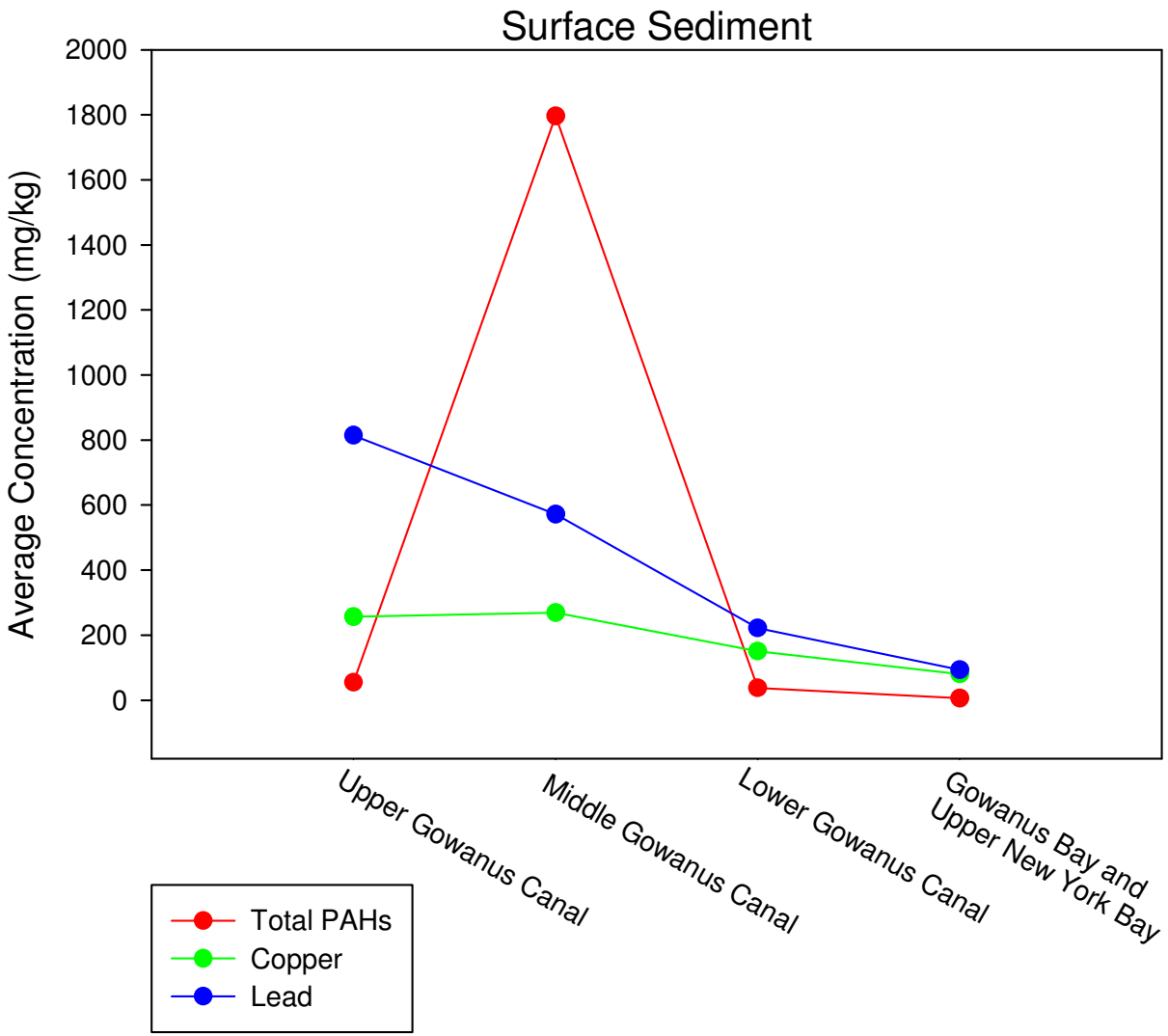
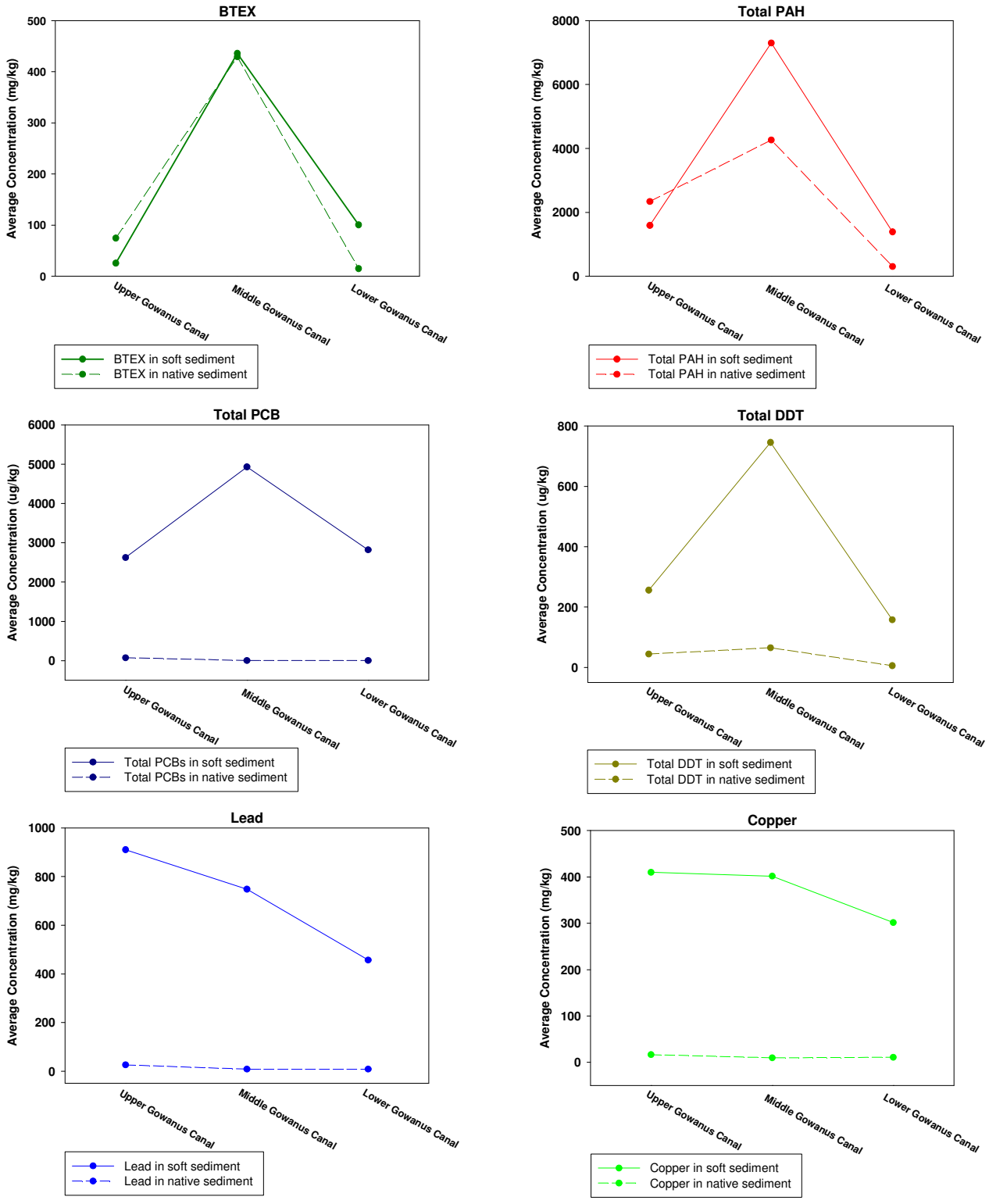


BTEX, total PCBs, and total DDT are not shown because of low detection frequency in surface sediment.

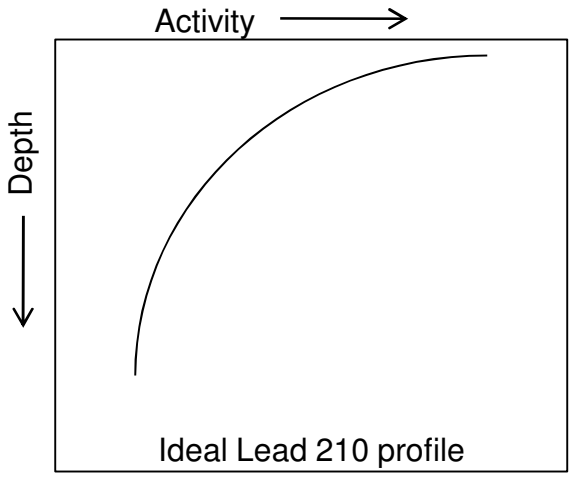
BTEX – benzene, ethylbenzene, toluene, and xylenes
PAH – polynuclear aromatic hydrocarbon

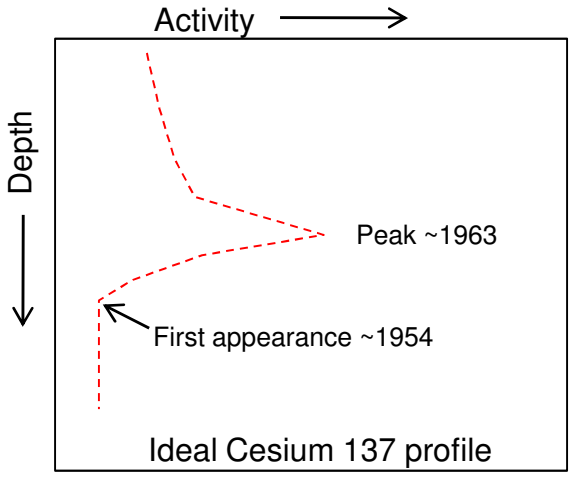
FIGURE 6-3
Concentration Gradients in Surface Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York

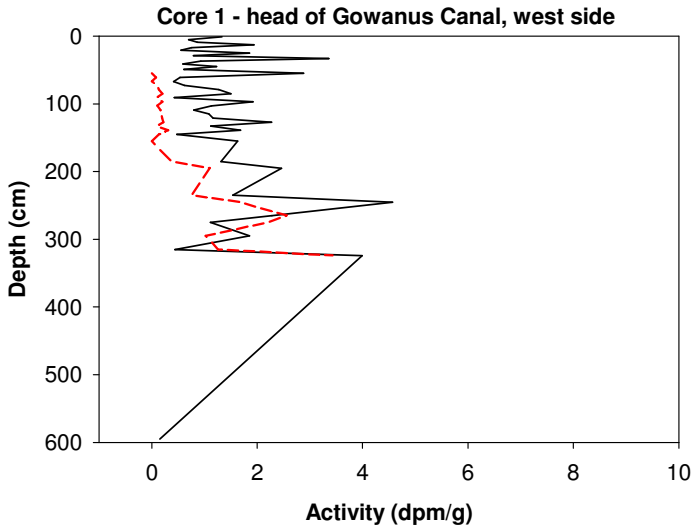


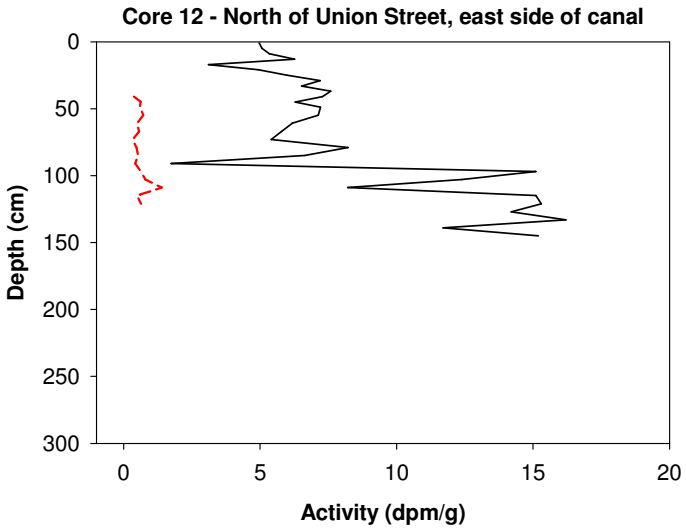
BTEX – benzene, ethylbenzene, toluene, and xylenes
PAH – polynuclear aromatic hydrocarbon
PCB – polychlorinated biphenyl
DDT - dichlorodiphenyltrichloroethane

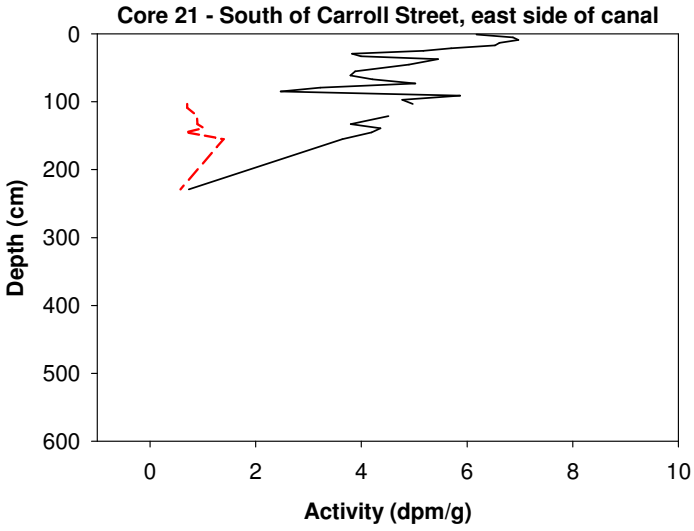
FIGURE 6-4
Contaminant Concentration Gradients in Soft Sediment and Native Sediment
Gowanus Canal Remedial Investigation
Brooklyn, New York











Legend

Lead 210

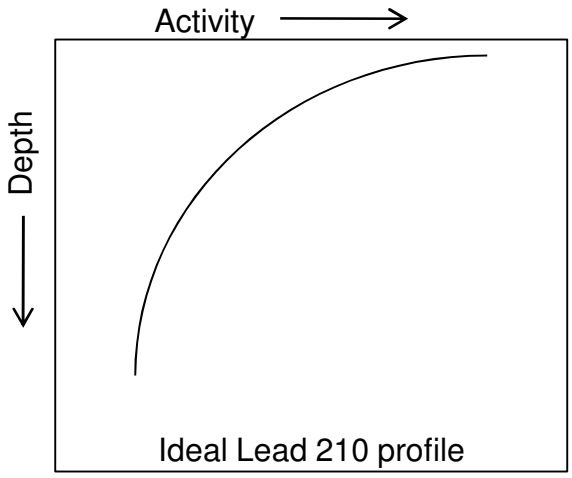
Cesium 137

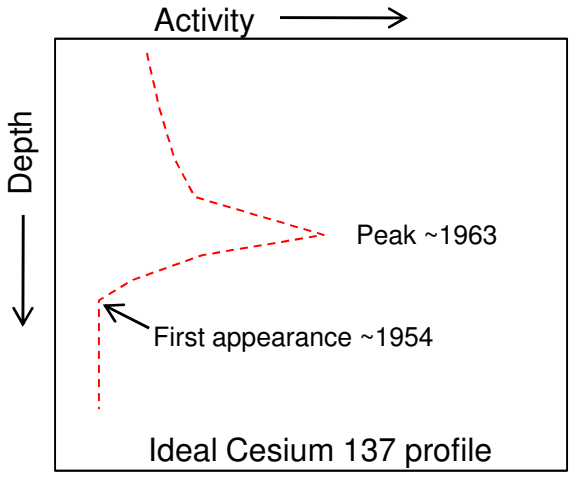
Activity in disintegrations per minute per gram (dpm/g)

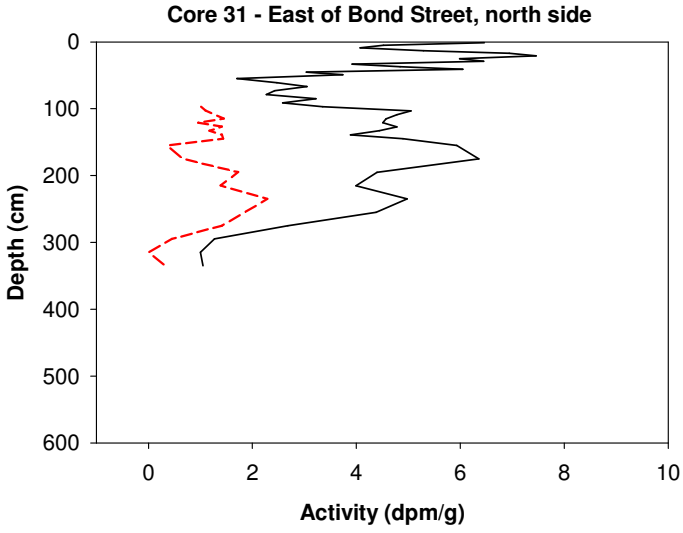
FIGURE 6-5a
Radioisotope Profiles for Cores Collected North of 3rd Street
Gowanus Canal Remedial Investigation
Brooklyn, New York

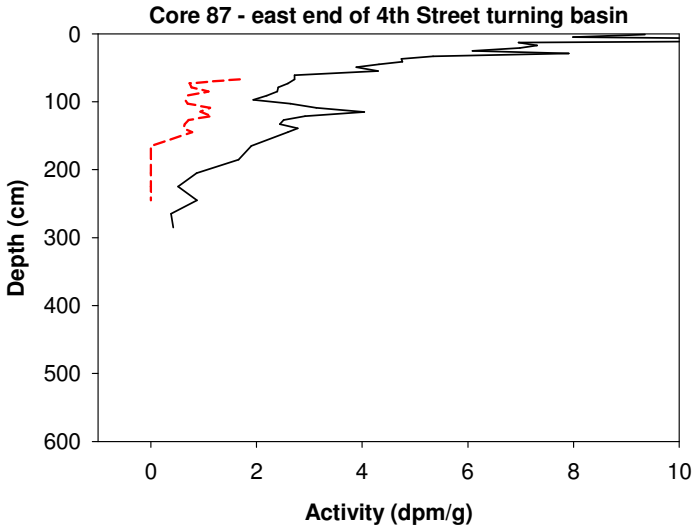
Core data from GEI (2007)

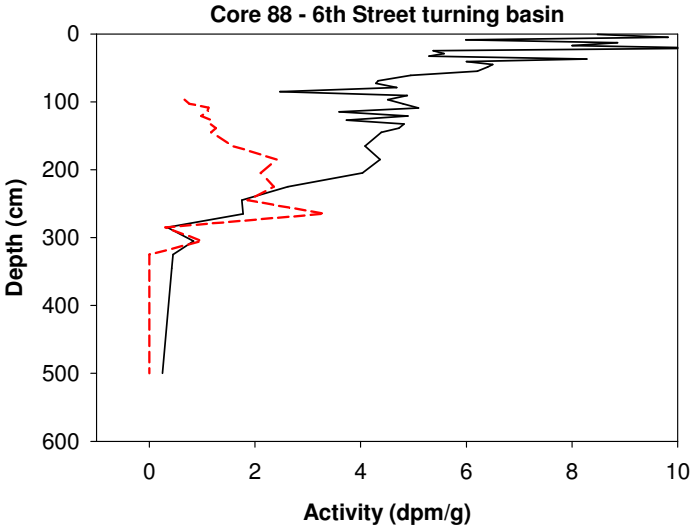
CH2MHILL











Legend

Lead 210

Cesium 137

Activity in disintegrations per minute per gram (dpm/g)

Core data from GEI (2007)

FIGURE 6-5b
Radioisotope Profiles for Cores Collected South of 3rd Street
Gowanus Canal Remedial Investigation
Brooklyn, New York

CH2MHILL